

REPUBLICA FEDERATIVA DO BRASIL
 MINISTERIO DA INFRAESTRUTURA
 DEPARTAMENTO NACIONAL DE TRANSITO
 CARTEIRA NACIONAL DE HABILITACAO

NOME
HANS JORG ULMER

DOC. IDENTIDADE / ORG. EMISSOR / UF
 V320171P DPF DF

CPF DATA NASCIMENTO
 793.124.035-91 03/09/1967

FILIAÇÃO
 DIETER HORST ULMER
 DOROTHEE ULMER

PERMISSAO ACC CAT. HAB.
 AD

Nº REGISTRO VALIDADE 1ª HABILITACAO
 05478069871 26/08/2025 03/07/1985

OBSERVAÇÕES
 A ;
 EAR ;

ASSINATURA DO PORTADOR
 LAURO DE FREITAS, BA DATA EMISSAO
 11/09/2020

ASSINATURA DO EMISSOR
 Rodrigo Pimental da Souza Lima
 Diretor Geral 02846253056
 BA510659401

BAHIA

VALIDA EM TODO O TERRITÓRIO NACIONAL
 1851624702

PROIBIDO PLASTIFICAR
 1851624702

**ALTERAÇÃO CONTRATUAL N° 17 E CONSOLIDAÇÃO DA SOCIEDADE
ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
CNPJ n° 02.423.819/0001-97**



http://assinador.pscs.com.br/assinadorweb/autenticacao?chave1=tUg8RbSWUXd9mq_d-pz_0&chave2=BT-06acCpmpelH2mhcFRg
ASSINADO DIGITALMENTE POR: 79312403591-HANS JORG ULMER | 31553273591-LUCYMEIRE FERRAZ DE ARAUJO ULMER

LUCYMEIRE FERRAZ DE ARAÚJO ULMER, nacionalidade BRASILEIRA, nascida em 31/08/1966, casada em COMUNHÃO PARCIAL DE BENS, EMPRESÁRIA, CPF n° 315.532.735-91, CARTEIRA DE IDENTIDADE n° 0316183407, órgão expedidor SSP - BA, residente e domiciliada na ESTRADA DO COCO, KM 08, CONDOMÍNIO BUSCA VIDA, RUA LOBO GUARÁ, CATU DE ABRANTES - ABRANTES, CAMAÇARI, BA, CEP 42.841-000, BRASIL.

HANS JORG ULMER, nacionalidade ALEMÃ, nascido em 03/09/1967, CASADO em COMUNHÃO PARCIAL DE BENS, EMPRESÁRIO, CPF n° 793.124.035-91, REGISTRO NACIONAL DE ESTRANGEIRO n° V320171-P, órgão expedidor DPF, tipo de visto PERMANENTE, emitido em 09/08/2016, com validade até 09/08/2025, residente e domiciliado na ESTRADA DO COCO, KM 08, CONDOMÍNIO BUSCA VIDA, RUA LOBO GUARÁ, CATU DE ABRANTES - ABRANTES, CAMAÇARI, BA, CEP 42.841-000, BRASIL.

Sócios da sociedade limitada de nome empresarial **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**, registrada legalmente por contrato social devidamente arquivado nesta Junta Comercial do Estado da Bahia, sob NIRE n° 29201942245, com sede na Rua José Jorge Pereira, 47, Buraquinho, Lauro de Freitas - BA, CEP 42.710-480, devidamente inscrita no Cadastro Nacional de Pessoa Jurídica/MF sob o n° 02.423.819/0001-97, deliberam de pleno e comum acordo ajustar a presente alteração contratual, com consolidação, nos termos da Lei n° 10.406/ 2002, mediante as condições estabelecidas nas cláusulas seguintes:

ALTERAÇÃO DE FILIAL

CLÁUSULA PRIMEIRA. A filial registrada na Junta Comercial do Estado da Bahia sob NIRE n° 29901475445 e CNPJ n° 02.423.819/0004-30, no seguinte endereço sito à RUA TUPINAMBÁS, 000412, EDIF. MORUMBI, OUTROS: LOTE 044, SALA 04, RIO VERMELHO, SALVADOR - BA, CEP 41.940-090.

Passa a exercer a(s) seguintes atividades econômicas.

OBJETO SOCIAL

CONSULTORIA EM TECNOLOGIA DA INFORMACAO DESENVOLVIMENTO E LICENCIAMENTO DE PROGRAMAS DE COMPUTADOR CUSTOMIZAVEIS ALUGUEL DE MAQUINAS E EQUIPAMENTOS PARA ESCRITORIO REPARACAO E MANUTENCAO DE COMPUTADORES E DE EQUIPAMENTOS PERIFERICOS ATIVIDADES DE TELECOMUNICACOES PREPARACAO DE DOCUMENTOS E SERVICOS ESPECIALIZADOS DE APOIO ADMINISTRATIVO ATIVIDADES TECNICAS RELACIONADAS A ENGENHARIA E ARQUITETURA.

CNAE FISCAL

6204-0/00 - consultoria em tecnologia da informação.

6190-6/99 - outras atividades de telecomunicações não especificadas anteriormente.

Req: 81400001536890

Página 1



Junta Comercial do Estado da Bahia

13/09/2024

Certifico o Registro sob o n° 98555094 em 13/09/2024

Protocolo 247827070 de 10/09/2024

Nome da empresa ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA NIRE 29201942245

Este documento pode ser verificado em <http://regin.juceb.ba.gov.br/AUTENTICACAODOCUMENTOS/AUTENTICACAO.aspx>

Chancela 68409299099257

Esta cópia foi autenticada digitalmente e assinada em 13/09/2024

por Bruno Mota Passos - Secretário-Geral

**ALTERAÇÃO CONTRATUAL N° 17 E CONSOLIDAÇÃO DA SOCIEDADE
ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
CNPJ nº 02.423.819/0001-97**



- 6202-3/00 - desenvolvimento e licenciamento de programas de computador customizáveis.
- 7119-7/99 - atividades técnicas relacionadas à engenharia e arquitetura não especificadas anteriormente.
- 7733-1/00 - aluguel de máquinas e equipamentos para escritório.
- 8219-9/99 - preparação de documentos e serviços especializados de apoio administrativo não especificados anteriormente.
- 9511-8/00 - reparação e manutenção de computadores e de equipamentos periféricos.

Em face das alterações acima, consolida-se o contrato social, nos termos da Lei nº 10.406/2002, mediante as condições e cláusulas seguintes:

**CONSOLIDAÇÃO DO CONTRATO SOCIAL DA SOCIEDADE
ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
CNPJ nº 02.423.819/0001-97**

LUCYMEIRE FERRAZ DE ARAÚJO ULMER, nacionalidade BRASILEIRA, nascida em 31/08/1966, casada em COMUNHÃO PARCIAL DE BENS, EMPRESÁRIA, CPF nº 315.532.735-91, CARTEIRA DE IDENTIDADE nº 0316183407, órgão expedidor SSP - BA, residente e domiciliada na ESTRADA DO COCO, KM 08, CONDOMÍNIO BUSCA VIDA, RUA LOBO GUARÁ, CATU DE ABRANTES - ABRANTES, CAMAÇARI, BA, CEP 42.841-000, BRASIL.

HANS JORG ULMER, nacionalidade ALEMÃ, nascido em 03/09/1967, CASADO em COMUNHÃO PARCIAL DE BENS, EMPRESÁRIO, CPF nº 793.124.035-91, REGISTRO NACIONAL DE ESTRANGEIRO nº V320171-P, órgão expedidor DPF, tipo de visto PERMANENTE, emitido em 09/08/2016, com validade até 09/08/2025, residente e domiciliado na ESTRADA DO COCO, KM 08, CONDOMÍNIO BUSCA VIDA, RUA LOBO GUARÁ, CATU DE ABRANTES - ABRANTES, CAMAÇARI, BA, CEP 42.841-000, BRASIL.

Sócios da Sociedade Limitada de nome empresarial **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**, registrada legalmente por contrato social devidamente arquivado nesta Junta Comercial do Estado da Bahia, sob NIRE nº 29201942245, com sede na Rua José Jorge Pereira, 47, Buraquinho, Lauro de Freitas - BA, CEP 42.710-480, devidamente inscrita no Cadastro Nacional de Pessoa Jurídica/MF sob o nº 02.423.819/0001-97, vêm por este instrumento e na melhor forma de direito, consolidar o seu Contrato Social, baseados nas cláusulas e condições a seguir:

Cláusula 1ª-Denominação

A sociedade gira sob o nome empresarial **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**, que se rege pelo disposto neste contrato e pelas disposições do Código Civil (Lei nº 10.406, de 10 de janeiro de 2002).

Cláusula 2ª- Sede e Prazo de Duração e Filiais

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Junta Comercial do Estado da Bahia

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ASSINADO DIGITALMENTE POR: 79312403591-HANS JORG ULMER | 31553273591-LUCYMEIRE FERRAZ DE ARAUJO ULMER

**ALTERAÇÃO CONTRATUAL Nº 17 E CONSOLIDAÇÃO DA SOCIEDADE
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CNPJ nº 02.423.819/0001-97**



A sede da sociedade funciona na Rua José Jorge Pereira, 47, Buraquinho, Lauro de Freitas - BA, CEP 42.710-480, tendo iniciado suas atividades em 03/03/1998 e seu prazo de duração é por tempo indeterminado.

Parágrafo Único- A sociedade possui as seguintes filiais, que funcionam como escritórios de apoio:

- AV. HENRIQUE VALADARES, Nº 139, SALA 301, CENTRO – RIO DE JANEIRO – RJ, CEP: 20.231-030, inscrita no CNPJ sob o nº 02.423.819/0003-59 e NIRE nº 33900815181;
- RUA STA CRUZ, 940, VILA MARIANA, SÃO PAULO - SP, CEP 04.122-000, inscrita no CNPJ sob o nº 02.423.819/0002-78 e NIRE nº 35902919821;
- RUA TUPINAMBÁS, 000412, EDIF. MORUMBI, OUTROS: LOTE 044, SALA 04, RIO VERMELHO, SALVADOR - BA, CEP 41.940-090, inscrita no CNPJ sob o nº 02.423.819/0004-30 e NIRE nº 29901475445.

Cláusula 3ª- Objeto Social

A sociedade funciona sob o seguinte objeto:

CONSULTORIA EM TECNOLOGIA DA INFORMAÇÃO; COMÉRCIO ATACADISTA DE EQUIPAMENTOS DE INFORMÁTICA, COMO COMPUTADORES, PERIFÉRICOS, SOFTWARE E HARDWARE; COMÉRCIO VAREJISTA ESPECIALIZADO DE ELETRODOMÉSTICOS E EQUIPAMENTOS DE ÁUDIO E VÍDEO; DESENVOLVIMENTO E LICENCIAMENTO DE PROGRAMAS DE COMPUTADOR CUSTOMIZÁVEIS; ALUGUEL DE MÁQUINAS E EQUIPAMENTOS PARA ESCRITÓRIO; REPARAÇÃO E MANUTENÇÃO DE COMPUTADORES E DE EQUIPAMENTOS PERIFÉRICOS; SERVIÇOS DE COMUNICAÇÃO MULTIMÍDIA - SCM; ATIVIDADES DE TELECOMUNICAÇÕES; SERVIÇOS COMBINADOS DE ESCRITÓRIO E APOIO ADMINISTRATIVO.

CNAE FISCAL

- 6204-0/00 - consultoria em tecnologia da informação
- 4651-6/01 - comércio atacadista de equipamentos de informática
- 4753-9/00 - comércio varejista especializado de eletrodomésticos e equipamentos de áudio e vídeo
- 6110-8/03 - serviços de comunicação multimídia - SCM
- 6190-6/99 - outras atividades de telecomunicações não especificadas anteriormente
- 6202-3/00 - desenvolvimento e licenciamento de programas de computador customizáveis
- 7733-1/00 - aluguel de máquinas e equipamentos para escritório
- 8211-3/00 - serviços combinados de escritório e apoio administrativo
- 9511-8/00 - reparação e manutenção de computadores e de equipamentos periféricos

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Página 3

Junta Comercial do Estado da Bahia

13/09/2024

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Nome da empresa ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA NIRE 29201942245

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Chancela 68409299099257

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ASSINADO DIGITALMENTE POR: 79312403591-HANS JORG UIMMER | 315532733591-LUCYMEIRE FERRAZ DE ARAUJO UIMMER

**ALTERAÇÃO CONTRATUAL Nº 17 E CONSOLIDAÇÃO DA SOCIEDADE
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ASSINADO DIGITALMENTE POR: 793124033591-HANS JORG ULMER | 315532733591-LUCYMEIRE FERRAZ DE ARAUJO ULMER

Cláusula 4ª- A abertura de Filiais, Escritórios e Depósitos

A Sociedade poderá, a qualquer tempo, abrir ou fechar filiais, escritórios de representação, em qualquer parte do território nacional ou estrangeiro, mediante alteração contratual assinada por todos os sócios.

Cláusula 5ª- Capital Social

O capital social é de R\$ 1.200.000,00 (um milhão e duzentos mil reais), divididos em 1.200.000 (um milhão e duzentas mil) cotas com valor nominal de R\$ 1,00 (um real), cada, subscritas e integralizadas em moeda corrente do país, assim distribuídas pelos sócios:

- a) A sócia LUCYMEIRE FERRAZ DE ARAUJO ULMER participa da sociedade com R\$ 600.000,00 (seiscentos mil reais), correspondentes a 600.000 (seiscentas mil) cotas, representando 50% do Capital Social;
- b) O sócio HANS JORG ULMER participa da sociedade com R\$ 600.000,00 (seiscentos mil reais), correspondentes a 600.000 (seiscentas mil) cotas, representando 50% do Capital Social;

Cláusula 6ª- Responsabilidade dos Sócios

A responsabilidade de cada sócio é restrita ao valor de suas cotas, mas todos respondem solidariamente pela integralização do capital social.

Parágrafo Único. As cotas são indivisíveis e não poderão ser cedidas ou transferidas a terceiros sem o consentimento do outro sócio, a quem fica assegurado, em igualdade de condições e preço, direito de preferência para a sua aquisição se posta à venda, formalizando, se realizada a cessão delas, a alteração contratual pertinente.

Cláusula 7ª- Administração da Sociedade

A administração da sociedade cabe a ambos os sócios **Hans Jorg Ulmer e Lucymeire Ferraz de Araújo Ulmer**, em conjunto ou separadamente no interesse da mesma, com amplos poderes para representar a sociedade e assinar a denominação social em qualquer ato, inclusive Bancos e Repartições Públicas, sendo-lhes, porém, vedado o uso em avais, endossos, fianças, ou quaisquer responsabilidades alheias aos interesses da sociedade.

Parágrafo Único – Os Administradores acima qualificados declaram, sob as penas da lei, que não estão impedidos de exercer a administração da Sociedade por lei especial ou em virtude de condenação criminal, ou por se encontrarem sob os efeitos dela, por crime falimentar, de prevaricação, peita ou suborno, concussão, peculato ou por crime contra a economia popular, contra o sistema financeiro nacional, contra normas de defesa da concorrência, contra relações de consumo, fé pública ou propriedade.

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Página 4



Junta Comercial do Estado da Bahia

Certifico o Registro sob o nº 98555094 em 13/09/2024

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Nome da empresa ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA NIRE 29201942245

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por Bruno Mota Passos - Secretário-Geral

13/09/2024

**ALTERAÇÃO CONTRATUAL Nº 17 E CONSOLIDAÇÃO DA SOCIEDADE
ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
CNPJ nº 02.423.819/0001-97**



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ASSINADO DIGITALMENTE POR: 79312403591-HANS JORG ULMER | 31553273591-LUCYMEIRE FERRAZ DE ARAUJO ULMER

Cláusula 8ª – Exercício Social

Ao término de cada exercício social, em 31 de Dezembro, os administradores prestarão contas justificadas de sua administração, procedendo à elaboração do inventário, balanço patrimonial e do balanço de resultado econômico, cabendo aos sócios, na proporção de suas cotas, os lucros ou perdas apuradas.

Parágrafo Único – Nos quatro meses seguintes ao término do exercício social, os sócios deliberarão sobre as contas e designarão administrador quando for o caso.

Cláusula 9ª – Remuneração dos Sócios

Os sócios têm direito a uma retirada mensal, a título de pró-labore, até o permitido por lei que será debitado em conta de despesas administrativas da sociedade.

Parágrafo Único – Fica expressamente vedada a venda ou alienação de bens pertencentes ao patrimônio da empresa, por qualquer um dos sócios separadamente, só sendo possíveis quaisquer operações que resultem na venda ou alienação dos bens da sociedade. Com expressa concordância dos sócios em conjunto.

Cláusula 10ª – Retirada de Sócio

Falecendo ou interditado qualquer sócio, a sociedade continuará suas atividades com os herdeiros, sucessores e os incapazes. Não sendo possível ou inexistindo interesse deste ou dos sócios remanescentes, o valor de seus haveres será apurado e liquidado com base na situação patrimonial da sociedade, a data da resolução, verificada em balanço especialmente levantado.

Cláusula 11ª – Foro

O foro para o exercício e o cumprimento dos direitos e obrigações resultantes do contrato social permanece LAURO DE FREITAS - BA.

E, por estarem assim justos e contratados, assinam este instrumento.

LAURO DE FREITAS - BA, 4 de setembro de 2024.

LUCYMEIRE FERRAZ DE ARAÚJO ULMER

HANS JORG ULMER

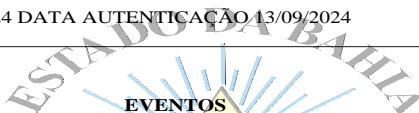


**TERMO DE AUTENTICAÇÃO**

| | |
|------------------------|---|
| NOME DA EMPRESA | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA |
| PROTOCOLO | 247827070 - 10/09/2024 |
| ATO | 002 - ALTERAÇÃO |
| EVENTO | 024 - ALTERAÇÃO DE FILIAL NA UF DA SEDE |

MATRIZ

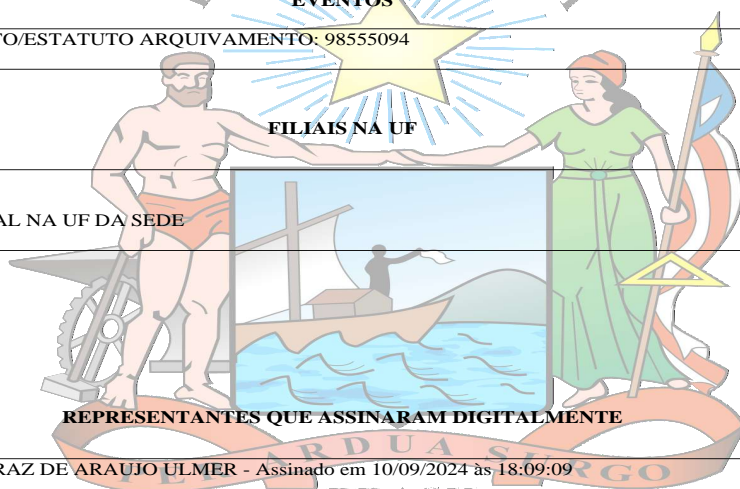
NIRE 29201942245
CNPJ 02.423.819/0001-97
CERTIFICO O REGISTRO EM 13/09/2024
PROTOCOLO ARQUIVAMENTO 98555094 DE 13/09/2024 DATA AUTENTICAÇÃO 13/09/2024

**EVENTOS**

051 - CONSOLIDAÇÃO DE CONTRATO/ESTATUTO ARQUIVAMENTO: 98555094

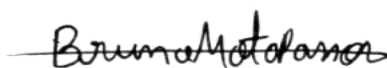
FILIAIS NA UF

NIRE 29901475445
CNPJ 02.423.819/0004-30
EVENTO 024 - ALTERAÇÃO DE FILIAL NA UF DA SEDE

**REPRESENTANTES QUE ASSINARAM DIGITALMENTE**

Cpf: 31553273591 - LUCYMEIRE FERRAZ DE ARAUJO ULMER - Assinado em 10/09/2024 às 18:09:09

Cpf: 79312403591 - HANS JORG ULMER - Assinado em 10/09/2024 às 18:07:19

**BRUNO MOTA PASSOS**

Secretário-Geral

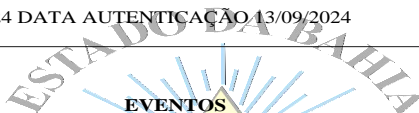


TERMO DE AUTENTICAÇÃO

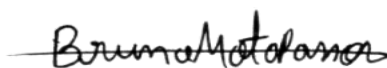
| | |
|-----------------|--|
| NOME DA EMPRESA | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA |
| PROTOCOLO | 247827070 - 10/09/2024 |
| ATO | 002 - ALTERAÇÃO |
| EVENTO | 024 - ALTERAÇÃO DE FILIAL NA UF DA SEDE |

MATRIZ

NIRE 29201942245
CNPJ 02.423.819/0001-97
CERTIFICO O REGISTRO EM 13/09/2024
PROTOCOLO ARQUIVAMENTO 98555094 DE 13/09/2024 DATA AUTENTICAÇÃO 13/09/2024



051 - CONSOLIDAÇÃO DE CONTRATO/ESTATUTO ARQUIVAMENTO: 98555094



BRUNO MOTA PASSOS
Secretário-Geral



PODER JUDICIÁRIO
Tribunal de Justiça do Estado da Bahia



CERTIDÃO ESTADUAL
CONCORDATA, FALÊNCIA, RECUPERAÇÃO JUDICIAL E EXTRAJUDICIAL - 1º GRAU

CERTIDÃO Nº: 01152886E

A autenticidade desta certidão poderá ser confirmada pela internet no site do Tribunal de Justiça (<https://portalcertidoes.tjba.jus.br/#/primeirograu>).

CERTIFICO que, pesquisando os registros dos sistemas eletrônicos de distribuição de processos deste Estado da Bahia, anteriores à data de **23/03/2026**, verifiquei **NÃO CONSTAR** em nome da parte abaixo indicada:

Razão Social: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA

CNPJ: 02.423.819/0001-97

Endereço: RUA JOSE JORGE PEREIRA, Nº 47, BURAQUINHO, CEP: 42710-480, LAURO DE FREITAS-BA

Esta certidão abrange as ações ativas de falência e recuperação judicial e extrajudicial, em que a pessoa pesquisada figure no pólo passivo, para as ações de falência e pólo ativo, para as ações de recuperação judicial / extrajudicial, com exceção dos processos em segredo de justiça.

Em caso de inconformidade, entrar em contato com a Seção de Certidões - SEDEC através do endereço eletrônico sedec@tjba.jus.br.

Os dados informados são de responsabilidade do solicitante, devendo a titularidade ser conferida pelo interessado e/ou destinatário, tendo em vista que a base de dados pesquisada para a emissão desta certidão não possui conexão com nenhuma outra base de dados de outra instituição pública ou da Receita Federal.

Esta certidão é emitida sem custas e tem validade de 30 dias, a partir da sua data de emissão. Após este prazo, será necessária a emissão de nova certidão.

Salvador/BA, segunda-feira, 23 de março de 2026

BALANÇO PATRIMONIAL



Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
 Período da Escrituração: 01/01/2023 a 31/12/2023 CNPJ: 02.423.819/0001-97
 Número de Ordem do Livro: 26
 Período Selecionado: 01 de Janeiro de 2023 a 31 de Dezembro de 2023

| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|-------------------|-------------------|
| ATIVO | | R\$ 32.357.423,19 | R\$ 39.858.606,53 |
| ATIVO CIRCULANTE | | R\$ 26.479.338,65 | R\$ 33.845.055,96 |
| DISPONIBILIDADES | | R\$ 511.276,02 | R\$ 1.596.111,82 |
| CAIXA | | R\$ 490,54 | R\$ 0,00 |
| FUNDO FIXO RJ | | R\$ 250,00 | R\$ 0,00 |
| FUNDO FIXO SEDE | | R\$ 240,54 | R\$ 0,00 |
| BANCOS CONTA MOVIMENTO | | R\$ 35.865,12 | R\$ 369.794,41 |
| BANCO ABC BRASIL AG 0001-9 C/C 0022625331 | | R\$ 4.849,31 | R\$ 5.330,69 |
| BANCO ABC AG 0001-9 C/C 00226087 | | R\$ 18.423,49 | R\$ 0,00 |
| BANCO C6 BANCK - CONTA GARANTIA | | R\$ 0,00 | R\$ 200.000,00 |
| BANCO DO BRASIL 001 AG.3781-8 C/C 21900-6 | | R\$ 0,00 | R\$ 0,00 |
| BANCO DO NORDESTE CC 7.551-4 | | R\$ 582,75 | R\$ 995,03 |
| BANCO ITAU 341 AG. 7042 C/C. 0423-0 | | R\$ 0,00 | R\$ 10,00 |
| BANCO SAFRA C/C 582178-8 | | R\$ 0,00 | R\$ 4.831,28 |
| BANCO SANTADER CONTA VINCULADA GARANTIA | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER 033 AG.4674 C/C 130017278-5 | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER 572 | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER AG. 4674 C/C 290006411 | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER C/C 2271 | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER C/C 29000062923 | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER C/C 2900006916 | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER C/C 2900006978 | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER C/C 290007113 | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER C/C 29006143 | | R\$ 0,00 | R\$ 0,00 |
| BANCO SOFISA 6881 | | R\$ 5,70 | R\$ 108,14 |
| BANCO SOFISA 6890 | | R\$ 0,00 | R\$ 0,00 |
| BRADESCO C/C N. 37222-6 | | R\$ 1,00 | R\$ 1,00 |
| C6 BANK AG 0001 C/C 27903869 | | R\$ 0,00 | R\$ 489,94 |
| CAIXA ECONOMICA 104 AG.3351 C/C 0004630 | | R\$ 854,82 | R\$ 0,00 |
| CAIXA ECONOMICA 104 AG.3351 C/C 000945-0 | | R\$ 0,00 | R\$ 1.905,07 |

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BALANÇO PATRIMONIAL

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
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| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|--------------------|------------------|
| CAIXA ECONOMICA 104 AG.4248-X C/C 291-1 | | R\$ 11.148,05 | R\$ 522,15 |
| CAIXA ECONOMICA AG 4248 C/C 00001350-6 | | R\$ 0,00 | R\$ 155.601,11 |
| GRAFENO - DESCONTO | | R\$ 0,00 | R\$ 0,00 |
| SANTANDER AG 4674 C/C 290006916 | | R\$ 0,00 | R\$ 0,00 |
| SANTANDER AG 4674 C/C 290006923 | | R\$ 0,00 | R\$ 0,00 |
| SANTANDER C/C 290007120 | | R\$ 0,00 | R\$ 0,00 |
| APLICAÇÕES FINANCEIRAS LIQUIDEZ IMEDIATA | | R\$ 301.268,69 | R\$ 939.222,25 |
| APLICAÇÃO BANCO ABC BRASIL | | R\$ 121.582,24 | R\$ 150.046,56 |
| BANCO DO BRASIL CURTO PRAZO | | R\$ 1.700,91 | R\$ 12.994,92 |
| BANCO ITAU APLIC AUT MAIS | | R\$ 0,00 | R\$ 32.594,42 |
| BANCO SANTANDER APLIC CONTAMAX EMPRESARIAL | | R\$ 175.429,03 | R\$ 319.061,78 |
| BB CDB DI | | R\$ 0,00 | R\$ 0,00 |
| BRDESCO APLICAÇÃO AUTOMÁTICA | | R\$ 183,06 | R\$ 12.635,29 |
| CAIXA ECONÔMICA FEDERAL CONTA 4630-0 | | R\$ 2.373,45 | R\$ 1.889,28 |
| CAPITALIZAÇÃO SANTANDER | | R\$ 0,00 | R\$ 50.000,00 |
| OUROCAP | | R\$ 0,00 | R\$ 360.000,00 |
| POUPANÇA | | R\$ 83.651,67 | R\$ 48.120,17 |
| BANCO DO NORDESTE | | R\$ 83.651,67 | R\$ 48.120,17 |
| BANCO SAFRA | | R\$ 0,00 | R\$ 0,00 |
| TÍTULO DE CAPITALIZAÇÃO | | R\$ 90.000,00 | R\$ 238.974,99 |
| BANCO SANTANDER | | R\$ 60.000,00 | R\$ 208.974,99 |
| CAIXA ECONÔMICA FEDERAL | | R\$ 30.000,00 | R\$ 30.000,00 |
| CLIENTES | | R\$ 7.279.479,87 | R\$ 8.451.194,24 |
| CLIENTES | | R\$ 7.279.479,87 | R\$ 8.451.194,24 |
| (-) (-) PROVISAO PARA CANCELAMENTO SERTVIÇO TIM | | R\$ (700.996,02) | R\$ (700.996,02) |
| (-) PROVISÃO PARA CANCELAMENTO SERVIÇO DELL | | R\$ 0,00 | R\$ (249.916,66) |
| (-) (-) VENDA PARA ENTREGA FUTURA | | R\$ (1.765.422,97) | R\$ (583.240,81) |
| 3M DO BRASIL LTDA | | R\$ 166.951,78 | R\$ 58.063,11 |
| 7 CONSULTORIA DE MARKETING E REPRESENTACOES EIRELI | | R\$ 0,00 | R\$ 0,00 |
| A100 ROW SERVICOS DE DADOS | | R\$ 0,00 | R\$ 0,00 |

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|--|------|----------------|----------------|
| BRASIL LTDA | | | |
| ABB AUTOMACAO LTDA | | R\$ 1.408,45 | R\$ 0,00 |
| ABBVIE FARMACEUTICA LTDA | | R\$ 0,00 | R\$ 1.107,43 |
| ABRDN BRASIL INVESTIMENTOS LTDA. | | R\$ 0,00 | R\$ 0,00 |
| AGILLIS INFORMATICA E TELECOMUNICACAO LTDA | | R\$ 0,00 | R\$ 0,00 |
| AGIS EQUIPAMENTOS E SERVICOS DE INFORMATICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| ALESAT COMBUSTIVEIS SA | | R\$ 0,00 | R\$ 0,00 |
| ALEXANDRE REILY ROCHA | | R\$ 1.757,16 | R\$ 16.043,51 |
| ALLERGAN PRODUTOS FARMACEUTICOS LTDA | | R\$ 745,65 | R\$ 0,00 |
| ALPARGATAS S.A. | | R\$ 0,00 | R\$ 0,00 |
| AMAZON AWS SERVICOS BRASIL LTDA | | R\$ 0,00 | R\$ 6.815,17 |
| ANIXTER DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| ANTONIO MARIA FRANCISCO LUIZ JOSE BONOMI | | R\$ 0,00 | R\$ 9.539,13 |
| APPLE COMPUTER BRASIL LTDA | | R\$ 0,00 | R\$ 3.174,82 |
| ASSOCIACAO DOS MAGISTRADOS DO ESTADO DE PERNAMBUCO | | R\$ 0,00 | R\$ 0,00 |
| ASSOCIACAO ESCOLA SUPERIOR DE PROPAGANDA E MARKETING | | R\$ 0,00 | R\$ 89.525,63 |
| ATITUDE MIDIA DIGITAL LTDA | | R\$ 1.491,30 | R\$ 3.190,90 |
| AUTENTICA LOGISTICA INTEGRADA LTDA | | R\$ 0,00 | R\$ 45.000,00 |
| B3 S.A. - BRASIL, BOLSA, BALCAO | | R\$ 0,00 | R\$ 245.229,70 |
| BAIN BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| BANCO CITIBANK SA | | R\$ 0,00 | R\$ 43.235,46 |
| BANCO GENIAL SA | | R\$ 12.466,52 | R\$ 8.967,44 |
| BAYER SA | | R\$ 14.571,90 | R\$ 11.242,26 |
| BDF NIVEA LTDA | | R\$ 0,00 | R\$ 0,00 |
| BE-BETA EVENTOS CORPORATIVOS EIRELI | | R\$ 0,00 | R\$ 0,00 |
| BETC HAVAS AGENCIA DE PUBLICIDADE LTDA | | R\$ 14.749,79 | R\$ 0,00 |
| BOEHRINGER INGELHEIM ANIMAL HEALTH DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| BOEHRINGER INGELHEIM DO BRASIL QUIMICA E FARMACEUTICA LTDA | | R\$ 107.242,22 | R\$ 3.190,90 |
| BRF SA | | R\$ 7.982,48 | R\$ 7.982,48 |

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| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|----------------|----------------|
| CAPES AFONSO REGULY PROEX | | R\$ 0,00 | R\$ 0,00 |
| CAPITANIA INVEST S/A | | R\$ 0,00 | R\$ 0,00 |
| CARGILL AGRICOLA S A | | R\$ 0,00 | R\$ 0,00 |
| CENTRO AVANÇADO DE RADIONCOLOGIA LTDA | | R\$ 0,00 | R\$ 0,00 |
| CENTRO NACIONAL DE PESQUISA EM ENERGIA E MATERIAIS | | R\$ 0,00 | R\$ 0,00 |
| CESAR CENTRO DE ESTUDOS E SISTEMAS AVANÇADOS DO RECIFE | | R\$ 259.238,80 | R\$ 0,00 |
| CIPLAN CIMENTO PLANALTO SA | | R\$ 0,00 | R\$ 0,00 |
| COBRA BRASIL SERVICOS COMUNICACOES E ENERGIA SA | | R\$ 0,00 | R\$ 0,00 |
| COLABORACAO VIRTUAL COMUNICACOES LTDA | | R\$ 0,00 | R\$ 0,00 |
| COMPANHIA DE GAS DE SAO PAULO COMGAS | | R\$ 70.770,35 | R\$ 234.391,36 |
| COMPANHIA DE GAS DO ESTADO DO RIO GRANDE DO SUL SULGAS | | R\$ 236.498,62 | R\$ 0,00 |
| COMPANHIA NITRO QUIMICA BRASILEIRA | | R\$ 0,00 | R\$ 0,00 |
| CONTROLADORIA-GERAL DA UNIAO | | R\$ 162.970,00 | R\$ 0,00 |
| CSL BEHRING COMERCIO DE PRODUTOS FARMACEUTICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| CSL BEHRING COMERCIO DE PRODUTOS FARMACEUTICOS LTDA | | R\$ 56.780,56 | R\$ 0,00 |
| DANNEMANN SIEMSEN BIGLER E IPANEMA MOREIRA PROPRIEDADE INDUSTRIAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| DELL COMPUTADORES DO BRASIL LTDA | | R\$ 605.621,68 | R\$ 287.730,72 |
| DHL GLOBAL FORWARDING BRAZIL LOGISTICS LTDA | | R\$ 0,00 | R\$ 0,00 |
| DHL LOGISTICS BRAZIL LTDA | | R\$ 0,00 | R\$ 5.654,98 |
| DIEGO DIAS | | R\$ 0,00 | R\$ 0,00 |
| ELECTROLUX DO BRASIL S/A | | R\$ 86.759,99 | R\$ 5.151,67 |
| EOS IT MANAGEMENT SOLUTIONS DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| EQUINIX DO BRASIL SOLUCOES DE TECNOLOGIA EM INFORMATICA LTDA | | R\$ 0,00 | R\$ 2.401,09 |
| EQUINOR BRASIL ENERGIA LTDA | | R\$ 636.283,66 | R\$ 648.122,63 |
| FABRICA DE PAPEL E PAPELAO NOSSA SENHORA DA PENHA SA | | R\$ 0,00 | R\$ 0,00 |
| FCA FIAT CHRYSLER AUTOMOVEIS BRASIL LTDA. | | R\$ 15.741,50 | R\$ 15.741,50 |
| FERRO MINERACAO SA | | R\$ 0,00 | R\$ 0,00 |

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| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|------------------|------------------|
| FLORA PRODUTOS DE HIGIENE E LIMPEZA S.A | | R\$ 0,00 | R\$ 0,00 |
| FLPP FARIA LIMA PRIME PROPERTIES S/A | | R\$ 0,00 | R\$ 0,00 |
| FONTE NOVA NEGOCIOS E PARTICIPACOES SA FNP | | R\$ 0,00 | R\$ 0,00 |
| FOODS INDUSTRIA E COMERCIO LTDA | | R\$ 13.854,34 | R\$ 0,00 |
| FUNDAÇÃO DE AMPARO A PESQUISA DO ESTADO DE SAO PAULO | | R\$ 5.688,77 | R\$ 0,00 |
| FUNDAÇÃO DE ASSISTENCIA E PREVIDENCIA SOCIAL DO BNDES FAPES | | R\$ 16.831,82 | R\$ 14.943,57 |
| FUNDAÇÃO EDITORA DA UNESP | | R\$ 0,00 | R\$ 0,00 |
| FUNDO ESPECIAL DO PODER JUDICIARIO DO ESTADO DE RORAIMA | | R\$ 95.827,89 | R\$ 0,00 |
| FUNDO MUNICIPAL DE EDUCACAO DE MENDES | | R\$ 0,00 | R\$ 0,00 |
| GALDERMA BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| GALDERMA DISTRIBUIDORA DO BRASIL LTDA | | R\$ 1.463.321,46 | R\$ 41.618,02 |
| GLOBANT BRASIL CONSULTORIA LTDA | | R\$ 0,00 | R\$ 0,00 |
| GLOBO COMUNICACAO E PARTICIPACOES S/A | | R\$ 0,00 | R\$ 0,00 |
| GN AUDIO BRASIL IMPORTACAO COMERCIO LTDA | | R\$ 0,00 | R\$ 0,00 |
| GODANT VAREJISTA LTDA | | R\$ 0,00 | R\$ 0,00 |
| GREEN4T SOLUCOES TI SA | | R\$ 77.543,55 | R\$ 79.403,55 |
| GTIS PARTNERS BRASIL GESTAO CONSULTORIA EM INVESTIMENTOS E P | | R\$ 0,00 | R\$ 0,00 |
| HENKEL LTDA | | R\$ 236.233,15 | R\$ 0,00 |
| HYUNDAI MOTOR BRASIL MONTADORA DE AUTOMOVEIS LTDA | | R\$ 181.596,13 | R\$ 0,00 |
| IKM TESTING BRASIL LTDA. | | R\$ 0,00 | R\$ 0,00 |
| INSOLE ENERGIA SOLAR S.A. | | R\$ 42.995,30 | R\$ 42.995,30 |
| INSPER INSTITUTO DE ENSINO E PESQUISA | | R\$ 0,00 | R\$ 2.266.521,88 |
| INSTITUTO BRAS DE AVALIACOES PERICIAS DE ENGENHARIA SP | | R\$ 0,00 | R\$ 0,00 |
| INSTITUTO MOREIRA SALLES | | R\$ 0,00 | R\$ 2.460,53 |
| INSTITUTO PRESBITERIANO MACKENZIE | | R\$ 0,00 | R\$ 0,00 |
| IRON MOUNTAIN DO BRASIL LTDA | | R\$ 0,00 | R\$ 1.743.627,57 |
| JACOBS DOUWE EGBERTS BR COMERCIALIZACAO DE CAFES LTDA. | | R\$ 171.724,77 | R\$ 0,00 |
| JLL CORPORATE SOLUTIONS | | R\$ 0,00 | R\$ 28.815,22 |

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|--|------|------------------|----------------|
| SERVICOS DE CONSERVACAO E MANUTENCAO DE IMOVEIS LTDA | | | |
| JOHN DEERE BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| KTB DO BRASIL IMPORTACAO, EXPORTACAO E REPRESENTACOES LTDA | | R\$ 0,00 | R\$ 0,00 |
| KYNDRYL BRASIL SERVICOS LTDA | | R\$ 36.034,64 | R\$ 36.034,64 |
| LABORATORIOS PFIZER LTDA | | R\$ 0,00 | R\$ 384.343,53 |
| LEAR DO BRASIL INDUSTRIA E COMERCIO DE INTERIORES AUTOMOTIVOS LTDA | | R\$ 212.171,37 | R\$ 16.579,33 |
| LEO BURNETT NEO COMUNICACAO LTDA | | R\$ 0,00 | R\$ 354.740,35 |
| LOREAL BRASIL COMERCIAL DE COSMETICOS LTDA | | R\$ 6.690,13 | R\$ 65.505,89 |
| MEDIABRANDS PUBLICIDADE LTDA | | R\$ 82.181,75 | R\$ 0,00 |
| MINISTERIO DA JUSTICA E SEGURANCA PUBLICA | | R\$ 37.900,00 | R\$ 0,00 |
| MONDELEZ BRASIL LTDA | | R\$ 54.435,59 | R\$ 0,00 |
| MONDELEZ BRASIL NORTE NORDESTE LTDA | | R\$ 19.028,65 | R\$ 5.829,48 |
| MRV XC INCORPORACOES LTDA | | R\$ 0,00 | R\$ 19.117,77 |
| MUBADALA CONSULTORIA FINANCEIRA E GESTORA DE RECURSOS LTDA | | R\$ 415.618,68 | R\$ 0,00 |
| NETFLIX ENTRETENIMENTO BRASIL LTDA | | R\$ 0,00 | R\$ 556.760,99 |
| NSI SERVICES DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| NU PAGAMENTOS S.A. | | R\$ 4.974,05 | R\$ 0,00 |
| PARTNERS GROUP (BRAZIL) INVESTIMENTOS LTDA | | R\$ 132,93 | R\$ 0,00 |
| PETROLEO BRASILEIRO S A PETROBRAS | | R\$ 1.212.327,89 | R\$ 538.671,54 |
| PETRORECONCAVO SA | | R\$ 0,00 | R\$ 178.035,94 |
| PETSUPERMARKET COMERCIO DE PRODUTOS PARA ANIMAIS SA | | R\$ 11.415,95 | R\$ 11.415,95 |
| PHILIP MORRIS BRASIL INDUSTRIA E COMERCIO LTDA | | R\$ 2.830,45 | R\$ 3.432,91 |
| PINHEIRO NETO ADVOGADOS | | R\$ 0,00 | R\$ 14.071,32 |
| POLENGHI INDUSTRIAS ALIMENTICIAS LTDA | | R\$ 0,00 | R\$ 7.266,12 |
| POTIGUAR E&P S.A. | | R\$ 6.018,52 | R\$ 0,00 |
| PRIMEO HOLDING LTDA | | R\$ 0,00 | R\$ 0,00 |
| PROCTER & GAMBLE INDUSTRIAL E COMERCIAL LTDA | | R\$ 0,00 | R\$ 1.815,49 |

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|--|------|------------------|----------------|
| PROMONLOGICALIS TECNOLOGIA E PARTICIPACOES LTDA | | R\$ 0,00 | R\$ 0,00 |
| PTLS SERVICOS DE TECNOLOGIA E ASSESSORIA TECNICA LTDA | | R\$ 68.154,29 | R\$ 0,00 |
| RECICLE CATARINENSE DE RESIDUOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| RECKITT BENCKISER (BRASIL) COMERCIAL DE PRODUTOS DE HIGIENE, RECOFARMA INDUSTRIA DO AMAZONAS LTDA | | R\$ 17.386,68 | R\$ 0,00 |
| RECOFARMA INDUSTRIA DO AMAZONAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| RECOFARMA INDUSTRIA DO AMAZONAS LTDA | | R\$ 1.248.080,18 | R\$ 229.415,09 |
| REFINITIV BRASIL SERVICOS ECONOMICOS LIMITADA. | | R\$ 0,00 | R\$ 0,00 |
| REPSOL SINOPEC BRASIL SA | | R\$ 0,00 | R\$ 0,00 |
| RSS COMUNICACAO LTDA | | R\$ 5.985,60 | R\$ 0,00 |
| RUSSELL REYNOLDS ASSOCIATES LTDA | | R\$ 0,00 | R\$ 0,00 |
| SAINT-GOBAIN DO BRASIL PRODUTOS INDUSTRIAIS E PARA CONSTRUCA | | R\$ 0,00 | R\$ 46.809,86 |
| SALESFORCE TECNOLOGIA LTDA | | R\$ 9.774,93 | R\$ 0,00 |
| SAMSUNG ELETRONICA DA AMAZONIA LTDA | | R\$ 0,00 | R\$ 0,00 |
| SAMSUNG ELETRONICA DA AMAZONIA LTDA | | R\$ 0,00 | R\$ 0,00 |
| SANDVIK COROMANT DO BRASIL INDUSTRIA E COMERCIO DE FERRAMENT | | R\$ 0,00 | R\$ 0,00 |
| SAS INSTITUTE BRASIL LTDA | | R\$ 1.173,44 | R\$ 0,00 |
| SCANIA LATIN AMERICA LTDA | | R\$ 0,00 | R\$ 14.859,20 |
| SCHWEITZER ENGINEERING LABORATORIES COMERCIAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| SEG AUTOMOTIVE COMPONENTS BRAZIL LTDA. | | R\$ 0,00 | R\$ 0,00 |
| SHELL BRASIL PETROLEO LTDA | | R\$ 10.624,76 | R\$ 47.716,35 |
| SIGMAONE DISTRIBUIDORA DE PRODUTOS DE TELEINFORMATICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| SINDICATO NACIONAL DOS SERV FED AUT NOS ENTES DE FORM, PROM E FISC DA POLITICA DA MOEDA E DO CREDITO | | R\$ 0,00 | R\$ 0,00 |
| SKADDEN, ARPS, SLATE, MEAGHER & FLOM CONSULTORIA EMPRESARIAL | | R\$ 0,00 | R\$ 0,00 |
| SNCLAVALIN PROJETOS INDUSTRIAIS LTDA | | R\$ 0,00 | R\$ 163.344,46 |
| SOCIAL AGENCIA DIGITAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| SOCIEDADE CAMPINEIRA DE EDUCACAO E INSTRUCAO | | R\$ 361.050,17 | R\$ 0,00 |

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BALANÇO PATRIMONIAL

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
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| Descrição | Nota | Saldo Inicial | Saldo Final |
|---|------|----------------|----------------|
| SPE MIRANGA S.A. | | R\$ 38.299,04 | R\$ 0,00 |
| SPX GESTAO DE RECURSOS LTDA | | R\$ 207.022,47 | R\$ 8.919,79 |
| STUDIO CONCEITO ARQUITETURA S/S LTDA | | R\$ 0,00 | R\$ 0,00 |
| SUM ENGENHARIA SP LTDA | | R\$ 0,00 | R\$ 0,00 |
| TALENT MARCEL COMUNICACAO E PLANEJAMENTO LTDA | | R\$ 0,00 | R\$ 154.050,25 |
| TAMA BRASIL INDUSTRIA DE SOLUCOES EM EMBALAGENS AGRICOLAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| TEATRO B32 COMERCIO E SERVICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| TECHNE-GESEL PROJETOS E ANALISES LTDA | | R\$ 0,00 | R\$ 0,00 |
| TELEVISAO BAHIA S.A. | | R\$ 0,00 | R\$ 0,00 |
| TELEVISAO OESTE BAIANO LTDA | | R\$ 0,00 | R\$ 0,00 |
| TIM SA | | R\$ 700.996,02 | R\$ 700.996,02 |
| TOJAL, RENAULT ADVOGADOS ASSOCIADOS | | R\$ 0,00 | R\$ 0,00 |
| TORMAQ SERVICOS E COMERCIO DE FERRAGENS E FERRAMENTAS LTDA | | R\$ 0,00 | R\$ 6.100,25 |
| TOTAL E&P DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| TOTALENERGIES EP BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| TOTVS SA | | R\$ 0,00 | R\$ 30.970,52 |
| TRANSCHEMICAL TRANSPORTES E LOGISTICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| VELANS TELEINFORMATICA LTDA | | R\$ 0,00 | R\$ 4.692,50 |
| VEOLIA SERVICOS AMBIENTAIS BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| VICTOR AMADEU SOCIEDADE DE ADVOGADOS | | R\$ 0,00 | R\$ 0,00 |
| VOLKSWAGEN DO BRASIL INDUSTRIA DE VEICULOS AUTOMOTORES LTDA | | R\$ 68.504,37 | R\$ 67.278,66 |
| VOLKSWAGEN TRUCK BUS INDUSTRIA E COMERCIO DE VEICULOS LTDA | | R\$ 29.660,46 | R\$ 0,00 |
| VR BENEFICIOS E SERVICOS DE PROCESSAMENTO S.A | | R\$ 68.163,89 | R\$ 131.808,02 |
| VR HOLDINGS S.A | | R\$ 0,00 | R\$ 0,00 |
| W R GRACE BRASIL INDUSTRIA E COMERCIO DE PRODUTOS QUIMICOS LTDA | | R\$ 6.640,09 | R\$ 0,00 |
| WEISHAAPT DO BRASIL IND E COM LTDA | | R\$ 0,00 | R\$ 0,00 |
| WEISHAAPT DO BRASIL IND E COM LTDA | | R\$ 0,00 | R\$ 0,00 |

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|---|------|-------------------|-------------------|
| WEWORK SERVICOS DE ESCRITORIO LTDA | | R\$ 0,00 | R\$ 39.839,86 |
| WHITE MARTINS GASES INDUSTRIAIS LTDA | | R\$ 1.801,20 | R\$ 1.995,75 |
| YINSON BRASIL SERVICOS LTDA | | R\$ 0,00 | R\$ 171.042,37 |
| ZAMBON LABORATORIOS FARMACEUTICOS LTDA | | R\$ 35.171,08 | R\$ 0,00 |
| OUTROS CRÉDITOS | | R\$ 11.037.583,49 | R\$ 12.486.836,88 |
| IMPORTAÇÃO EM ANDAMENTO | | R\$ 900.845,18 | R\$ 799.324,43 |
| IMPORTAÇÃO EM ANDAMENTO | | R\$ 900.845,18 | R\$ 799.324,43 |
| ADIANTAMENTOS A FORNECEDORES NACIONAIS | | R\$ 114.012,60 | R\$ 61.539,45 |
| A.M HIROSE ELETRONICA | | R\$ 0,00 | R\$ 0,00 |
| ADIANTAMENTO A FORNECEDORES | | R\$ 191,55 | R\$ 0,00 |
| ADIANTAMENTO A FORNECEDORES CARTÃO DE CREDITO | | R\$ 625,05 | R\$ 0,00 |
| ADIANTAMENTO A FORNECEDORES CARTAO DE CREDITO | | R\$ 0,00 | R\$ 0,00 |
| AJS ELETRICA COMERCIO E SERVIÇOS | | R\$ 10.500,00 | R\$ 0,00 |
| ALCOM ENGENHARIA | | R\$ 358,55 | R\$ 0,00 |
| ALEXANDRE DOS SANTOS FERRE | | R\$ 0,00 | R\$ 397,00 |
| ALFA PRIME IND E COM LTDA | | R\$ 0,00 | R\$ 0,00 |
| AMBIMED MEDICINA OCUPACIONAL | | R\$ 0,00 | R\$ 0,00 |
| ANDREIA VIEIRA SILVA EIRELI | | R\$ 0,00 | R\$ 0,00 |
| ARES COMERCIO DE BORRACHAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| ARLETE BELARMINO DE FREITAS ADMINISTRACAO DE NEGOCIOS | | R\$ 385,00 | R\$ 0,00 |
| ARMIX SERVICE LTDA | | R\$ 0,00 | R\$ 0,00 |
| AS FIRTS CHOICE | | R\$ 0,00 | R\$ 162,45 |
| ATACADÃO PAPELEX LTDA | | R\$ 0,00 | R\$ 0,00 |
| ATO COMERCIO DE FERRAGENS EIRELI | | R\$ 0,00 | R\$ 0,00 |
| AUDIOGENE COMERCIO IMPORTACAO E EXPORTAC | | R\$ 0,00 | R\$ 7.560,00 |
| AVANT TIME TRANSPORTES DE CARGAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| B2W COMPANHIA DIGITAL | | R\$ 3.102,04 | R\$ 0,00 |
| BELLA PAULISTA RESTAURANTES | | R\$ 324,94 | R\$ 0,00 |
| CARLOS A SOTO HERRERA | | R\$ 0,00 | R\$ 0,00 |

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|--|------|---------------|---------------|
| CARLOS EDUARDO SANTOS CORREIA | | R\$ 0,00 | R\$ 19.600,00 |
| CARLOS ROBERTO MANCUSO | | R\$ 0,00 | R\$ 4.700,00 |
| CBLOC BRASIL LOCAÇÃO | | R\$ 360,00 | R\$ 0,00 |
| CEDISA | | R\$ 0,00 | R\$ 0,00 |
| CLINICA FARES SOCIEDADE LIMITADA | | R\$ 0,00 | R\$ 0,00 |
| CONFORT PISOS COMERCIO DE ARTIGOS | | R\$ 0,00 | R\$ 0,00 |
| CONNCREAM | | R\$ 0,00 | R\$ 0,00 |
| CRED LITORAL MEDICINA E SEGURANCA DO TRABALHO LTDA. | | R\$ 607,71 | R\$ 0,00 |
| DM RACER MARKETING E EVENTOS | | R\$ 0,00 | R\$ 0,00 |
| ECLAIR SERVIÇOS DE ALIMENTOS | | R\$ 23.000,00 | R\$ 0,00 |
| EDUARDO SOARES TAVARES | | R\$ 0,00 | R\$ 0,00 |
| ELIANA BARBOSA LOPES SENA ROCHA | | R\$ 0,00 | R\$ 0,00 |
| EMIELE COMPENENTES ELETRONICOS | | R\$ 0,00 | R\$ 0,00 |
| EMPRESA BRASILEIRA DE BENEFICIOS | | R\$ 0,00 | R\$ 9.618,14 |
| EQUIPAFESTA LOCADORA DE MATERIAIS | | R\$ 0,00 | R\$ 0,00 |
| EXCLUSIVA CAMPINAS COMERCIO E MANUTENÇÃO DE ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| F A NEVOLA INFORMATICA | | R\$ 387,45 | R\$ 0,00 |
| F CHAVES CONSULTECH LTDA | | R\$ 0,00 | R\$ 0,00 |
| FIBEXAV LTDA | | R\$ 0,00 | R\$ 0,00 |
| GABRIELA SANTOS DE ARAUJO | | R\$ 0,00 | R\$ 0,00 |
| GILMAR APOIO ADM | | R\$ 0,00 | R\$ 3.498,00 |
| GRAHL'S BISTRO LANCHONETE E RESTAURANTE | | R\$ 0,00 | R\$ 0,00 |
| HARMONY SOLUÇÕES EM ENGENHARIA EIRELI | | R\$ 0,00 | R\$ 0,00 |
| HOSPITAL DO CELULAR | | R\$ 0,00 | R\$ 0,00 |
| IKEDA EMPRESARIAL | | R\$ 0,00 | R\$ 0,00 |
| IMAGEM DIGITAL COMUNICAÇÃO | | R\$ 3.943,16 | R\$ 0,00 |
| IMOBILIARIA ALVES DA MOTTA SA | | R\$ 0,00 | R\$ 0,00 |
| INFO SHOW COM LOCAÇÕES LTDA | | R\$ 2.737,00 | R\$ 0,00 |
| INGRAM MICRO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| INSTITUTO MULTICLINICA SAUDE OCUPACIONAL | | R\$ 0,00 | R\$ 0,00 |

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|---|------|---------------|---------------|
| J P X TECHNOLOGY LTDA | | R\$ 0,00 | R\$ 0,00 |
| JAILSON BEZERRA | | R\$ 1.000,00 | R\$ 0,00 |
| JOÃO PEDRO PEREIRA DA SILVA | | R\$ 0,00 | R\$ 10.897,00 |
| JOSE CELSO GOMES | | R\$ 0,00 | R\$ 0,00 |
| JULIAN HAXLEY VIEIRA GONCALVES | | R\$ 0,00 | R\$ 0,00 |
| JW DE LIMA PAINEIS | | R\$ 0,00 | R\$ 0,00 |
| K S VALDIVINO MONTAGENS DE ANDAIMES | | R\$ 0,00 | R\$ 0,00 |
| KARTODROMO ALDEIA DA SERRA LTDA | | R\$ 0,00 | R\$ 0,00 |
| LC SERVIÇOS DE APOIO LOGISTICOS LTDA | | R\$ 9.892,15 | R\$ 0,00 |
| LEONARDO RODRIGUES DAS NEVES - AÇOS & METAIS | | R\$ 0,00 | R\$ 0,00 |
| LOC OBLOCADORA DE EQUIPAMENTOS | | R\$ 0,00 | R\$ 0,00 |
| LOCAWEB SERVIÇOS DE INTERNET S.A. | | R\$ 0,00 | R\$ 0,00 |
| M&M SEVEN CAPACITAÇÃO E SERVIÇOS | | R\$ 0,00 | R\$ 0,00 |
| MARCELO EDUARDO LYRA LINS | | R\$ 0,00 | R\$ 0,00 |
| MARIA TERESA GRIMALDI LAROCCA | | R\$ 0,00 | R\$ 0,00 |
| MAS EXPRESSO LTDA | | R\$ 0,00 | R\$ 0,00 |
| MGX COMERCIO DE PAPEIS LTDA | | R\$ 0,00 | R\$ 0,00 |
| MICHELLE CRISTINA HUCS DE LIMA | | R\$ 0,00 | R\$ 0,00 |
| MIDAS CONSULTORIA | | R\$ 0,00 | R\$ 0,00 |
| MXR CONSTRUÇÕES | | R\$ 0,00 | R\$ 0,00 |
| NORTIC ELETRONICO | | R\$ 0,00 | R\$ 0,00 |
| NUCLEO DE INFORMAÇÃO E COORDENAÇÃO DO PONTO BR - NIC.BR | | R\$ 0,00 | R\$ 0,00 |
| NXD TECNOLOGIA E COMERCIO | | R\$ 0,00 | R\$ 0,00 |
| OBJETIVA NUCLEO DE SAUDE LTDA | | R\$ 0,00 | R\$ 0,00 |
| ONLINE CERTIFICADORA LTDA | | R\$ 0,00 | R\$ 0,00 |
| OPTISOM COMERCIAL E TECNICA CINE FOTO LTDA | | R\$ 0,00 | R\$ 0,00 |
| PAULO FERREIRA MESSIAS | | R\$ 0,00 | R\$ 0,00 |
| PERSONAL COMERCIO E SERVICOS LTDA | | R\$ 0,00 | R\$ 1.206,86 |
| PIXEL REPAROS | | R\$ 0,00 | R\$ 0,00 |
| POLICLINICA SERVIÇOS MEDICOS | | R\$ 0,00 | R\$ 0,00 |

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|--|------|------------------|------------------|
| PONTOMAIAS TECNOLOGIA LTDA. | | R\$ 0,00 | R\$ 0,00 |
| PROJETELAS IND COM LTDA | | R\$ 0,00 | R\$ 0,00 |
| PROSOLAR SISTEMA DE AQUECIMENTO LTDA | | R\$ 0,00 | R\$ 0,00 |
| R C DE CABO FRIO COMPONENTES ELETRONICOS | | R\$ 1.920,00 | R\$ 0,00 |
| RA ENGENHARIA & ASSESSORIA | | R\$ 0,00 | R\$ 0,00 |
| RAYBER SILVA DOS SANTOS | | R\$ 0,00 | R\$ 0,00 |
| RENATA TESSER | | R\$ 0,00 | R\$ 0,00 |
| RILDO GOMES DA SILVA | | R\$ 0,00 | R\$ 500,00 |
| ROSSE COMERCIO DE CABOS E FIOS | | R\$ 120,00 | R\$ 0,00 |
| SDL COMERCIO DE MATERIAIS ELETRICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| SJ SOLUÇÕES ELETRICAS | | R\$ 0,00 | R\$ 0,00 |
| SOE GRAFICA EDITORA COMERCIO E SERVIÇOS | | R\$ 0,00 | R\$ 0,00 |
| SONIDO DO BRASIL COMERCIO E SERVIÇOS | | R\$ 0,00 | R\$ 0,00 |
| TAMBORE COMERCIO MATERIAIS | | R\$ 0,00 | R\$ 0,00 |
| TECHDUTO INDUSTRIA E COMERCIO DE MAQUINAS | | R\$ 0,00 | R\$ 0,00 |
| TGS RIO MATERIAL DE CONSTRUÇÃO | | R\$ 0,00 | R\$ 0,00 |
| UNIAR COMERCIO DE ELETRO ELETRONICOS | | R\$ 0,00 | R\$ 0,00 |
| VIP ENTREGA RAPIDA LTDA | | R\$ 0,00 | R\$ 0,00 |
| VIPBAND COMERCIO DE ARTIGOS PARA FESTAS | | R\$ 0,00 | R\$ 0,00 |
| VR BENEFICIOS E SERVICOS DE PROCESSAMENTO LTDA | | R\$ 54.558,00 | R\$ 0,00 |
| WAHR ENGENHARIA | | R\$ 0,00 | R\$ 0,00 |
| WESLEY FRANKLIN MOREIRA | | R\$ 0,00 | R\$ 3.400,00 |
| ADIANTAMENTOS A FORNECEDORES ESTRANGEIROS | | R\$ 3.836.057,02 | R\$ 4.949.703,35 |
| 3D CONNEXION | | R\$ 2.386,02 | R\$ 2.386,02 |
| 3D-VR SHOP LLC | | R\$ 2.326.706,54 | R\$ 2.973.831,84 |
| ABSEN HOLDING | | R\$ 155.252,31 | R\$ 155.200,65 |
| ALMO CORPORATION | | R\$ 185.068,14 | R\$ 177.938,73 |
| AMAZON MKTPLACE | | R\$ 12.941,53 | R\$ 15.338,46 |
| AMAZON.COM, INC | | R\$ 26.028,16 | R\$ 26.028,16 |

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|-----------------------------|------|----------------|----------------|
| AMERICAN JK | | R\$ 1.652,16 | R\$ 1.652,16 |
| AUDIO VIDEO EXPORT | | R\$ 0,00 | R\$ 19.835,64 |
| AVCC | | R\$ 0,00 | R\$ 0,00 |
| B&H PHOTO - VIDEO, INC | | R\$ 49.622,96 | R\$ 51.051,18 |
| BALDAN INC | | R\$ 0,00 | R\$ 311.741,33 |
| BARCO INC | | R\$ 2.319,74 | R\$ 2.319,74 |
| BLUE OCEAN | | R\$ 0,00 | R\$ 0,00 |
| CRESTRON LATIN AMERICA, LLC | | R\$ 612.100,77 | R\$ 712.181,17 |
| CSC LIBERTY WIRE& CABLE | | R\$ 595,89 | R\$ 595,89 |
| D- TOOLS | | R\$ 0,00 | R\$ 2.114,12 |
| DEOS AG | | R\$ 0,00 | R\$ 3.929,76 |
| EPIPHAN VIDEO | | R\$ 0,00 | R\$ 12.707,12 |
| EVOLUTION HT SERVICE LTDA | | R\$ 740,00 | R\$ 740,00 |
| EXTRON ELETRONICS | | R\$ 0,00 | R\$ 9.376,77 |
| HECKLER DESIGN | | R\$ 1.388,08 | R\$ 1.388,08 |
| INTCOMEX MIAMI | | R\$ 8.402,40 | R\$ 8.402,40 |
| LEGRAND AV INC | | R\$ 2.811,30 | R\$ 30.664,73 |
| LEMASS | | R\$ 238.645,68 | R\$ 79.764,36 |
| LIBERTY WIRE&CABLE | | R\$ 0,00 | R\$ 0,00 |
| MERLIN | | R\$ 0,00 | R\$ 0,00 |
| NET UNIVERSE | | R\$ 18.618,00 | R\$ 18.618,00 |
| PROVANTAGE | | R\$ 0,00 | R\$ 0,00 |
| PSA SERVICES INC | | R\$ 67.642,51 | R\$ 4.275,79 |
| QI ENTERINMENT LLC | | R\$ 0,00 | R\$ 0,00 |
| QSC, LLC | | R\$ 3.564,30 | R\$ 3.564,30 |
| SHURE INCORPORATED | | R\$ 94.814,70 | R\$ 189.733,10 |
| SIMPLY NUC | | R\$ 0,00 | R\$ 0,00 |
| SOUND CONTROL TECHNOLOGIES | | R\$ 12.413,86 | R\$ 0,00 |
| SYNNEX | | R\$ 0,00 | R\$ 0,00 |
| TD SYNNEX | | R\$ 0,00 | R\$ 17.551,55 |
| TEAMWORK | | R\$ 0,00 | R\$ 204,12 |
| TECH DATA PT | | R\$ 2.729,08 | R\$ 2.729,08 |

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|----------------------------------|------|---------------|----------------|
| TECSON LATIN | | R\$ 0,00 | R\$ 0,00 |
| TELECAM TECHNOLOGY GO LTD | | R\$ 7.161,27 | R\$ 7.161,27 |
| WEST TELCO S DE RL DE CV | | R\$ 2.451,62 | R\$ 2.451,62 |
| WWT WORLDWIDE TRADING CORP | | R\$ 0,00 | R\$ 104.226,21 |
| ADIANTAMENTOS A EMPREGADOS | | R\$ 53.578,46 | R\$ 35.777,44 |
| ADIANTAMENTO DE 13º SALÁRIO | | R\$ 0,00 | R\$ 0,00 |
| ADIANTAMENTO DE FÉRIAS | | R\$ 53.578,46 | R\$ 35.777,44 |
| ADIANTAMENTO DE RESCISÃO | | R\$ 0,00 | R\$ 0,00 |
| ADIANTAMENTO DE SALÁRIO | | R\$ 0,00 | R\$ 0,00 |
| ADIANTAMENTO DE VIAGENS | | R\$ 1.951,00 | R\$ 4.620,00 |
| ADRIANO PENNA BARBOSA | | R\$ 88,00 | R\$ 0,00 |
| AILSON ARAUJO GUIMARÃES JUNIOR | | R\$ 0,00 | R\$ 0,00 |
| ALBERT LEAL | | R\$ 0,00 | R\$ 0,00 |
| ALEX TAGAVAS | | R\$ 0,00 | R\$ 0,00 |
| ALEXANDRE BASTOS LOPES | | R\$ 0,00 | R\$ 500,00 |
| AMANDA LOURENÇO | | R\$ 0,00 | R\$ 0,00 |
| ANDERSON GREGORIO BARBOSA MOURA | | R\$ 1.550,00 | R\$ 120,00 |
| ANTONIO MEDRADO LIMA FILHO | | R\$ 0,00 | R\$ 0,00 |
| CARLOS HENRIQUE DOS SANTOS | | R\$ 0,00 | R\$ 0,00 |
| CARLOS HERRERA | | R\$ 0,00 | R\$ 0,00 |
| DANIEL BRAGA SIQUEIRA DOS SANTOS | | R\$ 0,00 | R\$ 0,00 |
| DEBORA MENDES DE BRITO | | R\$ 0,00 | R\$ 0,00 |
| DEBORAH LARISSA DE CANTALICE | | R\$ 0,00 | R\$ 0,00 |
| DIEGO BATISTA GONÇALVES | | R\$ 0,00 | R\$ 0,00 |
| DIEGO TUPINA | | R\$ 0,00 | R\$ 0,00 |
| ELIO SENA PAIM | | R\$ 0,00 | R\$ 0,00 |
| GABRIEL VAIANO FARHAT | | R\$ 0,00 | R\$ 0,00 |
| GIDEÃO MARCOS DE ARAUJO | | R\$ 0,00 | R\$ 0,00 |
| GUSTAVO CRUZ DE JESUS SANTOS | | R\$ 100,00 | R\$ 0,00 |
| HELIO HENRIQUE DÓRE OLIVEIRA | | R\$ 0,00 | R\$ 0,00 |
| HENRIQUE SANTOS FERNANDES | | R\$ 0,00 | R\$ 0,00 |

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BALANÇO PATRIMONIAL

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
Período Selecionado: 01 de Janeiro de 2023 a 31 de Dezembro de 2023

| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|------------------|------------------|
| IURI DIDOFF DO NASCIMENTO | | R\$ 0,00 | R\$ 0,00 |
| JHONATAS DA CONCEIÇÃO | | R\$ 0,00 | R\$ 0,00 |
| JOÃO FRANCISCO DE SOUZA SANTANA | | R\$ 0,00 | R\$ 0,00 |
| JUAN BOMFIM ANDRADE | | R\$ 0,00 | R\$ 0,00 |
| KEVIN MENDES VIDAL | | R\$ 0,00 | R\$ 0,00 |
| LEONARDO BATISTA | | R\$ 120,00 | R\$ 0,00 |
| LEONARDO POSSANI DE ANDRADE | | R\$ 0,00 | R\$ 0,00 |
| LEONARDO RODRIGUES DAS NEVES | | R\$ 0,00 | R\$ 4.000,00 |
| LILIAN DE CARVALHO GONÇALVES | | R\$ 0,00 | R\$ 0,00 |
| LUANA RENATA | | R\$ 0,00 | R\$ 0,00 |
| LUCAS DE CAMARGO PENA SIMÕES DE ALMEIDA | | R\$ 0,00 | R\$ 0,00 |
| MARCELO DA CRUZ MONTEIRO | | R\$ 0,00 | R\$ 0,00 |
| MARCIO DE LIMA DO NASCIMENTO | | R\$ 0,00 | R\$ 0,00 |
| MARCUS DURCO | | R\$ 0,00 | R\$ 0,00 |
| MARIA AMELIA MARQUES FARIAS FERRÃO | | R\$ 93,00 | R\$ 0,00 |
| MATHEUS MORAS MELO OLIVEIRA | | R\$ 0,00 | R\$ 0,00 |
| NAIARA MOTA | | R\$ 0,00 | R\$ 0,00 |
| OLIVAR BARBOSA | | R\$ 0,00 | R\$ 0,00 |
| QUEZIA FERNANDA SANTOS DA SILVA | | R\$ 0,00 | R\$ 0,00 |
| RAFAEL LUIZ DA SILVA | | R\$ 0,00 | R\$ 0,00 |
| RENATA TESSER DELSOLE | | R\$ 0,00 | R\$ 0,00 |
| RICARDO SIMÕES | | R\$ 0,00 | R\$ 0,00 |
| ROBERTA MENDES | | R\$ 0,00 | R\$ 0,00 |
| ROMULO GONÇALVES | | R\$ 0,00 | R\$ 0,00 |
| SUELY DE JESUS | | R\$ 0,00 | R\$ 0,00 |
| TIAGO SANTOS | | R\$ 0,00 | R\$ 0,00 |
| VALDETE COSTA ANDRADE | | R\$ 0,00 | R\$ 0,00 |
| TRIBUTOS A RECUPERAR/COMPENSAR | | R\$ 5.805.318,43 | R\$ 6.163.711,25 |
| COFINS A COMPENSAR(EXCL. ICMS BASE DE CALCULO) | | R\$ 184.682,18 | R\$ 184.682,18 |
| COFINS A RECUPERAR | | R\$ 0,00 | R\$ 0,00 |
| COFINS A RECUPERAR COD. 5856 | | R\$ 77.899,59 | R\$ 79.233,89 |

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|--|------|------------------|-------------------|
| CONTRIBUIÇÃO SOCIAL PAGA ESTIMATIVA | | R\$ 70.086,66 | R\$ 70.086,66 |
| CONTRIBUIÇÃO SOCIAL RETIDO A COMPENSAR | | R\$ 0,00 | R\$ 0,00 |
| CREDITO FISCAL ICMS - CARTA DE CRÉDITO | | R\$ 4.957,64 | R\$ 4.957,64 |
| CSLL SALDO NEGATIVO | | R\$ 172.044,18 | R\$ 247.539,73 |
| ICMS A RECUPERAR | | R\$ 3.105.127,89 | R\$ 2.199.742,70 |
| ICMS ANTECIPAÇÃO PARCIAL A RECUPERAR | | R\$ 1.191.253,17 | R\$ 2.210.102,46 |
| IMPOSTO DE RENDA PAGO POR ESTIMATIVA | | R\$ 191.397,85 | R\$ 191.397,85 |
| INSS A COMPENSAR | | R\$ 358.140,53 | R\$ 391.978,39 |
| IPI A RECUPERAR | | R\$ 0,00 | R\$ 0,00 |
| IRPJ SALDO NEGATIVO | | R\$ 378.109,00 | R\$ 512.080,33 |
| IRRF A RECUPERAR | | R\$ 0,00 | R\$ 0,00 |
| IRRF S/APLICAÇÃO | | R\$ 0,00 | R\$ 0,00 |
| ISS A RECUPERAR | | R\$ 0,00 | R\$ 0,00 |
| PCC CODIGO 5952 A RECUPERAR | | R\$ 1.608,27 | R\$ 1.608,27 |
| PIS A COMPENSAR(EXCL.ICMS BASE DE CALCULO | | R\$ 40.095,47 | R\$ 40.095,47 |
| PIS A RECUPERAR | | R\$ 0,00 | R\$ 0,00 |
| PIS A RECUPERAR COD. 6912 | | R\$ 29.916,00 | R\$ 30.205,68 |
| JUROS E MULTA S/ IMPOSTOS A RECUPERAR | | R\$ 33.443,50 | R\$ 33.443,50 |
| JUROS S/ IMPOSTOS A RECUPERAR | | R\$ 14.611,55 | R\$ 14.611,55 |
| MULTA S/ IMPOSTOS A RECUPERAR | | R\$ 18.831,95 | R\$ 18.831,95 |
| RETENÇÃO CONTRATUAL | | R\$ 261.063,17 | R\$ 438.717,46 |
| PETROLEO BRASILEIRO S A | | R\$ 261.063,17 | R\$ 438.717,46 |
| COMPRA PARA ENTREGA FUTURA | | R\$ 31.314,13 | R\$ 0,00 |
| COMPRA PARA ENTREGA FUTURA | | R\$ 31.314,13 | R\$ 0,00 |
| ESTOQUE | | R\$ 7.650.138,53 | R\$ 11.309.732,28 |
| MERCADORIAS, PRODUTOS E INSUMOS | | R\$ 7.193.652,96 | R\$ 9.888.993,55 |
| MERCADORIAS PARA REVENDA | | R\$ 7.193.652,96 | R\$ 9.888.993,55 |
| ESTOQUE EM PODER DE TERCEIROS | | R\$ 456.485,57 | R\$ 1.145.718,82 |
| ESTOQUE EM PODER DE TERCEIROS | | R\$ 456.485,57 | R\$ 1.145.718,82 |
| MERC.PARA COMERC. PELOADQUIRENTE ORIGINARIO, | | R\$ 0,00 | R\$ 275.019,91 |

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|--|------|------------------|------------------|
| ENTREGUE PELO VENDEDOR REMETENTE AO DESTINATARIO, EM VENDA À ORDEM | | | |
| MERC.P/ COMERC. P/ ADQ. ORIG.ENTR. PELO VEND. REMET. | | R\$ 0,00 | R\$ 275.019,91 |
| DESPESAS PAGAS ANTECIPADAS | | R\$ 860,74 | R\$ 1.180,74 |
| SEGUROS A APROPRIAR | | R\$ 860,74 | R\$ 1.180,74 |
| PRÊMIOS DE SEGUROS A APROPRIAR | | R\$ 860,74 | R\$ 1.180,74 |
| ATIVO NÃO CIRCULANTE | | R\$ 5.878.084,54 | R\$ 6.013.550,57 |
| ATIVO REALIZÁVEL A LONGO PRAZO | | R\$ 5.202.683,67 | R\$ 5.202.683,67 |
| OPERAÇÕES COM PESSOAS LIGADAS | | R\$ 0,00 | R\$ 0,00 |
| HANS JORG ULMER | | R\$ 0,00 | R\$ 0,00 |
| LUCYMEIRE FERRAZ DE ARAUJO ULMER | | R\$ 0,00 | R\$ 0,00 |
| TRIBUTOS A RECUPERAR | | R\$ 3.979.743,00 | R\$ 3.979.743,00 |
| IPI A RECUPERAR | | R\$ 3.979.743,00 | R\$ 3.979.743,00 |
| ATIVOS FISCAIS DIFERIDOS A LONGO PRAZO | | R\$ 1.222.940,67 | R\$ 1.222.940,67 |
| CRÉDITO FISCAL CSLL - BASE DE CÁLCULO NEGATIVA | | R\$ 323.719,59 | R\$ 323.719,59 |
| CRÉDITO FISCAL IRPJ -PREJUIZO FISCAL | | R\$ 899.221,08 | R\$ 899.221,08 |
| IMOBILIZADO | | R\$ 675.400,87 | R\$ 810.866,90 |
| IMÓVEIS | | R\$ 214.848,42 | R\$ 214.848,42 |
| EDIFICAÇÕES | | R\$ 214.848,42 | R\$ 214.848,42 |
| MÓVEIS E UTENSÍLIOS | | R\$ 173.543,34 | R\$ 195.876,03 |
| MÓVEIS E UTENSÍLIOS | | R\$ 173.543,34 | R\$ 195.876,03 |
| MÁQUINAS, EQUIPAMENTOS E FERRAMENTAS | | R\$ 927.257,19 | R\$ 965.192,19 |
| MÁQUINAS E EQUIPAMENTOS | | R\$ 927.257,19 | R\$ 965.192,19 |
| EQUIPAMENTOS DE INFORMÁTICA | | R\$ 1.394.938,10 | R\$ 1.605.300,31 |
| COMPUTADORES E PERIFERICOS | | R\$ 1.133.134,64 | R\$ 1.333.005,25 |
| SOFTWARE | | R\$ 261.803,46 | R\$ 272.295,06 |
| BENFEITORIAS EM PROPRIEDADES DE TERCEIRO | | R\$ 89.346,36 | R\$ 89.346,36 |
| BENFEITORIAS EM PROPRIEDADES DE TERCEIRO | | R\$ 89.346,36 | R\$ 89.346,36 |
| FERRAMENTAS | | R\$ 530,00 | R\$ 530,00 |
| FERRAMENTAS | | R\$ 530,00 | R\$ 530,00 |

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|--|------|--------------------|--------------------|
| EQUIPAMENTOS DE TELEFONIA | | R\$ 16.755,92 | R\$ 38.304,76 |
| EQUIPAMENTOS DE TELEFONIA | | R\$ 16.755,92 | R\$ 38.304,76 |
| (-) (-) DEPRECIACÕES, AMORT. E EXAUS. ACUMUL | | R\$ (2.141.818,46) | R\$ (2.298.531,17) |
| (-) (-) AMORTIZAÇÕES EM PROPRIEDADES DE TERC | | R\$ (89.346,36) | R\$ (89.346,36) |
| (-) (-) DEPRE. ACUMUL. EQUIP. TELEFONIA | | R\$ (3.739,97) | R\$ (7.179,87) |
| (-) (-) DEPRECIACÕES COMPUTADORS E PERIFERICOS | | R\$ (852.943,11) | R\$ (950.361,60) |
| (-) (-) DEPRECIACÕES DE EDIFICAÇÕES | | R\$ (27.759,59) | R\$ (35.924,51) |
| (-) (-) DEPRECIACÕES DE MÁQUINAS, EQUIP. FER | | R\$ (892.973,72) | R\$ (903.892,91) |
| (-) (-) DEPRECIACÕES DE MÓVEIS E UTENSÍLIOS | | R\$ (132.501,51) | R\$ (139.195,01) |
| (-) (-) DEPRECIACÕES FERRAMENTAS | | R\$ (530,00) | R\$ (530,00) |
| (-) (-) DEPRECIACÕES SOFTWARES | | R\$ (142.024,20) | R\$ (172.100,91) |
| INTANGÍVEL | | R\$ 0,00 | R\$ 0,00 |
| DIREITO DE USO SOFTWARE | | R\$ 53.707,23 | R\$ 53.707,23 |
| DIREITO DE USO SOFTWARE | | R\$ 53.707,23 | R\$ 53.707,23 |
| (-) (-) AMORTIZAÇÕES ACUMULADAS | | R\$ (53.707,23) | R\$ (53.707,23) |
| (-) (-)AMORTIZ.DE DIREITOS DE USO SOFTWARE | | R\$ (53.707,23) | R\$ (53.707,23) |
| PASSIVO | | R\$ 32.357.423,19 | R\$ 39.858.606,53 |
| PASSIVO CIRCULANTE | | R\$ 22.497.488,92 | R\$ 28.979.865,23 |
| EMPRÉSTIMOS E FINANCIAMENTOS | | R\$ 12.401.057,49 | R\$ 15.024.952,10 |
| EMPRESTIMOS NACIONAIS | | R\$ 8.501.876,89 | R\$ 11.568.239,14 |
| BANCO DO BRASIL - CONTA GARANTIA | | R\$ 0,00 | R\$ 977.000,00 |
| BANCO DO BRASIL CAPITAL DE GIRO N. 297609497 | | R\$ 122.727,28 | R\$ 0,00 |
| BANCO DO BRASIL CONTA GARANTIDA | | R\$ 205.000,00 | R\$ 0,00 |
| BANCO DO BRASIL LIMITE DE CRÉDITO | | R\$ 0,00 | R\$ 0,00 |
| BANCO DO NORDESTE - CAPITAL DE GIRO | | R\$ 147.999,96 | R\$ 147.999,96 |
| BANCO DO NORDESTE 500K | | R\$ 0,00 | R\$ 124.999,92 |
| BANCO DO NORDESTE GIRO | | R\$ 49.999,97 | R\$ 16.666,63 |
| BANCO DO NORDESTE GIRO 300K | | R\$ 120.000,00 | R\$ 40.000,00 |
| BANCO ITAU C/C 00423-0 LIMETE DE CRÉDITO | | R\$ 164.728,43 | R\$ 0,00 |

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| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|------------------|------------------|
| BANCO ITAU CONTA GARANTIDA | | R\$ 0,00 | R\$ 0,00 |
| BANCO ITAÚ CONTA GARANTIDA | | R\$ 500.000,00 | R\$ 0,00 |
| BANCO ITAÚ LIMITE DE CREDITO | | R\$ 0,00 | R\$ 0,00 |
| BANCO PLENITUDE - CONTRATO 5900.0116467.20.2 | | R\$ 600.186,66 | R\$ 0,00 |
| BANCO PLENITUDE ADITIVO | | R\$ 757.740,18 | R\$ 0,00 |
| BANCO PLENITUDE CONTRATO 08.2022 | | R\$ 1.200.281,16 | R\$ 0,00 |
| BANCO RENDIMENTO ANTECIPAÇÃO NF PETROBRAS | | R\$ 1.521.333,36 | R\$ 0,00 |
| BANCO SAFRA - CAPITAL DE GIRO | | R\$ 211.764,72 | R\$ 108.157,95 |
| BANCO SAFRA - LIMITE DE CREDITO | | R\$ 200.178,19 | R\$ 0,00 |
| BANCO SAFRA CÉDULA DE CRÉDITO BANCÁRIO Nº 005408988 | | R\$ 340.699,42 | R\$ 340.699,42 |
| BANCO SANTANDER C/C 130017278-5 LIMETE DE CRÉDITO | | R\$ 0,00 | R\$ 0,00 |
| BANCO SANTANDER CAPITAL DE GIRO Nº 334674300000022530 | | R\$ 247.946,06 | R\$ 247.946,06 |
| BANCO SANTANDER CAPITAL GIRO | | R\$ 0,00 | R\$ 118.897,10 |
| BANCO SANTANDER CEDULA DE CRÉDITO | | R\$ 0,00 | R\$ 285.714,24 |
| BANCO SANTANDER CONTA GARANTIDA | | R\$ 0,00 | R\$ 1.000.000,00 |
| BANCO SANTANDER CONTA GARANTIDA | | R\$ 599.005,80 | R\$ 0,00 |
| BANCO SANTANDER EMPRESTIMO FGI Nº 4674300000034790 | | R\$ 0,00 | R\$ 1.000.000,00 |
| BB CAPITAL DE GIRO N 297617259 | | R\$ 0,00 | R\$ 5.000.000,00 |
| C6 BANK AG 0001 C/C 27903869 - EMPRESTIMO | | R\$ 0,00 | R\$ 399.999,96 |
| CAIXA ECONOMICA - LIMITE DE CREDITO | | R\$ 0,00 | R\$ 0,00 |
| CAIXA ECONÔMICA CC 291-1 EMPRÉSTIMO | | R\$ 425.000,00 | R\$ 212.499,90 |
| CAIXA ECONOMICA CC 4630 EMPRÉSTIMO | | R\$ 848.000,00 | R\$ 282.666,72 |
| CAIXA ECONOMICA FEDERAL CAP. GIRO CONTRATO X | | R\$ 0,00 | R\$ 400.088,64 |
| EMPRESTIMO A PAGAR | | R\$ 15.000,00 | R\$ 15.000,00 |
| EMPRESTIMO ANTECIPAÇÃO PETROBRAS - CONTRATO CAIXA Nº 03.4248.737.000182-43 | | R\$ 0,00 | R\$ 0,00 |
| EMPRESTIMO BANCO ABC BRASIL | | R\$ 0,00 | R\$ 0,00 |
| EMPRESTIMO BANCO DO NORDESTE | | R\$ 49.285,68 | R\$ 24.902,62 |

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|---|------|------------------|------------------|
| EMPRESTIMO CAPITAL DE GIRO BANCO SOFISA | | R\$ 175.000,02 | R\$ 175.000,02 |
| EMPRESTIMO PEAC SOFISA 6881 | | R\$ 0,00 | R\$ 350.000,00 |
| FGI N 005427141 BANCO SAFRA | | R\$ 0,00 | R\$ 300.000,00 |
| SANTANDER - LIMITE DE CREDITO | | R\$ 0,00 | R\$ 0,00 |
| FINANCIAMENTOS NACIONAIS | | R\$ 3.899.180,60 | R\$ 3.456.712,96 |
| BANCO SANTANDER FINIMP 18 Nº 1056653 | | R\$ 0,00 | R\$ 0,00 |
| CONTRATO FINIMP CCB 1055156 | | R\$ 0,00 | R\$ 0,00 |
| CONTRATO FINIMP BANCO DO BRASIL | | R\$ 304.064,86 | R\$ 0,00 |
| FINIMP BANCO DO BRASIL 4 USD 60.204,85 | | R\$ 0,00 | R\$ 0,00 |
| FINIMP BB 3 | | R\$ 781.888,82 | R\$ 0,00 |
| FINIMP CCB 1063808 SANTANDER | | R\$ 0,00 | R\$ 276.570,94 |
| FINIMP ITAU Nº AGE 1358584/1 | | R\$ 0,00 | R\$ 0,00 |
| FINIMP Nº 1049836 | | R\$ 806.786,89 | R\$ 0,00 |
| FINIMP Nº 1050995 | | R\$ 563.256,99 | R\$ 0,00 |
| FINIMP Nº 1058181 SANTANDER 19 | | R\$ 0,00 | R\$ 579.581,40 |
| FINIMP Nº 169123113296-0 BB5 | | R\$ 0,00 | R\$ 757.796,65 |
| FINIMP SANTANDER Nº 1048813 | | R\$ 441.949,06 | R\$ 0,00 |
| FINIMP SANTANDER CCB 1061217 - 22 | | R\$ 0,00 | R\$ 1.149.217,54 |
| FINIMP SANTANDER CEDULA DE CREDITO Nº 1049181 | | R\$ 533.535,28 | R\$ 0,00 |
| FINIMP SANTANDER Nº 1060699 21 | | R\$ 0,00 | R\$ 693.546,43 |
| SANTANDER 16 FINIMP Nº 1052822 | | R\$ 0,00 | R\$ 0,00 |
| SANTANDER FINIMP Nº 104705 | | R\$ 467.698,70 | R\$ 0,00 |
| FORNECEDORES | | R\$ 4.450.742,47 | R\$ 5.741.982,10 |
| FORNECEDORES NACIONAIS | | R\$ 2.673.155,79 | R\$ 3.672.699,60 |
| 2. TABELIONATO DE PROTESTO DE TITULOS | | R\$ 0,00 | R\$ 0,00 |
| 21.865.711 RAYBER SILVA DOS SANTOS | | R\$ 0,00 | R\$ 0,00 |
| 27.673.667 RENATO ACACIO DE SOUZA | | R\$ 0,00 | R\$ 0,00 |
| 30.628.856 JADE DOS SANTOS LIMA | | R\$ 0,00 | R\$ 0,00 |
| 33.801.965 CARLOS ROBERTO MANCUSO | | R\$ 0,00 | R\$ 0,00 |
| 48.171.522 LUIZ FERNANDO SILVA HABAEB | | R\$ 0,00 | R\$ 0,00 |

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|--|------|---------------|----------------|
| 48.655.935 ALLAN TIMOTEO AFONSO | | R\$ 0,00 | R\$ 0,00 |
| 49.186.171 CARLOS EDUARDO SANTOS CORREIA | | R\$ 0,00 | R\$ 19.600,00 |
| A L ANDRADE - RECARGA E MANUTENCAO DE EXTINTORES | | R\$ 0,00 | R\$ 0,00 |
| A LEAL FERREIRA SANTOS ENGENHARIA | | R\$ 0,00 | R\$ 0,00 |
| A. M. HIROSE ELETRONICA | | R\$ 0,00 | R\$ 0,00 |
| A. R. FERIANI PAPELARIA LTDA ME | | R\$ 0,00 | R\$ 0,00 |
| ABL TECH LTDA | | R\$ 0,00 | R\$ 44.000,00 |
| ABSOLUT IND E COM DE PRODUTOS METALICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| ACAO COMUNITARIA DO BRASIL - VOCACAO | | R\$ 0,00 | R\$ 0,00 |
| ACCO BRANDS BRASIL LTDA | | R\$ 0,00 | R\$ 1.915,54 |
| ACTUAL MED CONSULTORIA EMPRESARIAL EM MEDICINA E SEGURANCA D | | R\$ 0,00 | R\$ 0,00 |
| ADUANEIRAS INFORMATICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| AGILE COMERCIO DE MOVEIS LTDA | | R\$ 145,40 | R\$ 0,00 |
| AGIS EQUIP. E SERV INFORMATICA LTDA | | R\$ 3.148,60 | R\$ 556.538,02 |
| AGORA DIGITAL IMPORTACAO E EXPORTACAO EIRELI | | R\$ 0,00 | R\$ 0,00 |
| AJS ELETRICA COMERCIO, SERVICOS E MANUTENCAO ELETRICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| ALCOM ENGENHARIA LTDA - EPP | | R\$ 0,00 | R\$ 0,00 |
| ALERTA TECNOLOGIA EM SEGURANCA MONITORADA LTDA | | R\$ 250,00 | R\$ 250,00 |
| ALFA PRIME IND. E COM. LTDA | | R\$ 0,00 | R\$ 3.255,66 |
| ALLAN CARMO OLIVEIRA 36585093844 | | R\$ 10.000,00 | R\$ 11.641,70 |
| AMARAL ADVOCACIA EMPRESARIAL | | R\$ 0,00 | R\$ 0,00 |
| AMBIMED MEDICINA OCUPACIONAL E SEGURANCA DO TRABALHO EIRELI | | R\$ 0,00 | R\$ 0,00 |
| AMERICANAS S.A | | R\$ 3.536,24 | R\$ 0,00 |
| AMIL ASSISTENCIA MEDICA INTERNACIONAL S.A. | | R\$ 23.308,77 | R\$ 33.512,14 |
| AMT ENGENHARIA E CONSTRUCAO LTDA | | R\$ 0,00 | R\$ 0,00 |
| AMW PRODUTOS ELETROELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| ANA PAULA GONCALVES CRUZ | | R\$ 0,00 | R\$ 0,00 |
| ANCORA CHUMBADORES LTDA. | | R\$ 0,00 | R\$ 0,00 |

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BALANÇO PATRIMONIAL

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
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| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|---------------|----------------|
| ANDRE HENRIQUE OLIMPIO SODRE 07265262581 | | R\$ 0,00 | R\$ 0,00 |
| ANDRE VIEIRA SILVA - ME | | R\$ 0,00 | R\$ 0,00 |
| ANHANGUERA COMERCIO DE FERRAMENTAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| ANIXTER DO BRASIL LTDA | | R\$ 10.958,36 | R\$ 108.276,82 |
| APEK INDUSTRIA E COMÉRCIO DE PRODUTOS ELETRÔNICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| ARBOTEK COMERCIO ELETRONICO DE PRODUTOS | | R\$ 0,00 | R\$ 0,00 |
| ARQUITETIZZE IMPORTACAO E COMERCIO EIRELI | | R\$ 2.991,30 | R\$ 0,00 |
| ARS ELETRONICA INDUSTRIAL LTDA | | R\$ 0,00 | R\$ 1.376,64 |
| ART CUTT COMUNICACAO VISUAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| ARTEC SERVICOS DE REFRIGERACAO E AQUECEDORES LTDA | | R\$ 4.519,98 | R\$ 0,00 |
| ASOLUCAO ELETRONICA LTDA. | | R\$ 16,03 | R\$ 0,00 |
| ASSA ABLOY BRASIL INDUSTRIA E COMERCIO LTDA | | R\$ 0,00 | R\$ 0,00 |
| ATACADAO DO PAPEL LTDA | | R\$ 8.981,42 | R\$ 4.255,08 |
| ATACADAO PAPELEX LTDA | | R\$ 0,00 | R\$ 0,00 |
| ATO COMERCIO DE FERRAGENS EIRELI EPP | | R\$ 0,00 | R\$ 0,00 |
| ATRATIVARH SOLUCOES EM RECURSOS HUMANOS LTDA - EPP | | R\$ 0,00 | R\$ 0,00 |
| AUDIOGENE COM IMP EXP PRODS ELE LTDA. | | R\$ 9.840,43 | R\$ 5.863,91 |
| AUSTHEN - INDUSTRIA, COMERCIO E SERVICOS ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| AVANT TIME TRANSPORTES DE CARGAS LTDA | | R\$ 32.527,88 | R\$ 0,00 |
| AVATRON EQUIPAMENTOS ELETROMECHANICOS LTDA | | R\$ 0,00 | R\$ 720,93 |
| BAHIA FERRO LAURO MAT PARA CONSTRUÇÃO | | R\$ 0,00 | R\$ 0,00 |
| BAZAM PICHAU INFORMATICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| BDM LUCIANA VARELA CONSULTORIA LTDA | | R\$ 0,00 | R\$ 15.000,00 |
| BEIJING HUAHANG SHENGDE TECHNOLOGY CO | | R\$ 0,00 | R\$ 0,00 |
| BELA TINTAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| BELO PISO COMERCIO E SERVICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| BELO RIO COPIAS LTDA - ME | | R\$ 0,00 | R\$ 0,00 |

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| BLACK BOX DO BRASIL IND E COM LTDA | | R\$ 0,00 | R\$ 0,00 |
| BLACK WHITE HOTEIS LTDA | | R\$ 987,00 | R\$ 0,00 |
| BLR COLETA LOCACOES DE MAQUINAS E EQUIPAMENTOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| BLUE OCEAN MUSIC CORP | | R\$ 0,00 | R\$ 0,00 |
| BORRACHAS MOEMA LTDA. | | R\$ 0,00 | R\$ 0,00 |
| BR GESTAO E DESENVOLVIMENTO DE SOFTWARES LTDA | | R\$ 0,00 | R\$ 0,00 |
| BRASIL DOS PARAFUSOS COMERCIAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| BRASIL INTER COMEX ELETRONICOS E INFORMATICA EIRELI | | R\$ 874,12 | R\$ 0,00 |
| BRASOFTWARE INFORMATICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| BRASPRESS TRANSPORTES URGENTES LTDA | | R\$ 0,00 | R\$ 0,00 |
| BRF S.A. | | R\$ 0,00 | R\$ 0,00 |
| BRIDGED CONSULTING LTDA | | R\$ 20.000,00 | R\$ 0,00 |
| BRUNA MARIA LUZ GRIPPO | | R\$ 0,00 | R\$ 0,00 |
| BUNZL EQUIPAMENTOS PARA PROTECAO INDIVIDUAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| BUYSOFT DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| CABOS GOLDEN AUDIO E VIDEO LTDA - EPP | | R\$ 0,00 | R\$ 9.530,85 |
| CABOS NETWORK COMERCIAL LTDA | | R\$ 1.904,00 | R\$ 0,00 |
| CABTEC - ROSANA APARECIDA MIRANDA - ME | | R\$ 1.739,47 | R\$ 0,00 |
| CAIO GOMES SANTOS | | R\$ 0,00 | R\$ 10.600,00 |
| CARLOS A SOTO HERRERA | | R\$ 8.560,00 | R\$ 11.347,20 |
| CASA DAS DELICIAS INDUSTRIA E COMERCIO DE ALIMENTOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| CBI INDUSTRIA E COMERCIO DE EQUIPAMENTOS DE ILUMINACAO LTDA | | R\$ 0,00 | R\$ 0,00 |
| CD ASSESSORIA EMPRESARIAL - EIRELI | | R\$ 0,00 | R\$ 0,00 |
| CEDISA CENTRAL DE ACO S/A | | R\$ 0,00 | R\$ 0,00 |
| CENTRAL NETWORK COMERCIAL - EIRELI | | R\$ 0,00 | R\$ 0,00 |
| CENTRAL PAPELARIA LTDA | | R\$ 422,65 | R\$ 0,00 |
| CENTRO INT. EMPRESA ESCOLA CIEE | | R\$ 0,00 | R\$ 557,19 |
| CHOI CELULARES LTDA | | R\$ 0,00 | R\$ 0,00 |

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| CIA DE SANEAMENTO BASICO DO ESTADO DE SAO PAULO SABESP | | R\$ 0,00 | R\$ 0,00 |
| CIA DO CARTUCHO LTDA | | R\$ 0,00 | R\$ 0,00 |
| CIGARINI PROMOCOES E EVENTOS LTDA. | | R\$ 0,00 | R\$ 0,00 |
| CIL COM. DE INFORMATICA LTDA | | R\$ 105.247,79 | R\$ 17.157,44 |
| CINT ART INSTRUMENTOS PARTITURAS E ACESSORIOS MUSICAIS LTDA | | R\$ 0,00 | R\$ 0,00 |
| CIRILO SOUZA DOS SANTOS - ME | | R\$ 1.743,00 | R\$ 7.049,53 |
| CLARO S/A | | R\$ 0,00 | R\$ 0,00 |
| CLEBER TEIXEIRA REPRESENTACAO COMERCIAL | | R\$ 0,00 | R\$ 15.153,31 |
| CLEILDA RODRIGUES GUEDES 12385514591 | | R\$ 0,00 | R\$ 0,00 |
| CLEITON GOMES MARTINS | | R\$ 0,00 | R\$ 0,00 |
| CLINICA FARES SOCIEDADE LIMITADA | | R\$ 0,00 | R\$ 0,00 |
| CMV - CENTRO MÉDICO DE VILLAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| CMV SEBR COMERCIO DE ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| COMERCIAL OFFSHORE VAREJ COM MAQ PARAF FERRAM LTDA | | R\$ 0,00 | R\$ 0,00 |
| COMERCIAL PAULISTANO DE PROD DE HIGI, LIMP, MAQ E EQUIP LTDA | | R\$ 0,00 | R\$ 296,70 |
| COMPANHIA BRASILEIRA DE DISTRIBUICAO | | R\$ 0,00 | R\$ 0,00 |
| COMPANHIA DE ELETRICIDADE DO ESTADO DA B | | R\$ 11.916,07 | R\$ 13.998,78 |
| CONFORT PISOS COMERCIO DE ARTIGOS DE TAPECARIA EIRELI | | R\$ 0,00 | R\$ 0,00 |
| CONTROLART DESENVOLVIMENTO DE EQUIPAMENTOS ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| CRED LITORAL MEDICINA E SEGURANCA DO TRABALHO LTDA. | | R\$ 595,70 | R\$ 0,00 |
| D E EXTINTORES COMERCIO E SERVICOS LTDA - ME - ME | | R\$ 674,90 | R\$ 0,00 |
| DANIEL BRAGA SIQUEIRA DOS SANTOS 02505946760 | | R\$ 15.000,00 | R\$ 0,00 |
| DAYTONA EXPRESS SERVICOS DE DOCUMENTOS E ENCOM URG LTDA | | R\$ 0,00 | R\$ 0,00 |
| DCPA SERVICOS EIRELI | | R\$ 0,00 | R\$ 0,00 |
| DEBORA ELAINE PENTEADO | | R\$ 0,00 | R\$ 0,00 |
| DELL COMPUTADORES DO BRASIL LTDA | | R\$ 1.568,00 | R\$ 3.795,72 |
| DELOITTE TOUCHE TOHMATSU CONSULTORES LTD | | R\$ 0,00 | R\$ 0,00 |

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| DELOITTE TREINAMENTO PROFISSIONAL E CONSULTORIA LTDA. | | R\$ 0,00 | R\$ 0,00 |
| DENISE LUZIA LAPA | | R\$ 0,00 | R\$ 1.100,00 |
| DHP SOLUTIONS | | R\$ 0,00 | R\$ 0,00 |
| DICOMP DISTRIBUIDORA DE ELETRONICOS LTDA. | | R\$ 0,00 | R\$ 0,00 |
| DIGEL ELETRICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| DIGITAL RIVER DO BRASIL IMPORT. E COM. DE PRODUTOS | | R\$ 0,00 | R\$ 0,00 |
| DISCABOS COM. IMP. EXP. ACESS. LTDA | | R\$ 15.681,88 | R\$ 6.692,00 |
| DK DISTRIBUIDORA DE EQUIP. FER. EPI E ACESS. PROF. | | R\$ 1.899,04 | R\$ 0,00 |
| DM RACER MARKETING E EVENTOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| DPEN TECNOLOGIA LTDA | | R\$ 0,00 | R\$ 0,00 |
| DUOTEC AUTOMAÇÃO LTDA | | R\$ 0,00 | R\$ 0,00 |
| ECLAIR SERVIÇOS DE ALIMENTOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| EDUARDO SOARES TAVARES 29985296826 | | R\$ 0,00 | R\$ 0,00 |
| ELETRON SATES LTDA | | R\$ 613,00 | R\$ 0,00 |
| ELETRON SERVICE COMERCIO E SERVICO LTDA | | R\$ 0,00 | R\$ 0,00 |
| ELETRONICA RIVER LTDA | | R\$ 0,00 | R\$ 0,00 |
| ELETROPAULO METROPOLITANA ELETRICIDADE DE SAO PAULO S.A. | | R\$ 0,00 | R\$ 0,00 |
| ELG PEDESTAIS LTDA | | R\$ 3.489,50 | R\$ 8.785,07 |
| ELIANA BARBOSA LOPES SENA ROCHA 09125326708 | | R\$ 0,00 | R\$ 0,00 |
| ELIANA BRITO MOREIRA DA LUZ 93159625591 | | R\$ 0,00 | R\$ 0,00 |
| EMBA-K COMERCIO DE EMBALAGENS EIRELI | | R\$ 0,00 | R\$ 4.620,63 |
| EMBALAGENS BELEM LTDA - ME | | R\$ 0,00 | R\$ 0,00 |
| EMBALAGENS INTERLAGOS LTDA - EPP | | R\$ 0,00 | R\$ 0,00 |
| EMBASA-EMPRESA BAHIANA DE SANEAMENTO | | R\$ 0,00 | R\$ 0,00 |
| EMERSON GILVANE LIMA DE JESUS 01326146505 | | R\$ 3.198,25 | R\$ 0,00 |
| EMIELE COMPONENTES ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| EMPRESA BRASILEIRA DE BENEFICIOS E PAGAMENTOS LTDA | | R\$ 0,00 | R\$ 3.196,14 |

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| ENCONTRE UM NERD S.A. | | R\$ 0,00 | R\$ 3.167,44 |
| EPSON RIO DE JANEIRO IMPORTADORA E EXPOR | | R\$ 12.236,36 | R\$ 116.390,54 |
| ERIA CARLA DOS SANTOS OLIVEIRA 80454780559 | | R\$ 3.712,28 | R\$ 0,00 |
| ESTUDIO B+D ASSESSORIA E CONSULTORIA LTDA | | R\$ 0,00 | R\$ 17.104,13 |
| EVO SUPORTES COMÉRCIO E SERVIÇOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| EXCLUSIVA CAMPINAS COMERCIO E MANUTENCAO DE ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| EXPRESSO BAIANO TRANSPORTE E LOGÍSTICA DE CARGAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| F CHAVES CONSULTECH LTDA | | R\$ 0,00 | R\$ 0,00 |
| F4 INDUSTRIA E COMERCIO DE EQUIPAMENTOS ELETRONICOS - EIRELI | | R\$ 0,00 | R\$ 0,00 |
| FAST SHOP S.A | | R\$ 3.319,00 | R\$ 21.398,00 |
| FELIPE PAULINO DOS SANTOS 43059065896 | | R\$ 0,00 | R\$ 0,00 |
| FERNANDO CARDINAL GIMENES 74711717668 | | R\$ 0,00 | R\$ 0,00 |
| FERRAGENS HILDEBRANDO MELLO LTDA.ME | | R\$ 0,00 | R\$ 0,00 |
| FERRAMENTAS GERAIS COMERCIO IMP DE FERRA | | R\$ 0,00 | R\$ 0,00 |
| FERREIRA COSTA & CIA LTDA | | R\$ 21.929,03 | R\$ 0,00 |
| FIBEX AV LTDA | | R\$ 0,00 | R\$ 50,01 |
| FONATA TELECOMUNICACOES LTDA. | | R\$ 0,00 | R\$ 0,00 |
| FRIGELAR COMERCIO E INDUSTRIA LTDA | | R\$ 2.862,10 | R\$ 0,00 |
| FXTECH PROJETOS E SERVICOS LTDA | | R\$ 10.000,00 | R\$ 15.653,20 |
| GABRIEL V. FARHAT | | R\$ 17.000,00 | R\$ 18.020,00 |
| GABRIELA SANTOS DE ARAUJO 06206105571 | | R\$ 0,00 | R\$ 0,00 |
| GAIA IND COM E SERV DE EQUIP ELETR LTDA | | R\$ 0,00 | R\$ 0,00 |
| GLOBAL DISTRIBUICAO DE BENS DE CONSUMO L | | R\$ 22.300,00 | R\$ 0,00 |
| GOOGLE CLOUD BRASIL COMPUTACAO E SERVICOS DE DADOS LTDA. | | R\$ 90,00 | R\$ 0,00 |
| GOTA ADESIVOS E FITAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| GP CABLING DISTRIBUIDORA E COMERCIO LTDA | | R\$ 0,00 | R\$ 10.831,11 |
| GPBR PARTICIPACOES LTDA. | | R\$ 0,00 | R\$ 5.357,48 |

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| GRAHL'S BISTRO LANCHONETE E RESTAURANTE LTDA | | R\$ 0,00 | R\$ 0,00 |
| GS DOS SANTOS PAINEIS | | R\$ 0,00 | R\$ 0,00 |
| GUILHERME KANETO PEDROLI TECNOLOGIA DA INFORMACAO LTDA | | R\$ 0,00 | R\$ 0,00 |
| GURGELMIX MAQUINAS E FERRAMENTAS S.A. | | R\$ 0,00 | R\$ 470,19 |
| GUSTAVO MANOEL DA SILVA SERVICOS DE MANUTENCAO EM EQUIPAMENTOS DE INFORMATICA E PERIFERICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| GWA COMERCIO DE EQUIPAMENTOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| H.R COMERCIO E SERVICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| HARMONY SOLUCOES | | R\$ 0,00 | R\$ 0,00 |
| HB DISTRIBUIDORA DE BORRACHAS LTDA | | R\$ 310,00 | R\$ 0,00 |
| HIPERFONE COMERCIO E SERVICOS DE COMUNICACAO LTDA | | R\$ 100,00 | R\$ 100,00 |
| HOLLYWOOD STORE ELETRO E ELETRONICO | | R\$ 0,00 | R\$ 0,00 |
| HOME CENTER BRASIL MATERIAIS PARA CONSTRUCAO LTDA | | R\$ 957,21 | R\$ 0,00 |
| HOSPITAL DO CELULAR DE SANTOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| HOT SOUND IND E COM DE EQUIP ELETR EIRELI | | R\$ 0,00 | R\$ 0,00 |
| HOTEL ABBA BETIM LTDA | | R\$ 0,00 | R\$ 500,00 |
| HOTEL CENTER MAIS LTDA | | R\$ 0,00 | R\$ 981,00 |
| IAS INDUSTRIA E COMERCIO DE PRODUTOS ELETRONICOS ME | | R\$ 0,00 | R\$ 0,00 |
| ICRONSHOP | | R\$ 0,00 | R\$ 0,00 |
| IDEAL PRINT SERVIÇOS DE INFORMATICA LTDA ME | | R\$ 0,00 | R\$ 365,50 |
| IKEDA EMPRESARIAL LTDA | | R\$ 0,00 | R\$ 4.214,74 |
| IMAGEM DIGITAL PAINEIS E SERVICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| IMOBILIARIA ALVES DA MOTTA SA | | R\$ 0,00 | R\$ 0,00 |
| INFINITY SOLUTIONS COMERCIO E SERVICOS DE SISTEMAS DE SEGURA | | R\$ 0,00 | R\$ 0,00 |
| INGRAM MICRO BRASIL LTDA | | R\$ 229.224,29 | R\$ 0,00 |
| INSETHelp DEDETIZACAO LTDA | | R\$ 0,00 | R\$ 0,00 |
| INSTITUTO ELITE CURSOS ON LINE LTDA | | R\$ 0,00 | R\$ 0,00 |
| INSTITUTO MULTICLINICA SAUDE | | R\$ 0,00 | R\$ 0,00 |

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| OCUPACIONAL SS LTDA | | | |
| INSYS REPRESENTACAO E INTERMEDIACAO DE NEGOCIOS LTDA | | R\$ 18.188,19 | R\$ 29.813,41 |
| IPNET SERVICOS EM NUVEM E DESENVOLVIMENTO DE SISTEMAS LTDA | | R\$ 5.062,50 | R\$ 0,00 |
| IT SOLUTECH COMERCIO E IMPORTACAO LTDA | | R\$ 0,00 | R\$ 0,00 |
| ITS TELECOMUNICAÇÕES LTDA | | R\$ 400,00 | R\$ 400,00 |
| IVM COMÉRCIO & CONFECÇÕES DO VESTUÁRIO LTDA | | R\$ 0,00 | R\$ 0,00 |
| JACKSON JEFFERSON ARAUJO DA CRUZ 07157208725 | | R\$ 0,00 | R\$ 0,00 |
| JAIR NASCIMENTO DOS SANTOS - ME | | R\$ 0,00 | R\$ 0,00 |
| JAIRO MEDEIROS DE ARAUJO - ME | | R\$ 0,00 | R\$ 0,00 |
| JOMACLER IND E COM DE CONDUT ELETRICOS L | | R\$ 0,00 | R\$ 0,00 |
| JOSE FERNANDES DE SOUSA 08891772445 | | R\$ 690,00 | R\$ 0,00 |
| JOULE CONSERVACAO E MANUTENCAO LTDA | | R\$ 0,00 | R\$ 0,00 |
| JULIAN HAXLEY VIEIRA GONCALVES | | R\$ 370,00 | R\$ 31.740,00 |
| JW PAINEIS | | R\$ 0,00 | R\$ 0,00 |
| KABUM COMERCIO ELETRONICO S.A | | R\$ 0,00 | R\$ 0,00 |
| KARTODROMO ALDEIA DA SERRA LTDA | | R\$ 0,00 | R\$ 0,00 |
| KLINT DISTRIBUIDORA DE FIOS E CABOS LTDA. | | R\$ 322,10 | R\$ 0,00 |
| L C SOM PROFISSIONAL EIRELI | | R\$ 0,00 | R\$ 0,00 |
| L S INDUSTRIA DE SINALIZACAO E ARTIGOS DECORATIVOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| L5 NETWORKS COMERCIO EM TELECOMUNICACOES E INFORMATICA LTDA. | | R\$ 11.537,12 | R\$ 12.716,44 |
| LAERCIO NASCIMENTO DOS SANTOS 04667024500 | | R\$ 0,00 | R\$ 0,00 |
| LAYU TECNOLOGIA E INFORMATICA LTDA. | | R\$ 0,00 | R\$ 0,00 |
| LC SERVIÇOS DE APOIO LOGISTICOS LTDA | | R\$ 10.591,15 | R\$ 14.123,74 |
| LC VIANA INFORMATICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| LECRAN TECNOLOGIA E COMERCIO DE ELETRONI | | R\$ 25.479,68 | R\$ 482.477,89 |
| LED WAVE PAINEIS ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| LEO MADEIRAS MAQUINAS E FERRAGENS L | | R\$ 0,00 | R\$ 1.117,62 |

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BALANÇO PATRIMONIAL

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
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|--|------|---------------|----------------|
| LEONARDO RODRIGUES DAS NEVES 05305457564 | | R\$ 0,00 | R\$ 0,00 |
| LETRAMIX PAINES PUBLICITARIOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| LEYARD DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| LG ELECTRONICS DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| LG ELECTRONICS DO BRASIL LTDA | | R\$ 33.575,85 | R\$ 216.053,12 |
| LIGHT SERVICOS DE ELETRICIDADE S A | | R\$ 1.586,85 | R\$ 108,84 |
| LIGHTWARE VISUAL ENGINEERING | | R\$ 0,00 | R\$ 0,00 |
| LILIANA COELHO LUZ | | R\$ 0,00 | R\$ 0,00 |
| LIVETECH DA BAHIA INDUSTRIA E COM. S.A. | | R\$ 22.824,35 | R\$ 444.129,05 |
| LLC TECHNOLOGY DISTRIBUTION LTDA | | R\$ 0,00 | R\$ 0,00 |
| LOC OBRA LOCADORA DE EQUIPAMENTOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| LOCAWEB SERVS. DE INTERNET S/A | | R\$ 0,00 | R\$ 0,00 |
| LOGGI TECNOLOGIA LTDA. | | R\$ 0,00 | R\$ 0,00 |
| LUCAS OLIVEIRA DA SILVA 06332440740 | | R\$ 0,00 | R\$ 77,00 |
| LUIS CLAUDIO DOS SANTOS PASSOS 78560756515 | | R\$ 0,00 | R\$ 0,00 |
| M & S SERRALHERIA EM GERAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| M F GASPAR SOLUCOES INTEGRADAS LTDA | | R\$ 17.000,00 | R\$ 18.020,00 |
| M X M COMERCIO DE GESSO E SERVICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| M&M SEVEN CAPACITACAO E SERVICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| MAGAZINE LUIZA S/A | | R\$ 1.780,30 | R\$ 40,18 |
| MAIS HOTEL LTDA | | R\$ 819,88 | R\$ 0,00 |
| MANOEL MARCOS DE JESUS LIBARINO 26357051861 | | R\$ 0,00 | R\$ 0,00 |
| MAQUINA COM. DE FILTROS E TRATAMENTO LTD | | R\$ 2.384,00 | R\$ 0,00 |
| MARCELO EDUARDO LYRA LINS 75404168668 | | R\$ 0,00 | R\$ 0,00 |
| MARILEIDE PAULINO DE FRANCA SOUZA 32393865420 | | R\$ 0,00 | R\$ 5.183,71 |
| MARTINS COM SERV DISTR SA | | R\$ 0,00 | R\$ 0,00 |
| MARTTREND TECNOLOGIA EM INFORMATICA LTDA | | R\$ 2.010,37 | R\$ 572,00 |
| MAS EXPRESSO LTDA -ME | | R\$ 7.625,90 | R\$ 0,00 |

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|---|------|---------------|---------------|
| MASTER DISTRIB DE PARAF E FITAS LTDA | | R\$ 434,38 | R\$ 0,00 |
| MAUREEN DA SILVA PORTO IZAU ASSESSORIA | | R\$ 11.000,00 | R\$ 0,00 |
| MAXGEN COMERCIO INDUSTRIAL IMPORT. EXPORT. LTDA | | R\$ 0,00 | R\$ 0,00 |
| MAZER DISTRIBUIDORA LTDA - SC | | R\$ 0,00 | R\$ 0,00 |
| MEGAMARKS COMERCIO SERVICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| MERCADAO MADEREIRA | | R\$ 0,00 | R\$ 0,00 |
| MGX COMERCIO DE PAPEIS LTDA | | R\$ 0,00 | R\$ 0,00 |
| MICHELE SAMPAIO BARBOSA 40867742836 | | R\$ 5.000,00 | R\$ 0,00 |
| MICHILLE CRISTINA HUCS DE LIMA 10695343742 | | R\$ 0,00 | R\$ 0,00 |
| MICROSENS LTDA | | R\$ 0,00 | R\$ 26.300,00 |
| MIDIASSTEK TECNOLOGIA E COMERCIO DE ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| MIGUEL ARCANJO DE MEDEIROS GOTARDO 03047562610 | | R\$ 0,00 | R\$ 0,00 |
| MIIDAS CONSULTORIA LTDA | | R\$ 0,00 | R\$ 0,00 |
| MILENA IKEDA SERVICOS LTDA | | R\$ 8.500,00 | R\$ 0,00 |
| MISLENE CARVALHO DE SOUSA | | R\$ 0,00 | R\$ 15.382,39 |
| MOEMA COMERCIO DE MATERIAIS DE CONSTRUCAO LTDA - ME | | R\$ 717,30 | R\$ 207,30 |
| MONDELEZ BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| MS CONSULTORIA EM TECNOLOGIA DA INFORMACAO LTDA | | R\$ 0,00 | R\$ 0,00 |
| MTG LAROCCA SOCIEDADE UNIPESSOAL LTDA | | R\$ 3.800,00 | R\$ 4.028,00 |
| MUNDIVOX COMUNICAÇÕES LTDA | | R\$ 951,57 | R\$ 951,57 |
| NEOCANTRA TECNOLOGIA E CONSULTORIA LTDA | | R\$ 27.297,21 | R\$ 27.297,21 |
| NEWHT AUDIO VIDEO E AUTOMACAO LTDA | | R\$ 0,00 | R\$ 13.440,00 |
| NEXT SISTEMAS - TECNOLOGIA DE PROJETOS E AUTOMACAO LTDA | | R\$ 0,00 | R\$ 15.900,00 |
| NGC BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| NINJA SOM COMERCIO DE ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| NN COMERCIO IMPORTACAO E EXPORTACAO LTDA | | R\$ 0,00 | R\$ 0,00 |
| NORTIC ELETRONICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| NUCLEO BRASIL SERVIDORES LTDA | | R\$ 0,00 | R\$ 0,00 |

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|--|------|---------------|---------------|
| NXD TECNOLOGIA E COMERCIO LTDA | | R\$ 7.762,48 | R\$ 3.777,38 |
| OBJETIVA NUCLEO DE SAUDE LTDA | | R\$ 0,00 | R\$ 0,00 |
| OCCITANO APART HOTEL EIRELI | | R\$ 5,50 | R\$ 5,50 |
| OI S.A. - EM RECUPERACAO JUDICIAL | | R\$ 0,00 | R\$ 0,00 |
| OLIVAR B DA SILVA JUNIOR | | R\$ 0,00 | R\$ 0,00 |
| ONLINE SOLUCOES DIGITAIS LTDA | | R\$ 0,00 | R\$ 0,00 |
| OPTISOM COMERCIAL E TECNICA CINE FOTO LTDA | | R\$ 0,00 | R\$ 0,00 |
| PAJU COMERCIO DE MATERIAIS DE LIMPEZA LTDA - ME | | R\$ 0,00 | R\$ 0,00 |
| PAULO FERREIRA MESSIAS 21659997828 | | R\$ 0,00 | R\$ 0,00 |
| PERFORMANCE SOLUTIONS | | R\$ 0,00 | R\$ 0,00 |
| PERSONAL COMERCIO E SERVIÇOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| PHLIMP VAREJISTA DE ARTIGOS DE LIMPEZA EIRELI | | R\$ 599,84 | R\$ 0,00 |
| PLANAC MAQUINAS E FERRAMENTAS LTDA - ME | | R\$ 0,00 | R\$ 0,00 |
| POCHEMUKA SOLUCOES LTDA | | R\$ 9.800,00 | R\$ 10.388,00 |
| POLICLINICA SERVICOS MEDICOS DE MACAE LTDA | | R\$ 0,00 | R\$ 190,00 |
| POLICOM SP COMERCIAL LTDA. | | R\$ 0,00 | R\$ 21.054,26 |
| PONTOMAIAS TECNOLOGIA LTDA. | | R\$ 572,00 | R\$ 0,00 |
| POSSANI AUDIO E VIDEO LTDA | | R\$ 14.001,37 | R\$ 16.071,54 |
| PRO SHOWS COMERCIO DE ELETRO ELETRONICOS S.A. | | R\$ 14.865,00 | R\$ 0,00 |
| PRO-METAL COMERCIO DE PARAFUSOS FERRAMENTAS E EPI'S EIRELI | | R\$ 78,00 | R\$ 78,00 |
| PROAUDIO-PRODUCAO DE AUDIO E VIDEO LTDA | | R\$ 0,00 | R\$ 0,00 |
| PROCUREMENT NEGOCIOS ELETRONICOS S/A | | R\$ 0,00 | R\$ 196,00 |
| PROJETELAS IND. E COM. LTDA-EPP | | R\$ 0,00 | R\$ 27.089,00 |
| PROSOLAR SISTEMAS DE AQUECIMENTO LTDA | | R\$ 0,00 | R\$ 0,00 |
| PROINTEC SOLUÇÕES EM COMBATE A INCÊNDIO E COM. VISUAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| PROVIDER SAUDE CORPORATIVA INTEGRAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| QUALILOG SSO - SERVICOS AUXILIARES ADMINISTRATIVOS LTDA | | R\$ 0,00 | R\$ 0,00 |

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|--|------|----------------|---------------|
| QUAVE TECNOLOGIA EM SOFTWARE LTDA | | R\$ 0,00 | R\$ 0,00 |
| RAFAEL MARQUES PANESSA 46973076823 | | R\$ 0,00 | R\$ 0,00 |
| RAMIRO CAMPELO COMERCIO DE UTILIDADES LTDA | | R\$ 1.199,98 | R\$ 0,00 |
| RAZOR DO BRASIL LTDA | | R\$ 16.402,95 | R\$ 0,00 |
| REDE OK SERVICOS DE TECNOLOGIA E CREDITO LTDA | | R\$ 0,00 | R\$ 0,00 |
| RENATA TESSER DEL SOLE 28723012838 | | R\$ 6.800,00 | R\$ 10.712,40 |
| RENATO NUNES VICENTE | | R\$ 0,00 | R\$ 6.000,00 |
| RFB SERVICOS DE TI LTDA | | R\$ 10.000,00 | R\$ 0,00 |
| RH SITES DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| ROBERT HALF TRABALHO TEMPORARIO LTDA. | | R\$ 0,00 | R\$ 0,00 |
| ROBERTO MELO CONSULTORIA & GESTAO EMPRESARIAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| RPF SERVICOS DE ENGENHARIA LTDA | | R\$ 0,00 | R\$ 0,00 |
| RSS INDUSTRIA, COMERCIO, SERVICOS, IMPORTACAO E EXPORTACAO E | | R\$ 0,00 | R\$ 0,00 |
| RT SERVICOS DE ENGENHARIA LTDA | | R\$ 12.000,00 | R\$ 18.354,00 |
| RUBEM GARCIA -05CP | | R\$ 0,00 | R\$ 0,00 |
| S.L.E. LOCACOES E EQUIPAMENTOS SOCIEDADE UNIPESSOAL | | R\$ 1.197,00 | R\$ 0,00 |
| S4 ACO COMERCIO DE RACKS E ACESSORIOS EIRELI | | R\$ 0,00 | R\$ 2.204,24 |
| SAENG ENGENHARIA E COMERCIO LTDA | | R\$ 0,00 | R\$ 0,00 |
| SAMSUNG ELETRONICA DA AMAZONIA LTDA | | R\$ 0,00 | R\$ 0,00 |
| SANDICE REPRODUÇÃO DE IMAGENS E COMERCIO LTDA | | R\$ 0,00 | R\$ 0,00 |
| SANTIL COMERCIAL ELETRICA EIRELI | | R\$ 0,00 | R\$ 863,26 |
| SAO CRISTOVAO FERRAGENS E FERRAMENTAS LTDA | | R\$ 0,00 | R\$ 1.104,00 |
| SAVILOG | | R\$ 0,00 | R\$ 9.779,23 |
| SCANIA LATIN AMERICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| SCANSOURCE BRASIL DISTRIBUIDORA DE TECNO | | R\$ 270.877,61 | R\$ 52.411,17 |
| SDC ENGENHARIA DE SISTEMAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| SDL COMERCIO DE MATERIAIS ELETRICOS LTDA | | R\$ 0,00 | R\$ 0,00 |

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|--|------|----------------|----------------|
| SECCON INDUSTRIA COMERCIO LTDA. | | R\$ 1.434,58 | R\$ 3.325,46 |
| SECURISOFT DO BRASIL - EIRELI | | R\$ 0,00 | R\$ 0,00 |
| SEEGMA SOLUCOES DIGITAIS | | R\$ 1.695,00 | R\$ 0,00 |
| SIGMAONE DIST DE PROD DE TELEINFORM LTDA | | R\$ 825.314,16 | R\$ 273.476,17 |
| SJ GESTAO EM ENGENHARIA, CONDOMINIOS E REPRESENTACOES LTDA | | R\$ 0,00 | R\$ 0,00 |
| SKEDWAY DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| SND DISTRIBUICAO DE PRODUTOS DE INFORMATICA S/A | | R\$ 407.582,52 | R\$ 83.351,72 |
| SOE GRÁFICA EDITORA COMERCIO E SERVICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| SONIDO DO BRASIL COMERCIO E SERVICOS LTDA. | | R\$ 0,00 | R\$ 0,00 |
| SOS BOMBAS COMERCIO E SERVICIO LTDA | | R\$ 0,00 | R\$ 0,00 |
| SOST IND E COM DE ALIM LTDA | | R\$ 0,00 | R\$ 0,00 |
| SPS GESTAO EMPRESARIAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| STAR ILUMINACAO COMPUTADORIZADA LTDA | | R\$ 0,00 | R\$ 0,00 |
| STAR LIGHT TERCERIZACAO DE SERVICOS LTDA | | R\$ 1.896,27 | R\$ 0,00 |
| STARFONT TRANSFORMADORES EIRELI - ME | | R\$ 0,00 | R\$ 0,00 |
| SUELY S DE JESUS | | R\$ 30.162,93 | R\$ 30.142,17 |
| SVA BASTOS INSTALACOES DE COMBATE AO INCENDIO LTDA | | R\$ 0,00 | R\$ 630,00 |
| TAMBORE COM DE MAT P CONST PISOS E REVES UNIPESOAAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| TD SYNEX | | R\$ 0,00 | R\$ 0,00 |
| TD SYNEX BRASIL LTDA | | R\$ 0,00 | R\$ 142.022,39 |
| TECHDUTO INDUSTRIA E COMERCIO DE MAQUINAS E ART. PLAST. LTDA | | R\$ 0,00 | R\$ 0,00 |
| TELAMIX INDUSTRIA E COMERCIO LTDA - ME | | R\$ 0,00 | R\$ 0,00 |
| TELCABOS TELECOMUNICACOES E INFORMATICA | | R\$ 0,00 | R\$ 24.459,13 |
| TELEFÔNICA BRASIL S.A | | R\$ 0,00 | R\$ 0,00 |
| TEXAS INFORMATICA COMERCIO ATACADISTA EIRELI | | R\$ 0,00 | R\$ 2.818,26 |
| THAISE MARIA LIMA LACERDA SANTOS | | R\$ 23.940,00 | R\$ 29.182,86 |
| THOMSON TECNOLOGIA EM SISTEMAS DE LEGISLAC | | R\$ 1.282,50 | R\$ 706,00 |

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|--|------|----------------|----------------|
| TIM S/A | | R\$ 0,00 | R\$ 0,00 |
| TIM S.A | | R\$ 0,00 | R\$ 0,00 |
| TL COMERCIO DE MATERIAL DE INFORMATICA L | | R\$ 0,00 | R\$ 0,00 |
| TOKIO SEGURO | | R\$ 369,70 | R\$ 0,00 |
| TOMI TERAHATA AV LTDA | | R\$ 18.000,00 | R\$ 19.080,00 |
| TOTAL MATERIAIS DE CONSTRUCAO LTDA | | R\$ 0,00 | R\$ 23,26 |
| TOUR HOUSE - VIAGENS E TURISMO LTDA. | | R\$ 175,00 | R\$ 0,00 |
| TRANSPACHECO TRANSPORTE RODOVIARIO DE CARGAS EIRELI | | R\$ 4.524,98 | R\$ 0,00 |
| TRANSPORTES GV RIO LTDA | | R\$ 0,00 | R\$ 0,00 |
| TRASHIN GESTAO E COLETA DE RECICLAVEIS LTDA | | R\$ 0,00 | R\$ 0,00 |
| TRD - TRANSPORTE E LOGISTICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| TRINITY TI SOLUCOES TECNOLOGICAS DE INFORMATICA LTDA | | R\$ 0,00 | R\$ 900,00 |
| UNENTEL SOLUCOES TECNOLOGICAS LTDA | | R\$ 136.739,41 | R\$ 236.439,94 |
| UNIAR COMERCIO DE ELETRO-ELETRONICOS E SERVICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| UNICASERV- COMERCIO, DISTRIBUICAO, IMPORTACAO E EXPORTACAO L | | R\$ 0,00 | R\$ 0,00 |
| UNIFORMES MENDONÇA LTDA | | R\$ 0,00 | R\$ 0,00 |
| UNIFORMIX INDÚSTRIA DE UNIFORMES LTDA | | R\$ 0,00 | R\$ 1.820,00 |
| VBPA - AUDITORES E CONSULTORES LTDA | | R\$ 0,00 | R\$ 0,00 |
| VELANS TELEINFORMATICA LTDA | | R\$ 0,00 | R\$ 113.177,98 |
| VERDANATECH COMERCIO E SERVICOS DE INFORMATICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| VERISURE BRASIL MONITORAMENTO DE ALARMES A.A | | R\$ 1.776,67 | R\$ 432,13 |
| VIA VAREJO S/A | | R\$ 0,00 | R\$ 19.269,36 |
| VIP ENTREGA RAPIDA LTDA | | R\$ 0,00 | R\$ 0,00 |
| VIPBAND COMERCIO DE ARTIGOS PARA FESTAS LTDA | | R\$ 0,00 | R\$ 0,00 |
| VOGEL SOLUCOES EM TELECOMUNICACOES E INFORMATICA S.A. | | R\$ 0,00 | R\$ 1.054,98 |
| VR BENEFICIOS E SERVICOS DE PROCESSAMENTO LTDA | | R\$ 0,00 | R\$ 0,00 |
| WAZ HARDWARE IMPORT E COMÉRCIO | | R\$ 0,00 | R\$ 0,00 |

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|---|------|------------------|------------------|
| DE SUPRIM | | | |
| WILLIAN LENNON EMILIO DA SILVA 38608526808 | | R\$ 0,00 | R\$ 0,00 |
| WISE AUTOMACAO INDUSTRIAL LTDA | | R\$ 0,00 | R\$ 0,00 |
| WISER EXPERIENCE COM. E SERV. EM TECN DA INFORMACAO LTDA | | R\$ 0,00 | R\$ 500,00 |
| WTM TECHNOLOGY ENGENHARIA E SERVIÇOS LTDA | | R\$ 0,00 | R\$ 14.840,00 |
| YAMAHA MUSICAL DO BRASIL LTDA | | R\$ 1.772,59 | R\$ 0,00 |
| YELLOW DATA - SOLUCOES INTELIGENTES EM TI LTDA. | | R\$ 0,00 | R\$ 0,00 |
| YKZ CONFECÇOES LTDA | | R\$ 0,00 | R\$ 0,00 |
| FORNECEDORES ESTRANGEIROS | | R\$ 1.777.586,68 | R\$ 2.069.282,50 |
| 3D-VR SHOP LLC | | R\$ 56.278,48 | R\$ 57.704,44 |
| ABSEN HOLDINGS HONG KONG COMPANY LIMITED | | R\$ 0,00 | R\$ 0,00 |
| ALMO PROFESSIONAL A/V | | R\$ 56.288,17 | R\$ 363.390,40 |
| AMERICAN JK CORP | | R\$ 1.630,11 | R\$ 1.630,11 |
| AUDIOCODES | | R\$ 0,00 | R\$ 6.238,79 |
| AUDIOGENE AMERICAS LLC | | R\$ 47.161,09 | R\$ 47.161,09 |
| AVCC INTERNATIONAL CORP | | R\$ 0,00 | R\$ 0,00 |
| B&H PHOTO - VIDEO, INC | | R\$ 0,00 | R\$ 0,00 |
| BALDAN | | R\$ 0,00 | R\$ 0,00 |
| BOSE AMERICAS PROFESSIONAL SYSTEMS GROUP | | R\$ 7.661,69 | R\$ 7.661,69 |
| CATCHBOX INC | | R\$ 0,00 | R\$ 0,00 |
| CMV AUDIO LLC | | R\$ 4.359,53 | R\$ 4.359,53 |
| CRESTRON LATIN AMERICA, LLC | | R\$ 1.304.313,01 | R\$ 1.263.588,72 |
| EXTRON ELETRONICS | | R\$ 124.591,44 | R\$ 126.959,73 |
| HANS-JORG ULMER, UNIPESSOAL, LDA | | R\$ 0,00 | R\$ 0,00 |
| HECKLER DESIGN | | R\$ 0,00 | R\$ 0,00 |
| LEGRAND AV INC | | R\$ 40.915,39 | R\$ 66.855,35 |
| LEMASS (HUNAN) OPTO-ELECTRONIC CO., LTD | | R\$ 0,00 | R\$ 0,00 |
| LIBERTY WIRE&CABLE | | R\$ 11.018,09 | R\$ 4.738,15 |
| MERLIN DISTRIBUTOR | | R\$ 0,00 | R\$ 0,00 |
| MILESTONE AV TECHNOLOGIES | | R\$ 27.137,81 | R\$ 27.137,81 |

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BALANÇO PATRIMONIAL

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
Período Selecionado: 01 de Janeiro de 2023 a 31 de Dezembro de 2023

| Descrição | Nota | Saldo Inicial | Saldo Final |
|---|------|------------------|------------------|
| PROVANTAGE LLC COMPUTER PRODUCTS | | R\$ 0,00 | R\$ 0,00 |
| PSA SERVICES INC | | R\$ 65.394,44 | R\$ 1.649,85 |
| QI ENTERTAINMENT LLC | | R\$ 0,00 | R\$ 51.427,40 |
| QSC LLC | | R\$ 25.842,60 | R\$ 30.377,57 |
| SHURE INCORPORATED | | R\$ 0,00 | R\$ 3.407,04 |
| SIMPLY NUC INC | | R\$ 0,00 | R\$ 0,00 |
| SOUND CONTROL TECHNOLOGIES | | R\$ 4.994,83 | R\$ 4.994,83 |
| SYNNEX CORPORATION | | R\$ 0,00 | R\$ 0,00 |
| TECSO LATIN AMERICA | | R\$ 0,00 | R\$ 0,00 |
| WWT WORLDWIDE TRADING CORP | | R\$ 0,00 | R\$ 0,00 |
| OBRIGAÇÕES TRIBUTÁRIAS | | R\$ 3.868.876,44 | R\$ 6.286.064,33 |
| TRIBUTOS A RECOLHER | | R\$ 2.774.697,90 | R\$ 5.301.670,13 |
| COFINS A RECOLHER | | R\$ 413.068,03 | R\$ 668.012,17 |
| CSLL A RECOLHER | | R\$ 143.329,14 | R\$ 143.329,14 |
| ICMS A RECOLHER | | R\$ 0,00 | R\$ 0,00 |
| ICMS ANTECIPAÇÃO PARCIAL | | R\$ 1.105.686,55 | R\$ 2.124.535,84 |
| ICMS CONSUMIDOR FINAL NÃO CONTRIBUINTE A RECOLHER | | R\$ 343.819,23 | R\$ 1.364.232,42 |
| ICMS SIBSTITUTO | | R\$ 561,36 | R\$ 561,36 |
| INSS RETIDO DE TERCEIROS A RECOLHER | | R\$ 13.054,64 | R\$ 18.754,79 |
| IPI A RECOLHER | | R\$ 213.826,69 | R\$ 364.619,71 |
| IRPJ A RECOLHER | | R\$ 351.331,76 | R\$ 351.331,76 |
| IRRF CODIGO 0561 | | R\$ 56.296,47 | R\$ 70.237,14 |
| IRRF CODIGO 1708 | | R\$ 9.600,27 | R\$ 9.945,19 |
| ISS A RECOLHER | | R\$ 49.963,71 | R\$ 52.221,99 |
| ISS RETIDO NA FONTE A RECOLHER | | R\$ 720,04 | R\$ 689,71 |
| PCC RETINA FONTE A RECOLHER CODIGO 5952 | | R\$ 2.085,52 | R\$ 6.571,75 |
| PIS A RECOLHER | | R\$ 71.354,49 | R\$ 126.627,16 |
| TRIBUTOS PARCELADOS | | R\$ 1.094.178,54 | R\$ 984.394,20 |
| AUTO DE INFRAÇÃO | | R\$ 0,00 | R\$ 95.051,76 |
| PARCELAMENTO ORDINAARIO COFINS COD. 5856 | | R\$ 191.832,48 | R\$ 0,00 |

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| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|------------------|------------------|
| PARCELAMENTO ORDINARIO CONTRIB PREV COD 2985 | | R\$ 40.362,81 | R\$ 0,00 |
| PARCELAMENTO ORDINARIO IRRF 0561 | | R\$ 121.778,23 | R\$ 0,00 |
| PARCELAMENTO ORDINARIO IPI COD 5123 | | R\$ 109.501,90 | R\$ 0,00 |
| PARCELAMENTO ORDINARIO PIS COD 6912 | | R\$ 41.625,76 | R\$ 0,00 |
| PARCELAMENTO PERT CODIGO 5190 | | R\$ 249.051,48 | R\$ 249.051,48 |
| PARCELAMENTO SIMPLIFICADO | | R\$ 340.025,88 | R\$ 340.025,88 |
| PARCELAMENTO SIMPLIFICADO PIS/IPI/COFINS | | R\$ 0,00 | R\$ 237.184,56 |
| PARCELAMENTO SIMPLIFICADO PREVIDENCIARIO | | R\$ 0,00 | R\$ 63.080,52 |
| OBRIGAÇÕES TRABALHISTAS E PREVIDENCIARIA | | R\$ 1.473.738,66 | R\$ 1.459.698,91 |
| OBRIGAÇÕES COM PESSOAL | | R\$ 279.208,90 | R\$ 359.018,73 |
| DECIMO TERCEIRO A PAGAR | | R\$ 0,00 | R\$ 735,00 |
| INDENIZAÇÃO A PAGAR | | R\$ 3.441,90 | R\$ 5.167,99 |
| PRO -LABORE A PAGAR | | R\$ 3.691,00 | R\$ 3.803,00 |
| SALARIOS E ORDENADOS A PAGAR | | R\$ 272.076,00 | R\$ 349.312,74 |
| OBRIGAÇÕES PREVIDENCIARIAS | | R\$ 418.127,83 | R\$ 293.422,38 |
| FGTS A RECOLHER | | R\$ 40.204,64 | R\$ 54.285,94 |
| INSS A RECOLHER | | R\$ 377.923,19 | R\$ 239.136,44 |
| OBRIGAÇÕES PREVIDENCIARIAS PARCELADAS | | R\$ 186.550,24 | R\$ 67.069,68 |
| INSS PARCELADO 12/2017 A 05/2018 CF. PROCESSO Nº 4225068/260 | | R\$ 31.193,59 | R\$ 0,00 |
| INSS PARCELADO PERÍODO 11, 12 E 13/18 PROCESSO Nº 63035095-7 | | R\$ 88.286,97 | R\$ 0,00 |
| INSS PARCELAMENTO PART | | R\$ 67.069,68 | R\$ 67.069,68 |
| PROVISÕES | | R\$ 589.851,69 | R\$ 740.188,12 |
| FGTS S/PROVISÃO DE 13º SALARIO | | R\$ 0,00 | R\$ 0,00 |
| FGTS S/PROVISÃO DE FERIAS | | R\$ 34.089,56 | R\$ 43.611,93 |
| INSS S/PROVISÃO DE 13º SALARIO | | R\$ 0,00 | R\$ 0,00 |
| INSS S/PROVISÃO DE FERIAS | | R\$ 124.287,77 | R\$ 146.345,24 |
| PROVISÃO PARA 13º SALARIO | | R\$ 0,00 | R\$ 0,00 |
| PROVISÃO PARA FERIAS | | R\$ 431.474,36 | R\$ 550.230,95 |
| OUTRAS OBRIGAÇÕES | | R\$ 303.073,86 | R\$ 467.167,79 |

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BALANÇO PATRIMONIAL

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
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| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|----------------|----------------|
| ADIANTAMENTOS DE CLIENTES | | R\$ 282.184,89 | R\$ 399.831,10 |
| ADIANTAMENTO DE CLIENTES | | R\$ 0,00 | R\$ 0,00 |
| AGILIS INFORMATICA E TELECOMUNICAÇÃO LTDA | | R\$ 0,00 | R\$ 646,56 |
| ALEXANDRE REILY ROCHA | | R\$ 0,00 | R\$ 0,00 |
| ALPARGATAS S.A. | | R\$ 82.178,92 | R\$ 0,00 |
| AMAZON AWS SERVICOS BRASIL LTDA | | R\$ 41,85 | R\$ 0,00 |
| BAIN BRASIL LTDA | | R\$ 0,00 | R\$ 30.718,31 |
| BANCO CITIBANK | | R\$ 7.949,10 | R\$ 0,00 |
| BANCO GENIAL | | R\$ 1.086,80 | R\$ 0,00 |
| BANCO TAYOTA DO BRASIL | | R\$ 0,00 | R\$ 132.225,00 |
| BAYER S.A | | R\$ 134.906,98 | R\$ 0,00 |
| BDF NIVEA LTDA | | R\$ 0,00 | R\$ 208.081,21 |
| CAPITANIA INVEST S/A | | R\$ 0,00 | R\$ 0,00 |
| CARGIL AGRICOLA | | R\$ 1,00 | R\$ 372,33 |
| CLARIOS ENERGY SOLUTIONS | | R\$ 940,90 | R\$ 0,00 |
| CLAUDIO DOS SANTOS OLIVEIRA | | R\$ 400,00 | R\$ 0,00 |
| COBRA BRASIL SERVIÇOS | | R\$ 0,00 | R\$ 0,00 |
| COLABORAÇÃO VIRTUAL COMUNICAÇÃO | | R\$ 0,00 | R\$ 0,00 |
| COMPANHIA DE GAS DE SAO PAULO COMGAS | | R\$ 0,00 | R\$ 5.698,05 |
| COMPANHIA DE GAS DO ESTADO DO RIO GRANDE DO SUL SULGAS | | R\$ 0,00 | R\$ 0,00 |
| CONSULTORIA DE MARKETING | | R\$ 0,00 | R\$ 0,00 |
| CONTROLADORIA-GERAL DA UNIAO | | R\$ 2.178,51 | R\$ 2.178,51 |
| DIEGO DE ANDRADE DE CERQUEIRA | | R\$ 0,00 | R\$ 0,00 |
| EMPRESA BARSILEIRA DE COMUNICAÇÃO | | R\$ 819,50 | R\$ 0,00 |
| EOS IT MANAGEMENT SOLUTIONS DO BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| EQUINIX DO BRASIL SOLUÇÕES | | R\$ 0,00 | R\$ 0,00 |
| FCA FIAT CHRYSLER AUTOMOVEIS BRASIL LTDA. | | R\$ 2.948,08 | R\$ 0,00 |
| FERRO MINERAÇÃO | | R\$ 0,00 | R\$ 889,29 |
| FLORA PRODUTOS DE HIGIENE E LIMPEZA S.A | | R\$ 18.958,77 | R\$ 0,00 |
| FUNDAÇÃO DE AMPARO A PESQUISA | | R\$ 0,00 | R\$ 0,00 |

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| Descrição | Nota | Saldo Inicial | Saldo Final |
|---|------|---------------|---------------|
| DO ESTADO DE SÃO PAULO | | | |
| GODANT VAREJISTA LTDA | | R\$ 0,00 | R\$ 0,00 |
| HENKEL LTDA | | R\$ 8.736,60 | R\$ 0,00 |
| HYUNDAI MOTOR BRASIL MONTADORA DE AUTOMOVEIS LTDA | | R\$ 0,00 | R\$ 0,00 |
| IKM TESTING BRASIL LTDA | | R\$ 0,00 | R\$ 5.330,85 |
| INCENTIVARE BRASIL VIAGENS E TURISMO LTDA. | | R\$ 324,77 | R\$ 0,00 |
| INSTITUTO MOREIRA SALLES | | R\$ 0,00 | R\$ 0,00 |
| JLL CORPORATE SOLUTIONS | | R\$ 0,00 | R\$ 0,00 |
| L'OREAL BRASIL COMERCIAL DE COSMETICOS LTDA | | R\$ 0,00 | R\$ 0,00 |
| MEDIABRANDES PUBLICIDADE | | R\$ 2.735,95 | R\$ 0,00 |
| NSI SERVICES DO BRASIL | | R\$ 0,00 | R\$ 0,00 |
| POLENGHI INDUSTRIAS ALIMENTICIAS LTDA | | R\$ 389,92 | R\$ 0,00 |
| PRIMEO HOLDING LTDA | | R\$ 0,00 | R\$ 0,00 |
| PROMONLOGICALIS TECNOLOGIA E PARTICIPACOES LTDA | | R\$ 0,00 | R\$ 0,00 |
| PTLS SERVIÇOS DE TECNOLOGIA | | R\$ 0,00 | R\$ 9.729,84 |
| PTLS SERVICOS DE TECNOLOGIA E ASSESSORIA TECNICA LTDA | | R\$ 82,50 | R\$ 0,00 |
| RSS COMUNICACAO LTDA | | R\$ 642,68 | R\$ 0,00 |
| SALESFORCE TECNOLOGIA LTDA | | R\$ 12.528,06 | R\$ 0,00 |
| SAMSUNG ELETRONICA DA AMAZONIA LTDA | | R\$ 0,00 | R\$ 0,00 |
| SCANIA LATIM AMERICA LTDA | | R\$ 0,00 | R\$ 0,00 |
| TECHNE - GESEL | | R\$ 0,00 | R\$ 0,00 |
| TELEVISAO OESTE BAIANO LTDA | | R\$ 0,00 | R\$ 0,00 |
| TOTALENERGIES EP BRASIL LTDA | | R\$ 0,00 | R\$ 0,00 |
| VICTOR AMADEU SOCIEDADE DE ADVOGADOS | | R\$ 0,00 | R\$ 111,15 |
| WHITE MARTINS | | R\$ 0,00 | R\$ 0,00 |
| WX WONDER XPERIENCES EVENTOS LTDA | | R\$ 4.334,00 | R\$ 3.850,00 |
| CONTAS A PAGAR | | R\$ 19.796,66 | R\$ 66.537,58 |
| COMISSÕES A PAGAR | | R\$ 19.796,66 | R\$ 66.537,58 |
| OUTRAS CONTAS A PAGAR | | R\$ 0,00 | R\$ 0,00 |

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| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|------------------|------------------|
| OBRIGAÇÕES JUDICIAIS | | R\$ 1.092,31 | R\$ 799,11 |
| PENSÃO ALIMENTÍCIA | | R\$ 1.092,31 | R\$ 799,11 |
| PASSIVO NÃO-CIRCULANTE | | R\$ 7.785.130,84 | R\$ 9.158.735,34 |
| EMPRESTIMOS E FINANCIAMENTOS | | R\$ 5.210.344,10 | R\$ 6.043.496,58 |
| EMPRESTIMOS NACIONAIS | | R\$ 5.210.344,10 | R\$ 6.043.496,58 |
| BANCO DO NORDESTE 500K | | R\$ 0,00 | R\$ 333.333,44 |
| BANCO DO NORDESTE CAPITAL DE GIRO | | R\$ 172.666,72 | R\$ 24.666,76 |
| BANCO DO NORDESTE GIRO 300K | | R\$ 40.000,00 | R\$ 0,00 |
| BANCO PLENITUDE CONTRATO 08.2022 R\$ 1.800.421,72 | | R\$ 200.046,84 | R\$ 0,00 |
| BANCO PLENITUDE CONTRATO Nº 5900.00114990.20-2 R\$ 2.282.000,00 | | R\$ 126.777,74 | R\$ 0,00 |
| BANCO PLENITUDE CONTRATO Nº 5900.0116467.20.2 | | R\$ 300.093,28 | R\$ 0,00 |
| BANCO SAFRA - CAPITAL DE GIRO | | R\$ 388.235,43 | R\$ 0,00 |
| BANCO SAFRA CÉDULA DE CRÉDITO BANCÁRIO Nº 005408988 | | R\$ 397.482,66 | R\$ 56.783,22 |
| BANCO SANTANDER FGI Nº 0033467430000034790 | | R\$ 0,00 | R\$ 916.666,67 |
| BANCO SANTANDER CAPITAL DE GIRO Nº 334674300000022530 | | R\$ 318.148,37 | R\$ 70.202,33 |
| BANCO SANTANDER CEDULA DE CRÉDITO | | R\$ 1.288.750,00 | R\$ 500.000,08 |
| C6 BANK AG 0001 C/C 27903869 EMPRESTIMO | | R\$ 0,00 | R\$ 233.333,41 |
| CAIXA ECONÔMICA CC 291-1 EMPRÉSTIMO | | R\$ 70.833,26 | R\$ 0,00 |
| CAIXA ECONOMICA CC 4630 EMPRÉSTIMO | | R\$ 282.666,88 | R\$ 0,00 |
| CAIXA ECONOMICA FEDERAL CAP GIRO CONTRATO X | | R\$ 0,00 | R\$ 800.177,31 |
| EMPRESTIMO ANTECIPAÇÃO PETROBRAS - CONTRATO CAIXA Nº 03.4248.737.000182-43 | | R\$ 0,00 | R\$ 1.800.000,00 |
| EMPRESTIMO BANCO ABC BRASIL | | R\$ 0,00 | R\$ 1.000.000,00 |
| EMPRESTIMO BANCO ABC BRASIL | | R\$ 1.000.000,00 | R\$ 0,00 |
| EMPRESTIMO BANCO DO NORDESTE | | R\$ 24.642,92 | R\$ 0,00 |
| EMPRESTIMO PEAC SOFISA 6881 | | R\$ 0,00 | R\$ 233.333,36 |
| FGI N 005427141 BANCO SAFRA | | R\$ 600.000,00 | R\$ 75.000,00 |
| IMPOSTOS E CONTRIBUIÇÕES A RECOLHER | | R\$ 2.574.786,74 | R\$ 3.115.238,76 |
| TRIBUTOS PARCELADOS | | R\$ 2.166.779,52 | R\$ 2.774.301,22 |

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| Descrição | Nota | Saldo Inicial | Saldo Final |
|--|------|------------------|------------------|
| AUTO DE INFRAÇÃO | | R\$ 0,00 | R\$ 221.787,44 |
| PARCELAMENTO PERT CODIGO 5190 | | R\$ 1.515.063,17 | R\$ 1.266.011,69 |
| PARCELAMENTO SIMPLIFICADO | | R\$ 651.716,35 | R\$ 311.690,47 |
| PARCELAMENTO SIMPLIFICADO PIS/IPI/COFINS | | R\$ 0,00 | R\$ 869.677,31 |
| PARCELAMENTO SIMPLIFICADO PREVIDENCIARIO | | R\$ 0,00 | R\$ 105.134,31 |
| OBRIGAÇÕES PREVIDENCIÁRIAS PARCELADAS | | R\$ 408.007,22 | R\$ 340.937,54 |
| INSS PARCELAMENTO PART | | R\$ 408.007,22 | R\$ 340.937,54 |
| PATRIMÔNIO LÍQUIDO | | R\$ 2.074.803,43 | R\$ 1.720.005,96 |
| CAPITAL SOCIAL | | R\$ 1.404.121,76 | R\$ 1.404.121,76 |
| CAPITAL SUBSCRITO | | R\$ 1.200.000,00 | R\$ 1.200.000,00 |
| CAPITAL SOCIAL | | R\$ 1.200.000,00 | R\$ 1.200.000,00 |
| ADIANTAMENTO PARA FUTURO AUMENTO DE CAPITAL | | R\$ 204.121,76 | R\$ 204.121,76 |
| ADIANTAMENTO PARA FUTURO AUMENTO DE CAPITAL | | R\$ 204.121,76 | R\$ 204.121,76 |
| LUCROS OU PREJUÍZOS ACUMULADOS | | R\$ 670.681,67 | R\$ 315.884,20 |
| LUCROS OU PREJUÍZOS ACUMULADOS | | R\$ 670.681,67 | R\$ 315.884,20 |
| (-) LUCROS DISTRIBUIDOS | | R\$ 0,00 | R\$ 0,00 |
| AJUSTES CREDORES DE EXERCICIOS ANTERIORES | | R\$ 0,00 | R\$ 0,00 |
| LUCRO DO EXERCICIO | | R\$ 0,00 | R\$ 0,00 |
| LUCROS ACUMULADOS | | R\$ 670.681,67 | R\$ 315.884,20 |

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DEMONSTRAÇÃO DE RESULTADO DO EXERCÍCIO



| | | | |
|----------------------------------|--|--------------|--------------------|
| Entidade: | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | |
| Período da Escrituração: | 01/01/2023 a 31/12/2023 | CNPJ: | 02.423.819/0001-97 |
| Número de Ordem do Livro: | 26 | | |
| Período Selecionado: | 01 de Janeiro de 2023 a 31 de Dezembro de 2023 | | |

| Descrição | Nota | Saldo anterior | Saldo atual |
|--|------|---------------------|---------------------|
| Receita Operacional | | R\$ 48.877.167,02 | R\$ 51.471.015,69 |
| RECEITA BRUTAS DE VENDAS E MERCADORIAS | | R\$ 33.464.790,90 | R\$ 32.734.245,81 |
| VENDA DE MERCADORIAS | | R\$ 33.464.790,90 | R\$ 32.734.245,81 |
| RECEITA DE PRESTAÇÃO DE SERVIÇOS | | R\$ 13.236.062,15 | R\$ 14.548.899,47 |
| SERVIÇOS PRESTADOS | | R\$ 13.236.062,15 | R\$ 14.548.899,47 |
| LOCAÇÃO DE EQUIPAMENTOS | | R\$ 2.176.313,97 | R\$ 4.187.870,41 |
| LOCAÇÃO DE EQUIPAMENTOS | | R\$ 2.176.313,97 | R\$ 4.187.870,41 |
| (-) Deducoes | | R\$ (13.615.774,43) | R\$ (11.286.677,73) |
| (-) (-) CANCELAMENTO E DEVOLUÇÕES | | R\$ (6.403.522,67) | R\$ (3.538.454,19) |
| (-) (-) DEVOLUÇÃO DE VENDA DE MERCADORIAS | | R\$ (5.557.420,03) | R\$ (3.253.984,65) |
| (-) (-) PROVISAO PARA CANCELAMENTO RECEITA DE SERTVIÇO | | R\$ (846.102,64) | R\$ (284.469,54) |
| (-) (-) IMPOSTOS SOBRE VENDAS E SERVIÇOS | | R\$ (7.212.251,76) | R\$ (7.748.223,54) |
| (-) (-) COFINS | | R\$ (3.222.686,44) | R\$ (3.342.571,63) |
| (-) (-) ICMS | | R\$ (1.844.325,91) | R\$ (1.898.922,21) |
| (-) (-) IPI | | R\$ (1.004.951,63) | R\$ (1.299.143,31) |
| (-) (-) ISS | | R\$ (440.781,08) | R\$ (482.037,24) |
| (-) (-) PIS | | R\$ (699.506,70) | R\$ (725.549,15) |
| Receita Líquida | | R\$ 35.261.392,59 | R\$ 40.184.337,96 |
| (-) Custos Mercadorias Vendidas | | R\$ (13.711.915,89) | R\$ (11.397.661,70) |
| (-) CUSTOS DOS PRODUTOS VENDIDOS | | R\$ (13.711.915,89) | R\$ (11.397.661,70) |
| (-) CUSTOS DOS PRODUTOS VENDIDOS | | R\$ (15.915.264,32) | R\$ (13.433.721,16) |
| (-) CREDITO COFINS | | R\$ 1.810.103,47 | R\$ 1.672.608,00 |
| (-) CREDITO PIS | | R\$ 393.244,96 | R\$ 363.451,46 |
| (-) Custos dos Serviços Prestados | | R\$ (3.584.696,75) | R\$ (4.379.122,24) |
| (-) CUSTOS DOS SERVIÇOS PRESTADOS | | R\$ (3.584.696,75) | R\$ (4.379.122,24) |
| (-) COMISSÕES | | R\$ (754,68) | R\$ (10.000,00) |
| (-) LOCAÇÃO DE EQUIPAMENTOS | | R\$ (672,00) | R\$ (8.450,00) |
| (-) MATERIAL APLICADO NA PRESTAÇÃO DE SERVIÇOS | | R\$ (72.087,02) | R\$ (154.357,21) |
| (-) MATERIAL AUXILIAR- CONSUMO | | R\$ (306.179,23) | R\$ (289.451,21) |
| (-) SERVIÇOS PRESTADOS SOFTWARE | | R\$ (993.885,36) | R\$ (1.079.415,11) |
| (-) SEVIÇOS PRESTADOS P/PJ | | R\$ (2.211.118,46) | R\$ (2.837.448,71) |
| Lucro Bruto | | R\$ 17.964.779,95 | R\$ 24.407.554,02 |

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DEMONSTRAÇÃO DE RESULTADO DO EXERCÍCIO

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
Período Selecionado: 01 de Janeiro de 2023 a 31 de Dezembro de 2023

| Descrição | Nota | Saldo anterior | Saldo atual |
|--|------|--------------------|---------------------|
| (-) Despesas com Vendas | | R\$ (4.519.094,16) | R\$ (6.060.187,55) |
| (-) DESPESAS COM PESSOAL | | R\$ (3.848.768,90) | R\$ (5.583.052,93) |
| (-) 13 SALARIO RESCISÃO | | R\$ (31.262,43) | R\$ (3.488,72) |
| (-) 13º SALARIO | | R\$ (195.656,16) | R\$ (305.944,95) |
| (-) ADICIONAL NOTURNO | | R\$ (3.203,35) | R\$ (2.166,96) |
| (-) AJUDA DE CUSTO | | R\$ (0,00) | R\$ (5.475,00) |
| (-) AUXILIO ALUGUEL | | R\$ (15.600,00) | R\$ (31.200,00) |
| (-) AVISO PREVIO | | R\$ (1.260,54) | R\$ (18.027,64) |
| (-) BOLSA AUXILIO | | R\$ (88.385,67) | R\$ (76.164,83) |
| (-) COMISSÃO | | R\$ (6.104,95) | R\$ (19.892,28) |
| (-) DSR | | R\$ (11.533,68) | R\$ (25.180,44) |
| (-) FERIAS | | R\$ (293.468,39) | R\$ (443.064,01) |
| (-) FERIAS RESCISÃO | | R\$ (222,22) | R\$ (3.587,63) |
| (-) FGTS | | R\$ (220.019,97) | R\$ (297.511,72) |
| (-) GRATIFICAÇÃO | | R\$ (241,79) | R\$ (762,94) |
| (-) HORAS EXTRAS | | R\$ (12.451,09) | R\$ (78.133,87) |
| (-) INDENIZAÇÕES | | R\$ (0,00) | R\$ (9.124,30) |
| (-) INSS | | R\$ (828.631,02) | R\$ (1.065.259,35) |
| (-) REFLEXO EXTRAS DSR | | R\$ (0,00) | R\$ (4.451,26) |
| (-) SALARIOS E ORDENADOS | | R\$ (2.083.606,09) | R\$ (3.121.445,80) |
| (-) TRIENIO | | R\$ (56.664,23) | R\$ (71.340,74) |
| (-) VALE TRANSPORTE | | R\$ (457,32) | R\$ (830,49) |
| (-) PROPAGANDA E PUBLICIDADE | | R\$ (15.445,09) | R\$ (0,00) |
| (-) PROPAGANDA E PUBLICIDADE | | R\$ (15.445,09) | R\$ (0,00) |
| (-) DESPESAS COM FRETE | | R\$ (648.892,06) | R\$ (477.134,62) |
| (-) FRETES E CARRETO | | R\$ (648.892,06) | R\$ (477.134,62) |
| (-) PERDAS NO RECEBIMENTO DE CRÉDITOS | | R\$ (5.988,11) | R\$ (0,00) |
| (-) CRÉDITOS VENCIDOS E NÃO LIQUIDADOS | | R\$ (5.988,11) | R\$ (0,00) |
| (-) Despesas Administrativas | | R\$ (8.866.264,08) | R\$ (12.138.301,28) |
| (-) DESPESAS COM PESSOAL | | R\$ (3.213.992,77) | R\$ (4.462.901,54) |
| (-) 13º SALÁRIO | | R\$ (109.864,68) | R\$ (123.837,71) |
| (-) 13º SALARIO RESCISÃO | | R\$ (0,00) | R\$ (330,29) |
| (-) ADICIONAL NOTURNO | | R\$ (3.604,14) | R\$ (3.463,89) |

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DEMONSTRAÇÃO DE RESULTADO DO EXERCÍCIO

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
Período Selecionado: 01 de Janeiro de 2023 a 31 de Dezembro de 2023

| Descrição | Nota | Saldo anterior | Saldo atual |
|---|------|--------------------|--------------------|
| (-) ASSISTENCIA MEDICA E SOCIAL | | R\$ (186.398,45) | R\$ (271.515,30) |
| (-) ASSISTENCIA ODONTOLOGICA | | R\$ (2.497,63) | R\$ (10.791,21) |
| (-) AUXILIO EDUCAÇÃO | | R\$ (0,00) | R\$ (2.240,52) |
| (-) AVISO PRÉVIO | | R\$ (3.145,09) | R\$ (15.770,45) |
| (-) BOLSA AUXÍLIO | | R\$ (37.769,64) | R\$ (9.257,15) |
| (-) COMISSÃO | | R\$ (197.453,99) | R\$ (258.625,85) |
| (-) DSR | | R\$ (5.172,71) | R\$ (4.110,48) |
| (-) EXAMES PERIODICOS | | R\$ (29.729,85) | R\$ (40.367,81) |
| (-) FÉRIAS | | R\$ (158.381,70) | R\$ (191.814,52) |
| (-) FERIAS RESCISÃO | | R\$ (0,00) | R\$ (3.353,32) |
| (-) FGTS | | R\$ (138.200,89) | R\$ (230.381,10) |
| (-) GRATIFICAÇÕES | | R\$ (1.074,69) | R\$ (0,00) |
| (-) GYMPASS | | R\$ (4.666,44) | R\$ (51.960,86) |
| (-) HORAS EXTRAS | | R\$ (8.034,12) | R\$ (5.918,92) |
| (-) INDENIZAÇÕES TRABALHISTAS | | R\$ (712,72) | R\$ (474,36) |
| (-) INSS | | R\$ (321.107,63) | R\$ (533.775,52) |
| (-) OUTRAS DESPESAS COM PESSOAL NÃO DEDUTIVEIS | | R\$ (1.709,54) | R\$ (25.240,02) |
| (-) PERICULOSIDADE | | R\$ (10.894,63) | R\$ (0,00) |
| (-) PRO-LABORE | | R\$ (50.535,23) | R\$ (51.083,24) |
| (-) REFLEXO EXTRAS DSR | | R\$ (0,00) | R\$ (239,12) |
| (-) SALÁRIOS E ORDENADOS | | R\$ (1.159.522,78) | R\$ (1.424.541,61) |
| (-) SEGURO DE VIDA | | R\$ (2.574,50) | R\$ (442,22) |
| (-) TRIENIO | | R\$ (36.360,21) | R\$ (42.519,93) |
| (-) VALE REFEIÇÃO | | R\$ (605.638,23) | R\$ (1.004.494,34) |
| (-) VALE TRANSPORTE | | R\$ (138.943,28) | R\$ (156.351,80) |
| (-) DESPESAS TRIBUTÁRIAS | | R\$ (686.516,20) | R\$ (2.024.956,13) |
| (-) AUTO DE INFRAÇÃO | | R\$ (0,00) | R\$ (387.702,80) |
| (-) ICMS | | R\$ (80.652,27) | R\$ (66.446,70) |
| (-) ICMS CONSUMIDOR FINAL NÃO CONTRIBUINTE | | R\$ (456.981,91) | R\$ (1.323.541,69) |
| (-) IOF | | R\$ (69.499,69) | R\$ (151.220,82) |
| (-) IPTU | | R\$ (5.291,27) | R\$ (27.545,94) |
| (-) IRRF CODIGO 0481 E 0422 S/CÂMBIO | | R\$ (36.907,45) | R\$ (49.746,70) |
| (-) SUBSTITUIÇÃO TRIBUTÁRIA | | R\$ (561,36) | R\$ (0,00) |

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DEMONSTRAÇÃO DE RESULTADO DO EXERCÍCIO

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
Período Selecionado: 01 de Janeiro de 2023 a 31 de Dezembro de 2023

| Descrição | Nota | Saldo anterior | Saldo atual |
|---|------|------------------|------------------|
| (-) TAXAS DIVERSAS | | R\$ (21.020,96) | R\$ (18.687,48) |
| (-) TAXAS ESTADUAIS | | R\$ (2.239,04) | R\$ (64,00) |
| (-) TFF | | R\$ (13.362,25) | R\$ (0,00) |
| (-) ALUGUEIS E ARRENDAMENTOS | | R\$ (290.604,61) | R\$ (389.354,03) |
| (-) ALUGUÉIS DE IMÓVEIS | | R\$ (213.859,66) | R\$ (315.508,50) |
| (-) ALUGUÉIS DE MÁQUINAS E EQUIPAMENTOS | | R\$ (64.169,15) | R\$ (63.009,30) |
| (-) CONDOMINIO | | R\$ (12.575,80) | R\$ (10.836,23) |
| (-) DESPESAS GERAIS | | R\$ (580.417,47) | R\$ (721.216,51) |
| (-) ANUIDADE CARTÃO DE CREDITO | | R\$ (2.646,63) | R\$ (2.768,12) |
| (-) ASSOCIAÇÃO DE CLASSES | | R\$ (6.871,28) | R\$ (8.081,29) |
| (-) BENS NÃO ATIVÁVEIS | | R\$ (7.371,00) | R\$ (26.559,45) |
| (-) BRINDES | | R\$ (12.006,12) | R\$ (1.122,56) |
| (-) CONFRATERNIZAÇÃO | | R\$ (14.757,14) | R\$ (8.134,76) |
| (-) COPA E COZINHA | | R\$ (705,96) | R\$ (490,27) |
| (-) CORREIOS E TELÉGRAFOS | | R\$ (1.051,75) | R\$ (1.287,43) |
| (-) CURSOS, CONGRESSOS E TREINAMENTOS | | R\$ (23.278,73) | R\$ (19.701,90) |
| (-) CUSTAS JUDICIAIS | | R\$ (903,70) | R\$ (0,00) |
| (-) DEPRECIAÇÕES E AMORTIZAÇÕES | | R\$ (129.256,34) | R\$ (156.712,71) |
| (-) DESPESAS COM EVENTOS | | R\$ (88.926,66) | R\$ (109.242,78) |
| (-) DESPESAS COM EVENTO SVR 2016 | | R\$ (0,00) | R\$ (40,00) |
| (-) DESPESAS COM TRANSPORTES | | R\$ (965,27) | R\$ (1.932,72) |
| (-) DESPESAS LEGAIS E JUDICIAIS | | R\$ (72,00) | R\$ (0,00) |
| (-) ESTACIONAMENTO | | R\$ (2.630,94) | R\$ (446,29) |
| (-) LANCHES E REFEIÇÕES | | R\$ (10.447,40) | R\$ (2.235,01) |
| (-) MANUTENÇÃO E REPARO | | R\$ (34.668,78) | R\$ (20.332,47) |
| (-) MATERIAIS DE CONSUMO | | R\$ (163.565,86) | R\$ (163.503,02) |
| (-) MATERIAIS DE INFORMÁTICA | | R\$ (1.955,59) | R\$ (20.162,56) |
| (-) MATERIAL DE EXPEDIENTE | | R\$ (4.717,61) | R\$ (3.269,38) |
| (-) MATERIAL DE HIGIENE E LIMPEZA | | R\$ (3.176,66) | R\$ (8.211,30) |
| (-) MEDICAMENTOS | | R\$ (9,95) | R\$ (77,19) |
| (-) OUTRAS DESP. GERAIS NÃO DEDUTIVEIS | | R\$ (7.291,61) | R\$ (9.225,15) |
| (-) REEMBOLSO DE KILOMETRAGEM | | R\$ (5.967,96) | R\$ (1.080,74) |
| (-) SEGURO PATRIMONIAL | | R\$ (2.175,32) | R\$ (3.515,37) |

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DEMONSTRAÇÃO DE RESULTADO DO EXERCÍCIO

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
Período Selecionado: 01 de Janeiro de 2023 a 31 de Dezembro de 2023

| Descrição | Nota | Saldo anterior | Saldo atual |
|---|------|--------------------|--------------------|
| (-) SEGUROS DIVERSOS | | R\$ (54.997,21) | R\$ (109.892,13) |
| (-) UNIFORMES E ACESSÓRIOS | | R\$ (0,00) | R\$ (43.191,91) |
| (-) ACRESCIMO MORATÓRIO S/IMPOSTOS | | R\$ (11.569,56) | R\$ (11.569,56) |
| (-) MULTA DE MORA | | R\$ (618,30) | R\$ (0,00) |
| (-) MULTA DE TRÂNSITO | | R\$ (5.153,59) | R\$ (386,98) |
| (-) MULTA POR ATRASO PETROBRAS | | R\$ (0,00) | R\$ (117.499,90) |
| (-) MULTA S/TRIBUTOS E CONTRIBUIÇÕES | | R\$ (151.006,04) | R\$ (143.831,92) |
| (-) ALUGUEL DE VEICULOS | | R\$ (44.956,68) | R\$ (66.547,79) |
| (-) COMBUSTÍVEL | | R\$ (22.297,03) | R\$ (7.499,14) |
| (-) CÓPIAS E REPRODUÇÕES | | R\$ (213,40) | R\$ (0,00) |
| (-) DESPESA COM TÁXI | | R\$ (63.464,61) | R\$ (58.593,90) |
| (-) DESPESAS COM DIÁRIAS | | R\$ (95.920,82) | R\$ (80.155,53) |
| (-) DESPESAS COM TRANSPORTES | | R\$ (10.335,32) | R\$ (6.566,48) |
| (-) DESPESAS COM VIAGENS | | R\$ (377,59) | R\$ (8.518,40) |
| (-) ESTACIONAMENTO | | R\$ (3.232,13) | R\$ (5.943,04) |
| (-) HOSPEDAGENS | | R\$ (135.108,30) | R\$ (189.421,49) |
| (-) LANCHES E REFEIÇÕES | | R\$ (18.294,55) | R\$ (41.718,32) |
| (-) PASSAGENS AÉREAS | | R\$ (421.761,78) | R\$ (386.331,27) |
| (-) PEDÁGIO | | R\$ (2.623,50) | R\$ (1.352,90) |
| (-) REEMBOLSO DE KILOMETRAGEM | | R\$ (15.287,44) | R\$ (20.372,30) |
| (-) VISTOS E PASSAPORTES | | R\$ (53,35) | R\$ (0,00) |
| (-) DESPESAS C/ SERVIÇOS DE TERCEIROS | | R\$ (2.191.096,12) | R\$ (2.681.025,16) |
| (-) HONORARIOS ADVOCATICIOS | | R\$ (60.381,28) | R\$ (62.888,95) |
| (-) HONORARIOS CONTABEIS | | R\$ (56.937,50) | R\$ (70.075,50) |
| (-) OUTRAS DESPESAS C/SERVIÇOS DE TERCEIROS | | R\$ (35,00) | R\$ (0,00) |
| (-) SERVIÇOS DE CONSULTORIA GERENCIAL | | R\$ (1.821.343,00) | R\$ (1.872.062,82) |
| (-) SERVIÇOS PRESTADOS P/PESSOA FISICA | | R\$ (6.650,00) | R\$ (211,00) |
| (-) SERVIÇOS PRESTADOS P/PESSOA JURIIIDICA | | R\$ (245.749,34) | R\$ (675.786,89) |
| (-) HOSPEDAGEM DE SERVIDOR | | R\$ (0,00) | R\$ (158,48) |
| (-) LICENÇAS DE USO | | R\$ (585.453,46) | R\$ (312.967,96) |
| (-) MANUTENÇÃO SISTEMA SAP | | R\$ (16.428,60) | R\$ (70.824,53) |
| (-) OUTRAS DESPESAS COM | | R\$ (988,99) | R\$ (11.400,00) |

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DEMONSTRAÇÃO DE RESULTADO DO EXERCÍCIO

| | | | |
|----------------------------------|--|--------------|--------------------|
| Entidade: | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | |
| Período da Escrituração: | 01/01/2023 a 31/12/2023 | CNPJ: | 02.423.819/0001-97 |
| Número de Ordem do Livro: | 26 | | |
| Período Selecionado: | 01 de Janeiro de 2023 a 31 de Dezembro de 2023 | | |

| Descrição | Nota | Saldo anterior | Saldo atual |
|---|------|--------------------|--------------------|
| MANUTENÇÃO DO SISTEMA | | | |
| (-) ÁGUA | | R\$ (6.575,32) | R\$ (10.135,09) |
| (-) ENERGIA ELÉTRICA | | R\$ (90.649,00) | R\$ (116.242,34) |
| (-) FRETES E CARRETOS | | R\$ (27.241,80) | R\$ (23.167,32) |
| (-) INTERNET | | R\$ (17.975,67) | R\$ (17.421,78) |
| (-) POSTAIS E TELEGRÁFICAS | | R\$ (2.736,57) | R\$ (6.343,38) |
| (-) TELEFONE | | R\$ (117.640,77) | R\$ (143.878,11) |
| (-) ALUGUEL DE MÁQUINAS E EQUIPAMENTOS | | R\$ (6.128,00) | R\$ (0,00) |
| (-) ALUGUEL DE VEÍCULOS | | R\$ (28.853,32) | R\$ (0,00) |
| (-) DESPESAS COM TRANSPORTES | | R\$ (691,42) | R\$ (0,00) |
| (-) Despesas Financeiras | | R\$ (3.605.379,79) | R\$ (5.655.735,49) |
| (-) DESPESAS FINANCEIRAS | | R\$ (3.605.379,79) | R\$ (5.655.735,49) |
| (-) COMISSAO FINIMP | | R\$ (51.088,08) | R\$ (73.010,48) |
| (-) DESCONTOS CONCEDIDOS | | R\$ (31.697,03) | R\$ (39.152,19) |
| (-) DESPESAS COM APLICAÇÃO FINANCEIRA | | R\$ (1.457,35) | R\$ (0,00) |
| (-) JUROS DE MORA | | R\$ (1.058,56) | R\$ (7.242,33) |
| (-) JUROS S/TRIBUTOS E CONTRIBUIÇÕES | | R\$ (339.359,69) | R\$ (526.154,86) |
| (-) JUROS SOBRE EMPRÉSTIMOS E FINANCIAMENTOS | | R\$ (2.943.521,04) | R\$ (4.560.300,40) |
| (-) TARIFAS BANCARIAS | | R\$ (79.994,52) | R\$ (179.650,41) |
| (-) TAXA DE ANTECIPAÇÃO RECEBIMENTOS DE FATURAS | | R\$ (40.823,54) | R\$ (89.328,89) |
| (-) VARIAÇÕES CAMBIAIS PASSIVAS | | R\$ (116.315,22) | R\$ (180.831,22) |
| (-) VARIAÇÕES MONETARIAS PASSIVAS | | R\$ (64,76) | R\$ (64,71) |
| Receitas Financeiras | | R\$ 226.216,51 | R\$ 409.001,69 |
| RECEITAS FINANCEIRAS | | R\$ 226.216,51 | R\$ 409.001,69 |
| DESCONTOS FINANCEIROS OBTIDOS | | R\$ 57.566,26 | R\$ 31.471,36 |
| JUROS ATIVOS | | R\$ 11.495,25 | R\$ 3.644,11 |
| RENDIMENTO S/ APLICAÇÕES FINANCEIRAS | | R\$ 2.214,56 | R\$ 29.332,52 |
| VARIAÇÕES CAMBIAIS ATIVAS | | R\$ 154.940,44 | R\$ 344.553,70 |
| (-) Outros Despesas Operacionais | | R\$ (7.937,49) | R\$ (3.846,00) |
| (-) OUTRAS DESPESAS OPERACIONAIS | | R\$ (7.937,49) | R\$ (3.846,00) |
| (-) BONIFICAÇÕES | | R\$ (7.937,49) | R\$ (3.846,00) |
| Outras Receitas Operacionais | | R\$ 94.913,90 | R\$ 271.286,42 |

Este documento é parte integrante de escrituração cuja autenticação se comprova pelo recibo de número 03.AC.24.EE.EA.6E.E6.07.E8.2D.0A.EE.AE.4B.00.B3.E3.88.77.58-3, nos termos do Decreto nº 8.683/2016.

Este relatório foi gerado pelo Sistema Público de Escrituração Digital – Sped

DEMONSTRAÇÃO DE RESULTADO DO EXERCÍCIO

Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Período da Escrituração: 01/01/2023 a 31/12/2023 **CNPJ:** 02.423.819/0001-97
Número de Ordem do Livro: 26
Período Selecionado: 01 de Janeiro de 2023 a 31 de Dezembro de 2023

| Descrição | Nota | Saldo anterior | Saldo atual |
|------------------------------------|------|------------------|------------------|
| OUTRAS RECEITAS OPERACIONAIS | | R\$ 94.913,90 | R\$ 271.286,42 |
| BONIFICAÇÕES | | R\$ 240,00 | R\$ 25.086,35 |
| OUTRAS RECEITAS OPERACIONAIS | | R\$ 94.673,90 | R\$ 246.200,07 |
| Resultado operacional líquido | | R\$ 1.287.234,84 | R\$ 1.229.771,81 |
| (-) Receitas Não Operacionais | | R\$ 1.086,00 | R\$ (0,00) |
| LUCROS NA ALIENAÇÃO DO IMOBILIZADO | | R\$ 1.086,00 | R\$ 0,00 |
| LUCROS NA ALIENAÇÃO DE BENS MOVEIS | | R\$ 1.086,00 | R\$ 0,00 |
| Resultado Antes do IRPJ e CSLL | | R\$ 1.288.320,84 | R\$ 1.229.771,81 |
| (-) Provisões para o IRPJ e CSLL | | R\$ (494.594,68) | R\$ (346.398,71) |
| (-) PROVISÃO PARA CSLL | | R\$ (137.275,06) | R\$ (98.046,72) |
| (-) PROVISÃO PARA CSLL | | R\$ (137.275,06) | R\$ (98.046,72) |
| (-) PROVISÃO PARA IRPJ | | R\$ (357.319,62) | R\$ (248.351,99) |
| (-) PROVISÃO PARA IRPJ | | R\$ (357.319,62) | R\$ (248.351,99) |
| LUCRO LÍQUIDO DO EXERCÍCIO | | R\$ 793.726,16 | R\$ 883.373,10 |

Este documento é parte integrante de escrituração cuja autenticação se comprova pelo recibo de número 03.AC.24.EE.EA.6E.E6.07.E8.2D.0A.EE.AE.4B.00.B3.E3.88.77.58-3, nos termos do Decreto nº 8.683/2016.

Este relatório foi gerado pelo Sistema Público de Escrituração Digital – Sped

TERMOS DE ABERTURA E ENCERRAMENTO



| | | | |
|---------------------------|--|-------|--------------------|
| Entidade: | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | |
| Período da Escrituração: | 01/01/2023 a 31/12/2023 | CNPJ: | 02.423.819/0001-97 |
| Número de Ordem do Livro: | 26 | | |
| Período Selecionado: | 28/06/2024 10:34:24 | | |

TERMO DE ABERTURA

| | |
|---|--|
| Nome Empresarial | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA |
| NIRE | 29600116853 |
| CNPJ | 02.423.819/0001-97 |
| Número de Ordem | 26 |
| Natureza do Livro | DIARIO |
| Município | LAURO DE FREITAS |
| Data do arquivamento dos atos constitutivos | 03/03/1998 |
| Data de arquivamento do ato de conversão de sociedade simples em sociedade empresária | |
| Data de encerramento do exercício social | 31/12/2023 |
| Quantidade total de linhas do arquivo digital | 80027 |

TERMO DE ENCERRAMENTO

| | |
|---|--|
| Nome Empresarial | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA |
| Natureza do Livro | DIARIO |
| Número de ordem | 26 |
| Quantidade total de linhas do arquivo digital | 80027 |
| Data de inicio | 01/01/2023 |
| Data de término | 31/12/2023 |

Este documento é parte integrante de escrituração cuja autenticação se comprova pelo recibo de número 03.AC.24.EE.EA.6E.E6.07.E8.2D.0A.EE.AE.4B.00.B3.E3.88.77.58-3, nos termos do Decreto nº 8.683/2016.

Este relatório foi gerado pelo Sistema Público de Escrituração Digital – Sped

RECIBO DE ENTREGA DE ESCRITURAÇÃO CONTÁBIL DIGITAL

IDENTIFICAÇÃO DO TITULAR DA ESCRITURAÇÃO

| | | |
|---|-----------------------------------|--|
| NIRE 29600116853 | CNPJ 02.423.819/0001-97 | |
| NOME EMPRESARIAL ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | |

IDENTIFICAÇÃO DA ESCRITURAÇÃO

| | |
|---|---|
| FORMA DA ESCRITURAÇÃO CONTÁBIL Livro Diário (Completo - sem escrituração Auxiliar) | PERÍODO DA ESCRITURAÇÃO 01/01/2023 a 31/12/2023 |
| NATUREZA DO LIVRO DIARIO | NÚMERO DO LIVRO 26 |
| IDENTIFICAÇÃO DO ARQUIVO (HASH) 03.AC.24.EE.EA.6E.E6.07.E8.2D.0A.EE.AE.4B.00.B3.E3.88.77.58 | |

ESTE LIVRO FOI ASSINADO COM OS SEGUINTES CERTIFICADOS DIGITAIS:

| QUALIFICAÇÃO DO SIGNATARIO | CPF/CNPJ | NOME | Nº SÉRIE DO CERTIFICADO | VALIDADE | RESPONSÁVEL LEGAL |
|----------------------------------|----------------|--|-------------------------|-------------------------|-------------------|
| Contador | 48181102568 | CARLOS EDUARDO DE AMORIM SANTOS:48181102568 | 1525350350982814813 | 04/10/2022 a 04/10/2025 | Não |
| Pessoa Jurídica (e-CNPJ ou e-PJ) | 00094831000170 | VBPA AUDITORES E CONSULTORES LTDA:00094831000170 | 1525351420495521672 | 08/09/2023 a 07/09/2024 | Sim |

NÚMERO DO RECIBO:

03.AC.24.EE.EA.6E.E6.07.E8.2D.0A.EE
.AE.4B.00.B3.E3.88.77.58-3

Escrituração recebida via Internet
pelo Agente Receptor SERPRO
em 19/06/2024 às 13:53:14

2F.09.CD.35.8D.F1.65.25
CC.DC.9C.E0.FF.B6.37.02

Considera-se autenticado o livro contábil a que se refere este recibo, dispensando-se a autenticação de que trata o art. 39 da Lei nº 8.934/1994. Este recibo comprova a autenticação.

BASE LEGAL: Decreto nº 1.800/1996, com a alteração do Decreto nº 8.683/2016, e arts. 39, 39-A, 39-B da Lei nº 8.934/1994 com a alteração da Lei Complementar nº 1247/2014.



ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA.

CNPJ: 02.423.819/0001-97

INDICADORES CONTÁBEIS

PARA 31 DE DEZEMBRO DE 2023 E 2022

(Em milhares de reais - R\$)

| | <u>31/12/2023</u> | <u>31/12/2022</u> |
|---|-------------------|-------------------|
| 1.1. PATRIMÔNIO LÍQUIDO =>10% | 1,720 | 2,075 |
| 1.2. ÍNDICES DE LIQUIDEZ | | |
| Liquidez Geral [(A+B)/(D+E)] | 1.02 | 1.05 |
| Liquidez Corrente [(A/D)] | 1.17 | 1.18 |
| Solvência Geral [(C)/(D+E)] | 1.05 | 1.07 |

DADOS PARA CÁLCULO DOS INDICADORES:

| | <u>31/12/2023</u> | <u>31/12/2022</u> |
|------------------------------|-------------------|-------------------|
| (A) ATIVO CIRCULANTE | 33,845 | 26,479 |
| (B) REALIZÁVEL A LONGO PRAZO | 5,203 | 5,203 |
| (C) ATIVO TOTAL | 39,859 | 32,357 |
| (D) PASSIVO CIRCULANTE | 28,980 | 22,497 |
| (E) PASSIVO NÃO CIRCULANTE | 9,159 | 7,785 |

Hans Jorg Ulmer
Diretor Presidente
CPF: 793.124.035-91

Carlos Eduardo de Amorim Santos
Contador CRC-BA 039354/O-8
CPF: 481.811.025-68

TERMOS DE ABERTURA E ENCERRAMENTO



| | | | |
|---------------------------|--|-------|--------------------|
| Entidade: | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | |
| Período da Escrituração: | 01/01/2024 a 31/12/2024 | CNPJ: | 02.423.819/0001-97 |
| Número de Ordem do Livro: | 27 | | |
| Período Selecionado: | 01 de janeiro de 2024 a 31 de dezembro de 2024 | | |

TERMO DE ABERTURA

| | |
|---|--|
| Nome Empresarial | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA |
| NIRE | 29600116853 |
| CNPJ | 02.423.819/0001-97 |
| Número de Ordem | 27 |
| Natureza do Livro | DIARIO |
| Município | LAURO DE FREITAS |
| Data do arquivamento dos atos constitutivos | 03/03/1998 |
| Data de arquivamento do ato de conversão de sociedade simples em sociedade empresária | |
| Data de encerramento do exercício social | 31/12/2024 |
| Quantidade total de linhas do arquivo digital | 94685 |

TERMO DE ENCERRAMENTO

| | |
|---|--|
| Nome Empresarial | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA |
| Natureza do Livro | DIARIO |
| Número de ordem | 27 |
| Quantidade total de linhas do arquivo digital | 94685 |
| Data de inicio | 01/01/2024 |
| Data de término | 31/12/2024 |

Este documento é parte integrante de escrituração cuja autenticação se comprova pelo recibo de número 74.80.7A.00.9A.30.D0.09.0F.93.52.CE.01.59.C3.D0.EE.05.A5.6D-4, nos termos do Decreto nº 8.683/2016.

Este relatório foi gerado pelo Sistema Público de Escrituração Digital – Sped

BALANÇO PATRIMONIAL



Entidade: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
 Período da Escrituração: 01/01/2024 a 31/12/2024 CNPJ: 02.423.819/0001-97
 Número de Ordem do Livro: 27
 Período Selecionado: 01 de janeiro de 2024 a 31 de dezembro de 2024

| Descrição | Nota | Saldo Inicial | Saldo Final |
|---|------|--------------------|--------------------|
| ATIVO | | R\$ 39.858.606,53 | R\$ 47.875.720,74 |
| ATIVO CIRCULANTE | | R\$ 33.845.055,96 | R\$ 42.580.607,98 |
| DISPONIBILIDADES | | R\$ 1.596.111,82 | R\$ 1.150.540,36 |
| BANCOS CONTA MOVIMENTO | | R\$ 369.794,41 | R\$ 311.109,03 |
| APLICAÇÕES FINANCEIRAS LIQUIDEZ IMEDIATA | | R\$ 939.222,25 | R\$ 787.385,54 |
| POUPANÇA | | R\$ 48.120,17 | R\$ 48.628,42 |
| TÍTULO DE CAPITALIZAÇÃO | | R\$ 238.974,99 | R\$ 3.417,37 |
| CLIENTES | | R\$ 8.451.194,24 | R\$ 9.711.119,56 |
| CLIENTES | | R\$ 8.451.194,24 | R\$ 9.711.119,56 |
| OUTROS CRÉDITOS | | R\$ 12.486.836,88 | R\$ 17.135.294,44 |
| IMPORTAÇÃO EM ANDAMENTO | | R\$ 799.324,43 | R\$ 896.323,38 |
| ADIANTAMENTOS A FORNECEDORES NACIONAIS | | R\$ 61.539,45 | R\$ 275.633,44 |
| ADIANTAMENTOS A FORNECEDORES ESTRANGEIROS | | R\$ 4.949.703,35 | R\$ 6.856.444,17 |
| ADIANTAMENTOS A EMPREGADOS | | R\$ 35.777,44 | R\$ 26.550,68 |
| ADIANTAMENTO DE VIAGENS | | R\$ 4.620,00 | R\$ 58.958,82 |
| TRIBUTOS A RECUPERAR/COMPENSAR | | R\$ 6.163.711,25 | R\$ 8.207.733,80 |
| JUROS E MULTA S/ IMPOSTOS A RECUPERAR | | R\$ 33.443,50 | R\$ 33.443,50 |
| RETENÇÃO CONTRATUAL | | R\$ 438.717,46 | R\$ 622.084,56 |
| COMPRA PARA ENTREGA FUTURA | | R\$ 0,00 | R\$ 158.122,09 |
| ESTOQUE | | R\$ 11.309.732,28 | R\$ 14.582.553,32 |
| MERCADORIAS, PRODUTOS E INSUMOS | | R\$ 9.888.993,55 | R\$ 13.163.967,68 |
| ESTOQUE EM PODER DE TERCEIROS | | R\$ 1.145.718,82 | R\$ 1.145.718,82 |
| MERC.PARA COMERC. PELOADQUIRENTE ORIGINARIO, ENTREGUE PELO VENDEDOR REMETENTE AO DESTINATARIO, EM VENDA À ORDEM | | R\$ 275.019,91 | R\$ 272.866,82 |
| DESPESAS PAGAS ANTECIPADAS | | R\$ 1.180,74 | R\$ 1.100,30 |
| SEGUROS A APROPRIAR | | R\$ 1.180,74 | R\$ 1.100,30 |
| ATIVO NÃO CIRCULANTE | | R\$ 6.013.550,57 | R\$ 5.295.112,76 |
| ATIVO REALIZÁVEL A LONGO PRAZO | | R\$ 5.202.683,67 | R\$ 4.700.725,66 |
| OPERAÇÕES COM PESSOAS LIGADAS | | R\$ 0,00 | R\$ 1.560.425,52 |
| TRIBUTOS A RECUPERAR | | R\$ 3.979.743,00 | R\$ 1.917.359,47 |
| ATIVOS FISCAIS DIFERIDOS A LONGO PRAZO | | R\$ 1.222.940,67 | R\$ 1.222.940,67 |
| IMOBILIZADO | | R\$ 810.866,90 | R\$ 594.387,10 |
| IMÓVEIS | | R\$ 214.848,42 | R\$ 10.726,66 |
| MÓVEIS E UTENSÍLIOS | | R\$ 195.876,03 | R\$ 202.662,78 |
| MÁQUINAS, EQUIPAMENTOS E FERRAMENTAS | | R\$ 965.192,19 | R\$ 989.712,09 |
| INSTALAÇÕES | | R\$ 0,00 | R\$ 4.500,00 |
| EQUIPAMENTOS DE INFORMÁTICA | | R\$ 1.605.300,31 | R\$ 1.716.486,44 |
| BENFEITORIAS EM PROPRIEDADES DE TERCEIRO | | R\$ 89.346,36 | R\$ 89.346,36 |
| FERRAMENTAS | | R\$ 530,00 | R\$ 530,00 |
| EQUIPAMENTOS DE TELEFONIA | | R\$ 38.304,76 | R\$ 38.304,76 |
| (-) (-) DEPRECIAÇÕES, AMORT. E EXAUS. ACUMUL | | R\$ (2.298.531,17) | R\$ (2.457.881,99) |
| INTANGÍVEL | | R\$ 0,00 | R\$ 0,00 |
| DIREITO DE USO SOFTWARE | | R\$ 53.707,23 | R\$ 53.707,23 |
| (-) (-) AMORTIZAÇÕES ACUMULADAS | | R\$ (53.707,23) | R\$ (53.707,23) |
| PASSIVO | | R\$ 39.858.606,53 | R\$ 47.875.720,74 |
| PASSIVO CIRCULANTE | | R\$ 28.979.865,23 | R\$ 32.971.448,49 |
| EMPRÉSTIMOS E FINANCIAMENTOS | | R\$ 15.024.952,10 | R\$ 17.676.484,30 |
| EMPRESTIMOS NACIONAIS | | R\$ 11.568.239,14 | R\$ 12.190.671,02 |
| FINANCIAMENTOS NACIONAIS | | R\$ 3.456.712,96 | R\$ 5.485.813,28 |
| FORNECEDORES | | R\$ 5.741.982,10 | R\$ 4.455.412,37 |
| FORNECEDORES NACIONAIS | | R\$ 3.672.699,60 | R\$ 3.886.428,19 |
| FORNECEDORES ESTRANGEIROS | | R\$ 2.069.282,50 | R\$ 568.984,18 |
| OBRIGAÇÕES TRIBUTÁRIAS | | R\$ 6.286.064,33 | R\$ 6.139.073,06 |
| TRIBUTOS A RECOLHER | | R\$ 5.301.670,13 | R\$ 3.616.291,54 |
| TRIBUTOS PARCELADOS | | R\$ 984.394,20 | R\$ 2.522.781,52 |
| OBRIGAÇÕES TRABALHISTAS E PREVIDENCIÁRIA | | R\$ 1.459.698,91 | R\$ 1.589.166,38 |
| OBRIGAÇÕES COM PESSOAL | | R\$ 359.018,73 | R\$ 375.869,02 |
| OBRIGAÇÕES PREVIDENCIÁRIAS | | R\$ 293.422,38 | R\$ 403.185,61 |
| OBRIGAÇÕES PREVIDENCIÁRIAS PARCELADAS | | R\$ 67.069,68 | R\$ 67.069,68 |
| PROVISÕES | | R\$ 740.188,12 | R\$ 743.042,07 |
| OUTRAS OBRIGAÇÕES | | R\$ 467.167,79 | R\$ 3.111.312,38 |
| ADIANTAMENTOS DE CLIENTES | | R\$ 399.831,10 | R\$ 216.984,34 |
| CONTAS A PAGAR | | R\$ 66.537,58 | R\$ 78.737,15 |
| VALORES A COMPENSAR | | R\$ 0,00 | R\$ 0,00 |
| OBRIGAÇÕES JUDICIAIS | | R\$ 799,11 | R\$ 898,25 |
| SERVIÇOS PRESTADOS A PAGAR | | R\$ 0,00 | R\$ 0,00 |
| ANTECIPAÇÃO CONTRATO PETROBRAS N° 4600676972 | | R\$ 0,00 | R\$ 2.814.692,64 |
| PASSIVO NÃO-CIRCULANTE | | R\$ 9.158.735,34 | R\$ 12.204.410,60 |
| EMPRESTIMOS E FINANCIAMENTOS | | R\$ 6.043.496,58 | R\$ 7.635.620,27 |
| EMPRESTIMOS NACIONAIS | | R\$ 6.043.496,58 | R\$ 7.635.620,27 |
| IMPOSTOS E CONTRIBUIÇÕES A RECOLHER | | R\$ 3.115.238,76 | R\$ 4.568.790,33 |
| TRIBUTOS PARCELADOS | | R\$ 2.774.301,22 | R\$ 4.294.922,47 |
| OBRIGAÇÕES PREVIDENCIÁRIAS PARCELADAS | | R\$ 340.937,54 | R\$ 273.867,86 |
| PATRIMÔNIO LÍQUIDO | | R\$ 1.720.005,96 | R\$ 2.699.861,65 |
| CAPITAL SOCIAL | | R\$ 1.404.121,76 | R\$ 1.200.000,00 |
| CAPITAL SUBSCRITO | | R\$ 1.200.000,00 | R\$ 1.200.000,00 |
| ADIANTAMENTO PARA FUTURO AUMENTO DE CAPITAL | | R\$ 204.121,76 | R\$ 0,00 |
| LUCROS OU PREJUÍZOS ACUMULADOS | | R\$ 315.884,20 | R\$ 1.499.861,65 |
| LUCROS OU PREJUÍZOS ACUMULADOS | | R\$ 315.884,20 | R\$ 1.499.861,65 |

Este documento é parte integrante de escrituração cuja autenticação se comprova pelo recibo de número 74.80.7A.00.9A.30.D0.09.0F.93.52.CE.01.59.C3.D0.EE.05.A5.6D-4, nos termos do Decreto nº 8.683/2016.

Este relatório foi gerado pelo Sistema Público de Escrituração Digital – Sped

DEMONSTRAÇÃO DE RESULTADO DO EXERCÍCIO



| | | | |
|----------------------------------|--|--------------|--------------------|
| Entidade: | ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | |
| Período da Escrituração: | 01/01/2024 a 31/12/2024 | CNPJ: | 02.423.819/0001-97 |
| Número de Ordem do Livro: | 27 | | |
| Período Selecionado: | 01 de janeiro de 2024 a 31 de dezembro de 2024 | | |

| Descrição | Nota | Saldo anterior | Saldo atual |
|---|------|---------------------|---------------------|
| Receita Operacional | | R\$ 51.471.015,69 | R\$ 62.278.984,50 |
| RECEITA BRUTAS DE VENDAS E MERCADORIAS | | R\$ 32.734.245,81 | R\$ 43.566.902,22 |
| VENDA DE MERCADORIAS | | R\$ 32.734.245,81 | R\$ 43.566.902,22 |
| RECEITA DE PRESTAÇÃO DE SERVIÇOS | | R\$ 14.548.899,47 | R\$ 14.847.508,71 |
| SERVIÇOS PRESTADOS | | R\$ 14.548.899,47 | R\$ 14.847.508,71 |
| LOCAÇÃO DE EQUIPAMENTOS | | R\$ 4.187.870,41 | R\$ 3.864.573,57 |
| LOCAÇÃO DE EQUIPAMENTOS | | R\$ 4.187.870,41 | R\$ 3.864.573,57 |
| (-) Deduções | | R\$ (11.286.677,73) | R\$ (15.183.722,42) |
| (-) (-) CANCELAMENTO E DEVOLUÇÕES | | R\$ (3.538.454,19) | R\$ (4.826.749,93) |
| (-) (-) DEVOLUÇÃO DE VENDA DE MERCADORIAS | | R\$ (3.253.984,65) | R\$ (4.453.116,05) |
| (-) (-) PROVISAO PARA CANCELAMENTO RECEITA DE SERVICO | | R\$ (284.469,54) | R\$ (373.633,88) |
| (-) (-) IMPOSTOS SOBRE VENDAS E SERVIÇOS | | R\$ (7.748.223,54) | R\$ (10.356.972,49) |
| (-) (-) COFINS | | R\$ (3.342.571,63) | R\$ (4.104.500,17) |
| (-) (-) ICMS | | R\$ (1.898.922,21) | R\$ (3.109.567,53) |
| (-) (-) IPI | | R\$ (1.299.143,31) | R\$ (1.752.997,83) |
| (-) (-) ISS | | R\$ (482.037,24) | R\$ (499.036,44) |
| (-) (-) PIS | | R\$ (725.549,15) | R\$ (890.870,52) |
| Receita Líquida | | R\$ 40.184.337,96 | R\$ 47.095.262,08 |
| (-) Custos Mercadorias Vendidas | | R\$ (11.397.661,70) | R\$ (13.402.762,34) |
| (-) CUSTOS DOS PRODUTOS VENDIDOS | | R\$ (11.397.661,70) | R\$ (13.402.762,34) |
| (-) CUSTOS DOS PRODUTOS VENDIDOS | | R\$ (13.433.721,16) | R\$ (16.302.523,90) |
| (-) CREDITO COFINS | | R\$ 1.672.608,00 | R\$ 2.382.109,19 |
| (-) CREDITO PIS | | R\$ 363.451,46 | R\$ 517.652,37 |
| (-) Custos dos Serviços Prestados | | R\$ (4.379.122,24) | R\$ (4.185.783,39) |
| (-) CUSTOS DOS SERVIÇOS PRESTADOS | | R\$ (4.379.122,24) | R\$ (4.185.783,39) |
| (-) COMISSÕES | | R\$ (10.000,00) | R\$ (0,00) |
| (-) LOCAÇÃO DE EQUIPAMENTOS | | R\$ (8.450,00) | R\$ (0,00) |
| (-) MATERIAL APLICADO NA PRESTAÇÃO DE SERVIÇOS | | R\$ (154.357,21) | R\$ (441.225,79) |
| (-) MATERIAL AUXILIAR- CONSUMO | | R\$ (289.451,21) | R\$ (209.885,82) |
| (-) SERVIÇO DE CONSULTORIA GERENCIAL | | R\$ (0,00) | R\$ (2.384.115,73) |
| (-) SERVIÇOS PRESTADOS SOFTWARE | | R\$ (1.079.415,11) | R\$ (399.114,85) |
| (-) SEVIÇOS PRESTADOS P/PJ | | R\$ (2.837.448,71) | R\$ (751.441,20) |
| Lucro Bruto | | R\$ 24.407.554,02 | R\$ 29.506.716,35 |
| (-) Despesas com Vendas | | R\$ (6.060.187,55) | R\$ (7.138.984,82) |
| (-) DESPESAS COM PESSOAL | | R\$ (5.583.052,93) | R\$ (6.054.424,58) |
| (-) 13 SALARIO | | R\$ (3.488,72) | R\$ (55.851,07) |
| (-) 13º SALARIO | | R\$ (305.944,95) | R\$ (389.324,82) |
| (-) ADICIONAL NOTURNO | | R\$ (2.166,96) | R\$ (4.021,33) |
| (-) AJUDA DE ALUGUELO | | R\$ (5.475,00) | R\$ (0,00) |
| (-) AUXILIO ALUGUEL | | R\$ (31.200,00) | R\$ (0,00) |
| (-) AVISO PREVIO | | R\$ (18.027,64) | R\$ (61.630,10) |
| (-) BOLSA AUXILIO | | R\$ (76.164,83) | R\$ (42.889,62) |
| (-) COMISSÃO | | R\$ (19.892,28) | R\$ (29.058,23) |
| (-) DSR | | R\$ (25.180,44) | R\$ (0,00) |
| (-) FERIAS | | R\$ (443.064,01) | R\$ (557.351,58) |
| (-) FERIAS RESCISÃO | | R\$ (3.587,63) | R\$ (0,00) |
| (-) FGTS | | R\$ (297.511,72) | R\$ (474.659,08) |
| (-) GRATIFICAÇÃO | | R\$ (762,94) | R\$ (0,00) |
| (-) HORAS EXTRAS | | R\$ (78.133,87) | R\$ (104.927,61) |
| (-) INDENIZAÇÕES | | R\$ (9.124,30) | R\$ (0,00) |
| (-) INSS | | R\$ (1.065.259,35) | R\$ (176.054,51) |
| (-) REFLEXO EXTRAS DSR | | R\$ (4.451,26) | R\$ (0,00) |
| (-) SALARIOS E ORDENADOS | | R\$ (3.121.445,80) | R\$ (4.067.946,43) |
| (-) TRIENIO | | R\$ (71.340,74) | R\$ (90.710,20) |
| (-) VALE TRANSPORTE | | R\$ (830,49) | R\$ (0,00) |
| (-) DESPESAS COM FRETE | | R\$ (477.134,62) | R\$ (840.912,16) |
| (-) FRETES E CARRETO | | R\$ (477.134,62) | R\$ (840.912,16) |
| (-) PERDAS NO RECEBIMENTO DE CRÉDITOS | | R\$ (0,00) | R\$ (243.648,08) |
| (-) MULTA POR ATRASO | | R\$ (0,00) | R\$ (243.648,08) |
| (-) Despesas Administrativas | | R\$ (12.138.301,28) | R\$ (14.973.152,20) |
| (-) DESPESAS COM PESSOAL | | R\$ (4.462.901,54) | R\$ (5.979.493,68) |
| (-) 13º SALARIO | | R\$ (123.837,71) | R\$ (143.046,03) |
| (-) 13º SALARIO RESCISÃO | | R\$ (330,29) | R\$ (7.135,23) |
| (-) ADICIONAL NOTURNO | | R\$ (3.463,89) | R\$ (5.804,98) |
| (-) ASSISTENCIA MEDICA E SOCIAL | | R\$ (271.515,30) | R\$ (457.289,50) |
| (-) ASSISTENCIA ODONTOLOGICA | | R\$ (10.791,21) | R\$ (12.278,78) |
| (-) AUXILIO EDUCAÇÃO | | R\$ (2.240,52) | R\$ (0,00) |
| (-) AVISO PRÉVIO | | R\$ (15.770,45) | R\$ (43.571,43) |
| (-) BOLSA AUXILIO | | R\$ (9.257,15) | R\$ (34.448,39) |
| (-) COMISSÃO | | R\$ (258.625,85) | R\$ (277.769,24) |
| (-) DSR | | R\$ (4.110,48) | R\$ (0,00) |
| (-) EXAMES PERIODICOS | | R\$ (40.367,81) | R\$ (58.784,07) |
| (-) FÉRIAS | | R\$ (191.814,52) | R\$ (203.315,76) |
| (-) FERIAS RESCISÃO | | R\$ (3.353,32) | R\$ (7.237,15) |
| (-) FGTS | | R\$ (230.381,10) | R\$ (187.104,74) |
| (-) GYMPASS | | R\$ (51.960,86) | R\$ (73.203,65) |
| (-) HORAS EXTRAS | | R\$ (5.918,92) | R\$ (9.364,16) |
| (-) INDENIZAÇÕES TRABALHISTAS | | R\$ (474,36) | R\$ (0,00) |
| (-) INSS | | R\$ (533.775,52) | R\$ (1.662.703,36) |
| (-) OUTRAS DESPESAS COM PESSOAL NÃO DEDUTÍVEIS | | R\$ (25.240,02) | R\$ (4.622,75) |
| (-) PREMIAÇÃO | | R\$ (0,00) | R\$ (38.212,20) |
| (-) PRO-LABORE | | R\$ (51.083,24) | R\$ (52.944,98) |
| (-) REFLEXO EXTRAS DSR | | R\$ (239,12) | R\$ (0,00) |
| (-) SALÁRIOS E ORDENADOS | | R\$ (1.424.541,61) | R\$ (1.467.830,58) |
| (-) SEGURO DE VIDA | | R\$ (442,22) | R\$ (0,00) |
| (-) TRIENIO | | R\$ (42.519,93) | R\$ (47.271,21) |
| (-) VALE REFEIÇÃO | | R\$ (1.004.494,34) | R\$ (1.008.642,17) |
| (-) VALE TRANSPORTE | | R\$ (156.351,80) | R\$ (176.913,32) |
| (-) DESPESAS TRIBUTÁRIAS | | R\$ (2.024.956,13) | R\$ (1.849.115,21) |
| (-) AUTO DE INFRAÇÃO | | R\$ (387.702,80) | R\$ (156.529,32) |
| (-) ICMS | | R\$ (66.446,70) | R\$ (51.890,30) |
| (-) ICMS CONSUMIDOR FINAL NÃO CONTRIBUINTE | | R\$ (1.323.541,69) | R\$ (1.364.445,19) |
| (-) IOF | | R\$ (151.220,82) | R\$ (124.554,21) |
| (-) IPTU | | R\$ (27.545,94) | R\$ (5.293,26) |
| (-) IRRF CODIGO 0481 E 0422 S/CÂMBIO | | R\$ (49.746,70) | R\$ (64.858,79) |
| (-) ISS | | R\$ (0,00) | R\$ (2.854,39) |
| (-) OUTROS IMPOSTOS FEDERAIS | | R\$ (0,00) | R\$ (10,65) |
| (-) TAXA DE EXIBIÇÃO DE PUBLICIDADE | | R\$ (0,00) | R\$ (621,00) |
| (-) TAXAS DIVERSAS | | R\$ (18.687,48) | R\$ (55.554,86) |
| (-) TAXAS ESTADUAIS | | R\$ (64,00) | R\$ (478,00) |
| (-) TFF | | R\$ (0,00) | R\$ (22.025,24) |
| (-) ALUGUEIS E ARRENDAMENTOS | | R\$ (389.354,03) | R\$ (367.674,04) |
| (-) ALUGUÉIS DE IMÓVEIS | | R\$ (315.508,50) | R\$ (327.477,21) |
| (-) ALUGUÉIS DE MÁQUINAS E EQUIPAMENTOS | | R\$ (63.009,30) | R\$ (40.196,83) |
| (-) CONDOMINIO | | R\$ (10.836,23) | R\$ (0,00) |
| (-) DESPESAS GERAIS | | R\$ (721.216,51) | R\$ (551.654,48) |
| (-) ANUIDADE CARTÃO DE CREDITO | | R\$ (2.768,12) | R\$ (2.983,05) |
| (-) ASSOCIAÇÃO DE CLASSES | | R\$ (8.081,29) | R\$ (17.485,47) |
| (-) BENS NÃO ATIVÁVEIS | | R\$ (26.559,45) | R\$ (15.306,94) |
| (-) BRINDES | | R\$ (1.122,56) | R\$ (0,00) |
| (-) CONFRATERNIZAÇÃO | | R\$ (8.134,76) | R\$ (0,00) |
| (-) COPA E COZINHA | | R\$ (490,27) | R\$ (0,00) |
| (-) CORREIOS E TELÉGRAFOS | | R\$ (1.287,43) | R\$ (0,00) |
| (-) CURSOS, CONGRESSOS E TREINAMENTOS | | R\$ (19.701,90) | R\$ (5.324,40) |
| (-) CUSTAS JUDICIAIS | | R\$ (0,00) | R\$ (263,75) |
| (-) DEPRECIAÇÕES E AMORTIZAÇÕES | | R\$ (156.712,71) | R\$ (184.570,62) |
| (-) DESPESAS COM EVENTOS | | R\$ (109.242,78) | R\$ (1.619,79) |
| (-) DESPESAS COM EVENTO SVR 2016 | | R\$ (40,00) | R\$ (0,00) |
| (-) DESPESAS COM TRANSPORTES | | R\$ (1.932,72) | R\$ (554,61) |
| (-) DOAÇÕES | | R\$ (0,00) | R\$ (500,00) |
| (-) ESTACIONAMENTO | | R\$ (446,29) | R\$ (319,98) |
| (-) LANCHES E REFEIÇÕES | | R\$ (2.235,01) | R\$ (1.556,45) |
| (-) MANUTENÇÃO E REPARO | | R\$ (20.332,47) | R\$ (1.166,37) |
| (-) MATERIAIS DE CONSUMO | | R\$ (163.503,02) | R\$ (159.308,75) |
| (-) MATERIAIS DE INFORMÁTICA | | R\$ (20.162,56) | R\$ (3.445,21) |
| (-) MATERIAIS PARA PROTEÇÃO PESSOAL | | R\$ (0,00) | R\$ (8.534,32) |
| (-) MATERIAL DE EXPEDIENTE | | R\$ (3.269,38) | R\$ (4.962,65) |
| (-) MATERIAL DE HIGIENE E LIMPEZA | | R\$ (8.211,30) | R\$ (9.538,74) |
| (-) MEDICAMENTOS | | R\$ (77,19) | R\$ (0,00) |
| (-) OUTRAS DESP. GERAIS NÃO DEDUTÍVEIS | | R\$ (9.225,15) | R\$ (11.766,27) |
| (-) REEMBOLSO DE KILOMETRAGEM | | R\$ (1.080,74) | R\$ (1.425,07) |
| (-) SEGURO PATRIMONIAL | | R\$ (3.515,37) | R\$ (1.697,21) |
| (-) SEGUROS DIVERSOS | | R\$ (109.892,13) | R\$ (95.202,49) |
| (-) UNIFORMES E ACESSÓRIOS | | R\$ (43.191,91) | R\$ (24.122,34) |
| (-) ACRESCIMO MORATÓRIO SIMPOSTOS | | R\$ (11.569,56) | R\$ (11.569,56) |
| (-) MULTA CONTRATUAL | | R\$ (0,00) | R\$ (1.458,11) |
| (-) MULTA DE MORA | | R\$ (0,00) | R\$ (6,75) |
| (-) MULTA DE TRÂNSITO | | R\$ (386,98) | R\$ (514,50) |
| (-) MULTA POR ATRASO PETROBRAS | | R\$ (117.499,90) | R\$ (0,00) |
| (-) MULTA S/TRIBUTOS E CONTRIBUIÇÕES | | R\$ (143.831,92) | R\$ (67.659,84) |
| (-) ALUGUEL DE VEICULOS | | R\$ (66.547,79) | R\$ (94.588,86) |
| (-) COMBUSTÍVEL | | R\$ (7.499,14) | R\$ (19.456,18) |
| (-) CÓPIAS E REPRODUÇÕES | | R\$ (0,00) | R\$ (145,00) |
| (-) DESPESA COM TAXÁI | | R\$ (58.593,90) | R\$ (57.894,78) |
| (-) DESPESAS COM DIÁRIAS | | R\$ (80.155,53) | R\$ (69.206,02) |
| (-) DESPESAS COM TRANSPORTES | | R\$ (6.566,48) | R\$ (7.358,42) |
| (-) DESPESAS COM VIAGENS | | R\$ (8.518,40) | R\$ (0,00) |
| (-) ESTACIONAMENTO | | R\$ (5.943,04) | R\$ (8.064,91) |
| (-) HOSPEDAGENS | | R\$ (189.421,49) | R\$ (260.705,93) |
| (-) LANCHES E REFEIÇÕES | | R\$ (41.718,32) | R\$ (42.313,91) |
| (-) PASSAGENS AÉREAS | | R\$ (386.331,27) | R\$ (425.686,91) |
| (-) PEDÁGIO | | R\$ (1.352,90) | R\$ (2.004,29) |
| (-) REEMBOLSO DE KILOMETRAGEM | | R\$ (20.372,30) | R\$ (37.235,40) |
| (-) DESPESAS C/ SERVIÇOS DE TERCEIROS | | R\$ (2.681.025,16) | R\$ (3.395.684,72) |
| (-) HONORARIOS ADVOCATICIOS | | R\$ (62.888,95) | R\$ (59.977,71) |
| (-) HONORARIOS CONTABEIS | | R\$ (70.075,50) | R\$ (87.100,00) |
| (-) SERVIÇOS DE CONSULTORIA GERENCIAL | | R\$ (1.872.062,82) | R\$ (2.848.692,87) |
| (-) SERVIÇOS PRESTADOS P/PESSOA FISICA | | R\$ (211,00) | R\$ (7.000,00) |
| (-) SERVIÇOS PRESTADOS P/PESSOA JURUÍDICA | | R\$ (675.786,89) | R\$ (392.914,14) |
| (-) HOSPEDAGEM DE SERVIDOR | | R\$ (158,48) | R\$ (0,00) |
| (-) LICENÇAS DE USO | | R\$ (312.967,96) | R\$ (1.226.265,94) |
| (-) MANUTENÇÃO SISTEMA SAP | | R\$ (70.824,53) | R\$ (89.918,95) |
| (-) OUTRAS DESPESAS COM MANUTENÇÃO DO SISTEMA | | R\$ (11.400,00) | R\$ (34.480,47) |
| (-) ÁGUA | | R\$ (10.135,09) | R\$ (9.446,79) |
| (-) ENERGIA ELÉTRICA | | R\$ (116.242,34) | R\$ (115.666,19) |
| (-) FRETES E CARRETOS | | R\$ (23.167,32) | R\$ (44.137,06) |
| (-) INTERNET | | R\$ (17.421,78) | R\$ (19.388,82) |
| (-) POSTAIS E TELEGRÁFICAS | | R\$ (6.343,38) | R\$ (1.919,89) |
| (-) TELEFONE | | R\$ (143.878,11) | R\$ (182.561,59) |
| (-) Despesas Financeiras | | R\$ (5.655.735,49) | R\$ (6.428.040,67) |
| (-) DESPESAS FINANCEIRAS | | R\$ (5.655.735,49) | R\$ (6.428.040,67) |
| (-) COMISSAO FINIMP | | R\$ (73.010,48) | R\$ (82.279,65) |
| (-) JUROS DE MORA | | R\$ (39.152,19) | R\$ (14.438,35) |
| (-) JUROS DE MORA | | R\$ (7.242,33) | R\$ (9.779,45) |
| (-) JUROS S/TRIBUTOS E CONTRIBUIÇÕES | | R\$ (526.154,86) | R\$ (415.398,95) |
| (-) JUROS SOBRE EMPRÉSTIMOS E FINANCIAMENTOS | | R\$ (4.560.300,40) | R\$ (4.772.883,26) |
| (-) TARIFAS BANCARIAS | | R\$ (179.650,41) | R\$ (198.613,42) |
| (-) TAXA DE ANTECIPAÇÃO RECEBIMENTOS DE FATURAS | | R\$ (89.328,89) | R\$ (262.599,77) |
| (-) VARIAÇÕES CAMBIAIS PASSIVAS | | R\$ (180.831,22) | R\$ (672.047,82) |
| (-) VARIAÇÕES MONETARIAS PASSIVAS | | R\$ (64,71) | R\$ (0,00) |
| Receitas Financeiras | | R\$ 409.001,69 | R\$ 315.770,53 |
| RECEITAS FINANCEIRAS | | R\$ 409.001,69 | R\$ 315.770,53 |
| DESCONTOS FINANCEIROS OBTIDOS | | R\$ 31.471,36 | R\$ 62.548,94 |
| JUROS ATIVOS | | R\$ 3.644,11 | R\$ 40.532,34 |
| RENDIMENTO S/ APLICAÇÕES FINANCEIRAS | | R\$ 29.332,52 | R\$ 4.323,27 |
| VARIAÇÕES CAMBIAIS ATIVAS | | R\$ 344.553,70 | R\$ 208.365,98 |
| (-) Outros Despesas Operacionais | | R\$ (3.846,00) | R\$ (8.681,79) |
| (-) OUTRAS DESPESAS OPERACIONAIS | | R\$ (3.846,00) | R\$ (8.681,79) |
| (-) BONIFICAÇÕES | | R\$ (3.846,00) | R\$ (8.681,79) |
| Outras Receitas Operacionais | | R\$ 271.286,42 | R\$ 238.163,60 |
| OUTRAS RECEITAS OPERACIONAIS | | R\$ 271.286,42 | R\$ 238.163,60 |
| BONIFICAÇÕES | | R\$ 25.086,35 | R\$ 19.412,88 |
| OUTRAS RECEITAS OPERACIONAIS | | R\$ 246.200,07 | R\$ 218.750,72 |
| Resultado operacional líquido | | R\$ 1.229.771,81 | R\$ 1.511.791,00 |
| Resultado Antes do IRPJ e CSLL | | R\$ 1.229.771,81 | R\$ 1.511.791,00 |
| (-) Provisões para o IRPJ e CSLL | | R\$ (346.398,71) | R\$ (523.062,83) |
| (-) PROVISÃO PARA CSLL | | R\$ (98.046,72) | R\$ (144.810,75) |
| (-) PROVISÃO PARA CSLL | | R\$ (98.046,72) | R\$ (144.810,75) |
| (-) PROVISÃO PARA IRPJ | | R\$ (248.351,99) | R\$ (378.252,08) |
| (-) PROVISÃO PARA IRPJ | | R\$ (248.351,99) | R\$ (378.252,08) |
| LUCRO LÍQUIDO DO EXERCÍCIO | | R\$ 883.373,10 | R\$ 988.728,17 |

Este documento é parte integrante de escrituração cuja autenticação se comprova pelo recibo de número 74.80.7A.00.9A.30.D0.09.0F.93.52.CE.01.59.C3.D0.EE.05.A5.6D-4, nos termos do Decreto nº 8.683/2016.

Este relatório foi gerado pelo Sistema Público de Escrituração Digital – Sped

Versão 10.3.3 do Visualizador

Página 1 de 1

RECIBO DE ENTREGA DE ESCRITURAÇÃO CONTÁBIL DIGITAL

IDENTIFICAÇÃO DO TITULAR DA ESCRITURAÇÃO

| | | |
|---|-----------------------------------|--|
| NIRE 29600116853 | CNPJ 02.423.819/0001-97 | |
| NOME EMPRESARIAL ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | |

IDENTIFICAÇÃO DA ESCRITURAÇÃO

| | |
|---|---|
| FORMA DA ESCRITURAÇÃO CONTÁBIL Livro Diário (Completo - sem escrituração Auxiliar) | PERÍODO DA ESCRITURAÇÃO 01/01/2024 a 31/12/2024 |
| NATUREZA DO LIVRO DIARIO | NÚMERO DO LIVRO 27 |
| IDENTIFICAÇÃO DO ARQUIVO (HASH) 74.80.7A.00.9A.30.D0.09.0F.93.52.CE.01.59.C3.D0.EE.05.A5.6D | |
| ARQUIVOS SUBSTITUÍDOS (HASH) | |

ESTE LIVRO FOI ASSINADO COM OS SEGUINTE CERTIFICADOS DIGITAIS:

| QUALIFICAÇÃO DO SIGNATARIO | CPF/CNPJ | NOME | Nº SÉRIE DO CERTIFICADO | VALIDADE | RESPONSÁVEL LEGAL |
|--|----------------|--|-------------------------|-------------------------|-------------------|
| Contador | 48181102568 | CARLOS EDUARDO DE AMORIM SANTOS:48181102568 | 1525350350982814813 | 04/10/2022 a 04/10/2025 | Não |
| Pessoa Jurídica (e-CNPJ ou e-PJ) | 00094831000170 | VBPA AUDITORES E CONSULTORES LTDA:00094831000170 | 1525352519958554480 | 05/09/2024 a 05/09/2025 | Sim |
| Contador/Contabilista Responsável pelo Termo de Verificação para Fins de Substituição da ECD | 48181102568 | CARLOS EDUARDO DE AMORIM SANTOS:48181102568 | 1525350350982814813 | 04/10/2022 a 04/10/2025 | - |

NÚMERO DO RECIBO:

74.80.7A.00.9A.30.D0.09.0F.93.52.CE.0
1.59.C3.D0.EE.05.A5.6D-4

Escrituração recebida via Internet
pelo Agente Receptor SERPRO

em 17/07/2025 às 12:42:12

EA.44.0D.82.0C.6A.21.76
84.04.10.09.3D.70.05.49

Considera-se autenticado o livro contábil a que se refere este recibo, dispensando-se a autenticação de que trata o art. 39 da Lei nº 8.934/1994. Este recibo comprova a autenticação.

BASE LEGAL: Decreto nº 1.800/1996, com a alteração do Decreto nº 8.683/2016, e arts. 39, 39-A, 39-B da Lei nº 8.934/1994 com a alteração da Lei Complementar nº 1247/2014.



ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA.

CNPJ: 02.423.819/0001-97

INDICADORES CONTÁBEIS

LEVANTADO EM 31 DE DEZEMBRO DE 2024

(Em milhares de reais - R\$)

| | <u>31/12/2024</u> | <u>31/12/2023</u> |
|---|-------------------|-------------------|
| 1.1. PATRIMÔNIO LÍQUIDO =>10% | 3.217 | 1.720 |
| 1.2. ÍNDICES DE LIQUIDEZ | | |
| Liquidez Geral [(A+B)/(D+E)] | 1,06 | 1,02 |
| Liquidez Corrente [(A/D)] | 1,50 | 1,17 |
| Solvência Geral [(C)/(D+E)] | 1,08 | 1,05 |

DADOS PARA CÁLCULO DOS INDICADORES:

| | <u>31/12/2024</u> | <u>31/12/2023</u> |
|------------------------------|-------------------|-------------------|
| (A) ATIVO CIRCULANTE | 40.800 | 33.845 |
| (B) REALIZÁVEL A LONGO PRAZO | 4.701 | 5.203 |
| (C) ATIVO TOTAL | 46.095 | 39.859 |
| (D) PASSIVO CIRCULANTE | 27.174 | 28.982 |
| (E) PASSIVO NÃO CIRCULANTE | 15.704 | 9.158 |

Hans Jorg Ulmer
Diretor Presidente
CPF: 793.124.035-91

Carlos Eduardo de Amorim Santos
Contador CRC-BA 039354/O-8
CPF: 481.811.025-68

**CONSELHO REGIONAL DE CONTABILIDADE DO ESTADO DA BAHIA
CERTIDÃO NEGATIVA DE DÉBITOS PROFISSIONAL**

O **CONSELHO REGIONAL DE CONTABILIDADE DO ESTADO DA BAHIA** certifica que o(a) profissional identificado(a) no presente documento encontra-se em dia com seus débitos perante o CRC.

IDENTIFICAÇÃO DO REGISTRO

| | |
|----------------|-----------------------------------|
| NOME..... | : CARLOS EDUARDO DE AMORIM SANTOS |
| REGISTRO..... | : BA-039354/O-8 |
| CATEGORIA..... | : TÉCNICO EM CONTABILIDADE |
| CPF..... | : ***.811.025-** |

A presente CERTIDÃO não quita nem invalida quaisquer débitos ou infrações que posteriormente, venham a ser apurados pelo CRCBA contra o referido registro.

A falsificação deste documento constitui-se em crime previsto no Código Penal Brasileiro, sujeitando o autor à respectiva ação penal.

Emissão: BAHIA, 24/02/2026 as 16:08:09.

Válido até: 25/05/2026.

Código de Controle: 5274193.

Para verificar a autenticidade deste documento consulte o site do CRCBA.



REPÚBLICA FEDERATIVA DO BRASIL

CADASTRO NACIONAL DA PESSOA JURÍDICA

| | | | |
|---|---|---------------------------------------|-----------------|
| NÚMERO DE INSCRIÇÃO 02.423.819/0001-97 MATRIZ | COMPROVANTE DE INSCRIÇÃO E DE SITUAÇÃO CADASTRAL | DATA DE ABERTURA 03/03/1998 | |
| NOME EMPRESARIAL ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | | |
| TÍTULO DO ESTABELECIMENTO (NOME DE FANTASIA) ***** | PORTE DEMAIS | | |
| CÓDIGO E DESCRIÇÃO DA ATIVIDADE ECONÔMICA PRINCIPAL 47.53-9-00 - Comércio varejista especializado de eletrodomésticos e equipamentos de áudio e vídeo | | | |
| CÓDIGO E DESCRIÇÃO DAS ATIVIDADES ECONÔMICAS SECUNDÁRIAS 46.51-6-01 - Comércio atacadista de equipamentos de informática 61.10-8-03 - Serviços de comunicação multimídia - SCM 61.90-6-99 - Outras atividades de telecomunicações não especificadas anteriormente 62.02-3-00 - Desenvolvimento e licenciamento de programas de computador customizáveis 62.04-0-00 - Consultoria em tecnologia da informação 77.33-1-00 - Aluguel de máquinas e equipamentos para escritórios 82.11-3-00 - Serviços combinados de escritório e apoio administrativo 95.11-8-00 - Reparação e manutenção de computadores e de equipamentos periféricos | | | |
| CÓDIGO E DESCRIÇÃO DA NATUREZA JURÍDICA 206-2 - Sociedade Empresária Limitada | | | |
| LOGRADOURO R JOSE JORGE PEREIRA | NÚMERO 47 | COMPLEMENTO ***** | |
| CEP 42.710-480 | BAIRRO/DISTRITO BURAQUINHO | MUNICÍPIO LAURO DE FREITAS | UF BA |
| ENDEREÇO ELETRÔNICO AMORIM@VBPA.COM.BR | TELEFONE (71) 2103-5120/ (71) 2103-5113 | | |
| ENTE FEDERATIVO RESPONSÁVEL (EFR) ***** | | | |
| SITUAÇÃO CADASTRAL ATIVA | DATA DA SITUAÇÃO CADASTRAL 03/11/2005 | | |
| MOTIVO DE SITUAÇÃO CADASTRAL | | | |
| SITUAÇÃO ESPECIAL ***** | DATA DA SITUAÇÃO ESPECIAL ***** | | |

Aprovado pela Instrução Normativa RFB nº 2.119, de 06 de dezembro de 2022.

Emitido no dia **08/01/2026** às **10:52:47** (data e hora de Brasília).

Página: 1/1



PREFEITURA MUNICIPAL DE LAURO DE FREITAS

Cartão de Inscrição Pessoa Jurídica / Física

INSCRIÇÃO

351318

CNPJ / CPF

02.423.819/0001-97

CONTRIBUINTE

ABSOLUT TECHNOLOGIES PROJ. E CONSULTORIA LTDA

ENDERECO

RUA RUA JOSÉ JORGE PEREIRA
BURAQUINHO

47

LAURO DE FREITAS BA

42710480

PROFISSÃO / ATIVIDADE

Comércio varejista especializado de eletrodomésticos e equipamentos de áudio e vídeo

DATA DE EMISSÃO

01/04/2026

DATA DE VALIDADE

31/03/2027

Código de Autenticidade: 88999

Documento emitido via Internet e deverá ser validado no endereço: <http://sefaz.laurodefreitas.ba.gov.br>.

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MINISTÉRIO DA FAZENDA
Secretaria da Receita Federal do Brasil
Procuradoria-Geral da Fazenda Nacional

**CERTIDÃO POSITIVA COM EFEITOS DE NEGATIVA DE DÉBITOS RELATIVOS AOS TRIBUTOS
FEDERAIS E À DÍVIDA ATIVA DA UNIÃO**

Nome: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
CNPJ: 02.423.819/0001-97

Ressalvado o direito de a Fazenda Nacional cobrar e inscrever quaisquer débitos de responsabilidade do sujeito passivo acima identificado que vierem a ser apuradas, é certificado que:

1. constam débitos administrados pela Secretaria da Receita Federal do Brasil (RFB) com exigibilidade suspensa nos termos do art. 151 da Lei nº 5.172, de 25 de outubro de 1966 - Código Tributário Nacional (CTN), ou objeto de decisão judicial que determina sua desconsideração para fins de certificação da regularidade fiscal, ou ainda não vencidos; e
2. não constam inscrições em Dívida Ativa da União (DAU) na Procuradoria-Geral da Fazenda Nacional (PGFN).

Conforme disposto nos arts. 205 e 206 do CTN, este documento tem os mesmos efeitos da certidão negativa.

Esta certidão é válida para o estabelecimento matriz e suas filiais e, no caso de ente federativo, para todos os órgãos e fundos públicos da administração direta a ele vinculados. Refere-se à situação do sujeito passivo no âmbito da RFB e da PGFN e abrange inclusive as contribuições sociais previstas nas alíneas 'a' a 'd' do parágrafo único do art. 11 da Lei nº 8.212, de 24 de julho de 1991.

A aceitação desta certidão está condicionada à verificação de sua autenticidade na Internet, nos endereços <<http://rfb.gov.br>> ou <<http://www.pgfn.gov.br>>.

Certidão emitida gratuitamente com base na Portaria Conjunta RFB/PGFN nº 1.751, de 2/10/2014.

Emitida às 09:22:22 do dia 08/04/2026 <hora e data de Brasília>.

Válida até 05/10/2026.

Código de controle da certidão: **A9EC.6E84.6778.BA12**

Qualquer rasura ou emenda invalidará este documento.



Certidão Especial de Débitos Tributários (Positiva com efeito de Negativa)

(Emitida para os efeitos dos arts. 113 e 114 da Lei 3.956 de 11 de dezembro de 1981 - Código Tributário do Estado da Bahia)

Certidão Nº: **20261472212**

| | |
|---|-----------------------------------|
| RAZÃO SOCIAL ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | |
| INSCRIÇÃO ESTADUAL 048.267.265 | CNPJ 02.423.819/0001-97 |

Fica certificado que constam, até a presente data, as seguintes pendências de responsabilidade do contribuinte acima identificado, relativas aos tributos administrados por esta Secretaria, cuja exigibilidade encontra-se suspensa, emprestando à presente certidão Positiva o efeito de Negativa:

Processo(s) Administrativo(s) Fiscal(is): ICMS

| | |
|---|--|
| 092268.0284/23-9 - 2a Inst/PARCELAMENTO | 232875.0009/23-3 - 1a Inst/Julgado |
| 232875.0010/23-1 - 1a Inst/Julgado | 232875.0014/21-0 - 2a Inst/PARA JULGAMENTO |
| 232875.0030/22-4 - Inicial/PARCELAMENTO | 600000.1740/24-8 - Inicial/PARCELAMENTO |
| 810000.7938/24-1 - Inicial/PARCELAMENTO | |

Esta certidão engloba os débitos referentes a todos os estabelecimentos do contribuinte, inclusive os inscritos na Dívida Ativa, de competência da Procuradoria Geral do Estado, ressalvado o direito da Fazenda Pública do Estado da Bahia cobrar quaisquer outros débitos que vierem a ser apurados.

Emitida em 30/03/2026, conforme Portaria nº 918/99, sendo válida por 60 dias, contados a partir da data de sua emissão.

**A AUTENTICIDADE DESTA DOCUMENTO PODE SER COMPROVADA NAS INSPETORIAS
FAZENDÁRIAS OU VIA INTERNET, NO ENDEREÇO <http://www.sefaz.ba.gov.br>**

Válida com a apresentação conjunta do cartão original de inscrição no CPF ou no CNPJ da
Secretaria da Receita Federal do Ministério da Fazenda.



PREFEITURA MUNICIPAL DE LAURO DE FREITAS

CNPJ: 13.927.819/0001-40

Secretaria da Fazenda
Coordenação Tributária

CERTIDÃO CONJUNTA POSITIVA COM EFEITO DE NEGATIVA DE DÉBITOS MUNICIPAIS E DA DÍVIDA ATIVA DO MUNICÍPIO CADASTRO MOBILIÁRIO

Certidão passada em cumprimento ao despacho do (a) Sr (a) Diretor (a) do Departamento de Receita e Arrecadação, datada em 13/03/2026, sob processo de nº 1/2026.

Certificamos para os devidos fins de direito, que até a presente data, a Pessoa Física / Jurídica ABSOLUT TECHNOLOGIES PROJ. E CONSULTORIA LTDA, inscrita no CPF/MF ou CNPJ/MF sob nº. 02423819000197, possui débito (s) junto ao Município, com a exigibilidade suspensa em virtude de Parcelamento do débito, referente à inscrição municipal nº. 351318, situado à RUA RUA JOSÉ JORGE PEREIRA 47 BURAQUINHO 42710480 LAURO DE FREITAS BA, apurado (s) conforme discriminação abaixo:

AUTO DE INFRAÇÃO *(C) - 2024
PARCELAMENTO - ISS - Nº 110/2025
PARCELAMENTO - ISS - Nº 36/2026
PARCELAMENTO - ISS - Nº 59/2026

Fica ressalvado o direito de a Fazenda Municipal cobrar e inscrever em Dívida Ativa, quaisquer débitos que venham a ser apurados posteriormente, conforme estabelece o art. 301 da Lei Complementar nº. 1572/2015 - Código Tributário e de Rendas do Município de Lauro de Freitas.

Código de Controle: 351318000074013120260313
Emitida via Internet, às 11:36:00 hs, do dia 13/03/2026
Validade: 30 dias.

OBSERVAÇÃO:

- A aceitação desta certidão está condicionada à verificação de sua autenticidade na internet, no endereço: <http://sefaz.laurodefreitas.ba.gov.br>;
- Qualquer rasura ou emenda invalidará este documento.

Voltar

Imprimir



Certificado de Regularidade do FGTS - CRF

Inscrição: 02.423.819/0001-97
Razão Social: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA
Endereço: R JOSE JORGE PEREIRA 47 / BURAQUINHO / LAURO DE FREITAS / BA / 42710-480

A Caixa Econômica Federal, no uso da atribuição que lhe confere o Art. 7, da Lei 8.036, de 11 de maio de 1990, certifica que, nesta data, a empresa acima identificada encontra-se em situação regular perante o Fundo de Garantia do Tempo de Serviço - FGTS.

O presente Certificado não servirá de prova contra cobrança de quaisquer débitos referentes a contribuições e/ou encargos devidos, decorrentes das obrigações com o FGTS.

Validade: 26/03/2026 a 24/04/2026

Certificação Número: 2026032605510726419014

Informação obtida em 06/04/2026 08:24:09

A utilização deste Certificado para os fins previstos em Lei esta condicionada a verificação de autenticidade no site da Caixa:
www.caixa.gov.br



PODER JUDICIÁRIO
JUSTIÇA DO TRABALHO

CERTIDÃO NEGATIVA DE DÉBITOS TRABALHISTAS

Nome: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA (MATRIZ E FILIAIS)

CNPJ: 02.423.819/0001-97

Certidão nº: 12226929/2026

Expedição: 26/02/2026, às 08:57:17

Validade: 25/08/2026 - 180 (cento e oitenta) dias, contados da data de sua expedição.

Certifica-se que **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA (MATRIZ E FILIAIS)**, inscrito(a) no CNPJ sob o nº **02.423.819/0001-97**, **NÃO CONSTA** como inadimplente no Banco Nacional de Devedores Trabalhistas.

Certidão emitida com base nos arts. 642-A e 883-A da Consolidação das Leis do Trabalho, acrescentados pelas Leis ns.º 12.440/2011 e 13.467/2017, e no Ato 01/2022 da CGJT, de 21 de janeiro de 2022. Os dados constantes desta Certidão são de responsabilidade dos Tribunais do Trabalho.

No caso de pessoa jurídica, a Certidão atesta a empresa em relação a todos os seus estabelecimentos, agências ou filiais.

A aceitação desta certidão condiciona-se à verificação de sua autenticidade no portal do Tribunal Superior do Trabalho na Internet (<http://www.tst.jus.br>).

Certidão emitida gratuitamente.

INFORMAÇÃO IMPORTANTE

Do Banco Nacional de Devedores Trabalhistas constam os dados necessários à identificação das pessoas naturais e jurídicas inadimplentes perante a Justiça do Trabalho quanto às obrigações estabelecidas em sentença condenatória transitada em julgado ou em acordos judiciais trabalhistas, inclusive no concernente aos recolhimentos previdenciários, a honorários, a custas, a emolumentos ou a recolhimentos determinados em lei; ou decorrentes de execução de acordos firmados perante o Ministério Público do Trabalho, Comissão de Conciliação Prévia ou demais títulos que, por disposição legal, contiver força executiva.



GOVERNO DO ESTADO DA BAHIA
SECRETARIA DE DESENVOLVIMENTO ECONÔMICO
JUNTA COMERCIAL DO ESTADO DA BAHIA
CERTIDÃO SIMPLIFICADA DIGITAL



Certificamos que as informações abaixo constam dos documentos arquivados nesta Junta Comercial e são vigentes na data de sua expedição.

| EMPRESA | | | |
|---|----------------------------|---|-----------------------------------|
| Nome Empresarial: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | | |
| Natureza Jurídica: SOCIEDADE EMPRESÁRIA LIMITADA | | | |
| NIRE(sede) 29201942245 | CNPJ 02.423.819/0001-97 | Arquivamento do ato Constitutivo 03/03/1998 | Início da atividade 03/03/1998 |
| Endereço: RUA JOSÉ JORGE PEREIRA, 47 , BURQUINHO, LAURO DE FREITAS, BA - CEP: 42710480 | | | |
| OBJETO SOCIAL | | | |
| CONSULTORIA EM TECNOLOGIA DA INFORMAÇÃO; COMÉRCIO ATACADISTA DE EQUIPAMENTOS DE INFORMÁTICA, COMO COMPUTADORES, PERIFÉRICOS, SOFTWARE E HARDWARE; COMÉRCIO VAREJISTA ESPECIALIZADO DE ELETRODOMÉSTICOS E EQUIPAMENTOS DE ÁUDIO E VÍDEO; DESENVOLVIMENTO E LICENCIAMENTO DE PROGRAMAS DE COMPUTADOR CUSTOMIZÁVEIS; ALUGUEL DE MÁQUINAS E EQUIPAMENTOS PARA ESCRITÓRIO; REPARAÇÃO E MANUTENÇÃO DE COMPUTADORES E DE EQUIPAMENTOS PERIFÉRICOS; SERVIÇOS DE COMUNICAÇÃO MULTIMÍDIA - SCM; ATIVIDADES DE TELECOMUNICAÇÕES; SERVIÇOS COMBINADOS DE ESCRITÓRIO E APOIO ADMINISTRATIVO. | | | |
| CAPITAL SOCIAL | | PORTE | PRAZO DE DURAÇÃO |
| R\$ 1.200.000,00 UM MILHÃO DUZENTOS MIL REAIS | | Não | XXXXXX |
| R\$ Capital integralizado: 1.200.000,00 UM MILHÃO DUZENTOS MIL REAIS | | | |
| QUADRO SOCIOS E ADMINISTRADORES | | | |
| Nome/CPF | Participação R\$ | Cond./Administrador | Término do mandato |
| LUCYMEIRE FERRAZ DE ARAUJO ULMER 315.532.735-91 | 600.000,00 | SOCIO | XX/XX/XXXX |
| LUCYMEIRE FERRAZ DE ARAUJO ULMER 315.532.735-91 | 0,00 | ADMINISTRADOR | XX/XX/XXXX |
| HANS JORG ULMER 793.124.035-91 | 600.000,00 | SOCIO | XX/XX/XXXX |
| HANS JORG ULMER 793.124.035-91 | 0,00 | ADMINISTRADOR | XX/XX/XXXX |
| ÚLTIMO ARQUIVAMENTO | | SITUAÇÃO | STATUS |
| Data 13/09/2024 | Número 98555094 | REGISTRO ATIVO | SEM STATUS |
| Ato: 002 - ALTERAÇÃO Evento: 051 - CONSOLIDACAO DE CONTRATO/ESTATUTO | | | |
| FILIAL(AIS) NESTA UNIDADE DA FEDERAÇÃO OU FORA DELA | | | |
| NIRE: 35902919821 | | CNPJ: 02.423.819/0002-78 | |
| Endereço: RUA STA CRUZ, 940, VILA MARIANA, SÃO PAULO, SP - CEP: 04122000 | | | |

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página: 1/2



GOVERNO DO ESTADO DA BAHIA
SECRETARIA DE DESENVOLVIMENTO ECONÔMICO
JUNTA COMERCIAL DO ESTADO DA BAHIA



CERTIDÃO SIMPLIFICADA DIGITAL

Certificamos que as informações abaixo constam dos documentos arquivados nesta Junta Comercial e são vigentes na data de sua expedição.

| EMPRESA | | | |
|---|----------------------------|---|-----------------------------------|
| Nome Empresarial: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA | | | |
| Natureza Jurídica: SOCIEDADE EMPRESÁRIA LIMITADA | | | |
| NIRE(sede) 29201942245 | CNPJ 02.423.819/0001-97 | Arquivamento do ato Constitutivo 03/03/1998 | Início da atividade 03/03/1998 |
| Endereço: RUA JOSÉ JORGE PEREIRA, 47 , BURQUINHO, LAURO DE FREITAS, BA - CEP: 42710480 | | | |
| NIRE: XXXXXX CNPJ: xxxxxxxxxxxxxxxxxxxxxxxx | | | |
| Endereço: AV. HENRIQUE VALADARES, 139 SALA 301, CENTRO, RIO DE JANEIRO, RJ - CEP: 20231030 | | | |
| NIRE: 29901475445 CNPJ: 02.423.819/0004-30 | | | |
| Endereço: R TUPINAMBAS, 000412 EDIF MORUMBI OUTROS LOTE 044 SALA 04, RIO VERMELHO, SALVADOR, BA - CEP: 41940090 | | | |
| Observação | | | |

SALVADOR - BA, 19 de Fevereiro de 2026

BRUNO MOTA PASSOS
SECRETÁRIO-GERAL

Consulta Básica ao Cadastro do ICMS da Bahia

Dados da empresa

Identificação

CNPJ: 02.423.819/0001-97

Inscrição Estadual: 048.267.265 NO

Razão Social: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA

Nome Fantasia: ABSOLUT TECHNOLOGIES

Natureza Jurídica: SOCIEDADE EMPRESARIA LIMITADA

Unidade de Atendimento: SGF/DIRAT/GERAP/CORAP CAPITAL

Unidade de Fiscalização: INFAZ VAREJO

Endereço

Logradouro: RUA JOSE JORGE PEREIRA

Número: 47

Complemento:

Bairro/Distrito: Buraquinho

CEP: 42710-480

Município: LAURO DE FREITAS

UF: BA

Telefone: (71) 21035120

E-mail: AMORIM@VBPA.COM.BR

Referência:

Localização: ZONA URBANA

Informações Complementares

Data de Inclusão do Contribuinte: 26/03/1998

Atividade Econômica Principal:

4753900 - Comércio varejista especializado de eletrodomésticos e equipamentos de áudio e vídeo

Atividade Econômica Secundária

4651601 - Comércio atacadista de equipamentos de informática

6110803 - Serviços de comunicação multimídia - SCM

6190699 - Outras atividades de telecomunicações não especificadas anteriormente

6202300 - Desenvolvimento e licenciamento de programas de computador customizáveis

6204000 - Consultoria em tecnologia da informação

7733100 - Aluguel de máquinas e equipamentos para escritórios

8211300 - Serviços combinados de escritório e apoio administrativo

9511800 - Reparação e manutenção de computadores e de equipamentos periféricos

Unidade: UNIDADE PRODUTIVA

Forma de Atuação

- ESTABELECIMENTO FIXO

Condição: NORMAL

Forma de pagamento: C/CORRENTE FISCAL

Situação Cadastral Vigente: ATIVO

Data desta Situação Cadastral: 08/02/2001

Endereço de Correspondência

Endereço: RUA JOSE JORGE PEREIRA

Complemento:

Referência:

Número: 47

Bairro: Buraquinho

CEP: 42710480

Município: LAURO DE FREITAS

UF: BA

Informações do Contador

Classificação CRC: Escritório Sociedade

CRC: 1463 -BA

Tipo CRC: Originario

Nome: VBPA AUDITORES E CONSULTORES LTDA

Responsável pela organização contábil

Classificação CRC: Profissional

CRC:

Tipo CRC: Originario

Nome: CARLOS EDUARDO DE AMORIM SANTOS

Endereço

Endereço: RUA AIMORES EDIF COMERCIAL MORUMBI SALA 03

Número: 146

Bairro: RIO VERMELHO

Município: SALVADOR

UF: BA

Referencia:

CEP: 41940080

Telefone: ()

Celular: ()

Fax: ()

E-mail: AMORIM@VBPA.COM.BR

Nota: Os dados acima são baseados em informações fornecidas pelo contribuinte, estando sujeitos a posterior confirmação pelo Fisco

Data da Consulta: 08/01/2026



TRIBUNAL DE CONTAS DA UNIÃO

Consulta Consolidada de Pessoa Jurídica

Este relatório tem por objetivo apresentar os resultados consolidados de consultas eletrônicas realizadas diretamente nos bancos de dados dos respectivos cadastros. A responsabilidade pela veracidade do resultado da consulta é do Órgão gestor de cada cadastro consultado. A informação relativa à razão social da Pessoa Jurídica é extraída do Cadastro Nacional da Pessoa Jurídica, mantido pela Receita Federal do Brasil.

Consulta realizada em: 17/03/2026 10:51:47

Informações da Pessoa Jurídica:

Razão Social: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**
CNPJ: **02.423.819/0001-97**

Resultados da Consulta Eletrônica:

Órgão Gestor: **TCU**
Cadastro: **Licitantes Inidôneos**
Resultado da consulta: **Nada Consta**

Para acessar a certidão original no portal do órgão gestor, clique [AQUI](#).

Órgão Gestor: **CNJ**
Cadastro: **CNIA - Cadastro Nacional de Condenações Cíveis por Ato de Improbidade Administrativa e Inelegibilidade**
Resultado da consulta: **Nada Consta**

Para acessar a certidão original no portal do órgão gestor, clique [AQUI](#).

Órgão Gestor: **Portal da Transparência**
Cadastro: **Cadastro Nacional de Empresas Inidôneas e Suspensas**
Resultado da consulta: **Nada Consta**

Para acessar a certidão original no portal do órgão gestor, clique [AQUI](#).

Órgão Gestor: **Portal da Transparência**
Cadastro: **CNEP - Cadastro Nacional de Empresas Punidas**
Resultado da consulta: **Nada Consta**

Para acessar a certidão original no portal do órgão gestor, clique [AQUI](#).

Obs: A consulta consolidada de pessoa jurídica visa atender aos princípios de simplificação e racionalização de serviços públicos digitais. Fundamento legal: Lei nº 12.965, de 23 de abril de 2014, Lei nº 13.460, de 26 de junho de 2017, Lei nº 13.726, de 8 de outubro de 2018, Decreto nº 8.638 de 15, de janeiro de 2016.



TRIBUNAL DE CONTAS DA UNIÃO

Consulta Consolidada de Pessoa Jurídica

Este relatório tem por objetivo apresentar os resultados consolidados de consultas eletrônicas realizadas diretamente nos bancos de dados dos respectivos cadastros. A responsabilidade pela veracidade do resultado da consulta é do Órgão gestor de cada cadastro consultado. A informação relativa à razão social da Pessoa Jurídica é extraída do Cadastro Nacional da Pessoa Jurídica, mantido pela Receita Federal do Brasil.

Consulta realizada em: 08/04/2026 10:24:26

Informações da Pessoa Jurídica:

Razão Social: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**
CNPJ: **02.423.819/0001-97**

Resultados da Consulta Eletrônica:

Órgão Gestor: **TCU**
Cadastro: **Licitantes Inidôneos**
Resultado da consulta: **Nada Consta**

Para acessar a certidão original no portal do órgão gestor, clique [AQUI](#).

Órgão Gestor: **CNJ**
Cadastro: **CNIA - Cadastro Nacional de Condenações Cíveis por Ato de Improbidade Administrativa e Inelegibilidade**
Resultado da consulta: **Nada Consta**

Para acessar a certidão original no portal do órgão gestor, clique [AQUI](#).

Órgão Gestor: **Portal da Transparência**
Cadastro: **Cadastro Nacional de Empresas Inidôneas e Suspensas**
Resultado da consulta: **Nada Consta**

Para acessar a certidão original no portal do órgão gestor, clique [AQUI](#).

Órgão Gestor: **Portal da Transparência**
Cadastro: **CNEP - Cadastro Nacional de Empresas Punidas**
Resultado da consulta: **Nada Consta**

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Obs: A consulta consolidada de pessoa jurídica visa atender aos princípios de simplificação e racionalização de serviços públicos digitais. Fundamento legal: Lei nº 12.965, de 23 de abril de 2014, Lei nº 13.460, de 26 de junho de 2017, Lei nº 13.726, de 8 de outubro de 2018, Decreto nº 8.638 de 15, de janeiro de 2016.



CERTIDÃO DE REGISTRO E QUITAÇÃO
PESSOA JURIDICA
 Lei Federal Nº 5194 de 24 de Dezembro de 1966

CREA-BA

Nº 13438/2026
 Emissão: 30/03/2026
 Validade: 31/03/2027
 Chave: 08WDa

Conselho Regional de Engenharia e Agronomia da Bahia

CERTIFICAMOS que a Empresa mencionada encontra-se registrada neste Conselho, nos Termos da Lei 5.194/66, conforme os dados impressos nesta certidão. CERTIFICO, ainda, face ao estabelecido nos artigos 68 e 69 da referida Lei, que a pessoa jurídica mencionada, bem como seus responsáveis técnicos e membros do quadro técnico não se encontram em débito com as anuidades do CREA/BA.

Interessado(a)

Empresa: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA

CNPJ: 02.423.819/0001-97

Registro: 0010100288

Categoria: Matriz

Capital Social: R\$ 64.000,00

Data do Capital: 05/02/2018

Faixa: 2

Objetivo Social: MONTAGEM, REPARO E MANUTENÇÃO DE MÁQUINAS E EQUIPAMENTOS ELETRÔNICOS, DE INFORMÁTICA, DE USO INDUSTRIAL, CIENTÍFICO E COMERCIAL.

Endereço Matriz: RUA JOSÉ JORGE PEREIRA , 47, BURQUINHO , LAURO DE FREITAS, BA, 42710480

Tipo de Registro: DEFINITIVO (EMPRESA)

Data Inicial: 24/07/2019

Data Final: Indefinido

Registro Regional: 0001014911DDBA

Descrição

CERTIDÃO DE REGISTRO E QUITAÇÃO PESSOA JURIDICA

Informações / Notas

- A capacidade técnico-profissional da empresa é comprovada pelo conjunto dos acervos técnicos dos profissionais constantes de seu quadro técnico.
- Esta certidão perderá a validade, caso ocorra qualquer alteração posterior dos elementos cadastrais nela contidos

Última Anuidade Paga

Ano: 2026 (1/1)

Autos de Infração

Nada consta

Responsáveis Técnicos

Profissional: OLIVAR BARBOSA DA SILVA JUNIOR

Registro: 0506716422

CPF: ***.565.072-**

Data Início: 24/07/2019

Data Fim: Indefinido

Data Fim de Contrato: Indefinido

Títulos do Profissional:

ENGENHEIRO ELETRICISTA ELETRÔNICA

Atribuição: ARTIGO 9 DA RESOLUCAO 218/73 DO CONFEA.

ENGENHARIA DE TELECOMUNICACOES

Atribuição: ENGENHARIA DE TELECOMUNICACOES

ENGENHEIRO ELETRICISTA

Atribuição: ARTIGO 9 DA RESOLUCAO 218/73 DO CONFEA.

REDES DE COMPUTADORES E TELECOMUNICAÇÕES

CURSO DE ESPECIALIZAÇÃO EM ENGENHARIA DE TELECOMUNICAÇÕES

Tipo de Responsabilidade: RESPONSÁVEL TÉCNICO





CERTIDÃO DE REGISTRO E QUITAÇÃO
PESSOA FÍSICA
 Lei Federal Nº 5194 de 24 de Dezembro de 1966
 Decisão Normativa Nº 116 de 21 de Dezembro de 2021

CREA-BA

Nº 13530/2026
 Emissão: 30/03/2026
 Validade: 31/03/2027
 Chave: WA7WB

Conselho Regional de Engenharia e Agronomia da Bahia

CERTIFICAMOS que o(a) profissional mencionado(a) encontra-se registrado neste Conselho, nos termos da Lei 5.194/66, de 24/12/1966, conforme os dados abaixo. CERTIFICAMOS, ainda, face o estabelecimento nos artigos 68 e 69 da referida Lei, que o interessado não se encontra em débito com o Conselho Regional de Engenharia e Agronomia da Bahia - CREA-BA.

Interessado(a)

Profissional: OLIVAR BARBOSA DA SILVA JUNIOR

Registro: 0506716422

CPF: ***.565.072.**

Tipo de Registro: DEFINITIVO (PROFISSIONAL DIPLOMADO NO PAÍS)

Data de registro: 20/03/2000

Título(s)

GRADUAÇÃO

ENGENHEIRO ELETRICISTA ELETRÔNICA

Atribuição: ARTIGO 9 DA RESOLUCAO 218/73 DO CONFEA.

Data de Formação: 30/11/1999

ENGENHEIRO ELETRICISTA

Atribuição: ARTIGO 9 DA RESOLUCAO 218/73 DO CONFEA.

Data de Formação: 30/11/1999

ANOTAÇÕES DE CURSOS

CURSO DE ESPECIALIZAÇÃO EM ENGENHARIA DE TELECOMUNICAÇÕES

Data de Formação: 22/05/2002

REDES DE COMPUTADORES E TELECOMUNICAÇÕES

Data de Formação: 31/10/2006

ENGENHARIA DE TELECOMUNICACOES

Atribuição: ENGENHARIA DE TELECOMUNICACOES

Instituição de Ensino: UNIVERSIDADE FEDERAL DA BAHIA - UFBA

Descrição

CERTIDÃO DE REGISTRO E QUITAÇÃO PESSOA FÍSICA

Informações / Notas

- A falsificação deste documento constitui-se em crime previsto no Código Penal Brasileiro, sujeitando o(a) autor(a) à respectiva ação penal.
- Esta certidão perderá a validade, caso ocorra qualquer alteração posterior dos elementos cadastrais nela contidos.
- Válido em todo território nacional.

Última Anuidade Paga

Ano: 2026 (1/1)

Autos de Infração

Nada consta

Responsabilidades Técnicas

Empresa: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA

Registro: 0010100288

CNPJ: 02.423.819/0001-97

Data Início: 24/07/2019

Data Fim: Indefinido

Data Fim de Contrato: Indefinido

Tipo de Responsabilidade: RESPONSÁVEL TÉCNICO



PROCURAÇÃO

OUTORGANTE: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA, pessoa jurídica de direito privado com sede na Rua José Jorge Pereira, nº 47, Lote 22, Quadra D - Buraquinho. CEP: 42710-480. Lauro de Freitas/BA, inscrita no CNPJ sob o nº 02.423.819/0001-97, com inscrição estadual nº 48.267.265 e inscrição municipal nº 351318 por seu representante legal ao final assinado.

OUTORGADO: JÉSSICA VELOSO VINHÁTICO LIGER, Analista de Licitações Pleno, inscrita no CPF sob o nº 066.516.785-74, RG 15.075.750-68, residente à Avenida Luís Viana Filho, nº 6045, Condomínio Vivendas do Rio, Edf. Leme e Copacabana, Patamares, Salvador/BA, CEP: 41730-000.

PODERES: Procuração com poderes especiais para efetuar cadastramento, renovação e alterações cadastrais em portais públicos e privados, interpor recurso e apresentar contrarrazões, juntar e retirar documentos, apresentar propostas comerciais e cotações comerciais, provas, atuar como preposto, cumprir exigências em todas as esferas federais, estaduais e municipais.

VALIDADE: Procuração válida até 01 de janeiro de 2027.

Lauro de Freitas/BA, 05 de janeiro de 2026

HANS JORG

ULMER:79312403591

Assinado de forma digital por
HANS JORG ULMER:79312403591
Dados: 2026.01.05 16:21:40 -03'00'

ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA – 02.423.819-0001/97
HANS JORG ULMER

REPÚBLICA FEDERATIVA DO BRASIL
 MINISTÉRIO DA INFRAESTRUTURA
 SECRETARIA NACIONAL DE TRANSITO



CARTEIRA NACIONAL DE HABILITAÇÃO / DRIVER LICENSE / PERMISO DE CONDUCCIÓN

2 e 1 NOME E SOBRENOME
 JESSICA VELOSO VINHATICO LIGER

1ª HABILITAÇÃO
 01/02/2017

3 DATA, LOCAL E UF DE NASCIMENTO
 01/08/1995 SALVADOR/BA

4a DATA EMISSÃO
 06/04/2023

4b VALIDADE
 05/04/2033

ACC **D**

4c DOC. IDENTIDADE / ÓRG. EMISSOR / UF
 1507575068 SSP BA

4d CPF
 066.516.785-74

5 Nº REGISTRO
 06788135656

9 CAT. HAB
B



NACIONALIDADE
 BRASILEIRO

FILIAÇÃO
 EDMILSON VINHATICO LIGER

GILDETE DE JESUS VELOSO

7 ASSINATURA DO PORTADOR

| | 9 | 10 | 11 | 12 | 9 | 10 | 11 | 12 |
|-----|---|----|------------|----|-----|----|----|----|
| ACC | | | | | D | | | |
| A | | | | | D1 | | | |
| A1 | | | | | BE | | | |
| B | | | 05/04/2033 | | CE | | | |
| B1 | | | | | C1E | | | |
| C | | | | | DE | | | |
| C1 | | | | | D1E | | | |

12 OBSERVAÇÕES

LOCAL
 SALVADOR, BA

RODRIGO PARENTE DE SOUZA LIMA
 DIRETOR GERAL - BA

ASSINATURA DO EMISSOR

49846444305
 BA512276874

BAHIA

VALIDA EM TODO O TERRITÓRIO NACIONAL

2603083928

PROIBIDO PLASTIFICAR

2603083928

REPÚBLICA FEDERATIVA DO BRASIL

ESTADO DA BAHIA
SECRETARIA DA SEGURANÇA PÚBLICA
INSTITUTO DE IDENTIFICAÇÃO PEDRO MELLO
MÃO PLASTIFICAR

POLEGAR DIREITO

ASSINATURA DO TITULAR

CARTEIRA DE IDENTIDADE

THOMAS CUNHA & SOARES

VALE EM TODO O TERRITÓRIO NACIONAL

RG 03.161.834-07 DATA DE EXPEDIÇÃO 29-06-2015

NOME LUCYMETRE FERRAZ DE ARAUJO ULMER

FILIAÇÃO ELIAS DE ARAUJO SILVA

NATURALIDADE LENIR FERRAZ SILVA

DOC ORIGEM IBOTIRAMA BA

DATA DE NASCIMENTO 31-08-1966

C.CAS. CM SALVADOR BA DS
SE LV B13 FL 211 RT 5995
CPF 315.532.735-91

Facilita NL 9 de Oliveira faz

LEI Nº 7.116 DE 29/08/83

THOMAS CUNHA & SOARES



ATESTADO DE CAPACIDADE TÉCNICA

Atestamos para os devidos fins, que a empresa ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA, sediada na Rua José Jorge Pereira, nº47 Qd D Lt 22 – Portão – Lauro de Freitas/BA, inscrita no CNPJ sob nº 02.423.819/0001-97, forneceu satisfatoriamente, no que diz respeito ao serviço de locação, prazo de entrega, instalação, para 29 ambientes no 24º andar, distribuídos por recepção, salas reuniões pequenas, médias e grandes, sala de controle com vídeowall, áreas de convivência e clientes, compostos por 20 unidades dos displays de 32” a 75” da SAMSUNG, (1) unidade do painel de LED curvo (3,8x2,4), (3) unidades do flip Chart interativo 55”, sistema de projeção EPSON, conectividade, Digital Signage, sistema de videoconferência Logitech, suportes de fixação de piso, parede e teto para os monitores e sistema de som Shure e Biamp.

Acrescentamos também que os equipamentos fornecidos apresentam desempenho satisfatório pelo que comprovamos a sua Capacidade Técnica.

São Paulo/SP - 01 de Agosto de 2022.

MARCIO JOSE MARTIN:18027536804
Digitally signed
by MARCIO JOSE MARTIN:18027536804
Diretor
Date: 2022.08.01 17:40:33 -03'00'

ROGERIO TAKASHI FUJIMOTO:21302613880
Assinado de forma digital por ROGERIO TAKASHI FUJIMOTO:21302613880
Dados: 2022.08.11 09:01:36 -03'00'

| | | | |
|----------------|------------------------|--------------|----------------|
| Client: | Green4T | Number: | 20220117 |
| Project Title: | Escopo de AV nova Sede | | |
| Sales: | Haroldo Lopes | Engineering: | Amauri Passos, |
| Publish Date: | 2022-06-10 | Rev: | 10 |
| Page: | 1 | Pages: | 5 |

Absen

| Name | Description | Part Number | QTY |
|------------------------------------|---|-----------------|-----|
| Absen MY1.8mm Spare LED Lamp | MY1.8mm Spare Receiving Card | MY18MM-SPR-LMP | 500 |
| Absen MY1.8mm 960*600 | LED Screen 1.8 mm pitch, 3,84 m x 2,4 m, resolution: 2120 x 1320 pixels | MY1.8mm 960*600 | 1 |
| Absen MY1.8mm Spare Module | MY1.8mm Spare Module | MY18MM-SPR-MDL | 15 |
| Absen MY1.8mm Spare Power Supply | MY1.8mm Spare Power Supply | MY18MM-SPR-PWR | 3 |
| Absen MY1.8mm Spare Receiving Card | MY1.8mm Spare Receiving Card | MY18MM-SPR-RCV | 3 |
| Absen NOVA VX6S | Video Procesor | NOVA VX6S | 1 |

Aironflex

| Name | Description | Part Number | QTY |
|--|---|-------------|-----|
| Aironflex EXTENSOR HI POINT BLACK 400MM | Extensor de altura de suporte para projetores - 400mm | 06.05.011 | 1 |
| Aironflex EXTENSOR HI POINT BLACK 800MM | Extensor de altura de suporte para projetores - 800mm | 06.05.014 | 1 |
| Aironflex SUPORTE PARA PROJETORES HI POINT BLACK | Suporte para Projetores Hi Point Black | 06.05.001 | 1 |

Anker

| Name | Description | Part Number | QTY |
|--|------------------------------------|-------------|-----|
| Anker Ultra Slim 4-Port USB 3.0 Data Hub | Ultra Slim 4-Port USB 3.0 Data Hub | AK-A7516012 | 1 |

Apek

| Name | Description | Part Number | QTY |
|---------------------------------|--|--------------------------|-----|
| Apek TAANB MAXPAD65 G5 - I38240 | O novo Maxpad 65 polegadas Geração 5 chega para oferecer o que há de mais avançado em monitores touchscreen multi toque. Com um painel LCD LED com resolução 4K (Ultra HD) ao interagir com o conteúdo é impossível notar os pixels da tela, oferecendo uma qualidade de leitura incomparável. | TAANB-MAXPAD65-G5-I38240 | 1 |

Barco

| Name | Description | Part Number | QTY |
|--------------------------|--|-------------|-----|
| Barco ClickShare CSE-200 | Wireless presentation system for small to medium sized meeting rooms | R9861520NA | 3 |
| Barco ClickShare CX-30 | Sistemas de conferência sem fio CX-30. | R9861513NA | 1 |

Biamp

| Name | Description | Part Number | QTY |
|--------------------------|------------------------------------|-------------|-----|
| Biamp COLW101 | Collumn Loudspeaker | COLW101 | 2 |
| Biamp SPH16 | Two-way pendant sphere loudspeaker | SPH16 | 9 |
| Biamp Tesira TEC-1s | TESIRA® TEC-1s | 0316.900 | 1 |
| Biamp TesiraFORTÉ DAN CI | Digital Mixer 12 IN 8 OUT Dante | 0447.900 | 1 |

Crown Audio

| Name | Description | Part Number | QTY |
|--------------------------|---|--------------|-----|
| Crown Audio DCi 4 1250DA | Amplificador de potência de 1250W @ 4Ω de quatro canais com áudio em rede Dante™ / AES67 e compatível com 70V / 100V. | DCi 4 1250DA | 1 |

| | | | | | | | |
|----------------|------------------------|---------------|------|---------|----------|--|--|
| Client: | | | | Number: | 20220117 | | |
| Green4T | | | | | | | |
| Project Title: | Escopo de AV nova Sede | | | | | | |
| Sales: | Engineering: | Publish Date: | Rev: | Page: | Pages: | | |
| Haroldo Lopes | Amauri Passos, | 2022-06-10 | 10 | 2 | 5 | | |

Datalink

| Name | Description | Part Number | QTY |
|-----------------------------|--|--------------|-----|
| Datalink Cabo Coaxial RG213 | Cabo Coaxial RG213 (CI Cordinha Cobre - Trança Cobre 96% - Capa PVC Preto) (ANATEL#1307-05-2543) | 1307-05-2543 | 25 |
| Datalink Conector coaxial N | Conector coaxial N(m) p/ RGC213 / DLC213 / DLC8 / LMR400 (Clamp/Solda) (ANATEL1844-07-2543) | 1844-07-2543 | 10 |

Dell

| Name | Description | Part Number | QTY |
|---------------------------|---|---------------|-----|
| Dell Precision 3640 Tower | Intel® Xeon® W-1270 (8 Core, 16M cache, base 3.4GHz, up to 5.0GHz) DDR4 2933. W10 | 1001807634016 | 1 |

ELG Pedestais

| Name | Description | Part Number | QTY |
|-------------------------|--|-------------|-----|
| ELG Pedestais A05V6 BL | Suporte de Teto para TVs de 32" a 75" - A05V6 PRETO | A05V6-BL | 1 |
| ELG Pedestais A06V6_S | Suporte Pedestal para TVs de 32" a 65" - A06V6_S | A06V6_S | 1 |
| ELG Pedestais E600 | Suporte para TV/Monitor até 50kg. | E600 | 17 |
| ELG Pedestais LVW02-46T | Suporte VideoWall de Parede Retrátil para Monitor LCD / LFD de 37" a 70" com POP-OUT | LVW02-46T | 4 |
| ELG Pedestais PRO1100WH | Suporte regulável de teto para projetor | PRO1100WH | 1 |

Epson

| Name | Description | Part Number | QTY |
|-----------------------|----------------------------------|-------------|-----|
| Epson PowerLite L735U | WUXGA Long-throw Laser Projector | V11HA25120 | 1 |

Furukawa

| Name | Description | Part Number | QTY |
|---|---|-------------|-----|
| Furukawa Cabo CAT.6 Gigalan U/UTP 23AWGX4P LSZH CM (metro) | Cabo CAT.6 Gigalan U/UTP 23AWGX4P LSZH CM (metro) | 23400067 | 100 |
| Furukawa Conector Macho RJ Cat.6 sólido UTP 8 (unidade) | Conector Macho RJ Cat.6 sólido UTP 8 (unidade) | 35050282 | 50 |
| Furukawa PATCH CORD U/UTP GIGALAN CAT.6 PATCH CORD U/UTP GIGALAN CAT.6 - LSZH - T568A/B - 1.5M - AZUL | T568A/B - 1.5M - AZUL | 35123632 | 3 |

| | | | |
|----------------|------------------------|--------------|----------------|
| Client: | Green4T | Number: | 20220117 |
| Project Title: | Escopo de AV nova Sede | | |
| Sales: | Haroldo Lopes | Engineering: | Amauri Passos, |
| Publish Date: | 2022-06-10 | Rev: | 10 |
| Page: | 3 | Pages: | 5 |

Kramer Electronics

| Name | Description | Part Number | QTY |
|--|---|-------------------------|-----|
| Kramer Electronics BC-2S | Speaker Cable (16AWG) | 99-1301300 | 145 |
| Kramer Electronics BC-2T | Stereo Audio/Control Cable | BC-2T-300M | 4 |
| Kramer Electronics BC-UNIKAT/LSHF-100M | 23 AWG U/FTP CAT6A Bulk Cable Optimized for Kramer's DGKat, HDBaseT and LAN applications (Blue) - 100 metros | BC-UNIKAT/LSHF-100M | 50 |
| Kramer Electronics CON-RJ45-3 | Conectores RJ - 45 Blindados para Cabo CAT (23AWG) | 99-9204571 | 20 |
| Kramer Electronics PT-2UT/R-KIT | USB 2.0 PoC Extender Kit over Extended-Reach CAT | 50-00015590 | 1 |
| Kramer Electronics TP-580RA | 4K60 4:2:0 HDMI Receiver with RS-232, IR & Stereo Audio De-embedding over Long-Reach HDBaseT | 50-8048601090 | 1 |
| Kramer Electronics TP-580T | HDMI, bidirectional RS232 and IR over HDBaseT twisted pair transmitter | 50-80021090 | 1 |
| Kramer Electronics VS-211H2 | 2x1 4K HDR HDCP 2.2 HDMI Auto Switcher | 20-80353090 | 1 |
| Kramer Electronics W-H (B) | HDMI Female to HDMI Female TBUS Insert - Black | 85-0009399 | 10 |
| Kramer Electronics WP-H1M(WP-HDMI1M)/US(G) | Passive Wall Plate - HDMI for US - Grey | WP-H1M(WP-HDMI1M)/US(G) | 2 |
| Kramer Electronics WU-AA (B) | Interface USB-A (F) - USB-A (F), 2.0, com rabicho de 0,15m - Preta | 85-0119799 | 5 |
| Kramer Electronics C-DP-50 | DisplayPort (M) to DisplayPort (M) Cable 50' 15,2(M) | 97-0617050 | 1 |
| Kramer Electronics C-DP-6 | C-DP is a high-resolution DisplayPort cable for video signals up to 4K@60Hz (4:4:4) resolution supporting DisplayPort 1.2 standard. | 97-0617006 | 3 |
| Kramer Electronics C-HM/HM/ETH-10 | C-HM/HM/ETH series standard HDMI cable, ethernet, male to male connector, 10' | 97-01213010 | 7 |
| Kramer Electronics C-HM/HM/ETH-15 | C-HM/HM/ETH series standard HDMI cable, ethernet, male to male connector, 15' | 97-01213015 | 5 |
| Kramer Electronics C-HM/HM/ETH-15 | High-Speed HDMI™ Cable with Ethernet 4,60m (15ft) | 97-01213015 | 2 |
| Kramer Electronics C-HM/HM/ETH-25 | C-HM/HM/ETH series standard HDMI cable, ethernet, male to male connector, 25' | 97-01213025 | 2 |
| Kramer Electronics C-HM/HM/ETH-35 | Kramer HDMI-HDMI - 35' 10.70(M) - 4K@60Hz (4:2:0) | 97-01213035 | 1 |
| Kramer Electronics C-HM/HM/ETH-6 | C-HM/HM/ETH series standard HDMI cable, ethernet, male to male connector, 6' | 97-01213006 | 22 |
| Kramer Electronics C-USB/AA-15 | USB2.0 type A to type A cable - 15' | 96-0212015 | 1 |
| Kramer Electronics C-USB/AA-6 | USB2.0 type A to type A cable - 6' | 96-0212006 | 5 |
| Kramer Electronics C-USB/AB-6 | USB 2.0 type A to type B cable - 6' | 96-0215006 | 2 |

Lenovo

| Name | Description | Part Number | QTY |
|---|--|-------------|-----|
| Lenovo M70q - i5-8GB 256GB SSD Windows 10 IoT | Mini PC i5-10400T - 8GB - 256GB SSD - Windows 10 IoT | 11DUSD3F00 | 2 |
| Lenovo ThinkCentre Tiny VESA Mount II | VESA Mount | 4XF0N03161 | 1 |

Line Conference

| Name | Description | Part Number | QTY |
|--|--|----------------|-----|
| Line Conference PL 100-000 - Custom - para Logitech Rally Camera | Suporte de Teto para Logitech Rally Camera | PL 100-000-CST | 1 |

| | | | |
|----------------|------------------------|--------------|----------------|
| Client: | Green4T | Number: | 20220117 |
| Project Title: | Escopo de AV nova Sede | | |
| Sales: | Haroldo Lopes | Engineering: | Amauri Passos, |
| Publish Date: | 2022-06-10 | Rev: | 10 |
| Page: | 4 | Pages: | 5 |

Logitech

| Name | Description | Part Number | QTY |
|-------------------------------------|---|-------------|-----|
| Logitech Expansion mic for MeetUp | EXPANSION MIC FOR MEETUP | 989-000405 | 2 |
| Logitech KEYBOARD K400 PLUS | Wireless Touch Keyboard | 920-007125 | 1 |
| Logitech MEETUP | USB Conference Camera | 960-001101 | 5 |
| Logitech Rally | Video-Conference System | 960-001233 | 1 |
| Logitech Rally Camera | Premium PTZ camera with Ultra-HD imaging system and automatic camera contro | 960-001226 | 1 |
| Logitech Rally Mic Pod | Microphone | 989-000430 | 2 |
| Logitech Rally Mic Pod Hub | Hub for Rally microphones | 939-001647 | 1 |
| Logitech Rally Mounting Kit | Custom mounts for a sleek installation and secure cabling | 939-001644 | 1 |
| Logitech Rally Speaker | Speaker | 960-001230 | 1 |
| Logitech TAP WITH CAT5E KIT | Meeting room controller + Cat5e kit | 939-001950 | 1 |
| Logitech MeetUp Mic Extension Cable | USB C-C Cable, 10 m | 950-000005 | 1 |

Peerless

| Name | Description | Part Number | QTY |
|---|--|-------------|-----|
| Peerless Rotational Wall Mount for the 55" and 65" Samsung Flip | Rotational Wall Mount for the 55" (WM55H, WM55R) and 65" (WM65R*) Samsung Flip | RMI3-FLIP | 1 |

PNY

| Name | Description | Part Number | QTY |
|------------------|------------------------|---------------|-----|
| PNY Quadro P1000 | V2 NVIDIA Quadro P1000 | VCQP1000V2-PB | 1 |

Projetelas

| Name | Description | Part Number | QTY |
|--|---|-------------|-----|
| Projetelas A-M016.2 | Moldura de Acabamento para Tela de Projeção Projetelas A-M016.2 Branco | A-M016.2 | 1 |
| Projetelas ELEGANCE WIDE SCREEN (16:10) 148" | ELEGANCE WIDE SCREEN (16:10) 148" | 148EWAT | 1 |

S4T

| Name | Description | Part Number | QTY |
|---|--|-----------------|-----|
| S4T Porca Gaiola e Parafuso - AVULSO | Porca, Gaiola e Parafuso. AVULSO | 017060000440001 | 100 |
| S4T Bandeja Fixa 600MM , Preto | Bandeja Fixa | 017060005000010 | 4 |
| S4T Kit de Ventilação com 04 vts | Kit de Ventilação | 017060000000007 | 2 |
| S4T Kit Rodizio Com 4 Rodas (2 com travas) | Kit Rodizio c/ 04 Rodas (2 com travas) | 017060000000220 | 2 |
| S4T Rack Piso 16U x 670MM, Preto | Rack Piso Fechado 16U | 017011605000002 | 2 |
| S4T Regua de Tomadas - 8 Tomadas, 10A | Régua de tomadas 08 tomadas - 10A | 017060000000004 | 2 |

Samsung

| Name | Description | Part Number | QTY |
|--|---|----------------|-----|
| Samsung MagicInfo Premium Unified License | Samsung MagicInfo Premium Unified License | BW-MIP40PA | 3 |
| Samsung 60AU7700 | Smart TV 60" UHD 4K | UN60AU7700GXZD | 1 |
| Samsung QB65R | Display any content in ultra-high definition | LH65QBREBGCXZD | 2 |
| Samsung Samsung Flip 2 55" | Samsung Flip is an intuitive and easy-to-use digital flipchart for any meeting environment, offering enhanced collaboration capabilities. | LH55WMRWBGCXZA | 3 |
| Samsung VM55T | 55" Full HD Professional Display for Videowall | LH55VMTEBGBXZD | 4 |
| Samsung Wheel-based stand for the Samsung Flip | A portable, wheel-based stand for the Samsung Flip digital flipchart | STN-WM55RXZA | 2 |

| | | | | | | | | | | | |
|----------------|------------------------|--------------|----------------|---------------|------------|------|----|-------|---|--------|---|
| Client: | Green4T | | | Number: | 20220117 | | | | | | |
| Project Title: | Escopo de AV nova Sede | | | | | | | | | | |
| Sales: | Haroldo Lopes | Engineering: | Amauri Passos, | Publish Date: | 2022-06-10 | Rev: | 10 | Page: | 5 | Pages: | 5 |

Shure

| Name | Description | Part Number | QTY |
|--------------------|---|--------------|-----|
| Shure SB903 | Lithium-ion battery for SLX-D Wireless Transmitters | SB903 | 3 |
| Shure SBC203BR | Dual Docking Recharging Station for SB903 Lithium-Ion Battery | SBC203BR | 2 |
| Shure SLXD1 | Bodypack Transmitter | SLXD1 | 1 |
| Shure SLXD24D/SM58 | Dual Wireless System with 2 SLXD2/58 Handheld Transmitters | SLXD24D/SM58 | 1 |
| Shure SM35-TQG | Performance Headset Condenser Microphone | SM35-TQG | 1 |
| Shure UA834WB | In-Line Antenna Amplifier | UA834WB | 2 |
| Shure UA860SWB | Passive Omnidirectional Antenna | UA860SWB | 2 |
| Shure UABIAS | In-Line Power Supply | UABIAS | 2 |

TBD

| Name | Description | Part Number | QTY |
|--|---|------------------|-----|
| TBD Estrutura Mecânica para Painel de LED Curvo - Custom | Estrutura de Piso para Painel de LED Curvo, 3,84 m x 2,4 m Altura do piso: 1 m (a confirmar em projeto executivo) Estrutura de piso Fechamento, inclusive atras Ver imagem "painel_led" para layout mostrando a curvatura | TBD-MNT-CRV-CSTM | 1 |

TCL

| Name | Description | Part Number | QTY |
|------------|---|-------------|-----|
| TCL 55P725 | 55" TV 4K HDR Picture Quality, MEMC, Dolby Vision / Atmos, Hands-Free Voice Control 2.0 | 55P725 | 9 |
| TCL 65P715 | 65" ANDROID TV LED P715 | 65P715 | 1 |
| TCL 75P715 | 75" ANDROID TV LED | 75P715 | 2 |

TP-Link

| Name | Description | Part Number | QTY |
|---------------------|---|-------------|-----|
| TP-Link TL-SG3428MP | JetStream 28-Port Gigabit L2 Managed Switch with 24-Port PoE+ | TL-SG3428MP | 1 |



Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977

CREA-BA

ART OBRA / SERVIÇO
Nº BA20220125106

Conselho Regional de Engenharia e Agronomia da Bahia

INICIAL

1. Responsável Técnico

OLIVAR BARBOSA DA SILVA JUNIOR

Título profissional: **ENGENHEIRO ELETRICISTA ELETRÔNICA**

RNP: **0506716422**

Registro: **34033/D BA**

Empresa contratada: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**

Registro : **0010100288-BA**

2. Dados do Contrato

Contratante: **GREEN4T SOLUÇÕES TI LTDA**

CPF/CNPJ: **03.698.620/0001-34**

AVENIDA JORNALISTA ROBERTO MARINHO

Nº: **85**

Complemento: **Cidade Monções**

Bairro: **CIDADE MONÇÕES**

Cidade: **SÃO PAULO**

UF: **SP**

CEP: **04576010**

Contrato: **20220117**

Celebrado em: **30/03/2022**

Valor: **R\$ 103.454,01**

Tipo de contratante: **Pessoa Juridica de Direito Privado**

Ação Institucional: **NENHUMA - NAO OPTANTE**

Situação: **BAIXA DE ART**

Atendido: **SIM**

Data da Solicitação: **18/07/2023**

Data do Atendimento:

Motivo: **CONCLUSÃO DA OBRA/SERVIÇO**

3. Dados da Obra/Serviço

AVENIDA JORNALISTA ROBERTO MARINHO

Nº: **85**

Complemento: **Cidade Monções**

Bairro: **CIDADE MONÇÕES**

Cidade: **SÃO PAULO**

UF: **SP**

CEP: **04576010**

Data de Início: **30/05/2022**

Previsão de término: **20/06/2022**

Coordenadas Geográficas: **-23.612050, -46.697210**

Finalidade: **Outro**

Código: **Não Especificado**

Proprietário: **GREEN4T SOLUÇÕES TI LTDA**

CPF/CNPJ: **03.698.620/0001-34**

4. Atividade Técnica

17 - Elaboração

Quantidade

Unidade

24 - Projeto > ELÉTRICA - ATIVIDADES PROFISSIONAIS, CIENTÍFICAS E TÉCNICAS > EQUIPAMENTOS ELETRICOS ELETRONICOS > #280 - SERVICOS AFINS E CORRELATOS EM EQUIP.ELET./ELETR.

1,00

un

14 - Gestão

Quantidade

Unidade

172 - Operação de Instalação > ELÉTRICA - ATIVIDADES PROFISSIONAIS, CIENTÍFICAS E TÉCNICAS > EQUIPAMENTOS ELETRICOS ELETRONICOS > #280 - SERVICOS AFINS E CORRELATOS EM EQUIP.ELET./ELETR.

1,00

un

5. Observações

Sistemas de áudio e vídeo compostos por equipamentos de videoconferência e videowall.

6. Declarações

- Declaro que estou cumprindo as regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no decreto n. 5296/2004.

7. Entidade de Classe

NENHUMA DAS ENTIDADES

8. Assinaturas

Declaro serem verdadeiras as informações acima

OLIVAR BARBOSA DA SILVA JUNIOR - CPF: 428.565.072-04

Local

data

GREEN4T SOLUÇÕES TI LTDA - CNPJ: 03.698.620/0001-34

9. Informações

* A ART é válida somente quando quitada, mediante apresentação do comprovante do pagamento ou conferência no site do Crea.

* O comprovante de pagamento deverá ser apensado para comprovação de quitação

10. Valor

Valor da ART: **R\$ 233,94**

Registrada em: **02/06/2022**

Valor pago: **R\$ 233,94**

Nosso Número: **54451248**

A autenticidade desta ART pode ser verificada em: <http://crea-ba.sitac.com.br/publico/>, com a chave: 8xCxA
 Impresso em: 07/06/2024 às 11:32:17 por: , ip: 179.191.123.146





Certidão de Acervo Técnico - CAT
Resolução Nº 1025 de 30 de Outubro de 2009

CREA-BA

CAT SEM REGISTRO DE ATESTADO

196130/2023

Conselho Regional de Engenharia e Agronomia da Bahia

CERTIFICAMOS, para os devidos fins, que consta em nossos arquivos a(s) Anotação(ões) de Responsabilidade Técnica - ARTs abaixo discriminada(s):

Profissional: **OLIVAR BARBOSA DA SILVA JUNIOR**
Registro: **34033/D BA** RNP: **0506716422**
Título profissional: ENGENHEIRO ELETRICISTA ELETRÔNICA, ENGENHARIA DE TELECOMUNICACOES

Número da ART: **BA20220125106** Tipo de ART: OBRA / SERVIÇO Registrada em: 02/06/2022 Baixada em: 18/07/2023
Forma de registro: INICIAL Participação técnica: INDIVIDUAL
Empresa contratada: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**

Contratante: **GREEN4T SOLUÇÕES TI LTDA** CPF/CNPJ: **03.698.620/0001-34**
Endereço do contratante: AVENIDA JORNALISTA ROBERTO MARINHO Nº: 85
Complemento: Cidade Monções Bairro: CIDADE MONÇÕES
Cidade: SÃO PAULO UF: SP CEP: 04576010
Contrato: 20220117 Celebrado em: 30/03/2022
Valor do contrato: R\$ 103.454,01 Tipo de contratante: Pessoa Jurídica de Direito Privado
Ação institucional: NENHUMA - NAO OPTANTE
Endereço da obra/serviço: AVENIDA JORNALISTA ROBERTO MARINHO Nº: 85
Complemento: Cidade Monções Bairro: CIDADE MONÇÕES
Cidade: SÃO PAULO UF: SP CEP: 04576010
Coordenadas Geográficas: -23.612050, -46.697210
Data de início: 30/05/2022 Previsão de término: 20/06/2022
Finalidade: Outro
Proprietário: GREEN4T SOLUÇÕES TI LTDA CPF/CNPJ: 03.698.620/0001-34

Atividade Técnica: **14 - Gestão** ELÉTRICA - ATIVIDADES PROFISSIONAIS, CIENTÍFICAS E TÉCNICAS > EQUIPAMENTOS ELETRICOS ELETRONICOS > #280 - SERVICOS AFINS E CORRELATOS EM EQUIP.ELET./ELETR. 172 - Operação de Instalação 1.00 unidade; **17 - Elaboração** ELÉTRICA - ATIVIDADES PROFISSIONAIS, CIENTÍFICAS E TÉCNICAS > EQUIPAMENTOS ELETRICOS ELETRONICOS > #280 - SERVICOS AFINS E CORRELATOS EM EQUIP.ELET./ELETR. 24 - Projeto 1.00 unidade;

Observações

Sistemas de áudio e vídeo compostos por equipamentos de videoconferência e videowall.

Número da ART: **BA20230486533** Tipo de ART: OBRA / SERVIÇO Registrada em: 18/07/2023 Baixada em: 24/07/2023
Forma de registro: SUBSTITUIÇÃO DE DADOS Participação técnica: INDIVIDUAL
Empresa contratada: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**

Contratante: **FLPP FARIA LIMA PRIME PROPERTIES S.A.** CPF/CNPJ: **07.349.852/0001-38**
Endereço do contratante: AVENIDA BRIGADEIRO FARIA LIMA Nº: 2277
Complemento: 20º andar Bairro: JARDIM PAULISTANO
Cidade: SÃO PAULO UF: SP CEP: 01452000
Contrato: FLPP - 20200608 Celebrado em: 04/11/2020
Valor do contrato: R\$ 112.482,09 Tipo de contratante: Pessoa Jurídica de Direito Privado
Ação institucional: NENHUMA - NAO OPTANTE
Endereço da obra/serviço: AVENIDA BRIGADEIRO FARIA LIMA Nº: 3732
Complemento: Teatro B32 Bairro: ITAIM BIBI
Cidade: SÃO PAULO UF: SP CEP: 04538132
Data de início: 29/07/2021 Previsão de término: 10/01/2023
Finalidade: Comercial
Proprietário: FLPP FARIA LIMA PRIME PROPERTIES S.A. CPF/CNPJ: 07.349.852/0001-38

Atividade Técnica: **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > DE SISTEMAS DE SONORIZAÇÃO > #TOS_12.5.1.1 - INTERNA 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.2 - DE EQUIPAMENTOS DE SONORIZAÇÃO 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.2 - DE EQUIPAMENTOS DE SONORIZAÇÃO 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.3 - DE PERIFÉRICOS DE ÁUDIO 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.4 - DE SISTEMAS DE VÍDEO 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.5 - DE EQUIPAMENTOS DE VÍDEO 80 - Projeto 17.00 mes; **16 - Execução** TELECOMUNICAÇÕES > COMUNICAÇÃO MULTIMÍDIA > #TOS_15.7.1 - DE COMUNICAÇÃO MULTIMÍDIA 80 - Projeto 17.00 mes;

Observações

Desenvolvimento Integral do Projeto de Áudio e Vídeo (Infraestrutura, Diagramas, etc.) para o Teatro B32.





Certidão de Acervo Técnico - CAT
Resolução Nº 1025 de 30 de Outubro de 2009

Conselho Regional de Engenharia e Agronomia da Bahia

CREA-BA

CAT SEM REGISTRO DE ATESTADO

196130/2023

Informações Complementares

- CONSIDERAR OS SERVIÇOS, APENAS, NO ÂMBITO DA ENGENHARIA ELÉTRICA - ELETRÔNICA.
- ESTA CERTIDÃO É PARA FIM EXCLUSIVO DE ACERVO TÉCNICO E NÃO ACRESSENTA NENHUMA ATRIBUIÇÃO ÀS ORIGINARIAMENTE CONSIGNADAS NO REGISTRO DO PROFISSIONAL NO CREA, SENDO VEDADA QUALQUER EXTRAPOLAÇÃO, NOS TERMOS DA ALÍNEA 'B' DO ARTIGO 6º DA LEI 5.194 DE 24 DE DEZEMBRO DE 1996.

Certidão de Acervo Técnico nº 196130/2023

12/09/2023, 12:03

AaZwZ

A falsificação deste documento constitui-se em crime previsto no Código Penal Brasileiro, sujeitando o(a) autor(a) à respectiva ação penal.

Esta certidão perderá a validade, caso ocorra qualquer alteração posterior dos elementos cadastrais nela contidos

A autenticidade desta Certidão pode ser verificada em: <http://crea-ba.sitac.com.br/publico/>, com a chave: AaZwZ





ATESTADO DE CAPACIDADE TÉCNICA

Atestamos para os devidos fins, que a empresa **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**, sediada à Rua José Jorge Pereira, nº 47, Qd Lt 22 – Portão – Lauro de Freitas/BA, inscrita no CNPJ sob o nº 02.423.819/0001-97, ofertou satisfatoriamente a **EDIFICAR ENTIDADE DE FILANT E ASSIST CASA DO CONSOLIDADOR**, inscrita no CNPJ sob nº 00.351.584/0001-40, com sede à Avenida do Café nº 67 – Vila Guarani (Z. Sul) – São Paulo – SP – CEP 04311-001, o fornecimento e a instalação dos sistemas de áudio, vídeo e automação do novo prédio da casa do consolador, composto por um Auditório para 300 (trezentas) pessoas, área de recepção, lanchonete, sala de atendimento, sala pré/pós-operatório, sala de cirurgia e sala dos médicos.

Relação dos serviços, sistemas e equipamentos/periféricos audiovisuais ofertados:

Auditório – Áudio:

- Yamaha DZR15 - Yamaha CAIXA ACUSTICA YAMAHA DZR15 BIAMPLIFICADA – Quantidade: 2
- Yamaha DZR10 - Yamaha CAIXA ACUSTICA YAMAHA DZR10 BIAMPLIFICADA – Quantidade: 2
- Yamaha DXS15XLF - Yamaha SUBWOOFER YAMAHA DXS15XLF – Quantidade: 2
- Yamaha DXR10mkII - Caixa Ativa 10" 1100W DXR10 MKII – Yamaha – Quantidade: 2
- Yamaha TF3 - Yamaha TF3 Digital Mixing Console – Quantidade: 1
- QSC Q-SYS Core 110F - 8 inputs, 8 outputs, 8 software assignable Flex channels DSP System – Quantidade: 1
- Apple MK2K3BZ/A - Apple iPad (9ª geração) A13 – Quantidade: 1
- Shure SRH240A - Fone de Ouvido SRH240A – Quantidade: 1
- Shure SLXD24D/SM58 Dual Wireless System with 2 SLXD2/58 Handheld Transmitters – Quantidade: 1
- Shure SM58 - Microfone Vocal Shure SM58 – Quantidade: 2
- Shure SM81 - Microfone para instrumentos acústicos – Quantidade: 2
- RMV PSU0090 - Pedestal Para Microfone PSU0090 – RMV – Quantidade: 5
- Todos os cabos, conectores e acessórios necessários para implantação do sistema de áudio.



Auditório – Vídeo:

- Epson PowerLite L775U - Projetor laser PowerLite L775U 3LCD – Quantidade: 1
- Projetelas A-SEM50 - Suporte para Projetor de Teto Eco – Quantidade: 1
- Projetelas CLASSIC LX 200EWM - TELA MOTORIZADA 200 (200 X 4590 X 4730) – Quantidade: 1
- Projetelas A-SC - Sensor de Corrente Simples – Quantidade: 1
- Sony SRG-X400 - Sony HD/4k PTZ Câmera, 40x zoom, 3G-SDI/HDMI/NDI/IP streaming – Quantidade: 1
- Projetelas A-SEM50 Suporte para Projetor de Teto Eco – Quantidade: 1 + Consumíveis e Miscelâneas.
- Kramer Electronics TP-580T - HDMI, Bidirectional RS-232 & IR over HDBaseT Twisted Pair Transmitter – Quantidade: 1
- Kramer Electronics TP-580R HDMI, Bidirectional RS-232 & IR over HDBaseT Twisted Pair – Quantidade: 1
- Anker AK-68ANHUB-BV7A - Anker 7-Port USB 3.0 Data Hub – Quantidade: 1
- Barco CX-30 - Sistemas de conferência sem fio CX-30 – Quantidade: 1
- INOGENI 4K2USB3 - Converter - HDMI 4K to USB 3.0/2.0 – Quantidade: 1
- Samsung UN43CU7700GXZD - Smart LED UHD 4K 43" 3 HDMI, 1 USB, Bluetooth, Wi-Fi, Gaming Hub, Tela sem limites, Alexa built in – Quantidade: 1
- Kramer Electronics VS-44DT - 4x4 4K60 4:2:0 HDMI/HDBaseT Extended-Reach PoE Matrix Switcher – Quantidade: 1
- Todos os cabos, conectores e acessórios necessários para implantação do sistema de vídeo.

Demais Ambientes – Áudio

- QSC MP-A80V 1600W FlexAmp technology Hi-Z / Lo-Z amplifier, 8 x 200W into 4Ω, 8Ω, 70V and 100V, Highpass filter per channel, GPIO for Remote Standby and Amp Status – Quantidade: 2
- Yamaha DZR12 Yamaha CAIXA ACUSTICA YAMAHA DZR12 BIAMPLIFICADA – Quantidade: 2
- Yamaha VXS8 CAIXA ACUSTICA YAMAHA PAR - ZE95850 – Quantidade: 2
- Absolute Acoustics RPRO4T Premium PRO Grade Speaker - 60 Watts – Quantidade: 17
- Audinate ADP-DAI-AU-2X0 Audinate Dante AVIO 2-Channel Analog Input – Quantidade: 1
- QSC unD6IO-BT Dante™ Networked Audio Wall Plate - 4x2 Multi I/O with Bluetooth® Audio – Quantidade: 2



- Attero Tech unDX4I 4x2 Channel Dual Gang, Dante/AES67 US Wall Plate 4 Mic/Line In (XLR), Phoenix I/O, PoE – Quantidade: 1
- QSC Axon C1 Single-Gang networked audio controller (Attero Tech by QSC) – Quantidade: 2
- Todos os cabos, conectores e acessórios necessários para implantação do sistema de áudio.

Demais Ambientes – Vídeo

- Epson PowerLite L570U - Projetor laser PowerLite L570U 3LCD – Quantidade: 1
- Projetelas A-SEM50 Suporte para Projetor de Teto Eco – Quantidade: 1
- Projetelas 133EWM Classic LX - 133 - tensionada reta – Quantidade: 1
- Projetelas A-SC Sensor de Corrente Simples – Quantidade: 1
- Barco CX-20 Sistemas de conferência sem fio CX-20 – Quantidade: 1
- Consumíveis e Miscelâneas
- Todos os cabos, conectores e acessórios necessários para implantação do sistema de vídeos.

Diversos

- Womer W23000002 - MINI RACK W23 8UX570MM – Quantidade: 2
- Womer AC000045 - KIT VENTILACAO LINHA W23 E W38 – Quantidade: 2
- Womer W14721/00 - Kit Porca Gaiola e Parafuso M5 - 25 peças – Quantidade: 2
- Womer Painel Cego PAINEL CEGO 19" X 1U AC7201 – Quantidade: 4
- Womer 11434BANDEJA 19" BANDEJA 19" 1U X 300MM C/KIT PORCA – Quantidade: 2
- ITComtech CALHA04 - 10A Régua Calha PDU Em Aço Com 04 Tomadas 10^a – Quantidade: 2
- ITComtech CALHA04- 20^a - Régua Calha PDU Em Aço Com 04 Tomadas 20A– Quantidade: 2
- Tp-Link EAP110 Access Point Tp-link Wireless N 300 Mbps Omada Montavel EM Teto EAP110 – Quantidade: 1
- TP-Link TL-SG1016PE Switch Gigabit Easy Smart de 16 portas com 8 portas PoE+ –
Quantidade: 1



- Furukawa 35050402 Patch Panel SohoPlus, CAT.6, T568A/B, 24 Portas – Quantidade: 1

Serviços:

- A absolut technologies é responsável pelo desenvolvimento do conceito tecnológico, projeto técnico detalhado e posterior instalação, programação e testes dos equipamentos. A empresa realizou os ajustes necessários, programou os sistemas e concretizou a instalação final com sucesso. Após a instalação, efetuou treinamento de operação e de manutenção simples para os técnicos e/ou funcionários responsáveis pela utilização das soluções instaladas, visando que estejam aptos a operá-las.

Prazo de garantia: 12 (doze) meses.

Por fim, nesta oportunidade, afirmamos que a ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA prestou os serviços especificados no instrumento contratual jurídico celebrado entre as partes de forma satisfatória bem como forneceu os equipamentos, acessórios e periféricos dentro dos prazos estabelecidos em contrato. Logo, não consta conduta que a desabone técnica e comercialmente, até a presente data, sendo recomendada pela EDIFICAR ENTIDADE DE FILANT E ASSIST CASA DO CONSOLADOR.

São Paulo, 07 de Fevereiro de 2025.

Margarete Corrêgio - margareteaquila@hotmail.com

Presidente do Conselho Edificar



Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977
Conselho Regional de Engenharia e Agronomia do Estado de São Paulo

CREA-SP

ART de Obra ou Serviço
2620242032615

1. Responsável Técnico

OLIVAR BARBOSA DA SILVA JUNIOR

Título Profissional: **Engenheiro Eletricista**

RNP: **506716422**

Registro: **5071473502-SP**

Registro: **2572620-SP**

Empresa Contratada: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**

2. Dados do Contrato

Contratante: **EDIFICCAR ENTIDADE DE FILANT E ASSIST CASA DO CONSOLIDADOR**

CPF/CNPJ: **00.351.584/0001-40**

Endereço: **Avenida ENGENHEIRO GEORGE CORBISIER**

Nº: **1481**

Complemento:

Bairro: **JABAQUARA**

Cidade: **São Paulo**

UF: **SP**

CEP: **04345-001**

Contrato: **20240205**

Celebrado em: **29/02/2024**

Vinculada à Art nº:

Valor: R\$ **630.691,85**

Tipo de Contratante: **Pessoa Jurídica de Direito Privado**

Ação Institucional:

3. Dados da Obra Serviço

Endereço: **Avenida ENGENHEIRO GEORGE CORBISIER**

Nº: **1481**

Complemento:

Bairro: **JABAQUARA**

Cidade: **São Paulo**

UF: **SP**

CEP: **04345-001**

Data de Início: **15/03/2024**

Previsão de Término: **16/12/2024**

Coordenadas Geográficas: **-23.649930337589414;-46.646759075215044**

Finalidade: **Outro**

Código:

Proprietário: **EDIFICCAR ENTIDADE DE FILANT E ASSIST CASA DO CONSOLIDADOR**

CPF/CNPJ: **00.351.584/0001-40**

4. Atividade Técnica

Quantidade Unidade

Concepção

1 Projeto de sistemas de interna 1,00000 unidade

sonorização

Projeto de sistemas de vídeo 1,00000 unidade

Gestão

2 Projeto de sistemas de 1,00000 unidade

sonorização

Execução de instalação de sistemas de vídeo 1,00000 unidade

Execução de instalação de equipamentos de 1,00000 unidade

sonorização

Projeto de sistemas de vídeo 1,00000 unidade

Após a conclusão das atividades técnicas o profissional deverá proceder a baixa desta ART

5. Observações

Projeto, fornecimento e instalação dos sistemas de áudio, vídeo e automação do novo prédio da casa do consolador, composto por um Auditório para 300 pessoas, Área de Recepção, Lanchonete, Sala de Atendimento, Sala Pré/Pós-Operatório, Sala de Cirurgia e Sala dos Médicos.

6. Declarações

Acessibilidade: Declaro atendimento às regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no Decreto nº 5.296, de 2 de dezembro de 2004.

7. Entidade de Classe

Nenhuma

8. Assinaturas

Declaro serem verdadeiras as informações acima

_____ de _____ de _____
Local data

OLIVAR BARBOSA DA SILVA JUNIOR - CPF: 428.565.072-04

EDIFICAR ENTIDADE DE FILANT E ASSIST CASA DO CONSOLADOR -
CPF/CNPJ: 00.351.584/0001-40

9. Informações

- A presente ART encontra-se devidamente quitada conforme dados constantes no rodapé-versão do sistema, certificada pelo *Nosso Número*.

- A autenticidade deste documento pode ser verificada no site www.creasp.org.br ou www.confex.org.br

- A guarda da via assinada da ART será de responsabilidade do profissional e do contratante com o objetivo de documentar o vínculo contratual.

www.creasp.org.br

Tel: 0800 017 18 11

E-mail: acessar link Fale Conosco do site acima



Valor ART R\$ 262,55

Registrada em: 26/11/2024

Valor Pago R\$ 262,55

Nosso Numero: 2620242032615

Versão do sistema

Impresso em: 03/12/2024 13:33:46



Certidão de Acervo Técnico - CAT
Resolução No. 1.137, de 31 de março de 2023

CREA-SP

CAT SEM REGISTRO DE ATESTADO
2620240024755

Conselho Regional de Engenharia e Agronomia do Estado de São Paulo

CERTIFICAMOS, em cumprimento ao disposto na Resolução no. 1.137, de 31 de março de 2023, do Confea, que consta dos assentamentos deste Conselho Regional de Engenharia e Agronomia do Estado de São Paulo - CREA-SP, o Acervo Técnico do profissional OLIVAR BARBOSA DA SILVA JUNIOR referente à(s) Anotação(ões) de Responsabilidade Técnica - ART abaixo discriminada(s):

Profissional: OLIVAR BARBOSA DA SILVA JUNIOR
Registro: 5071473502-SP RNP: 506716422
Título Profissional: Engenheiro Eletricista,

Número ART: 2620242032615 Tipo de ART: OBRA OU SERVIÇO Registrada em: 26/11/2024 Baixada em: 20/12/2024
Forma de Registro: INICIAL
Participação Técnica: INDIVIDUAL
Empresa Contratada: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA

Contratante: EDIFICCAR ENTIDADE DE FILANT E ASSIST CASA DO CONSOLIDADOR CNPJ: 00.351.584/0001-40 ...
AVENIDA ENGENHEIRO GEORGE CORBISIER No.: 1481 ...
Complemento: Bairro: JABAQUARA
Cidade: São Paulo UF: SP CEP: 04345001 . PAIS: BRASIL
Contrato: 20240205 Celebrado em : 29/02/2024
Vinculado à ART:
Valor do Contrato: R\$ 630.691,85 Tipo de contratante: PESSOA JURÍDICA DE DIREITO PRIVADO .

Endereço da Obra/serviço: AVENIDA ENGENHEIRO GEORGE CORBISIER No.: 1481 ...
Complemento: Bairro: JABAQUARA
Cidade: São Paulo UF: SP CEP: 04345001 . PAIS: BRASIL
Data de início: 15/03/2024 Previsão de Término: 16/12/2024 Coordenadas Geográficas:
Finalidade: OUTRO
Proprietário: EDIFICCAR ENTIDADE DE FILANT E ASSIST CASA DO CONSOLIDADOR . CNPJ: 00.351.584/0001-40

Atividade Técnica: 1) Gestão, Execução de instalação, de equipamentos de sonorização. 1,00000 unidade. 2) Gestão, Execução de instalação, de sistemas de vídeo. 1,00000 unidade. 3) Gestão, Projeto, de sistemas de vídeo. 1,00000 unidade. 4) Gestão, Projeto, de sistemas de sonorização. 1,00000 unidade. 5) Concepção, Projeto, de sistemas de sonorização, interna. 1,00000 unidade. 6) Concepção, Projeto, de sistemas de vídeo. 1,00000 unidade.

Certidão de Acervo Técnico No.2620240024755
26/12/2024 18:45:22

Autenticação Digital: AKx115x3xTFsCUBGxCCzKkBn5UU63KIB
Conselho Regional de Engenharia e Agronomia do Estado de São Paulo
Avenida Brigadeiro Faria Lima, 1059 Pinheiros São Paulo-SP, CEP 01452-920
Telefone: 0800.171811 - www.creasp.org.br opção 'Atendimento' link 'Fale Conosco'



CREA-SP
Conselho Regional de Engenharia e Agronomia
do Estado de São Paulo



Certidão de Acervo Técnico - CAT
Resolução No. 1.137, de 31 de março de 2023

Conselho Regional de Engenharia e Agronomia do Estado de São Paulo

CREA-SP

CAT SEM REGISTRO DE ATESTADO
2620240024755

Profissional: OLIVAR BARBOSA DA SILVA JUNIOR
Registro: 5071473502-SP RNP: 506716422
Título Profissional: Engenheiro Eletricista,

Número ART: 2620242041724 Tipo de ART: OBRA OU SERVIÇO Registrada em: 26/11/2024Baixada em: 16/12/2024
Forma de Registro: INICIAL
Participação Técnica: INDIVIDUAL
Empresa Contratada: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA

Contratante: BOEHRINGER INGELHEIM DO BRASIL QUIMICA E FARMACEUTICA LTDA.
CNPJ: 60.831.658/0001-77
AVENIDA DAS NAÇÕES UNIDAS No.: 14171 ...
Complemento: TORRE B, ANDAR 18 Bairro: VILA GERTRUDES
Cidade: São Paulo UF: SP CEP: 04794000 . PAIS: BRASIL
Contrato: 20210325/20240131 Celebrado em : 02/06/2021
Vinculado à ART:
Valor do Contrato: R\$ 778.754,37 Tipo de contratante: PESSOA JURÍDICA DE DIREITO PRIVADO

Endereço da Obra/serviço:AVENIDA DAS NAÇÕES UNIDAS No.: 14171 ...
Complemento: Torre B, andar 18 Bairro: VILA GERTRUDES
Cidade: São Paulo UF: SP CEP: 04794000 . PAIS: BRASIL
Data de início: 05/08/2021 Previsão de Término: 02/12/2024 Coordenadas Geográficas:
Finalidade:
Proprietário: BOEHRINGER INGELHEIM DO BRASIL QUIMICA E FARMACEUTICA CNPJ: 60.831.658/0001-77

Atividade Técnica: 1) Gestão, Projeto, de sistemas de vídeo. 1,00000 unidade. 2) Gestão, Execução de operação, de sistemas de sonorização. 1,00000 unidade. 3) Gestão, Execução de operação, de sistemas de vídeo. 1,00000 unidade. 4) Gestão, Execução de manutenção, de sistemas de sonorização. 1,00000 unidade. 5) Gestão, Execução de manutenção, de sistemas de vídeo. 1,00000 unidade. 6) Gestão, Execução de instalação, de sistemas de sonorização. 1,00000 unidade. 7) Gestão, Projeto, de sistemas de sonorização. 1,00000 unidade. 8) Gestão, Execução de instalação, de sistemas de vídeo. 1,00000 unidade. 9) Concepção, Projeto, de sistemas de vídeo. 1,00000 unidade. 10) Concepção, Projeto, de sistemas de sonorização. 1,00000 unidade.

Informações Complementares

A presente certidão foi emitida com base nos dados da(s) ART(s) acima citada(s), registrada(s) apenas para as atividades técnicas desenvolvidas de acordo com as atribuições do profissional na área da Engenharia Mecânica, sendo seus dados de exclusiva responsabilidade do profissional requerente.

Certidão de Acervo Técnico No.2620240024755

26/12/2024 18:45:22

Autenticação Digital: AKx115x3xTFsCUBGxCCzKkBn5UU63KIB

Esta CAT não comprova o registro do atestado emitido pelo contratante da obra ou serviço referenciado na Lei nº. 8.666/1993.

A CAT perderá a validade no caso de modificação dos dados técnicos qualitativos e quantitativos nela contidos, bem como de alteração da situação do registro da ART.

A CAT é válida em todo território nacional.

A autenticidade e a validade desta certidão deve ser confirmada no site do CREA-SP (www.creasp.org.br).

A falsificação deste documento constitui crime previsto no Código Penal Brasileiro, sujeitando o autor à respectiva ação penal.



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Boehringer Ingelheim

ATESTADO DE CAPACIDADE TÉCNICA

Atestamos para os devidos fins, que a empresa **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**, sediada à Rua José Jorge Pereira, nº 47, Qd Lt 22 - Portão - Lauro de Freitas/BA, inscrita no CNPJ sob o nº 02.423.819/0001-97, ofertou satisfatoriamente a **BOEHRINGER INGELHEIM DO BRASIL QUÍMICA E FARMACÊUTICA LTDA**, inscrita no CNPJ sob o nº 60.831.658/0001-77, com sede à Avenida das Nações Unidas, nº 14.171 - Torre B, andar 18 - Vila Gertrudes CEP: 04.794-000, São Paulo/SP, o projeto técnico e executivo para criação de 1 (um) estúdio de gravação e transmissão de conteúdo via streaming, 1 (um) estúdio de gravação e captação de áudio e vídeo via streaming, 2 (dois) auditórios e 1 (um) IT Room, além do fornecimento dos equipamentos, periféricos e acessórios, provendo soluções de AVI (Áudio, Vídeo e Integração), implantação, garantia e suporte.

RELAÇÃO DOS AMBIENTES:

- Estúdio de gravação e transmissão de conteúdo via streaming;
- Estúdio de gravação e captação de áudio e vídeo via streaming;
- Auditório 1 e 2;
- IT Room.

RELAÇÃO DOS SERVIÇOS, SISTEMAS E EQUIPAMENTOS/PERIFÉRICOS AUDIOVISUAIS:

- **Aironflex RACK AUDIENCE BLACK** - Rack Aironflex AUDIENCE BLACK com porte vertical e instalação para TV. - **Quantidade: 5**
- **Anker AK-A7505112** - Hub com 7 portas USB 3.0 - **Quantidade: 2**
- **ARTE EM CENA Cabo de Segurança** - Cabo de Segurança para refletor - **Quantidade: 10**
- **ARTE EM CENA CAIXA_PISO_04TOMADAS_02CIRCUIT** - Caixa de tomadas instalada no piso do estúdio, embutida no piso elevado, com 04 tomadas 2P+T 20A em 02 circuitos AC e 01 conector XLR para sinal DMX, acabamento preto fosco - **Quantidade: 6**
- **ARTE EM CENA CAIXA_PISO_06TOMADAS_03CIRCUIT** - Caixa de tomadas instalada no piso das salas multiuso, com 06 tomadas 2P+T

20A em 03 circuitos AC e 01 conector XLR para sinal DMX, acabamento preto fosco - **Quantidade: 4**

- **ARTE EM CENA COLORDASH PAR QUAD 7-GANCHO-PLUG-CABO_SEG** - Refletor Par LED Colordash Par Quad 7, com gancho de fixação, plug e cabo de segurança - **Quantidade: 4**
- **ARTE EM CENA CONECTORES E FECHAMENTO QDIC** - Conectores e fechamento dos circuitos elétricos e de sinal para a Iluminação Cênica, desde o quadro elétrico QDIC até as varas, caixas e mesa de operação. Infraestrutura elétrica e cabos incluídos. - **Quantidade: 1**
- **ARTE EM CENA EXTENSAO_AC_2P+T_5M** - Extensão para AC com plug 2P+T em uma ponta e tomada 2P+T na outra, comprimento de 5m - **Quantidade: 10**
- **ARTE EM CENA EXTENSAO_BELDEN_XLR-M-F_5M** - Extensão em cabo tipo Belden com conector XLR macho em uma ponta e XLR fêmea na outra, comprimento de 5m - **Quantidade: 10**
- **ARTE EM CENA Garra** - Garra para refletor - **Quantidade: 10**
- **ARTE EM CENA INST_GRID-3VARAS-10CAIXA** - Instalação mecânica do grid, das 03 varas de 1 iluminação e 10 caixas de tomadas + mobilização, despesas com pessoal, fretes, andaimes, etc - **Quantidade: 1**
- **ARTE EM CENA VARA_470CM_9TOMADAS_3CIRCUITOS** - Vara fixa de iluminação com comprimento de 4,7m, instalada no grid, com 09 tomadas 2P+T 20A em 03 circuitos AC e 02 conectores XLR para saída de sinal DMX 512, acabamento preto fosco - **Quantidade: 3**
- **Atek AT624** - Tripé Cine I de 3 estágios - **Quantidade: 3**
- **Audinate ADP-USBC-AU-2X2** - Adaptador USB Tipo-C de 2x2 I/O para Rede de Áudio Dante - **Quantidade: 1**
- **Audinate Dante AVIO 2** - Adaptador de Entrada Analógica de 2 Canais para Rede de Áudio Dante - **Quantidade: 1**
- **Audio-Technica ATH-M20X** - Fones de cabeça profissionais para monitoramento - **Quantidade: 3**
- **Canon ACK-E18** - Kit de adaptador AC e acoplador DC - **Quantidade: 1**
- **Canon EF-S 18-135mm** - Lente para câmera Canon - **Quantidade: 1**
- **Canon EOS Rebel SL3** - Câmera Fotográfica Canon EOS Rebel SL3 com lente EF-S 18-55mm STM - **Quantidade: 1**
- **Central Cabos Guia de Cabo 1U Preto** - Guia de Cabo 1U Preto - **Quantidade: 2**

- **Central Cabos Kit de Rodízios com Trava e 4 Rodas** - Kit de Rodízios com 4 rodas, sendo duas com trava e duas sem, ideal para Racks de Piso e Coluna - **Quantidade: 1**
- **ChamSys QuickQ 10** - Console para controle de dimmer e iluminação LED - **Quantidade: 1**
- **Chauvet DJ Data Stream 8** - Divisor DMX com 8 saídas - **Quantidade: 2**
- **Chauvet DJ EVE P-140 VW** - Luz LED Wash de branco variável - **Quantidade: 6**
- **Cirilo Cabos Conector BNC de Pressão** - Plug BNC - **Quantidade: 20**
- **Conference JTK2** - Controle para câmera PTZ 4K - **Quantidade: 1**
- **Conference PTZ CAM 4K 12X NDI-HX** - Câmera PTZ 4K com zoom de 12X, NDI-HX, 3G SDI, HDMI, USB 3.0 e IP-POE - **Quantidade: 2**
- **Conference UPGRADE VMIX BASIC HD TO 4K** - Atualize sua chave de registro vMix licenciada - HD para 4K - **Quantidade: 1**
- **Conference VMIX-4SDI** - Servidor para Streaming VMIX com 4 entradas SDI - **Quantidade: 2**
- **Discabos 0825VD** - Cabo para automação com 1 par 18AWG e 1 par 22AWG - **Quantidade: 150 metros**
- **Discabos 9229CRSN** - Cabo paralelo Plus 2X2,50MM² Cristal - **Quantidade: 300 metros**
- **Discabos JK60PT** - Cabo Coaxial 75 Ohms Joker HI-DEF para SDI - **Quantidade: 150 metros**
- **D-Link DGS-1210-28MP** - Switch PoE Gigabit Smart Managed com 28 portas - **Quantidade: 1**
- **Eaton 9PX11Ki** - Nobreak 11KVA, monofásico, entrada 220V e saída 220V - **Quantidade: 1**
- **Edifier R1280DB** - Caixa Amplificada de 42WRms com Bluetooth (Par) - **Quantidade: 1**
- **Extron STP22-2/1000** - Cabo de Controle Serial/Áudio - **Quantidade: 100 metros**
- **Furukawa CAT.6 F/UTP** - Cabo Cat.6 F/UTP - **Quantidade: 905 metros**
- **Furukawa Patch Cord F/UTP CAT6 Gigalan T568A, Comprimento 1.5m, Cor Cinza** - Patch Cord F/UTP CAT6 Gigalan T568A, Comprimento 1.5m, Cor Cinza - **Quantidade: 50**
- **Furukawa PATCH CORD F/UTP GIGALAN AUGMENTED CAT.6A - CM - T568A/B - 2.0M - CINZA** - PATCH CORD F/UTP GIGALAN

AUMENTADO 6 CAT.6A - CM - T568A/B - 2.0M - CINZA (BLINDADO) -
Quantidade: 6

- **Furukawa PATCH CORD U/UTP GIGALAN CAT.6 - LSZH - T568A/B - 1.5M - AZUL** - PATCH CORD U/UTP GIGALAN CAT.6 - LSZH - 11 T568A/B - 1,5M - AZUL - **Quantidade: 11**
- **Furukawa Patch Panel 24P Soho Plus** - Patch Panel SohoPlus, CAT.6, T568A/B, 24 Portas - **Quantidade: 2**
- **Furukawa Plug RJ-45 CAT.6 - UTP** - Conector modular UTP 8 posições CAT.6 - **Quantidade: 60**
- **HDL C-90** - Fechadura C-90 Dupla Cinza - **Quantidade: 1**
- **Kramer Electronics C-HM/HM-10** - Cabo HDMI de Alta Velocidade 10' - 3,00(M) - **Quantidade: 7**
- **Kramer Electronics C-HM/HM-15** - Cabo HDMI (M) para HDMI (M) - 15' - **Quantidade: 4**
- **Kramer Electronics C-HM/HM-25** - Cabo HDMI Certificado Kramer, Interface HDMI de 25 FT - **Quantidade: 3**
- **Kramer Electronics C-HM/HM-35** - Cabo HDMI de Alta Velocidade 35' - 10,70(M) - **Quantidade: 2**
- **Kramer Electronics C-HM/HM-6** - Cabo HDMI de Alta Velocidade 6' - 1,80(M) - **Quantidade: 9**
- **Kramer Electronics TP-580R** - Receptor HDMI, RS232 bidirecional e IR sobre par trançado HDBaseT - **Quantidade: 2**
- **Kramer Electronics TP-580T** - Transmissor HDMI, RS232 bidirecional e IR sobre HDBaseT - **Quantidade: 2**
- **Kramer Electronics VIA Connect PLUS** - Solução de apresentação e colaboração com fio e sem fio simultânea - **Quantidade: 1**
- **Kramer Electronics VM-4H2** - Distribuidor HDMI 4K HDR 1:4 - **Quantidade: 1**
- **Lenovo M920Q - I7-9700T 8Gb 256Gb W10P** - Processador I7-9700T, 8 GB de RAM, SSD de 256 GB, Windows 10 Pro - **Quantidade: 1**
- **Lenovo ThinkCentre Tiny VESA Mount II** - Suporte VESA - **Quantidade: 2**
- **LG 27UL650-W** - Monitor 4K UHD IPS de 27" com VESA DisplayHDR 400 - **Quantidade: 2**
- **LG 43UL3G-B** - Monitor UHD 4K de 43" para salas de conferência e sinalização digital - **Quantidade: 2**
- **LG 55TR3BG-B** - Quadro Digital Interativo de 55" - **Quantidade: 1**

- **LG 55UL3G** - Display de sinalização digital UHD 4K de 55" -
Quantidade: 2
- **LG SuperSign CMS** - Licença de exibição de sinalização digital -
Quantidade: 2
- **LUMITEC FOTO** - Adaptador de pino de 5/8" para rosca macho de 3/8" - **Quantidade: 3**
- **Magewell USB Capture HDMI Gen 2 32060** - Dispositivo de captura HDMI de canal único - **Quantidade: 1**
- **Marantz Turret** - Sistema de Transmissão de Vídeo ao Vivo -
Quantidade: 2
- **MPL ILUMINAÇÃO Modulo de Disjuntor 12 canais** - Módulo de Disjuntor de 12 Canais, 4000W por canal - **Quantidade: 3**
- **NeolD HDMI** - Placa de Captura de Vídeo NeolD HDMI para USB 3.0 Full HD - **Quantidade: 2**
- **Panasonic AG-CX350** - Filmadora 4K - **Quantidade: 1**
- **Prima Photo PHKV002** - Tripé com Cabeça - **Quantidade: 2**
- **Pró Digital RDI-1P** - Relógio de Parede Pequeno com alcance de visibilidade de 20m - **Quantidade: 1**
- **QSC AD-S402T-WH** - Alto-falante de superfície com coluna de 4 drivers - Cor branca - **Quantidade: 2**
- **QSC AD-S4T-WH** - Alto-falante de montagem em superfície de duas vias de 4" - Cor branca - **Quantidade: 2**
- **QSC Core 8 Flex** - Processador de Áudio, Vídeo e Controle (AV&C) - **Quantidade: 1**
- **QSC NV-32-H** - Endpoint de vídeo em rede para o ecossistema Q-SYS - **Quantidade: 3**
- **QSC SPA4-60** - Amplificador Power Amplifier até 60 watts por canal em 4 e 8 ohms - **Quantidade: 1**
- **QSC TSC-80tw-G2-BK** - Controlador de tela de toque embutido ou de mesa - **Quantidade: 1**
- **Rosco 5288726-M** - Tapete Chroma Key Chão Azul/Verde - 1,60x10m x1,3mm - **Quantidade: 1**
- **S4T Bandeja Fixa 600MM, Preto** - Bandeja Fixa - **Quantidade: 8**
- **S4T Frente Falsa 1U** - Frente Falsa 1U - Preto Padrão 19 para Rack - **Quantidade: 1**
- **S4T Kit de Ventilação com 04 Ventiladores** - Kit de Ventilação - **Quantidade: 2**
- **S4T Kit Rodízio com 4 Rodas (2 com travas)** - Kit de Rodízio com 4 Rodas (2 com travas) - **Quantidade: 2**

- **S4T Rack Piso 20U x 670MM, Preto** - Rack de piso fechado de 20U - **Quantidade: 1**
- **S4T Regua de Tomadas - 6 Tomadas, 10A** - Régua de Tomadas com 6 Tomadas, 10A - **Quantidade: 3**
- **S4T Régua de Tomadas - 8 Tomadas, 10A** - Régua de Tomadas com 8 Tomadas, 10A - **Quantidade: 3**
- **Sandies 340-REC-110** - Luz de gravação com LEDs (110 VAC a 12 VDC com driver LED) - **Quantidade: 3**
- **Sennheiser 506242** - Centro de Controle de Áudio para Intérpretes Tourguide 2020 / 1039 - **Quantidade: 1**
- **Sennheiser BA 10** - Pacote de baterias recarregáveis para transmissor de mão SKM Evolution Wireless D1 e SpeechLine Digital Wireless SL Handheld DW & AVX SKM AVX-835 - **Quantidade: 4**
- **Sennheiser BA 30** - Bateria recarregável para transmissor de corpo SK Evolution Wireless D1 e SpeechLine Digital Wireless SL Bodypack DW & AVX SK - **Quantidade: 2**
- **Sennheiser CHG 2W** - Transmissor de energia sem fio para carregamento - **Quantidade: 1**
- **Sennheiser CHG 4N** - Carregador em rede para 4 Bodypacks SL e Handheld DW - **Quantidade: 1**
- **Sennheiser SL BODYPACK DW-7-BR** - Bodypack SL otimizado para fala em apresentações - **Quantidade: 2**
- **Sennheiser SL CM FB** - Suporte de montagem no teto para instalação do conjunto de microfones TeamConnect Ceiling 2 - **Quantidade: 1**
- **Sennheiser SL HANDHELD 865 DW-7-BR** - Microfone de mão sem fio - **Quantidade: 4**
- **Sennheiser SL Headmic 1 SB SL-1-SB** - Microfone de cabeça, prata/preto - **Quantidade: 2**
- **Sennheiser SL MCR 2 DW-7** - Receptor de dois ou quatro canais para SpeechLine Digital Wireless - **Quantidade: 1**
- **Sennheiser SL MCR 4 DW-7** - Receptor de dois ou quatro canais para SpeechLine Digital Wireless - **Quantidade: 1**
- **Sennheiser TeamConnect Ceiling 2** - Conjunto de microfones de teto - **Quantidade: 1**
- **Sennheiser XSW-D PORTABLE ENG SET** - Conjunto XS Wireless Digital Portable ENG - **Quantidade: 1**

- **SIL Cabo PP 3X2,5mm 500V Antichama o Metro - Preto** - Cabo PP 3X2,5mm 500V Antichama o Metro - Sil - **Quantidade: 100 metros**
- **Somita St-7030** - Tripé para câmera - **Quantidade: 1**
- **TBD CABO USB A-B 3 METROS** - Cabo USB A-B 3 METROS - **Quantidade: 2**
- **TBD CHAPA 600x700** - Chapa de Aço 600mm x 700mm (vertical x horizontal) com 4 furos em cada extremidade - **Quantidade: 1**
- **TBD Extensor USB via cabo CATx** - Extensor USB por cabo de rede Cat5/Cat6 até 45m - **Quantidade: 2**
- **TBD USB Type A to A Male/6** - Cabo USB 2.0 A Macho para A Macho - 6' (1,8m) - **Quantidade: 2**
- **TBD USB-C to USB-A Cable M/M** - Cabo USB-C para USB-A M/M - **Quantidade: 2**
- **TP Brasil Teleprompter PRESIDENCIAL (PULPITO)** - Teleprompter 19" de púlpito - **Quantidade: 1**
- **TP Brasil Teleprompter TP19XPRO** - Teleprompter de 19" - **Quantidade: 1**
- **Yamaha NY64-D** - Cartão de expansão I/O para a série TF - **Quantidade: 1**
- **Yamaha TF1** - Console de mixagem TF1 compacto e portátil - **Quantidade: 1**
- **Yamaha Tio1608-D** - Stagebox Dante Plug & Play - **Quantidade: 1**


SERVIÇOS:

- Demolição, desinstalação, remanejamento, instalação de cabeamento (piso, teto e parede), fechamento de forros em gesso, instalação dos quadros elétricos e interruptores, revestimentos de paredes (Wellness Room), revestimentos (piso), criação de divisórias, instalação de portas, disponibilização de mobiliários corporativos, pintura geral dos ambientes, cabeamento e instalação multimídia CA/CFTV, instalação dos equipamentos, periféricos e acessórios listados.
- Após finalizada a instalação e configuração das soluções foram efetuados os testes de efetividade visando assegurar o pleno funcionamento das soluções implantadas nos ambientes.

PRAZO DE GARANTIA: 12 meses

Por fim, atestamos que a ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA forneceu, instalou, configurou e realizou os testes de efetividade dos equipamentos, periféricos e acessórios de forma satisfatória bem como realizou os serviços destacados no tópico acima de modo irretocável. Logo, restou comprovada sua capacidade técnica e comercial.

São Paulo/SP.

Documento assinado digitalmente
 **MARCELO ANTUNES DE FIGUEIREDO**
Data: 19/11/2024 21:01:56-0300
Verifique em <https://validar.it.gov.br>

Marcelo Antunes de Figueiredo
Analista de Tecnologia.

| | | | | | |
|--|------------------------------------|---------------------------------|----------------|----------------|------------------|
| Client: Boehringer Inaenheim | | Number: 20210325 | | | |
| Project Title: Studio Rochavera | | | | | |
| Sales: | Engineering: Olivar Barbosa | Publish Date: 2024-11-27 | Rev: 05 | Page: 1 | Pages: 12 |

Studio Rochavera (STUD)

Aironflex

| Name | Description | Part Number | QTY |
|-------------------------------|--|---------------------|-----|
| Aironflex RACK AUDIENCE BLACK | Rack Aironflex AUDIENCE BLACK com porte vertical e instalação para TV. | RACK AUDIENCE BLACK | 5 |

ARTE EM CENA

| Name | Description | Part Number | QTY |
|--|--|---|-----|
| ARTE EM CENA CAIXA_PISO_04TOMADAS_02CIRCUIT | Caixa de tomadas, instalada no piso do estúdio, embutida no piso elevado a ser fornecido por terceiros, com 04 tomadas 2P+T 20A em 02 circuitos AC, com 01 conector XLR para sinal DMX. Acabamento preto fosco | CAIXA_PISO_04TOMAD AS_02CIRCUIT | 6 |
| ARTE EM CENA CAIXA_PISO_06TOMADAS_03CIRCUIT | Caixa de tomadas, instalada no piso das multipurpose rooms, embutida no piso elevado a ser fornecido por terceiros, com 06 tomadas 2P+T 20A em 03 circuitos AC, com 01 conector XLR para sinal DMX. Acabamento preto fosco | CAIXA_PISO_06TOMAD AS_03CIRCUIT | 4 |
| ARTE EM CENA COLORDASH PAR QUAD 7-GANCHO-PLUG-CABO_SEG | Refletor Par Led Colordash Par Quad 7 - Chauvet - fornecido com gancho de fixação, plug e cabo de segurança | COLORDASH PAR QUAD 7-GANCHO-PLUG-CABO_SEG | 4 |
| ARTE EM CENA EXTENSAO_AC_2P+T_5M | Extensão para AC, plug 2P+T em uma ponta e tomada 2P+T na outra, 5m de comprimento. | EXTENSAO_AC_2P+T_5 M | 10 |
| ARTE EM CENA EXTENSAO_BELDEN_XLR-M-F_5M | Extensão em cabo tipo Belden, conector XLR macho em uma ponta e XLR fêmea na outra, 5m de comprimento. | EXTENSAO_BELDEN_X LR-M-F_5M | 10 |
| ARTE EM CENA VARA_470CM_9TOMADAS_3CIRCUITOS | Vara fixa de iluminação comprimento 4,7 m, instalada sobre o grid, com 09 tomadas 2P+T 20A em 03 circuitos AC, com 02 conectores XLR para 01 saída de sinal DMX 512. Acabamento preto fosco | VARA_470CM_9TOMAD AS_3CIRCUITOS | 3 |
| ARTE EM CENA CONECTORES E FECHAMENTO QDIC | Conectores e fechamento dos circuitos elétricos e de sinal para a Iluminação Cênica, desde o quadro elétrico QDIC até as varas, caixas e mesa de operação. Infraestrutura elétrica e cabos incluídos. | CONNECTORES E FECHAMENTO QDIC | 1 |
| ARTE EM CENA INST_GRID-3VARAS-10CAIXAS | Instalação mecânica do grid, das 03 varas de iluminação e 10 caixas de tomadas + mobilização, despesas com pessoal, fretes, andaimes, etc | INST_GRID-3VARAS-10CAIXAS | 1 |

Atek

| Name | Description | Part Number | QTY |
|------------|---------------------------|-------------|-----|
| Atek AT624 | Tripé Cine I - 3 estágios | AT624 | 3 |

Canon

| Name | Description | Part Number | QTY |
|---------------------|---|-------------|-----|
| Canon EF-S 18-135mm | Lente para camera Canon | EF-S-18-135 | 1 |
| Canon EOS Rebel SL3 | CÂMERA FOTOGRÁFICA CANON EOS REBEL SL3 EF-S 18-55MM STM | 3453C002 | 1 |

ChamSys

| Name | Description | Part Number | QTY |
|-------------------|---|-------------|-----|
| ChamSys QuickQ 10 | Console for control of dimmer and LED colour mixing fixtures. | QuickQ 10 | 1 |

Chauvet DJ

| Name | Description | Part Number | QTY |
|-------------------------|-------------------------------|--------------|-----|
| Chauvet DJ EVE P-140 VW | Variable-White LED Wash Light | EVE P-140 VW | 6 |

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Studio Rochavera (STUD)

Conference

| Name | Description | Part Number | QTY |
|----------------------------------|---|-----------------------|-----|
| Conference JTK2 | CONTROLE PARA CAMERA PTZ 4K | JTK2 | 1 |
| Conference PTZ CAM 4K 12X NDI-HX | PTZ CAM 4K 12X NDI-HX 3G SDI HDMI USB 3.0 IP-POE CONFERENCE | PTZ CAM 4K 12X NDI-HX | 2 |

D-Link

| Name | Description | Part Number | QTY |
|----------------------|--|---------------|-----|
| D-Link DGS-1210-28MP | 28-Port Gigabit Smart Managed PoE Switch | DGS-1210-28MP | 1 |

Eaton

| Name | Description | Part Number | QTY |
|---------------|---|-------------|-----|
| Eaton 9PX11Ki | Nobreak 11KVA, monofásico entrada/220V saída. | 9PX11Ki | 1 |

Edifier

| Name | Description | Part Number | QTY |
|-----------------|--|-------------|-----|
| Edifier R1280DB | Caixa Amplificada 42WRms Bluetooth - (Par) Madeira | R1280DB | 1 |

HDL

| Name | Description | Part Number | QTY |
|----------|----------------------------|--------------|-----|
| HDL C-90 | Fechadura C-90 Dupla Cinza | 90.01.03.029 | 1 |

Kramer Electronics

| Name | Description | Part Number | QTY |
|-------------------------------------|--|-------------|-----|
| Kramer Electronics TP-580R | HDMI, bidirectional RS232 and IR over high definition base T twisted pair receiver | 50-80022090 | 2 |
| Kramer Electronics VIA Connect PLUS | Simultaneous Wired and Wireless Presentation and Collaboration Solution | 87-000790 | 1 |

LG

| Name | Description | Part Number | QTY |
|------------------|--|---------------|-----|
| LG 27UL650-W | 27" Class 4K UHD IPS LED Monitor with VESA DisplayHDR 400 (27" Diagonal) | 27UL650-W | 2 |
| LG 43UL3G-B | 43" Class 4K UHD Conference Room & Digital Signage IPS LED | 43UL3G-B | 2 |
| LG 55TR3BG-B | 55" Interactive Digital Board | 55TR3BG-B | 1 |
| LG 55UL3G | UL3G Series 55" Class 4K UHD Digital Signage Display | 55UL3G | 2 |
| LG SuperSign CMS | Digital Signage display license | SuperSign-CMS | 2 |

LUMITEC FOTO

| Name | Description | Part Number | QTY |
|-------------------|---|-------------|-----|
| LUMITEC FOTO 1472 | Adaptador de pino de 5/8" para rosca macho 3/8" | 1472 | 3 |

Magewell

| Name | Description | Part Number | QTY |
|---------------------------------|-------------------------------|-------------|-----|
| Magewell USB Capture HDMI Gen 2 | One channel HD capture device | 32060 | 1 |

Marantz

| Name | Description | Part Number | QTY |
|----------------|----------------------------------|-------------|-----|
| Marantz Turret | Broadcast Video Streaming System | Turret | 2 |

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Studio Rochavera (STUD)

Panasonic

| Name | Description | Part Number | QTY |
|--------------------|--------------|-------------|-----|
| Panasonic AG-CX350 | 4K Camcorder | AG-CX350 | 1 |

Prima Photo

| Name | Description | Part Number | QTY |
|---------------------|--------------------------------------|-------------|-----|
| Prima Photo PHKV002 | Tripé Prima Photo PHKV002 Com Cabeça | PHKV002 | 2 |

Pró Digital

| Name | Description | Part Number | QTY |
|--------------------|--|-------------|-----|
| Pró Digital RDI-1P | Relógio de Parede Pequeno – Alcance de visibilidade: 20m | RDI-1P | 1 |

QSC

| Name | Description | Part Number | QTY |
|--------------------|---|----------------|-----|
| QSC AD-S402T-WH | 4-driver column surface-mount loudspeaker - White | AD-S402T-WH | 2 |
| QSC AD-S4T-WH | 4" Two-Way Surface Mount Loudspeaker (White) | AD-S4T-WH | 2 |
| QSC NV-32-H | Network Video Endpoint for the Q-SYS Ecosystem | NV-32-H | 1 |
| QSC TSC-80tw-G2-BK | Controlador de tela de toque embutido ou na mesa | TSC-80tw-G2-BK | 1 |

S4T

| Name | Description | Part Number | QTY |
|----------------------------------|-----------------------|---------------------------|-----|
| S4T Rack Piso 20U x 670MM, Preto | Rack Piso Fechado 20U | 017012005440002- GRADE | 1 |

Sandies

| Name | Description | Part Number | QTY |
|---------------------|--|-------------|-----|
| Sandies 340-REC-110 | RECORDING Light with LEDs (110 VAC to 12 VDC LED Driver) | 340-REC-110 | 3 |

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Studio Rochavera (STUD)

Sennheiser

| Name | Description | Part Number | QTY |
|------------------------------------|---|-----------------------|-----|
| Sennheiser 506242 | SL Interpreter Audio Control Center for Tourguide 2020 / 1039 | 506242 | 1 |
| Sennheiser BA 10 | Pacote de baterias recarregáveis para a evolução sem fio D1 SKM handheld, Transmissores SpeechLine Digital Wireless SL Handheld DW & AVX SKM AVX-835. | 505972 | 4 |
| Sennheiser BA 30 | Bateria recarregável para a evolução wireless D1 SK conjunto de corpo, SpeechLine Digital sem fios SL conjunto de corpo DW & transmissores de corpo AVX SK t. | 505974 | 2 |
| Sennheiser CHG 2W | The CHG 2W is a wireless power transmitter. It provides convenient wireless charging. | CHG 2W | 1 |
| Sennheiser CHG 4N | 4-Bay Network Charger for SL Bodypack DW and SL Handheld DW | CHG 4N | 1 |
| Sennheiser SL BODYPACK DW-7-BR | SL Bodypack DW is optimized for speech in presentations or lectures where every word matters. | SL BODYPACK DW-7-BR | 2 |
| Sennheiser SL CM FB | Suporte de montagem no teto para instalar o conjunto de microfones TeamConnect Ceiling 2 em tetos fechados. | 506846 | 1 |
| Sennheiser SL HANDHELD 865 DW-7-BR | Wireless Handheld Microphone | 506706 | 4 |
| Sennheiser SL Headmic 1 SB | Headset Microphone, Silver / Black | SL-1-SB | 2 |
| Sennheiser SL MCR 2 DW-7 | Two or four channel receiver for SpeechLine Digital Wireless | SL MCR 2 DW-7 | 1 |
| Sennheiser SL MCR 4 DW-7 | Two or four channel receiver for SpeechLine Digital Wireless | SL MCR 4 DW-7 | 1 |
| Sennheiser TeamConnect Ceiling 2 | Ceiling microphone array | TeamConnect Ceiling 2 | 1 |
| Sennheiser XSW-D PORTABLE ENG SET | Conjunto XS Wireless Digital Portable ENG. | XSW-D | 1 |

Somita

| Name | Description | Part Number | QTY |
|----------------|-------------------|-------------|-----|
| Somita St-7030 | Tripé para câmera | St-7030 | 1 |

TP Brasil

| Name | Description | Part Number | QTY |
|---|-----------------------------|-------------------------------------|-----|
| TP Brasil Teleprompter PRESIDENCIAL (PULPITO) | Teleprompter 19" de púlpito | Teleprompter PRESIDENCIAL (PULPITO) | 1 |
| TP Brasil Teleprompter TP19XPRO | Teleprompter 19" | TP19XPRO | 1 |

Yamaha

| Name | Description | Part Number | QTY |
|------------------|---|-------------|-----|
| Yamaha NY64-D | I/O expansion card for TF series | NY64-D | 1 |
| Yamaha TF1 | TF1 compacto e portátil. | TF1 | 1 |
| Yamaha Tio1608-D | Solução Dante Plug & Play para Stagebox | Tio1608-D | 1 |

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Studio Rochavera - Rack (STRK)

Audinate

| Name | Description | Part Number | QTY |
|--------------------------------|--|-----------------|-----|
| Audinate ADP-USBC-AU-2X2 | Dante AVIO 2x2 USB Type-C I/O Adapter for Dante Audio Network | ADP-USBC-AU-2X2 | 1 |
| Audinate Audinate Dante AVIO 2 | Audinate Dante AVIO 2 - Channel Analog Input Adapter for Dante Audio Network | ADP-DAI-AU-2X0 | 1 |

Chauvet DJ

| Name | Description | Part Number | QTY |
|--------------------------|---------------------------|-------------|-----|
| Chauvet DJ Data Stream 8 | DMX splitter w/ 8 outputs | DATASTREAM8 | 2 |

Conference

| Name | Description | Part Number | QTY |
|----------------------|-----------------------------------|-------------|-----|
| Conference VMIX-4SDI | SERVIDOR PARA STREAMING VMIX 4SDI | VMIX-4SDI | 1 |

Kramer Electronics

| Name | Description | Part Number | QTY |
|----------------------------|--|-------------|-----|
| Kramer Electronics TP-580T | HDMI, bidirectional RS232 and IR over HDBaseT twisted pair transmitter | 50-80021090 | 2 |
| Kramer Electronics VM-4H2 | 1:4 4K HDR HDMI DA | 10-80408090 | 1 |

Lenovo

| Name | Description | Part Number | QTY |
|--|--|-------------|-----|
| Lenovo M920Q - I7-9700T 8Gb 256Gb W10P | Processador I7-9700T ; Memória 8Gb ; SSD 256Gb ; 10RR0029BP W10PRO | | 1 |
| Lenovo ThinkCentre Tiny VESA Mount II | VESA Mount | 4XF0N03161 | 1 |

MPL ILUMINAÇÃO

| Name | Description | Part Number | QTY |
|--|---|---------------------------|-----|
| MPL ILUMINAÇÃO Modulo de Disjuntor 12 canais | Modulo de Disjuntor 12 canais - 4000W por canal | MODULO_DISJUNTOR_12CANAIS | 3 |

QSC

| Name | Description | Part Number | QTY |
|-----------------|---|-------------|-----|
| QSC Core 8 Flex | Audio, video and control (AV&C) processor | Core 8 Flex | 1 |
| QSC NV-32-H | Network Video Endpoint for the Q-SYS Ecosystem | NV-32-H | 2 |
| QSC SPA4-60 | EnergyStar Power Amplifier Up to 60 watts per channel into 4 and 8 ohms | SPA4-60 | 1 |

S4T

| Name | Description | Part Number | QTY |
|---|---|------------------|-----|
| S4T Bandeja Fixa 600MM , Preto | Bandeja Fixa | 017060005000010 | 4 |
| S4T Frente Falsa 1U | Frente Falsa 1U - Preto Padrão 19 Para Rack | 17060105441002 | 1 |
| S4T Kit de Ventilação com 04 vts | Kit de Ventilação | 017060000000007 | 1 |
| S4T Kit Rodizio Com 4 Rodas (2 com travas) | Kit Rodizio c/ 04 Rodas (2 com travas) | 0170600000000220 | 1 |
| S4T Regua de Tomadas - 8 Tomadas, 10A | Régua de tomadas 08 tomadas - 10A | 017060000000004 | 1 |

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Serviços de configuração e documentação (BI71)

absolut technologies

| Name | Description | Part Number | QTY |
|------------------------------------|---|---------------|-----|
| absolut technologies ABS-INST-MISC | Material de instalação, acabamento, identificação. Custo em BRL. | ABS-INST-MISC | 400 |

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Racks e similares para montagem dos equipamentos (BI72)

absolut technologies

| Name | Description | Part Number | QTY |
|------------------------------------|---|---------------|------|
| absolut technologies ABS-INST-MISC | Material de instalação, acabamento, identificação. Custo em BRL. | ABS-INST-MISC | 8000 |

S4T

| Name | Description | Part Number | QTY |
|---|--|-----------------|-----|
| S4T Bandeja Fixa 600MM , Preto | Bandeja Fixa | 017060005000010 | 4 |
| S4T Kit de Ventilação com 04 vts | Kit de Ventilação | 017060000000007 | 1 |
| S4T Kit Rodizio Com 4 Rodas (2 com travas) | Kit Rodizio c/ 04 Rodas (2 com travas) | 017060000000220 | 1 |
| S4T Regua de Tomadas - 8 Tomadas, 10A | Régua de tomadas 08 tomadas - 10A | 017060000000004 | 2 |

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| Boehringer Inaelheim | | 20210325 | |
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| Studio Rochavera | | | |
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Cabos, conectores e miscelâneas de instalação (BI73)

absolut technologies

| Name | Description | Part Number | QTY |
|------------------------------------|--|---------------|-------|
| absolut technologies ABS-INST-MISC | Material de instalação, acabamento, identificação. Custo em BRL. | ABS-INST-MISC | 12000 |

Cirilo Cabos

| Name | Description | Part Number | QTY |
|--------------------------------------|-------------|-------------|-----|
| Cirilo Cabos Conector BNC de Pressão | Plug BNC | 3780 | 20 |

Discabos

| Name | Description | Part Number | QTY |
|-------------------|--|-------------|-----|
| Discabos 0825VD | Cabo para automação com 1 par 18AWG e 1 par 22AWG. | 0825VD | 150 |
| Discabos 9229CRSN | Cabo paralelo Plus 2X2,50MM2 Cristal | 9229CRSN | 300 |
| Discabos JK60PT | Cabo Coaxial 75 Ohms Joker HI-DEF para SDI | JK60PT | 150 |

Extron

| Name | Description | Part Number | QTY |
|---------------------|----------------------------|-------------|-----|
| Extron STP22-2/1000 | Serial Control/Audio Cable | 22-160-03 | 100 |

Furukawa

| Name | Description | Part Number | QTY |
|---------------------------------|-----------------------------------|-------------|-----|
| Furukawa CAT.6 F/UTP | F/UTP Cat.6 Cable | 23360001 | 905 |
| Furukawa Plug RJ-45 CAT.6 - UTP | UTP 8 POSITION MODULAR PLUG CAT.6 | 35050282 | 60 |

Kramer Electronics

| Name | Description | Part Number | QTY |
|-------------------------------|-------------------------------------|-------------|-----|
| Kramer Electronics C-HM/HM-10 | High-Speed HDMI Cable 10' - 3,00(M) | 97-0101010 | 7 |
| Kramer Electronics C-HM/HM-6 | High-Speed HDMI Cable 6' - 1,80(M) | 97-0101006 | 6 |

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Serviços de programação com código fonte e documentação (BI75)

absolut technologies

| Name | Description | Part Number | QTY |
|---|---|----------------|-----|
| absolut technologies ABS-INST-MISC | Material de instalação, acabamento, identificação. Custo em BRL. | ABS-INST-MISC | 250 |
| absolut technologies Código-fonte de programa QSC | Código-fonte de programa QSC | SWR-LEAR-00002 | 1 |

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Itens Omissos (IOMS)

ARTE EM CENA

| Name | Description | Part Number | QTY |
|--------------------------------|---------------------------------|-------------|-----|
| ARTE EM CENA Cabo de Segurança | Cabo de Segurança para refletor | CABOSEG | 10 |
| ARTE EM CENA Garra | Garra para refletor | GARRA | 10 |

Lenovo

| Name | Description | Part Number | QTY |
|---------------------------------------|-------------|-------------|-----|
| Lenovo ThinkCentre Tiny VESA Mount II | VESA Mount | 4XF0N03161 | 1 |

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ABS-INST-MISC (MISC)

Furukawa

| Name | Description | Part Number | QTY |
|--|--|-------------|-----|
| Furukawa PATCH CORD F/UTP GIGALAN AUGMENTED CAT.6A - CM - T568A/B - 2.0M - CINZA | PATCH CORD F/UTP GIGALAN AUGMENTED CAT.6A - CM - T568A/B - 2.0M - CINZA (BLINDADO) | 35085069 | 6 |
| Furukawa PATCH CORD U/UTP GIGALAN CAT.6 - LSZH - T568A/B - 1.5M - AZUL | PATCH CORD U/UTP GIGALAN CAT.6 - LSZH - T568A/B - 1.5M - AZUL | 35123632 | 11 |

Kramer Electronics

| Name | Description | Part Number | QTY |
|-------------------------------|--|-------------|-----|
| Kramer Electronics C-HM/HM-15 | HDMI (M) to HDMI (M) cable - 15' | 97-0101015 | 4 |
| Kramer Electronics C-HM/HM-25 | Kramer Certified HDMI Interface Cable, 25 FT | 97-0101025 | 3 |
| Kramer Electronics C-HM/HM-35 | High-Speed HDMI Cable 35' - 10,70(M) | 97-0101035 | 2 |
| Kramer Electronics C-HM/HM-6 | High-Speed HDMI Cable 6' - 1,80(M) | 97-0101006 | 3 |

SIL

| Name | Description | Part Number | QTY |
|--|--|-------------|-----|
| SIL Cabo PP 3X2,5mm 500V Antichama o Metro - Preto | Cabo PP 3X2,5mm 500V Antichama o Metro - Sil - Preto | 06562 | 100 |

TBD

| Name | Description | Part Number | QTY |
|------------------------------|--------------------------------------|--------------|-----|
| TBD CABO USB A-B 3 METROS | Cabo USB A-B 3 METROS | 241956-300CM | 2 |
| TBD USB Type A to A Male/6 | USB 2.0 A Male to A Male - 6' (1,8m) | TBD-USB-A/A | 2 |
| TBD USB-C to USB-A Cable M/M | USB-C to USB-A Cable M/M | | 2 |

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ABS-INST-MISC-2 (MIS2)

Central Cabos

| Name | Description | Part Number | QTY |
|---|---|-------------|-----|
| Central Cabos Guia de Cabo 1U Preto | Guia de Cabo 1U Preto | 5527 | 2 |
| Central Cabos Kit de Rodizios com Trava e 4 rodas | O Kit de Rodizios com 4 rodas, composto por duas rodas com travas e duas sem, ideal para Racks de Piso e de Coluna. | 3869 | 1 |

Furukawa

| Name | Description | Part Number | QTY |
|---|--|-------------|-----|
| Furukawa Patch Panel 24P Soho Plus | Patch Panel SohoPlus, CAT.6, T568A/B, 24 Portas | 35050402 | 2 |
| Furukawa Patch Cord F/UTP CAT6 Gigalan T568A, Comprimento 1.5m, Cor Cinza | Patch Cord F/UTP CAT6 Gigalan T568A, Comprimento 1.5m, Cor Cinza | 35125900 | 50 |

NeoID

| Name | Description | Part Number | QTY |
|------------------|---|-------------|-----|
| NeoID NeoID HDMI | Placa de Captura de Video NeoID HDMI para USB 3.0 Full HD | NeoID HDMI | 2 |

TBD

| Name | Description | Part Number | QTY |
|--------------------------------|--|-------------|-----|
| TBD CHAPA 600x700 | Chapa de Aço 600mm x 700mm (vertical x horizontal) com 4 furos em cada extremidade | | 1 |
| TBD Extensor USB via cabo CATx | Extensor USB por cabo de rede Cat5/Cat6 até 45m | | 2 |



Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977
Conselho Regional de Engenharia e Agronomia do Estado de São Paulo

CREA-SP

ART de Obra ou Serviço
2620242041724

1. Responsável Técnico

OLIVAR BARBOSA DA SILVA JUNIOR

Título Profissional: **Engenheiro Eletricista**

RNP: **506716422**

Registro: **5071473502-SP**

Empresa Contratada: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**

Registro: **2572620-SP**

2. Dados do Contrato

Contratante: **BOEHRINGER INGELHEIM DO BRASIL QUIMICA E FARMACEUTICA LTDA.** CPF/CNPJ: **60.831.658/0001-77**

Endereço: **Avenida DAS NAÇÕES UNIDAS**

Nº: **14171**

Complemento: **TORRE B, ANDAR 18**

Bairro: **VILA GERTRUDES**

Cidade: **São Paulo**

UF: **SP**

CEP: **04794-000**

Contrato: **20210325/20240131**

Celebrado em: **02/06/2021**

Vinculada à Art nº:

Valor: R\$ **778.754,37**

Tipo de Contratante: **Pessoa Jurídica de Direito Privado**

Ação Institucional:

3. Dados da Obra Serviço

Endereço: **Avenida DAS NAÇÕES UNIDAS**

Nº: **14171**

Complemento: **Torre B, andar 18**

Bairro: **VILA GERTRUDES**

Cidade: **São Paulo**

UF: **SP**

CEP: **04794-000**

Data de Início: **05/08/2021**

Previsão de Término: **02/12/2024**

Coordenadas Geográficas: **-23.622783968026326;-46.700508166557**

Finalidade:

Código:

Proprietário: **BOEHRINGER INGELHEIM DO BRASIL QUIMICA E FARMACEUTICA LTDA.**

CPF/CNPJ: **60.831.658/0001-77**

4. Atividade Técnica

| | | | Quantidade | Unidade |
|------------------------------|------------------------|----------------------------|------------|---------|
| Concepção 1 | Projeto | de sistemas de vídeo | 1,00000 | unidade |
| | Projeto | de sistemas de sonorização | 1,00000 | unidade |
| Gestão 2 | Execução de instalação | de sistemas de vídeo | 1,00000 | unidade |
| | Execução de operação | de sistemas de sonorização | 1,00000 | unidade |
| | Execução de operação | de sistemas de vídeo | 1,00000 | unidade |
| | Execução de manutenção | de sistemas de sonorização | 1,00000 | unidade |
| | Execução de manutenção | de sistemas de vídeo | 1,00000 | unidade |
| | Projeto | de sistemas de sonorização | 1,00000 | unidade |
| | Execução de instalação | de sistemas de sonorização | 1,00000 | unidade |
| | Projeto | de sistemas de vídeo | 1,00000 | unidade |

Após a conclusão das atividades técnicas o profissional deverá proceder a baixa desta ART

5. Observações

Projeto, instalação, manutenção e operação assistida dos sistemas de vídeo, áudio, automação e iluminação do Estúdio de Transmissão e gravação de eventos no escritório da Boehringer Ingelheim em São Paulo, incluindo as extensões dos sistemas nos ambientes anexos ao Estúdio (Cabine Técnica, Sala de TI, Auditório 1 e Auditório 2).

6. Declarações

Acessibilidade: Declaro atendimento às regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no Decreto nº 5.296, de 2 de dezembro de 2004.

7. Entidade de Classe

Nenhuma

8. Assinaturas

Declaro serem verdadeiras as informações acima

_____ de _____ de _____
Local data

OLIVAR BARBOSA DA SILVA JUNIOR - CPF: 428.565.072-04

BOEHRINGER INGELHEIM DO BRASIL QUIMICA E FARMACEUTICA LTDA.
- CPF/CNPJ: 60.831.658/0001-77

9. Informações

- A presente ART encontra-se devidamente quitada conforme dados constantes no rodapé-versão do sistema, certificada pelo *Nosso Número*.

- A autenticidade deste documento pode ser verificada no site www.creasp.org.br ou www.confear.org.br

- A guarda da via assinada da ART será de responsabilidade do profissional e do contratante com o objetivo de documentar o vínculo contratual.

www.creasp.org.br
Tel: 0800 017 18 11
E-mail: acessar link Fale Conosco do site acima



Valor ART R\$ 233,94 Registrada em: 26/11/2024 Valor Pago R\$ 233,94 Nosso Numero: 2620242041724 Versão do sistema
Impresso em: 03/12/2024 13:33:55



Certidão de Acervo Técnico - CAT
Resolução No. 1.137, de 31 de março de 2023

CREA-SP

CAT SEM REGISTRO DE ATESTADO
2620240024742

Conselho Regional de Engenharia e Agronomia do Estado de São Paulo

CERTIFICAMOS, em cumprimento ao disposto na Resolução no. 1.137, de 31 de março de 2023, do Confea, que consta dos assentamentos deste Conselho Regional de Engenharia e Agronomia do Estado de São Paulo - CREA-SP, o Acervo Técnico do profissional OLIVAR BARBOSA DA SILVA JUNIOR referente à(s) Anotação(ões) de Responsabilidade Técnica - ART abaixo discriminada(s):

Profissional: OLIVAR BARBOSA DA SILVA JUNIOR
Registro: 5071473502-SP RNP: 506716422
Título Profissional: Engenheiro Eletricista,

Número ART: 2620242041724 Tipo de ART: OBRA OU SERVIÇO Registrada em: 26/11/2024 Baixada em: 16/12/2024
Forma de Registro: INICIAL
Participação Técnica: INDIVIDUAL
Empresa Contratada: ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA

Contratante: BOEHRINGER INGELHEIM DO BRASIL QUIMICA E FARMACEUTICA LTDA.
CNPJ: 60.831.658/0001-77
AVENIDA DAS NAÇÕES UNIDAS No.: 14171
Complemento: TORRE B, ANDAR 18 Bairro: VILA GERTRUDES
Cidade: São Paulo UF: SP CEP: 04794000 PAIS: BRASIL
Contrato: 20210325/20240131 Celebrado em : 02/06/2021
Vinculado à ART:
Valor do Contrato: R\$ 778.754,37 Tipo de contratante: PESSOA JURÍDICA DE DIREITO PRIVADO

Endereço da Obra/serviço: AVENIDA DAS NAÇÕES UNIDAS No.: 14171
Complemento: Torre B, andar 18 Bairro: VILA GERTRUDES
Cidade: São Paulo UF: SP CEP: 04794000 PAIS: BRASIL
Data de início: 05/08/2021 Previsão de Término: 02/12/2024 Coordenadas Geográficas:
Finalidade:
Proprietário: BOEHRINGER INGELHEIM DO BRASIL QUIMICA E FARMACEUTICA CNPJ: 60.831.658/0001-77

Atividade Técnica: 1) Concepção, Projeto, de sistemas de vídeo. 1,00000 unidade. 2) Concepção, Projeto, de sistemas de sonorização. 1,00000 unidade. 3) Gestão, Execução de instalação, de sistemas de vídeo. 1,00000 unidade. 4) Gestão, Execução de operação, de sistemas de sonorização. 1,00000 unidade. 5) Gestão, Execução de operação, de sistemas de vídeo. 1,00000 unidade. 6) Gestão, Execução de manutenção, de sistemas de sonorização. 1,00000 unidade. 7) Gestão, Execução de manutenção, de sistemas de vídeo. 1,00000 unidade. 8) Gestão, Projeto, de sistemas de sonorização. 1,00000 unidade. 9) Gestão, Projeto, de sistemas de vídeo. 1,00000 unidade. 10) Gestão, Execução de instalação, de sistemas de sonorização. 1,00000 unidade.

Informações Complementares

A presente certidão foi emitida com base nos dados da(s) ART(s) acima citada(s), registrada(s) apenas para as atividades técnicas desenvolvidas de acordo com as atribuições do profissional na área da Engenharia Mecânica, sendo seus dados de exclusiva responsabilidade do profissional requerente.

Certidão de Acervo Técnico No.2620240024742

26/12/2024 18:15:06

Autenticação Digital: Jskys6n6AgG6lsknyyf5xnAfGG1UGTsx

Esta CAT não comprova o registro do atestado emitido pelo contratante da obra ou serviço referenciado na Lei nº. 8.666/1993.

A CAT perderá a validade no caso de modificação dos dados técnicos qualitativos e quantitativos nela contidos, bem como de alteração da situação do registro da ART.

A CAT é válida em todo território nacional.

A autenticidade e a validade desta certidão deve ser confirmada no site do CREA-SP (www.creasp.org.br).

A falsificação deste documento constitui crime previsto no Código Penal Brasileiro, sujeitando o autor à respectiva ação penal.



ATESTADO DE CAPACIDADE TÉCNICA

Atestamos para os devidos fins, que a empresa ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA, sediada na Rua José Jorge Pereira, nº47 Qd D Lt 22 – Portão – Lauro de Freitas/BA, inscrita no CNPJ sob nº 02.423.819/0001-97, forneceu satisfatoriamente, a empresa FLPP FARIA LIMA PRIME PROPERTIES S/A, sediada na Avenida Brigadeiro Faria Lima, nº 2277 – Jardim Paulistano - Andar 20, São Paulo/SP, inscrita no CNPJ sob nº 07.349.852/0001-38, no que diz respeito à venda de equipamentos, execução de infraestrutura de cabeamento de áudio, vídeo, dados e elétrica, incluindo a instalação, configuração de equipamentos de som, imagem, redes (dados), automação, acústica, projeção de imagens e gravação, distribuição de áudio e vídeo via software, com automação de central e suas respectivas conectividades, fornecimento de equipamentos de cenotécnica (compreendendo mecânica cenotécnica, iluminação cenotécnica e vestimenta cênica) e para o Teatro B32.

Acrescentamos também que os equipamentos fornecidos apresentam desempenho satisfatório pelo que comprovamos a sua Capacidade Técnica.

1 de março de 2021.

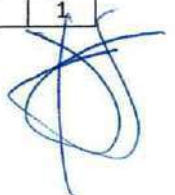
Renato Costa da Silva

Nome do Responsável

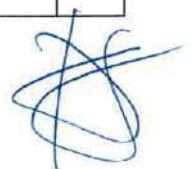


CPF
Carimbo

| Fabricante | Part Number | Modelo | Descrição | Qty |
|----------------------|--------------|--------------------|---|-----|
| APC | APTF20KW01 | APTF20KW01 | Transformador de Isolamento WW de 20 kVA | 1 |
| Lyntec | RPC348-MBR20 | RPC348-MBR20 | QUADRO ELÉTRICO SEQUENCIADOR | 1 |
| Lyntec | SS-2LRP | SS-2LRP | 1RU Locking Rack Plate Switch Set | 1 |
| Steck | S5549 | S5549 | Tomada Embutir 200/250v Azul 63a | 3 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-301-02 | AAP 104 | Four-Gang AV Connectivity Mounting Frame | 1 |
| Extron | 60-302-02 | AAP 201 | 19, 2u rack shelf | 1 |
| Extron | 70-103-18 | One XLR 3-pin Male | One XLR 3-pin Male to Solder Cups, One XLR 3-pin Female to Solder Cups - Neutrik, black | 4 |
| Extron | 70-100-14 | 70-100-14 | Two Shielded RJ-45 Female to Female Barrel for CAT 5e | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-301-02 | AAP 104 | Four-Gang AV Connectivity Mounting Frame | 1 |
| Extron | 60-302-02 | AAP 201 | 19, 2u rack shelf | 1 |
| Extron | 70-103-18 | One XLR 3-pin Male | One XLR 3-pin Male to Solder Cups, One XLR 3-pin Female to Solder Cups - Neutrik, black | 4 |
| Extron | 70-100-14 | 70-100-14 | Two Shielded RJ-45 Female to Female Barrel for CAT 5e | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-301-02 | AAP 104 | Four-Gang AV Connectivity Mounting Frame | 1 |
| Extron | 60-302-02 | AAP 201 | 19, 2u rack shelf | 1 |
| Extron | 70-103-18 | One XLR 3-pin Male | One XLR 3-pin Male to Solder Cups, One XLR 3-pin Female to Solder Cups - Neutrik, black | 4 |
| Extron | 70-100-14 | 70-100-14 | Two Shielded RJ-45 Female to Female Barrel for CAT 5e | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Panduit | CFPWR4BL | CFPWR4BL | Mini Com Single gang, vertical water resistant sloped faceplateMini | 2 |
| Panduit | CMSAQSCZBL | CMSAQSCZBL | SC Adapter Module | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-633-02 | AAP 302 | Full-Rack Width, 2U AAP Mounting Frame - Black | 1 |
| Extron | 70-103-18 | One XLR 3-pin Male | One XLR 3-pin Male to Solder Cups, One XLR 3-pin Female to Solder Cups - Neutrik, black | 8 |
| Panduit | CFPWR4BL | CFPWR4BL | Mini Com Single gang, vertical water resistant sloped faceplateMini | 2 |
| Panduit | CMSAQSCZBL | CMSAQSCZBL | SC Adapter Module | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-301-02 | AAP 104 | Four-Gang AV Connectivity Mounting Frame | 1 |
| Extron | 60-302-02 | AAP 201 | 19, 2u rack shelf | 1 |



| | | | | |
|----------------------|-----------|--------------------|---|----|
| Extron | 70-103-18 | One XLR 3-pin Male | One XLR 3-pin Male to Solder Cups, One XLR 3-pin Female to Solder Cups - Neutrik, black | 4 |
| Extron | 70-100-14 | 70-100-14 | Two Shielded RJ-45 Female to Female Barrel for CAT 5e | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-593-02 | AAP 100 | Low-Profile AAP Mounting Frame | 1 |
| Extron | 70-103-14 | 70-103-14 | Two XLR 3-pin Female to Solder Cups | 1 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-301-02 | AAP 104 | Four-Gang AV Connectivity Mounting Frame | 1 |
| Extron | 70-323-12 | 70-323-12 | One Neutrik Speakon Male to Solder Tabs - 4 Pole | 2 |
| Extron | 70-449-12 | 70-449-12 | Two Neutrik Speakon Male to Solder Tabs - 4 Pole | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-301-02 | AAP 104 | Four-Gang AV Connectivity Mounting Frame | 1 |
| Extron | 70-323-12 | 70-323-12 | One Neutrik Speakon Male to Solder Tabs - 4 Pole | 2 |
| Extron | 70-449-12 | 70-449-12 | Two Neutrik Speakon Male to Solder Tabs - 4 Pole | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-301-02 | AAP 104 | Four-Gang AV Connectivity Mounting Frame | 1 |
| Extron | 70-449-12 | 70-449-12 | Two Neutrik Speakon Male to Solder Tabs - 4 Pole | 4 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-301-02 | AAP 104 | Four-Gang AV Connectivity Mounting Frame | 1 |
| Extron | 70-449-12 | 70-449-12 | Two Neutrik Speakon Male to Solder Tabs - 4 Pole | 4 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 1 |
| Extron | 60-593-02 | AAP 100 | Low-Profile AAP Mounting Frame | 2 |
| Extron | 70-449-12 | 70-449-12 | Two Neutrik Speakon Male to Solder Tabs - 4 Pole | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 2 |
| Extron | 60-593-02 | AAP 100 | Low-Profile AAP Mounting Frame | 2 |
| Extron | 70-449-12 | 70-449-12 | Two Neutrik Speakon Male to Solder Tabs - 4 Pole | 2 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 2 |
| Extron | 60-593-02 | AAP 100 | Low-Profile AAP Mounting Frame | 13 |
| Extron | 70-414-11 | 70-414-11 | One RJ-45 Female to Punch Down for Cat 6 | 13 |
| Extron | 70-091-11 | 70-091-11 | Two BNC Female to Female Barrels | 13 |
| Ilumi | 50125 | 50125 | Módulo Tomada 20A Branco Slim IlumiMÓDULO TOMADA 20A BRANCO SLIM | 52 |
| Ilumi | 262-T3 | 262-T3 | Placa 4x4 para 2 Tomadas Fixas de embutir + 2 Tomadas Fixas de embutir | 13 |
| absolut technologies | ABS-MSC | ABS-MSC | Material de instalação, acabamento, identificação | 13 |



| | |
|------------------------------------|---------------------------------|
| Client: FLPP | Number: 20200608 |
| Project Title: RFP - Teatro B32 | |
| Sales: Arlete Belarmino | Engineering: Olivar Barbosa, |
| Publish Date: 2020-12-28 | Rev: Page: Pages: 08 1 8 |

A - EQUIPAMENTOS DE ELÉTRICA PARA ÁUDIO (EEAU)

| Name | Description | Part Number | QTY |
|--|---|-----------------------|-----|
| Lyntec QUADRO ELÉTRICO SEQUENCIADOR RPC | QUADRO ELÉTRICO SEQUENCIADOR | RPC348-MBR20 | 1 |
| Lyntec SS-2LRP | SS-2LRP | SS-2LRP | 1 |
| MVA Transformadores TRANSFORMADOR ISOLADOR 112 kVA - Fator K13 | Transformador Trifásico Isolador - Potência: 112 kVA - Fator: K13 | MVA-TRAFISO112KVA-K13 | 1 |
| Steck S5549 | Tomada de Embutir IP 67 - 63A - 5 Pólos | S5549 | 3 |

B1 - A1 - AUDIO PLUG BOXES (B1A1)

| Name | Description | Part Number | QTY |
|---------------------------------|---|-------------|-----|
| absolut technologies ABS-APB-A1 | Caixa de conexão do palco lado esquerdo com conectores Neutrik e espelho sob medida | ABS-APB-A1 | 1 |

B1 - A2 - AUDIO PLUG BOXES (B1A2)

| Name | Description | Part Number | QTY |
|---------------------------------|--|-------------|-----|
| absolut technologies ABS-APB-A2 | Caixa de conexão do palco lado direito com conectores Neutrik e espelho sob medida | ABS-APB-A2 | 1 |

B1 - A3 - AUDIO PLUG BOXES (B1A3)

| Name | Description | Part Number | QTY |
|---------------------------------|---|-------------|-----|
| absolut technologies ABS-APB-A3 | Caixa de conexão urdimento do palco com conectores Neutrik e espelho sob medida | ABS-APB-A3 | 1 |

B1 - A4 - AUDIO PLUG BOXES (B1A4)

| Name | Description | Part Number | QTY |
|---------------------------------|--|-------------|-----|
| absolut technologies ABS-APB-A4 | Caixa de conexão para junção no palco com conectores Furukawa e espelho sob medida | ABS-APB-A4 | 1 |

B1 - A5 - AUDIO PLUG BOXES (B1A5)

| Name | Description | Part Number | QTY |
|---------------------------------|---|-------------|-----|
| absolut technologies ABS-APB-A5 | Caixa de conexão Sala de Controle com conectores Furukawa, Neutrik e espelho sob medida | ABS-APB-A5 | 1 |

B1 - A6 - AUDIO PLUG BOXES (B1A6)

| Name | Description | Part Number | QTY |
|---------------------------------|---|-------------|-----|
| absolut technologies ABS-APB-A6 | Caixa de conexão Controle na Sala com conectores Neutrik e espelho sob medida | ABS-APB-A6 | 1 |

B1 - A7 - AUDIO PLUG BOXES (B1A7)

| Name | Description | Part Number | QTY |
|---------------------------------|--|-------------|-----|
| absolut technologies ABS-APB-A7 | Caixa de conexão Microfone da Sala com conectores Neutrik e espelho sob medida | ABS-APB-A7 | 1 |

B1 - C1 - AUDIO PLUG BOXES (B1C1)

| Name | Description | Part Number | QTY |
|---------------------------------|---|-------------|-----|
| absolut technologies ABS-APB-C1 | Caixa de conexão caixas acústicas principais - Esquerda com conectores Neutrik e espelho sob medida | ABS-APB-C1 | 1 |

B1 - C2 - AUDIO PLUG BOXES (B1C2)

| Name | Description | Part Number | QTY |
|---------------------------------|--|-------------|-----|
| absolut technologies ABS-APB-C2 | Caixa de conexão caixas acústicas principais - Direita com conectores Neutrik e espelho sob medida | ABS-APB-C2 | 1 |

| | |
|------------------------------------|---------------------------------|
| Client: FLPP | Number: 20200608 |
| Project Title: RFP - Teatro B32 | |
| Sales: Arlete Belarmino | Engineering: Olivar Barbosa, |
| Publish Date: 2020-12-28 | Rev: 08 Page: 2 Pages: 8 |

B1 - C3 - AUDIO PLUG BOXES (B1C3)

| Name | Description | Part Number | QTY |
|---------------------------------|---|-------------|-----|
| absolut technologies ABS-APB-C3 | Caixa de conexão caixas acústicas piso palco - Esquerda com conectores Neutrik e espelho sob medida | ABS-APB-C3 | 1 |

B1 - C4 - AUDIO PLUG BOXES (B1C4)

| Name | Description | Part Number | QTY |
|---------------------------------|--|-------------|-----|
| absolut technologies ABS-APB-C4 | Caixa de conexão caixas acústicas piso palco - Direita com conectores Neutrik e espelho sob medida | ABS-APB-C4 | 1 |

B1 - C10 - AUDIO PLUG BOXES [2] (BC10)

| Name | Description | Part Number | QTY |
|----------------------------------|---|-------------|-----|
| absolut technologies ABS-APB-C10 | Caixa de conexão caixas acústicas cobertura Balcão 01 com conectores Neutrik e espelho sob medida | ABS-APB-C10 | 1 |

B1 - C11 - AUDIO PLUG BOXES [2] (BC11)

| Name | Description | Part Number | QTY |
|----------------------------------|---|-------------|-----|
| absolut technologies ABS-APB-C11 | Caixa de conexão caixas acústicas cobertura Balcão 02 com conectores Neutrik e espelho sob medida | ABS-APB-C11 | 1 |

B1 - V1 - VIDEO PLUG BOXES [13] (B1V1)

| Name | Description | Part Number | QTY |
|---------------------------------|--|-------------|-----|
| absolut technologies ABS-VPB-V1 | Caixa e conexão Telas de Vídeo com conectores Neutrik e espelho sob medida | ABS-VPB-V1 | 1 |

B1 - V2 - VIDEO PLUG BOXES (B1V2)

| Name | Description | Part Number | QTY |
|---------------------------------|--|-------------|-----|
| absolut technologies ABS-VPB-V2 | Caixa de conexão Câmera e Projetor com conectores Neutrik e espelho sob medida | ABS-VPB-V2 | 1 |

B2 - A - CABOS DE INFRAESTRUTURA - AUDIO (B2AC)

| Name | Description | Part Number | QTY |
|--------------------------------------|---|-------------|------|
| Extron 2LC OM4 MM P/30 | LC to LC Laser-Optimized Multimode Fiber Optic Cable Assembly - Plenum, 98.4 feet | 26-671-30 | 4 |
| Absolute Acoustics VIDEONET 600 BOLT | VIDEONET 600 BOLT - Easy Pullbox de 305 metros | 4469 | 873 |
| Belden 1813A | Audio Cable, 2 Conductor 24 AWG, BC | 1813A | 484 |
| Belden 5T00UP | 2 Conductor 10 AWG, BC, Unshielded, CL2 | 5T00UP | 1915 |
| Belden 8402 | Microphone Cable, 2 Conductor 20 AWG, TC | 8402 | 191 |

| | |
|------------------------------------|---------------------------------|
| Client: FLPP | Number: 20200608 |
| Project Title: RFP - Teatro B32 | |
| Sales: Arlete Belarmino | Engineering: Olivar Barbosa, |
| Publish Date: 2020-12-28 | Rev: 08 Page: 3 Pages: 8 |

B3 - RACK DA SALA DE CONTROLE (R1) (B3RS)

| Name | Description | Part Number | QTY |
|--|--|------------------|-----|
| ADC/TE CONECTOR PROGRAMÁVEL (ESPERA) | CONECTOR PROGRAMÁVEL (ESPERA) | AM1-BAN | 4 |
| ADC-Commscope EDAC-CRIMP-TOOL | Ferramenta de crimpagem | EDAC-CRIMP-TOOL | 1 |
| ADC-Commscope EDAC-EXTRAC-TOOL | Ferramenta de remoção de pinos | EDAC-EXTRAC-TOOL | 1 |
| ADC-Commscope PPP1248-E3-NS-S | Painel patch bay para áudio | PPP1248-E3-NS-S | 1 |
| Commscope PPP-15-CHAS-KIT | Conversion Kit for Patch Panel, 1.5U | PPP-15-CHAS-KIT | 1 |
| Furukawa 35050234 | Patch Panel 24 Portas Descarregado Blindado | 35050234 | 2 |
| Furukawa 35050810 | PATCH PANEL DESCARREGADO 48P ANGULAR 2U BLINDADO | 35050810 | 1 |
| Henry Engineering IHF/PRO01 | Stereo Level Matching interface/amplifier | IHF/PRO01 | 1 |
| Kramer Electronics PT-102AN | 1:2 Stereo audio distribution amplifier | 90-752790 | 2 |
| Littlite RL-10-D-LED | Littlite RL-10-D-LED Raklite | RL-10-D-LED | 2 |
| Tascam SS-CDR250N | The SS-R250N / SS-CDR250N is a two-channel recorder/player for network applications with a variety of remote control options. An FTP client function is included – enabling the automatic uploading and downloading of recorded files. | SS-CDR250N | 1 |
| TE CONNECTIVITY VP-DES-680-B | | VP-DES-680-B | 1 |
| Wohler 2-Channel HD/SD-SDI, AES, and Digital / Analog Audio Monitoring Unit (1 RU) | 2-Channel HD/SD-SDI, AES, and Digital / Analog Audio Monitoring Unit (1 RU) | VMMDA-1 | 1 |
| Womer AC 83 10 20A | Calha de Tomadas Fixação 19" 10 OUTPUT 20A | AC 83 10 20A | 6 |
| Womer KIT-VENT-4 | Teto com 4 ventiladores b-volts com lâmpada piloto | KIT-VEN-4 | 2 |
| Womer Painel Cego 19" | Painel Cego | WPF01 | 38 |
| Womer W0947/04 | Bandeja deslizante com trilhos telescópicos e capacidade de 35 kg | W0947/04 | 6 |
| Womer W37 40 77 | W37 Womer Rack Server Ativos 800/19" | W37 40 77 | 2 |
| ADC-Commscope DA2B | Cabo conexão para Patch bay de áudio | DA2B | 20 |

B3 - R - PAINÉIS DE CONEXÃO DE RACK (B3RP)

| Name | Description | Part Number | QTY |
|------------------------------------|----------------------------|---------------|-----|
| absolut technologies ABS-IPNL-B3-R | Painel de conexões de rack | ABS-IPNL-B3-R | 1 |

B4 - RACKS MOVEIS DO PALCO (R2.1 E R2.2) (B4RM)

| Name | Description | Part Number | QTY |
|---|--|------------------|-----|
| AAT Advanced Audio Technologies. AAT PWC-1 - 110V | Condicionador de Energia | AAT PWC-1 - 110V | 1 |
| Countryman B2D | B2D DIRECTIONAL LAVALIER | B2DW4FF05BAXF | 2 |
| Fabricase CASE RACK 16RU | Case Rack de equipamentos eletrônicos portátil 16RU | CASERACK16RU | 1 |
| Fabricase CASE RACK 6RU | Case Rack de equipamentos eletrônicos portátil 6RU | CASERACK06RU | 1 |
| Shure SB900A | Shure Lithium-Ion Rechargeable Battery. | SB900A | 8 |
| Shure SBC800-BR | Carregador de bateria SBC800 de 8 compartimentos | SBC800-BR | 1 |
| Shure UA845UWB-BR | Antenna Distribution System | UA845UWB-BR | 1 |
| Shure UA874 | Antena Direcional Ativa UHF UA874 | UA874 | 2 |
| Shure ULXD1-J50 | Transmissor bodypack digital sem fio | ULXD1-J50 | 2 |
| Shure ULXD2/SM58-J50 | The ULXD2/SM58 Handheld Wireless Microphone Transmitter works with ULX-D Wireless Systems. | ULXD2/SM58-J50 | 2 |
| Shure ULXD4BR-J50 | Single digital wireless receiver with PS41US power supply, 1/2 wave antenna and rack mounting hardware | ULXD4BR-J50 | 4 |
| Womer W0947/04 | Bandeja deslizante com trilhos telescópicos e capacidade de 35 kg | W0947/04 | 6 |

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|------------------------------------|---------------------------------|
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| Sales: Arlete Belarmino | Engineering: Olivar Barbosa, |
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B5 - RACK DE AMPLIFICADORES (R3) (B5RA)

| Name | Description | Part Number | QTY |
|-----------------------|---|--------------|-----|
| Littlite RL-10-D-LED | Littlite RL-10-D-LED Raklite | RL-10-D-LED | 2 |
| Womer AC 83 10 20A | Calha de Tomadas Fixação 19" 10 OUTPUT 20A | AC 83 10 20A | 6 |
| Womer KIT-VENT-4 | Teto com 4 ventiladores b-volts com lâmpada piloto | KIT-VEN-4 | 2 |
| Womer Painel Cego 19" | Painel Cego | WPF01 | 31 |
| Womer W0947/04 | Bandeja deslizante com trilhos telescópicos e capacidade de 35 kg | W0947/04 | 6 |
| Womer W37 40 77 | W37 Womer Rack Server Ativos 800/19" | W37 40 77 | 2 |

B5 - D - QUADRO DE DISTRIBUIÇÃO AMPLIFICADORES (B5DQ)

| Name | Description | Part Number | QTY |
|--|---|-------------------|-----|
| absolut technologies ABS-PCA-PRNC-B5-D | Painel de conexões do amplificador (Principal) | ABS-PCA-PRNC-B5-D | 1 |
| absolut technologies ABS-PCA-SCND-B5-D | Painel de conexões do amplificador (Secundário) | ABS-PCA-SCND-B5-D | 1 |

B5 - E - PAINEL DE INTERFACE PARA AMPLIFICADORES (B5EP)

| Name | Description | Part Number | QTY |
|-------------------------------------|-----------------------------------|----------------|-----|
| absolut technologies ABS-PEAMP-B5-E | Painel de entrada de amplificador | ABS-PEAMP-B5-E | 1 |

B5 - F - PAINEL DE INTERFACE PARA CAIXAS ACÚSTICA (B5FP)

| Name | Description | Part Number | QTY |
|---|---|--------------------|-----|
| absolut technologies ABS-PCCA-PRNC-B5-F | Painel de conexões de caixas acústicas (Principal) | ABS-PCCA-PRNC-B5-F | 1 |
| absolut technologies ABS-PCCA-SCND-B5-F | Painel de conexões de caixas acústicas (Secundário) | ABS-PCCA-SCND-B5-F | 1 |

B6 - MIXAGEM E MONITORAMENTO (B6MM)

| Name | Description | Part Number | QTY |
|---|---|-------------------|-----|
| Apple iPad Pro Apple, Tela Liquid Retina 11", 128GB, Prata, Wi-Fi | iPad Pro Apple, Tela Liquid Retina 11", 128GB, Prata, Wi-Fi | MY252BZ/A | 1 |
| D-Link Wireless N PoE Access Point | Wireless N PoE Access Point | DAP-2360 | 1 |
| Feeling EZ TILT | Suporte em alumínio | EZ TILT | 2 |
| KrK Monitor de Áudio Bi-amplificado KRK | Monitor de Áudio Bi-amplificado KRK duas vias | RP7 G4 | 2 |
| SMS AR2200S | No-Break Atrium Rack 2200 VA | AR2200S | 2 |
| Yamaha CL3 | MESA DE MISTURA DIGITAL | CL3 | 2 |
| Yamaha INTERFACE 1RU, 8 OUTS | INTERFACE 1RU, 8 OUTS | RO8-D OUTPUT RACK | 2 |
| Yamaha LA1L | LED Gooseneck Console Lamp | LA1L | 2 |
| Yamaha R Series (AD/DA): 2nd-generation | This high-capacity, high-performance I/O rack is compatible with Yamaha CL and QL series. | RIO3224-D2 | 1 |
| Yamaha RI8-D INPUT RACK | INTERFACE 1RU, 8 INS | RI8-D | 1 |
| Yamaha Rio1608-D2 I/O RACK | This high-performance I/O rack features 16 analog inputs and 8 analog outputs. | RIO1608-D2 | 1 |
| Yamaha SWP1-8MMF | O switch de rede da série SWP1 8MMF vem equipado com 8 portas etherCON, uma porta opticalCON. | SWP1-8MMF | 2 |

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B7 - CAIXAS ACÚSTICAS PRINCIPAIS - PROC. E AMP. (B7CA)

| Name | Description | Part Number | QTY |
|----------------------------------|--|---------------------|-----|
| CM DO BRASIL LODESTAR D8+ 500 KG | TALHA MOTORIZADA P/ IÇAMENTO DE CAIXAS ACÚSTICA | LODESTAR D8+ 500 KG | 8 |
| Fabricase Case 2 x 45N12 | Case Similar ao modelo da D&B Touring case 2 x M6 Case 2 x 45N12 E7437, para acomodar 2x Yamaha 45N12. Dimensões internas: altura 676mm, largura 691mm e comprimento 691mm | | 2 |
| Fabricase Case 2 x L15U | Case Similar ao modelo da D&B Touring case 2 x MAX2/M4 E7467, para acomodar 2x Nexo L15U 710x 775 x 875 mm. | Case 2 x L15U | 2 |
| Fabricase Case 2 x P12 | Case Similar ao modelo da D&B Touring case 2 x MAX2/M4 E7467, para acomodar 2x Yamaha P12 . Dimensões internas: altura 781mm, largura 789mm e comprimento 789mm | Case 2 x P12 | 3 |
| Fabricase Case 4 x ID24T240 | Case Similar ao modelo da D&B Touring case 4 x E5 Case 4 x ID24T240 E7460, para acomodar 4x Yamaha Case 4 x ID24T240 Dimensões internas: altura 300mm, largura 825mm e comprimento 539mm | Case 4 x ID24T240 | 1 |
| Nexo GEOM1012 | CAIXA ACUSTICA PASSIVA | GEOM1012 | 12 |
| Nexo GEOM1025 | CAIXA ACUSTICA PASSIVA | GEOM1025 | 4 |
| Nexo GMTEXBARM10L | Suporte para caixa acústica principal | GMTEXBARM10L | 2 |
| Nexo GMTLBUMPM10 | Bumper for mounting Geo M10 line array elements | GMTLBUMPM10 | 2 |
| Nexo ID24T12040 | CAIXA ACUSTICA PASSIVA | ID24T12040 | 4 |
| Nexo IDTGSTK | SUPORTE DE CHAO PARA CAIXA | IDTGSTK | 4 |
| Nexo MSUB15 | CAIXA ACUSTICA PASSIVA - SUB | MSUB15 | 4 |
| Nexo NXAMP4X1MK2 | AMPLIFICADOR DE POTENCIA | NXAMP4X1MK2 | 1 |
| Nexo NXDT104MK2 | INTERFACE DE REDE DE AUDIO | NXDT104MK2 | 4 |
| Nexo NXMAP4X2MK2 | Amplificador | NXMAP4X2MK2 | 3 |
| Nexo VNTBUMPM10 | SUPORTE PARA CAIXAS ACÚSTICAS | VNTBUMPM10 | 2 |
| Yamaha DXS18XLF-D-BRA | SubWoofers Yamaha DXS18XLF-D-BRA | DXS18XLF-D-BRA | 2 |
| Yamaha DZR12-D-BRA | Retorno de palco Yamaha DZR12-D-BRA | DZR12-D-BRA | 4 |
| Yamaha DZR15-D-BRA | Retorno de palco Yamaha DZR15-D-BRA | DZR15-D-BRA | 4 |
| Yamaha DZR315-D//BRA | Item Yamaha DZR315-D//BRA | DZR315-D-BRA | 2 |

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|------------------------------------|---------------------------------|-----------------------------|------------|---------------------|-------------|
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B8 - SISTEMA DE PAGING (B8SP)

| Name | Description | Part Number | QTY |
|---|---|----------------|-----|
| Absolute Acoustics In-Ceiling Speaker - RPRO4T | PREMIUM IN-CEILING PRO SPEAKERS | RPRO4T | 86 |
| Line Conference S 001-002 | Suporte seguro para iPad/e outras marcas para agendamento de sala | S 001-002 | 1 |
| PRESONUS BLUETUBE DP-V2 | PREAMPLIFICADOR DE MICROFONE | BLUETUBE DP-V2 | 1 |
| QSC MP-A20V | Multi-Channel Amplifier | MP-A20V | 1 |
| QSC MP-A80V | The MP-A Series music and paging amplifiers build on a 50-year legacy of QSC amplifier dependability and quality. | MP-A80V | 2 |
| QSC NS-1148P | Switches de rede Dell EMC pré-configurados | NS-1148P | 1 |
| QSC Q-SYS Core 110f | Audio DSP | CORE110F | 1 |
| QSC Single-Gang networked audio controller (Attero Tech by QSC) | Single-Gang networked audio controller (Attero Tech by QSC) | Axon C1 | 7 |
| QSC Touch Screen Controller 8.0" (203 mm) | In-Wall or Table Top Touch Screen Controller | TSC-80w-G2-BK | 1 |
| Shure A88SM | Shock isolation mount for VP88 microphone | A88SM | 1 |
| Shure VP88 | Stereo condenser microphone with wide dynamic range | VP88 | 1 |
| QSC Q-SYS SOFTWARE-BASED DANTE | Q-SYS SOFTWARE-BASED DANTE LICENSE, PERPETUAL | SL-DAN-8P | 1 |
| QSC SL-QSE-110-P | Q-SYS Core 110 Scripting Engine Software License, Perpetual | SL-QSE-110-P | 1 |
| QSC SL-QUD-110-P | Q-SYS Core 110 UCI Deployment Software License, Perpetual | SL-QUD-110-P | 1 |

B8 - B - ESTAÇÃO PAGING. INCLUI MIC E BASE (B8BE)

| Name | Description | Part Number | QTY |
|--|---|--------------|-----|
| AtteroTech Zip4-3G | Dante™/AES67 Wall mount 4-Button Paging Interface | Zip4-3G | 1 |
| QSC 3-gang desktop mount enclosure kit | 3-gang desktop mount enclosure kit | Zip4-3Gang-T | 1 |
| Sennheiser MEG 14-40B | Microfone gooseneck para paging | MEG 14-40B | 1 |

B9 - CABOS (B9CA)

| Name | Description | Part Number | QTY |
|-----------------------|---|--------------|-----|
| Link USA MNXESSQNM15U | Cabo quad para microfone - 15M | MNXESSQNM15U | 6 |
| Link USA MNXESSQNM30U | Cabo quad para microfone - 30M | MNXESSQNM30U | 4 |
| Link USA MNXESSQNM3U | Cabo quad para microfone - 3M | MNXESSQNM3U | 12 |
| Link USA MNXESSQNM9U | Cabo quad para microfone - 9M | MNXESSQNM9U | 12 |
| Whirlwind MT16FM10SSH | MEDUSA Multitrack Audio Snake 10' | MT-16-F-M-10 | 1 |
| Whirlwind MT16FM25SSH | Medusa Multitrack Series 16 Channel 3-Pin XLR Male to XLR Female Fanout Snake Cable - 25' | MT-16-F-M-25 | 1 |
| Whirlwind MT32FM15SSH | MEDUSA Multitrack Audio Snake 15' | MT-32-F-M-15 | 1 |
| Whirlwind MT32FM25SSH | 32x32 Analog Fan Snake - 50 Foot | MT-32-F-M-25 | 1 |

B9 - 1 - CABOS (B9C1)

| Name | Description | Part Number | QTY |
|--|---|-------------|-----|
| Neutrik 3 pole female cable connector gold contacts. | 3 pole female cable connector with black metal housing and gold contacts. | NC3FXX-B | 1 |
| Neutrik 3 pole male cable connector gold contacts | 3 pole male cable connector with black metal housing and gold contacts | NC3MXX-B | 1 |
| Belden 5T00UP | 2 Conductor 10 AWG, BC, Unshielded, CL2 | 5T00UP | 240 |

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B10 - MICROFONES E ACESSÓRIOS (B10M)

| Name | Description | Part Number | QTY |
|---|---|--------------|-----|
| AKG D112 MKII | Dynamic microphone capsule Polar PatternCardioid Audio frequency bandwidth20 - 17000 Hz Max. SPL for 0.5 % THD> 160 dB (calculated) Electrical impedance210 Ohms Recommended load impedance≥ 2000 Ohms Sensitivity1.8 mV/Pa (-55 dBV) Temperature Range-10 °C to +60 °C (14 °F - 140 °F) | 2220X00040 | 1 |
| AKG High-performance miniature condenser vibration pickup with mini XLR connector | High-performance miniature condenser vibration pickup with mini XLR connector | C411 L | 2 |
| Beyerdynamic MAV 802 | barra de montagem multiuso para microfones | MAV 802 | 2 |
| Fabricase CASE25MIC | Case para 25 microfones | CASE25MIC | 2 |
| Fabricase CASE28PED | Case para 28 pedestais de microfone | CASE28PED | 1 |
| König & Meyer 23550 Microphone bar | 23550 Microphone bar | 23550-500-55 | 2 |
| On-Stage DS7200B | Suporte de mesa para microfone | DS7200B | 2 |
| On-Stage MS7701TB | Pedestal para Microfone | MS7701TB | 4 |
| On-Stage MS9411TB | Pedestal de microfone compacto | MS9411TB | 4 |
| On-Stage MS9701TB+ | Pedestal para microfone | MS9701TB+ | 14 |
| On-Stage SB9600 | PEDESTAL PARA MICROFONE BOOM | SB9600 | 2 |
| Radial Engineering Multimedia Direct Box | Multimedia Direct Box | PRO-AV1 | 2 |
| Radial Engineering Passive Direct Box | Passive Direct Box | PRO-DI | 4 |
| Radial Engineering PZ-DI | Radial PZ-DI™ Orchestral Instrument DI | R800 3005 | 8 |
| Radial Engineering Stereo Multimedia Direct Box | Stereo Multimedia Direct Box | PRO-AV2 | 2 |
| Sennheiser MD 441-U | Dynamic studio microphone | 762 | 1 |
| Sennheiser ME34 | Mic Capsule ME34 | ME34 | 1 |
| Sennheiser ME66/K6P Shotgun Microphone System | ME66/K6P Shotgun Microphone System | ME66/K6P | 2 |
| Sennheiser ME67 | Super-Cardioid Spot Shotgun Mic Capsule | ME67 | 2 |
| Sennheiser Microfone cardióide lendário, robusto e extremamente versátil. | Microfone cardióide lendário, robusto e extremamente versátil. | MD421 II | 2 |
| Sennheiser MZH3042 | Pré amplificador para microfone | MZH3042 | 1 |
| Sennheiser MZS6 Microphone Shock Mount | MZS6 Microphone Shock Mount | MZS6 | 2 |
| Shure A32SM | A32SM ELASTIC-SUSPENSION SHOCK MOUNT | A32SM | 1 |
| Shure BETA 52A | Kick Drum Microphone with High Output Neodymium Element | BETA 52A | 2 |
| Shure BETA 57A | Supercardioid Dynamic with High Output Neodymium Element for Vocal and Instrument microphone | BETA 57A | 2 |
| Shure BETA 58A | Supercardioid Dynamic with High Output Neodymium Element for Vocal microphone | BETA 58A | 2 |
| Shure BETA 87C | Cardioid Condenser for Vocal microphone | BETA 87C | 2 |
| Shure BETA 98H/C | Clip-On Cardioid Condenser microphone for Sax and Brass with Integrated Shock Mount and Attached Preamplifier | BETA 98H/C | 2 |
| Shure KSM32/CG | Cardioid CondenserStage microphone Model Charcoal Gray with swivel mount and carrying case | KSM32/CG | 1 |
| Shure SM-57LC | Microfone Vocal De Mão SM-57LC | SM-57LC | 4 |
| Shure SM-58 | Handheld microphones w/ 25' cable | SM-58 | 8 |
| Shure SM-81LC | Microfone Condensador SM-81LC | SM-81LC | 4 |

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B11 - PROJETOR (B11P)

| Name | Description | Part Number | QTY |
|--|--|---------------------------|-----|
| Epson ELPLM10 | Middle-Throw Zoom Lens | V12H004M0A | 1 |
| Epson L1755UNL | Projektor Laser Premium 15.000 lumens WUXGA (1920 x 1200) com 3LCD de 3 chips. | L1755UNL | 1 |
| IACI SUP-WALL-PROJ | Suporte de parede para Projetor Panasonic PT RZ 21KU | SUP-WALL-PROJ | 1 |
| Kramer Electronics TP-580R | HDMI, bidirectional RS232 and IR over high definition base T twisted pair receiver | 50-80022090 | 1 |
| Kramer Electronics TP-580T | HDMI, bidirectional RS232 and IR over HDBaseT twisted pair transmitter | 50-80021090 | 1 |
| Projetelas TELA MOTORIZADA 413" (16:9) | Tela motorizada widescreen (16:9) - 413" | TELAMOT_FULLHD_413 POL | 1 |
| SMS AR2200S | No-Break Atrium Rack 2200 VA | AR2200S | 1 |

B12 - CAMERA E VIDEO E CONTROLE (B12C)

| Name | Description | Part Number | QTY |
|--------------------|---|-------------|-----|
| Panasonic AW-HE130 | Produção de vídeo de qualidade HD através de 3G-SDI e streaming IP. | AW-HE130 | 1 |

B13 - VIDEO SWITCHING (B13V)

| Name | Description | Part Number | QTY |
|---|--|-----------------------|-----|
| Blackmagic Design CONVMBHS24K6G | HDMI to SDI 6G Mini Converter | CONVMBHS24K6G | 3 |
| Blackmagic Design CONVMCAUDS4K | Mini Converter - Audio to SDI 4K - Embedder | CONVMCAUDS4K | 1 |
| Blackmagic Design Mini Converter SDI to HDMI 6G | Mini Converter SDI to HDMI 6G | CONVMBSH4K6G | 17 |
| Blackmagic Design Smart Video Hub 20x20 | Smart Videohub's beautiful machined aluminum design features new innovative video monitoring control. | Smart Video Hub 20x20 | 1 |
| Blackmagic Design SmartView 4K | Monitor broadcast | SmartView 4K | 1 |
| Blackmagic Design SmartView Duo | Featuring two large independent 8 inch LCD screens in a compact rack mount design, SmartView Duo handles SD, HD and 3Gb/s SDI video standards. | SmartView Duo | 1 |
| ELG Pedestais A05V4 BL | Suporte de Teto para TVs de 26" a 60" - A05V4 PRETO | A05V4-BL | 1 |
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 9 |
| ELG Pedestais E600 | Suporte para TV/Monitor até 50kg. | E600 | 4 |
| Kramer Electronics VP-733 | 12-Input ProScale Presentation Matrix Switcher & 4K | VP-733 | 1 |
| LG 24TL520S | Smart TV Monitor 24" LED LG 24TL520S Wi-Fi WebOS 3.5 DTV Time Machine Ready, Preto | 24TL520S | 9 |
| LG 49UH7F | Monitor UHD signage | 49UH7F | 5 |
| Tascam BD-MP1 | Rackmount Blu-ray and USB Media Player | BD-MP1 | 1 |

C - CAFÉ - BAR (CABA)

| Name | Description | Part Number | QTY |
|--|--|-------------|-----|
| Absolute Acoustics In-Ceiling Speaker - RPRO4T | PREMIUM IN-CEILING PRO SPEAKERS | RPRO4T | 4 |
| Atterotech Dante Networked Audio Interface | Dante™ Networked Audio Interface - 2x2 Mic/Line I/O | unDIO2X2+ | 1 |
| QSC Single-Gang networked audio controller (Atterotech by QSC) | Single-Gang networked audio controller (Atterotech by QSC) | Axon C1 | 1 |



Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977

CREA-BA

ART OBRA / SERVIÇO
Nº BA20230486533

Conselho Regional de Engenharia e Agronomia da Bahia

SUBSTITUIÇÃO DE DADOS à
 BA20220294640

1. Responsável Técnico

OLIVAR BARBOSA DA SILVA JUNIOR

Título profissional: **ENGENHEIRO ELETRICISTA ELETRÔNICA**

RNP: **0506716422**

Registro: **34033/D BA**

Empresa contratada: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**

Registro : **0010100288-BA**

2. Dados do Contrato

Contratante: **FLPP FARIA LIMA PRIME PROPERTIES S.A.**

CPF/CNPJ: **07.349.852/0001-38**

AVENIDA BRIGADEIRO FARIA LIMA

Nº: **2277**

Complemento: **20º andar**

Bairro: **JARDIM PAULISTANO**

Cidade: **SÃO PAULO**

UF: **SP**

CEP: **01452000**

Contrato: **FLPP - 20200608**

Celebrado em: **04/11/2020**

Valor: **R\$ 112.482,09**

Tipo de contratante: **Pessoa Juridica de Direito Privado**

Ação Institucional: **NENHUMA - NAO OPTANTE**

Situação: **BAIXA DE ART**

Atendido: **SIM**

Data da Solicitação: **24/07/2023**

Data do Atendimento:

Motivo: **CONCLUSÃO DA OBRA/SERVIÇO**

3. Dados da Obra/Serviço

AVENIDA BRIGADEIRO FARIA LIMA

Nº: **3732**

Complemento: **Teatro B32**

Bairro: **ITAIM BIBI**

Cidade: **SÃO PAULO**

UF: **SP**

CEP: **04538132**

Data de Início: **29/07/2021**

Previsão de término: **10/01/2023**

Coordenadas Geográficas: **0, 0**

Finalidade: **Comercial**

Código: **Não Especificado**

Proprietário: **FLPP FARIA LIMA PRIME PROPERTIES S.A.**

CPF/CNPJ: **07.349.852/0001-38**

4. Atividade Técnica

| | Quantidade | Unidade |
|---|------------|---------|
| 16 - Execução | | |
| 80 - Projeto > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.2 - DE EQUIPAMENTOS DE SONORIZAÇÃO | 17,00 | mes |
| 80 - Projeto > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.5 - DE EQUIPAMENTOS DE VÍDEO | 17,00 | mes |
| 80 - Projeto > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.2 - DE EQUIPAMENTOS DE SONORIZAÇÃO | 17,00 | mes |
| 80 - Projeto > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.3 - DE PERIFÉRICOS DE ÁUDIO | 17,00 | mes |
| 80 - Projeto > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > DE SISTEMAS DE SONORIZAÇÃO > #TOS_12.5.1.1 - INTERNA | 17,00 | mes |
| 80 - Projeto > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.4 - DE SISTEMAS DE VÍDEO | 17,00 | mes |
| 80 - Projeto > TELECOMUNICAÇÕES > COMUNICAÇÃO MULTIMÍDIA > #TOS_15.7.1 - DE COMUNICAÇÃO MULTIMÍDIA | 17,00 | mes |

5. Observações

Desenvolvimento Integral do Projeto de Áudio e Vídeo (Infraestrutura, Diagramas, etc.) para o Teatro B32.

6. Declarações

- Declaro que estou cumprindo as regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no decreto n. 5296/2004.

7. Entidade de Classe

NENHUMA DAS ENTIDADES

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Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977

CREA-BA

ART OBRA / SERVIÇO
Nº BA20230486533

Conselho Regional de Engenharia e Agronomia da Bahia

SUBSTITUIÇÃO DE DADOS à
 BA20220294640

8. Assinaturas

Declaro serem verdadeiras as informações acima

OLIVAR BARBOSA DA SILVA JUNIOR - CPF: 428.565.072-04

_____, _____ de _____ de _____

Local

data

FLPP FARIA LIMA PRIME PROPERTIES S.A. - CNPJ: 07.349.852/0001-38

9. Informações

* A ART é válida somente quando quitada, mediante apresentação do comprovante do pagamento ou conferência no site do Crea.

* O comprovante de pagamento deverá ser apensado para comprovação de quitação

10. Valor

Valor da ART: **R\$ 96,62**

Registrada em: **18/07/2023**

Valor pago: **R\$ 96,62**

Nosso Número: **56048135**

A autenticidade desta ART pode ser verificada em: <http://crea-ba.sitac.com.br/publico/>, com a chave: 21YWA
 Impresso em: 07/06/2024 às 11:31:33 por: , ip: 179.191.123.146





Certidão de Acervo Técnico - CAT
Resolução Nº 1025 de 30 de Outubro de 2009

CREA-BA

CAT SEM REGISTRO DE ATESTADO

196130/2023

Conselho Regional de Engenharia e Agronomia da Bahia

CERTIFICAMOS, para os devidos fins, que consta em nossos arquivos a(s) Anotação(ões) de Responsabilidade Técnica - ARTs abaixo discriminada(s):

Profissional: **OLIVAR BARBOSA DA SILVA JUNIOR**
Registro: **34033/D BA** RNP: **0506716422**
Título profissional: ENGENHEIRO ELETRICISTA ELETRÔNICA, ENGENHARIA DE TELECOMUNICACOES

Número da ART: **BA20220125106** Tipo de ART: OBRA / SERVIÇO Registrada em: 02/06/2022 Baixada em: 18/07/2023
Forma de registro: INICIAL Participação técnica: INDIVIDUAL
Empresa contratada: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**

Contratante: **GREEN4T SOLUÇÕES TI LTDA** CPF/CNPJ: **03.698.620/0001-34**
Endereço do contratante: AVENIDA JORNALISTA ROBERTO MARINHO Nº: 85
Complemento: Cidade Monções Bairro: CIDADE MONÇÕES
Cidade: SÃO PAULO UF: SP CEP: 04576010
Contrato: 20220117 Celebrado em: 30/03/2022
Valor do contrato: R\$ 103.454,01 Tipo de contratante: Pessoa Jurídica de Direito Privado
Ação institucional: NENHUMA - NAO OPTANTE
Endereço da obra/serviço: AVENIDA JORNALISTA ROBERTO MARINHO Nº: 85
Complemento: Cidade Monções Bairro: CIDADE MONÇÕES
Cidade: SÃO PAULO UF: SP CEP: 04576010
Coordenadas Geográficas: -23.612050, -46.697210
Data de início: 30/05/2022 Previsão de término: 20/06/2022
Finalidade: Outro
Proprietário: GREEN4T SOLUÇÕES TI LTDA CPF/CNPJ: 03.698.620/0001-34

Atividade Técnica: **14 - Gestão** ELÉTRICA - ATIVIDADES PROFISSIONAIS, CIENTÍFICAS E TÉCNICAS > EQUIPAMENTOS ELETRICOS ELETRONICOS > #280 - SERVICOS AFINS E CORRELATOS EM EQUIP.ELET./ELETR. 172 - Operação de Instalação 1.00 unidade; **17 - Elaboração** ELÉTRICA - ATIVIDADES PROFISSIONAIS, CIENTÍFICAS E TÉCNICAS > EQUIPAMENTOS ELETRICOS ELETRONICOS > #280 - SERVICOS AFINS E CORRELATOS EM EQUIP.ELET./ELETR. 24 - Projeto 1.00 unidade;

Observações

Sistemas de áudio e vídeo compostos por equipamentos de videoconferência e videowall.

Número da ART: **BA20230486533** Tipo de ART: OBRA / SERVIÇO Registrada em: 18/07/2023 Baixada em: 24/07/2023
Forma de registro: SUBSTITUIÇÃO DE DADOS Participação técnica: INDIVIDUAL
Empresa contratada: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**

Contratante: **FLPP FARIA LIMA PRIME PROPERTIES S.A.** CPF/CNPJ: **07.349.852/0001-38**
Endereço do contratante: AVENIDA BRIGADEIRO FARIA LIMA Nº: 2277
Complemento: 20º andar Bairro: JARDIM PAULISTANO
Cidade: SÃO PAULO UF: SP CEP: 01452000
Contrato: FLPP - 20200608 Celebrado em: 04/11/2020
Valor do contrato: R\$ 112.482,09 Tipo de contratante: Pessoa Jurídica de Direito Privado
Ação institucional: NENHUMA - NAO OPTANTE
Endereço da obra/serviço: AVENIDA BRIGADEIRO FARIA LIMA Nº: 3732
Complemento: Teatro B32 Bairro: ITAIM BIBI
Cidade: SÃO PAULO UF: SP CEP: 04538132
Data de início: 29/07/2021 Previsão de término: 10/01/2023
Finalidade: Comercial
Proprietário: FLPP FARIA LIMA PRIME PROPERTIES S.A. CPF/CNPJ: 07.349.852/0001-38

Atividade Técnica: **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > DE SISTEMAS DE SONORIZAÇÃO > #TOS_12.5.1.1 - INTERNA 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.2 - DE EQUIPAMENTOS DE SONORIZAÇÃO 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.2 - DE EQUIPAMENTOS DE SONORIZAÇÃO 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.3 - DE PERIFÉRICOS DE ÁUDIO 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.4 - DE SISTEMAS DE VÍDEO 80 - Projeto 17.00 mes; **16 - Execução** ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.5 - DE EQUIPAMENTOS DE VÍDEO 80 - Projeto 17.00 mes; **16 - Execução** TELECOMUNICAÇÕES > COMUNICAÇÃO MULTIMÍDIA > #TOS_15.7.1 - DE COMUNICAÇÃO MULTIMÍDIA 80 - Projeto 17.00 mes;

Observações

Desenvolvimento Integral do Projeto de Áudio e Vídeo (Infraestrutura, Diagramas, etc.) para o Teatro B32.





Certidão de Acervo Técnico - CAT
Resolução Nº 1025 de 30 de Outubro de 2009

Conselho Regional de Engenharia e Agronomia da Bahia

CREA-BA

CAT SEM REGISTRO DE ATESTADO

196130/2023

Informações Complementares

- CONSIDERAR OS SERVIÇOS, APENAS, NO ÂMBITO DA ENGENHARIA ELÉTRICA - ELETRÔNICA.
- ESTA CERTIDÃO É PARA FIM EXCLUSIVO DE ACERVO TÉCNICO E NÃO ACRESSENTA NENHUMA ATRIBUIÇÃO ÀS ORIGINARIAMENTE CONSIGNADAS NO REGISTRO DO PROFISSIONAL NO CREA, SENDO VEDADA QUALQUER EXTRAPOLAÇÃO, NOS TERMOS DA ALÍNEA `B` DO ARTIGO 6º DA LEI 5.194 DE 24 DE DEZEMBRO DE 1996.

Certidão de Acervo Técnico nº 196130/2023

12/09/2023, 12:03

AaZwZ

A falsificação deste documento constitui-se em crime previsto no Código Penal Brasileiro, sujeitando o(a) autor(a) à respectiva ação penal.

Esta certidão perderá a validade, caso ocorra qualquer alteração posterior dos elementos cadastrais nela contidos

A autenticidade desta Certidão pode ser verificada em: <http://crea-ba.sitac.com.br/publico/>, com a chave: AaZwZ



ATESTADO DE CAPACIDADE TÉCNICA

Atestamos para os devidos fins, que a empresa ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA, sediada na Rua José Jorge Pereira, nº47 Qd D Lt 22 – Portão – Lauro de Freitas/BA, inscrita no CNPJ sob nº 02.423.819/0001-97, forneceu satisfatoriamente, no que diz respeito à venda, prazo de entrega, instalação, configuração para a **Dell Computadores do Brasil Ltda., inscrita no cnpj nº 72.381.189/0001-10** a solução de 90 salas de reunião, sendo elas em tamanhos small, médium, large, extra large, huddle, além de ambientes de convivência compostos por 47 unidades Polycom RealPresence Trio 8800, 16 unidades displays Dell de 43", 4 unidades de displays Dell 55", 180 unidades de ponto de conteúdo, 90 unidades suporte para monitor de parede Chief, 90 Amplificadores de áudio Extron XPA 2001V, 14 pares de speakers JBL Control 47CT.

Acrescentamos também que os equipamentos fornecidos apresentam desempenho satisfatório pelo que comprovamos a sua Capacidade Técnica.

Eldorado do Sul - Rio Grande do Sul - 12 de mês de abril de 2022



IT Director

Felipe Lussana

| | |
|--|--|
| Client: Dell | Number: 20181205 |
| Project Title: GPA Eldorado do SUL | |
| Sales: Ricardo Amaral | Engineering: Amauri Passos, Lucas Sacramento |
| Publish Date: 2019-03-22 | Rev: Page: Pages: 08 1 3 |

absolut technologies

| Name | Description | Part Number | QTY |
|------------------------------------|--|---------------|-------|
| absolut technologies ABS-INST-MISC | Material de instalação, acabamento, identificação. Custo em BRL. | ABS-INST-MISC | 11600 |
| absolut technologies Expenses | Project Expenses | ABS-SRV-002 | 7 |
| absolut technologies Integration | Instalation, Integration, Project, Documentation | ABS-SRV-001 | 7 |
| absolut technologies Programming | Automation programming | ABS-SRV-003 | 7 |

Absolute Acoustics

| Name | Description | Part Number | QTY |
|--------------------------|--|-------------|-----|
| Absolute Acoustics CON-W | PRO Grade Cresnet Network Cable Control Wave Bus | CON-W | 15 |

APC

| Name | Description | Part Number | QTY |
|------------------|---|--------------|-----|
| APC AP7821B | Rack PDU, Metered, 1U, 16A, 208/230V, (8) C13 | AP7821B | 1 |
| APC AP9613 | Dry Contact I/O SmartSlot Card | AP9613 | 1 |
| APC SURT1000XLIM | APC Smart-UPS RT 1000VA 230V - Marine | SURT1000XLIM | 1 |

AVFI

| Name | Description | Part Number | QTY |
|-------------|---------------------------------|-------------|-----|
| AVFI CR2-WM | Dual Rack Wall Mounted Credenza | CR2-WM | 1 |

Chief

| Name | Description | Part Number | QTY |
|---------------|--|-------------|-----|
| Chief FSB4041 | Small Flat Panel Interface Bracket, 200 x 200mm VESA, M8 | FSB4041 | 2 |
| Chief FSR100 | Small Flat Panel Fixed Wall Display Mount | FSR100 | 2 |
| Chief LTM1U | Micro-adjustable tilt wall mount | LTM1U | 24 |
| Chief MTM1U | Medium fusion micro-adjustable tilt wall mount. | MTM1U | 3 |

Comprehensive

| Name | Description | Part Number | QTY |
|---------------------------|---|-------------|-----|
| Comprehensive WP-5855-P-W | Single Gang Decora Wall Plate White - HDMI Female Passthru with Pigtail | WP-5855-P-W | 2 |

Crestron

| Name | Description | Part Number | QTY |
|-----------------------------|--|-------------|-----|
| Crestron C2N-IO | Control Port Expansion Module | 6505209 | 1 |
| Crestron CEN-SW-POE-5 | 5-Port Power over Ethernet Switch | 6506450 | 1 |
| Crestron DIN-AP3 | 3-Series control processor designed for lighting and automation applications. DIN rail mounting enables modular installation alongside Crestron DIN Rail lighting and automation control modules and other third-party DIN rail mountable devices. | 6506220 | 1 |
| Crestron HD-RX-201-C-E | High definition scaling presentation switcher and extender 400 - receiver | 6508330 | 28 |
| Crestron HD-TX-101-C-E | DM Lite – HDMI® over CATx Transmitter, Surface Mount | 6509871 | 19 |
| Crestron HD-TX-301-C-E | High definition scaling presentation switcher and extender 400 - transmitter | 6510376 | 9 |
| Crestron PW-2407RU | 18 Watt Cresnet Power Supply | 6502499 | 1 |
| Crestron TSW-1060-B-S | 10.1" Touch screen | 6507651 | 1 |
| Crestron TSW-1060-TTK-B-S | Tabletop mount | 6507729 | 1 |
| Crestron CBL-SERIAL-DB9F-6 | 3.5mm TRS to DB9F RS-232 Control Cable, 6 ft | 6504926 | 21 |
| Crestron DM-CBL-ULTRA-PC-20 | DigitalMedia™ Ultra Patch Cable, 20 ft (6 m) | 6507640 | 3 |
| Crestron DM-CBL-ULTRA-PC-5 | DigitalMedia™ Ultra Patch Cable, 5 ft (1.5 m) | 6507636 | 21 |
| Crestron DM-CBL-ULTRA-PC-50 | DigitalMedia™ Ultra Patch Cable, 50 ft (15 m) | 6507641 | 4 |

| | | | |
|--|--|------------------------------------|------------------------------------|
| Client: Dell | Number: 20181205 | | |
| Project Title: GPA Eldorado do SUL | | | |
| Sales: Ricardo Amaral | Engineering: Amauri Passos, Lucas Sacramento | Publish Date: 2019-03-22 | Rev: Page: Pages: 08 2 3 |

D-Link

| Name | Description | Part Number | QTY |
|---|--|--------------|-----|
| D-Link 10-Port PoE Gigabit Web Smart Switch | 10-Port Gigabit Web Smart PoE Switch including 2 Gigabit SFP ports | DGS-1210-10P | 1 |

Extron

| Name | Description | Part Number | QTY |
|---------------------------------------|--|-------------|-----|
| Extron AC 102 BR | Power Outlet | 60-1385-13 | 11 |
| Extron Blank Plate - Single | Architectural Adapter Plate, Blank - Single, Black | 70-090-11 | 11 |
| Extron Cable Cubby 700 - Aluminium | Series/2 Cable Access Enclosure for AV Connectivity and AC Power | 70-1046-08 | 11 |
| Extron Retractor Filler Module | Retractor Filler Module | 70-1065-35 | 14 |
| Extron RETRACTOR MOUNTING BRACKET KIT | Cable Retraction System For Horizontal Mounting Application | 70-678-00 | 7 |
| Extron Retractor Series/2 HDMI | HDMI Retractor Cable | 70-1065-04 | 7 |
| Extron USB PowerPlate 200 | Two Outlet USB Chargers | 60-1346-02 | 11 |
| Extron HDMI Ultra/6 | HDMI 6' Cable | 26-663-06 | 26 |
| Extron HDMI Ultra/9 | Ultra Flexible Premium High Speed and High Speed HDMI Cables - 9' (2.7 m) 4K Premium | 26-663-09 | 4 |

Furukawa

| Name | Description | Part Number | QTY |
|-----------------------------------|--|-------------|-----|
| Furukawa CAT.6 U/UTP GigaLan | CABO ELET. GIGALAN U/UTP 23AWGX4P CAT.6 LSZH VD | 23400067 | 30 |
| Furukawa Plug RJ-45 GigaLan CAT.6 | UTP 8 POSITION MODULAR PLUG CAT.6 (PKG 50 PLUGS) | 35050282 | 16 |

Liberty AV

| Name | Description | Part Number | QTY |
|----------------------|--------------------------------|-------------|-----|
| Liberty AV DL-AR1979 | DIGITALINX SECURE ADAPTER RING | DL-AR1979 | 28 |

NTC

| Name | Description | Part Number | QTY |
|----------|---------------------|-------------|-----|
| NTC 3631 | 6 Outlets Power Bar | 3631 | 1 |

OCT

| Name | Description | Part Number | QTY |
|-------------------------|---------------------|-------------|-----|
| OCT Manga 4 vias AWG 22 | Manga 4 vias AWG 22 | OCT-CBL-004 | 8 |

| | |
|--|--|
| Client: Dell | Number: 20181205 |
| Project Title: GPA Eldorado do SUL | |
| Sales: Ricardo Amaral | Engineering: Amauri Passos, Lucas Sacramento |
| Publish Date: 2019-03-22 | Rev: Page: Pages: 08 3 3 |

Polycom

| Name | Description | Part Number | QTY |
|--|---|----------------|-----|
| Polycom Elite 1yr RP Trio 8800 Collab Kit | Elite, One Year, RealPresence Trio 8800 Collaboration Kit Must be eligible for Elite support. Contact Services Sales Rep for details | 4872-25500-902 | 6 |
| Polycom Group 500-720P With EagleEyeIV -12X | Conferencing Kit | 7200-64250-212 | 1 |
| Polycom Group Lync/SfB Interop License | A single Polycom Group Series Lync Interoperability License | 5150-65083-001 | 1 |
| Polycom License for Polycom RealPresence Trio Kit Brazil | License for Polycom RealPresence Trio Kit. Brazil only. | 5150-84120-212 | 6 |
| Polycom Microfones de Expansão RealPresence | Expansion Microphone kit for RealPresence Trio 8800. Incl. two expansion microphones and two 2.1m/7ft cables. | 2200-65790-001 | 3 |
| Polycom Polycom Trio 8800 | Polycom Trio 8800 Kit Skype Ed. | 7200-85370-212 | 6 |
| Polycom Power Kit for RealPresenceTrio 8800 | | 7200-23490-014 | 6 |
| Polycom Elite, One Year, RPGrp 500-720p | Elite Service | 4872-64250-112 | 1 |
| Polycom Group 500-720p Eagle IV 12x Software | Group Series Group 500 software certificate used with Group 500 Eagle Eye IV-12x bundle. Brazil only. Must be ordered with 7200-64250-212 or Medialigns ending in -212. | 5150-64250-212 | 1 |
| Polycom RS-232 Serial Cable, 10ft | RS-232 Serial cable | 2457-63542-001 | 1 |

QSC

| Name | Description | Part Number | QTY |
|---------------------|---|--------------|-----|
| QSC AC-C6T | Two-way, ceiling mount loudspeaker | AC-C6T | 4 |
| QSC Q-SYS Core 110f | Audio DSP | CORE110F | 1 |
| QSC SPA2-60 | EnergyStar Power Amplifier Up to 60 watts per channel into 4 and 8 ohms | SPA2-60 | 1 |
| QSC SL-QSE-110-P | Q-SYS Core 110 Scripting Engine Software License, Perpetual | SL-QSE-110-P | 1 |
| QSC SL-QUD-110-P | Q-SYS Core 110 UCI Deployment Software License, Perpetual | SL-QUD-110-P | 1 |

Shure

| Name | Description | Part Number | QTY |
|---------------|--------------------------|-------------|-----|
| Shure MXA910W | Ceiling Array Microphone | MXA910W | 1 |

Sound Control

| Name | Description | Part Number | QTY |
|---------------------------------|---------------------|-------------|-----|
| Sound Control RCM-EE4 | WALL MOUNT RCM EE4. | RCM-EE4 | 1 |
| Sound Control RC-RKC Rack Shelf | RC-RKC Rack Shelf | RC-RKC | 1 |

Tiaflex

| Name | Description | Part Number | QTY |
|--|--|-------------|-----|
| Tiaflex Balanceado AF(T) 2 x 0,30 mm ² | Cabo para microfone | 6630-10 | 18 |
| Tiaflex CABO POLARIZADO PARA ÁUDIO 2X2,50MM ² | CABO POLARIZADO PARA ÁUDIO 2X2,50MM ² | 9802250 | 60 |



Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977

CREA-BA

ART OBRA / SERVIÇO
Nº BA20230486506

Conselho Regional de Engenharia e Agronomia da Bahia

SUBSTITUIÇÃO DE DADOS à
 BA20190062223

1. Responsável Técnico

OLIVAR BARBOSA DA SILVA JUNIOR

Título profissional: **ENGENHEIRO ELETRICISTA ELETRÔNICA**

RNP: **0506716422**

Registro: **34033/D BA**

Empresa contratada: **ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA**

Registro : **0010100288-BA**

2. Dados do Contrato

Contratante: **Dell Computadores do Brazil, Ltda.**

CPF/CNPJ: **72.381.189/0001-10**

AVENIDA Av. Industrial Belgraf

Nº: **400**

Complemento:

Bairro: **Medianeira**

Cidade: **ELDORADO DO SUL**

UF: **RS**

CEP: **92990000**

Contrato: **150543**

Celebrado em: **09/04/2019**

Valor: **R\$ 486.396,94**

Tipo de contratante: **Pessoa Juridica de Direito Privado**

Ação Institucional: **NENHUMA - NAO OPTANTE**

Situação: **BAIXA DE ART**

Atendido: **SIM**

Data da Solicitação: **24/07/2023**

Data do Atendimento:

Motivo: **CONCLUSÃO DA OBRA/SERVIÇO**

3. Dados da Obra/Serviço

AVENIDA Av. Industrial Belgraf

Nº: **400**

Complemento:

Bairro: **Medianeira**

Cidade: **ELDORADO DO SUL**

UF: **RS**

CEP: **92990000**

Data de Início: **05/06/2019**

Previsão de término: **01/07/2019**

Coordenadas Geográficas: **-30.006495, -51.315255**

Finalidade: **Outro**

Código: **Não Especificado**

Proprietário: **Dell Computadores do Brazil, Ltda.**

CPF/CNPJ: **72.381.189/0001-10**

4. Atividade Técnica

| | Quantidade | Unidade |
|--|------------|---------|
| 10 - Coordenação | | |
| 46 - Execução de instalação > TELECOMUNICAÇÕES > COMUNICAÇÃO MULTIMÍDIA > #TOS_15.7.1 - DE COMUNICAÇÃO MULTIMÍDIA | 26,00 | d |
| 46 - Execução de instalação > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.2 - DE EQUIPAMENTOS DE SONORIZAÇÃO | 26,00 | d |
| 46 - Execução de instalação > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.5 - DE EQUIPAMENTOS DE VÍDEO | 26,00 | d |
| 46 - Execução de instalação > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.3 - DE PERIFÉRICOS DE ÁUDIO | 26,00 | d |
| 46 - Execução de instalação > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > DE SISTEMAS DE SONORIZAÇÃO > #TOS_12.5.1.1 - INTERNA | 26,00 | d |
| 46 - Execução de instalação > ELETRÔNICA > SISTEMAS E EQUIPAMENTOS DE ÁUDIO/VÍDEO > #TOS_12.5.4 - DE SISTEMAS DE VÍDEO | 26,00 | d |

5. Observações

Fornecimento e instalação de equipamentos de áudio, vídeo e controle, para salas de reuniões e conferências.

6. Declarações

- Declaro que estou cumprindo as regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no decreto n. 5296/2004.

7. Entidade de Classe

NENHUMA DAS ENTIDADES

A autenticidade desta ART pode ser verificada em: <http://crea-ba.sitac.com.br/publico/>, com a chave: ZY8aZ

Impresso em: 07/06/2024 às 11:30:46 por: , ip: 179.191.123.146

www.creaba.org.br

creaba@creaba.org.br

Tel: (71) 3453-8990

Fax: (71) 3453-8989





Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977

CREA-BA

ART OBRA / SERVIÇO
Nº BA20230486506

Conselho Regional de Engenharia e Agronomia da Bahia

SUBSTITUIÇÃO DE DADOS à
BA20190062223

8. Assinaturas

Declaro serem verdadeiras as informações acima

OLIVAR BARBOSA DA SILVA JUNIOR - CPF: 428.565.072-04

_____, _____ de _____ de _____

Local

data

Dell Computadores do Brazil, Ltda. - CNPJ: 72.381.189/0001-10

9. Informações

* A ART é válida somente quando quitada, mediante apresentação do comprovante do pagamento ou conferência no site do Crea.

* O comprovante de pagamento deverá ser apensado para comprovação de quitação

10. Valor

Valor da ART: **R\$ 96,62**

Registrada em: **18/07/2023**

Valor pago: **R\$ 96,62**

Nosso Número: **56048099**

A autenticidade desta ART pode ser verificada em: <http://crea-ba.sitac.com.br/publico/>, com a chave: ZY8aZ
Impresso em: 07/06/2024 às 11:30:47 por: , ip: 179.191.123.146



ATESTADO DE CAPACIDADE TÉCNICA

Atestamos para os devidos fins, que a empresa ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA, sediada na Rua José Jorge Pereira, nº47 Qd D Lt 22 - Buraquinho - Lauro de Freitas/BA, inscrita no CNPJ sob nº 02.423.819/0001-97, realizou satisfatoriamente, ao INSUPER – Instituto de ensino e pesquisa, sediada na Rua Quatá, nº 300, Vila Olímpia, São Paulo, SP, 04546-042, inscrita no CNPJ sob nº 06.070.152/0001-47 o fornecimento e instalação de soluções de áudio, vídeo e automação para Salas de Aula e Salas de Estudos, compostas por sistemas de projeção; transmissão AV via rede de dados (IP); sonorização via rede de dados com processamento de áudio digital, microfones sem fio e caixas acústicas de teto e parede; e automação para controle dos equipamentos AV e da iluminação das salas.

PRAZO DE GARANTIA: 12 (doze) meses.

Nesta oportunidade, afirmamos que o fornecimento apresentou desempenho satisfatório pelo que comprovamos a sua capacidade técnica e comercial.

São Paulo, 20 de maio de 2024

THIAGO DELGADO OTANI

CPF: 314.876.478-16

Atestado de Capacidade Técnica ref ART_2620241311690.pdf

Documento número #6df6d43a-d26b-4b51-9709-82e858c20973

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Assinaturas

 **THIAGO DELGADO OTANI**

CPF: 314.876.478-16

Assinou como procurador em 16 ago 2024 às 15:06:43

Log

- 16 ago 2024, 14:42:18 Operador com email fabioyn1@insper.edu.br na Conta 22a9bded-c46a-42b4-a4e0-8d9a2a7f5083 criou este documento número 6df6d43a-d26b-4b51-9709-82e858c20973. Data limite para assinatura do documento: 15 de setembro de 2024 (14:41). Finalização automática após a última assinatura: habilitada. Idioma: Português brasileiro.
- 16 ago 2024, 14:42:19 Operador com email fabioyn1@insper.edu.br na Conta 22a9bded-c46a-42b4-a4e0-8d9a2a7f5083 adicionou à Lista de Assinatura: ThiagoDO@insper.edu.br para assinar como procurador, via E-mail, com os pontos de autenticação: Token via E-mail; Nome Completo; CPF; endereço de IP. Dados informados pelo Operador para validação do signatário: nome completo THIAGO DELGADO OTANI.
- 16 ago 2024, 15:06:43 THIAGO DELGADO OTANI assinou como procurador. Pontos de autenticação: Token via E-mail ThiagoDO@insper.edu.br. CPF informado: 314.876.478-16. IP: 189.96.224.222. Localização compartilhada pelo dispositivo eletrônico: latitude -23.4974905 e longitude -46.620248. URL para abrir a localização no mapa: <https://app.clicksign.com/location>. Componente de assinatura versão 1.950.0 disponibilizado em <https://app.clicksign.com>.
- 16 ago 2024, 15:06:43 Processo de assinatura finalizado automaticamente. Motivo: finalização automática após a última assinatura habilitada. Processo de assinatura concluído para o documento número 6df6d43a-d26b-4b51-9709-82e858c20973.



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| | | | | | | | |
|------------------|--|---------------|------|---------|----------|--|--|
| Client: | Insper - matriz São Paulo | | | Number: | 20230814 | | |
| Project Title: | Prédio 4 | | | | | | |
| Sales: | Engineering: | Publish Date: | Rev: | Page: | Pages: | | |
| Arlete Belarmino | Olivar Barbosa, Leonardo Andrade, Marco Cordeiro | 2023-11-22 | 24 | 1 | 5 | | |

Controle central - 3 andares/14 salas (CONT) [1]

| Name | Description | Part Number | QTY |
|--------------------------|---|-------------|-----|
| Crestron CP4 | 4-Series Control System | 6511816 | 2 |
| Crestron DIN-CENCN-2-POE | Ethernet to Cresnet® Bridge w/PoE | 6507140 | 4 |
| Crestron DIN-PWS60 | DIN Rail 60 Watt Cresnet® Power Supply | 6507733 | 4 |
| QSC Core 610 | Q-SYS Integrated Core Processor with enterprise-grade Dell COTS server hardware | Core 610 | 2 |
| QSC SL-DAN-128-P | Q-SYS Software-based Dante 128x128 Channel License, Perpetual | SLDAN-128-P | 2 |

Cabeamento + Rack - 3 andares/14 salas (CABO) [1]

| Name | Description | Part Number | QTY |
|---|---|-----------------|-----|
| S4T Bandeja Fix. 4pt – 1U X 0600 – Preta | Bandeja Fixa 4 pontos – 1U X 0600 – Preta | 017060005000027 | 12 |
| S4T Kit de Rack 19" 36U completo | KIT DE RACK 36U | S4T_19_36U | 3 |
| S4T Kit de Ventilação com 04 vts | Kit de Ventilação | 017060000000007 | 3 |
| S4T Kit Rodizio c/ 04 Rodas (2 com travas) | Kit Rodizio com 04 Rodas (2 com travas) | 017060000000220 | 3 |
| S4T Rack Piso 36U x 870MM, Preto | Rack Piso Fechado 36U | 017013605000114 | 3 |
| S4T Regua de Tomadas - 12 Tomadas, 10A | Régua de Tomadas | 017060000000005 | 3 |
| S4T Régua de Tomadas de 08 Tomadas – Preta | Régua de Tomadas de 08 Tomadas – Preta | 017060005000432 | 3 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | 95003 | 90 |
| Kramer Electronics C-HM/HM-6 | 6 ft HDMI, M-M cable | 97-0101006 | 75 |
| Kramer Electronics C-USB/AB-6 | USB 2.0, A-B cable, 6ft | 96-0215006 | 24 |
| Commscope Cabo Cat.6A F/UTP Branco | Cabo de rede, Cat.6A F/UTP, Blindado, Branco - Em metro | 16922 | 305 |
| Commscope Keystone RJ45 (F) Cat.6A F/UTP | Keystone, RJ45 (F), Cat.6A, F/UTP, Blindado - Cinza | 95392 | 14 |
| Datalink Cabo Coaxial RG213 | Cabo Coaxial RG213 (CI Cordinha Cobre - Trança Cobre 96% - Capa PVC Preto) (ANATEL#1307-05-2543) | 1307-05-2543 | 900 |
| Discabos 0825VD | CABO AUTOMACAO 1P18 + 1P22AWG VD RL100M Cabo De Automação Padrão Rs-485 Rolo 100 Metros (blindado) Compatível com Cresnet | 1278 | 900 |
| Discabos 9229CRSN | Cabo paralelo Plus 2X2,50MM2 Cristal | 9229CRSN | 900 |
| Discabos Cabo Stereo 2x0,30mm PRO 6mm Dupla Blindagem (BF-BT) | Cabos de transmissão de sinal de áudio para microfones stereo. | 0565 | 600 |
| KLP BNC MACHO SOLDA CABO RG 213 - KLP-10 | CONECTOR BNC 50 OHMS MACHO RG/RGC-213 | KM-1 | 60 |

| | | | | | | | |
|------------------|--|---------------|------|---------|----------|--|--|
| Client: | Insper - matriz São Paulo | | | Number: | 20230814 | | |
| Project Title: | Prédio 4 | | | | | | |
| Sales: | Engineering: | Publish Date: | Rev: | Page: | Pages: | | |
| Arlete Belarmino | Olivar Barbosa, Leonardo Andrade, Marco Cordeiro | 2023-11-22 | 24 | 2 | 5 | | |

Salas Planas (PLAN) [2]

| Name | Description | Part Number | QTY |
|---------------------------------------|---|----------------|-----|
| Audinate ADP-DAI-AU-2X0 | Dante AVIO Analog Input 2ch (ADP-DAI- AU-2X0) | ADP-DAI-AU-2X0 | 4 |
| Audinate ADP-USB-AU-2X2 | Dante AVIO 2x2 USB I/O Adapter for Dante Audio Network | ADP-USB-AU-2X2 | 2 |
| Crestron AM-3200 | AirMedia® Series 3 Receiver 200 | 6511482 | 2 |
| Crestron C2N-CBD-E-W-S | Cameo Express Keypad, Standard Mount, Gloss White | 6509744 | 2 |
| Crestron DIN-4DIMFLV4 | 4 channels 0-10 V Dimming Control | 6501749 | 2 |
| Crestron FP-G1-W-S | Decorator Style Faceplate, 1-Gang, White Smooth | 6506259 | 2 |
| Crestron TSW-1070-W-S | 10.1 in. Wall Mount Touch Screen, White Smooth | 6510818 | 2 |
| ELG Pedestais PRO1100WH | Suporte regulável de teto para projetor | PRO1100WH | 2 |
| INOGENI TOGGLE – USB 3.0 SWITCHER | USB 3.0 SWITCHER | TOGGLE | 2 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | KDS-DEC7 | 4 |
| Kramer Electronics KDS-EN7 | High-performance, highly-scalable, AVoIP Encoder for 4K60 4:2:0, HDR10 over 1G network | KDS-EN7 | 6 |
| Projetelas A-M009 | MOLDURA DE ACABAMENTO | A-M009 | 2 |
| Projetelas Classic LX - 109WAM | Tela de projeção tensionada 109" (16:10) | 109WAM | 2 |
| Projetelas SENSOR DE CORRENTE AC 6527 | SENSOR DE CORRENTE AC 6527 | FS-6527 | 2 |
| QSC AD-S802T | Column Surface-Mount Loudspeaker (White) | RAL 9010 | 4 |
| QSC NL-C4 | NL-C4 network loudspeaker | NL-C4 | 8 |
| QSC SPA4-100 | The SPA4-100 four channel amplifier delivers 100 watts rms per channel into 4 or 8 ohms | SPA4-100 | 2 |

Sala de Aula (SALA) [2]

| Name | Description | Part Number | QTY |
|---------------------------------------|---|----------------|-----|
| Audinate ADP-DAI-AU-2X0 | Dante AVIO Analog Input 2ch (ADP-DAI- AU-2X0) | ADP-DAI-AU-2X0 | 4 |
| Audinate ADP-USB-AU-2X2 | Dante AVIO 2x2 USB I/O Adapter for Dante Audio Network | ADP-USB-AU-2X2 | 2 |
| Crestron AM-3200 | AirMedia® Series 3 Receiver 200 | 6511482 | 2 |
| Crestron C2N-CBD-E-W-S | Cameo Express Keypad, Standard Mount, Gloss White | 6509744 | 2 |
| Crestron DIN-4DIMFLV4 | 4 channels 0-10 V Dimming Control | 6501749 | 2 |
| Crestron FP-G1-W-S | Decorator Style Faceplate, 1-Gang, White Smooth | 6506259 | 2 |
| Crestron TSW-1070-W-S | 10.1 in. Wall Mount Touch Screen, White Smooth | 6510818 | 2 |
| ELG Pedestais PRO1100WH | Suporte regulável de teto para projetor | PRO1100WH | 4 |
| INOGENI TOGGLE – USB 3.0 SWITCHER | USB 3.0 SWITCHER | TOGGLE | 2 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | KDS-DEC7 | 4 |
| Kramer Electronics KDS-EN7 | High-performance, highly-scalable, AVoIP Encoder for 4K60 4:2:0, HDR10 over 1G network | KDS-EN7 | 6 |
| Projetelas A-M009 | MOLDURA DE ACABAMENTO | A-M009 | 4 |
| Projetelas Classic LX - 109WAM | Tela de projeção tensionada 109" (16:10) | 109WAM | 4 |
| Projetelas SENSOR DE CORRENTE AC 6527 | SENSOR DE CORRENTE AC 6527 | FS-6527 | 4 |
| QSC AD-S802T | Column Surface-Mount Loudspeaker (White) | RAL 9010 | 4 |
| QSC NL-C4 | NL-C4 network loudspeaker | NL-C4 | 8 |
| QSC SPA4-100 | The SPA4-100 four channel amplifier delivers 100 watts rms per channel into 4 or 8 ohms | SPA4-100 | 2 |

| | | | |
|--------------------------------------|--|-----------------------------|-----------------------------|
| Client: Insper - matriz São Paulo | | Number: 20230814 | |
| Project Title: Prédio 4 | | | |
| Sales: Arlete Belarmino | Engineering: Olivar Barbosa, Leonardo Andrade, Marco Cordeiro | Publish Date: 2023-11-22 | Rev: Page: Pages: 24 3 5 |

Salas Planas Componíveis (PLAC) [1]

| Name | Description | Part Number | QTY |
|---------------------------------------|--|----------------|-----|
| Audinate ADP-DAI-AU-2X0 | Dante AVIO Analog Input 2ch (ADP-DAI- AU-2X0) | ADP-DAI-AU-2X0 | 4 |
| Audinate ADP-USB-AU-2X2 | Dante AVIO 2x2 USB I/O Adapter for Dante Audio Network | ADP-USB-AU-2X2 | 1 |
| Crestron AM-3200 | AirMedia® Series 3 Receiver 200 | 6511482 | 1 |
| Crestron C2N-CBD-E-W-S | Cameo Express Keypad, Standard Mount, Gloss White | 6509744 | 2 |
| Crestron DIN-4DIMFLV4 | 4 channels 0-10 V Dimming Control | 6501749 | 2 |
| Crestron FP-G1-W-S | Decorator Style Faceplate, 1-Gang, White Smooth | 6506259 | 2 |
| Crestron TSW-1070-W-S | 10.1 in. Wall Mount Touch Screen, White Smooth | 6510818 | 2 |
| ELG Pedestais PRO1100WH | Suporte regulável de teto para projetor | PRO1100WH | 2 |
| Epson ELPMB62 | Adjustable Wall Mount for Epson Ultra-Short Throw Laser Displays | V12HA06A05 | 8 |
| Epson PowerLite 750F Laser | Projetor Laser de Alcance Ultracurto , 3.600 Lumens - 1080p Full HD (1920x1080) - Wi-Fi Miracast | V11HA08520 | 8 |
| INOGENI TOGGLE – USB 3.0 SWITCHER | USB 3.0 SWITCHER | TOGGLE | 1 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | KDS-DEC7 | 4 |
| Kramer Electronics KDS-EN7 | High-performance, highly-scalable, AVoIP Encoder for 4K60 4:2:0, HDR10 over 1G network | KDS-EN7 | 6 |
| Projetelas A-M009 | MOLDURA DE ACABAMENTO | A-M009 | 2 |
| Projetelas Classic LX - 109WAM | Tela de projeção tensionada 109" (16:10) | 109WAM | 2 |
| Projetelas SENSOR DE CORRENTE AC 6527 | SENSOR DE CORRENTE AC 6527 | FS-6527 | 2 |
| QSC AD-S802T | Column Surface-Mount Loudspeaker (White) | RAL 9010 | 4 |
| QSC NL-C4 | NL-C4 network loudspeaker | NL-C4 | 8 |
| QSC SPA4-100 | The SPA4-100 four channel amplifier delivers 100 watts rms per channel into 4 or 8 ohms | SPA4-100 | 2 |

Salas Planas Componíveis Mini (PLCM) [2]

| Name | Description | Part Number | QTY |
|---------------------------------------|---|----------------|-----|
| Audinate ADP-DAI-AU-2X0 | Dante AVIO Analog Input 2ch (ADP-DAI- AU-2X0) | ADP-DAI-AU-2X0 | 8 |
| Audinate ADP-USB-AU-2X2 | Dante AVIO 2x2 USB I/O Adapter for Dante Audio Network | ADP-USB-AU-2X2 | 2 |
| Crestron AM-3200 | AirMedia® Series 3 Receiver 200 | 6511482 | 2 |
| Crestron C2N-CBD-E-W-S | Cameo Express Keypad, Standard Mount, Gloss White | 6509744 | 4 |
| Crestron DIN-4DIMFLV4 | 4 channels 0-10 V Dimming Control | 6501749 | 4 |
| Crestron FP-G1-W-S | Decorator Style Faceplate, 1-Gang, White Smooth | 6506259 | 4 |
| Crestron TSW-1070-W-S | 10.1 in. Wall Mount Touch Screen, White Smooth | 6510818 | 4 |
| ELG Pedestais PRO1100WH | Suporte regulável de teto para projetor | PRO1100WH | 4 |
| INOGENI TOGGLE – USB 3.0 SWITCHER | USB 3.0 SWITCHER | TOGGLE | 2 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | KDS-DEC7 | 8 |
| Kramer Electronics KDS-EN7 | High-performance, highly-scalable, AVoIP Encoder for 4K60 4:2:0, HDR10 over 1G network | KDS-EN7 | 6 |
| Projetelas A-M009 | MOLDURA DE ACABAMENTO | A-M009 | 4 |
| Projetelas Classic LX - 109WAM | Tela de projeção tensionada 109" (16:10) | 109WAM | 4 |
| Projetelas SENSOR DE CORRENTE AC 6527 | SENSOR DE CORRENTE AC 6527 | FS-6527 | 4 |
| QSC AD-S802T | Column Surface-Mount Loudspeaker (White) | RAL 9010 | 4 |
| QSC NL-C4 | NL-C4 network loudspeaker | NL-C4 | 8 |
| QSC SPA4-100 | The SPA4-100 four channel amplifier delivers 100 watts rms per channel into 4 or 8 ohms | SPA4-100 | 2 |

| | | | | | | | |
|------------------|--|---------------|------|---------|----------|--|--|
| Client: | Insper - matriz São Paulo | | | Number: | 20230814 | | |
| Project Title: | Prédio 4 | | | | | | |
| Sales: | Engineering: | Publish Date: | Rev: | Page: | Pages: | | |
| Arlete Belarmino | Olivar Barbosa, Leonardo Andrade, Marco Cordeiro | 2023-11-22 | 24 | 4 | 5 | | |

Salas Havard (HARV) [4]

| Name | Description | Part Number | QTY |
|---------------------------------------|---|----------------|-----|
| Audinate ADP-DAI-AU-2X0 | Dante AVIO Analog Input 2ch (ADP-DAI- AU-2X0) | ADP-DAI-AU-2X0 | 8 |
| Audinate ADP-USB-AU-2X2 | Dante AVIO 2x2 USB I/O Adapter for Dante Audio Network | ADP-USB-AU-2X2 | 4 |
| Crestron AM-3200 | AirMedia® Series 3 Receiver 200 | 6511482 | 4 |
| Crestron C2N-CBD-E-W-S | Cameo Express Keypad, Standard Mount, Gloss White | 6509744 | 4 |
| Crestron DIN-4DIMFLV4 | 4 channels 0-10 V Dimming Control | 6501749 | 4 |
| Crestron FP-G1-W-S | Decorator Style Faceplate, 1-Gang, White Smooth | 6506259 | 4 |
| Crestron TSW-1070-W-S | 10.1 in. Wall Mount Touch Screen, White Smooth | 6510818 | 4 |
| ELG Pedestais PRO1100WH | Suporte regulável de teto para projetor | PRO1100WH | 8 |
| INOGENI TOGGLE – USB 3.0 SWITCHER | USB 3.0 SWITCHER | TOGGLE | 4 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | KDS-DEC7 | 8 |
| Kramer Electronics KDS-EN7 | High-performance, highly-scalable, AVoIP Encoder for 4K60 4:2:0, HDR10 over 1G network | KDS-EN7 | 12 |
| Projetelas A-M009 | MOLDURA DE ACABAMENTO | A-M009 | 8 |
| Projetelas Classic LX - 109WAM | Tela de projeção tensionada 109" (16:10) | 109WAM | 8 |
| Projetelas SENSOR DE CORRENTE AC 6527 | SENSOR DE CORRENTE AC 6527 | FS-6527 | 8 |
| QSC AD-S802T (Black) | Column Surface-Mount Loudspeaker (Black) | RAL 9011 | 8 |
| QSC NL-C4 | NL-C4 network loudspeaker | NL-C4 | 16 |
| QSC SPA4-100 | The SPA4-100 four channel amplifier delivers 100 watts rms per channel into 4 or 8 ohms | SPA4-100 | 4 |

Rack (RACK) [1]

| Name | Description | Part Number | QTY |
|-------------------------------|--|-------------|-----|
| Kramer Electronics KDS-7-MNGR | High-performance, highly-scalable, AVoIP Manager for configuration and monitoring of KDS-7 AVoIP deployments | KDS-7-MNGR | 1 |
| QSC QIO-L4o | Conversor de áudio de rede para analógico, 4 canais | QIO-L4o | 6 |

Audio 1 Andar (AUD2) [1]

| Name | Description | Part Number | QTY |
|-----------------|--|-------------|-----|
| Shure AD4QBR | Axient Digital Four-Channel Dual Receiver, compatible with all AD and ADX transmitters. Includes BR power cable and RF accessories [470-636 MHz] - FOR BRAZIL ONLY | AD4QBR | 2 |
| Shure AD600 | Gerenciador de Espectro Axient® Digital | AD600 | 1 |
| Shure AD610-BR | AD610 | AD610-BR | 3 |
| Shure ADX1BR | ADX1 Transmissor Bodypack | ADX1BR | 3 |
| Shure ADX2/SM58 | Digital Handheld Wireless Microphone Transmitter with SM58 Capsule | ADX2/SM58 | 4 |
| Shure PA421B | Combinador de Antenas PA421B | PA421B | 2 |
| Shure SBC240-BR | Carregador de Mesa Shure para Bateria recarregável | SBC240-BR | 4 |
| Shure SM35-TQG | Performance Headset Condenser Microphone | SM35-TQG | 3 |
| Shure UA864US | Wall-Mounted Wideband Antenna | UA864US | 6 |
| Shure UABIAS | In-Line Power Supply | UABIAS | 6 |

| | | | | | | | |
|------------------|--|---------------|------|---------|----------|--|--|
| Client: | Insper - matriz São Paulo | | | Number: | 20230814 | | |
| Project Title: | Prédio 4 | | | | | | |
| Sales: | Engineering: | Publish Date: | Rev: | Page: | Pages: | | |
| Arlete Belarmino | Olivar Barbosa, Leonardo Andrade, Marco Cordeiro | 2023-11-22 | 24 | 5 | 5 | | |

Audio 4 Andar (AUD4) [1]

| Name | Description | Part Number | QTY |
|-----------------|--|-------------|-----|
| Shure AD4QBR | Axient Digital Four-Channel Dual Receiver, compatible with all AD and ADX transmitters. Includes BR power cable and RF accessories [470-636 MHz] - FOR BRAZIL ONLY | AD4QBR | 2 |
| Shure AD600 | Gerenciador de Espectro Axient® Digital | AD600 | 1 |
| Shure AD610-BR | AD610 | AD610-BR | 4 |
| Shure ADX1BR | ADX1 Transmissor Bodypack | ADX1BR | 4 |
| Shure ADX2/SM58 | Digital Handheld Wireless Microphone Transmitter with SM58 Capsule | ADX2/SM58 | 4 |
| Shure PA421B | Combinador de Antenas PA421B | PA421B | 2 |
| Shure SBC240-BR | Carregador de Mesa Shure para Bateria recarregável | SBC240-BR | 4 |
| Shure SM35-TQG | Performance Headset Condenser Microphone | SM35-TQG | 4 |
| Shure UA864US | Wall-Mounted Wideband Antenna | UA864US | 8 |
| Shure UABIAST | In-Line Power Supply | UABIAST | 8 |

Audio 5 Andar (AUD5) [1]

| Name | Description | Part Number | QTY |
|-----------------|--|-------------|-----|
| Shure AD4QBR | Axient Digital Four-Channel Dual Receiver, compatible with all AD and ADX transmitters. Includes BR power cable and RF accessories [470-636 MHz] - FOR BRAZIL ONLY | AD4QBR | 2 |
| Shure AD600 | Gerenciador de Espectro Axient® Digital | AD600 | 1 |
| Shure AD610-BR | AD610 | AD610-BR | 4 |
| Shure ADX1BR | ADX1 Transmissor Bodypack | ADX1BR | 4 |
| Shure ADX2/SM58 | Digital Handheld Wireless Microphone Transmitter with SM58 Capsule | ADX2/SM58 | 4 |
| Shure PA421B | Combinador de Antenas PA421B | PA421B | 2 |
| Shure SBC240-BR | Carregador de Mesa Shure para Bateria recarregável | SBC240-BR | 4 |
| Shure SM35-TQG | Performance Headset Condenser Microphone | SM35-TQG | 4 |
| Shure UA864US | Wall-Mounted Wideband Antenna | UA864US | 8 |
| Shure UABIAST | In-Line Power Supply | UABIAST | 8 |



Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977
Conselho Regional de Engenharia e Agronomia do Estado de São Paulo

CREA-SP

ART de Obra ou Serviço
2620241311690

1. Responsável Técnico

OLIVAR BARBOSA DA SILVA JUNIOR

Título Profissional: **Engenheiro Eletricista**

Empresa Contratada:

RNP: **506716422**

Registro: **5071473502-SP**

Registro:

2. Dados do Contrato

Contratante: **Inspers - Instituto de Ensino e Pesquisa**

CPF/CNPJ: **06.070.152/0001-47**

Endereço: **Rua QUATÁ**

Nº: **300**

Complemento:

Bairro: **VILA OLÍMPIA**

Cidade: **São Paulo**

UF: **SP**

CEP: **04546-042**

Contrato: **RC_34139**

Celebrado em: **21/12/2023**

Vinculada à Art nº:

Valor: R\$ **3.687.820,24**

Tipo de Contratante: **Pessoa Jurídica de Direito Privado**

Ação Institucional:

3. Dados da Obra Serviço

Endereço: **Rua QUATÁ**

Nº: **67**

Complemento:

Bairro: **VILA OLÍMPIA**

Cidade: **São Paulo**

UF: **SP**

CEP: **04546-042**

Data de Início: **21/12/2023**

Previsão de Término: **30/08/2024**

Coordenadas Geográficas: **-23.599822468752965;-46.674667659566474**

Finalidade: **Escolar**

Código:

Proprietário: **Inspers - Instituto de Ensino e Pesquisa**

CPF/CNPJ: **06.070.152/0001-47**

4. Atividade Técnica

| | | | Quantidade | Unidade |
|-----------------------------|----------------|---------------------------------------|-----------------|----------------|
| Execução 1 | Projeto | de sistemas de vídeo | 14,00000 | unidade |
| | Projeto | de sistemas de sonorização | 14,00000 | unidade |

Após a conclusão das atividades técnicas o profissional deverá proceder a baixa desta ART

5. Observações

Fornecimento e instalação de soluções de áudio, vídeo e automação para Salas de Aula e Salas de Estudos, compostas por sistemas de projeção; transmissão AV via rede de dados (IP); sonorização via rede de dados com processamento de áudio digital, microfones sem fio e caixas acústicas de teto e parede; e automação para controle dos equipamentos AV e da iluminação das salas.

6. Declarações

Acessibilidade: Declaro atendimento às regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no Decreto nº 5.296, de 2 de dezembro de 2004.

7. Entidade de Classe

Nenhuma

8. Assinaturas

Declaro serem verdadeiras as informações acima

São Paulo 15 de Agosto de 2024

Local

data



OLIVAR BARBOSA DA SILVA JUNIOR - CPF: 428.565.072-04

Inspir - Instituto de Ensino e Pesquisa - CPF/CNPJ: 06.070.152/0001-47

9. Informações

- A presente ART encontra-se devidamente quitada conforme dados constantes no rodapé-versão do sistema, certificada pelo Nosso Número.

- A autenticidade deste documento pode ser verificada no site www.creasp.org.br ou www.confex.org.br

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Versão do sistema

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ATESTADO DE CAPACIDADE TÉCNICA

Atestamos para os devidos fins, que a empresa ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA, sediada na Rua José Jorge Pereira, nº47 Qd D Lt 22 - Buraquinho - Lauro de Freitas/BA, inscrita no CNPJ sob nº 02.423.819/0001-97, realizou satisfatoriamente, ao INSUPER – Instituto de ensino e pesquisa, sediada na Rua Quatá, nº 300, Vila Olímpia, São Paulo, SP, 04546-042, inscrita no CNPJ sob nº 06.070.152/0001-47 o fornecimento e instalação de sistemas de sonorização e solução de Digital Signage composta por software de gerenciamento de conteúdo e monitores de 43", 65" e 98".

PRAZO DE GARANTIA: 12 (doze) meses.

Nesta oportunidade, afirmamos que o fornecimento apresentou desempenho satisfatório pelo que comprovamos a sua capacidade técnica e comercial.

São Paulo, 20 de maio de 2024.

THIAGO DELGADO OTANI

CPF: 314.876.478-16

Atestado de Capacidade Técnica ref ART_2620241311912.pdf

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CPF: 314.876.478-16

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| Arlete Belarmino | , Alexandre dos Santos, Leonardo Andrade | 2024-05-17 | 05 | 1 | 5 | | |

Recepção - Ter (Opção Monitor 98pol) (RECM) [1]

| Name | Description | Part Number | QTY |
|---|---|------------------|-----|
| Aironflex WALL M F 100 PRIME | Suporte fixo de parede para monitores até 125Kg | 06.03.109 | 1 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | 60-000690 | 2 |
| LG 98UM5J-B.AWZQ | 98" UHD Large Screen Signage Display | 98UM5J-B.AWZQ | 1 |
| Womer 11434BANDEJA 19" | Bandeja fixa para rack padrão 19", 1RU de altura e 300mm de profundidade | AC000012 | 2 |
| Womer AC 83 08 10A | Calha de tomadas horizontal para rack padrão 19", 8x tomadas padrão NBR 14136 10A | W6483/03 | 1 |
| Womer KTD12874/01 | Kit 2 Ventiladores CC com Termostato Digital 12VDC KTD12874/01 Bateria para Rack Indoor / Outdoor - Universal | | 1 |
| Womer Painel Cego 19" | Painel Cego | WPF01 | 4 |
| Womer W14721/00 | Kit Porca Gaiola e Parafuso M5 - 25 peças | W14721/00 | 1 |
| Womer W23 12 47 | Mini rack padrão 19", porta de vidro temperado com chave, 12RU de altura e 470mm de profundidade interna | W23 12 47 | 1 |
| Kramer Electronics C-HM/HM-6 | 6 ft HDMI, M-M cable | 97-0101006 | 2 |
| LG SuperSign CMS | Digital Signage display license | SuperSignCMS | 2 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | NPC6ASVDB-BL005F | 4 |
| Discabos Cabo Stereo 2x0,30mm PRO 6mm Dupla Blindagem (BF-BT) | Cabos de transmissão de sinal de áudio para microfones stereo. | 0565 | 10 |

Hall Elevadores - Ter (T_HE) [1]

| Name | Description | Part Number | QTY |
|--|--|---------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 1 |
| LG 43UL3J-E | 43 in UHD display | 43UL3J-E.AWZM | 1 |
| Commscope Patch Cord Cat.6 U/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6, U/UTP, Não Blindado, de 1,52m - Azul | 1989798-5 | 1 |

Work Café - 1and (1_WC) [1]

| Name | Description | Part Number | QTY |
|---|--|------------------|-----|
| Crestron TSW-1070-MSMK-WS | Kit de montagem multisuperfície para a série TSW-1070, branco liso | 6511120 | 1 |
| ELG Pedestais E600 | Suporte para TV/Monitor até 50kg. | E600 | 1 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | 60-000690 | 1 |
| LG 65UL3J-E | 65in Ultra HD Large Display | 65UL3J-E.AWZM | 1 |
| QSC NL-P4-BK | Network pendant-mount loudspeaker (Black) | NL-P4-BK | 6 |
| QSC QIO-ML2X2 | Network Audio Expanders - Two (2) mic/line inputs and two (2) line outputs | QIO-ML2X2 | 1 |
| Sonos Port | Wifi Audio Streamer | PORT | 1 |
| Kramer Electronics C-HM/HM-6 | 6 ft HDMI, M-M cable | 97-0101006 | 1 |
| LG SuperSign CMS | Digital Signage display license | SuperSignCMS | 1 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | NPC6ASVDB-BL005F | 9 |
| Discabos Cabo Stereo 2x0,30mm PRO 6mm Dupla Blindagem (BF-BT) | Cabos de transmissão de sinal de áudio para microfones stereo. | 0565 | 10 |

Hall Elevadores - 1and (1_HE) [1]

| Name | Description | Part Number | QTY |
|--|--|---------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 1 |
| LG 43UL3J-E | 43 in UHD display | 43UL3J-E.AWZM | 1 |
| Commscope Patch Cord Cat.6 U/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6, U/UTP, Não Blindado, de 1,52m - Azul | 1989798-5 | 1 |

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| Arlete Belarmino | , Alexandre dos Santos, Leonardo Andrade | 2024-05-17 | 05 | 2 | 5 | | |

Sala Estudo 4/5P - 1and (1_4P) [3]

| Name | Description | Part Number | QTY |
|--------------------------------|--|-----------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 3 |
| Kramer Electronics W-H | HDMI wall plate insert | 85-0009099 | 3 |
| LG 43UR781C0SA | TV LG 43" LED 4K UHD Smart Pro 43UR781C0SA | 43UR781C0SA.BWZ | 3 |
| Kramer Electronics C-HM/HM-15 | 15 ft HDMI, M-M cable | 97-0101015 | 3 |
| Kramer Electronics C-MHM/MHM-3 | Flexible High-Speed HDMI Cable with Ethernet - 0.90m (3ft) | 97-0131003 | 3 |

Sala Estudo 6P - 1and (1_6P) [2]

| Name | Description | Part Number | QTY |
|--------------------------------|--|-----------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 2 |
| Kramer Electronics W-H | HDMI wall plate insert | 85-0009099 | 2 |
| LG 43UR781C0SA | TV LG 43" LED 4K UHD Smart Pro 43UR781C0SA | 43UR781C0SA.BWZ | 2 |
| Kramer Electronics C-HM/HM-25 | 25 ft HDMI, M-M cable | 97-0101025 | 2 |
| Kramer Electronics C-MHM/MHM-3 | Flexible High-Speed HDMI Cable with Ethernet - 0.90m (3ft) | 97-0131003 | 2 |

Hall Elevadores - 3and (3_HE) [1]

| Name | Description | Part Number | QTY |
|--|--|---------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 1 |
| LG 43UL3J-E | 43 in UHD display | 43UL3J-E.AWZM | 1 |
| Commscope Patch Cord Cat.6 U/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6, U/UTP, Não Blindado, de 1,52m - Azul | 1989798-5 | 1 |

Restaurante - 3and (3_RE) [1]

| Name | Description | Part Number | QTY |
|---|---|------------------|-----|
| Aironflex WALL M F 100 PRIME | Suporte fixo de parede para monitores até 125Kg | 06.03.109 | 1 |
| Intelbras POE 200 AT | Injetor PoE+ 802.3af/at | POE 200 AT | 1 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | 60-000690 | 1 |
| LG 98UM5J-B.AWZQ | 98" UHD Large Screen Signage Display | 98UM5J-B.AWZQ | 1 |
| NEXT PRO NA2350/70 | AMPLIFICADOR DE ÁUDIO DE 2 CANAIS DE 300V COM SUPORTE A LINHAS DE ALTA IMPEDÂNCIA | NA2350/70 | 1 |
| QSC AD-P.SUB-BK | QSC AD-P.SUB 6.5" Small-Format Passive Pendant Subwoofer (Black) | AD-P.SUB-BK | 2 |
| Shure P300 | 2-Port Audio DSP with Dante | P300-IMX | 1 |
| Womer 11434BANDEJA 19" | Bandeja fixa para rack padrão 19", 1RU de altura e 300mm de profundidade | AC000012 | 2 |
| Womer AC 83 08 10A | Calha de tomadas horizontal para rack padrão 19", 8x tomadas padrão NBR 14136 10A | W6483/03 | 1 |
| Womer KTD12874/01 | Kit 2 Ventiladores CC com Termostato Digital 12VDC KTD12874/01 Bateria para Rack Indoor / Outdoor - Universal | | 1 |
| Womer Painel Cego 19" | Painel Cego | WPF01 | 4 |
| Womer W14721/00 | Kit Porca Gaiola e Parafuso M5 - 25 peças | W14721/00 | 1 |
| Womer W23 08 47 | Rack 8U 470MM | W23 08 47 | 1 |
| Kramer Electronics C-HM/HM-6 | 6 ft HDMI, M-M cable | 97-0101006 | 1 |
| LG SuperSign CMS | Digital Signage display license | SuperSignCMS | 1 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | NPC6ASVDB-BL005F | 4 |
| Discabos 9229CRSN | Cabo paralelo Plus 2X2,50MM2 Cristal | 9229CRSN | 150 |
| Discabos Cabo Philips 2X0,20mm2 | Cabo Philips 2X0,20mm2 Bt Preto | 1267 | 10 |

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| Arlete Belarmino | , Alexandre dos Santos, Leonardo Andrade | 2024-05-17 | 05 | 3 | 5 | | |

Work Café - 4and (4_WC) [1]

| Name | Description | Part Number | QTY |
|---|--|------------------|-----|
| ELG Pedestais E600 | Suporte para TV/Monitor até 50kg. | E600 | 1 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | 60-000690 | 1 |
| LG 65UL3J-E | 65in Ultra HD Large Display | 65UL3J-E.AWZM | 1 |
| Kramer Electronics C-HM/HM-6 | 6 ft HDMI, M-M cable | 97-0101006 | 1 |
| LG SuperSign CMS | Digital Signage display license | SuperSignCMS | 1 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | NPC6ASVDB-BL005F | 2 |

Hall Elevadores - 4and (4_HE) [1]

| Name | Description | Part Number | QTY |
|--|--|---------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 1 |
| LG 43UL3J-E | 43 in UHD display | 43UL3J-E.AWZM | 1 |
| Commscope Patch Cord Cat.6 U/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6, U/UTP, Não Blindado, de 1,52m - Azul | 1989798-5 | 1 |

Sala Suporte - 4and (4_SP) [1]

| Name | Description | Part Number | QTY |
|--|---|------------------|-----|
| Crestron TSW-1070-MSMK-WS | Kit de montagem multisuperfície para a série TSW-1070, branco liso | 6511120 | 1 |
| ELG Pedestais LVW02-46T | Suporte VideoWall de Parede Retrátil para Monitor LCD / LFD de 37" a 70" com POP-OUT | LVW02-46T | 4 |
| LG 55VM5J-H | 55 in, FHD, videowall monitor | 55VM5J-H.AWZM | 4 |
| Mecano Case MC-FECH_2x2 | Fechamento lateral em ACM para Videowall 2x2 | MC-FECH_2x2 | 1 |
| Seccon YU-HC001317 | Cabo montado HDMI fibra optica 10m 4k/60Hz com taxa máxima de transferência de até 18Gbps | YU-HC001317 | 4 |
| Cirilo Cabos CABO MANGA 04X22 AWG TIAFLEX COM BLINDAGEM 2M | CABO MANGA 04X22 AWG TIAFLEX COM BLINDAGEM | 9904221 | 4 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | NPC6ASVDB-BL005F | 6 |
| Cirilo Cabos CONECTOR DB9 PARA SOLDA FÊMEA | Com simplicidade, você consegue montar seus cabos VGA de categoria DB9 utilizando esse Conector DB9 para Solda Fêmea. | 275166 | 4 |
| Cirilo Cabos CONECTOR DB9 PARA SOLDA MACHO | Com simplicidade, você consegue montar seus cabos VGA de categoria DB9 utilizando esse Conector DB9 para Solda Macho. | 275165 | 4 |

Work Café - 5and (5_WC) [1]

| Name | Description | Part Number | QTY |
|---|--|------------------|-----|
| Crestron TSW-1070-MSMK-WS | Kit de montagem multisuperfície para a série TSW-1070, branco liso | 6511120 | 1 |
| ELG Pedestais E600 | Suporte para TV/Monitor até 50kg. | E600 | 1 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | 60-000690 | 1 |
| LG 65UL3J-E | 65in Ultra HD Large Display | 65UL3J-E.AWZM | 1 |
| QSC NL-P4-BK | Network pendant-mount loudspeaker (Black) | NL-P4-BK | 6 |
| QSC QIO-ML2X2 | Network Audio Expanders - Two (2) mic/line inputs and two (2) line outputs | QIO-ML2X2 | 1 |
| Sonos Port | Wifi Audio Streamer | PORT | 1 |
| Commscope PATCH CORD CAT6A S/FTP 2,10m AZUL | NPC6ASVDB-BL007F PATCH CORD CAT6A S/FTP 7FT AZUL | NPC6ASVDB-BL007F | 6 |
| Kramer Electronics C-HM/HM-6 | 6 ft HDMI, M-M cable | 97-0101006 | 1 |
| LG SuperSign CMS | Digital Signage display license | SuperSignCMS | 1 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | NPC6ASVDB-BL005F | 9 |
| Discabos Cabo Stereo 2x0,30mm PRO 6mm Dupla Blindagem (BF-BT) | Cabos de transmissão de sinal de áudio para microfones stereo. | 0565 | 10 |

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|----------------|----------------------------|--------------|--|
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| Sales: | Arlete Belarmino | Engineering: | Alexandre dos Santos, Leonardo Andrade |
| Publish Date: | 2024-05-17 | Rev: | 05 |
| Page: | 4 | Pages: | 5 |

Hall Elevadores - 5and (5_HE) [1]

| Name | Description | Part Number | QTY |
|--|--|---------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 1 |
| LG 43UL3J-E | 43 in UHD display | 43UL3J-E.AWZM | 1 |
| Commscope Patch Cord Cat.6 U/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6, U/UTP, Não Blindado, de 1,52m - Azul | 1989798-5 | 1 |

Work Café - 6and (6_WC) [1]

| Name | Description | Part Number | QTY |
|---|--|------------------|-----|
| ELG Pedestais E600 | Suporte para TV/Monitor até 50kg. | E600 | 1 |
| Kramer Electronics KDS-DEC7 | High-performance, highly-scalable, AVoIP Decoder for 4K60 4:2:0, HDR10 over 1G network | 60-000690 | 1 |
| LG 65UL3J-E | 65in Ultra HD Large Display | 65UL3J-E.AWZM | 1 |
| Kramer Electronics C-HM/HM-6 | 6 ft HDMI, M-M cable | 97-0101006 | 1 |
| LG SuperSign CMS | Digital Signage display license | SuperSignCMS | 1 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | NPC6ASVDB-BL005F | 2 |

Hall Elevadores - 6and (6_HE) [1]

| Name | Description | Part Number | QTY |
|--|--|---------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 1 |
| LG 43UL3J-E | 43 in UHD display | 43UL3J-E.AWZM | 1 |
| Commscope Patch Cord Cat.6 U/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6, U/UTP, Não Blindado, de 1,52m - Azul | 1989798-5 | 1 |

Sala Professores - 6and (6_SP) [1]

| Name | Description | Part Number | QTY |
|---|---|------------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 1 |
| ELG Pedestais E600 | Suporte para TV/Monitor até 50kg. | E600 | 1 |
| LG 43UL3J-E | 43 in UHD display | 43UL3J-E.AWZM | 1 |
| LG 65UR871C0SA.BWZ | 4K UHD Smart TV | 65UR871C0SA.BWZ | 1 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | NPC6ASVDB-BL005F | 2 |

Sala Estudo 4/5P - 6and (6_4P) [11]

| Name | Description | Part Number | QTY |
|---|--|-----------------|-----|
| ELG Pedestais E200 | Os Suportes Fixos para telas de pequeno porte | E200 | 11 |
| juktel FONTE_5V 2A | Fonte 5v 2A Bivolt para cabo USB | FONTE_5V 2A | 11 |
| Kramer Electronics W-H | HDMI wall plate insert | 85-0009099 | 11 |
| Kramer Electronics WU-AA (B) | Interface USB-A (F) - USB-A (F), 2.0, com rabicho de 0,15m - Preta | 85-0119799 | 11 |
| LG 43UR781C0SA | TV LG 43" LED 4K UHD Smart Pro 43UR781C0SA | 43UR781C0SA.BWZ | 11 |
| Comtac Cabo Extensor USB 3.0 AM AF - 5 metros | Cabo Extensor USB 3.0 AM AF com Amplificadores de Sinais 5 metros | 28129373 | 11 |
| Kramer Electronics C-HM/HM-15 | 15 ft HDMI, M-M cable | 97-0101015 | 11 |
| Kramer Electronics C-HM/HM-6 | 6 ft HDMI, M-M cable | 97-0101006 | 11 |
| Kramer Electronics C-MHM/MHM-3 | Flexible High-Speed HDMI Cable with Ethernet - 0.90m (3ft) | 97-0131003 | 11 |
| Kramer Electronics C-USB/AA-3 | USB2.0 type A to type A cable - 3' | 96-0212003 | 11 |

Injeção de Conteúdo DS - Sala Suporte (I_DS) [1]

| Name | Description | Part Number | QTY |
|---|--|------------------|-----|
| Audinate ADP-DAI-AU-2X0 | Dante AVIO Analog Input 2ch (ADP-DAI- AU-2X0) | ADP-DAI-AU-2X0 | 1 |
| Kramer Electronics KDS-EN7 | High-performance, highly-scalable, AVoIP Encoder for 4K60 4:2:0, HDR10 over 1G network | 60-000590 | 1 |
| Kramer Electronics C-HM/HM-6 | 6 ft HDMI, M-M cable | 97-0101006 | 1 |
| Commscope Patch Cord Cat.6A F/UTP 1,52m | Cabo de rede RJ45 (M), RJ45 (M), Cat.6A, F/UTP, Blindado, de 1,52m - Azul | NPC6ASVDB-BL005F | 4 |

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| Arlete Belarmino | , Alexandre dos Santos, Leonardo Andrade | 2024-05-17 | 05 5 5 |

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Anotação de Responsabilidade Técnica - ART
Lei nº 6.496, de 7 de dezembro de 1977
Conselho Regional de Engenharia e Agronomia do Estado de São Paulo

CREA-SP

ART de Obra ou Serviço
2620241311912

1. Responsável Técnico

OLIVAR BARBOSA DA SILVA JUNIOR

Título Profissional: **Engenheiro Eletricista**

Empresa Contratada:

RNP: **506716422**

Registro: **5071473502-SP**

Registro:

2. Dados do Contrato

Contratante: **Insper - Instituto de Ensino e Pesquisa**

CPF/CNPJ: **06.070.152/0001-47**

Endereço: **Rua QUATÁ**

Nº: **300**

Complemento:

Bairro: **VILA OLÍMPIA**

Cidade: **São Paulo**

UF: **SP**

CEP: **04546-042**

Contrato: **PO_28275**

Celebrado em: **16/05/2024**

Vinculada à Art nº:

Valor: R\$ **623.023,66**

Tipo de Contratante: **Pessoa Jurídica de Direito Privado**

Ação Institucional:

3. Dados da Obra Serviço

Endereço: **Rua QUATÁ**

Nº: **67**

Complemento: **Prédio 4**

Bairro: **VILA OLÍMPIA**

Cidade: **São Paulo**

UF: **SP**

CEP: **04546-042**

Data de Início: **16/05/2024**

Previsão de Término: **30/08/2024**

Coordenadas Geográficas: **-23.599822468752965;-46.674667659566474**

Finalidade: **Escolar**

Código:

Proprietário: **Insper - Instituto de Ensino e Pesquisa**

CPF/CNPJ: **06.070.152/0001-47**

4. Atividade Técnica

| | | | Quantidade | Unidade |
|-----------------------------|----------------|-----------------------------------|-----------------|----------------|
| Execução 1 | Projeto | de equipamentos de vídeo | 26,00000 | unidade |
| | Projeto | de sistemas de sonorização | 3,00000 | unidade |

Após a conclusão das atividades técnicas o profissional deverá proceder a baixa desta ART

5. Observações

Fornecimento e instalação de sistemas de sonorização e solução de Digital Signage composta por software de gerenciamento de conteúdo e monitores de 43", 65" e 98".

6. Declarações

Acessibilidade: Declaro que as regras de acessibilidade previstas nas normas técnicas da ABNT, na legislação específica e no Decreto nº 5.296, de 2 de dezembro de 2004, não se aplicam às atividades profissionais acima relacionadas.

7. Entidade de Classe

Nenhuma

8. Assinaturas

Declaro serem verdadeiras as informações acima

_____ de _____ de _____
Local data

OLIVAR BARBOSA DA SILVA JUNIOR - CPF: 428.565.072-04

Inspet - Instituto de Ensino e Pesquisa - CPF/CNPJ: 06.070.152/0001-47

9. Informações

- A presente ART encontra-se devidamente quitada conforme dados constantes no rodapé-versão do sistema, certificada pelo *Nosso Número*.

- A autenticidade deste documento pode ser verificada no site www.creasp.org.br ou www.confex.org.br

- A guarda da via assinada da ART será de responsabilidade do profissional e do contratante com o objetivo de documentar o vínculo contratual.

www.creasp.org.br

Tel: 0800 017 18 11

E-mail: acessar link Fale Conosco do site acima



Valor ART R\$ 262,55

Registrada em: 15/08/2024

Valor Pago R\$

262,55

Nosso Número: 2620241311912

Versão do sistema

Impresso em: 19/08/2024 12:02:31



Certidão de Acervo Técnico - CAT
Resolução No. 1.137, de 31 de março de 2023

CREA-SP

CAT SEM REGISTRO DE ATESTADO
2620240015451

Conselho Regional de Engenharia e Agronomia do Estado de São Paulo

CERTIFICAMOS, em cumprimento ao disposto na Resolução no. 1.137, de 31 de março de 2023, do Confea, que consta dos assentamentos deste Conselho Regional de Engenharia e Agronomia do Estado de São Paulo - CREA-SP, o Acervo Técnico do profissional OLIVAR BARBOSA DA SILVA JUNIOR referente à(s) Anotação(ões) de Responsabilidade Técnica - ART abaixo discriminada(s):

Profissional: OLIVAR BARBOSA DA SILVA JUNIOR
Registro: 5071473502-SP RNP: 506716422
Título Profissional: Engenheiro Eletricista,

Número ART: 2620241311690 Tipo de ART: OBRA OU SERVIÇO Registrada em: 15/08/2024 Baixada em: 15/08/2024
Forma de Registro: INICIAL
Participação Técnica: INDIVIDUAL

Contratante: Insper - Instituto de Ensino e Pesquisa CNPJ: 06.070.152/0001-47 ...
RUA QUATÁ No.: 300 ...
Complemento: Bairro: VILA OLÍMPIA
Cidade: São Paulo UF: SP CEP: 04546042 . PAIS: BRASIL
Contrato: RC_34139 Celebrado em : 21/12/2023
Vinculado à ART:
Valor do Contrato: R\$ 3.687.820,24 Tipo de contratante: PESSOA JURÍDICA DE DIREITO PRIVADO .

Endereço da Obra/serviço: RUA QUATÁ No.: 67
Complemento: Bairro: VILA OLÍMPIA
Cidade: São Paulo UF: SP CEP: 04546042 . PAIS: BRASIL
Data de início: 21/12/2023 Previsão de Término: 30/08/2024 Coordenadas Geográficas:
Finalidade: ESCOLAR
Proprietário: Insper - Instituto de Ensino e Pesquisa CNPJ: 06.070.152/0001-47
Atividade Técnica: 1) Execução, Projeto, de sistemas de vídeo. 14,00000 unidade. 2) Execução, Projeto, de sistemas de sonorização, interna. 14,00000 unidade.

Certidão de Acervo Técnico No.2620240015451
19/08/2024 14:58:01

Autenticação Digital: nUCT35FxACG3gTTCaTFUf1fCTIT1J333
Conselho Regional de Engenharia e Agronomia do Estado de São Paulo
Avenida Brigadeiro Faria Lima, 1059 Pinheiros São Paulo-SP, CEP 01452-920
Telefone: 0800.171811 - www.creasp.org.br opção 'Atendimento' link 'Fale Conosco'



CREA-SP
Conselho Regional de Engenharia e Agronomia
do Estado de São Paulo



Certidão de Acervo Técnico - CAT
Resolução No. 1.137, de 31 de março de 2023

Conselho Regional de Engenharia e Agronomia do Estado de São Paulo

CREA-SP

CAT SEM REGISTRO DE ATESTADO
2620240015451

Profissional: OLIVAR BARBOSA DA SILVA JUNIOR
 Registro: 5071473502-SP RNP: 506716422
 Título Profissional: Engenheiro Eletricista,
 Número ART: 2620241311912 Tipo de ART: OBRA OU SERVIÇO Registrada em: 15/08/2024 Baixada em: 15/08/2024
 Forma de Registro: INICIAL
 Participação Técnica: INDIVIDUAL
 Contratante: Insper - Instituto de Ensino e Pesquisa CNPJ: 06.070.152/0001-47
 RUA QUATÁ No.: 300
 Complemento: Bairro: VILA OLÍMPIA
 Cidade: São Paulo UF: SP CEP: 04546042 . PAIS: BRASIL
 Contrato: PO_28275 Celebrado em : 16/05/2024
 Vinculado à ART:
 Valor do Contrato: R\$ 623.023,66 Tipo de contratante: PESSOA JURÍDICA DE DIREITO PRIVADO .
 Endereço da Obra/serviço: RUA QUATÁ No.: 67
 Complemento: Prédio 4 Bairro: VILA OLÍMPIA
 Cidade: São Paulo UF: SP CEP: 04546042 . PAIS: BRASIL
 Data de início: 16/05/2024 Previsão de Término: 30/08/2024 Coordenadas Geográficas:
 Finalidade: ESCOLAR
 Proprietário: Insper - Instituto de Ensino e Pesquisa CNPJ: 06.070.152/0001-47
 Atividade Técnica: 1) Execução, Projeto, de equipamentos de vídeo. 26,00000 unidade. 2) Execução, Projeto, de sistemas de sonorização. 3,00000 unidade.

Informações Complementares

A presente certidão foi emitida com base nos dados da ART acima citada, registrada apenas para as atividades técnicas desenvolvidas de acordo com as atribuições do profissional na área da Engenharia Elétrica, sendo seus dados de exclusiva responsabilidade do profissional requerente

Certidão de Acervo Técnico No.2620240015451

19/08/2024 14:58:01

Autenticação Digital: nUCT35FxACG3gTTCaTFUf1fCTIT1J333

Esta CAT não comprova o registro do atestado emitido pelo contratante da obra ou serviço referenciado na Lei nº. 8.666/1993.

A CAT perderá a validade no caso de modificação dos dados técnicos qualitativos e quantitativos nela contidos, bem como de alteração da situação do registro da ART.

A CAT é válida em todo território nacional.

A autenticidade e a validade desta certidão deve ser confirmada no site do CREA-SP (www.creasp.org.br).

A falsificação deste documento constitui crime previsto no Código Penal Brasileiro, sujeitando o autor à respectiva ação penal.



AO

TRIBUNAL DE JUSTIÇA DO ESTADO DO AMAZONAS - TJAM

PREGÃO ELETRÔNICO Nº 022/2026

Processo Administrativo nº. 2025/000022080-00

OBJETO: Aquisição de sistema de vídeo wall para o Plenário Ataliba David Antônio, incluindo o fornecimento, instalação e treinamento, conforme condições e exigências estabelecidas neste instrumento e seus anexos.

DECLARAÇÃO DE CONHECIMENTO DO LOCAL E DAS CONDIÇÕES DE EXECUÇÃO

DECLARO, para os devidos fins e sob as penas da lei, que a empresa ABSOLUT TECHNOLOGIES PROJETOS E CONSULTORIA LTDA, inscrita no CNPJ/MF sob o nº 02.423.819/0001-97, possui pleno conhecimento do local de execução dos serviços, das condições de realização e de todas as demais peculiaridades inerentes à contratação do objeto previsto no Edital do Pregão Eletrônico nº 022/2026, assumindo total responsabilidade pela execução dos serviços nas condições estabelecidas no referido edital e seus anexos.

Por ser expressão da verdade, firmo a presente declaração.

Lauro de Freitas/BA, 20 de março de 2026

ABSOLUTTECHNOLOGIES PROJETOS E CONSULTORIA LTDA

Jéssica Veloso Vinhático Liger

Analista de Licitação Pleno

Olivar Barbosa da Silva Junior Gerente
de engenharia e TI

RCM TEST REPORT

For

LED Display

Model: T-Max1.5

(Other models please see the page 3)

Prepared for: Shenzhen Fabulux Technology Co.,Ltd
Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing
Community, Guanhu Street, Longhua District, Shenzhen, Guangdong,
P.R. China

Prepared by: Shenzhen NCT Testing Technology Co., Ltd.
A101&2FB2, Fuqiao 6thArea, Xintian Community, Fuhai Street, Baoan
District, Shenzhen, China.

TEL: +86-400-8868-419

FAX: +86-755-27790922

Report Number: NCT23011501XE1-1

Date of Test: Mar. 14, 2023 ~ Mar. 17, 2023

Date of Issue: Mar. 17, 2023

Tested By: Shine Wu
Shine Wu

Reported By: Henry Wang
Henry Wang

Reviewed By: Jacky Duan
Jacky Duan



The results detailed in this test report relate only to the specific sample(s) tested. It is the Application's responsibility to ensure that all production units are manufactured with equivalent EMC characteristics. This report is not to be reproduced except in full, without written approval from NCT Testing Technology

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1.0 General Information

1.1 Client Information

| | |
|--------------------------|--|
| Application: | Shenzhe Fabulux Technology Co.,Ltd |
| Address of Application: | Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P.R. China |
| Manufacturer: | Shenzhe Fabulux Technology Co.,Ltd |
| Address of Manufacturer: | Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P.R. China |

1.2 General Description of E.U.T.

| | |
|-------------------|--|
| Product Name: | LED Display |
| Model: | T-Max1.5 |
| Additional Model: | T-Max1.9, T-Max2.6, T-Max3.9, T-Max COB0.9, T-Max COB1.2, T-Max COB1.5, Thinpad1.5, Thinpad1.9, Thinpad2.6, Thinpad3.9 |
| Trade Mark: | N/A |
| Power Supply: | Input: 100-240Vac, 50/60Hz 4.2A |

| | |
|-------------------|--|
| Memo: | According client required. |
| Model Difference: | All models are the same except for model name and appearance. |
| Remark: | This test report is only for the test of the main model of the prototype |

The submitted samples refer to below model list are LED DISPLAY not used in residential environment, therefore it belong to **Class A equipment**.

Class A equipment shall have the following warning in the instructions for use, to inform the user of the risk of operating this equipment in a residential environment:

Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

1.3 Test Facility:

| | |
|----------------------|--|
| Name of Test Lab: | Shenzhen NCT Testing Technology Co.,Ltd. |
| Address of Test Lab: | A101&2FB2, Fuqiao 6thArea, Xintian Community, Fuhai Street, Baoan District, Shenzhen, China. |
| Telephone: | +86-400-8868-419 |
| Fax: | +86-755-27790922 |

Test procedures according to the technical standards:

| EMC Emission | | | | |
|------------------------------|--------------------|---------|----------|--------|
| Standard | Test Item | Limit | Judgment | Remark |
| AS/NZS CISPR 32:2015+A1:2020 | Conducted Emission | Class A | PASS | |
| | Radiated Emission | Class A | PASS | |

NOTE:

(1) "N/A" denotes test is not applicable in Test Report

| 2.0 List of Measurement Equipment | | | | | |
|--|-------------|------------|--------------|--------------|-----------|
| 2.1 Conducted Emission Test | | | | | |
| Name | Model No. | Serial No. | Manufacturer | Date of Cal. | Due Date |
| EMI Test Receiver | ESPI | 101604 | RS | 2022/7/7 | 2023/7/6 |
| LISN | ENV 216 | 102796 | RS | 2022/7/7 | 2023/7/6 |
| LISN | VN1-13S | 004023 | CRANAGE | 2022/7/7 | 2023/7/6 |
| 2.2 Radiated Emission Test | | | | | |
| Name | Model No. | Serial No. | Manufacturer | Date of Cal. | Due Date |
| EMI Test Receiver | ESCI | 101178 | RS | 2022/7/7 | 2023/7/6 |
| Spectrum Analyzer | N9020A | MY50510202 | Agilent | 2022/7/7 | 2023/7/6 |
| Amplifier | BBV 9743 B | 00374 | SCHWARZBECK | 2022/7/7 | 2023/7/6 |
| Bilog Antenna | VULB9162 | 00473 | SCHNARZBECK | 2022/7/10 | 2023/7/9 |
| Horn antenna | BBHA 9120 D | 02622 | SCHNARZBECK | 2022/7/13 | 2023/7/12 |
| Preamplifier | BBV 9718D | 00042 | SCHNARZBECK | 2022/7/7 | 2023/7/6 |

3.0 Technical Details

3.1 Investigations Requested

Perform Electromagnetic Interference [EMI] tests for RCM Requirement.

3.2 Test Standards

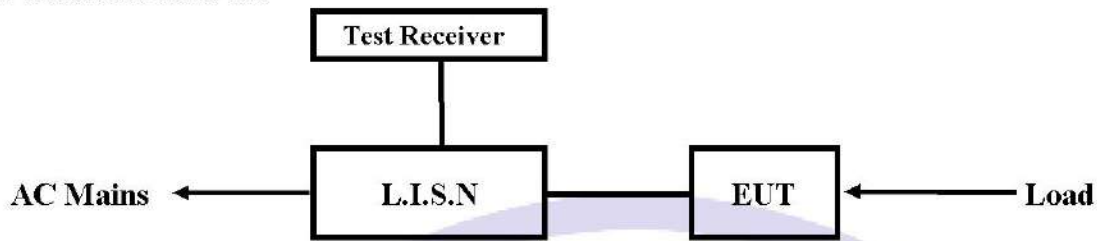
AS/NZS CISPR 32

3.3 Measurement Uncertainty (95% confidence levels, k=2)

| No. | Item | MU |
|-----|-------------------------------|---------|
| 1. | Temperature | ±0.1°C |
| 2. | Humidity | ±1.0% |
| 3. | Spurious emissions, conducted | ±3.70dB |
| 4. | All emissions, radiated | ±4.50dB |

4.0 Power Line Conducted Emission Test

4.1 Schematics of the test



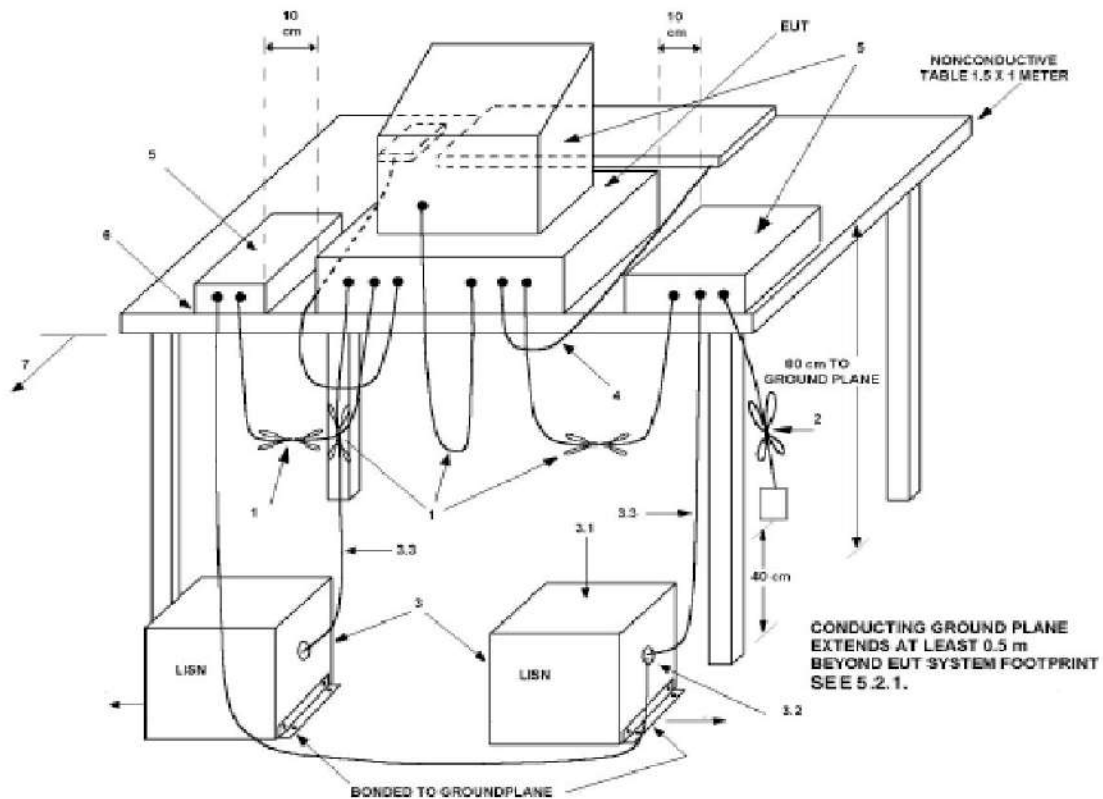
EUT: Equipment Under Test

4.2 Test Method and test Procedure

The EUT was tested according to AS/NZS CISPR 32 The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of AS/NZS CISPR 32

Test Voltage: 230V~, 50HZ

Block diagram of Test setup



4.3 EUT Operating Condition

Operating condition is according to AS/NZS CISPR 32

- 1) Setup the EUT and simulators as shown on the following
- 2) Enable AF signal and confirm EUT active to normal condition

4.4 Test Equipment

Please refer to the Section 2

4.5 Power line conducted Emission Limit

| Frequency(MHz) | Class A Limits (dBμV) | | Class B Limits (dBμV) | |
|----------------|-----------------------|---------------|-----------------------|---------------|
| | Quasi-peak Level | Average Level | Quasi-peak Level | Average Level |
| 0.15 ~ 0.50 | 79.0 | 66.0 | 66.0~56.0* | 56.0~46.0* |
| 0.50 ~ 5.00 | 73.0 | 60.0 | 56.0 | 46.0 |
| 5.00 ~ 30.00 | 73.0 | 60.0 | 60.0 | 50.0 |

- Notes:
1. *Decreasing linearly with logarithm of frequency.
 2. The tighter limit shall apply at the transition frequencies

4.6 Photo documentation of the test set-up

Please refer to the Section 7

4.7 Test specification:

Environmental conditions: Temperature: 26° C Humidity: 56% Atmospheric pressure: 103kPa

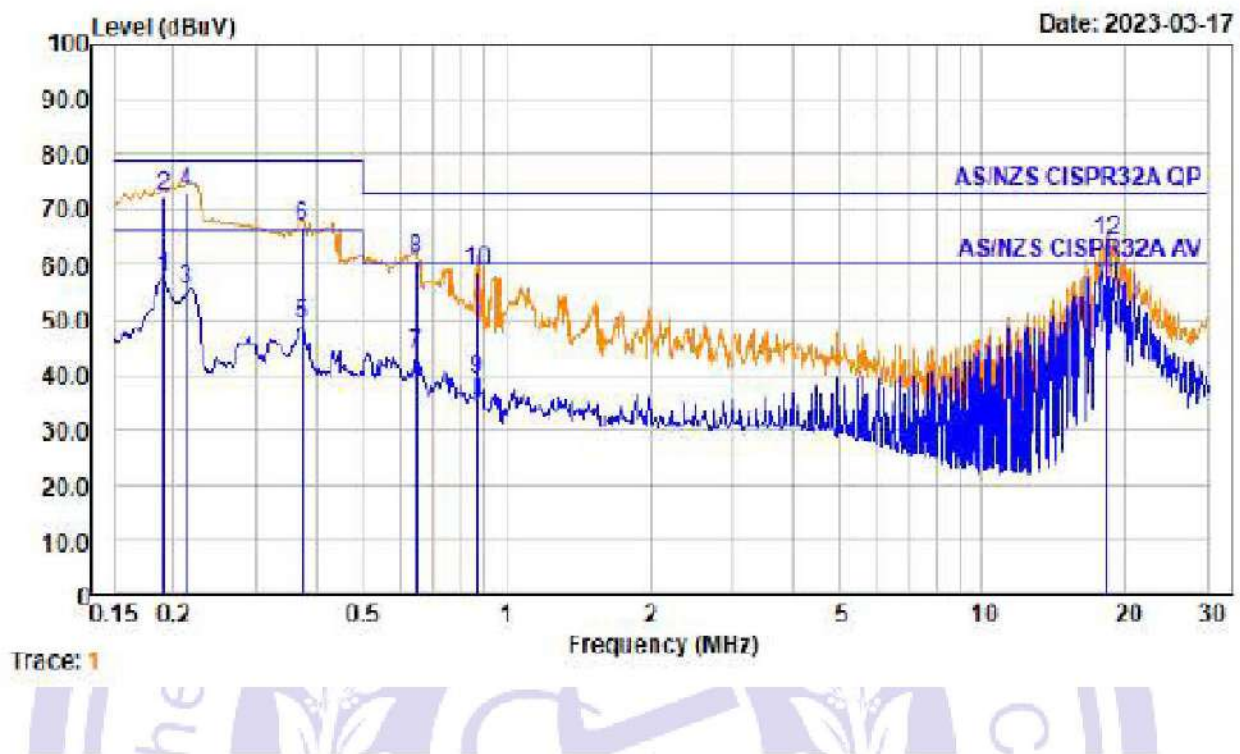
Frequency range: 0.15 MHz – 30 MHz

4.8 Test result Pass

The requirements are FULFILLED

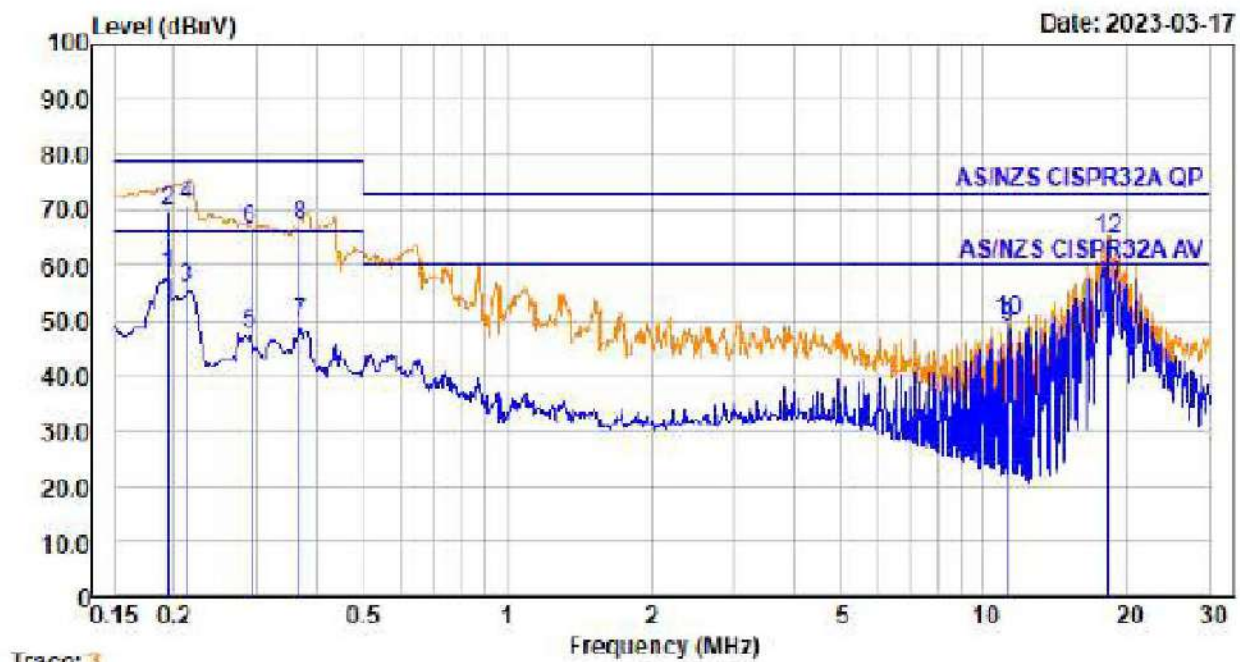
Remarks: According to the AS/NZS CISPR 32

A Conducted Emission on Live Terminal of the power line (150kHz to 30MHz)



| No. | Freq MHz | Cable Loss dB | LISN Factor dB/m | Receiver Reading dBuV | Emission Level dBuV/m | Limit dBuV/m | Over Limit dB | Remark |
|-----|----------|---------------|------------------|-----------------------|-----------------------|--------------|---------------|---------|
| 1. | 0.190 | 0.01 | 9.55 | 47.97 | 57.53 | 66.00 | -8.47 | Average |
| 2. | 0.190 | 0.01 | 9.55 | 62.89 | 72.45 | 79.00 | -6.55 | QP |
| 3. | 0.214 | 0.01 | 9.55 | 45.64 | 55.20 | 66.00 | -10.80 | Average |
| 4. | 0.214 | 0.01 | 9.55 | 63.40 | 72.96 | 79.00 | -6.04 | QP |
| 5. | 0.373 | 0.01 | 9.56 | 39.67 | 49.24 | 66.00 | -16.76 | Average |
| 6. | 0.373 | 0.01 | 9.56 | 57.18 | 66.75 | 79.00 | -12.25 | QP |
| 7. | 0.647 | 0.02 | 9.58 | 33.97 | 43.57 | 60.00 | -16.43 | Average |
| 8. | 0.647 | 0.02 | 9.58 | 51.33 | 60.93 | 73.00 | -12.07 | QP |
| 9. | 0.871 | 0.02 | 9.58 | 29.67 | 39.27 | 60.00 | -20.73 | Average |
| 10. | 0.871 | 0.02 | 9.58 | 49.23 | 58.83 | 73.00 | -14.17 | QP |
| 11. | 18.328 | 0.13 | 9.80 | 46.14 | 56.07 | 60.00 | -3.93 | Average |
| 12. | 18.328 | 0.13 | 9.80 | 54.12 | 64.05 | 73.00 | -8.95 | QP |

B Conducted Emission on Neutral Terminal of the power line (150kHz to 30MHz)



Trace: 3



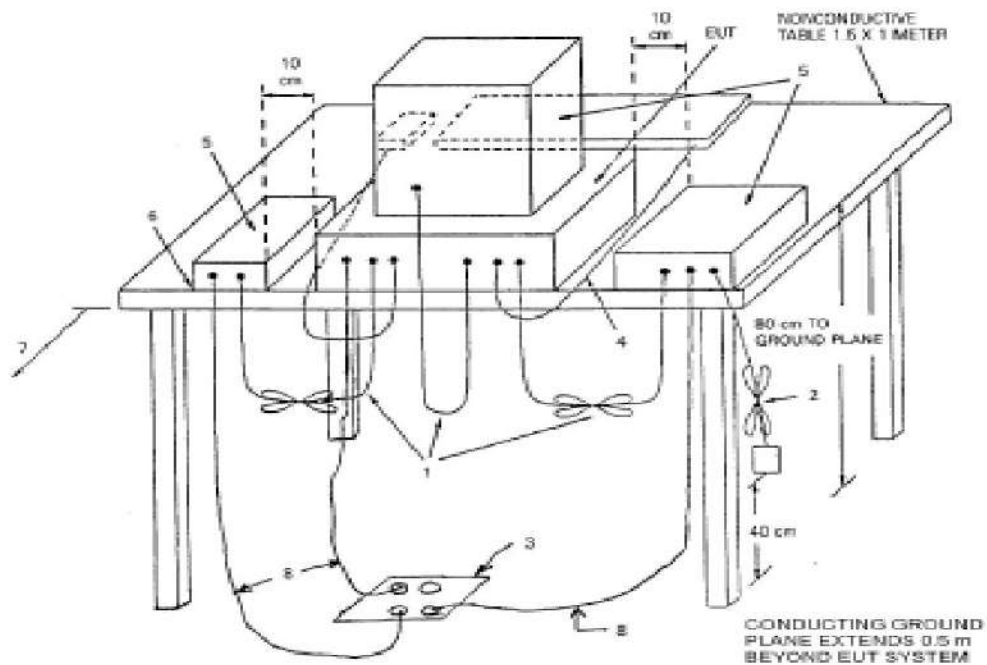
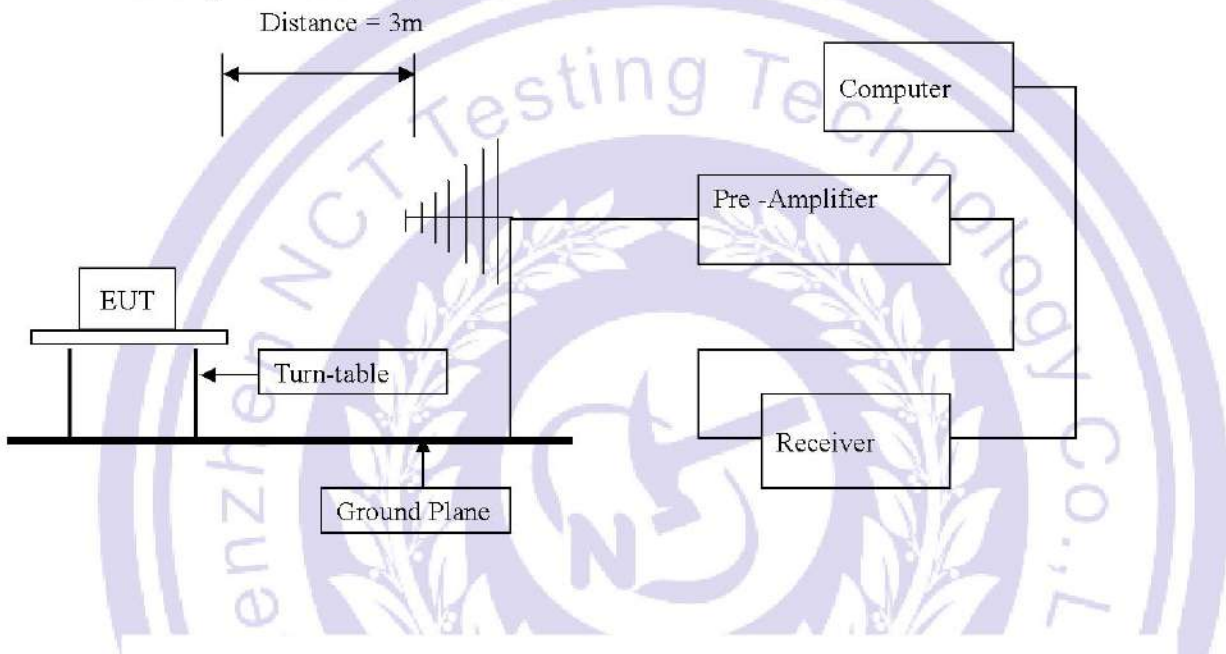
| No. | Freq MHz | Cable Loss dB | LISN Factor dB/m | Receiver Reading dBuV | Emission Level dBuV/m | Limit dBuV/m | Over Limit dB | Remark |
|-----|----------|---------------|------------------|-----------------------|-----------------------|--------------|---------------|---------|
| 1. | 0.194 | 0.01 | 9.55 | 48.60 | 58.15 | 66.00 | -7.84 | Average |
| 2. | 0.194 | 0.01 | 9.55 | 60.14 | 69.70 | 79.00 | -9.30 | QP |
| 3. | 0.214 | 0.01 | 9.55 | 46.03 | 55.59 | 66.00 | -10.41 | Average |
| 4. | 0.214 | 0.01 | 9.55 | 61.44 | 71.00 | 79.00 | -8.00 | QP |
| 5. | 0.289 | 0.01 | 9.56 | 38.10 | 47.67 | 66.00 | -18.33 | Average |
| 6. | 0.289 | 0.01 | 9.56 | 56.74 | 66.31 | 79.00 | -12.69 | QP |
| 7. | 0.369 | 0.01 | 9.57 | 39.77 | 49.35 | 66.00 | -16.65 | Average |
| 8. | 0.369 | 0.01 | 9.57 | 57.42 | 67.00 | 79.00 | -12.00 | QP |
| 9. | 11.317 | 0.11 | 9.81 | 38.97 | 48.89 | 60.00 | -11.11 | Average |
| 10. | 11.317 | 0.11 | 9.81 | 39.97 | 49.89 | 73.00 | -23.11 | QP |
| 11. | 18.328 | 0.13 | 9.86 | 46.33 | 56.32 | 60.00 | -3.68 | Average |
| 12. | 18.328 | 0.13 | 9.86 | 54.44 | 64.43 | 73.00 | -8.57 | QP |

5.0 Radiated Emission Test

5.1 Test Method and test Procedure:

- 1) The EUT was tested according to AS/NZS CISPR 32
- 2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to AS/NZS CISPR 32
- 3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- 4) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup



5.2 EUT Operating Condition

Operating condition is according to AS/NZS CISPR 32

5.3 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

| Frequency Range (MHz) | Distance (m) | Field strength (dB μ V/m)(Class A) |
|-----------------------|--------------|---|
| 30-230 | 3 | 50.0 |
| 230-1000 | 3 | 57.0 |
| 1000-3000 | 3 | 76.0 |
| 3000-6000 | 3 | 80.0 |

- Note:
- 1) The frequency spectrum from 30MHz to 8GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120KHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK.
 - 2) Measurements were made at 3 meters.
 - 3) If measurement is not made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula $Ld1 = Ld2 * (d2/d1)$

5.4 Photo documentation of the test set-up

Please refer to the Section 7

5.5 Test Equipment:

Please refer to the Section 2

5.6 Test specification:

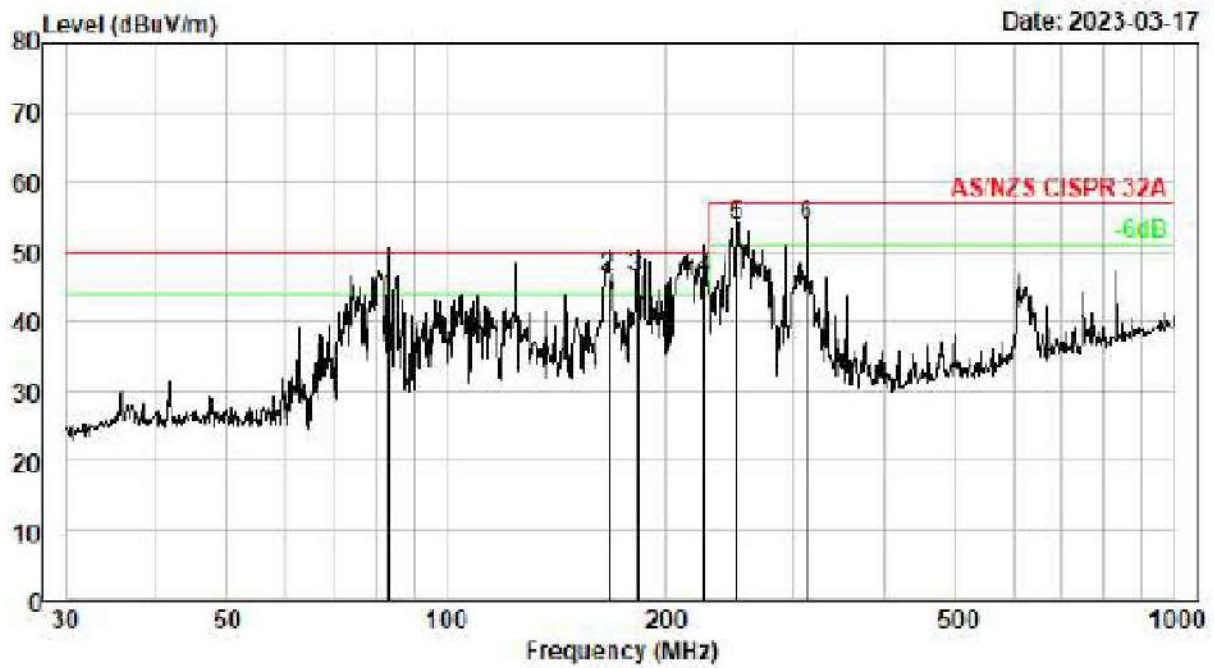
Environmental conditions: Temperature 26° C Humidity: 56% Atmospheric pressure: 103kPa

5.7 Test result Pass

The requirements are FULFILLED

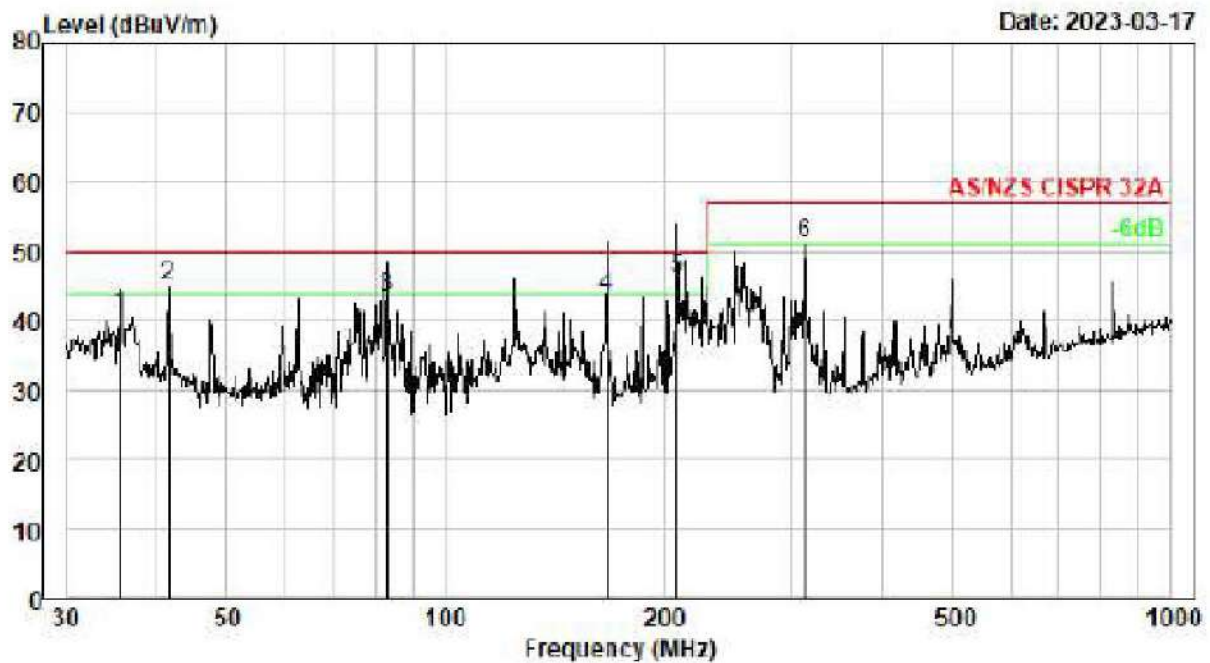
Remarks: According to the AS/NZS CISPR 32

A. Radiated Emission In Horizontal (30MHz----1000MHz)



| No. | Freq MHz | Cable Loss dB | ANT Factor dB/m | Receiver Reading dBuV | Emission Level dBuV/m | Limit dBuV/m | Over Limit dB | Remark |
|-----|-------------|---------------------|-----------------------|-----------------------------|-----------------------------|-----------------|---------------------|--------|
| 1 | 83.230 | 0.62 | 9.77 | 33.07 | 43.46 | 50.00 | -6.54 | QP |
| 2 | 166.651 | 0.96 | 9.14 | 36.15 | 46.25 | 50.00 | -3.75 | QP |
| 3 | 182.559 | 1.01 | 10.14 | 35.15 | 46.30 | 50.00 | -3.70 | QP |
| 4 | 226.099 | 1.13 | 12.28 | 32.77 | 46.18 | 50.00 | -3.82 | QP |
| 5 | 250.301 | 1.18 | 13.00 | 39.61 | 53.79 | 57.00 | -3.21 | QP |
| 6 | 312.179 | 1.30 | 14.51 | 37.86 | 53.67 | 57.00 | -3.33 | QP |

B. Radiated Emission In Vertical (30MHz---1000MHz)



| No. | Freq MHz | Cable Loss dB | ANT Factor dB/m | Receiver Reading dBuV | Emission Level dBuV/m | Limit dBuV/m | Over Limit dB | Remark |
|-----|-------------|---------------------|-----------------------|-----------------------------|-----------------------------|-----------------|---------------------|--------|
| 1 | 35.624 | 0.30 | 11.33 | 29.03 | 40.66 | 50.00 | -9.34 | QP |
| 2 | 41.567 | 0.36 | 12.53 | 32.05 | 44.94 | 50.00 | -5.06 | QP |
| 3 | 83.230 | 0.62 | 9.77 | 32.94 | 43.33 | 50.00 | -6.67 | QP |
| 4 | 166.651 | 0.96 | 9.14 | 33.35 | 43.45 | 50.00 | -6.55 | QP |
| 5 | 208.580 | 1.08 | 11.70 | 33.24 | 46.02 | 50.00 | -3.98 | QP |
| 6 | 312.179 | 1.30 | 14.51 | 35.19 | 51.00 | 57.00 | -6.00 | QP |

6.0 RCM Label

This device complies with AS/NZS CISPR 32 rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

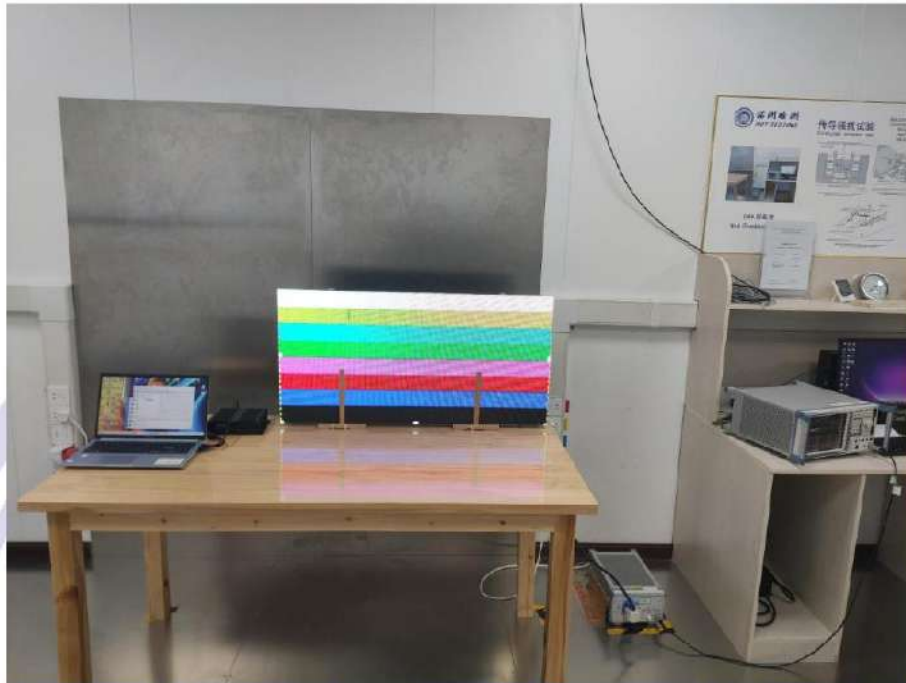
The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location: On the product body

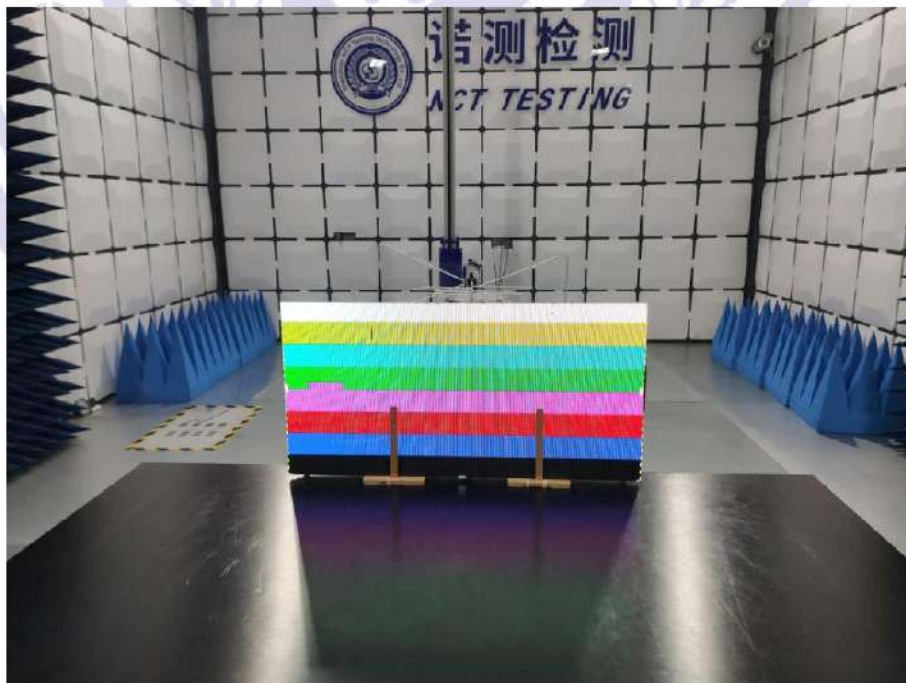


7.0 Photos of testing

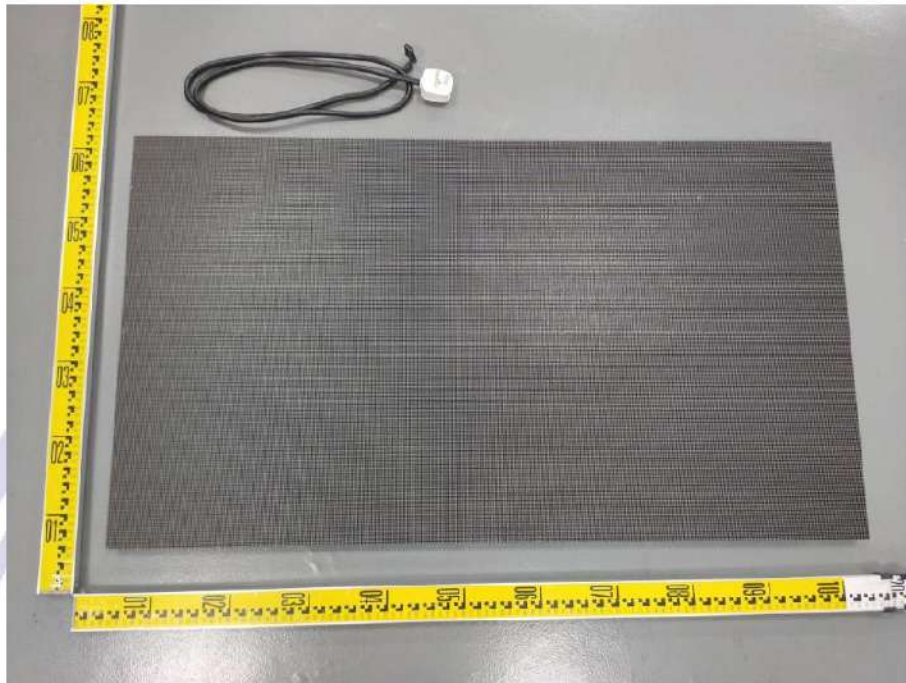
Conducted Emission test test View

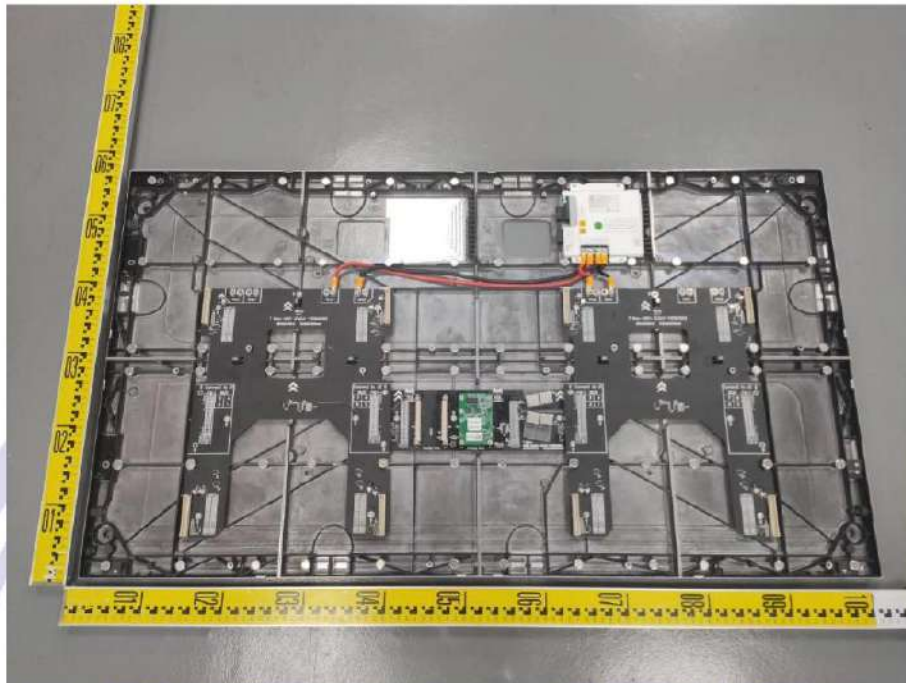


Radiated Emission View

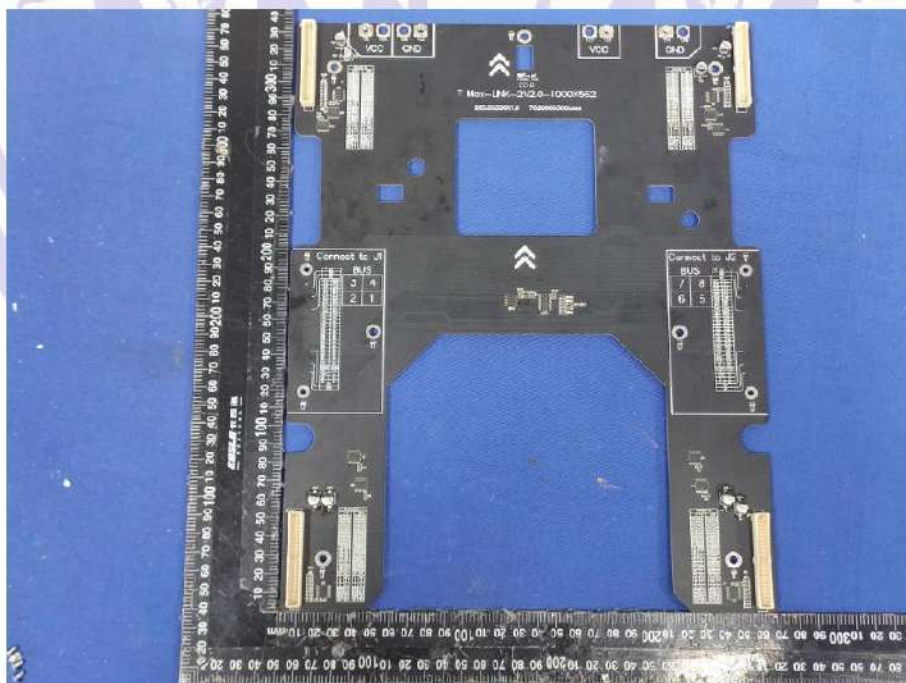


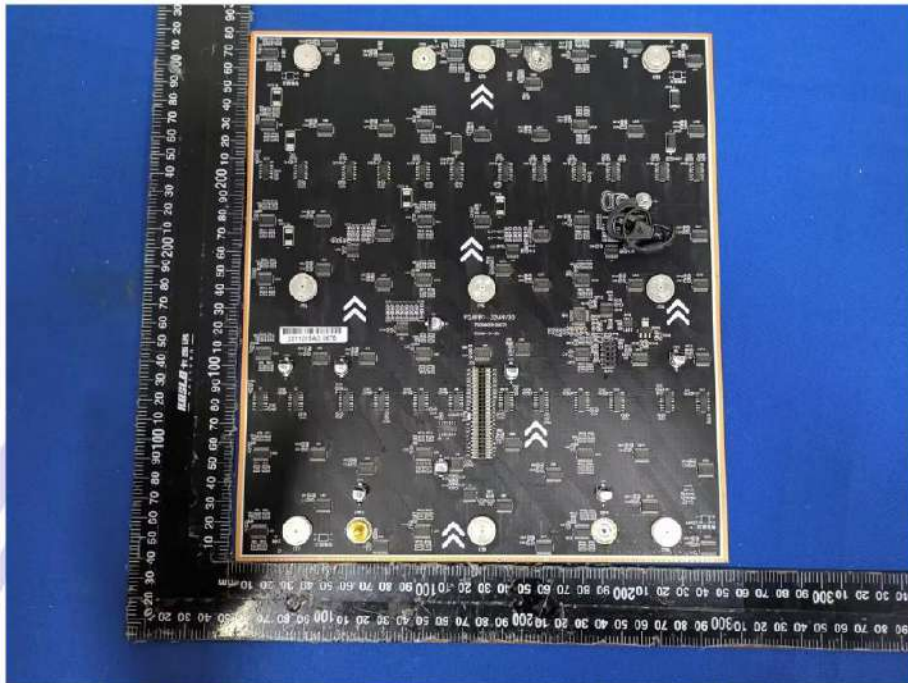
8.0 Photos of the EUT











--End of the report--



02 Cumberland Drive Flagstaff Hamilton,
Flagstaff, Waikato 3210
NEW ZEALAND
+64 (0) 7 949 7671



Certificate No.: U23014

RCM CERTIFICATE

This certificate is issued to confirm that ANZ Electrical Compliance has certified the equipment described herein have comply with AS/NZS 4417.1 and can be marked with the Regulatory Compliance Mark.

Certificate Holder: Shenzhe Fabulux Technology Co.,Ltd
Factory 1201, No.14 of Xiawei Industrial Zone,
Zhangkengjing Community, Guanhu Street,
Longhua District, Shenzhen,Guangdong, China

Product: LED Display
Trade Name / Manufacturer: Shenzhe Fabulux Technology Co.,Ltd
Model(s): T-Max1.5, T-Max1.9, T-Max2.6, T-Max3.9, T-Max, COB0.9, T-Max, COB1.2, T-Max, COB1.5, Thinpad1.5, Thinpad1.9, Thinpad2.6, Thinpad3.9
Ratings: Input: 100-240Vac, 50/60Hz, 4.2A
Compliance Details: See below.
EESS: Registered as Level 1 Equipment
Deemed to comply with AS/NZS 3820:2020
ACMA: SDoC under Responsible Supplier E9791
Comply with AS/NZS CISPR 32:2015+A1:2020
Test Report Ref# NCT23011501XE1-1
Issue Date: Mar. 22, 2023

VICKY TECH LIMITED

Jason zhang

SUPPLIER AGENCY AGREEMENT FOR MARKING OF PRODUCTS IN ACCORDANCE WITH THE ACMA LABELLING NOTICES AND RSM RADIOCOMMUNICATION COMPLIANCE NOTICE

1. Definitions

For the purpose of this agreement the following definitions shall apply.

- a) **The Company** refers to COMPANY NAME mentioned in Clause 6, Table 1 of this document
- b) **VICKY** refers to VICKY TECH LIMITED (IRDN: 191816831)
- c) **The Manufacturer** refers to Shenzhe Fabulux Technology Co.,Ltd
- d) **The Products** refers to any products imported by The Company for which VICKY holds the compliance folder for, and which comply to all relevant Australian/New Zealand technical standards and import laws, and which are listed in **Appendix I** of this agreement.
- e) **ACMA** refers to the Australian Communications & Media Authority
- f) **RSM** refers to the Ministry of business, innovation & employment (Radio Spectrum Management)
- g) **DoC** refers to the Declaration of Conformity for The Products EMC/RF/EME/TELECOM requirements

2. Purpose

The purpose of this agreement is to appoint VICKY as the Australian and/or New Zealand compliance agent for The Products in regards to the ACMA's Labelling Notices and RSM Radiocommunications Compliance Notice, and to allocate responsibility for the holding of compliance folders for The Products

3. Agent Responsibilities

The Company hereby appoints VICKY to be our agent for the purposes of compliance with the ACMA's Labelling Notices and RSM Radiocommunications Compliance Notice.

VICKY accepts full responsibility for the ACMA and RSM Radiocommunications Compliance Notice compliance and record keeping for The Products in Australia/New Zealand, providing that:

- a) The Products have not been modified in any way that will adversely affect their compliance by The Company
- b) The Products are marked and/or provided with documentation in accordance with Australian/New Zealand Law, and are provided with installation and/or operation instructions in accordance with the parameters of The Manufacturer's specifications for which The Products have been deemed compliant.
- c) All documentation and/or markings provided with The Product make no claims regarding the performance and/or operation of The Products which would contradict the parameters of the manufacturers published specifications for which The Products have been deemed compliant
- d) The Company has ensured that The Manufacturer has not altered the Product in any way that would render the Product non-compliant with the held ACMA/RSM compliance documents.
- e) Any Products installed by The Company have not been installed in a way that would render the Product non-compliant with the held ACMA/RSM compliance documents.
- f) The Product has been used entirely within the Manufacturer's specifications.

VICKY will hold all relevant documentation and compliance folders for The Product in relation to ACMA/RSM requirements of Australia/New Zealand.

VICKY will, with written permission from The Company, make available a copy of the DoC for each Product covered by this agreement and listed in **Appendix I**.

VICKY TECH LIMITED

102 Cumberland Drive Flagstaff Hamilton, Fagstaff, Waikato 3210, NEW ZEALAND

VICKY will need to be notified in the event that the manufacturer modifies the product. We will then promptly update the compliance folder and any relevant documentation with the new evidence of compliance, as required under the Labelling Notices and Compliance Notice, and provide The Manufacturer with confirmation of the change(s) and if required an updated DoC.

VICKY shall be responsible for the handling of any and all regulatory enquiries from the ACMA/RSM in regards to The Products.

In the event that this agreement is terminated, VICKY shall hold the compliance folders for a period of five years in accordance with ACMA/RSM requirements, and will remain responsible for regulatory enquiries and associated compliance issues throughout the record retention period for the Products sold by The Company during the period this agreement was in effect.

VICKY shall with written permission from The Manufacturer provide full copies of the contents of the compliance folders to The Company.

4. Company Responsibilities

Under this agreement The Company will be responsible for all other regulatory and technical requirements as per Australian/New Zealand Law, and shall confer no other responsibilities to VICKY other than those covered by this agreement.

The Company shall import The Products and supply them to the Australian/New Zealand market in full compliance with Australian/New Zealand law.

The Company shall not modify, mark or promote The Products in any way that would adversely alter their compliance to the ACMA/RSM requirements and compliance documents held by VICKY.

The Company shall immediately give notice of any change to the product which may affect the ACMA/RSM compliance or compliance documents held by VICKY.

The Company shall provide documentation and markings with any Products sold in Australia/New Zealand in accordance with Australian/New Zealand Law.

The Company agrees not to use the VICKY brand or business name to promote their products, and shall not mark any product or documentation with VICKY branding or details in any way, except for the express purpose of disclosure of ACMA/RSM compliance folder responsibility as per Australian/New Zealand Law.

The Company shall be held fully responsible for ensuring that any Products provided by The Manufacturer are identical to the Products that were evaluated and/or deemed compliant by VICKY, and shall make every effort to ensure that these Products have not been altered in any way that would render them or the relevant compliance documents non-compliant.

5. Period and Termination

This agreement will continue for a period of twelve months from the date indicated at the start of this agreement.

It may be terminated by either party at any time provided that written notice of at least 30 days is provided to the other party.

Any action by either party that is contrary to the terms and conditions stipulated in this agreement shall immediately render this agreement null and void.

6. Confirmation

I hereby agree to the terms of this agreement.

Table 1:

| | |
|--|---------------------------|
| SIGNATURE: Date: Mar. 22, 2023 | NAME: |
| | POSITION IN ORGANISATION: |
| COMPANY NAME: Shenzhe Fabulux Technology Co.,Ltd | |

On behalf of The Company

Table 2:

| | |
|---|--------------------------------|
| SIGNATURE: <i>Jason zhang</i> Date: Mar. 22, 2023 | NAME: Jason Zhang |
| | POSITION: Managing Director |

On behalf of VICKY TECH LIMITED

Appendix I

| Product Information | Compliance Details |
|--|---|
| Product Description: LED Display | Folder No: U23014LR DoC date: Mar. 2, 2023 |
| Trade Name: N/A | |
| Model Number(s): T-Max1.5 T-Max1.9 T-Max2.6 T-Max3.9 T-Max COB0.9 T-Max COB1.2 T-Max COB1.5 Thinpad1.5 Thinpad1.9 Thinpad2.6 Thinpad3.9 | |



LOCAL REPRESENTATIVE SERVICE NOTICE – AUSTRALIA AND NEW ZEALAND

Dear Applicant,

Thank you for using our services to obtain a local representative to hold your compliance folders. As part of this service we have provided you with the following documents:

- ACMA Declaration of Conformity
- RSM Declaration of Conformity
- RCM Certificate (Declaration of Conformity)
- Agency Agreement

Our local representative has covered all compliance requirements when selling directly to the end consumer in Australia and New Zealand. Therefore, when selling directly to an end consumer no further action is required.

If a product is sold to an Australian and/or New Zealand company who will retail or distribute your product within Australia and/or New Zealand, then it is a requirement that this AU/NZ company completes the following:

- 1) Hold a copy of the ACMA and/or RSM Declaration of Conformity, and
- 2) Fill in table 1 and sign the Agency Agreement and Post to
102 Cumberland Drive Flagstaff Hamilton, Flagstaff, Waikato 3210, NEW ZEALAND

If you have any questions or concerns, please feel free to contact ANZ Electrical Compliance on +64 (0) 7 949 7671

Sincerely,

Jason Zhang

Jason Zhang
Managing Director

+64 (0) 7 949 7671
102 Cumberland Drive
Flagstaff hamilton, Flagstaff,
Waikato 3210, NEW ZEALAND



Supplier's declaration of conformity



As required by the following Notices:

- > *Radiocommunications (Compliance Labelling - Devices) Notice 2014* made under section 182 of the *Radiocommunications Act 1992*;
- > *Radiocommunications Labelling (Electromagnetic Compatibility) Notice 2017* made under section 182 of the *Radiocommunications Act 1992*
- > *Radiocommunications (Compliance Labelling – Electromagnetic Radiation) Notice 2014* made under section 182 of the *Radiocommunications Act 1992* and
- > *Telecommunications (Labelling Notice for Customer Equipment and Customer Cabling) Instrument 2015* made under section 407 of the *Telecommunications Act 1997*.

Instructions for completion

- > **Do not return this form to the ACMA.** This completed form must be retained by the supplier as part of the documentation required for the compliance records and must be made available for inspection by the ACMA when requested.

Supplier's details (manufacturer, importer or authorised agent)

Company Name (OR INDIVIDUAL)

| |
|-------------------------------|
| VICKY TECH LIMITED |
| |
| TRADING AS VICKY TECH LIMITED |

New Zealand IRDN

191816831

Street Address (AUSTRALIAN or NEW ZEALAND)

| |
|---|
| 102 Cumberland Drive Flagstaff Hamilton |
| |
| POSTCODE 3210 |

E9791

ACMA supplier code number

Product details and date of manufacture

Product description – brand name, type, current model, lot, batch or serial number (if available), software/firmware version (if applicable)

| |
|---|
| Applicant: Shenzhe Fabulux Technology Co.,Ltd |
| Address: Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen,Guangdong, China |
| Trade Mark: N/A |
| Model Number: T-Max1.5, T-Max1.9, T-Max2.6, T-Max3.9, T-Max, COB0.9, T-Max, COB1.2, T-Max, COB1.5, Thinpad1.5, Thinpad1.9, Thinpad2.6, Thinpad3.9 |
| Product Description: LED Display |
| Date of manufacture or importation of the original/modified item |

Compliance – applicable standards and other supporting documents

Evidence of compliance with applicable standards may be demonstrated by test reports, endorsed/accredited test reports, certification/competent body statements.

Having had regard to these documents, I am satisfied the above mentioned product complies with the requirements of the relevant ACMA Standards made under the *Radiocommunications Act 1992* and the *Telecommunications Act 1997*.

List the details of the documents the above statement was made, including the standard title, number and, if applicable, number of the test report/endorsed test report or certification/competent body statement

| |
|--|
| Standard: AS/NZS CISPR 32:2015+A1:2020 |
| Tested by: Shenzhen NCT Testing Technology Co., Ltd. |
| Report Number: NCT23011501XE1-1 |

Declaration

I hereby declare that:

1. I am authorised to make this declaration on behalf of the Company mentioned above,
2. the contents of this form are true and correct, and
3. the product mentioned above complies with the applicable above mentioned standards and all products supplied under this declaration will be identical to the product identified above.

Note: Under section 137.1 of the *Criminal Code Act 1995*, it is an offence to knowingly provide false or misleading information to a Commonwealth entity.

Penalty: 12 months imprisonment

| | |
|--------------------------------|---|
| <i>Jason Zhang</i> | |
| SIGNATURE OF SUPPLIER OR AGENT | POSITION IN ORGANISATION: Managing Director |
| PRINT NAME: Jason Zhang | DATE: Mar. 22, 2023 |

The *Privacy Act 1988* (Cth) (the *Privacy Act*) imposes obligations on the ACMA in relation to the collection, security, quality, access, use and disclosure of personal information. These obligations are detailed in the Australian Privacy Principles.

The ACMA may only collect personal information if it is reasonably necessary for, or directly related to, one or more of the ACMA's functions or activities.

The purpose of collecting the personal information in this form is to ensure the supplier is identified in the 'Declaration of conformity'. If this Declaration of Conformity is not completed and the requested information is not provided, a compliance label cannot be applied.

Further information on the *Privacy Act* and the ACMA's *Privacy Policy* is available at www.acma.gov.au/privacypolicy. The *Privacy Policy* contains details about how you may access personal information about you that is held by the ACMA, and seek the correction of such information. It also explains how you may complain about a breach of the *Privacy Act* and how we will deal with such a complaint.

Should you have any questions in this regard, please contact the ACMA's privacy contact officer on telephone on 1800 226 667 or by email at privacy@acma.gov.au.

SUPPLIER'S DECLARATION OF CONFORMITY

As required by

- Radiocommunications Labelling (Electromagnetic Compatibility) Notice 2017 made under subsection 182(1) of the Radiocommunications Act

Supplier's DETAILS

Company Name: VICKY TECH LIMITED

Address: 102 Cumberland Drive Flagstaff Hamilton, Flagstaff, Waikato 3210, NEW ZEALAND

IRDN: 191816831 Responsible Supplier Number: E9791 Phone: +64 (0) 7 949 7671

Postal address: 102 Cumberland Drive Flagstaff Hamilton, Flagstaff, Waikato 3210, NEW ZEALAND

PRODUCT DETAILS

Product Description: LED Display

Trade Name/Manufacturer: N/A

Model Number(s): T-Max1.5, T-Max1.9, T-Max2.6, T-Max3.9, T-Max, COB0.9, T-Max, COB1.2, T-Max, COB1.5, Thinpad1.5, Thinpad1.9, Thinpad2.6, Thinpad3.9

COMPLIANCE INFORMATION AND PRODUCT LABELLING

Required Marking*:  , Trade Name and Model Number

Compliance Folder Reference: U23014LR

Date of Compliance Folder: Mar. 22, 2023

* - RCM shall be at least 3 mm in height; Trade name/Model number shall be at least 1 mm in height.

COMPLIANCE –

Having had regard to these documents, I am satisfied the above mentioned product complies with the requirements of the relevant ACMA Standards made under the Radiocommunications Act 1992.

The table below lists the details of the documents the above statement was made.

| Compliance Level | Standard(s) | Report number | Accreditation (if required) |
|------------------|------------------------------|------------------|-----------------------------|
| Level 1 | AS/NZS CISPR 32:2015+A1:2020 | NCT23011501XE1-1 | N/A |

DECLARATION

I hereby declare that:

1. I am authorised to make this declaration on behalf of the Company mentioned above,
2. the contents of this form are true and correct,
3. the product mentioned above complies with the applicable above mentioned standards and all products supplied under this declaration will be identical to the product identified above, and
4. I understand under section 137.1 of the Criminal Code Act 1995, it is an offence to knowingly provide false or misleading information to a Commonwealth entity.

Jason Zhang

Jason Zhang
Mar. 22, 2023
Managing Director
VICKY TECH LIMITED

RCM TEST REPORT

For

LED Display

Model: T-Max1.5

(Other models please see the page 3)

Prepared for: Shenzhen Fabulux Technology Co.,Ltd
Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing
Community, Guanhu Street, Longhua District, Shenzhen, Guangdong,
P.R. China

Prepared by: Shenzhen NCT Testing Technology Co., Ltd.
A101&2FB2, Fuqiao 6thArea, Xintian Community, Fuhai Street, Baoan
District, Shenzhen, China.

TEL: +86-400-8868-419

FAX: +86-755-27790922

Report Number: NCT23011501XE1-1

Date of Test: Mar. 14, 2023 ~ Mar. 17, 2023

Date of Issue: Mar. 17, 2023

Tested By: Shine Wu
Shine Wu

Reported By: Henry Wang
Henry Wang

Reviewed By: Jacky Duan
Jacky Duan



The results detailed in this test report relate only to the specific sample(s) tested. It is the Application's responsibility to ensure that all production units are manufactured with equivalent EMC characteristics. This report is not to be reproduced except in full, without written approval from NCT Testing Technology

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1.0 General Information

1.1 Client Information

| | |
|--------------------------|--|
| Application: | Shenzhe Fabulux Technology Co.,Ltd |
| Address of Application: | Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P.R. China |
| Manufacturer: | Shenzhe Fabulux Technology Co.,Ltd |
| Address of Manufacturer: | Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P.R. China |

1.2 General Description of E.U.T.

| | |
|-------------------|--|
| Product Name: | LED Display |
| Model: | T-Max1.5 |
| Additional Model: | T-Max1.9, T-Max2.6, T-Max3.9, T-Max COB0.9, T-Max COB1.2, T-Max COB1.5, Thinpad1.5, Thinpad1.9, Thinpad2.6, Thinpad3.9 |
| Trade Mark: | N/A |
| Power Supply: | Input: 100-240Vac, 50/60Hz 4.2A |

| | |
|-------------------|--|
| Memo: | According client required. |
| Model Difference: | All models are the same except for model name and appearance. |
| Remark: | This test report is only for the test of the main model of the prototype |

The submitted samples refer to below model list are LED DISPLAY not used in residential environment, therefore it belong to **Class A equipment**.

Class A equipment shall have the following warning in the instructions for use, to inform the user of the risk of operating this equipment in a residential environment:

Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

1.3 Test Facility:

| | |
|----------------------|--|
| Name of Test Lab: | Shenzhen NCT Testing Technology Co.,Ltd. |
| Address of Test Lab: | A101&2FB2, Fuqiao 6thArea, Xintian Community, Fuhai Street, Baoan District, Shenzhen, China. |
| Telephone: | +86-400-8868-419 |
| Fax: | +86-755-27790922 |

Test procedures according to the technical standards:

| EMC Emission | | | | |
|------------------------------|--------------------|---------|----------|--------|
| Standard | Test Item | Limit | Judgment | Remark |
| AS/NZS CISPR 32:2015+A1:2020 | Conducted Emission | Class A | PASS | |
| | Radiated Emission | Class A | PASS | |

NOTE:

(1) "N/A" denotes test is not applicable in Test Report

| 2.0 List of Measurement Equipment | | | | | |
|--|-------------|------------|--------------|--------------|-----------|
| 2.1 Conducted Emission Test | | | | | |
| Name | Model No. | Serial No. | Manufacturer | Date of Cal. | Due Date |
| EMI Test Receiver | ESPI | 101604 | RS | 2022/7/7 | 2023/7/6 |
| LISN | ENV 216 | 102796 | RS | 2022/7/7 | 2023/7/6 |
| LISN | VN1-13S | 004023 | CRANAGE | 2022/7/7 | 2023/7/6 |
| 2.2 Radiated Emission Test | | | | | |
| Name | Model No. | Serial No. | Manufacturer | Date of Cal. | Due Date |
| EMI Test Receiver | ESCI | 101178 | RS | 2022/7/7 | 2023/7/6 |
| Spectrum Analyzer | N9020A | MY50510202 | Agilent | 2022/7/7 | 2023/7/6 |
| Amplifier | BBV 9743 B | 00374 | SCHWARZBECK | 2022/7/7 | 2023/7/6 |
| Bilog Antenna | VULB9162 | 00473 | SCHNARZBECK | 2022/7/10 | 2023/7/9 |
| Horn antenna | BBHA 9120 D | 02622 | SCHNARZBECK | 2022/7/13 | 2023/7/12 |
| Preamplifier | BBV 9718D | 00042 | SCHNARZBECK | 2022/7/7 | 2023/7/6 |

3.0 Technical Details

3.1 Investigations Requested

Perform Electromagnetic Interference [EMI] tests for RCM Requirement.

3.2 Test Standards

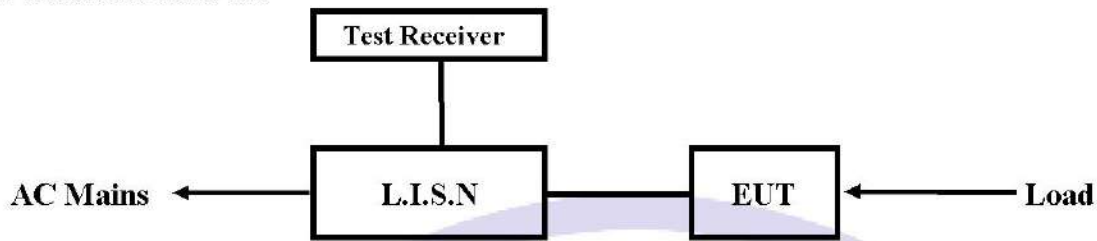
AS/NZS CISPR 32

3.3 Measurement Uncertainty (95% confidence levels, k=2)

| No. | Item | MU |
|-----|-------------------------------|---------|
| 1. | Temperature | ±0.1°C |
| 2. | Humidity | ±1.0% |
| 3. | Spurious emissions, conducted | ±3.70dB |
| 4. | All emissions, radiated | ±4.50dB |

4.0 Power Line Conducted Emission Test

4.1 Schematics of the test



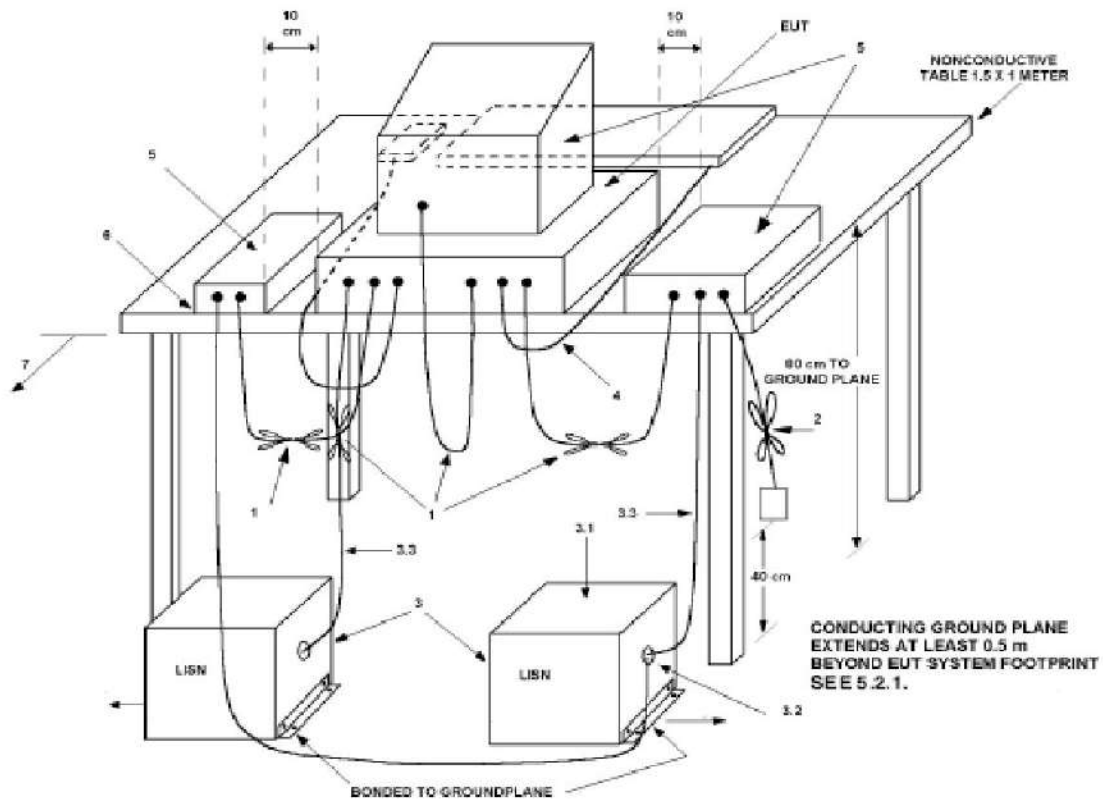
EUT: Equipment Under Test

4.2 Test Method and test Procedure

The EUT was tested according to AS/NZS CISPR 32 The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of AS/NZS CISPR 32

Test Voltage: 230V~, 50HZ

Block diagram of Test setup



4.3 EUT Operating Condition

Operating condition is according to AS/NZS CISPR 32

- 1) Setup the EUT and simulators as shown on the following
- 2) Enable AF signal and confirm EUT active to normal condition

4.4 Test Equipment

Please refer to the Section 2

4.5 Power line conducted Emission Limit

| Frequency(MHz) | Class A Limits (dBμV) | | Class B Limits (dBμV) | |
|----------------|-----------------------|---------------|-----------------------|---------------|
| | Quasi-peak Level | Average Level | Quasi-peak Level | Average Level |
| 0.15 ~ 0.50 | 79.0 | 66.0 | 66.0~56.0* | 56.0~46.0* |
| 0.50 ~ 5.00 | 73.0 | 60.0 | 56.0 | 46.0 |
| 5.00 ~ 30.00 | 73.0 | 60.0 | 60.0 | 50.0 |

- Notes:
1. *Decreasing linearly with logarithm of frequency.
 2. The tighter limit shall apply at the transition frequencies

4.6 Photo documentation of the test set-up

Please refer to the Section 7

4.7 Test specification:

Environmental conditions: Temperature: 26° C Humidity: 56% Atmospheric pressure: 103kPa

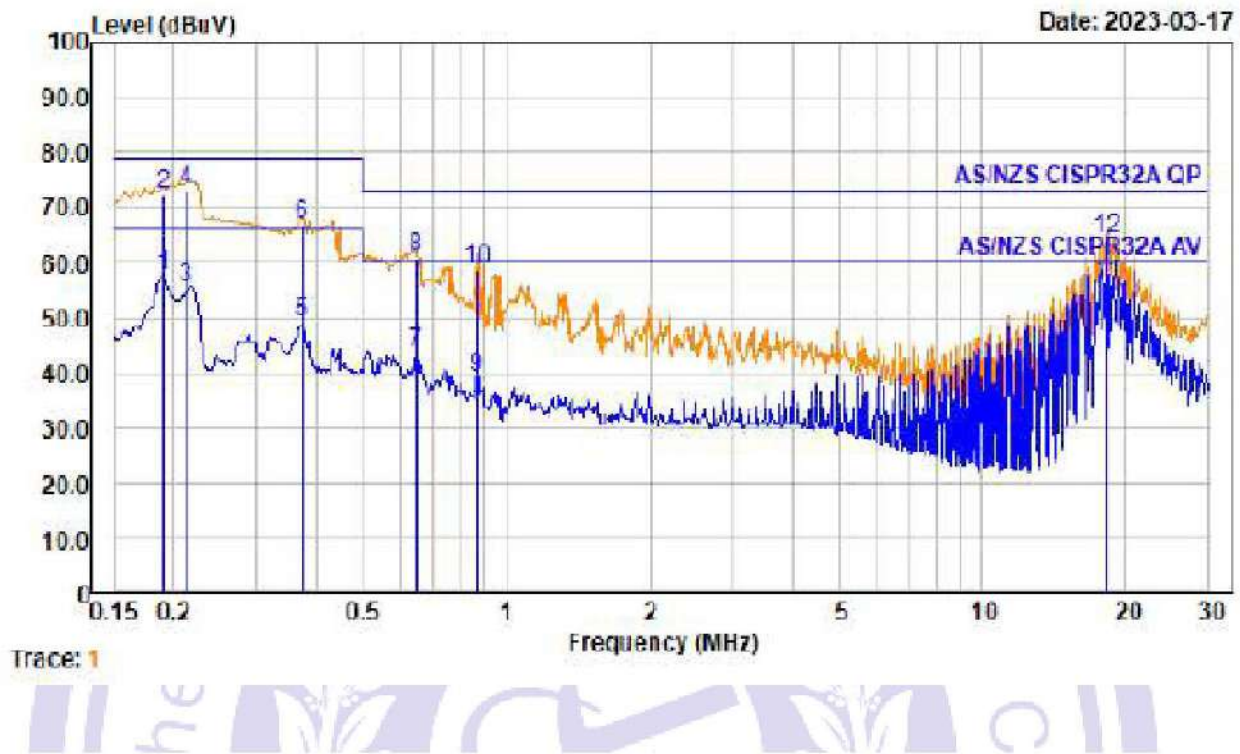
Frequency range: 0.15 MHz – 30 MHz

4.8 Test result Pass

The requirements are FULFILLED

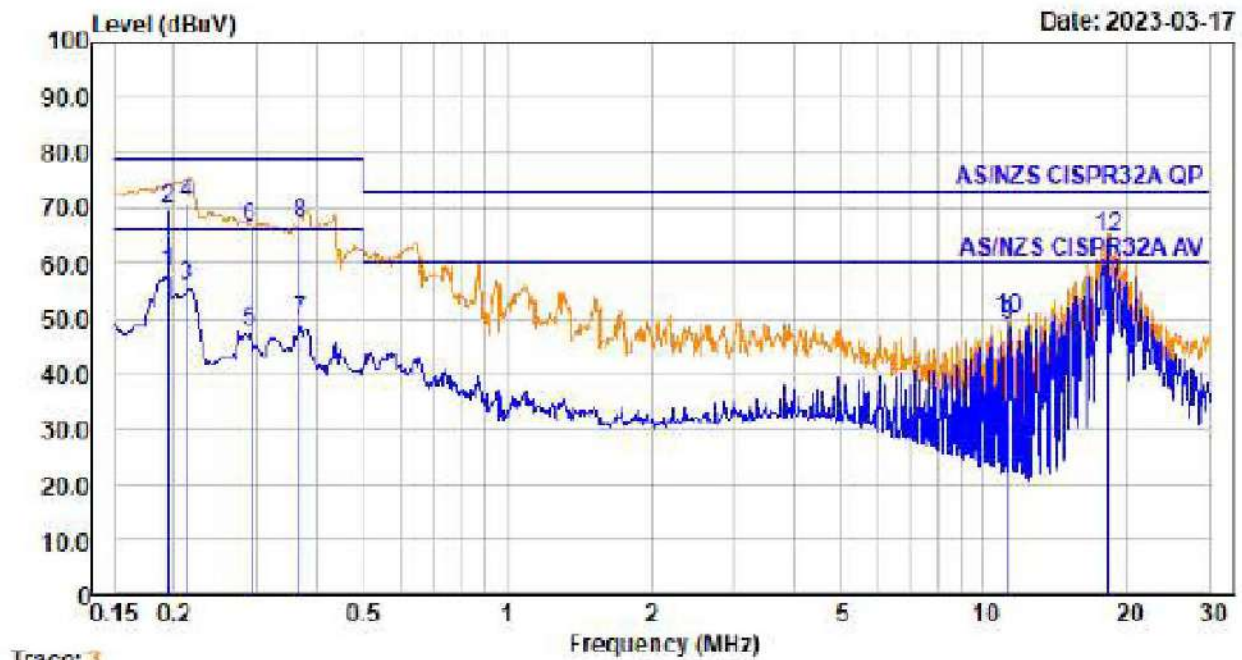
Remarks: According to the AS/NZS CISPR 32

A Conducted Emission on Live Terminal of the power line (150kHz to 30MHz)



| No. | Freq MHz | Cable Loss dB | LISN Factor dB/m | Receiver Reading dBuV | Emission Level dBuV/m | Limit dBuV/m | Over Limit dB | Remark |
|-----|----------|---------------|------------------|-----------------------|-----------------------|--------------|---------------|---------|
| 1. | 0.190 | 0.01 | 9.55 | 47.97 | 57.53 | 66.00 | -8.47 | Average |
| 2. | 0.190 | 0.01 | 9.55 | 62.89 | 72.45 | 79.00 | -6.55 | QP |
| 3. | 0.214 | 0.01 | 9.55 | 45.64 | 55.20 | 66.00 | -10.80 | Average |
| 4. | 0.214 | 0.01 | 9.55 | 63.40 | 72.96 | 79.00 | -6.04 | QP |
| 5. | 0.373 | 0.01 | 9.56 | 39.67 | 49.24 | 66.00 | -16.76 | Average |
| 6. | 0.373 | 0.01 | 9.56 | 57.18 | 66.75 | 79.00 | -12.25 | QP |
| 7. | 0.647 | 0.02 | 9.58 | 33.97 | 43.57 | 60.00 | -16.43 | Average |
| 8. | 0.647 | 0.02 | 9.58 | 51.33 | 60.93 | 73.00 | -12.07 | QP |
| 9. | 0.871 | 0.02 | 9.58 | 29.67 | 39.27 | 60.00 | -20.73 | Average |
| 10. | 0.871 | 0.02 | 9.58 | 49.23 | 58.83 | 73.00 | -14.17 | QP |
| 11. | 18.328 | 0.13 | 9.80 | 46.14 | 56.07 | 60.00 | -3.93 | Average |
| 12. | 18.328 | 0.13 | 9.80 | 54.12 | 64.05 | 73.00 | -8.95 | QP |

B Conducted Emission on Neutral Terminal of the power line (150kHz to 30MHz)



Trace: 3



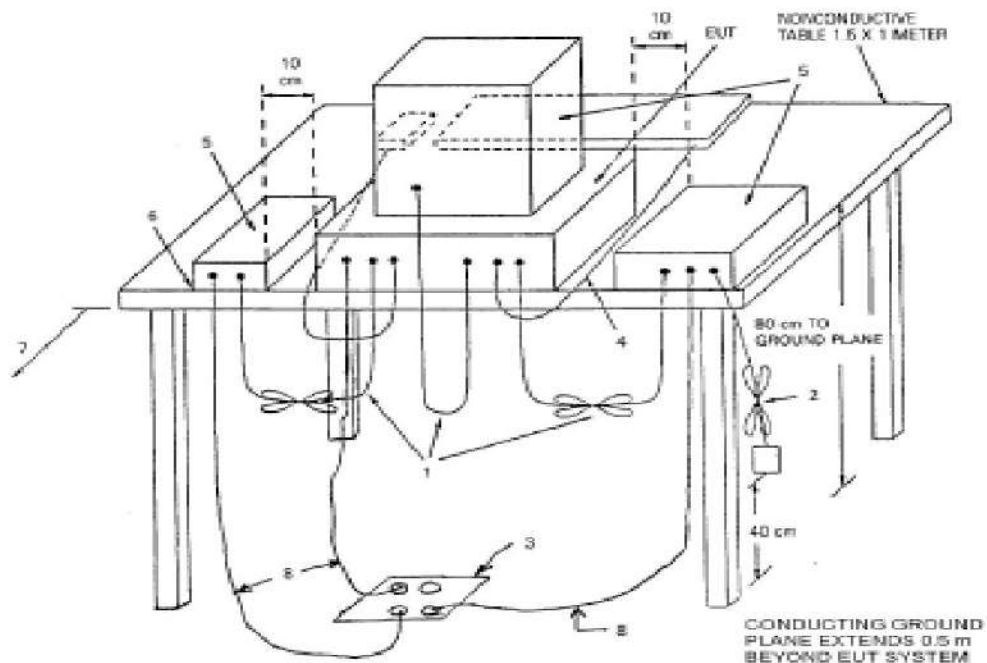
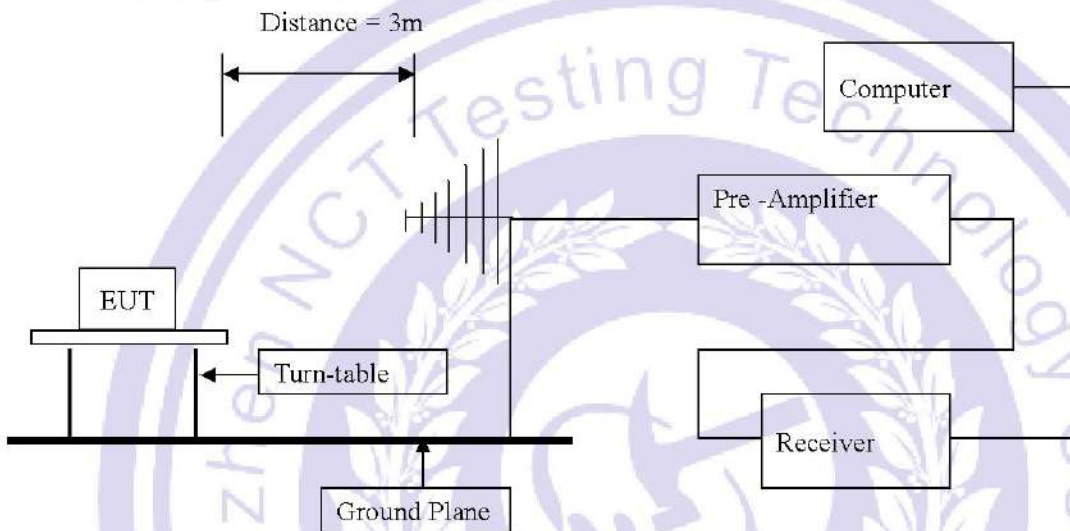
| No. | Freq MHz | Cable Loss dB | LISN Factor dB/m | Receiver Reading dBuV | Emission Level dBuV/m | Limit dBuV/m | Over Limit dB | Remark |
|-----|----------|---------------|------------------|-----------------------|-----------------------|--------------|---------------|---------|
| 1. | 0.194 | 0.01 | 9.55 | 48.60 | 58.15 | 66.00 | -7.84 | Average |
| 2. | 0.194 | 0.01 | 9.55 | 60.14 | 69.70 | 79.00 | -9.30 | QP |
| 3. | 0.214 | 0.01 | 9.55 | 46.03 | 55.59 | 66.00 | -10.41 | Average |
| 4. | 0.214 | 0.01 | 9.55 | 61.44 | 71.00 | 79.00 | -8.00 | QP |
| 5. | 0.289 | 0.01 | 9.56 | 38.10 | 47.67 | 66.00 | -18.33 | Average |
| 6. | 0.289 | 0.01 | 9.56 | 56.74 | 66.31 | 79.00 | -12.69 | QP |
| 7. | 0.369 | 0.01 | 9.57 | 39.77 | 49.35 | 66.00 | -16.65 | Average |
| 8. | 0.369 | 0.01 | 9.57 | 57.42 | 67.00 | 79.00 | -12.00 | QP |
| 9. | 11.317 | 0.11 | 9.81 | 38.97 | 48.89 | 60.00 | -11.11 | Average |
| 10. | 11.317 | 0.11 | 9.81 | 39.97 | 49.89 | 73.00 | -23.11 | QP |
| 11. | 18.328 | 0.13 | 9.86 | 46.33 | 56.32 | 60.00 | -3.68 | Average |
| 12. | 18.328 | 0.13 | 9.86 | 54.44 | 64.43 | 73.00 | -8.57 | QP |

5.0 Radiated Emission Test

5.1 Test Method and test Procedure:

- 1) The EUT was tested according to AS/NZS CISPR 32
- 2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to AS/NZS CISPR 32
- 3) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- 4) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup



5.2 EUT Operating Condition

Operating condition is according to AS/NZS CISPR 32

5.3 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

| Frequency Range (MHz) | Distance (m) | Field strength (dBµV/m)(Class A) |
|-----------------------|--------------|-----------------------------------|
| 30-230 | 3 | 50.0 |
| 230-1000 | 3 | 57.0 |
| 1000-3000 | 3 | 76.0 |
| 3000-6000 | 3 | 80.0 |

- Note:
- 1) The frequency spectrum from 30MHz to 8GHz was investigated. All reading from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120KHz. For measurement above 1GHz, peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK.
 - 2) Measurements were made at 3 meters.
 - 3) If measurement is not made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula $Ld1 = Ld2 * (d2/d1)$

5.4 Photo documentation of the test set-up

Please refer to the Section 7

5.5 Test Equipment:

Please refer to the Section 2

5.6 Test specification:

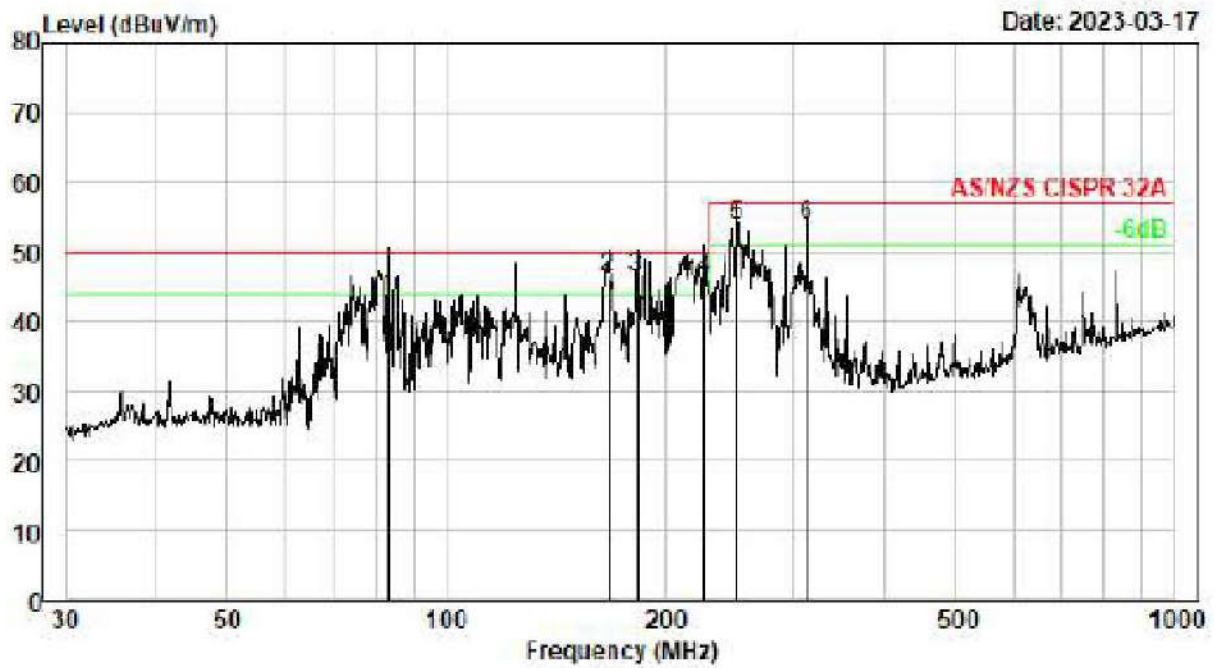
Environmental conditions: Temperature 26° C Humidity: 56% Atmospheric pressure: 103kPa

5.7 Test result Pass

The requirements are FULFILLED

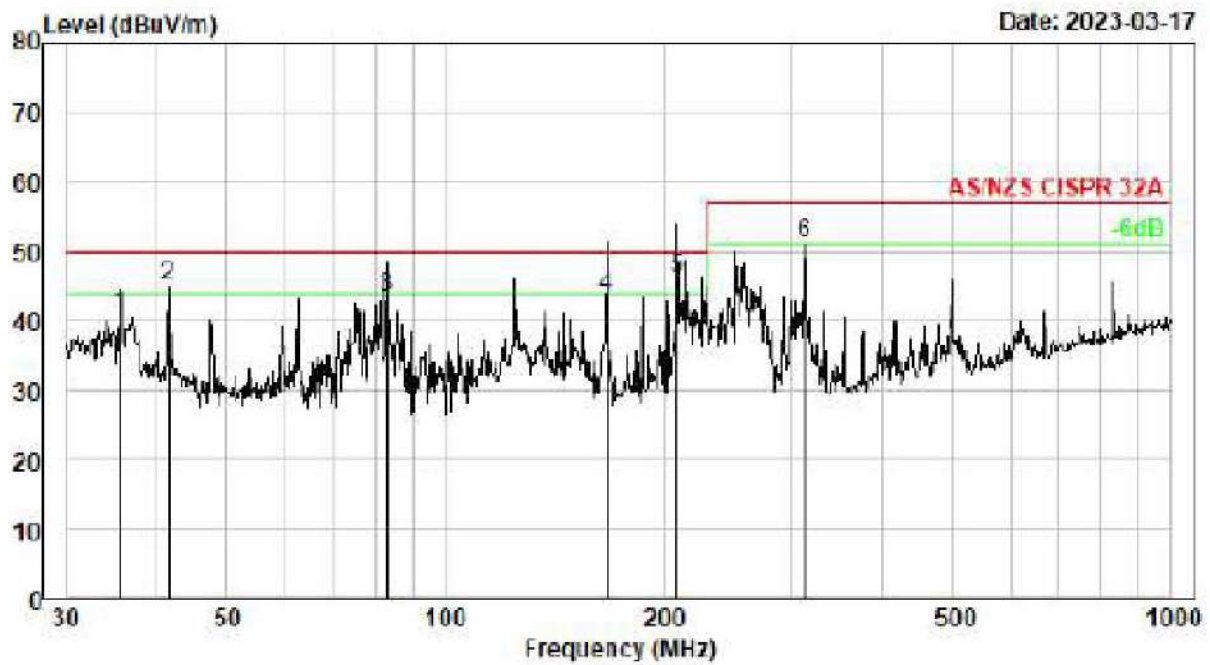
Remarks: According to the AS/NZS CISPR 32

A. Radiated Emission In Horizontal (30MHz----1000MHz)



| No. | Freq MHz | Cable Loss dB | ANT Factor dB/m | Receiver Reading dBuV | Emission Level dBuV/m | Limit dBuV/m | Over Limit dB | Remark |
|-----|-------------|---------------------|-----------------------|-----------------------------|-----------------------------|-----------------|---------------------|--------|
| 1 | 83.230 | 0.62 | 9.77 | 33.07 | 43.46 | 50.00 | -6.54 | QP |
| 2 | 166.651 | 0.96 | 9.14 | 36.15 | 46.25 | 50.00 | -3.75 | QP |
| 3 | 182.559 | 1.01 | 10.14 | 35.15 | 46.30 | 50.00 | -3.70 | QP |
| 4 | 226.099 | 1.13 | 12.28 | 32.77 | 46.18 | 50.00 | -3.82 | QP |
| 5 | 250.301 | 1.18 | 13.00 | 39.61 | 53.79 | 57.00 | -3.21 | QP |
| 6 | 312.179 | 1.30 | 14.51 | 37.86 | 53.67 | 57.00 | -3.33 | QP |

B. Radiated Emission In Vertical (30MHz---1000MHz)



| No. | Freq MHz | Cable Loss dB | ANT Factor dB/m | Receiver Reading dBuV | Emission Level dBuV/m | Limit dBuV/m | Over Limit dB | Remark |
|-----|-------------|---------------------|-----------------------|-----------------------------|-----------------------------|-----------------|---------------------|--------|
| 1 | 35.624 | 0.30 | 11.33 | 29.03 | 40.66 | 50.00 | -9.34 | QP |
| 2 | 41.567 | 0.36 | 12.53 | 32.05 | 44.94 | 50.00 | -5.06 | QP |
| 3 | 83.230 | 0.62 | 9.77 | 32.94 | 43.33 | 50.00 | -6.67 | QP |
| 4 | 166.651 | 0.96 | 9.14 | 33.35 | 43.45 | 50.00 | -6.55 | QP |
| 5 | 208.580 | 1.08 | 11.70 | 33.24 | 46.02 | 50.00 | -3.98 | QP |
| 6 | 312.179 | 1.30 | 14.51 | 35.19 | 51.00 | 57.00 | -6.00 | QP |

6.0 RCM Label

This device complies with AS/NZS CISPR 32 rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

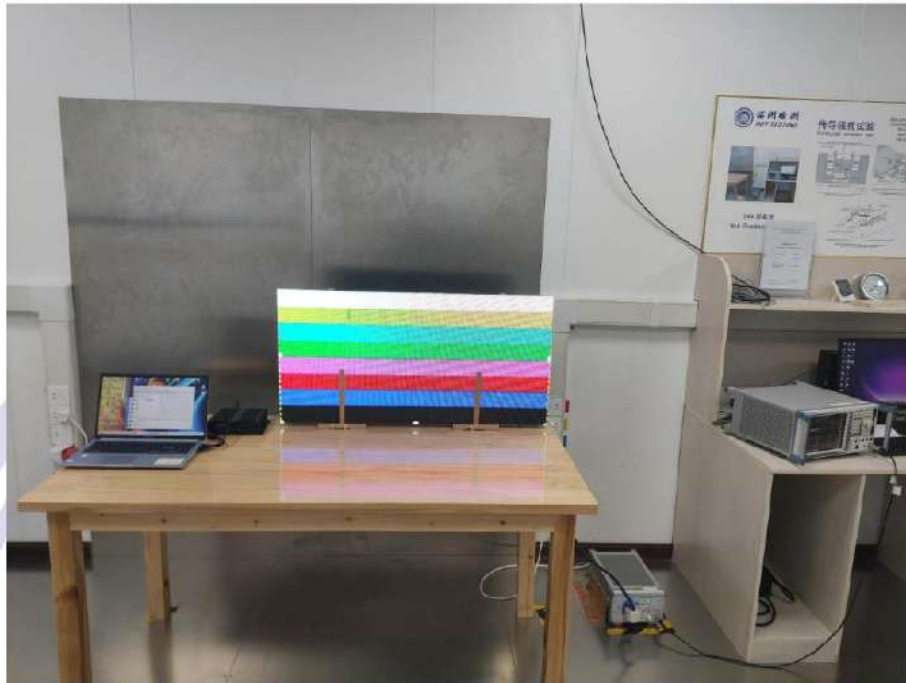
The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location: On the product body

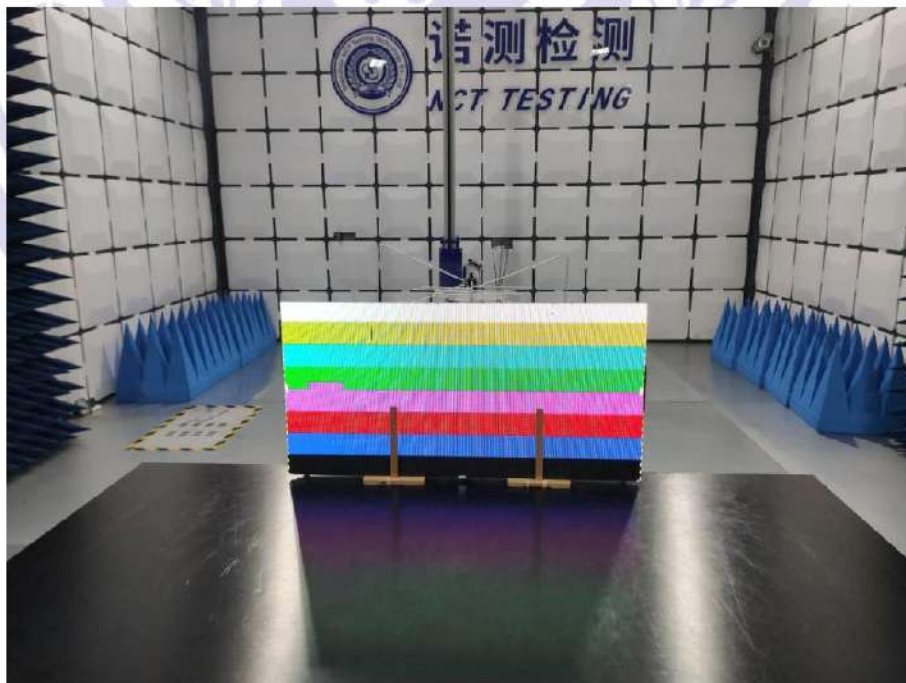


7.0 Photos of testing

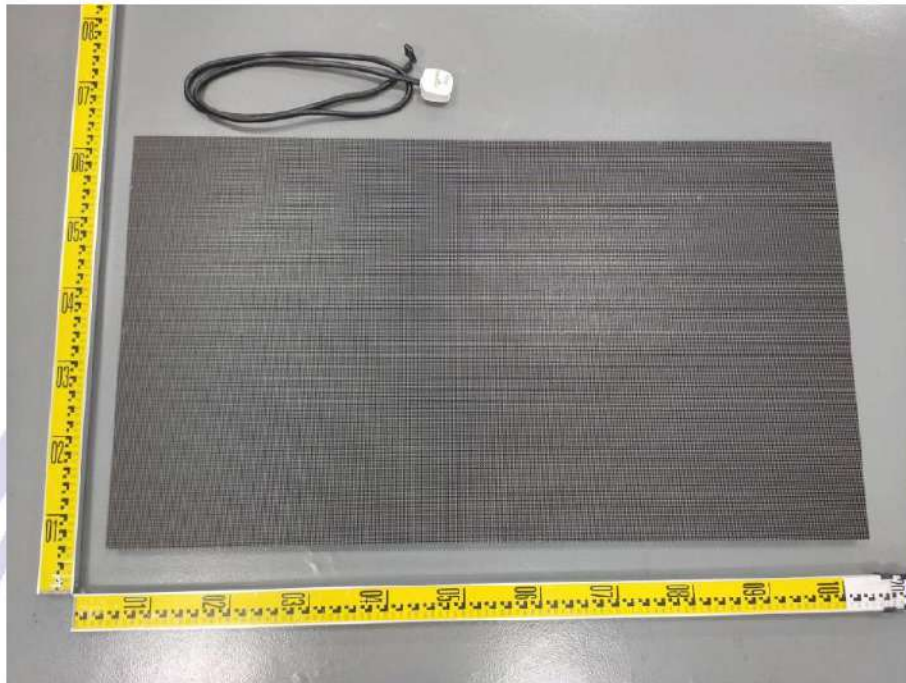
Conducted Emission test test View

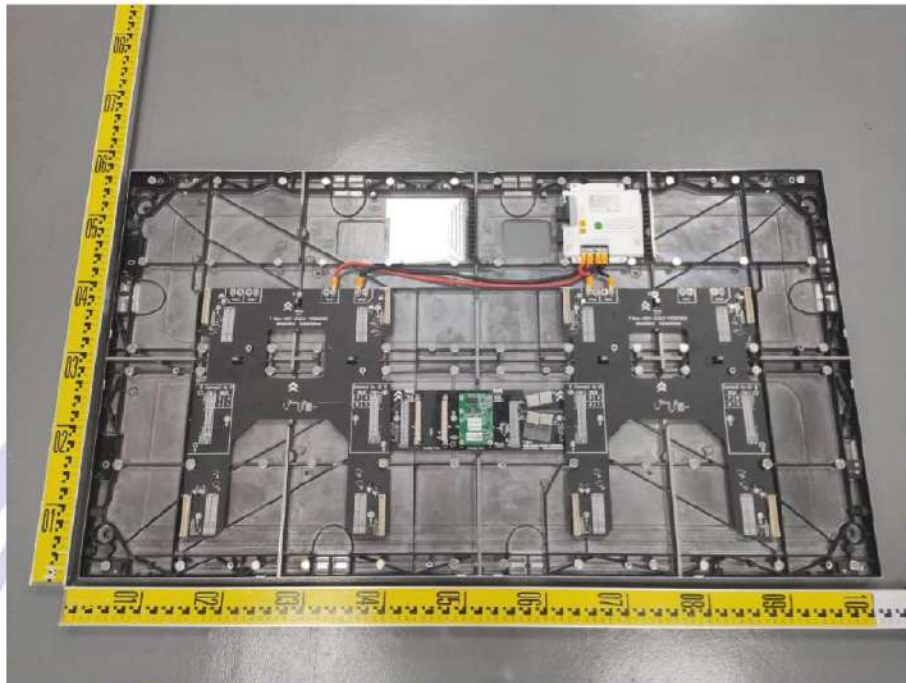


Radiated Emission View

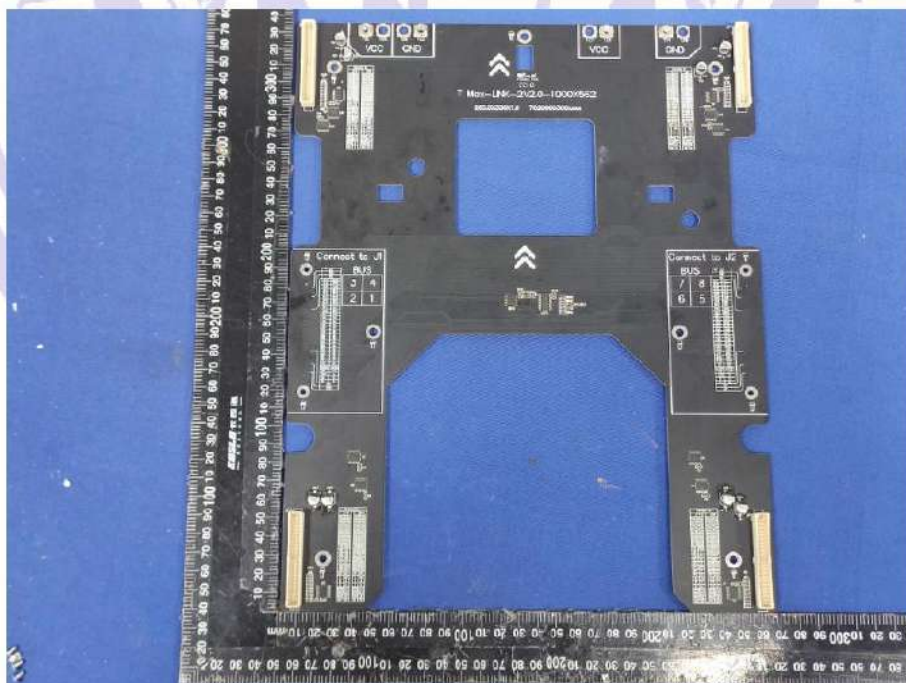


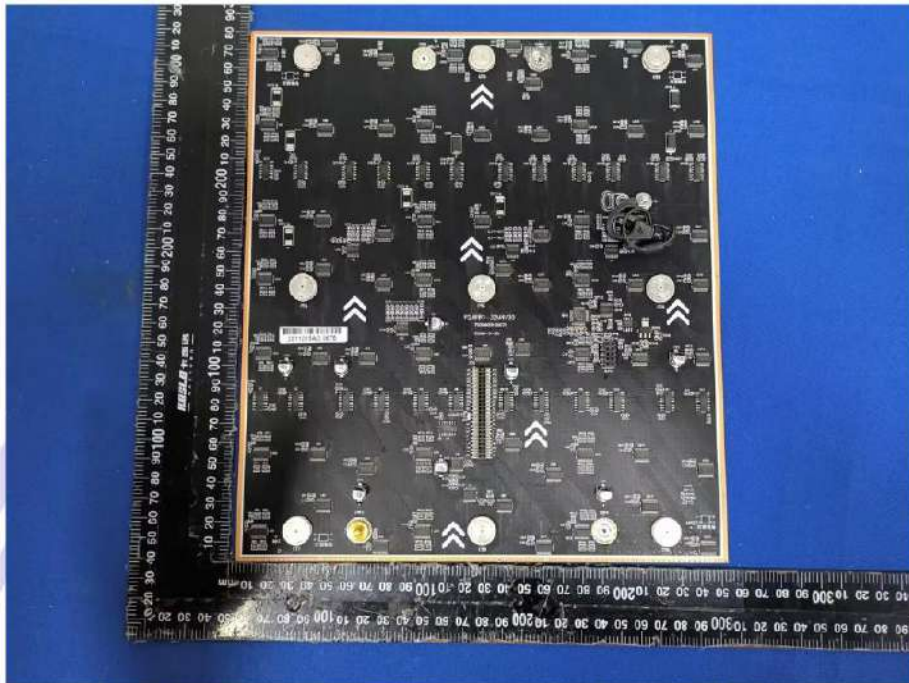
8.0 Photos of the EUT











--End of the report--



| | | | | |
|---|--|--|---|---|
| Prüfbericht-Nr.: <i>Test Report No.:</i> | CN24KALI 001 | Auftrags-Nr.: <i>Order No.:</i> | 170375275 | Seite 1 von 6 <i>Page 1 of 6</i> |
| Kunden-Referenz-Nr.: <i>Client Reference No.:</i> | N/A | Auftragsdatum: <i>Order date:</i> | 12.04.2024 | |
| Auftraggeber: <i>Client:</i> | Shenzhen Fabulux Technology Co. Ltd Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P.R. China | | | |
| Prüfgegenstand: <i>Test item:</i> | LED Display | | | |
| Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i> | T MAX COB Series Cabinet | | | |
| Auftrags-Inhalt: <i>Order content:</i> | Loading test(Tensile test) | | | |
| Prüfgrundlage: <i>Test specification:</i> | According to the client's requirement | | | |
| Wareneingangsdatum: <i>Date of receipt:</i> | 12.04.2024 | Detaillierte Fotodokumentation Seite 3 und / oder Anlage zu diesem Bericht Detailed photo documentation page 3 and / or appendix to this report | | |
| Prüfmuster-Nr.: <i>Test sample No.:</i> | A003696282-001 | | | |
| Prüfzeitraum: <i>Testing period:</i> | 12.04.2024 – 16.04.2024 | | | |
| Ort der Prüfung: <i>Place of testing:</i> | Guangzhou | | | |
| Prüflaboratorium: <i>Testing laboratory:</i> | TÜV Rheinland (Guangdong) Ltd. | | | |
| Prüfergebnis*: <i>Test result*:</i> | Siehe Sonstiges / See Other | | | |
| überprüft von: <i>reviewed by:</i> | Harry Li | genehmigt von: <i>authorized by:</i> | Kevin Xie | |
| Datum: <i>Date:</i> | 22.04.2024 | Datum: <i>Date:</i> | 22.04.2024 | |
| Stellung / Position: | Engineer | Stellung / Position: | Reviewer | |
| Sonstiges / Other: Please refer to page 4-6 of this report for test result. | | | | |
| Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i> | | Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i> | | |
| * Legende: | 1 = sehr gut P(ass) = entspricht o.g. Prüfgrundlage(n) | 2 = gut F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | 3 = befriedigend N/A = nicht anwendbar | 4 = ausreichend N/T = nicht getestet |
| Legend: | 1 = very good P(ass) = passed a.m. test specification(s) | 2 = good F(ail) = failed a.m. test specification(s) | 3 = satisfactory N/A = not applicable | 4 = sufficient N/T = not tested |
| <p>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p> | | | | |

Prüfbericht-Nr.: CN24KALI 001
Test Report No.:

Seite 2 von 6
Page 2 of 6

Anmerkungen
Remarks

- | | |
|---|---|
| 1 | <p>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system.</i></p> <p><i>Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i></p> |
| 2 | <p>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.</p> <p><i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.</i></p> |
| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report.</i></p> <p><i>Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p> |

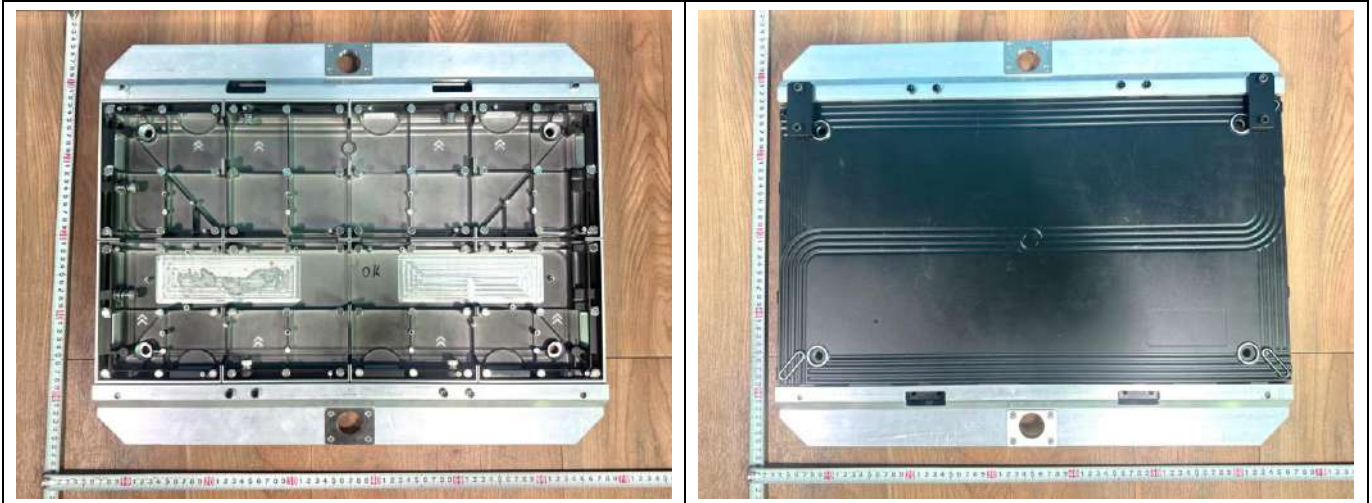
Prüfbericht-Nr.: CN24KALI 001
 Test Report No.:

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 Page 3 of 6

Produktbeschreibung
Product description

| | | |
|----------|--|---|
| 1 | Produktdetails <i>Product details</i> | LED Display(T MAX COB Series Cabinet) |
| 2 | Verwendete Materialien <i>Used materials</i> | Metal |
| 3 | Sonstiges <i>Other</i> | N/A |
| 4 | Prüfmusterbereitstellung <i>Test sample obtaining:</i> | <input checked="" type="checkbox"/> Sending by customer <input type="checkbox"/> Sampling by TÜV Rheinland Group <input type="checkbox"/> others |

Product photo(s)



Prüfbericht-Nr.: CN24KALI 001
 Test Report No.:

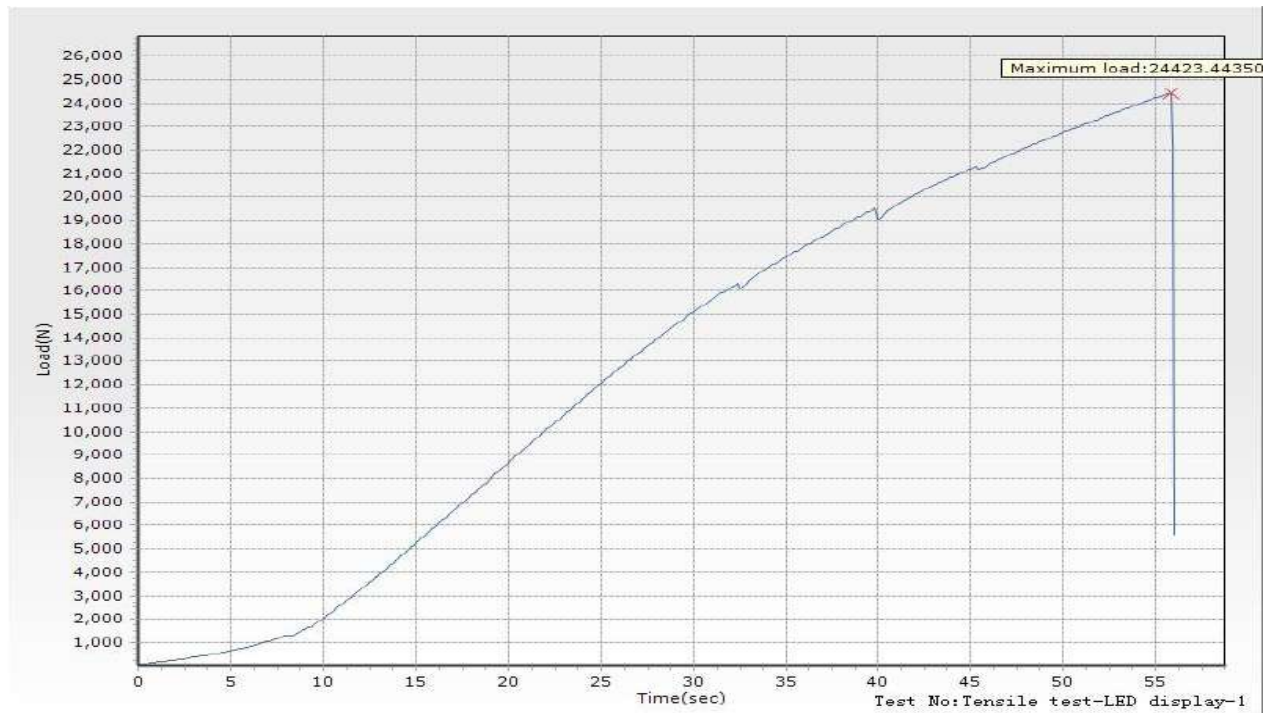
Seite 4 von 6
 Page 4 of 6

| Absatz | According to the client's requirement | Messergebnisse - Bemerkungen | Bewertung |
|--------|--|------------------------------|------------|
| Clause | Anforderungen - Prüfungen / Requirements - Tests | Measuring results - Remarks | Evaluation |

| | | | |
|---|---|--|--|
| 1 | <p>Tensile test</p> <p>Place the tested sample on the test machine and make it on the vertical position.</p> <p>Pull it under the speed of 5 mm/min. until breaking and record the maximum breaking force.</p> | <p>1. Maximum breaking force: 24423 N;</p> <p>2. The test curves see pic.1 as below.</p> <p>3. Detailed test photos see Appendix 1 at page 5 to 6.</p> | |
|---|---|--|--|

Test curve:

Pic.1



Prüfbericht-Nr.: CN24KALI 001
Test Report No.:

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Page 5 of 6

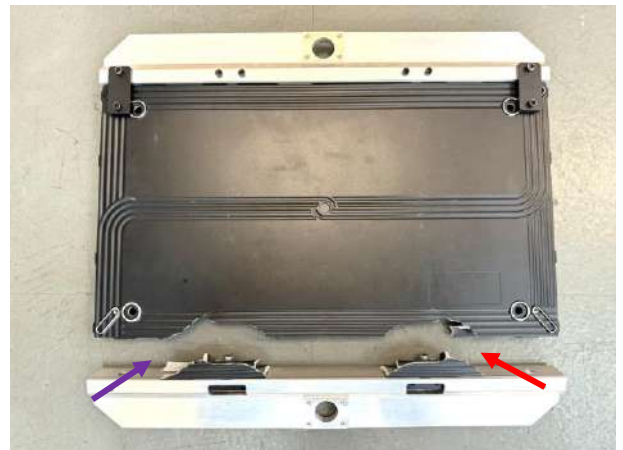
| | | | |
|--------|--|------------------------------|------------|
| Absatz | According to the client's requirement | Messergebnisse - Bemerkungen | Bewertung |
| Clause | Anforderungen - Prüfungen / Requirements - Tests | Measuring results - Remarks | Evaluation |

Appendix 1:

In testing



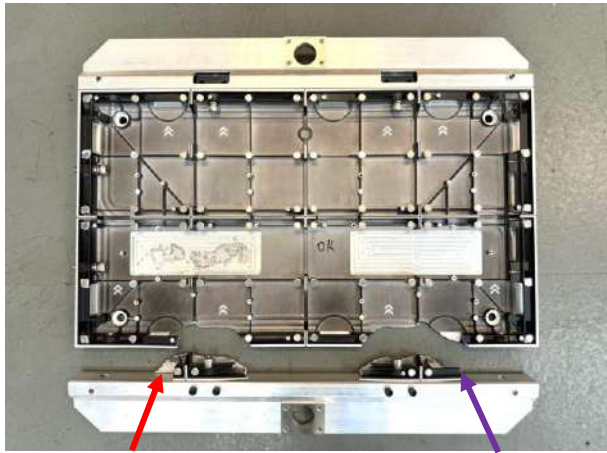
After test



Prüfbericht-Nr.: CN24KALI 001
Test Report No.:

Seite 6 von 6
Page 6 of 6

| Absatz | According to the client's requirement | Messergebnisse - Bemerkungen | Bewertung |
|--------|--|------------------------------|------------|
| Clause | Anforderungen - Prüfungen / Requirements - Tests | Measuring results - Remarks | Evaluation |



Blank

*** End of test report ***



Keyway Testing Technology (Guangdong) Co., Ltd. Tel : 86-769-8718 2258
Room 2102, Building 6, Dongyi Intelligent Equipment Fax : 86-769-8718 1058
New Energy Vehicle Park, No.30 of Tangxia District, Mail : kwtest@Keywaytest.com
Dongshen Road, Tangxia Town, Dongguan City,
Guangdong

Certificate of Compliance

No. CA23080488-E-000

Applicant : Shenzhen Fabulux Technology Co., Ltd
Address : Factory 1201, NO.14 of Xiawei Industrial Zone,
Zhangkengjing Community, Guanhu Street, Longhua
District, Shenzhen, Guangdong, P.R. China

Trade Name :



Product : LED Display
Model No. : T MAX COB0.7, T MAX COB0.9, T MAX COB1.2,
T MAX COB1.5
Report No. : TR24040151-E-000

The submitted sample of the above equipment has been tested and found to comply with the following standards:

- FCC Part 15, Subpart B
- ANSI C63.4:2014
- ANSI C63.4a-2017

This verification is part of the full test report(s) and should be read in conjunction with it. The referred test report(s) show that the product complies with standard(s) recognized as giving presumption of compliance with the essential requirements in the specified FCC standard.

This Verification does not imply assessment of the production of the product.



Andy Gao
Manager
Date: Jun. 30, 2024

Without the written approval of Keyway Testing Technology (Guangdong) Co., Ltd., this certificate is not permitted to be reproduced, except in full. It is not permitted to use the test lab's logo.

FCC TEST REPORT

Prepared for : Shenzhen Fabulux Technology Co., Ltd
Address : Factory 1201, NO.14 of Xiawei Industrial Zone,
Zhangkengjing Community, Guanhu Street, Longhua
District, Shenzhen, Guangdong, P.R. China

Trade Name : 
E.U.T : LED Display
Model Number : T MAX COB0.7, T MAX COB0.9, T MAX COB1.2,
T MAX COB1.5

Prepared by : Keyway Testing Technology (Guangdong) Co., Ltd.
Address : Room 2102, Building 6, Dongyi Intelligent Equipment New
Energy Vehicle Park, No.30 of Tangxia District, Dongshen
Road, Tangxia Town, Dongguan City, Guangdong
province, China.





Tel: 86-769-87182258
Fax: 86-769-87181058

Report No. : TR24040151-E-000
Date of Test : Jun. 21 ~ 28, 2024
Date of Report : Jun. 30, 2024

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Keyway Testing Technology (Guangdong) Co., Ltd.

| | | | |
|--|--|---|--------------------|
| Applicant: | Shenzhen Fabulux Technology Co., Ltd | | |
| Address: | Factory 1201, NO.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P.R. China | | |
| Manufacturer: | Shenzhen Fabulux Technology Co., Ltd | | |
| Address: | Factory 1201, NO.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P.R. China | | |
| E.U.T: | LED Display | | |
| Model Number: | T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 | | |
| Trade Name: |  | | |
| Date of Receipt: | Jun. 20, 2024 | Date of Test: | Jun. 21 ~ 28, 2024 |
| Test Specification : | FCC Part 15, Subpart B ANSI C63.4:2014 ANSI C63.4a-2017 | | |
| Test Result: | The equipment under test was found to be compliance with the requirements of the standards applied. | | |
| | | Issue Date: Jun. 30, 2024 | |
| Tested by: | Reviewed by: | Approved by: | |
|  <hr/> Danica Xiang / Engineer |  <hr/> Billy Zeng / Supervisor |  <hr/> Andy Gao / Manager | |
| Other Aspects: | None. | | |
| Abbreviations: OK/P=passed fail/F=failed N/A=not applicable E.U.T=equipment under tested | | | |
| This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Keyway Testing Technology (Guangdong) Co., Ltd. | | | |

1. GENERAL PRODUCT INFORMATION

1.1. Product Function

Refer to Technical Construction Form and User Manual.

1.2. Description of Device (EUT)

Description : LED Display
M/N : T MAX COB0.7, T MAX COB0.9, T MAX COB1.2,
: T MAX COB1.5
Input : AC 100-240VAC, 50/60Hz, 10A(Max)
Output : AC 100-240VAC, 50/60Hz, 9A(Max)
Power Consumption : 168W(Max), 68W(Average)
Highest Internal Frequency : Unknow

Model list:

| Model no. | Pixel pitch (mm) | Quantity of LED (pcs/m ²) |
|---------------------|------------------|---------------------------------------|
| T MAX COB0.7 | 0.78125 | 1638400 |
| T MAX COB0.9 | 0.9375 | 1137778 |
| T MAX COB1.2 | 1.25 | 640000 |
| T MAX COB1.5 | 1.56 | 409600 |

1.3. Difference between Model Numbers

Note: All models are identical to each other except for model number, LED modules (including quantity of LED, circuit principle and PCB layout), pixel pitch options and the LEDs quantity per square meter for certain pixel pitch.

1.4. Independent Operation Modes

The basic operation mode is:

| Pretest Mode | Description |
|---|-------------------------------|
| Mode 1 | Color bar movement |
| Mode 2 | Scrolling Letter-H Characters |
| Remark: All modes were tested. The worst mode's data have been recorded in this report. | |

1.5. Test Supporting System

1.5.1.Notebook:

Manufacturer: Lenovo
M/N: Lenovo G475
S/N: GB14477457

1.5.2.Controller:

Manufacturer: Shenzhen Nova Electric Co., Ltd.
M/N: MCTRL300
Input: AC 100-240V/0.7A,50-60Hz 2.9W
AC Line: Unshielded, Detachable 1.0m
Network cable: 5 Category, Unshielded, detachable 3.0m
HDMI Line: Type-A,Unshielded, detachable 1.5m
USB Line: USB2.0,Unshielded, detachable 1.2m

1.6. The Main Test Models

| Test Model | Sample serial number |
|--|----------------------|
| T MAX COB0.7 | 240411001 |
| Remark: These are the main test models and its data have been recorded in this report. | |

2. TEST SITES

2.1. Test Facilities

Lab Qualifications : 944 Shielded Room built by ETS-Lindgren, USA
Date of completion: March 28, 2011

966 Chamber built by ETS-Lindgren, USA
Date of completion: March 28, 2011

Certificated by TUV Rheinland, Germany.
Registration No.: UA 50207153
Date of registration: July 13, 2011

Certificated by UL, USA
Registration No.: 100567237
Date of registration: September 5, 2012

Certificated by Intertek
Registration No.: 2016-RTL-L2-199
Date of registration: May 10, 2016

Certificated by VCCI
Member No.3498
Facility:966 Chamber: Registration No.: R-20091
Facility:944 Shielded Room :Registration No.:C-20064
Date of registration: July 20, 2020
Date of Valid until: July 19, 2023

Certificated by PHOENIX TESTLAB GmbH
Registration No.: 702860c
Date of registration: May 11, 2016

Certificated by CNAS China
Registration No.: CNAS L5783
Date of registration: August 8, 2012

Name of Firm : Keyway Testing Technology (Guangdong) Co., Ltd.

Site Location : Room 2102, Building 6, Dongyi Intelligent Equipment New Energy Vehicle Park, No.30 of Tangxia District, Dongshen Road, Tangxia Town, Dongguan City, Guangdong province, China

2.2. Test Summary

| Test Item | Condition | Standard | Result |
|--|-----------------|---|--------|
| Conducted disturbance at mains terminals | 150kHz to 30MHz | FCC Part 15, Subpart B ANSI C63.4:2014 ANSI C63.4a-2017 | Pass |
| Radiated Emission (below 1 GHz) | 30MHz to 1GHz | FCC Part 15, Subpart B ANSI C63.4:2014 ANSI C63.4a-2017 | Pass |
| Radiated Emission (above 1 GHz) | Above 1GHz | FCC Part 15, Subpart B ANSI C63.4:2014 ANSI C63.4a-2017 | Pass |

Remark: 1. The symbol "N/A" in above table means Not Applicable.
 2. When determining the test results, measurement uncertainty of tests has been considered.

| System Measurement Uncertainty | |
|---|----------------------|
| Test Items | Extended Uncertainty |
| Uncertainty for Radiated Emission in 3m chamber(30MHz to 1000MHz) | 3.70dB |
| Radiated Emission in 3m chamber(above 1000MHz) | 3.80dB |
| Uncertainty for Conducted Emission. | 1.9dB |

2.3. List of Test and Measurement Instruments

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|--|-----------------|------------------------------|----------------------|------------|-------------------------------------|
| For conducted emission at the mains terminals and load port test | | | | | <input checked="" type="checkbox"/> |
| EMI Test Receiver | Rohde&Schwarz | ESCI | 101178 | Apr 12, 24 | Apr 11, 25 |
| Artificial Mains Network | Rohde&Schwarz | ENV216 | 101315 | Apr 12,24 | Apr 11,25 |
| Artificial Mains Network (AUX) | Rohde&Schwarz | ENV216 | 101314 | Apr 12,24 | Apr 11,25 |
| AMN | PMM | PMM L3-64 | 110ZZ20306 | Apr 12,24 | Apr 11,25 |
| RF Cable | FUJIKURA | 3D-2W | 944 Cable | Apr 12,24 | Apr 11,25 |
| ISN-CAT5 | Schwarzbeck | CAT5 8158 | #282 | Apr 12,24 | Apr 11,25 |
| ISN-CAT6 | Schwarzbeck | CAT6 8158 | #284 | Apr 12,24 | Apr 11,25 |
| Voltage probe | Schwarzbeck | TK9420 | 9420-528 | Apr 11,24 | Apr 10,25 |
| For radiated emission test (Below 1GHz) 966 Chamber 2 | | | | | <input checked="" type="checkbox"/> |
| EMI Test Receiver | Rohde&Schwarz | ESCI | 101156 | Apr 12, 24 | Apr 11, 25 |
| TRILOG Broadband Antenna | Schwarzbeck | VULB 9168 | 00829 | Apr 13, 24 | Apr 12, 25 |
| 3m Semi-anechoic Chamber | YIHENDIANZI | 966 | YH-KW-966-02 | Mar 07, 24 | Mar 06, 27 |
| RF Cable | EMC Instruments | EMCCFD4 00-NM-NM -2000 | 240307 | Apr 12, 24 | Apr 11, 25 |
| RF Cable | EMC Instruments | EMCCFD4 00-NM-NM -9000 | 240309 | Apr 12, 24 | Apr 11, 25 |
| MULTI-DEVICE Controller | TUOPU | TPMDC | 009240113020 1-01 | N/A | N/A |
| Video Controller | TUOPU | TPHV-300 C | 033240116020 1-02 | N/A | N/A |
| For radiated emission test (Above 1GHz) | | | | | <input checked="" type="checkbox"/> |
| EMI Test Receiver | Rohde&Schwarz | ESCI | 101156 | Apr 12, 24 | Apr 11, 25 |
| Bilog Antenna | ETS | 3142D | 00135452 | Apr 13, 24 | Apr 12, 25 |
| Horn Antenna | DAZE | ZN30701 | 11003 | Apr 12, 24 | Apr 11, 25 |
| Spectrum Analyzer | Keysight | N9020A | MY56070279 | Apr 12, 24 | Apr 11, 25 |
| 3m anechoic Chamber | ETS-LINDGREN | 966 | 170326 | Apr 12, 24 | Apr 11, 25 |
| Signal Amplifier | ZHINAN | ZN3380C | 11001 | Apr 12, 24 | Apr 11, 25 |
| RF Cable | Junkosha | MWX322-1m | 1305G006 | Apr 12, 24 | Apr 11, 25 |
| RF Cable | Junkosha | MWX322-2m | 1305G007 | Apr 12, 24 | Apr 11, 25 |
| RF Cable | Junkosha | MWX322-8m | 1305G008 | Apr 12, 24 | Apr 11, 25 |
| MULTI-DEVICE Controller | ETS-LINDGREN | 2090 | 126913 | N/A | N/A |
| Antenna Holder | ETS-LINDGREN | 2070B | 00109601 | N/A | N/A |
| Note: <input checked="" type="checkbox"/> Used <input type="checkbox"/> Not Used | | | | | |

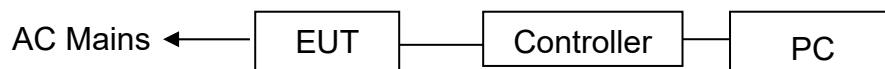
3. TEST SET-UP AND OPERATION MODES

3.1. Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

3.2. Block Diagram of Test Set-up

System Diagram of Connections between EUT and Simulators



(EUT: LED Display)

3.3. Test Operation Mode and Test Software

Refer to Test Setup in clause 4 & 5.

3.4. Special Accessories and Auxiliary Equipment

3.4.1. Notebook:

Manufacturer: Lenovo
M/N: Lenovo G475
S/N: GB14477457

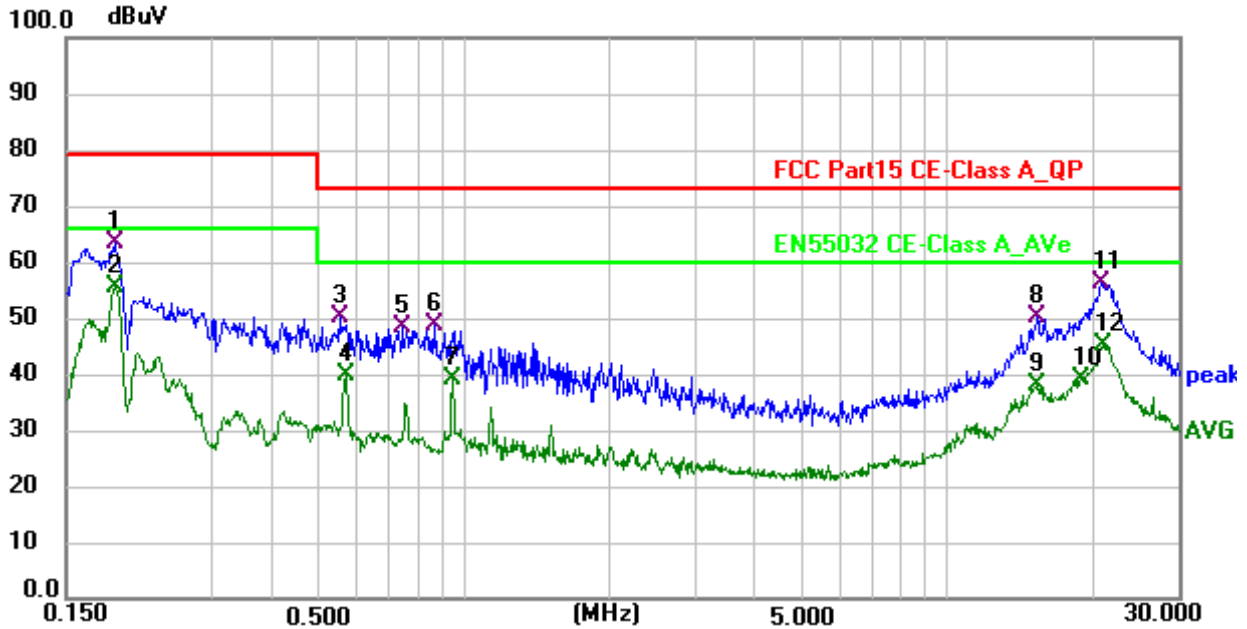
3.4.2. Controller:

Manufacturer: Shenzhen Nova Electric Co., Ltd.
M/N: MCTRL300
Input: AC 100-240V/0.7A,50-60Hz 2.9W
AC Line: Unshielded, Detachable 1.0m
Network cable: 5 Category, Unshielded, detachable 3.0m
HDMI Line: Type-A, Unshielded, detachable 1.5m
USB Line: USB2.0, Unshielded, detachable 1.2m

3.5. Countermeasures to Achieve EMC Compliance

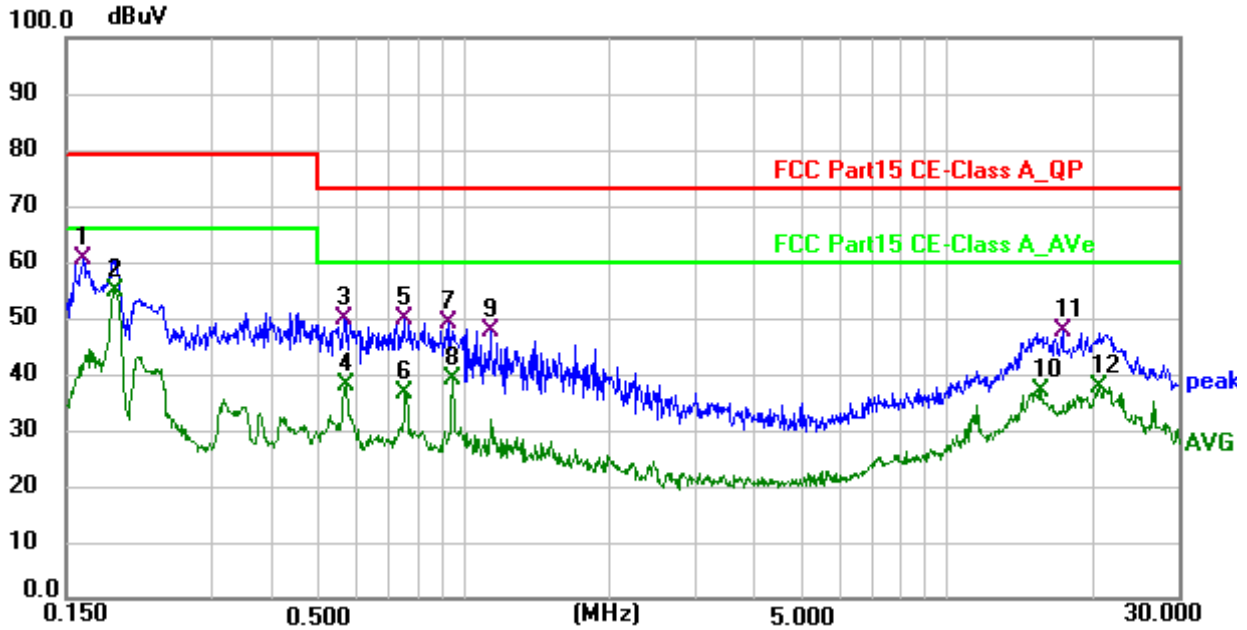
None.

M/N : T MAX COB0.7
 Operation Mode : Mode 1
 Test Voltage : AC 120V/60Hz
 Test Specification : Power Line; Line
 Temperature (° C) : 24.2 Relative Humidity (%) : 56 Atmospheric Pressure(mbar) : 1015



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|
| 1 | 0.190 | 53.28 | 10.00 | 63.28 | 79.00 | -15.72 | QP | P |
| 2 * | 0.191 | 45.63 | 10.01 | 55.64 | 66.00 | -10.36 | AVG | P |
| 3 | 0.554 | 39.96 | 10.06 | 50.02 | 73.00 | -22.98 | QP | P |
| 4 | 0.570 | 29.65 | 10.07 | 39.72 | 60.00 | -20.28 | AVG | P |
| 5 | 0.750 | 38.36 | 10.13 | 48.49 | 73.00 | -24.51 | QP | P |
| 6 | 0.873 | 38.99 | 9.82 | 48.81 | 73.00 | -24.19 | QP | P |
| 7 | 0.948 | 29.44 | 9.76 | 39.20 | 60.00 | -20.80 | AVG | P |
| 8 | 15.359 | 39.71 | 10.40 | 50.11 | 73.00 | -22.89 | QP | P |
| 9 | 15.359 | 27.70 | 10.40 | 38.10 | 60.00 | -21.90 | AVG | P |
| 10 | 18.824 | 28.76 | 10.52 | 39.28 | 60.00 | -20.72 | AVG | P |
| 11 | 20.885 | 45.61 | 10.53 | 56.14 | 73.00 | -16.86 | QP | P |
| 12 | 20.966 | 34.70 | 10.53 | 45.23 | 60.00 | -14.77 | AVG | P |

M/N : T MAX COB0.7
 Operation Mode : Mode 1
 Test Voltage : AC 120V/60Hz
 Test Specification : Power Line; Neutral
 Temperature (° C): : 24.9 Relative Humidity (%) : 56 Atmospheric Pressure(mbar) : 1015



| No. | Frequency (MHz) | Reading (dBUV) | Factor (dB) | Level (dBUV) | Limit (dBUV) | Margin (dB) | Detector | P/F |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|
| 1 | 0.163 | 50.62 | 10.00 | 60.62 | 79.00 | -18.38 | QP | P |
| 2 * | 0.190 | 44.93 | 9.99 | 54.92 | 66.00 | -11.08 | AVG | P |
| 3 | 0.567 | 39.80 | 9.91 | 49.71 | 73.00 | -23.29 | QP | P |
| 4 | 0.570 | 28.19 | 9.90 | 38.09 | 60.00 | -21.91 | AVG | P |
| 5 | 0.754 | 39.57 | 10.13 | 49.70 | 73.00 | -23.30 | QP | P |
| 6 | 0.757 | 26.39 | 10.13 | 36.52 | 60.00 | -23.48 | AVG | P |
| 7 | 0.931 | 39.00 | 9.98 | 48.98 | 73.00 | -24.02 | QP | P |
| 8 | 0.948 | 29.11 | 9.97 | 39.08 | 60.00 | -20.92 | AVG | P |
| 9 | 1.135 | 37.72 | 10.00 | 47.72 | 73.00 | -25.28 | QP | P |
| 10 | 15.566 | 26.88 | 10.22 | 37.10 | 60.00 | -22.90 | AVG | P |
| 11 | 17.375 | 37.39 | 10.28 | 47.67 | 73.00 | -25.33 | QP | P |
| 12 | 20.678 | 27.32 | 10.35 | 37.67 | 60.00 | -22.33 | AVG | P |

4.2. Radiated Emission Test (below 1 GHz)

Result : **Pass**

Test Site : 966 Chamber

Limits : FCC Part 15B Class A

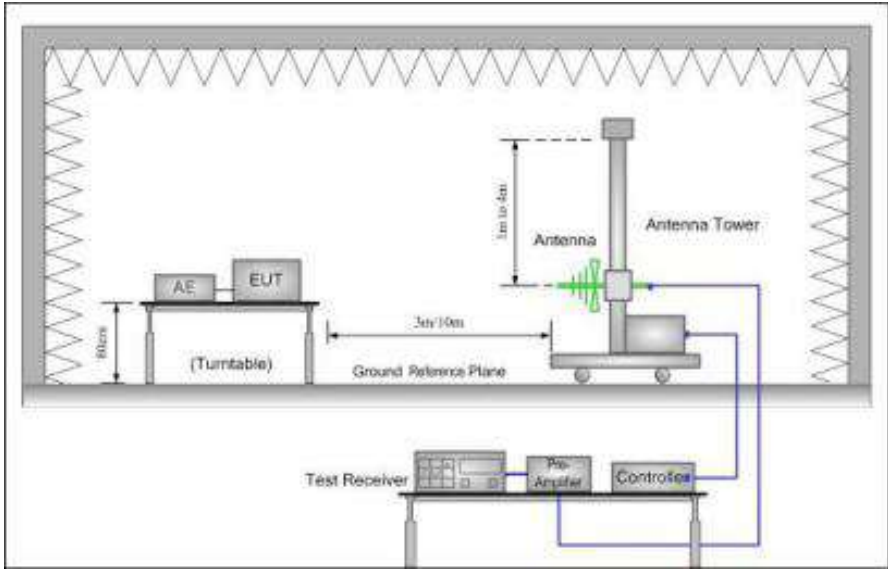
| Frequency range MHz | Quasi-peak limits 3m dB(μ V/m) |
|------------------------|--|
| 30-88 | 50.0 |
| 88-216 | 53.5 |
| 216-960 | 56.0 |
| 960-1000 | 59.5 |

Note: 1.The lower limit shall apply at the transition frequency.
2.Additional provisions may be required for cases where interference occurs.

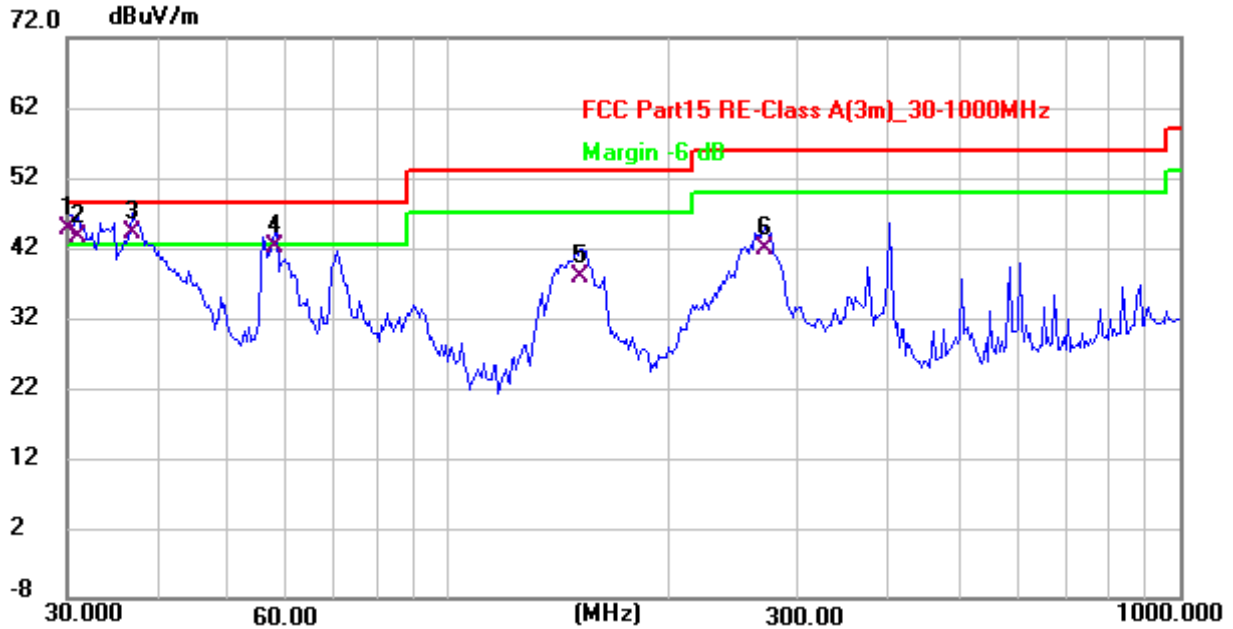
Conditional testing procedure

- 1.The EUT was placed on a turn table which was 0.8 m above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 m away from the receiving antenna which was mounted on an antenna tower. The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 m to 4 m for both horizontal and vertical polarizations.
- 2.The highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz.
- 3.The EUT was tested in the Chamber Site. It was pre-scanned with a Peak detector from the spectrum, and all the final readings from the test receiver were measured with the Quasi-Peak detector.
- 4.The bandwidth setting on the test receiver was 120 kHz.
- 5.The worst test data were reported on the following page.
- 6.Emission Level = Antenna Factor + Cable Loss + Meter Reading.

Test Set-up

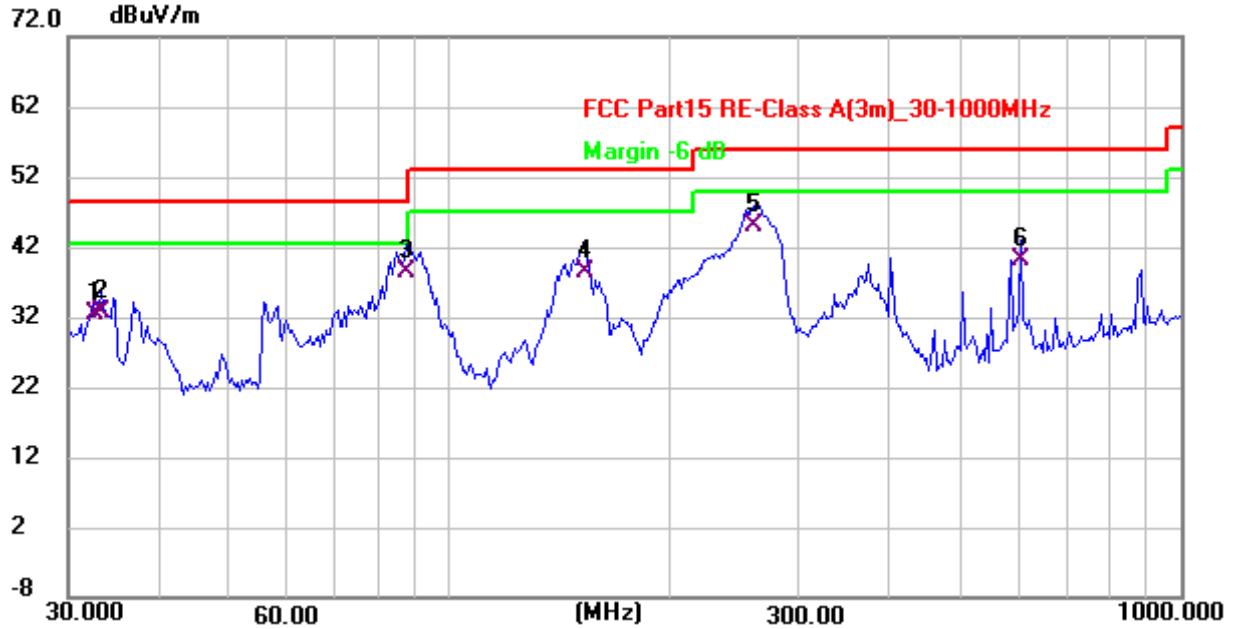


M/N : T MAX COB0.7
 Operation Mode : Mode 1
 Test Voltage : AC 120V/60Hz
 Test Specification : Vertical
 Temperature (° C) : 24.9 Relative Humidity (%) : 56 Atmospheric Pressure(mbar) : 1015



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|
| 1 * | 30.000 | 32.34 | 12.50 | 44.84 | 48.50 | -3.66 | QP | | | P |
| 2 ! | 31.070 | 30.86 | 12.68 | 43.54 | 48.50 | -4.96 | QP | | | P |
| 3 ! | 36.766 | 30.54 | 13.59 | 44.13 | 48.50 | -4.37 | QP | | | P |
| 4 | 57.594 | 29.32 | 12.82 | 42.14 | 48.50 | -6.36 | QP | | | P |
| 5 | 151.597 | 24.27 | 13.58 | 37.85 | 53.00 | -15.15 | QP | | | P |
| 6 | 271.325 | 28.35 | 13.62 | 41.97 | 55.90 | -13.93 | QP | | | P |

M/N : T MAX COB0.7
 Operation Mode : Mode 1
 Test Voltage : AC 120V/60Hz
 Test Specification : Horizontal
 Temperature (° C) : 24.9 Relative Humidity (%) : 56 Atmospheric Pressure(mbar) : 1015



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|
| 1 | 32.634 | 19.60 | 12.94 | 32.54 | 48.50 | -15.96 | QP | | | P |
| 2 | 33.328 | 19.61 | 13.05 | 32.66 | 48.50 | -15.84 | QP | | | P |
| 3 * | 87.112 | 29.43 | 9.07 | 38.50 | 48.50 | -10.00 | QP | | | P |
| 4 | 152.664 | 24.75 | 13.61 | 38.36 | 53.00 | -14.64 | QP | | | P |
| 5 | 260.144 | 31.90 | 13.09 | 44.99 | 55.90 | -10.91 | QP | | | P |
| 6 | 603.539 | 18.40 | 21.68 | 40.08 | 55.90 | -15.82 | QP | | | P |

4.3. Radiated Emission Test (above 1 GHz)

Result : **Pass**

Test Site : 966 Chamber

Limits : FCC Part 15B Class A

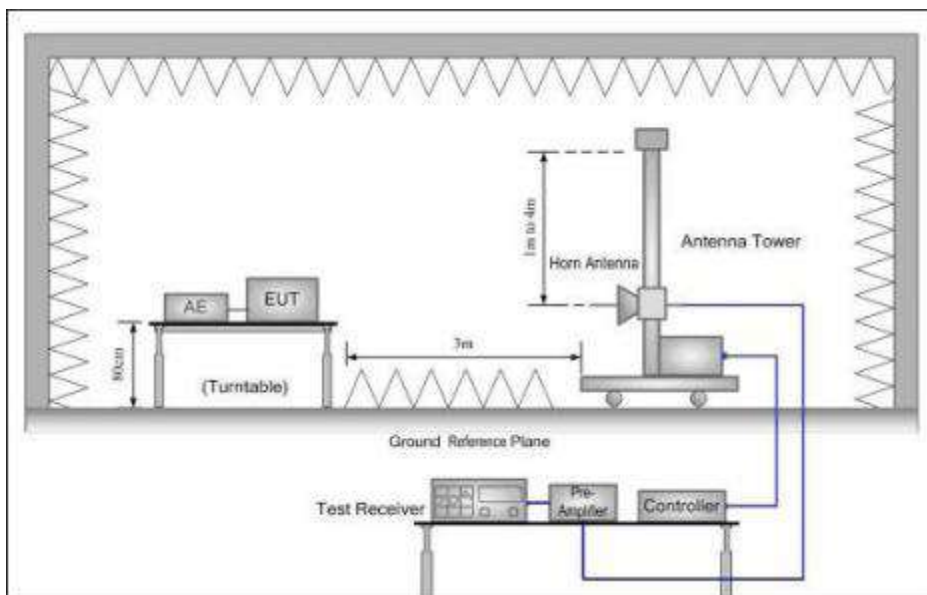
| Frequency range GHz | Average limit dB(μV/m) | Peak limit dB(μV/m) |
|------------------------|---------------------------|------------------------|
| 1-6 | 60 | 80 |

Note: The lower limit applies at the transition frequency

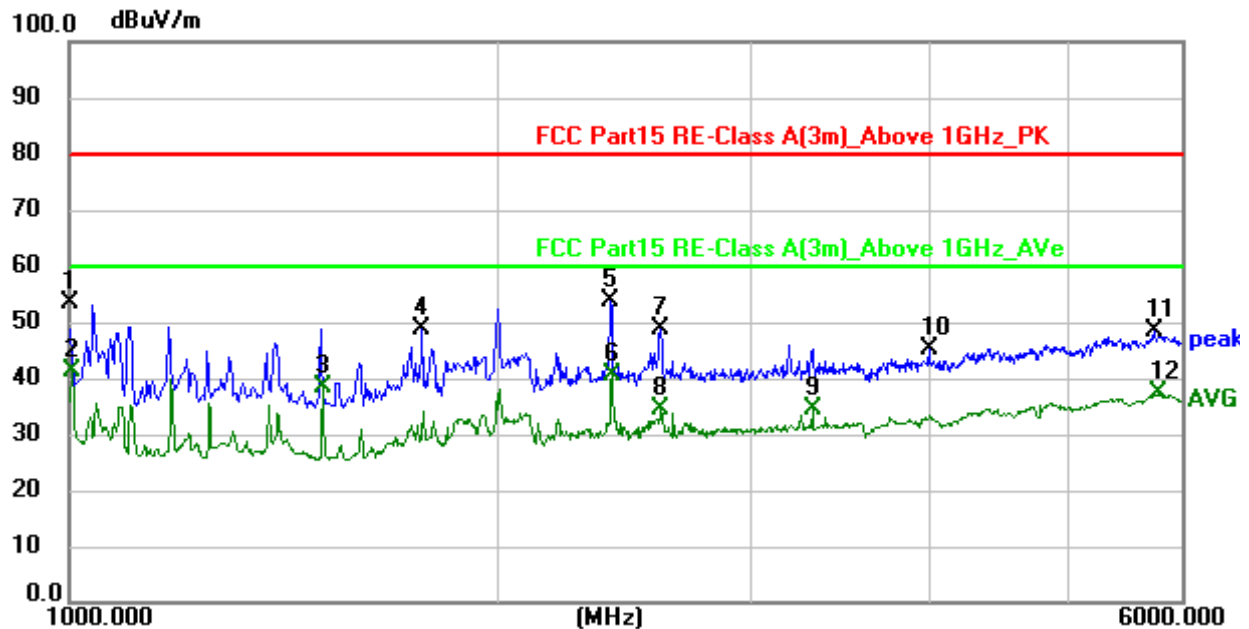
Conditional testing procedure

- 1.The EUT was placed on a turn table which was 0.8 m above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 m away from the receiving antenna which was mounted on an antenna tower. The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 m to 4 m for both horizontal and vertical polarizations.
- 2.The EUT was tested in the 3m Chamber Site. It was pre-scanned with a Peak detector from the spectrum.
- 3.The bandwidth setting on the test receiver was 1 MHz.
4. Emission Level = Antenna Factor + Cable Loss + Meter Reading.
 - the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz.
 - the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, the measurement shall only be made up to 5 GHz.
 - the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is lower.

Test Set-up

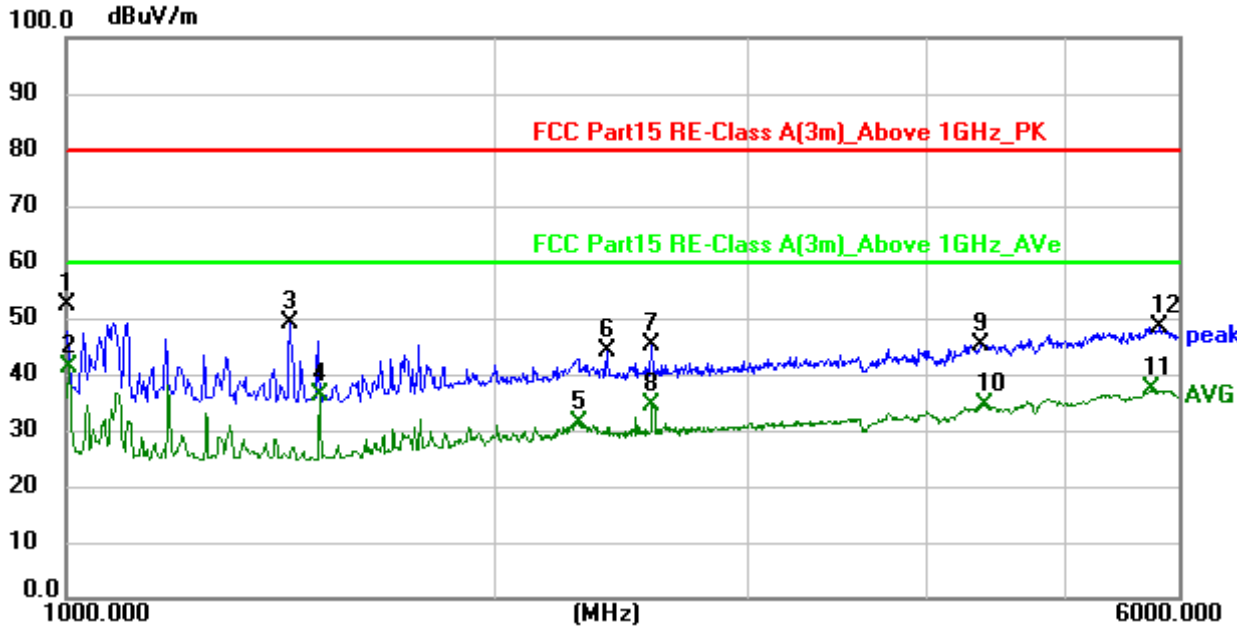


M/N : T MAX COB0.7
 Operation Mode : Mode 1
 Test Voltage : AC 120V/60Hz
 Test Specification : Vertical
 Temperature (° C) : 24.9 Relative Humidity (%) : 56 Atmospheric Pressure(mbar) : 1015



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|
| 1 | 1000.000 | 69.51 | -16.26 | 53.25 | 80.00 | -26.75 | peak | | | P |
| 2 * | 1005.000 | 57.48 | -16.25 | 41.23 | 60.00 | -18.77 | AVG | | | P |
| 3 | 1505.000 | 54.58 | -16.05 | 38.53 | 60.00 | -21.47 | AVG | | | P |
| 4 | 1765.000 | 63.21 | -14.40 | 48.81 | 80.00 | -31.19 | peak | | | P |
| 5 | 2395.000 | 65.45 | -11.62 | 53.83 | 80.00 | -26.17 | peak | | | P |
| 6 | 2400.000 | 51.97 | -11.60 | 40.37 | 60.00 | -19.63 | AVG | | | P |
| 7 | 2590.000 | 59.75 | -10.97 | 48.78 | 80.00 | -31.22 | peak | | | P |
| 8 | 2595.000 | 45.43 | -10.96 | 34.47 | 60.00 | -25.53 | AVG | | | P |
| 9 | 3310.000 | 43.50 | -8.95 | 34.55 | 60.00 | -25.45 | AVG | | | P |
| 10 | 4000.000 | 52.56 | -7.29 | 45.27 | 80.00 | -34.73 | peak | | | P |
| 11 | 5745.000 | 51.14 | -2.74 | 48.40 | 80.00 | -31.60 | peak | | | P |
| 12 | 5795.000 | 39.80 | -2.64 | 37.16 | 60.00 | -22.84 | AVG | | | P |

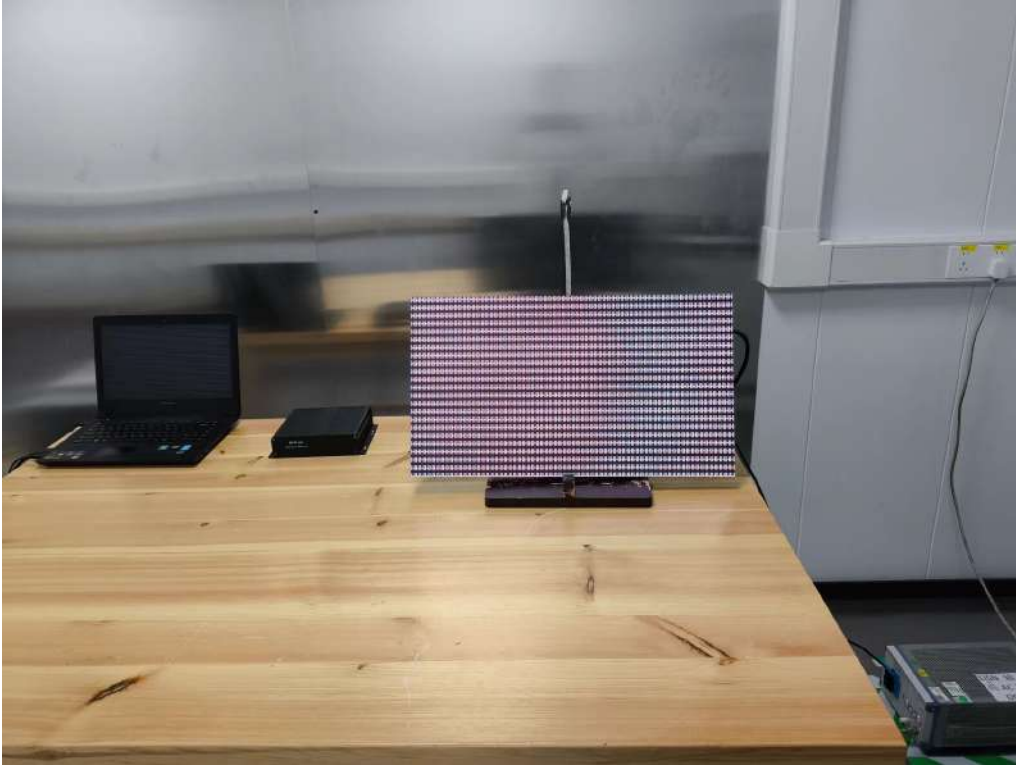
M/N : T MAX COB0.7
 Operation Mode : Mode 1
 Test Voltage : AC 120V/60Hz
 Test Specification : Horizontal
 Temperature (° C) : 24.9 Relative Humidity (%) : 56 Atmospheric Pressure(mbar) : 1015



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|
| 1 | 1000.000 | 68.72 | -16.26 | 52.46 | 80.00 | -27.54 | peak | | | P |
| 2 * | 1005.000 | 57.47 | -16.25 | 41.22 | 60.00 | -18.78 | AVG | | | P |
| 3 | 1435.000 | 65.35 | -16.12 | 49.23 | 80.00 | -30.77 | peak | | | P |
| 4 | 1505.000 | 52.42 | -16.05 | 36.37 | 60.00 | -23.63 | AVG | | | P |
| 5 | 2285.000 | 43.39 | -11.98 | 31.41 | 60.00 | -28.59 | AVG | | | P |
| 6 | 2390.000 | 55.86 | -11.63 | 44.23 | 80.00 | -35.77 | peak | | | P |
| 7 | 2575.000 | 56.10 | -11.02 | 45.08 | 80.00 | -34.92 | peak | | | P |
| 8 | 2575.000 | 45.35 | -11.02 | 34.33 | 60.00 | -25.67 | AVG | | | P |
| 9 | 4370.000 | 51.48 | -6.15 | 45.33 | 80.00 | -34.67 | peak | | | P |
| 10 | 4395.000 | 40.60 | -6.06 | 34.54 | 60.00 | -25.46 | AVG | | | P |
| 11 | 5755.000 | 39.87 | -2.71 | 37.16 | 60.00 | -22.84 | AVG | | | P |
| 12 | 5830.000 | 51.10 | -2.57 | 48.53 | 80.00 | -31.47 | peak | | | P |

5. PHOTOGRAPHS OF TEST SET-UP

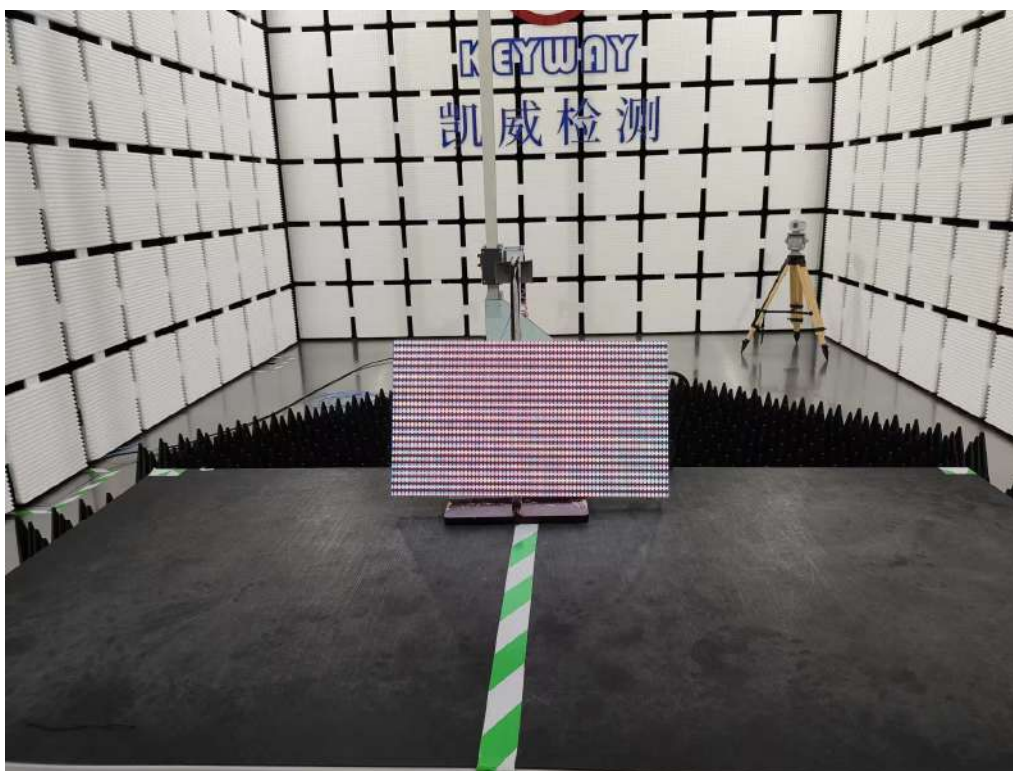
Conducted Emission at the Mains Terminals Test



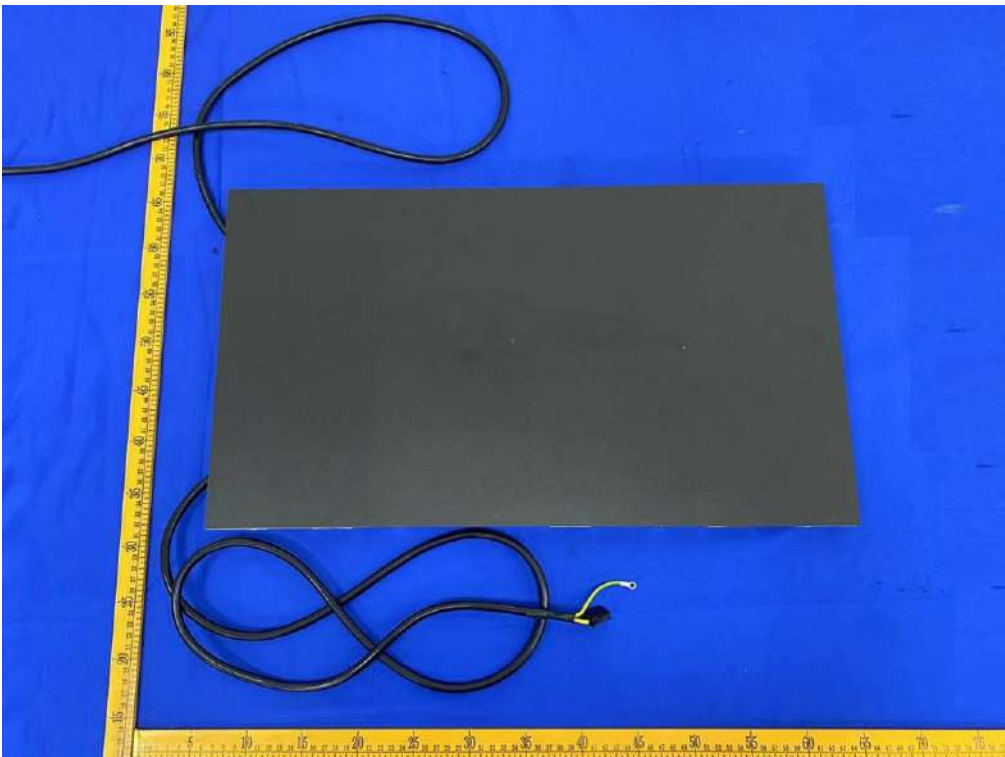
Radiated Emission Test (Below 1GHz)

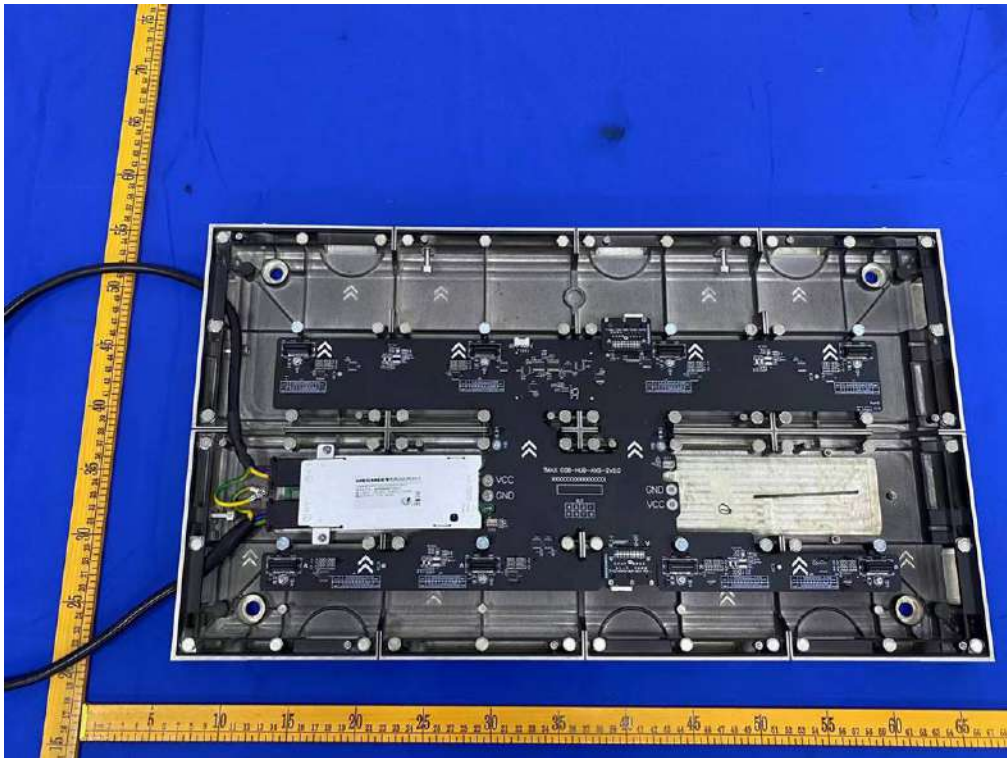
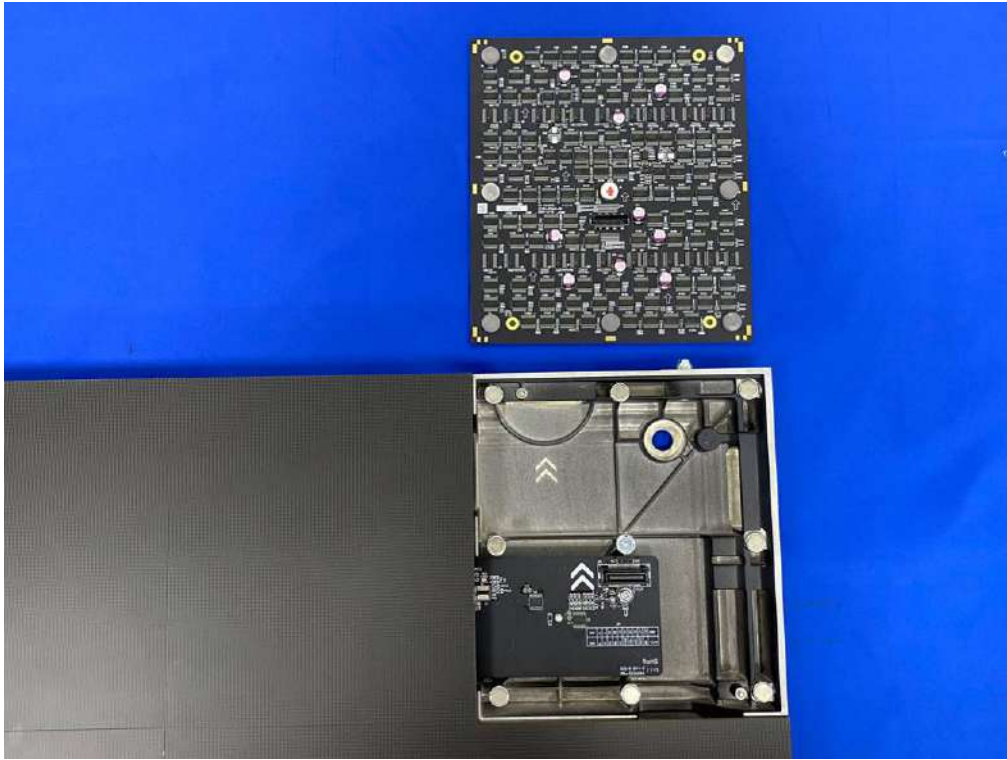


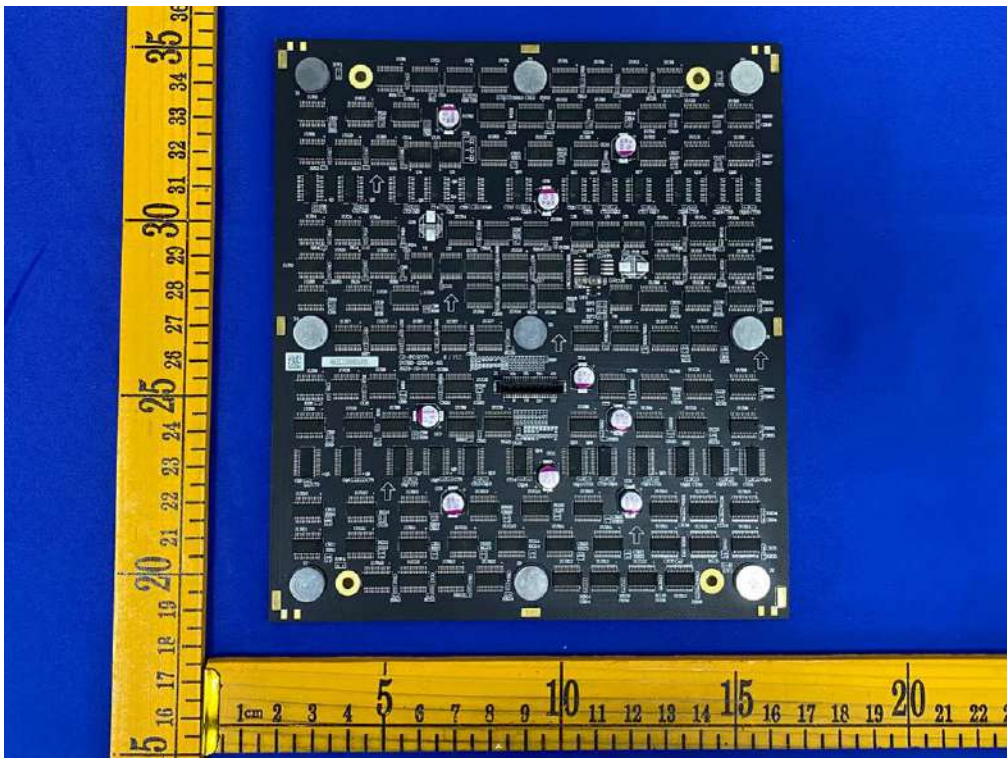
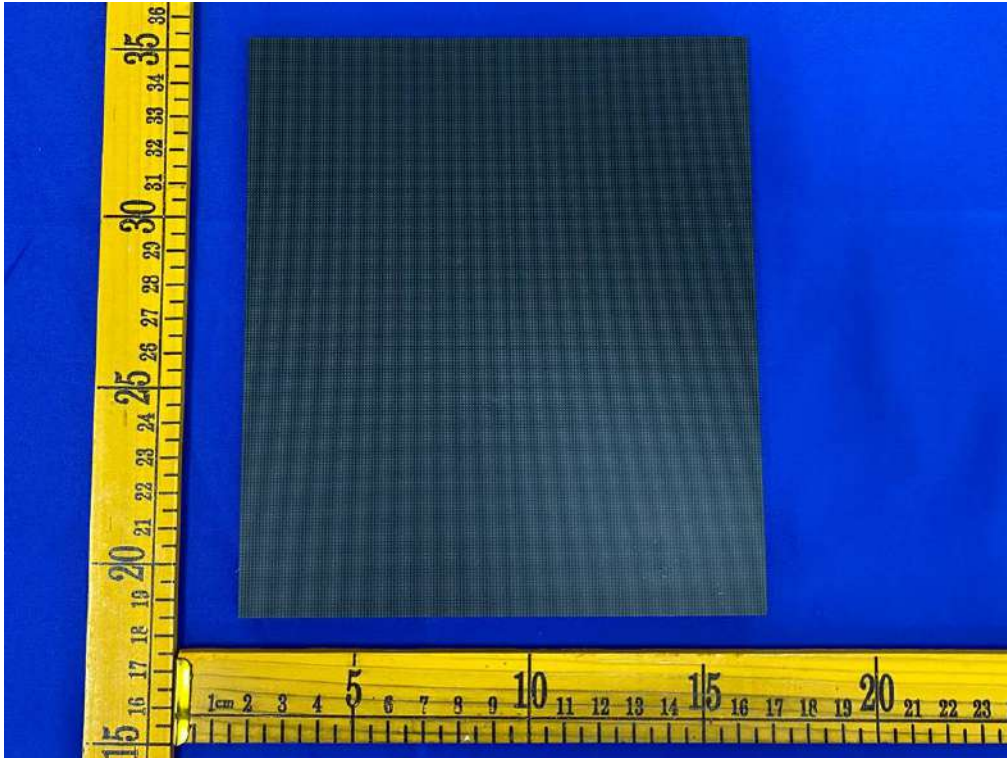
Radiated Emission Test (Above 1GHz)

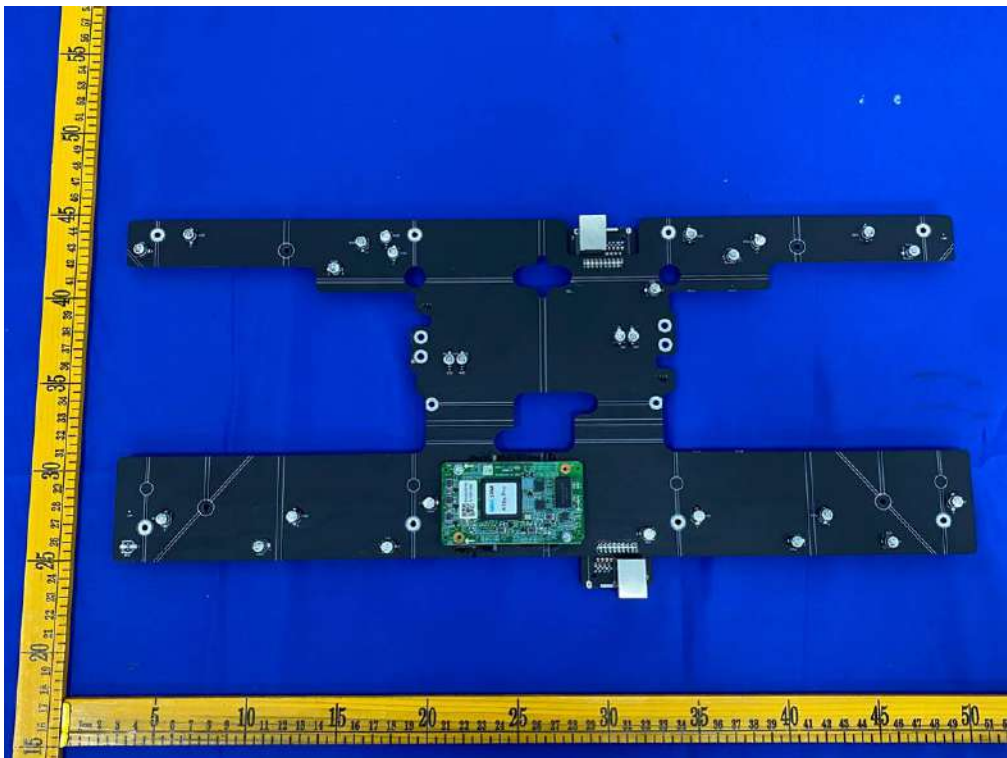
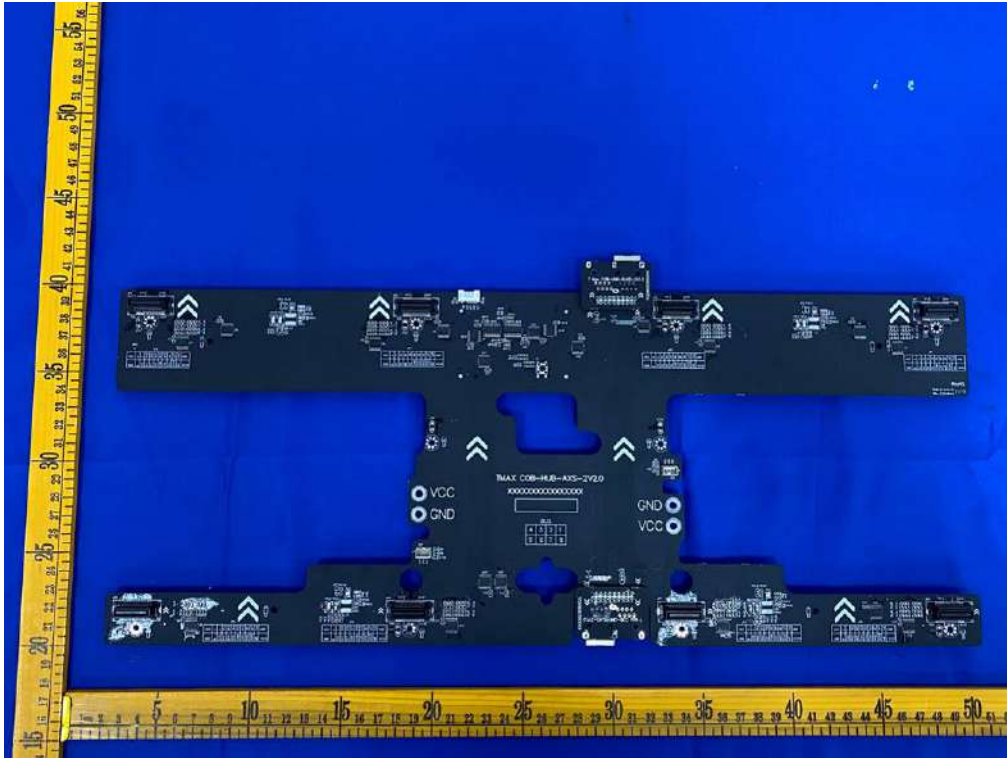


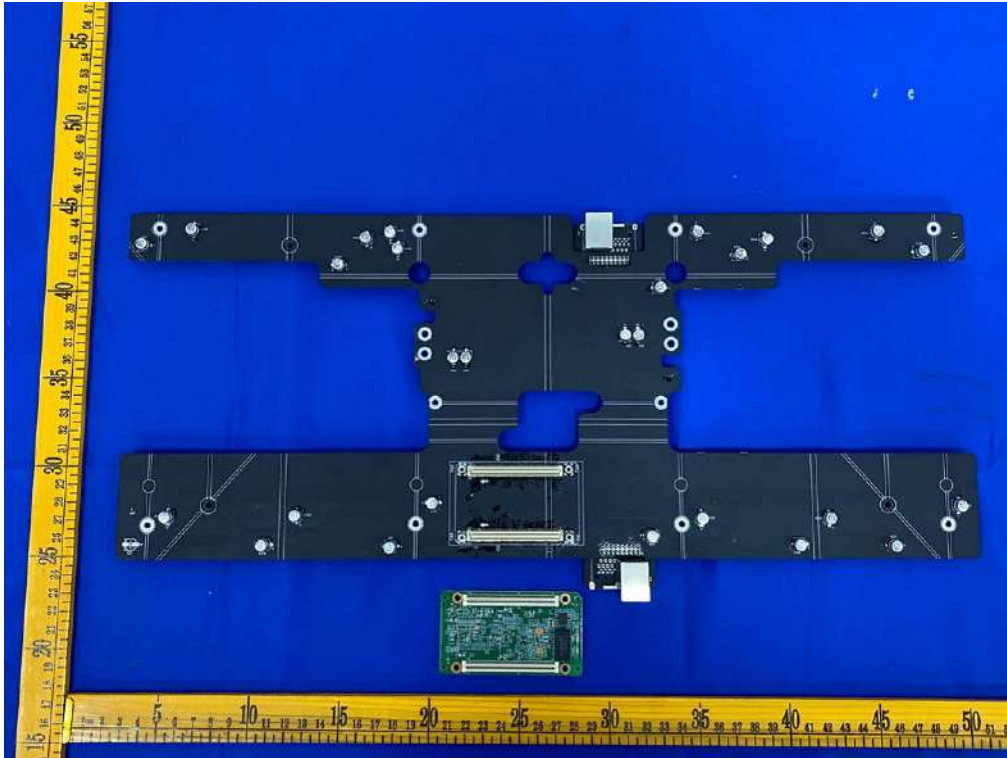
6. PHOTOGRAPHS OF THE EUT













*** the end of report ***

CERTIFICATE

of Conformity EC Council Directive (EU) 2014/30 Electromagnetic Compatibility

Registration No.: AE 50638002 0001
Report No.: CN24DBVY 001
Holder: Shenzhen Fabulux Technology Co.,Ltd
Factory 1201, No.14 of Xiawei
Industrial Zone,
Zhangkengjing Community, Guanhu Street,
Longhua District, Shenzhen
Guangdong
P.R. China
Product: Display Unit
(LED DISPLAY)

Type designation listed on the next page

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the License Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex I of Council Directive (EU) 2014/30. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to the a.m. Directive.

Date: 2024-07-12

Certification Body

Jeffery Xie

Jeffery Xie



TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

The CE marking may be used if all relevant and effective EC Directives/Regulations are complied with.

CERTIFICATE

of Conformity EC Council Directive (EU) 2014/30 Electromagnetic Compatibility

Registration No.: AE 50638002 0001

Product: Display Unit
(LED DISPLAY)



Tested according to: EN 55032:2015+A11+A1
EN 55035:2017+A11
EN IEC 61000-3-2:2019+A1
EN 61000-3-3:2013+A1+A2

Identification: Type Designation
T MAX COB0.7 T MAX COB0.9 T MAX COB1.2 T MAX COB1.5



TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

The CE marking may be used if all relevant and effective EC Directives/Regulations are complied with.

| | | | | |
|---|---|---|---|--------------------------------|
| Prüfbericht-Nr.: <i>Test report no.:</i> | CN24DBVY 001 | Auftrags-Nr.: <i>Order no.:</i> | 170377207 | Seite 1 von 40 Page 1 of 40 |
| Kunden-Referenz-Nr.: <i>Client reference no.:</i> | 2123979 | Auftragsdatum: <i>Order date:</i> | 2024.05.08 | |
| Auftraggeber: <i>Client:</i> | Shenzhen Fabulux Technology Co., Ltd Factory 1201, NO.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P.R. China | | | |
| Prüfgegenstand: <i>Test item:</i> | LED DISPLAY | | | |
| Bezeichnung / Typ-Nr.: <i>Identification / Type no.:</i> | T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 | | | |
| Auftrags-Inhalt: <i>Order content:</i> | TUV Rheinland-EMC Service | | | |
| Prüfgrundlage: <i>Test specification:</i> | EN 55032:2015+A11+A1 EN 55035:2017+A11 EN IEC 61000-3-2:2019+A1 EN 61000-3-3:2013+A1+A2 | | | |
| Wareneingangsdatum: <i>Date of sample receipt:</i> | 2024.06.21 |  | | |
| Prüfmuster-Nr.: <i>Test sample no.:</i> | 170377207 | | | |
| Prüfzeitraum: <i>Testing period:</i> | Refer to test report | | | |
| Ort der Prüfung: <i>Place of testing:</i> | Refer to section 2.1 | | | |
| Prüflaboratorium: <i>Testing laboratory:</i> | TÜV Rheinland (Guangdong) Ltd. | | | |
| Prüfergebnis*: <i>Test result*:</i> | Pass | | | |
| geprüft von: <i>tested by:</i> |  | | | |
| Datum: <i>Date:</i> | 2024.07.03 | | Ausstellungsdatum: <i>Issue date:</i> | 2024.07.07 |
| Stellung / Position: | Figo Cai /APM | | Stellung / Position: | Webb Luo/ Authorizer |
| Sonstiges / <i>Other:</i> | | | | |
| Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i> | Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i> | | | |
| * Legende: | P(ass) = entspricht o.g. Prüfgrundlage(n) | F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | N/A = nicht anwendbar | N/T = nicht getestet |
| * Legend: | P(ass) = passed a.m. test specification(s) | F(ail) = failed a.m. test specification(s) | N/A = not applicable | N/T = not tested |
| <p>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i></p> | | | | |

| | | |
|---|---------------------|--------------------------------|
| Prüfbericht-Nr.: Test report no.: | CN24DBVY 001 | Seite 2 von 40 Page 2 of 40 |
|---|---------------------|--------------------------------|

| |
|--------------------------------------|
| Anmerkungen <i>Remarks</i> |
|--------------------------------------|

| | |
|----------|--|
| 1 | <p>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i></p> |
| 2 | <p>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben.</p> <p><i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged.</i></p> |
| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p> |
| 4 | <p>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</p> <p><i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i></p> |

TEST SUMMARY

5.1.1 HARMONIC CURRENT EMISSIONS ON AC MAINS

RESULT: Pass

5.1.2 VOLTAGE FLUCTUATIONS ON AC MAINS

RESULT: Pass

5.1.3 CONDUCTED EMISSION FROM THE AC MAINS POWER PORTS

RESULT: Pass

5.1.4 CONDUCTED EMISSIONS ON WIRED NETWORK PORTS

RESULT: N/A

5.1.5 CONDUCTED EMISSIONS ON OPTICAL FIBRE PORTS

RESULT: N/A

5.1.6 CONDUCTED EMISSIONS ON BROADCAST RECEIVER TUNER PORTS

RESULT: N/A

5.1.7 CONDUCTED EMISSIONS ON ANTENNA PORTS

RESULT: N/A

5.2.1 CONDUCTED EMISSIONS ON TV BROADCAST RECEIVER TUNER PORTS

RESULT: N/A

5.2.2 CONDUCTED EMISSIONS ON RF MODULATOR OUTPUT PORTS

RESULT: N/A

5.2.3 CONDUCTED EMISSIONS ON FM BROADCAST RECEIVER TUNER PORTS

RESULT: N/A

5.2.4 RADIATED DISTURBANCE

RESULT: Pass

5.2.5 RADIATED EMISSIONS FROM FM RECEIVERS

RESULT: N/A

5.2.6 RADIATED EMISSIONS FROM OUTDOOR UNITS OF HOME SATELLITE RECEIVERS

RESULT: N/A

6.2.1 RADIO-FREQUENCY COMMON MODE / CONDUCTED SUSCEPTIBILITY (CS)

RESULT: Pass

6.2.2 RADIO-FREQUENCY ELECTROMAGNETIC FIELDS (RS)

RESULT: Pass

6.2.3 POWER-FREQUENCY MAGNETIC FIELD

RESULT: N/A

6.3.1 BROADBAND IMPULSE NOISE DISTURBANCES, REPETITIVE

RESULT: N/A

6.3.2 BROADBAND IMPULSE NOISE DISTURBANCES, ISOLATED

RESULT: N/A

6.3.3 ELECTRICAL FAST TRANSIENTS (EFT)

RESULT: Pass

6.3.4 SURGE

RESULT: Pass

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6.3.5 ELECTROSTATIC DISCHARGES (ESD) IMMUNITY

RESULT: Pass

6.4.1 VOLTAGE DIP AND INTERRUPTIONS

RESULT: Pass

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1. General Remarks

When applying the basic standards in this test report, please refer to the applied generic or product family standards for edition information.

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test Result

Appendix 2: List of Test and Measurement Equipment

2. Test Sites

2.1 Test Facilities

Guangdong Keyway Testing Technology Co., Ltd.2/F.

Baishun Industrial Zone, Zhangmutou, Dongguan, Guangdong, P. R. China

The test at this test site has been conducted under the supervision of a TÜV Rheinland engineer.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Refer to attached appendix 2.

3. General Product Information

The submitted samples refer to below model list are LED DISPLAY not used in residential environment, therefore it belong to **Class A equipment**.

These models have an AC mains and interconnect input/output ports:

The interconnect input and output ports are connected to each other Unit directly, they are identical port, and do not connect to public wide area network. The AC input and AC output port are connected to each other Unit directly, they are identical port.

Class A equipment shall have the following warning in the instructions for use, to inform the user of the risk of operating this equipment in a residential environment:

Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

Model list:

| Model no. | Pixel pitch (mm) | Quantity of LED (pcs/m ²) |
|---------------------|------------------|---------------------------------------|
| T MAX COB0.7 | 0.78125 | 1638400 |
| T MAX COB0.9 | 0.9375 | 1137778 |
| T MAX COB1.2 | 1.25 | 640000 |
| T MAX COB1.5 | 1.56 | 409600 |

All models are identical to each other except for model number, LED modules (including quantity of LED, circuit principle and PCB layout), pixel pitch options and the LEDs quantity per square meter for certain pixel pitch

According to above information all EMC test performed on models **T MAX COB0.7**.

3.1 Product Function and Intended Use

For more information refer to the manufacturer's Technical Documentation and Instruction Manual.

3.2 Ratings and System Details

| | |
|--------------------|--|
| Type Designation: | Refer to section 3 |
| Input: | AC 100-240VAC, 50/60Hz, 10A(Max) |
| Output: | AC 100-240VAC, 50/60Hz, 9A(Max) |
| Power Consumption: | 168W(Max), 68W(Average) |
| Ports: | AC mains, interconnect port. |
| Cable Type: | Unshielded AC mains cable, Unshielded interconnect cable |
| Protection Class: | I |

For more information refer to the manufacturer's Technical Documentation and Instruction Manual.

3.3 Independent Operation Modes

- A. On-Color bar image with an additional small moving element
- B. On-White screen with a small moving element
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the manufacturer's Circuit Diagram.

3.5 Submitted Documents

Instruction Manual
Products difference description
Circuit diagram
PCB layout
Label

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

Immunity: The equipment under test (EUT) was configured to have its highest possible susceptibility against the tested phenomena. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5 & 6.

4.3 Special Accessories and Auxiliary Equipment

The EUTs were tested with following accessories:

| Accessory | Manufacturer | M/N | Serial No. |
|------------------------|----------------------------------|-------------|------------|
| Notebook | Lenovo | Lenovo G475 | / |
| LED Display Controller | Shenzhen Nova Electric Co., Ltd. | MCTRL300 | / |

4.4 Countermeasures to achieve EMC Compliance

No additional countermeasures to the submitted test sample(s) were employed to achieve compliance.

5. Test Results EMISSION

5.1 Emission in the Frequency Range up to 30 MHz

5.1.1 Harmonic Current Emissions on AC Mains

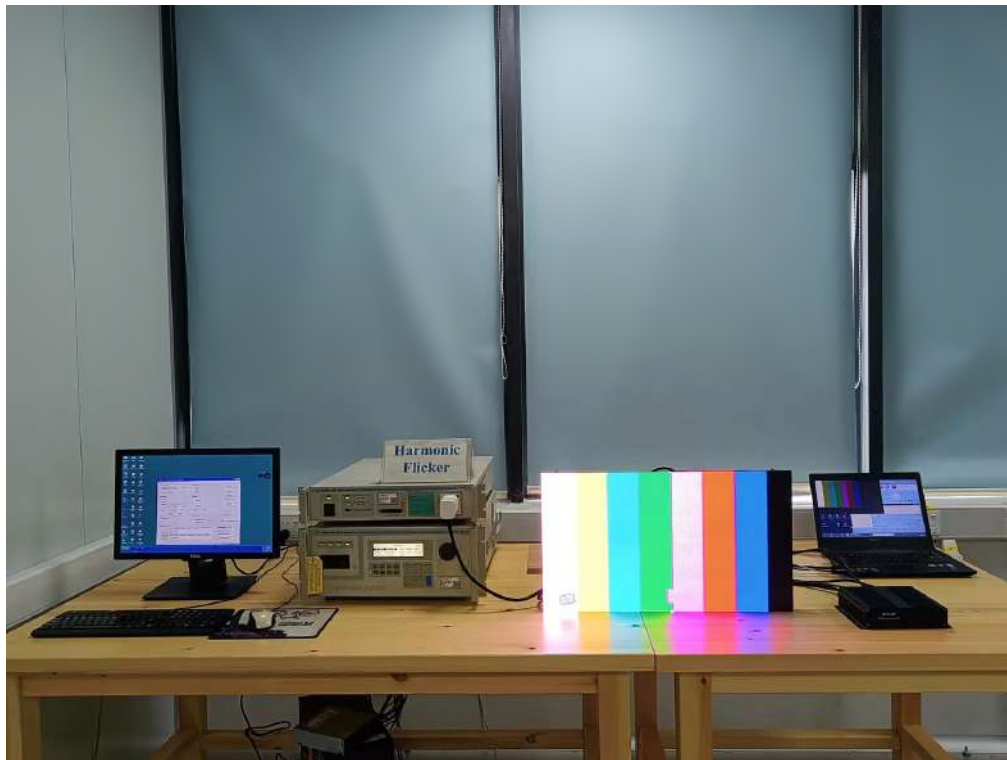
RESULT:**Pass****Test Specification**

| | | |
|-----------------------------------|---|---|
| Basic standard | : | EN IEC 61000-3-2:2019+A1 |
| Measurement equipment requirement | : | IEC 61000-4-7 |
| Measured harmonics | : | 1 – 40 |
| Equipment class | : | A |
| Limits | : | EN IEC 61000-3-2:2019+A1 Clause 7.1, Table 1 |

Test Setup

| | | |
|-------------------------|---|---------------------|
| Date of testing | : | Refer to appendix 1 |
| Input voltage | : | Refer to appendix 1 |
| Operation mode | : | A (Worst mode) |
| Test observation period | : | 2.5 min |
| Temperature | : | Refer to appendix 1 |
| Humidity | : | Refer to appendix 1 |
| Air pressure | : | Refer to appendix 1 |

Photograph 1: Set-up for Harmonic Current Emissions on AC Mains



Test Result

For measurement records, please refer to appendix 1.

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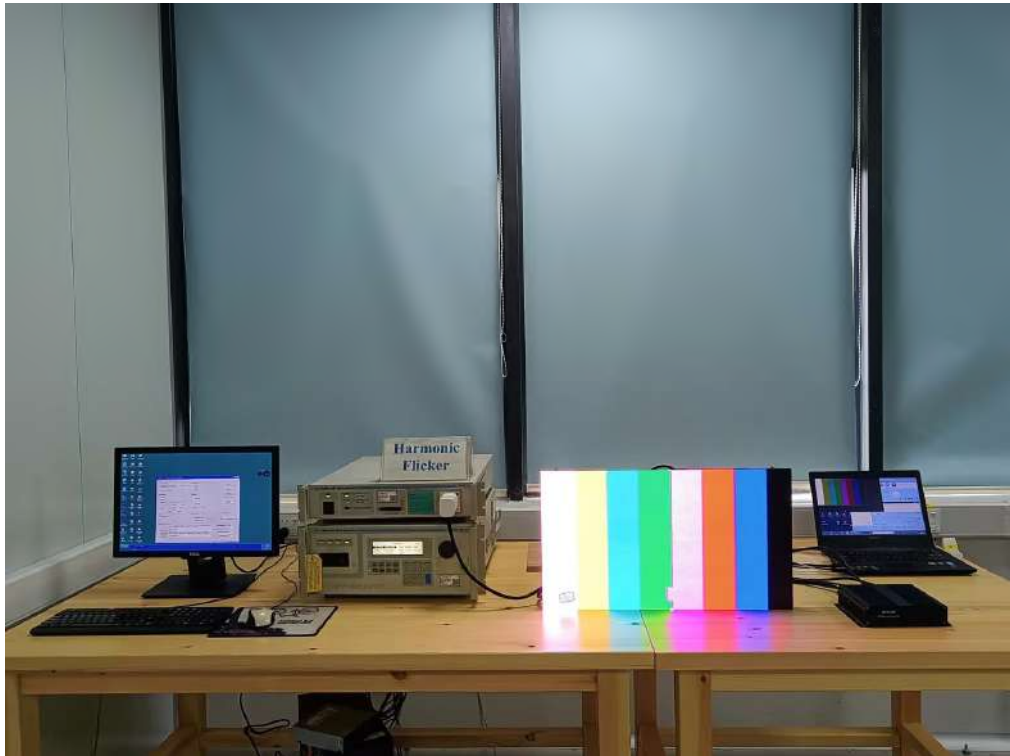
5.1.2 Voltage Fluctuations on AC Mains

RESULT:**Pass****Test Specification**

| | | |
|-----------------------------------|---|----------------------------------|
| Basic standard | : | EN 61000-3-3:2013+A1+A2 |
| Measurement equipment requirement | : | IEC 61000-4-15 |
| Limits | : | EN 61000-3-3:2013+A1+A2 Clause 5 |

Test Setup

| | | |
|-------------------------|---|----------------|
| Date of testing | : | 2024.06.15 |
| Input voltage | : | AC 230V, 50Hz |
| Operation mode | : | A (Worst mode) |
| Test observation period | : | 120 min |
| Temperature | : | 22.8°C |
| Humidity | : | 55.8% |
| Air pressure | : | 101.52kPA |

Photograph 2: Set-up for Voltage Changes, Voltage Fluctuations and Flicker

Test Result
Table 2: Voltage Changes, Voltage Fluctuations and Flicker

| Parameter | Pst | Plt | Tmax (ms) | dc% | dmax% |
|--------------|-------|-------|--------------|-----|-------|
| Limit | 1 | 0.65 | 500 | 3.3 | 4 |
| T MAX COB0.7 | 0.273 | 0.267 | 0 | 0 | 0 |

5.1.3 Conducted Emission from the AC Mains Power Ports

RESULT:**Pass****Test Specification**

| | | |
|--------------------|---|--------------------------------|
| Family Standard(s) | : | EN 55032:2015+A11+A1 |
| Equipment Class | : | Class A |
| Ports | : | AC mains power port |
| Frequency range | : | 150kHz-30MHz |
| Test site | : | Shielded Room |
| Limits | : | EN 55032:2015+A11+A1 Table A.9 |

Test Set-up

| | | |
|--------------------|---|---------------------|
| Date of testing | : | Refer to appendix 1 |
| Input Voltage | : | Refer to appendix 1 |
| Operational Mode | : | A, B |
| Test configuration | : | Tabletop |
| Artificial hand | : | Not Applied |
| Temperature | : | Refer to appendix 1 |
| Humidity | : | Refer to appendix 1 |
| Air pressure | : | Refer to appendix 1 |

Photograph 3: Set-up for Conducted Emission from the AC mains power ports



Test Result

Measurement uncertainty: 2.16 dB(k=2, $\sigma = 95\%$)

If the result of the measurement with the Quasi Peak detector is below the Average limit, the measurement with Average Detector will be omitted.

Disturbances other than those mentioned are small or not detectable.

For measurement records, please refer to appendix 1.

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5.1.4 Conducted Emissions on Wired Network Ports

RESULT:**N/A****Test Specification**

| | | |
|--------------------|---|---------------------------------|
| Family Standard(s) | : | EN 55032:2015+A11+A1 |
| Equipment Class | : | Class A |
| Ports | : | Wired network port (LAN RJ45) |
| Frequency range | : | 150kHz-30MHz |
| Test site | : | Shielded Room |
| Limits | : | EN 55032:2015+A11+A1 Table A.11 |

According to electrical character and usage of EUT, there is no telecommunication and network port incorporated, Therefore this test is not applicable for this test.

5.1.5 Conducted Emissions on Optical Fibre Ports

RESULT:**N/A****Test Specification**

| | | |
|--------------------|---|---------------------------------|
| Family Standard(s) | : | EN 55032:2015+A11+A1 |
| Equipment Class | : | Class A |
| Ports | : | Optical Fibre Ports |
| Frequency range | : | 150kHz-30MHz |
| Test site | : | Shielded Room |
| Limits | : | EN 55032:2015+A11+A1 Table A.11 |

According to electrical character and usage of EUT, there is no Optical Fibre ports with metallic shield or tension members incorporated. Therefore this test is not applicable for this EUT.

5.1.6 Conducted Emissions on Broadcast Receiver Tuner Ports

RESULT:**N/A****Test Specification**

| | | |
|--------------------|---|---------------------------------|
| Family Standard(s) | : | EN 55032:2015+A11+A1 |
| Equipment Class | : | Class A |
| Ports | : | Broadcast receiver tuner ports |
| Frequency range | : | 150kHz-30MHz |
| Test site | : | Shielded Room |
| Limits | : | EN 55032:2015+A11+A1 Table A.12 |

This is a class A equipment and according to electrical character and usage of EUT, there is no broadcast receiver tuner ports incorporated. Therefore this test for Class B equipment is not applicable for this EUT.

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Test Report No.

CN24DBVY 001

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5.1.7 Conducted Emissions on Antenna Ports

RESULT:**N/A****Test Specification**

| | | |
|--------------------|---|---------------------------------|
| Family Standard(s) | : | EN 55032:2015+A11+A1 |
| Equipment Class | : | Class A |
| Ports | : | Antenna port |
| Frequency range | : | 150kHz-30MHz |
| Test site | : | Shielded Room |
| Limits | : | EN 55032:2015+A11+A1 Table A.11 |

According to electrical character and usage of EUT, there is no antenna ports incorporated. Therefore this test is not applicable for this EUT.

5.2 Emission in the Frequency Range above 30 MHz

5.2.1 Conducted Emissions on TV Broadcast Receiver Tuner Ports

RESULT: N/A

Test Specification

| | | |
|--------------------|---|-----------------------------------|
| Family Standard(s) | : | EN 55032:2015+A11+A1 |
| Equipment Class | : | Class A |
| Ports | : | TV Broadcast Receiver Tuner Ports |
| Frequency range | : | 30MHz-2150MHz |
| Test site | : | Shielded Room |
| Limits | : | EN 55032:2015+A11+A1 table A.13 |

According to electrical character and usage of EUT, there is no TV Broadcast Receiver Tuner Ports with an accessible connector incorporated. Therefore this test is not applicable for this EUT.

5.2.2 Conducted Emissions on RF Modulator Output Ports

RESULT: N/A

Test Specification

| | | |
|--------------------|---|---------------------------------|
| Family Standard(s) | : | EN 55032:2015+A11+A1 |
| Equipment Class | : | Class A |
| Ports | : | RF Modulator Output Ports |
| Frequency range | : | 30MHz-2150MHz |
| Test site | : | Shielded Room |
| Limits | : | EN 55032:2015+A11+A1 table A.13 |

According to electrical character and usage of EUT, there is no RF Modulator Output Ports incorporated. Therefore this test is not applicable for this EUT.

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5.2.3 Conducted Emissions on FM Broadcast Receiver Tuner Ports

RESULT:**N/A****Test Specification**

| | | |
|--------------------|---|-----------------------------------|
| Family Standard(s) | : | EN 55032:2015+A11+A1 |
| Equipment Class | : | Class A |
| Ports | : | FM Broadcast Receiver Tuner Ports |
| Frequency range | : | 30MHz-2150MHz |
| Test site | : | Shielded Room |
| Limits | : | EN 55032:2015+A11+A1 table A.13 |

According to electrical character and usage of EUT, there is no FM Broadcast Receiver Tuner Ports with an accessible connector incorporated. Therefore this test is not applicable for this EUT.

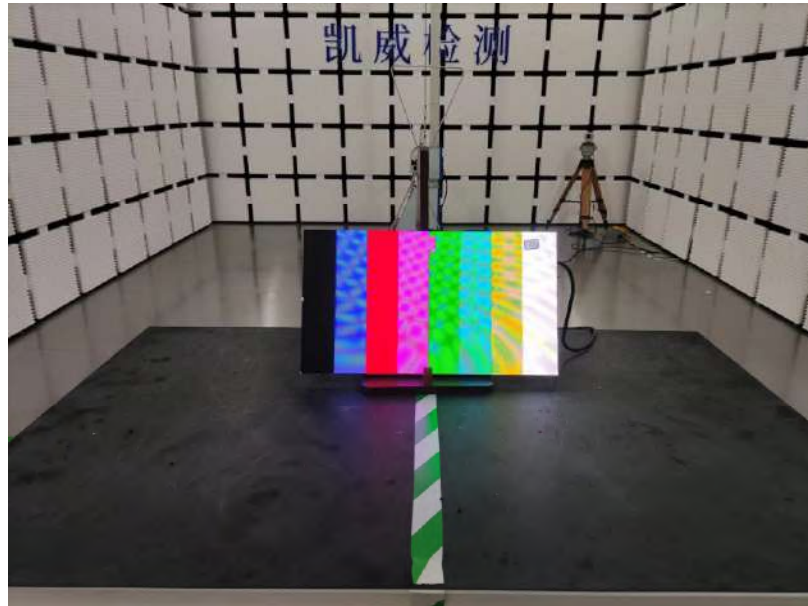
5.2.4 Radiated Disturbance**RESULT:****Pass****Test Specification**

| | | |
|--------------------|---|--------------------------------|
| Family Standard(s) | : | EN 55032:2015+A11+A1 |
| Equipment Class | : | Class A |
| Ports | : | Enclosure |
| Frequency range | : | 30MHz-6GHz |
| Test site | : | 3m SAC/FAR |
| Limits | : | EN 55032:2015+A11+A1 Table A.2 |

Test Set-up

| | | |
|--------------------|---|---------------------|
| Date of testing | : | Refer to appendix 1 |
| Input Voltage | : | Refer to appendix 1 |
| Operational Mode | : | A, B |
| Test configuration | : | Tabletop |
| Temperature | : | Refer to appendix 1 |
| Humidity | : | Refer to appendix 1 |
| Air pressure | : | Refer to appendix 1 |

Photograph 4: Set-up for Radiated Disturbance



Test Result

Measurement uncertainty: 3.29 dB ($k=2$, $\sigma=95\%$) (30 MHz to 6000MHz)

Disturbances other than those mentioned are small or not detectable.

For measurement records, please refer to appendix 1.

5.2.5 Radiated emissions from FM receivers

RESULT: N/A

Test Specification

| | | |
|---------------------|---|---------------------------------|
| Test procedure | : | EN 55032:2015+A11+A1, Annex C |
| Applicable Standard | : | EN 55032:2015+A11+A1 |
| Frequency range | : | 30MHz-1000MHz |
| Test port | : | Enclosure |
| Limits | : | EN 55032:2015+A11+A1, table A.6 |

According to electrical character and usage of EUT, there is no FM receivers incorporated. Therefore this test is not applicable for this EUT.

5.2.6 Radiated Emissions from Outdoor units of home Satellite Receivers

RESULT: N/A

Test Specification

| | | |
|---------------------|---|---------------------------------|
| Test procedure | : | EN 55032:2015+A11+A1, Annex H |
| Applicable Standard | : | EN 55032:2015+A11+A1 |
| Frequency range | : | 30MHz-18000MHz |
| Test port | : | Enclosure |
| Limits | : | EN 55032:2015+A11+A1, table A.7 |

According to electrical character and usage of EUT, there is no Outdoor units of home Satellite Receivers incorporated. Therefore this test is not applicable for this EUT.

6. Test Results IMMUNITY

6.1 Test Summary

According to EN 55035:2017+A11 the EUT shall fulfill the requirement of:

| | |
|--|--|
| Power-frequency Magnetic Field | Criterion A |
| Radio-frequency electromagnetic field Amplitude modulated | Criterion A |
| Radio-frequency Common Mode / Conducted Susceptibility (CS) | Criterion A |
| Electrical Fast Transients (EFT) | Criterion B |
| Broadband Impulse Noise Disturbances, Repetitive | Criterion A |
| Broadband Impulse Noise Disturbances, Isolated | Criterion B |
| Surges | Criterion B/C |
| Electrostatic Discharge (ESD) | Criterion B |
| Voltage Dips and Interruptions | Criterion B Criterion C** |

Notes:

*) Criterion C is applicable for 30% reduction in voltage dips and more than 95% reduction in voltage interruptions, while criterion B is applicable for more than 95% reduction/0.5 periods in voltage dips.

6.2 Continuous Radio Frequency Disturbances

6.2.1 Radio-frequency Common Mode / Conducted Susceptibility (CS)

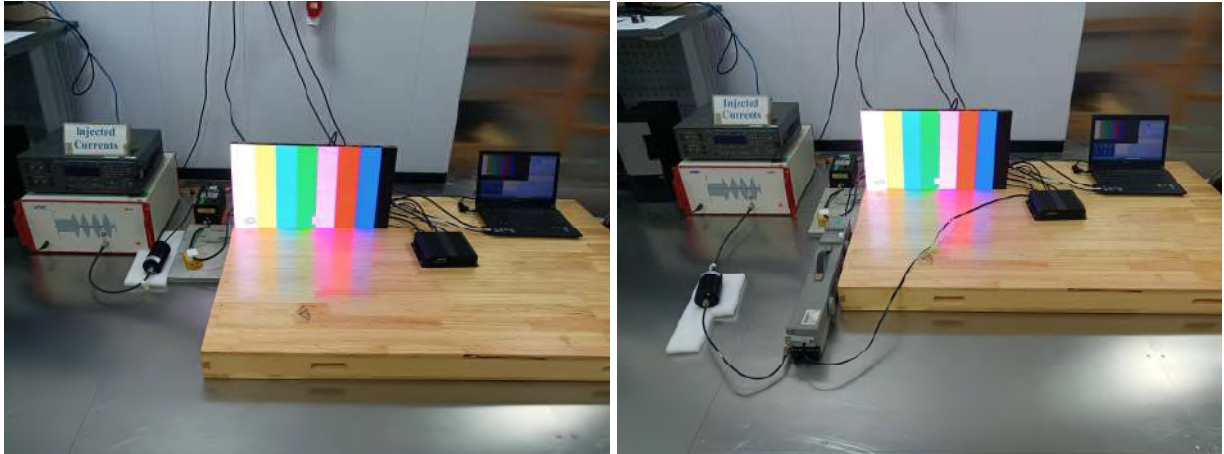
RESULT: **Pass**

Test Specification

| | | |
|---|---|---|
| Family standard | : | EN 55035:2017+A11 |
| Basic standard | : | IEC 61000-4-6 |
| Characteristics of the test generator : | | |
| Output impedance | | 50 Ω |
| Harmonics and distortion | | Any spurious spectral line at least 15 dB below the carrier level |
| Amplitude modulation | | 80 % \pm 5 % in depth, 1 kHz \pm 10 % sine wave |
| Frequency bandwidth | : | 150 kHz to 80MHz |
| Frequency step | : | 1% with 1 s dwell time |
| Performance criterion | : | A |

Test Setup

| | | |
|---------------------------------|---|----------------------|
| Date of testing | : | 2024.06.12 |
| Input voltage | : | AC240V/50Hz |
| Operation mode | : | A |
| Artificial hand | : | N/A |
| Signal lines and control lines | : | Refer to below table |
| Input and output dc power ports | : | N/A |
| Input and output ac power ports | : | Refer to below table |
| Temperature | : | 24.9°C |
| Humidity | : | 55% RH |
| Air pressure | : | 101.52 kPa |

Photograph 5: Set-up for Conducted Susceptibility (CS)

Test Result
Table 3: Injected Currents / Conducted Susceptibility (CS)

| Coupling point | Application | Level (V(r.m.s)) | Frequency(MHz) | Remark |
|--|---------------|------------------|----------------|-------------|
| Power ports | | | | |
| AC power port | CDN-M3 | 3 | 0.15-10 | Applied, *) |
| | | 3 to 1 | 10-30 | |
| | | 1 | 30-80 | |
| DC power port | EM clamp | 3 | 0.15-10 | N/A |
| | | 3 to 1 | 10-30 | |
| | | 1 | 30-80 | |
| Signal lines | | | | |
| Interconnect Lines | EM clamp | 3 | 0.15-10 | Applied, *) |
| | | 3 to 1 | 10-30 | |
| | | 1 | 30-80 | |
| USB Lines | Current Clamp | 3 to 1 | | N/A |
| Parallel Lines | Current Clamp | 3 to 1 | | N/A |
| Serial Lines | Current Clamp | 3 to 1 | | N/A |
| Other Signal/Control lines (<3m) | | | | |
| | Current Clamp | 3 to 1 | | N/A |
| | EM clamp | 3 to 1 | | N/A |

*) Remark: No degradation was observed during and after the tests.

6.2.2 Radio-frequency Electromagnetic Fields (RS)

RESULT:**Pass****Test Specification**

| | | |
|--------------------------|---|---|
| Family standard | : | EN 55035:2017+A11 |
| Basic standard | : | IEC 61000-4-3 |
| Test site | : | FAC |
| Uniform field area (UFA) | : | 1.5 m x 1.5 m, 16 points with a minimum UFA size 0.5 m x 0.5 m, 75 % of calibration points within specifications if UFA is larger than 0.5 m x 0.5 m . 100 % (all 4 points) in the specifications for 0.5 x 0.5 m UFA |
| Amplitude modulation | : | 80 % ± 5 % in depth, 1 kHz ± 10 % sine wave |
| Frequency bandwidth | : | 80MHz to 1000MHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz |
| Level | : | 3 V/m(un-modulated) |
| Frequency step | : | 1% with 1 s dwell time |
| Performance criterion | : | A |

Test Setup

| | | |
|-----------------|---|-------------|
| Date of testing | : | 2024.06.13 |
| Input voltage | : | AC240V/50Hz |
| Operation mode | : | A |
| Temperature | : | 23.9°C |
| Humidity | : | 55% RH |
| Air pressure | : | 101.52 kPa |

Photograph 6: Set-up for Radio-frequency Electromagnetic Fields (RS)

Test Result
Table 4: Immunity against Radio-frequency Electromagnetic Fields (RS)

| Side of the equipment under test | Frequency (MHz) | Antenna polarization (Vertical/Horizontal) | Remark |
|----------------------------------|-----------------|--|-------------|
| Front | 80-1000 | V and H | Applied, *) |
| Rear | | V and H | Applied, *) |
| Right | | V and H | Applied, *) |
| Left | | V and H | Applied, *) |
| Front | 1800 | V and H | Applied, *) |
| Rear | | V and H | Applied, *) |
| Right | | V and H | Applied, *) |
| Left | | V and H | Applied, *) |
| Front | 2600 | V and H | Applied, *) |
| Rear | | V and H | Applied, *) |
| Right | | V and H | Applied, *) |
| Left | | V and H | Applied, *) |
| Front | 3500 | V and H | Applied, *) |
| Rear | | V and H | Applied, *) |
| Right | | V and H | Applied, *) |
| Left | | V and H | Applied, *) |
| Front | 5000 | V and H | Applied, *) |
| Rear | | V and H | Applied, *) |
| Right | | V and H | Applied, *) |
| Left | | V and H | Applied, *) |

*) Remark: No degradation was observed during and after the tests.

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6.2.3 Power-frequency Magnetic Field

RESULT:**N/A****Test Specification**

| | | |
|-----------------------|---|-------------------|
| Family standard | : | EN 55035:2017+A11 |
| Basic standard | : | IEC 61000-4-8 |
| Test Level (A/m) | : | 1A/m |
| Frequency | : | 50Hz |
| Performance criterion | : | A |

The EUT does not contain devices susceptible to magnetic fields, such as CRT monitors, Hall elements, electrodynamic microphones, magnetic field sensors, etc.
Therefore, this test is not applicable and skipped.

6.3 Transient Disturbances

6.3.1 Broadband Impulse Noise Disturbances, Repetitive

RESULT:**N/A****Test Specification**

| | |
|-----------------------|--|
| Family standard | : EN 55035:2017+A11 |
| Basic standard | : Clause 4.2.7 |
| Impulse frequency | : 0.15-0.5MHz; 0.5-10MHz; 10-30MHz |
| Test level | : 107dB μ V; 107-36dB μ V; 36-30dB μ V |
| Burst duration | : 0.70 ms |
| Burst period | : 8.3 ms (60Hz), 10 ms (50Hz) |
| Performance criterion | : A |

According to electrical character and usage of EUT, there is no CPE xDSL ports incorporated. Therefore this test is not applicable for this EUT.

6.3.2 Broadband Impulse Noise Disturbances, Isolated

RESULT:**N/A****Test Specification**

| | |
|-----------------------|------------------------|
| Family standard | : EN 55035:2017+A11 |
| Basic standard | : Clause 4.2.7 |
| Impulse frequency | : 0.15-30MHz |
| Test level | : 110dB μ V |
| Burst duration | : 0.24 ms, 10ms, 300ms |
| Performance criterion | : B |

According to electrical character and usage of EUT, there is no CPE xDSL ports incorporated. Therefore this test is not applicable for this EUT.

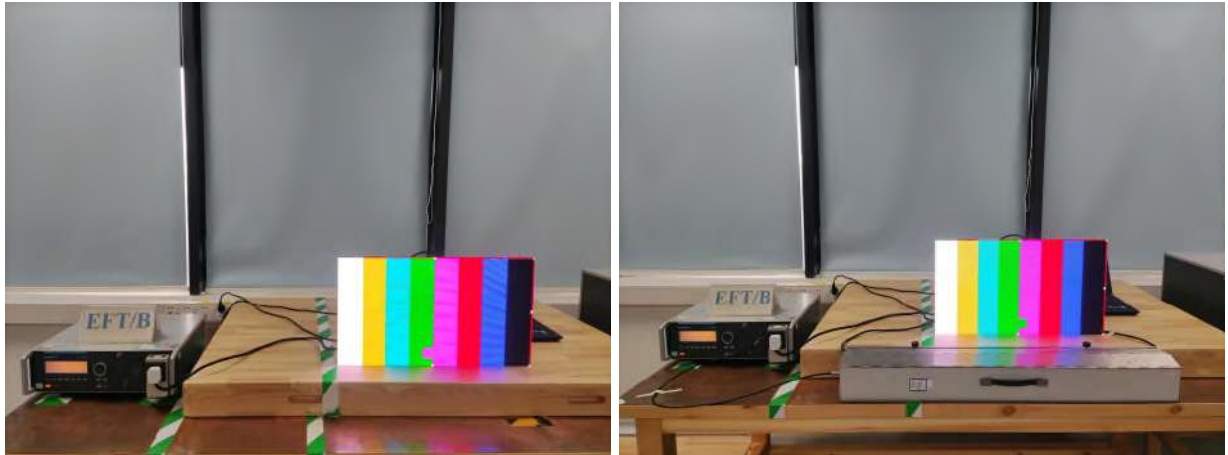
6.3.3 Electrical Fast Transients (EFT)

RESULT:**Pass****Test Specification**

| | | |
|---|---|--|
| Family standard | : | EN 55035:2017+A11 |
| Basic standard | : | IEC 61000-4-4 |
| Wave shape of the pulse in 50 Ω load | : | |
| Rise time | : | 5 ns \pm 30 % |
| Duration | : | 50 ns \pm 30 % |
| Wave shape into 1 k Ω load | : | |
| Rise time: | : | 5 ns \pm 30 % |
| Duration | : | 50 ns with a tolerance of -15 ns to + 100 ns |
| Burst duration | : | 15 ms \pm 20 % at 5 kHz |
| Burst period | : | 300 ms \pm 20 % |
| Repetition frequency: | : | 5 kHz |
| Polarity | : | Positive and negative |
| Time of application | : | 2 minutes |
| Performance criterion | : | B |

Test Setup

| | | |
|----------------------|---|-------------|
| Date of testing | : | 2024.06.12 |
| Input voltage | : | AC240V/50Hz |
| Operation mode | : | A |
| Artificial hand | : | N/A |
| Input ac power ports | : | 1KV |
| Signal ports | : | 0.5kV |
| Temperature | : | 22.8°C |
| Humidity | : | 53% RH |
| Air pressure | : | 101.52kPa |

Photograph 7: Set-up for Electrical Fast Transients (EFT)

Test Result
Table 5: Electrical Fast Transients (EFT)

| Coupling point | Application | Level (kV) | Polarity | Remark |
|----------------------|------------------|------------|----------|-------------|
| Power ports | | | | |
| AC power port | Coupling network | 1 | + | Applied, *) |
| | | 1 | - | Applied, *) |
| DC power port | Coupling network | 1, 2 | + | N/A |
| | | 1, 2 | - | N/A |
| Signal lines | | | | |
| Interconnect Lines | Coupling clamp | 0.5 | + | Applied, *) |
| | | 0.5 | - | Applied, *) |
| Control lines | | | | |
| | Coupling clamp | 0.5 | +/- | N/A |

*) Remark: No degradation was observed during and after the tests

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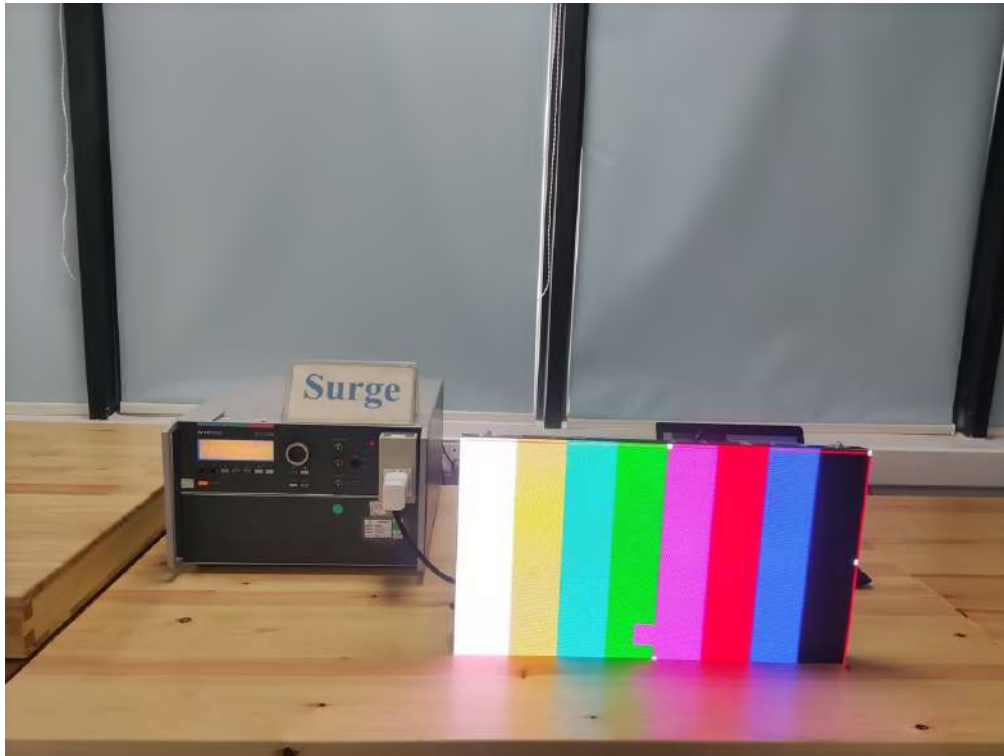
6.3.4 Surge

RESULT:**Pass****Test Specification**

| | | |
|---|---|---|
| Family standard | : | EN 55035:2017+A11 |
| Basic standard | : | IEC 61000-4-5 |
| Definitions of the waveform parameters | : | |
| Front time | | 1.2 μ s \pm 30 % for mains 10 μ s \pm 30 % for telecommunication ports |
| Time to half value | | 50 μ s \pm 20 % for mains 700 μ s \pm 20 % for telecommunication ports |
| Source impedance | | |
| Power line symmetrical | : | 2 Ω + 18 μ F |
| Power line unsymmetrical | : | 12 Ω + 9 μ F |
| interconnection lines symmetrical | : | 160 Ω |
| interconnection lines unsymmetrical | : | 40 Ω |
| Polarity | : | Positive and negative |
| Number of surges / polarity /phase angle: | | 5 |
| Phase angles | : | 0, π /2, π ,3 π /2 |
| Repetition rate | : | 60 s |
| Performance criterion | : | B or C |

Test Setup

| | | |
|-----------------|---|-------------|
| Date of testing | : | 2024.06.12 |
| Input voltage | : | AC240V/50Hz |
| Operation mode | : | A |
| Artificial hand | : | N/A |
| Temperature | : | 24.9°C |
| Humidity | : | 55% RH |
| Air pressure | : | 101.52kPa |

Photograph 8: Set-up for Surge

Test Result
Table 6: Surge

| Coupling point | Application | Level (kV) | Polarity | Remark |
|-------------------|--------------------------------------|------------|----------|-------------|
| AC power port | Between phase and neutral | 0.5,1 | + | Applied, *) |
| | | 0.5,1 | - | Applied, *) |
| AC power port | Between phase and protective earth | 0.5,1,2 | + | Applied, *) |
| | | 0.5,1,2 | - | Applied, *) |
| AC power port | Between neutral and protective earth | 0.5,1,2 | + | Applied, *) |
| | | 0.5,1,2 | - | Applied, *) |
| Interconnect port | Lines to ground (10/700µs) | 1 | + | N/A, **) |
| | | 1 | - | N/A, **) |

*) Remark: No degradation was observed during and after the tests

***) The Interconnect port not belong to network port, Therefore this test is not applicable.

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6.3.5 Electrostatic Discharges (ESD) Immunity

RESULT:**Pass****Test Specification**

| | |
|-----------------------|---|
| Family standard | : EN 55035:2017+A11 |
| Basic standard | : IEC 61000-4-2 |
| Discharge impedance | : 330 Ω / 150 pF |
| No. of discharges | : Contact discharge: ≥ 25 Air discharge: ≥ 10 |
| Type of discharge | : |
| Direct discharge | Air discharge, $\pm 2, 4, 8$ kV Contact discharge, ± 4 kV |
| Indirect discharge | Contact discharge, ± 4 kV |
| Polarity | : Positive and negative |
| Discharge location | : See photo documentation of the test set-up All external locations accessible by hand Horizontal coupling plate (HCP) Vertical coupling plate (VCP) |
| Performance criterion | : B |

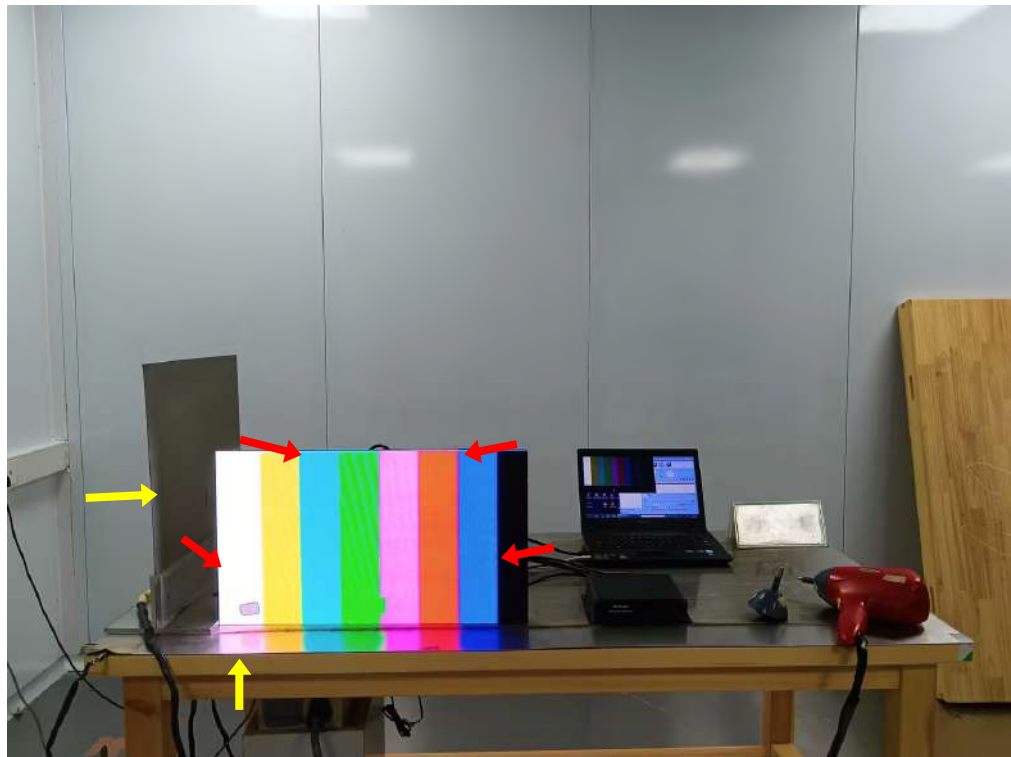
Test Setup

| | |
|-----------------|---------------|
| Date of testing | : 2024.06.12 |
| Input voltage | : AC240V/50Hz |
| Operation mode | : A |
| Temperature | : 24.7°C |
| Humidity | : 55% RH |
| Air pressure | : 101.52kPa |

Photograph 9: Set-up for Electrostatic Discharge

⚡ Contact Discharge ±4kV

⚡ Air Discharge ±2, 4, 8kV


Test Result

| Direct discharges | | | |
|--|-----------------------------------|----------|-------------|
| Air discharges Discharge location | Air discharge voltage (kV) | Polarity | Remark |
| Refer to Photograph of ESD | 2, 4, 8 | ± | Applied, *) |
| Non-conducted parts | 2, 4, 8 | ± | Applied, *) |
| Contact discharges Discharge location | Contact discharge voltage (kV) | Polarity | Remark |
| Refer to Photograph of ESD | 4 | ± | N/A |
| Conducted parts | 4 | ± | Applied, *) |
| Indirect discharges | | | |
| Contact discharges Discharge location | Contact discharge voltage (kV) | Polarity | Remark |
| VCP | 4 | ± | Applied, *) |
| HCP | 4 | ± | Applied, *) |

*) Remark: No degradation was observed during and after the tests.

6.4 Power Supply Alterations

6.4.1 Voltage Dip and Interruptions

RESULT:**Pass****Test Specification**

| | |
|--|---------------------------------|
| Family standard | : EN 55035:2017+A11 |
| Basic standard | : IEC 61000-4-11 |
| Test voltage generator characteristics for interruptions | : |
| Rise time | Between 1 μ s and 5 μ s |
| Fall time | Between 1 μ s and 5 μ s |
| Output impedance of the test voltage generator | : $<(0.4 + j 0.25 \Omega)$ |
| Phase angle | : 0° |
| Nominal mains voltage (Ut) | : 100V-240VAC |
| Rated frequency | : 50/60Hz |
| No. of interruptions | : 3 |
| No. of voltage dips | : 3 |
| Interval | : >10s |
| Performance criterion | : B +C |

Test Setup

| | |
|-----------------|--------------------------------------|
| Date of testing | : 2024.06.12 |
| Input voltage | : AC 240V, 60Hz and AC 240V, 50Hz |
| Operation mode | : A |
| Temperature | : 24.7°C |
| Humidity | : 57% RH |
| Air pressure | : 101.52kPa |

Photograph 10: Set-up for Voltage Dip and Interruptions

Test Result
Table 7: Voltage Dips and Interruptions

| Interruptions | | | |
|-------------------|-----------------------|-------------------------|--------------|
| Test level (% Ut) | Duration (in periods) | Number of interruptions | Result |
| 0 | 250/300 | 3 | Applied, **) |
| Voltage dips | | | |
| Test level (% Ut) | Duration (in periods) | Number of voltage dips | Result |
| 0 | 0.5 | 3 | Applied, *) |
| 70 | 25/30 | 3 | Applied, *) |

*) Remark: No degradation was observed during and after the tests.

**) Remark: Interstitial stops working, but can automatically resume normal after testing.

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Fig 001

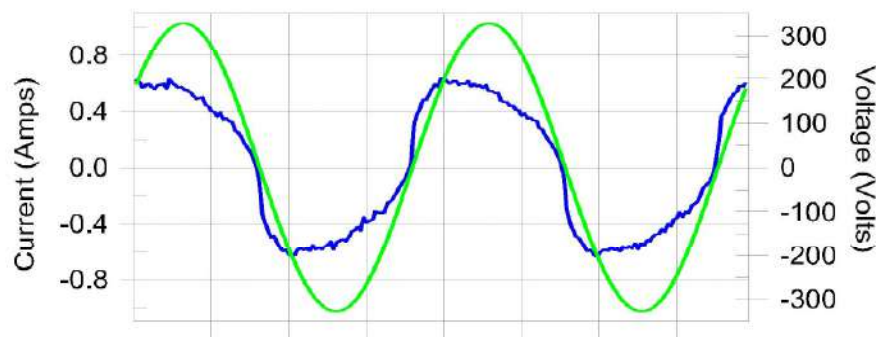
California Instruments
San Diego, California

Harmonics – Class-A per IEC 61000-3-2:2018/AMD1:2020(Run time)

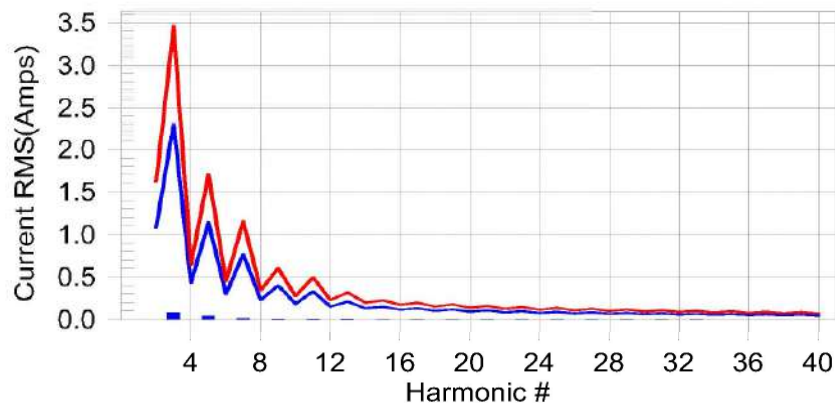
EUT: LED Display M/N: T MAX COB0.7
Test category: Class-A (European limits)
Test date: 2024-6-15 Start time: 10:02:06 End time: 10:04:47
Test duration (min): 2.5 Data file name: H-000076.cts_data
Comment: White Screen Temp:22.8°; Humi:55.8%; Press:101.52kPa
Customer: CQ24010037

Test Result: Pass Source qualification: Normal

Current & voltage waveforms



Harmonics and Class A limit line European Limits



Test result: Pass Worst harmonics H13-3.8% of 150% limit, H13-5.5% of 100% limit

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California Instruments
San Diego, California

Current Test Result Summary (Run time)

EUT: LED Display M/N: T MAX COB0.7
Test category: Class-A (European limits)
Test date: 2024-6-15
Test duration (min): 2.5
Comment: White Screen Temp:22.8'; Humi:55.8%; Press:101.52kPa
Customer: CQ24010037

Tested by: Billy
Test Margin: 100
Start time: 10:02:06
End time: 10:04:47
Data file name: H-000076.cts_data

Test Result: Pass Source qualification: Normal
THC(A): 0.100 I-THD(%): 21.8 POHC(A): 0.011 POHC Limit(A): 0.251

Highest parameter values during test:

V_RMS (Volts): 232.16
I_Peak (Amps): 0.681
I_Fund (Amps): 0.458
Power (Watts): 102.4

Frequency(Hz): 50.00
I_RMS (Amps): 0.469
Crest Factor: 1.453
Power Factor: 0.942

| Harm# | Harms(avg) | 100%Limit | %of Limit | Harms(max) | 150%Limit | %of Limit | Status |
|-------|------------|-----------|-----------|------------|-----------|-----------|--------|
| 2 | 0.001 | 1.080 | N/A | 0.001 | 1.620 | N/A | Pass |
| 3 | 0.085 | 2.300 | 3.7 | 0.085 | 3.450 | 2.5 | Pass |
| 4 | 0.001 | 0.430 | N/A | 0.002 | 0.645 | N/A | Pass |
| 5 | 0.043 | 1.140 | 3.8 | 0.044 | 1.710 | 2.6 | Pass |
| 6 | 0.001 | 0.300 | N/A | 0.001 | 0.450 | N/A | Pass |
| 7 | 0.017 | 0.770 | 2.2 | 0.017 | 1.155 | 1.5 | Pass |
| 8 | 0.001 | 0.230 | N/A | 0.001 | 0.345 | N/A | Pass |
| 9 | 0.012 | 0.400 | 3.0 | 0.012 | 0.600 | 2.0 | Pass |
| 10 | 0.001 | 0.184 | N/A | 0.001 | 0.276 | N/A | Pass |
| 11 | 0.013 | 0.330 | 3.8 | 0.013 | 0.495 | 2.6 | Pass |
| 12 | 0.001 | 0.153 | N/A | 0.001 | 0.230 | N/A | Pass |
| 13 | 0.012 | 0.210 | 5.5 | 0.012 | 0.315 | 3.8 | Pass |
| 14 | 0.001 | 0.131 | N/A | 0.001 | 0.197 | N/A | Pass |
| 15 | 0.008 | 0.150 | 5.2 | 0.008 | 0.225 | 3.6 | Pass |
| 16 | 0.000 | 0.115 | N/A | 0.001 | 0.173 | N/A | Pass |
| 17 | 0.005 | 0.132 | 4.1 | 0.006 | 0.198 | 2.9 | Pass |
| 18 | 0.000 | 0.102 | N/A | 0.001 | 0.153 | N/A | Pass |
| 19 | 0.005 | 0.118 | 4.3 | 0.005 | 0.178 | 3.0 | Pass |
| 20 | 0.000 | 0.092 | N/A | 0.001 | 0.138 | N/A | Pass |
| 21 | 0.005 | 0.107 | 5.0 | 0.006 | 0.161 | 3.5 | Pass |
| 22 | 0.001 | 0.084 | N/A | 0.001 | 0.125 | N/A | Pass |
| 23 | 0.004 | 0.098 | N/A | 0.004 | 0.147 | N/A | Pass |
| 24 | 0.000 | 0.077 | N/A | 0.001 | 0.115 | N/A | Pass |
| 25 | 0.003 | 0.090 | N/A | 0.004 | 0.135 | N/A | Pass |
| 26 | 0.000 | 0.071 | N/A | 0.001 | 0.107 | N/A | Pass |
| 27 | 0.004 | 0.083 | N/A | 0.004 | 0.125 | N/A | Pass |
| 28 | 0.001 | 0.066 | N/A | 0.001 | 0.099 | N/A | Pass |
| 29 | 0.003 | 0.078 | N/A | 0.004 | 0.116 | N/A | Pass |
| 30 | 0.001 | 0.061 | N/A | 0.001 | 0.092 | N/A | Pass |
| 31 | 0.003 | 0.073 | N/A | 0.004 | 0.109 | N/A | Pass |
| 32 | 0.001 | 0.058 | N/A | 0.001 | 0.086 | N/A | Pass |
| 33 | 0.003 | 0.068 | N/A | 0.004 | 0.102 | N/A | Pass |
| 34 | 0.000 | 0.054 | N/A | 0.001 | 0.081 | N/A | Pass |
| 35 | 0.002 | 0.064 | N/A | 0.002 | 0.096 | N/A | Pass |
| 36 | 0.000 | 0.051 | N/A | 0.001 | 0.077 | N/A | Pass |
| 37 | 0.002 | 0.061 | N/A | 0.002 | 0.091 | N/A | Pass |
| 38 | 0.000 | 0.048 | N/A | 0.000 | 0.073 | N/A | Pass |
| 39 | 0.002 | 0.058 | N/A | 0.002 | 0.087 | N/A | Pass |
| 40 | 0.000 | 0.046 | N/A | 0.000 | 0.069 | N/A | Pass |

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California Instruments
 San Diego, California

Voltage Source Verification Data (Run time)

EUT: LED Display M/N: T MAX COB0.7
 Test category: Class-A (European limits)
 Test date: 2024-6-15
 Test duration (min): 2.5
 Comment: White Screen Temp:22.8'; Humi:55.8%; Press:101.52kPa
 Customer: CQ24010037

Tested by: Billy
 Test Margin: 100
 Start time: 10:02:06
 End time: 10:04:47
 Data file name: H-000076.cts_data

Test Result: Pass Source qualification: Normal

Highest parameter values during test:

| | |
|---------------------------------|--------------------------------|
| Voltage (Vrms): 232.16 | Frequency(Hz): 50.00 |
| I _{Peak} (Amps): 0.681 | I _{RMS} (Amps): 0.469 |
| I _{Fund} (Amps): 0.458 | Crest Factor: 1.453 |
| Power (Watts): 102.4 | Power Factor: 0.942 |

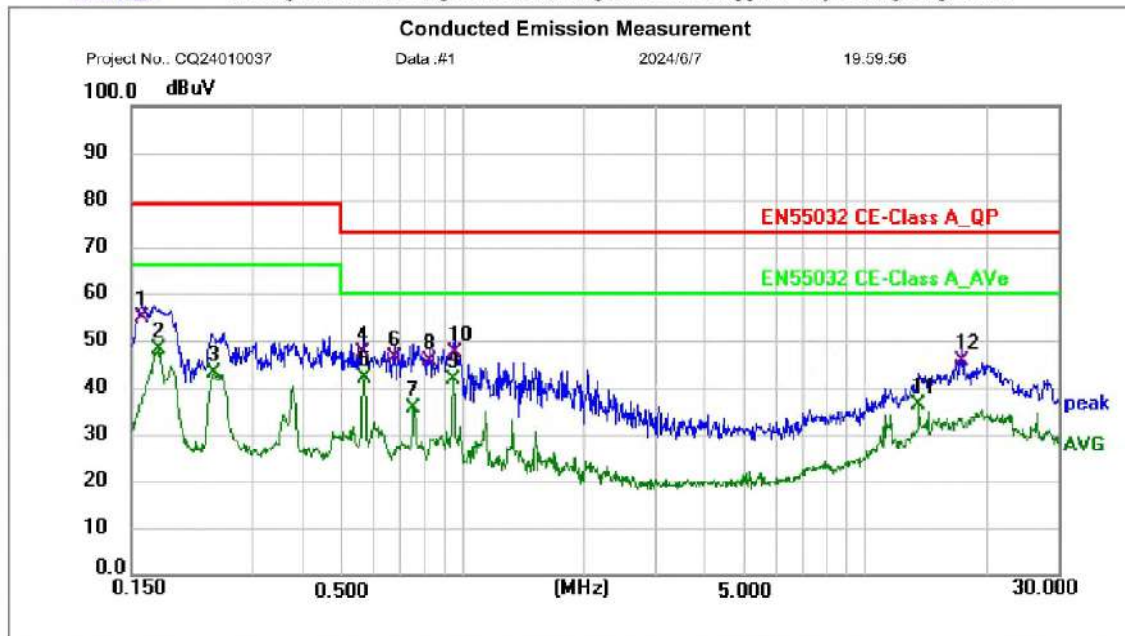
| Harm# | Harmonics V-rms | Limit V-rms | % of Limit | Status |
|-------|-----------------|-------------|------------|--------|
| 2 | 0.065 | 0.464 | 14.07 | OK |
| 3 | 0.475 | 2.089 | 22.73 | OK |
| 4 | 0.043 | 0.464 | 9.22 | OK |
| 5 | 0.065 | 0.929 | 7.01 | OK |
| 6 | 0.028 | 0.464 | 6.09 | OK |
| 7 | 0.040 | 0.696 | 5.71 | OK |
| 8 | 0.012 | 0.464 | 2.66 | OK |
| 9 | 0.033 | 0.464 | 7.11 | OK |
| 10 | 0.014 | 0.464 | 3.00 | OK |
| 11 | 0.010 | 0.232 | 4.36 | OK |
| 12 | 0.015 | 0.232 | 6.25 | OK |
| 13 | 0.013 | 0.232 | 5.67 | OK |
| 14 | 0.009 | 0.232 | 3.80 | OK |
| 15 | 0.015 | 0.232 | 6.35 | OK |
| 16 | 0.013 | 0.232 | 5.47 | OK |
| 17 | 0.008 | 0.232 | 3.61 | OK |
| 18 | 0.014 | 0.232 | 6.14 | OK |
| 19 | 0.009 | 0.232 | 4.04 | OK |
| 20 | 0.019 | 0.232 | 8.34 | OK |
| 21 | 0.009 | 0.232 | 4.09 | OK |
| 22 | 0.006 | 0.232 | 2.69 | OK |
| 23 | 0.009 | 0.232 | 3.77 | OK |
| 24 | 0.005 | 0.232 | 2.07 | OK |
| 25 | 0.007 | 0.232 | 3.07 | OK |
| 26 | 0.004 | 0.232 | 1.93 | OK |
| 27 | 0.007 | 0.232 | 2.96 | OK |
| 28 | 0.005 | 0.232 | 2.31 | OK |
| 29 | 0.006 | 0.232 | 2.68 | OK |
| 30 | 0.004 | 0.232 | 1.75 | OK |
| 31 | 0.006 | 0.232 | 2.67 | OK |
| 32 | 0.004 | 0.232 | 1.94 | OK |
| 33 | 0.005 | 0.232 | 2.01 | OK |
| 34 | 0.004 | 0.232 | 1.88 | OK |
| 35 | 0.006 | 0.232 | 2.54 | OK |
| 36 | 0.004 | 0.232 | 1.51 | OK |
| 37 | 0.005 | 0.232 | 2.17 | OK |
| 38 | 0.004 | 0.232 | 1.54 | OK |
| 39 | 0.008 | 0.232 | 3.24 | OK |
| 40 | 0.009 | 0.232 | 4.02 | OK |

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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Phase: **N** Temperature: 23.5 °C
Limit: EN55032 CE-Class A_QP Power: AC100V/60Hz Humidity: 54 %RH
EUT: LED Display
M/N: T MAX COB0.7
Mode: Color bar Movement
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 | 0.160 | 44.64 | 10.02 | 54.66 | 79.00 | -24.34 | QP | P | |
| 2 * | 0.175 | 37.89 | 9.98 | 47.87 | 66.00 | -18.13 | AVG | P | |
| 3 | 0.240 | 33.00 | 10.01 | 43.01 | 66.00 | -22.99 | AVG | P | |
| 4 | 0.567 | 37.33 | 9.91 | 47.24 | 73.00 | -25.76 | QP | P | |
| 5 | 0.569 | 31.92 | 9.91 | 41.83 | 60.00 | -18.17 | AVG | P | |
| 6 | 0.678 | 36.20 | 10.06 | 46.26 | 73.00 | -26.74 | QP | P | |
| 7 | 0.758 | 25.29 | 10.13 | 35.42 | 60.00 | -24.58 | AVG | P | |
| 8 | 0.833 | 35.43 | 10.08 | 45.51 | 73.00 | -27.49 | QP | P | |
| 9 | 0.948 | 31.72 | 9.97 | 41.69 | 60.00 | -18.31 | AVG | P | |
| 10 | 0.954 | 37.31 | 9.96 | 47.27 | 73.00 | -25.73 | QP | P | |
| 11 | 13.559 | 26.22 | 10.19 | 36.41 | 60.00 | -23.59 | AVG | P | |
| 12 | 17.411 | 35.21 | 10.28 | 45.49 | 73.00 | -27.51 | QP | P | |

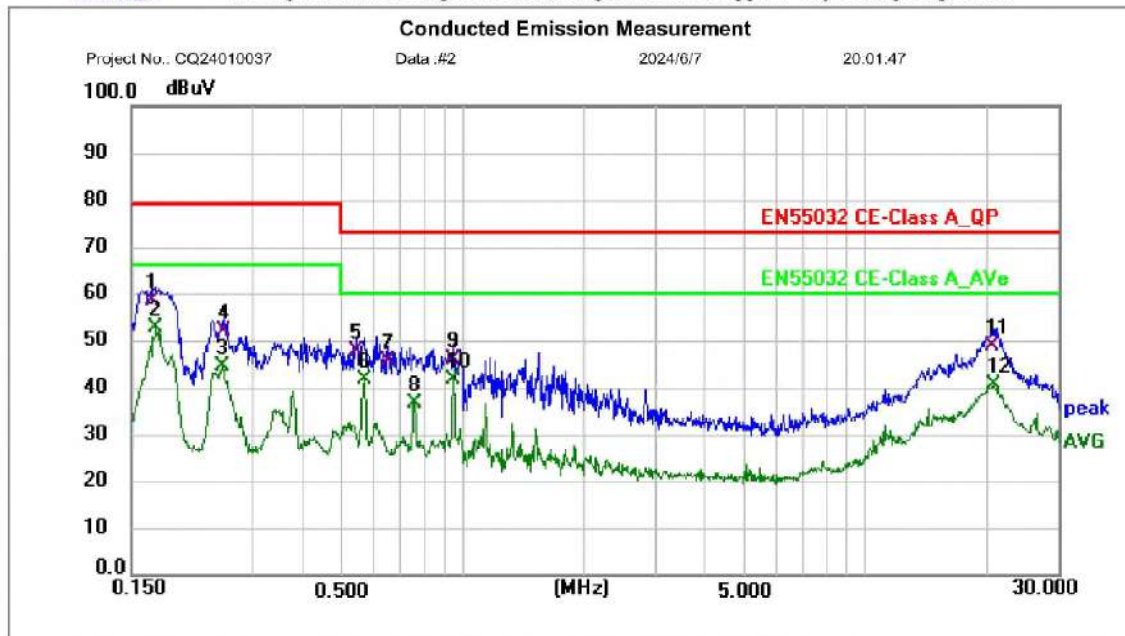
*:Maximum data x:Over limit !:over margin

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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Phase: **L1** Temperature: 23.5 °C
Limit: EN55032 CE-Class A_QP Power: AC100V/60Hz Humidity: 54 %RH
EUT: LED Display
M/N: T MAX COB0.7
Mode: Color bar Movement
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 | 0.170 | 48.46 | 9.90 | 58.36 | 79.00 | -20.64 | QP | P | |
| 2 * | 0.173 | 42.82 | 9.92 | 52.74 | 66.00 | -13.26 | AVG | P | |
| 3 | 0.253 | 34.30 | 10.05 | 44.35 | 66.00 | -21.65 | AVG | P | |
| 4 | 0.257 | 41.76 | 10.03 | 51.79 | 79.00 | -27.21 | QP | P | |
| 5 | 0.545 | 37.77 | 10.06 | 47.83 | 73.00 | -25.17 | QP | P | |
| 6 | 0.570 | 31.39 | 10.07 | 41.46 | 60.00 | -18.54 | AVG | P | |
| 7 | 0.654 | 35.62 | 10.07 | 45.69 | 73.00 | -27.31 | QP | P | |
| 8 | 0.759 | 26.57 | 10.14 | 36.71 | 60.00 | -23.29 | AVG | P | |
| 9 | 0.948 | 36.18 | 9.76 | 45.94 | 73.00 | -27.06 | QP | P | |
| 10 | 0.948 | 31.75 | 9.76 | 41.51 | 60.00 | -18.49 | AVG | P | |
| 11 | 20.669 | 38.34 | 10.54 | 48.88 | 73.00 | -24.12 | QP | P | |
| 12 | 20.750 | 29.86 | 10.54 | 40.40 | 60.00 | -19.60 | AVG | P | |

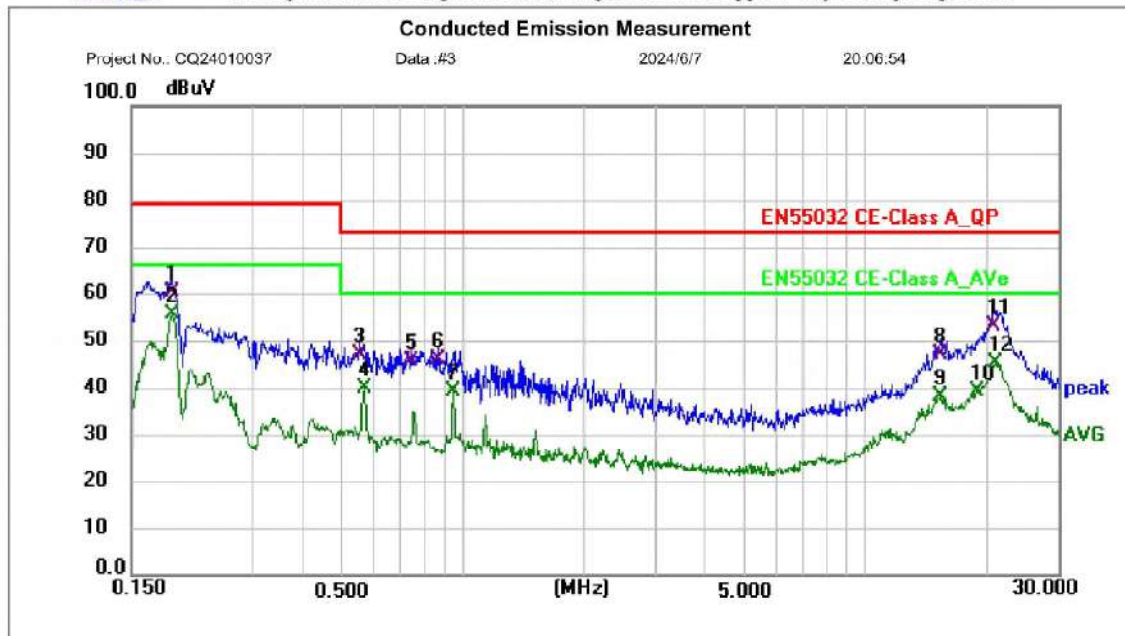
*:Maximum data x:Over limit !:over margin

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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Phase: **L1** Temperature: 23.5 °C
Limit: EN55032 CE-Class A_QP Power: AC100V/60Hz Humidity: 54 %RH
EUT: LED Display
M/N: T MAX COB0.7
Mode: White Screen
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 | 0.190 | 50.28 | 10.00 | 60.28 | 79.00 | -18.72 | QP | P | |
| 2 * | 0.191 | 45.63 | 10.01 | 55.64 | 66.00 | -10.36 | AVG | P | |
| 3 | 0.554 | 36.96 | 10.06 | 47.02 | 73.00 | -25.98 | QP | P | |
| 4 | 0.570 | 29.65 | 10.07 | 39.72 | 60.00 | -20.28 | AVG | P | |
| 5 | 0.750 | 35.36 | 10.13 | 45.49 | 73.00 | -27.51 | QP | P | |
| 6 | 0.873 | 35.99 | 9.82 | 45.81 | 73.00 | -27.19 | QP | P | |
| 7 | 0.948 | 29.44 | 9.76 | 39.20 | 60.00 | -20.80 | AVG | P | |
| 8 | 15.359 | 36.71 | 10.40 | 47.11 | 73.00 | -25.89 | QP | P | |
| 9 | 15.359 | 27.70 | 10.40 | 38.10 | 60.00 | -21.90 | AVG | P | |
| 10 | 18.824 | 28.76 | 10.52 | 39.28 | 60.00 | -20.72 | AVG | P | |
| 11 | 20.885 | 42.61 | 10.53 | 53.14 | 73.00 | -19.86 | QP | P | |
| 12 | 20.966 | 34.70 | 10.53 | 45.23 | 60.00 | -14.77 | AVG | P | |

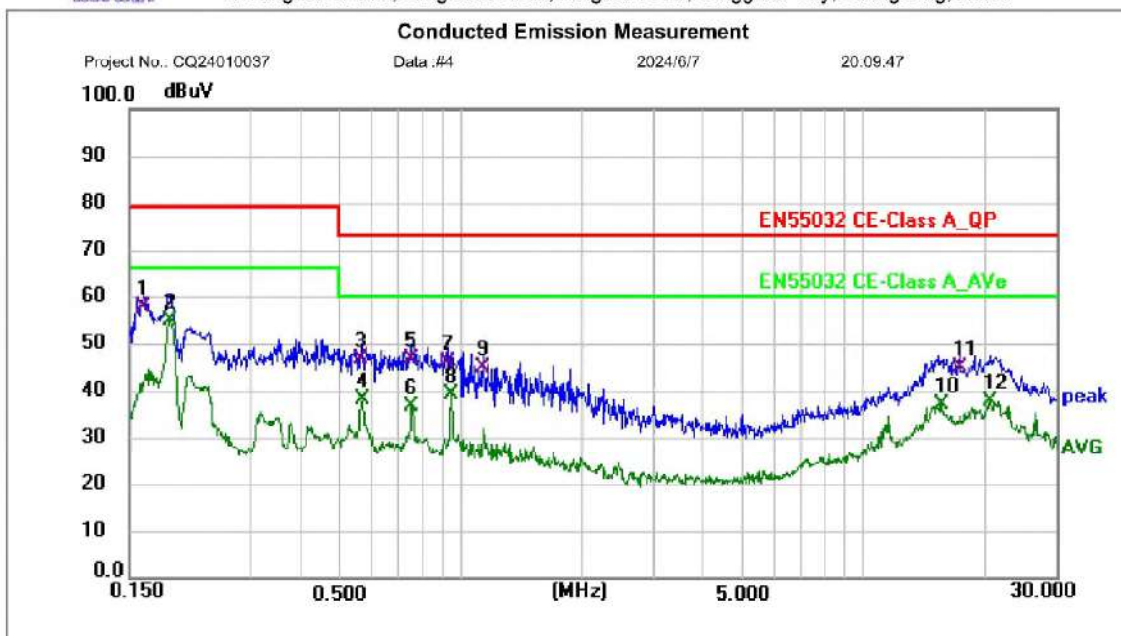
*:Maximum data x:Over limit !:over margin

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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Phase: **N** Temperature: 23.5 °C
Limit: EN55032 CE-Class A_QP Power: AC100V/60Hz Humidity: 54 %RH
EUT: LED Display
M/N: T MAX COB0.7
Mode: White Screen
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 | 0.163 | 47.62 | 10.00 | 57.62 | 79.00 | -21.38 | QP | P | |
| 2 * | 0.190 | 44.93 | 9.99 | 54.92 | 66.00 | -11.08 | AVG | P | |
| 3 | 0.567 | 36.80 | 9.91 | 46.71 | 73.00 | -26.29 | QP | P | |
| 4 | 0.570 | 28.19 | 9.90 | 38.09 | 60.00 | -21.91 | AVG | P | |
| 5 | 0.754 | 36.57 | 10.13 | 46.70 | 73.00 | -26.30 | QP | P | |
| 6 | 0.757 | 26.39 | 10.13 | 36.52 | 60.00 | -23.48 | AVG | P | |
| 7 | 0.931 | 36.00 | 9.98 | 45.98 | 73.00 | -27.02 | QP | P | |
| 8 | 0.948 | 29.11 | 9.97 | 39.08 | 60.00 | -20.92 | AVG | P | |
| 9 | 1.135 | 34.72 | 10.00 | 44.72 | 73.00 | -28.28 | QP | P | |
| 10 | 15.566 | 26.88 | 10.22 | 37.10 | 60.00 | -22.90 | AVG | P | |
| 11 | 17.375 | 34.39 | 10.28 | 44.67 | 73.00 | -28.33 | QP | P | |
| 12 | 20.678 | 27.32 | 10.35 | 37.67 | 60.00 | -22.33 | AVG | P | |

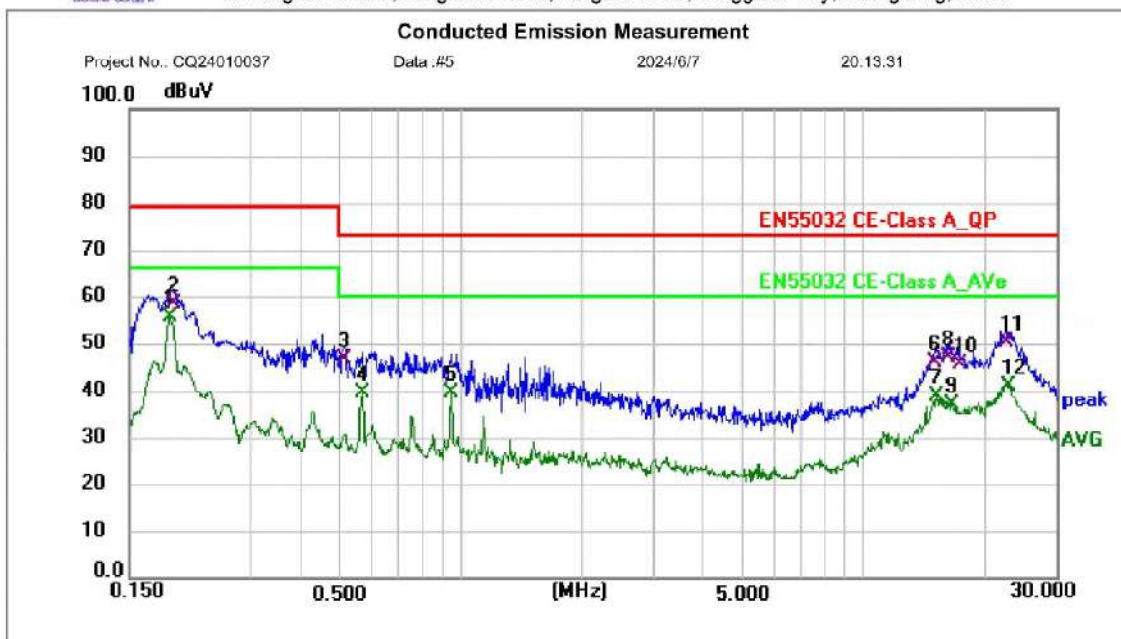
*:Maximum data x:Over limit !:over margin

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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Phase: **L1** Temperature: 23.5 °C
Limit: EN55032 CE-Class A_QP Power: AC240V/50Hz Humidity: 54 %RH
EUT: LED Display
M/N: T MAX COB0.7
Mode: White Screen
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 * | 0.190 | 45.53 | 10.00 | 55.53 | 66.00 | -10.47 | AVG | P | |
| 2 | 0.193 | 48.44 | 10.02 | 58.46 | 79.00 | -20.54 | QP | P | |
| 3 | 0.514 | 36.41 | 10.04 | 46.45 | 73.00 | -26.55 | QP | P | |
| 4 | 0.569 | 29.28 | 10.07 | 39.35 | 60.00 | -20.65 | AVG | P | |
| 5 | 0.948 | 29.54 | 9.76 | 39.30 | 60.00 | -20.70 | AVG | P | |
| 6 | 15.026 | 35.68 | 10.38 | 46.06 | 73.00 | -26.94 | QP | P | |
| 7 | 15.197 | 28.29 | 10.38 | 38.67 | 60.00 | -21.33 | AVG | P | |
| 8 | 16.304 | 36.58 | 10.43 | 47.01 | 73.00 | -25.99 | QP | P | |
| 9 | 16.646 | 26.58 | 10.44 | 37.02 | 60.00 | -22.98 | AVG | P | |
| 10 | 17.348 | 34.90 | 10.47 | 45.37 | 73.00 | -27.63 | QP | P | |
| 11 | 22.541 | 39.64 | 10.49 | 50.13 | 73.00 | -22.87 | QP | P | |
| 12 | 22.982 | 30.45 | 10.47 | 40.92 | 60.00 | -19.08 | AVG | P | |

*:Maximum data x:Over limit !:over margin

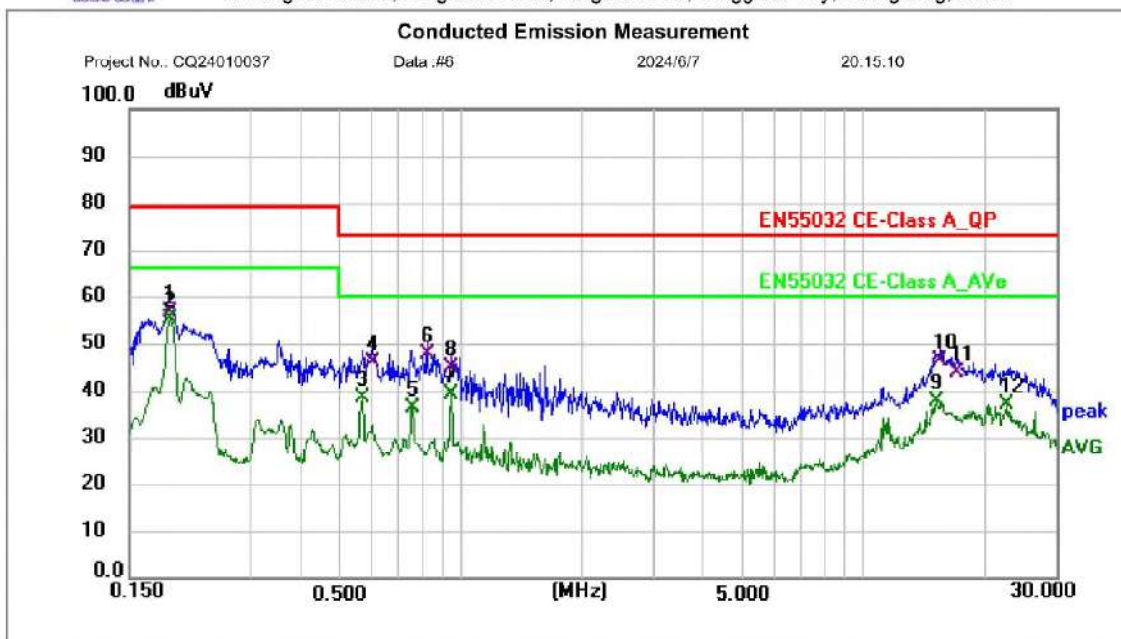
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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Phase: **N** Temperature: 23.5 °C
Limit: EN55032 CE-Class A_QP Power: AC240V/50Hz Humidity: 54 %RH
EUT: LED Display
M/N: T MAX COB0.7
Mode: White Screen
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 | 0.190 | 46.70 | 9.99 | 56.69 | 79.00 | -22.31 | QP | P | |
| 2 * | 0.190 | 45.25 | 9.99 | 55.24 | 66.00 | -10.76 | AVG | P | |
| 3 | 0.569 | 28.46 | 9.91 | 38.37 | 60.00 | -21.63 | AVG | P | |
| 4 | 0.602 | 35.93 | 9.83 | 45.76 | 73.00 | -27.24 | QP | P | |
| 5 | 0.759 | 26.14 | 10.13 | 36.27 | 60.00 | -23.73 | AVG | P | |
| 6 | 0.829 | 37.54 | 10.09 | 47.63 | 73.00 | -25.37 | QP | P | |
| 7 | 0.948 | 29.03 | 9.97 | 39.00 | 60.00 | -21.00 | AVG | P | |
| 8 | 0.949 | 34.98 | 9.97 | 44.95 | 73.00 | -28.05 | QP | P | |
| 9 | 15.197 | 27.39 | 10.20 | 37.59 | 60.00 | -22.41 | AVG | P | |
| 10 | 15.521 | 35.86 | 10.22 | 46.08 | 73.00 | -26.92 | QP | P | |
| 11 | 17.033 | 33.51 | 10.26 | 43.77 | 73.00 | -29.23 | QP | P | |
| 12 | 22.586 | 26.76 | 10.33 | 37.09 | 60.00 | -22.91 | AVG | P | |

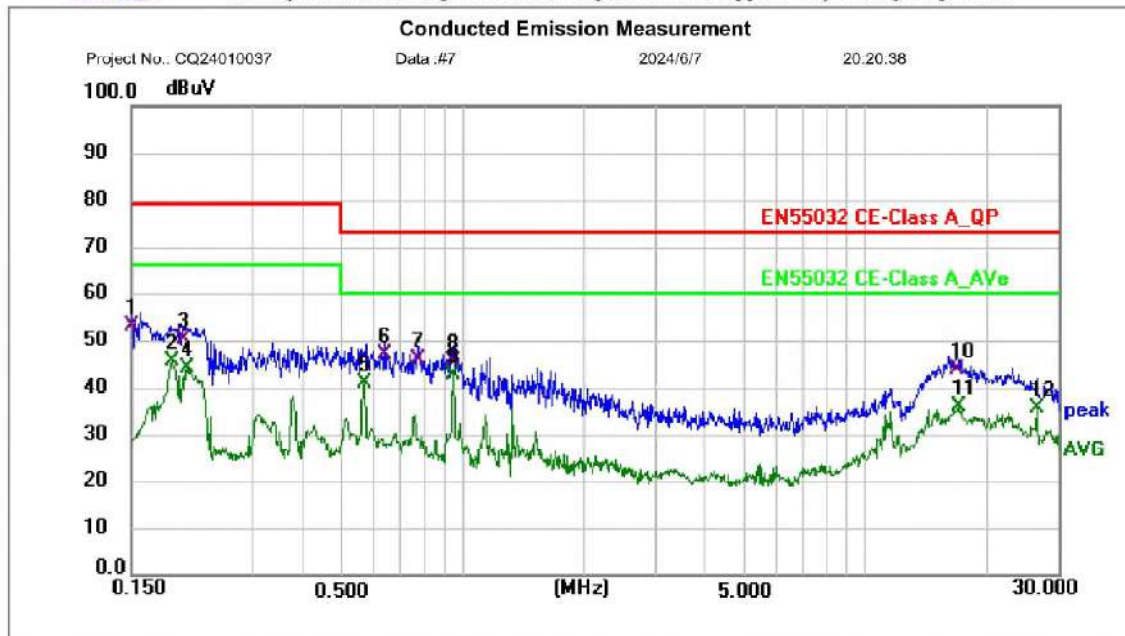
*:Maximum data x:Over limit !:over margin

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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Phase: **N** Temperature: 23.5 °C
Limit: EN55032 CE-Class A_QP Power: AC240V/50Hz Humidity: 54 %RH
EUT: LED Display
M/N: T MAX COB0.7
Mode: Color bar Movement
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 | 0.151 | 42.81 | 10.05 | 52.86 | 79.00 | -26.14 | QP | P | |
| 2 | 0.190 | 35.40 | 9.99 | 45.39 | 66.00 | -20.61 | AVG | P | |
| 3 | 0.202 | 40.05 | 10.00 | 50.05 | 79.00 | -28.95 | QP | P | |
| 4 | 0.207 | 34.01 | 10.00 | 44.01 | 66.00 | -21.99 | AVG | P | |
| 5 | 0.568 | 30.82 | 9.91 | 40.73 | 60.00 | -19.27 | AVG | P | |
| 6 | 0.642 | 36.86 | 9.95 | 46.81 | 73.00 | -26.19 | QP | P | |
| 7 | 0.777 | 35.72 | 10.12 | 45.84 | 73.00 | -27.16 | QP | P | |
| 8 | 0.947 | 35.71 | 9.97 | 45.68 | 73.00 | -27.32 | QP | P | |
| 9 * | 0.947 | 32.74 | 9.97 | 42.71 | 60.00 | -17.29 | AVG | P | |
| 10 | 16.772 | 33.36 | 10.26 | 43.62 | 73.00 | -29.38 | QP | P | |
| 11 | 16.934 | 25.47 | 10.26 | 35.73 | 60.00 | -24.27 | AVG | P | |
| 12 | 26.627 | 25.36 | 10.29 | 35.65 | 60.00 | -24.35 | AVG | P | |

*:Maximum data x:Over limit !:over margin

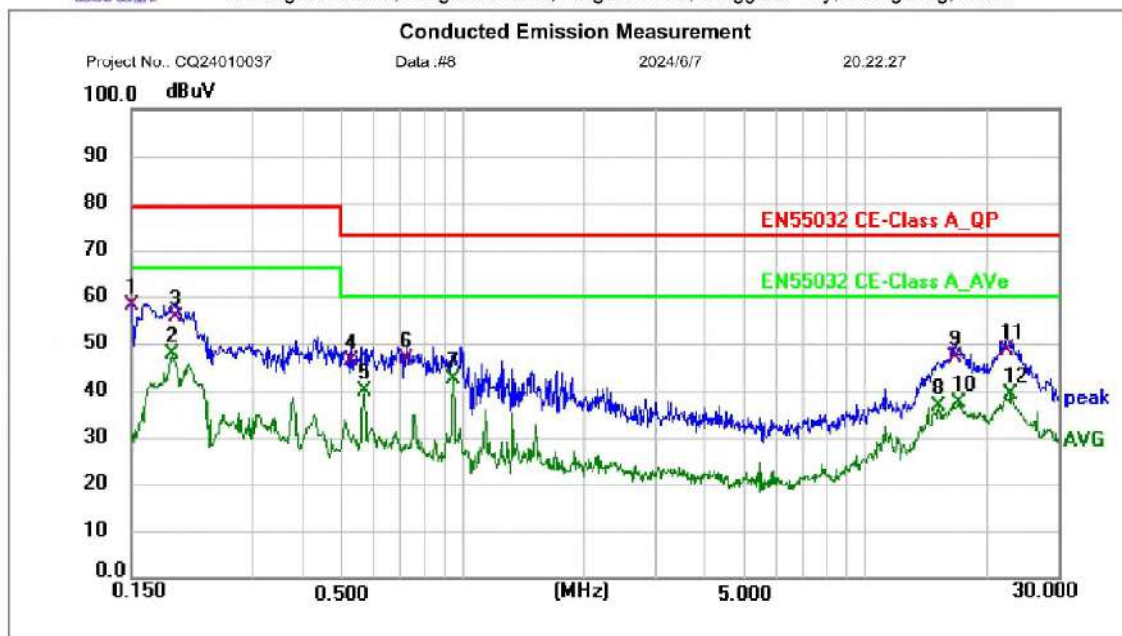
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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Phase: **L1** Temperature: 23.5 °C
Limit: EN55032 CE-Class A_QP Power: AC240V/50Hz Humidity: 54 %RH
EUT: LED Display
M/N: T MAX COB0.7
Mode: Color bar Movement
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB) | Level (dBuV) | Limit (dBuV) | Margin (dB) | Detector | P/F | Remark |
|-----|-----------------|----------------|-------------|--------------|--------------|-------------|----------|-----|--------|
| 1 | 0.150 | 47.80 | 10.06 | 57.86 | 79.00 | -21.14 | QP | P | |
| 2 | 0.191 | 37.77 | 10.01 | 47.78 | 66.00 | -18.22 | AVG | P | |
| 3 | 0.194 | 45.58 | 10.03 | 55.61 | 79.00 | -23.39 | QP | P | |
| 4 | 0.527 | 36.23 | 10.04 | 46.27 | 73.00 | -26.73 | QP | P | |
| 5 | 0.569 | 29.82 | 10.07 | 39.89 | 60.00 | -20.11 | AVG | P | |
| 6 | 0.724 | 36.34 | 10.09 | 46.43 | 73.00 | -26.57 | QP | P | |
| 7 * | 0.948 | 32.64 | 9.76 | 42.40 | 60.00 | -17.60 | AVG | P | |
| 8 | 15.197 | 26.22 | 10.38 | 36.60 | 60.00 | -23.40 | AVG | P | |
| 9 | 16.691 | 36.57 | 10.44 | 47.01 | 73.00 | -25.99 | QP | P | |
| 10 | 16.934 | 26.85 | 10.45 | 37.30 | 60.00 | -22.70 | AVG | P | |
| 11 | 22.469 | 37.91 | 10.49 | 48.40 | 73.00 | -24.60 | QP | P | |
| 12 | 22.982 | 28.67 | 10.47 | 39.14 | 60.00 | -20.86 | AVG | P | |

*:Maximum data x:Over limit !:over margin

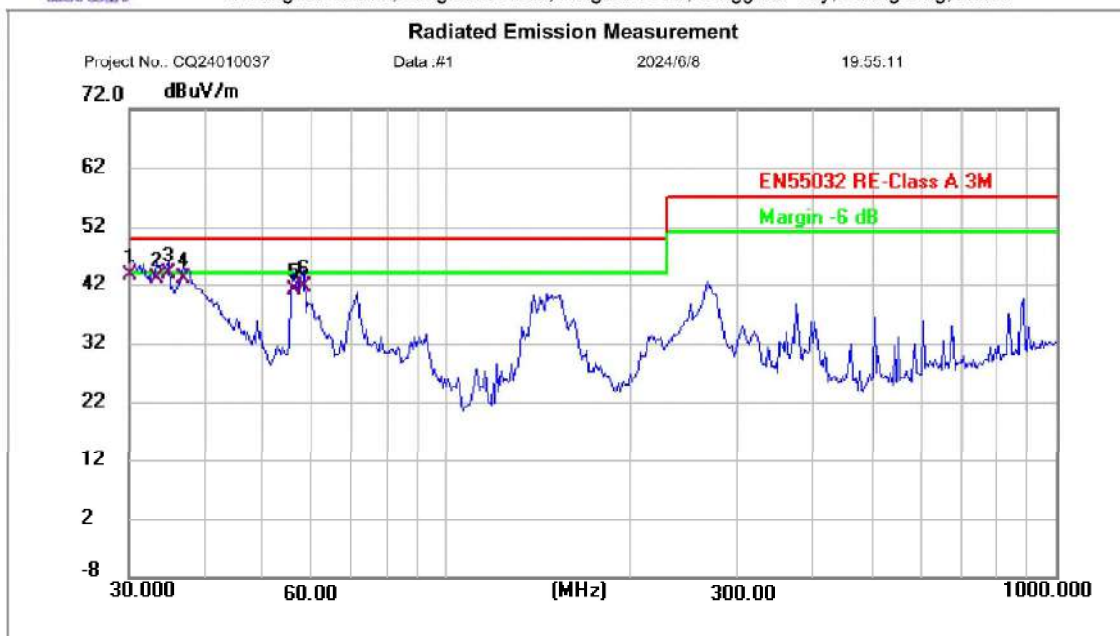
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Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|------------------------------|-------------------------------|--------------------|
| Site LAB | Polarization: Vertical | Temperature: 26 °C |
| Limit: EN55032 RE-Class A 3M | Power: AC100V/60Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: Color bar Movement | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 30.000 | 31.16 | 12.50 | 43.66 | 50.00 | -6.34 | QP | | | P | |
| 2 | 33.328 | 29.90 | 13.05 | 42.95 | 50.00 | -7.05 | QP | | | P | |
| 3 * | 34.760 | 30.70 | 13.29 | 43.99 | 50.00 | -6.01 | QP | | | P | |
| 4 | 36.766 | 29.36 | 13.59 | 42.95 | 50.00 | -7.05 | QP | | | P | |
| 5 | 56.001 | 27.98 | 12.99 | 40.97 | 50.00 | -9.03 | QP | | | P | |
| 6 | 57.999 | 28.73 | 12.78 | 41.51 | 50.00 | -8.49 | QP | | | P | |

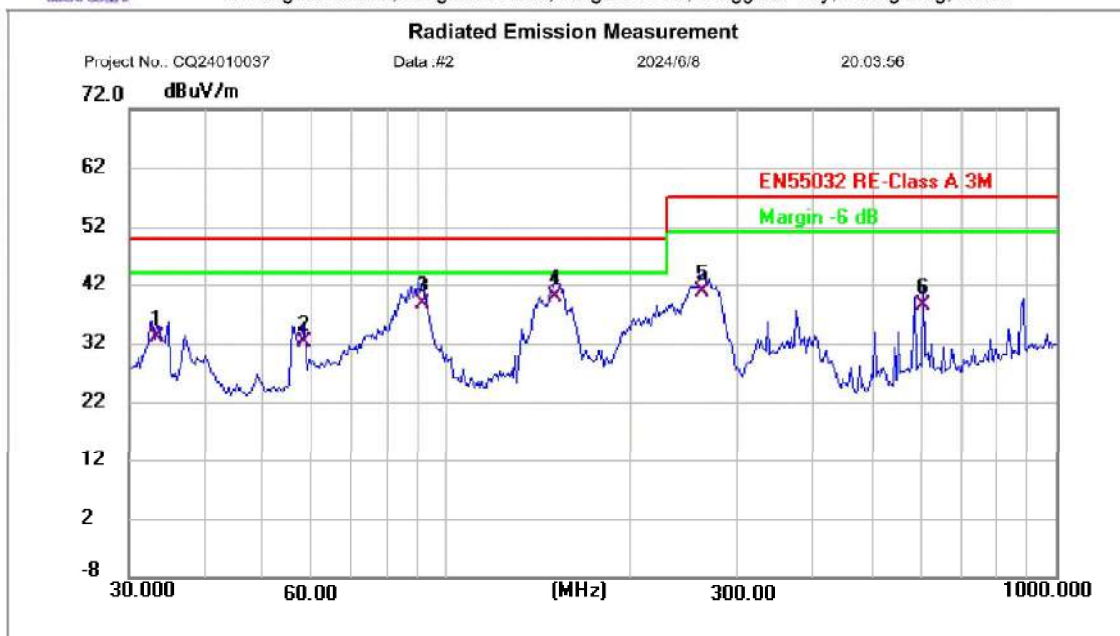
*:Maximum data x:Over limit !:over margin

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Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|------------------------------|---------------------------------|--------------------|
| Site LAB | Polarization: Horizontal | Temperature: 26 °C |
| Limit: EN55032 RE-Class A 3M | Power: AC100V/60Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: Color bar Movement | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 33.328 | 19.97 | 13.05 | 33.02 | 50.00 | -16.98 | QP | | | P | |
| 2 | 57.999 | 19.39 | 12.78 | 32.17 | 50.00 | -17.83 | QP | | | P | |
| 3 | 90.855 | 29.48 | 9.22 | 38.70 | 50.00 | -11.30 | QP | | | P | |
| 4 * | 150.538 | 26.25 | 13.56 | 39.81 | 50.00 | -10.19 | QP | | | P | |
| 5 | 261.975 | 27.54 | 13.18 | 40.72 | 57.00 | -16.28 | QP | | | P | |
| 6 | 603.539 | 16.89 | 21.68 | 38.57 | 57.00 | -18.43 | QP | | | P | |

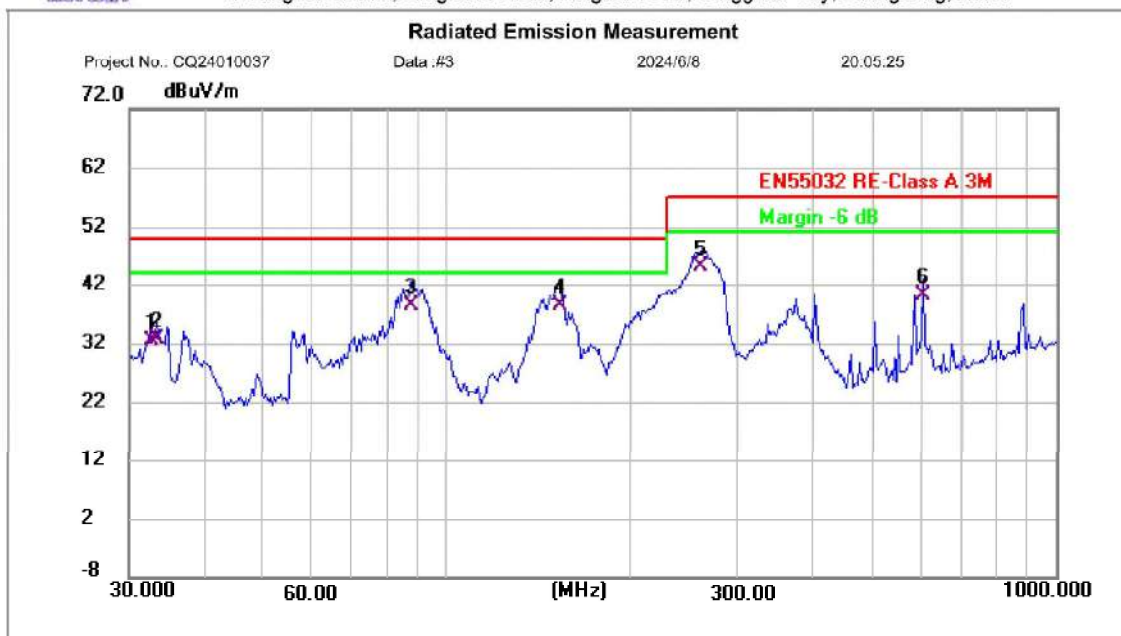
*:Maximum data x:Over limit !:over margin

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Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|------------------------------|---------------------------------|--------------------|
| Site LAB | Polarization: Horizontal | Temperature: 26 °C |
| Limit: EN55032 RE-Class A 3M | Power: AC100V/60Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: White Screen | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 32.634 | 19.60 | 12.94 | 32.54 | 50.00 | -17.46 | QP | | | P | |
| 2 | 33.328 | 19.61 | 13.05 | 32.66 | 50.00 | -17.34 | QP | | | P | |
| 3 * | 87.112 | 29.43 | 9.07 | 38.50 | 50.00 | -11.50 | QP | | | P | |
| 4 | 152.664 | 24.75 | 13.61 | 38.36 | 50.00 | -11.64 | QP | | | P | |
| 5 | 260.144 | 31.90 | 13.09 | 44.99 | 57.00 | -12.01 | QP | | | P | |
| 6 | 603.539 | 18.40 | 21.68 | 40.08 | 57.00 | -16.92 | QP | | | P | |

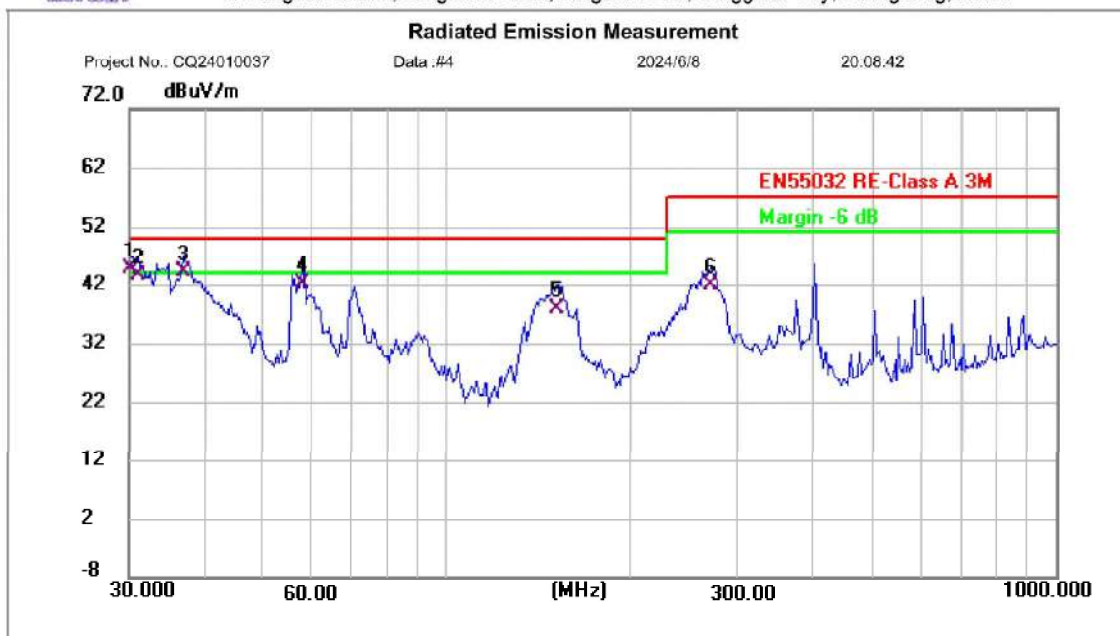
*:Maximum data x:Over limit !:over margin

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Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|------------------------------|-------------------------------|--------------------|
| Site LAB | Polarization: Vertical | Temperature: 26 °C |
| Limit: EN55032 RE-Class A 3M | Power: AC100V/60Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: White Screen | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 * | 30.000 | 32.34 | 12.50 | 44.84 | 50.00 | -5.16 | QP | | | P | |
| 2 | 31.070 | 30.86 | 12.68 | 43.54 | 50.00 | -6.46 | QP | | | P | |
| 3 ! | 36.766 | 30.54 | 13.59 | 44.13 | 50.00 | -5.87 | QP | | | P | |
| 4 | 57.594 | 29.32 | 12.82 | 42.14 | 50.00 | -7.86 | QP | | | P | |
| 5 | 151.597 | 24.27 | 13.58 | 37.85 | 50.00 | -12.15 | QP | | | P | |
| 6 | 271.325 | 28.35 | 13.62 | 41.97 | 57.00 | -15.03 | QP | | | P | |

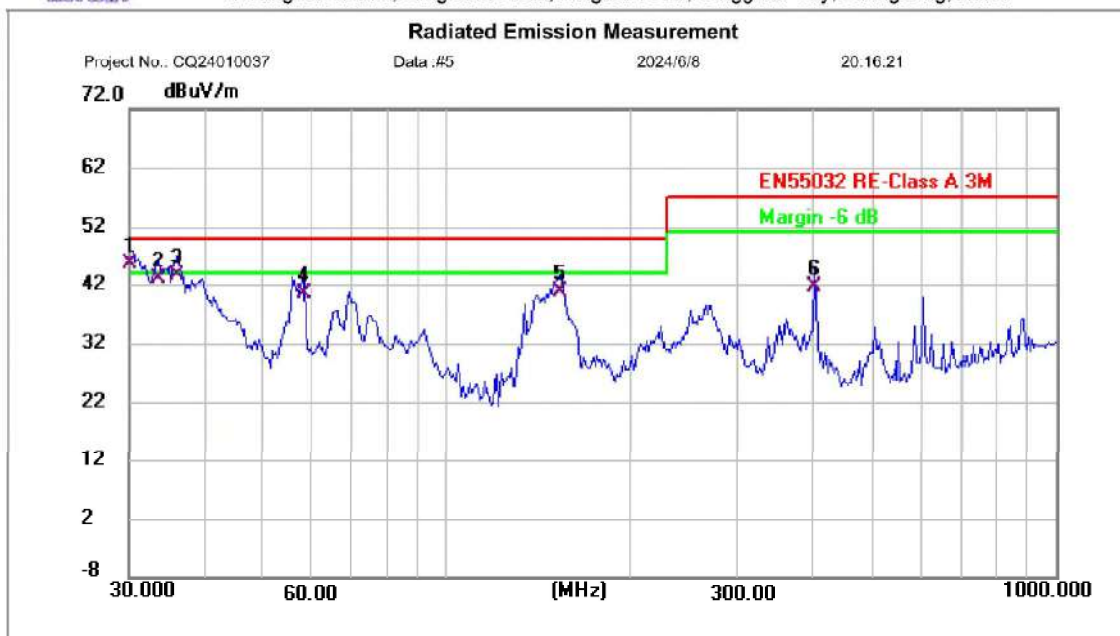
*:Maximum data x:Over limit !:over margin

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Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|------------------------------|-------------------------------|--------------------|
| Site LAB | Polarization: Vertical | Temperature: 26 °C |
| Limit: EN55032 RE-Class A 3M | Power: AC240V/50Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: White Screen | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 * | 30.000 | 32.99 | 12.50 | 45.49 | 50.00 | -4.51 | QP | | | P | |
| 2 | 33.562 | 29.86 | 13.09 | 42.95 | 50.00 | -7.05 | QP | | | P | |
| 3 | 36.001 | 30.16 | 13.47 | 43.63 | 50.00 | -6.37 | QP | | | P | |
| 4 | 57.999 | 27.55 | 12.78 | 40.33 | 50.00 | -9.67 | QP | | | P | |
| 5 | 152.664 | 27.01 | 13.61 | 40.62 | 50.00 | -9.38 | QP | | | P | |
| 6 | 401.838 | 24.57 | 17.04 | 41.61 | 57.00 | -15.39 | QP | | | P | |

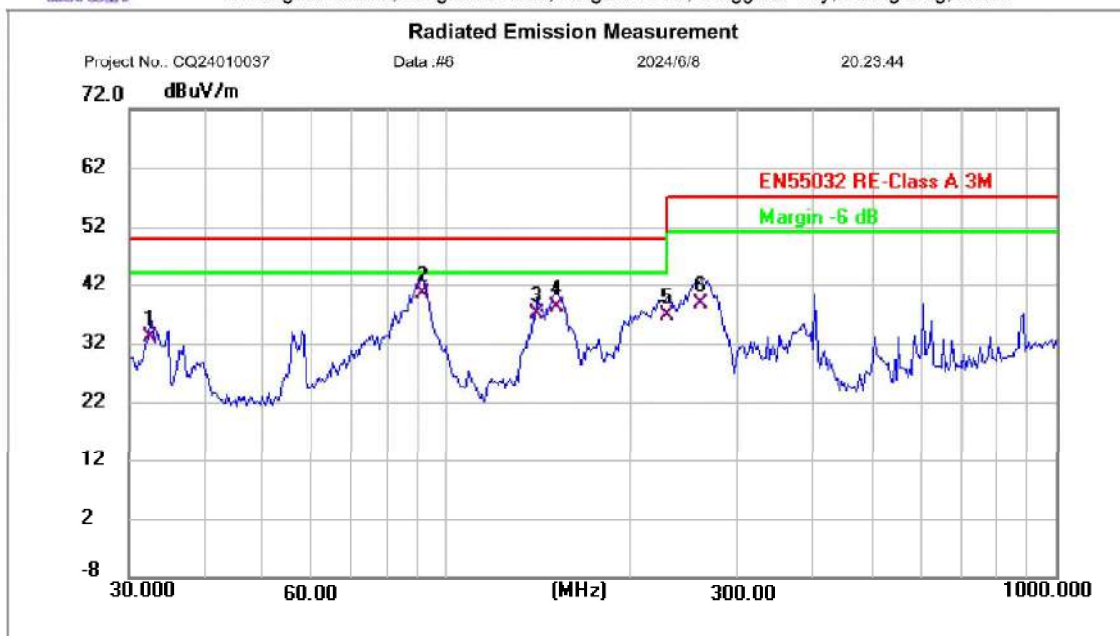
*:Maximum data x:Over limit !:over margin

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Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|------------------------------|---------------------------------|--------------------|
| Site LAB | Polarization: Horizontal | Temperature: 26 °C |
| Limit: EN55032 RE-Class A 3M | Power: AC240V/50Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: White Screen | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 32.406 | 20.02 | 12.89 | 32.91 | 50.00 | -17.09 | QP | | | P | |
| 2 * | 90.855 | 31.20 | 9.22 | 40.42 | 50.00 | -9.58 | QP | | | P | |
| 3 | 140.342 | 23.60 | 13.33 | 36.93 | 50.00 | -13.07 | QP | | | P | |
| 4 | 151.597 | 24.48 | 13.58 | 38.06 | 50.00 | -11.94 | QP | | | P | |
| 5 | 229.293 | 24.79 | 11.95 | 36.74 | 50.00 | -13.26 | QP | | | P | |
| 6 | 260.144 | 25.67 | 13.09 | 38.76 | 57.00 | -18.24 | QP | | | P | |

*:Maximum data x:Over limit !:over margin

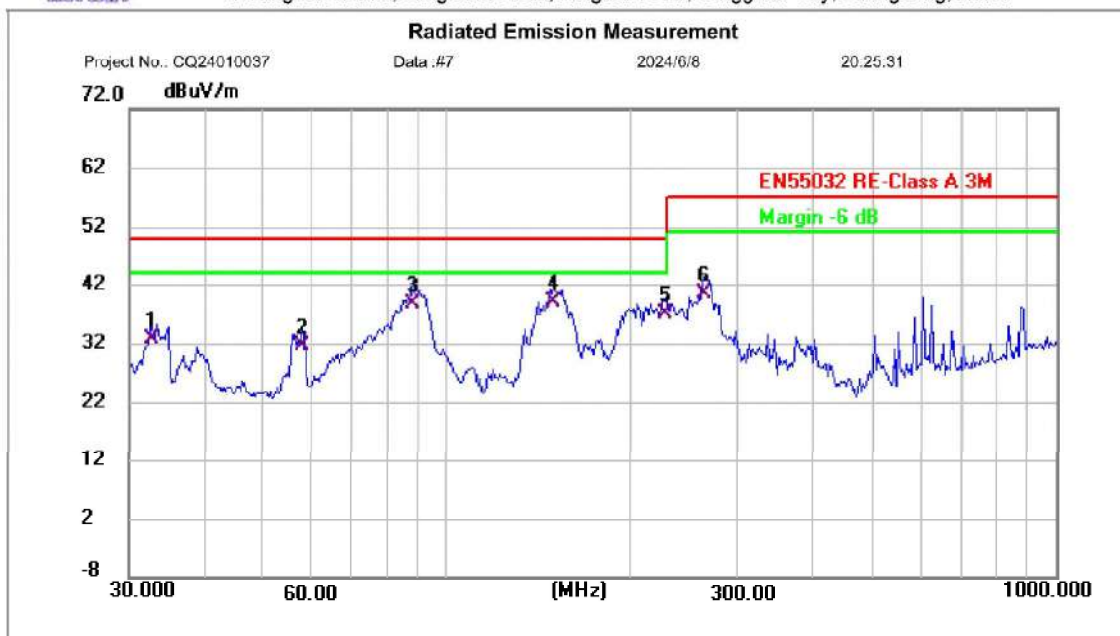
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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|------------------------------|---------------------------------|--------------------|
| Site LAB | Polarization: Horizontal | Temperature: 26 °C |
| Limit: EN55032 RE-Class A 3M | Power: AC240V/50Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: Color bar Movement | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 32.634 | 19.84 | 12.94 | 32.78 | 50.00 | -17.22 | QP | | | P | |
| 2 | 57.594 | 18.62 | 12.82 | 31.44 | 50.00 | -18.56 | QP | | | P | |
| 3 | 87.725 | 29.71 | 9.08 | 38.79 | 50.00 | -11.21 | QP | | | P | |
| 4 * | 149.486 | 25.38 | 13.54 | 38.92 | 50.00 | -11.08 | QP | | | P | |
| 5 | 227.690 | 25.16 | 11.84 | 37.00 | 50.00 | -13.00 | QP | | | P | |
| 6 | 263.819 | 27.04 | 13.26 | 40.30 | 57.00 | -16.70 | QP | | | P | |

*:Maximum data x:Over limit !:over margin

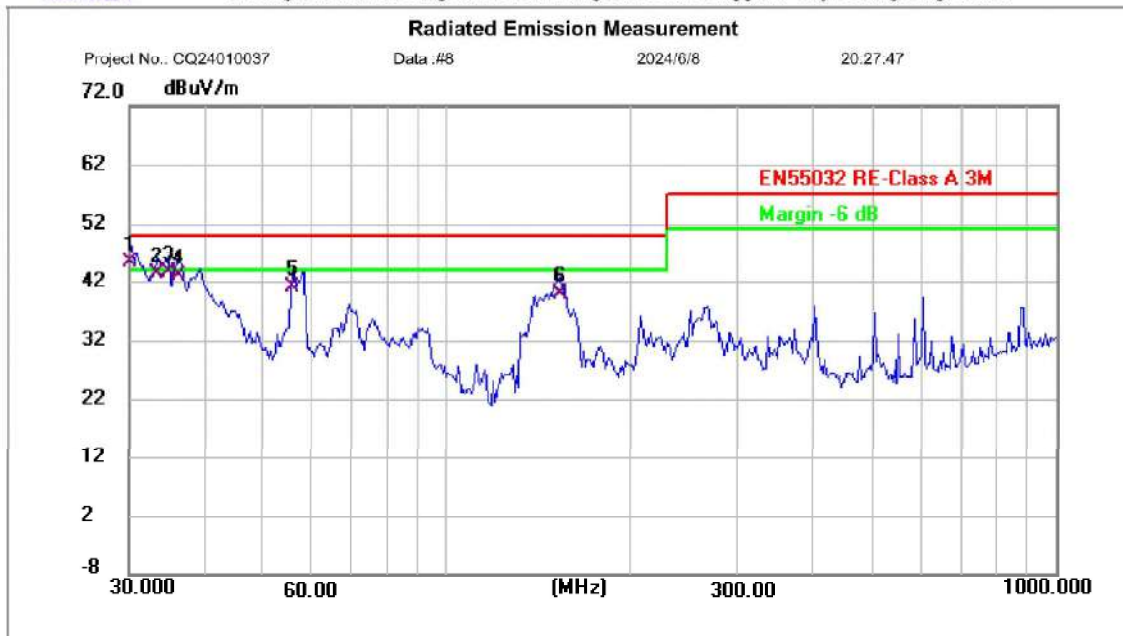
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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|------------------------------|-------------------------------|--------------------|
| Site LAB | Polarization: Vertical | Temperature: 26 °C |
| Limit: EN55032 RE-Class A 3M | Power: AC240V/50Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: Color bar Movement | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 * | 30.211 | 32.69 | 12.53 | 45.22 | 50.00 | -4.78 | QP | | | P | |
| 2 | 33.328 | 30.11 | 13.05 | 43.16 | 50.00 | -6.84 | QP | | | P | |
| 3 | 34.760 | 30.16 | 13.29 | 43.45 | 50.00 | -6.55 | QP | | | P | |
| 4 | 36.254 | 29.56 | 13.52 | 43.08 | 50.00 | -6.92 | QP | | | P | |
| 5 | 55.609 | 27.84 | 13.03 | 40.87 | 50.00 | -9.13 | QP | | | P | |
| 6 | 152.664 | 26.17 | 13.61 | 39.78 | 50.00 | -10.22 | QP | | | P | |

*:Maximum data x:Over limit !:over margin

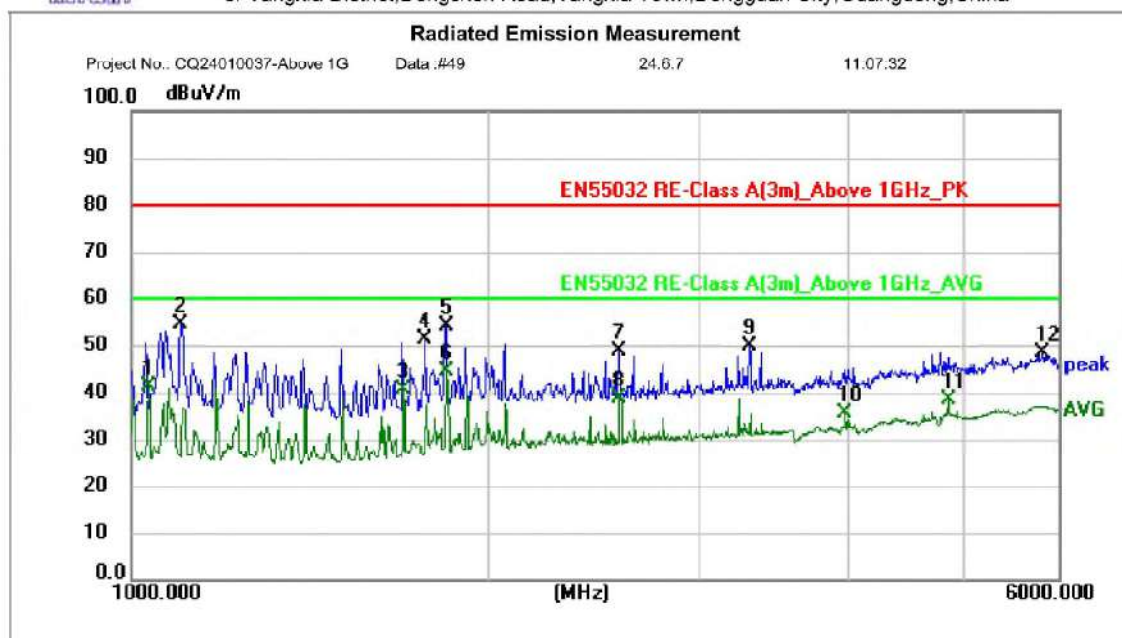
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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Polarization: **Horizontal** Temperature: 26 °C
Limit: EN55032 RE-Class A(3m) Above 1GHz_PK Power: AC 240V/50Hz Humidity: 54 %RH
EUT: LED Display Distance: 3m
M/N: T MAX COB0.7
Mode: Color bar Movement
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 1035.000 | 57.51 | -16.25 | 41.26 | 60.00 | -18.74 | AVG | | | P | |
| 2 | 1100.000 | 70.71 | -16.23 | 54.48 | 80.00 | -25.52 | peak | | | P | |
| 3 | 1695.000 | 55.23 | -14.86 | 40.37 | 60.00 | -19.63 | AVG | | | P | |
| 4 | 1765.000 | 65.74 | -14.40 | 51.34 | 80.00 | -28.66 | peak | | | P | |
| 5 | 1840.000 | 68.21 | -13.94 | 54.27 | 80.00 | -25.73 | peak | | | P | |
| 6 * | 1840.000 | 58.32 | -13.94 | 44.38 | 60.00 | -15.62 | AVG | | | P | |
| 7 | 2575.000 | 59.94 | -11.02 | 48.92 | 80.00 | -31.08 | peak | | | P | |
| 8 | 2575.000 | 49.67 | -11.02 | 38.65 | 60.00 | -21.35 | AVG | | | P | |
| 9 | 3305.000 | 58.83 | -8.97 | 49.86 | 80.00 | -30.14 | peak | | | P | |
| 10 | 3975.000 | 42.89 | -7.35 | 35.54 | 60.00 | -24.46 | AVG | | | P | |
| 11 | 4855.000 | 43.38 | -4.85 | 38.53 | 60.00 | -21.47 | AVG | | | P | |
| 12 | 5830.000 | 50.85 | -2.57 | 48.28 | 80.00 | -31.72 | peak | | | P | |

*:Maximum data x:Over limit !:over margin

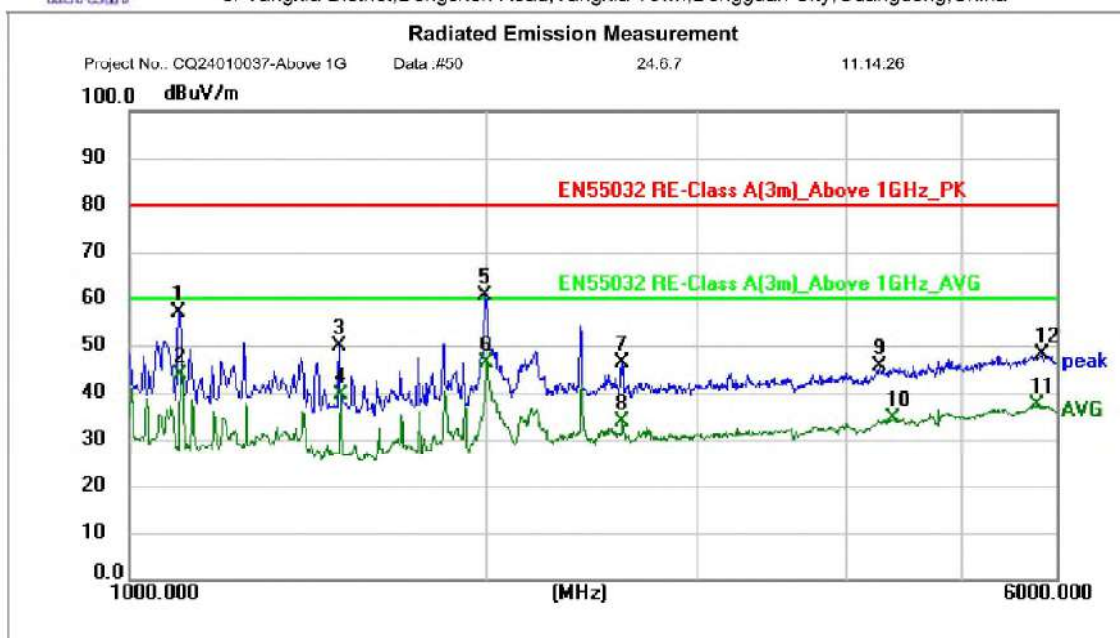
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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Polarization: **Vertical** Temperature: 26 °C
Limit: EN55032 RE-Class A(3m)_Above 1GHz_PK Power: AC 240V/50Hz Humidity: 54 %RH
EUT: LED Display Distance: 3m
M/N: T MAX COB0.7
Mode: Color bar Movement
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 1100.000 | 73.02 | -16.23 | 56.79 | 80.00 | -23.21 | peak | | | P | |
| 2 | 1105.000 | 59.86 | -16.22 | 43.64 | 60.00 | -16.36 | AVG | | | P | |
| 3 | 1500.000 | 66.00 | -16.09 | 49.91 | 80.00 | -30.09 | peak | | | P | |
| 4 | 1505.000 | 55.55 | -16.05 | 39.50 | 60.00 | -20.50 | AVG | | | P | |
| 5 | 1990.000 | 73.50 | -12.98 | 60.52 | 80.00 | -19.48 | peak | | | P | |
| 6 * | 2000.000 | 59.22 | -12.92 | 46.30 | 60.00 | -13.70 | AVG | | | P | |
| 7 | 2590.000 | 57.24 | -10.97 | 46.27 | 80.00 | -33.73 | peak | | | P | |
| 8 | 2595.000 | 44.78 | -10.96 | 33.82 | 60.00 | -26.18 | AVG | | | P | |
| 9 | 4265.000 | 52.16 | -6.47 | 45.69 | 80.00 | -34.31 | peak | | | P | |
| 10 | 4385.000 | 40.59 | -6.09 | 34.50 | 60.00 | -25.50 | AVG | | | P | |
| 11 | 5780.000 | 39.84 | -2.67 | 37.17 | 60.00 | -22.83 | AVG | | | P | |
| 12 | 5840.000 | 50.72 | -2.55 | 48.17 | 80.00 | -31.83 | peak | | | P | |

*:Maximum data x:Over limit !:over margin

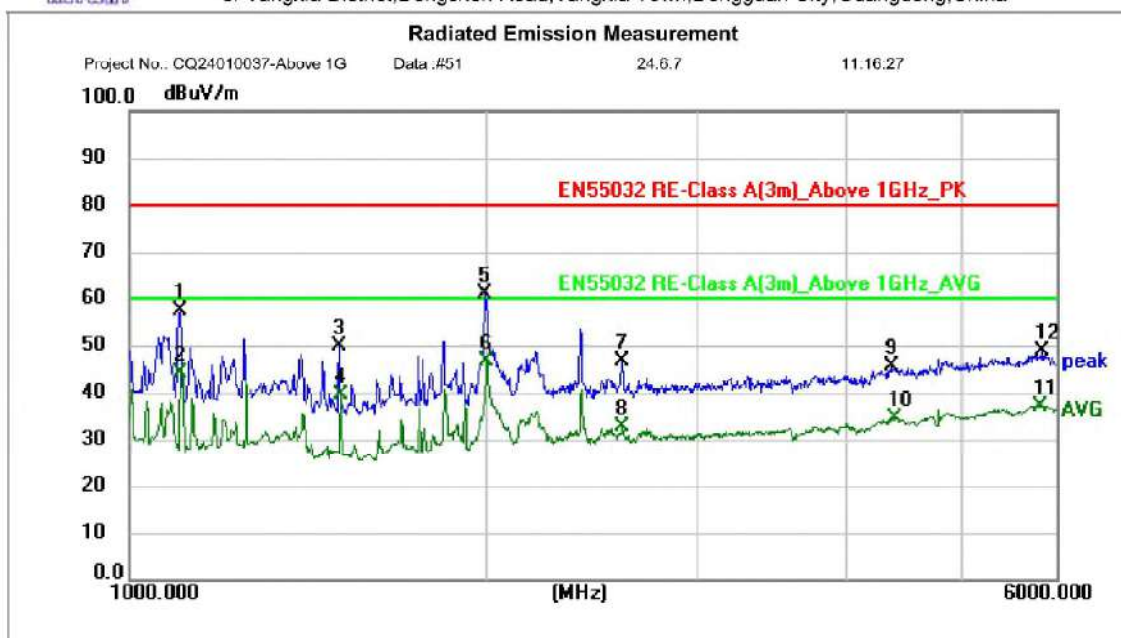
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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Polarization: **Vertical** Temperature: 26 °C
Limit: EN55032 RE-Class A(3m)_Above 1GHz_PK Power: AC 240V/50Hz Humidity: 54 %RH
EUT: LED Display Distance: 3m
M/N: T MAX COB0.7
Mode: White Screen
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 1105.000 | 73.41 | -16.22 | 57.19 | 80.00 | -22.81 | peak | | | P | |
| 2 | 1105.000 | 60.20 | -16.22 | 43.98 | 60.00 | -16.02 | AVG | | | P | |
| 3 | 1500.000 | 65.93 | -16.09 | 49.84 | 80.00 | -30.16 | peak | | | P | |
| 4 | 1505.000 | 55.64 | -16.05 | 39.59 | 60.00 | -20.41 | AVG | | | P | |
| 5 | 1990.000 | 73.87 | -12.98 | 60.89 | 80.00 | -19.11 | peak | | | P | |
| 6 * | 2000.000 | 59.38 | -12.92 | 46.46 | 60.00 | -13.54 | AVG | | | P | |
| 7 | 2590.000 | 57.55 | -10.97 | 46.58 | 80.00 | -33.42 | peak | | | P | |
| 8 | 2595.000 | 43.78 | -10.96 | 32.82 | 60.00 | -27.18 | AVG | | | P | |
| 9 | 4365.000 | 51.68 | -6.16 | 45.52 | 80.00 | -34.48 | peak | | | P | |
| 10 | 4400.000 | 40.56 | -6.05 | 34.51 | 60.00 | -25.49 | AVG | | | P | |
| 11 | 5815.000 | 39.69 | -2.60 | 37.09 | 60.00 | -22.91 | AVG | | | P | |
| 12 | 5845.000 | 51.16 | -2.55 | 48.61 | 80.00 | -31.39 | peak | | | P | |

*:Maximum data x:Over limit !:over margin

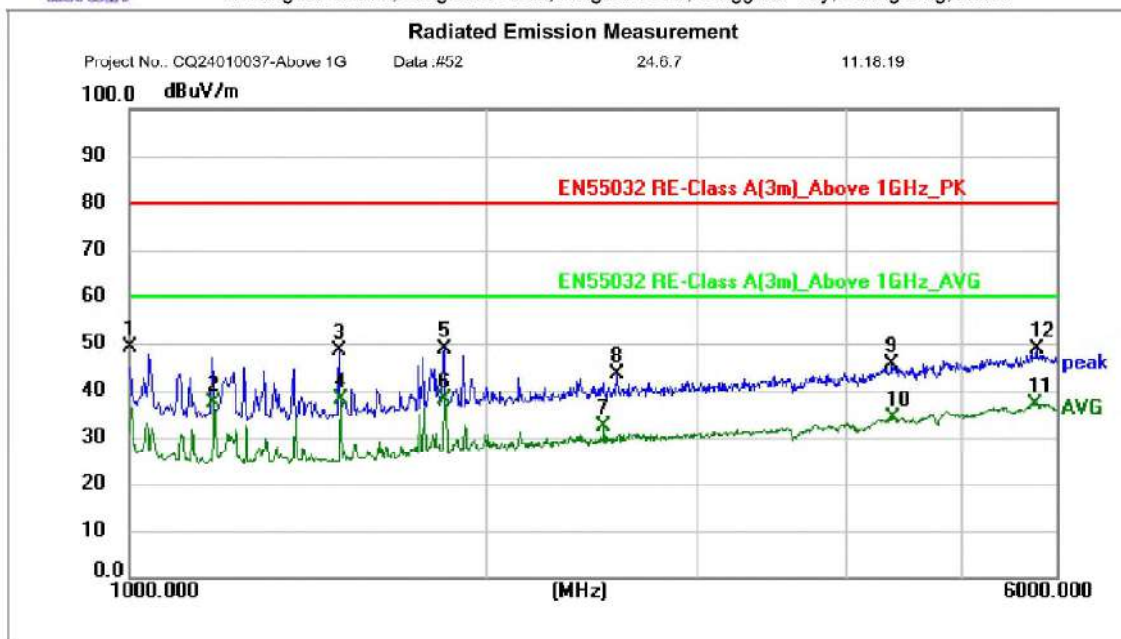
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Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Polarization: **Horizontal** Temperature: 26 °C
Limit: EN55032 RE-Class A(3m)_Above 1GHz_PK Power: AC 240V/50Hz Humidity: 54 %RH
EUT: LED Display Distance: 3m
M/N: T MAX COB0.7
Mode: White Screen
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 1000.000 | 65.36 | -16.26 | 49.10 | 80.00 | -30.90 | peak | | | P | |
| 2 | 1180.000 | 53.68 | -16.19 | 37.49 | 60.00 | -22.51 | AVG | | | P | |
| 3 | 1500.000 | 64.51 | -16.09 | 48.42 | 80.00 | -31.58 | peak | | | P | |
| 4 | 1505.000 | 54.23 | -16.05 | 38.18 | 60.00 | -21.82 | AVG | | | P | |
| 5 | 1840.000 | 62.72 | -13.94 | 48.78 | 80.00 | -31.22 | peak | | | P | |
| 6 * | 1840.000 | 52.13 | -13.94 | 38.19 | 60.00 | -21.81 | AVG | | | P | |
| 7 | 2505.000 | 43.63 | -11.26 | 32.37 | 60.00 | -27.63 | AVG | | | P | |
| 8 | 2570.000 | 54.54 | -11.04 | 43.50 | 80.00 | -36.50 | peak | | | P | |
| 9 | 4375.000 | 51.80 | -6.12 | 45.68 | 80.00 | -34.32 | peak | | | P | |
| 10 | 4385.000 | 40.35 | -6.09 | 34.26 | 60.00 | -25.74 | AVG | | | P | |
| 11 | 5765.000 | 39.74 | -2.70 | 37.04 | 60.00 | -22.96 | AVG | | | P | |
| 12 | 5785.000 | 51.33 | -2.66 | 48.67 | 80.00 | -31.33 | peak | | | P | |

*:Maximum data x:Over limit !:over margin

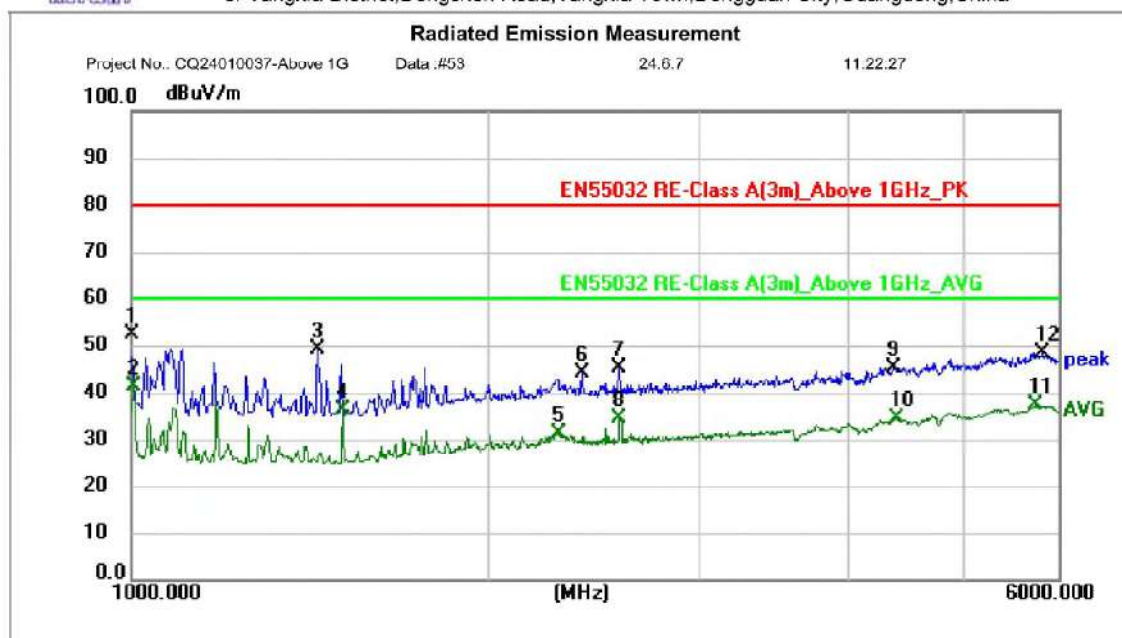
Prüfbericht - Nr.: CN24DBVY 001

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Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Polarization: **Horizontal** Temperature: 26 °C
Limit: EN55032 RE-Class A(3m)_Above 1GHz_PK Power: AC 100V/60Hz Humidity: 54 %RH
EUT: LED Display Distance: 3m
M/N: T MAX COB0.7
Mode: White Screen
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 1000.000 | 68.72 | -16.26 | 52.46 | 80.00 | -27.54 | peak | | | P | |
| 2 * | 1005.000 | 57.47 | -16.25 | 41.22 | 60.00 | -18.78 | AVG | | | P | |
| 3 | 1435.000 | 65.35 | -16.12 | 49.23 | 80.00 | -30.77 | peak | | | P | |
| 4 | 1505.000 | 52.42 | -16.05 | 36.37 | 60.00 | -23.63 | AVG | | | P | |
| 5 | 2285.000 | 43.39 | -11.98 | 31.41 | 60.00 | -28.59 | AVG | | | P | |
| 6 | 2390.000 | 55.86 | -11.63 | 44.23 | 80.00 | -35.77 | peak | | | P | |
| 7 | 2575.000 | 56.10 | -11.02 | 45.08 | 80.00 | -34.92 | peak | | | P | |
| 8 | 2575.000 | 45.35 | -11.02 | 34.33 | 60.00 | -25.67 | AVG | | | P | |
| 9 | 4370.000 | 51.48 | -6.15 | 45.33 | 80.00 | -34.67 | peak | | | P | |
| 10 | 4395.000 | 40.60 | -6.06 | 34.54 | 60.00 | -25.46 | AVG | | | P | |
| 11 | 5755.000 | 39.87 | -2.71 | 37.16 | 60.00 | -22.84 | AVG | | | P | |
| 12 | 5830.000 | 51.10 | -2.57 | 48.53 | 80.00 | -31.47 | peak | | | P | |

*:Maximum data x:Over limit !:over margin

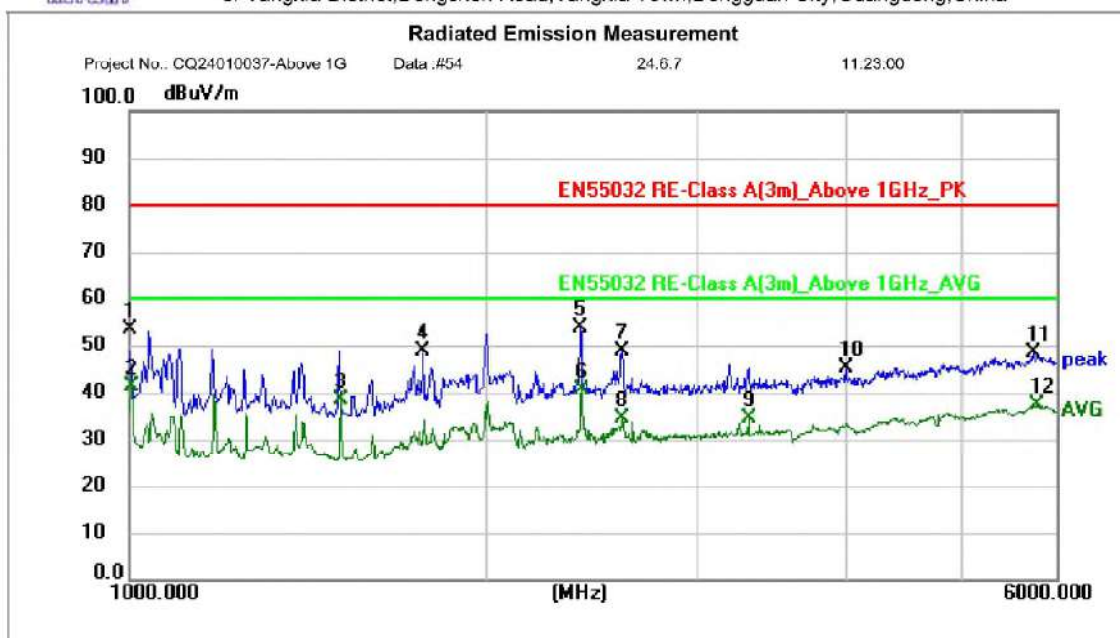
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Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



Site LAB Polarization: **Vertical** Temperature: 26 °C
Limit: EN55032 RE-Class A(3m)_Above 1GHz_PK Power: AC 100V/60Hz Humidity: 54 %RH
EUT: LED Display Distance: 3m
M/N: T MAX COB0.7
Mode: White Screen
Note:

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 1000.000 | 69.51 | -16.26 | 53.25 | 80.00 | -26.75 | peak | | | P | |
| 2 * | 1005.000 | 57.48 | -16.25 | 41.23 | 60.00 | -18.77 | AVG | | | P | |
| 3 | 1505.000 | 54.58 | -16.05 | 38.53 | 60.00 | -21.47 | AVG | | | P | |
| 4 | 1765.000 | 63.21 | -14.40 | 48.81 | 80.00 | -31.19 | peak | | | P | |
| 5 | 2395.000 | 65.45 | -11.62 | 53.83 | 80.00 | -26.17 | peak | | | P | |
| 6 | 2400.000 | 51.97 | -11.60 | 40.37 | 60.00 | -19.63 | AVG | | | P | |
| 7 | 2590.000 | 59.75 | -10.97 | 48.78 | 80.00 | -31.22 | peak | | | P | |
| 8 | 2595.000 | 45.43 | -10.96 | 34.47 | 60.00 | -25.53 | AVG | | | P | |
| 9 | 3310.000 | 43.50 | -8.95 | 34.55 | 60.00 | -25.45 | AVG | | | P | |
| 10 | 4000.000 | 52.56 | -7.29 | 45.27 | 80.00 | -34.73 | peak | | | P | |
| 11 | 5745.000 | 51.14 | -2.74 | 48.40 | 80.00 | -31.60 | peak | | | P | |
| 12 | 5795.000 | 39.80 | -2.64 | 37.16 | 60.00 | -22.84 | AVG | | | P | |

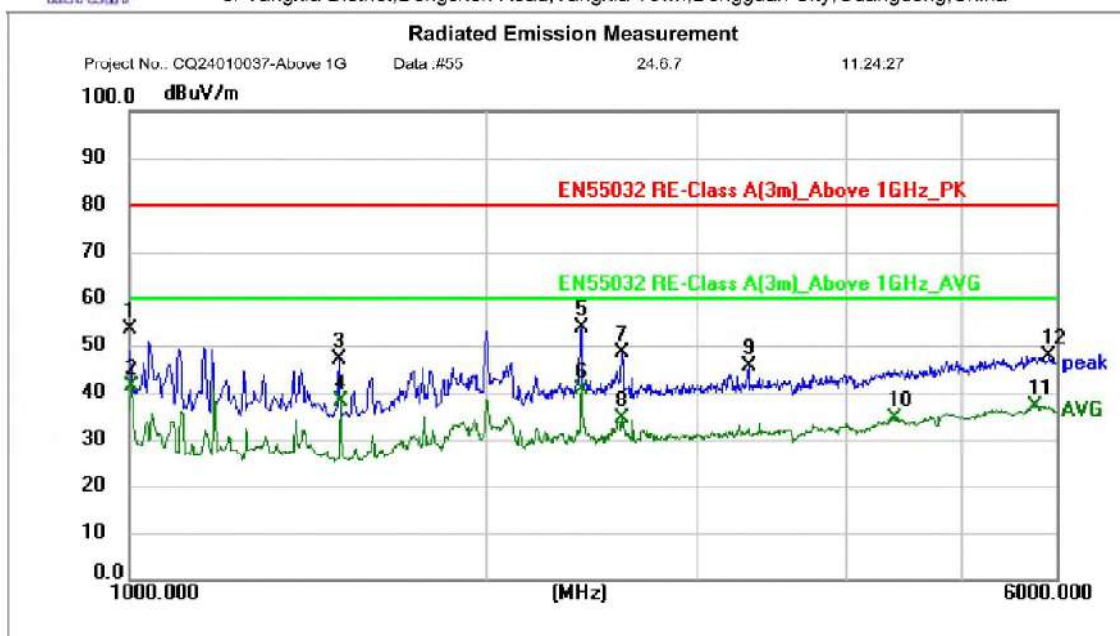
*:Maximum data x:Over limit !:over margin

Prüfbericht - Nr.: **CN24DBVY 001**

Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|---|-------------------------------|--------------------|
| Site LAB | Polarization: Vertical | Temperature: 26 °C |
| Limit: EN55032 RE-Class A(3m)_Above 1GHz_PK | Power: AC 100V/60Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: Color bar Movement | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 1000.000 | 69.67 | -16.26 | 53.41 | 80.00 | -26.59 | peak | | | P | |
| 2 * | 1005.000 | 57.53 | -16.25 | 41.28 | 60.00 | -18.72 | AVG | | | P | |
| 3 | 1500.000 | 63.21 | -16.09 | 47.12 | 80.00 | -32.88 | peak | | | P | |
| 4 | 1505.000 | 54.12 | -16.05 | 38.07 | 60.00 | -21.93 | AVG | | | P | |
| 5 | 2400.000 | 65.34 | -11.60 | 53.74 | 80.00 | -26.26 | peak | | | P | |
| 6 | 2400.000 | 52.26 | -11.60 | 40.66 | 60.00 | -19.34 | AVG | | | P | |
| 7 | 2590.000 | 59.49 | -10.97 | 48.52 | 80.00 | -31.48 | peak | | | P | |
| 8 | 2595.000 | 45.51 | -10.96 | 34.55 | 60.00 | -25.45 | AVG | | | P | |
| 9 | 3310.000 | 54.53 | -8.95 | 45.58 | 80.00 | -34.42 | peak | | | P | |
| 10 | 4400.000 | 40.43 | -6.05 | 34.38 | 60.00 | -25.62 | AVG | | | P | |
| 11 | 5770.000 | 39.77 | -2.69 | 37.08 | 60.00 | -22.92 | AVG | | | P | |
| 12 | 5925.000 | 50.04 | -2.39 | 47.65 | 80.00 | -32.35 | peak | | | P | |

*:Maximum data x:Over limit !:over margin

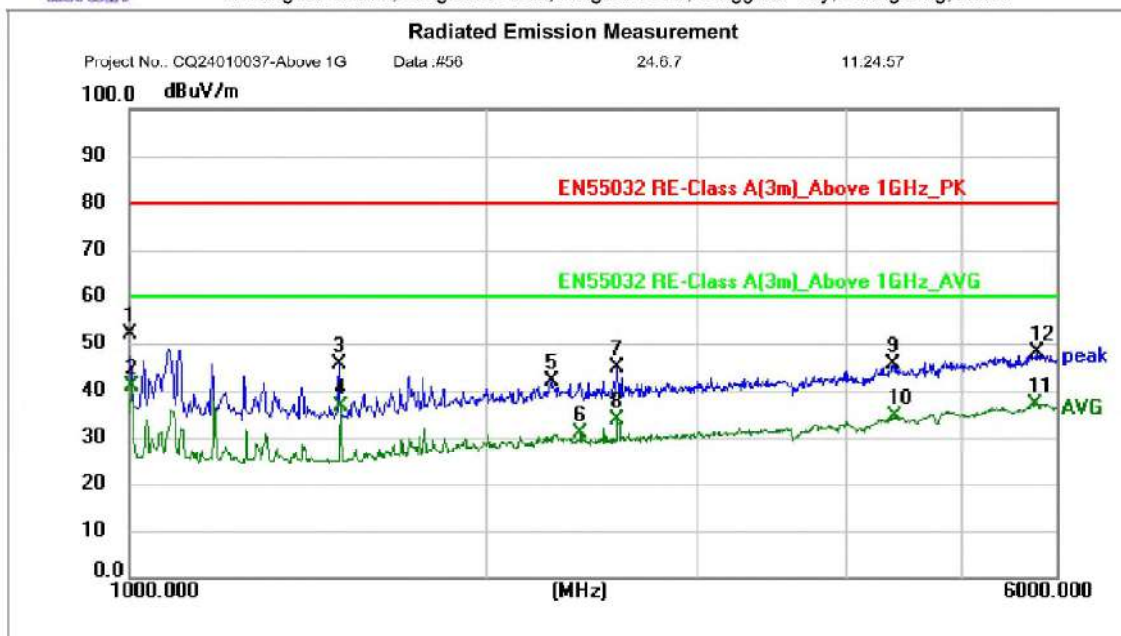
Prüfbericht - Nr.: CN24DBVY 001

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Test Report No.



Keyway Testing Technology (Guangdong) Co., Ltd
Room2102,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



| | | |
|---|---------------------------------|--------------------|
| Site LAB | Polarization: Horizontal | Temperature: 26 °C |
| Limit: EN55032 RE-Class A(3m)_Above 1GHz_PK | Power: AC 100V/60Hz | Humidity: 54 %RH |
| EUT: LED Display | Distance: 3m | |
| M/N: T MAX COB0.7 | | |
| Mode: Color bar Movement | | |
| Note: | | |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1 | 1000.000 | 68.40 | -16.26 | 52.14 | 80.00 | -27.86 | peak | | | P | |
| 2 * | 1005.000 | 56.99 | -16.25 | 40.74 | 60.00 | -19.26 | AVG | | | P | |
| 3 | 1500.000 | 61.51 | -16.09 | 45.42 | 80.00 | -34.58 | peak | | | P | |
| 4 | 1505.000 | 52.56 | -16.05 | 36.51 | 60.00 | -23.49 | AVG | | | P | |
| 5 | 2260.000 | 54.09 | -12.07 | 42.02 | 80.00 | -37.98 | peak | | | P | |
| 6 | 2395.000 | 42.34 | -11.62 | 30.72 | 60.00 | -29.28 | AVG | | | P | |
| 7 | 2575.000 | 55.75 | -11.02 | 44.73 | 80.00 | -35.27 | peak | | | P | |
| 8 | 2575.000 | 44.76 | -11.02 | 33.74 | 60.00 | -26.26 | AVG | | | P | |
| 9 | 4380.000 | 51.80 | -6.10 | 45.70 | 80.00 | -34.30 | peak | | | P | |
| 10 | 4400.000 | 40.60 | -6.05 | 34.55 | 60.00 | -25.45 | AVG | | | P | |
| 11 | 5775.000 | 39.78 | -2.67 | 37.11 | 60.00 | -22.89 | AVG | | | P | |
| 12 | 5785.000 | 50.54 | -2.66 | 47.88 | 80.00 | -32.12 | peak | | | P | |

*:Maximum data x:Over limit !:over margin

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Keyway Testing Technology (Guangdong) Co., Ltd. EMC equipment list

1.1.1. For conducted emission at the mains terminals and signal port test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|--------------------------|---------------|-----------|------------|------------|------------|
| EMI Test Receiver | Rohde&Schwarz | ESCI | 101178 | Apr 12, 24 | Apr 11, 25 |
| Artificial Mains Network | Rohde&Schwarz | ENV216 | 101315 | Apr 12,24 | Apr 11,25 |

1.1.2. For radiated emission test (30MHz-1GHz)

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|--------------------------|-----------------|----------------------|----------------------|------------|------------|
| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
| EMI Test Receiver | Rohde&Schwarz | ESCI | 101156 | Apr 12, 24 | Apr 11, 25 |
| TRILOG Broadband Antenna | Schwarzbeck | VULB 9168 | 00829 | Apr 13, 24 | Apr 12, 25 |
| 3m Semi-anechoic Chamber | YIHENDIANZI | 966 | YH-KW-966-02 | Mar 07, 24 | Mar 06, 27 |
| RF Cable | EMC Instruments | EMCCFD400-NM-NM-2000 | 240307 | Apr 12, 24 | Apr 11, 25 |
| RF Cable | EMC Instruments | EMCCFD400-NM-NM-9000 | 240309 | Apr 12, 24 | Apr 11, 25 |
| MULTI-DEVICE Controller | TUOPU | TPMDC | 00924011302 01-01 | N/A | N/A |
| Video Controller | TUOPU | TPHV-300C | 03324011602 01-02 | N/A | N/A |

1.1.3. For radiated emission test (Above 1GHz)

| | | | | | |
|-------------------------|-----------------|-------------------|----------------------|------------|------------|
| EMI Test Receiver | Rohde&Schwarz | ESCI | 101156 | Apr 12, 24 | Apr 11, 25 |
| Horn Antenna | DAZE | ZN30701 | 11003 | Apr 13, 24 | Apr 12, 25 |
| Spectrum Analyzer | Keysight | N9020A | MY56070279 | Apr 12, 24 | Apr 11, 25 |
| 3m anechoic Chamber | YIHENDIANZI | 966 | YH-KW-966-02 | Jan 18, 24 | Jan 17, 27 |
| Signal Amplifier | ZHINAN | ZN3380C | 11001 | Apr 12, 24 | Apr 11, 25 |
| RF Cable | EMC Instruments | EMC105-SM-SM-1000 | 240301 | Apr 13, 24 | Apr 12, 25 |
| RF Cable | EMC Instruments | EMC105-SM-SM-2000 | 240302 | Apr 13, 24 | Apr 12, 25 |
| RF Cable | EMC Instruments | EMC105-SM-SM-9000 | 240303 | Apr 13, 24 | Apr 12, 25 |
| MULTI-DEVICE Controller | TUOPU | TPMDC | 009240113020 1-01 | N/A | N/A |
| Video Controller | TUOPU | TPHV-300C | 033240116020 1-02 | N/A | N/A |

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Test Report No.

1.1.4.For harmonic current emissions and voltage fluctuations/flicker test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|------------------------------|------------------------|-----------|------------|------------|------------|
| 5kVA AC Power Source | California Instruments | 5001iX | 60138 | Apr 12, 24 | Apr 11, 25 |
| Harmonic/Flicker Test System | California Instruments | PACS-1 | 72847 | Apr 12, 24 | Apr 11, 25 |

1.1.5.For electrostatic discharge immunity test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|---------------|--------------|-----------|------------|------------|------------|
| ESD Generator | TESEQ | NSG437 | 433 | Apr 13, 24 | Apr 12, 25 |

1.1.6.For radio frequency electromagnetic field immunity (R/S) test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|------------------------|--------------|--------------|------------|------------|------------|
| Bilog Antenna | ETS | 3142D | 00135452 | Apr 13, 24 | Apr 12, 25 |
| Amplifier (80-1000MHz) | SKET | AP801000_250 | MPA1708341 | May 15, 24 | May 14, 26 |
| Amplifier (1-3GHz) | SKET | AP0103_75 | MPA1708342 | May 15, 24 | May 14, 26 |
| Amplifier (3-6GHz) | SKET | AP0206_50 | MPA1708343 | May 15, 24 | May 14, 26 |
| RF Switch | EMC TOYO | / | / | Apr 12, 24 | Apr 11, 25 |
| Power Sensor | Agilent | / | MY41496069 | May 15, 24 | May 14, 26 |
| Signal Generator | Agilent | N5181B | MY53050432 | Apr 12, 24 | Apr 11, 25 |
| Power Meter | Agilent | E4418B | MY41294414 | May 15, 24 | May 14, 26 |
| Electric field probe | Narda | EP-601 | 611WX70730 | May 15, 24 | May 14, 26 |

1.1.7.For electrical fast transient/burst immunity test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|--------------------|--------------|-----------|-------------|------------|------------|
| EFT Tester | EMtest | EFT500N5 | V1105108698 | Apr 12, 24 | Apr 11, 25 |
| EFT Coupling Clamp | EMtest | HFK | 0211-168 | Apr 12, 24 | Apr 11, 25 |

1.1.8.For surge immunity test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|--------------|--------------|-----------|-------------|------------|------------|
| Surge Tester | EMtest | UCS500N7 | V1105108699 | Apr 12, 24 | Apr 11, 25 |

1.1.9.For injected currents susceptibility test

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|-------------------|-----------------|-------------|------------|------------|------------|
| C/S Tester | HTEC | HT-6000 | 205201 | May 15, 24 | May 14, 25 |
| CDN | Luthi | L-801 M2/M3 | 2789 | May 15, 24 | May 14, 25 |
| Audio Test System | audio precision | ATS-1 | 40963 | May 15, 24 | May 14, 26 |

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Test Report No.

| | | | | | |
|---------------------------------|-------|-------|-------|------------|------------|
| Electromagnetic Injection Clamp | Luthi | EM101 | 36041 | Apr 13, 24 | Apr 12, 25 |
|---------------------------------|-------|-------|-------|------------|------------|

1.1.10. For voltage dips and short interruptions immunity test:

| Equipment | Manufacturer | Model No. | Serial No. | Last Cal. | Next Cal. |
|-------------|--------------|--------------|-----------------------|------------|------------|
| Dips Tester | EVERFINE | EMS61000-11K | YG100319N110 40005 | Apr 12, 24 | Apr 11, 25 |

CERTIFICATE

of Conformity

Low Voltage Directive (EU) 2014/35

Registration No.: AN 50637299 0001
Report No.: CN245OC3 001
Holder: Shenzhen Fabulux Technology Co.,Ltd
Factory 1201, No.14 of Xiawei
Industrial Zone,
Zhangkengjing Community, Guanhu Street,
Longhua District, Shenzhen
Guangdong
P.R. China
Product: Display Unit
(LED DISPLAY)

Type designation listed on the next page

This certificate of conformity is based on an evaluation of a sample of the above-mentioned product. Technical Report and documentation are at the License Holder's disposal. This is to certify that the tested sample is in conformity with Annex I of Council Directive (EU) 2014/35, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex IV of the Directive.

Date: 2024-07-04

Certification Body

Martin Wang



TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

The CE marking may be used if all relevant and effective EC Directives/Regulations are complied with.

CERTIFICATE

of Conformity
Low Voltage Directive (EU) 2014/35

Registration No.: AN 50637299 0001


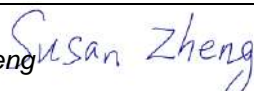
Product: Display Unit
(LED DISPLAY)

Identification: Type Designation
T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5
Serial No.: n.a.
Remark: Refer to test report CN2450C3 001 for details.
Tested acc. to: EN 62368-1:2014+A11



TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

The CE marking may be used if all relevant and effective EC Directives/Regulations are complied with.

| | | | | |
|--|---|--|----------------------|---------------------------------------|
| Prüfbericht-Nr.: <i>Test report no.:</i> | CN245OC3 001 | Auftrags-Nr.: <i>Order No.:</i> | 170377207 | Seite 1 von 59 <i>Page 1 of 59</i> |
| Kunden-Referenz-Nr.: <i>Client reference no.:</i> | N/A | Auftragsdatum: <i>Order date:</i> | June 06, 2024 | |
| Auftraggeber: <i>Client:</i> | Shenzhen Fabulux Technology Co.,Ltd Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P. R. China | | | |
| Prüfgegenstand: <i>Test item:</i> | LED DISPLAY | | | |
| Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i> | T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 | | | |
| Auftrags-Inhalt: <i>Order content:</i> | TÜV Rheinland LVD approval | | | |
| Prüfgrundlage: <i>Test specification:</i> | EN 62368-1: 2014+A11 | | | |
| Wareneingangsdatum: <i>Date of sample receipt:</i> | May 08, 2024 | Detailed photo documentation see attachment of test report CN245OC3 001 (Photo document). | | |
| Prüfmuster-Nr.: <i>Test sample No.:</i> | A003325391 | | | |
| Prüfzeitraum: <i>Testing period:</i> | May 08, 2024 to June 06, 2024 | | | |
| Ort der Prüfung: <i>Place of testing:</i> | TÜV Rheinland (Guangdong) Ltd. | | | |
| Prüflaboratorium: <i>Testing laboratory:</i> | TÜV Rheinland (Guangdong) Ltd. | | | |
| Prüfergebnis*: <i>Test result*:</i> | Pass | | | |
| überprüft von: <i>reviewed by:</i>  | Genehmigt von: <i>authorized by:</i>  | | | |
| Datum: <i>Date:</i> Jun. 28, 2024 | Datum: <i>Date:</i> Jun. 29, 2024 | | | |
| Stellung / Position: Project Engineer | Stellung / Position: Technical Certifier | | | |
| Sonstiges/ Other: TÜV Rheinland LVD approval procedure. Construction of all alternative components was considered. And it tested according European harmonized standards. | | | | |
| Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i> | Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i> | | | |
| * Legende: P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet * Legend: P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested | | | | |
| Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i> | | | | |


V05

Prüfbericht-Nr.: CN24KHDO 001
Test report no.:

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Anmerkungen
Remarks

- | | |
|---|--|
| 1 | <p>Alle eingesetzten Prüfmittel waren zum angegebenen Prüfzeitraum gemäß eines festgelegten Kalibrierungsprogramms unseres Prüfhauses kalibriert. Sie entsprechen den in den Prüfprogrammen hinterlegten Anforderungen. Die Rückverfolgbarkeit der eingesetzten Prüfmittel ist durch die Einhaltung der Regelungen unseres Managementsystems gegeben. Detaillierte Informationen bezüglich Prüfkonditionen, Prüfequipment und Messunsicherheiten sind im Prüflabor vorhanden und können auf Wunsch bereitgestellt werden.</p> <p><i>The equipment used during the specified testing period was calibrated according to our test laboratory calibration program. The equipment fulfils the requirements included in the relevant standards. The traceability of the test equipment used is ensured by compliance with the regulations of our management system. Detailed information regarding test conditions, equipment and measurement uncertainty is available in the test laboratory and could be provided on request.</i></p> |
| 2 | <p>Wie vertraglich vereinbart, wurde dieses Dokument nur digital unterzeichnet. Der TÜV Rheinland hat nicht überprüft, welche rechtlichen oder sonstigen diesbezüglichen Anforderungen für dieses Dokument gelten. Diese Überprüfung liegt in der Verantwortung des Benutzers dieses Dokuments. Auf Verlangen des Kunden kann der TÜV Rheinland die Gültigkeit der digitalen Signatur durch ein gesondertes Dokument bestätigen. Diese Anfrage ist an unseren Vertrieb zu richten. Eine Umweltgebühr für einen solchen zusätzlichen Service wird erhoben. Informationen zur Verifizierung der Authentizität unserer Dokumente erhalten Sie über folgenden Link: Einführung in digitale Signaturen</p> <p><i>As contractually agreed, this document has been signed digitally only. TUV Rheinland has not verified and unable to verify which legal or other pertaining requirements are applicable for this document. Such verification is within the responsibility of the user of this document. Upon request by its client, TUV Rheinland can confirm the validity of the digital signature by a separate document. Such request shall be addressed to our Sales department. An environmental fee for such additional service will be charged. For information on verifying the authenticity of our documents, please visit the following link: Introduction to Digital Signature</i></p> |
| 3 | <p>Prüfklausel mit der Note * wurden an qualifizierte Unterauftragnehmer vergeben und sind unter der jeweiligen Prüfklausel des Berichts beschrieben. Abweichungen von Prüfspezifikation(en) oder Kundenanforderungen sind in der jeweiligen Prüfklausel im Bericht aufgeführt.</p> <p><i>Test clauses with remark of * are subcontracted to qualified subcontractors and described under the respective test clause in the report. Deviations of testing specification(s) or customer requirements are listed in specific test clause in the report.</i></p> |
| 4 | <p>Die Entscheidungsregel für Konformitätserklärungen basierend auf numerischen Messergebnissen in diesem Prüfbericht basiert auf der "Null-Grenzwert-Regel" und der "Einfachen Akzeptanz" gemäß ILAC G8:2019 und IEC Guide 115:2021, es sei denn, in der auf Seite 1 dieses Berichts genannten angewandten Norm ist etwas anderes festgelegt oder vom Kunden gewünscht. Dies bedeutet, dass die Messunsicherheit nicht berücksichtigt wird und daher auch nicht im Prüfbericht angegeben wird. Zu weiteren Informationen bezüglich des Risikos durch diese Entscheidungsregel siehe ILAC G8:2019.</p> <p><i>The decision rule for statements of conformity, based on numerical measurement results, in this test report is based on the "Zero Guard Band Rule" and "Simple Acceptance" in accordance with ILAC G8:2019 and IEC Guide 115:2021, unless otherwise specified in the applied standard mentioned on Page 1 of this report or requested by the customer. This means that measurement uncertainty is not taken in account and hence also not declared in the test report. For additional information to the resulting risk based of this decision rule please refer to ILAC G8:2019.</i></p> |

| | |
|------------------------------------|--|
| Test Item description | LED DISPLAY |
| Trade Mark(s) |  |
| Manufacturer | Same as client |
| Model/Type reference | T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 |
| Ratings | Input: 100-240VAC, 50/60Hz, 10A (Max) Output: 100-240VAC, 50/60Hz, 9A (Max) |

List of Attachments (including a total number of pages in each attachment):

- Attachment 1: National Differences (13 pages)
- Attachment 2: Photo documentation (7 pages)

Summary of testing:
Tests performed (name of test and test clause):

All applicable tests as described in Test Case and Measurement Sections were performed.

| | |
|----------------------------|--|
| 5.2 | Electrical energy source classifications |
| 5.4.1.4, 6.3.2, 9.0, B.2.6 | Maximum operating temperatures for materials, components and systems |
| 5.4.1.10.3 | Ball pressure test of thermoplastics |
| 5.4.2.2, 5.4.2.4 & 5.4.3 | Minimum Clearances/Creepage distance |
| 5.4.8 | Humidity conditioning |
| 5.4.9 | Electric strength test |
| 5.5.2.2 | Safeguards against capacitance discharge test |
| 5.6.6.2 | Resistance of the protective bonding system (Ground continuity test) |
| 5.7.2.2, 5.7.4 | Earthed accessible conductive part test |
| 5.7.5 | Protective conductor current |
| 6.2.2 | Electrical power sources (PS) measurements for classification |
| 9.2 | Thermal energy source Classifications |
| B.2.5 | Input tests |
| B.3 | Simulated Abnormal operating condition tests |
| B.4 | Simulated single fault conditions |
| F.3.9 | Durability, legibility and permanence of markings |
| T.2 | Steady force test, 10 N |
| T.5 | Steady force test, 250 N |
| T.6 | Enclosure impact test |
| T.8 | Stress relief test |

Remark:

Model T MAX COB0.7 was the selected model for the tests.

Testing location:

TÜV Rheinland (Guangdong) Ltd.
 No. 199 Kezhu Road, Guangzhou Science
 City Guangzhou 510663 China

Summary of compliance with National Differences (List of countries addressed):

EU Group Differences, EU Special National Conditions

DE, DK, FI, GB, IE, IT, NO, SE

Explanation of used codes: DE=Germany, DK=Denmark, FI=Finland, GB= United Kingdom, IE=Ireland, IT=Italy, NO=Norway, SE=Sweden.

The product fulfils the requirements of EN 62368-1:2014+A11:2017.

Copy of marking plate:

The artwork below may be only a draft.



Note:

1. This is representative label; the others are identical to it except for the model number, detail see model list.
2. The above marking are the minimum requirements by the safety standard. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.
3. The batch or serial number should be pasted to product before sell to EU market.
4. Manufacturer information (name/registered trademark/registered trade name and postal address) or importer information for manufacturer outside of the EU (name/registered trademark/registered trade name and postal address) should be pasted on product when sell the product to the EU market.

| TEST ITEM PARTICULARS: | |
|---|---|
| Classification of use by | <input type="checkbox"/> Ordinary person <input checked="" type="checkbox"/> Instructed person <input checked="" type="checkbox"/> Skilled person <input type="checkbox"/> Children likely to be present |
| Supply Connection | <input checked="" type="checkbox"/> AC Mains <input type="checkbox"/> DC Mains <input type="checkbox"/> External Circuit - not Mains connected - <input type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3 |
| Supply % Tolerance | <input checked="" type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> + ____% / - ____% <input type="checkbox"/> None |
| Supply Connection – Type | <input type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> direct plug-in <input type="checkbox"/> mating connector <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input checked="" type="checkbox"/> other: <u>Consider in end system</u> |
| Considered current rating of protective device as part of building or equipment installation | 16 A, 13 A (GB) Installation location: <input checked="" type="checkbox"/> building; <input type="checkbox"/> equipment |
| Equipment mobility | <input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> stationary <input checked="" type="checkbox"/> for building-in <input type="checkbox"/> direct plug-in <input type="checkbox"/> rack-mounting <input type="checkbox"/> wall-mounted |
| Over voltage category (OVC) | <input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other: _____ |
| Class of equipment | <input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Class II with functional earthing <input type="checkbox"/> Not classified |
| Access location | <input type="checkbox"/> restricted access location <input checked="" type="checkbox"/> N/A |
| Pollution degree (PD) | <input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3 |
| Manufacturer's specified maximum operating ambient | 50°C |
| IP protection class | <input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP____ |
| Power Systems | <input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input type="checkbox"/> IT - ____ V _{L-L} ; <input type="checkbox"/> dc mains <input type="checkbox"/> N/A |
| Altitude during operation (m) | <input type="checkbox"/> 2000 m or less <input checked="" type="checkbox"/> <u>5000</u> m |
| Altitude of test laboratory (m) | <input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> ____ m |
| Mass of equipment (kg) | <input checked="" type="checkbox"/> Max. 4.45kg |

| | |
|---|--|
| POSSIBLE TEST CASE VERDICTS: | |
| - test case does not apply to the test object | N/A |
| - test object does meet the requirement | P (Pass) |
| - test object does not meet the requirement | F (Fail) |
| TESTING: | |
| Date of receipt of test item..... | See cover page |
| Date (s) of performance of tests | See cover page |
| GENERAL REMARKS: | |
| "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator. | |
| When differences exist; they shall be identified in the General product information section. | |
| Name and address of factory (ies) | Shenzhen Fabulux Technology Co.,Ltd Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, P. R. China |
| GENERAL PRODUCT INFORMATION: | |
| Product Description – | |
| 1. The equipment, models: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 are LED DISPLAY intended for general use with information and communication technology equipment in the scope of this standard. 2. The further evaluation and testing must be checked and performed in the final system for this built-in equipment. 3. The test items are pre-production samples without serial numbers. 4. The enclosures are secured together by screws and mechanical fixing. 5. This equipment consists with following critical parts: <ul style="list-style-type: none"> - Enclosure (frame of product is metal), the LED panel fixed to the metal frame (front LED lamp welding on the LED PCB board); - Approved building-in power supply used; - HUB PCB board (as SELV circuit; with RJ45 port (network cable port)). | |

Model Differences –

Model list: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5

All models are identical to each other except for model number, LED modules (including quantity of LED, circuit principle and PCB layout), pixel pitch options and the LEDs quantity per square meter for certain pixel pitch.
(See below tables for details)

| Model no. | Pixel pitch (mm) | Quantity of LED (pcs/m ²) |
|--------------|------------------|---------------------------------------|
| T MAX COB0.7 | 0.78125 | 1638400 |
| T MAX COB0.9 | 0.9375 | 1137778 |
| T MAX COB1.2 | 1.25 | 640000 |
| T MAX COB1.5 | 1.56 | 409600 |

Additional application considerations – (Considerations used to test a component or sub-assembly) –

N/A

| ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE: | |
|--|--|
| (Note 1: Identify the following six (6) energy source forms based on the origin of the energy.) (Note 2: The identified classification e.g., ES2, TS1, should be with respect to its ability to cause pain or injury on the body or its ability to ignite a combustible material. Any energy source can be declared Class 3 as a worse case classification e.g., PS3, ES3.) | |
| Electrically-caused injury (Clause 5): (Note: Identify type of source, list sub-assembly or circuit designation and corresponding energy source classification) Example: +5 V dc input ES1 | |
| Source of electrical energy | Corresponding classification (ES) |
| Primary circuits | ES3 |
| Secondary circuits (except for RJ45 port) (Supply by approved built-in power supply with ES1 class output) | ES1 |
| RJ45 port | ES1 |
| Electrically-caused fire (Clause 6): (Note: List sub-assembly or circuit designation and corresponding energy source classification) Example: Battery pack (maximum 85 watts): PS2 | |
| Source of power or PIS | Corresponding classification (PS) |
| Primary circuits | PS3 |
| Secondary circuits (except for RJ45) | PS3 |
| RJ45 port | PS1 |
| Injury caused by hazardous substances (Clause 7) (Note: Specify hazardous chemicals, whether produces ozone or other chemical construction not addressed as part of the component evaluation.) Example: Liquid in filled component Glycol | |
| Source of hazardous substances | Corresponding chemical |
| N/A | N/A |
| Mechanically-caused injury (Clause 8) (Note: List moving part(s), fan, special installations, etc. & corresponding MS classification based on Table 35.) Example: Wall mount unit MS2 | |
| Source of kinetic/mechanical energy | Corresponding classification (MS) |
| Smooth edges and corners | MS1 |
| Mass: 4.45kg (max.) < 7kg | MS1 (The further evaluation and testing must be checked and performed in the final system for this built-in equipment) |
| Thermal burn injury (Clause 9) (Note: Identify the surface or support, and corresponding energy source classification based on type of part, location, operating temperature and contact time in Table 38.) Example: Hand-held scanner – thermoplastic enclosure TS1 | |
| Source of thermal energy | Corresponding classification (TS) |
| External enclosure surfaces | TS1 for accessible part |
| Radiation (Clause 10) (Note: List the types of radiation present in the product and the corresponding energy source classification.) Example: DVD – Class 1 Laser Product RS1 | |
| Type of radiation | Corresponding classification (RS) |

| ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE: | |
|---|-----------------------------|
| Indicating lights – LEDs | RS1 |
| LED panel | Exempt Group acc. IEC 62471 |

ENERGY SOURCE DIAGRAM

Indicate which energy sources are included in the energy source diagram. Insert diagram below

See "ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE" for details.

ES **PS** **MS** **TS** **RS**

| OVERVIEW OF EMPLOYED SAFEGUARDS | | | | |
|---|---|------------------|-----------------------------|---|
| Clause | Possible Hazard | | | |
| 5.1 | Electrically-caused injury | | | |
| Body Part (e.g. Ordinary) | Energy Source (ES3: Primary Filter circuit) | Safeguards | | |
| | | Basic | Supplementary | Reinforced (Enclosure) |
| Ordinary | ES3: Primary circuits (AC mains, primary parts of SWITCHING POWER SUPPLY) | N/A | N/A | Enclosure See 5.4.2, 5.4.3, 5.5.2, 5.5.3 |
| Ordinary | ES3: Primary circuits (charged capacitor) | N/A | N/A | See 5.5.2.2 |
| Ordinary | ES1: RJ45 port | N/A | N/A | N/A |
| 6.1 | Electrically-caused fire | | | |
| Material part (e.g. mouse enclosure) | Energy Source (PS2: 100 Watt circuit) | Safeguards | | |
| | | Basic | Supplementary | Reinforced |
| Combustible materials within equipment | PS3: > 100 Watt circuit (Primary and secondary circuits) | See 6.3.1 (a) | See 6.4.5 and 6.4.6 | N/A |
| Internal wiring material | PS3: > 100 Watt circuit (Primary and secondary circuits) | See 6.3.1 (a) | See 6.5 | N/A |
| Input/ output connector | PS3: > 100 Watt circuit | See 6.3.1 (a) | See 6.5, 6.4.5 and 6.4.6 | N/A |
| Component material (Indicating LED, RJ45 port) | PS1: ≤15 Watt | N/A | N/A | N/A |
| 7.1 | Injury caused by hazardous substances | | | |
| Body Part (e.g., skilled) | Energy Source (hazardous material) | Safeguards | | |
| | | Basic | Supplementary | Reinforced |
| N/A | N/A | N/A | N/A | N/A |
| 8.1 | Mechanically-caused injury | | | |
| Body Part (e.g. Ordinary) | Energy Source (MS3: High Pressure Lamp) | Safeguards | | |
| | | Basic | Supplementary | Reinforced (Enclosure) |
| Ordinary | MS1: Smooth edge and corners | N/A | N/A | N/A |
| Ordinary | MS1: Equipment mass (The further evaluation and testing must be checked and performed in the final system for this built-in equipment) | N/A | N/A | N/A |
| 9.1 | Thermal Burn | | | |
| Body Part (e.g., Ordinary) | Energy Source (TS2) | Safeguards | | |
| | | Basic | Supplementary | Reinforced |
| Ordinary | TS1: All accessible parts | N/A | N/A | N/A |

| 10.1 | Radiation | | | |
|---|---|------------|---------------|------------|
| Body Part (e.g., Ordinary) | Energy Source (Output from audio port) | Safeguards | | |
| | | Basic | Supplementary | Reinforced |
| Ordinary | RS1: Indicating lights – LEDs | N/A | N/A | N/A |
| Ordinary | Exempt Group acc. IEC 62471 – LED panel | | | |
| Supplementary information: (1) See attached energy source diagram for additional details. (2) “N” – Normal Condition; “A” – Abnormal Condition; “S” – Single Fault. | | | | |

| IEC 62368-1 | | | |
|-------------|--|---|----------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4 | GENERAL REQUIREMENTS | | P |
| 4.1.1 | Acceptance of materials, components and subassemblies | See appended table 4.1.2. | P |
| 4.1.2 | Use of components | Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment. See also Annex G | P |
| 4.1.3 | Equipment design and construction | No accessible part which could cause injury. | P |
| 4.1.15 | Markings and instructions | See Annex F | P |
| 4.4.4 | Safeguard robustness | See below | P |
| 4.4.4.2 | Steady force tests | (See Annex T.2, T.5) | P |
| 4.4.4.3 | Drop tests..... | No such consideration for building-in type equipment | N/A |
| 4.4.4.4 | Impact tests..... | (See Annex T.6) | P |
| 4.4.4.5 | Internal accessible safeguard enclosure and barrier tests | No such consideration for building-in type equipment | P |
| 4.4.4.6 | Glass Impact tests | No such glass used. | N/A |
| 4.4.4.7 | Thermoplastic material tests | For the all sources material listed in "List of critical components" are tested for a period of 7 hours. (See Annex T.8). | P |
| 4.4.4.8 | Air comprising a safeguard | (See Annex T) | P |
| 4.4.4.9 | Accessibility and safeguard effectiveness | | P |
| 4.5 | Explosion | | P |
| 4.6 | Fixing of conductors | | P |
| 4.6.1 | Fix conductors not to defeat a safeguard | | P |
| 4.6.2 | 10 N force test applied to | (See appended table 5.4.2.2, 5.4.2.4 and 5.4.3). | P |
| 4.7 | Equipment for direct insertion into mains socket - outlets | | N/A |
| 4.7.2 | Mains plug part complies with the relevant standard | | N/A |
| 4.7.3 | Torque (Nm)..... | | N/A |
| 4.8 | Products containing coin/button cell batteries | | N/A |
| 4.8.2 | Instructional safeguard | | N/A |
| 4.8.3 | Battery Compartment Construction | | N/A |
| | Means to reduce the possibility of children removing the battery | | — |

| IEC 62368-1 | | | |
|-------------|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4.8.4 | Battery Compartment Mechanical Tests | | N/A |
| 4.8.5 | Battery Accessibility | | N/A |
| 4.9 | Likelihood of fire or shock due to entry of conductive object | (See Annex P). | P |

| 5 | ELECTRICALLY-CAUSED INJURY | | P |
|---------|---|--|----------|
| 5.2.1 | Electrical energy source classifications..... | See ENERGY SOURCE IDENTIFICATION AND CLASSIFICATION TABLE. | P |
| 5.2.2 | ES1, ES2 and ES3 limits | | P |
| 5.2.2.2 | Steady-state voltage and current | (See appended table 5.2) | P |
| 5.2.2.3 | Capacitance limits | (See appended table 5.2.2.3) | P |
| 5.2.2.4 | Single pulse limits | No such single pulses generated in the EUT or applied to it. | N/A |
| 5.2.2.5 | Limits for repetitive pulses | No such repetitive pulses within the EUT | N/A |
| 5.2.2.6 | Ringing signals | No such ringing signals within the EUT | N/A |
| 5.2.2.7 | Audio signals | No such audio signals | N/A |
| 5.3 | Protection against electrical energy sources | (See appended table "OVERVIEW OF EMPLOYED SAFEGUARDS") | P |
| 5.3.1 | General Requirements for accessible parts to ordinary, instructed and skilled persons | | P |
| 5.3.2.1 | Accessibility to electrical energy sources and safeguards | | P |
| 5.3.2.2 | Contact requirements | | P |
| | a) Test with test probe from Annex V | (See Annex V) | P |
| | b) Electric strength test potential (V) | | N/A |
| | c) Air gap (mm) | Complied with the minimum distance requirement. (See appended table 5.4.2.2, 5.4.2.4 and 5.4.3.) | P |
| 5.3.2.4 | Terminals for connecting stripped wire | | N/A |
| 5.4 | Insulation materials and requirements | | P |
| 5.4.1.2 | Properties of insulating material | The choice and application have taken into account as specified in this Clause 5 and Annex T and natural rubber, hygroscopic materials or asbestos are not used as insulation. | P |
| 5.4.1.3 | Humidity conditioning | No hygroscopic material used. | P |
| 5.4.1.4 | Maximum operating temperature for insulating materials | (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6) | P |

| IEC 62368-1 | | | |
|--------------------|---|--|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.4.1.5 | Pollution degree | 2 | — |
| 5.4.1.5.2 | Test for pollution degree 1 environment and for an insulating compound | Pollution degree 2 is applied. No insulating compound applied (however see 5.5.4). | N/A |
| 5.4.1.5.3 | Thermal cycling | See above | N/A |
| 5.4.1.6 | Insulation in transformers with varying dimensions | No such transformer within the EUT | N/A |
| 5.4.1.7 | Insulation in circuits generating starting pulses | No such starting pulses within the EUT | N/A |
| 5.4.1.8 | Determination of working voltage | | P |
| 5.4.1.9 | Insulating surfaces | | N/A |
| 5.4.1.10 | Thermoplastic parts on which conductive metallic parts are directly mounted | See below | P |
| 5.4.1.10.2 | Vicat softening temperature..... | | N/A |
| 5.4.1.10.3 | Ball pressure | | P |
| 5.4.2 | Clearances | The highest value in Cl 5.4.2.2 and Cl 5.4.2.3 be used. | P |
| 5.4.2.2 | Determining clearance using peak working voltage | Temporary overvoltage 2000V _{peak} assumed. (See appended table 5.4.2.2) | P |
| 5.4.2.3 | Determining clearance using required withstand voltage | (See appended table 5.4.2.3) | P |
| | a) a.c. mains transient voltage | 2500 V _{pk} considered for Overvoltage Cat. II | — |
| | b) d.c. mains transient voltage | No such transient | — |
| | c) external circuit transient voltage | No such transient | — |
| | d) transient voltage determined by measurement : | | — |
| 5.4.2.4 | Determining the adequacy of a clearance using an electric strength test | Using procedure 2 to determine the clearance according to 5.4.2.3. | N/A |
| 5.4.2.5 | Multiplication factors for clearances and test voltages | 1.48 (5000m) | P |
| 5.4.3 | Creepage distances | Approved switching power supply used, also see appended table 5.4.2.2, 5.4.2.4 and 5.4.3 | P |
| 5.4.3.1 | General | | P |
| 5.4.3.3 | Material Group | Material group IIIb is assumed. | — |
| 5.4.4 | Solid insulation | Approved switching power supply used, (See appended table 5.4.4.2, 5.4.4.5 c) 5.4.4.9) | N/A |
| 5.4.4.2 | Minimum distance through insulation | | N/A |
| 5.4.4.3 | Insulation compound forming solid insulation | | N/A |
| 5.4.4.4 | Solid insulation in semiconductor devices | | N/A |

| IEC 62368-1 | | | |
|-------------|--|---|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.4.4.5 | Cemented joints | | N/A |
| 5.4.4.6 | Thin sheet material | | N/A |
| 5.4.4.6.1 | General requirements | | N/A |
| 5.4.4.6.2 | Separable thin sheet material | | N/A |
| | Number of layers (pcs) | | N/A |
| 5.4.4.6.3 | Non-separable thin sheet material | | N/A |
| 5.4.4.6.4 | Standard test procedure for non-separable thin sheet material | | N/A |
| 5.4.4.6.5 | Mandrel test | | N/A |
| 5.4.4.7 | Solid insulation in wound components | | N/A |
| 5.4.4.9 | Solid insulation at frequencies >30 kHz | | N/A |
| 5.4.5 | Antenna terminal insulation | | N/A |
| 5.4.5.1 | General | | N/A |
| 5.4.5.2 | Voltage surge test | | N/A |
| | Insulation resistance (MΩ)..... | | — |
| 5.4.6 | Insulation of internal wire as part of supplementary safeguard | | N/A |
| 5.4.7 | Tests for semiconductor components and for cemented joints | Certified sources of optocouplers are used in approved switching power supply | N/A |
| 5.4.8 | Humidity conditioning | Test was performed on product with each source of transformer listed in table 4.1.2 | P |
| | Relative humidity (%)..... | 95 % | — |
| | Temperature (°C) | 40 °C | — |
| | Duration (h) | 120 h (as client's requirement) | — |
| 5.4.9 | Electric strength test | (See appended table 5.4.9) | P |
| 5.4.9.1 | Test procedure for a solid insulation type test | | N/A |
| 5.4.9.2 | Test procedure for routine tests | | N/A |
| 5.4.10 | Protection against transient voltages between external circuit | No such external circuits | N/A |
| 5.4.10.1 | Parts and circuits separated from external circuits | | N/A |
| 5.4.10.2 | Test methods | | N/A |
| 5.4.10.2.1 | General | | N/A |
| 5.4.10.2.2 | Impulse test | | N/A |
| 5.4.10.2.3 | Steady-state test..... | | N/A |
| 5.4.11 | Insulation between external circuits and earthed circuitry | No such connections for external circuit applied within the EUT | N/A |

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|--------------------|--|---|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.4.11.1 | Exceptions to separation between external circuits and earth | No such connections to external circuit as above. | N/A |
| 5.4.11.2 | Requirements | | N/A |
| | Rated operating voltage U_{op} (V)..... : | | — |
| | Nominal voltage U_{peak} (V)..... : | | — |
| | Max increase due to variation U_{sp} : | | — |
| | Max increase due to ageing ΔU_{sa} : | | — |
| | $U_{op} = U_{peak} + \Delta U_{sp} + \Delta U_{sa}$: | | — |
| 5.5 | Components as safeguards | | |
| 5.5.1 | General | See below. | P |
| 5.5.2 | Capacitors and RC units | Evaluated in approved switching power supply | P |
| 5.5.2.1 | General requirement | | P |
| 5.5.2.2 | Safeguards against capacitor discharge after disconnection of a connector..... : | (See appended table 5.5.2.2) | P |
| 5.5.3 | Transformers | Evaluated in approved switching power supply | P |
| 5.5.4 | Optocouplers | Evaluated in approved switching power supply | P |
| 5.5.5 | Relays | | N/A |
| 5.5.6 | Resistors | | N/A |
| 5.5.7 | SPD's | Evaluated in approved switching power supply | P |
| 5.5.7.1 | Use of an SPD connected to reliable earthing | | N/A |
| 5.5.7.2 | Use of an SPD between mains and protective earth | | N/A |
| 5.5.8 | Insulation between the mains and external circuit consisting of a coaxial cable..... : | No such external circuits. | N/A |
| 5.6 | Protective conductor | | |
| 5.6.2 | Requirement for protective conductors | | P |
| 5.6.2.1 | General requirements | | P |
| 5.6.2.2 | Colour of insulation | Green-and-yellow wire | P |
| 5.6.3 | Requirement for protective earthing conductors | | N/A |
| | Protective earthing conductor size (mm ²) : | (See appended table 4.1.2) | — |
| 5.6.4 | Requirement for protective bonding conductors | | P |
| 5.6.4.1 | Protective bonding conductors | | P |
| | Protective bonding conductor size (mm ²). : | ≥ 0.75 mm ² (Min. 18AWG for protective bonding conductor) | — |
| | Protective current rating (A) : | ≤ 10 A | — |

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|--------------------|---|--|----------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.6.4.3 | Current limiting and overcurrent protective devices | | P |
| 5.6.5 | Terminals for protective conductors | | P |
| 5.6.5.1 | Requirement | | P |
| | Conductor size (mm ²), nominal thread diameter (mm) | The diameter of screw: ≥ 3.0mm | P |
| 5.6.5.2 | Corrosion | | P |
| 5.6.6 | Resistance of the protective system | | P |
| 5.6.6.1 | Requirements | | P |
| 5.6.6.2 | Test Method Resistance (Ω) | (See appended table 5.6.6.2) | P |
| 5.6.7 | Reliable earthing | | N/A |
| 5.7 | Prospective touch voltage, touch current and protective conductor current | | P |
| 5.7.2 | Measuring devices and networks | Figure 4 & Figure 5 of IEC 60990 were used. | P |
| 5.7.2.1 | Measurement of touch current | (See appended table 5.2.2.2) | P |
| 5.7.2.2 | Measurement of prospective touch voltage | | P |
| 5.7.3 | Equipment set-up, supply connections and earth connections | Clause 4, 5.3 and 5.4 of IEC 60990:1999 applied. | P |
| | System of interconnected equipment (separate connections/single connection) | Single equipment. | — |
| | Multiple connections to mains (one connection at a time/simultaneous connections) | Single connection. | — |
| 5.7.4 | Earthed conductive accessible parts | (See appended table 5.7.2.2, 5.7.4). | P |
| 5.7.5 | Protective conductor current | | N/A |
| | Supply Voltage (V)..... | | — |
| | Measured current (mA)..... | | — |
| | Instructional Safeguard..... | | N/A |
| 5.7.6 | Prospective touch voltage and touch current due to external circuits | No external circuits. | N/A |
| 5.7.6.1 | Touch current from coaxial cables | | N/A |
| 5.7.6.2 | Prospective touch voltage and touch current from external circuits | | N/A |
| 5.7.7 | Summation of touch currents from external circuits | No external circuits. | N/A |
| | a) Equipment with earthed external circuits Measured current (mA)..... | | N/A |
| | b) Equipment whose external circuits are not referenced to earth. Measured current (mA) | | N/A |
| 6 | ELECTRICALLY- CAUSED FIRE | | P |

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|--------------------|--|---|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 6.2 | Classification of power sources (PS) and potential ignition sources (PIS) | | P |
| 6.2.2 | Power source circuit classifications | PS (power source) classification determined by measuring the maximum power in Figures 34 and 35 for load and power source circuits. | P |
| 6.2.2.1 | General | See the following details. | P |
| 6.2.2.2 | Power measurement for worst-case load fault ... : | (See appended table 6.2.2) | P |
| 6.2.2.3 | Power measurement for worst-case power source fault..... : | (See appended table 6.2.2) | P |
| 6.2.2.4 | PS1 : | (See appended table 6.2.2) | P |
| 6.2.2.5 | PS2 : | | N/A |
| 6.2.2.6 | PS3 : | (See appended table 6.2.2) | P |
| 6.2.3 | Classification of potential ignition sources | See the following details. | P |
| 6.2.3.1 | Arcing PIS : | (See appended table 6.2.3.1) | P |
| 6.2.3.2 | Resistive PIS : | (See appended table 6.2.3.2). | P |
| 6.3 | Safeguards against fire under normal operating and abnormal operating conditions | | P |
| 6.3.1 (a) | No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials : | No ignition and no such temperature attained within the equipment. (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6) | P |
| 6.3.1 (b) | Combustible materials outside fire enclosure | | N/A |
| 6.4 | Safeguards against fire under single fault conditions | | P |
| 6.4.1 | Safeguard Method | | P |
| 6.4.2 | Reduction of the likelihood of ignition under single fault conditions in PS1 circuits | | N/A |
| 6.4.3 | Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits | | N/A |
| 6.4.3.1 | General | | N/A |
| 6.4.3.2 | Supplementary Safeguards | | N/A |
| | Special conditions if conductors on printed boards are opened or peeled | | N/A |
| 6.4.3.3 | Single Fault Conditions..... : | | N/A |
| | Special conditions for temperature limited by fuse | | N/A |
| 6.4.4 | Control of fire spread in PS1 circuits | | N/A |
| 6.4.5 | Control of fire spread in PS2 circuits | | N/A |
| 6.4.5.2 | Supplementary safeguards : | | N/A |

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|-------------|--|--|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 6.4.6 | Control of fire spread in PS3 circuit | - Printed boards made of V-0 class material - Wire insulation is complying with Clause 6.5 - a fire enclosure according to sub-clause 6.4.8 is provided with the equipment. (See appended tables 4.1.2 and Annex G) | P |
| 6.4.7 | Separation of combustible materials from a PIS | | N/A |
| 6.4.7.1 | General..... : | | N/A |
| 6.4.7.2 | Separation by distance | | N/A |
| 6.4.7.3 | Separation by a fire barrier | | N/A |
| 6.4.8 | Fire enclosures and fire barriers | The equipment is a building-in type and evaluation is also to be made during the final system approval. | N/A |
| 6.4.8.1 | Fire enclosure and fire barrier material properties | | N/A |
| 6.4.8.2.1 | Requirements for a fire barrier | | N/A |
| 6.4.8.2.2 | Requirements for a fire enclosure | | N/A |
| 6.4.8.3 | Constructional requirements for a fire enclosure and a fire barrier | | N/A |
| 6.4.8.3.1 | Fire enclosure and fire barrier openings | | N/A |
| 6.4.8.3.2 | Fire barrier dimensions | | N/A |
| 6.4.8.3.3 | Top Openings in Fire Enclosure: dimensions (mm) | | N/A |
| | Needle Flame test | | N/A |
| 6.4.8.3.4 | Bottom Openings in Fire Enclosure, condition met a), b) and/or c) dimensions (mm) | | N/A |
| | Flammability tests for the bottom of a fire enclosure | | N/A |
| 6.4.8.3.5 | Integrity of the fire enclosure, condition met: a), b) or c) | | N/A |
| 6.4.8.4 | Separation of PIS from fire enclosure and fire barrier distance (mm) or flammability rating..... : | | N/A |
| 6.5 | Internal and external wiring | | P |
| 6.5.1 | Requirements | The material of VW-1 on internal wiring were considered compliance equal to equivalent to IEC/TS 60695-11-21 relevant standards. | P |
| 6.5.2 | Cross-sectional area (mm ²) | See table 4.1.2 for details. | — |
| 6.5.3 | Requirements for interconnection to building wiring | | N/A |
| 6.6 | Safeguards against fire due to connection to additional equipment | | N/A |

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|-------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | External port limited to PS2 or complies with Clause Q.1 | | N/A |

| 7 | INJURY CAUSED BY HAZARDOUS SUBSTANCES | | N/A |
|----------|--|--|------------|
| 7.2 | Reduction of exposure to hazardous substances | No hazardous chemicals within the equipment. | N/A |
| 7.3 | Ozone exposure | No ozone production within the equipment. | N/A |
| 7.4 | Use of personal safeguards (PPE) | | N/A |
| | Personal safeguards and instructions | | — |
| 7.5 | Use of instructional safeguards and instructions | | N/A |
| | Instructional safeguard (ISO 7010)..... | | — |
| 7.6 | Batteries | No battery used. | N/A |

| 8 | MECHANICALLY-CAUSED INJURY | | P |
|-----------|---|--|----------|
| 8.1 | General | | P |
| 8.2 | Mechanical energy source classifications | a.) Sharp edges and corners, classified as MS1. b.) Equipment mass: max. 4.45kg, classified as MS1. However, the equipment is a building-in type and evaluation is also to be made during the final system approval. | P |
| 8.3 | Safeguards against mechanical energy sources | | N/A |
| 8.4 | Safeguards against parts with sharp edges and corners | Edges and corners of the enclosure are rounded. | N/A |
| 8.4.1 | Safeguards | | N/A |
| 8.5 | Safeguards against moving parts | No moving parts. | N/A |
| 8.5.1 | MS2 or MS3 part required to be accessible for the function of the equipment | | N/A |
| 8.5.2 | Instructional Safeguard..... | | — |
| 8.5.4 | Special categories of equipment comprising moving parts | | N/A |
| 8.5.4.1 | Large data storage equipment | | N/A |
| 8.5.4.2 | Equipment having electromechanical device for destruction of media | | N/A |
| 8.5.4.2.1 | Safeguards and Safety Interlocks | | N/A |
| 8.5.4.2.2 | Instructional safeguards against moving parts | | N/A |
| | Instructional Safeguard..... | | — |
| 8.5.4.2.3 | Disconnection from the supply | | N/A |

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|--------------------|---|---|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 8.5.4.2.4 | Probe type and force (N) | | N/A |
| 8.5.5 | High Pressure Lamps | | N/A |
| 8.5.5.1 | Energy Source Classification | | N/A |
| 8.5.5.2 | High Pressure Lamp Explosion Test..... | | N/A |
| 8.6 | Stability | | N/A |
| 8.6.1 | Product classification | | N/A |
| | Instructional Safeguard..... | | — |
| 8.6.2 | Static stability | | N/A |
| 8.6.2.2 | Static stability test | | N/A |
| | Applied Force | | — |
| 8.6.2.3 | Downward Force Test | | N/A |
| 8.6.3 | Relocation stability test | | N/A |
| | Unit configuration during 10° tilt | | — |
| 8.6.4 | Glass slide test | | N/A |
| 8.6.5 | Horizontal force test (Applied Force)..... | | N/A |
| | Position of feet or movable parts..... | | — |
| 8.7 | Equipment mounted to wall or ceiling | The equipment is a building-in type and evaluation is also to be made during the final system approval. | N/A |
| 8.7.1 | Mounting Means (Length of screws (mm) and mounting surface) | | N/A |
| 8.7.2 | Direction and applied force..... | | N/A |
| 8.8 | Handles strength | | N/A |
| 8.8.1 | Classification | | N/A |
| 8.8.2 | Applied Force | | N/A |
| 8.9 | Wheels or casters attachment requirements | | N/A |
| 8.9.1 | Classification | | N/A |
| 8.9.2 | Applied force | | — |
| 8.10 | Carts, stands and similar carriers | | N/A |
| 8.10.1 | General | | N/A |
| 8.10.2 | Marking and instructions | | N/A |
| | Instructional Safeguard..... | | — |
| 8.10.3 | Cart, stand or carrier loading test and compliance | | N/A |
| | Applied force | | — |
| 8.10.4 | Cart, stand or carrier impact test | | N/A |
| 8.10.5 | Mechanical stability | | N/A |
| | Applied horizontal force (N) | | — |

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|-------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 8.10.6 | Thermoplastic temperature stability (°C).....: | | N/A |
| 8.11 | Mounting means for rack mounted equipment | | N/A |
| 8.11.1 | General | | N/A |
| 8.11.2 | Product Classification | | N/A |
| 8.11.3 | Mechanical strength test, variable <i>N</i> | | N/A |
| 8.11.4 | Mechanical strength test 250N, including end stops | | N/A |
| 8.12 | Telescoping or rod antennas.....: | No such parts. | N/A |
| | Button/Ball diameter (mm).....: | | — |

| 9 | THERMAL BURN INJURY | | P |
|-------|--|--|-----|
| 9.2 | Thermal energy source classifications | The equipment is a building-in type and evaluation is also to be made during the final system approval. The accessible surfaces are classified as TS1. (See appended table 5.4.1.4, 6.3.2, 9.0, B.2.6) | P |
| 9.3 | Safeguard against thermal energy sources | | P |
| 9.4 | Requirements for safeguards | | P |
| 9.4.1 | Equipment safeguard | | P |
| 9.4.2 | Instructional safeguard | | N/A |


| 10 | RADIATION | | P |
|--------|--|---|-----|
| 10.2 | Radiation energy source classification | The following part is considered as RS1 without tests: - Indicating lights (used in built-in power supply and HUB PCB board). - The LEDs used on LED panel are considered as RS1, which is exempt group according to IEC 62471 (see test report no. D240521001 by Dongguan Hongnuo Product Testing Service CO., Ltd. for details) | P |
| 10.2.1 | General classification | | P |
| 10.3 | Protection against laser radiation | | N/A |
| | Laser radiation that exists equipment: | | — |
| | Normal, abnormal, single-fault.....: | | N/A |
| | Instructional safeguard | | — |
| | Tool | | — |
| 10.4 | Protection against visible, infrared, and UV | | N/A |

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|--------------------|--|--|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | radiation | | |
| 10.4.1 | General | | N/A |
| 10.4.1.a) | RS3 for Ordinary and instructed persons | | N/A |
| 10.4.1.b) | RS3 accessible to a skilled person | | N/A |
| | Personal safeguard (PPE) instructional safeguard | | — |
| 10.4.1.c) | Equipment visible, IR, UV does not exceed RS1 .. | | N/A |
| 10.4.1.d) | Normal, abnormal, single-fault conditions | | N/A |
| 10.4.1.e) | Enclosure material employed as safeguard is opaque | | N/A |
| 10.4.1.f) | UV attenuation | | N/A |
| 10.4.1.g) | Materials resistant to degradation UV | | N/A |
| 10.4.1.h) | Enclosure containment of optical radiation | | N/A |
| 10.4.1.i) | Exempt Group under normal operating conditions | | N/A |
| 10.4.2 | Instructional safeguard | | N/A |
| 10.5 | Protection against x-radiation | No such x-radiation generated from the equipment | N/A |
| 10.5.1 | X- radiation energy source that exists equipment : | | N/A |
| | Normal, abnormal, single fault conditions | | N/A |
| | Equipment safeguards | | N/A |
| | Instructional safeguard for skilled person | | N/A |
| 10.5.3 | Most unfavourable supply voltage to give maximum radiation | | — |
| | Abnormal and single-fault condition | | N/A |
| | Maximum radiation (pA/kg) | | N/A |
| 10.6 | Protection against acoustic energy sources | Not such equipment. | N/A |
| 10.6.1 | General | | N/A |
| 10.6.2 | Classification | | N/A |
| | Acoustic output, dB(A) | | N/A |
| | Output voltage, unweighted r.m.s. | | N/A |
| 10.6.4 | Protection of persons | | N/A |
| | Instructional safeguards | | N/A |
| | Equipment safeguard prevent ordinary person to RS2 | | — |
| | Means to actively inform user of increase sound pressure | | — |
| | Equipment safeguard prevent ordinary person to RS2 | | — |

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|-------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 10.6.5 | Requirements for listening devices (headphones, earphones, etc.) | | N/A |
| 10.6.5.1 | Corded passive listening devices with analog input | | N/A |
| | Input voltage with 94 dB(A) L_{Aeq} acoustic pressure output | | — |
| 10.6.5.2 | Corded listening devices with digital input | | N/A |
| | Maximum dB(A) | | — |
| 10.6.5.3 | Cordless listening device | | N/A |
| | Maximum dB(A) | | — |

| B | NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS | | P |
|----------|--|--|----------|
| B.2 | Normal Operating Conditions | | P |
| B.2.1 | General requirements..... : | (See summary of testing for tested models, each loaded according to its output ratings. See also appended table B.2.5.) | P |
| | Audio Amplifiers and equipment with audio amplifiers | Not such equipment. | N/A |
| B.2.3 | Supply voltage and tolerances | Rated voltage \pm 10 %. | P |
| B.2.5 | Input test..... : | (See appended table B.2.5) | P |
| B.3 | Simulated abnormal operating conditions | | P |
| B.3.1 | General requirements..... : | (See appended table B.3) | P |
| B.3.2 | Covering of ventilation openings | Reserve holes (The further evaluation and testing must be checked and performed in the final system for this built-in equipment) | P |
| B.3.3 | D.C. mains polarity test | The EUT is not connected to a D.C. mains | N/A |
| B.3.4 | Setting of voltage selector | No voltage selector was used. | N/A |
| B.3.5 | Maximum load at output terminals | (See appended table B.3) | P |
| B.3.6 | Reverse battery polarity | No battery within the EUT | N/A |
| B.3.7 | Abnormal operating conditions as specified in Clause E.2. | Not such equipment. | N/A |
| B.3.8 | Safeguards functional during and after abnormal operating conditions | All safeguards remained effective. | P |
| B.4 | Simulated single fault conditions | | P |
| B.4.2 | Temperature controlling device open or short-circuited | (See appended table B.4) | P |
| B.4.3 | Motor tests | No motors used. | N/A |

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|--------------------|---|---|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| B.4.3.1 | Motor blocked or rotor locked increasing the internal ambient temperature | | N/A |
| B.4.4 | Short circuit of functional insulation | See below. | P |
| B.4.4.1 | Short circuit of clearances for functional insulation | (See appended table B.4) | P |
| B.4.4.2 | Short circuit of creepage distances for functional insulation | (See appended table B.4) | P |
| B.4.4.3 | Short circuit of functional insulation on coated printed boards | No coated printed boards used. | N/A |
| B.4.5 | Short circuit and interruption of electrodes in tubes and semiconductors | (See appended table B.4 for faults on electronic components) | P |
| B.4.6 | Short circuit or disconnect of passive components | (See appended table B.4) | P |
| B.4.7 | Continuous operation of components | The EUT is continuous operating type and no such components intended for short time operation or intermittent operation | N/A |
| B.4.8 | Class 1 and Class 2 energy sources within limits during and after single fault conditions | No change to circuits classified in 5.3. | P |
| B.4.9 | Battery charging under single fault conditions ... : | No battery involved in the EUT | N/A |
| C | UV RADIATION | | N/A |
| C.1 | Protection of materials in equipment from UV radiation | No UV generated from the equipment. | N/A |
| C.1.2 | Requirements | | N/A |
| C.1.3 | Test method | | N/A |
| C.2 | UV light conditioning test | | N/A |
| C.2.1 | Test apparatus | | N/A |
| C.2.2 | Mounting of test samples | | N/A |
| C.2.3 | Carbon-arc light-exposure apparatus | | N/A |
| C.2.4 | Xenon-arc light exposure apparatus | | N/A |
| D | TEST GENERATORS | | N/A |
| D.1 | Impulse test generators | | N/A |
| D.2 | Antenna interface test generator | | N/A |
| D.3 | Electronic pulse generator | | N/A |
| E | TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS | | N/A |
| E.1 | Audio amplifier normal operating conditions | Not such equipment. | N/A |
| | Audio signal voltage (V) | | — |
| | Rated load impedance (Ω) | | — |
| E.2 | Audio amplifier abnormal operating conditions | | N/A |
| F | EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS | | P |
| F.1 | General requirements | See below. | P |
| | Instructions – Language | English | — |

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|-------------|---|---|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| F.2 | Letter symbols and graphical symbols | | P |
| F.2.1 | Letter symbols according to IEC 60027-1 | Letter symbols for quantities and units are complied with IEC 60027-1. | P |
| F.2.2 | Graphic symbols IEC, ISO or manufacturer specific | Graphical symbols are complied with IEC 60417, ISO 3864-2, ISO 7000 or ISO 7010. | P |
| F.3 | Equipment markings | | P |
| F.3.1 | Equipment marking locations | The required marking is located on the enclosure of the equipment and is easily visible. | P |
| F.3.2 | Equipment identification markings | See copy of marking plate. | P |
| F.3.2.1 | Manufacturer identification | See copy of marking plate. | — |
| F.3.2.2 | Model identification | See page 2 for details. | — |
| F.3.3 | Equipment rating markings | See the following details. | P |
| F.3.3.1 | Equipment with direct connection to mains | The equipment is direct connected to AC mains, see F.3.3.3 to F.3.3.6. | P |
| F.3.3.2 | Equipment without direct connection to mains | | N/A |
| F.3.3.3 | Nature of supply voltage | ~ or AC | — |
| F.3.3.4 | Rated voltage | See copy of marking plate. | — |
| F.3.3.4 | Rated frequency | See copy of marking plate. | — |
| F.3.3.6 | Rated current or rated power | See copy of marking plate. | — |
| F.3.3.7 | Equipment with multiple supply connections | Only one mains supply connection provided. | N/A |
| F.3.4 | Voltage setting device | No voltage setting device. | N/A |
| F.3.5 | Terminals and operating devices | See below. | P |
| F.3.5.1 | Mains appliance outlet and socket-outlet markings | See copy of marking plate. | P |
| F.3.5.2 | Switch position identification marking | No switch used. | N/A |
| F.3.5.3 | Replacement fuse identification and rating markings | | N/A |
| F.3.5.4 | Replacement battery identification marking | No such battery on the equipment. | N/A |
| F.3.5.5 | Terminal marking location | | P |
| F.3.6 | Equipment markings related to equipment classification | See below. | P |
| F.3.6.1 | Class I Equipment | | P |
| F.3.6.1.1 | Protective earthing conductor terminal | The symbol IEC 60417-5019  is marked beside protective earthing conductor terminal of appliance inlet. | P |

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|-------------|--|---|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| F.3.6.1.2 | Neutral conductor terminal | | N/A |
| F.3.6.1.3 | Protective bonding conductor terminals | | P |
| F.3.6.2 | Class II equipment (IEC 60417-5172) | | N/A |
| F.3.6.2.1 | Class II equipment with or without functional earth | | N/A |
| F.3.6.2.2 | Class II equipment with functional earth terminal marking | | N/A |
| F.3.7 | Equipment IP rating marking | IPX0 | — |
| F.3.8 | External power supply output marking | | N/A |
| F.3.9 | Durability, legibility and permanence of marking | Marking is considered to be legible and easily discernible. See also the following details. | P |
| F.3.10 | Test for permanence of markings | The label was subjected to the permanence of marking test. The label was rubbed with cloth soaked with water for 15 sec. And then again for 15 sec, with the cloth soaked with petroleum spirit. After this test there was no damage to the label. The marking on the label did not fade. There was no curling and lifting of the label edge. After each test, the marking remained legible. | P |
| F.4 | Instructions | | P |
| | a) Equipment for use in locations where children not likely to be present - marking | Built in equipment, should be reconsidered at the end product. | N/A |
| | b) Instructions given for installation or initial use | | P |
| | c) Equipment intended to be fastened in place | | N/A |
| | d) Equipment intended for use only in restricted access area | | N/A |
| | e) Audio equipment terminals classified as ES3 and other equipment with terminals marked in accordance F.3.6.1 | No such terminals provided. | N/A |
| | f) Protective earthing employed as safeguard | | P |
| | g) Protective earthing conductor current exceeding ES2 limits | | N/A |
| | h) Symbols used on equipment | No such symbols used as a safeguard considered. | N/A |
| | i) Permanently connected equipment not provided with all-pole mains switch | Not permanently connected equipment. | N/A |
| | j) Replaceable components or modules providing safeguard function | No such markings. | N/A |
| F.5 | Instructional safeguards | No instructional safeguard is considered as necessary. | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| | Where "instructional safeguard" is referenced in the test report it specifies the required elements, location of marking and/or instruction | No instructional safeguard required in the equipment. | N/A |
| G | COMPONENTS | | P |
| G.1 | Switches | | N/A |
| G.1.1 | General requirements | No switch used. | N/A |
| G.1.2 | Ratings, endurance, spacing, maximum load | | N/A |
| G.2 | Relays | | N/A |
| G.2.1 | General requirements | No relay used. | N/A |
| G.2.2 | Overload test | | N/A |
| G.2.3 | Relay controlling connectors supply power | | N/A |
| G.2.4 | Mains relay, modified as stated in G.2 | | N/A |
| G.3 | Protection Devices | | P |
| G.3.1 | Thermal cut-offs | No thermal cut-off used. | N/A |
| G.3.1.1a) &b) | Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b) | | N/A |
| G.3.1.1c) | Thermal cut-outs tested as part of the equipment as indicated in c) | | N/A |
| G.3.1.2 | Thermal cut-off connections maintained and secure | | N/A |
| G.3.2 | Thermal links | | N/A |
| G.3.2.1a) | Thermal links separately tested with IEC 60691 | No thermal link used. | N/A |
| G.3.2.1b) | Thermal links tested as part of the equipment | | N/A |
| | Aging hours (H) | | — |
| | Single Fault Condition | | — |
| | Test Voltage (V) and Insulation Resistance (Ω). : | | — |
| G.3.3 | PTC Thermistors | No PTC thermistor used. | N/A |
| G.3.4 | Overcurrent protection devices | Evaluated in approved switching power supply | P |
| G.3.5 | Safeguards components not mentioned in G.3.1 to G.3.5 | | N/A |
| G.3.5.1 | Non-resettable devices suitably rated and marking provided | | N/A |
| G.3.5.2 | Single faults conditions.....: | | N/A |
| G.4 | Connectors | | N/A |
| G.4.1 | Spacings | Consider in end system | N/A |
| G.4.2 | Mains connector configuration | | N/A |
| G.4.3 | Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely | | N/A |
| G.5 | Wound Components | | P |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| G.5.1 | Wire insulation in wound components..... | Evaluated in approved switching power supply. | P |
| G.5.1.2 a) | Two wires in contact inside wound component, angle between 45° and 90° | | N/A |
| G.5.1.2 b) | Construction subject to routine testing | | N/A |
| G.5.2 | Endurance test on wound components | | N/A |
| G.5.2.1 | General test requirements | | N/A |
| G.5.2.2 | Heat run test | | N/A |
| | Time (s) | | — |
| | Temperature (°C) | | — |
| G.5.2.3 | Wound Components supplied by mains | | N/A |
| G.5.3 | Transformers | | P |
| G.5.3.1 | Requirements applied (IEC61204-7, IEC61558-1/-2, and/or IEC62368-1) | Evaluated in approved switching power supply. | P |
| | Position..... | | — |
| | Method of protection | | — |
| G.5.3.2 | Insulation | | N/A |
| | Protection from displacement of windings | | — |
| G.5.3.3 | Overload test | | N/A |
| G.5.3.3.1 | Test conditions | | N/A |
| G.5.3.3.2 | Winding Temperatures testing in the unit | | N/A |
| G.5.3.3.3 | Winding Temperatures - Alternative test method | | N/A |
| G.5.4 | Motors | | N/A |
| G.5.4.1 | General requirements | No motor used. | N/A |
| | Position | | — |
| G.5.4.2 | Test conditions | | N/A |
| G.5.4.3 | Running overload test | | N/A |
| G.5.4.4 | Locked-rotor overload test | | N/A |
| | Test duration (days) | | — |
| G.5.4.5 | Running overload test for d.c. motors in secondary circuits | | N/A |
| G.5.4.5.2 | Tested in the unit | | N/A |
| | Electric strength test (V) | | — |
| G.5.4.5.3 | Tested on the Bench - Alternative test method; test time (h) | | N/A |
| | Electric strength test (V) | | — |
| G.5.4.6 | Locked-rotor overload test for d.c. motors in secondary circuits | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| G.5.4.6.2 | Tested in the unit | | N/A |
| | Maximum Temperature | | N/A |
| | Electric strength test (V) | | N/A |
| G.5.4.6.3 | Tested on the bench - Alternative test method; test time (h) | | N/A |
| | Electric strength test (V) | | N/A |
| G.5.4.7 | Motors with capacitors | | N/A |
| G.5.4.8 | Three-phase motors | | N/A |
| G.5.4.9 | Series motors | | N/A |
| | Operating voltage | | — |
| G.6 | Wire Insulation | | P |
| G.6.1 | General | Evaluated in approved switching power supply | P |
| G.6.2 | Solvent-based enamel wiring insulation | | N/A |
| G.7 | Mains supply cords | | N/A |
| G.7.1 | General requirements | | N/A |
| | Type..... | | — |
| | Rated current (A) | | — |
| | Cross-sectional area (mm ²), (AWG) | | — |
| G.7.2 | Compliance and test method | | N/A |
| G.7.3 | Cord anchorages and strain relief for non- detachable power supply cords | | N/A |
| G.7.3.2 | Cord strain relief | | N/A |
| G.7.3.2.1 | Requirements | | N/A |
| | Strain relief test force (N) | | — |
| G.7.3.2.2 | Strain relief mechanism failure | | N/A |
| G.7.3.2.3 | Cord sheath or jacket position, distance (mm).... | | — |
| G.7.3.2.4 | Strain relief comprised of polymeric material | | N/A |
| G.7.4 | Cord Entry | | N/A |
| G.7.5 | Non-detachable cord bend protection | | N/A |
| G.7.5.1 | Requirements | | N/A |
| G.7.5.2 | Mass (g) | | — |
| | Diameter (m) | | — |
| | Temperature (°C) | | — |
| G.7.6 | Supply wiring space | | N/A |
| G.7.6.2 | Stranded wire | No such wire. | N/A |
| G.7.6.2.1 | Test with 8 mm strand | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| G.8 | Varistors | | P |
| G.8.1 | General requirements | Evaluated in approved switching power supply. | P |
| G.8.2 | Safeguard against shock | | N/A |
| G.8.3 | Safeguard against fire | | N/A |
| G.8.3.2 | Varistor overload test | | N/A |
| G.8.3.3 | Temporary overvoltage | | N/A |
| G.9 | Integrated Circuit (IC) Current Limiters | | N/A |
| G.9.1 a) | Manufacturer defines limit at max. 5A. | No IC current limiter provided within the equipment. | N/A |
| G.9.1 b) | Limiters do not have manual operator or reset | | N/A |
| G.9.1 c) | Supply source does not exceed 250 VA | | — |
| G.9.1 d) | IC limiter output current (max. 5A) | | — |
| G.9.1 e) | Manufacturers' defined drift | | — |
| G.9.2 | Test Program 1 | | N/A |
| G.9.3 | Test Program 2 | | N/A |
| G.9.4 | Test Program 3 | | N/A |
| G.10 | Resistors | | N/A |
| G.10.1 | General requirements | | N/A |
| G.10.2 | Resistor test | | N/A |
| G.10.3 | Test for resistors serving as safeguards between the mains and an external circuit consisting of a coaxial cable | | N/A |
| G.10.3.1 | General requirements | | N/A |
| G.10.3.2 | Voltage surge test | | N/A |
| G.10.3.3 | Impulse test | | N/A |
| G.11 | Capacitor and RC units | | P |
| G.11.1 | General requirements | Evaluated in approved switching power supply. | P |
| G.11.2 | Conditioning of capacitors and RC units | | N/A |
| G.11.3 | Rules for selecting capacitors | | N/A |
| G.12 | Optocouplers | | P |
| | Optocouplers comply with IEC 60747-5-5:2007 Spacing or Electric Strength Test (specify option and test results) | Evaluated in approved switching power supply. | P |
| | Type test voltage Vini | See above | — |
| | Routine test voltage, Vini,b | See above | — |
| G.13 | Printed boards | | P |
| G.13.1 | General requirements | See the following details. | P |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| G.13.2 | Uncoated printed boards | The insulation between conductors on the outer surfaces of an uncoated printed board complied with the minimum clearance and creepage requirements | P |
| G.13.3 | Coated printed boards | No coated printed board or multilayer board applied for within the equipment. | N/A |
| G.13.4 | Insulation between conductors on the same inner surface | | N/A |
| | Compliance with cemented joint requirements (Specify construction) | | — |
| G.13.5 | Insulation between conductors on different surfaces | | N/A |
| | Distance through insulation | | N/A |
| | Number of insulation layers (pcs) | | — |
| G.13.6 | Tests on coated printed boards | | N/A |
| G.13.6.1 | Sample preparation and preliminary inspection | | N/A |
| G.13.6.2a) | Thermal conditioning | | N/A |
| G.13.6.2b) | Electric strength test | | N/A |
| G.13.6.2c) | Abrasion resistance test | | N/A |
| G.14 | Coating on components terminals | | N/A |
| G.14.1 | Requirements | No coating on component terminals considered to affect creepage or clearances. | N/A |
| G.15 | Liquid filled components | | N/A |
| G.15.1 | General requirements | No such device provided within the equipment. | N/A |
| G.15.2 | Requirements | | N/A |
| G.15.3 | Compliance and test methods | | N/A |
| G.15.3.1 | Hydrostatic pressure test | | N/A |
| G.15.3.2 | Creep resistance test | | N/A |
| G.15.3.3 | Tubing and fittings compatibility test | | N/A |
| G.15.3.4 | Vibration test | | N/A |
| G.15.3.5 | Thermal cycling test | | N/A |
| G.15.3.6 | Force test | | N/A |
| G.15.4 | Compliance | | N/A |
| G.16 | IC including capacitor discharge function (ICX) | | N/A |
| a) | Humidity treatment in accordance with sc5.4.8 – 120 hours | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| b) | Impulse test using circuit 2 with $U_c =$ to transient voltage | | N/A |
| C1) | Application of ac voltage at 110% of rated voltage for 2.5 minutes | | N/A |
| C2) | Test voltage | | — |
| D1) | 10,000 cycles on and off using capacitor with smallest capacitance resistor with largest resistance specified by manufacturer | | N/A |
| D2) | Capacitance | | — |
| D3) | Resistance | | — |
| H | CRITERIA FOR TELEPHONE RINGING SIGNALS | | N/A |
| H.1 | General | No telephone ringing signal generated within the equipment. | N/A |
| H.2 | Method A | | N/A |
| H.3 | Method B | | N/A |
| H.3.1 | Ringing signal | | N/A |
| H.3.1.1 | Frequency (Hz) | | — |
| H.3.1.2 | Voltage (V) | | — |
| H.3.1.3 | Cadence; time (s) and voltage (V) | | — |
| H.3.1.4 | Single fault current (mA): | | — |
| H.3.2 | Tripping device and monitoring voltage | | N/A |
| H.3.2.1 | Conditions for use of a tripping device or a monitoring voltage complied with | | N/A |
| H.3.2.2 | Tripping device | | N/A |
| H.3.2.3 | Monitoring voltage (V) | | — |
| J | INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION | | P |
| | General requirements | Evaluated in approved switching power supply. | P |
| K | SAFETY INTERLOCKS | | N/A |
| K.1 | General requirements | No safety interlock provided. | N/A |
| K.2 | Components of safety interlock safeguard mechanism | | N/A |
| K.3 | Inadvertent change of operating mode | | N/A |
| K.4 | Interlock safeguard override | | N/A |
| K.5 | Fail-safe | | N/A |
| | Compliance | | N/A |
| K.6 | Mechanically operated safety interlocks | | N/A |
| K.6.1 | Endurance requirement | | N/A |
| K.6.2 | Compliance and Test method | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| K.7 | Interlock circuit isolation | | N/A |
| K.7.1 | Separation distance for contact gaps & interlock circuit elements (type and circuit location) | | N/A |
| K.7.2 | Overload test, Current (A) | | N/A |
| K.7.3 | Endurance test | | N/A |
| K.7.4 | Electric strength test | | N/A |
| L | DISCONNECT DEVICES | | N/A |
| L.1 | General requirements | Built in equipment, should be reconsidered at the end product. | N/A |
| L.2 | Permanently connected equipment | | N/A |
| L.3 | Parts that remain energized | | N/A |
| L.4 | Single phase equipment | | N/A |
| L.5 | Three-phase equipment | | N/A |
| L.6 | Switches as disconnect devices | | N/A |
| L.7 | Plugs as disconnect devices | | N/A |
| L.8 | Multiple power sources | Only one a.c. mains connection. | N/A |
| M | EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS | | N/A |
| M.1 | General requirements | No battery used. | N/A |
| M.2 | Safety of batteries and their cells | | N/A |
| M.2.1 | Requirements | | N/A |
| M.2.2 | Compliance and test method (identify method) .. : | | N/A |
| M.3 | Protection circuits | | N/A |
| M.3.1 | Requirements | | N/A |
| M.3.2 | Tests | | N/A |
| | - Overcharging of a rechargeable battery | | N/A |
| | - Unintentional charging of a non-rechargeable battery | | N/A |
| | - Reverse charging of a rechargeable battery | | N/A |
| | - Excessive discharging rate for any battery | | N/A |
| M.3.3 | Compliance | | N/A |
| M.4 | Additional safeguards for equipment containing secondary lithium battery | | N/A |
| M.4.1 | General | | N/A |
| M.4.2 | Charging safeguards | | N/A |
| M.4.2.1 | Charging operating limits | | N/A |
| M.4.2.2a) | Charging voltage, current and temperature | | — |
| M.4.2.2 b) | Single faults in charging circuitry | | — |
| M.4.3 | Fire Enclosure | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| M.4.4 | Endurance of equipment containing a secondary lithium battery | | N/A |
| M.4.4.2 | Preparation | | N/A |
| M.4.4.3 | Drop and charge/discharge function tests | | N/A |
| | Drop | | N/A |
| | Charge | | N/A |
| | Discharge | | N/A |
| M.4.4.4 | Charge-discharge cycle test | | N/A |
| M.4.4.5 | Result of charge-discharge cycle test | | N/A |
| M.5 | Risk of burn due to short circuit during carrying | | N/A |
| M.5.1 | Requirement | | N/A |
| M.5.2 | Compliance and Test Method (Test of P.2.3) | | N/A |
| M.6 | Prevention of short circuits and protection from other effects of electric current | | N/A |
| M.6.1 | Short circuits | | N/A |
| M.6.1.1 | General requirements | | N/A |
| M.6.1.2 | Test method to simulate an internal fault | | N/A |
| M.6.1.3 | Compliance (Specify M.6.1.2 or alternative method) | | N/A |
| M.6.2 | Leakage current (mA) | | N/A |
| M.7 | Risk of explosion from lead acid and NiCd batteries | | N/A |
| M.7.1 | Ventilation preventing explosive gas concentration | | N/A |
| M.7.2 | Compliance and test method | | N/A |
| M.8 | Protection against internal ignition from external spark sources of lead acid batteries | | N/A |
| M.8.1 | General requirements | | N/A |
| M.8.2 | Test method | | N/A |
| M.8.2.1 | General requirements | | N/A |
| M.8.2.2 | Estimation of hypothetical volume V_z (m ³ /s)..... | | — |
| M.8.2.3 | Correction factors..... | | — |
| M.8.2.4 | Calculation of distance d (mm) | | — |
| M.9 | Preventing electrolyte spillage | | N/A |
| M.9.1 | Protection from electrolyte spillage | | N/A |
| M.9.2 | Tray for preventing electrolyte spillage | | N/A |

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|--------------------|---|--|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| M.10 | Instructions to prevent reasonably foreseeable misuse (Determination of compliance: inspection, data review; or abnormal testing) | | N/A |
| N | ELECTROCHEMICAL POTENTIALS | | P |
| | Metal(s) used | Pollution degree considered | — |
| O | MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES | | P |
| | Figures O.1 to O.20 of this Annex applied..... | Considered (X=1) | — |
| P | SAFEGUARDS AGAINST ENTRY OF FOREIGN OBJECTS AND SPILLAGE OF INTERNAL LIQUIDS | | P |
| P.1 | General requirements | | P |
| P.2.2 | Safeguards against entry of foreign object | No opening on LED panel side. The further evaluation and testing must be checked and performed in the final system for this built-in equipment. | N/A |
| | Location and Dimensions (mm) | | — |
| P.2.3 | Safeguard against the consequences of entry of foreign object | | N/A |
| P.2.3.1 | Safeguards against the entry of a foreign object | | N/A |
| | Openings in transportable equipment | | N/A |
| | Transportable equipment with metalized plastic parts | | N/A |
| P.2.3.2 | Openings in transportable equipment in relation to metallized parts of a barrier or enclosure (identification of supplementary safeguard) | | N/A |
| P.3 | Safeguards against spillage of internal liquids | No such liquids. | N/A |
| P.3.1 | General requirements | | N/A |
| P.3.2 | Determination of spillage consequences | | N/A |
| P.3.3 | Spillage safeguards | | N/A |
| P.3.4 | Safeguards effectiveness | | N/A |
| P.4 | Metallized coatings and adhesive securing parts | No such construction. | N/A |
| P.4.2 a) | Conditioning testing | | N/A |
| | Tc (°C)..... | | — |
| | Tr (°C) | | — |
| | Ta (°C)..... | | — |
| P.4.2 b) | Abrasion testing | | N/A |
| P.4.2 c) | Mechanical strength testing | | N/A |
| Q | CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING | | N/A |
| Q.1 | Limited power sources | | N/A |
| Q.1.1 a) | Inherently limited output | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| Q.1.1 b) | Impedance limited output | | N/A |
| | - Regulating network limited output under normal operating and simulated single fault condition | | N/A |
| Q.1.1 c) | Overcurrent protective device limited output | | N/A |
| Q.1.1 d) | IC current limiter complying with G.9 | | N/A |
| Q.1.2 | Compliance and test method | | N/A |
| Q.2 | Test for external circuits – paired conductor cable | | N/A |
| | Maximum output current (A) | | — |
| | Current limiting method | | — |
| R | LIMITED SHORT CIRCUIT TEST | | N/A |
| R.1 | General requirements | No such consideration. | N/A |
| R.2 | Determination of the overcurrent protective device and circuit | | N/A |
| R.3 | Test method Supply voltage (V) and short-circuit current (A)). | | N/A |
| S | TESTS FOR RESISTANCE TO HEAT AND FIRE | | N/A |
| S.1 | Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W | Fire enclosure used. | N/A |
| | Samples, material | | — |
| | Wall thickness (mm) | | — |
| | Conditioning (°C) | | — |
| | Test flame according to IEC 60695-11-5 with conditions as set out | | N/A |
| | - Material not consumed completely | | N/A |
| | - Material extinguishes within 30s | | N/A |
| | - No burning of layer or wrapping tissue | | N/A |
| S.2 | Flammability test for fire enclosure and fire barrier integrity | | N/A |
| | Samples, material | | — |
| | Wall thickness (mm) | | — |
| | Conditioning (°C) | | — |
| | Test flame according to IEC 60695-11-5 with conditions as set out | | N/A |
| | Test specimen does not show any additional hole | | N/A |
| S.3 | Flammability test for the bottom of a fire enclosure | | N/A |
| | Samples, material | | — |
| | Wall thickness (mm) | | — |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| | Cheesecloth did not ignite | | N/A |
| S.4 | Flammability classification of materials | | N/A |
| S.5 | Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W | | N/A |
| | Samples, material | | — |
| | Wall thickness (mm) | | — |
| | Conditioning (test condition), (°C) | | — |
| | Test flame according to IEC 60695-11-20 with conditions as set out | | N/A |
| | After every test specimen was not consumed completely | | N/A |
| | After fifth flame application, flame extinguished within 1 min | | N/A |
| T | MECHANICAL STRENGTH TESTS | | P |
| T.1 | General requirements | | P |
| T.2 | Steady force test, 10 N | (See appended table T.2, T.3, T.4, T.5) | P |
| T.3 | Steady force test, 30 N | | N/A |
| T.4 | Steady force test, 100 N | | N/A |
| T.5 | Steady force test, 250 N | (See appended table T.2, T.3, T.4, T.5). | P |
| T.6 | Enclosure impact test | (See appended table T.6, T.9). | P |
| | Fall test | | P |
| | Swing test | | P |
| T.7 | Drop test | | N/A |
| T.8 | Stress relief test | (See appended table T.8). | P |
| T.9 | Impact Test (glass) | No glass used. | N/A |
| T.9.1 | General requirements | | N/A |
| T.9.2 | Impact test and compliance | | N/A |
| | Impact energy (J) | | — |
| | Height (m) | | — |
| T.10 | Glass fragmentation test | | N/A |
| T.11 | Test for telescoping or rod antennas | No such antennas provided within the equipment. | N/A |
| | Torque value (Nm) | | — |

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|--------------------|---|--|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| U | MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION | | N/A |
| U.1 | General requirements | No CRT provided. | N/A |
| U.2 | Compliance and test method for non-intrinsically protected CRTs | | N/A |
| U.3 | Protective Screen | | N/A |
| V | DETERMINATION OF ACCESSIBLE PARTS (FINGERS, PROBES AND WEDGES) | | P |
| V.1 | Accessible parts of equipment | No opening on LED panel side. The further evaluation and testing must be checked and performed in the final system for this built-in equipment. | P |
| V.2 | Accessible part criterion | See above | P |

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|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 4.1.2 | TABLE: List of critical components | | | | | P |
|--------------------------------------|--|---------------------|--|---------------------------|--|---|
| Object / part No. | Manufacturer/ trademark | Type / model | Technical data | Standard | Mark(s) of conformity ¹ | |
| Input connector/ output connector | SHENZHEN NOXTLON ELECTRONIC CO LTD | B15B- 003F540AA3 | Min. 250VAC, min. 10A | UL 1977 IEC/EN 62368-1 | UL E251249 Tested with appliance | |
| Primary internal wire | Dongguan Hongfuwei Cable Technology Co., Ltd | H05VV-F | Min. 0.75mm ² x 3 (Including green- and-yellow wire), min. 300V | EN 50525-2-11 | VDE 40043104 | |
| (Alt.) | Dongguan Yongsheng Cables Technology Co., Ltd. | H05VV-F | Min. 0.75mm ² x 3 (Including green-and- yellow wire), min. 300V | EN 50525-2-11 | VDE 40029655 | |
| (Alt.) | Interchangeable | H05VV-F | Min. 0.75mm ² x 3 (Including green- and-yellow wire), min. 300V | EN 50525-2-11 | VDE | |
| (Alt.) | SHEN ZHEN XINXINYU ELECTRON SCIENCE TECHNOLOGY CO LTD | SJT, SJTW | Min. 18AWG x 3 (Including green- and-yellow wire), min. 105°C, min. 300V, VW-1 | UL 62 | UL E508977 | |
| (Alt.) | Dong Guan Yong Sheng Cables Technology Co Ltd | SJT, SJTW | Min. 18AWG x 3 (Including green- and-yellow wire), min. 105°C, min. 300V, VW-1 | UL 62 | UL E310857 | |
| (Alt.) | Interchangeable | SJT, SJTW | Min. 18AWG x 3 (Including green- and-yellow wire), min. 105°C, min. 300V, VW-1 | UL 62 | UL | |
| Earthing wire | Guangdong Biadi Electronics Co., Ltd. | H07V-K | Min. 0.75mm ² , min. 300V, green- and-yellow | EN 50525-2-31 | VDE 40046366 | |
| (Alt.) | Interchangeable | H07V-K | Min. 0.75mm ² , min. 300V, green- and-yellow | EN 50525-2-31 | VDE | |
| (Alt.) | DONGGUAN HONGFUWEI CABLE TECHNOLOGY CO LTD | 1015 | Min. 18AWG, min. 105°C, min. 300V, VW-1, green-and- yellow | UL 758 | UL E316005 | |

| IEC 62368-1 | | | | | |
|---|---|--|---|---------------------------|---|
| Clause | Requirement + Test | | Result - Remark | | Verdict |
| (Alt.) | Dong Guan Yong Sheng Cables Technology Co Ltd | 1015 | Min. 18AWG, min. 105°C, min. 300V, VW-1, green-and-yellow | UL 758 | UL E310859 |
| (Alt.) | Interchangeable | 1015 | Min. 18AWG, min. 105°C, min. 300V, VW-1 | UL 758 | UL |
| Heat shrinkable tube (Used for primary internal wire) | DONGGUAN SALIPT CO LTD | SALIPT S-901-300, SALIPT S-901-600, SALIPT S-HPT-600 | Min. 300V, VW-1, min. 125°C | UL 224 | UL E209436 |
| (Alt.) | GUANGZHOU KAIHENG NEW MATERIAL CO LTD | K-102, K-102 (CB) | Min. 300V, VW-1, min. 125°C | UL 224 | UL E321827 |
| (Alt.) | Interchangeable | Interchangeable | Min. 300V, VW-1, min. 125°C | UL 224 | UL |
| Metal enclosure | Various | Various | Aluminium alloy, min. 1.0mm thickness | IEC/EN 62368-1 | Tested with appliance |
| Plastic material of LED panel | SABIC INNOVATIVE PLASTICS US L L C | 503(f1), 503R(f1) | V-0, 80°C, min. 0.7mm thickness | UL 746, UL 94 | UL E121562 |
| PCB | HUIZHOU XIECHANG ELECTRONICS CO LTD | XC03 | V-0, 130°C | UL 796 | UL E348968 |
| (Alternative) | Shengyi Electronics Co Ltd | M42, M92 | V-0, 130°C | UL 796 | UL E117942 |
| (Alternative) | LONG YAN JINSHIYU ELECTRONIC LTD | JSY-3 | V-0, 130°C | UL 796 | UL E348782 |
| (Alternative) | Interchangeable | Interchangeable | V-0 or better, 130°C | UL 796 | UL |
| LED lights | Dongguan City HCP Technology Co., Ltd. | F-0406A1-RF + F-0407A1-GF + F-0407A1-BF | For F-0406A1-RF: Red: IF=1mA, VF=1.75-2V; For F-0407A1-GF: Green: IF=1.2mA, VF=2.30-2.55V; For F-0407A1-BF: Blue: IF=0.8mA, VF=2.50-2.75V | IEC/EN 62368-1, IEC 62471 | Tested with appliance 62471 test report no.: D240521001 |

| IEC 62368-1 | | | | | |
|--|---------------------------------------|------------------|---|-------------|--|
| Clause | Requirement + Test | | Result - Remark | | Verdict |
| SWITCHING POWER SUPPLY | ShenZhen Megmeet Electrical Co., Ltd. | MCP200WST-3.8-LC | Class I, 50°C, 5000m, INPUT: 100-240V~, 50/60Hz, 3.0A Max. OUTPUT: +3.8VDC, 45A | IEC 62368-1 | CB by UL, certificate no.: DK-152532-UL, CB test report no.: S01A240308 68P002 |
| Supplementary information: | | | | | |
| <p>1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.</p> <p>2) Description line content is optional. Main line description needs to clearly detail the component used for testing.</p> <p>3) In the technical data column of optocoupler, where “Dti” means distance through insulation, “Int. cr” means internal creepage distance, and “Ext. cr” means external creepage distance.</p> | | | | | |

| IEC 62368-1 | | | |
|---|---|------------------------------------|-----------------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4.8.4, 4.8.5 | TABLE: Lithium coin/button cell batteries mechanical tests | | N/A |
| (The following mechanical tests are conducted in the sequence noted.) | | | |
| 4.8.4.2 | TABLE: Stress Relief test | | — |
| | Part | Material | Oven Temperature (°C) |
| | -- | -- | -- |
| 4.8.4.3 | TABLE: Battery replacement test | | — |
| | Battery part no.: | -- | — |
| | Battery Installation/withdrawal | Battery Installation/Removal Cycle | Comments |
| | -- | 1 | -- |
| | | 2 | -- |
| | | 3 | -- |
| | | 4 | -- |
| | | 5 | -- |
| | | 6 | -- |
| | | 8 | -- |
| | | 9 | -- |
| | | 10 | -- |
| 4.8.4.4 | TABLE: Drop test | | — |
| | Impact Area | Drop Distance | Drop No. |
| | -- | -- | 1 |
| | -- | -- | 2 |
| | -- | -- | 3 |
| 4.8.4.5 | TABLE: Impact | | — |
| | Impacts per surface | Surface tested | Impact energy (Nm) |
| | -- | -- | -- |
| | -- | -- | -- |
| 4.8.4.6 | TABLE: Crush test | | — |
| | Test position | Surface tested | Crushing Force (N) |
| | -- | -- | -- |
| | -- | -- | -- |
| Supplementary information: | | | |
| -- | | | |

| IEC 62368-1 | | | |
|----------------------------|---|-----------------|----------------------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4.8.5 | TABLE: Lithium coin/button cell batteries mechanical test result | | N/A |
| Test position | Surface tested | Force (N) | Duration force applied (s) |
| -- | -- | -- | -- |
| -- | -- | -- | -- |
| Supplementary information: | | | |
| -- | | | |

| 5.2 | Table: Classification of electrical energy sources | | | | | | P |
|---|---|--|-------------------------------|--|--------------------|----------|----------|
| 5.2.2.2 – Steady State Voltage and Current conditions | | | | | | | |
| No. | Supply Voltage | Location (e.g. circuit designation) | Test conditions ¹⁾ | Parameters | | | ES Class |
| | | | | U (Vrms or Vpk) | I (Apk or Arms) | Hz | |
| 1 | 264 Vac 60 Hz | Primary circuits supplied by a.c. mains supply | Normal | Normal | 264Vrms | -- | ES3 |
| | | | Abnormal | Abnormal | -- | -- | |
| | | | Single fault – SC/OC | Single fault | -- | -- | |
| 2 | 264 Vac 60 Hz | Plastic LED panel with metal foil | Normal | -- | 0.02mApk | -- | ES1 |
| | | | Abnormal | -- | 0.02mApk | -- | |
| | | | Single fault – SC/OC | -- | 0.02mApk | -- | |
| 3 | 264 Vac 60 Hz | RJ45 port to earth | Normal | 0.32Vrms | -- | DC | ES1 |
| | | | Abnormal | 0.32Vrms | -- | DC | |
| | | | Single fault – SC/OC | 0.32Vrms | -- | DC | |
| 5.2.2.3 - Capacitance Limits | | | | | | | |
| No. | Supply Voltage | Location (e.g. circuit designation) | Test conditions | Parameters | | ES Class | |
| | | | | Capacitance, nF | Upk (V) | | |
| 1 | 264 Vac 60 Hz | Between L/N (CX1, CX2) | Normal | 1.22µF±20% (CX1=0.22µF, CX2=1.0µF (used for built-in power supply)) | 374Vpk | ES3 | |
| | | | Abnormal | -- | -- | | |
| | | | Single fault | -- | -- | | |
| 5.2.2.4 - Single Pulses | | | | | | | |
| No. | Supply Voltage | Location (e.g. circuit designation) | Test conditions | Parameters | | | ES Class |
| | | | | Duration (ms) | Upk (V) | Ipk (mA) | |
| -- | -- | -- | Normal | -- | -- | -- | -- |

| IEC 62368-1 | | | | | | | |
|---|--------------------|-------------------------------------|----------------------|-----------------|---------|----------|----------|
| Clause | Requirement + Test | | | Result - Remark | | | Verdict |
| | | | Abnormal | -- | -- | -- | |
| | | | Single fault – SC/OC | -- | -- | -- | |
| 5.2.2.5 - Repetitive Pulses | | | | | | | |
| No. | Supply Voltage | Location (e.g. circuit designation) | Test conditions | Parameters | | | ES Class |
| | | | | Off time (ms) | Upk (V) | Ipk (mA) | |
| -- | -- | -- | Normal | -- | -- | -- | -- |
| | | | Abnormal | -- | -- | -- | |
| | | | Single fault – SC/OC | -- | -- | -- | |
| Test Conditions: Normal – Abnormal - Supplementary information: SC=Short Circuit, OC=Short Circuit | | | | | | | |
| -- | | | | | | | |

| 5.4.1.4, 6.3.2, 9.0, B.2.6 | TABLE: Temperature measurements | | | P |
|---|-------------------------------------|-----------|------------|-------------------------------|
| | Supply voltage (V) | 90V/ 60Hz | 264V/ 50Hz | — |
| | Ambient T _{min} (°C) | -- | -- | — |
| | Ambient T _{max} (°C) | -- | -- | — |
| | T _{ma} (°C) | See below | See below | — |
| Maximum measured temperature T of part/at: | | T (°C) | | Allowed T _{max} (°C) |
| AC input connector | | 68.7 | 65.2 | Ref. |
| Input wire (for AC input connector) | | 66.7 | 62.4 | 70 |
| T1 winding (for built-in power supply) | | 103.3 | 101.7 | 130 |
| Metal enclosure of built-in power supply (outside, near T1) | | 88.9 | 86.9 | -- |
| CC3 body (on HUB PCB board) | | 90.2 | 90.6 | 105 |
| CC4 body (on HUB PCB board) | | 81.8 | 82.1 | 105 |
| PCB near J{U1} and J{U2} | | 101.7 | 102.0 | 130 |
| PCB near U10 and U12 | | 84.8 | 84.4 | 130 |
| CC5 body (on LED PCB board) | | 79.3 | 79.4 | 105 |
| PCB near UF1 (on LED PCB board) | | 80.5 | 80.5 | 130 |
| TEST button body (inside) | | 90.9 | 91.1 | Ref. |
| LED panel | | 78.7 | 78.3 | -- |

| IEC 62368-1 | | | |
|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| | | | |
|---|------|------|----|
| Metal enclosure (outside, near built-in power supply) | 77.5 | 76.2 | -- |
| Ambient | 50.0 | 50.0 | -- |
| -- | -- | -- | -- |
| LED panel | 53.7 | 53.3 | 77 |
| Metal enclosure (outside, near built-in power supply) | 52.5 | 51.2 | 60 |
| Ambient | 25.0 | 25.0 | -- |

Supplementary information: * Temperature limit for TS1 of accessible enclosure according to Table 38.

Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (T_{ma}) of 50°C.

Note 2: The temperatures were measured under the worst case normal mode defined in clause B.2.5 (All LED show white light).

Note 3. Temperature limits are calculated as follows:

Winding components providing safety isolation:

Class F → T_{max} = 140 - 10=130°C.

| Temperature T of winding: | t ₁ (°C) | R ₁ (Ω) | t ₂ (°C) | R ₂ (Ω) | T (°C) | Allowed T _{max} (°C) | Insulation class |
|---------------------------|---------------------|--------------------|---------------------|--------------------|--------|-------------------------------|------------------|
| -- | -- | -- | -- | -- | -- | -- | -- |

Supplementary information:

Note 1: T_{ma} should be considered as directed by applicable requirement.

Note 2: The temperatures were measured under the worse case normal mode defined in table B.2.5.

Note 2: T_{ma} is not included in assessment of Touch Temperatures (Clause 9).

Note 3: The socket outlet loaded 9A load.

Note 4. Place the product on its side, with the LED screen facing out.

| 5.4.1.10.2 | TABLE: Vicat softening temperature of thermoplastics | N/A |
|-------------------------------|--|------------------|
| Penetration (mm): | | — |
| Object/ Part No./Material | Manufacturer/trademark | T softening (°C) |
| -- | -- | -- |
| supplementary information: -- | | |

| 5.4.1.10.3 | TABLE: Ball pressure test of thermoplastics | P | |
|---|---|-----------------------|--------------------------|
| Allowed impression diameter (mm) : ≤ 2 mm | | — | |
| Object/Part No./Material | Manufacturer/trademark | Test temperature (°C) | Impression diameter (mm) |
| Input connector/ output connector/ model: B15B-003F540AA3 | SHENZHEN NOXTLON ELECTRONIC CO LTD | 125 | 1.2 |
| supplementary information: -- | | | |

| IEC 62368-1 | | | | | | | |
|--|--|-----------------|------------------------------|---------------------|----------------------|-------------------------------|---------|
| Clause | Requirement + Test | Result - Remark | | | | | Verdict |
| 5.4.2.2, 5.4.2.4 and 5.4.3 | TABLE: Minimum Clearances/Creepage distance | | | | | | P |
| Clearance (cl) and creepage distance (cr) at/of/between: | Up (V) | U r.m.s. (V) | Frequency (kHz) ¹ | Required cl (mm) | cl (mm) ² | Required cr (mm) ³ | cr (mm) |
| L-N before fuse (BI) | 420 | 250 | 0.06 | 2.3 (1.5 x1.48) | 3.5 | 2.5 | 3.5 |
| L/N to earth and metal enclosure (BI) | 420 | 250 | 0.06 | 2.3 (1.5 x1.48) | 3.5 | 2.5 | 3.5 |
| Primary live parts to metal enclosure (BI) | 420 | 250 | 0.06 | 2.3 (1.5 x1.48) | 8.0 | 2.5 | 8.0 |
| RJ45 port to primary live parts (RI) | 420 | 250 | 0.06 | 4.5 (3.0 x 1.48) | 8.0 | 5.0 | 8.0 |
| Supplementary information: | | | | | | | |
| Note 1: Only for frequency above 30 kHz. | | | | | | | |
| Note 2: See table 5.4.2.4 if this is based on electric strength test. | | | | | | | |
| Note 3: Provide Material Group. | | | | | | | |
| F=Functional insulation, B=Basic insulation, S=Supplement insulation, R=Reinforced insulation. | | | | | | | |
| 1. The equipment is specified to be operated up to 5000m above sea level. | | | | | | | |
| 2. Unless otherwise specified, the worst conditions of Cl. & Cr. in above mentioned locations have been considered and listed. | | | | | | | |

| 5.4.2.3 | TABLE: Minimum Clearances distances using required withstand voltage | | | | | P |
|--|---|------------------|------------------|--|--|----|
| | Overvoltage Category (OV): | | | | | II |
| | Pollution Degree: | | | | | 2 |
| Clearance distanced between: | Required withstand voltage (V _{peak}) | Required cl (mm) | Measured cl (mm) | | | |
| See table 5.4.2.2, 5.4.2.4 and 5.4.3 above. | -- | -- | -- | | | |
| Supplementary information: Limits in previous table for clearance selected based on Table 15 for Required Withstand Voltage 2.5kV (mains transient voltage 2.5kV). | | | | | | |

| 5.4.2.4 | TABLE: Clearances based on electric strength test | | | N/A |
|---|--|---------------------------------------|--------------------|-----|
| Test voltage applied between: | Required cl (mm) | Test voltage (kV) peak/ r.m.s. / d.c. | Breakdown Yes / No | |
| -- | -- | -- | -- | |
| Supplementary information: | | | | |
| Using procedure 2 to determine the clearance. | | | | |

| | | | | |
|------------------------------------|--|--|--|-----|
| 5.4.4.2, 5.4.4.5 c) 5.4.4.9 | TABLE: Distance through insulation measurements | | | N/A |
|------------------------------------|--|--|--|-----|

| IEC 62368-1 | | | | | |
|---------------------------------------|--------------------|----------------|----------|-------------------|----------|
| Clause | Requirement + Test | | | Result - Remark | Verdict |
| Distance through insulation di at/of: | Peak voltage (V) | Frequency (Hz) | Material | Required DTI (mm) | DTI (mm) |
| -- | -- | -- | -- | -- | -- |
| Supplementary information: -- | | | | | |

| 5.4.9 | TABLE: Electric strength tests | | | P |
|--|--------------------------------|------------------|--------------------|---|
| Test voltage applied between: | Voltage shape (AC, DC) | Test voltage (V) | Breakdown Yes / No | |
| Basic/supplementary: | | | | |
| Line to Neutral (fuse disconnected) | DC | 2500 | No | |
| Unit: Primary to earthed metal enclosure | DC | 2500 | No | |
| Heat shrinkable tube (Used for primary internal wire) | DC | 2500 | No | |
| Reinforced: | | | | |
| Unit: Primary to plastic LED panel cover with metal foil | DC | 4000 | No | |
| Unit: Primary to secondary | DC | 4000 | No | |
| Supplementary information: The DC voltage source was performed on all testing once in forward and once in reverse. Sources of Heat shrinkable tube see appended table 4.1.2 for details. | | | | |

| 5.5.2.2 | TABLE: Stored discharge on capacitors | | | | P |
|---|---------------------------------------|----------------------------|---------------------------|------------------------------------|-------------------|
| Supply Voltage (V), Hz | Test Location | Operating Condition (N, S) | Switch position On or off | Measured Voltage (after 2 seconds) | ES Classification |
| 264V / 60Hz | Line to neutral | N | -- | 12V | ES1 |
| Supplementary information: Built-in equipment, also shall be considered in end system. X-capacitors installed for testing are: CX1=0.22µF, CX2=1.0µF (used for built-in power supply) Bleeding resistor rating: R43=510KΩ (used for built-in power supply) <input checked="" type="checkbox"/> Certified discharge IC: U3 (used for built-in power supply) Notes: A. Test Location: Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth B. Operating condition abbreviations: N – Normal operating condition (e.g., normal operation, or open fuse); S – Single fault condition (Bleeder Resistor open circuit) | | | | | |

| IEC 62368-1 | | | |
|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 5.6.6.2 | TABLE: Resistance of protective conductors and terminations | | | | P |
|--|---|----------------|------------------|----------------|---|
| Accessible part | Test current (A) | Duration (min) | Voltage drop (V) | Resistance (Ω) | |
| Protective earthing conductor of connector to fast metal chassis | 32 | 2 | 2.304 | 0.072 | |
| Protective earthing conductor of connector to GND pin of AC output connector | 32 | 2 | 2.208 | 0.069 | |

Supplementary Information:
Limit: $\leq 0.1 \Omega$

| 5.7.2.2, 5.7.4 | TABLE: Earthed accessible conductive part | | P |
|--|---|--|-------------------------------------|
| Supply voltage | 264 Vac | | — |
| Location | Test conditions specified in 6.1 of IEC 60990 or Fault Condition No in IEC 60990 clause 6.2.2.1 through 6.2.2.8, except for 6.2.2.7 | | Touch current (mA _{peak}) |
| Line to earth (metal chassis), Neutral to earth (metal chassis) | 1 | | Max. 1.86mA _{peak} |
| -- | 2* | | -- |
| -- | 3 | | -- |
| -- | 4 | | -- |
| -- | 5 | | -- |
| -- | 6 | | -- |
| -- | 8 | | -- |

Notes:
 [1] Supply voltage is the anticipated maximum Touch Voltage
 [2] Earthed neutral conductor [Voltage differences less than 1% or more]
 [3] Specify method used for measurement as described in IEC 60990 sub-clause 4.3
 [4] IEC60990, sub-clause 6.2.2.7, Fault 7 not applicable.
 [5] (*) IEC60990, sub-clause 6.2.2.2 is not applicable if switch or disconnect device (e.g., appliance coupler) provided.

| 6.2.2 | Table: Electrical power sources (PS) measurements for classification | | | | P |
|--------|--|-------------|---------------------|------------------------------------|-------------------|
| Source | Description | Measurement | Max Power after 3 s | Max Power after 5 s [*]) | PS Classification |

| IEC 62368-1 | | | | | |
|---|--------------------|------------------------|----|----|----------------|
| Clause | Requirement + Test | Result - Remark | | | Verdict |
| All internal circuit except for RJ45 port | All condition | Power (W) : | -- | -- | PS3 (declared) |
| | | V _A (Vdc) : | -- | -- | |
| | | I _A (A) : | -- | -- | |
| RJ45 port | All condition | Power (W) : | 0 | -- | PS1 |
| | | V _A (V) : | 0 | -- | |
| | | I _A (A) : | 0 | -- | |
| Supplementary information: (*) Measurement taken only when limits at 3 seconds exceed PS1 limits. | | | | | |

| 6.2.3.1 | Table: Determination of Potential Ignition Sources (Arcing PIS) | | | | P |
|--|---|--|---|----------------------|---|
| Location | Open circuit voltage After 3 s (V _p) | Measured r.m.s current (I _{rms}) | Calculated value (V _p x I _{rms}) | Arcing PIS? Yes / No | |
| Primary circuits and secondary circuit / parts except for output connector | -- | -- | -- | Yes (Declaration) | |
| Supplementary information: An Arcing PIS requires a minimum of 50 V (peak) a.c. or d.c. An Arcing PIS is established when the product of the open circuit voltage (V _p) and normal operating condition rms current (I _{rms}) is greater than 15. All conductors and devices are considered as PIS. | | | | | |

| 6.2.3.2 | Table: Determination of Potential Ignition Sources (Resistive PIS) | | | | P |
|---|--|---|--|--|-----------------------|
| Circuit Location (x-y) | Operating Condition (Normal / Describe Single Fault) | Measured wattage or VA During first 30 s (W / VA) | Measured wattage or VA After 30 s (W / VA) | Protective Circuit, Regulator, or PTC Operated? Yes / No (Comment) | Resistive PIS? Yes/No |
| All internal circuits /components | -- | -- | -- | -- | Yes (Declaration) |
| Supplementary Information: All primary and secondary circuit are considered as resistive PIS. A combination of voltmeter, VA and ammeter I _A may be used instead of a wattmeter. If a separate voltmeter and ammeter are used, the product of (VA x I _A) is used to determine Resistive PIS classification. A Resistive PIS: (a) dissipates more than 15 W, measured after 30 s of normal operation, or (b) under single fault conditions has either a power exceeding 100 W measured immediately after the introduction of the fault if electronic circuits, regulators or PTC devices are used, or has an available power exceeding 15 W measured 30 s after introduction of the fault. All conductors and devices are considered as PIS. | | | | | |

| IEC 62368-1 | | | |
|--|----------------------------------|------------------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 8.5.5 | TABLE: High Pressure Lamp | | N/A |
| Description | Values | Energy Source Classification | |
| Lamp type | | — | |
| Manufacturer | | — | |
| Cat no. | | — | |
| Pressure (cold) (MPa)..... | | MS_ | |
| Pressure (operating) (MPa) | | MS_ | |
| Operating time (minutes) | | — | |
| Explosion method | | — | |
| Max particle length escaping enclosure (mm) .: | | MS_ | |
| Max particle length beyond 1 m (mm)..... | | MS_ | |
| Overall result | | | |
| Supplementary information: | | | |

| B.2.5 | | TABLE: Input test | | | | | | | P |
|--------------|----|--------------------------|-------------|--------|-------------|---------|------------|--------------------------|---|
| U (V) | Hz | I (A) | I rated (A) | P (W) | P rated (W) | Fuse No | I fuse (A) | Condition/status | |
| 90 | 50 | 10.13 | -- | 910.8 | -- | -- | -- | All LED show white light | |
| 90 | 60 | 10.14 | -- | 911.7 | -- | -- | -- | All LED show white light | |
| 100 | 50 | 9.98 | 10 | 996.3 | -- | -- | -- | All LED show white light | |
| 100 | 60 | 9.99 | 10 | 997.4 | -- | -- | -- | All LED show white light | |
| 240 | 50 | 9.43 | 10 | 2257.4 | -- | -- | -- | All LED show white light | |
| 240 | 60 | 9.42 | 10 | 2254.7 | -- | -- | -- | All LED show white light | |
| 264 | 50 | 9.45 | -- | 2472.4 | -- | -- | -- | All LED show white light | |
| 264 | 60 | 9.44 | -- | 2470.2 | -- | -- | -- | All LED show white light | |
| 90 | 50 | 9.68 | -- | 869.9 | -- | -- | -- | All LED show red light | |
| 90 | 60 | 9.69 | -- | 870.9 | -- | -- | -- | All LED show red light | |
| 100 | 50 | 9.63 | 10 | 960.7 | -- | -- | -- | All LED show red light | |
| 100 | 60 | 9.63 | 10 | 960.8 | -- | -- | -- | All LED show red light | |

| IEC 62368-1 | | | | | | | | |
|-------------|--------------------|------|----|--------|-----------------|----|----|--------------------------|
| Clause | Requirement + Test | | | | Result - Remark | | | Verdict |
| 240 | 50 | 9.34 | 10 | 2219.2 | -- | -- | -- | All LED show red light |
| 240 | 60 | 9.33 | 10 | 2217.0 | -- | -- | -- | All LED show red light |
| 264 | 50 | 9.38 | -- | 2433.9 | -- | -- | -- | All LED show red light |
| 264 | 60 | 9.38 | -- | 2433.6 | -- | -- | -- | All LED show red light |
| 90 | 50 | 9.68 | -- | 870.3 | -- | -- | -- | All LED show blue light |
| 90 | 60 | 9.68 | -- | 870.4 | -- | -- | -- | All LED show blue light |
| 100 | 50 | 9.62 | 10 | 960.4 | -- | -- | -- | All LED show blue light |
| 100 | 60 | 9.62 | 10 | 960.4 | -- | -- | -- | All LED show blue light |
| 240 | 50 | 9.34 | 10 | 2218.8 | -- | -- | -- | All LED show blue light |
| 240 | 60 | 9.32 | 10 | 2215.7 | -- | -- | -- | All LED show blue light |
| 264 | 50 | 9.37 | -- | 2433.5 | -- | -- | -- | All LED show blue light |
| 264 | 60 | 9.37 | -- | 2433.4 | -- | -- | -- | All LED show blue light |
| 90 | 50 | 9.62 | -- | 864.3 | -- | -- | -- | All LED show green light |
| 90 | 60 | 9.62 | -- | 864.4 | -- | -- | -- | All LED show green light |
| 100 | 50 | 9.56 | 10 | 954.2 | -- | -- | -- | All LED show green light |
| 100 | 60 | 9.56 | 10 | 954.3 | -- | -- | -- | All LED show green light |
| 240 | 50 | 9.32 | 10 | 2213.1 | -- | -- | -- | All LED show green light |
| 240 | 60 | 9.31 | 10 | 2212.8 | -- | -- | -- | All LED show green light |
| 264 | 50 | 9.34 | -- | 2427.7 | -- | -- | -- | All LED show green light |
| 264 | 60 | 9.34 | -- | 2427.6 | -- | -- | -- | All LED show green light |

Supplementary information:

| IEC 62368-1 | | | |
|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

Supplementary information:

* There is no voltage and current output, only used for data transmission.

Test table is provided to record abnormal and fault conditions for all applicable energy sources including Thermal burn injury. Column "Abnormal/Fault." Specify if test condition by indicating "Abnormal" then the condition for a Clause B.3 test or "Single Fault" then the condition for Clause B.4.

No output port provided except for AC output connector, however the AC output connector is connected to the AC input connector by conductor directly, no any circuit between AC input and AC output connector.

| B.4 | | TABLE: Fault condition tests | | | | | | P |
|--|-----------------|------------------------------|----------------|----------|------------------------|----------|------------|--|
| Ambient temperature (°C) | | | | | 25°C, if not specified | | — | |
| Power source for EUT: Manufacturer, model/type, output rating: | | | | | -- | | — | |
| Component No. | Fault Condition | Supply voltage, (V) | Test time (ms) | Fuse no. | Fuse current, (A) | T-couple | Temp. (°C) | Observation |
| CC3 (on HUB PCB board) | SC | 264 | 10min | -- | 9.09 | -- | -- | Unit shut down immediately, no components damaged. No hazards. |
| CC4 (on HUB PCB board) | SC | 264 | 10min | -- | 9.09 | -- | -- | Unit shut down immediately, no components damaged. No hazards. |
| CC5 (on LED PCB board) | SC | 264 | 10min | -- | 9.39 | -- | -- | Unit shut down immediately (The 1/8 of LED light was shut down, the other of LED light normal working), no components damaged. No hazards. |

Supplementary information:

Test table is provided to record fault conditions for all applicable energy sources including Thermal burn injury. Column "Abnormal/Fault." Specify if test condition by indicating "Single Fault" then the condition for Clause B.4.

- 1) SC: Short-circuited.
- 2) The test result shown all safeguards remained effective and didn't lead to a single fault condition during abnormal operating condition; In addition all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions.
- 3) The test result showed no Class 1 or 2 energy source become Class 3 level during and after single fault condition.
- 4) AC outlet can't impact these tests, measured at AC outlet with loading 9A.

| IEC 62368-1 | | | |
|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| Annex M.3 | TABLE: Batteries | | | | | | | | | N/A |
|---|----------------------------|---------------|-------------------------|------------------------|---------------|---------------|---------------|-------------------|---------------|---------|
| The tests of Annex M are applicable only when appropriate battery data is not available | | | | | | | | | | |
| Is it possible to install the battery in a reverse polarity position? : | | | | | | | | | | |
| | Non-rechargeable batteries | | | Rechargeable batteries | | | | | | |
| | Discharging | | Un-intentional charging | Charging | | Discharging | | Reversed charging | | |
| | Meas. current | Manuf. Specs. | | Meas. current | Manuf. Specs. | Meas. current | Manuf. Specs. | Meas. current | Manuf. Specs. | |
| Max. current during normal condition | | | | | | | | | | |
| Max. current during fault condition | | | | | | | | | | |
| Test results: | | | | | | | | | | Verdict |
| - Chemical leaks | | | | | | | | | | |
| - Explosion of the battery | | | | | | | | | | |
| - Emission of flame or expulsion of molten metal | | | | | | | | | | |
| - Electric strength tests of equipment after completion of tests | | | | | | | | | | |
| Supplementary information: | | | | | | | | | | |

| Annex M.4 | Table: Additional safeguards for equipment containing secondary lithium batteries | | | | | N/A |
|----------------------------|---|--------------|-------|----------|-------------|-----|
| Battery/Cell No. | Test conditions | Measurements | | | Observation | |
| | | U | I (A) | Temp (C) | | |
| | Normal | | | | | |
| | Abnormal | | | | | |
| | Single fault –SC/OC | | | | | |
| | Normal | | | | | |
| | Abnormal | | | | | |
| | Single fault – SC/OC | | | | | |
| Supplementary Information: | | | | | | |

| Battery identification | Charging at Tlowest (°C) | Observation | Charging at Thighest (°C) | Observation |
|------------------------|--------------------------|-------------|---------------------------|-------------|
| | | | | |

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|----------------------------|--------------------------|-------------|---------------------------|-------------|
| Clause | Requirement + Test | | Result - Remark | Verdict |
| Battery identification | Charging at Tlowest (°C) | Observation | Charging at Thighest (°C) | Observation |
| | | | | |
| Supplementary Information: | | | | |

| Annex Q.1 | TABLE: Circuits intended for interconnection with building wiring (LPS) | N/A | | | | |
|---|---|-----------------------|---------------------|-------|--------|-------|
| Note: Measured UOC (V) with all load circuits disconnected: | | | | | | |
| Output Circuit | Components | U _{oc} (Vdc) | I _{sc} (A) | | S (VA) | |
| | | | Meas. | Limit | Meas. | Limit |
| -- | Normal | -- | -- | 8 | -- | 100 |
| -- | Single fault | -- | -- | 8 | -- | 100 |
| Supplementary Information: -- | | | | | | |

| T.2, T.3, T.4, T.5 | TABLE: Steady force test | | | | | P |
|--|--------------------------|----------------|-----------|---------------------|---|---|
| Part/Location | Material | Thickness (mm) | Force (N) | Test Duration (sec) | Observation | |
| Internal components near the gap between primary and secondary | -- | -- | 10 | 5 | No insulation breakdown. No reduction the clearances and creepage distances. | |
| Metal enclosure (bottom and side) | Metal | 1) | 250 | 5 | Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown. | |
| Plastic LED panel (top) | Plastic | 1) | 250 | 5 | Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown. | |
| Supplementary information: | | | | | | |
| 1). Material information see appended table 4.1.2. | | | | | | |
| Each source of plastic LED panel in table 4.1.2 was applied and passed the relevant tests. | | | | | | |

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|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| T.6, T.9 | | TABLE: Impact tests | | | P |
|-----------------------------------|----------|---------------------|------------------------|---|---|
| Part/Location | Material | Thickness (mm) | Vertical distance (mm) | Observation | |
| Metal enclosure (bottom and side) | Metal | 1) | 1300 | Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown. | |
| Plastic LED panel (top) | Plastic | 1) | 1300 | Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown. | |

Supplementary information:

1). Material information see appended table 4.1.2.

Each source of plastic LED panel in table 4.1.2 was applied and passed the relevant tests.

| T.7 | | TABLE: Drop tests | | | N/A |
|---------------|----------|-------------------|------------------|-------------|-----|
| Part/Location | Material | Thickness (mm) | Drop Height (mm) | Observation | |
| -- | -- | -- | -- | -- | |

Supplementary information: --

| T.8 | | TABLE: Stress relief test | | | | P |
|-------------------|----------|---------------------------|-----------------------|--------------|---|---|
| Part/Location | Material | Thickness (mm) | Oven Temperature (°C) | Duration (h) | Observation | |
| Plastic LED panel | Plastics | 1) | 91 | 7 | Enclosure remained intact, no cracking/opening developed in the enclosure joint. Internal ES3, TS3 were not accessible after test. No insulation breakdown. | |

Supplementary information:

1). Material information see appended table 4.1.2.

Each source of plastic LED panel in table 4.1.2 was applied and passed the relevant tests.

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|--------------------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| ATTACHMENT TO TEST REPORT IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment Part 1: Safety requirements) | |
|--|--------------------------|
| Differences according to.....: | EN 62368-1:2014+A11:2017 |
| Attachment Form No.....: | EU_GD_IEC62368_1D_II |
| Attachment Originator | Nemko AS |
| Master Attachment | Date 2021-02-04 |
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|-------------|--|----------|--------------|-------------------------|-----------------|--------|------|-------|--------------|---------|------|-------------------------|--------|-------------|--------------|---------|--------|---------|------|---------|------|-------|------|-----------|--------------|-------|------|---------|--------------|--------------------|-----------------|--------|--------|----------|--------|---------|--------|---|
| | CENELEC COMMON MODIFICATIONS (EN) | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2014 are prefixed "Z". | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CONTENTS | Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Delete all the "country" notes in the reference document (IEC 62368-1:2014) according to the following list: <table border="1" data-bbox="419 1301 1382 1749"> <tbody> <tr> <td>0.2.1</td> <td>Note</td> <td>1</td> <td>Note 3</td> <td>4.1.15</td> <td>Note</td> </tr> <tr> <td>4.7.3</td> <td>Note 1 and 2</td> <td>5.2.2.2</td> <td>Note</td> <td>5.4.2.3.2.2 Table 13</td> <td>Note c</td> </tr> <tr> <td>5.4.2.3.2.4</td> <td>Note 1 and 3</td> <td>5.4.2.5</td> <td>Note 2</td> <td>5.4.5.1</td> <td>Note</td> </tr> <tr> <td>5.5.2.1</td> <td>Note</td> <td>5.5.6</td> <td>Note</td> <td>5.6.4.2.1</td> <td>Note 2 and 3</td> </tr> <tr> <td>5.7.5</td> <td>Note</td> <td>5.7.6.1</td> <td>Note 1 and 2</td> <td>10.2.1 Table 39</td> <td>Note 2, 3 and 4</td> </tr> <tr> <td>10.5.3</td> <td>Note 2</td> <td>10.6.2.1</td> <td>Note 3</td> <td>F.3.3.6</td> <td>Note 3</td> </tr> </tbody> </table> | 0.2.1 | Note | 1 | Note 3 | 4.1.15 | Note | 4.7.3 | Note 1 and 2 | 5.2.2.2 | Note | 5.4.2.3.2.2 Table 13 | Note c | 5.4.2.3.2.4 | Note 1 and 3 | 5.4.2.5 | Note 2 | 5.4.5.1 | Note | 5.5.2.1 | Note | 5.5.6 | Note | 5.6.4.2.1 | Note 2 and 3 | 5.7.5 | Note | 5.7.6.1 | Note 1 and 2 | 10.2.1 Table 39 | Note 2, 3 and 4 | 10.5.3 | Note 2 | 10.6.2.1 | Note 3 | F.3.3.6 | Note 3 | P |
| 0.2.1 | Note | 1 | Note 3 | 4.1.15 | Note | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.7.3 | Note 1 and 2 | 5.2.2.2 | Note | 5.4.2.3.2.2 Table 13 | Note c | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.4.2.3.2.4 | Note 1 and 3 | 5.4.2.5 | Note 2 | 5.4.5.1 | Note | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.5.2.1 | Note | 5.5.6 | Note | 5.6.4.2.1 | Note 2 and 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.7.5 | Note | 5.7.6.1 | Note 1 and 2 | 10.2.1 Table 39 | Note 2, 3 and 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.5.3 | Note 2 | 10.6.2.1 | Note 3 | F.3.3.6 | Note 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | For special national conditions, see Annex ZB. | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Add the following note: NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU. | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|---|--|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4.Z1 | <p>Add the following new subclause after 4.9:</p> <p>To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. mains, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):</p> <p>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment;</p> <p>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p> <p>c) it is permitted for pluggable equipment type B or permanently connected equipment, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for pluggable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.</p> | <p>Considered.</p> <p>Complied with item a) for internal fuse used and for parts as described in b) reliance on the protection in the building installation.</p> | P |
| 5.4.2.3.2.4 | <p>Add the following to the end of this subclause:</p> <p>The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.</p> | No external circuits. | N/A |
| 10.2.1 | <p>Add the following to ^{c)} and ^{d)} in table 39:</p> <p>For additional requirements, see 10.5.1.</p> | No such radiation from the equipment. | N/A |
| 10.5.1 | <p>Add the following after the first paragraph:</p> <p><i>For RS 1 compliance is checked by measurement under the following conditions:</i></p> <p><i>In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or presets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.</i></p> <p>NOTE Z1 Soldered joints and paint lockings are examples of adequate locking.</p> <p><i>The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.</i></p> <p><i>Moreover, the measurement shall be made under</i></p> | | N/A |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|---|--|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | <p><i>fault conditions causing an increase of the high-voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.</i></p> <p><i>For RS1, the dose-rate shall not exceed 1 μSv/h taking account of the background level.</i></p> <p>NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.</p> | | |
| 10.6.1 | <p>Add the following paragraph to the end of the subclause:</p> <p>EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.</p> | No such X-radiation generated from the equipment. | N/A |
| 10.Z1 | <p>Add the following new subclause after 10.6.5.</p> <p>10.Z1 Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz</p> <p>The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz).</p> <p>For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz). For hand-held and body-mounted devices, attention is drawn to EN 50360 and EN 50566</p> | No such consideration for the purpose of personal music players. | N/A |
| G.7.1 | <p>Add the following note:</p> <p>NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.</p> | | P |
| Bibliography | <p>Add the following standards:</p> <p>Add the following notes for the standards indicated:</p> <p>IEC 60130-9 NOTE Harmonized as EN 60130-9.</p> <p>IEC 60269-2 NOTE Harmonized as HD 60269-2.</p> <p>IEC 60309-1 NOTE Harmonized as EN 60309-1.</p> <p>IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series.</p> <p>IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4.</p> <p>IEC 60664-5 NOTE Harmonized as EN 60664-5.</p> <p>IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified).</p> <p>IEC 61508-1 NOTE Harmonized as EN 61508-1.</p> <p>IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1.</p> <p>IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4.</p> <p>IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6.</p> <p>IEC 61643-1 NOTE Harmonized as EN 61643-1.</p> <p>IEC 61643-21 NOTE Harmonized as EN 61643-21.</p> <p>IEC 61643-311 NOTE Harmonized as EN 61643-311.</p> <p>IEC 61643-321 NOTE Harmonized as EN 61643-321.</p> <p>IEC 61643-331 NOTE Harmonized as EN 61643-331.</p> | | P |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|--|---|----------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| ZB | ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN) | | P |
| 4.1.15 | <p>Denmark, Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>Class I pluggable equipment type A intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment shall be connected to an earthed mains socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In Denmark: "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord."</p> <p>In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan"</p> <p>In Norway: "Apparatet må tilkoples jordet stikkontakt"</p> <p>In Sweden: "Apparaten skall anslutas till jordat uttag"</p> | Class I equipment. The marking text must be provided when marketed in applicable countries. | N/A |
| 4.7.3 | <p>United Kingdom</p> <p>To the end of the subclause the following is added:</p> <p>The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex</p> | The equipment is not direct plug-in equipment. | N/A |
| 5.2.2.2 | <p>Denmark</p> <p>After the 2nd paragraph add the following:</p> <p>A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p> | No high touch current. | N/A |
| 5.4.11.1 and Annex G | <p>Finland and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>For separation of the telecommunication network from earth the following is applicable:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> • two layers of thin sheet material, each of which shall pass the electric strength test below, or • one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. <p>If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound</p> | No TNV circuits. | N/A |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|--|--------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | <p>completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> • passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), and • is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5kV. <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> • the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; • the additional testing shall be performed on all the test specimens as described in EN 60384-14; the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14. | | |
| 5.5.2.1 | <p>Norway</p> <p>After the 3rd paragraph the following is added: Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).</p> | | N/A |
| 5.5.6 | <p>Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added: Resistors used as basic safeguard or bridging basic insulation in class I pluggable equipment type A shall comply with G.10.1 and the test of G.10.2.</p> | No such resistors. | N/A |
| 5.6.1 | <p>Denmark</p> <p>Add to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment.</p> <p><i>Justification:</i> In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.</p> | Considered. | P |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|---|---------------------------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.6.4.2.1 | <p>Ireland and United Kingdom</p> <p>After the indent for pluggable equipment type A, the following is added:</p> <p>– the protective current rating is taken to be 13 A, this being the largest rating of fuse used in the mains plug.</p> | Considered. | P |
| 5.6.5.1 | <p>To the second paragraph the following is added:</p> <p>The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm² to 1,5 mm² in cross-sectional area.</p> | No such high rated current. | N/A |
| 5.7.5 | <p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p> | No high protective conductor current. | N/A |
| 5.7.6.1 | <p>Norway and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system.</p> <p>It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example.</p> <p>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:</p> <p>“Apparatus connected to the protective earthing of the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)”</p> <p>NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will</p> | Not such system. | N/A |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|---|--|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | <p>also be accepted in Norway):</p> <p>“Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplet utstyr – og er tilkoplet et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.”</p> <p>Translation to Swedish:</p> <p>”Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.</p> | | |
| 5.7.6.2 | <p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .</p> | No external circuits. | N/A |
| B.3.1 and B.4 | <p>Ireland and United Kingdom</p> <p>The following is applicable:</p> <p>To protect against excessive currents and short-circuits in the primary circuit of direct plug-in equipment, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the direct plug-in equipment, until the requirements of Annexes B.3.1 and B.4 are met</p> | The equipment is not direct plug-in equipment. | N/A |
| G.4.2 | <p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A</p> | | N/A |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|--|---|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | <p>shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.</p> <p>Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.</p> <p>Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a</p> <p><i>Justification:</i> Heavy Current Regulations, Section 6c</p> | | |
| G.4.2 | <p>United Kingdom</p> <p>To the end of the subclause the following is added:</p> <p>The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.</p> | The equipment is not direct plug-in equipment. | N/A |
| G.7.1 | <p>United Kingdom</p> <p>To the first paragraph the following is added:</p> <p>Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations.</p> <p>NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p> | No power supply cord provided, see GENERAL PRODUCT INFORMATION. | N/A |
| G.7.1 | <p>Ireland</p> <p>To the first paragraph the following is added:</p> <p>Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard</p> | No power supply cord provided, see GENERAL PRODUCT INFORMATION. | N/A |
| G.7.2 | <p>Ireland and United Kingdom</p> <p>To the first paragraph the following is added:</p> <p>A power supply cord with a conductor of 1,25 mm² is allowed for equipment which is rated over 10 A and up to and including 13 A.</p> | No power supply cord provided, see GENERAL PRODUCT INFORMATION. | N/A |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|--|------------------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| ZC | ANNEX ZC, NATIONAL DEVIATIONS (EN) | | N/A |
| 10.5.2 | <p>Germany</p> <p>The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking.</p> <p><i>Justification:</i> German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM.</p> <p>NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int +49-531-592-6320, Internet: http://www.ptb.de</p> | No CRT within the equipment. | |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| <p align="center">ATTACHMENT TO TEST REPORT IEC 62368-1 DENMARK NATIONAL DIFFERENCES Audio/video, information and communication technology equipment – Part 1: Safety requirements</p> | | | |
|---|--|--|--|
| Differences according to.....: DS/EN 62368-1:2014 | | | |
| Attachment Form No.....: DK_ND_IEC62368_1D | | | |
| Attachment Originator UL (Demko) | | | |
| Master Attachment 2021-02-04 | | | |
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| | National Differences | | P |
|---------|--|--|-----|
| 4.1.15 | <p>To the end of the subclause the following is added:</p> <p>Class I pluggable equipment type A intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment shall be connected to an earthed mains socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>“Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord.”</p> | | N/A |
| 5.2.2.2 | <p>After the 2nd paragraph add the following:</p> <p>A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p> | | N/A |
| 5.6.1 | <p>Add to the end of the subclause:</p> <p>Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment.</p> <p>Justification:</p> <p>In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.</p> | | N/A |
| 5.7.5 | <p>To the end of the subclause the following is added:</p> <p>The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p> | | N/A |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.7.6.2 | <p>To the end of the subclause the following is added:</p> <p>The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA.</p> | | N/A |
| G.4.2 | <p>To the end of the subclause the following is added:</p> <p>Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.</p> <p>Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.</p> <p>Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a</p> <p>Justification: Heavy Current Regulations, Section 6c</p> | | N/A |

| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| ATTACHMENT TO TEST REPORT IEC 62368-1 ITALY NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment – Part 1: Safety requirements) | | | |
|--|--|--------------------|-----|
| Differences according to: CEI EN 62368-1:2016 | | | |
| Attachment Form No.: IT_ND_IEC62368_1D | | | |
| Attachment Originator: IMQ S.p.A. | | | |
| Master Attachment: Date 2021-02-04 | | | |
| Copyright © 2021 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved. | | | |
| | National Differences | | P |
| F.1 | Italy The following requirements shall be fulfilled: <ul style="list-style-type: none"> • The power consumption in Watts (W) shall be indicated on TV receivers and in their instruction for use (Measurement according to EN 60555-2). Note: <i>EN 60555-2 has since been replaced by IEC 60107-1:1997.</i> <ul style="list-style-type: none"> • TV receivers shall be provided with an instruction for use, schematic diagrams and adjustments procedure in Italian language. • Marking for controls and terminals shall be in Italian language. Abbreviation and international symbols are allowed provided that they are explained in the instruction for use. • The ECC manufacturers are bound to issue a conformity declaration according to the above requirements in the instruction manual. The correct statement for conformity to be written in the instruction manual, shall be: <i>Questo apparecchio è fabbricato nella CEE nel rispetto delle disposizioni del D.M. marzo 1992 ed è in particolare conforme alle prescrizioni dell'art. 1 dello stesso D.M.</i> • The first importers of TV receivers manufactured outside EEC are bound to submit the TV receivers for previous conformity certification to the Italian Post Ministry (PP.TT). The TV receivers shall have on the backcover the certification number in the following form: D.M. 26/03/1992 xxxxx/xxxxx/S or T or pT S for stereo T for Teletext pT for retrofitable teletext | No such equipment. | N/A |

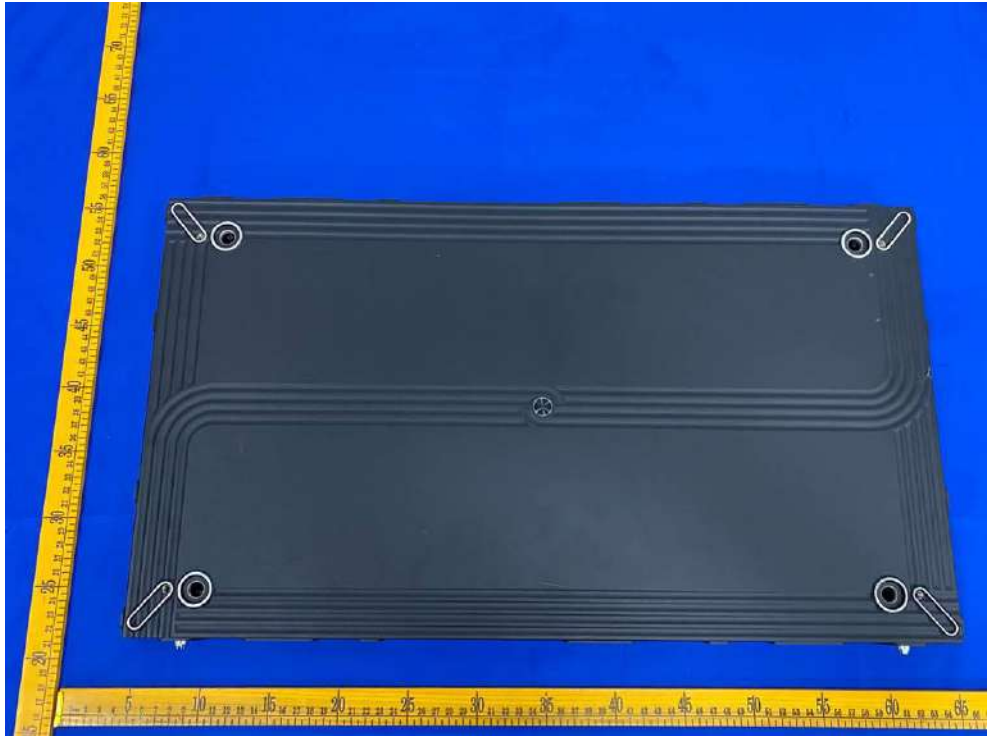
| IEC62368_1D - ATTACHMENT | | | |
|--------------------------|---|--------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | <p><i>Justification:</i> Ministerial Decree of 26 March 1992 : National rules for television receivers trade.</p> <p>NOTE/: <i>Ministerial decree above contains additional, but not safety relevant requirements</i></p> | No such equipment. | N/A |

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



Picture 1



Picture 2

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



Picture 3



Picture 4

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



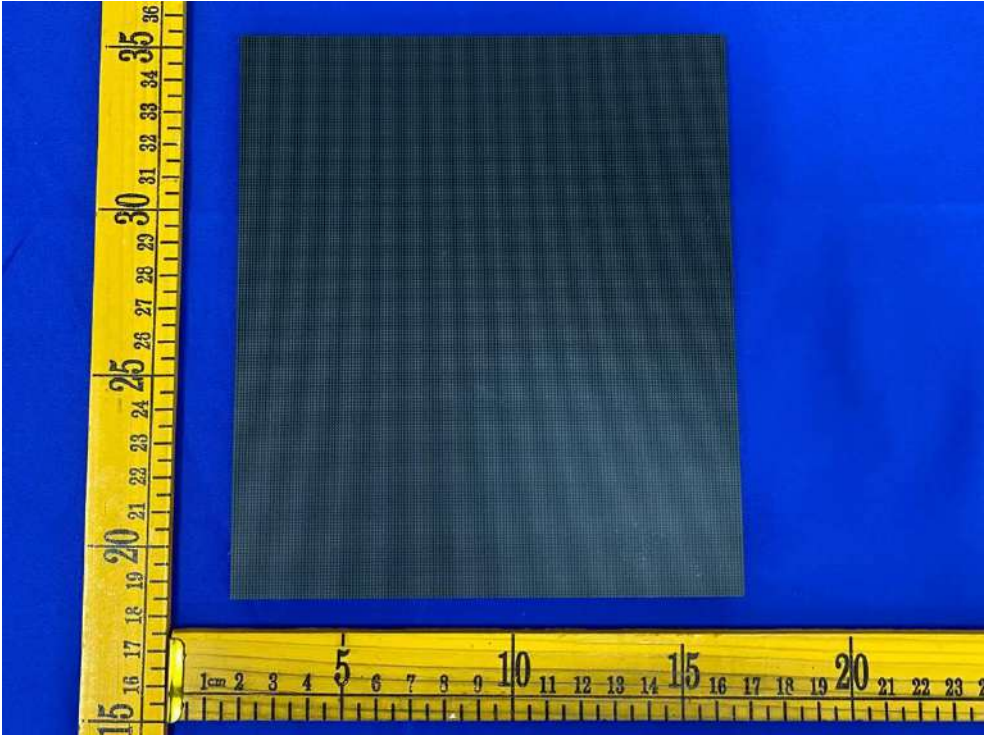
Picture 5



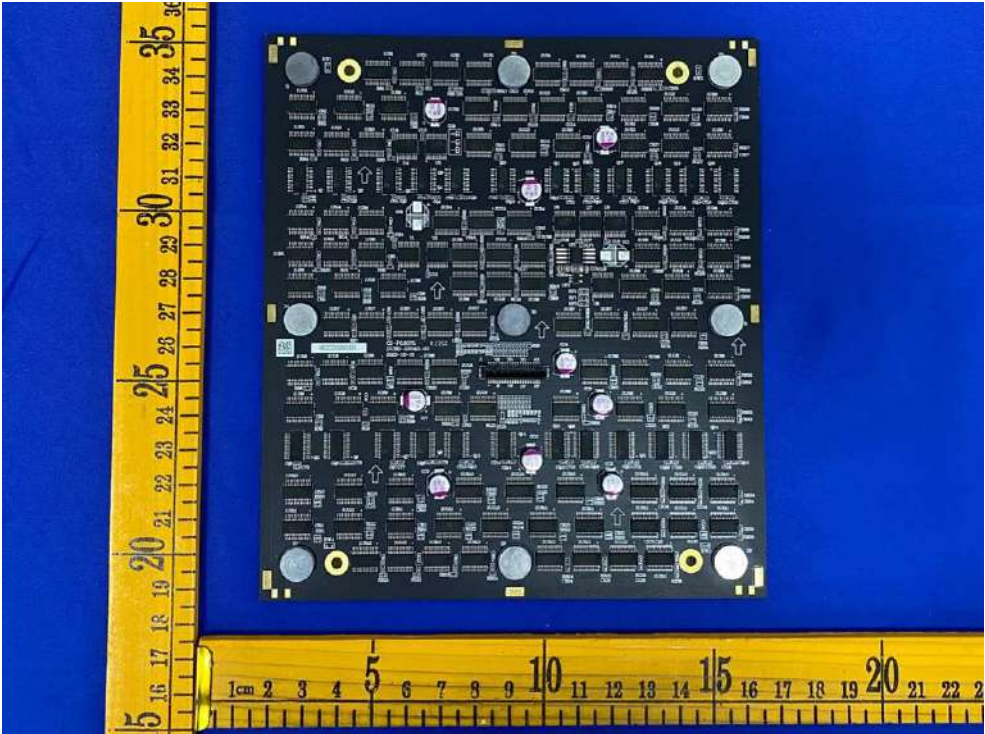
Picture 6

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



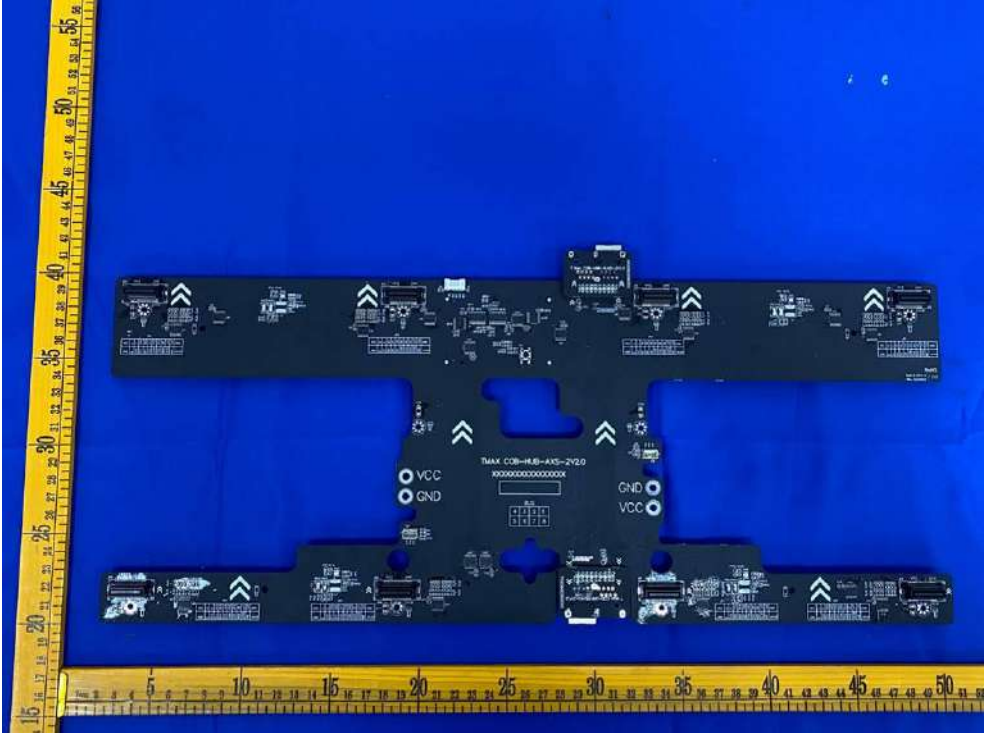
Picture 7



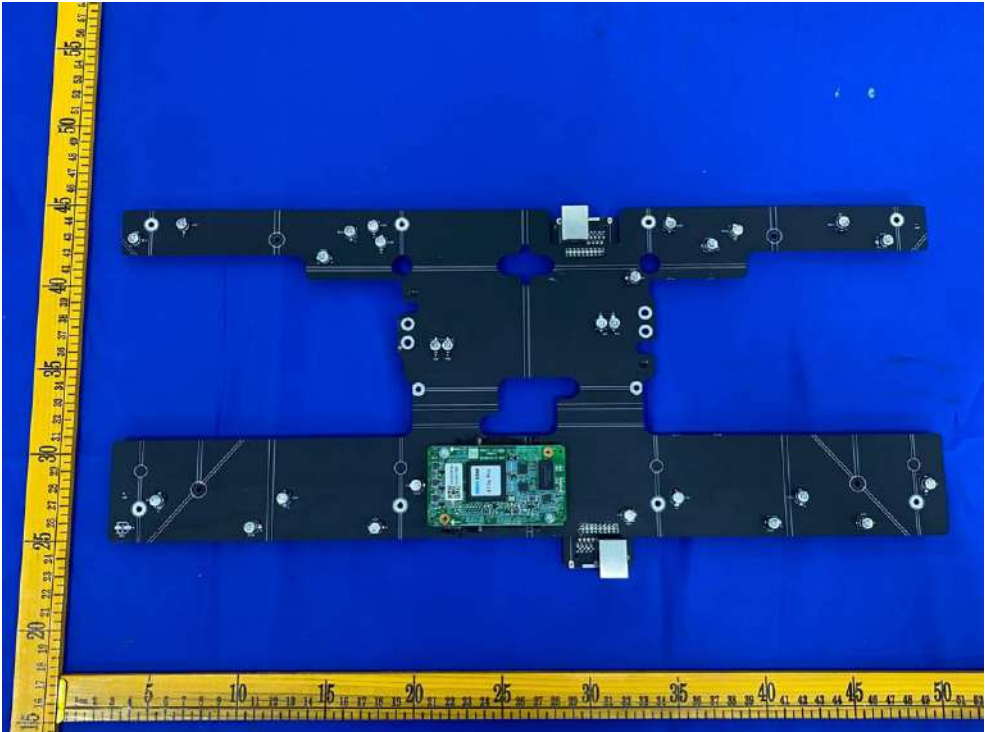
Picture 8

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



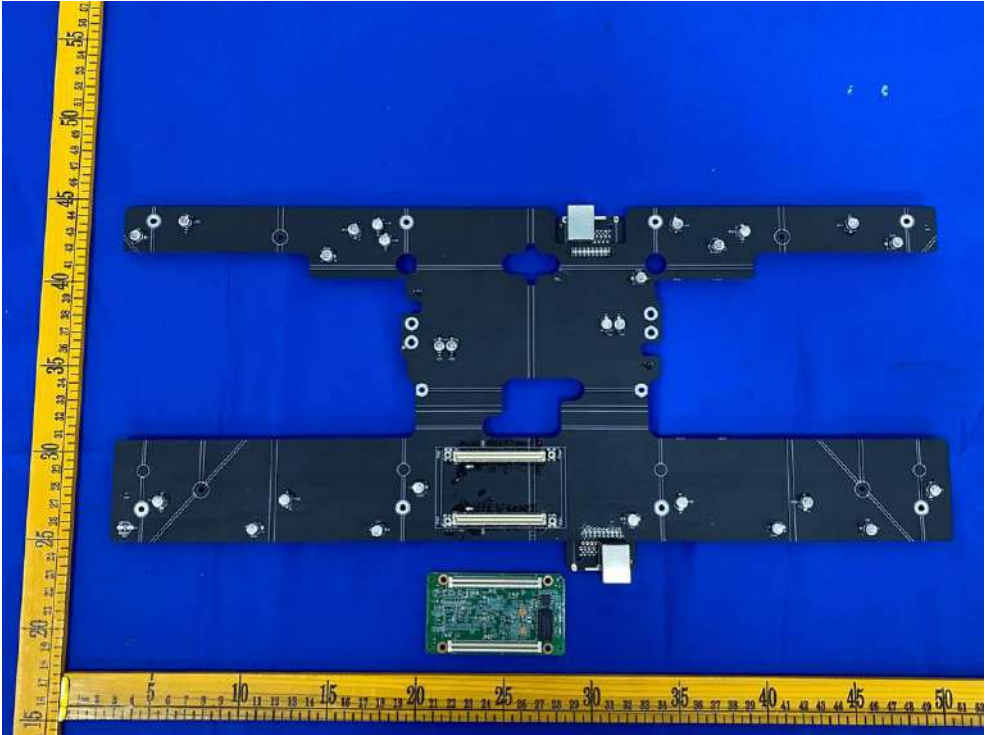
Picture 9



Picture 10

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



Picture 11



Picture 12 (Ground wire separated)

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5




Picture 13 (Ground wires together)



Picture 14

| 1.0 Reference and Address | | | |
|---------------------------|---|------------------------------|---|
| Report Number | 2405B0316SHA-001 | Original Issued: 12-Jun-2024 | Revised: None |
| Standard(s) | Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements [UL 62368-1:2019 Ed.3+R:22Oct2021] | | |
| | Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements [CSA C22.2#62368-1:2019 Ed.3+U1] | | |
| Applicant | Shenzhen Fabulux Technology Co., Ltd | Manufacturer | Shenzhen Fabulux Technology Co., Ltd |
| Address | Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong 518110 | Address | Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong 518110 |
| Country | China | Country | China |
| Contact | Weiji Wu | Contact | Weiji Wu |
| Phone | 13430753894 | Phone | 13430753894 |
| FAX | - | FAX | - |
| Email | fab004@fabuluxled.com | Email | fab004@fabuluxled.com |

| 2.0 Product Description | | | | | | | | | | | | | | | | |
|--------------------------------|--|---------------------------------------|------------------|---------------------------------------|--------------|---------|---------|--------------|--------|---------|--------------|------|--------|--------------|------|--------|
| Product | LED DISPLAY | | | | | | | | | | | | | | | |
| Brand name |  (FABULUX LED) | | | | | | | | | | | | | | | |
| Description | <p>The EUT is LED DISPLAY which is designed for indoor use only. The LEDs of this product is tested and classified as Exempt Group according to IEC 62471. The max. working altitude is 5000m. The dimensions of the LED DISPLAY are: approx. 600 mm x 337.5 mm x 30.3 mm. Maximum recommended ambient (Tmra): 50°C. Class I product.</p> | | | | | | | | | | | | | | | |
| Models | T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 | | | | | | | | | | | | | | | |
| Model Similarity | <p>All models are identical to each other except for model number, LED modules (including quantity of LED, circuit principle and PCB layout), pixel pitch options and the LEDs quantity per square meter for certain pixel pitch. (See below tables for details)</p> <table border="1" data-bbox="368 824 1362 1048"> <thead> <tr> <th>Model no.</th> <th>Pixel pitch (mm)</th> <th>Quantity of LED (pcs/m²)</th> </tr> </thead> <tbody> <tr> <td>T MAX COB0.7</td> <td>0.78125</td> <td>1638400</td> </tr> <tr> <td>T MAX COB0.9</td> <td>0.9375</td> <td>1137778</td> </tr> <tr> <td>T MAX COB1.2</td> <td>1.25</td> <td>640000</td> </tr> <tr> <td>T MAX COB1.5</td> <td>1.56</td> <td>409600</td> </tr> </tbody> </table> | Model no. | Pixel pitch (mm) | Quantity of LED (pcs/m ²) | T MAX COB0.7 | 0.78125 | 1638400 | T MAX COB0.9 | 0.9375 | 1137778 | T MAX COB1.2 | 1.25 | 640000 | T MAX COB1.5 | 1.56 | 409600 |
| Model no. | Pixel pitch (mm) | Quantity of LED (pcs/m ²) | | | | | | | | | | | | | | |
| T MAX COB0.7 | 0.78125 | 1638400 | | | | | | | | | | | | | | |
| T MAX COB0.9 | 0.9375 | 1137778 | | | | | | | | | | | | | | |
| T MAX COB1.2 | 1.25 | 640000 | | | | | | | | | | | | | | |
| T MAX COB1.5 | 1.56 | 409600 | | | | | | | | | | | | | | |
| Ratings | Input: 100-240V~, 50/60Hz, 10A (Max) Output: 100-240V~, 50/60Hz, 9A (Max) | | | | | | | | | | | | | | | |
| Other Ratings | NA | | | | | | | | | | | | | | | |
| Conditions of Acceptability | <p>The products covered in this Report are incomplete in construction features or limited in performance capabilities and are intended for use and evaluation in other products. Consideration should be given to the following when the component is used in or with another product.</p> <ol style="list-style-type: none"> Suitability of the enclosure should be evaluated when installed in the end product. The installation method is examined in the final product. Wall or ceiling mount loading test or stability of equipment shall be evaluated when installed in the end product. Touch current test should be double checked when installed in the end product. Resistance of the protective bonding system (Ground continuity test) should be evaluated when installed in the end product. | | | | | | | | | | | | | | | |

3.0 Product Photographs

Photo 1 - External view of EUT

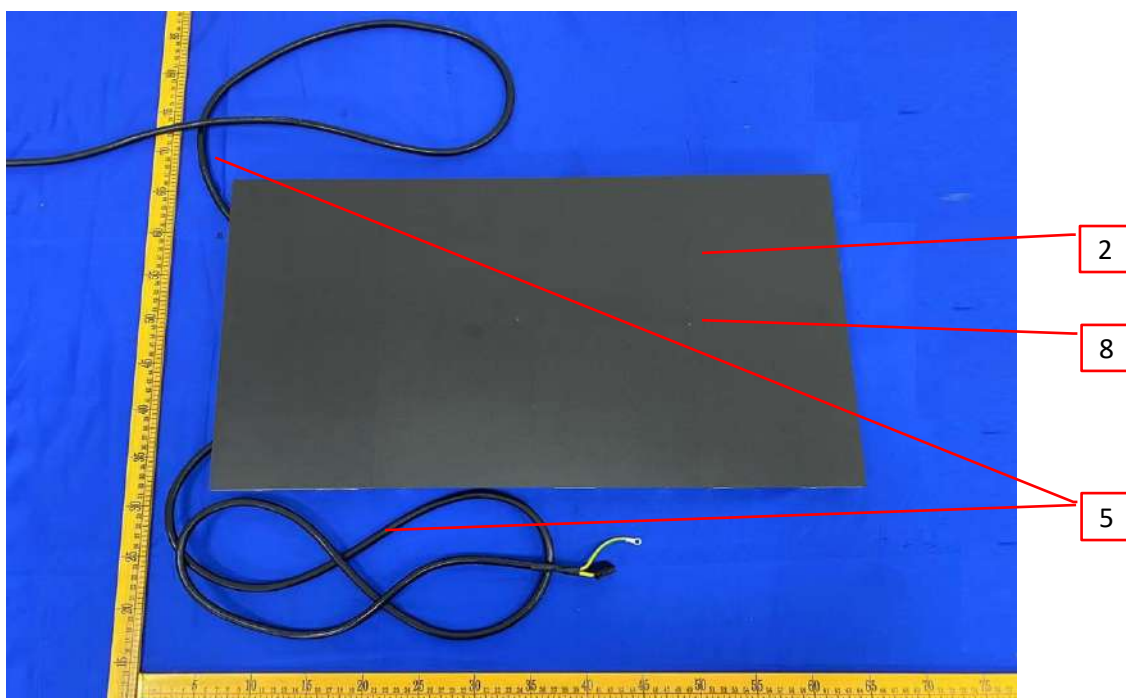
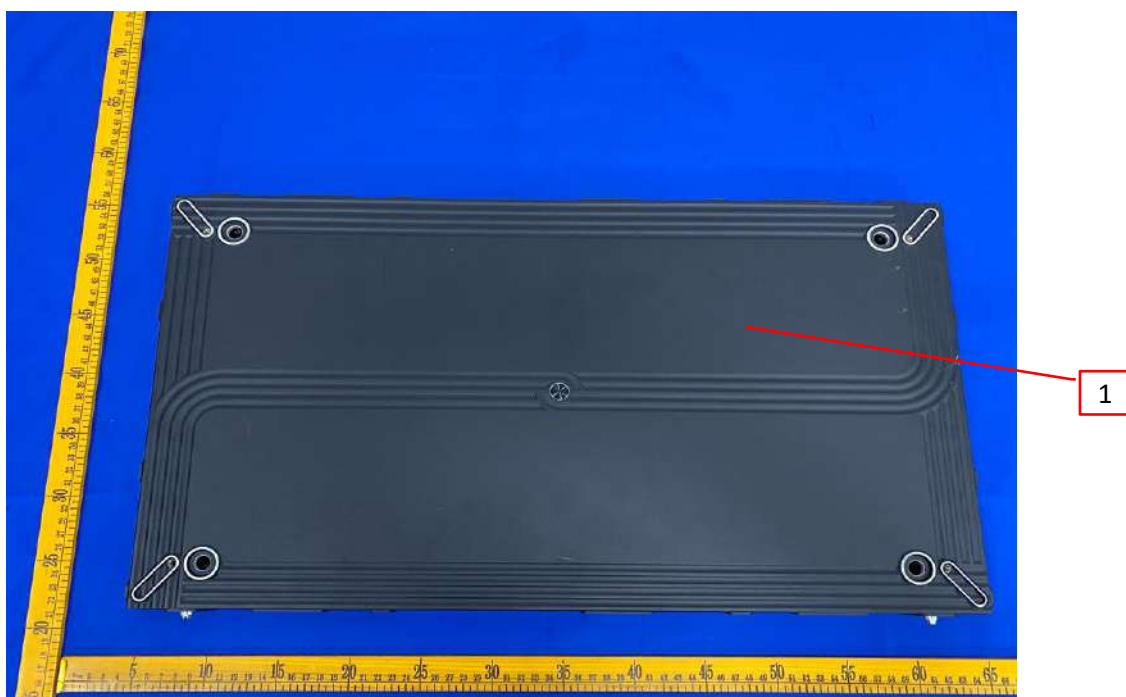


Photo 2 - External view of EUT



3.0 Product Photographs

Photo 3 - Internal view of EUT

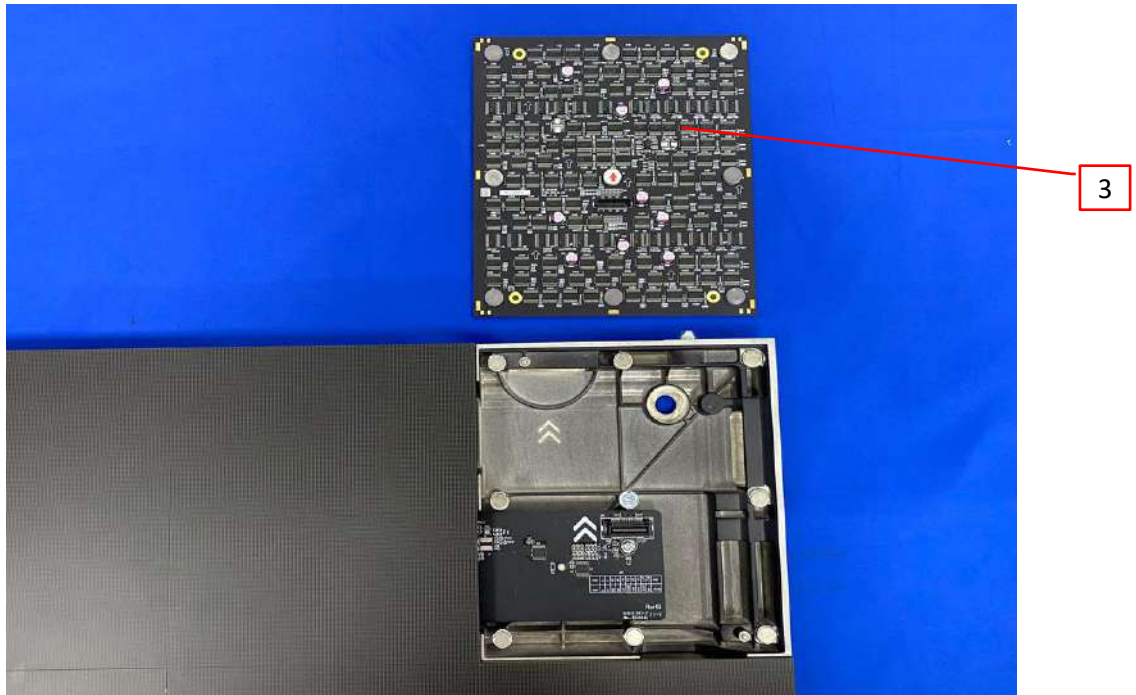
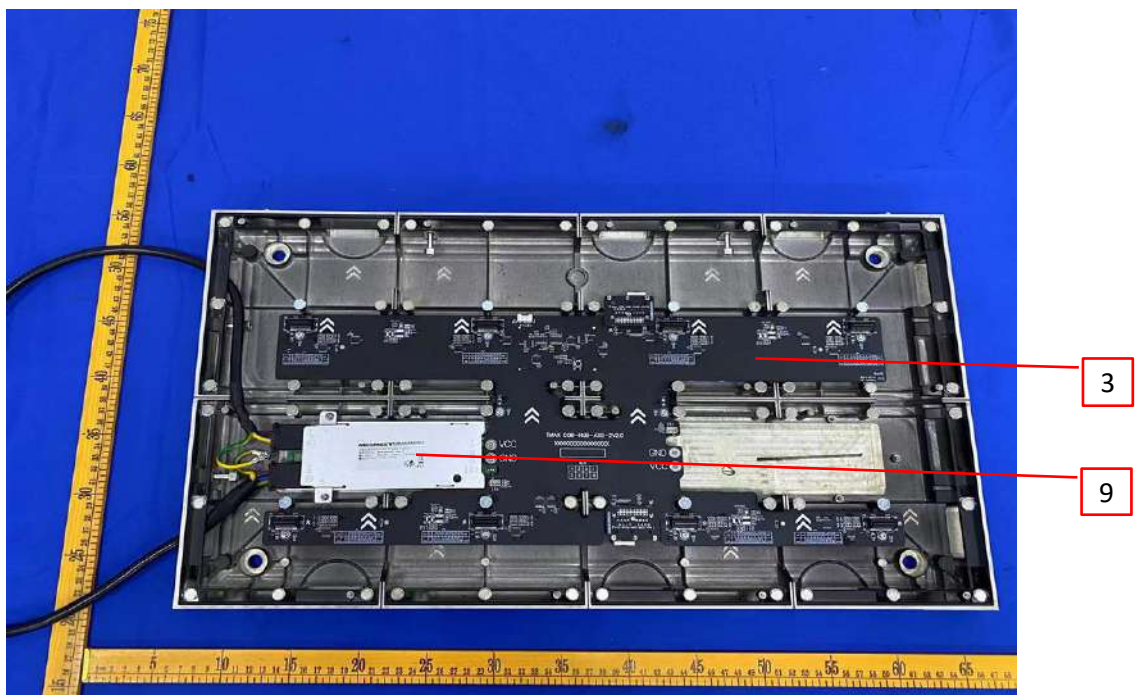


Photo 4 - Internal view of EUT



3.0 Product Photographs

Photo 5 - Internal view of EUT

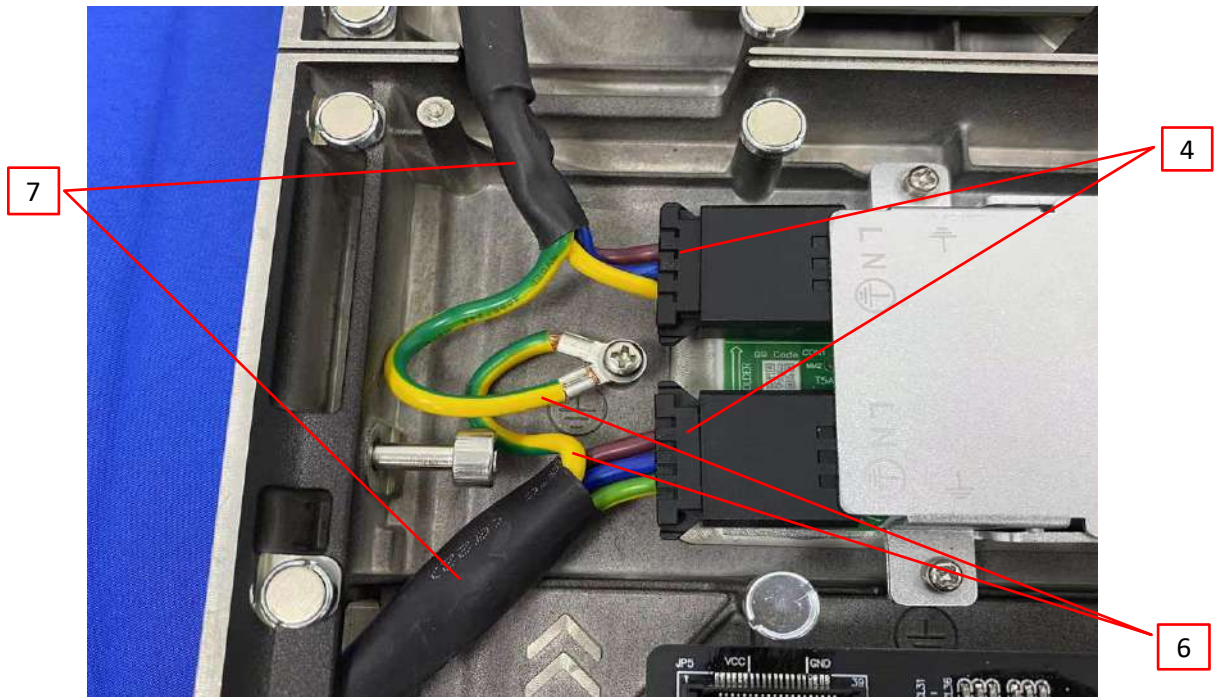


Photo 6 - Internal view of EUT



3.0 Product Photographs

Photo 7 - Overall view of LED module

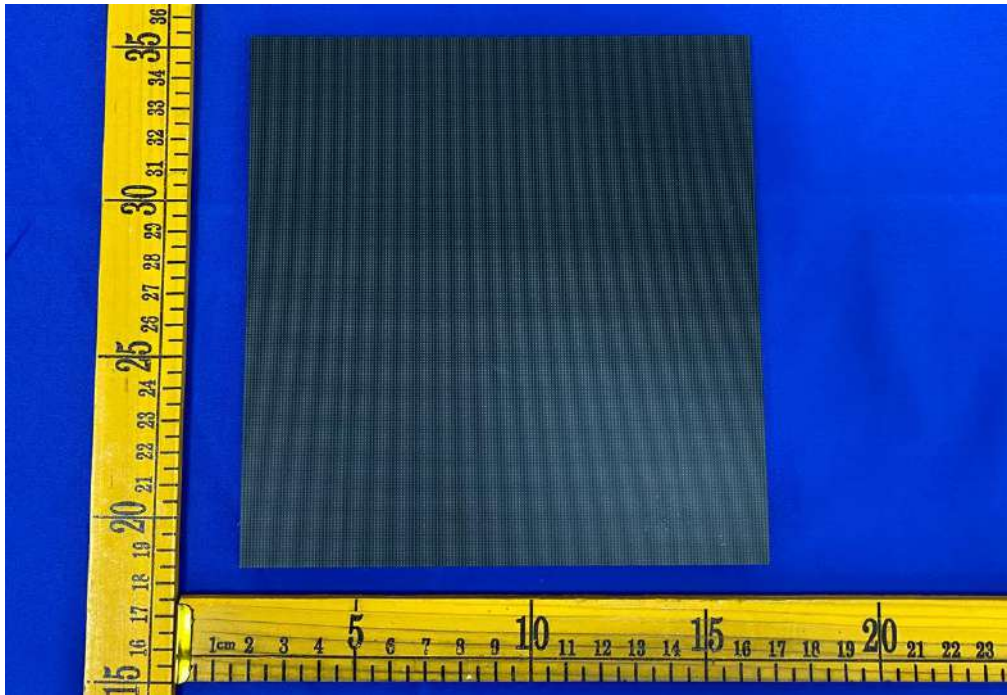
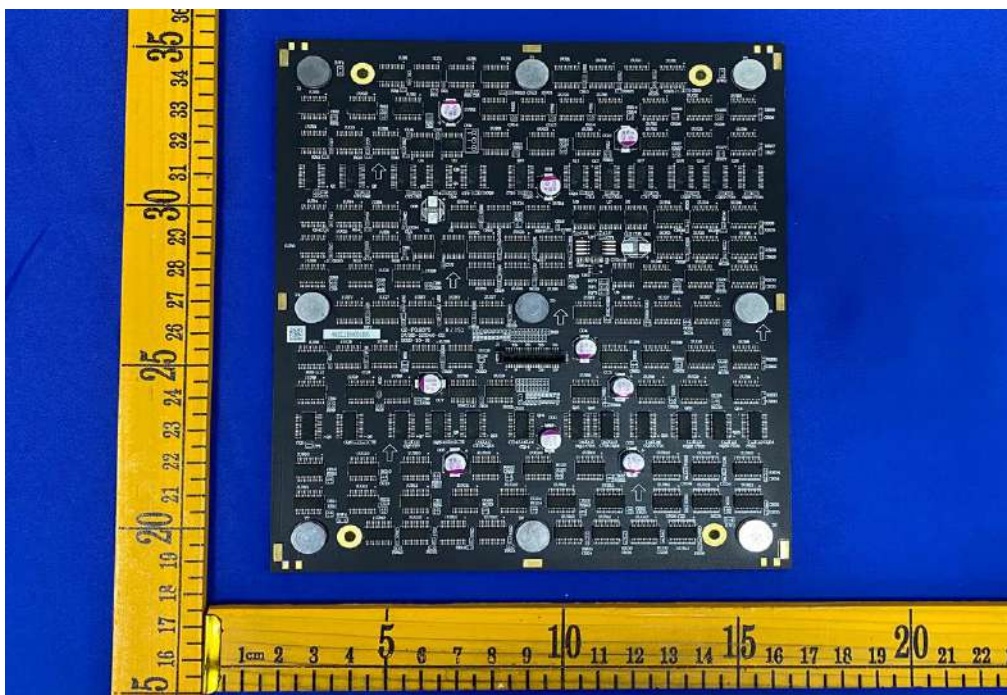


Photo 8 - Overall view of LED PCB board



3.0 Product Photographs

Photo 9 - Overall view of HUB PCB board

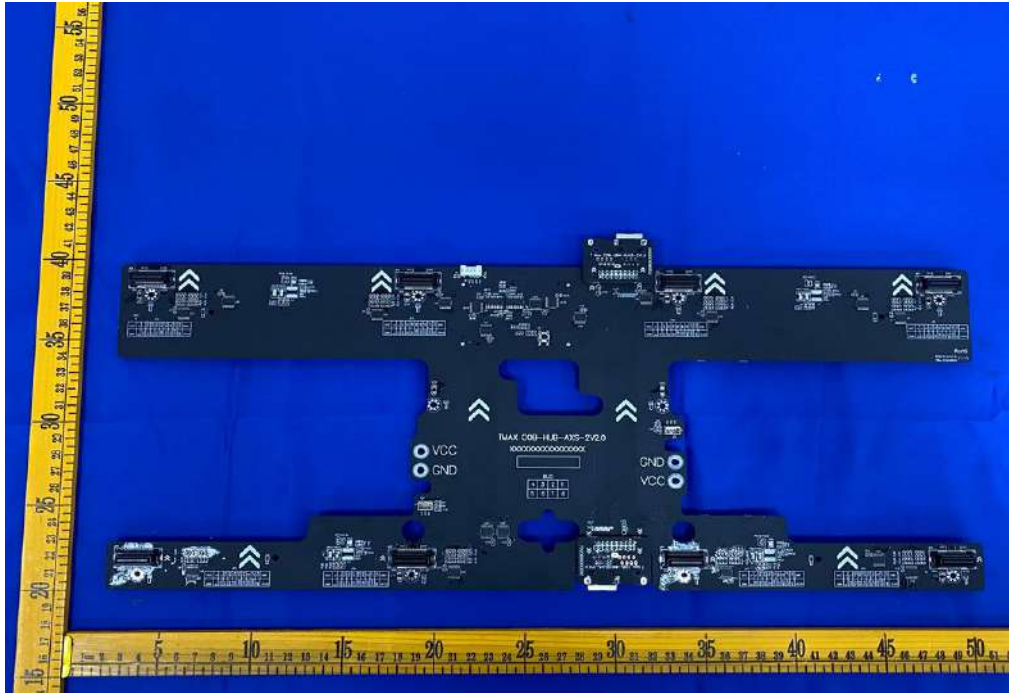
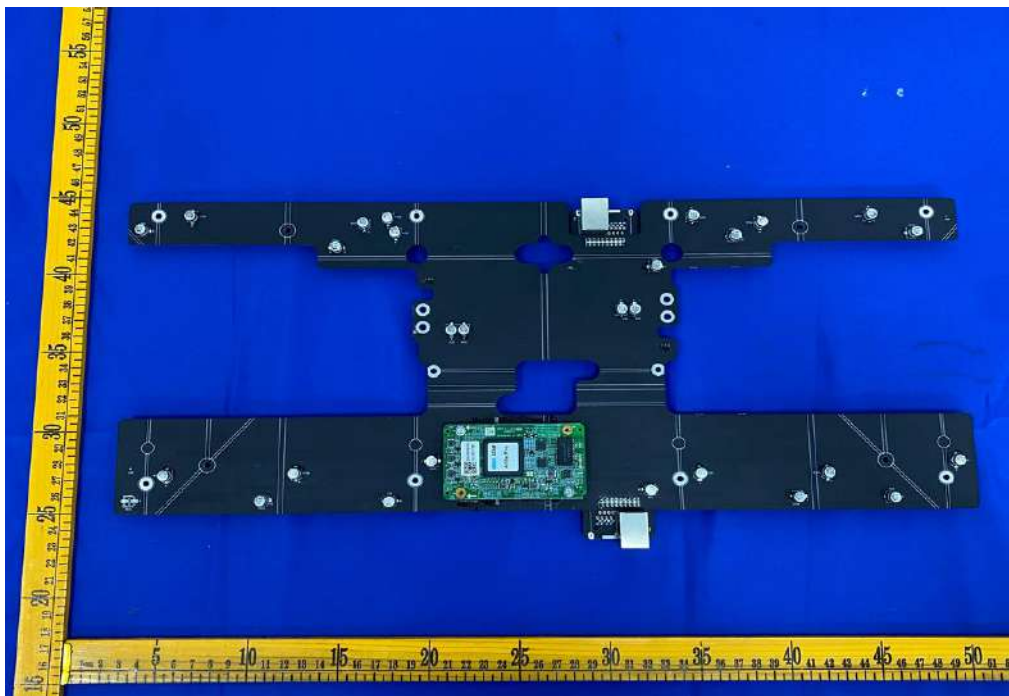


Photo 10 - Overall view of HUB PCB board



3.0 Product Photographs

Photo 11 - Overall view of HUB PCB board

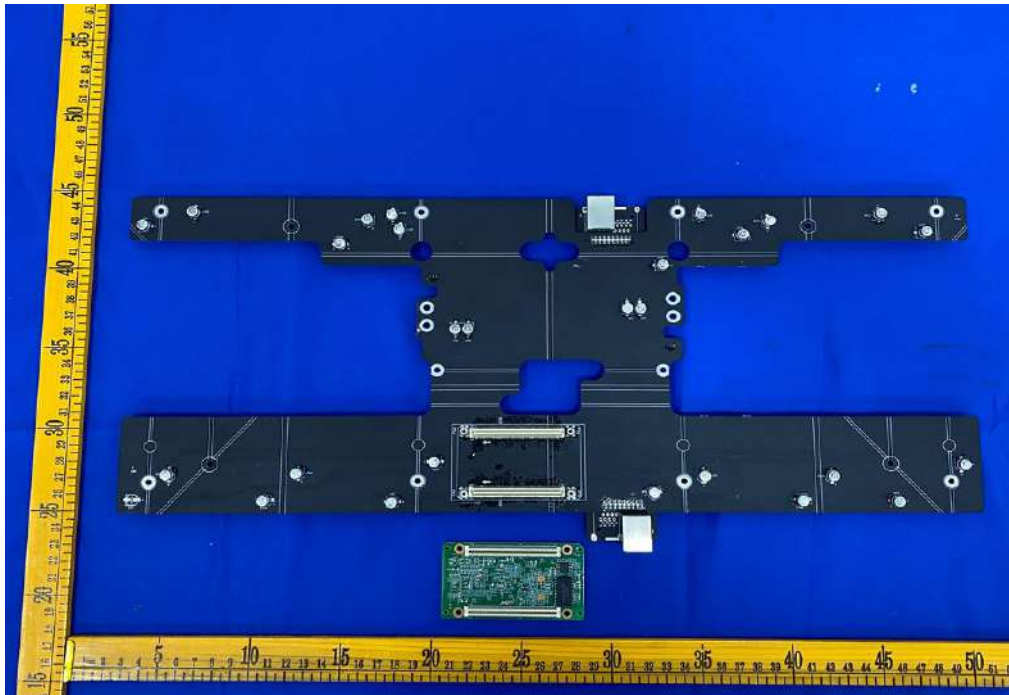
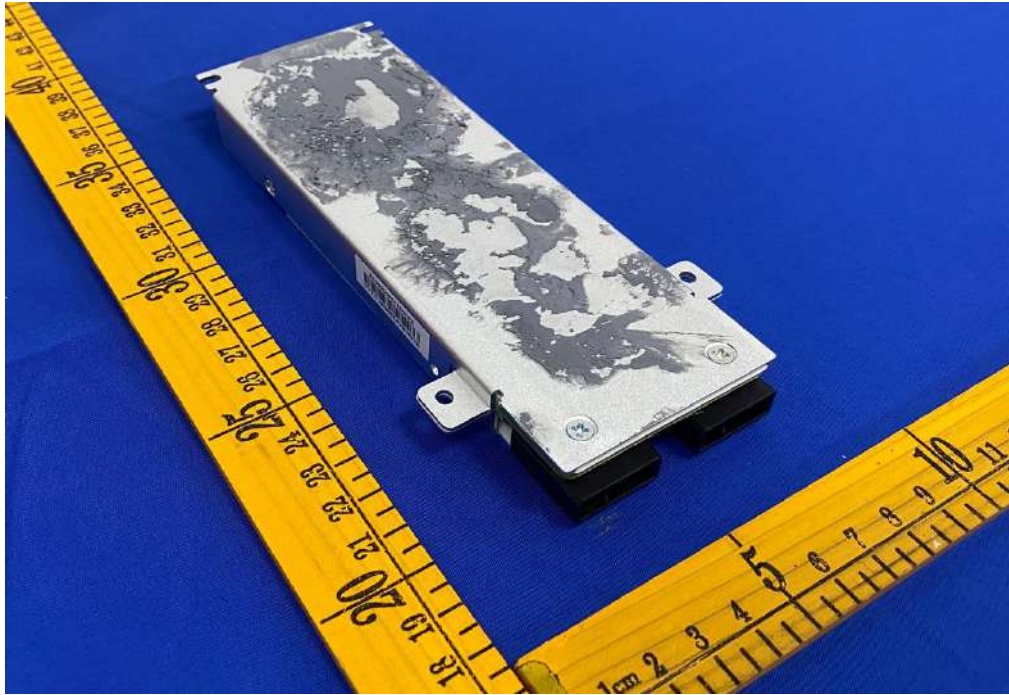


Photo 12 - Overall view of built-in power supply



3.0 Product Photographs

Photo 13 - Overall view of built-in power supply



| 4.0 Critical Components | | | | | | |
|-------------------------|---|-----------------------------------|---|---------------------------|---|------------------------------------|
| Photo # | Item no. ¹ | Name | Manufacturer/ trademark ² | Type / model ² | Technical data and securement means | Mark(s) of conformity ³ |
| 2 | 1 | Metal enclosure | Various | Various | Aluminium alloy, min. 1.0mm thickness | NR |
| 1 | 2 | Plastic material of LED panel | SABIC INNOVATIVE PLASTICS US LLC | 503(f1) | PC, V-0, 80°C, min. 0.7mm thickness | UR |
| | | | | 503R(f1) | | |
| 3, 4 | 3 | PCB | HUIZHOU XIECHANG ELECTRONICS CO LTD | XC03 | Min. V-0, 130°C, min. 1.0mm thickness | UR |
| | | | Shengyi Electronics Co Ltd | M42 | | |
| | | | LONG YAN JINSHIYU ELECTRONIC LTD | M92 | | |
| | | | Various | JSY-3 | | |
| 5 | 4 | Input connector/ output connector | SHENZHEN NOXTLON ELECTRONIC CO LTD | B15B-003F540AA3 | Min. 250VAC, min. 10A | UR |
| 1 | 5 | Primary wire | SHEN ZHEN XINXINYU ELECTRON SCIENCE TECHNOLOGY CO LTD | SJT | Min. 16AWG x 3, min. 80°C, min. 300V, VW-1. (Connected to input connector, output connector and built-in power supply) | cULus |
| | | | Dong Guan Yong Sheng Cables Technology Co Ltd | SJTW | | |
| | | | | SJT | | |
| | | | | SJTW | | |
| | | | Various | SJT | | |
| 5 | 6 | Earthing wire | DONGGUAN HONGFUWEI CABLE TECHNOLOGY CO LTD | 1015 | Min. 18AWG, min. 80°C, min. 300V, VW-1. | UR |
| | Dong Guan Yong Sheng Cables Technology Co Ltd | 1015 | | | | |
| | Various | 1015 | | | | |
| 5 | 7 | Heat shrinkable tube | DONGGUAN SALIPT CO LTD | SALIPT S-901-300 | Min. 300V, VW-1, min. 125°C. Used for Primary internal wire. | UR |
| | | | | SALIPT S-901-600 | | |
| | | | | SALIPT S-HPT-600 | | |
| | | | GUANGZHOU KAIHENG NEW MATERIAL CO LTD | K-102 | | |
| | | | Various | K-102 (CB) | | |
| | Various | Various | | | | |

| 4.0 Critical Components | | | | | | |
|---|-----------------------|---------------------------------|--|---------------------------|--|------------------------------------|
| Photo # | Item no. ¹ | Name | Manufacturer/ trademark ² | Type / model ² | Technical data and securement means | Mark(s) of conformity ³ |
| 1 | 8 | LED | Dongguan City HCP Technology Co., Ltd. | F-0406A1-RF | Emitted color: Red. Red: IF=1mA, VF=1.75-2V; | NR |
| | | | | F-0407A1-GF | Emitted color: Green Green: IF=1.2mA, VF=2.30-2.55V; | NR |
| | | | | F-0407A1-BF | Emitted color: Blue Blue: IF=0.8mA, VF=2.50-2.75V. | NR |
| 4 | 9 | Built-in switching power supply | ShenZhen MEGMEET Electrical Co., Ltd. | MCP200WST-3.8-LC | Class I, 50-70°C, 5000m, INPUT: 100-240V~, 50/60Hz, 3.0A Max. OUTPUT: +3.8VDC, 45A | cETLus |
| NOTES: 1) Not all item numbers are indicated (called out) in the photos, as their location is obvious. 2) "Various" means any type, from any manufacturer that complies with the "Technical data and securement means" and meets the "Mark(s) of conformity" can be used. 3) Indicates specific marks to be verified, which assures the agreed level of surveillance for the component. "NR" - indicates Unlisted and only visual examination is necessary. "See 5.0" indicates Unlisted components or assemblies to be evaluated periodically refer to section 5.0 for details. | | | | | | |

5.0 Critical Unlisted CEC Components

No Unlisted CEC components are used in this report.

6.0 Critical Features

Recognized Component - A component part, which has been previously evaluated by an accredited certification body with restrictions and must be evaluated as part of the basic product considering the restrictions as specified by the Conditions of Acceptability.

Listed Component - A component part, which has been previously Listed or Certified by an accredited Certification Organization with no restrictions and is used in the intended application within its ratings.

Unlisted Component - A part that has not been previously evaluated to the appropriate designated component standard. It may also be a Listed or Recognized component that is being used outside of its evaluated Listing or component recognition.

Critical Features/Components - An essential part, material, subassembly, system, software, or accessory of a product that has a direct bearing on the product's conformance to applicable requirements of the product standard.

Construction Details - For specific construction details, reference should be made to the photographs and descriptions. All dimensions are approximate unless specified as exact or within a tolerance. In addition to the specific construction details described in this Report, the following general requirements also apply.

1. Spacing - In primary circuits, minimum spacing are maintained through air and over surfaces of insulating material between current-carrying parts of opposite polarity and minimum between such current-carrying parts and dead-metal parts or low voltage isolated circuits.
(Without considering approved power supply module inside)
Between different polarity of Line and Neutral: Cl = 2.3 mm; Cr = 2.5 mm. (up to 5000 m)
Between live parts and secondary circuit parts: Cl = 4.5 mm; Cr = 5.0 mm. (up to 5000 m)
Between live parts and unearthed accessible parts: Cl = 4.5 mm; Cr = 5.0 mm. (up to 5000 m)
2. Mechanical Assembly - Components such as switches, fuseholders, connectors, wiring terminals and display lamps are mounted and prevented from shifting or rotating by the use of lockwashers, starwashers, or other mounting format that prevents turning of the component.
3. Corrosion Protection - All ferrous metal parts are protected against corrosion by painting, plating or the equivalent.
4. Accessibility of Live Parts - All uninsulated live parts in primary circuitry are housed within a metal and non-metallic enclosure constructed with no openings other than those specifically described in Sections 4 and 5.
5. Grounding - All exposed dead-metal parts and all dead-metal parts within the enclosure that are exposed are connected to the grounding lead of the power supply cord or the equipment grounding terminal.
6. Polarized Connection - This product is provided with a polarized power supply connection. All single pole switches and fuses are connected only to the ungrounded supply circuit conductor.
7. Internal Wiring - Internal wiring is routed away from sharp or moving parts. Internal wiring leads terminating in soldered connections are made mechanically secure prior to soldering. Recognized Component separable (quick disconnect) connectors of the positive detent type, closed loop connectors, or other types specifically described in the text of this report are also acceptable as internal wiring terminals. At points where internal wiring passes through metal walls or partitions, the wiring insulation is protected against abrasion or damage by plastic bushings or grommets. For primary wire is minimum 16AWG, with a minimum rating of 300V, minimum 80°C. For protective bonding wire is minimum 18AWG, with a minimum rating of 300V, minimum 80°C.
8. Markings - The product is marked as follows:
 - a. applicant name or brand name: refer to sec. 2.0
 - b. model number: refer to sec. 2.0
 - c. electrical ratings for the input: 100-240V~, 50/60Hz, 10A (Max)
 - d. electrical ratings for the output: 100-240V~, 50/60Hz, 9A (Max)
9. Installation, Operating and Safety Instructions - Instructions for installation and use of this product are provided by the manufacturer. Refer to Section 7.0, Illustration No. 1 to 2 for details.

7.0 Illustrations

Illustration 1 - Safety instructions

3、Warnings/ Avertissement:



During the installation, operation, power supply, commissioning of this product, please read this section safety measures! / Lisez cette section sur les mesures de sécurité pendant l'installation, le fonctionnement, l'alimentation, la mise en service de ce produit!



This product is only for professional use! / Ce produit est réservé aux professionnels!
This product by burning, shock, drop, can lead to injuries. / Ce produit brûle, décharge électrique, chute, peut causer des blessures corporelles.



Warnings: Load heavy, Be careful operation, Avoid injury. / Avertissement: surchargez, manipulez soigneusement et évitez les blessures.



Warnings: Pay attention to the load of the suspension. / Avertissement: Faites attention à la charge de la suspension.



Warnings: Danger! High voltage, Beware of electric shock! / Avertissement: dangereux! Haute tension, attention aux électrocutions!

- ◆ In the power supply wiring and connection, be sure to shut off the main switch. / Assurez - vous d'éteindre l'interrupteur principal lorsque l'alimentation est câblée et connectée.
- ◆ In the open and connecting unit box before any member, please close switch. / Éteignez l'interrupteur pour tout Membre avant d'ouvrir et de connecter le boîtier de l'unité.
- ◆ Maintain product grounded. / Garder le produit à la terre.
- ◆ Total power switch should be located close to the product and obvious, easy to move, to prevent failure can disconnect the power. / L'interrupteur d'alimentation total doit être situé à proximité du produit et clairement et facilement déplaçable pour éviter que l'alimentation puisse être déconnectée en cas de panne.
- ◆ The screen assembly is completed, please carefully check the power wiring are in good condition. / L'assemblage de l'écran est terminé, vérifiez soigneusement si le câblage d'alimentation est en bon état.



Warnings: Wear safety helmets, in order to avoid injury to adult. / Avertissement: portez un casque de sécurité pour ne pas blesser les adultes.

7.0 Illustrations

Illustration 2 - Safety instructions

Warnings: Beware of fire! / Attention: attention au feu!



- ◆ Display mounting position to have good ventilation. / Emplacement d'installation du moniteur bien ventilé.
- ◆ Don't hang in case any items. / Ne pas accrocher au cas où il y aurait quelque chose.
- ◆ No longer in the environment temperature exceeds 50 degrees C. The cases using the screen. / N'utilisez plus l'écran lorsque la température ambiante dépasse 50 degrés Celsius.



Warnings: Please note that the display of the visual distance, to avoid long time close viewing screen, so as not to affect the eyesight.

Attention: Faites attention à la distance visuelle affichée et évitez de regarder l'écran de près pendant de longues périodes afin de ne pas nuire à votre vision.



Warnings/ Avertissement:

| | |
|--|--|
| | <p>(1) Please check the requirements of the power supply before using / S'il vous plaît vérifier les exigences de la puissance avant utilisation:</p> <ul style="list-style-type: none"> ① Do not use too high voltage power supply; otherwise, the overload can cause a fire. / N'utilisez pas d'alimentation électrique avec une tension trop élevée; Sinon, une surcharge peut provoquer un incendie. ② Do not use the direct-current power supply. / N'utilisez pas d'alimentation DC. <p>(2) The alternating current cable should be connected correctly, and no damage of the alternating current cable guaranteed. Poor connection or cable damages can cause fires and electric shock accidents. / Le câble AC doit être correctement connecté et garanti qu'il ne sera pas endommagé. Une mauvaise connexion ou un câble endommagé peut entraîner un incendie et des accidents électrocutions.</p> <p>(3) Avoid pulling, bending cables. Extra weight can't be put on the cable. / Évitez de tirer et de plier les câbles. Le câble ne peut pas supporter le poids supplémentaire.</p> <p>(4) Switch off electrical power before plugging and pulling the cable. / Éteignez l'alimentation avant de brancher le câble.</p> <p>(5) Do not pull or plug the connector with wet hands, which can cause electric shock accidents. / Ne tirez pas ou ne branchez pas le connecteur avec des mains mouillées, sinon cela entraînera un accident d'électrocution.</p> <p>(6) When the power supply is abnormal, shut off the switch immediately and identify the causes. / Lorsque l'alimentation est anormale, l'interrupteur doit être éteint immédiatement et la cause identifiée.</p> <p>(7) If PROTECTIVE EARTHING is used as a SAFEGUARD, the instructions shall require connection of the equipment PROTECTIVE EARTHING CONDUCTOR to the installation PROTECTIVE EARTHING CONDUCTOR (for example, by means of a power cord connected to a socket-outlet with earthing connection). / Si une mise à la terre de protection est utilisée comme dispositif de protection, les instructions doivent exiger qu'un conducteur de terre de protection qualifié soit connecté à un conducteur de terre de protection interne (par exemple, par un câble d'alimentation connecté à une prise avec connexion à la terre).</p> |
|--|--|

6. Package/ Le paquet

| | |
|--|---|
| | <p>Attention:</p> <ul style="list-style-type: none"> (1) Better to use the flight case for package, in order to protect the screen during transportation. / Pour protéger l'écran pendant le transport, il est préférable d'utiliser un sac de vol pour l'emballage. (2) Each cabinet inside should be separated. / Chaque armoire à l'intérieur doit être séparée. |
|--|---|

| 8.0 Test Summary | | | |
|---|--|-----------|--------------------------|
| Evaluation Period | 10-May-2024 ~ 7-Jun-2024 | | Project No. 2405B0316SHA |
| Sample Rec. Date | 10-May-2024 | Condition | Prototype |
| Test Location | Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China | | |
| Test Procedure | Testing Lab | | |
| Determination of the result includes consideration of measurement uncertainty from the test equipment and methods. The product was tested as indicated below with results in conformance to the relevant test criteria. | | | |
| The following tests were performed: | | | |
| Test Description | UL 62368-1:2019 Ed.3+R:22Oct2021 & CSA C22.2#62368-1:2019 Ed.3+U1 Clause | | |
| Classification of electrical energy sources | 5.2 | | |
| Accessibility to electrical energy sources and safeguards (Accessibility test) | 5.3.2 | | |
| Heating test and abnormal & fault condition test | 5.4.1.4, 6.3, 6.4, 9.0, B.2.6, B.3, B.4 | | |
| Ball pressure test | 5.4.1.10.3 | | |
| Clearances and creepage distances measurement | 5.4.2, 5.4.3 | | |
| Humidity test | 5.4.8 | | |
| Electric strength test | 5.4.9 | | |
| Capacitance discharge test | 5.5.2.2 | | |
| Resistance of the protective bonding system (Ground continuity test) | 5.6.6.2 | | |
| Measurement of touch current | 5.7.2.1 | | |
| Unearthed accessible parts | 5.7.4 | | |
| Earthed accessible conductive part test | 5.7.5 | | |
| Electrical Power Source (PS) measurements for classification | 6.2.2 | | |
| Determination of Potential Ignition Sources (Arcing PIS) | 6.2.3.1 | | |
| Determination of Potential Ignition Sources (Resistive PIS) | 6.2.3.2 | | |
| Radiation energy source classifications (Lamps and lamp systems including LEDs) | 10.2.1 | | |
| Input test | B.2.5 | | |
| Abnormal operating and fault condition tests | B.3, B.4 | | |
| Durability, legibility and permanence of markings | F.3.10 | | |
| Steady force test, 10 N | T.2 | | |
| Steady force test, 250 N | T.5 | | |
| Enclosure impact test | T.6 | | |
| Stress relief test | T.8 | | |

| 8.1 Signatures | | | |
|--|---|--------------|---|
| A representative sample of the product covered by this report has been evaluated and found to comply with the applicable requirements of the standards indicated in Section 1.0. | | | |
| Completed by: | Aaron Liu | Reviewed by: | Jack Chen |
| Title: | Engineer | Title: | Reviewer |
| Signature: |  | Signature: |  |

9.0 Correlation Page For Multiple Listings

The following products, which are identical to those identified in this report except for model number and Listee name, are authorized to bear the ETL label under provisions of the Intertek Multiple Listing Program.

| | |
|---------------------|---|
| BASIC LISTEE | Shenzhen Fabulux Technology Co., Ltd |
| Address | Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong 518110 |
| Country | China |
| Product | LED DISPLAY |

| | |
|--------------------------|------|
| MULTIPLE LISTEE 1 | None |
| Address | |
| Country | |
| Brand Name | |

| | |
|--------------------------------|--|
| ASSOCIATED MANUFACTURER | |
| Address | |
| Country | |

| | |
|---------------------------------|----------------------------|
| MULTIPLE LISTEE 1 MODELS | BASIC LISTEE MODELS |
| | |

| | |
|--------------------------|------|
| MULTIPLE LISTEE 2 | None |
| Address | |
| Country | |
| Brand Name | |

| | |
|--------------------------------|--|
| ASSOCIATED MANUFACTURER | |
| Address | |
| Country | |

| | |
|---------------------------------|----------------------------|
| MULTIPLE LISTEE 2 MODELS | BASIC LISTEE MODELS |
| | |

| | |
|--------------------------|------|
| MULTIPLE LISTEE 3 | None |
| Address | |
| Country | |
| Brand Name | |

| | |
|--------------------------------|--|
| ASSOCIATED MANUFACTURER | |
| Address | |
| Country | |

| | |
|---------------------------------|----------------------------|
| MULTIPLE LISTEE 3 MODELS | BASIC LISTEE MODELS |
| | |

10.0 General Information

The Applicant and Manufacturer have agreed to produce, test and label ETL Listed products in accordance with the requirements of this Report. The Manufacturer has also agreed to notify Intertek and to request authorization prior to using alternate parts, components or materials.

COMPONENTS

Components used shall be those itemized in this Intertek report covering the product, including any amendments and/or revisions.

LISTING MARK

The ETL Listing mark applied to the products shall either be separable in form, such as labels purchased from Intertek, or on a product nameplate or other media only as specifically authorized by Intertek. Use of the mark is subject to the control of Intertek.

The mark must include the following four items:

- 1) applicable country identifiers "US" and/or "C" or "US", "C" and "EU"
- 2) the word "Listed" or "Classified" or "Recognized Component" (whichever is appropriate)
- 3) a control number issued by Intertek
- 4) a product descriptor that identifies the standards used for certification. Example:

For US standards, the words, "Conforms to" shall appear with the standard number along with the word, "Standard" or "Std." Example: "Conforms to ANSI/UL Std. XX."

For Canadian standards, the words "Certified to CAN/CSA Standard CXX No. XX." shall be used, or abbreviated, "Cert. to CAN/CSA Std. CXX No. XX."

Can be used together when both standards are used.

If all standards on the ATM have the same standard title, the shared title or its abbreviation may be used in place of the examples above. Example: "Medical Electrical Equipment" or "MEE"; "Information Technology Equipment" or "ITE"; "Audio/Video Information And Communication Technology Equipment" or "A/V ICTE".

Note: A facsimile must be submitted to Intertek, Attn: Follow-up Services for approval prior to use.

The facsimile need not have a control number. A control number will be issued **after signed Certification Agreements** have been received by the Follow-up Services office, approval of the facsimile of your proposed Listing Mark, satisfactory completion of the Listing Report, and scheduling of a factory assessment in your facility.

MANUFACTURING AND PRODUCTION TESTS

Manufacturing and Production Tests shall be performed as required in this Report.

FOLLOW-UP SERVICE

Periodic unannounced audits of the manufacturing facility (and any locations authorized to apply the mark) shall be scheduled by Intertek. An audit report shall be issued after each visit. Special attention will be given to the following:

1. Conformance of the manufactured product to the descriptions in this Report.
2. Conformance of the use of the ETL mark with the requirements of this Report and the Certification Agreement.
3. Manufacturing changes.
4. Performance of specified Manufacturing and Production Tests.

In the event that the Intertek representative identifies non-conformance(s) to any provision of this Report, the Applicant shall take one or more of the following actions:

1. Correct the non-conformance.
2. Remove the ETL Mark from non-conforming product.
3. Contact the issuing product safety evaluation center for instructions.

10.1 Evaluation of Unlisted Components

Because Unlisted Components are uncontrolled, and they do not fall under a third party follow up program, Intertek may require these components to be tested and/or evaluated at least once annually, more often for certain components, as part of the independent certification process. The Unlisted Components in Section 5.0 require testing and/or evaluation as indicated.

The Applicant will be notified, in writing, via the applicable contact methods, as defined in Section 1.0, when these components must be selected and sent to Component Evaluation Center (CEC) for re-evaluation.

Due to particular testing requirements, some components may be requested to be shipped to specific labs. Thus, specific shipment destination(s) for each sample will be provided in the written notification.

Managing CEC Location:
Intertek Testing Services Shanghai Limited
ETL Component Evaluation Center
Building No. 86, 1198 Qinzhou Road (North)
Shanghai 200233, China
Attn: Ms. Emiliana Zhou

Sample Disposition: Due to the destructive nature of the testing, all samples will be discarded at the conclusion of testing unless, the manufacturer specifically requests the return of the samples. The request for return must accompany the initial component shipment.

11.0 Manufacturing and Production Tests

The manufacturer agrees to conduct the following Manufacturing and Production Tests as specified:

Required Tests

- Dielectric Voltage Withstand Test
- Grounding Continuity Test

11.1 Dielectric Voltage Withstand Test

Method

One hundred percent of production of the products covered by this Report shall be subjected to a routine production line dielectric withstand test.

The test shall be conducted on products, which are fully assembled. Prior to applying the test potential, all switches, contactors, relays, etc., should be closed so that all primary circuits are energized by the test potential. If all primary circuits cannot be tested at one time, then separate applications of the test potential shall be made.

The test voltage specified below shall be applied between primary circuits and accessible dead-metal parts. The test voltage may be gradually increased to the specified value but must be maintained at the specified value for one second or one minute as required.

Test Equipment

The test equipment shall incorporate a transformer with an essentially sinusoidal output, a means to indicate the applied test potential, and an audible and/or visual indicator of dielectric breakdown.

The test equipment shall incorporate a voltmeter in the output circuit to indicate directly the applied test potential if the rated output of the test equipment is less than 500VA.

If the rated output of the test equipment is 500VA or more, the applied test potential may be indicated by either:

- 1 - a voltmeter in the primary circuit;
- 2 - a selector switch marked to indicate the test potential; or
- 3 - a marking in a readily visible location to indicate the test potential for test equipment having a single test potential output.

In cases 2 and 3, the test equipment shall include a lamp or other visual means to indicate that the test potential is present at the test equipment output. All test equipment shall be maintained in current calibration.

Products Requiring Dielectric Voltage Withstand Test:

| <u>Product</u> | <u>Test Voltage</u> | <u>Test Time</u> |
|---|---------------------------------|------------------|
| All products covered by this Report. | | |
| Between input circuit and earthed metal enclosure | 2250Vdc or V _{peak} | 1 s |
| Between input circuit and secondary output terminal | 3600Vdc or V _{peak} | 1 s |

11.2 Grounding Continuity Test

Method

Each product listed below shall be subjected to a test to determine that there is continuity between accessible dead-metal parts of the product and the grounding pin or blade of the attachment plug.

If all accessible dead metal is connected, only a single test need be performed. A visual or audible device (ohmmeter, buzzer, etc.) may be used to indicate grounding continuity.

Products Requiring Grounding Continuity Test:

All products covered by this Report.

This authorizes the application of the Certification Mark(s) shown below to the models described in the Product(s) Covered section when made in accordance with the conditions set forth in the Certification Agreement and Listing Report. This authorization also applies to multiple listee model(s) identified on the correlation page of the Listing Report.

This document is the property of Intertek Testing Services and is not transferable. The certification mark(s) may be applied only at the location of the Party Authorized To Apply Mark.


| | | | |
|--|---|-----------------------|---|
| Applicant: | Shenzhen Fabulux Technology Co., Ltd | Manufacturer: | Shenzhen Fabulux Technology Co., Ltd |
| Address: | Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong 518110 | Address: | Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong 518110 |
| Country: | China | Country: | China |
| Party Authorized To Apply Mark: | Same as Manufacturer | | |
| Report Issuing Office: | Intertek Testing Services Shanghai Limited | | |
| Control Number: | <u>5015154</u> | Authorized by: |  _____ for L. Matthew Snyder, Certification Manager |



This document supersedes all previous Authorizations to Mark for the noted Report Number.

This Authorization to Mark is for the exclusive use of Intertek's Client and is provided pursuant to the Certification agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Authorization to Mark. Only the Client is authorized to permit copying or distribution of this Authorization to Mark and then only in its entirety. Use of Intertek's Certification mark is restricted to the conditions laid out in the agreement and in this Authorization to Mark. Any further use of the Intertek name for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. Initial Factory Assessments and Follow up Services are for the purpose of assuring appropriate usage of the Certification mark in accordance with the agreement, they are not for the purposes of production quality control and do not relieve the Client of their obligations in this respect.

Intertek Testing Services NA Inc.
545 East Algonquin Road, Arlington Heights, IL 60005
Telephone 800-345-3851 or 847-439-5667 Fax 312-283-1672

| | |
|---------------------|--|
| Standard(s): | Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements [UL 62368-1:2019 Ed.3+R:22Oct2021] Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements [CSA C22.2#62368-1:2019 Ed.3+U1] |
| Product: | LED DISPLAY |
| Brand Name: |  (FABULUX LED) |
| Models: | T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 |



Ref. Certif. No.

JPTUV-162364

IEC SYSTEM FOR MUTUAL RECOGNITION OF TEST CERTIFICATES FOR ELECTRICAL EQUIPMENT (IECEE) CB SCHEME

CB TEST CERTIFICATE

Product

LED DISPLAY

Name and address of the applicant

Shenzhen Fabulux Technology Co.,Ltd
Factory 1201, No.14 of Xiawei Industrial Zone,
Zhangkengjing Community, Guanhu Street, Longhua District,
Shenzhen Guangdong
P.R. China

Name and address of the manufacturer

Shenzhen Fabulux Technology Co.,Ltd
Factory 1201, No.14 of Xiawei Industrial Zone,
Zhangkengjing Community, Guanhu Street, Longhua District,
Shenzhen Guangdong
P.R. China

Name and address of the factory

Note: When more than one factory, please report on page 2

Shenzhen Fabulux Technology Co.,Ltd
Factory 1201, No.14 of Xiawei Industrial Zone,
Zhangkengjing Community, Guanhu Street, Longhua District,
Shenzhen Guangdong
P.R. China

Ratings and principal characteristics

Input : AC 100-240V, 50/60Hz, 10A (Max); Class I
Output: AC 100-240V, 50/60Hz, 9A (Max)

Trademark / Brand (if any)

Trademark of Shenzhen Fabulux Technology Co.,
Ltd.(logo)

Customer's Testing Facility (CTF) Stage used

N/A

Model / Type Ref.

T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5

Additional information (if necessary may also be reported on page 2)

For model differences, refer to the test report.

A sample of the product was tested and found to be in conformity with

IEC 62368-1:2018
See Test Report for National Differences

As shown in the Test Report Ref. No. which forms part of this Certificate

CN248RM6 001

This CB Test Certificate is issued by the National Certification Body



TÜV Rheinland Japan Ltd.
4-25-2 Kita-Yamata, Tsuzuki-ku
Yokohama 224-0021, Japan
Mail: info@jpn.tuv.com

Date: 2024-07-04

Signature:

Martin Wang

10/061SMD 2022-07 rke-fix



Test Report issued under the responsibility of:



TEST REPORT
IEC 62368-1
Audio/video, information and communication technology equipment
Part 1: Safety requirements

Report Number..... : CN248RM6 001
Date of issue : Jun. 28, 2024
Total number of pages : 60

Name of Testing Laboratory preparing the Report : TÜV Rheinland (Guangdong) Ltd.

Applicant's name : Shenzhen Fabulux Technology Co.,Ltd
Address : Factory 1201, No.14 of Xiawei Industrial Zone, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen Guangdong, P. R. China

Test specification:

Standard : IEC 62368-1:2018
Test procedure..... : CB Scheme
Non-standard test method..... : N/A

TRF template used : IECEE OD-2020-F1:2020, Ed.1.4
Test Report Form No...... : IEC62368_1E
Test Report Form(s) Originator.... : UL(US)
Master TRF : Dated 2022-04-14

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If this Test Report Form is used by non-IECEE members, the IECEE/IEC logo and the reference to the CB Scheme procedure shall be removed.

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.

| | | |
|---|---|---|
| Test item description | LED DISPLAY | |
| Trade Mark(s) |  | |
| Manufacturer | Same as applicant | |
| Model/Type reference | T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 | |
| Ratings | Input: 100-240VAC, 50/60Hz, 10A (Max) Output: 100-240VAC, 50/60Hz, 9A (Max) | |
| Responsible Testing Laboratory (as applicable), testing procedure and testing location(s): | | |
| <input checked="" type="checkbox"/> CB Testing Laboratory: | TÜV Rheinland (Guangdong) Ltd. | |
| Testing location/ address | No.199 Kezhu Road, Guangzhou Science City Guangzhou 510663 China | |
| Tested by (name, function, signature) | Liheng Hu Project Engineer |  |
| Approved by (name, function, signature) .. | Susan Zheng Reviewer |  |
| <input type="checkbox"/> Testing procedure: CTF Stage 1: | | |
| Testing location/ address | | |
| Tested by (name, function, signature) | | |
| Approved by (name, function, signature) .. | | |
| <input type="checkbox"/> Testing procedure: CTF Stage 2: | | |
| Testing location/ address | | |
| Tested by (name, function, signature) | | |
| Witnessed by (name, function, signature) . : | | |
| Approved by (name, function, signature) .. : | | |
| <input type="checkbox"/> Testing procedure: CTF Stage 3: | | |
| <input type="checkbox"/> Testing procedure: CTF Stage 4: | | |
| Testing location/ address | | |
| Tested by (name, function, signature) | | |
| Witnessed by (name, function, signature) . : | | |
| Approved by (name, function, signature) .. : | | |
| Supervised by (name, function, signature) : | | |



| List of Attachments (including a total number of pages in each attachment): | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|----------------------------------|------------------------|--------------------------|------------|--------------------------------------|--------------|---|-------|-----------------------|-------|------------------------|---------|--------------------------------|---------|--|-------|----------------------------|-------|------------------------------------|-------|---|-------|------------|----------|---|--------|-------------------------------------|-----|-------------------------|-----|--------------------------|-----|----------------------|-----|--------------------|--|
| - Attachment 1: National Differences (41 pages) - Attachment 2: Photo documentation (7 pages) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Summary of testing: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tests performed (name of test and test clause): All applicable tests as described in Test Case and Measurement Sections were performed. | Testing location: Tests described in Test Case and Measurement Sections were performed at the laboratory described on page 2. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tbody> <tr> <td>5.2</td> <td>Steady-State Voltage and Current</td> </tr> <tr> <td>5.4.1.4, 6.3, 9.0, B.2</td> <td>Temperature measurements</td> </tr> <tr> <td>5.4.1.10.3</td> <td>Ball pressure test of thermoplastics</td> </tr> <tr> <td>5.4.2, 5.4.3</td> <td>Clearance and Creepage Distance Measurement</td> </tr> <tr> <td>5.4.8</td> <td>Humidity conditioning</td> </tr> <tr> <td>5.4.9</td> <td>Electric strength test</td> </tr> <tr> <td>5.5.2.2</td> <td>Stored discharge on capacitors</td> </tr> <tr> <td>5.6.6.2</td> <td>Resistance of protective conductors and terminations</td> </tr> <tr> <td>5.7.4</td> <td>Unearthed accessible parts</td> </tr> <tr> <td>5.7.5</td> <td>Earthed accessible conductive part</td> </tr> <tr> <td>6.2.2</td> <td>Electrical power sources (PS) measurements for classification</td> </tr> <tr> <td>B.2.5</td> <td>Input test</td> </tr> <tr> <td>B.3, B.4</td> <td>Abnormal Operating and Fault Conditions</td> </tr> <tr> <td>F.3.10</td> <td>Test for the permanence of markings</td> </tr> <tr> <td>T.2</td> <td>Steady force tests, 10N</td> </tr> <tr> <td>T.5</td> <td>Steady force tests, 250N</td> </tr> <tr> <td>T.6</td> <td>Impact tests, 1300mm</td> </tr> <tr> <td>T.8</td> <td>Stress relief test</td> </tr> </tbody> </table> | 5.2 | Steady-State Voltage and Current | 5.4.1.4, 6.3, 9.0, B.2 | Temperature measurements | 5.4.1.10.3 | Ball pressure test of thermoplastics | 5.4.2, 5.4.3 | Clearance and Creepage Distance Measurement | 5.4.8 | Humidity conditioning | 5.4.9 | Electric strength test | 5.5.2.2 | Stored discharge on capacitors | 5.6.6.2 | Resistance of protective conductors and terminations | 5.7.4 | Unearthed accessible parts | 5.7.5 | Earthed accessible conductive part | 6.2.2 | Electrical power sources (PS) measurements for classification | B.2.5 | Input test | B.3, B.4 | Abnormal Operating and Fault Conditions | F.3.10 | Test for the permanence of markings | T.2 | Steady force tests, 10N | T.5 | Steady force tests, 250N | T.6 | Impact tests, 1300mm | T.8 | Stress relief test | |
| 5.2 | Steady-State Voltage and Current | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.4.1.4, 6.3, 9.0, B.2 | Temperature measurements | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.4.1.10.3 | Ball pressure test of thermoplastics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.4.2, 5.4.3 | Clearance and Creepage Distance Measurement | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.4.8 | Humidity conditioning | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.4.9 | Electric strength test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.5.2.2 | Stored discharge on capacitors | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.6.6.2 | Resistance of protective conductors and terminations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.7.4 | Unearthed accessible parts | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.7.5 | Earthed accessible conductive part | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6.2.2 | Electrical power sources (PS) measurements for classification | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.2.5 | Input test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B.3, B.4 | Abnormal Operating and Fault Conditions | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| F.3.10 | Test for the permanence of markings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T.2 | Steady force tests, 10N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T.5 | Steady force tests, 250N | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T.6 | Impact tests, 1300mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T.8 | Stress relief test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Remark: Model T MAX COB0.7 was the selected model for the tests. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Summary of compliance with National Differences (List of countries addressed):

EU Group Differences, EU Special National Conditions

AU, CA, DE, DK, FI, FR, GB, IE, JP, NO, NZ, SA, SE, US

Explanation of used codes:

AU=Australia, CA=Canada, DE=Germany, DK=Denmark, FI=Finland, FR=France, GB= United Kingdom, IE=Ireland, JP=Japan, NO=Norway, NZ=New Zealand, SA= Saudi Arabia, SE=Sweden, US=United States of America.

The product fulfils the requirements of IEC 62368-1:2018, EN IEC 62368-1:2020+A11:2020, BS EN IEC 62368-1:2020+A11:2020.

Use of uncertainty of measurement for decisions on conformity (decision rule):

No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

Other:... (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:

The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

**Note:**

1. This is a representative label; the others are identical to it except for the model number, detail see model list.
2. The above marking are the minimum requirements by the safety standard. For the final production samples, the additional markings which do not give rise to misunderstanding may be added.
3. The batch or serial number should be pasted to product before sell to EU market.
4. Manufacturer information (name/registered trademark/registered trade name and postal address) or importer information for manufacturer outside of the EU (name/registered trademark/registered trade name and postal address) should be pasted on product when sell the product to the EU market.

| Test item particulars: | |
|---|---|
| Product group | <input type="checkbox"/> end product <input checked="" type="checkbox"/> built-in component |
| Classification of use by | <input type="checkbox"/> Ordinary person <input type="checkbox"/> Children likely present <input checked="" type="checkbox"/> Instructed person <input checked="" type="checkbox"/> Skilled person |
| Supply connection | <input checked="" type="checkbox"/> AC mains <input type="checkbox"/> DC mains <input type="checkbox"/> not mains connected: <input type="checkbox"/> ES1 <input type="checkbox"/> ES2 <input type="checkbox"/> ES3 |
| Supply tolerance | <input checked="" type="checkbox"/> +10%/-10% <input type="checkbox"/> +20%/-15% <input type="checkbox"/> + %/ - % <input type="checkbox"/> None |
| Supply connection – type | <input type="checkbox"/> pluggable equipment type A - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> direct plug-in <input type="checkbox"/> pluggable equipment type B - <input type="checkbox"/> non-detachable supply cord <input type="checkbox"/> appliance coupler <input type="checkbox"/> permanent connection <input type="checkbox"/> mating connector <input checked="" type="checkbox"/> other: Consider in end system |
| Considered current rating of protective device | <input checked="" type="checkbox"/> 16 A; 13A for GB; 20A for US and CA. Location: <input checked="" type="checkbox"/> building <input type="checkbox"/> equipment <input type="checkbox"/> N/A |
| Equipment mobility | <input type="checkbox"/> movable <input type="checkbox"/> hand-held <input type="checkbox"/> transportable <input type="checkbox"/> direct plug-in <input type="checkbox"/> stationary <input checked="" type="checkbox"/> for building-in <input type="checkbox"/> wall/ceiling-mounted <input type="checkbox"/> SRME/rack-mounted <input type="checkbox"/> other: |
| Overvoltage category (OVC) | <input type="checkbox"/> OVC I <input checked="" type="checkbox"/> OVC II <input type="checkbox"/> OVC III <input type="checkbox"/> OVC IV <input type="checkbox"/> other: |
| Class of equipment | <input checked="" type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III <input type="checkbox"/> Not classified <input type="checkbox"/> |
| Special installation location | <input checked="" type="checkbox"/> N/A <input type="checkbox"/> restricted access area <input type="checkbox"/> outdoor location <input type="checkbox"/> |
| Pollution degree (PD) | <input type="checkbox"/> PD 1 <input checked="" type="checkbox"/> PD 2 <input type="checkbox"/> PD 3 |
| Manufacturer's specified T_{ma} | 50 °C <input type="checkbox"/> Outdoor: minimum °C |
| IP protection class | <input checked="" type="checkbox"/> IPX0 <input type="checkbox"/> IP___ |
| Power systems | <input checked="" type="checkbox"/> TN <input type="checkbox"/> TT <input type="checkbox"/> IT - V _{L-L} <input type="checkbox"/> not AC mains |
| Altitude during operation (m) | <input type="checkbox"/> 2000 m or less <input checked="" type="checkbox"/> 5000 m |
| Altitude of test laboratory (m) | <input checked="" type="checkbox"/> 2000 m or less <input type="checkbox"/> m |
| Mass of equipment (kg) | Max. 4.45 kg |

| | |
|---|--|
| Possible test case verdicts: | |
| - test case does not apply to the test object | |
| - test object does meet the requirement..... | |
| - test object does not meet the requirement..... | |
| Testing: | |
| Date of receipt of test item | |
| Date (s) of performance of tests | |
| General remarks: | |
| "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. | |
| Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator. | |
| Manufacturer's Declaration per sub-clause 4.2.5 of IECCE 02: | |
| The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable |
| When differences exist; they shall be identified in the General product information section. | |
| Name and address of factory (ies) | |
| General product information and other remarks: | |
| 1. The equipment, models: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 are LED DISPLAY intended for general use with information and communication technology equipment in the scope of this standard. | |
| 2. The further evaluation and testing must be checked and performed in the final system for this built-in equipment. | |
| 3. The test items are pre-production samples without serial numbers. | |
| 4. The enclosures are secured together by screws and mechanical fixing. | |
| 5. This equipment consists with following critical parts: | |
| - Enclosure (frame of product is metal), the LED panel fixed to the metal frame (front LED lamp welding on the LED PCB board); | |
| - Approved building-in power supply used; | |
| - HUB PCB board (as SELV circuit; with RJ45 port (network cable port)). | |
| 6. Model Differences – | |
| Model list: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5 | |
| All models are identical to each other except for model number, LED modules (including quantity of LED, circuit principle and PCB layout), pixel pitch options and the LEDs quantity per square meter for certain pixel pitch. (See below tables for details) | |

| Model no. | Pixel pitch (mm) | Quantity of LED (pcs/m ²) |
|--------------|------------------|---------------------------------------|
| T MAX COB0.7 | 0.78125 | 1638400 |
| T MAX COB0.9 | 0.9375 | 1137778 |
| T MAX COB1.2 | 1.25 | 640000 |
| T MAX COB1.5 | 1.56 | 409600 |

| OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS | | | | |
|--|--|---------------|--------------------------|---|
| Clause | Possible Hazard | | | |
| 5 | Electrically-caused injury | | | |
| Class and Energy Source (e.g. ES3: Primary circuit) | Body Part (e.g. Ordinary) | Safeguards | | |
| | | B | S | R |
| ES3: Primary circuits (AC mains, primary parts of SWITCHING POWER SUPPLY) | Ordinary | N/A | N/A | Enclosure See 5.4.2, 5.4.3, 5.5.2, 5.5.3 |
| ES3: Primary circuits (charged capacitor) | Ordinary | N/A | N/A | See 5.5.2.2 |
| ES1: RJ45 port | Ordinary | N/A | N/A | N/A |
| 6 | Electrically-caused fire | | | |
| Class and Energy Source (e.g. PS2: 100 Watt circuit) | Material part (e.g. Printed board) | Safeguards | | |
| | | B | 1 st S | 2 nd S |
| PS3: > 100 Watt circuit (Primary and secondary circuits) | Combustible materials within equipment | See 6.3.1 (a) | See 6.4.5 and 6.4.6 | N/A |
| PS3: > 100 Watt circuit (Primary and secondary circuits) | Internal wire | See 6.3.1 (a) | See 6.5 | N/A |
| PS3: > 100 Watt circuit (Primary and secondary circuits) | Input/ output connector | See 6.3.1 (a) | See 6.5, 6.4.5 and 6.4.6 | N/A |
| PS1: ≤ 15 Watt | Component material (Indicating LED, RJ45 port) | N/A | N/A | N/A |
| 7 | Injury caused by hazardous substances | | | |
| Class and Energy Source (e.g. Ozone) | Body Part (e.g., Skilled) | Safeguards | | |
| | | B | S | R |
| N/A | N/A | N/A | N/A | N/A |
| 8 | Mechanically-caused injury | | | |
| Class and Energy Source (e.g. MS3: Plastic fan blades) | Body Part (e.g. Ordinary) | Safeguards | | |
| | | B | S | R |
| MS1: Smooth edge and corners | Ordinary | N/A | N/A | N/A |
| MS1: Equipment mass (The further evaluation and testing must be checked and performed in the final system for this built-in equipment) | Ordinary | N/A | N/A | N/A |
| 9 | Thermal burn | | | |
| Class and Energy Source | Body Part | Safeguards | | |

| (e.g. TS1: Keyboard caps) | (e.g., Ordinary) | B | S | R |
|---|-------------------------------|------------|-----|-----|
| TS1: All accessible parts | Ordinary | N/A | N/A | N/A |
| 10 | Radiation | | | |
| Class and Energy Source (e.g. RS1: PMP sound output) | Body Part (e.g., Ordinary) | Safeguards | | |
| | | B | S | R |
| RS1: Indicating lights – LEDs | Ordinary | N/A | N/A | N/A |
| Exempt Group acc. IEC 62471 – LED panel | Ordinary | N/A | N/A | N/A |
| Supplementary Information: “B” – Basic Safeguard; “S” – Supplementary Safeguard; “R” – Reinforced Safeguard. | | | | |

ENERGY SOURCE DIAGRAM

Optional. Manufacturers are to provide the energy sources diagram identify declared energy sources and identifying the demarcations are between power sources. Recommend diagram be provided included in power supply and multipart systems.

Insert diagram below. Example diagram designs are; Block diagrams; image(s) with layered data; mechanical drawings

See "**OVERVIEW OF ENERGY SOURCES AND SAFEGUARDS**" for details.

ES **PS** **MS** **TS** **RS**

| IEC 62368-1 | | | |
|-------------|--|---|----------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4 | GENERAL REQUIREMENTS | | P |
| 4.1.1 | Acceptance of materials, components and subassemblies | See appended table 4.1.2 | P |
| 4.1.2 | Use of components | Components which are certified to IEC and/or national standards are used correctly within their ratings. Components not covered by IEC standards are tested under the conditions present in the equipment. | P |
| 4.1.3 | Equipment design and construction | No accessible part which could cause injury. | P |
| 4.1.4 | Specified ambient temperature for outdoor use (°C): | | N/A |
| 4.1.5 | Constructions and components not specifically covered | | N/A |
| 4.1.8 | Liquids and liquid filled components (LFC) | | N/A |
| 4.1.15 | Markings and instructions | (See Annex F) | P |
| 4.4.3 | Safeguard robustness | | P |
| 4.4.3.1 | General | | P |
| 4.4.3.2 | Steady force tests | (See Annex T.5) | P |
| 4.4.3.3 | Drop tests | No such consideration for building-in type equipment | N/A |
| 4.4.3.4 | Impact tests | (See Annex T.6) | P |
| 4.4.3.5 | Internal accessible safeguard tests | No such consideration for building-in type equipment | N/A |
| 4.4.3.6 | Glass impact tests | | N/A |
| 4.4.3.7 | Glass fixation tests | | N/A |
| | Glass impact test (1J) | | N/A |
| | Push/pull test (10 N) | | N/A |
| 4.4.3.8 | Thermoplastic material tests | (See Annex T.8) | P |
| 4.4.3.9 | Air comprising a safeguard | | P |
| 4.4.3.10 | Accessibility, glass, safeguard effectiveness | | P |
| 4.4.4 | Displacement of a safeguard by an insulating liquid | | N/A |
| 4.4.5 | Safety interlocks | | N/A |
| 4.5 | Explosion | | P |
| 4.5.1 | General | | P |

| IEC 62368-1 | | | |
|-------------|--|-------------------------------|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4.5.2 | No explosion during normal/abnormal operating condition | (See Clause B.2, B.3) | P |
| | No harm by explosion during single fault conditions | (See Clause B.4) | P |
| 4.6 | Fixing of conductors | | P |
| | Fix conductors not to defeat a safeguard | | P |
| | Compliance is checked by test..... : | (See Clause T.2) | P |
| 4.7 | Equipment for direct insertion into mains socket-outlets | | N/A |
| 4.7.2 | Mains plug part complies with relevant standard .. : | | N/A |
| 4.7.3 | Torque (Nm) | | N/A |
| 4.8 | Equipment containing coin/button cell batteries | | N/A |
| 4.8.1 | General | No coin/button cell batteries | N/A |
| 4.8.2 | Instructional safeguard | | N/A |
| 4.8.3 | Battery compartment door/cover construction | | N/A |
| | Open torque test | | N/A |
| 4.8.4.2 | Stress relief test | | N/A |
| 4.8.4.3 | Battery replacement test | | N/A |
| 4.8.4.4 | Drop test | | N/A |
| 4.8.4.5 | Impact test | | N/A |
| 4.8.4.6 | Crush test | | N/A |
| 4.8.5 | Compliance | | N/A |
| | 30N force test with test probe | | N/A |
| | 20N force test with test hook | | N/A |
| 4.9 | Likelihood of fire or shock due to entry of conductive object | | P |
| 4.10 | Component requirements | | P |
| 4.10.1 | Disconnect Device | (See Annex L) | N/A |
| 4.10.2 | Switches and relays | (See Annex G) | N/A |

| | | | |
|------------|---|--------------------------|----------|
| 5 | ELECTRICALLY-CAUSED INJURY | | P |
| 5.2 | Classification and limits of electrical energy sources | | P |
| 5.2.2 | ES1, ES2 and ES3 limits | | P |
| 5.2.2.2 | Steady-state voltage and current limits | (See appended table 5.2) | P |
| 5.2.2.3 | Capacitance limits | (See appended table 5.2) | P |
| 5.2.2.4 | Single pulse limits | | N/A |
| 5.2.2.5 | Limits for repetitive pulses | | N/A |
| 5.2.2.6 | Ringling signals | | N/A |

| IEC 62368-1 | | | |
|-------------|---|--------------------------------------|----------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.2.2.7 | Audio signals | | N/A |
| 5.3 | Protection against electrical energy sources | | P |
| 5.3.1 | General Requirements for accessible parts to ordinary, instructed and skilled persons | | P |
| 5.3.1 a) | Accessible ES1/ES2 derived from ES2/ES3 circuits | | P |
| 5.3.1 b) | Skilled persons not unintentional contact ES3 bare conductors | | P |
| 5.3.2.1 | Accessibility to electrical energy sources and safeguards | | P |
| | Accessibility to outdoor equipment bare parts | | N/A |
| 5.3.2.2 | Contact requirements | | N/A |
| | Test with test probe from Annex V | | — |
| 5.3.2.2 a) | Air gap – electric strength test potential (V) | (See appended table 5.4.9) | N/A |
| 5.3.2.2 b) | Air gap – distance (mm) | >0.26mm | P |
| 5.3.2.3 | Compliance | | P |
| 5.3.2.4 | Terminals for connecting stripped wire | | N/A |
| 5.4 | Insulation materials and requirements | | P |
| 5.4.1.2 | Properties of insulating material | | P |
| 5.4.1.3 | Material is non-hygroscopic | | P |
| 5.4.1.4 | Maximum operating temperature for insulating materials | (See appended table 5.4.1.4) | P |
| 5.4.1.5 | Pollution degrees | 2 | P |
| 5.4.1.5.2 | Test for pollution degree 1 environment and for an insulating compound | | N/A |
| 5.4.1.5.3 | Thermal cycling test | | N/A |
| 5.4.1.6 | Insulation in transformers with varying dimensions | | N/A |
| 5.4.1.7 | Insulation in circuits generating starting pulses | | N/A |
| 5.4.1.8 | Determination of working voltage | Approved switching power supply used | P |
| 5.4.1.9 | Insulating surfaces | | N/A |
| 5.4.1.10 | Thermoplastic parts on which conductive metallic parts are directly mounted | | P |
| 5.4.1.10.2 | Vicat test..... | (See appended table 5.4.1.10.2) | N/A |
| 5.4.1.10.3 | Ball pressure test | (See appended table 5.4.1.10.3) | P |
| 5.4.2 | Clearances | | P |
| 5.4.2.1 | General requirements | | P |

| IEC 62368-1 | | | |
|-------------|---|---------------------------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Clearances in circuits connected to AC Mains, Alternative method | (See Annex X) | N/A |
| 5.4.2.2 | Procedure 1 for determining clearance | (See appended table 5.4.2) | P |
| | Temporary overvoltage | 2000V _{peak} | — |
| 5.4.2.3 | Procedure 2 for determining clearance | (See appended table 5.4.2) | P |
| 5.4.2.3.2.2 | a.c. mains transient voltage | 2000V _{peak} | — |
| 5.4.2.3.2.3 | d.c. mains transient voltage | | — |
| 5.4.2.3.2.4 | External circuit transient voltage..... | | — |
| 5.4.2.3.2.5 | Transient voltage determined by measurement | | — |
| 5.4.2.4 | Determining the adequacy of a clearance using an electric strength test | (See appended table 5.4.2) | N/A |
| 5.4.2.5 | Multiplication factors for clearances and test voltages | 1.48 (5000m) | P |
| 5.4.2.6 | Clearance measurement | (See appended table 5.4.2) | P |
| 5.4.3 | Creepage distances | | P |
| 5.4.3.1 | General | | P |
| 5.4.3.3 | Material group | Material group IIIb is assumed. | — |
| 5.4.3.4 | Creepage distances measurement | (See appended table 5.4.3) | P |
| 5.4.4 | Solid insulation | Approved switching power supply used. | N/A |
| 5.4.4.1 | General requirements | | N/A |
| 5.4.4.2 | Minimum distance through insulation | Considered in approved power supply. | N/A |
| 5.4.4.3 | Insulating compound forming solid insulation | | N/A |
| 5.4.4.4 | Solid insulation in semiconductor devices | | N/A |
| 5.4.4.5 | Insulating compound forming cemented joints | | N/A |
| 5.4.4.6 | Thin sheet material | | N/A |
| 5.4.4.6.1 | General requirements | | N/A |
| 5.4.4.6.2 | Separable thin sheet material | | N/A |
| | Number of layers (pcs) | | N/A |
| 5.4.4.6.3 | Non-separable thin sheet material | | N/A |
| | Number of layers (pcs) | | N/A |
| 5.4.4.6.4 | Standard test procedure for non-separable thin sheet material | (See appended table 5.4.9) | N/A |
| 5.4.4.6.5 | Mandrel test | | N/A |
| 5.4.4.7 | Solid insulation in wound components | | N/A |

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|-------------|---|---|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.4.4.9 | Solid insulation at frequencies >30 kHz, E_P , K_R , d , V_{PW} (V) | (See appended Table 5.4.4.9) | N/A |
| | Alternative by electric strength test, tested voltage (V), K_R | (See appended Tables 5.4.4.9 and 5.4.9) | N/A |
| 5.4.5 | Antenna terminal insulation | | N/A |
| 5.4.5.1 | General | | N/A |
| 5.4.5.2 | Voltage surge test | | N/A |
| 5.4.5.3 | Insulation resistance ($M\Omega$) | | N/A |
| | Electric strength test | (See appended table 5.4.9) | N/A |
| 5.4.6 | Insulation of internal wire as part of supplementary safeguard | | N/A |
| 5.4.7 | Tests for semiconductor components and for cemented joints | Certified sources of optocouplers are used in approved switching power supply | N/A |
| 5.4.8 | Humidity conditioning | | P |
| | Relative humidity (%), temperature ($^{\circ}C$), duration (h) | 95%, 40 $^{\circ}C$, 120h (as client's requirement) | — |
| 5.4.9 | Electric strength test | (See appended table 5.4.9) | P |
| 5.4.9.1 | Test procedure for type test of solid insulation..... | | N/A |
| 5.4.9.2 | Test procedure for routine test | | N/A |
| 5.4.10 | Safeguards against transient voltages from external circuits | | N/A |
| 5.4.10.1 | Parts and circuits separated from external circuits | | N/A |
| 5.4.10.2 | Test methods | | N/A |
| 5.4.10.2.1 | General | | N/A |
| 5.4.10.2.2 | Impulse test | (See appended table 5.4.9) | N/A |
| 5.4.10.2.3 | Steady-state test..... | (See appended table 5.4.9) | N/A |
| 5.4.10.3 | Verification for insulation breakdown for impulse test | | N/A |
| 5.4.11 | Separation between external circuits and earth | | N/A |
| 5.4.11.1 | Exceptions to separation between external circuits and earth | | N/A |
| 5.4.11.2 | Requirements | | N/A |
| | SPDs bridge separation between external circuit and earth | | N/A |
| | Rated operating voltage U_{op} (V) | | — |
| | Nominal voltage U_{peak} (V) | | — |

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|-------------|--|--|----------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Max increase due to variation ΔU_{sp} | | — |
| | Max increase due to ageing ΔU_{sa} | | — |
| 5.4.11.3 | Test method and compliance | (See appended table 5.4.9) | N/A |
| 5.4.12 | Insulating liquid | | N/A |
| 5.4.12.1 | General requirements | | N/A |
| 5.4.12.2 | Electric strength of an insulating liquid | (See appended table 5.4.9) | N/A |
| 5.4.12.3 | Compatibility of an insulating liquid | (See appended table 5.4.9) | N/A |
| 5.4.12.4 | Container for insulating liquid | | N/A |
| 5.5 | Components as safeguards | | P |
| 5.5.1 | General | | P |
| 5.5.2 | Capacitors and RC units | Evaluated in approved switching power supply | P |
| 5.5.2.1 | General requirement | | P |
| 5.5.2.2 | Safeguards against capacitor discharge after disconnection of a connector | (See appended table 5.5.2.2) | P |
| 5.5.3 | Transformers | Evaluated in approved switching power supply | P |
| 5.5.4 | Optocouplers | Evaluated in approved switching power supply | P |
| 5.5.5 | Relays | (See sub-clause 5.4) | N/A |
| 5.5.6 | Resistors | (See Clause G.10) | N/A |
| 5.5.7 | SPDs | (See Clause G.8) | N/A |
| 5.5.8 | Insulation between the mains and an external circuit consisting of a coaxial cable | | N/A |
| 5.5.9 | Safeguards for socket-outlets in outdoor equipment | | N/A |
| | RCD rated residual operating current (mA) | | — |
| 5.6 | Protective conductor | | P |
| 5.6.2 | Requirement for protective conductors | | P |
| 5.6.2.1 | General requirements | | P |
| 5.6.2.2 | Colour of insulation | Green-and-yellow wire | P |
| 5.6.3 | Requirement for protective earthing conductors | | N/A |
| | Protective earthing conductor size (mm ²) | (See appended table 4.1.2) | — |
| | Protective earthing conductor serving as a reinforced safeguard | | N/A |
| | Protective earthing conductor serving as a double safeguard | | N/A |
| 5.6.4 | Requirements for protective bonding conductors | | P |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.6.4.1 | Protective bonding conductors | | P |
| | Protective bonding conductor size (mm ²). : | ≥ 0.75 mm ² (Min. 18AWG for protective bonding conductor) | — |
| 5.6.4.2 | Protective current rating (A)..... : | ≤ 10 A | P |
| 5.6.5 | Terminals for protective conductors | | P |
| 5.6.5.1 | Terminal size for connecting protective earthing conductors (mm)..... : | Approved input connector used | P |
| | Terminal size for connecting protective bonding conductors (mm) : | ≥ 1.0 mm ² The diameter of screw: ≥ 3.0mm | P |
| 5.6.5.2 | Corrosion | | P |
| 5.6.6 | Resistance of the protective bonding system | | P |
| 5.6.6.1 | Requirements | | P |
| 5.6.6.2 | Test Method..... : | (See appended table 5.6.6) | P |
| 5.6.6.3 | Resistance (Ω) or voltage drop..... : | (See appended table 5.6.6) | P |
| 5.6.7 | Reliable connection of a protective earthing conductor | | N/A |
| 5.6.8 | Functional earthing | | N/A |
| | Conductor size (mm ²)..... : | | N/A |
| | Class II with functional earthing marking : | | N/A |
| | Appliance inlet cl & cr (mm) : | | N/A |
| 5.7 | Prospective touch voltage, touch current and protective conductor current | | P |
| 5.7.2 | Measuring devices and networks | | P |
| 5.7.2.1 | Measurement of touch current | (See appended tables 5.2.2.2 or 5.7.4) | P |
| 5.7.2.2 | Measurement of voltage | | P |
| 5.7.3 | Equipment set-up, supply connections and earth connections | | P |
| 5.7.4 | Unearthed accessible parts : | (See appended table 5.7.4) | P |
| 5.7.5 | Earthed accessible conductive parts : | (See appended table 5.7.5) | P |
| 5.7.6 | Requirements when touch current exceeds ES2 limits | | N/A |
| | Protective conductor current (mA)..... : | | N/A |
| | Instructional Safeguard..... : | | N/A |
| 5.7.7 | Prospective touch voltage and touch current associated with external circuits | | N/A |
| 5.7.7.1 | Touch current from coaxial cables | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.7.7.2 | Prospective touch voltage and touch current associated with paired conductor cables | | N/A |
| 5.7.8 | Summation of touch currents from external circuits | | N/A |
| | a) Equipment connected to earthed external circuits, current (mA) | | N/A |
| | b) Equipment connected to unearthed external circuits, current (mA) | | N/A |
| 5.8 | Backfeed safeguard in battery backed up supplies | | N/A |
| | Mains terminal ES | (See appended table 5.8) | N/A |
| | Air gap (mm)..... | | N/A |

| | | | |
|------------|--|------------------------------------|----------|
| 6 | ELECTRICALLY- CAUSED FIRE | | P |
| 6.2 | Classification of PS and PIS | | P |
| 6.2.2 | Power source circuit classifications | (See appended table 6.2.2) | P |
| 6.2.3 | Classification of potential ignition sources | | P |
| 6.2.3.1 | Arcing PIS | (See appended table 6.2.3.1) | P |
| 6.2.3.2 | Resistive PIS | (See appended table 6.2.3.2) | P |
| 6.3 | Safeguards against fire under normal operating and abnormal operating conditions | | P |
| 6.3.1 | No ignition and attainable temperature value less than 90 % defined by ISO 871 or less than 300 °C for unknown materials | (See appended table B.1.5 and B.3) | P |
| | Combustible materials outside fire enclosure | | N/A |
| 6.4 | Safeguards against fire under single fault conditions | | P |
| 6.4.1 | Safeguard method | | P |
| 6.4.2 | Reduction of the likelihood of ignition under single fault conditions in PS1 circuits | | N/A |
| 6.4.3 | Reduction of the likelihood of ignition under single fault conditions in PS2 and PS3 circuits | | N/A |
| 6.4.3.1 | Supplementary safeguards | | N/A |
| 6.4.3.2 | Single Fault Conditions | (See appended table B.4) | N/A |
| | Special conditions for temperature limited by fuse | | N/A |
| 6.4.4 | Control of fire spread in PS1 circuits | | N/A |
| 6.4.5 | Control of fire spread in PS2 circuits | | N/A |
| 6.4.5.2 | Supplementary safeguards | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 6.4.6 | Control of fire spread in PS3 circuits | - Printed boards made of V-0 class material - Wire insulation is complying with Clause 6.5 - a fire enclosure according to sub-clause 6.4.8 is provided with the equipment. (See appended tables 4.1.2 and Annex G) | P |
| 6.4.7 | Separation of combustible materials from a PIS | | N/A |
| 6.4.7.2 | Separation by distance | | N/A |
| 6.4.7.3 | Separation by a fire barrier | | N/A |
| 6.4.8 | Fire enclosures and fire barriers | | P |
| 6.4.8.2 | Fire enclosure and fire barrier material properties | | P |
| 6.4.8.2.1 | Requirements for a fire barrier | | N/A |
| 6.4.8.2.2 | Requirements for a fire enclosure | Metal enclosure and V-0 plastic LED panel used | P |
| 6.4.8.3 | Constructional requirements for a fire enclosure and a fire barrier | | P |
| 6.4.8.3.1 | Fire enclosure and fire barrier openings | | P |
| 6.4.8.3.2 | Fire barrier dimensions | | N/A |
| 6.4.8.3.3 | Top openings and properties | | P |
| | Openings dimensions (mm)..... : | Equipment metal chassis was evaluated as a fire enclosure for located at the side of input connector. Reserve holes (The further evaluation and testing must be checked and performed in the final system for this built-in equipment) | P |
| 6.4.8.3.4 | Bottom openings and properties | | N/A |
| | Openings dimensions (mm)..... : | | N/A |
| | Flammability tests for the bottom of a fire enclosure | (See Clause S.3) | N/A |
| | Instructional Safeguard..... : | | N/A |
| 6.4.8.3.5 | Side openings and properties | | N/A |
| | Openings dimensions (mm)..... : | | N/A |
| 6.4.8.3.6 | Integrity of a fire enclosure, condition met: a), b) or c)..... : | | N/A |
| 6.4.8.4 | Separation of a PIS from a fire enclosure and a fire barrier distance (mm) or flammability rating..... : | Metal enclosure and V-0 plastic LED panel used | P |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 6.4.9 | Flammability of insulating liquid.....: | | N/A |
| 6.5 | Internal and external wiring | | P |
| 6.5.1 | General requirements | The material of VW-1 on internal wiring were considered compliance equal to equivalent to IEC/TS 60695-11-21 relevant standards. | P |
| 6.5.2 | Requirements for interconnection to building wiring | See table 4.1.2 for details | P |
| 6.5.3 | Internal wiring size (mm ²) for socket-outlets..... : | | N/A |
| 6.6 | Safeguards against fire due to the connection to additional equipment | | N/A |

| | | | |
|------------|--|--|------------|
| 7 | INJURY CAUSED BY HAZARDOUS SUBSTANCES | | N/A |
| 7.2 | Reduction of exposure to hazardous substances | | N/A |
| 7.3 | Ozone exposure | | N/A |
| 7.4 | Use of personal safeguards or personal protective equipment (PPE) | | N/A |
| | Personal safeguards and instructions | | — |
| 7.5 | Use of instructional safeguards and instructions | | N/A |
| | Instructional safeguard (ISO 7010)..... : | | — |
| 7.6 | Batteries and their protection circuits | | N/A |

| | | | |
|------------|---|---|------------|
| 8 | MECHANICALLY-CAUSED INJURY | | P |
| 8.2 | Mechanical energy source classifications | | P |
| 8.3 | Safeguards against mechanical energy sources | | P |
| 8.4 | Safeguards against parts with sharp edges and corners | | P |
| 8.4.1 | Safeguards | Sharp edges and corners, classified as MS1. | P |
| | Instructional Safeguard.....: | | N/A |
| 8.4.2 | Sharp edges or corners | | N/A |
| 8.5 | Safeguards against moving parts | | N/A |
| 8.5.1 | Fingers, jewellery, clothing, hair, etc., contact with MS2 or MS3 parts | | N/A |
| | MS2 or MS3 part required to be accessible for the function of the equipment | | N/A |
| | Moving MS3 parts only accessible to skilled person | | N/A |
| 8.5.2 | Instructional safeguard.....: | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 8.5.4 | Special categories of equipment containing moving parts | | N/A |
| 8.5.4.1 | General | | N/A |
| 8.5.4.2 | Equipment containing work cells with MS3 parts | | N/A |
| 8.5.4.2.1 | Protection of persons in the work cell | | N/A |
| 8.5.4.2.2 | Access protection override | | N/A |
| 8.5.4.2.2.1 | Override system | | N/A |
| 8.5.4.2.2.2 | Visual indicator | | N/A |
| 8.5.4.2.3 | Emergency stop system | | N/A |
| | Maximum stopping distance from the point of activation (m).....: | | N/A |
| | Space between end point and nearest fixed mechanical part (mm) | | N/A |
| 8.5.4.2.4 | Endurance requirements | | N/A |
| | Mechanical system subjected to 100 000 cycles of operation | | N/A |
| | - Mechanical function check and visual inspection | | N/A |
| | - Cable assembly | | N/A |
| 8.5.4.3 | Equipment having electromechanical device for destruction of media | | N/A |
| 8.5.4.3.1 | Equipment safeguards | | N/A |
| 8.5.4.3.2 | Instructional safeguards against moving parts | | N/A |
| 8.5.4.3.3 | Disconnection from the supply | | N/A |
| 8.5.4.3.4 | Cut type and test force (N).....: | | N/A |
| 8.5.4.3.5 | Compliance | | N/A |
| 8.5.5 | High pressure lamps | | N/A |
| | Explosion test.....: | | N/A |
| 8.5.5.3 | Glass particles dimensions (mm) | | N/A |
| 8.6 | Stability of equipment | | N/A |
| 8.6.1 | General | Equipment mass: 4.45 kg (max.), classified as MS1. However, the equipment is a building-in type and evaluation is also to be made during the final system approval. | N/A |
| | Instructional safeguard.....: | | N/A |
| 8.6.2 | Static stability | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 8.6.2.2 | Static stability test | | N/A |
| 8.6.2.3 | Downward force test | | N/A |
| 8.6.3 | Relocation stability | | N/A |
| | Wheels diameter (mm) | | — |
| | Tilt test | | N/A |
| 8.6.4 | Glass slide test | | N/A |
| 8.6.5 | Horizontal force test | | N/A |
| 8.7 | Equipment mounted to wall, ceiling or other structure | | N/A |
| 8.7.1 | Mount means type | | N/A |
| 8.7.2 | Test methods | | N/A |
| | Test 1, additional downwards force (N)..... | | N/A |
| | Test 2, number of attachment points and test force (N)..... | | N/A |
| | Test 3 Nominal diameter (mm) and applied torque (Nm)..... | | N/A |
| 8.8 | Handles strength | | N/A |
| 8.8.1 | General | | N/A |
| 8.8.2 | Handle strength test | | N/A |
| | Number of handles..... | | — |
| | Force applied (N) | | — |
| 8.9 | Wheels or casters attachment requirements | | N/A |
| 8.9.2 | Pull test | | N/A |
| 8.10 | Carts, stands and similar carriers | | N/A |
| 8.10.1 | General | | N/A |
| 8.10.2 | Marking and instructions | | N/A |
| 8.10.3 | Cart, stand or carrier loading test | | N/A |
| | Loading force applied (N) | | N/A |
| 8.10.4 | Cart, stand or carrier impact test | | N/A |
| 8.10.5 | Mechanical stability | | N/A |
| | Force applied (N) | | — |
| 8.10.6 | Thermoplastic temperature stability | | N/A |
| 8.11 | Mounting means for slide-rail mounted equipment (SRME) | | N/A |
| 8.11.1 | General | | N/A |
| 8.11.2 | Requirements for slide rails | | N/A |
| | Instructional Safeguard | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 8.11.3 | Mechanical strength test | | N/A |
| 8.11.3.1 | Downward force test, force (N) applied.....: | | N/A |
| 8.11.3.2 | Lateral push force test | | N/A |
| 8.11.3.3 | Integrity of slide rail end stops | | N/A |
| 8.11.4 | Compliance | | N/A |
| 8.12 | Telescoping or rod antennas | | N/A |
| | Button/ball diameter (mm) | | — |

| | | | |
|------------|---|--------------------------|------------|
| 9 | THERMAL BURN INJURY | | P |
| 9.2 | Thermal energy source classifications | | P |
| 9.3 | Touch temperature limits | | P |
| 9.3.1 | Touch temperatures of accessible parts | (See appended table) | P |
| 9.3.2 | Test method and compliance | | P |
| 9.4 | Safeguards against thermal energy sources | | N/A |
| 9.5 | Requirements for safeguards | | N/A |
| 9.5.1 | Equipment safeguard | | N/A |
| 9.5.2 | Instructional safeguard.....: | | N/A |
| 9.6 | Requirements for wireless power transmitters | | N/A |
| 9.6.1 | General | | N/A |
| 9.6.2 | Specification of the foreign objects | | N/A |
| 9.6.3 | Test method and compliance | (See appended table 9.6) | N/A |

| | | | |
|-------------|---|---|----------|
| 10 | RADIATION | | P |
| 10.2 | Radiation energy source classification | | P |
| 10.2.1 | General classification | <p>The following part is considered as RS1 without tests:</p> <ul style="list-style-type: none"> - Indicating lights (used in built-in power supply and HUB PCB board). - The LEDs used on LED panel are considered as RS1, which is exempt group according to IEC 62471 (see test report no. D240521001 by Dongguan Hongnuo Product Testing Service CO., Ltd. for details) | P |



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| Clause | Requirement + Test | Result - Remark | Verdict |
| | Lasers | | — |
| | Lamps and lamp systems | | — |
| | Image projectors | | — |
| | X-Ray | | — |
| | Personal music player | | — |
| 10.3 | Safeguards against laser radiation | | N/A |
| | The standard(s) equipment containing laser(s) comply | | N/A |
| 10.4 | Safeguards against optical radiation from lamps and lamp systems (including LED types) | | N/A |
| 10.4.1 | General requirements | | N/A |
| | Instructional safeguard provided for accessible radiation level needs to exceed | | N/A |
| | Risk group marking and location | | N/A |
| | Information for safe operation and installation | | N/A |
| 10.4.2 | Requirements for enclosures | | N/A |
| | UV radiation exposure | (See Annex C) | N/A |
| 10.4.3 | Instructional safeguard | | N/A |
| 10.5 | Safeguards against X-radiation | | N/A |
| 10.5.1 | Requirements | | N/A |
| | Instructional safeguard for skilled persons | | — |
| 10.5.3 | Maximum radiation (pA/kg) | (See appended tables B.3 & B.4) | — |
| 10.6 | Safeguards against acoustic energy sources | | N/A |
| 10.6.1 | General | | N/A |
| 10.6.2 | Classification | | N/A |
| | Acoustic output $L_{Aeq,T}$, dB(A) | | N/A |
| | Unweighted RMS output voltage (mV) | | N/A |
| | Digital output signal (dBFS) | | N/A |
| 10.6.3 | Requirements for dose-based systems | | N/A |
| 10.6.3.1 | General requirements | | N/A |
| 10.6.3.2 | Dose-based warning and automatic decrease | | N/A |
| 10.6.3.3 | Exposure-based warning and requirements | | N/A |
| | 30 s integrated exposure level (MEL30) | | N/A |
| | Warning for MEL \geq 100 dB(A) | | N/A |
| 10.6.4 | Measurement methods | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 10.6.5 | Protection of persons | | N/A |
| | Instructional safeguards | | N/A |
| 10.6.6 | Requirements for listening devices (headphones, earphones, etc.) | | N/A |
| 10.6.6.1 | Corded listening devices with analogue input | | N/A |
| | Listening device input voltage (mV)..... | | N/A |
| 10.6.6.2 | Corded listening devices with digital input | | N/A |
| | Max. acoustic output $L_{Aeq,T}$, dB(A) | | N/A |
| 10.6.6.3 | Cordless listening devices | | N/A |
| | Max. acoustic output $L_{Aeq,T}$, dB(A) | | N/A |

| | | | |
|------------|--|--|----------|
| B | NORMAL OPERATING CONDITION TESTS, ABNORMAL OPERATING CONDITION TESTS AND SINGLE FAULT CONDITION TESTS | | P |
| B.1 | General | | P |
| B.1.5 | Temperature measurement conditions | (See appended table B.1.5) | P |
| B.2 | Normal operating conditions | | P |
| B.2.1 | General requirements | (See Test Item Particulars and appended test tables) | P |
| | Audio Amplifiers and equipment with audio amplifiers..... | (See Annex E) | N/A |
| B.2.3 | Supply voltage and tolerances | | P |
| B.2.5 | Input test | (See appended table B.2.5) | P |
| B.3 | Simulated abnormal operating conditions | | P |
| B.3.1 | General | | P |
| B.3.2 | Covering of ventilation openings | Reserve holes (The further evaluation and testing must be checked and performed in the final system for this built-in equipment) | P |
| | Instructional safeguard | | N/A |
| B.3.3 | DC mains polarity test | | N/A |
| B.3.4 | Setting of voltage selector | | N/A |
| B.3.5 | Maximum load at output terminals | | N/A |
| B.3.6 | Reverse battery polarity | | N/A |
| B.3.7 | Audio amplifier abnormal operating conditions | | N/A |
| B.3.8 | Safeguards functional during and after abnormal operating conditions..... | (See appended table B.3) | P |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| B.4 | Simulated single fault conditions | | P |
| B.4.1 | General | | P |
| B.4.2 | Temperature controlling device | | N/A |
| B.4.3 | Blocked motor test | | N/A |
| B.4.4 | Functional insulation | | P |
| B.4.4.1 | Short circuit of clearances for functional insulation | (See appended table B.3) | P |
| B.4.4.2 | Short circuit of creepage distances for functional insulation | (See appended table B.4) | P |
| B.4.4.3 | Short circuit of functional insulation on coated printed boards | | N/A |
| B.4.5 | Short-circuit and interruption of electrodes in tubes and semiconductors | (See appended table B.4) | P |
| B.4.6 | Short circuit or disconnection of passive components | (See appended table B.4) | P |
| B.4.7 | Continuous operation of components | | N/A |
| B.4.8 | Compliance during and after single fault conditions : | (See appended table B.4) | P |
| B.4.9 | Battery charging and discharging under single fault conditions | (See Annex M) | N/A |
| C | UV RADIATION | | N/A |
| C.1 | Protection of materials in equipment from UV radiation | | N/A |
| C.1.2 | Requirements | | N/A |
| C.1.3 | Test method | | N/A |
| C.2 | UV light conditioning test | | N/A |
| C.2.1 | Test apparatus..... : | | N/A |
| C.2.2 | Mounting of test samples | | N/A |
| C.2.3 | Carbon-arc light-exposure test | | N/A |
| C.2.4 | Xenon-arc light-exposure test | | N/A |
| D | TEST GENERATORS | | N/A |
| D.1 | Impulse test generators | | N/A |
| D.2 | Antenna interface test generator | | N/A |
| D.3 | Electronic pulse generator | | N/A |
| E | TEST CONDITIONS FOR EQUIPMENT CONTAINING AUDIO AMPLIFIERS | | N/A |
| E.1 | Electrical energy source classification for audio signals | | N/A |
| | Maximum non-clipped output power (W)..... : | | — |
| | Rated load impedance (Ω) : | | — |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| | Open-circuit output voltage (V) | | — |
| | Instructional safeguard | See Clause F.5 | — |
| E.2 | Audio amplifier normal operating conditions | | N/A |
| | Audio signal source type..... | | — |
| | Audio output power (W) | | — |
| | Audio output voltage (V) | | — |
| | Rated load impedance (Ω) | | — |
| | Requirements for temperature measurement | (See Table B.1.5) | N/A |
| E.3 | Audio amplifier abnormal operating conditions | (See Table B.3, B.4) | N/A |
| F | EQUIPMENT MARKINGS, INSTRUCTIONS, AND INSTRUCTIONAL SAFEGUARDS | | P |
| F.1 | General | | P |
| | Language | English. The other languages will be provided during the national approval. | — |
| F.2 | Letter symbols and graphical symbols | | P |
| F.2.1 | Letter symbols according to IEC60027-1 | | P |
| F.2.2 | Graphic symbols according to IEC, ISO or manufacturer specific | | P |
| F.3 | Equipment markings | | P |
| F.3.1 | Equipment marking locations | | P |
| F.3.2 | Equipment identification markings | | P |
| F.3.2.1 | Manufacturer identification | See copy of marking plate for details | P |
| F.3.2.2 | Model identification | See model list for details | P |
| F.3.3 | Equipment rating markings | | P |
| F.3.3.1 | Equipment with direct connection to mains | | P |
| F.3.3.2 | Equipment without direct connection to mains | | N/A |
| F.3.3.3 | Nature of the supply voltage | ~ or AC | P |
| F.3.3.4 | Rated voltage..... | See copy of marking plate. | P |
| F.3.3.5 | Rated frequency | See copy of marking plate. | P |
| F.3.3.6 | Rated current or rated power..... | See copy of marking plate. | P |
| F.3.3.7 | Equipment with multiple supply connections | | N/A |
| F.3.4 | Voltage setting device | | N/A |
| F.3.5 | Terminals and operating devices | | P |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| F.3.5.1 | Mains appliance outlet and socket-outlet markings : | See copy of marking plate. The label is near to output connector. | P |
| F.3.5.2 | Switch position identification marking : | | N/A |
| F.3.5.3 | Replacement fuse identification and rating markings : | | N/A |
| | Instructional safeguards for neutral fuse : | | N/A |
| F.3.5.4 | Replacement battery identification marking..... : | | N/A |
| F.3.5.5 | Neutral conductor terminal | | N/A |
| F.3.5.6 | Terminal marking location | | P |
| F.3.6 | Equipment markings related to equipment classification | | P |
| F.3.6.1 | Class I equipment | | P |
| F.3.6.1.1 | Protective earthing conductor terminal : | The symbol IEC 60417-5019  is marked beside protective earthing conductor terminal of input connector | P |
| F.3.6.1.2 | Protective bonding conductor terminals : |  used | P |
| F.3.6.2 | Equipment class marking..... : | | N/A |
| F.3.6.3 | Functional earthing terminal marking : | | N/A |
| F.3.7 | Equipment IP rating marking : | IPX0 | P |
| F.3.8 | External power supply output marking : | | N/A |
| F.3.9 | Durability, legibility and permanence of marking | | P |
| F.3.10 | Test for permanence of markings | Marking is durable and legible. The marking plate has no curling and is not able to be removed easily. | P |
| F.4 | Instructions | | P |
| | a) Information prior to installation and initial use | User manual is available | P |
| | b) Equipment for use in locations where children not likely to be present | | P |
| | c) Instructions for installation and interconnection | | P |
| | d) Equipment intended for use only in restricted access area | | N/A |
| | e) Equipment intended to be fastened in place | | N/A |
| | f) Instructions for audio equipment terminals | | N/A |
| | g) Protective earthing used as a safeguard | | P |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| | h) Protective conductor current exceeding ES2 limits | | N/A |
| | i) Graphic symbols used on equipment | | P |
| | j) Permanently connected equipment not provided with all-pole mains switch | | N/A |
| | k) Replaceable components or modules providing safeguard function | | N/A |
| | l) Equipment containing insulating liquid | | N/A |
| | m) Installation instructions for outdoor equipment | | N/A |
| F.5 | Instructional safeguards | | P |
| G | COMPONENTS | | P |
| G.1 | Switches | | N/A |
| G.1.1 | General | | N/A |
| G.1.2 | Ratings, endurance, spacing, maximum load | | N/A |
| G.1.3 | Test method and compliance | | N/A |
| G.2 | Relays | | N/A |
| G.2.1 | Requirements | | N/A |
| G.2.2 | Overload test | | N/A |
| G.2.3 | Relay controlling connectors supplying power to other equipment | | N/A |
| G.2.4 | Test method and compliance | | N/A |
| G.3 | Protective devices | | P |
| G.3.1 | Thermal cut-offs | | N/A |
| | Thermal cut-outs separately approved according to IEC 60730 with conditions indicated in a) & b) | | N/A |
| | Thermal cut-outs tested as part of the equipment as indicated in c) | | N/A |
| G.3.1.2 | Test method and compliance | | N/A |
| G.3.2 | Thermal links | | N/A |
| G.3.2.1 | a) Thermal links tested separately according to IEC 60691 with specifics | | N/A |
| | b) Thermal links tested as part of the equipment | | N/A |
| G.3.2.2 | Test method and compliance | | N/A |
| G.3.3 | PTC thermistors | | N/A |
| G.3.4 | Overcurrent protection devices | Evaluated in approved switching power supply | P |
| G.3.5 | Safeguards components not mentioned in G.3.1 to G.3.4 | | N/A |

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|-------------|--|--|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| G.3.5.1 | Non-resettable devices suitably rated and marking provided | | N/A |
| G.3.5.2 | Single faults conditions | (See appended table B.4) | N/A |
| G.4 | Connectors | | N/A |
| G.4.1 | Spacings | Consider in end system | N/A |
| G.4.2 | Mains connector configuration..... | | N/A |
| G.4.3 | Plug is shaped that insertion into mains socket-outlets or appliance coupler is unlikely | | N/A |
| G.5 | Wound components | | P |
| G.5.1 | Wire insulation in wound components | Evaluated in approved switching power supply | P |
| G.5.1.2 | Protection against mechanical stress | | N/A |
| G.5.2 | Endurance test | | N/A |
| G.5.2.1 | General test requirements | | N/A |
| G.5.2.2 | Heat run test | | N/A |
| | Test time (days per cycle)..... | | — |
| | Test temperature (°C) | | — |
| G.5.2.3 | Wound components supplied from the mains | | N/A |
| G.5.2.4 | No insulation breakdown | | N/A |
| G.5.3 | Transformers | | N/A |
| G.5.3.1 | Compliance method..... | | N/A |
| | Position | | N/A |
| | Method of protection | | N/A |
| G.5.3.2 | Insulation | | N/A |
| | Protection from displacement of windings | | — |
| G.5.3.3 | Transformer overload tests | | N/A |
| G.5.3.3.1 | Test conditions | | N/A |
| G.5.3.3.2 | Winding temperatures | | N/A |
| G.5.3.3.3 | Winding temperatures - alternative test method | | N/A |
| G.5.3.4 | Transformers using FIW | | N/A |
| G.5.3.4.1 | General | | N/A |
| | FIW wire nominal diameter | | — |
| G.5.3.4.2 | Transformers with basic insulation only | | N/A |
| G.5.3.4.3 | Transformers with double insulation or reinforced insulation..... | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| G.5.3.4.4 | Transformers with FIW wound on metal or ferrite core | | N/A |
| G.5.3.4.5 | Thermal cycling test and compliance | | N/A |
| G.5.3.4.6 | Partial discharge test | | N/A |
| G.5.3.4.7 | Routine test | | N/A |
| G.5.4 | Motors | | N/A |
| G.5.4.1 | General requirements | | N/A |
| G.5.4.2 | Motor overload test conditions | | N/A |
| G.5.4.3 | Running overload test | | N/A |
| G.5.4.4.2 | Locked-rotor overload test | | N/A |
| | Test duration (days) | | — |
| G.5.4.5 | Running overload test for DC motors | | N/A |
| G.5.4.5.2 | Tested in the unit | | N/A |
| G.5.4.5.3 | Alternative method | | N/A |
| G.5.4.6 | Locked-rotor overload test for DC motors | | N/A |
| G.5.4.6.2 | Tested in the unit | | N/A |
| | Maximum Temperature | | N/A |
| G.5.4.6.3 | Alternative method | | N/A |
| G.5.4.7 | Motors with capacitors | | N/A |
| G.5.4.8 | Three-phase motors | | N/A |
| G.5.4.9 | Series motors | | N/A |
| | Operating voltage | | — |
| G.6 | Wire Insulation | | P |
| G.6.1 | General | Evaluated in approved switching power supply | P |
| G.6.2 | Enamelled winding wire insulation | | N/A |
| G.7 | Mains supply cords | | N/A |
| G.7.1 | General requirements | | N/A |
| | Type | | — |
| G.7.2 | Cross sectional area (mm ² or AWG) | | N/A |
| G.7.3 | Cord anchorages and strain relief for non-detachable power supply cords | | N/A |
| G.7.3.2 | Cord strain relief | | N/A |
| G.7.3.2.1 | Requirements | | N/A |
| | Strain relief test force (N) | | N/A |

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|-------------|---|--|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| G.7.3.2.2 | Strain relief mechanism failure | | N/A |
| G.7.3.2.3 | Cord sheath or jacket position, distance (mm) : | | N/A |
| G.7.3.2.4 | Strain relief and cord anchorage material | | N/A |
| G.7.4 | Cord Entry | | N/A |
| G.7.5 | Non-detachable cord bend protection | | N/A |
| G.7.5.1 | Requirements | | N/A |
| G.7.5.2 | Test method and compliance | | N/A |
| | Overall diameter or minor overall dimension, <i>D</i> (mm)..... : | | — |
| | Radius of curvature after test (mm) : | | — |
| G.7.6 | Supply wiring space | | N/A |
| G.7.6.1 | General requirements | | N/A |
| G.7.6.2 | Stranded wire | | N/A |
| G.7.6.2.1 | Requirements | | N/A |
| G.7.6.2.2 | Test with 8 mm strand | | N/A |
| G.8 | Varistors | | P |
| G.8.1 | General requirements | Evaluated in approved switching power supply | P |
| G.8.2 | Safeguards against fire | | N/A |
| G.8.2.1 | General | | N/A |
| G.8.2.2 | Varistor overload test | | N/A |
| G.8.2.3 | Temporary overvoltage test | | N/A |
| G.9 | Integrated circuit (IC) current limiters | | N/A |
| G.9.1 | Requirements | | N/A |
| | IC limiter output current (max. 5A)..... : | | — |
| | Manufacturers' defined drift : | | — |
| G.9.2 | Test Program | | N/A |
| G.9.3 | Compliance | | N/A |
| G.10 | Resistors | | N/A |
| G.10.1 | General | | N/A |
| G.10.2 | Conditioning | | N/A |
| G.10.3 | Resistor test | | N/A |
| G.10.4 | Voltage surge test | | N/A |
| G.10.5 | Impulse test | | N/A |
| G.10.6 | Overload test | | N/A |

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|-------------|---|--|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| G.11 | Capacitors and RC units | | P |
| G.11.1 | General requirements | Evaluated in approved switching power supply | P |
| G.11.2 | Conditioning of capacitors and RC units | | N/A |
| G.11.3 | Rules for selecting capacitors | | N/A |
| G.12 | Optocouplers | | P |
| | Optocouplers comply with IEC 60747-5-5 with specifics | Evaluated in approved switching power supply | P |
| | Type test voltage $V_{ini,a}$: | See above | — |
| | Routine test voltage, $V_{ini,b}$: | See above | — |
| G.13 | Printed boards | | P |
| G.13.1 | General requirements | | P |
| G.13.2 | Uncoated printed boards | | P |
| G.13.3 | Coated printed boards | | N/A |
| G.13.4 | Insulation between conductors on the same inner surface | | N/A |
| G.13.5 | Insulation between conductors on different surfaces | | N/A |
| | Distance through insulation : | | N/A |
| | Number of insulation layers (pcs) : | | — |
| G.13.6 | Tests on coated printed boards | | N/A |
| G.13.6.1 | Sample preparation and preliminary inspection | | N/A |
| G.13.6.2 | Test method and compliance | | N/A |
| G.14 | Coating on components terminals | | N/A |
| G.14.1 | Requirements : | (See Clause G.13) | N/A |
| G.15 | Pressurized liquid filled components | | N/A |
| G.15.1 | Requirements | | N/A |
| G.15.2 | Test methods and compliance | | N/A |
| G.15.2.1 | Hydrostatic pressure test | | N/A |
| G.15.2.2 | Creep resistance test | | N/A |
| G.15.2.3 | Tubing and fittings compatibility test | | N/A |
| G.15.2.4 | Vibration test | | N/A |
| G.15.2.5 | Thermal cycling test | | N/A |
| G.15.2.6 | Force test | | N/A |
| G.15.3 | Compliance | | N/A |
| G.16 | IC including capacitor discharge function (ICX) | | P |

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|----------------|---|--|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| G.16.1 | Condition for fault tested is not required | Evaluated in approved switching power supply | P |
| | ICX with associated circuitry tested in equipment | | N/A |
| | ICX tested separately | | P |
| G.16.2 | Tests | | N/A |
| | Smallest capacitance and smallest resistance specified by ICX manufacturer for impulse test..... : | | — |
| | Mains voltage that impulses to be superimposed on : | | — |
| | Largest capacitance and smallest resistance for ICX tested by itself for 10000 cycles test..... : | | — |
| G.16.3 | Capacitor discharge test..... : | | N/A |
| H | CRITERIA FOR TELEPHONE RINGING SIGNALS | | N/A |
| H.1 | General | | N/A |
| H.2 | Method A | | N/A |
| H.3 | Method B | | N/A |
| H.3.1 | Ringling signal | | N/A |
| H.3.1.1 | Frequency (Hz) : | | — |
| H.3.1.2 | Voltage (V) : | | — |
| H.3.1.3 | Cadence; time (s) and voltage (V) : | | — |
| H.3.1.4 | Single fault current (mA): : | | — |
| H.3.2 | Tripping device and monitoring voltage | | N/A |
| H.3.2.1 | Conditions for use of a tripping device or a monitoring voltage | | N/A |
| H.3.2.2 | Tripping device | | N/A |
| H.3.2.3 | Monitoring voltage (V)..... : | | N/A |
| J | INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION | | P |
| J.1 | General | | P |
| | Winding wire insulation : | Evaluated in approved switching power supply | — |
| | Solid round winding wire, diameter (mm) : | | N/A |
| | Solid square and rectangular (flatwise bending) winding wire, cross-sectional area (mm ²) : | | N/A |
| J.2/J.3 | Tests and Manufacturing | | — |
| K | SAFETY INTERLOCKS | | N/A |
| K.1 | General requirements | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| | Instructional safeguard | | N/A |
| K.2 | Components of safety interlock safeguard mechanism | | N/A |
| K.3 | Inadvertent change of operating mode | | N/A |
| K.4 | Interlock safeguard override | | N/A |
| K.5 | Fail-safe | | N/A |
| K.5.1 | Under single fault condition | | N/A |
| K.6 | Mechanically operated safety interlocks | | N/A |
| K.6.1 | Endurance requirement | | N/A |
| K.6.2 | Test method and compliance..... | | N/A |
| K.7 | Interlock circuit isolation | | N/A |
| K.7.1 | Separation distance for contact gaps & interlock circuit elements | | N/A |
| | In circuit connected to mains, separation distance for contact gaps (mm) | | N/A |
| | In circuit isolated from mains, separation distance for contact gaps (mm) | | N/A |
| | Electric strength test before and after the test of K.7.2..... | (See appended table 5.4.9) | N/A |
| K.7.2 | Overload test, Current (A)..... | | N/A |
| K.7.3 | Endurance test | | N/A |
| K.7.4 | Electric strength test | | N/A |
| L | DISCONNECT DEVICES | | N/A |
| L.1 | General requirements | Built in equipment, should be reconsidered at the end product. | N/A |
| L.2 | Permanently connected equipment | | N/A |
| L.3 | Parts that remain energized | | N/A |
| L.4 | Single-phase equipment | | N/A |
| L.5 | Three-phase equipment | | N/A |
| L.6 | Switches as disconnect devices | | N/A |
| L.7 | Plugs as disconnect devices | | N/A |
| L.8 | Multiple power sources | | N/A |
| | Instructional safeguard | | N/A |
| M | EQUIPMENT CONTAINING BATTERIES AND THEIR PROTECTION CIRCUITS | | N/A |
| M.1 | General requirements | | N/A |
| M.2 | Safety of batteries and their cells | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| M.2.1 | Batteries and their cells comply with relevant IEC standards | | N/A |
| M.3 | Protection circuits for batteries provided within the equipment | | N/A |
| M.3.1 | Requirements | | N/A |
| M.3.2 | Test method | | N/A |
| | Overcharging of a rechargeable battery | | N/A |
| | Excessive discharging | | N/A |
| | Unintentional charging of a non-rechargeable battery | | N/A |
| | Reverse charging of a rechargeable battery | | N/A |
| M.3.3 | Compliance | (See appended table M.3) | N/A |
| M.4 | Additional safeguards for equipment containing a portable secondary lithium battery | | N/A |
| M.4.1 | General | | N/A |
| M.4.2 | Charging safeguards | | N/A |
| M.4.2.1 | Requirements | | N/A |
| M.4.2.2 | Compliance | (See appended table M.4.2) | N/A |
| M.4.3 | Fire enclosure | | N/A |
| M.4.4 | Drop test of equipment containing a secondary lithium battery | | N/A |
| M.4.4.2 | Preparation and procedure for the drop test | | N/A |
| M.4.4.3 | Drop, Voltage on reference and dropped batteries (V); voltage difference during 24 h period (%): | | N/A |
| M.4.4.4 | Check of the charge/discharge function | | N/A |
| M.4.4.5 | Charge / discharge cycle test | | N/A |
| M.4.4.6 | Compliance | | N/A |
| M.5 | Risk of burn due to short-circuit during carrying | | N/A |
| M.5.1 | Requirement | | N/A |
| M.5.2 | Test method and compliance | | N/A |
| M.6 | Safeguards against short-circuits | | N/A |
| M.6.1 | External and internal faults | | N/A |
| M.6.2 | Compliance | | N/A |
| M.7 | Risk of explosion from lead acid and NiCd batteries | | N/A |
| M.7.1 | Ventilation preventing explosive gas concentration | | N/A |
| | Calculated hydrogen generation rate | | N/A |
| M.7.2 | Test method and compliance | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| | Minimum air flow rate, Q (m ³ /h) | | N/A |
| M.7.3 | Ventilation tests | | N/A |
| M.7.3.1 | General | | N/A |
| M.7.3.2 | Ventilation test – alternative 1 | | N/A |
| | Hydrogen gas concentration (%) | | N/A |
| M.7.3.3 | Ventilation test – alternative 2 | | N/A |
| | Obtained hydrogen generation rate | | N/A |
| M.7.3.4 | Ventilation test – alternative 3 | | N/A |
| | Hydrogen gas concentration (%) | | N/A |
| M.7.4 | Marking | | N/A |
| M.8 | Protection against internal ignition from external spark sources of batteries with aqueous electrolyte | | N/A |
| M.8.1 | General | | N/A |
| M.8.2 | Test method | | N/A |
| M.8.2.1 | General | | N/A |
| M.8.2.2 | Estimation of hypothetical volume V_z (m ³ /s)..... | | — |
| M.8.2.3 | Correction factors | | — |
| M.8.2.4 | Calculation of distance d (mm) | | — |
| M.9 | Preventing electrolyte spillage | | N/A |
| M.9.1 | Protection from electrolyte spillage | | N/A |
| M.9.2 | Tray for preventing electrolyte spillage | | N/A |
| M.10 | Instructions to prevent reasonably foreseeable misuse | | N/A |
| | Instructional safeguard | | N/A |
| N | ELECTROCHEMICAL POTENTIALS | | P |
| | Material(s) used | Pollution degree considered | — |
| O | MEASUREMENT OF CREEPAGE DISTANCES AND CLEARANCES | | P |
| | Value of X (mm) | Considered ($X=1$) | — |
| P | SAFEGUARDS AGAINST CONDUCTIVE OBJECTS | | P |
| P.1 | General | | P |
| P.2 | Safeguards against entry or consequences of entry of a foreign object | | P |
| P.2.1 | General | | P |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| P.2.2 | Safeguards against entry of a foreign object | No opening on LED panel side. The further evaluation and testing must be checked and performed in the final system for this built-in equipment. | P |
| | Location and Dimensions (mm) | | — |
| P.2.3 | Safeguards against the consequences of entry of a foreign object | | N/A |
| P.2.3.1 | Safeguard requirements | | N/A |
| | The ES3 and PS3 keep-out volume in Figure P.3 not applicable to transportable equipment | | N/A |
| | Transportable equipment with metalized plastic parts | | N/A |
| P.2.3.2 | Consequence of entry test | | N/A |
| P.3 | Safeguards against spillage of internal liquids | | N/A |
| P.3.1 | General | | N/A |
| P.3.2 | Determination of spillage consequences | | N/A |
| P.3.3 | Spillage safeguards | | N/A |
| P.3.4 | Compliance | | N/A |
| P.4 | Metallized coatings and adhesives securing parts | | N/A |
| P.4.1 | General | | N/A |
| P.4.2 | Tests | | N/A |
| | Conditioning, T _c (°C) | | — |
| | Duration (weeks) | | — |
| Q | CIRCUITS INTENDED FOR INTERCONNECTION WITH BUILDING WIRING | | N/A |
| Q.1 | Limited power sources | | N/A |
| Q.1.1 | Requirements | | N/A |
| | a) Inherently limited output | | N/A |
| | b) Impedance limited output | | N/A |
| | c) Regulating network limited output | | N/A |
| | d) Overcurrent protective device limited output | | N/A |
| | e) IC current limiter complying with G.9 | | N/A |
| Q.1.2 | Test method and compliance | (See appended table Q.1) | N/A |
| | Current rating of overcurrent protective device (A) | | N/A |
| Q.2 | Test for external circuits – paired conductor cable | | N/A |

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|-------------|---|-----------------|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Maximum output current (A) | | N/A |
| | Current limiting method..... | | — |
| R | LIMITED SHORT CIRCUIT TEST | | N/A |
| R.1 | General | | N/A |
| R.2 | Test setup | | N/A |
| | Overcurrent protective device for test..... | | — |
| R.3 | Test method | | N/A |
| | Cord/cable used for test..... | | — |
| R.4 | Compliance | | N/A |
| S | TESTS FOR RESISTANCE TO HEAT AND FIRE | | N/A |
| S.1 | Flammability test for fire enclosures and fire barrier materials of equipment where the steady state power does not exceed 4 000 W | | N/A |
| | Samples, material | | — |
| | Wall thickness (mm) | | — |
| | Conditioning (°C) | | — |
| | Test flame according to IEC 60695-11-5 with conditions as set out | | N/A |
| | - Material not consumed completely | | N/A |
| | - Material extinguishes within 30s | | N/A |
| | - No burning of layer or wrapping tissue | | N/A |
| S.2 | Flammability test for fire enclosure and fire barrier integrity | | N/A |
| | Samples, material | | — |
| | Wall thickness (mm) | | — |
| | Conditioning (°C) | | — |
| S.3 | Flammability test for the bottom of a fire enclosure | | N/A |
| S.3.1 | Mounting of samples | | N/A |
| S.3.2 | Test method and compliance | | N/A |
| | Mounting of samples | | — |
| | Wall thickness (mm) | | — |
| S.4 | Flammability classification of materials | | N/A |
| S.5 | Flammability test for fire enclosure materials of equipment with a steady state power exceeding 4 000 W | | N/A |
| | Samples, material | | — |
| | Wall thickness (mm) | | — |

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|-------------|---|--|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Conditioning (°C) | | — |
| T | MECHANICAL STRENGTH TESTS | | P |
| T.1 | General | | P |
| T.2 | Steady force test, 10 N | (See appended table T.2) | P |
| T.3 | Steady force test, 30 N | (See appended table T.3) | N/A |
| T.4 | Steady force test, 100 N | (See appended table T.4) | N/A |
| T.5 | Steady force test, 250 N | (See appended table T.5) | P |
| T.6 | Enclosure impact test | (See appended table T.6) | P |
| | Fall test | | P |
| | Swing test | | P |
| T.7 | Drop test | (See appended table T.7) | N/A |
| T.8 | Stress relief test | (See appended table T.8) | P |
| T.9 | Glass Impact Test | (See appended table T.9) | N/A |
| T.10 | Glass fragmentation test | | N/A |
| | Number of particles counted | | N/A |
| T.11 | Test for telescoping or rod antennas | | N/A |
| | Torque value (Nm) | | N/A |
| U | MECHANICAL STRENGTH OF CATHODE RAY TUBES (CRT) AND PROTECTION AGAINST THE EFFECTS OF IMPLOSION | | N/A |
| U.1 | General | | N/A |
| | Instructional safeguard : | | N/A |
| U.2 | Test method and compliance for non-intrinsically protected CRTs | | N/A |
| U.3 | Protective screen | | N/A |
| V | DETERMINATION OF ACCESSIBLE PARTS | | P |
| V.1 | Accessible parts of equipment | | P |
| V.1.1 | General | No opening on LED panel side. The further evaluation and testing must be checked and performed in the final system for this built-in equipment. | P |
| V.1.2 | Surfaces and openings tested with jointed test probes | | P |
| V.1.3 | Openings tested with straight unjointed test probes | | P |
| V.1.4 | Plugs, jacks, connectors tested with blunt probe | | N/A |
| V.1.5 | Slot openings tested with wedge probe | | N/A |
| V.1.6 | Terminals tested with rigid test wire | | N/A |

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|-------------|---|------------------------|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| V.2 | Accessible part criterion | | P |
| X | ALTERNATIVE METHOD FOR DETERMINING CLEARANCES FOR INSULATION IN CIRCUITS CONNECTED TO AN AC MAINS NOT EXCEEDING 420 V PEAK (300 V RMS) | | N/A |
| | Clearance | (See appended table X) | N/A |
| Y | CONSTRUCTION REQUIREMENTS FOR OUTDOOR ENCLOSURES | | N/A |
| Y.1 | General | | N/A |
| Y.2 | Resistance to UV radiation | | N/A |
| Y.3 | Resistance to corrosion | | N/A |
| Y.3 | Resistance to corrosion | | N/A |
| Y.3.1 | Metallic parts of outdoor enclosures are resistant to effects of water-borne contaminants by..... : | | N/A |
| Y.3.2 | Test apparatus | | N/A |
| Y.3.3 | Water – saturated sulphur dioxide atmosphere | | N/A |
| Y.3.4 | Test procedure | | N/A |
| Y.3.5 | Compliance | | N/A |
| Y.4 | Gaskets | | N/A |
| Y.4.1 | General | | N/A |
| Y.4.2 | Gasket tests | | N/A |
| Y.4.3 | Tensile strength and elongation tests | | N/A |
| | Alternative test methods | | N/A |
| Y.4.4 | Compression test | | N/A |
| Y.4.5 | Oil resistance | | N/A |
| Y.4.6 | Securing means | (See Annex P.4) | N/A |
| Y.5 | Protection of equipment within an outdoor enclosure | | N/A |
| N/A | General | | N/A |
| N/A | Protection from moisture | | N/A |
| N/A | Relevant tests of IEC 60529 or Y.5.3 | | N/A |
| N/A | Water spray test | | N/A |
| N/A | Protection from plants and vermin | | N/A |
| N/A | Protection from excessive dust | | N/A |
| N/A | General | | N/A |
| N/A | IP5X equipment | | N/A |
| N/A | IP6X equipment | | N/A |
| Y.6 | Mechanical strength of enclosures | | N/A |

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|-------------|---------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| Y.6.1 | General | | N/A |
| Y.6.2 | Impact test : | (See Table T.6) | N/A |

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|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 5.2 | TABLE: Classification of electrical energy sources | | | | | | P |
|---|--|----------------------|------------|-------------|--------------------|-------------------------------|----------|
| Supply Voltage | Location (e.g. circuit designation) | Test conditions | Parameters | | | | ES Class |
| | | | U (V) | I (mA) | Type ¹⁾ | Additional Info ²⁾ | |
| 264V, 60Hz | Plastic LED panel with metal foil | Normal | -- | 0.02mA peak | SS | 60Hz | ES1 |
| 264V, 60Hz | Plastic LED panel with metal foil | Abnormal | -- | 0.02mA peak | SS | 60Hz | ES1 |
| 264V, 60Hz | Plastic LED panel with metal foil | Single fault – SC/OC | -- | 0.02mA peak | SS | 60Hz | ES1 |
| 264V, 60Hz | RJ45 port | Normal | 0.32V rms | -- | SS | DC | ES1 |
| 264V, 60Hz | RJ45 port | Abnormal | 0.32V rms | -- | SS | DC | ES1 |
| 264V, 60Hz | RJ45 port | Single fault – SC/OC | 0.32V rms | -- | SS | DC | ES1 |
| Supplementary information: | | | | | | | |
| 1) Type: Steady state (SS), Capacitance (CP), Single pulse (SP), Repetitive pulses (RP), etc. | | | | | | | |
| 2) Additional Info: Frequency, Pulse duration, Pulse off time, Capacitance value, etc. | | | | | | | |

| 5.4.1.8 | TABLE: Working voltage measurement | | | | N/A |
|----------------------------|------------------------------------|------------------|----------------|----------|-----|
| Location | RMS voltage (V) | Peak voltage (V) | Frequency (Hz) | Comments | |
| -- | -- | -- | -- | -- | |
| -- | -- | -- | -- | -- | |
| Supplementary information: | | | | | |
| -- | | | | | |

| 5.4.1.10.2 | TABLE: Vicat softening temperature of thermoplastics | | | N/A |
|----------------------------|--|----------------|------------------|-----|
| Method.....: | ISO 306 / B50 | | | — |
| Object/ Part No./Material | Manufacturer/trademark | Thickness (mm) | T softening (°C) | |
| -- | -- | -- | -- | |
| -- | -- | -- | -- | |
| Supplementary information: | | | | |
| -- | | | | |

| 5.4.1.10.3 | TABLE: Ball pressure test of thermoplastics | P |
|------------|---|---|
|------------|---|---|

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|---|------------------------------------|------------------|-----------------------|--------------------------|
| Clause | Requirement + Test | Result - Remark | Verdict | |
| Allowed impression diameter (mm) | | ≤ 2 mm | — | |
| Object/Part No./Material | Manufacturer/trademark | Thickness (mm) | Test temperature (°C) | Impression diameter (mm) |
| Input connector/ output connector/ model: B15B-003F540AA3 | SHENZHEN NOXTLON ELECTRONIC CO LTD | 1.5mm x 2 layers | 125 | 1.2 |
| Supplementary information: | | | | |
| -- | | | | |

| 5.4.2, 5.4.3 | TABLE: Minimum Clearances/Creepage distance | | | | | | | P |
|--|---|---------------|-------------------------|---------------------|---------|------------------------|------------------|---------|
| Clearance (cl) and creepage distance (cr) at/of/between: | U_p (V) | U_{rms} (V) | Freq ¹⁾ (Hz) | Required cl (mm) | cl (mm) | E.S. ²⁾ (V) | Required cr (mm) | cr (mm) |
| L-N before fuse (BI) | 420 | 250 | 0.06 | 2.3 (1.5 x 1.48) | 3.5 | -- | 2.5 | 3.5 |
| L/N to earth and metal enclosure (BI) | 420 | 250 | 0.06 | 2.3 (1.5 x 1.48) | 3.5 | -- | 2.5 | 3.5 |
| Primary live parts to metal enclosure (BI) | 420 | 250 | 0.06 | 2.3 (1.5 x 1.48) | 8.0 | -- | 2.5 | 8.0 |
| RJ45 port to primary live parts (RI) | 420 | 250 | 0.06 | 4.5 (3.0 x 1.48) | 8.0 | -- | 5.0 | 8.0 |
| Supplementary information: | | | | | | | | |
| 1) Only for frequency above 30 kHz. | | | | | | | | |
| 2) Complete Electric Strength voltage (E.S. (V) when 5.4.2.4 applied). | | | | | | | | |
| 3) Provide Material Group. | | | | | | | | |
| 4) Transformer frequency above 30 kHz, the distance on the power supply had been evaluated in the test report of power supply. | | | | | | | | |
| 5) FI: Functional insulation; BI: Basic insulation; SI: Supplementary insulation; RI: Reinforced insulation. | | | | | | | | |

| 5.4.4.2 | TABLE: Minimum distance through insulation | | | | N/A |
|---|--|------------|-------------------|-------------------|-----|
| Distance through insulation (DTI) at/of | Peak voltage (V) | Insulation | Required DTI (mm) | Measured DTI (mm) | |
| -- | -- | -- | -- | -- | |
| Supplementary information: | | | | | |
| -- | | | | | |

| 5.4.4.9 | TABLE: Solid insulation at frequencies >30 kHz | | | | | N/A |
|---------------------|--|-----------------|-------|--------------------|------------|----------------|
| Insulation material | E_p | Frequency (kHz) | K_R | Thickness d (mm) | Insulation | V_{PW} (Vpk) |
| | | | | | | |

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|----------------------------|--------------------|----|----|-----------------|----|---------|
| Clause | Requirement + Test | | | Result - Remark | | Verdict |
| -- | -- | -- | -- | -- | -- | -- |
| Supplementary information: | | | | | | |
| -- | | | | | | |

| 5.4.9 | TABLE: Electric strength tests | | | P |
|---|--|------------------|-----------------------|---|
| Test voltage applied between: | Voltage shape (Surge, Impulse, AC, DC, etc.) | Test voltage (V) | Breakdown Yes / No | |
| Line to Neutral (fuse disconnected) | DC | 2500 | No | |
| Unit: Primary to earthed metal enclosure | DC | 2500 | No | |
| Heat shrinkable tube (Used for primary internal wire) | DC | 2500 | No | |
| Unit: Primary to plastic LED panel cover with metal foil | DC | 4000 | No | |
| Unit: Primary to secondary | DC | 4000 | No | |
| Supplementary information: | | | | |
| Sources of Heat shrinkable tube see appended table 4.1.2 for details. | | | | |

| 5.5.2.2 | TABLE: Stored discharge on capacitors | | | | P |
|---|---------------------------------------|--|--------------------|------------------------------|----------|
| Location | Supply voltage (V) | Operating and fault condition ¹⁾ | Switch position | Measured voltage (Vpk) | ES Class |
| 264Vac, 60Hz | Phase to Neutral | N | -- | 12 VDC | ES1 |
| Supplementary information: | | | | | |
| X-capacitors installed for testing: CX1=0.22 μ F, CX2=1.0 μ F (used for built-in power supply) [X] bleeding resistor rating: R43=510K Ω (used for built-in power supply) [X] ICX: U3 (used for built-in power supply) 1) Normal operating condition (e.g., normal operation, or open fuse), S –Single fault condition, SC= short circuit, OC= open circuit. 2) Test Location: Phase to Neutral; Phase to Phase; Phase to Earth; and/or Neutral to Earth. | | | | | |

| 5.6.6 | TABLE: Resistance of protective conductors and terminations | | | P |
|--|---|-------------------|---------------------|----------------------------|
| Location | Test current (A) | Duration (min) | Voltage drop (V) | Resistance (Ω) |
| Protective earthing conductor of connector to fast metal chassis | 40 | 2 | 3.040 | 0.076 |

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|---|--|-----------------|---|---------|-------|
| Clause | Requirement + Test | Result - Remark | | Verdict | |
| | Protective earthing conductor of connector to GND pin of AC output connector | 40 | 2 | 2.960 | 0.074 |
| | Protective earthing conductor of connector to fast metal chassis | 32 | 2 | 2.304 | 0.072 |
| | Protective earthing conductor of connector to GND pin of AC output connector | 32 | 2 | 2.208 | 0.069 |
| Supplementary information: | | | | | |
| The resistance limit $\leq 0.1\Omega$. | | | | | |

| 5.7.4 | TABLE: Unearthed accessible parts | | | | | P |
|--|-----------------------------------|----------------------|-----------------------------------|-----------------------------------|------------|----------|
| Location | Operating and fault conditions | Supply Voltage (V) | Parameters | | | ES class |
| | | | Voltage (V_{rms} or V_{pk}) | Current (A_{rms} or A_{pk}) | Freq. (Hz) | |
| 264V, 60Hz | Plastic LED panel with metal foil | Normal | -- | 0.02mA _{pk} | 60Hz | ES1 |
| 264V, 60Hz | Plastic LED panel with metal foil | Abnormal | -- | 0.02mA _{pk} | 60Hz | ES1 |
| 264V, 60Hz | Plastic LED panel with metal foil | Single fault – SC/OC | -- | 0.02mA _{pk} | 60Hz | ES1 |
| Supplementary information: | | | | | | |
| Abbreviation: SC= short circuit; OC= open circuit. | | | | | | |

| 5.7.5 | TABLE: Earthed accessible conductive part | | | | P |
|-------------------------------------|--|----------------------|---------|--|---|
| Supply voltage (V) | 264V, 60Hz | | | | — |
| Phase(s) | [X] Single Phase; [] Three Phase: [] Delta [] Wye | | | | — |
| Power Distribution System | [X] TN [] TT [] IT | | | | — |
| Location | Fault Condition No in IEC 60990 clause 6.2.2 | Touch current (mA) | Comment | | |
| Measured to earthed metal enclosure | 1 | 1.86mA _{pk} | ES2 | | |
| Supplementary Information: | | | | | |
| -- | | | | | |

| 5.8 | TABLE: Backfeed safeguard in battery backed up supplies | | | | | N/A |
|----------|---|-------------------------------|----------|--------------------------|-------------------|----------|
| Location | Supply voltage (V) | Operating and fault condition | Time (s) | Open-circuit voltage (V) | Touch current (A) | ES Class |
| | | | | | | |

| IEC 62368-1 | | | | | | |
|--|--------------------|----|----|----|-----------------|---------|
| Clause | Requirement + Test | | | | Result - Remark | Verdict |
| -- | -- | -- | -- | -- | -- | -- |
| Supplementary information: | | | | | | |
| Abbreviation: SC= short circuit, OC= open circuit. | | | | | | |

| 6.2.2 | TABLE: Power source circuit classifications | | | | | P |
|---|---|-------------|-------------|------------------------------|----------|----------|
| Location | Operating and fault condition | Voltage (V) | Current (A) | Max. Power ¹⁾ (W) | Time (S) | PS class |
| RJ45 port | Normal | 0 | 0 | 0 | >3s | PS1 |
| Supplementary information: | | | | | | |
| Abbreviation: SC= short circuit; OC= open circuit. | | | | | | |
| 1) Measured after 3 s for PS1 and measured after 5 s for PS2 and PS3. | | | | | | |

| 6.2.3.1 | TABLE: Determination of Arcing PIS | | | | P |
|--|--------------------------------------|----------------------------|------------------|----------------------|---|
| Location | Open circuit voltage after 3 s (Vpk) | Measured r.m.s current (A) | Calculated value | Arcing PIS? Yes / No | |
| Primary circuits and secondary circuit / parts except for output connector | -- | -- | -- | Yes (Declaration) | |
| Supplementary information: | | | | | |
| -- | | | | | |

| 6.2.3.2 | TABLE: Determination of resistive PIS | | | P |
|--|---------------------------------------|---------------------|----------------------|---|
| Location | Operating and fault condition | Dissipate power (W) | Arcing PIS? Yes / No | |
| Primary circuits and secondary circuit / parts except for output connector | -- | -- | Yes (Declaration) | |
| Supplementary information: | | | | |
| Abbreviation: SC= short circuit; OC= open circuit. | | | | |

| 8.5.5 | TABLE: High pressure lamp | | | | N/A |
|----------------------------|---------------------------|------------------|-------------------------------------|------------------------------------|-----|
| Lamp manufacturer | Lamp type | Explosion method | Longest axis of glass particle (mm) | Particle found beyond 1 m Yes / No | |
| -- | -- | -- | -- | -- | |
| Supplementary information: | | | | | |
| -- | | | | | |

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|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 9.6 | TABLE: Temperature measurements for wireless power transmitters | | | | | | | | N/A |
|---|---|--------------|----------------------------------|--------------|---------------------------------------|--------------|---------------------------------------|--------------|-----|
| Supply voltage (V)..... | | -- | | | | | | --- | |
| Max. transmit power of transmitter (W)..... | | -- | | | | | | --- | |
| Foreign objects | w/o receiver and direct contact | | with receiver and direct contact | | with receiver and at distance of 2 mm | | with receiver and at distance of 5 mm | | |
| | Object (°C) | Ambient (°C) | Object (°C) | Ambient (°C) | Object (°C) | Ambient (°C) | Object (°C) | Ambient (°C) | |
| -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| Supplementary information: | | | | | | | | | |
| -- | | | | | | | | | |

| 5.4.1.4, 9.3, B.1.5, B.2.6 | TABLE: Temperature measurements | | | | | P |
|---|---------------------------------|-----------------|----|----|------------------------|---|
| Supply voltage (V)..... | 90Vac, 60Hz | 264Vac, 50Hz | -- | -- | --- | |
| Ambient temperature during test T_{amb} (°C) | See below | See below | -- | -- | --- | |
| Maximum measured temperature T of part/at: | T (°C) | | | | Allowed T_{max} (°C) | |
| AC input connector | 68.7 | 65.2 | -- | -- | 110 | |
| Input wire (for AC input connector) | 66.7 | 62.4 | -- | -- | 70 | |
| T1 winding (for built-in power supply) | 103.3 | 101.7 | -- | -- | 130 | |
| Metal enclosure of built-in power supply (outside, near T1) | 88.9 | 86.9 | -- | -- | Ref | |
| CC3 body (on HUB PCB board) | 90.2 | 90.6 | -- | -- | 105 | |
| CC4 body (on HUB PCB board) | 81.8 | 82.1 | -- | -- | 105 | |
| PCB near J{U1} and J{U2} | 101.7 | 102.0 | -- | -- | 130 | |
| PCB near U10 and U12 | 84.8 | 84.4 | -- | -- | 130 | |
| CC5 body (on LED PCB board) | 79.3 | 79.4 | -- | -- | 105 | |
| PCB near UF1 (on LED PCB board) | 80.5 | 80.5 | -- | -- | 130 | |
| TEST button body (inside) | 90.9 | 91.1 | -- | -- | Ref. | |
| LED panel | 78.7 | 78.3 | -- | -- | -- | |
| Metal enclosure (outside, near built-in power supply) | 77.5 | 76.2 | -- | -- | -- | |
| Ambient | 50.0 | 50.0 | -- | -- | -- | |

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|--|---------------------|--------------------|---------------------|--------------------|-----------------|-------------------------------|------------------|
| Clause | Requirement + Test | | | | Result - Remark | | Verdict |
| -- | -- | -- | -- | -- | -- | -- | -- |
| LED panel | 53.7 | 53.3 | -- | -- | -- | -- | 77 |
| Metal enclosure (outside, near built-in power supply) | 52.5 | 51.2 | -- | -- | -- | -- | 60 |
| Ambient | 25.0 | 25.0 | -- | -- | -- | -- | -- |
| Temperature T of winding: | t ₁ (°C) | R ₁ (Ω) | t ₂ (°C) | R ₂ (Ω) | T (°C) | Allowed T _{max} (°C) | Insulation class |
| -- | -- | -- | -- | -- | -- | -- | -- |
| Supplementary information: | | | | | | | |
| <p>Note 1: The apparatus was submitted and evaluated for maximum manufacturer's recommended ambient (T_{ma}) of 50°C. Therefore the maximum temperatures measured are recalculated as follows: T + (50 – T_{amb}), where T is the maximum temperature measured during test and T_{amb} is the ambient temperature during the test.</p> <p>Note 2: The temperatures were measured under the worse case normal mode defined in table B.2.5 (All LED show white light).</p> <p>Note 3. Temperature limits are calculated as follows: Winding components providing safety isolation: Class F → T_{max} = 140-10=130°C for built-in power supply.</p> <p>Note 4: T_{ma} should be considered as directed by applicable requirement.</p> <p>Note 5: T_{ma} is not included in assessment of Touch Temperatures (Clause 9).</p> <p>Note 6: The output connector loaded 9A load.</p> | | | | | | | |

| B.2.5 | | TABLE: Input test | | | | | | P |
|-------|----|-------------------|-------------|--------|-------------|---------|------------|-----------------------|
| U (V) | Hz | I (A) | I rated (A) | P (W) | P rated (W) | Fuse No | I fuse (A) | Condition/status |
| 90 | 50 | 10.13 | -- | 910.8 | -- | -- | -- | LED shows white light |
| 90 | 60 | 10.14 | -- | 911.7 | -- | -- | -- | |
| 100 | 50 | 9.98 | 10 | 996.3 | -- | -- | -- | |
| 100 | 60 | 9.99 | 10 | 997.4 | -- | -- | -- | |
| 240 | 50 | 9.43 | 10 | 2257.4 | -- | -- | -- | |
| 240 | 60 | 9.42 | 10 | 2254.7 | -- | -- | -- | |
| 264 | 50 | 9.45 | -- | 2472.4 | -- | -- | -- | |
| 264 | 60 | 9.44 | -- | 2470.2 | -- | -- | -- | |
| 90 | 50 | 9.68 | -- | 869.9 | -- | -- | -- | LED shows red light |
| 90 | 60 | 9.69 | -- | 870.9 | -- | -- | -- | |
| 100 | 50 | 9.63 | 10 | 960.7 | -- | -- | -- | |
| 100 | 60 | 9.63 | 10 | 960.8 | -- | -- | -- | |
| 240 | 50 | 9.34 | 10 | 2219.2 | -- | -- | -- | |

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|--|--------------------|------|----|--------|-----------------|----|----|----------------------|
| Clause | Requirement + Test | | | | Result - Remark | | | Verdict |
| 240 | 60 | 9.33 | 10 | 2217.0 | -- | -- | -- | LED shows blue light |
| 264 | 50 | 9.38 | -- | 2433.9 | -- | -- | -- | |
| 264 | 60 | 9.38 | -- | 2433.6 | -- | -- | -- | |
| 90 | 50 | 9.68 | -- | 870.3 | -- | -- | -- | |
| 90 | 60 | 9.68 | -- | 870.4 | -- | -- | -- | |
| 100 | 50 | 9.62 | 10 | 960.4 | -- | -- | -- | |
| 100 | 60 | 9.62 | 10 | 960.4 | -- | -- | -- | |
| 240 | 50 | 9.34 | 10 | 2218.8 | -- | -- | -- | |
| 240 | 60 | 9.32 | 10 | 2215.7 | -- | -- | -- | |
| 264 | 50 | 9.37 | -- | 2433.5 | -- | -- | -- | |
| 264 | 60 | 9.37 | -- | 2433.4 | -- | -- | -- | |
| 90 | 50 | 9.62 | -- | 864.3 | -- | -- | -- | |
| 90 | 60 | 9.62 | -- | 864.4 | -- | -- | -- | |
| 100 | 50 | 9.56 | 10 | 954.2 | -- | -- | -- | |
| 100 | 60 | 9.56 | 10 | 954.3 | -- | -- | -- | |
| 240 | 50 | 9.32 | 10 | 2213.1 | -- | -- | -- | |
| 240 | 60 | 9.31 | 10 | 2212.8 | -- | -- | -- | |
| 264 | 50 | 9.34 | -- | 2427.7 | -- | -- | -- | |
| 264 | 60 | 9.34 | -- | 2427.6 | -- | -- | -- | |
| Supplementary information: | | | | | | | | |
| Equipment may be have rated current or rated power or both. Both should be measured. | | | | | | | | |
| The measured input current at rated voltage shall be less than or equal to 110 % of rated current. | | | | | | | | |
| The test is performed in accordance with the customer's preset mode. | | | | | | | | |
| The output connector loaded 9A load. | | | | | | | | |

| B.3, B.4 | TABLE: Abnormal operating and fault condition tests | | | | | | P |
|---|--|--------------------|-----------|----------|------------------|--|----------|
| Ambient temperature T_{amb} (°C)..... | 25 °C, if not specified | | | | | — | |
| Power source for EUT: Manufacturer, model/type, outputrating .. | -- | | | | | — | |
| Component No. | Condition | Supply voltage (V) | Test time | Fuse no. | Fuse current (A) | Observation | |
| CC3 (on HUB PCB board) | SC | 90 | 10min | -- | 9.18 | Unit shut down immediately, no components damaged. No hazards. | |
| CC4 (on HUB PCB board) | SC | 90 | 10min | -- | 9.18 | Unit shut down immediately, no components damaged. No hazards. | |

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|---|--------------------|-----|---------------|----|-----------------|--|
| Clause | Requirement + Test | | | | Result - Remark | Verdict |
| CC5 (on LED PCB board) | SC | 90 | 10min | -- | 10.01 | Unit shut down immediately (The 1/8 of LED light was shut down, the other of LED light normal working), no components damaged. No hazards. |
| CC3 (on HUB PCB board) | SC | 264 | 10min | -- | 9.09 | Unit shut down immediately, no components damaged. No hazards. |
| CC4 (on HUB PCB board) | SC | 264 | 10min | -- | 9.09 | Unit shut down immediately, no components damaged. No hazards. |
| CC5 (on LED PCB board) | SC | 264 | 10min | -- | 9.39 | Unit shut down immediately (The 1/8 of LED light was shut down, the other of LED light normal working), no components damaged. No hazards. |
| Reserve holes | Covering | 264 | 2hrs 43min | -- | 9.45 | <p>Normal working, no components damaged. No hazards.</p> <p>Maximum measured temperature:</p> <p>PCB near J{U1} and J{U2}: 103.8°C;</p> <p>T1 winding (for built-in power supply): 104.2°C;</p> <p>Ambient: 50.0°C</p> <p>LED panel: 56.0°C;</p> <p>Metal enclosure (outside, near built-in power supply): 52.5°C;</p> <p>Ambient: 25.0°C</p> |
| Supplementary information: | | | | | | |
| <p>Test table is provided to record fault conditions for all applicable energy sources including Thermal burn injury.</p> <ol style="list-style-type: none"> 1) SC: Short-circuited; OC: Open-circuited. 2) The test result shown all safeguards remained effective, all safeguards complied with applicable requirements in this standard after restoration of normal operating conditions. 3) The test result shown no Class 1 or 2 energy source become Class 3 level during and after single fault condition. 4) The output connector loaded 9A load. | | | | | | |

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|--|---|------------------------------------|-------------|------------------------|-------------------------|------------------------------|-------------|
| Clause | Requirement + Test | | | | Result - Remark | | Verdict |
| M.3 | TABLE: Protection circuits for batteries provided within the equipment | | | | | | N/A |
| Is it possible to install the battery in a reverse polarity position? | | | | | -- | | — |
| Equipment Specification | Charging | | | | | | |
| | Voltage (V) | | | | Current (A) | | |
| | -- | | | | -- | | |
| Manufacturer/type | Battery specification | | | | | | |
| | Non-rechargeable batteries | | | Rechargeable batteries | | | |
| | Discharging current (A) | Unintentional charging current (A) | Charging | | Discharging current (A) | Reverse charging current (A) | |
| | | | Voltage (V) | Current (A) | | | |
| | -- | -- | -- | -- | -- | -- | -- |
| Note: The tests of M.3.2 are applicable only when above appropriate data is not available. | | | | | | | |
| Specified battery temperature (°C) | | | | | -- | | — |
| Component No. | Fault condition | Charge/discharge mode | Test time | Temp. (°C) | Current (A) | Voltage (V) | Observation |
| -- | -- | -- | -- | -- | -- | -- | -- |
| Supplementary information: | | | | | | | |
| Abbreviation: SC= short circuit; OC= open circuit NL= no chemical leakage; NS= no spillage of liquid; NE= no explosion; NF= no emission of flame or expulsion of molten metal. | | | | | | | |

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|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| M.4.2 | TABLE: Charging safeguards for equipment containing a secondary lithium battery | | | N/A | |
|---|--|----------------------|----------------------|------------|-------------|
| Maximum specified charging voltage (V) | | : -- | --- | | |
| Maximum specified charging current (A) | | : -- | --- | | |
| Highest specified charging temperature (°C) | | : -- | --- | | |
| Lowest specified charging temperature (°C) | | : -- | --- | | |
| Battery manufacturer/type | Operating and fault condition | Measurement | | | Observation |
| | | Charging voltage (V) | Charging current (A) | Temp. (°C) | |
| -- | -- | -- | -- | -- | -- |
| Supplementary information: | | | | | |
| Abbreviation: SC= short circuit; OC= open circuit; MSCV= maximum specified charging voltage; MSCC= maximum specified charging current; HSCT= highest specified charging temperature; LSCT= lowest specified charging temperature. | | | | | |

| Q.1 | TABLE: Circuits intended for interconnection with building wiring (LPS) | | | | | N/A | |
|----------------------------|--|---------------------|----------|---------------------|-------|------------|-------|
| Output Circuit | Condition | U _{oc} (V) | Time (s) | I _{sc} (A) | | S (VA) | |
| | | | | Meas. | Limit | Meas. | Limit |
| -- | -- | -- | -- | -- | -- | -- | -- |
| -- | -- | -- | -- | -- | -- | -- | -- |
| Supplementary Information: | | | | | | | |
| -- | | | | | | | |

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|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| T.2, T.3, T.4, T.5 | TABLE: Steady force test | | | | | | P |
|--|--------------------------|----------------|---|-----------|-------------------|---|---|
| Location/Part | Material | Thickness (mm) | Probe | Force (N) | Test Duration (s) | Observation | |
| Internal components near the gap between primary and secondary | -- | -- | -- | 10 | 5 | No insulation breakdown. No reduction the clearances and creepage distances. | |
| Metal enclosure (bottom and side) | Metal | Min. 1.0 | Circular plane surface 30mm in diameter | 250 | 5 | Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown. | |
| Plastic LED panel (top) | Plastic | Min. 0.7 | Circular plane surface 30mm in diameter | 250 | 5 | Enclosure remained intact, no crack/opening developed. Internal ES3, TS3 were not accessible after test. No insulation breakdown. | |
| Supplementary information: | | | | | | | |
| Each source of plastic LED panel in table 4.1.2 was applied and passed the relevant tests. | | | | | | | |

| T.6, T.9 | TABLE: Impact test | | | | P |
|--|--------------------|----------------|-------------|--|---|
| Location/Part | Material | Thickness (mm) | Height (mm) | Observation | |
| Metal enclosure (bottom and side) | Metal | Min. 1.0 | 1300 | No damaged, the hazardous live parts can not be touched. | |
| Plastic LED panel (top) | Plastic | Min. 0.7 | 1300 | No damaged, the hazardous live parts can not be touched. | |
| Supplementary information: | | | | | |
| Each source of plastic LED panel in table 4.1.2 was applied and passed the relevant tests. | | | | | |

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|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| T.7 | TABLE: Drop test | | | | N/A |
|----------------------------|------------------|----------------|-------------|-------------|-----|
| Location/Part | Material | Thickness (mm) | Height (mm) | Observation | |
| -- | -- | -- | -- | -- | |
| Supplementary information: | | | | | |
| -- | | | | | |

| T.8 | TABLE: Stress relief test | | | | | P |
|--|---------------------------|----------------|-----------------------|--------------|--|---|
| Location/Part | Material | Thickness (mm) | Oven Temperature (°C) | Duration (h) | Observation | |
| Plastic LED panel | Plastic | Min. 0.7 | 91 | 7 | No damaged, the hazardous live parts can not be touched. | |
| Supplementary information: | | | | | | |
| Each source of LED panel in table 4.1.2 was applied and passed the relevant tests. | | | | | | |

| X | TABLE: Alternative method for determining minimum clearances distances | | | N/A |
|------------------------------|--|------------------|------------------|-----|
| Clearance distanced between: | Peak of working voltage (V) | Required cl (mm) | Measured cl (mm) | |
| -- | -- | -- | -- | |
| Supplementary information: | | | | |
| -- | | | | |

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|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| 4.1.2 | TABLE: Critical components information | | | | | P |
|--|--|---------------------|--|---------------------------|--|---|
| Object / part No. | Manufacturer/ trademark | Type / model | Technical data | Standard | Mark(s) of conformity ¹⁾ | |
| AC Input connector/ AC output connector | SHENZHEN NOXTLON ELECTRONIC CO LTD | B15B- 003F540AA3 | Min. 250VAC, min. 10A, 110°C | UL 1977 IEC/EN 62368-1 | UL E251249 Tested with appliance | |
| Primary internal wire | Dongguan Hongfuwei Cable Technology Co., Ltd | H05VV-F | Min. 0.75mm ² x 3 (Including green- and-yellow wire), min. 300V | EN 50525-2-11 | VDE 40043104 | |
| (Alt.) | Dongguan Yongsheng Cables Technology Co., Ltd. | H05VV-F | Min. 0.75mm ² x 3 (Including green- and-yellow wire), min. 300V | EN 50525-2-11 | VDE 40029655 | |
| (Alt.) | Interchangeable | H05VV-F | Min. 0.75mm ² x 3 (Including green- and-yellow wire), min. 300V | EN 50525-2-11 | VDE | |
| (Alt.) | SHEN ZHEN XINXINYU ELECTRON SCIENCE TECHNOLOGY CO LTD | SJT, SJTW | Min. 18AWG x 3 (Including green- and-yellow wire), min. 105°C, min. 300V, VW-1 | UL 62 | UL E508977 | |
| (Alt.) | Dong Guan Yong Sheng Cables Technology Co Ltd | SJT, SJTW | Min. 18AWG x 3 (Including green- and-yellow wire), min. 105°C, min. 300V, VW-1 | UL 62 | UL E310857 | |
| (Alt.) | Interchangeable | SJT, SJTW | Min. 18AWG x 3 (Including green- and-yellow wire), min. 105°C, min. 300V, VW-1 | UL 62 | UL | |
| Earthing wire | Guangdong Biadi Electronics Co., Ltd. | H07V-K | Min. 0.75mm ² , min. 300V, green- and-yellow | EN 50525-2-31 | VDE 40046366 | |
| (Alt.) | Interchangeable | H07V-K | Min. 0.75mm ² , min. 300V, green- and-yellow | EN 50525-2-31 | VDE | |
| (Alt.) | DONGGUAN HONGFUWEI CABLE TECHNOLOGY CO LTD | 1015 | Min. 18AWG, min. 105°C, min. 300V, VW-1, green-and- yellow | UL 758 | UL E316005 | |

| IEC 62368-1 | | | | | |
|---|---|--|---|----------------|-----------------------|
| Clause | Requirement + Test | | Result - Remark | | Verdict |
| (Alt.) | Dong Guan Yong Sheng Cables Technology Co Ltd | 1015 | Min. 18AWG, min. 105°C, min. 300V, VW-1, green-and-yellow | UL 758 | UL E310859 |
| (Alt.) | Interchangeable | 1015 | Min. 18AWG, min. 105°C, min. 300V, VW-1 | UL 758 | UL |
| Heat shrinkable tube (Used for primary internal wire) | DONGGUAN SALIPT CO LTD | SALIPT S-901-300, SALIPT S-901-600, SALIPT S-HPT-600 | Min. 300V, VW-1, min. 125°C | UL 224 | UL E209436 |
| (Alt.) | GUANGZHOU KAIHENG NEW MATERIAL CO LTD | K-102, K-102 (CB) | Min. 300V, VW-1, min. 125°C | UL 224 | UL E321827 |
| (Alt.) | Interchangeable | Interchangeable | Min. 300V, VW-1, min. 125°C | UL 224 | UL |
| Metal enclosure | Various | Various | Aluminium alloy, min. 1.0mm thickness | IEC/EN 62368-1 | Tested with appliance |
| Plastic material of LED panel | SABIC INNOVATIVE PLASTICS US L L C | 503(f1), 503R(f1) | V-0, 80°C, min. 0.7mm thickness | UL 746, UL 94 | UL E121562 |
| PCB | HUIZHOU XIECHANG ELECTRONICS CO LTD | XC03 | V-0, 130°C | UL 796 | UL E348968 |
| (Alternative) | Shengyi Electronics Co Ltd | M42, M92 | V-0, 130°C | UL 796 | UL E117942 |
| (Alternative) | LONG YAN JINSHIYU ELECTRONIC LTD | JSY-3 | V-0, 130°C | UL 796 | UL E348782 |
| (Alternative) | Interchangeable | Interchangeable | V-0 or better, 130°C | UL 796 | UL |

| IEC 62368-1 | | | | | |
|---|--|---|---|------------------------------|--|
| Clause | Requirement + Test | | Result - Remark | | Verdict |
| LED lights | Dongguan City HCP Technology Co., Ltd. | F-0406A1-RF + F-0407A1-GF + F-0407A1-BF | For F-0406A1-RF: Red: IF=1mA, VF=1.75-2V; For F-0407A1-GF: Green: IF=1.2mA, VF=2.30-2.55V; For F-0407A1-BF: Blue: IF=0.8mA, VF=2.50-2.75V | IEC/EN 62368-1, IEC 62471 | Tested with appliance 62471 test report no.: D240521001 |
| SWITCHING POWER SUPPLY | ShenZhen Megmeet Electrical Co., Ltd. | MCP200WST-3.8-LC | Class I, 50°C, 5000m, INPUT: 100-240V~, 50/60Hz, 3.0A Max. OUTPUT: +3.8VDC, 45A | IEC 62368-1 | CB by UL, certificate no.: DK-152532-UL, CB test report no.: S01A240308 68P002 |
| Supplementary information: | | | | | |
| 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039. | | | | | |
| 2) "License available upon request" is provided in the table. | | | | | |

| IEC 62368-1 | | | |
|-------------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |


| ATTACHMENT TO TEST REPORT IEC 62368-1 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES (Audio/video, information and communication technology equipment - Part 1: Safety requirements) | | | |
|---|--|---------------------|-----|
| Differences according to: EN IEC 62368-1:2020+A11:2020 | | | |
| Attachment Form No.: EU_GD_IEC62368_1E | | | |
| Attachment Originator: UL(Demko) | | | |
| Master Attachment: 2021-02-04 | | | |
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| | CENELEC COMMON MODIFICATIONS (EN) | | P |
| | Clause numbers in the cells that are shaded light grey are clause references in EN IEC 62368-1:2020+A11:2020. All other clause numbers in that column, except for those in the paragraph below, refers to IEC 62368-1:2018. Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62368-1:2018 are prefixed "Z". | | P |
| | Add the following annexes: Annex ZA (normative) Normative references to international publications with their corresponding European publications Annex ZB (normative) Special national conditions Annex ZC (informative) A-deviations Annex ZD (informative) IEC and CENELEC code designations for flexible cords | | P |
| 1 | Modification to Clause 3 . | | |
| 3.3.19 | Sound exposure <i>Replace 3.3.19 of IEC 62368-1 with the following definitions:</i> | | N/A |
| 3.3.19.1 | momentary exposure level, MEL metric for estimating 1 s sound exposure level from the HD 483-1 S2 test signal applied to both channels, based on EN 50332-1:2013, 4.2. Note 1 to entry: MEL is measured as A-weighted levels in dB. Note 2 to entry: See B.3 of EN 50332-3:2017 for additional information. | Not Video equipment | N/A |
| 3.3.19.3 | sound exposure, E A-weighted sound pressure (<i>p</i>) squared and integrated over a stated period of time, <i>T</i> Note 1 to entry: The SI unit is Pa ² s. $E = \int_0^T p(t)^2 dt$ | | N/A |

| IEC 62368-1 | | | |
|-----------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 3.3.19.4 | <p>sound exposure level, SEL</p> <p>logarithmic measure of sound exposure relative to a reference value, E_0, typically the 1 kHz threshold of hearing in humans.</p> <p>Note 1 to entry: <i>SEL</i> is measured as A-weighted levels in dB.</p> $SEL = 10 \lg \left(\frac{E}{E_0} \right) \text{ dB}$ <p>Note 2 to entry: See B.4 of EN 50332-3:2017 for additional information.</p> | | N/A |
| 3.3.19.5 | <p>digital signal level relative to full scale, dBFS</p> <p>levels reported in dBFS are always r.m.s. Full scale level, 0 dBFS, is the level of a dc-free 997-Hz sine wave whose undithered positive peak value is positive digital full scale, leaving the code corresponding to negative digital full scale unused</p> <p>Note 1 to entry: It is invalid to use dBFS for non-r.m.s. levels. Because the definition of full scale is based on a sine wave, the level of signals with a crest factor lower than that of a sine wave may exceed 0 dBFS. In particular, square wave signals may reach +3,01 dBFS.</p> | | N/A |
| 2 | Modification to Clause 10 | | |
| 10.6 | Safeguards against acoustic energy sources Replace 10.6 of IEC 62368-1 with the following: | | N/A |
| 10.6.1.1 | <p>Introduction</p> <p>Safeguard requirements for protection against long-term exposure to excessive sound pressure levels from personal music players closely coupled to the ear are specified below. Requirements for earphones and headphones intended for use with personal music players are also covered. A personal music player is a portable equipment intended for use by an ordinary person, that:</p> <ul style="list-style-type: none"> – is designed to allow the user to listen to audio or audiovisual content / material; and – uses a listening device, such as headphones or earphones that can be worn in or on or around the ears; and – has a player that can be body worn (of a size suitable to be carried in a clothing pocket) and is intended for the user to walk around with while in continuous use (for example, on a street, in a subway, at an airport, etc.). <p>EXAMPLES Portable CD players, MP3 audio players, mobile phones with MP3 type features, PDAs or similar equipment.</p> | | N/A |

| IEC 62368-1 | | | |
|-------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | <p>Personal music players shall comply with the requirements of either 10.6.2 or 10.6.3.</p> <p>NOTE 1 Protection against acoustic energy sources from telecom applications is referenced to ITU-T P.360.</p> <p>NOTE 2 It is the intention of the Committee to allow the alternative methods for now, but to only use the dose measurement method as given in 10.6.5 in future. Therefore, manufacturers are encouraged to implement 10.6.5 as soon as possible.</p> <p>Listening devices sold separately shall comply with the requirements of 10.6.6. These requirements are valid for music or video mode only. The requirements do not apply to: – professional equipment;</p> <p>NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment.</p> <p>– hearing aid equipment and other devices for assistive listening; – the following type of analogue personal music players: • long distance radio receiver (for example, a multiband radio receiver or world band radio receiver, an AM radio receiver), and • cassette player/recorder;</p> <p>NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies.</p> <p>– a player while connected to an external amplifier that does not allow the user to walk around while in use.</p> <p>For equipment that is clearly designed or intended primarily for use by children, the limits of the relevant toy standards may apply.</p> <p>The relevant requirements are given in EN 71-1:2011, 4.20 and the related tests methods and measurement distances apply.</p> | | |
| 10.6.1.2 | <p>Non-ionizing radiation from radio frequencies in the range 0 to 300 GHz</p> <p>The amount of non-ionizing radiation is regulated by European Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz). For intentional radiators, ICNIRP guidelines should be taken into account for Limiting Exposure to Time-Varying Electric, Magnetic, and</p> | | N/A |

| IEC 62368-1 | | | |
|-----------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | Electromagnetic Fields (up to 300 GHz). For hand-held and body mounted devices, attention is drawn to EN 50360 and EN 50566. | | |
| 10.6.2 | Classification of devices without the capacity to estimate sound dose | | N/A |
| 10.6.2.1 | <p>General</p> <p>This standard is transitioning from short-term based (30 s) requirements to long-term based (40 hour) requirements. These clauses remain in effect only for devices that do not comply with sound dose estimation as stipulated in EN 50332-3.</p> <p>For classifying the acoustic output $L_{Aeq,T}$, measurements are based on the A-weighted equivalent sound pressure level over a 30 s period.</p> <p>For music where the average sound pressure (long term $L_{Aeq,T}$) measured over the duration of the song is lower than the average produced by the programme simulation noise, measurements may be done over the duration of the complete song. In this case, T becomes the duration of the song.</p> <p>NOTE Classical music, acoustic music and broadcast typically has an average sound pressure (long term $L_{Aeq,T}$) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the content and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song does not exceed the required limit. For example, if the player is set with the programme simulation noise to 85 dB, but the average music level of the song is only 65 dB, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dB.</p> | | N/A |
| 10.6.2.2 | <p>RS1 limits (to be superseded, see 10.6.3.2)</p> <p>RS1 is a class 1 acoustic energy source that does not exceed the following:</p> <ul style="list-style-type: none"> – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the $L_{Aeq,T}$ acoustic output shall be ≤ 85 dB when playing the fixed “programme simulation noise” described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 27 mV (analogue interface) or -25 dBFS (digital interface) when playing the fixed “programme simulation noise” described in EN 50332-1. – The RS1 limits will be updated for all devices as per 10.6.3.2. | | N/A |

| IEC 62368-1 | | | |
|-------------|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 10.6.2.3 | <p>RS2 limits (to be superseded, see 10.6.3.3)</p> <p>RS2 is a class 2 acoustic energy source that does not exceed the following:</p> <ul style="list-style-type: none"> – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or when the combination of player and listening device is known by other means such as setting or automatic 130 detection, the $L_{Aeq,T}$ acoustic output shall be ≤ 100 dB(A) when playing the fixed “programme simulation noise” as described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 150 mV (analogue interface) or -10 dBFS (digital interface) when playing the fixed “programme simulation noise” as described in EN 50332-1. | | N/A |
| 10.6.2.4 | <p>RS3 limits</p> <p>RS3 is a class 3 acoustic energy source that exceeds RS2 limits.</p> | | N/A |
| 10.6.3 | Classification of devices (new) | | N/A |
| 10.6.3.1 | <p>General</p> <p>Previous limits (10.6.2) created abundant false negative and false positive PMP sound level warnings. New limits, compliant with The Commission Decision of 23 June 2009, are given below.</p> | | N/A |
| 10.6.3.2 | <p>RS1 limits (new)</p> <p>RS1 is a class 1 acoustic energy source that does not exceed the following:</p> <ul style="list-style-type: none"> – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the $L_{Aeq,T}$ acoustic output shall be ≤ 80 dB when playing the fixed “programme simulation noise” described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output voltage shall be ≤ 15 mV (analogue interface) or -30 dBFS (digital interface) when playing the fixed “programme simulation noise” described in EN 50332-1. | | N/A |

| IEC 62368-1 | | | |
|-------------|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 10.6.3.3 | <p>RS2 limits (new)</p> <p>RS2 is a class 2 acoustic energy source that does not exceed the following:</p> <ul style="list-style-type: none"> – for equipment provided as a package (player with its listening device), and with a proprietary connector between the player and its listening device, or where the combination of player and listening device is known by other means such as setting or automatic detection, the weekly sound exposure level, as described in EN 50332-3, shall be ≤ 80 dB when playing the fixed "programme simulation noise" described in EN 50332-1. – for equipment provided with a standardized connector (for example, a 3,5 phone jack) that allows connection to a listening device for general use, the unweighted r.m.s. output level, integrated over one week, as described in EN50332-3, shall be ≤ 15 mV (analogue interface) or -30 dBFS (digital interface) when playing the fixed "programme simulation noise" described in EN 50332-1. | | N/A |
| 10.6.4 | <p>Requirements for maximum sound exposure</p> | | N/A |
| 10.6.4.1 | <p>Measurement methods</p> <p>All volume controls shall be turned to maximum during tests.</p> <p>Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable.</p> | | N/A |
| 10.6.4.2 | <p>Protection of persons</p> <p>Except as given below, protection requirements for parts accessible to ordinary persons, instructed persons and skilled persons are given in 4.3.</p> <p>NOTE 1 Volume control is not considered a safeguard.</p> <p>Between RS2 and an ordinary person, the basic safeguard may be replaced by an instructional safeguard in accordance with Clause F.5, except that the instructional safeguard shall be placed on the equipment, or on the packaging, or in the instruction manual.</p> <p>Alternatively, the instructional safeguard may be given through the equipment display during use.</p> <p>The elements of the instructional safeguard shall be as follows:</p> <ul style="list-style-type: none"> – element 1a: the symbol , IEC 60417-6044 (2011-01) – element 2: "High sound pressure" or equivalent wording – element 3: "Hearing damage risk" or equivalent wording | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| | <p>– element 4: “Do not listen at high volume levels for long periods.” or equivalent wording</p> <p>An equipment safeguard shall prevent exposure of an ordinary person to an RS2 source without intentional physical action from the ordinary person and shall automatically return to an output level not exceeding what is specified for an RS1 source when the power is switched off.</p> <p>The equipment shall provide a means to actively inform the user of the increased sound level when the equipment is operated with an output exceeding RS1. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an output exceeding RS1. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time.</p> <p>NOTE 2 Examples of means include visual or audible signals. Action from the user is always needed.</p> <p>NOTE 3 The 20 h listening time is the accumulative listening time, independent of how often and how long the personal music player has been switched off.</p> <p>A skilled person shall not be unintentionally exposed to RS3.</p> | | |
| 10.6.5 | Requirements for dose-based systems | | N/A |
| 10.6.5.1 | <p>General requirements</p> <p>Personal music players shall give the warnings as provided below when tested according to EN 50332-3, using the limits from this clause.</p> <p>The manufacturer may offer optional settings to allow the users to modify when and how they wish to receive the notifications and warnings to promote a better user experience without defeating the safeguards. This allows the users to be informed in a method that best meets their physical capabilities and device usage needs. If such optional settings are offered, an administrator (for example, parental restrictions, business/educational administrators, etc.) shall be able to lock any optional settings into a specific configuration.</p> <p>The personal music player shall be supplied with easy to understand explanation to the user of the dose management system, the risks involved, and how to use the system safely. The user shall be made aware that other sources may significantly contribute to their sound exposure, for example work, transportation, concerts, clubs, cinema, car races, etc.</p> | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 10.6.5.2 | <p>Dose-based warning and requirements</p> <p>When a dose of 100 % <i>CSD</i> is reached, and at least at every 100 % further increase of <i>CSD</i>, the device shall warn the user and require an acknowledgement. In case the user does not acknowledge, the output level shall automatically decrease to compliance with class RS1.</p> <p>The warning shall at least clearly indicate that listening above 100 % <i>CSD</i> leads to the risk of hearing damage or loss.</p> | | N/A |
| 10.6.5.3 | <p>Exposure-based requirements</p> <p>With only dose-based requirements, cause and effect could be far separated in time, defying the purpose of educating users about safe listening practice. In addition to dose-based requirements, a PMP shall therefore also put a limit to the short-term sound level a user can listen at.</p> <p>The exposure-based limiter (EL) shall automatically reduce the sound level not to exceed 100 dB(A) or 150 mV integrated over the past 180 s, based on methodology defined in EN 50332-3. The EL settling time (time from starting level reduction to reaching target output) shall be 10 s or faster.</p> <p>Test of EL functionality is conducted according to EN 50332-3, using the limits from this clause. For equipment provided as a package (player with its listening device), the level integrated over 180 s shall be 100 dB or lower. For equipment provided with a standardized connector, the unweighted level integrated over 180 s shall be no more than 150 mV for an analogue interface and no more than -10 dBFS for a digital interface.</p> <p>NOTE In case the source is known not to be music (or test signal), the EL may be disabled.</p> | | N/A |
| 10.6.6 | Requirements for listening devices (headphones, earphones, etc.) | | N/A |
| 10.6.6.1 | <p>Corded listening devices with analogue input</p> <p>With 94 dB L_{Aeq} acoustic pressure output of the listening device, and with the volume and sound settings in the listening device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the input voltage of the listening device when playing the fixed “programme simulation noise” as described in EN 50332-1 shall be ≥ 75 mV.</p> <p>NOTE The values of 94 dB and 75 mV correspond with 85 dB and 27 mV or 100 dB and 150 mV.</p> | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 10.6.6.2 | Corded listening devices with digital input With any playing device playing the fixed “programme simulation noise” described in EN 50332-1, and with the volume and sound settings in the listening device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output, the $L_{Aeq,T}$ acoustic output of the listening device shall be ≤ 100 dB with an input signal of -10 dBFS. | | N/A |
| 10.6.6.3 | Cordless listening devices In cordless mode, – with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and – respecting the cordless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and – with volume and sound settings in the receiving device (for example, built-in volume level control, additional sound features like equalization, etc.) set to the combination of positions that maximize the measured acoustic output for the above mentioned programme simulation noise, the $L_{Aeq,T}$ acoustic output of the listening device shall be ≤ 100 dB with an input signal of -10 dBFS. | | N/A |
| 10.6.6.4 | Measurement method <i>Measurements shall be made in accordance with EN 50332-2 as applicable.</i> | | N/A |
| 3 | Modification to the whole document | | |

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|-------------------------|---|-------------------------|-----------------------|-------------|-----------------------|-------|--------------|---|--------------|---------|--------|---------|--------|--------|------|-------|--------------|---------|------|-------------------------|--------|-------------|--------------|-------------------------|--------|---------|--------|---------|------|------------|------|------------|------|------------|------|---------|------|-------|------|-----------|-----------------------|-------|--------|-------|------|---------|----------------------|-----------|------|--------------------|-----------------------|--------|--------|--------|--------|---------|--------|-------|------|-------|------|--|--|--|--|---|
| | <p>Delete all the “country” notes in the reference document according to the following list:</p> <table border="1"> <tbody> <tr> <td>0.2.1</td> <td>Note 1 and 2</td> <td>1</td> <td>Note 4 and 5</td> <td>3.3.8.1</td> <td>Note 2</td> </tr> <tr> <td>3.3.8.3</td> <td>Note 1</td> <td>4.1.15</td> <td>Note</td> <td>4.7.3</td> <td>Note 1 and 2</td> </tr> <tr> <td>5.2.2.2</td> <td>Note</td> <td>5.4.2.3.2.2 Table 12</td> <td>Note c</td> <td>5.4.2.3.2.4</td> <td>Note 1 and 3</td> </tr> <tr> <td>5.4.2.3.2.4 Table 13</td> <td>Note 2</td> <td>5.4.2.5</td> <td>Note 2</td> <td>5.4.5.1</td> <td>Note</td> </tr> <tr> <td>5.4.10.2.1</td> <td>Note</td> <td>5.4.10.2.2</td> <td>Note</td> <td>5.4.10.2.3</td> <td>Note</td> </tr> <tr> <td>5.5.2.1</td> <td>Note</td> <td>5.5.6</td> <td>Note</td> <td>5.8.4.2.1</td> <td>Note 2 and 3 and 4</td> </tr> <tr> <td>5.6.8</td> <td>Note 2</td> <td>5.7.6</td> <td>Note</td> <td>5.7.7.1</td> <td>Note 1 and Note 2</td> </tr> <tr> <td>8.5.4.2.3</td> <td>Note</td> <td>10.2.1 Table 39</td> <td>Note 3 and 4 and 5</td> <td>10.5.3</td> <td>Note 2</td> </tr> <tr> <td>10.6.1</td> <td>Note 3</td> <td>F.3.3.6</td> <td>Note 3</td> <td>Y.4.1</td> <td>Note</td> </tr> <tr> <td>Y.4.5</td> <td>Note</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | | 0.2.1 | Note 1 and 2 | 1 | Note 4 and 5 | 3.3.8.1 | Note 2 | 3.3.8.3 | Note 1 | 4.1.15 | Note | 4.7.3 | Note 1 and 2 | 5.2.2.2 | Note | 5.4.2.3.2.2 Table 12 | Note c | 5.4.2.3.2.4 | Note 1 and 3 | 5.4.2.3.2.4 Table 13 | Note 2 | 5.4.2.5 | Note 2 | 5.4.5.1 | Note | 5.4.10.2.1 | Note | 5.4.10.2.2 | Note | 5.4.10.2.3 | Note | 5.5.2.1 | Note | 5.5.6 | Note | 5.8.4.2.1 | Note 2 and 3 and 4 | 5.6.8 | Note 2 | 5.7.6 | Note | 5.7.7.1 | Note 1 and Note 2 | 8.5.4.2.3 | Note | 10.2.1 Table 39 | Note 3 and 4 and 5 | 10.5.3 | Note 2 | 10.6.1 | Note 3 | F.3.3.6 | Note 3 | Y.4.1 | Note | Y.4.5 | Note | | | | | P |
| 0.2.1 | Note 1 and 2 | 1 | Note 4 and 5 | 3.3.8.1 | Note 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.3.8.3 | Note 1 | 4.1.15 | Note | 4.7.3 | Note 1 and 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.2.2.2 | Note | 5.4.2.3.2.2 Table 12 | Note c | 5.4.2.3.2.4 | Note 1 and 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.4.2.3.2.4 Table 13 | Note 2 | 5.4.2.5 | Note 2 | 5.4.5.1 | Note | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.4.10.2.1 | Note | 5.4.10.2.2 | Note | 5.4.10.2.3 | Note | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.5.2.1 | Note | 5.5.6 | Note | 5.8.4.2.1 | Note 2 and 3 and 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.6.8 | Note 2 | 5.7.6 | Note | 5.7.7.1 | Note 1 and Note 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8.5.4.2.3 | Note | 10.2.1 Table 39 | Note 3 and 4 and 5 | 10.5.3 | Note 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10.6.1 | Note 3 | F.3.3.6 | Note 3 | Y.4.1 | Note | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Y.4.5 | Note | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Modification to Clause 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | <p>Add the following note:</p> <p><i>NOTE Z1 The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2011/65/EU.</i></p> | | | | | P | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Modification to 4.Z1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 4.Z1 | <p>Add the following new subclause after 4.9:</p> <p>To protect against excessive current, short-circuits and earth faults in circuits connected to an a.c. mains, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c):</p> <p>a) except as detailed in b) and c), protective devices necessary to comply with the requirements of B.3.1 and B.4 shall be included as parts of the equipment;</p> <p>b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation;</p> <p>c) it is permitted for pluggable equipment type B or permanently connected equipment, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions.</p> <p>If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for pluggable equipment type A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.</p> | Added. | P |
| 6 | Modification to 5.4.2.3.2.4 | | |
| 5.4.2.3.2.4 | <p>Add the following to the end of this subclause:</p> <p>The requirement for interconnection with external circuit is in addition given in EN 50491-3:2009.</p> | No external circuits. | N/A |
| 7 | Modification to 10.2.1 | | |
| 10.2.1 | <p>Add the following to ^{c)} and ^{d)} in table 39:</p> <p>For additional requirements, see 10.5.1.</p> | No such radiation from the equipment. | N/A |

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| 8 | Modification to 10.5.1 | | |
| 10.5.1 | <p>Add the following after the first paragraph:</p> <p>For RS 1 compliance is checked by measurement under the following conditions:</p> <p>In addition to the normal operating conditions, all controls adjustable from the outside by hand, by any object such as a tool or a coin, and those internal adjustments or pre-sets which are not locked in a reliable manner, are adjusted so as to give maximum radiation whilst maintaining an intelligible picture for 1 h, at the end of which the measurement is made.</p> <p>NOTE Z1 Soldered joints and paint lockings are examples of adequate locking.</p> <p>The dose-rate is determined by means of a radiation monitor with an effective area of 10 cm², at any point 10 cm from the outer surface of the apparatus.</p> <p>Moreover, the measurement shall be made under fault conditions causing an increase of the high voltage, provided an intelligible picture is maintained for 1 h, at the end of which the measurement is made.</p> <p>For RS1, the dose-rate shall not exceed 1 µSv/h taking account of the background level.</p> <p>NOTE Z2 These values appear in Directive 96/29/Euratom of 13 May 1996.</p> | No such radiation from the equipment. | N/A |
| 9 | Modification to G.7.1 | | |
| G.7.1 | <p>Add the following note:</p> <p>NOTE Z1 The harmonized code designations corresponding to the IEC cord types are given in Annex ZD.</p> | | P |

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| Clause | Requirement + Test | Result - Remark | Verdict |

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| 10 | Modification to Bibliography | | |
| | <p>Add the following notes for the standards indicated:</p> <p>IEC 60130-9 NOTE Harmonized as EN 60130-9. IEC 60269-2 NOTE Harmonized as HD 60269-2. IEC 60309-1 NOTE Harmonized as EN 60309-1. IEC 60364 NOTE some parts harmonized in HD 384/HD 60364 series. IEC 60601-2-4 NOTE Harmonized as EN 60601-2-4. IEC 60664-5 NOTE Harmonized as EN 60664-5. IEC 61032:1997 NOTE Harmonized as EN 61032:1998 (not modified). IEC 61508-1 NOTE Harmonized as EN 61508-1. IEC 61558-2-1 NOTE Harmonized as EN 61558-2-1. IEC 61558-2-4 NOTE Harmonized as EN 61558-2-4. IEC 61558-2-6 NOTE Harmonized as EN 61558-2-6. IEC 61643-1 NOTE Harmonized as EN 61643-1. IEC 61643-21 NOTE Harmonized as EN 61643-21. IEC 61643-311 NOTE Harmonized as EN 61643-311. IEC 61643-321 NOTE Harmonized as EN 61643-321. IEC 61643-331 NOTE Harmonized as EN 61643-331.</p> | | N/A |
| 11 | ADDITION OF ANNEXES | | |
| ZB | ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN) | | P |
| 4.1.15 | <p>Denmark, Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added: Class I pluggable equipment type A intended for connection to other equipment or a network shall, if safety relies on connection to reliable earthing or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment shall be connected to an earthed mains socket-outlet.</p> <p>The marking text in the applicable countries shall be as follows:</p> <p>In Denmark: "Apparatets stikprop skal tilsluttes en stikkontakt med jord som giver forbindelse til stikproppens jord." In Finland: "Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan" In Norway: "Apparatet må tilkoples jordet stikkontakt" In Sweden: "Apparaten skall anslutas till jordat uttag"</p> | N/A | |

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| 4.7.3 | <p>United Kingdom</p> <p>To the end of the subclause the following is added:</p> <p>The torque test is performed using a socket-outlet complying with BS 1363, and the plug part shall be assessed to the relevant clauses of BS 1363. Also see Annex G.4.2 of this annex</p> | | N/A |
| 5.2.2.2 | <p>Denmark</p> <p>After the 2nd paragraph add the following:</p> <p>A warning (marking safeguard) for high touch current is required if the touch current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p> | No high touch current. | N/A |
| 5.4.11.1 and Annex G | <p>Finland and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>For separation of the telecommunication network from earth the following is applicable:</p> <p>If this insulation is solid, including insulation forming part of a component, it shall at least consist of either</p> <ul style="list-style-type: none"> two layers of thin sheet material, each of which shall pass the electric strength test below, or one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. <p>If this insulation forms part of a semiconductor component (e.g. an optocoupler), there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that clearances and creepage distances do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition</p> <ul style="list-style-type: none"> passes the tests and inspection criteria of 5.4.8 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 5.4.9 shall be performed using 1,5 kV), <p>and</p> <ul style="list-style-type: none"> is subject to routine testing for electric strength during manufacturing, using a test voltage of 1,5 kV. <p>It is permitted to bridge this insulation with a capacitor complying with EN 60384-14:2005, subclass Y2.</p> | No TNV circuits. | N/A |

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| | <p>A capacitor classified Y3 according to EN 60384-14:2005, may bridge this insulation under the following conditions:</p> <ul style="list-style-type: none"> the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 60384-14, which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in 5.4.11; the additional testing shall be performed on all the test specimens as described in EN 60384-14; <p>the impulse test of 2,5 kV is to be performed before the endurance test in EN 60384-14, in the sequence of tests as described in EN 60384-14.</p> | | |
| 5.5.2.1 | <p>Norway</p> <p>After the 3rd paragraph the following is added:</p> <p>Due to the IT power system used, capacitors are required to be rated for the applicable line-to-line voltage (230 V).</p> | | N/A |
| 5.5.6 | <p>Finland, Norway and Sweden</p> <p>To the end of the subclause the following is added:</p> <p>Resistors used as basic safeguard or bridging basic insulation in class I pluggable equipment type A shall comply with G.10.1 and the test of G.10.2.</p> | No such resistors. | N/A |
| 5.6.1 | <p>Denmark</p> <p>Add to the end of the subclause Due to many existing installations where the socket-outlets can be protected with fuses with higher rating than the rating of the socket-outlets the protection for pluggable equipment type A shall be an integral part of the equipment. <i>Justification:</i> In Denmark an existing 13 A socket outlet can be protected by a 20 A fuse.</p> | | N/A |
| 5.6.4.2.1 | <p>Ireland and United Kingdom</p> <p>After the indent for pluggable equipment type A, the following is added: – the protective current rating is taken to be 13 A, this being the largest rating of fuse used in the mains plug.</p> | | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.6.4.2.1 | <p>France</p> <p>After the indent for pluggable equipment type A, the following is added: – in certain cases, the protective current rating of the circuit supplied from the mains is taken as 20 A instead of 16 A.</p> | | N/A |
| 5.6.5.1 | <p>To the second paragraph the following is added:</p> <p>The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current over 10 A and up to and including 13 A is: 1,25 mm² to 1,5 mm² in cross-sectional area.</p> | See above. | N/A |
| 5.6.8 | <p>Norway</p> <p>To the end of the subclause the following is added: Equipment connected with an earthed mains plug is classified as class I equipment. See the Norway marking requirement in 4.1.15. The symbol IEC 60417-6092, as specified in F.3.6.2, is accepted.</p> | | N/A |
| 5.7.6 | <p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>The installation instruction shall be affixed to the equipment if the protective conductor current exceeds the limits of 3,5 mA a.c. or 10 mA d.c.</p> | No high protective conductor current. | N/A |
| 5.7.6.2 | <p>Denmark</p> <p>To the end of the subclause the following is added: The warning (marking safeguard) for high touch current is required if the touch current or the protective current exceed the limits of 3,5 mA .</p> | No exceed 3.5 mA | N/A |
| 5.7.7.1 | <p>Norway and Sweden</p> <p>To the end of the subclause the following is added: The screen of the television distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation needs to be isolated from the screen of a cable distribution system.</p> <p>It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by a retailer, for example.</p> <p>The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in:</p> <p>“Apparatus connected to the protective earthing of</p> | Not such system. | N/A |

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| Clause | Requirement + Test | Result - Remark | Verdict |
| | <p>the building installation through the mains connection or through other apparatus with a connection to protective earthing – and to a television distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a television distribution system therefore has to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)”</p> <p>NOTE In Norway, due to regulation for CATV-installations, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min.</p> <p>Translation to Norwegian (the Swedish text will also be accepted in Norway):</p> <p>“Apparater som er koplet til beskyttelsesjord via nettplugg og/eller via annet jordtilkoplede utstyr – og er tilkoplede et koaksialbasert kabel-TV nett, kan forårsake brannfare. For å unngå dette skal det ved tilkopling av apparater til kabel-TV nett installeres en galvanisk isolator mellom apparatet og kabel-TV nettet.”</p> <p>Translation to Swedish: ”Apparater som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av apparaten till kabel-TV nät galvanisk isolator finnas mellan apparaten och kabel-TV nätet.”.</p> | | |
| 8.5.4.2.3 | <p>United Kingdom</p> <p>Add the following after the 2nd dash bullet in 3rd paragraph:</p> <p>An emergency stop system complying with the requirements of IEC 60204-1 and ISO 13850 is required where there is a risk of personal injury.</p> | No emergency stop system | N/A |

| IEC 62368-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |
| B.3.1 and B.4 | <p>Ireland and United Kingdom</p> <p>The following is applicable:</p> <p>To protect against excessive currents and short-circuits in the primary circuit of direct plug-in equipment, tests according to Annexes B.3.1 and B.4 shall be conducted using an external miniature circuit breaker complying with EN 60898-1, Type B, rated 32A. If the equipment does not pass these tests, suitable protective devices shall be included as an integral part of the direct plug-in equipment, until the requirements of Annexes B.3.1 and B.4 are met</p> | Approval current fuse used. | P |
| G.4.2 | <p>Denmark</p> <p>To the end of the subclause the following is added:</p> <p>Supply cords of single phase appliances having a rated current not exceeding 13 A shall be provided with a plug according to DS 60884-2-D1:2011.</p> <p>CLASS I EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a.</p> <p>If a single-phase equipment having a RATED CURRENT exceeding 13 A or if a polyphase equipment is provided with a supply cord with a plug, this plug shall be in accordance with the standard sheets DK 6-1a in DS 60884-2-D1 or EN 60309-2.</p> <p>Mains socket outlets intended for providing power to Class II apparatus with a rated current of 2,5 A shall be in accordance DS 60884-2-D1:2011 standard sheet DKA 1-4a.</p> <p>Other current rating socket outlets shall be in compliance with Standard Sheet DKA 1-3a or DKA 1-1c.</p> <p>Mains socket-outlets with earth shall be in compliance with DS 60884-2-D1:2011 Standard Sheet DK 1-3a, DK 1-1c, DK1-1d, DK 1-5a or DK 1-7a</p> <p>Justification: Heavy Current Regulations, Section 6c</p> | | N/A |

| IEC 62368-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |
| G.4.2 | <p>United Kingdom</p> <p>To the end of the subclause the following is added:</p> <p>The plug part of direct plug-in equipment shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16, and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.</p> | | N/A |
| G.7.1 | <p>United Kingdom</p> <p>To the first paragraph the following is added:</p> <p>Equipment which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord shall be fitted with a 'standard plug' in accordance with the Plugs and Sockets etc. (Safety) Regulations 1994, Statutory Instrument 1994 No. 1768, unless exempted by those regulations.</p> <p>NOTE "Standard plug" is defined in SI 1768:1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.</p> | To be evaluated during end product used. | N/A |
| G.7.1 | <p>Ireland</p> <p>To the first paragraph the following is added:</p> <p>Apparatus which is fitted with a flexible cable or cord shall be provided with a plug in accordance with Statutory Instrument 525: 1997, "13 A Plugs and Conversion Adapters for Domestic Use Regulations: 1997. S.I. 525 provides for the recognition of a standard of another Member State which is equivalent to the relevant Irish Standard</p> | To be evaluated during end product used. | N/A |
| G.7.2 | <p>Ireland and United Kingdom</p> <p>To the first paragraph the following is added:</p> <p>A power supply cord with a conductor of 1,25 mm² is allowed for equipment which is rated over 10 A and up to and including 13 A.</p> | To be evaluated during end product used. | N/A |

| IEC 62368-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

| ZC | ANNEX ZC, NATIONAL DEVIATIONS (EN) | | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--------------------------|-------------------|--|-----|---------|----------------------------|--|--|-----------------------|--------------|---------|---|--------------|----------------------|--|--------------|----------------------|-------------------------------|--|--|--------------|--------------|---------|--|--------------|---------|---|--------------|---------|--|--------------|---------|--------------------------------------|--|--|------------------------------------|--------------|---------|---|--------------|----------|---|--------------|-----------|---|--|--|--|--|--------------------------|---|--|--------------------------|--|-----|
| 10.5.2 | <p>Germany The following requirement applies: For the operation of any cathode ray tube intended for the display of visual images operating at an acceleration voltage exceeding 40 kV, authorization is required, or application of type approval (Bauartzulassung) and marking. <i>Justification:</i> German ministerial decree against ionizing radiation (Röntgenverordnung), in force since 2002-07-01, implementing the European Directive 96/29/EURATOM. NOTE Contact address: Physikalisch-Technische Bundesanstalt, Bundesallee 100, D-38116 Braunschweig, Tel.: Int+49-531-592-6320, Internet: http://www.ptb.de</p> | Not such equipment. | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ZD | IEC and CENELEC CODE DESIGNATIONS FOR FLEXIBLE CORDS (EN) | | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <thead> <tr> <th rowspan="2">Type of flexible cord</th> <th colspan="2">Code designations</th> </tr> <tr> <th>IEC</th> <th>CENELEC</th> </tr> </thead> <tbody> <tr> <td colspan="3">PVC insulated cords</td> </tr> <tr> <td>Flat twin tinsel cord</td> <td>60227 IEC 41</td> <td>H03VH-Y</td> </tr> <tr> <td>Light polyvinyl chloride sheathed flexible cord</td> <td>60227 IEC 52</td> <td>H03VV-F H03VVH2-F</td> </tr> <tr> <td>Ordinary polyvinyl chloride sheathed flexible cord</td> <td>60227 IEC 53</td> <td>H05VV-F H05VVH2-F</td> </tr> <tr> <td colspan="3">Rubber insulated cords</td> </tr> <tr> <td>Braided cord</td> <td>60245 IEC 51</td> <td>H03RT-F</td> </tr> <tr> <td>Ordinary tough rubber sheathed flexible cord</td> <td>60245 IEC 53</td> <td>H05RR-F</td> </tr> <tr> <td>Ordinary polychloroprene sheathed flexible cord</td> <td>60245 IEC 57</td> <td>H05RN-F</td> </tr> <tr> <td>Heavy polychloroprene sheathed flexible cord</td> <td>60245 IEC 66</td> <td>H07RN-F</td> </tr> <tr> <td colspan="3">Cords having high flexibility</td> </tr> <tr> <td>Rubber insulated and sheathed cord</td> <td>60245 IEC 86</td> <td>H03RR-H</td> </tr> <tr> <td>Rubber insulated, crosslinked PVC sheathed cord</td> <td>60245 IEC 87</td> <td>H03RV4-H</td> </tr> <tr> <td>Crosslinked PVC insulated and sheathed cord</td> <td>60245 IEC 88</td> <td>H03V4V4-H</td> </tr> <tr> <td colspan="3">Cords insulated and sheathed with halogen-free thermoplastic compounds</td> </tr> <tr> <td>Light halogen-free thermoplastic insulated and sheathed flexible cords</td> <td></td> <td>H03Z1Z1-F H03Z1Z1H2-F</td> </tr> <tr> <td>Ordinary halogen-free thermoplastic insulated and sheathed flexible cords</td> <td></td> <td>H05Z1Z1-F H05Z1Z1H2-F</td> </tr> </tbody> </table> | Type of flexible cord | Code designations | | IEC | CENELEC | PVC insulated cords | | | Flat twin tinsel cord | 60227 IEC 41 | H03VH-Y | Light polyvinyl chloride sheathed flexible cord | 60227 IEC 52 | H03VV-F H03VVH2-F | Ordinary polyvinyl chloride sheathed flexible cord | 60227 IEC 53 | H05VV-F H05VVH2-F | Rubber insulated cords | | | Braided cord | 60245 IEC 51 | H03RT-F | Ordinary tough rubber sheathed flexible cord | 60245 IEC 53 | H05RR-F | Ordinary polychloroprene sheathed flexible cord | 60245 IEC 57 | H05RN-F | Heavy polychloroprene sheathed flexible cord | 60245 IEC 66 | H07RN-F | Cords having high flexibility | | | Rubber insulated and sheathed cord | 60245 IEC 86 | H03RR-H | Rubber insulated, crosslinked PVC sheathed cord | 60245 IEC 87 | H03RV4-H | Crosslinked PVC insulated and sheathed cord | 60245 IEC 88 | H03V4V4-H | Cords insulated and sheathed with halogen-free thermoplastic compounds | | | Light halogen-free thermoplastic insulated and sheathed flexible cords | | H03Z1Z1-F H03Z1Z1H2-F | Ordinary halogen-free thermoplastic insulated and sheathed flexible cords | | H05Z1Z1-F H05Z1Z1H2-F | | N/A |
| Type of flexible cord | Code designations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | IEC | CENELEC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PVC insulated cords | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flat twin tinsel cord | 60227 IEC 41 | H03VH-Y | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Light polyvinyl chloride sheathed flexible cord | 60227 IEC 52 | H03VV-F H03VVH2-F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ordinary polyvinyl chloride sheathed flexible cord | 60227 IEC 53 | H05VV-F H05VVH2-F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rubber insulated cords | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Braided cord | 60245 IEC 51 | H03RT-F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ordinary tough rubber sheathed flexible cord | 60245 IEC 53 | H05RR-F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ordinary polychloroprene sheathed flexible cord | 60245 IEC 57 | H05RN-F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heavy polychloroprene sheathed flexible cord | 60245 IEC 66 | H07RN-F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cords having high flexibility | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rubber insulated and sheathed cord | 60245 IEC 86 | H03RR-H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rubber insulated, crosslinked PVC sheathed cord | 60245 IEC 87 | H03RV4-H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Crosslinked PVC insulated and sheathed cord | 60245 IEC 88 | H03V4V4-H | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cords insulated and sheathed with halogen-free thermoplastic compounds | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Light halogen-free thermoplastic insulated and sheathed flexible cords | | H03Z1Z1-F H03Z1Z1H2-F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ordinary halogen-free thermoplastic insulated and sheathed flexible cords | | H05Z1Z1-F H05Z1Z1H2-F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| IEC 62368-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

ATTACHMENT TO TEST REPORT
IEC 62368-1
U.S.A. AND CANADA NATIONAL DIFFERENCES
(Audio/video, information and communication technology equipment – Part 1: Safety requirements)

| | |
|---------------------------------------|---------------------------|
| Differences according to | CSA/UL 62368-1:2019 |
| TRF template used: | IECEE OD-2020-F3, Ed. 1.1 |
| Attachment Form No. | US_CA_ND_IEC62368_1E |
| Attachment Originator | UL(US) |
| Master Attachment | Dated 2022-03-04 |

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IEC 62368-1 - US and Canadian National Differences
Special National Conditions based on Regulations and Other National Differences

| | | | |
|-----------------------|--|---|-----|
| 1 (1DV.1) (1.3) | All equipment is to be designed to allow installation in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, the Canadian Electrical Code (CEC), Part 1, CAN/CSA C22.1, and when applicable, the National Electrical Safety Code, IEEE C2. Also, for such equipment marked or otherwise identified, installation is allowed per the Standard for the Protection of Information Technology Equipment, ANSI/NFPA 75. | In accordance with the National Electrical Code (NEC) and the Canadian Electrical Code (CEC) part 1 CAN/CSA C22.1, ANSI/NFPA 70, and unless marked or otherwise identified, the Standard for Electronic Computer/Data-Processing Equipment, ANSI/NFPA 75. | P |
| 1 (1DV.2.1) | This standard includes additional requirements for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities. See Annex DVB. | Added. | N/A |
| 1 (1DV.2.2) | This standard includes additional requirements for equipment intended for mounting under cabinets. See Annex DVC. | | N/A |
| 1 (1DV.2.3) | IEC 62368-3 clause 5 for DC power transfer at ES1 or ES2 voltage levels is considered informative. IEC 62368-3 clause 6 for remote power feeding telecommunication (RFT) circuits is considered normative (see ITU K.50). Alternatively, equipment with RFT circuits are given in either UL 2391 or CSA/UL 60950-21. RFT-C circuits are not permitted unless the RFT-C circuit complies with RFT-V limits ($\leq 200V$ per conductor to earth). | | N/A |
| 1 (1DV.3) | For protection against direct lightning strikes, reference is made to NFPA 780 and CAN/CSA-B72 for additional requirements. | Not such equipment | N/A |

| IEC 62368-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |
| 1 (DV.5) | Additional requirements apply to some forms of power distribution equipment, including sub-assemblies. | | N/A |
| 4.1 (4.1.17) | For lengths exceeding 3.05 m, external interconnecting cable assemblies are required to be a suitable cable type (e.g., DP, CL2) specified in the NEC. | No such construction. | N/A |
| | For lengths 3.05 m or less, external interconnecting cable assemblies that are not types specified in the NEC generally are required to have special construction features and identification markings. | | N/A |
| 4.6 (4.6.2) | Wire-wrap terminals have special construction and performance requirements. | | N/A |
| 4.8 (4.8.3, 4.8.4.5, 4.8.5) | Coin / button cell batteries have modified special construction and performance requirements. | | N/A |
| 5.4.2.3.2 (5.4.2.3.2.1) | Surge Arrestors and Transient Voltage Surge Suppressors installed external to the equipment are required to comply with the appropriate NEC and CEC requirements. | | N/A |
| 5.5.9 | Receptacles, rated 125-V, single phase, 15- or 20-A accessible to either ordinary, instructed, or skilled persons are required to be provided with GFCI Protection for Personnel if the equipment containing the receptacles is installed outdoors. The protection devices are required to comply with UL 943, and CAN/CSA C22.2 No.144. | | N/A |
| 5.6.3 | Protective earthing conductors comply with the minimum conductor sizes in Table G.7, except as required by Table G.7ADV.1 for cord connected equipment, or Annex DVH for permanently connected equipment. | | N/A |
| 5.7.8 (5.7.8.1) | Equipment intended to receive telecommunication ringing signals is required to comply with a special touch current measurement tests. | | N/A |
| 6.5.1 | PS3 wiring outside a fire enclosure is required to comply with single fault testing in B.4, or be current limited per one of the permitted methods. | | N/A |
| Annex F (F.3.3.9) | Output terminals provided for supply of other equipment, except mains supply, are required to be marked with a maximum rating or reference to equipment permitted to be connected. | | N/A |
| Annex F (F.3.7) | Outdoor Enclosures are required to be classified and marked in accordance with UL 50 or 50E, or CAN/CSA C22.2 No. 94.1 or 94.2. | | N/A |

| IEC 62368-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |
| Annex G (G.7) | Permanent connection of equipment to the mains supply by a power supply cord is not permitted, except for certain equipment, such as ATMs. | | N/A |
| | Power supply cords are required to have attachment plugs rated not less than 125 percent of the rated current of the equipment. | | N/A |
| | Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC. | | N/A |
| | Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Power supply cords are required to be no longer than 4.5 m in length if used in ITE Rooms. | | N/A |
| | Power supply cords for outdoor equipment are required to be suitable outdoor use type as required by Section 400.4 of the NEC and Rule 4-012 of the CEC, i.e., marked "W." | | N/A |
| Annex H.2 | Continuous ringing signals under normal operating conditions up to 16 mA only are permitted if the equipment is subjected to special installation and performance restrictions. | | N/A |
| Annex H.4 | For circuits with other than ringing signals and with voltages exceeding 42.4 V _{peak} or 60 V _{d.c.} , the maximum acceptable current through a 2000 ohm resistor (or greater) connected across the voltage source with other loads disconnected is 7.1 mA peak or 30 mA d.c. under normal operating conditions. | | N/A |
| Annex Q (Q.3) | Equipment with paired conductor and/or coax communications cables/wiring connected to building wiring are required to have special voltage, current, power and marking requirements. | | N/A |
| Annex DVA (1) | Equipment that is designed such that it may be powered from a separate electrical service, is required to meet applicable requirements for service equipment for control and protection of services and their installation and complies with Article 230 of the National Electrical Code (NEC), NFPA 70 and Section 6 of the Canadian Electrical Code, Part I, CSA C22.1. | | N/A |
| | Equipment intended for use in spaces used for environmental air (plenums) are subjected to special flammability requirements for heat and visible smoke release. | | N/A |

| IEC 62368-1 | | | |
|-------------------|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | For ITE room applications, automated information storage systems with combustible media greater than 0.76 m ³ (27 cu ft) are required to have a provision for connection of either automatic sprinklers or a gaseous agent extinguishing system with an extended discharge. | | N/A |
| | Consumer products designed or intended primarily for children 12 years of age or younger are subject to additional requirements in accordance with U.S. and Canadian Regulations. | | N/A |
| | Baby monitors are required to additionally comply with ASTM F2951, Consumer Safety Specification for Baby Monitors. | | N/A |
| | Storage batteries and battery management equipment, other than associated with lead-acid batteries, and including battery backup systems that are not an integral part of stationary AV and ICT equipment, such as provided in separate cabinets, are required to be certified (listed) to the appropriate standard(s) for such storage batteries and equipment. | | N/A |
| Annex DVA (5.6) | For Pluggable Equipment Type A, the protection in the installation is assumed to be 20A. | | N/A |
| Annex DVA (6.3) | The maximum quantity of flammable liquid stored in equipment is required to comply with NFPA 30. | | N/A |
| Annex DVA (6.4.8) | For ITE room applications, enclosures with combustible material measuring greater than 0.9 m ² (10 sq ft) or a single dimension greater than 1.8 m (6 ft) are required to have a flame spread rating of 50 or less. For equipment with the same dimensions for other applications, an external surface that is not a fire enclosure requires a minimum flammability classification of V-1. | | N/A |
| Annex DVA (10.3) | Equipment with lasers is required to meet the U.S. Code of Federal Regulations 21 CFR 1040 (and the Canadian Radiation Emitting Devices Act, REDR C1370). | | N/A |
| Annex DVA (10.5) | Equipment that produces ionizing radiation is required to comply with the U.S. Code of Federal Regulations, 21 CFR 1020 (and the Canadian Radiation Emitting Devices Act, REDR C1370). | | N/A |

| IEC 62368-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |
| Annex DVA (F.3.3.4) | Equipment for use on a.c. mains supply systems with a neutral and more than one phase conductor (e.g. 120/240 V, 3-wire) require a special marking format for electrical ratings. Additional considerations apply for voltage ratings that exceed the attachment cap rating or that are lower than the "Normal Operating Condition" in Table 2 of CAN/CSA C22.2 No. 235." | Shall be evaluated during national approval. | N/A |
| Annex DVA (F.3.3.6) | Equipment identified for ITE (computer) room installation is required to be marked with the rated current. | | N/A |
| Annex DVA (G.1) | Vertically-mounted disconnect switches and circuit breakers are required to have the "on" position indicated by the handle in the up position, where mounted in an enclosure, vertically mounted disconnect switches and circuit breakers with vertical operating means extending outside the enclosure are required to indicate in a location visible when accessing the external operating means whether the switch or circuit breaker is in the open (off) or closed (on) position. | | N/A |
| Annex DVA (G.3.4) | Suitable NEC/CEC branch circuit protection rated at the maximum circuit rating is required for all standard supply outlets and receptacles (such as supplied in power distribution units) if the supply branch circuit protection is not suitable. | | N/A |
| | Where a fuse is used to provide Class 2 or Class 3 current limiting, it is not operator-accessible unless it is non- interchangeable. | | N/A |
| Annex DVA (G.4.2) | Equipment with isolated ground (earthing) receptacles is required to comply with NEC 250.146(D) and CEC 10-400 and 10-612. | | N/A |
| Annex DVA (G.4.3) | Interconnection of units by conductors supplied by a limited power source, or a Class 2 circuit defined in the NEC/CEC may have field wiring connections other than specified in DVH.3, such as wire-wrap and crimp-on types, if the limited power source and Class 2 circuits are separated from all other circuits by barriers, routing or fixing. | | N/A |
| Annex DVA (G.5.3) | Power distribution transformers distributing power at 100 volts or more, and rated 10 kVA or more, require special transformer overcurrent protection. | | N/A |
| Annex DVA (G.5.4) | Motor control devices are required for cord-connected equipment with a mains-connected motor if the equipment is rated more than 12 A, or if the equipment has a nominal voltage rating greater than 120 V, or if the motor is rated more than 1/3 hp (locked rotor current over 43 A). | | N/A |

| IEC 62368-1 | | | |
|-----------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| Annex DVA (G.7) | Flexible cords used outdoors are required to have the suffix "W" marked on the flexible cord. | | N/A |
| Annex DVA (M) | For ITE room applications, equipment with battery systems capable of supplying 750 VA for five minutes are required to have a battery disconnect means that may be connected to the ITE room remote power-off circuit. | | N/A |
| Annex DVA (Q) | If applicable per NEC 725.121(C), some limited power sources supplied from AV/ICT equipment are required to have a label indicating the maximum voltage and rated current output for per conductor for each connection point. Where multiple connection points have the same rating, a single label is permitted to be used. | | N/A |
| | Wiring terminals intended to supply Class 2 outputs in accordance with the NEC or CEC Part 1 are required to be marked with the voltage rating and "Class 2" or equivalent. The marking is located adjacent to the terminals and visible during wiring. | | N/A |
| | Applicable parts of Chapter 8 of the NEC, and Rules 54 and 60 of the CEC, may be applicable to ITE installed outdoors with connections to communication systems. | | N/A |
| Annex DVB (1) | Additional requirements apply for equipment used for entertainment purposes intended for installation in general patient care areas of health care facilities. | | N/A |
| Annex DVC (1) | Additional requirements apply for equipment intended for mounting under kitchen cabinets. | | N/A |

| IEC 62368-1 | | | |
|-----------------------|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| Annex DVE (4.1.1) | Some equipment, components, sub-assemblies and materials associated with the risk of fire, electric shock, or personal injury are required to have component or material ratings in accordance with the applicable national (U.S. and Canadian) component or material requirements. These equipment and components include: appliance couplers, attachment plugs, battery backup systems, circuit breakers, communication circuit accessories, connectors (used for current interruption of non-LPS circuits), direct plug-in equipment, electrochemical capacitor modules (energy storage modules with ultracapacitors), enclosures (outdoor), flexible cords and cables, fuses (branch circuit), ground-fault current interrupters, interconnecting cables, modular data centers, power supply cords, some power distribution equipment, printed wiring, protectors for communications circuits, receptacles, surge protective devices, vehicle battery adapters, wire connectors, and wire and cables. | | N/A |
| Annex DVH | Equipment for permanent connection to the mains supply is subjected to additional requirements. | | N/A |
| Annex DVH (DVH.1) | Wiring methods (terminals, leads, etc.) used for the connection of the equipment to the mains are required to be in accordance with the NEC/CEC. | | N/A |
| Annex DVH (DVH.2.1) | For safe and reliable connection to a mains, permanently connected equipment is to be provided. | | N/A |
| Annex DVH (DVH.2.2) | Additional considerations for D.C. mains. | | N/A |
| Annex DVH (DVH.3.2.1) | Terminals for permanent wiring, including protective earthing terminals, are required to be suitable for U.S./Canadian wire gauge sizes, rated 125 percent of the equipment rating, and be specially marked when specified. | | N/A |
| Annex DVH (DVH.3.2.3) | Wire binding screws are not permitted to attach conductors larger than 10 AWG (5.3 mm ²). | | N/A |
| Annex DVH (DVH.3.2.4) | All associated mains supply terminals are located in proximity to each other and to the main protective earthing terminal, if any. | | N/A |
| Annex DVH (DVH.3.2.5) | Terminals are located, guarded or insulated so that, should a strand of a conductor escape when the conductor is fitted, there is no likelihood of accidental contact between such a strand and accessible conductive parts or unearthed conductive parts separated from accessible conductive parts by supplementary insulation only. | | N/A |

| IEC 62368-1 | | | |
|---------------------|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| Annex DVH (DVH.3.3) | When field connection to an external circuit is via wires (example, free conductors), the wires are not smaller than 18 AWG (0.82 mm ²) and the free length of the wire inside an outlet box or wiring compartment is 150 mm or more. | | N/A |
| Annex DVH (DVH.3.4) | Size of protective earthing conductors and terminals | | N/A |
| Annex DVH (DVH.4) | Permanently connected equipment is required to have a suitable wiring compartment and wire bending space. | | N/A |
| Annex DVH (DVH.4.1) | Wire bending space | | N/A |
| Annex DVH (DVH.4.2) | Volume of wiring compartment | | N/A |
| Annex DVH (DVH.4.3) | Separation of circuits | | N/A |
| Annex DVH (DVH.5) | Equipment markings and instructional safeguards | | N/A |
| Annex DVH (DVH.5.1) | Identification of protective earthing terminal | | N/A |
| Annex DVH (DVH.5.2) | Identification of terminal for earthed conductor (neutral) | | N/A |
| Annex DVH (DVH.5.3) | Identification of terminals for aluminium conductors | | N/A |
| Annex DVH (DVH.5.4) | Wire temperature ratings | | N/A |
| Annex DVH (DVH 5.5) | Equipment connected to a centralized d.c. power system, and having one pole of the DC mains input terminal connected to the main protective earthing terminal in the equipment, is required to comply with special earthing, wiring, marking and installation instruction requirements. | | N/A |
| Annex DVI (6.7) | Equipment intended for connection to telecommunication network outside plant cable is required to be protected against overvoltage from power line crosses. | | N/A |
| Annex DVJ (10.6.1) | Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements. | | N/A |



| IEC 62368-1 | | | |
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| Clause | Requirement + Test | Result - Remark | Verdict |

**ATTACHMENT TO TEST REPORT
IEC 62368-1:2018
SAUDI ARABIA NATIONAL DIFFERENCES
(Audio/video, information and communication technology equipment Part 1: Safety requirements)**

Differences according to : National standard SASO-IEC 62368-1:2020

TRF template used:..... : IECEE OD-2020-F3, Ed. 1.1

Attachment Form No. : SA_ND_IEC62368_1E

Attachment Originator : SASO

Master Attachment..... : 2022-12-22

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| National Differences | | | |
|-----------------------------|--|--|-----|
| | Plugs used for pluggable equipment comply with standard SASO-2203. | The equipment is building-in type and evaluation is to be made during the final system approval. | N/A |
| | Frequency (Hz) | | P |
| | 60 Hz | | P |
| | Rated voltage (V) | | P |
| | Single phase 230 V Three phase 400 V | | P |

| | | | |
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| IEC 62368-1 | | | |
| Clause | Requirement + Test | Result - Remark | Verdict |

ATTACHMENT TO TEST REPORT
IEC 62368-1:2018
JAPAN NATIONAL DIFFERENCES
Audio/video, information and communication technology equipment – Part 1: Safety requirements

| | |
|---------------------------------------|--------------------------------|
| Differences according to | J62368-1(2023) |
| TRF template used: | IECEE OD-2020-F3:2022, Ed. 1.2 |
| Attachment Form No. | JP_ND_IEC62368_1E |
| Attachment Originator | UL Solutions (JP) |
| Master Attachment | Dated 2023-05-12 |

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| National Differences | | — |
|-----------------------------|---|-----|
| 4.1.2 | Where the component, or a characteristic of a component, is a safeguard or a part of a safeguard, components shall comply with the requirements of this document or, where specified in a requirements clause, with the safety aspects of the relevant JIS component standards or IEC component standards, or components shall have properties equivalent to or better than these. | P |
| 5.6.1 | Mains socket-outlet and interconnection coupler shall comply with Clause G.4.2A if they are incorporated as part of the equipment. | N/A |
| 5.6.2.1 | <p>Connection for protective conductor of class 0I equipment provided with instructional safeguard in accordance with Clause F.3.6.1A is considered to make earlier and break later than supply connection.</p> <p>Mains plug having a lead wire for protective earthing connection of class 0I equipment shall comply with all of the following:</p> <ul style="list-style-type: none"> – Not to be used for equipment having a rated voltage of 150 V or more – Clip is not used for the earthing connection of the lead wire. – The lead wire for earthing is at least 10 cm long <p>If class 0I equipment provides an independent main protective earthing terminal and is intended to be installed by ordinary person, earthing wire shall be provided in the package of the equipment.</p> | N/A |

| IEC 62368-1 | | | |
|-------------|--|---------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 5.6.2.2 | Internal earthing conductor of the cord set that is covered by the sheath of mains cord and is formed together with mains plug and appliance connector need not be green-and-yellow. | | N/A |
| 5.6.3 | In case of class 0I equipment using power supply cord having two conductors (no earthing conductor), the conductor of protective earthing lead wire shall comply with either of the following: – use of annealed copper wire with 1.6 mm diameter or corrosion-inhibiting metal wire having size and strength that are equivalent to or more than the above copper wire – single core cord or single core cable with 1.25 mm ² or more cross-sectional area | | N/A |
| 5.7.3 | For class 0I equipment that is provided with mains socket-outlet in the configuration as specified in JIS C 8282 series, JIS C 8300 or JIS C 8303, or that is provided with mains appliance outlet as specified in JIS C 8283 series for the purpose of interconnection, the measurement is conducted on the system of the interconnected equipment having a single connection to the mains. | | N/A |
| 5.7.5 | In case of class 0I equipment, touch current shall not exceed 1.41 mA peak or for sinusoidal wave, 1.0 mA r.m.s. when measured using the network specified in Figure 4 of IEC 60990:2016. | | N/A |
| 6.4.3.2 | A fuse complying with JIS C 6575 series or a fuse having equivalent characteristics shall open within 1 s. A fuse having time/current characteristics other than those specified in IEC 60127 shall be tested with the characteristics taken into account. In case of Class A fuse of JIS C 6575, replace “2.1 times” by “1.35 times” and in case of Class B fuse of JIS C 6575, replace “2.1 times” by “1.6 times”. | Test with appliance | P |
| 8.5.4.3.1 | Only three-phase stationary equipment rated more than AC 200 V can be considered as being for use in locations where children are not likely to be present, when complying with Clause F.4. | | N/A |
| 8.5.4.3.2 | For equipment installed where children may be present, an instructional safeguard shall be provided by easily understandable wording in accordance with Clause F.5, except that element 3 is optional. | | N/A |

| IEC 62368-1 | | | |
|-------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 8.5.4.3.4 | The media destruction device is tested according to Clause V.1.2 with applicable jointed test probes to the opening. And then the wedge probe per Figure V.4 shall not contact any moving part. | | N/A |
| 8.5.4.3.5 | The wedge probe of Figure V.4 and applicable jointed test probes specified in Clause V.1.2 shall not contact any moving part. Instructional safeguard shall not be used instead of equipment safeguard for preventing access to hazardous moving parts. | | N/A |
| F.3.5.1 | When the mains socket-outlet is configured in accordance with JIS C 8282 series, JIS C 8300 or JIS C 8303, the assigned current or power shall be marked. If the voltage of the socket-outlet is the same as the mains voltage, the voltage need not be marked. Instructional safeguard of Class 0I equipment shall be provided with an instructional safeguard in accordance with Clause F.5 when a mains socket-outlet as specified in JIS C 8282 series, JIS C 8300 or JIS C 8303 to which class I equipment can be connected is provided in accordance with Clause G.4.2A except for the cases where the socket-outlet is accessible only to skilled persons. | | N/A |
| F.3.5.3 | If the fuse is necessary for the safeguard function, the symbols indicating pre-arcing time-current characteristic shall be included. | | N/A |
| F.3.6.1A | Marking for class 0I equipment The requirements of Clauses F.3.6.1.1 and F.3.6.1.2 shall be applied to class 0I equipment. For class 0I equipment, a marking of instructions shall be provided regarding the earthing connection. In addition to the above, for class 0I equipment, an instruction to connect earthing before and disconnect earthing after the connection of supply conductors shall be marked on the visible place of the main body or shall be in the text of an accompanying document. | | N/A |
| F.3.6.2 | Symbols, IEC 60417-5172 (2003-02) or IEC 60417-6092 (2011-10), shall not be used for class I equipment or class 0I equipment. | | P |

| IEC 62368-1 | | | |
|-------------|--|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| F.3.8A | <p>Attention marking for aging deterioration of CRT television</p> <p>Year of manufacture, standard usage period by design according to JIS C 9921-5 and cautionary statement for possible risks of aging deterioration when used beyond the specified period shall be marked on CRT television except for industrial use CRT television.</p> | | N/A |
| F.4 | <p>For audio equipment with terminals classified as ES3 in accordance with Table E.1, and for other equipment with terminals marked in accordance with F.3.6.1 and F.3.6.1A, the instructions shall require that the external wiring connected to these terminals shall be installed by a skilled person, or shall be connected by means of ready-made leads or cords that are constructed in a way that would prevent contact with any ES3 circuit.</p> <p>For class 0I equipment provided with independent main protective earthing terminal, where the cord for the protective earthing connection is not provided in the package of the equipment, if the protective earthing connection is made by instructed person or skilled person, the suitable installation instruction for the protective earthing connection shall be provided.</p> | | N/A |
| G.3.2.1 | <p>The thermal link when tested as a separate component, shall comply with the requirements of JIS C 6691 or have properties equivalent to or better than that.</p> | | N/A |
| G.3.4 | <p>Except for devices covered by Clause G.3.5, overcurrent protective devices used as a safeguard shall comply with the applicable JIS or IEC standard in accordance with 4.1.2 or shall have equivalent or better properties.</p> <p>Such a protective device shall have adequate breaking (rupturing) capacity to interrupt the maximum fault current (including short-circuit current) that can flow.</p> | | P |
| G.4.1 | <p>This requirement does not apply to connectors covered in Clauses G.4.2 and G.4.2A.</p> | | N/A |

| IEC 62368-1 | | | |
|----------------------|---|--|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| G.4.2 | <p>Mains connectors, mains plugs and socket-outlets shall comply with JIS C 8283 series, JIS C 8285, IEC 60309 series, JIS C 8282 series, JIS C 8300, JIS C 8303, or have equivalent or better properties.</p> <p>A power supply cord set provided with appliance connector that can fit appliance inlet complying with JIS C 8283-1 shall comply with JIS C 8286.</p> <p>Construction shall prevent mechanical stress not to transmit to the soldering part of appliance inlet terminal.</p> <p>When an equipment is rated not more than 125 V and all of the following are met, Type C14 and C18 appliance inlet complying with JIS C 8283-3 can be considered as rated 15 A.</p> <ul style="list-style-type: none"> – The temperature of appliance inlet does not exceed the value specified in JIS C 8283-1 under the most unfavourable normal operating condition as specified in Clause B.2.1. – "Use only designated cord set attached in this equipment" or equivalent text is described in the operating instruction. If the cord set is not provided in the package of the equipment, suitable information regarding to the cord set is described in the operating instruction. | To be evaluated during end product used. | N/A |
| G.4.2A | Mains socket-outlet and interconnection coupler provided with the class II, class I and class 0I equipment respectively | | N/A |
| G.7.1 | A mains supply cord need not include the protective earthing conductor for class 0I equipment provided with independent protective earthing conductor. | | N/A |
| G.7.2 Table G.7 | Cross-sectional area of equipment rated up to and including 3 A shall be 0.75 mm ² . | | N/A |
| G.7.6.1 Table G.9 | <p>The cross-sectional area of mains cords according to JIS C 3010 may comply with relevant Japanese wiring regulation.</p> <p>For cables other than those complying with JIS C 3662 series or JIS C 3663 series, the terminals shall be suitable for the size of the intended cables.</p> | | N/A |



| | | | |
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| IEC 62368-1 | | | |
| Clause | Requirement + Test | Result - Remark | Verdict |

ATTACHMENT TO TEST REPORT
IEC 62368-1
(AUSTRALIA / NEW ZEALAND) NATIONAL DIFFERENCES
(Audio/video, information and communication technology equipment)

Differences according to : AS/NZS 62368.1:2022

TRF template used:..... : IECEE OD-2020-F3, Ed. 1.1

Attachment Form No...... : AU_NZ_ND_IEC62368_1E

Attachment Originator : JAS-ANZ

Master Attachment..... : 2022-07-01

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| National Differences | | |
|-----------------------|--|---|
| Appendix ZZ | Variations to IEC 62368-1:2018 (ED. 3.0) for Australia and New Zealand | P |
| ZZ1 Scope | This Appendix lists the normative variations to IEC 62368-1:2018 (ED. 3.0) | P |
| ZZ2 Variations | The following modifications are required for Australian/New Zealand conditions: | P |
| 2 | After the first paragraph, <i>add</i> the following: The Australian or Australian/New Zealand Standards listed below are modified adoptions of, or not equivalent to, the IEC normative references and are required for the application of this Standard. All references in the source text to those IEC normative references shall be replaced by references to the corresponding Australian or Australian/New Zealand Standards. Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably -AS/NZS 3112, <i>Approval and test specification—Plugs and socket-outlets</i> -AS/NZS 3123, <i>Approval and test specification—Plugs, socket-outlets and couplers for general industrial application</i> -AS/NZS 3191, <i>Electric flexible cords</i> -AS/NZS 60884.1, <i>Plugs and socket-outlets for household and similar purposes, Part 1: General requirements</i> -IEC 60086-2 <i>Primary batteries — Part 2: Physical and electrical specifications</i> -AS/NZS 60065, <i>Audio, video and similar electronic apparatus—Safety requirements (IEC 60065:2015 (ED.8.0) MOD)</i> -AS/NZS 60320.1, <i>Appliance couplers for household and similar general purposes, Part 1: General requirements (IEC 60320-1, Ed.2.1 (2007) MOD)</i> -AS/NZS 60320.2.2, <i>Appliance couplers for</i> | P |

| IEC 62368-1 | | | |
|-------------|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | <p><i>household and similar general purposes</i> <i>Part 2.2: Interconnection couplers for household and similar equipment (IEC 60320-2-2, Ed.2.0 (1998) MOD)</i> -AS/NZS 60695.2.11, <i>Fire hazard testing, Part 2.11: Glowing/hot wire based test methods—Glow-wire flammability test method for end-products</i> -AS/NZS 60695.11.5, <i>Fire hazard testing, Part 11.5: Test flames—Needle-flame test method—Apparatus, confirmatory test arrangement and guidance</i> -AS/NZS 60695.11.10, <i>Fire hazard testing, Part 11.10: Test flames—50 W</i> <i>horizontal and vertical flame test methods</i> -AS/NZS 60884.1, <i>Plugs and socket-outlets for household and similar purposes, Part 1: General requirements</i> -AS/NZS 60950.1, <i>Information technology equipment—Safety, Part 1: General requirements (IEC 60950-1, Ed.2.2 (2013), MOD)</i> IEC 61032:1997, <i>Protection of persons and equipment by enclosures—Probes for verification</i> -AS/NZS 61558.1, <i>Safety of Power Transformers, Power Supplies, Reactors and Similar Products, Part 1: General requirements and tests (IEC 61558-1 Ed 3, MOD)</i> -AS/NZS 61558.2.16, <i>Safety of transformers, reactors, power supply units and similar products for voltages up to 1 100 V, Part 2.16: Particular requirements and tests for switch mode power supply units and transformers for switch mode power supply units.</i></p> | | |
| 4.7.2 | <p>Requirements Delete the text of the second paragraph and replace with the following: Equipment with a plug portion, suitable for insertion into a 10 A 3-pin flat-pin socket-outlet conforming to AS/NZS 3112, shall conform to the requirements in AS/NZS 3112 for equipment with integral pins for insertion into socket-outlets. Conformity is checked by inspection and, if necessary, by the tests in AS/NZS 3112. NOTE: Equipment with plug portions for use in countries other than Australia and New Zealand will need to conform to other countries' requirements Note Additional AS/NZS 3112 Appendix J,TRF is appended to end of this TRF.</p> | Built-in type | N/A |
| 4.7.3 | <p>Compliance Criteria Delete this clause</p> | | N/A |

| IEC 62368-1 | | | | |
|--|--|---|-------------------|-----------|
| Clause | Requirement + Test | Result - Remark | | Verdict |
| 4.8.1 | General After second list, <i>add</i> the following: NOTE: Refer to the Consumer Goods (Products Containing Button/Coin Batteries) Safety Standard 2020 and Consumer Goods (Products Containing Button/Coin Batteries) Information Standard 2020 for more information on button cell batteries in Australia.. | | | N/A |
| 5.4.10.2.1 | General <i>Delete</i> the first paragraph and <i>replace</i> with the following: In Australia, the separation is checked by the test given in both Clause 5.4.10.2.2 and Clause 5.4.10.2.3. In New Zealand, the separation is checked by the test given in either 5.4.10.2.2 or 5.4.10.2.3.. | | | N/A |
| Table 28 | <i>Delete</i> Table 28 and <i>replace</i> with the following: | | | N/A |
| Parts | Impulse test | | Steady state test | |
| | New Zealand | Australia | New Zealand | Australia |
| Parts indicated in Clause 5.4.10.1 a) ^a | 2.5 kV | 7.0 kV for hand-held telephones and headsets, 2.5 kV for other equipment. | 1.5 kV | 3 kV |
| Parts indicated in Clause 5.4.10.1 b) and c) ^b | 1.5 kV ^c | | 1.0 kV | 1.5 kV |
| ^a Surge suppressors shall not be removed. ^b Surge suppressors may be removed, provided that such devices pass the impulse test of Clause 5.4.10.2.2 when tested as components outside the equipment. ^c During this test, it is allowed for a surge suppressor to operate and for a sparkover to occur in a GDT. | | | | |
| 5.4.10.2.2 | <i>Delete</i> "NOTE" and <i>replace</i> with "NOTE 1". After NOTE 1, <i>add</i> the following: NOTE 2: For Australia, the 7 kV impulse simulates lightning surges on typical rural and semi-rural network lines. NOTE 3: For Australia, the value of 2.5 kV for Clause 5.4.10.1 a) was chosen to ensure the adequacy of the insulation concerned and does not necessarily simulate likely overvoltages. | | | N/A |
| 5.4.10.2.3 | <i>Delete</i> "NOTE" and <i>replace</i> with "NOTE 1". After NOTE 1, <i>add</i> the following: NOTE 2: For Australia, where there are capacitors across the insulation under test, it is recommended that d.c. test voltages are used. NOTE 3: The 3 kV and 1.5 kV values for Australia have been determined considering the low frequency induced voltages from the power supply distribution system. | | | N/A |
| 6 | Electrically-caused fire | | | N/A |
| 6.6 | After Clause 6.6, <i>add</i> the new Clauses 6.201 as follows: 6.201 External power supplies, docking stations and other similar devices (see special national conditions) | | | N/A |

| IEC 62368-1 | | | |
|--|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 8.6 | Stability of equipment | | N/A |
| Table 36 | Footnote ^a , after first sentence, <i>add</i> the following: Equipment having displays with moving images shall include “television sets and display devices”. | | N/A |
| 8.6.1 | After Clause 8.6.1 <i>add</i> the following new clauses: 8.6.201 Restraining Device fixing point (see special national conditions) 8.6.202 Restraining device (see special national conditions) | | N/A |
| Annex F Paragraph F.3.3.4 | Rated Voltage <i>Delete</i> “NOTE” and <i>replace</i> with NOTE1” After NOTE 1, <i>add</i> the following Equipment that is intended for connection to the supply mains in Australia and New Zealand shall be marked with: (a) A rated voltage of: <ul style="list-style-type: none"> • 230 V for single phase equipment • 400 V for poly phase equipment Or (b) A rated voltage range that includes: <ul style="list-style-type: none"> • 230 V for single phase equipment • 400 V for poly phase equipment NOTE 2: equipment that is not rated as above is not suitable for direct connection to the supply mains in Australia or new Zealand. | | P |
| Annex F.3.3.5 | After the list, <i>add</i> the following Equipment that is intended for connection to supply mains in Australia or New Zealand shall be marked with a rated frequency of 50 Hz or a rated frequency range or nominal value which includes 50Hz | | P |
| Annex F.3.8 | After “The DC output of an external power supply”, insert “or docking stations and other similar external devices” | | N/A |
| Annex G Paragraph G.4.2 | Mains connectors 1 After “IEC 60320”, insert “or AS/NZS 60320 series”. 2 After “IEC 60906-1”, insert “or AS/NZS 3123” 3 <i>After</i> first paragraph <i>add</i> the following: 10 A or 15 A 250 V flat pin plugs for the connection of equipment to mains-powered socket-outlets for household or similar general use shall comply with AS/NZS 3112 or AS/NZS 60884.1. | Built-in type | N/A |

| IEC 62368-1 | | | |
|--------------------------------|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| Paragraph G.5.3.1 | Transformers, General 1 Third dashed point <i>replace</i> 'IEC 61558-1 and the relevant parts of IEC 61558-2' with 'AS/NZS 61558-1 and the relevant parts of AS/NZS 61558.2' 2 Fourth dashed point <i>replace</i> 'IEC 61558-2-16' with 'AS/NZS 61558.2.16'. | | N/A |
| Annex G.7.1 | Mains supply cords, General Fourth dashed paragraph, <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1' | | N/A |
| Table G.7 | Sizes of conductors 1 First column, second row, <i>delete</i> "6" and <i>replace</i> with "7.5" 2 Second column, second row, <i>delete</i> '0,75' and <i>replace</i> with '0.75 ^b 3 <i>Delete</i> NOTE 1. 4 <i>Replace</i> 'NOTE 2' with 'NOTE:'. 5 <i>Delete</i> 'Footnote b' and <i>replace</i> with the following: ^b This nominal cross-sectional area is only allowed for Class II appliances if the length of the power supply cord, measured between the point where the cord, or cord guard, enters the appliance, and the entry to the plug does not exceed 2 m (0.5 mm ² three-core supply flexible cords are not permitted; see AS/NZS 3191). 6 Footnote c <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1' 7 Footnote d <i>replace</i> 'IEC 60320-1' with 'AS/NZS 60320.1' | | N/A |
| Annex M M.2.1 | <i>Add</i> "IEC 60086-2" to the list | | N/A |
| Annex M Paragraph M.3.2 | Test method <i>Delete</i> "NOTE" and <i>replace</i> with "NOTE 1" After NOTE 1 <i>add</i> the following: NOTE 2: In cases where the voltage source is provided by power from an unassociated power source, consideration should be given to the effects of possible single fault conditions in the unassociated equipment. If the power source is unknown then it should be assumed that the maximum limit of ES1 may be applied to the source input under assumed single fault conditions in the source when assessing the charging circuit in the equipment under test. | | N/A |
| | | | |
| | Special national conditions (if any) | | N/A |

| IEC 62368-1 | | | |
|-------------|--|----------------------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 6.201 | <p>External power supplies, docking stations and other similar devices For external power supplies, docking stations and other similar devices, during and after abnormal operating conditions and during single fault conditions the output voltage—</p> <ul style="list-style-type: none"> (a) at all ES1 outlets or connectors shall not increase by more than 10 % of the output rated voltage under normal operating conditions, measured after 3 s of introducing a single fault condition and after 3 s of introducing abnormal operating conditions; and (b) of a USB outlet or connector shall not increase by more than 3 V or 10 % of the output rated voltage under normal operating conditions, whichever is higher, measured after 3 seconds of introducing a single fault condition and after 3 s of introducing abnormal operating conditions <p>For equipment with multiple rated voltages at the output, the requirements apply with the equipment configured for each output rated voltage in turn</p> <p>NOTE: This is intended to reduce the possibility of battery fire or explosion in attached equipment or accessories when charging secondary lithium batteries. The 3 s measurement delay is based on IEC document 108/742/INF, <i>TC 108, Standards Interpretation Panel Question 15 — Output voltage</i>, in relation to similar requirements in IEC 62368-3:2017.</p> <p>Conformity shall be checked by measurement, taking into account the abnormal operating conditions of Annex B.3 and the simulated single fault conditions of Annex B.4.</p> | Not applicable for this product. | N/A |
| 8.6.201 | <p>Restraining device fixing point Freestanding-capable MS2 and MS3 television sets and display devices shall be provided with a fixing point to facilitate the anchoring of the equipment from toppling</p> <p>The fixing point shall conform to Clause 8.7 where the fixing point uses a wall, ceiling or other structure mount. Alternatively, the fixing point shall be capable of withstanding a pull equal to the mass of the equipment in all directions without damage</p> <p>Instructions for installation or instructions for use shall be provided to specify correct use of the fixing point</p> | | N/A |

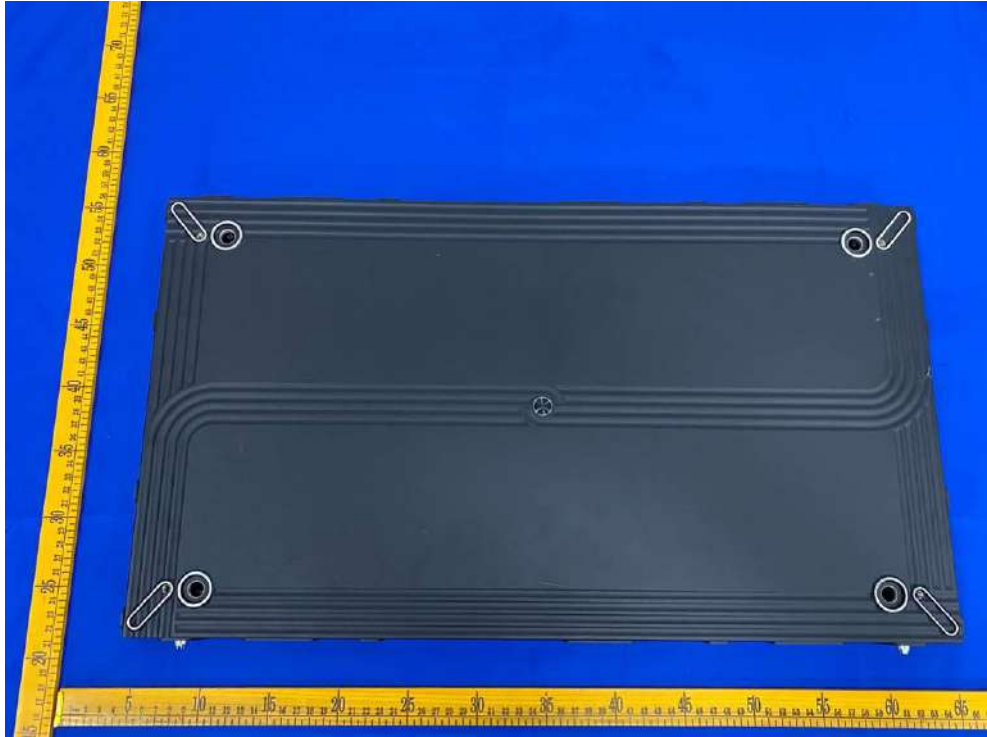
| IEC 62368-1 | | | |
|-------------|---|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 8.6.202 | <p>Restraining device MS2 and MS3 television sets and display devices shall be provided with a restraining device and associated hardware to attach to the television set or display device.</p> <p>The restraining device shall be capable of withstanding a pull equal to the mass of the equipment in all directions.</p> <p>Instructions for installation or instructions for use shall be provided to specify correct use of the fixing point</p> . | | N/A |

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



Picture 1



Picture 2

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



Picture 3



Picture 4

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



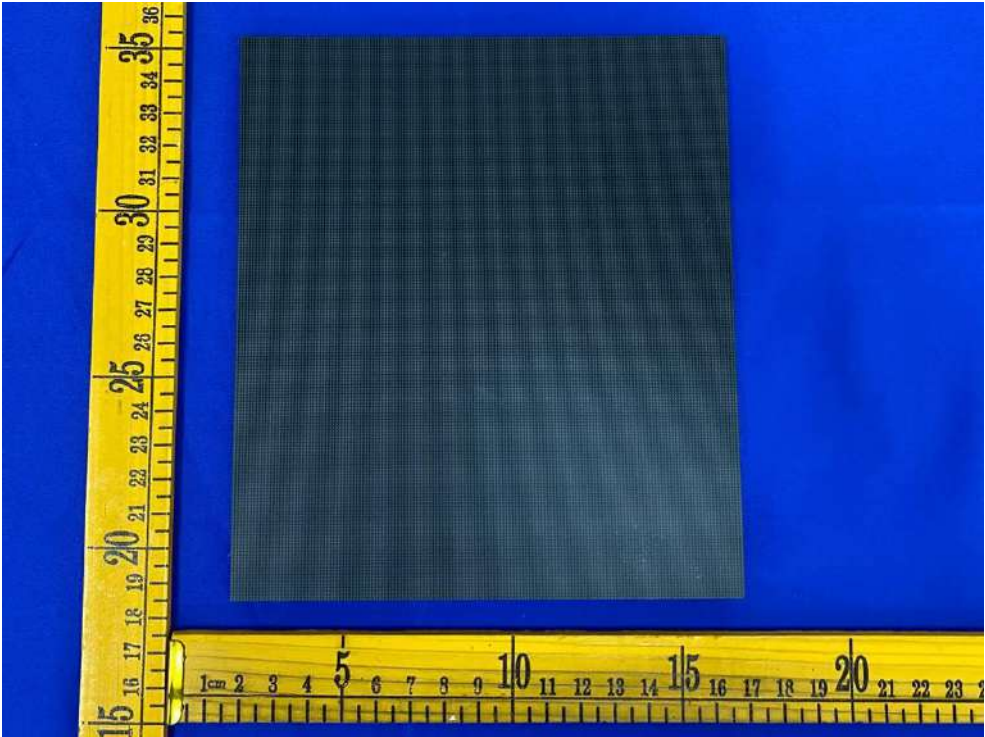
Picture 5



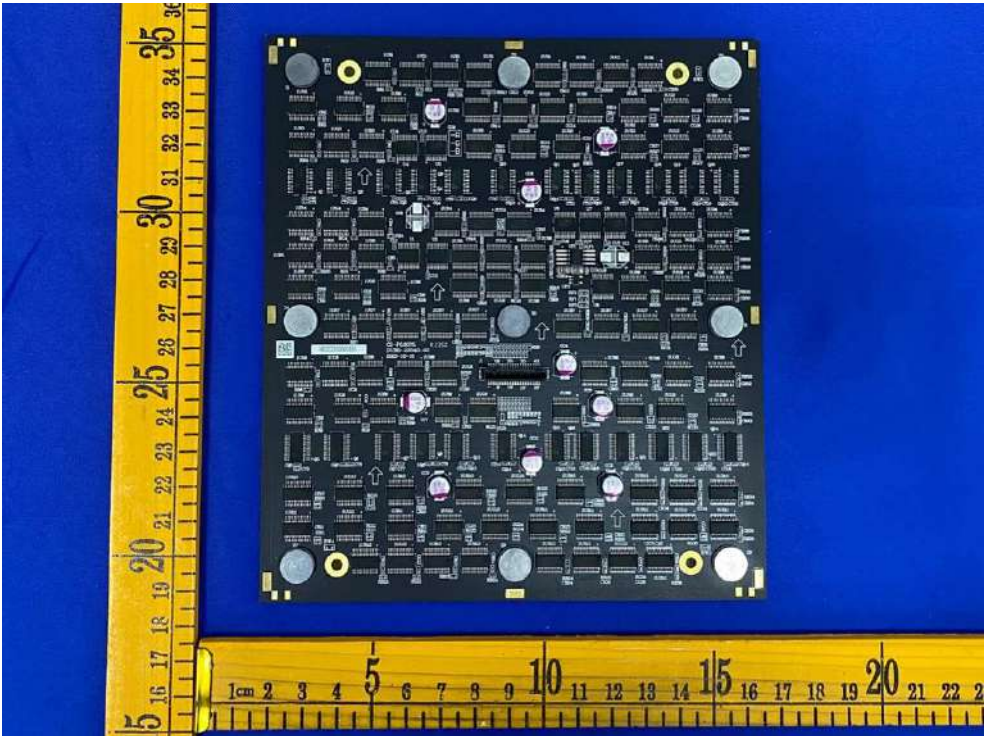
Picture 6

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



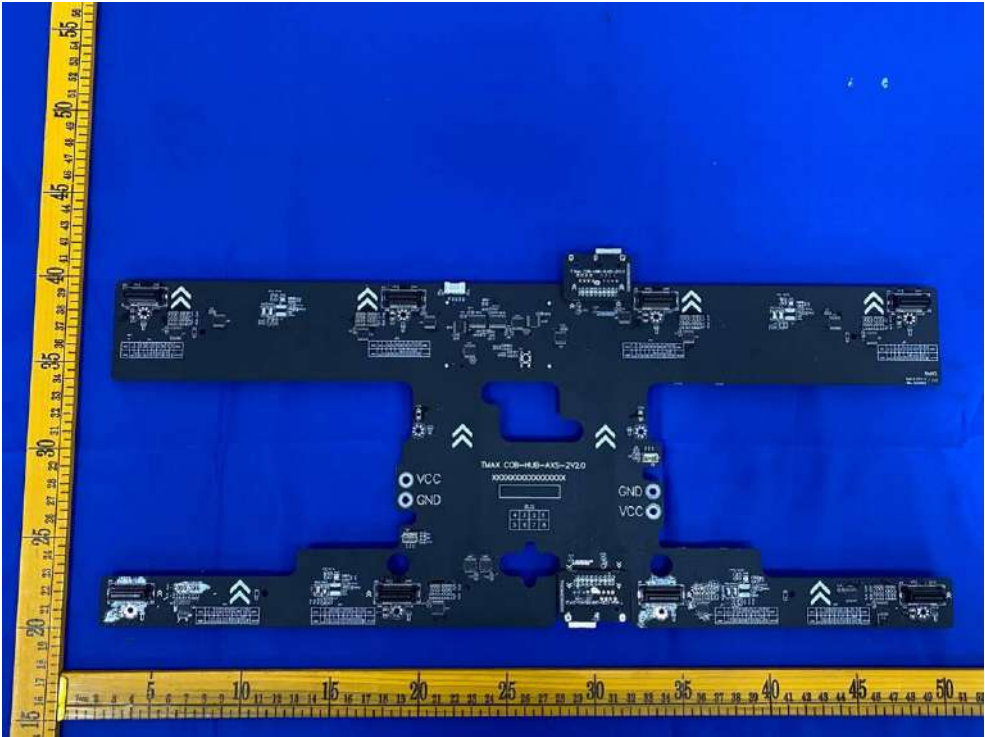
Picture 7



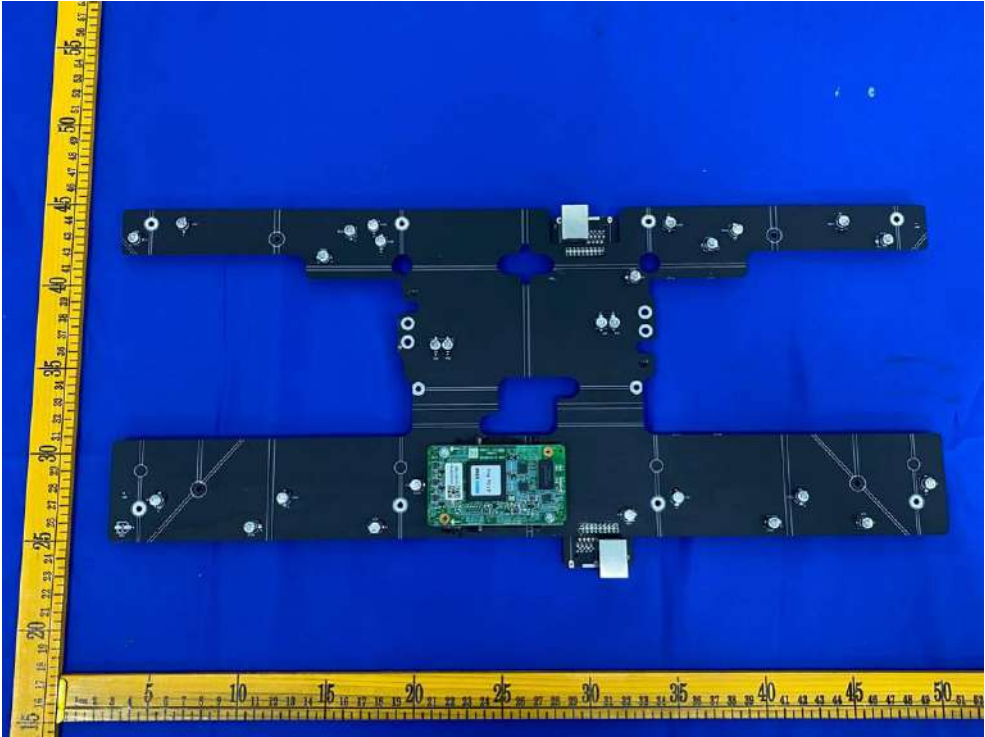
Picture 8

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



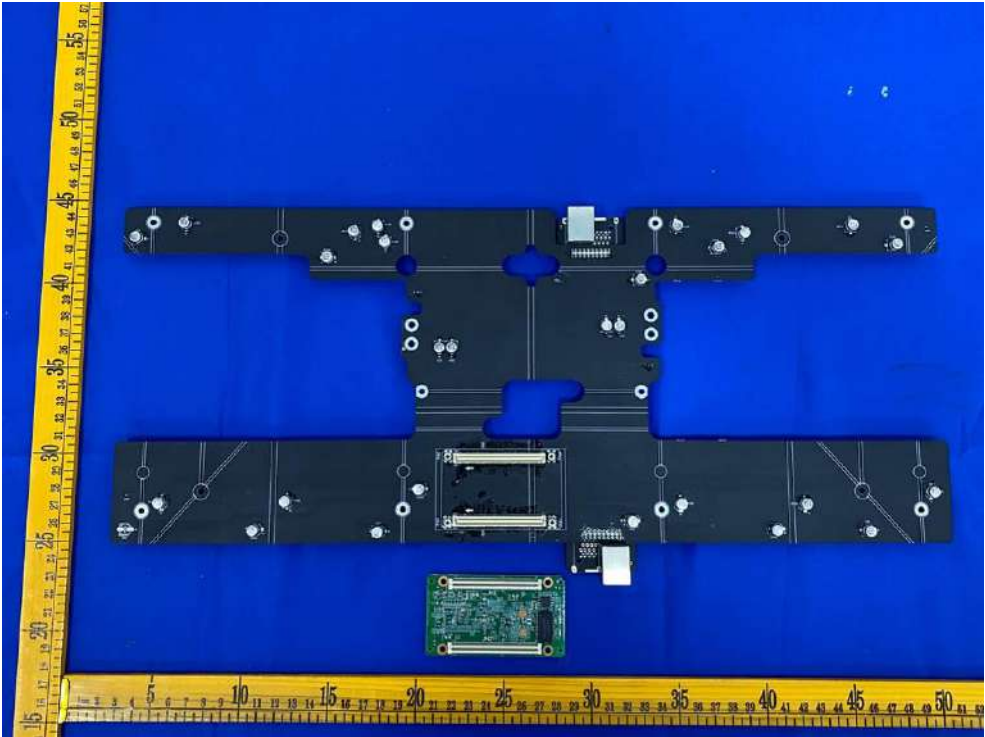
Picture 9



Picture 10

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



Picture 11



Picture 12 (Ground wire separated)

Product: LED DISPLAY

Type Designation: T MAX COB0.7, T MAX COB0.9, T MAX COB1.2, T MAX COB1.5



Picture 13 (Ground wires together)



Picture 14

Equipment Details

Supplier: VICKY TECH LIMITED

Equipment: LED Display - Level 1

Brand: N/A

Model: T-Max1.5, T-Max1.9, T-Max2.6, T-Max3.9, T-Max, COB0.9, T-Max, COB1.2, T-Max, COB1.5, Thinpad1.5, Thinpad1.9, Thinpad2.6, Thinpad3.9

Status: Registered