REG.SMK3.2023.SI.SK-736

Sertifikat Penghargaan
Certificate of Appreciation

SISTEM MANAJEMEN KESELAMATAN DAN KESEHATAN KERJA
OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT SYSTEM

Berdasarkan
Surat Keputusan Menteri Ketenagakerjaan Republik Indonesia
No. 95 Tahun 2023

Menyatakan bahwa
This is to certify that

Nama perusahaan / *Name of company*

PT IPEX INDONESIA INC

Alamat / *Address*

Jln Aster lot SD26, SD27, SD28, SD29, SD52 & SD51 Bintan Industrial Estate, Lobam
Bintan Provinsi Kepulauan Riau

Sektor industri / *Sector of industry*

MANUFACTURE OF PRECISION ENGINEERING PLASTIC COMPONENTS AND ELECTRONIC CONNECTORS

Telah menerapkan Sistem Manajemen Keselamatan dan Kesehatan Kerja
Has implemented an Occupational Safety and Health Management System

Hasil pencapaian 93,37% untuk kategori tingkat Lanjutan (166 Kriteria)
Audit result 93.37% for Advanced level category

Sertifikat ini berlaku untuk jangka waktu 3 (tiga) tahun sejak dikeluarkan.
This certificate is valid for 3 (three) years from the date of issue.

Jakarta, 9 Juni 2023

MENTERI KETENAGAKERJAAN REPUBLIK INDONESIA,

MINISTER OF MANPOWER OF THE REPUBLIC OF INDONESIA,

IDA FAUZIYAH

TEST REPORT

Applicant:	Shenzhen E-Connecting Technology Co., Ltd
Address of Applicant:	P15-124, Electronic Area, China South City, Pinghu Street, Longgang, Shenzhen, China.
Manufacturer:	Shenzhen E-Connecting Technology Co., Ltd
Address of Manufacturer:	P15-124, Electronic Area, China South City, Pinghu Street, Longgang, Shenzhen, China.
Test item description:	wiring harness
Model No.:	/
Additional models:	/
Trade Mark:	/
Standard(s) :	EN 55032:2015/A11:2020 EN IEC 61000-6-1:2019 EN IEC 61000-3-2:2019/A1:2021 EN 55035:2017/A1:2020
Date of Receipt:	2024-08-21
Date of Test:	2024-08-21 to 2024-08-27
Date of Issue:	2024-08-27

Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

rSl3VG Fbp10L

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EU Declaration of Conformity and compliance with all relevant EU Directives.

CE

CTIC Testing Group (Guangdong) Co, Ltd.

Add:201, Building A1, Lilang International Jewelry Industrial Park, No.31, BulanRoad, Xialilang Community, Nanwan Street, Longgang District, Shenzhen.Guangdong, China Certificate Search: Tel: 400-6800-890,http//www.ctic-lab.com, E-mail:christina@ctic-lab.com

Authorized for issue by:				
Tested By		 Project Engineer		2024-08-21 to 2024-08-27 **Date**
Reviewed By		 Reviewer		2024-08-27 **Date**

1 Test Summary

Emission Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	EN 55032:2015/A11:2020	EN 55032:2015/A11:2020	--	Pass
Radiated Emissions	EN 55032:2015/A11:2020	EN 55032:2015/A11:2020	Class B	Pass
Discontinuous Interference	EN 55032:2015/A11:2020	EN 55032:2015/A11:2020	CISPR 32	Pass
Harmonic Current Emission	EN IEC 61000-3-2:2019/A1:2021	EN IEC 61000-3-2:2019/A1:2021	Class A	Pass
Voltage Fluctuations and Flicker	EN 55035:2017/A1:2020	EN 55035:2017/A1:2020	Clause 5 of EN 61000-3-3	Pass

Immunity Part				
Item	**Standard**	**Method**	**Requirement**	**Result**
Electrostatic Discharge	EN IEC 61000-6-1:2019	EN 61000-4-2:2009	2,4kV Contact Discharge, 2,4,8kV Air Discharge	Pass
Continuos RF Eletromagnetic field Disturbance	EN IEC 61000-6-1:2019	EN 61000-4-3:2006 +A1:2007+A2:2010	80%,1kHz, AM Mod 3V/m,0.08~1GHz 3V/m,1.4~2.0GHz 1V/m,2.0~2.7GHz	Pass
Electrical Fast Transients Burst at AC Mains Power Port	EN IEC 61000-6-1:2019	EN 61000-4-4:2012	1kV, 5/50ns Tr/Td, 5kHz Repetition Frequency	Pass
Surge at AC Mains Power Port	EN IEC 61000-6-1:2019	EN 61000-4-5:2014 +A1:2017	1.2/50μs Tr/Td, 1kV Line to Line, 2kV Line to Ground	Pass
Conducted Immunity at AC Mains Power Port (150kHz-80MHz)	EN IEC 61000-6-1:2019	EN 61000-4-6:2014	3Vrms (emf),80%,1kHz Amp. Mod.	Pass
Voltage Dips and Interruptions	EN IEC 61000-6-1:2019	EN 61000-4-11:2004 +A1:2017	For 50Hz: 0 % UT for 0.5cycle, 0 % UT for 1.0cycles, 70 % UT for 25cycles 0 % UT for 250cycles,	Pass

Note: (1)= Continuous working product. (2)=Refer to section 5..4.

2 Contents

General Information

3.1 Details of E.U.T.

Power supply: /
Test Voltage: 220V
Cable(s): DC:2 wires 1.0m unshielded out put for the adapter.

3.2 Description of Support Units

3.3 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emissions at AC Mains Power Port (150kHz-30MHz)	3.12dB
Radiated Emissions(30MHz-1000MHz)	3.66dB
Remark: The U_{lab} (lab Uncertainty) is less than U_{cispr} (CISPR Uncertainty), so the test results – compliance is deemed to occur if no measured disturbance level exceeds the disturbance limit; – non-compliance is deemed to occur if any measured disturbance level exceeds the disturbance limit.	

3.4 Test Location

CTIC Testing Group (Guangdong) Co., Ltd.

201, Building A1 Lilang International Jewelry industrial Park, No.31, BulanRoad,Xialilang Community,Nanwan Street, Longgang District,Shenzhen,Guangdong,China

3.5 Test Facility

The test facility is recognized, certified, or accredited.

3.6 Deviation from Standards

This report is based on the requirements of customers to carry the equipment in the manufacturer for on-site testing.

3.7 Abnormalities from Standard Conditions

The test equipment in the calibration period, but the test site has not been calibrated.

3.8 EMS Monitor

Visual: LCD Display
Audio: Buzzing
Other: N/A

4 Equipment List

Test Equipment	Model	Manufacturer	Serial No.	Cal Date
EMC Laboratory				
Conduction& Radiated Test equipment				
EMI Test Receiver	ESPI	R&S	102086	2024.10.14
LISN	ENV216	R&S	101242	2024.10.14
LISN	3810/2NM	EMCO	000-23625	2024.10.14
Bi-log Antenna	CBL6111D	TESEQ	34678	2024.10.11
Pre-Amplifier (0.1M-3GHz)	EM330	EM	060665	2024.10.11
RE Cable (9K-1G)	N/A	R01	N/A	2024.10.11
EMS Test equipment				
ESD				
ESD TEST GENERATOR	KES4021	KZKUSUI	LB003568	2024.06.27
EFT				
EFT/B Generator	HEFT 51	HTEC	143801	2024.10.14
Surge				
Surge Generator	HCWG71	HTEC	143804	2024.10.14
Conducted RF immunity				
CS	CDG-6000-25	SCHLODER	126A1280/2014	2024.10.14
Attenuator	ATT-6DB-100	Nemtest	A100W224	2024.10.17
CDN	CDN-M2+3	Frankonia	A2210275/2014	2024.10.14
Coupling clamp	----	KEMZ801	-----	2024.10.14
Voltage dips, short interruptions and voltage variations immunity				
VOLTAGE DIPS & INTERRUPTIONS Generator	HPFS 161P	HTEC	143803	2024.10.17
Harmonics & Flicker				
Harmonic Voltage & Flicker	PACS-1	California Instruments	72812	2024.10.14
AC Power Source	5000ix	California Instruments	59862	2024.10.18

Radiated Immunity				
No.	Test Item	Equipment	Model No.	Cal due date
1	Power Meter	Agilent	E4419B	2024.10.09
2	Power Sensor	Hp	E9300A	2024.10.11
3	Power Sensor	Hp	E9300A	2024.10.11
4	Signal Generator	Agilent	N5181A	2024.10.11
5	Power Amplifier	MICOTOP	MPA-80-1000 -250	2024.10.11
6	Power Amplifier	MICOTOP	MPA-1000-6000-100	2024.10.09
7	RS Test Antenna (0.08-1GHz)	SCHWARZBECK	VULP 9118E	N/A
8	RS Test Antenna (1-10GHz)	SCHWARZBECK	STLP 9149	N/A
9	Temperature & Humidity	Mieo	HH660	2024.10.12

5 Emission Test Results

5.1 Conducted Emissions at AC Mains Power Port (150kHz-30MHz)

Test Requirement: EN 55032:2015/A11:2020

Test Method: EN 55032:2015/A11:2020

Limit:

0.15M-0.5MHz	66dB(μV)-56dB(μV) quasi-peak, 59dB(μV)-46dB(μV) average
0.5M-5MHz	56dB(μV) quasi-peak, 46dB(μV) average
5M-30MHz	60dB(μV) quasi-peak, 50dB(μV) average

Detector: Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz

5.1.1 E.U.T. Operation

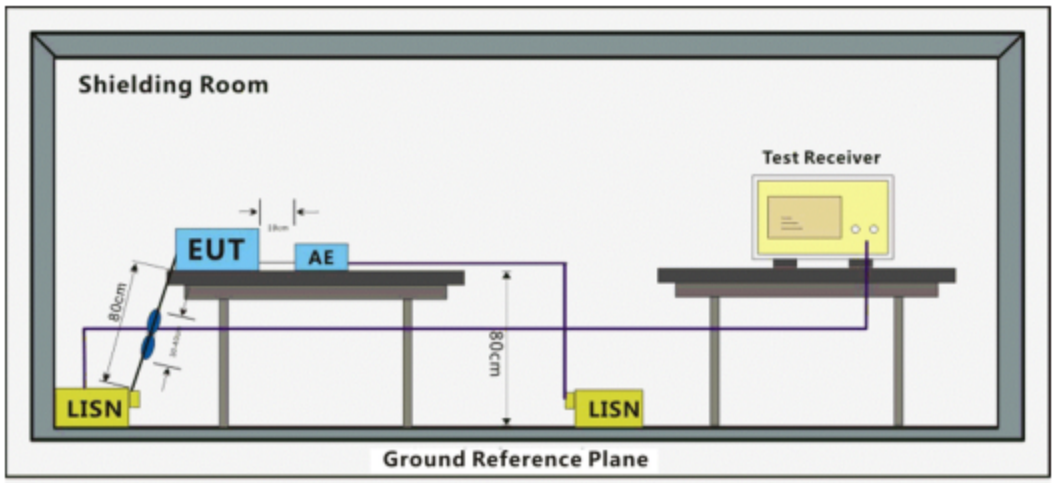
Operating Environment:

Temperature: 22.1 °C Humidity: 52 % RH Atmospheric Pressure: 1010 mbar

5.1.2 Test Mode Description

Test Mode: Normal working mode(Max Loading).

5.1.3 Test Setup Diagram



5.1.4 Measurement Procedure and Data

Frequency Range: 150kHz to 30MHz

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

Measured Level = Read level + Cable Loss + LISN Factor

5.2 Disturbance POWER test

Test Requirement: EN 55032:2015/A11:2020

Test Method: EN 55032:2015/A11:2020

Limit:

30 ~ 300	45 Increasing Linearly with Frequency to 55 (Q.P.) 35 Increasing Linearly with Frequency to 45 (A.V.)

5.2.1 E.U.T. Operation

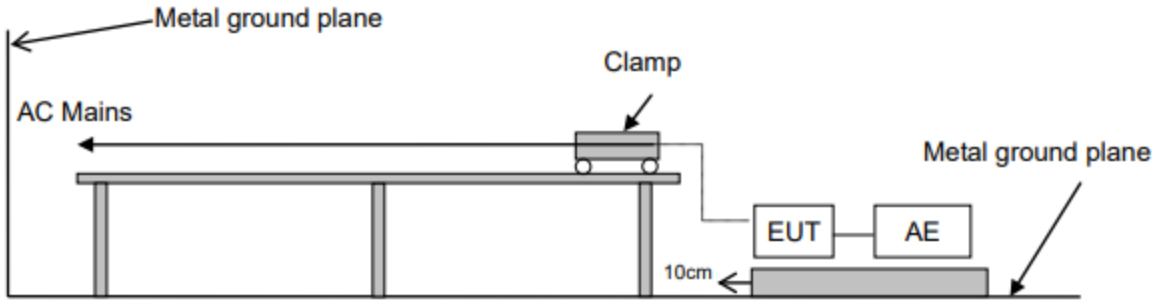
Operating Environment:

Temperature: 24 °C Humidity: 54 % RH Atmospheric Pressure: 1010 mbar

5.2.2 Test Mode Description

Test Mode: Normal working mode(Max Loading).

5.2.3 Test Setup Diagram



5.2.4 Measurement Procedure and Data

The EUT is placed on the ground and away from other metallic surface at least 0.4m. It is connected to the power mains through an extension cord of 6m min. The absorber clamp clamps the cord and moves from the far end to the EUT to measure the disturbing energy emitted from the cord.

The bandwidth of the test receiver is set at 120kHz.

All the test results are listed in Section 6.6.

The frequency spectrum from 30 MHz to 300 MHz is investigated.

As the peak value is too low against the limit, so the quasi-peak value and average value have omitted. All the scanning waveforms are attached in **Appendix II**

5.3 Radiated Emissions

Test Requirement: EN 55032:2015/A11:2020

Test Method: EN 55032:2015/A11:2020

Limit:

30MHz- 230MHz: 40dBuV/m quasi-peak

230MHz- 1000MHz: 47dBuV/m quasi-peak

Detector: Peak for pre-scan (120kHz resolution bandwidth) 30MHz to 1000MHz

5.3.1 E.U.T. Operation

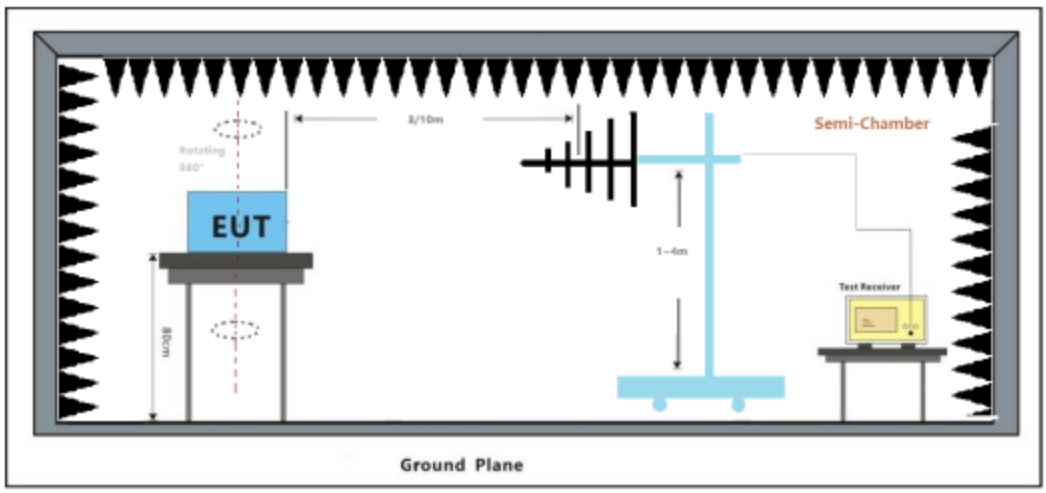
Operating Environment:

Temperature: 22.0 °C Humidity: 52 % RH Atmospheric Pressure: 1010 mbar

5.3.2 Test Mode Description

Test Mode: Normal working mode(Max Loading).

5.3.3 Test Setup Diagram



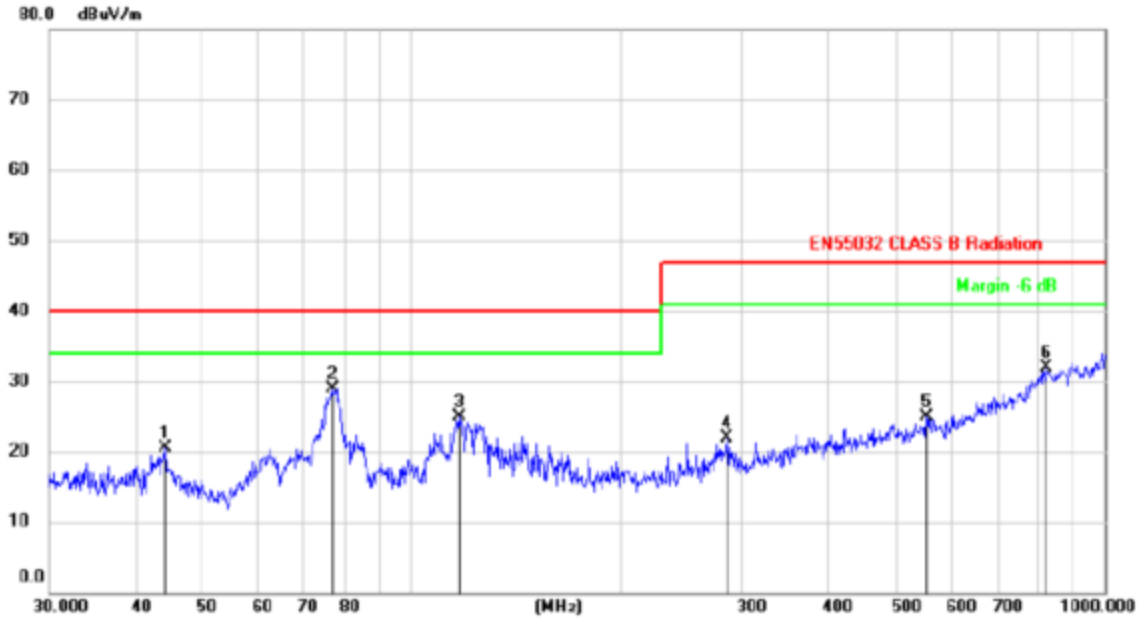
5.3.4 Measurement Procedure and Data

Frequency Range: 30MHz to 1000MHz

An initial pre-scan was performed with peak detector. Quasi-Peak measurement was performed at the frequencies with maximized peak emission were detected.

Measured Level = Read level + Cable Loss + Ant Factor- Pre-amp

Polarization: Horizontal



Site Chamber #1
Limit: EN55032 CLASS B Radiation
EUT:
M/N:
Mode:
Note:

Polarization: *Horizontal*
Power:
Distance:

Temperature: 26
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dBuV/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		44.1202	17.13	3.29	20.42	40.00	-19.58	QP			
2	*	76.7808	27.84	1.05	28.89	40.00	-11.11	QP			
3		116.9495	21.12	3.81	24.93	40.00	-15.07	QP			
4		284.9767	15.29	6.60	21.89	47.00	-25.11	QP			
5		552.8832	13.15	11.76	24.91	47.00	-22.09	QP			
6		824.5968	13.96	18.01	31.97	47.00	-15.03	QP			

Note: Measurement Level = Reading Level + Correct Factor

Polarization: Vertical

Site Chamber #1
Limit: EN55032 CLASS B Radiation
EUT:
M/N:
Mode:
Note:

Polarization: *Vertical*
Power:
Distance:

Temperature: 26
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dBuV/m	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		44.1202	28.87	3.33	32.20	40.00	-7.80	QP			
2	*	75.7114	34.62	1.15	35.77	40.00	-4.23	QP			
3		126.7723	30.08	3.75	33.83	40.00	-6.17	QP			
4		173.8135	25.75	2.49	28.24	40.00	-11.76	QP			
5		373.3112	13.33	9.57	22.90	47.00	-24.10	QP			
6		706.6999	14.15	13.72	27.87	47.00	-19.13	QP			

Note: Measurement Level = Reading Level + Correct Factor

5.4 Voltage Fluctuations and Flicker

Test Requirement: EN 55035:2017/A1:2020

Test Method: EN 55035:2017/A1:2020

5.4.1 E.U.T. Operation

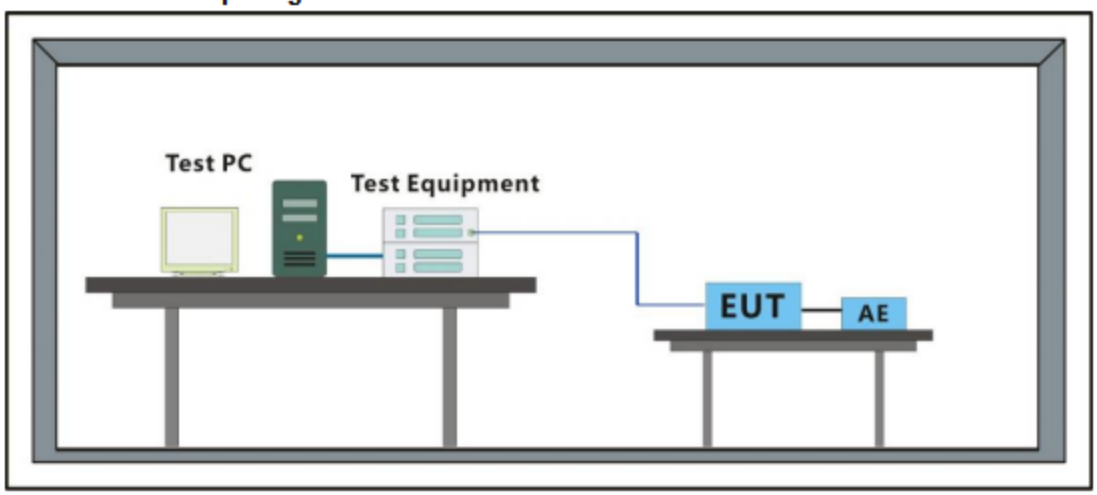
Operating Environment:

Temperature: 25.6 °C Humidity: 65.6 % RH Atmospheric Pressure: 1010 mbar

5.4.2 Test Mode Description

Test Mode: Normal working mode(Max Loading).

5.4.3 Test Setup Diagram



5.4.4 Measurement Procedure and Data

Flicker Test Summary per EN/IEC61000-3-3 (Run time)

Test category: dt,dmax,dc and Pst (European limits) **Test Margin: 100**
Test duration (min): 10

Test Result: Pass **Status: Test Completed**

Pst, and limit line **European Limits**

Parameter values recorded during the test:

Vrms at the end of test (Volt):	**230.06**			
T-max (mS):	**0**	**Test limit (mS):**	**500.0**	**Pass**
Highest dc (%):	**0.00**	**Test limit (%):**	**3.30**	**Pass**
Highest dmax (%):	**0.00**	**Test limit (%):**	**4.00**	**Pass**
Highest Pst (10 min. period):	**0.064**	**Test limit:**	**1.000**	**Pass**

5.5 Harmonic Current Emission

Test Requirement: EN IEC 61000-3-2:2019/A1:2021

Test Method: EN IEC 61000-3-2:2019/A1:2021

Frequency Range: 100Hz to 2kHz

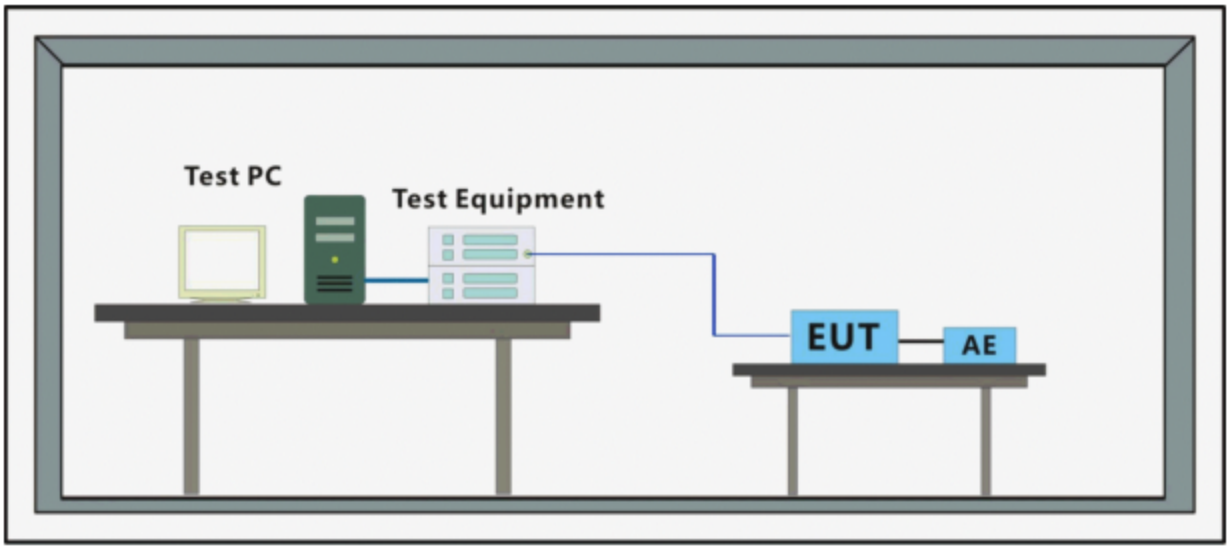
5.5.1 E.U.T. Operation

Operating Environment:

Temperature: / °C Humidity: / % RH Atmospheric Pressure: / mbar

Test Mode: Normal working mode(Max Loading).

5.5.2 Test Setup Diagram



5.5.3 Measurement Data

Ha	Entire measurement (0.320 s = 1 time window(s))						Worst 2.5 min		Average		PASS	FAIL
	Maximum	Window	EN61000-3-2 Class D 50W	Margin in MaxWin	100 to 150%	Ex-ceeded	100 to 150%	Ex-ceeded	Value	Ex-ceeded		
DC	0.0012 A	1	--	--	0	0	n.e.	n.e.	-0.0012 A	0	X	
1	0.2989 A	1	--	--	0	0	n.e.	n.e.	0.2989 A	0	X	
2	0.0002 A	1	--	--	0	0	n.e.	n.e.	0.0002 A	0	X	
3	0.0418 A	1	0.2239 A	81.3 %	0	0	n.e.	n.e.	0.0418 A	0	X	
4	0.0001 A	1	--	--	0	0	n.e.	n.e.	0.0001 A	0	X	
5	0.0263 A	1	0.1251 A	78.9 %	0	0	n.e.	n.e.	0.0263 A	0	X	
6	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
7	0.0141 A	1	0.0658 A	78.6 %	0	0	n.e.	n.e.	0.0141 A	0	X	
8	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
9	0.0051 A	1	0.0329 A	84.4 %	0	0	n.e.	n.e.	0.0051 A	0	X	
10	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
11	0.0007 A	1	0.0230 A	97.1 %	0	0	n.e.	n.e.	0.0007 A	0	X	
12	0.0001 A	1	--	--	0	0	n.e.	n.e.	0.0001 A	0	X	
13	0.0029 A	1	0.0195 A	85.1 %	0	0	n.e.	n.e.	0.0029 A	0	X	
14	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
15	0.0033 A	1	0.0169 A	80.3 %	0	0	n.e.	n.e.	0.0033 A	0	X	
16	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
17	0.0039 A	1	0.0149 A	73.9 %	0	0	n.e.	n.e.	0.0039 A	0	X	
18	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
19	0.0018 A	1	0.0133 A	86.9 %	0	0	n.e.	n.e.	0.0018 A	0	X	
20	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
21	0.0016 A	1	0.0121 A	86.7 %	0	0	n.e.	n.e.	0.0016 A	0	X	
22	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
23	0.0015 A	1	0.0110 A	86.4 %	0	0	n.e.	n.e.	0.0015 A	0	X	
24	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
25	0.0023 A	1	0.0101 A	77.5 %	0	0	n.e.	n.e.	0.0023 A	0	X	
26	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
27	0.0019 A	1	0.0094 A	80.0 %	0	0	n.e.	n.e.	0.0019 A	0	X	
28	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
29	0.0017 A	1	0.0087 A	80.2 %	0	0	n.e.	n.e.	0.0017 A	0	X	
30	0.0001 A	1	--	--	0	0	n.e.	n.e.	0.0001 A	0	X	
31	0.0009 A	1	0.0082 A	88.5 %	0	0	n.e.	n.e.	0.0009 A	0	X	
32	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
33	0.0015 A	1	0.0077 A	80.3 %	0	0	n.e.	n.e.	0.0015 A	0	X	
34	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	
35	0.0014 A	1	0.0072 A	80.3 %	0	0	n.e.	n.e.	0.0014 A	0	X	
36	0.0001 A	1	--	--	0	0	n.e.	n.e.	0.0001 A	0	X	
37	0.0013 A	1	0.0069 A	80.6 %	0	0	n.e.	n.e.	0.0013 A	0	X	
38	0.0001 A	1	--	--	0	0	n.e.	n.e.	0.0001 A	0	X	
39	0.0010 A	1	0.0065 A	84.3 %	0	0	n.e.	n.e.	0.0010 A	0	X	
40	0.0000 A	1	--	--	0	0	n.e.	n.e.	0.0000 A	0	X	

Note: The actual power is less than 75W.

6 Immunity Test Results

Performance Criteria Description

Criterion A: The apparatus shall continue to operate as intended during the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.

Criterion B: The apparatus shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level (or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however. No change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation and from what the user may reasonably expect from the apparatus if used as intended.

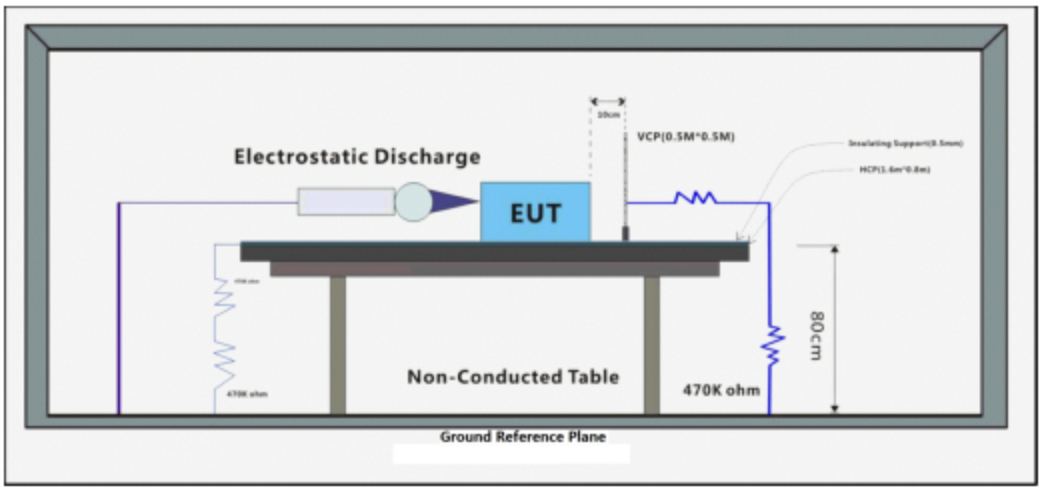
Criterion C: Temporary loss of function is allowed, provided the function is self recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.

6.1 Electrostatic Discharge

Test Requirement: EN 61000-4-2:2009

Test Method: EN 61000-4-2:2009

6.1.1 Test Setup Diagram



6.1.2 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C Humidity: 55.9 % RH Atmospheric Pressure: 1010 mbar

6.1.3 Test Mode Description

Test Mode: Normal working mode(Max Loading).

6.1.4 Test Condition and Results:

Performance Criterion: B

Discharge Impedance: 330 Ω / 150 pF

Discharge Voltage: Air Discharge: 8 kV; Contact Discharge:4 kV; VCP/HCP: 4 kV.

Polarity: Positive & Negative

Number ofDischarge: Minimum 10 times at each test point

Discharge Mode: Single Discharge

Discharge Period: 1 second minimum

Test Point 1: All insulated enclosure & seams.

Test Point 2: All accessible metal parts of the enclosure.

Test Point 3: All sides.

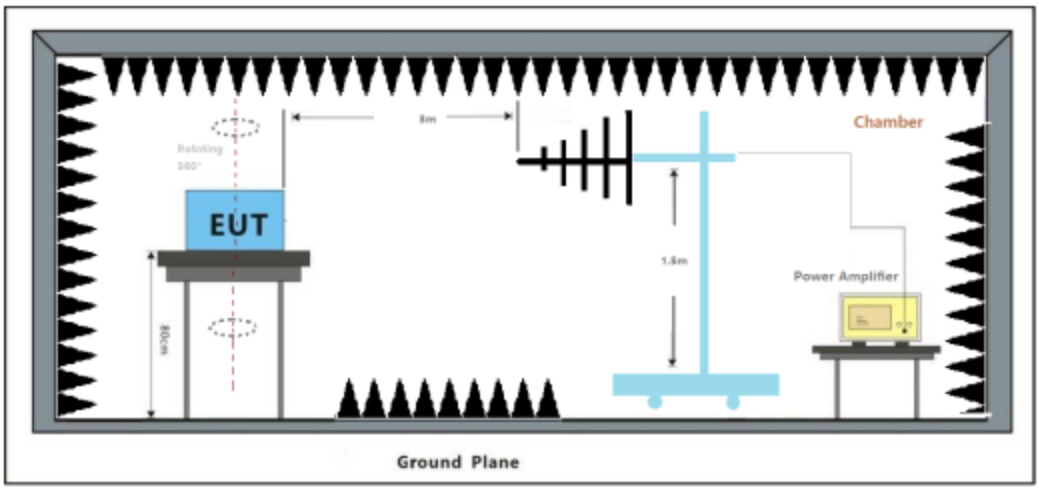
Discharge type	Level (kV)	Polarity	Test Point	Result / Observations
Air Discharge	8	+	1	A
Air Discharge	8	-	1	A
Contact Discharge	4	+	2	A
Contact Discharge	4	-	2	A
Horizontal Coupling	4	+	3	A
Horizontal Coupling	4	-	3	A
Vertical Coupling	4	+	3	A
Vertical Coupling	4	-	3	A
A: No degradation in the performance of the EUT was observed N/A:Not applicable				

6.2 Continuos RF Eletromagnetic field Disturbance

Test Requirement: EN 61000-4-2:2009

Test Method: EN IEC 61000-4-3:2020

2.1.1 Test Setup Diagram



6.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C Humidity: 68.3 % RH Atmospheric Pressure: 1010 mbar

6.2.2 Test Mode Description

Test Mode: Normal working mode(Max Loading).

6.2.3 Test Condition and Results:

Performance Criterion: A

Step Size: 1%

Frequency Range: 80MHz to 2700MHz

Modulation: 80%, 1kHz Amplitude Modulation

80~2000MHz

Surface	Level (V/m)	Polarization	Dwell time	Result / Observations
AC power port	3	H&V	1s	A
AC power port	3	H&V	1s	A
AC power port	3	H&V	1s	A
AC power port	3	H&V	1s	A
A: No degradation in the performance of the EUT was observed				

2.0~2.7GHz

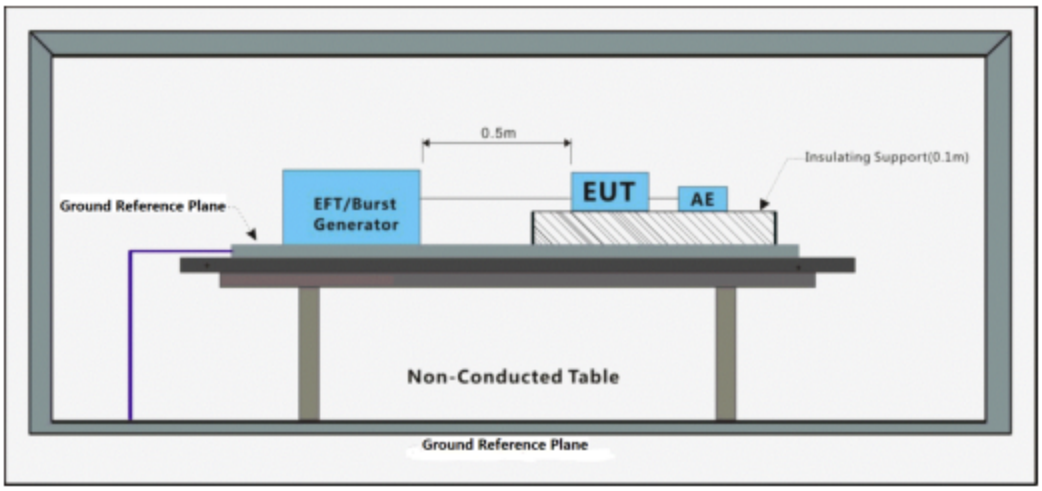
Surface	Level (V/m)	Polarization	Dwell time	Result / Observations
AC power port	1	H&V	1s	A
AC power port	1	H&V	1s	A
AC power port	1	H&V	1s	A
AC power port	1	H&V	1s	A
A: No degradation in the performance of the EUT was observed				

6.3 Electrical Fast Transients Burst at AC Mains Power Port

Test Requirement: EN 61000-4-4:2012

Test Method: EN 61000-4-4:2012

6.3.1 Test Setup Diagram



6.3.2 E.U.T. Operation

Operating Environment:

Temperature: 23.8 °C Humidity: 67.5 % RH Atmospheric Pressure: 1010 mbar

6.3.3 Test Mode Description

Test Mode: Normal working mode(Max Loading).

6.3.4 Test Condition and Results:

Performance Criterion: B

Repetition Frequency: 5kHz

Burst Period: 300ms

Test Duration: 2 minute per level & polarity

Test Level: 1.0kV

Polarity: Positive & Negative

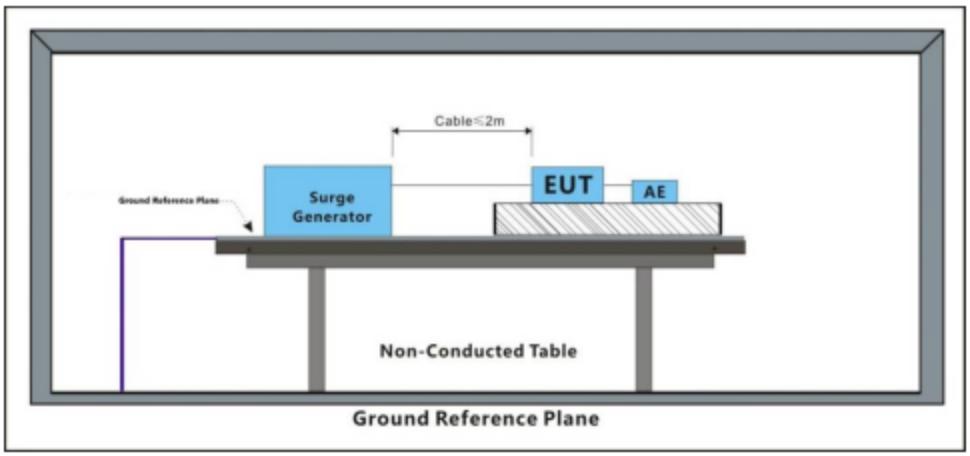
Test Line	Level (kV)	Polarity	CDN/Clamp	Result / Observations
AC power port	1	+	CDN	A
AC power port	1	-	CDN	A
A: No degradation in the performance of the EUT was observed				

6.4 Surge at AC Mains Power Port

Test Requirement: EN 61000-4-5:2014+A1:2017

Test Method: EN 61000-4-5:2014+A1:2017

6.4.1 Test Setup Diagram



6.4.2 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C Humidity: 68.4 % RH Atmospheric Pressure: 1010 mbar

6.4.3 Test Mode Description

Test Mode: Normal working mode(Max Loading).

6.4.4 Test Condition and Results:

Performance Criterion: B
Interval: 60s between each surge
Test Level: ±1kV Live to Neutral; ±2kV Live, Neutral to Earth
Polarity: Positive & Negative
Generator source impedance: 2Ω
Trigger Mode: Internal
No. of surges: 5 positive at 90°, 5 negative at 270°.

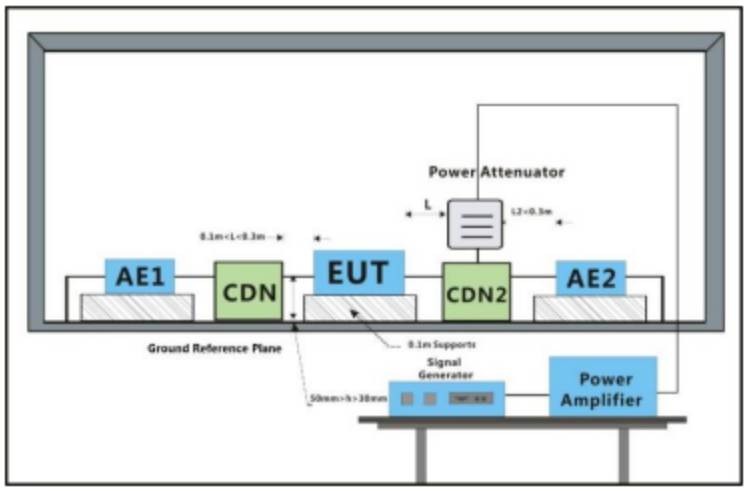
Test Line	Level (kV)	Polarity	Phase (deg)	Result / Observations
L-N	1	+	0°,90°,180°,270°	A
L-N	1	-	0°,90°,180°,270°	A
L-E	2	+	0°,90°,180°,270°	A
L-E	2	-	0°,90°,180°,270°	A
N-E	2	+	0°,90°,180°,270°	A
N-E	2	-	0°,90°,180°,270°	A
A: No degradation in the performance of the EUT was observed				

6.5 Conducted Immunity at AC Mains Power Port (150kHz-80MHz)

Test Requirement: /

Test Method: EN 61000-4-6:2014

2.1.2 Test Setup Diagram



6.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23.7 °C Humidity: 68.3 % RH Atmospheric Pressure: 1010 mbar

6.5.2 Test Mode Description

Test Mode: Normal working mode(Max Loading).

6.5.3 Test Condition and Results:

Performance Criterion: A

Step Size: 1%

Frequency Range: 0.15MHz to 230MHz

Modulation: 80%, 1kHz Amplitude Modulation

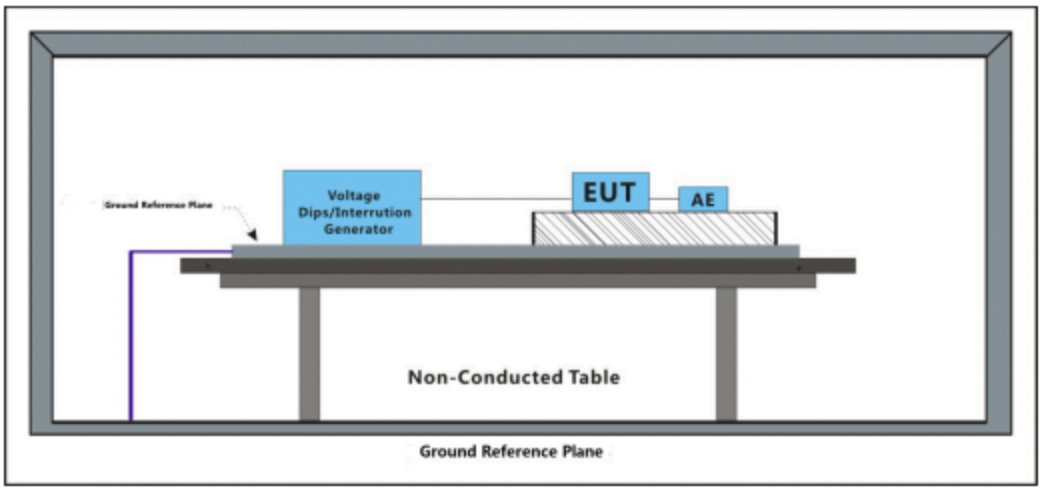
Cable Port	Level (Vrms)	CDN/Clamp	Dwell time	Result / Observations
AC power port	3	CDN	2s	A
A: No degradation in the performance of the EUT was observed				

6.6 Voltage Dips and Interruptions

Test Requirement: EN IEC 61000-4-11:2020

Test Method: EN IEC 61000-4-11:2020

6.6.1 Test Setup Diagram



6.6.2 E.U.T. Operation

Operating Environment:

Temperature: 23.8 °C Humidity: 68.3 % RH Atmospheric Pressure: 1010 mbar

6.6.3 Test Mode Description

Test Mode: Normal working mode(Max Loading).

6.6.4 Test Condition and Results:

Performance Criterion:

For 50Hz: 0% of UT (Rated Voltage) for 0.5 Cycle: C; 40% of UT for 10 Cycles: C; 70% of UT for 25 Cycles: C.

No. of Dips / Interruptions: 3 per Level

Time between dropout: 10s

Level % UT	Phase (deg)	Duration	No. of Dips / Interruptions	Result / Observations
0	0°	0.5 Cycle for 50Hz	3	A
0	180°	0.5 Cycle for 50Hz	3	A
40	0°	10 Cycles for 50Hz	3	A
40	180°	10 Cycles for 50Hz	3	A
70	0°	25 Cycles for 50Hz	3	A
70	180°	25 Cycles for 50Hz	3	A
A: No degradation in the performance of the EUT was observed				

7 EUT Constructional Details (EUT Photos)

--End of the report--

Certificate of Compliance

Certificate No.	:	CTICAJ216242083082819DC
Applicant	:	Shenzhen E-Connecting Technology Co., Ltd P15-124, Electronic Area, China South City, Pinghu Street, Longgang, Shenzhen, China.
Manufacturer	:	Shenzhen E-Connecting Technology Co., Ltd P15-124, Electronic Area, China South City, Pinghu Street, Longgang, Shenzhen, China.
Product Name	:	wiring harness
Trade Name	:	/
Main Test Model	:	/
Additional models	:	/
Test Standard	:	**EN 55032:2015/A11:2020** **EN IEC 61000-3-2:2019/A1:2021** **EN 61000-3-3:2013/A1:2019/A2:2021** **EN 55035:2017/A1:2020**
As shown in the Test Report No.	:	**CTICAJ216242083082819DR**

The EUT described above has been tested by us with the listed standards and found in compliance with the council EMC directive 2014/30/EU. It is possible to use CE marking to demonstrate the compliance with this EMC Directive.
The certificate applies to the tested sample above mentioned only and shall not imply an assessment of the whole production.

CTIC Testing Group (Guangdong) Co., Ltd. APPROVED

Manager
Aug.27.2024

CTIC Testing Group (Guangdong) Co, Ltd.
Add:201, Building A1, Lilang International Jewelry Industrial Park, No.31, BulanRoad, Xialilang Community, Nanwan Street, Longgang District, Shenzhen.Guangdong, China
Certificate Search: Tel: 400-6800-890,http//www.ctic-lab.com, E-mail:christina@ctic-lab.com

Test Report

CTIC Testing Group (Guangdong) Co., Ltd.

Report No: CTICAJ215242083082818HR

Applicant	:	Shenzhen E-Connecting Technology Co., Ltd.
Address	:	P15-124, Electronic Area, China South City, Pinghu Street, Longgang, Shenzhen, China.
Manufacturer	:	Shenzhen E-Connecting Technology Co., Ltd
Address	:	P15-124, Electronic Area, China South City, Pinghu Street, Longgang, Shenzhen, China.

The following sample(s) was /were submitted and identified on behalf of the clients as:

Sample Name	:	wiring harness
Trademark	:	/
Main test model	:	/
Additional models	:	/
Sample Received Date	:	Aug.21.2024
Testing Period	:	Aug.21.2024 To Aug.27.2024
Test Requested	:	Selected test (s) in the selected parts as requested by client with the RoHS 2.0 Directive 2011/65/EU Annex II (EU) 2015/863 as last amended by Directive (EU) 2017/2102.
Test Method	:	Please refer to next page(s).
Test Result	:	Please refer to next page(s).

Signed for and on behalf of

CTIC Testing Group (Guangdong) Co., Ltd. APPROVED

Chen Liang / Approved Signatory

IHRMcz

912bKI

Test Content:

Test Item(s)	Test Method	Reference	Unit	Limit	MDL
Cadmium(Cd)	IEC 62321-5:2013	ICP-OES	mg/kg	100	2
Lead(Pb)	IEC 62321-5:2013	ICP-OES	mg/kg	1000	2
Mercury(Hg)	IEC 62321-4:2013+AMD1:2017 CSV	ICP-OES	mg/kg	1000	2
Hexavalent Chromium(CrVI) (Metal)	IEC 62321-7-1:2015	UV-Vis	$\mu g/cm^2$	0.29	0.1
Hexavalent Chromium(CrVI) (Nonmetal)	IEC 62321-7-2:2017	UV-Vis	mg/kg	1000	8
PBBs (Next form)	IEC 62321-6:2015	GC-MS	mg/kg	1000	5
PBDEs (Next form)	IEC 62321-6:2015	GC-MS	mg/kg	1000	5
Dibutyl Phthalate(DBP)	IEC 62321-8:2017	GC-MS	mg/kg	1000	30
Butyl benzyl phthalate (BBP)	IEC 62321-8:2017	GC-MS	mg/kg	1000	30
Di-(2-ethylhexyl) Phthalate(DEHP)	IEC 62321-8:2017	GC-MS	mg/kg	1000	30
Diisobutyl phthalate (DIBP)	IEC 62321-8:2017	GC-MS	mg/kg	1000	30

PBBs		PBDEs	
Monobromobiphenyl	Hexabromobiphenyl	Monobromodiphenyl ether	Hexabromodiphenyl ether
Dibromobiphenyl	Heptabromobiphenyl	Dibromodiphenyl ether	Heptabromodiphenyl ether
Tribromobiphenyl	Octabromobiphenyl	Tribromodiphenyl ether	Octabromodiphenyl ether
Tetrabromobiphenyl	Nonabromobiphenyl	Tetrabromodiphenyl ether	Nonabromodiphenyl ether
Pentabromobiphenyl	Decabromobiphenyl	Pentabromodiphenyl ether	Decabromodiphenyl ether

Sample Description:

No.	Description	Name
1.	plastic	Black wire set
2.	metal	wire wire
3.	plastic	red line
4.	plastic	green line
5.	plastic	purple line
6.	plastic	orange line
7.	plastic	yellow line
8.	plastic	blue line
9.	plastic	white line

Test Result

Test Item(s)	No.1	No.2	No.3	No.4	No.5	No.6
Cadmium (Cd)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Lead (Pb)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Mercury (Hg)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hexavalent Chromium (CrVI)	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
PBBs	N.D.	--	N.D.	N.D.	N.D.	N.D.
PBDEs	N.D.	--	N.D.	N.D.	N.D.	N.D.
Dibutyl Phthalate (DBP)	N.D.	--	N.D.	N.D.	N.D.	N.D.
Butyl benzyl phthalate (BBP)	N.D.	--	N.D.	N.D.	N.D.	N.D.
Di-(2-ethylhexyl) Phthalate(DEHP)	N.D.	--	N.D.	N.D.	N.D.	N.D.
Diisobutyl phthalate (DIBP)	N.D.	--	N.D.	N.D.	N.D.	N.D.

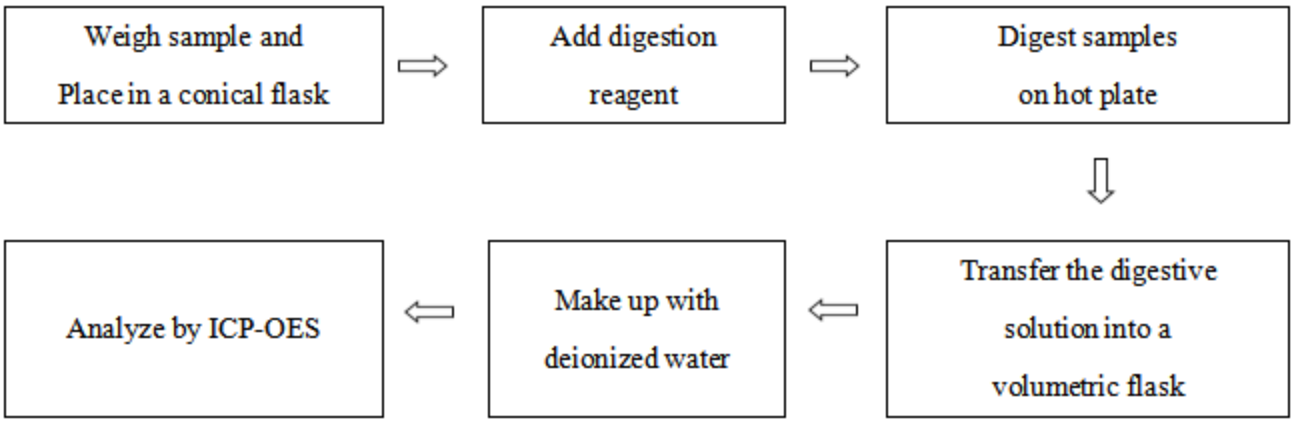
Test Item(s)	No.7	No.8	No.9	--	--	--
Cadmium (Cd)	N.D.	N.D.	N.D.	--	--	--
Lead (Pb)	N.D.	N.D.	N.D.	--	--	--
Mercury (Hg)	N.D.	N.D.	N.D.	--	--	--
Hexavalent Chromium (CrVI)	N.D.	N.D.	N.D.	--	--	--
PBBs	N.D.	N.D.	N.D.	--	--	--
PBDEs	N.D.	N.D.	N.D.	--	--	--
Dibutyl Phthalate (DBP)	N.D.	N.D.	N.D.	--	--	--
Butyl benzyl phthalate (BBP)	N.D.	N.D.	N.D.	--	--	--
Di-(2-ethylhexyl) Phthalate(DEHP)	N.D.	N.D.	N.D.	--	--	--
Diisobutyl phthalate (DIBP)	N.D.	N.D.	N.D.	--	--	--

Note:

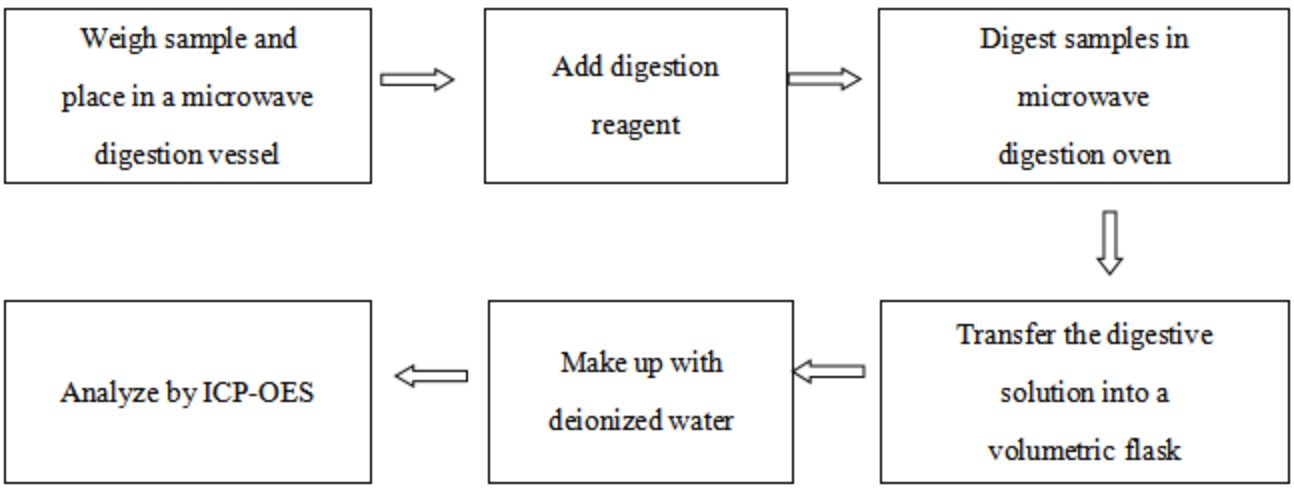
1. mg/kg= ppm
2. N.D.= Not Detected(<MDL)
3. MDL = Method Detection Limit
4. -- = No Testing
5. when Cr(VI) in a sample is detected below the 0.10 μg/cm^2 LOQ (limit of quantification), the sample is considered to be negative for Cr(VI). Since Cr(VI) may not be uniformly distributed in the coating even within the same sample batch, a "grey zone" between 0.10 μg/cm^2 and 0.29 μg/cm^2 has been established as "inconclusive" to reduce inconsistent results due to unavoidable coating variations. In this case, additional testing may be necessary to confirm the presence of Cr(VI). When Cr(VI) is detected above 0.29 μg/cm^2, the sample is considered to be positive for the presence of Cr(VI) in the coating layer. unavoidable coating variations may influence the determination Information on storage conditions and production date of the tested sample is unavailable and thus Cr(VI) results represent status of the sample at the time of testing.

Test Process:

1. Test for Cd/Pb Content

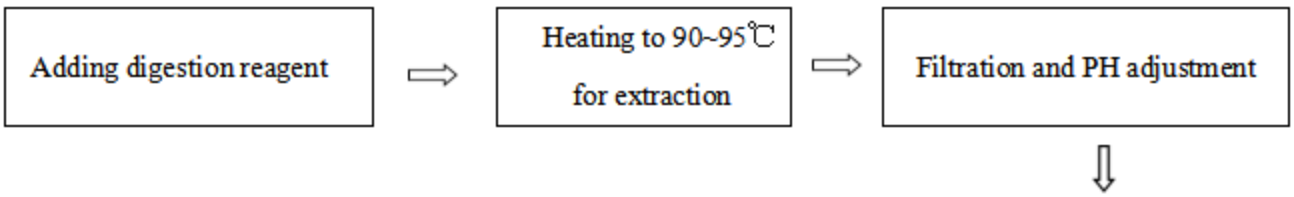


2. Test for Hg Content

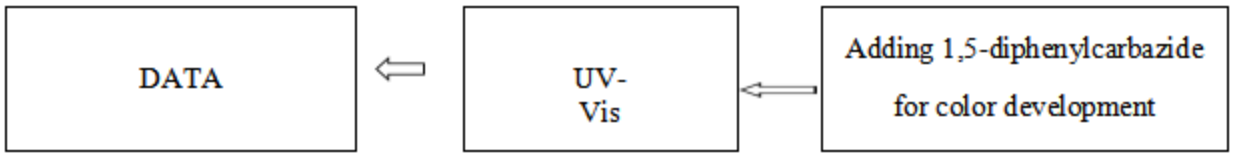


3. Test for Chromium (VI)

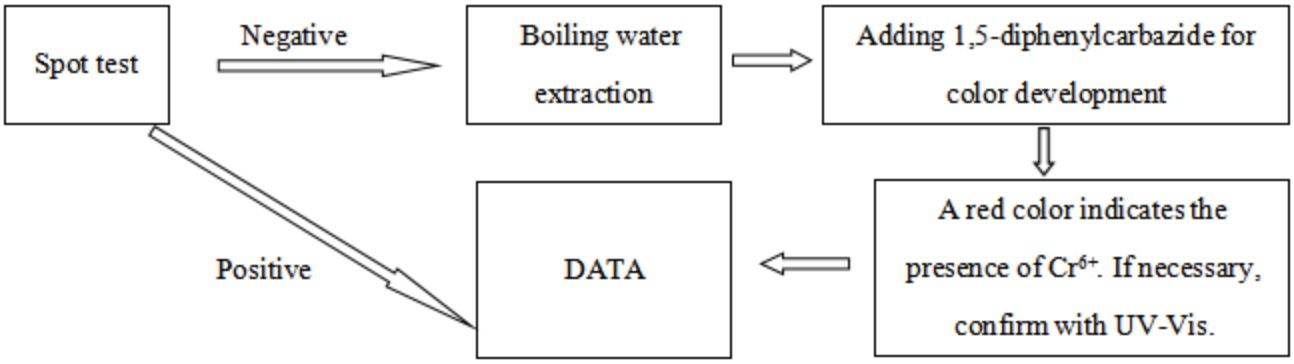
Content Nonmetal



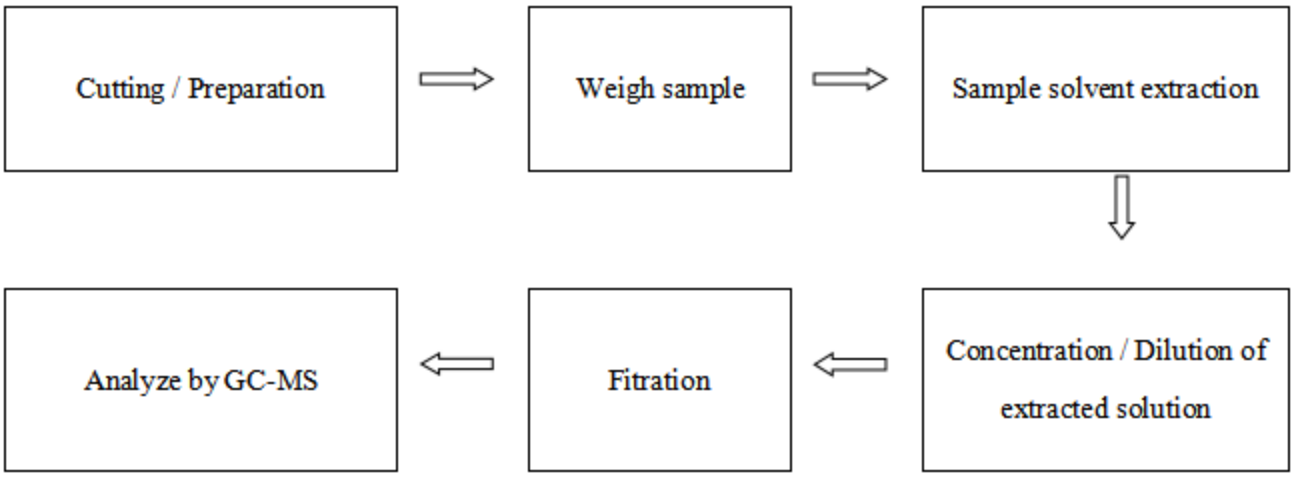
material



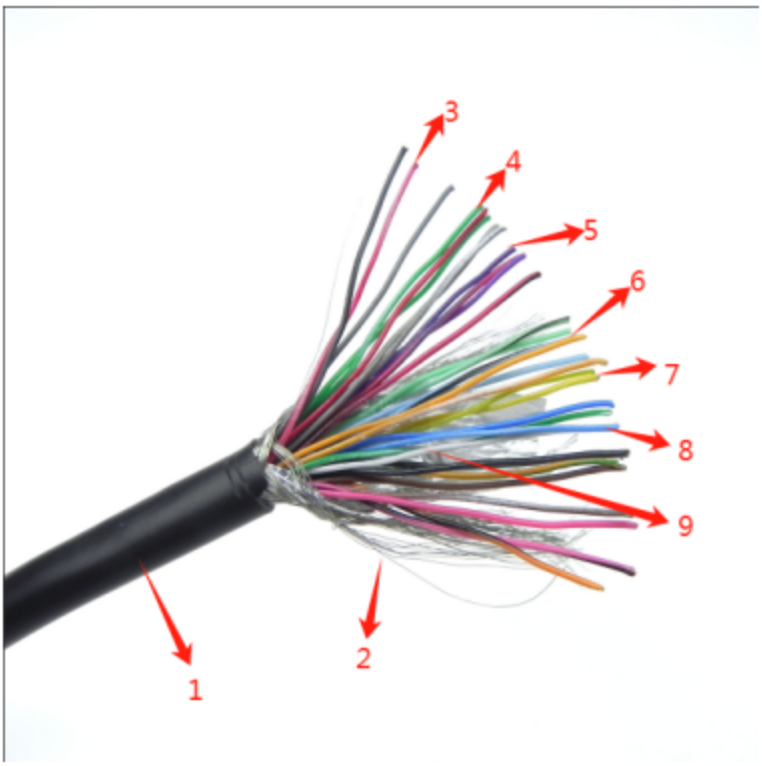
Metal material



4. Test for DBP, BBP, DEHP, DIBP, PBB, PBDE Content



Photos General Appearance of the EUT



黑色电线套+电线丝+红色线+绿色线+紫色线+橙色线+黄色线+蓝色线+白色线

***** End of Report *****

Certificate of Compliance

Certificate No.	:	CTICAJ215242083082818HC
Applicant	:	Shenzhen E-Connecting Technology Co., Ltd. P15-124, Electronic Area, China South City, Pinghu Street, Longgang, Shenzhen, China.
Manufacturer	:	Shenzhen E-Connecting Technology Co., Ltd P15-124, Electronic Area, China South City, Pinghu Street, Longgang, Shenzhen, China.
Product Name	:	wiring harness
Trade Name	:	/
Main Test Model	:	/
Additional models	:	/
Test Standard	:	EN IEC 62321-4:2013+AMD1:2017 CSV, EN IEC 62321-5:2013, EN IEC 62321-6:2015, EN IEC 62321-7-1:2015, EN IEC 62321-7-2:2017, EN IEC 62321-8:2017
As shown in the Test Report No.	:	CTICAJ215242083082818HR

The EUT described above has been tested by us and found in compliance with the council RoHS 2.0 Directive 2011/65/EU Annex II (EU) 2015/863 as last amended by Directive (EU) 2017/2102. This certificate is only valid in conjunction with the test report.

RoHS

CTIC Testing Group (Guangdong) Co., Ltd.
APPROVED
Christina Deng
Manager
Aug.27.2024

CTIC Testing Group (Guangdong) Co, Ltd.

Add:201, Building A1, Lilang International Jewelry Industrial Park, No.31, BulanRoad, Xialilang Community, Nanwan Street, Longgang District, Shenzhen.Guangdong, China

Certificate Search: Tel: 400-6800-890,http://www.ctic-lab.com, E-mail:christina@ctic-lab.com

Certificate JP19/071595

The management system of

I-PEX Inc.

HEAD OFFICE / KYOTO PLANT 12-4 Negoro, Momoyama-cho, Fushimi-ku, Kyoto-shi, Kyoto Japan

has been assessed and certified as meeting the requirements of

ISO 45001:2018

For the following activities

1. Electronics components business (Development, Design and Manufacture of Connectors)
2. Automotive components business (Development, Design and Manufacture of Electrical parts sensors)
3. Precision components business (Development, Design and Manufacture of HDD parts, Audio-video components and Meters)
4. Metallic mold and manufacturing equipment business (Development, Design and Manufacture of semiconductor manufacturing equipment and automatic manufacturing equipment)

This certificate is valid from 08 July 2023 until 12 June 2025 and remains valid subject to satisfactory surveillance audits.
Issue 6. Certified since 12 June 2019
Certified activities performed by additional sites are listed on subsequent pages.

Authorised by
Jonathan Hall
Global Head - Certification Services

SGS United Kingdom Ltd
Rossmore Business Park, Ellesmere Port, Cheshire, CH65 3EN, UK
t +44 (0)151 350-6666 - www.sgs.com

I-PEX Inc.

ISO 45001:2018

Issue 6
Sites
I-PEX Inc. HEAD OFFICE / KYOTO PLANT 12-4 Negoro, Momoyama-cho, Fushimi-ku, Kyoto-shi, Kyoto Japan 4. Mold business (manufacturing of semiconductor encapsulation mold)
I-PEX Inc. FUKUOKA ONOJO PLANT 6-1-8 Mikasagawa, Onojo-shi, Fukuoka Japan 1. Automotive components business (Manufacture of Electrical parts sensors)
I-PEX Inc. FUKUOKA OGORI PLANT 863 Mitsusawa, Ogori-shi, Fukuoka Japan 1. Electronics components business (Manufacture of Connectors) 2. Automotive components business (Manufacture of Electrical parts sensors) 3. Precision components business (Manufacture of HDD parts, Audio-video components and Meters) 4. Metallic mold and manufacturing equipment business (Manufacture of semiconductor manufacturing equipment and automatic manufacturing equipment)
I-PEX Inc. FUKUOKA TACHIARAI PLANT 2455-1 Takata, Chikuzen-machi, Asakura-gun, Fukuoka Japan 1. Electronics components business (Manufacture of Connectors) 2. Automotive components business (Manufacture of Electrical parts sensors)
I-PEX Inc. YAMANASHI PLANT 1816-1 Shotokuji, Yamanashi-shi, Yamanashi Japan 1. Automotive components business (Manufacture of Electrical parts sensors)
I-PEX Inc. Shizuoka R&D Center EXCELWARD SHIZUOKA BLDG., 11-30 Miyuki-cho, Aoi-ku, Shizuoka-shi, Shizuoka Japan 1. Electronics components business (Development and Design of Connectors) 2. Automotive components business (Development and Design of Electrical parts sensors)
I-PEX Inc. Shizuoka R&D Center Heiwa Test Site 1-2-11 Heiwa, Aoi-ku, Shizuoka-shi, Shizuoka Japan 1. Electronics components business (Development and Design of Connectors) 2. Automotive components business (Development and Design of Electrical parts sensors)

I-PEX Inc.

ISO 45001:2018

I-PEX Inc. Tokyo R&D Center MACHIDA ST BLDG., 1-33-10 Morino, Machida-shi, Tokyo Japan 1. Electronics components business (Development and Design of Connectors) 2. Automotive components business (Development and Design of Electrical parts sensors) 3. Precision components business (Development and Design of HDD parts, Audio-video components and Meters)
I-PEX Inc. OSAKA BRANCH WeWork Midosuji Frontier, 1-13-22 Sonezakishinchi, Kita-ku, Osaka Japan 1. Electronics components business (Sales of Connectors) 2. Automotive components business (Sales of Electrical parts sensors, connectors) 3. Precision components business (Sales of HDD parts, Audio-video components and Meters)
I-PEX Shimane Inc. 12 Hokuryo-cho, Matsue-shi, Shimane Japan 1. Electronics components business (Manufacture of Connectors)
DJ Precision Co., Ltd. 863 Mitsusawa, Ogori-shi, Fukuoka Japan 3. Precision components business (Manufacture of HDD parts, Audio-video components and Meters)
I-PEX Campus 2409-1 Ogori, Ogori-city, Fukuoka Japan 1. Electronics components business (Development and Design and Mold manufacturing of Connectors) 2. Automotive components business (Development and Design and Mold manufacturing of Electrical parts sensors) 3. Precision components business (Development and Design and Mold manufacturing of HDD parts, Audio-video components and Meters) 4. Metallic mold and manufacturing equipment business (Development and Design of semiconductor manufacturing equipment and automatic manufacturing equipment)
I-PEX INC. Yokohama Office Shin-Yokohama Square Bldg., 2-3-12, Shin-Yokohama, Kohoku-ku, Yokohama, Kanagawa Japan 1. Elctronics components business(Sales of Connectors) 2. Automotive components business(Sales of Electrical parts sensors, connectors) 3. Precision components business(Sales of HDD parts, Audio-video components and Meters) 4. Metallic mold and manufacturing equipment business(Sales of semiconductor manufacturing and automatic manufacturing equipment)

Certificate JP05/000625

The management system of

I-PEX Inc.

HEAD OFFICE / KYOTO PLANT 12-4 Negoro, Momoyama-cho, Fushimi-ku, Kyoto-shi, Kyoto Japan

has been assessed and certified as meeting the requirements of

ISO 14001:2015

For the following activities

1. Electronics components business (Development, Design and Manufacture of Connectors)
2. Automotive components business (Development, Design and Manufacture of Electrical parts sensors)
3. Precision components business (Development, Design and Manufacture of HDD parts, Audio-video components and Meters)
4. Metallic mold and manufacturing equipment business (Development, Design and Manufacture of semiconductor manufacturing equipment and automatic manufacturing equipment)

This certificate is valid from 08 July 2023 until 12 June 2025 and remains valid subject to satisfactory surveillance audits.
Issue 16. Certified since 07 January 2005
Certified activities performed by additional sites are listed on subsequent pages.

Authorised by
Jonathan Hall
Global Head - Certification Services

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I-PEX Inc.

ISO 14001:2015

Issue 16
Sites
I-PEX Inc. HEAD OFFICE / KYOTO PLANT 12-4 Negoro, Momoyama-cho, Fushimi-ku, Kyoto-shi, Kyoto Japan 4. Mold business (manufacturing of semiconductor encapsulation mold)
I-PEX Inc. FUKUOKA ONOJO PLANT 6-1-8 Mikasagawa, Onojo-shi, Fukuoka Japan 1. Automotive components business (Manufacture of Electrical parts sensors)
I-PEX Inc. FUKUOKA OGORI PLANT 863 Mitsusawa, Ogori-shi, Fukuoka Japan 1. Electronics components business (Manufacture of Connectors) 2. Automotive components business (Manufacture of Electrical parts sensors) 3. Precision components business (Manufacture of HDD parts, Audio-video components and Meters) 4. Metallic mold and manufacturing equipment business (Manufacture of semiconductor manufacturing equipment and automatic manufacturing equipment)
I-PEX Inc. FUKUOKA TACHIARAI PLANT 2455-1 Takata, Chikuzen-machi, Asakura-gun, Fukuoka Japan 1. Electronics components business (Manufacture of Connectors) 2. Automotive components business (Manufacture of Electrical parts sensors)
I-PEX Inc. YAMANASHI PLANT 1816-1 Shotokuji, Yamanashi-shi, Yamanashi Japan 1. Automotive components business (Manufacture of Electrical parts sensors)
I-PEX Inc. Shizuoka R&D Center EXCELWARD SHIZUOKA BLDG., 11-30 Miyuki-cho, Aoi-ku, Shizuoka-shi, Shizuoka Japan 1. Electronics components business (Development and Design of Connectors) 2. Automotive components business (Development and Design of Electrical parts sensors)
I-PEX Inc. Shizuoka R&D Center Heiwa Test Site 1-2-11 Heiwa, Aoi-ku, Shizuoka-shi, Shizuoka Japan 1. Electronics components business (Development and Design of Connectors) 2. Automotive components business (Development and Design of Electrical parts sensors)

I-PEX Inc.

ISO 14001:2015

I-PEX Inc. Tokyo R&D Center MACHIDA ST BLDG., 1-33-10 Morino, Machida-shi, Tokyo Japan 1. Electronics components business (Development and Design of Connectors) 2. Automotive components business (Development and Design of Electrical parts sensors) 3. Precision components business (Development and Design of HDD parts, Audio-video components and Meters)
I-PEX Inc. OSAKA BRANCH WeWork Midosuji Frontier, 1-13-22 Sonezakishinchi, Kita-ku, Osaka Japan 1. Electronics components business (Sales of Connectors) 2. Automotive components business (Sales of Electrical parts sensors, connectors) 3. Precision components business (Sales of HDD parts, Audio-video components and Meters)
I-PEX Shimane Inc. 12 Hokuryo-cho, Matsue-shi, Shimane Japan 1. Electronics components business (Manufacture of Connectors)
DJ Precision Co., Ltd. 863 Mitsusawa, Ogori-shi, Fukuoka Japan 3. Precision components business (Manufacture of HDD parts, Audio-video components and Meters)
I-PEX Campus 2409-1 Ogori, Ogori-city, Fukuoka Japan 1. Electronics components business (Development and Design and Mold manufacturing of Connectors) 2. Automotive components business (Development and Design and Mold manufacturing of Electrical parts sensors) 3. Precision components business (Development and Design and Mold manufacturing of HDD parts, Audio-video components and Meters) 4. Metallic mold and manufacturing equipment business (Development and Design of semiconductor manufacturing equipment and automatic manufacturing equipment)
I-PEX INC. Yokohama Office Shin-Yokohama Square Bldg., 2-3-12, Shin-Yokohama, Kohoku-ku, Yokohama, Kanagawa Japan 1. Elctronics components business(Sales of Connectors) 2. Automotive components business(Sales of Electrical parts sensors, connectors) 3. Precision components business(Sales of HDD parts, Audio-video components and Meters) 4. Metallic mold and manufacturing equipment business(Sales of semiconductor manufacturing and automatic manufacturing equipment)

Bureau Veritas Certification

I-PEX (THAILAND) CO., LTD.

700/390 MOO 6, TAMBOL DONHUAROH, AMPHUR MUANG CHONBURI, CHONBURI 20000, THAILAND

Bureau Veritas Certification Holding SAS - UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 22301:2019

Scope of certification

MANUFACTURING OF INJECTION MOLDED PARTS AND SUB-ASSEMBLED PARTS FOR HARD DISK DRIVE

Original cycle start date:	**26 November 2019**
Expiry Date of Previous Cycle:	**25 November 2022**
Certification / Recertification Audit date:	**26 August 2022**
Certification / Recertification cycle start date:	**11 April 2023**
Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on:	**25 November 2025**

Certificate no.: **TH020631** Version: 1 Issue Date: **11 April 2023**

Signed on behalf of BVCH SAS UK Branch

UKAS MANAGEMENT SYSTEMS 0008

Certification Body Address: 5th Floor, 66 Prescot Street, London, E1 8HG, United Kingdom

Local office: Bureau Veritas Certification (Thailand) Ltd. 16th Floor, Bangkok Tower, 2170 New Petchburi Road, Bangkapi, Huaykwang, Bangkok 10310, Thailand

Further clarifications regarding the scope and validity of this certificate, and the applicability of the management system requirements, please call: 66 2 670 4800

Certificate

Standard **ISO 9001:2015**

Certificate Registr. No. **01 100 2134313**

Certificate Holder: **I-PEX Inc.**
Electronic Components & Devices Div.
Ogori Plant
863 Mitsusawa, Ogori-city, Fukuoka, 838-0106, Japan

including the locations according to annex

Scope: Design, Manufacturing and Sales of Connectors and Metal Parts for Connectors

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.

Validity: The certificate is valid from 2022-04-13 until 2025-04-12.
First certification 2022

2024-04-08

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Am Grauen Stein · 51105 Köln

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Annex to certificate

Standard **ISO 9001:2015**

Certificate Registr. No. **01 100 2134313**

No.	Location	Scope
/01	c/o I-PEX Inc. Electronic Components & Devices Div. Ogori Plant 863 Mitsusawa, Ogori-city, Fukuoka, 838-0106, Japan	Manufacturing of Metal Parts for Connectors including Manufacturing of associated Production Equipment
/02	c/o I-PEX Inc. Electronic Components & Devices Div. Tachiarai Plant 2455-1 Takata, Chikuzen-machi, Asakura-gun, Fukuoka, 838-0814, Japan	Manufacturing of Connectors
/03	c/o I-PEX Shimane Inc. 12 Hokuryo-cho, Matsue-city, Shimane, 690-0816, Japan	Manufacturing of Connectors including Design and Manufacturing of associated Production Equipment
/04	c/o I-PEX Inc. Shizuoka R&D Center Heiwa Test Site ROKKODO BLDG., 1-2-11, Heiwa, Aoi-ku, Shizuoka, 420-0876, Japan	Providing Laboratory Activity
/05	c/o I-PEX Inc. Tokyo R&D Center Machida ST Bldg., 1-33-10 Morino, Machida-city, Tokyo, 194-0022, Japan	Providing Product Design, Laboratory, Process Design and Logistics Activities

Annex to certificate

Standard **ISO 9001:2015**

Certificate Registr. No. **01 100 2134313**

/06	c/o I-PEX Inc. I-PEX Campus 2409-1 Ogori, Ogori-city, Fukuoka, 838-0141, Japan	Providing Strategic Planning, Product Design, Laboratory, Process Design, Information Technologies, Purchasing and Human Resources Activities
/08	c/o I-PEX Inc. Yokohama Office Shin-Yokohama Square Bldg., 11F 2-3-12, Shin-Yokohama, Kohoku-ku, Yokohama, 222-0033, Japan	Providing Sales Activity

2024-04-08

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REG.SMK3.2023.SI.SK-736

Sertifikat Penghargaan
Certificate of Appreciation

SISTEM MANAJEMEN KESELAMATAN DAN KESEHATAN KERJA
OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT SYSTEM

Berdasarkan
Surat Keputusan Menteri Ketenagakerjaan Republik Indonesia
No. 95 Tahun 2023

Menyatakan bahwa
This is to certify that

Nama perusahaan / *Name of company*

PT IPEX INDONESIA INC

Alamat / *Address*

Jln Aster lot SD26, SD27, SD28, SD29, SD52 & SD51 Bintan Industrial Estate, Lobam
Bintan Provinsi Kepulauan Riau

Sektor industri / *Sector of industry*

MANUFACTURE OF PRECISION ENGINEERING PLASTIC COMPONENTS AND ELECTRONIC CONNECTORS

Telah menerapkan Sistem Manajemen Keselamatan dan Kesehatan Kerja
Has implemented an Occupational Safety and Health Management System

Hasil pencapaian 93,37% untuk kategori tingkat Lanjutan (166 Kriteria)
Audit result 93.37% for Advanced level category

Sertifikat ini berlaku untuk jangka waktu 3 (tiga) tahun sejak dikeluarkan.
This certificate is valid for 3 (three) years from the date of issue.

Jakarta, 9 Juni 2023

MENTERI KETENAGAKERJAAN REPUBLIK INDONESIA,

MINISTER OF MANPOWER OF THE REPUBLIC OF INDONESIA,

IDA FAUZIYAH

Certificate

Standard	**IATF 16949:2016** **(1st edition, 2016-10-01)**
Certificate Registr. No.	**01 111 064048/01**
IATF Certificate No.	0507113

Certificate Holder:	**I-PEX Inc.** **Mobility Components Div.** **Yamanashi Plant** 1816-1 Shotokuji, Yamanashi, 405-0032, Japan
IATF USI:	6P2PCC With remote location(s) according to annex
Scope:	Design and Manufacturing of Connectors and Sensors
	Proof has been furnished by means of an audit that the requirements of IATF 16949:2016 are met.
Validity:	The certificate is valid from 2024-03-24 until 2027-03-23.
Release date:	2024-03-24

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Annex to certificate

Standard **IATF 16949:2016**
(1st edition, 2016-10-01)

Certificate Registr. No. **01 111 064048/01**
IATF Certificate No. 0507113

Remote Location:	I-PEX Inc. Mobility Components Div. Onojo Plant 6-1-8, Mikasagawa, Onojo-city, Fukuoka, 816-0912, Japan
IATF USI:	G29CEW
Rem. Loc. Function:	Customer service
Certificate-Registr-No.:	01 111 064048/02
Remote Location:	I-PEX Inc. Mobility Components Div. Ogori Plant 863 Mitsusawa, Ogori-city, Fukuoka, 838-0106, Japan
IATF USI:	CM9HS9
Rem. Loc. Function:	Engineering
Certificate-Registr-No.:	01 111 064048/03
Remote Location:	I-PEX Inc. Shizuoka R&D Center EXCELWARD SHIZUOKA BLDG., 10F, 11-30, Miyuki-cho, Aoi-ku, Shizuoka, 420-0857, Japan
IATF USI:	YARKT2
Rem. Loc. Function:	Product design
Certificate-Registr-No.:	01 111 064048/904
Remote Location:	I-PEX Inc. Tokyo R&D Center Machida ST BLDG., 1-33-10 Morino, Machida-city, Tokyo, 194-0022, JAPAN
IATF USI:	PWSRR4
Rem. Loc. Function:	Customer service, Logistics, Policy making, Quality system management
Certificate-Registr-No.:	01 111 064048/906

Annex to certificate

Standard **IATF 16949:2016**
(1st edition, 2016-10-01)

Certificate Registr. No. **01 111 064048/01**
IATF Certificate No. 0507113

Remote Location:	I-PEX Inc. I-PEX Campus 2409-1 Ogori, Ogori-city, Fukuoka, 838-0141, Japan
IATF USI:	TWS3PK
Rem. Loc. Function:	Engineering, Human resources, Information technologies, Process design, Purchasing, Strategic planning
Certificate-Registr-No.:	01 111 2134313/901
Remote Location:	I-PEX Inc. Shizuoka R&D Center Heiwa Test Site ROKKODO BLDG., 1-2-11, Heiwa, Aoi-ku, Shizuoka, 420-0876, JAPAN
IATF USI:	T9RY3A
Rem. Loc. Function:	Laboratory
Certificate-Registr-No.:	01 111 2134313/903
Remote Location:	I-PEX Inc. Yokohama Office Shin-Yokohama Square Bldg., 11F 2-3-12, Shin-Yokohama, Kohoku-ku, Yokohama, 222-0033, JAPAN
IATF USI:	LSSMWC
Rem. Loc. Function:	Sales
Certificate-Registr-No.:	01 111 2134313/904

Release date: 2024-03-24

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