



EMC TEST REPORT

For

Guangdong Baolun Electronics Co., Ltd.

MuLTI-voice Alarm & Recorder Panel

Test Model: T-6203

Additional Model No.: Please Refer to Page 9

Prepared for : Guangdong Baolun Electronics Co., Ltd.
Address : No.56 Nanlidong Road Shiqi Panyu Guangzhou

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
Address : Room 101, 201, Building A and Room 301, Building C,
Juji Industrial Park, Yabianxueziwei, Shajing Street,
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Date of receipt of test sample : August 22, 2023
Number of tested samples : 2
Serial number : Prototype
Date of Test : August 22, 2023 to August 30, 2023
Date of Report : March 18, 2025





TEST REPORT

Report No.	: LCSA072123180E003
Date of Issue	: March 18, 2025
Testing Laboratory Name	: Shenzhen LCS Compliance Testing Laboratory Ltd.
Address	: Room 101, 201, Building A and Room 301, Building C, Juji Industrial Park, Yabianxueziwei, Shajing Street, Bao'an District, Shenzhen, Guangdong, China
Testing Location/ Procedure	: Full application of Harmonised standards <input checked="" type="checkbox"/> Partial application of Harmonised standards <input type="checkbox"/> Other standard testing method <input type="checkbox"/>
Applicant's Name	: Guangdong Baolun Electronics Co., Ltd.
Address	: No.56 Nanlidong Road Shiqi Panyu Guangzhou
Test Specification	
Standard	: EN 55032:2015/A1:2020 EN IEC 61000-3-2:2019/A1:2021 EN 61000-3-3:2013/A2:2021 EN 55035:2017/A11:2020
Test Report Form No	: LCSEMC-1.0
TRF Originator	: Shenzhen LCS Compliance Testing Laboratory Ltd.
Master TRF	: Dated 2011-03
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Test Item Description	: MULTI-voice Alarm & Recorder Panel
Trade Mark	: 
Test Model	: T-6203
Result	: Positive

Compiled by:

Zi Liao

Zi Liao / File Administrator

Supervised by:

Cary Luo

Cary Luo / Technique principal

Approved by:

Gavin Liang

Gavin Liang / Manager





TEST REPORT

Test Report No.: LCSA072123180E003	<u>March 18, 2025</u> Date of issue
---	--

Test Model	: T-6203
EUT	: MuLTI-voice Alarm & Recorder Panel
Applicant	: Guangdong Baolun Electronics Co., Ltd.
Address	: No.56 Nanlidong Road Shiqi Panyu Guangzhou
Telephone	: /
Fax	: /
Manufacturer	: Guangdong Baolun Electronics Co., Ltd.
Address	: No.56 Nanlidong Road Shiqi Panyu Guangzhou
Telephone	: /
Fax	: /
Factory	: Guangdong Baolun Electronics Co., Ltd.
Address	: No.56 Nanlidong Road Shiqi Panyu Guangzhou
Telephone	: /
Fax	: /

Test Result	Positive
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The test report merely corresponds to the test sample.
 It is not permitted to copy extracts of these test result without the written permission of the test laboratory.



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 Scan code to check authenticity



Revision History

Report Version	Issue Date	Revision Content	Revised By
000	September 1, 2023	Initial Issue	/
001	June 21, 2024	Revised	Hy Luo
002	February 28, 2025	Revised	ZI LIAO
003	March 18, 2025	Revised	ZI LIAO

Remark:

Declared by applicant, add additional model in this report, and original test report become invalid.





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1. TEST STANDARDS

The tests were performed according to following standards:

EN 55032:2015/A1:2020: Electromagnetic compatibility of multimedia equipment - Emission requirements

EN IEC 61000-3-2:2019/A1:2021: Electromagnetic compatibility (EMC) -- Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16A per phase)

EN 61000-3-3:2013/A2:2021: Electromagnetic compatibility (EMC) -- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16A$ per phase and not subject to conditional connection

EN 55035:2017/A11:2020: Electromagnetic compatibility of multimedia equipment - Immunity requirements.





2. SUMMARY OF STANDARDS AND RESULTS

2.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

Description of Test Item	Standard	Limits	Result
Conducted emissions from AC mains power ports (150kHz-30MHz)	EN 55032:2015/A1:2020	Class A	Pass
Radiated emissions (30MHz-1GHz)	EN 55032:2015/A1:2020	Class A	Pass
Harmonic current emission	EN IEC 61000-3-2:2019/A1:2021	Class A	N/A
Voltage fluctuations and flicker	EN 61000-3-3:2013/A2:2021	EN 61000-3-3, Clause 4	Pass
Electrostatic discharges	EN 55035:2017/A11:2020	Contact Discharge: +/- 4kV Air Discharge: +/- 8kV	Pass
RF electromagnetic field disturbances	EN 55035:2017/A11:2020	3V/m, 80%, 1kHz Amp. Mod.	Pass
Electrical fast transients / burst for AC mains power ports	EN 55035:2017/A11:2020	1kV; 5/50ns Tr/Th; 5kHz Repetition Frequency	Pass
Surges for AC mains power ports	EN 55035:2017/A11:2020	1.2/50µs Tr/Td; 1kV Line to Line	Pass
Continuous induced RF disturbances for AC mains power ports (150kHz-80MHz)	EN 55035:2017/A11:2020	0,15 to 10MHz 3Vrms (emf), 10 to 30MHz 3V to 1Vrms(emf), 30 to 80MHz 1Vrms(emf), 80%,1kHz Amp. Mod.	Pass
Voltage dips and interruptions	EN 55035:2017/A11:2020	<5% residual voltage for 0.5 periods: B, 70% residual voltage for 25 periods: C, <5% residual voltage for 250 periods: C	Pass





2.2 Description of Test Modes

No	Title	Description
TM1	Working (AC230V/50Hz)	Record

2.3 Description of Performance Criteria

General Performance Criteria

Performance Criteria A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance, loss of function or change of operating state is allowed below a performance level specified by the manufacturer when the equipment is used as intended.

The performance level may be replaced by a permissible loss of performance. 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 by what the user may reasonably expect from the equipment if used as intended.

Performance Criteria B

During the application of the disturbance, degradation of performance is allowed. However, no unintended change of actual operating state or stored data is allowed to persist after the test.

After the test, the equipment shall continue to operate as intended without operator intervention; no degradation of performance or loss of function is allowed, below a performance level specified by the manufacturer, when the equipment is used as intended.

The performance level may be replaced by a permissible loss of performance.

If the minimum performance level (or the permissible performance loss), or recovery time, is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

Performance Criteria C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacturer's instructions. A reboot or re-start operation is allowed. Information stored in non-volatile memory, or protected by a battery backup, shall not be lost.





3. GENERAL INFORMATION

3.1 Description of Device (EUT)

EUT : MuLTI-voice Alarm & Recorder Panel

Test Model : T-6203

Additional Model No. : T-6223(A), TS-820, T-6203S, T-6283, T-8000, T-8000B, T-8000A, T-8000C, T-8000AE, T-8000BW, T-8000CW, T-8000DW, TX-8628, T-6239F, T-2080, T-2090, T-6281N, T-8000D, T-6209, T-6210, T-6241A, T-6242, T-6226, T-6211(A), T-6237, T-6241, T-6281, T-6281F, TX-8623, T-6249, T-6204, TV-713A, T-6204A, T-6204B, TP-8320, TF-8820, TZ-2028, TF-8820, TZ-2028, TP-8320

Model Declaration : PCB board, structure and internal of these model(s) are the same, So no additional models were tested.

Power Supply : 110-240V~, 50/60Hz, 30W

Highest Internal Frequency : $f \leq 108\text{MHz}$

Classification of Equipment : Class A

3.2 Support equipment List

The EUT was tested as an independent device.

3.3 Description of Test Facility

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

NVLAP Accreditation Code is 600167-0.
 FCC Designation Number is CN5024.
 CAB identifier is CN0071.
 CNAS Registration Number is L4595.

3.4 Measurement Uncertainty

Test Item	Measurement Uncertainty
Conducted Emission (150kHz to 30MHz)	$\pm 2.35 \text{ dB}$
Radiated Emission (30MHz to 1000MHz)	$\pm 3.48 \text{ dB}$
Voltage Fluctuations & Flicker	$\pm 0.510\%$
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	





4. MEASURING DEVICES AND TEST EQUIPMENT

Conducted emissions from AC mains power ports (150kHz-30MHz)

Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
EMI Test Software	Farad	EZ	/	/	/
Artificial Mains	R&S	ENV216	101288	2023-06-09	2024-06-08
Pulse Limiter	R&S	ESH3-Z2	102750-NB	2023-08-15	2024-08-14
EMI Test Receiver	R&S	ESR3	102312	2023-02-25	2024-02-24

Radiated emissions (30MHz-1GHz)

Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
EMI Test Software	AUDIX	E3	/	/	/
By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2021-09-12	2024-09-11
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2021-09-05	2024-09-04
EMI Test Receiver	R&S	ESR3	102311	2023-08-15	2024-08-14
Broadband Preamplifier	/	BP-01M18G	P190501	2023-06-09	2024-06-08

Voltage fluctuations and flicker

Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
HARMONICS&FLICKER MEASUREMENT SYSTEM	EVERFINE	HFM-3000	P630850CD14 11116	2023-02-25	2024-02-24
HARMONICS&FLICKER TESTING POWER SOURCE	EVERFINE	HFS-4000	P624486CD14 111124	2023-02-25	2024-02-24

Electrostatic discharges

Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
ESD Simulator	SCHLODER	SESD 230	604035	2023-07-17	2024-07-16





RF electromagnetic field disturbances					
Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
MXG Vector Signal Generator	Agilent	E4438C	MY42081396(6G)	2023-06-09	2024-06-08
RF POWER AMPLIFIER	SKET	HAP_0306G-50W	/	2023-06-09	2024-06-08
RF POWER AMPLIFIER	OPHIR	5225R	1052	2023-06-09	2024-06-08
RF POWER AMPLIFIER	OPHIR	5273F	1019	2023-06-09	2024-06-08
Stacked Broadband Log Periodic Antenna	SCHWARZBECK	STLP 9128	9128ES-145	/	/
Stacked Mikrowellen Log.-Per Antenna	SCHWARZBECK	STLP 9149	9149-484	/	/
RS Electric field probe	narda	EP601	611WX80208	2023-06-09	2024-06-08

Electrical fast transients / burst for AC mains power ports					
Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
Electric fast pulse group generator	3ctest	EFT-4001G	EC0461044	2022-10-31	2023-10-30
Immunity Simulative Generator	EM TEST	UCS500-M4	0101-34	2023-08-15	2024-08-14

Surges for AC mains power ports					
Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
Immunity Simulative Generator	EM TEST	UCS500-M4	0101-34	2023-08-15	2024-08-14

Continuous induced RF disturbances for AC mains power ports (150kHz-80MHz)					
Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
Simulator	FRANKONIA	CIT-10/75	A126A1195	2023-08-15	2024-08-14
CDN	FRANKONIA	CDN-M2+M3	A2210177	2023-06-09	2024-06-08
6dB Attenuator	FRANKONIA	DAM25W	1172040	2023-06-09	2024-06-08

Voltage dips and interruptions					
Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
Voltage dips and up generator	3CTEST	VDG-1105G	EC0171014	2023-06-09	2024-06-08





5. EVALUATION RESULTS (EVALUATION)

5.1 Harmonic current emission

Test Requirement:	Class A
Test Limit:	Not specified
Test Method:	EN IEC 61000-3-2:2019+A1:2021

5.1.1 Conclusion:

Refer to EN IEC 61000-3-2 clause 7.1:

"For the following categories of equipment, limits are not specified in this document:

- lighting equipment with a rated power less than but not equal to 5 W;
- equipment with a rated power of 75 W or less, other than lighting equipment;"

Since the rated power of the EUT is less than above described, it is deemed to comply with the requirement.





6. EMISSION TEST RESULTS (EMI)

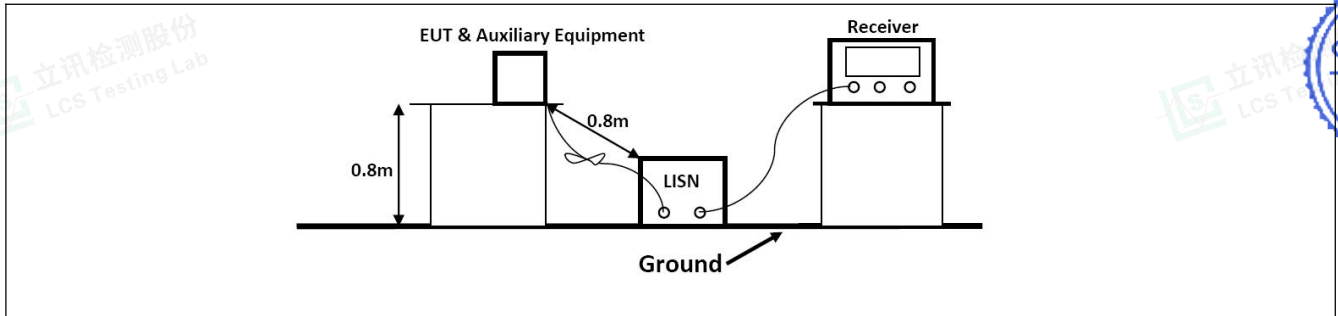
6.1 Conducted emissions from AC mains power ports (150kHz-30MHz)

Test Requirement:	Class A		
Test Limit:	Frequency Range	Limit (Quasi-Peak)	Limit (Average)
	0.15MHz to 0.5MHz	79dB(μV)	66dB(μV)
	0.5MHz to 30MHz	73dB(μV)	60dB(μV)
	Detector:	Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz	
Test Method:	Clause 7 of CISPR 16-2-1:2014/AMD1:2017		
Procedure:	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. Remark: Level= Read Level+ Cable Loss+ LISN Factor		

6.1.1 E.U.T. Operation:

Operating Environment:			
Temperature:	24.7 °C	Humidity:	52.3 %
Pre test mode:	TM1		
Final test mode:	TM1		

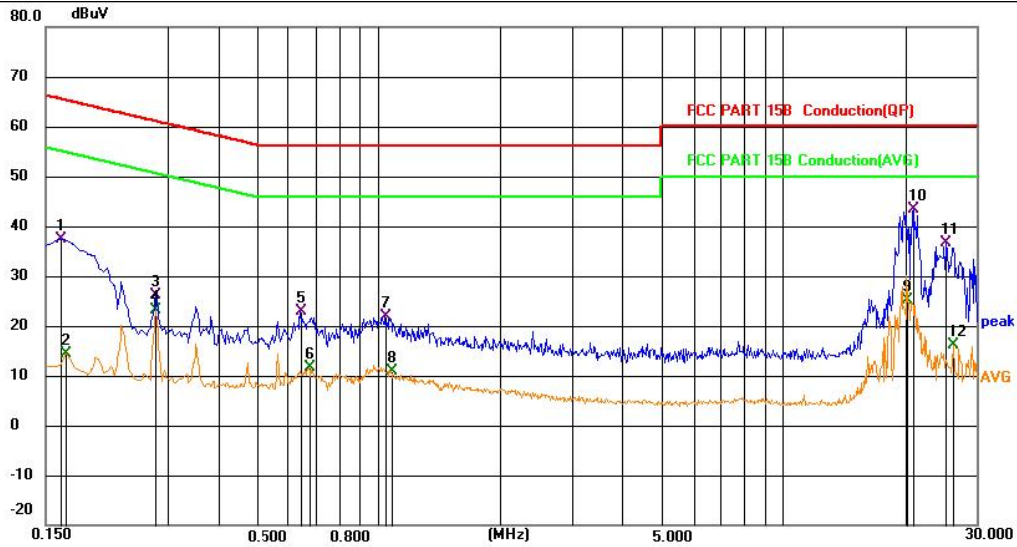
6.1.2 Test Setup Diagram:





6.1.3 Test Data:

TM1 / Line: Line

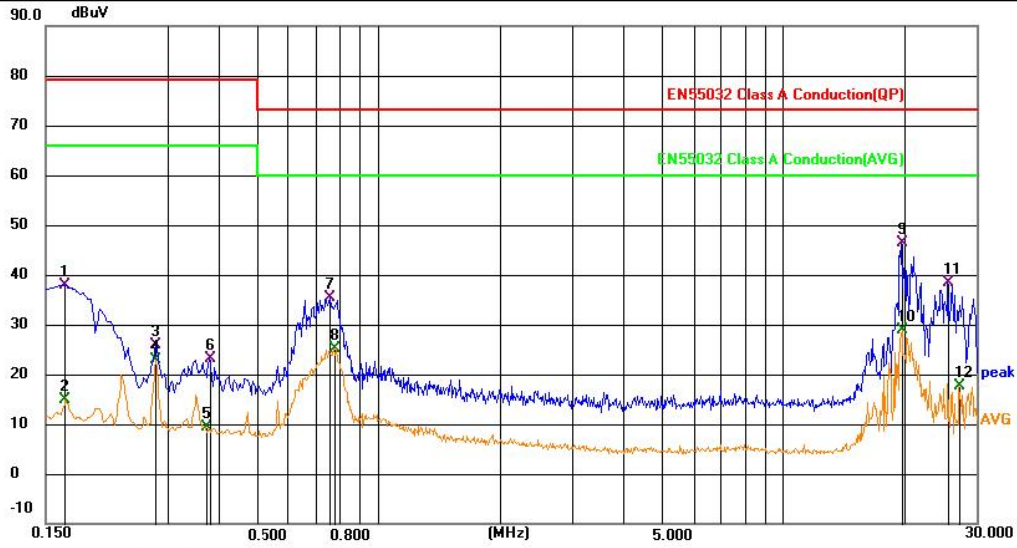


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1636	17.72	19.63	37.35	65.28	-27.93	QP	
2		0.1681	-5.20	19.63	14.43	55.05	-40.62	AVG	
3		0.2806	6.58	19.63	26.21	60.80	-34.59	QP	
4		0.2806	3.40	19.63	23.03	50.80	-27.77	AVG	
5		0.6406	3.28	19.66	22.94	56.00	-33.06	QP	
6		0.6721	-8.08	19.65	11.57	46.00	-34.43	AVG	
7		1.0411	2.14	19.65	21.79	56.00	-34.21	QP	
8		1.0726	-8.71	19.65	10.94	46.00	-35.06	AVG	
9		20.3146	5.05	20.19	25.24	50.00	-24.76	AVG	
10	*	20.9806	23.30	20.16	43.46	60.00	-16.54	QP	
11		25.2420	16.55	20.03	36.58	60.00	-23.42	QP	
12		26.3356	-3.92	20.03	16.11	50.00	-33.89	AVG	





TM1 / Line: Neutral



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.1680	18.35	19.63	37.98	79.00	-41.02	QP	
2	0.1680	-4.71	19.63	14.92	66.00	-51.08	AVG	
3	0.2806	6.26	19.63	25.89	79.00	-53.11	QP	
4	0.2806	3.30	19.63	22.93	66.00	-43.07	AVG	
5	0.3711	-10.26	19.63	9.37	66.00	-56.63	AVG	
6	0.3796	3.61	19.63	23.24	79.00	-55.76	QP	
7	0.7620	15.63	19.64	35.27	73.00	-37.73	QP	
8	0.7755	5.45	19.64	25.09	60.00	-34.91	AVG	
9 *	19.5720	26.23	20.19	46.42	73.00	-26.58	QP	
10	19.7026	8.76	20.21	28.97	60.00	-31.03	AVG	
11	25.4896	18.43	20.02	38.45	73.00	-34.55	QP	
12	27.1546	-2.51	20.04	17.53	60.00	-42.47	AVG	peak





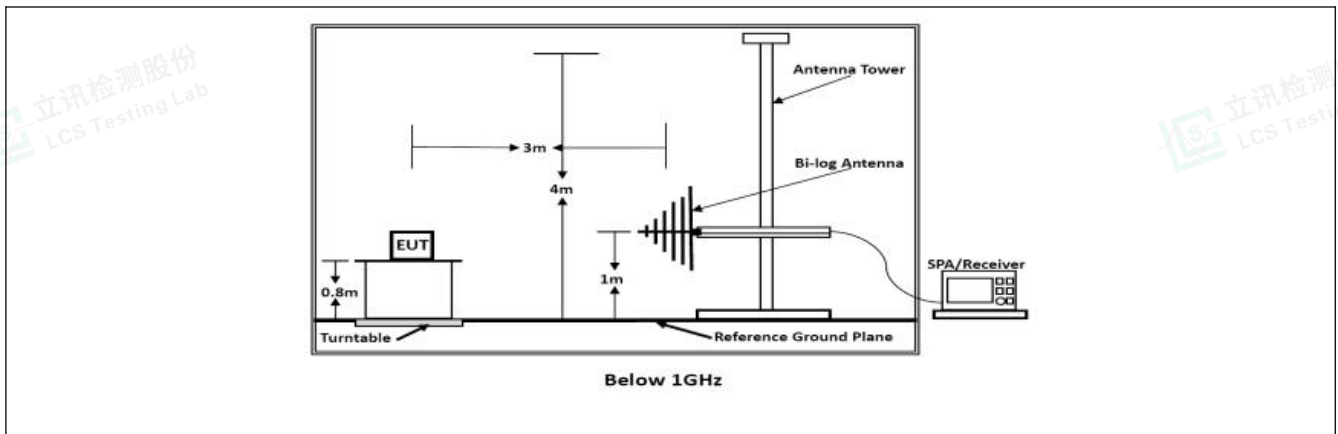
6.2 Radiated emissions (30MHz-1GHz)

Test Requirement:	Class A		
Test Limit:	Frequency (MHz)	Limit [dB(uV/m) at 10m]	Limit [dB(uV/m) at 3m]
	30 to 230	40	50
	230 to 1000	47	57
	Detector:	Peak for pre-scan (120kHz resolution bandwidth) 30M to 1000MHz	
Test Method:	Clause 7.3 of CISPR 16-2-3:2016		
Procedure:	An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities. Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor		

6.2.1 E.U.T. Operation:

Operating Environment:			
Temperature:	22.3 °C	Humidity:	53 %
Pre test mode:	TM1		
Final test mode:	TM1		

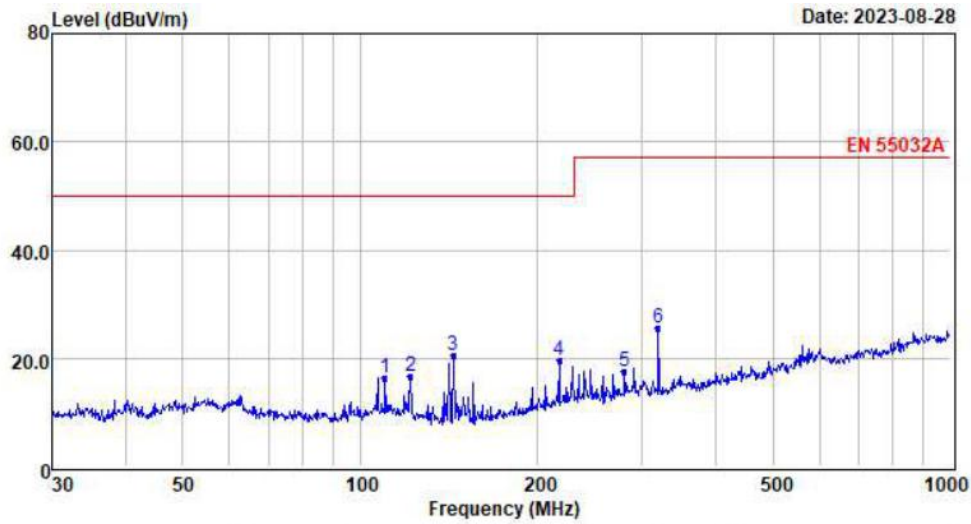
6.2.2 Test Setup Diagram:





6.2.3 Test Data:

TM1 / Polarization: Horizontal



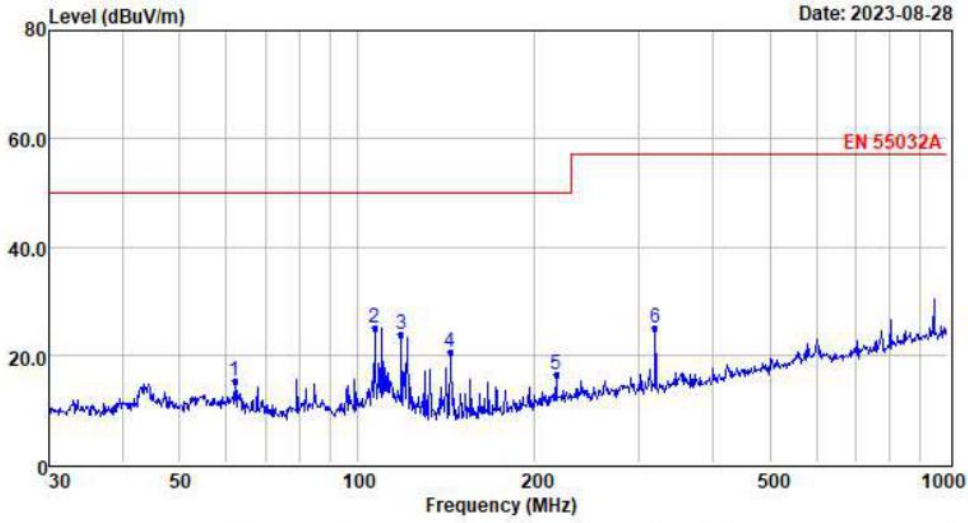
	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	110.18	3.99	0.86	11.38	16.23	50.00	-33.77	QP
2	121.55	5.36	0.91	10.41	16.68	50.00	-33.32	QP
3	143.83	10.91	1.01	8.58	20.50	50.00	-29.50	QP
4	217.54	6.70	1.22	11.59	19.51	50.00	-30.49	QP
5	280.02	3.00	1.30	13.30	17.60	57.00	-39.40	QP
6	319.94	10.66	1.34	13.54	25.54	57.00	-31.46	QP

- Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20db below the official limit are not reported





TM1 / Polarization: Vertical



	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	62.00	2.47	0.66	12.01	15.14	50.00	-34.86	QP
2	107.13	12.99	0.84	11.21	25.04	50.00	-24.96	QP
3	118.60	12.27	0.90	10.71	23.88	50.00	-26.12	QP
4	143.83	11.06	1.01	8.58	20.65	50.00	-29.35	QP
5	217.54	3.40	1.22	11.59	16.21	50.00	-33.79	QP
6	319.94	9.96	1.34	13.54	24.84	57.00	-32.16	QP

Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20db below the official limit are not reported





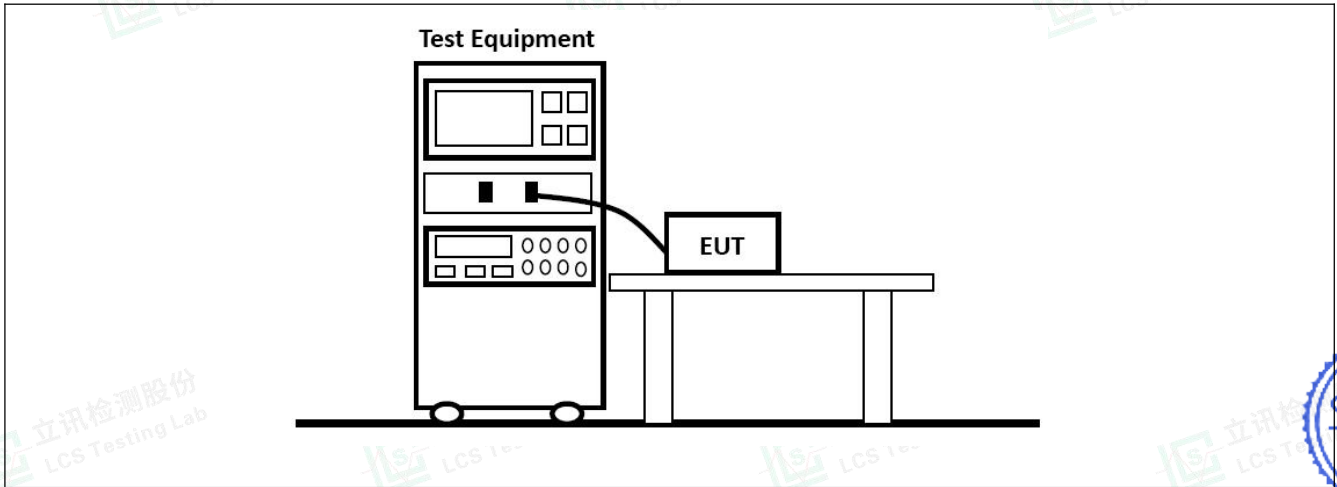
6.3 Voltage fluctuations and flicker

Test Requirement:	EN 61000-3-3, Clause 4
Test Limit:	EN 61000-3-3, Clause 5
Test Method:	EN 61000-3-3:2013+A2:2021

6.3.1 E.U.T. Operation:

Operating Environment:			
Temperature:	25 °C	Humidity:	55 %
Pre test mode:	TM1		
Final test mode:	TM1		

6.3.2 Test Setup Diagram:





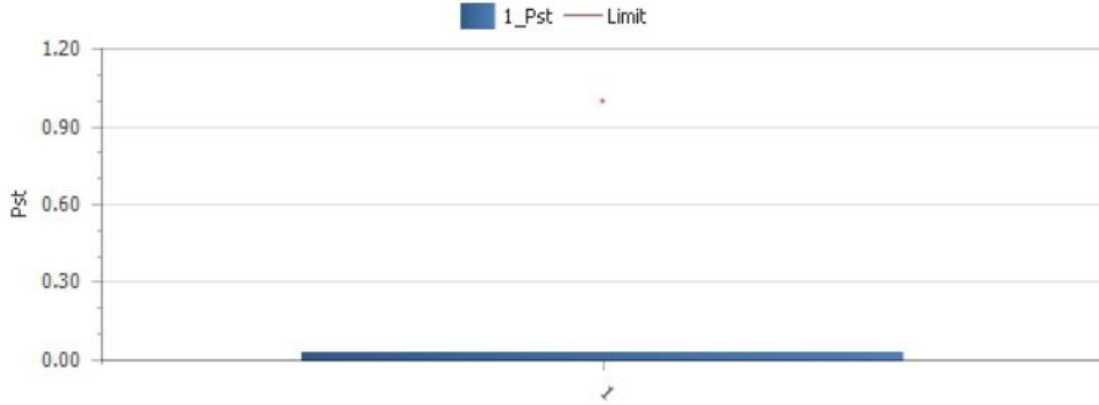
6.3.3 Test Data:

TM1

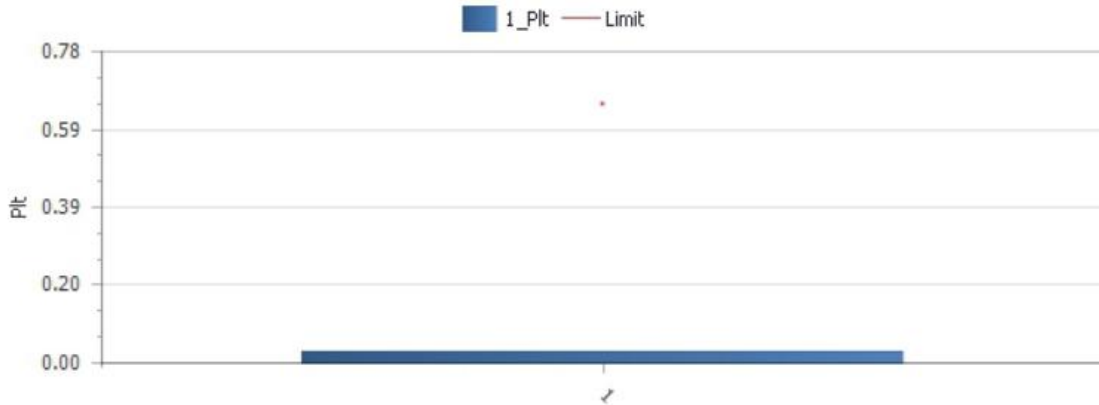
Customer : xxx

Result : PASS

Pst and Limit



Plt and Limit



Relevant Parameter and Judgement During Test Period

Vrms at the end of test (V) 229.87

Parameter	Value	Test Limit (%)	Result
T-max (ms)	0.00	500	Pass
dc (%)	0.00	3.30	Pass
dmax (%)	0.00	4.00	Pass
Pst	0.026	1.000	Pass
Plt	0.026	---	---





7. IMMUNITY TEST RESULTS (EMS)

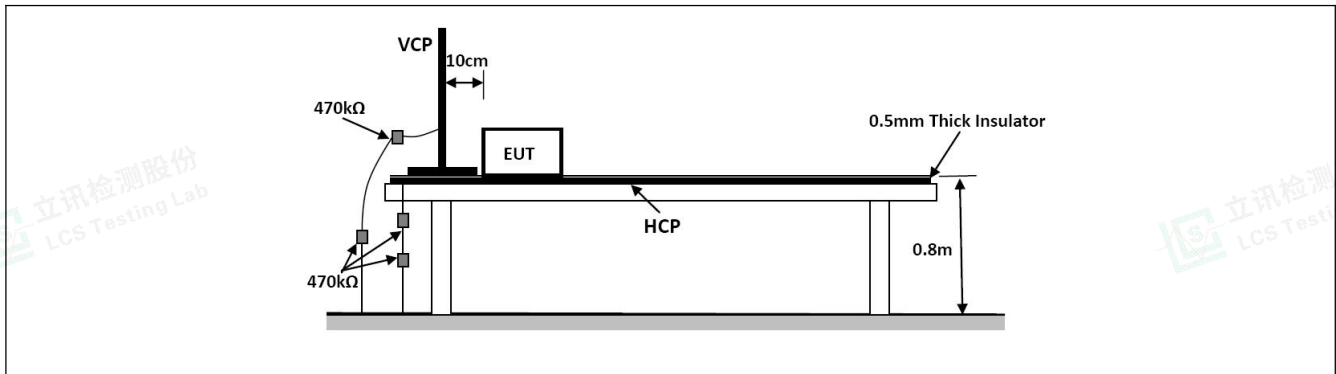
7.1 Electrostatic discharges

Test Requirement:	Contact Discharge: +/- 4kV Air Discharge: +/- 8kV
Test Method:	EN 61000-4-2: 2009
Procedure:	Discharge Impedance: 330Ω/150pF Number of Discharge: Minimum 10 times at each test point Discharge Mode: Single Discharge Discharge Period: 1 second minimum
Performance Criteria:	B

7.1.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23 °C	Humidity:	49.5 %
Pre test mode:	TM1		
Final test mode:	TM1		

7.1.2 Test Setup Diagram:





7.1.3 Test Data:

Discharge type	Volt (kV)	Polarity	Test Point	Result/ Observations
Air discharge	2,4,8	+	10	B
Air discharge	2,4,8	-	10	B
Contact discharge	4	+	10	B
Contact discharge	4	-	10	B
Horizontal Coupling	4	+	10	B
Horizontal Coupling	4	-	10	B
Vertical Coupling	4	+	10	B
Vertical Coupling	4	-	10	B

A: No degradation in the performance of the EUT was observed.





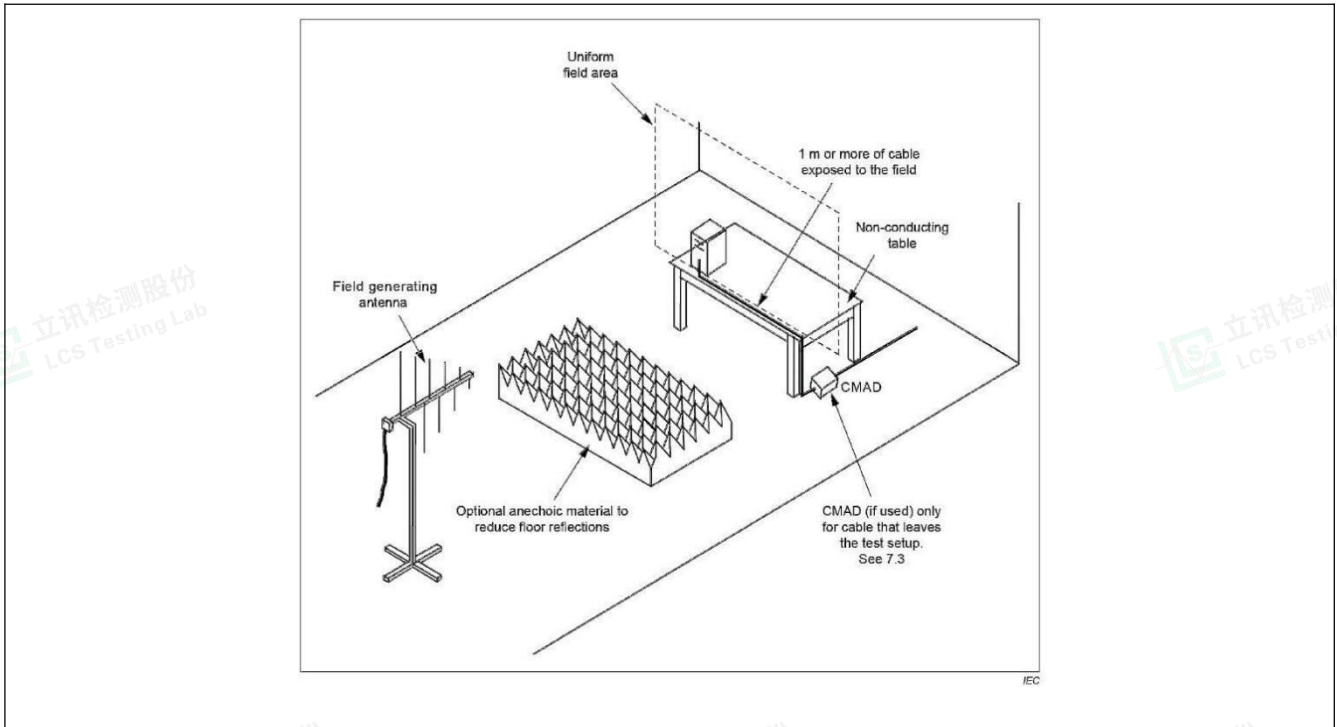
7.2 RF electromagnetic field disturbances

Test Requirement:	3V/m, 80%, 1kHz Amp. Mod.
Test Method:	EN IEC 61000-4-3: 2020
Procedure:	Frequency Range: 80MHz to 1GHz, 1800MHz, 2600MHz, 3500MHz, 5000MHz Antenna Polarisation: Vertical and Horizontal Modulation: 1kHz,80% Amp. Mod,1% increment
Performance Criteria:	A

7.2.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23 °C	Humidity:	49.5 %
Pre test mode:	TM1		
Final test mode:	TM1		

7.2.2 Test Setup Diagram:





7.2.3 Test Data:

Frequency	Field Strength (V/m)	EUT face	Dwell time	Result/ Observations
80MHz-1GHz	3	Front, Back, Left, Right, Top, Bottom	3s	A
1800MHz	3	Front, Back, Left, Right, Top, Bottom	3s	A
2600MHz	3	Front, Back, Left, Right, Top, Bottom	3s	A
3500MHz	3	Front, Back, Left, Right, Top, Bottom	3s	A
5000MHz	3	Front, Back, Left, Right, Top, Bottom	3s	A

A: No degradation in the performance of the EUT was observed.





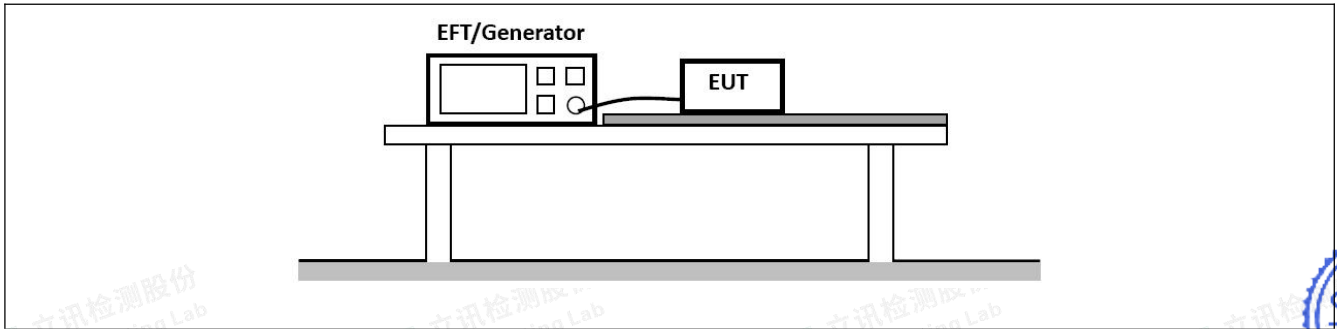
7.3 Electrical fast transients / burst for AC mains power ports

Test Requirement:	1kV; 5/50ns Tr/Th; 5kHz Repetition Frequency
Test Method:	EN 61000-4-4: 2012
Procedure:	Repetition Frequency: 5kHz Burst Period: 300ms Test Duration: 2 minute per level & polarity
Performance Criteria:	B

7.3.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23 °C	Humidity:	49.5 %
Pre test mode:	TM1		
Final test mode:	TM1		

7.3.2 Test Setup Diagram:





7.3.3 Test Data:

Port	Volt (kV)	Polarity	CDN/ Clamp	Result/ Observations
AC power port	1	+	CDN	B
AC power port	1	-	CDN	B

A: No degradation in the performance of the EUT was observed.





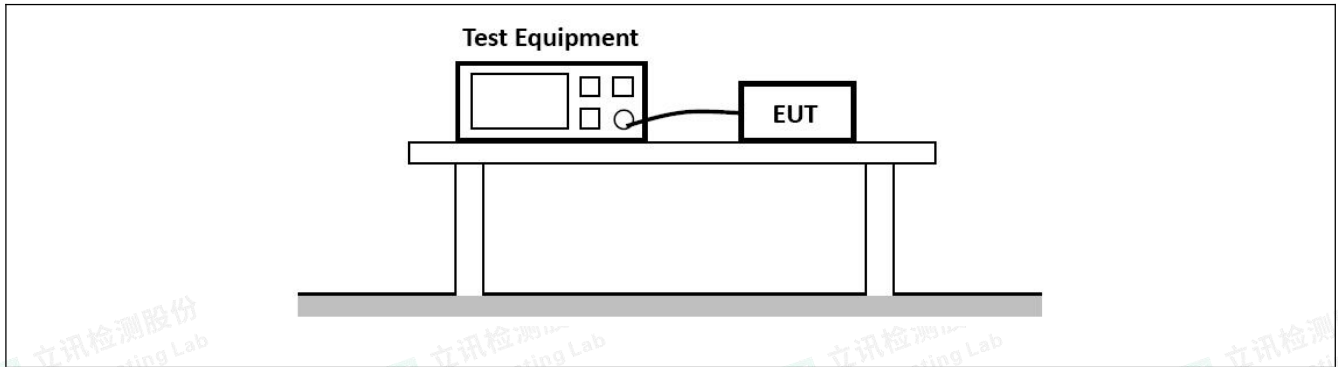
7.4 Surges for AC mains power ports

Test Requirement:	1.2/50µs Tr/Td; 1kV Line to Line
Test Method:	EN 61000-4-5: 2014 +A1: 2017
Procedure:	Interval: 60s between each surge No. of surges: 5 positive, 5 negative at 90°, 270°
Performance Criteria:	B

7.4.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23 °C	Humidity:	49.5 %
Pre test mode:	TM1		
Final test mode:	TM1		

7.4.2 Test Setup Diagram:





7.4.3 Test Data:

Port	Volt (kV)	Polarity	Phase(degree)	Result/ Observations
L-N	1	+	90°	B
L-N	1	-	270°	B

A: No degradation in the performance of the EUT was observed.





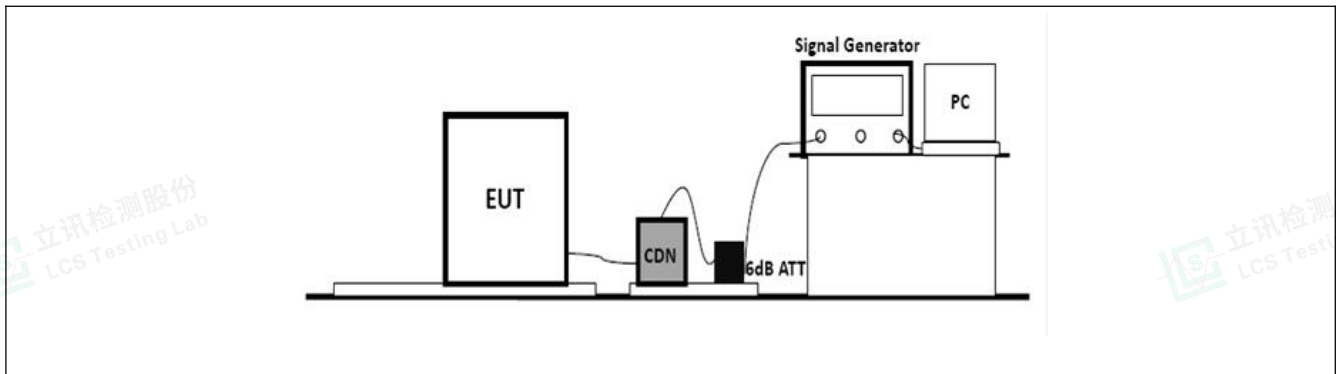
7.5 Continuous induced RF disturbances for AC mains power ports (150kHz-80MHz)

Test Requirement:	0,15 to 10MHz 3Vrms (emf), 10 to 30MHz 3V to 1Vrms(emf), 30 to 80MHz 1Vrms(emf), 80%,1kHz Amp. Mod.
Test Method:	EN 61000-4-6: 2014
Procedure:	Frequency Range: 0.15MHz to 80MHz Modulation: 80%, 1kHz Amplitude Modulation Step Size: 1%
Performance Criteria:	A

7.5.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23 °C	Humidity:	49.5 %
Pre test mode:	TM1		
Final test mode:	TM1		

7.5.2 Test Setup Diagram:





7.5.3 Test Data:

Port	Strength (Vrms)	CDN/Clamp	Dwell time	Result/ Observations
AC power port	3(0.15MHz-10MHz)	CDN	3s	A
AC power port	3 to 1(10MHz-30MHz, Lines)	CDN	3s	A
AC power port	1(30MHz-80MHz)	CDN	3s	A

A: No degradation in the performance of the EUT was observed.





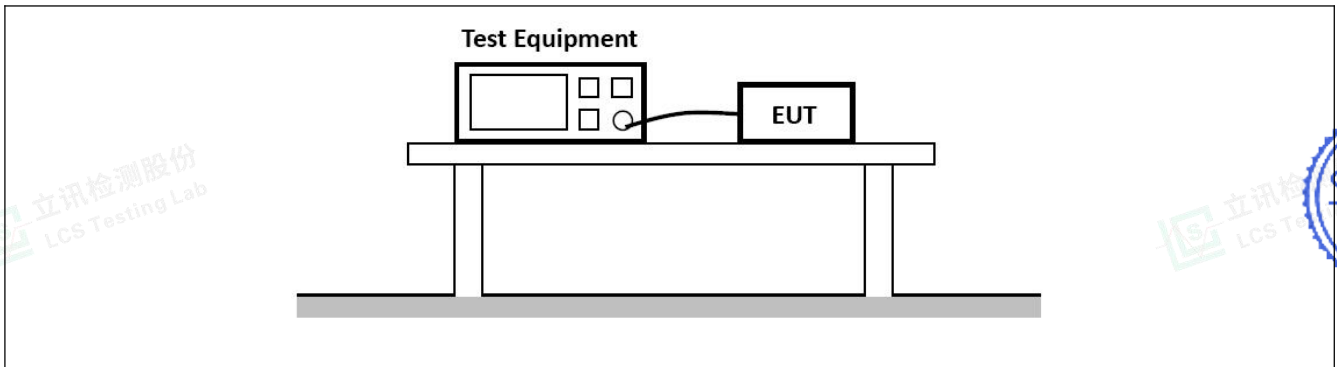
7.6 Voltage dips and interruptions

Test Requirement:	<5% residual voltage for 0.5 periods 70% residual voltage for 25 periods <5% residual voltage for 250 periods
Test Method:	EN IEC 61000-4-11:2020
Procedure:	<5% residual voltage for 0.5 period 70% residual voltage for 25 period <5% residual voltage for 250 period No. of Dips / Interruptions: 3 per Level Time between dropout: 10s
Performance Criteria:	B, C

7.6.1 E.U.T. Operation:

Operating Environment:			
Temperature:	23 °C	Humidity:	49.5 %
Pre test mode:	TM1		
Final test mode:	TM1		

7.6.2 Test Setup Diagram:





7.6.3 Test Data:

Level %UT	Phase (degree)	Duration	No. of Dips/ Interruptions	Result/ Observations
0	0°	0.5 Cycles	3	B
0	0°	250 Cycles	3	C
70	0°	25 Cycles	3	C
0	0°	0.5 Cycles	3	B
0	0°	300 Cycles	3	C
70	0°	30 Cycles	3	C

A: No degradation in the performance of the EUT was observed.



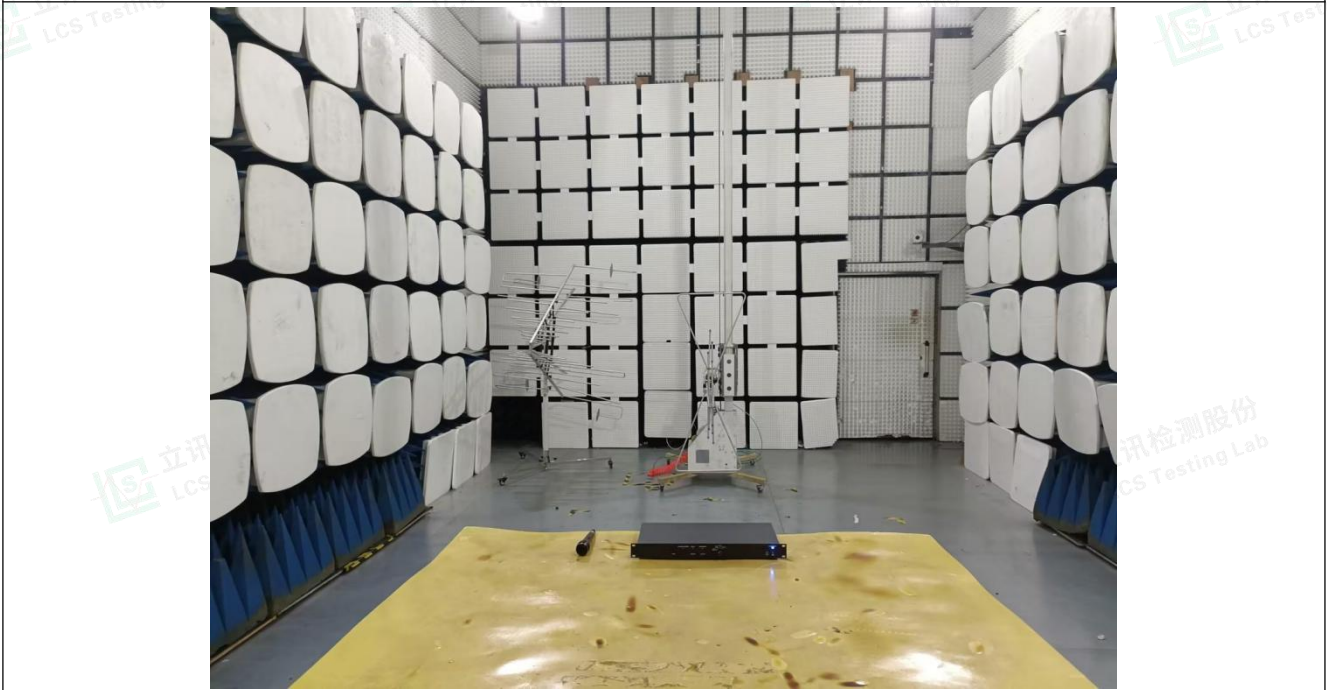


8. TEST SETUP PHOTOS

Conducted emissions from AC mains power ports (150kHz-30MHz)



Radiated emissions (30MHz-1GHz)





Voltage fluctuations and flicker

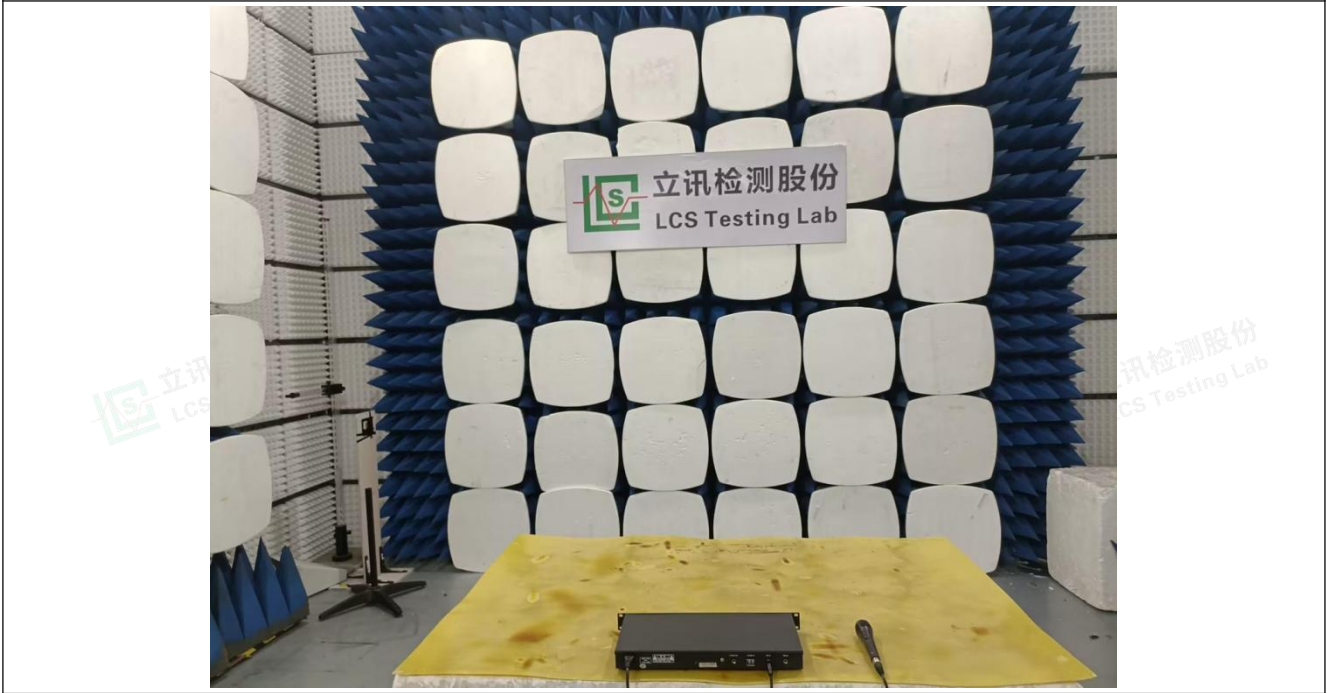


Electrostatic discharges





RF electromagnetic field disturbances

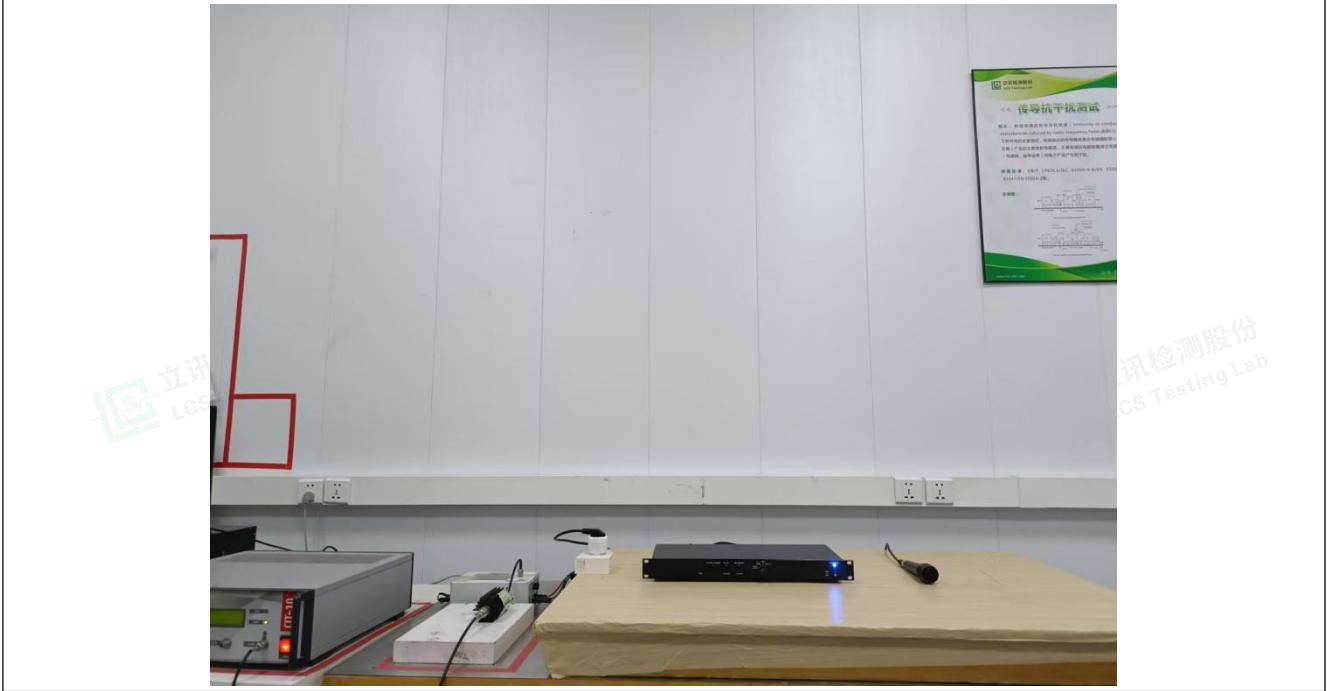


Electrical fast transients / burst for AC mains power ports Surges for AC mains power ports

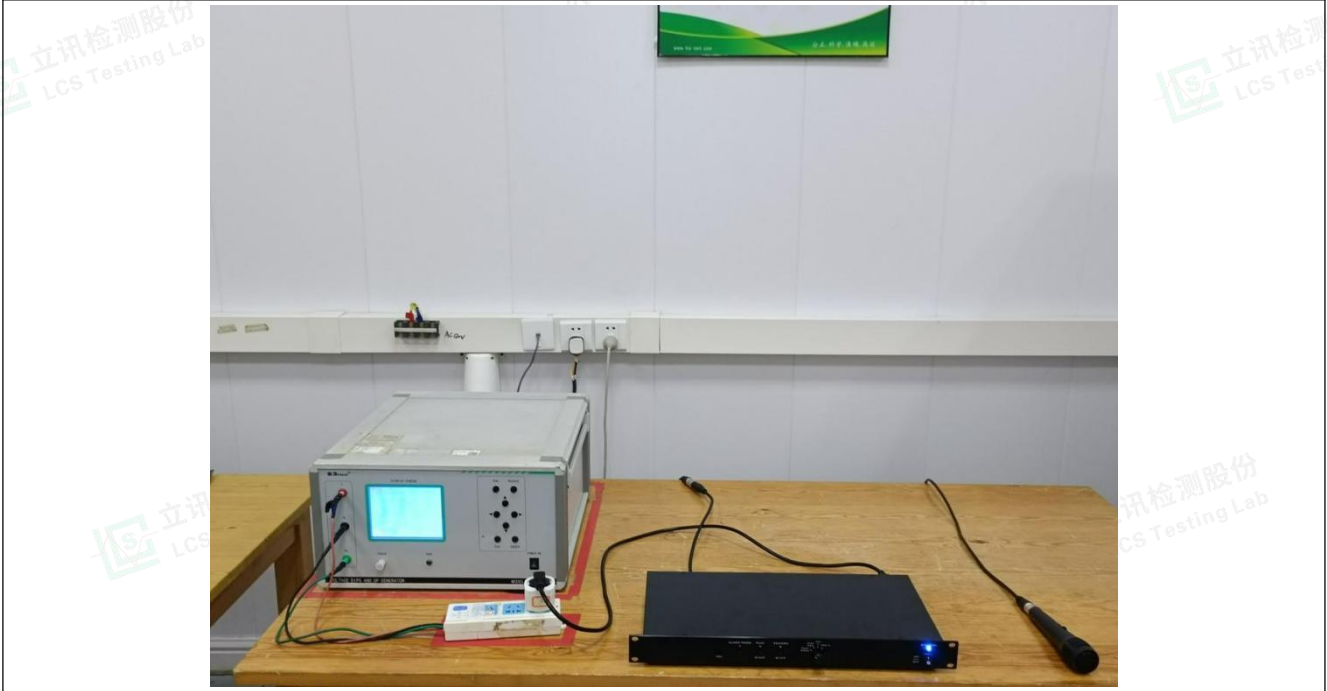




Continuous induced RF disturbances for AC mains power ports (150kHz-80MHz)



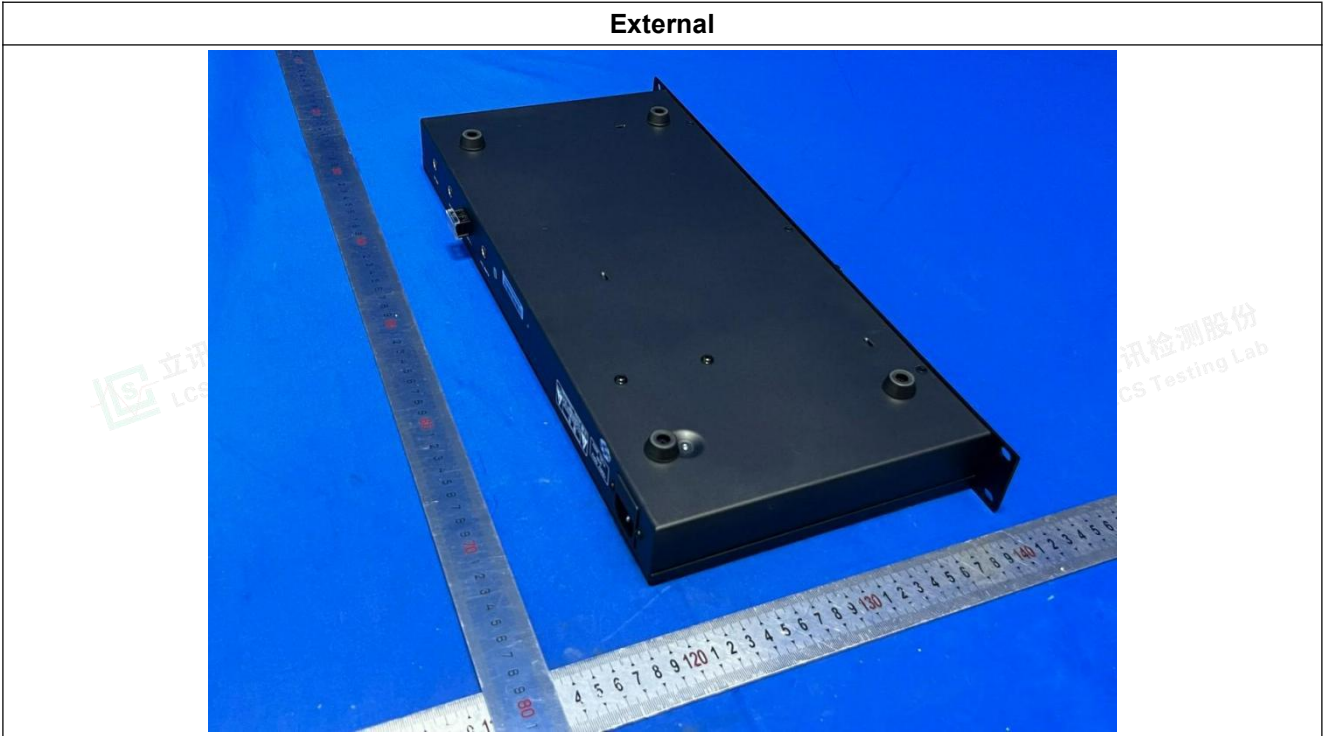
Voltage dips and interruptions





9. EUT CONSTRUCTIONAL DETAILS (EUT PHOTOS)

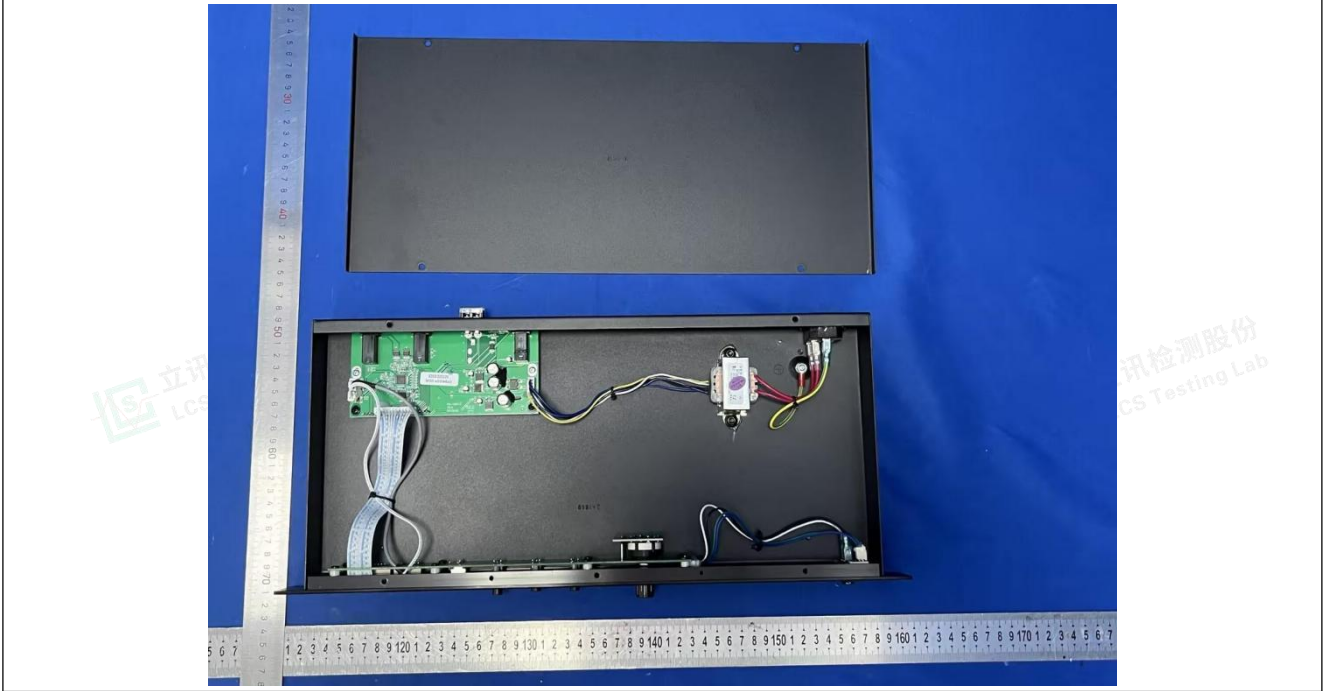
External

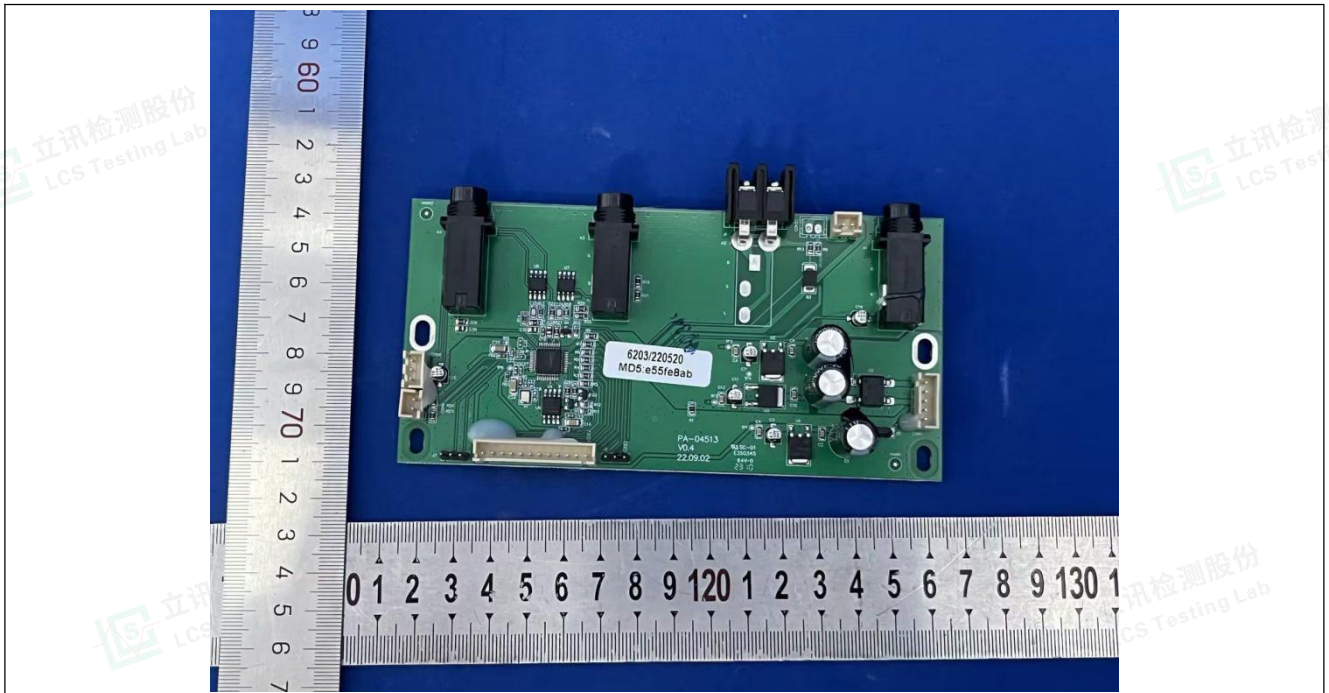
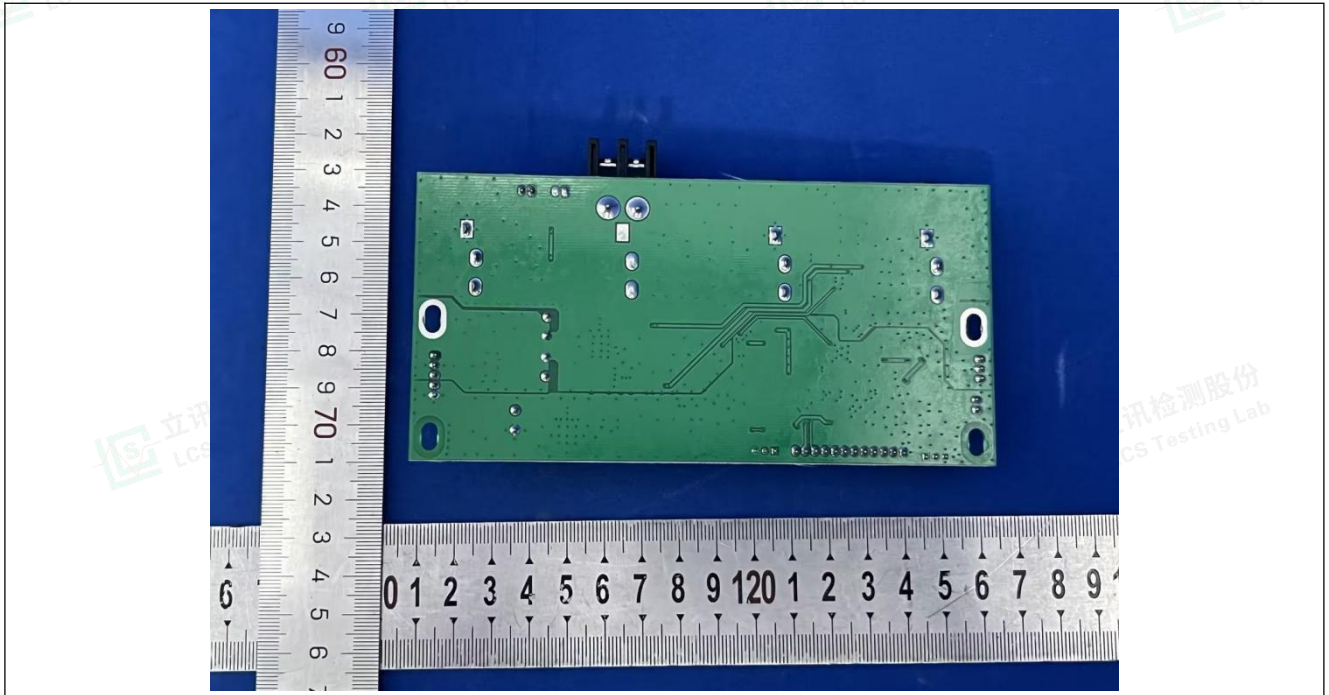






Internal







--- End of Report ---

