



EMC TEST REPORT

For

Shenzhen Yeniu Electronics Co., Ltd.

travel adapter

Test Model: HHT905

Prepared for : Shenzhen Yeniu Electronics Co., Ltd.
3rd Floor, Building F, Zhongxi Industrial Park, Tongfuyu
Address : Industrial Zone, Buyong Community, Shajing Street,
Bao'an District, Shenzhen City, Guangdong Province,
China

Prepared by : Shenzhen LCS Compliance Testing Laboratory Ltd.
Room 101, 201, Building A and Room 301, Building C,
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Date of receipt of test sample : May 29, 2024
Number of tested samples : 1
Serial number : Prototype
Date of Test : May 29, 2024 to June 28, 2024
Date of Report : June 29, 2024



**TEST REPORT****Report No.** : LCSA05234184E**Date of Issue** : June 29, 2024**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 ■
Partial application of Harmonised standards □
Other standard testing method □**Applicant's Name** : Shenzhen Yeniu Electronics Co., Ltd.**Address** : 3rd Floor, Building F, Zhongxi Industrial Park, Tongfuyu Industrial Zone, Buyong Community, Shajing Street, Bao'an District, Shenzhen City, Guangdong Province, China**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.** : TRF-4-E-001 A/0**TRF Originator** : Shenzhen LCS Compliance Testing Laboratory Ltd.**Master TRF** : Dated 2011-03**Shenzhen LCS Compliance Testing Laboratory Ltd. All rights reserved.**

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Test Item Description. : travel adapter**Trade Mark** : RRTRAVEL**Test Model** : HHT905**Result** : Positive**Compiled by:**

Coco Song / File Administrator

Supervised by:

Cary Luo/ Technique principal

Approved by:

Gavin Liang / Manager



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TEST REPORT

Test Report No.: LCSA05234184E	<u>June 29, 2024</u> Date of issue
---------------------------------------	---------------------------------------

Test Model	HHT905
EUT	travel adapter
Applicant	Shenzhen Yeniu Electronics Co., Ltd.
Address	3rd Floor, Building F, Zhongxi Industrial Park, Tongfuyu Industrial Zone, Buyong Community, Shajing Street, Bao'an District, Shenzhen City, Guangdong Province, China
Telephone	/
Fax	/
Manufacturer	Shenzhen Yeniu Electronics Co., Ltd.
Address	3rd Floor, Building F, Zhongxi Industrial Park, Tongfuyu Industrial Zone, Buyong Community, Shajing Street, Bao'an District, Shenzhen City, Guangdong Province, China
Telephone	/
Fax	/
Factory	Shenzhen Yeniu Electronics Co., Ltd.
Address	3rd Floor, Building F, Zhongxi Industrial Park, Tongfuyu Industrial Zone, Buyong Community, Shajing Street, Bao'an District, Shenzhen City, Guangdong Province, China
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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Revision History

Report Version	Issue Date	Revision Content	Revised By
000	June 29, 2024	Initial Issue	/



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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 B	Pass
Radiated emissions (30MHz-1GHz)	EN 55032:2015/A1:2020	Class B	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	Full Load(AC230V/50Hz): A+C+PD	Record
TM2	Full Load(AC230V/50Hz): PD45W	Record
TM3	Full Load(AC230V/50Hz): C	Record
TM4	Full Load(AC230V/50Hz): A	Record
TM5	Half Load	Pre-scan
TM6	No load	Pre-scan
***Note: All test modes were tested, but we only recorded the worst case in this report.		

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	: travel adapter
Test Model	: HHT905
	100-240V~, 8.0A Max, 1920W Max, 50/60Hz
	USB-C1 Output: 5.0V \Rightarrow 3.0A/ 9.0V \Rightarrow 3.0A/ 12.0V \Rightarrow 3.0A/
Power Supply	: 15.0V \Rightarrow 3.0A/ 20.0V \Rightarrow 2.25A 45.0W Max
	USB-A1/A2 Output: 5.0V \Rightarrow 2.4A 12.0W Max
	USB-C2/C3 Output: 5.0V \Rightarrow 2.4A 12.0W Max
Highest Internal Frequency	: $f \leq 108\text{MHz}$
Classification of Equipment	: Class B

3.2 Support equipment List

Manufacturer	Description	Model	Serial Number	Certificate
/	/	/	/	/

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	2024-06-06	2025-06-05
Pulse Limiter	R&S	ESH3-Z2	102750-NB	2023-08-15	2024-08-14
EMI Test Receiver	R&S	ESR3	102312	2024-03-02	2025-03-01

Radiated emissions (30MHz-1GHz)

Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
EMI Test Software	Farad	EZ	/	/	/
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	2024-06-06	2025-06-05
EMI Test Receiver	R&S	ESCI7	101173	2023-10-25	2024-10-24
By-log Antenna	SchwarzZBECK	VULB9163	01428	2023-09-05	2024-09-04

Voltage fluctuations and flicker

Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
HARMONICS&FLICKER MEASUREMENT SYSTEM	EVERFINE	HFM-3000	P630850CD14 11116	2024-03-02	2025-03-01
HARMONICS&FLICKER TESTING POWER SOURCE	EVERFINE	HFS-4000	P624486CD14 111124	2024-03-02	2025-03-01

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)	2024-06-06	2025-06-05
RF POWER AMPLIFIER	SKET	HAP_0306G-50W	/	2024-06-06	2025-06-05
RF POWER AMPLIFIER	OPHIR	5225R	1052	2024-06-06	2025-06-05
RF POWER AMPLIFIER	OPHIR	5273F	1019	2024-06-06	2025-06-05
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	2024-06-06	2025-06-05

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	2023-10-18	2024-10-17
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	2024-06-06	2025-06-05
6dB Attenuator	FRANKONIA	DAM25W	1172040	2024-06-06	2025-06-05

Voltage dips and interruptions

Equipment	Manufacturer	Model No	Serial No.	Cal Date	Due Date
Voltage dips and up generator	3CTEST	VDG-1105G	EC0171014	2024-06-06	2025-06-05





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)

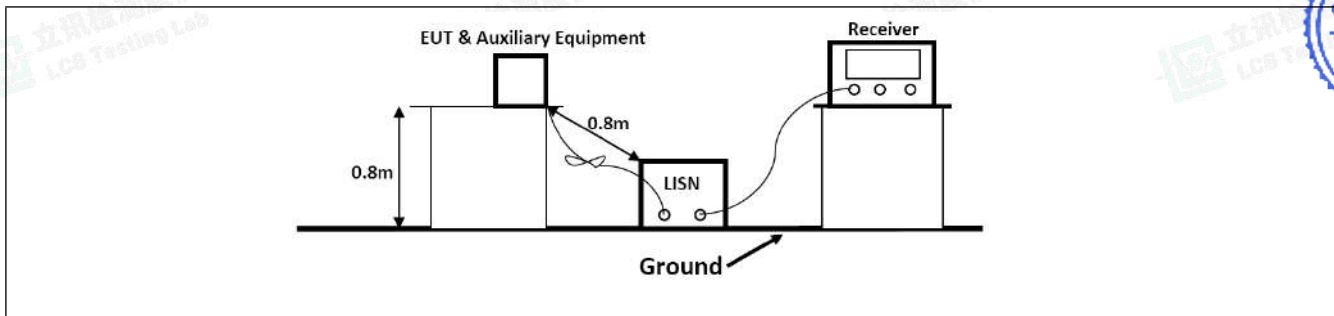
6.1 Conducted emissions from AC mains power ports (150kHz-30MHz)

Test Requirement:	Class B		
Test Limit:	Frequency Range	Limit (Quasi-Peak)	Limit (Average)
	0.15MHz to 0.5MHz	66dB(μV) to 56dB(μV)	56dB(μV) to 46dB(μV)
	0.5MHz to 5MHz	56dB(μV)	46dB(μV)
	5MHz to 30MHz	60dB(μV)	50dB(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:	24.4 °C	Humidity:	53 %
Pre test mode:	TM1, TM2, TM3, TM4		
Final test mode:	TM1, TM2, TM3, TM4		

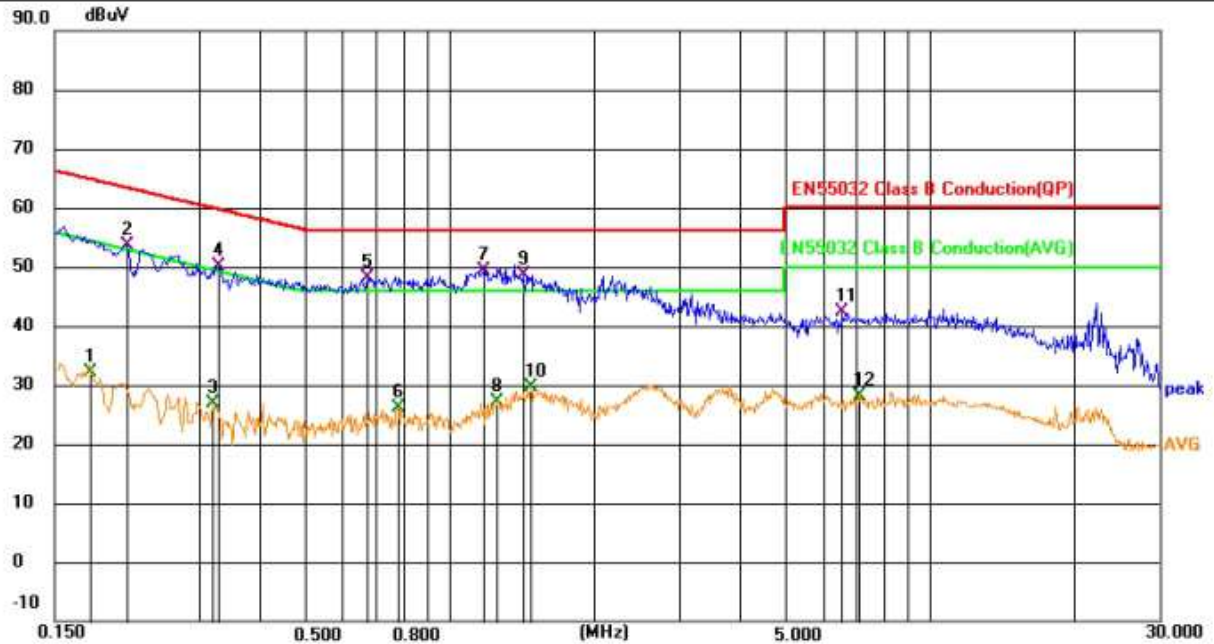
6.1.2 Test Setup Diagram:





6.1.3 Test Data:

TM1 / Line: Line

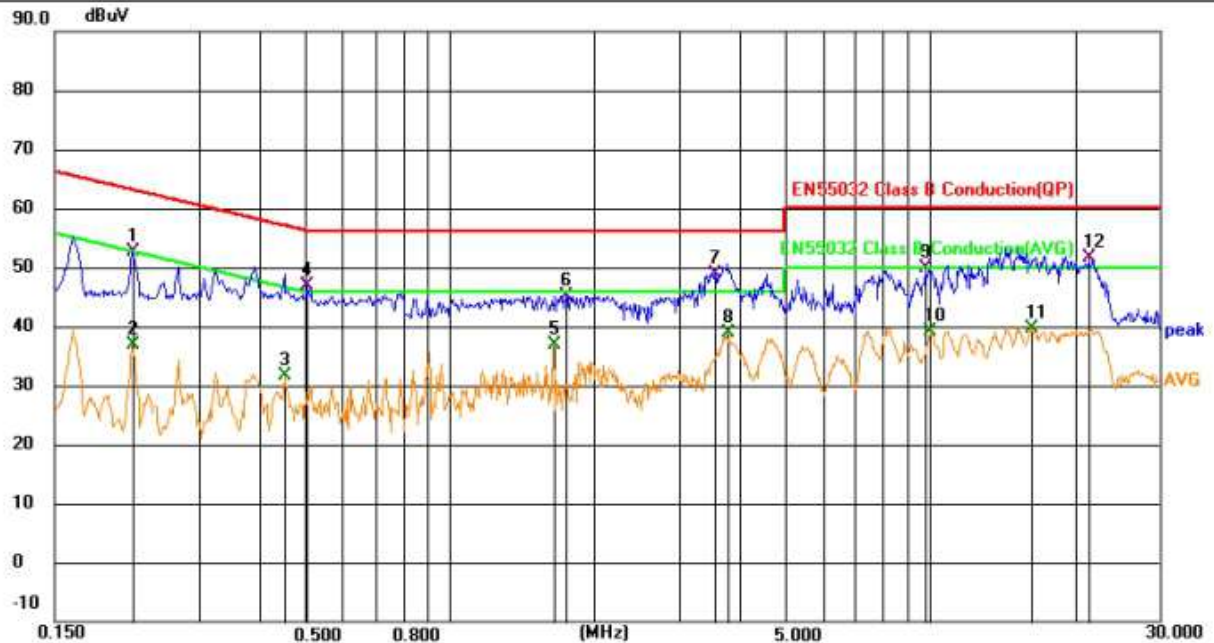


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1785	11.95	20.18	32.13	54.56	-22.43	AVG	
2		0.2131	33.56	20.16	53.72	63.08	-9.36	QP	
3		0.3209	6.59	20.18	26.77	49.68	-22.91	AVG	
4		0.3301	29.89	20.19	50.08	59.45	-9.37	QP	
5		0.6720	28.15	20.08	48.23	56.00	-7.77	QP	
6		0.7754	6.05	20.06	26.11	46.00	-19.89	AVG	
7	*	1.1759	29.22	20.16	49.38	56.00	-6.62	QP	
8		1.2615	7.00	20.15	27.15	46.00	-18.85	AVG	
9		1.4234	28.55	20.16	48.71	56.00	-7.29	QP	
10		1.4730	9.52	20.16	29.68	46.00	-16.32	AVG	
11		6.5895	22.35	20.01	42.36	60.00	-17.64	QP	
12		7.1250	8.19	20.06	28.25	50.00	-21.75	AVG	





TM1 / Line: Neutral

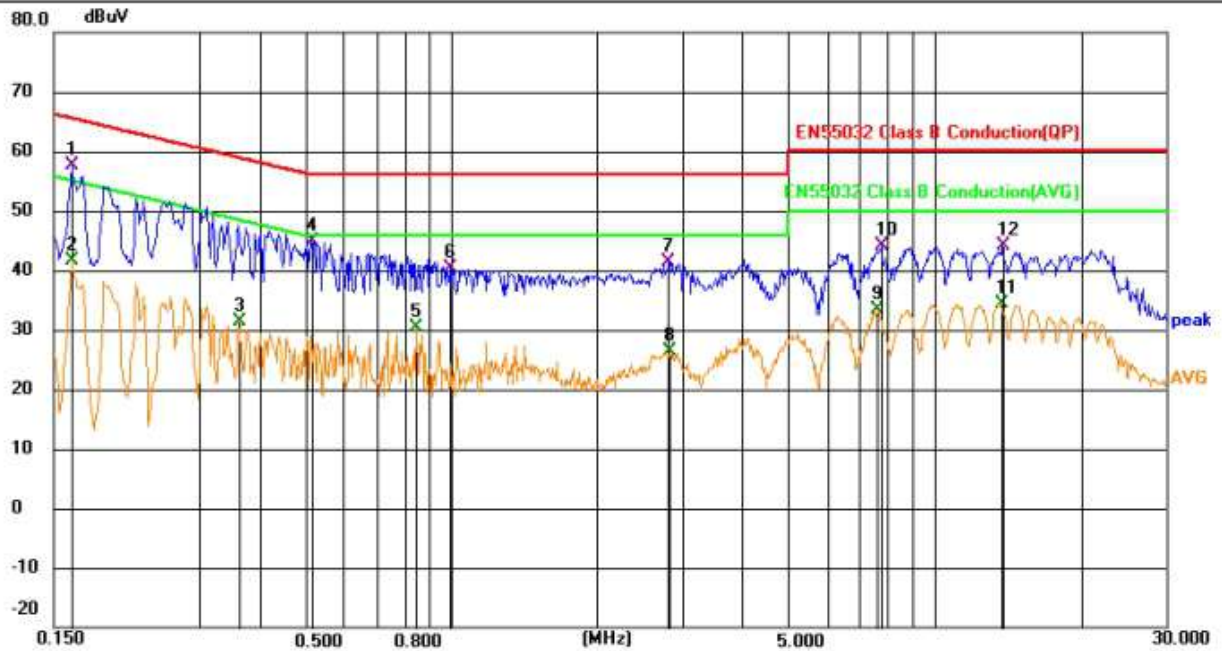


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.2176	32.40	20.16	52.56	62.91	-10.35	QP	
2		0.2176	16.61	20.16	36.77	52.91	-16.14	AVG	
3		0.4516	11.33	20.23	31.56	46.85	-15.29	AVG	
4		0.5056	26.70	20.21	46.91	56.00	-9.09	QP	
5		1.6440	16.74	20.18	36.92	46.00	-9.08	AVG	
6		1.7520	25.06	20.17	45.23	56.00	-10.77	QP	
7	*	3.5836	28.79	20.21	49.00	56.00	-7.00	QP	
8		3.7861	18.82	20.15	38.97	46.00	-7.03	AVG	
9		9.7936	29.44	20.35	49.79	60.00	-10.21	QP	
10		10.0591	18.76	20.37	39.13	50.00	-10.87	AVG	
11		16.3411	19.13	20.58	39.71	50.00	-10.29	AVG	
12		21.4171	30.89	20.68	51.57	60.00	-8.43	QP	





TM2 / Line: Line

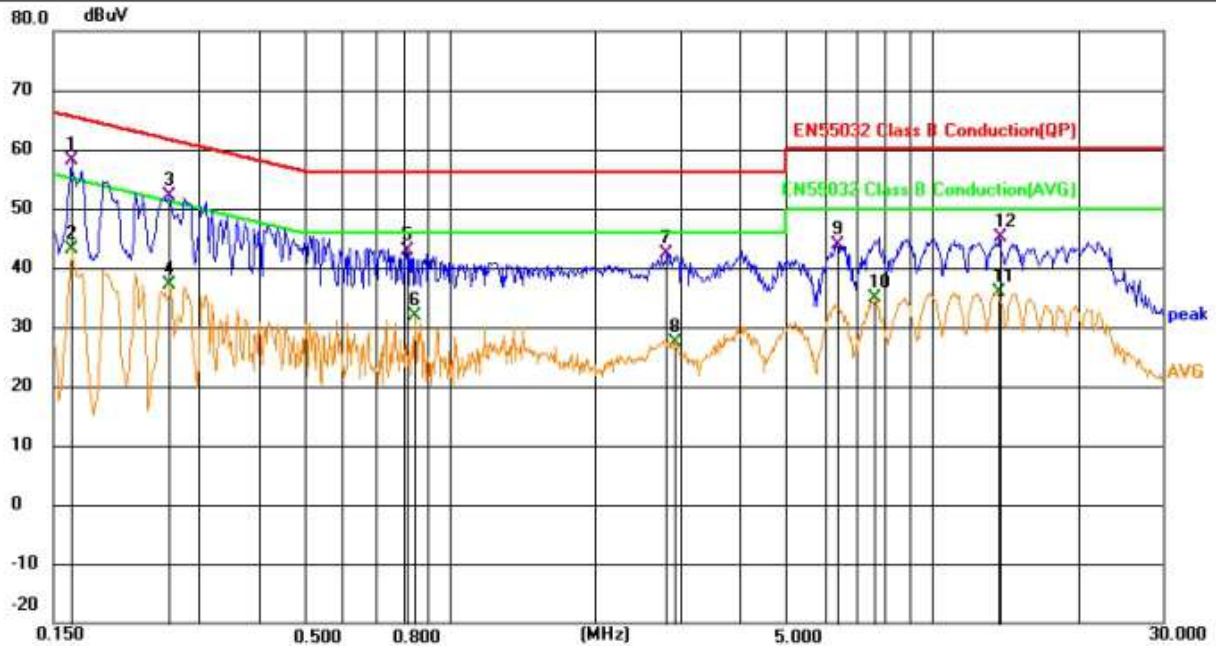


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1635	37.66	19.98	57.64	65.28	-7.64	QP	
2		0.1635	21.58	19.98	41.56	55.28	-13.72	AVG	
3		0.3616	11.29	20.03	31.32	48.69	-17.37	AVG	
4		0.5101	25.20	19.75	44.95	56.00	-11.05	QP	
5		0.8475	10.14	20.25	30.39	46.00	-15.61	AVG	
6		0.9915	20.39	20.09	40.48	56.00	-15.52	QP	
7		2.8096	21.09	20.19	41.28	56.00	-14.72	QP	
8		2.8365	6.29	20.19	26.48	46.00	-19.52	AVG	
9		7.6066	12.91	20.45	33.36	50.00	-16.64	AVG	
10		7.7326	23.60	20.45	44.05	60.00	-15.95	QP	
11		13.6816	14.47	20.01	34.48	50.00	-15.52	AVG	
12		13.7716	24.07	20.01	44.08	60.00	-15.92	QP	





TM2 / Line: Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1635	38.16	19.98	58.14	65.28	-7.14	QP	
2		0.1635	23.08	19.98	43.06	55.28	-12.22	AVG	
3		0.2626	32.13	20.03	52.16	61.35	-9.19	QP	
4		0.2626	17.14	20.03	37.17	51.35	-14.18	AVG	
5		0.8115	22.71	20.29	43.00	56.00	-13.00	QP	
6		0.8475	11.64	20.25	31.89	46.00	-14.11	AVG	
7		2.8096	22.09	20.19	42.28	56.00	-13.72	QP	
8		2.9266	7.32	20.18	27.50	46.00	-18.50	AVG	
9		6.3241	23.51	20.28	43.79	60.00	-16.21	QP	
10		7.6066	14.41	20.45	34.86	50.00	-15.14	AVG	
11		13.6816	15.97	20.01	35.98	50.00	-14.02	AVG	
12		13.7716	25.07	20.01	45.08	60.00	-14.92	QP	



Shenzhen LCS Compliance Testing Laboratory Ltd.

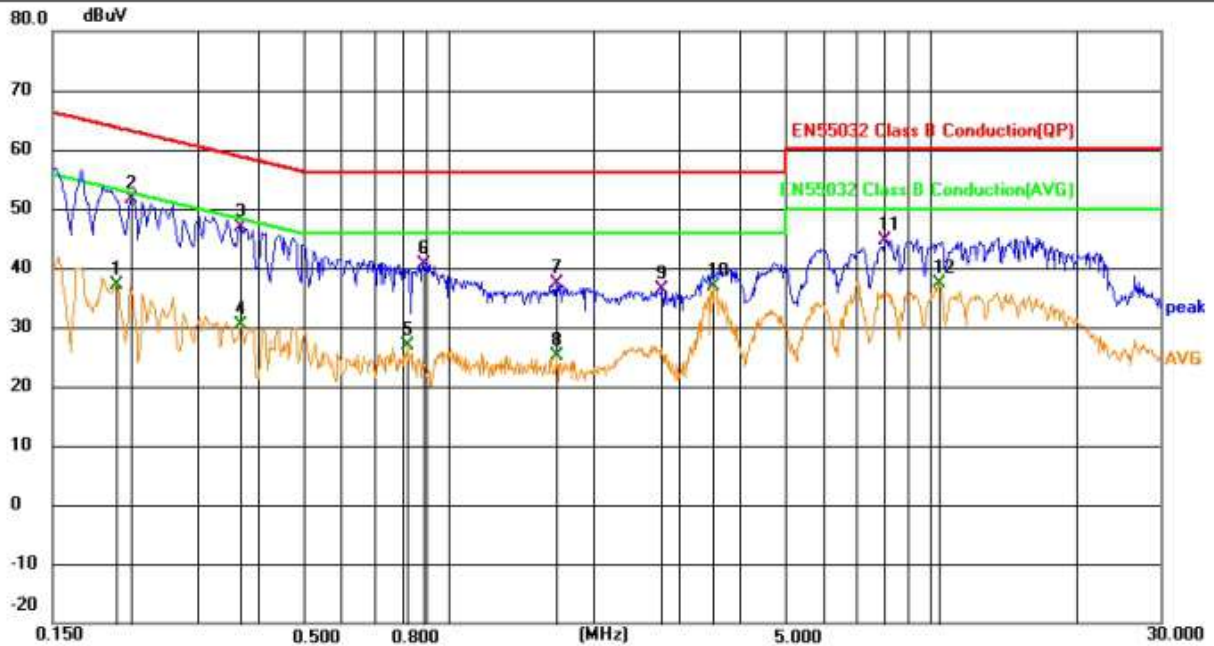
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TM3 / Line: Line

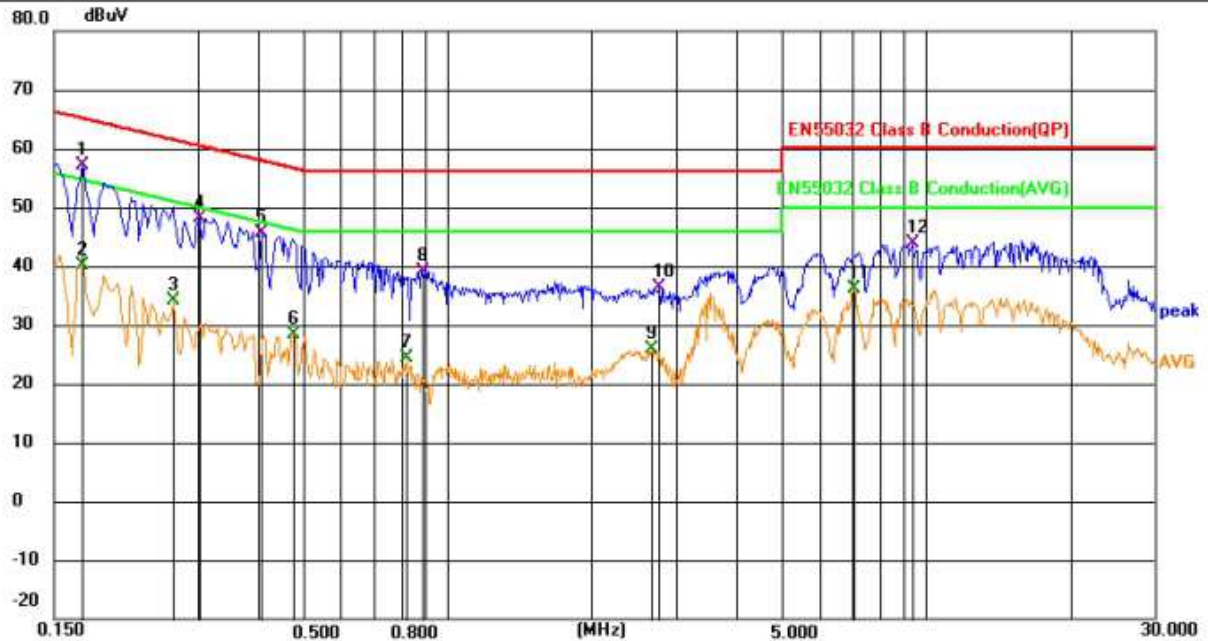


No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Margin		
		MHz	Level	Factor	ment			Detector	Comment
			dBuV	dB	dBuV	dBuV	dB		
1		0.2041	17.15	20.06	37.21	53.44	-16.23	AVG	
2		0.2184	31.56	20.05	51.61	62.88	-11.27	QP	
3		0.3704	26.86	20.04	46.90	58.49	-11.59	QP	
4		0.3704	10.34	20.04	30.38	48.49	-18.11	AVG	
5		0.8205	6.61	20.28	26.89	46.00	-19.11	AVG	
6		0.8834	20.51	20.21	40.72	56.00	-15.28	QP	
7		1.6754	17.07	20.20	37.27	56.00	-18.73	QP	
8		1.6754	5.05	20.20	25.25	46.00	-20.75	AVG	
9		2.7780	16.30	20.19	36.49	56.00	-19.51	QP	
10	*	3.5476	16.66	20.11	36.77	46.00	-9.23	AVG	
11		8.0341	24.23	20.43	44.66	60.00	-15.34	QP	
12		10.4415	17.16	20.29	37.45	50.00	-12.55	AVG	





TM3 / Line: Neutral

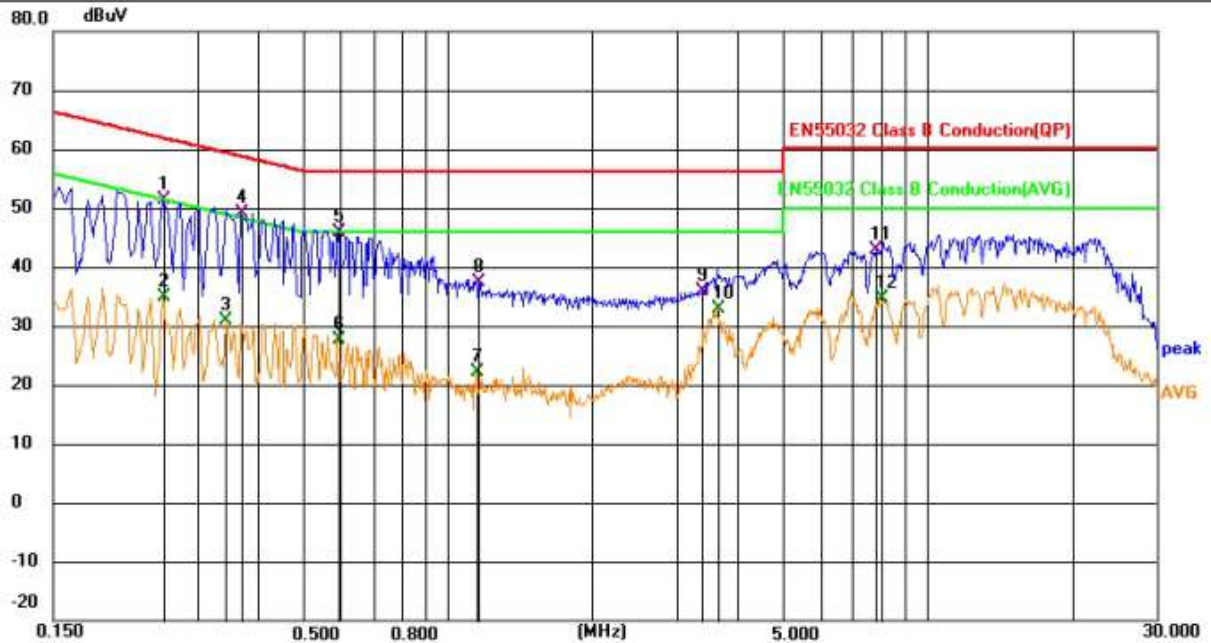


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1	*	0.1726	37.20	20.00	57.20	64.83	-7.63	QP	
2		0.1726	20.02	20.00	40.02	54.83	-14.81	AVG	
3		0.2671	14.03	20.03	34.06	51.21	-17.15	AVG	
4		0.3030	28.05	20.01	48.06	60.16	-12.10	QP	
5		0.4066	25.53	20.03	45.56	57.72	-12.16	QP	
6		0.4786	8.66	19.78	28.44	46.36	-17.92	AVG	
7		0.8205	4.11	20.28	24.39	46.00	-21.61	AVG	
8		0.8834	19.01	20.21	39.22	56.00	-16.78	QP	
9		2.6700	5.68	20.20	25.88	46.00	-20.12	AVG	
10		2.7780	16.30	20.19	36.49	56.00	-19.51	QP	
11		7.0711	15.69	20.48	36.17	50.00	-13.83	AVG	
12		9.3976	23.45	20.35	43.80	60.00	-16.20	QP	





TM4 / Line: Line

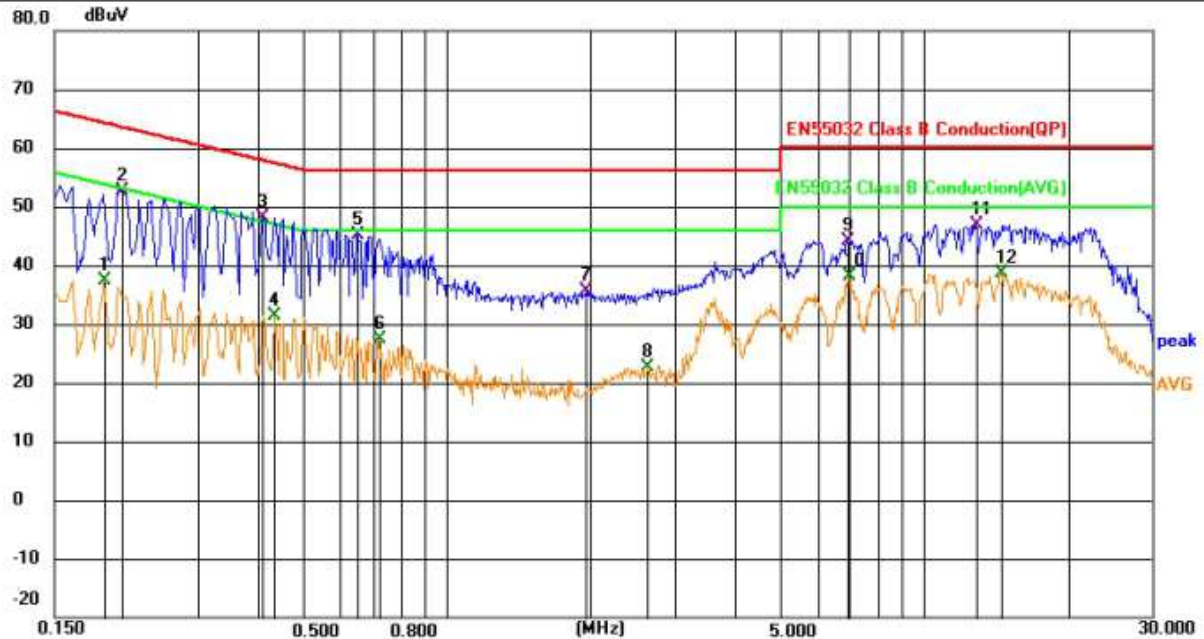


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.2536	31.14	20.16	51.30	61.64	-10.34	QP	
2		0.2536	14.80	20.16	34.96	51.64	-16.68	AVG	
3		0.3436	10.72	20.21	30.93	49.12	-18.19	AVG	
4	*	0.3706	29.01	20.24	49.25	58.49	-9.24	QP	
5		0.5910	25.62	20.15	45.77	56.00	-10.23	QP	
6		0.5910	7.58	20.15	27.73	46.00	-18.27	AVG	
7		1.1490	1.99	20.15	22.14	46.00	-23.86	AVG	
8		1.1625	17.16	20.15	37.31	56.00	-18.69	QP	
9		3.3901	15.64	20.25	35.89	56.00	-20.11	QP	
10		3.6466	12.61	20.19	32.80	46.00	-13.20	AVG	
11		7.8226	22.81	20.15	42.96	60.00	-17.04	QP	
12		7.9891	14.51	20.16	34.67	50.00	-15.33	AVG	





TM4 / Line: Neutral



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.1906	17.08	20.18	37.26	54.01	-16.75	AVG	
2		0.2072	32.43	20.16	52.59	63.32	-10.73	QP	
3	*	0.4111	27.94	20.26	48.20	57.63	-9.43	QP	
4		0.4336	11.18	20.25	31.43	47.18	-15.75	AVG	
5		0.6495	25.09	20.09	45.18	56.00	-10.82	QP	
6		0.7170	7.35	20.07	27.42	46.00	-18.58	AVG	
7		1.9590	15.32	20.19	35.51	56.00	-20.49	QP	
8		2.6431	2.46	20.28	22.74	46.00	-23.26	AVG	
9		6.8911	24.22	20.03	44.25	60.00	-15.75	QP	
10		6.9406	18.04	20.04	38.08	50.00	-11.92	AVG	
11		12.8266	26.44	20.41	46.85	60.00	-13.15	QP	
12		14.4421	18.20	20.45	38.65	50.00	-11.35	AVG	





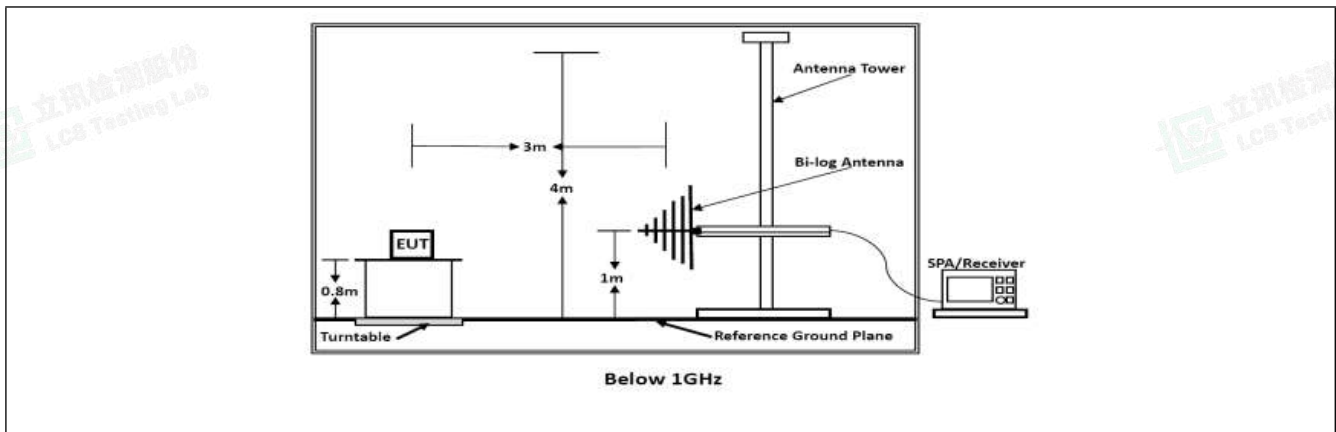
6.2 Radiated emissions (30MHz-1GHz)

Test Requirement:	Class B		
Test Limit:	Frequency (MHz)	Limit [dB(uV/m) at 10m]	Limit [dB(uV/m) at 3m]
	30 to 230	30	40
	230 to 1000	37	47
	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:	26.4 °C	Humidity:	54.2 %
Pre test mode:	TM1, TM2, TM3, TM4		
Final test mode:	TM1, TM2, TM3, TM4		

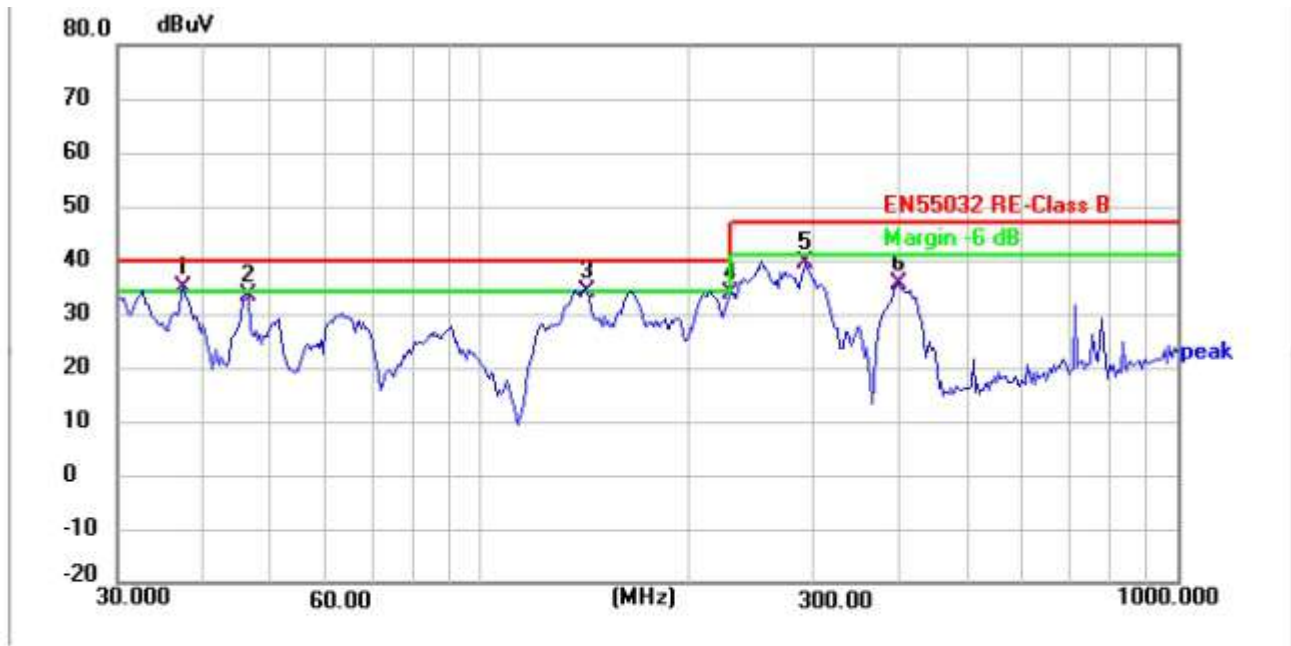
6.2.2 Test Setup Diagram:





6.2.3 Test Data:

TM1 / Polarization: Horizontal

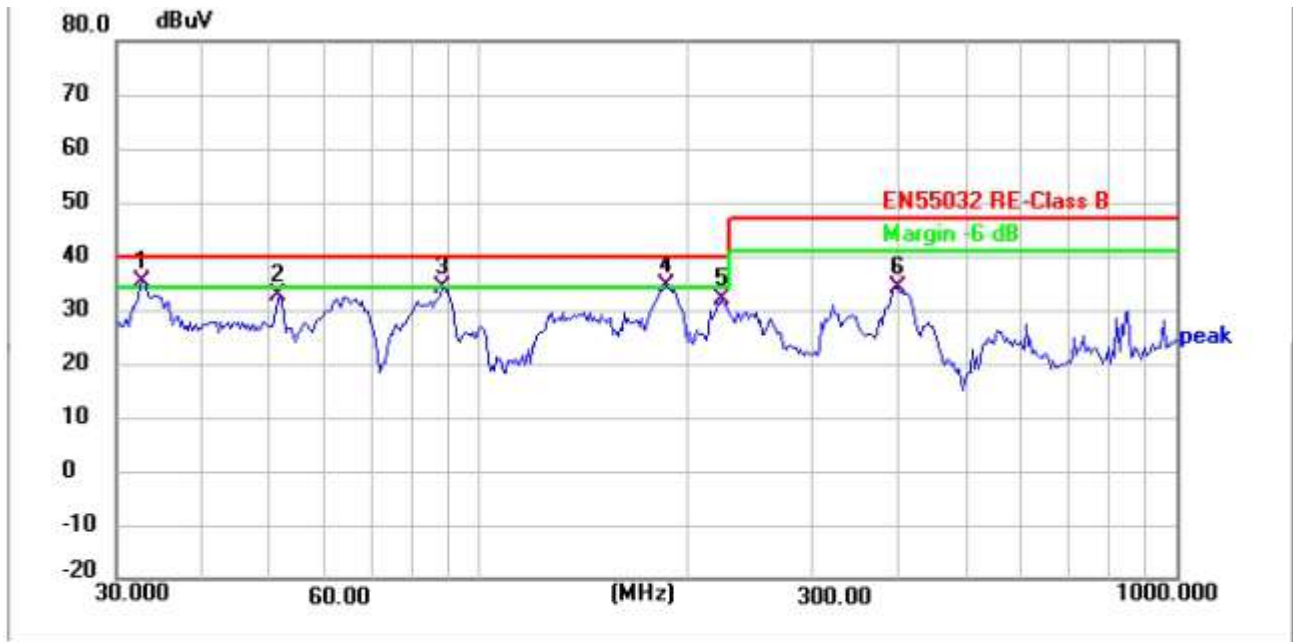


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	37.3016	53.63	-18.81	34.82	40.00	-5.18	QP			P	
2	46.3806	50.22	-16.98	33.24	40.00	-6.76	QP			P	
3 !	141.7693	57.39	-23.11	34.28	40.00	-5.72	QP			P	
4	228.6173	52.05	-18.40	33.65	40.00	-6.35	QP			P	
5	292.3641	56.39	-16.80	39.59	47.00	-7.41	QP			P	
6	398.2961	50.34	-14.80	35.54	47.00	-11.46	QP			P	





TM1 / Polarization: Vertical

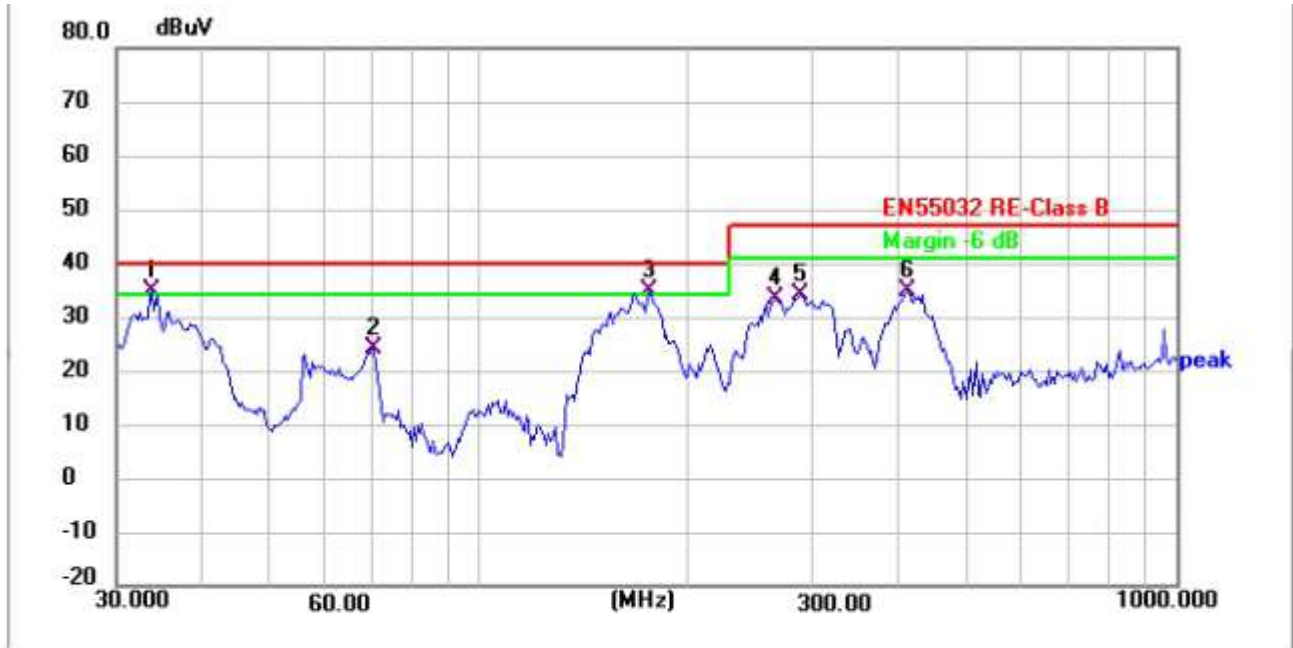


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	32.6394	54.87	-19.67	35.20	40.00	-4.80	QP			P	
2	51.5363	50.03	-17.24	32.79	40.00	-7.21	QP			P	
3 !	88.5335	55.55	-21.38	34.17	40.00	-5.83	QP			P	
4 !	185.1624	55.30	-20.77	34.53	40.00	-5.47	QP			P	
5	222.2804	50.60	-18.57	32.03	40.00	-7.97	QP			P	
6	398.2961	49.04	-14.80	34.24	47.00	-12.76	QP			P	





TM2 / Polarization: Horizontal

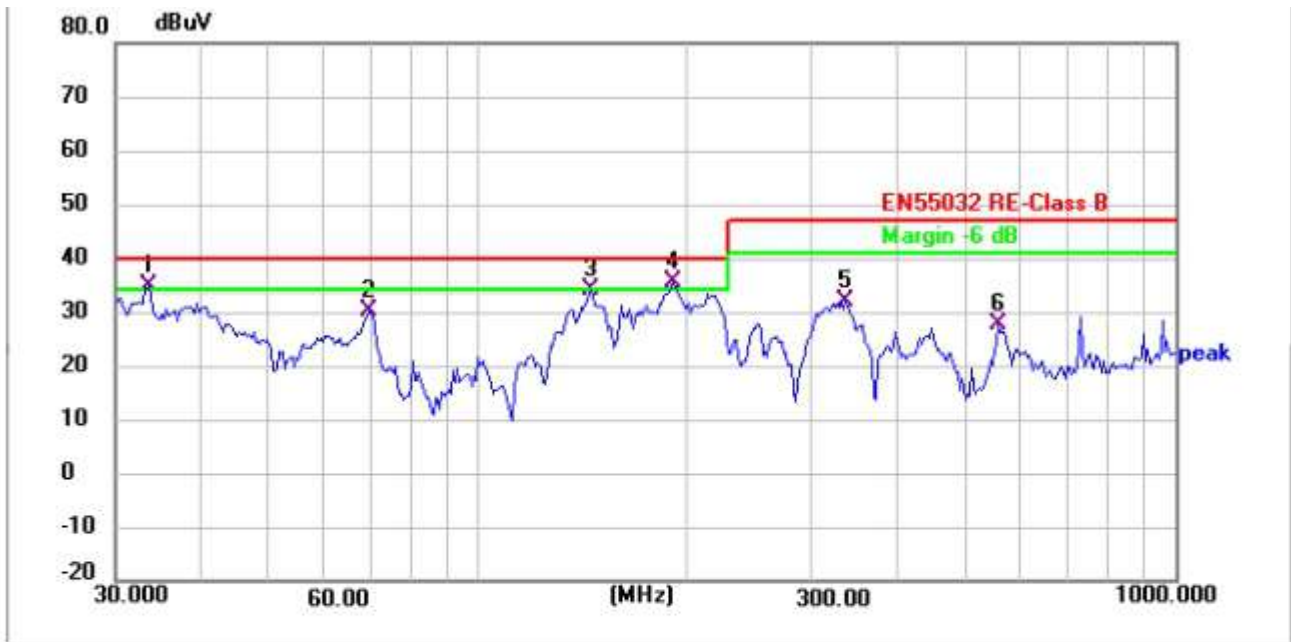


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	33.8066	54.38	-19.61	34.77	40.00	-5.23	QP			P	
2	70.2095	45.19	-21.12	24.07	40.00	-15.93	QP			P	
3 *	175.0404	56.51	-21.55	34.96	40.00	-5.04	QP			P	
4	264.9710	50.68	-17.44	33.24	47.00	-13.76	QP			P	
5	288.2840	51.13	-16.90	34.23	47.00	-12.77	QP			P	
6	409.6505	49.32	-14.55	34.77	47.00	-12.23	QP			P	





TM2 / Polarization: Vertical

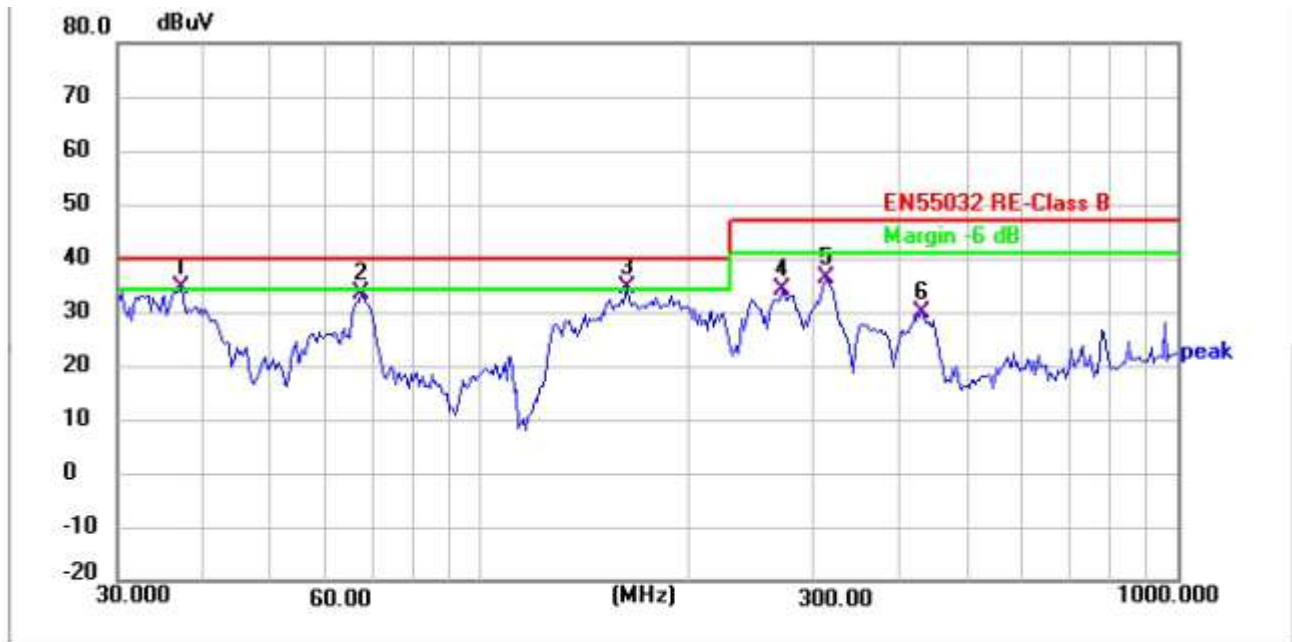


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	33.5700	54.36	-19.61	34.75	40.00	-5.25	QP			P	
2	69.2296	51.15	-20.90	30.25	40.00	-9.75	QP			P	
3 !	144.7898	57.00	-22.96	34.04	40.00	-5.96	QP			P	
4 *	190.4411	55.89	-20.21	35.68	40.00	-4.32	QP			P	
5	336.4816	47.77	-15.95	31.82	47.00	-15.18	QP			P	
6	558.0787	39.14	-11.36	27.78	47.00	-19.22	QP			P	





TM3 / Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	37.0405	53.40	-18.90	34.50	40.00	-5.50	QP			P	
2	67.3108	53.92	-20.44	33.48	40.00	-6.52	QP			P	
3 *	162.0197	56.81	-22.17	34.64	40.00	-5.36	QP			P	
4	270.6161	51.49	-17.32	34.17	47.00	-12.83	QP			P	
5	313.6481	52.50	-16.37	36.13	47.00	-10.87	QP			P	
6	430.3052	44.08	-14.09	29.99	47.00	-17.01	QP			P	





TM3 / Polarization: Vertical

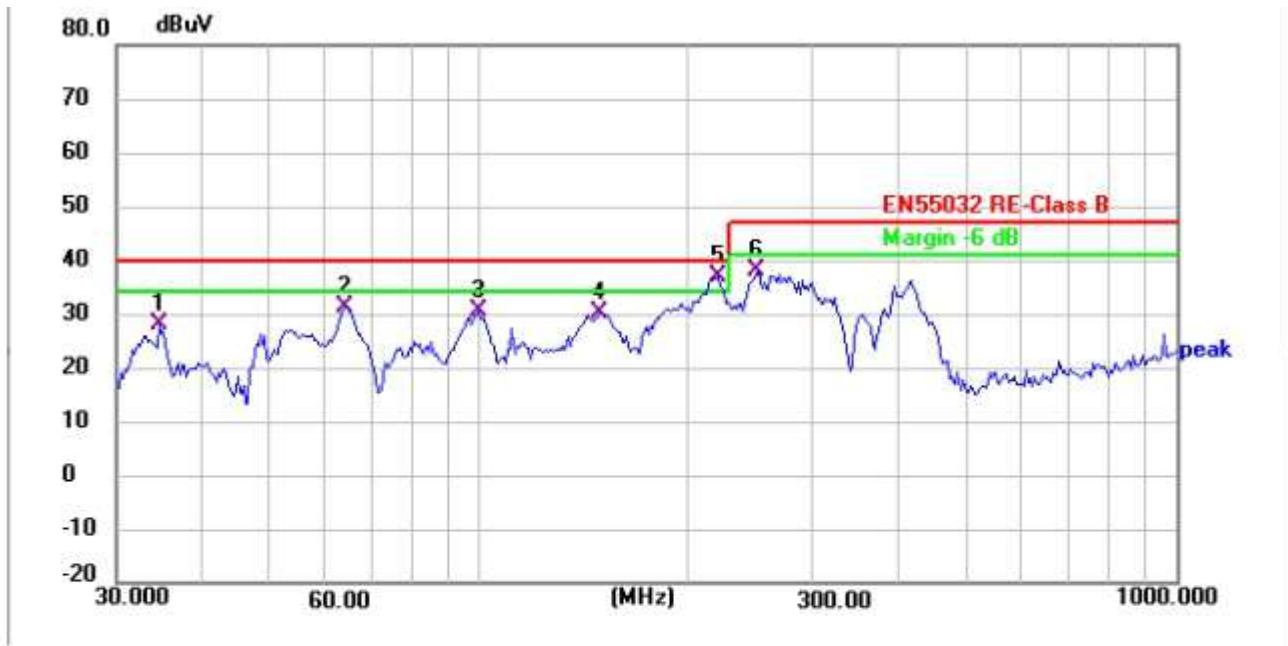


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	32.1840	55.08	-19.71	35.37	40.00	-4.63	QP			P	
2	42.0350	47.67	-17.58	30.09	40.00	-9.91	QP			P	
3 !	67.3108	54.60	-20.44	34.16	40.00	-5.84	QP			P	
4 *	141.7693	59.47	-23.11	36.36	40.00	-3.64	QP			P	
5 !	185.1625	56.61	-20.77	35.84	40.00	-4.16	QP			P	
6	445.6931	42.82	-13.73	29.09	47.00	-17.91	QP			P	





TM4 / Polarization: Horizontal

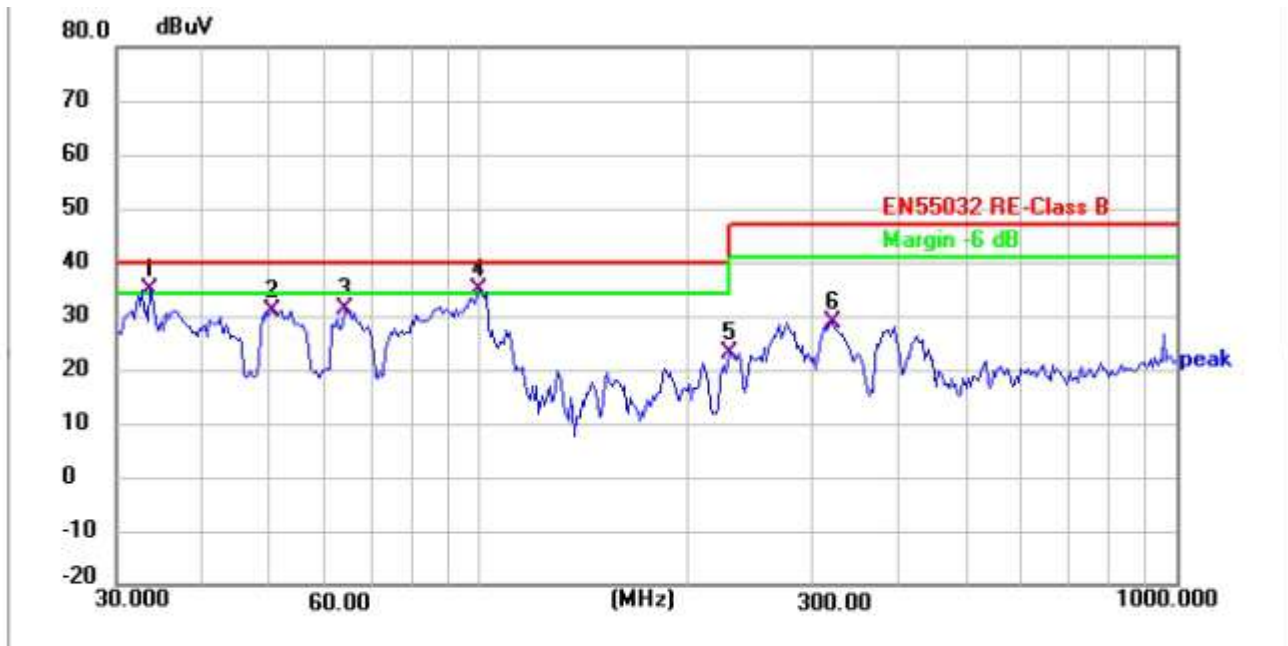


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	34.5270	47.57	-19.55	28.02	40.00	-11.98	QP			P	
2	64.0800	51.08	-19.68	31.40	40.00	-8.60	QP			P	
3	99.7676	50.12	-19.51	30.61	40.00	-9.39	QP			P	
4	147.8747	53.12	-22.84	30.28	40.00	-9.72	QP			P	
5 *	219.1785	55.53	-18.66	36.87	40.00	-3.13	QP			P	
6	250.4859	55.85	-17.79	38.06	47.00	-8.94	QP			P	





TM4 / Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	33.5700	54.37	-19.61	34.76	40.00	-5.24	QP			P	
2	50.1080	48.02	-17.00	31.02	40.00	-8.98	QP			P	
3	64.0800	50.94	-19.68	31.26	40.00	-8.74	QP			P	
4 *	99.7674	54.48	-19.51	34.97	40.00	-5.03	QP			P	
5	228.6173	41.27	-18.40	22.87	40.00	-17.13	QP			P	
6	320.3306	45.08	-16.24	28.84	47.00	-18.16	QP			P	





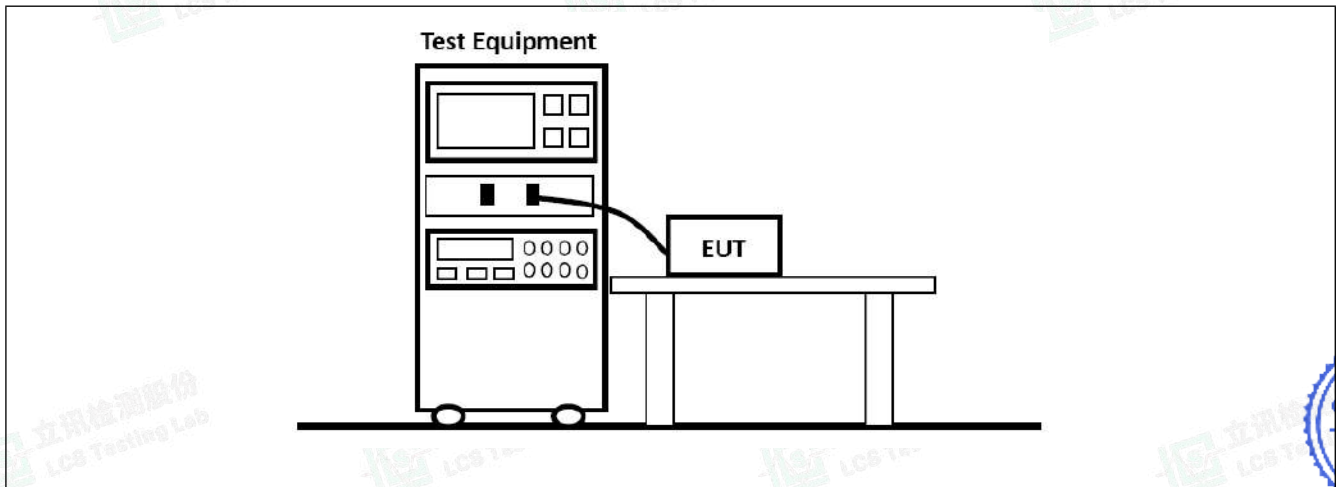
6.3 Voltage fluctuations and flicker

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:	52 %
Pre test mode:	TM1		
Final test mode:	TM1		

6.3.2 Test Setup Diagram:





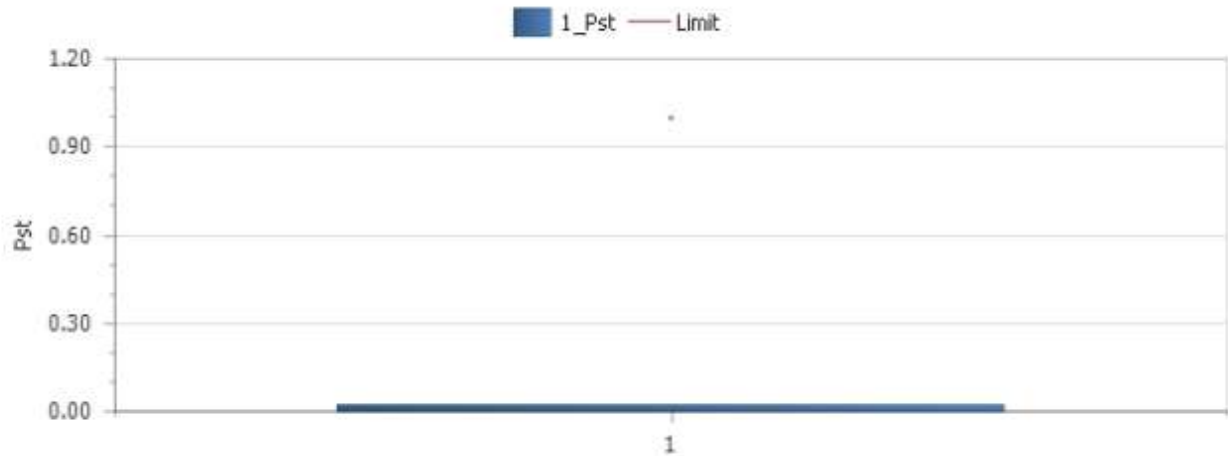
6.3.3 Test Data:

TM1

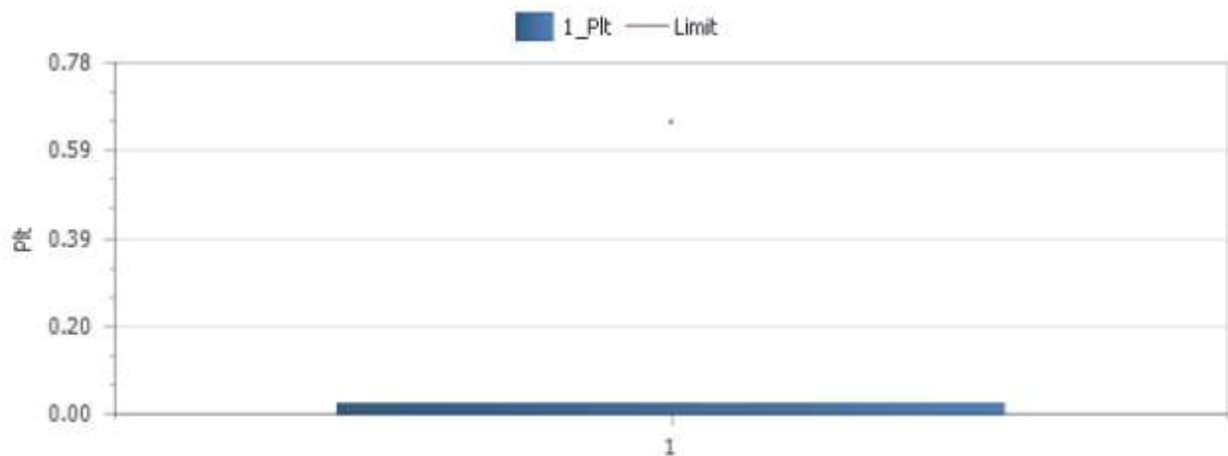
Customer : xxx

Result : Pass

Pst and Limit



Plt and Limit



Relevant Parameter and Judgement During Test Period

Vrms at the end of test(V)	229.97			
Error Max(%)		Test Limit(%)		
T-max(ms)	0.00	Test Limit(ms)	500	Pass
dc(%)	0.00	Test Limit(%)	3.30	Pass
dmax(%)	0.00	Test Limit(%)	4.00	Pass
Pst	0.023	Test Limit	1.000	Pass
Plt	0.023	Test Limit	0.650	Pass





7. IMMUNITY TEST RESULTS (EMS)

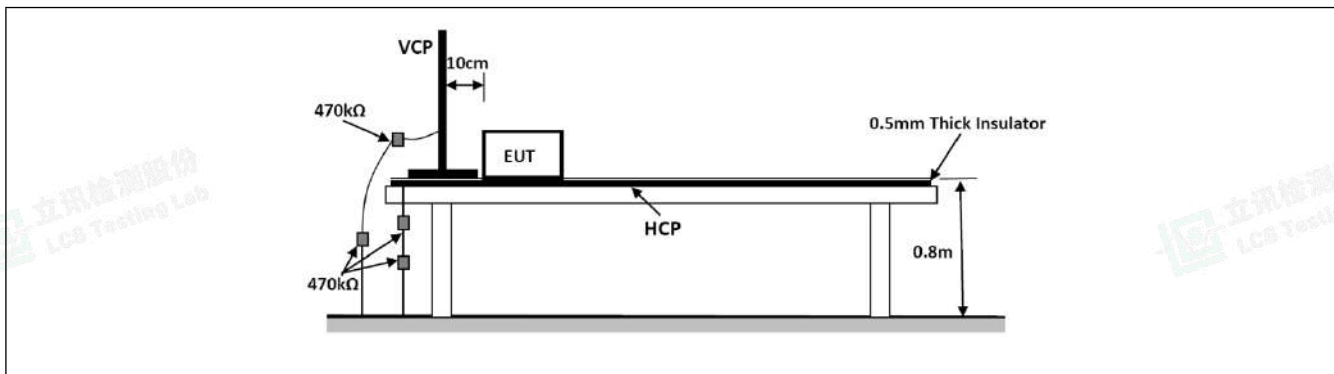
7.1 Electrostatic discharges

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:	22.4 °C	Humidity:	56.8 %
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





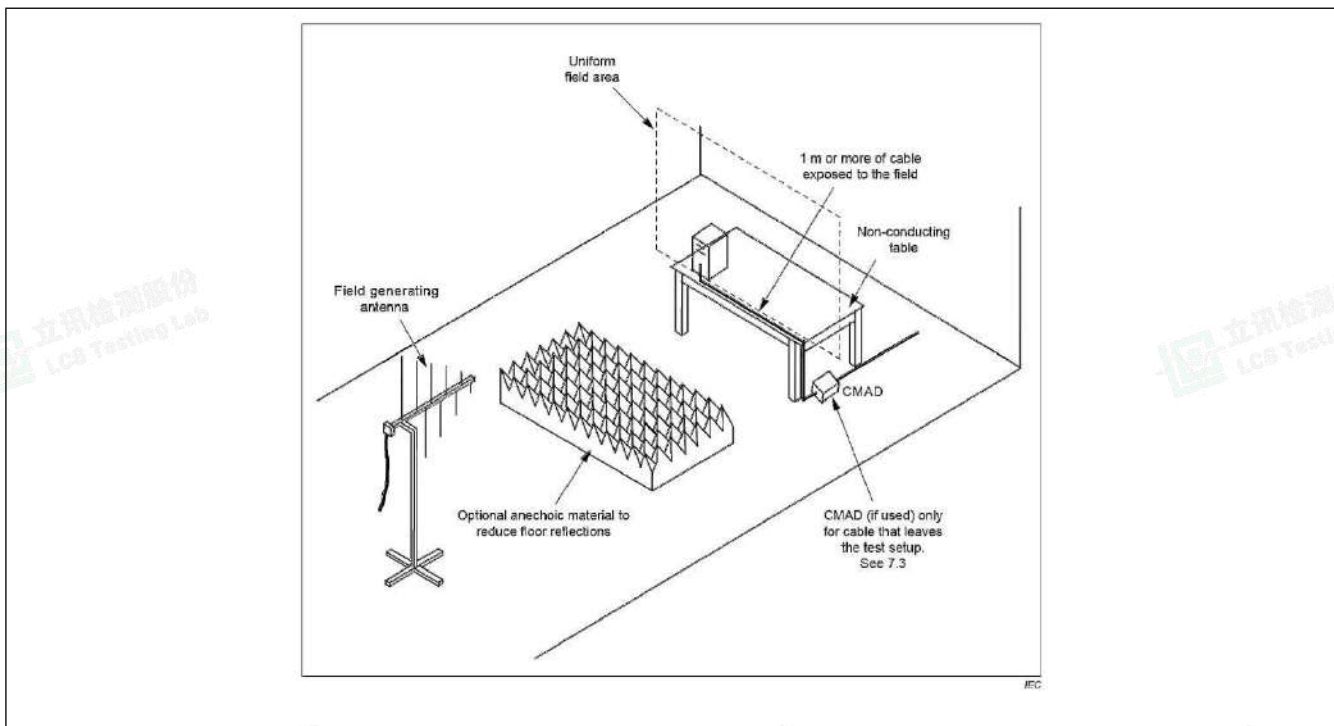
7.2 RF electromagnetic field disturbances

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:	22.4 °C	Humidity:	56.8 %
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





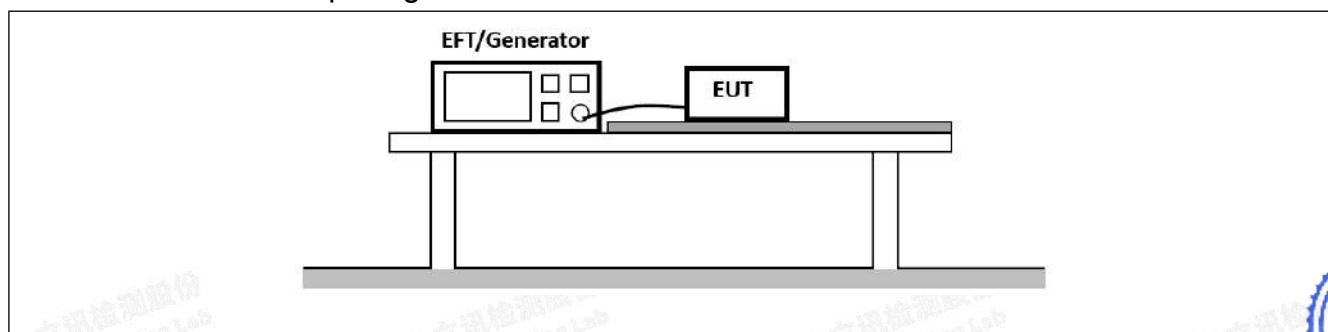
7.3 Electrical fast transients / burst for AC mains power ports

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:	22.4 °C	Humidity:	56.8 %
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





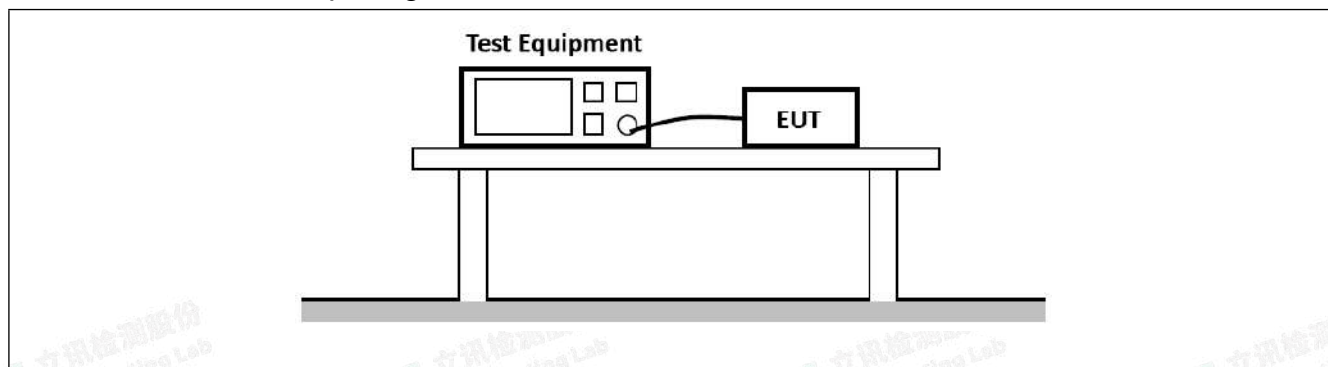
7.4 Surges for AC mains power ports

Test Requirement:	1.2/50 μ s 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:	22.4 °C	Humidity:	56.8 %
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





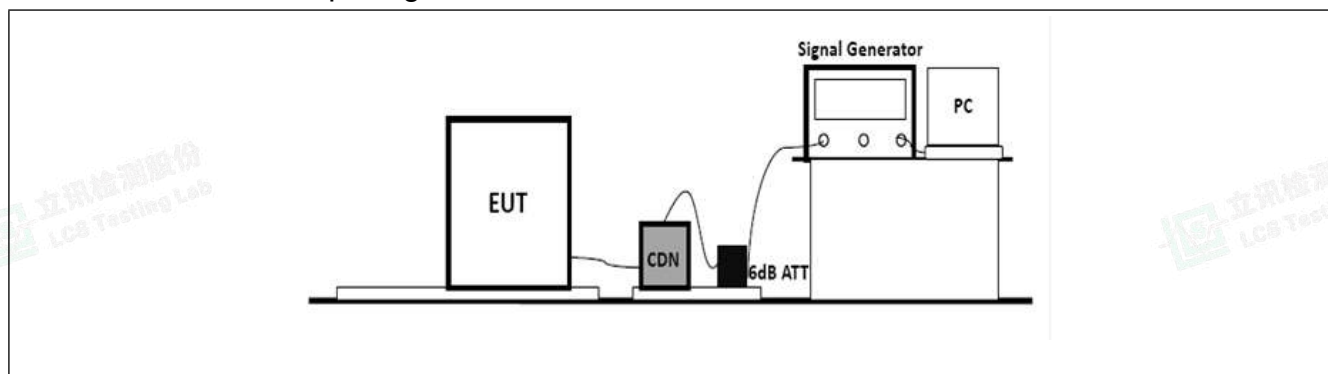
7.5 Continuous induced RF disturbances for AC mains power ports (150kHz-80MHz)

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:	22.4 °C	Humidity:	56.8 %
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





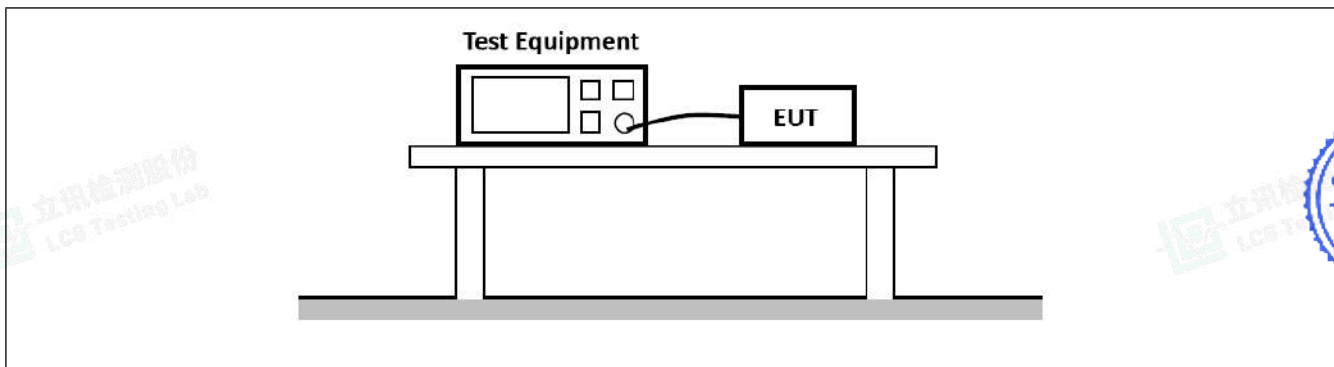
7.6 Voltage dips and interruptions

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:	22.4 °C	Humidity:	56.8 %
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





8. TEST SETUP PHOTOS

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



Radiated emissions (30MHz-1GHz)

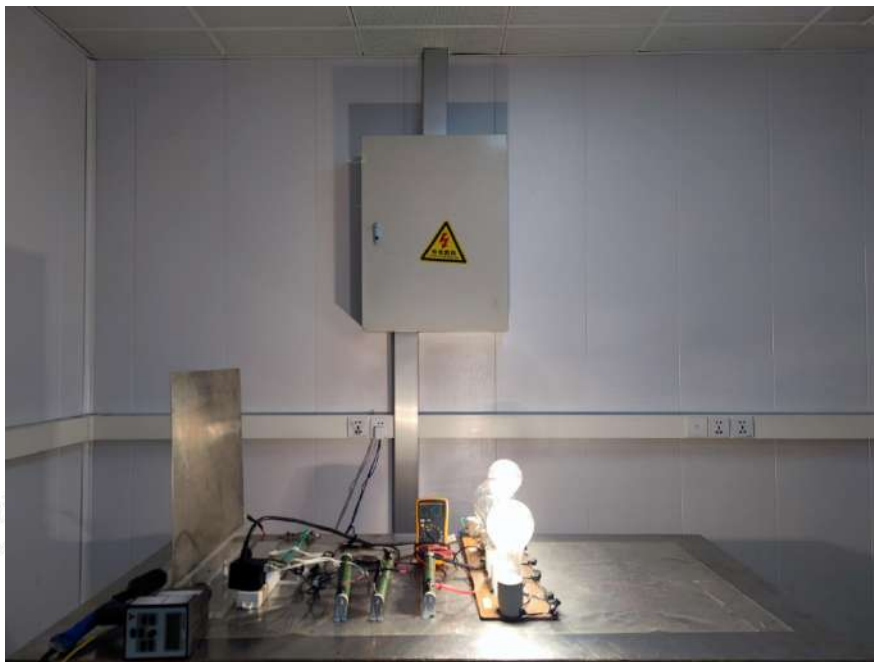




Voltage fluctuations and flicker



Electrostatic discharges





RF electromagnetic field disturbances

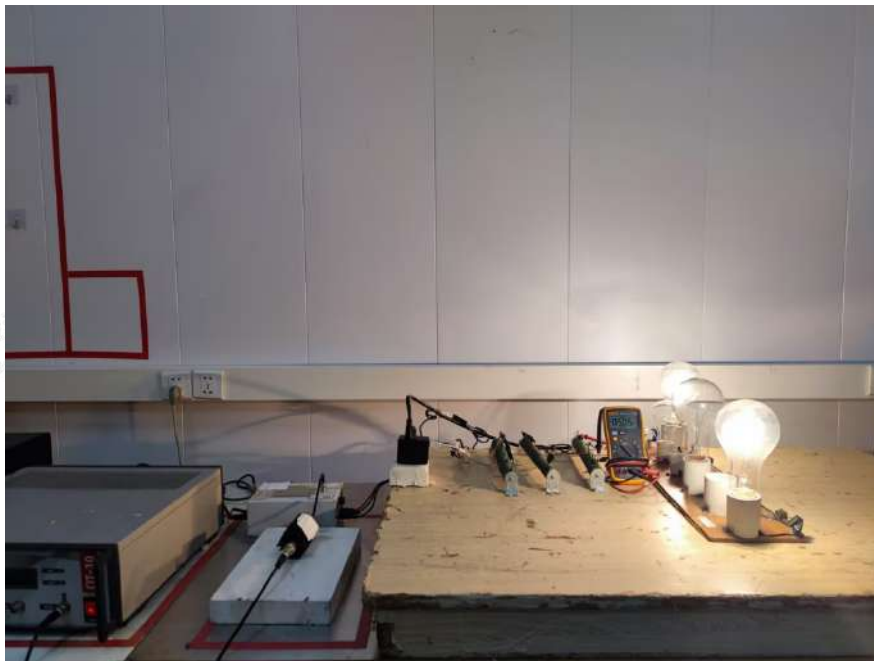


Electrical fast transients / burst for AC mains power ports Surges for AC mains power ports





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



Voltage dips and interruptions





A white rectangular multi-voltage power adapter is shown against a blue background. The device has a sliding switch in the center, currently positioned towards the 'UK' side. To the left of the switch are two USB-A ports, one labeled 'USA'. Above the switch is a black circular port. Below the switch is another black circular port. The top of the device displays various certification logos: CE, FCC, RoHS (with a checkmark), and UKCA. To the right of the switch are three small icons representing different plug types: a square pin icon, a two-prong icon, and a three-prong icon. The bottom of the device has a black oval-shaped area with two small circular indicators. A wooden ruler is placed vertically on the left side of the device, showing measurements from 32 to 48 cm. Another wooden ruler is placed horizontally below the device, showing measurements from 0 to 19 cm.



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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com
Scan code to check authenticity



Fig. 3



Fig. 4



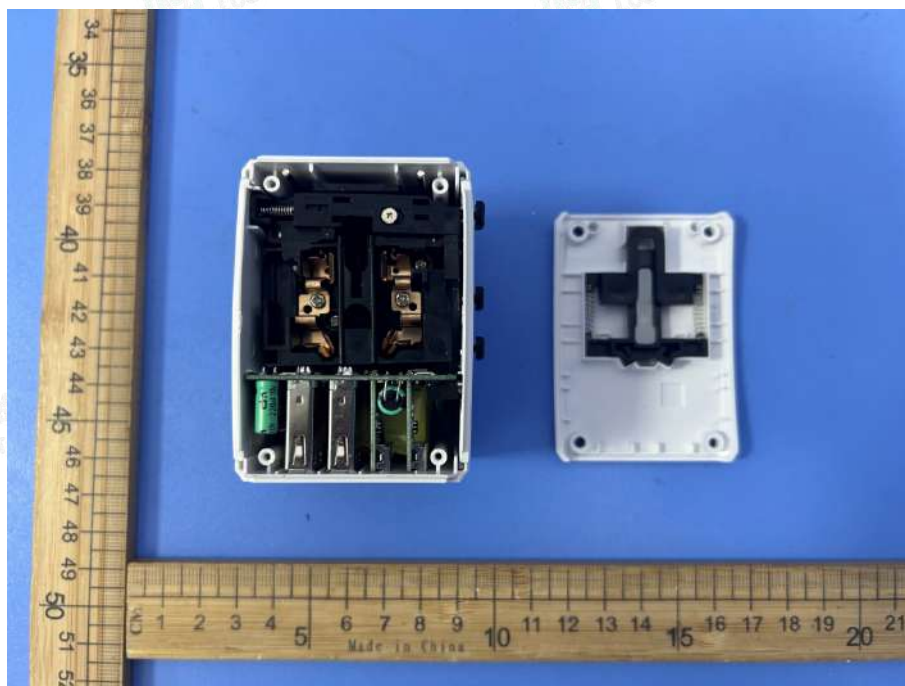


Fig. 5

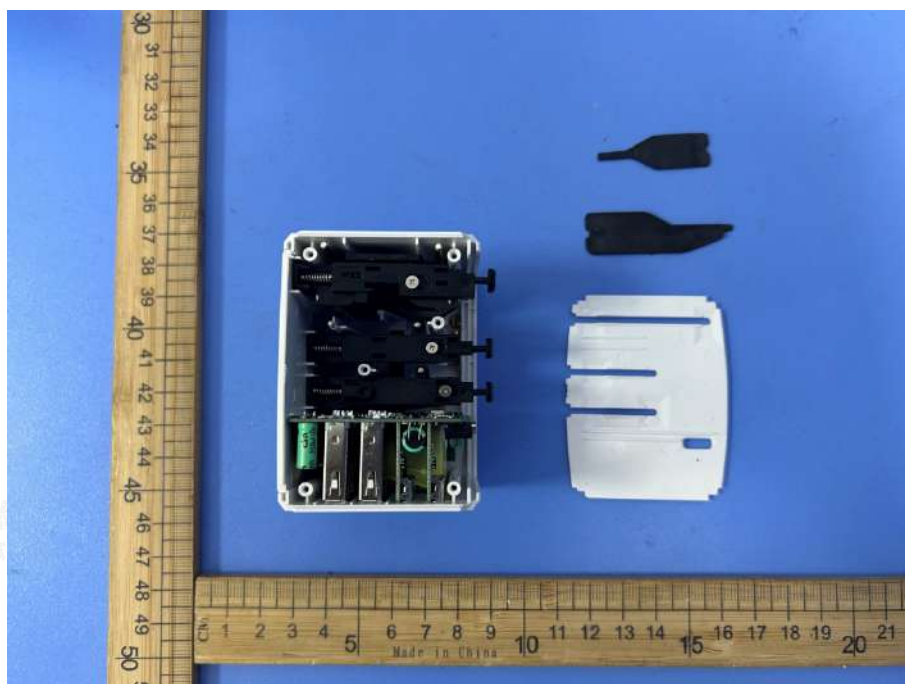


Fig. 6



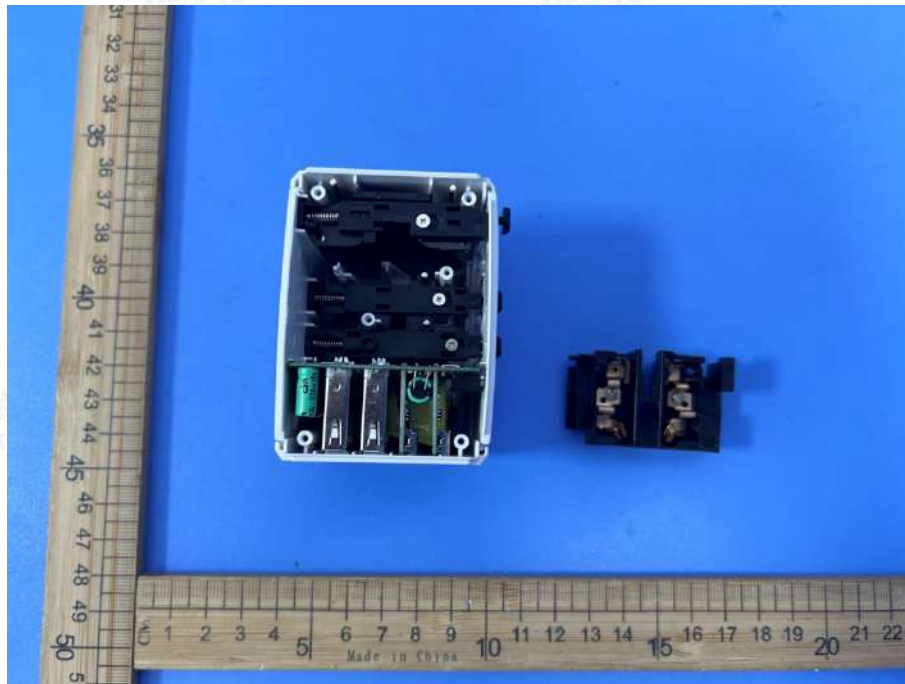


Fig. 7

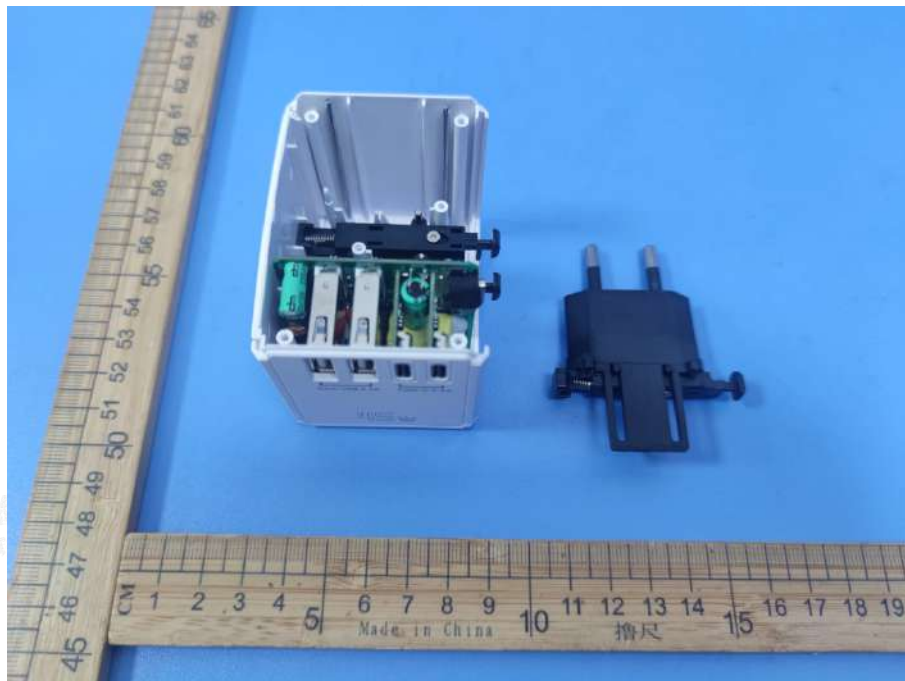


Fig. 8





Fig. 9



Fig. 10



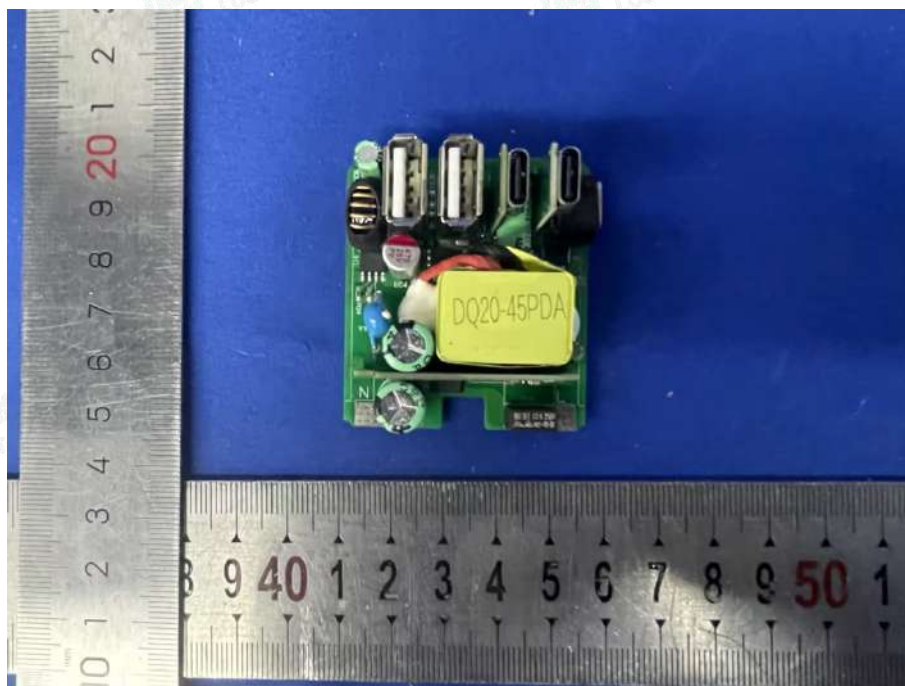


Fig. 11

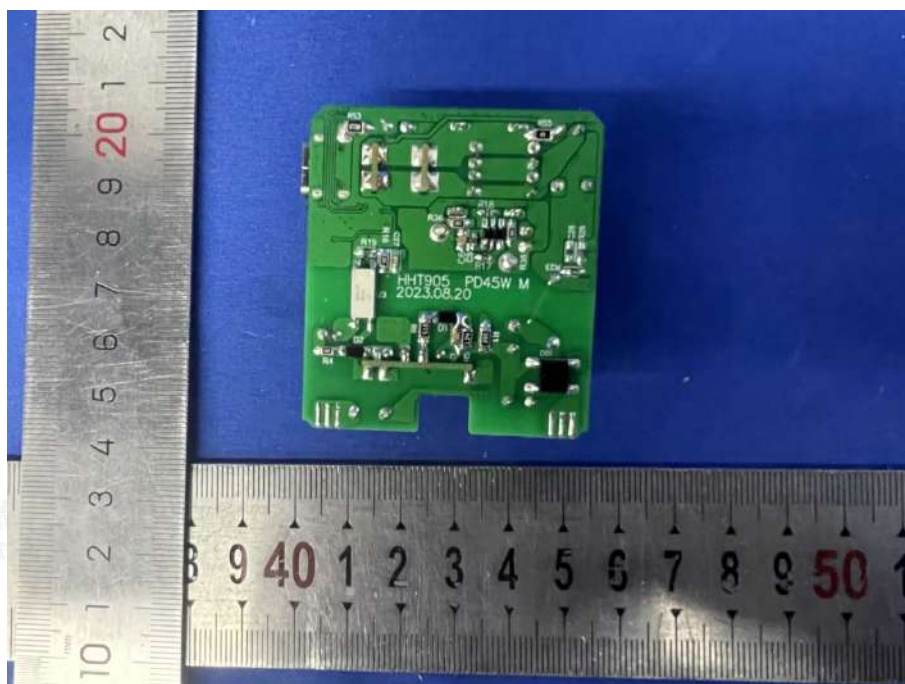


Fig. 12

--- End of Report ---

