

FCC SDoC Test Report

For

Applicant name: Huaxin (Dongguan) Technology Co., Ltd
Address: Room 801, Building 4, No.6, Yongsheng North Road, Fenggang, Dongguan City, Guangdong Province, China
EUT name: Modern Floor Lamp
Brand name: keepsmile
Model number: HX-838
Series model number: HX-KS-83, HX-KS-88, HX-838-KS, HX-838-K, HX-838-S, HX-838-F, HX-838-L
FCC ID: 2BB6BHX-838

Issued By

Company name: BTF Testing Lab (Shenzhen) Co., Ltd.
Address: Plant 101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, Guangdong, China
Report number: BTF251223E00201
Test standards: FCC CFR Title 47 Part 15 Subpart B
Test conclusion: Pass
Date of sample receipt: 2025-12-23
Test date: 2025-12-23 to 2025-12-29
Date of issue: 2025-12-29

Prepared by:

Chris Liu

Chris Liu /Project engineer



Ryan.CJ

Ryan.CJ /EMC manager

Note: All the test results in this report only related to the testing samples. Which can be duplicated completely for the legal use with approval of applicant; it shall not be reproduced except in full without the written approval of BTF Testing Lab (Shenzhen) Co., Ltd., All the objections should be raised within thirty days from the date of issue. To validate the report, you can contact us.

Revision History		
Version	Issue date	Revisions content
R_V0	2025-12-29	Original

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1 Introduction

1.1 Laboratory Location

Test location:	BTF Testing Lab (Shenzhen) Co., Ltd.
Address:	Plant 101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, Guangdong, China
Description:	All measurement facilities used to collect the measurement data are located at Plant 101, 201 and 301, Building 1, Block 2, Tantou Industrial Park, Tantou Community, Songgang Street, Bao'an District, Shenzhen, Guangdong, China
Phone number:	+86-0755-23146130
Fax number:	+86-0755-23146130

1.2 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1409**
BTF Testing Lab (Shenzhen) Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The test firm Registration No. is 695374.
- **CNAS - Registration No.: CNAS L17568**
BTF Testing Lab (Shenzhen) Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L17568.
- **A2LA - Registration No.: 6660.01**
BTF Testing Lab (Shenzhen) Co., Ltd. is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories.

1.3 Announcement

- (1) The test report reference to the report template version v0.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing, reviewing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) This document may not be altered or revised in any way unless done so by BTF and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (6) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.
- (7) All entrusted information in this report is provided by the client and has been confirmed through consultation with the client; The testing items for this report have been discussed and confirmed with the client, and our company is only responsible for the content reflected in the report.

2 Product Information

2.1 Application Information

Company name:	Huaxin (Dongguan)Technology Co.,Ltd
Address:	Room 801, Building 4, No.6, Yongsheng North Road, Fenggang, Dongguan City, Guangdong Province, China

2.2 Manufacturer Information

Company name:	Huaxin (Dongguan)Technology Co.,Ltd
Address:	Room 801, Building 4, No.6, Yongsheng North Road, Fenggang, Dongguan City, Guangdong Province, China

2.3 Factory Information

Company name:	Huaxin (Dongguan)Technology Co.,Ltd
Address:	Room 801, Building 4, No.6, Yongsheng North Road, Fenggang, Dongguan City, Guangdong Province, China

2.4 General Description of Equipment under Test (EUT)

EUT name	Modern Floor Lamp
Under test model name	HX-838
Series model name	HX-KS-83, HX-KS-88, HX-838-KS, HX-838-K, HX-838-S, HX-838-F, HX-838-L
Description of model name differentiation	Just the model name is different, everything else is the same
Hardware Version	N/A
Software Version	N/A
Rating:	Adapter: MODEL:AD024M240100UV INPUT:100-240V~50/60Hz 1.0A MAX OUTPUT:24.0V===1.0A

3 Test Information

3.1 Test Standards

Identity	Document Title
FCC CFR Title 47 Part 15 Subpart B	Unintentional Radiators
ANSI C63.4a-2017	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

3.2 Summary of Test

Clauses	Test Items	Result
47 CFR 15.107	Conducted emission	PASS
47 CFR 15.109	Radiated emission	PASS
Remark: 1. Pass: met the requirements. 2. N/A: not applicable.		

3.3 Uncertainty of Test

Measurement	Value
Conducted Emission for LISN (9kHz ~ 150kHz)	±2.97 dB
Conducted Emission for LISN (150kHz ~ 30MHz)	±2.45 dB
Radiated Emission (30MHz ~ 1000MHz)	±4.80 dB
Radiated Emission (1GHz ~ 18GHz)	±4.82 dB
The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.	

3.4 Additions to, deviations, or exclusions from the method

None

3.5 Test Auxiliary Equipment

No.	Description	Manufacturer	Model	Serial Number	Certification
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3.6 Test Equipment List

Radiated Emission Test					
Test Equipment	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EMI Receiver	Rohde & Schwarz	ESC17	101032	2025/10/17	2026/10/16
Signal Analyzer	Rohde & Schwarz	FSQ40	100010	2025/10/17	2026/10/16
Log periodic antenna	Schwarzbeck	VULB 9168	01328	2025/10/18	2026/10/17
Preamplifier (30MHz ~ 1GHz)	Schwarzbeck	BBV9744	00246	2025/5/26	2026/5/25

BELOW-Cable	REBES Talent	9K1G	21101576	2025/8/23	2026/8/22
Horn Antenna	Schwarzbeck	BBHA9120D	2597	2025/10/18	2026/10/17
Preamplifier (1GHz ~ 18GHz)	Schwarzbeck	BBV9718D	00008	2025/5/26	2026/5/25
Preamplifier	TSTPASS	LNA10180G45	TS2215007	2025/5/26	2026/5/25
ABOVE-Cable	REBES Talent	1~18G	21101558	2025/8/23	2026/8/22
Horn Antenna	SCHWARZBECK	BBHA9170	1157	2025/10/18	2026/10/17
Low Noise Pre- amplifier	Sket	LNPA_1840G-50	SK2022032902	2025/10/17	2026/10/16
ABOVE-Cable2	REBES Talent	18~40G	21101686	2025/8/23	2026/8/22
ABOVE-Cable1	REBES Talent	18~40G	21101687	2025/8/23	2026/8/22
Test Software	Frad	EZ_EMG	Version: FA-03A2 RE+		

Conducted Emission Test					
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EMI Receiver	Rohde & Schwarz	ESCI3	101422	2025/10/17	2026/10/16
V-LISN	Schwarzbeck	NSLK 8127	01073	2025/8/23	2026/8/22
Coaxial Switcher	Schwarzbeck	CX210	CX210	/	/
Pulse Limiter	Schwarzbeck	VTSD 9561-F	00953	/	/
LISN-Cable	REBES Talent	LISN9K30M	21101580	2025/8/23	2026/8/22
Test Software	Frad	EZ_EMG	Version: EMC-CON 3A1.1+		

4 Test Configuration

4.1 Environment Condition

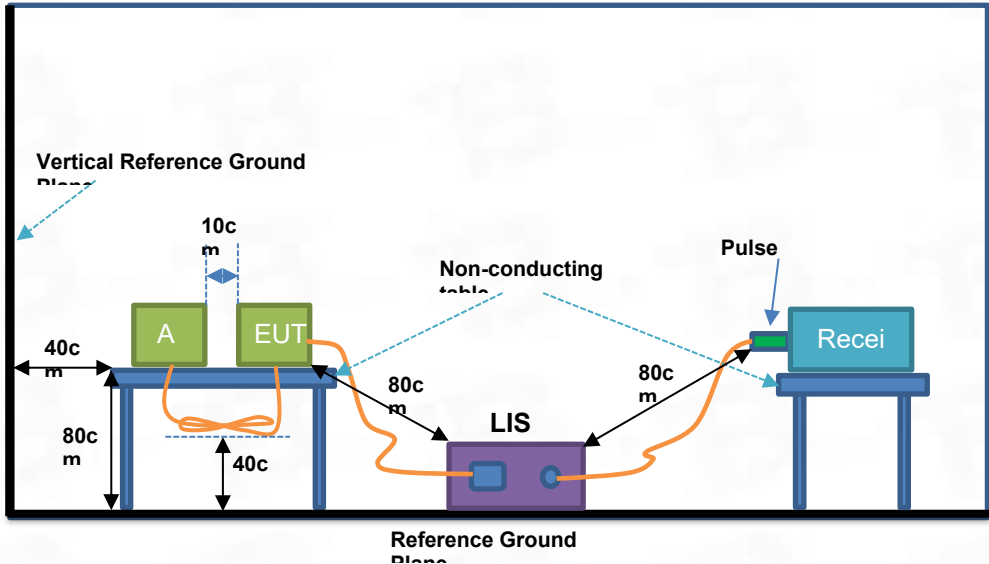
Selected Values During Tests		
Temperature	Relative Humidity	Ambient Pressure
Normal: +15°C to +35°C	20% to 75%	86 kPa to 106 kPa

4.2 Test mode

TM 1:	Keep the EUT power on and normal working mode	
We have verified the construction and function in typical operation. All the test items were carried out with the EUT in above test modes.		
Clauses	Test Items	Test mode
47 CFR 15.107	Conducted emission	TM1
47 CFR 15.109	Radiated emission	TM1

5 Test Items

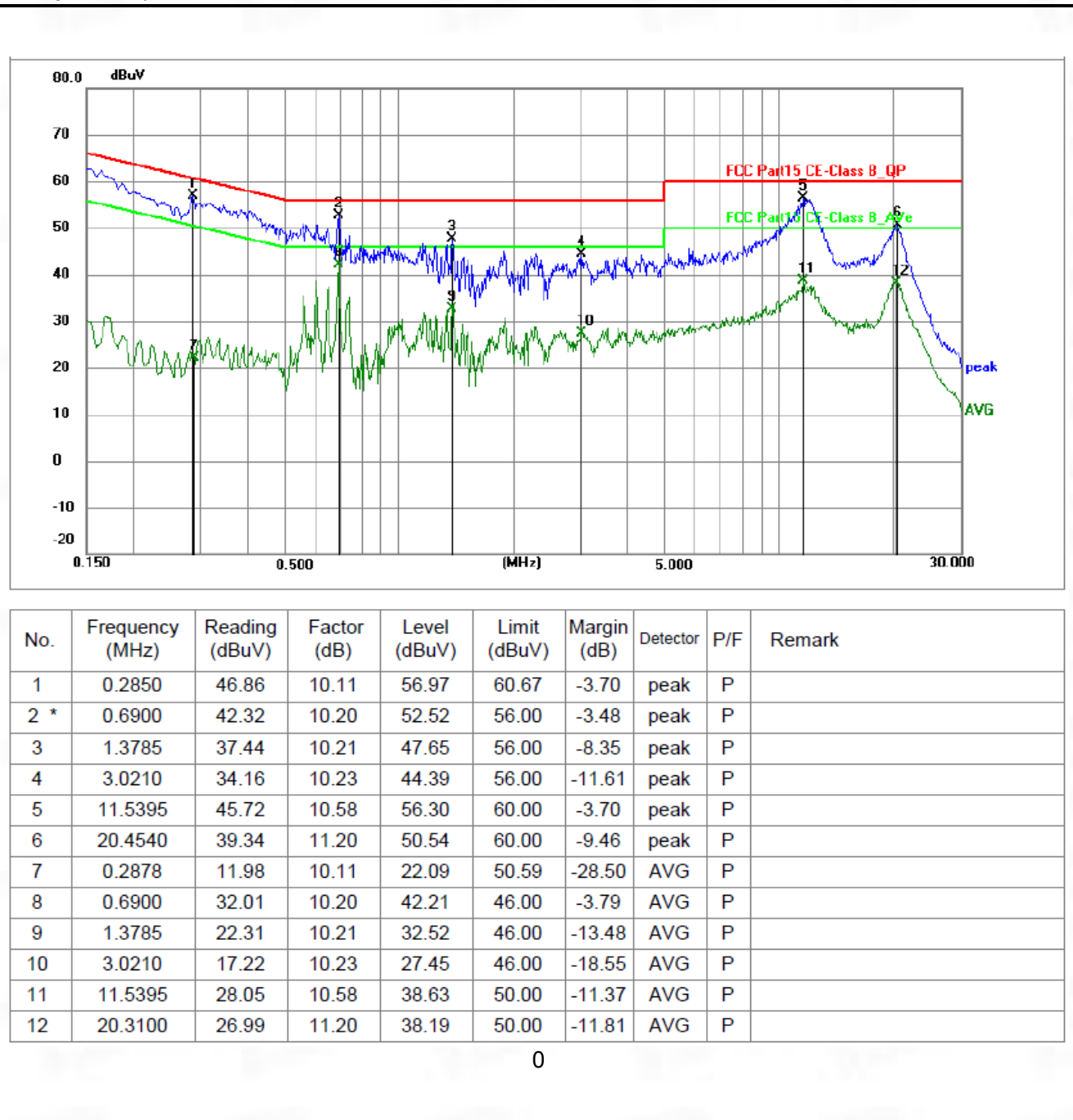
5.1 Conducted Emission

Test Requirement:	The EUT is connected to the power mains through a LISN which provides 50 Ω/50 μH of coupling impedance for the measuring instrument. The test frequency range is from 150 kHz to 30 MHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.				
	1.Level= Read Level+ Cable Loss+ LISN Factor 2.Margin=Level-Limit=Reading+factor-Limit				
Test Method:	ANSI C63.10-2020				
Test Limit:	Frequency range (MHz)	Class A		Class B	
		Quasi-peak (dBμV)	Average (dBμV)	Quasi-peak (dBμV)	Average (dBμV)
	0.15 - 0.50	79	66	66-56*	56-46*
	0.50 - 5	73	60	56	46
	5 - 30			60	50
* Decreases with the logarithm of the frequency.					
Test Setup:					
Operating Environment:					
Temperature:	22.5℃				
Humidity:	46%RH				
Atmospheric Pressure:	1010 hpa				
Test voltage:	AC 120V 60Hz				

5.1.1 Test Data:

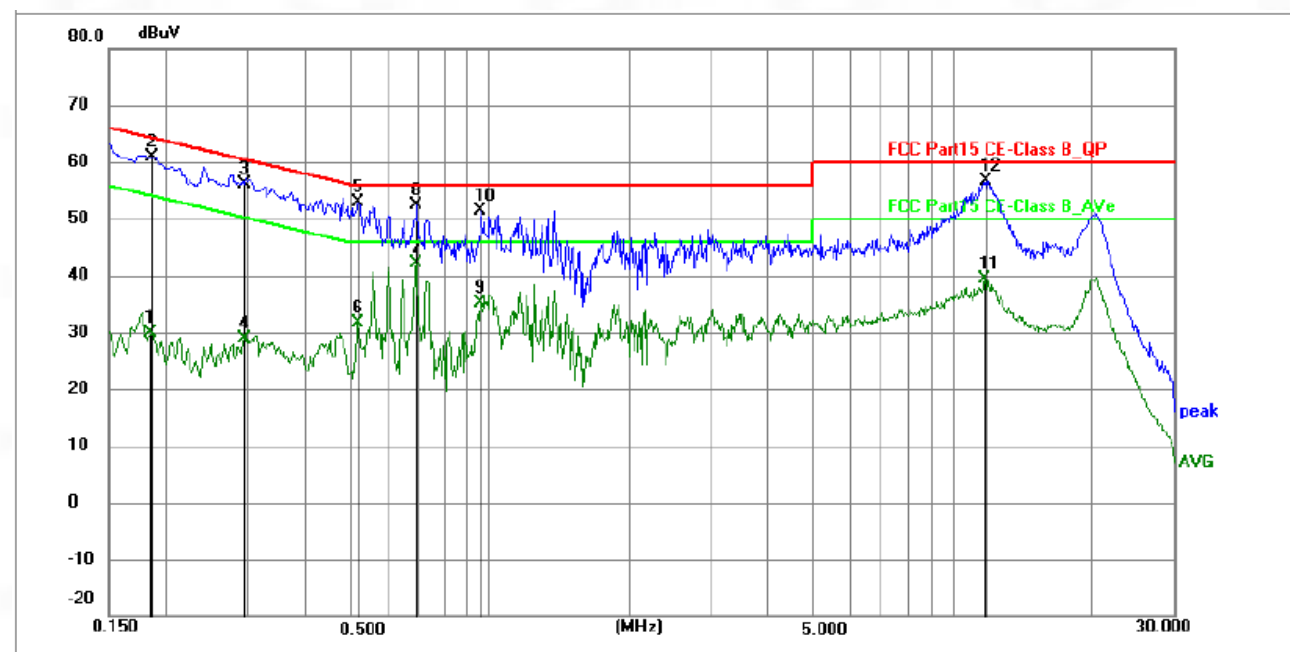
Remark: The report only reflects the test data of worst mode.

Test phase: L phase



Note:Margin=Level-Limit=Reading+factor-Limit

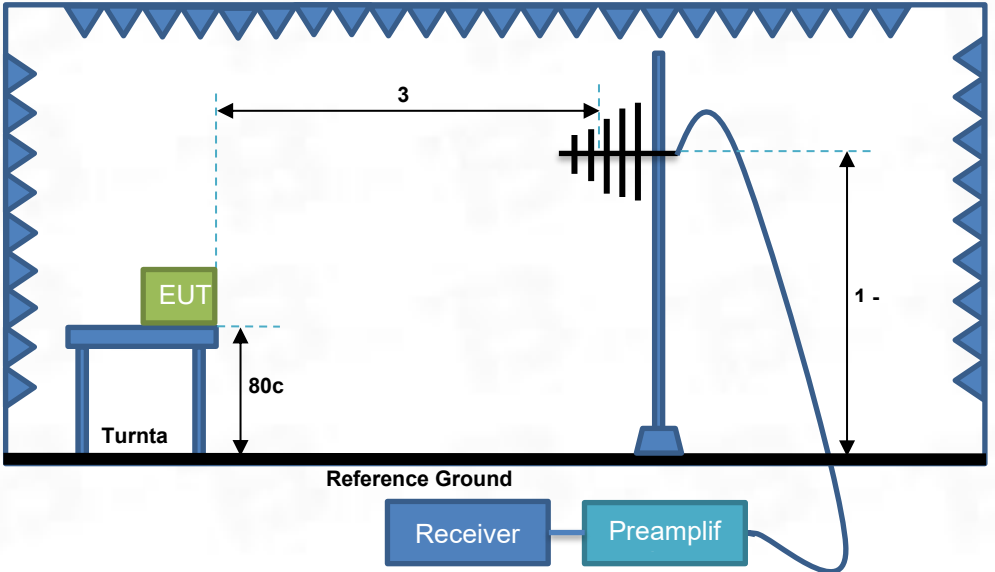
Test phase: N phase

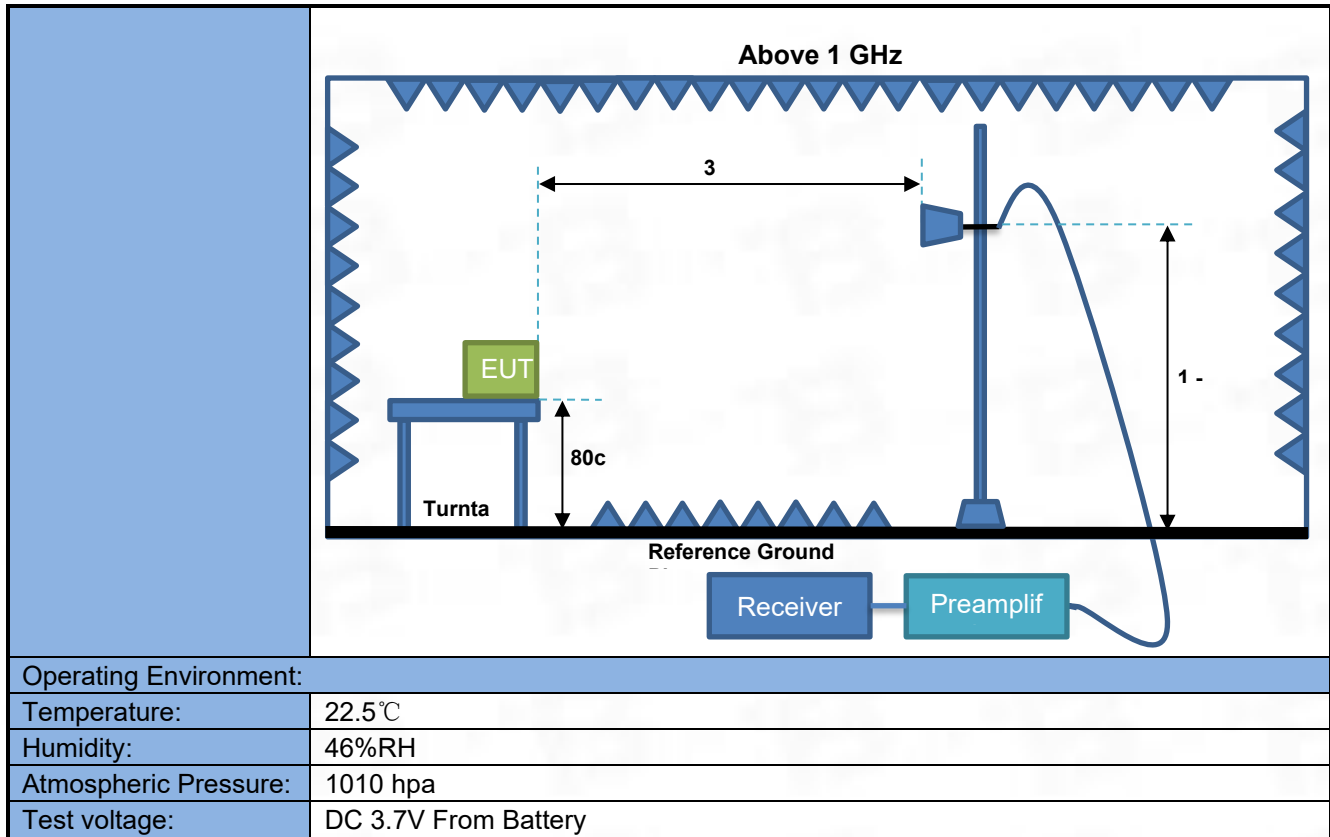


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1853	19.85	10.12	29.97	54.24	-24.27	AVG	P	
2	0.1860	50.81	10.12	60.93	64.21	-3.28	peak	P	
3	0.2940	46.13	10.12	56.25	60.41	-4.16	peak	P	
4	0.2940	18.84	10.12	28.96	50.41	-21.45	AVG	P	
5 *	0.5190	42.82	10.14	52.96	56.00	-3.04	peak	P	
6	0.5190	21.43	10.14	31.57	46.00	-14.43	AVG	P	
7	0.6900	32.00	10.15	42.15	46.00	-3.85	AVG	P	
8	0.6945	42.26	10.15	52.41	56.00	-3.59	peak	P	
9	0.9510	24.92	10.17	35.09	46.00	-10.91	AVG	P	
10	0.9555	41.20	10.17	51.37	56.00	-4.63	peak	P	
11	11.6835	28.87	10.61	39.48	50.00	-10.52	AVG	P	
12	11.7735	46.08	10.62	56.70	60.00	-3.30	peak	P	

Note:Margin=Level-Limit=Reading+factor-Limit

5.2 Radiated emission

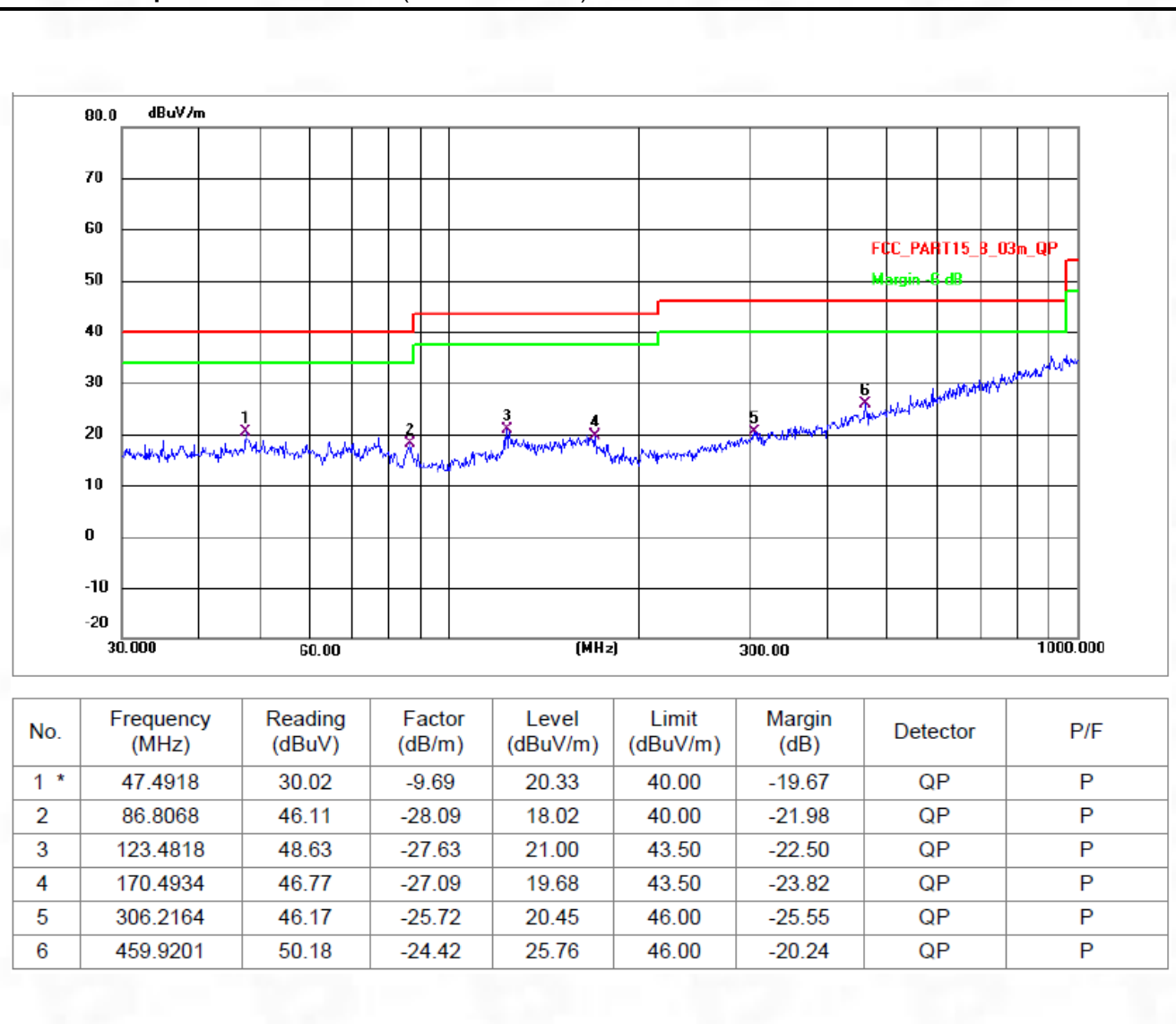
Test Requirement:	1.The EUT was placed on the tabletop of a rotating table 0.8 m the ground at a 3 m semi anechoic chamber. The measurement distance from the EUT to the receiving antenna is 3 m. 2.EUT works in each mode of operation that needs to be tested. The highest signal levels relative to the limit shall be determined by rotating the EUT from 0° to 360° and with varying the measurement antenna height between 1 m and 4 m in vertical and horizontal polarizations. 3.Open the test software to control the test antenna and test turntable. Perform the test, save the test results, and export the test data. 1.Level=Read Level + Antenna Factor + Cable Loss - Preamp Factor 2.Margin=Level-Limit=Reading+factor-Limit																																											
Test Method:	Radiated emissions tests																																											
Test Limit:	<table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Class A Distance At 3 m</th><th colspan="2">Class B Distance At 3 m</th></tr><tr><th colspan="2">Quasi-Peak Limit (dBµV/m)</th><th colspan="2">Quasi-Peak Limit (dBµV/m)</th></tr><tr><td>30 - 88</td><td colspan="2">49.0</td><td colspan="2">40.0</td></tr><tr><td>88 - 216</td><td colspan="2">53.5</td><td colspan="2">43.5</td></tr><tr><td>216 - 960</td><td colspan="2">56.0</td><td colspan="2">46.0</td></tr><tr><td>960 - 1000</td><td colspan="2">60.0</td><td colspan="2">54.0</td></tr></table> <table><tr><th rowspan="2">Frequency range (MHz)</th><th colspan="2">Class A Distance At 3 m</th><th colspan="2">Class B Distance At 3 m</th></tr><tr><th>Peak Limit (dBµV/m)</th><th>Average Limit (dBµV/m)</th><th>Peak Limit (dBµV/m)</th><th>Average Limit (dBµV/m)</th></tr><tr><td>Above 1000</td><td>80</td><td>60</td><td>74</td><td>54</td></tr></table>	Frequency range (MHz)	Class A Distance At 3 m		Class B Distance At 3 m		Quasi-Peak Limit (dBµV/m)		Quasi-Peak Limit (dBµV/m)		30 - 88	49.0		40.0		88 - 216	53.5		43.5		216 - 960	56.0		46.0		960 - 1000	60.0		54.0		Frequency range (MHz)	Class A Distance At 3 m		Class B Distance At 3 m		Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Above 1000	80	60	74	54
Frequency range (MHz)	Class A Distance At 3 m		Class B Distance At 3 m																																									
	Quasi-Peak Limit (dBµV/m)		Quasi-Peak Limit (dBµV/m)																																									
30 - 88	49.0		40.0																																									
88 - 216	53.5		43.5																																									
216 - 960	56.0		46.0																																									
960 - 1000	60.0		54.0																																									
Frequency range (MHz)	Class A Distance At 3 m		Class B Distance At 3 m																																									
	Peak Limit (dBµV/m)	Average Limit (dBµV/m)	Peak Limit (dBµV/m)	Average Limit (dBµV/m)																																								
Above 1000	80	60	74	54																																								
Procedure:	ANSI C63.10-2020 section 6.10.5.2																																											
Test Setup:	30 MHz - 1 GHz 																																											



5.2.1 Test Data:

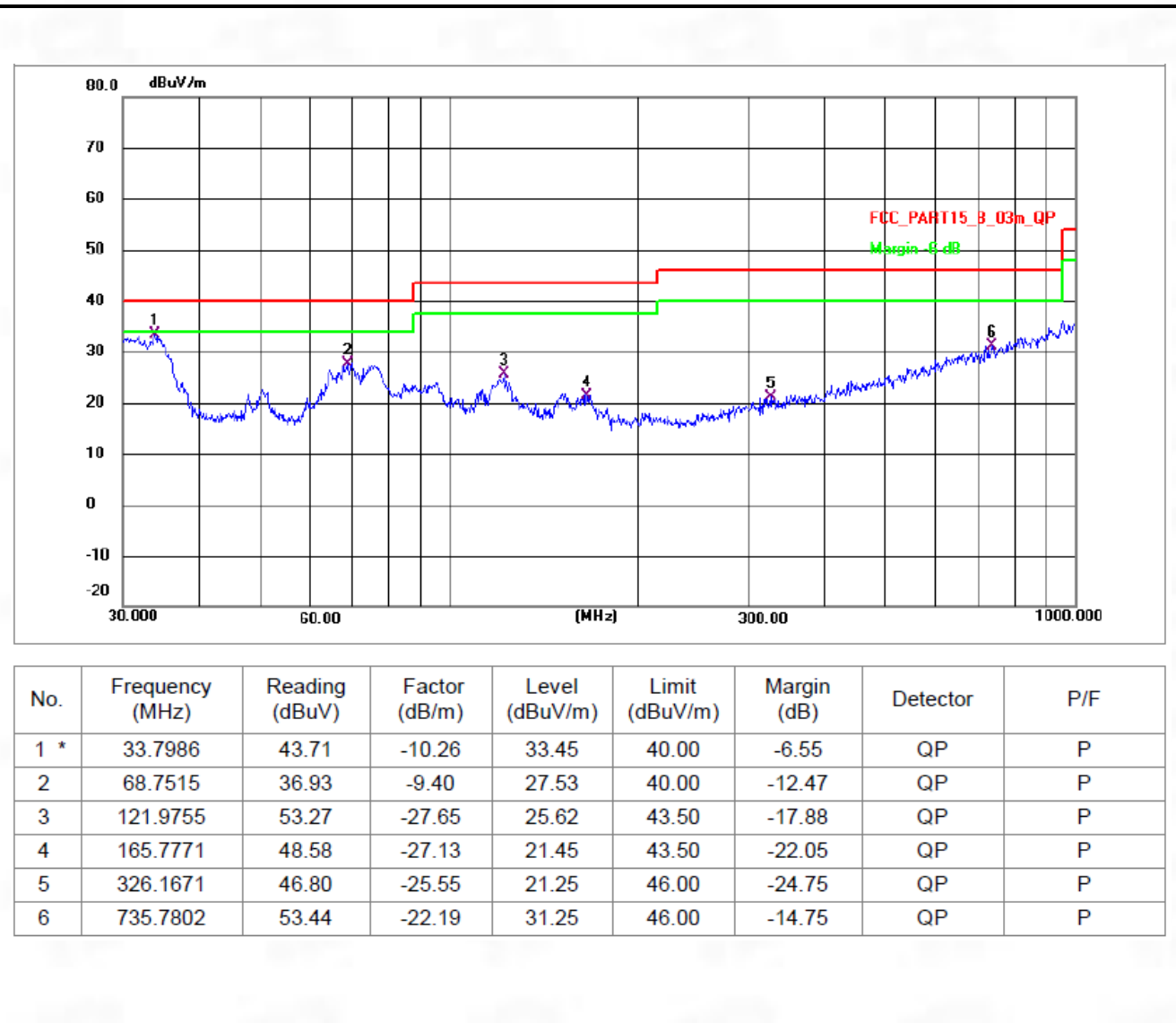
Remark: The report only reflects the test data of worst mode.

Test antenna polarization: Horizontal (30 MHz to 1 GHz)



Note: Margin = Level - Limit = Reading + factor - Limit

Test antenna polarization: Vertical (30 MHz to 1 GHz)



Note: Margin=Level-Limit=Reading+factor-Limit

Test antenna polarization: Horizontal (Above 1 GHz)

No.	Frequency (MHz)	Reading (dBuv)	Factor (dB/m)	Level (dBuv/m)	Limit (dBuv/m)	Margin (dB)	Detector	P/F
1	2030.80	80.39	-49.41	30.98	74.00	-43.02	peak	P
2	2030.80	72.26	-49.41	22.85	54.00	-31.15	AVG	P
3 *	2532.94	98.87	-49.22	49.65	74.00	-24.35	peak	P
4	2532.94	88.19	-49.22	38.97	54.00	-15.03	AVG	P
5	3045.10	96.93	-49.33	47.60	74.00	-26.40	peak	P
6	3045.10	86.17	-49.33	36.84	54.00	-17.16	AVG	P
7	3530.75	98.10	-49.32	48.78	74.00	-25.22	peak	P
8	3530.75	88.94	-49.32	39.62	54.00	-14.38	AVG	P
9	4051.20	100.07	-48.98	51.09	74.00	-22.91	peak	P
10	4051.20	87.24	-48.98	38.26	54.00	-15.74	AVG	P
11	4576.86	98.29	-48.68	49.61	74.00	-24.39	peak	P
12	4576.86	87.79	-48.68	39.11	54.00	-14.89	AVG	P

Note:Margin=Level-Limit=Reading+factor-Limit

Test antenna polarization: Vertical (Above 1 GHz)

No.	Frequency (MHz)	Reading (dBuv)	Factor (dB/m)	Level (dBuv/m)	Limit (dBuv/m)	Margin (dB)	Detector	P/F
1	1994.47	78.06	-49.41	28.65	74.00	-45.35	peak	P
2	1994.47	69.93	-49.41	20.52	54.00	-33.48	AVG	P
3 *	2496.61	96.54	-49.22	47.32	74.00	-26.68	peak	P
4	2496.61	85.86	-49.22	36.64	54.00	-17.36	AVG	P
5	3008.77	94.60	-49.33	45.27	74.00	-28.73	peak	P
6	3008.77	83.84	-49.33	34.51	54.00	-19.49	AVG	P
7	3494.42	95.77	-49.32	46.45	74.00	-27.55	peak	P
8	3494.42	86.61	-49.32	37.29	54.00	-16.71	AVG	P
9	4014.87	97.74	-48.98	48.76	74.00	-25.24	peak	P
10	4014.87	84.91	-48.98	35.93	54.00	-18.07	AVG	P
11	4540.53	95.96	-48.68	47.28	74.00	-26.72	peak	P
12	4540.53	85.46	-48.68	36.78	54.00	-17.22	AVG	P

Note:Margin=Level-Limit=Reading+factor-Limit

6 Test Setup Photos

Please refer to Appendix I Test Setup Photos

7 EUT Constructional Details (EUT Photos)

Please refer to Appendix II External Photos & Appendix III Internal Photos



BTF Testing Lab (Shenzhen) Co., Ltd.

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Bao'an District, Shenzhen, Guangdong, China

www.btf-lab.com

--END OF REPORT--