



TEST REPORT

Applicant : Ningbo Tianqi intelligent technology co., ltd

Address : No. 1, Xiufeng Road, Gaoqiao Town, Haishu District, Ningbo City,
Zhejiang Province

Manufacturer : Ningbo Tianqi intelligent technology co., ltd

Address : No. 1, Xiufeng Road, Gaoqiao Town, Haishu District, Ningbo City,
Zhejiang Province

Product Name : Charging atmosphere bulb

Model Number : T110, T110-RGBCW

Trademark : N/A

FCC ID : 2BUCR-T110

Test Date : Dec. 29, 2025 - Jan. 07, 2026

Date of Report : Jan. 07, 2026

Test Result : The equipment under test was found to be compliance with the
requirements of the standards applied.

Test Procedure Used:
FCC Part 15 Subpart B
ANSI C63.4:2014

Prepared by(Test Engineer):
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Sten Huang
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Approved(Manager):
Casey Wang

Approved(Manager):
Jerry Liao



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1. GENERAL INFORMATION

1.1. Customer basic information

Contacts : Lishi Fan
E-Mail : fanlishi@tq-chip.com
Telephone : 19329138858

1.2. Description of Device (EUT)

EUT : Charging atmosphere bulb
Trademark : N/A
Model Number : T110, T110-RGBCW
Model Difference : The product is different for model name .The mains test model is T110
Power Supply : USB Port: DC 5V $\overline{=}$ 1A
Battery: DC 3.7V
Work Frequency : Below 108MHz

Note:

- 1) EUT: Equipment under test
- 2) T110 was selected as the test model and the datas have been recorded in this report.

1.3. Independent Operation Modes

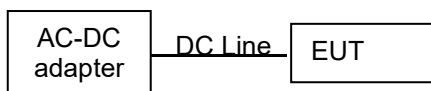
Test Voltage: AC 120V/60Hz or DC 3.7V

Test Mode : Working Mode

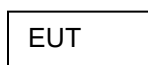
Remark: The test data of the worst case condition(s) was reported on the following page.

1.4. Block Diagram

Conducted Emission



Radiated Emission



1.5. TEST SUMMARY

Test Procedures According To The Technical Standards:

EMC Emission				
Standard	Test Item	Limit	Judgment	Remark
FCC Part 15 Subpart B	AC Port Conducted Emission	Class B	PASS	
	Radiated Emission	Class B	PASS	
	Asymmetric Mode Conducted Emissions	Class B	N/A	

NOTE:

- (1) "N/A" denotes test is not applicable in this Test Report
- (2) For client's request and manual description, the test will not be executed.
- (3) Measurement Uncertainty is not taken into account for conformity statement

1.6. Special Accessories and Auxiliary Equipment

Description	Manufacturer	Model No.	Serial No.
Adapter	Shenzhen Intelligent Technology Co., LTD	H302	/

1.7. Test Uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

A. Conducted Measurement :

Method	Measurement Frequency Range	U,(dB)	NOTE
CISPR 16-4-2:2018	150 KHz ~ 30MHz	2.54	

B. Radiated Measurement :

Method	Measurement Frequency Range	U,(dB)	NOTE
CISPR 16-4-2:2018	30MHz ~ 1000MHz	4.25	
	1GHz ~6GHz	3.9	

1.8. Test Facility

Site Description		
Name of Firm	:	Shenzhen BKC Testing Co., Ltd.
Site Location	:	Room 103, 1/F, Huaya Building, Huaya Industrial Park, Longhua Community, Longhua District, Shenzhen, Guangdong, China.
ISED CAB identifier	:	CN0188
ISED Company Number	:	34333
FCC Designation Number	:	CN1416
FCC Test Firm Registration Number	:	701543



2. TEST INSTRUMENT USED

2.1 CONDUCTED TEST SITE

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	LISN	R&S	ENV216	102762	Mar. 10. 2025	Mar. 09. 2026
2	EMI Test Receiver	R&S	ESCI	101424	Mar. 10. 2025	Mar. 09. 2026
3	Rf cables	HTEC	HCE 2M-CE	N/A	Mar. 10. 2025	Mar. 09. 2026
4	Coupling/ Decoupling Network	Diamond	CX210	N/A	Mar. 10. 2025	Mar. 09. 2026
5	CE Testing software	EZ	EZ-EMC	/	/	/

2.2 RADIATED TEST SITE

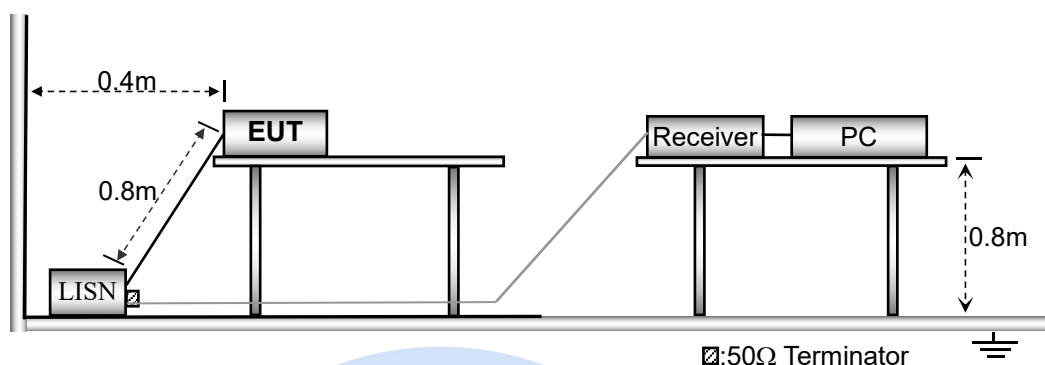
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Antenna	Schwarzbeck	VULB 9168	01321	Mar. 20. 2025	Mar. 19. 2028
2	EMI Test Receiver	R&S	ESRP	101478	Mar. 10. 2025	Mar. 09. 2026
3	Preamplifier	HP	8447D	2727A05345	Mar. 10. 2025	Mar. 09. 2026
4	Rf cables	HUBER+SUHNER	8M-RE	N/A	Mar. 10. 2025	Mar. 09. 2026
5	Rf cables	HUBER+SUHNER	1.5M-RE	N/A	Mar. 10. 2025	Mar. 09. 2026
6	Rf cables	HUBER+SUHNER	1.5M-AP-RE	N/A	Mar. 10. 2025	Mar. 09. 2026
7	RE Testing software	EZ	EZ-EMC	/	/	/

Test software

Software name	RE Testing software
Software version	EMEC-03A2 RE+
Software name	CE Testing software
Software version	EMEC-3A1+

3. CONDUCTED EMISSION AT THE MAINS TERMINALS TEST

3.1. Block Diagram Of Test Setup



3.2. Test Standard

FCC PART 15 Subpart B

3.3. Power Line Conducted Emission Limit

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.4. EUT Configuration on Test

The following equipments are installed on conducted emission test to meet FCC PART 15 Subpart B requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

3.5. Operating Condition of EUT

3.5.1 Setup the EUT and simulators as shown in Section 3.1.

3.5.2 Turn on the power of all equipments.

3.5.3 Let the EUT work in test modes and test it.

3.6. Test Procedure

The EUT is put on the ground and connected to the AC mains through a Artificial Mains Network (AMN). This provided a 50ohm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission levels according to the **FCC PART 15 Subpart B** regulations during conducted emission test.

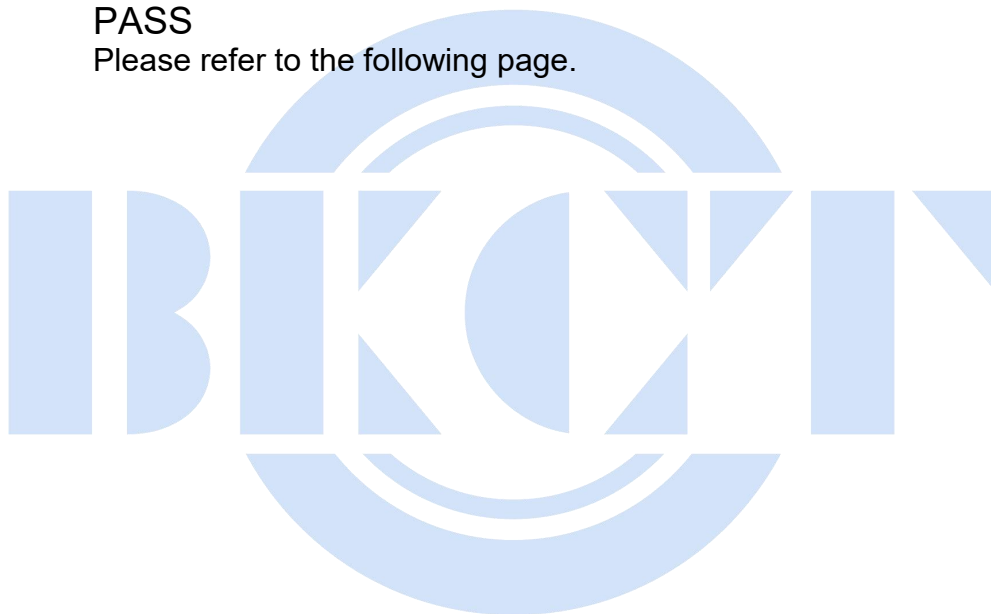
The bandwidth of the test receiver (R&S Test Receiver ESCI) is set at 9KHz.

The frequency range from 150 KHz to 30 MHz is investigated.

3.7. Test Result

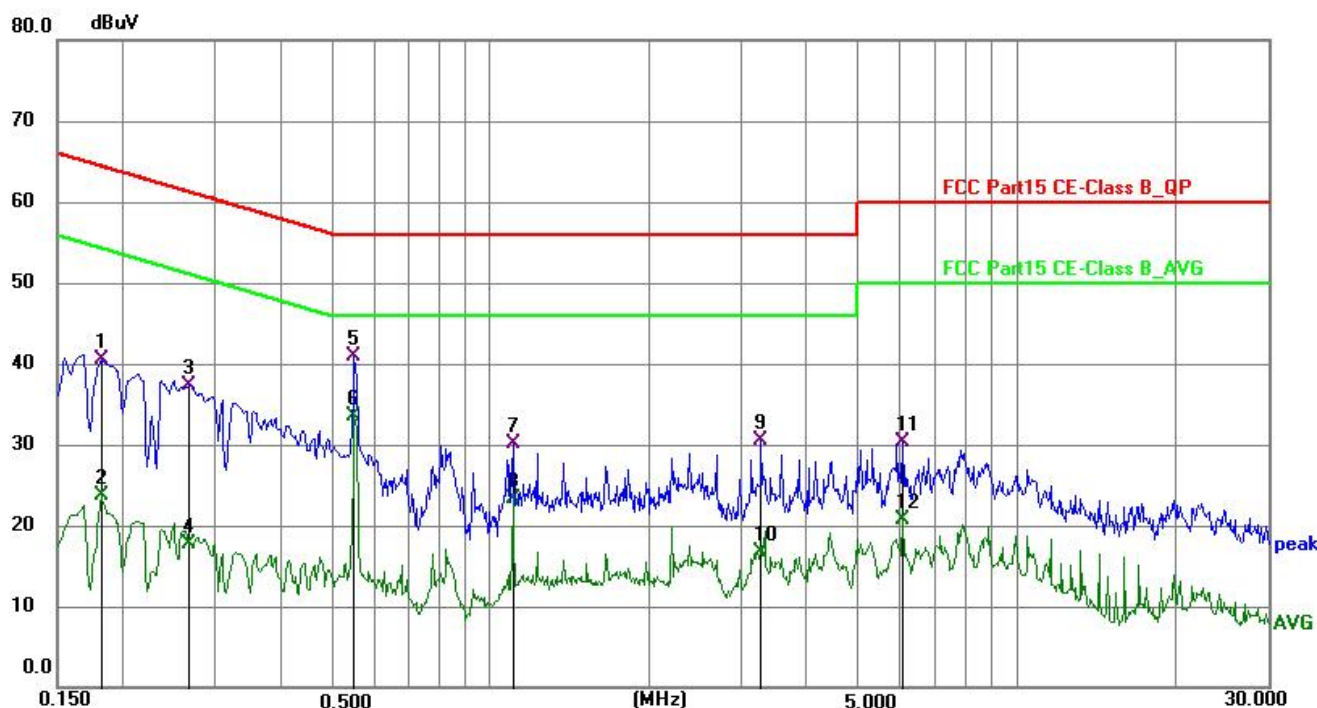
PASS

Please refer to the following page.



Conducted Emission At The Mains Terminals Test Data

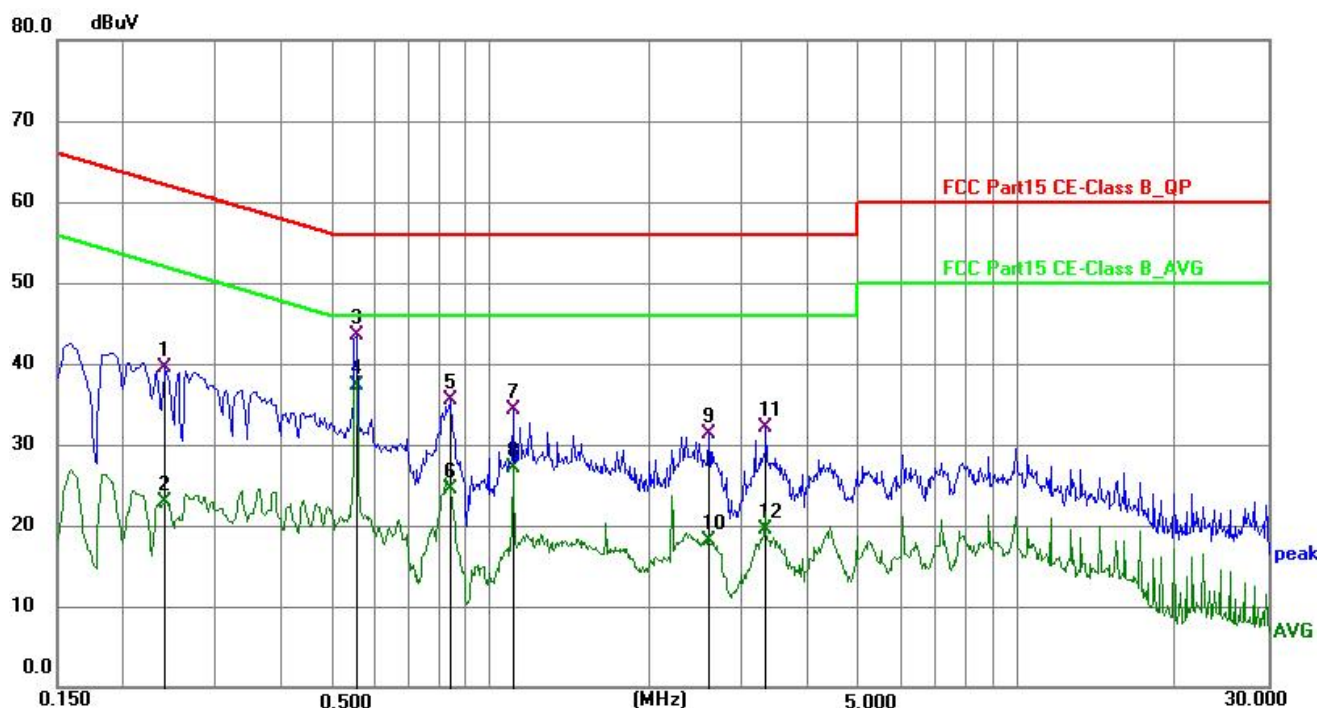
Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Line
Test Voltage :	AC 120V/60Hz	Test Mode:	Working Mode



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1815	30.73	9.79	40.52	64.42	-23.90	QP	P	
2	0.1815	13.95	9.79	23.74	54.42	-30.68	AVG	P	
3	0.2670	27.55	9.79	37.34	61.21	-23.87	QP	P	
4	0.2670	7.94	9.79	17.73	51.21	-33.48	AVG	P	
5	0.5505	31.15	9.76	40.91	56.00	-15.09	QP	P	
6 *	0.5505	23.82	9.76	33.58	46.00	-12.42	AVG	P	
7	1.1040	20.34	9.74	30.08	56.00	-25.92	QP	P	
8	1.1040	13.54	9.74	23.28	46.00	-22.72	AVG	P	
9	3.2685	20.74	9.79	30.53	56.00	-25.47	QP	P	
10	3.2685	6.89	9.79	16.68	46.00	-29.32	AVG	P	
11	6.0675	20.45	9.80	30.25	60.00	-29.75	QP	P	
12	6.0675	10.86	9.80	20.66	50.00	-29.34	AVG	P	

Conducted Emission At The Mains Terminals Test Data

Temperature:	25.1℃	Relative Humidity:	56%
Pressure:	1008hPa	Phase :	Neutral
Test Voltage :	AC 120V/60Hz	Test Mode:	Working Mode

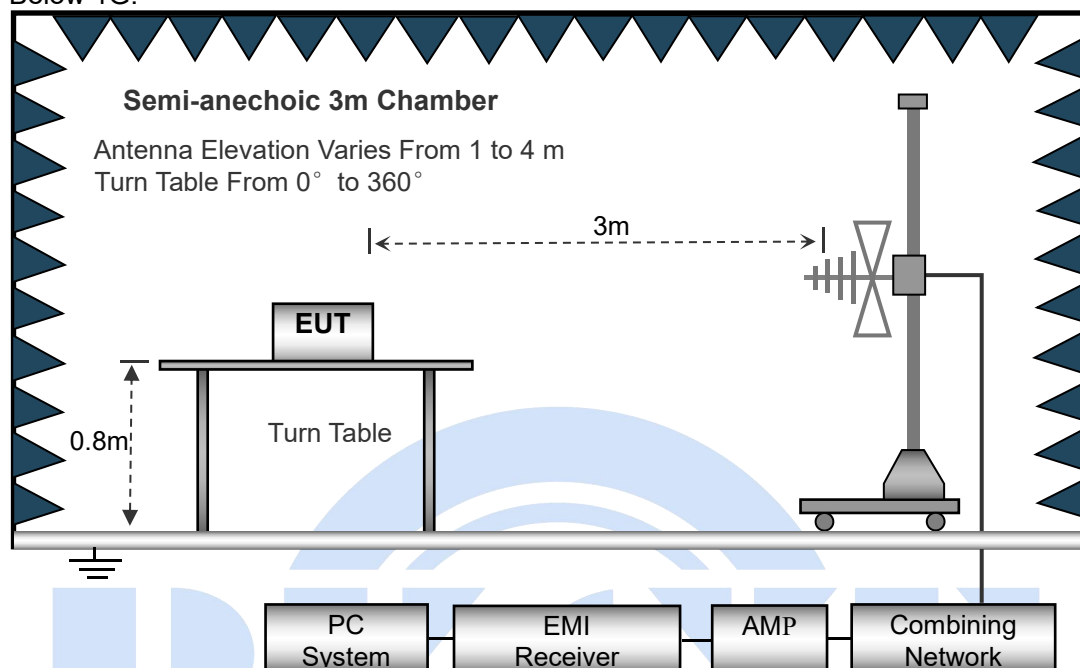


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2400	29.88	9.71	39.59	62.10	-22.51	QP	P	
2	0.2400	13.20	9.71	22.91	52.10	-29.19	AVG	P	
3	0.5550	33.90	9.69	43.59	56.00	-12.41	QP	P	
4 *	0.5550	27.67	9.69	37.36	46.00	-8.64	AVG	P	
5	0.8429	25.82	9.69	35.51	56.00	-20.49	QP	P	
6	0.8429	14.84	9.69	24.53	46.00	-21.47	AVG	P	
7	1.1040	24.61	9.68	34.29	56.00	-21.71	QP	P	
8	1.1040	17.45	9.68	27.13	46.00	-18.87	AVG	P	
9	2.6025	21.51	9.71	31.22	56.00	-24.78	QP	P	
10	2.6025	8.38	9.71	18.09	46.00	-27.91	AVG	P	
11	3.3359	22.34	9.71	32.05	56.00	-23.95	QP	P	
12	3.3359	9.77	9.71	19.48	46.00	-26.52	AVG	P	

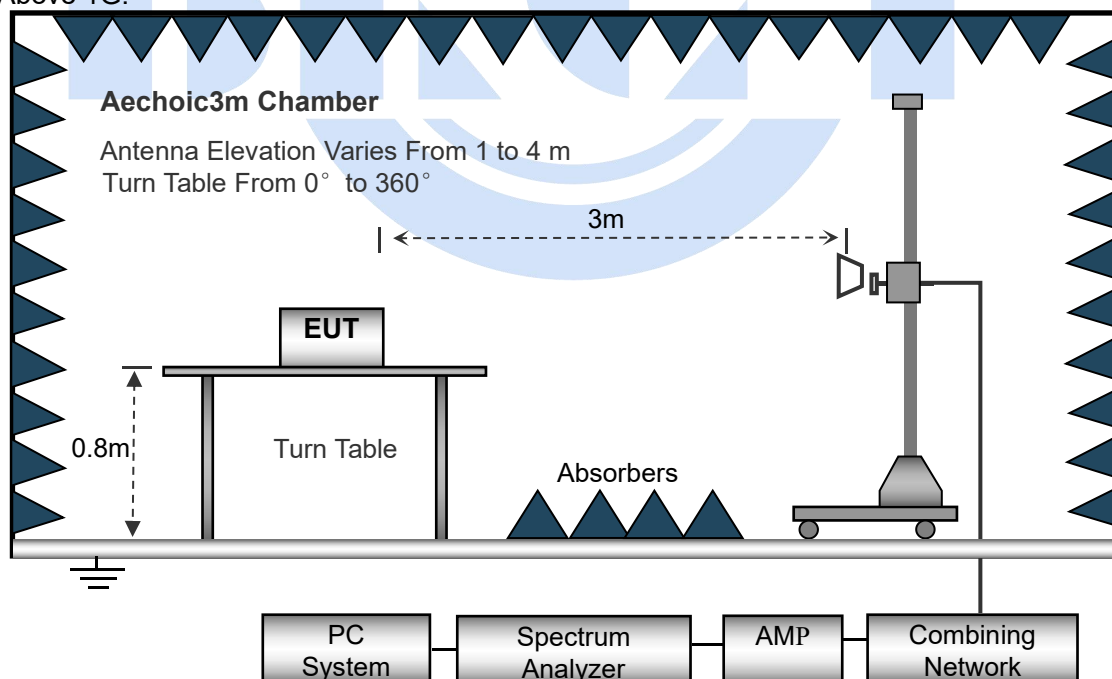
4. RADIATION EMISSION TEST

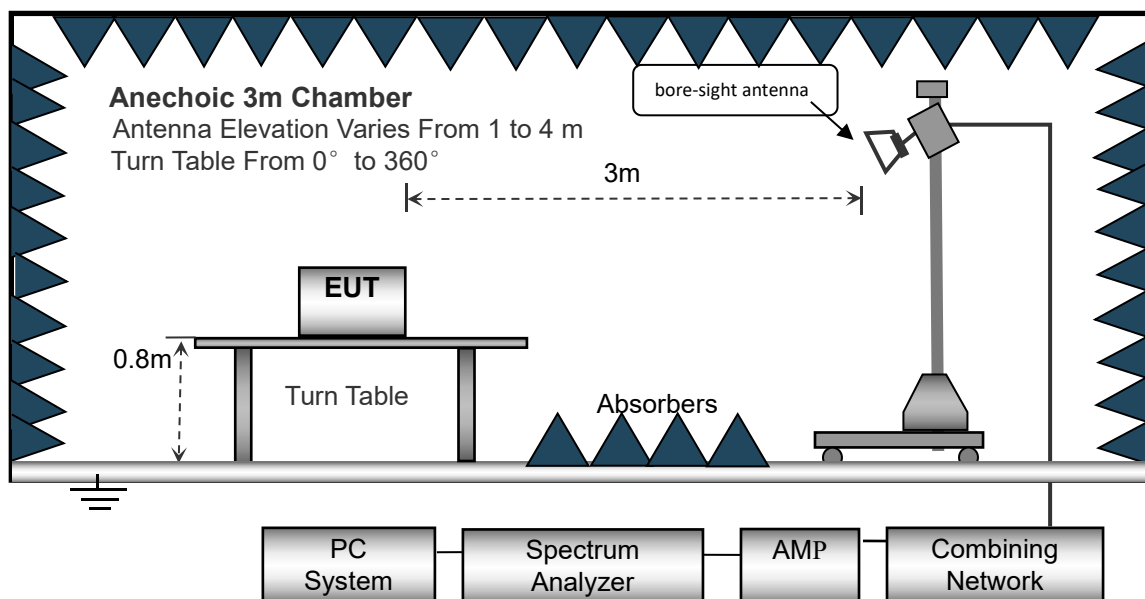
4.1. Block Diagram of Test Setup

Below 1G:



Above 1G:





4.2. Test Standard

FCC PART 15 Subpart B

4.3. Radiation Limit

Frequency MHz	Distance (Meters)	Field Strengths Limits dB(μV)/m
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

4.4. EUT Configuration on Test

The FCC PART 15 Subpart B regulations test method must be used to find the maximum emission during radiated emission test.

The configuration of EUT is the same as used in conducted emission test. Please refer to Section 3.4.

4.5. Operating Condition of EUT

Same as conducted emission test, which is listed in Section 3.5 except the test set up replaced as Section 4.1.

4.6. Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the

position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to FCC PART 15 Subpart B on radiated emission test.

The bandwidth setting on the field strength meter (R&S Test Receiver ESCI) is set at 120KHz below 1GHz, set at 1MHz above 1GHz

The frequency range from 30MHz to 1000MHz is checked.

4.7. Test Result

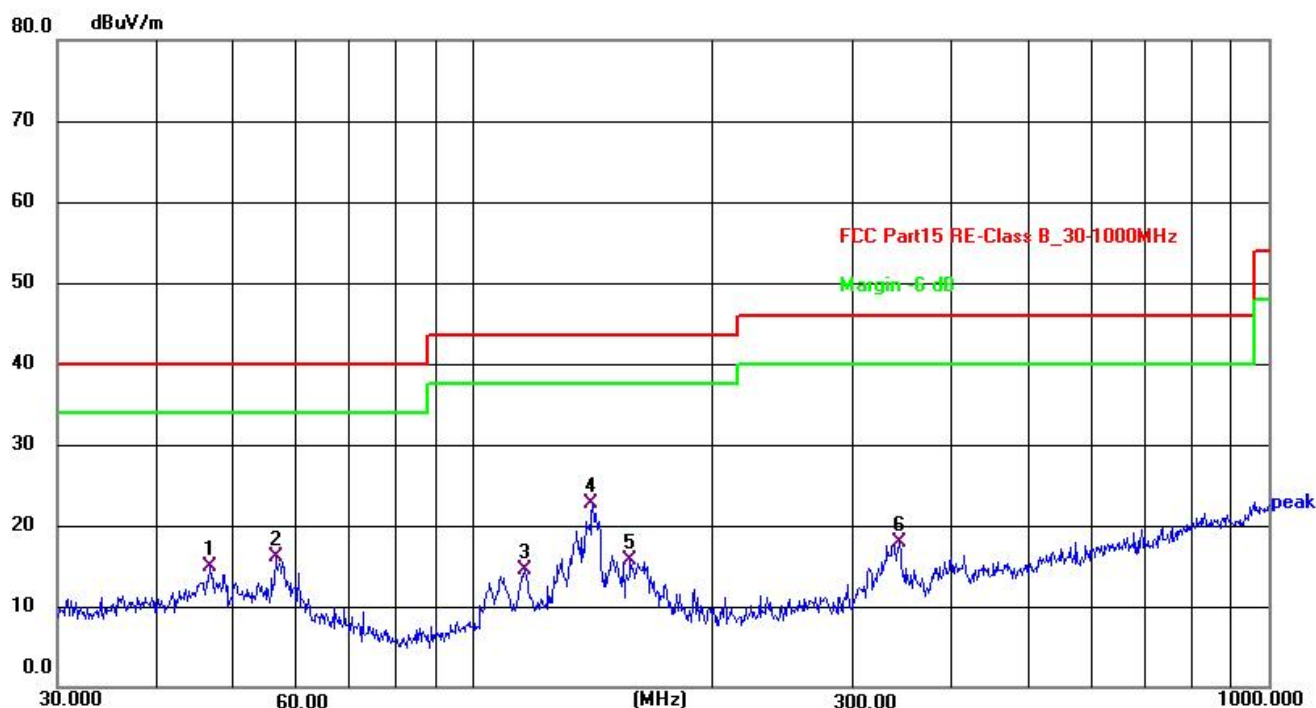
PASS

Please refer to the following page.



Radiation Emission Test Data

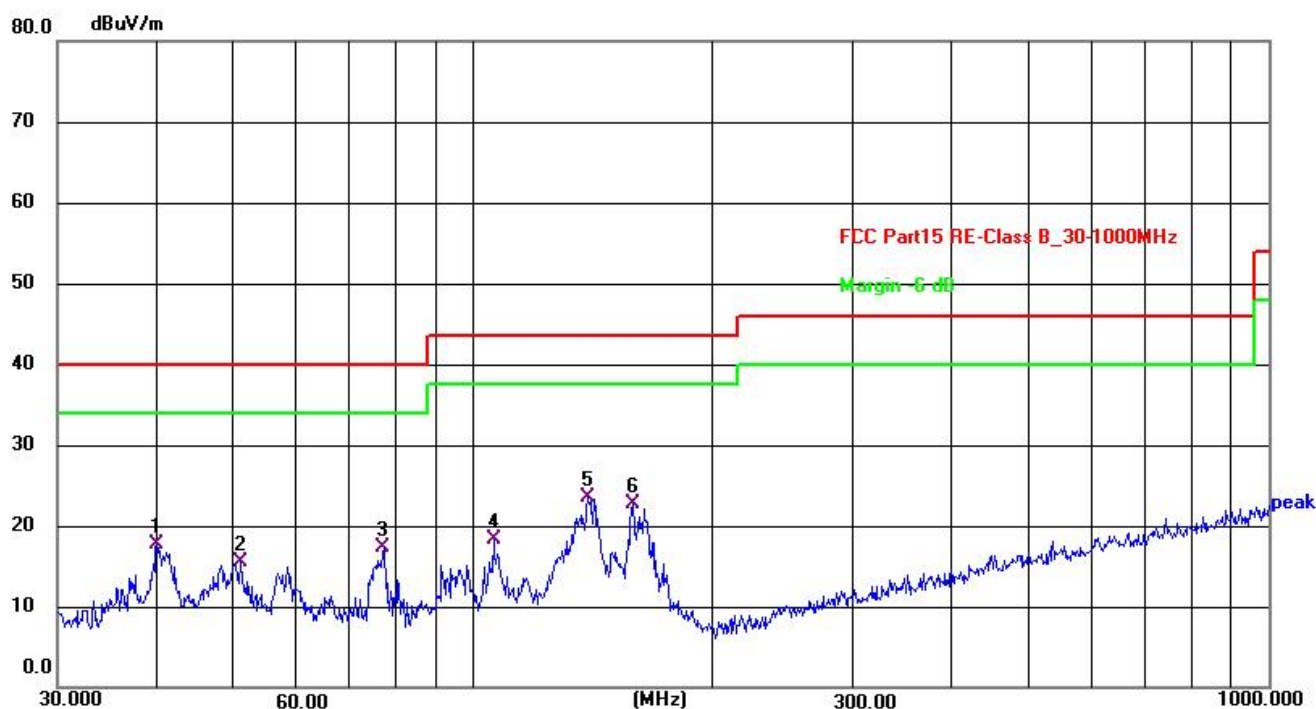
Temperature:	24.8 °C	Relative Humidity:	55%
Pressure:	1008hPa	Phase :	Horizontal
Test Voltage :	DC 3.7V	Test Mode:	Working Mode



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	46.6662	31.38	-16.57	14.81	40.00	-25.19	QP
2	56.3947	33.39	-17.19	16.20	40.00	-23.80	QP
3	116.1320	32.90	-18.37	14.53	43.50	-28.97	QP
4 *	141.3296	39.24	-16.51	22.73	43.50	-20.77	QP
5	157.5586	31.50	-15.84	15.66	43.50	-27.84	QP
6	343.1800	33.59	-15.67	17.92	46.00	-28.08	QP

Radiation Emission Test Data

Temperature:	24.8 °C	Relative Humidity:	55%
Pressure:	1008hPa	Phase :	Vertical
Test Voltage :	DC 3.7V	Test Mode:	Working Mode



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	39.9941	33.95	-16.24	17.71	40.00	-22.29	QP
2	50.9420	32.32	-16.72	15.60	40.00	-24.40	QP
3	77.3210	37.99	-20.59	17.40	40.00	-22.60	QP
4	106.0126	37.87	-19.49	18.38	43.50	-25.12	QP
5 *	139.3610	40.20	-16.66	23.54	43.50	-19.96	QP
6	158.6673	38.63	-15.84	22.79	43.50	-20.71	QP

5. TEST PHOTOGRAPHS

Please see Attachment BKC25125722ME-2.

6. APPENDIX I: PHOTOS OF THE EUT

Please see Attachment BKC25125722ME-3 and BKC25125722ME-4.

