



诺检标准
NTT STANDARD

FCC PART 15 SUBPART C

white noise Bluetooth speaker
MODEL No.: X1
FCC ID: 2BTZM-X1
REPORT NO.: SZNTT26041547E1-2

ISSUE DATE: Sep. 23, 2026

Prepared for
Shenzhen Lafulaifu Electronics Co., Ltd.
505, 5th Floor, Building 10, Pinghu Street exhibition Cultural and Creative Park,
Pinghu Street, Longgang district, Shenzhen China

Prepared by
Shenzhen NTT Testing Technology Co., Ltd.

1B, Building 2, Factory Building & 103, Building 3, Factory Building, Dayang
Industrial Park No.4, Industrial Avenue, Tangwei Community, Fuhai Sub-district,
Bao 'an District, Shenzhen City, China

TEL: 0755-27889935



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TEST REPORT DESCRIPTION

Applicant : Shenzhen Lafulaifu Electronics Co., Ltd.

Address : 505, 5th Floor, Building 10, Pinghu Street exhibition Cultural and Creative Park,
Pinghu Street, Longgang district, Shenzhen China

Manufacturer : Shenzhen Lafulaifu Electronics Co., Ltd.

Address : 505, 5th Floor, Building 10, Pinghu Street exhibition Cultural and Creative Park,
Pinghu Street, Longgang district, Shenzhen China

EUT : white noise Bluetooth speaker

Model Name : X1

Trademark : N/A

Measurement Procedure Used:

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 15, Subpart C	PASS

The above equipment was tested by Shenzhen NTT Testing Technology Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10-2020 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15C

The test results of this report relate only to the tested sample identified in this report.

Prepared by (Test Engineer):
Cindy Qin

Cindy Qin

Reviewer (Supervisor):
Ken Wu

Ken Wu

Approved (Manager):
Abel Yu





Modified Information

Version	Report No.	Revision Data	Summary
Ver.1.0	SZNTT26041547E1-2	Sep. 23, 2026	Original Version



1. SUMMARY OF TEST RESULTS

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Spurious Emission	15.209(a)(f)	Pass
20dB Bandwidth	15.215	Pass



2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT : white noise Bluetooth speaker
 Model Number : X1
 Model different : N/A
 Power Rating : DC 5V charging from adapter
 : DC 3.7V by battery
 Operation Frequency for WPT : 111-205 KHz
 Modulation : MSK
 Antenna Type: : PCB Antenna
 MAX wireless charger power : 15W
 Date of Received : Sep. 23, 2026
 Date of Test : Aug. 07, 2026 to Sep. 23, 2026

2.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	Wireless charging tester	YBZ	M1	/	Auxiliary
E-2	Adapter	JIYIN	JY-05100C	/	Auxiliary

Note: (1)The support equipment was authorized by Declaration of Confirmation.
 (2)For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.3. Independent Operation Modes

Mode	Description	Remark
1	Adaper+EUT + iPhone(15W)	5%
2		50%
3		95%
4	Adaper+EUT + iPhone(10W)	5%
5		50%
6		95%
7	Adaper+EUT + iPhone(7.5W)	5%
8		50%
9		95%
10	Adaper+EUT + iPhone(5W)	5%
11		50%
12		95%



Remark:

1 All the modes have tested and recorded the worst mode in the report.

2.5% indicates that iWatch battery capacity < 5%;

3.50% indicates that iWatch battery capacity is 50%;

4.95% indicates that iWatch battery capacity is 95%



2.4. Test Mode

Test Items	Test Voltage	Operation Modes
RE	AC 120V/60Hz	Mode 1
CE	AC 120V/60Hz	Mode 1

2.5. Description of Test Facility

Site
Description

Designation Number: CN3446

EMC Lab. :

Test Firm Registration Number: 129414

Accredited by ANAB, Dec. 19, 2025

The Certificate Registration Number is AT-3446

Name of
Firm :

Shenzhen NTT Testing Technology Co., Ltd.

Site
Location :

1B, Building 2, Factory Building & 103, Building 3, Factory Building,
Dayang Industrial Park No.4, Industrial Avenue, Tangwei Community,
Fuhai Sub-district, Bao 'an District, Shenzhen City, China



2.6. Measurement Uncertainty

Parameter	Uncertainty
RF output power, conducted	$\pm 1.0\text{dB}$
Power Spectral Density, conducted	$\pm 2.2\text{dB}$
Radio Frequency	$\pm 1 \times 10^{-6}$
Bandwidth	$\pm 1.5 \times 10^{-6}$
Time	$\pm 2\%$
Duty Cycle	$\pm 2\%$
Temperature	$\pm 1^\circ\text{C}$
Humidity	$\pm 5\%$
DC and low frequency voltages	$\pm 3\%$
Conducted Emissions (150kHz~30MHz)	$\pm 3.64\text{dB}$
Radiated Emission(9KHz~30MHz)	$\pm 4.51\text{dB}$
Radiated Emission(30MHz~1GHz)	$\pm 5.03\text{dB}$
Radiated Emission(1GHz~25GHz)	$\pm 4.74\text{dB}$
Remark:When making a conformity declaration based on test results for regulations/standards or specifications,the default is to use Clause 4.2.1of ILAC-G8:09/2019 and the guidelines on decision rules and conformity declaration in IEC Guide 115:2023.	



3. MEASURING DEVICE AND TEST EQUIPMENT

Conducted Test Site

Name	Model No.	Serial No.	Manufacturer	Date of Cal.	Due Date
944 Shielded Room	HSRCE944	/	HTEC	2025/4/30	2028/4/29
EMI Test Receiver	ESCI	100881/003	ROHDE&SCHWARZ	2025/09/08 2026/09/04	2026/09/07 2027/09/03
LISN	AMN6500	101185	ROHDE&SCHWARZ	2025/09/08 2026/09/04	2026/09/07 2027/09/03
LISN	NNLK 8129	00603	SCHWARZBECK	2025/09/08 2026/09/04	2026/09/07 2027/09/03
<u>Pulse Limiters</u>	VTSD 9561 F	00343	SCHWARZBECK	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Cable	RG223-2M	/	RG	2025/09/08 2026/09/04	2026/09/07 2027/09/03

Radiated Test Site(Below 1G and Above 1G)&RF Test Site

Name	Model No.	Serial No.	Manufacturer	Date of Cal.	Due Date
966 Shielded Room	966 Room	/	EMToni	2025/7/24	2028/7/23
EMI Test Receiver	ESPI	101018	ROHDE&SCHWARZ	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Amplifier (30MHz-1GHz)	BBV 9745	00431	SCHWARZBECK	2025/09/08 2026/09/09	2026/09/07 2027/09/08
Bilog Antenna (30MHz-1GHz)	VULB9168	1858	SCHWARZBECK	2025/09/09 2026/09/05	2026/09/08 2027/09/04
Horn antenna (1GHz-18GHz)	BBHA 9120 D	02622	SCHWARZBECK	2025/09/09 2026/09/05	2026/09/08 2027/09/04
Preamplifier (1GHz-18GHz)	BBV 9718D	0024	SCHWARZBECK	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Spectrum Analyzer (10Hz-40GHz)	FSV 40	100952	ROHDE&SCHWARZ	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Preamplifier (18GHz-40GHz)	BBV 9721	0056	SCHWARZBECK	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Double Ridge Guide Horn Antenna (18GHz-40GHz)	SAS-574	588	A.H.System	2025/09/09 2026/09/05	2026/09/08 2027/09/04
Loop Antenna (9KHz-30MHz)	FMZB 1513-60	00115	SCHWARZBECK	2025/09/08 2026/09/04	2026/09/07 2027/09/03
MXG Signal Analyzer	N9020A	MY49100730	Agilent	2025/09/08 2026/09/04	2026/09/07 2027/09/03



MXG Vector Signal Generator	N5182A	MY50144920	Agilent	2025/09/08 2026/09/04	2026/09/07 2027/09/03
WIDEBAND RADIO COMMUNICATION TESTER	CMW500	/	ROHDE&SCHWARZ	2025/09/08 2026/09/07	2026/09/07 2027/09/06
Power Sensor	MW100-RFC B-2	MW260105N TT-64	MWRFTest	2025/09/08 2026/09/04	2026/09/07 2027/09/03
RF Swith	MW100-RFC B-1	MW260105N TT-64	MWRFTest	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Cable	RG223-3M	/	DA	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Cable	RG223-12M	/	DA	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Cable	SFT205-NM NMSW-2.5M	/	DA	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Cable	SFT205-NM NM-12M	/	DA	2025/09/08 2026/09/04	2026/09/07 2027/09/03
Cable	UCA500-NJ WSM-1.5M	017	MWRFTest	2025/09/08 2026/09/04	2026/09/07 2027/09/03

Test software

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	FALA	EZ-EMC	Ver.EMC-CON 3A1.1+
2	EMC radiation test system	FALA	EZ-EMC	Ver.FA-03A2 RE+
3	RF test system	TACHOY	RFTest	V1.0.0
4	RF communication test system	TACHOY	RFTest	V1.0.0



4. 20DB BANDWIDTH

4.1. Test Procedure

Set to the maximum power setting and enable the EUT transmit continuously

Set RBW = 1-5%OBW.

Set the video bandwidth (VBW) =3RBW.

Set Span= 1KHz

Set Detector = Peak.

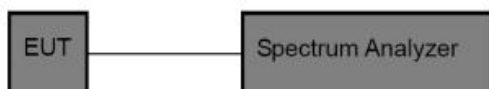
Set Trace mode = Max hold.

Set Sweep = auto couple.

Measure and record the results in the test report.

Note: Since the measured signal is CW-like, it is not practical to adjust the RBW according to C63.10, as the measured bandwidth will always follow the RBW, resulting in approximately twice the RBW.

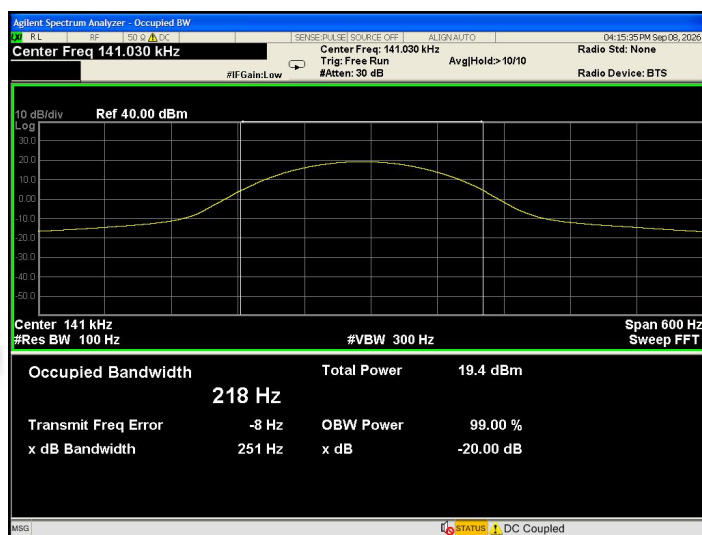
4.2. Test Setup



4.3. Test Results

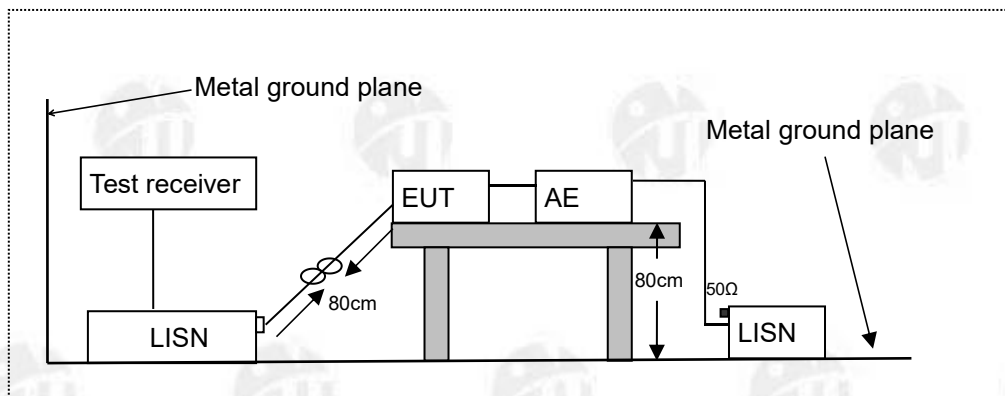
Frequency (KHz)	20dB bandwidth (Hz)	99% bandwidth (Hz)	Result
141.03	251	218	Pass

Test Graph:



5. POWER LINE CONDUCTED EMISSION MEASUREMENT

5.1. Block Diagram of Test Setup



LISN: Line Impedance Stabilization Network

AE: Associated equipment

EUT: Equipment under test

5.2. Limits

FCC Part 15.207

Frequency (MHz)	Limit (dB μ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0 ~ 56.0 *	56.0 ~ 46.0 *
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0

NOTE1-The lower limit shall apply at the transition frequencies.
NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

5.3. Test Procedure

The EUT was placed on a desk 0.8 m height from the metal ground plane and 0.4 m from the conducting wall of the shielding room and it was kept at least 0.8 m from any other grounded conducting surface. The size of the table will nominally be 1.5 m x1.0 m.

The rear of the arrangement shall be flush with the back of the supporting tabletop unless that would not be possible or typical of normal use.

All units of equipment forming the system under test (includes the EUT as well as connected peripherals and associated equipment or devices) shall be arranged such that a nominal 0.1 m separation is achieved between the neighboring units.

Connect EUT to the power mains through a line impedance stabilization network (LISN). Where the mains cable supplied by the manufacturer is longer than 1 m, the excess should be folded at the centre into a bundle no longer than 0.4 m, so that its length is shortened to 1 m.

All the support units are connecting to the other LISN.



The LISN provides 50 ohm coupling impedance for the measuring instrument.

Both sides of AC line were checked for maximum conducted interference.

The frequency range from 150 kHz to 30 MHz was sweep.

Set the test-receiver system to quasi peak detect function and average detect function, and to measure the conducted emissions values.

Test results were obtained from the following equation:

Emission Level (dBμV) = LISN Factor (dB) + Cable Loss (dB) + Reading (dBμV)

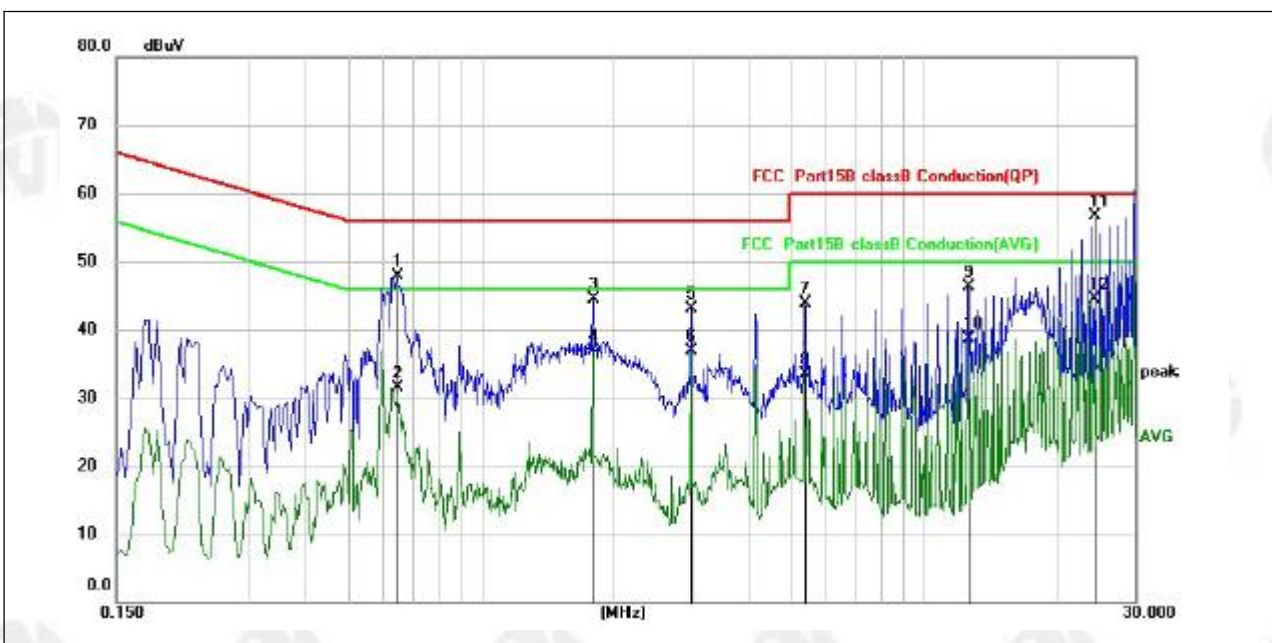
Margin (dB) = Emission Level (dBμV) - Limit (dBμV)

5.4. Measuring Results

PASS.



Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Phase :	L
Test Voltage :	AC 120V/60Hz	Mode:	Mode 1



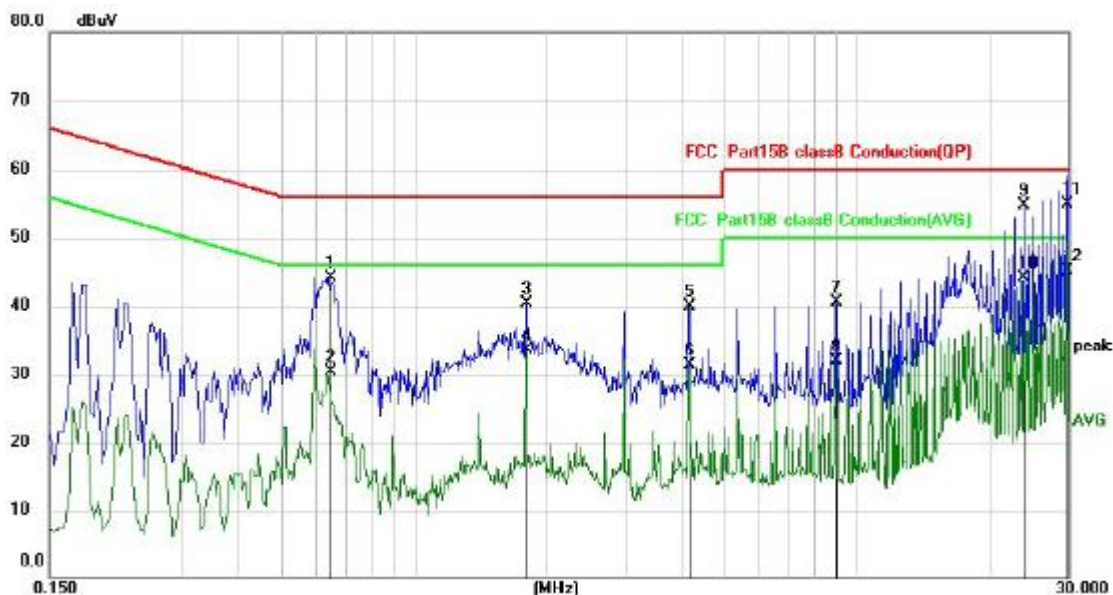
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.6460	37.69	10.23	47.92	56.00	-8.08	QP
2		0.6460	21.25	10.23	31.48	46.00	-14.52	AVG
3		1.7900	34.00	10.48	44.48	56.00	-11.52	QP
4		1.7900	26.41	10.48	36.89	46.00	-9.11	AVG
5		2.9860	32.26	10.89	43.15	56.00	-12.85	QP
6		2.9860	26.07	10.89	36.96	46.00	-9.04	AVG
7		5.3740	32.08	11.80	43.88	60.00	-16.12	QP
8		5.3740	21.68	11.80	33.48	50.00	-16.52	AVG
9		12.5380	31.04	15.19	46.23	60.00	-13.77	QP
10		12.5380	23.53	15.19	38.72	50.00	-11.28	AVG
11	*	29.8540	33.76	22.98	56.74	60.00	-3.26	QP
12		29.8540	21.58	22.98	44.56	50.00	-5.44	AVG

Notes:

- 1.An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2.Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3.Mesurement Level = Reading level + Correct Factor



Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Phase :	N
Test Voltage :	AC 120V/60Hz	Mode:	Mode 1



No.	Mk.	Freq.	Reading	Correct	Measure-	Limit	Over	
		MHz	Level	Factor	ment			Detector
			dBuV	dB	dBuV	dBuV	dB	
1		0.6500	33.93	10.23	44.16	56.00	-11.84	QP
2		0.6500	20.02	10.23	30.25	46.00	-15.75	AVG
3		1.7900	29.89	10.48	40.37	56.00	-15.63	QP
4		1.7900	22.99	10.48	33.47	46.00	-12.53	AVG
5		4.1779	28.59	11.33	39.92	56.00	-16.08	QP
6		4.1779	20.07	11.33	31.40	46.00	-14.60	AVG
7		8.9540	26.96	13.47	40.43	60.00	-19.57	QP
8		8.9540	18.43	13.47	31.90	50.00	-18.10	AVG
9		23.8819	33.99	20.73	54.72	60.00	-5.28	QP
10		23.8819	23.38	20.73	44.11	50.00	-5.89	AVG
11		29.8380	31.89	22.98	54.87	60.00	-5.13	QP
12	*	29.8380	22.19	22.98	45.17	50.00	-4.83	AVG

Notes:

- 1.An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2.Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3.Measurement Level = Reading level + Correct Factor

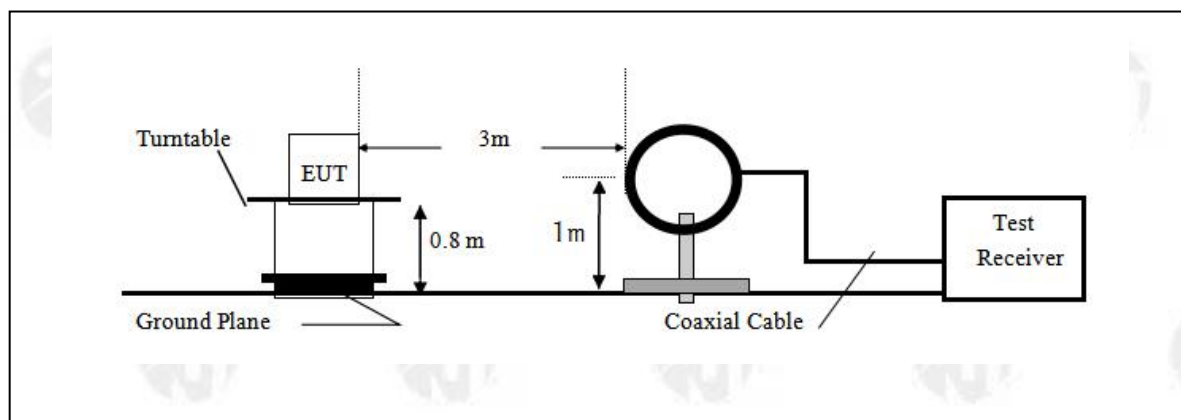
6. RADIATED EMISSION TEST

6.1.Measurement Procedure

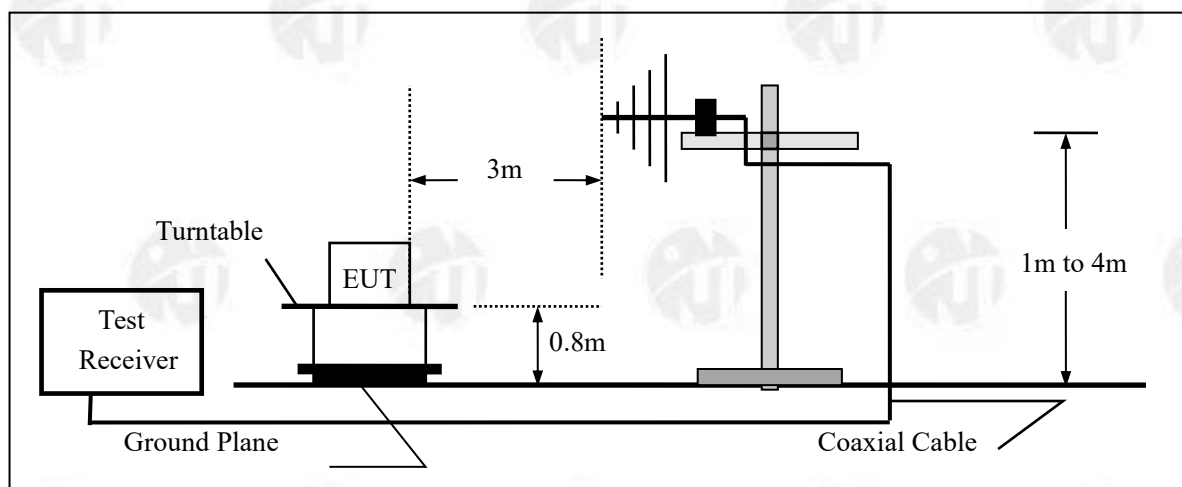
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.
5. Use the following receiver/spectrum analyzer settings:
Span = wide enough to fully capture the emission being measured
RBW=200Hz for 9KHz to 150KHz,
RBW=9kHz for 150KHz to 30MHz,
RBW=120KHz for 30MHz to 1GHz
VBW $\geq 3 \times$ RBW
Sweep = auto
Detector function = QP
Trace = max hold

6.2.Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency Below 1000MHz



6.3. Radiated Emission Limit

The emissions from an intentional radiator shall not exceed the field strength levels specified in the following table 15.209(a):

FCC Part 15.209				
Frequency (MHz)	Field Strength Limitation		Field Strength Limitation Frequency tion at 3m Measurement Dist	
	(uV/m)	Dist	(uV/m)	(dBuV/m)
0.009 – 0.490	$2400 / F(\text{KHz})$	300m	$10000 * 2400/F(\text{KHz})$	$20\log 2400/F(\text{KHz}) + 80$
0.490 – 1.705	$24000 / F(\text{KHz})$	30m	$100 * 24000/F(\text{KHz})$	$20\log 24000/F(\text{KHz}) + 40$
1.705 – 30.00	30	30m	$100 * 30$	$20\log 30 + 40$
30.0 – 88.0	100	3m	100	$20\log 100$
88.0 – 216.0	150	3m	150	$20\log 150$
216.0 – 960.0	200	3m	200	$20\log 200$
Above 960.0	500	3m	500	$20\log 500$



15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

Remark: 1. Emission level in dBuV/m=20 log (uV/m)
 2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
 3. Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205, and the emissions located in restricted bands also comply with 15.209 limit.



6.4.Measurement Result

Measurement data:

Note: Limit dBuV/m @3m = Limit dBuV/m @300m+ 80

Limit dBuV/m @3m = Limit dBuV/m @30m + 40

9 kHz~30 MHz

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Pol.	Coplanar
Test Voltage :	AC 120V/60Hz	Mode:	Mode 1

Freq.(MHz)	Detector Mode (PK/QP/AV)	Reading(dBuV)	Factor (dB)	ActualFS(dBuV/m)	Limits3m(dBuV/m)	Margin (dBuV/m)
0.141	PEAK	51.36	20.47	71.83	104.62	-32.79
0.352	PEAK	45.91	20.23	66.14	96.67	-30.53
0.511	PEAK	38.71	20.01	58.72	73.44	-14.72
0.874	PEAK	32.12	19.95	52.07	68.77	-16.7
1.136	PEAK	27.69	19.87	47.56	66.5	-18.94
2.385	PEAK	27.11	19.78	46.89	60.05	-13.16

Note:

Pre-scan in the all of mode, the worst case in of was recorded.

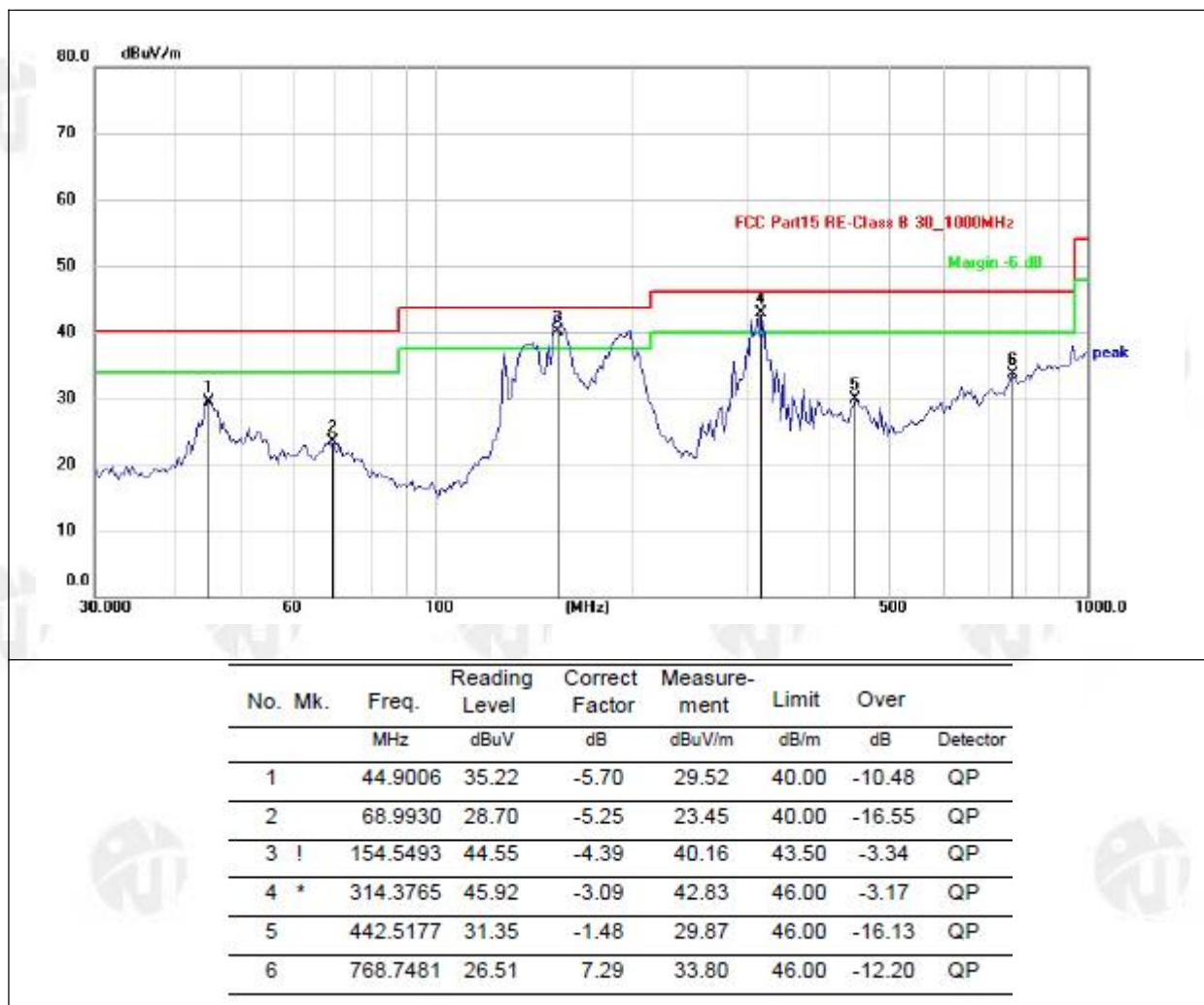
Factor = antenna factor + cable loss – pre-amplifier.

Margin = Emission Level- Limit.



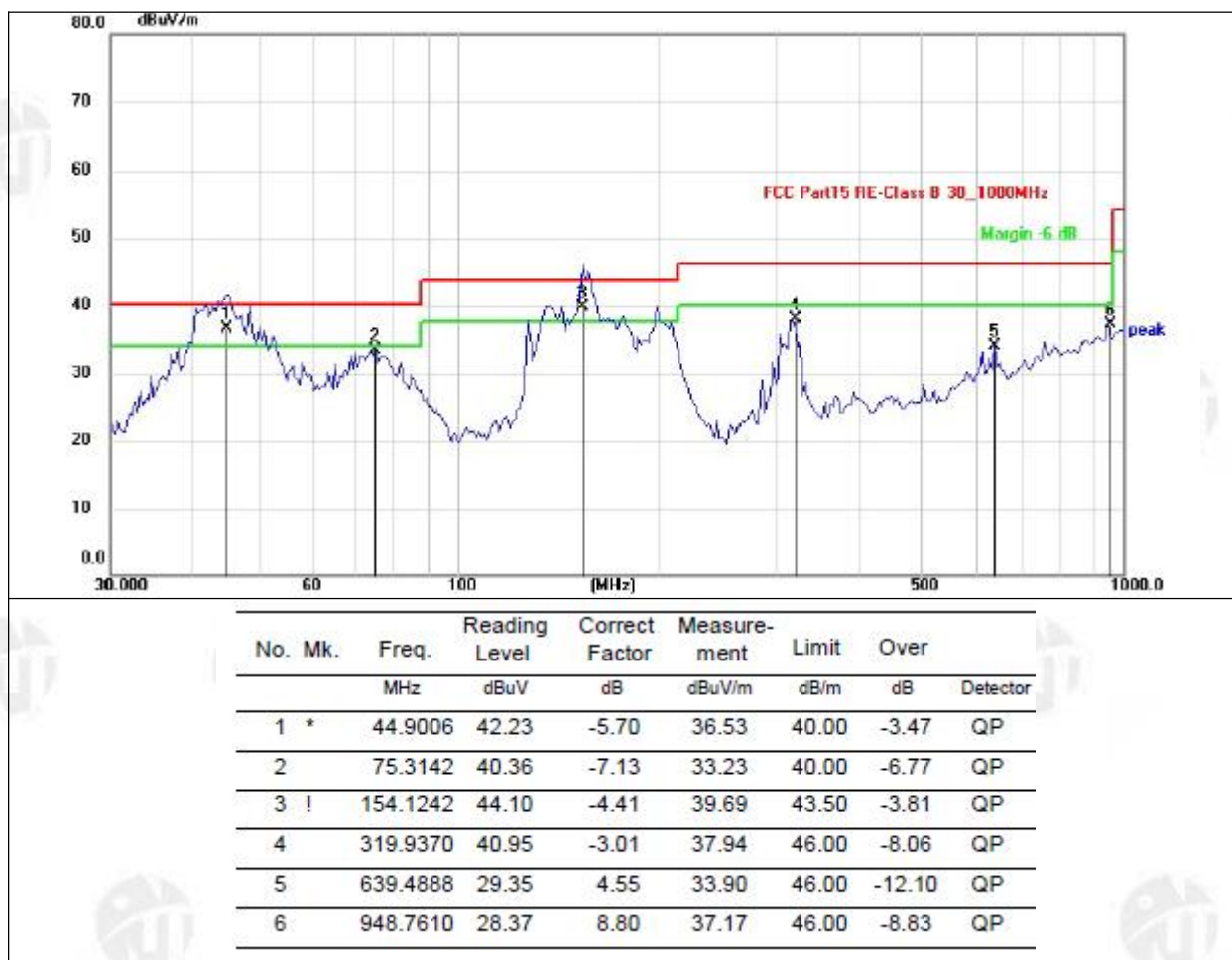
30MHz-1GHz:

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz	Mode:	Model 1





Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz	Mode:	Model 1



Remarks:

- 1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2.The emission levels of other frequencies are very lower than the limit and not show in test report.



7. TEST PHOTOGRAPHS AND EUT PHOTOGRAPHS

Please see the attachment for details.

-----End of Report-----