FCC TEST REPORT
FCC ID:2BQRZ-F15B

Report No.....	:	ZHT-250526140W01
Product.....	:	Magnetic wireless power bank
Trademark.....	:	/
Model(s).....	:	F15B, F20S, F22, F22S, F21, F21S, F20S, F20A.F20, F19S, F19A, F19, F18S, F18A, F18, F16S, F16, F155, F15, F13, F13S, F12, F12S, F11, F11S, F10, F10S, YE101A
Model Difference.....	:	F15B is tested model, other models are derivative models .The models are identical in circuit, only different on the model names . So the test data of F15B can represent the remaining models.
Applicant.....	:	Dongguan Baochenghui electronic technology Co., LTD
Address.....	:	Room 602, Building 3, No.4 West First Street, Wusha XingfaSouth Road.Chang 'an Town, Dongguan City, Guangdong Province, China
Manufacturer.....	:	Dongguan Baochenghui electronic technology Co., LTD
Address.....	:	Room 602, Building 3, No.4 West First Street, Wusha XingfaSouth Road.Chang 'an Town, Dongguan City, Guangdong Province, China
Prepared by.....	:	Guangdong Zhonghan Testing Technology Co., Ltd.
Address.....	:	Room 104/201, Building 1, Yibaolai Industrial Park, Qiaotou, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China
Date of Receipt.....	:	May 26, 2025
Date of Test(s).....	:	May 26, 2025 to June 3, 2025
Date of Issue.....	:	June 3, 2025
Standard.....	:	FCC CFR Title 47 Part 15 Subpart C
Test procedure.....	:	/

In the configuration tested, the EUT complied with the standards specified above.

Prepared by	Reviewed by:	Approved by:
Leon Li	Baret.Wu	
Leon Li/ Engineer	Baret Wu/ Director	Levi Lee/ Manager

Note: This device described above has been tested by ZHT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report. This report shall not be reproduced except in full, without the written approval of ZHT, this document may be altered or revised by ZHT, personal only, and shall be noted in the revision of the document.

TABLE OF CONTENTS

1. VERSION **3**
2. TEST SUMMARY **4**
3. GENERAL INFORMATION **5**
3.1 GENERAL DESCRIPTION OF EUT 5
3.2 Test mode 5
3.3 Block Diagram of EUT Configuration 6
3.4 Test Conditions 6
3.5 Description Of Support Units (Conducted Mode) 6
4. TAEST FACILITY AND TEST INSTRUMENT USED **7**
4.1 TEST FACILITY 7
4.2 EQUIPMENTS LIST FOR ALL TEST ITEMS 7
4.3 TESTING SOFTWARE 8
5. CONDUCTED EMISSION TEST **10**
5.1 CONDUCTED EMISSION MEASUREMENT 10
5.1.1 POWER LINE CONDUCTED EMISSION Limits 10
5.1.2 TEST PROCEDURE 10
5.1.3 DEVIATION FROM TEST STANDARD 10
5.1.4 TEST SETUP 11
5.1.5 EUT OPERATING CONDITIONS 11
5.1.6 Test Result 12
6. RADIATED EMISSION MEASUREMENT **14**
6.1 Radiated Emission Limits 14
6.2 Anechoic Chamber Test Setup Diagram 15
6.3 Test Procedure 15
6.4 DEVIATION FROM TEST STANDARD 15
6.5 Test Result 16
7. BANDWIDTH TEST **19**
8. ANTENNA REQUIREMENT **23**
9. TEST SETUP PHOTO **24**
10. EUT CONSTRUCTIONAL DETAILS **24**

1. VERSION

Report No.	Version	Description	Approved
ZHT-250526140W01	Rev.01	Initial issue of report	June 3, 2025

2. TEST SUMMARY

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

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

3. GENERAL INFORMATION

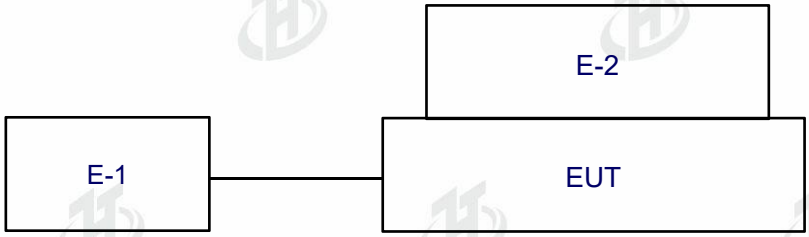
3.1 GENERAL DESCRIPTION OF EUT

Product Name:	Magnetic wireless power bank
Test Model No.:	F15B
Hardware version:	V1.0
Software version:	V1.0
Operation Frequency:	Phone: 115-205kHz&360kHz (10W) Earbuds: 115-205kHz Watch: 300-350kHz
Modulation type:	MSK
Antenna Type:	Coil Antenna
Antenna gain:	0dBi
Ratings	Type-C Input: 5V⎓ 3A, 9V⎓ 2.22A, 12V⎓ 1.67A or Battery capacity:10000mAh/3.85V/38.5Wh Wireless Output: 5W/7.5W/10W/15W
Remark:The antenna gain is provided by the customer, if the data provided by the customer is not accurate, Guangdong Zhonghan Testing Technology Co., Ltd. does not assume any responsibility.	

3.2 Test mode

Test Modes:	
Mode 1	AC Adapter + Wireless charging load (Qi Protocol: 15W)
Mode 2	AC Adapter + Wireless charging load (Qi Protocol: 10W)
Mode 3	AC Adapter + Wireless charging load (Qi Protocol: 7.5W)
Mode 4	AC Adapter + Wireless charging load (Qi Protocol: 5W)
Mode 5	AC Adapter + Phone charging (MPP Protocol: Battery Status:≤1%)
Mode 6	AC Adapter + Phone charging (MPP Protocol: Battery Status:50%)
Mode 7	AC Adapter + Phone charging (MPP Protocol: Battery Status:≥98%)
Mode 8	AC Adapter + Earbuds charging (Battery Status:≤1%)
Mode 9	AC Adapter + Earbuds charging (Battery Status:50%)
Mode 10	AC Adapter + Earbuds charging (Battery Status:≥98%)
Mode 11	AC Adapter + Watch charging (Battery Status:≤1%)
Mode 12	AC Adapter + Watch charging (Battery Status:50%)
Mode 13	AC Adapter + Watch charging (Battery Status:≥98%)
Mode 14	Standby
Note: All modes were tested, only the worst-case was recorded in the report. Mode 1 is the worst mode.	

3.3 Block Diagram of EUT Configuration



3.4 Test Conditions

Temperature: 25.6℃

Relative Humidity: 54.3 %

3.5 Description Of Support Units (Conducted Mode)

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	AC Adapter	/	G301CU	/	AE
E-2	Wireless charging load	/	EESON	/	AE
E-3	Mobile phone	Apple Inc.	iPhone 15 Pro	/	AE

Item	Shielded Type	Ferrite Core	Length	Note

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.
(3) “YES” is means “shielded” “with core”; “NO” is means “unshielded” “without core”.

4. TAEST FACILITY AND TEST INSTRUMENT USED

4.1 TEST FACILITY

Guangdong Zhonghan Testing Technology Co., Ltd.
Add.: Room 104/201, Building 1, Yibaolai Industrial Park, Qiaotou, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

FCC Registration Number:255941
Designation Number: CN0325
IC Registered No.: 29832
CAB identifier: CN0143

4.2 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Equipment	Manufacturer	Model	Serial No.	Last Cal.	Next Cal.
1	Receiver	R&S	ESCI	100874	May 6, 2025	May 5, 2026
2	Loop Antenna	TESEQ	HLA6121	58357	Oct. 11, 2024	Oct. 10, 2025
3	Amplifier	Schwarzbeck	BBV 9743 B	00378	May 6, 2025	May 5, 2026
4	Amplifier	Schwarzbeck	BBV 9718 B	00040	May 7, 2025	May 6, 2026
5	Bilog Antenna	Schwarzbeck	VULB9162	00498	May 15, 2025	May 14, 2026
6	Horn Antenna	Schwarzbeck	BBHA9120D	02623	May 15, 2025	May 14, 2026
7	Horn Antenna	A.H.SYSTEMS	SAS574	588	Oct. 21, 2024	Oct. 20, 2025
8	Amplifier	AEROFLEX	100KHz-40GHz	097	Oct. 21, 2024	Oct. 20, 2025
9	Spectrum Analyzer	R&S	FSV40	101413	Oct. 21, 2024	Oct. 20, 2025
10	Spectrum Analyzer	KEYSIGHT	N9020A	MY53420208	May 7, 2025	May 6, 2026
11	WIDBAND RADIO COMMUNICATION TESTER	R&S	CMW500	109863	May 7, 2025	May 6, 2026
12	Single Generator	Agilent	N5182A	MY48180575	May 7, 2025	May 6, 2026
13	Power Sensor	MWRFtest	MW100-RFCB	/	May 7, 2025	May 6, 2026
14	Power Amplifier Shielding Room	EMToni	2m3m3m	/	Nov. 25, 2021	Nov. 24, 2026
15	CABLE	EMToni	DA800-NM-NM-11000MM	/	May 6, 2025	May 5, 2026

Conduction Test equipment

Equipment	Manufacturer	Model	Serial No.	Last Cal.	Next Cal.
Receiver	R&S	ESCI	100874	May 6, 2025	May 5, 2026
LISN	R&S	ENV216	102794	May 6, 2025	May 5, 2026
ISN CAT 6	Schwarzbeck	NTFM 8158	00318	May 7, 2025	May 6, 2026
ISN CAT 5	Schwarzbeck	CAT5 8158	00343	May 7, 2025	May 6, 2026
Capacitive Voltage Probe	Schwarzbeck	CVP 9222 C	00101	May 8, 2025	May 7, 2026
Current Transformer Clamp	Schwarzbeck	SW 9605	SW9605 #209	May 8, 2025	May 7, 2026
CABLE	EMToni	G223-NM-BNC M-2000MM	/	May 7, 2025	May 6, 2026

RF Conducted Test equipment

Item	Equipment	Manufacturer	Model	Serial No.	Last Cal.	Next Cal.
1	Spectrum Analyzer	R&S	FSV40	101413	Oct. 21, 2024	Oct. 20, 2025
2	Spectrum Analyzer	KEYSIGHT	N9020A	MY53420208	May 7, 2025	May 6, 2026
3	Power Sensor	MWRFtest	MW100-RFCB	/	May 7, 2025	May 6, 2026

4.3 TESTING SOFTWARE

Project	Software name	Edition
Radiated Emission	EZ-EMC	FA-03A2 RE+
RF Test	MTS 8310	2.0.0.0

4.4 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y ± U，where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2，providing a level of confidence of approximately 95 %。

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF conducted power	±0.16dB
3	Spurious emissions conducted	±0.21dB
4	All radiated emissions (9k-30MHz)	±4.68dB
5	All radiated emissions (<1G)	±4.68dB
6	All radiated emissions (>1G)	±4.89dB
7	Temperature	±0.5°C
8	Humidity	±2%
9	Occupied Bandwidth	±4.96%
10	Power Spectral Density	±0.71dB

Decision Rule

☒ Uncertainty is not included

☐ Uncertainty is included

5. CONDUCTED EMISSION TEST

5.1 CONDUCTED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

5.1.1 POWER LINE CONDUCTED EMISSION Limits

FREQUENCY (MHz)	Limit (dBuV)		Standard
	QP	AVG	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) *Decreases with the logarithm of the frequency.

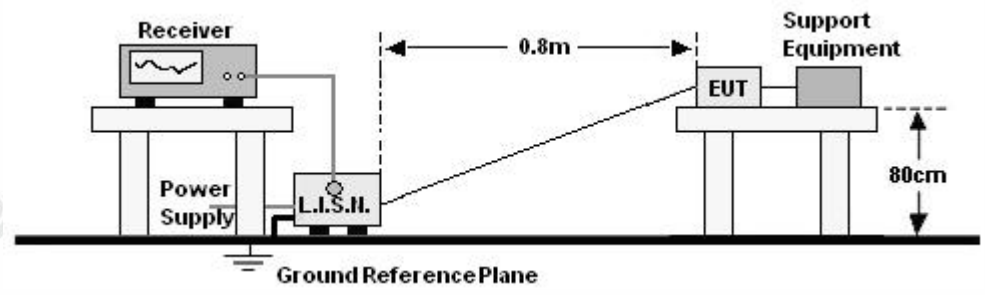
5.1.2 TEST PROCEDURE

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

5.1.3 DEVIATION FROM TEST STANDARD

No deviation

5.1.4 TEST SETUP

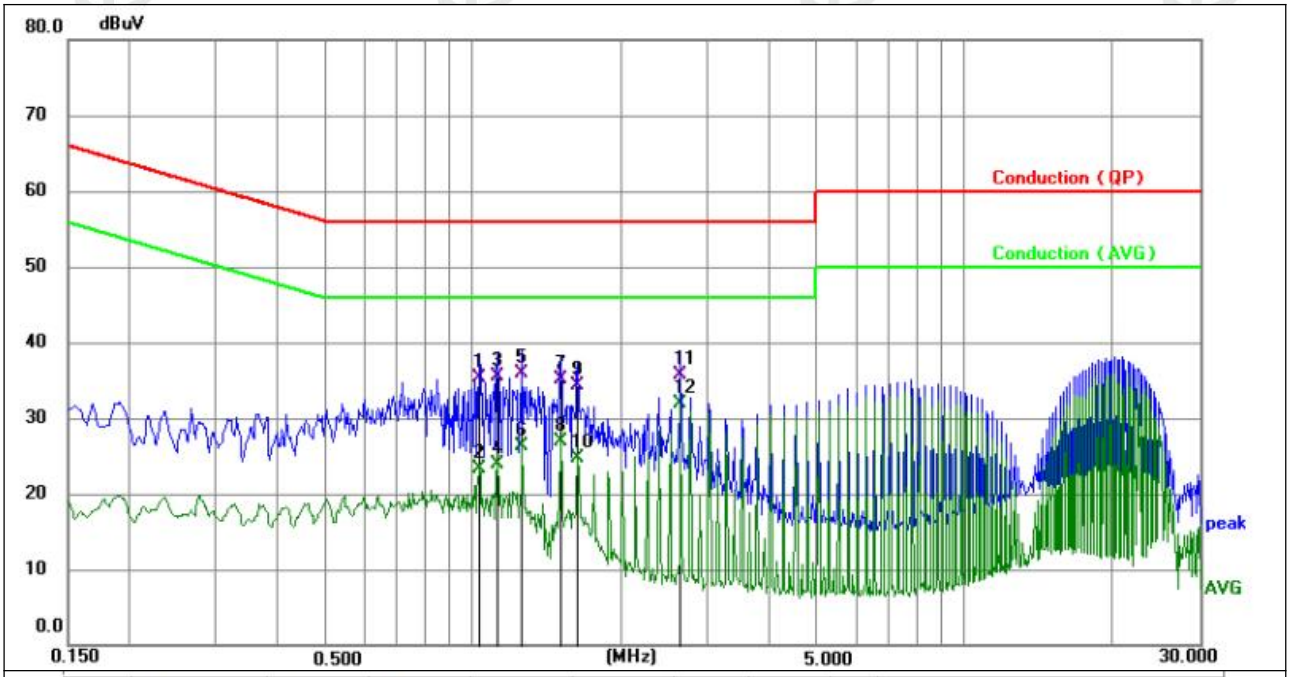


5.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

5.1.6 Test Result

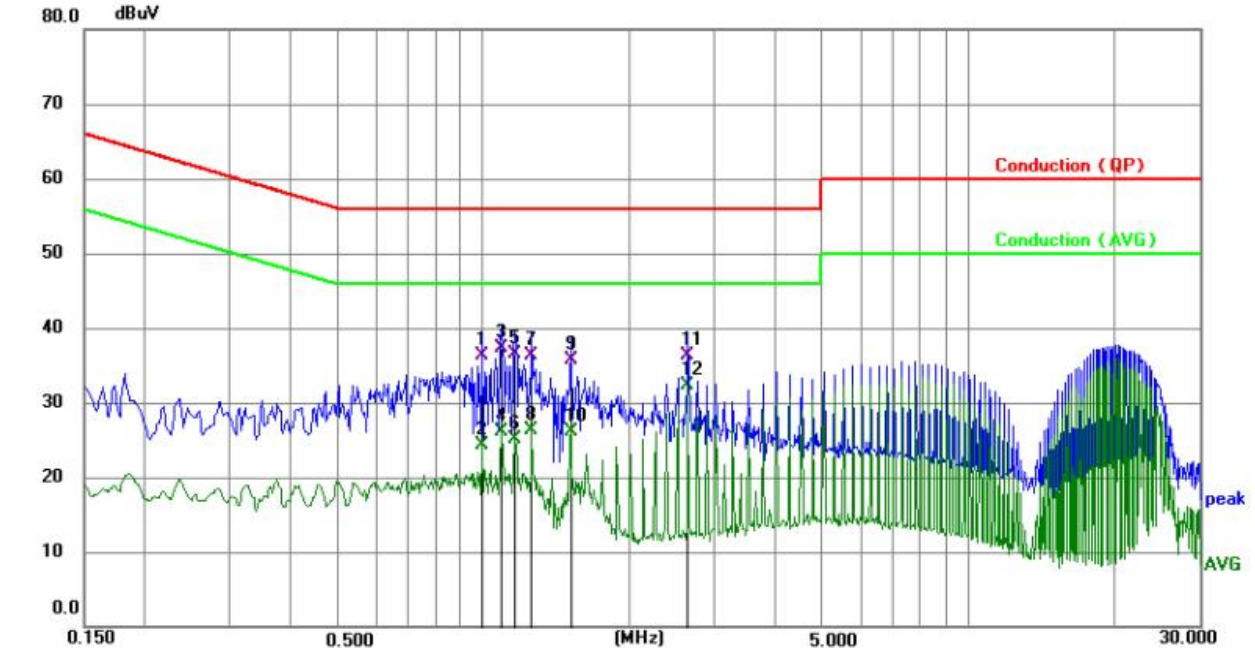
Temperature:	24.2℃	Humidity	56.1%
Pressure:	101kPa	Phase :	L
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	1.0275	25.32	10.06	35.38	56.00	-20.62	QP	P	
2	1.0275	13.20	10.06	23.26	46.00	-22.74	AVG	P	
3	1.1174	25.51	10.06	35.57	56.00	-20.43	QP	P	
4	1.1174	13.90	10.06	23.96	46.00	-22.04	AVG	P	
5	1.2570	25.94	10.06	36.00	56.00	-20.00	QP	P	
6	1.2570	16.24	10.06	26.30	46.00	-19.70	AVG	P	
7	1.5090	25.00	10.06	35.06	56.00	-20.94	QP	P	
8	1.5090	16.90	10.06	26.96	46.00	-19.04	AVG	P	
9	1.6350	24.27	10.06	34.33	56.00	-21.67	QP	P	
10	1.6350	14.57	10.06	24.63	46.00	-21.37	AVG	P	
11	2.6430	25.67	10.06	35.73	56.00	-20.27	QP	P	
12 *	2.6430	21.82	10.06	31.88	46.00	-14.12	AVG	P	

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
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

Temperature:	24.2℃	Humidity	56.1%
Pressure:	101kPa	Phase :	N
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.9960	26.33	10.06	36.39	56.00	-19.61	QP	P	
2	0.9960	14.23	10.06	24.29	46.00	-21.71	AVG	P	
3	1.0905	27.31	10.06	37.37	56.00	-18.63	QP	P	
4	1.0905	16.13	10.06	26.19	46.00	-19.81	AVG	P	
5	1.1625	26.46	10.06	36.52	56.00	-19.48	QP	P	
6	1.1625	15.10	10.06	25.16	46.00	-20.84	AVG	P	
7	1.2570	26.30	10.06	36.36	56.00	-19.64	QP	P	
8	1.2570	16.26	10.06	26.32	46.00	-19.68	AVG	P	
9	1.5135	25.65	10.06	35.71	56.00	-20.29	QP	P	
10	1.5135	16.00	10.06	26.06	46.00	-19.94	AVG	P	
11	2.6430	26.18	10.06	36.24	56.00	-19.76	QP	P	
12 *	2.6430	22.22	10.06	32.28	46.00	-13.72	AVG	P	

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
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

6. RADIATED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.209
Test Method:	ANSI C63.10:2013
Test Frequency Range:	9kHz to 1GHz
Test site:	Measurement Distance: 3m
Receiver setup:	

Frequency	Detector	RBW	VBW	Value
9KHz-150KHz	Quasi-peak	200Hz	600Hz	Peak Value
150KHz-30MHz	Quasi-peak	9KHz	30KHz	Quasi-peak
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak
Above 1GHz	Peak	1MHz	3MHz	Peak
	Peak	1MHz	10Hz	Average

6.1 Radiated Emission Limits

Limits for frequency below 30MHz

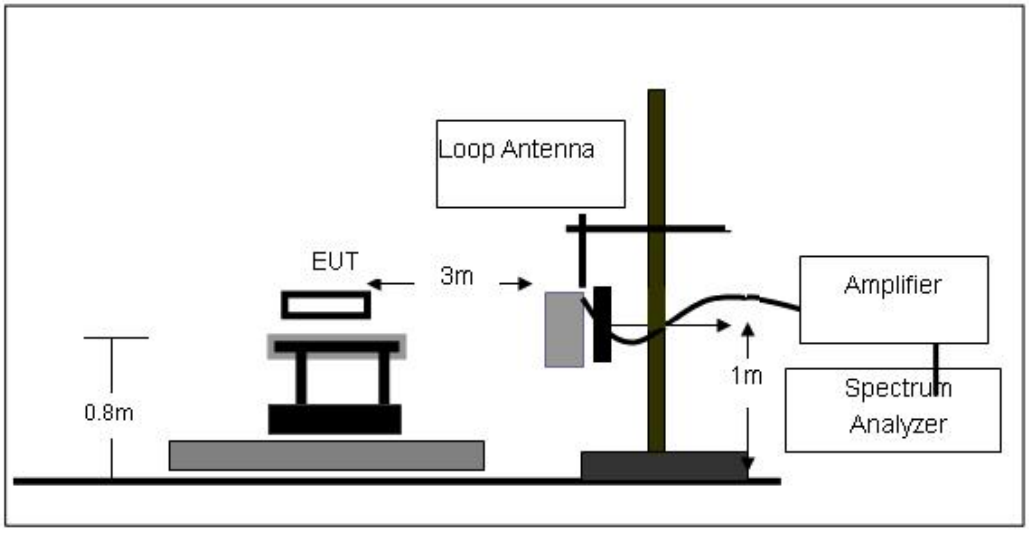
Frequency	Limit (uV/m)	Measurement Distance(m)	Remark
0.009-0.490	2400/F(kHz)	300	Peak Value
0.490-1.705	24000/F(kHz)	30	Quasi-peak Value
1.705-30	30	30	Quasi-peak Value

Limits for frequency Above 30MHz

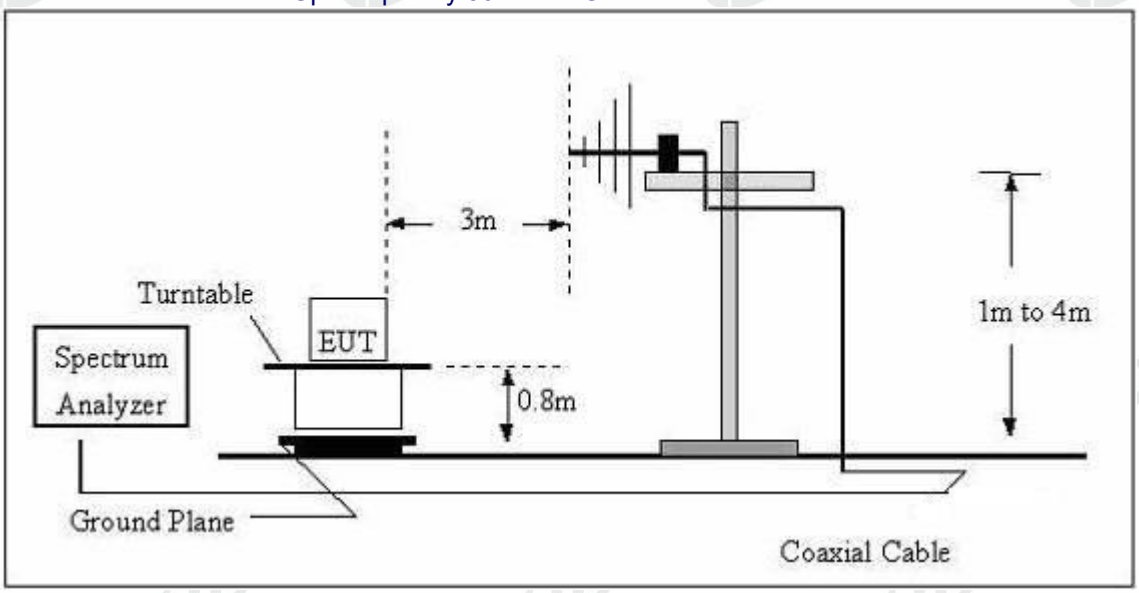
Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.00	Quasi-peak Value
88MHz-216MHz	43.50	Quasi-peak Value
216MHz-960MHz	46.00	Quasi-peak Value
960MHz-1GHz	54.00	Quasi-peak Value
Above 1GHz	54.00	Average Value
	74.00	Peak Value

6.2 Anechoic Chamber Test Setup Diagram

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



（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209 and FCC 15.205 limits.

6.3 Test Procedure

The EUT is placed on a turn table which is 0.8 meter above ground. The turn 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 which is mounted on a antenna tower. The antenna can move up and down between 1 to 4 meters to find out the maximum emission level. Broadband antenna (calibrated by dipole antenna) are used as a receiving antenna. Both horizontal and vertical polarization of the antenna are set on measurement.

6.4 DEVIATION FROM TEST STANDARD

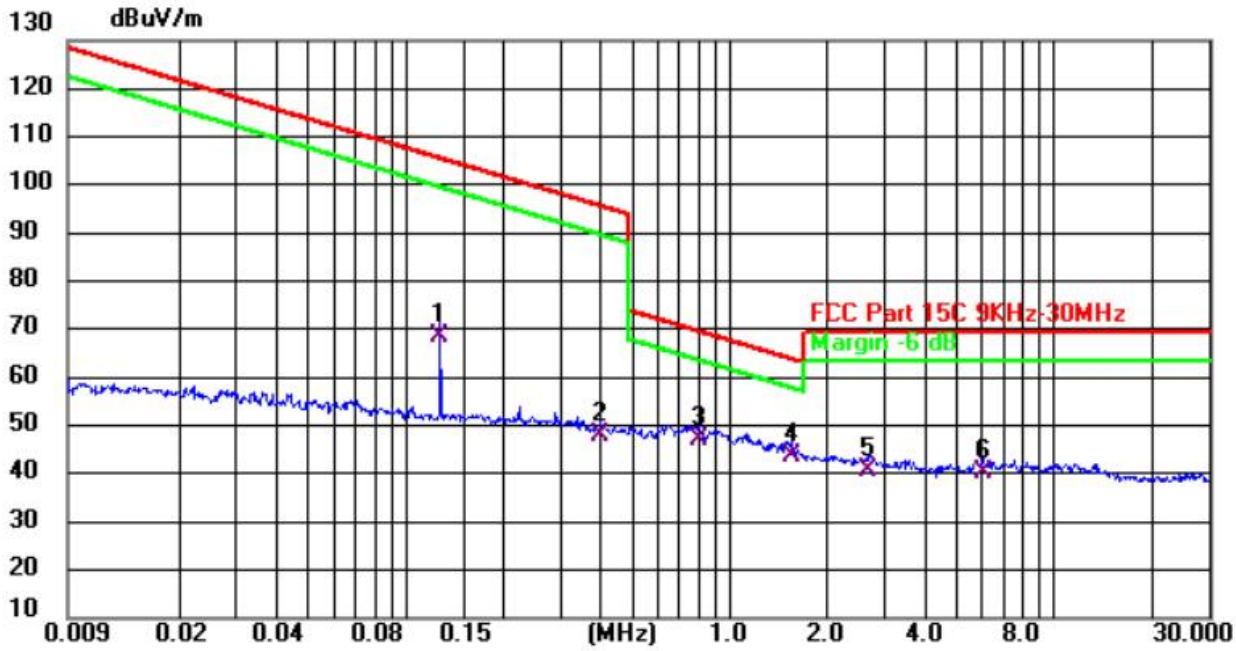
No deviation

6.5 Test 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

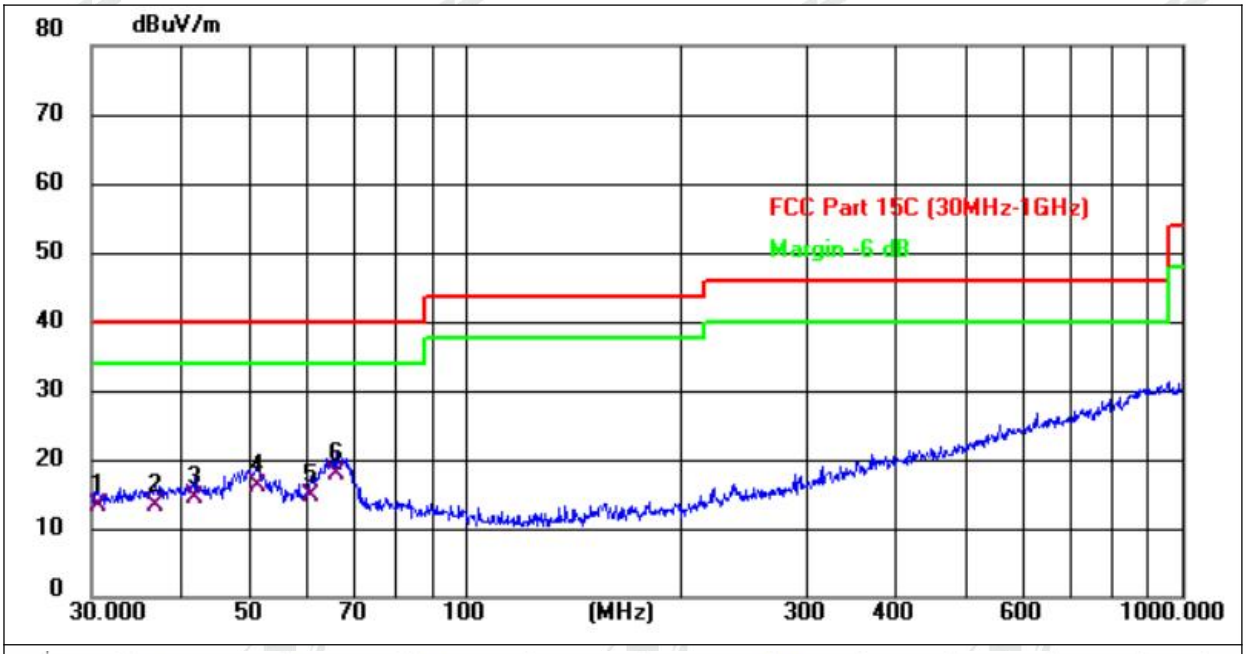


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F
1	0.1257	68.36	0.16	68.52	105.62	-37.10	QP	-	-	P
2	0.3975	47.22	0.92	48.14	95.62	-47.48	QP	-	-	P
3	0.8052	45.16	1.73	46.89	69.49	-22.60	QP	-	-	P
4 *	1.5403	40.23	3.22	43.45	63.85	-20.40	QP	-	-	P
5	2.6532	35.05	5.49	40.54	69.54	-29.00	QP	-	-	P
6	6.0200	27.69	12.35	40.04	69.54	-29.50	QP	-	-	P

Note:
Pre-scan in the all of mode, the worst case in of was recorded.
Factor = antenna factor + cable loss – pre-amplifier.
Emission Level = Meter Reading - Factor
Margin = Emission Level- Limit.
The amplitude of emissions which are attenuated by more than 20db below the permissible value has no need to be reported.

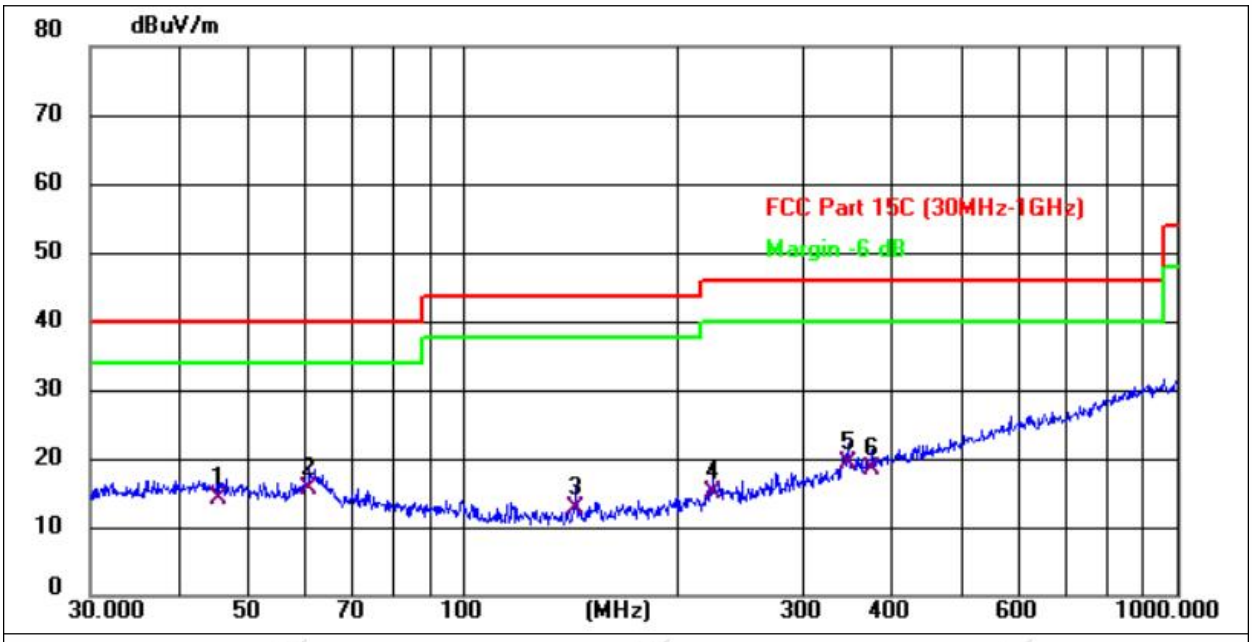
30MHz-1GHz

Temperature:	24.2℃	Humidity	56.1%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F
1	30.7454	29.28	-16.03	13.25	40.00	-26.75	QP	-	-	P
2	36.8952	28.29	-15.11	13.18	40.00	-26.82	QP	-	-	P
3	41.8594	29.26	-14.74	14.52	40.00	-25.48	QP	-	-	P
4	51.1210	31.49	-15.26	16.23	40.00	-23.77	QP	-	-	P
5	60.9174	30.90	-16.26	14.64	40.00	-25.36	QP	-	-	P
6 *	66.0341	34.52	-16.60	17.92	40.00	-22.08	QP	-	-	P

Temperature:	24.2℃	Humidity	56.1%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz		



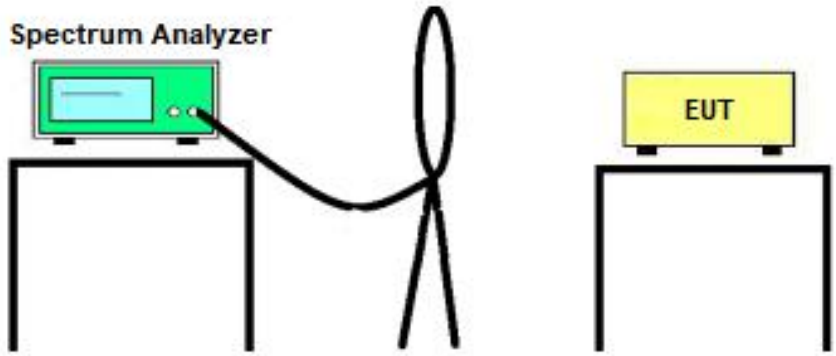
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F
1	45.3754	29.00	-14.92	14.08	40.00	-25.92	QP	-	-	P
2 *	60.9175	31.70	-16.26	15.44	40.00	-24.56	QP	-	-	P
3	143.8295	31.48	-18.63	12.85	43.50	-30.65	QP	-	-	P
4	224.5192	32.40	-17.44	14.96	46.00	-31.04	QP	-	-	P
5	346.8092	32.65	-13.44	19.21	46.00	-26.79	QP	-	-	P
6	374.6225	31.10	-12.71	18.39	46.00	-27.61	QP	-	-	P

Remarks:
1. Factor = Antenna Factor + Cable Loss – Preamplifier Factor
2. Level = Reading + Factor
3. Margin = Emission Level- Limit.
4. The emission levels of other frequencies are very lower than the limit and not show in test report.

7. BANDWIDTH TEST

1. Set RBW = 1%-5%OBW.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

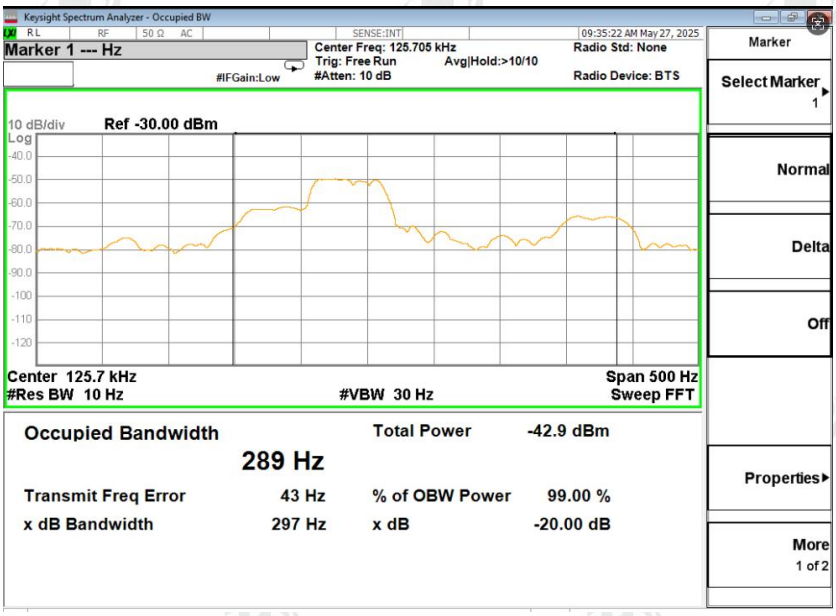
TEST SETUP



Temperature:	25.5 ℃	Relative Humidity:	54%
Pressure:	101kPa		

	Frequency (KHz)	20dB bandwidth (KHz)	Result
Phone coil (Qi Protocol)	125.7	0.297	Pass
Phone coil (MPP Protocol)	360	0.320	Pass
Earbuds coil	130.4	0.084	Pass
Watch coil	325.3	0.265	Pass

Phone coil (Qi Protocol)



Phone coil (MPP Protocol)

Earbuds coil

Watch coil

ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203
15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
EUT Antenna:	
The antenna is Coil Antenna, the best case gain of the antennas is 0dBi, reference to the appendix II for details	

8. TEST SETUP PHOTO

Reference to the appendix I for details.

9. EUT CONSTRUCTIONAL DETAILS

Reference to the appendix II for details.

※※※※※ **END OF REPORT** ※※※※※