TEST REPORT

FCC ID: 2AUR8-EBOMINIS

Product	:	**EBO Mini Sport FamilyBot**
Model Name	:	**EBO Mini Sport**
Brand	:	**Enabot**
Report No.	:	**SZNTT26034888E1-1**

Prepared for

WeHome Technology Company Limited

Room 12A, Kiu Fu Comm Building, 300 Lockhart Road, Wan Chai, Hong Kong

Prepared by

Shenzhen NTT Testing Technology Co., Ltd.

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1 TEST RESULT CERTIFICATION

Applicant	:	WeHome Technology Company Limited
Address	:	Room 12A, Kiu Fu Comm Building, 300 Lockhart Road, Wan Chai, Hong Kong
Manufacturer	:	Fuzhi Technology (Shenzhen) Co., Ltd.
Address	:	Building 10, Room 401, Qianhai Shenzhen-Hong Kong Youth Innovation and Entrepreneur Hub, No. 35 Qianwan 1st Road, Nanshan Street, Shenzhen, Guangdong, China
Product Name	:	EBO Mini Sport FamilyBot
Model Name	:	EBO Mini Sport
Additional model	:	N/A
Standards	:	FCC CFR47 Part 15 Section 15.247
Test procedure	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024 KDB 558074 D01 15.247 Meas Guidance v05r02
Date of test	:	Jul. 31, 2026 ~ Aug. 17, 2026
Date of Issue	:	Aug. 20, 2026
Test Result	:	Pass

This device described above has been tested by NTT, 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.

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2 Test Summary

Test Items	Test Requirement	Result
AC Power Line conducted emission	FCC part 15.207	PASS
Radiated Spurious Emissions	FCC part 15.205/15.209	PASS
Duty cycle	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024	PASS
Conducted Spurious Emission	FCC part 15.247(d)	PASS
Band edge	FCC part 15.247(d)	PASS
6dB&99% Bandwidth	FCC part 15.247 (a)(2)	PASS
Maximum Conducted Output Power	FCC part 15.247 (b)(3)	PASS
Power Spectral Density	FCC part 15.247 (e)	PASS
Antenna Requirement	FCC part 15.203/15.247 (b)	PASS

Remark:

"N/A" denotes test is not applicable in this Test Report.

3 General Information

3.1 General Description of E.U.T.

Product Name	:	EBO Mini Sport FamilyBot
Model Name	:	EBO Mini Sport
Additional model	:	N/A
Difference	:	N/A
Sample ID	:	SZNTT26034888E1-001#
Sample(s) Status:	:	Engineer sample
Specification	:	802.11b/802.11g/802.11n(HT20)/802.11ax(HE20)/ 802.11n(HT40)/802.11ax(HE40)
Operation Frequency	:	2412-2462MHz for 802.11b/g/n20/ax20 2422-2452MHz for 802.11n40/ax40
Number of Channel	:	11 channels for 802.11b/g/n20/ax20 7 channels for 802.11n40/ax40
Type of Modulation	:	802.11b:(DQPSK, DBPSK, CCK) DSSS 802.11g/n:(64-QAM, 16-QAM, QPSK, BPSK) OFDM 802.11ax:(1024-QAM, 256-QAM, 64-QAM, 16-QAM, QPSK, BPSK) OFDMA
Antenna installation	:	FPC Antenna
Antenna Gain	:	4.58dBi
Power supply	:	1. DC 5V From EBO Mini Sport Charging Stand 2. DC 3.6V From Battery
Adapter information	:	Model: PS1OUAO5OK2OOOUU Input: AC 100-240V~ 50-60Hz 0.35A Max Output: DC 5.0V⎓ 2.0A 10.0W

Remark：

1. The Antenna gain is provided by customer from Antenna spec. and the laboratory will not be responsible for the accumulated calculation results which covers the information provided by the applicant.
2. This device only supports Full RU.

3.2 Channel List

The EUT has been tested under its typical operating condition.

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (802.11b: 1 Mbps; 802.11g: 6 Mbps; 802.11n (HT20)/802.11n (HT40): MCS0; 802.11ax (HE20)/802.11ax (HE40): MCS0, were used for all test.

Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Frequency and Channel list for 802.11 b/g/n/ax (HT20/HT40/HE20/HE40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	5	2432	9	2452
2	2417	6	2437	10	2457
3	2422	7	2442	11	2462
4	2427	8	2447		

Test Frequency and Channel for 802.11 b/g/n/ax (HT20/HT40/HE40/HE40):

Lowest Frequency		Middle Frequency		Highest Frequency	
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	6	2437	11	2462
3	2422	6	2437	9	2452

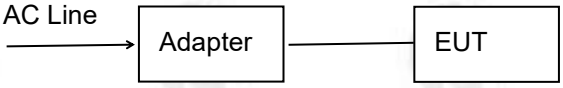
3.3 Test Site

Site Description

EMC Lab.	:	Accredited by ANAB, Dec. 19, 2025 The Certificate Registration Number is AT-3446 FCC Designation Number: CN3446 FCC Test Firm Registration Number: 129414 ISED CAB identifier: CN0199 ISED Company Number: 35943
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, Guangdong, China

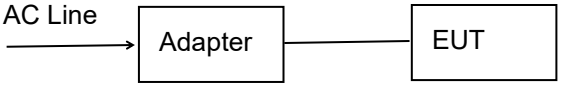
3.4 Test Setup Configuration

Conducted Emission

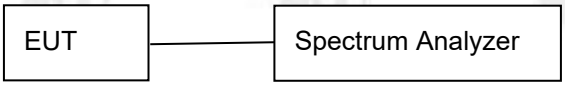


Radiated Emission

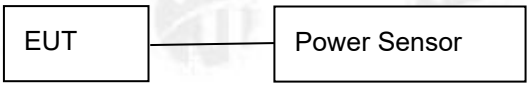
Radiated Spurious



RF Conducted Test



Conducted Output Power Test



3.5 Test Mode

Transmitting mode	Keep the EUT in continuously transmitting mode.
Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.	

4 Equipment During Test

4.1 Equipments List

Conducted emission Test Equipment

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	ESPI	/	RS	2025/9/8	2026/9/7
LISN	NNLK 8129	00603	Schwarzbeck	2025/9/8	2026/9/7
LISN	NNHV 8123-400	00694	Schwarzbeck	2025/9/8	2026/9/7
LISN	NNHV 8123-400	00680	Schwarzbeck	2025/9/8	2026/9/7
Cable	RG223-1500MM	NA	RG	2025/9/8	2026/9/7

Radiated emission & Radio Frequency Test Equipment

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	ESCI	101018	RS	2025/9/8	2026/9/7
Amplifi（30MHz-1GHz）	BBV 9718D	00042	SCHWARZBECK	2025/9/8	2026/9/7
Bilog Antenna（30MHz-1GHz）	VULB9168	1858	SCHWARZBECK	2025/9/9	2026/9/8
Horn antenna（1GHz-18GHz）	BBHA 9120 D	02622	SCHWARZBECK	2025/9/9	2026/9/8
Pream plifier（1GHz-18GHz）	BBV 9718D	0024	SCHWARZBECK	2025/9/8	2026/9/7
Spectrum Analyze（10Hz-40GHz）	FSV 40	100952	Rohde & Schwarz	2025/9/8	2026/9/7

Pream plifier（18GHz-40GHz）	BBV 9721	0056	SCHWARZBECK	2025/9/8	2026/9/7
Double Ridge Guide Horn Antenna（18GHz-40GHz）	SAS-574	588	A.H.System	2025/9/8	2026/9/7
Loop Antenna (9KHz-30MHz)	FMZB1519B	014	SCHWARZBECK	2025/9/8	2026/9/7
Amplifier (9KHz-30MHz)	CVP 9222 C	00109	SCHWARZBECK	2025/9/8	2026/9/7
MXG Signal Analyzer	N9020A	MY50510202	Agilent	2025/9/8	2026/9/7
MXG Vector Signal Generator	N5182A	MY50140020	Agilent	2025/9/8	2026/9/7
MXG Analog Signal Generator	N5181A	MY47420919	Agilent	2025/9/8	2026/9/7
Attenuator	SN-SMA-10	N/A	SNIT	2025/9/8	2026/9/7
Power Sensor	TR1029-2	512364	Techoy	2025/9/8	2026/9/7
RF Swith	TR1029-1	512364	Techoy	2025/9/8	2026/9/7
Cable	DA800-4000MM	NA	DA	2025/9/8	2026/9/7
Cable	DA800-11000MM	NA	DA	2025/9/8	2026/9/7

Other

Item	Name	Manufacturer	Model	Software version
1	EMC Conduction Test System	Tonscend	TS+	V5.0.0
2	EMC radiation test system	Tonscend	TS+	V5.0.0
3	RF test system	Tonscend	JS1120	V3.5.39
4	RSE test system	Tonscend	JS36-RSE	V5.0.0

4.2 Measurement Uncertainty

Parameter	Uncertainty
RF output power, conducted	±1.0dB
Power Spectral Density, conducted	±2.2dB
Radio Frequency	± 1 x 10-6
Bandwidth	± 1.5 x 10-6
Time	±2%
Duty Cycle	±2%
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±3%
Conducted Emissions (150kHz~30MHz)	±3.64dB
Radiated Emission(9KHz~30MHz)	±4.51dB
Radiated Emission(30MHz~1GHz)	±5.03dB
Radiated Emission(1GHz~25GHz)	±4.74dB
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.	

4.3 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	EBO Mini Sport FamilyBot	N/A	EBO Mini Sport	N/A	EUT

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.

5 Conducted Emission

Test Requirement:	:	FCC CFR 47 Part 15 Section 15.207
Test Method	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test Result	:	PASS
Frequency Range	:	150kHz to 30MHz
Class/Severity	:	Class B

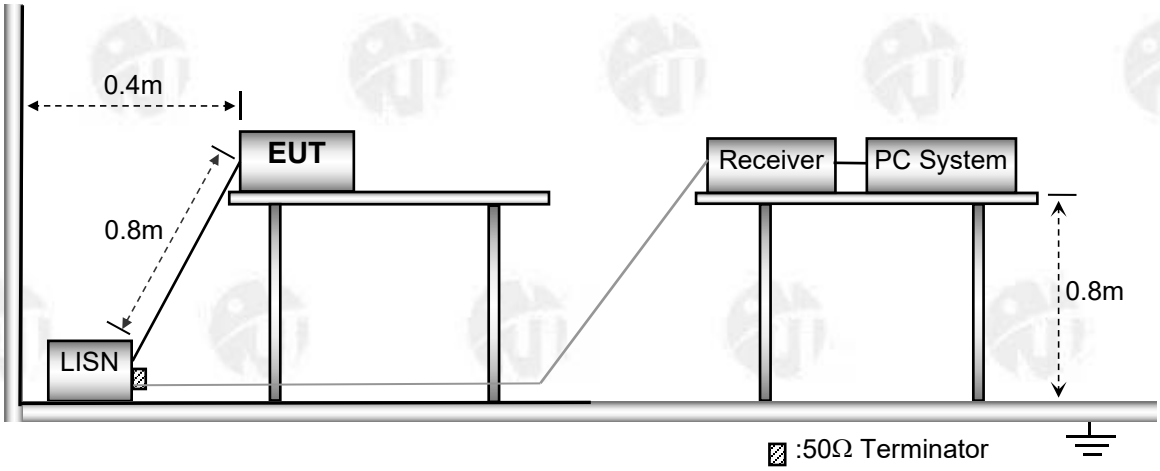
5.1 E.U.T. Operation

Operating Environment :

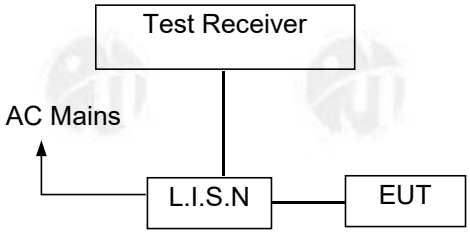
Temperature	:	25 °C
Humidity	:	52 % RH
Atmospheric Pressure	:	101.2kPa

5.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024.



5.3 Test SET-UP (Block Diagram of Configuration)



5.4 Measurement Procedure

1. 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.

2. 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.

3. 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.

4. LISN at least 80 cm from nearest part of EUT chassis.

5.For the actual test configuration, please refer to the related Item – EUT Test Photos.

5.5 Conducted Emission Limit

Conducted Emission

Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note:
1. The lower limit shall apply at the transition frequencies
2.The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

5.6 Measurement Description

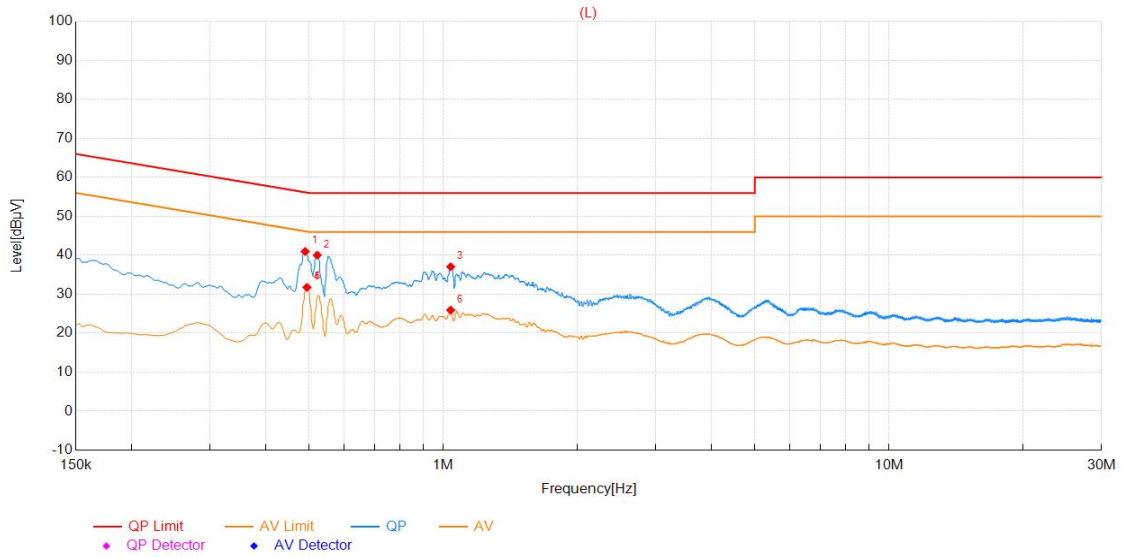
The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

5.7 Conducted Emission Test Result

Pass.

Conducted emission at both 120V & 240V is assessed, and emission at 120V represents the worst case. All the modulation modes were tested the data of the worst mode (802.11b,Lowest channel) are recorded in the following pages and the others modulation methods do not exceed the limits.

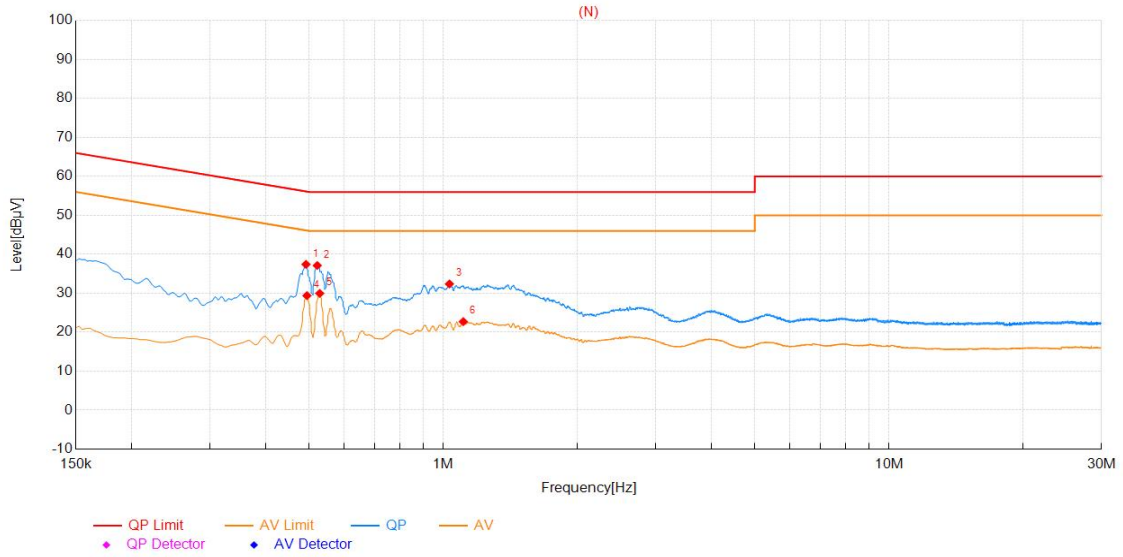
Temperature:	25°C	Relative Humidity:	52%
Pressure:	101.2kPa	Phase :	L
Test Voltage :	DC 5V From USB		



NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Detector
1	0.49	21.44	40.98	19.54	56.17	-15.19	QP
2	0.52	20.50	40.04	19.54	56.00	-15.96	QP
3	1.04	17.46	37.06	19.60	56.00	-18.94	QP
4	0.49	12.23	31.77	19.54	46.10	-14.33	AV
5	0.50	12.21	31.75	19.54	46.06	-14.31	AV
6	1.04	6.33	25.93	19.60	46.00	-20.07	AV

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. Correct Factor = Insertion loss of LISN + Cable loss.
4. Level = Reading level + Correct Factor.
5. Margin= Level - Limit

Temperature:	25°C	Relative Humidity:	52%
Pressure:	101.2kPa	Phase :	N
Test Voltage :	DC 5V From USB		



NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Detector
1	0.49	17.90	37.42	19.52	56.13	-18.71	QP
2	0.52	17.61	37.13	19.52	56.00	-18.87	QP
3	1.03	12.83	32.39	19.56	56.00	-23.61	QP
4	0.49	9.88	29.40	19.52	46.10	-16.70	AV
5	0.53	10.45	29.97	19.52	46.00	-16.03	AV
6	1.11	3.17	22.72	19.55	46.00	-23.28	AV

Notes:
2. 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. Correct Factor = Insertion loss of LISN + Cable loss.
4. Level = Reading level + Correct Factor.
5. Margin= Level - Limit

6 Radiated Spurious Emissions

Test Requirement	:	FCC CFR47 Part 15 Section 15.209 & 15.247
Test Method	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test Result	:	PASS
Measurement Distance	:	3m
Limit	:	See the follow table

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

6.1 EUT Operation

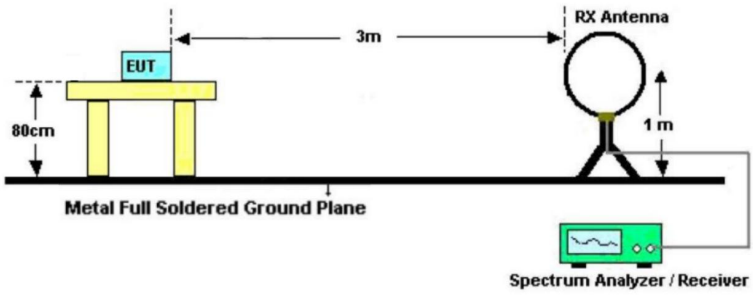
Operating Environment :

Temperature:	:	25 °C
Humidity:	:	52 % RH
Atmospheric Pressure:	:	101.2kPa
Test Voltage	:	AC 120V/60Hz

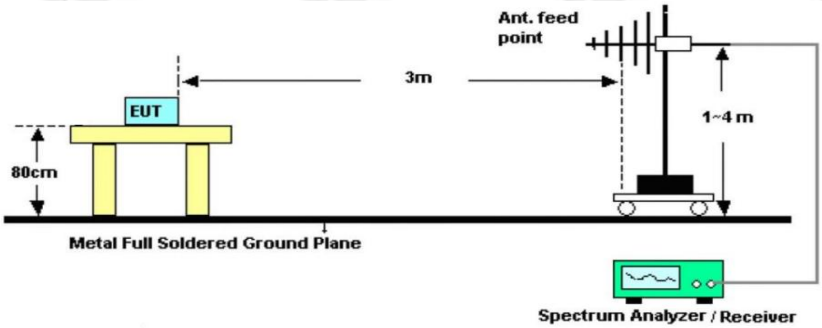
6.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site

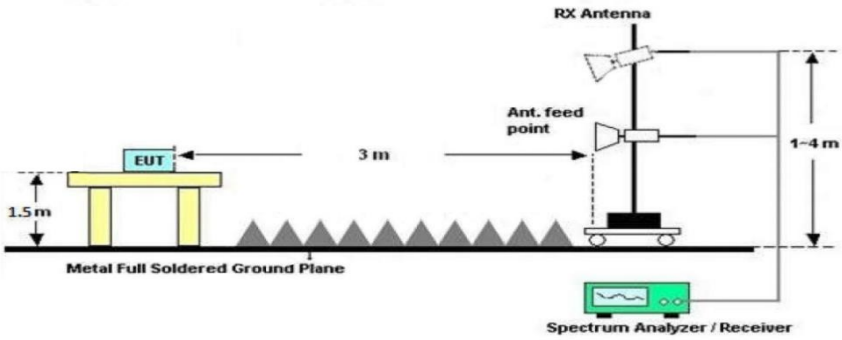
The test setup for emission measurement below 30MHz



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz



6.3 Spectrum Analyzer Setup

Below 30MHz			
IF Bandwidth	:	10kHz	
Resolution Bandwidth	:	10kHz	
Video Bandwidth	:	10kHz	
30MHz ~ 1GHz			
Detector	:	PK	QP
Resolution Bandwidth	:	100kHz	120kHz
Video Bandwidth	:	300kHz	300kHz
Above 1GHz			
Detector	:	PK	AV
Resolution Bandwidth	:	1MHz	1MHz
Video Bandwidth	:	3MHz	10Hz

6.4 Test Procedure

1. Below 1000MHz, The EUT was placed on a turn table which is 0.8m above ground plane, And above 1000MHz, The EUT was placed on a styrofoam table which is 1.5m above ground plane.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.

3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.

5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

6. Repeat above procedures until the measurements for all frequencies are complete.

7. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.

8. The test above 1GHz must be use the fully anechoic room, and the test below 1GHz use the half anechoic room

6.5 Summary of Test Results

Test Frequency: 9KHz-30MHz

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV/m)	Limit 3m (dBuV/m)	Over (dB)
--	--	--	--	>20

Note:

The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

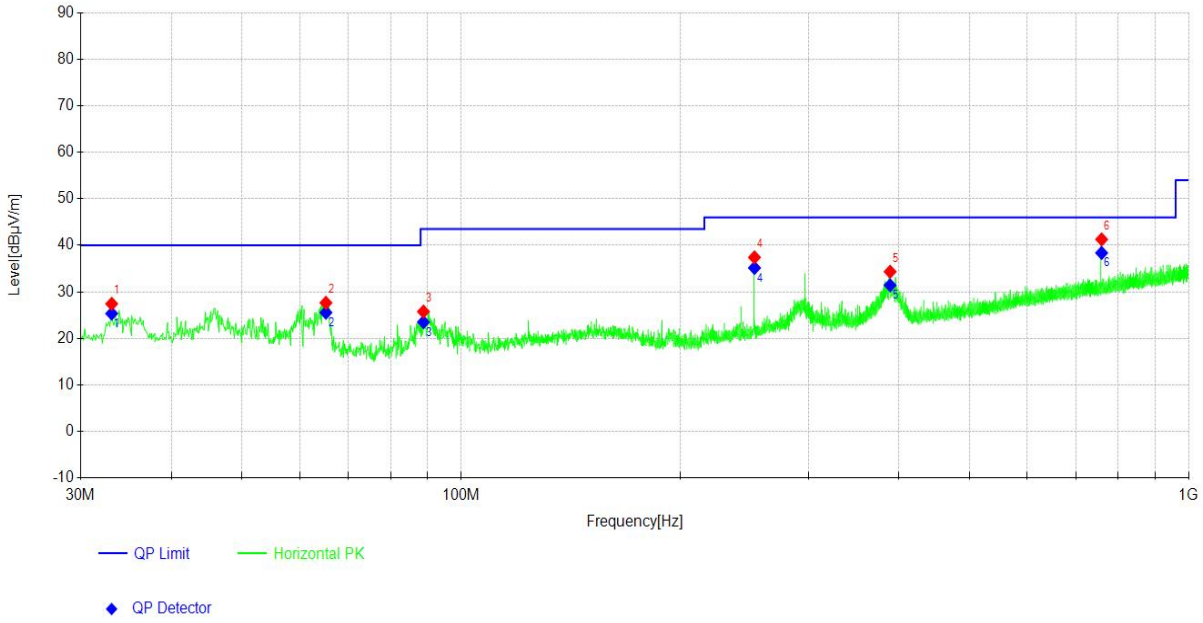
Distance extrapolation factor =40log(Specific distance/ test distance)(dB);
Limit line=Specific limits(dBuV) + distance extrapolation factor.

Test Frequency: 30MHz ~ 1GHz

All the modulation modes were tested the data of the worst mode (TX 802.11b Low Channel) are recorded in the following pages and the others modulation methods do not exceed the limits.

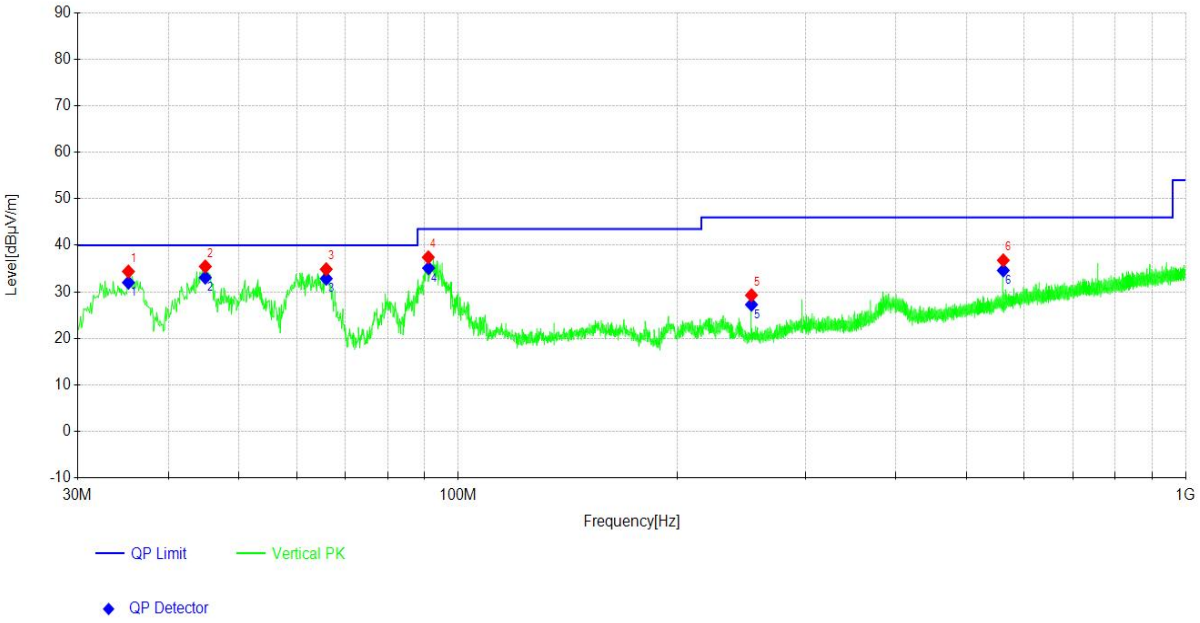
Please refer to the following test plots:

Temperature:	25℃	Relative Humidity:	52%
Pressure:	101.2 kPa	Polarization:	Horizontal
Test Voltage:	DC 5V From USB		



NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	33.104	5.39	19.95	25.34	40.00	-14.66	QP
2	65.215	6.79	18.76	25.55	40.00	-14.45	QP
3	88.788	7.16	16.34	23.50	43.50	-20.00	QP
4	253.122	15.72	19.43	35.15	46.00	-10.85	QP
5	388.839	8.74	22.68	31.42	46.00	-14.58	QP
6	759.416	8.92	29.45	38.37	46.00	-7.63	QP

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	DC 5V From USB		



NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector
1	35.239	11.91	20.09	32.00	40.00	-8.00	QP
2	44.939	12.72	20.36	33.08	40.00	-6.92	QP
3	65.894	14.23	18.62	32.85	40.00	-7.15	QP
4	91.115	18.66	16.46	35.12	43.50	-8.38	QP
5	253.122	7.83	19.43	27.26	46.00	-18.74	QP
6	561.613	8.45	26.16	34.61	46.00	-11.39	QP

Remark:Emission Level=Reading+Cable Loss+ANT Factor– Pre-amplifier.
Margin= Emission Level - Limit

Test Frequency: From 1GHz to 25GHz

All the modulation modes were tested the data of the worst mode (TX 802.11b Low Channel) are recorded in the following pages and the others modulation methods do not exceed the limits.

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel:2412MHz							
H	4824.00	43.15	9.21	52.36	74.00	-21.64	PK
H	4824.00	35.61	9.21	44.82	54.00	-9.18	AV
H	7236.00	21.12	9.65	30.77	54.00	-23.23	AV
H	7236.00	28.77	9.65	38.42	74.00	-35.58	PK
H	9648.00	28.68	9.75	38.43	74.00	-35.57	PK
H	9648.00	20.55	9.75	30.30	54.00	-23.70	AV
V	4824.00	47.19	9.21	56.40	74.00	-17.60	PK
V	4824.00	42.94	9.21	52.15	54.00	-1.85	AV
V	7236.00	31.99	9.65	41.64	74.00	-32.36	PK
V	7236.00	25.40	9.65	35.05	54.00	-18.95	AV
V	9648.00	28.86	9.75	38.61	74.00	-35.39	PK
V	9648.00	20.06	9.75	29.81	54.00	-24.19	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Middle Channel:2437MHz							
H	4874.00	48.06	9.50	57.56	74.00	-16.44	PK
H	4874.00	44.06	9.50	53.56	54.00	-0.44	AV
H	7311.00	24.42	9.37	33.79	54.00	-20.21	AV
H	7311.00	32.07	9.37	41.44	74.00	-32.56	PK
H	9748.00	29.39	10.39	39.78	74.00	-34.22	PK
H	9748.00	21.65	10.39	32.04	54.00	-21.96	AV
V	4874.00	41.01	9.50	50.51	74.00	-23.49	PK
V	4874.00	32.28	9.50	41.78	54.00	-12.22	AV
V	7311.00	28.52	9.37	37.89	74.00	-36.11	PK
V	7311.00	20.70	9.37	30.07	54.00	-23.93	AV
V	9748.00	31.53	10.39	41.92	74.00	-32.08	PK
V	9748.00	21.03	10.39	31.42	54.00	-22.58	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB/m)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
High Channel:2462MHz							
H	4924.00	46.29	9.73	56.02	74.00	-17.98	PK
H	4924.00	41.38	9.73	51.11	54.00	-2.89	AV
H	7386.00	30.72	9.23	39.95	74.00	-34.05	PK
H	7386.00	22.70	9.23	31.93	54.00	-22.07	AV
H	9848.00	30.20	10.62	40.82	74.00	-33.18	PK
H	9848.00	20.81	10.62	31.43	54.00	-22.57	AV
V	4924.00	44.34	9.73	54.07	74.00	-19.93	PK
V	4924.00	38.47	9.73	48.20	54.00	-5.80	AV
V	7386.00	31.87	9.23	41.10	74.00	-32.90	PK
V	7386.00	23.00	9.23	32.23	54.00	-21.77	AV
V	9848.00	29.05	10.62	39.67	74.00	-34.33	PK
V	9848.00	21.08	10.62	31.70	54.00	-22.30	AV

Note:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
4. We test all the mode and recorded the worst mode (802.11b) in the report.

Radiated Band Emission Measurement:

	Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Factor (dB/m)	Emission level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector Type
802.11b	Low Channel: 2412MHz							
	H	2377.12	50.13	-1.42	48.71	74.00	-25.29	PK
	H	2377.92	40.76	-1.40	39.36	54.00	-14.64	AV
	H	2390.00	48.26	-1.33	46.93	74.00	-27.07	PK
	H	2390.00	39.11	-1.33	37.78	54.00	-16.22	AV
	H	2412.55	97.99	-1.25	96.74			AV
	H	2412.90	99.98	-1.25	98.73			PK
	V	2369.56	49.57	-1.46	48.11	74.00	-25.89	PK
	V	2375.95	39.83	-1.42	38.41	54.00	-15.59	AV
	V	2390.00	38.75	-1.33	37.42	54.00	-16.58	AV
	V	2390.00	47.32	-1.33	45.99	74.00	-28.01	PK
	V	2413.82	95.60	-1.25	94.35			AV
	V	2414.71	97.71	-1.24	96.47			PK
	High Channel: 2462MHz							
	H	2462.80	101.29	-1.96	99.33			PK
	H	2463.44	99.30	-1.96	97.34			AV
	H	2483.50	38.31	-1.93	36.38	54.00	-17.62	AV
	H	2483.50	47.48	-1.93	45.55	74.00	-28.45	PK
	H	2487.70	39.92	-1.92	38.00	54.00	-16.00	AV
	H	2497.19	49.63	-1.90	47.73	74.00	-26.27	PK
	V	2460.96	97.89	-1.97	95.92			AV

	V	2461.12	99.97	-1.97	98.00			PK
	V	2483.50	36.63	-1.93	34.70	54.00	-19.30	AV
	V	2483.50	45.91	-1.93	43.98	74.00	-30.02	PK
	V	2485.68	39.34	-1.92	37.42	54.00	-16.58	AV
	V	2492.60	49.13	-1.91	47.22	74.00	-26.78	PK

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier, Margin= Emission Level - Limit

2. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

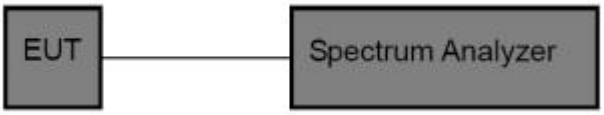
3. All the modulation modes were tested the data of the worst mode (TX 802.11b Low Channel) was recorded.

7 Duty cycle

7.1 Limit

Test Requirement:	FCC CFR47 Part 15 Section 15.247
Test Method:	KDB 558074 D01 15.247 Meas Guidance v05 April 02, 2019; ANSI C63.10:2020+Cor 1-2023
Test Result:	PASS

7.2 Test Setup



7.3 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;

2. Set the spectrum analyzer:

a) Set the center frequency of the instrument to the center frequency of the transmission.

b) Set RBW ⩾ OBW if possible; otherwise, set RBW to the largest available value.

c) Set VBW ≥ RBW. Detector = peak or average.

d) Sweep time = auto couple.

e) Trace mode = max hold.

f) Allow trace to fully stabilize.

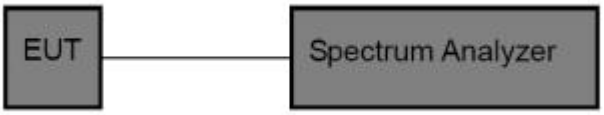
7.4 Test Result

Please see the attchment for the data.

8 Conduct Band Edge And Spurious Emissions Measurement

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test Limit	:	Regulation 15.247 (d),In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of AV averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

8.1 Test Setup



8.2 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 100kHz, VBW = 300kHz, Sweep = auto
Detector fuNCTion = peak, Trace = max hold

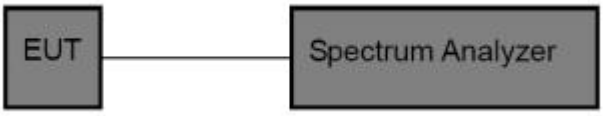
8.3 Test Result

Please see the attchment for the data.

9 6dB&99% Bandwidth Measurement

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test Limit		Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

9.1 Test Setup



9.2 Test Procedure

For 6dB Bandwidth Measurement

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;

2.The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described in 11.8.1(i.e, RBW= 100 kHz VBW>3 x RBW,and peak detector with maximum hold) is implemented by the instrumentation function.When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ⩾6 dB.

3. The steps for the first option are as follows:

a.Set RBW= shall be in the range of 1% to 5% of the OBW but not less than 100 kHz.

b.Set the VBW[3 x RBW].

c.Detector = peak

d.Trace mode = max-hold.

e.Sweep = No faster than coupled (auto) time.

f.Allow the trace to stabilize.

g.Measure the maximum width of the emission by placing two markers, one at the lowest frequencyand the other at the highest frequency of the envelope of the spectral display, such that each markeris at or slightly below the "-6 dB down amplitude". If a marker is below this "-6 dB down amplitude?' value, then it shalil be as close as possible to this value.

For 99% Bandwidth Measurement

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 1%-5% OBW, VBW ≥ 3RBW

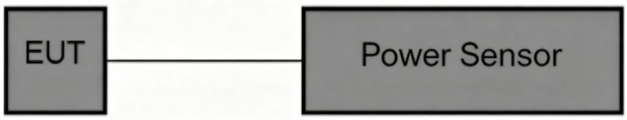
9.3 Test Result

Please see the attchment for the data.

10 Maximum Peak Conducted Output Power

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test Limit	:	Regulation 15.247 (b)(3), For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power.

10.1 Test Setup



10.2 Test Procedure

The testing follows ANSI C63.10 Section 11.9.1.2 Method PKPM1
The maximum peak conducted output power may be measured using a broadband peak RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall use a fast responding diode detector.

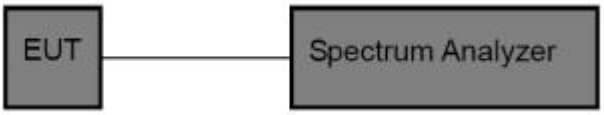
10.3 Test Result

Please see the attchment for the data.

11 Power Spectral density

Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+Errata to C63.10a-2024
Test Limit	:	Regulation 15.247(f) The power spectral density conducted from the intentional radiator to the antenna due to the digital modulation operation of the hybrid system, with the frequency hopping operation turned off, shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

11.1 Test Setup



11.2 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set instrument center frequency to DTS channel center frequency
3. Set span to > 1.5 times the OBW.
4. Set RBW to: 3 kHz ⩽ RBW ⩽ 100 kHz
5. Set VBW ⩾ [3 x RBW]
6. Detector = peak
8. Sweep time = No faster than coupled (auto) time
9. Trace mode = max-hold.
10. Allow trace to fully stabilize.
11. Use the peak marker function to determine the maximum amplitude level within the RBW.
12. If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

11.3 Test Result

Please see the attchment for the data.

12 Antenna Application

12.1 Antenna Requirement

For intentional device, according to FCC 47 CFR Section 15.203, 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. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

12.2 Result

The EUT'S antenna, permanent attached antenna, is FPC Antenna. The antenna's gain is 4.58 dBi and meets the requirement.

13 Test Setup and EUT Photos

Reference to the attachment for details.

********THE END REPORT********