TEST REPORT

Product Name	:	Mobile Phone
Brand Name	:	Huidun
Model	:	NOTE 10
Series Model	:	N/A
FCC ID	:	2BU85-NOTE10
Applicant	:	**JIAHANG TECHNOLOGY (HONG KONG) CO.,LIMITED**
Address	:	19H MAXGRAND PLAZA 3 TAI YAU STREET SAN PO KONG KL HONG KONG China
Manufacturer	:	**LUZHENG TECHNOLOGY HONGKONG LIMITED**
Address	:	ROOM A08, 2/F LEE KA INDUSTRIAL BUILDING 8 NG FONG STREET SAN PO KONG HK China
Standard(s)	:	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of Receipt	:	Mar. 28, 2026
Date of Test	:	Mar. 28, 2026~ Apr. 10, 2026
Issued Date	:	Apr. 11, 2026

Issued By: **Guangdong Asia Hongke Test Technology Limited**
B1/F, Building 11, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
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Reviewed by: Aalen.Ye **Approved by:** Allen Wang

Note: This device has been tested and found to comply with the standard(s) listed, this test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory. This report shall not be reproduced except in full, without the written approval of Guangdong Asia Hongke Test Technology Limited. If there is a need to alter or revise this document, the right belongs to Guangdong Asia Hongke Test Technology Limited, and it should give a prior written notice of the revision document. This test report must not be used by the client to claim product endorsement.

Report Revise Record

Report Version	Issued Date	Notes
M0	Apr. 11, 2026	Initial Release

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1 TEST SUMMARY

1.1 Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

ANSI C63.10-2020+COR.1-2023: American National Standard for Testing Unlicensed Wireless Devices

KDB558074 D01 15.247 Meas Guidance v05r02: Guidance for Compliance Measurements on Digital Transmission System, Frequency Hopping Spreda Spectrum System, and Hybrid System Devices Operating Under Section 15.247 of the FCC Rules

1.2 Test Summary

Test Item	Section in 47 CFR	Result
Antenna requirement	§15.203	Pass
On Time and Duty Cycle	/	/
AC Power Line Conducted Emission	§ 15.207(a)	Pass
Maximum Conducted Peak Output Power	§15.247 (b)(3)	Pass
-6dB Bandwidth	§15.247 (a)(2)	Pass
Power Spectral Density	§15.247 (e)	Pass
Transmitter Radiated Spurious Emission	§15.205/15.209	Pass
Restricted Bands	§15.205/15.209	PASS
Conducted Unwanted emissions and Bandedge	§15.205, §15.247(d)	Pass

1.3 Test Facility

Test Laboratory:
Guangdong Asia Hongke Test Technology Limited
B1/F, Building 11, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

The test facility is recognized, certified or accredited by the following organizations:
FCC-Registration No.: 251906 Designation Number: CN1376
Guangdong Asia Hongke Test Technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

IC —Registration No.: 31737 CAB identifier: CN0165
The 3m Semi-anechoic chamber of Guangdong Asia Hongke Test Technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 31737

A2LA-Lab Cert. No.: 7133.01
Guangdong Asia Hongke Test Technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

1.4 Measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report according to CISPR 16 - 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the Guangdong Asia Hongke Test Technology Limited’s quality system according to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.
Hereafter the best measurement capability for Asia Hongke laboratory is reported:

Test	Measurement Uncertainty	Notes
Power Line Conducted Emission	9KHz~30MHz ±1.20 dB	(1)
Radiated Emission	9KHz~30MHz ±3.10dB	(1)
Radiated Emission	30MHz~1GHz ±3.75dB	(1)
Radiated Emission	1GHz~18GHz ±3.88 dB	(1)
Radiated Emission	18GHz-40GHz ±3.88dB	(1)
RF power, conducted	30MHz~6GHz ±0.16dB	(1)
RF power density, conducted	±0.24dB	(1)
Spurious emissions, conducted	±0.21dB	(1)
Temperature	±1℃	(1)
Humidity	±3%	(1)
DC and low frequency voltages	±1.5%	(1)
Time	±2%	(1)
Duty cycle	±2%	(1)
Bandwidth	±1.5 x10^{-6}	(1)

The report 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%

2 GENERAL INFORMATION

2.1 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2 General Description of EUT

Product Name:	Mobile Phone
Model/Type reference:	NOTE 10
Serial Model:	N/A
Power Supply:	DC 5V from adapter DC 3.80V from Rechargeable Li-ion battery
Hardware Version:	L722M_V1
Software Version:	NOTE10_S3203B_V1.0
Sample(s) Status:	AiTSZ-260328007-1(Normal sample) AiTSZ-260328007-2(Engineer sample)
2.4G WIFI:	
Supported type:	802.11b/802.11g /802.11n(HT20)
Modulation:	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM
Operation frequency:	802.11b/802.11g/802.11n(H20): 2412MHz~2462MHz
Channel number:	802.11b/802.11g/802.11n(H20): 11
Channel separation:	5MHz
Antenna type:	PIFA Antenna
Antenna gain:	2.81dBi
Remark: The above DUT's information was declared by manufacturer. For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.	

2.3 Description of Test Modes and Test Frequency

There are 11 channels provided to the EUT. Channel 01/06/11 were selected test.

.**Operation Frequency List:**

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

Note: The line display in grey were the channel selected for testing

Exploratory testing was performed under each mode combination test channel; only the final measurement of the worst combination was made and recorded in this report.

Test case	**Exploratory measurement**			**Final measurement Recorded In Report**		
	Mode	**Date rate**	**Channel**	**Mode**	**Date rate**	**Channel**
Maximum output power	802.11b 802.11g 802.11n(HT20)	1~11Mbps 6~54Mbps MCS0~MCS7	☒ Lowest ☒ Middle ☒ Highest	802.11b 802.11g 802.11n(HT20)	1Mbps 6Mbps MCS0	☒ Lowest ☒ Middle ☒ Highest
Power spectral density	802.11b 802.11g 802.11n(HT20)	1~11Mbps 6~54Mbps MCS0~MCS7	☒ Lowest ☒ Middle ☒ Highest	802.11b 802.11g 802.11n(HT20)	1Mbps 6Mbps MCS0	☒ Lowest ☒ Middle ☒ Highest
-6dB bandwidth	802.11b 802.11g 802.11n(HT20)	1~11Mbps 6~54Mbps MCS0~MCS7	☒ Lowest ☒ Middle ☒ Highest	802.11b 802.11g 802.11n(HT20)	1Mbps 6Mbps MCS0	☒ Lowest ☒ Middle ☒ Highest
Conducted Spurious Emissions	802.11b 802.11g 802.11n(HT20)	1~11Mbps 6~54Mbps MCS0~MCS7	☒ Lowest ☒ Middle ☒ Highest	802.11b 802.11g 802.11n(HT20)	1Mbps 6Mbps MCS0	☒ Lowest ☒ Middle ☒ Highest
Conducted Band edge	802.11b 802.11g 802.11n(HT20)	1~11Mbps 6~54Mbps MCS0~MCS7	☒ Lowest ☒ Highest	1~11Mbps 6~54Mbps MCS0~MCS7 MCS0~MCS7	1Mbps 6Mbps MCS0 MCS0	☒ Lowest ☒ Highest
Radiated Band edge	802.11b 802.11g 802.11n(HT20)	1~11Mbps 6~54Mbps MCS0~MCS7	☒ Lowest ☒ Highest	802.11n(HT20)	MCS0	☒ Lowest ☒ Highest
Radiated Emissions Above 1GHz	802.11b 802.11g 802.11n(HT20)	1~11Mbps 6~54Mbps MCS0~MCS7	☒ Lowest ☒ Middle ☒ Highest	802.11b	1Mbps	☒ Lowest ☒ Middle ☒ Highest
Radiated Emissions Below 1GHz	802.11b 802.11g 802.11n(HT20)	1~11Mbps 6~54Mbps MCS0~MCS7	☒ Lowest ☒ Middle ☒ Highest	802.11b	1Mbps	☒ Middle
Conducted Emissions 9KHz-30 MHz	802.11b 802.11g 802.11n(HT20)	1~11Mbps 6~54Mbps MCS0~MCS7	☒ Lowest ☒ Middle ☒ Highest	802.11b	1Mbps	☒ Middle

Power setting during the test:

During testing, Channel & Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Power Parameters:

Test Software Version	Engineering Mode(*#*#83781#*#*)		
Frequency	2412MHz	2437MHz	2462MHz
802.11b	Default	Default	Default
802.11g	Default	Default	Default
802.11n(HT20)	Default	Default	Default

2.4 Special Accessories

Follow auxiliary equipment(s) test with EUT that provided by the manufacturer or laboratory is listed as follow:

Description	Manufacturer	Model	Serial No.	Provided by	Other
Adapter	Xiaomi	MDY-14-EU	A62502T103 407S	Test lab	67W
/	/	/	/	/	/

2.5 Equipment List for the Test

Conducted Emission measurement						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due
☒1	EMI Test Receiver	R&S	ESPI	100771	2025.09.23	2026.09.22
☒2	LISN	R&S	NNLK 8129	8130179	2025.09.23	2026.09.22
☒3	ISN	TESEQ	T800	29429	2025.09.23	2026.09.22
☒4	Pulse Limiter	R&S	ESH3-Z2	102789	2025.09.23	2026.09.22
☒5	CE Software	EZ	EZ-EMC_CE	Ver.AIT-03A	N/A	N/A

Radiation Emission measurement						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due
☒1	EMI Measuring Receiver	R&S	ESR	101160	2025.09.23	2026.09.22
☒2	Low Noise Pre Amplifier	SCHWARZBEC K	BBV 9745	00282	2025.09.23	2026.09.22
☒3	Low Noise Pre Amplifier	COM-MW	DLAN8-18000-40000-1066	08233242	2025.06.26	2026.06.25
☒4	Low Noise Pre Amplifier	COM-MW	DLAN8-1000-18000-1021	05231256	2025.06.26	2026.06.25
☒5	Spectrum Analyzer	R&S	FSV40	101470	2025.09.23	2026.09.22
☒6	Passive Loop	ETS	6512	00165355	2024.08.29	2026.08.28
☒7	TRILOG Super Broadband test Antenna	SCHWARZBEC K	VULB9168	01434	2024.08.29	2027.08.28
☒8	Broadband Horn Antenna	Schwarzbeck	BBHA 9120D	452	2024.08.29	2027.08.28
☒9	Horn Antenna 15-40GHz	SCHWARZBEC K	BBHA9170	BBHA9170367	2024.08.28	2027.08.27
☒10	6dB Attenuator	JFW	50FPE-006	4360846-949-1	2025.09.23	2026.09.22
☒11	Filter	COM-MW	ZBSF6-C2400-2483.5-1079	1079	2025.09.23	2026.09.22

☒12	RE Software	EZ	EZ-EMC_RE	Ver.AIT-03A	N/A	N/A

RF Conducted measurement						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due
☒1	Spectrum Analyzer	Agilent	N9020A	MY53421570	2025.09.23	2026.09.22
☒2	Power Sensor	Agilent	U2021XA	MY54110007	2025.09.23	2026.09.22
☐3	Vector Signal Generator	Agilent	N5182A	MY50143009	2025.09.23	2026.09.22
☐4	Analog signal generator	Agilent	E8257	MY51554256	2025.09.23	2026.09.22
☐5	Const Temp. & Humidity Chamber	Eastlab	YH-HW-408L	23051109	2025.09.23	2026.09.22
☐6	Wideband Radio communication tester	R&S	CMW500	1201.0002K50	2025.09.23	2026.09.22
☒7	DC power supply	ZHAOXIN	RXN-305D-2	28070002559	2025.09.23	2026.09.22
☐8	RF Test box	TST	TSTPASS	21033016	2025.09.23	2026.09.22
☒9	RF Software	TST	TSTPASS	Version 2.0	N/A	N/A
☐10	RF Software	Cesheng	WCN Regulary	Ver 25.03.2901	N/A	N/A

Note: ☐ is not applicable in this Test Report. ☒ is applicable in this Test Report.

3 TEST CONDITIONS AND RESULTS

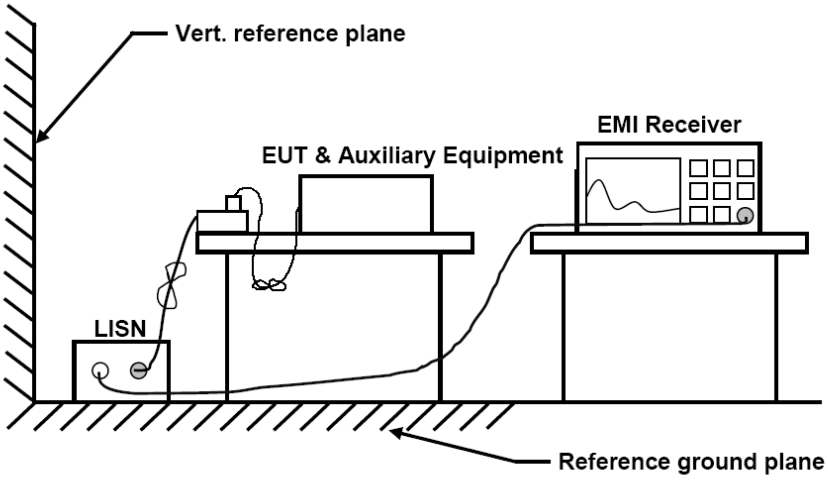
3.1 Conducted Emissions Test

LIMIT

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST CONFIGURATION



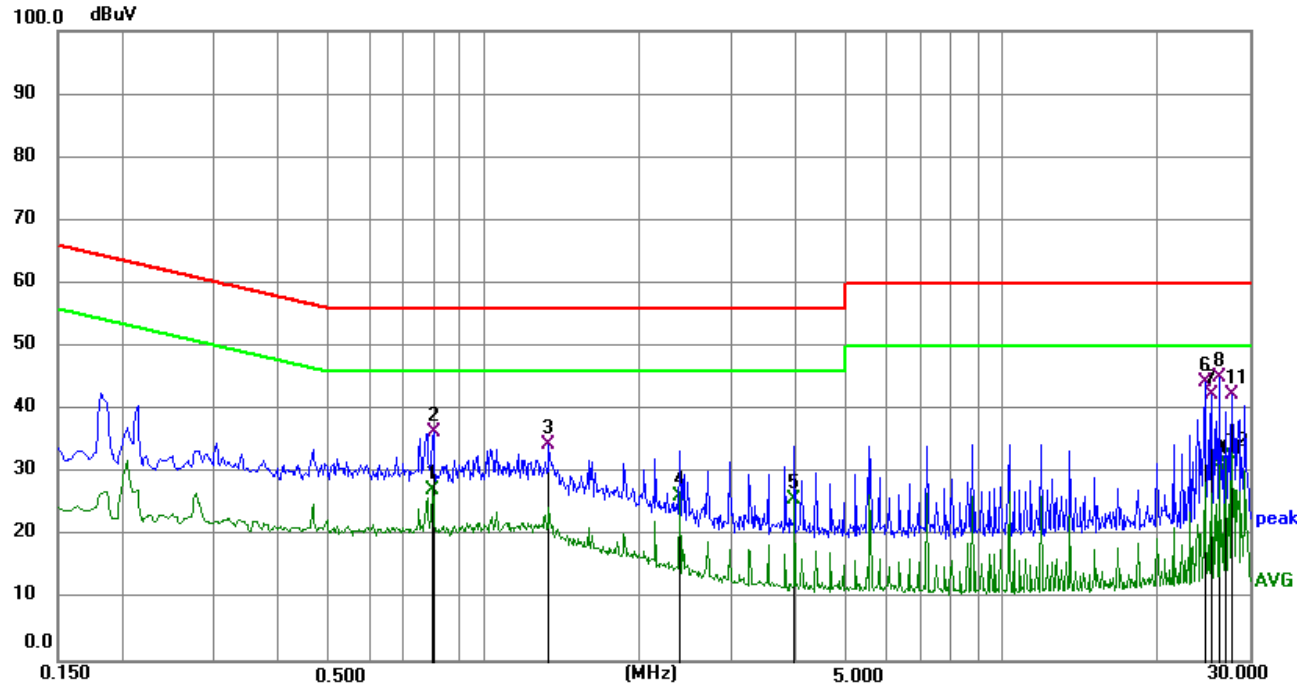
TEST PROCEDURE

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. The adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST RESULTS

Remark: Both 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz power supply have been tested, only the worst result of 120 VAC, 60 Hz was reported as below:

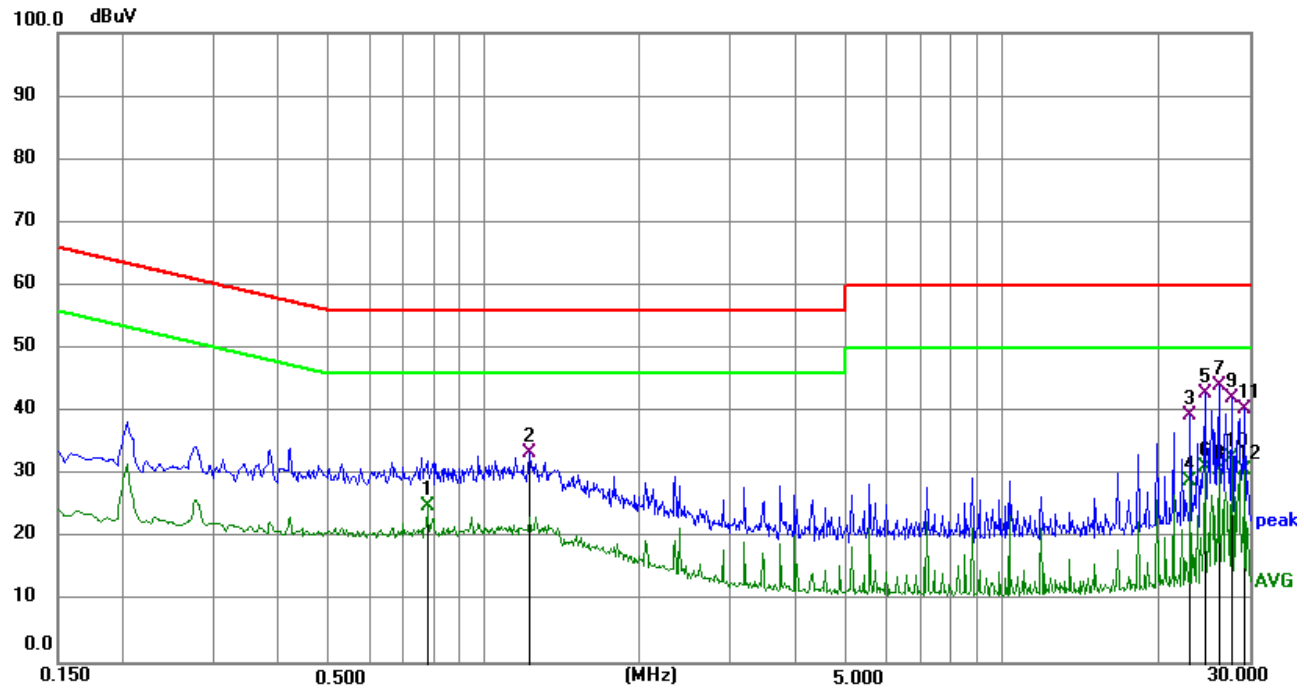
Test Mode	WIFI	Line:	L



Remark: Correct Factor = Insertion loss of LISN + Cable loss + Insertion loss of Pulse Limiter;
Measurement Result = Reading Level +Correct Factor;
Margin = Measurement Result- Limit

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.7935	16.03	11.05	27.08	46.00	-18.92	AVG
2	0.7980	25.34	11.05	36.39	56.00	-19.61	QP
3	1.3335	23.38	11.06	34.44	56.00	-21.56	QP
4	2.3865	15.11	11.02	26.13	46.00	-19.87	AVG
5	3.9750	14.50	11.15	25.65	46.00	-20.35	AVG
6	24.6345	31.91	12.34	44.25	60.00	-15.75	QP
7	25.4355	30.03	12.34	42.37	60.00	-17.63	QP
8	26.2275	32.62	12.33	44.95	60.00	-15.05	QP
9	26.2275	18.77	12.33	31.10	50.00	-18.90	AVG
10	27.0150	18.90	12.27	31.17	50.00	-18.83	AVG
11	27.8115	30.20	12.21	42.41	60.00	-17.59	QP
12	27.8115	20.07	12.21	32.28	50.00	-17.72	AVG

Test Mode	WIFI	Line:	N



Remark: Correct Factor = Insertion loss of LISN + Cable loss + Insertion loss of Pulse Limiter;
Measurement Result = Reading Level +Correct Factor;

Margin = Measurement Result- Limit

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.7755	13.99	10.99	24.98	46.00	-21.02	AVG
2	1.2255	22.30	10.99	33.29	56.00	-22.71	QP
3	23.0280	27.09	12.25	39.34	60.00	-20.66	QP
4	23.0280	16.76	12.25	29.01	50.00	-20.99	AVG
5	24.6345	30.60	12.20	42.80	60.00	-17.20	QP
6	24.6345	18.86	12.20	31.06	50.00	-18.94	AVG
7	26.2185	31.88	12.16	44.04	60.00	-15.96	QP
8	26.2185	18.37	12.16	30.53	50.00	-19.47	AVG
9	27.8070	30.16	12.01	42.17	60.00	-17.83	QP
10	27.8070	20.56	12.01	32.57	50.00	-17.43	AVG
11	29.3955	28.18	12.02	40.20	60.00	-19.80	QP
12	29.3955	18.60	12.02	30.62	50.00	-19.38	AVG

3.2 Radiated Emissions and Band Edge

Limit

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

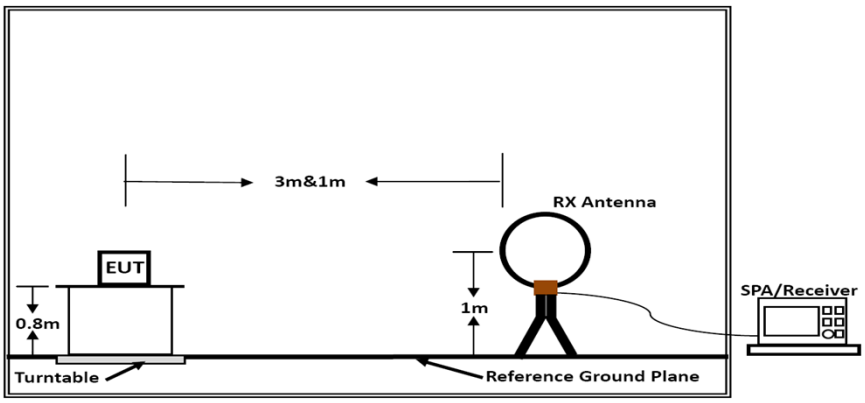
In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

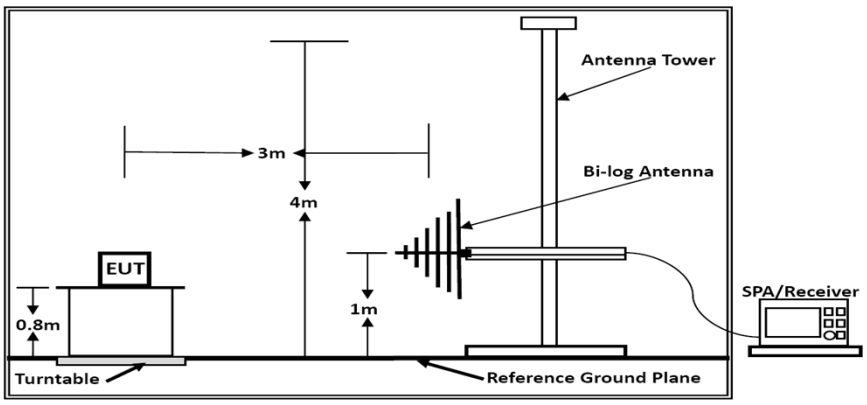
TEST CONFIGURATION

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



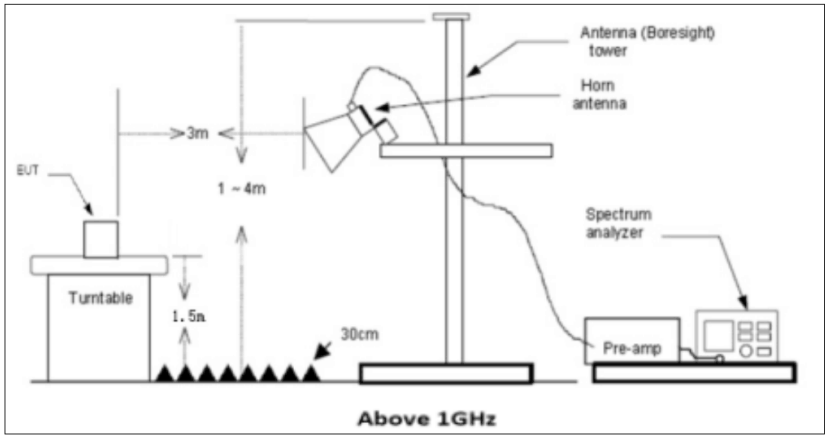
Below 30MHz

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



Below 1GHz

(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



Test Procedure

1. Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0℃ to 360℃ to acquire the highest emissions from EUT
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 measurements have been completed.
5. Radiated emission test frequency band from 9KHz to 25GHz.
6. The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Bilog Antenna	3
1GHz-26.5GHz	Horn Antenna	3
26.5GHz-25GHz	Horn Anternna	1

7. Setting test receiver/spectrum as following table states:

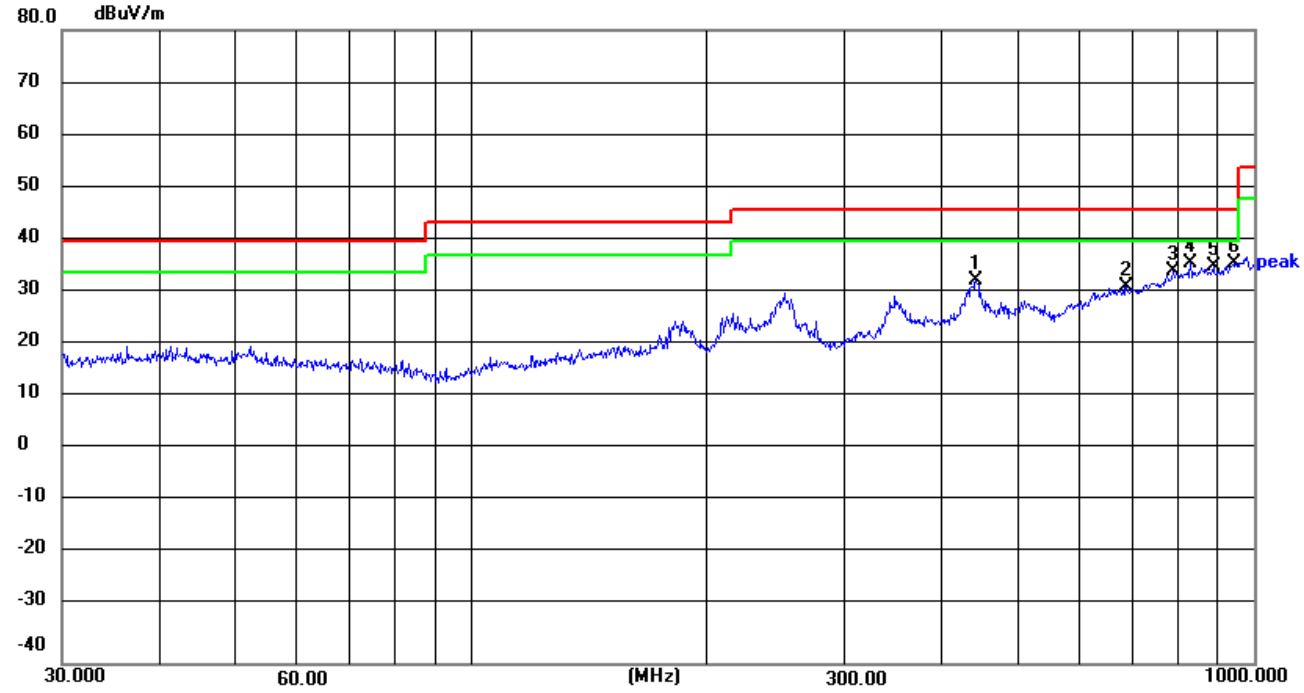
Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz,Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz,Sweep time=Auto	QP
30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

TEST RESULTS

Remark: Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and The emission levels from 9kHz to 30MHz are attenuated 20dB below the limit and not recorded in report.

For 30MHz-1GHz

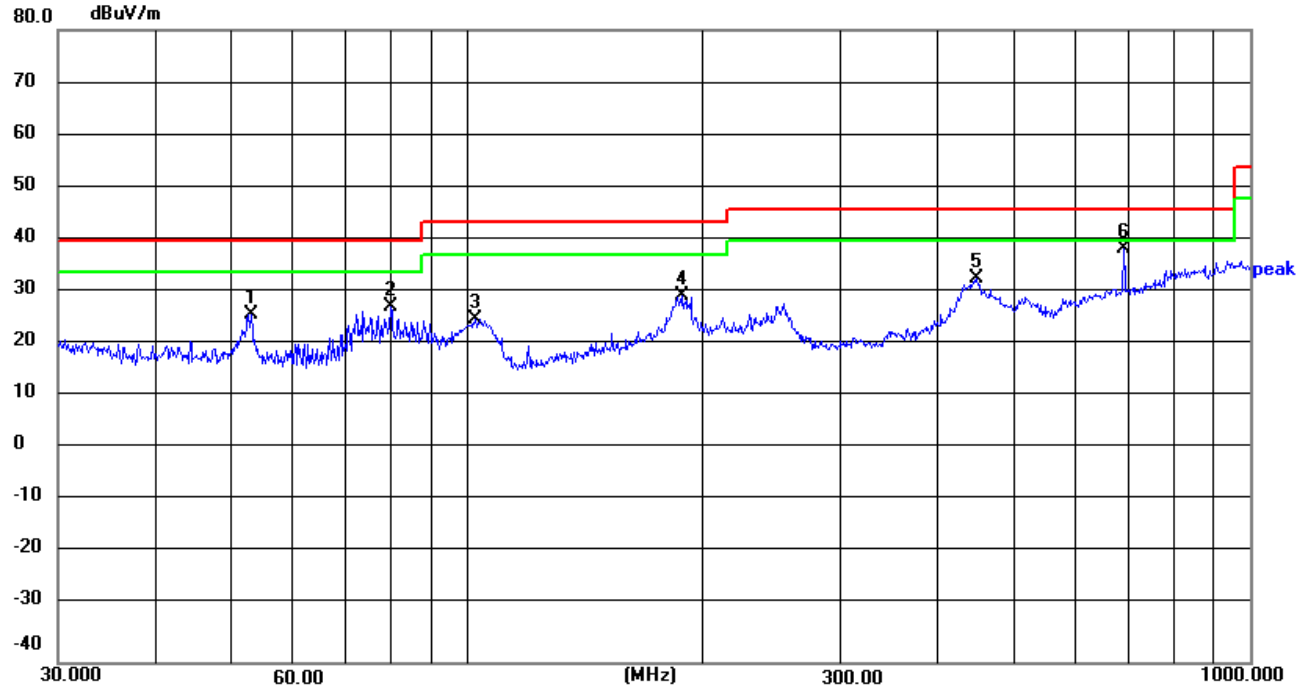
Test mode:	WIFI	Polarization:	Horizontal



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

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	441.7426	36.39	-3.81	32.58	46.00	-13.42	peak
2	687.1507	30.13	1.31	31.44	46.00	-14.56	peak
3	787.8513	30.82	3.49	34.31	46.00	-11.69	peak
4	830.4002	31.55	4.48	36.03	46.00	-9.97	peak
5	887.6099	30.25	4.94	35.19	46.00	-10.81	peak
6	945.4399	30.21	5.81	36.02	46.00	-9.98	peak

Test mode:	WIFI	Polarization:	Vertical



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

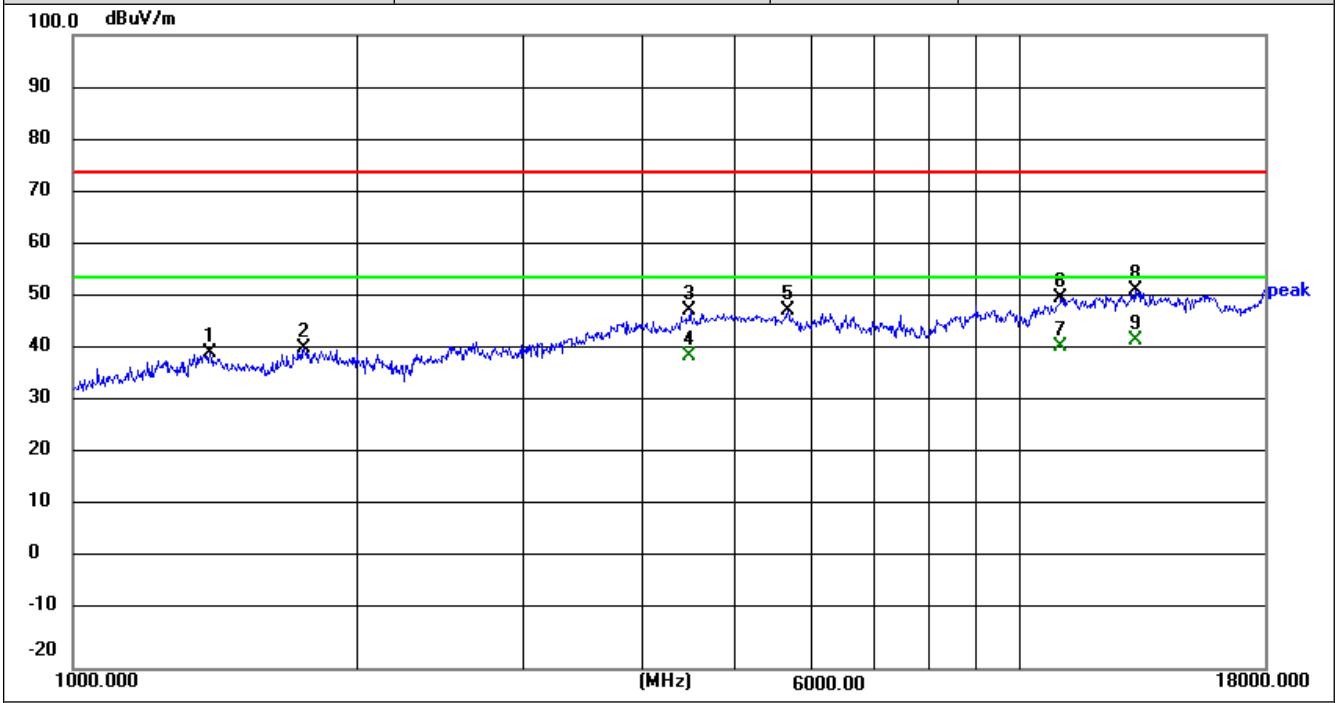
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	52.9453	35.73	-9.69	26.04	40.00	-13.96	peak
2	79.8002	41.03	-13.44	27.59	40.00	-12.41	peak
3	102.3596	38.25	-13.01	25.24	43.50	-18.26	peak
4	188.4125	41.23	-11.57	29.66	43.50	-13.84	peak
5	447.9822	36.68	-3.71	32.97	46.00	-13.03	peak
6	689.5644	37.16	1.31	38.47	46.00	-7.53	peak

For 1GHz to 18GHz

Remark: All WIFI operation modes have been tested for above 1GHz test, only the worst case 802.11b mode was recorded as below:

802.11b (above 1GHz)

Frequency(MHz):	2412	Polarity:	Horizontal

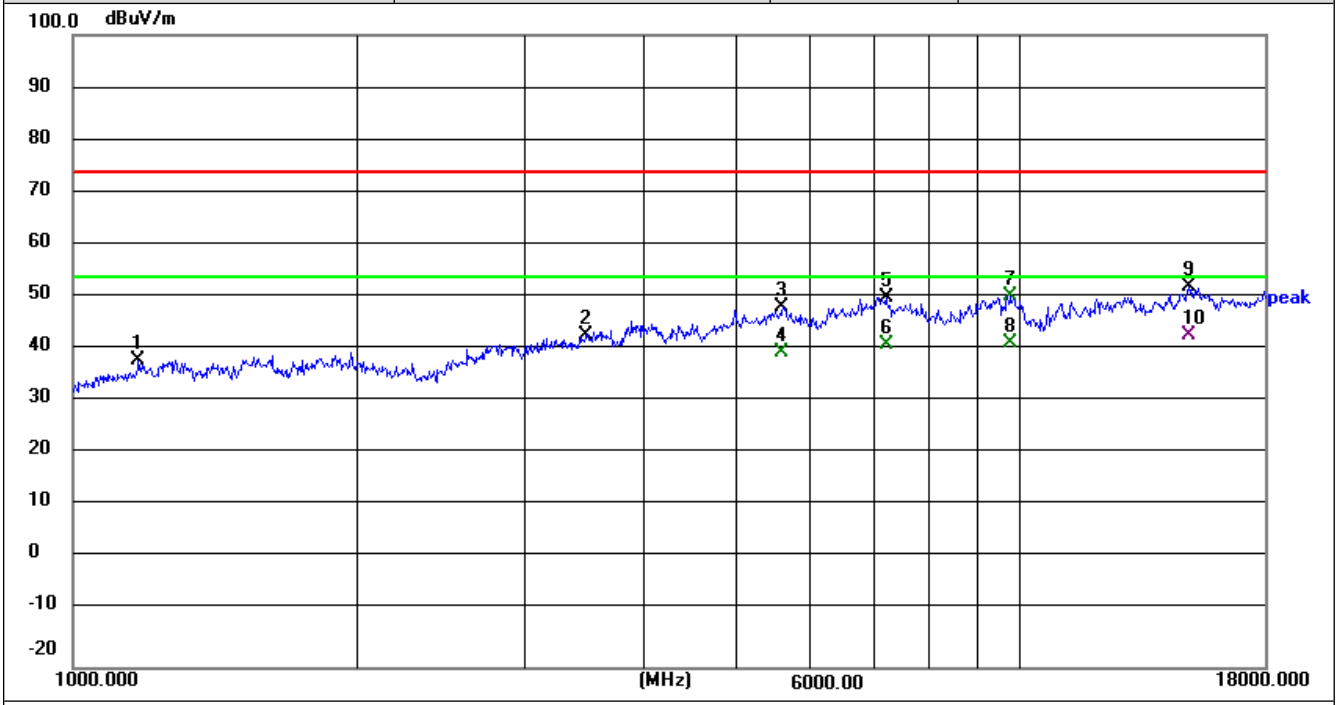


Remark:
Filter is used
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	1398.336	65.70	-25.97	39.73	74.00	-34.27	peak
2	1759.567	64.93	-24.20	40.73	74.00	-33.27	peak
3	4483.446	63.66	-15.65	48.01	74.00	-25.99	peak
4	4483.446	54.90	-15.65	39.25	54.00	-14.75	AVG
5	5664.525	59.94	-12.07	47.87	74.00	-26.13	peak
6	11028.179	50.90	-0.77	50.13	74.00	-23.87	peak
7	11028.179	41.82	-0.77	41.05	54.00	-12.95	AVG
8	13181.175	53.75	-1.90	51.85	74.00	-22.15	peak
9	13181.175	44.23	-1.90	42.33	54.00	-11.67	AVG

Note:A filter was used to exclude fundamental during the test to prevent overloading the testing equipment.

Frequency(MHz):	2412	Polarity:	Vertical



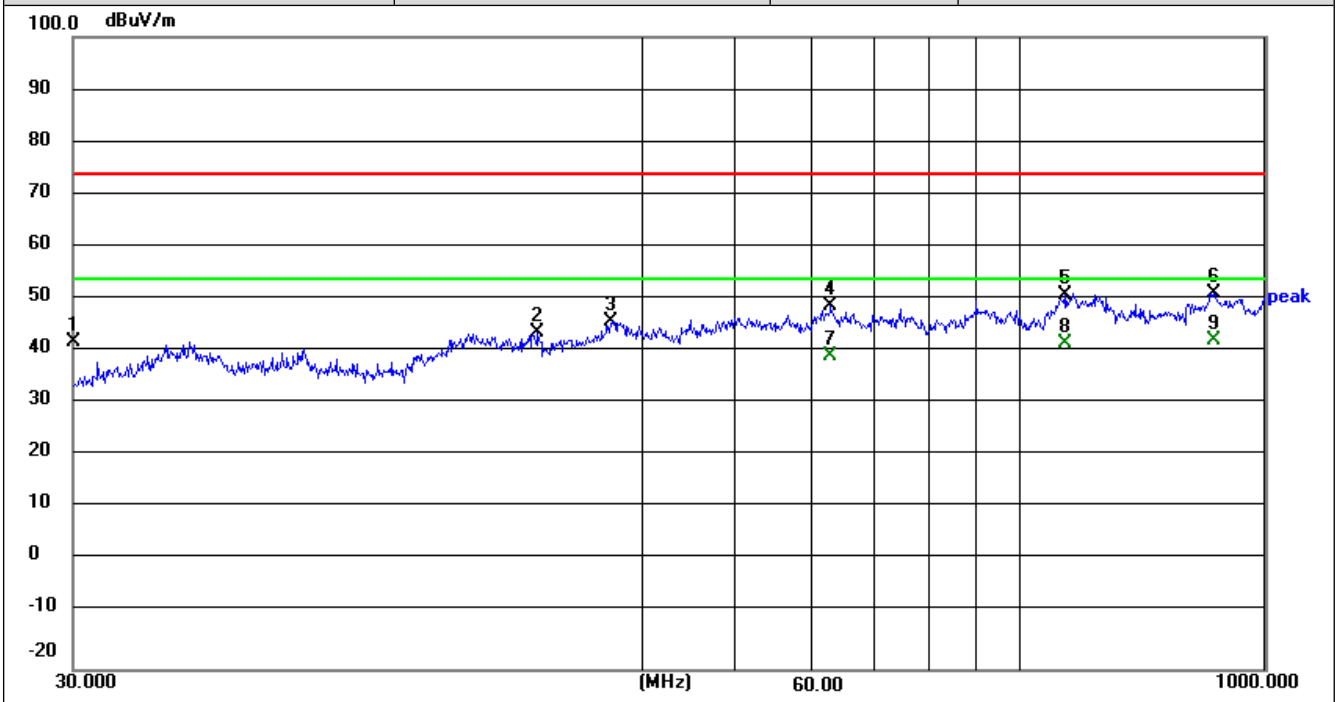
Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	1173.999	64.11	-25.69	38.42	74.00	-35.58	peak
2	3481.574	61.80	-18.78	43.02	74.00	-30.98	peak
3	5605.889	60.67	-12.15	48.52	74.00	-25.48	peak
4	5605.889	51.89	-12.15	39.74	54.00	-14.26	AVG
5	7200.309	57.77	-7.53	50.24	74.00	-23.76	peak
6	7200.309	48.78	-7.53	41.25	54.00	-12.75	AVG
7	9733.657	53.77	-3.32	50.45	74.00	-23.55	peak
8	9733.657	44.98	-3.32	41.66	54.00	-12.34	AVG
9	14968.770	52.78	-0.60	52.18	74.00	-21.82	peak
10	14968.770	43.68	-0.60	43.08	74.00	-30.92	AVG

Note: A filter was used to exclude fundamental during the test to prevent overloading the testing equipment.

802.11b (above 1GHz)

Frequency(MHz):	2437	Polarity:	Horizontal

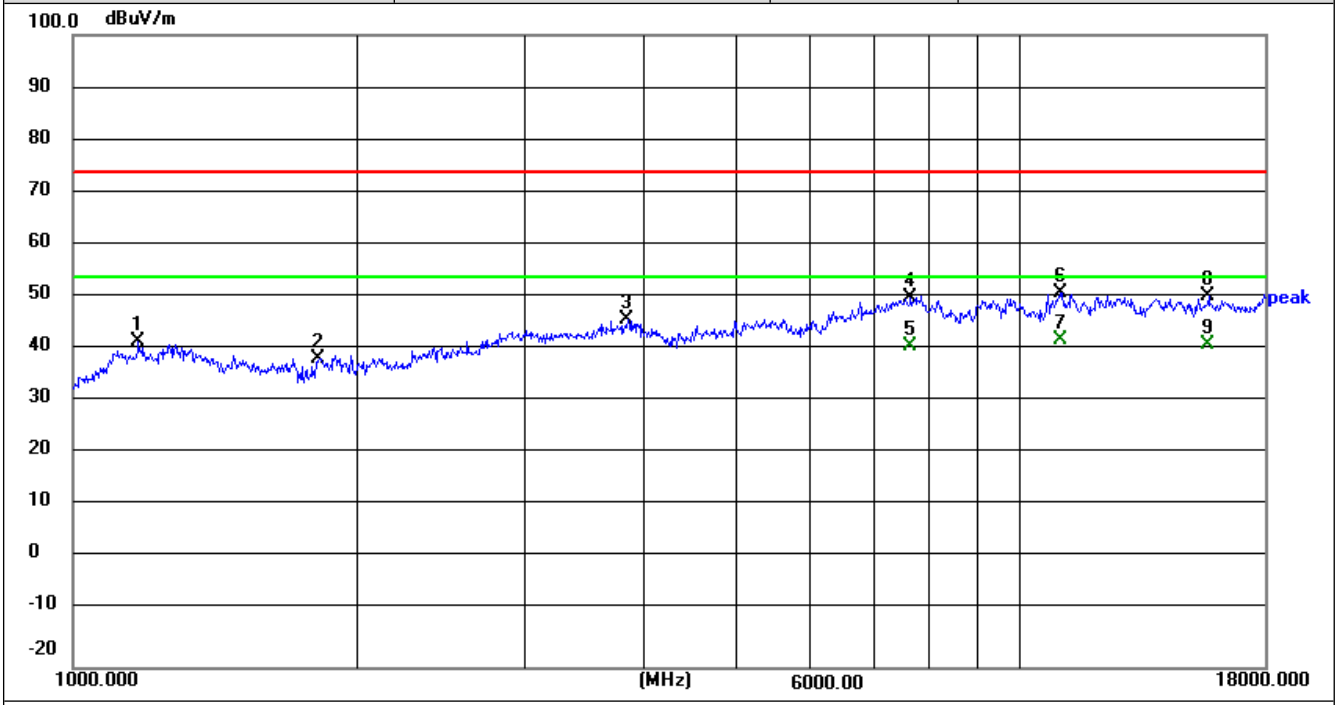


Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	13.2936	68.09	-25.86	42.23	74.00	-31.77	peak
2	31.0235	63.38	-19.27	44.11	74.00	-29.89	peak
3	37.1015	64.21	-18.06	46.15	74.00	-27.85	peak
4	63.0753	59.16	-10.24	48.92	74.00	-25.08	peak
5	111.0816	51.89	-0.89	51.00	74.00	-23.00	peak
6	159.2388	51.88	-0.55	51.33	74.00	-22.67	peak
7	63.0753	49.88	-10.24	39.64	54.00	-14.36	AVG
8	111.0816	42.96	-0.89	42.07	54.00	-11.93	AVG
9	159.2388	43.09	-0.55	42.54	54.00	-11.46	AVG

Note: A filter was used to exclude fundamental during the test to prevent overloading the testing equipment.

Frequency(MHz):	2437	Polarity:	Vertical



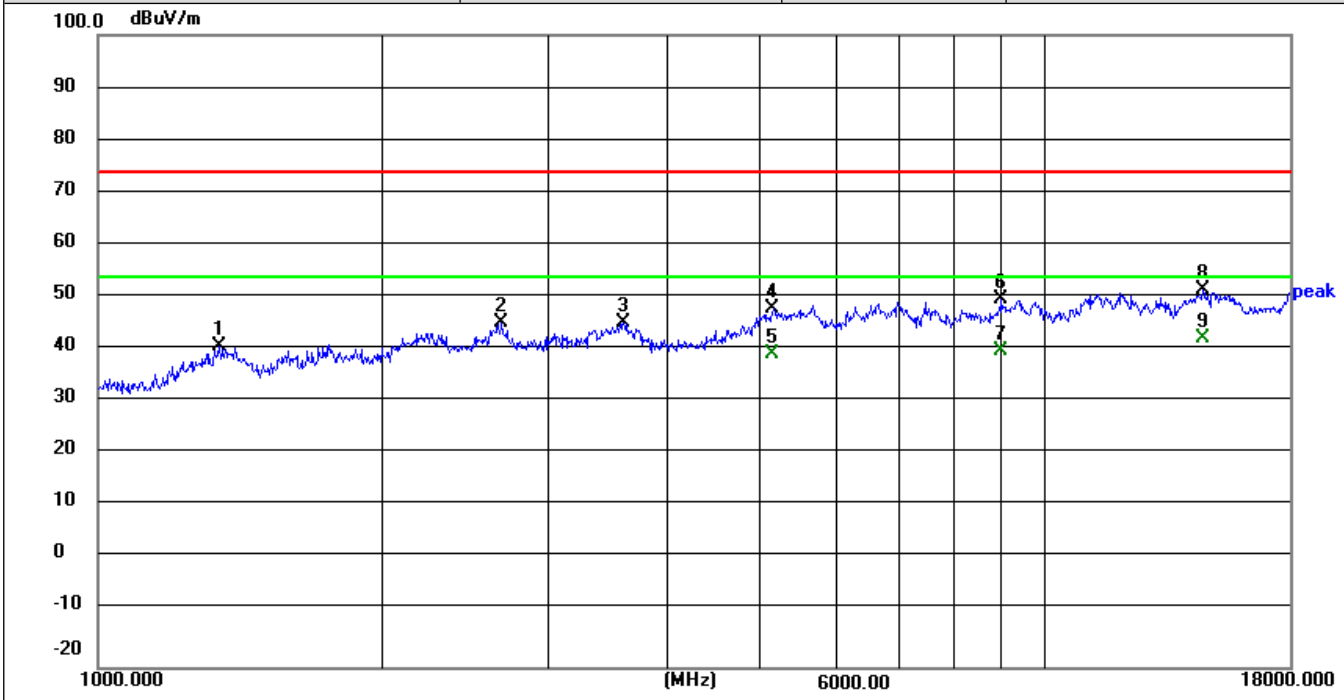
Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	1173.999	67.61	-25.69	41.92	74.00	-32.08	peak
2	1827.996	62.65	-23.88	38.77	74.00	-35.23	peak
3	3853.325	63.62	-17.59	46.03	74.00	-27.97	peak
4	7644.257	57.53	-7.41	50.12	74.00	-23.88	peak
5	7644.257	48.49	-7.41	41.08	54.00	-12.92	AVG
6	11012.253	51.94	-0.74	51.20	74.00	-22.80	peak
7	11012.253	43.10	-0.74	42.36	54.00	-11.64	AVG
8	15749.940	51.01	-0.56	50.45	74.00	-23.55	peak
9	15749.940	41.83	-0.56	41.27	54.00	-12.73	AVG

Note: A filter was used to exclude fundamental during the test to prevent overloading the testing equipment.

802.11b (above 1GHz)

Frequency(MHz):	2462	Polarity:	Horizontal

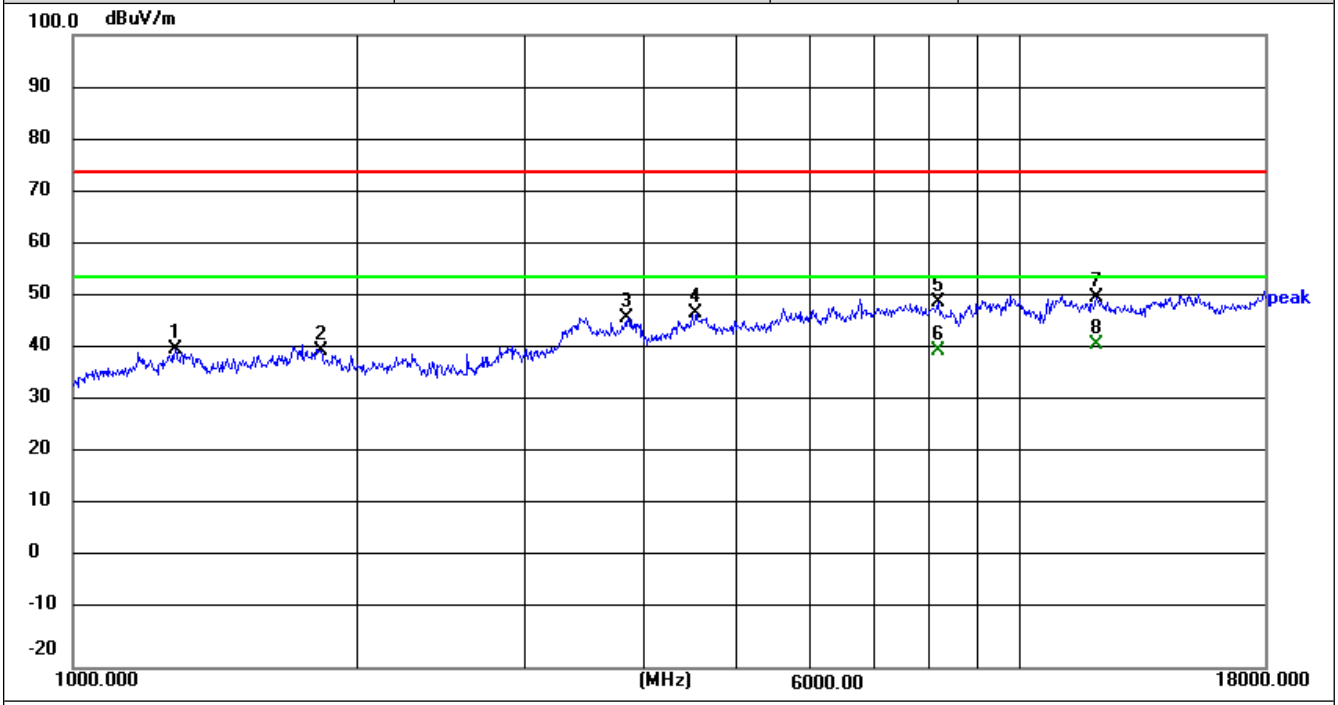


Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	1346.380	67.01	-25.90	41.11	74.00	-32.89	peak
2	2671.731	66.16	-20.80	45.36	74.00	-28.64	peak
3	3584.709	63.83	-18.47	45.36	74.00	-28.64	peak
4	5165.594	61.17	-13.02	48.15	74.00	-25.85	peak
5	5165.594	52.67	-13.02	39.65	54.00	-14.35	AVG
6	8956.208	54.11	-4.24	49.87	74.00	-24.13	peak
7	8956.208	44.34	-4.24	40.10	54.00	-13.90	AVG
8	14605.496	52.09	-0.32	51.77	74.00	-22.23	peak
9	14605.496	42.83	-0.32	42.51	54.00	-11.49	AVG

Note: A filter was used to exclude fundamental during the test to prevent overloading the testing equipment.

Frequency(MHz):	2462	Polarity:	Vertical



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

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	1285.533	66.24	-25.81	40.43	74.00	-33.57	peak
2	1833.288	63.91	-23.86	40.05	74.00	-33.95	peak
3	3853.325	64.12	-17.59	46.53	74.00	-27.47	peak
4	4550.025	62.79	-15.38	47.41	74.00	-26.59	peak
5	8174.432	56.59	-7.34	49.25	74.00	-24.75	peak
6	8174.432	47.52	-7.34	40.18	54.00	-13.82	AVG
7	12023.654	52.37	-2.05	50.32	74.00	-23.68	peak
8	12023.654	43.32	-2.05	41.27	54.00	-12.73	AVG

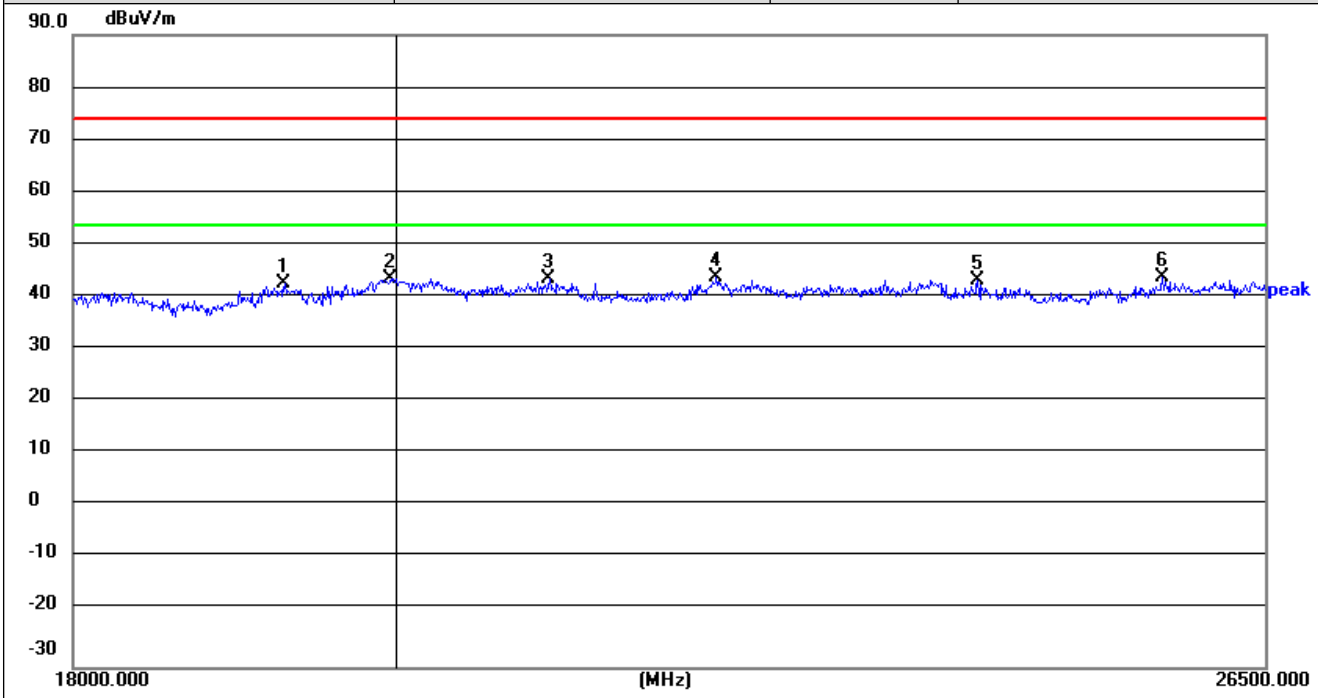
Note: A filter was used to exclude fundamental during the test to prevent overloading the testing equipment.

For above 18GHz

Remark: Pre-scan all WIFI operation modes, and no spurious found, only one channel plots recorded below represent the worst scenario.

802.11b mode (above 1GHz)

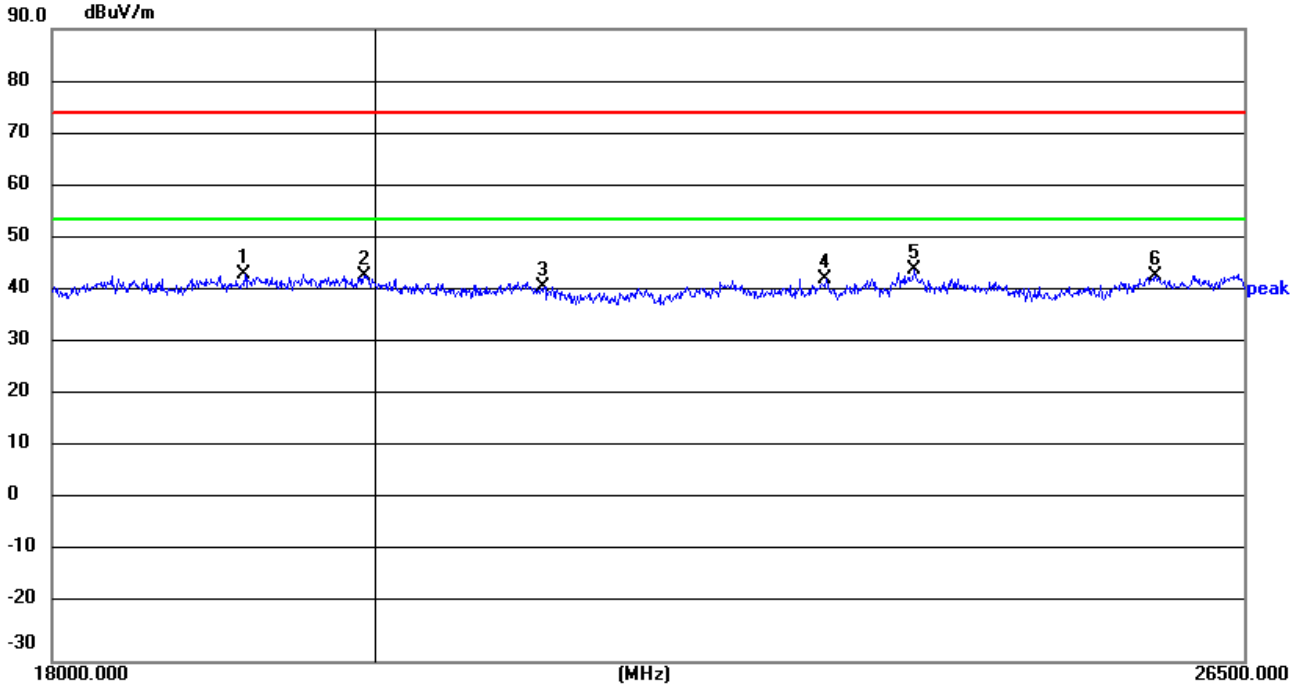
Frequency(MHz):	2412	Polarity:	Horizontal



Remark:
Filter is used
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	19288.841	60.43	-17.55	42.88	74.00	-31.12	peak
2	19963.605	60.55	-16.79	43.76	74.00	-30.24	peak
3	21018.234	60.22	-16.40	43.82	74.00	-30.18	peak
4	22185.137	61.22	-17.06	44.16	74.00	-29.84	peak
5	24144.304	59.27	-15.62	43.65	74.00	-30.35	peak
6	25638.992	60.20	-16.13	44.07	74.00	-29.93	peak

Frequency(MHz):	2412	Polarity:	Vertical



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

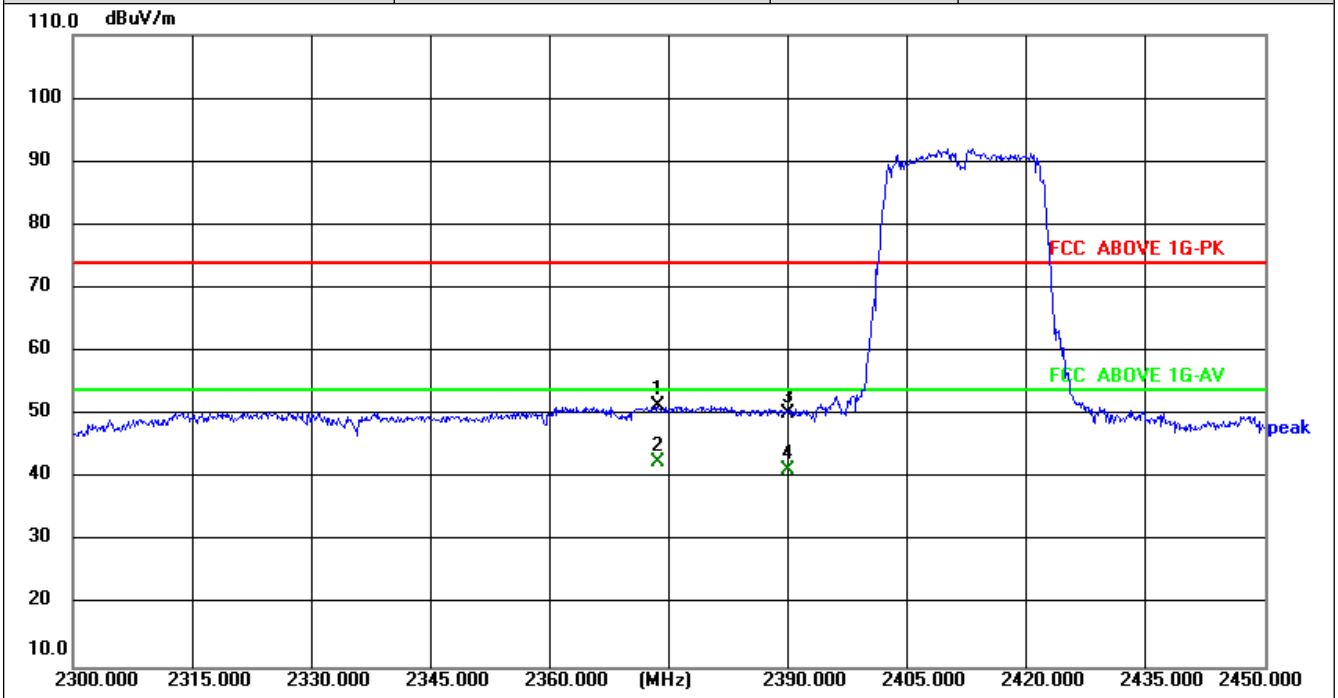
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	19167.619	61.18	-17.68	43.50	74.00	-30.50	peak
2	19926.577	60.20	-16.84	43.36	74.00	-30.64	peak
3	21120.096	57.81	-16.56	41.25	74.00	-32.75	peak
4	23145.789	59.49	-16.91	42.58	74.00	-31.42	peak
5	23824.270	60.02	-15.74	44.28	74.00	-29.72	peak
6	25757.270	59.07	-15.96	43.11	74.00	-30.89	peak

Radiation Restricted band

Remark: All WIFI operation modes have been tested for Band Edge test, only the worst case 802.11n20 mode was recorded was reported as below:

802.11n(HT20)

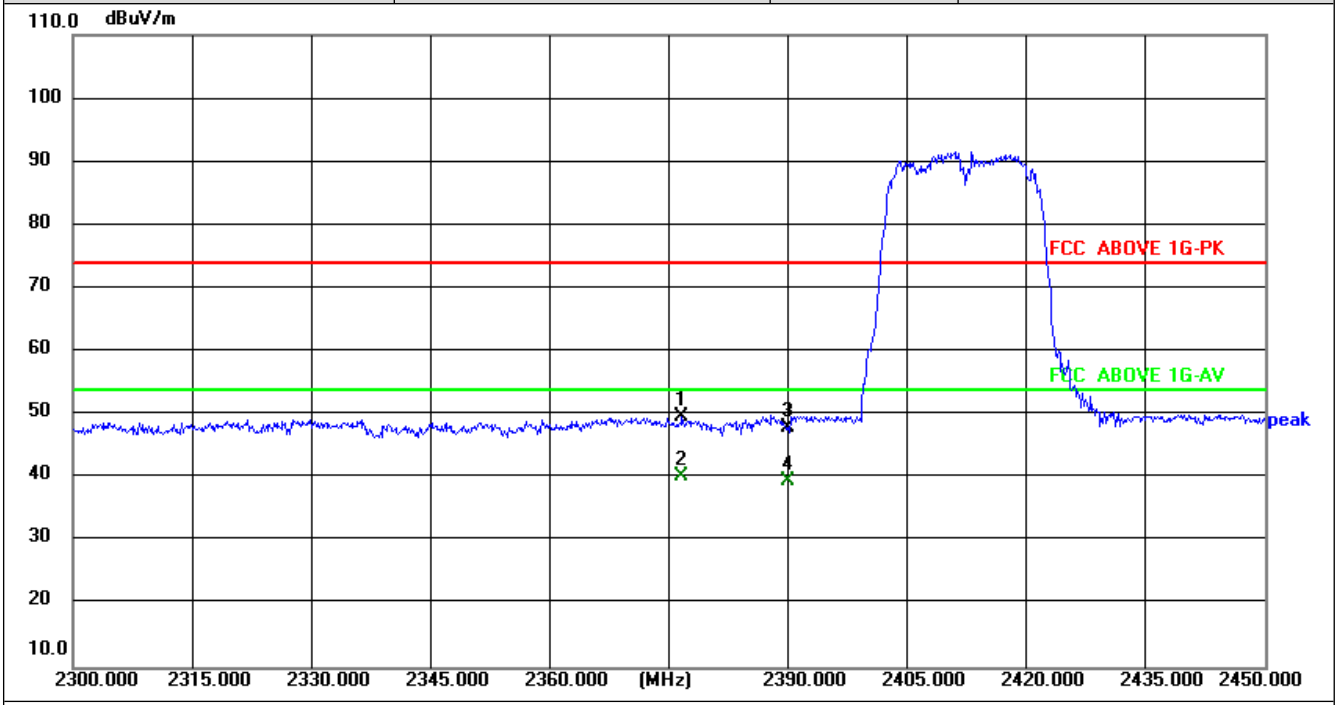
Frequency(MHz):	2412	Polarity:	Horizontal



Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.
RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz AV detector is for AV value.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2373.650	57.26	-5.92	51.34	74.00	-22.66	peak
2	2373.650	48.36	-5.92	42.44	54.00	-11.56	AVG
3	2390.000	56.01	-5.79	50.22	74.00	-23.78	peak
4	2390.000	47.17	-5.79	41.38	54.00	-12.62	AVG

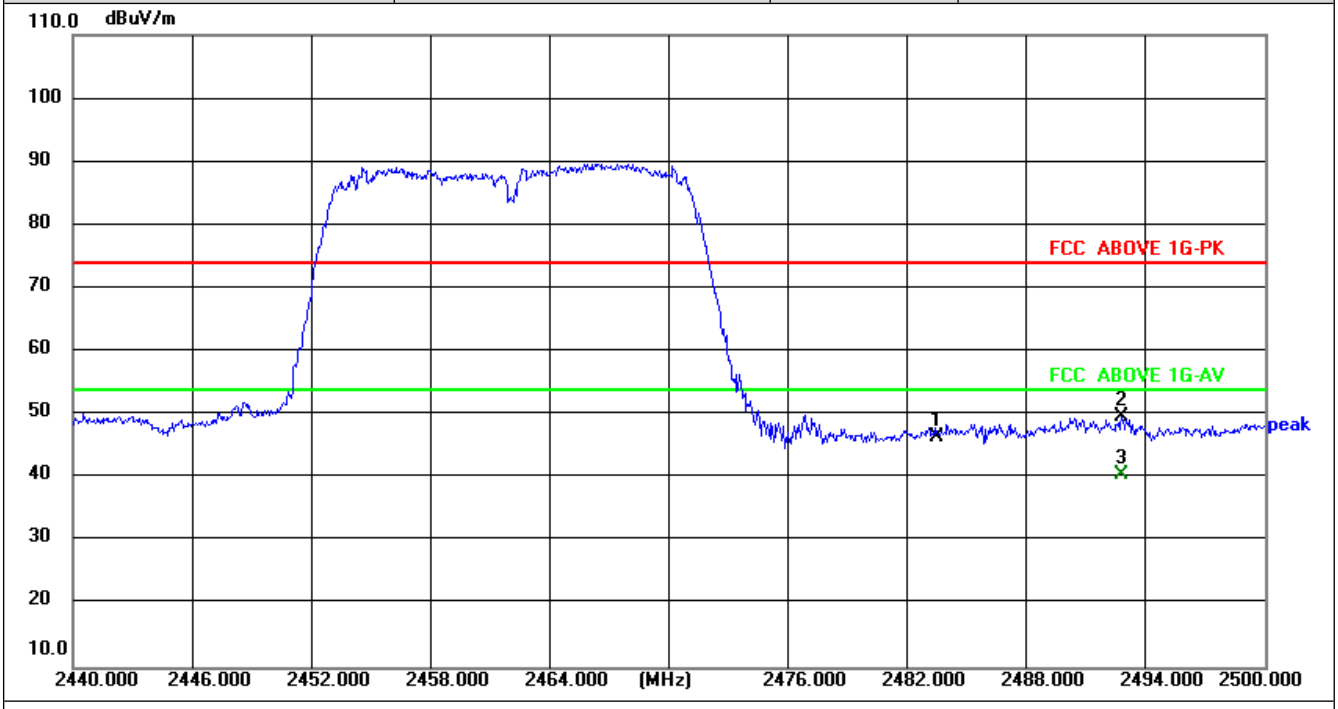
Frequency(MHz):	2412	Polarity:	Vertical



Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.
RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz AV detector is for AV value.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2376.650	55.50	-5.89	49.61	74.00	-24.39	peak
2	2376.650	46.24	-5.89	40.35	54.00	-13.65	AVG
3	2390.000	53.87	-5.79	48.08	74.00	-25.92	peak
4	2390.000	45.47	-5.79	39.68	54.00	-14.32	AVG

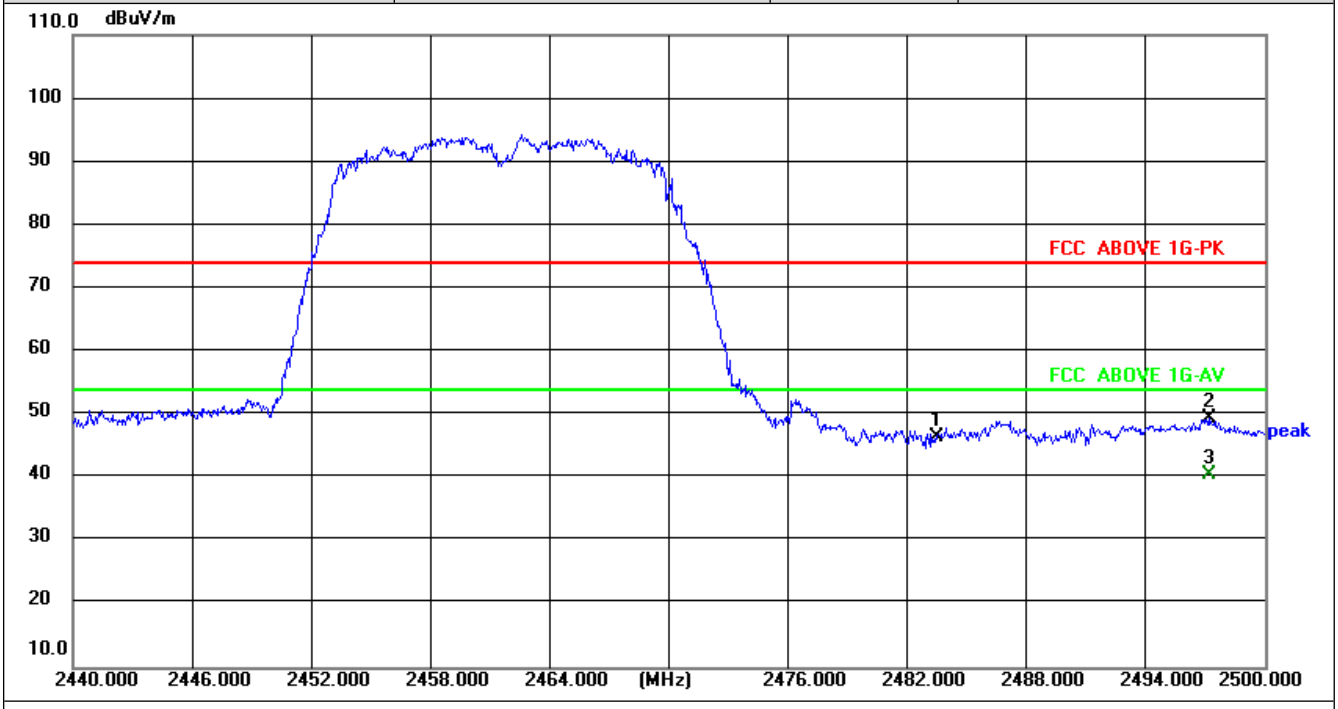
Frequency(MHz):	2462	Polarity:	Horizontal



Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.
RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz AV detector is for AV value.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2483.500	51.59	-4.98	46.61	74.00	-27.39	peak
2	2492.800	54.54	-4.90	49.64	74.00	-24.36	peak
3	2492.800	45.52	-4.90	40.62	54.00	-13.38	AVG

Frequency(MHz):	2462	Polarity:	Vertical



Remark:
Emission Level = Reading + Factor;
Factor = Antenna Factor + Cable Loss – Pre-amplifier;
Margin= Emission Level - Limit.
RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz AV detector is for AV value.

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	2483.500	51.54	-4.98	46.56	74.00	-27.44	peak
2	2497.180	54.22	-4.85	49.37	74.00	-24.63	peak
3	2497.180	45.43	-4.85	40.58	54.00	-13.42	AVG

3.3 Maximum Peak Conducted Output Power

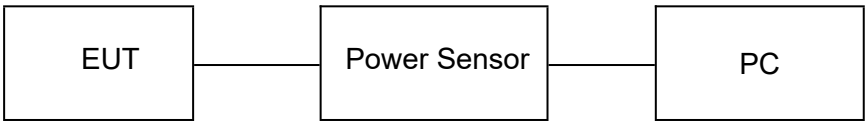
Limit

The maximum peak conducted output power shall not exceed 1.0 W.

Test Procedure

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Power Meter.
PKPM1 Peak power meter method descripped in ANSI C63.10 section 11.9.1.2 is used to measure the PK Conducted Output Power.

Test Configuration



Test Results

☒ **Pass** ☐ **Not Applicable**

Note:
For test data, please refer to Appendix RF test data for WIFI2.4G.

3.4 Power Spectral Density

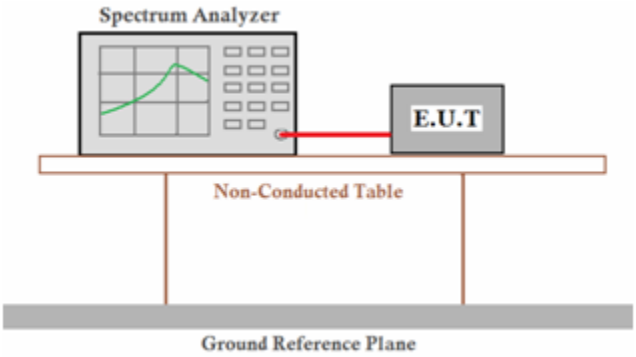
Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW ≥ 3 kHz.
3. Set the VBW ≥ 3× RBW.
4. Set the span to 1.5 times the DTS channel bandwidth.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum power level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
11. The resulting peak PSD level must be 8dBm.

Test Configuration



Test Results

☒ **Pass** ☐ **Not Applicable**

Note:
For test data, please refer to Appendix RF test data for WIFI2.4G.

3.5 6dB Bandwidth

Limit

For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz

Test Procedure

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the Spectrum Analyzer. Set EUT in transmitting mode.

a) Set Spectrum Analyzer to OBW measurement mode and set bandwidth mode with X set to 6 dB.

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

c) Set the VBW ⩾ [3 ×RBW].

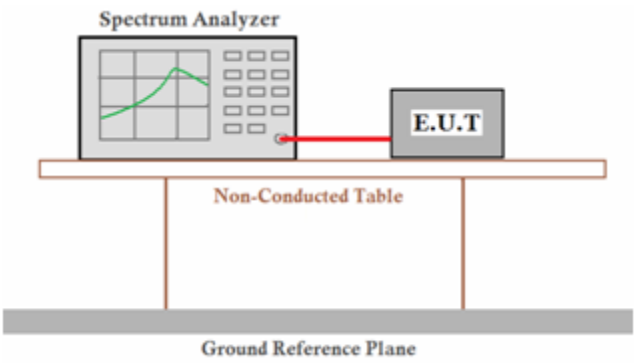
d) Detector = peak.

e) Sweep time = auto couple.

f) Trace mode = max hold.

Allow trace to fully stabilize

Test Configuration



Test Results

☒ **Pass** ☐ **Not Applicable**

Note:
For test data, please refer to Appendix RF test data for WIFI2.4G.

3.6 Out-of-band Emissions

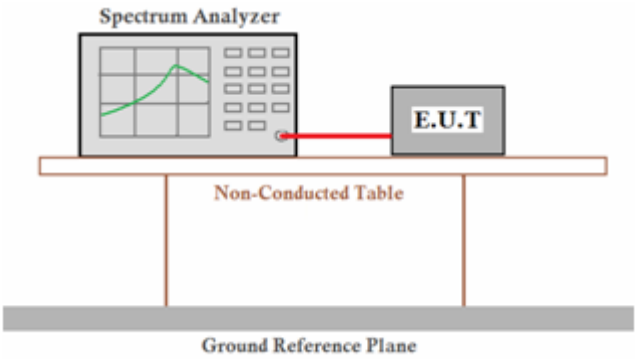
Limit

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 con-ducted or a radiated measurement, pro-vided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter com-plies with the conducted power limits based on the use of RMS 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.

Test Procedure

Connect the transmitter output to spectrum analyzer using a low loss RF cable, and set the spectrum analyzer to RBW=100 kHz, VBW= 300 kHz, peak detector, and max hold. Measurements utilizing these setting are made of the in-band reference level, bandedge and out-of-band emissions.

Test Configuration



Test Results

☒ **Pass** ☐ **Not Applicable**

Note:
For test data, please refer to Appendix RF test data for WIFI2.4G.

3.7 Antenna Requirement

Standard Applicable

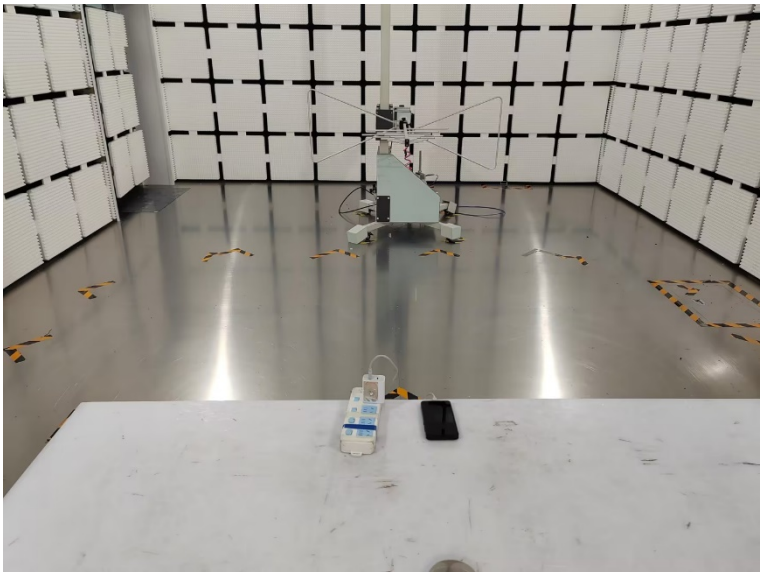
For intentional device, according to FCC 47 CFR Section 15.203:
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling 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

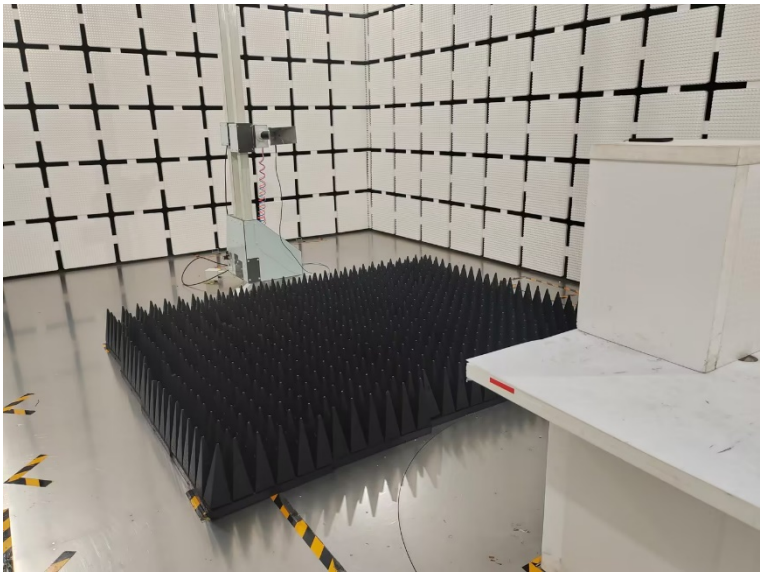
FCC CFR Title 47 Part 15 Subpart C Section 15.247(b) (4):
(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Result

The maximum gain of antenna was 2.81dBi with impedance 50Ω.

4 Test Setup Photographs of EUT





5 Photos of EUT

Please refer to test Report No.: AiTSZ-260328007FW1.

********** **End of Report** **********