



Test Report No.:
FCC2025-0007-RF1

TEST REPORT

FCC ID : 2BG9T-TCLSMARTD2B
Applicant : Shenzhen TCL Smart Home Technology Co., Ltd
Product Name : TCL D2 Series Smart Door Lock
Model No. : D2 Pro,D2X Pro,D2XX Pro,D2 Pro X

CVC Testing Technology Co., Ltd.

Product Name	TCL D2 Series Smart Door Lock	Trade Mark	TCL
Type/Model	D2 Pro,D2X Pro,D2XX Pro,D2 Pro X	Sample Status	/
Applicant	Shenzhen TCL Smart Home Technology Co., Ltd		
Applicant Address	7/F,TCL G1 Building. TCL International E City, No.1001 Zhongshan Yuan Road, Nanshan		
Manufacturer	Shenzhen TCL Smart Home Technology Co., Ltd		
Manufacturer Address	7/F,TCL G1 Building. TCL International E City, No.1001 Zhongshan Yuan Road, Nanshan		
Factory	Guangdong Yongding Technology Co., Ltd		
Factory Address	No.10 Chenglong Road, Qianlong Village, Sanxiang Town, Zhongshan City, Guangdong Province		
Sample Identification	1-1	Test Item	See page 9
Tested According To	FCC CFR47 Part 15C Radio Frequency Devices ANSI C63.10-2020/Cor1-2023 KDB 558074 D01 15.247 Meas Guidance v05r02		
Receiving Date	2025-03-25	Completing Date	2025-04-26
Test conclusion	<p>The equipment under test was found to comply with the requirements of the standards applied.</p> <p>Final Verdict: Pass.</p> <p>Seal of CVC</p> <p>Date of issue: 2025-05-13</p>		
Abbreviations: / Pass= passed Fail = failed N/A= not applicable			
This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.			

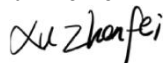
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCC2025-0007-RF1	Original release	May.13,2025

1. General Product Information

1.1 General information

Product Name	TCL D2 Series Smart Door Lock	
Model No.	D2 Pro	
Additional model	D2X Pro,D2XX Pro,D2 Pro X	
Power Supply	Rated voltage	DC 5.0V
	Battery voltage	DC 3.6V
Serial Number(SN)	/	
Hardware Version	V1.1	
Software Version	V7.1	
Bluetooth Version	5.0	
Specific power settings	Bluetooth(LE_1M): Default IEEE 802.11b: 12 IEEE 802.11g: 12 IEEE 802.11n(HT20)/ax(HE20): 12 IEEE 802.11n(HT40)/ax(HE40): 12	
Antenna Type	Internal antenna	
Antenna Gain	WIFI: 3.7 dBi (provided by client) Bluetooth: 3.7 dBi (provided by client)	
Beamforming gain	Unsupported (provided by client)	
Frequency Range	Bluetooth(LE_1MHz,2MHz): 2402~2480MHz IEEE 802.11b/g/n(HT20)/ax(HE20): 2412~2462MHz IEEE 802.11n(HT40)/ax(HE40): 2422~2452MHz	
Channel Number	Bluetooth(LE_1MHz,2MHz):40 Channels IEEE 802.11b/g/n(HT20)/ax(HE20): 11 Channels IEEE 802.11n (HT40)/ax(HE40): 7 Channels	
Type of Modulation	Bluetooth(LE_1MHz,2MHz):GFSK IEEE 802.11b: DSSS (CCK,DQPSK,DBPSK); IEEE 802.11g: OFDM (64QAM, 16QAM, QPSK, BPSK); IEEE 802.11n(HT20&HT40) : OFDM (64QAM, 16QAM,QPSK,BPSK); IEEE 802.11ax(HE20&HE40) : 1024QAM,256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA	
Max. Conducted Power	Bluetooth: 6.68 dBm WIFI2.4G:16.39dBm	
Operate Temp.Range	-20°C~+70°C	

Note:

1. The information of the EUT is declared by the manufacturer.
2. The laboratory is not responsible for the product technical specification provided by the client.
3. EUT photo refer to report (Report NO.:FCC2025-0007-EUT).
4. The EUT have SISO function, provides 1 completed transmitter and 1 receiver.
5. All the models are electrical identical including the same software parameter and hardware design (i.e., circuit design, PCB Layout, RF module/circuit, antenna type(s) and antenna location, components on PCB, etc.), same mechanical structure and design (including product enclosure, materials, etc.), the only difference is the model name, color, package.

No.	Model	Difference	Remarks
1	D2 Pro	1. Only the appearance color difference is	Inspection model

2	D2X Pro	different, include Dark grey、Brushed Nickel、Obsidian Black、Aged Bronze.	Coverage model
3	D2XX Pro	2. Only the printing style/label on the surface of the package is different, the product inside the package is the same.	Coverage model
4	D2 Pro X	3. D2X,D2XX, Pro X,the “X” is a number from 0~9,or is an alphabet in A~Z.	Coverage model

6. All the tests carried out on model D2 Pro.

7. For IEEE 802.11ax, the customer declares that the product does not support partial RU modes of 11ax40M..

2. Test Sites

2.1 Test Facilities

The tests and measurements refer to this report were performed by RF testing Lab. of CVC Testing Technology Co., Ltd.

Add.: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou,Guangdong,510663, People's Republic of China

Telephone : +86-20-32293888

Fax : +86-20-32293889

FCC(Test firm designation number: CN1282)

IC(Test firm CAB identifier number: CN0103)

CNAS(Test firm designation number: L0095)

2.2 Description of Non-standard Method and Deviations

The testing and measurement methods used in this report are applied by all standard methods. Not any non-standard method or deviation from the used standards was used.

2.3 List of Test and Measurement Instruments

Refer to **Appendix X**.

3. Test Configuration

3.1 Test Mode

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

Test Mode	Antenna Delivery	Test Channel
Bluetooth(LE_1M)	1TX / 1RX	0,19,39
IEEE 802.11b	1TX / 1RX	1,6,11
IEEE 802.11g	1TX / 1RX	1,6,11
IEEE 802.11n 20 SISO	1TX / 1RX	1,6,11
IEEE 802.11n 40 SISO	1TX / 1RX	3,6,9
IEEE 802.11ax 20 SISO	1TX / 1RX	1,6,11
IEEE 802.11ax 40 SISO	1TX / 1RX	3,6,9

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in lie-down position (X axis) and the worst case was recorded.

In order to find the worst case condition, Pre-tests are needed at the presence of different data rate and different channels. Preliminary tests have been done on all the configurations for confirming worst case. Data rate below means worst-case rate of each test item.

Worst-case data rates and channels are shown as following table.

Test Mode	Data Rate		
	Antenna 1	Antenna 2	MIMO
Bluetooth(LE_1M)	1	1	/
IEEE 802.11b	1	/	/
IEEE 802.11g	6	/	/
IEEE 802.11n 2.4GHz 20MHz	MCS 0	/	/
IEEE 802.11n 2.4GHz 40MHz	MCS 0	/	/
IEEE 802.11ax 2.4GHz 20MHz	MCS 0	/	/
IEEE 802.11ax 2.4GHz 40MHz	MCS 0	/	/

Test Items	Test Antennas	Test Modes	Test Channels
Conducted Emissions	Antenna 1	IEEE 802.11ax 20 Bluetooth(LE_1M)	1/ 0
Radiated Emissions	Antenna 1	IEEE 802.11ax 20 Bluetooth(LE_1M)	1,6,11/ 0,19,39
Radiated Emissions (Band Edge)	Antenna 1	IEEE 802.11ax 20 Bluetooth(LE_1M)	1,11/ 0,39
Maximum conducted output power	Antenna 1	IEEE 802.11b/ IEEE 802.11g/ IEEE 802.11n 20/ IEEE 802.11n 40/ IEEE 802.11ax 20/ IEEE 802.11ax 40/ Bluetooth(LE_1M)	1,6,11/ 1,6,11/ 1,6,11/ 3,6,9/ 1,6,11/ 3,6,9/ 0,19,39
Minimum 6 dB bandwidth	Antenna 1	IEEE 802.11b/ IEEE 802.11g/ IEEE 802.11n 20/ IEEE 802.11n 40/ IEEE 802.11ax 20/ IEEE 802.11ax 40/ Bluetooth(LE_1M)	1,6,11/ 1,6,11/ 1,6,11/ 3,6,9/ 1,6,11/ 3,6,9/ 0,19,39
Occupied Channel Bandwidth	Antenna 1	IEEE 802.11b/ IEEE 802.11g/ IEEE 802.11n 20/ IEEE 802.11n 40/ IEEE 802.11ax 20/ IEEE 802.11ax 40/ Bluetooth(LE_1M)	1,6,11/ 1,6,11/ 1,6,11/ 3,6,9/ 1,6,11/ 3,6,9/ 0,19,39
Band Edge Measurement	Antenna 1	IEEE 802.11b/ IEEE 802.11g/ IEEE 802.11n 20/ IEEE 802.11n 40/ IEEE 802.11ax 20/ IEEE 802.11ax 40/ Bluetooth(LE_1M)	1,11/ 1,11/ 1,11/ 3,9/ 1,11/ 3,9/ 0,39
Maximum Power spectral density	Antenna 1	IEEE 802.11b/ IEEE 802.11g/ IEEE 802.11n 20/ IEEE 802.11n 40/ IEEE 802.11ax 20/ IEEE 802.11ax 40/ Bluetooth(LE_1M)	1,6,11/ 1,6,11/ 1,6,11/ 3,6,9/ 1,6,11/ 3,6,9/ 0,19,39
Spurious RF Conducted Emissions	Antenna 1	IEEE 802.11b/ IEEE 802.11g/ IEEE 802.11n 20/ IEEE 802.11n 40/ IEEE 802.11ax 20/ IEEE 802.11ax 40/ Bluetooth(LE_1M)	1,6,11/ 1,6,11/ 1,6,11/ 3,6,9/ 1,6,11/ 3,6,9/ 0,19,39

3.2 Duty cycle

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11B	Ant1	2412	8.36	17.13	48.80	---	---
		2437	8.37	17.13	48.86	---	---
		2462	8.37	17.10	48.95	---	---
11G	Ant1	2412	1.39	10.14	13.71	---	---
		2437	1.39	10.14	13.71	---	---
		2462	1.39	10.13	13.72	---	---
11N20SISO	Ant1	2412	1.30	10.05	12.94	---	---
		2437	1.30	10.04	12.95	---	---
		2462	1.30	10.04	12.95	---	---
11N40SISO	Ant1	2422	0.65	6.53	9.95	---	---
		2437	0.65	6.53	9.95	---	---
		2452	0.65	6.54	9.94	---	---
11AX20SISO	Ant1	2412	1.07	9.81	10.91	---	---
		2437	1.07	9.81	10.91	---	---
		2462	1.07	9.81	10.91	---	---
11AX40SISO	Ant1	2422	0.57	9.31	6.12	---	---
		2437	0.56	9.31	6.02	---	---
		2452	0.57	9.31	6.12	---	---
BLE_1M	Ant1	2402	20.00	20.00	100	---	---
		2440	20.00	20.00	100	---	---
		2480	20.00	20.00	100	---	---
BLE_2M	Ant1	2402	0.22	0.63	34.92	---	---
		2440	0.22	0.63	34.92	---	---
		2480	0.22	0.63	34.92	---	---

TestMode	Antenna	Channel	RuSize	RuIndex	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	Limit	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	0.88	4.96	17.74	---	---
				RU4	0.87	4.96	17.54	---	---
				RU8	0.36	0.36	100.00	---	---
			52Tone	RU37	0.88	8.73	10.08	---	---
				RU39	0.88	8.73	10.08	---	---
				RU40	0.88	8.73	10.08	---	---
			106Tone	RU53	0.88	9.62	9.15	---	---
				RU54	0.88	9.62	9.15	---	---
				RU54	0.88	9.62	9.15	---	---
		2437	26Tone	RU0	0.87	4.96	17.54	---	---
				RU4	0.87	4.96	17.54	---	---
				RU8	0.36	0.36	100.00	---	---
			52Tone	RU37	0.88	8.73	10.08	---	---
				RU39	0.87	8.72	9.98	---	---
				RU40	0.88	8.73	10.08	---	---
			106Tone	RU53	0.88	9.62	9.15	---	---
				RU54	0.88	9.62	9.15	---	---
				RU54	0.88	9.62	9.15	---	---
		2462	26Tone	RU0	0.88	4.96	17.74	---	---
				RU4	0.87	4.96	17.54	---	---
				RU8	0.36	0.36	100.00	---	---
			52Tone	RU37	0.88	8.73	10.08	---	---
				RU39	0.88	8.73	10.08	---	---
				RU40	0.88	8.73	10.08	---	---
			106Tone	RU53	0.88	9.62	9.15	---	---
				RU54	0.88	9.62	9.15	---	---
				RU54	0.88	9.62	9.15	---	---

4. Summary of measurement results

Summary of measurements of results	Clause in FCC rules	Verdict	Note
Conducted Emissions	15.207	PASS	/
Radiated Emissions	15.247(d),15.205,15.209	PASS	/
Maximum conducted output power	15.247(b)(3)	PASS	Appendix C of WIFI2.4G_ diagram and Appendix C of BLE_ diagram and Appendix C of WIFI2.4G__AX Part RU_ diagram
Minimum 6 dB bandwidth	15.247(a)(2)	PASS	Appendix A of WIFI2.4G_ diagram and Appendix A of BLE_ diagram and Appendix A of WIFI2.4G__AX Part RU_ diagram
Occupied Channel Bandwidth	15.247(a)(2)	PASS	Appendix B of WIFI2.4G_ diagram and Appendix B of BLE_ diagram and Appendix B of WIFI2.4G__AX Part RU_ diagram
Band Edge Measurement	15.247(d)	PASS	Appendix E of WIFI2.4G_ diagram and Appendix E of BLE_ diagram and Appendix E of WIFI2.4G__AX Part RU_ diagram
Maximum Power spectral density	15.247(e)	PASS	Appendix D of WIFI2.4G_ diagram and Appendix D of BLE_ diagram and Appendix D of WIFI2.4G__AX Part RU_ diagram
Spurious RF Conducted Emissions	15.247(d)	PASS	Appendix F of WIFI2.4G_ diagram and Appendix F of BLE_ diagram and Appendix F of WIFI2.4G__AX Part RU_ diagram
Antenna Requirement	15.203	PASS	See note 1

Note 1: According to 15.203, it is considered sufficient to comply with the provisions of this section.

5. Measurement procedure

5.1 Conducted Emission

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.3kPa

Method of Measurement:

The EUT was setup according to ANSI C63.10-2020/Cor1-2023 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

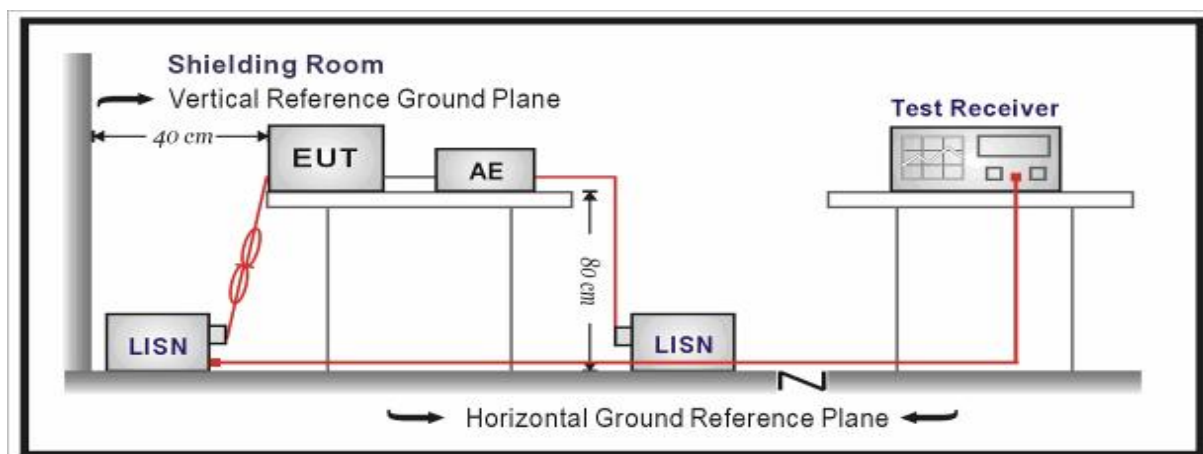
Limits:

Frequency (MHz)	Conducted Limits(dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46*
0.5 - 5	56	46
5 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Test Setup:



Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Level = Reading + Factor.

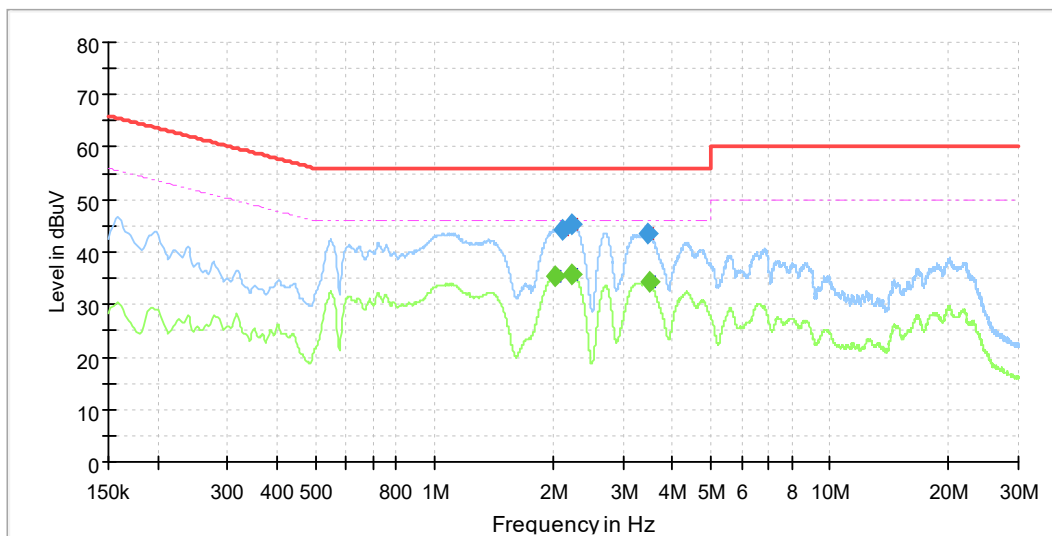
Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$. $U = 3.12$ dB.

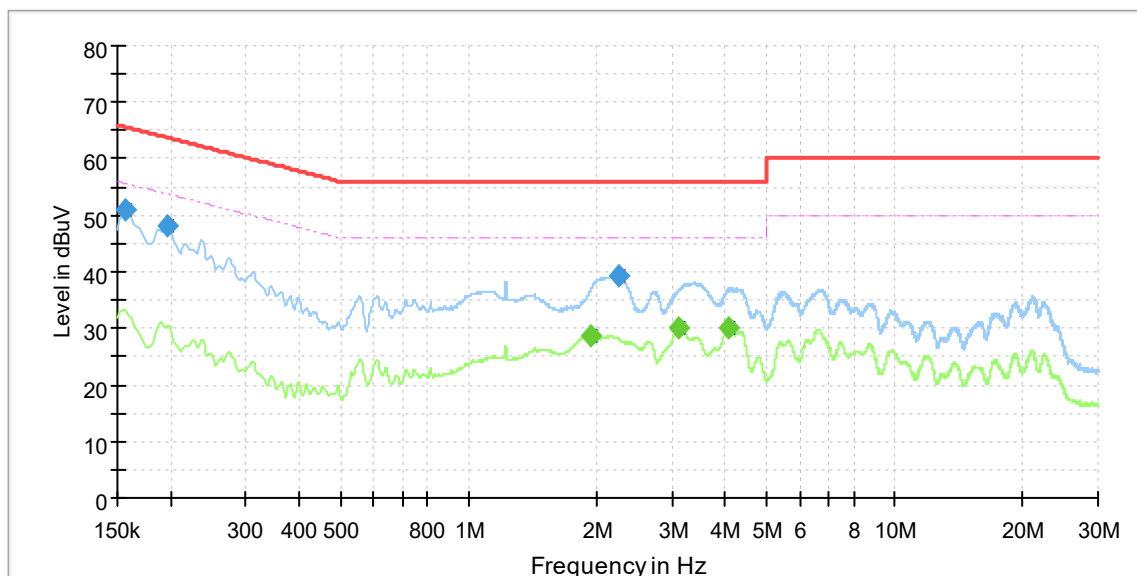
Test Results:

During the test, the Conducted Emission from 150kHz to 30MHz was performed in all modes with all channels, and all antennas. WIFI2.4G, 11AX20, Channel 1, Antenna 1 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Radiates Emission		150k~30MHz				
Power Line		L				
Test channel		Worst-Case				
Suspected List						
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
2.027	---	35.5	46.0	10.5	L1	20.7
2.103	44.3	---	56.0	11.7	L1	20.7
2.225	---	35.8	46.0	10.2	L1	20.8
2.227	45.3	---	56.0	10.7	L1	20.8
3.462	43.7	---	56.0	12.3	L1	21.3
3.503	---	34.2	46.0	11.8	L1	21.3

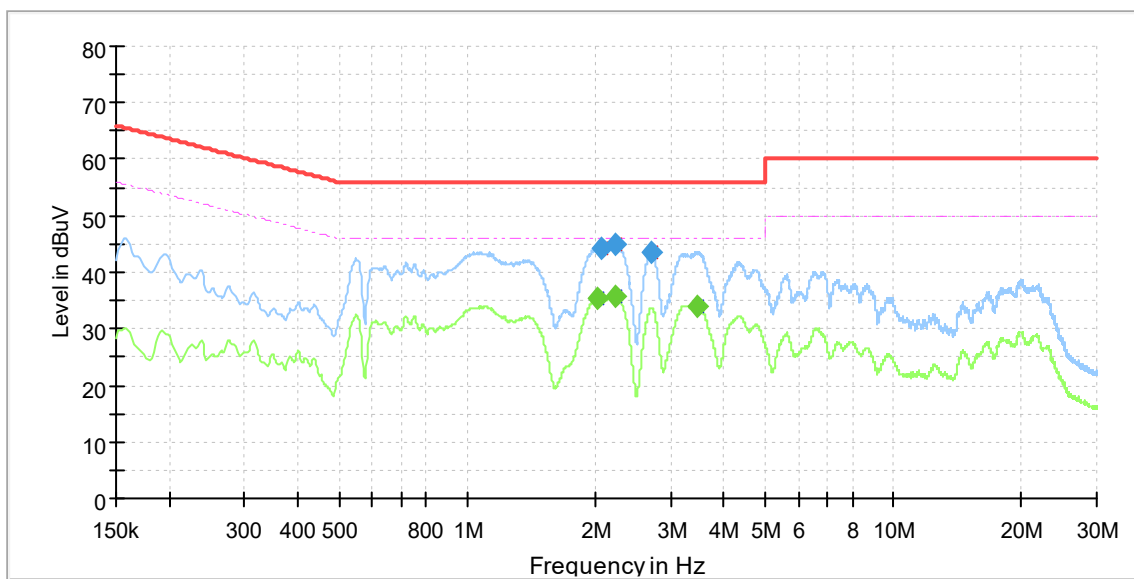


Radiates Emission		150k~30MHz				
Power Line		N				
Test channel		Worst-Case				
Suspected List						
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
0.157	51.2	---	65.6	14.5	N	20.1
0.197	48.2	---	63.7	15.5	N	20.2
1.932	---	28.7	46.0	17.3	N	20.6
2.245	39.3	---	56.0	16.7	N	20.7
3.127	---	30.1	46.0	15.9	N	21.1
4.085	---	30.1	46.0	15.9	N	21.6

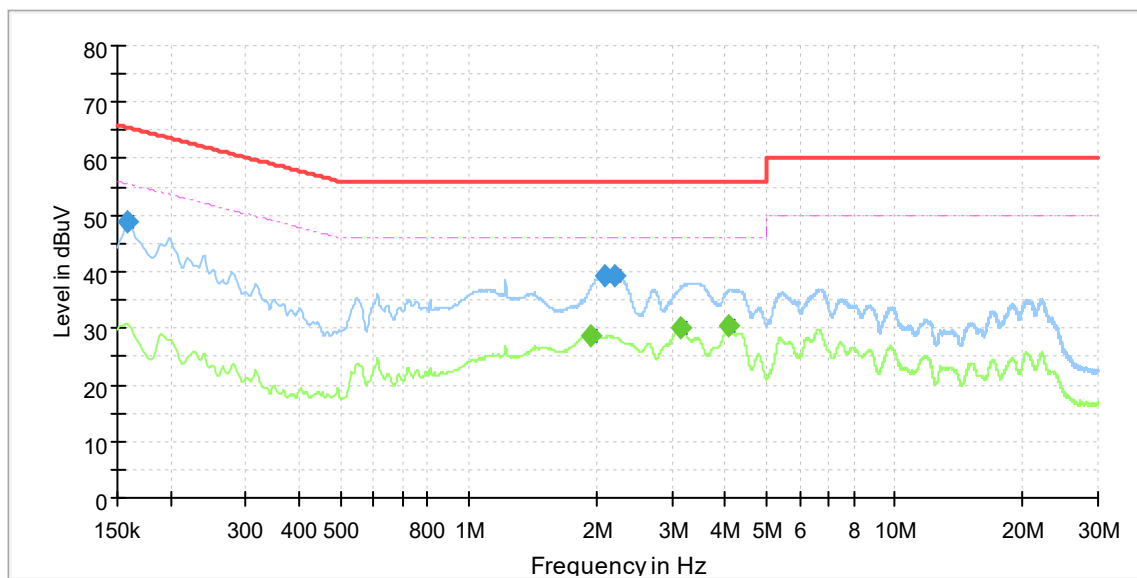


During the test, the Conducted Emission from 150kHz to 30MHz was performed in all modes with all channels, and all antennas. Bluetooth(LE_2M), Channel 0, Antenna 1 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Radiates Emission		150k~30MHz				
Power Line		L				
Test channel		Worst-Case				
Suspected List						
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
2.027	---	35.5	46.0	10.5	L1	20.7
2.076	44.4	---	56.0	11.6	L1	20.7
2.231	---	35.6	46.0	10.4	L1	20.8
2.236	45.1	---	56.0	10.9	L1	20.8
2.711	43.6	---	56.0	12.4	L1	20.9
3.478	---	34.1	46.0	11.9	L1	21.3



Radiates Emission		150k~30MHz				
Power Line		N				
Test channel		Worst-Case				
Suspected List						
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Corr. (dB)
0.159	48.9	---	65.5	16.7	N	20.1
1.928	---	28.8	46.0	17.2	N	20.6
2.083	39.3	---	56.0	16.7	N	20.7
2.207	39.4	---	56.0	16.6	N	20.7
3.136	---	30.1	46.0	15.9	N	21.1
4.070	---	30.3	46.0	15.7	N	21.5



5.2 Radiated Emission

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.3kPa

Method of Measurement:

The EUT was setup and tested according to ANSI C63.10-2020/Cor1-2023.

The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from Antenna to the EUT was 3 meters.

The Antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the Antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2020/Cor1-2023 on radiated measurement. The resolution bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

The frequency range from 30MHz to 10th harmonic is checked.

Note: When doing emission measurement above 1GHz, the horn Antenna will be bended down a little (as horn Antenna has the narrow beamwidth) in order to keeping the Antenna in the “cone of radiation” of EUT. The 3dB beamwidth is 10~60 degrees for H-plane and 10~90 degrees for E-plane.

Limits:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

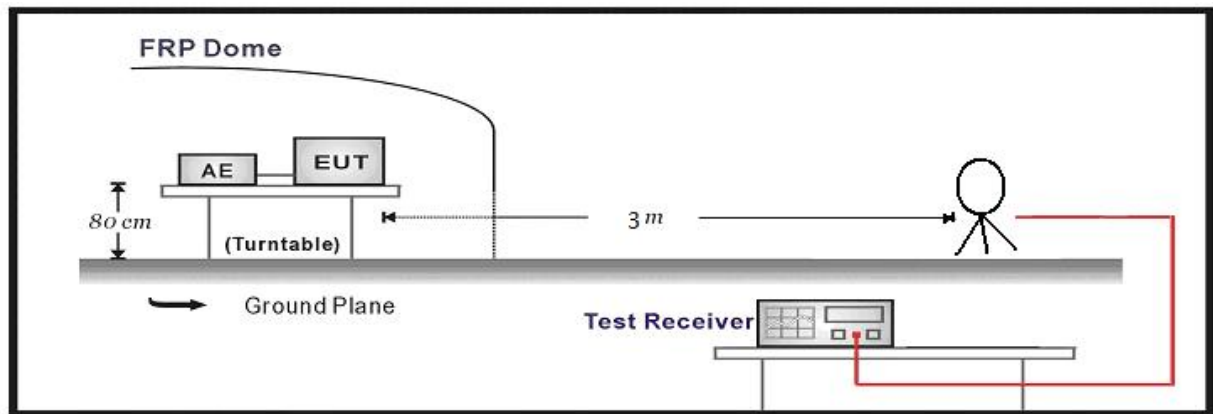
Frequency	Limit ($\mu\text{V/m}$)	Limit ($\text{dB}\mu\text{V/m @3m}$)	Remark
0.009MHz-0.490MHz	2400/F(kHz)@300m	20lg(24000000/F(kHz))	Quasi-peak Level
0.490MHz~1.705MHz	24000/F(kHz)@30m	20lg(2400000/F(kHz))	Quasi-peak Level
1.705MHz~30.0MHz	30@30m	69.54	Quasi-peak Level
30MHz-88MHz	100@3m	40.0	Quasi-peak Level
88MHz-216MHz	150@3m	43.5	Quasi-peak Level
216MHz-960MHz	200@3m	46.0	Quasi-peak Level
960MHz-1GHz	500@3m	54.0	Quasi-peak Level
Above 1GHz	500@3m	54.0	Average Level
	5000@3m	74.0	Peak Level

Spurious Radiated Emissions are permitted in any of the frequency bands listed below:

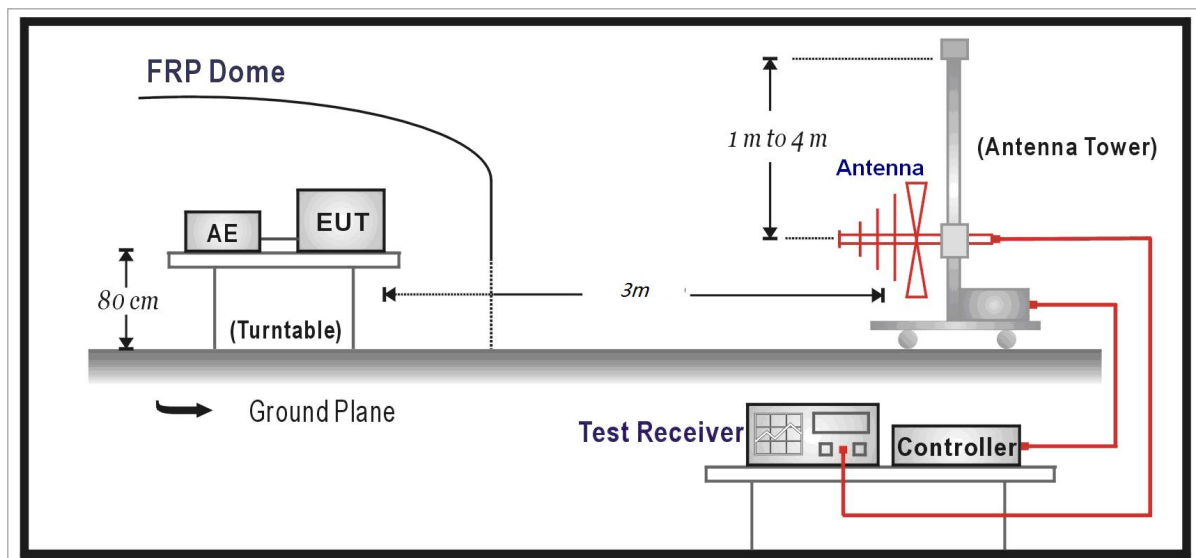
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.
12.57675-12.57725	322-335.4	3600-4400	/
13.36-13.41	/	/	/

Test Setup:

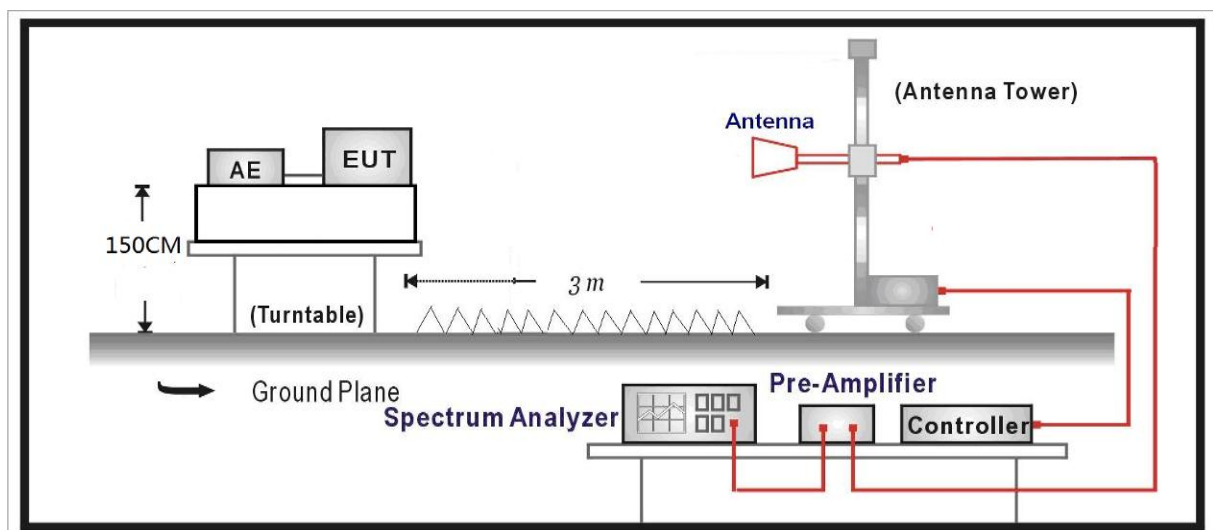
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



Measurement Data:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Level = Reading - Factor

Factor = Preamplifier Factor – Antenna Factor–Cable Loss

Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

Frequency	Uncertainty
9KHz-30MHz	3.55 dB
30MHz-200MHz	4.19 dB
200MHz-1GHz	3.63 dB
Above 1GHz	3.68 dB

Test Results:

SPURIOUS EMISSIONS:

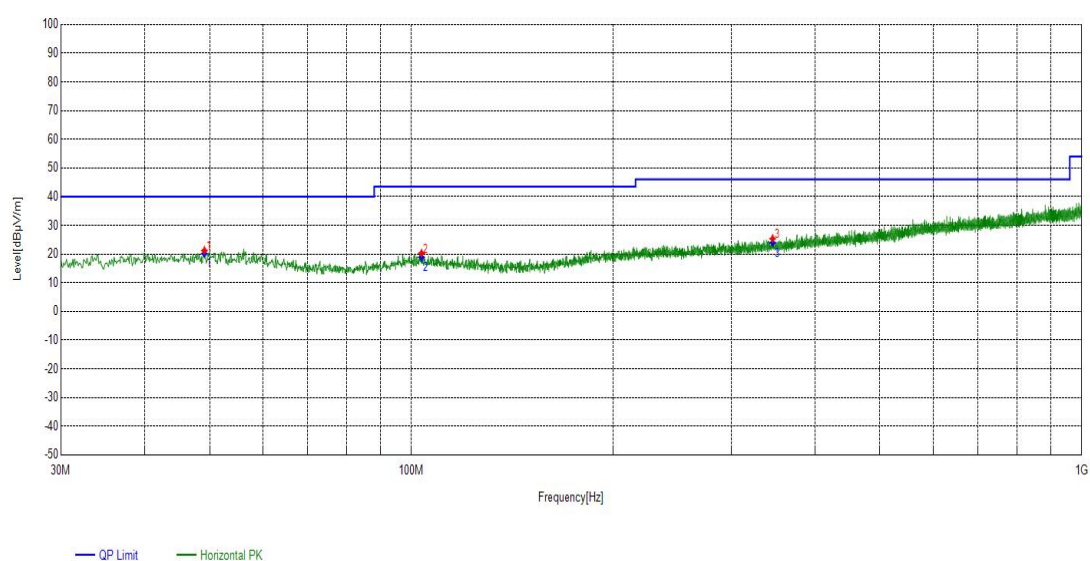
WIFI:

During the test, the Radiates Emission from 9kHz to 1GHz was performed in WIFI all modes with all channels and all antennas. 802.11ax20, Channel 1, Ant1 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Radiates Emission			9k~1G							
Test channel			Worst-Case							
Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/ m]	Level [dBμV /m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
49.1109	Horizontal	13.01	8.21	21.22	40.00	18.78	PK	100	20	PASS
103.5334	Horizontal	11.76	8.52	20.28	43.50	23.22	PK	100	300	PASS
345.8636	Horizontal	16.60	8.73	25.33	46.00	20.67	PK	100	110	PASS

Note: 9kHz~30MHz have been test and test data more than 20dB margin.

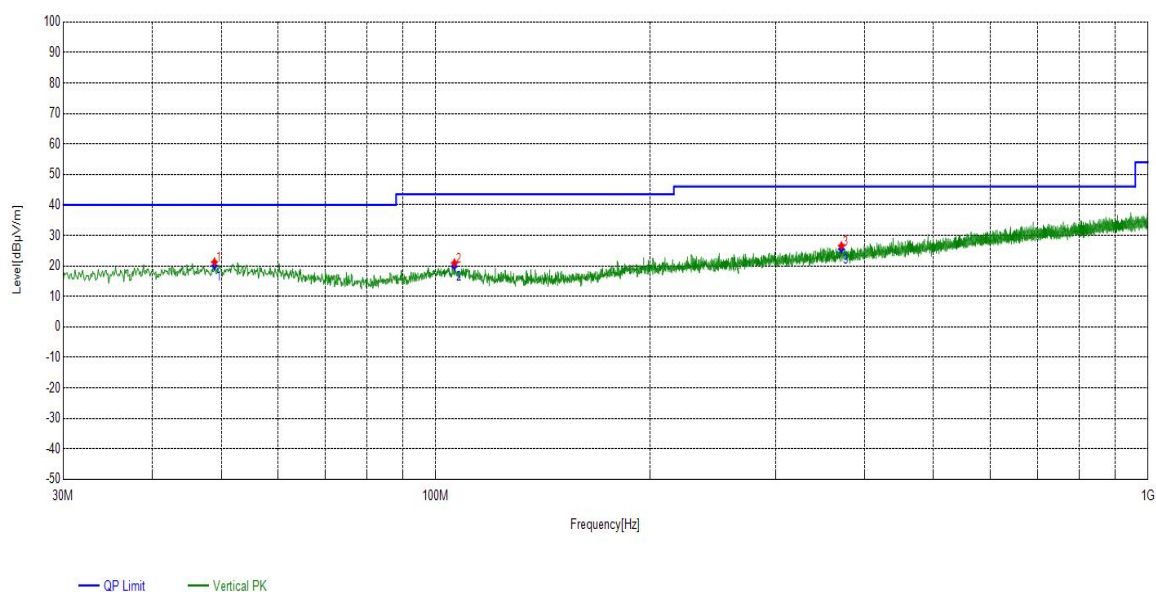
Final Data List									
Frequency [MHz]	Polarity	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pass/Fail	
49.1109	Horizontal	13.01	20.13	40.00	19.87	230	20	PASS	
103.5334	Horizontal	11.76	18.87	43.50	24.63	280	300	PASS	
345.8636	Horizontal	16.60	23.92	46.00	22.08	150	110	PASS	



Radiates Emission			9k~1G							
Test channel			Worst-Case							
Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
48.9169	Vertical	12.99	8.28	21.27	40.00	18.73	PK	100	30	PASS
106.2496	Vertical	11.70	9.26	20.96	43.50	22.54	PK	100	40	PASS
371.1831	Vertical	17.20	9.40	26.60	46.00	19.40	PK	100	340	PASS

Note: 9kHz~30MHz have been test and test data more than 20dB margin.

Final Data List								
Frequency [MHz]	Polarity	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pass/Fail
48.9169	Vertical	12.99	19.99	40.00	20.01	390	35	PASS
106.2496	Vertical	11.70	19.85	43.50	23.65	250	43	PASS
371.1831	Vertical	17.20	25.49	46.00	20.51	180	342	PASS



During the test, the Radiates Emission from Above 1G was performed in WIFI all modes with all channels and all antennas. 802.11ax20, Highest, medium, lowest channels, Ant1 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Radiates Emission		Above 1G							
Test channel		Lowest							
polarization		Horizontal							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
4938.193819	1.83	37.37	39.20	74.00	34.80	PK	150	70	PASS
7749.474948	9.19	32.02	41.21	74.00	32.79	PK	150	270	PASS
14464.146415	18.23	30.31	48.54	74.00	25.46	PK	150	140	PASS
4938.193819	1.83	25.02	26.85	54.00	27.15	AV	150	20	PASS
7749.474948	9.19	23.09	32.28	54.00	21.72	AV	150	10	PASS
14464.146415	18.23	20.76	38.99	54.00	15.01	AV	150	10	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission		Above 1G							
Test channel		Lowest							
polarization		Vertical							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
4125.112511	0.48	35.75	36.23	74.00	37.77	PK	150	340	PASS
8585.058506	10.08	33.32	43.40	74.00	30.60	PK	150	200	PASS
14440.144014	18.12	31.20	49.32	74.00	24.68	PK	150	221	PASS
4125.112511	0.48	26.55	27.03	54.00	26.97	AV	150	310	PASS
8585.058506	10.08	22.61	32.69	54.00	21.31	AV	150	210	PASS
14440.144014	18.12	21.85	39.97	54.00	14.03	AV	150	180	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission		Above 1G							
Test channel		Medium							
polarization		Horizontal							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
4122.112211	0.48	36.36	36.84	74.00	37.16	PK	150	290	PASS
7311.431143	9.00	32.06	41.06	74.00	32.94	PK	150	180	PASS
14449.144915	18.17	31.59	49.76	74.00	24.24	PK	150	60	PASS
4122.112211	0.48	26.89	27.37	54.00	26.63	AV	150	10	PASS
7311.431143	9.00	22.55	31.55	54.00	22.45	AV	150	20	PASS
14449.144915	18.17	21.20	39.37	54.00	14.63	AV	150	20	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission		Above 1G							
Test channel		Medium							
polarization		Vertical							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
4137.113711	0.48	35.36	35.84	74.00	38.16	PK	150	280	PASS
6840.384038	8.14	33.32	41.46	74.00	32.54	PK	150	210	PASS
14701.170117	18.04	33.50	51.54	74.00	22.46	PK	150	310	PASS
4137.113711	0.48	25.45	25.93	54.00	28.07	AV	150	110	PASS
6840.384038	8.14	21.14	29.28	54.00	24.72	AV	150	130	PASS
14701.170117	18.04	21.30	39.34	54.00	14.66	AV	150	30	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission	Above 1G								
Test channel	Highest								
polarization	Horizontal								
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
5259.225923	2.93	33.85	36.78	74.00	37.22	PK	150	200	PASS
9620.162016	12.38	32.27	44.65	74.00	29.35	PK	150	150	PASS
14452.145215	18.18	33.80	51.98	74.00	22.02	PK	150	260	PASS
5259.225923	2.93	24.25	27.18	54.00	26.82	AV	150	78	PASS
9620.162016	12.38	19.60	31.98	54.00	22.02	AV	150	100	PASS
14452.145215	18.18	21.46	39.64	54.00	14.36	AV	150	210	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission	Above 1G								
Test channel	Highest								
polarization	Vertical								
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
4110.111011	0.50	36.79	37.29	74.00	36.71	PK	150	140	PASS
7590.459046	9.09	31.85	40.94	74.00	33.06	PK	150	180	PASS
14383.138314	17.86	33.34	51.20	74.00	22.80	PK	150	280	PASS
4110.111011	0.50	27.95	28.45	54.00	25.55	AV	150	121	PASS
7590.459046	9.09	23.10	32.19	54.00	21.81	AV	150	50	PASS
14383.138314	17.86	21.14	39.00	54.00	15.00	AV	150	20	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

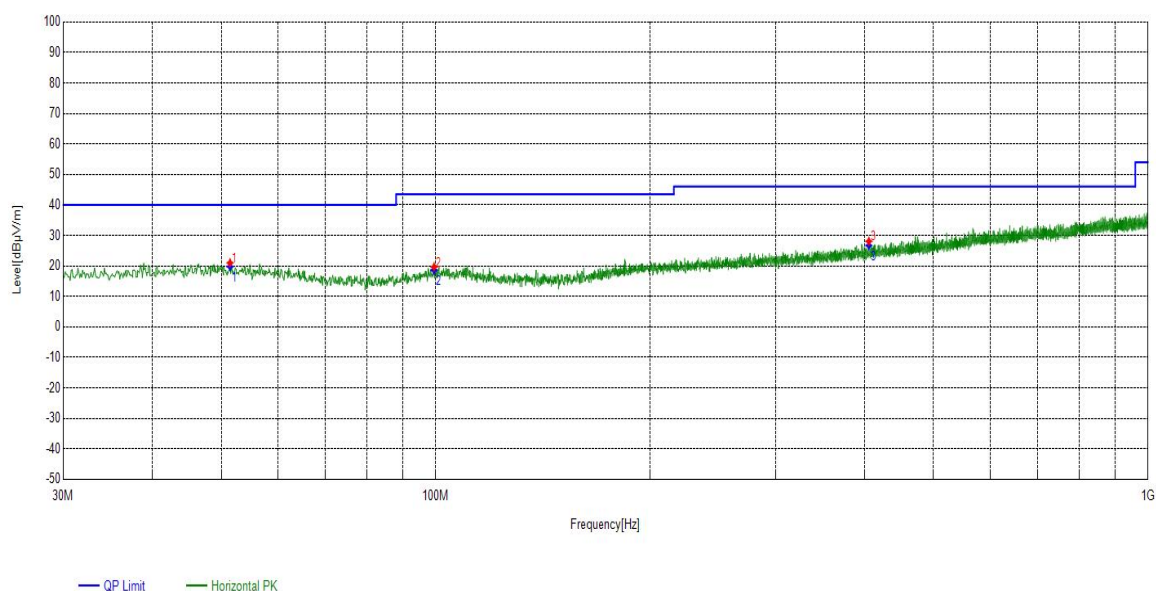
Bluetooth(Low Energy):

During the test, the Radiates Emission from 9kHz to 1GHz was performed in Bluetooth(Low Energy) all modes with all channels and all antennas. BLE(2Mbps), channel 0, antenna 1 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Radiates Emission			9k~1G							
Test channel			Worst-Case							
Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/Fail
51.4391	Horizontal	12.97	8.01	20.98	40.00	19.02	PK	100	230	PASS
99.4589	Horizontal	11.75	7.89	19.64	43.50	23.86	PK	100	160	PASS
405.6216	Horizontal	17.99	10.05	28.04	46.00	17.96	PK	100	270	PASS

Note: 9kHz~30MHz have been test and test data more than 20dB margin.

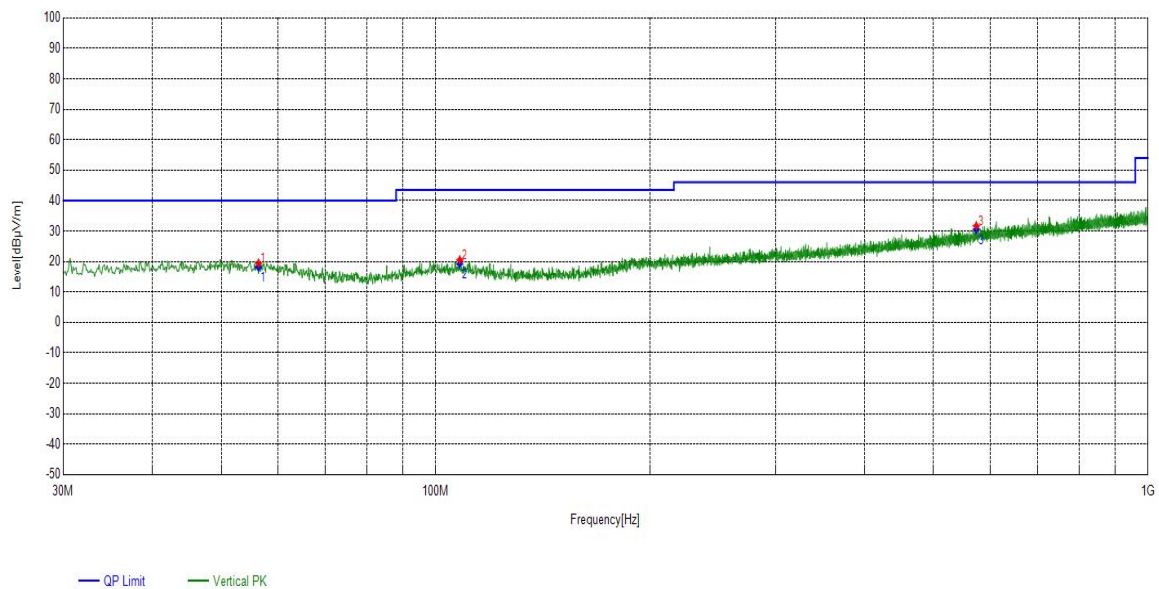
Final Data List								
Frequency [MHz]	Polarity	Factor [dB]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pass/Fail
51.4391	Horizontal	12.97	19.74	40.00	20.26	150	256	PASS
99.4589	Horizontal	11.75	18.58	43.50	24.92	300	185	PASS
405.6216	Horizontal	17.99	26.66	46.00	19.34	340	269	PASS



Radiates Emission			9k~1G							
Test channel			Worst-Case							
Suspected List										
Frequency [MHz]	Polarity	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
56.3866	Vertical	12.51	6.93	19.44	40.00	20.56	PK	100	360	PASS
108.0928	Vertical	11.66	8.84	20.50	43.50	23.00	PK	100	140	PASS
573.9334	Vertical	21.49	10.20	31.69	46.00	14.31	PK	100	300	PASS

Note: 9kHz~30MHz have been test and test data more than 20dB margin.

Final Data List								
Frequency [MHz]	Polarity	Factor [dB]	QP Value [dB μ V/m]	QP Limit [dB μ V/m]	QP Margin [dB]	Height [cm]	Angle [°]	Pass/Fail
56.3866	Vertical	12.51	18.11	40.00	21.89	400	355	PASS
108.0928	Vertical	11.66	19.17	43.50	24.33	120	138	PASS
573.9334	Vertical	21.49	30.54	46.00	15.46	380	312	PASS



During the test, the Radiates Emission from Above 1G was performed in Bluetooth(Low Energy) all modes with all channels and all antennas. BLE(2Mbps), Highest, medium, lowest channels, antenna 1 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Radiates Emission		Above 1G							
Test channel		Lowest							
polarization		Horizontal							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
6012.30123	5.71	34.51	40.22	74.00	33.78	PK	150	280	PASS
10115.211521	12.49	30.24	42.73	74.00	31.27	PK	150	130	PASS
14455.145515	18.19	32.81	51.00	74.00	23.00	PK	150	350	PASS
6012.30123	5.71	22.24	27.95	54.00	26.05	AV	150	20	PASS
10115.211521	12.49	19.90	32.39	54.00	21.61	AV	150	20	PASS
14455.145515	18.19	20.75	38.94	54.00	15.06	AV	150	120	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission		Above 1G							
Test channel		Lowest							
polarization		Vertical							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
4104.110411	0.49	38.47	38.96	74.00	35.04	PK	150	10	PASS
7059.405941	8.97	33.67	42.64	74.00	31.36	PK	150	230	PASS
14593.159316	18.05	29.51	47.56	74.00	26.44	PK	150	170	PASS
4104.110411	0.49	26.84	27.33	54.00	26.67	AV	150	10	PASS
7059.405941	8.97	21.50	30.47	54.00	23.53	AV	150	90	PASS
14593.159316	18.05	20.90	38.95	54.00	15.05	AV	150	10	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission	Above 1G								
Test channel	medium								
polarization	Horizontal								
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
4095.109511	0.50	37.91	38.41	74.00	35.59	PK	150	220	PASS
7326.432643	9.00	33.51	42.51	74.00	31.49	PK	150	220	PASS
14689.168917	18.04	30.88	48.92	74.00	25.08	PK	150	120	PASS
4095.109511	0.50	26.78	27.28	54.00	26.72	AV	150	40	PASS
7326.432643	9.00	22.41	31.41	54.00	22.59	AV	150	40	PASS
14689.168917	18.04	20.81	38.85	54.00	15.15	AV	150	250	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission	Above 1G								
Test channel	medium								
polarization	Vertical								
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
5193.219322	2.78	33.38	36.16	74.00	37.84	PK	150	260	PASS
8654.065407	10.11	33.63	43.74	74.00	30.26	PK	150	290	PASS
14416.141614	18.03	33.08	51.11	74.00	22.89	PK	150	220	PASS
5193.219322	2.78	24.24	27.02	54.00	26.98	AV	150	150	PASS
8654.065407	10.11	22.60	32.71	54.00	21.29	AV	150	230	PASS
14416.141614	18.03	21.69	39.72	54.00	14.28	AV	150	40	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission	Above 1G								
Test channel	Highest								
polarization	Horizontal								
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/ m]	Level [dBμV/ m]	Limit [dBμV/ m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
4275.127513	0.29	35.12	35.41	74.00	38.59	PK	150	350	PASS
8537.053705	10.03	34.12	44.15	74.00	29.85	PK	150	60	PASS
14452.145215	18.18	32.61	50.79	74.00	23.21	PK	150	170	PASS
4275.127513	0.29	24.90	25.19	54.00	28.81	AV	150	10	PASS
8537.053705	10.03	21.56	31.59	54.00	22.41	AV	150	360	PASS
14452.145215	18.18	21.22	39.40	54.00	14.60	AV	150	100	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Radiates Emission	Above 1G								
Test channel	Highest								
polarization	Vertical								
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
4107.110711	0.49	38.77	39.26	74.00	34.74	PK	150	330	PASS
7851.485149	9.24	34.52	43.76	74.00	30.24	PK	150	230	PASS
14392.139214	17.92	31.35	49.27	74.00	24.73	PK	150	220	PASS
4107.110711	0.49	27.01	27.50	54.00	26.50	AV	150	110	PASS
7851.485149	9.24	22.36	31.60	54.00	22.40	AV	150	50	PASS
14392.139214	17.92	21.30	39.22	54.00	14.78	AV	150	80	PASS

Note: The emission levels of other frequencies were greater than 20dB margin.

Band Edge:

During the test, the Band Edge was performed in WIFI all modes with all channels and all antennas.

802.11ax20, Highest and lowest channels, Ant1 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Test mode			802.11ax20						
Test channel			Lowest channel						
polarization			Horizontal						
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
2360.1361	-4.66	44.42	39.76	74.00	34.24	PK	150	116	PASS
2390.1394	-4.57	45.98	41.41	74.00	32.59	PK	150	247	PASS
2419.7423	-4.45	92.68	88.23	---	---	PK	150	247	---
2360.1360	-4.66	32.46	27.80	54.00	26.20	AV	150	123	PASS
2390.1390	-4.57	33.37	28.80	54.00	25.20	AV	150	280	PASS
2420.7423	-4.45	78.42	73.97	---	---	AV	150	260	---
Test mode			802.11ax20						
Test channel			Lowest channel						
polarization			Vertical						
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
2340.3340	-4.72	41.70	36.98	74.00	37.02	PK	150	140	PASS
2390.1390	-4.57	41.71	37.14	74.00	36.86	PK	150	30	PASS
2419.7423	-4.45	82.92	78.47	---	---	PK	150	180	---
2340.3340	-4.72	29.78	25.06	54.00	28.94	AV	150	50	PASS
2390.1390	-4.57	30.37	25.80	54.00	28.20	AV	150	260	PASS
2420.7423	-4.45	72.44	67.99	---	---	AV	150	70	---

The signal beyond the limit is carrier.

Test mode		802.11ax20							
Test channel		Highest channel							
polarization		Horizontal							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/ Fail
2453.7453	-4.35	80.46	76.11	---	---	PK	150	290	---
2483.5485	-4.26	39.35	35.09	74.00	38.91	PK	150	270	PASS
2547.9547	-4.00	39.52	35.52	74.00	38.48	PK	150	340	PASS
2455.9455	-4.35	71.56	67.21	---	---	AV	150	10	---
2483.5483	-4.26	29.06	24.80	54.00	29.20	AV	150	50	PASS
2547.9547	-4.00	29.70	25.70	54.00	28.30	AV	150	130	PASS
Test mode		802.11ax20							
Test channel		Highest channel							
polarization		Vertical							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Height [cm]	Angle deg	Pass/ Fail
2453.7453	-4.35	81.39	77.04	---	---	PK	150	30	---
2483.5483	-4.26	40.45	36.19	74.00	37.81	PK	150	340	PASS
2557.1557	-3.96	39.00	35.04	74.00	38.96	PK	150	250	PASS
2453.7453	-4.35	70.78	66.43	---	---	AV	150	70	---
2483.5483	-4.26	29.64	25.38	54.00	28.62	AV	150	20	PASS
2557.1557	-3.96	28.91	24.95	54.00	29.05	AV	150	50	PASS

The signal beyond the limit is carrier.

During the test, the Band Edge was performed in BLE all modes with all channels and all antennas. BLE(2Mbps), Highest and lowest channels, Antenna 1 are selected as the worst condition. The test data of the worst-case condition was recorded in this report.

Test mode			BLE(2Mbps)						
Test channel			Lowest channel						
polarization			Horizontal						
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
2374.9374	-4.62	38.94	34.32	74.00	39.68	PK	150	80	PASS
2390.1390	-4.57	39.50	34.93	74.00	39.07	PK	150	180	PASS
2401.9401	-4.54	80.45	75.91	---	---	PK	150	320	---
2374.9374	-4.62	28.41	23.79	54.00	30.21	AV	150	160	PASS
2390.1390	-4.57	29.94	25.37	54.00	28.63	AV	150	10	PASS
2401.9401	-4.54	78.33	73.79	---	---	AV	150	130	---

Test mode			BLE(2Mbps)						
Test channel			Lowest channel						
polarization			Vertical						
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
2344.1344	-4.71	39.57	34.86	74.00	39.14	PK	150	110	PASS
2390.1390	-4.57	39.29	34.72	74.00	39.28	PK	150	150	PASS
2401.9401	-4.54	76.24	71.70	---	---	PK	150	300	---
2344.1344	-4.71	28.53	23.82	54.00	30.18	AV	150	60	PASS
2390.1391	-4.57	29.34	24.77	54.00	29.23	AV	150	20	PASS
2401.9401	-4.54	73.94	69.40	---	---	AV	150	30	---

The signal beyond the limit is carrier.

Test mode		BLE(2Mbps)							
Test channel		Highest channel							
polarization		Horizontal							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
2479.9479	-4.27	69.98	65.71	---	---	PK	150	130	---
2483.5483	-4.26	38.87	34.61	74.00	39.39	PK	150	110	PASS
2514.1514	-4.14	39.87	35.73	74.00	38.27	PK	150	340	PASS
2479.9479	-4.27	68.05	63.78	---	---	AV	150	70	---
2483.5483	-4.26	28.66	24.40	54.00	29.60	AV	150	170	PASS
2514.1514	-4.14	28.80	24.66	54.00	29.34	AV	150	70	PASS

Test mode		BLE(2Mbps)							
Test channel		Highest channel							
polarization		Vertical							
Suspected List									
Frequency [MHz]	Factor [dB]	Reading [dBμV/m]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detect or	Height [cm]	Angle deg	Pass/ Fail
2479.94799	-4.27	73.34	69.07	---	---	PK	150	220	---
2483.54835	-4.26	38.44	34.18	74.00	39.82	PK	150	110	PASS
2517.95179	-4.13	40.26	36.13	74.00	37.87	PK	150	70	PASS
2479.94799	-4.27	71.63	67.36	---	---	AV	150	20	---
2483.54835	-4.26	29.49	25.23	54.00	28.77	AV	150	10	PASS
2517.95179	-4.13	28.17	24.04	54.00	29.96	AV	150	240	PASS

The signal beyond the limit is carrier.

5.3 Maximum conducted output power

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.3kPa

Method of Measurement:

a. A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor and set the detector to PEAK. Record the power level.

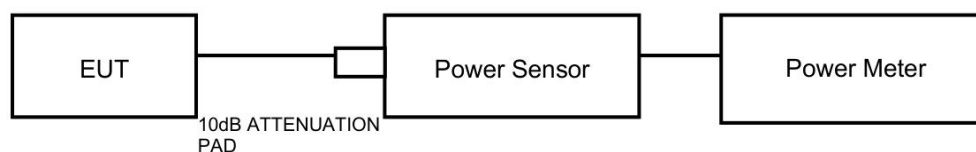
Limits:

Average Output Power	$\leq 1\text{W}$ (30dBm)
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Note: the conducted output power limit specified above is based on the use the antennas with directional gains that do not exceed 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated Levels above, as appropriate, by the amount in dB that the directional gain of antenna exceeds 6 dBi.

Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Test Setup:



Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.44$ dB.

Test Results:

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	2412	16.38	≤ 30.00	PASS
		2437	16.39	≤ 30.00	PASS
		2462	16.37	≤ 30.00	PASS
11G	Ant1	2412	12.91	≤ 30.00	PASS
		2437	12.97	≤ 30.00	PASS
		2462	12.67	≤ 30.00	PASS
11N20SISO	Ant1	2412	12.40	≤ 30.00	PASS
		2437	12.44	≤ 30.00	PASS
		2462	12.13	≤ 30.00	PASS
11N40SISO	Ant1	2422	11.59	≤ 30.00	PASS
		2437	11.63	≤ 30.00	PASS
		2452	11.54	≤ 30.00	PASS
11AX20SISO	Ant1	2412	12.09	≤ 30.00	PASS
		2437	12.15	≤ 30.00	PASS
		2462	11.80	≤ 30.00	PASS
11AX40SISO	Ant1	2422	11.58	≤ 30.00	PASS
		2437	11.69	≤ 30.00	PASS
		2452	11.62	≤ 30.00	PASS
BLE_1M	Ant1	2402	-4.24	≤ 30.00	PASS
		2440	-3.69	≤ 30.00	PASS
		2480	-3.45	≤ 30.00	PASS
BLE_2M	Ant1	2402	6.00	≤ 30.00	PASS
		2440	6.68	≤ 30.00	PASS
		2480	6.63	≤ 30.00	PASS

Test Mode	Antenna	Channel	Ru Size	Ru Index	Result[dBm]	Conducted Limit[dBm]	Verdict
11AX20SIS O	Ant1	2412	26Tone	RU0	11.35	≤30.00	PASS
				RU4	13.75	≤30.00	PASS
				RU8	11.41	≤30.00	PASS
			52Tone	RU37	12.36	≤30.00	PASS
				RU39	14.07	≤30.00	PASS
				RU40	12.43	≤30.00	PASS
			106Tone	RU53	13.20	≤30.00	PASS
				RU54	13.19	≤30.00	PASS
		2437	26Tone	RU0	11.80	≤30.00	PASS
				RU4	14.03	≤30.00	PASS
				RU8	11.74	≤30.00	PASS
			52Tone	RU37	12.81	≤30.00	PASS
				RU39	14.34	≤30.00	PASS
				RU40	12.69	≤30.00	PASS
			106Tone	RU53	13.70	≤30.00	PASS
				RU54	13.73	≤30.00	PASS
		2462	26Tone	RU0	11.89	≤30.00	PASS
				RU4	14.10	≤30.00	PASS
				RU8	11.73	≤30.00	PASS
			52Tone	RU37	12.79	≤30.00	PASS
				RU39	14.34	≤30.00	PASS
				RU40	12.71	≤30.00	PASS
			106Tone	RU53	13.73	≤30.00	PASS
				RU54	13.72	≤30.00	PASS

5.4 Minimum 6 dB Bandwidth

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.3kPa

Method of Measurement:

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable. Set RBW = shall be in the range of 1% to 5% of the OBW but not less than 100 kHz; VBW is set to greater than 3 times RBW on spectrum analyzer.

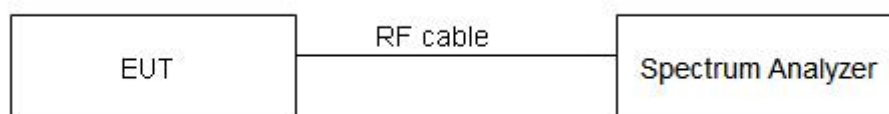
Detector=Peak, Trace mode=Max hold.

Limits:

Rule Part 15.247 (a) (2) specifies that “Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.”

Minimum 6dB Bandwidth	≥ 500 kHz
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Test Setup:



Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 936$ Hz.

Test Results:

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	8.24	2407.92	2416.16	≥0.5	PASS
		2437	7.32	2433.36	2440.68	≥0.5	PASS
		2462	7.32	2458.36	2465.68	≥0.5	PASS
11G	Ant1	2412	13.68	2405.04	2418.72	≥0.5	PASS
		2437	13.68	2430.08	2443.76	≥0.5	PASS
		2462	13.68	2455.04	2468.72	≥0.5	PASS
11N20SISO	Ant1	2412	14.24	2404.96	2419.20	≥0.5	PASS
		2437	14.16	2430.00	2444.16	≥0.5	PASS
		2462	14.16	2454.96	2469.12	≥0.5	PASS
11N40SISO	Ant1	2422	26.40	2408.08	2434.48	≥0.5	PASS
		2437	26.48	2423.00	2449.48	≥0.5	PASS
		2452	26.40	2438.00	2464.40	≥0.5	PASS
11AX20SISO	Ant1	2412	13.44	2405.32	2418.76	≥0.5	PASS
		2437	13.44	2430.32	2443.76	≥0.5	PASS
		2462	13.40	2455.32	2468.72	≥0.5	PASS
11AX40SISO	Ant1	2422	24.64	2409.36	2434.00	≥0.5	PASS
		2437	24.64	2424.28	2448.92	≥0.5	PASS
		2452	24.64	2439.28	2463.92	≥0.5	PASS
BLE_1M	Ant1	2402	0.69	2401.65	2402.34	≥0.5	PASS
		2440	0.70	2439.64	2440.34	≥0.5	PASS
		2480	0.69	2479.65	2480.34	≥0.5	PASS
BLE_2M	Ant1	2402	1.16	2401.42	2402.58	≥0.5	PASS
		2440	1.15	2439.42	2440.57	≥0.5	PASS
		2480	1.16	2479.42	2480.58	≥0.5	PASS

Test Mode	Antenna	Channel	Ru Size	Ru Index	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit [MHz]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	2.16	2402.48	2404.64	≥0.5	PASS
				RU4	2.76	2410.64	2413.40	≥0.5	PASS
				RU8	2.12	2419.36	2421.48	≥0.5	PASS
			52Tone	RU37	3.92	2402.64	2406.56	≥0.5	PASS
				RU39	4.08	2413.32	2417.40	≥0.5	PASS
				RU40	4.20	2417.28	2421.48	≥0.5	PASS
			106Tone	RU53	8.00	2402.76	2410.76	≥0.5	PASS
				RU54	8.04	2413.32	2421.36	≥0.5	PASS
				RU55	8.04	2413.32	2421.36	≥0.5	PASS
		2437	26Tone	RU0	2.16	2427.48	2429.64	≥0.5	PASS
				RU4	2.76	2435.64	2438.40	≥0.5	PASS
				RU8	2.20	2444.36	2446.56	≥0.5	PASS
			52Tone	RU37	4.04	2427.60	2431.64	≥0.5	PASS
				RU39	4.08	2438.28	2442.36	≥0.5	PASS
				RU40	4.12	2442.32	2446.44	≥0.5	PASS
			106Tone	RU53	8.24	2427.52	2435.76	≥0.5	PASS
				RU54	10.72	2435.68	2446.40	≥0.5	PASS
				RU55	10.72	2435.68	2446.40	≥0.5	PASS
		2462	26Tone	RU0	2.16	2452.48	2454.64	≥0.5	PASS
				RU4	2.76	2460.64	2463.40	≥0.5	PASS
				RU8	2.16	2469.36	2471.52	≥0.5	PASS
			52Tone	RU37	4.12	2452.56	2456.68	≥0.5	PASS
				RU39	4.04	2463.32	2467.36	≥0.5	PASS
				RU40	4.08	2467.32	2471.40	≥0.5	PASS
			106Tone	RU53	8.20	2452.56	2460.76	≥0.5	PASS
				RU54	10.68	2460.72	2471.40	≥0.5	PASS
				RU55	10.68	2460.72	2471.40	≥0.5	PASS

5.5 Occupied Channel Bandwidth

Ambient condition:

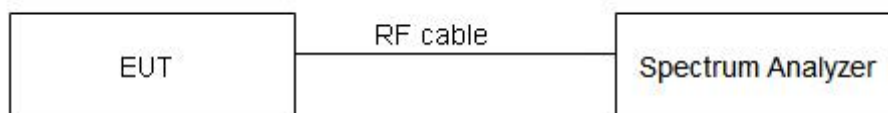
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.3kPa

Method of Measurement:

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable. RBW is set to 1% to 5% of the OBW; video bandwidth (VBW) shall be at least three times RBW on spectrum analyzer.

Detector=Peak, Trace mode=Max hold.

Test Setup:



Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 936$ Hz.

Test Results:

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	13.786	2405.1269	2418.9131	---	---
		2437	13.746	2430.1269	2443.8731	---	---
		2462	13.746	2455.1269	2468.8731	---	---
11G	Ant1	2412	16.863	2403.5684	2420.4316	---	---
		2437	16.823	2428.5684	2445.3916	---	---
		2462	16.743	2453.6084	2470.3516	---	---
11N20SISO	Ant1	2412	17.862	2403.0490	2420.9111	---	---
		2437	17.902	2428.0090	2445.9111	---	---
		2462	17.902	2453.0090	2470.9111	---	---
11N40SISO	Ant1	2422	34.366	2404.8172	2439.1828	---	---
		2437	34.366	2419.8172	2454.1828	---	---
		2452	34.366	2434.8172	2469.1828	---	---
11AX20SISO	Ant1	2412	18.382	2402.7692	2421.1508	---	---
		2437	18.382	2427.7692	2446.1508	---	---
		2462	18.382	2452.7692	2471.1508	---	---
11AX40SISO	Ant1	2422	35.884	2404.0979	2439.9820	---	---
		2437	35.964	2419.0180	2454.9820	---	---
		2452	35.964	2434.0180	2469.9820	---	---
BLE_1M	Ant1	2402	1.027	2401.4805	2402.5075	---	---
		2440	1.027	2439.4805	2440.5075	---	---
		2480	1.027	2479.4805	2480.5075	---	---
BLE_2M	Ant1	2402	2.042	2400.9930	2403.0350	---	---
		2440	2.046	2438.9930	2441.0390	---	---
		2480	2.046	2478.9930	2481.0390	---	---

Test Mode	Antenna	Channel	Ru Size	Ru Index	DTS BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	18.621	2401.7702	2420.3916	---	---
				RU4	16.943	2403.4486	2420.3916	---	---
				RU8	18.781	2403.4086	2422.1898	---	---
			52Tone	RU37	18.222	2402.1299	2420.3516	---	---
				RU39	16.663	2403.8082	2420.4715	---	---
				RU40	18.062	2403.6883	2421.7502	---	---
			106Tone	RU53	18.142	2402.3696	2420.5115	---	---
				RU54	18.142	2403.5684	2421.7103	---	---
				RU0	18.701	2426.8102	2445.5115	---	---
		2437	26Tone	RU4	16.743	2428.5285	2445.2717	---	---
				RU8	18.541	2428.6084	2447.1499	---	---
				RU37	18.182	2427.2098	2445.3916	---	---
			52Tone	RU39	16.903	2428.5285	2445.4316	---	---
				RU40	18.342	2428.4486	2446.7902	---	---
				RU53	17.982	2427.4096	2445.3916	---	---
			106Tone	RU54	18.222	2428.4086	2446.6304	---	---
				RU0	18.621	2451.7702	2470.3916	---	---
			26Tone	RU4	16.743	2453.5684	2470.3117	---	---
				RU8	18.621	2453.4885	2472.1099	---	---
			52Tone	RU37	18.382	2452.1299	2470.5115	---	---
				RU39	16.703	2453.6084	2470.3117	---	---
				RU40	18.142	2453.6084	2471.7502	---	---
			106Tone	RU53	18.062	2452.3696	2470.4316	---	---
				RU54	18.262	2453.4486	2471.7103	---	---

5.6 Band Edge Measurement

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.3kPa

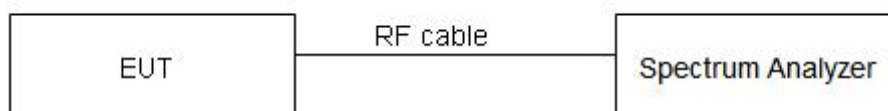
Method of Measurement:

The EUT was connected to the spectrum analyzer through an external attenuator (20dB) and a known loss cable the band edge of the lowest and highest channels were measured. The peak detector is used and RBW is set to 100 kHz and VBW is set to 300 kHz on spectrum analyzer.

Limits:

Rule Part 15.247(d) specifies that “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.

Test Setup:



Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$, $U = 936 \text{ Hz}$, $2 \text{ GHz}-3 \text{ GHz} = 1.407 \text{ dB}$.

Test Results:

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
11B	Ant1	Low	2412	4.92	-42.34	≤-15.08	PASS
		High	2462	5.24	-45.93	≤-14.76	PASS
11G	Ant1	Low	2412	-5.00	-43.76	≤-25	PASS
		High	2462	-5.25	-47.38	≤-25.25	PASS
11N20SISO	Ant1	Low	2412	-4.85	-42.77	≤-24.85	PASS
		High	2462	-5.11	-47.15	≤-25.11	PASS
11N40SISO	Ant1	Low	2422	-7.23	-46.78	≤-27.23	PASS
		High	2452	-7.27	-47.71	≤-27.27	PASS
11AX20SISO	Ant1	Low	2412	-4.84	-44.74	≤-24.84	PASS
		High	2462	-5.11	-46.83	≤-25.11	PASS
11AX40SISO	Ant1	Low	2422	-7.37	-45.87	≤-27.37	PASS
		High	2452	-7.28	-47.1	≤-27.28	PASS
BLE_1M	Ant1	Low	2402	-5.36	-48.4	≤-25.36	PASS
		High	2480	-4.48	-47.36	≤-24.48	PASS
BLE_2M	Ant1	Low	2402	4.74	-27.76	≤-15.26	PASS
		High	2480	5.34	-36.99	≤-14.66	PASS

TestMode	Antenna	ChName	Channel	Ru Size	Ru Index	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11AX20SISO	Ant1	Low	2412	26Tone	RU0	-1.15	-32.51	≤-21.15	PASS
					RU4	1.16	-38.08	≤-18.84	PASS
					RU8	-1.41	-37.16	≤-21.41	PASS
				52Tone	RU37	-2.49	-34.69	≤-22.49	PASS
					RU39	-1.50	-37.77	≤-21.5	PASS
					RU40	-2.30	-36.82	≤-22.3	PASS
				106Tone	RU53	-3.60	-38.21	≤-23.6	PASS
					RU54	-4.66	-38.27	≤-24.66	PASS
		High	2462	26Tone	RU0	-0.36	-45.41	≤-20.36	PASS
					RU4	1.09	-48.08	≤-18.91	PASS
					RU8	-0.87	-47.42	≤-20.87	PASS
				52Tone	RU37	-1.83	-47.24	≤-21.83	PASS
					RU39	-1.00	-47.49	≤-21	PASS
					RU40	-2.09	-46.94	≤-22.09	PASS
				106Tone	RU53	-3.58	-47.77	≤-23.58	PASS
					RU54	-4.18	-47.75	≤-24.18	PASS

5.7 Maximum Power Spectral Density

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.3kPa

Method of Measurement:

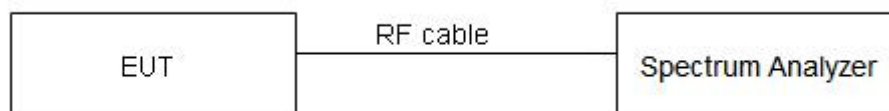
During the process of the testing, The EUT was connected to Spectrum Analyzer with a known loss. The EUT is max power transmission with proper modulation. The Average detector is used. We use Method AVGPS-2 in KDB 558074 D01 for this test.

Limits:

Rule Part 15.247(e) specifies that" 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.

Maximum Power Spectral Density	$\leq 8 \text{ dBm} / 3\text{kHz}$
--------------------------------	------------------------------------

Test Setup:



Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.75\text{dB}$.

Test Results:

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
11B	Ant1	2412	-9.10	≤8.00	PASS
		2437	-8.78	≤8.00	PASS
		2462	-8.80	≤8.00	PASS
11G	Ant1	2412	-19.56	≤8.00	PASS
		2437	-19.54	≤8.00	PASS
		2462	-19.84	≤8.00	PASS
11N20SISO	Ant1	2412	-18.21	≤8.00	PASS
		2437	-18.14	≤8.00	PASS
		2462	-18.43	≤8.00	PASS
11N40SISO	Ant1	2422	-18.44	≤8.00	PASS
		2437	-18.35	≤8.00	PASS
		2452	-18.42	≤8.00	PASS
11AX20SISO	Ant1	2412	-19.00	≤8.00	PASS
		2437	-18.99	≤8.00	PASS
		2462	-19.32	≤8.00	PASS
11AX40SISO	Ant1	2422	-21.20	≤8.00	PASS
		2437	-21.07	≤8.00	PASS
		2452	-21.07	≤8.00	PASS
BLE_1M	Ant1	2402	-21.39	≤8.00	PASS
		2440	-20.51	≤8.00	PASS
		2480	-20.55	≤8.00	PASS
BLE_2M	Ant1	2402	-11.89	≤8.00	PASS
		2440	-11.13	≤8.00	PASS
		2480	-11.41	≤8.00	PASS

TestMode	Antenna	Channel	RuSize	RuIndex	Result [dBm/3kHz]	Limit [dBm/3kHz]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	-14.34	≤8.00	PASS
				RU4	-11.59	≤8.00	PASS
				RU8	-13.87	≤8.00	PASS
			52Tone	RU37	-14.21	≤8.00	PASS
				RU39	-14.83	≤8.00	PASS
				RU40	-15.37	≤8.00	PASS
			106Tone	RU53	-17.64	≤8.00	PASS
				RU54	-16.64	≤8.00	PASS
				RU0	-13.84	≤8.00	PASS
		2437	26Tone	RU4	-11.25	≤8.00	PASS
				RU8	-13.61	≤8.00	PASS
				RU37	-13.81	≤8.00	PASS
			52Tone	RU39	-14.52	≤8.00	PASS
				RU40	-15.09	≤8.00	PASS
				RU53	-17.27	≤8.00	PASS
			106Tone	RU54	-16.28	≤8.00	PASS
				RU0	-13.75	≤8.00	PASS
			26Tone	RU4	-11.22	≤8.00	PASS
				RU8	-13.58	≤8.00	PASS
				RU37	-13.71	≤8.00	PASS
		2462	52Tone	RU39	-14.50	≤8.00	PASS
				RU40	-15.04	≤8.00	PASS
				RU53	-17.27	≤8.00	PASS
			106Tone	RU54	-16.31	≤8.00	PASS

5.8 Spurious RF Conducted Emissions

Ambient condition:

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.3kPa

Method of Measurement:

The EUT was connected to the spectrum analyzer with a known loss. The spectrum analyzer scans from 30MHz to the 10th harmonic of the carrier. The peak detector is used. Set RBW to 100kHz and VBW to 300 kHz, Sweep is set to AUTO. The test is in transmitting mode.

Limits:

Rule Part 15.247(d) specifies that "In any 100 kHz bandwidth outside the frequency band in which the spread spectrum 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."

Test Setup:



Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 1.96$.

Frequency	Uncertainty
100kHz-2GHz	0.684 dB
2GHz-26GHz	1.407 dB

Test Results:

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B	Ant1	2412	Reference	4.93	4.93	---	PASS
			30~1000	4.93	-56.95	≤ -15.07	PASS
			1000~26500	4.93	-44.27	≤ -15.07	PASS
		2437	Reference	5.31	5.31	---	PASS
			30~1000	5.31	-57.76	≤ -14.69	PASS
			1000~26500	5.31	-44.76	≤ -14.69	PASS
		2462	Reference	5.15	5.15	---	PASS
			30~1000	5.15	-58.06	≤ -14.85	PASS
			1000~26500	5.15	-44.79	≤ -14.85	PASS
11G	Ant1	2412	Reference	-4.96	-4.96	---	PASS
			30~1000	-4.96	-57.58	≤ -24.96	PASS
			1000~26500	-4.96	-48.1	≤ -24.96	PASS
		2437	Reference	-4.94	-4.94	---	PASS
			30~1000	-4.94	-57.67	≤ -24.94	PASS
			1000~26500	-4.94	-47.83	≤ -24.94	PASS
		2462	Reference	-5.26	-5.26	---	PASS
			30~1000	-5.26	-57.91	≤ -25.26	PASS
			1000~26500	-5.26	-46.27	≤ -25.26	PASS
11N20SISO	Ant1	2412	Reference	-4.89	-4.89	---	PASS
			30~1000	-4.89	-57.26	≤ -24.89	PASS
			1000~26500	-4.89	-47.69	≤ -24.89	PASS
		2437	Reference	-4.80	-4.80	---	PASS
			30~1000	-4.80	-58.01	≤ -24.8	PASS
			1000~26500	-4.80	-47.61	≤ -24.8	PASS
		2462	Reference	-5.14	-5.14	---	PASS
			30~1000	-5.14	-57.06	≤ -25.14	PASS
			1000~26500	-5.14	-46.73	≤ -25.14	PASS
11N40SISO	Ant1	2422	Reference	-7.41	-7.41	---	PASS
			30~1000	-7.41	-57.31	≤ -27.41	PASS
			1000~26500	-7.41	-47.4	≤ -27.41	PASS
		2437	Reference	-7.30	-7.30	---	PASS
			30~1000	-7.30	-56.24	≤ -27.3	PASS
			1000~26500	-7.30	-47.14	≤ -27.3	PASS
		2452	Reference	-7.35	-7.35	---	PASS
			30~1000	-7.35	-57.06	≤ -27.35	PASS
			1000~26500	-7.35	-46.49	≤ -27.35	PASS
11AX20SISO	Ant1	2412	Reference	-4.84	-4.84	---	PASS
			30~1000	-4.84	-57.79	≤ -24.84	PASS
			1000~26500	-4.84	-47.44	≤ -24.84	PASS
		2437	Reference	-4.75	-4.75	---	PASS
			30~1000	-4.75	-56.66	≤ -24.75	PASS
			1000~26500	-4.75	-47.62	≤ -24.75	PASS
		2462	Reference	-5.15	-5.15	---	PASS
			30~1000	-5.15	-57.67	≤ -25.15	PASS
			1000~26500	-5.15	-47.39	≤ -25.15	PASS
11AX40SISO	Ant1	2422	Reference	-7.50	-7.50	---	PASS
			30~1000	-7.50	-57.55	≤ -27.5	PASS
			1000~26500	-7.50	-47.73	≤ -27.5	PASS
		2437	Reference	-7.33	-7.33	---	PASS
			30~1000	-7.33	-57.17	≤ -27.33	PASS
			1000~26500	-7.33	-47.81	≤ -27.33	PASS
		2452	Reference	-7.37	-7.37	---	PASS
			30~1000	-7.37	-57.96	≤ -27.37	PASS
			1000~26500	-7.37	-47.47	≤ -27.37	PASS
BLE_1M	Ant1	2402	Reference	-5.34	-5.34	---	PASS
			30~1000	-5.34	-56.35	≤ -25.34	PASS
			1000~26500	-5.34	-48.05	≤ -25.34	PASS
		2440	Reference	-4.84	-4.84	---	PASS
			30~1000	-4.84	-57.41	≤ -24.84	PASS

TestMode	Antenna	Channel	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
BLE_2M	Ant1	2480	1000~26500	-4.84	-48.39	≤-24.84	PASS
			Reference	-4.63	-4.63	---	PASS
			30~1000	-4.63	-56.63	≤-24.63	PASS
			1000~26500	-4.63	-48.64	≤-24.63	PASS
		2402	Reference	4.77	4.77	---	PASS
			30~1000	4.77	-58.2	≤-15.23	PASS
			1000~26500	4.77	-48.27	≤-15.23	PASS
		2440	Reference	5.42	5.42	---	PASS
			30~1000	5.42	-57.92	≤-14.58	PASS
			1000~26500	5.42	-47.7	≤-14.58	PASS
		2480	Reference	5.15	5.15	---	PASS
			30~1000	5.15	-56.96	≤-14.85	PASS
			1000~26500	5.15	-47.92	≤-14.85	PASS

TestMode	Antenna	Channel	Ru Size	Ru Index	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
11AX20SISO	Ant1	2412	26Tone	RU0	Reference	-1.07	-1.07	---	PASS
				RU0	30~1000	-1.07	-58.72	≤-21.07	PASS
				RU0	1000~26500	-1.07	-42.33	≤-21.07	PASS
				RU4	Reference	0.70	0.70	---	PASS
				RU4	30~1000	0.70	-58.02	≤-19.3	PASS
				RU4	1000~26500	0.70	-46.78	≤-19.3	PASS
				RU8	Reference	-1.29	-1.29	---	PASS
				RU8	30~1000	-1.29	-59.25	≤-21.29	PASS
				RU8	1000~26500	-1.29	-43.64	≤-21.29	PASS
			52Tone	RU37	Reference	-3.01	-3.01	---	PASS
				RU37	30~1000	-3.01	-59.76	≤-23.01	PASS
				RU37	1000~26500	-3.01	-43.75	≤-23.01	PASS
				RU39	Reference	-1.66	-1.66	---	PASS
				RU39	30~1000	-1.66	-59.43	≤-21.66	PASS
				RU39	1000~26500	-1.66	-44.87	≤-21.66	PASS
				RU40	Reference	-2.62	-2.62	---	PASS
				RU40	30~1000	-2.62	-59.26	≤-22.62	PASS
				RU40	1000~26500	-2.62	-43.32	≤-22.62	PASS
			106Tone	RU53	Reference	-4.27	-4.27	---	PASS
				RU53	30~1000	-4.27	-57.48	≤-24.27	PASS
				RU53	1000~26500	-4.27	-43.54	≤-24.27	PASS
				RU54	Reference	-4.68	-4.68	---	PASS
				RU54	30~1000	-4.68	-58.47	≤-24.68	PASS
				RU54	1000~26500	-4.68	-40.83	≤-24.68	PASS
		2437	26Tone	RU0	Reference	-1.67	-1.67	---	PASS
				RU0	30~1000	-1.67	-58.55	≤-21.67	PASS
				RU0	1000~26500	-1.67	-43.23	≤-21.67	PASS
				RU4	Reference	1.06	1.06	---	PASS
				RU4	30~1000	1.06	-57.26	≤-18.94	PASS
				RU4	1000~26500	1.06	-43.57	≤-18.94	PASS
				RU8	Reference	-1.20	-1.20	---	PASS
				RU8	30~1000	-1.20	-58.89	≤-21.2	PASS
				RU8	1000~26500	-1.20	-43.41	≤-21.2	PASS
			52Tone	RU37	Reference	-2.55	-2.55	---	PASS
				RU37	30~1000	-2.55	-58.66	≤-22.55	PASS
				RU37	1000~26500	-2.55	-42.66	≤-22.55	PASS
				RU39	Reference	-0.71	-0.71	---	PASS
				RU39	30~1000	-0.71	-56.65	≤-20.71	PASS
				RU39	1000~26500	-0.71	-43.11	≤-20.71	PASS
				RU40	Reference	-2.37	-2.37	---	PASS
				RU40	30~1000	-2.37	-58.67	≤-22.37	PASS
				RU40	1000~26500	-2.37	-42.38	≤-22.37	PASS
			106Tone	RU53	Reference	-4.22	-4.22	---	PASS
				RU53	30~1000	-4.22	-59.86	≤-24.22	PASS
				RU53	1000~26500	-4.22	-43.78	≤-24.22	PASS
				RU54	Reference	-4.49	-4.49	---	PASS

		2462		RU54	30~1000	-4.49	-59.74	≤-24.49	PASS
				RU54	1000~26500	-4.49	-43.03	≤-24.49	PASS
			26Tone	RU0	Reference	-1.32	-1.32	---	PASS
				RU0	30~1000	-1.32	-58.85	≤-21.32	PASS
				RU0	1000~26500	-1.32	-43.25	≤-21.32	PASS
				RU4	Reference	0.96	0.96	---	PASS
				RU4	30~1000	0.96	-59.17	≤-19.04	PASS
				RU4	1000~26500	0.96	-42.84	≤-19.04	PASS
				RU8	Reference	-1.40	-1.40	---	PASS
				RU8	30~1000	-1.40	-59.08	≤-21.4	PASS
				RU8	1000~26500	-1.40	-44.95	≤-21.4	PASS
			52Tone	RU37	Reference	-1.94	-1.94	---	PASS
				RU37	30~1000	-1.94	-57.96	≤-21.94	PASS
				RU37	1000~26500	-1.94	-43.99	≤-21.94	PASS
				RU39	Reference	-0.38	-0.38	---	PASS
				RU39	30~1000	-0.38	-59.53	≤-20.38	PASS
				RU39	1000~26500	-0.38	-43.43	≤-20.38	PASS
				RU40	Reference	-2.50	-2.50	---	PASS
			106Tone	RU40	30~1000	-2.50	-58.11	≤-22.5	PASS
				RU40	1000~26500	-2.50	-44.07	≤-22.5	PASS
				RU53	Reference	-3.89	-3.89	---	PASS
				RU53	30~1000	-3.89	-58.77	≤-23.89	PASS
				RU53	1000~26500	-3.89	-44.15	≤-23.89	PASS
				RU54	Reference	-4.40	-4.40	---	PASS
				RU54	30~1000	-4.40	-57.53	≤-24.4	PASS
				RU54	1000~26500	-4.40	-39.26	≤-24.4	PASS

6. Appendix X

Test Equipment	Type/Mode	SERIAL NO.	Equipment No.	Manufacturer	Cal. Due
Communication Shielded Room 2	4m*3m*3m	CRTDSWKS R44301	/	CRT	2027/04/22
Spectrum Analyzer	FSV40	101580	DZ-000238-3	R&S	2026/03/27
Power Meter	JS0806-2	19H9080187	DZ-000241	Tonscend	2026/03/27
Programmable DC Power Supply	E3644A	MY58036222	DZ-000178	KEYSIGHT	2026/04/10
5m Semi-Anechoic Chamber	SAC-5	SAC-5-2.0	EM-000557	COMTEST	2027/02/01
Spectrum Analyzer	N9010B	MY57470323	DZ-000174	KEYSIGHT	2026/01/01
EMI Test Receiver	N9038A-508	MY532290079	EM-000397	Agilent	2025/12/26
EMI Test Receiver	ESR7	102235	EM-000574	R&S	2026/01/05
loop antenna	HLA 6121	540046	EM-000546	TESEQ	2025/06/04
Broadband Antenna	VULB 9163	9163-530	EM-000342	SCHWARZBECK	2025/06/09
Waveguide Horn Antenna	HF906	360306/008	EM-000093	R&S	2025/12/26
Waveguide Horn Antenna	BBHA9170	00949	DZ-000209-2	SCHWARZBECK	2025/08/03
Preamplifier	BBV 9721	9721-050	DZ-000209-1	SCHWARZBECK	2025/06/02
Bandstop Filters	SW-BSF-2400-100-7-A1	/	EM-000495	/	2025/08/29
5.8GHz band resistance	ZBSF6-C5725-5850-1627	1232740	DZ-000399-2	Tonscend	2025/05/30
Preamplifier	BBV 9721	9721-050	DZ-000209-1	SCHWARZBECK	2025/06/03
Temperature and humidity meter	UT330THC	C231446122	DZ-000249-2	UNI-T	2025/07/28
Temperature and humidity meter	UT330THC	C231446087	DZ-000249-5	UNI-T	2025/07/28

Dynacomm	Software Release	Software Developer
TS1120-3 Test System(Conduction test)	3.3.38	Tonscend
TS+ (5m,Radiation test)	JS32-RE 5.0.0	Tonscend

————— No Body Text Below —————

Important

1. The test report is invalid without the official stamp of CVC;
2. Any part photocopies of the test report are forbidden without the written permission from CVC;
3. The test report is invalid without the signatures of Author and Reviewer;
4. The test report is invalid if altered;
5. Objections to the test report must be submitted to CVC within 15 days;
6. Generally, commission test is responsible for the tested samples only;
7. As for the test result, “—” or “N/A” means “not applicable”, “/” means “not testing”, “P” means “pass” and “F” means “fail”.

Address: No.3,Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, China (Test location)

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