中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
TESTING LABORATORY
CERTIFICATE # 6356.01

TEST REPORT

Applicant: **INFINIX MOBILITY LIMITED**

Address: FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT, Hong Kong

FCC ID: **2AIZN-X6853**

Product Name: **Mobile Phone**

Standard(s): **47 CFR Part 15, Subpart C(15.247)**
ANSI C63.10-2013
KDB558074 D01 15.247 Meas Guidance v05r02

The above device has been tested and found compliant with the requirement of the relativestandards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR231061506-00A**

Date Of Issue: **2023/12/24**

Reviewed By: **Calvin Chen**

Title: RF Engineer

Approved By: **Sun Zhong**

Title: Manager

Test Laboratory: **China Certification ICT Co., Ltd (Dongguan)**
No. 113, Pingkang Road, Dalang Town, Dongguan,
Guangdong, China
Tel: +86-769-82016888

Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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CONTENTS

DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	CR231061506-00A	Original Report	2023/12/24

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	Mobile Phone
EUT Model:	X6853
Data rate:	1Mbps & 2Mbps
Operation Frequency:	1Mbps: 2402-2480MHz 2Mbps: 2404-2478MHz
Maximum Peak Output Power (Conducted):	-2.62dBm
Modulation Type:	GFSK
Rated Input Voltage:	DC 5V/3A or 5-10V/4.5A or 11V/4.1A from Adapter or 3.91V from Battery
Serial Number:	RE&CE:2CII-5(Normal) RF:2CII-1
EUT Received Date:	2023/10/18
EUT Received Status:	Good
Note: the EUT has two versions, a normal version and a lighting version, the two versions were electrical identical except the NFC&WPT antennas, memory, color and lighting function. Please refer to the DOS letter for more details. Also the EUT has two adapters (Adapter 1 & Adapter 2). The worst was normal versionwith Adapter 1according to the test data of AC line conducted and radiated emission below 1GHz in the DSS report. So in this report, only normal version with Adapter 1 was chosen for the full test.	

Operation Frequency Detail:
For BLE_1M:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2442
1	2404	…	…
…	…	…	…
…	…	…	…
..	…	38	2478
19	2440	39	2480

Per section 15.31(m), the below frequencies were performed the test as below:

Test Channel	Frequency (MHz)
Lowest	2402
Middle	2440
Highest	2480

For BLE_2M:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
/	/	20	2442
1	2404	…	…
…	…	…	…
…	…	…	…
..	…	38	2478
19	2440	/	/

Per section 15.31(m), the below frequencies were performed the test as below:

Test Channel	Frequency (MHz)
Lowest	2404
Middle	2440
Highest	2478

AntennaInformation Detail▲:

Antenna Manufacturer	Antenna Type	input impedance (Ohm)	Frequency Range	Antenna Gain	
				Antenna 0 (Main Ant)	Antenna 1 (Aux Ant)
Dongguan Guangzheng Mold Plastic Co., Ltd	FPC	50	2.4~2.5GHz	-4.12 dBi	-3.37 dBi

The Method of §15.203 Compliance:

☒Antenna was permanently attached to the unit.

☐Antenna use a unique type of connector to attach to the EUT.

☐Unit was professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

Accessory Information:

Accessory Description	Manufacturer	Model	Parameters	S/N
Adapter 1	Infinix	U450XSB	Input:100-240V~50/60Hz 1.8A Output:5.0V 3.0A 15W or 5.0-10.0V 4.5A or 11.0V 4.1A 45.0W MAX	AH07019153927
Adapter 2	Infinix	U450XSB	Input:100-240V~50/60Hz 1.8A Output:5.0V 3.0A 15W or 5.0-10.0V 4.5A or 11.0V 4.1A 45.0W MAX	KX07019453A12

1.2 Description of Test Configuration

1.2.1 EUT Operation Condition:

For BLE:

EUT Operation Mode:	The system was configured for testing in Engineering Mode, which was provided by the manufacturer.
Equipment Modifications:	No
EUT Exercise Software:	Engineering Mode

The software was provided by manufacturer. The maximum power was configured as below, that was provided by the manufacturer▲:

Test Modes	Power Level Setting		
	Lowest Channel	Middle Channel	Highest Channel
1Mbps	Default	Default	Default
2Mbps	Default	Default	Default

Note: the EUT has two antennas for BLE, but only support the SISO mode.

1.2.2 Support Equipment List and Details

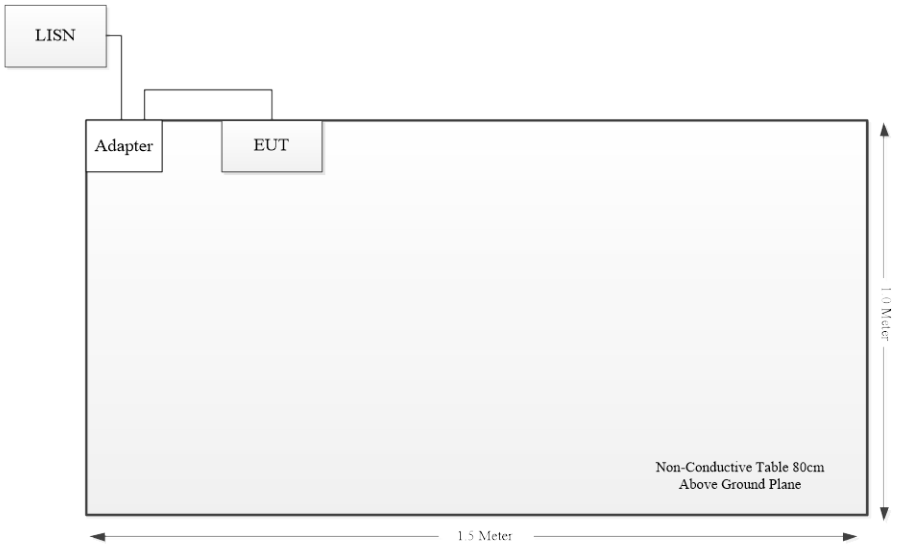
Manufacturer	Description	Model	Serial Number
Infinix	Adapter	U450XSB	AH07019153927

1.2.3 Support CableList and Details

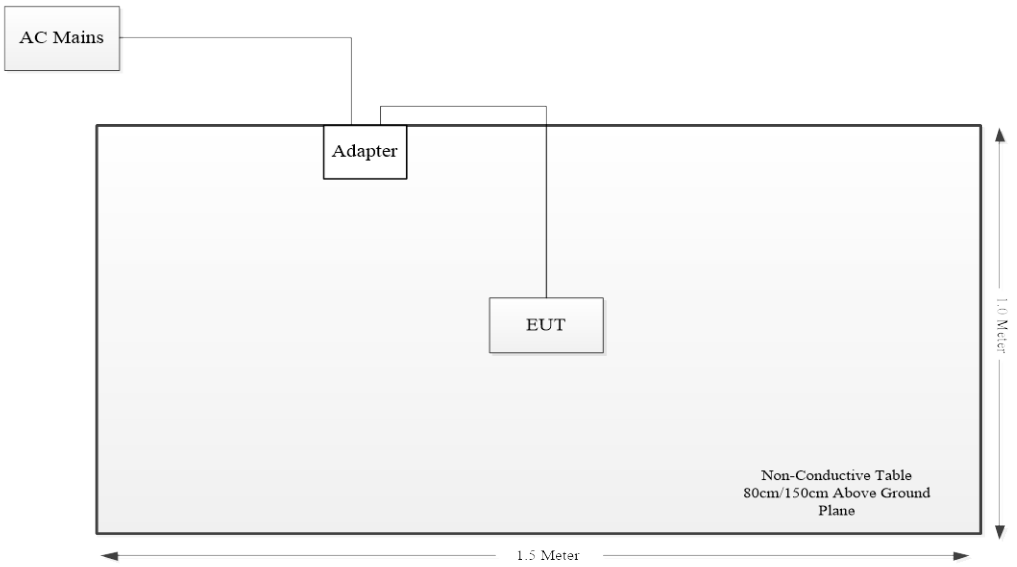
Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	To
Power Cable	NO	NO	1	Adapter	EUT

1.2.4Block Diagram of Test Setup

AC Line Conducted Emissions:



Spurious emissions:



1.3 Measurement Uncertainty

Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Parameter	Measurement Uncertainty
Occupied Channel Bandwidth	±5 %
RF output power, conducted	±0.61dB
Power Spectral Density, conducted	±0.61 dB
Unwanted Emissions, radiated	9kHz~30MHz: 4.12dB,30M~200MHz: 4.15 dB,200M~1GHz: 5.61 dB,1G~6GHz: 5.14 dB, 6G~18GHz: 5.93 dB,18G~26.5G:5.47 dB,26.5G~40G:5.63 dB
Unwanted Emissions, conducted	±1.26 dB
Temperature	±1℃
Humidity	±5%
DC and low frequency voltages	±0.4%
Duty Cycle	1%
AC Power Lines Conducted Emission	2.8 dB (150 kHz to 30 MHz)

2. SUMMARY OF TEST RESULTS

Standard(s) Section	Test Items	Result
§15.207(a)	AC line conducted emissions	Compliant
§15.205, §15.209, §15.247(d)	Radiated Spurious Emissions	Compliant
§15.247 (a)(2)	Minimum 6 dB Bandwidth	Compliant
§15.247(b)(3)	Maximum Conducted Output Power	Compliant
§15.247(e)	Power Spectral Density	Compliant
§15.247(d)	100kHz Bandwidth of Frequency Band Edge	Compliant
§15.203	Antenna Requirement	Compliant
FCC§15.247 (i)&§1.1310	RF Exposure Evaluation	Compliant

3. REQUIREMENTS AND TEST PROCEDURES

3.1 AC Line Conducted Emissions

3.1.1 Applicable Standard

FCC§15.207(a).

(a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to thepublic utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency orfrequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohmsline impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement ofthe radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundarybetween the frequency ranges.

	Conducted limit (dBμV)	
Frequency of emission (MHz)	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.

(b) The limit shown in paragraph (a) of this section shall not apply to carrier current systems operating as intentional radiators onfrequencies below 30 MHz. In lieu thereof, these carrier current systems shall be subject to the following standards:

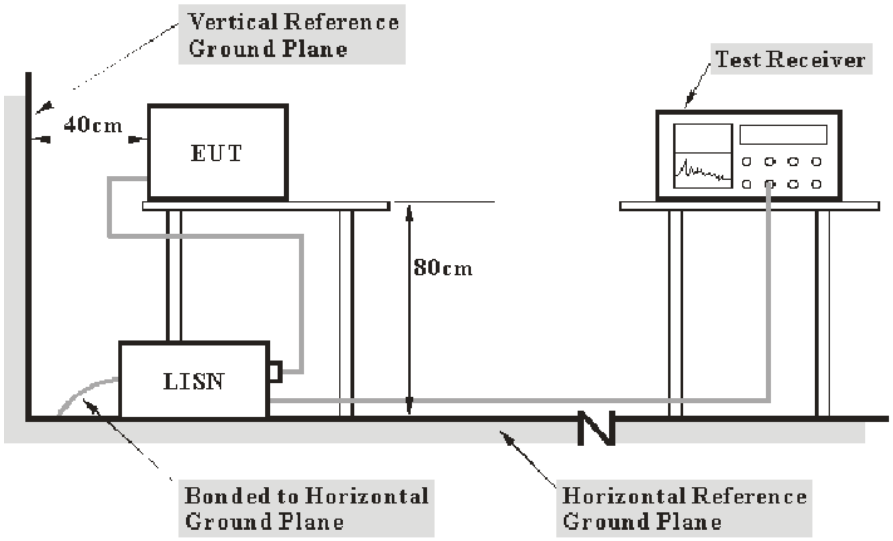
(1) For carrier current system containing their fundamental emission within the frequency band 535-1705 kHz and intended to bereceived using a standard AM broadcast receiver: no limit on conducted emissions.

(2) For all other carrier current systems: 1000 μV within the frequency band 535-1705 kHz, as measured using a 50 μH/50 ohmsLISN.

(3) Carrier current systems operating below 30 MHz are also subject to the radiated emission limits in §15.205, §15.209, §15.221,§15.223, or §15.227, as appropriate.

(c) Measurements to demonstrate compliance with the conducted limits are not required for devices which only employ batterypower for operation and which do not operate from the AC power lines or contain provisions for operation while connected to the ACpower lines. Devices that include, or make provisions for, the use of battery chargers which permit operating while charging, ACadapters or battery eliminators or that connect to the AC power lines indirectly, obtainig their power through another device which isconnected to the AC power lines, shall be tested to demonstrate compliance with the conducted limits.

3.1.2EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207limits.

The spacing between the peripherals was 10cm.

Theadapter or EUT was connected to the main LISN with a 120 V/60 Hz ACpower source.

3.1.3EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

FrequencyRange	IF B/W
150 kHz – 30 MHz	9 kHz

3.1.4Test Procedure

The frequency and amplitude of the six highest ac power-line conducted emissions relative to the limit,measured over all the current-carrying conductors of the EUT power cords, and the operating frequency orfrequency to which the EUT is tuned (if appropriate), should be reported, unless such emissions are morethan 20 dB below the limit. AC power-line conducted emissions measurements are to be separately carriedout only on each of the phase ("hot") line(s) and (if used) on the neutral line(s), but not on the ground[protective earth] line(s). If less than six emission frequencies are within 20 dB of the limit, then the noiselevel of the measuring instrument at representative frequencies should be reported. The specific conductorof the power-line cord for each of the reported emissions should be identified. Measure the six highestemissions with respect to the limit on each current-carrying conductor of each power cord associated withthe EUT (but not the power cords of associated or peripheral equipment that are part of the testconfiguration). Then, report the six highest emissions with respect to the limit from among all themeasurements identifying the frequency and specific current-carrying conductor identified with theemission. The six highest emissions should be reported for each of the current-carrying conductors, or thesix highest emissions may be reported over all the current-carrying conductors.

3.1.5Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor=attenuation caused by cable loss + voltage division factor of AMN

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

3.2 Radiation Spurious Emissions

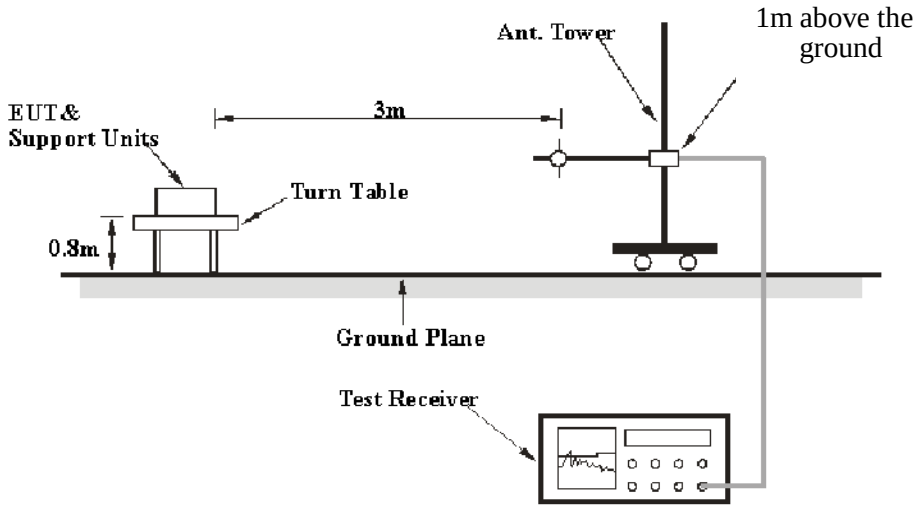
3.2.1 Applicable Standard

FCC §15.247 (d);

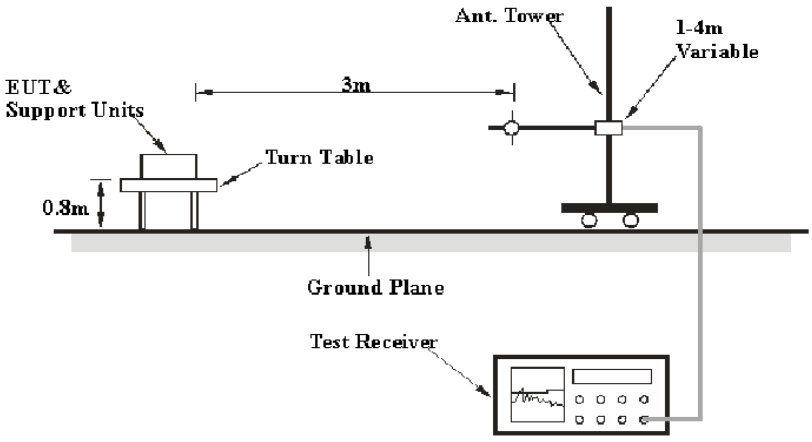
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiatoris operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHzbandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiatedmeasurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies withthe conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of thissection, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in§15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must alsocomply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

3.2.2EUT Setup

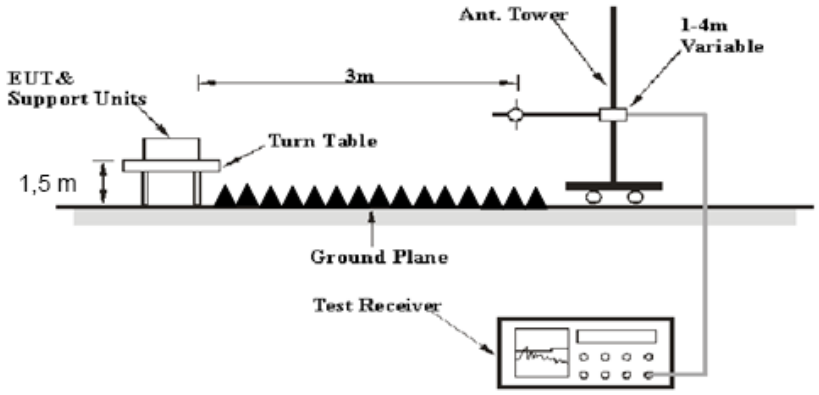
9 kHz-30MHz:



30MHz-1GHz:



Above 1GHz:



The radiated emissions were performed in the 3 meters distance, using the setup accordance with the ANSI C63.10-2013. The specification used was the FCC 15.209, and FCC 15.247 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle.

The spacing between the peripherals was 10cm.

3.2.3EMI Test Receiver & Spectrum Analyzer Setup

The system was investigatedfrom 9 kHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

9 kHz-1000MHz:

FrequencyRange	RBW	Video B/W	IF B/W	Measurement
9 kHz – 150 kHz	/	/	200Hz	QP
	300Hz	1 kHz	/	PK
150 kHz – 30 MHz	/	/	9 kHz	QP
	10 kHz	30 kHz	/	PK
30MHz – 1000 MHz	/	/	120kHz	QP
	100 kHz	300 kHz	/	PK

1GHz- 25GHz:

Measurement	Duty cycle	RBW	Video B/W
PK	Any	1MHz	3 MHz
Ave.	>98%	1MHz	10 Hz
	<98%	1MHz	≥1/T

Note: T is minimum transmission duration

If the maximized peakmeasured value isunder theQP/Average limitby more than 6dB, then it is unnecessary to perform an QP/Average measurement.

The spurious emissions which below the limit more than 20dB was not be recorded.

3.2.4Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 9kHz-1 GHz, peak and Average detection modes for frequencies above 1 GHz.

The spurious emissions which below the limit more than 20dB was not be recorded.

3.2.5Corrected Amplitude & Margin Calculation

The basic equation is as follows:

Result = Reading + Factor
Factor= Antenna Factor + Cable Loss-Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance within the applicable limit. The equation for margin calculation is as follows:

Margin = Limit – Result

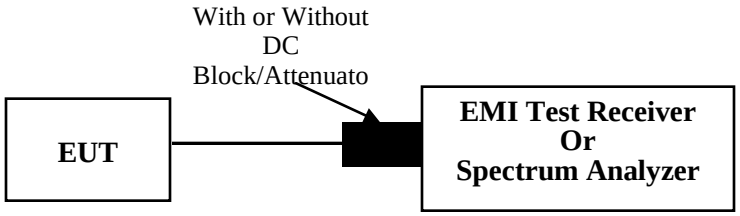
3.3 Minimum 6 dB Bandwidth

3.3.1 Applicable Standard

FCC §15.247 (a)(2)

Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands.The minimum 6 dB bandwidth shall be at least 500 kHz.

3.3.2 EUT Setup



3.3.3Test Procedure

According to ANSI C63.10-2013 Section 11.8

a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3×RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

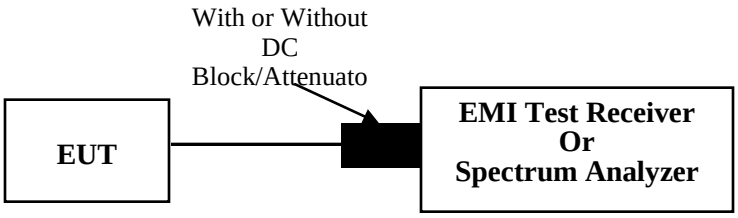
3.4Maximum Conducted Output Power

3.4.1 Applicable Standard

FCC §15.247 (b)(3)

For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As analternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximumconducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas andantenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power controllevel. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during whichthe transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulationmethods), the maximum conducted output power is the highest total transmit power occurring in any mode.

3.4.2 EUT Setup



3.4.3Test Procedure

According to ANSI C63.10-2013 Section 11.9.1.1

The following procedure shall be used when an instrument with a resolution bandwidth that is greater thanthe DTS bandwidth is available to perform the measurement:
a) Set the RBW ≥ DTS bandwidth.
b) Set VBW ≥ [3 × RBW].
c) Set span ≥ [3 × RBW].
d) Sweep time = auto couple.
e) Detector = peak.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use peak marker function to determine the peak amplitude level.

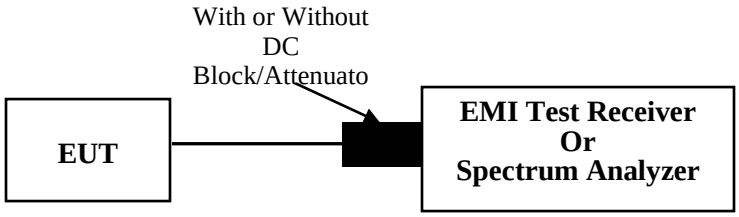
3.5Maximum power spectral density

3.5.1 Applicable Standard

FCC §15.247 (e)

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not begreater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall bedetermined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted outputpower shall be used to determine the power spectral density.

3.5.2 EUT Setup



3.5.3Test Procedure

According to ANSI C63.10-2013 Section 11.10.2

a) Set analyzer center frequency to DTS channel center frequency.
b) Set the span to 1.5 times the DTS bandwidth.
c) Set the RBW to 3 kHz ≤ RBW ≤ 100 kHz.
d) Set the VBW ≥ [3 × RBW].
e) Detector = peak.
f) Sweep time = auto couple.
g) Trace mode = max hold.
h) Allow trace to fully stabilize.
i) Use the peak marker function to determine the maximum amplitude level within the RBW.
j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.

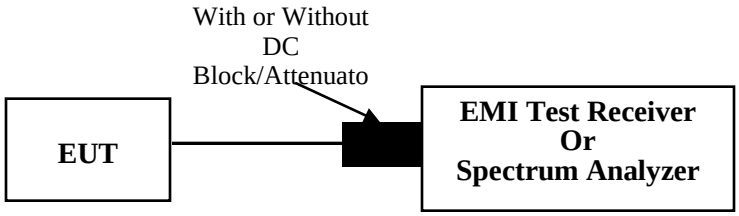
3.6100 kHz Bandwidth of Frequency Band Edge

3.6.1 Applicable Standard

FCC §15.247 (d);

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiatoris operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHzbandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiatedmeasurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies withthe conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of thissection, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in§15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must alsocomply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

3.6.2 EUT Setup



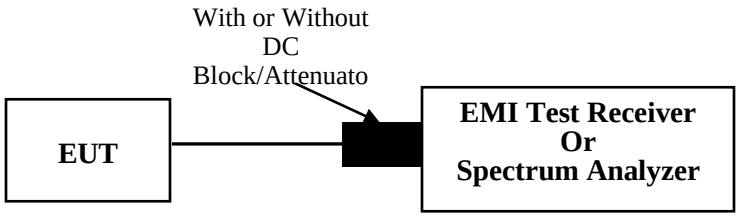
3.6.3Test Procedure

According to ANSI C63.10-2013 Section 11.11

a) Set the center frequency and span to encompass frequency range to be measured.
b) Set the RBW = 100 kHz.
c) Set the VBW ≥ [3 × RBW].
d) Detector = peak.
e) Sweep time = auto couple.
f) Trace mode = max hold.
g) Allow trace to fully stabilize.
h) Use the peak marker function to determine the maximum amplitude level.
Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified in 11.11. Report the three highest emissions relative to the limit.

3.7Duty Cycle

3.7.1 EUT Setup



3.7.2Test Procedure

According to ANSI C63.10-2013 Section 11.6

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacingbetween bins on the sweep are sufficient to permit accurate measurements of the ON and OFFtimes of the transmitted signal:
1) Set the center frequency of the instrument to the center frequency of the transmission.
2) Set RBW ≥ OBW if possible; otherwise, set RBW to the largest available value.
3) Set VBW ≥ RBW. Set detector = peak or average.
4) The zero-span measurement method shall not be used unless both RBW and VBW are> 50/T and the number of sweep points across duration T exceeds 100. (For example, ifVBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring theduty cycle shall not be used if T ≤ 16.7 μs.)

3.8Antenna Requirement

3.8.1 Applicable Standard

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be usedwith the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiatorshall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a brokenantenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirementdoes not apply to carrier current devices or to devices operated under the provisions of §§15.211, 15.213, 15.217, 15.219, 15.221, or§15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeterprotection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must bemeasured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that thelimits in this part are not exceeded.

3.8.2 Judgment

Compliant. Please refer to the Antenna Information detail in Section 1.

4.Test DATA AND RESULTS

4.1 AC Line Conducted Emissions

Serial Number:	2CII-5	Test Date:	2023/11/9
Test Site:	CE	Test Mode:	Transmitting (Maximum output power mode: Antenna 0 BLE 2M middle channel)
Tester:	David Huang	Test Result:	Pass

Environmental Conditions:

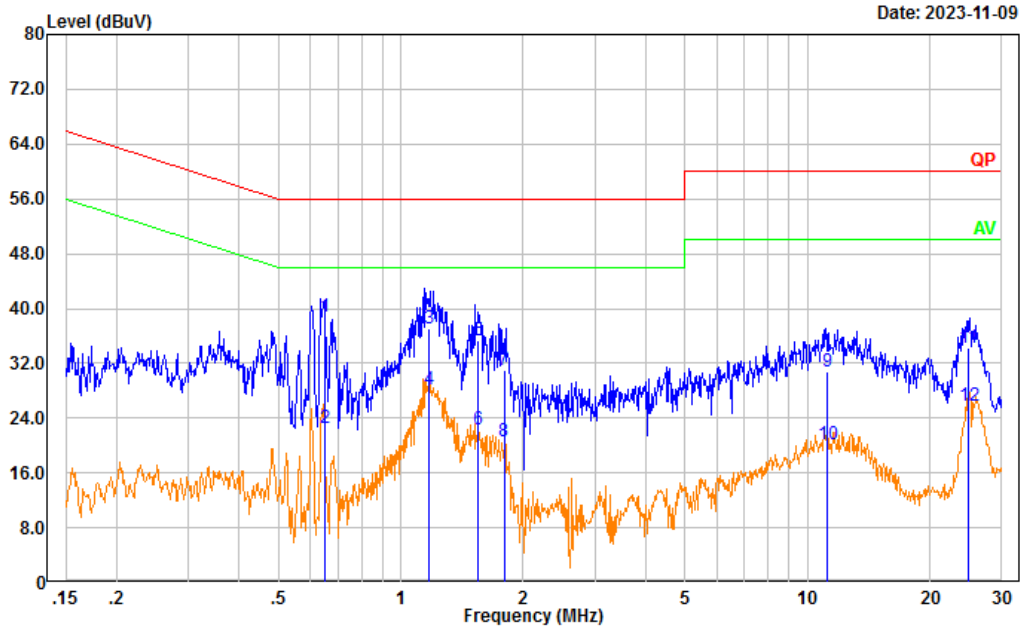
Temperature: (℃)	26.5	Relative Humidity: (%)	58	ATM Pressure: (kPa)	100.9

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	LISN	ENV216	101134	2023/3/31	2024/3/30
R&S	EMI Test Receiver	ESR3	102726	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UTIFLEX	C-0200-01	2023/8/6	2024/8/5
Audix	Test Software	E3	190306 (V9)	N/A	N/A

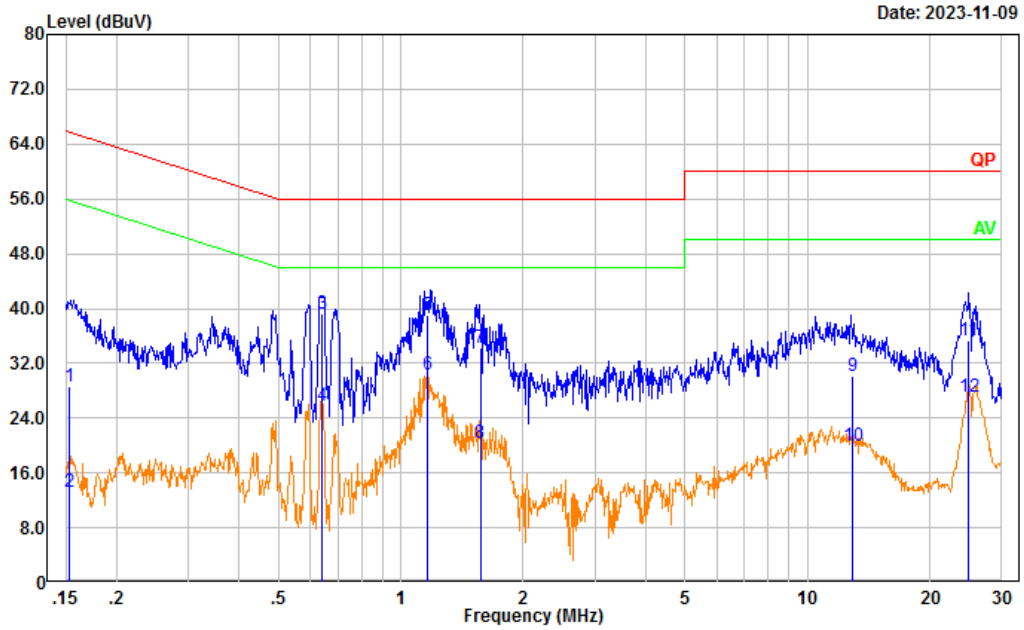
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Project No.: CR231061506-RF
Tester: David Huang
Port: Line
Note: Transmitting(BLE)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.650	29.24	9.62	38.86	56.00	17.14	QP
2	0.650	12.82	9.62	22.44	46.00	23.56	Average
3	1.169	27.36	9.62	36.98	56.00	19.02	QP
4	1.169	18.48	9.62	28.10	46.00	17.90	Average
5	1.554	25.78	9.63	35.41	56.00	20.59	QP
6	1.554	12.61	9.63	22.24	46.00	23.76	Average
7	1.793	21.47	9.63	31.10	56.00	24.90	QP
8	1.793	10.92	9.63	20.55	46.00	25.45	Average
9	11.212	21.04	9.67	30.71	60.00	29.29	QP
10	11.212	10.49	9.67	20.16	50.00	29.84	Average
11	24.775	24.36	9.81	34.17	60.00	25.83	QP
12	24.775	15.98	9.81	25.79	50.00	24.21	Average

Project No.: CR231061506-RF
Tester: David Huang
Port: neutral
Note: Transmitting(BLE)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB)	Result (dBµV)	Limit (dBµV)	Margin (dB)	Detector
1	0.153	19.08	9.61	28.69	65.86	37.17	QP
2	0.153	3.66	9.61	13.27	55.86	42.59	Average
3	0.639	29.61	9.62	39.23	56.00	16.77	QP
4	0.639	16.08	9.62	25.70	46.00	20.30	Average
5	1.166	29.46	9.62	39.08	56.00	16.92	QP
6	1.166	20.81	9.62	30.43	46.00	15.57	Average
7	1.567	24.54	9.63	34.17	56.00	21.83	QP
8	1.567	10.68	9.63	20.31	46.00	25.69	Average
9	12.920	20.36	9.68	30.04	60.00	29.96	QP
10	12.920	10.17	9.68	19.85	50.00	30.15	Average
11	24.859	25.63	9.76	35.39	60.00	24.61	QP
12	24.859	17.38	9.76	27.14	50.00	22.86	Average

4.2 Radiation Spurious Emissions

Serial Number:	2CII-5	Test Date:	2023/11/11~2023/11/25
Test Site:	966-2,966-1	Test Mode:	Transmitting
Tester:	Carl Xue,Coco Tian	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	25.1~26.3	Relative Humidity: (%)	57	ATM Pressure: (kPa)	101.1~101.4

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-6	2023/9/18	2026/9/17
BACL	Loop Antenna	1313-1P	3092721	2023/11/9	2026/11/8
R&S	EMI Test Receiver	ESR3	102724	2023/3/31	2024/3/30
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2023/7/16	2024/7/15
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2023/7/16	2024/7/15
Sonoma	Amplifier	310N	186165	2023/7/16	2024/7/15
Audix	Test Software	E3	201021 (V9)	N/A	N/A
AH	Double Ridge Guide Horn Antenna	SAS-571	1394	2023/2/22	2026/2/21
R&S	Spectrum Analyzer	FSV40	101591	2023/3/31	2024/3/30
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2023/8/6	2024/8/5
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2023/8/6	2024/8/5
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2023/11/8	2024/11/7
PASTERNACK	Horn Antenna	PE9852/2F-20	112002	2021/2/5	2024/2/4
Quinstar	Preamplifier	QLW-18405536-JO	15964001005	2023/9/15	2024/9/14
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2023/8/6	2024/8/5
E-Microwave	Band Rejection Filter	2400-2483.5MHz	OE01902424	2023/8/6	2024/8/5

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

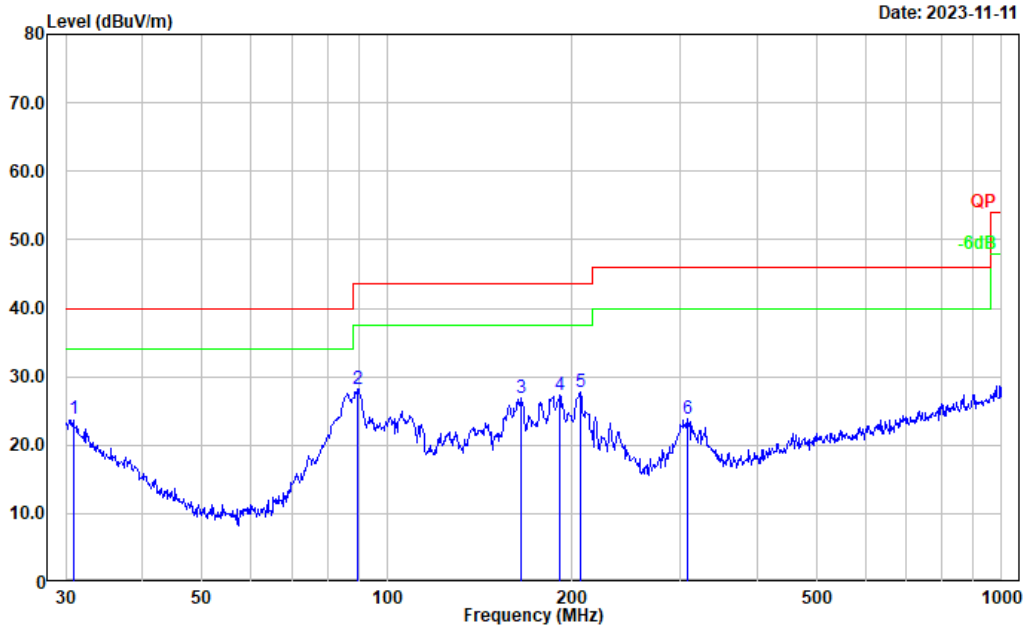
Please refer to the below table and plots.

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

For the radiated spurious emission below 30MHz, the emission was 20dB below the limit, so it is not recorded.

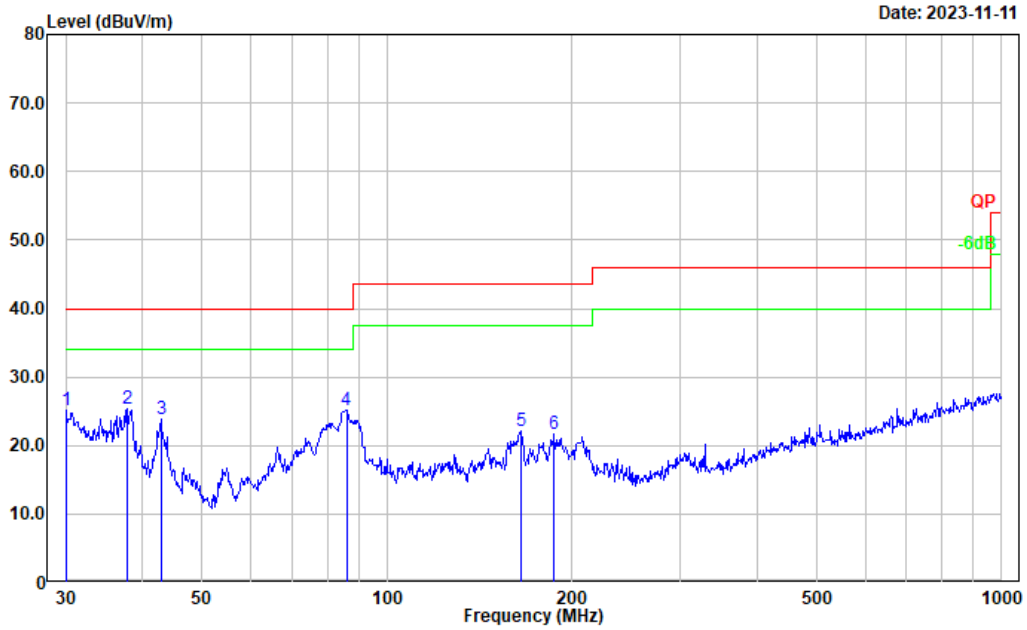
1) 30MHz-1GHz(maximum output power mode BLE 2Mbps at antenna 0)

Project No.: CR231061506-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(BLE 2Mbps Low Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.853	28.19	-4.45	23.74	40.00	16.26	Peak
2	89.590	45.24	-16.96	28.28	43.50	15.22	Peak
3	164.908	39.26	-12.40	26.86	43.50	16.64	Peak
4	191.074	40.52	-13.30	27.22	43.50	16.28	Peak
5	206.398	40.13	-12.40	27.73	43.50	15.77	Peak
6	308.913	34.38	-10.60	23.78	46.00	22.22	Peak

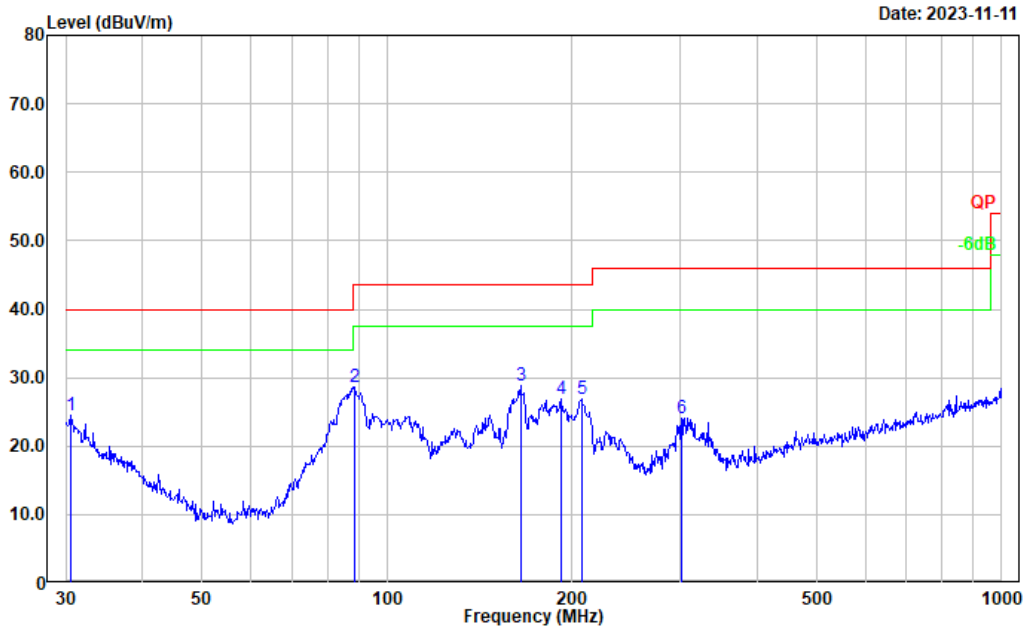
Project No.: CR231061506-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(BLE 2Mbps Low Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.000	28.95	-3.80	25.15	40.00	14.85	Peak
2	37.812	35.07	-9.72	25.35	40.00	14.65	Peak
3	42.900	36.88	-13.05	23.83	40.00	16.17	Peak
4	85.898	42.31	-17.15	25.16	40.00	14.84	Peak
5	165.487	34.50	-12.41	22.09	43.50	21.41	Peak
6	187.096	35.29	-13.54	21.75	43.50	21.75	Peak

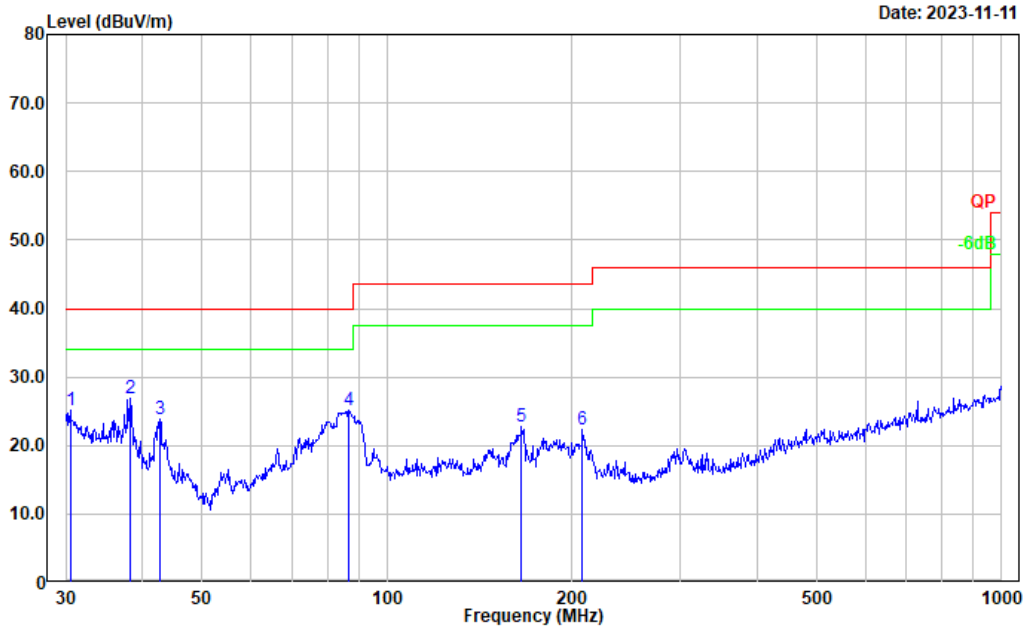
Middle Channel:

Project No.: CR231061506-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(BLE 2Mbps Middle Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.531	28.76	-4.20	24.56	40.00	15.44	Peak
2	88.342	45.60	-17.02	28.58	43.50	14.92	Peak
3	164.908	41.13	-12.40	28.73	43.50	14.77	Peak
4	191.745	40.02	-13.21	26.81	43.50	16.69	Peak
5	207.123	39.28	-12.41	26.87	43.50	16.63	Peak
6	301.422	34.74	-10.61	24.13	46.00	21.87	Peak

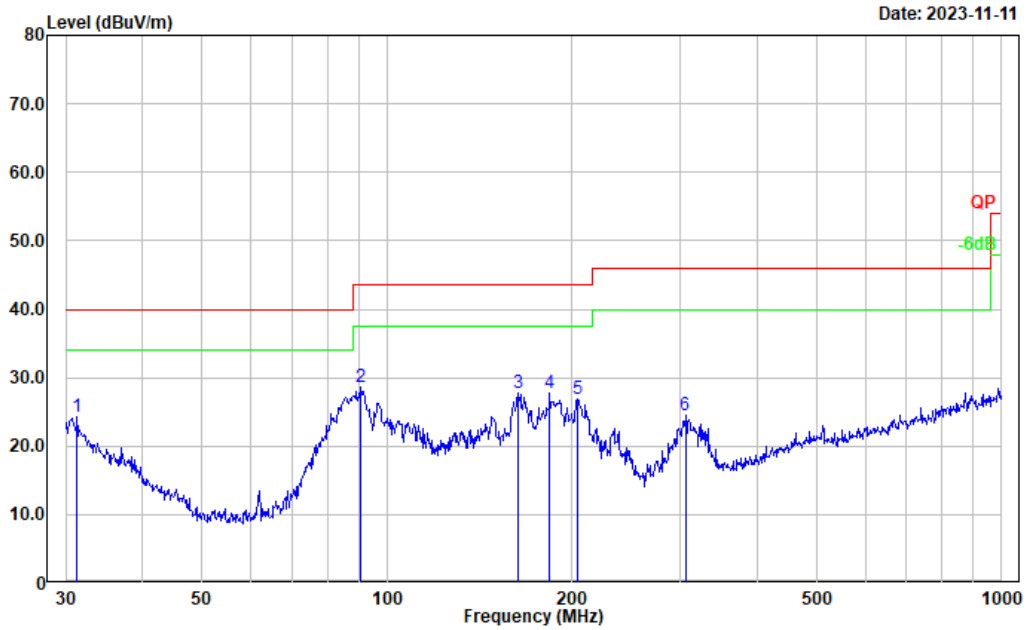
Project No.: CR231061506-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(BLE 2Mbps Middle Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.531	29.42	-4.20	25.22	40.00	14.78	Peak
2	38.212	36.86	-10.02	26.84	40.00	13.16	Peak
3	42.750	36.79	-12.96	23.83	40.00	16.17	Peak
4	86.503	42.29	-17.11	25.18	40.00	14.82	Peak
5	165.487	35.24	-12.41	22.83	43.50	20.67	Peak
6	207.850	34.79	-12.45	22.34	43.50	21.16	Peak

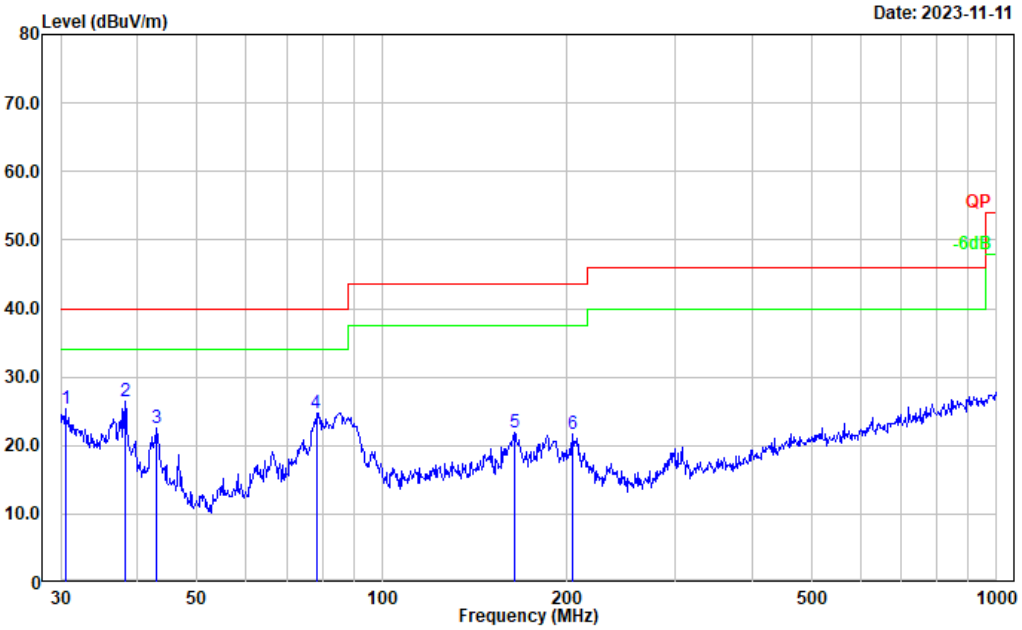
High Channel:

Project No.: CR231061506-RF
Tester: Carl Xue
Polarization: horizontal
Note: Transmitting(BLE 2Mbps High Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	31.289	29.03	-4.77	24.26	40.00	15.74	Peak
2	90.537	45.45	-16.80	28.65	43.50	14.85	Peak
3	163.182	40.02	-12.25	27.77	43.50	15.73	Peak
4	183.844	41.17	-13.52	27.65	43.50	15.85	Peak
5	204.238	39.19	-12.33	26.86	43.50	16.64	Peak
6	305.680	35.03	-10.57	24.46	46.00	21.54	Peak

Project No.: CR231061506-RF
Tester: Carl Xue
Polarization: vertical
Note: Transmitting(BLE 2Mbps High Channel)



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	30.531	29.62	-4.20	25.42	40.00	14.58	Peak
2	38.212	36.44	-10.02	26.42	40.00	13.58	Peak
3	43.050	35.62	-13.14	22.48	40.00	17.52	Peak
4	78.139	42.11	-17.29	24.82	40.00	15.18	Peak
5	164.330	34.13	-12.34	21.79	43.50	21.71	Peak
6	204.238	33.96	-12.33	21.63	43.50	21.87	Peak

2) 1-25GHz:
Antenna 0:
BLE 1Mbps:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 2402 MHz							
2390.000	28.12	PK	H	31.71	59.83	74.00	14.17
2390.000	15.37	AV	H	31.71	47.08	54.00	6.92
2390.000	27.21	PK	V	31.71	58.92	74.00	15.08
2390.000	15.57	AV	V	31.71	47.28	54.00	6.72
4804.000	38.80	PK	H	11.19	49.99	74.00	24.01
4804.000	31.56	AV	H	11.19	42.75	54.00	11.25
4804.000	34.63	PK	V	11.19	45.82	74.00	28.18
4804.000	28.21	AV	V	11.19	39.40	54.00	14.60
7206.000	35.72	PK	H	15.03	50.75	74.00	23.25
7206.000	22.51	AV	H	15.03	37.54	54.00	16.46
7206.000	35.96	PK	V	15.03	50.99	74.00	23.01
7206.000	22.62	AV	V	15.03	37.65	54.00	16.35
Middle Channel: 2440 MHz							
4880.000	36.31	PK	H	11.48	47.79	74.00	26.21
4880.000	29.09	AV	H	11.48	40.57	54.00	13.43
4880.000	34.17	PK	V	11.48	45.65	74.00	28.35
4880.000	27.15	AV	V	11.48	38.63	54.00	15.37
7320.000	36.63	PK	H	15.58	52.21	74.00	21.79
7320.000	23.21	AV	H	15.58	38.79	54.00	15.21
7320.000	36.47	PK	V	15.58	52.05	74.00	21.95
7320.000	22.28	AV	V	15.58	37.86	54.00	16.14
High Channel: 2480 MHz							
2483.500	27.65	PK	H	32.19	59.84	74.00	14.16
2483.500	16.24	AV	V	32.19	48.43	54.00	5.57
2483.500	26.47	PK	V	32.19	58.66	74.00	15.34
2483.500	15.69	AV	V	32.19	47.88	54.00	6.12
4960.000	34.91	PK	H	11.77	46.68	74.00	27.32
4960.000	28.59	AV	H	11.77	40.36	54.00	13.64
4960.000	34.72	PK	V	11.77	46.49	74.00	27.51
4960.000	26.71	AV	V	11.77	38.48	54.00	15.52
7440.000	36.87	PK	H	15.98	52.85	74.00	21.15
7440.000	22.62	AV	H	15.98	38.60	54.00	15.40
7440.000	35.65	PK	V	15.98	51.63	74.00	22.37
7440.000	22.70	AV	V	15.98	38.68	54.00	15.32

BLE 2Mbps:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 2404 MHz							
2390.000	28.95	PK	H	31.71	60.66	74.00	13.34
2390.000	17.05	AV	H	31.71	48.76	54.00	5.24
2390.000	27.77	PK	V	31.71	59.48	74.00	14.52
2390.000	15.71	AV	V	31.71	47.42	54.00	6.58
4808.000	38.97	PK	H	11.22	50.19	74.00	23.81
4808.000	30.33	AV	H	11.22	41.55	54.00	12.45
4808.000	34.07	PK	V	11.22	45.29	74.00	28.71
4808.000	26.23	AV	V	11.22	37.45	54.00	16.55
7212.000	34.43	PK	H	15.07	49.50	74.00	24.50
7212.000	22.48	AV	H	15.07	37.55	54.00	16.45
7212.000	36.17	PK	V	15.07	51.24	74.00	22.76
7212.000	22.71	AV	V	15.07	37.78	54.00	16.22
Middle Channel: 2440 MHz							
4880.000	36.77	PK	H	11.48	48.25	74.00	25.75
4880.000	25.52	AV	H	11.48	37	54.00	17
4880.000	35.83	PK	V	11.48	47.31	74.00	26.69
4880.000	22.85	AV	V	11.48	34.33	54.00	19.67
7320.000	35.68	PK	H	15.58	51.26	74.00	22.74
7320.000	23.80	AV	H	15.58	39.38	54.00	14.62
7320.000	36.75	PK	V	15.58	52.33	74.00	21.67
7320.000	22.61	AV	V	15.58	38.19	54.00	15.81
High Channel: 2478 MHz							
2483.500	28.52	PK	H	32.19	60.71	74.00	13.29
2483.500	16.14	AV	V	32.19	48.33	54.00	5.67
2483.500	26.10	PK	V	32.19	58.29	74.00	15.71
2483.500	17.09	AV	V	32.19	49.28	54.00	4.72
4956.000	34.36	PK	H	11.24	45.6	74.00	28.4
4956.000	24.51	AV	H	11.24	35.75	54.00	18.25
4956.000	34.24	PK	V	11.24	45.48	74.00	28.52
4956.000	22.93	AV	V	11.24	34.17	54.00	19.83
7434.000	34.90	PK	H	15.20	50.1	74.00	23.9
7434.000	22.90	AV	H	15.20	38.1	54.00	15.9
7434.000	34.82	PK	V	15.20	50.02	74.00	23.98
7434.000	22.46	AV	V	15.20	37.66	54.00	16.34

Antenna 1:

BLE 1Mbps:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 2402 MHz							
2390.000	28.99	PK	H	31.71	60.70	74.00	13.30
2390.000	16.52	AV	H	31.71	48.23	54.00	5.77
2390.000	28.03	PK	V	31.71	59.74	74.00	14.26
2390.000	16.11	AV	V	31.71	47.82	54.00	6.18
4804.000	37.96	PK	H	11.19	49.15	74.00	24.85
4804.000	31.12	AV	H	11.19	42.31	54.00	11.69
4804.000	34.96	PK	V	11.19	46.15	74.00	27.85
4804.000	24.82	AV	V	11.19	36.01	54.00	17.99
7206.000	35.55	PK	H	15.03	50.58	74.00	23.42
7206.000	22.82	AV	H	15.03	37.85	54.00	16.15
7206.000	35.69	PK	V	15.03	50.72	74.00	23.28
7206.000	23.23	AV	V	15.03	38.26	54.00	15.74
Middle Channel: 2440 MHz							
4880.000	37.47	PK	H	11.48	48.95	74.00	25.05
4880.000	30.23	AV	H	11.48	41.71	54.00	12.29
4880.000	34.62	PK	V	11.48	46.10	74.00	27.90
4880.000	25.12	AV	V	11.48	36.60	54.00	17.40
7320.000	36.63	PK	H	15.58	52.21	74.00	21.79
7320.000	22.42	AV	H	15.58	38.00	54.00	16.00
7320.000	36.55	PK	V	15.58	52.13	74.00	21.87
7320.000	23.00	AV	V	15.58	38.58	54.00	15.42
High Channel: 2480 MHz							
2483.500	28.07	PK	H	32.19	60.26	74.00	13.74
2483.500	16.09	AV	V	32.19	48.28	54.00	5.72
2483.500	27.23	PK	V	32.19	59.42	74.00	14.58
2483.500	15.49	AV	V	32.19	47.68	54.00	6.32
4960.000	37.97	PK	H	11.77	49.74	74.00	24.26
4960.000	30.55	AV	H	11.77	42.32	54.00	11.68
4960.000	34.08	PK	V	11.77	45.85	74.00	28.15
4960.000	25.47	AV	V	11.77	37.24	54.00	16.76
7440.000	37.18	PK	H	15.98	53.16	74.00	20.84
7440.000	22.96	AV	H	15.98	38.94	54.00	15.06
7440.000	35.61	PK	V	15.98	51.59	74.00	22.41
7440.000	23.32	AV	V	15.98	39.30	54.00	14.70

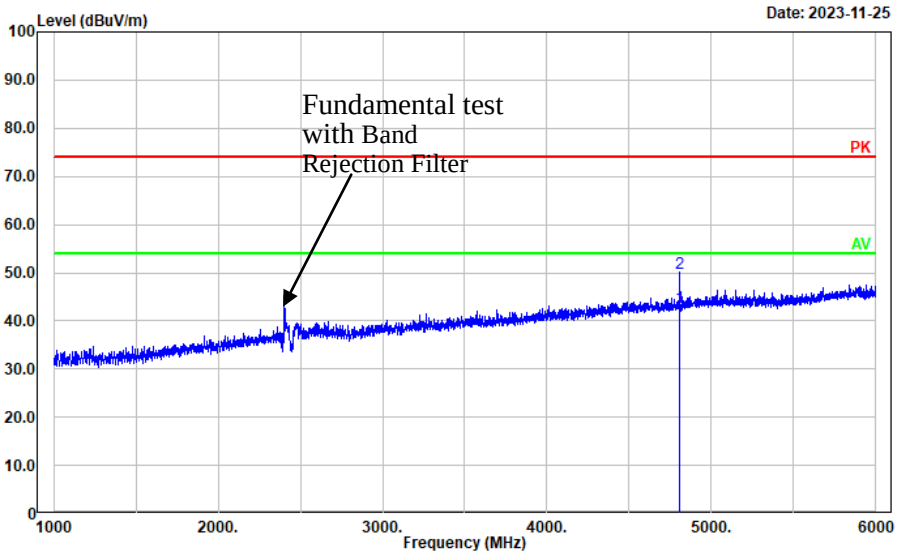
BLE 2Mbps:

Frequency (MHz)	Receiver		Polar (H/V)	Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	Detector					
Low Channel: 2404 MHz							
2390.000	28.51	PK	H	31.71	60.22	74.00	13.78
2390.000	17.19	AV	H	31.71	48.90	54.00	5.10
2390.000	27.80	PK	V	31.71	59.51	74.00	14.49
2390.000	16.13	AV	V	31.71	47.84	54.00	6.16
4808.000	37.85	PK	H	11.22	49.07	74.00	24.93
4808.000	29.06	AV	H	11.22	40.28	54.00	13.72
4808.000	34.20	PK	V	11.22	45.42	74.00	28.58
4808.000	24.92	AV	V	11.22	36.14	54.00	17.86
7212.000	34.36	PK	H	15.07	49.43	74.00	24.57
7212.000	22.35	AV	H	15.07	37.42	54.00	16.58
7212.000	34.69	PK	V	15.07	49.76	74.00	24.24
7212.000	23.30	AV	V	15.07	38.37	54.00	15.63
Middle Channel: 2440 MHz							
4880.000	38.21	PK	H	11.48	49.69	74	24.31
4880.000	29.94	AV	H	11.48	41.42	54	12.58
4880.000	34.49	PK	V	11.48	45.97	74	28.03
4880.000	22.64	AV	V	11.48	34.12	54	19.88
7320.000	35.36	PK	H	15.58	50.94	74	23.06
7320.000	22.30	AV	H	15.58	37.88	54	16.12
7320.000	36.10	PK	V	15.58	51.68	74	22.32
7320.000	23.71	AV	V	15.58	39.29	54	14.71
High Channel: 2478 MHz							
2483.500	32.15	PK	H	32.19	64.34	74.00	9.66
2483.500	17.44	AV	V	32.19	49.63	54.00	4.37
2483.500	26.84	PK	V	32.19	59.03	74.00	14.97
2483.500	15.20	AV	V	32.19	47.39	54.00	6.61
4956.000	39.03	PK	H	11.24	50.27	74.00	23.73
4956.000	31.21	AV	H	11.24	42.45	54.00	11.55
4956.000	34.11	PK	V	11.24	45.35	74.00	28.65
4956.000	23.31	AV	V	11.24	34.55	54.00	19.45
7434.000	34.51	PK	H	15.20	49.71	74.00	24.29
7434.000	22.49	AV	H	15.20	37.69	54.00	16.31
7434.000	36.17	PK	V	15.20	51.37	74.00	22.63
7434.000	22.19	AV	V	15.20	37.39	54.00	16.61

Worst Test plots(BLE 1Mbps Lowchannel)

Horizontal	
1-6GHz	

Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Horizontal
Note: BLE 1M Low Channel

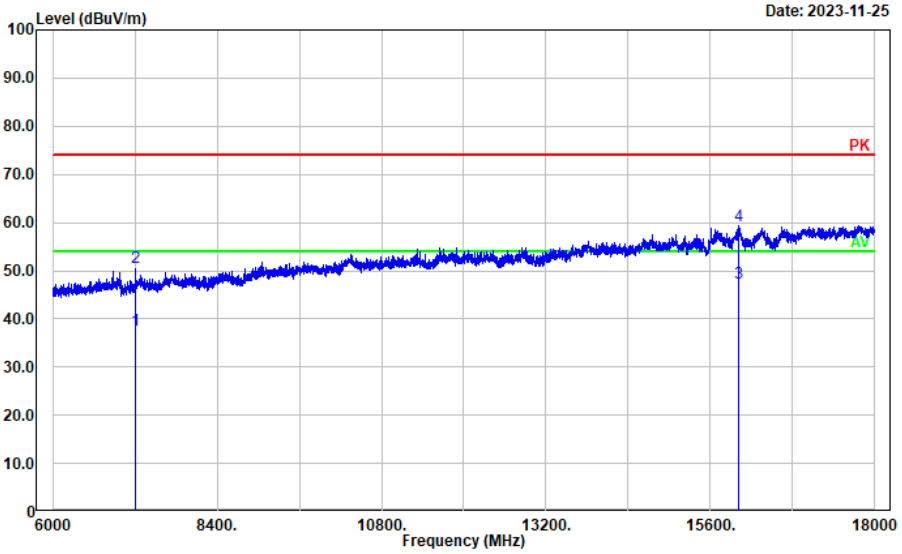


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4804.000	31.56	11.19	42.75	54.00	11.25	Average
2	4804.000	38.80	11.19	49.99	74.00	24.01	Peak

Horizontal

6-18GHz

Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Horizontal
Note: BLE 1M Low Channel

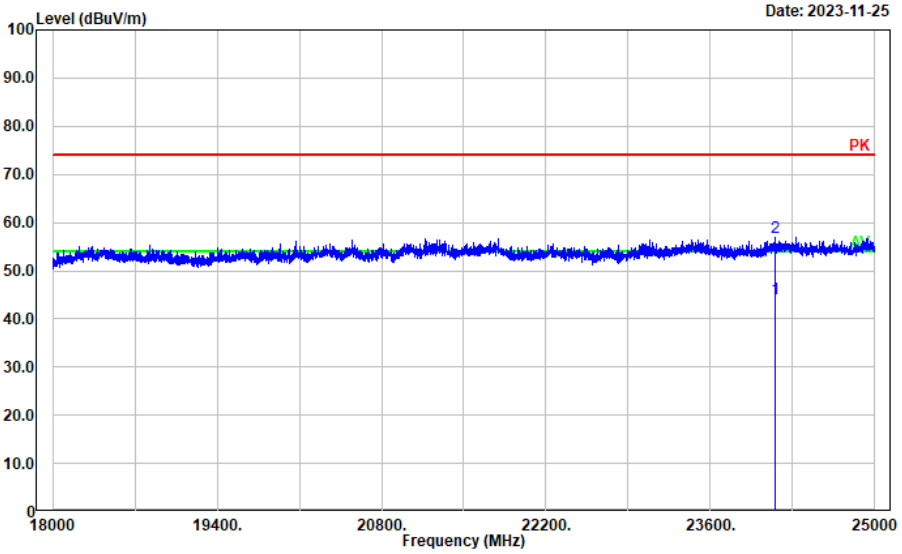


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7206.000	22.51	15.03	37.54	54.00	16.46	Average
2	7206.000	35.72	15.03	50.75	74.00	23.25	Peak
3	16019.600	22.22	25.23	47.45	54.00	6.55	Average
4	16019.600	34.04	25.23	59.27	74.00	14.73	Peak

Horizontal

18-25GHz

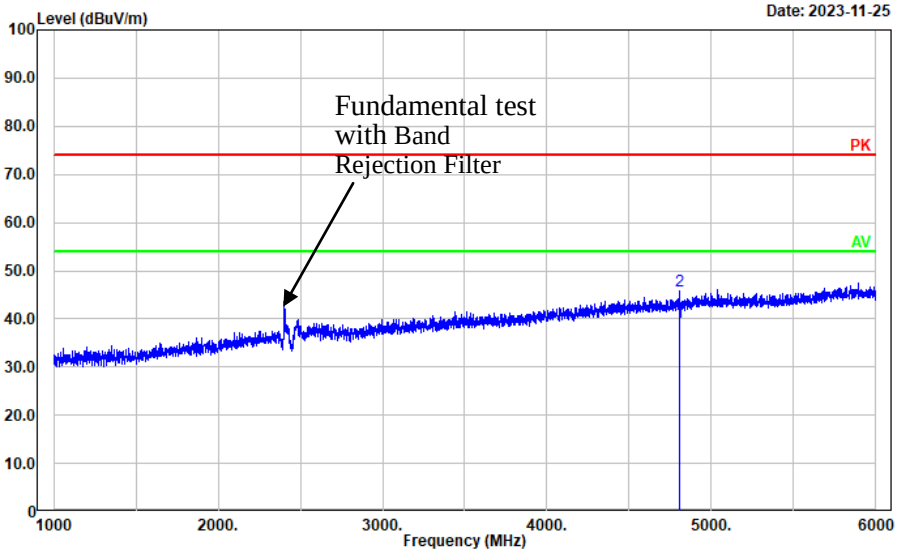
Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Horizontal
Note: BLE 1M Low Channel



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24145.830	39.38	4.89	44.27	54.00	9.73	Average
2	24145.830	51.90	4.89	56.79	74.00	17.21	Peak

Vertical	
1-6GHz	

Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Vertical
Note: BLE 1M Low Channel

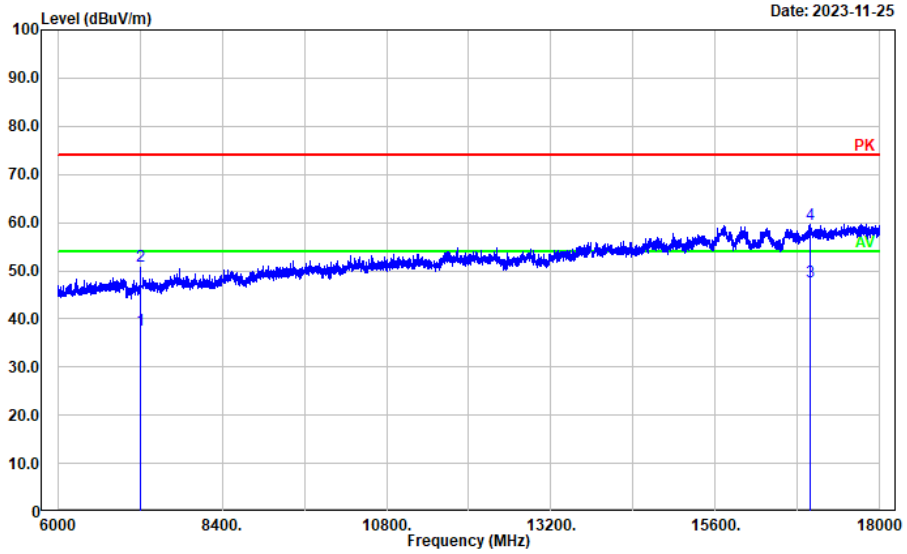


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4804.000	28.21	11.19	39.40	54.00	14.60	Average
2	4804.000	34.63	11.19	45.82	74.00	28.18	Peak

Vertical

6-18GHz

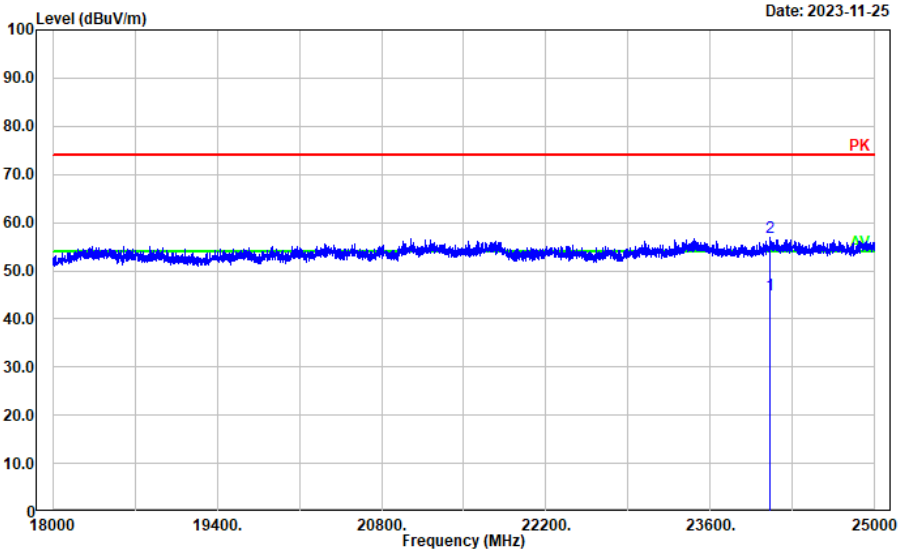
Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Vertical
Note: BLE 1M Low Channel



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7206.000	22.62	15.03	37.65	54.00	16.35	Average
2	7206.000	35.96	15.03	50.99	74.00	23.01	Peak
3	16979.800	19.63	28.01	47.64	54.00	6.36	Average
4	16979.800	31.50	28.01	59.51	74.00	14.49	Peak

Vertical	
18-25GHz	

Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Vertical
Note: BLE 1M Low Channel

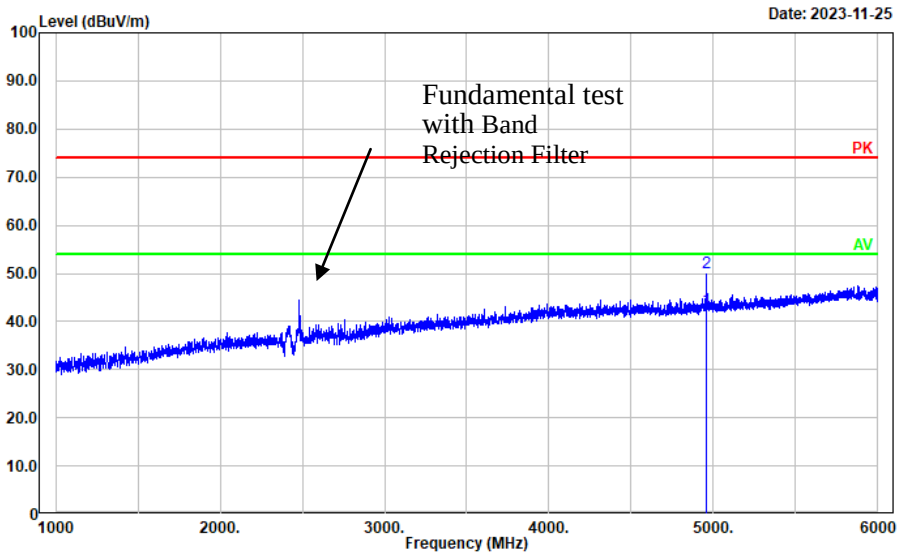


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24108.020	40.14	4.84	44.98	54.00	9.02	Average
2	24108.020	51.98	4.84	56.82	74.00	17.18	Peak

Worst Test plots (BLE 2Mbps High channel)

Horizontal	
1-6GHz	

Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Horizontal
Note: BLE 2M High Channel

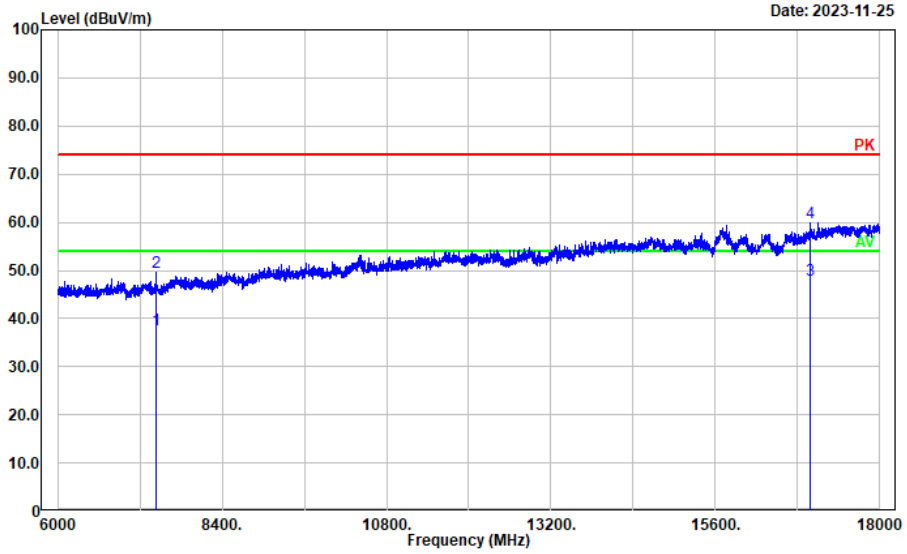


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4956.000	31.21	11.24	42.45	54.00	11.55	Average
2	4956.000	39.03	11.24	50.27	74.00	23.73	Peak

Horizontal

6-18GHz

Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Horizontal
Note: BLE 2M High Channel

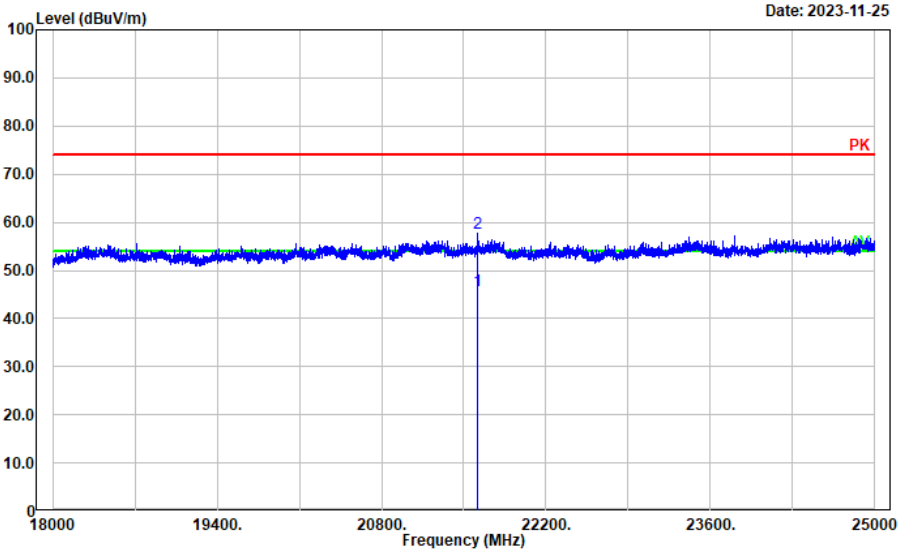


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7434.000	22.49	15.20	37.69	54.00	16.31	Average
2	7434.000	34.51	15.20	49.71	74.00	24.29	Peak
3	16989.400	22.46	25.43	47.89	54.00	6.11	Average
4	16989.400	34.57	25.43	60.00	74.00	14.00	Peak

Horizontal

18-25GHz

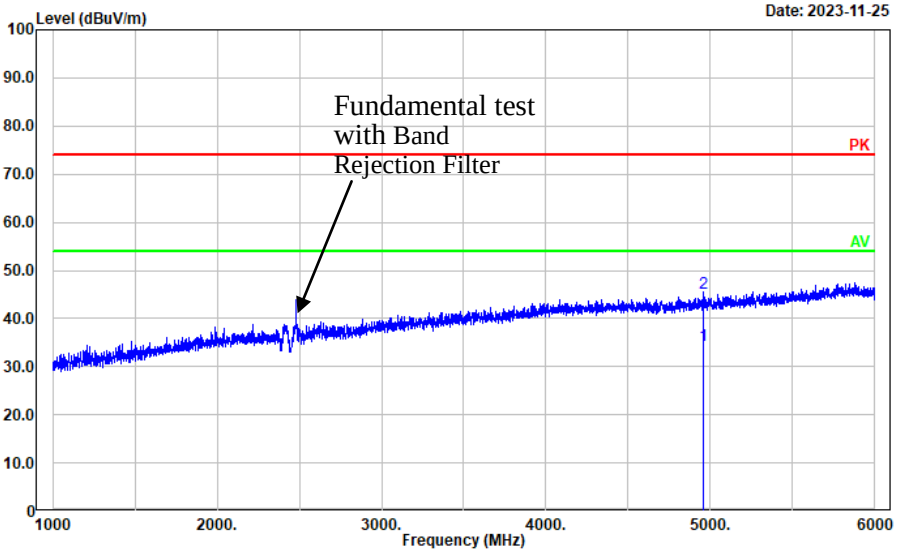
Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Horizontal
Note: BLE 2M High Channel



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	21621.130	41.07	4.71	45.78	54.00	8.22	Average
2	21621.130	52.97	4.71	57.68	74.00	16.32	Peak

Vertical	
1-6GHz	

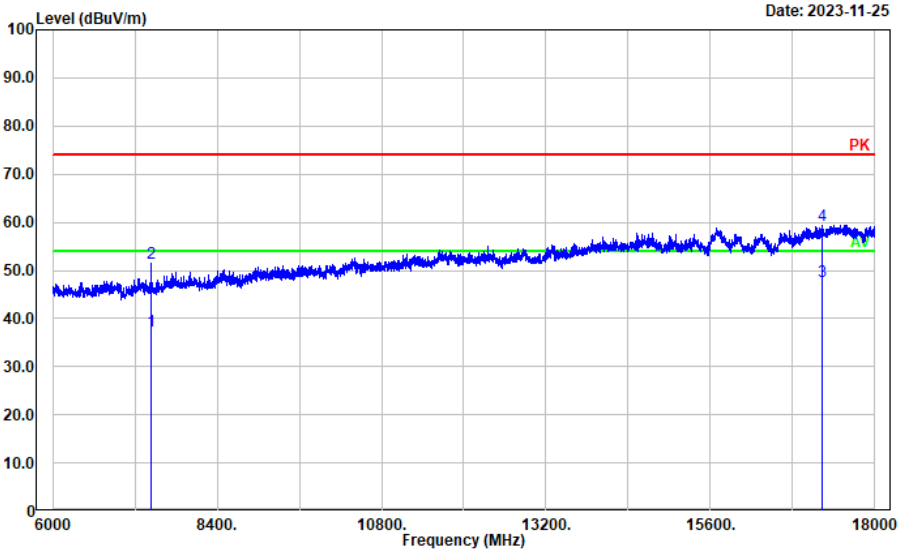
Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Vertical
Note: BLE 2M High Channel



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	4956.000	23.31	11.24	34.55	54.00	19.45	Average
2	4956.000	34.11	11.24	45.35	74.00	28.65	Peak

Vertical	
6-18GHz	

Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Vertical
Note: BLE 2M High Channel

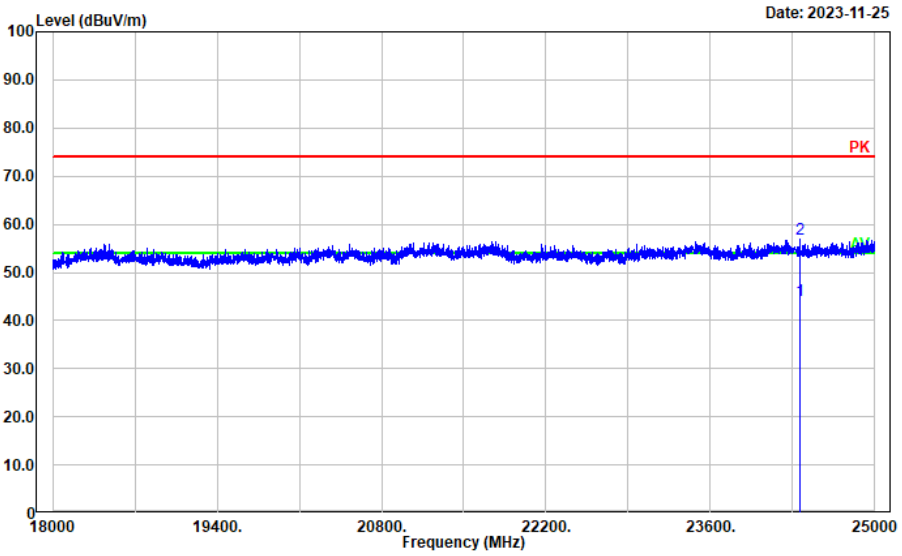


No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	7434.000	22.19	15.20	37.39	54.00	16.61	Average
2	7434.000	36.17	15.20	51.37	74.00	22.63	Peak
3	17239.050	20.85	26.78	47.63	54.00	6.37	Average
4	17239.050	32.67	26.78	59.45	74.00	14.55	Peak

Vertical

18-25GHz

Project No.: CR231061506-RF
Tester: Coco Tian
Polarization: Vertical
Note: BLE 2M High Channel



No.	Frequency (MHz)	Reading (dBµV)	Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector
1	24362.870	39.10	5.18	44.28	54.00	9.72	Average
2	24362.870	51.78	5.18	56.96	74.00	17.04	Peak

4.3 6 dB Emission Bandwidth

Serial Number:	2CII-1	Test Date:	2023/11/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Lingling Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24	Relative Humidity: (%)	48	ATM Pressure: (kPa)	100.28

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101590	2023/11/16	2024/11/15
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

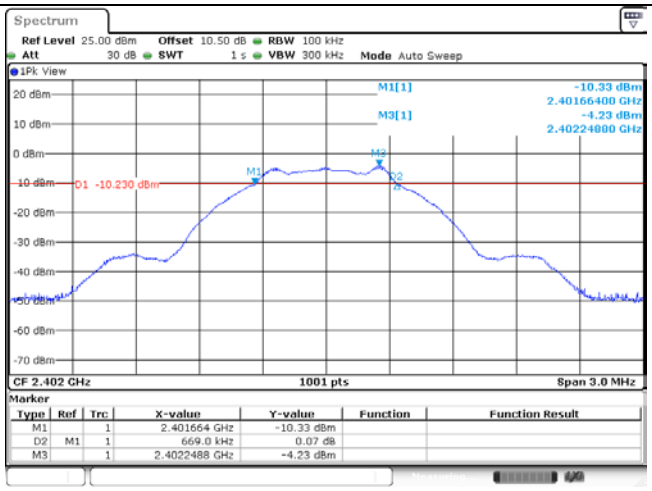
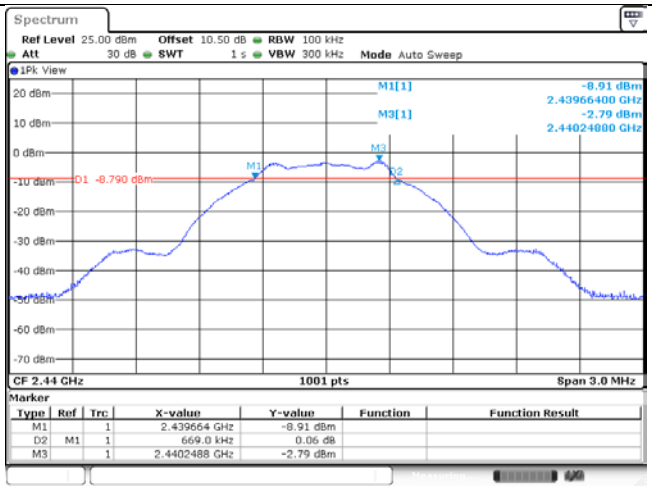
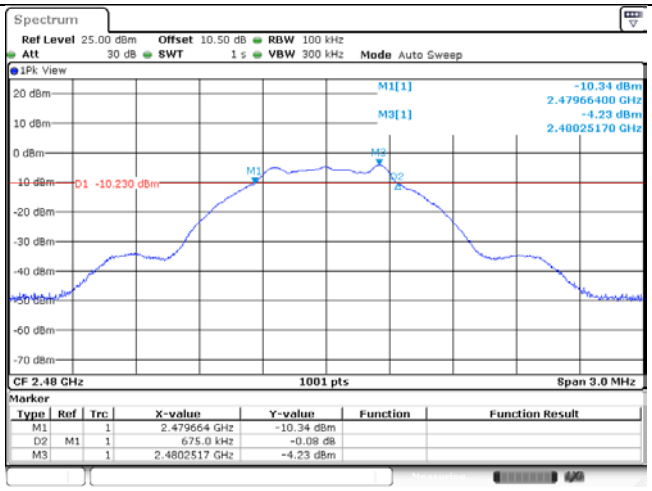
Antenna 0:

Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
BLE 1Mbps	2402	0.669	≥0.5
	2440	0.669	≥0.5
	2480	0.675	≥0.5
BLE 2Mbps	2404	1.182	≥0.5
	2440	1.182	≥0.5
	2478	1.182	≥0.5

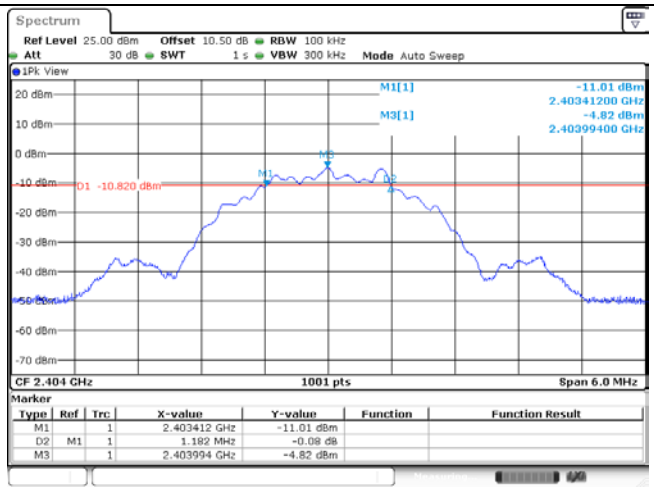
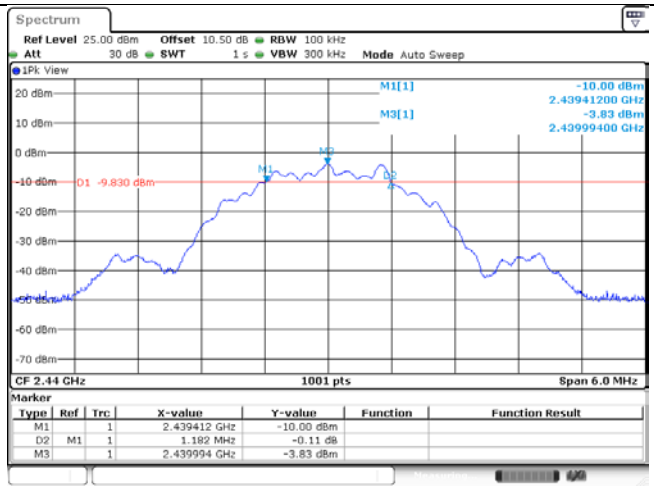
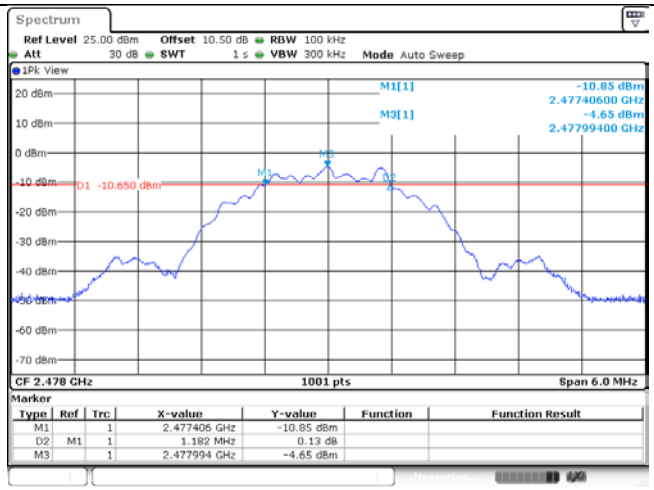
Antenna 1:

Test Modes	Test Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
BLE 1Mbps	2402	0.672	≥0.5
	2440	0.669	≥0.5
	2480	0.672	≥0.5
BLE 2Mbps	2404	1.176	≥0.5
	2440	1.176	≥0.5
	2478	1.176	≥0.5

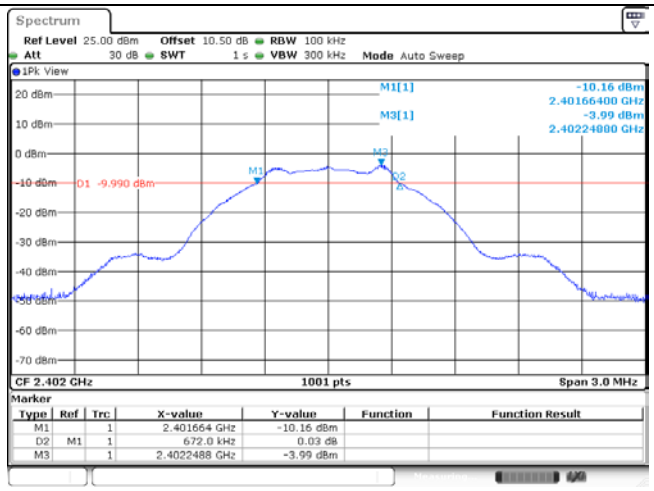
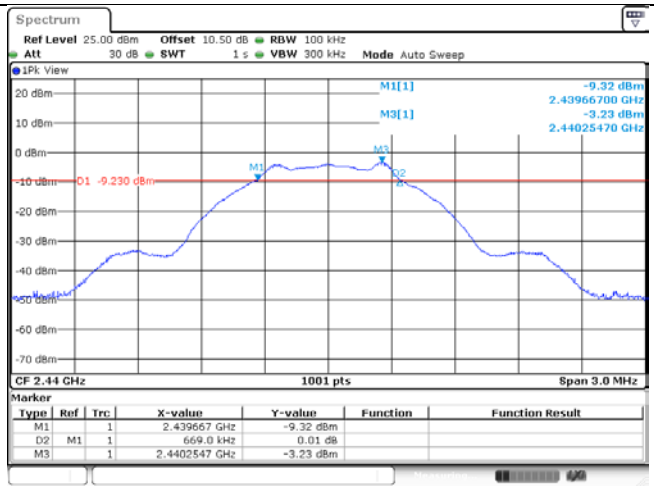
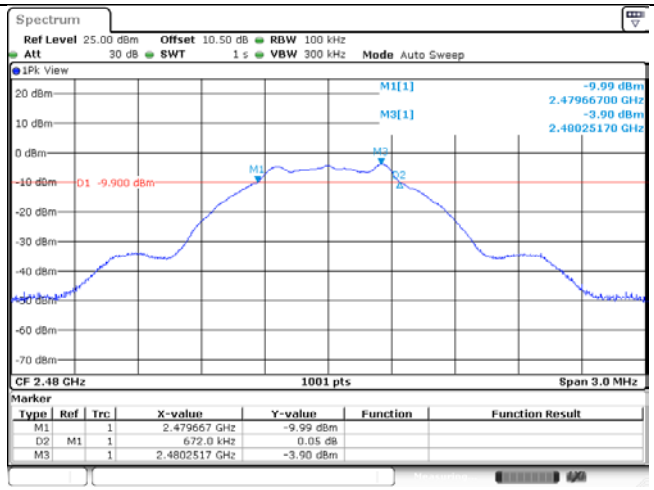
Antenna 0:

6dB Emission Bandwidth	
BLE 1Mbps Lowest Channel	
BLE 1Mbps Middle Channel	
BLE 1Mbps Highest Channel	

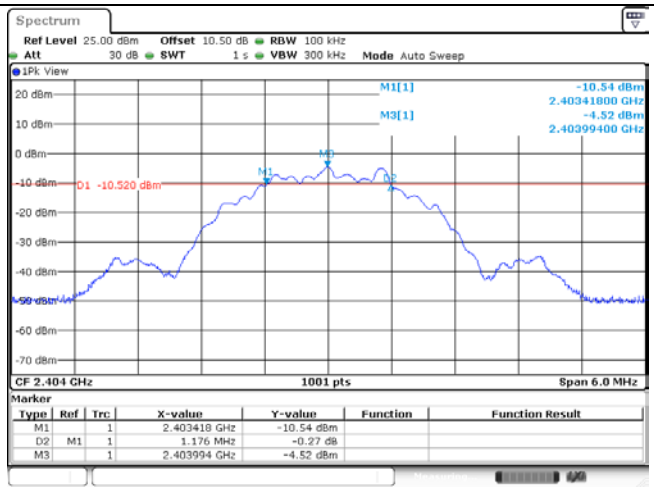
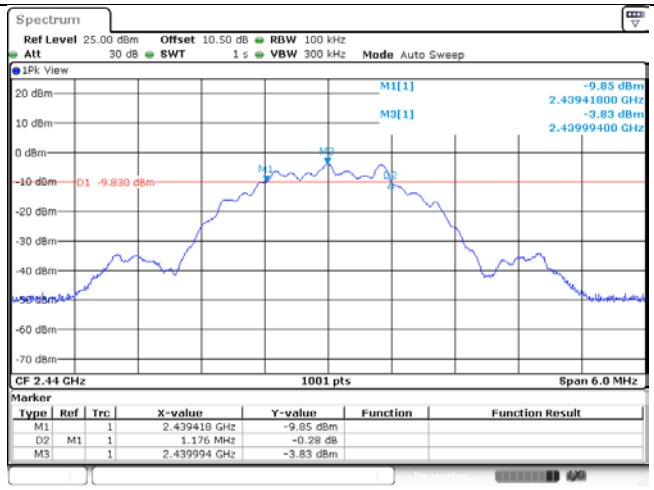
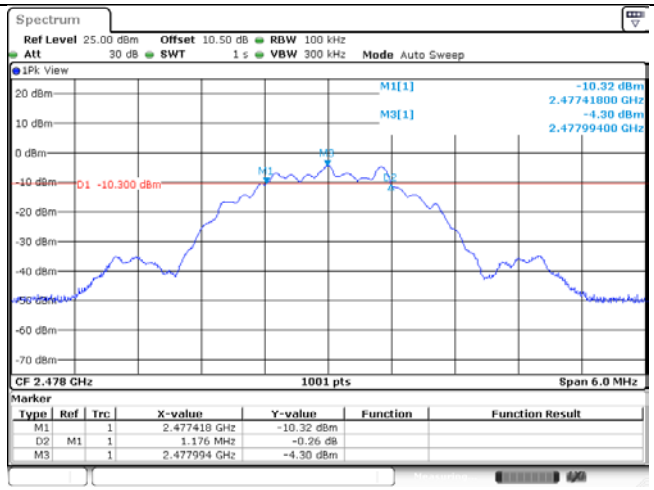
Antenna 0:

6dB Emission Bandwidth	
BLE 2Mbps Lowest Channel	 ProjectNo.:CR231061506-RF Tester:Lingling Li Date: 19.NOV.2023 10:47:44
BLE 2Mbps Middle Channel	 ProjectNo.:CR231061506-RF Tester:Lingling Li Date: 19.NOV.2023 10:50:23
BLE 2Mbps Highest Channel	 ProjectNo.:CR231061506-RF Tester:Lingling Li Date: 19.NOV.2023 10:52:57

Antenna 1:

6dB Emission Bandwidth	
BLE 1Mbps Lowest Channel	
BLE 1Mbps Middle Channel	
BLE 1Mbps Highest Channel	

Antenna 1:

6dB Emission Bandwidth	
BLE 2Mbps Lowest Channel	
BLE 2Mbps Middle Channel	
BLE 2Mbps Highest Channel	

4.4Maximum Conducted Output Power

Serial Number:	2CII-1	Test Date:	2023/11/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Lingling Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24	Relative Humidity: (%)	48	ATM Pressure: (kPa)	100.28

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101590	2023/11/16	2024/11/15
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

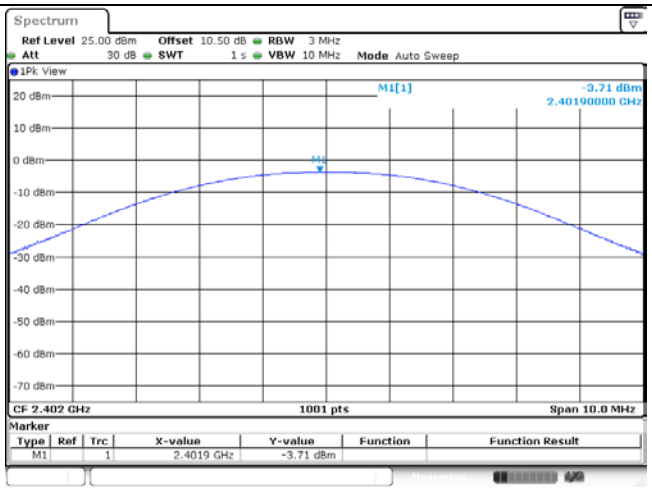
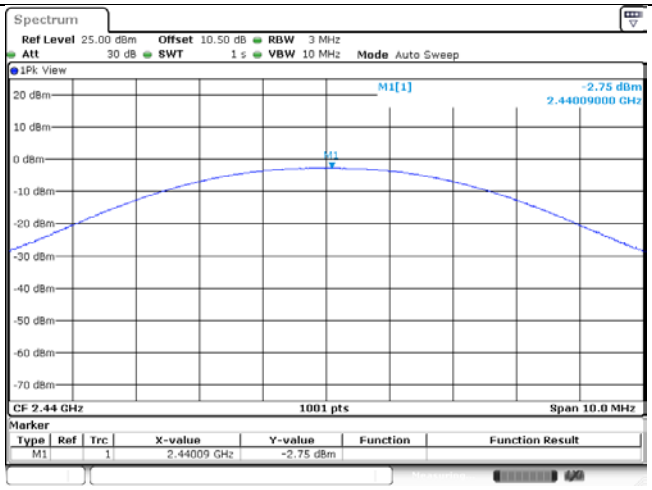
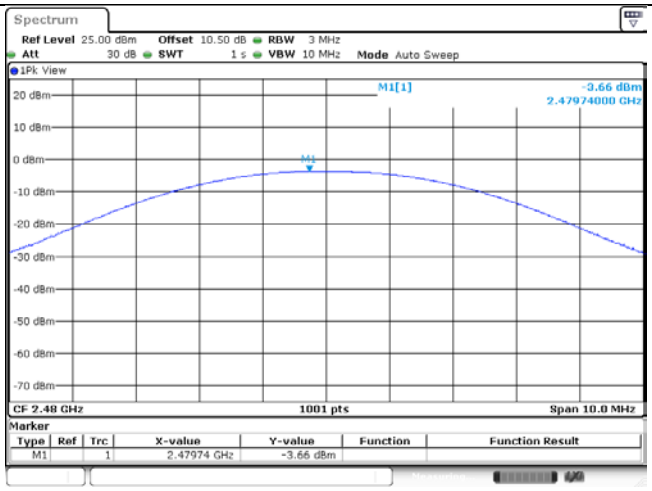
Antenna 0:

Test Modes	Test Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)	Limit (dBm)
BLE 1Mbps	2402	-3.71	⩽30
	2440	-2.75	⩽30
	2480	-3.66	⩽30
BLE 2Mbps	2404	-3.59	⩽30
	2440	-2.62	⩽30
	2478	-3.36	⩽30

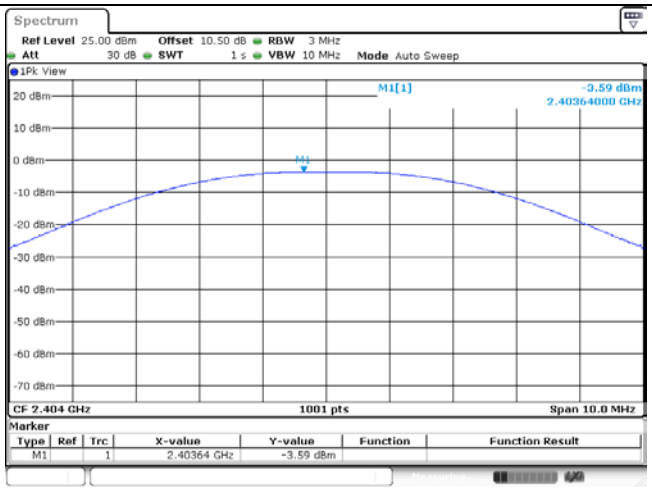
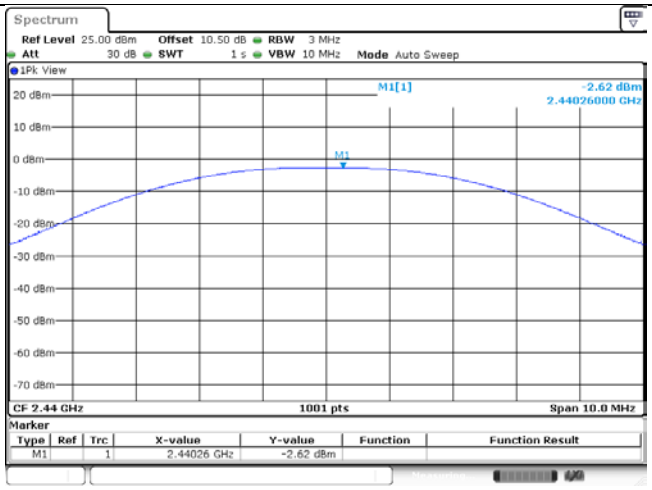
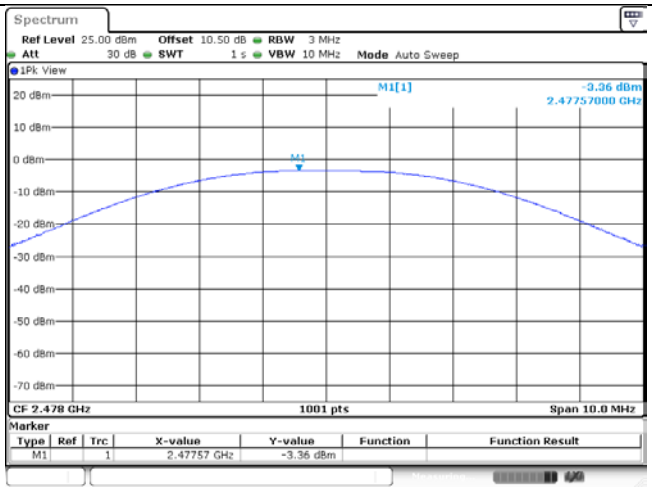
Antenna 1:

Test Modes	Test Frequency (MHz)	Maximum Peak Conducted Output Power (dBm)	Limit (dBm)
BLE 1Mbps	2402	-3.47	⩽30
	2440	-2.72	⩽30
	2480	-3.32	⩽30
BLE 2Mbps	2404	-3.32	⩽30
	2440	-2.64	⩽30
	2478	-3.08	⩽30

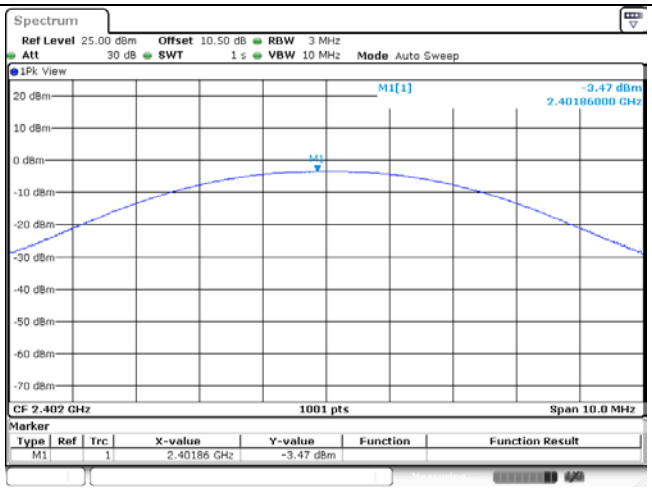
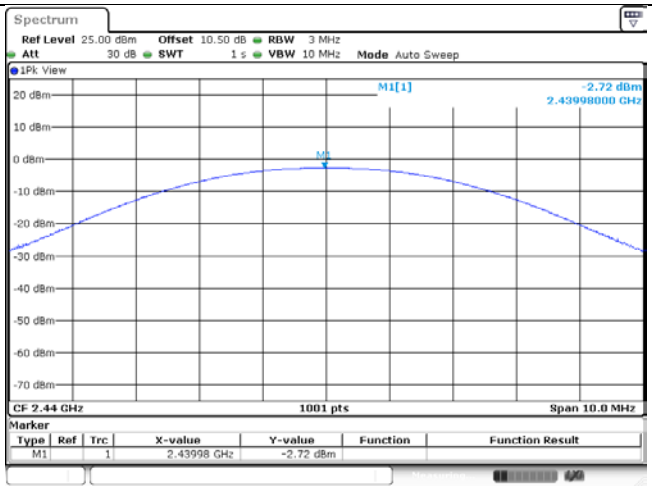
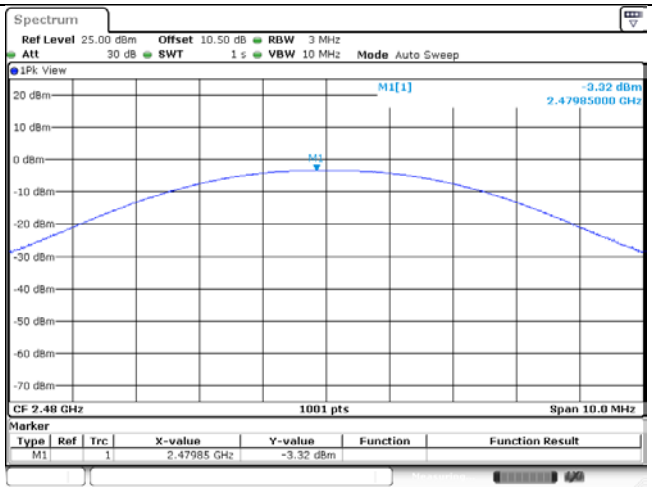
Antenna 0:

Maximum Conducted Peak Output Power	
BLE 1Mbps Lowest Channel	
BLE 1Mbps Middle Channel	
BLE 1Mbps Highest Channel	

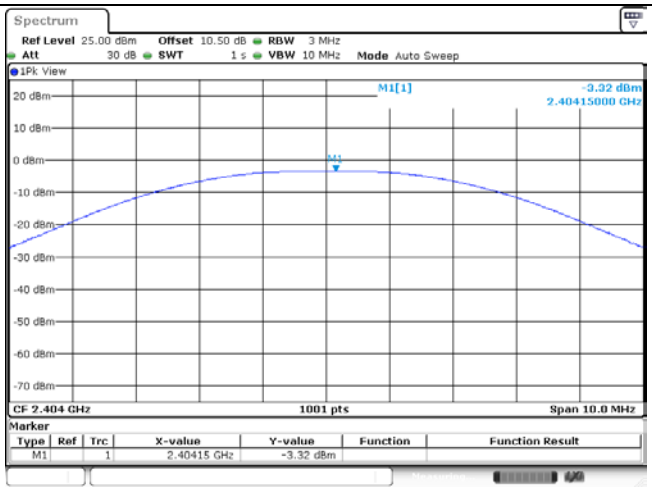
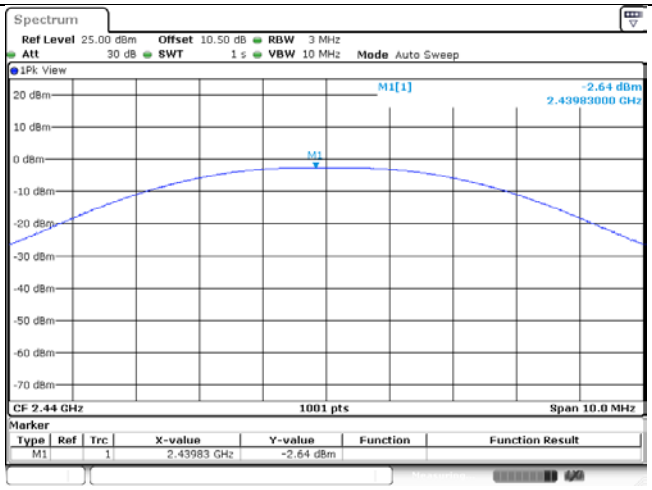
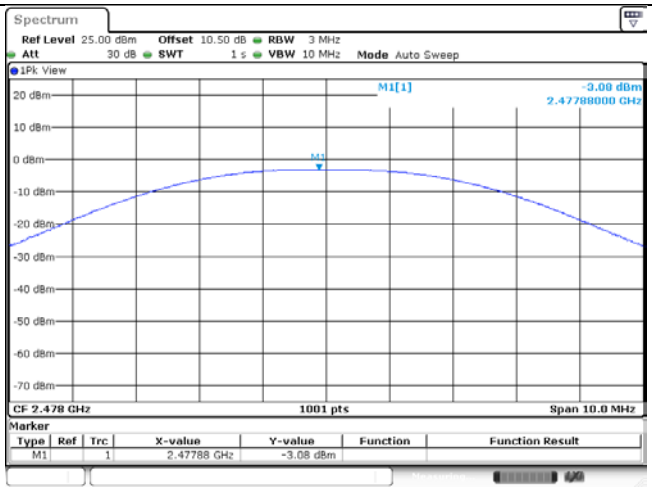
Antenna 0:

Maximum Conducted Peak Output Power	
BLE 2Mbps Lowest Channel	
BLE2Mbps Middle Channel	
BLE 2Mbps Highest Channel	

Antenna 1:

Maximum Conducted Peak Output Power	
BLE 1Mbps Lowest Channel	
BLE 1Mbps Middle Channel	
BLE 1Mbps Highest Channel	

Antenna 1:

Maximum Conducted Peak Output Power	
BLE 2Mbps Lowest Channel	
BLE2Mbps Middle Channel	
BLE 2Mbps Highest Channel	

4.5Maximum power spectral density

Serial Number:	2CII-1	Test Date:	2023/11/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Lingling Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24	Relative Humidity: (%)	48	ATM Pressure: (kPa)	100.28

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101590	2023/11/16	2024/11/15
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

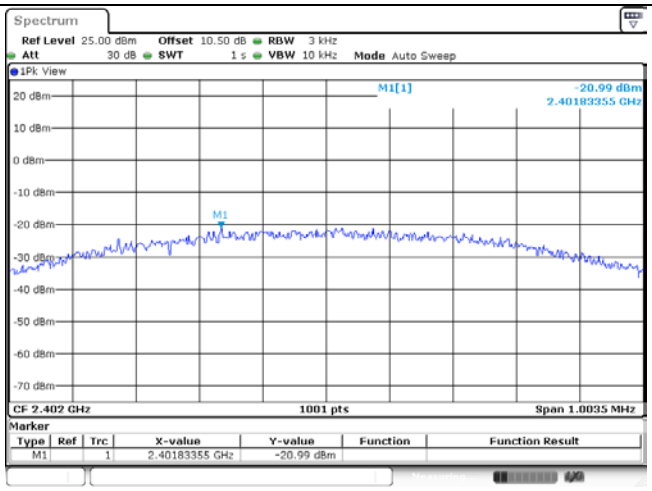
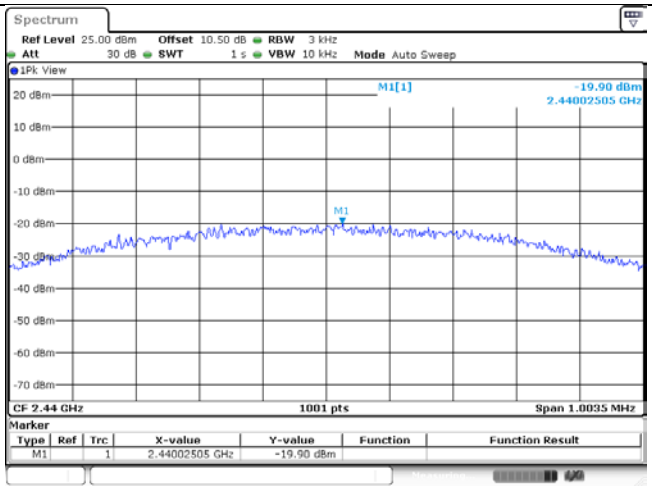
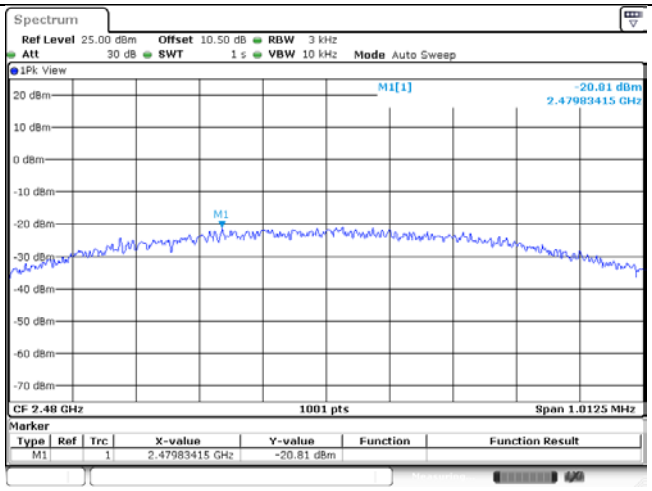
Test Data:
Antenna 0:

Test Modes	Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
BLE 1Mbps	2402	-20.99	≤8.00
	2440	-19.90	≤8.00
	2480	-20.81	≤8.00
BLE 2Mbps	2404	-22.97	≤8.00
	2440	-22.05	≤8.00
	2478	-22.75	≤8.00

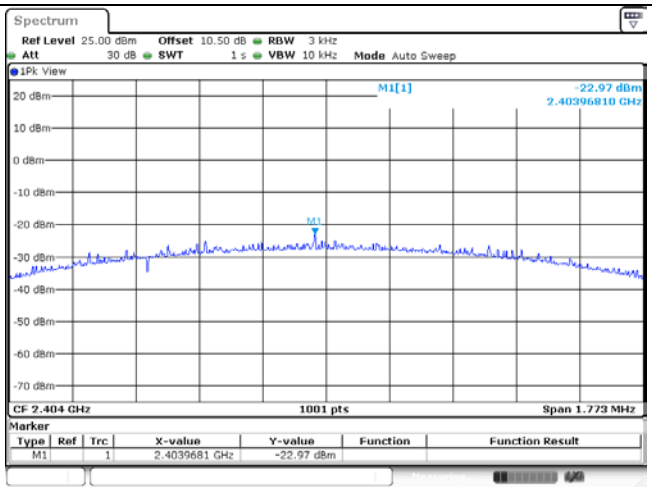
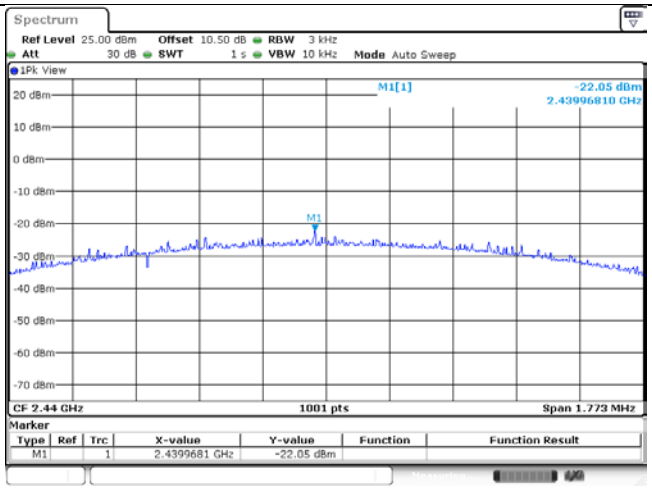
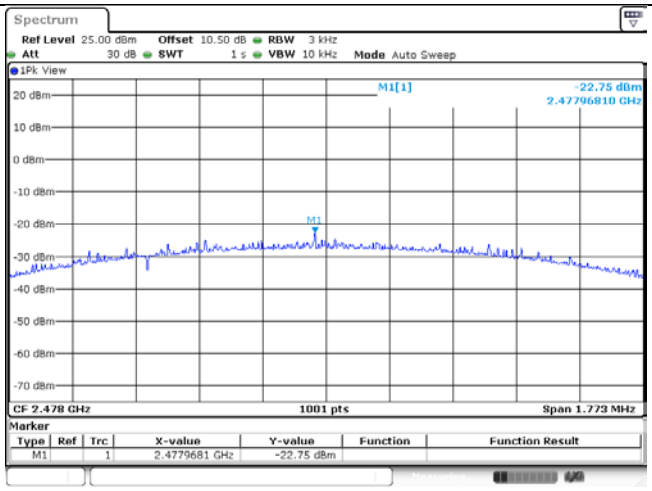
Antenna 1:

Test Modes	Test Frequency (MHz)	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
BLE 1Mbps	2402	-20.75	≤8.00
	2440	-19.95	≤8.00
	2480	-20.63	≤8.00
BLE 2Mbps	2404	-22.56	≤8.00
	2440	-21.84	≤8.00
	2478	-22.29	≤8.00

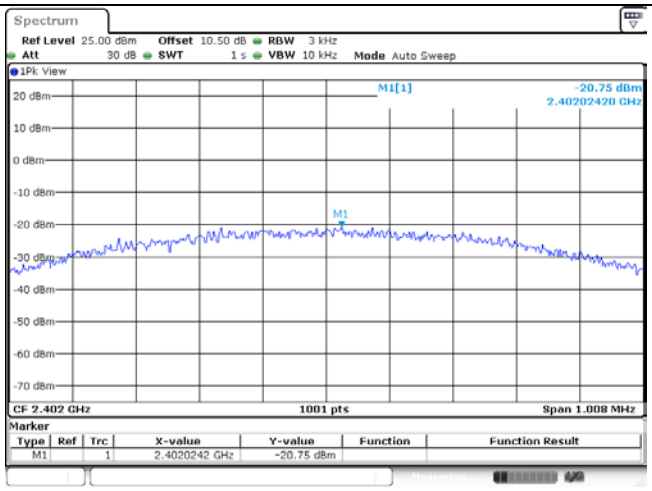
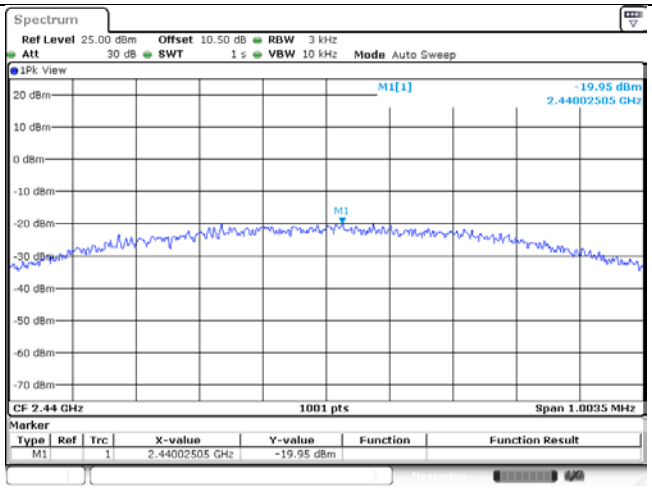
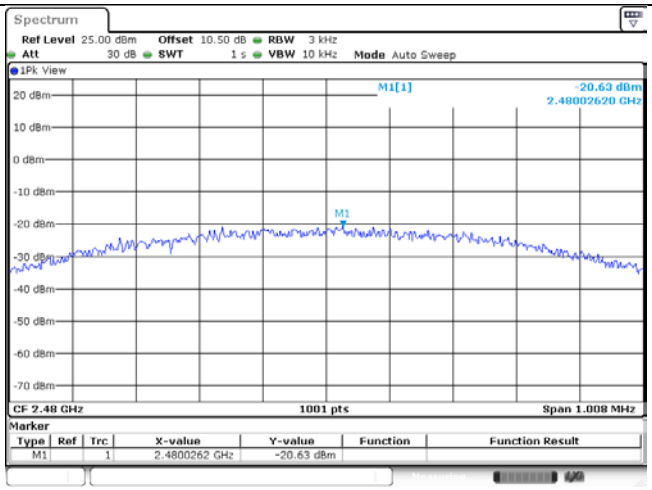
Antenna 0:

Maximum power spectral density	
BLE 1Mbps Lowest Channel	
BLE 1Mbps Middle Channel	
BLE 1Mbps Highest Channel	

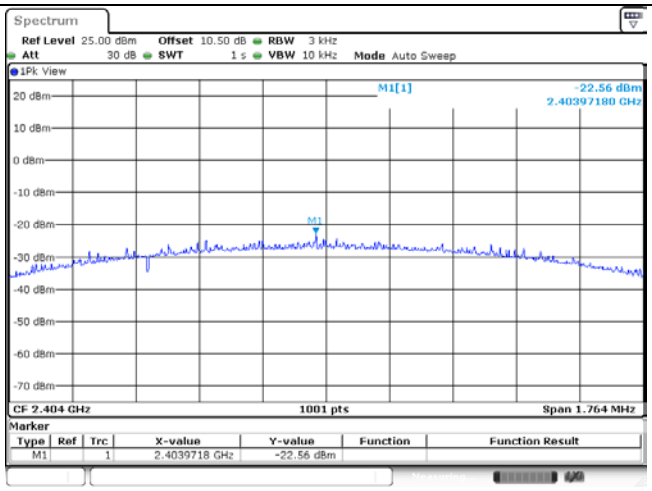
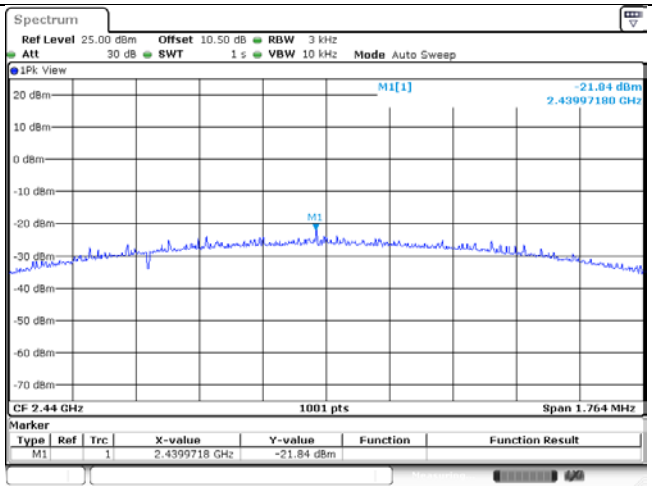
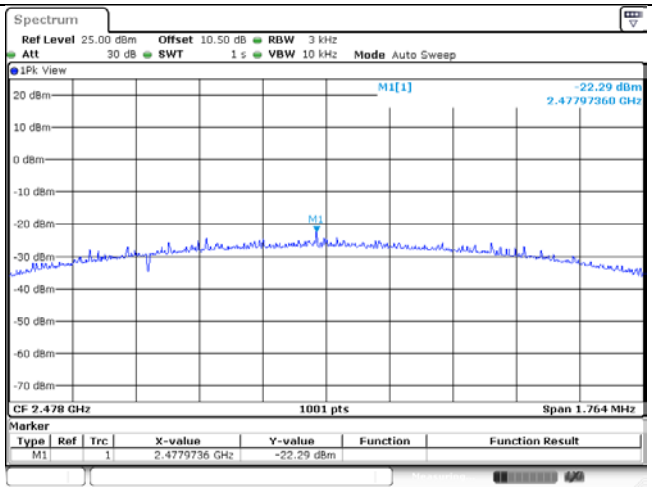
Antenna 0:

Maximum power spectral density	
BLE 2Mbps Lowest Channel	
BLE 2Mbps Middle Channel	
BLE 2Mbps Highest Channel	

Antenna 1:

Maximum power spectral density	
BLE 1Mbps Lowest Channel	
BLE 1Mbps Middle Channel	
BLE 1Mbps Highest Channel	

Antenna 1:

Maximum power spectral density	
BLE 2Mbps Lowest Channel	
BLE 2Mbps Middle Channel	
BLE 2Mbps Highest Channel	

4.6100 kHz Bandwidth of Frequency Band Edge

Serial Number:	2CII-1	Test Date:	2023/11/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Lingling Li	Test Result:	Pass

Environmental Conditions:					
Temperature: (℃)	24	Relative Humidity: (%)	48	ATM Pressure: (kPa)	100.28

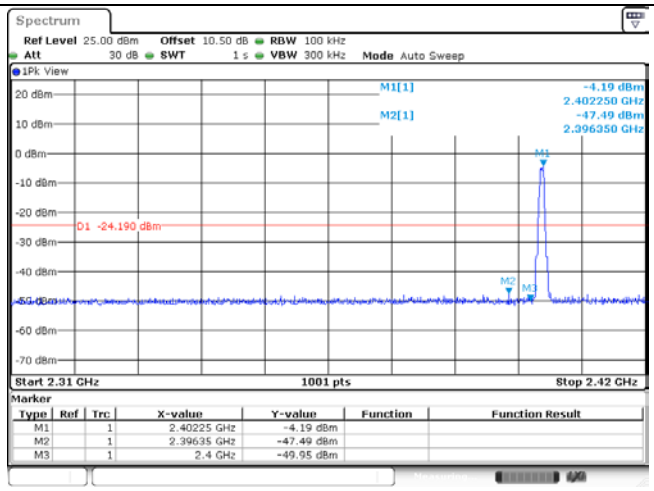
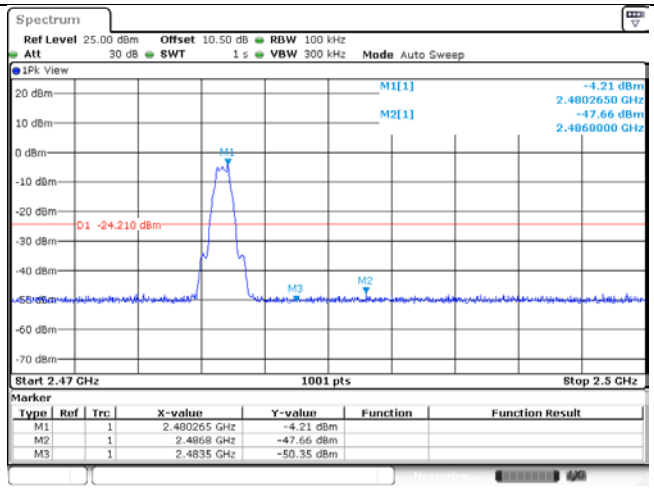
Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101590	2023/11/16	2024/11/15
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

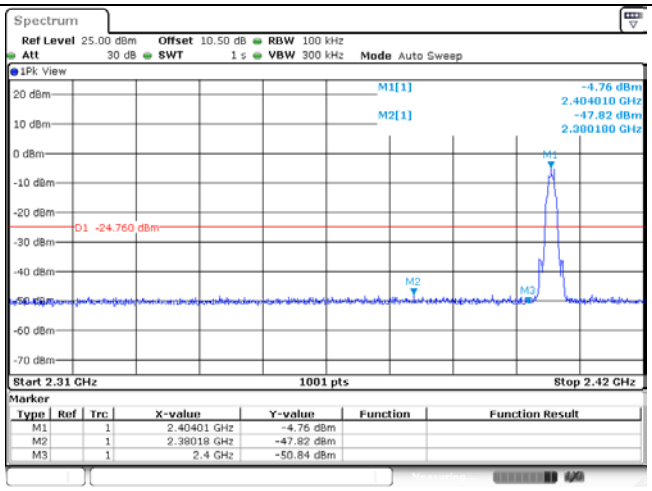
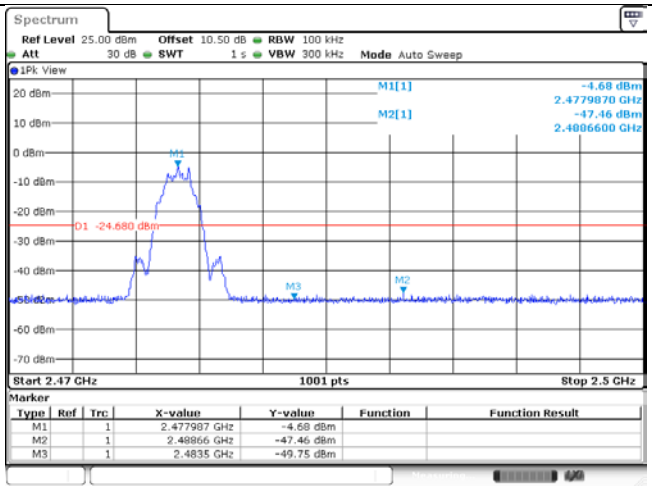
** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

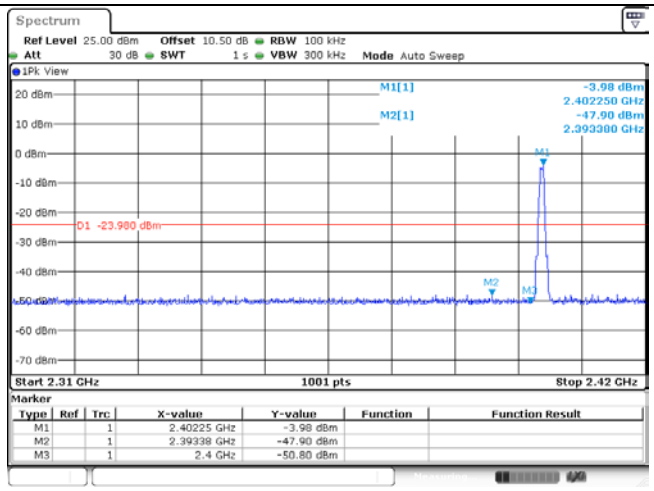
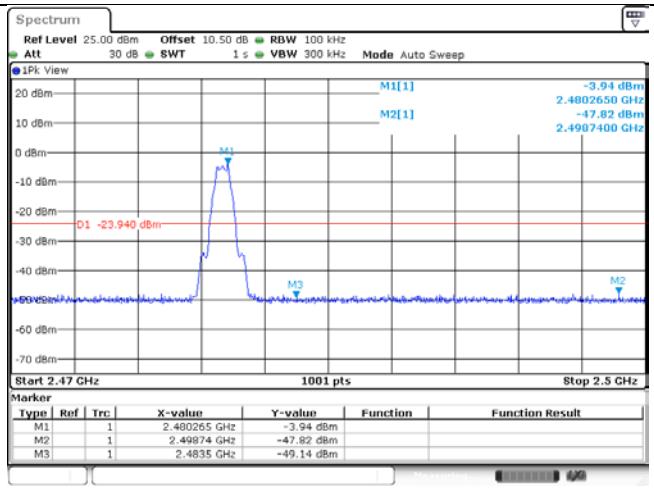
Antenna 0:

100 kHz Bandwidth of Frequency Band Edge	
BLE 1Mbps LowestBand edge	 ProjectNo.:CR231061506-RF Tester:Lingling Li Date: 19.NOV.2023 10:34:31
BLE 1Mbps HighestBand edge	 ProjectNo.:CR231061506-RF Tester:Lingling Li Date: 19.NOV.2023 10:38:25

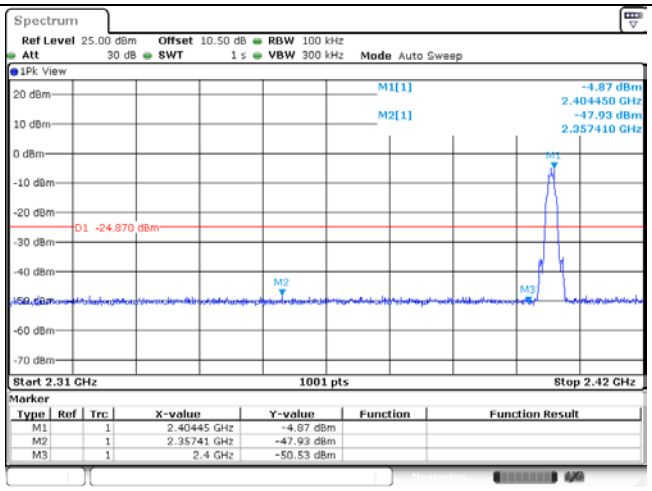
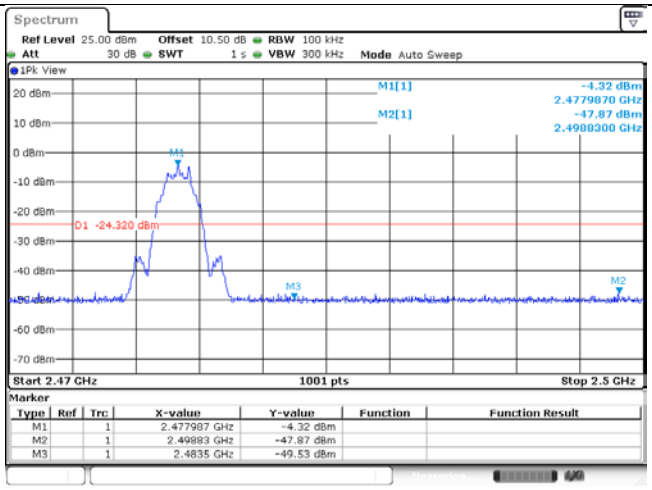
Antenna 0:

100 kHz Bandwidth of Frequency Band Edge	
BLE 2Mbps LowestBand edge	
BLE 2Mbps HighestBand edge	

Antenna 1:

100 kHz Bandwidth of Frequency Band Edge	
BLE 1Mbps LowestBand edge	
BLE 1Mbps HighestBand edge	

Antenna 1:

100 kHz Bandwidth of Frequency Band Edge	
BLE 2Mbps LowestBand edge	
BLE 2Mbps HighestBand edge	

4.7 Duty Cycle

Serial Number:	2CII-1	Test Date:	2023/11/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Lingling Li	Test Result:	N/A

Environmental Conditions:					
Temperature: (℃)	24	Relative Humidity: (%)	48	ATM Pressure: (kPa)	100.28

Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101590	2023/11/16	2024/11/15
zhuoxiang	Coaxial Cable	SMA-178	211003	Each time	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060302	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Data:

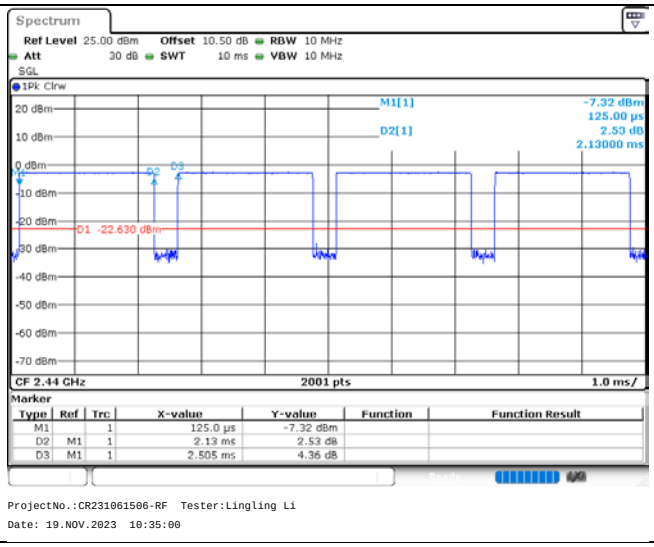
Antenna 0:

Test Modes	Test Frequency (MHz)	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	VBW Setting (kHz)
BLE 1Mbps	2440	2.13	2.505	85.03	469.48	0.5
BLE 2Mbps	2440	1.07	1.88	56.91	934.58	1

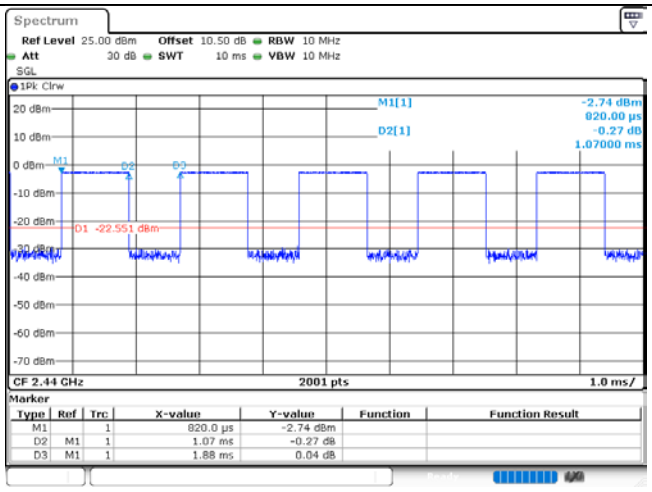
Antenna 1:

Test Modes	Test Frequency (MHz)	Ton (ms)	Ton+off (ms)	Duty cycle (%)	1/T (Hz)	VBW Setting (kHz)
BLE 1Mbps	2440	2.125	2.505	84.83	470.59	0.5
BLE 2Mbps	2440	1.07	1.88	56.91	934.58	1

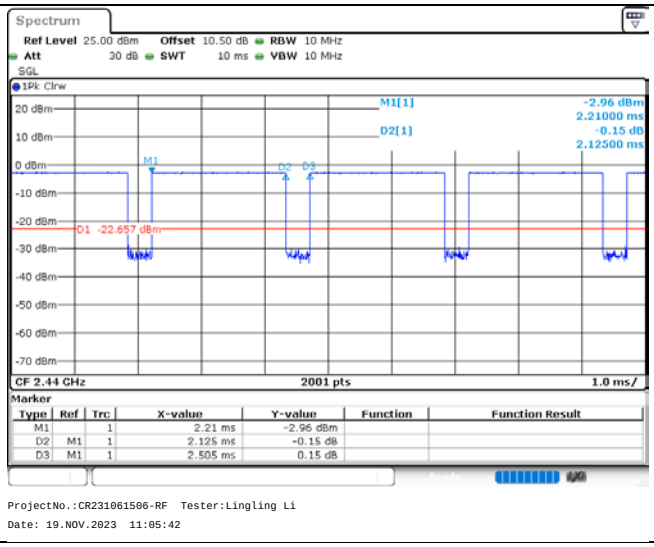
Antenna 0:

Duty Cycle	
BLE 1Mbps-2440MHz	

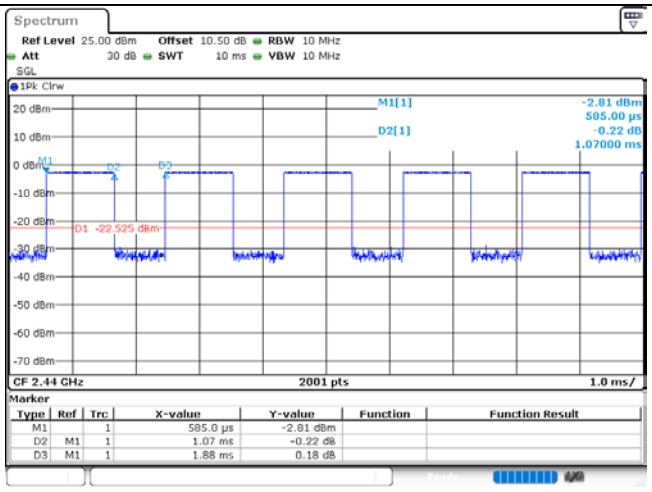
Antenna 0:

Duty Cycle	
BLE 2Mbps-2440MHz	

Antenna 1:

Duty Cycle	
BLE 1Mbps-2440MHz	

Antenna 1:

Duty Cycle	
BLE 2Mbps-2440MHz	

5. RF EXPOSURE EVALUATION

5.1 Applicable Standard

According to§15.247(i) and §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

According to KDB447498 D01 General RF Exposure Guidance v06:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is <5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.

5.2 Measurement Result

The max conducted power including tune-up tolerance is-2.5dBm (0.56mW).
[(max. power of channel, mW)/(min. test separation distance, mm)][√f(GHz)]
=0.56/5*(√2.480) =0.2< 3.0

Result: Compliant.Thestand-alone SAR evaluation is not necessary.

6.EUT PHOTOGRAPHS

Please refer to the attachmentCR231061506-EXPEUT EXTERNAL PHOTOGRAPHSand CR231061506-INPEUTINTERNAL PHOTOGRAPHS

7.TEST SETUP PHOTOGRAPHS

Please refer to the attachmentCR231061506-00A-TSPTEST SETUP PHOTOGRAPHS.

===== END OF REPORT ====