RF MEASUREMENT REPORT

FCC ID:	2AU47-00008
Applicant:	Tonies US, Inc.
Product:	Toniebox lite
Model No.:	10006
Brand Name:	Tonies
FCC Classification:	Digital Transmission System (DTS)
FCC Rule Part(s):	Part 15 Subpart C (Section 15.247)
Result:	Complies
Received Date:	2025-12-22
Test Date:	2025-12-30 ~ 2026-01-15

Reviewed By: Denise Zhou

Approved By: Robin Wu

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

The test results relate only to the samples tested.
This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report. Testing was performed in accordance with the applicable measurement procedures. The test results reported herein apply only to the specific item(s) tested.
The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
R25S1021124-U201	V01	Initial Report	2026-03-13	Valid

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1. General Information

1.1. Applicant

Tonies US, Inc.

3000 El Camino Real, Building 4, Suite 200, Palo Alto, CA 94306, USA

1.2. Manufacturer

Tonies US, Inc.

3000 El Camino Real, Building 4, Suite 200, Palo Alto, CA 94306, USA

1.3. Testing Facility

☒	**Test Site - MRT Suzhou Laboratory**	
	Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China **Laboratory Location (Suzhou - SIP)** 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China **Laboratory Location (Suzhou - Wujiang)** Building 1, No.1 Xingdong Road, Wujiang, Suzhou, Jiangsu, People's Republic of China	
	Laboratory Accreditations	
	A2LA: 3628.01	CNAS: L10551
	FCC: CN1166	ISED: CN0001
☐	**Test Site - MRT Shenzhen Laboratory**	
	Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China	
	Laboratory Accreditations	
	A2LA: 3628.02	
	FCC: CN1284	ISED: CN0105
☐	**Test Site - MRT Taiwan Laboratory**	
	Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)	
	Laboratory Accreditations	
	TAF: 3261	
	FCC: 291082, TW3261	ISED: TW3261

1.4. Product Information

Product Name	Toniebox lite
Model No.	10006
EUT Identification No.	20251222Sample#01 (Conducted) 20251222Sample#03 (Radiated)
HW Version	VP1_1
SW Version	Realtek-MP Driver
Wi-Fi Specification	802.11a/b/g/n/ac
Bluetooth Specification	Dual Mode, BR/EDR & BLE
NFC Specification	13.56 MHz
Antenna Specification	Refer to clause 1.5
Operating Temp	5 ~ 35 °C
Power Type	By Battery or Adapter
Accessory(ies)	
Rechargeable Li-ion Battery#1	Model No.: IFR18650-PGS Nominal Voltage: 3.2 Vdc Rated Capacity: 1950 mAh Limited Charge Voltage: 3.65 V Manufacturer: Shenzhen EPT Battery Co., Ltd.
Rechargeable Li-ion Battery#2	Model No.: C1752A4-IFR18650-1S1P Nominal Voltage: 3.2 Vdc Rated Capacity: 1950 mAh Limited Charge Voltage: 3.65 V Manufacturer: Guangdong Pow-Tech New Power Co., Ltd.
Note: The information of the EUT (Equipment Under Test) was provided by the manufacturer. The accuracy, completeness, and validity of the information are solely the responsibility of the manufacturer.	

1.5. Radio Specification under Test

Frequency Range	2400 ~ 2483.5 MHz
Channel Number	40
Type of Modulation	GFSK
Data Rate	1 Mbps, 2 Mbps, 125 kbps, 500 kbps
Antenna Type	PCB Antenna
Antenna Gain	3.77 dBi

1.6. Working Frequencies

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2404 MHz	02	2406 MHz
03	2408 MHz	04	2410 MHz	05	2412 MHz
06	2414 MHz	07	2416 MHz	08	2418 MHz
09	2420 MHz	10	2422 MHz	11	2424 MHz
12	2426 MHz	13	2428 MHz	14	2430 MHz
15	2432 MHz	16	2434 MHz	17	2436 MHz
18	2438 MHz	19	2440 MHz	20	2442 MHz
21	2444 MHz	22	2446 MHz	23	2448 MHz
24	2450 MHz	25	2452 MHz	26	2454 MHz
27	2456 MHz	28	2458 MHz	29	2460 MHz
30	2462 MHz	31	2464 MHz	32	2466 MHz
33	2468 MHz	34	2470 MHz	35	2472 MHz
36	2474 MHz	37	2476 MHz	38	2478 MHz
39	2480 MHz	--	--	--	--

2. Test Configuration

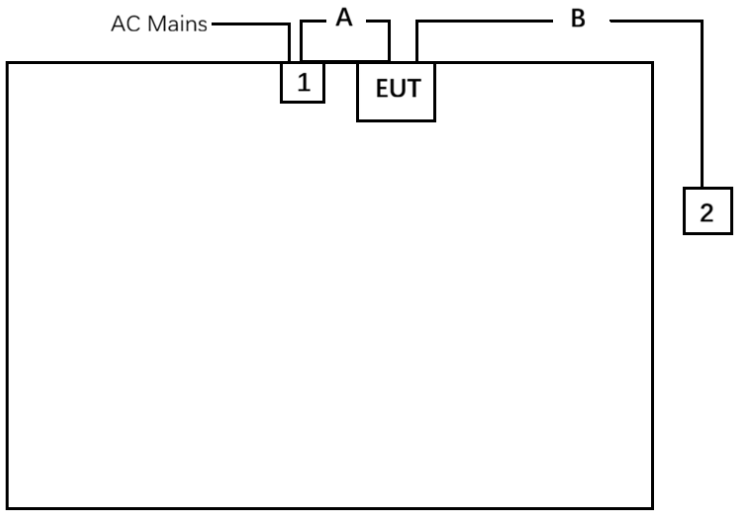
2.1. Test Mode

Mode 1: Transmit by BLE 1 Mbps
Mode 2: Transmit by BLE 2 Mbps
Mode 3: Transmit by BLE S8 (125 kbps)
Mode 4: Transmit by BLE S2 (500 kbps)

2.2. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10-2020 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.

Connection Diagram - Radiated Emission testing & AC Conducted Emissions



No.	Cable Type	Cable Description	Length
A	Power Cable	Non shielded	0.2 m
B	USB Cable	Shielded	1.4 m
No.	Product	Manufacturer	Model No.
1	Adapter	tonies GmbH	51009422
2	Notebook	DELL	DELL Inspiron 5359

2.3. Test Software

The test utility software used during testing was “RTLBTAPP”, and the version was 5.2.4.20.

2.4. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.247
- KDB 558074 D01 v05r02
- ANSI C63.10-2020
- ANSI C63.10-2020/Cor1-2023
- ANSI C63.10a-2024

2.5. Test Environment Condition

Ambient Temperature	15 ~ 35 °C
Relative Humidity	20 ~75%RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section."

- The antenna of the device is **permanently attached.**
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. Measuring Instrument

Instrument Name	Manufacturer	Model No.	Asset No.	Cali. Interval	Cal. Due Date	Test Site
Thermohygrometer	testo	608-H1	MRTSUE11315	1 year	2026-06-16	WJ-AC2
Anechoic Chamber	TDK	WJ-AC2	MRTSUE07117	1 year	2026-05-12	WJ-AC2
Loop Antenna	Schwarzbeck	FMZB 1519 -60D	MRTSUE07076	1 year	2026-11-18	WJ-AC2
EMI Test Receiver	R&S	ESR3	MRTSUE07110	1 year	2026-04-19	WJ-AC2
TRILOG Broad Band Antenna	Schwarzbeck	VULB 9163	MRTSUE07097	1 year	2026-04-20	WJ-AC2
EMI Test Receiver	R&S	ESR3	MRTSUE07110	1 year	2026-04-19	WJ-AC2
Horn Antenna	RFSPIN	DRH18-E	MRTSUE07105	1 year	2026-05-12	WJ-AC2
Pre-Amplifier	EMCI	EMC118A45SEE	MRTSUE07102	1 year	2026-04-09	WJ-AC2
Signal Analyzer	Keysight	N9010B	MRTSUE07285	1 year	2026-02-18	WJ-AC2
Broadband Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE07100	1 year	2026-04-09	WJ-AC2
Pre-Amplifier	EMCI	EMC184045SEE	MRTSUE07103	1 year	2026-04-09	WJ-AC2
Shielding Room	HUAMING	WZ-SR6	MRTSUE06443	N/A	N/A	WZ-SR6
Thermohygrometer	testo	608-H1	MRTSUE06362	1 year	2026-01-23	WZ-SR6
Signal Analyzer	Keysight	N9010B	MRTSUE06457	1 year	2026-04-26	WZ-SR6
USB Power Sensor	Keysight	U2021XA	MRTSUE06447	1 year	2026-06-17	WZ-SR6
Attenuator	MVE	MVE2213	MRTSUE11091	1 year	2026-06-02	WZ-SR6
RF Cable	UCwave	UCE500	MRTSUE07373	1 year	2026-07-20	WZ-SR6
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2026-04-26	WZ-SR2
Shielding Room	MIX-BEP	WZ-SR2	MRTSUE06215	5 years	2026-12-20	WZ-SR2
Thermohygrometer	testo	608-H1	MRTSUE06404	1 year	2026-04-24	WZ-SR2
EMI Test Receiver	R&S	ESR3	MRTSUE06909	1 year	2026-08-31	WZ-SR2

Software	Version	Function
e3	230711	RE & CE
CONTROLLER CO3000	v 1.03.02	RE Antenna & Turntable
Agilent Power Panel	V 3.9	Power

5. Decision Rules and Measurement Uncertainty

5.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4:2012 Clause 8.2. (Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

AC Conducted Emission Measurement
The maximum measurement uncertainty is evaluated as: 9 kHz ~ 150 kHz: 3.59 dB 150 kHz ~ 30 MHz: 3.20 dB
Radiated Emission Measurement
The maximum measurement uncertainty is evaluated as: Coaxial: 9 kHz ~ 30 MHz: 2.56 dB Coplanar: 9 kHz ~ 30 MHz: 2.55 dB Horizontal: 30 MHz ~ 200 MHz: 3.48 dB 200 MHz ~ 1 GHz: 4.17 dB 1 GHz ~ 40 GHz: 5.01 dB Vertical: 30 MHz ~ 200 MHz: 4.09 dB 200 MHz ~ 1 GHz: 5.30 dB 1 GHz ~ 40 GHz: 4.85 dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)): 2.9 dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)): 1.4 dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)): 2.9 dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)): 2.6%

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.247(a)(2)	6 dB Bandwidth	Conducted	Pass
15.247(b)(3)	Output Power		Pass
15.247(e)	Power Spectral Density		Pass
15.247(d)	Band Edge / Out-of-Band Emissions		Pass
15.205 15.209	General Field Strength (Restricted Bands and Radiated Emission)	Radiated	Pass
15.207	AC Conducted Emissions 150 kHz - 30 MHz	Line Conducted	Pass

Notes:

1. The analyzer plots shown in this section were captured using a correction table to account for cable and attenuator losses in the system connecting the EUT to the analyzer across relevant frequencies.
2. For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.

6.2. 6 dB Bandwidth Measurement

6.2.1. Test Limit

The minimum 6 dB bandwidth shall be at least 500 kHz.

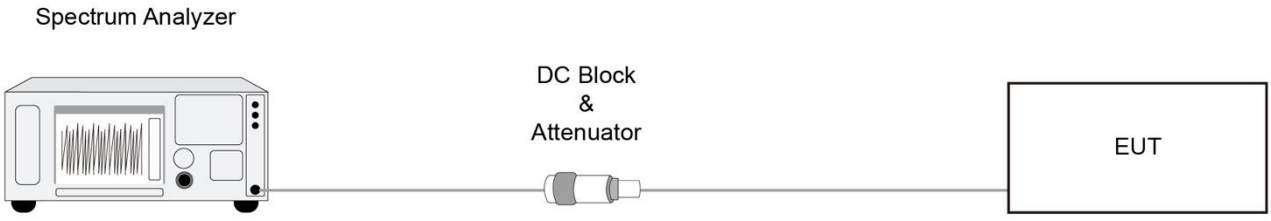
6.2.2. Test Procedure

ANSI C63.10-2020 - Section 11.8

6.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6 dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 6. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1% to 5% of the OBW, but not less than 100 kHz
3. VBW ≥ 3 × RBW
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep = Auto couple
7. Allow the trace to stabilize

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.2.

6.3. Output Power Measurement

6.3.1. Test Limit

The maximum output power shall be less 1 Watt (30 dBm).

The conducted output power limit specified in paragraph FCC Part 15.247(b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs FCC Part 15.247(b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

6.3.2. Test Procedure

ANSI C63.10-2020 - Section 11.9.1.2

ANSI C63.10-2020 - Section 11.9.2.3.2

6.3.3. Test Setting

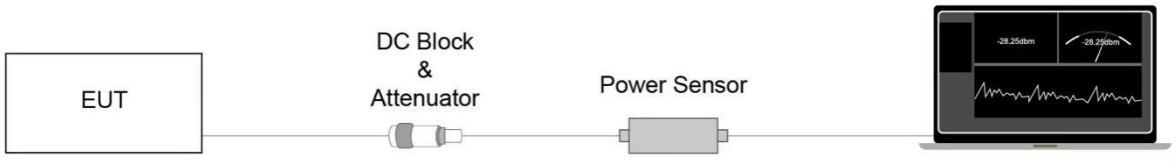
Method PKPM1 (Peak Power Measurement of Signals with DTS BW ≤ 50 MHz)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50 MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50 MHz.

Average Power Measurement

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

6.3.4. Test Setup



6.3.5. Test Result

Refer to Appendix A.3.

6.4. Power Spectral Density Measurement

6.4.1. Test Limit

The maximum permissible power spectral density is 8 dBm in any 3 kHz band.

The same method of determining the conducted output power shall be used to determine the power spectral density.

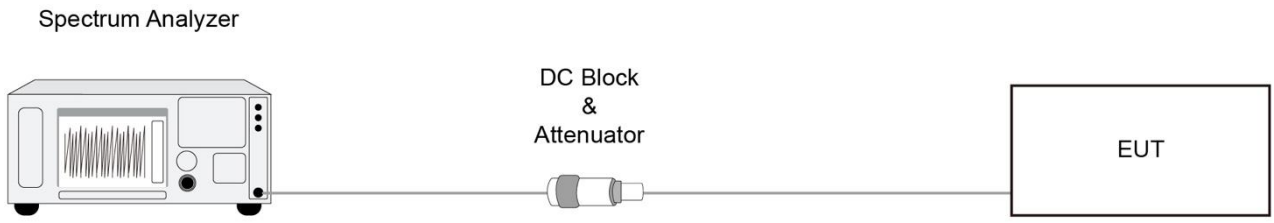
6.4.2. Test Procedure

ANSI C63.10-2020 Section 11.10.2

6.4.3. Test Setting

1. Analyzer was set to the center frequency of the DTS channel under investigation
2. Span = 1.5 times the DTS channel bandwidth
3. RBW = 3 kHz
4. VBW = 10 kHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.4.

6.5. Conducted Band Edge and Out-of-Band Emissions Measurement

6.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20 dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

6.5.2. Test Procedure

ANSI C63.10-2020 - Section 11.11

6.5.3. Test Setting

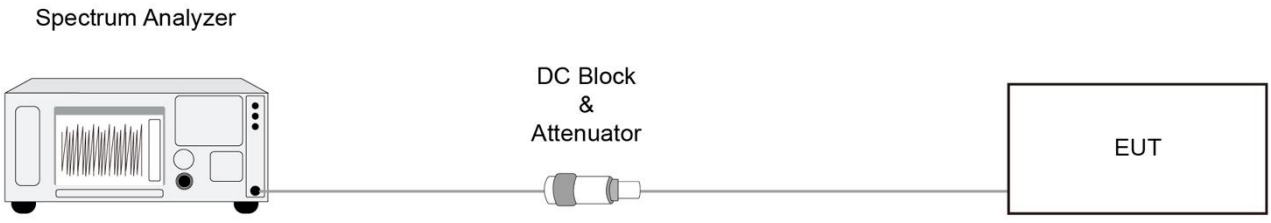
Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to ≥ 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW ≥ 3 × RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

Emission level measurement

1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100 kHz
3. VBW = 300 kHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

6.5.4. Test Setup



6.5.5. Test Result

Refer to Appendix A.5.

6.6. Radiated Spurious Emission Measurement

6.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [μV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.6.2. Test Procedure

ANSI C63.10-2020 - Section 11.11 & 11.12

ANSI C63.10-2020 - Section 6.3 (General Requirements)

ANSI C63.10-2020 - Section 6.4 (Standard test method below 30 MHz)

ANSI C63.10-2020 - Section 6.5 (Standard test method above 30 MHz to 1 GHz)

ANSI C63.10-2020 - Section 6.6 (Standard test method above 1 GHz)

6.6.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Quasi-Peak Measurements below 1 GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1 MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1 GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1 MHz
3. VBW = 3 MHz
4. Detector = Peak
5. Sweep time = Auto couple
6. Trace mode = Max hold
7. Trace was allowed to stabilize

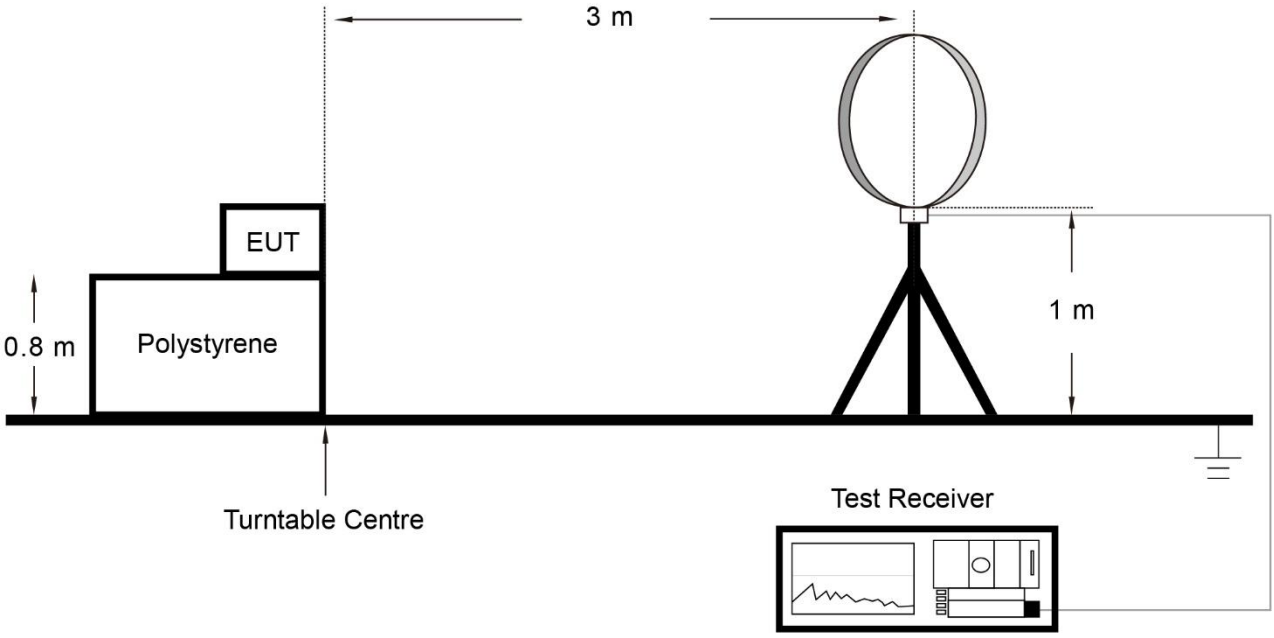
Average Measurements above 1 GHz (Method VB)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1 MHz
3. VBW; if the EUT is configured to transmit with duty cycle ≥ 98%, set VBW = 10 Hz

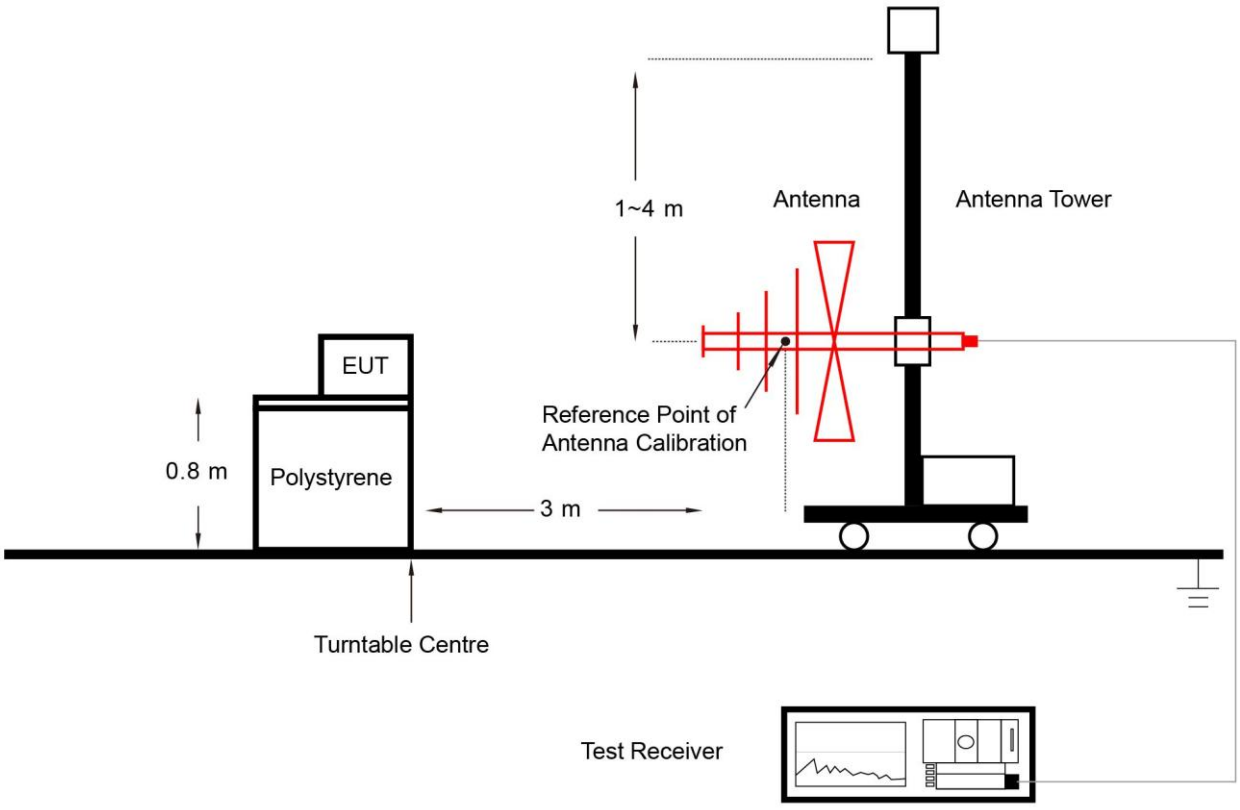
   If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = Auto
7. Trace mode = Max hold
8. Trace was allowed to stabilize

6.6.4. Test Setup

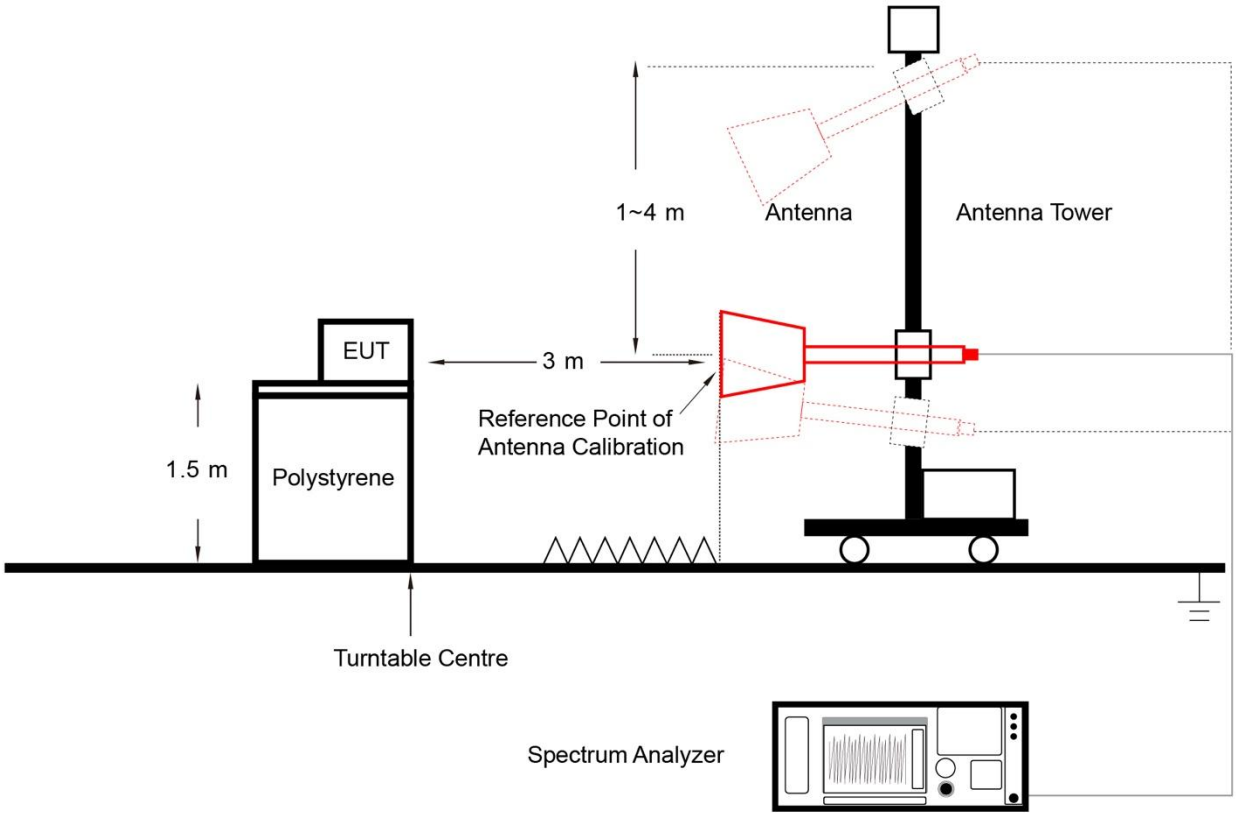
Below 30 MHz Test Setup:



Below 1 GHz Test Setup:



Above 1 GHz Test Setup:



6.6.5. Test Result

Refer to Appendix A.6.

6.7. Radiated Restricted Band Edge Measurement

6.7.1. Test Limit

For 15.205 requirement:

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).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (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 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	([2])
13.36 - 13.41	--	--	--

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [μV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.7.2. Test Procedure

ANSI C63.10-2020 - Section 6.3 & 6.6 & 11.12

6.7.3. Test Setting

Peak Field Strength Measurements

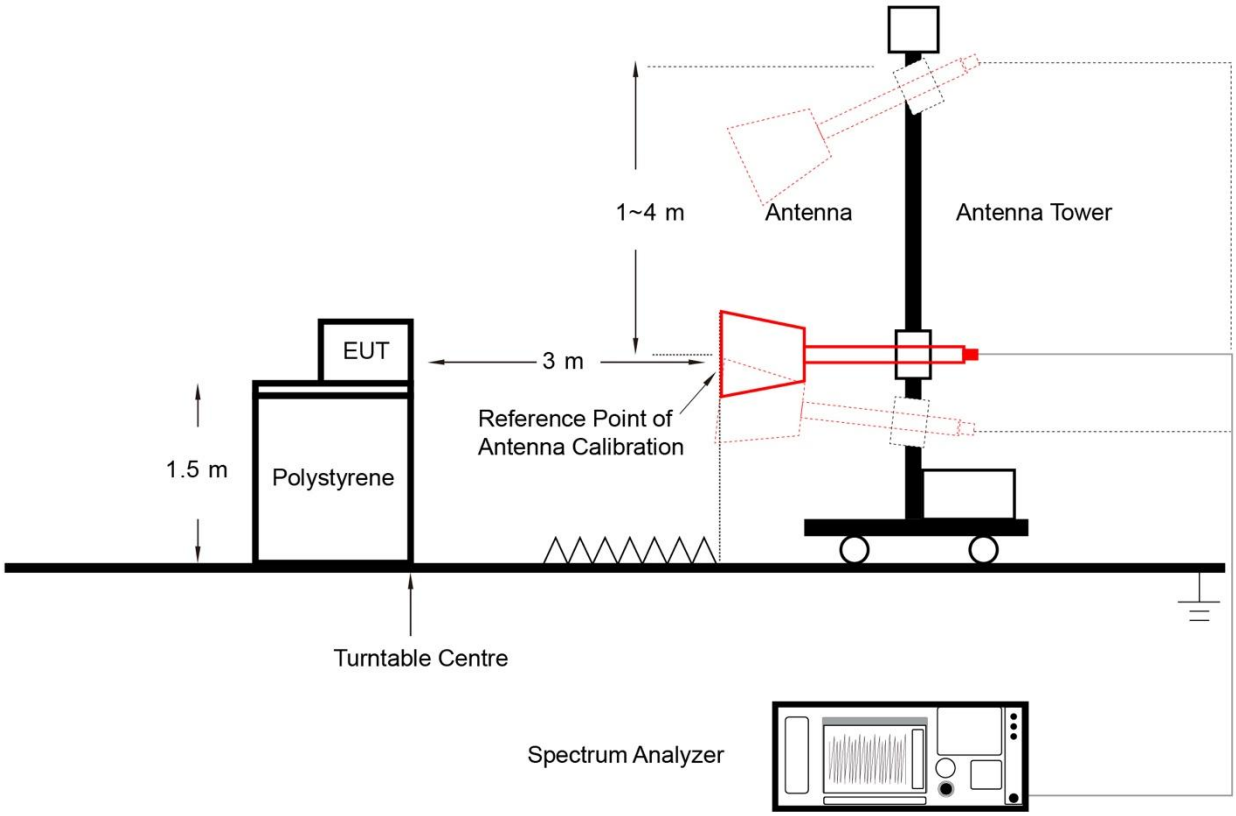
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1 MHz
3. VBW = 3 MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1 MHz
3. VBW; If the EUT is configured to transmit with duty cycle ≥ 98%, set VBW = 10 Hz.

   If the EUT duty cycle is < 98%, set VBW ≥ 1/T. T is the minimum transmission duration.
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

6.7.4. Test Setup



6.7.5. Test Result

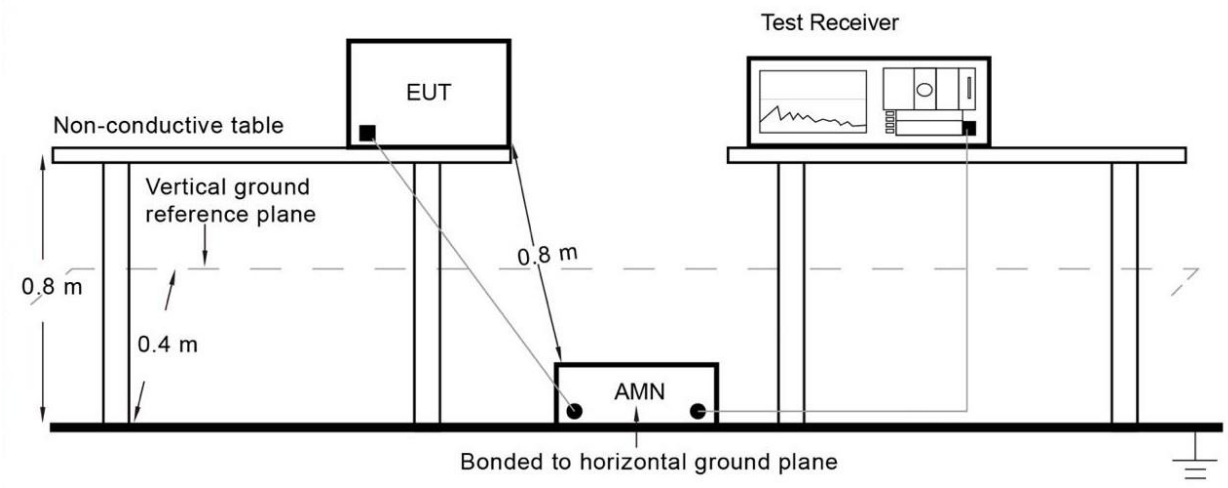
Refer to Appendix A.7.

6.8. AC Conducted Emissions Measurement

6.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBμV)	AV (dBμV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 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.		

6.8.2. Test Setup



6.8.3. Test Result

Refer to Appendix A.8.

Appendix A - Test Result

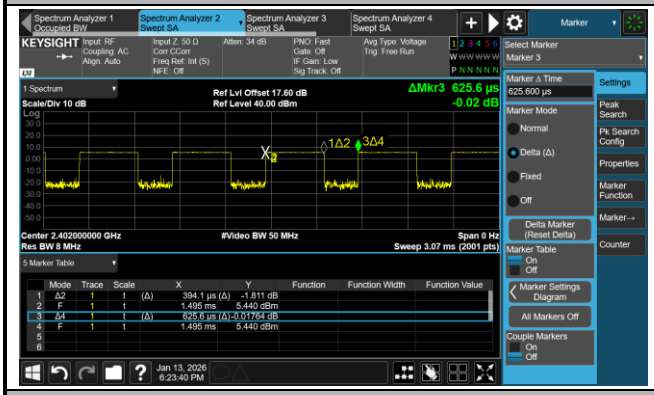
A.1 Duty Cycle Test Result

Test Site	WZ-SR6	Test Engineer	Herman Liu
Test Date	2026-01-13		

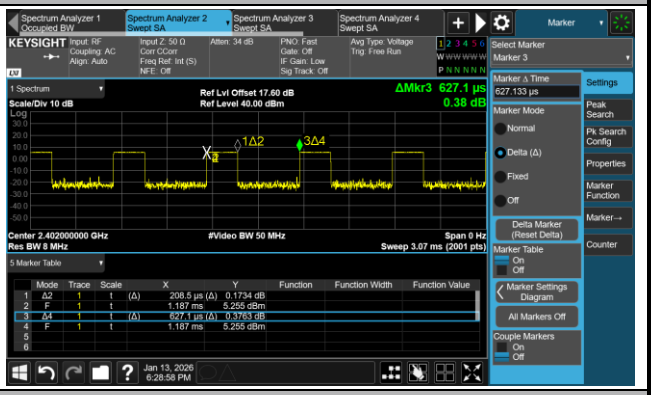
Test Mode	Duty Cycle
BLE-1 Mbps	63.00%
BLE-2 Mbps	33.25%
BLE-500 kbps	56.87%
BLE-125 kbps	82.71%

Duty Cycle (T = Transmission Duration)

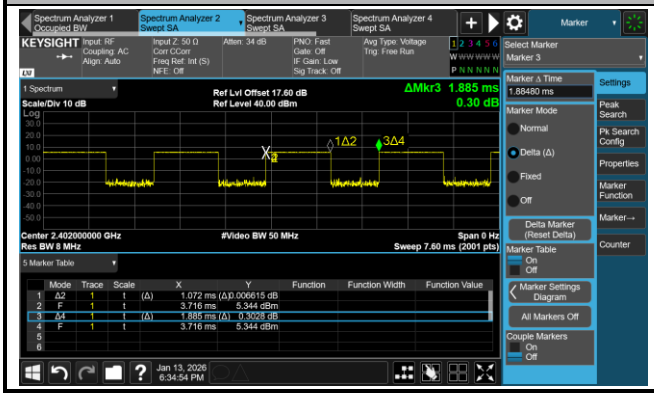
BLE-1 Mbps (T = 394.1 µs)



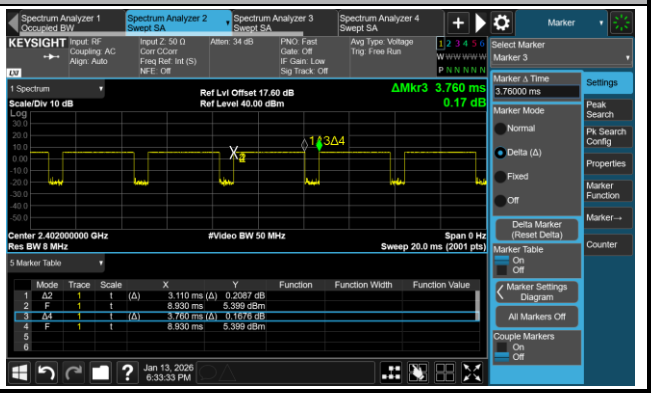
BLE-2 Mbps (T = 208.5 µs)



BLE-500 kbps (T = 1.072 ms)



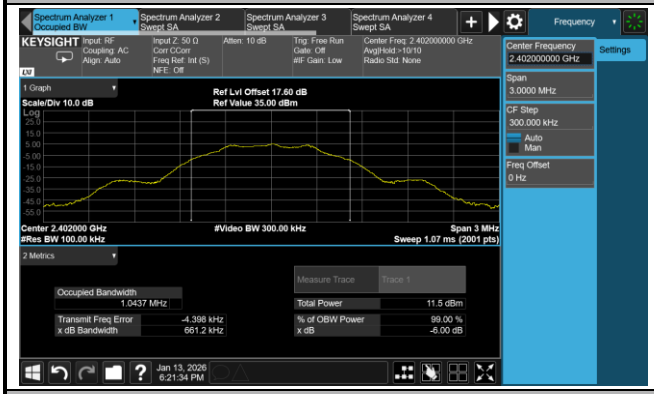
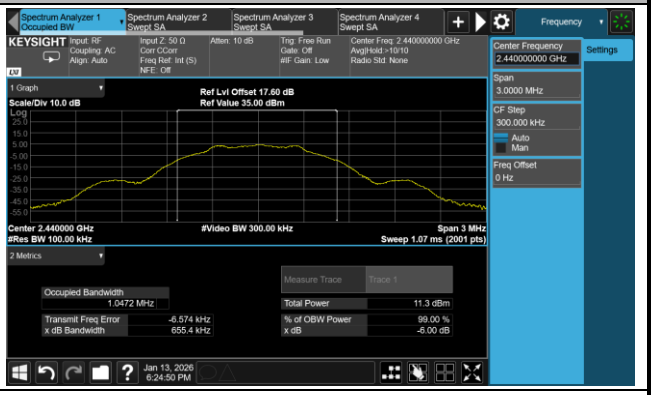
BLE-125 kbps (T = 3.110 ms)



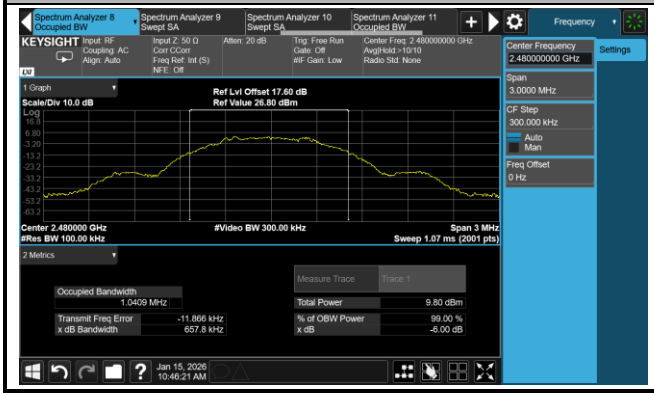
A.2 6 dB Bandwidth Test Result

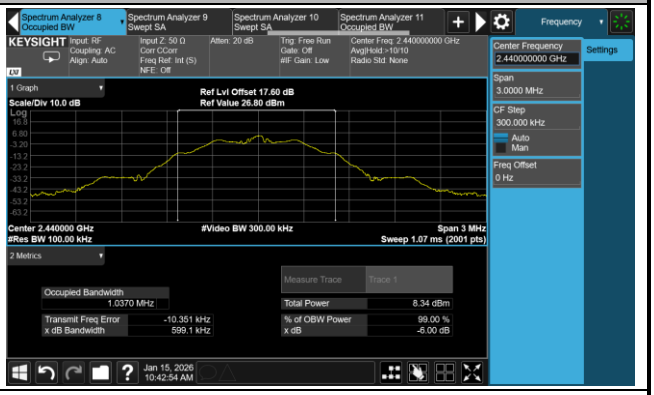
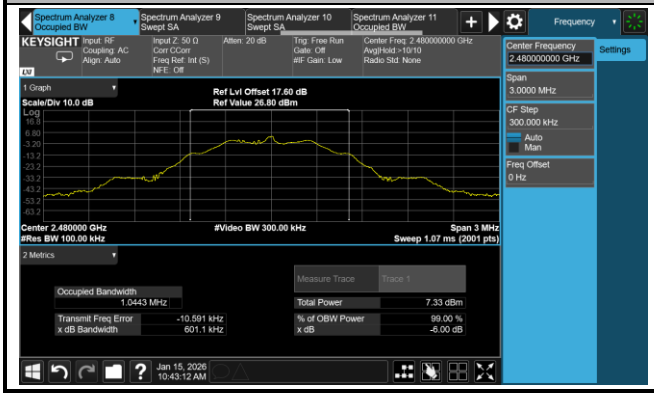
Test Site	WZ-SR6	Test Engineer	Herman Liu
Test Date	2026-01-13 ~ 2026-01-15		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	6 dB Bandwidth (MHz)	Limit (MHz)
BLE	1 Mbps	00	2402	0.6612	≥ 0.5
BLE	1 Mbps	19	2440	0.6554	≥ 0.5
BLE	1 Mbps	39	2480	0.6660	≥ 0.5
BLE	2 Mbps	00	2402	1.119	≥ 0.5
BLE	2 Mbps	19	2440	1.133	≥ 0.5
BLE	2 Mbps	39	2480	1.119	≥ 0.5
BLE	500 kbps	00	2402	0.6603	≥ 0.5
BLE	500 kbps	19	2440	0.6534	≥ 0.5
BLE	500 kbps	39	2480	0.6578	≥ 0.5
BLE	125 kbps	00	2402	0.5967	≥ 0.5
BLE	125 kbps	19	2440	0.5991	≥ 0.5
BLE	125 kbps	39	2480	0.6011	≥ 0.5

BLE-1 Mbps 6 dB Bandwidth	
Channel 00 (2402 MHz)	Channel 19 (2440 MHz)
	
Channel 39 (2480 MHz)	

BLE-2 Mbps 6 dB Bandwidth	
Channel 00 (2402 MHz)	Channel 19 (2440 MHz)
Channel 39 (2480 MHz)	

BLE-500 kbps 6 dB Bandwidth	
Channel 00 (2402 MHz)	Channel 19 (2440 MHz)
Channel 39 (2480 MHz)	
	

BLE-125 kbps 6 dB Bandwidth	
Channel 00 (2402 MHz)	Channel 19 (2440 MHz)
	
Channel 39 (2480 MHz)	
	

A.3 Output Power Test Result

Test Site	WZ-SR6	Test Engineer	Herman Liu
Test Date	2025-12-30		

Test Result of Peak Output Power

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Result
BLE	1 Mbps	00	2402	4.80	≤ 30.00	Pass
BLE	1 Mbps	19	2440	4.54	≤ 30.00	Pass
BLE	1 Mbps	39	2480	4.08	≤ 30.00	Pass
BLE	2 Mbps	00	2402	4.98	≤ 30.00	Pass
BLE	2 Mbps	19	2440	4.25	≤ 30.00	Pass
BLE	2 Mbps	39	2480	4.08	≤ 30.00	Pass
BLE	500 kbps	00	2402	4.81	≤ 30.00	Pass
BLE	500 kbps	19	2440	4.54	≤ 30.00	Pass
BLE	500 kbps	39	2480	3.90	≤ 30.00	Pass
BLE	125 kbps	00	2402	4.80	≤ 30.00	Pass
BLE	125 kbps	19	2440	4.48	≤ 30.00	Pass
BLE	125 kbps	39	2480	3.83	≤ 30.00	Pass

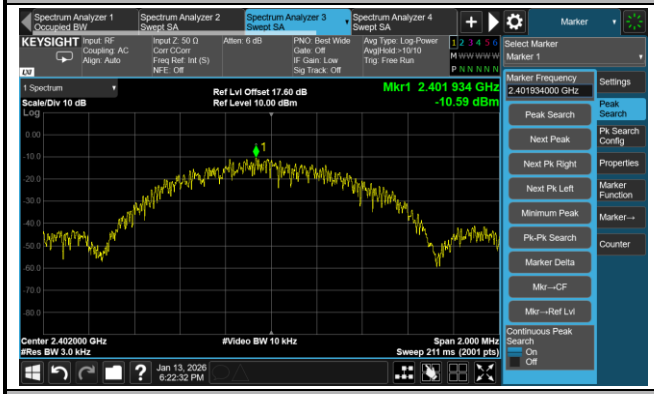
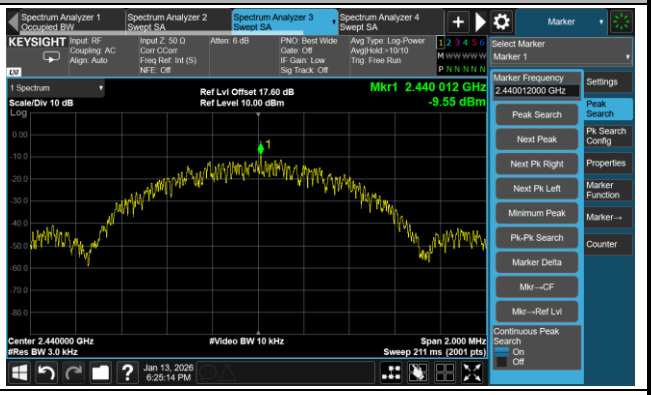
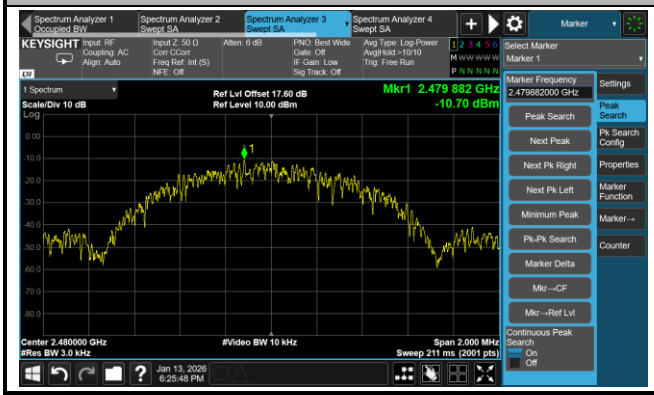
Test Result of Average Output Power (Reporting Only)

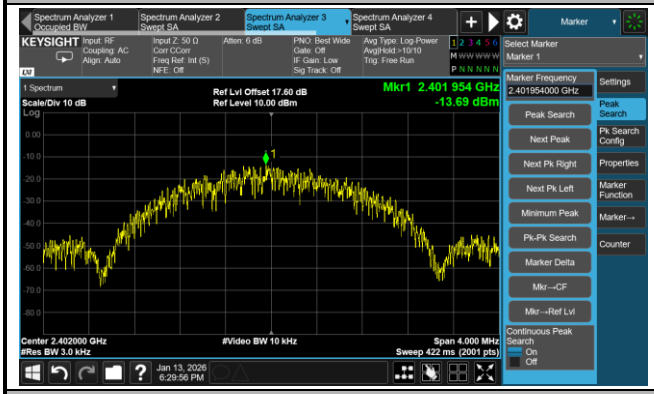
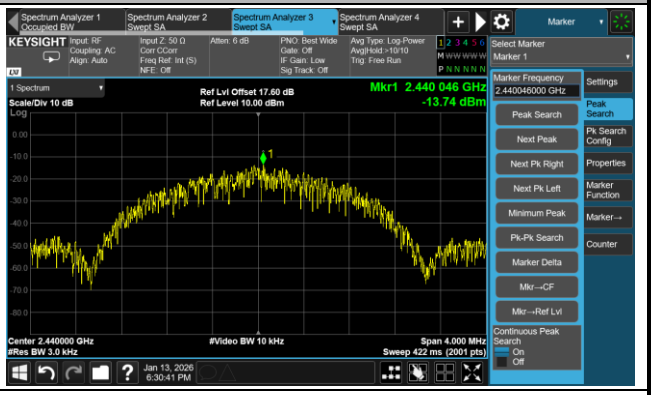
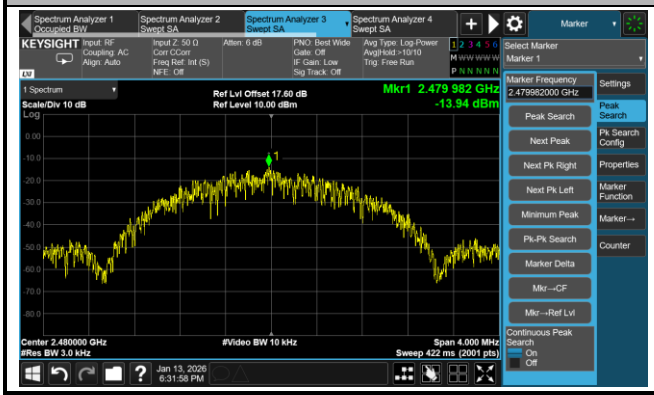
Test Mode	Data Rate	Channel No.	Frequency (MHz)	Average Power (dBm)	Limit (dBm)	Result
BLE	1 Mbps	00	2402	4.53	≤ 30.00	Pass
BLE	1 Mbps	19	2440	4.31	≤ 30.00	Pass
BLE	1 Mbps	39	2480	3.82	≤ 30.00	Pass
BLE	2 Mbps	00	2402	4.21	≤ 30.00	Pass
BLE	2 Mbps	19	2440	3.91	≤ 30.00	Pass
BLE	2 Mbps	39	2480	3.75	≤ 30.00	Pass
BLE	500 kbps	00	2402	4.60	≤ 30.00	Pass
BLE	500 kbps	19	2440	4.34	≤ 30.00	Pass
BLE	500 kbps	39	2480	3.67	≤ 30.00	Pass
BLE	125 kbps	00	2402	4.56	≤ 30.00	Pass
BLE	125 kbps	19	2440	4.29	≤ 30.00	Pass
BLE	125 kbps	39	2480	3.60	≤ 30.00	Pass

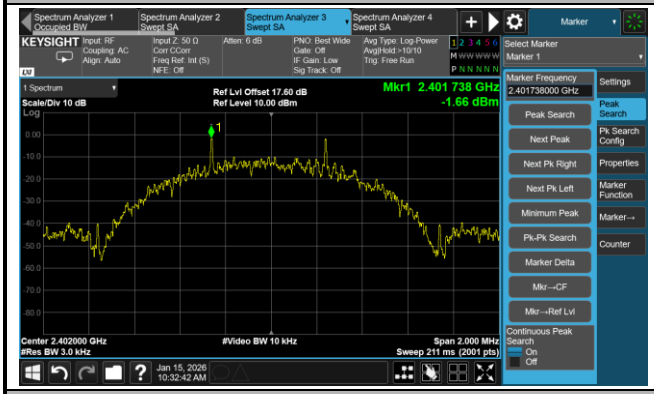
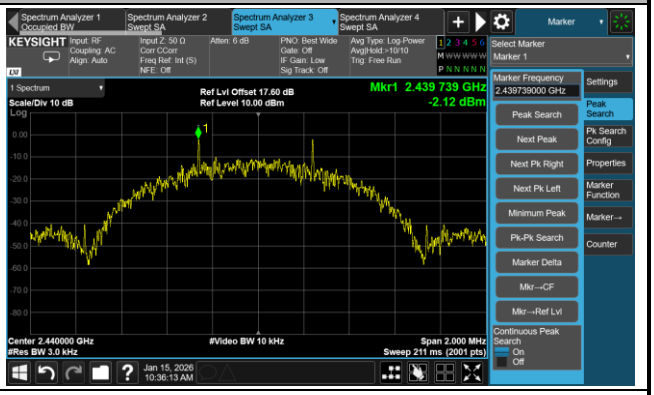
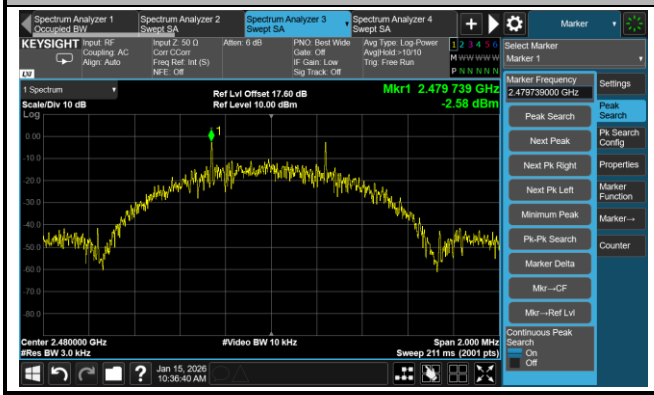
A.4 Power Spectral Density Test Result

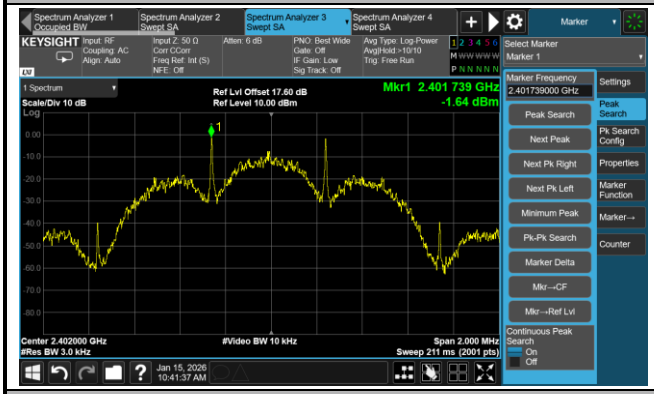
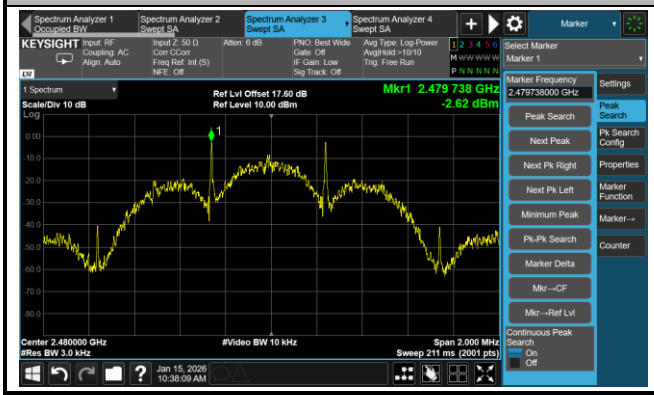
Test Site	WZ-SR6	Test Engineer	Herman Liu
Test Date	2026-01-13 ~ 2026-01-15		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	PSD Result (dBm/3 kHz)	Limit (dBm/3 kHz)	Result
BLE	1 Mbps	00	2402	-10.59	≤ 8.00	Pass
BLE	1 Mbps	19	2440	-9.55	≤ 8.00	Pass
BLE	1 Mbps	39	2480	-10.70	≤ 8.00	Pass
BLE	2 Mbps	00	2402	-13.69	≤ 8.00	Pass
BLE	2 Mbps	19	2440	-13.74	≤ 8.00	Pass
BLE	2 Mbps	39	2480	-13.94	≤ 8.00	Pass
BLE	500 kbps	00	2402	-1.66	≤ 8.00	Pass
BLE	500 kbps	19	2440	-2.12	≤ 8.00	Pass
BLE	500 kbps	39	2480	-2.58	≤ 8.00	Pass
BLE	125 kbps	00	2402	-1.64	≤ 8.00	Pass
BLE	125 kbps	19	2440	-2.03	≤ 8.00	Pass
BLE	125 kbps	39	2480	-2.62	≤ 8.00	Pass

BLE-1 Mbps PSD	
Channel 00 (2402 MHz)	Channel 19 (2440 MHz)
	
Channel 39 (2480 MHz)	
	

BLE-2 Mbps PSD	
Channel 00 (2402 MHz)	Channel 19 (2440 MHz)
	
Channel 39 (2480 MHz)	
	

BLE-500 kbps PSD	
Channel 00 (2402 MHz)	Channel 19 (2440 MHz)
	
Channel 39 (2480 MHz)	
	

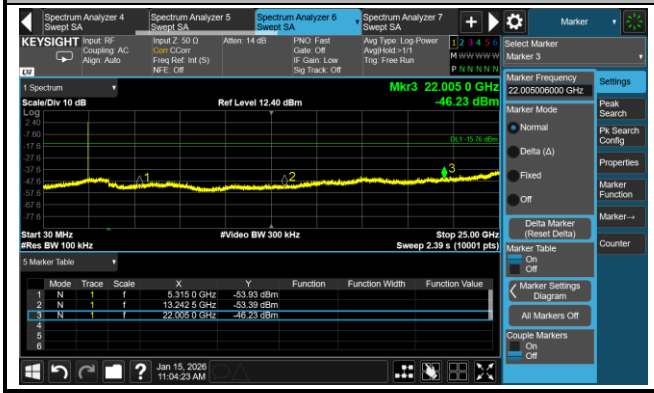
BLE-125 kbps PSD	
Channel 00 (2402 MHz)	Channel 19 (2440 MHz)
	
Channel 39 (2480 MHz)	
	

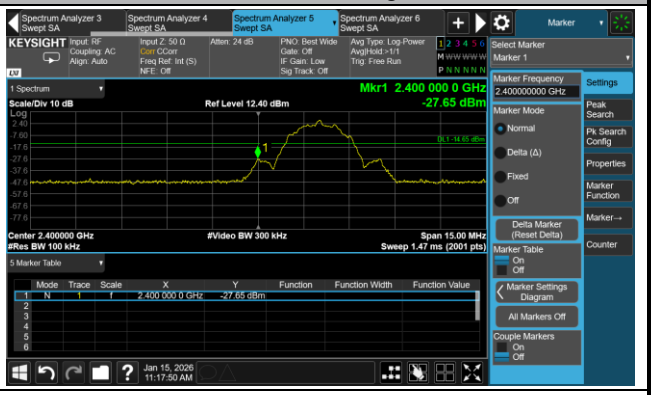
A.5 Conducted Band Edge and Out-of-Band Emissions Test Result

Test Site	WZ-SR6	Test Engineer	Herman Liu
Test Date	2026-01-15 ~ 2026-01-15		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Limit (dBc)	Result
BLE	1 Mbps	00	2402	20	Pass
BLE	1 Mbps	19	2440	20	Pass
BLE	1 Mbps	39	2480	20	Pass
BLE	2 Mbps	00	2402	20	Pass
BLE	2 Mbps	19	2440	20	Pass
BLE	2 Mbps	39	2480	20	Pass
BLE	500 kbps	00	2402	20	Pass
BLE	500 kbps	19	2440	20	Pass
BLE	500 kbps	39	2480	20	Pass
BLE	125 kbps	00	2402	20	Pass
BLE	125 kbps	19	2440	20	Pass
BLE	125 kbps	39	2480	20	Pass

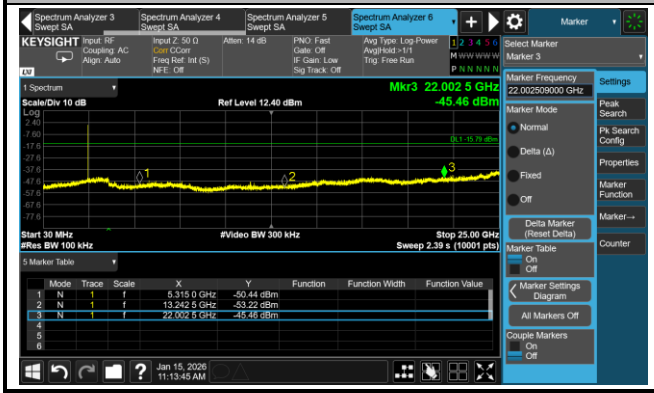
BLE-1 Mbps Out-of-Band Emissions	
Channel 00 (2402 MHz)	
100 kHz PSD Reference Level	Low Band Edge
Spurious Emission 30 MHz ~ 25 GHz	
Channel 19 (2440 MHz)	
100 kHz PSD Reference Level	Spurious Emission 30 MHz ~ 25 GHz

Channel 39 (2480 MHz)	
100 kHz PSD Reference Level	High Band Edge
Spurious Emission 30 MHz ~ 25 GHz	
	

BLE-2 Mbps Out-of-Band Emissions	
Channel 00 (2402 MHz)	
100 kHz PSD Reference Level	Low Band Edge
	
Spurious Emission 30 MHz ~ 25 GHz	
Channel 19 (2440 MHz)	
100 kHz PSD Reference Level	Spurious Emission 30 MHz ~ 25 GHz

Channel 39 (2480 MHz)	
100 kHz PSD Reference Level	High Band Edge
Spurious Emission 30 MHz ~ 25 GHz	

BLE-500 kbps Out-of-Band Emissions	
Channel 00 (2402 MHz)	
100 kHz PSD Reference Level	Low Band Edge
Spurious Emission 30 MHz ~ 25 GHz	
Channel 19 (2440 MHz)	
100 kHz PSD Reference Level	Spurious Emission 30 MHz ~ 25 GHz

<table>
<tr><th colspan="2">Channel 39 (2480 MHz)</th></tr>
<tr><th>100 kHz PSD Reference Level</th><th>High Band Edge</th></tr>
<tr><td>
</td><td>
</td></tr>
<tr><th>Spurious Emission 30 MHz ~ 25 GHz</th><th></th></tr>
<tr><td>
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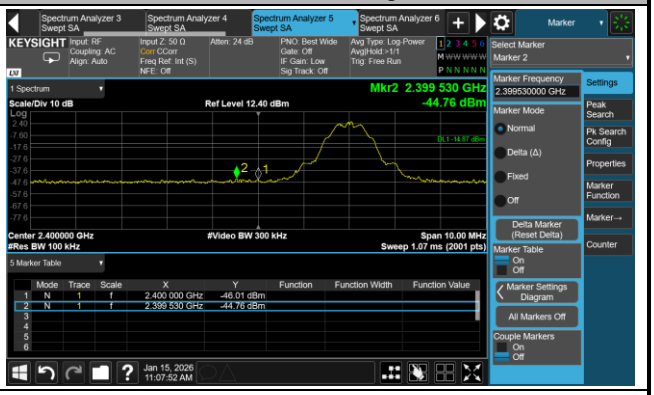
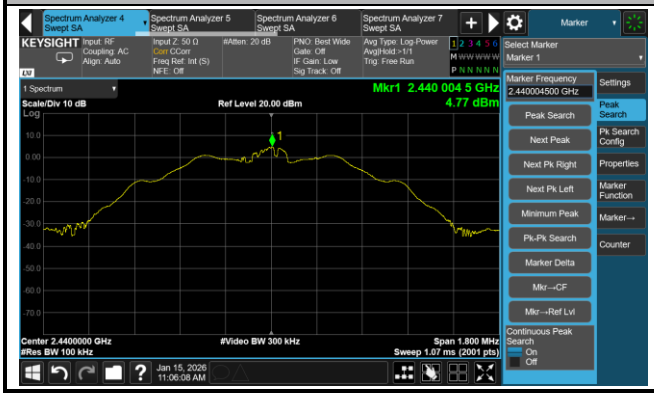
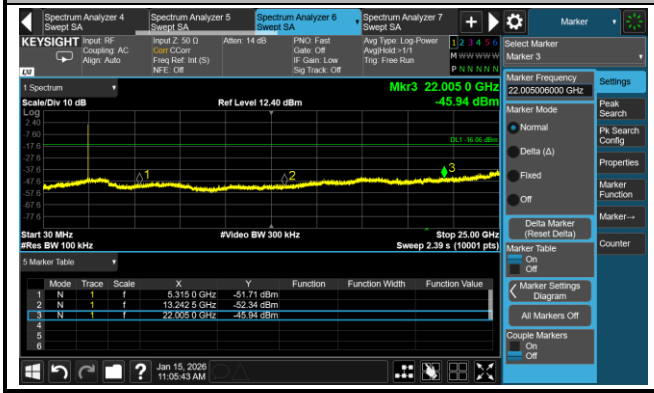
BLE-125 kbps Out-of-Band Emissions	
Channel 00 (2402 MHz)	
100 kHz PSD Reference Level	Low Band Edge
	
Spurious Emission 30 MHz ~ 25 GHz	
Channel 19 (2440 MHz)	
100 kHz PSD Reference Level	Spurious Emission 30 MHz ~ 25 GHz
	

Channel 39 (2480 MHz)	
100 kHz PSD Reference Level	High Band Edge
Spurious Emission 30 MHz ~ 25 GHz	
	

A.6 Radiated Spurious Emission Test Result

Test Site	WJ-AC2	Test Engineer	Bob Zhang
Test Date	2026-01-08	Test Mode	BLE-1 Mbps
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20 dB below limit line within 1-18 GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBµV)	Factor (dB/m)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
00	3998.80	42.41	-1.13	41.28	74.00	-32.72	Peak	Horizontal
	5112.30	42.95	-0.01	42.94	74.00	-31.06	Peak	Horizontal
	11526.40	42.74	5.51	48.25	74.00	-25.75	Peak	Horizontal
	3847.50	43.13	-1.11	42.02	74.00	-31.98	Peak	Vertical
	4721.30	43.43	-0.03	43.40	74.00	-30.60	Peak	Vertical
	10989.20	40.20	5.42	45.62	74.00	-28.38	Peak	Vertical
19	4029.40	43.03	-1.31	41.72	74.00	-32.28	Peak	Horizontal
	4881.10	50.94	0.03	50.97	54.00	-3.03	Average	Horizontal
	4881.10	55.23	0.03	55.26	74.00	-18.74	Peak	Horizontal
	12182.60	32.66	4.95	37.61	54.00	-16.39	Average	Horizontal
	12182.60	44.28	4.95	49.23	74.00	-24.77	Peak	Horizontal
	4128.00	42.36	-1.61	40.75	74.00	-33.25	Peak	Vertical
	4879.40	47.22	0.04	47.26	54.00	-6.74	Average	Vertical
	4879.40	52.90	0.04	52.94	74.00	-21.06	Peak	Vertical
	11543.40	44.39	5.38	49.77	74.00	-24.23	Peak	Vertical
39	3861.10	42.57	-1.44	41.13	74.00	-32.87	Peak	Horizontal
	4961.00	49.25	0.15	49.40	54.00	-4.60	Average	Horizontal
	4961.00	52.28	0.15	52.43	74.00	-21.57	Peak	Horizontal
	7461.70	38.85	5.30	44.15	74.00	-29.85	Peak	Horizontal
	4002.20	42.93	-1.07	41.86	74.00	-32.14	Peak	Vertical
	4961.00	46.93	0.15	47.08	54.00	-6.92	Average	Vertical
	4961.00	51.13	0.15	51.28	74.00	-22.72	Peak	Vertical
	7572.20	38.68	4.89	43.57	74.00	-30.43	Peak	Vertical

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	WJ-AC2	Test Engineer	Bob Zhang
Test Date	2026-01-08	Test Mode	BLE-2 Mbps
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20 dB below limit line within 1-18 GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBµV)	Factor (dB/m)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
00	3893.40	42.21	-1.09	41.12	74.00	-32.88	Peak	Horizontal
	4920.20	42.60	0.20	42.80	74.00	-31.20	Peak	Horizontal
	11550.20	43.65	5.43	49.08	74.00	-24.92	Peak	Horizontal
	3905.30	42.16	-0.98	41.18	74.00	-32.82	Peak	Vertical
	4843.70	42.55	0.01	42.56	74.00	-31.44	Peak	Vertical
	11516.20	40.79	5.67	46.46	74.00	-27.54	Peak	Vertical
19	3895.10	42.24	-1.06	41.18	74.00	-32.82	Peak	Horizontal
	4879.40	46.16	0.04	46.20	54.00	-7.80	Average	Horizontal
	4879.40	53.93	0.04	53.97	74.00	-20.03	Peak	Horizontal
	11353.00	43.22	5.82	49.04	74.00	-24.96	Peak	Horizontal
	3822.00	43.52	-1.42	42.10	74.00	-31.90	Peak	Vertical
	4881.10	45.07	0.03	45.10	54.00	-8.90	Average	Vertical
	4881.10	53.17	0.03	53.20	74.00	-20.80	Peak	Vertical
	11388.70	44.29	5.75	50.04	74.00	-23.96	Peak	Vertical
39	4068.50	42.64	-1.44	41.20	74.00	-32.80	Peak	Horizontal
	4961.00	45.22	0.15	45.37	54.00	-8.63	Average	Horizontal
	4961.00	51.80	0.15	51.95	74.00	-22.05	Peak	Horizontal
	10882.10	43.22	5.70	48.92	74.00	-25.08	Peak	Horizontal
	3981.80	42.63	-1.43	41.20	74.00	-32.80	Peak	Vertical
	4961.00	50.27	0.15	50.42	74.00	-23.58	Peak	Vertical
	11645.40	43.89	5.38	49.27	74.00	-24.73	Peak	Vertical

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	WJ-AC2	Test Engineer	Bob Zhang
Test Date	2026-01-08	Test Mode	BLE-500 kbps
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20 dB below limit line within 1-18 GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBµV)	Factor (dB/m)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
00	3772.70	43.35	-1.51	41.84	74.00	-32.16	Peak	Horizontal
	4736.60	40.48	0.40	40.88	74.00	-33.12	Peak	Horizontal
	11171.10	43.84	5.73	49.57	74.00	-24.43	Peak	Horizontal
	3879.80	38.93	-1.24	37.69	74.00	-36.31	Peak	Vertical
	4933.80	39.68	0.17	39.85	74.00	-34.15	Peak	Vertical
	11249.30	38.96	6.04	45.00	74.00	-29.00	Peak	Vertical
19	3986.90	42.79	-1.43	41.36	74.00	-32.64	Peak	Horizontal
	4881.10	51.58	0.03	51.61	54.00	-2.39	Average	Horizontal
	4881.10	54.73	0.03	54.76	74.00	-19.24	Peak	Horizontal
	11426.10	43.39	5.79	49.18	74.00	-24.82	Peak	Horizontal
	3900.20	42.84	-0.99	41.85	74.00	-32.15	Peak	Vertical
	4879.40	50.15	0.04	50.19	54.00	-3.81	Average	Vertical
	4879.40	53.42	0.04	53.46	74.00	-20.54	Peak	Vertical
	11315.60	41.58	5.97	47.55	74.00	-26.45	Peak	Vertical
39	3883.20	41.95	-1.16	40.79	74.00	-33.21	Peak	Horizontal
	4961.00	49.79	0.15	49.94	54.00	-4.06	Average	Horizontal
	4961.00	53.84	0.15	53.99	74.00	-20.01	Peak	Horizontal
	11912.30	43.42	5.42	48.84	74.00	-25.16	Peak	Horizontal
	4010.70	42.14	-1.31	40.83	74.00	-33.17	Peak	Vertical
	4961.00	47.36	0.15	47.51	54.00	-6.49	Average	Vertical
	4961.00	51.19	0.15	51.34	74.00	-22.66	Peak	Vertical
	11247.60	43.51	6.06	49.57	74.00	-24.43	Peak	Vertical

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Test Site	WJ-AC2	Test Engineer	Bob Zhang
Test Date	2026-01-08	Test Mode	BLE-125 kbps
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20 dB below limit line within 1-18 GHz, there is not show in the report.		

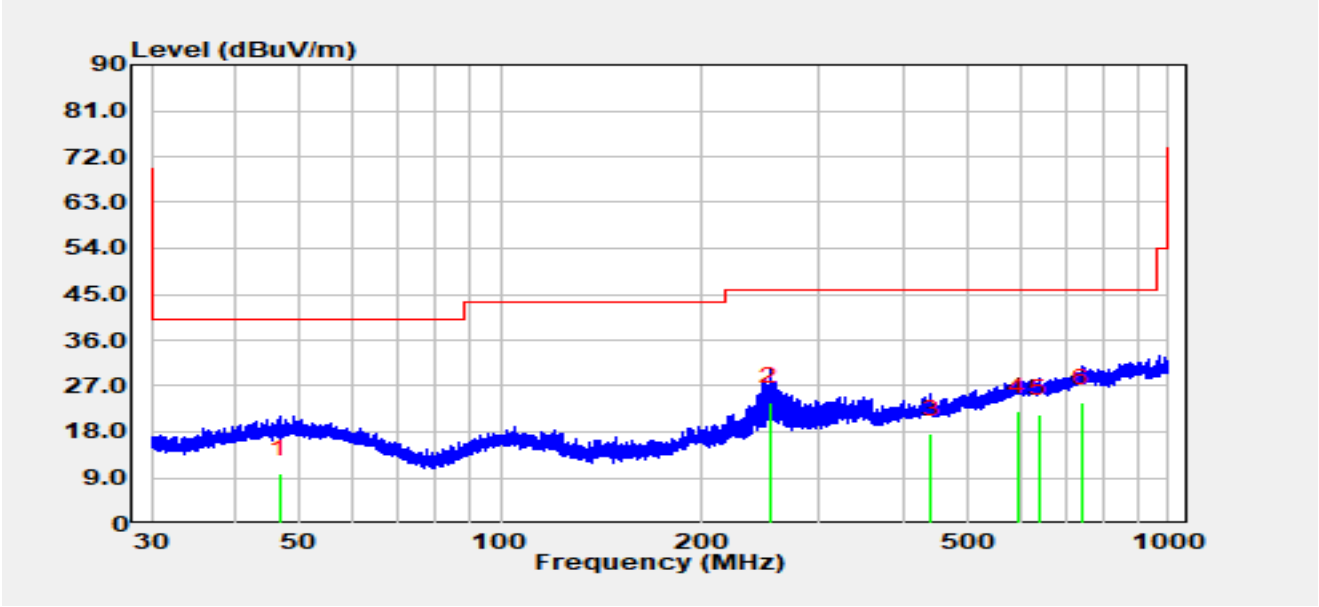
Test Channel	Frequency (MHz)	Reading Level (dBµV)	Factor (dB/m)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
00	3854.30	42.49	-1.23	41.26	74.00	-32.74	Peak	Horizontal
	4842.00	43.07	0.01	43.08	74.00	-30.92	Peak	Horizontal
	11410.80	43.27	5.77	49.04	74.00	-24.96	Peak	Horizontal
	3849.20	42.66	-1.10	41.56	74.00	-32.44	Peak	Vertical
	4721.30	41.78	-0.03	41.75	74.00	-32.25	Peak	Vertical
	11375.10	43.01	5.80	48.81	74.00	-25.19	Peak	Vertical
19	3801.60	42.84	-1.47	41.37	74.00	-32.63	Peak	Horizontal
	4879.40	50.85	0.04	50.89	54.00	-3.11	Average	Horizontal
	4879.40	54.40	0.04	54.44	74.00	-19.56	Peak	Horizontal
	12060.20	43.76	5.21	48.97	74.00	-25.03	Peak	Horizontal
	3696.20	43.86	-1.66	42.20	74.00	-31.80	Peak	Vertical
	4879.40	49.48	0.04	49.52	54.00	-4.48	Average	Vertical
	4879.40	54.60	0.04	54.64	74.00	-19.36	Peak	Vertical
	11908.90	44.26	5.39	49.65	74.00	-24.35	Peak	Vertical
39	3913.80	42.69	-0.99	41.70	74.00	-32.30	Peak	Horizontal
	4961.00	49.36	0.15	49.51	54.00	-4.49	Average	Horizontal
	4961.00	53.07	0.15	53.22	74.00	-20.78	Peak	Horizontal
	11874.90	44.67	5.05	49.72	74.00	-24.28	Peak	Horizontal
	3781.20	42.94	-1.46	41.48	74.00	-32.52	Peak	Vertical
	4959.30	49.93	0.14	50.07	54.00	-3.93	Average	Vertical
	4959.30	52.19	0.14	52.33	74.00	-21.67	Peak	Vertical
	11504.30	43.69	5.85	49.54	74.00	-24.46	Peak	Vertical

Note: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB/m)

Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

The Result of Radiated Emission below 1 GHz:

Site	WJ-AC2	Test Date	2025-12-30
Temperature	25.7 °C	Humidity	25.3%
Limit	FCC_Part 15.209_RSE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by BLE-1M at 2440 MHz		



No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		46.75	-10.20	19.91	9.71	-30.29	40.00	QP
2	*	252.95	4.60	19.29	23.89	-22.11	46.00	QP
3		441.12	-5.60	23.13	17.53	-28.47	46.00	QP
4		594.30	-4.60	26.56	21.96	-24.04	46.00	QP
5		641.06	-5.60	27.00	21.40	-24.60	46.00	QP
6		742.52	-4.90	28.60	23.70	-22.30	46.00	QP

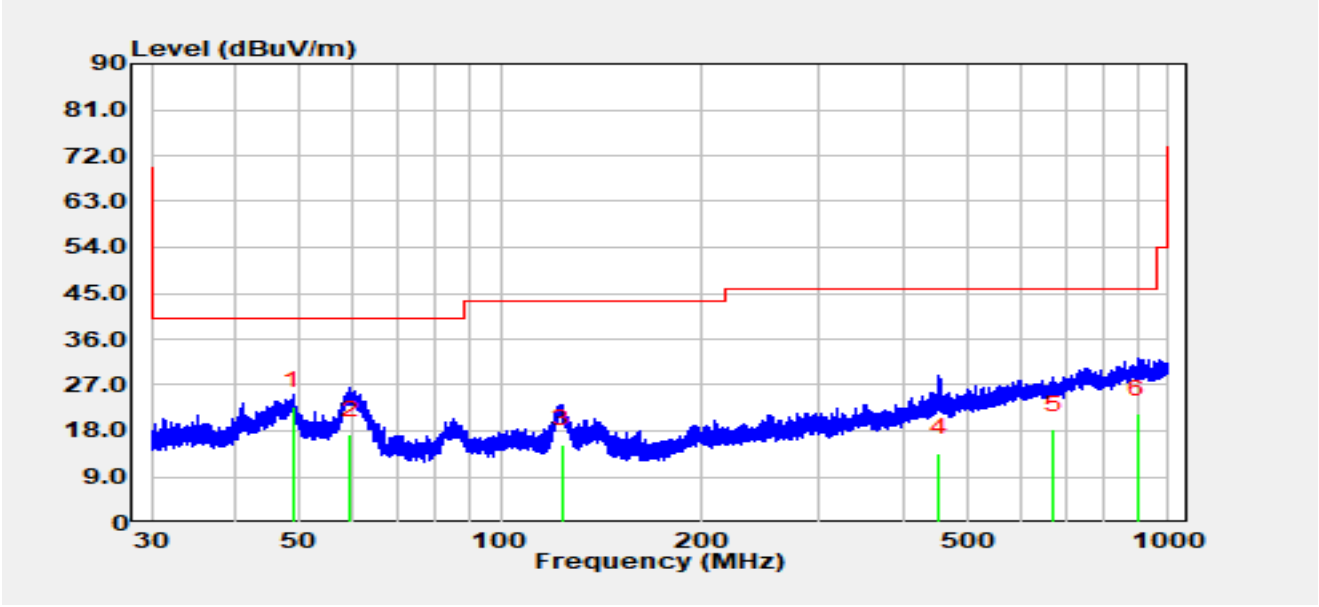
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2025-12-30
Temperature	25.7 °C	Humidity	25.3%
Limit	FCC_Part 15.209_RSE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Vertical
Test Mode	Transmit by BLE-1M at 2440 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1	*	48.84	2.80	19.97	22.77	-17.23	40.00	QP
2		59.59	-1.50	18.66	17.16	-22.84	40.00	QP
3		123.83	-0.30	15.68	15.38	-28.12	43.50	QP
4		453.67	-9.50	23.20	13.70	-32.30	46.00	QP
5		671.43	-8.60	26.91	18.31	-27.69	46.00	QP
6		897.94	-8.60	29.97	21.37	-24.63	46.00	QP

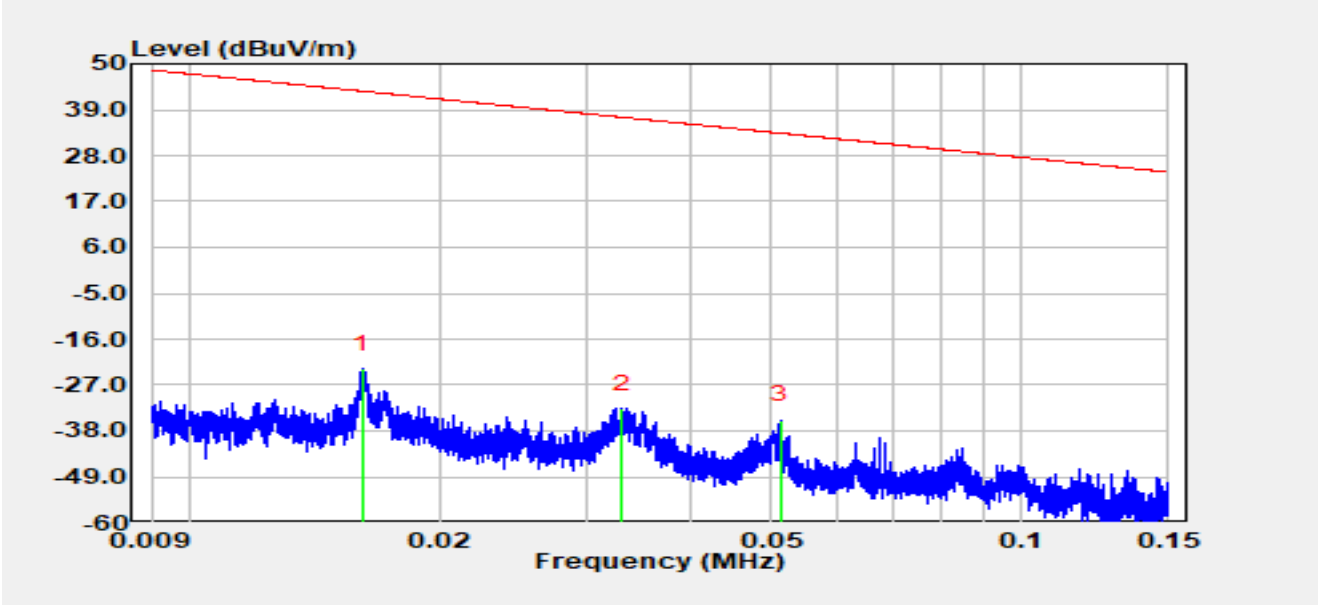
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2025-12-31
Temperature	25.7 °C	Humidity	25.3%
Limit	FCC_Part 15.209_RSE	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Coaxial
Test Mode	Transmit by BLE-1M at 2440 MHz		



No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	0.02	36.49	-59.68	-23.19	-66.61	43.42	Peak
2		0.03	27.42	-60.10	-32.68	-69.87	37.19	Peak
3		0.05	24.81	-60.18	-35.37	-68.77	33.40	Peak

Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

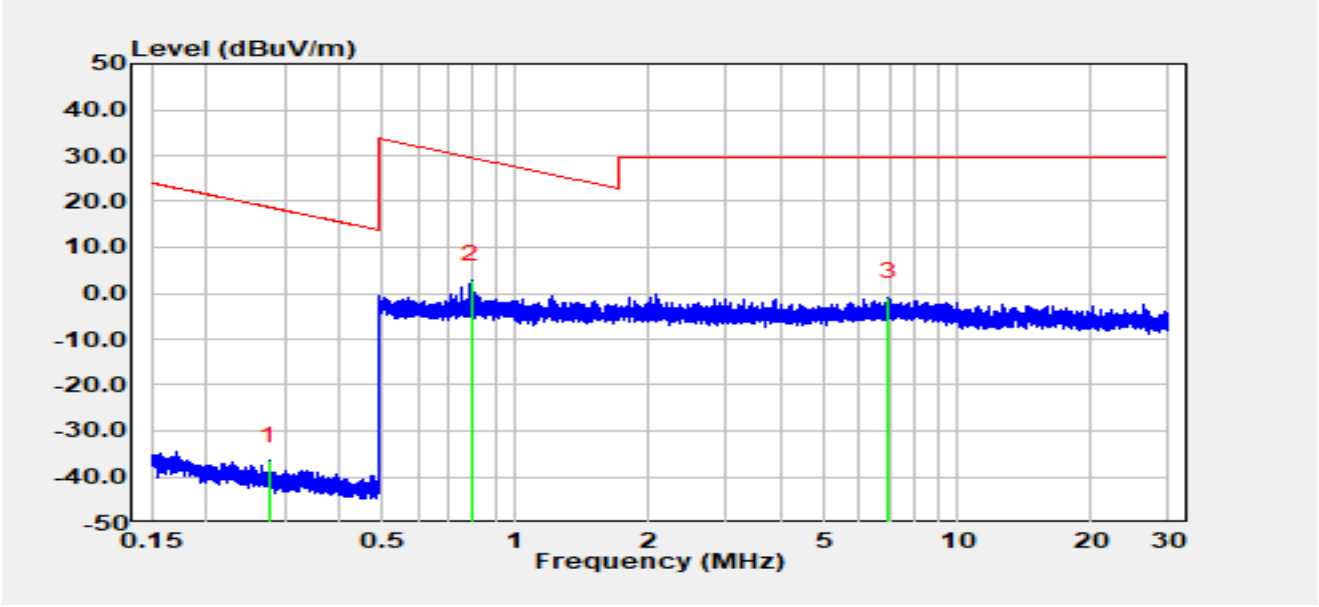
2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + 40log(d1/d2) (dB),

d1 = 3 m, d2 = 300 m (9 kHz-490 kHz) or 30m (490 kHz-30 MHz).

3. Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

4. Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Site	WJ-AC2	Test Date	2025-12-31
Temperature	25.7 °C	Humidity	25.3%
Limit	FCC_Part 15.209_RSE	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Coaxial
Test Mode	Transmit by BLE-1M at 2440 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1		0.28	23.81	-60.34	-36.53	-55.26	18.73	Peak
2	*	0.79	23.26	-20.41	2.84	-26.79	29.64	Peak
3		6.98	19.54	-20.48	-0.94	-30.44	29.50	Peak

Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

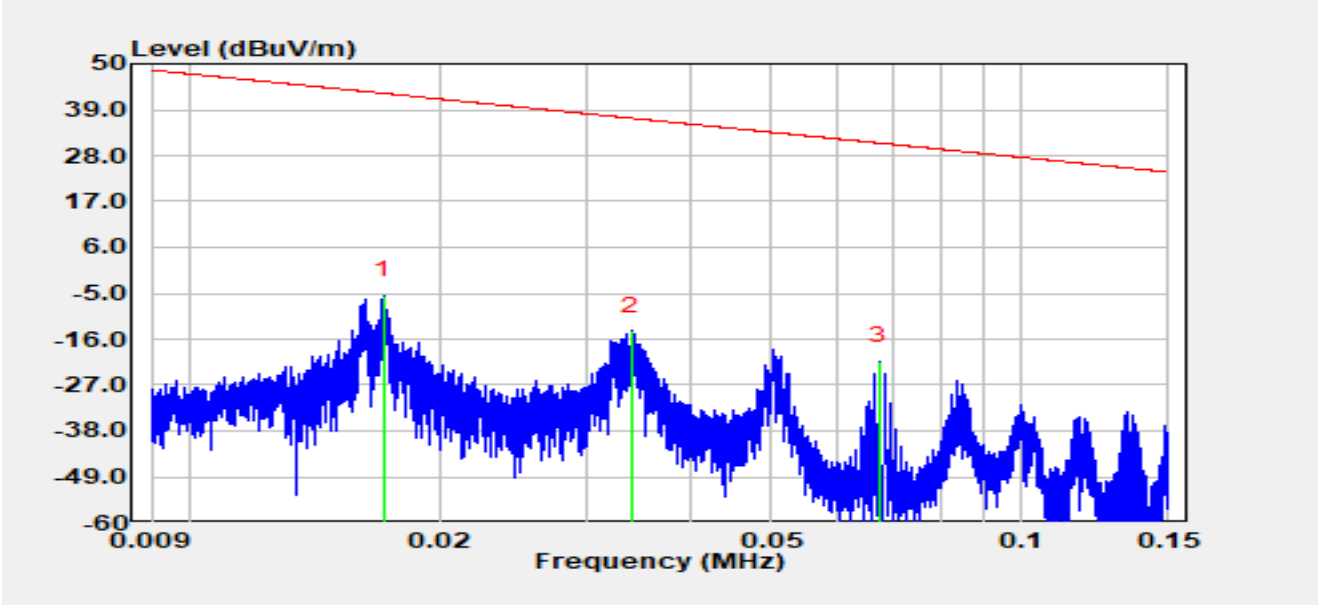
2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + 40log(d1/d2) (dB),

d1 = 3m, d2 = 300 m (9 kHz-490 kHz) or 30m (490 kHz-30 MHz).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

4. Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Site	WJ-AC2	Test Date	2025-12-31
Temperature	25.7 °C	Humidity	25.3%
Limit	FCC_Part 15.209_RSE	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Coplanar
Test Mode	Transmit by BLE-1M at 2440 MHz		



No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	0.02	54.17	-59.74	-5.57	-48.51	42.94	Peak
2		0.03	46.01	-60.11	-14.10	-51.06	36.96	Peak
3		0.07	38.90	-60.20	-21.30	-52.31	31.01	Peak

Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

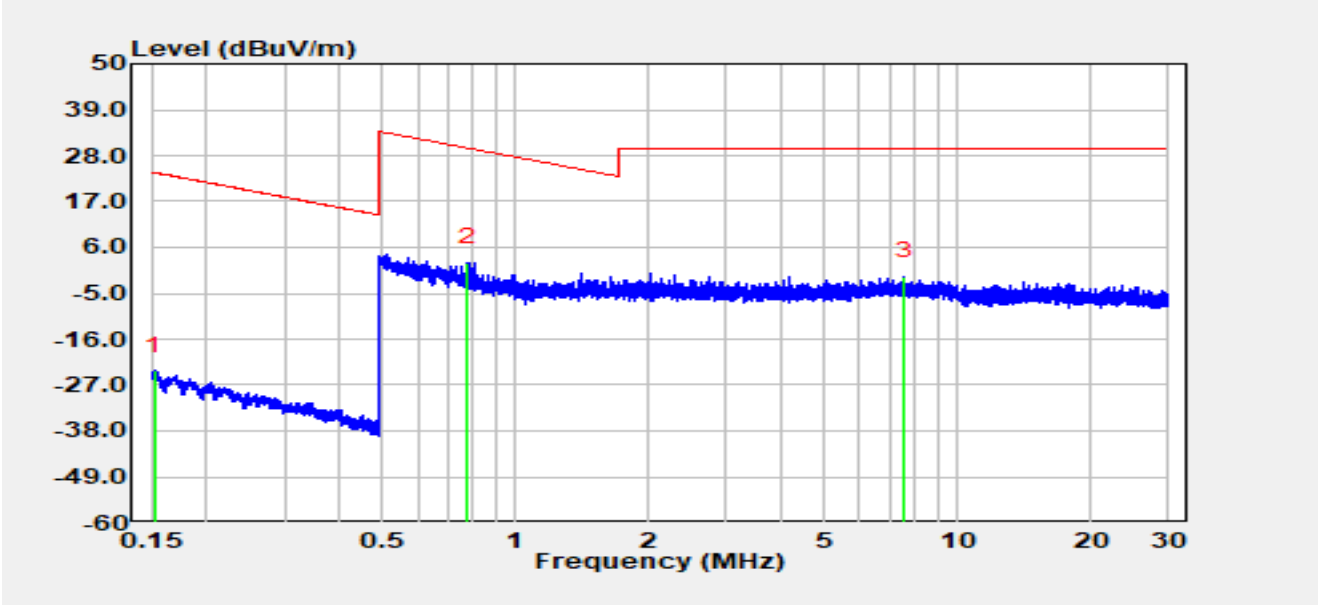
2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + 40log(d1/d2) (dB),

d1 = 3 m, d2 = 300 m (9 kHz-490 kHz) or 30 m (490 kHz-30 MHz).

3. Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).

4. Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

Site	WJ-AC2	Test Date	2025-12-31
Temperature	25.7 °C	Humidity	25.3%
Limit	FCC_Part 15.209_RSE	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Coplanar
Test Mode	Transmit by BLE-1M at 2440 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1		0.15	36.75	-60.29	-23.54	-47.46	23.92	Peak
2	*	0.78	22.84	-20.41	2.43	-27.38	29.81	Peak
3		7.56	19.54	-20.42	-0.88	-30.38	29.50	Peak

Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) + 40log(d1/d2) (dB),

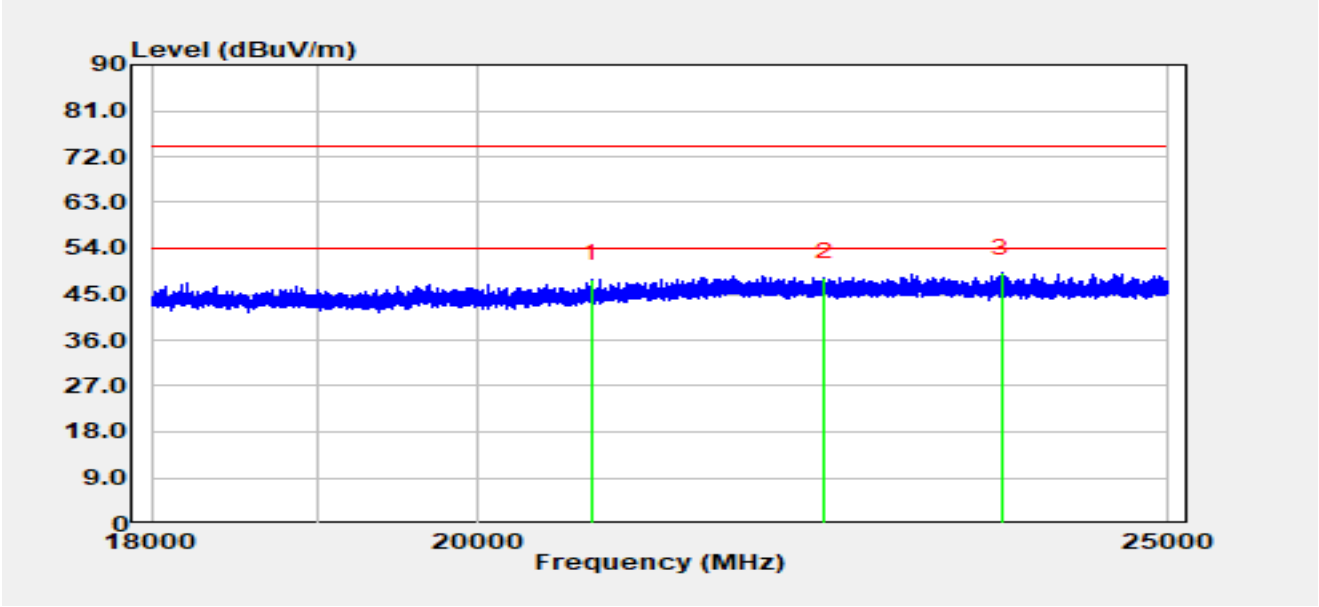
d1 = 3 m, d2 = 300 m (9 kHz-490 kHz) or 30 m (490 kHz-30 MHz).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

4. Quasi-Peak measurement was not performed when peak measure level was lower than the quasi-peak limit.

The Result of Radiated Emission above 18 GHz:

Site	WJ-AC2	Test Date	2026-01-04
Temperature	25.7 °C	Humidity	25.3%
Limit	FCC_Part 15.209_RSE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by BLE-1M at 2440 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1		20750.30	54.61	-6.62	47.99	-26.01	74.00	Peak
2		22367.30	52.73	-4.49	48.23	-25.77	74.00	Peak
3	*	23684.00	53.47	-4.31	49.16	-24.84	74.00	Peak

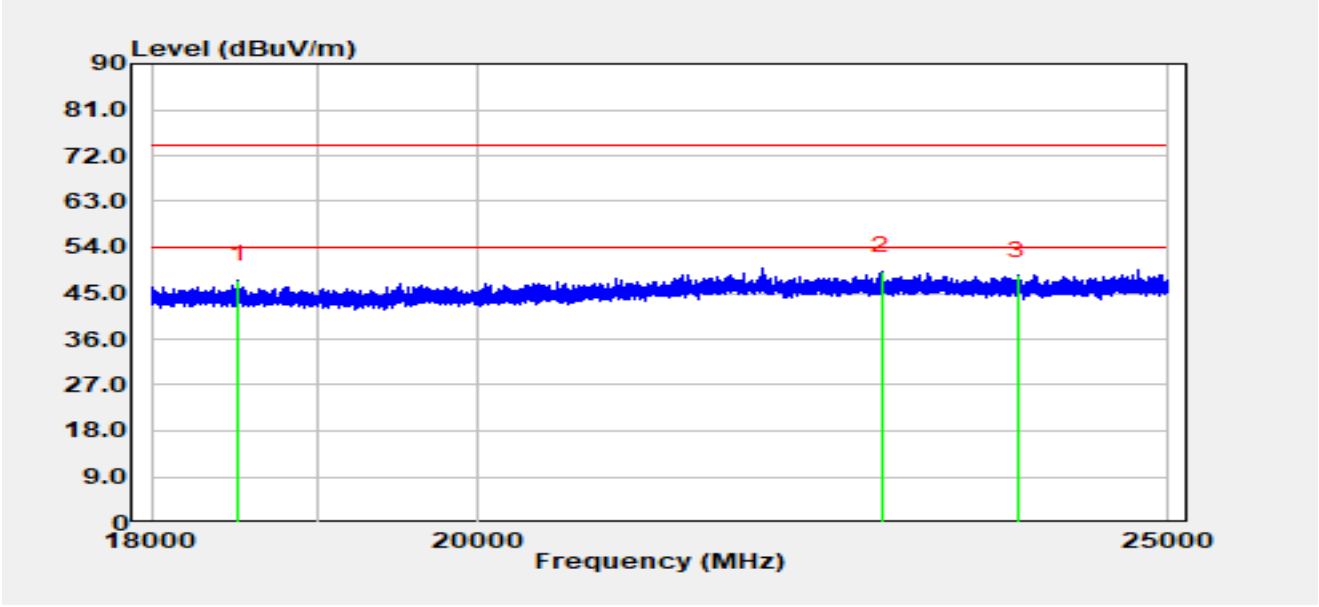
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) - AMP (dB).

3. Measurement(dBµV/m) = Reading(dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-04
Temperature	25.7 °C	Humidity	25.3%
Limit	FCC_Part 15.209_RSE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Vertical
Test Mode	Transmit by BLE-1M at 2440 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1		18512.40	56.70	-9.10	47.60	-26.40	74.00	Peak
2	*	22784.50	53.63	-4.30	49.33	-24.67	74.00	Peak
3		23815.60	52.51	-4.08	48.44	-25.56	74.00	Peak

Notes:

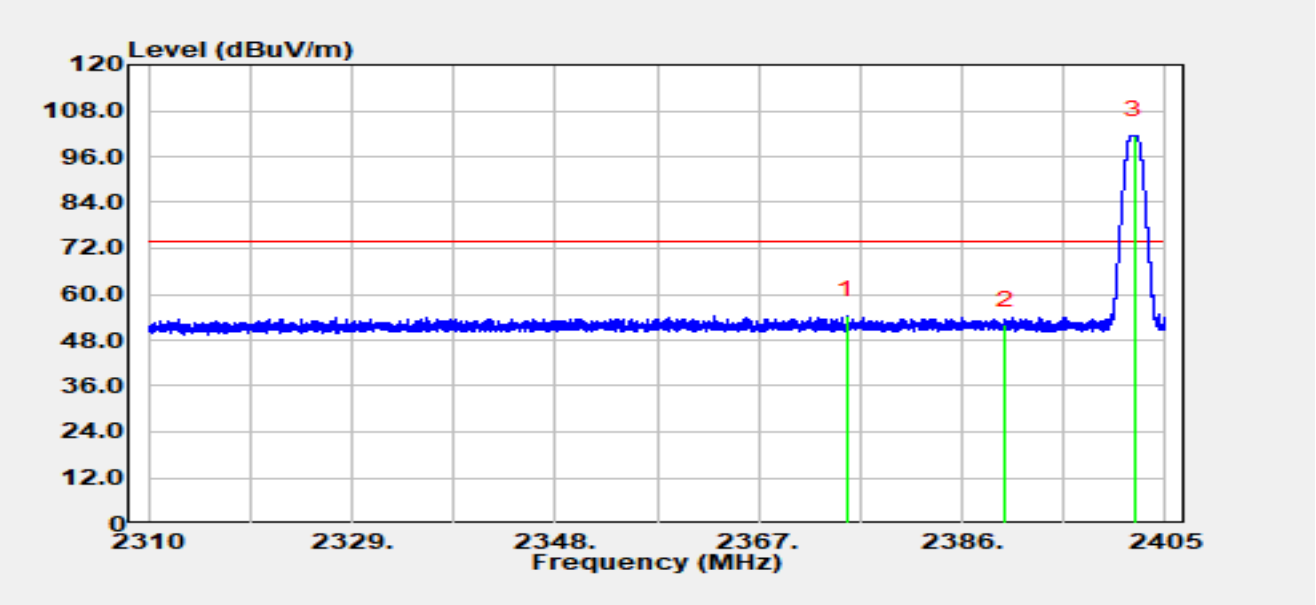
1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) - AMP (dB).

3. Measurement(dBµV/m) = Reading(dBµV) + C.F (dB/m).

A.7 Radiated Restricted Band Edge Test Result

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by BLE-1M at 2402 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1	*	2375.21	24.98	29.56	54.54	-19.46	74.00	Peak
2		2390.00	22.28	29.59	51.88	-22.12	74.00	Peak
3		2402.16	71.85	29.64	101.49	N/A	N/A	Peak

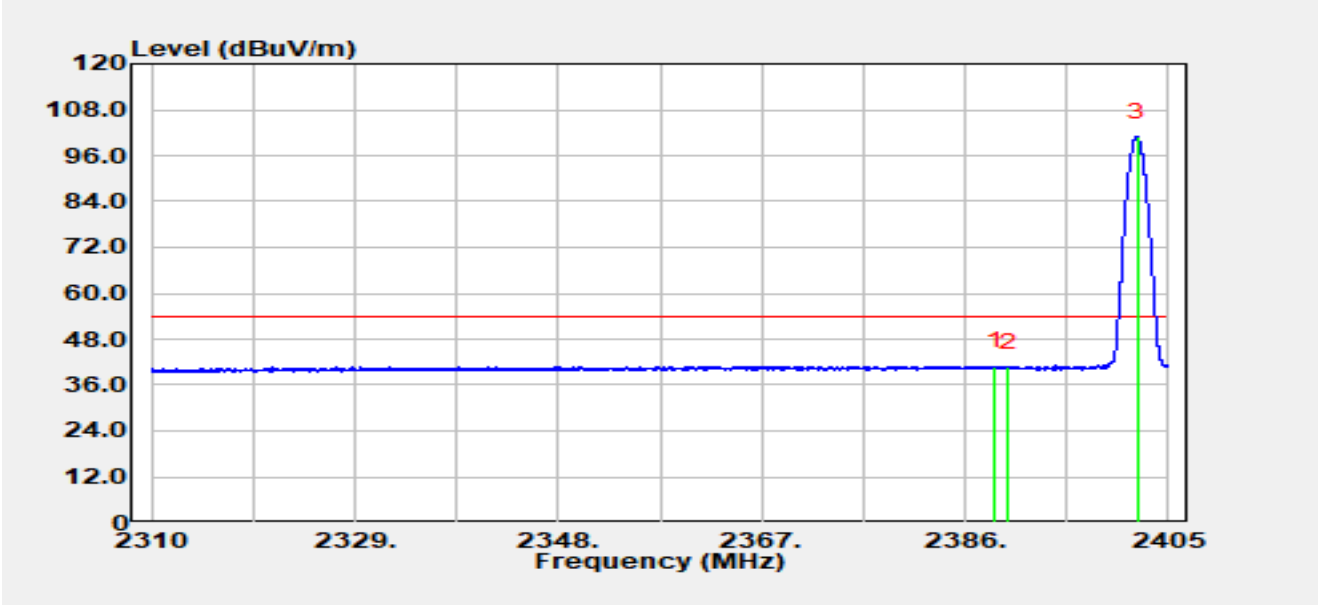
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by BLE-1M at 2402 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1	*	2388.85	11.39	29.59	40.98	-13.02	54.00	Average
2		2390.00	11.01	29.59	40.60	-13.40	54.00	Average
3		2402.08	71.29	29.64	100.93	N/A	N/A	Average

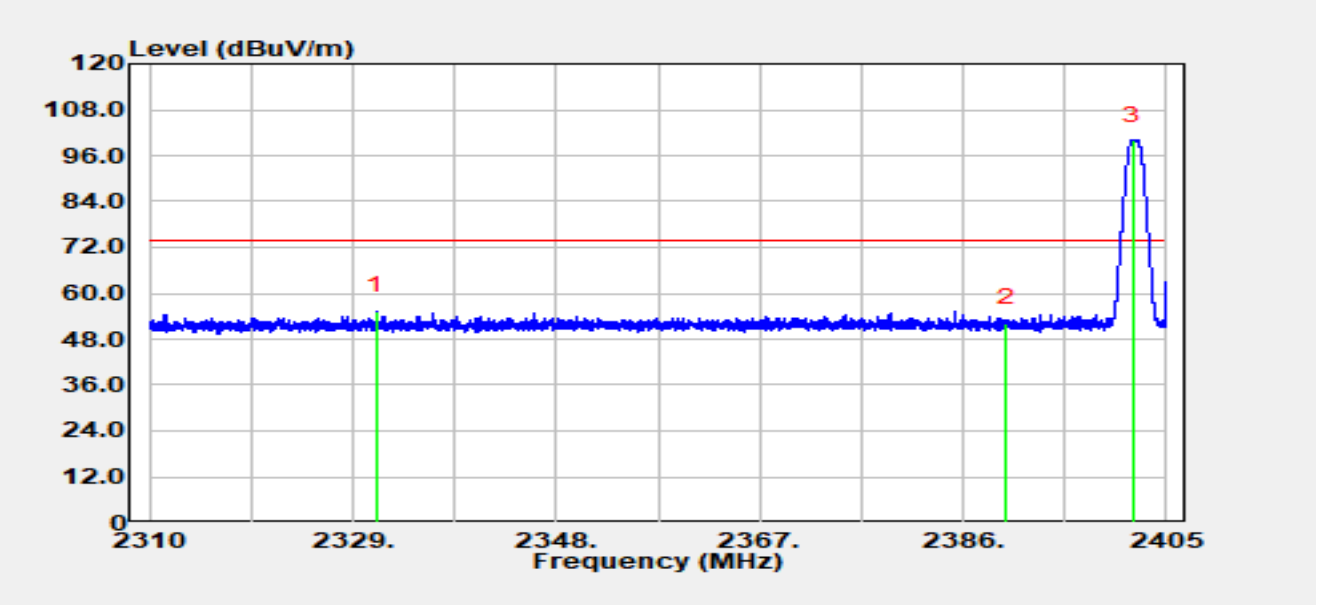
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Vertical
Test Mode	Transmit by BLE-1M at 2402 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1	*	2331.20	25.87	29.52	55.39	-18.61	74.00	Peak
2		2390.00	22.70	29.53	52.23	-21.77	74.00	Peak
3		2401.81	70.43	29.55	99.98	N/A	N/A	Peak

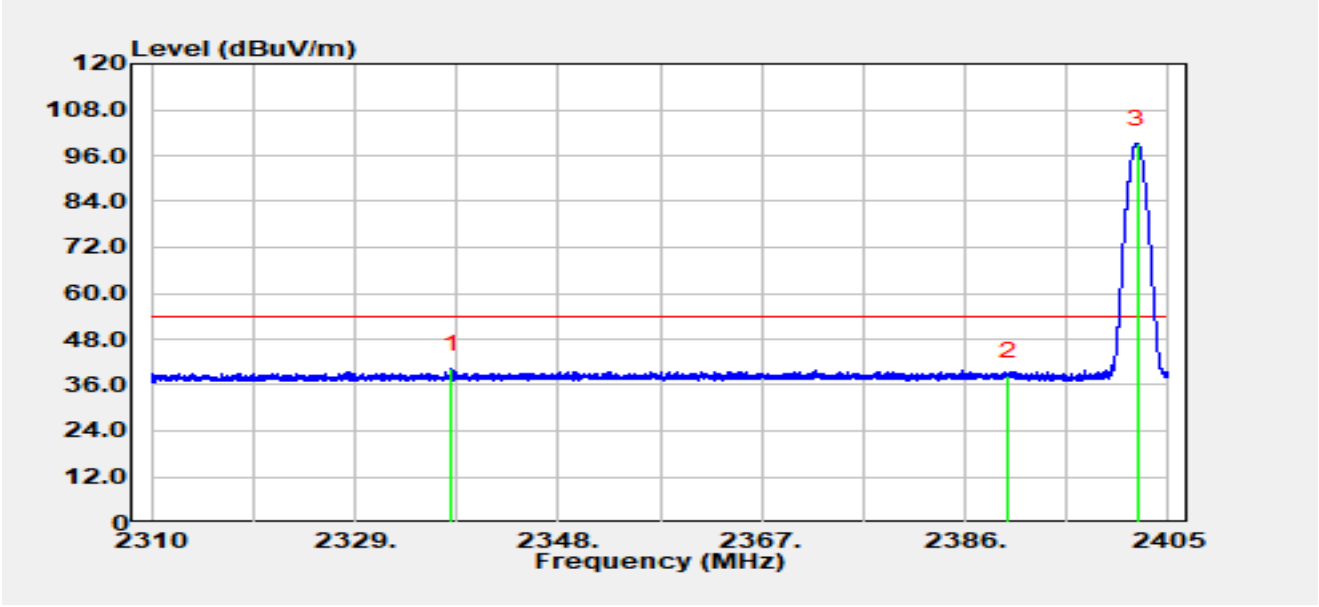
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Vertical
Test Mode	Transmit by BLE-1M at 2402 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1	*	2338.08	10.64	29.53	40.17	-13.83	54.00	Average
2		2390.00	8.85	29.53	38.38	-15.62	54.00	Average
3		2402.06	69.59	29.55	99.14	N/A	N/A	Average

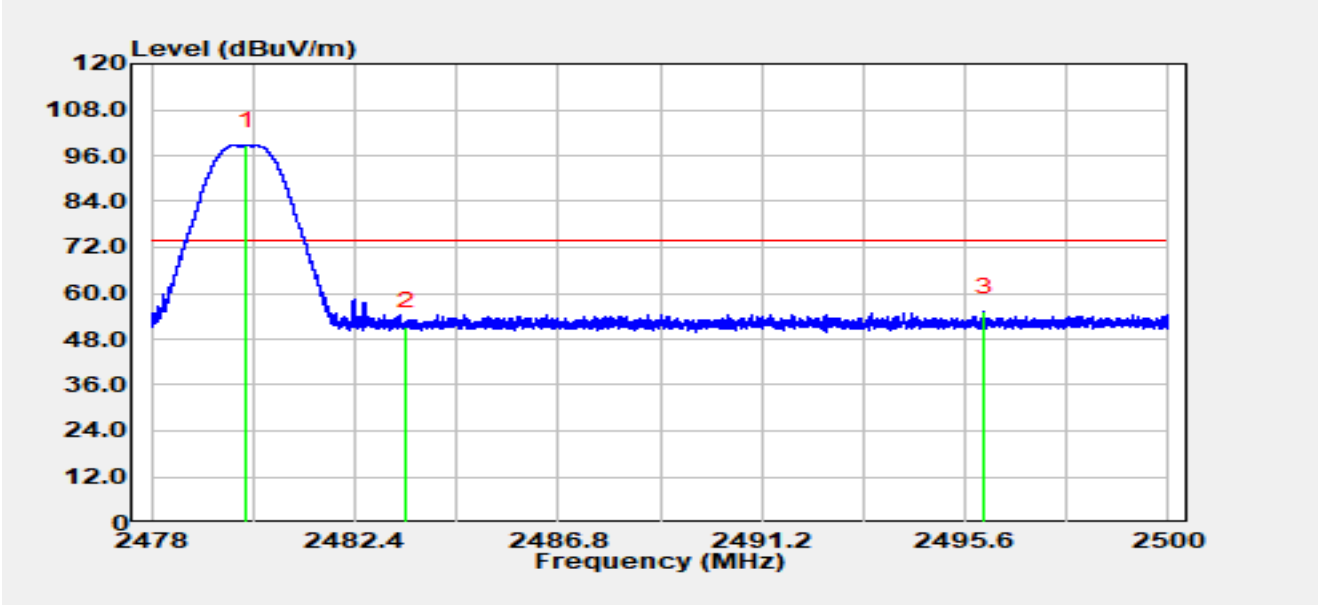
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by BLE-1M at 2480 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1		2480.04	69.12	29.58	98.70	N/A	N/A	Peak
2		2483.50	21.68	29.59	51.27	-22.73	74.00	Peak
3	*	2496.02	25.59	29.62	55.22	-18.78	74.00	Peak

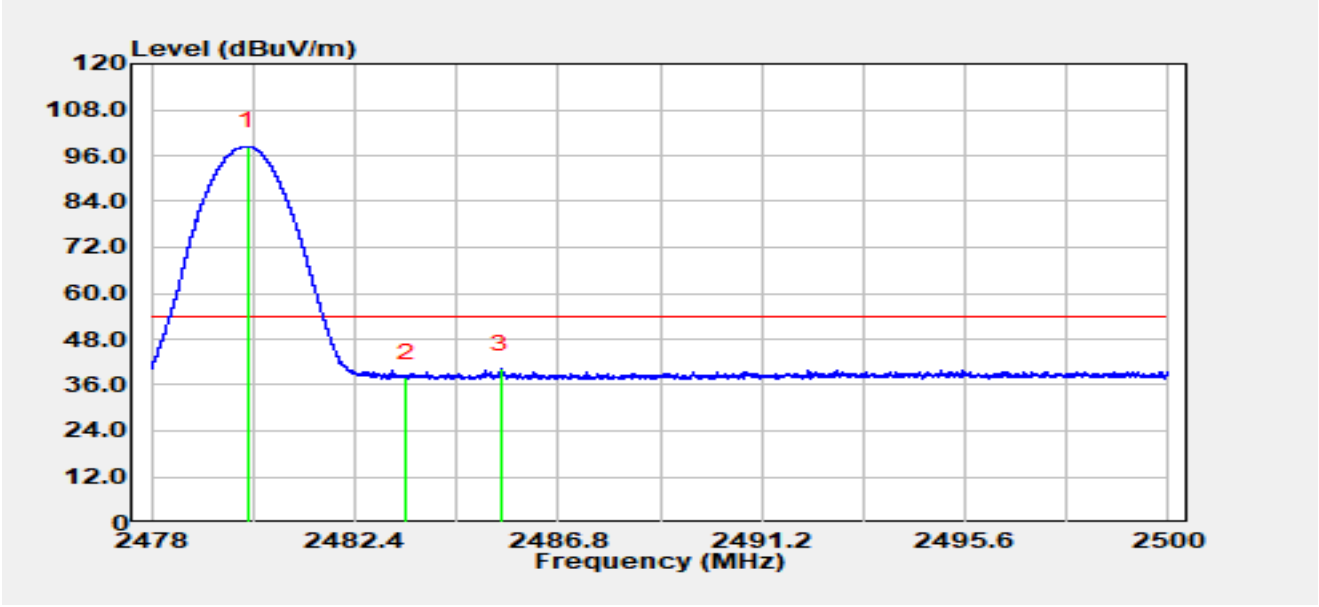
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by BLE-1M at 2480 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1		2480.08	68.85	29.58	98.43	N/A	N/A	Average
2		2483.50	8.35	29.59	37.94	-16.06	54.00	Average
3	*	2485.56	10.65	29.60	40.25	-13.75	54.00	Average

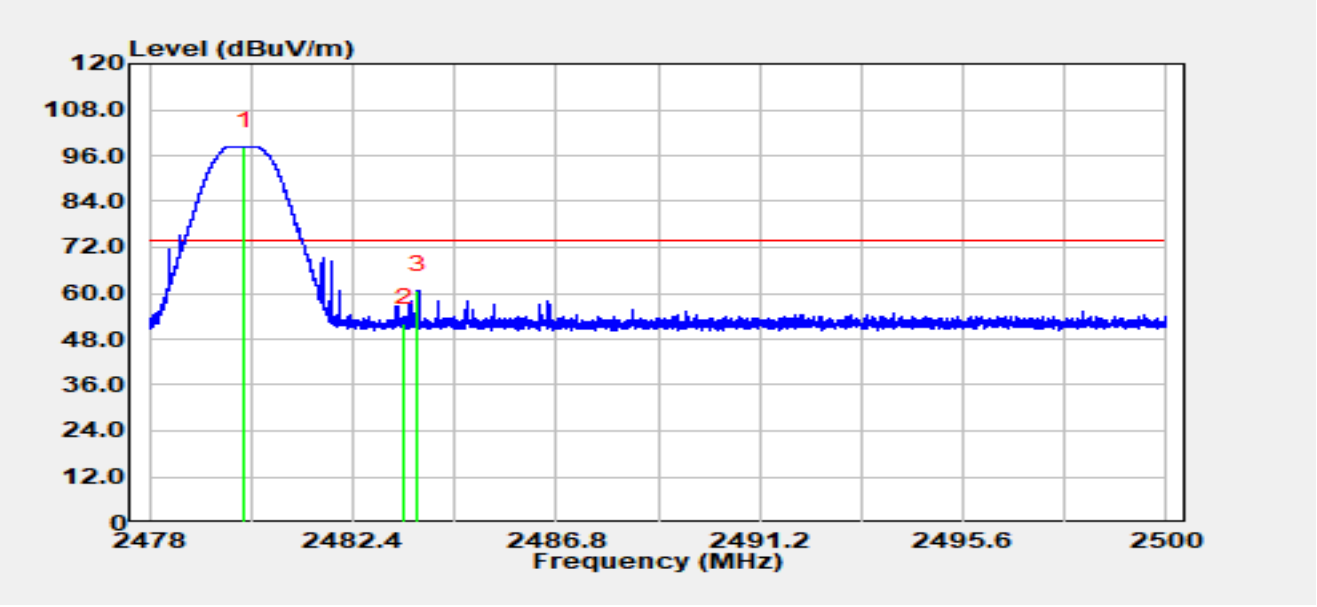
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Vertical
Test Mode	Transmit by BLE-1M at 2480 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1		2480.05	68.88	29.58	98.46	N/A	N/A	Peak
2		2483.50	22.57	29.59	52.17	-21.83	74.00	Peak
3	*	2483.81	31.26	29.60	60.86	-13.14	74.00	Peak

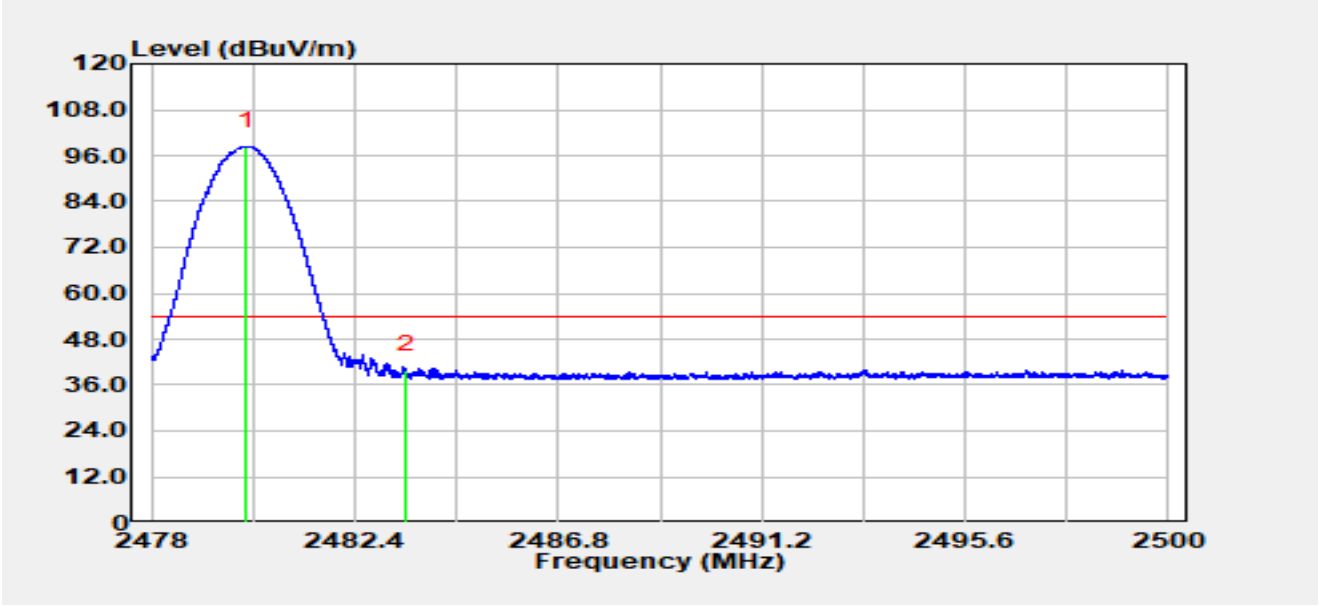
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Vertical
Test Mode	Transmit by BLE-1M at 2480 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1		2480.07	68.70	29.58	98.28	N/A	N/A	Average
2	*	2483.50	10.48	29.59	40.07	-13.93	54.00	Average

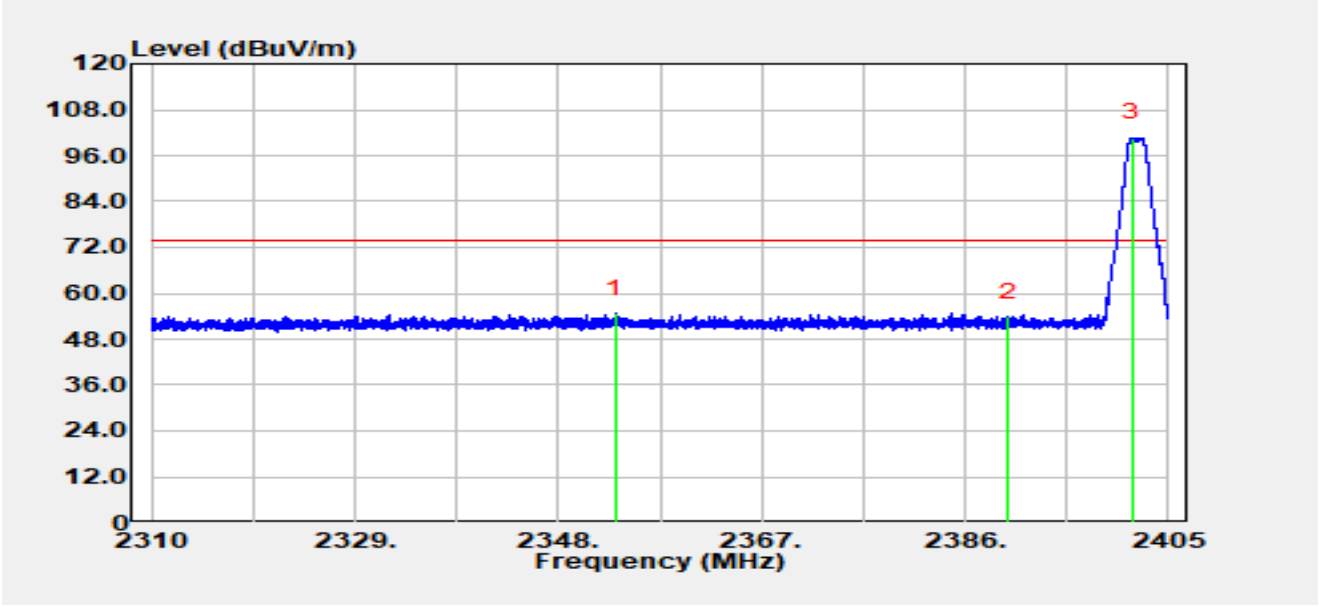
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by BLE-2M at 2402 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1	*	2353.36	25.17	29.55	54.72	-19.28	74.00	Peak
2		2390.00	24.27	29.53	53.80	-20.20	74.00	Peak
3		2401.58	71.19	29.55	100.74	N/A	N/A	Peak

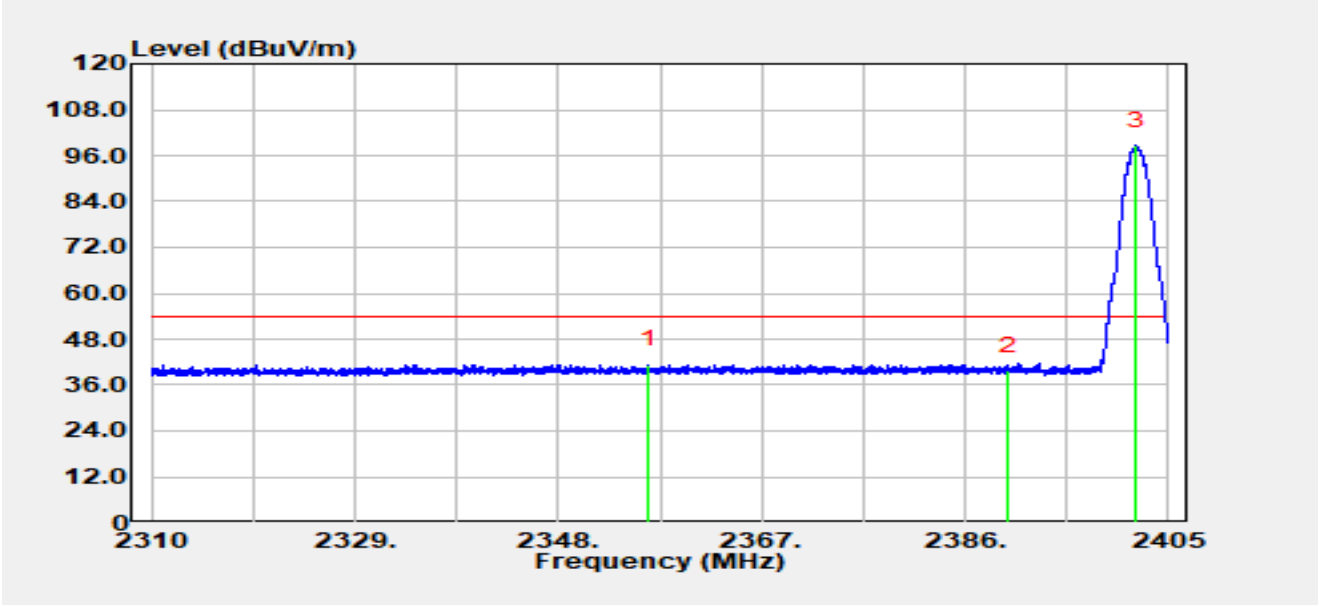
Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).

Site	WJ-AC2	Test Date	2026-01-08
Temperature	20.5 °C	Humidity	38.3%
Limit	FCC_2.4G_RE (3m)	Test Engineer	Bob Zhang
Test Voltage	AC 120 V/60 Hz	Polarity	Horizontal
Test Mode	Transmit by BLE-2M at 2402 MHz		



No	Mark	Frequency (MHz)	Reading (dBµV)	C.F (dB/m)	Measurement (dBµV/m)	Margin (dB)	Limit (dBµV/m)	Detector
1	*	2356.43	11.83	29.55	41.38	-12.62	54.00	Average
2		2390.00	10.10	29.53	39.63	-14.37	54.00	Average
3		2402.03	69.11	29.55	98.66	N/A	N/A	Average

Notes:

1. “*” indicates the worst-case emission level observed during the measurement.

2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).

3. Measurement (dBµV/m) = Reading (dBµV) + C.F (dB/m).