

RF MEASUREMENT REPORT

FCC ID: Q9DAPIN0634A

Applicant: Hewlett Packard Enterprise Company

Product: ACCESS POINT

Model No.: APIN0634A

Trademark:  , 

FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part 15 Subpart C (Section 15.247)

Result: Complies

Received Date: 2024-11-14

Test Date: 2025-01-16 ~ 2025-01-22

Reviewed By:

Jame Yuan



Approved By:

Robin Wu



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 and was tested in accordance with the measurement procedures specified in ANSI C63.10-2013. Test results reported herein relate only to the 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
2411RSU027-U11	V01	Initial Report	2025-06-25	Valid

Note 1: The APIN0634A is a variation on the existing APIN0634. The APIN0634 is currently FCC certified under FCC ID: Q9DAPIN0634.

The APIN0634A differs from the APIN0634 in the following ways: Part substitution for 5G and 6G passive filter

Note 2: There's no change for BLE/ZigBee specification, so spot check for each item was performed and all other test data were referenced from the original report.

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1. General Information

1.1. Applicant

Hewlett Packard Enterprise Company
6280 America Center Drive, San Jose CA 95002, United States

1.2. Manufacturer

Hewlett Packard Enterprise Company
6280 America Center Drive, San Jose CA 95002, United States

1.3. Testing Facility

<input checked="" type="checkbox"/>	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	
VCCI:	<input type="checkbox"/> R-20025
	<input type="checkbox"/> G-20034
	<input type="checkbox"/> C-20020
	<input type="checkbox"/> T-20020
<input type="checkbox"/>	<input type="checkbox"/> R-20141
	<input type="checkbox"/> G-20134
	<input type="checkbox"/> C-20103
	<input type="checkbox"/> T-20104
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	
CNAS: L10551	
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	ACCESS POINT
Model No.	APIN0634A
Serial No.	CNSXMLT01L
Wi-Fi Specification	802.11a/b/g/n/ac/ax
Bluetooth Specification	v5.0 single mode, BLE only
Zigbee Specification	802.15.4
GNSS Specification	GPS
Working Voltage	AC/DC Adapter or PoE Injector input
Operating Temperature	0 ~ 50 °C
Operating Environment	Indoor Use

Note: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.

1.5. Radio Specification under Test

Bluetooth Frequency	2402 ~ 2480MHz
Channel Number	40
Type of modulation	GFSK
Data Rate	1Mbps & 2Mbps
Antenna Type	PIFA Antenna
Antenna Gain	3.20dBi

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	--	--	--	--

1.7. Description of Operating Paths

Filter	Specification	Remark
Wi-Fi		
Filter 1#	Band Pass Filter (2412-2472)	Allowing any transmission on all channels
Filter 2#	Band Pass Filter (2402-2447)	Allowing any transmission on 20MHz channels 1 thru 6
Filter 3#	Band Pass Filter (2452-2472)	Allowing any transmission on 20MHz channel 11
Bluetooth / ZigBee		
Filter 4#	Band Pass Filter (2402-2480)	Allowing any transmission on all channels
Filter 5#	Band Pass Filter (2402-2430)	Allowing transmission on BLE channels 37 (2402MHz) and 38 (2426MHz) and Zigbee channel 11 (2405MHz)
Filter 6#	Band Pass Filter (2478-2482)	Allowing transmission on BLE channel 39 (2480MHz) and Zigbee channel 26(2480MHz)
Note: ZigBee and BLE can't work simultaneously.		

Working Mode

Wi-Fi	Bluetooth	Remark
Filter 1#	Filter 4#	Filter 1# or Filter 4# work alone
Filter 2#	Filter 6#	Transmission simultaneously
Filter 3#	Filter 5#	Transmission simultaneously
Note: Filter groups on the 2.4GHz Wi-Fi and BLE/Zigbee outputs to prevent reverse IMD when both 2.4GHz Wi-Fi and BLE/Zigbee are transmitting simultaneously		

2. Test Configuration

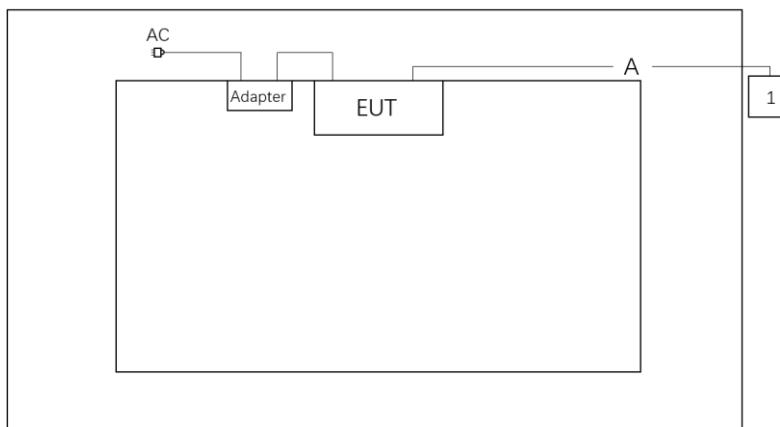
2.1. Test Mode

Mode 1: Transmit by BLE-1Mbps

Mode 2: Transmit by BLE-2Mbps

2.2. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.



Cable Type	Cable Spec.	Length
A	Ethernet Cable	Non-Shielding, Cat 5e
Product	Manufacturer	Model No.
1	Notebook	Latitude 5491

2.3. Test Software

The test utility software used during testing was “telnet”, and commands were provided by the manufacturer.

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 D01v05r02
- ANSI C63.10-2013

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	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2025-11-03	WZ-AC1
Preamplifier	EMCI	EMC184045SE	MRTSUE06640	1 year	2025-01-11	WZ-AC1
Active Loop Antenna	Schwarzbeck	FMZB 1519-60 D	MRTSUE07076	1 year	2025-11-19	WZ-AC1
EMI Test Receiver	R&S	ESR7	MRTSUE06001	1 year	2025-12-05	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2025-07-26	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2025-11-08	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2025-05-15	WZ-AC1
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2025-04-19	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2025-10-13	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11039	1 year	2025-10-16	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2025-05-12	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	N/A	N/A	WZ-SR5
Signal Analyzer	Keysight	N9010B	MRTSUE06457	1 year	2025-05-08	WZ-SR5
USB Power Sensor	Keysight	U2021XA	MRTSUE06446	1 year	2025-05-08	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11092	1 year	2025-06-05	WZ-SR5
Signal Generator	Keysight	N5182B	MRTSUE06451	1 year	2025-06-03	WZ-SR5
Shielding Room	MIX-BEP	WZ-SR2	MRTSUE06215	5 years	2026-12-20	WZ-SR2
Thermohygrometer	testo	608-H1	MRTSUE06404	1 year	2025-05-12	WZ-SR2
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2025-05-08	WZ-SR2
EMI Test Receiver	R&S	ESR3	MRTSUE06909	1 year	2025-09-05	WZ-SR2

Software	Version	Function
e3	230711	EMI Test Software
Controller_MF 7802	2.03C	RE Antenna & Turntable
BenchVue Power Meter	2018.1	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
<p>The maximum measurement uncertainty is evaluated as:</p> <p>9kHz~150kHz: 3.02dB</p> <p>150kHz~30MHz: 2.56dB</p>
Radiated Emission Measurement
<p>The maximum measurement uncertainty is evaluated as:</p> <p>Coaxial: 9kHz~30MHz: 2.35dB</p> <p>Coplanar: 9kHz~30MHz: 2.37dB</p> <p>Horizontal: 30MHz~200MHz: 3.46dB</p> <p>200MHz~1GHz: 3.78dB</p> <p>1GHz~40GHz: 4.97dB</p> <p>Vertical: 30MHz~200MHz: 4.07dB</p> <p>200MHz~1GHz: 5.28dB</p> <p>1GHz~40GHz: 4.78dB</p>
Spurious Emissions, Conducted
<p>Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_{C(y)}$):</p> <p>2.5dB</p>
Output Power
<p>Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_{C(y)}$):</p> <p>1.3dB</p>
Power Spectrum Density
<p>Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_{C(y)}$):</p> <p>2.5dB</p>
Occupied Bandwidth
<p>Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_{C(y)}$):</p> <p>2.6%</p>

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.247(a)(2)	6dB 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 150kHz - 30MHz	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. 6dB Bandwidth Measurement

6.2.1. Test Limit

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

6.2.2. Test Procedure

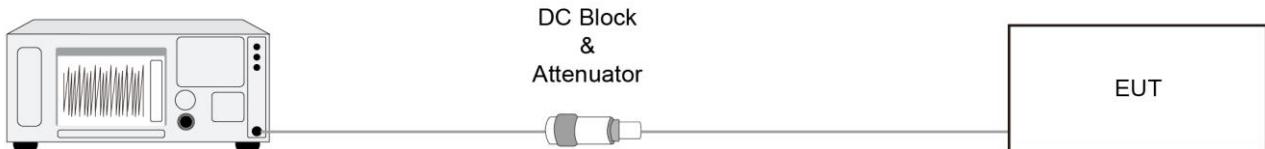
ANSI C63.10 - 2013 - Section 11.8

6.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB 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. Set RBW = 100 kHz
3. VBW $\geq 3 \times$ RBW
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep = Auto couple
7. Allow the trace to stabilize

6.2.4. Test Setup

Spectrum Analyzer



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 (30dBm).

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 - 2013 - Section 11.9.1.3

ANSI C63.10 - 2013 - Section 11.9.2.3.2

6.3.3. Test Setting

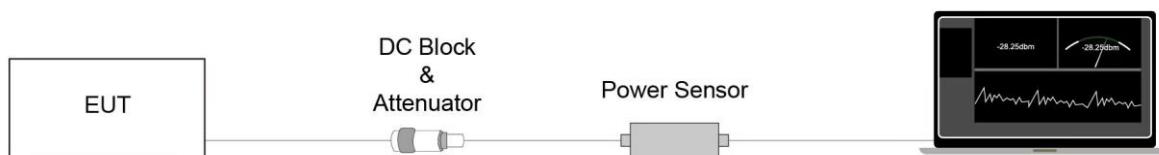
Method PKPM1 (Peak Power Measurement of Signals with DTS BW ≤ 50MHz)

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 = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

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 8dBm in any 3 kHz band.

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

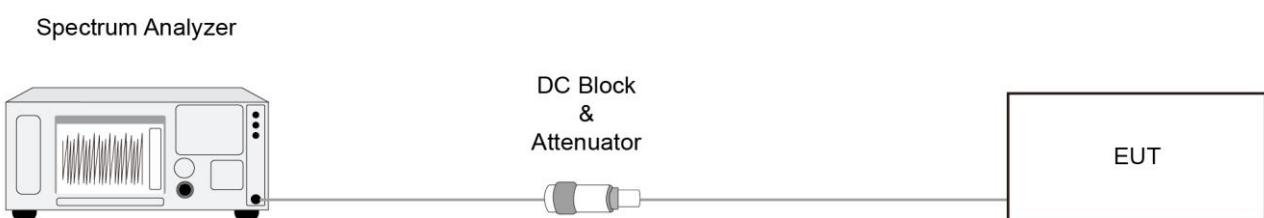
6.4.2. Test Procedure

ANSI C63.10-2013 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 = 3kHz
4. VBW = 10kHz
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 20dB 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 C63.10-2013 - Section 11.11

6.5.3. Test Setting

Reference level measurement

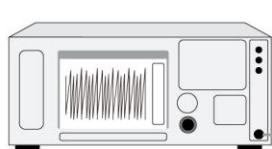
1. Set instrument center frequency to DTS channel center frequency
2. Set the span to \geq 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW \geq 3 x RBW
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Allow trace to fully stabilize

Emission level measurement

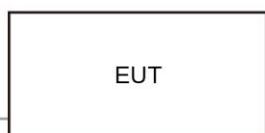
1. Set the center frequency and span to encompass frequency range to be measured
2. RBW = 100kHz
3. VBW = 300kHz
4. Detector = Peak
5. Trace mode = max hold
6. Sweep time = auto couple
7. The trace was allowed to stabilize

6.5.4. Test Setup

Spectrum Analyzer



DC Block
&
Attenuator



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 [uV/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 - 2013 - Section 11.11 & 11.12

ANSI C63.10 - 2013 - Section 6.3 (General Requirements)

ANSI C63.10 - 2013 - Section 6.4 (Standard test method below 30MHz)

ANSI C63.10 - 2013 - Section 6.5 (Standard test method above 30MHz to 1GHz)

ANSI C63.10 - 2013 - Section 6.6 (Standard test method above 1GHz)

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
> 1000MHz	1MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
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 1GHz

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

Average Measurements above 1GHz (Method VB)

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

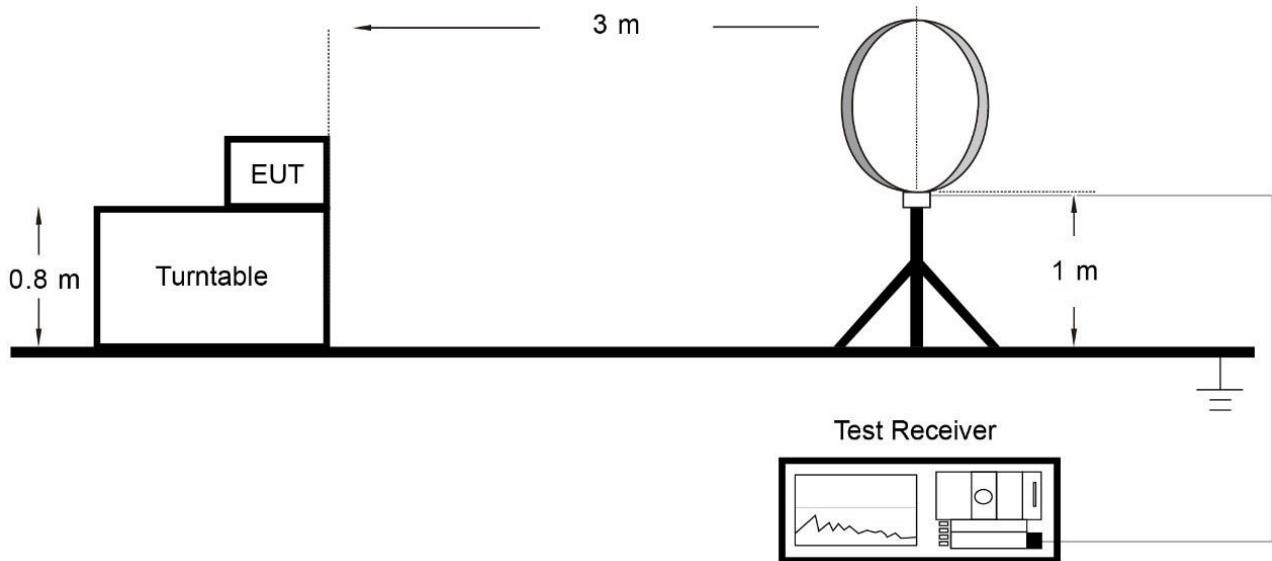
If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$. T is the minimum transmission duration.

BLE 1Mbps	VBW = 1000Hz	BLE 2Mbps	VBW = 2000Hz
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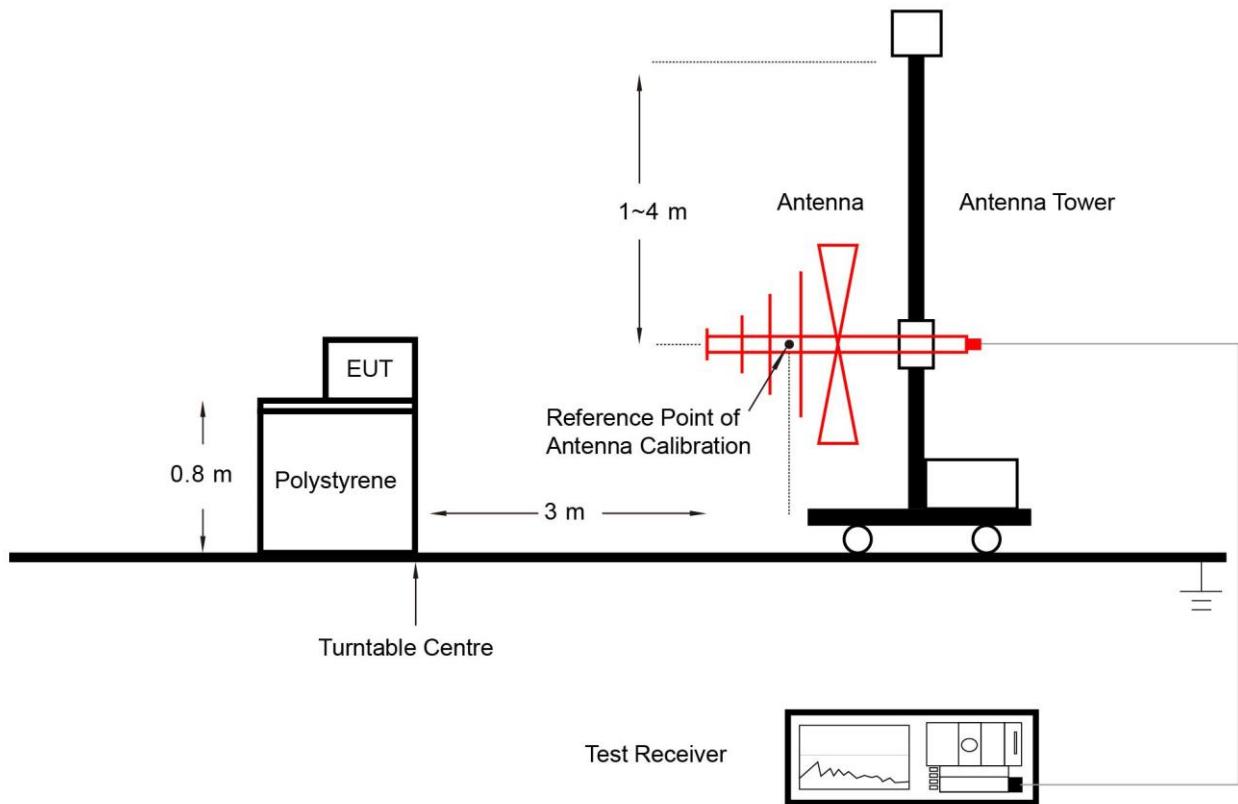
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can 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

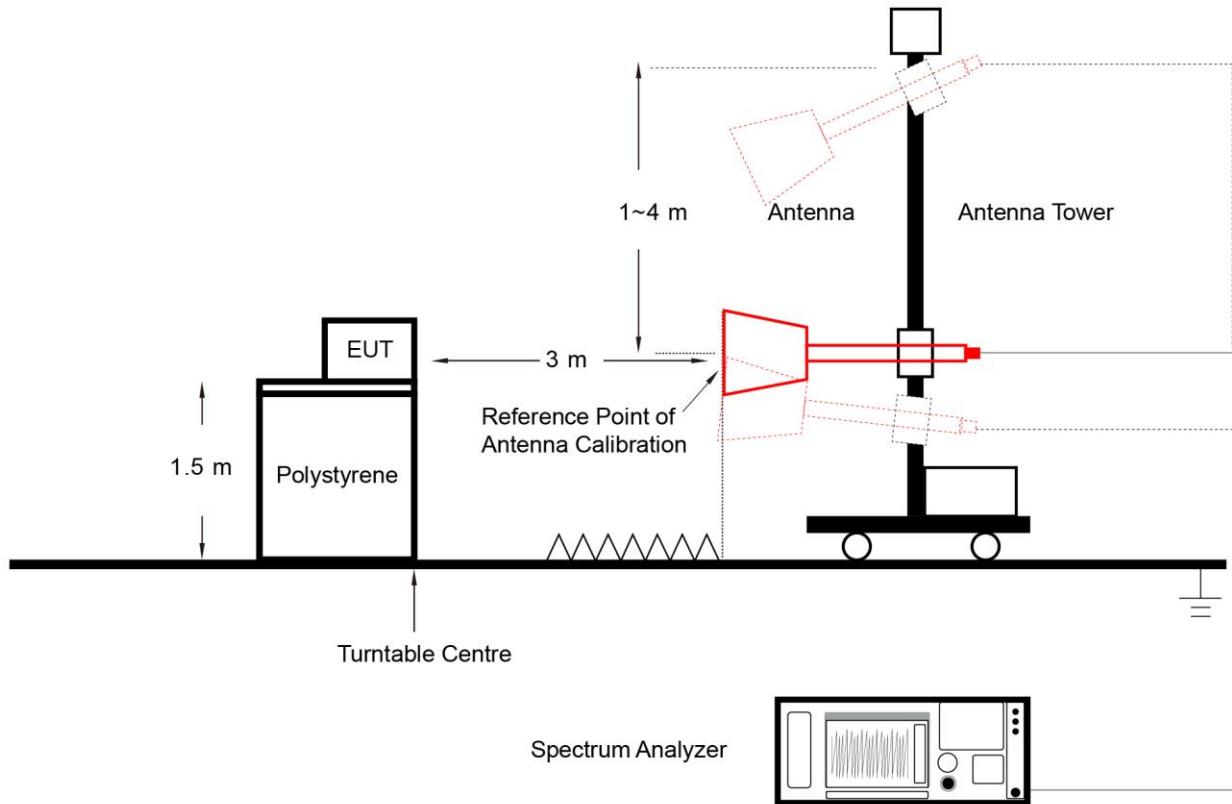
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz 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
¹ 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 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [uV/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 C63.10-2013 Section 6.3 & 6.6 & 11.13

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 = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

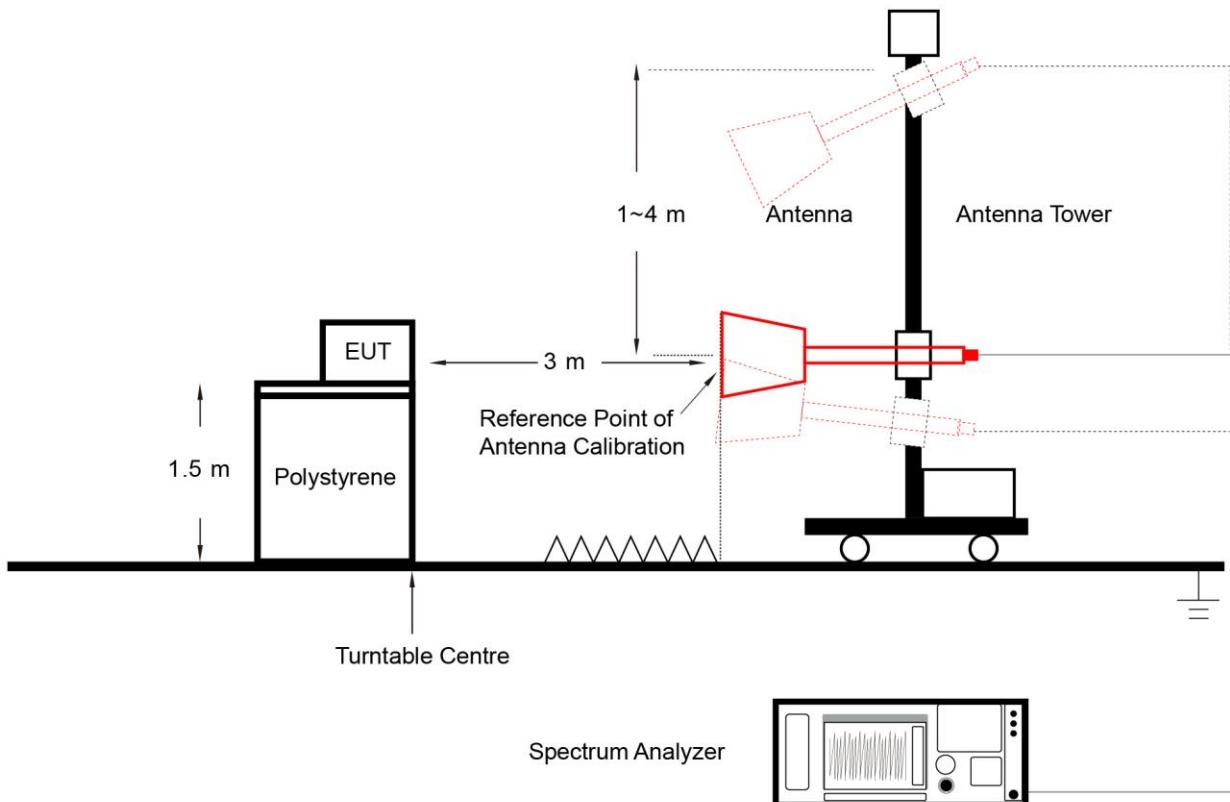
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.

If the EUT duty cycle is $< 98\%$, set $\text{VBW} \geq 1/T$. T is the minimum transmission duration.

BLE 1Mbps	VBW = 1000Hz	BLE 2Mbps	VBW = 2000Hz
-----------	--------------	-----------	--------------

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.

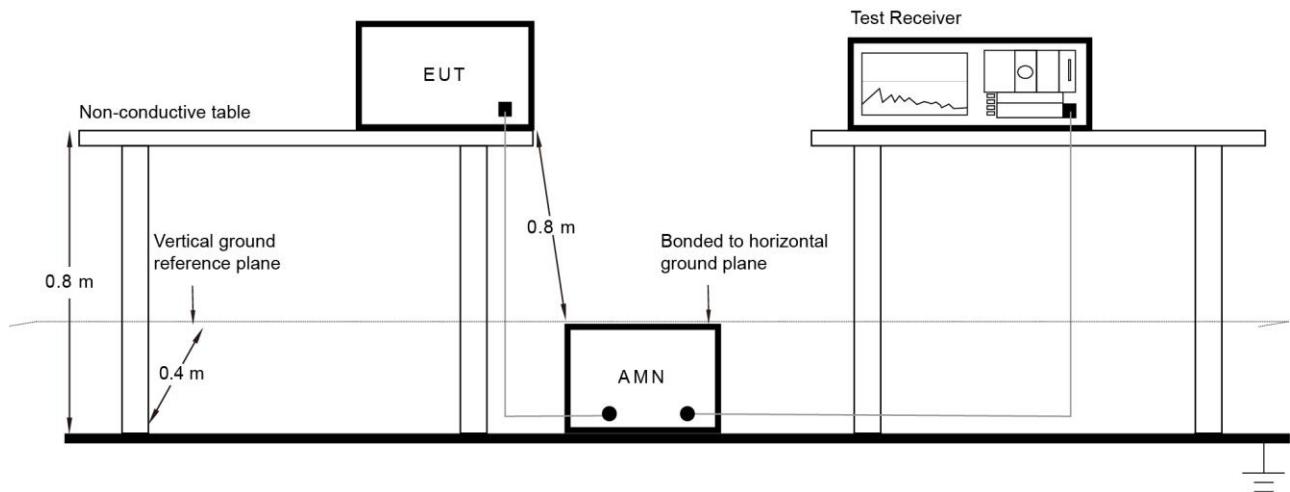
6.8. AC Conducted Emissions Measurement

6.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
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 0.15MHz to 0.5MHz.

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

Refer to MRT report No.2306RSU040-U1 clause A.1

A.2 6dB Bandwidth Test Result

Refer to MRT report No.2306RSU040-U1 clause A.2

Spot Check Test Data:

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-01-16		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
BLE	2Mbps	39	2480	1.181	≥ 0.5



A.3 Output Power Test Result

Refer to MRT report No.2306RSU040-U1 clause A.3

Spot Check:

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-01-16		

Test Result of Peak Output Power

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Peak Power (dBm)	Limit (dBm)	Result
BLE	2Mbps	00	2402	5.82	≤ 30.00	Pass

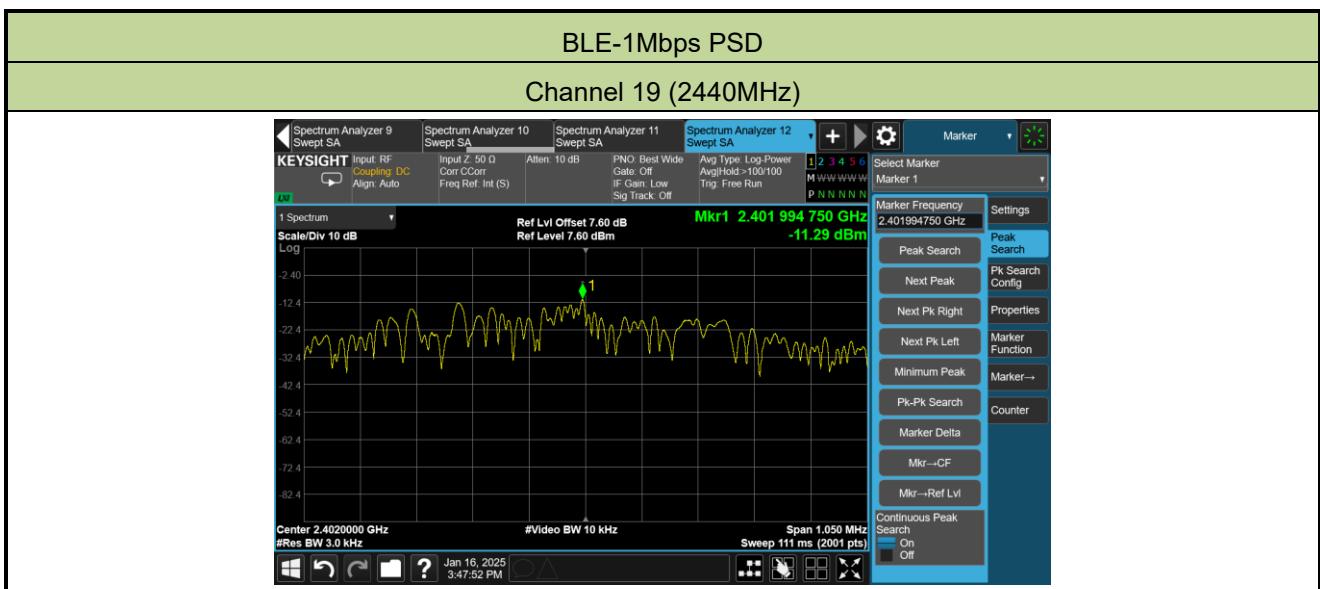
A.4 Power Spectral Density Test Result

Refer to MRT report No.2306RSU040-U1 clause A.4

Spot Check:

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-01-16		

Test Mode	Data Rate	Channel No.	Frequency (MHz)	PSD Result (dBm / 3kHz)	Limit (dBm / 3kHz)	Result
BLE	1Mbps	00	2402	-11.29	≤ 8.00	Pass



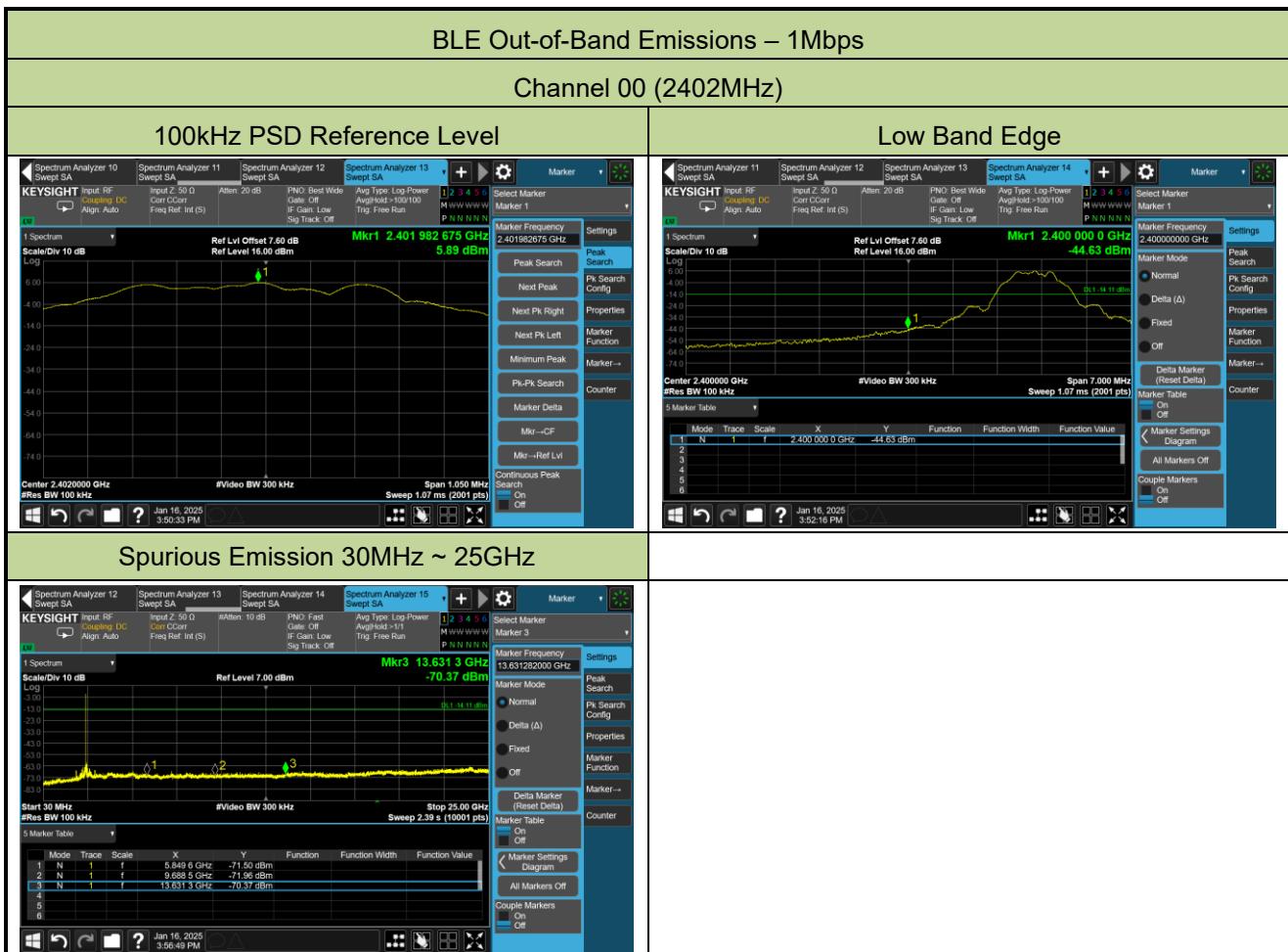
A.5 Conducted Band Edge and Out-of-Band Emissions Test Result

Refer to MRT report No.2306RSU040-U1 clause A.5

Spot Check:

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-01-16		

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
BLE	1	00	2402	20dBc	Pass



A.6 Radiated Spurious Emission Test Result

Refer to MRT report No.2306RSU040-U1 clause A.6

Spot Check:

Test Site	WZ-AC1	Test Engineer	Lucas Wang
Test Date	2025-01-17	BLE-1Mbps	BLE-1Mbps
Remark	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Test Channel	Frequency (MHz)	Reading Level (dB μ V)	Factor (dB/m)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
39	8405.2	37.0	9.8	46.8	74.0	-27.2	Peak	Horizontal
	10725.7	35.7	15.2	50.9	74.0	-23.1	Peak	Horizontal
	17988.1	35.7	22.8	58.5	74.0	-15.5	Peak	Horizontal
	17988.1	26.1	22.8	48.9	54.0	-5.1	Average	Horizontal
	8415.4	35.8	9.9	45.7	74.0	-28.3	Peak	Vertical
	11053.8	36.1	14.8	50.9	74.0	-23.1	Peak	Vertical
	17983.0	35.6	22.7	58.3	74.0	-15.7	Peak	Vertical
	17983.0	25.7	22.7	48.4	54.0	-5.6	Average	Vertical

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

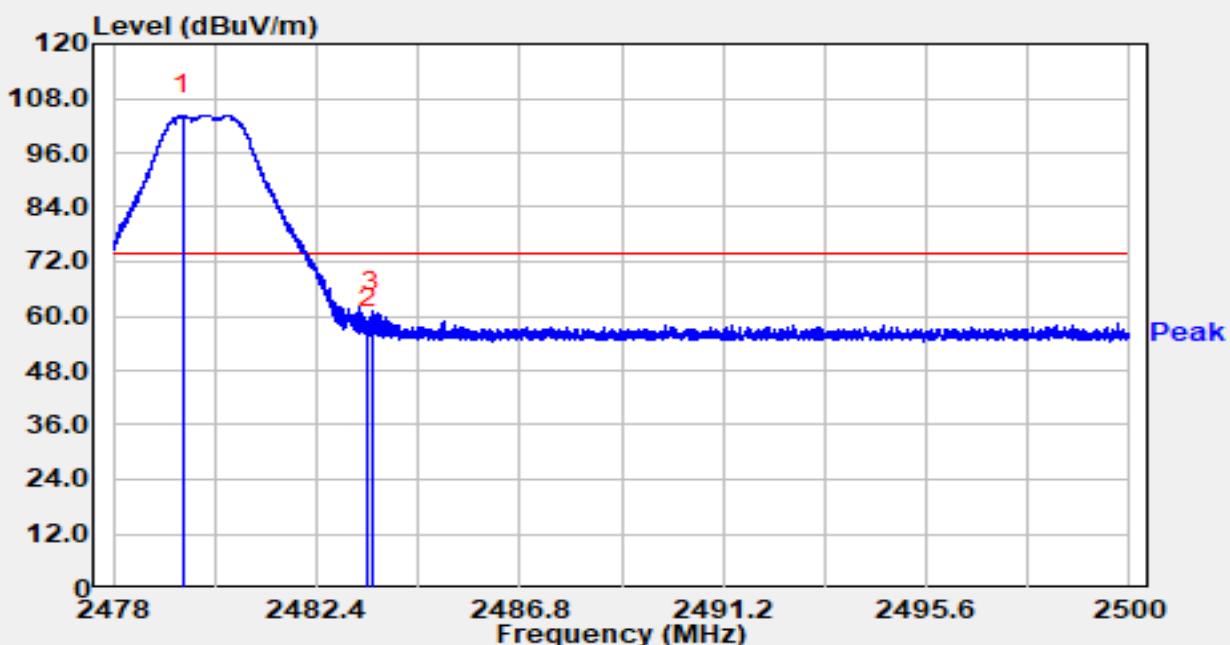
Factor (dB/m) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

A.7 Radiated Restricted Band Edge Test Result

Refer to MRT report No.2306RSU040-U1 clause A.7

Spot Check:

Site	WZ-AC1	Test Date	2025-01-17
Limit	FCC_2.4G_RE(3m)	Test Engineer	Lucas Wang
Factor	BBHA 9120D_01167	Polarity	Horizontal
EUT	ACCESS POINT	Test Voltage	AC 120V/60Hz
Test Mode	Transmit by BLE 2M at 2480MHz		

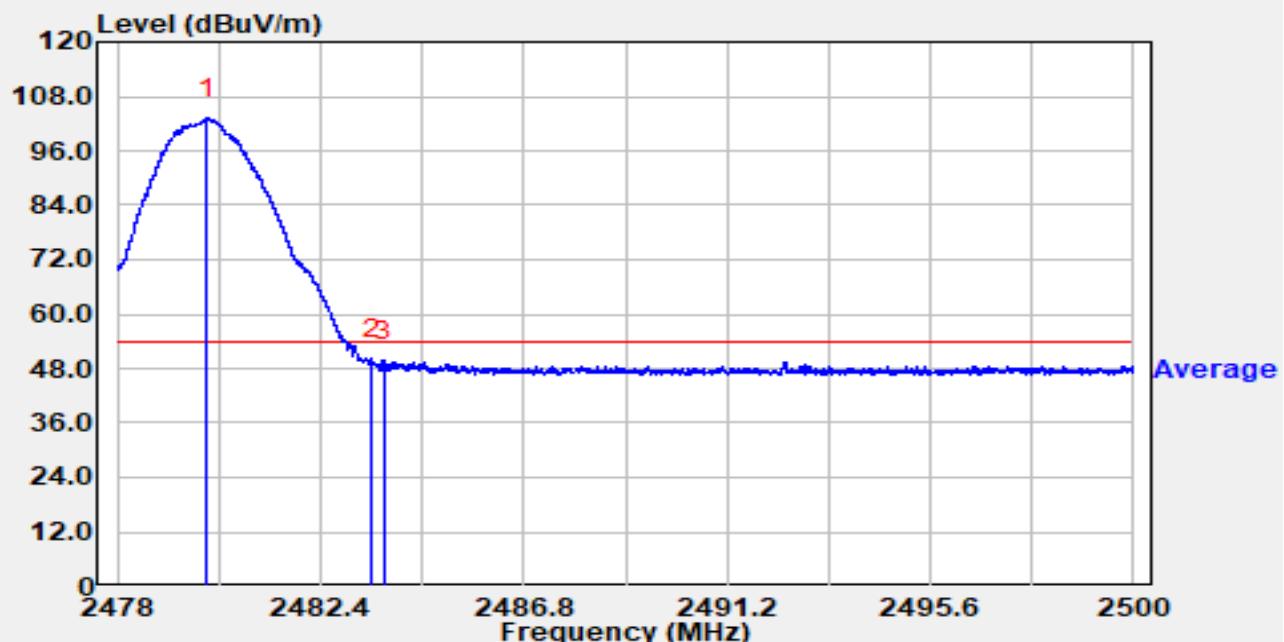


No	Mark	Frequency (MHz)	Reading (dB μ V)	C.F (dB/m)	Measurement (dB μ V/m)	Margin (dB)	Limit (dB μ V/m)	Detector
1		2479.503	72.41	31.80	104.22	N/A	N/A	Peak
2		2483.500	25.45	31.81	57.26	-16.74	74.00	Peak
3	*	2483.597	29.11	31.81	60.92	-13.08	74.00	Peak

Notes:

1. " *", means this data is the worst emission level.
2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dB μ V/m) = Reading (dB μ V) + C.F (dB/m).

Site	WZ-AC1	Test Date	2025-01-17
Limit	FCC_2.4G_RE(3m)	Test Engineer	Lucas Wang
Factor	BBHA 9120D_01167	Polarity	Horizontal
EUT	ACCESS POINT	Test Voltage	AC 120V/60Hz
Test Mode	Transmit by BLE 2M at 2480MHz		

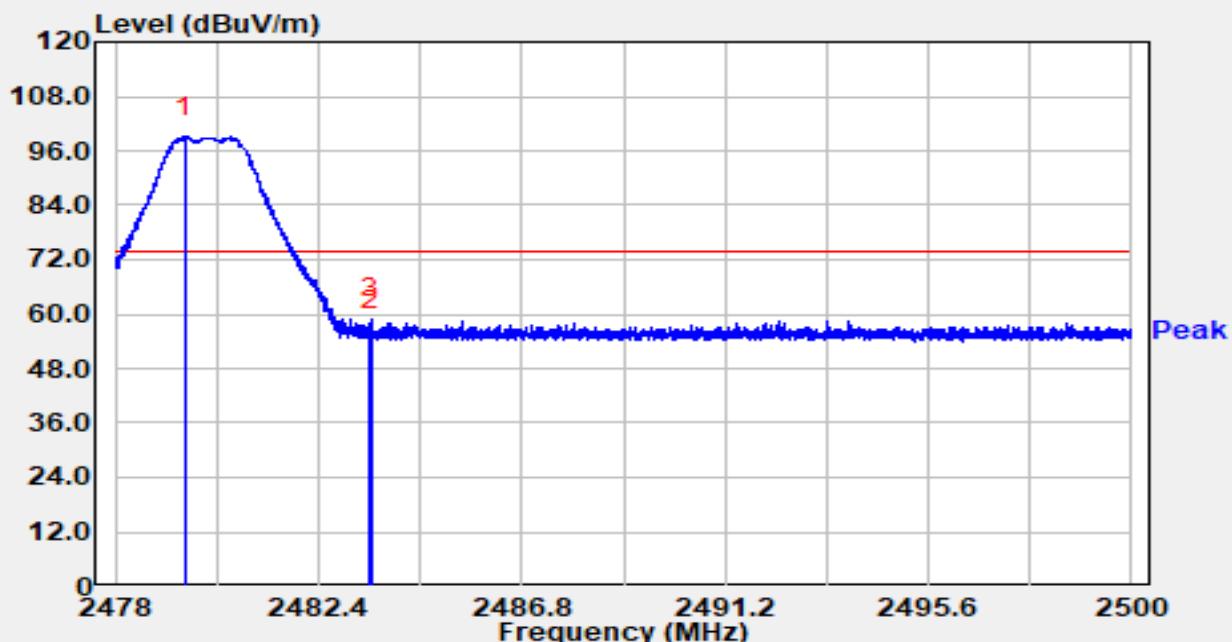


No	Mark	Frequency (MHz)	Reading (dB μ V)	C.F (dB/m)	Measurement (dB μ V/m)	Margin (dB)	Limit (dB μ V/m)	Detector
1		2479.938	71.23	31.80	103.03	N/A	N/A	Average
2	*	2483.500	18.27	31.81	50.07	-3.93	54.00	Average
3		2483.768	17.90	31.81	49.70	-4.30	54.00	Average

Notes:

1. " **", means this data is the worst emission level.
2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dB μ V/m) = Reading (dB μ V) + C.F (dB/m).

Site	WZ-AC1	Test Date	2025-01-17
Limit	FCC_2.4G_RE(3m)	Test Engineer	Lucas Wang
Factor	BBHA 9120D_01167	Polarity	Vertical
EUT	ACCESS POINT	Test Voltage	AC 120V/60Hz
Test Mode	Transmit by BLE 2M at 2480MHz		

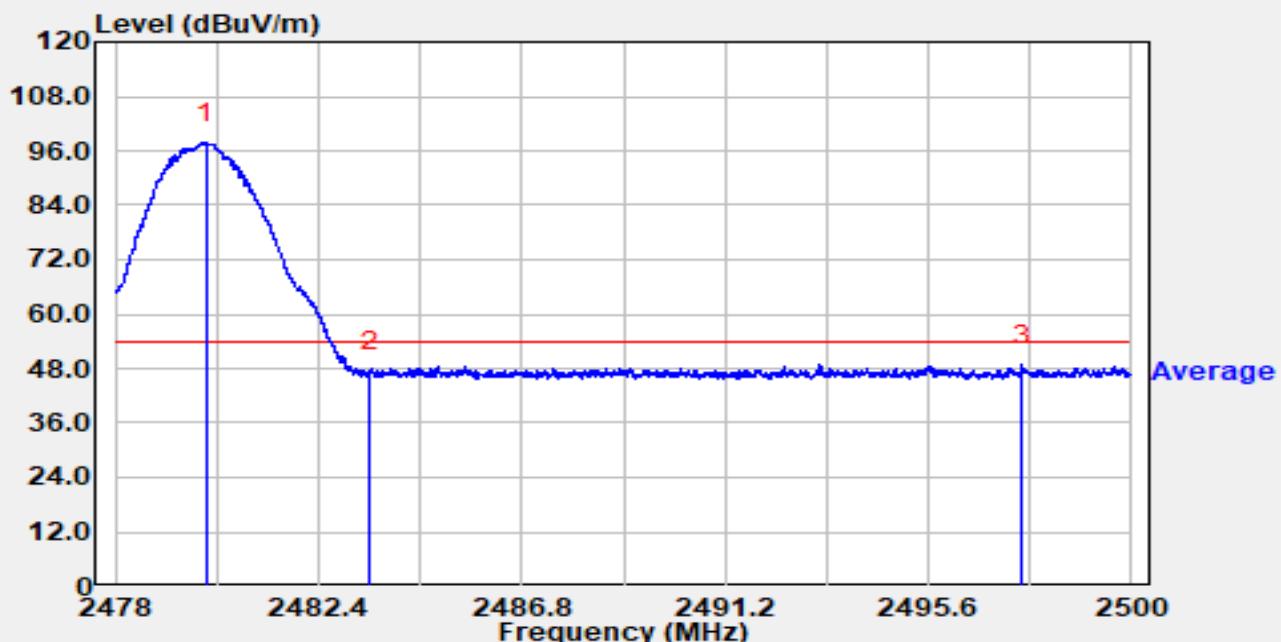


No	Mark	Frequency (MHz)	Reading (dB μ V)	C.F. (dB/m)	Measurement (dB μ V/m)	Margin (dB)	Limit (dB μ V/m)	Detector
1		2479.494	67.26	31.80	99.06	N/A	N/A	Peak
2		2483.500	24.62	31.81	56.42	-17.58	74.00	Peak
3	*	2483.548	27.11	31.81	58.92	-15.08	74.00	Peak

Notes:

1. " **", means this data is the worst emission level.
2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dB μ V/m) = Reading (dB μ V) + C.F (dB/m).

Site	WZ-AC1	Test Date	2025-01-17
Limit	FCC_2.4G_RE(3m)	Test Engineer	Lucas Wang
Factor	BBHA 9120D_01167	Polarity	Vertical
EUT	ACCESS POINT	Test Voltage	AC 120V/60Hz
Test Mode	Transmit by BLE 2M at 2480MHz		



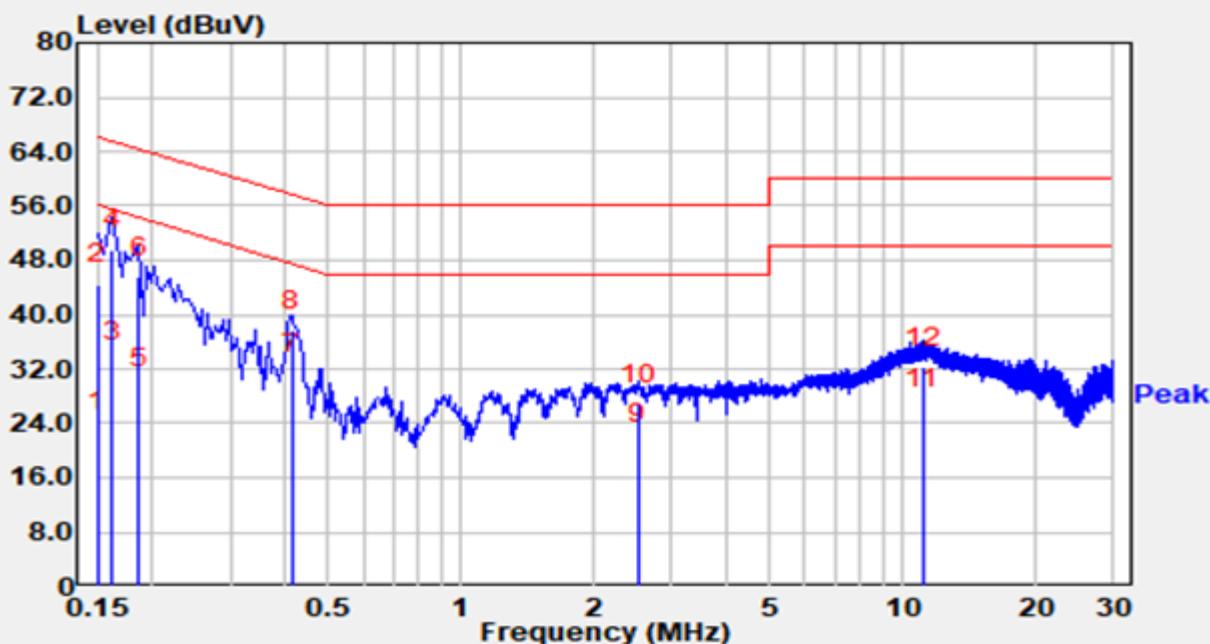
No	Mark	Frequency (MHz)	Reading (dB μ V)	C.F (dB/m)	Measurement (dB μ V/m)	Margin (dB)	Limit (dB μ V/m)	Detector
1		2479.969	66.00	31.80	97.80	N/A	N/A	Average
2		2483.500	15.71	31.81	47.52	-6.48	54.00	Average
3	*	2497.633	17.06	31.81	48.87	-5.13	54.00	Average

Notes:

1. **, means this data is the worst emission level.
2. C.F (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB).
3. Measurement (dB μ V/m) = Reading (dB μ V) + C.F (dB/m).

A.8 AC Conducted Emissions Test Result

Site	WZ-SR2	Test Date	2025-01-22
Limit	FCC Part 15.207_CE_Mains	Test Engineer	Linda Wei
Factor	ENV216_101683_L1_Filter Off_C	Polarity	Line
EUT	ACCESS POINT	Test Voltage	AC 120V/60Hz
Test Mode	Transmit by BLE 2Mbps at 2440MHz		



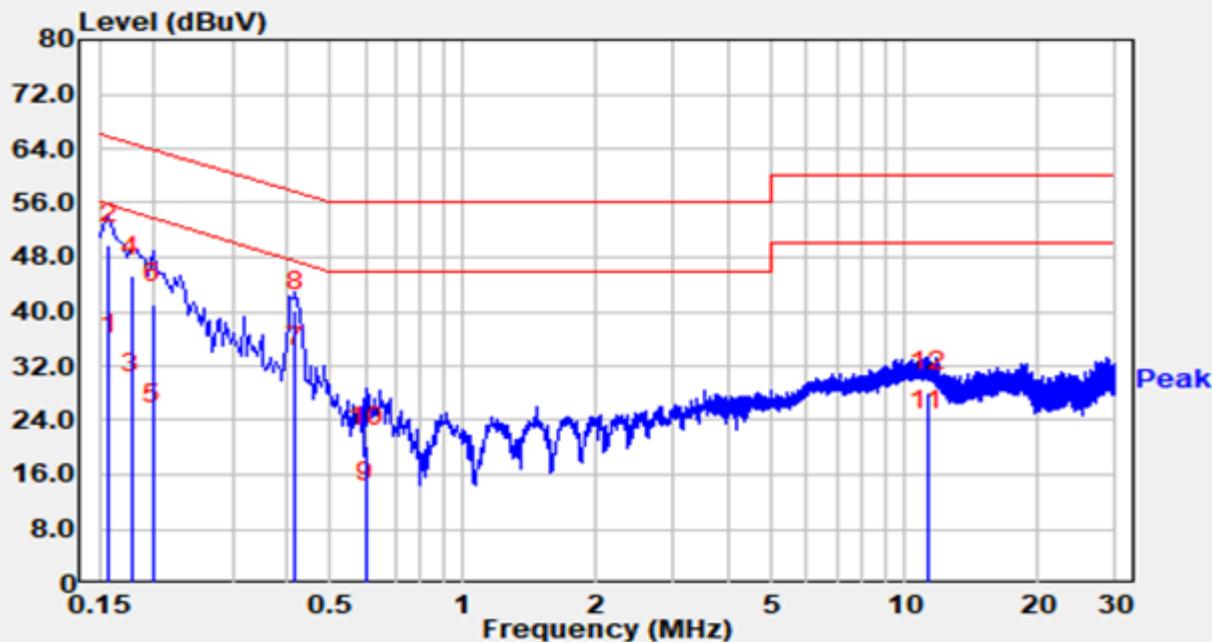
No	Mark	Frequency (MHz)	Reading (dB μ V)	C.F (dB)	Measurement (dB μ V)	Margin (dB)	Limit (dB μ V)	Detector
1		0.150	13.10	9.82	22.92	-33.08	56.00	Average
2		0.150	34.60	9.82	44.42	-21.58	66.00	QP
3		0.162	23.20	9.82	33.02	-22.34	55.36	Average
4	*	0.162	39.70	9.82	49.52	-15.84	65.36	QP
5		0.186	19.30	9.82	29.12	-25.10	54.21	Average
6		0.186	35.70	9.82	45.52	-18.70	64.21	QP
7		0.414	21.30	9.89	31.19	-16.38	47.57	Average
8		0.414	27.80	9.89	37.69	-19.88	57.57	QP
9		2.510	10.70	10.15	20.85	-25.15	46.00	Average
10		2.510	16.70	10.15	26.85	-29.15	56.00	QP
11		11.090	15.80	10.40	26.20	-23.80	50.00	Average
12		11.090	21.90	10.40	32.30	-27.70	60.00	QP

Notes:

1. " * ", means this data is the worst emission level.
2. C.F (dB) = LISN Factor (dB) + Cable Loss (dB).

3. Measurement (dB μ V) = Reading (dB μ V) + C.F (dB).

Site	WZ-SR2	Test Date	2025-01-22
Limit	FCC Part 15.207_CE_Mains	Test Engineer	Linda Wei
Factor	ENV216_101683_N_Filter Off_C	Polarity	Neutral
EUT	ACCESS POINT	Test Voltage	AC 120V/60Hz
Test Mode	Transmit by BLE 2Mbps at 2440MHz		



No	Mark	Frequency (MHz)	Reading (dB μ V)	C.F (dB)	Measurement (dB μ V)	Margin (dB)	Limit (dB μ V)	Detector
1		0.158	23.50	10.12	33.62	-21.94	55.57	Average
2	*	0.158	39.80	10.12	49.92	-15.64	65.57	QP
3		0.178	17.70	10.11	27.81	-26.76	54.58	Average
4		0.178	35.10	10.11	45.21	-19.36	64.58	QP
5		0.198	13.40	10.11	23.51	-30.19	53.69	Average
6		0.198	31.10	10.11	41.21	-22.49	63.69	QP
7		0.418	21.60	10.14	31.74	-15.75	47.49	Average
8		0.418	30.00	10.14	40.14	-17.35	57.49	QP
9		0.602	1.70	10.21	11.91	-34.09	46.00	Average
10		0.602	10.00	10.21	20.21	-35.79	56.00	QP
11		11.230	11.80	10.67	22.47	-27.53	50.00	Average
12		11.230	17.50	10.67	28.17	-31.83	60.00	QP

Notes:

1. " * ", means this data is the worst emission level.
2. C.F (dB) = LISN Factor (dB) + Cable Loss (dB).
3. Measurement (dB μ V) = Reading (dB μ V) + C.F (dB).

Appendix B - Test Setup Photograph

Refer to "2411RSU027-UT" file.

Appendix C - EUT Photograph

Refer to "2411RSU027-UE" file.

The End