



RF MEASUREMENT REPORT

FCC ID: 2A64B-GPR11

Applicant: Ecovacs Home Service Robotics Co., Ltd.

Product: Lawn Mowing Robot

Model No.: GPR12

Serial Model No.: GPR11

FCC Classification: Digital Transmission System (DTS)

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

Result: Complies

Received Date: 2024-11-18

Test Date: 2024-12-17 ~ 2025-03-31

Reviewed By:

Denise Zhou

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
2411RSU033-U2	V01	Initial Report	2025-01-16	Invalid
2411RSU033-U2	V02	Update Product Information	2025-01-22	Invalid
2411RSU033-U2	V03	Update module information and add data of AC Conducted Emissions	2025-04-03	Valid

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1. General Information

1.1. Applicant

Ecovacs Home Service Robotics Co., Ltd.

No.518 Songwei Road, Wusongjiang industry Park, Guoxiang Street, Wuzhong District, Suzhou, 215100
Jiangsu, P.R. China

1.2. Manufacturer

Ecovacs Home Service Robotics Co., Ltd.

No.518 Songwei Road, Wusongjiang industry Park, Guoxiang Street, Wuzhong District, Suzhou, 215100
Jiangsu, P.R. China

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
	VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ 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	Lawn Mowing Robot
Model No.	GPR12
Serial Model No.	GPR11
Serial No.	E07J12345F164RRX0019
Wi-Fi Specification	802.11b/g/n
Bluetooth Version	Bluetooth v5.2 BLE Only
3GPP Specification	WCDMA Band II/IV/V LTE Band 2/4/5/12/13/14/66/71
GNSS Specification	GPS, GLONASS, BDS, Galileo
Lora Specification	902.75 ~ 920.95MHz
Antenna Specification	Refer to Section 1.5
Power Type	By Battery
Contain Integrated Modular Information	
Cellular Modular Information	Modular Name: LTE Module Model Number: EC25-AFXD Brand Name: Quectel FCC ID: XMR202008EC25AFXD
Accessory	
Rechargeable Lithium-ion Battery Pack	Model: S34-LI-324-5000 Nominal Voltage: 32.4V Typical Capacity: 5000mAh Rated Capacity: 4600mAh
Remarks:	
- The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer. - The two models are the same except different models of charging station and different battery capacity. The charging station model of GPR12 is CH2491A, and battery capacity is 5Ah. The charging station model of GPR11 is CH2491, and battery capacity is 3Ah. Model GPR12 is selected for testing.	

1.5. Radio Specification under Test

Frequency Range	802.11b/g/n-HT20: 2412 ~ 2462MHz 802.11n-HT40: 2422 ~ 2452MHz
Channel Number	802.11b/g/n-HT20: 11 802.11n-HT40: 7
Type of Modulation	802.11b: DSSS 802.11g/n: OFDM
Data Rate	802.11b: 1/2/5.5/11Mbps 802.11g: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 150Mbps
Antenna Type	PIFA Antenna
Antenna Gain	4.56 dBi

1.6. Working Frequencies

802.11b/g/n-HT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz
04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz
10	2457 MHz	11	2462 MHz	--	--

802.11n-HT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz
06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	--	--	--	--

2. Test Configuration

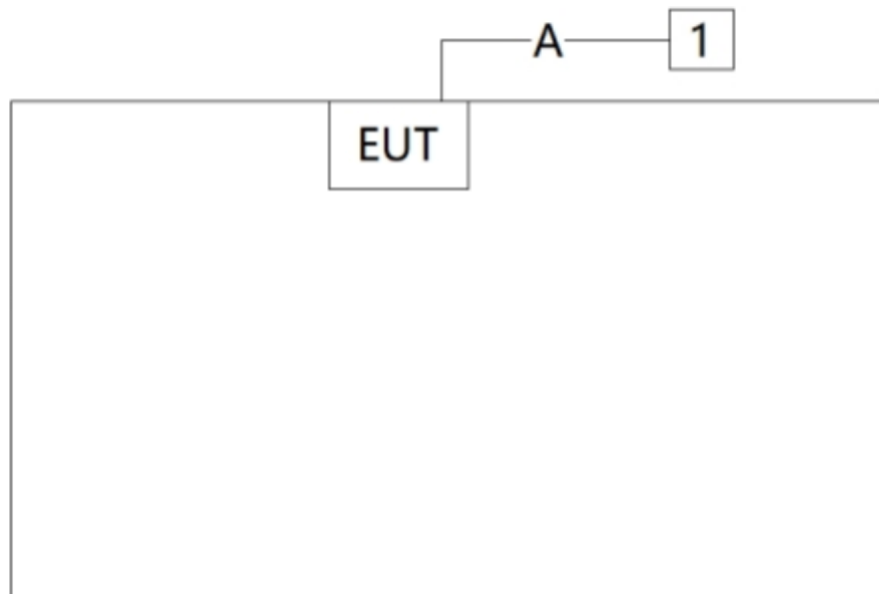
2.1. Test Mode

Mode 1: Transmit by 802.11b _Nss=1 (1Mbps)
Mode 2: Transmit by 802.11g _Nss=1 (6Mbps)
Mode 3: Transmit by 802.11n-HT20 _Nss=1 (MCS0)
Mode 4: Transmit by 802.11n-HT40 _Nss=1 (MCS0)
Notes: - For Radiated emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power. - As Designated by manufacturer, the lowest data rate was the worst condition, so all the tests were done with lowest data rate.

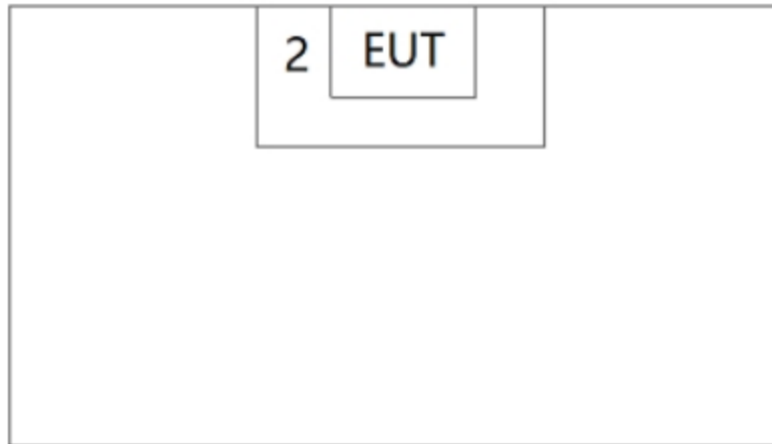
2.2. Test System Connection Diagram

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.

Connection Diagram – Radiated Emission testing



Connection Diagram – AC Conducted Emissions



Cable Type		Cable Description	Length
A	Serial Cable	Non-Shielded	1.5m
Product		Manufacturer	Model No.
1	Notebook	ThinkPad	E14 Gen 5
2	Charging Station	ECOVACS	CH2491A

2.3. Test Software

The test utility software used during testing was “Putty” 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 9120D	MRTSUE06648	1 year	2025-10-20	SIP-AC2
Preamplifier	EMCI	EMC051845SE	MRTSUE06601	1 year	2025-11-01	SIP-AC2
Signal Analyzer	Keysight	N9010B	MRTSUE06603	1 year	2025-09-05	SIP-AC2
Active Loop Antenna	Schwarzbeck	FMZB 1519-60 D	MRTSUE07075	1 year	2025-11-19	SIP-AC2
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2025-12-05	SIP-AC2
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06599	1 year	2025-09-08	SIP-AC2
Preamplifier	EMCI	EMC184045SE	MRTSUE06602	1 year	2025-10-08	SIP-AC2
Thermohygrometer	testo	608-H1	MRTSUE06622	1 year	2025-10-29	SIP-AC2
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06647	1 year	2025-06-15	SIP-AC2
Anechoic Chamber	RIKEN	SIP-AC2	MRTSUE06781	1 year	2024-12-21	SIP-AC2
					2025-12-20	
USB Power Sensor	Keysight	U2021XA	MRTSUE06596	1 year	2025-07-23	SIP-TR1
Signal Analyzer	Keysight	N9010B	MRTSUE07036	1 year	2025-02-03	SIP-TR1
Thermohygrometer	testo	608-H1	MRTSUE11022	1 year	2025-10-16	SIP-TR1
Two-Line V-Network	R&S	ENV216	MRTSUE06003	1 year	2025-05-08	SIP-SR2
EMI Test Receiver	R&S	ESR3	MRTSUE06612	1 year	2025-05-08	SIP-SR2
Thermohygrometer	testo	608-H1	MRTSUE06621	1 year	2025-10-29	SIP-SR2
Shielding Room	MIX-BEP	SIP-SR2	MRTSUE06949	5 years	2029-10-13	SIP-SR2

Software	Version	Function
e3	230711	EMI Test Software
Agilent Power Analyzer/Agilent Power Panel	V R03.09.00	Power
Controller_MF 7802BS	1.02	RE Antenna & Turntable

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: 9kHz~150kHz: 3.02dB 150kHz~30MHz: 2.56dB
Radiated Emission Measurement
The maximum measurement uncertainty is evaluated as: Coaxial: 9kHz~30MHz: 2.61dB Coplanar: 9kHz~30MHz: 2.62dB Horizontal: 30MHz~200MHz: 3.46dB 200MHz~1GHz: 3.78dB 1GHz~40GHz: 4.97dB Vertical: 30MHz~200MHz: 4.07dB 200MHz~1GHz: 5.28dB 1GHz~40GHz: 4.78dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.2dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.4dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.2dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.7%

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

Note: The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.

6.2. 6dB Bandwidth Measurement

6.2.1. Test Limit

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

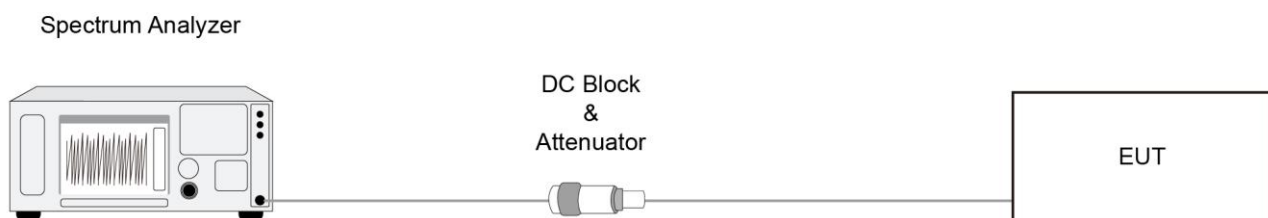
6.2.2. Test Procedure

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



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

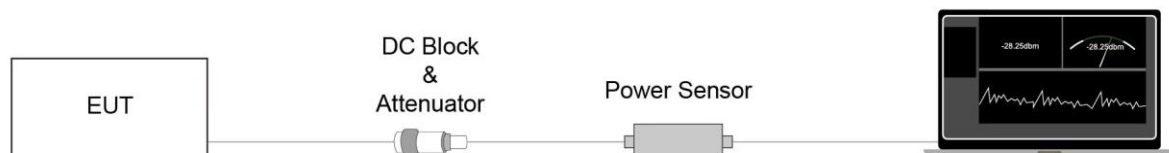
ANSI C63.10 - 2013 - Section 11.9.2.3.2

6.3.3. Test Setting

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.

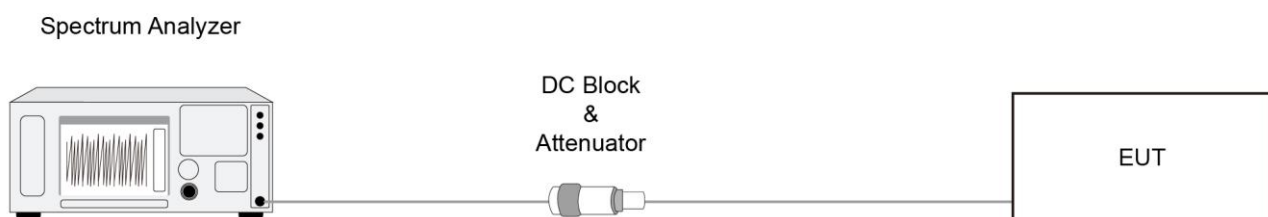
6.4.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.10.5

6.4.3. Test Setting

1. Measure the duty cycle (x) of the transmitter output signal.
2. Set instrument center frequency to DTS channel center frequency.
3. Set span to at least 1.5 times the OBW.
4. RBW = 10 kHz.
5. VBW = 30 kHz.
6. Detector = RMS.
7. Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span}/\text{RBW}$.
8. Sweep time = auto couple.
9. Don't use sweep triggering. Allow sweep to "free run".
10. Employ trace averaging (RMS) mode over a minimum of 100 traces.
11. Use the peak marker function to determine the maximum amplitude level.
12. Add $10 \log (1/x)$, where x is the duty cycle measured in step (a), to the measured PSD to compute the average PSD during the actual transmission time. If measured value exceeds requirement specified by regulatory agency, then reduce RBW (but no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span to meet the minimum measurement point requirement as the RBW is reduced).

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 30dB 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

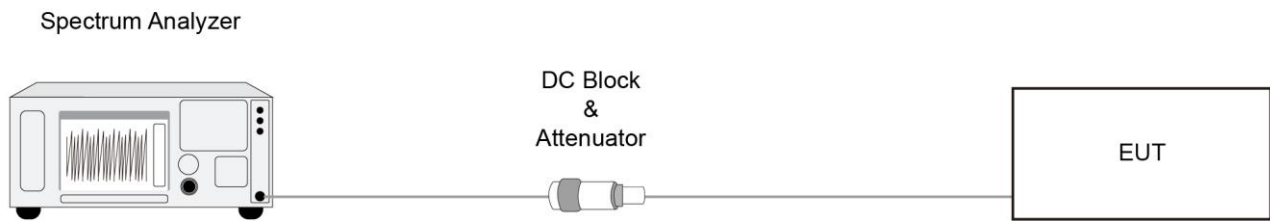
Reference level measurement

1. Set instrument center frequency to DTS channel center frequency
2. Set the span to ≥ 1.5 times the DTS bandwidth
3. Set the RBW = 100 kHz
4. Set the VBW $\geq 3 \times$ 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



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

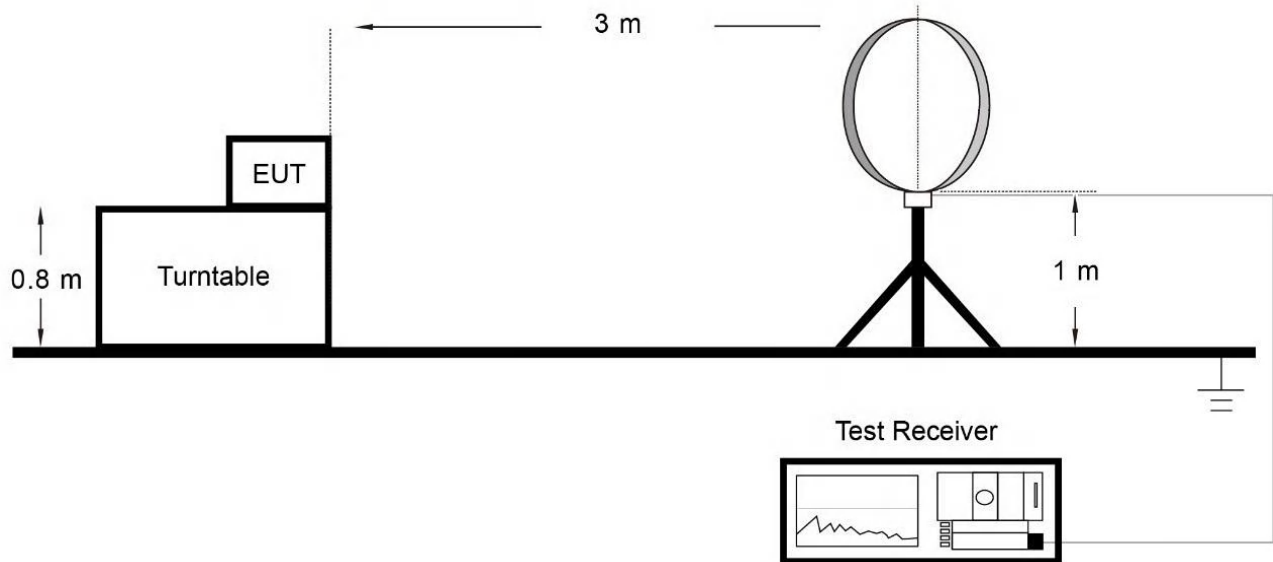
Average Measurements above 1GHz (Method VB)

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

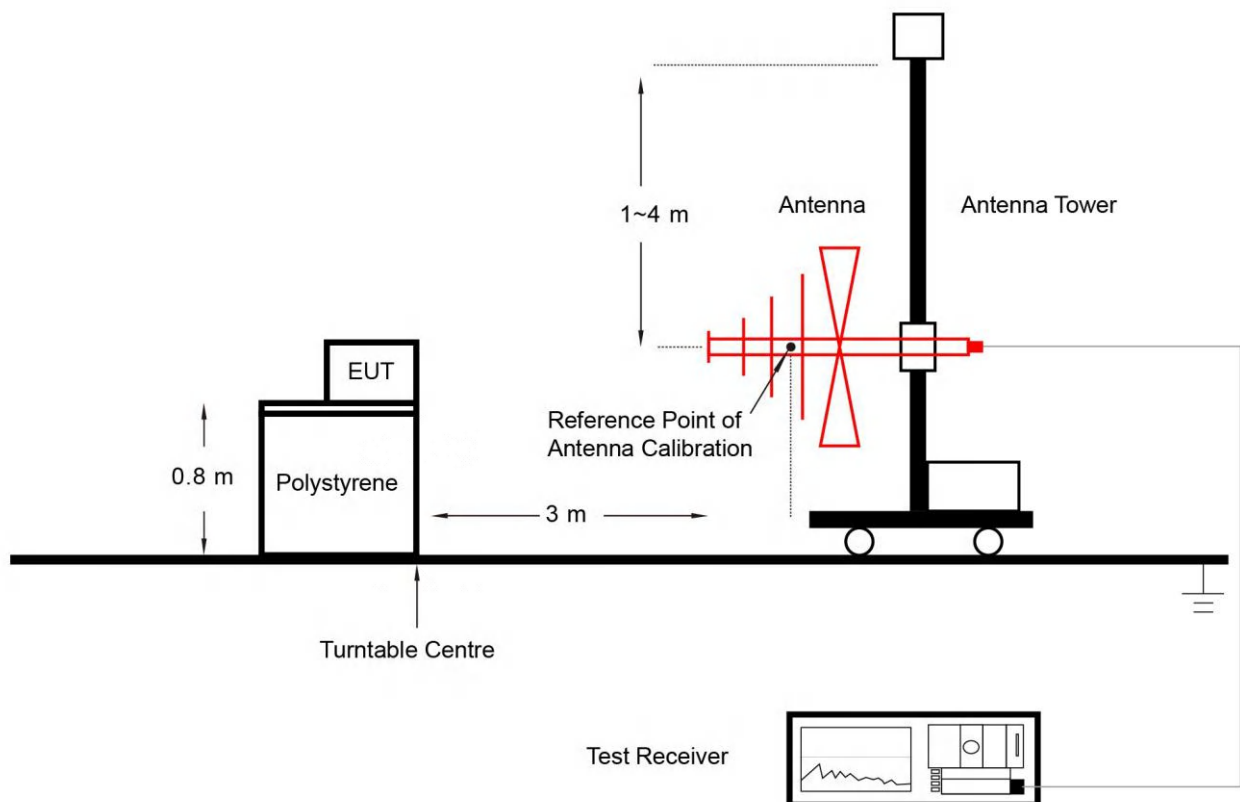
If the EUT duty cycle is $< 98\%$, set $\text{VBW} \geq 1/T$. T is the minimum transmission duration.
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require 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

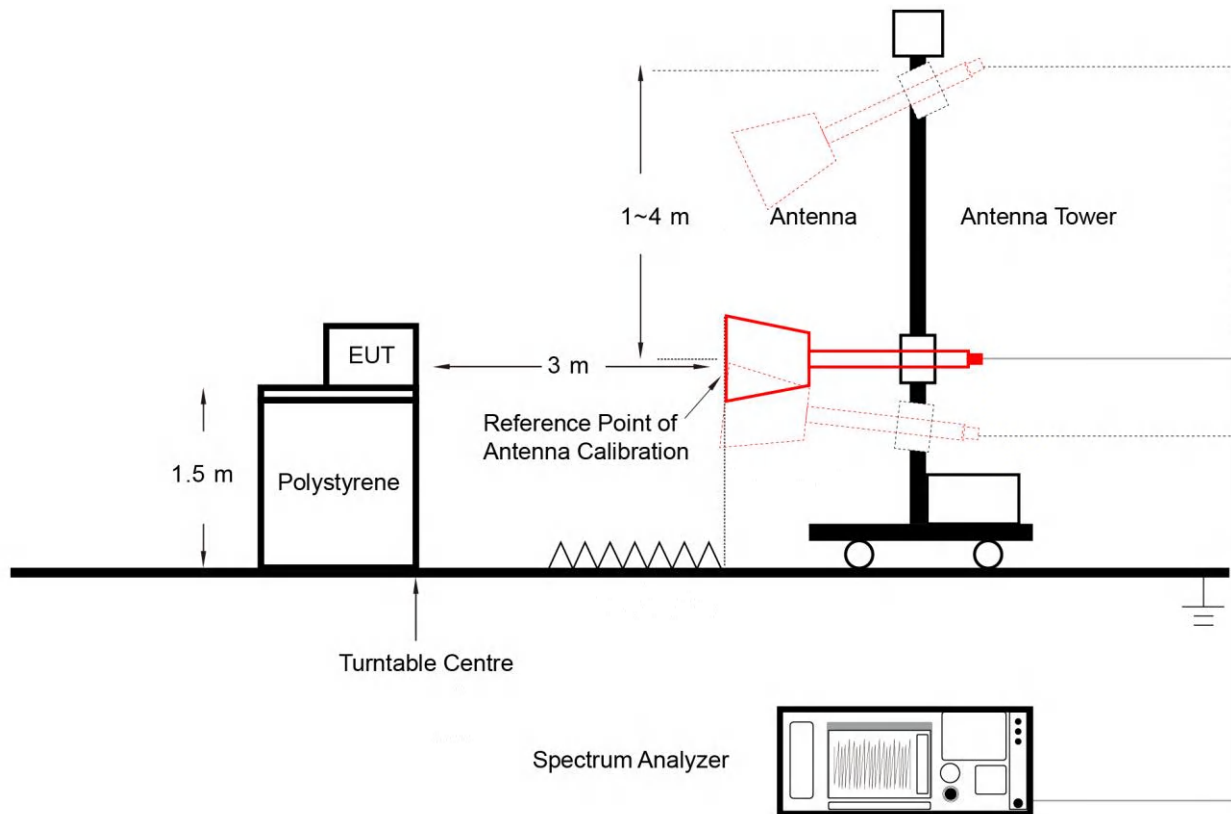
Below 30MHz Test Setup:



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

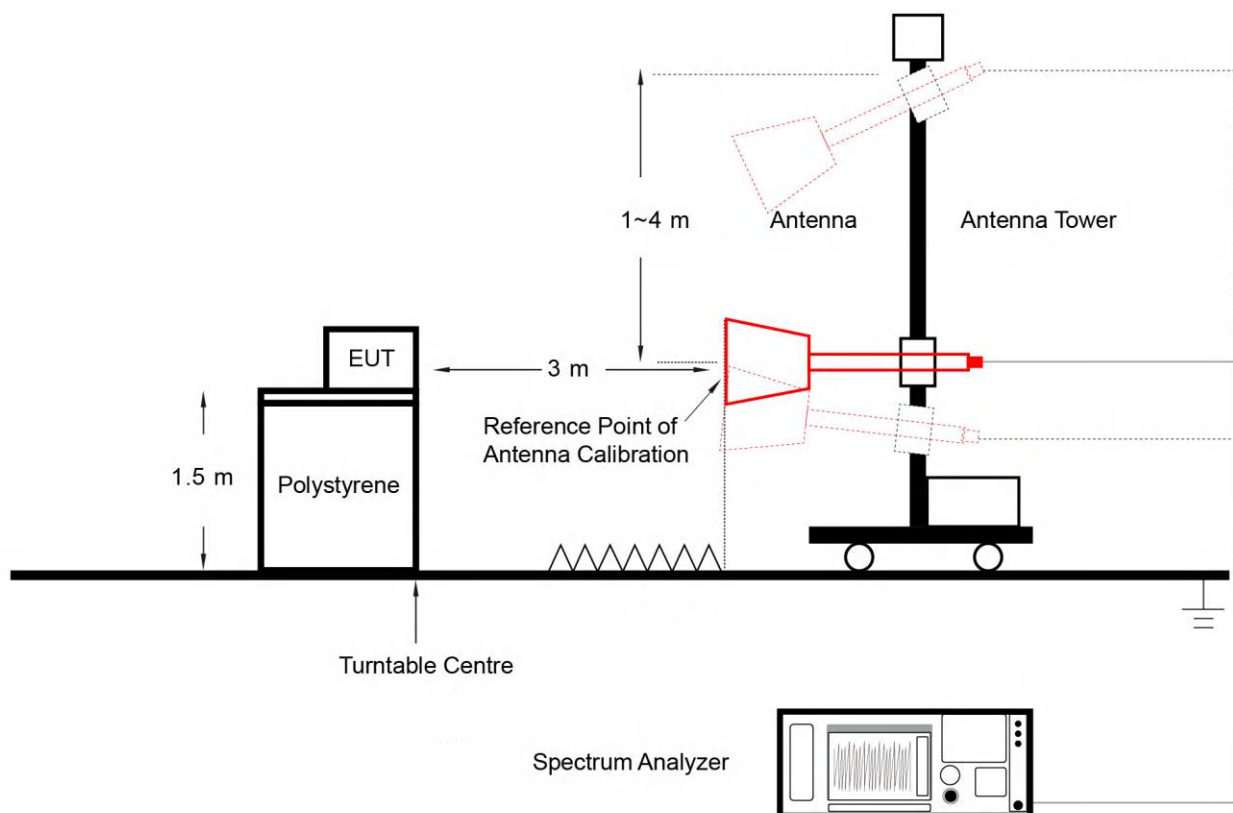
Average Field Strength Measurements

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 VBW $\geq 1/T$. 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

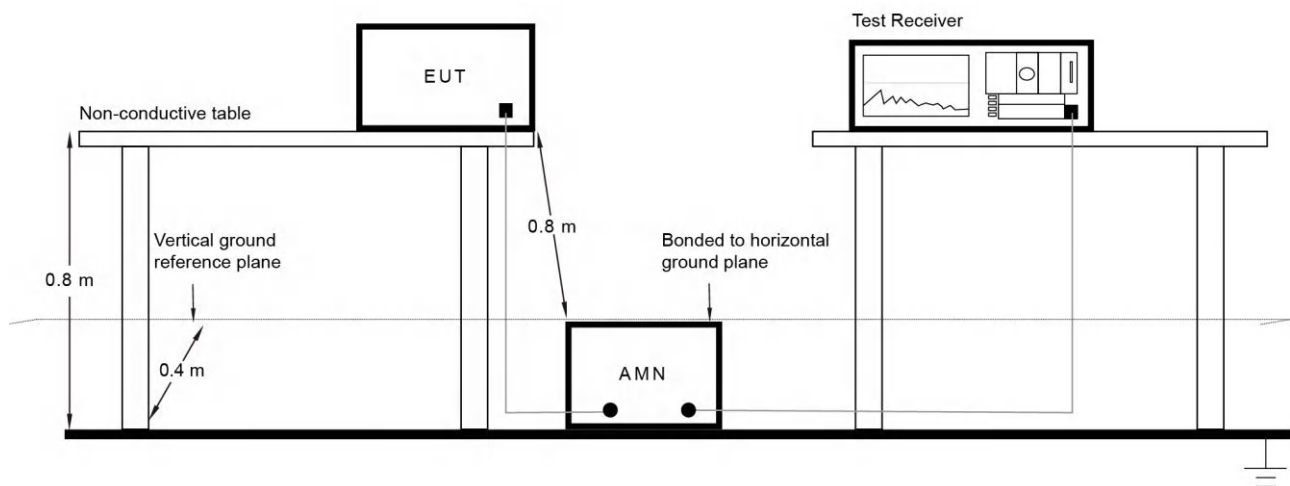
6.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (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.

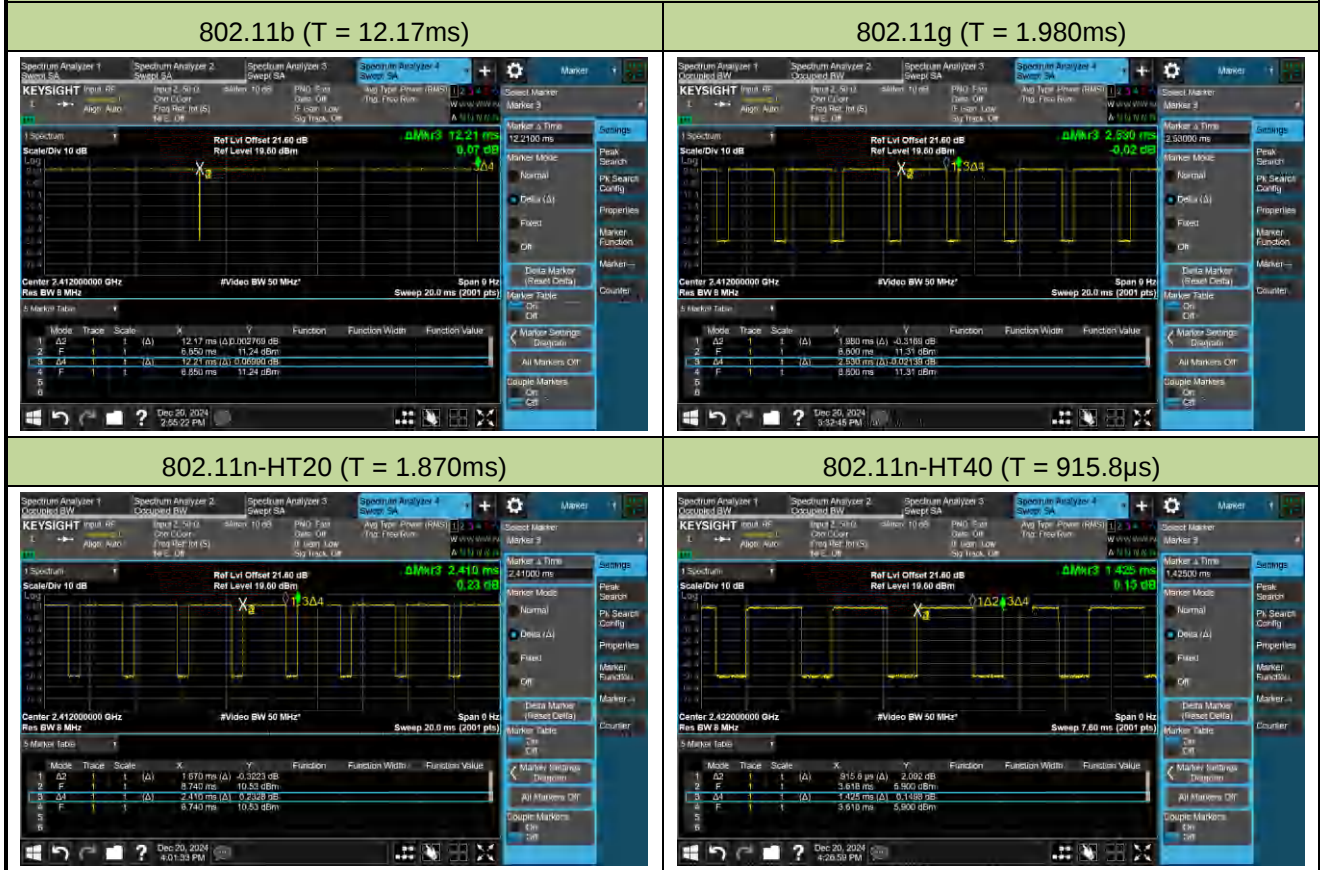
Appendix A – Test Result

A.1 Duty Cycle Test Result

Test Site	SIP-TR1	Test Engineer	Ryan Wang
Test Date	2024-12-20		

Test Mode	Duty Cycle
802.11b	99.67%
802.11g	78.26%
802.11n-HT20	77.59%
802.11n-HT40	64.27%

Duty Cycle (T = Transmission Duration)



A.2 6dB Bandwidth Test Result

Test Site	SIP-TR1	Test Engineer	Ryan Wang
Test Date	2024-12-20		

Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
11b	1Mbps	01	2412	9.557	≥ 0.5
11b	1Mbps	06	2437	10.050	≥ 0.5
11b	1Mbps	11	2462	9.584	≥ 0.5
11g	6Mbps	01	2412	15.120	≥ 0.5
11g	6Mbps	06	2437	15.090	≥ 0.5
11g	6Mbps	11	2462	15.070	≥ 0.5
11n-HT20	MCS0	01	2412	15.110	≥ 0.5
11n-HT20	MCS0	06	2437	15.080	≥ 0.5
11n-HT20	MCS0	11	2462	15.060	≥ 0.5
11n-HT40	MCS0	03	2422	32.600	≥ 0.5
11n-HT40	MCS0	06	2437	33.830	≥ 0.5
11n-HT40	MCS0	09	2452	35.050	≥ 0.5

802.11b 6dB Bandwidth

Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)

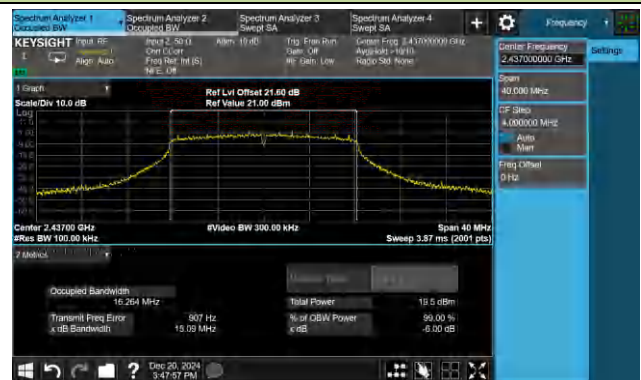


802.11g 6dB Bandwidth

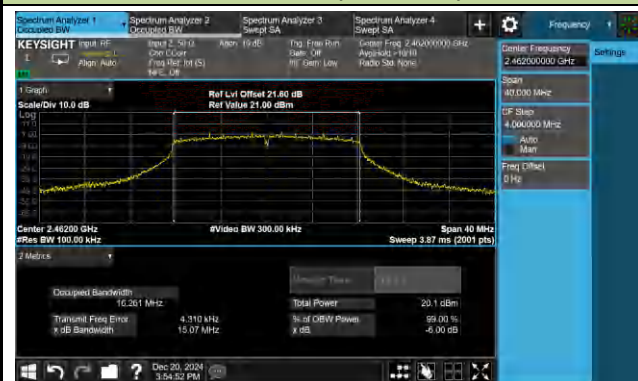
Channel 01 (2412MHz)



Channel 06 (2437MHz)

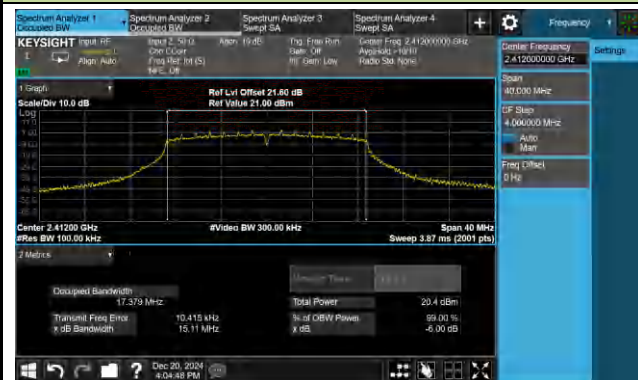


Channel 11 (2462MHz)

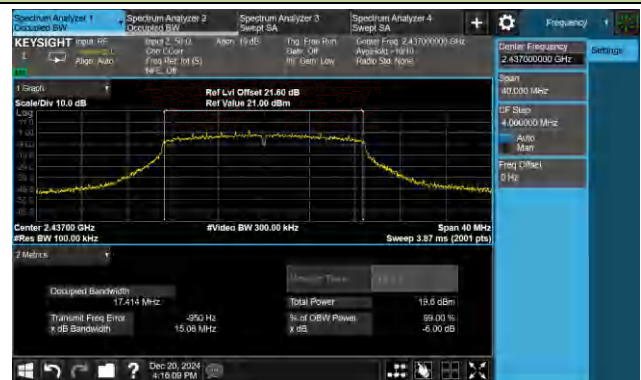


802.11n-HT20 6dB Bandwidth

Channel 01 (2412MHz)



Channel 06 (2437MHz)

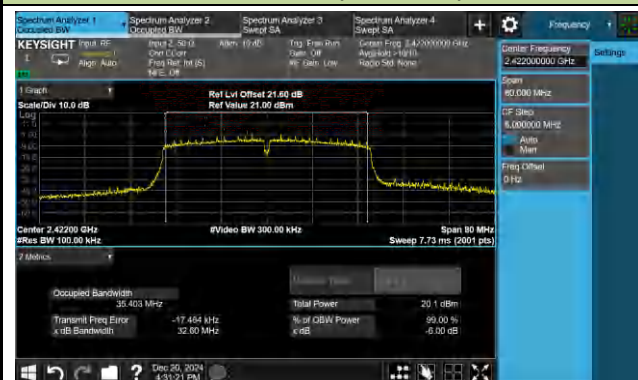


Channel 11 (2462MHz)

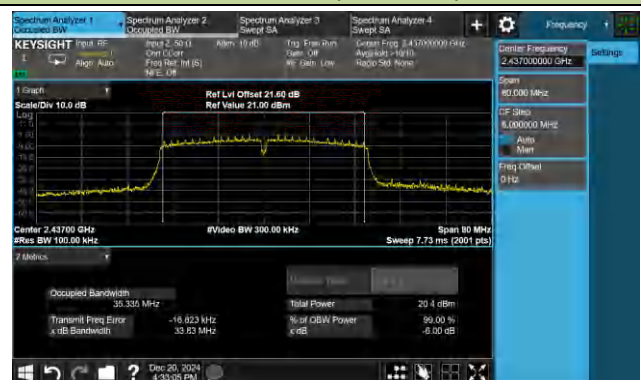


802.11n-HT40 6dB Bandwidth

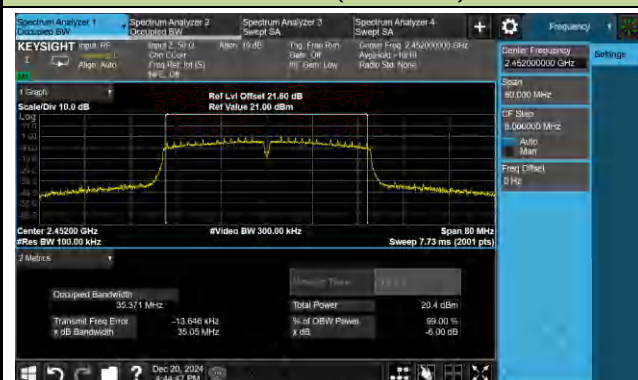
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



A.3 Output Power Test Result

Test Site	SIP-TR1	Test Engineer	Ryan Wang
Test Date	2024-12-20		

Test Mode	Data Rate / MCS	Channel No.	Freq. (MHz)	Average Power (dBm)	Limit (dBm)
11b	1Mbps	01	2412	12.55	≤ 30.00
11b	1Mbps	06	2437	12.26	≤ 30.00
11b	1Mbps	11	2462	12.44	≤ 30.00
11g	6Mbps	01	2412	13.74	≤ 30.00
11g	6Mbps	06	2437	13.41	≤ 30.00
11g	6Mbps	11	2462	13.62	≤ 30.00
11n-HT20	MCS0	01	2412	13.42	≤ 30.00
11n-HT20	MCS0	06	2437	13.49	≤ 30.00
11n-HT20	MCS0	11	2462	13.58	≤ 30.00
11n-HT40	MCS0	03	2422	12.98	≤ 30.00
11n-HT40	MCS0	06	2437	13.31	≤ 30.00
11n-HT40	MCS0	09	2452	13.28	≤ 30.00

A.4 Power Spectral Density Test Result

Test Site	SIP-TR1	Test Engineer	Ryan Wang
Test Date	2024-12-20		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)
11b	1Mbps	01	2412	-14.10	≤ 8.00
11b	1Mbps	06	2437	-14.07	≤ 8.00
11b	1Mbps	11	2462	-13.88	≤ 8.00
11g	6Mbps	01	2412	-14.20	≤ 8.00
11g	6Mbps	06	2437	-15.27	≤ 8.00
11g	6Mbps	11	2462	-13.81	≤ 8.00
11n-HT20	MCS0	01	2412	-14.83	≤ 8.00
11n-HT20	MCS0	06	2437	-14.65	≤ 8.00
11n-HT20	MCS0	11	2462	-14.06	≤ 8.00
11n-HT40	MCS0	03	2422	-17.11	≤ 8.00
11n-HT40	MCS0	06	2437	-16.18	≤ 8.00
11n-HT40	MCS0	09	2452	-16.91	≤ 8.00

802.11b - PSD

Channel 01 (2412MHz)



Channel 06 (2437MHz)

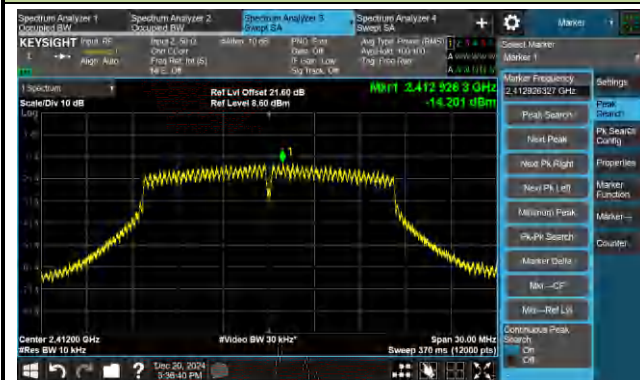


Channel 11 (2462MHz)

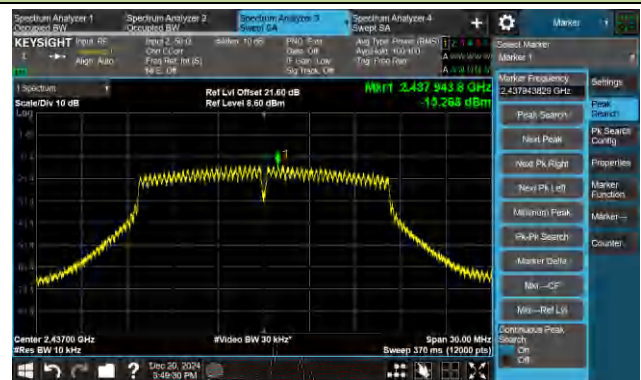


802.11g - PSD

Channel 01 (2412MHz)



Channel 06 (2437MHz)

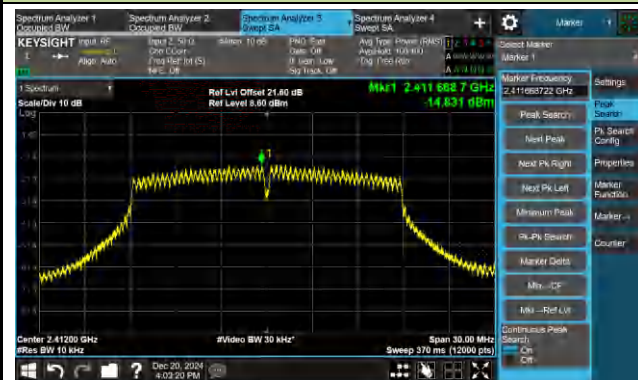


Channel 11 (2462MHz)

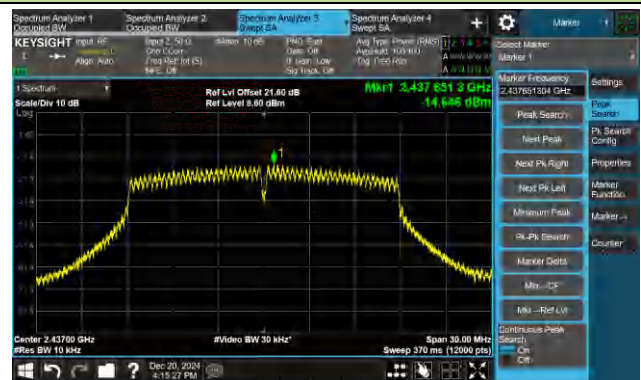


802.11n-HT20 - PSD

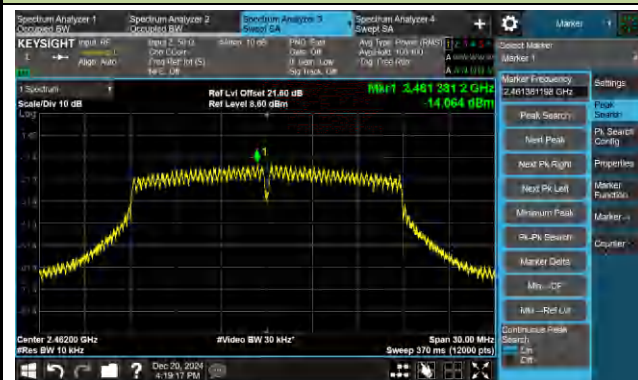
Channel 01 (2412MHz)



Channel 06 (2437MHz)

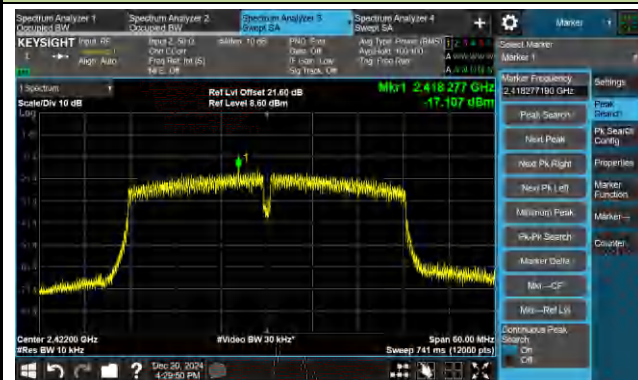


Channel 11 (2462MHz)

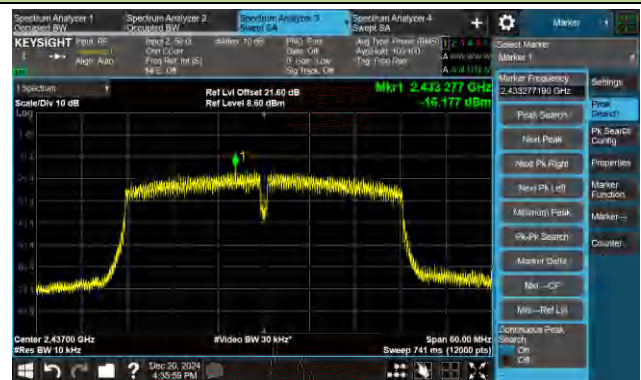


802.11n-HT40 - PSD

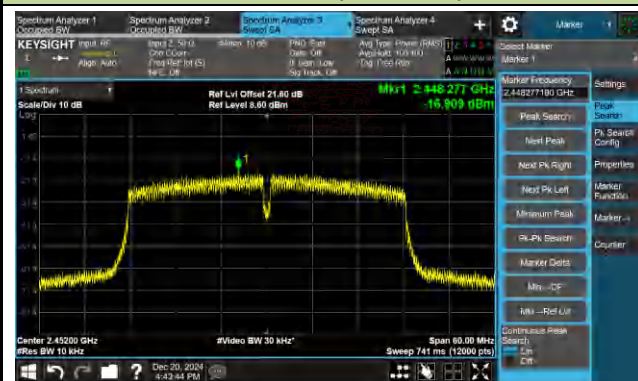
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



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

Test Site	SIP-TR1	Test Engineer	Ryan Wang
Test Date	2024-12-21		

Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	Limit
11b	1Mbps	01	2412	30dBc
11b	1Mbps	06	2437	30dBc
11b	1Mbps	11	2462	30dBc
11g	6Mbps	01	2412	30dBc
11g	6Mbps	06	2437	30dBc
11g	6Mbps	11	2462	30dBc
11n-HT20	MCS0	01	2412	30dBc
11n-HT20	MCS0	06	2437	30dBc
11n-HT20	MCS0	11	2462	30dBc
11n-HT40	MCS0	03	2422	30dBc
11n-HT40	MCS0	06	2437	30dBc
11n-HT40	MCS0	09	2452	30dBc

802.11b Out-of-Band Emissions

Channel 01 (2412MHz)

Reference Level



Low Band Edge



Spurious Emission



Channel 06 (2437MHz)

Reference Level



Spurious Emission



802.11b Out-of-Band Emissions

Channel 11 (2462MHz)

Reference Level



High Band Edge



Spurious Emission



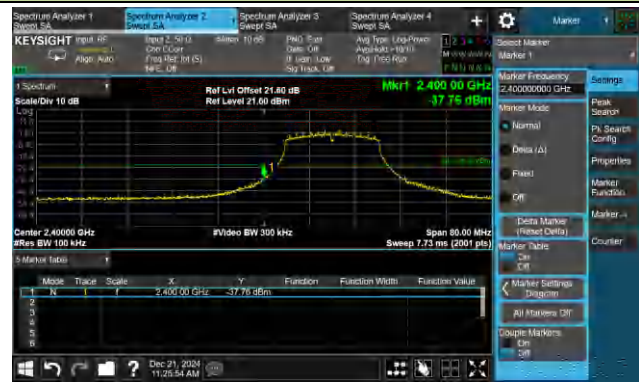
802.11g Out-of-Band Emissions

Channel 01 (2412MHz)

Reference Level



Low Band Edge



Spurious Emission



Channel 06 (2437MHz)

Reference Level



Spurious Emission



802.11g Out-of-Band Emissions

Channel 11 (2462MHz)

Reference Level



High Band Edge



Spurious Emission



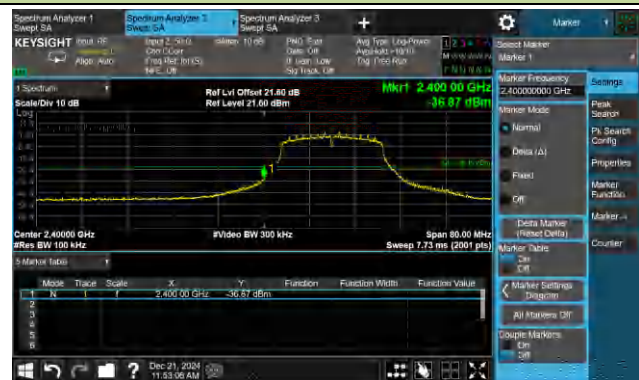
802.11n-HT20 Out-of-Band Emissions

Channel 01 (2412MHz)

Reference Level



Low Band Edge



Spurious Emission



Channel 06 (2437MHz)

Reference Level



Spurious Emission



802.11n-HT20 Out-of-Band Emissions

Channel 11 (2462MHz)

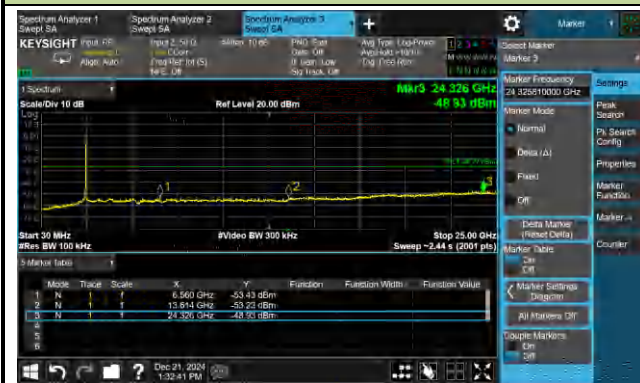
Reference Level



High Band Edge



Spurious Emission



802.11n-HT40 Out-of-Band Emissions

Channel 03 (2422MHz)

Reference Level



Low Band Edge



Spurious Emission



Channel 06 (2437MHz)

Reference Level



Spurious Emission



802.11n-HT40 Out-of-Band Emissions

Channel 09 (2452MHz)

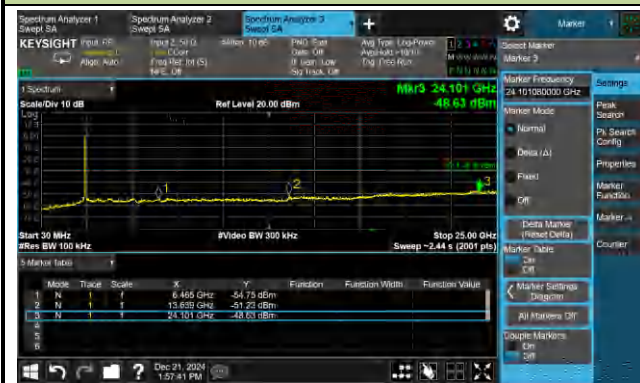
Reference Level



High Band Edge



Spurious Emission



A.6 Radiated Spurious Emission Test Result

Test Site	SIP-AC2	Test Engineer	Mero Zhou
Test Date	2024-12-17	Test Mode	802.11b
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 shown in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4248.7	49.8	-6.9	42.9	74.0	-31.1	Peak	Horizontal
	11443.1	40.3	6.7	47.0	74.0	-27.0	Peak	Horizontal
	18000.0	23.4	19.1	42.5	54.0	-11.5	Average	Horizontal
	18000.0	35.6	19.1	54.7	74.0	-19.3	Peak	Horizontal
	4248.7	52.9	-6.9	46.0	74.0	-28.0	Peak	Vertical
	4823.3	50.3	-5.7	44.6	74.0	-29.4	Peak	Vertical
	17998.3	23.4	18.9	42.3	54.0	-11.7	Average	Vertical
	17998.3	35.8	18.9	54.7	74.0	-19.3	Peak	Vertical
06	4248.7	49.7	-6.9	42.8	74.0	-31.2	Peak	Horizontal
	7631.7	43.1	0.7	43.8	74.0	-30.2	Peak	Horizontal
	11744.0	41.0	5.8	46.8	74.0	-27.2	Peak	Horizontal
	4248.7	53.1	-6.9	46.2	74.0	-27.8	Peak	Vertical
	4874.3	47.6	-5.3	42.3	74.0	-31.7	Peak	Vertical
	11091.2	41.2	6.0	47.2	74.0	-26.8	Peak	Vertical
11	4248.7	49.1	-6.9	42.2	74.0	-31.8	Peak	Horizontal
	4923.6	47.3	-5.5	41.8	74.0	-32.2	Peak	Horizontal
	11533.2	40.8	6.3	47.1	74.0	-26.9	Peak	Horizontal
	4248.7	52.2	-6.9	45.3	74.0	-28.7	Peak	Vertical
	4923.6	49.0	-5.5	43.5	74.0	-30.5	Peak	Vertical
	11089.5	42.2	6.0	48.2	74.0	-25.8	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	SIP-AC2	Test Engineer	Mero Zhou
Test Date	2024-12-17	Test Mode	802.11g
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 shown in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4248.7	49.7	-6.9	42.8	74.0	-31.2	Peak	Horizontal
	7572.2	42.8	0.8	43.6	74.0	-30.4	Peak	Horizontal
	11092.9	40.8	6.0	46.8	74.0	-27.2	Peak	Horizontal
	4248.7	49.7	-6.9	42.8	74.0	-31.2	Peak	Vertical
	7572.2	42.8	0.8	43.6	74.0	-30.4	Peak	Vertical
	11092.9	40.8	6.0	46.8	74.0	-27.2	Peak	Vertical
06	4248.7	50.3	-6.9	43.4	74.0	-30.6	Peak	Horizontal
	7538.2	42.8	0.9	43.7	74.0	-30.3	Peak	Horizontal
	10754.6	41.3	5.5	46.8	74.0	-27.2	Peak	Horizontal
	4248.7	52.5	-6.9	45.6	74.0	-28.4	Peak	Vertical
	4879.4	47.4	-5.2	42.2	74.0	-31.8	Peak	Vertical
	10747.8	42.2	5.5	47.7	74.0	-26.3	Peak	Vertical
11	4248.7	49.4	-6.9	42.5	74.0	-31.5	Peak	Horizontal
	7383.5	43.7	0.7	44.4	74.0	-29.6	Peak	Horizontal
	11057.2	41.3	5.8	47.1	74.0	-26.9	Peak	Horizontal
	4248.7	53.1	-6.9	46.2	74.0	-27.8	Peak	Vertical
	4927.0	51.0	-5.6	45.4	74.0	-28.6	Peak	Vertical
	10620.3	43.6	4.7	48.3	74.0	-25.7	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	SIP-AC2	Test Engineer	Mero Zhou
Test Date	2024-12-17	Test Mode	802.11n-HT20
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 shown in the report.		

Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
01	4248.7	49.2	-6.9	42.3	74.0	-31.7	Peak	Horizontal
	7443.0	43.0	0.7	43.7	74.0	-30.3	Peak	Horizontal
	10832.8	42.4	5.0	47.4	74.0	-26.6	Peak	Horizontal
	4248.7	52.6	-6.9	45.7	74.0	-28.3	Peak	Vertical
	4821.6	48.0	-5.7	42.3	74.0	-31.7	Peak	Vertical
	11217.0	41.2	6.7	47.9	74.0	-26.1	Peak	Vertical
06	4248.7	49.6	-6.9	42.7	74.0	-31.3	Peak	Horizontal
	4733.2	46.4	-5.3	41.1	74.0	-32.9	Peak	Horizontal
	11514.5	40.3	6.5	46.8	74.0	-27.2	Peak	Horizontal
	4248.7	52.4	-6.9	45.5	74.0	-28.5	Peak	Vertical
	4881.1	46.3	-5.2	41.1	74.0	-32.9	Peak	Vertical
	11927.6	41.8	5.5	47.3	74.0	-26.7	Peak	Vertical
11	4248.7	49.2	-6.9	42.3	74.0	-31.7	Peak	Horizontal
	7385.2	43.3	0.7	44.0	74.0	-30.0	Peak	Horizontal
	11023.2	41.3	5.6	46.9	74.0	-27.1	Peak	Horizontal
	4248.7	53.0	-6.9	46.1	74.0	-27.9	Peak	Vertical
	4925.3	49.8	-5.5	44.3	74.0	-29.7	Peak	Vertical
	10749.5	41.9	5.5	47.4	74.0	-26.6	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	SIP-AC2	Test Engineer	Mero Zhou
Test Date	2024-12-17	Test Mode	802.11n-HT40
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 shown in the report.		

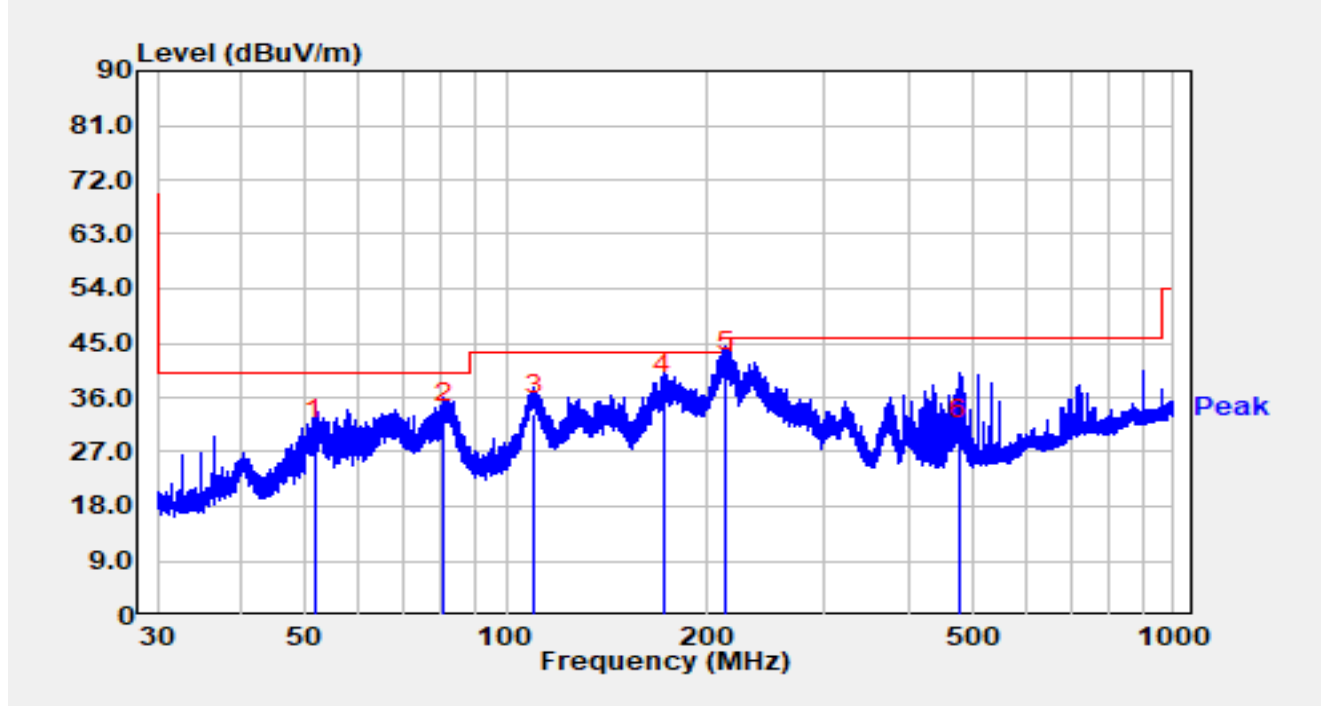
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
03	4248.7	49.1	-6.9	42.2	74.0	-31.8	Peak	Horizontal
	7529.7	42.6	0.9	43.5	74.0	-30.5	Peak	Horizontal
	10877.0	41.2	5.6	46.8	74.0	-27.2	Peak	Horizontal
	4247.0	52.0	-6.8	45.2	74.0	-28.8	Peak	Vertical
	4724.7	45.9	-5.5	40.4	74.0	-33.6	Peak	Vertical
	10739.3	41.6	5.4	47.0	74.0	-27.0	Peak	Vertical
06	4248.7	49.2	-6.9	42.3	74.0	-31.7	Peak	Horizontal
	7446.4	43.2	0.7	43.9	74.0	-30.1	Peak	Horizontal
	11730.4	40.2	6.1	46.3	74.0	-27.7	Peak	Horizontal
	4248.7	52.8	-6.9	45.9	74.0	-28.1	Peak	Vertical
	7687.8	42.6	0.7	43.3	74.0	-30.7	Peak	Vertical
	11409.1	39.8	6.5	46.3	74.0	-27.7	Peak	Vertical
09	4248.7	50.1	-6.9	43.2	74.0	-30.8	Peak	Horizontal
	7526.3	42.7	0.9	43.6	74.0	-30.4	Peak	Horizontal
	11087.8	40.4	5.9	46.3	74.0	-27.7	Peak	Horizontal
	4248.7	52.9	-6.9	46.0	74.0	-28.0	Peak	Vertical
	4906.6	47.2	-5.4	41.8	74.0	-32.2	Peak	Vertical
	10955.2	41.0	5.6	46.6	74.0	-27.4	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 1GHz:

Site	SIP-AC2	Test Date	2025-01-08
Temperature	15.1°C	Humidity	52.4%
Limit	FCC_Part 15.209_RSE(3m)	Test Engineer	Mero Zhou
Factor	VULB 9168_00999_25-2000MHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		

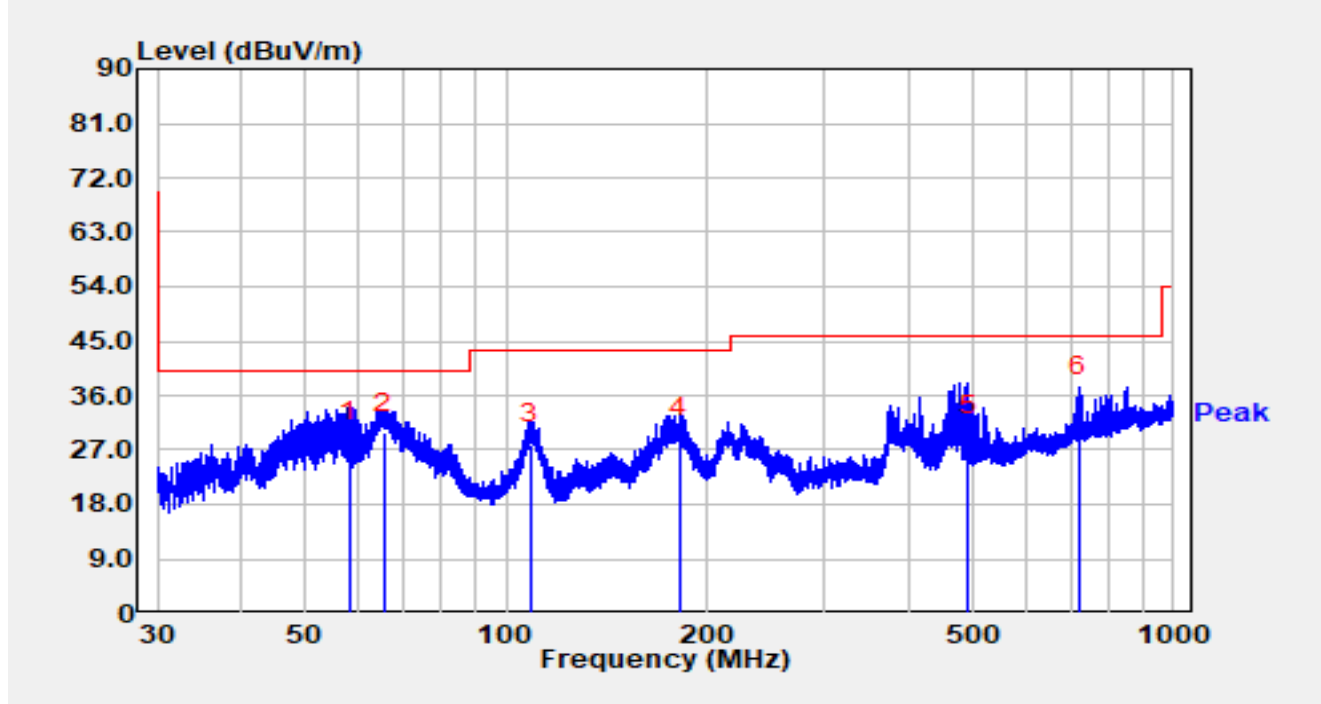


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		51.734	8.70	20.41	29.11	-10.89	40.00	QP
2		80.616	16.20	15.72	31.92	-8.08	40.00	QP
3		110.336	16.10	17.17	33.27	-10.23	43.50	QP
4		171.633	16.70	19.75	36.45	-7.05	43.50	QP
5	*	213.838	23.40	16.93	40.33	-3.17	43.50	QP
6		477.169	3.60	25.40	29.00	-17.00	46.00	QP

Notes:

1. " * ", means this data is the worst emission level.
2. C.F (dB/m) = Antenna Factor (dB/m)+ Cable Loss (dB).
3. Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).
4. The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

Site	SIP-AC2	Test Date	2025-01-08
Temperature	15.1°C	Humidity	52.4%
Limit	FCC_Part 15.209_RSE(3m)	Test Engineer	Mero Zhou
Factor	VULB 9168_00999_25-2000MHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		



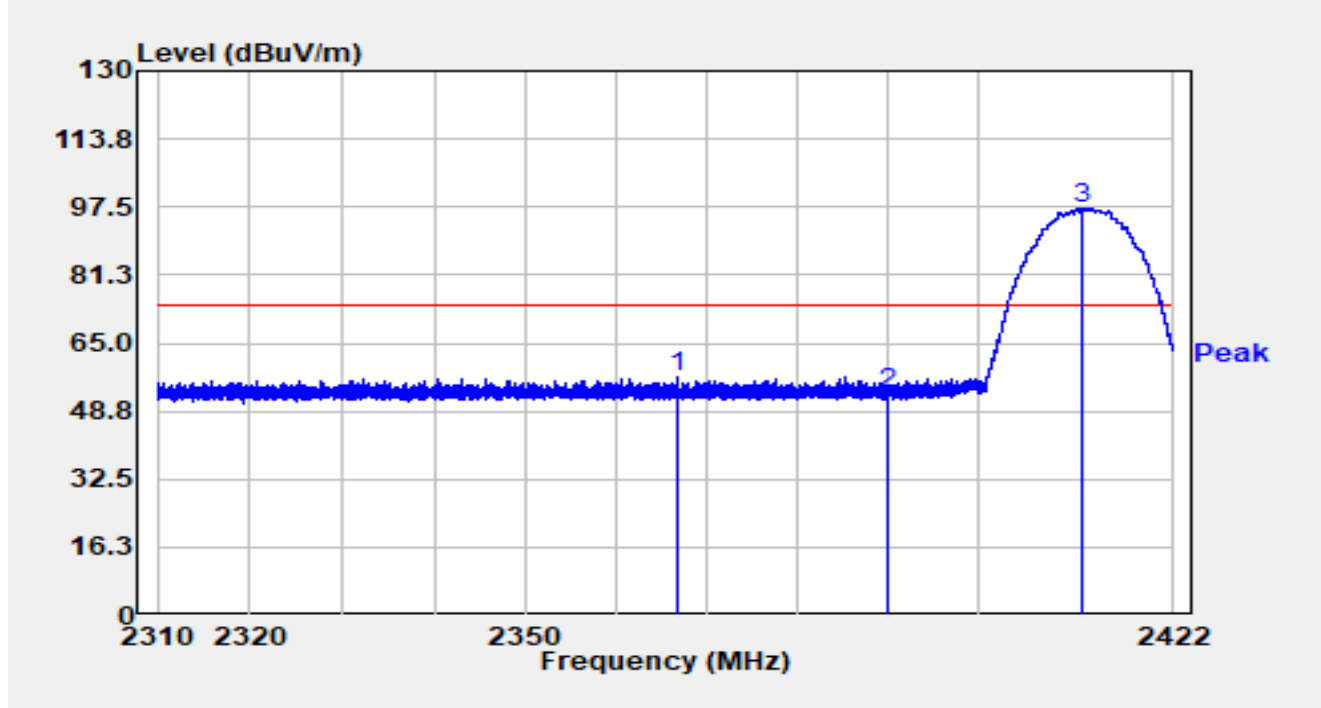
No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		58.223	8.30	19.94	28.24	-11.76	40.00	QP
2		65.435	10.90	18.86	29.76	-10.24	40.00	QP
3		108.495	10.90	16.97	27.87	-15.63	43.50	QP
4		181.411	10.40	18.65	29.05	-14.45	43.50	QP
5		492.641	3.80	25.59	29.39	-16.61	46.00	QP
6	*	720.209	5.70	30.09	35.79	-10.21	46.00	QP

Notes:

1. " * ", means this data is the worst emission level.
2. C.F (dB/m) = Antenna Factor (dB/m)+ Cable Loss (dB).
3. Measurement (dBμV/m) = Reading (dBμV) + C.F (dB/m).
4. The amplitude of radiated emissions (frequency range from 9kHz to 30MHz and 18GHz to 25GHz) is that proximity to ambient noise, which also are attenuated more than 20 dB below the permissible value. Therefore, the data is not presented in the report.

A.7 Radiated Restricted Band Edge Test Result

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2412MHz		

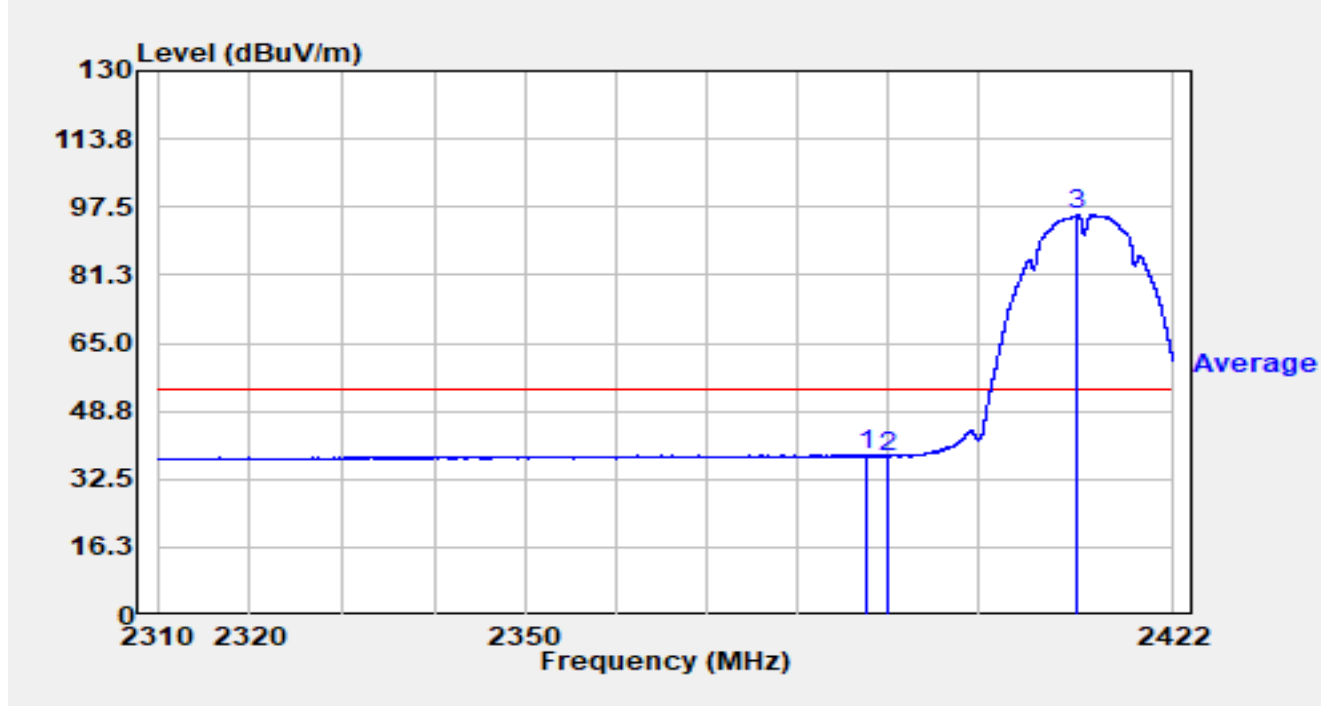


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2366.594	24.93	31.91	56.84	-17.16	74.00	Peak
2		2390.000	21.42	31.74	53.16	-20.84	74.00	Peak
3	*	2411.618	65.57	31.68	97.24	N/A	N/A	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2412MHz		

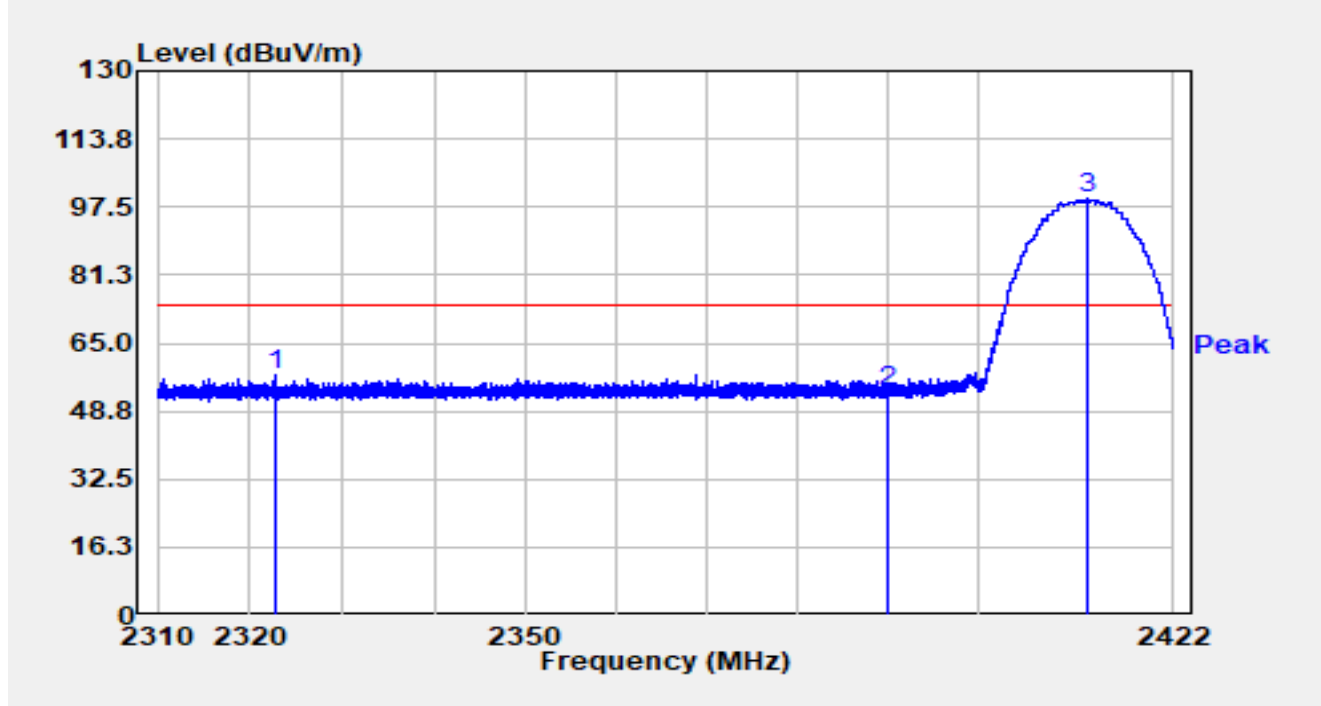


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2387.526	6.59	31.76	38.35	-15.65	54.00	Average
2		2390.000	6.26	31.74	38.00	-16.00	54.00	Average
3	*	2411.226	63.87	31.68	95.54	N/A	N/A	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2412MHz		

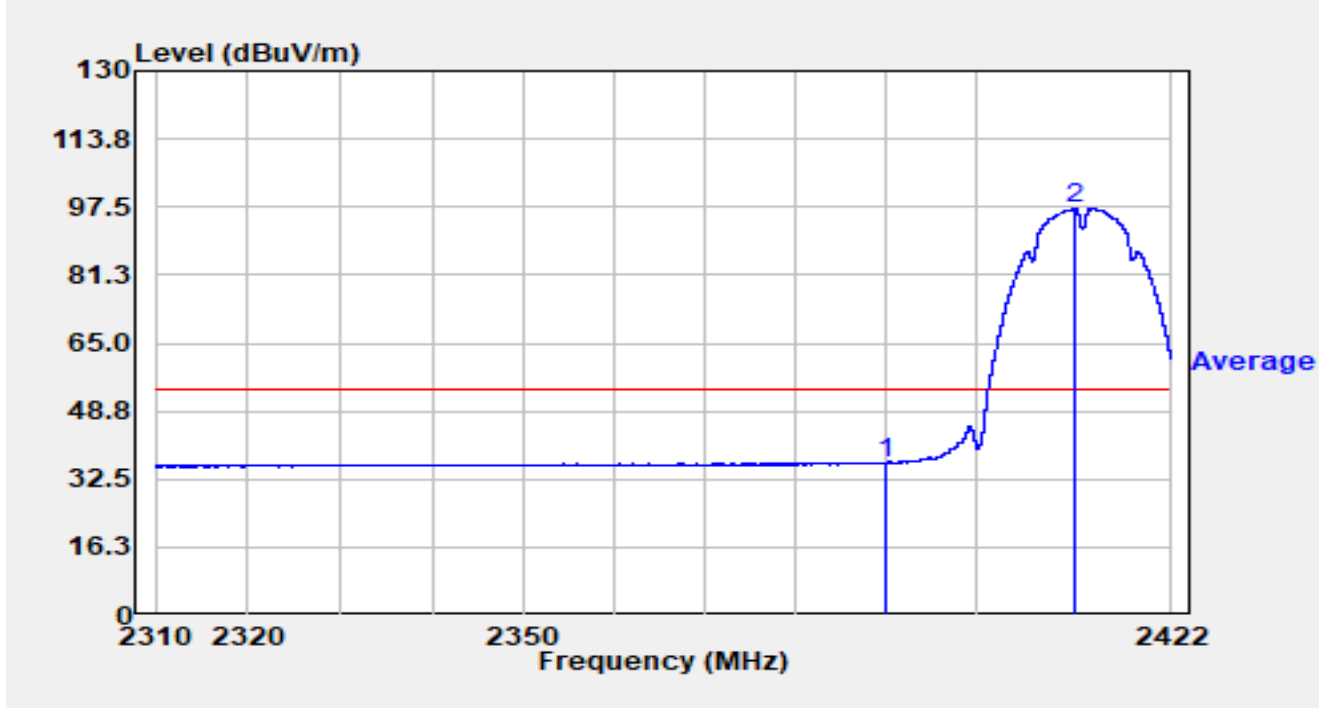


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Detector
1		2322.645	25.34	31.94	57.28	-16.72	74.00	Peak
2		2390.000	21.91	31.74	53.65	-20.35	74.00	Peak
3	*	2412.167	67.67	31.67	99.35	N/A	N/A	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2412MHz		

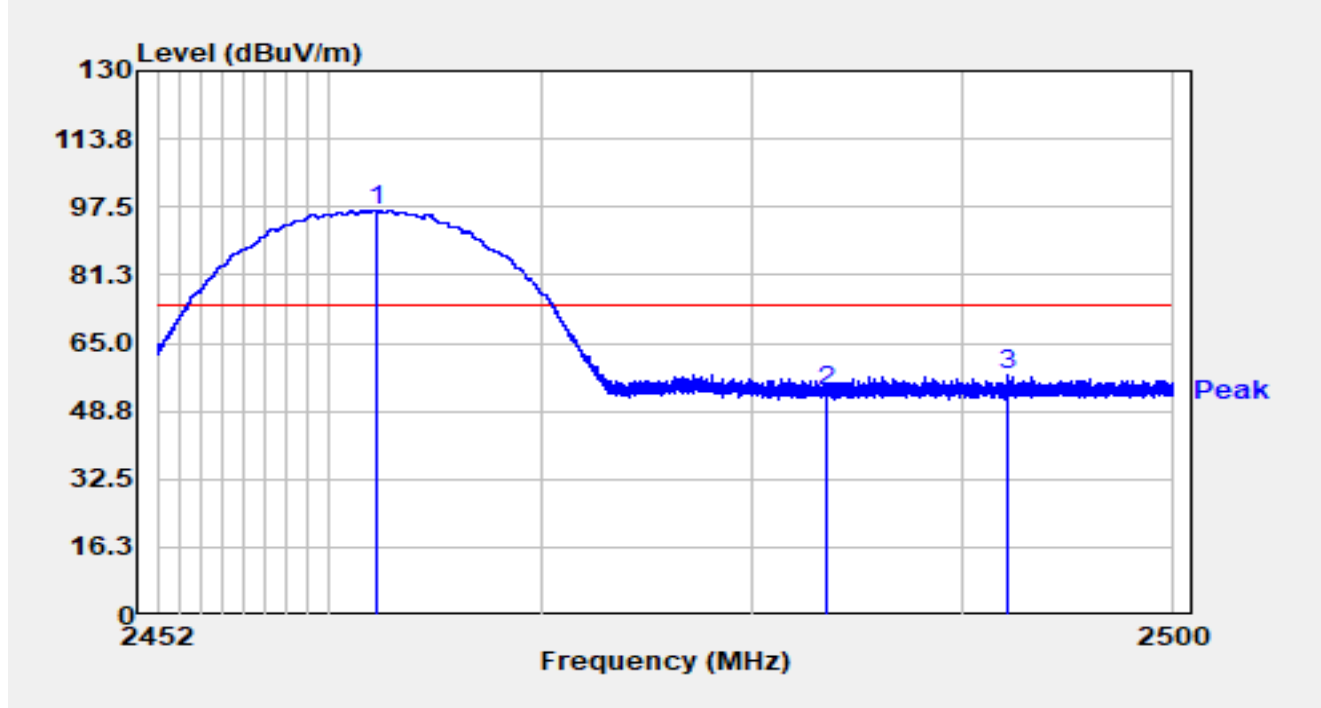


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2390.000	4.66	31.74	36.40	-17.60	54.00	Average
2	*	2411.203	65.37	31.68	97.04	N/A	N/A	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		

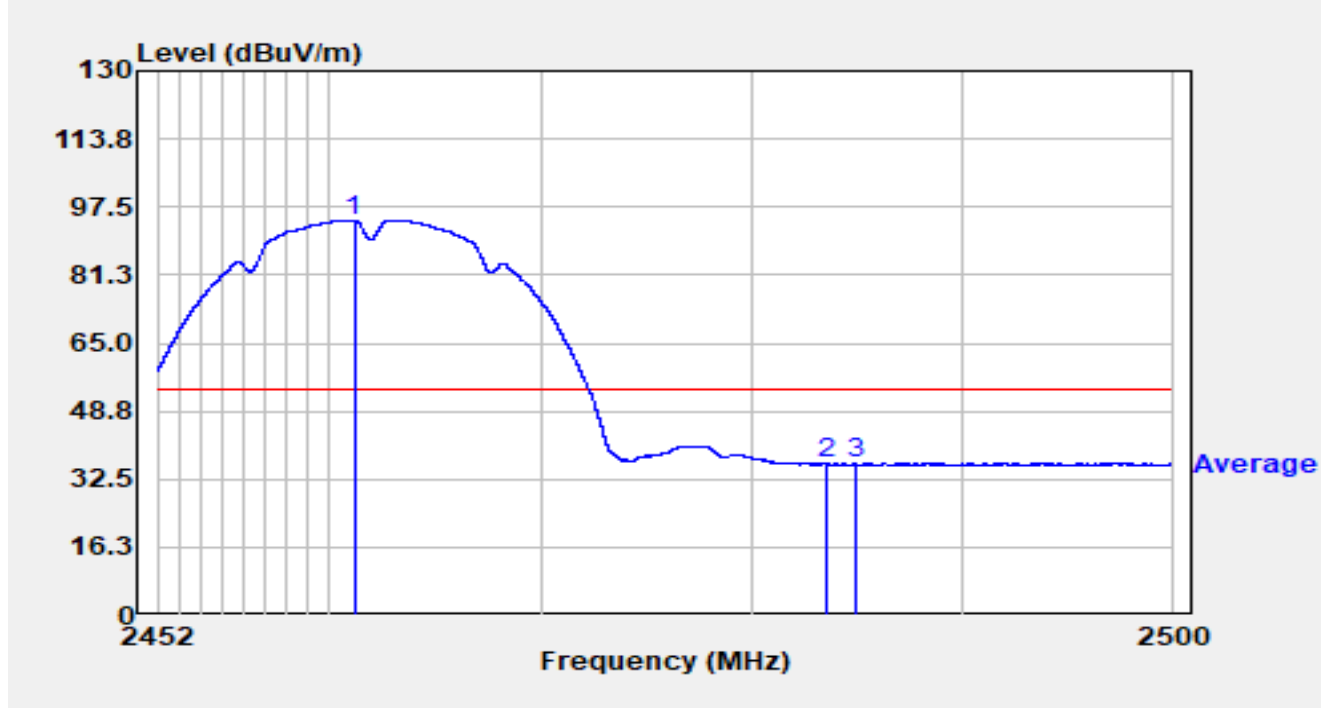


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2462.291	65.12	31.73	96.85	N/A	N/A	Peak
2		2483.500	21.96	31.70	53.66	-20.34	74.00	Peak
3		2492.090	25.56	31.77	57.33	-16.67	74.00	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		

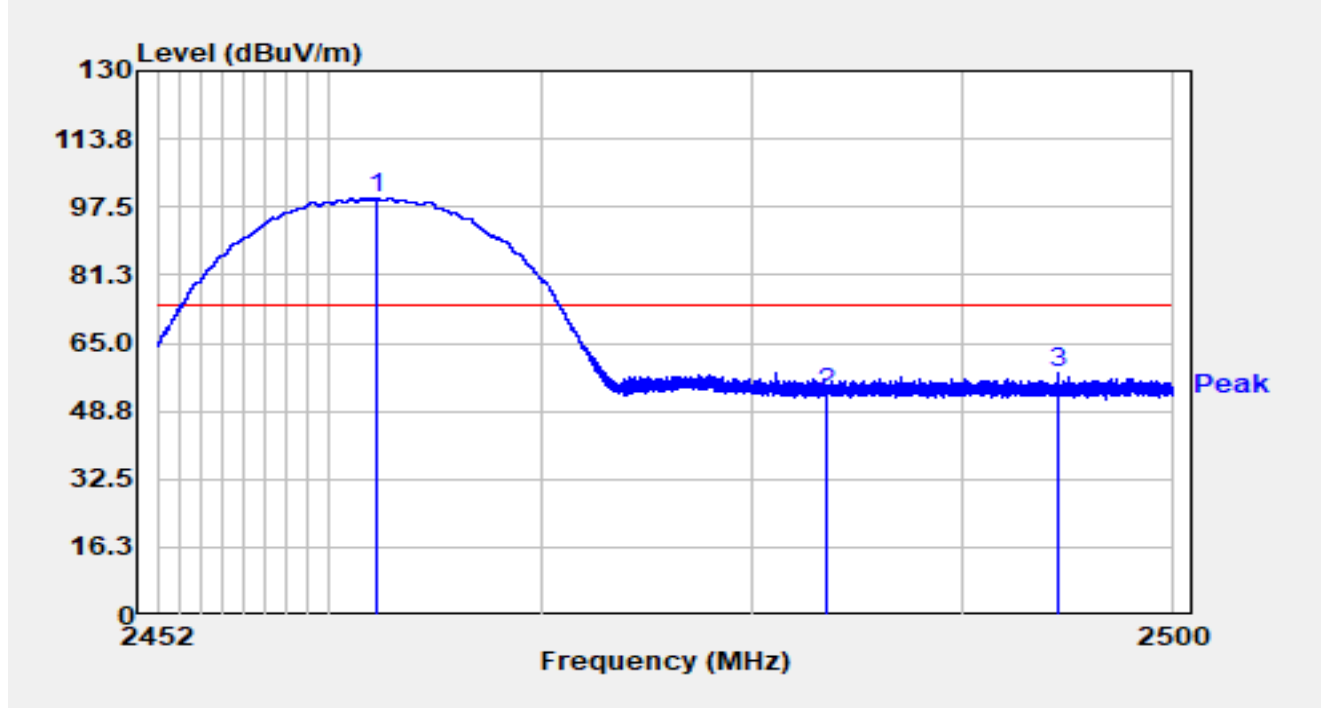


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.221	62.65	31.72	94.37	N/A	N/A	Average
2		2483.500	4.36	31.70	36.06	-17.94	54.00	Average
3		2484.851	4.53	31.71	36.24	-17.76	54.00	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		

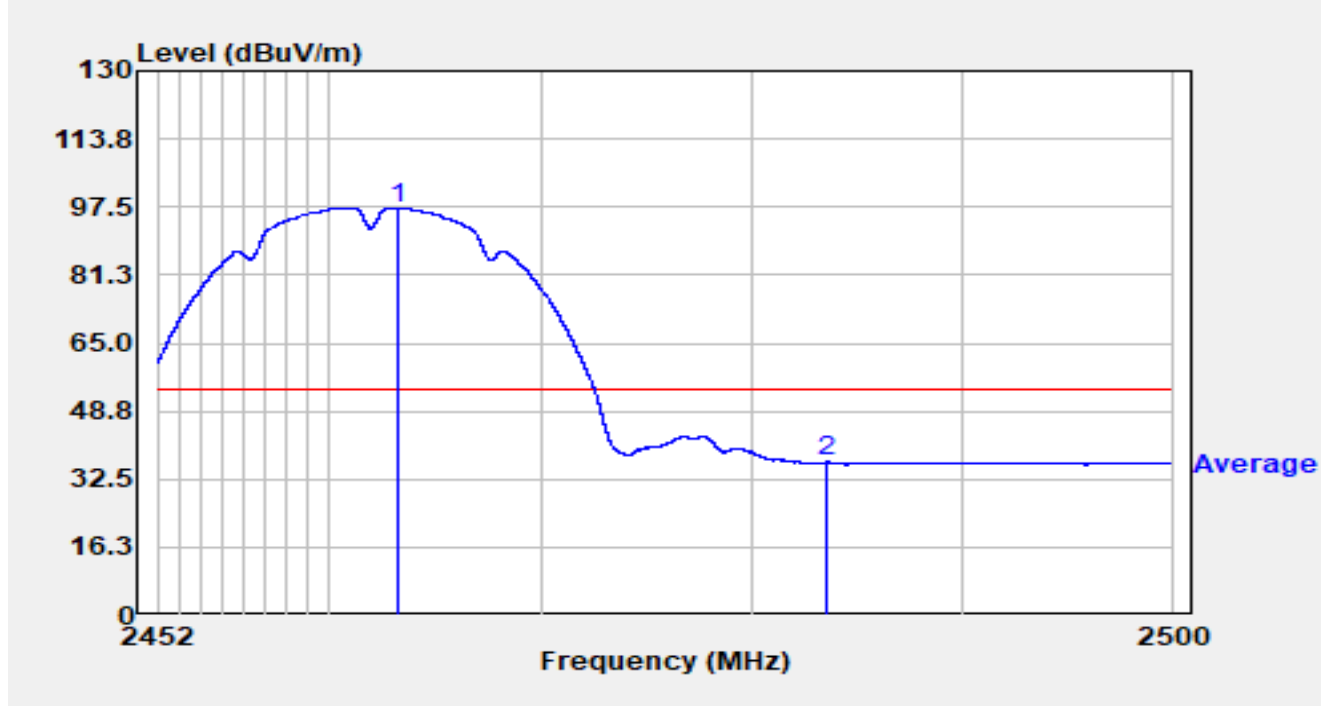


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2462.330	68.04	31.73	99.77	N/A	N/A	Peak
2		2483.500	21.10	31.70	52.80	-21.20	74.00	Peak
3		2494.557	26.12	31.79	57.91	-16.09	74.00	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		

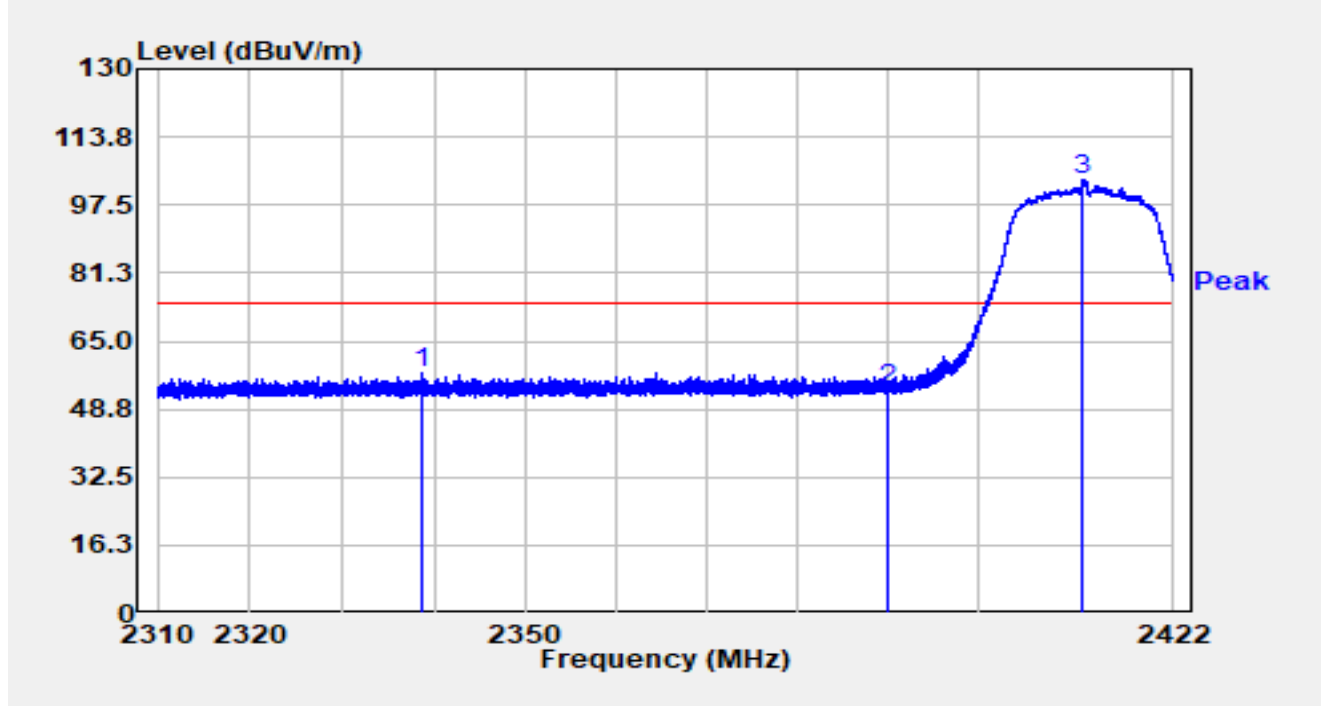


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2463.222	65.65	31.72	97.37	N/A	N/A	Average
2		2483.500	4.86	31.70	36.57	-17.43	54.00	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		

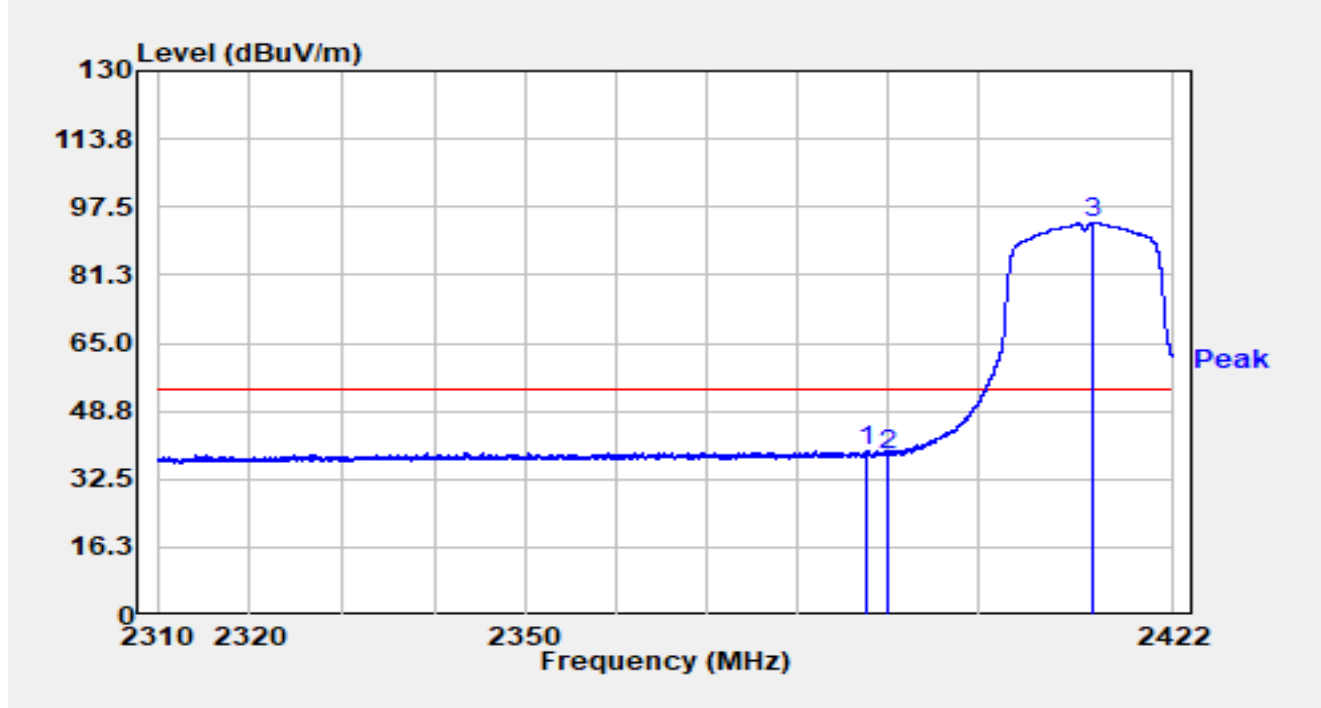


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2338.672	25.66	31.95	57.61	-16.39	74.00	Peak
2		2390.000	21.67	31.74	53.42	-20.58	74.00	Peak
3	*	2411.842	71.81	31.67	103.49	N/A	N/A	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		

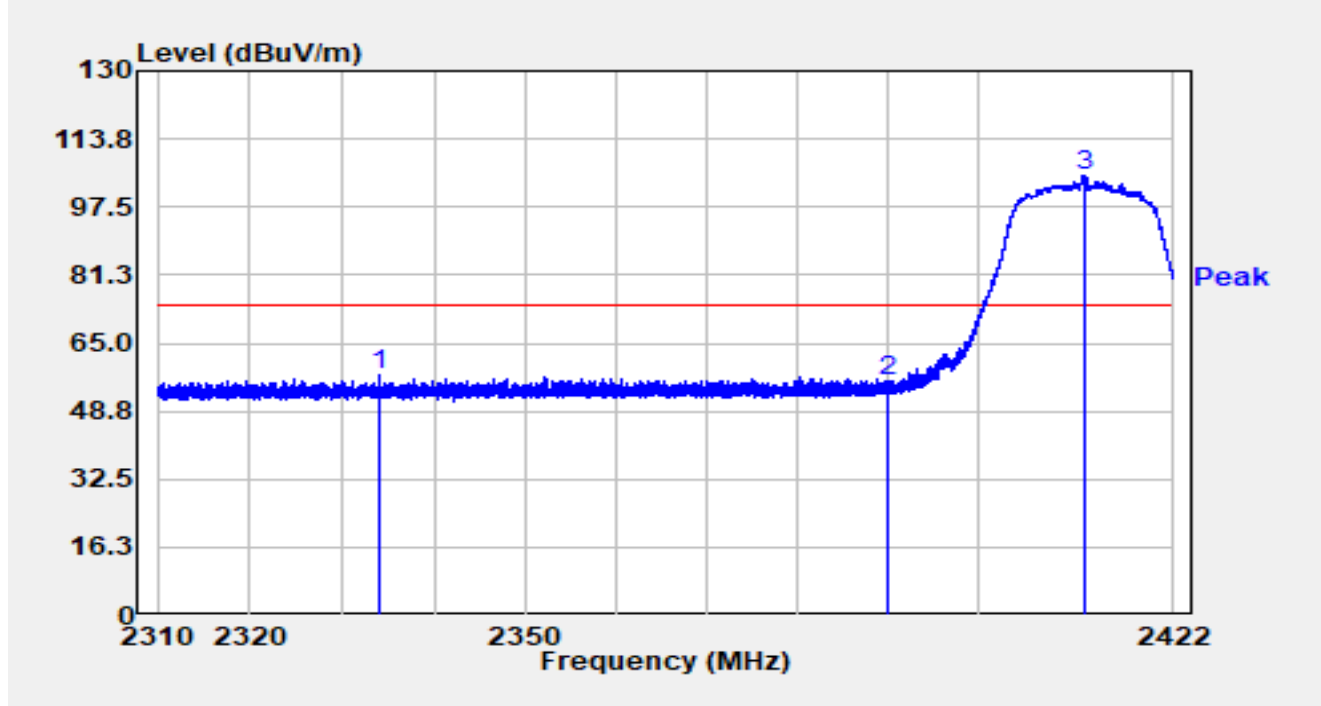


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2387.728	7.67	31.76	39.43	-14.57	54.00	Average
2		2390.000	6.72	31.74	38.46	-15.54	54.00	Average
3	*	2412.995	62.23	31.67	93.90	N/A	N/A	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		

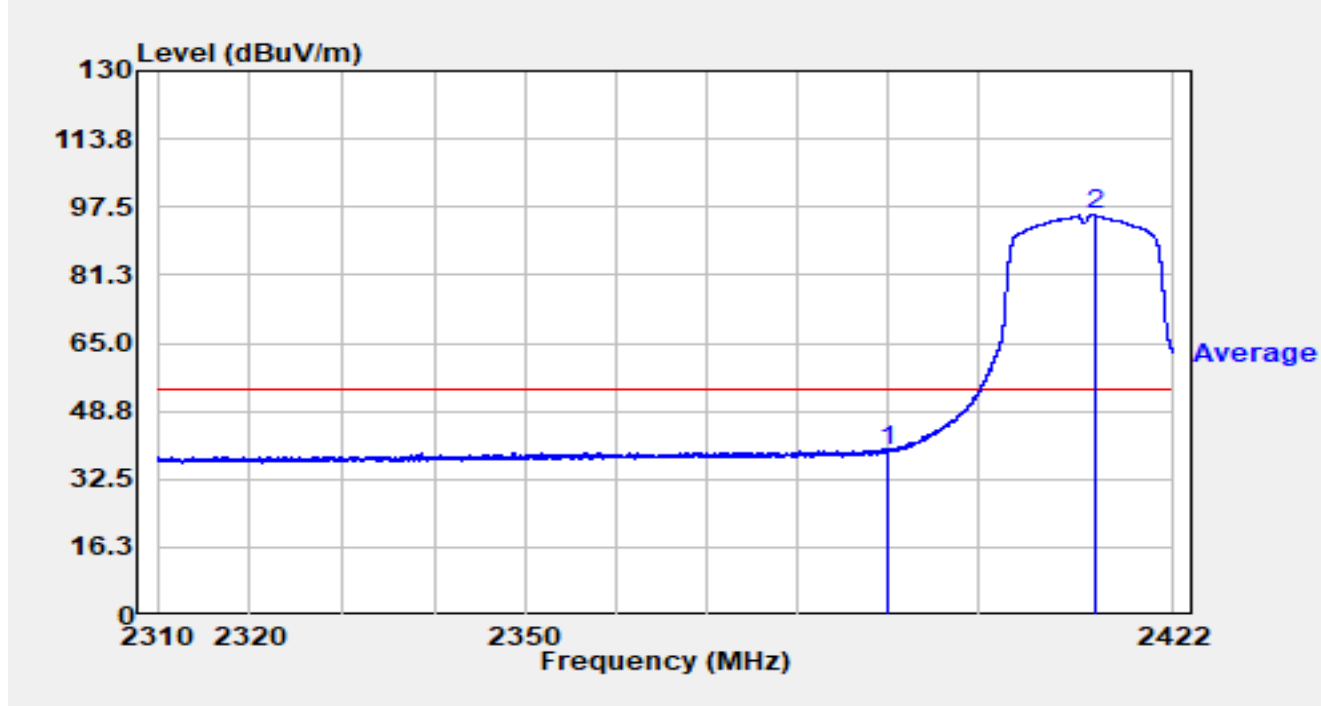


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2333.878	25.64	31.95	57.59	-16.41	74.00	Peak
2		2390.000	24.06	31.74	55.80	-18.20	74.00	Peak
3	*	2412.010	73.43	31.67	105.10	N/A	N/A	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		

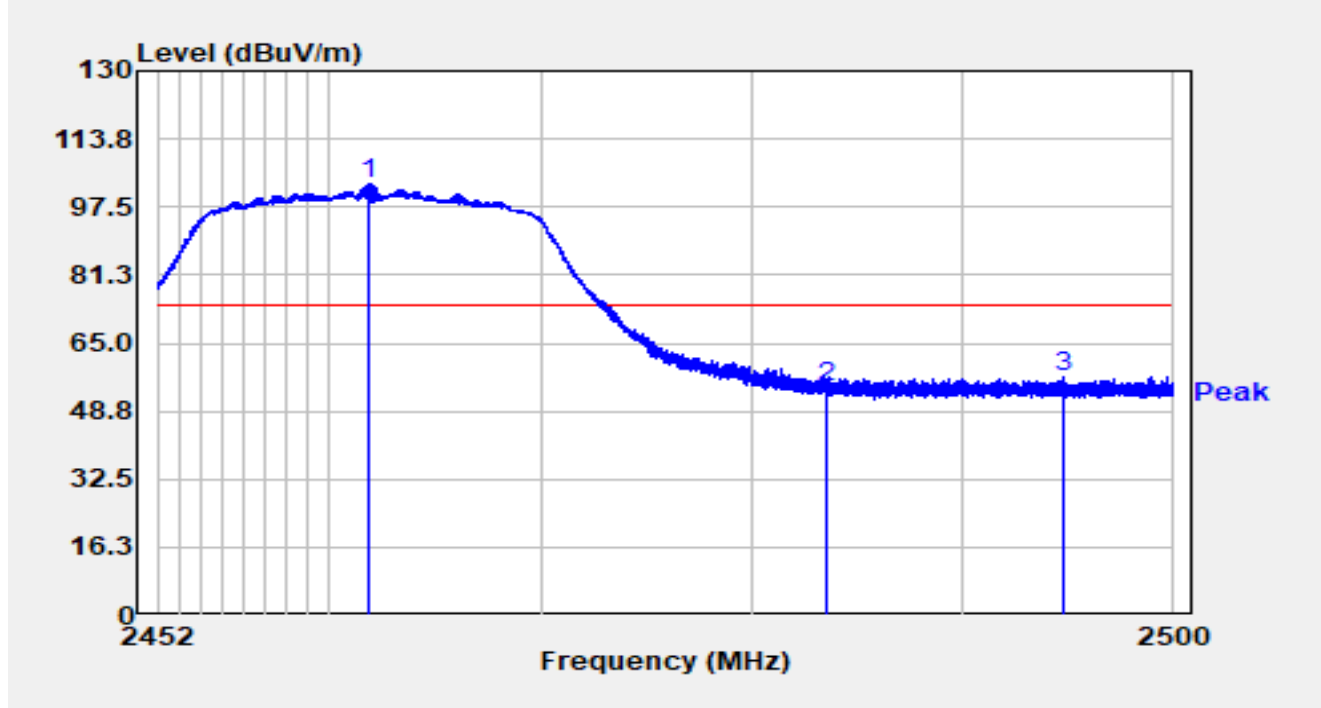


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2390.000	7.38	31.74	39.12	-14.88	54.00	Average
2	*	2413.096	64.07	31.67	95.74	N/A	N/A	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2462MHz		

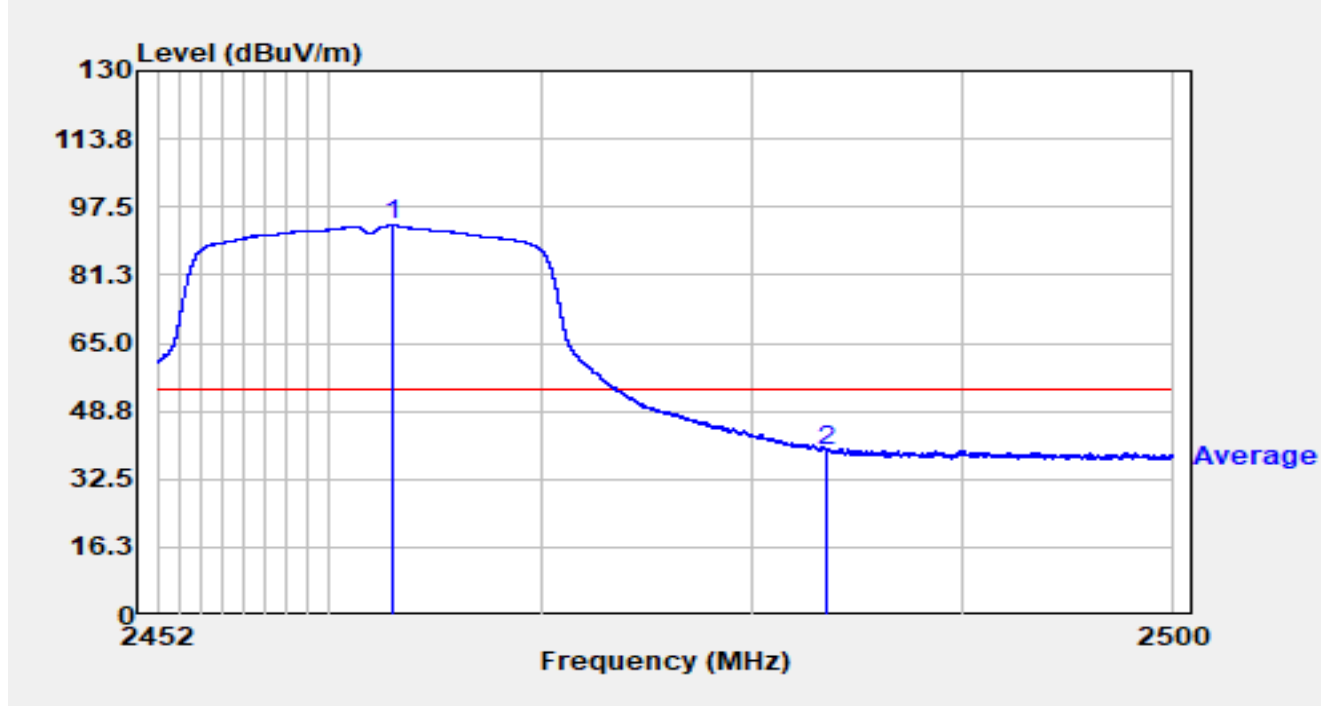


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.922	71.17	31.73	102.90	N/A	N/A	Peak
2		2483.500	22.52	31.70	54.22	-19.78	74.00	Peak
3		2494.701	25.12	31.79	56.91	-17.09	74.00	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2462MHz		

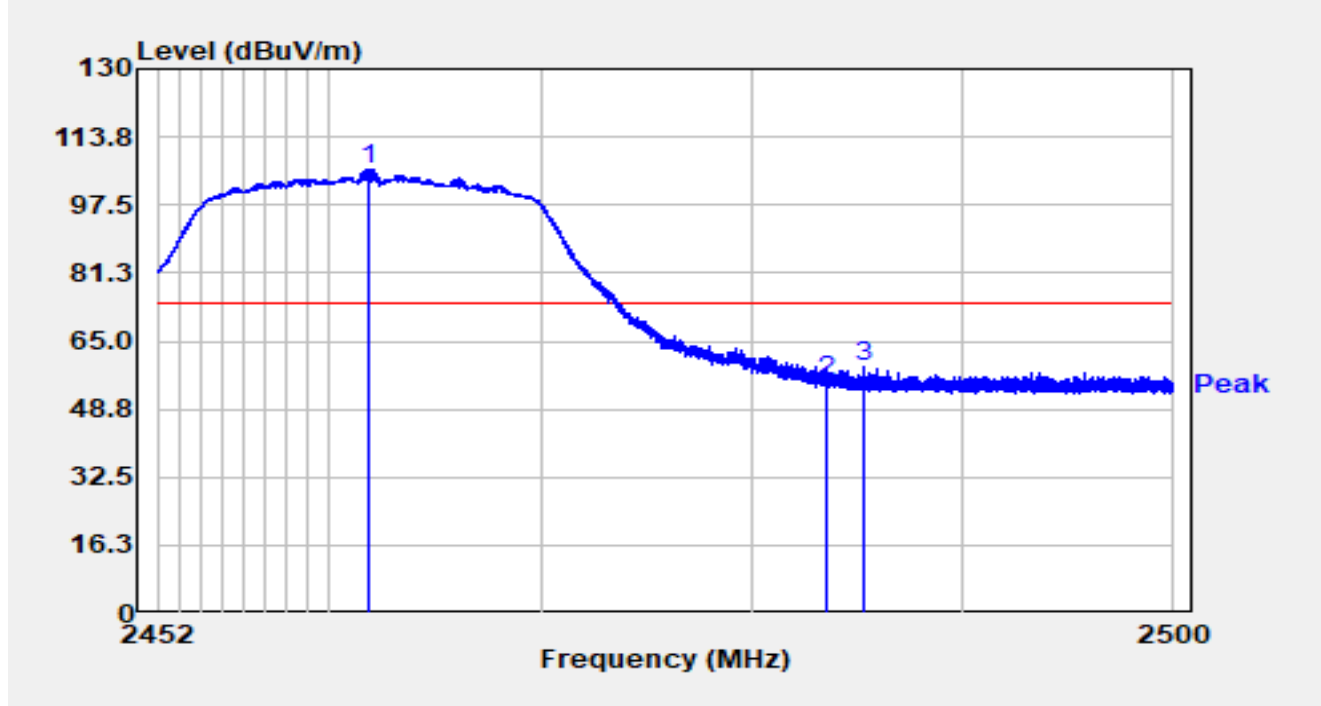


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2463.054	61.35	31.72	93.07	N/A	N/A	Average
2		2483.500	7.45	31.70	39.16	-14.84	54.00	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2462MHz		

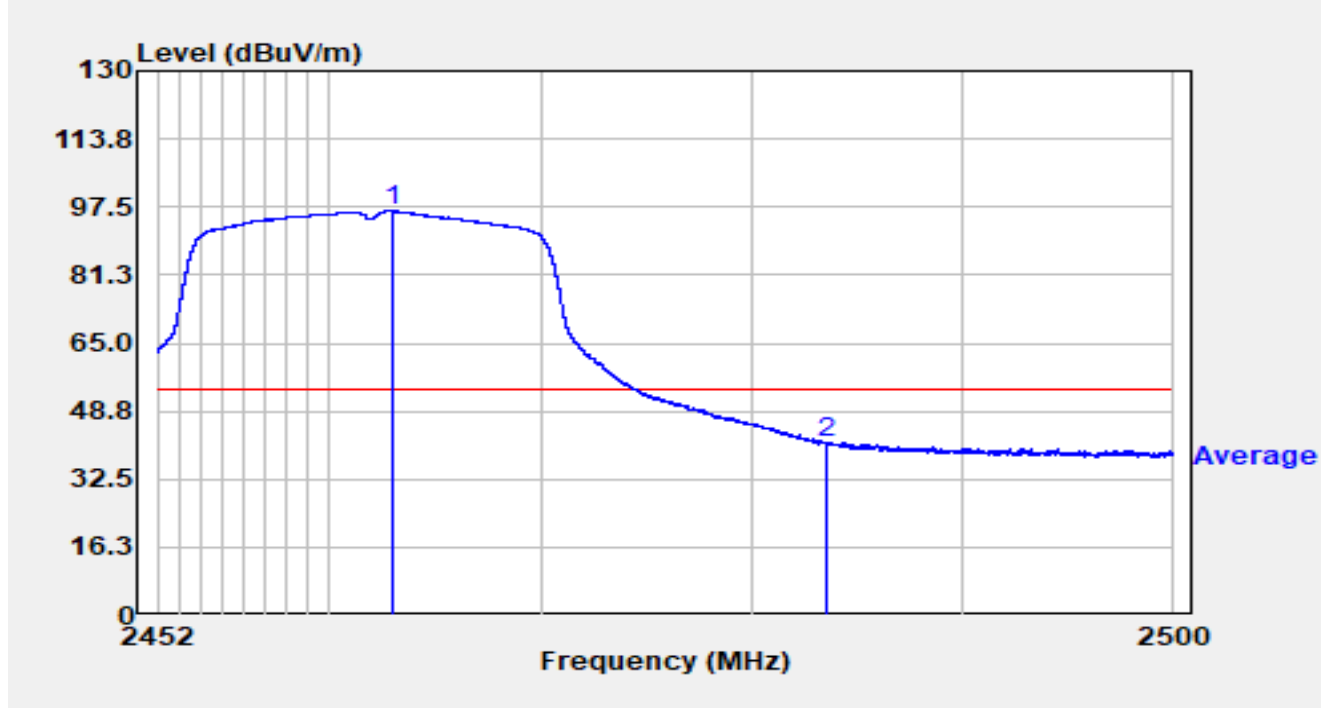


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.955	74.17	31.73	105.90	N/A	N/A	Peak
2		2483.500	23.63	31.70	55.33	-18.67	74.00	Peak
3		2485.288	27.26	31.72	58.98	-15.02	74.00	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2462MHz		

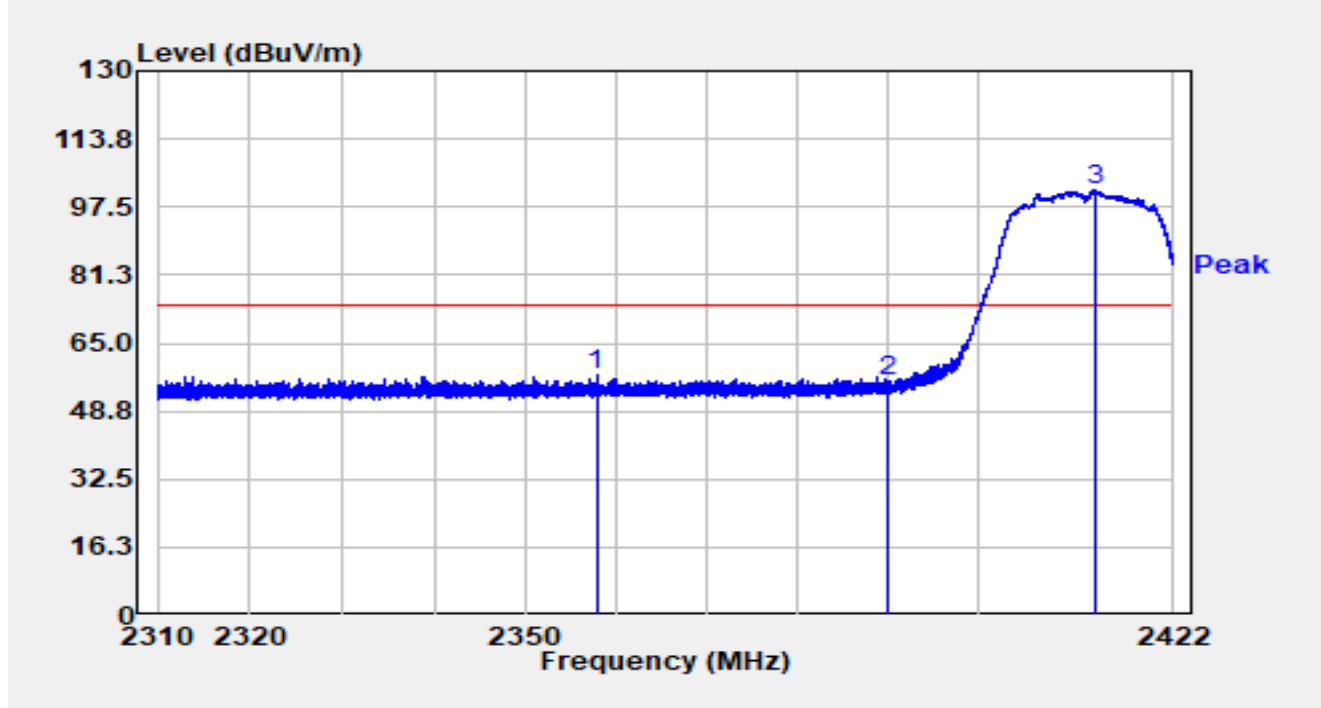


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2463.059	64.92	31.72	96.64	N/A	N/A	Average
2		2483.500	9.37	31.70	41.07	-12.93	54.00	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2412MHz		

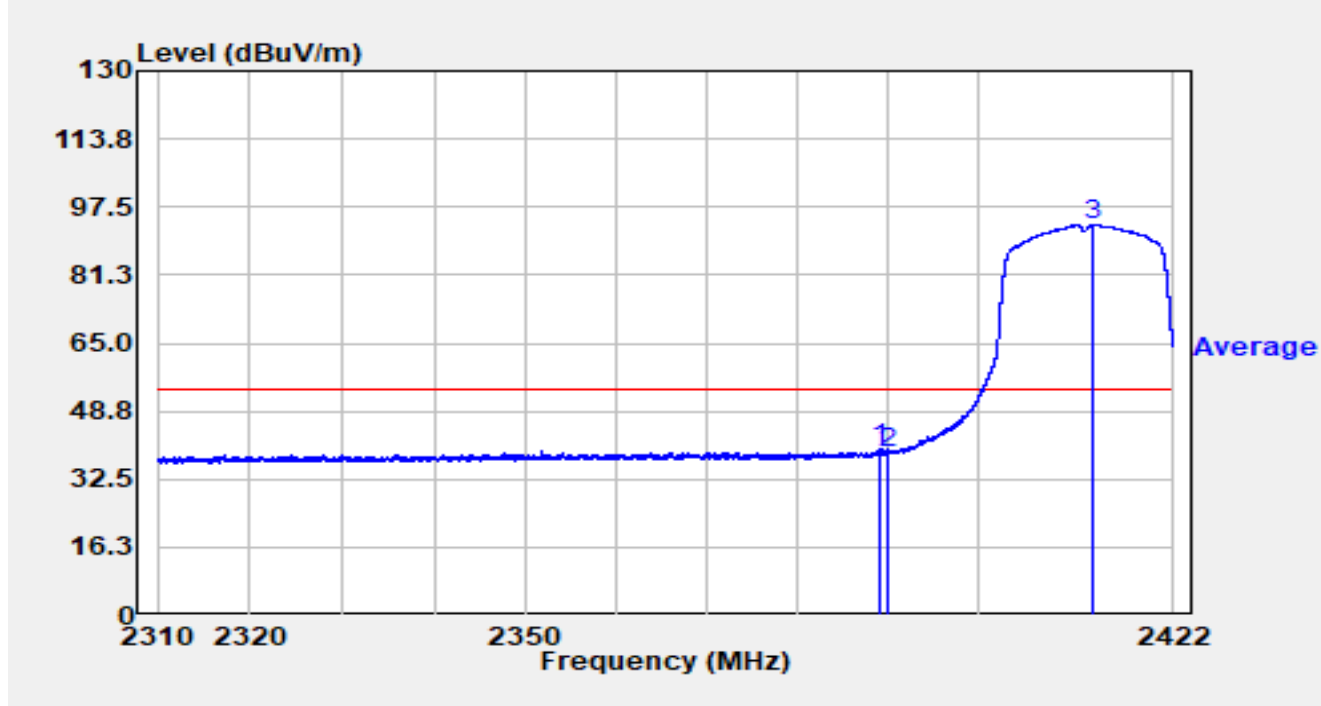


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2357.723	25.64	31.95	57.59	-16.41	74.00	Peak
2		2390.000	24.08	31.74	55.82	-18.18	74.00	Peak
3	*	2413.253	69.76	31.67	101.43	N/A	N/A	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2412MHz		

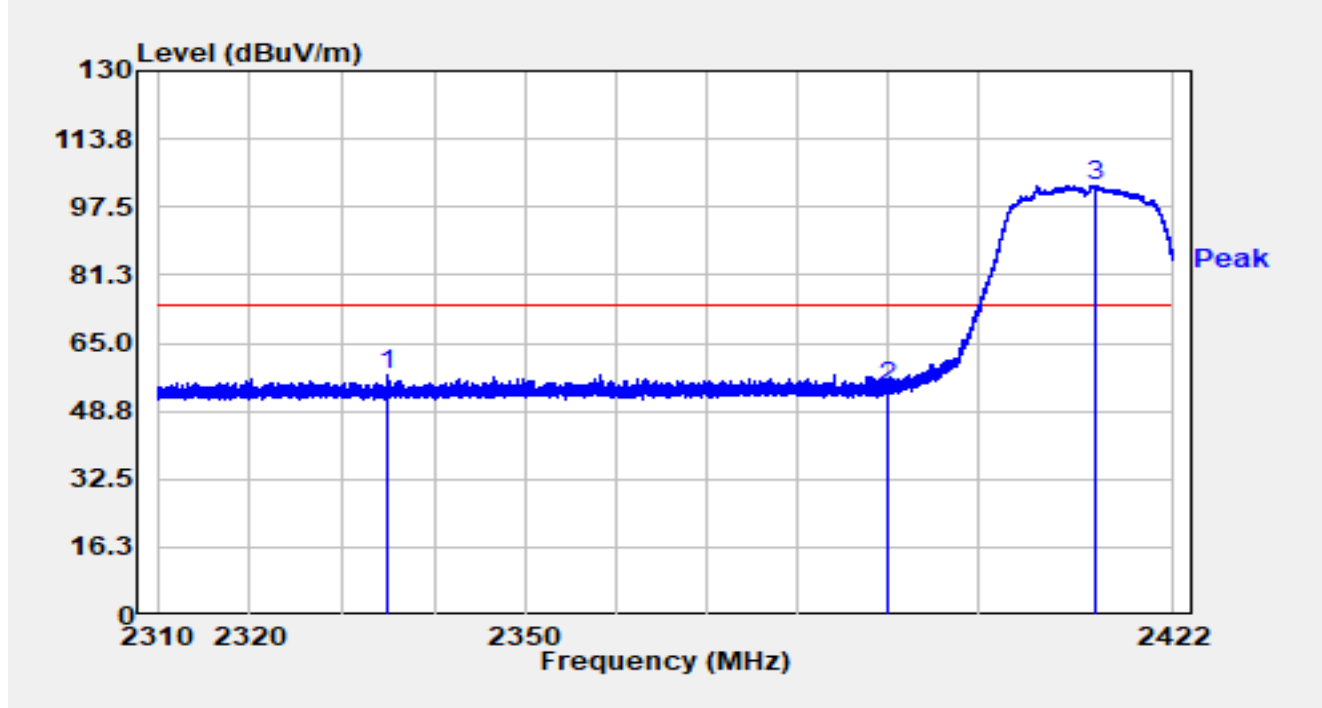


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2389.206	8.12	31.75	39.87	-14.13	54.00	Average
2		2390.000	7.12	31.74	38.86	-15.14	54.00	Average
3	*	2412.962	61.72	31.67	93.39	N/A	N/A	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2412MHz		

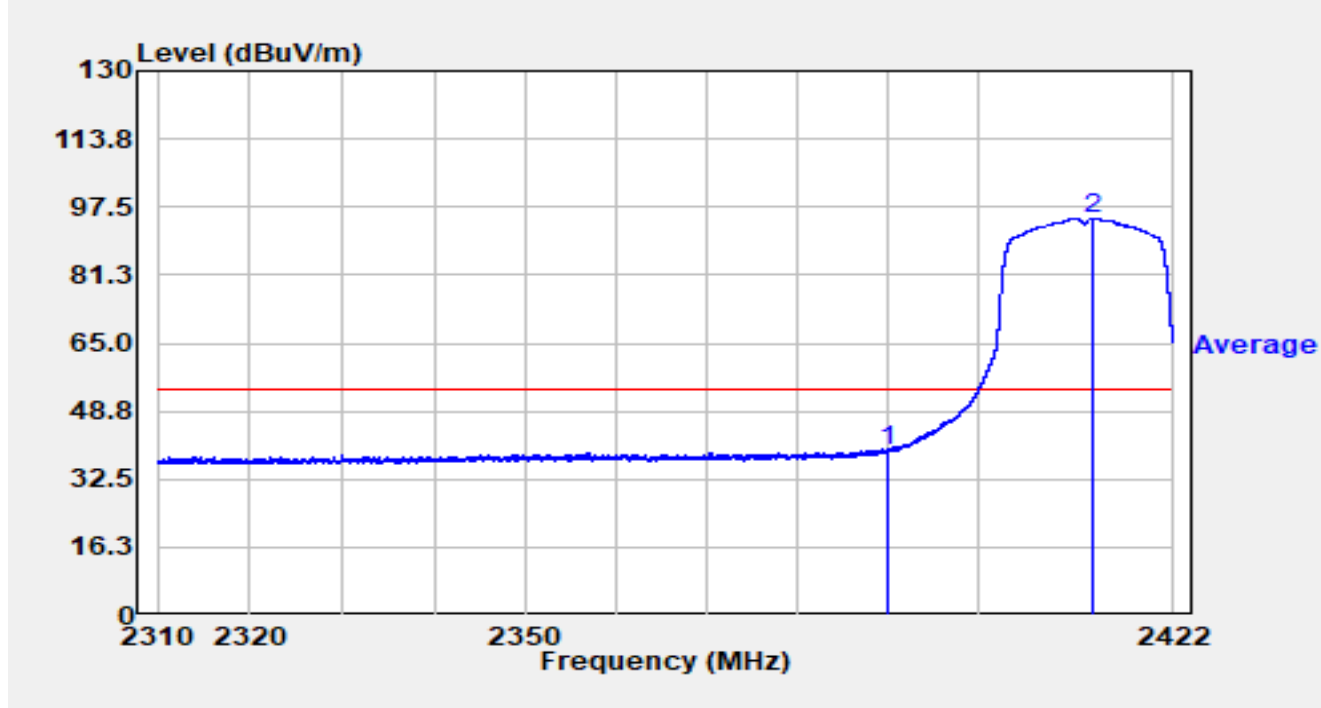


No	Mark	Frequency (MHz)	Reading (dBUV)	C.F (dB/m)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Detector
1		2334.954	25.58	31.95	57.53	-16.47	74.00	Peak
2		2390.000	22.90	31.74	54.65	-19.35	74.00	Peak
3	*	2413.286	71.09	31.67	102.76	N/A	N/A	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2412MHz		

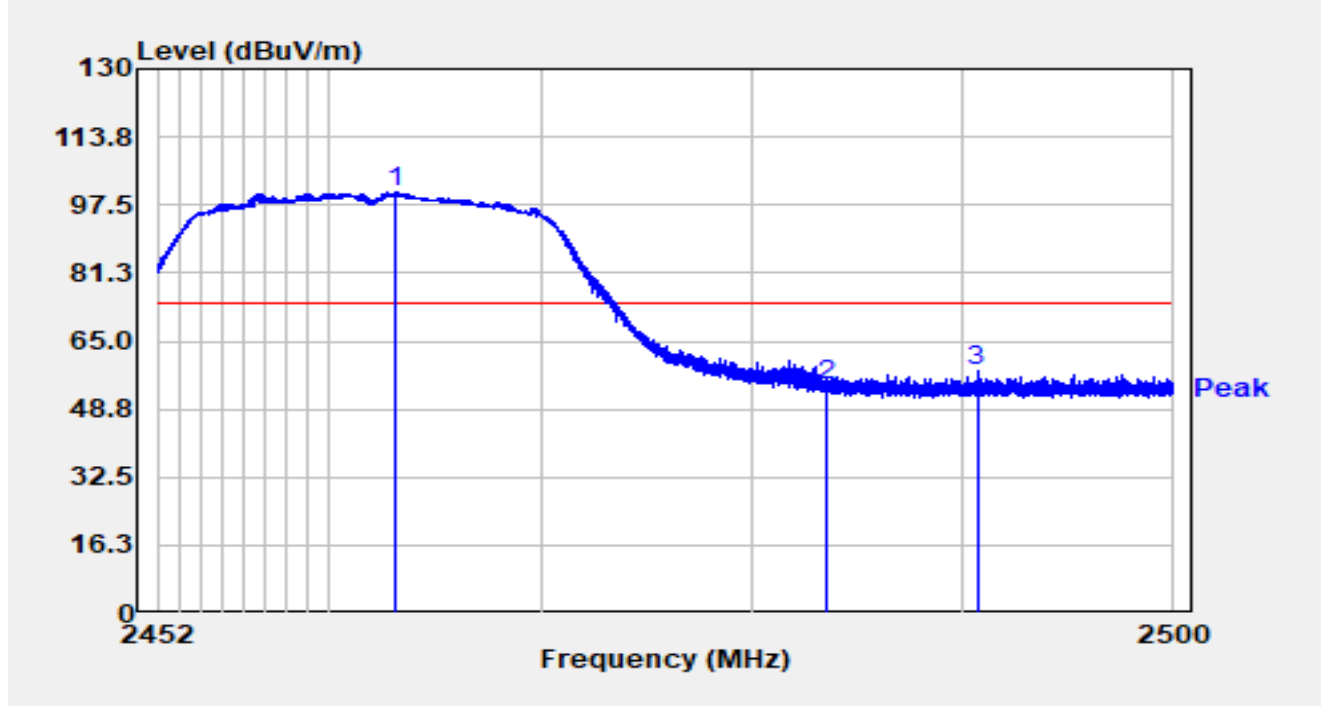


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2390.000	7.40	31.74	39.14	-14.86	54.00	Average
2	*	2412.906	63.25	31.67	94.92	N/A	N/A	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2462MHz		

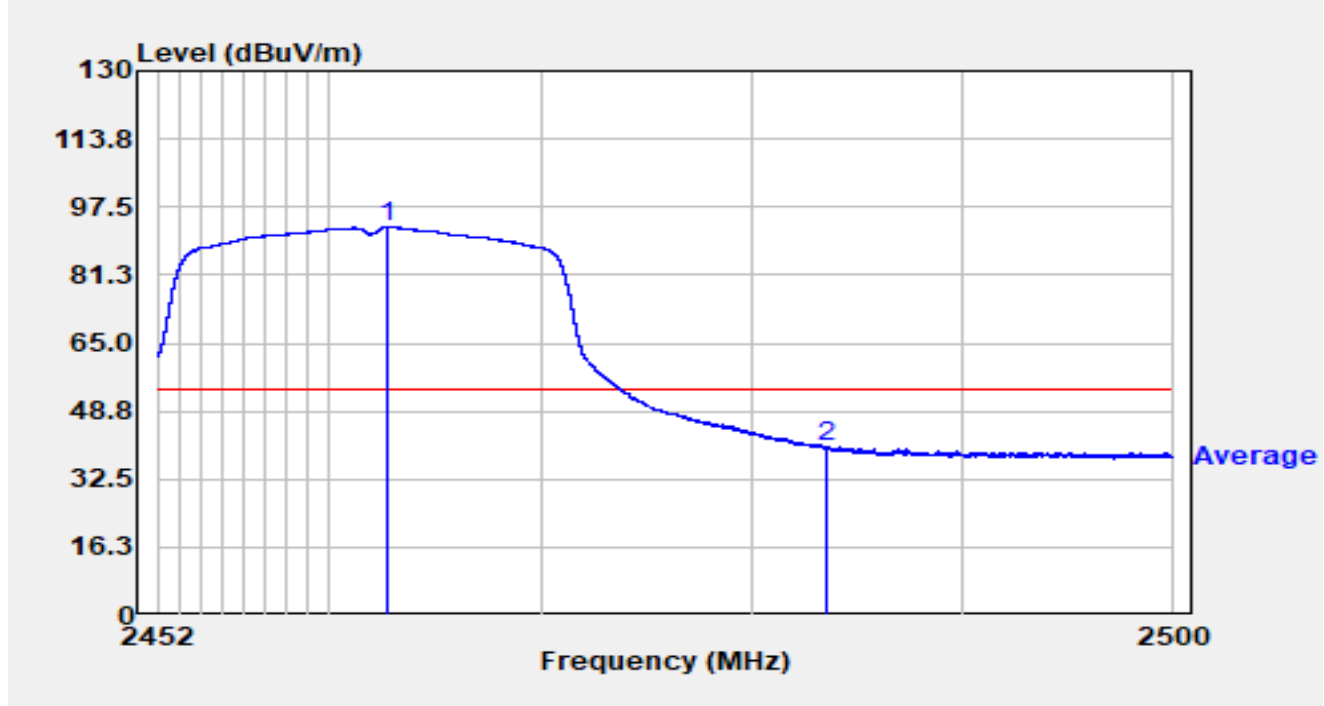


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2463.203	68.78	31.72	100.50	N/A	N/A	Peak
2		2483.500	22.88	31.70	54.59	-19.41	74.00	Peak
3		2490.640	25.91	31.76	57.67	-16.33	74.00	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2462MHz		

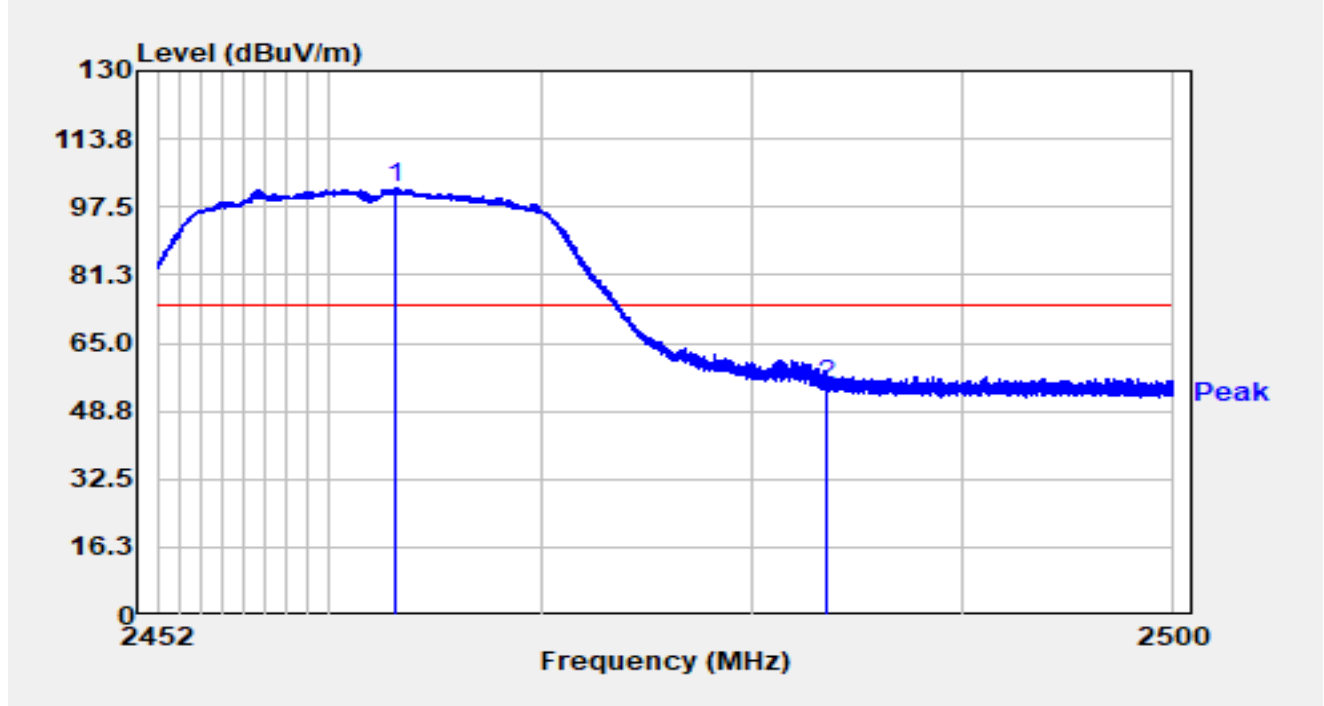


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2462.819	60.99	31.72	92.72	N/A	N/A	Average
2		2483.500	8.46	31.70	40.16	-13.84	54.00	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2462MHz		

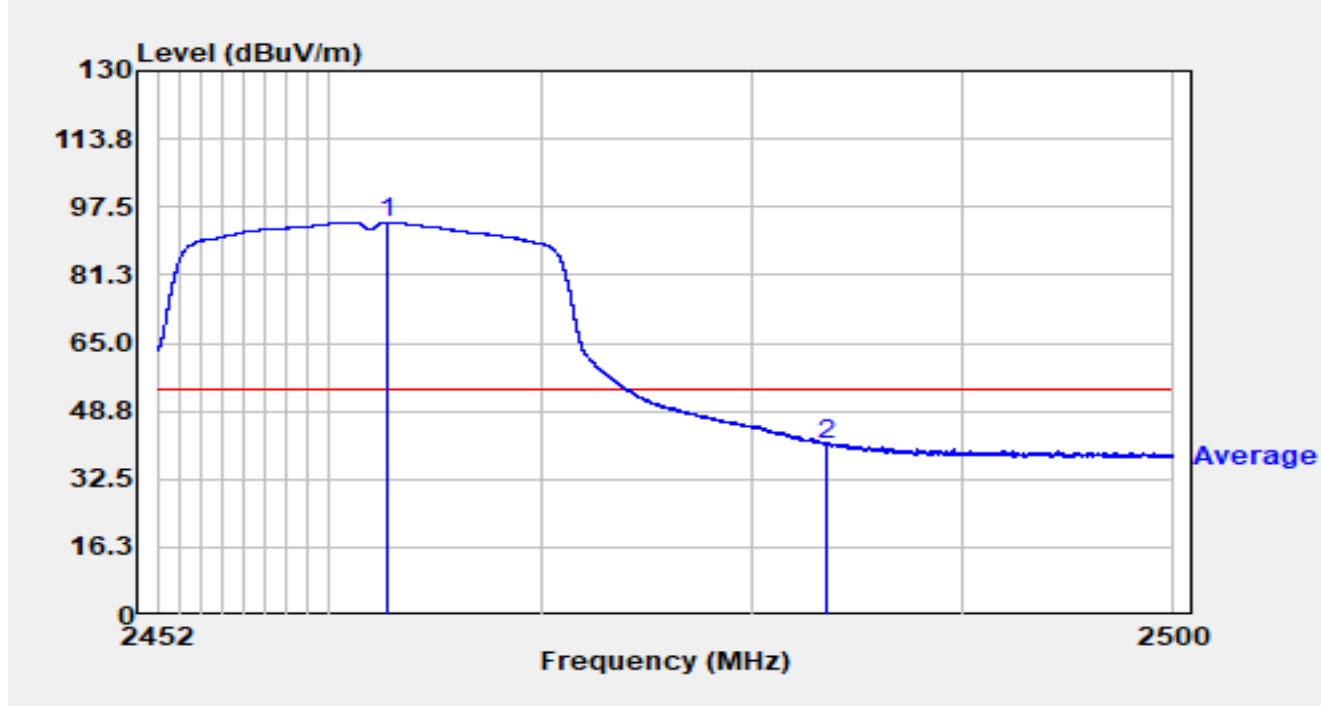


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2463.136	70.22	31.72	101.94	N/A	N/A	Peak
2		2483.500	23.47	31.70	55.18	-18.82	74.00	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2462MHz		

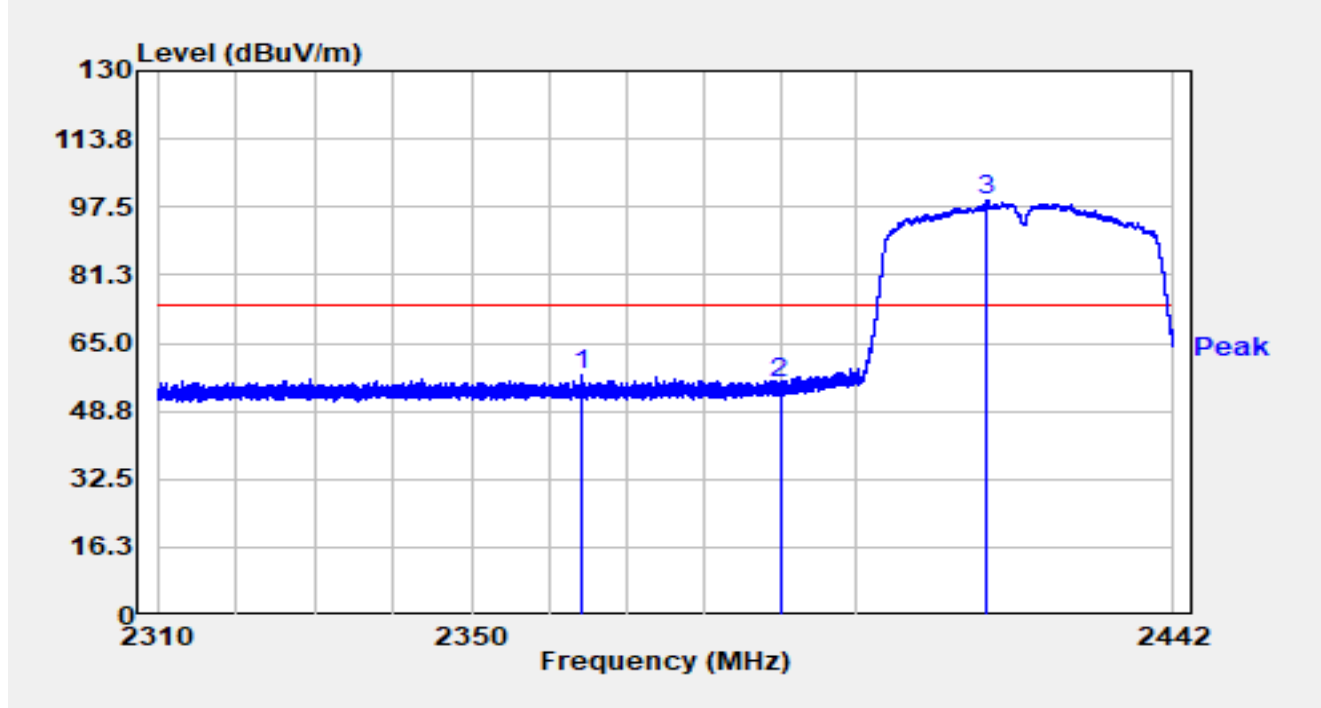


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2462.824	62.22	31.72	93.94	N/A	N/A	Average
2		2483.500	9.18	31.70	40.89	-13.11	54.00	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2422MHz		

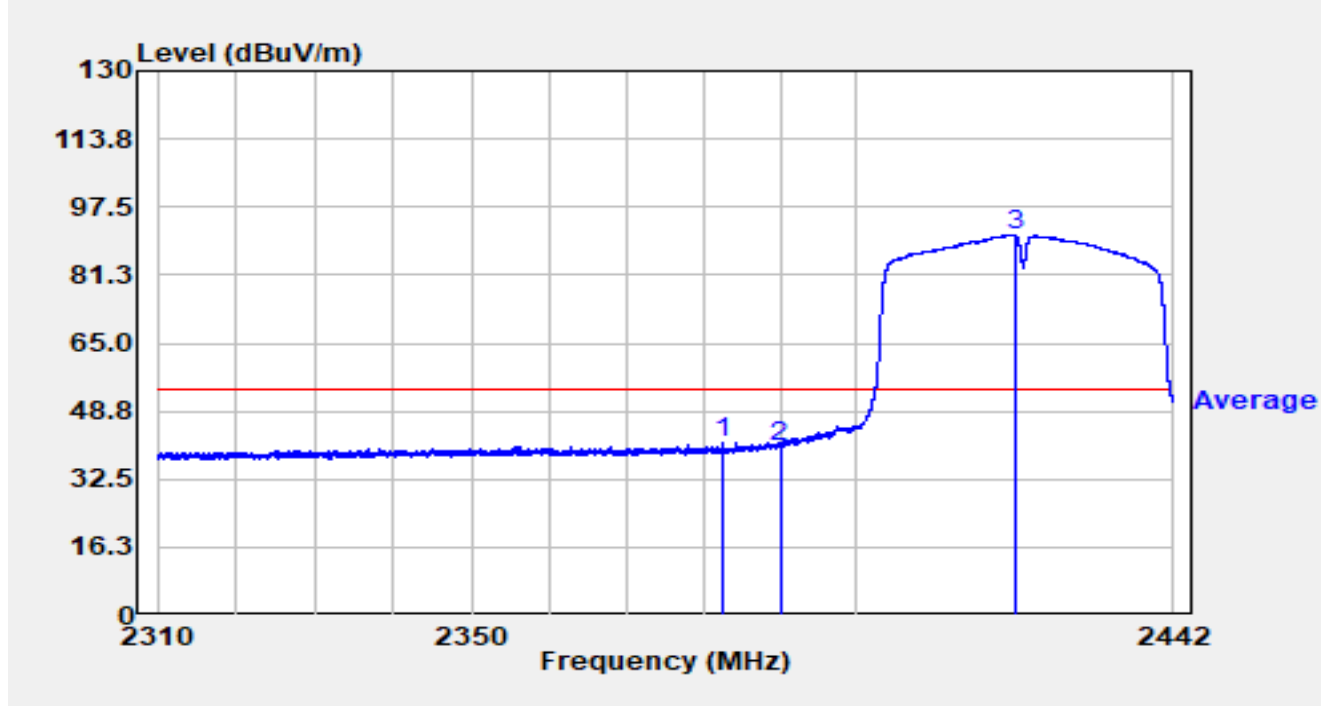


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2364.252	25.69	31.92	57.61	-16.39	74.00	Peak
2		2390.000	23.48	31.74	55.22	-18.78	74.00	Peak
3	*	2417.224	67.35	31.66	99.01	N/A	N/A	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2422MHz		

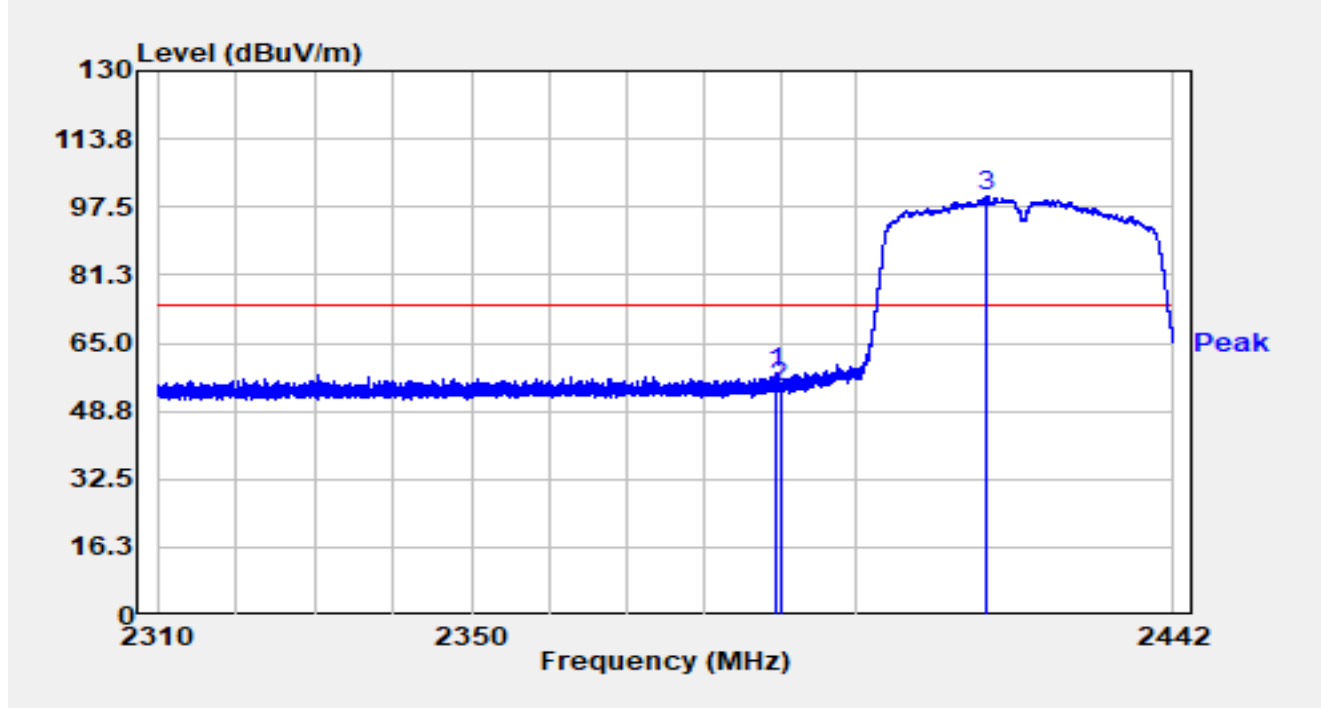


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2382.534	9.37	31.80	41.17	-12.83	54.00	Average
2		2390.000	8.58	31.74	40.32	-13.68	54.00	Average
3	*	2420.854	59.22	31.65	90.86	N/A	N/A	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2422MHz		

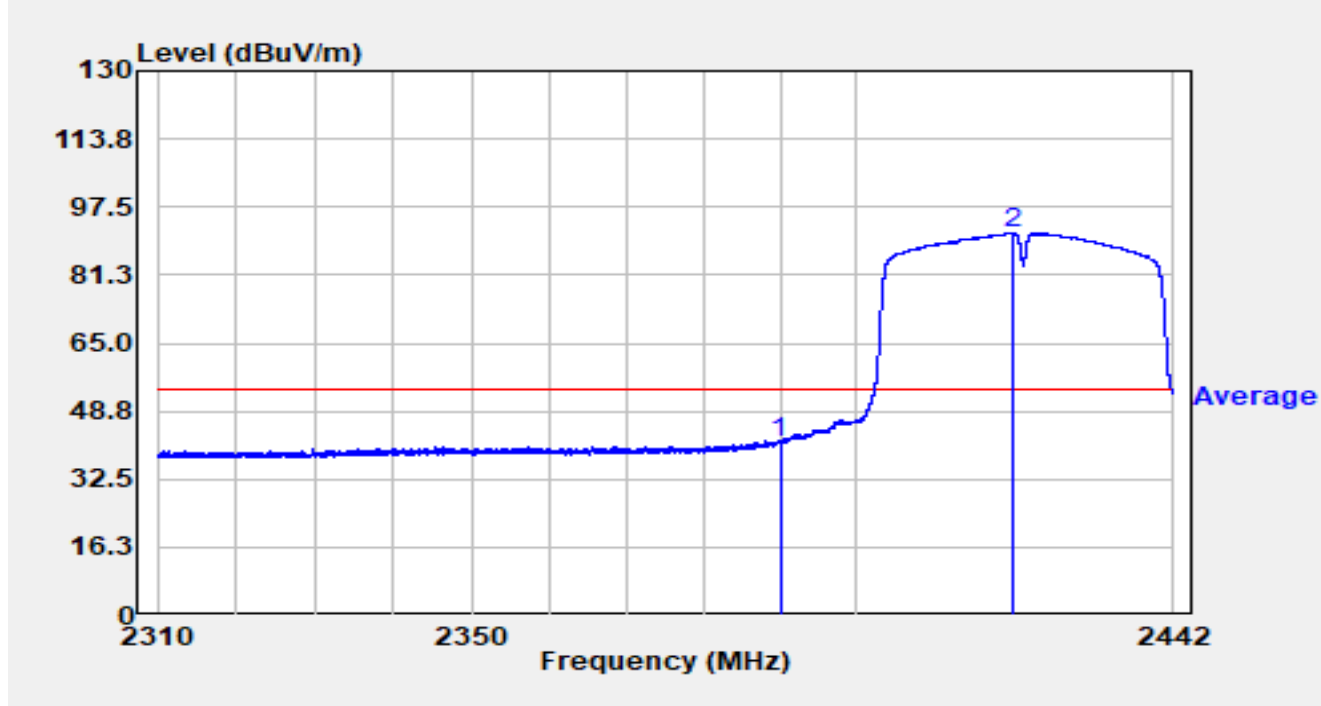


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2389.398	25.95	31.75	57.69	-16.31	74.00	Peak
2		2390.000	22.58	31.74	54.32	-19.68	74.00	Peak
3	*	2417.171	68.66	31.66	100.32	N/A	N/A	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2422MHz		

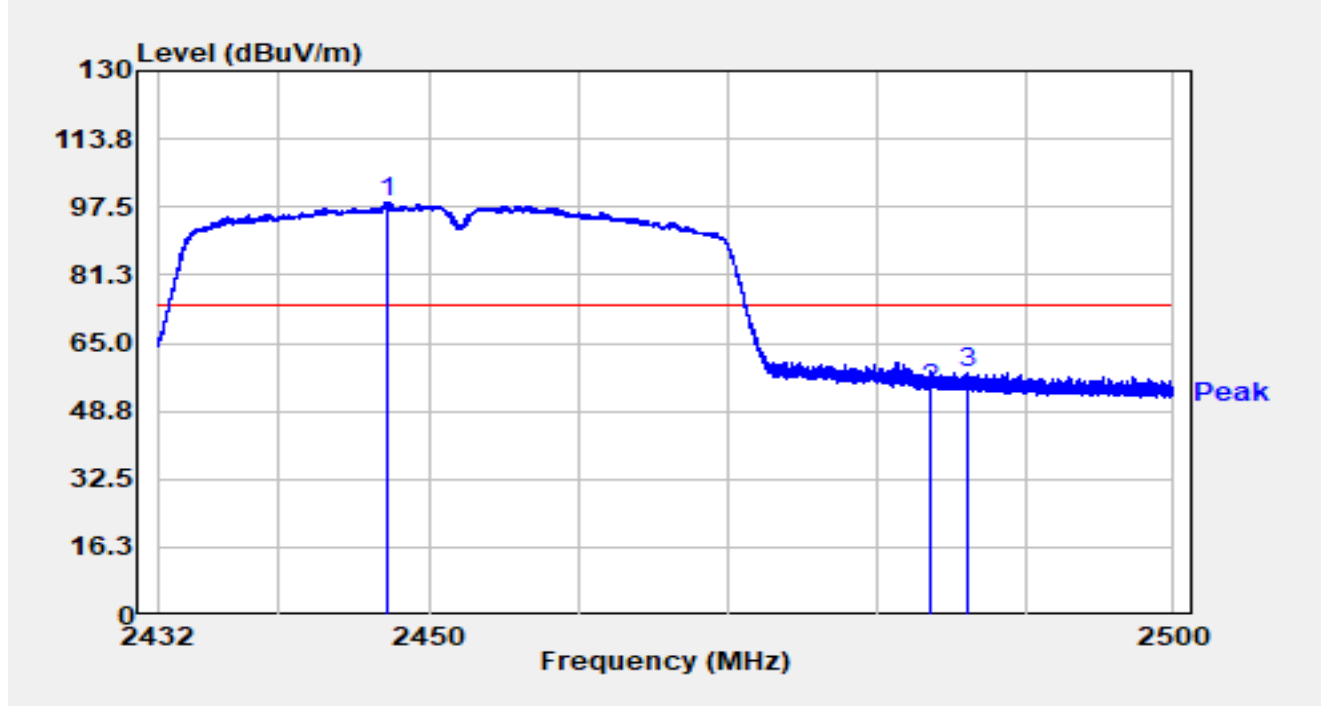


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2390.000	9.48	31.74	41.22	-12.78	54.00	Average
2	*	2420.722	59.71	31.65	91.36	N/A	N/A	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2452MHz		

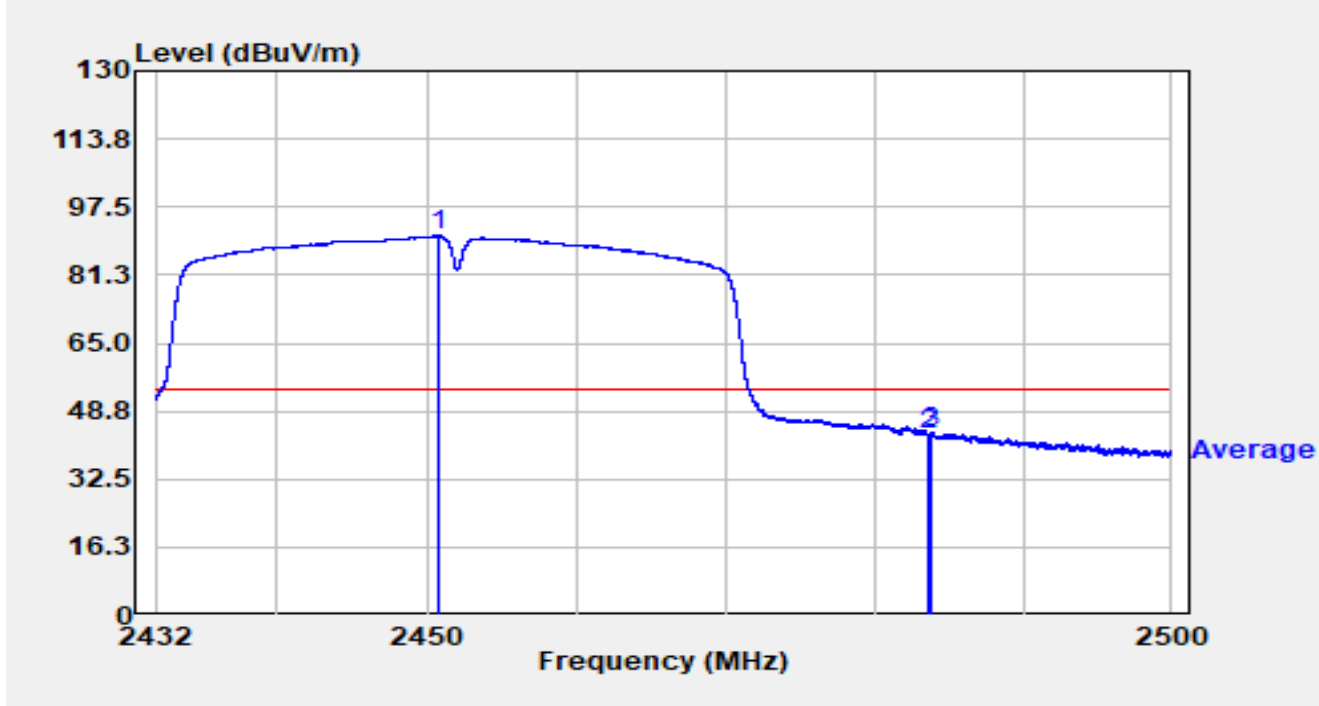


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2447.144	66.96	31.61	98.57	N/A	N/A	Peak
2		2483.500	22.46	31.70	54.16	-19.84	74.00	Peak
3		2486.115	26.16	31.72	57.89	-16.11	74.00	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2452MHz		

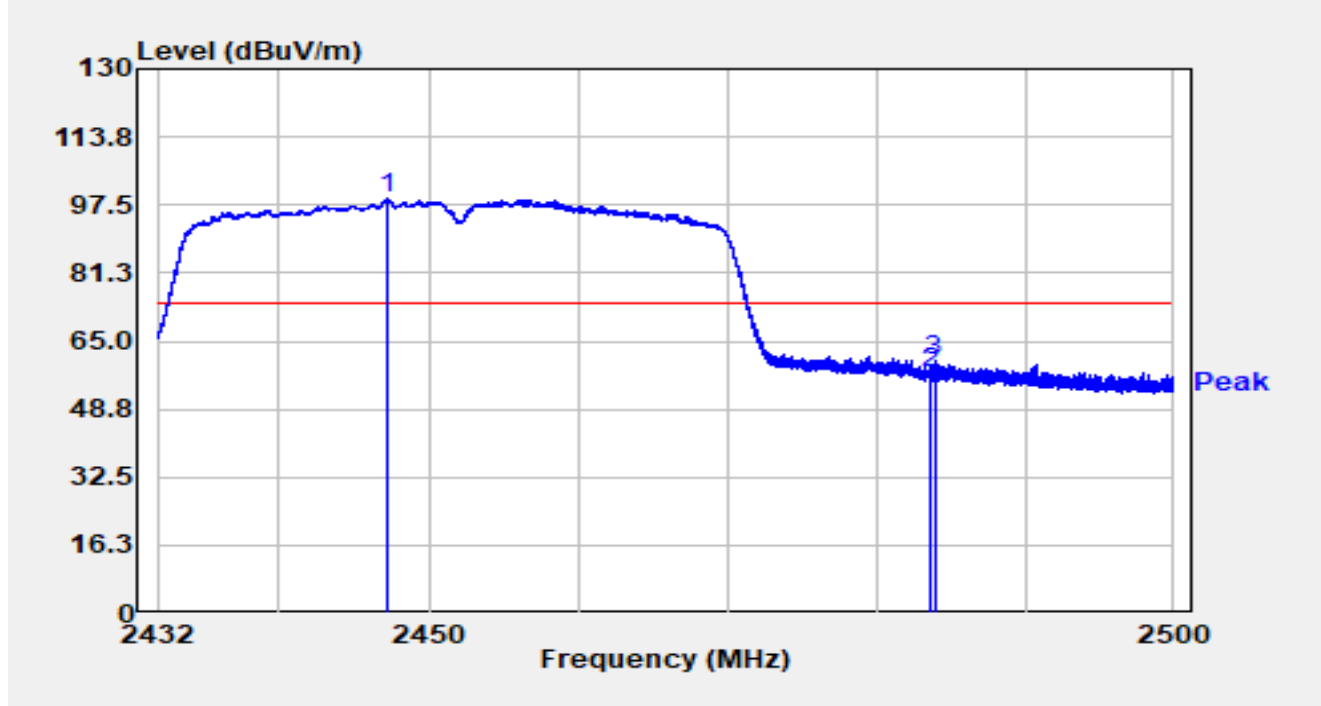


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2450.700	58.96	31.64	90.60	N/A	N/A	Average
2		2483.500	11.40	31.70	43.11	-10.89	54.00	Average
3		2483.809	11.86	31.71	43.57	-10.43	54.00	Average

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2452MHz		

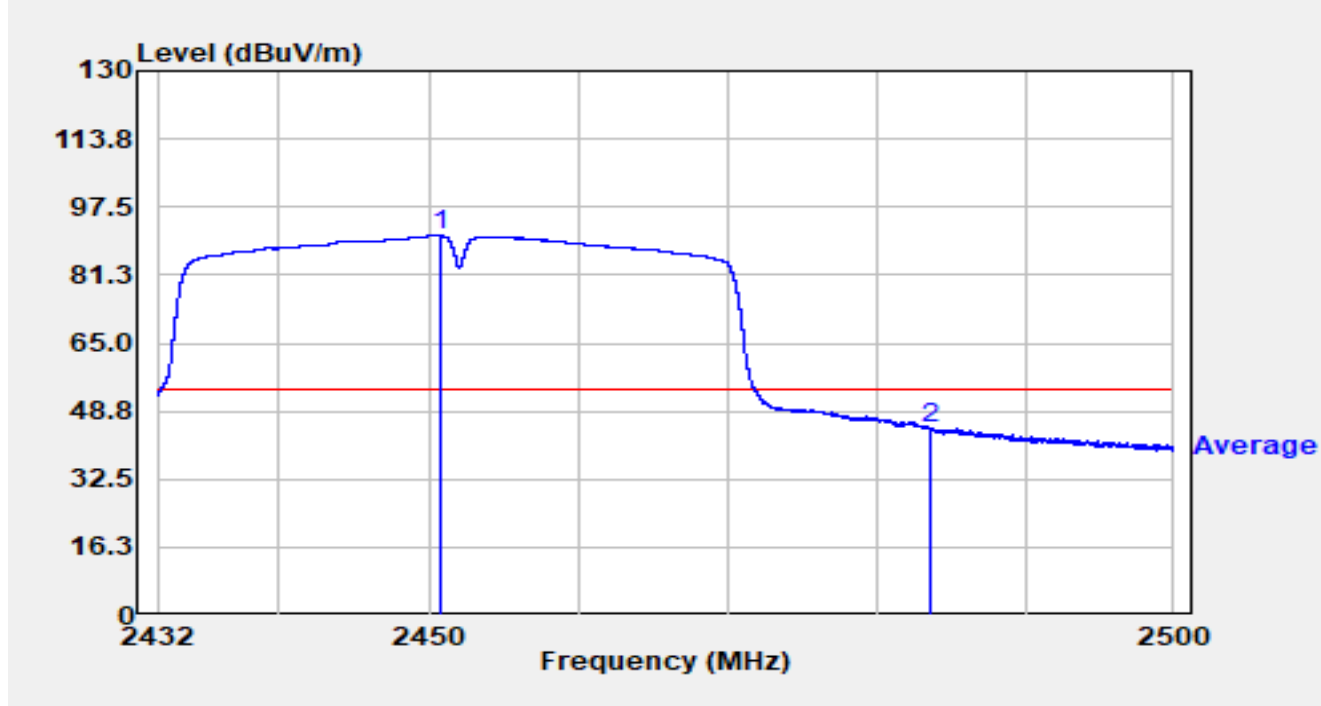


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2447.239	67.29	31.61	98.90	N/A	N/A	Peak
2		2483.500	25.79	31.70	57.50	-16.50	74.00	Peak
3		2483.823	28.75	31.71	60.45	-13.55	74.00	Peak

Notes:

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

Site	SIP-AC2	Test Date	2024-12-20
Temperature	16.6°C	Humidity	51.5%
Limit	FCC_Part 15_Band Edge(3m)	Test Engineer	Mero Zhou
Factor	BBHA 9120D_02042_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2452MHz		



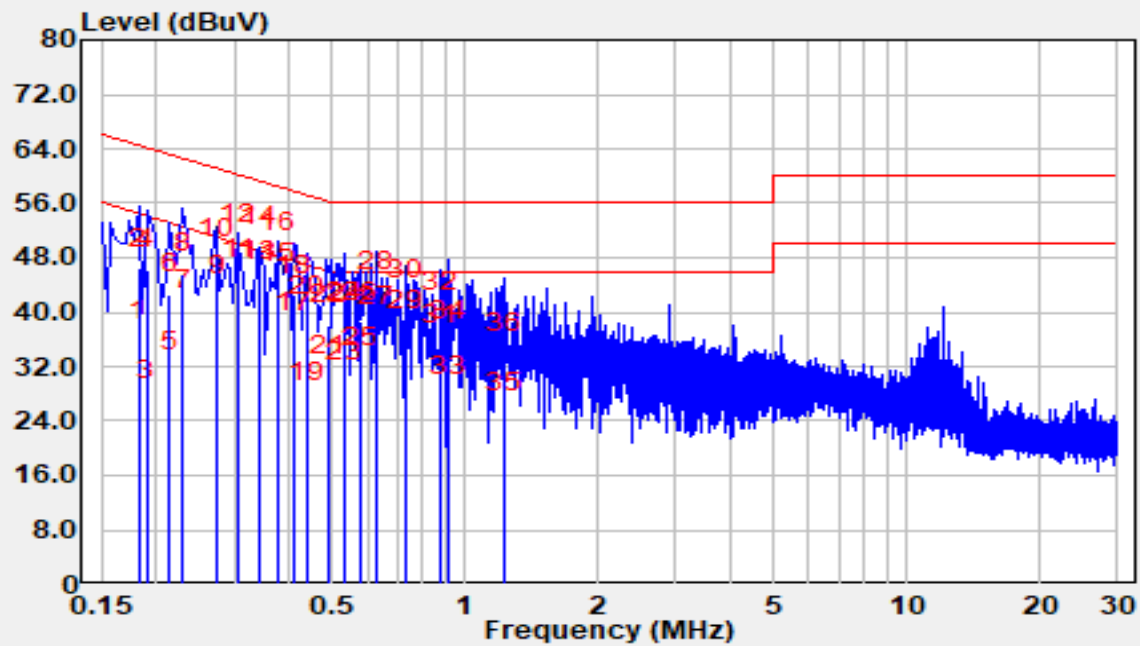
No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2450.734	59.09	31.64	90.73	N/A	N/A	Average
2		2483.500	13.16	31.70	44.86	-9.14	54.00	Average

Notes:

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

A.8 AC Conducted Emissions Test Result

Site	SIP-SR2	Test Date	2025-03-31
Temperature	20.9 °C	Humidity	28.9 %
Limit	FCC Part 15.207_CE_Mains	Test Engineer	Henry Wang
Factor	ENV216_101684_Filter off	Polarity	Line
EUT	Lawn Mowing Robot	Test Voltage	AC 120V/60Hz
Test Mode	Normal Operation in 2.4G Wi-Fi.		



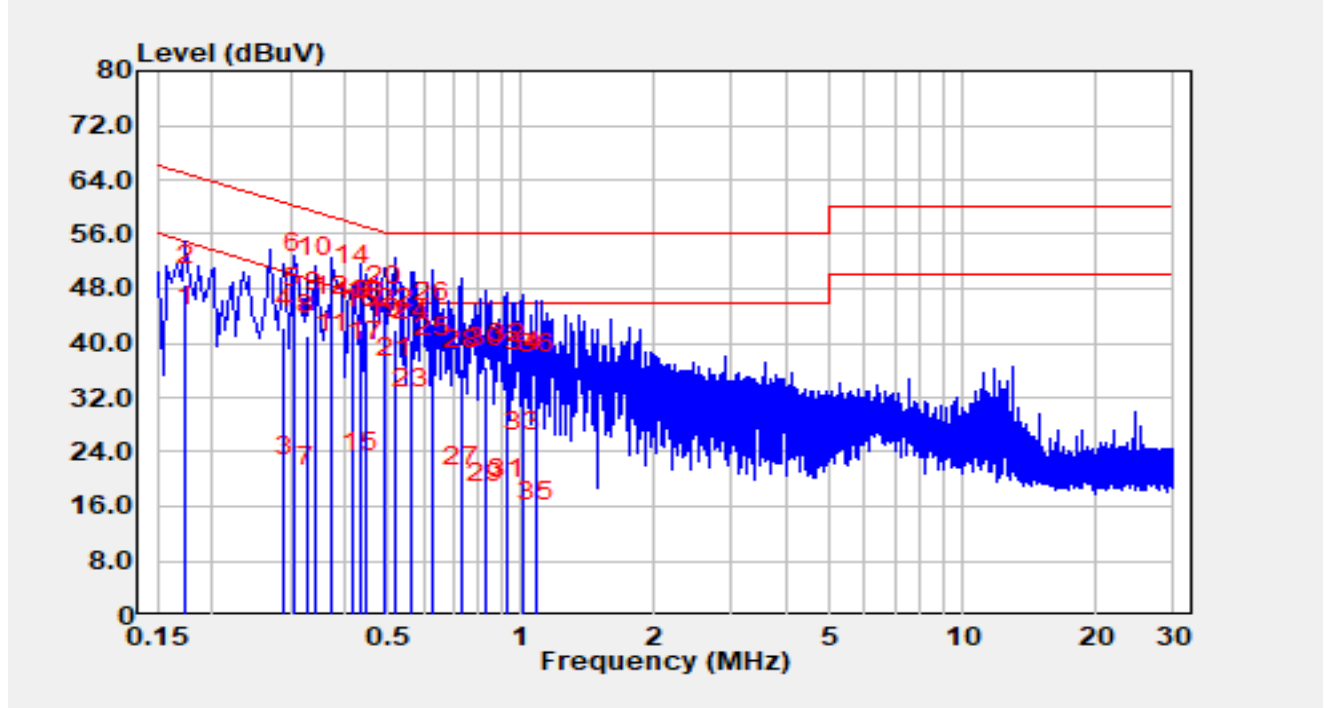
No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB)	Measurement (dBμV)	Margin (dB)	Limit (dBμV)	Detector
1		0.182	26.18	9.69	35.87	-18.52	54.40	Average
2		0.182	36.72	9.69	46.42	-17.98	64.40	QP
3		0.190	17.17	9.70	26.87	-27.17	54.04	Average
4		0.190	36.58	9.70	46.28	-17.76	64.04	QP
5		0.214	21.39	9.73	31.13	-21.93	53.05	Average
6		0.214	32.93	9.73	42.66	-20.39	63.05	QP
7		0.230	30.59	9.74	40.33	-12.12	52.45	Average
8		0.230	35.84	9.74	45.59	-16.87	62.45	QP
9		0.274	32.72	9.76	42.47	-8.52	51.00	Average
10		0.274	38.11	9.76	47.87	-13.13	61.00	QP
11		0.306	35.13	9.77	44.90	-5.17	50.08	Average
12		0.306	40.14	9.77	49.91	-10.17	60.08	QP
13		0.342	34.75	9.78	44.52	-4.63	49.15	Average

14		0.342	39.74	9.78	49.51	-9.64	59.15	QP
15	*	0.378	34.30	9.78	44.09	-4.24	48.33	Average
16		0.378	39.08	9.78	48.86	-9.46	58.33	QP
17		0.410	27.24	9.79	37.03	-10.62	47.65	Average
18		0.410	32.75	9.79	42.54	-15.11	57.65	QP
19		0.442	16.94	9.79	26.73	-20.30	47.03	Average
20		0.442	29.54	9.79	39.33	-17.70	57.03	QP
21		0.494	20.84	9.79	30.63	-15.47	46.10	Average
22		0.494	28.38	9.79	38.17	-17.93	56.10	QP
23		0.530	20.10	9.79	29.89	-16.11	46.00	Average
24		0.530	28.59	9.79	38.38	-17.62	56.00	QP
25		0.578	22.00	9.79	31.79	-14.21	46.00	Average
26		0.578	28.79	9.79	38.58	-17.42	56.00	QP
27		0.634	28.21	9.79	38.00	-8.00	46.00	Average
28		0.634	33.12	9.79	42.91	-13.09	56.00	QP
29		0.738	27.35	9.79	37.14	-8.86	46.00	Average
30		0.738	32.07	9.79	41.86	-14.14	56.00	QP
31		0.882	25.32	9.79	35.11	-10.89	46.00	Average
32		0.882	30.28	9.79	40.07	-15.93	56.00	QP
33		0.914	17.76	9.79	27.55	-18.45	46.00	Average
34		0.914	25.84	9.79	35.63	-20.37	56.00	QP
35		1.220	15.52	9.80	25.32	-20.68	46.00	Average
36		1.220	24.11	9.80	33.91	-22.09	56.00	QP

Notes:

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

Site	SIP-SR2	Test Date	2025-03-31
Temperature	20.9 °C	Humidity	28.9 %
Limit	FCC Part 15.207_CE_Mains	Test Engineer	Henry Wang
Factor	ENV216_101684_Filter off	Polarity	Neutral
EUT	Lawn Mowing Robot	Test Voltage	AC 120V/60Hz
Test Mode	Normal Operation in 2.4G Wi-Fi.		



No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB)	Measurement (dBμV)	Margin (dB)	Limit (dBμV)	Detector
1		0.174	32.80	9.66	42.46	-12.31	54.77	Average
2		0.174	38.83	9.66	48.49	-16.28	64.77	QP
3		0.290	10.58	9.73	20.31	-30.22	50.53	Average
4		0.290	32.41	9.73	42.13	-18.39	60.53	QP
5		0.306	35.41	9.73	45.14	-4.94	50.08	Average
6		0.306	40.42	9.73	50.15	-9.93	60.08	QP
7		0.326	9.27	9.74	19.01	-30.55	49.56	Average
8		0.326	31.44	9.74	41.18	-18.38	59.56	QP
9		0.342	34.88	9.74	44.61	-4.54	49.16	Average
10		0.342	39.88	9.74	49.61	-9.54	59.16	QP
11		0.374	28.89	9.74	38.63	-9.79	48.41	Average
12		0.374	34.23	9.74	43.97	-14.45	58.41	QP
13	*	0.414	33.56	9.74	43.30	-4.27	47.57	Average

14		0.414	38.59	9.74	48.33	-9.24	57.57	QP
15		0.434	11.15	9.74	20.89	-26.29	47.18	Average
16		0.434	32.35	9.74	42.09	-15.09	57.18	QP
17		0.446	27.59	9.74	37.33	-9.61	46.95	Average
18		0.446	33.49	9.74	43.23	-13.72	56.95	QP
19		0.490	30.82	9.74	40.56	-5.61	46.17	Average
20		0.490	35.77	9.74	45.51	-10.66	56.17	QP
21		0.518	25.21	9.74	34.95	-11.05	46.00	Average
22		0.518	32.27	9.74	42.01	-13.99	56.00	QP
23		0.566	20.63	9.74	30.37	-15.63	46.00	Average
24		0.566	30.56	9.74	40.30	-15.70	56.00	QP
25		0.634	28.25	9.74	37.99	-8.01	46.00	Average
26		0.634	33.14	9.74	42.88	-13.12	56.00	QP
27		0.730	9.06	9.74	18.80	-27.20	46.00	Average
28		0.730	26.35	9.74	36.09	-19.91	56.00	QP
29		0.834	6.73	9.74	16.47	-29.53	46.00	Average
30		0.834	26.70	9.74	36.44	-19.56	56.00	QP
31		0.930	7.35	9.74	17.09	-28.91	46.00	Average
32		0.930	27.15	9.74	36.89	-19.11	56.00	QP
33		1.014	14.31	9.74	24.05	-21.95	46.00	Average
34		1.014	25.95	9.74	35.69	-20.31	56.00	QP
35		1.086	3.86	9.74	13.60	-32.40	46.00	Average
36		1.086	25.77	9.74	35.51	-20.49	56.00	QP

Notes:

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

Appendix B – Test Setup Photograph

Refer to “2411RSU033-UT” file.

Appendix C – EUT Photograph

Refer to “2411RSU033-UE” file.

The End
