



RF MEASUREMENT REPORT

FCC ID: 2A64B-GPL11
Applicant: Ecovacs Home Service Robotics Co., Ltd.
Product: Lawn Mowing Robot
Model No.: GPL11
Brand Name: ECOVACS
FCC Classification: Digital Transmission System (DTS)
FCC Rule Part(s): Part 15 Subpart C (Section 15.247)
Result: Complies
Received Date: 2024-09-11
Test Date: 2024-10-19 ~ 2025-03-19

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
2409RSU024-U2	V01	Initial Report	2024-11-25	Invalid
2409RSU024-U2	V02	Update module information and add data of AC Conducted Emissions	2025-03-24	Valid

CONTENTS

Description	Page
1. General Information	5
1.1. Applicant	5
1.2. Manufacturer	5
1.3. Testing Facility	5
1.4. Product Information.....	6
1.5. Radio Specification under Test	7
1.6. Working Frequencies	7
2. Test Configuration	8
2.1. Test Mode.....	8
2.2. Test System Connection Diagram.....	8
2.3. Test Software	10
2.4. Applied Standards.....	10
2.5. Test Environment Condition	10
3. Antenna Requirements	11
4. Measuring Instrument	12
5. Decision Rules and Measurement Uncertainty	13
5.1. Decision Rules	13
5.2. Measurement Uncertainty	13
6. Test Result.....	14
6.1. Summary	14
6.2. 6dB Bandwidth Measurement.....	15
6.2.1. Test Limit	15
6.2.2. Test Procedure	15
6.2.3. Test Setting	15
6.2.4. Test Setup	15
6.2.5. Test Result	15
6.3. Output Power Measurement	16
6.3.1. Test Limit	16
6.3.2. Test Procedure	16
6.3.3. Test Setting	16
6.3.4. Test Setup	16
6.3.5. Test Result	16
6.4. Power Spectral Density Measurement	17
6.4.1. Test Limit	17
6.4.2. Test Procedure	17

6.4.3.	Test Setting	17
6.4.4.	Test Setup	17
6.4.5.	Test Result	18
6.5.	Conducted Band Edge and Out-of-Band Emissions Measurement	19
6.5.1.	Test Limit	19
6.5.2.	Test Procedure	19
6.5.3.	Test Settintg	19
6.5.4.	Test Setup	20
6.5.5.	Test Result	20
6.6.	Radiated Spurious Emission Measurement.....	21
6.6.1.	Test Limit	21
6.6.2.	Test Procedure	21
6.6.3.	Test Setting	21
6.6.4.	Test Setup	23
6.6.5.	Test Result	24
6.7.	Radiated Restricted Band Edge Measurement	25
6.7.1.	Test Limit	25
6.7.2.	Test Procedure	26
6.7.3.	Test Setting	26
6.7.4.	Test Setup	27
6.7.5.	Test Result	27
6.8.	AC Conducted Emissions Measurement	28
6.8.1.	Test Limit	28
6.8.2.	Test Setup	28
6.8.3.	Test Result	28
Appendix A	- Test Result.....	29
A.1	Duty Cycle Test Result	29
A.2	6dB Bandwidth Test Result	30
A.3	Output Power Test Result	33
A.4	Power Spectral Density Test Result	34
A.5	Conducted Band Edge and Out-of-Band Emissions Test Result.....	37
A.6	Radiated Spurious Emission Test Result.....	46
A.7	Radiated Restricted Band Edge Test Result.....	52
A.8	AC Conducted Emissions Test Result	84
Appendix B	- Test Setup Photograph	88
Appendix C	- EUT Photograph	89

1. General Information

1.1. Applicant

Ecovacs Home Service Robotics Co., Ltd.

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

1.2. Manufacturer

Ecovacs Home Service Robotics Co., Ltd.

No.518 Songwei Road,Wusongjiang industry Park, Guoxiang Street, Wuzhong District, Suzhou, Jiangsu, 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.	GPL11
Brand Name	ECOVACS
Serial No.	E07J12345F164RRY0024
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
Antenna Specification	Refer to Section 1.5
Operating Temp.	5 ~ 40°C
Power Type	By Battery
Contain Integrated Module 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
Remark: 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

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

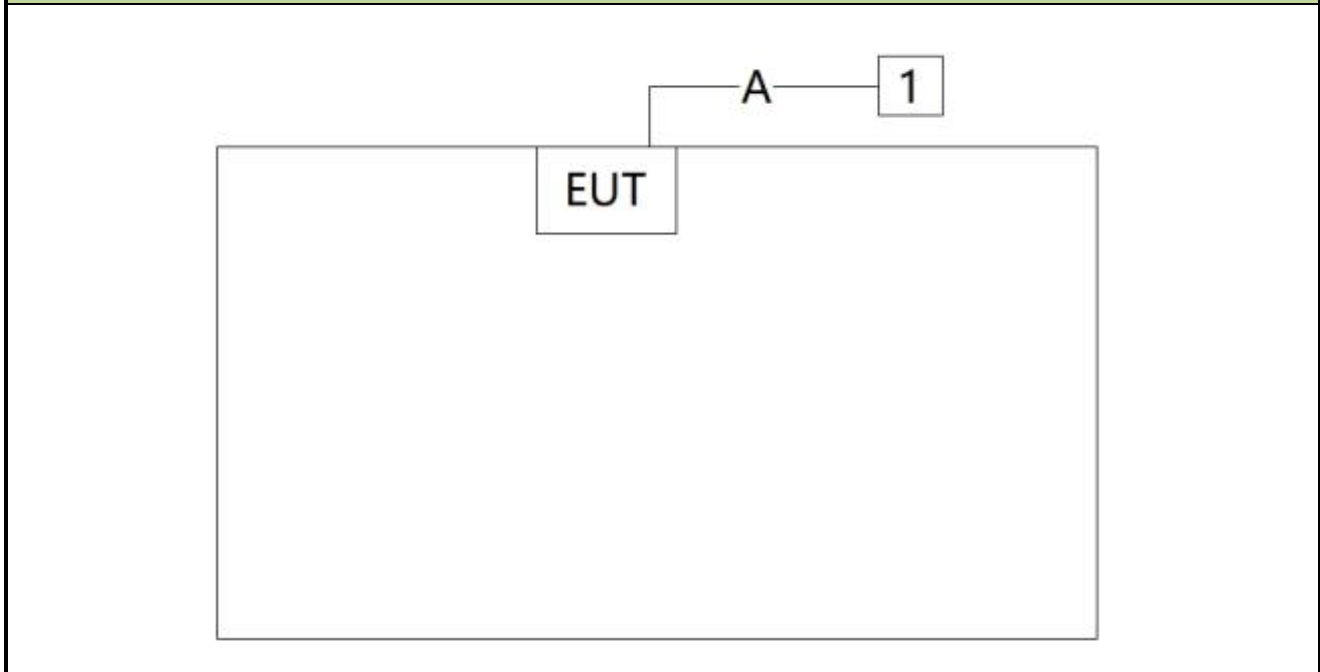
2.1. Test Mode

Mode 1: Transmit by 802.11b _N _{ss} =1 (1Mbps)
Mode 2: Transmit by 802.11g _N _{ss} =1 (6Mbps)
Mode 3: Transmit by 802.11n-HT20 _N _{ss} =1 (MCS0)
Mode 4: Transmit by 802.11n-HT40 _N _{ss} =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.

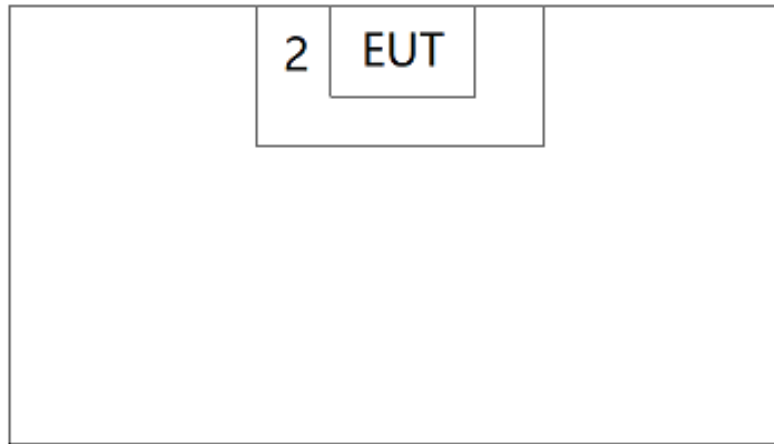
2.2. Test System Connection Diagram

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	CH2491B

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
Thermohygrometer	testo	608-H1	MRTSUE06619	1 year	2024-10-28	SIP-AC3
					2025-10-16	
Signal Analyzer	Keysight	N9010B	MRTSUE06559	1 year	2025-05-08	SIP-AC3
Preamplifier	EMCI	EMC012645SE	MRTSUE06642	1 year	2025-01-11	SIP-AC3
Horn Antenna	R&S	HF907	MRTSUE06611	1 year	2025-07-07	SIP-AC3
Anechoic Chamber	RIKEN	SIP-AC3	MRTSUE06782	1 year	2024-12-21	SIP-AC3
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06599	1 year	2025-09-08	SIP-AC3
Preamplifier	EMCI	EMC184045SE	MRTSUE06602	1 year	2025-10-08	SIP-AC3
Active Loop Antenna	Schwarzbeck	FMZB 1519-60 D	MRTSUE07075	1 year	2024-12-04	SIP-AC1
EMI Test Receiver	R&S	ESR3	MRTSUE06185	1 year	2024-12-17	SIP-AC1
Anechoic Chamber	RIKEN	SIP-AC1	MRTSUE06554	1 year	2024-12-21	SIP-AC1
Thermohygrometer	testo	608-H1	MRTSUE06616	1 year	2025-10-16	SIP-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06645	1 year	2025-07-05	SIP-AC1
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.

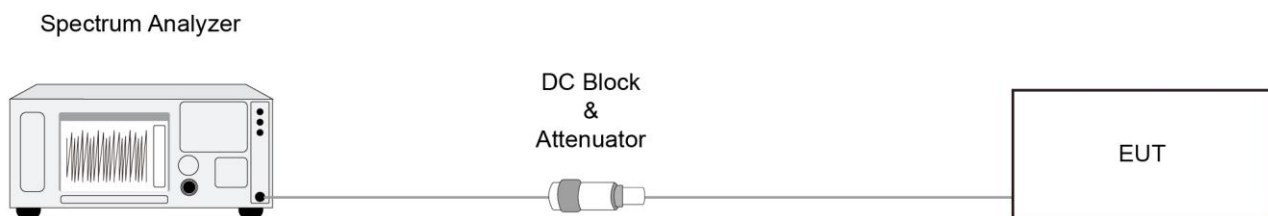
6.2.2. Test Procedure

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

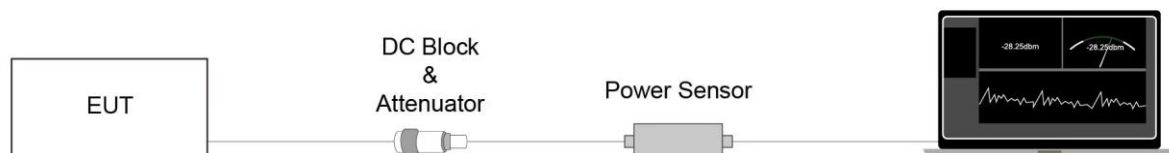
ANSI C63.10 - 2013 - Section 11.9.2.3.2

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.

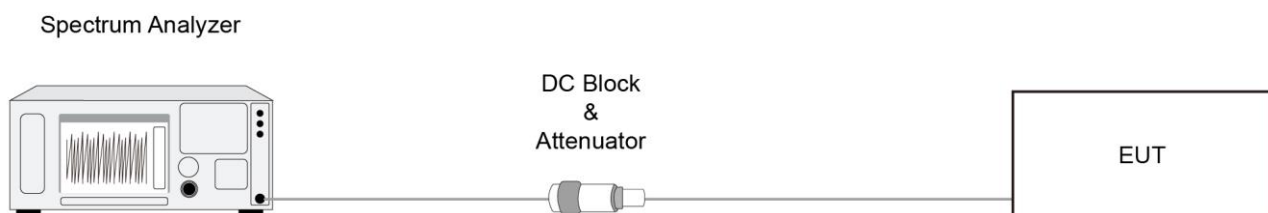
6.4.2. Test Procedure

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 Settling

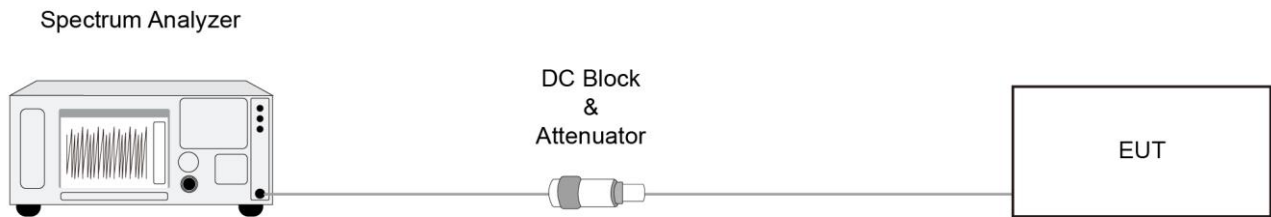
Reference level measurement

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

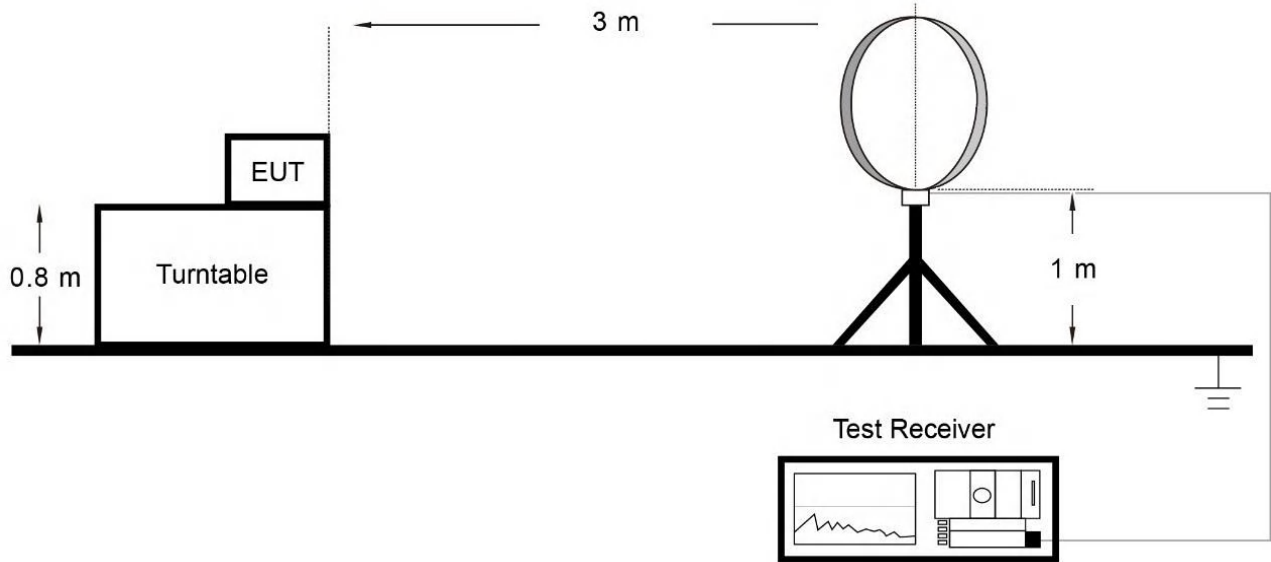
Average Measurements above 1GHz (Method VB)

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

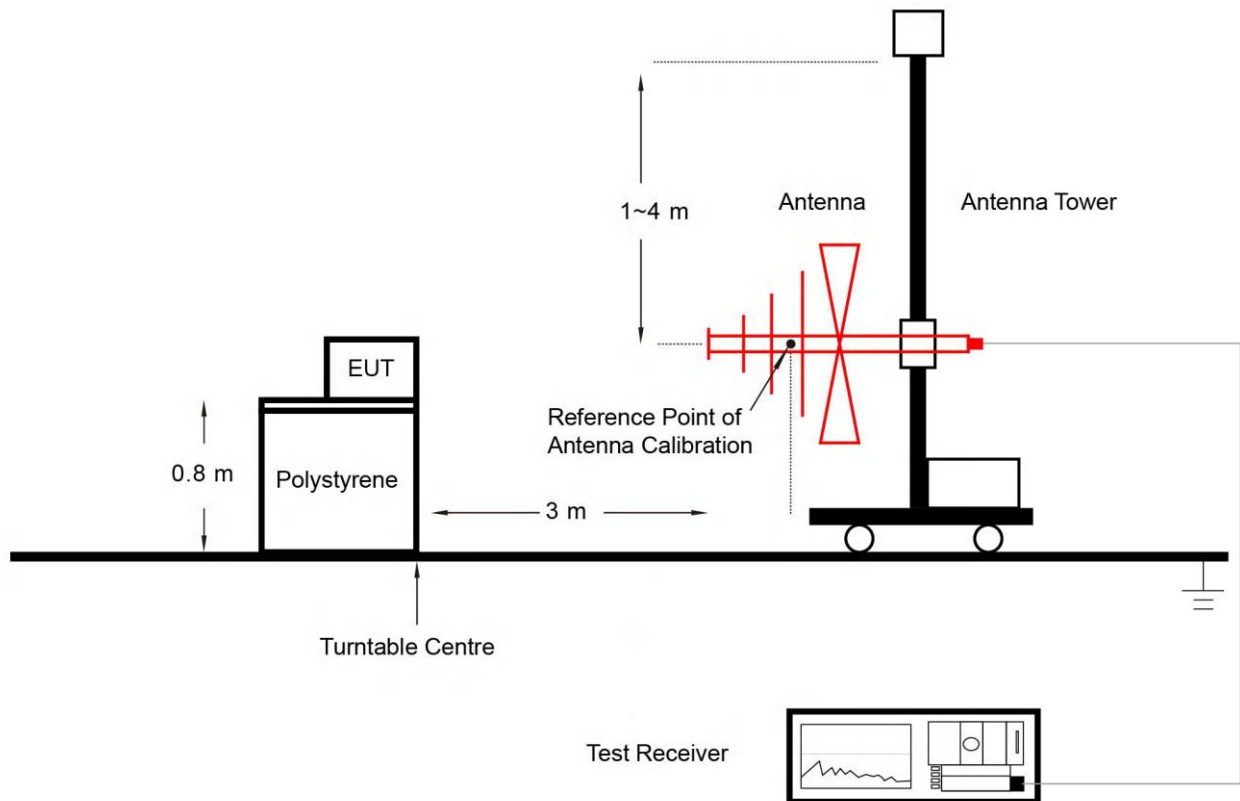
If the EUT duty cycle is $< 98\%$, set $VBW \geq 1/T$. T is the minimum transmission duration.
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear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

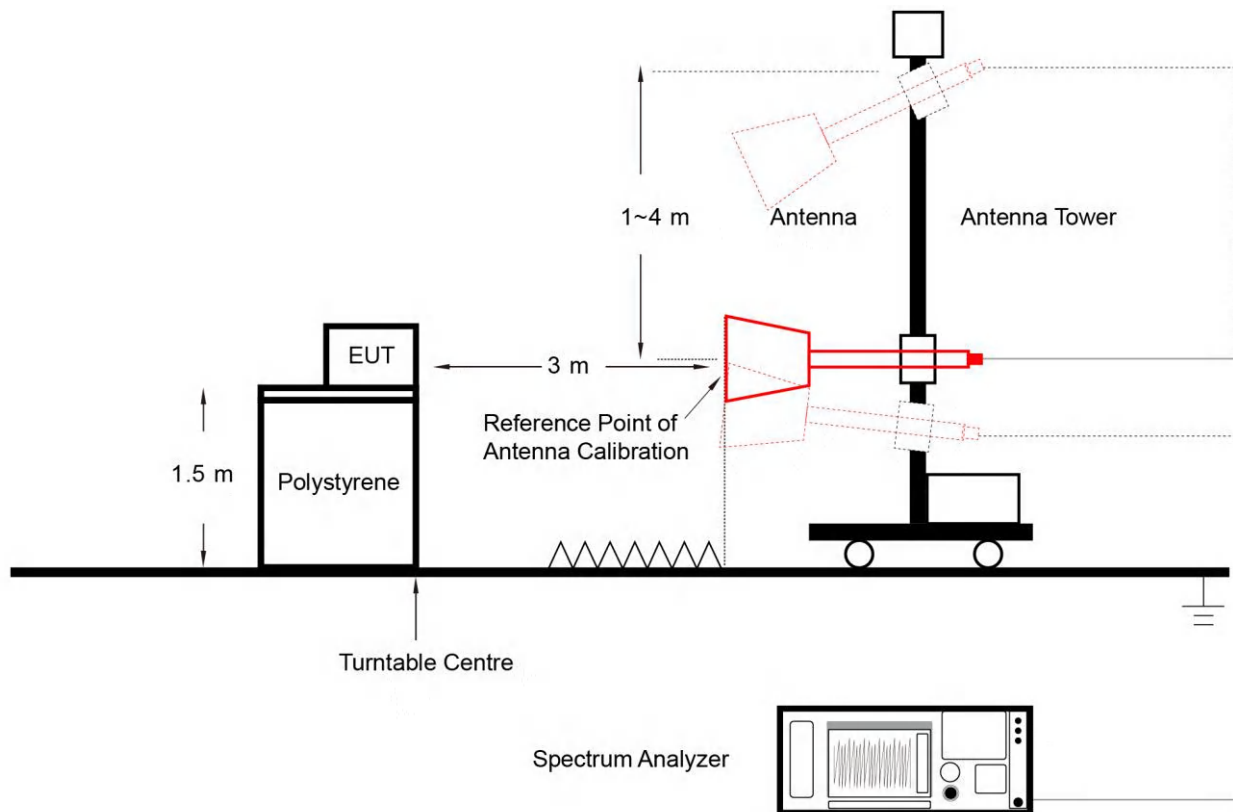
Below 30MHz Test Setup:



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

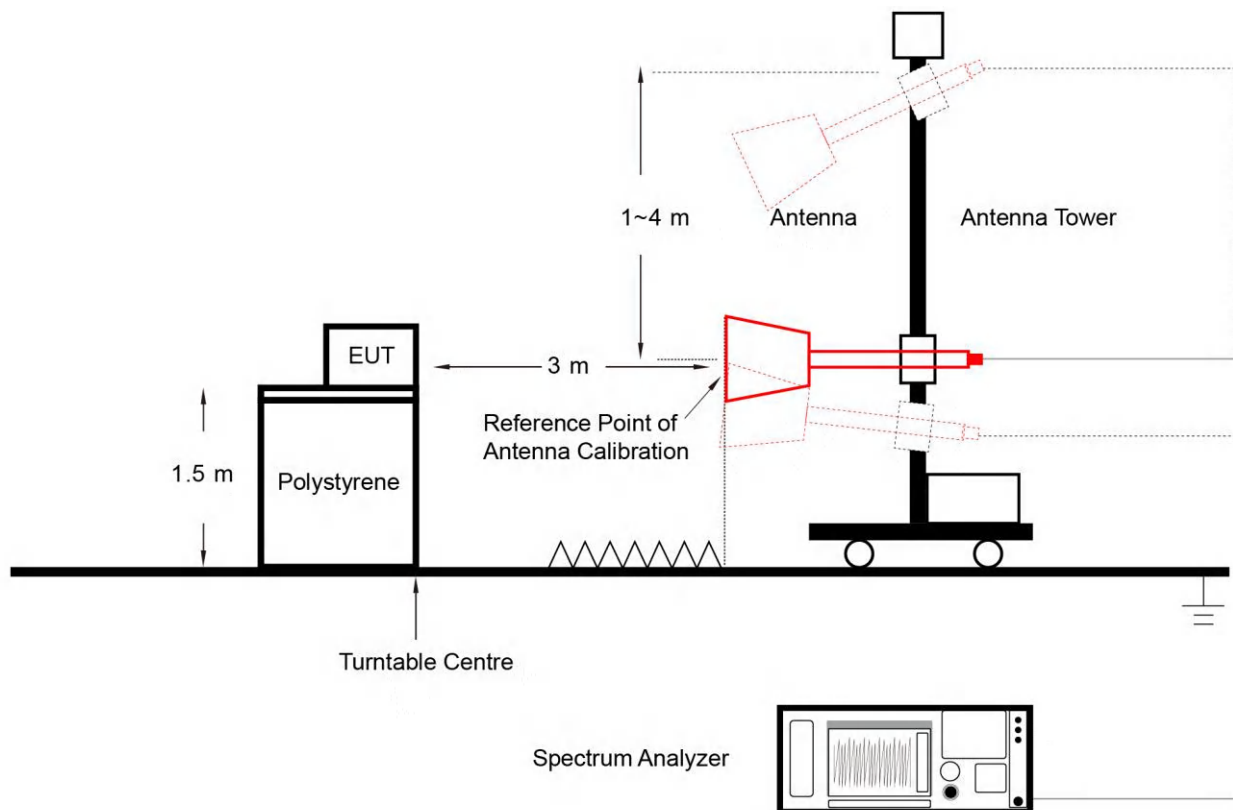
Average Field Strength Measurements

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

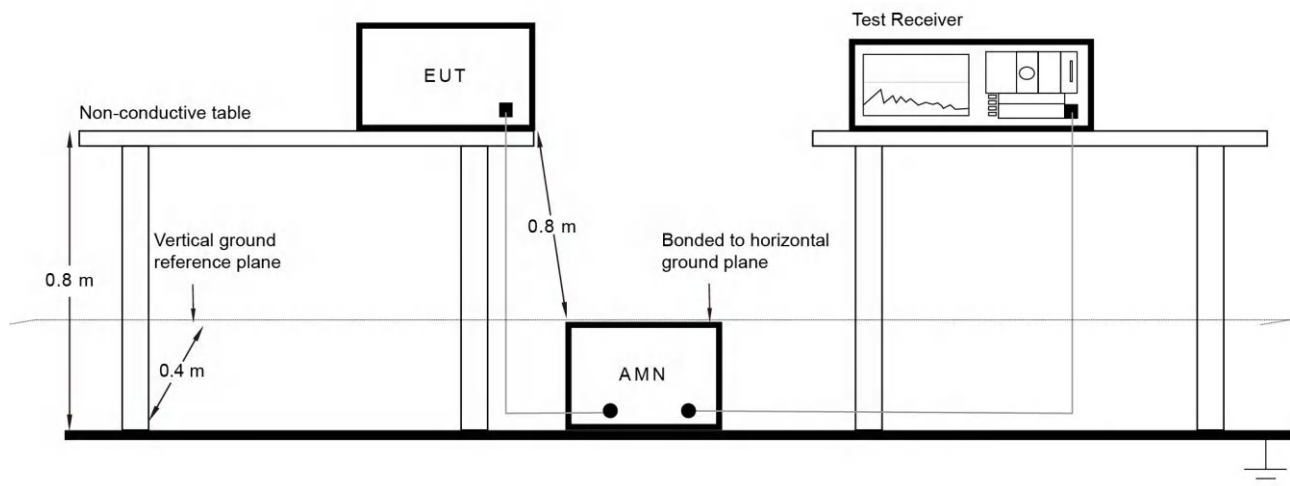
6.8.1. Test Limit

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

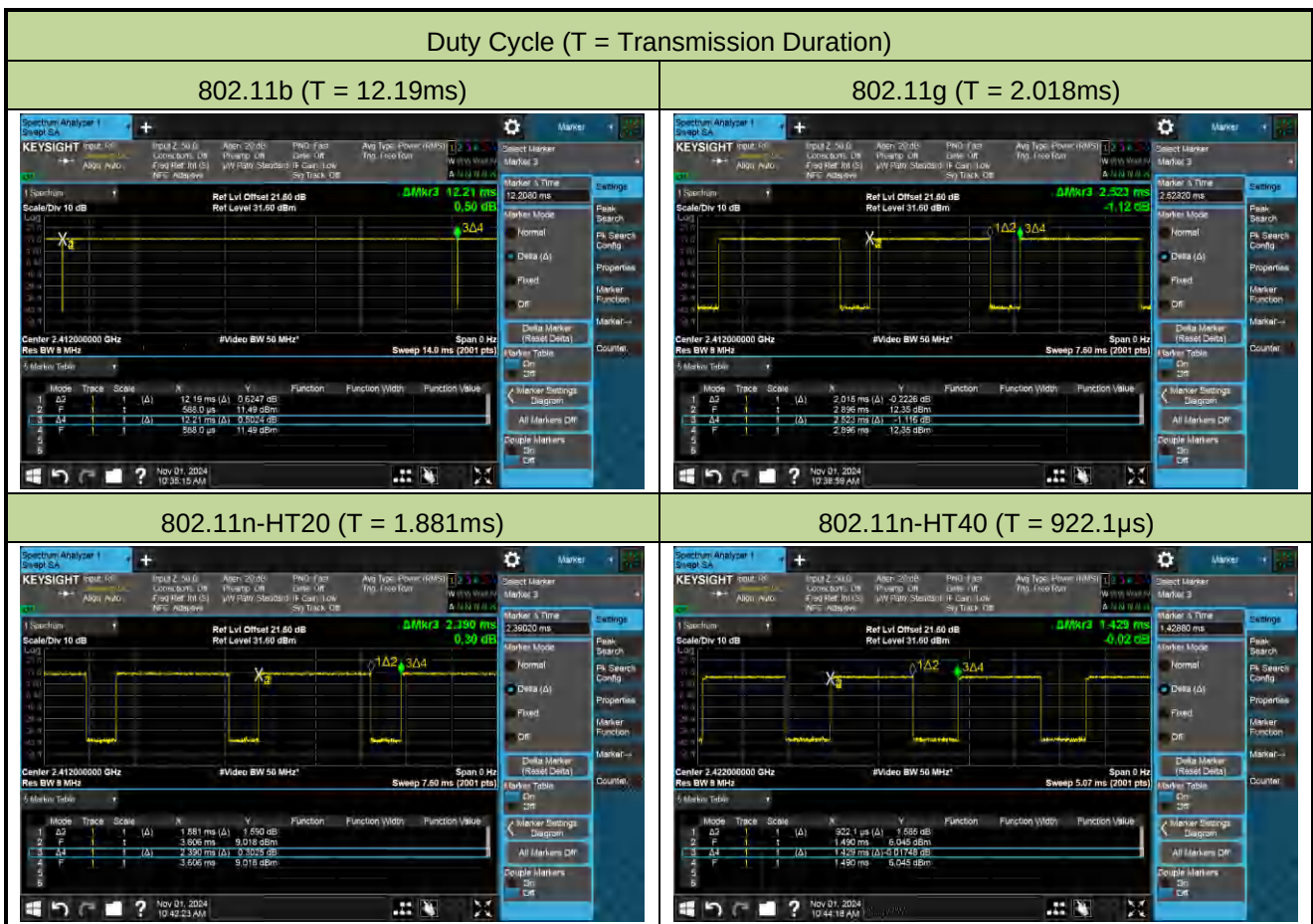
Refer to Appendix A.8.

Appendix A – Test Result

A.1 Duty Cycle Test Result

Test Site	SIP-TR1	Test Engineer	Ryan Wang
Test Date	2024-11-01		

Test Mode	Duty Cycle
802.11b	99.84%
802.11g	79.98%
802.11n-HT20	78.70%
802.11n-HT40	64.53%



A.2 6dB Bandwidth Test Result

Test Site	SIP-TR1	Test Engineer	Ryan Wang
Test Date	2024-11-01		

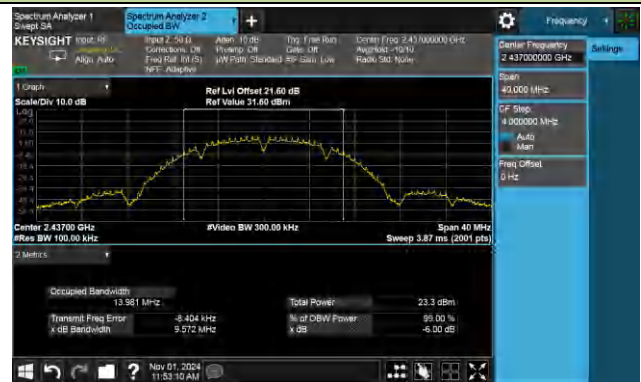
Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
11b	1Mbps	01	2412	9.089	≥ 0.5
11b	1Mbps	06	2437	9.572	≥ 0.5
11b	1Mbps	11	2462	9.561	≥ 0.5
11g	6Mbps	01	2412	15.120	≥ 0.5
11g	6Mbps	06	2437	15.120	≥ 0.5
11g	6Mbps	11	2462	15.120	≥ 0.5
11n-HT20	MCS0	01	2412	15.110	≥ 0.5
11n-HT20	MCS0	06	2437	15.120	≥ 0.5
11n-HT20	MCS0	11	2462	15.040	≥ 0.5
11n-HT40	MCS0	03	2422	33.800	≥ 0.5
11n-HT40	MCS0	06	2437	35.050	≥ 0.5
11n-HT40	MCS0	09	2452	32.570	≥ 0.5

802.11b 6dB Bandwidth

Channel 01 (2412MHz)



Channel 06 (2437MHz)

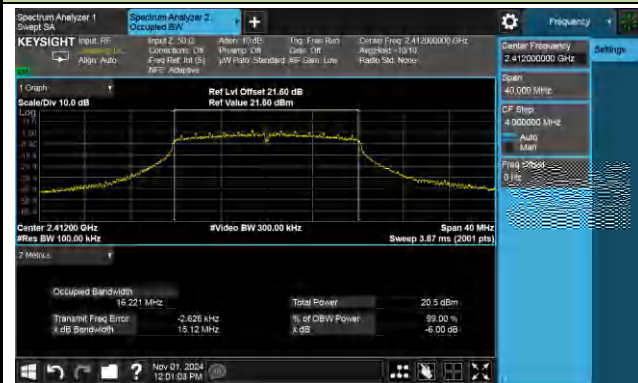


Channel 11 (2462MHz)

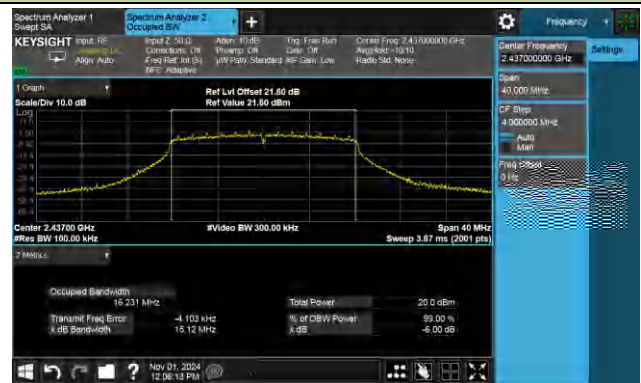


802.11g 6dB Bandwidth

Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)

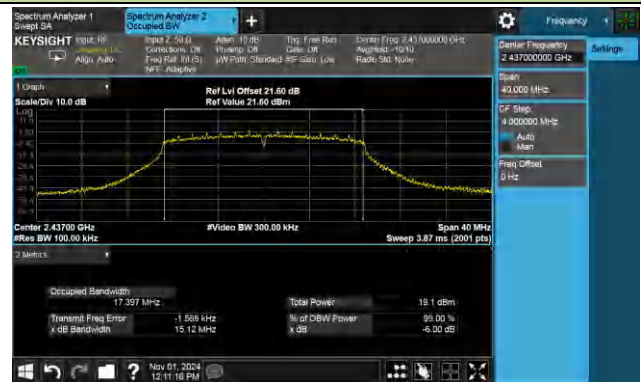


802.11n-HT20 6dB Bandwidth

Channel 01 (2412MHz)



Channel 06 (2437MHz)



Channel 11 (2462MHz)



802.11n-HT40 6dB Bandwidth

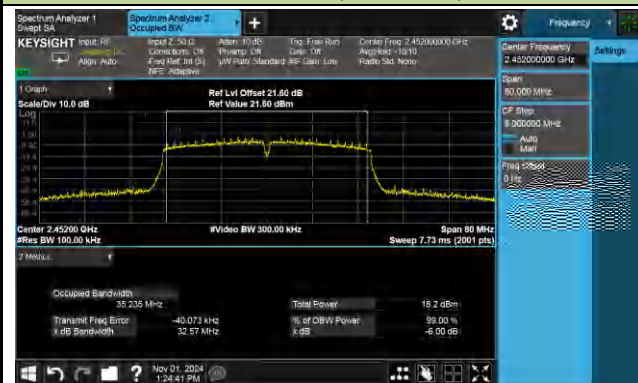
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



A.3 Output Power Test Result

Test Site	SIP-TR1	Test Engineer	Ryan Wang
Test Date	2024-11-01		

Test Mode	Data Rate / MCS	Channel No.	Freq. (MHz)	Average Power (dBm)	Limit (dBm)
11b	1Mbps	01	2412	16.59	≤ 30.00
11b	1Mbps	06	2437	16.54	≤ 30.00
11b	1Mbps	11	2462	16.74	≤ 30.00
11g	6Mbps	01	2412	13.91	≤ 30.00
11g	6Mbps	06	2437	13.72	≤ 30.00
11g	6Mbps	11	2462	13.87	≤ 30.00
11n-HT20	MCS0	01	2412	12.76	≤ 30.00
11n-HT20	MCS0	06	2437	12.54	≤ 30.00
11n-HT20	MCS0	11	2462	12.92	≤ 30.00
11n-HT40	MCS0	03	2422	11.64	≤ 30.00
11n-HT40	MCS0	06	2437	11.45	≤ 30.00
11n-HT40	MCS0	09	2452	11.52	≤ 30.00

A.4 Power Spectral Density Test Result

Test Site	SIP-TR1	Test Engineer	Ryan Wang
Test Date	2024-11-01		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)
11b	1Mbps	01	2412	-10.256	≤ 8.00
11b	1Mbps	06	2437	-10.237	≤ 8.00
11b	1Mbps	11	2462	-9.131	≤ 8.00
11g	6Mbps	01	2412	-13.976	≤ 8.00
11g	6Mbps	06	2437	-14.175	≤ 8.00
11g	6Mbps	11	2462	-13.757	≤ 8.00
11n-HT20	MCS0	01	2412	-14.813	≤ 8.00
11n-HT20	MCS0	06	2437	-15.248	≤ 8.00
11n-HT20	MCS0	11	2462	-14.829	≤ 8.00
11n-HT40	MCS0	03	2422	-18.603	≤ 8.00
11n-HT40	MCS0	06	2437	-18.615	≤ 8.00
11n-HT40	MCS0	09	2452	-18.440	≤ 8.00

802.11b - PSD

Channel 01 (2412MHz)



Channel 06 (2437MHz)

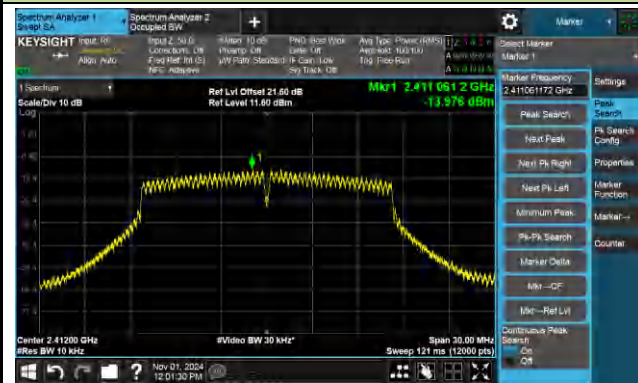


Channel 11 (2462MHz)



802.11g - PSD

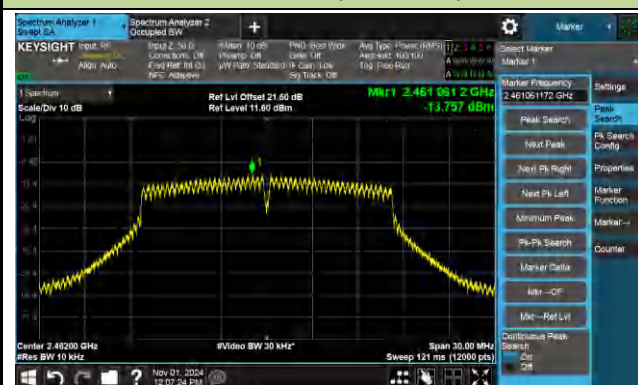
Channel 01 (2412MHz)



Channel 06 (2437MHz)

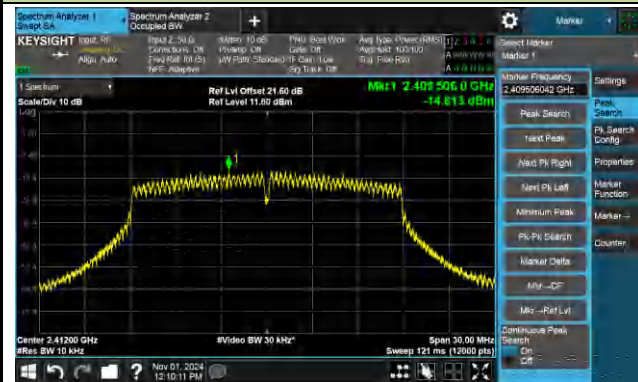


Channel 11 (2462MHz)

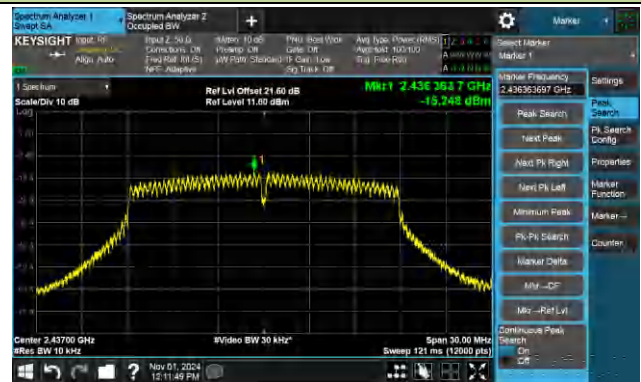


802.11n-HT20 - PSD

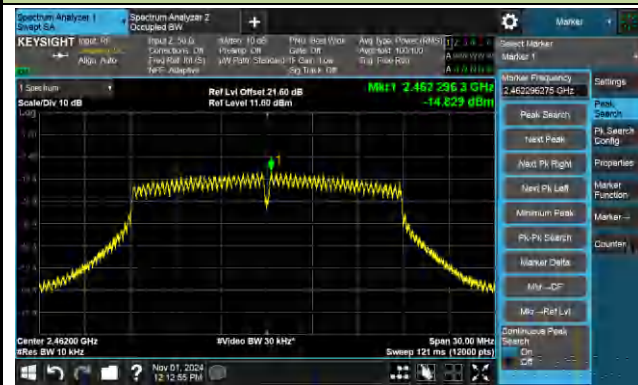
Channel 01 (2412MHz)



Channel 06 (2437MHz)

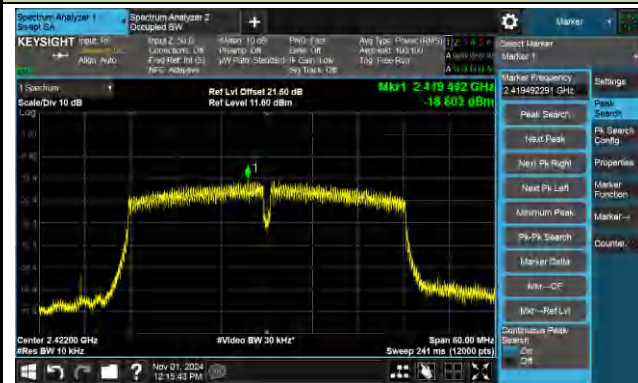


Channel 11 (2462MHz)

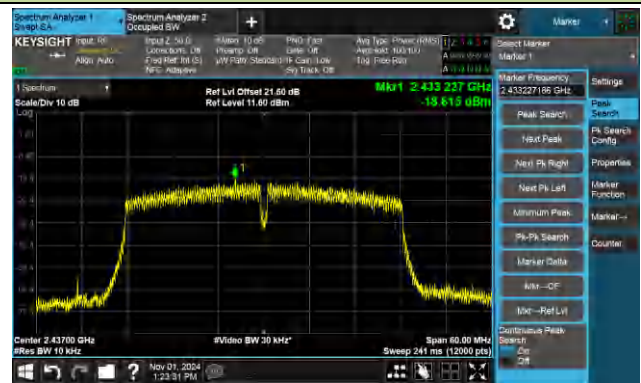


802.11n-HT40 - PSD

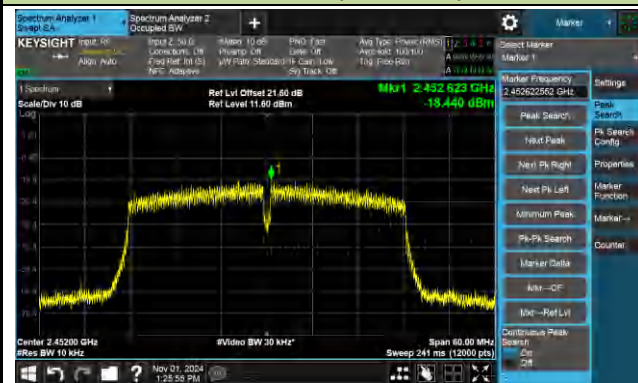
Channel 03 (2422MHz)



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	2024-11-01 ~ 2024-11-09		

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)

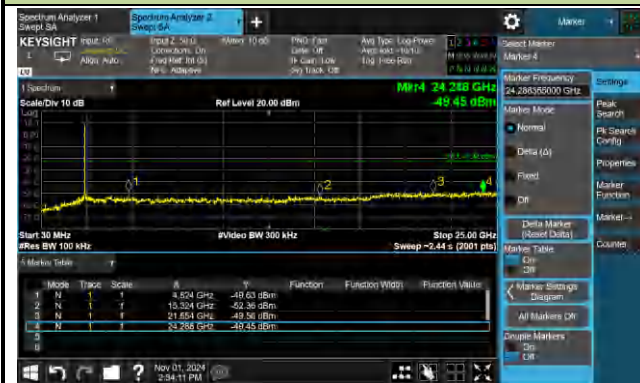
Reference Level



Low Band Edge



Spurious Emission

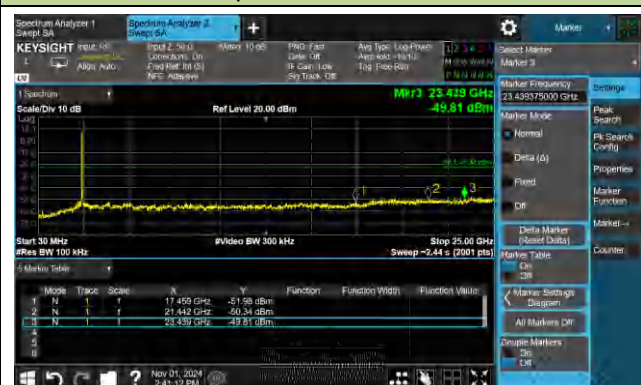


Channel 06 (2437MHz)

Reference Level



Spurious Emission



802.11b Out-of-Band Emissions

Channel 11 (2462MHz)

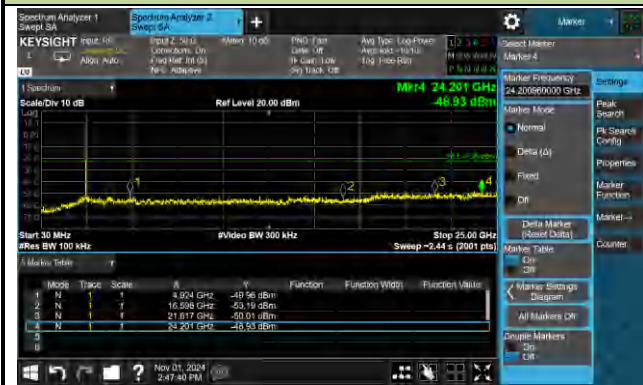
Reference Level



High Band Edge



Spurious Emission



802.11g Out-of-Band Emissions

Channel 01 (2412MHz)

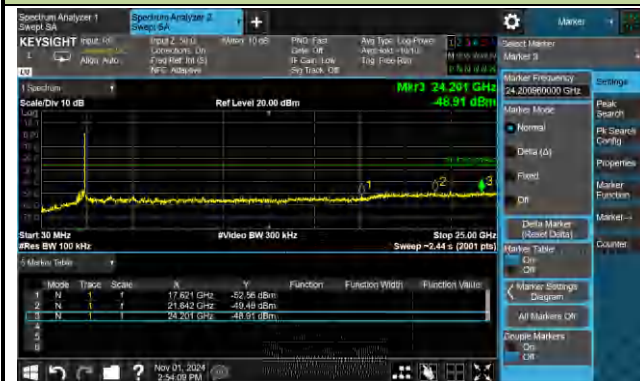
Reference Level



Low Band Edge

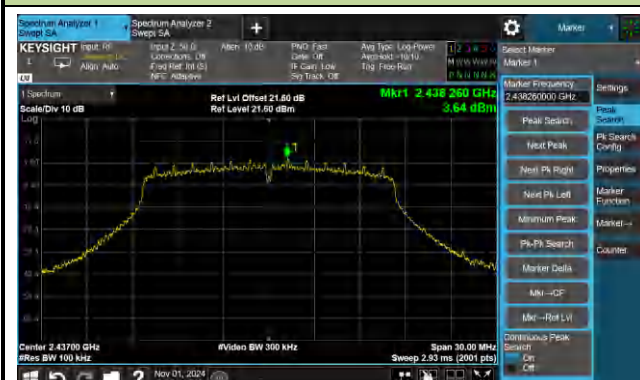


Spurious Emission

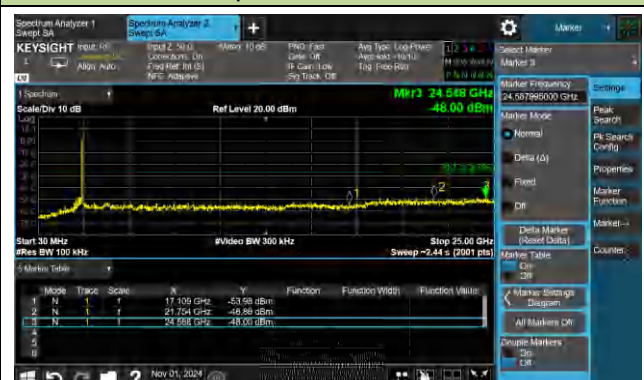


Channel 06 (2437MHz)

Reference Level



Spurious Emission



802.11g Out-of-Band Emissions

Channel 11 (2462MHz)

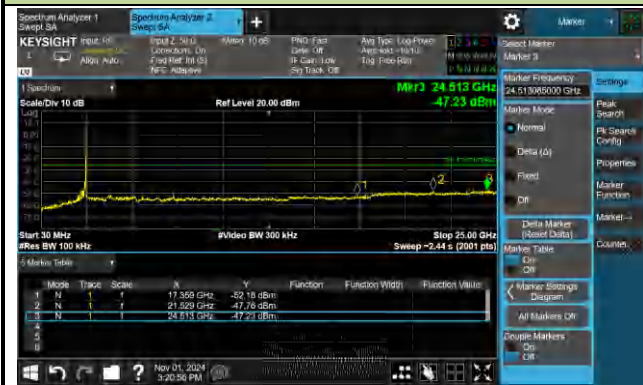
Reference Level



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)

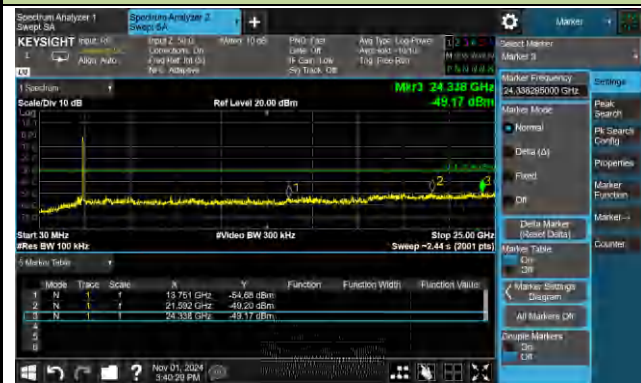
Reference Level



Low Band Edge



Spurious Emission



Channel 06 (2437MHz)

Reference Level



Spurious Emission



802.11n-HT40 Out-of-Band Emissions

Channel 09 (2452MHz)

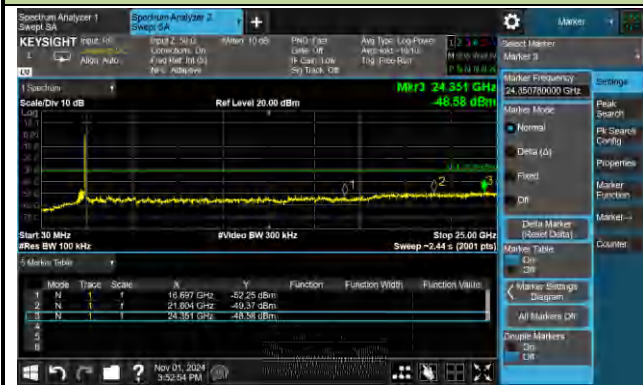
Reference Level



High Band Edge



Spurious Emission



A.6 Radiated Spurious Emission Test Result

Test Site	SIP-AC3	Test Engineer	Mero Zhou
Test Date	2024-09-29	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	11665.8	49.8	-0.2	49.6	74.0	-24.4	Peak	Horizontal
	15958.3	47.0	6.6	53.6	74.0	-20.4	Peak	Horizontal
	15958.3	33.7	6.6	40.3	54.0	-13.7	Average	Horizontal
	17772.2	46.6	8.8	55.4	74.0	-18.6	Peak	Horizontal
	17772.2	33.4	8.8	42.2	54.0	-11.8	Average	Horizontal
	4823.3	56.4	-7.0	49.4	74.0	-24.6	Peak	Vertical
	11489.0	49.5	0.9	50.4	74.0	-23.6	Peak	Vertical
	15965.1	46.7	6.5	53.2	74.0	-20.8	Peak	Vertical
	15965.1	33.7	6.5	40.2	54.0	-13.8	Average	Vertical
06	5037.5	49.7	-6.4	43.3	74.0	-30.7	Peak	Horizontal
	7686.1	49.9	-3.9	46.0	74.0	-28.0	Peak	Horizontal
	10955.2	47.8	0.7	48.5	74.0	-25.5	Peak	Horizontal
	4874.3	53.2	-7.0	46.2	74.0	-27.8	Peak	Vertical
	7626.6	49.0	-3.9	45.1	74.0	-28.9	Peak	Vertical
	10819.2	47.5	0.7	48.2	74.0	-25.8	Peak	Vertical
11	4923.6	51.6	-6.4	45.2	74.0	-28.8	Peak	Horizontal
	7648.7	49.7	-3.9	45.8	74.0	-28.2	Peak	Horizontal
	11106.5	47.2	1.0	48.2	74.0	-25.8	Peak	Horizontal
	4923.6	54.2	-6.4	47.8	74.0	-26.2	Peak	Vertical
	7490.6	49.5	-4.1	45.4	74.0	-28.6	Peak	Vertical
	11082.7	47.0	1.2	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-AC3	Test Engineer	Mero Zhou
Test Date	2024-09-29	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	4989.9	49.1	-6.2	42.9	74.0	-31.1	Peak	Horizontal
	7512.7	49.0	-4.0	45.0	74.0	-29.0	Peak	Horizontal
	11499.2	47.4	0.6	48.0	74.0	-26.0	Peak	Horizontal
	5032.4	49.4	-6.4	43.0	74.0	-31.0	Peak	Vertical
	7618.1	49.4	-3.8	45.6	74.0	-28.4	Peak	Vertical
	11487.3	47.3	0.9	48.2	74.0	-25.8	Peak	Vertical
06	4682.2	50.3	-7.5	42.8	74.0	-31.2	Peak	Horizontal
	7694.6	49.3	-3.9	45.4	74.0	-28.6	Peak	Horizontal
	10752.9	48.0	0.9	48.9	74.0	-25.1	Peak	Horizontal
	4955.9	49.8	-6.7	43.1	74.0	-30.9	Peak	Vertical
	7497.4	49.3	-4.0	45.3	74.0	-28.7	Peak	Vertical
	11489.0	47.7	0.9	48.6	74.0	-25.4	Peak	Vertical
11	4978.0	49.6	-6.5	43.1	74.0	-30.9	Peak	Horizontal
	7641.9	49.2	-3.9	45.3	74.0	-28.7	Peak	Horizontal
	11082.7	47.0	1.2	48.2	74.0	-25.8	Peak	Horizontal
	4920.2	50.9	-6.4	44.5	74.0	-29.5	Peak	Vertical
	7512.7	49.5	-4.0	45.5	74.0	-28.5	Peak	Vertical
	11067.4	47.6	1.1	48.7	74.0	-25.3	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-AC3	Test Engineer	Mero Zhou
Test Date	2024-09-29	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	3849.2	49.6	-7.6	42.0	74.0	-32.0	Peak	Horizontal
	5044.3	49.5	-6.3	43.2	74.0	-30.8	Peak	Horizontal
	10865.1	47.8	1.0	48.8	74.0	-25.2	Peak	Horizontal
	4945.7	49.3	-6.6	42.7	74.0	-31.3	Peak	Vertical
	7624.9	49.1	-3.9	45.2	74.0	-28.8	Peak	Vertical
	11031.7	48.4	0.3	48.7	74.0	-25.3	Peak	Vertical
06	4945.7	49.5	-6.6	42.9	74.0	-31.1	Peak	Horizontal
	7495.7	49.7	-4.0	45.7	74.0	-28.3	Peak	Horizontal
	11082.7	47.9	1.2	49.1	74.0	-24.9	Peak	Horizontal
	4995.0	49.5	-6.1	43.4	74.0	-30.6	Peak	Vertical
	7657.2	49.4	-3.9	45.5	74.0	-28.5	Peak	Vertical
	11099.7	47.7	1.1	48.8	74.0	-25.2	Peak	Vertical
11	4949.1	49.9	-6.6	43.3	74.0	-30.7	Peak	Horizontal
	7640.2	49.3	-3.9	45.4	74.0	-28.6	Peak	Horizontal
	11087.8	47.1	1.2	48.3	74.0	-25.7	Peak	Horizontal
	5047.7	50.1	-6.3	43.8	74.0	-30.2	Peak	Vertical
	7645.3	48.9	-3.9	45.0	74.0	-29.0	Peak	Vertical
	11099.7	47.4	1.1	48.5	74.0	-25.5	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-AC3	Test Engineer	Mero Zhou
Test Date	2024-09-29	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.		

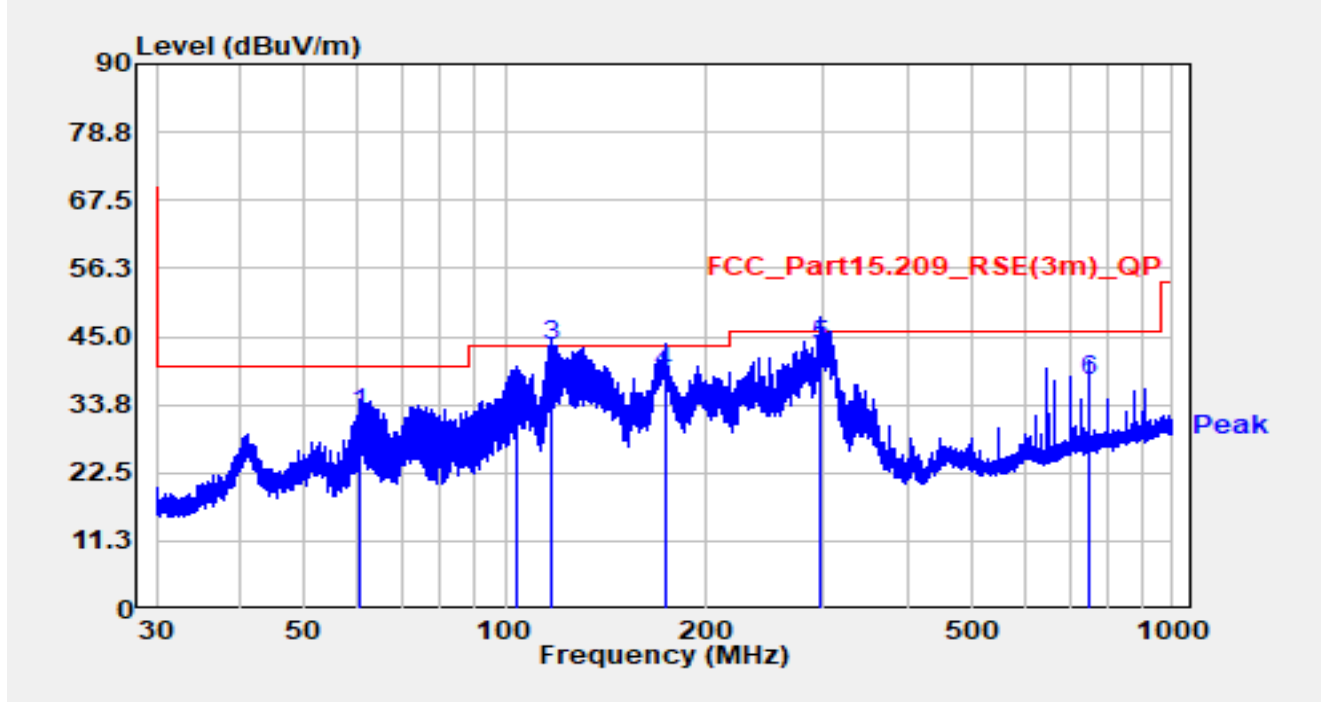
Test Channel	Frequency (MHz)	Reading Level (dBμV)	Factor (dB/m)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
03	4940.6	49.2	-6.5	42.7	74.0	-31.3	Peak	Horizontal
	7613.0	50.0	-3.8	46.2	74.0	-27.8	Peak	Horizontal
	10951.8	47.9	0.7	48.6	74.0	-25.4	Peak	Horizontal
	4996.7	49.1	-6.1	43.0	74.0	-31.0	Peak	Vertical
	7477.0	49.3	-4.1	45.2	74.0	-28.8	Peak	Vertical
	10749.5	47.8	0.8	48.6	74.0	-25.4	Peak	Vertical
06	4925.3	49.7	-6.5	43.2	74.0	-30.8	Peak	Horizontal
	7647.0	49.6	-3.9	45.7	74.0	-28.3	Peak	Horizontal
	11669.2	49.1	-0.2	48.9	74.0	-25.1	Peak	Horizontal
	4644.8	50.5	-7.6	42.9	74.0	-31.1	Peak	Vertical
	7738.8	49.5	-3.8	45.7	74.0	-28.3	Peak	Vertical
	11074.2	47.5	1.2	48.7	74.0	-25.3	Peak	Vertical
09	4830.1	50.3	-7.1	43.2	74.0	-30.8	Peak	Horizontal
	7721.8	49.8	-3.9	45.9	74.0	-28.1	Peak	Horizontal
	11123.5	48.1	0.5	48.6	74.0	-25.4	Peak	Horizontal
	4995.0	49.4	-6.1	43.3	74.0	-30.7	Peak	Vertical
	7636.8	49.0	-3.9	45.1	74.0	-28.9	Peak	Vertical
	11053.8	47.9	0.7	48.6	74.0	-25.4	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-AC1	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	26.2°C /68.3%
Factor	VULB 9168_00998_25-2000MHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		

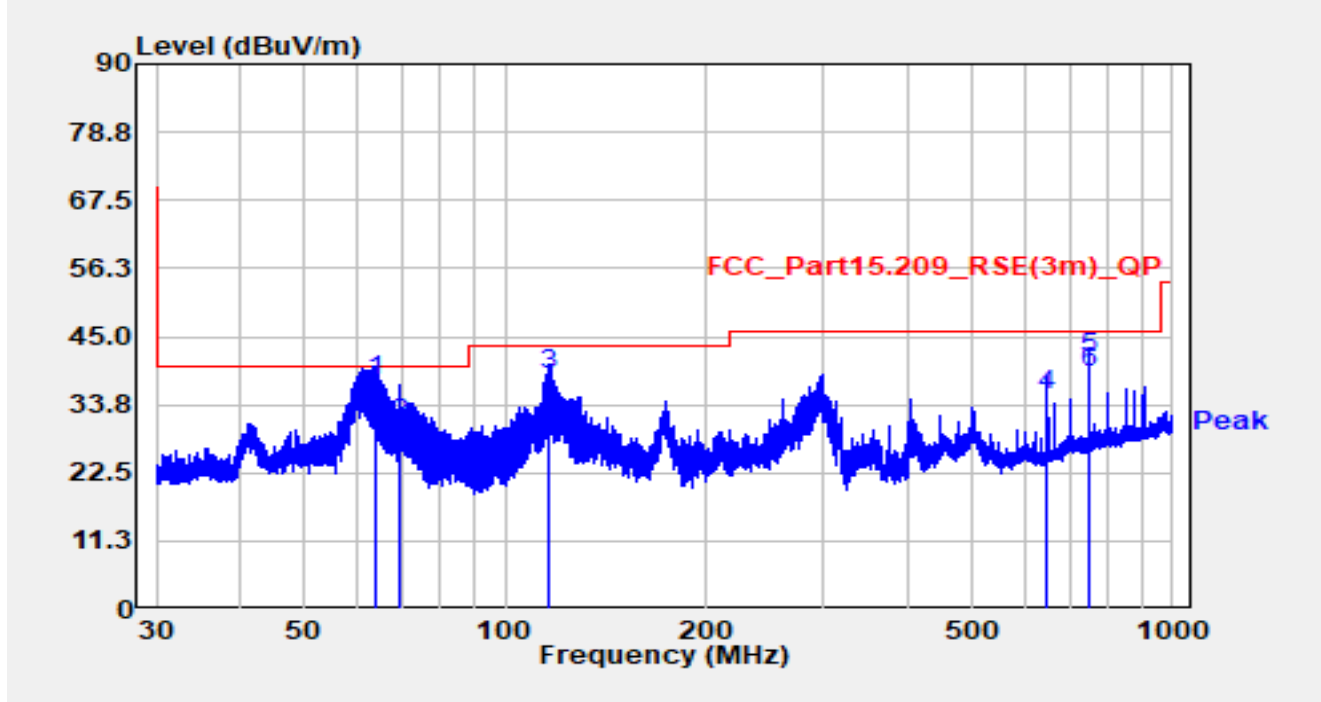


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		60.726	14.30	17.81	32.11	-7.89	40.00	QP
2		104.316	20.10	14.40	34.50	-9.00	43.50	QP
3	*	117.484	27.60	15.71	43.31	-0.19	43.50	QP
4		173.266	21.80	17.21	39.01	-4.49	43.50	QP
5		296.391	25.00	18.31	43.31	-2.69	46.00	QP
6		750.108	10.30	27.56	37.86	-8.14	46.00	QP

Notes:

- "*", means this data is the worst emission level.
- C.F (dB/m) = Antenna Factor (dB/m)+ Cable Loss (dB).
- Measurement(dBμV/m) = Reading(dBμV) + C.F (dB/m).
- 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-AC1	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	26.2°C /68.3%
Factor	VULB 9168_00998_25-2000MHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		



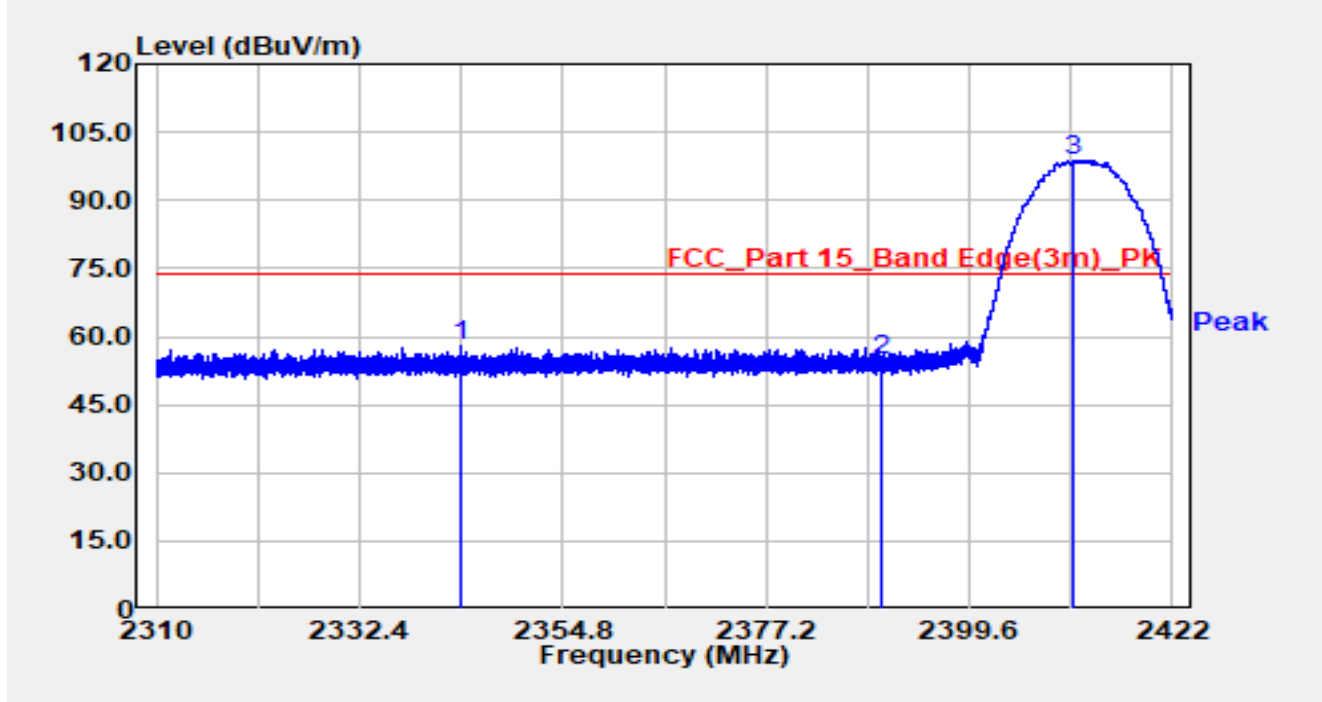
No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	63.759	20.50	17.35	37.85	-2.15	40.00	QP
2		69.405	14.60	16.08	30.68	-9.32	40.00	QP
3		116.418	23.00	15.62	38.62	-4.88	43.50	QP
4		650.116	9.30	25.95	35.25	-10.75	46.00	QP
5		750.108	14.00	27.56	41.56	-4.44	46.00	QP
6		750.108	11.60	27.56	39.16	-6.84	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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2412MHz		

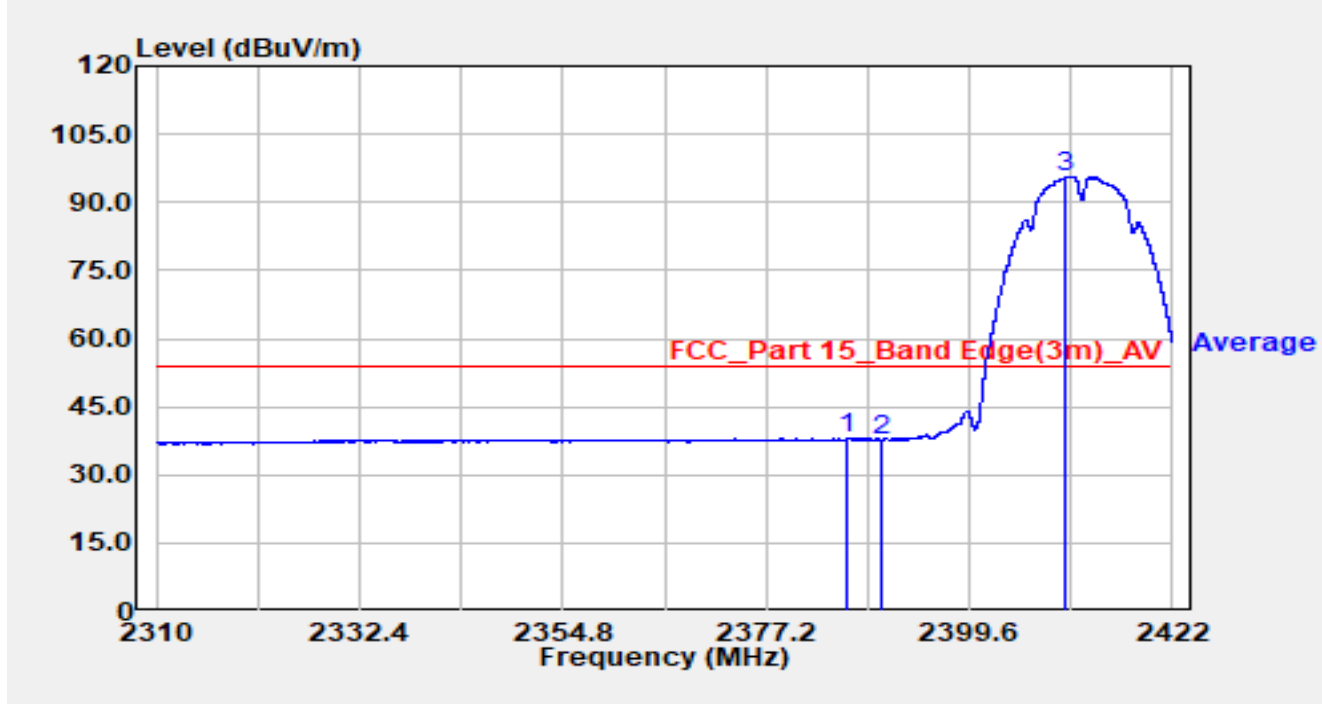


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2343.466	25.43	32.55	57.98	-16.02	74.00	Peak
2		2390.000	21.89	32.69	54.58	-19.42	74.00	Peak
3	*	2411.114	66.15	32.77	98.92	N/A	N/A	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2412MHz		

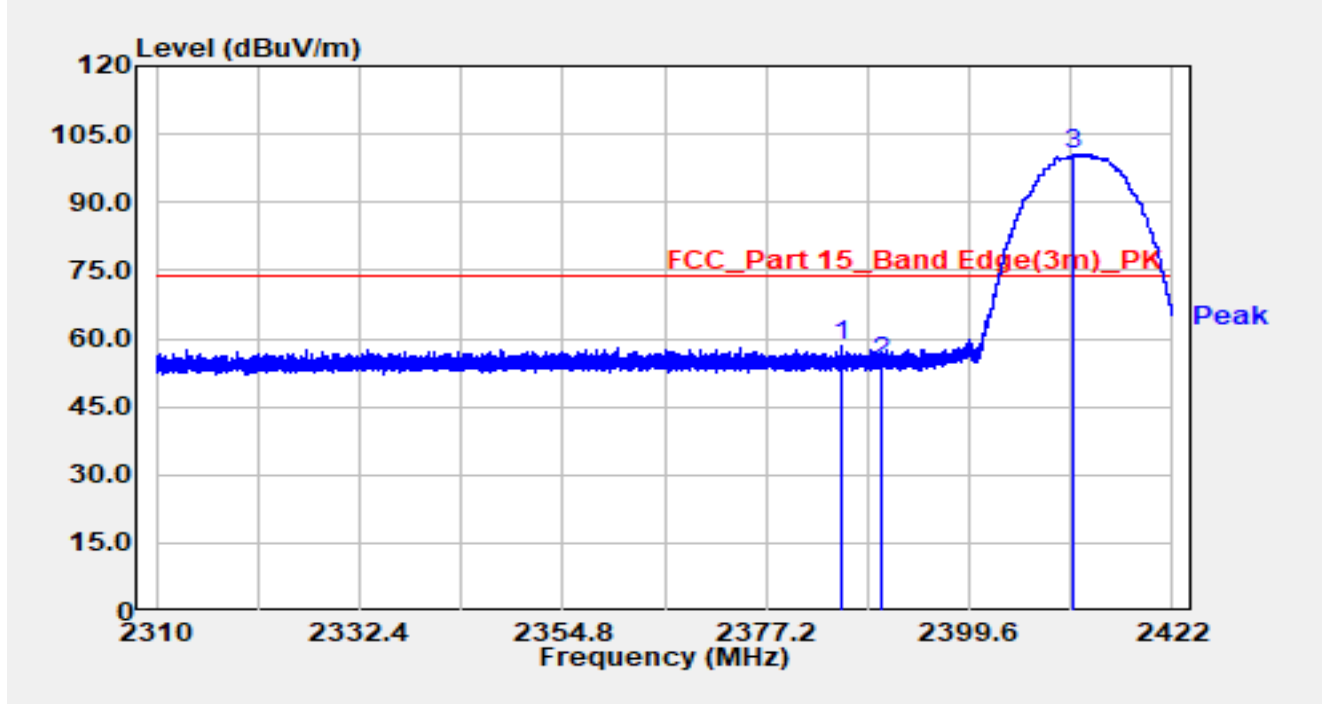


No	Mark	Frequency (MHz)	Reading (dBUV)	C.F (dB/m)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Detector
1		2386.149	5.30	32.67	37.97	-16.03	54.00	Average
2		2390.000	4.92	32.69	37.61	-16.39	54.00	Average
3	*	2410.262	62.84	32.77	95.61	N/A	N/A	Average

Notes:

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

Site	SIP-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2412MHz		

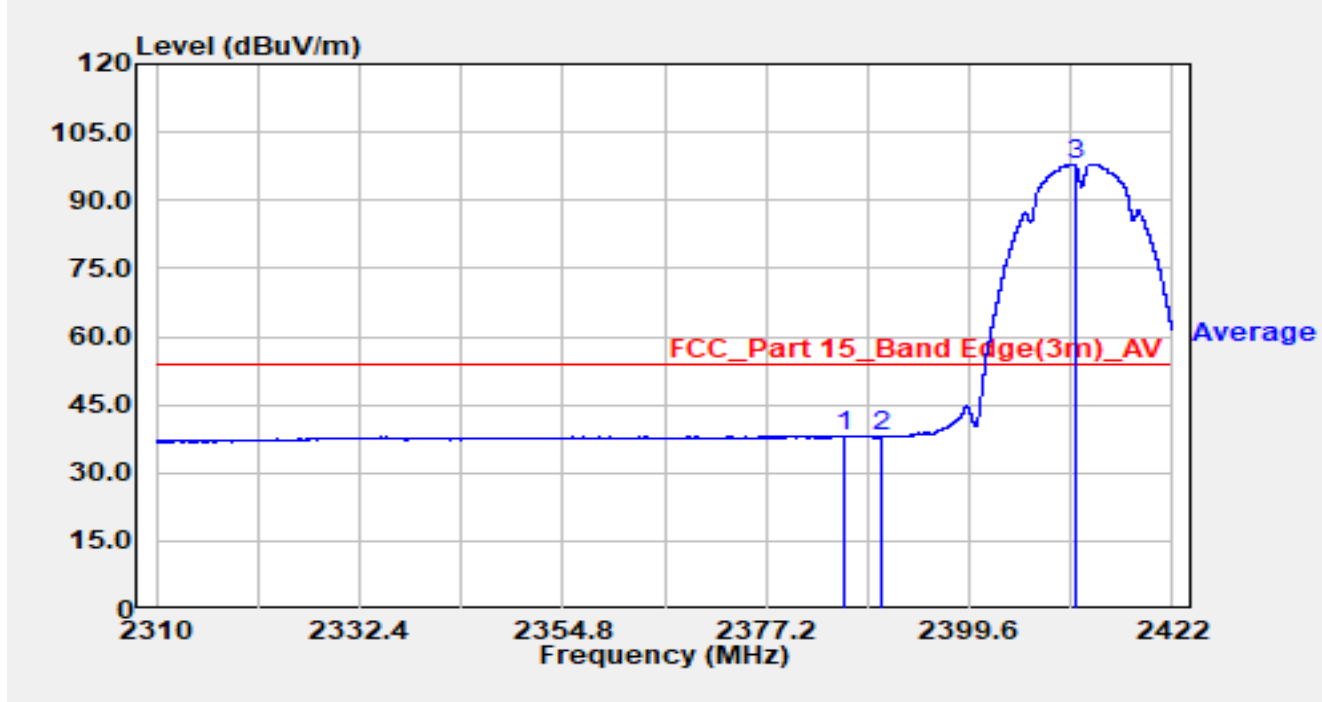


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2385.398	25.73	32.67	58.39	-15.61	74.00	Peak
2		2390.000	22.07	32.69	54.76	-19.24	74.00	Peak
3	*	2411.102	67.79	32.77	100.56	N/A	N/A	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2412MHz		

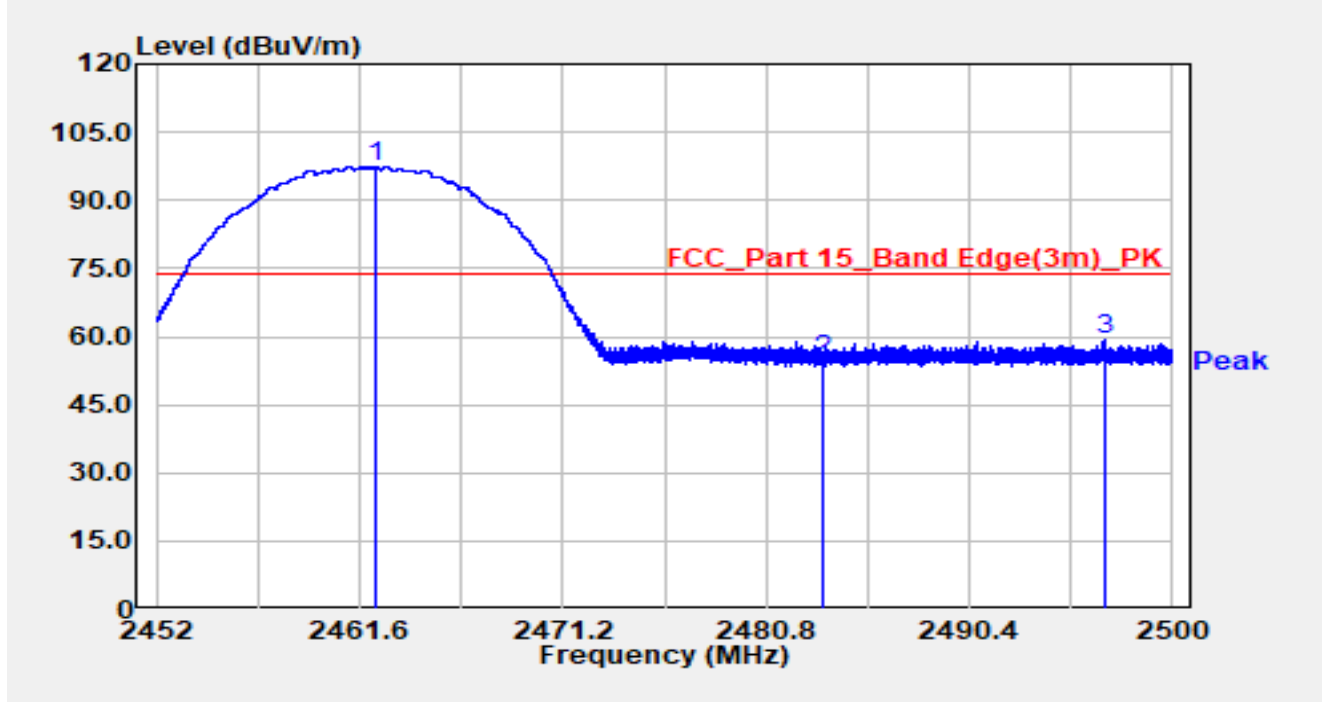


No	Mark	Frequency (MHz)	Reading (dBUV)	C.F (dB/m)	Measurement (dBUV/m)	Margin (dB)	Limit (dBUV/m)	Detector
1		2385.790	5.57	32.67	38.24	-15.76	54.00	Average
2		2390.000	5.34	32.69	38.03	-15.97	54.00	Average
3	*	2411.203	65.12	32.77	97.89	N/A	N/A	Average

Notes:

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

Site	SIP-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		

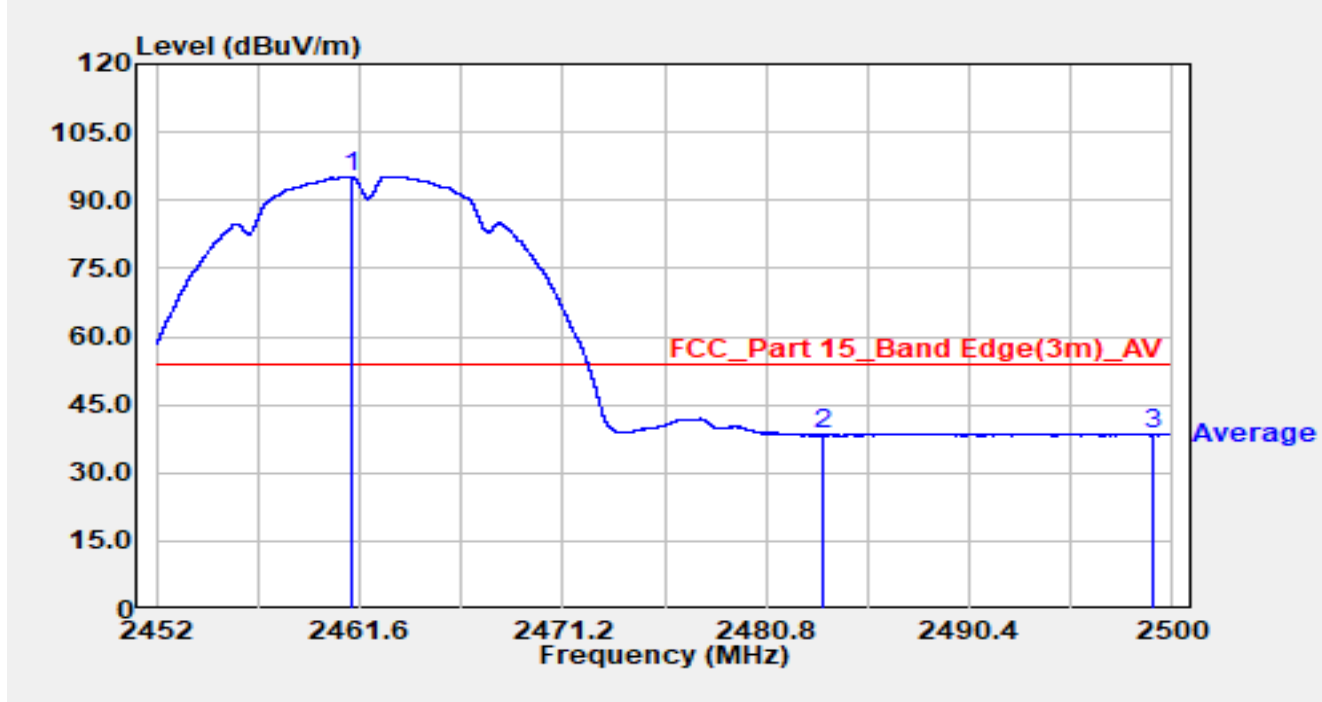


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2462.349	64.44	32.99	97.43	N/A	N/A	Peak
2		2483.500	21.64	33.13	54.77	-19.23	74.00	Peak
3		2496.789	26.14	33.20	59.34	-14.66	74.00	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		

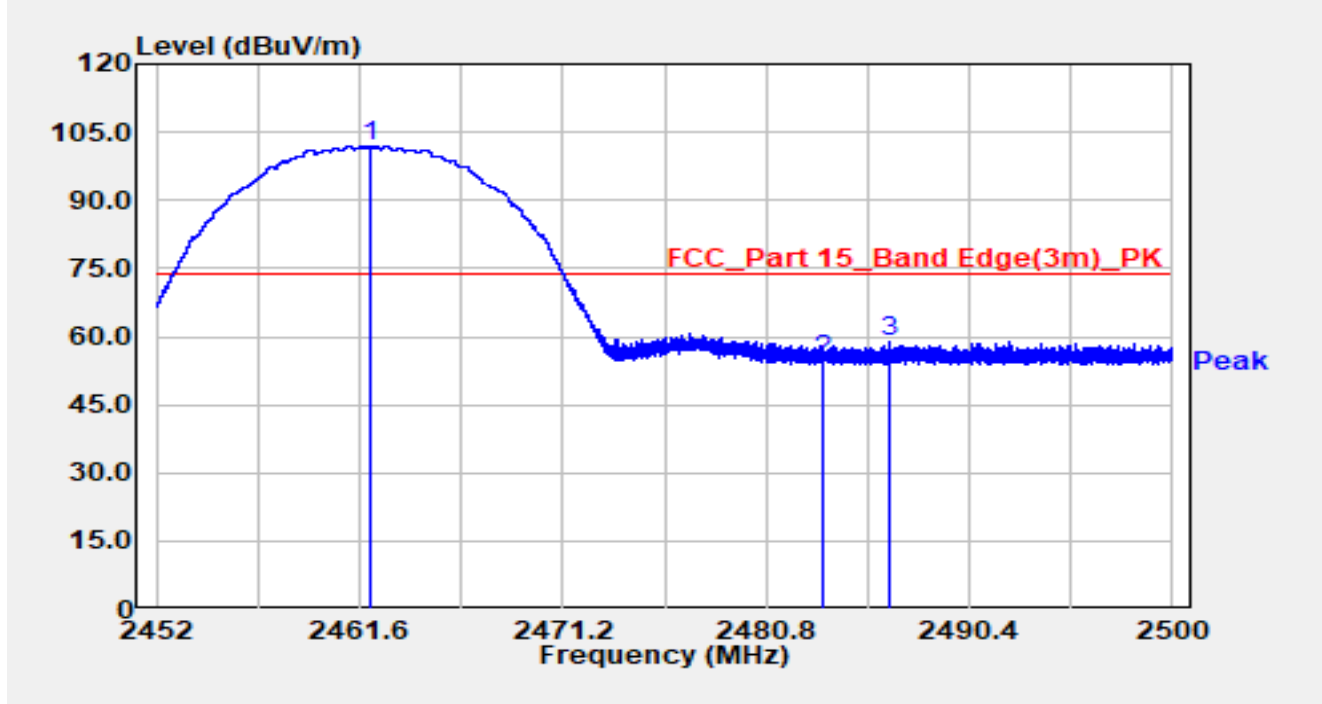


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.202	62.19	32.98	95.18	N/A	N/A	Average
2		2483.500	5.15	33.13	38.28	-15.72	54.00	Average
3		2499.136	5.37	33.21	38.58	-15.42	54.00	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		

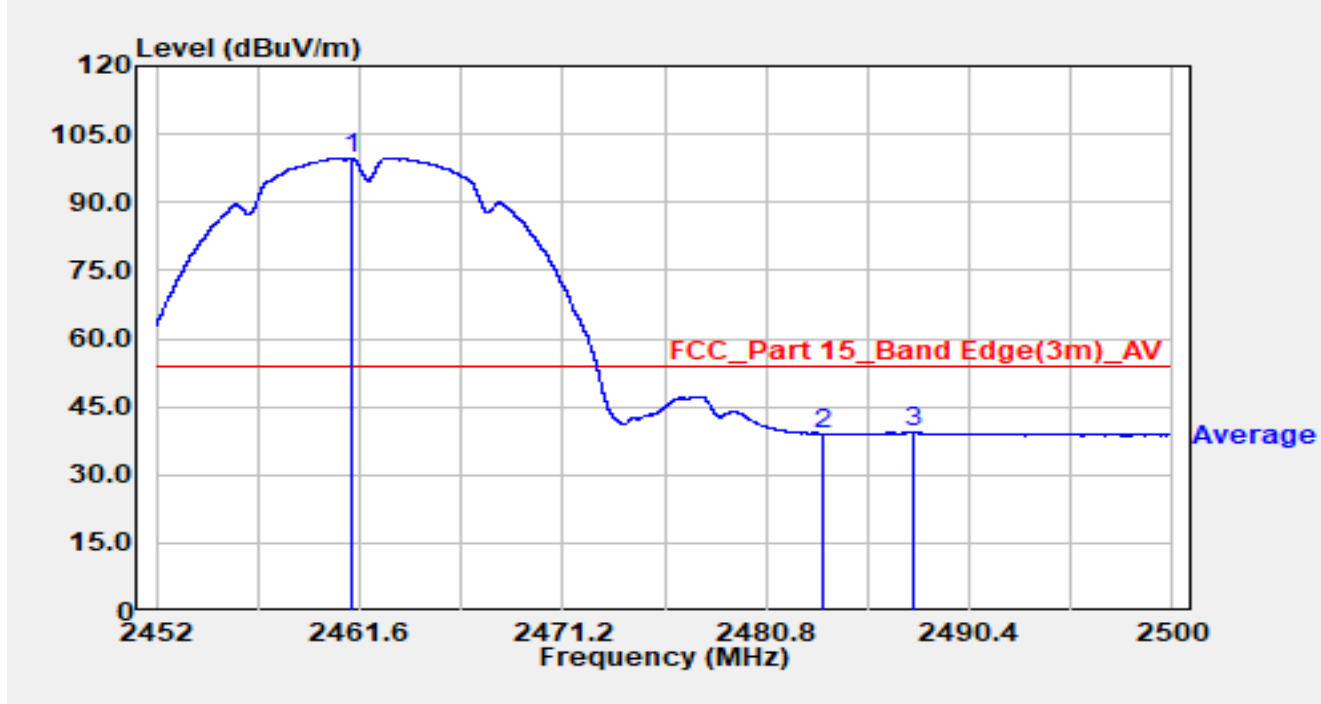


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2462.085	68.96	32.99	101.94	N/A	N/A	Peak
2		2483.500	21.56	33.13	54.69	-19.31	74.00	Peak
3		2486.685	25.55	33.15	58.70	-15.30	74.00	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11b at 2462MHz		

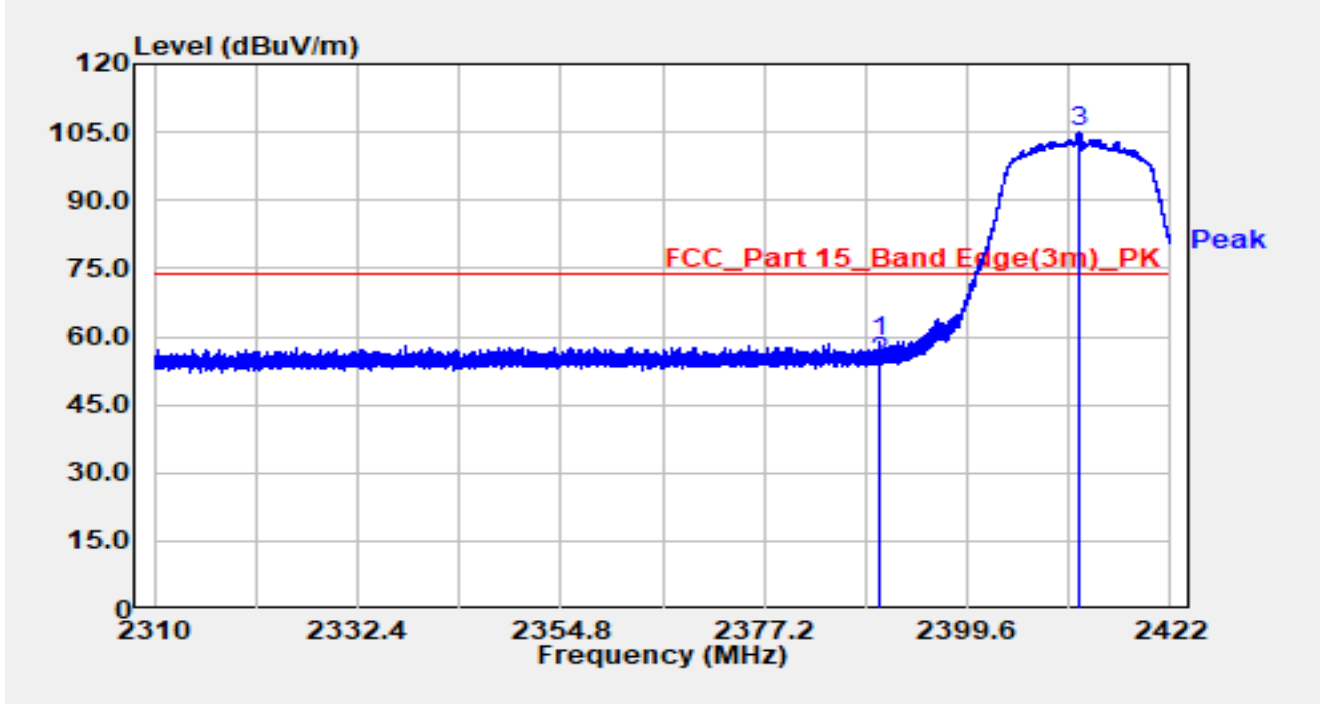


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.177	66.65	32.98	99.63	N/A	N/A	Average
2		2483.502	5.97	33.13	39.10	-14.90	54.00	Average
3		2487.741	6.21	33.15	39.36	-14.64	54.00	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		

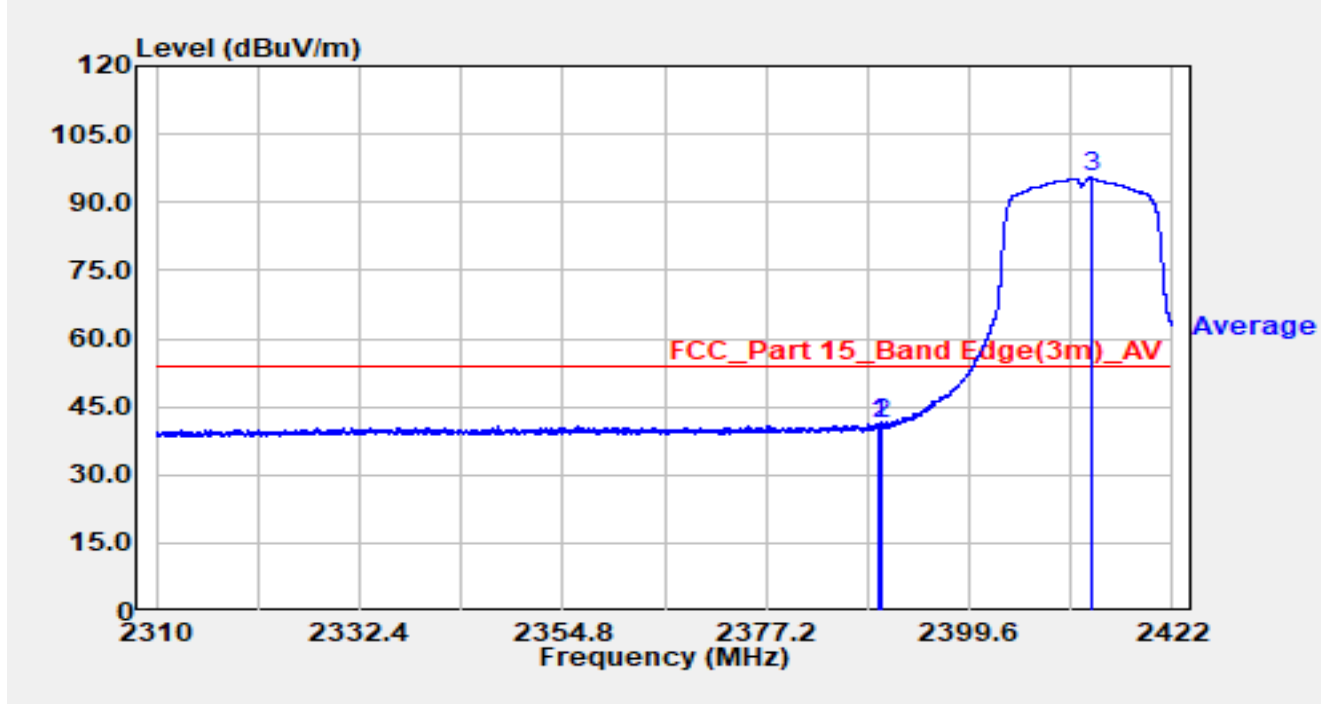


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2389.912	26.04	32.69	58.73	-15.27	74.00	Peak
2		2390.000	21.56	32.69	54.25	-19.75	74.00	Peak
3	*	2411.965	72.07	32.78	104.85	N/A	N/A	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		

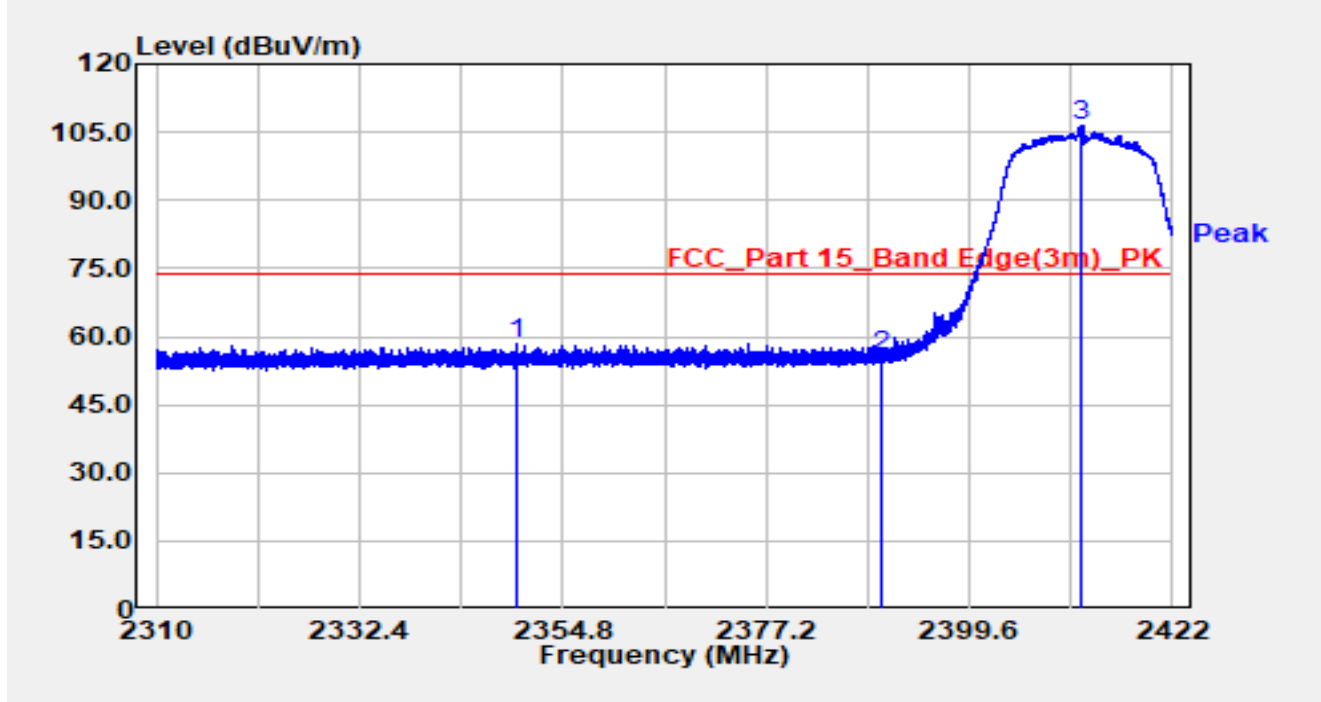


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2389.576	8.48	32.69	41.16	-12.84	54.00	Average
2		2390.000	8.31	32.69	41.00	-13.00	54.00	Average
3	*	2413.029	62.63	32.78	95.41	N/A	N/A	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		

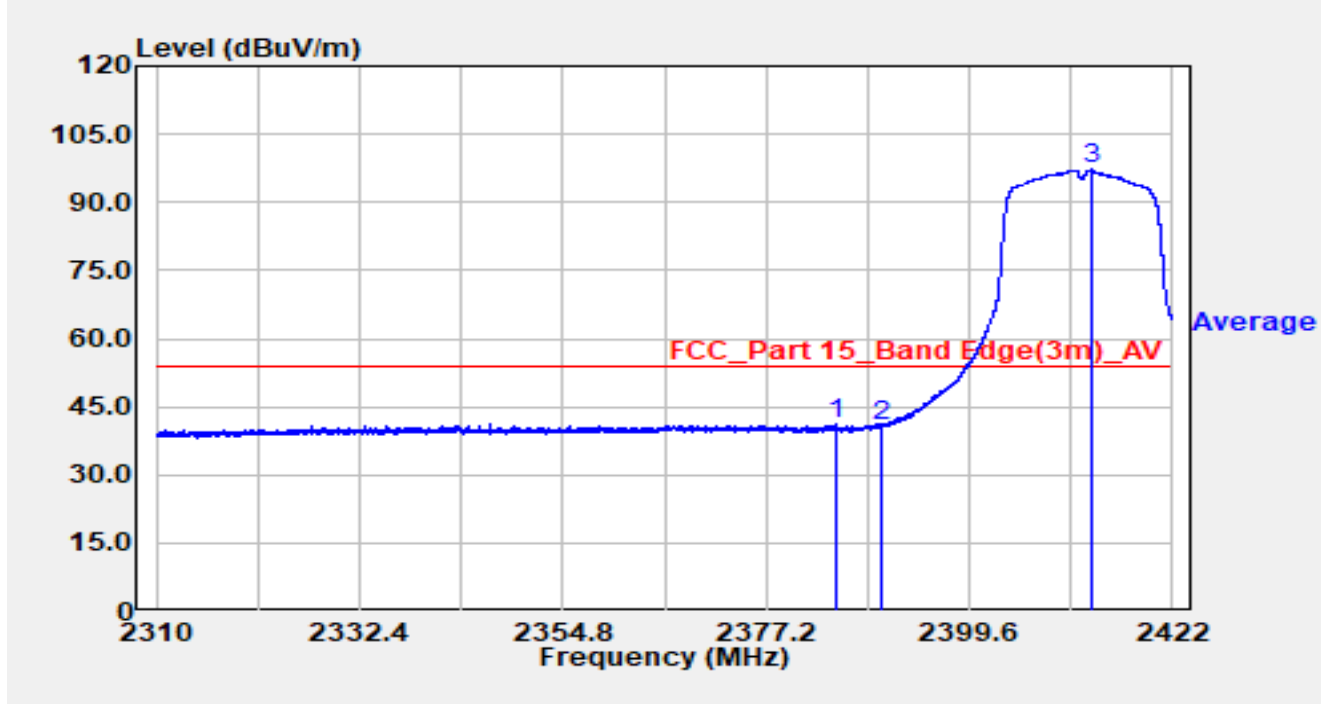


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2349.693	25.97	32.57	58.54	-15.46	74.00	Peak
2		2390.000	23.02	32.69	55.71	-18.29	74.00	Peak
3	*	2411.931	73.59	32.78	106.37	N/A	N/A	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2412MHz		

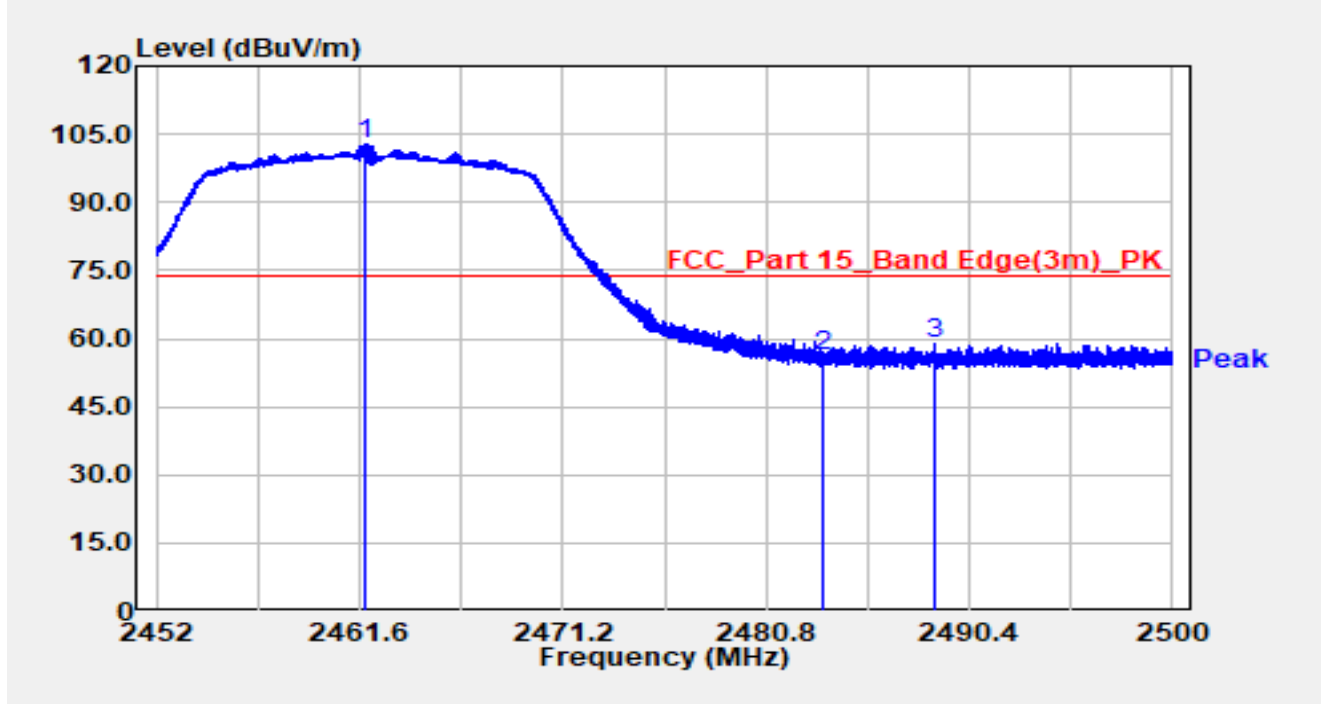


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2384.906	8.58	32.66	41.24	-12.76	54.00	Average
2		2390.000	8.22	32.69	40.91	-13.09	54.00	Average
3	*	2413.006	64.36	32.78	97.14	N/A	N/A	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2462MHz		

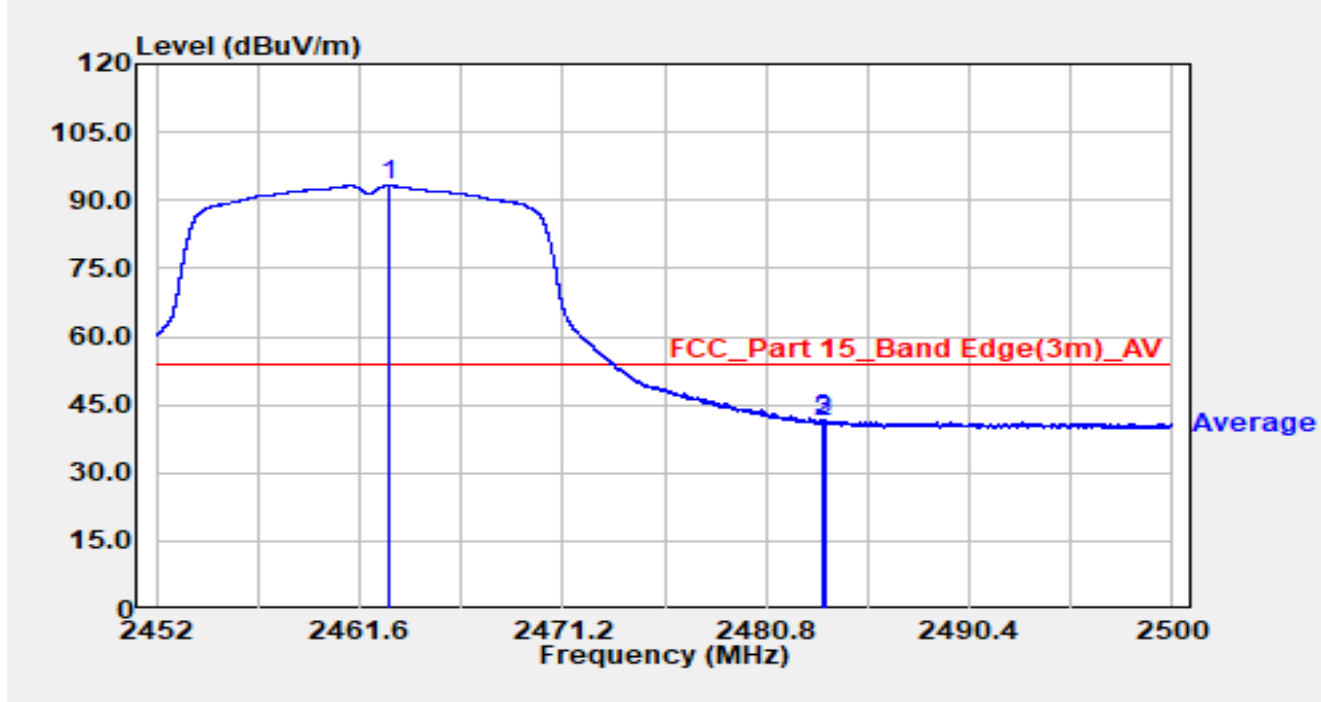


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.902	69.85	32.99	102.84	N/A	N/A	Peak
2		2483.500	22.84	33.13	55.97	-18.03	74.00	Peak
3		2488.806	25.86	33.16	59.02	-14.98	74.00	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2462MHz		

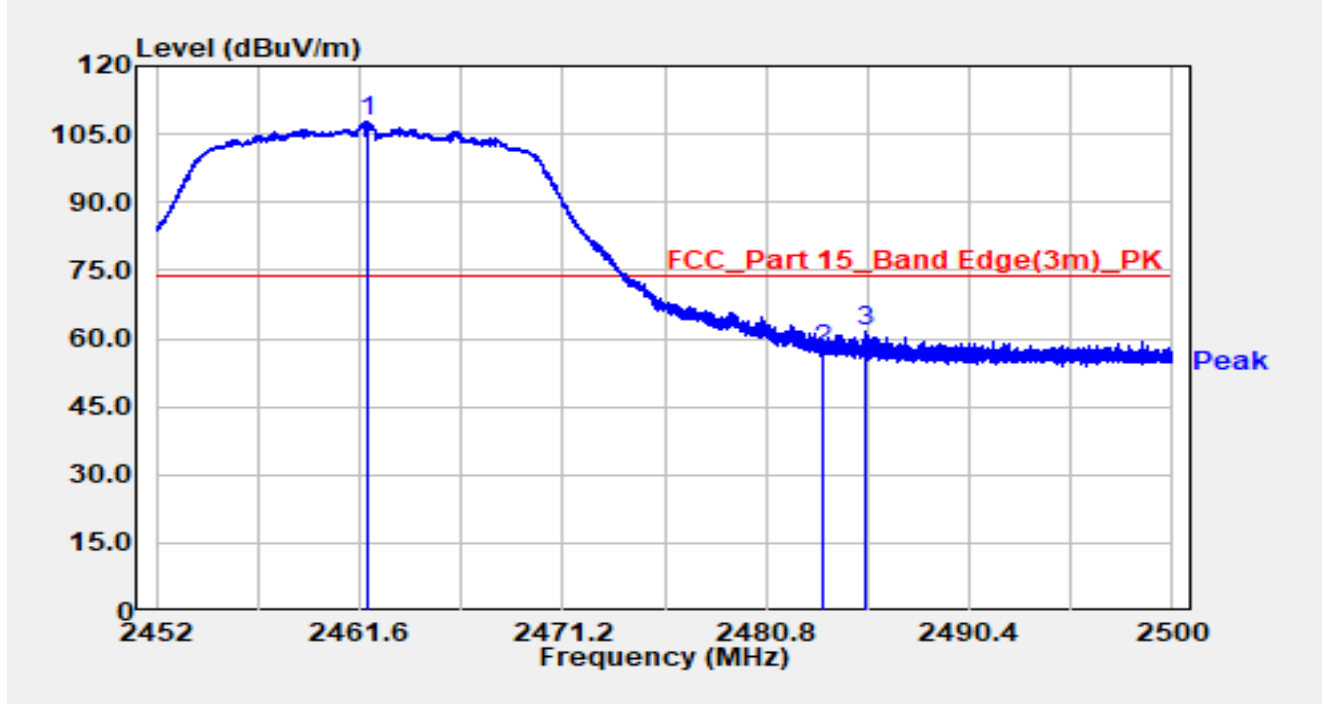


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2463.045	60.25	32.99	93.24	N/A	N/A	Average
2		2483.500	8.02	33.13	41.15	-12.85	54.00	Average
3		2483.546	8.45	33.13	41.58	-12.42	54.00	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2462MHz		

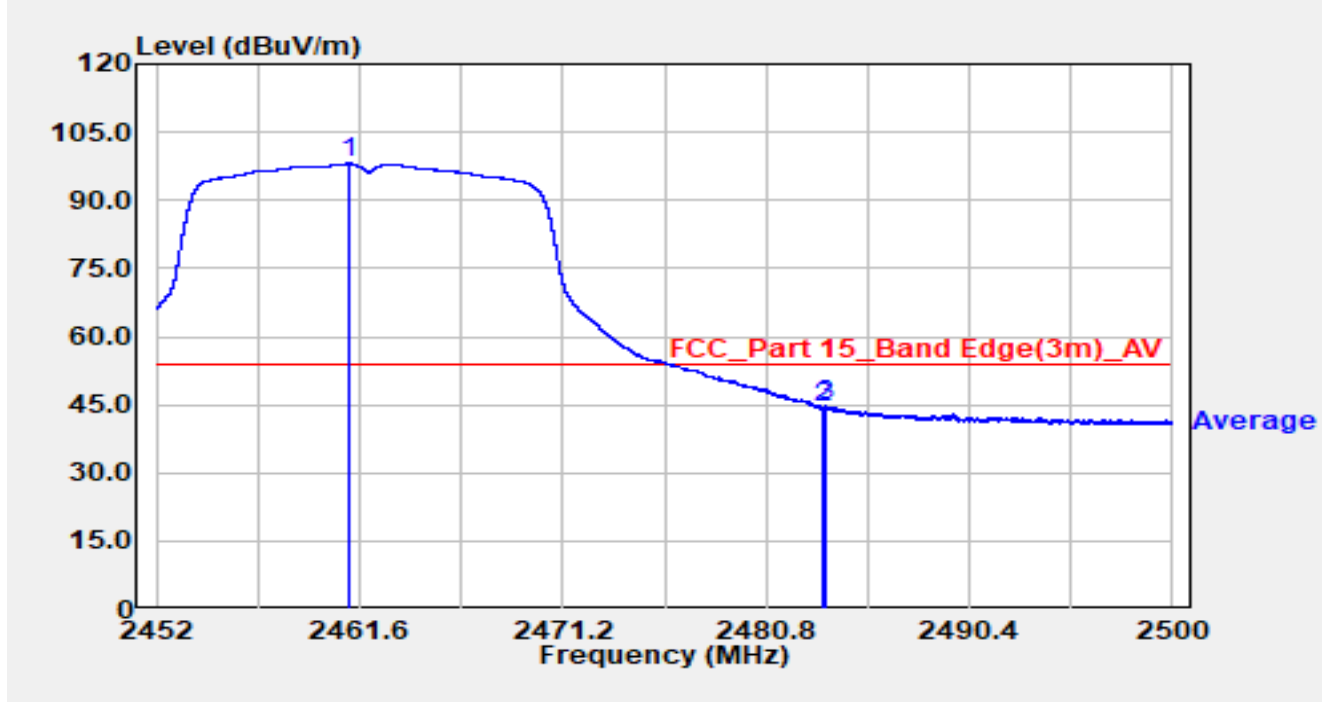


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.931	74.87	32.99	107.85	N/A	N/A	Peak
2		2483.500	24.29	33.13	57.42	-16.58	74.00	Peak
3		2485.480	28.54	33.14	61.68	-12.32	74.00	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11g at 2462MHz		

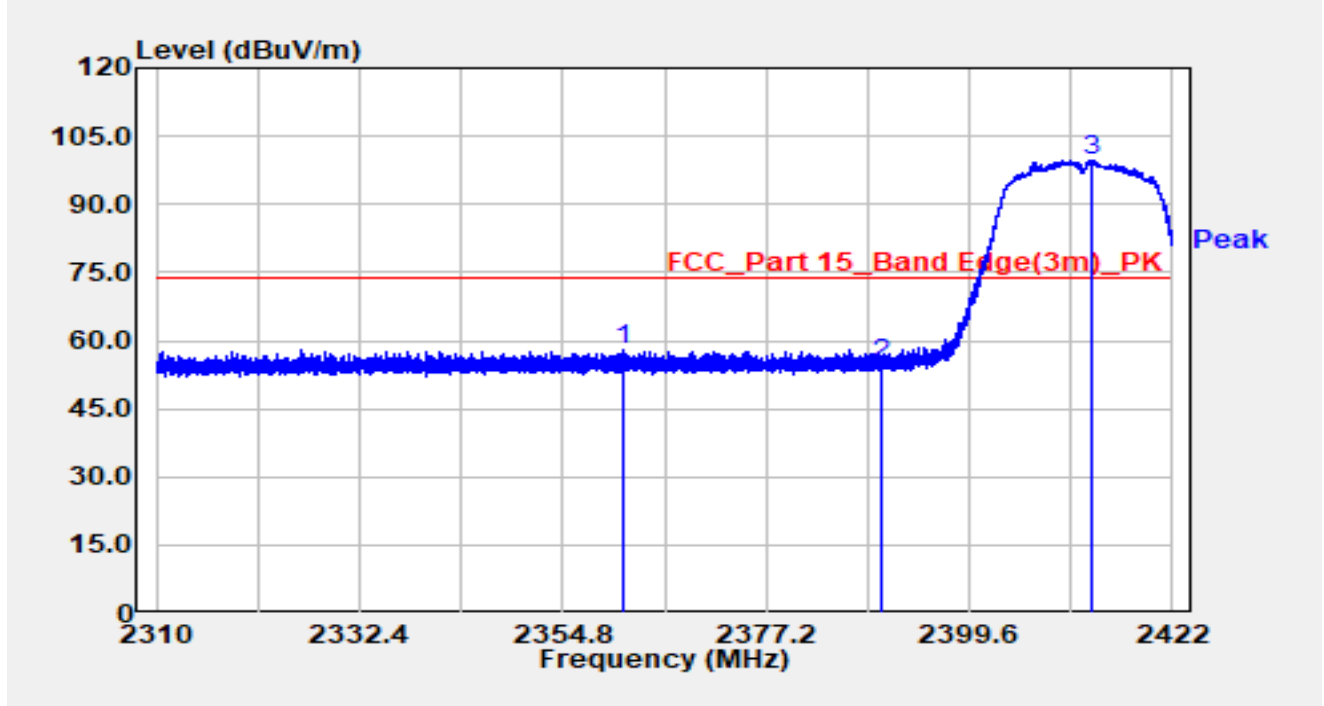


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.091	65.08	32.98	98.06	N/A	N/A	Average
2		2483.500	11.24	33.13	44.37	-9.63	54.00	Average
3		2483.608	11.63	33.13	44.76	-9.24	54.00	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2412MHz		

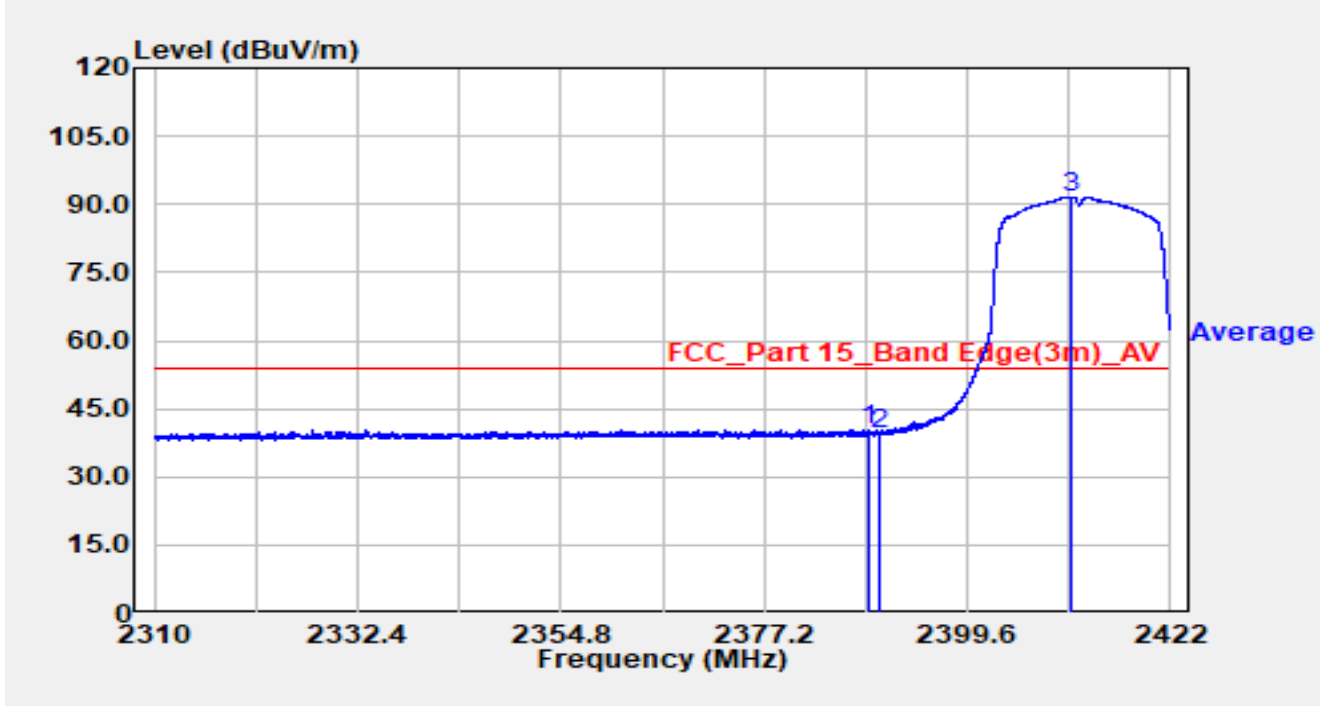


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2361.318	25.33	32.61	57.94	-16.06	74.00	Peak
2		2390.000	21.98	32.69	54.67	-19.33	74.00	Peak
3	*	2413.208	66.83	32.78	99.62	N/A	N/A	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2412MHz		

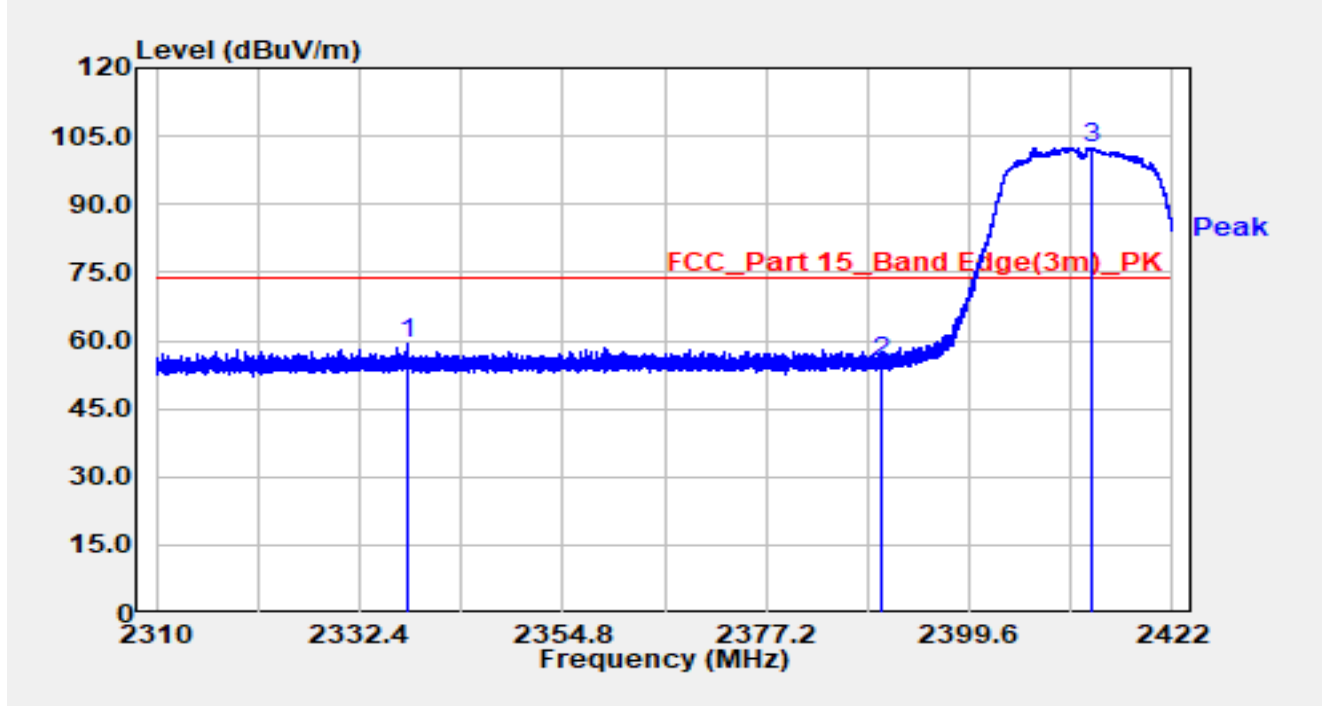


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2388.725	7.80	32.68	40.48	-13.52	54.00	Average
2		2390.000	6.87	32.69	39.56	-14.44	54.00	Average
3	*	2411.080	58.84	32.77	91.61	N/A	N/A	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2412MHz		

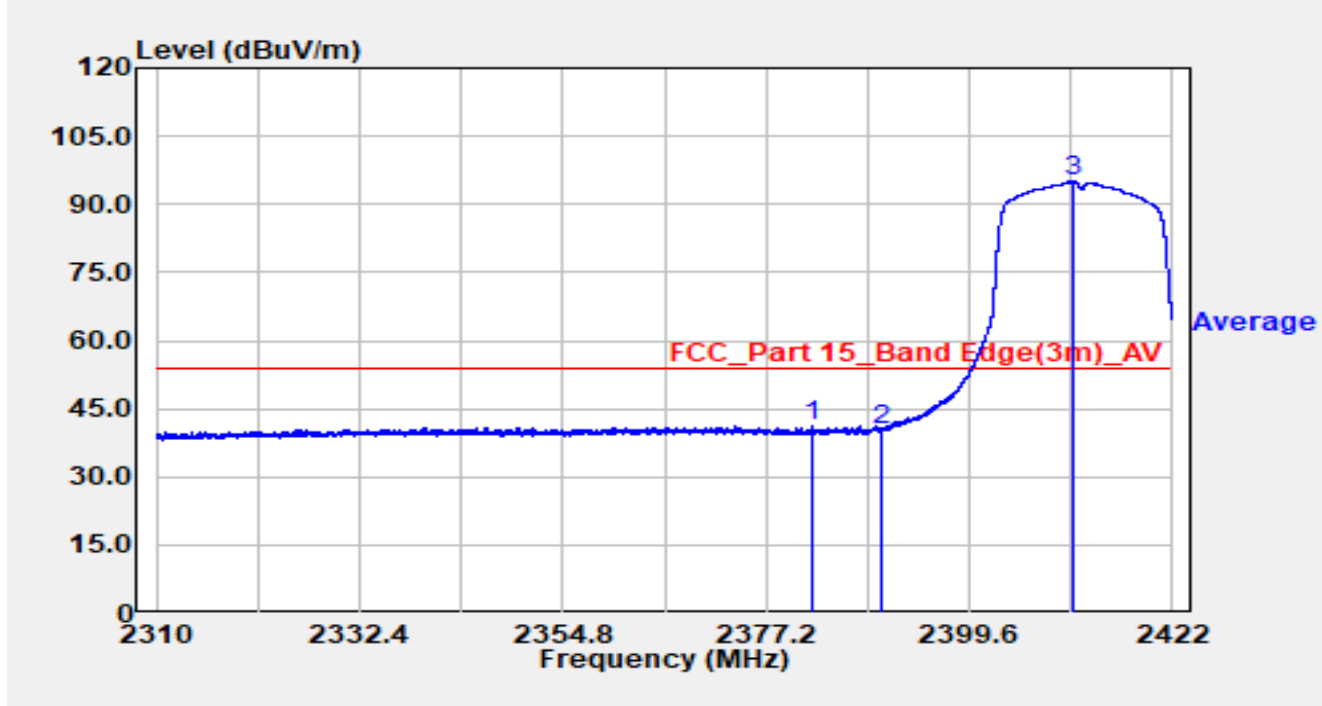


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2337.574	26.60	32.53	59.13	-14.87	74.00	Peak
2		2390.000	22.45	32.69	55.14	-18.86	74.00	Peak
3	*	2413.163	69.75	32.78	102.53	N/A	N/A	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2412MHz		

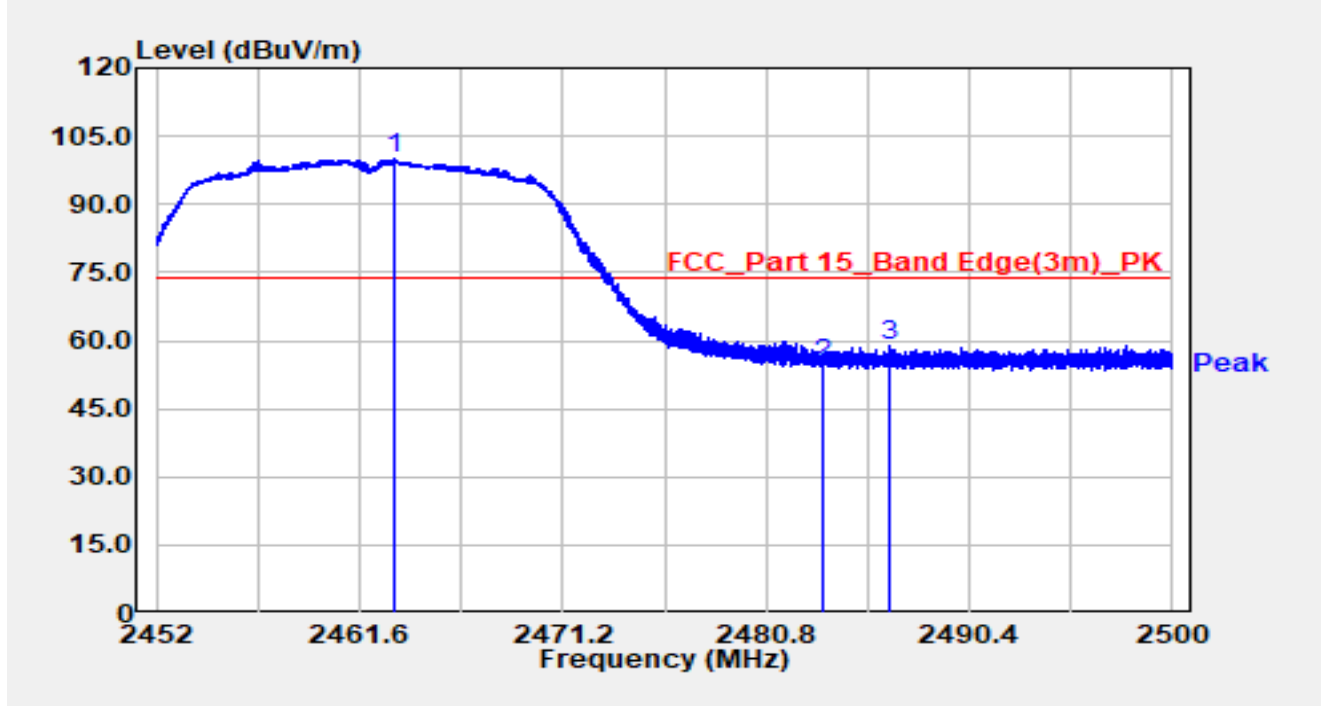


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2382.285	8.48	32.65	41.13	-12.87	54.00	Average
2		2390.000	7.46	32.69	40.15	-13.85	54.00	Average
3	*	2411.158	62.13	32.77	94.90	N/A	N/A	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2462MHz		

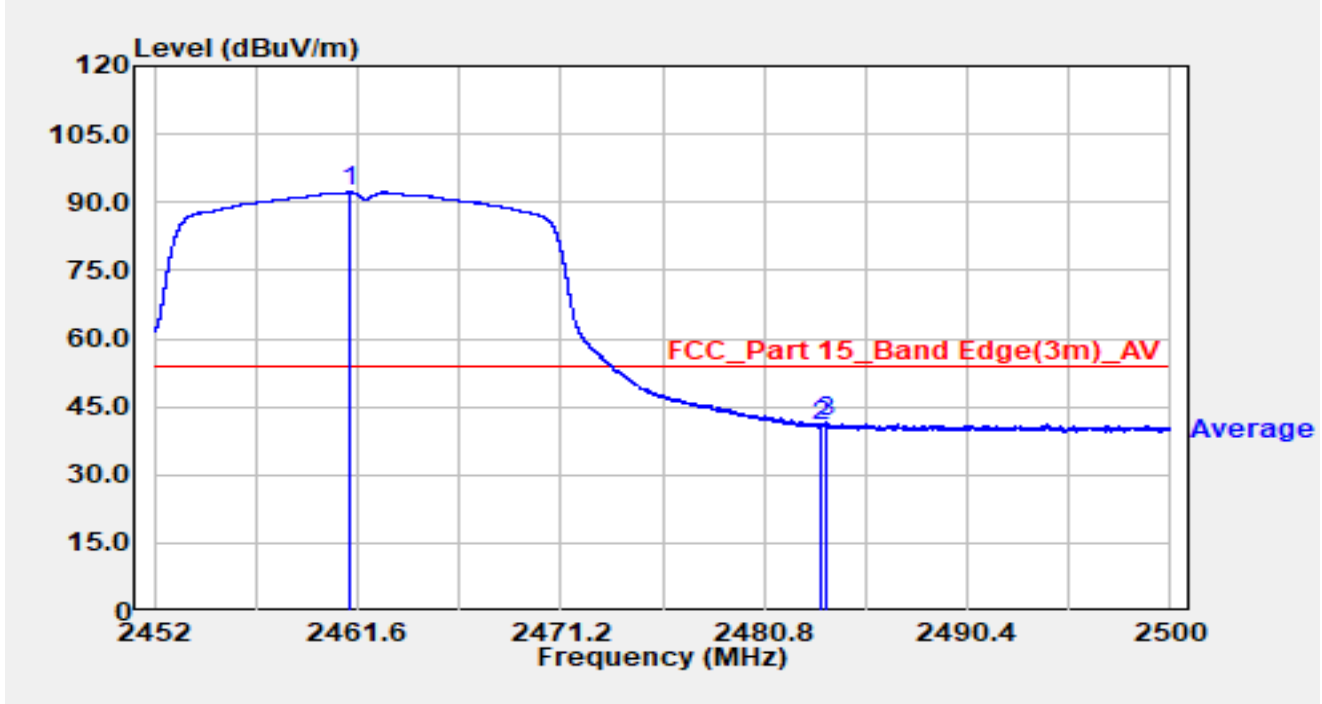


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2463.198	66.89	32.99	99.88	N/A	N/A	Peak
2		2483.500	21.73	33.13	54.86	-19.14	74.00	Peak
3		2486.661	25.65	33.15	58.79	-15.21	74.00	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2462MHz		

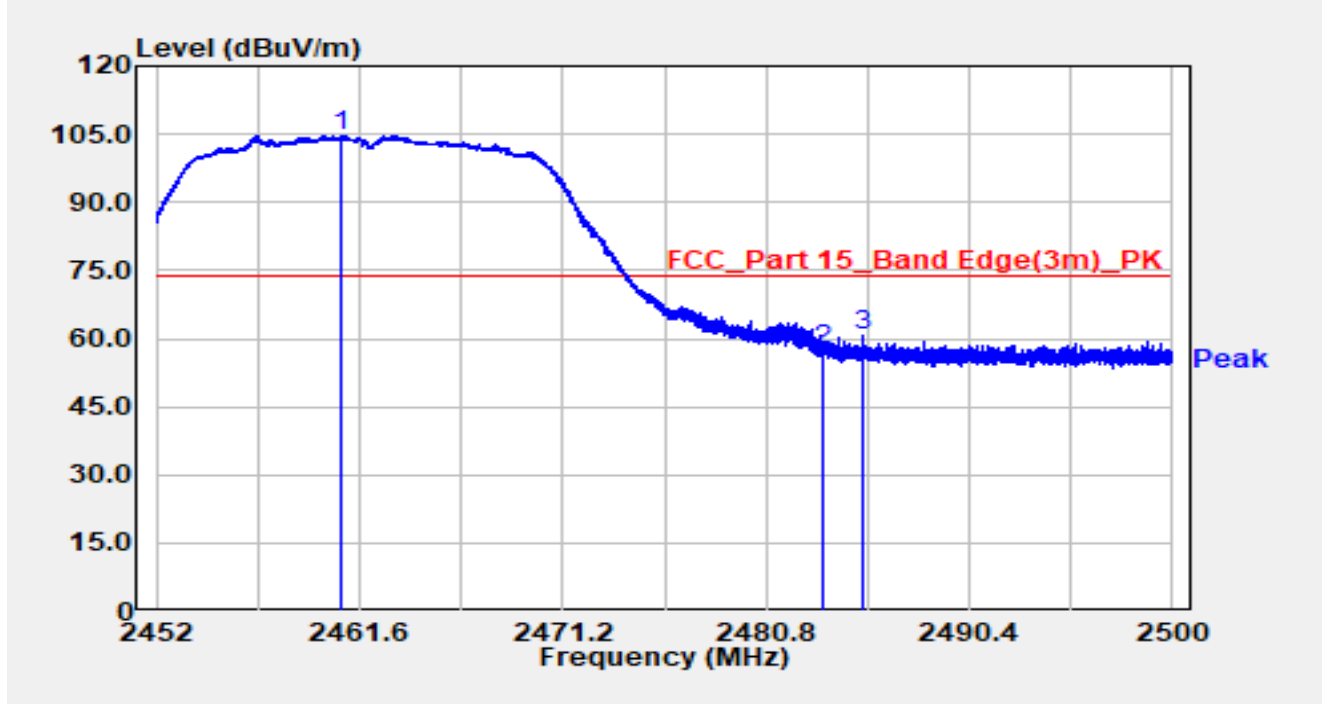


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.221	59.22	32.98	92.21	N/A	N/A	Average
2		2483.500	7.70	33.13	40.83	-13.17	54.00	Average
3		2483.733	8.56	33.13	41.69	-12.31	54.00	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2462MHz		

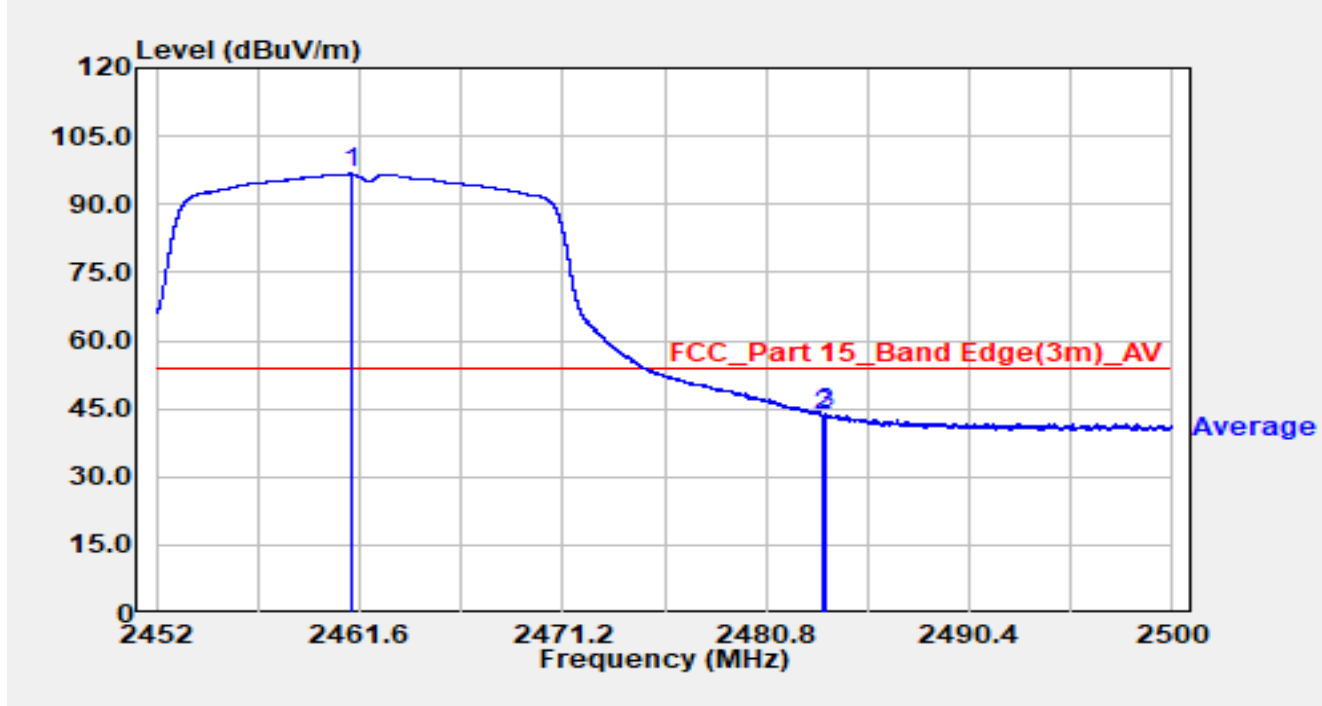


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2460.707	71.60	32.98	104.58	N/A	N/A	Peak
2		2483.500	24.51	33.13	57.64	-16.36	74.00	Peak
3		2485.336	27.61	33.14	60.75	-13.25	74.00	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT20 at 2462MHz		

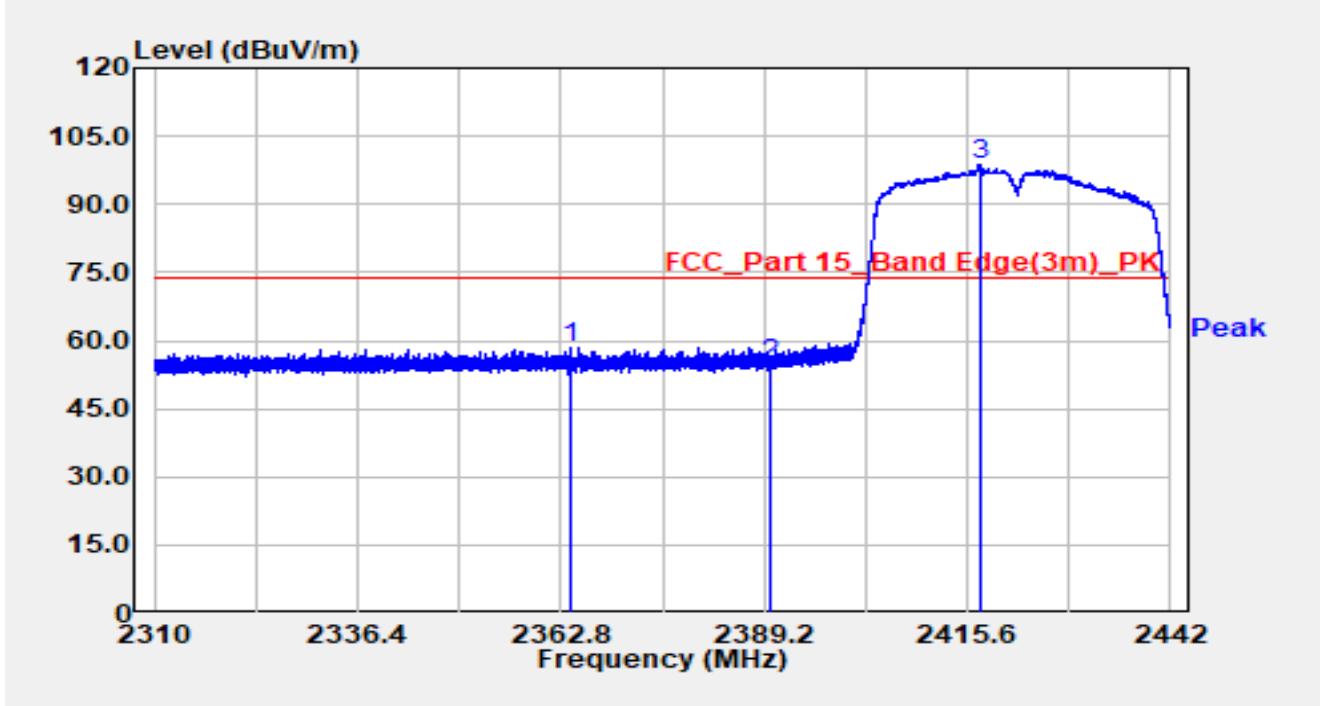


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2461.192	63.72	32.98	96.71	N/A	N/A	Average
2		2483.500	10.27	33.13	43.40	-10.60	54.00	Average
3		2483.594	10.76	33.13	43.89	-10.11	54.00	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2422MHz		

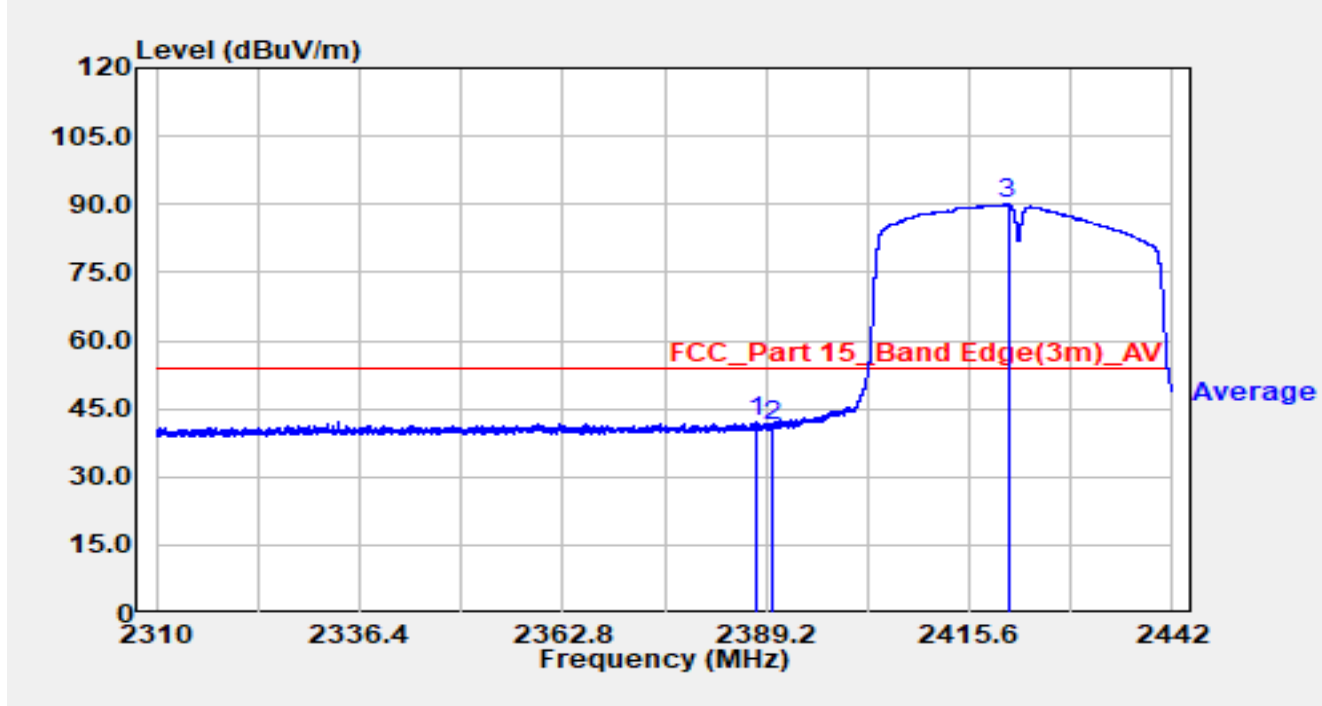


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2364.199	25.82	32.62	58.44	-15.56	74.00	Peak
2		2390.000	21.97	32.69	54.66	-19.34	74.00	Peak
3	*	2417.210	65.81	32.81	98.62	N/A	N/A	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2422MHz		

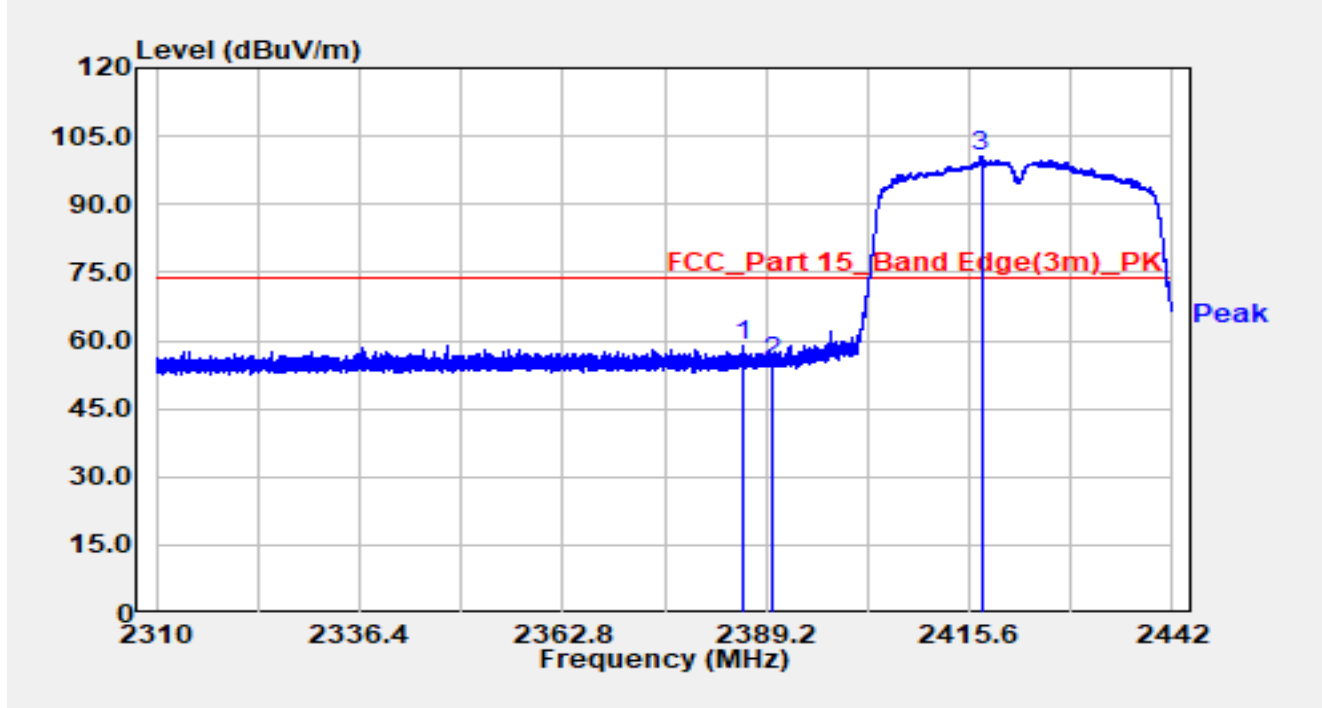


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2387.893	9.37	32.68	42.05	-11.95	54.00	Average
2		2390.000	8.68	32.69	41.37	-12.63	54.00	Average
3	*	2420.616	57.12	32.83	89.95	N/A	N/A	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2422MHz		

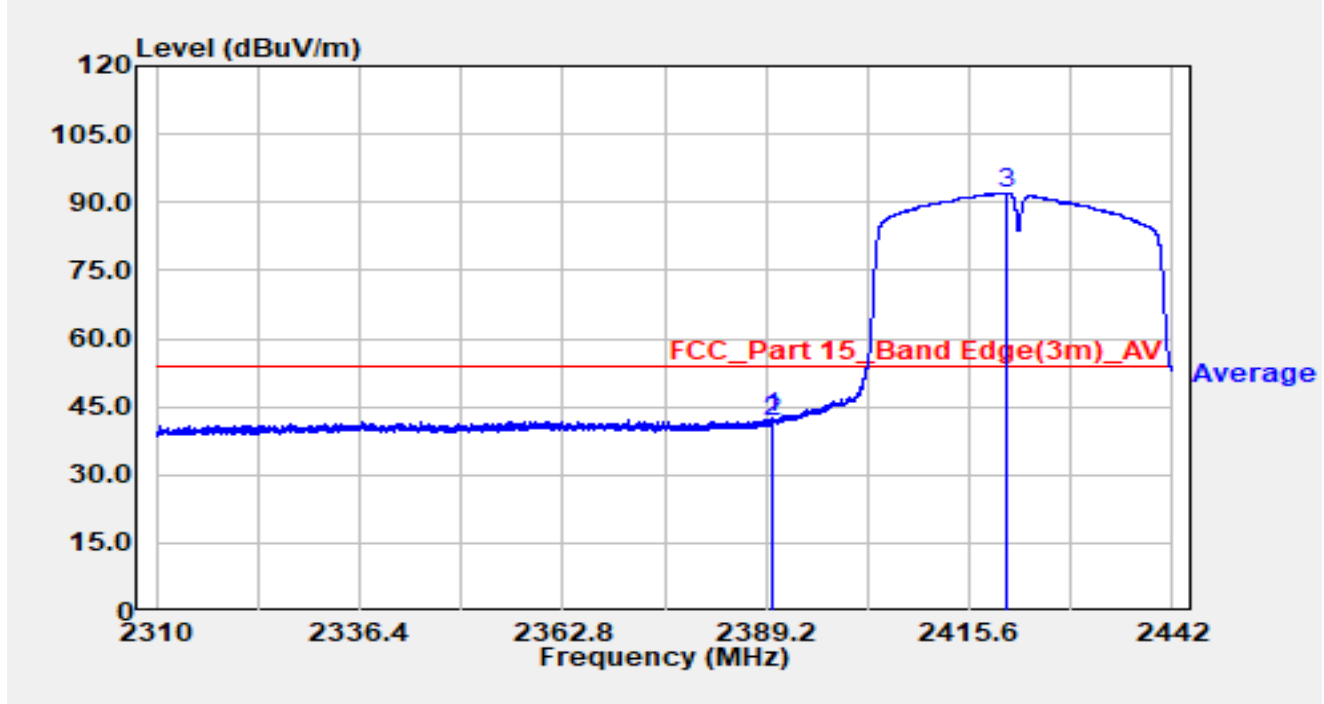


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2386.323	26.42	32.67	59.09	-14.91	74.00	Peak
2		2390.000	22.61	32.69	55.30	-18.70	74.00	Peak
3	*	2417.158	67.52	32.81	100.33	N/A	N/A	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2422MHz		

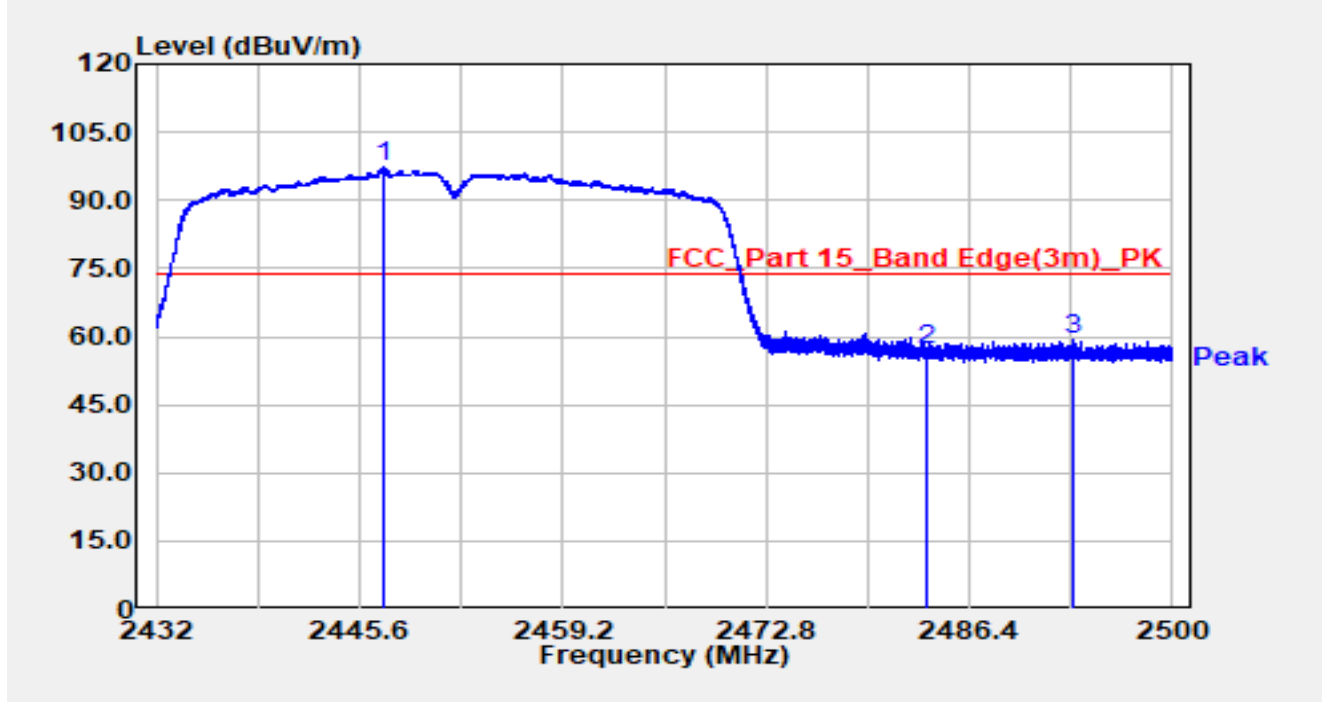


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1		2389.939	9.66	32.69	42.35	-11.65	54.00	Average
2		2390.000	8.91	32.69	41.60	-12.40	54.00	Average
3	*	2420.563	59.22	32.83	92.04	N/A	N/A	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2452MHz		

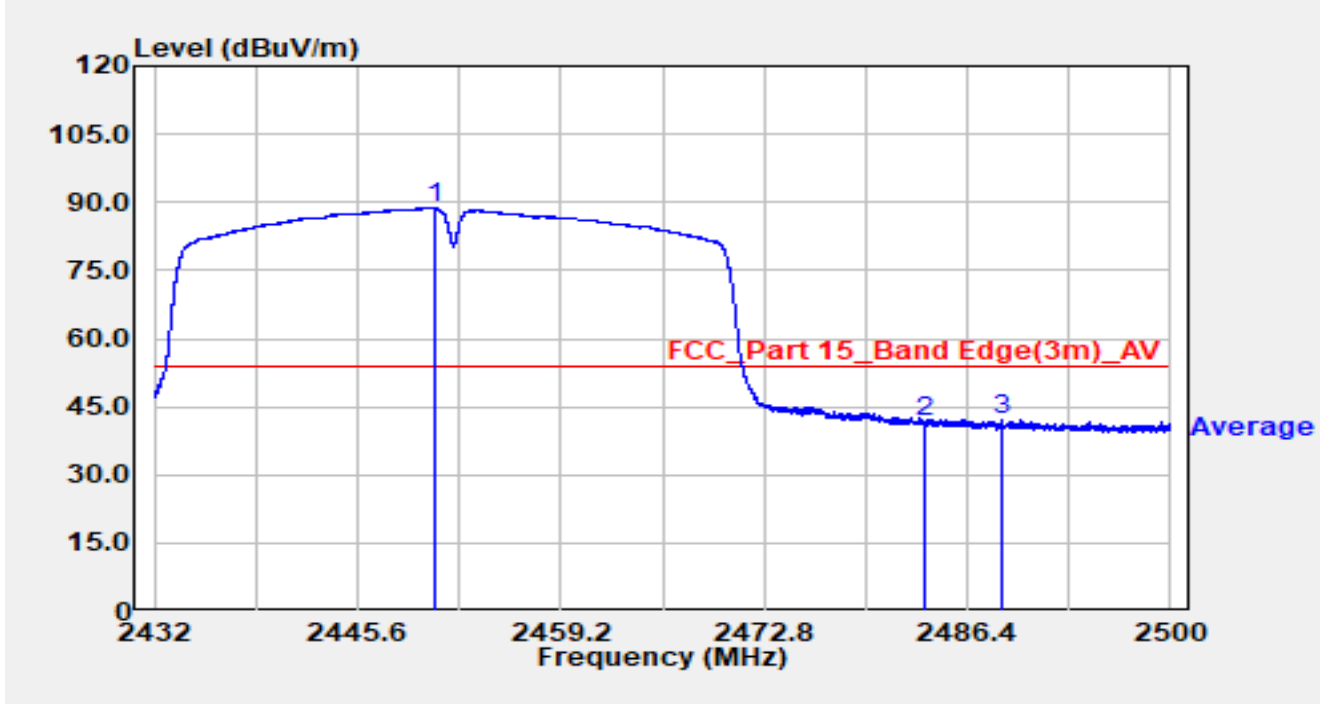


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2447.219	64.22	32.95	97.17	N/A	N/A	Peak
2		2483.500	23.76	33.13	56.89	-17.11	74.00	Peak
3		2493.384	26.01	33.18	59.18	-14.82	74.00	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Horizontal
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2452MHz		

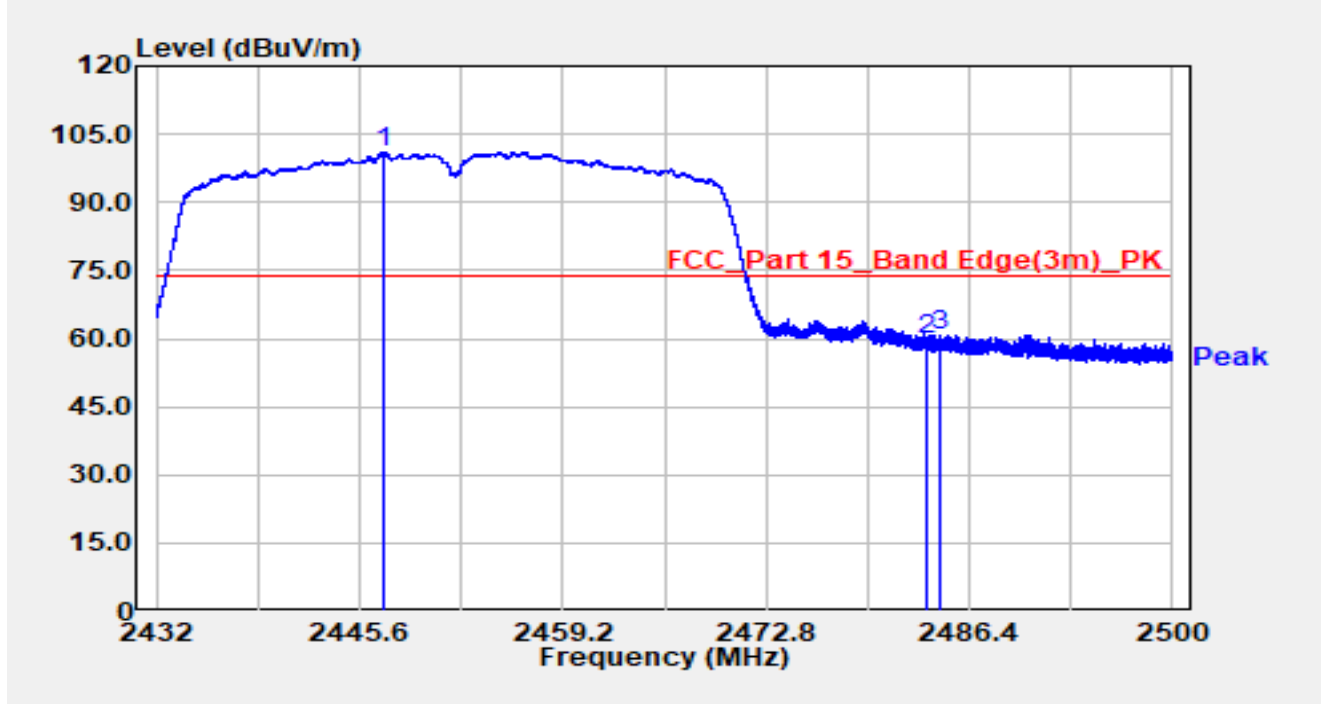


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2450.720	55.88	32.96	88.84	N/A	N/A	Average
2		2483.500	8.41	33.13	41.54	-12.46	54.00	Average
3		2488.719	9.08	33.16	42.24	-11.76	54.00	Average

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2452MHz		

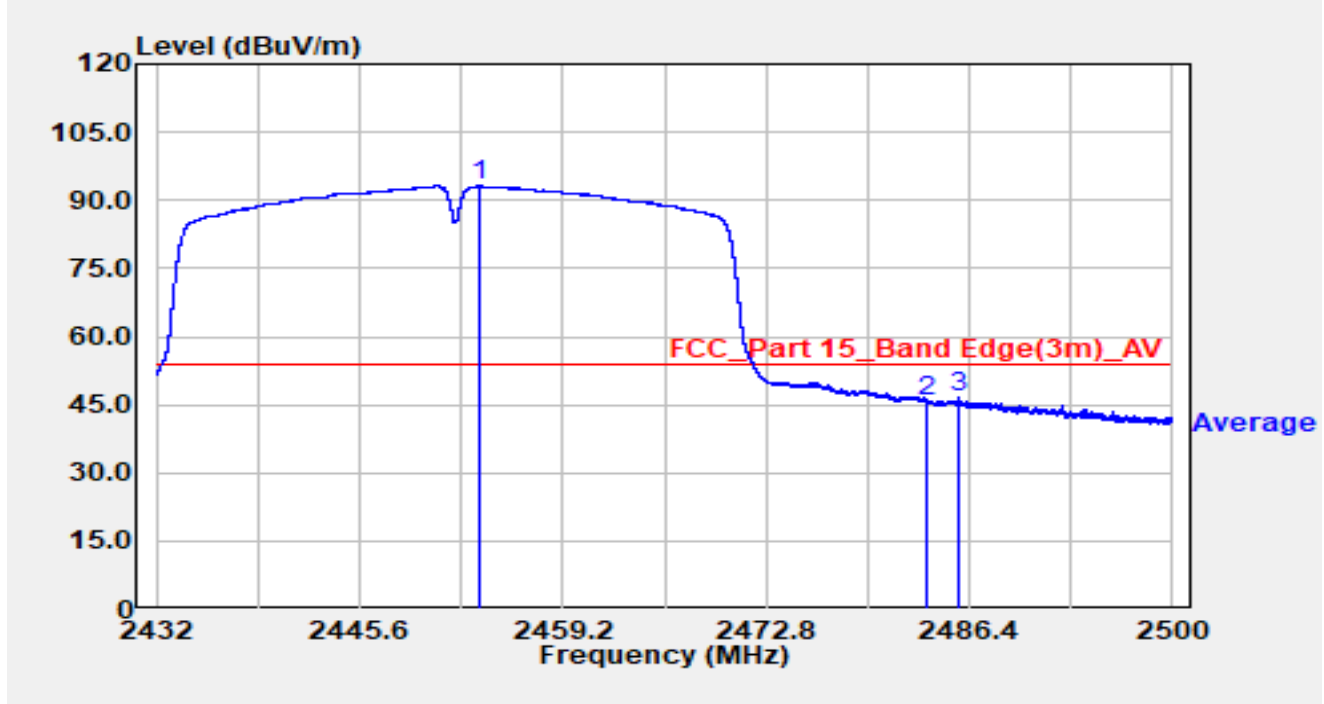


No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2447.171	68.17	32.95	101.12	N/A	N/A	Peak
2		2483.500	26.68	33.13	59.81	-14.19	74.00	Peak
3		2484.469	27.75	33.14	60.89	-13.11	74.00	Peak

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-AC3	Test Date	2024-10-19
Test Engineer	Barry Wu	Temp./Humidity	24.3°C /65.2%
Factor	HF907_102861_1-18GHz	Polarity	Vertical
EUT	Lawn Mowing Robot	Test Voltage	By Battery
Test Mode	Transmit by 802.11n-HT40 at 2452MHz		



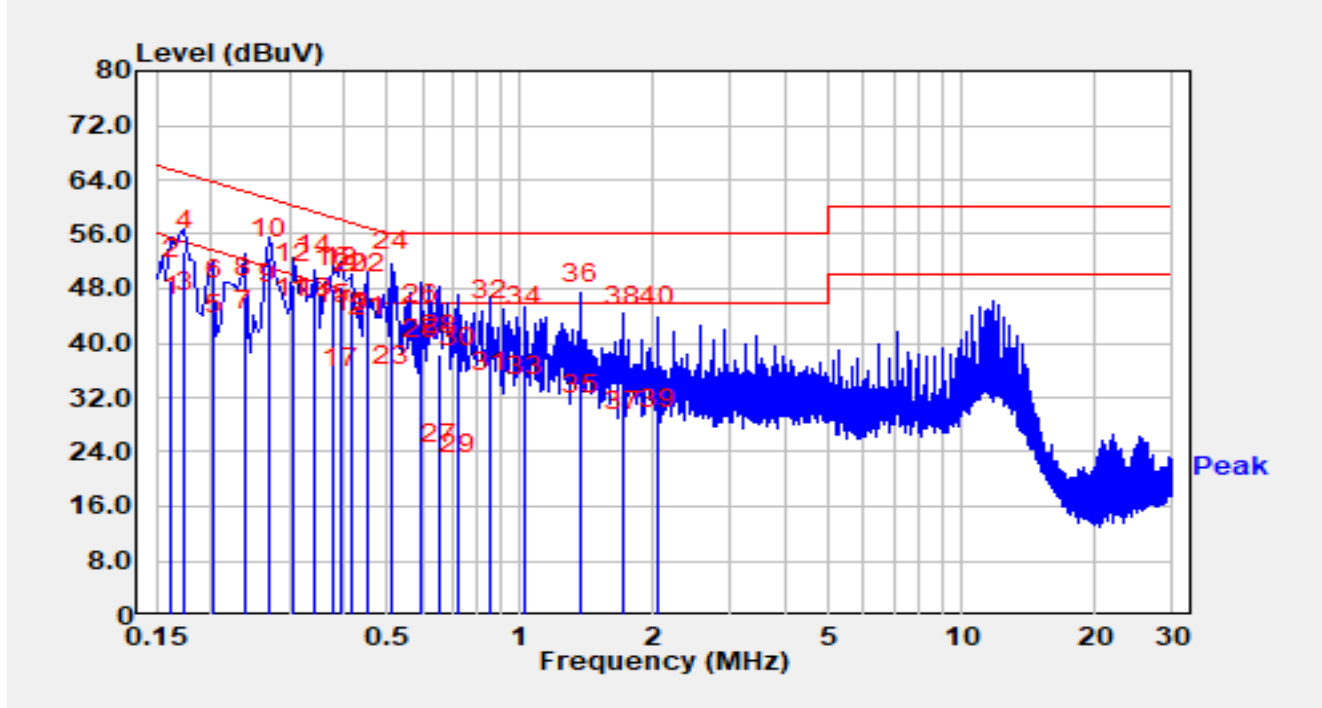
No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB/m)	Measurement (dBμV/m)	Margin (dB)	Limit (dBμV/m)	Detector
1	*	2453.699	60.19	32.96	93.16	N/A	N/A	Average
2		2483.500	12.81	33.13	45.94	-8.06	54.00	Average
3		2485.632	13.39	33.14	46.53	-7.47	54.00	Average

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	2025-03-19
Temperature	21.1 °C	Humidity	30.4 %
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 2.4GHz Wi-Fi.		



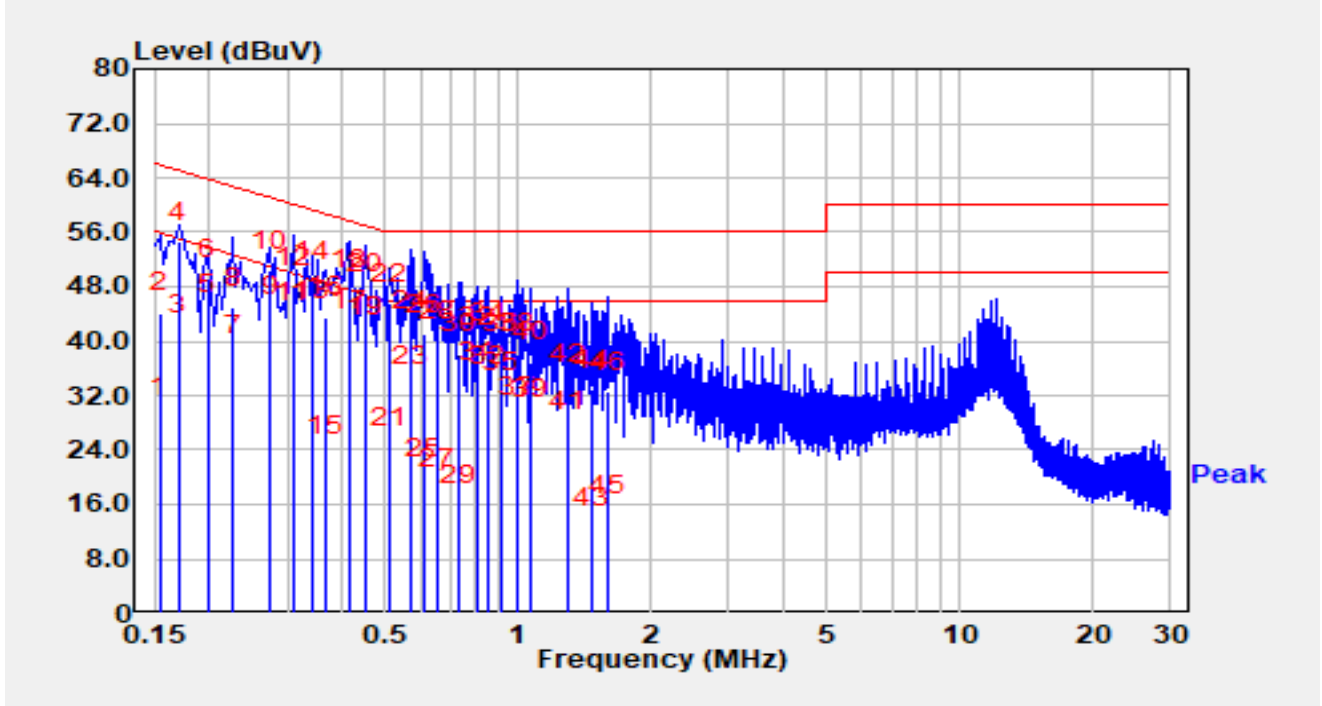
No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB)	Measurement (dBμV)	Margin (dB)	Limit (dBμV)	Detector
1		0.162	34.11	9.69	43.80	-11.56	55.36	Average
2		0.162	39.61	9.69	49.30	-16.06	65.36	QP
3		0.174	34.86	9.69	44.55	-10.22	54.77	Average
4		0.174	43.89	9.69	53.58	-11.19	64.77	QP
5		0.202	31.47	9.72	41.19	-12.34	53.53	Average
6		0.202	36.50	9.72	46.22	-17.31	63.53	QP
7		0.238	31.98	9.75	41.73	-10.44	52.17	Average
8		0.238	36.99	9.75	46.73	-15.43	62.17	QP
9		0.270	35.86	9.75	45.61	-5.51	51.12	Average
10		0.270	42.77	9.75	52.52	-8.60	61.12	QP
11		0.306	33.87	9.77	43.64	-6.44	50.08	Average
12		0.306	38.93	9.77	48.70	-11.38	60.08	QP
13		0.342	33.86	9.78	43.64	-5.51	49.15	Average

14		0.342	40.14	9.78	49.92	-9.24	59.15	QP
15		0.378	33.04	9.78	42.82	-5.50	48.33	Average
16		0.378	38.25	9.78	48.03	-10.30	58.33	QP
17		0.394	23.55	9.79	33.34	-14.65	47.98	Average
18		0.394	38.36	9.79	48.15	-9.83	57.98	QP
19		0.418	31.64	9.79	41.43	-6.06	47.49	Average
20		0.418	37.57	9.79	47.36	-10.13	57.49	QP
21		0.450	31.17	9.79	40.96	-5.92	46.88	Average
22		0.450	37.47	9.79	47.26	-9.62	56.88	QP
23		0.514	23.76	9.79	33.55	-12.45	46.00	Average
24	*	0.514	40.72	9.79	50.51	-5.49	56.00	QP
25		0.598	27.72	9.79	37.51	-8.49	46.00	Average
26		0.598	32.95	9.79	42.74	-13.26	56.00	QP
27		0.654	12.29	9.79	22.08	-23.92	46.00	Average
28		0.654	28.52	9.79	38.31	-17.69	56.00	QP
29		0.726	10.78	9.79	20.57	-25.43	46.00	Average
30		0.726	26.48	9.79	36.27	-19.73	56.00	QP
31		0.854	22.98	9.79	32.77	-13.23	46.00	Average
32		0.854	33.48	9.79	43.27	-12.73	56.00	QP
33		1.026	22.22	9.79	32.01	-13.99	46.00	Average
34		1.026	32.51	9.79	42.30	-13.70	56.00	QP
35		1.366	19.77	9.80	29.57	-16.43	46.00	Average
36		1.366	35.97	9.80	45.77	-10.23	56.00	QP
37		1.706	17.25	9.81	27.06	-18.94	46.00	Average
38		1.706	32.62	9.81	42.43	-13.57	56.00	QP
39		2.050	17.59	9.82	27.41	-18.59	46.00	Average
40		2.050	32.65	9.82	42.47	-13.53	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	2025-03-19
Temperature	21.1 °C	Humidity	30.4 %
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 2.4GHz Wi-Fi.		



No	Mark	Frequency (MHz)	Reading (dBμV)	C.F (dB)	Measurement (dBμV)	Margin (dB)	Limit (dBμV)	Detector
1		0.154	19.23	9.66	28.89	-26.89	55.78	Average
2		0.154	34.51	9.66	44.17	-21.61	65.78	QP
3		0.170	31.40	9.66	41.06	-13.90	54.96	Average
4		0.170	44.89	9.66	54.55	-10.41	64.96	QP
5		0.198	34.33	9.68	44.02	-9.68	53.69	Average
6		0.198	39.45	9.68	49.13	-14.56	63.69	QP
7		0.226	28.31	9.71	38.02	-14.58	52.60	Average
8		0.226	35.17	9.71	44.88	-17.72	62.60	QP
9		0.274	33.86	9.72	43.58	-7.42	51.00	Average
10		0.274	40.63	9.72	50.35	-10.65	61.00	QP
11		0.310	33.05	9.73	42.78	-7.19	49.97	Average
12		0.310	38.18	9.73	47.92	-12.06	59.97	QP
13	*	0.342	33.39	9.74	43.13	-6.03	49.16	Average

14		0.342	39.09	9.74	48.82	-10.34	59.16	QP
15		0.366	13.26	9.73	22.99	-25.60	48.60	Average
16		0.366	33.82	9.73	43.55	-15.04	58.60	QP
17		0.414	31.76	9.74	41.50	-6.07	47.57	Average
18		0.414	37.86	9.74	47.60	-9.97	57.57	QP
19		0.450	31.01	9.74	40.75	-6.12	46.88	Average
20		0.450	37.33	9.74	47.07	-9.80	56.88	QP
21		0.510	14.65	9.74	24.39	-21.61	46.00	Average
22		0.510	35.76	9.74	45.50	-10.50	56.00	QP
23		0.570	23.75	9.74	33.49	-12.51	46.00	Average
24		0.570	31.89	9.74	41.63	-14.37	56.00	QP
25		0.614	10.05	9.74	19.79	-26.21	46.00	Average
26		0.614	31.22	9.74	40.96	-15.04	56.00	QP
27		0.654	8.65	9.74	18.39	-27.61	46.00	Average
28		0.654	30.25	9.74	39.99	-16.01	56.00	QP
29		0.730	6.07	9.74	15.82	-30.18	46.00	Average
30		0.730	28.43	9.74	38.17	-17.83	56.00	QP
31		0.814	24.12	9.75	33.87	-12.13	46.00	Average
32		0.814	29.44	9.75	39.19	-16.81	56.00	QP
33		0.850	23.73	9.74	33.48	-12.52	46.00	Average
34		0.850	29.89	9.74	39.63	-16.37	56.00	QP
35		0.922	22.69	9.74	32.43	-13.57	46.00	Average
36		0.922	28.49	9.74	38.23	-17.77	56.00	QP
37		0.990	19.12	9.74	28.86	-17.14	46.00	Average
38		0.990	28.33	9.74	38.07	-17.93	56.00	QP
39		1.062	18.86	9.74	28.60	-17.40	46.00	Average
40		1.062	27.14	9.74	36.88	-19.12	56.00	QP
41		1.289	16.84	9.75	26.59	-19.41	46.00	Average
42		1.289	23.87	9.75	33.62	-22.38	56.00	QP
43		1.478	2.81	9.76	12.57	-33.43	46.00	Average
44		1.478	23.00	9.76	32.76	-23.24	56.00	QP
45		1.586	4.67	9.76	14.43	-31.57	46.00	Average
46		1.586	22.80	9.76	32.56	-23.44	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 “2409RSU024-UT” file.

Appendix C – EUT Photograph

Refer to “2409RSU024-UE” file.

The End
