

6.5.5. Test Result

Test Site	SIP-SR5	Test Engineer	Ternence Wang
Test Date	2021/05/17		

Test Mode	Data Rate / MCS	Channel No.	Frequency (MHz)	Limit	Result
802.11b	1Mbps	01	2412	20dBc	Pass
802.11b	1Mbps	06	2437	20dBc	Pass
802.11b	1Mbps	11	2462	20dBc	Pass
802.11g	6Mbps	01	2412	20dBc	Pass
802.11g	6Mbps	06	2437	20dBc	Pass
802.11g	6Mbps	11	2462	20dBc	Pass
802.11n-HT20	MCS0	01	2412	20dBc	Pass
802.11n-HT20	MCS0	06	2437	20dBc	Pass
802.11n-HT20	MCS0	11	2462	20dBc	Pass
802.11n-HT40	MCS0	03	2422	20dBc	Pass
802.11n-HT40	MCS0	06	2437	20dBc	Pass
802.11n-HT40	MCS0	09	2452	20dBc	Pass

Channel 01 (2412MHz)

Low Band Edge



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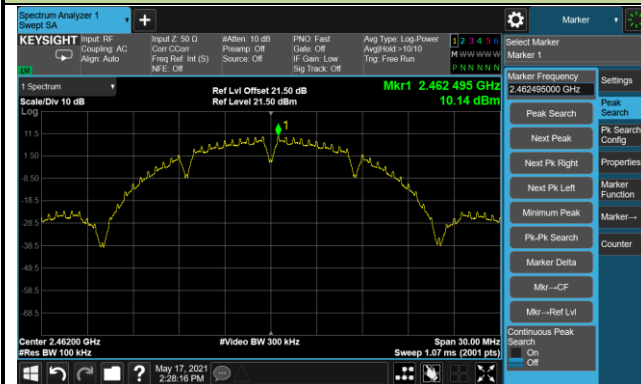
Spurious Emission



802.11b Out-of-Band Emissions

Channel 11 (2462MHz)

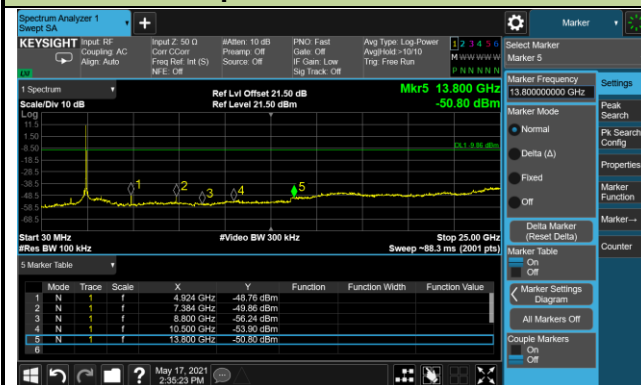
100kHz PSD Reference Level



High Band Edge



Spurious Emission



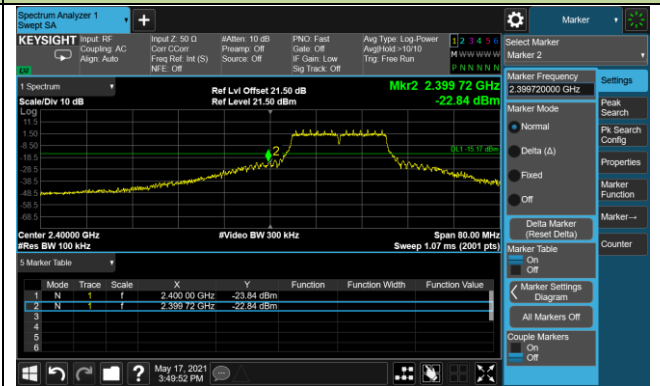
802.11g Out-of-Band Emissions

Channel 01 (2412MHz)

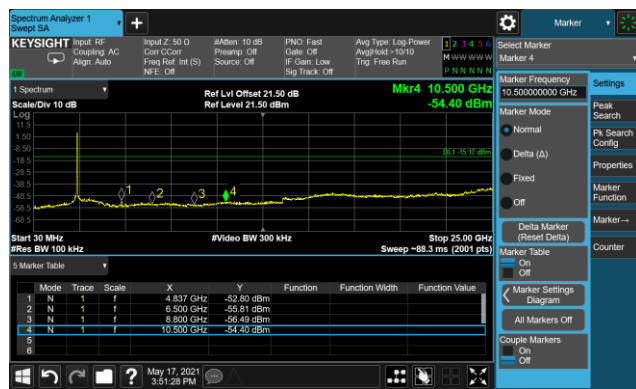
100kHz PSD Reference Level



Low Band Edge

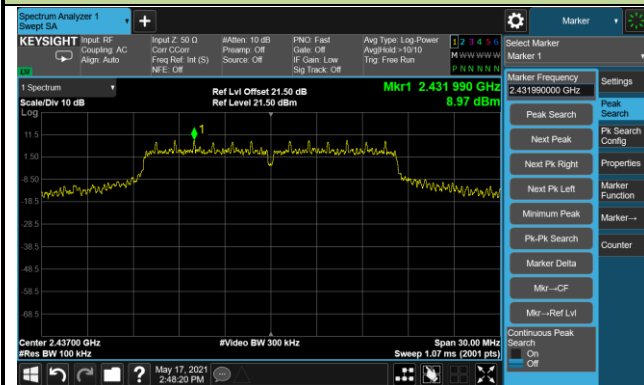


Spurious Emission



Channel 06 (2437MHz)

100kHz PSD Reference Level



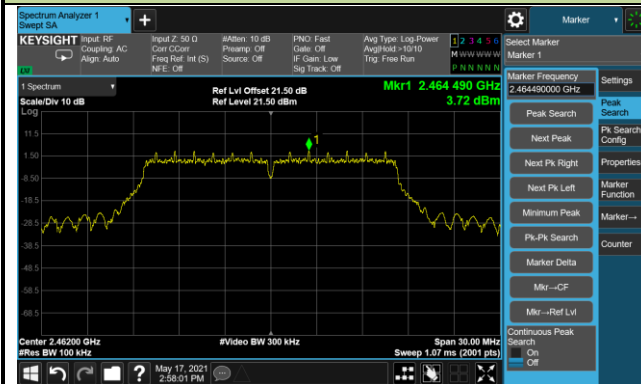
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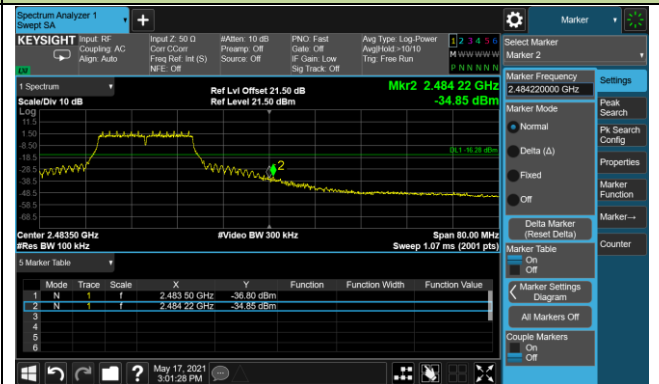
802.11g Out-of-Band Emissions

Channel 11 (2462MHz)

100kHz PSD Reference Level



High Band Edge



Spurious Emission



802.11n-HT20 Out-of-Band Emissions

Channel 01 (2412MHz)

100kHz PSD Reference Level



Low Band Edge

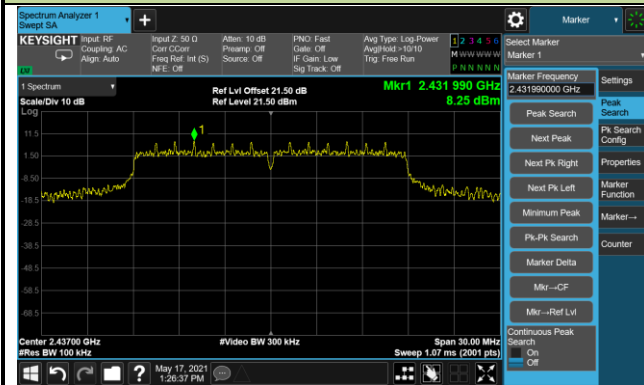


Spurious Emission

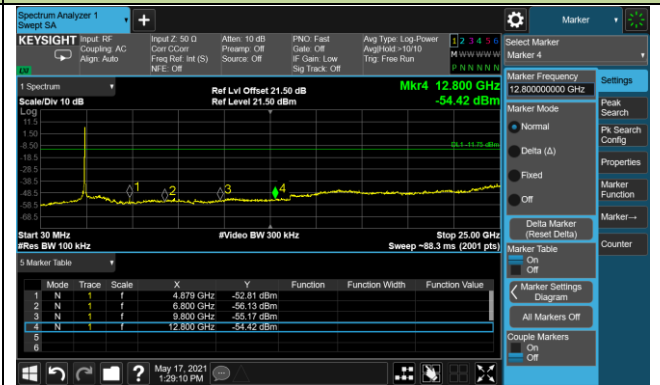


Channel 06 (2437MHz)

100kHz PSD Reference Level



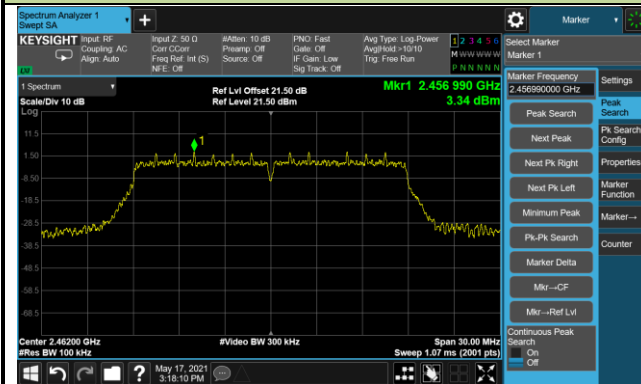
Spurious Emission



802.11n-HT20 Out-of-Band Emissions

Channel 11 (2462MHz)

100kHz PSD Reference Level



High Band Edge



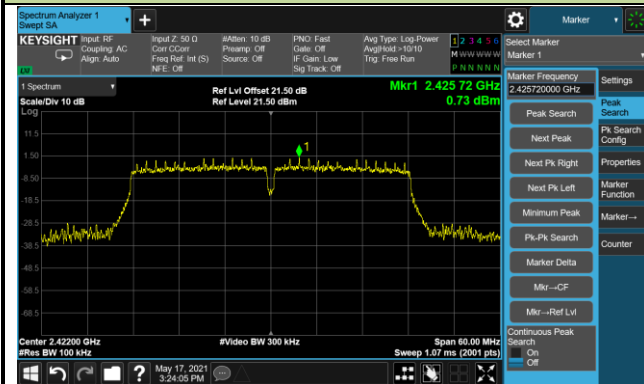
Spurious Emission



802.11n-HT40 Out-of-Band Emissions

Channel 03 (2422MHz)

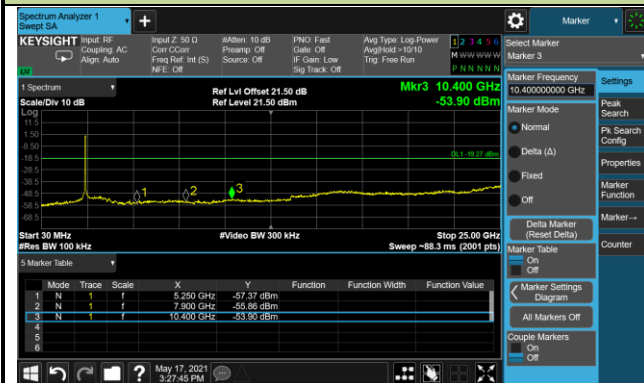
100kHz PSD Reference Level



Low Band Edge



Spurious Emission



Channel 06 (2437MHz)

100kHz PSD Reference Level



Spurious Emission



802.11n-HT40 Out-of-Band Emissions

Channel 09 (2452MHz)

100kHz PSD Reference Level



High Band Edge



Spurious Emission



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

Except where otherwise indicated in the applicable RSS, radiated emissions shall comply with the field strength limits shown in below table. Additionally, the level of any transmitter unwanted emission shall not exceed the level of the transmitter's fundamental emission.

RSS Gen 8.9 Transmitter emission limits		
General field strength limits at frequencies above 30 MHz		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
30 - 38	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3
RSS Gen 8.9 Transmitter emission limits		
General field strength limits at frequencies below 30 MHz		
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]
9 – 490 KHz ^{Note 1}	6.37/F (F in kHz)	300
490 -1705 kHz	63.7/F (F in kHz)	30
1.705 -30 MHz	0.08	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

6.6.2.Test Procedure Used

ANSI C63.10 - Section 6.3 (General Requirements)

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

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

ANSI C63.10 - 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 = 10 Hz.

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

4. Detector = Peak

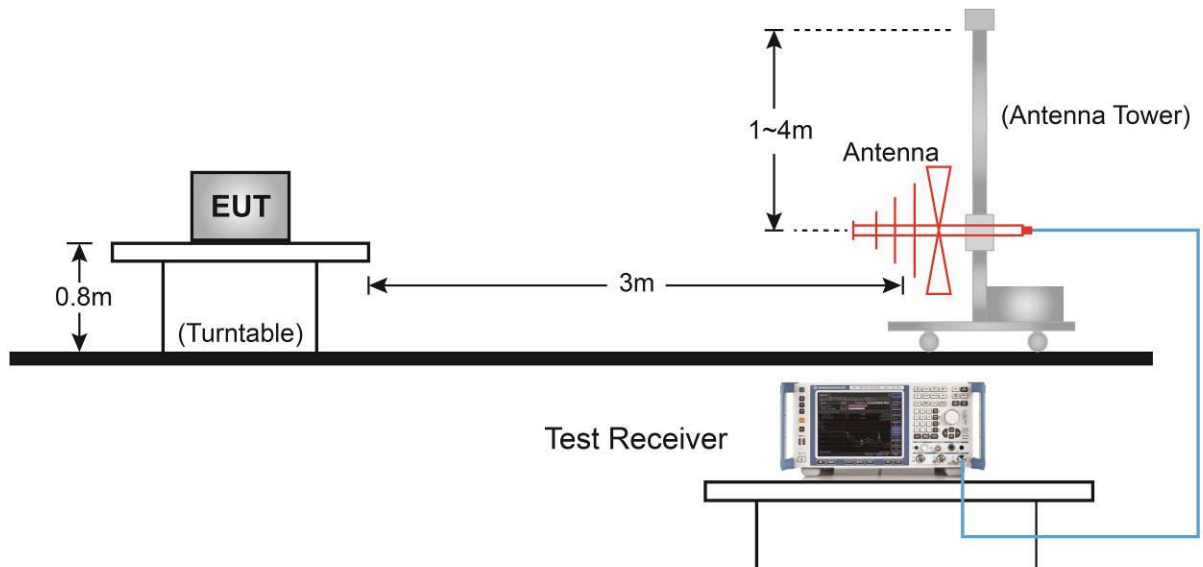
5. Sweep time = auto

6. Trace mode = max hold

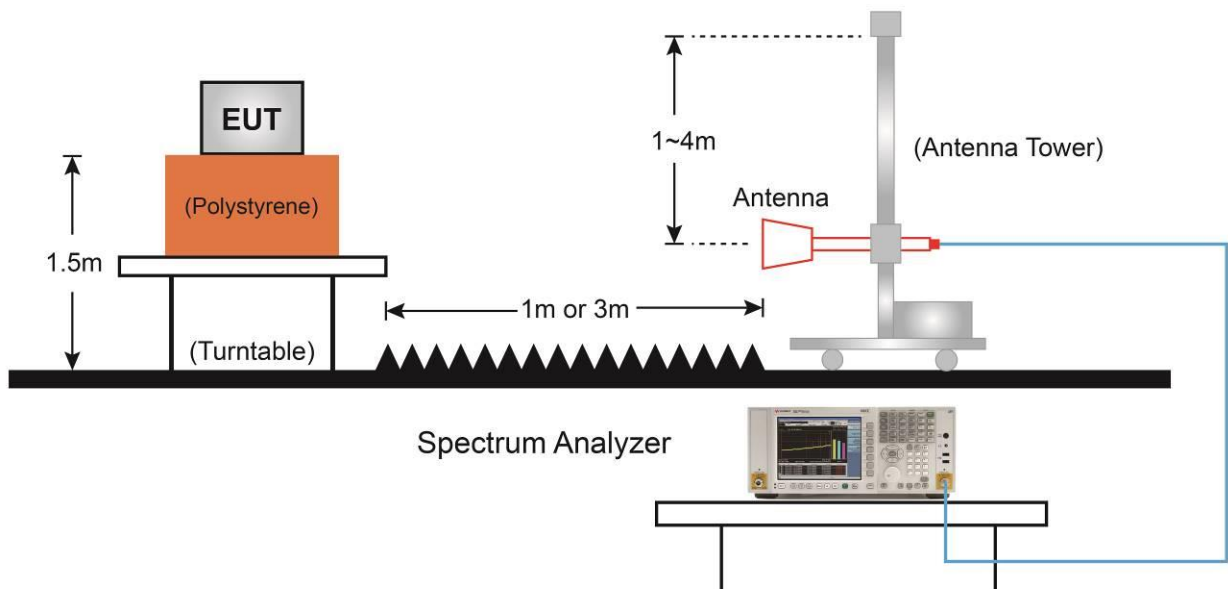
7. Trace was allowed to stabilize

6.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.6.5. Test Result

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11b	Test Date	2021/04/28
Test Channel	01		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4825.0	56.8	-12.2	44.6	74	-29.4	Peak	Horizontal
	11055.5	49.7	0.8	50.5	74	-23.5	Peak	Horizontal
	12279.5	48.5	0.4	48.9	74	-25.1	Peak	Horizontal
	4825.0	60.8	-12.2	48.6	74	-25.4	Peak	Vertical
	11072.5	48.7	0.6	49.3	74	-24.7	Peak	Vertical
	11616.5	48.3	0.6	48.9	74	-25.1	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11b	Test Date	2021/04/28
Test Channel	06		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	55.1	-12.1	43.0	74	-31.0	Peak	Horizontal
	10877.0	48.7	-0.3	48.4	74	-25.6	Peak	Horizontal
	12160.5	48.6	0.1	48.7	74	-25.3	Peak	Horizontal
	4876.0	59.3	-12.1	47.2	74	-26.8	Peak	Vertical
	11047.0	48.0	0.9	48.9	74	-25.1	Peak	Vertical
	12262.5	48.5	0.4	48.9	74	-25.1	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11b	Test Date	2021/04/28
Test Channel	11		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4927.0	57.0	-12.1	44.9	74	-29.1	Peak	Horizontal
	7383.5	54.4	-5.1	49.3	74	-24.7	Peak	Horizontal
	11064.0	48.9	0.7	49.6	74	-24.4	Peak	Horizontal
	4927.0	60.5	-12.1	48.4	74	-25.6	Peak	Vertical
	7383.5	55.2	-5.1	50.1	74	-23.9	Peak	Vertical
	11055.5	48.9	0.8	49.7	74	-24.3	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11g	Test Date	2021/04/28
Test Channel	01		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7545.0	49.4	-4.8	44.6	74	-29.4	Peak	Horizontal
	11064.0	48.8	0.7	49.5	74	-24.5	Peak	Horizontal
	11990.5	48.8	-0.2	48.6	74	-25.4	Peak	Horizontal
	7596.0	50.4	-5.1	45.3	74	-28.7	Peak	Vertical
	11072.5	48.8	0.6	49.4	74	-24.6	Peak	Vertical
	11939.5	48.7	-0.1	48.6	74	-25.4	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11g	Test Date	2021/04/28
Test Channel	06		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7545.0	49.4	-4.8	44.6	74	-29.4	Peak	Horizontal
	11064.0	48.8	0.7	49.5	74	-24.5	Average	Horizontal
	11990.5	48.8	-0.2	48.6	74	-25.4	Peak	Horizontal
	7596.0	50.4	-5.1	45.3	74	-28.7	Peak	Horizontal
	11072.5	48.8	0.6	49.4	74	-24.6	Peak	Vertical
	11939.5	48.7	-0.1	48.6	74	-25.4	Average	Vertical
	11064.0	48.8	0.7	49.5	74	-24.5	Peak	Vertical
	11718.5	49.2	0.0	49.2	74	-24.8	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11g	Test Date	2021/04/28
Test Channel	11		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7502.5	48.8	-5.1	43.7	74	-30.3	Peak	Horizontal
	11047.0	48.8	0.9	49.7	74	-24.3	Peak	Horizontal
	11531.5	48.1	0.9	49.0	74	-25.0	Peak	Horizontal
	7451.5	50.1	-5.1	45.0	74	-29.0	Peak	Vertical
	11055.5	48.6	0.8	49.4	74	-24.6	Peak	Vertical
	11531.5	48.5	0.9	49.4	74	-24.6	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11n-HT20	Test Date	2021/04/28
Test Channel	01		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7698.0	50.5	-5.2	45.3	74	-28.7	Peak	Horizontal
	11047.0	48.1	0.9	49.0	74	-25.0	Peak	Horizontal
	12271.0	48.1	0.5	48.6	74	-25.4	Peak	Horizontal
	7349.5	50.4	-5.1	45.3	74	-28.7	Peak	Vertical
	11140.5	50.5	0.5	51.0	74	-23.0	Peak	Vertical
	11982.0	48.8	-0.1	48.7	74	-25.3	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11n-HT20	Test Date	2021/04/28
Test Channel	06		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7307.0	56.8	-5.0	51.8	74	-22.2	Peak	Horizontal
	11064.0	48.7	0.7	49.4	74	-24.6	Peak	Horizontal
	11327.5	49.0	0.6	49.6	74	-24.4	Peak	Horizontal
	4876.0	57.7	-12.1	45.6	74	-28.4	Peak	Vertical
	7307.0	60.0	-5.0	55.0	74	-19.0	Peak	Vertical
	7307.0	47.7	-5.0	42.7	54	-11.3	Average	Vertical
	11531.5	48.3	0.9	49.2	74	-24.8	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11n-HT20	Test Date	2021/04/28
Test Channel	11		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	8276.0	50.2	-4.2	46.0	74	-28.0	Peak	Horizontal
	10783.5	49.4	-0.6	48.8	74	-25.2	Peak	Horizontal
	11412.5	48.4	0.6	49.0	74	-25.0	Peak	Horizontal
	7383.5	51.5	-5.1	46.4	74	-27.6	Peak	Vertical
	11166.0	48.4	0.6	49.0	74	-25.0	Peak	Vertical
	11897.0	49.0	-0.2	48.8	74	-25.2	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11n-HT40	Test Date	2021/04/28
Test Channel	03		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7349.5	50.4	-5.1	45.3	74	-28.7	Peak	Horizontal
	10936.5	49.5	0.0	49.5	74	-24.5	Peak	Horizontal
	11531.5	48.8	0.9	49.7	74	-24.3	Peak	Horizontal
	7536.5	50.1	-5.0	45.1	74	-28.9	Peak	Vertical
	11064.0	48.6	0.7	49.3	74	-24.7	Peak	Vertical
	11438.0	48.9	0.8	49.7	74	-24.3	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11n-HT40	Test Date	2021/04/28
Test Channel	06		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7434.5	49.5	-5.1	44.4	74	-29.6	Peak	Horizontal
	11047.0	48.2	0.9	49.1	74	-24.9	Peak	Horizontal
	11429.5	48.5	0.8	49.3	74	-24.7	Peak	Horizontal
	7298.5	52.6	-5.1	47.5	74	-26.5	Peak	Vertical
	11055.5	49.3	0.8	50.1	74	-23.9	Peak	Vertical
	11531.5	48.6	0.9	49.5	74	-24.5	Peak	Vertical

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

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

Test Site	SIP-AC2	Test Engineer	Allen Zou
Test Mode	802.11n-HT40	Test Date	2021/04/28
Test Channel	09		
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

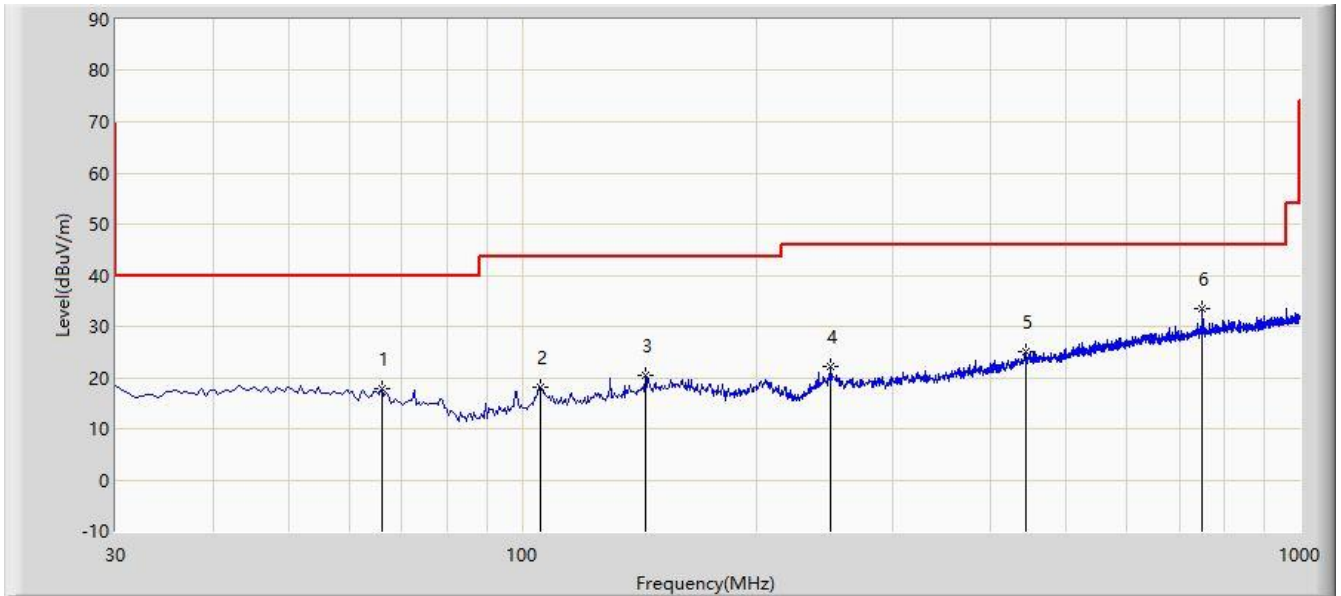
Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	7358.0	50.4	-5.1	45.3	74	-28.7	Peak	Horizontal
	11047.0	48.2	0.9	49.1	74	-24.9	Peak	Horizontal
	11438.0	48.8	0.8	49.6	74	-24.4	Peak	Horizontal
	8318.5	49.9	-4.3	45.6	74	-28.4	Peak	Vertical
	11038.5	47.8	0.7	48.5	74	-25.5	Peak	Vertical
	11599.5	48.1	0.4	48.5	74	-25.5	Peak	Vertical

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

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

The Result of Radiated Emission below 1GHz:

Site: SIP-AC3	Time: 2021/05/14
Limit: FCC_Part15.209_RSE(3m)	Engineer: Kyrie Xie
Probe: SIP-AC3_VULB 9168_30-1000MHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			65.890	17.964	1.459	-22.036	40.000	16.505	PK
2			105.660	18.171	3.882	-25.329	43.500	14.289	PK
3			143.975	20.357	2.471	-23.143	43.500	17.887	PK
4			249.705	22.151	5.337	-23.849	46.000	16.814	PK
5			443.705	25.040	2.865	-20.960	46.000	22.175	PK
6		*	750.225	33.557	5.720	-12.443	46.000	27.837	PK

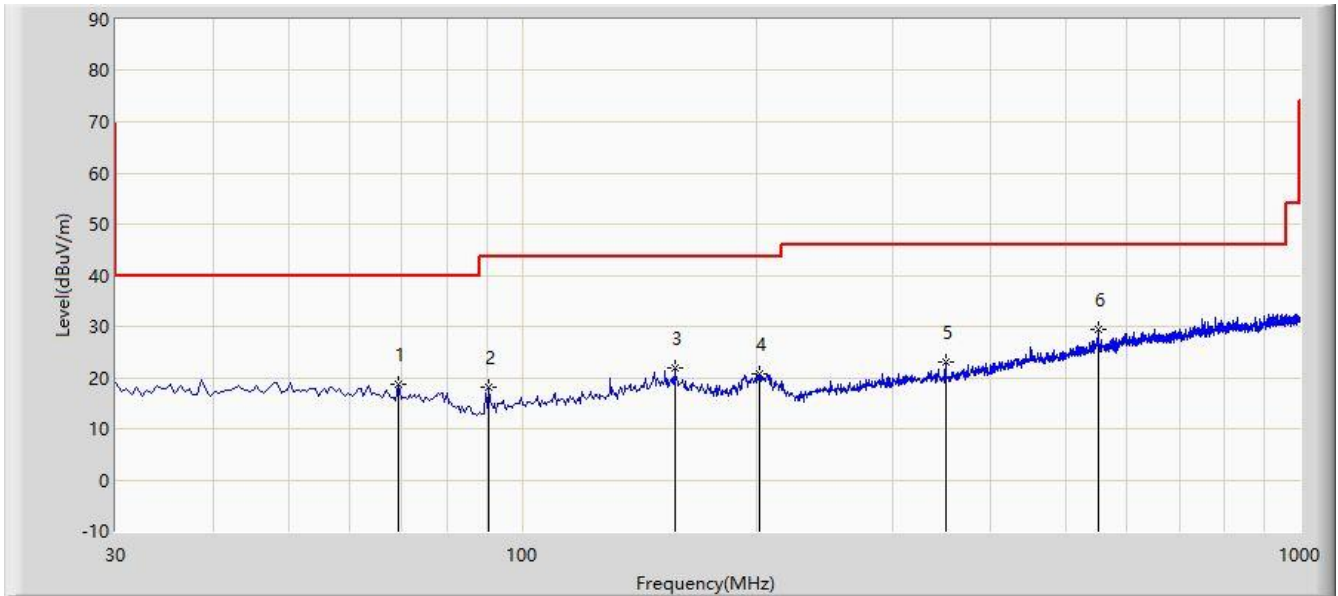
Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: 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-AC3	Time: 2021/05/14
Limit: FCC_Part15.209_RSE(3m)	Engineer: Kyrie Xie
Probe: SIP-AC3_VULB 9168_30-1000MHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			69.285	18.675	2.945	-21.325	40.000	15.730	PK
2			90.625	18.138	6.142	-25.362	43.500	11.995	PK
3			157.070	21.866	3.768	-21.634	43.500	18.098	PK
4			202.175	20.632	5.870	-22.868	43.500	14.763	PK
5			350.100	22.980	3.509	-23.020	46.000	19.471	PK
6		*	549.920	29.455	5.569	-16.545	46.000	23.886	PK

Note 1: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: 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.

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

For RSS-Gen Section 8.10 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 8.10 of RSS-Gen, must also comply with the radiated emission limits specified in Section 8.9.

Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.009 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	156.7 - 156.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 - 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	* Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for license exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.
8.37625 - 8.38675	1718.8 -1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 -2390	
12.51975 - 12.52025	2483.5 -2500	
12.57675 - 12.57725	2655 - 2900	
13.36 -13.41	3260 - 3267	
16.42 - 16.423	3332 -3339	
16.69475 - 16.69525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 - 8500	
108 - 138		

All out of band emissions appearing in a restricted band as specified in Section 8.10 of the RSS-Gen must not exceed the limits shown in Table per Section 8.9.

RSS-Gen Section 8.9			
Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Magnetic Field Strength (H-Field) ($\mu\text{A/m}$)	Measured Distance (m)
0.009 - 0.490 1	--	6.37/F (F in kHz)	300
0.490 - 1.705	--	6.37/F (F in kHz)	30
1.705 - 30	--	0.08	30
30 - 88	100	--	3
88 - 216	150	--	3
216 - 960	200	--	3
Above 960	500	--	3

6.7.2.Test Procedure Used

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

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

6.7.3.Test Setting

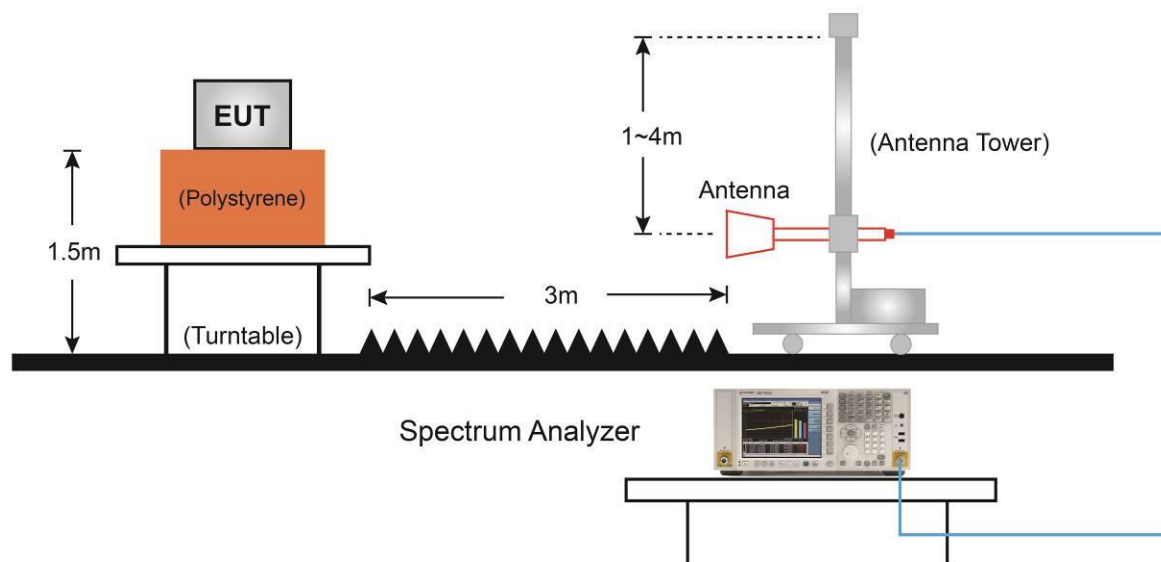
Peak Field Strength Measurements

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

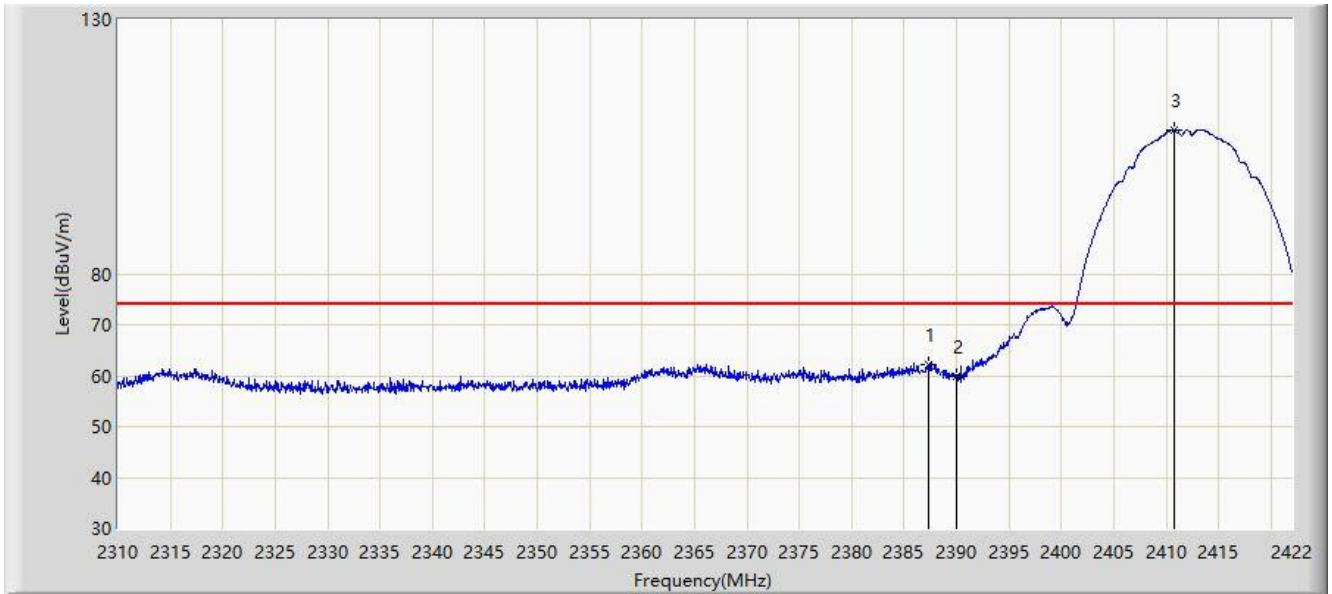
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). 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

Site: SIP-AC2	Time: 2021/04/27 - 14:32
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz	

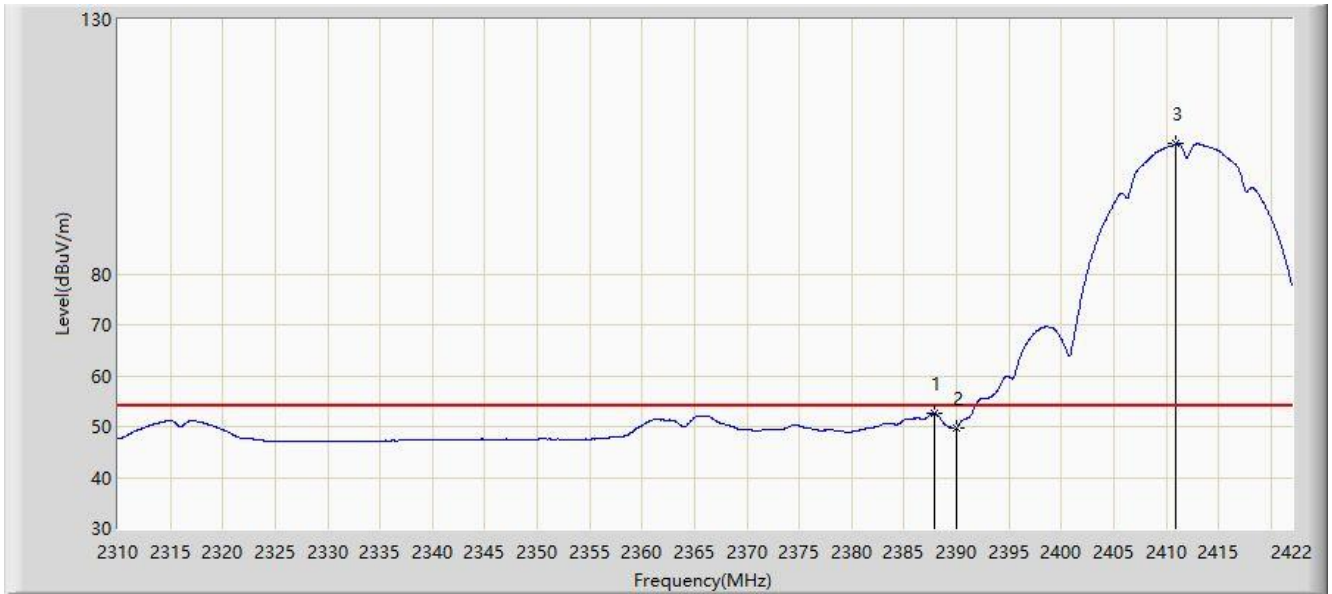


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2387.280	62.181	30.838	-11.819	74.000	31.343	PK
2			2390.000	59.746	28.410	-14.254	74.000	31.336	PK
3		*	2410.800	108.327	77.034	N/A	N/A	31.292	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 14:30
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz	

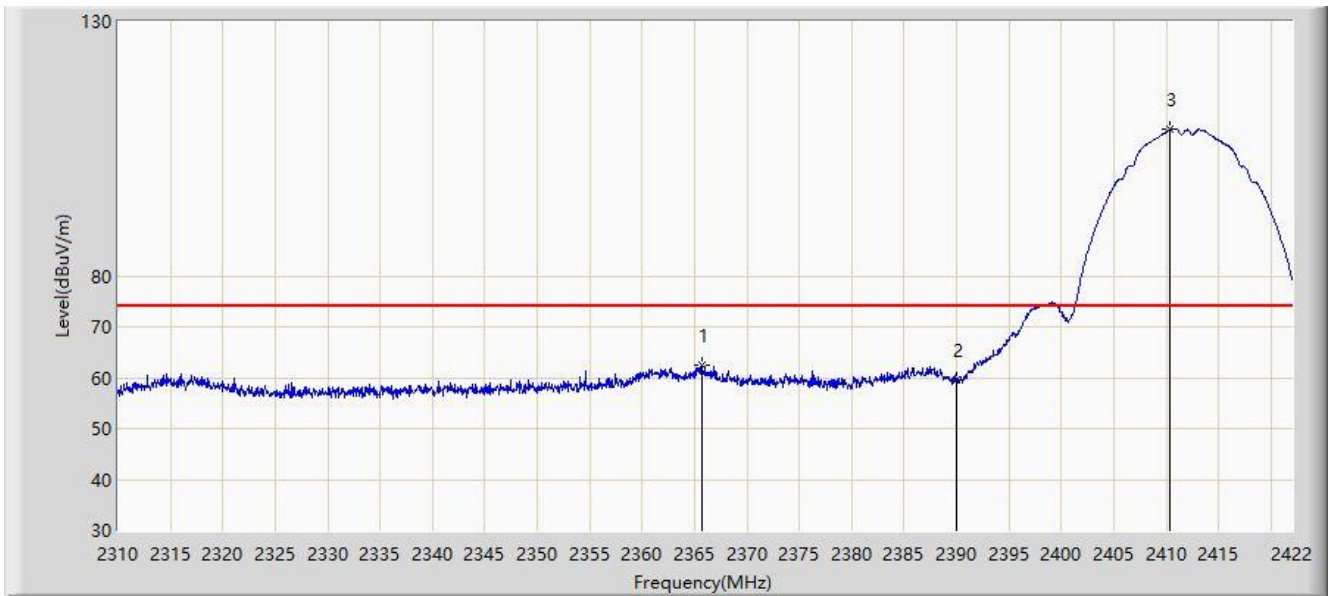


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2387.952	52.526	21.185	-1.474	54.000	31.342	AV
2			2390.000	49.739	18.403	-4.261	54.000	31.336	AV
3		*	2410.968	105.516	74.224	N/A	N/A	31.292	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 14:32
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz	

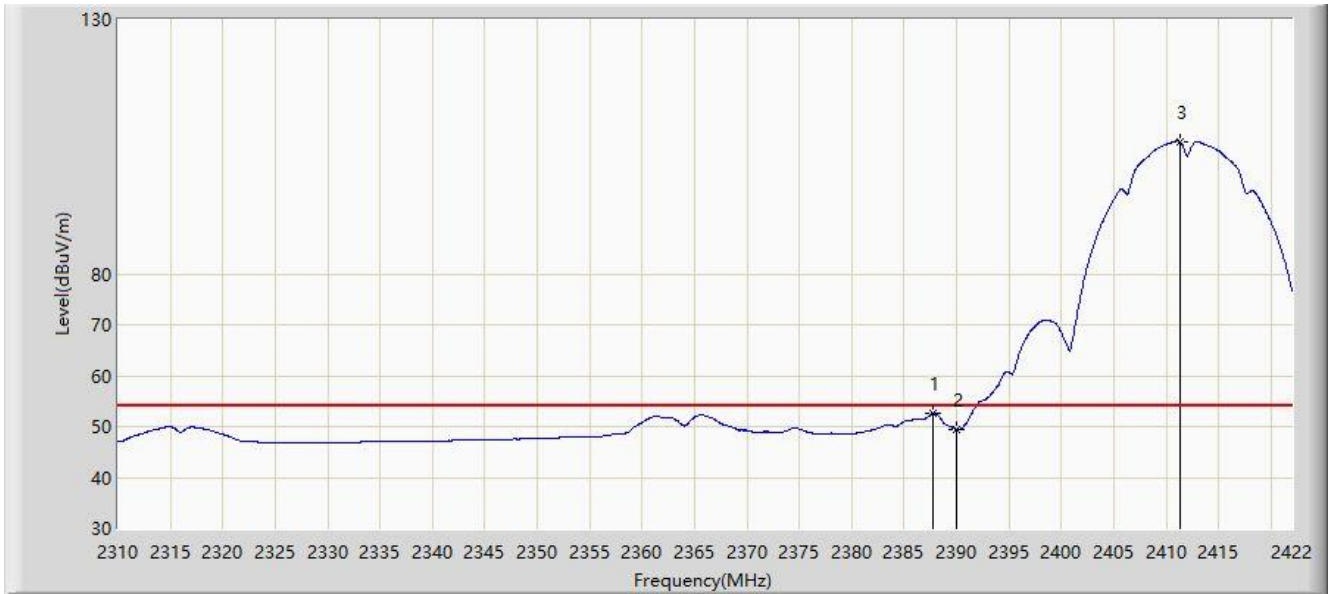


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2365.720	62.391	30.987	-11.609	74.000	31.404	PK
2			2390.000	59.667	28.331	-14.333	74.000	31.336	PK
3		*	2410.408	108.759	77.466	N/A	N/A	31.293	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 14:36
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz	

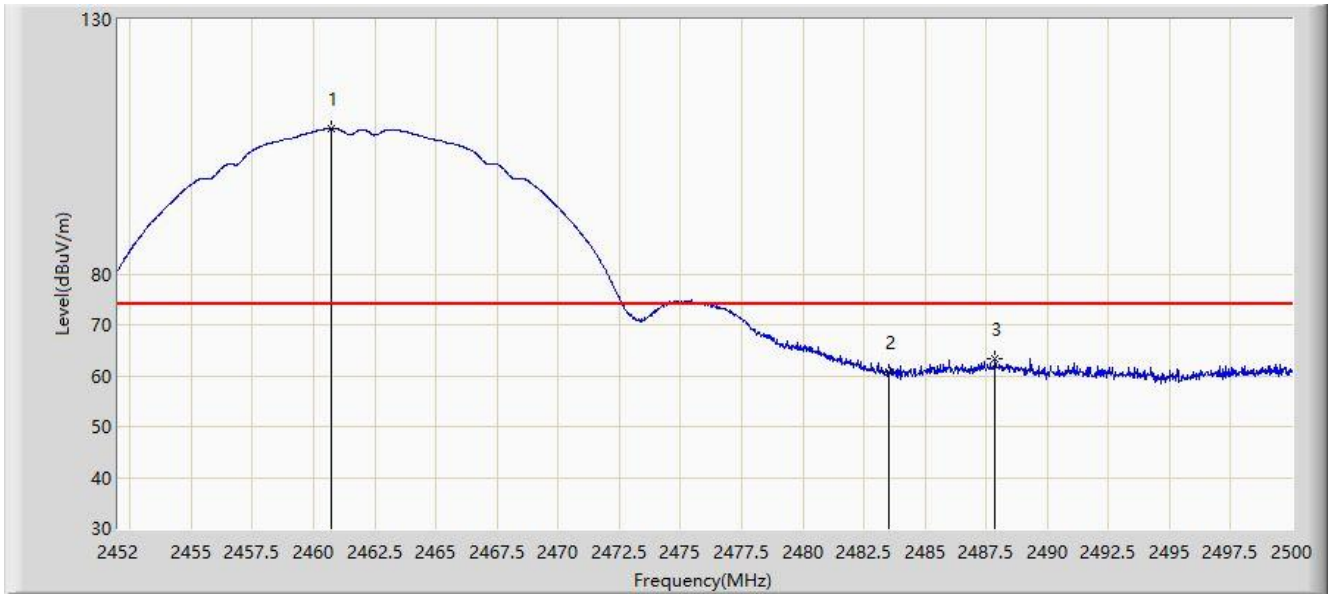


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2387.728	52.542	21.200	-1.458	54.000	31.342	AV
2			2390.000	49.529	18.193	-4.471	54.000	31.336	AV
3		*	2411.304	106.014	74.723	N/A	N/A	31.291	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 14:55
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2460.712	108.545	77.387	N/A	N/A	31.157	PK
2			2483.500	60.750	29.607	-13.250	74.000	31.143	PK
3			2487.856	63.319	32.177	-10.681	74.000	31.142	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 14:58
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2462MHz	

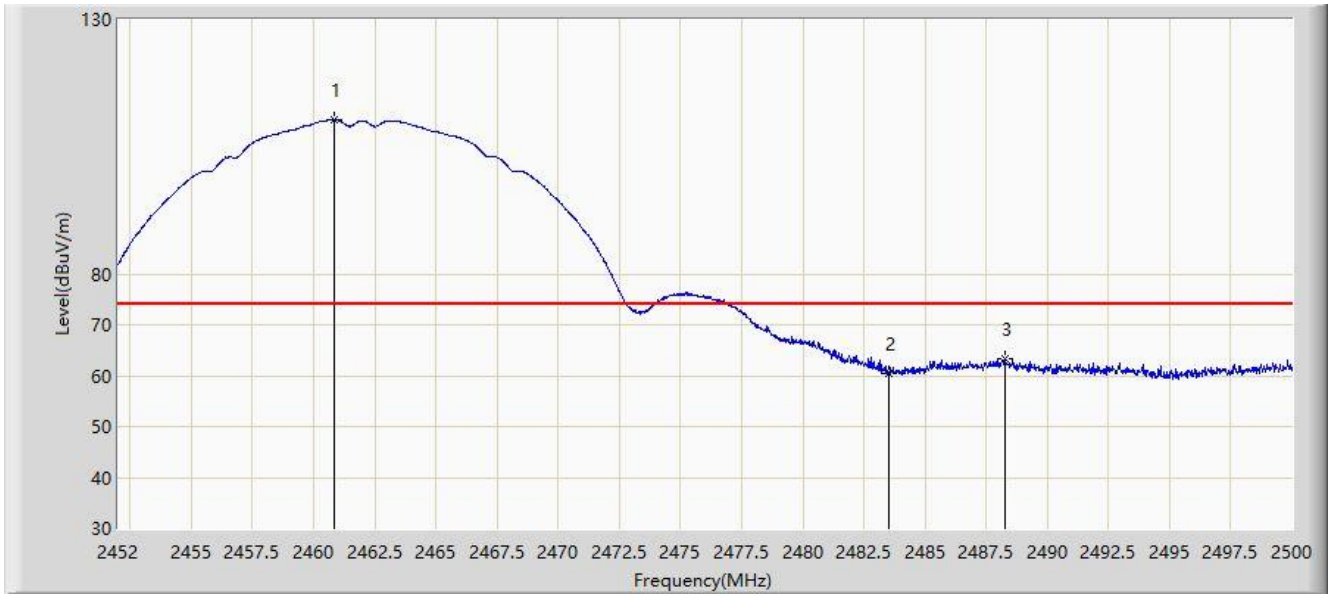


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.000	105.708	74.551	N/A	N/A	31.158	AV
2			2483.500	49.942	18.799	-4.058	54.000	31.143	AV
3			2488.024	51.989	20.847	-2.011	54.000	31.142	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 14:54
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.856	110.219	79.062	N/A	N/A	31.157	PK
2			2483.500	60.537	29.394	-13.463	74.000	31.143	PK
3			2488.288	63.258	32.116	-10.742	74.000	31.142	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 14:51
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2462MHz	

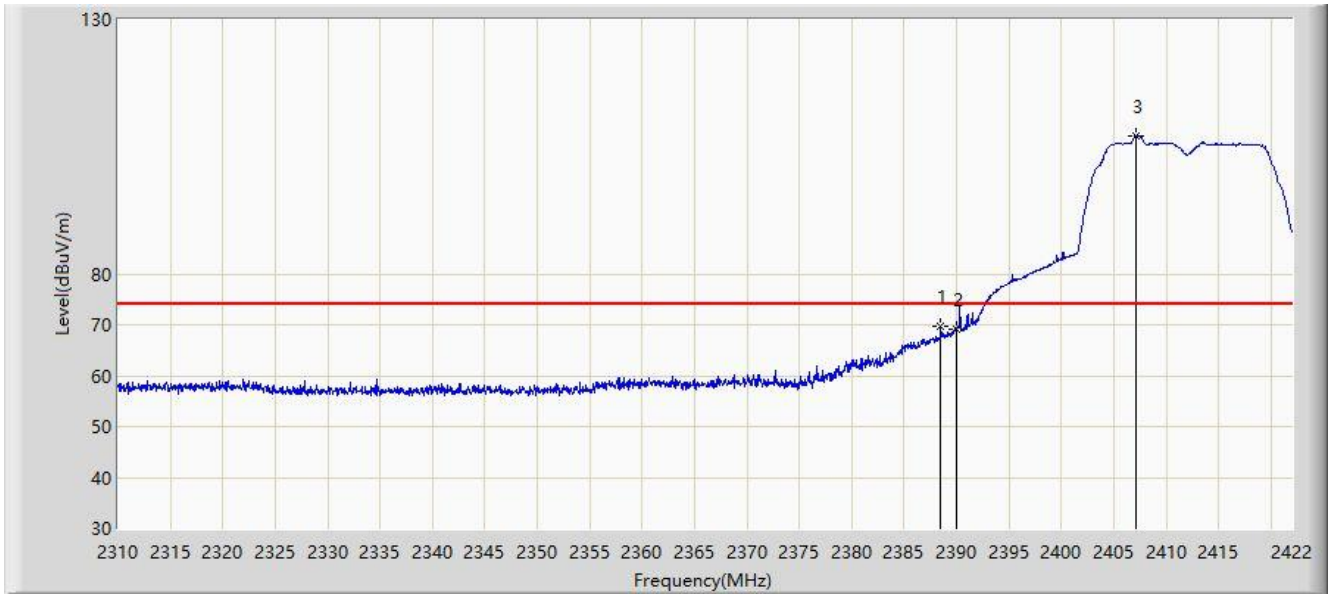


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2461.072	107.404	76.247	N/A	N/A	31.157	AV
2			2483.500	50.412	19.269	-3.588	54.000	31.143	AV
3			2488.048	52.520	21.378	-1.480	54.000	31.141	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 15:13
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2412MHz	

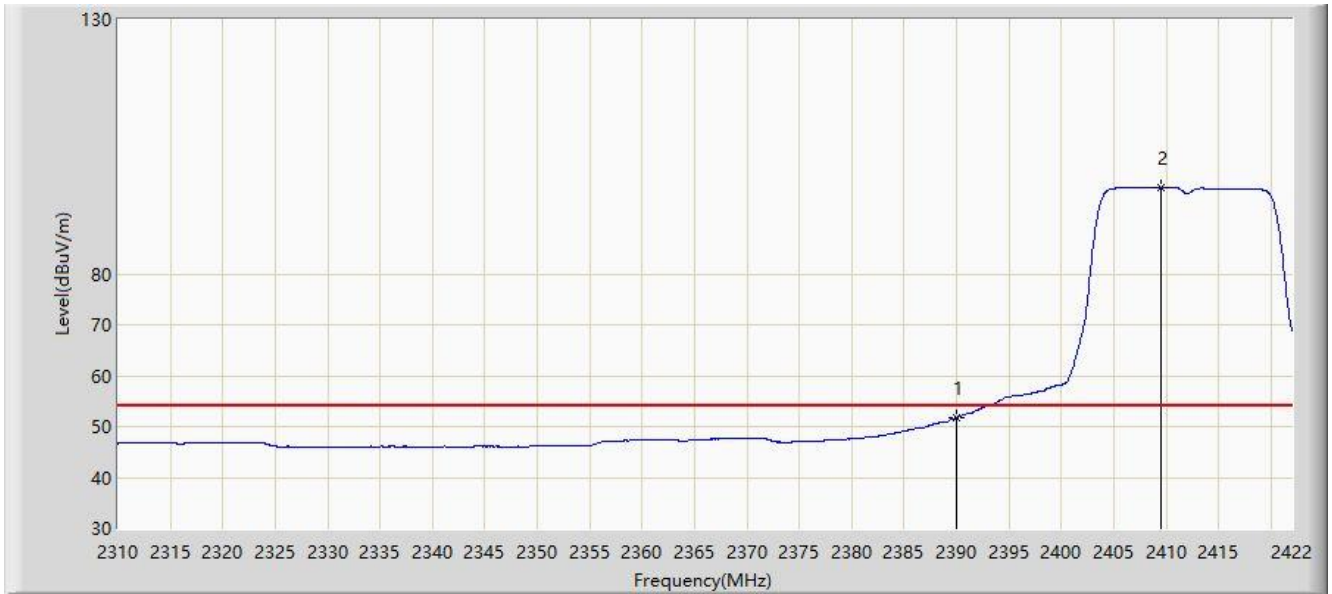


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.512	69.746	38.406	-4.254	74.000	31.340	PK
2			2390.000	69.045	37.709	-4.955	74.000	31.336	PK
3		*	2407.160	107.222	75.922	N/A	N/A	31.299	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 15:11
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2412MHz	

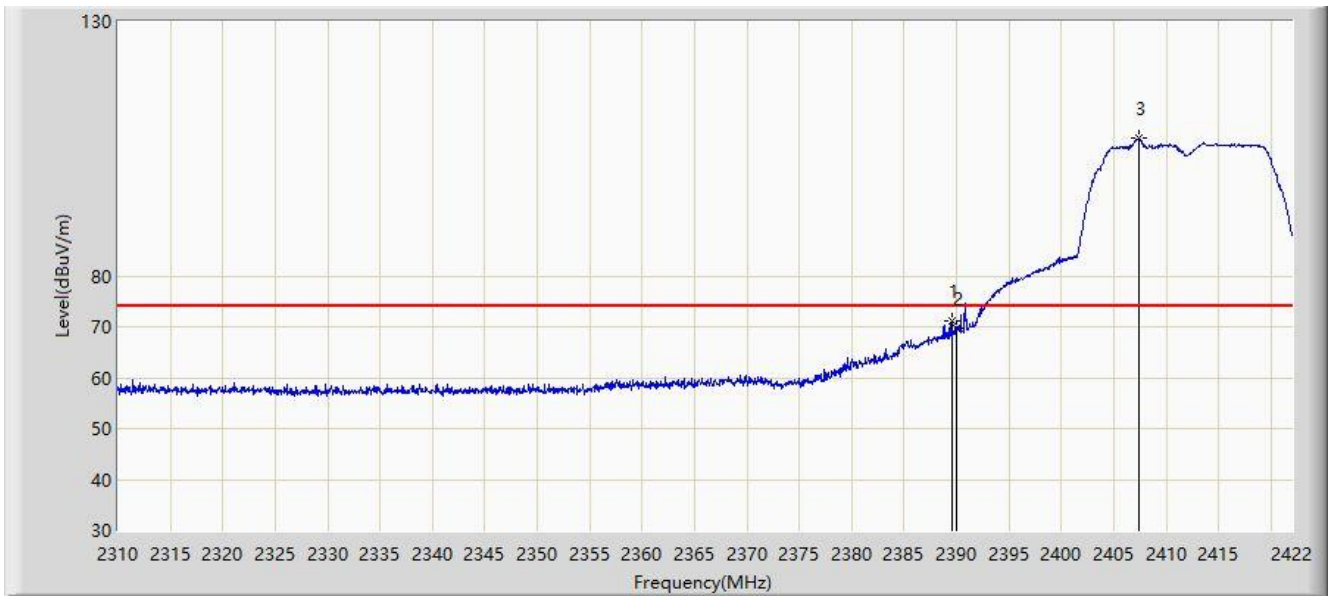


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.836	20.500	-2.164	54.000	31.336	AV
2		*	2409.568	97.000	65.705	N/A	N/A	31.295	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 15:14
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2412MHz	

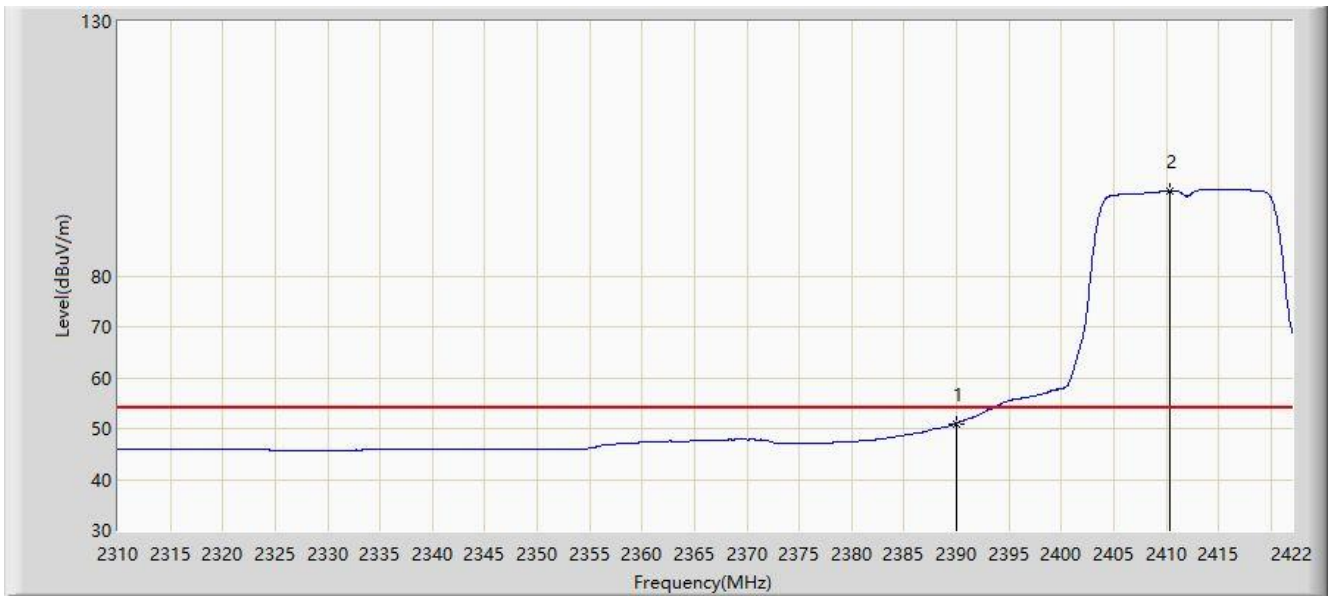


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.576	71.131	39.794	-2.869	74.000	31.337	PK
2			2390.000	69.684	38.348	-4.316	74.000	31.336	PK
3		*	2407.384	107.183	75.884	N/A	N/A	31.299	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 15:16
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: SIP-AC2_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2390.000	50.995	19.659	-3.005	54.000	31.336	AV
2		*	2410.296	96.676	65.382	N/A	N/A	31.294	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 17:45
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2462MHz	

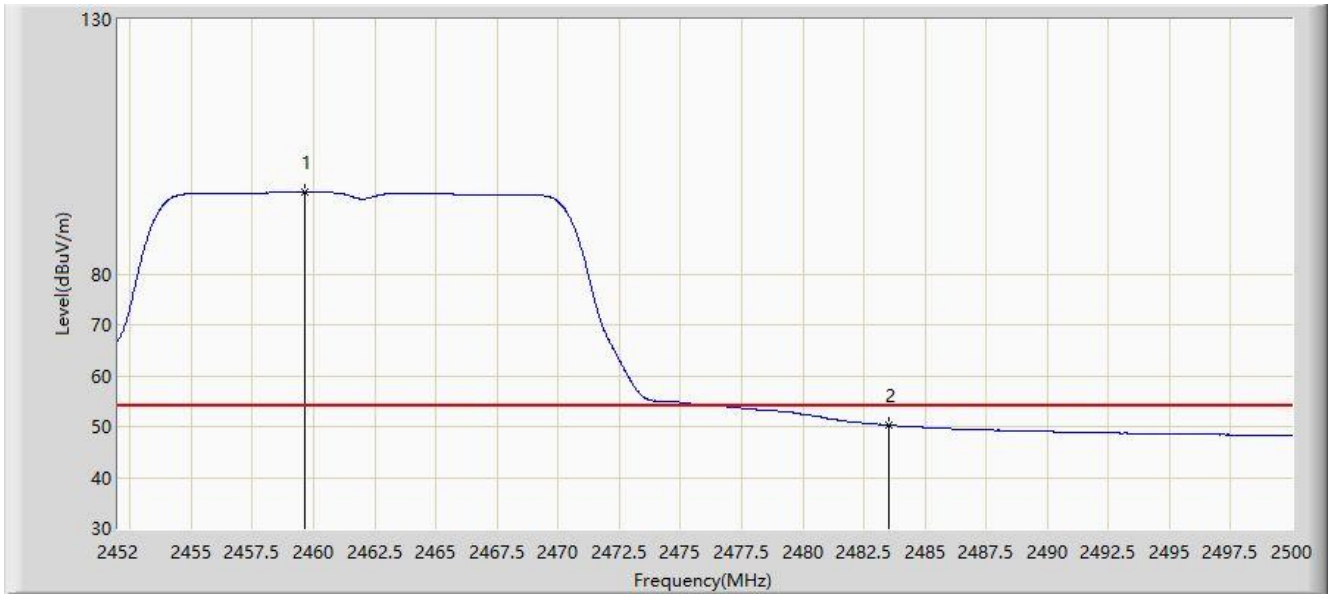


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.208	106.247	73.589	N/A	N/A	32.658	PK
2			2483.500	67.100	34.337	-6.900	74.000	32.762	PK
3			2484.256	69.121	36.345	-4.879	74.000	32.777	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 17:46
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2459.656	95.944	63.255	N/A	N/A	32.690	AV
2			2483.500	50.314	17.551	-3.686	54.000	32.762	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 17:44
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2462MHz	

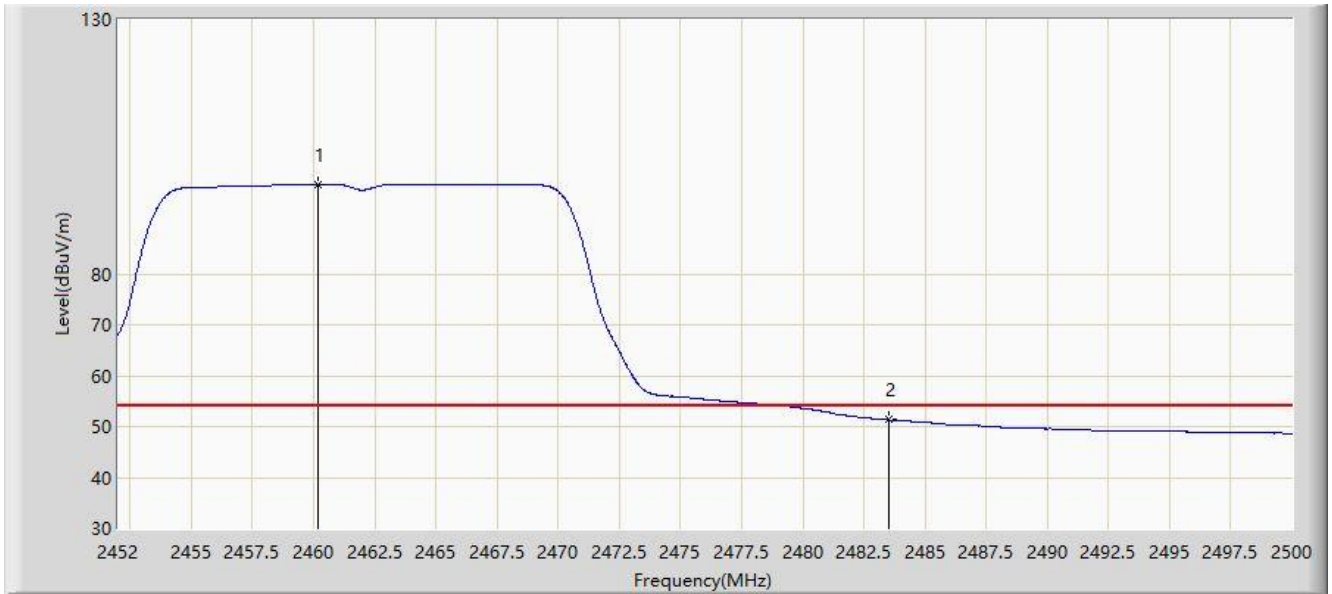


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.160	107.551	74.893	N/A	N/A	32.658	PK
2			2483.500	69.042	36.279	-4.958	74.000	32.762	PK
3			2487.520	70.358	37.522	-3.642	74.000	32.836	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 17:40
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at channel 2462MHz	

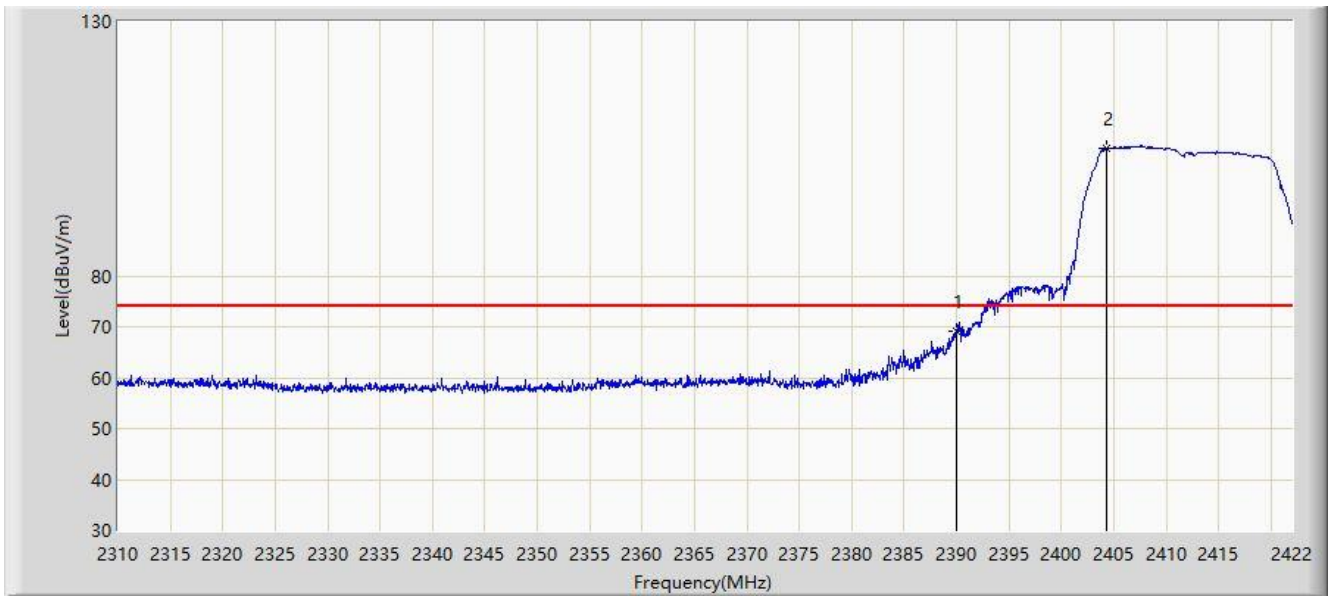


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2460.184	97.598	64.902	N/A	N/A	32.696	AV
2			2483.500	51.321	18.558	-2.679	54.000	32.762	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 18:34
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

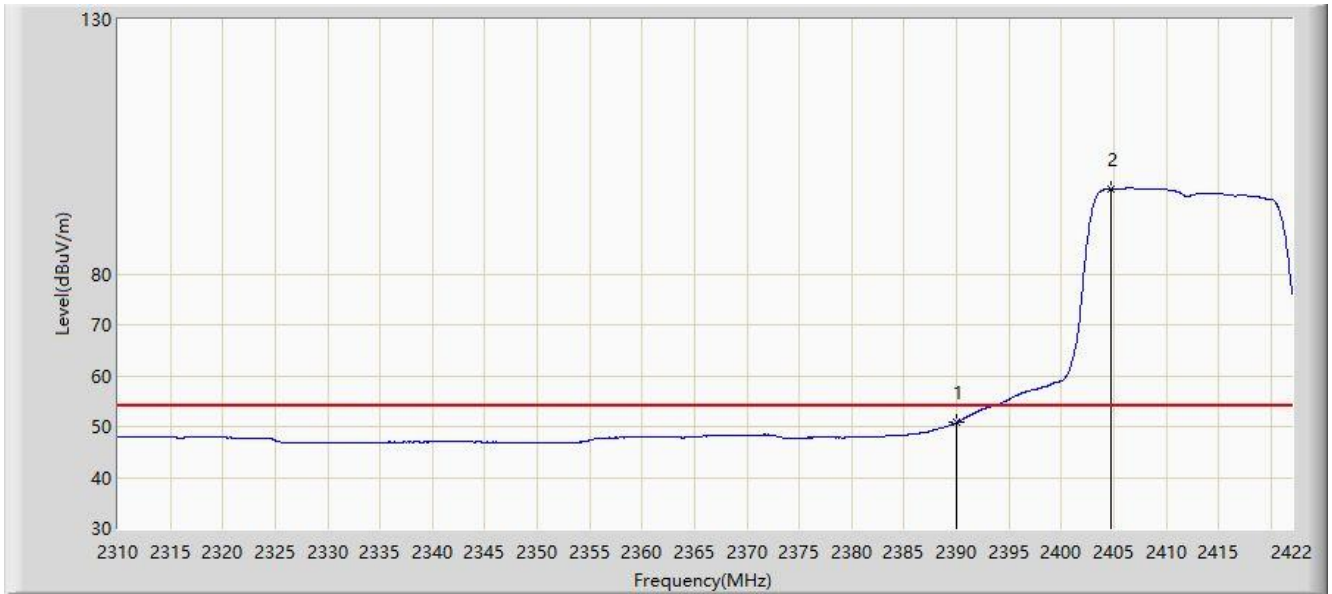


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	68.999	36.865	-5.001	74.000	32.134	PK
2		*	2404.360	105.016	72.746	N/A	N/A	32.271	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 18:36
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

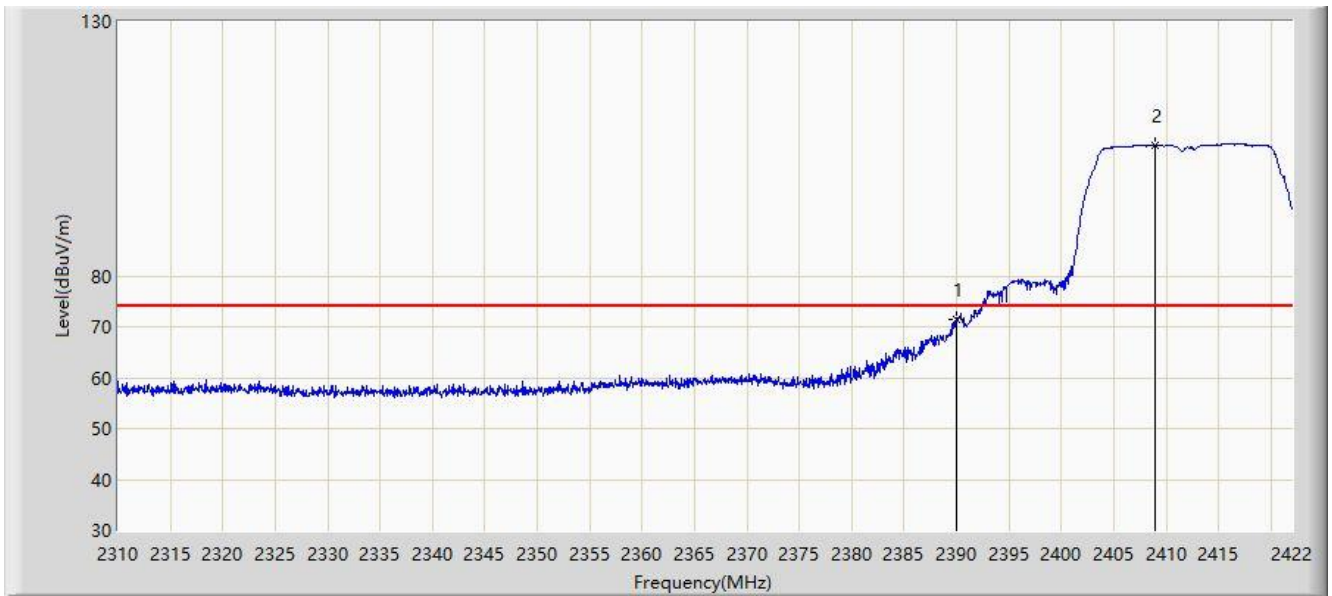


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	50.797	18.663	-3.203	54.000	32.134	AV
2		*	2404.696	96.619	64.344	N/A	N/A	32.275	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 17:57
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

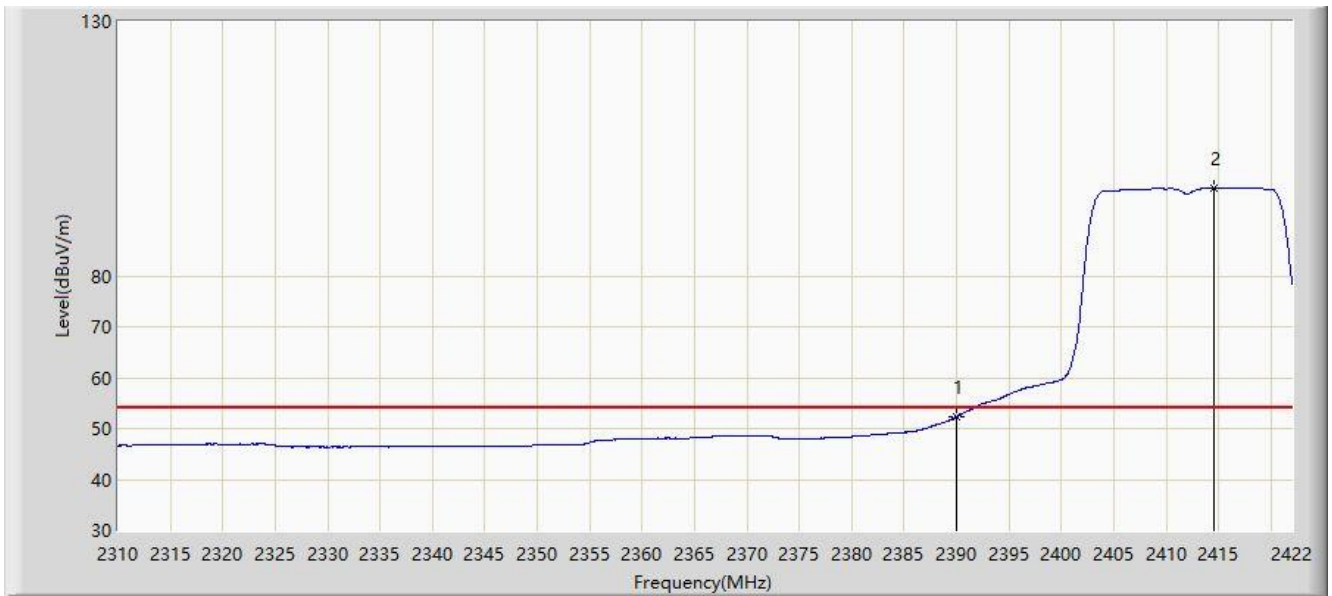


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	71.414	39.280	-2.586	74.000	32.134	PK
2		*	2408.952	105.624	73.286	N/A	N/A	32.338	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 17:55
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

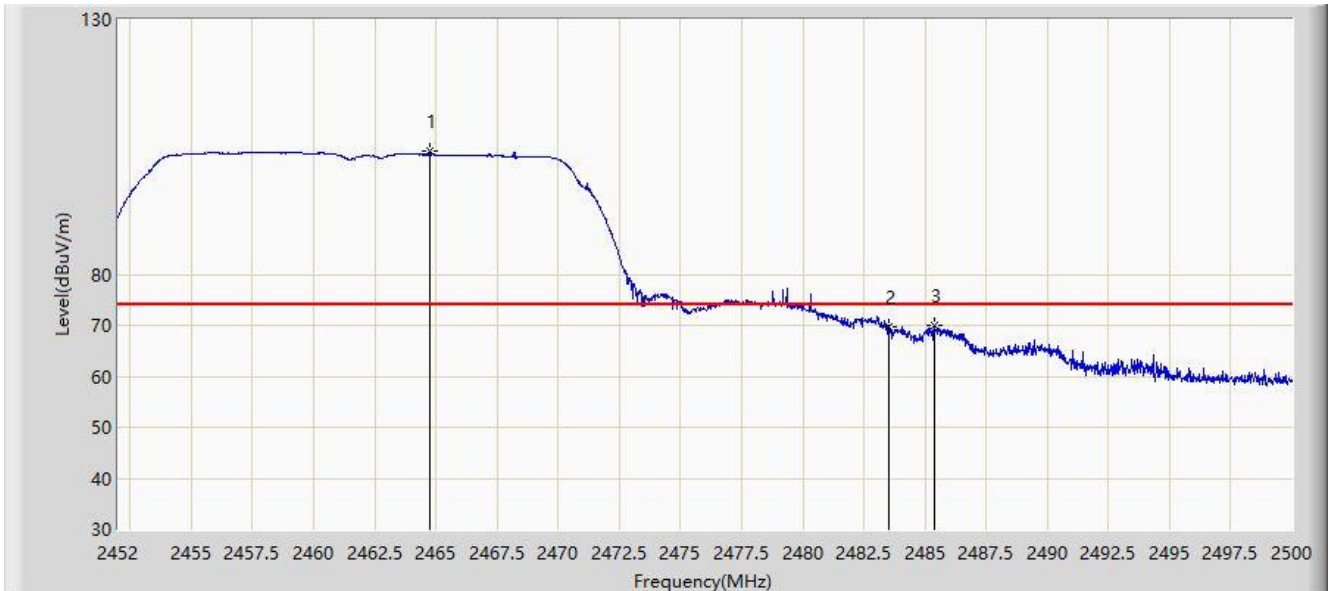


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	52.292	20.158	-1.708	54.000	32.134	AV
2		*	2414.496	97.239	64.878	N/A	N/A	32.361	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 19:41
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

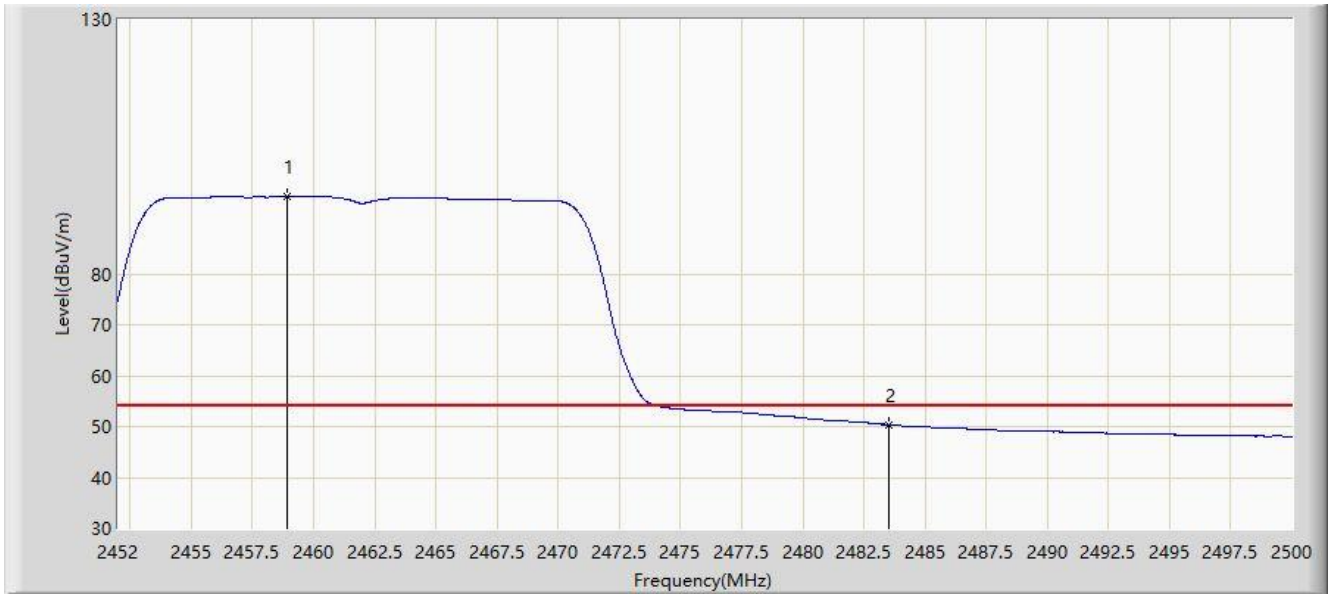


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1		*	2464.768	104.183	71.470	N/A	N/A	32.713	PK
2			2483.500	69.574	36.811	-4.426	74.000	32.762	PK
3			2485.360	69.890	37.093	-4.110	74.000	32.797	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 19:42
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2458.912	95.256	62.576	N/A	N/A	32.680	AV
2			2483.500	50.344	17.581	-3.656	54.000	32.762	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 19:41
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

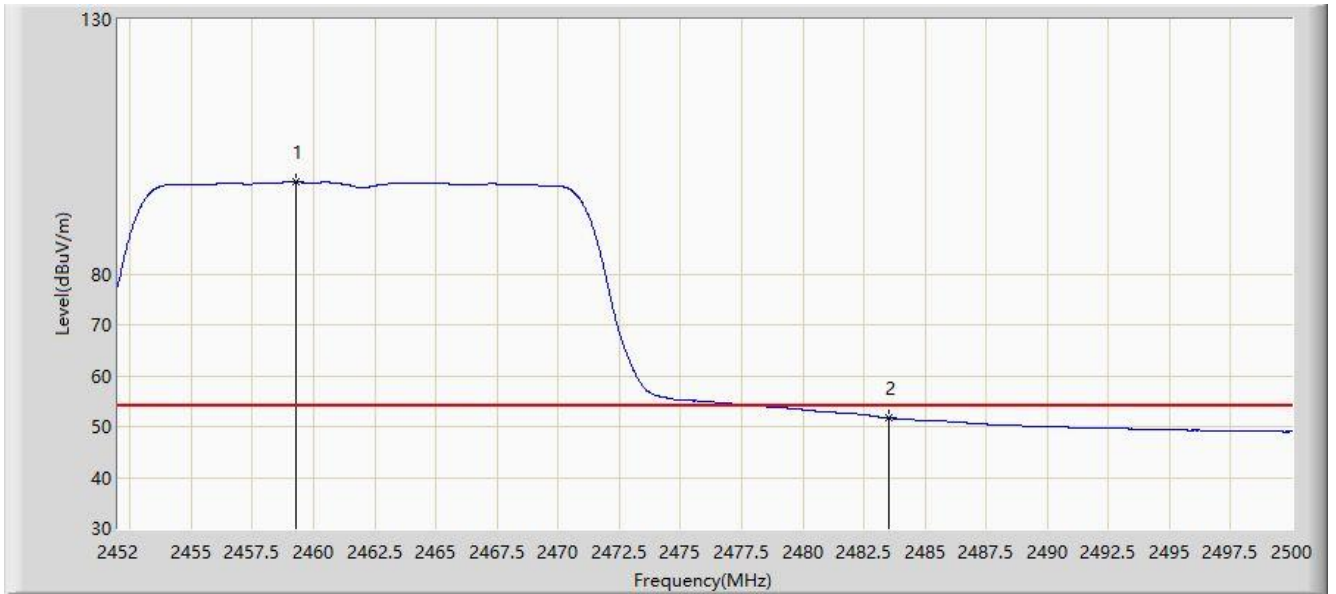


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2459.056	106.649	73.967	N/A	N/A	32.681	PK
2			2483.500	71.817	39.054	-2.183	74.000	32.762	PK
3			2485.408	71.814	39.016	-2.186	74.000	32.798	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 19:40
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

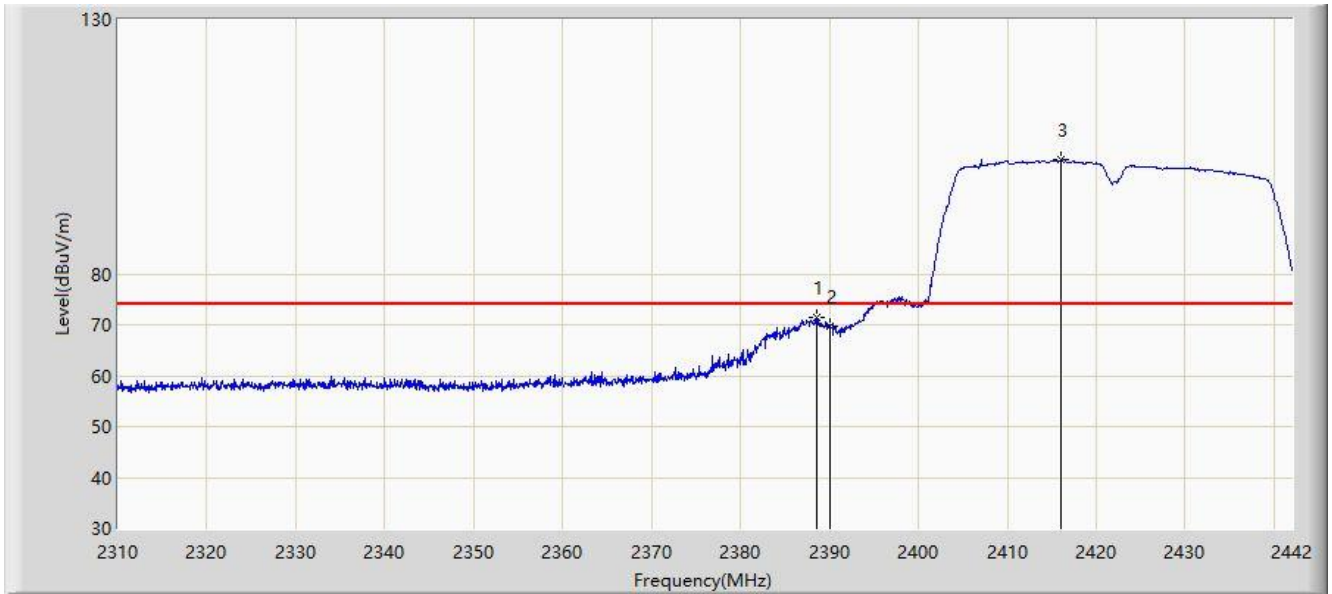


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2459.296	97.988	65.303	N/A	N/A	32.684	AV
2			2483.500	51.704	18.941	-2.296	54.000	32.762	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 20:00
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at channel 2422MHz	

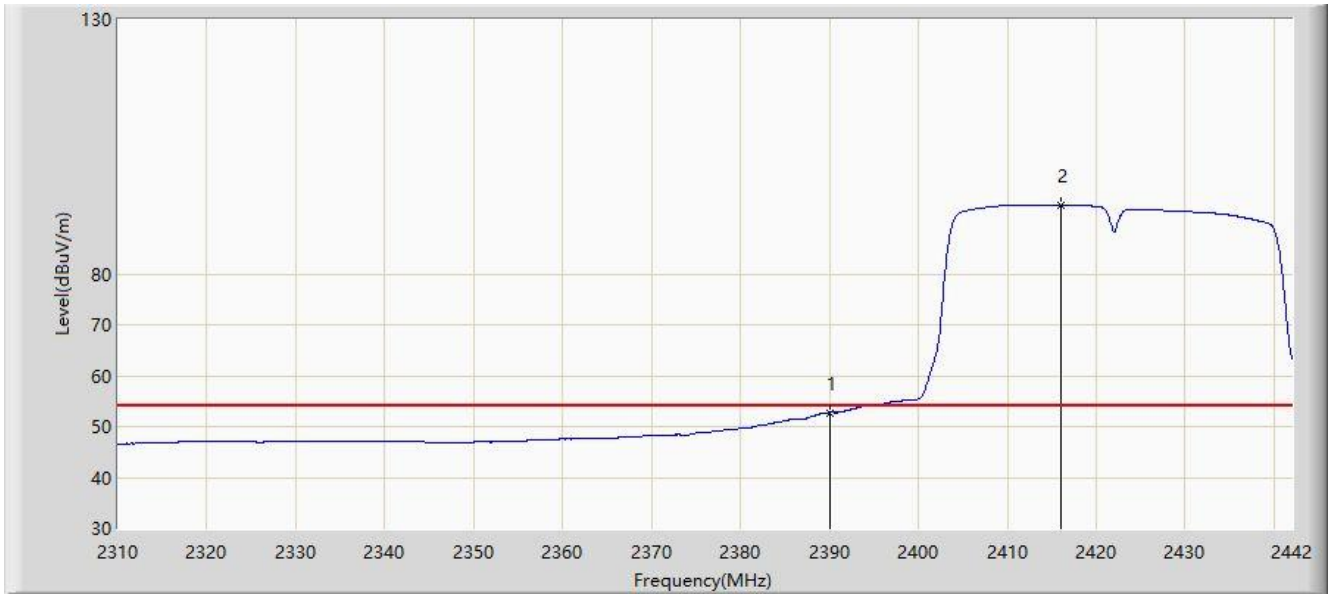


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2388.540	71.387	39.247	-2.613	74.000	32.140	PK
2			2390.000	69.605	37.471	-4.395	74.000	32.134	PK
3		*	2415.996	102.338	69.981	N/A	N/A	32.358	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 19:53
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at channel 2422MHz	

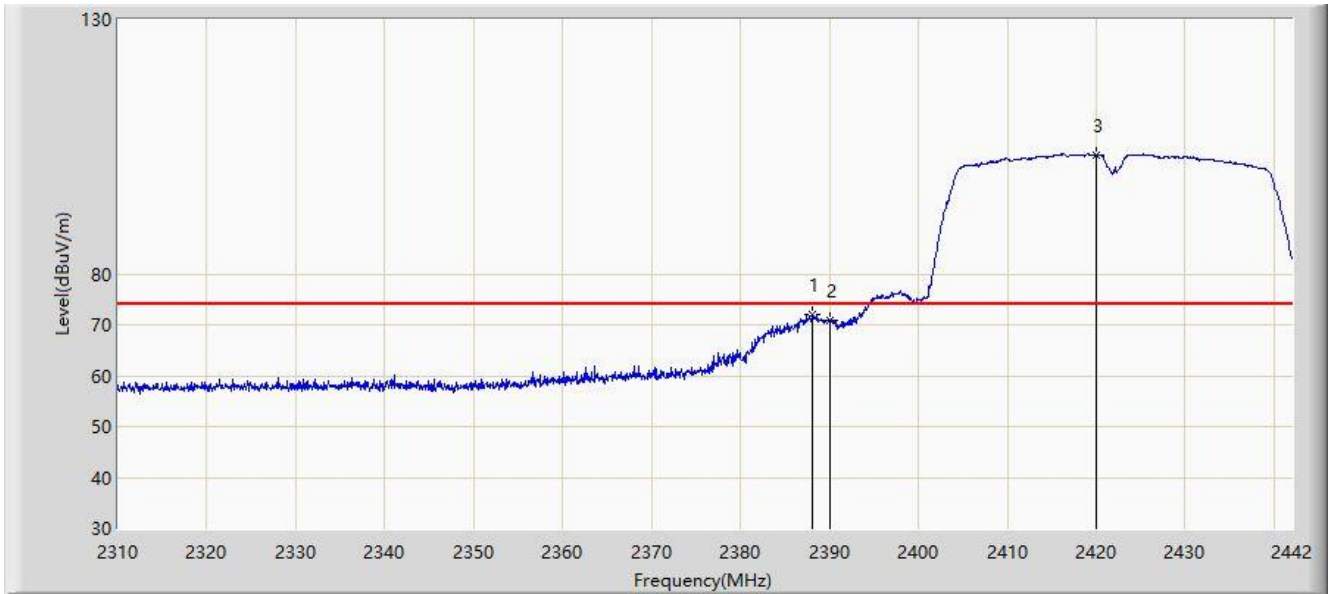


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	52.742	20.608	-1.258	54.000	32.134	AV
2		*	2416.062	93.563	61.206	N/A	N/A	32.358	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 20:00
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at channel 2422MHz	

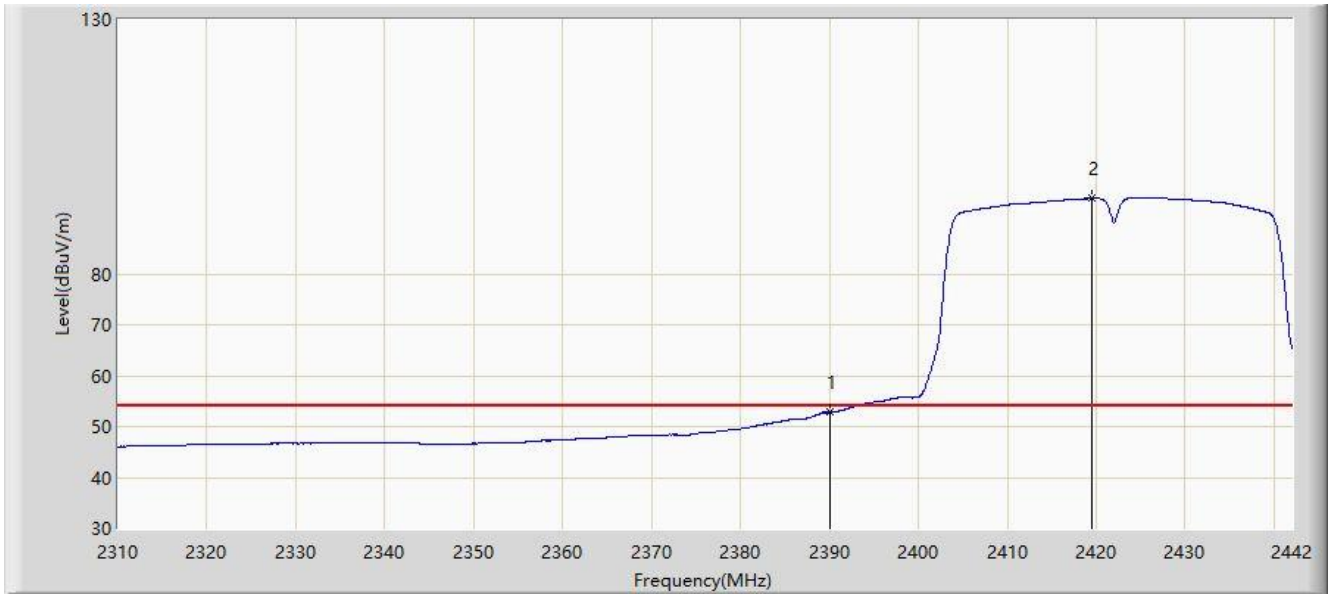


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.144	71.963	39.821	-2.037	74.000	32.142	PK
2			2390.000	70.804	38.670	-3.196	74.000	32.134	PK
3		*	2419.956	103.471	71.122	N/A	N/A	32.349	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 20:03
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at channel 2422MHz	

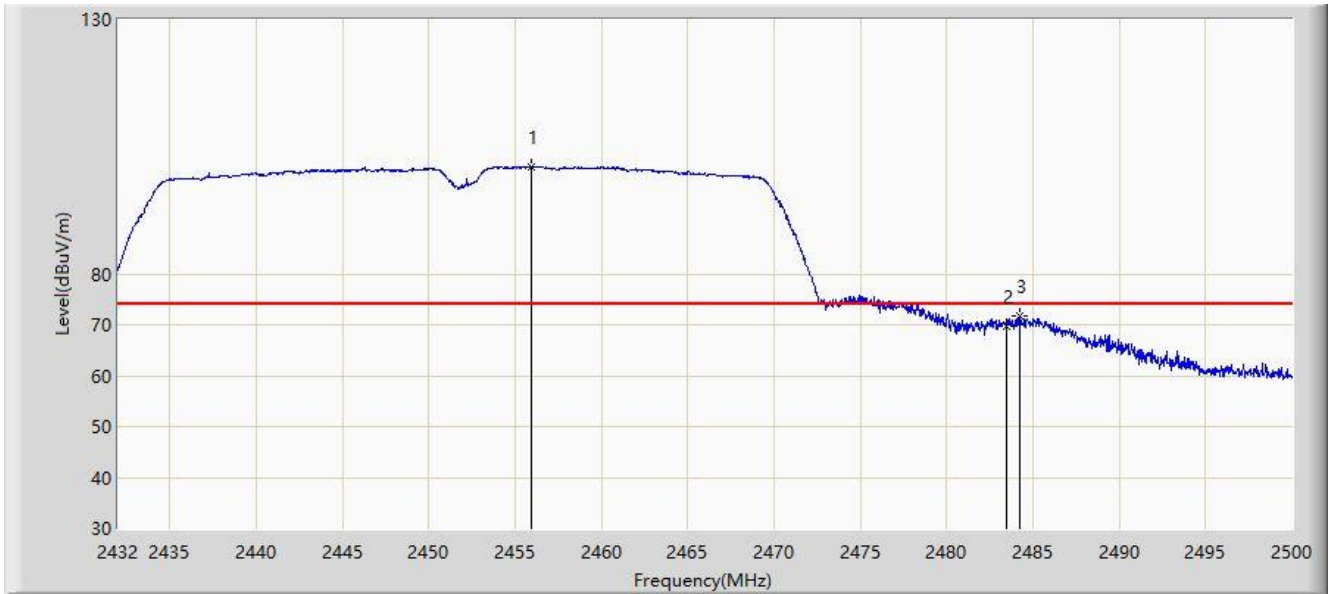


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV/m)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV/m)	Factor (dB)	Type
1			2390.000	52.860	20.726	-1.140	54.000	32.134	AV
2		*	2419.560	94.802	62.452	N/A	N/A	32.349	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 20:16
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at channel 2452MHz	

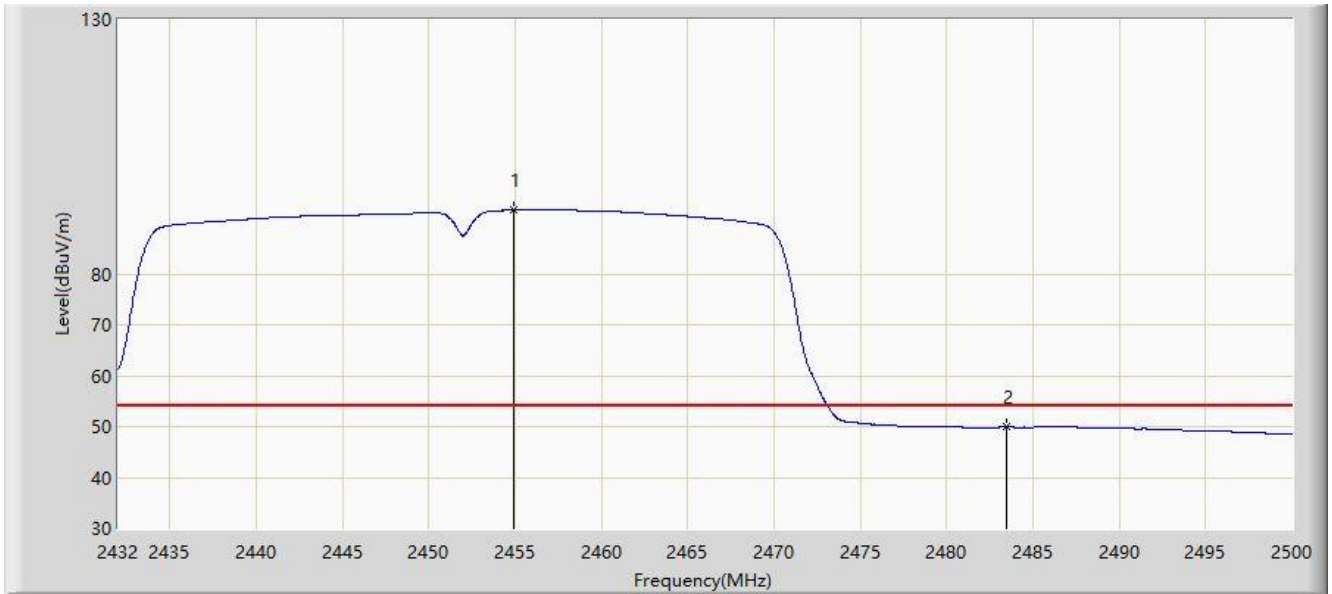


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2455.970	101.008	68.366	N/A	N/A	32.642	PK
2			2483.500	69.648	36.885	-4.352	74.000	32.762	PK
3			2484.258	71.722	38.945	-2.278	74.000	32.777	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 20:19
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Horizontal
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at channel 2452MHz	

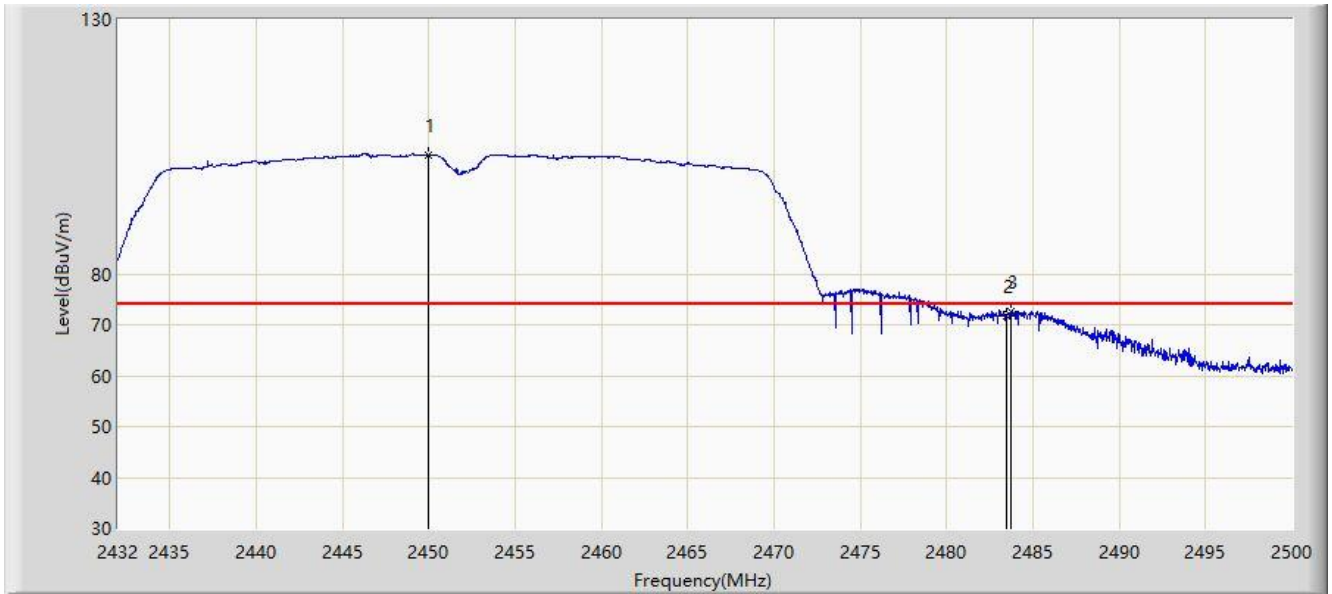


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2454.916	92.494	59.865	N/A	N/A	32.629	AV
2			2483.500	49.860	17.097	-4.140	54.000	32.762	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 20:15
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at channel 2452MHz	

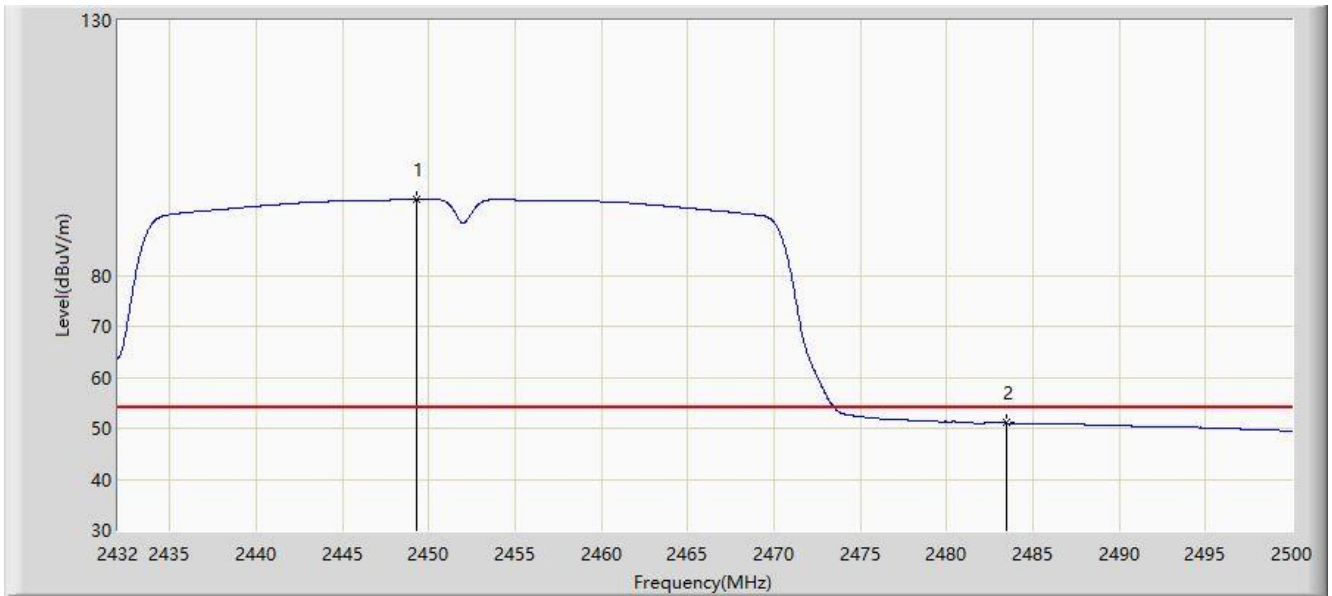


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2449.986	103.466	70.900	N/A	N/A	32.566	PK
2			2483.500	71.716	38.953	-2.284	74.000	32.762	PK
3			2483.748	72.720	39.953	-1.280	74.000	32.767	PK

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Site: SIP-AC2	Time: 2021/04/27 - 20:16
Limit: FCC_Part15_15.209 RSE(3m)	Engineer: Allen Zou
Probe: AC3_HF907_102861_1-18GHz	Polarity: Vertical
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at channel 2452MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2449.306	94.871	62.313	N/A	N/A	32.558	AV
2			2483.500	51.019	18.256	-2.981	54.000	32.762	AV

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

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

6.8. AC Conducted Emissions Measurement

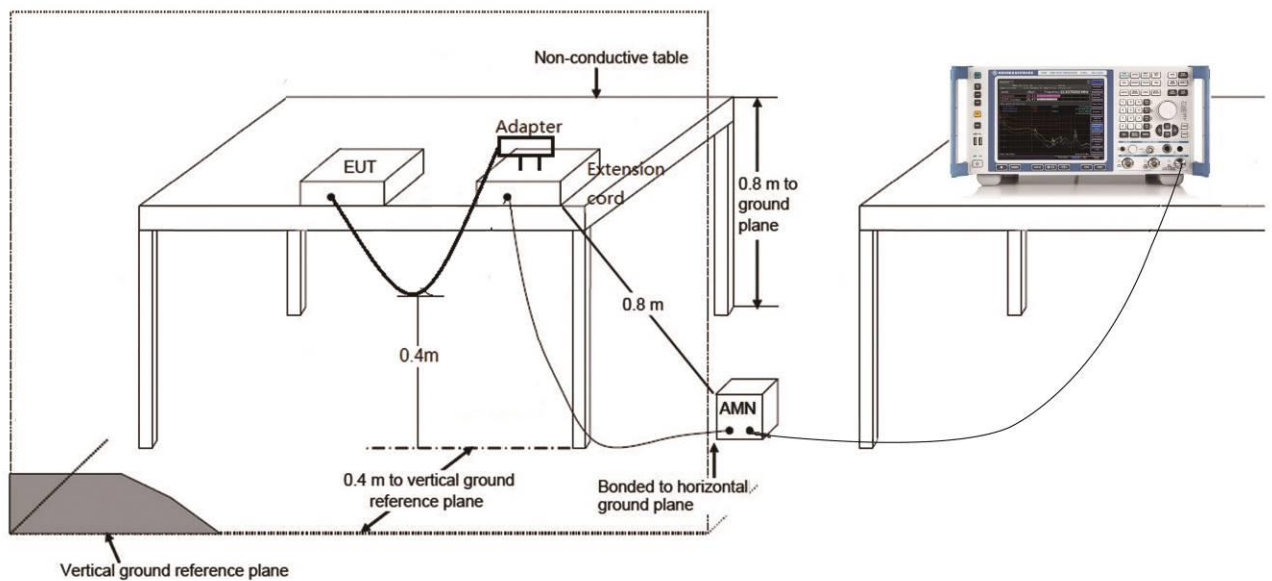
6.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 & RSS-Gen Paragraph 8.8 Limits		
Frequency (MHz)	QP (dB μ V)	Average (dB μ V)
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.

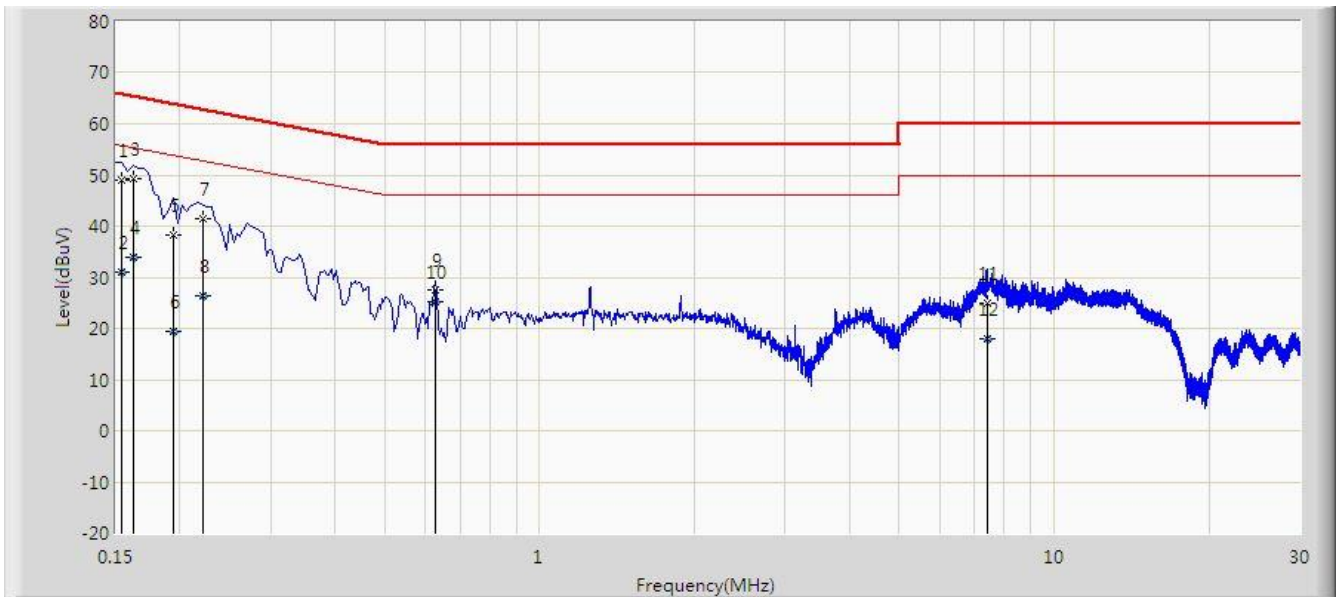
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

6.8.2. Test Setup



6.8.3.Test Result

Site: SIP-SR2	Time: 2021/05/25
Limit: FCC_Part15.207_CE_AC Power	Engineer: Rupert Wang
Probe: SIP-SR2-ENV216_101684_With Connector	Polarity: Line
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz with CDZ11RR	

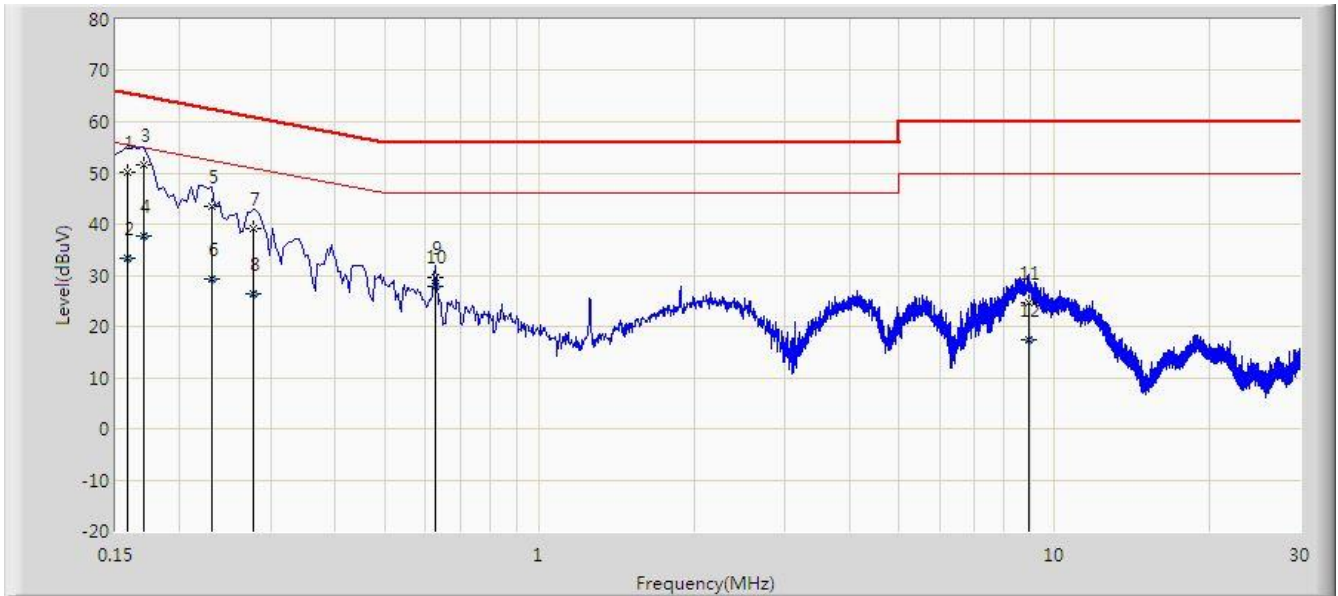


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.154	48.965	39.513	-16.816	65.781	9.452	QP
2			0.154	30.936	21.485	-24.845	55.781	9.452	AV
3		*	0.162	49.250	39.797	-16.111	65.361	9.453	QP
4			0.162	33.928	24.475	-21.433	55.361	9.453	AV
5			0.194	38.169	28.692	-25.694	63.864	9.478	QP
6			0.194	19.533	10.056	-34.330	53.864	9.478	AV
7			0.222	41.407	31.898	-21.336	62.744	9.509	QP
8			0.222	26.289	16.779	-26.455	52.744	9.509	AV
9			0.626	27.578	18.018	-28.422	56.000	9.560	QP
10			0.626	25.211	15.651	-20.789	46.000	9.560	AV
11			7.398	24.926	15.056	-35.074	60.000	9.870	QP
12			7.398	17.880	8.009	-32.120	50.000	9.870	AV

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

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SIP-SR2	Time: 2021/05/25
Limit: FCC_Part15.207_CE_AC Power	Engineer: Rupert Wang
Probe: SIP-SR2-ENV216_101684_With Connector	Polarity: Neutral
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz with CDZ11RR	

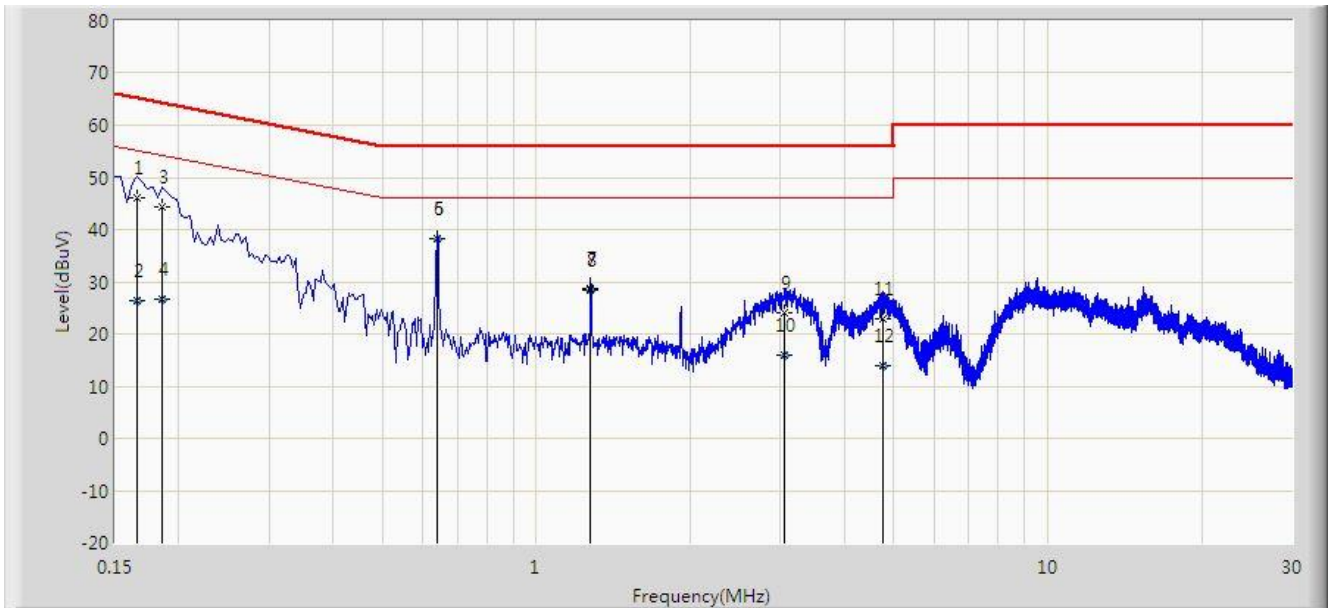


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.158	50.210	40.778	-15.358	65.568	9.432	QP
2			0.158	33.296	23.865	-22.272	55.568	9.432	AV
3		*	0.170	51.598	42.164	-13.362	64.960	9.434	QP
4			0.170	37.772	28.338	-17.189	54.960	9.434	AV
5			0.230	43.488	33.993	-18.962	62.450	9.496	QP
6			0.230	29.194	19.699	-23.256	52.450	9.496	AV
7			0.278	39.099	29.592	-21.776	60.875	9.508	QP
8			0.278	26.307	16.799	-24.569	50.875	9.508	AV
9			0.626	29.694	20.154	-26.306	56.000	9.540	QP
10			0.626	27.873	18.333	-18.127	46.000	9.540	AV
11			8.914	24.604	14.674	-35.396	60.000	9.931	QP
12			8.914	17.518	7.587	-32.482	50.000	9.931	AV

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

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SIP-SR2	Time: 2021/06/04
Limit: FCC_Part15.207_CE_AC Power	Engineer: Rupert Wang
Probe: SIP-SR2-ENV216_101684_With Connector	Polarity: Neutral
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz with CDZ12RR	

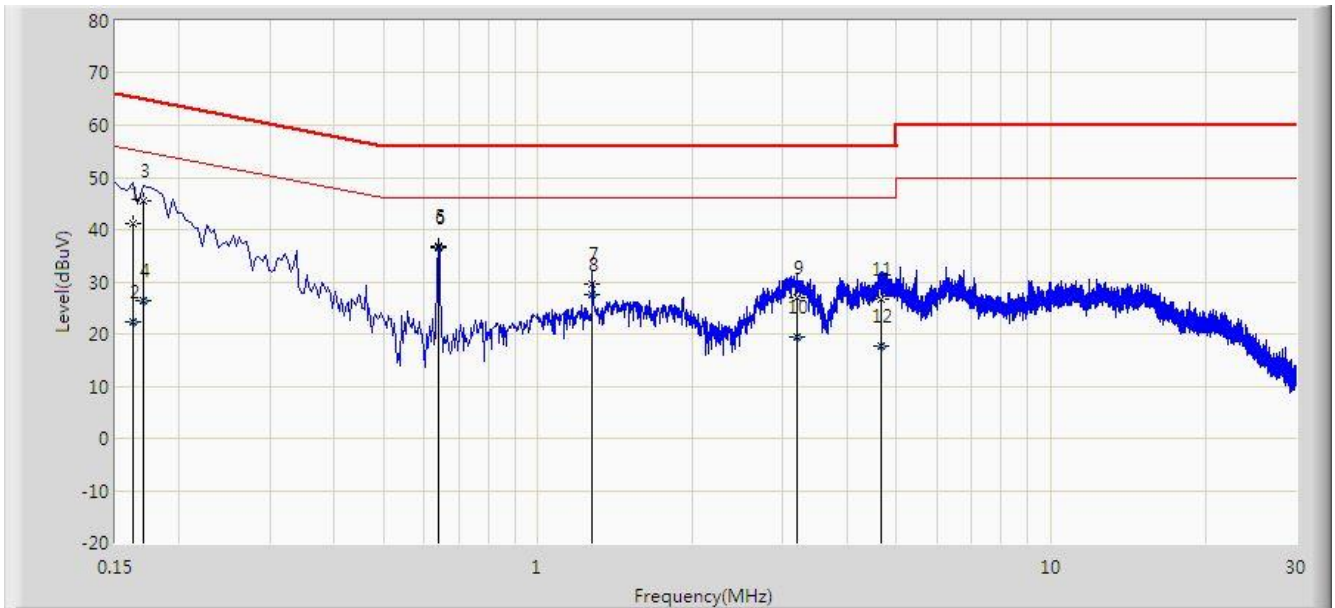


No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.166	46.115	36.681	-19.043	65.158	9.433	QP
2			0.166	26.493	17.060	-28.665	55.158	9.433	AV
3			0.186	44.338	34.892	-19.876	64.213	9.445	QP
4			0.186	26.604	17.158	-27.609	54.213	9.445	AV
5			0.638	38.340	28.800	-17.660	56.000	9.540	QP
6		*	0.638	38.240	28.700	-7.760	46.000	9.540	AV
7			1.278	28.815	19.272	-27.185	56.000	9.543	QP
8			1.278	28.396	18.853	-17.604	46.000	9.543	AV
9			3.058	23.999	14.394	-32.001	56.000	9.605	QP
10			3.058	15.843	6.238	-30.157	46.000	9.605	AV
11			4.746	22.769	13.085	-33.231	56.000	9.684	QP
12			4.746	13.800	4.116	-32.200	46.000	9.684	AV

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

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SIP-SR2	Time: 2021/06/04
Limit: FCC_Part15.207_CE_AC Power	Engineer: Rupert Wang
Probe: SIP-SR2-ENV216_101684_With Connector	Polarity: Line
EUT: Robotic Vacuum Cleaner	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz with CDZ12RR	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBμV)	Reading Level (dBμV)	Margin (dB)	Limit (dBμV)	Factor (dB)	Type
1			0.162	41.147	31.694	-24.214	65.361	9.453	QP
2			0.162	22.277	12.825	-33.083	55.361	9.453	AV
3			0.170	45.398	35.943	-19.563	64.960	9.454	QP
4			0.170	26.288	16.834	-28.672	54.960	9.454	AV
5			0.638	36.860	27.300	-19.140	56.000	9.560	QP
6		*	0.638	36.660	27.100	-9.340	46.000	9.560	AV
7			1.278	29.529	19.969	-26.471	56.000	9.560	QP
8			1.278	27.628	18.068	-18.372	46.000	9.560	AV
9			3.194	26.994	17.344	-29.006	56.000	9.650	QP
10			3.194	19.547	9.897	-26.453	46.000	9.650	AV
11			4.662	26.629	16.910	-29.371	56.000	9.719	QP
12			4.662	17.701	7.981	-28.299	46.000	9.719	AV

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

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

7. CONCLUSION

The data collected relate only the item(s) tested and show that the device is in compliance with the requirements specified in §15.247 of the FCC Rules and RSS-247 of the ISED rules.

_____ The End _____

Appendix A - Test Setup Photograph

Refer to “2104RSU072-U2-UT” file.

Appendix B - EUT Photograph

Refer to “2104RSU072-U2-UE” file.