

Product	Recorder	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2019/11/08
Test Mode	802.11n-HT20	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	44.9	5.5	50.4	74.0	-23.6	Peak	Horizontal
	7613.0	34.4	11.9	46.3	74.0	-27.7	Peak	Horizontal
*	8811.5	33.4	13.4	46.8	74.0	-27.2	Peak	Horizontal
*	9916.5	33.5	16.0	49.5	74.0	-24.5	Peak	Horizontal
	4825.0	42.2	5.5	47.7	74.0	-26.3	Peak	Vertical
	7477.0	35.1	11.9	47.0	74.0	-27.0	Peak	Vertical
*	8718.0	34.6	13.2	47.8	74.0	-26.2	Peak	Vertical
*	9959.0	34.3	16.0	50.3	74.0	-23.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (101.5dBμV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

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

Product	Recorder	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2019/11/08
Test Mode	802.11n-HT20	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	45.4	5.7	51.1	74.0	-22.9	Peak	Horizontal
	7596.0	35.0	11.8	46.8	74.0	-27.2	Peak	Horizontal
*	8769.0	33.1	13.4	46.5	74.0	-27.5	Peak	Horizontal
*	9959.0	34.1	16.0	50.1	74.0	-23.9	Peak	Horizontal
	4876.0	40.7	5.7	46.4	74.0	-27.6	Peak	Vertical
	7383.5	34.1	11.7	45.8	74.0	-28.2	Peak	Vertical
*	8675.5	32.3	13.1	45.4	74.0	-28.6	Peak	Vertical
*	10010.0	34.7	16.1	50.8	74.0	-23.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (100.2dBμV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

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

Product	Recorder	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2019/11/08
Test Mode	802.11n-HT20	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	40.5	5.8	46.3	74.0	-27.7	Peak	Horizontal
	7596.0	34.7	11.8	46.5	74.0	-27.5	Peak	Horizontal
*	8769.0	32.4	13.4	45.8	74.0	-28.2	Peak	Horizontal
*	9899.5	33.1	16.1	49.2	74.0	-24.8	Peak	Horizontal
	4927.0	40.4	5.8	46.2	74.0	-27.8	Peak	Vertical
	7587.5	34.5	11.8	46.3	74.0	-27.7	Peak	Vertical
*	8701.0	32.8	13.2	46.0	74.0	-28.0	Peak	Vertical
*	9874.0	32.8	16.1	48.9	74.0	-25.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (98.8dBμV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

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

Product	Recorder	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2019/11/08
Test Mode	802.11n-HT40	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
	4842.0	35.3	5.5	40.8	74.0	-33.2	Peak	Horizontal
	7528.0	32.2	11.8	44.0	74.0	-30.0	Peak	Horizontal
*	8811.5	32.2	13.4	45.6	74.0	-28.4	Peak	Horizontal
*	9908.0	32.3	16.0	48.3	74.0	-25.7	Peak	Horizontal
	4833.5	36.2	5.5	41.7	74.0	-32.3	Peak	Vertical
	7485.5	34.3	11.9	46.2	74.0	-27.8	Peak	Vertical
*	8718.0	34.2	13.2	47.4	74.0	-26.6	Peak	Vertical
*	10239.5	33.3	16.5	49.8	74.0	-24.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (102.5dBμV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

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

Product	Recorder	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2019/11/08
Test Mode	802.11n-HT40	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
	4867.5	40.1	5.7	45.8	74.0	-28.2	Peak	Horizontal
	7655.5	34.4	11.6	46.0	74.0	-28.0	Peak	Horizontal
*	8616.0	33.1	12.9	46.0	74.0	-28.0	Peak	Horizontal
*	9950.5	33.2	16.1	49.3	74.0	-24.7	Peak	Horizontal
	4876.0	36.2	5.7	41.9	74.0	-32.1	Peak	Vertical
	7596.0	34.8	11.8	46.6	74.0	-27.4	Peak	Vertical
*	8803.0	32.5	13.3	45.8	74.0	-28.2	Peak	Vertical
*	9950.5	33.2	16.1	49.3	74.0	-24.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (100.3dBμV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

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

Product	Recorder	Temperature	25°C
Test Engineer	Cloud Guo	Relative Humidity	54%
Test Site	AC1	Test Date	2019/11/08
Test Mode	802.11n-HT40	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
	4901.5	37.7	5.7	43.4	74.0	-30.6	Peak	Horizontal
	7596.0	34.6	11.8	46.4	74.0	-27.6	Peak	Horizontal
*	8752.0	33.3	13.3	46.6	74.0	-27.4	Peak	Horizontal
*	10171.5	32.8	16.4	49.2	74.0	-24.8	Peak	Horizontal
	4901.5	36.5	5.7	42.2	74.0	-31.8	Peak	Vertical
	7596.0	34.2	11.8	46.0	74.0	-28.0	Peak	Vertical
*	8692.5	32.3	13.2	45.5	74.0	-28.5	Peak	Vertical
*	9933.5	33.6	16.1	49.7	74.0	-24.3	Peak	Vertical

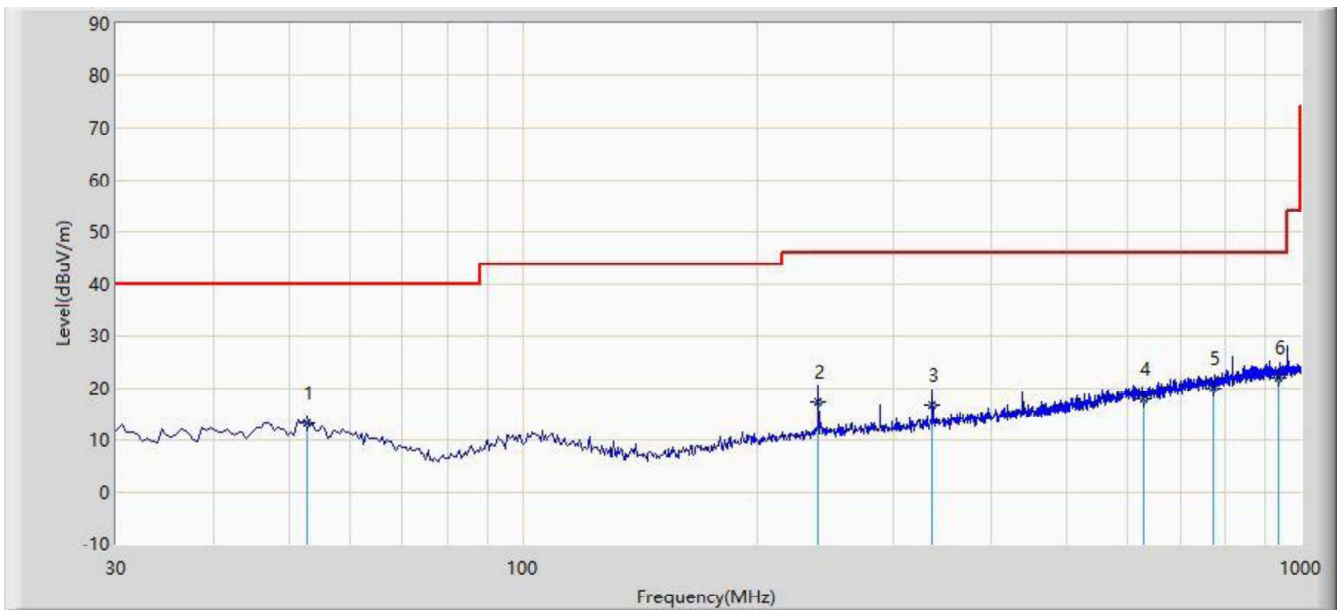
Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (100.4dBμV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

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

The Worst Case of Radiated Emission below 1GHz:

Site: AC1	Time: 2019/11/13 - 10:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Cloud Guo
Probe: VULB 9168 _20-2000MHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at Channel 2437MHz	



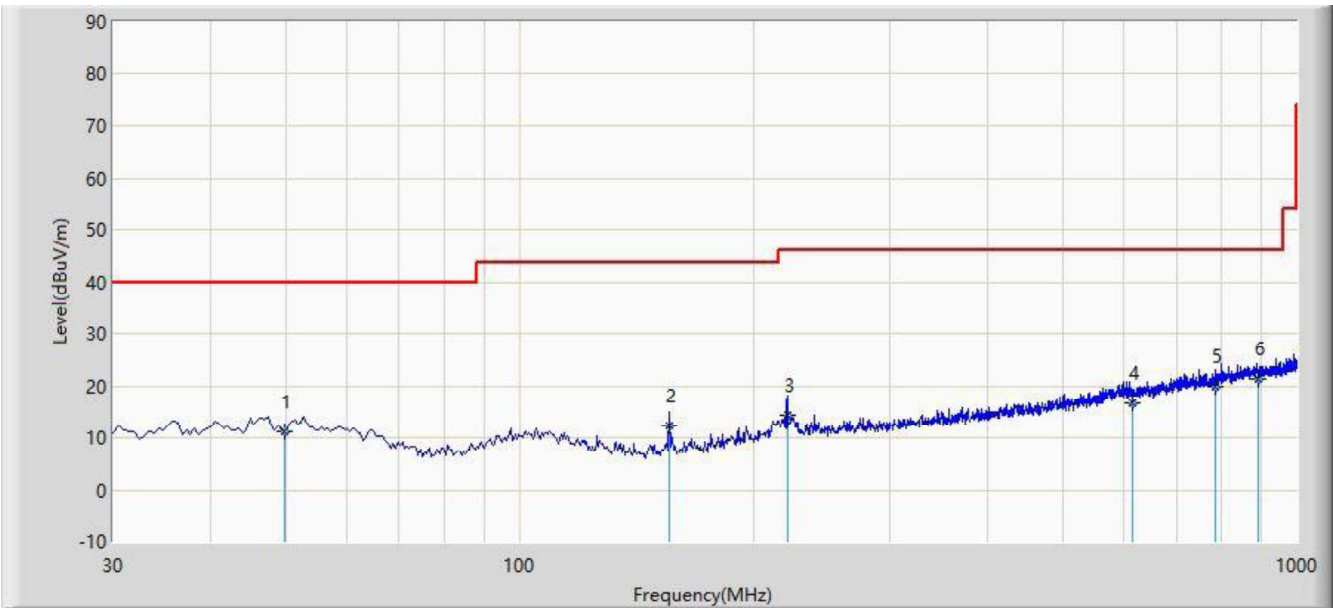
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			52.795	13.294	-0.764	-26.706	40.000	14.058	QP
2			240.005	17.127	4.124	-28.873	46.000	13.003	QP
3			336.035	16.683	1.241	-29.317	46.000	15.442	QP
4			629.460	17.753	-3.737	-28.247	46.000	21.489	QP
5			771.080	19.862	-3.541	-26.138	46.000	23.403	QP
6		*	934.525	21.895	-3.304	-24.105	46.000	25.199	QP

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

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

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

Site: AC1	Time: 2019/11/13 - 10:42
Limit: FCC_Part15.209_RE(3m)	Engineer: Cloud Guo
Probe: VULB 9168 _20-2000MHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at Channel 2437MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			49.885	11.085	-3.168	-28.915	40.000	14.253	QP
2			155.615	12.281	-3.127	-31.219	43.500	15.408	QP
3			221.090	14.384	2.189	-31.616	46.000	12.195	QP
4			615.880	16.785	-4.462	-29.215	46.000	21.247	QP
5			784.175	19.940	-3.587	-26.060	46.000	23.526	QP
6		*	890.390	21.278	-3.335	-24.722	46.000	24.614	QP

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

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

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.

7.7. Radiated Restricted Band Edge Measurement

7.7.1. 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 15.209 Limit		
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

7.7.2.Test Procedure Used

ANSI C63.10 Section 6.3 (General Requirements)

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

7.7.3.Test Setting

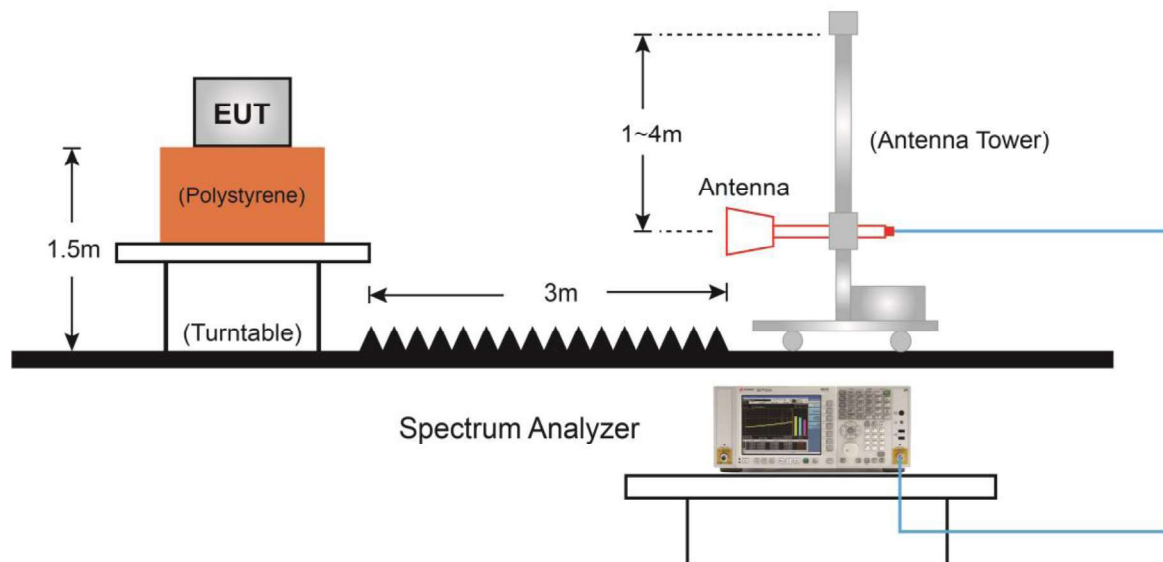
Peak Field Strength Measurements

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

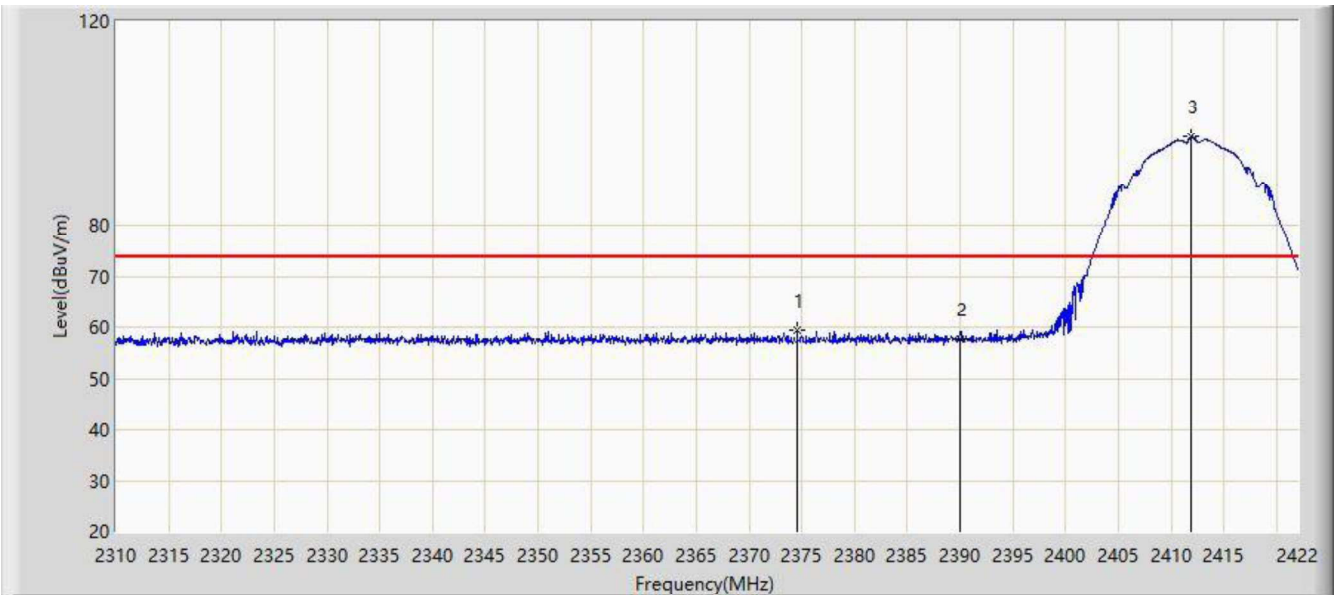
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain).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

7.7.4.Test Setup



7.7.5.Test Result

Site: AC1	Time: 2019/12/16 - 21:25
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2412MHz	

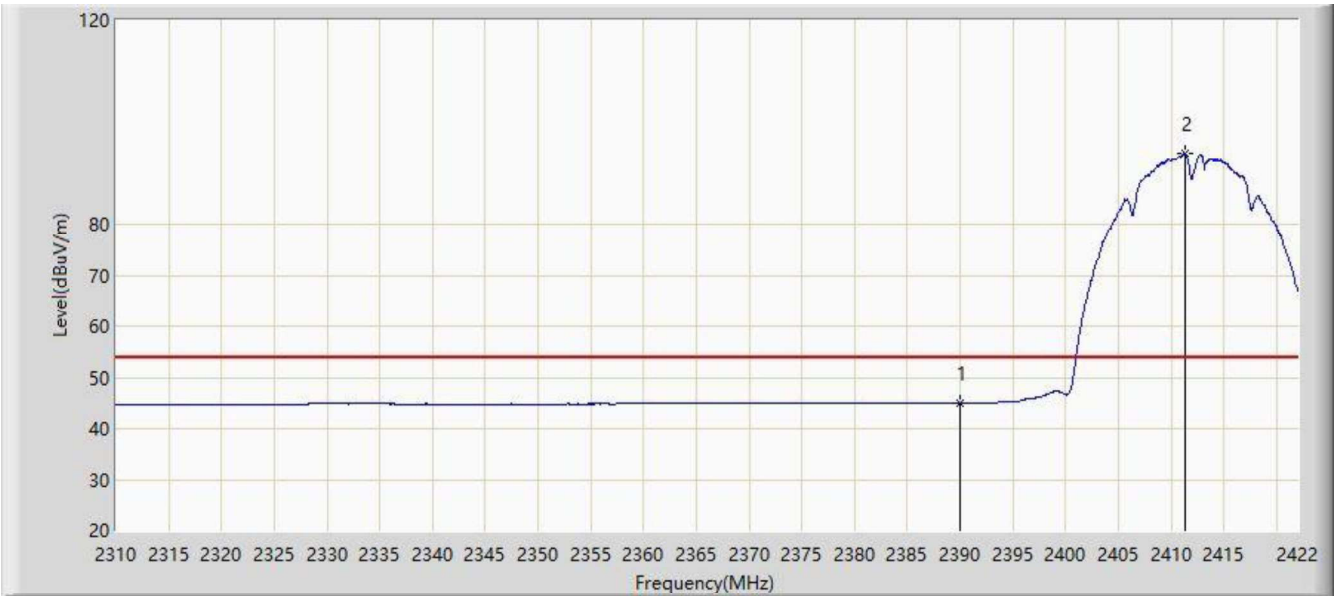


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2374.568	59.560	27.477	-14.440	74.000	32.083	PK
2			2390.000	57.730	25.658	-16.270	74.000	32.072	PK
3		*	2411.920	97.292	65.209	N/A	N/A	32.083	PK

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

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

Site: AC1	Time: 2019/12/16 - 21:32
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2412MHz	

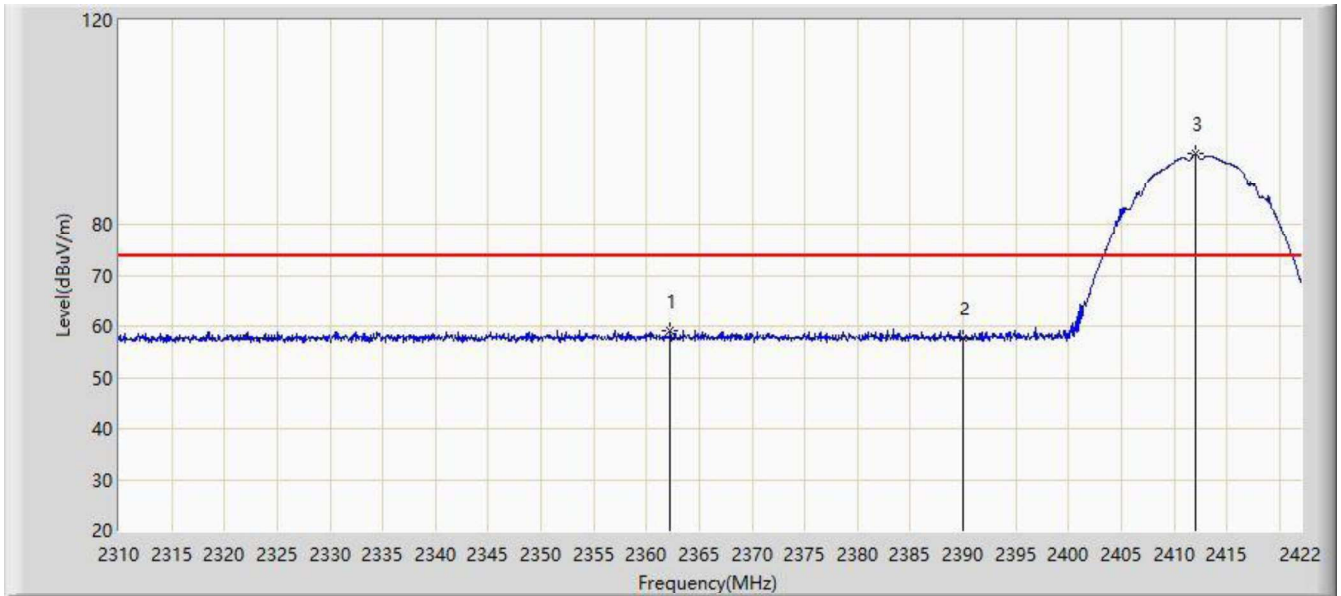


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	44.998	12.926	-9.002	54.000	32.072	AV
2		*	2411.304	93.777	61.695	N/A	N/A	32.082	AV

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

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

Site: AC1	Time: 2019/12/16 - 21:33
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2412MHz	

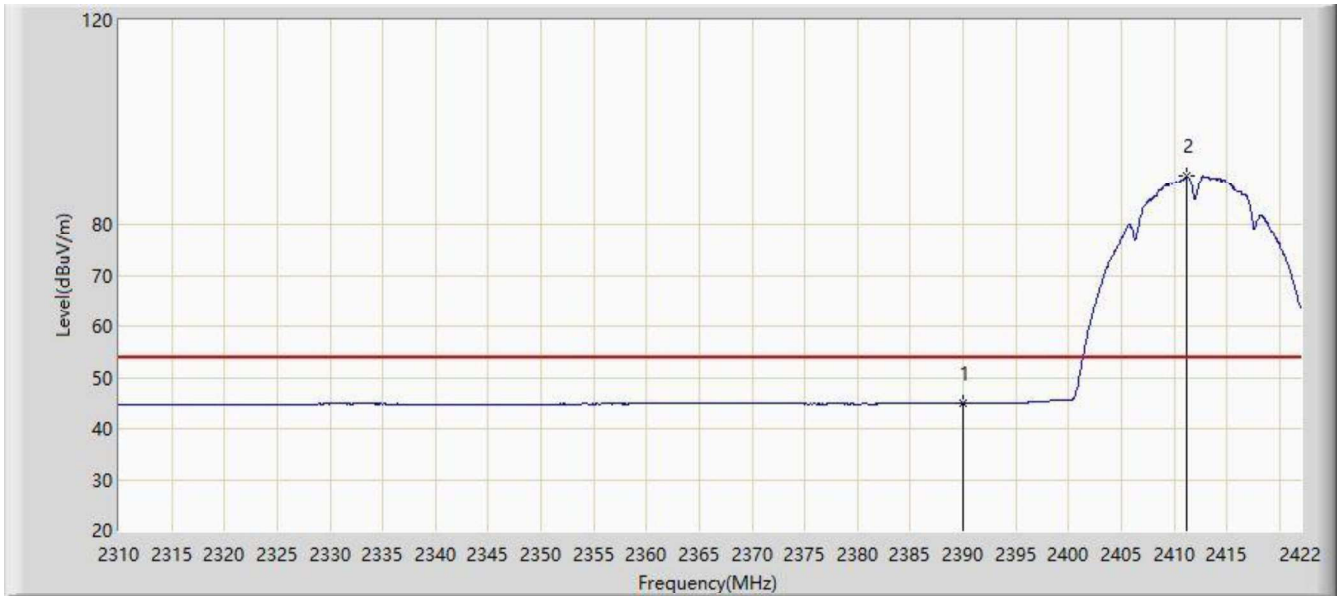


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2362.248	59.231	27.115	-14.769	74.000	32.116	PK
2			2390.000	57.563	25.491	-16.437	74.000	32.072	PK
3		*	2412.032	93.867	61.783	N/A	N/A	32.084	PK

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

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

Site: AC1	Time: 2019/12/16 - 21:35
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2412MHz	

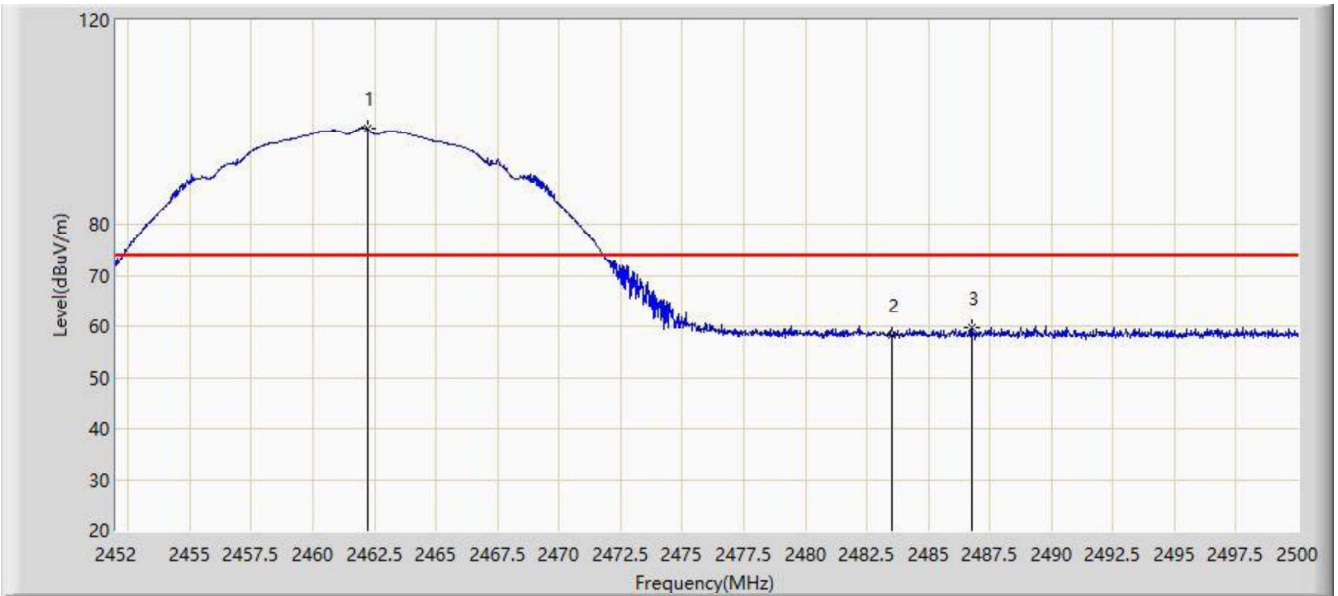


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	44.848	12.776	-9.152	54.000	32.072	AV
2		*	2411.136	89.459	57.378	N/A	N/A	32.081	AV

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

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

Site: AC1	Time: 2019/12/16 - 21:36
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2462MHz	

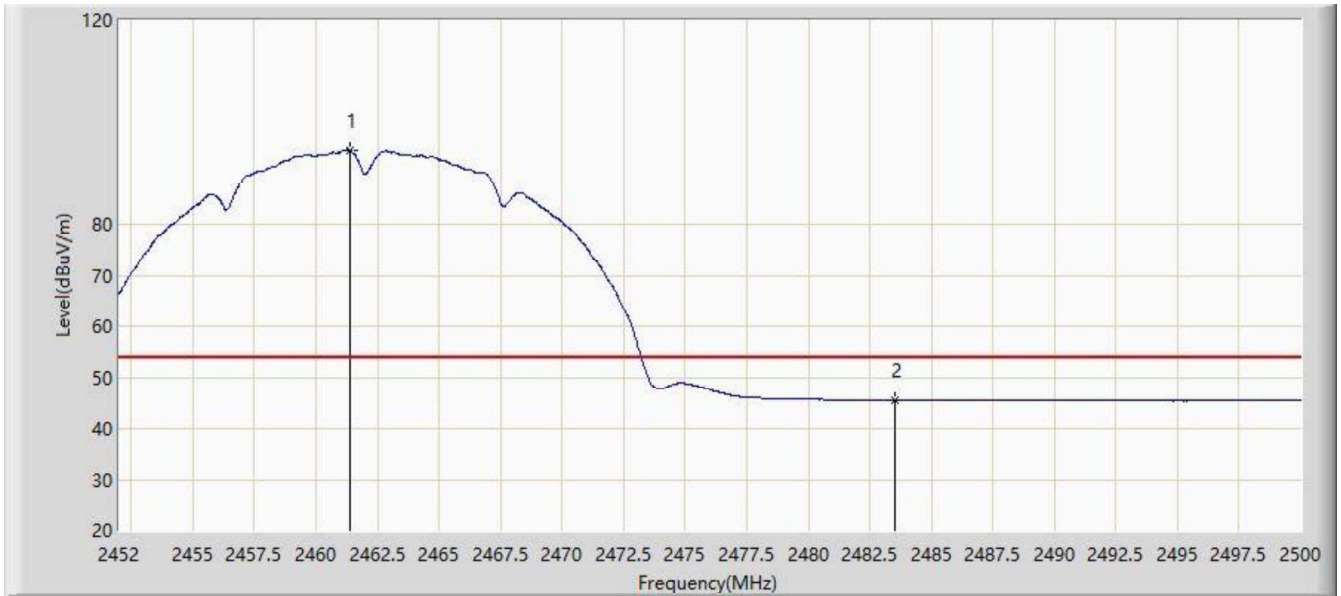


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2462.200	98.780	66.700	N/A	N/A	32.081	PK
2			2483.500	58.268	26.231	-15.732	74.000	32.037	PK
3			2486.752	59.606	27.575	-14.394	74.000	32.031	PK

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

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

Site: AC1	Time: 2019/12/16 - 21:39
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2462MHz	

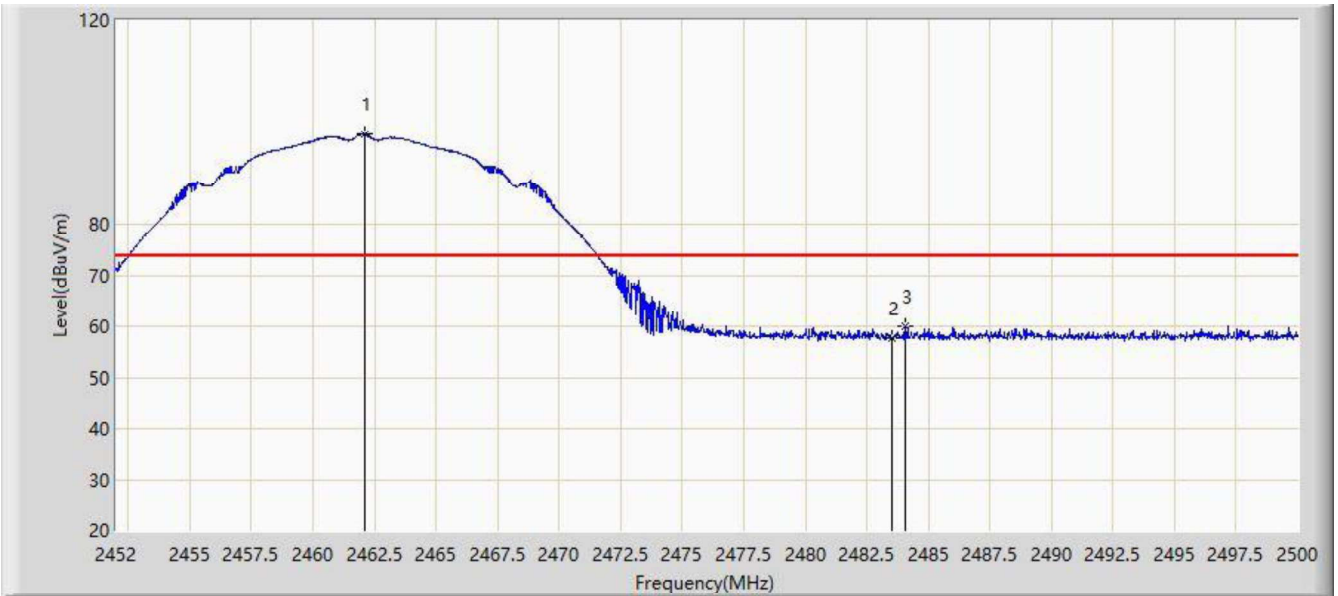


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.384	94.513	62.433	N/A	N/A	32.080	AV
2			2483.500	45.453	13.416	-8.547	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/12/16 - 21:40
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2462MHz	

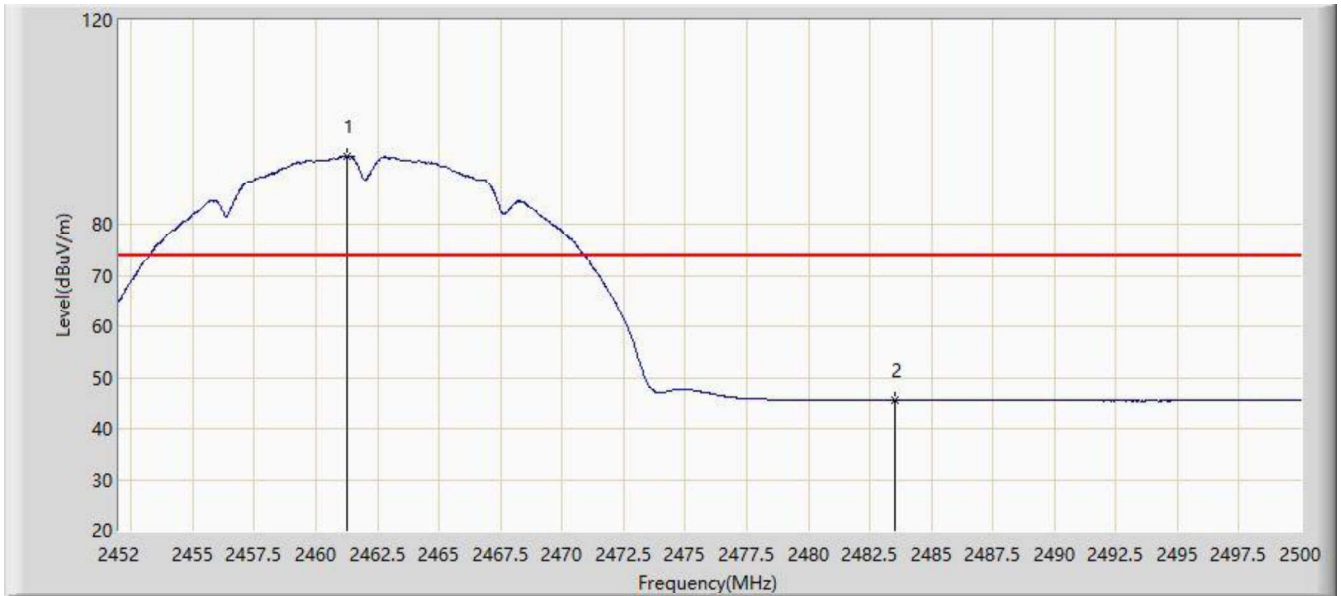


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2462.128	97.802	65.722	N/A	N/A	32.081	PK
2			2483.500	57.785	25.748	-16.215	74.000	32.037	PK
3			2484.088	60.098	28.062	-13.902	74.000	32.036	PK

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

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

Site: AC1	Time: 2019/12/16 - 21:41
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11b at channel 2462MHz	

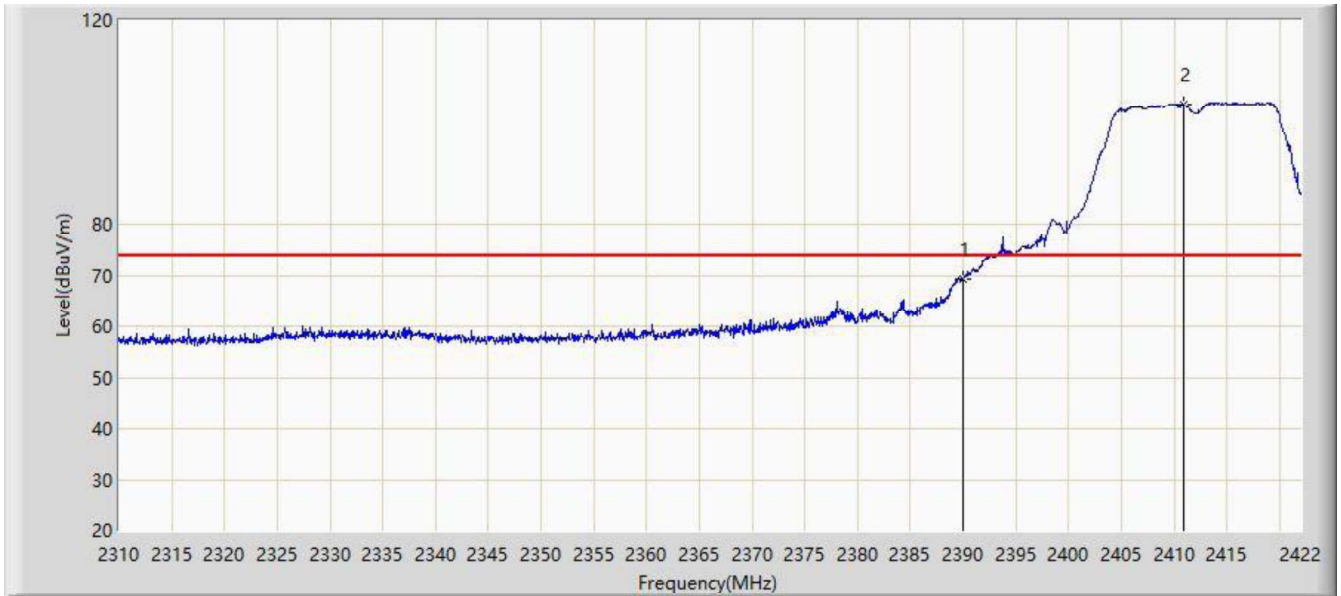


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.240	93.459	61.379	N/A	N/A	32.081	PK
2			2483.500	45.381	13.344	-28.619	74.000	32.037	PK

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

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

Site: AC1	Time: 2019/12/16 - 21:43
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11g at channel 2412MHz	

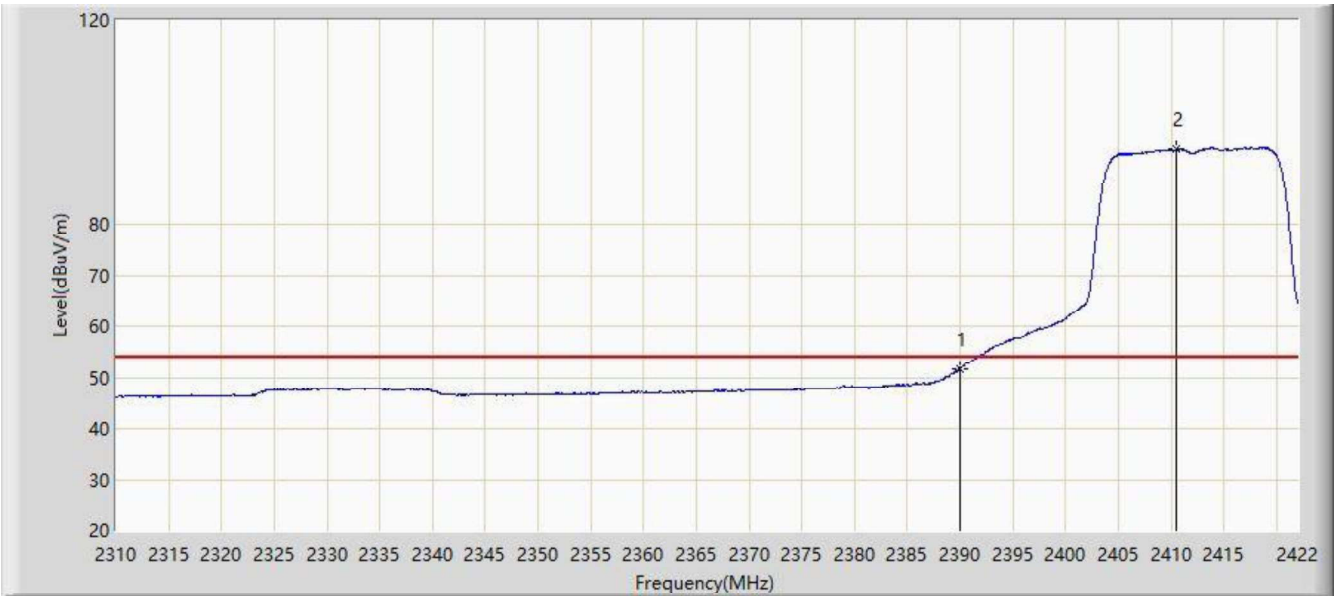


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	69.238	37.166	-4.762	74.000	32.072	PK
2		*	2410.968	103.425	71.344	N/A	N/A	32.081	PK

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

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

Site: AC1	Time: 2019/12/16 - 21:45
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11g at channel 2412MHz	

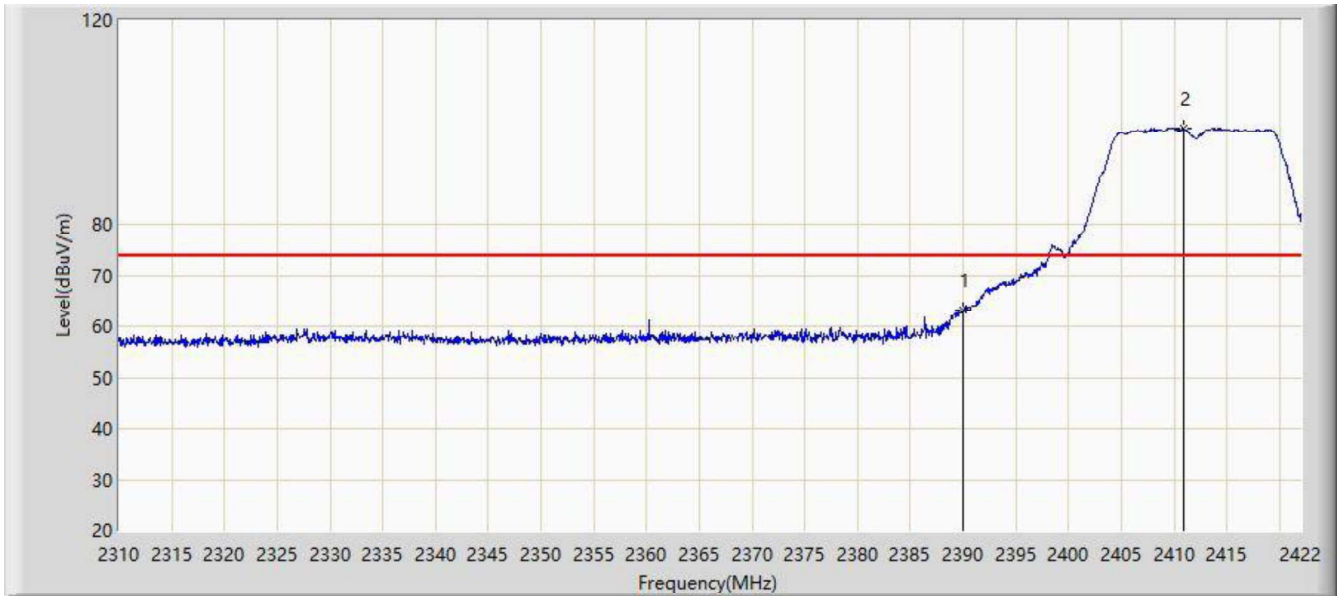


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.725	19.653	-2.275	54.000	32.072	AV
2		*	2410.520	94.698	62.617	N/A	N/A	32.081	AV

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

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

Site: AC1	Time: 2019/12/16 - 21:46
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11g at channel 2412MHz	

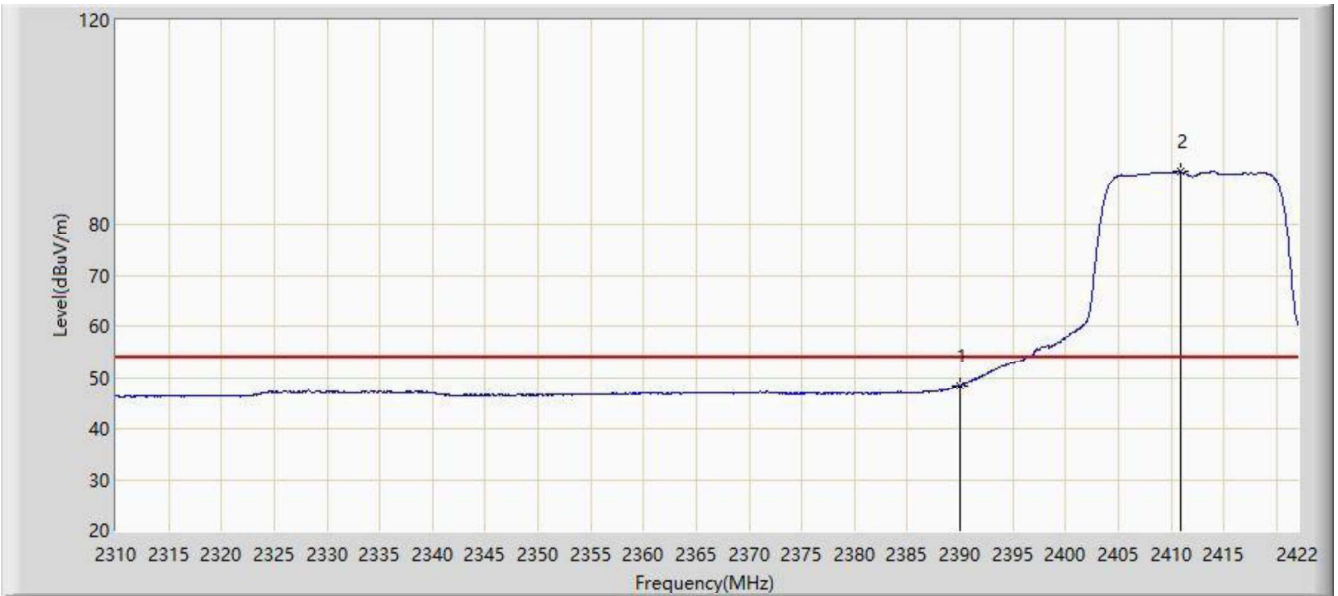


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	63.142	31.070	-10.858	74.000	32.072	PK
2		*	2410.912	98.737	N/A	N/A	74.000	32.081	PK

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

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

Site: AC1	Time: 2019/12/16 - 21:47
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
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	48.410	16.338	-5.590	54.000	32.072	AV
2		*	2410.968	90.374	N/A	N/A	54.000	32.081	AV

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

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

Site: AC1	Time: 2019/12/16 - 23:06
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11g at channel 2462MHz	

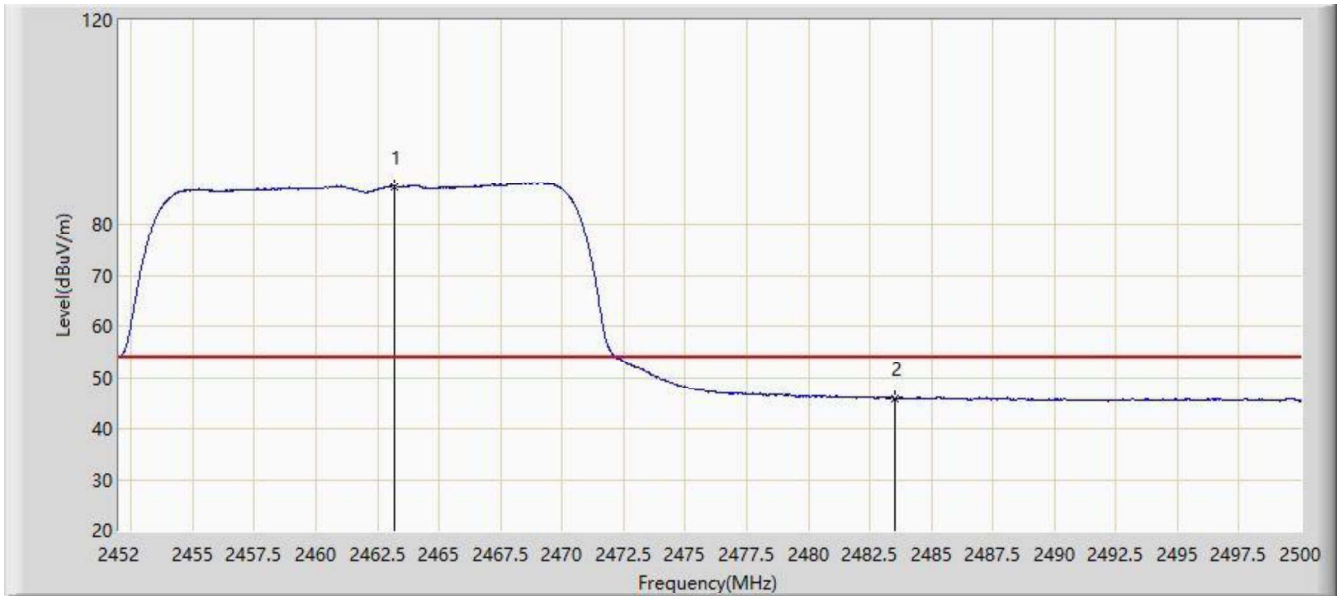


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.000	97.520	65.444	N/A	N/A	32.076	PK
2			2483.500	61.791	29.754	-12.209	74.000	32.037	PK
3			2488.864	62.976	30.949	-11.024	74.000	32.027	PK

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

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

Site: AC1	Time: 2019/12/16 - 23:25
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11g at channel 2462MHz	

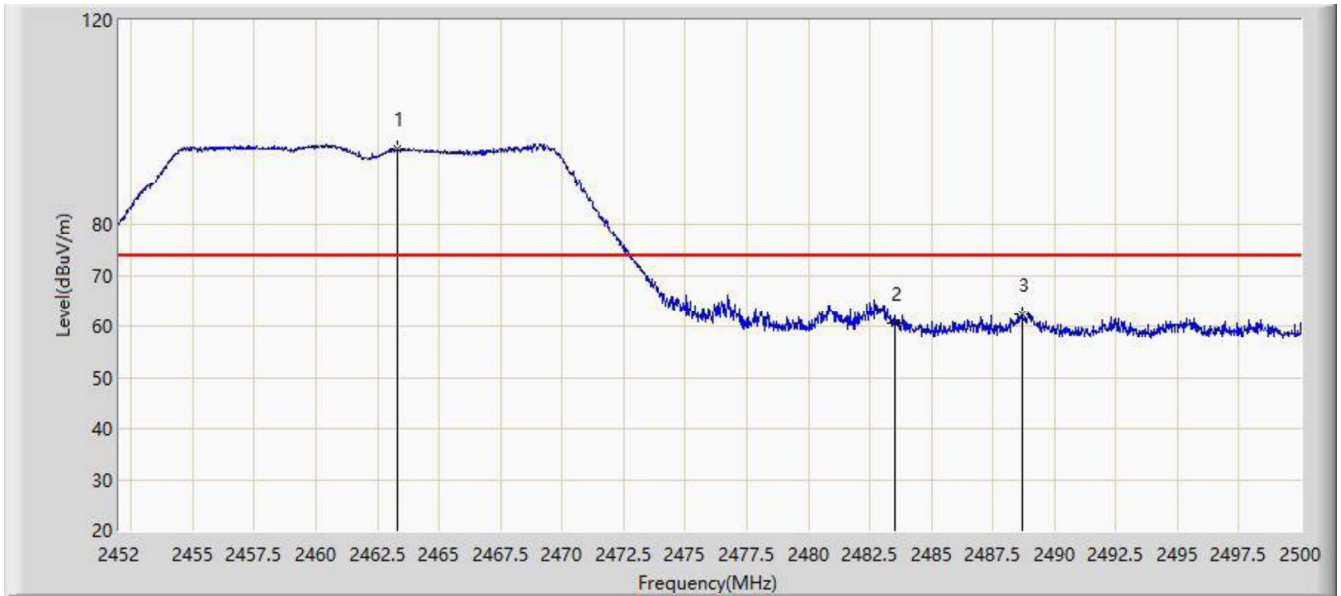


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.184	87.376	55.298	N/A	N/A	32.078	AV
2			2483.500	45.914	13.877	-8.086	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/12/16 - 23:26
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11g at channel 2462MHz	

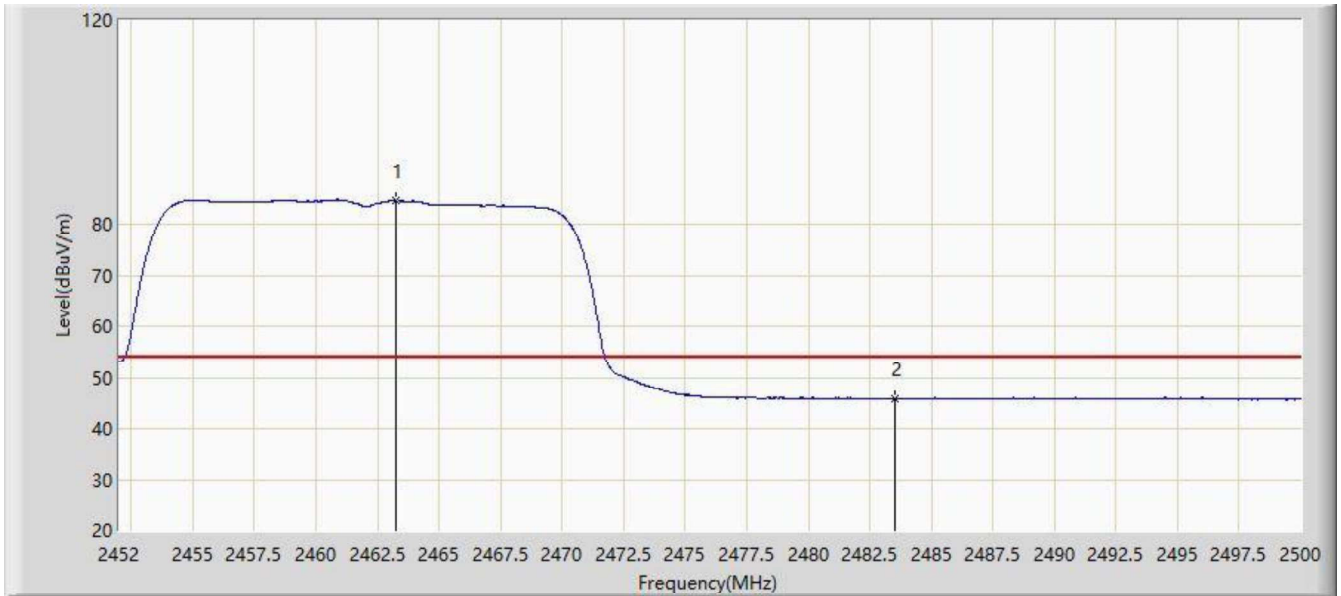


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.280	94.727	62.649	N/A	N/A	32.078	PK
2			2483.500	60.636	28.599	-13.364	74.000	32.037	PK
3			2488.696	62.403	30.376	-11.597	74.000	32.027	PK

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

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

Site: AC1	Time: 2019/12/16 - 23:27
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
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		*	2463.256	84.510	52.432	N/A	N/A	32.078	AV
2			2483.500	45.753	13.716	-8.247	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/12/16 - 23:29
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

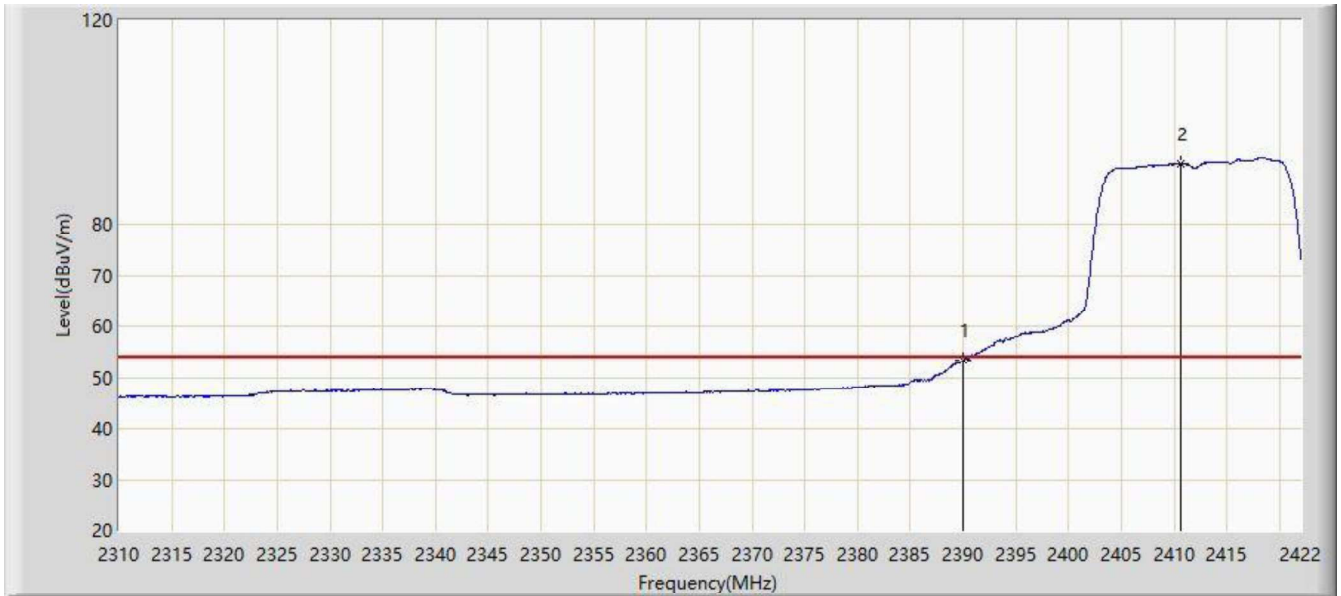


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	71.963	39.891	-2.037	74.000	32.072	PK
2		*	2412.816	101.535	69.449	N/A	N/A	32.086	PK

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

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

Site: AC1	Time: 2019/12/16 - 23:31
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

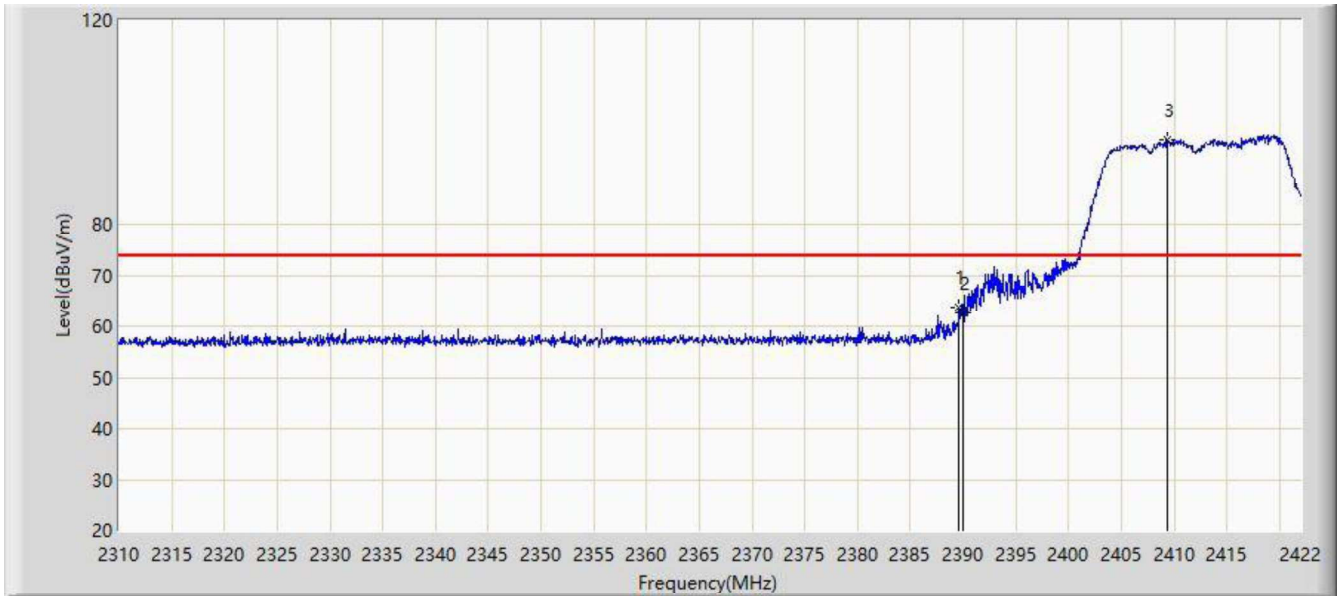


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	53.354	21.282	-0.646	54.000	32.072	AV
2		*	2410.632	91.993	59.912	N/A	N/A	32.081	AV

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

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

Site: AC1	Time: 2019/12/16 - 23:32
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

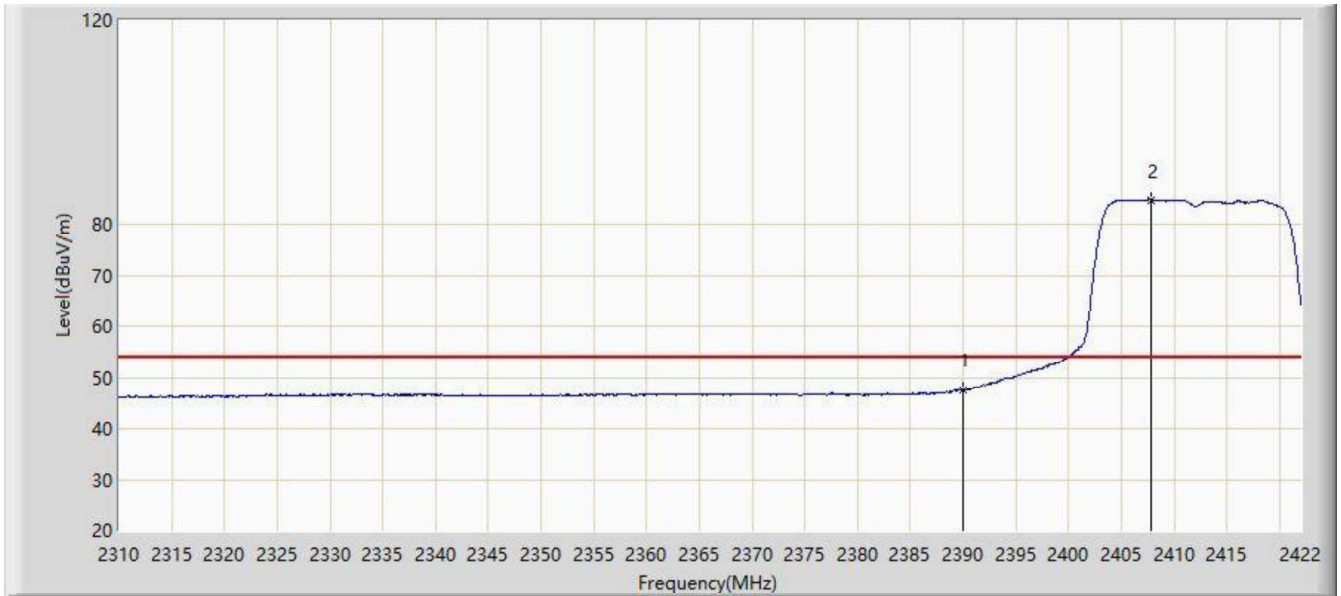


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.576	63.888	31.816	-10.112	74.000	32.072	PK
2			2390.000	62.566	30.494	-11.434	74.000	32.072	PK
3		*	2409.400	96.629	64.549	N/A	N/A	32.080	PK

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

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

Site: AC1	Time: 2019/12/16 - 23:33
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz	

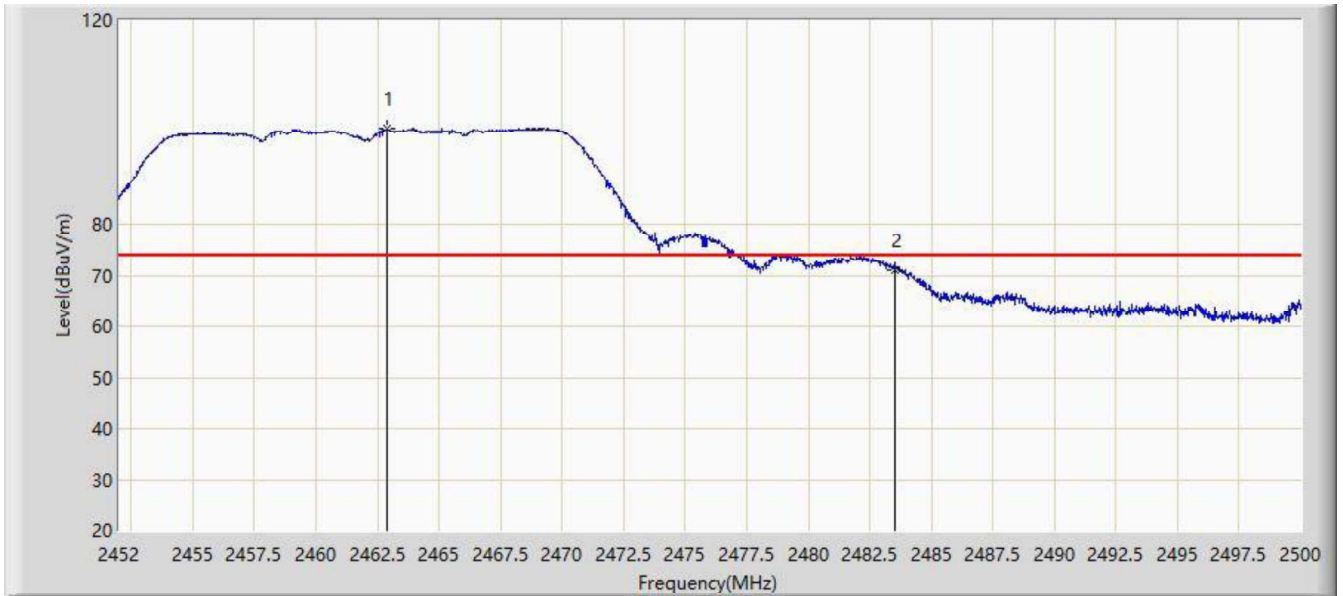


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	47.600	15.528	-6.400	54.000	32.072	AV
2		*	2407.832	84.766	52.687	N/A	N/A	32.079	AV

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

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

Site: AC1	Time: 2019/12/16 - 23:34
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

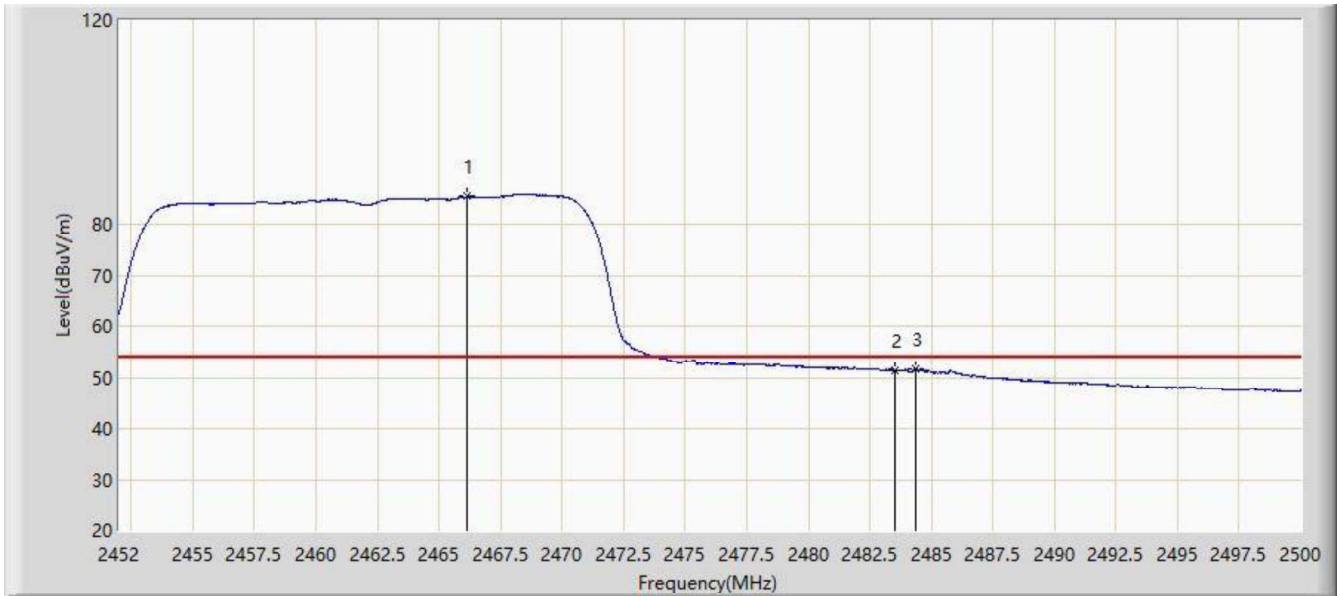


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2462.896	98.785	66.706	N/A	N/A	32.079	PK
2			2483.500	71.133	39.096	-2.867	74.000	32.037	PK

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

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

Site: AC1	Time: 2019/12/16 - 23:39
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

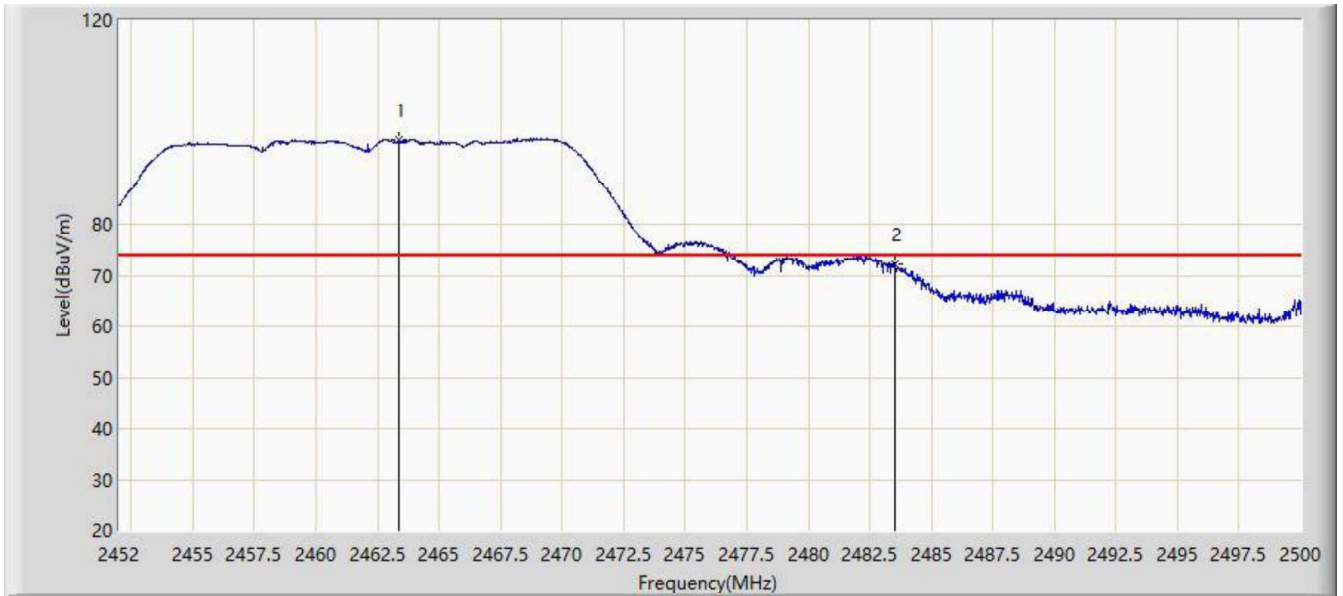


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2466.136	85.380	53.308	N/A	N/A	32.072	AV
2			2483.500	51.342	19.305	-2.658	54.000	32.037	AV
3			2484.376	51.668	19.633	-2.332	54.000	32.035	AV

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

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

Site: AC1	Time: 2019/12/16 - 23:50
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

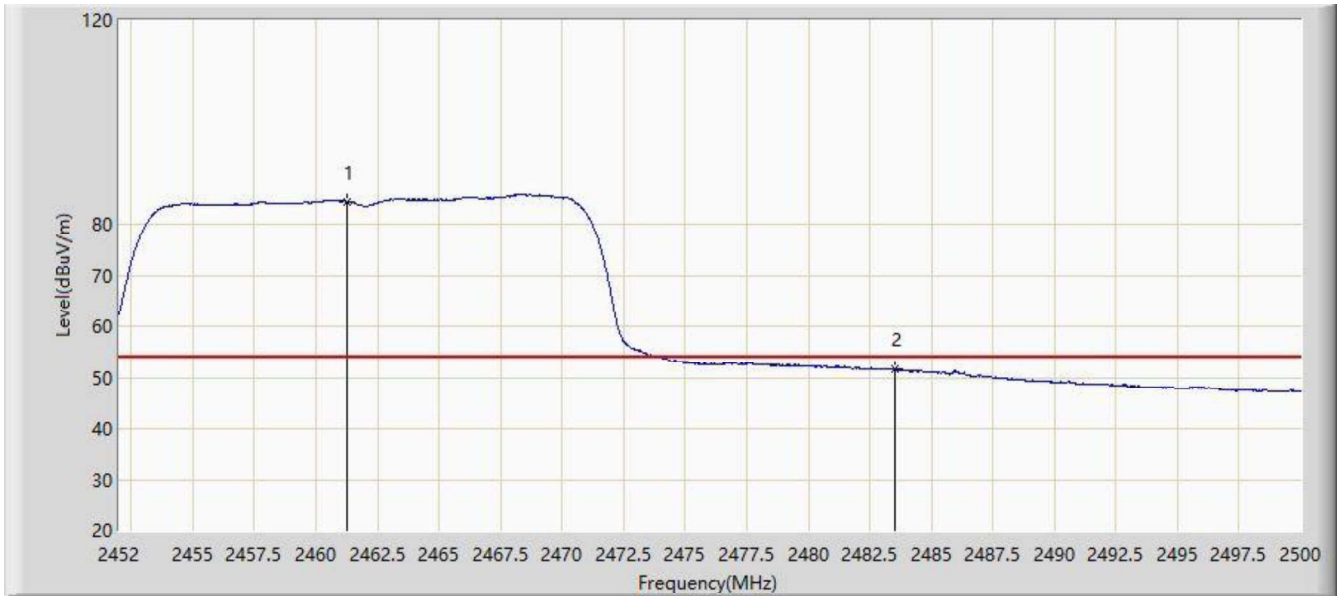


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.376	96.610	64.532	N/A	N/A	32.078	PK
2			2483.500	72.118	40.081	-1.882	74.000	32.037	PK

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

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

Site: AC1	Time: 2019/12/16 - 23:50
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT20 at channel 2462MHz	

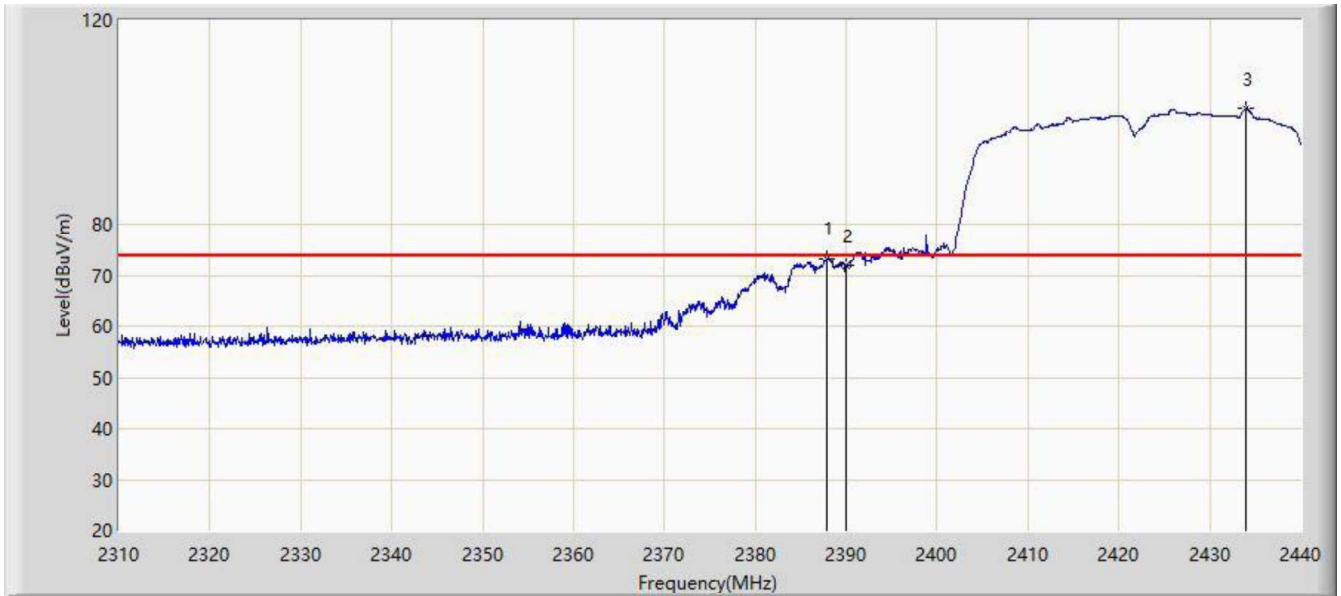


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.240	84.454	52.374	N/A	N/A	32.081	AV
2			2483.500	51.468	19.431	-2.532	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/12/17 - 00:06
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT40 at channel 2422MHz	

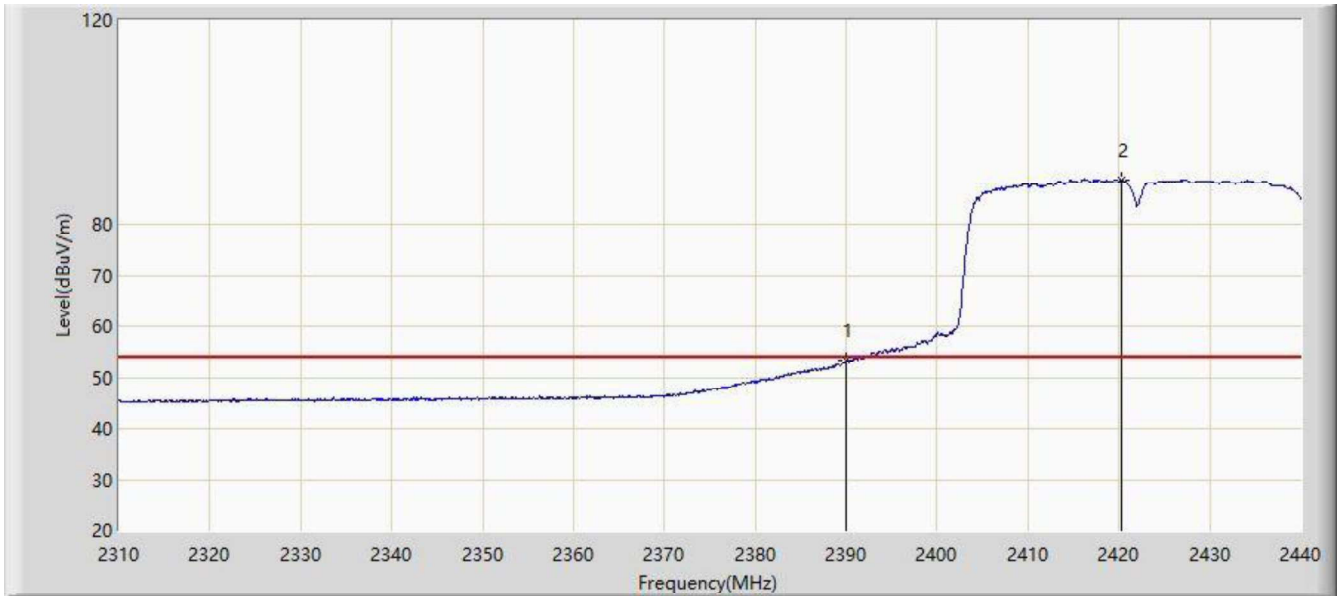


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2387.870	73.334	41.261	-0.666	74.000	32.073	PK
2			2390.000	71.917	39.845	-2.083	74.000	32.072	PK
3		*	2434.020	102.502	70.395	N/A	N/A	32.107	PK

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

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

Site: AC1	Time: 2019/12/17 - 00:07
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT40 at channel 2422MHz	

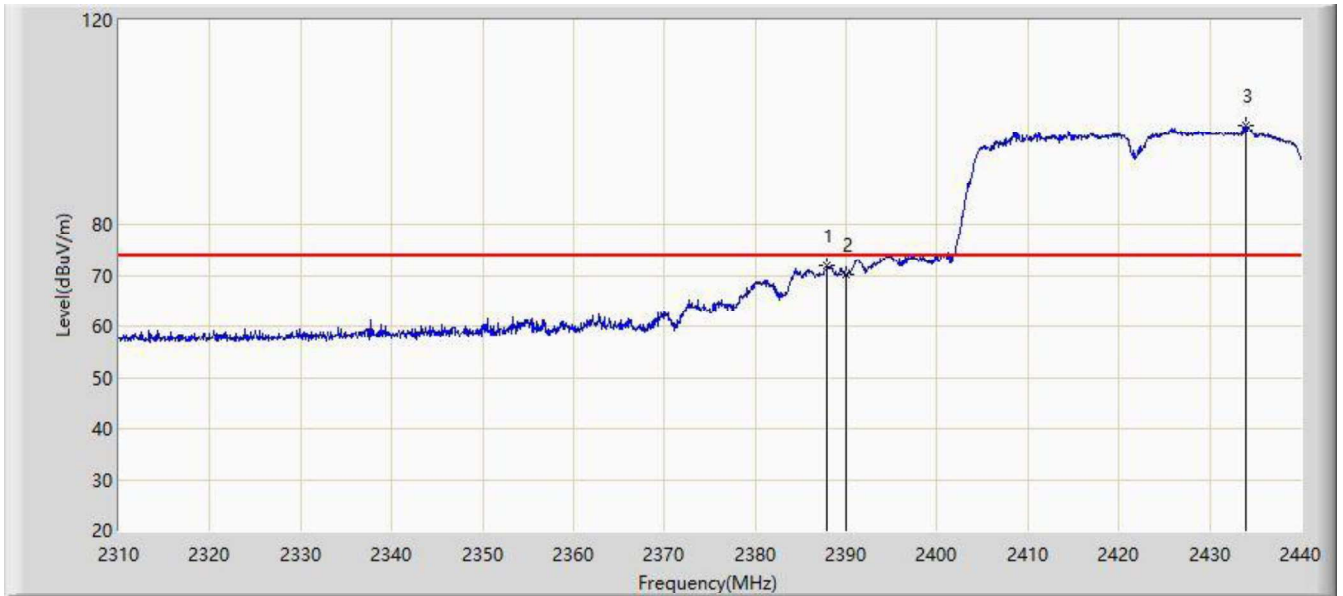


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	53.388	21.316	-0.612	54.000	32.072	AV
2		*	2420.305	88.758	56.653	N/A	N/A	32.106	AV

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

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

Site: AC1	Time: 2019/12/17 - 00:02
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT40 at channel 2422MHz	

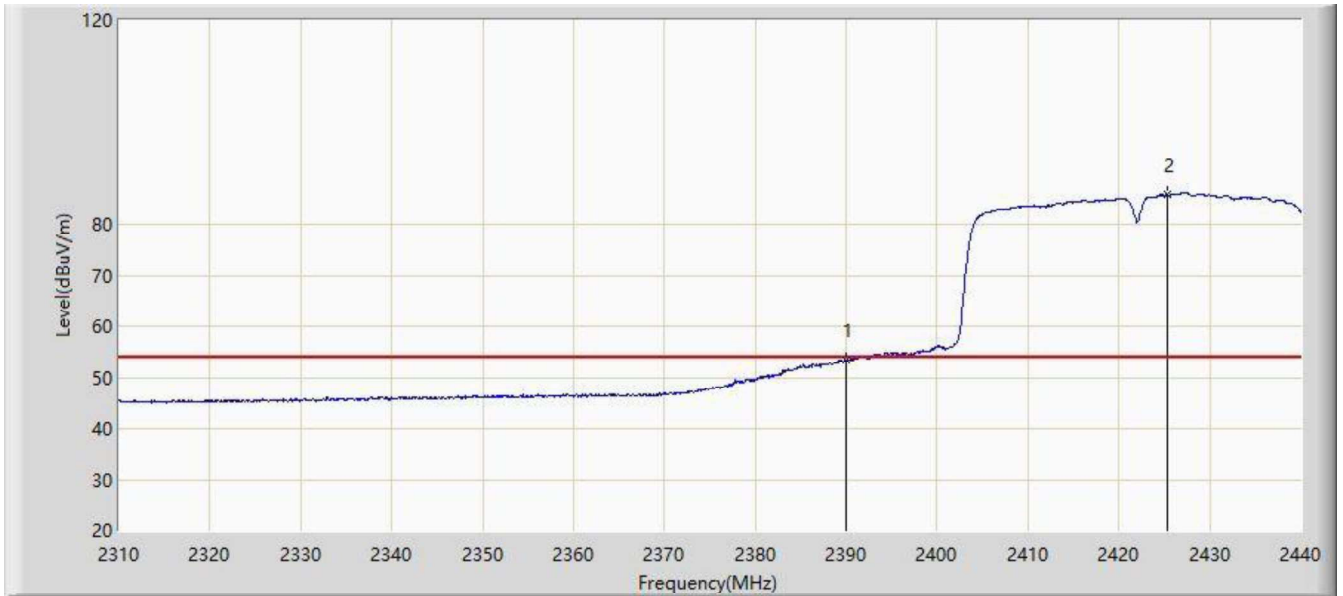


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2387.935	71.956	39.883	-2.044	74.000	32.073	PK
2			2390.000	70.046	37.974	-3.954	74.000	32.072	PK
3		*	2434.020	99.426	67.319	N/A	N/A	32.107	PK

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

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

Site: AC1	Time: 2019/12/17 - 00:04
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT40 at channel 2422MHz	

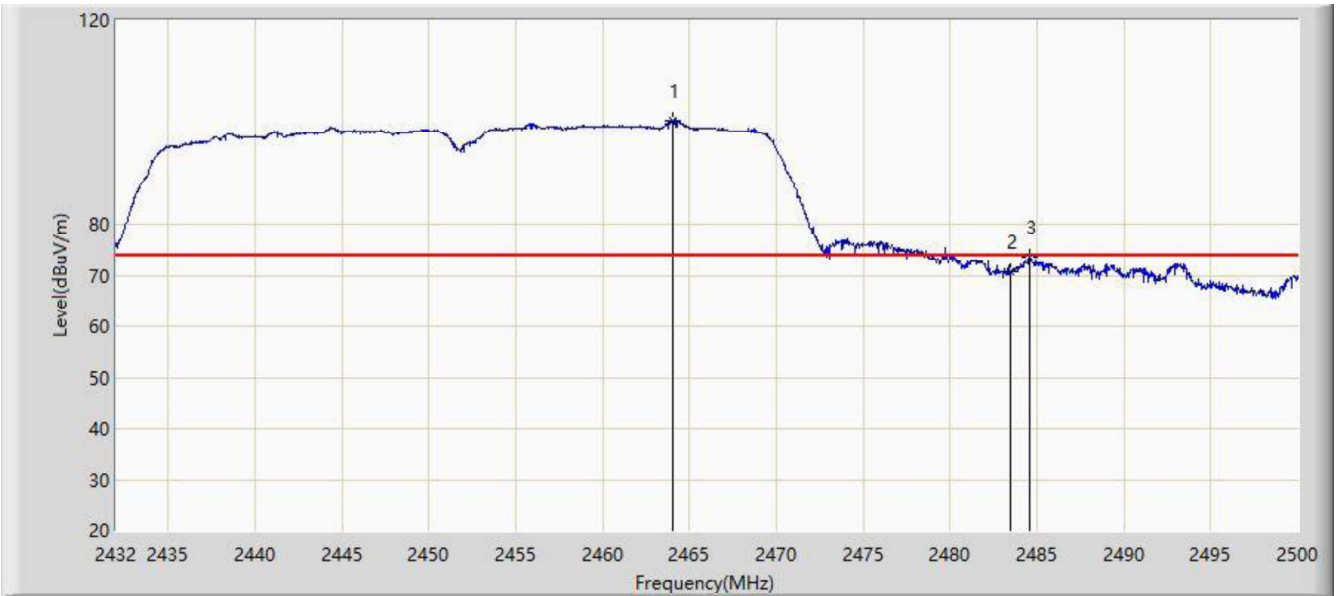


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	53.328	21.256	-0.672	54.000	32.072	AV
2		*	2425.375	85.691	53.572	N/A	N/A	32.118	AV

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

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

Site: AC1	Time: 2019/12/17 - 00:10
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT40 at channel 2452MHz	

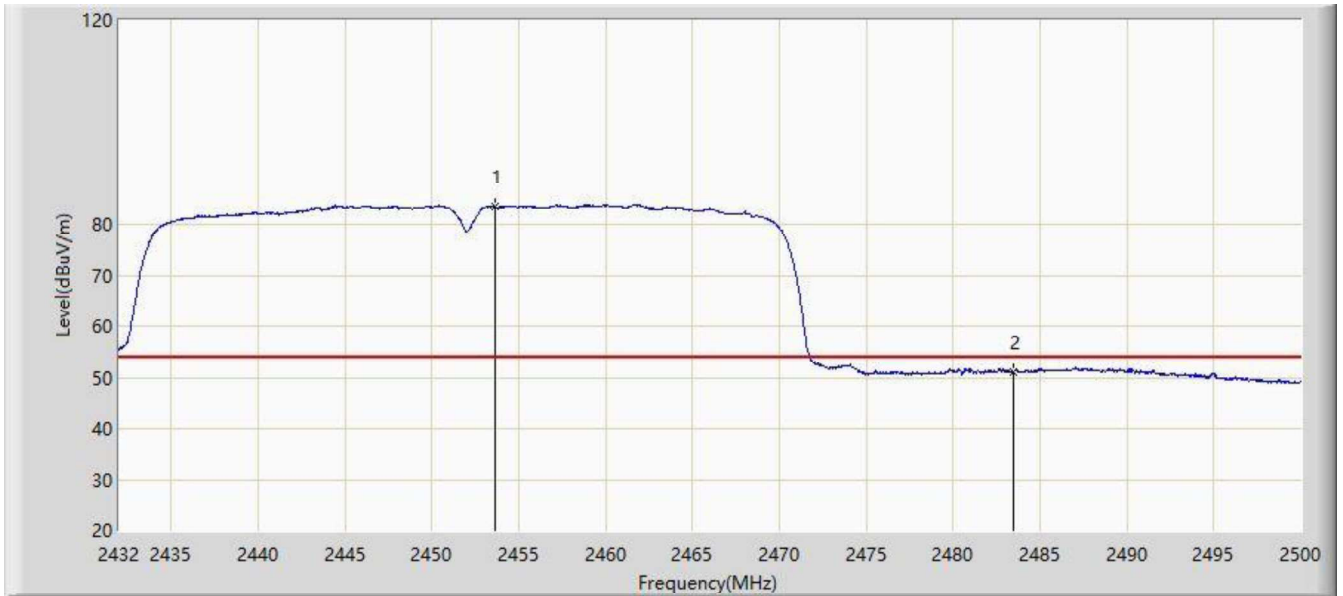


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.028	100.376	68.300	N/A	N/A	32.076	PK
2			2483.500	70.629	38.592	-3.371	74.000	32.037	PK
3			2484.564	73.486	41.451	-0.514	74.000	32.035	PK

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

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

Site: AC1	Time: 2019/12/17 - 00:13
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT40 at channel 2452MHz	

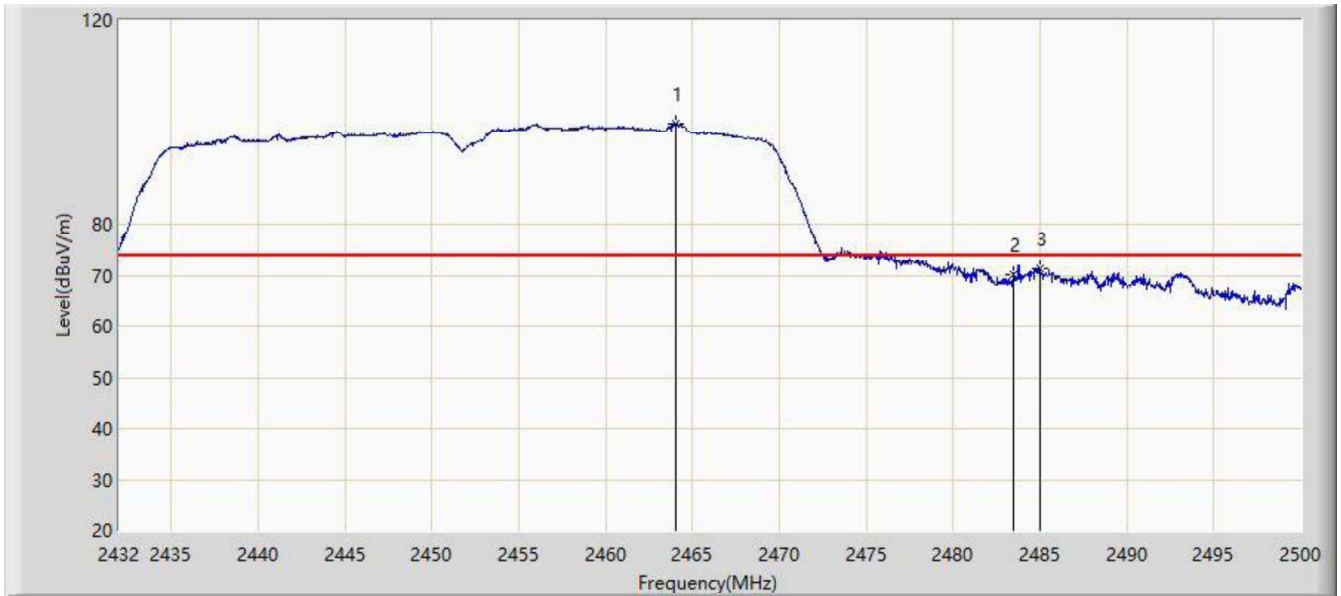


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2453.624	83.535	51.458	N/A	N/A	32.077	AV
2			2483.500	50.909	18.872	-3.091	54.000	32.037	AV

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

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

Site: AC1	Time: 2019/12/17 - 00:14
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
Test Mode: Transmit by 802.11n-HT40 at channel 2452MHz	

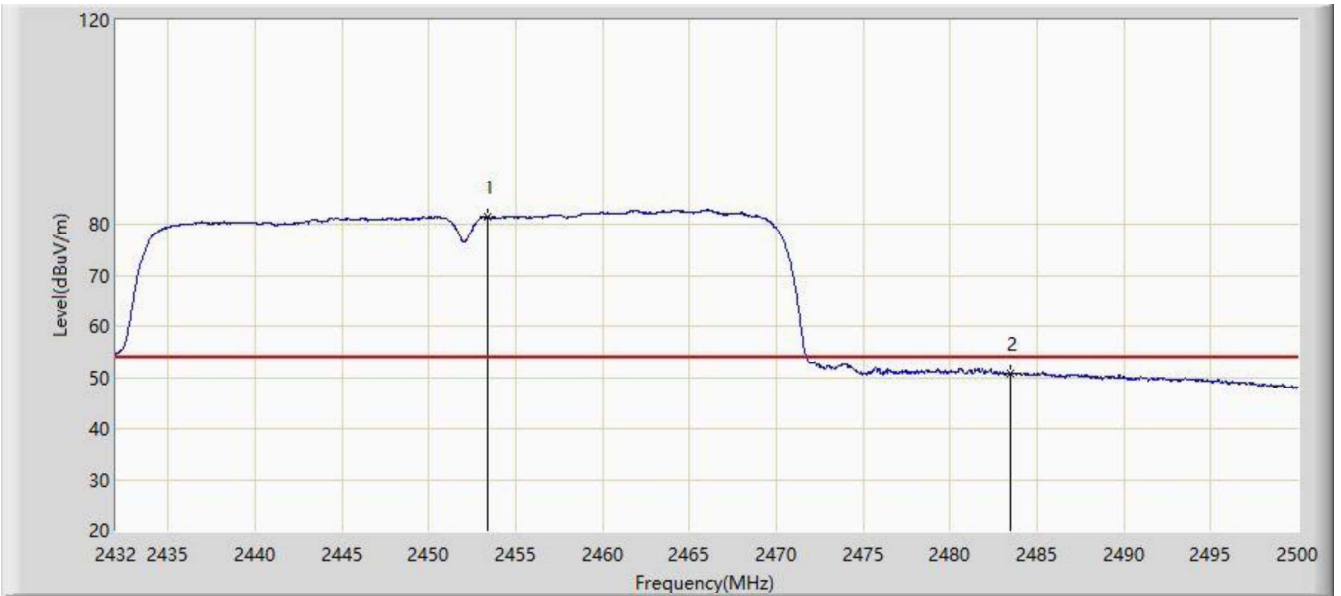


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.028	99.682	67.606	N/A	N/A	32.076	PK
2			2483.500	70.117	38.080	-3.883	74.000	32.037	PK
3			2485.006	71.407	39.373	-2.593	74.000	32.035	PK

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

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

Site: AC1	Time: 2019/12/17 - 00:16
Limit: FCC_Part15_Band Edge(3m)	Engineer: Kyrie Xie
Probe: AC1_BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Recorder	Power: By Battery
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		*	2453.352	81.437	49.360	N/A	N/A	32.077	AV
2			2483.500	50.645	18.608	-3.355	54.000	32.037	AV

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

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

7.8. AC Conducted Emissions Measurement

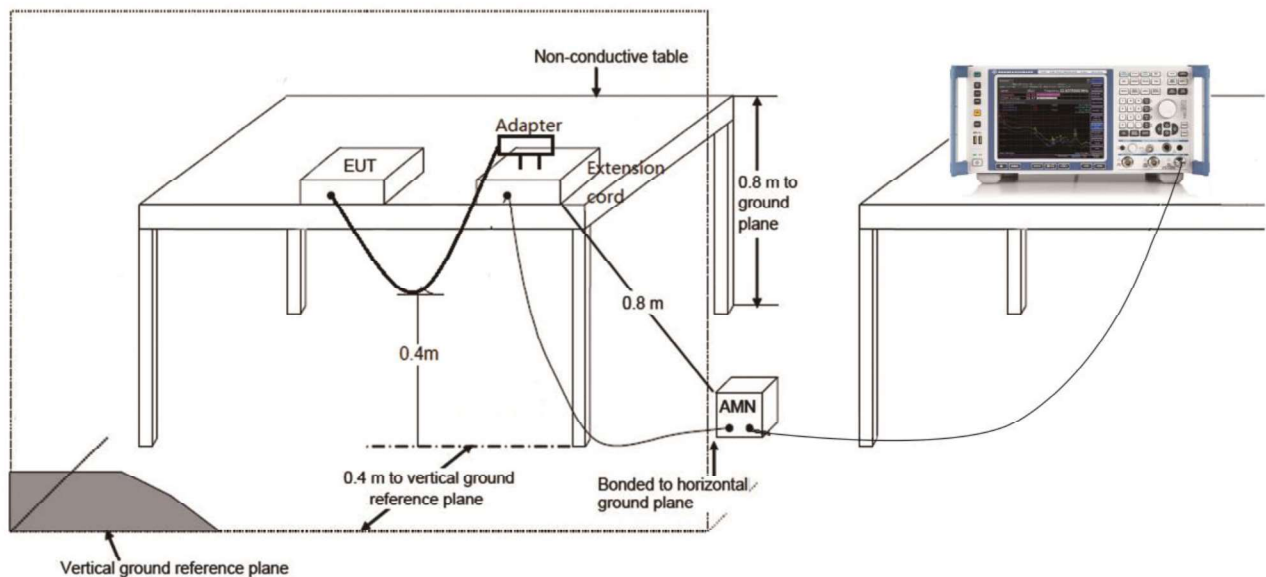
7.8.1. Test Limit

FCC Part 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.

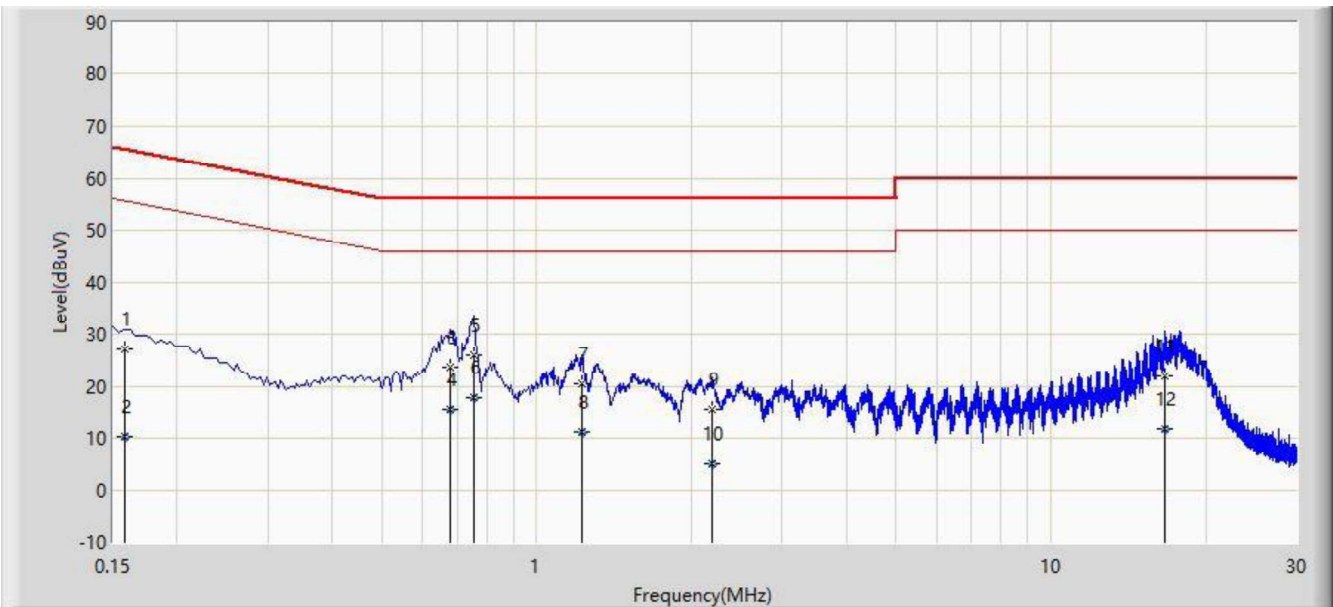
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3.Test Result

Site: SR2	Time: 2019/11/07 - 11:10
Limit: FCC_Part15.207_CE_AC Power	Engineer: Liz Yuan
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Recorder	Power: AC 120V/60Hz
Test Mode 1	

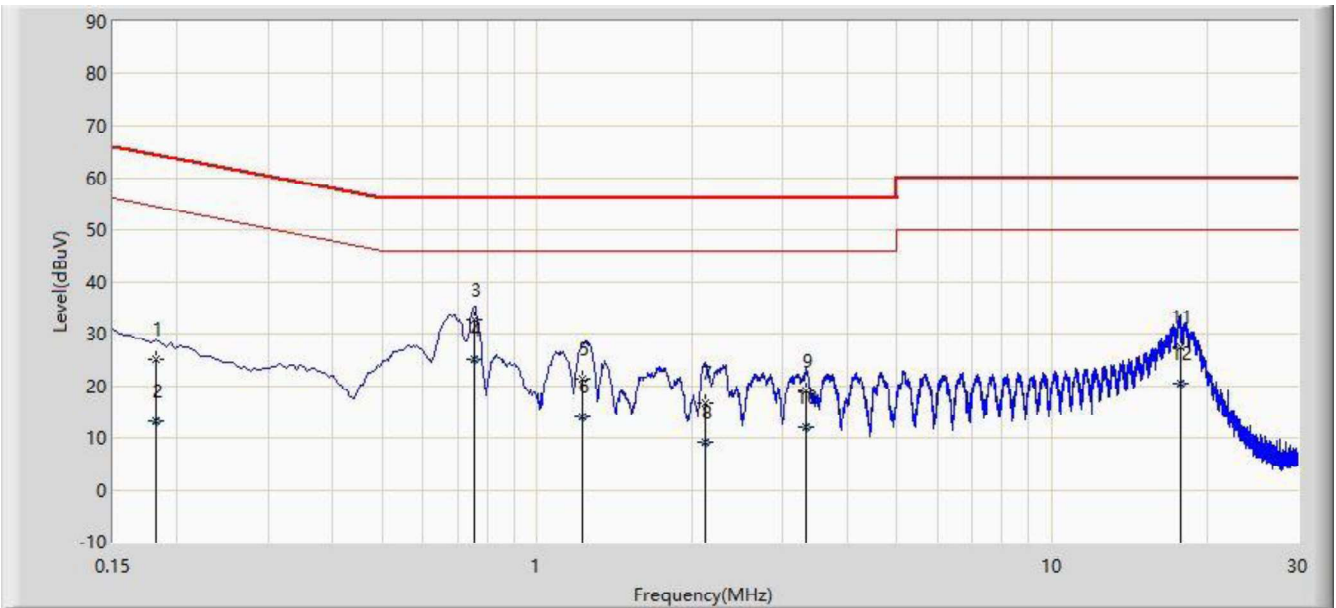


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.158	26.977	17.436	-38.592	65.568	9.541	QP
2			0.158	10.391	0.850	-45.177	55.568	9.541	AV
3			0.678	23.540	13.972	-32.460	56.000	9.568	QP
4			0.678	15.639	6.071	-30.361	46.000	9.568	AV
5			0.754	25.994	16.422	-30.006	56.000	9.572	QP
6		*	0.754	17.834	8.262	-28.166	46.000	9.572	AV
7			1.222	20.554	10.968	-35.446	56.000	9.586	QP
8			1.222	11.304	1.718	-34.696	46.000	9.586	AV
9			2.190	15.564	5.947	-40.436	56.000	9.617	QP
10			2.190	5.206	-4.411	-40.794	46.000	9.617	AV
11			16.598	21.935	12.086	-38.065	60.000	9.849	QP
12			16.598	11.740	1.891	-38.260	50.000	9.849	AV

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

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

Site: SR2	Time: 2019/11/07 - 11:17
Limit: FCC_Part15.207_CE_AC Power	Engineer: Liz Yuan
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Recorder	Power: AC 120V/60Hz
Test Mode 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Margin (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.182	24.960	15.425	-39.434	64.394	9.535	QP
2			0.182	13.247	3.712	-41.147	54.394	9.535	AV
3			0.754	32.571	23.003	-23.429	56.000	9.568	QP
4		*	0.754	24.957	15.389	-21.043	46.000	9.568	AV
5			1.222	21.395	11.809	-34.605	56.000	9.586	QP
6			1.222	14.030	4.444	-31.970	46.000	9.586	AV
7			2.122	16.666	7.052	-39.334	56.000	9.614	QP
8			2.122	9.173	-0.441	-36.827	46.000	9.614	AV
9			3.334	18.850	9.194	-37.150	56.000	9.656	QP
10			3.334	12.110	2.454	-33.890	46.000	9.656	AV
11			17.766	27.459	17.529	-32.541	60.000	9.929	QP
12			17.766	20.487	10.557	-29.513	50.000	9.929	AV

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

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

8. CONCLUSION

The data collected relate only the item(s) tested and show that unit is in compliance with Part 15C of the FCC rules.

The End

Appendix A - Test Setup Photograph

Refer to “1911RSU007-UT” file.

Appendix B - EUT Photograph

Refer to "1911RSU007-UE" file.