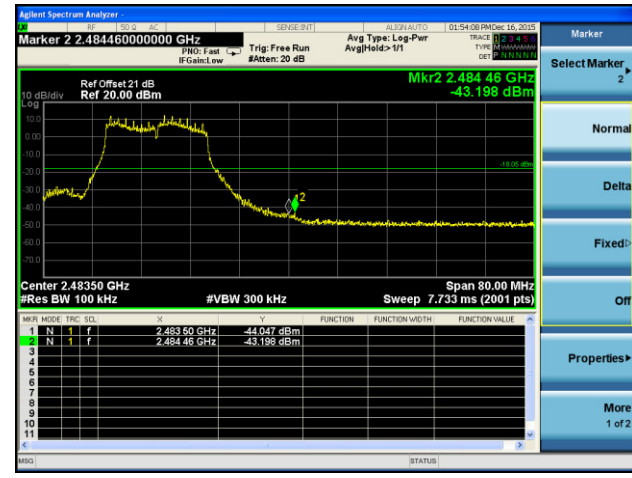
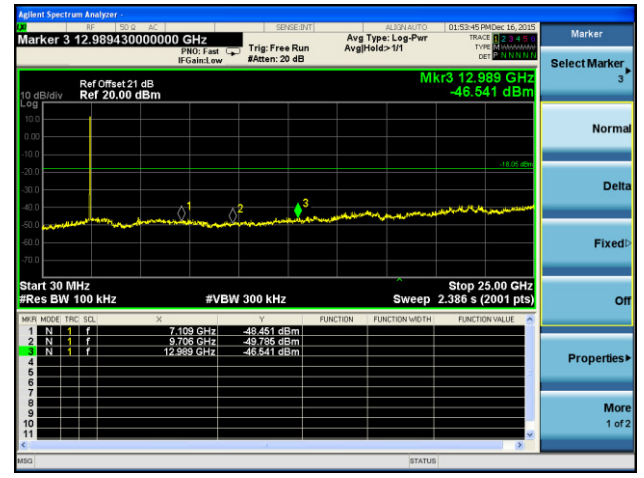


Channel 11 (2462MHz)

High Band Edge

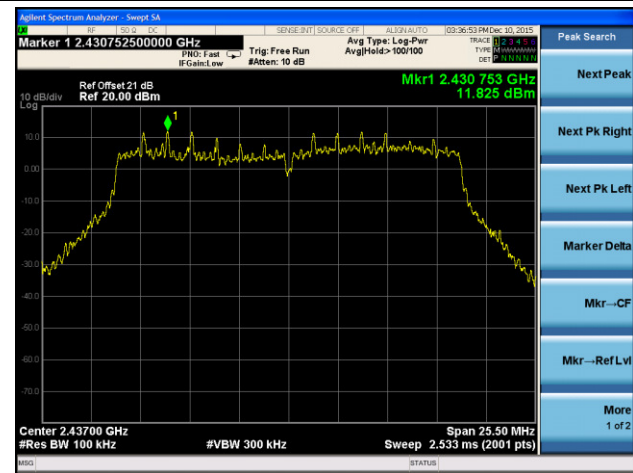


Spurious Emission



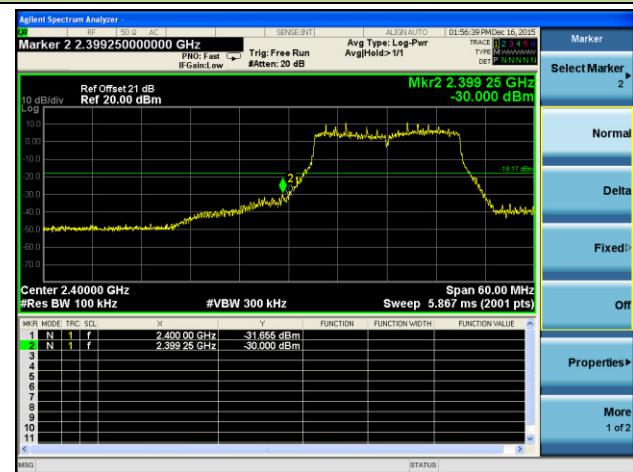
802.11n-HT20 Out-of-Band Emissions - Ant 2 / Ant 0 + 1 + 2

100kHz PSD Reference Level

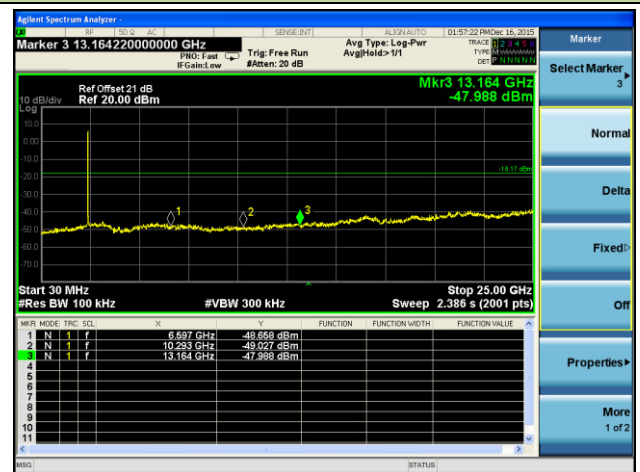


Channel 01 (2412MHz)

Low Band Edge

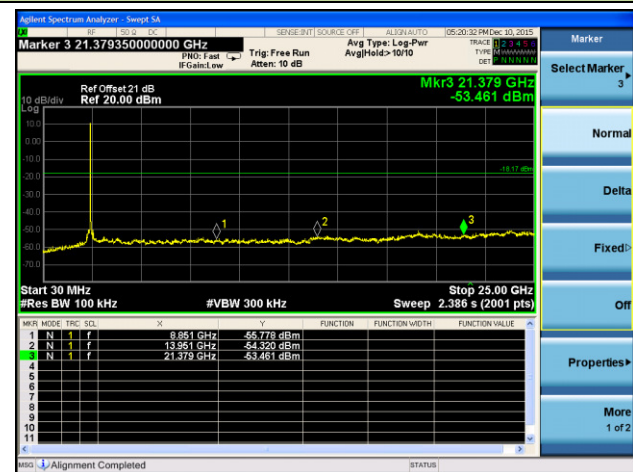


Spurious Emission



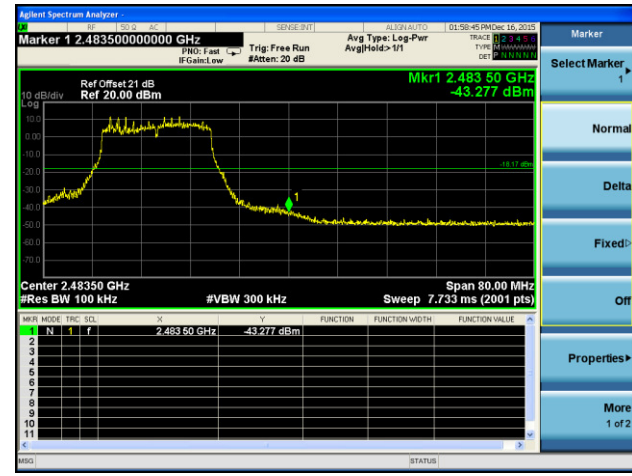
Channel 06 (2437MHz)

Spurious Emission

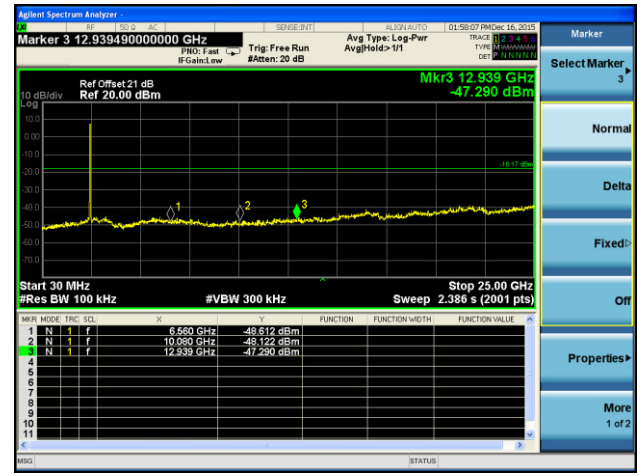


Channel 11 (2462MHz)

High Band Edge

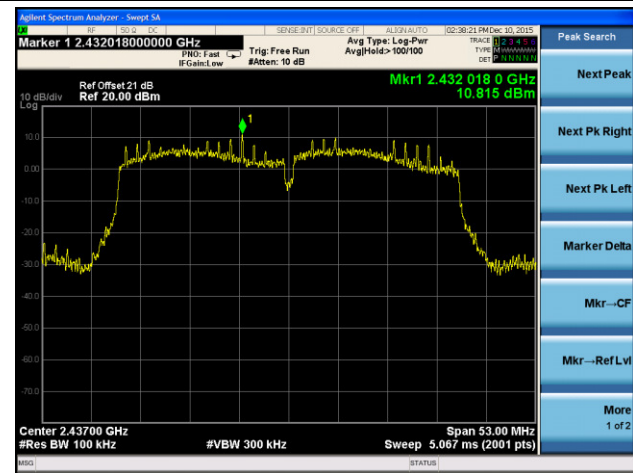


Spurious Emission



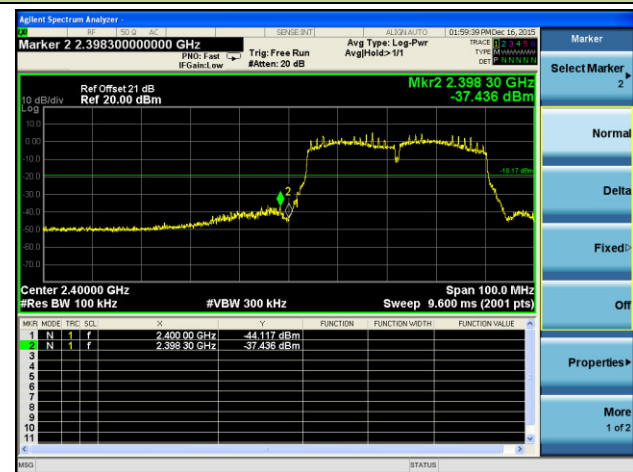
802.11n-HT40 Out-of-Band Emissions - Ant 2 / Ant 0 + 1 + 2

100kHz PSD Reference Level

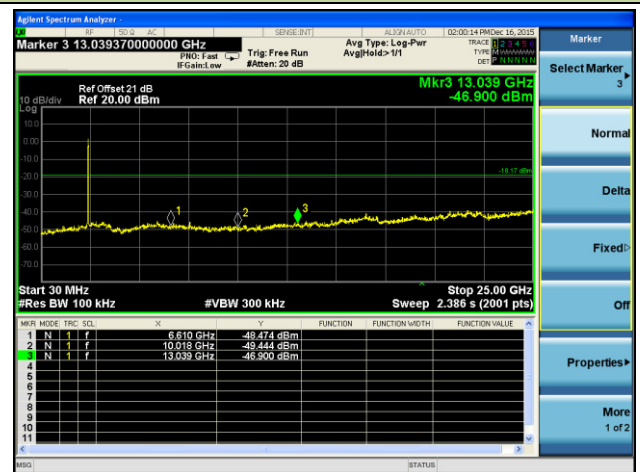


Channel 03 (2422MHz)

Low Band Edge

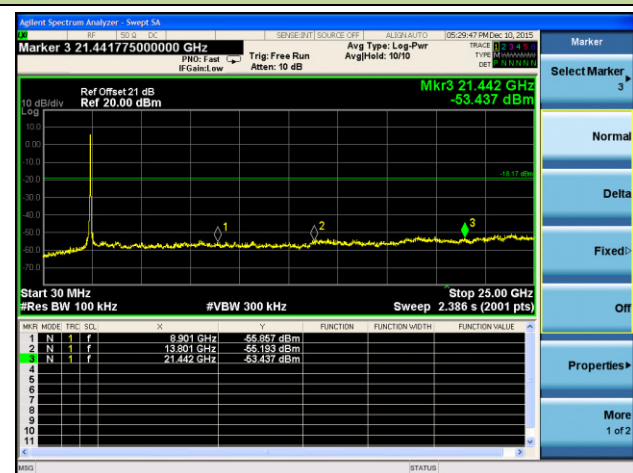


Spurious Emission



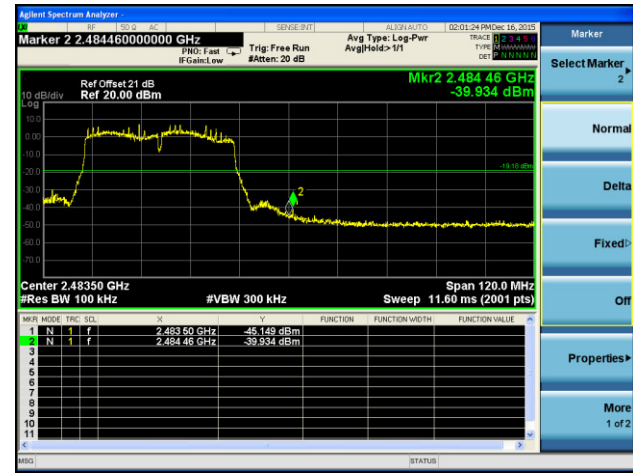
Channel 06 (2437MHz)

Spurious Emission

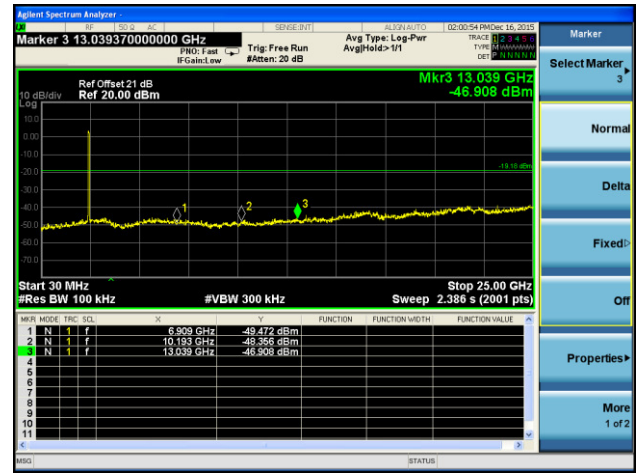


Channel 09 (2452MHz)

High Band Edge



Spurious Emission



7.6. Radiated Spurious Emission Measurement

7.6.1. 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 [V/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

7.6.2. Test Procedure Used

KDB 558074 D01v03r03 - Section 12.2.3 (quasi-peak measurements)

KDB 558074 D01v03r03 - Section 12.2.4 (peak power measurements)

KDB 558074 D01v03r03 - Section 12.2.5 (average power measurements)

7.6.3. Test Setting

Peak Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = as specified in Table 1
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple

6.Trace mode = max hold

7.Trace was allowed to stabilize

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
> 1000 MHz	1 MHz

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.De 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

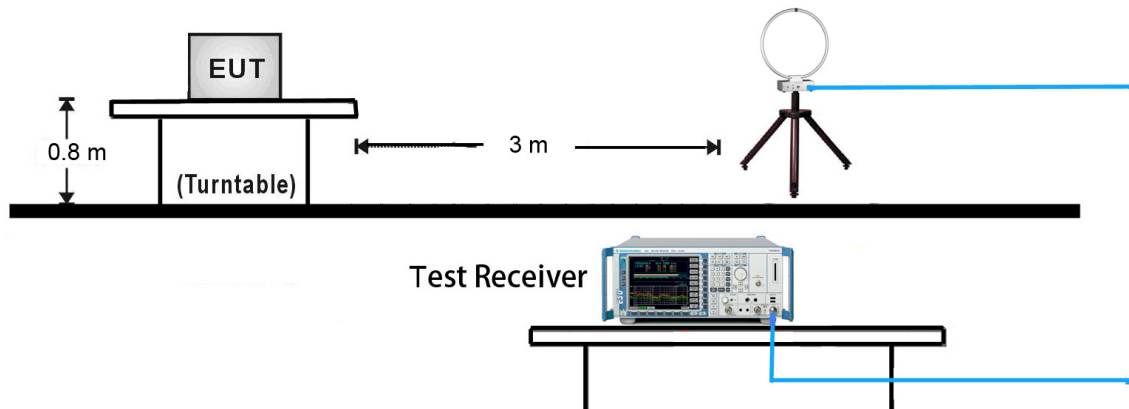
6.Sweep time = auto

7.Trace mode = max hold

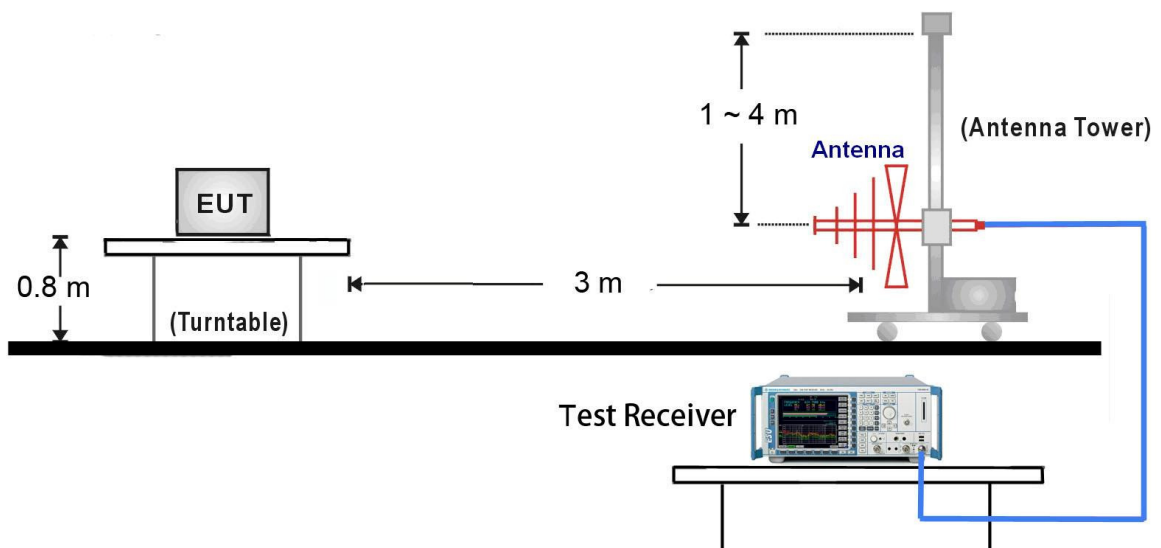
8.Allow max hold to run for at least 50 times (1/duty cycle) traces

7.6.4. Test Setup

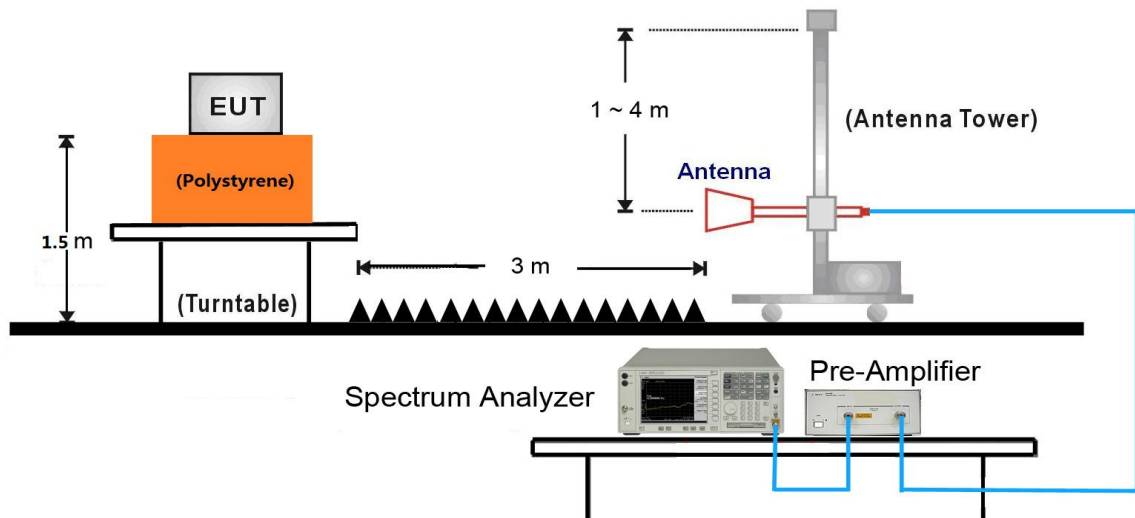
9kHz ~ 30MHz Test Setup:



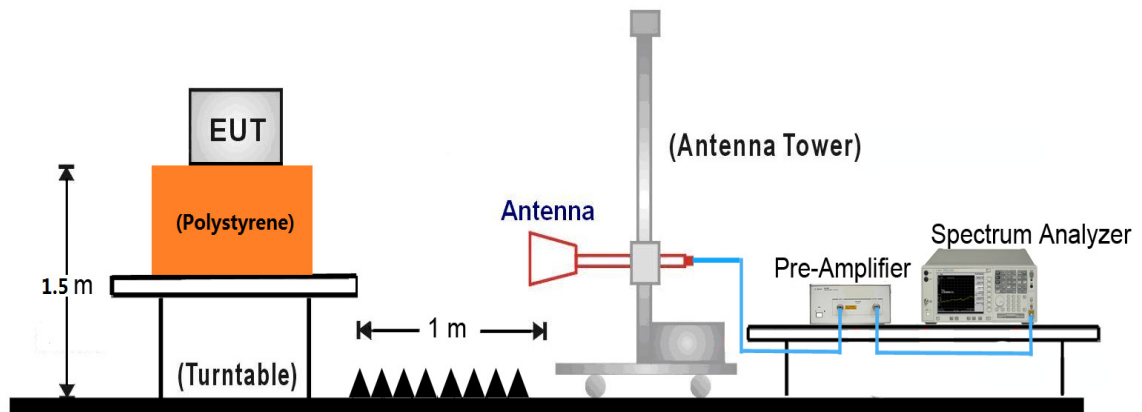
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~ 25GHz Test Setup:



7.6.5. Test Result

Test Mode:	802.11b	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
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
	3669.0	40.0	-0.6	39.4	74.0	-34.6	Peak	Horizontal
	4825.0	39.1	2.7	41.8	74.0	-32.2	Peak	Horizontal
*	7239.0	37.4	7.8	45.2	83.1	-37.9	Peak	Horizontal
*	9644.5	41.2	11.0	52.2	83.1	-30.9	Peak	Horizontal
	3873.0	38.5	0.1	38.6	74.0	-35.4	Peak	Vertical
	4825.0	36.8	2.7	39.5	74.0	-34.5	Peak	Vertical
*	7230.5	41.5	7.8	49.3	83.1	-33.8	Peak	Vertical
*	9644.5	42.7	11.0	53.7	83.1	-29.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (113.1dBμV/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)

Test Mode:	802.11b	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
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	38.4	2.7	41.1	74.0	-32.9	Peak	Horizontal
	7307.0	39.4	8.0	47.4	74.0	-26.6	Peak	Horizontal
*	8726.5	33.5	9.0	42.5	83.3	-40.8	Peak	Horizontal
*	9746.5	39.5	11.3	50.8	83.3	-32.5	Peak	Horizontal
	4876.0	36.6	2.7	39.3	74.0	-34.7	Peak	Vertical
	7307.0	40.7	8.0	48.7	74.0	-25.3	Peak	Vertical
*	8777.5	33.8	8.9	42.7	83.3	-40.6	Peak	Vertical
*	9746.5	42.8	11.3	54.1	83.3	-29.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (113.3dBμV/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)

Test Mode:	802.11b	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
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	36.9	2.8	39.7	74.0	-34.3	Peak	Horizontal
	7383.5	40.7	7.9	48.6	74.0	-25.4	Peak	Horizontal
*	8956.0	33.8	9.0	42.8	83.7	-40.9	Peak	Horizontal
*	9848.5	37.9	11.6	49.5	83.7	-34.2	Peak	Horizontal
	4927.0	36.8	2.8	39.6	74.0	-34.4	Peak	Vertical
	7383.5	42.2	7.9	50.1	74.0	-23.9	Peak	Vertical
*	8735.0	33.8	8.9	42.7	83.7	-41.0	Peak	Vertical
*	9848.5	40.1	11.6	51.7	83.7	-32.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (113.7dBμV/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)

Test Mode:	802.11g	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
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
	3669.0	39.4	-0.6	38.8	74.0	-35.2	Peak	Horizontal
	4825.0	35.1	2.7	37.8	74.0	-36.2	Peak	Horizontal
*	7239.0	39.3	7.8	47.1	86.6	-39.5	Peak	Horizontal
*	9644.5	36.7	11.0	47.7	86.6	-38.9	Peak	Horizontal
	3873.0	38.9	0.1	39.0	74.0	-35.0	Peak	Vertical
	4816.5	35.1	2.7	37.8	74.0	-36.2	Peak	Vertical
*	7239.0	40.1	7.8	47.9	86.6	-38.7	Peak	Vertical
*	9644.5	36.0	11.0	47.0	86.6	-39.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (116.6dBμV/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)

Test Mode:	802.11g	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
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	36.2	2.7	38.9	74.0	-35.1	Peak	Horizontal
	7315.5	40.2	8.0	48.2	74.0	-25.8	Peak	Horizontal
*	8820.0	32.8	9.0	41.8	86.7	-44.9	Peak	Horizontal
*	9755.0	35.6	11.4	47.0	86.7	-39.7	Peak	Horizontal
	4867.5	35.2	2.7	37.9	74.0	-36.1	Peak	Vertical
	7324.0	42.5	8.0	50.5	74.0	-23.5	Peak	Vertical
*	8896.5	33.4	9.2	42.6	86.7	-44.1	Peak	Vertical
*	9755.0	36.0	11.4	47.4	86.7	-39.3	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (116.7dBμV/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)

Test Mode:	802.11g	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
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	36.4	2.8	39.2	74.0	-34.8	Peak	Horizontal
	7383.5	43.0	7.9	50.9	74.0	-23.1	Peak	Horizontal
*	8777.5	33.5	8.9	42.4	86.9	-44.5	Peak	Horizontal
*	9848.5	34.6	11.6	46.2	86.9	-40.7	Peak	Horizontal
	4927.0	35.8	2.8	38.6	74.0	-35.4	Peak	Vertical
	7375.0	43.9	7.9	51.8	74.0	-22.2	Peak	Vertical
*	8930.5	33.7	9.0	42.7	86.9	-44.2	Peak	Vertical
*	9857.0	36.1	11.6	47.7	86.9	-39.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (116.9dBμV/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)

Test Mode:	802.11n-HT20	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
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
	3669.0	40.3	-0.6	39.7	74.0	-34.3	Peak	Horizontal
	4799.5	35.0	2.7	37.7	74.0	-36.3	Peak	Horizontal
*	7239.0	37.7	7.8	45.5	85.2	-39.7	Peak	Horizontal
*	9644.5	35.9	11.0	46.9	85.2	-38.3	Peak	Horizontal
	3873.0	38.4	0.1	38.5	74.0	-35.5	Peak	Vertical
	4808.0	35.0	2.7	37.7	74.0	-36.3	Peak	Vertical
*	7239.0	37.0	7.8	44.8	85.2	-40.4	Peak	Vertical
*	9644.5	34.8	11.0	45.8	85.2	-39.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (115.2dBμV/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)

Test Mode:	802.11n-HT20	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
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	35.6	2.7	38.3	74.0	-35.7	Peak	Horizontal
	7324.0	39.7	8.0	47.7	74.0	-26.3	Peak	Horizontal
*	8675.5	34.3	8.9	43.2	85.8	-42.6	Peak	Horizontal
*	9738.0	35.0	11.2	46.2	85.8	-39.6	Peak	Horizontal
	4842.0	35.1	2.7	37.8	74.0	-36.2	Peak	Vertical
	7307.0	39.3	8.0	47.3	74.0	-26.7	Peak	Vertical
*	8565.0	34.2	8.7	42.9	85.8	-42.9	Peak	Vertical
*	9746.5	34.3	11.3	45.6	85.8	-40.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (115.8dBμV/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)

Test Mode:	802.11n-HT20	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
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	36.1	2.8	38.9	74.0	-35.1	Peak	Horizontal
	7392.0	41.3	7.9	49.2	74.0	-24.8	Peak	Horizontal
*	8828.5	33.3	9.1	42.4	86.7	-44.3	Peak	Horizontal
*	9848.5	35.2	11.6	46.8	86.7	-39.9	Peak	Horizontal
	4927.0	35.1	2.8	37.9	74.0	-36.1	Peak	Vertical
	7392.0	40.5	7.9	48.4	74.0	-25.6	Peak	Vertical
*	8718.0	33.7	9.0	42.7	86.7	-44.0	Peak	Vertical
*	9874.0	37.6	11.6	49.2	86.7	-37.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (116.7dBμV/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)

Test Mode:	802.11n-HT40	Test Site:	AC1
Test Channel:	03	Test Engineer:	Roy Cheng
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
	4816.5	36.1	2.7	38.8	74.0	-35.2	Peak	Horizontal
	7256.0	38.3	7.9	46.2	74.0	-27.8	Peak	Horizontal
*	8786.0	33.8	8.9	42.7	80.2	-37.5	Peak	Horizontal
*	9687.0	34.9	10.9	45.8	80.2	-34.4	Peak	Horizontal
	3873.0	38.1	0.1	38.2	74.0	-35.8	Peak	Vertical
	7264.5	40.2	7.9	48.1	74.0	-25.9	Peak	Vertical
*	8820.0	34.3	9.0	43.3	80.2	-36.9	Peak	Vertical
*	9687.0	36.0	10.9	46.9	80.2	-33.3	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (110.2dBμV/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)

Test Mode:	802.11n-HT40	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
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
	3669.0	40.3	-0.6	39.7	74.0	-34.3	Peak	Horizontal
	7298.5	40.4	8.0	48.4	74.0	-25.6	Peak	Horizontal
*	8658.5	33.8	8.8	42.6	91.5	-48.9	Peak	Horizontal
*	9763.5	34.8	11.4	46.2	91.5	-45.3	Peak	Horizontal
	3873.0	37.8	0.1	37.9	74.0	-36.1	Peak	Vertical
	7324.0	40.9	8.0	48.9	74.0	-25.1	Peak	Vertical
*	8888.0	33.2	9.2	42.4	91.5	-49.1	Peak	Vertical
*	9746.5	35.2	11.3	46.5	91.5	-45.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (121.5dBμV/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)

Test Mode:	802.11n-HT40	Test Site:	AC1
Test Channel:	09	Test Engineer:	Roy Cheng
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
	4910.0	36.9	2.7	39.6	74.0	-34.4	Peak	Horizontal
	7366.5	41.0	7.9	48.9	74.0	-25.1	Peak	Horizontal
*	8956.0	34.6	9.0	43.6	83.1	-39.5	Peak	Horizontal
*	9823.0	34.2	11.6	45.8	83.1	-37.3	Peak	Horizontal
	4910.0	35.3	2.7	38.0	74.0	-36.0	Peak	Vertical
	7341.0	42.5	8.0	50.5	74.0	-23.5	Peak	Vertical
*	8675.5	34.3	8.9	43.2	83.1	-39.9	Peak	Vertical
*	9806.0	34.4	11.5	45.9	83.1	-37.2	Peak	Vertical

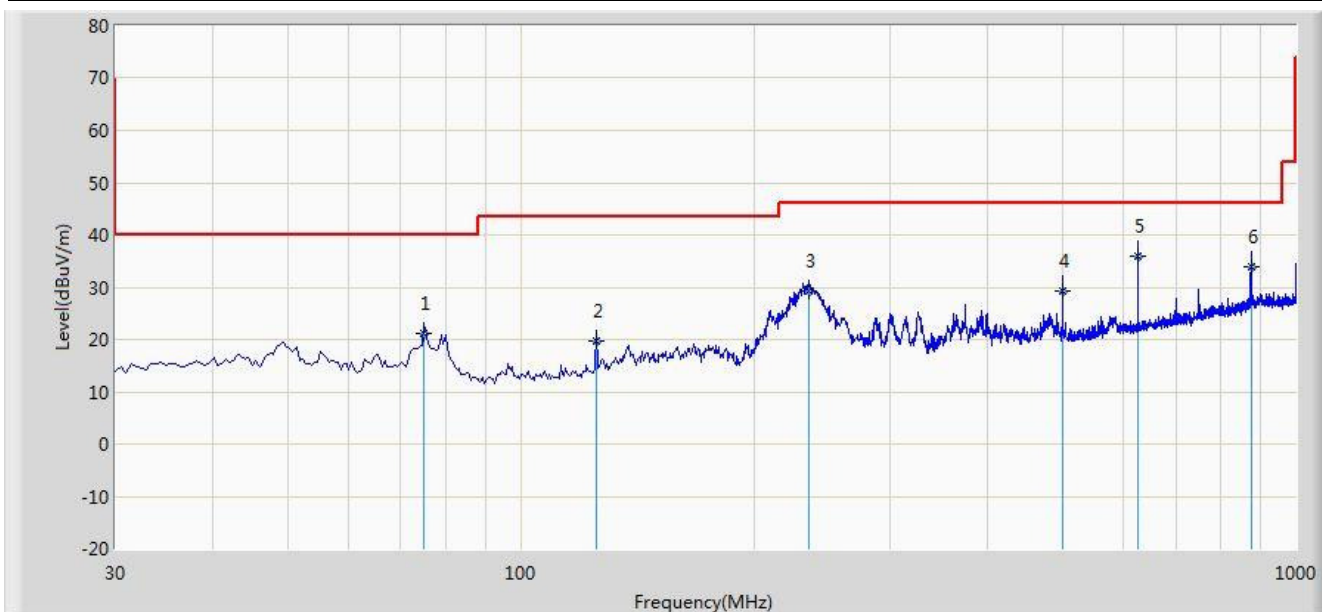
Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (113.1dBμV/m) or FCC 15.209 which is higher.

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: AC 1	Time: 2015/12/16 - 16:55
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Worst Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0 + 1 + 2	

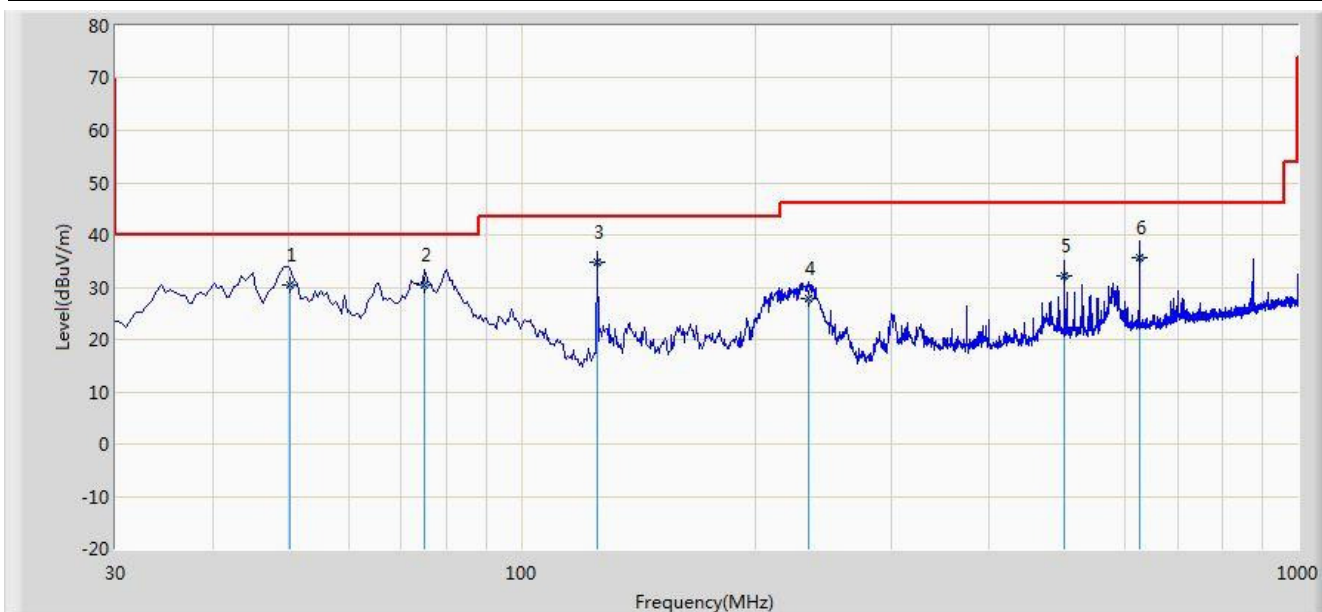


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			75.105	21.138	10.404	-18.862	40.000	10.734	QP
2			125.060	19.709	6.259	-23.791	43.500	13.450	QP
3			235.155	29.416	16.776	-16.584	46.000	12.641	QP
4			499.965	29.287	10.805	-16.713	46.000	18.482	QP
5		*	625.095	35.882	14.856	-10.118	46.000	21.026	QP
6			874.870	33.893	9.898	-12.107	46.000	23.995	QP

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

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

Site: AC 1	Time: 2015/12/16 - 17:49
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Worst Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0 + 1 + 2	

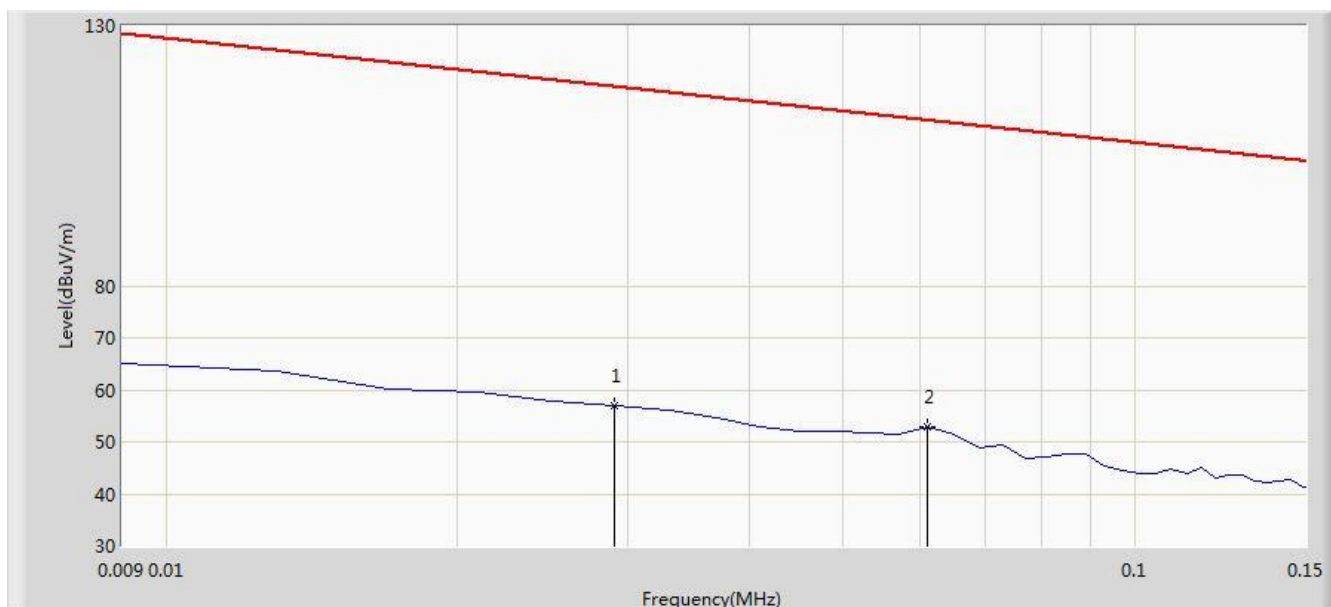


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			50.370	30.573	16.546	-9.427	40.000	14.027	QP
2			75.105	30.405	19.671	-9.595	40.000	10.734	QP
3		*	125.060	34.904	21.454	-8.596	43.500	13.450	QP
4			234.185	27.941	15.325	-18.059	46.000	12.616	QP
5			499.965	32.208	13.726	-13.792	46.000	18.482	QP
6			625.095	35.712	14.686	-10.288	46.000	21.026	QP

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

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

Site: AC1	Time: 2015/12/15 - 09:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: Gateway	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	

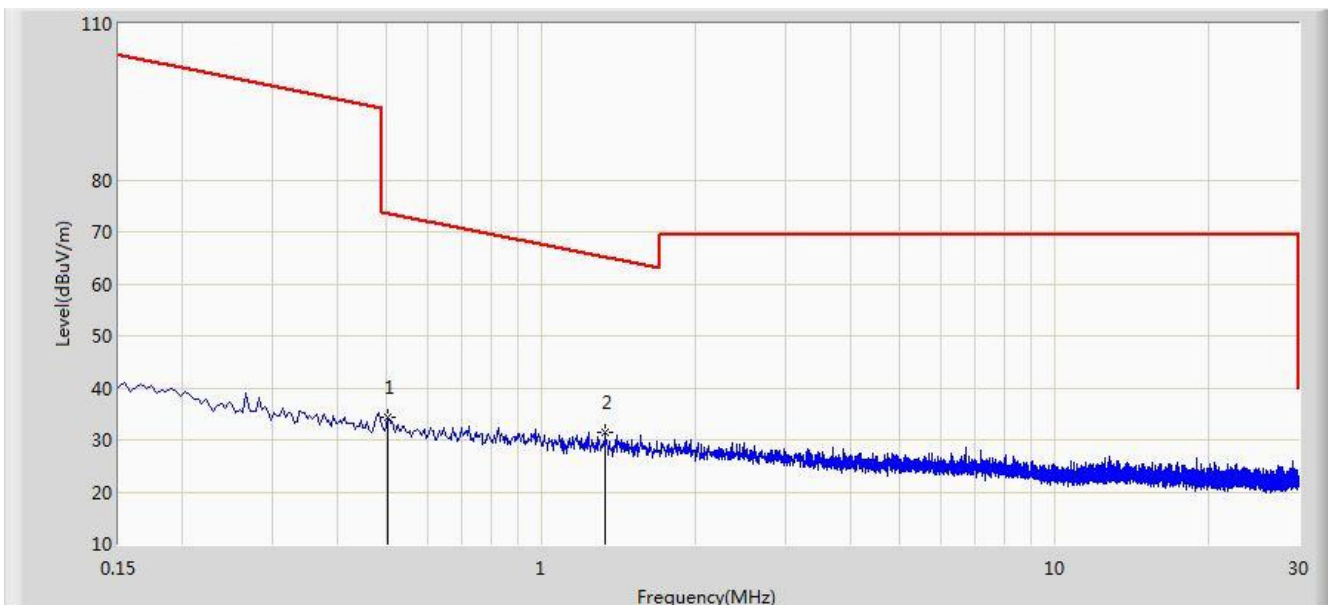


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.029	56.893	35.844	-61.463	118.356	21.049	PK
2		*	0.061	52.853	32.542	-59.045	111.898	20.311	PK

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

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

Site: AC1	Time: 2015/12/15 - 09:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: Gateway	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	



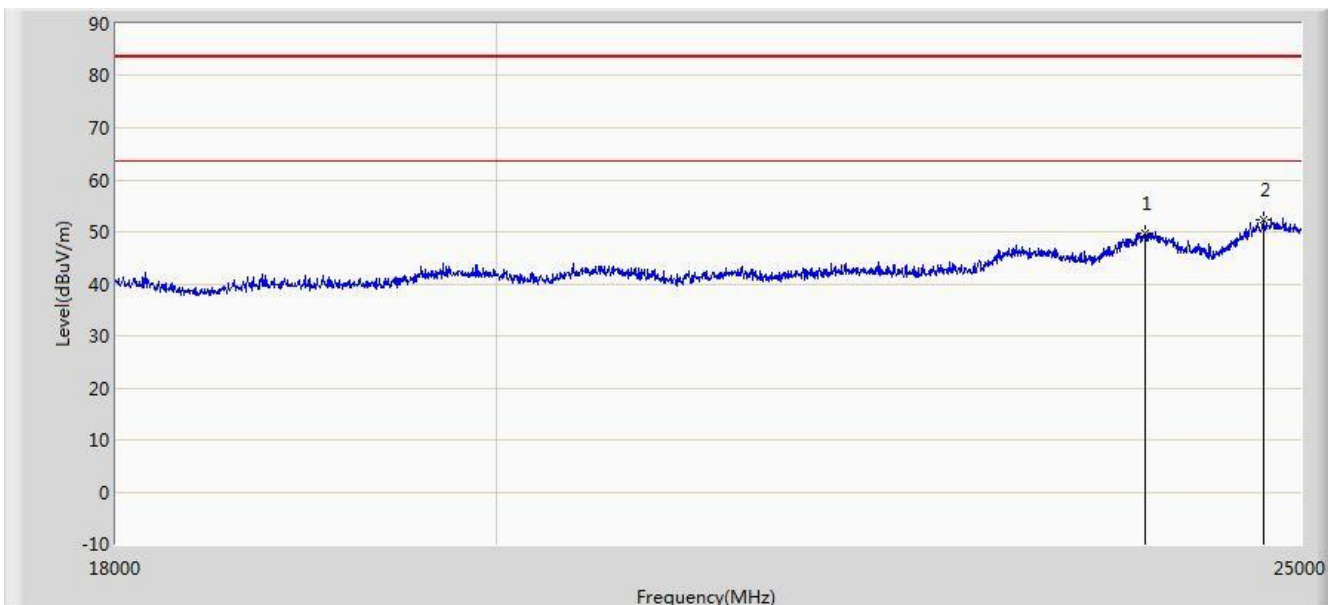
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.502	34.370	13.947	-39.220	73.590	20.423	QP
2		*	1.334	31.595	11.104	-33.530	65.125	20.491	QP

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

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

Limit@3m = $20 \cdot \log(30 \mu\text{V/m}) + 20 \cdot \log(30\text{m}/3\text{m}) = 49.5 \text{ dBuV/m}$ (Average detector), and 69.5 dBuV/m (Peak detector).

Site: AC1	Time: 2015/12/15 - 10:21
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 18GHz~25GHz.	

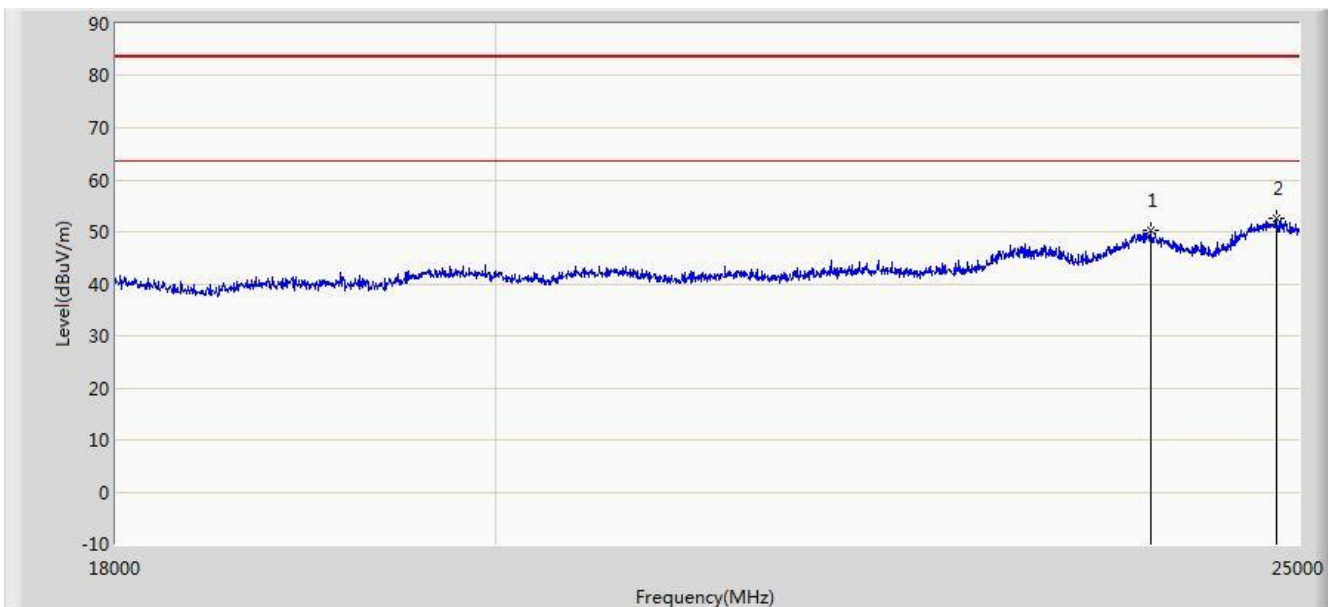


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			23943.000	49.776	35.866	-33.724	83.500	13.910	PK
2		*	24741.000	52.375	37.681	-31.125	83.500	14.694	PK

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

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

Site: AC1	Time: 2015/12/15 - 10:21
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 18GHz~25GHz.	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			23999.000	50.379	36.435	-33.121	83.500	13.944	PK
2		*	24846.000	52.503	37.735	-30.997	83.500	14.768	PK

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

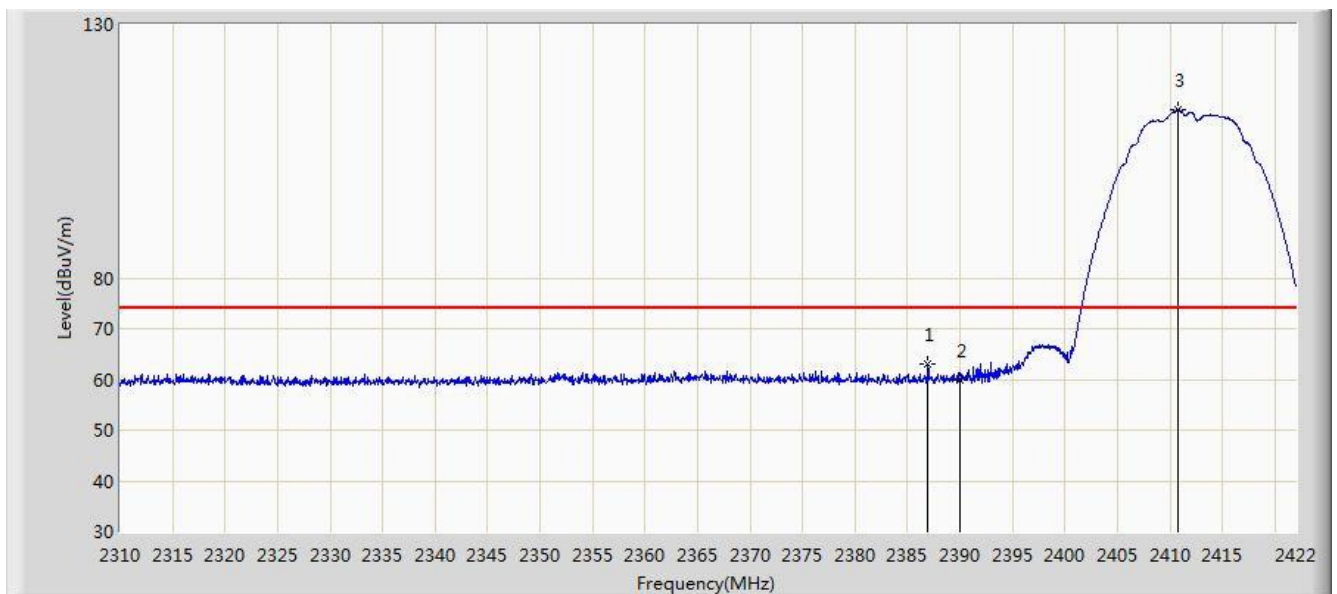
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

Limit@1m = 20*Log(500uV/m) + 20*Log(3m/1m) = 63.5dBμV/m (Average detector), and 83.5dBμV/m (Peak detector).

7.7. Radiated Restricted Band Edge Measurement

7.7.1. Test Result

Site: AC1	Time: 2015/12/07 - 17:57
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

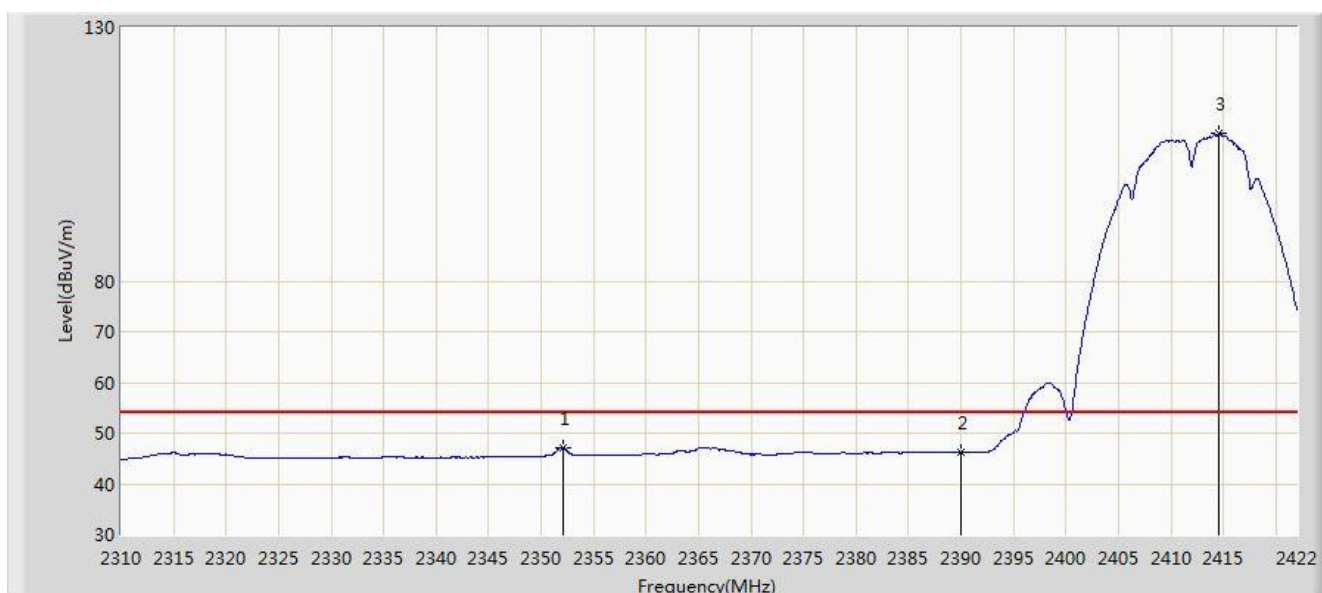


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2386.944	62.949	31.741	-11.051	74.000	31.209	PK
2			2390.000	59.953	28.750	-14.047	74.000	31.203	PK
3		*	2410.800	113.108	81.936	N/A	N/A	31.172	PK

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

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

Site: AC1	Time: 2015/12/07 - 17:59
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

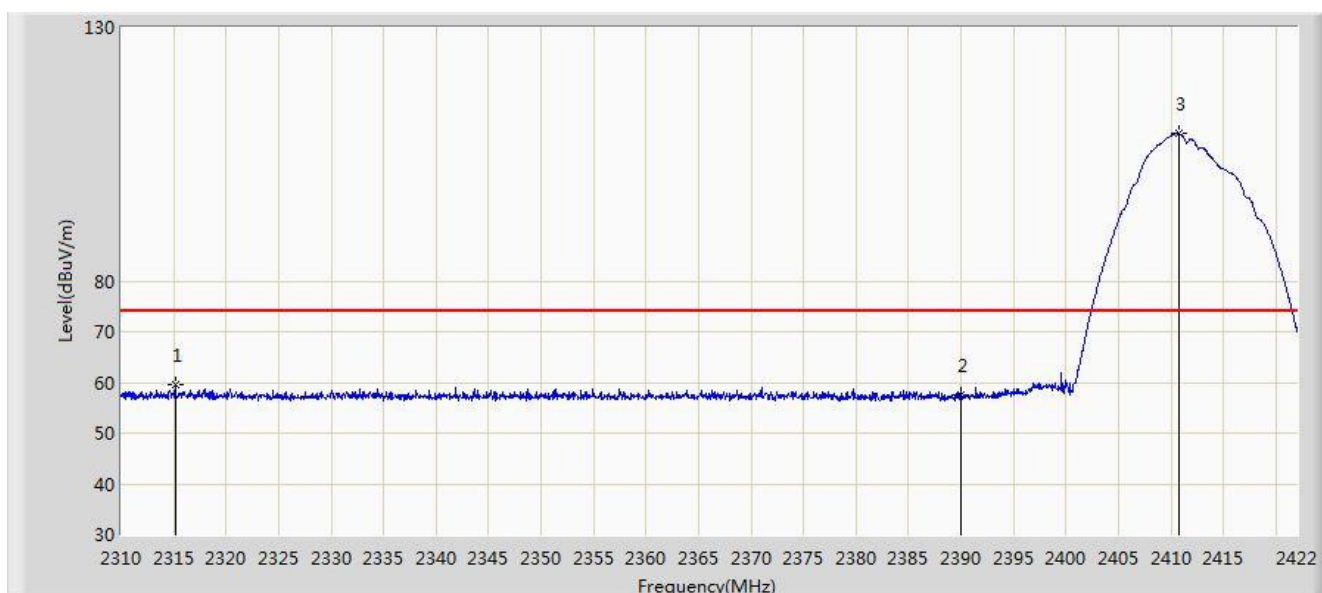


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2352.112	47.240	15.955	-6.760	54.000	31.284	AV
2			2390.000	46.227	15.024	-7.773	54.000	31.203	AV
3		*	2414.608	109.054	77.889	N/A	N/A	31.165	AV

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

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

Site: AC1	Time: 2015/12/07 - 18:02
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

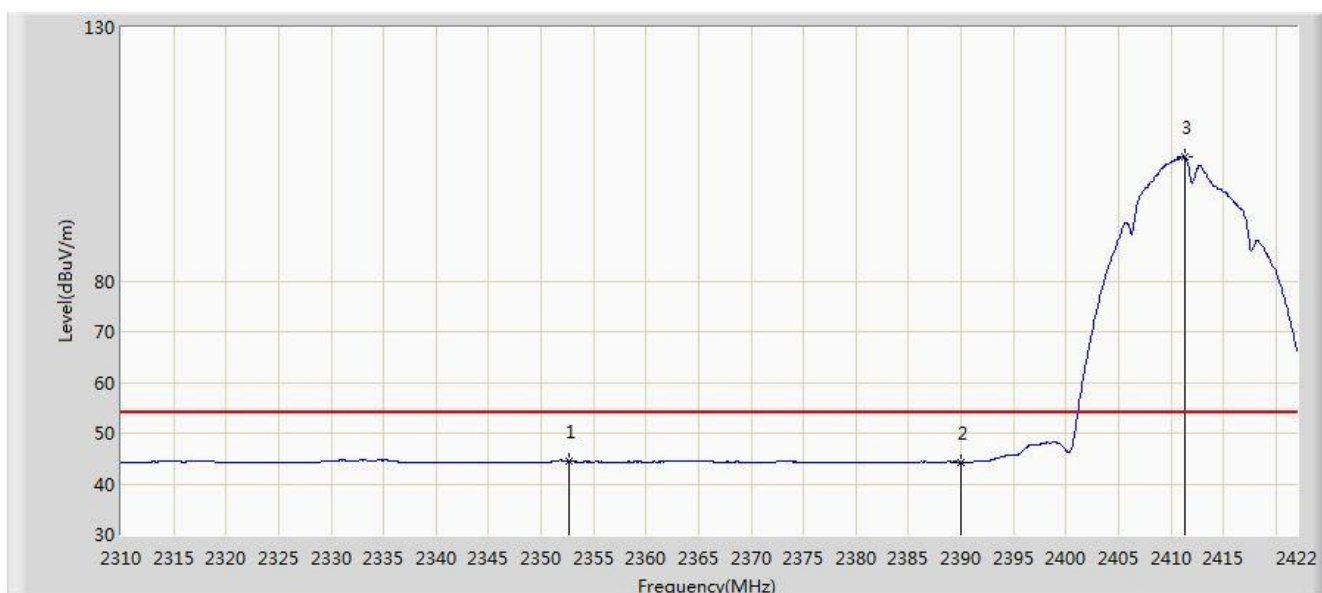


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2315.152	59.438	27.999	-14.562	74.000	31.439	PK
2			2390.000	57.655	26.452	-16.345	74.000	31.203	PK
3		*	2410.744	109.144	77.972	N/A	N/A	31.172	PK

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

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

Site: AC1	Time: 2015/12/07 - 18:04
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2412MHz	

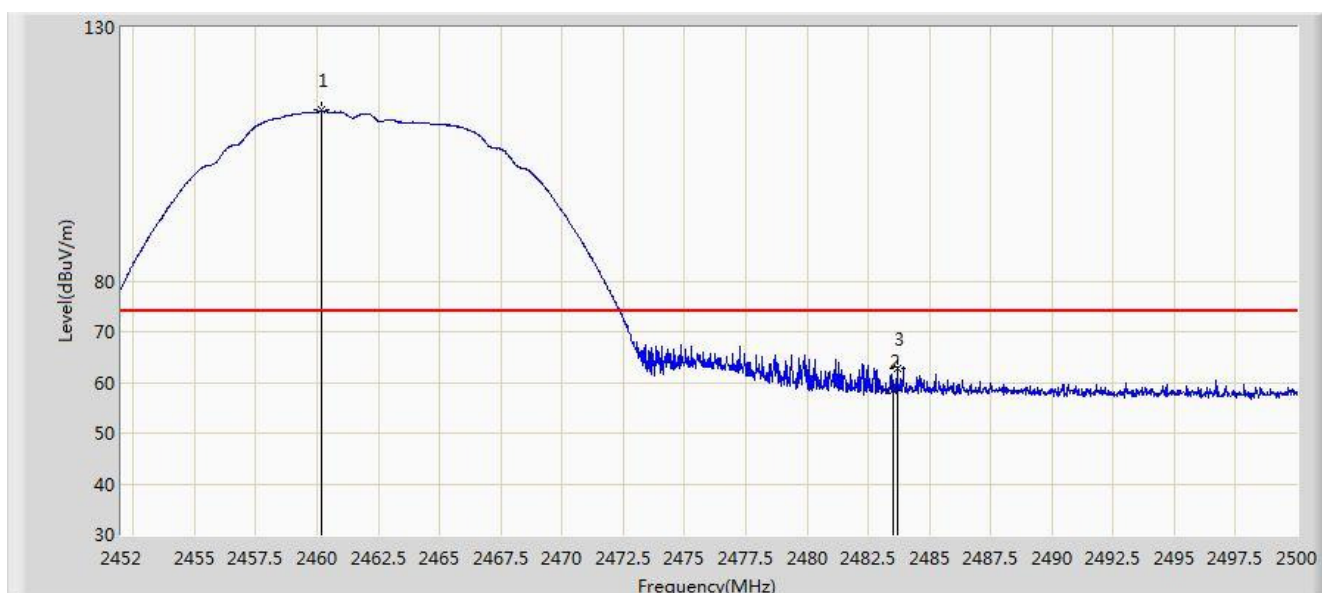


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2352.616	44.496	13.213	-9.504	54.000	31.283	AV
2			2390.000	44.340	13.137	-9.660	54.000	31.203	AV
3		*	2411.304	104.425	73.254	N/A	N/A	31.171	AV

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

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

Site: AC1	Time: 2015/12/07 - 18:29
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	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)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.184	113.708	82.576	N/A	N/A	31.132	PK
2			2483.500	58.293	27.100	-15.707	74.000	31.194	PK
3			2483.704	62.819	31.625	-11.181	74.000	31.194	PK

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

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

Site: AC1	Time: 2015/12/07 - 18:31
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	

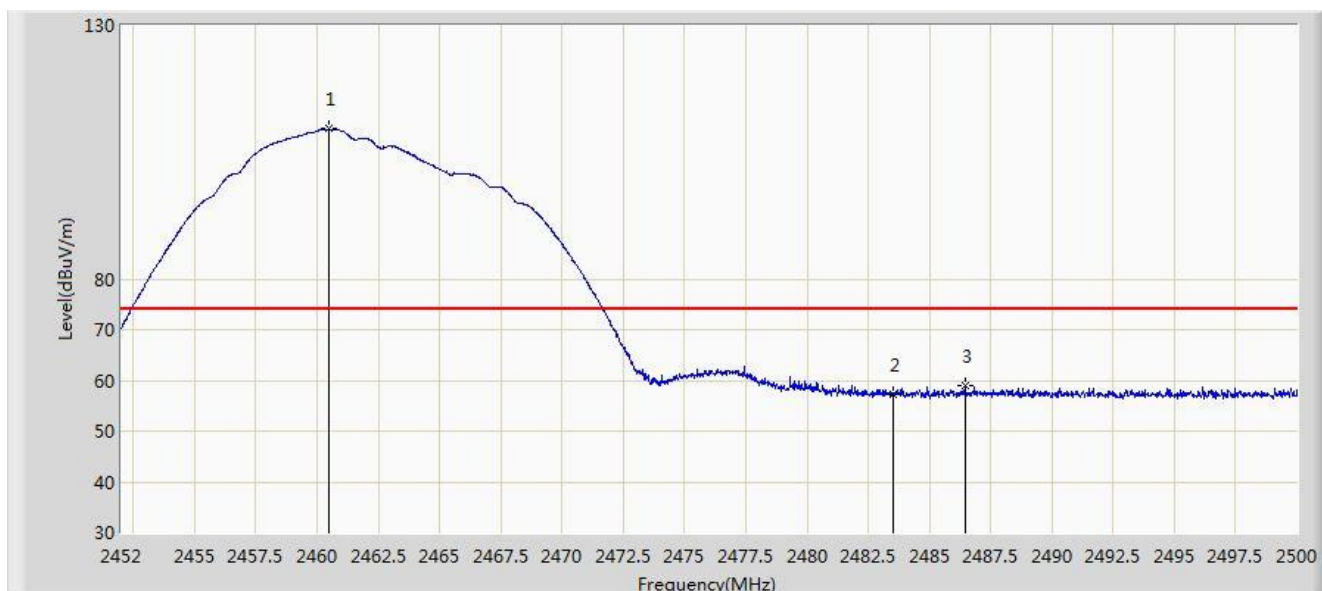


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2459.608	109.669	78.538	N/A	N/A	31.131	AV
2			2483.500	47.144	15.951	-6.856	54.000	31.194	AV
3			2487.208	47.388	16.185	-6.612	54.000	31.203	AV

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

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

Site: AC1	Time: 2015/12/07 - 18:36
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	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)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.496	109.821	78.688	N/A	N/A	31.133	PK
2			2483.500	57.275	26.082	-16.725	74.000	31.194	PK
3			2486.464	58.995	27.794	-15.005	74.000	31.201	PK

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

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

Site: AC1	Time: 2015/12/07 - 18:40
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at Channel 2462MHz	

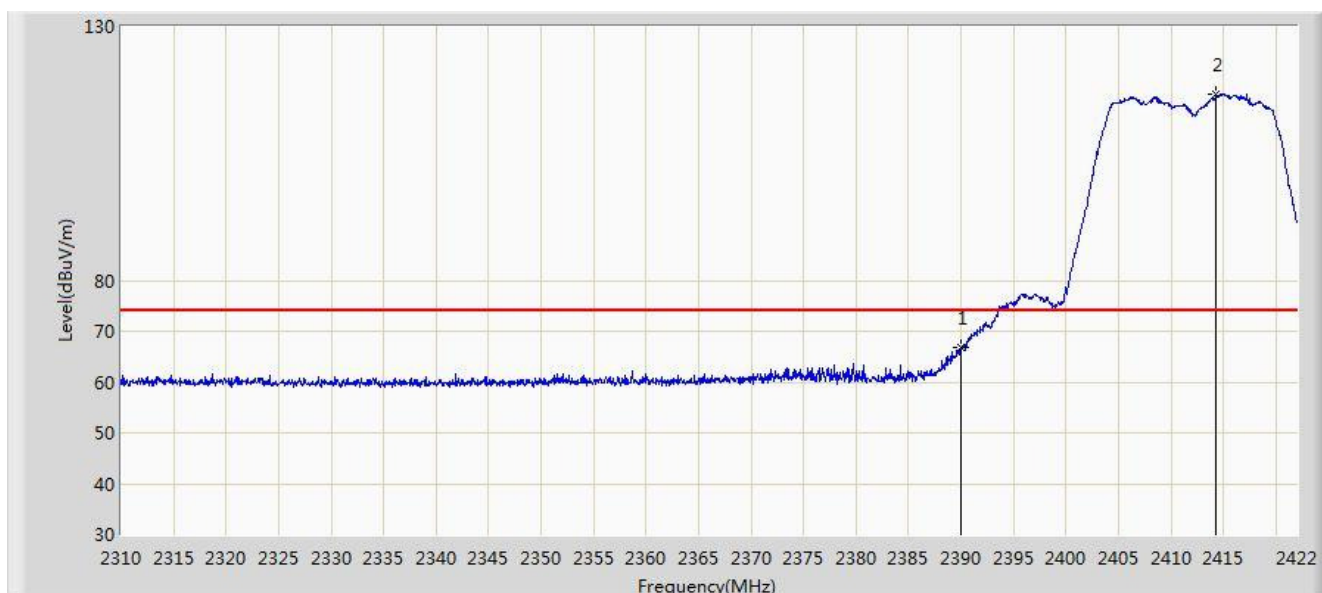


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.112	104.387	73.255	N/A	N/A	31.132	AV
2			2483.500	44.570	13.377	-9.430	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/12/07 - 18:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

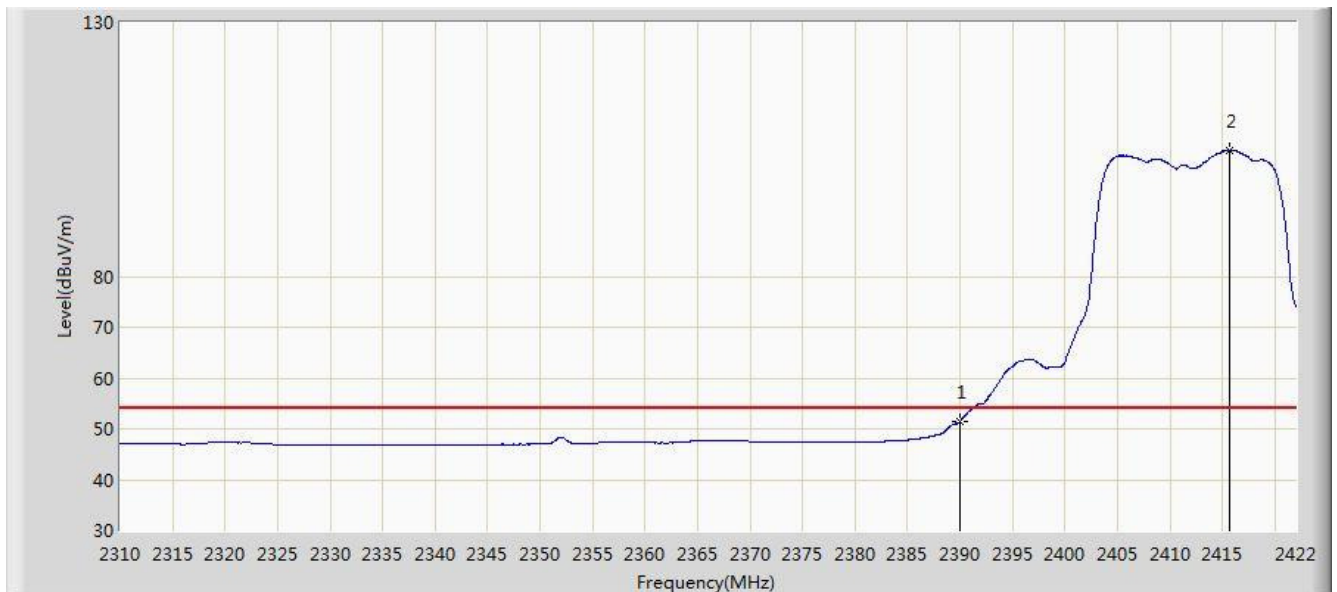


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	66.685	35.482	-7.315	74.000	31.203	PK
2		*	2414.272	116.596	85.430	N/A	N/A	31.166	PK

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

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

Site: AC1	Time: 2015/12/07 - 18:47
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

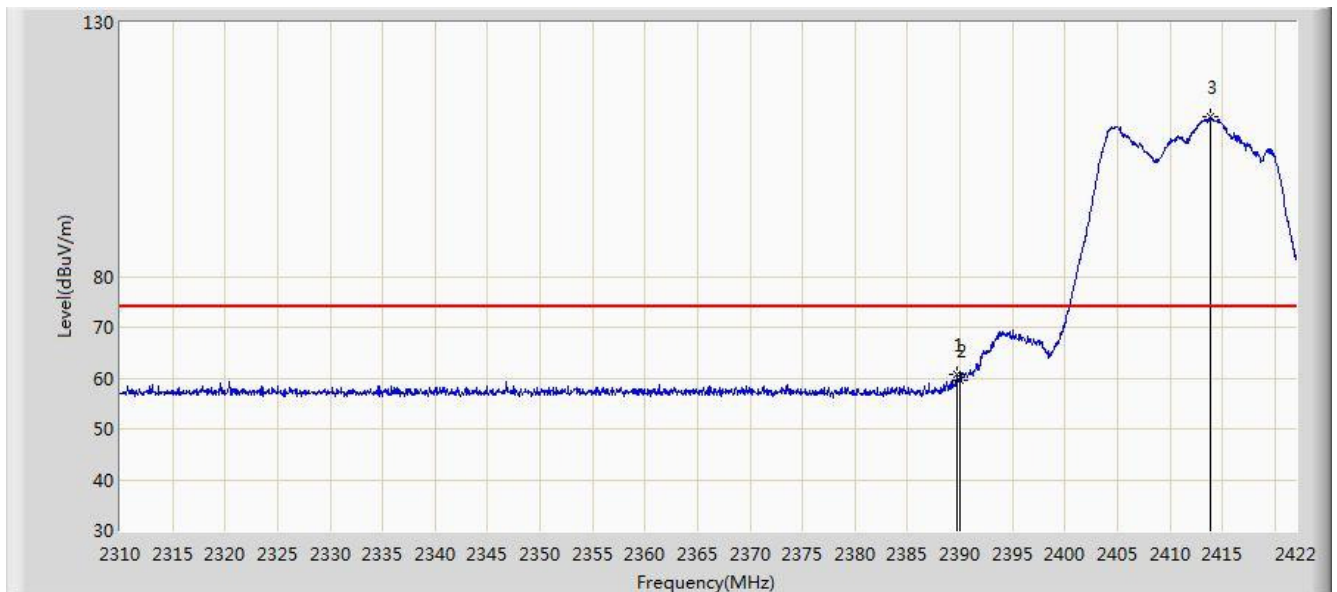


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.477	20.274	-2.523	54.000	31.203	AV
2		*	2415.672	104.805	73.642	N/A	N/A	31.163	AV

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

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

Site: AC1	Time: 2015/12/07 - 18:52
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

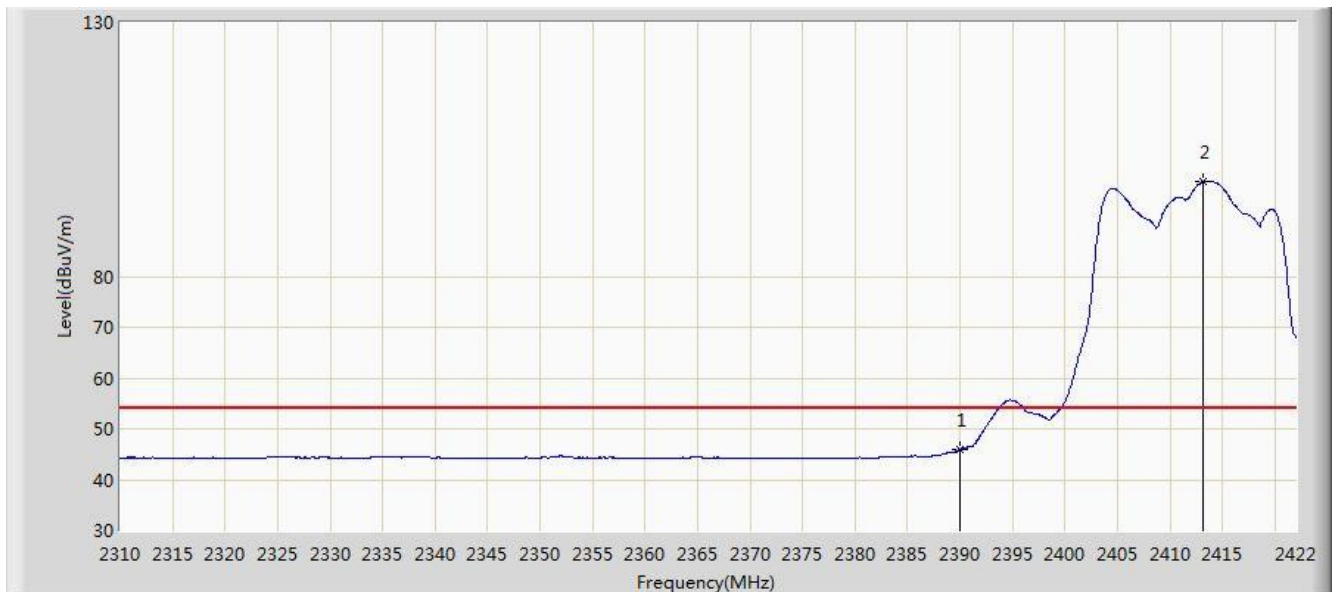


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.688	60.629	29.426	-13.371	74.000	31.204	PK
2			2390.000	59.704	28.501	-14.296	74.000	31.203	PK
3		*	2413.824	111.549	80.383	N/A	N/A	31.167	PK

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

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

Site: AC1	Time: 2015/12/07 - 18:54
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2412MHz	

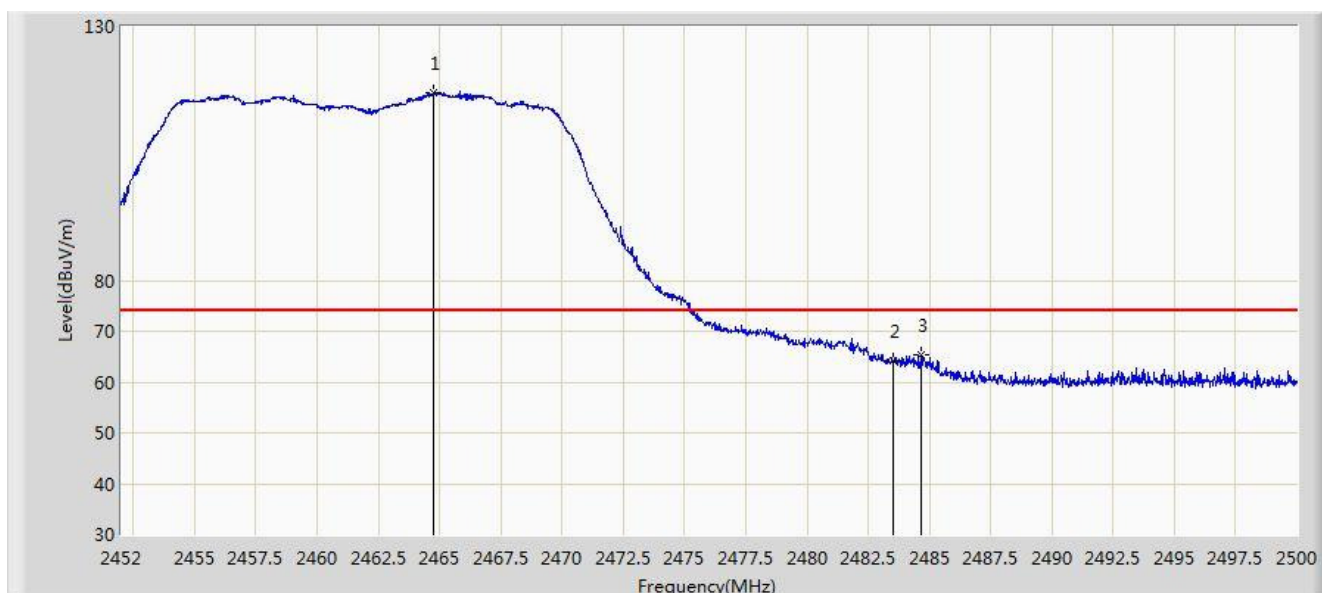


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.915	14.712	-8.085	54.000	31.203	AV
2		*	2413.208	98.807	67.640	N/A	N/A	31.167	AV

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

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

Site: AC1	Time: 2015/12/07 - 18:58
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

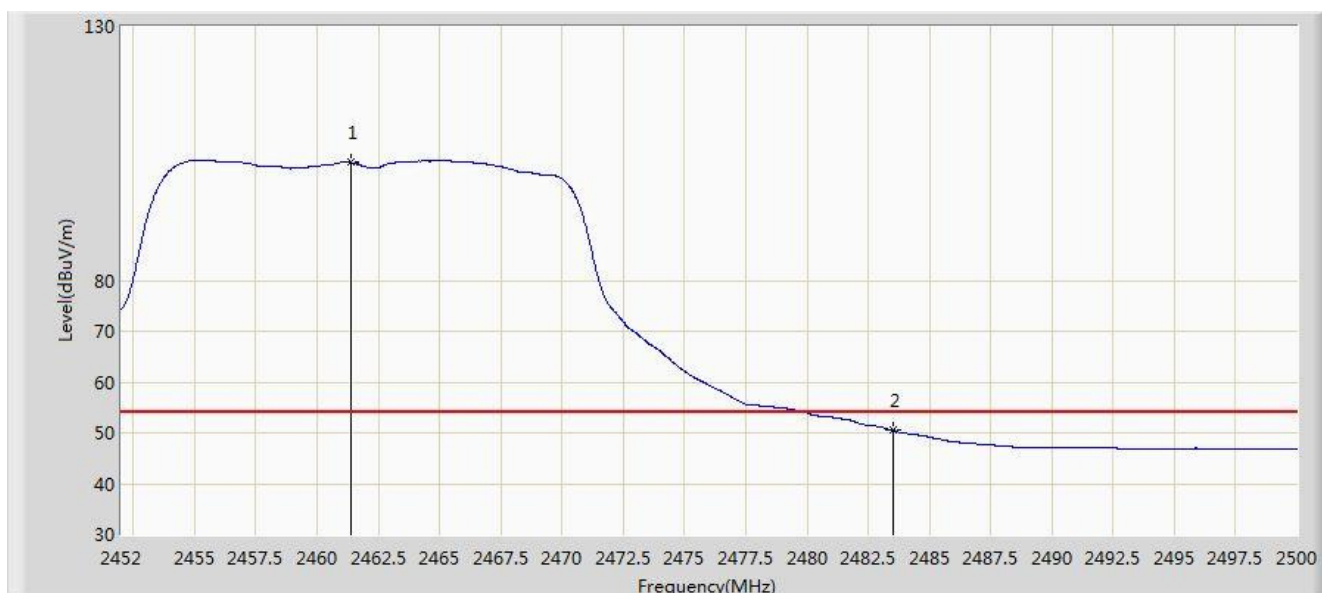


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.768	116.861	85.719	N/A	N/A	31.142	PK
2			2483.500	64.078	32.885	-9.922	74.000	31.194	PK
3			2484.664	65.463	34.267	-8.537	74.000	31.197	PK

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

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

Site: AC1	Time: 2015/12/07 - 19:01
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

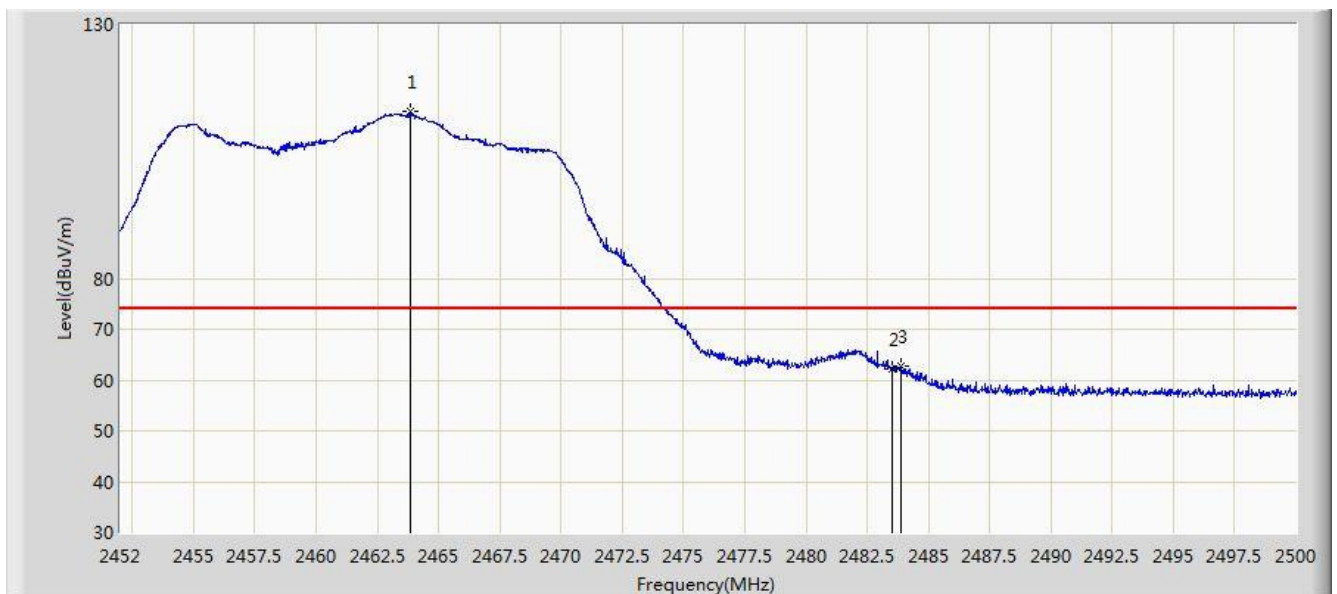


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.384	103.227	72.093	N/A	N/A	31.134	AV
2			2483.500	50.568	19.375	-3.432	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/12/07 - 19:03
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

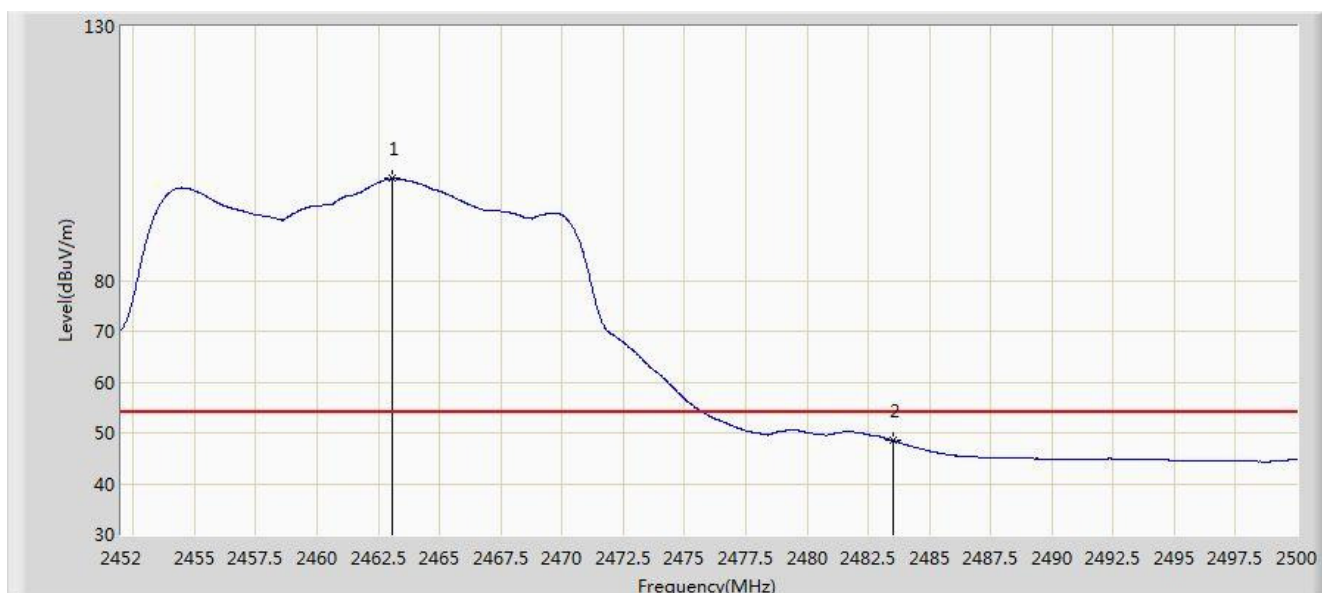


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.832	112.792	81.653	N/A	N/A	31.139	PK
2			2483.500	62.258	31.065	-11.742	74.000	31.194	PK
3			2483.896	62.656	31.462	-11.344	74.000	31.194	PK

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

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

Site: AC1	Time: 2015/12/07 - 19:07
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11g at Channel 2462MHz	

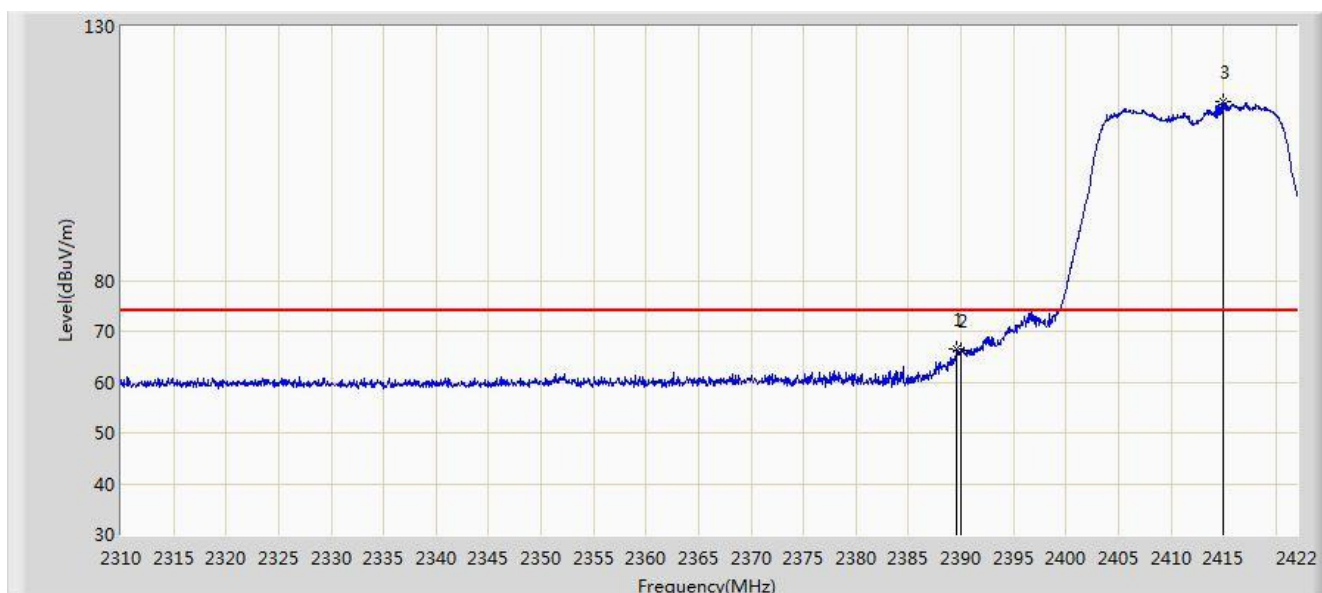


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.088	100.004	68.867	N/A	N/A	31.137	AV
2			2483.500	48.475	17.282	-5.525	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/12/07 - 19:15
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

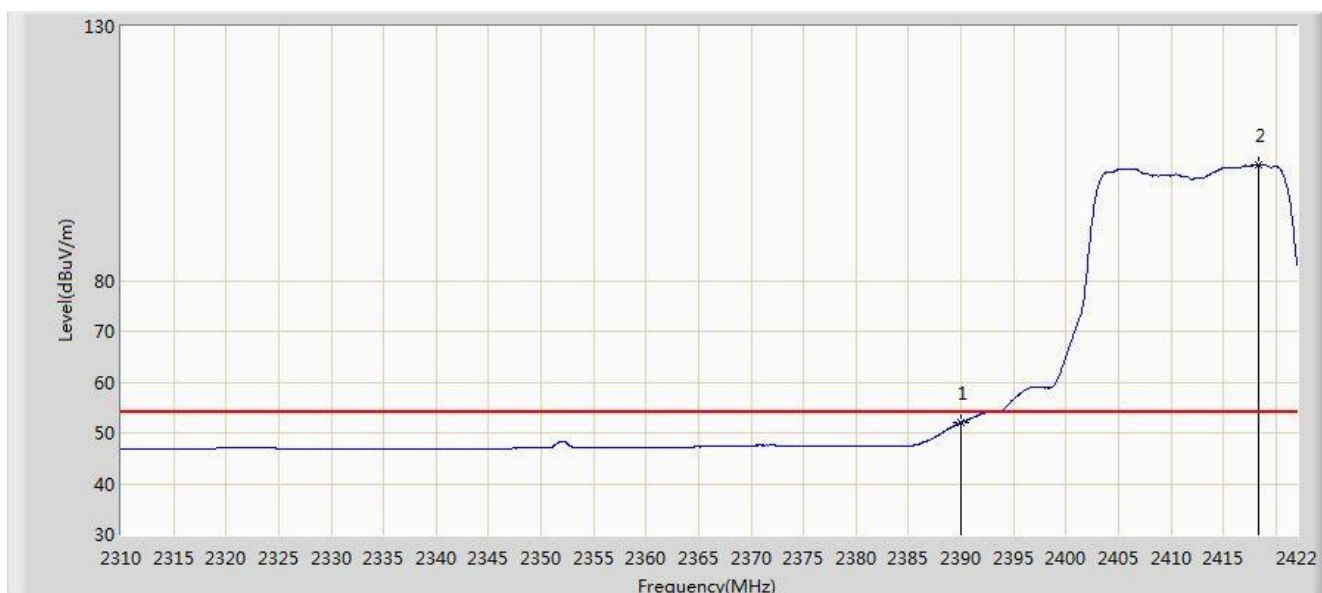


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.632	66.532	35.329	-7.468	74.000	31.204	PK
2			2390.000	66.229	35.026	-7.771	74.000	31.203	PK
3		*	2415.000	115.215	84.051	N/A	N/A	31.165	PK

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

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

Site: AC1	Time: 2015/12/07 - 19:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

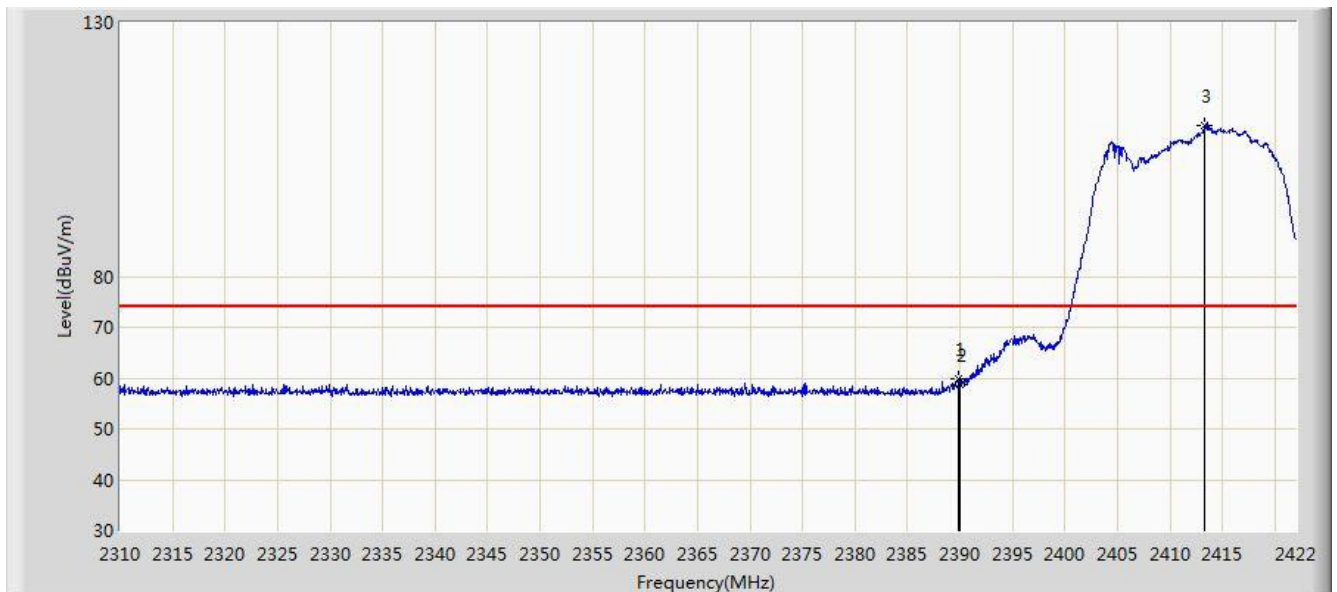


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.998	20.795	-2.002	54.000	31.203	AV
2		*	2418.304	102.691	71.532	N/A	N/A	31.159	AV

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

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

Site: AC1	Time: 2015/12/07 - 19:27
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

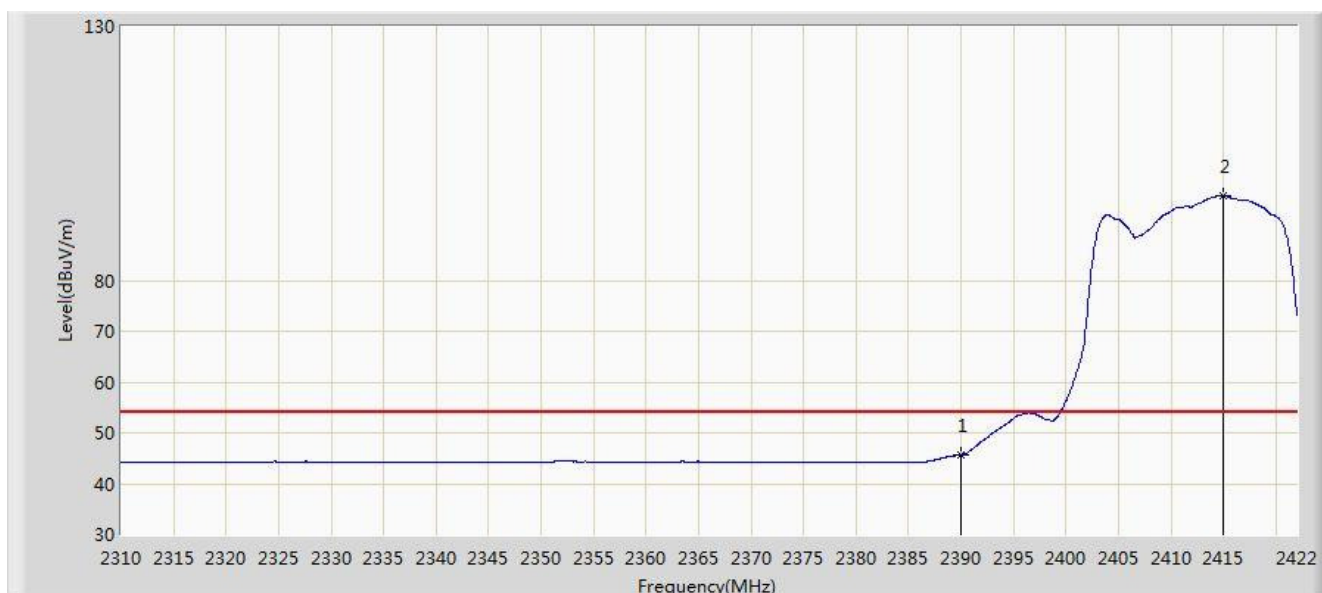


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.912	59.882	28.679	-14.118	74.000	31.203	PK
2			2390.000	58.748	27.545	-15.252	74.000	31.203	PK
3		*	2413.320	109.754	78.587	N/A	N/A	31.168	PK

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

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

Site: AC1	Time: 2015/12/07 - 19:31
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2412MHz	

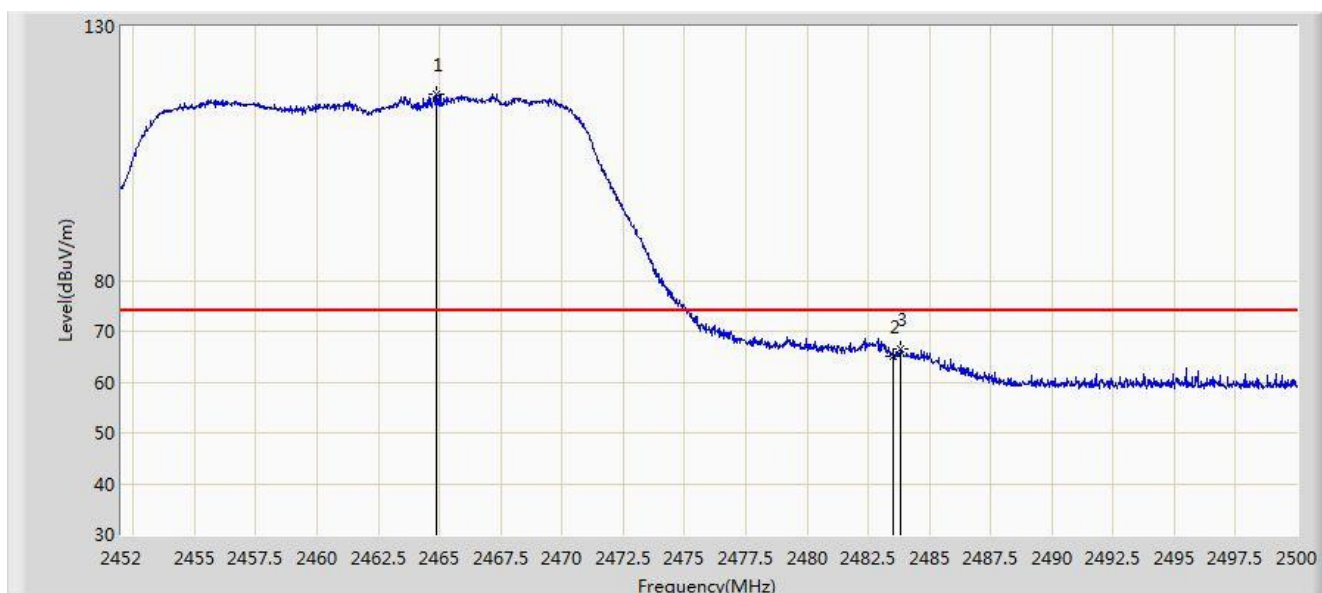


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.661	14.458	-8.339	54.000	31.203	AV
2		*	2415.000	96.756	65.592	N/A	N/A	31.165	AV

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

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

Site: AC1	Time: 2015/12/07 - 19:48
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

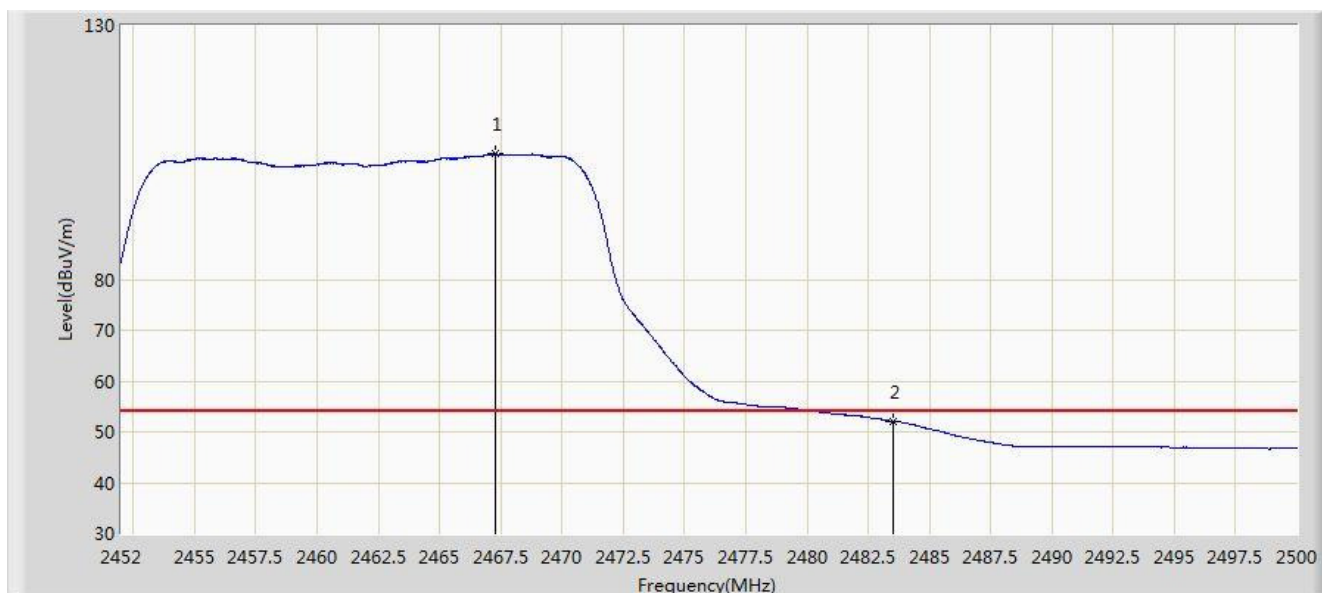


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.864	116.664	85.522	N/A	N/A	31.142	PK
2			2483.500	65.185	33.992	-8.815	74.000	31.194	PK
3			2483.824	66.410	35.216	-7.590	74.000	31.194	PK

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

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

Site: AC1	Time: 2015/12/07 - 19:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

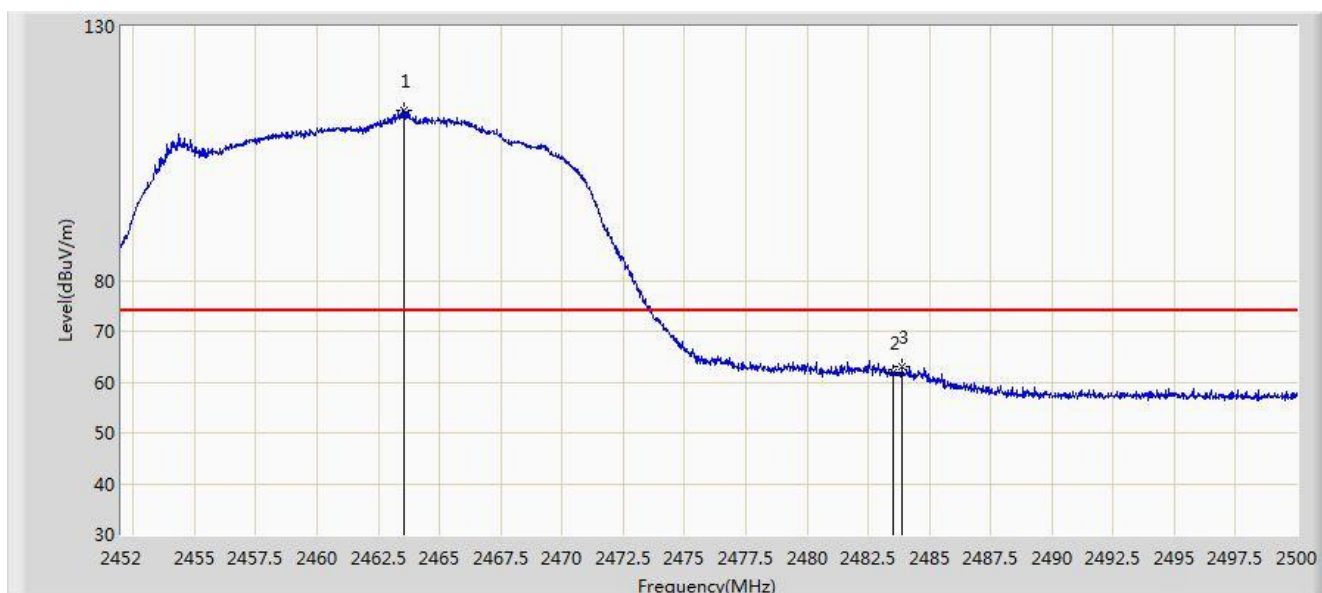


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2467.288	104.690	73.541	N/A	N/A	31.148	AV
2			2483.500	52.139	20.946	-1.861	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/12/07 - 19:49
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

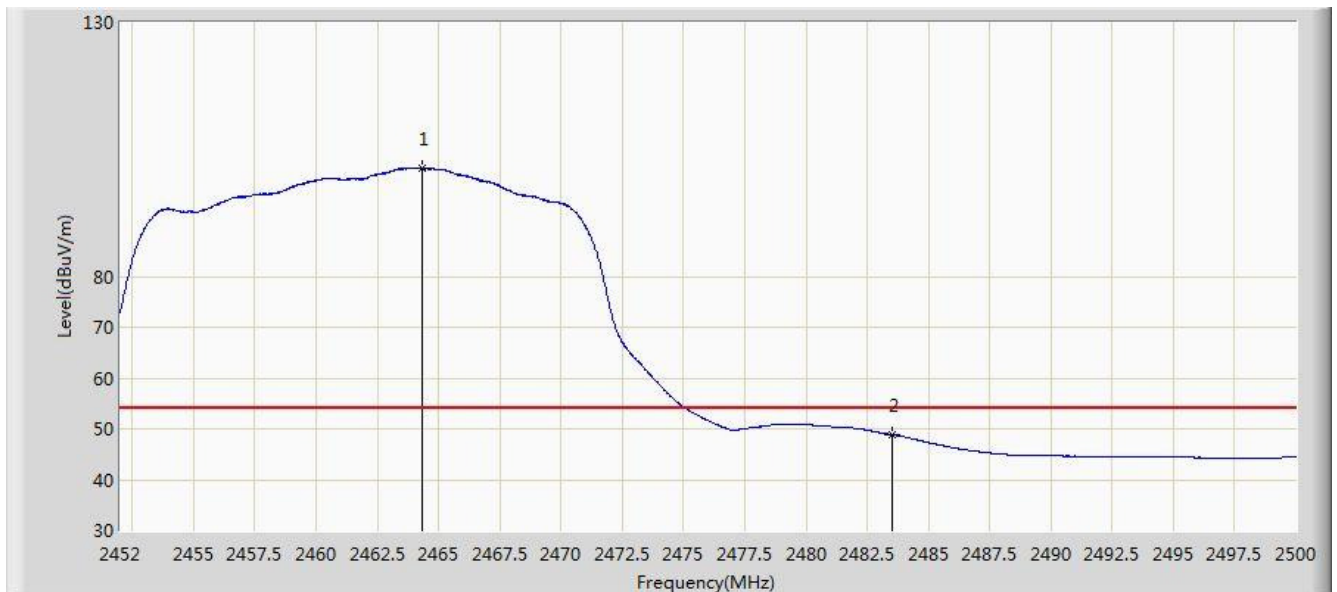


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.544	113.482	82.344	N/A	N/A	31.139	PK
2			2483.500	61.832	30.639	-12.168	74.000	31.194	PK
3			2483.872	62.917	31.723	-11.083	74.000	31.194	PK

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

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

Site: AC1	Time: 2015/12/07 - 19:52
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT20 at Channel 2462MHz	

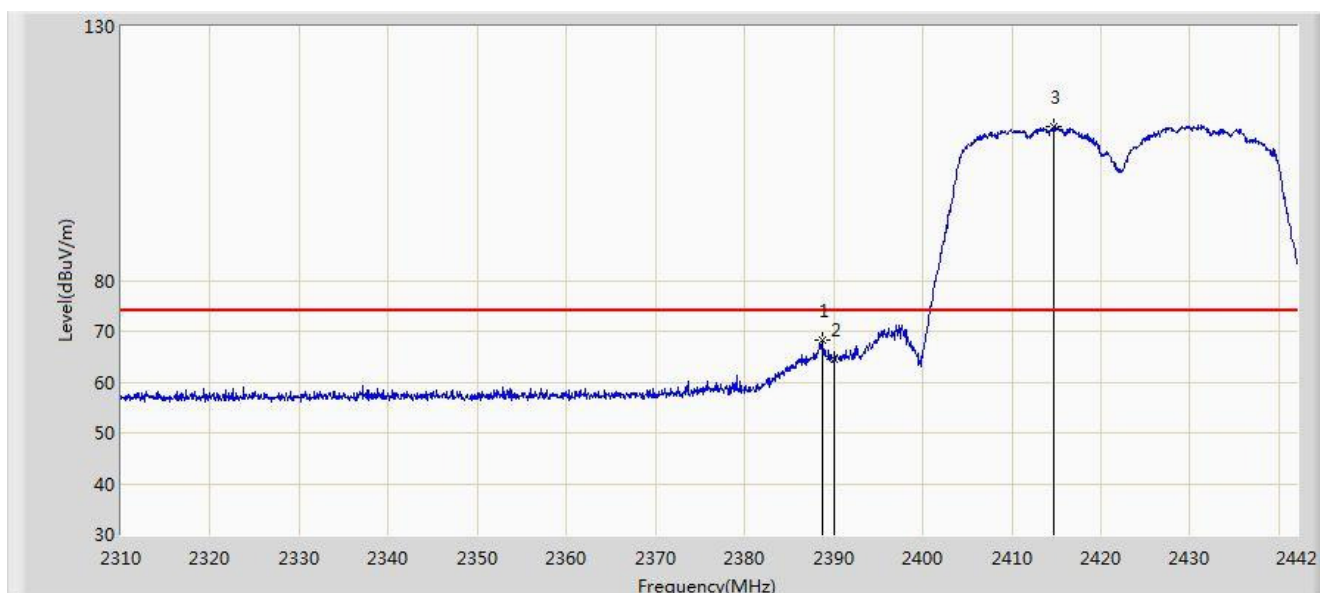


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.360	101.286	70.146	N/A	N/A	31.140	AV
2			2483.500	48.912	17.719	-5.088	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/12/07 - 20:40
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz	

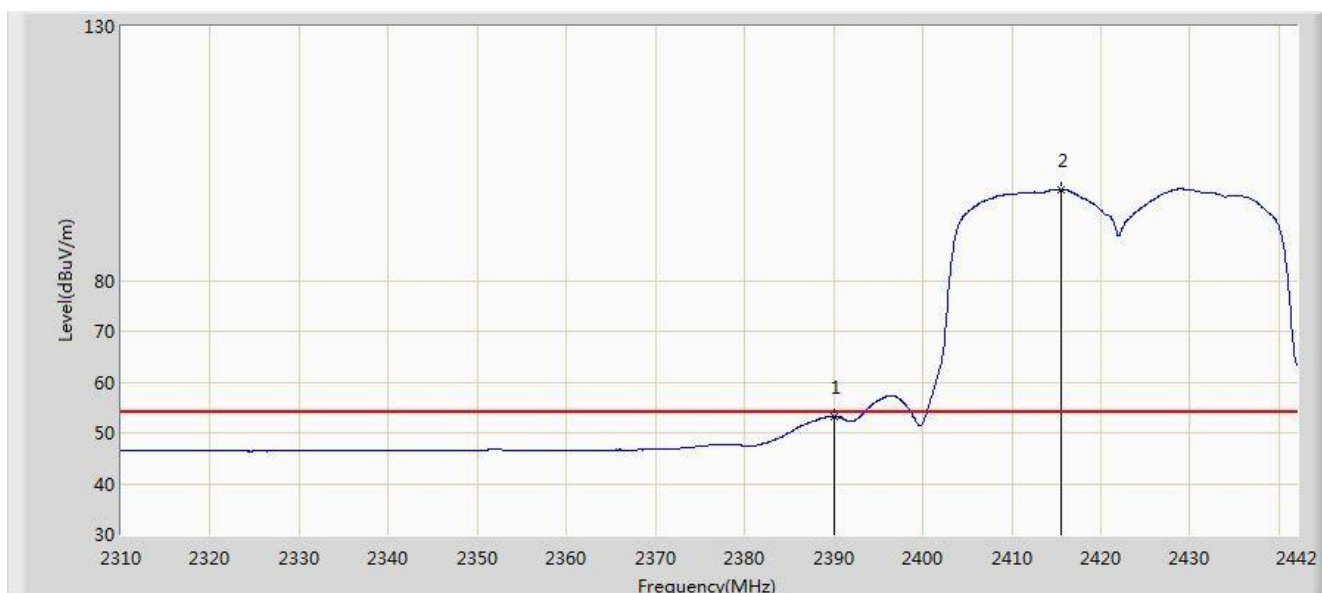


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.738	68.389	37.184	-5.611	74.000	31.205	PK
2			2390.000	64.450	33.247	-9.550	74.000	31.203	PK
3		*	2414.742	110.245	79.080	N/A	N/A	31.164	PK

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

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

Site: AC1	Time: 2015/12/07 - 20:36
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz	

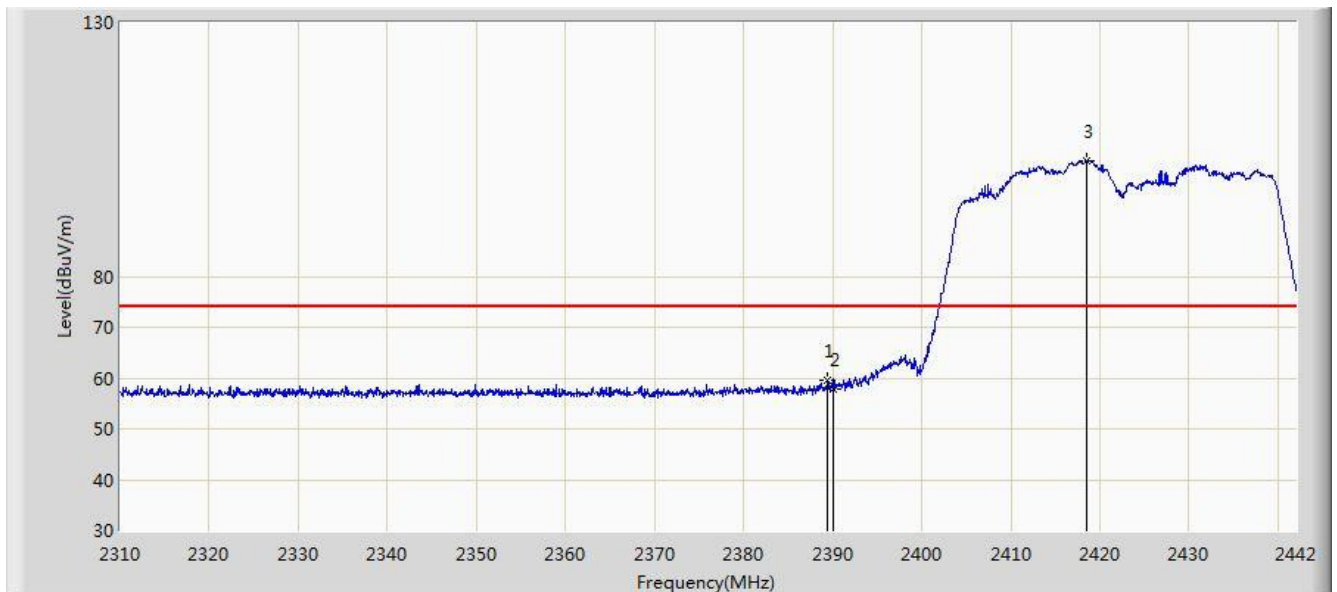


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	53.173	21.970	-0.827	54.000	31.203	AV
2		*	2415.468	97.934	66.770	N/A	N/A	31.164	AV

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

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

Site: AC1	Time: 2015/12/07 - 20:42
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2422MHz	

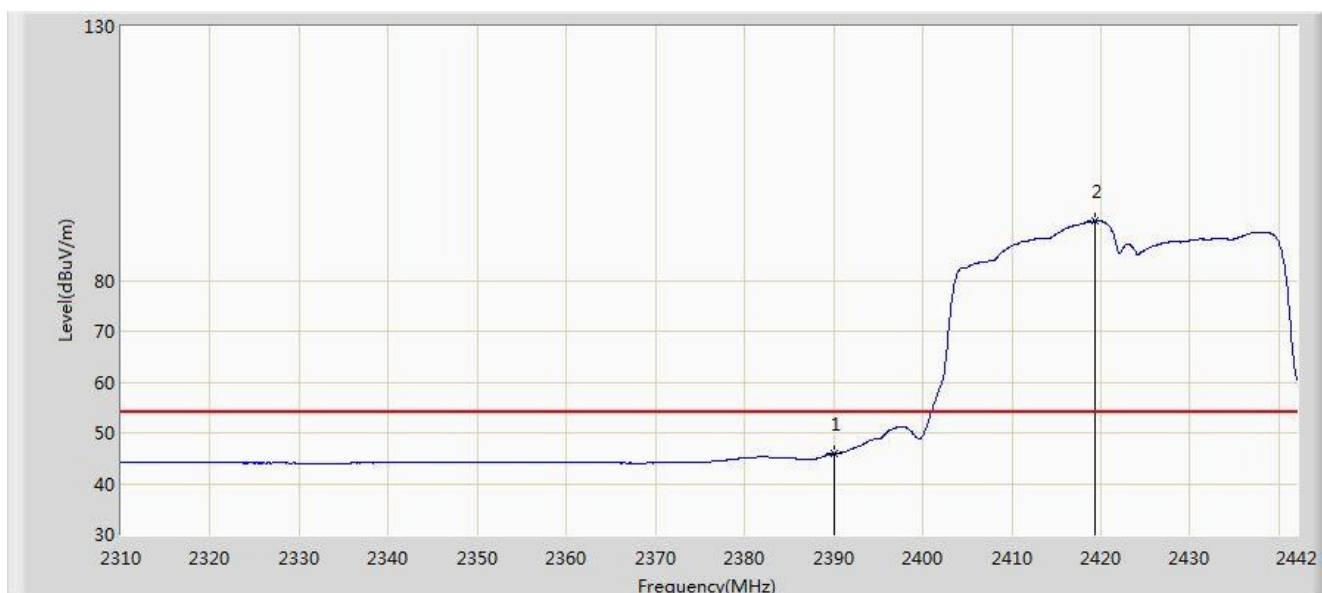


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.464	59.691	28.487	-14.309	74.000	31.204	PK
2			2390.000	57.864	26.661	-16.136	74.000	31.203	PK
3		*	2418.570	102.874	71.716	N/A	N/A	31.158	PK

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

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

Site: AC1	Time: 2015/12/07 - 20:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	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)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.874	14.671	-8.126	54.000	31.203	AV
2		*	2419.362	91.624	60.467	N/A	N/A	31.156	AV

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

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

Site: AC1	Time: 2015/12/07 - 21:04
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz	

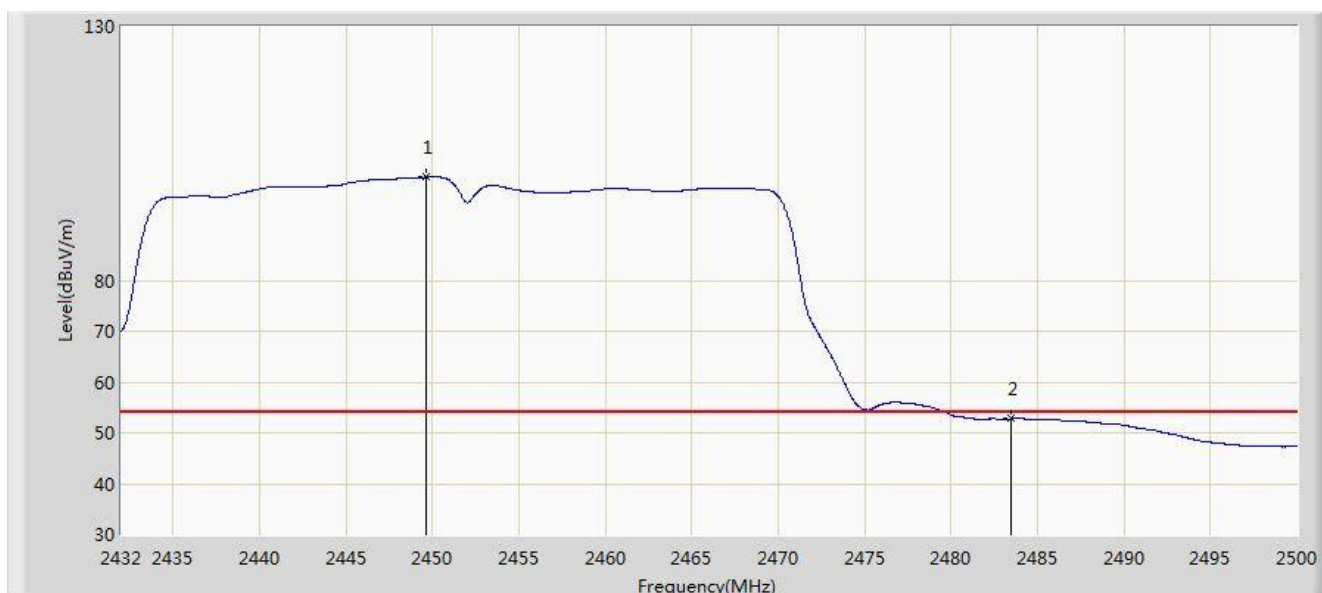


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2448.898	113.078	81.966	N/A	N/A	31.112	PK
2			2483.500	65.026	33.833	-8.974	74.000	31.194	PK
3			2487.624	67.206	36.002	-6.794	74.000	31.204	PK

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

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

Site: AC1	Time: 2015/12/07 - 21:02
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Gateway	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)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2449.646	100.346	69.233	N/A	N/A	31.113	AV
2			2483.500	52.758	21.565	-1.242	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/12/07 - 21:06
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11n-HT40 at Channel 2452MHz	

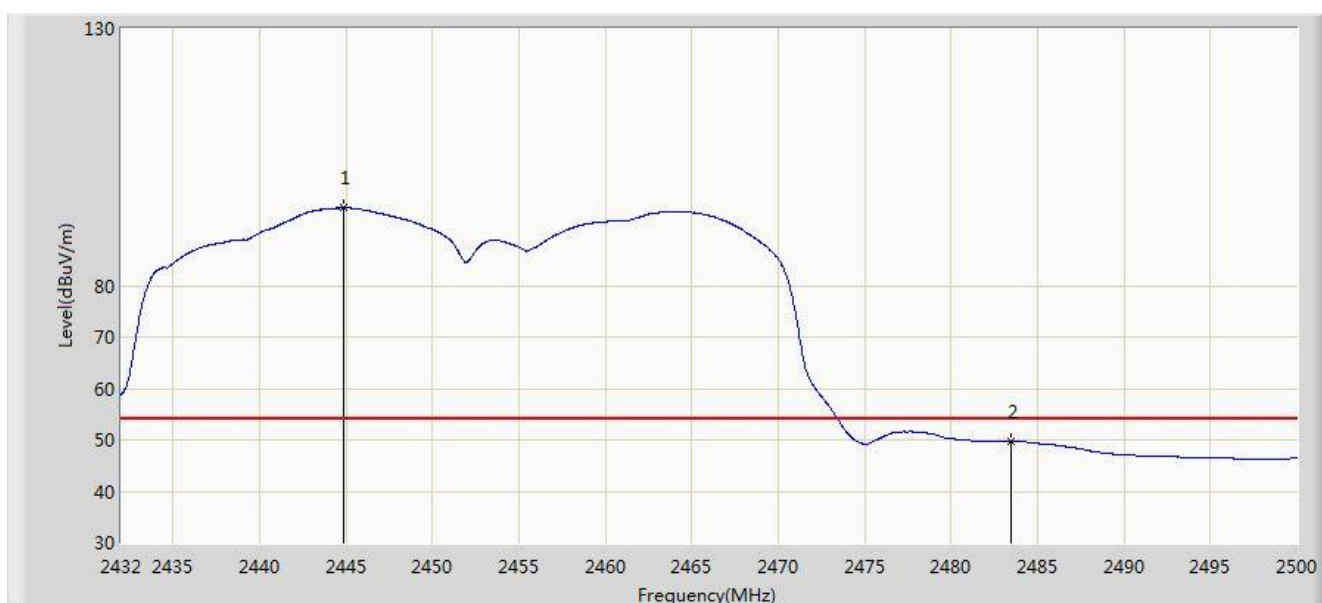


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2443.424	107.567	76.455	N/A	N/A	31.112	PK
2			2483.500	61.035	29.842	-12.965	74.000	31.194	PK
3			2483.782	62.623	31.429	-11.377	74.000	31.194	PK

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

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

Site: AC1	Time: 2015/12/07 - 21:07
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Gateway	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)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2444.852	95.111	64.002	N/A	N/A	31.109	AV
2			2483.500	49.707	18.514	-4.293	54.000	31.194	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

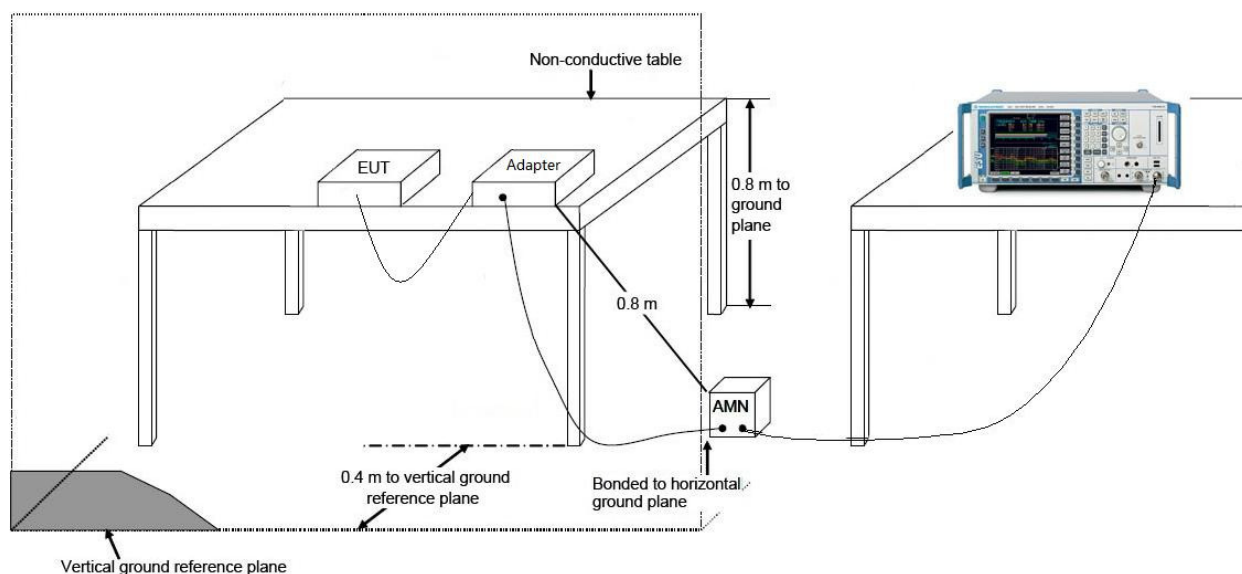
7.8.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBuV)	AV (dBuV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

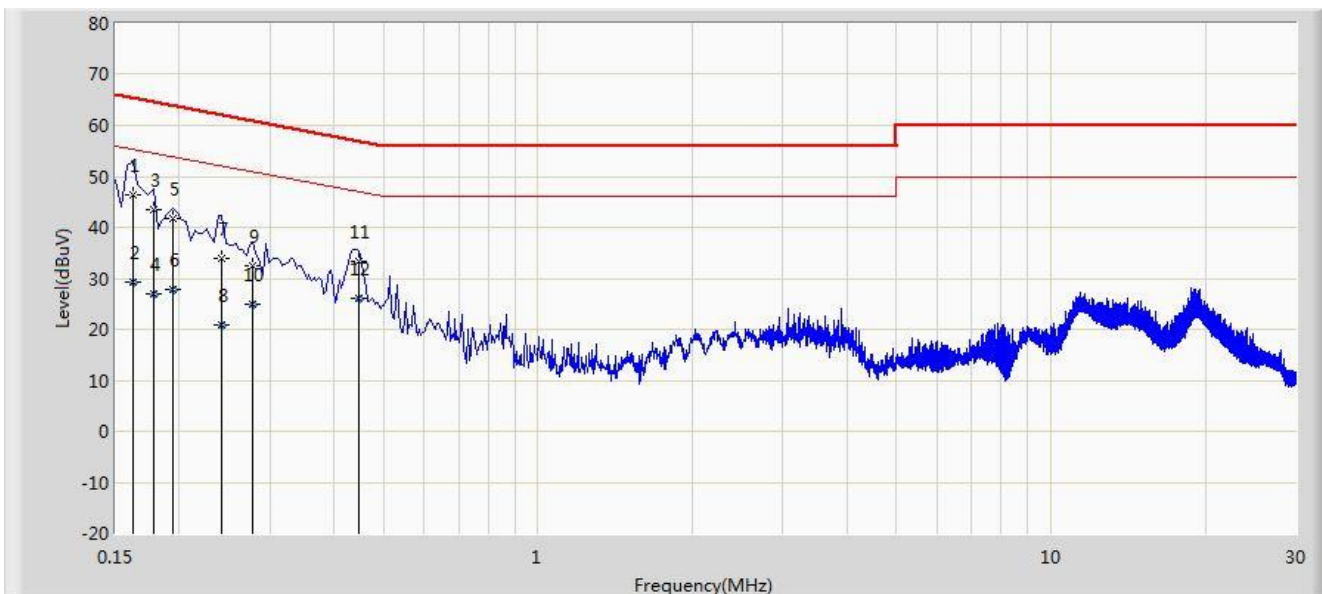
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3. Test Result

Site: SR2	Time: 2015/12/16 - 11:38
Limit: FCC_Part15.207_CE_AC Power	Engineer: Vince Yu
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Gateway	Power: AC 120V/60Hz
Note: Mode 1	

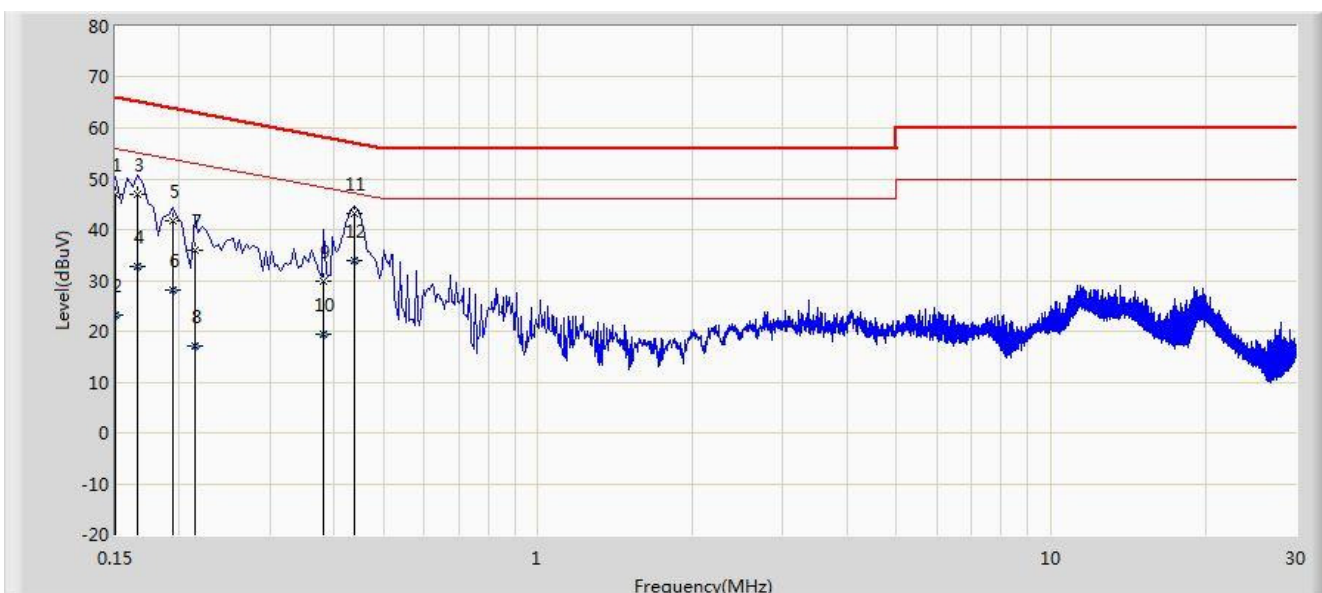


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		*	0.162	46.232	36.135	-19.129	65.361	10.097	QP
2			0.162	29.373	19.276	-25.988	55.361	10.097	AV
3			0.178	43.572	33.514	-21.006	64.578	10.058	QP
4			0.178	27.063	17.005	-27.516	54.578	10.058	AV
5			0.194	41.708	31.691	-22.156	63.864	10.017	QP
6			0.194	27.831	17.814	-26.032	53.864	10.017	AV
7			0.242	33.849	23.892	-28.178	62.027	9.958	QP
8			0.242	20.759	10.801	-31.269	52.027	9.958	AV
9			0.278	32.468	22.482	-28.407	60.875	9.986	QP
10			0.278	25.030	15.043	-25.846	50.875	9.986	AV
11			0.446	33.267	23.144	-23.683	56.949	10.123	QP
12			0.446	26.162	16.039	-20.787	46.949	10.123	AV

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

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

Site: SR2	Time: 2015/12/16 - 11:45
Limit: FCC_Part15.207_CE_AC Power	Engineer: Vince Yu
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Gateway	Power: AC 120V/60Hz
Note: Mode 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.150	46.826	35.684	-19.174	66.000	11.142	QP
2			0.150	23.259	12.117	-32.741	56.000	11.142	AV
3			0.166	46.840	36.769	-18.318	65.158	10.071	QP
4			0.166	32.849	22.778	-22.309	55.158	10.071	AV
5			0.194	41.667	31.646	-22.196	63.864	10.021	QP
6			0.194	28.226	18.204	-25.638	53.864	10.021	AV
7			0.214	35.951	25.963	-27.098	63.049	9.988	QP
8			0.214	17.231	7.243	-35.818	53.049	9.988	AV
9			0.382	29.814	19.715	-28.422	58.236	10.099	QP
10			0.382	19.281	9.182	-28.955	48.236	10.099	AV
11			0.438	43.260	33.119	-13.840	57.100	10.141	QP
12		*	0.438	33.905	23.764	-13.195	47.100	10.141	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 the **Gateway FCC ID:**

H8N-RG8000W is in compliance with Part 15C of the FCC Rules.