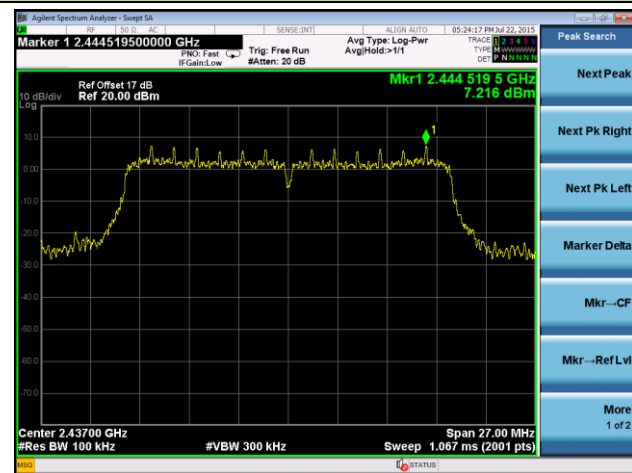


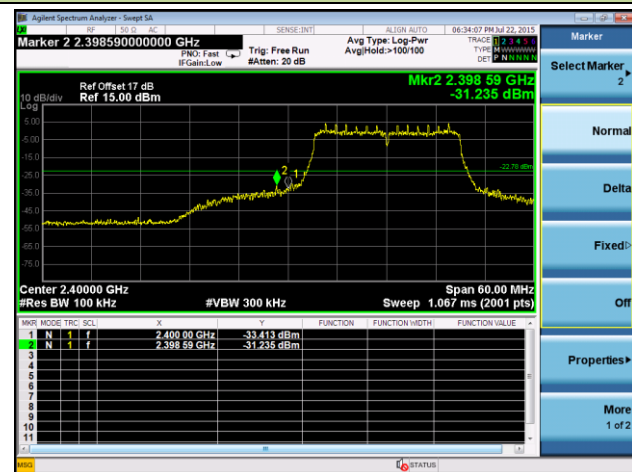
802.11n-HT20 Out-of-Band Emissions - Ant 0 / Ant 0 + 1

100kHz PSD Reference Level

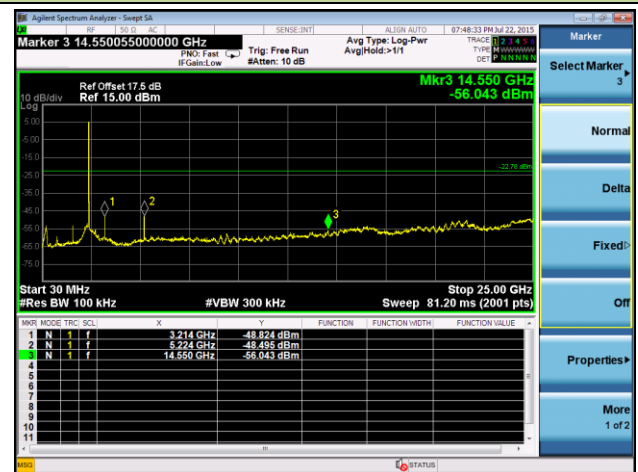


Channel 01 (2412MHz)

Low Band Edge

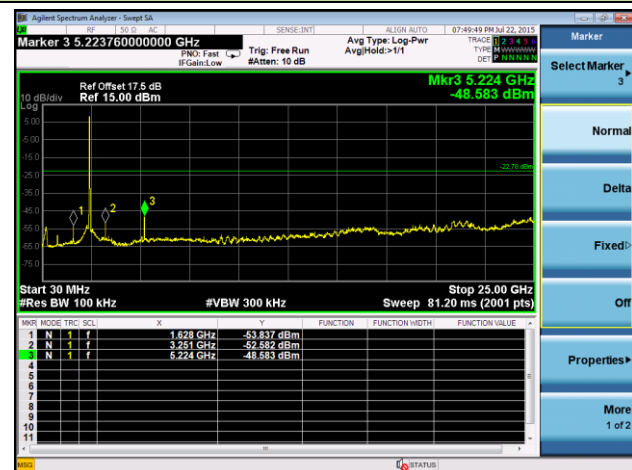


Spurious Emission



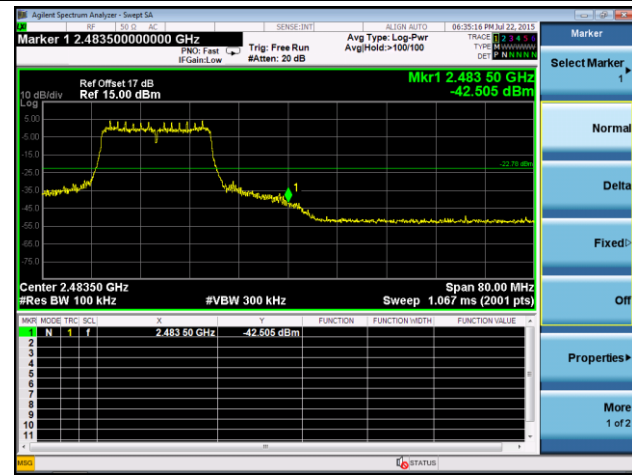
Channel 06 (2437MHz)

Spurious Emission

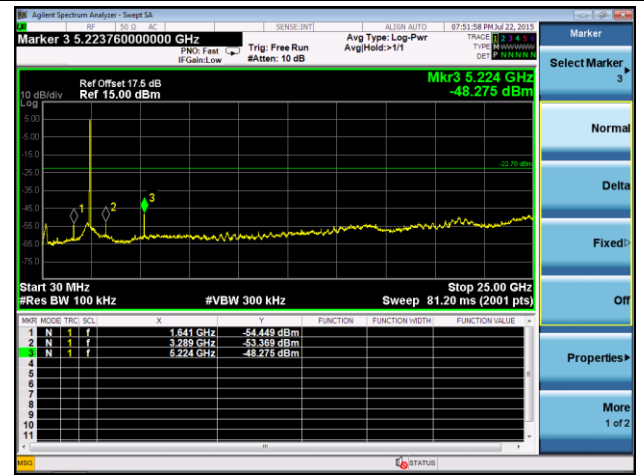


Channel 11 (2462MHz)

High Band Edge

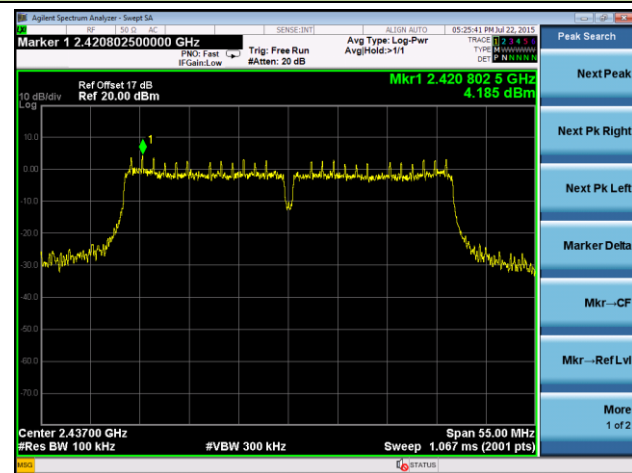


Spurious Emission



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

100kHz PSD Reference Level

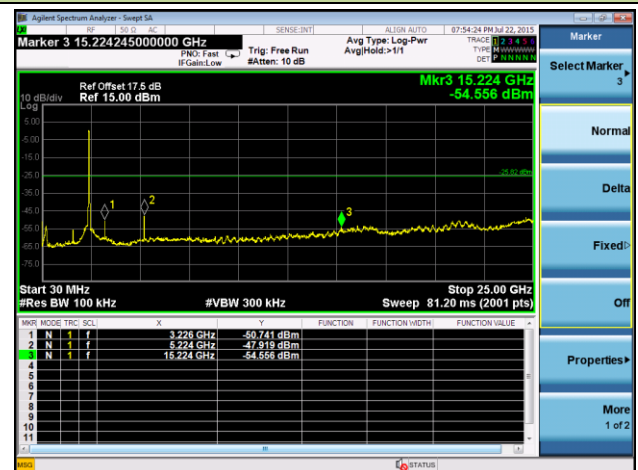


Channel 03 (2422MHz)

Low Band Edge

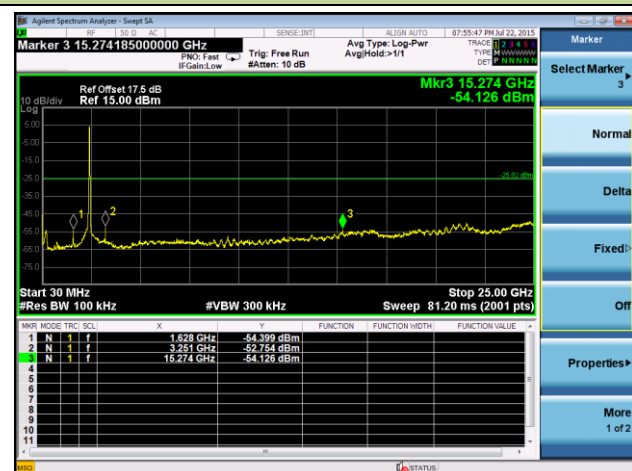


Spurious Emission



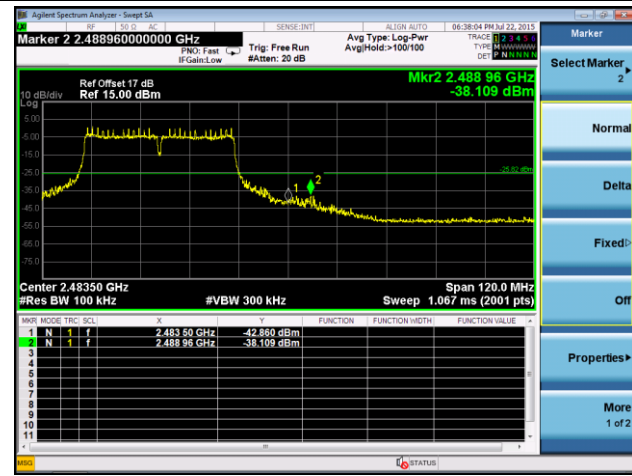
Channel 06 (2437MHz)

Spurious Emission

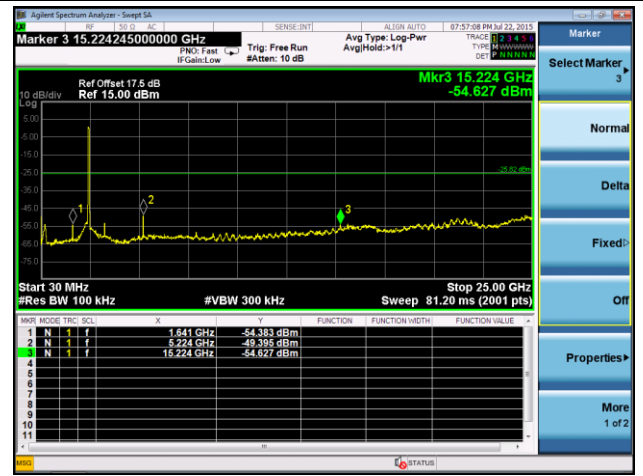


Channel 09 (2452MHz)

High Band Edge



Spurious Emission



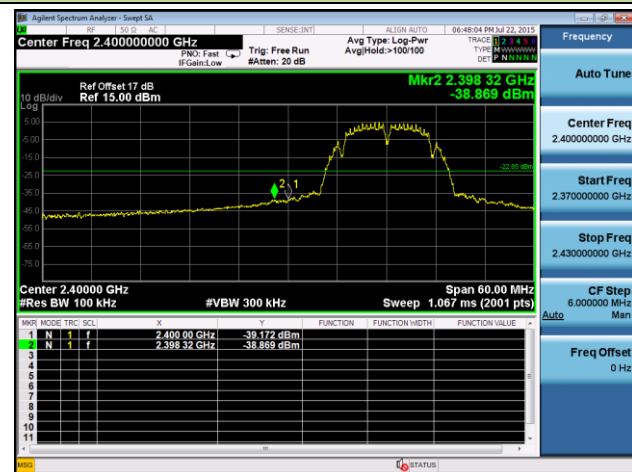
802.11b Out-of-Band Emissions - Ant 1 / Ant 0 + 1

100kHz PSD Reference Level

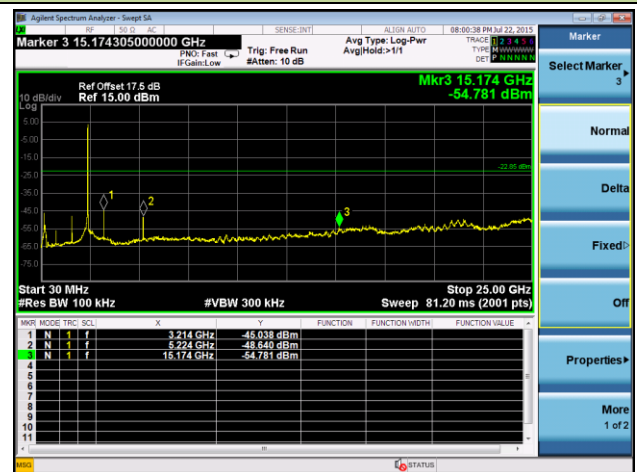


Channel 01 (2412MHz)

Low Band Edge

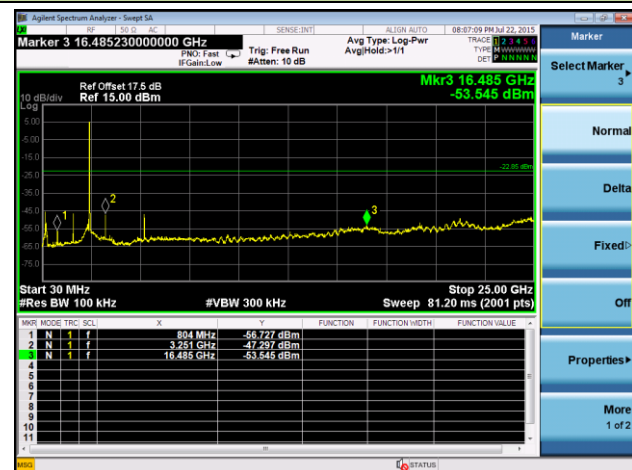


Spurious Emission



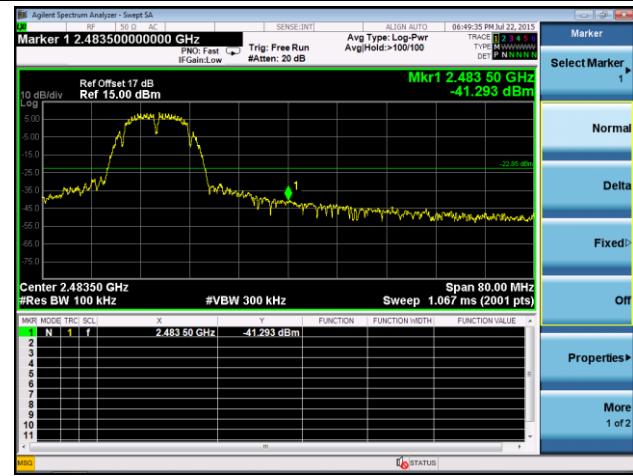
Channel 06 (2437MHz)

Spurious Emission

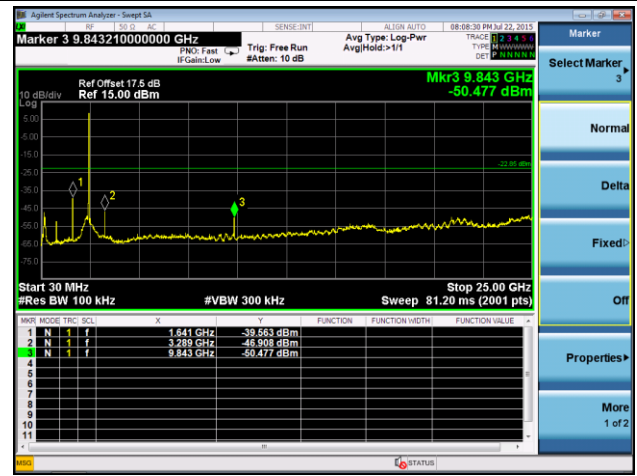


Channel 11 (2462MHz) - Ant 1 / Ant 0 + 1

High Band Edge

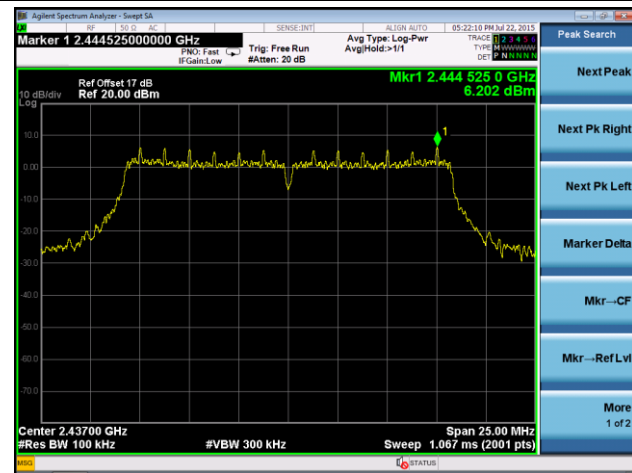


Spurious Emission



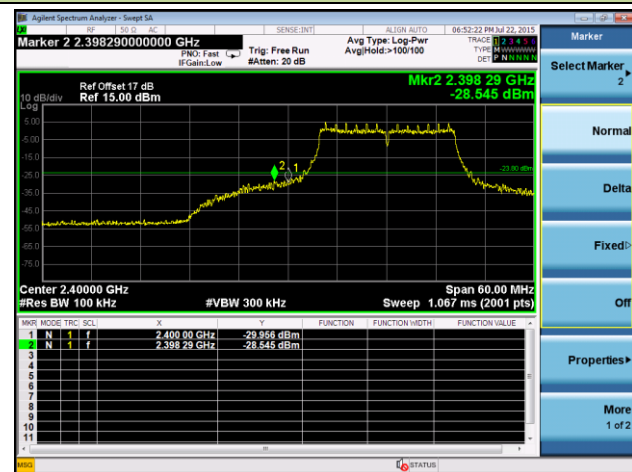
802.11g Out-of-Band Emissions - Ant 1 / Ant 0 + 1

100kHz PSD Reference Level

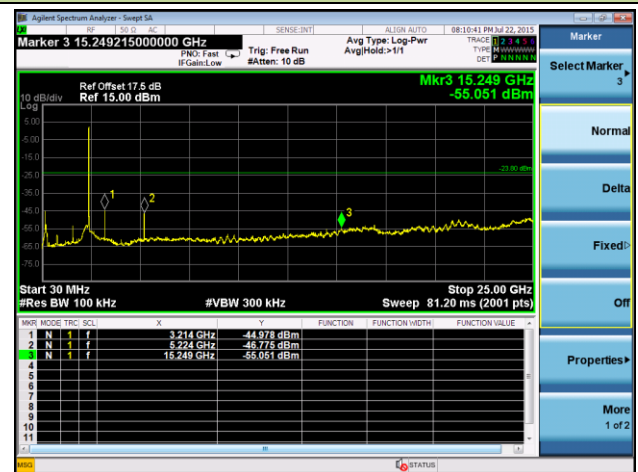


Channel 01 (2412MHz)

Low Band Edge

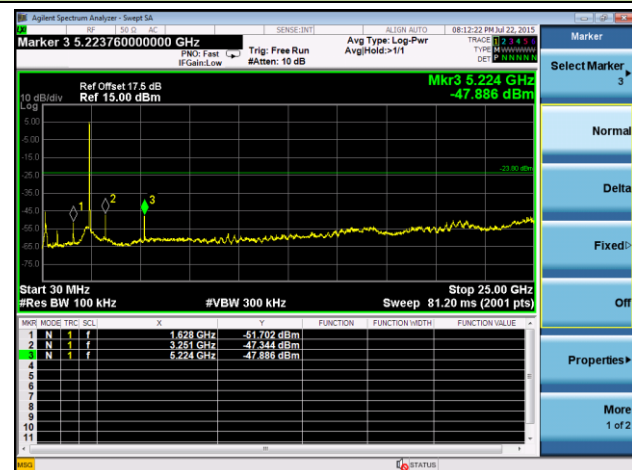


Spurious Emission



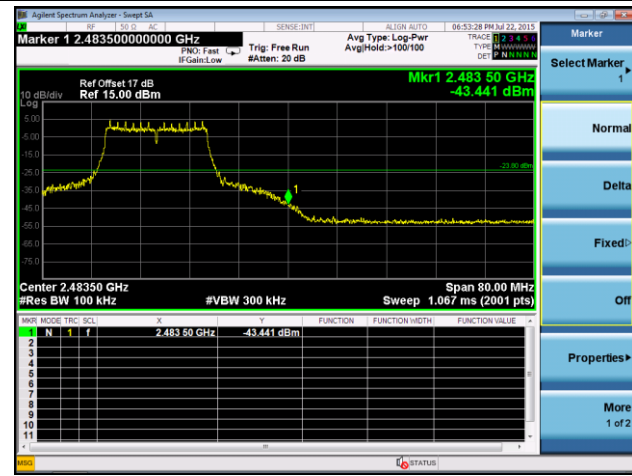
Channel 06 (2437MHz)

Spurious Emission

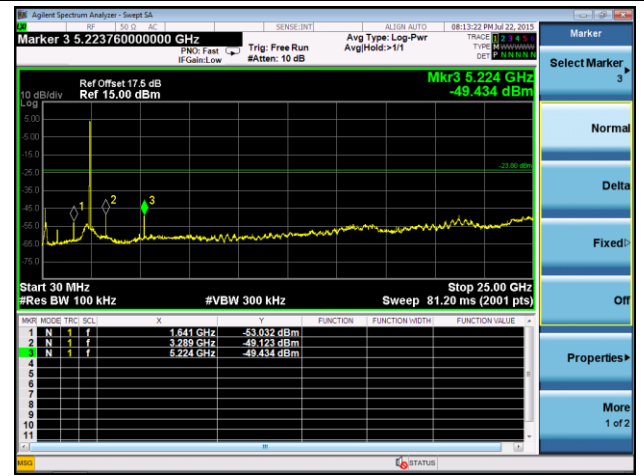


Channel 11 (2462MHz)

High Band Edge

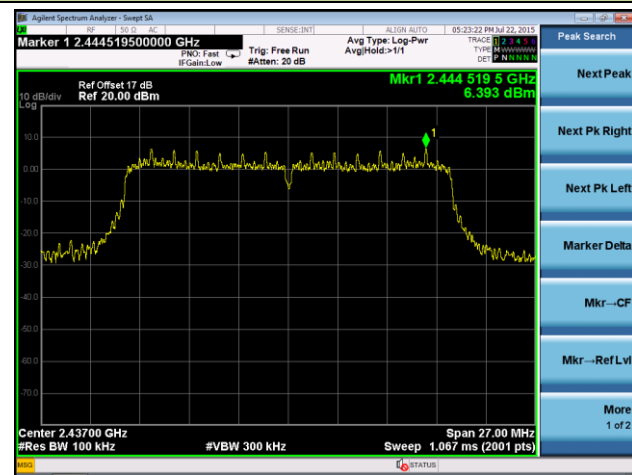


Spurious Emission



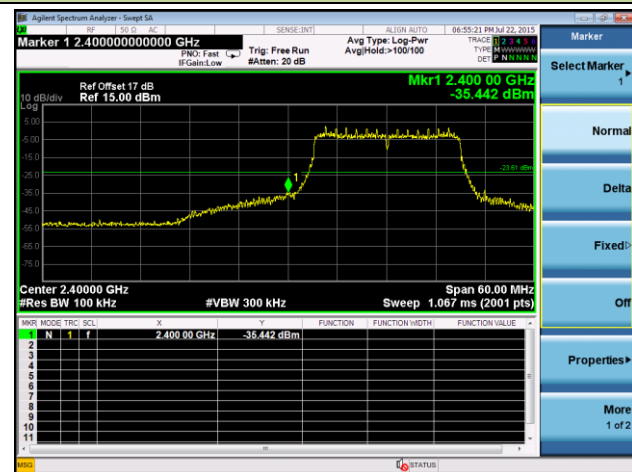
802.11n-HT20 Out-of-Band Emissions - Ant 1 / Ant 0 + 1

100kHz PSD Reference Level

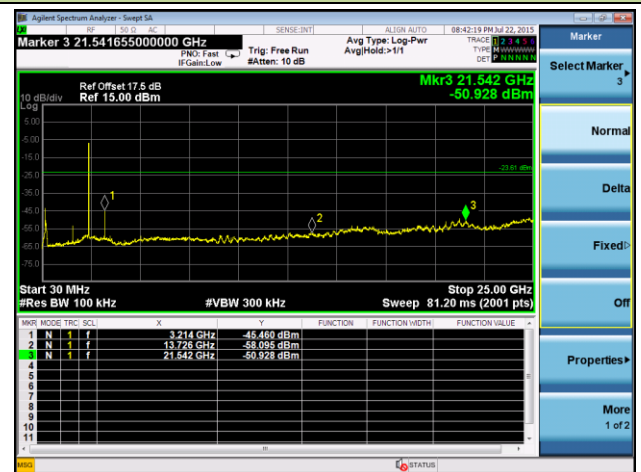


Channel 01 (2412MHz)

Low Band Edge

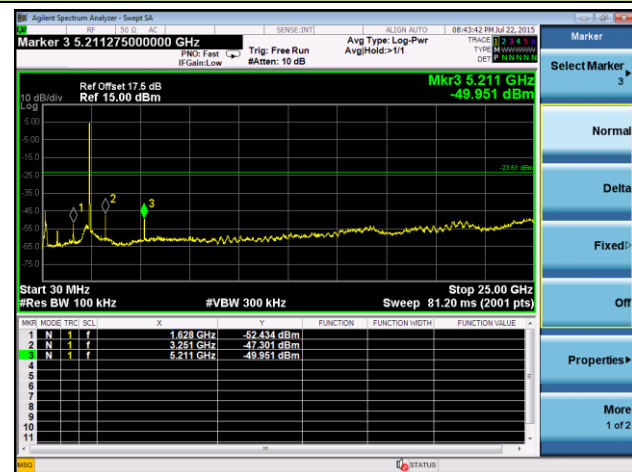


Spurious Emission



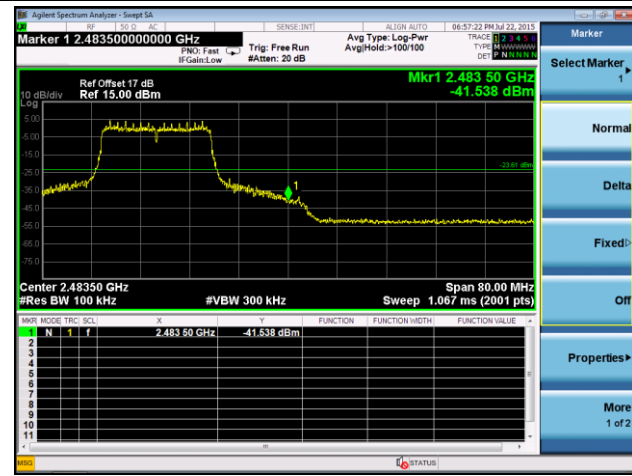
Channel 06 (2437MHz)

Spurious Emission

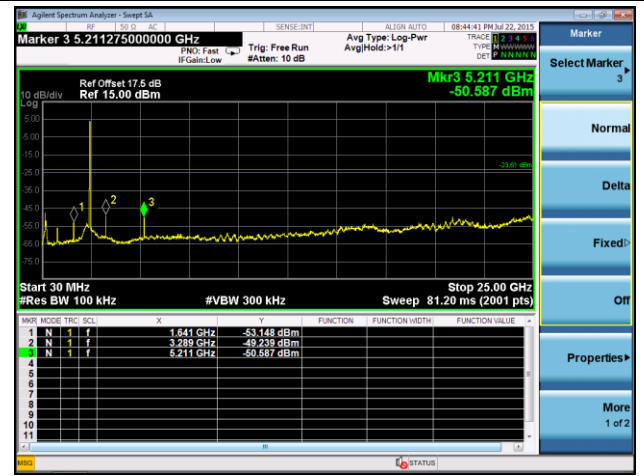


Channel 11 (2462MHz)

High Band Edge

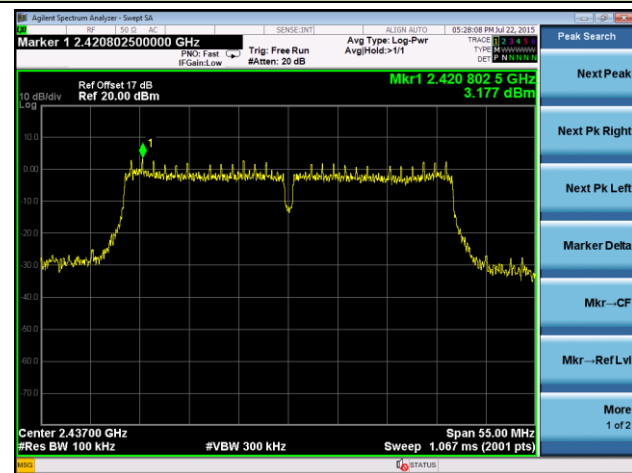


Spurious Emission



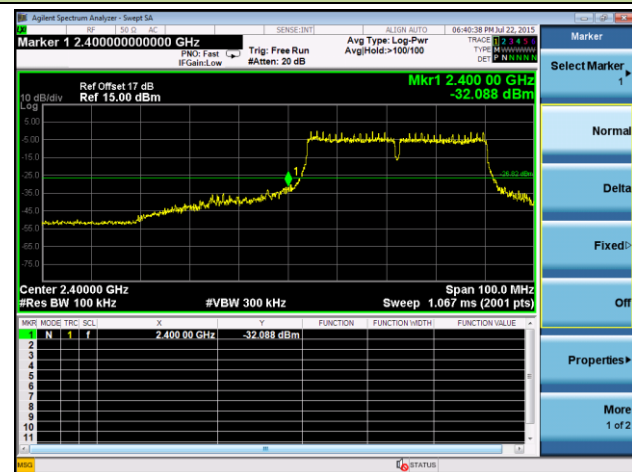
802.11n-HT40 Out-of-Band Emissions - Ant 1 / Ant 0 + 1

100kHz PSD Reference Level

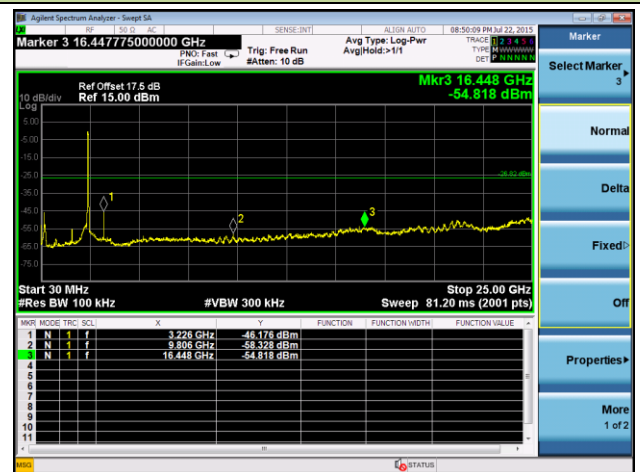


Channel 03 (2422MHz)

Low Band Edge

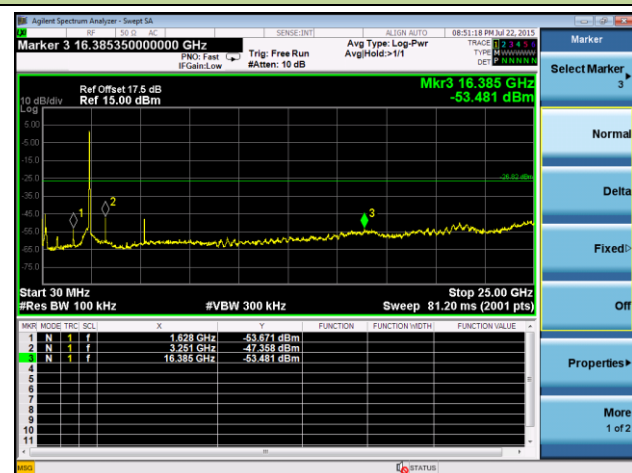


Spurious Emission



Channel 06 (2437MHz)

Spurious Emission

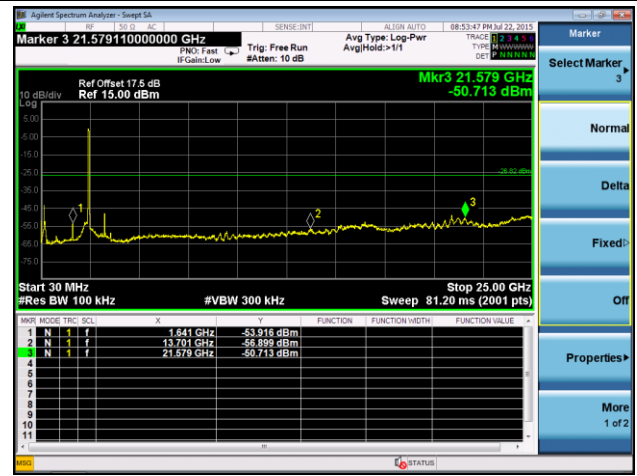


Channel 09 (2452MHz)

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

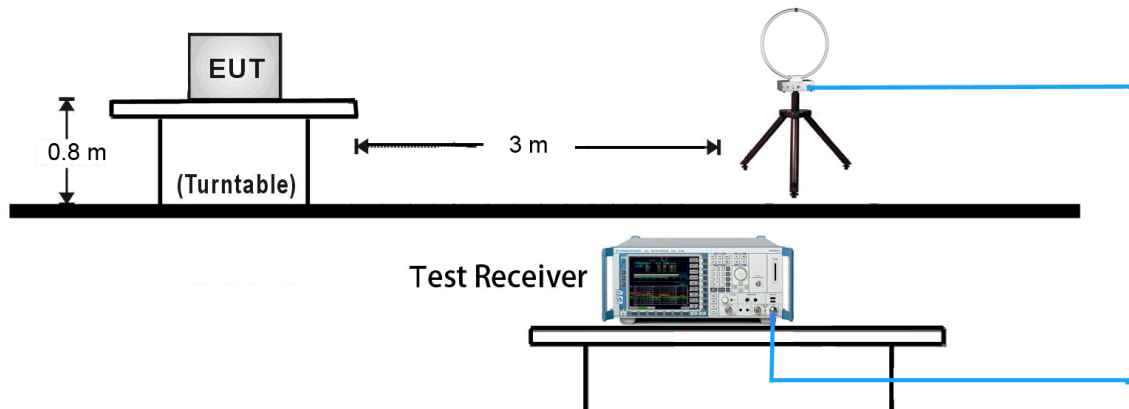
6.Sweep time = auto

7.Trace mode = max hold

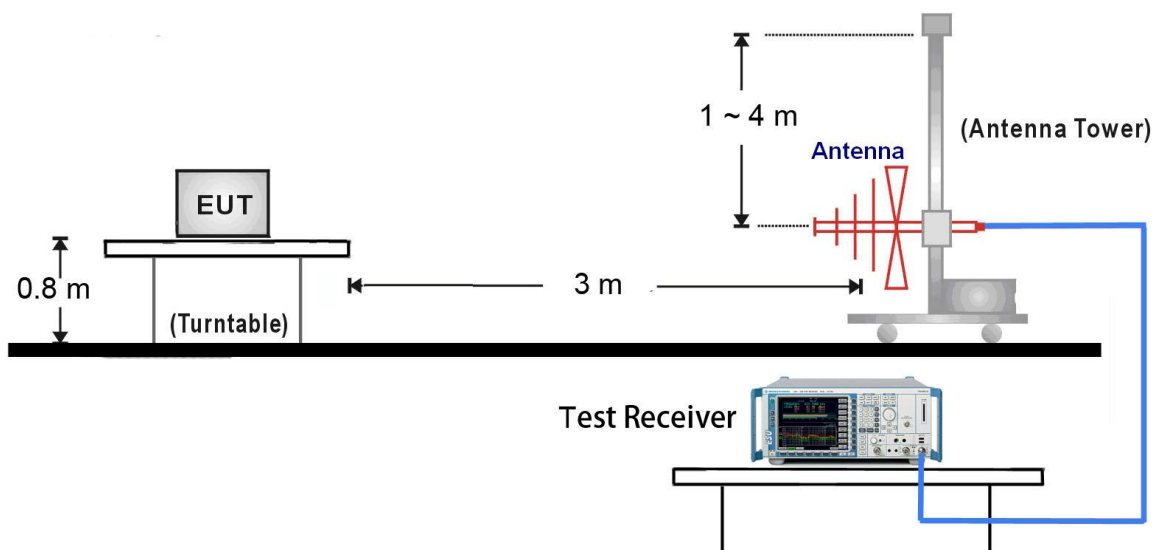
8.Allow max hold to run for at least 50 times (1/duty cycle) traces

7.6.4. Test Setup

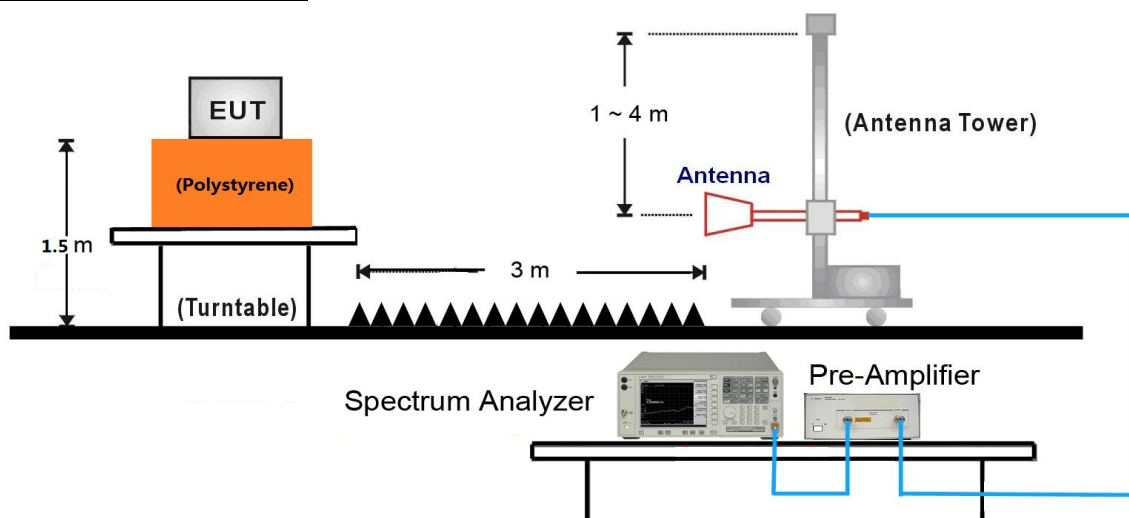
9kHz ~ 30MHz Test Setup:



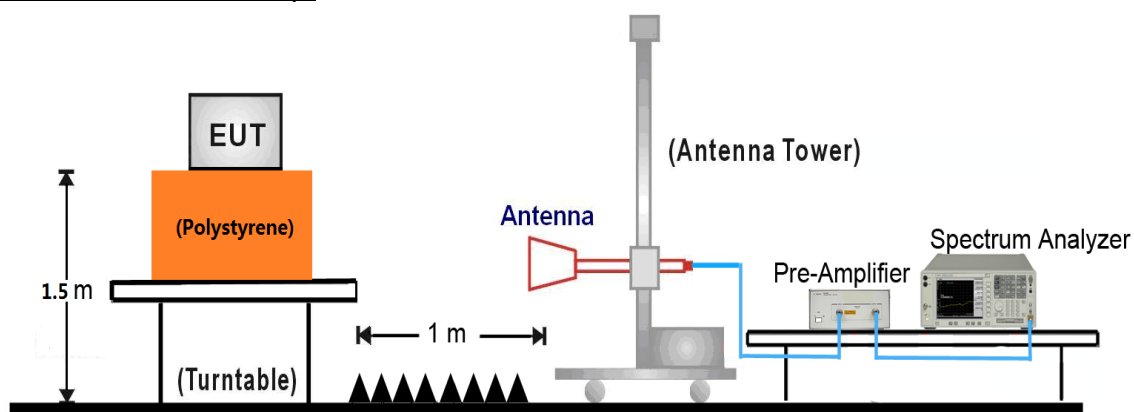
30MHz ~ 1GHz Test Setup:



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
	4825.0	41.8	2.7	44.5	74.0	-29.5	Peak	Horizontal
	7259.0	40.5	7.8	48.3	74.0	-25.7	Peak	Horizontal
*	8675.5	37.0	8.9	45.9	81.1	-35.2	Peak	Horizontal
*	9619.0	36.4	10.9	47.3	81.1	-33.8	Peak	Horizontal
	4825.0	37.6	2.7	40.3	74.0	-33.7	Peak	Vertical
	7250.5	38.3	7.8	46.1	74.0	-27.9	Peak	Vertical
*	8701.0	37.4	9.0	46.4	81.1	-34.7	Peak	Vertical
*	10358.5	36.2	12.2	48.4	81.1	-32.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (111.1dBμV/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	49.5	2.7	52.2	74.0	-21.8	Peak	Horizontal
	7310.2	48.8	8.0	56.8	74.0	-17.2	Peak	Horizontal
	7310.2	44.7	8.0	52.7	54.0	-1.3	Average	Horizontal
*	8777.5	36.6	8.9	45.5	86.4	-40.9	Peak	Horizontal
*	9746.5	43.0	11.3	54.3	86.4	-32.1	Peak	Horizontal
	4876.0	46.6	2.7	49.3	74.0	-24.7	Peak	Vertical
	7315.5	41.8	8.0	49.8	74.0	-24.2	Peak	Vertical
*	8709.5	37.1	9.0	46.1	86.4	-40.3	Peak	Vertical
*	9746.5	44.1	11.3	55.4	86.4	-31.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (116.4dBμV/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)

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	45.6	2.8	48.4	74.0	-25.6	Peak	Horizontal
	7383.5	39.9	7.9	47.8	74.0	-26.2	Peak	Horizontal
*	8794.5	36.3	8.9	45.2	81.7	-36.5	Peak	Horizontal
*	9848.5	38.0	11.6	49.6	81.7	-32.1	Peak	Horizontal
	4927.0	37.8	2.8	40.6	74.0	-33.4	Peak	Vertical
	7383.5	40.4	7.9	48.3	74.0	-25.7	Peak	Vertical
*	8692.5	36.5	9.0	45.5	81.7	-36.2	Peak	Vertical
*	9848.5	35.9	11.6	47.5	81.7	-34.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (111.7dBμV/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
	4833.5	38.3	2.7	41.0	74.0	-33.0	Peak	Horizontal
	7417.5	37.9	8.0	45.9	74.0	-28.1	Peak	Horizontal
*	8641.5	37.4	8.8	46.2	82.0	-35.8	Peak	Horizontal
*	9593.5	35.8	10.9	46.7	82.0	-35.3	Peak	Horizontal
	4833.5	38.3	2.7	41.0	74.0	-33.0	Peak	Vertical
	7417.5	37.9	8.0	45.9	74.0	-28.1	Peak	Vertical
*	8641.5	37.4	8.8	46.2	82.0	-35.8	Peak	Vertical
*	10486.0	36.5	12.3	48.8	82.0	-33.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (112.0dBμV/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	38.4	2.7	41.1	74.0	-32.9	Peak	Horizontal
	7324.0	37.1	8.0	45.1	74.0	-28.9	Peak	Horizontal
*	8777.5	36.2	8.9	45.1	86.4	-41.3	Peak	Horizontal
*	9270.5	35.9	10.3	46.2	86.4	-40.2	Peak	Horizontal
	4782.5	37.8	2.7	40.5	74.0	-33.5	Peak	Vertical
	7281.5	37.6	8.0	45.6	74.0	-28.4	Peak	Vertical
*	8896.5	35.8	9.2	45.0	86.4	-41.4	Peak	Vertical
*	9721.0	35.6	11.1	46.7	86.4	-39.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (116.4dBμV/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)

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
	4918.5	40.1	2.8	42.9	74.0	-31.1	Peak	Horizontal
	7477.0	37.3	8.2	45.5	74.0	-28.5	Peak	Horizontal
*	8760.5	36.7	9.0	45.7	81.1	-35.4	Peak	Horizontal
*	9848.5	34.8	11.6	46.4	81.1	-34.7	Peak	Horizontal
	4918.5	36.7	2.8	39.5	74.0	-34.5	Peak	Vertical
	7511.0	36.7	8.3	45.0	74.0	-29.0	Peak	Vertical
*	8573.5	36.7	8.7	45.4	81.1	-35.7	Peak	Vertical
*	9525.5	35.8	10.7	46.5	81.1	-34.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (111.1dBμV/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:	802.11n-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
	4918.5	37.5	2.8	40.3	74.0	-33.7	Peak	Horizontal
	7307.0	37.2	8.0	45.2	74.0	-28.8	Peak	Horizontal
*	8777.5	36.4	8.9	45.3	79.4	-34.1	Peak	Horizontal
*	9585.0	35.8	10.9	46.7	79.4	-32.7	Peak	Horizontal
	4986.5	37.1	3.0	40.1	74.0	-33.9	Peak	Vertical
	7259.0	37.5	7.8	45.3	74.0	-28.7	Peak	Vertical
*	8726.5	36.0	9.0	45.0	79.4	-34.4	Peak	Vertical
*	9610.5	35.9	10.9	46.8	79.4	-32.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (109.4dBμV/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)

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	41.9	2.7	44.6	74.0	-29.4	Peak	Horizontal
	7307.0	44.9	8.0	52.9	74.0	-21.1	Peak	Horizontal
*	9755.0	35.9	11.4	47.3	84.8	-37.5	Peak	Horizontal
*	10358.5	41.5	12.2	53.7	84.8	-31.1	Peak	Horizontal
	4833.5	38.3	2.7	41.0	74.0	-33.0	Peak	Vertical
	7392.0	36.7	7.9	44.6	74.0	-29.4	Peak	Vertical
*	8811.5	35.9	9.0	44.9	84.8	-39.9	Peak	Vertical
*	9746.5	39.5	11.3	50.8	84.8	-34.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (114.8dBμV/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	38.0	2.8	40.8	74.0	-33.2	Peak	Horizontal
	7409.0	37.5	8.0	45.5	74.0	-28.5	Peak	Horizontal
*	8658.5	36.7	8.8	45.5	80.2	-34.7	Peak	Horizontal
*	9797.5	35.0	11.5	46.5	80.2	-33.7	Peak	Horizontal
	4969.5	36.9	3.0	39.9	74.0	-34.1	Peak	Vertical
	8046.5	37.6	8.8	46.4	74.0	-27.6	Peak	Vertical
*	8701.0	36.7	9.0	45.7	80.2	-34.5	Peak	Vertical
*	9823.0	34.8	11.6	46.4	80.2	-33.8	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:	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
	4901.5	36.9	2.7	39.6	74.0	-34.4	Peak	Horizontal
	7477.0	36.7	8.2	44.9	74.0	-29.1	Peak	Horizontal
*	8769.0	36.3	8.9	45.2	75.2	-30.0	Peak	Horizontal
*	9559.5	35.9	10.9	46.8	75.2	-28.4	Peak	Horizontal
	4850.5	37.0	2.7	39.7	74.0	-34.3	Peak	Vertical
	7256.0	37.6	7.9	45.5	74.0	-28.5	Peak	Vertical
*	8845.5	36.3	9.1	45.4	75.2	-29.8	Peak	Vertical
*	9848.5	35.2	11.6	46.8	75.2	-28.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (105.2dBμV/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
	4884.5	40.9	2.7	43.6	74.0	-30.4	Peak	Horizontal
	7298.5	42.7	8.0	50.7	74.0	-23.3	Peak	Horizontal
*	8786.0	36.4	8.9	45.3	81.3	-36.0	Peak	Horizontal
*	9636.0	36.1	11.0	47.1	81.3	-34.2	Peak	Horizontal
	4876.0	36.9	2.7	39.6	74.0	-34.4	Peak	Vertical
	7460.0	37.9	8.1	46.0	74.0	-28.0	Peak	Vertical
*	7936.0	38.4	8.5	46.9	81.3	-34.4	Peak	Vertical
*	9865.5	35.3	11.6	46.9	81.3	-34.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (111.3dBμV/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:	802.11n-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
	4714.5	37.9	2.4	40.3	74.0	-33.7	Peak	Horizontal
	7259.0	37.9	7.8	45.7	74.0	-28.3	Peak	Horizontal
*	8684.0	36.2	9.0	45.2	76.2	-31.0	Peak	Horizontal
*	10197.0	35.0	11.8	46.8	76.2	-29.4	Peak	Horizontal
	4859.0	36.9	2.7	39.6	74.0	-34.4	Peak	Vertical
	7528.0	37.0	8.3	45.3	74.0	-28.7	Peak	Vertical
*	8582.0	36.3	8.6	44.9	76.2	-31.3	Peak	Vertical
*	10469.0	35.6	12.1	47.7	76.2	-28.5	Peak	Vertical

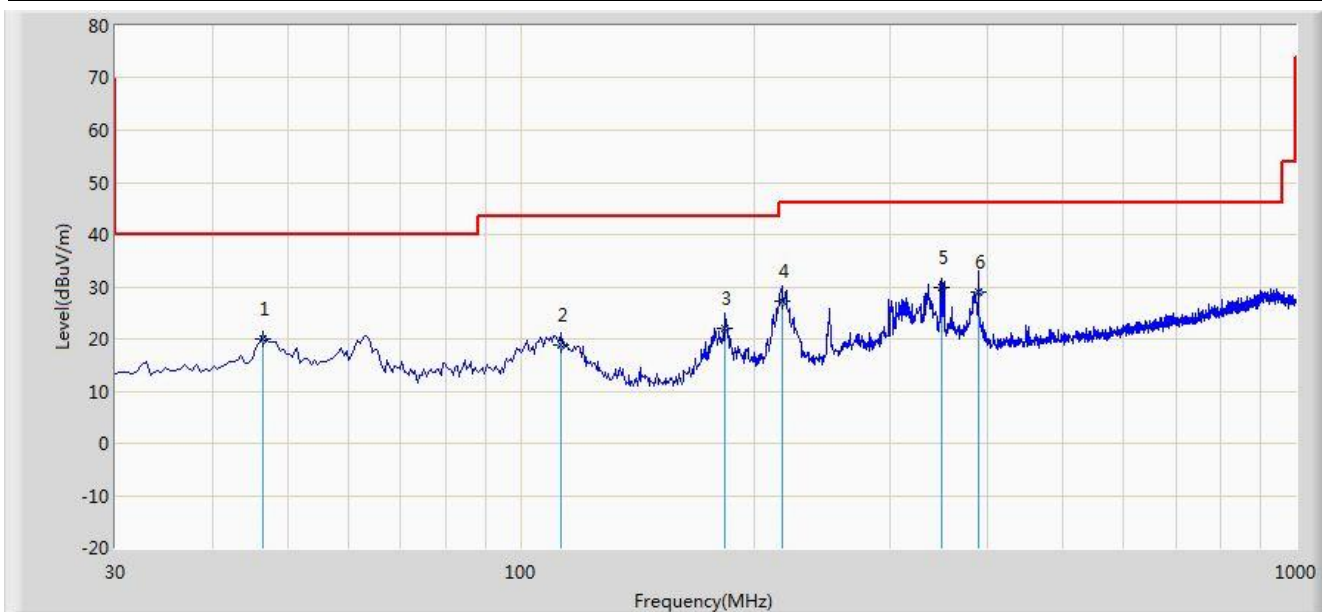
Note 1: “*” is not in restricted band, its limit is 30dBc of the fundamental emission level (106.2dBμV/m) or FCC 15.209 which is higher.

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

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

The worst case of Radiated Emission below 1GHz:

Site: AC 1	Time: 2015/07/26 - 18:11
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Worst Mode: Transmit by 802.11n-HT40 at channel 2437MHz Ant 0 + 1	

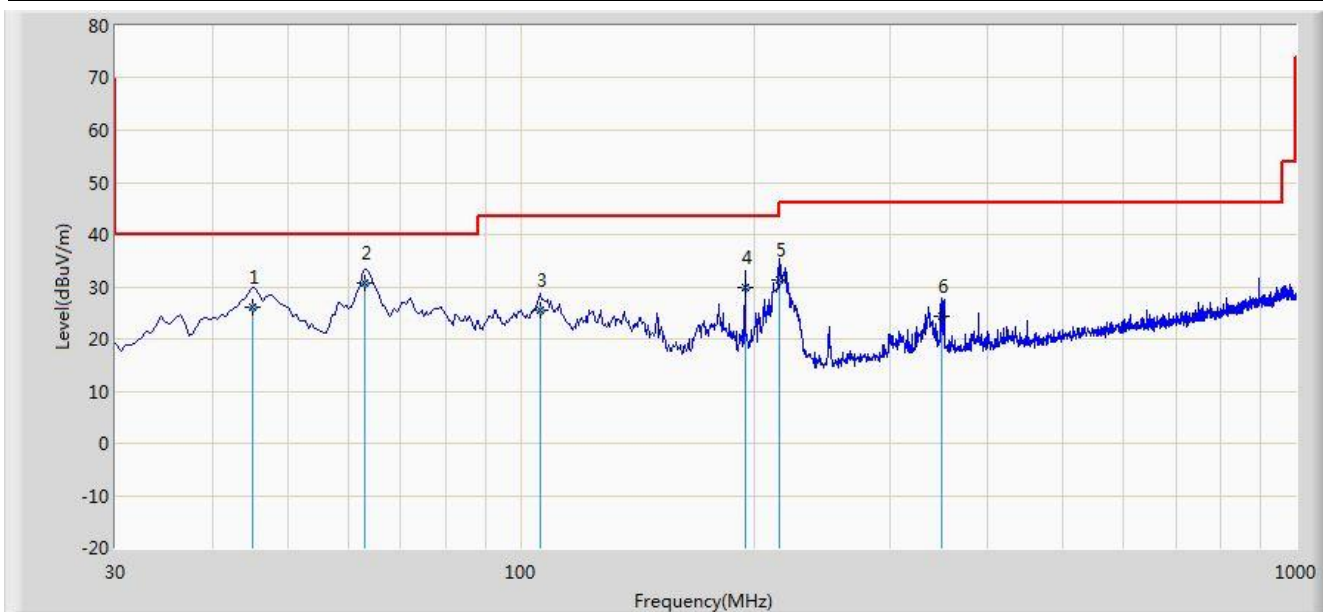


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			46.490	20.041	5.100	-19.959	40.000	14.941	QP
2			112.935	18.798	6.300	-24.702	43.500	12.497	QP
3			183.745	21.913	10.600	-21.587	43.500	11.313	QP
4			217.210	27.266	14.500	-18.734	46.000	12.766	QP
5		*	348.645	29.733	13.800	-16.267	46.000	15.933	QP
6			389.870	29.065	12.400	-16.935	46.000	16.665	QP

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

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

Site: AC 1	Time: 2015/07/26 - 18:14
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Worst Mode: Transmit by 802.11n-HT40 at channel 2437MHz Ant 0 + 1	

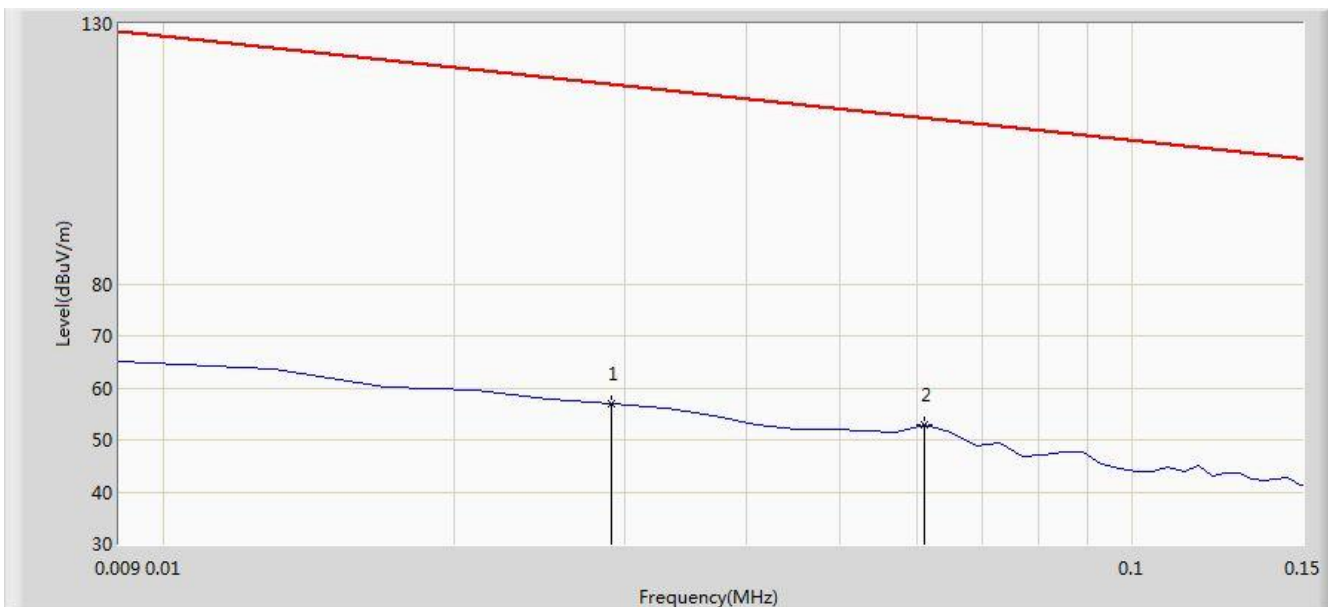


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			45.035	26.028	11.200	-13.972	40.000	14.828	QP
2		*	62.980	30.694	17.500	-9.306	40.000	13.194	QP
3			106.145	25.571	12.400	-17.929	43.500	13.172	QP
4			194.900	29.769	17.600	-13.731	43.500	12.169	QP
5			215.755	31.295	18.600	-12.205	43.500	12.695	QP
6			348.645	24.233	8.300	-21.767	46.000	15.933	QP

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

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

Site: AC1	Time: 2015/07/26 - 09:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: Smart Gateway	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	

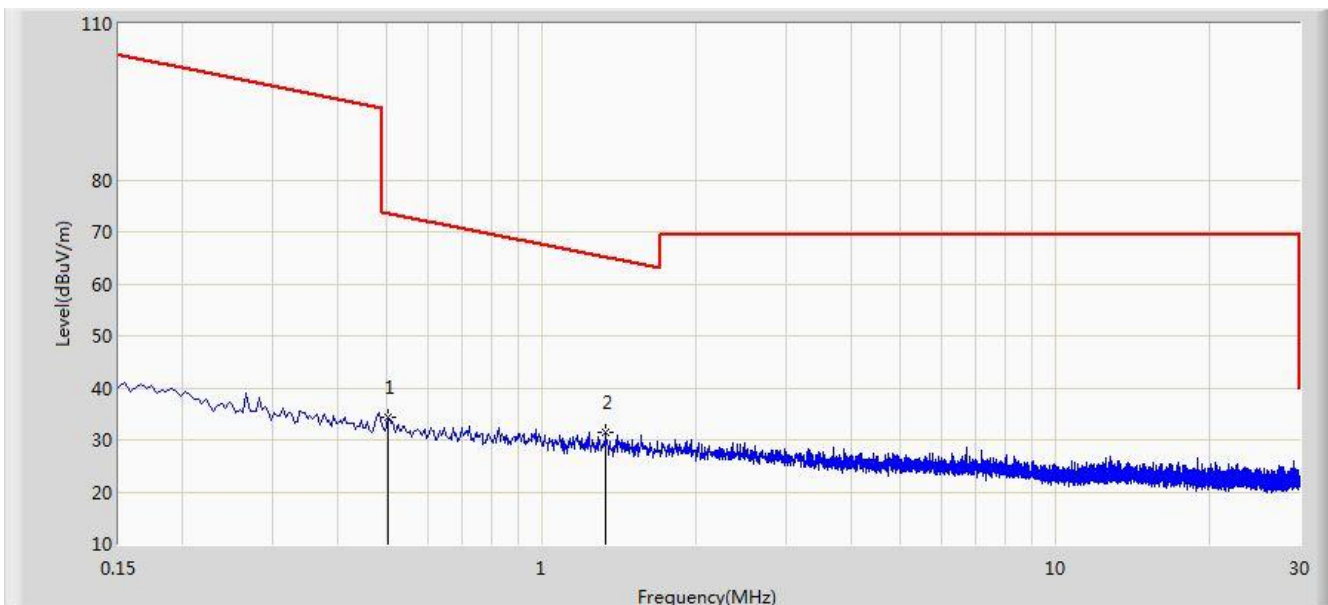


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.029	56.893	35.844	-61.463	118.356	21.049	QP
2		*	0.061	52.853	32.542	-59.045	111.898	20.311	QP

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

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

Site: AC1	Time: 2015/07/26 - 09:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: Smart Gateway	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	

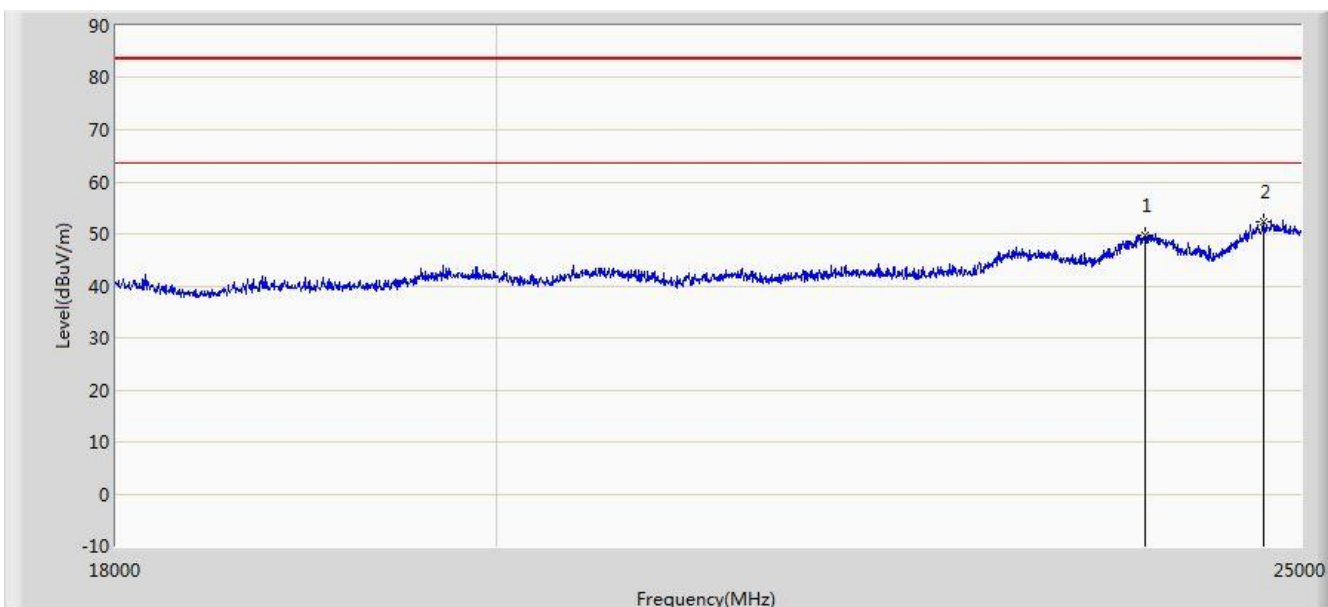


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.502	34.370	13.947	-39.220	73.590	20.423	QP
2		*	1.334	31.595	11.104	-33.530	65.125	20.491	QP

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

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

Site: AC1	Time: 2015/07/26 - 10:21
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 18GHz~25GHz.	

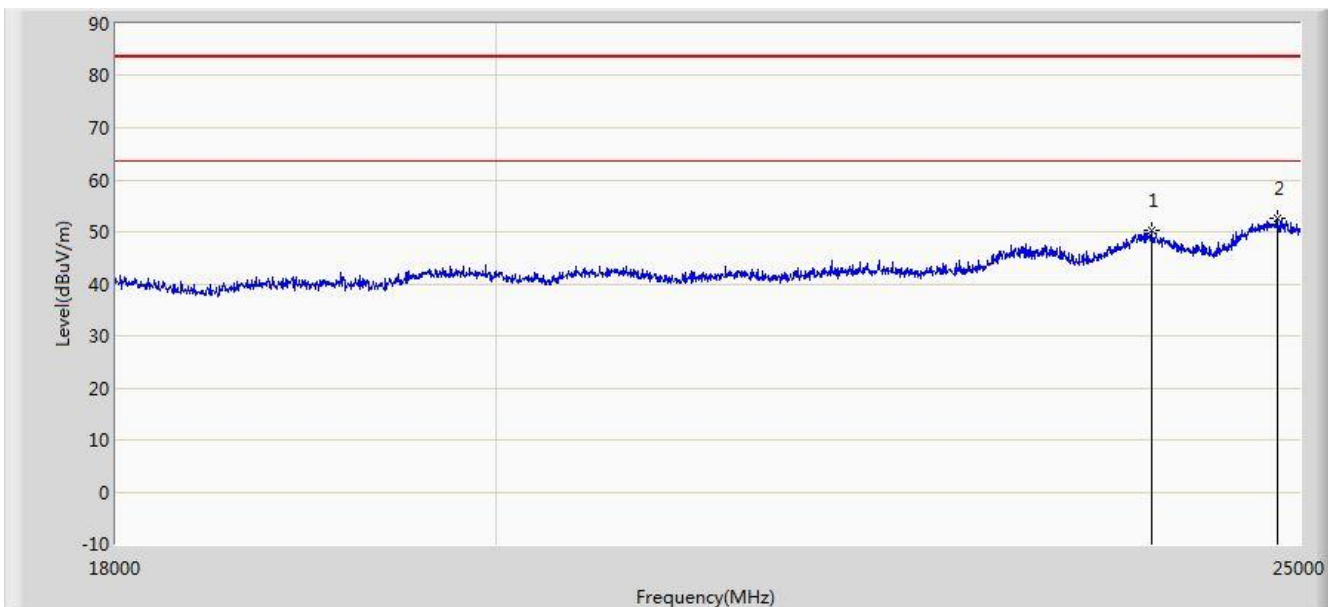


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			23943.000	49.776	35.866	-33.724	83.500	13.910	PK
2		*	24741.000	52.375	37.681	-31.125	83.500	14.694	PK

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

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

Site: AC1	Time: 2015/07/26 - 10:21
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Vertical
EUT: Smart 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

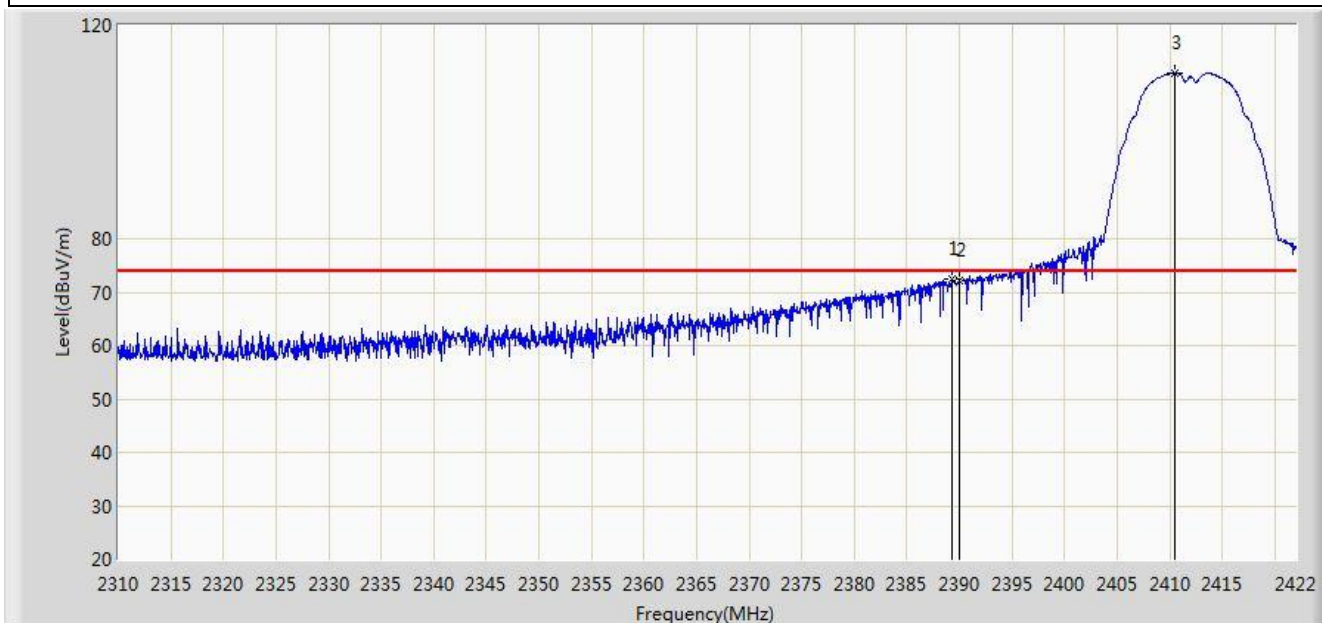
Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

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

7.7. Radiated Restricted Band Edge Measurement

7.7.1. Test Result

Site: AC 1	Time: 2015/07/19 - 13:56
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11b Ant 0 + 1	

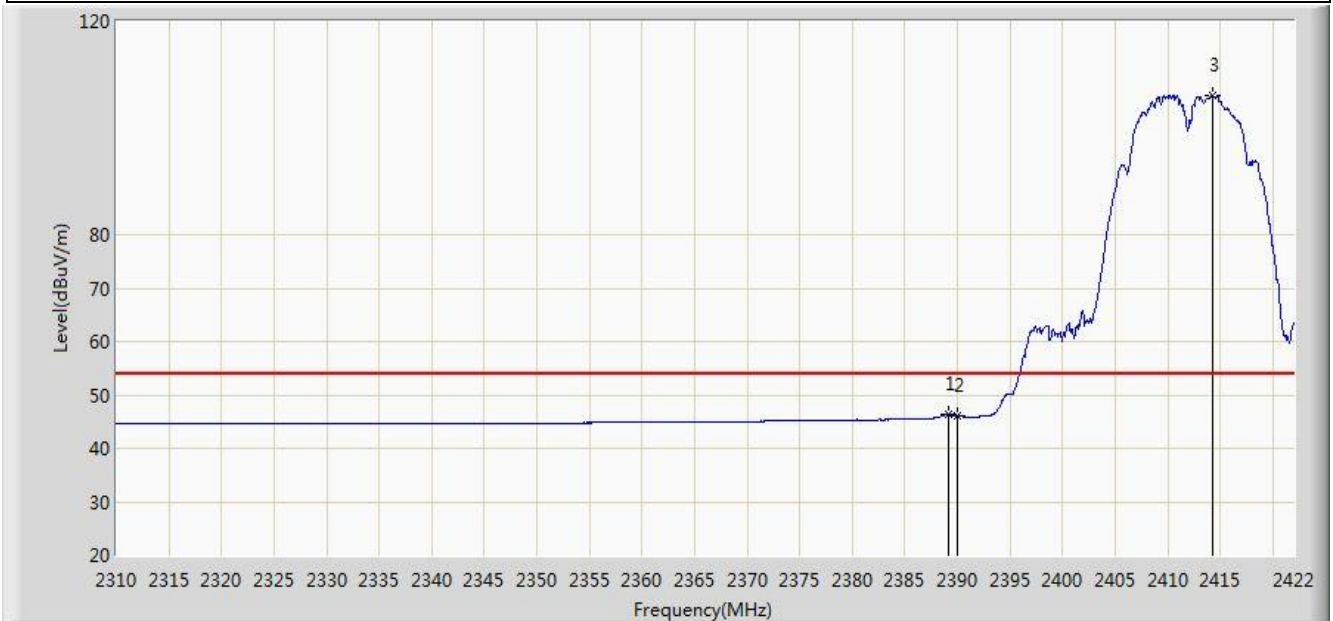


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.296	72.455	41.251	-1.545	74.000	31.204	PK
2			2390.000	72.117	40.914	-1.883	74.000	31.203	PK
3		*	2410.464	111.088	79.916	N/A	N/A	31.172	PK

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

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

Site: AC 1	Time: 2015/07/19 - 14:01
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11b Ant 0 + 1	

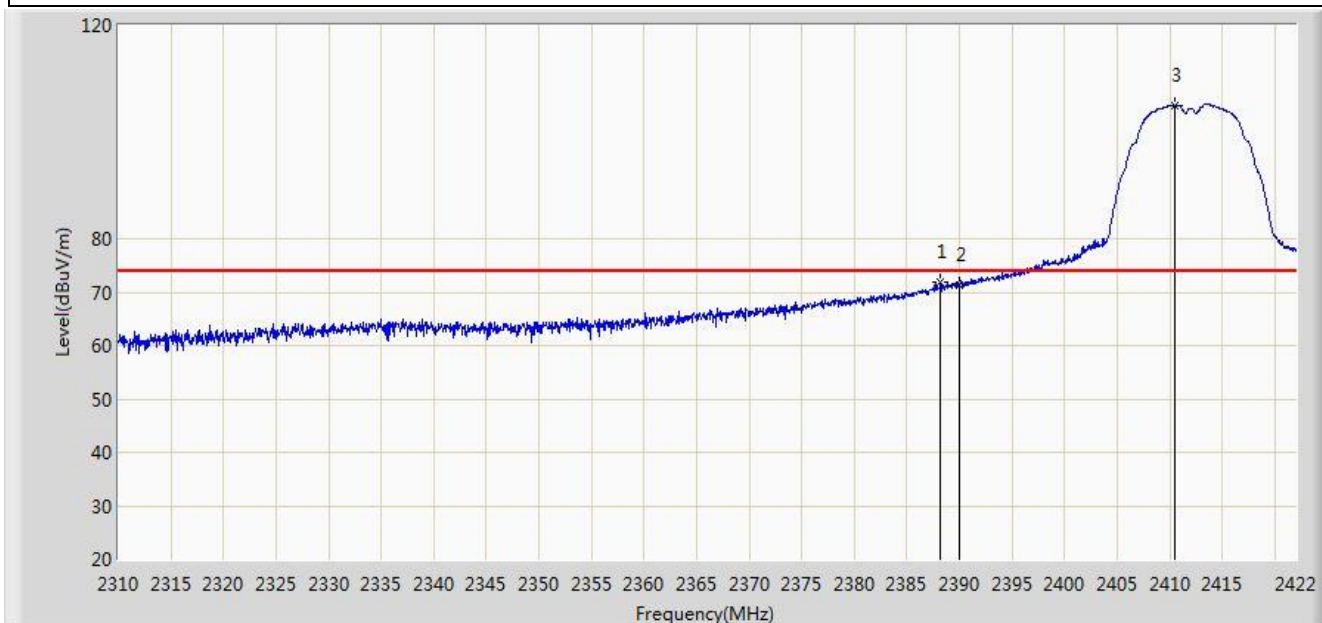


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.184	46.368	15.164	-7.632	54.000	31.204	AV
2			2390.000	46.086	14.883	-7.914	54.000	31.203	AV
3		*	2414.272	106.008	74.842	N/A	N/A	31.166	AV

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

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

Site: AC 1	Time: 2015/07/19 - 14:02
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11b Ant 0 + 1	

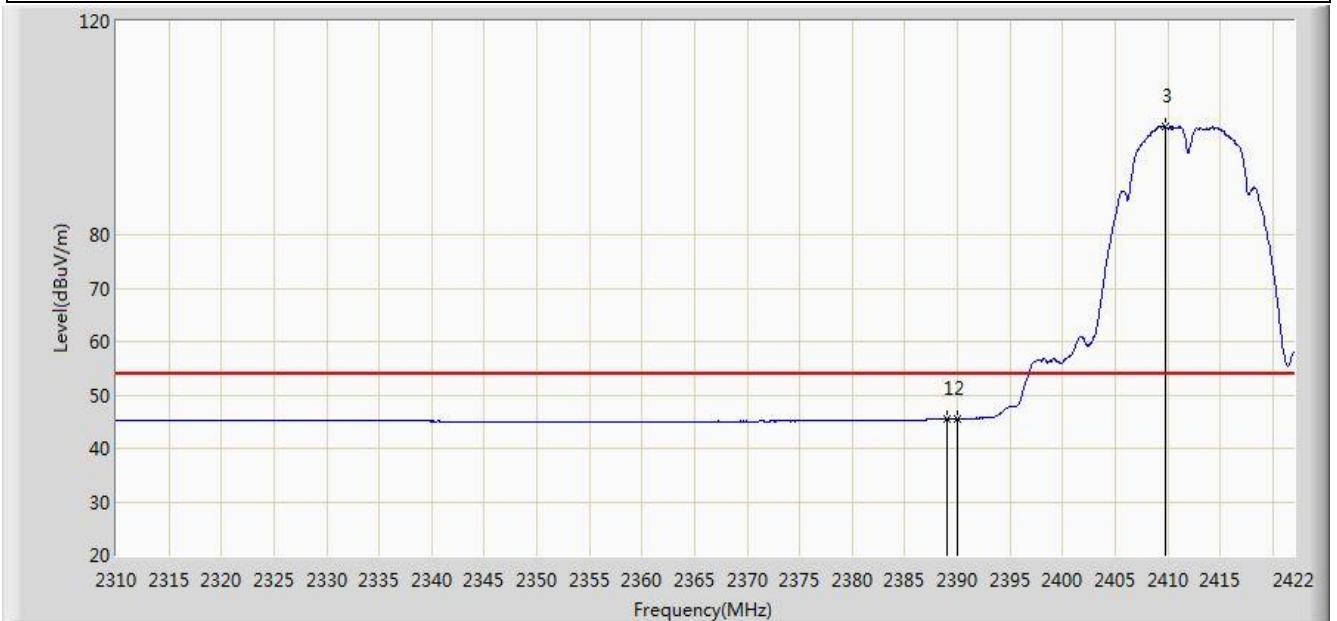


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.232	71.791	40.585	-2.209	74.000	31.206	PK
2			2390.000	71.228	40.025	-2.772	74.000	31.203	PK
3		*	2410.464	105.020	73.848	N/A	N/A	31.172	PK

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

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

Site: AC 1	Time: 2015/07/19 - 14:06
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11b Ant 0 + 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.072	45.634	14.430	-8.366	54.000	31.204	AV
2			2390.000	45.600	14.397	-8.400	54.000	31.203	AV
3		*	2409.736	100.306	69.133	N/A	N/A	31.173	AV

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

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

Site: AC 1	Time: 2015/07/19 - 14:08
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11b Ant 0 + 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.568	111.675	80.542	N/A	N/A	31.133	PK
2			2483.500	71.422	40.229	-2.578	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: AC 1	Time: 2015/07/19 - 14:14
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11b Ant 0 + 1	

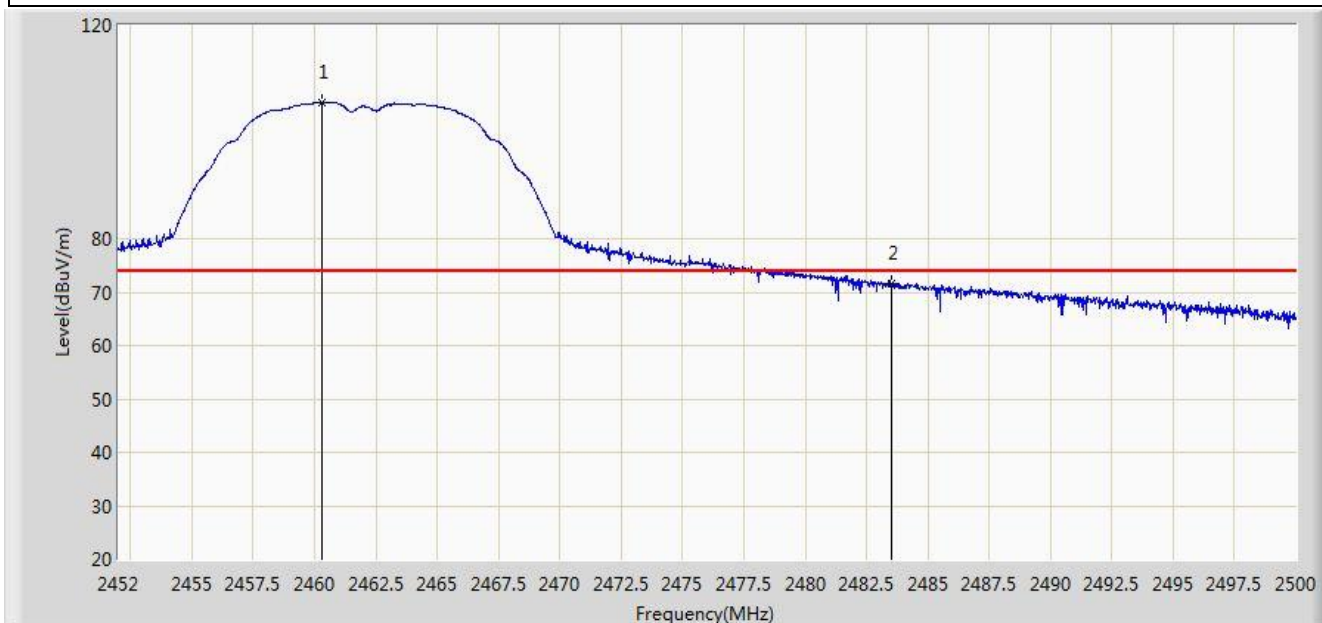


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.216	107.251	76.111	N/A	N/A	31.140	AV
2			2483.500	47.830	16.637	-6.170	54.000	31.194	AV

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

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

Site: AC 1	Time: 2015/07/19 - 14:15
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11b Ant 0 + 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.328	105.574	74.442	N/A	N/A	31.133	PK
2			2483.500	71.624	40.431	-2.376	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: AC 1	Time: 2015/07/19 - 14:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11b Ant 0 + 1	

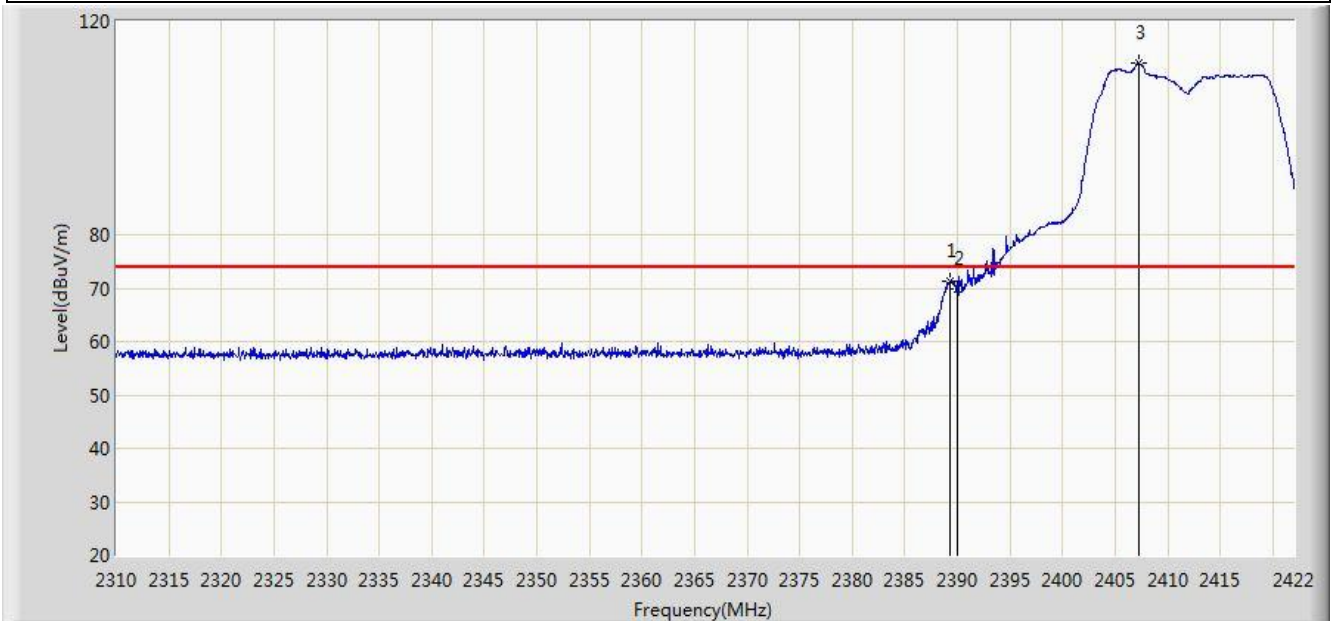


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2459.632	100.305	69.174	N/A	N/A	31.131	AV
2			2483.500	45.583	14.390	-8.417	54.000	31.194	AV

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

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

Site: AC 1	Time: 2015/07/19 - 14:32
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11g Ant 0 + 1	

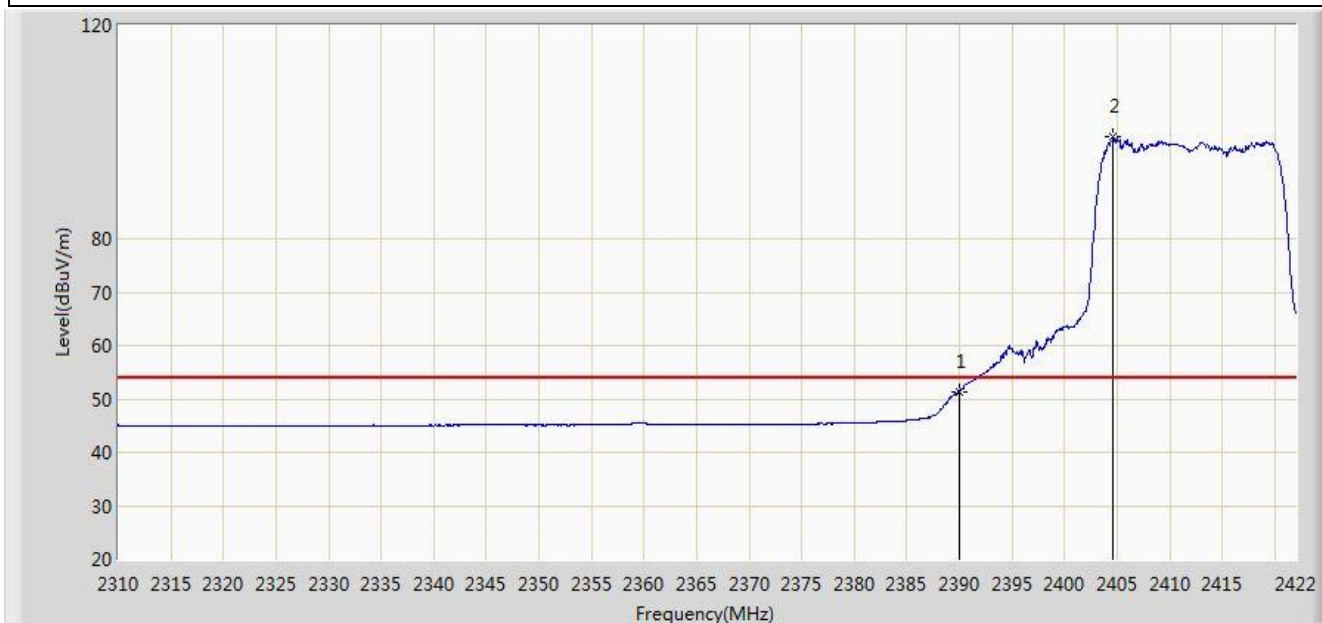


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.240	71.442	40.238	-2.558	74.000	31.204	PK
2			2390.000	69.921	38.718	-4.079	74.000	31.203	PK
3		*	2407.328	112.046	80.870	N/A	N/A	31.176	PK

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

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

Site: AC 1	Time: 2015/07/19 - 14:33
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11g Ant 0 + 1	

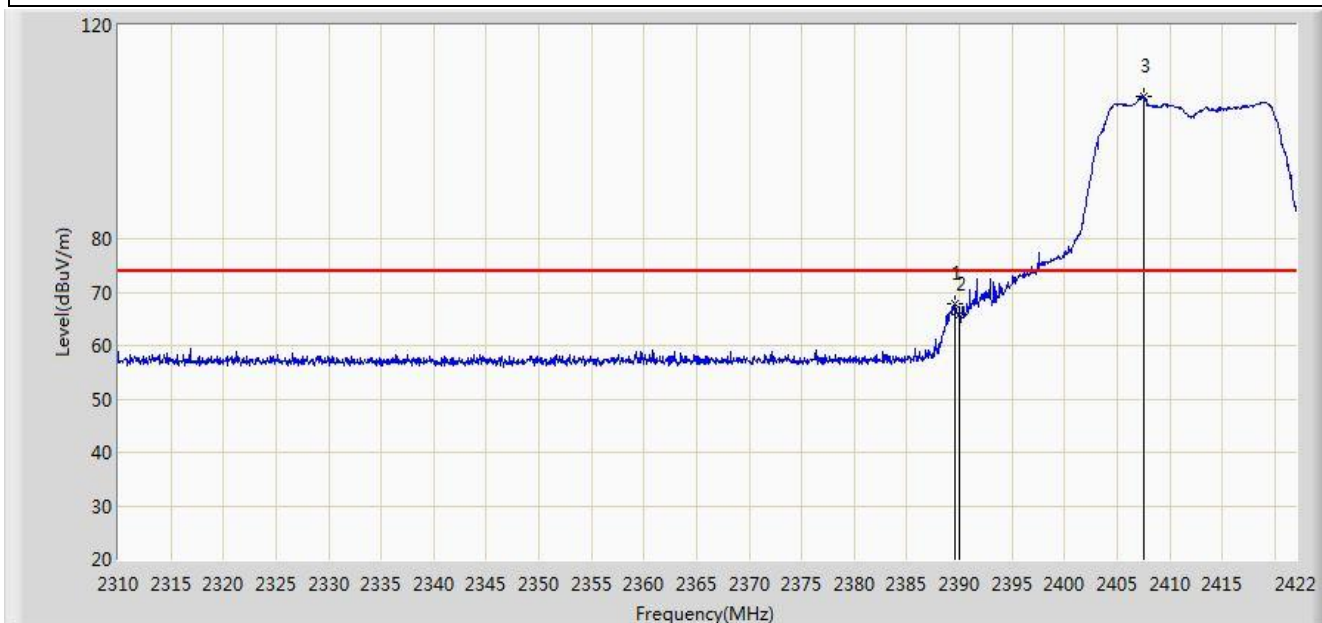


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.410	20.207	-2.590	54.000	31.203	AV
2		*	2404.584	99.054	67.874	N/A	N/A	31.180	AV

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

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

Site: AC 1	Time: 2015/07/19 - 14:34
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11g Ant 0 + 1	

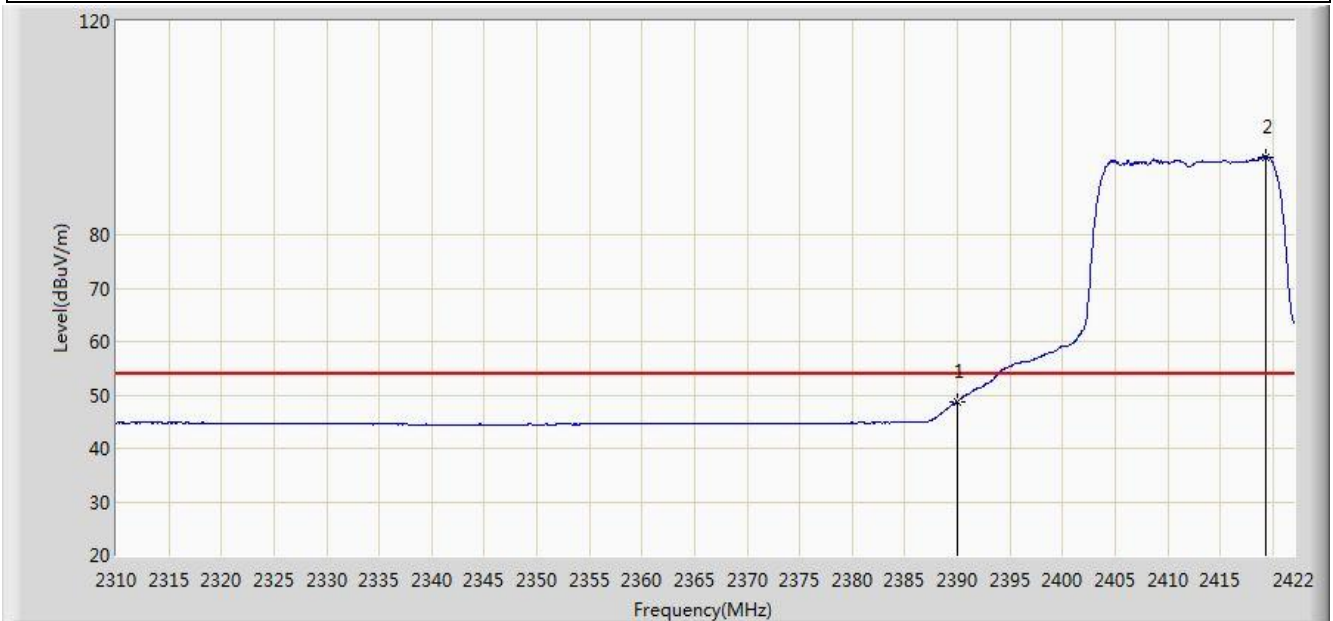


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.632	67.749	36.546	-6.251	74.000	31.204	PK
2			2390.000	65.938	34.735	-8.062	74.000	31.203	PK
3		*	2407.552	106.556	75.380	N/A	N/A	31.176	PK

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

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

Site: AC 1	Time: 2015/07/19 - 14:35
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11g Ant 0 + 1	

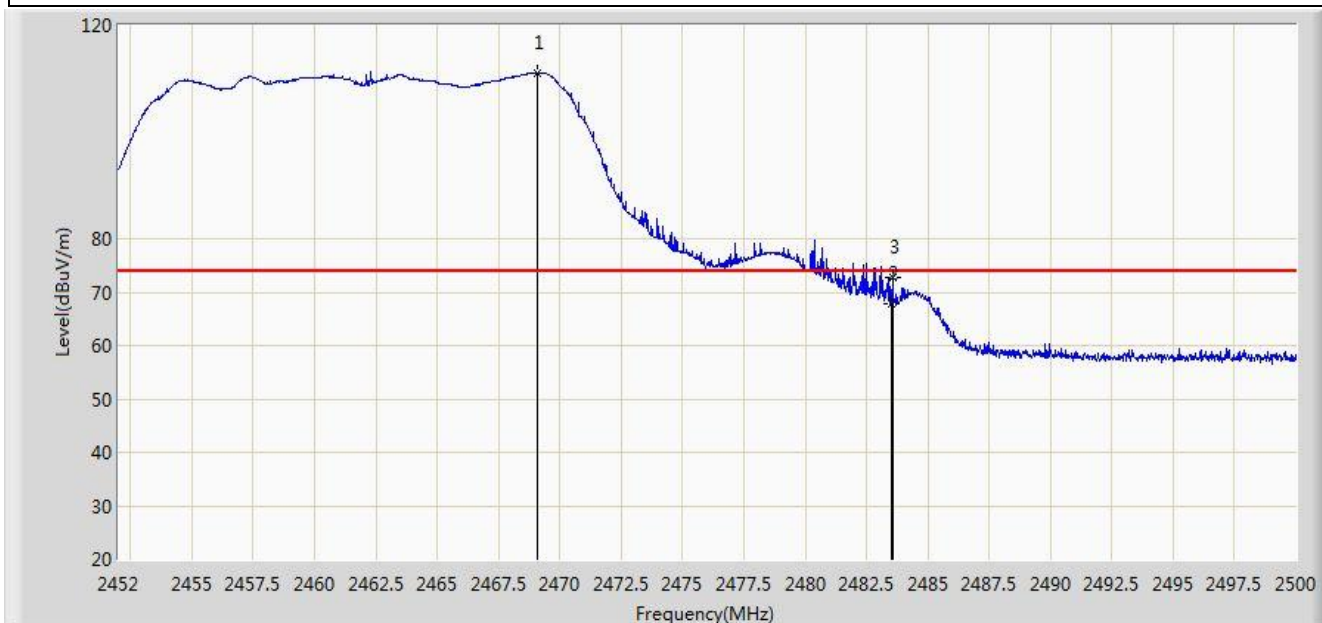


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	48.788	17.585	-5.212	54.000	31.203	AV
2		*	2419.312	94.543	63.386	N/A	N/A	31.157	AV

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

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

Site: AC 1	Time: 2015/07/19 - 14:45
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11g Ant 0 + 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2469.064	111.120	79.966	N/A	N/A	31.154	PK
2			2483.500	67.893	36.700	-6.107	74.000	31.194	PK
3			2483.560	72.729	41.536	-1.271	74.000	31.194	PK

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

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

Site: AC 1	Time: 2015/07/19 - 14:47
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11g Ant 0 + 1	

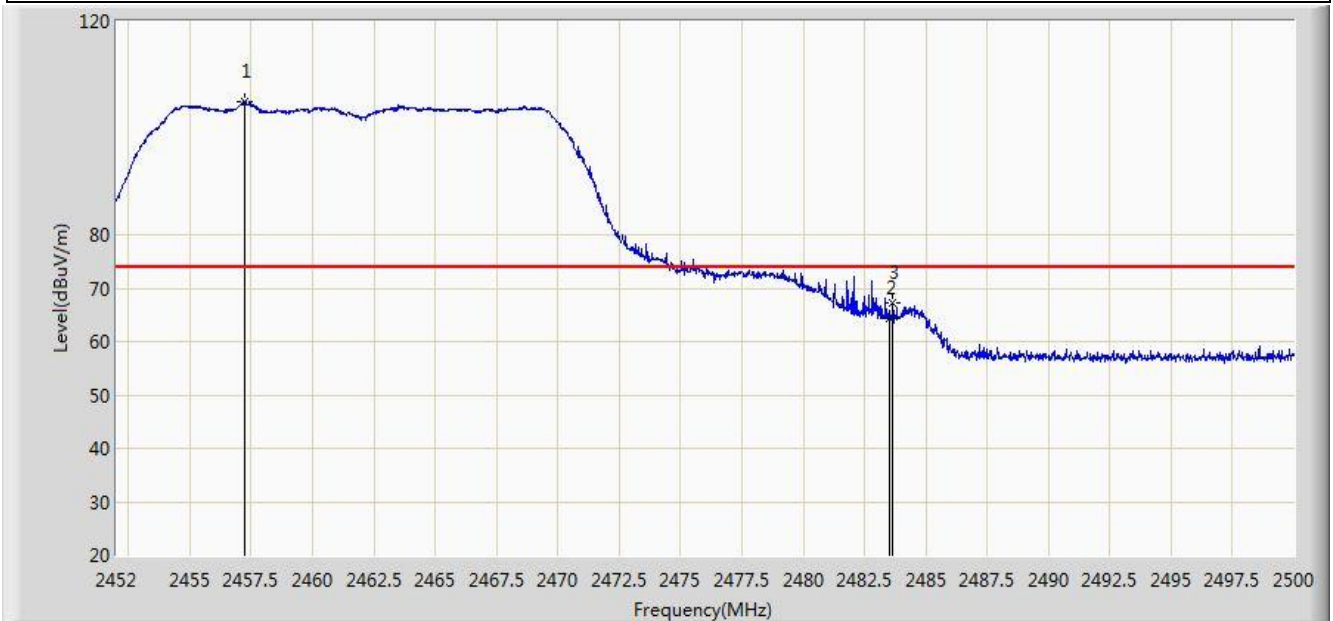


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2469.160	99.368	68.214	N/A	N/A	31.154	AV
2			2483.500	50.956	19.763	-3.044	54.000	31.194	AV

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

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

Site: AC 1	Time: 2015/07/19 - 14:48
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11g Ant 0 + 1	

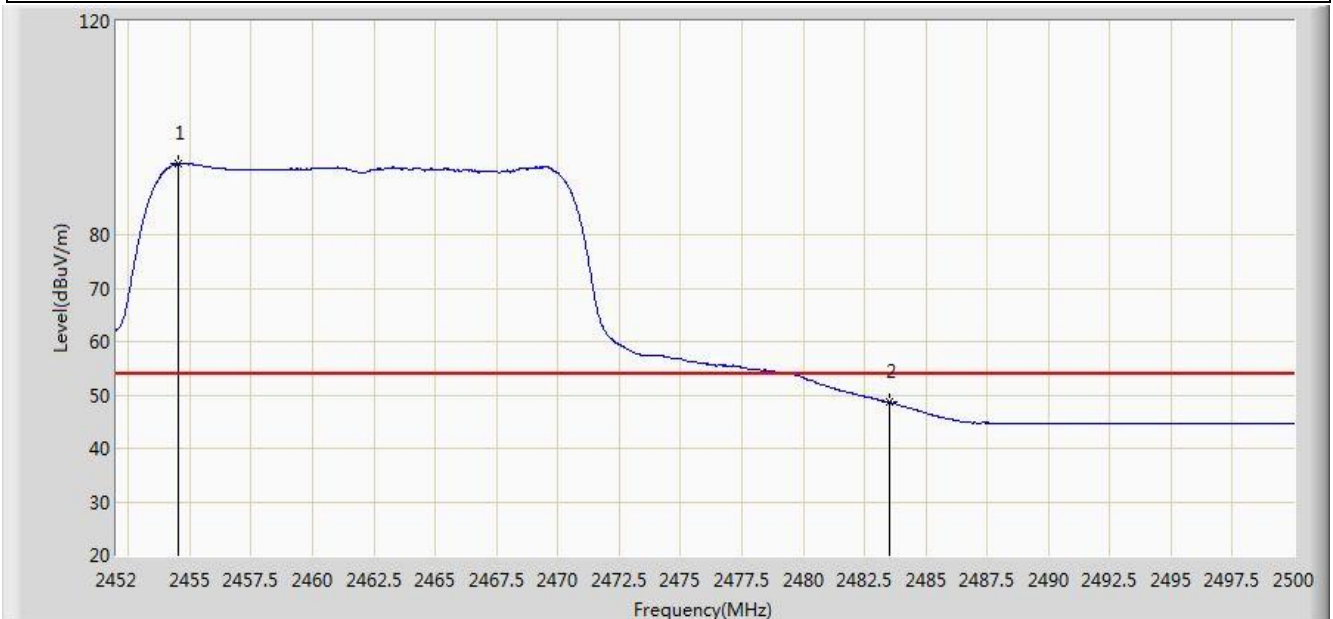


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2457.232	104.952	73.825	N/A	N/A	31.127	PK
2			2483.500	64.341	33.148	-9.659	74.000	31.194	PK
3			2483.656	67.349	36.155	-6.651	74.000	31.194	PK

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

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

Site: AC 1	Time: 2015/07/19 - 14:49
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11g Ant 0 + 1	

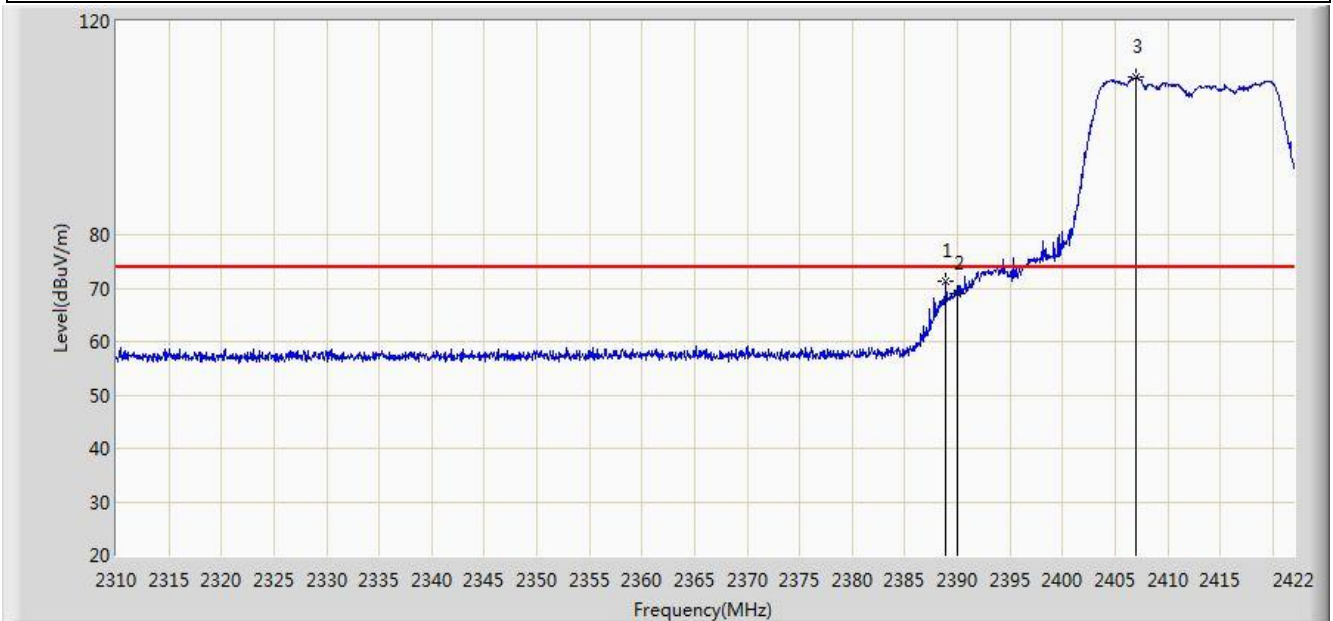


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2454.520	93.312	62.190	N/A	N/A	31.122	AV
2			2483.500	48.640	17.447	-5.360	54.000	31.194	AV

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

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

Site: AC 1	Time: 2015/07/19 - 14:56
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11n-HT20 Ant 0 + 1	

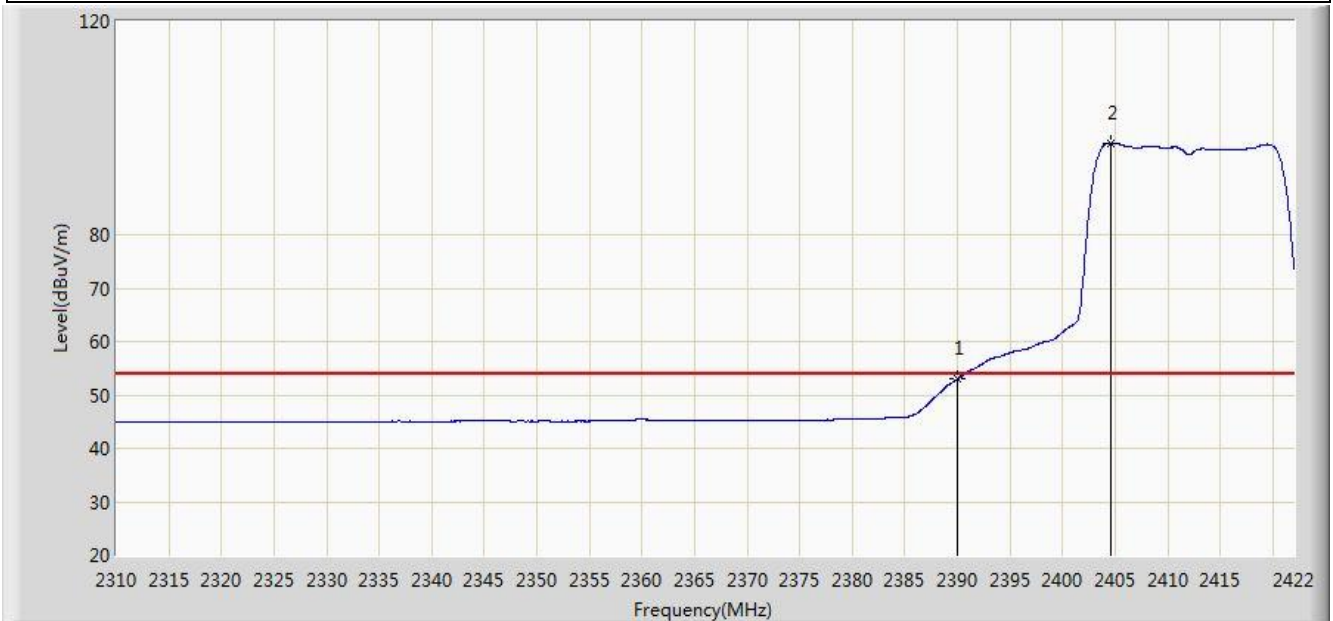


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.904	71.205	40.000	-2.795	74.000	31.205	PK
2			2390.000	69.009	37.806	-4.991	74.000	31.203	PK
3		*	2406.936	109.449	78.272	N/A	N/A	31.177	PK

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

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

Site: AC 1	Time: 2015/07/19 - 14:56
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11n-HT20 Ant 0 + 1	

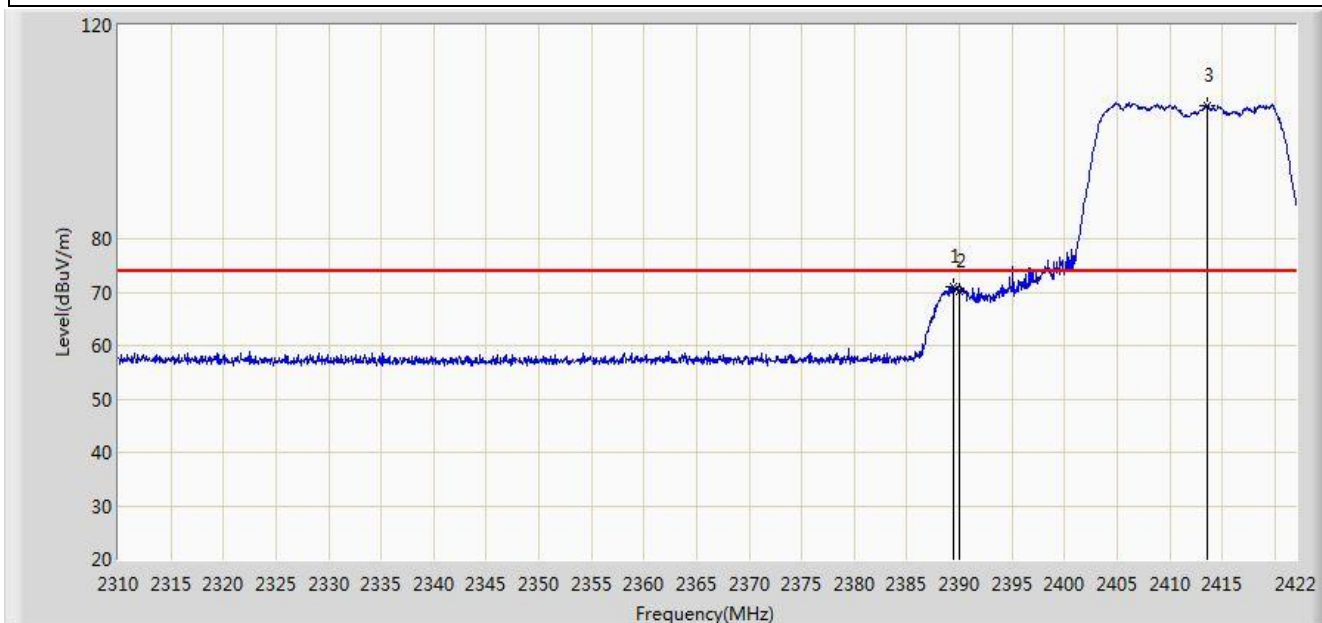


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	52.991	21.788	-1.009	54.000	31.203	AV
2		*	2404.528	97.221	66.041	N/A	N/A	31.180	AV

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

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

Site: AC 1	Time: 2015/07/19 - 14:57
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11n-HT20 Ant 0 + 1	

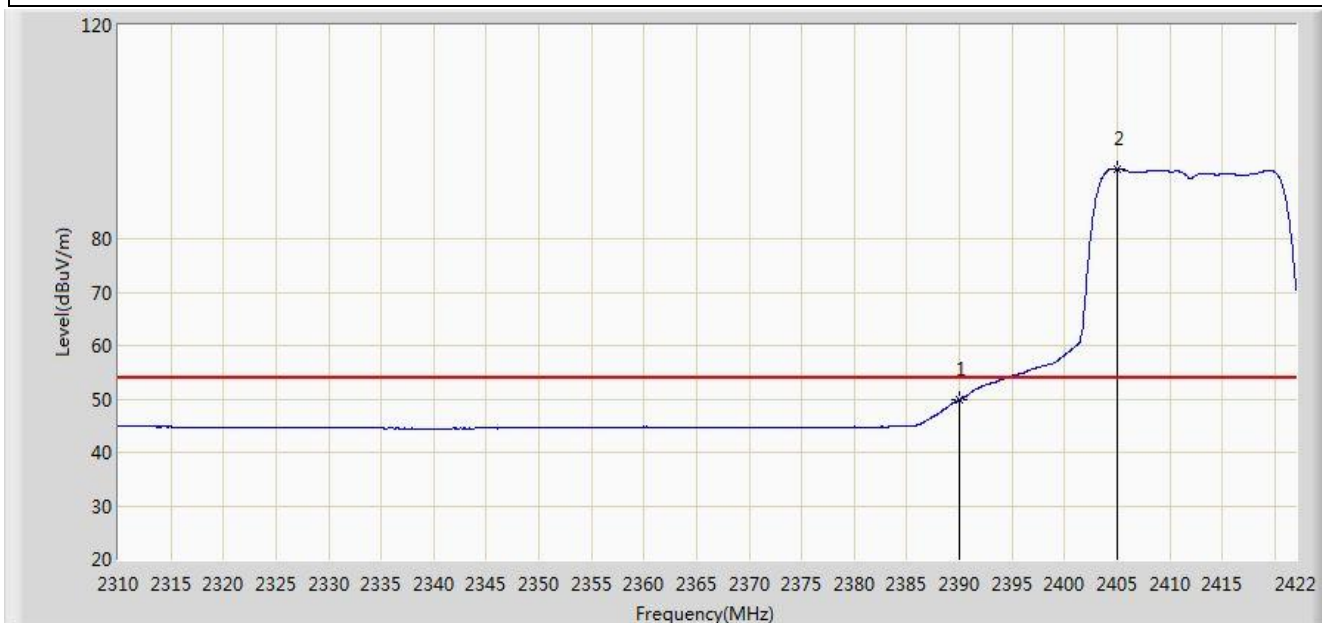


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.408	70.978	39.774	-3.022	74.000	31.203	PK
2			2390.000	70.013	38.810	-3.987	74.000	31.203	PK
3		*	2413.544	104.978	73.811	N/A	N/A	31.167	PK

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

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

Site: AC 1	Time: 2015/07/19 - 14:58
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2412MHz by 802.11n-HT20 Ant 0 + 1	

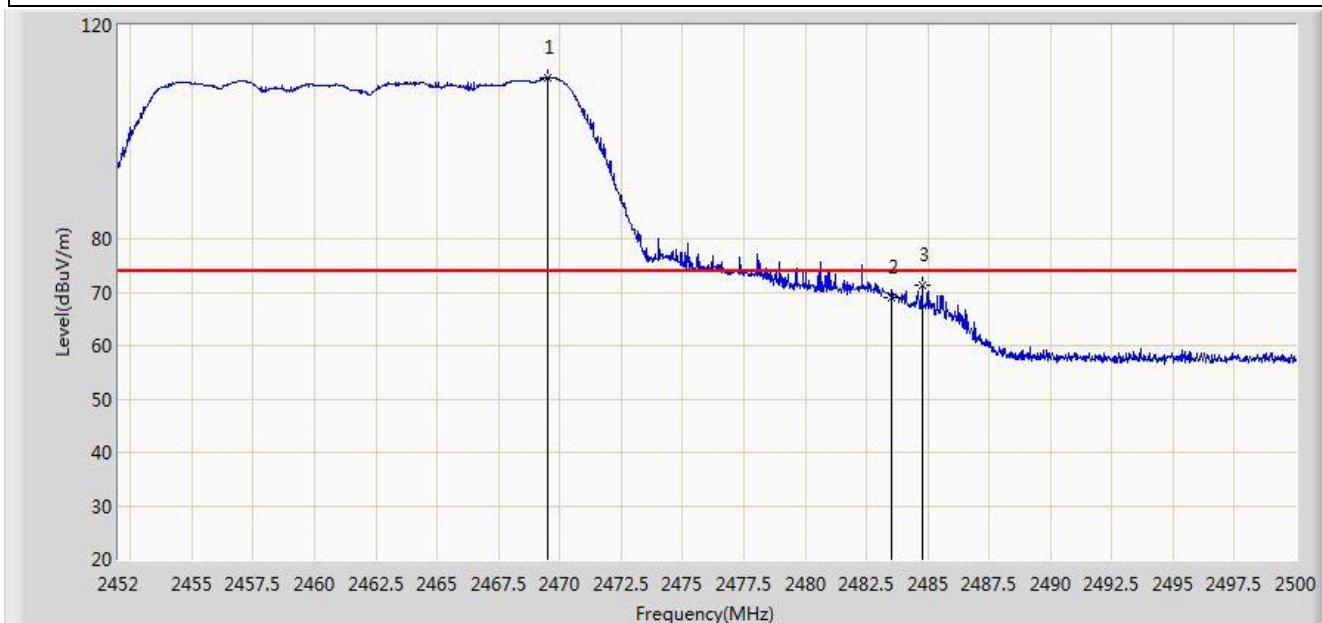


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	49.838	18.635	-4.162	54.000	31.203	AV
2		*	2405.032	93.073	61.893	N/A	N/A	31.180	AV

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

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

Site: AC 1	Time: 2015/07/19 - 15:07
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11n-HT20 Ant 0 + 1	

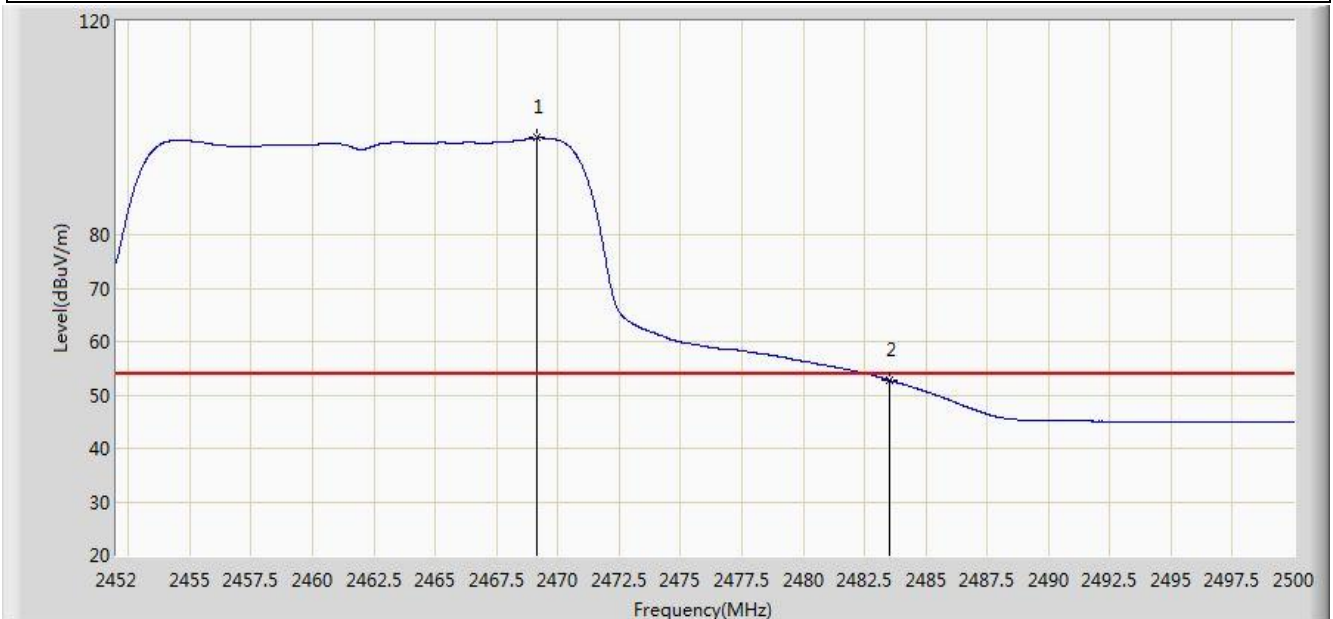


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2469.520	110.168	79.013	N/A	N/A	31.155	PK
2			2483.500	69.116	37.923	-4.884	74.000	31.194	PK
3			2484.760	71.215	40.018	-2.785	74.000	31.197	PK

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

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

Site: AC 1	Time: 2015/07/19 - 15:07
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11n-HT20 Ant 0 + 1	

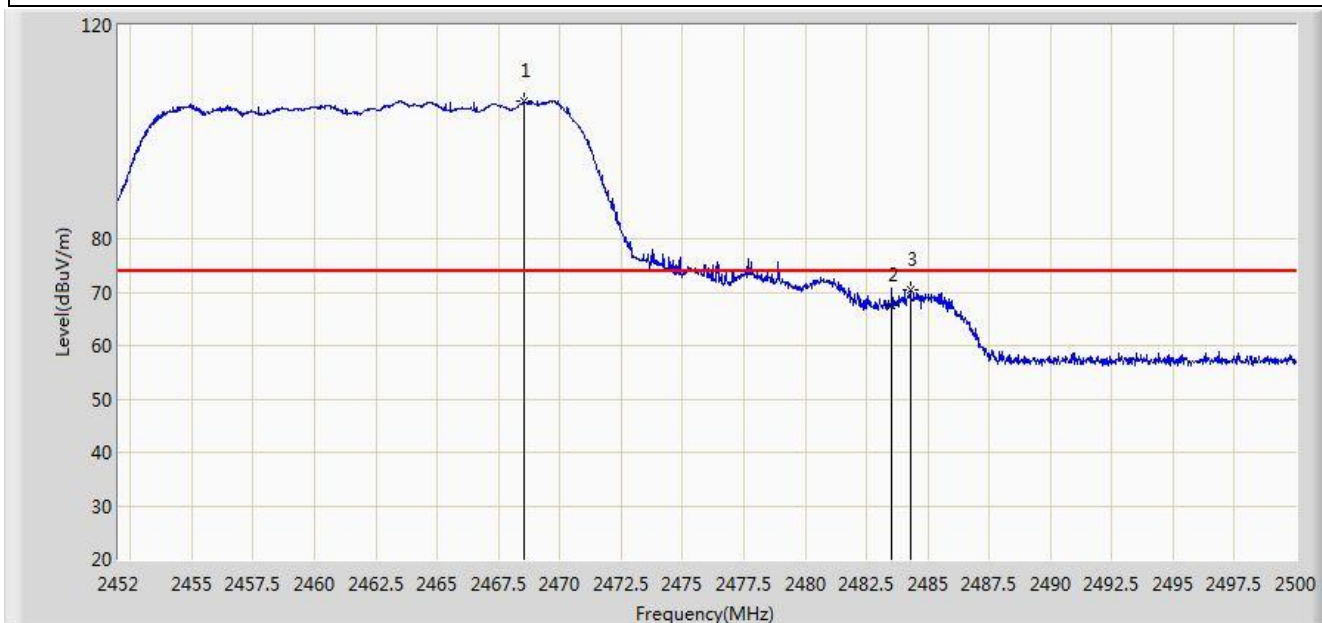


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2469.160	98.118	66.964	N/A	N/A	31.154	AV
2			2483.500	52.740	21.547	-1.260	54.000	31.194	AV

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

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

Site: AC 1	Time: 2015/07/19 - 15:08
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11n-HT20 Ant 0 + 1	

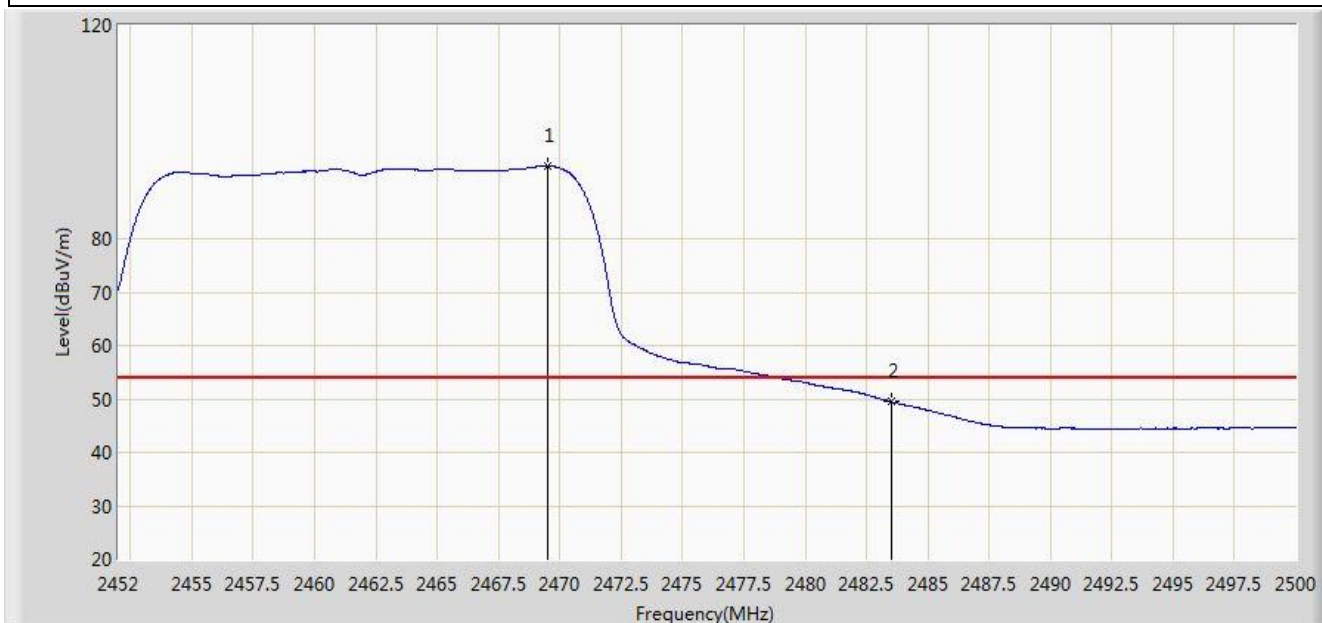


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2468.512	105.894	74.742	N/A	N/A	31.153	PK
2			2483.500	67.415	36.222	-6.585	74.000	31.194	PK
3			2484.280	70.384	39.189	-3.616	74.000	31.195	PK

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

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

Site: AC 1	Time: 2015/07/19 - 15:10
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2462MHz by 802.11n-HT20 Ant 0 + 1	

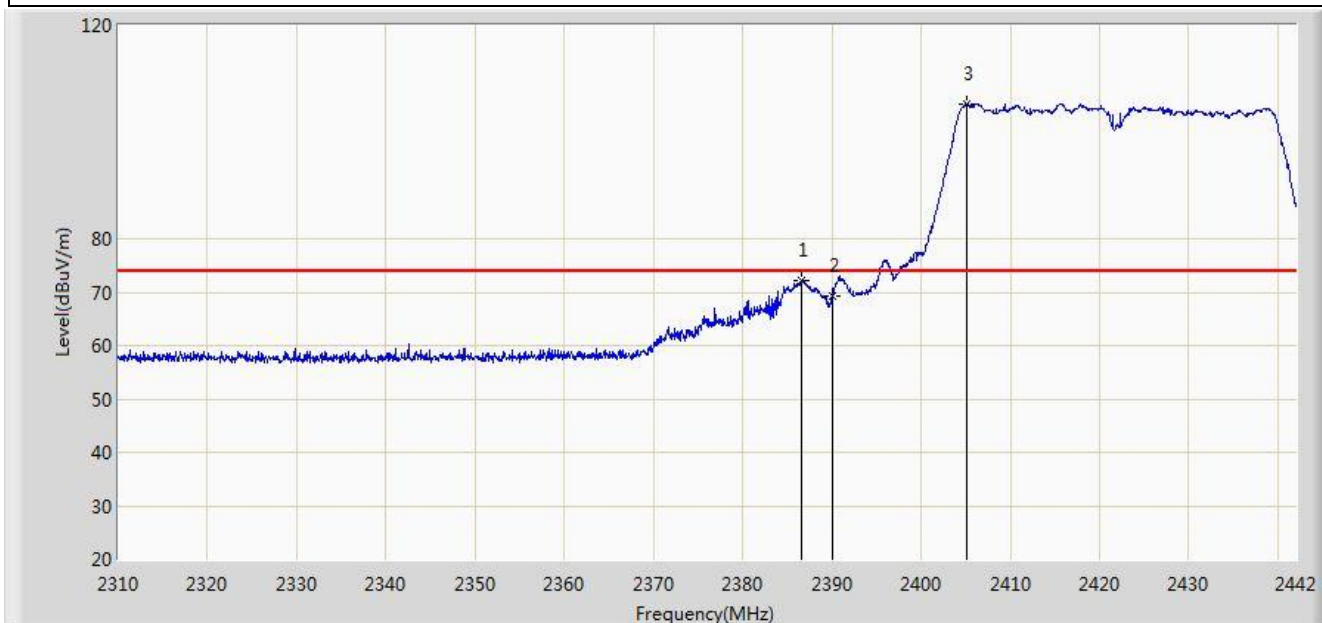


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2469.520	93.642	62.487	N/A	N/A	31.155	AV
2			2483.500	49.481	18.288	-4.519	54.000	31.194	AV

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

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

Site: AC 1	Time: 2015/07/19 - 15:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2422MHz by 802.11n-HT40 Ant 0 + 1	

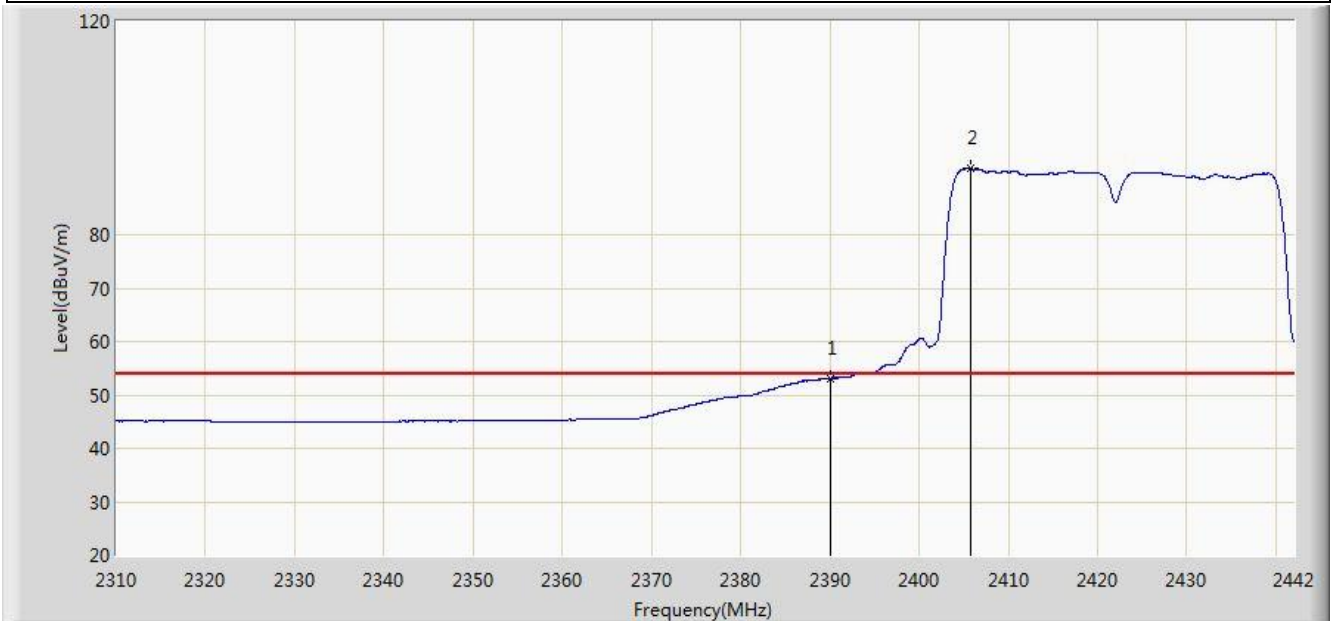


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2386.626	72.253	41.044	-1.747	74.000	31.209	PK
2			2390.000	69.168	37.965	-4.832	74.000	31.203	PK
3		*	2405.172	105.156	73.976	N/A	N/A	31.180	PK

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

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

Site: AC 1	Time: 2015/07/19 - 15:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2422MHz by 802.11n-HT40 Ant 0 + 1	

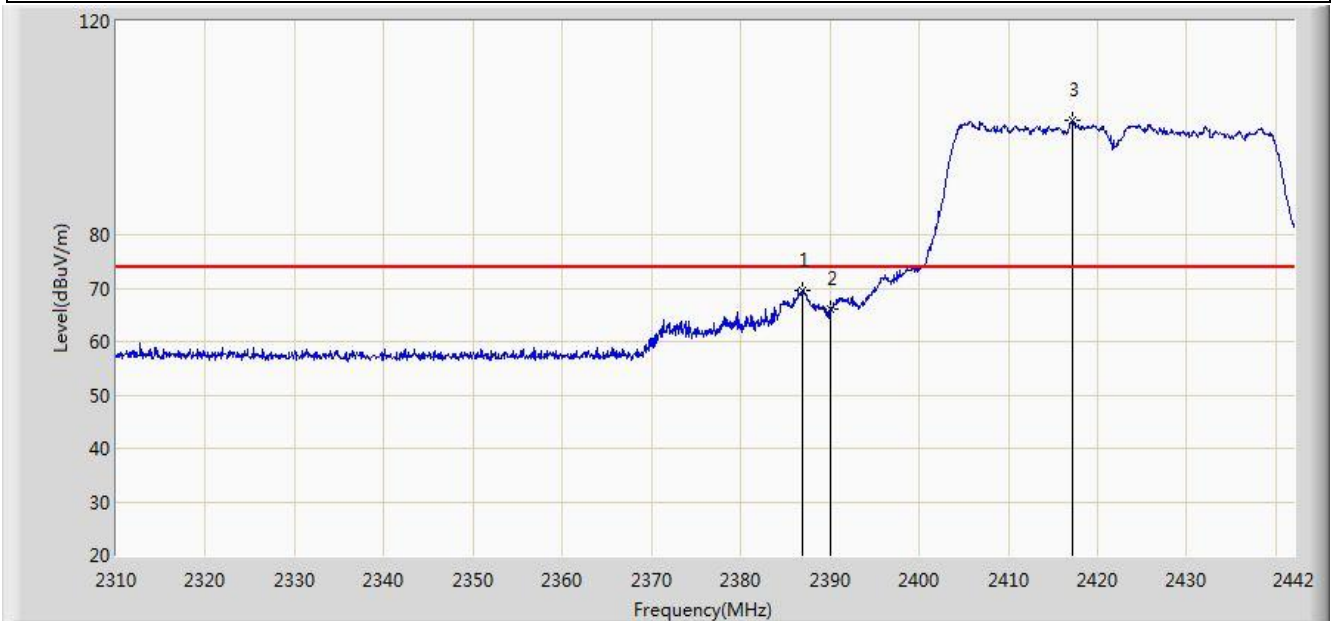


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	53.118	21.915	-0.882	54.000	31.203	AV
2		*	2405.832	92.434	61.255	N/A	N/A	31.179	AV

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

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

Site: AC 1	Time: 2015/07/19 - 15:19
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2422MHz by 802.11n-HT40 Ant 0 + 1	

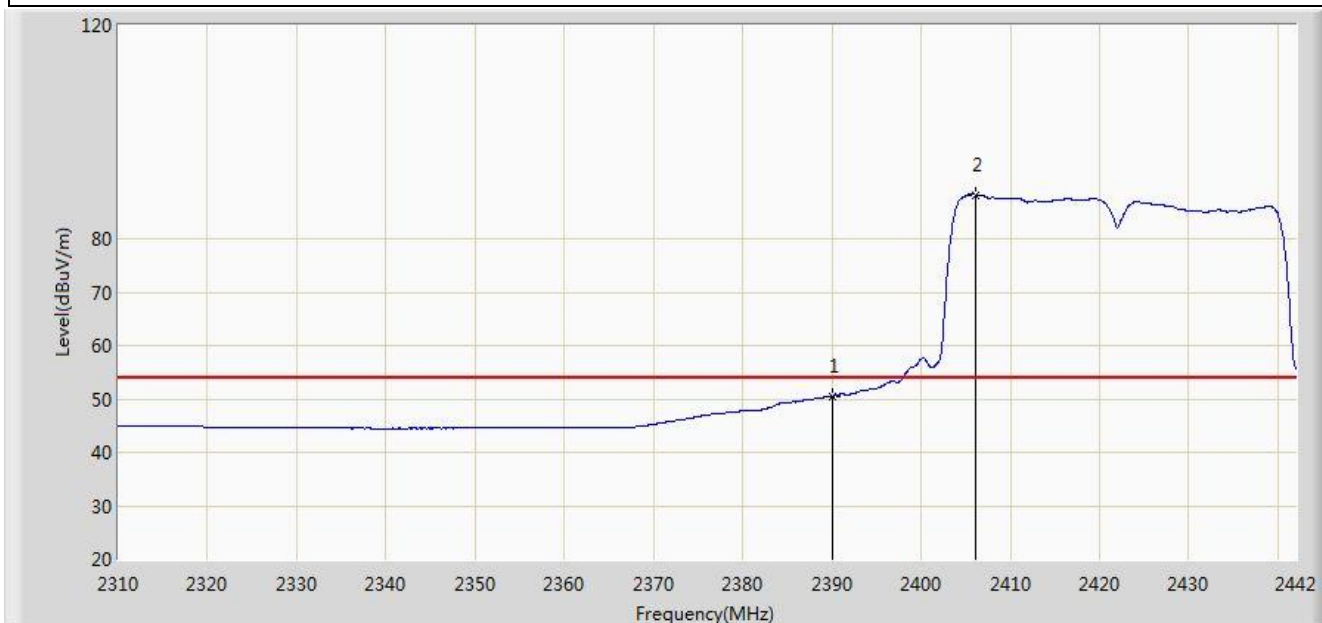


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2386.956	69.593	38.385	-4.407	74.000	31.209	PK
2			2390.000	66.160	34.957	-7.840	74.000	31.203	PK
3		*	2417.118	101.306	70.145	N/A	N/A	31.161	PK

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

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

Site: AC 1	Time: 2015/07/19 - 15:21
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2422MHz by 802.11n-HT40 Ant 0 + 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	50.469	19.266	-3.531	54.000	31.203	AV
2		*	2406.030	88.258	57.080	N/A	N/A	31.179	AV

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

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

Site: AC 1	Time: 2015/07/19 - 15:27
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2452MHz by 802.11n-HT40 Ant 0 + 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2435.366	106.198	75.070	N/A	N/A	31.127	PK
2			2483.500	69.560	38.367	-4.440	74.000	31.194	PK
3			2485.346	71.856	40.658	-2.144	74.000	31.198	PK

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

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

Site: AC 1	Time: 2015/07/19 - 15:27
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2452MHz by 802.11n-HT40 Ant 0 + 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2435.468	93.289	62.162	N/A	N/A	31.128	AV
2			2483.500	53.417	22.224	-0.583	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: AC 1	Time: 2015/07/19 - 15:27
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2452MHz by 802.11n-HT40 Ant 0 + 1	

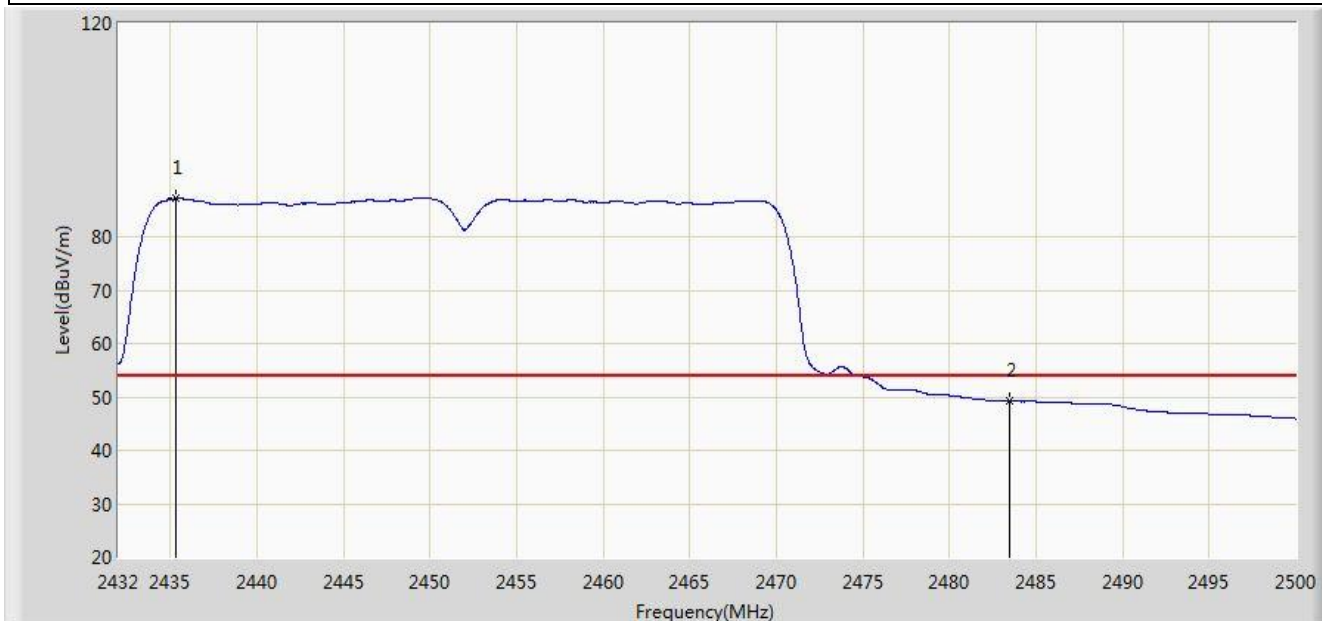


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2435.944	100.991	69.865	N/A	N/A	31.127	PK
2			2483.500	63.760	32.567	-10.240	74.000	31.194	PK
3			2485.312	67.555	36.357	-6.445	74.000	31.198	PK

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

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

Site: AC 1	Time: 2015/07/19 - 15:29
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: Smart Gateway	Power: AC 120V/60Hz
Test Mode: Transmit at Channel 2452MHz by 802.11n-HT40 Ant 0 + 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2435.332	87.126	55.998	N/A	N/A	31.127	AV
2			2483.500	49.263	18.070	-4.737	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

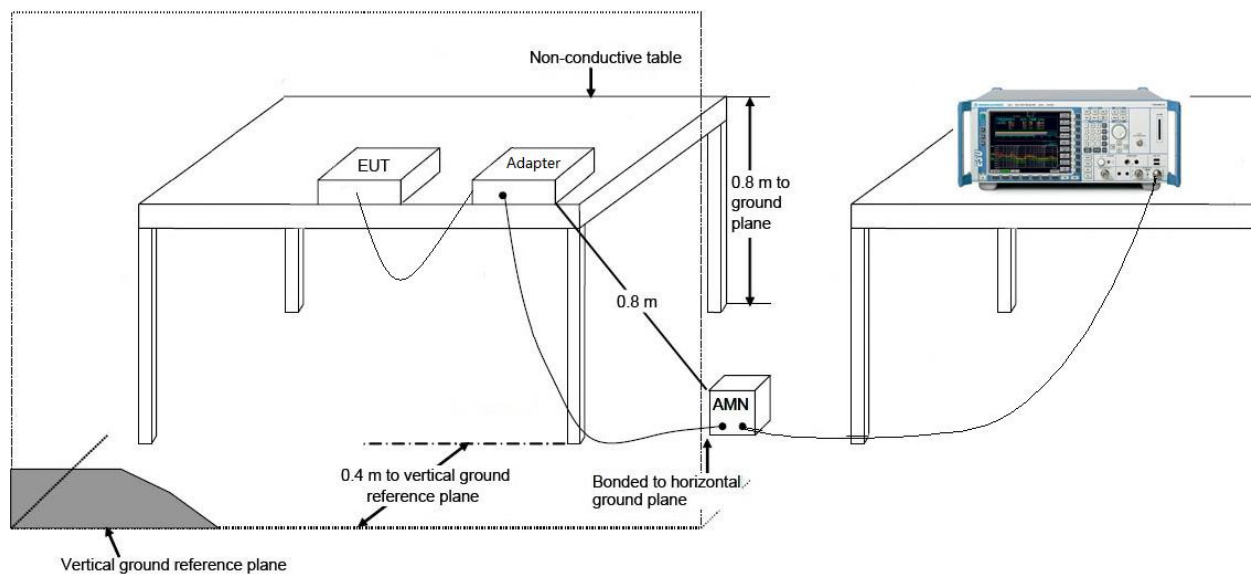
7.8.1. Test Limit

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.

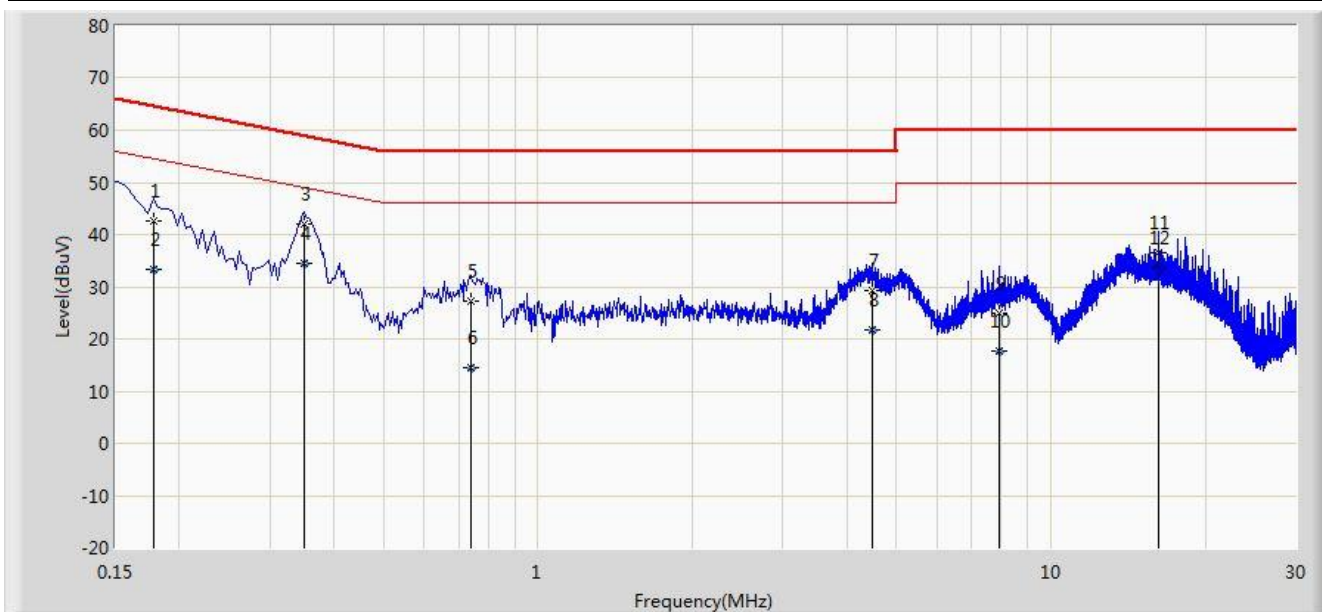
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3. Test Result

Site: SR2	Time: 2015/08/26 - 10:56
Limit: FCC_Part15.207_CE_AC Power	Engineer: Roy Cheng
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Smart Gateway	Power: AC 120V/60Hz
Note: Mode 1	

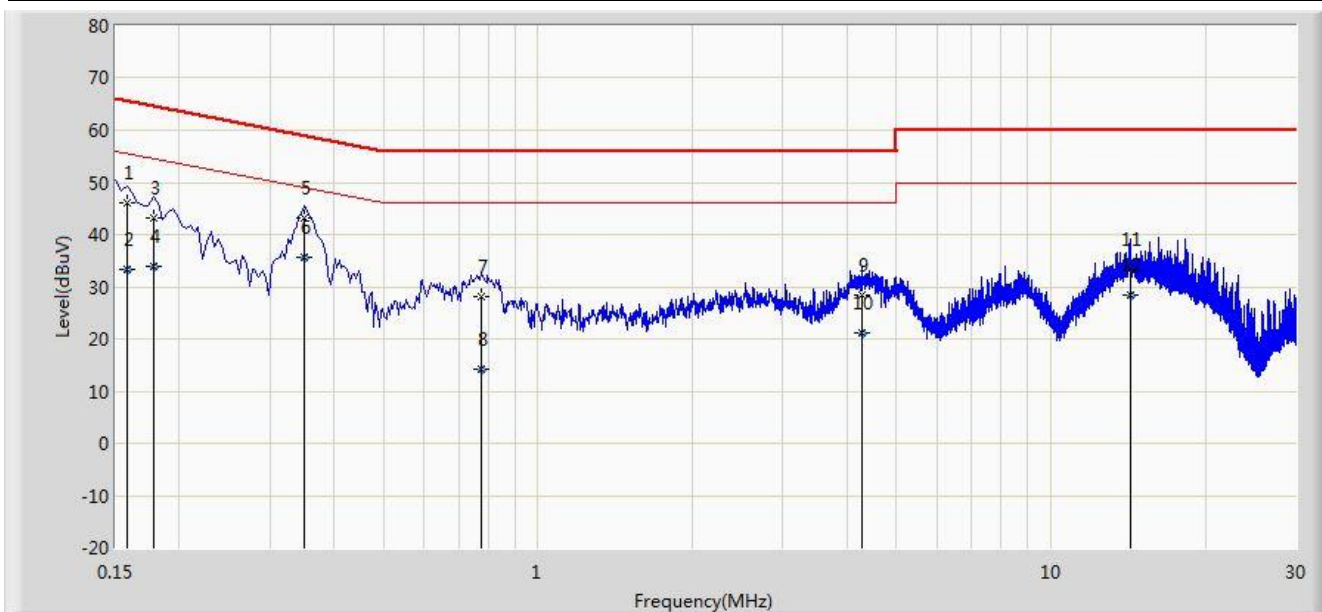


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.178	42.597	32.539	-21.981	64.578	10.058	QP
2			0.178	33.380	23.322	-21.198	54.578	10.058	AV
3			0.350	42.064	32.019	-16.899	58.962	10.044	QP
4		*	0.350	34.556	24.511	-14.407	48.962	10.044	AV
5			0.738	27.267	17.224	-28.733	56.000	10.044	QP
6			0.738	14.569	4.525	-31.431	46.000	10.044	AV
7			4.470	29.178	19.190	-26.822	56.000	9.988	QP
8			4.470	21.850	11.861	-24.150	46.000	9.988	AV
9			7.926	24.930	14.762	-35.070	60.000	10.168	QP
10			7.926	17.632	7.464	-32.368	50.000	10.168	AV
11			16.226	36.527	26.452	-23.473	60.000	10.075	QP
12			16.226	33.529	23.455	-16.471	50.000	10.075	AV

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

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

Site: SR2	Time: 2015/08/26 - 11:14
Limit: FCC_Part15.207_CE_AC Power	Engineer: Roy Cheng
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Smart 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			0.158	46.152	35.862	-19.417	65.568	10.290	QP
2			0.158	33.368	23.078	-22.201	55.568	10.290	AV
3			0.178	43.097	33.047	-21.482	64.578	10.049	QP
4			0.178	33.987	23.938	-20.591	54.578	10.049	AV
5			0.350	43.178	33.103	-15.785	58.962	10.074	QP
6		*	0.350	35.732	25.657	-13.231	48.962	10.074	AV
7			0.774	27.999	17.965	-28.001	56.000	10.034	QP
8			0.774	14.329	4.295	-31.671	46.000	10.034	AV
9			4.274	28.356	18.370	-27.644	56.000	9.986	QP
10			4.274	21.064	11.078	-24.936	46.000	9.986	AV
11			14.274	33.364	23.250	-26.636	60.000	10.114	QP
12			14.274	28.278	18.164	-21.722	50.000	10.114	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 **Smart Gateway FCC ID:**

H8N-WHD0110 is in compliance with Part 15C of the FCC Rules.

The End