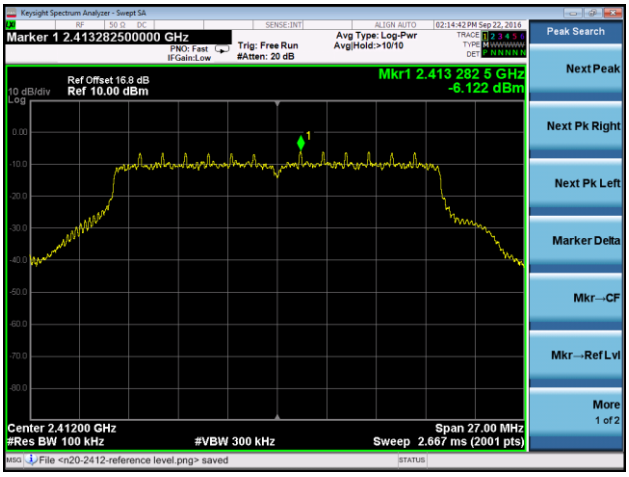
802.11n-HT20 Out-of-Band Emissions

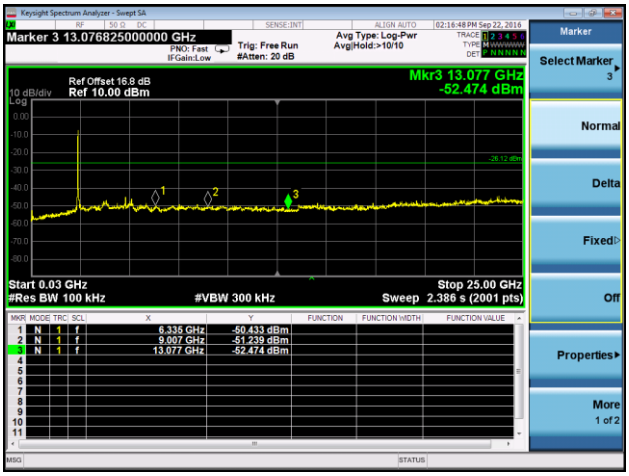
Channel 01 (2412MHz)

100kHz PSD reference Level



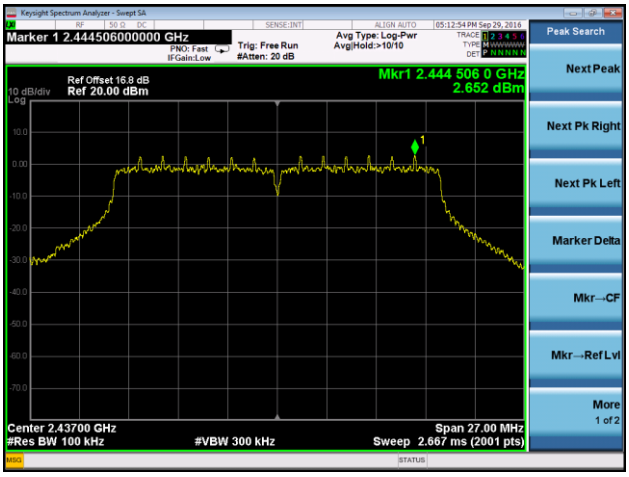
Low Band Edge

Spurious Emission 30MHz ~ 25GHz

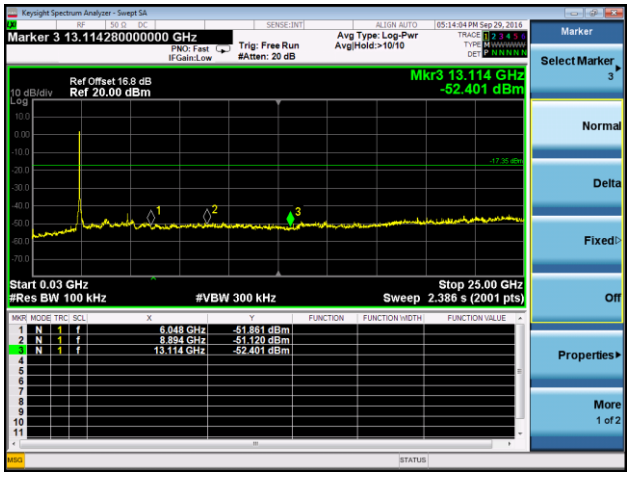


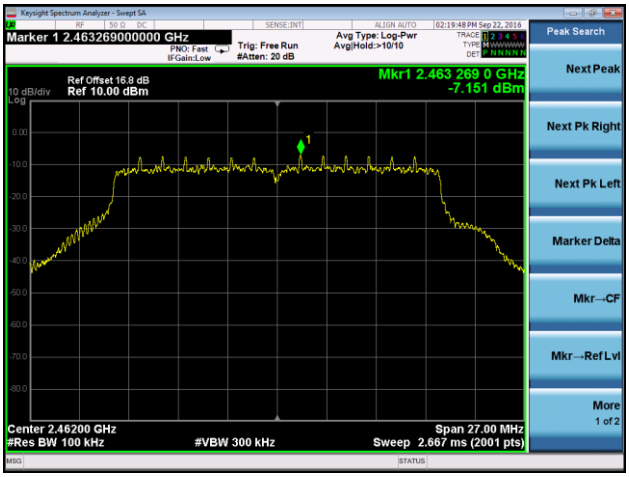
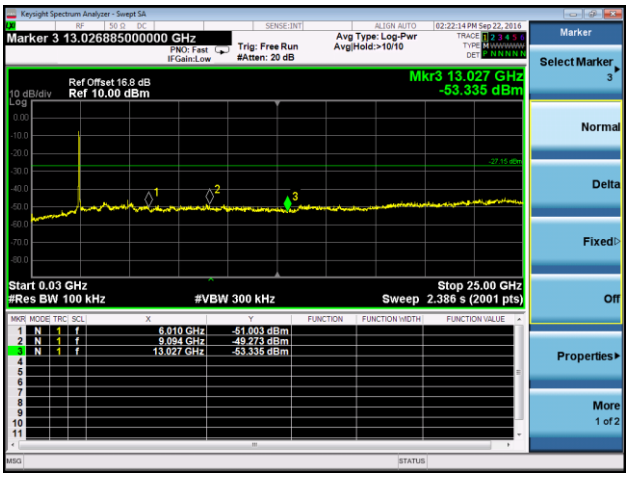
Channel 06 (2437MHz)

100kHz PSD reference Level



Spurious Emission 30MHz ~ 25GHz

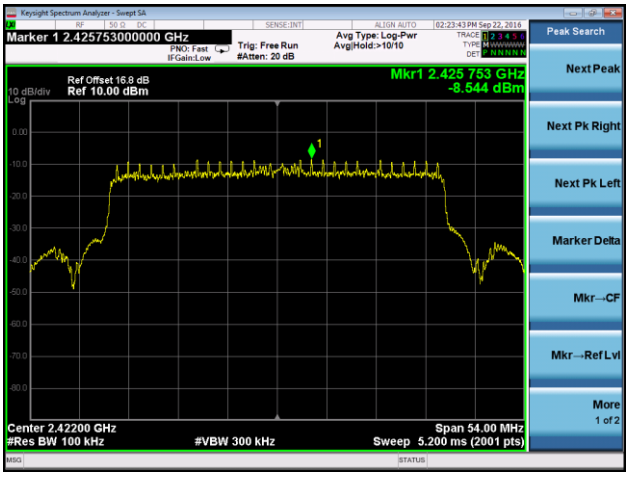


Channel 11 (2462MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 25GHz	
	

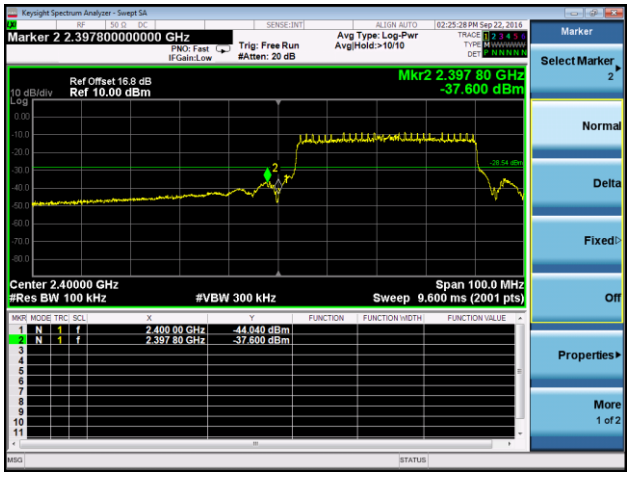
802.11n-HT40 Out-of-Band Emissions

Channel 01 (2422MHz)

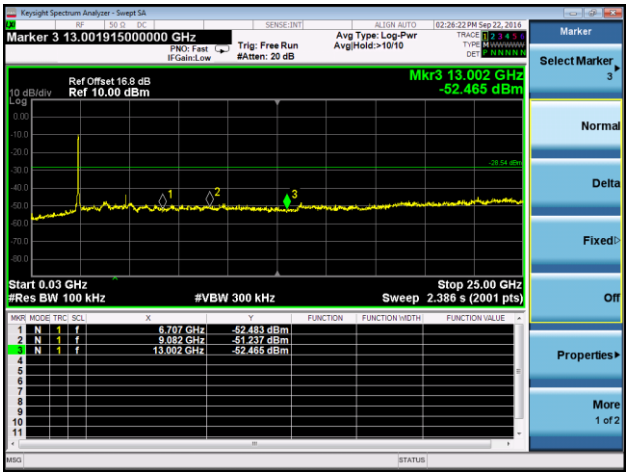
100kHz PSD reference Level



Low Band Edge



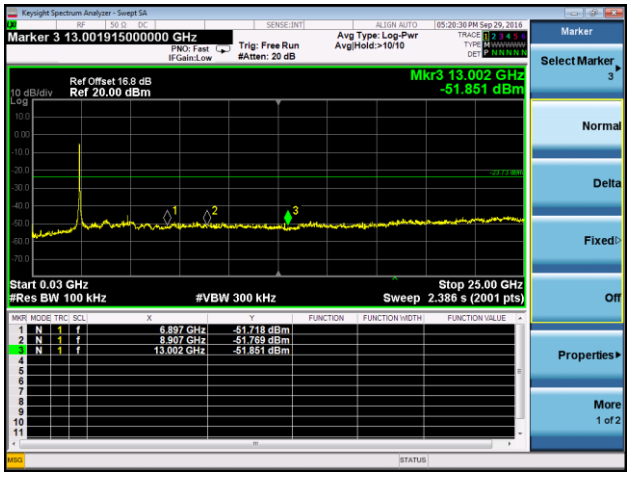
Spurious Emission 30MHz ~ 25GHz

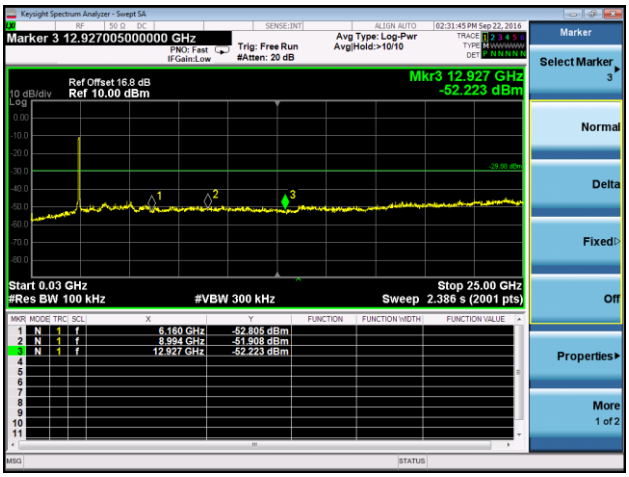


Channel 06 (2437MHz)

100kHz PSD reference Level

Spurious Emission 30MHz ~ 25GHz



Channel 11 (2452MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 25GHz	
	

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 D01v03r05 - Section 12.2.3 (quasi-peak measurements)

KDB 558074 D01v03r05 - Section 12.2.4 (peak power measurements)

KDB 558074 D01v03r05 - Section 12.2.5 (average power measurements)

7.6.3. Test Setting

Peak Field Strength Measurements per Section 12.2.4 of KDB 558074 D01v03r05

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

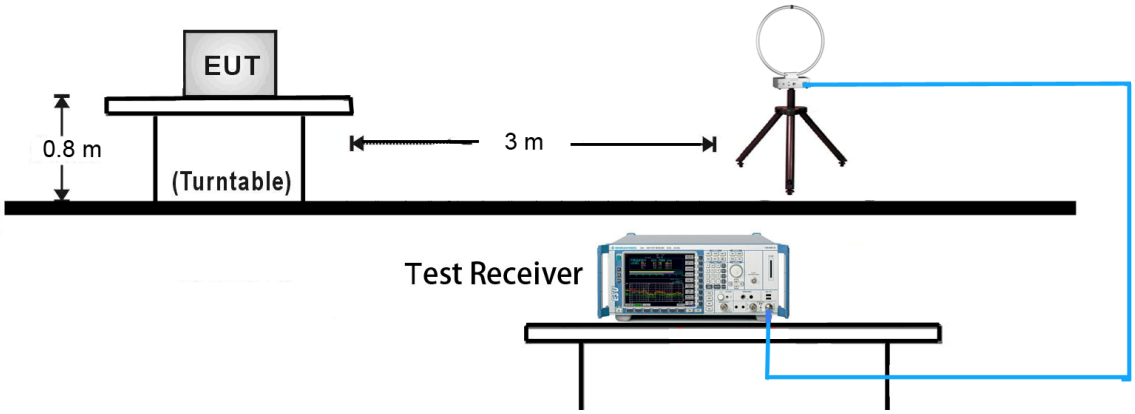
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

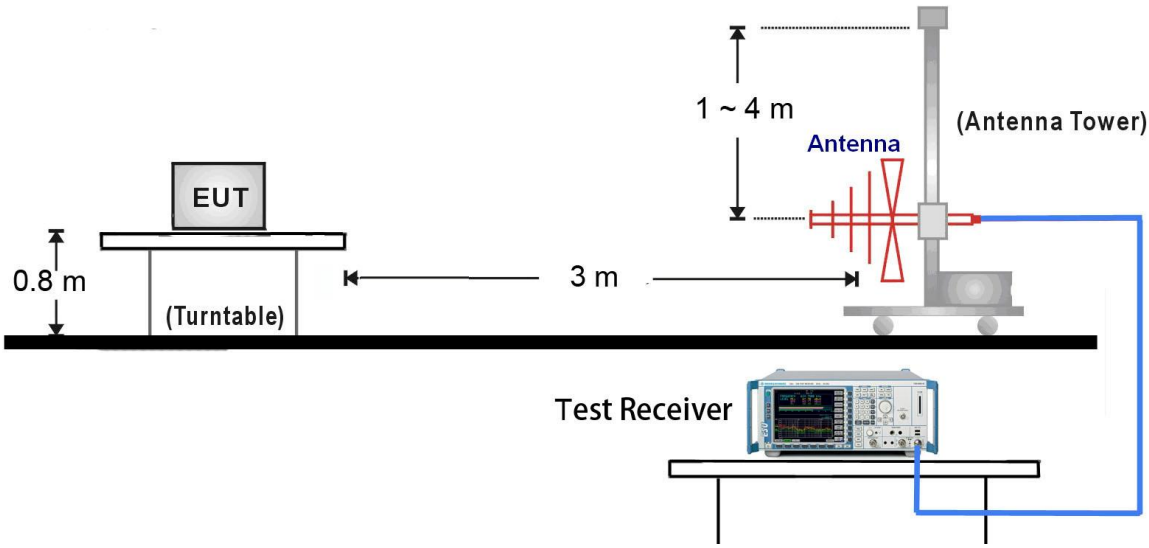
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW ≥ 1/T
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain).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

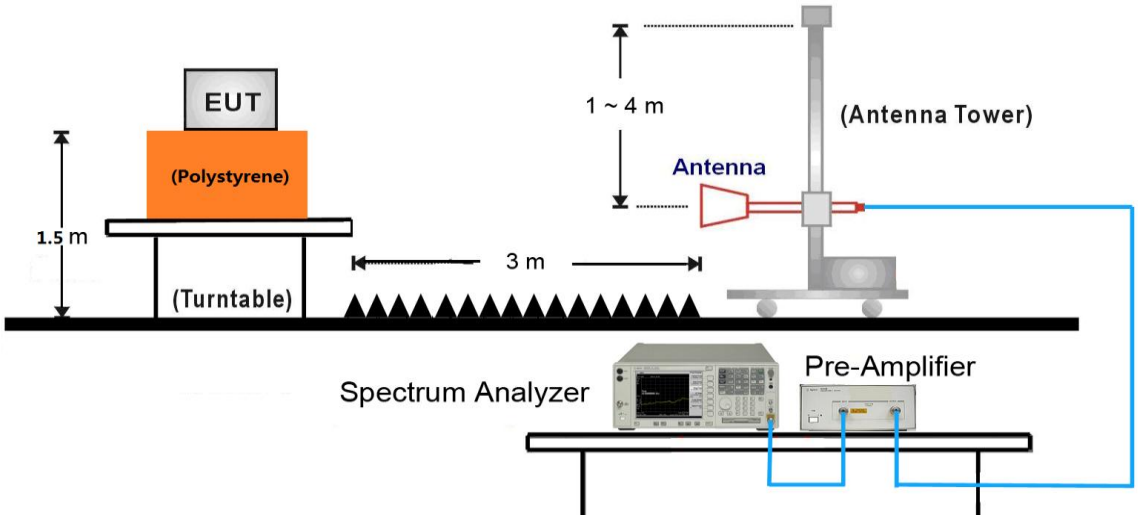
9kHz ~ 30MHz Test Setup:



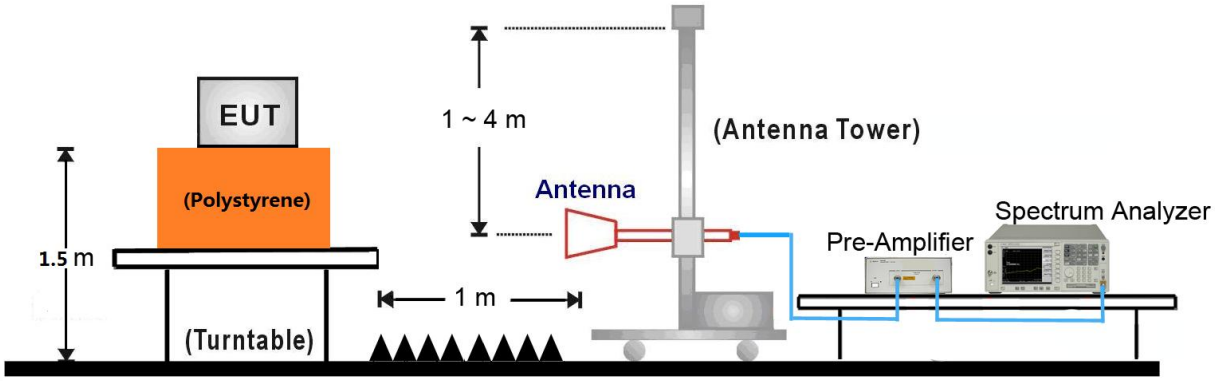
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~25GHz Test Setup:



7.6.5. Test Result

Test Mode:	802.11b	Test Site:	AC2
Test Channel:	01	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	40.6	2.3	42.9	74.0	-31.1	Peak	Horizontal
	7290.0	34.0	10.6	44.6	74.0	-29.4	Peak	Horizontal
*	9619.0	33.8	12.3	46.1	83.7	-37.6	Peak	Horizontal
*	10239.5	33.3	14.2	47.5	83.7	-36.2	Peak	Horizontal
	4825.0	48.3	2.3	50.6	74.0	-23.4	Peak	Vertical
	7350.0	32.5	10.7	43.2	74.0	-30.8	Peak	Vertical
*	9797.5	34.2	12.8	47.0	83.7	-36.7	Peak	Vertical
*	10501.0	32.1	15.0	47.1	83.7	-36.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (103.7dBμV/m) or 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:	AC2
Test Channel:	06	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	43.6	2.3	45.9	74.0	-28.1	Peak	Horizontal
	7745.2	32.9	10.3	43.2	74.0	-30.8	Peak	Horizontal
*	10545.6	31.6	15.2	46.8	91.7	-44.9	Peak	Horizontal
*	14693.5	34.1	20.9	55.0	91.7	-36.7	Peak	Horizontal
	3766.0	37.0	-0.8	36.2	74.0	-37.8	Peak	Vertical
	4874.0	51.3	2.3	53.6	54.0	-0.4	Average	Vertical
	4876.0	52.3	2.3	54.6	74.0	-19.4	Peak	Vertical
*	5470.0	34.2	3.2	37.4	91.7	-54.3	Peak	Vertical
*	9230.0	30.3	12.6	42.9	91.7	-48.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (111.7dBμV/m) or 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:	AC2
Test Channel:	11	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4927.0	40.0	2.2	42.2	74.0	-31.8	Peak	Horizontal
	5455.5	35.4	2.7	38.1	74.0	-35.9	Peak	Horizontal
*	9250.5	30.9	12.5	43.4	85.3	-41.9	Peak	Horizontal
*	10545.0	32.4	15.2	47.6	85.3	-37.7	Peak	Horizontal
	4927.0	44.1	2.2	46.3	74.0	-27.7	Peak	Vertical
	5440.5	34.7	2.9	37.6	74.0	-36.4	Peak	Vertical
*	9230.1	31.0	12.6	43.6	85.3	-41.7	Peak	Vertical
*	10450.5	31.9	14.6	46.5	85.3	-38.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (105.3dBμV/m) or 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:	AC2
Test Channel:	01	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	39.6	2.3	41.9	74.0	-32.1	Peak	Horizontal
	5357.5	34.9	2.5	37.4	74.0	-36.6	Peak	Horizontal
*	7895.5	32.6	10.5	43.1	81.9	-38.8	Peak	Horizontal
*	9250.6	31.3	12.5	43.8	81.9	-38.1	Peak	Horizontal
	4825.0	44.7	2.3	47.0	74.0	-27.0	Peak	Vertical
	9140.5	31.8	12.4	44.2	74.0	-29.8	Peak	Vertical
*	9650.6	32.5	12.6	45.1	81.9	-36.8	Peak	Vertical
*	13101.0	31.0	18.4	49.4	81.9	-32.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (101.9dBμV/m) or 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:	AC2
Test Channel:	06	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	41.1	2.3	43.4	74.0	-30.6	Peak	Horizontal
	5357.1	34.6	2.5	37.1	74.0	-36.9	Peak	Horizontal
*	8657.5	31.8	11.0	42.8	87.1	-44.3	Peak	Horizontal
*	9785.0	32.4	12.8	45.2	87.1	-41.9	Peak	Horizontal
	4876.0	50.9	2.3	53.2	74.0	-20.8	Peak	Vertical
*	7350.0	32.7	10.7	43.4	74.0	-30.6	Peak	Vertical
*	9746.5	35.5	12.6	48.1	87.1	-39.0	Peak	Vertical
	12805.0	31.2	16.4	47.6	87.1	-39.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (107.1dBμV/m) or 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:	AC2
Test Channel:	11	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	39.4	2.2	41.6	74.0	-32.4	Peak	Horizontal
	8430.0	31.6	11.0	42.6	74.0	-31.4	Peak	Horizontal
*	9875.0	32.4	12.8	45.2	81.5	-36.3	Peak	Horizontal
*	13500.0	30.7	19.8	50.5	81.5	-31.0	Peak	Horizontal
	4927.0	41.1	2.2	43.3	74.0	-30.7	Peak	Vertical
	8350.0	32.2	10.6	42.8	74.0	-31.2	Peak	Vertical
*	9787.0	32.7	12.8	45.5	81.5	-36.0	Peak	Vertical
*	13500.0	31.3	19.8	51.1	81.5	-30.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (101.5dBμV/m) or 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:	AC2
Test Channel:	01	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	39.2	2.3	41.5	74.0	-32.5	Peak	Horizontal
	8355.0	32.6	10.6	43.2	74.0	-30.8	Peak	Horizontal
*	9874.0	31.6	12.8	44.4	83.9	-39.5	Peak	Horizontal
*	10545.0	32.6	15.2	47.8	83.9	-36.1	Peak	Horizontal
	4825.0	43.5	2.3	45.8	74.0	-28.2	Peak	Vertical
	8350.0	31.7	10.6	42.3	74.0	-31.7	Peak	Vertical
*	9745.0	32.9	12.5	45.4	83.9	-38.5	Peak	Vertical
*	10550.0	32.1	15.2	47.3	83.9	-36.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (103.9dBμV/m) or 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:	AC2
Test Channel:	06	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	40.7	2.3	43.0	74.0	-31.0	Peak	Horizontal
	8445.0	32.0	10.9	42.9	74.0	-31.1	Peak	Horizontal
*	9746.5	34.7	12.6	47.3	89.0	-41.7	Peak	Horizontal
*	9785.0	32.3	12.8	45.1	89.0	-43.9	Peak	Horizontal
	4876.0	48.7	2.3	51.0	74.0	-23.0	Peak	Vertical
*	8125.0	31.9	11.0	42.9	74.0	-31.1	Peak	Vertical
*	9746.5	34.2	12.6	46.8	89.0	-42.2	Peak	Vertical
	10434.0	31.3	14.6	45.9	89.0	-43.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (109.0dBμV/m) or 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:	AC2
Test Channel:	11	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	41.1	2.2	43.3	74.0	-30.7	Peak	Horizontal
	8462.0	32.7	10.8	43.5	74.0	-30.5	Peak	Horizontal
*	9785.0	32.1	12.8	44.9	82.6	-37.7	Peak	Horizontal
*	10535.0	31.3	15.2	46.5	82.6	-36.1	Peak	Horizontal
	4927.0	39.6	2.2	41.8	74.0	-32.2	Peak	Vertical
*	8325.0	32.7	10.6	43.3	74.0	-30.7	Peak	Vertical
*	9775.0	32.7	12.7	45.4	82.6	-37.2	Peak	Vertical
	10436.0	31.3	14.6	45.9	82.6	-36.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (102.6dBμV/m) or 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:	AC2
Test Channel:	03	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4842.0	39.4	2.5	41.9	74.0	-32.1	Peak	Horizontal
	8325.0	32.1	10.6	42.7	74.0	-31.3	Peak	Horizontal
*	9736.0	32.0	12.5	44.5	84.6	-40.1	Peak	Horizontal
*	10523.1	31.6	15.1	46.7	84.6	-37.9	Peak	Horizontal
	4842.0	43.9	2.5	46.4	74.0	-27.6	Peak	Vertical
*	8233.0	33.5	10.6	44.1	74.0	-29.9	Peak	Vertical
*	9746.1	32.5	12.6	45.1	84.6	-39.5	Peak	Vertical
	13200.0	30.1	18.4	48.5	84.6	-36.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.6dBμV/m) or 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:	AC2
Test Channel:	06	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	42.8	2.3	45.1	74.0	-28.9	Peak	Horizontal
	7745.5	32.6	10.3	42.9	74.0	-31.1	Peak	Horizontal
*	9250.6	30.6	12.5	43.1	87.3	-44.2	Peak	Horizontal
*	9748.1	32.8	12.6	45.4	87.3	-41.9	Peak	Horizontal
	4876.0	49.7	2.3	52.0	74.0	-22.0	Peak	Vertical
*	7462.0	32.7	10.9	43.6	74.0	-30.4	Peak	Vertical
*	9230.0	30.9	12.6	43.5	87.3	-43.8	Peak	Vertical
	9712.0	33.9	12.4	46.3	87.3	-41.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (107.3dBμV/m) or 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:	AC2
Test Channel:	09	Test Engineer:	Lewis Huang
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. **The worst case of Radiated Spurious Emission.** 3. 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	39.0	2.3	41.3	74.0	-32.7	Peak	Horizontal
	7456.0	32.3	10.9	43.2	74.0	-30.8	Peak	Horizontal
*	8675.0	31.5	11.1	42.6	83.7	-41.1	Peak	Horizontal
*	9785.0	31.9	12.8	44.7	83.7	-39.0	Peak	Horizontal
	4901.5	42.1	2.3	44.4	74.0	-29.6	Peak	Vertical
*	7423.0	32.8	10.8	43.6	74.0	-30.4	Peak	Vertical
*	8645.0	31.8	11.1	42.9	83.7	-40.8	Peak	Vertical
	9746.0	31.9	12.6	44.5	83.7	-39.2	Peak	Vertical

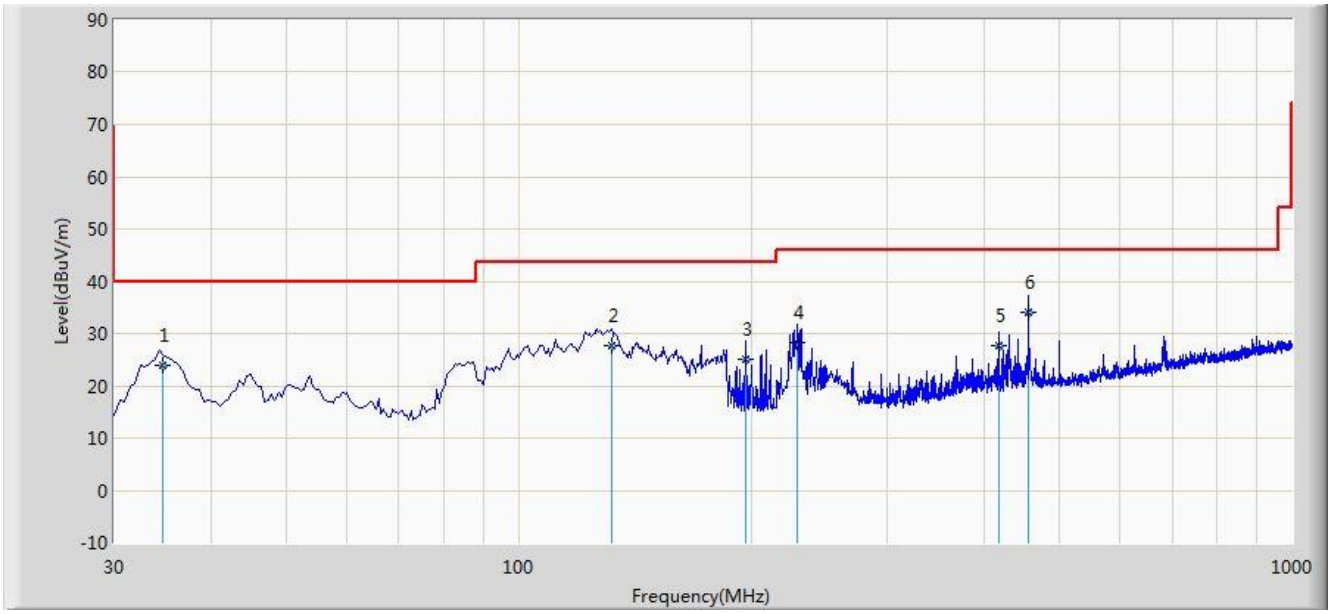
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (103.7dBμV/m) or 15.209 which is higher.

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: AC2	Time: 2016/11/09 - 14:26
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Worse Case Mode: 802.11g at Channel 2412MHz	

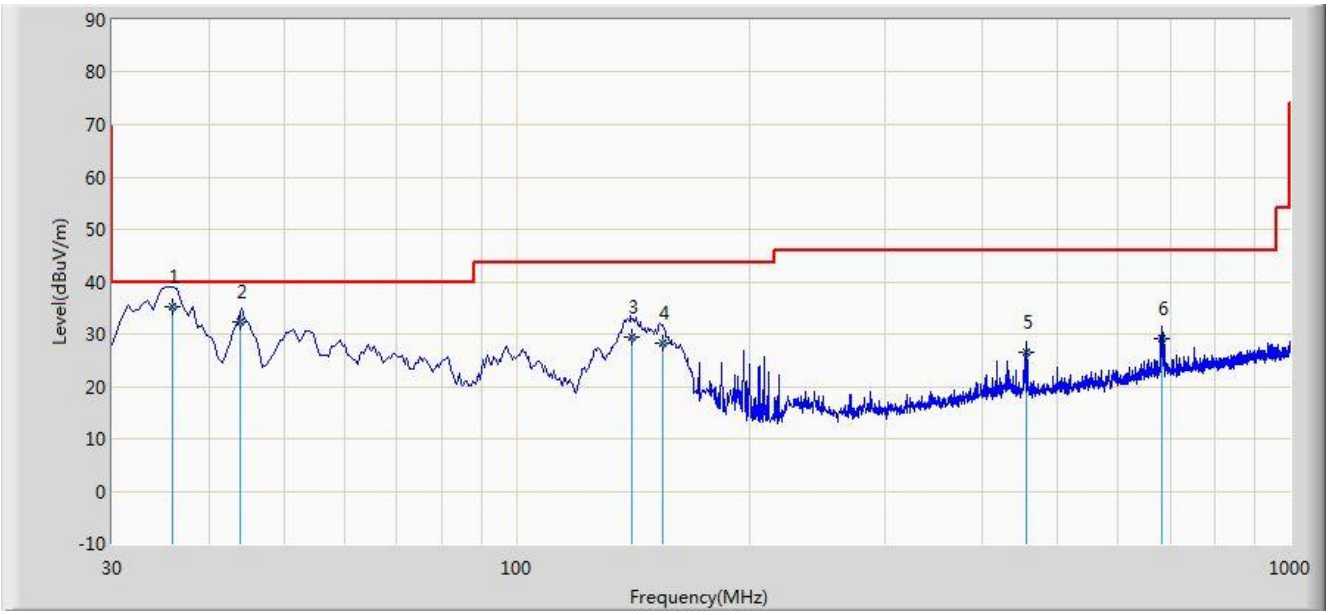


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			34.661	24.006	11.118	-15.994	40.000	12.888	QP
2			131.772	27.738	17.802	-15.762	43.500	9.936	QP
3			196.503	25.161	12.982	-18.339	43.500	12.179	QP
4			229.172	28.257	15.206	-17.743	46.000	13.052	QP
5			418.338	27.652	10.635	-18.348	46.000	17.017	QP
6		*	455.963	33.939	16.392	-12.061	46.000	17.546	QP

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

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

Site: AC2	Time: 2016/11/09 - 14:26
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Worse Case Mode: 802.11g at Channel 2412MHz	

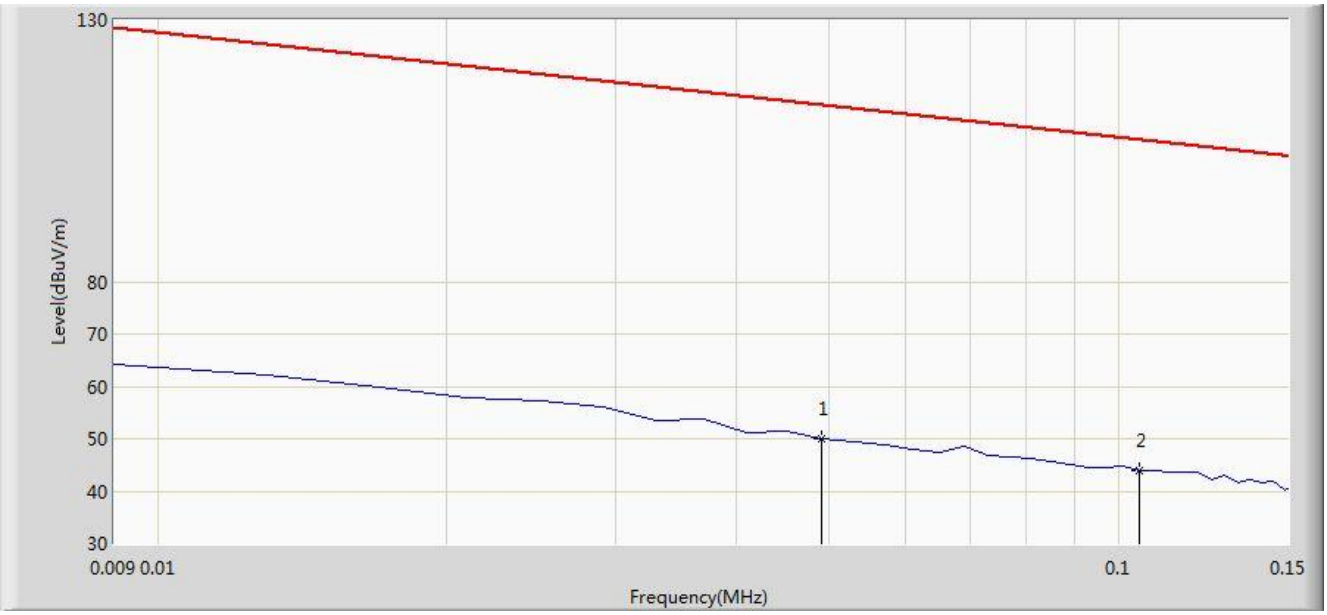


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	35.910	35.099	22.003	-4.901	40.000	13.095	QP
2			44.022	32.359	17.712	-7.641	40.000	14.647	QP
3			140.661	29.406	19.927	-14.094	43.500	9.480	QP
4			154.772	28.316	18.663	-15.184	43.500	9.653	QP
5			455.902	26.382	8.837	-19.618	46.000	17.545	QP
6			682.663	29.043	7.731	-16.957	46.000	21.312	QP

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

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

Site: AC2	Time: 2016/09/22 - 15:34
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face On
EUT: WIFI Module	Power: By Computer
Note: There is the ambient noise within frequency range 9kHz~30MHz.	



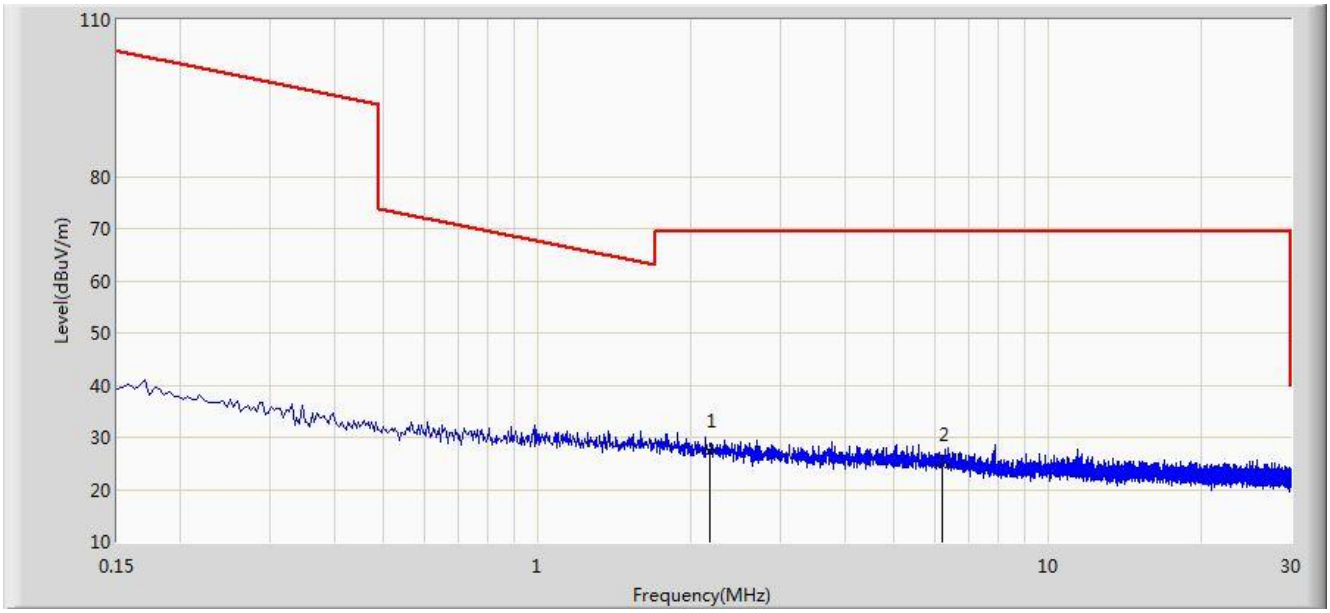
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.049	50.112	29.552	-63.688	113.800	20.560	AV
2		*	0.105	44.043	23.845	-63.137	107.180	20.198	QP

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

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

Limit@3m = 20*Log((2400/49)uV/m) + 40*Log(300m/3m) = 113.800dBμv/m (Average detector)

Site: AC2	Time: 2016/09/22 - 15:45
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face On
EUT: WIFI Module	Power: By Computer
Note: There is the ambient noise within frequency range 9kHz~30MHz.	



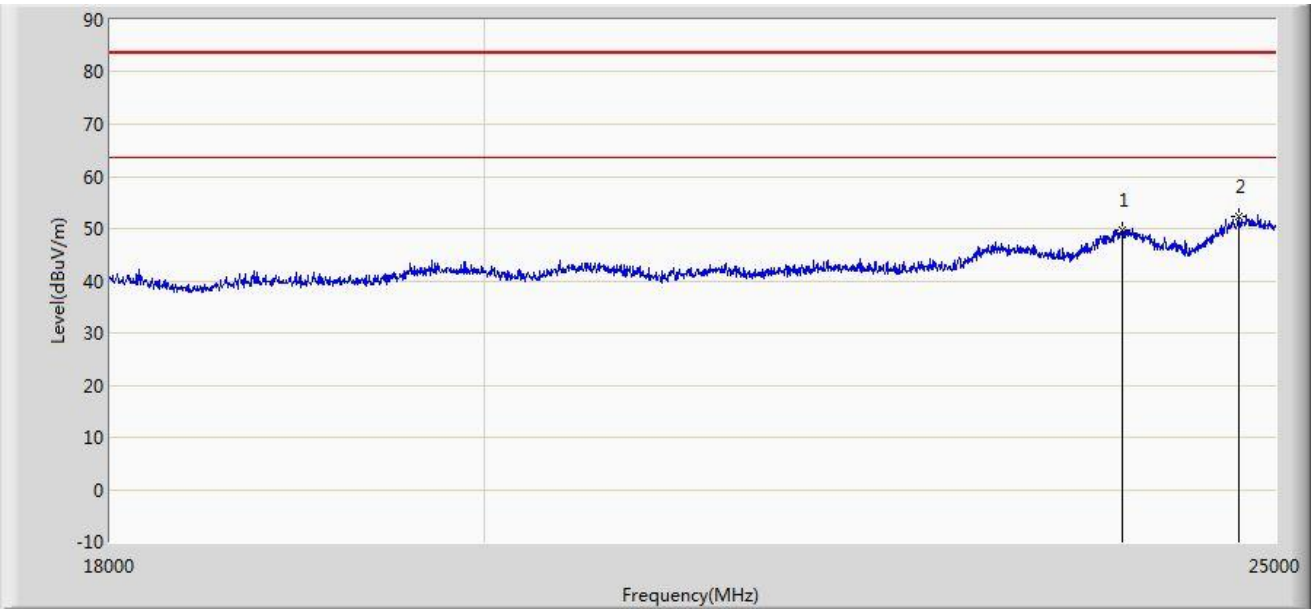
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2.175	27.371	6.960	-42.129	69.500	20.412	QP
2			6.216	24.786	4.701	-44.714	69.500	20.085	QP

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

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

Limit@3m = 20*Log(30uV/m) + 20*Log(30m/3m) = 49.5dBμv/m (Average detector), and 69.5dBμv/m (Quasi-Peak detector).

Site: AC2	Time: 2016/09/22- 21:20
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Note: There is the ambient noise within frequency range 18GHz~25GHz.	



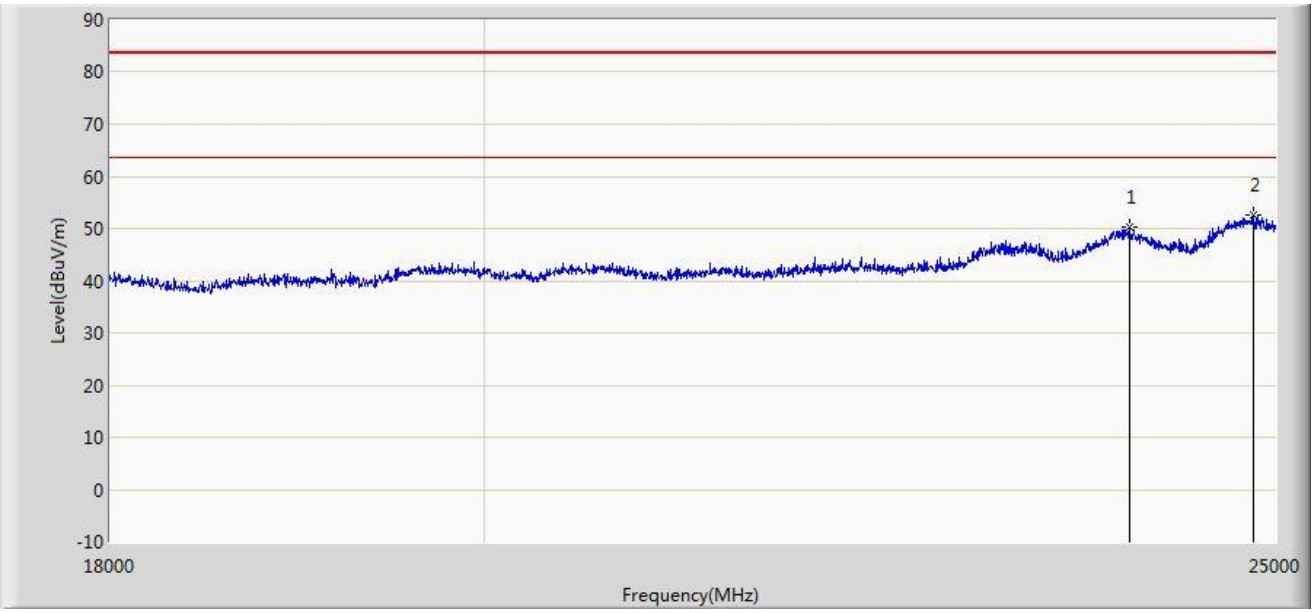
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			23943.000	49.776	35.866	-33.724	83.500	13.910	PK
2		*	24741.000	52.375	37.681	-31.125	83.500	14.694	PK

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

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

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

Site: AC2	Time: 2016/09/22 - 21:32
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
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)

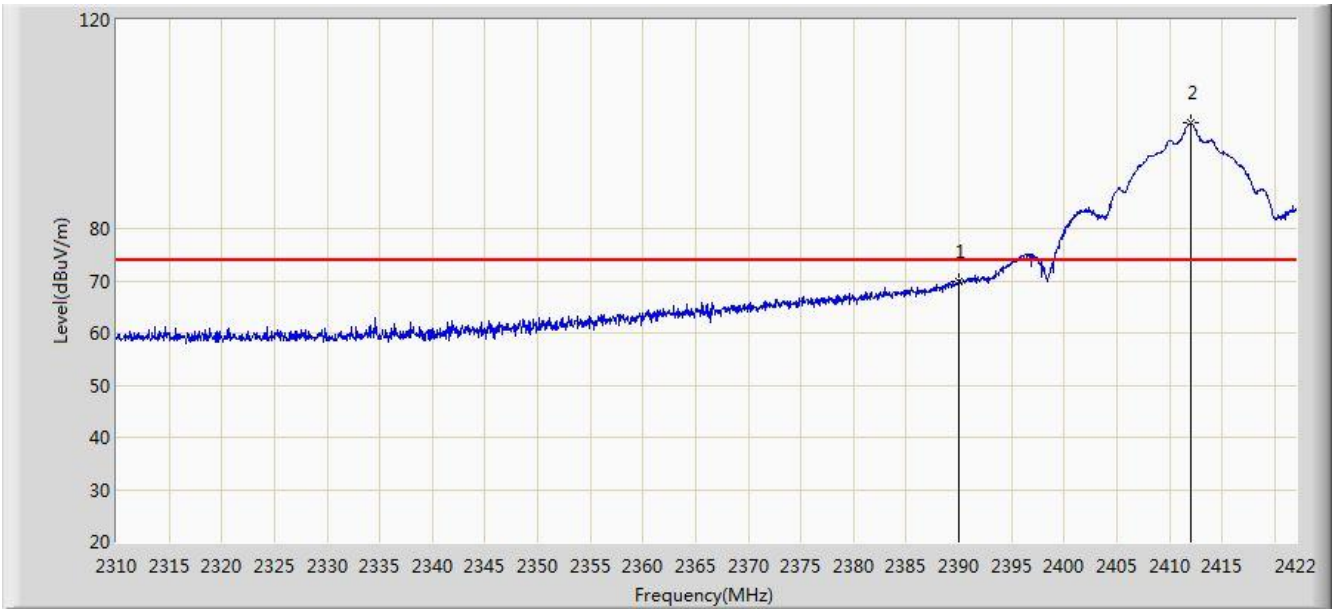
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

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: AC2	Time: 2016/09/21 - 01:47
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11b at Channel 2412MHz	

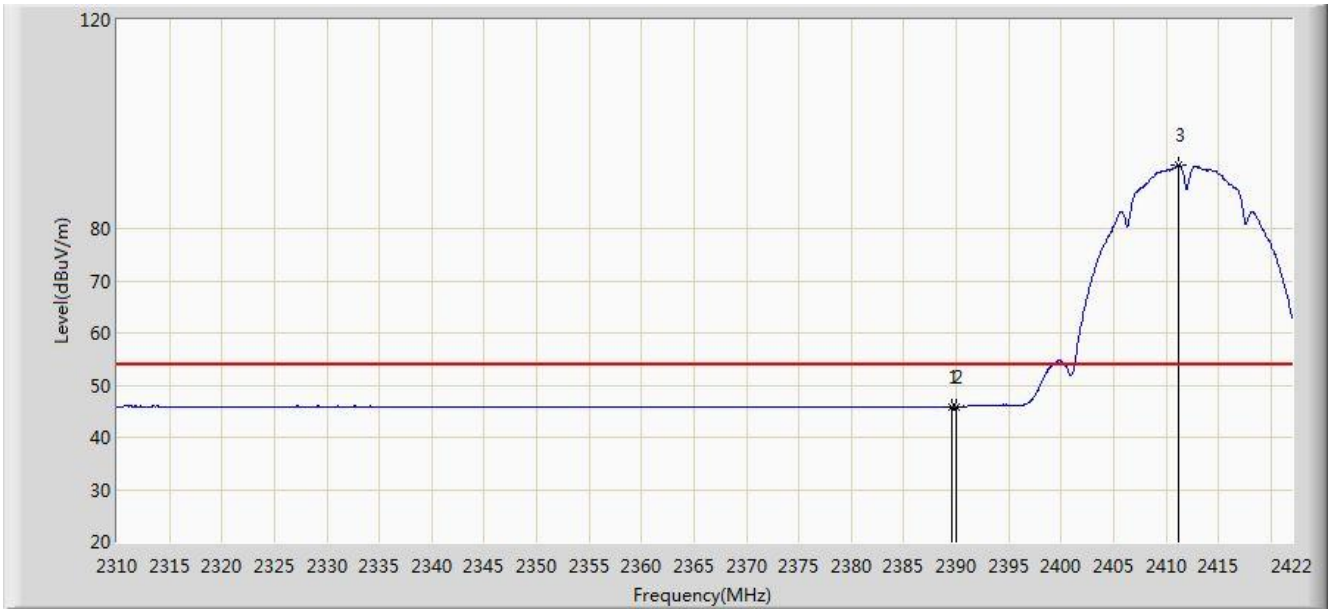


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	69.862	37.939	-4.138	74.000	31.923	PK
2		*	2411.976	100.306	68.442	N/A	N/A	31.864	PK

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

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

Site: AC2	Time: 2016/09/21 - 01:50
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11b at Channel 2412MHz	

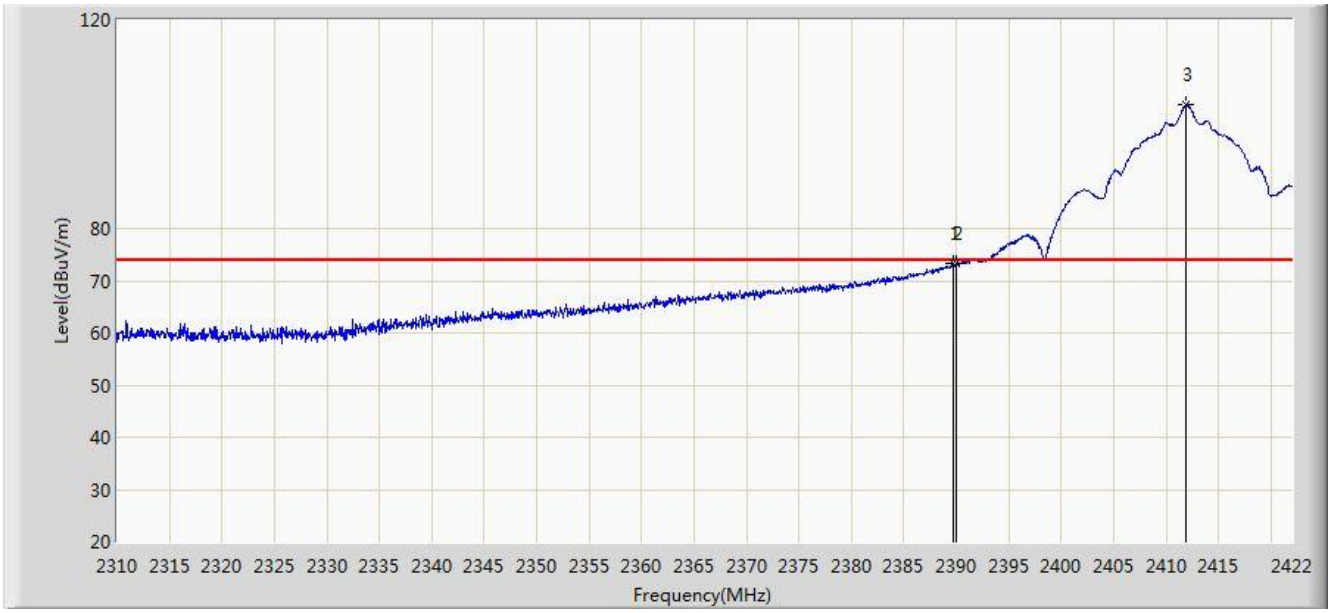


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.520	45.928	14.006	-8.072	54.000	31.922	AV
2			2390.000	45.901	13.978	-8.099	54.000	31.923	AV
3		*	2411.192	92.198	60.333	N/A	N/A	31.865	AV

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

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

Site: AC2	Time: 2016/09/21 - 01:27
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11b at Channel 2412MHz	

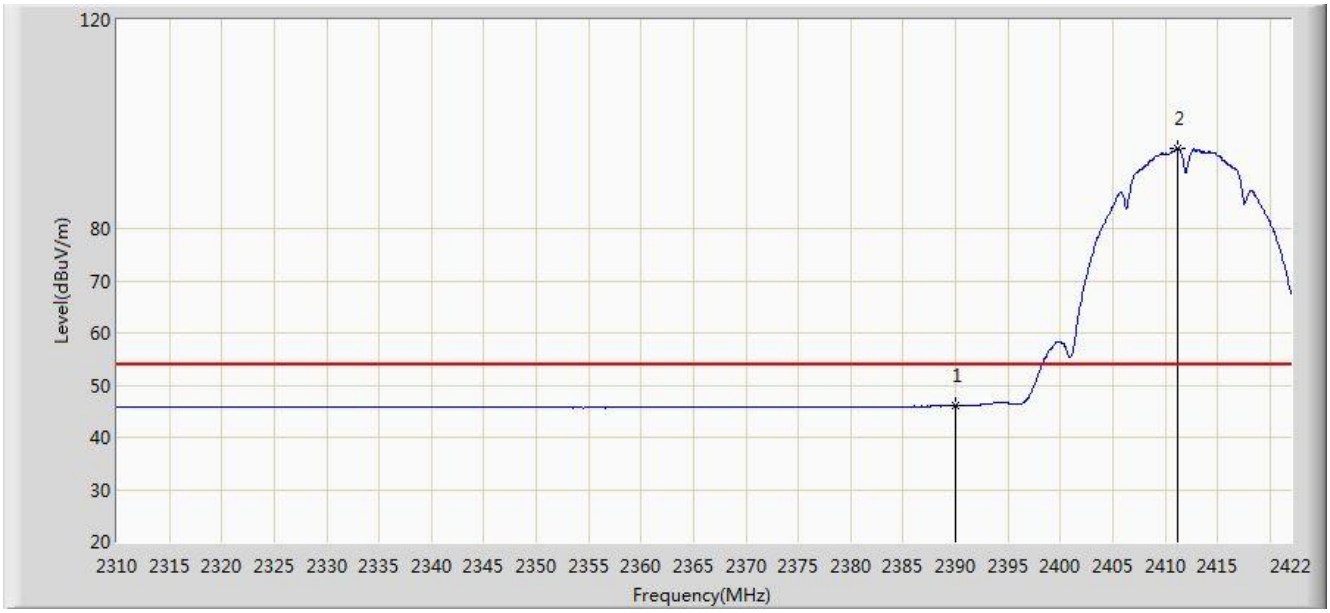


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.744	73.289	41.366	-0.711	74.000	31.922	PK
2			2390.000	73.237	41.314	-0.763	74.000	31.923	PK
3		*	2411.920	103.669	71.805	N/A	N/A	31.864	PK

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

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

Site: AC2	Time: 2016/09/21 - 01:33
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11b at Channel 2412MHz	

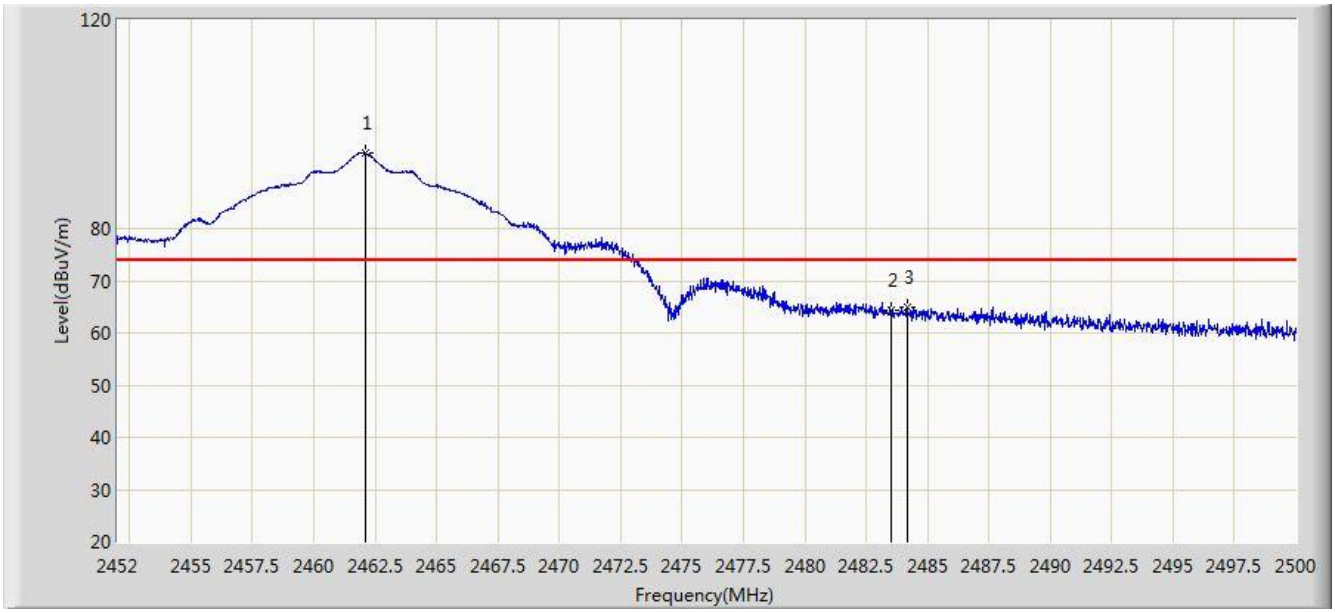


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	46.011	14.088	-7.989	54.000	31.923	AV
2		*	2411.192	95.321	63.456	N/A	N/A	31.865	AV

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

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

Site: AC2	Time: 2016/09/21 - 22:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 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		*	2462.080	94.557	62.713	N/A	N/A	31.843	PK
2			2483.500	64.351	32.437	-9.649	74.000	31.914	PK
3			2484.184	64.897	32.981	-9.103	74.000	31.916	PK

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

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

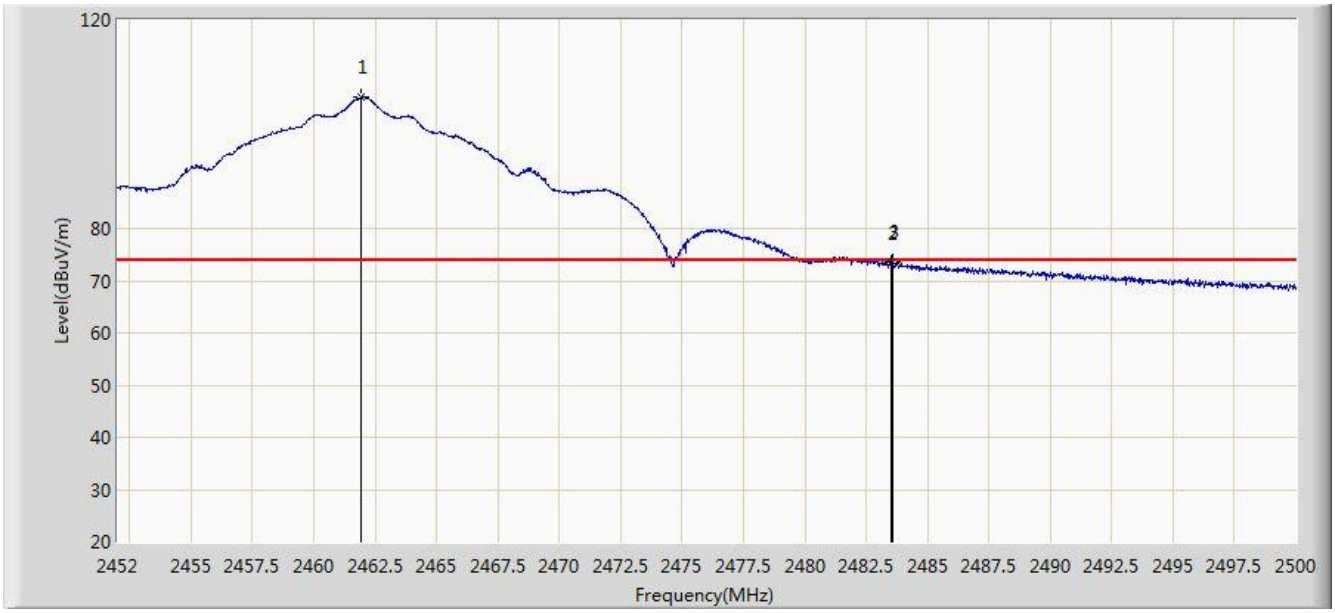
Site: AC2	Time: 2016/09/21 - 22:20
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11b at Channel 2462MHz	

No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.168	86.054	54.212	N/A	N/A	31.842	AV
2			2483.500	45.973	14.059	-8.027	54.000	31.914	AV

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

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

Site: AC2	Time: 2016/09/21 - 22:15
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 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		*	2461.936	105.254	73.411	N/A	N/A	31.843	PK
2			2483.500	73.438	41.524	-0.562	74.000	31.914	PK
3			2483.584	73.531	41.617	-0.469	74.000	31.914	PK

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

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

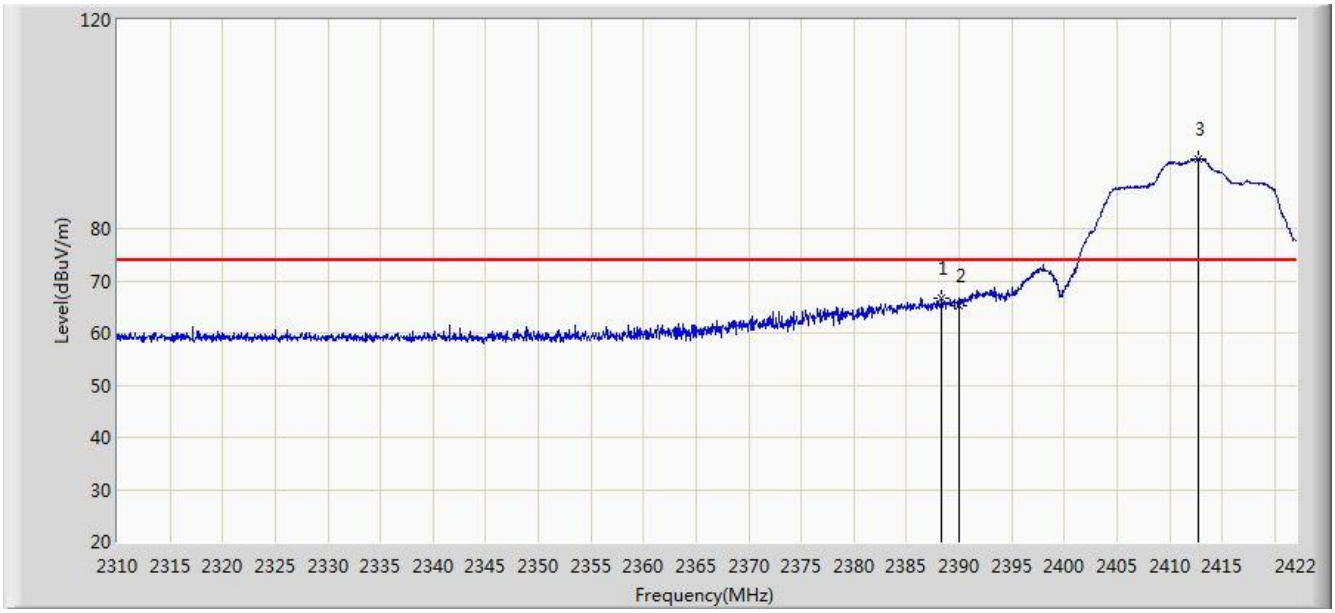
Site: AC2	Time: 2016/09/21 - 22:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11b at Channel 2462MHz	

No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.240	96.558	64.716	N/A	N/A	31.842	AV
2			2483.500	46.292	14.378	-7.708	54.000	31.914	AV

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

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

Site: AC2	Time: 2016/09/21 - 22:35
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11g at Channel 2412MHz	

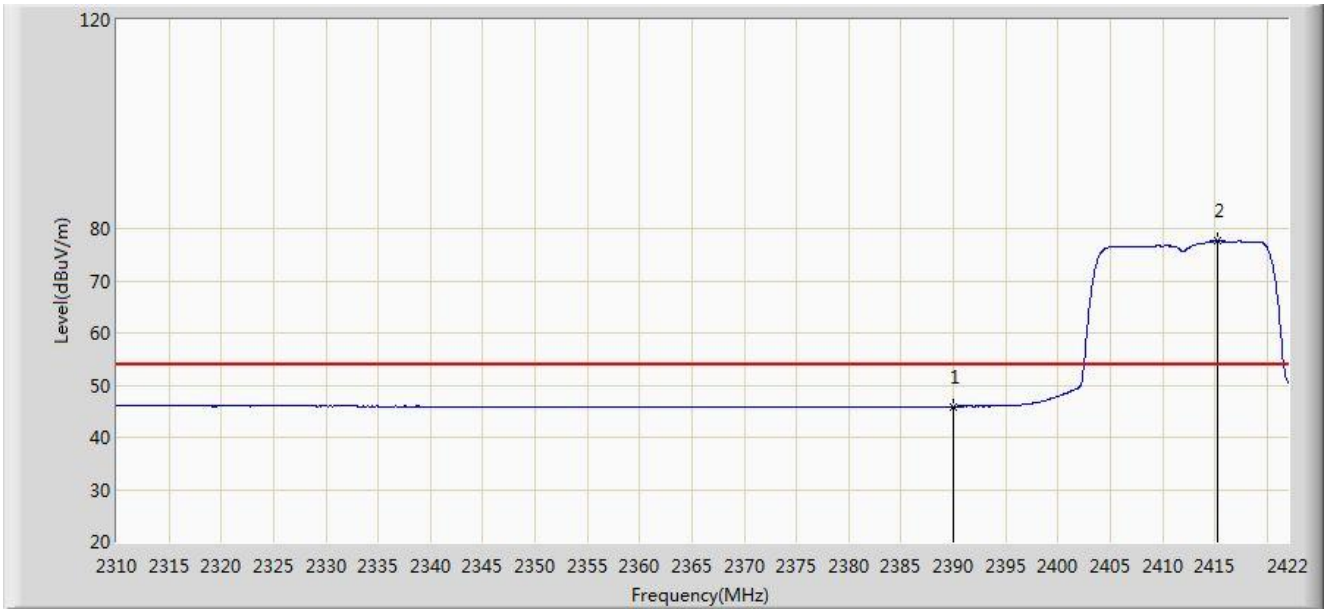


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.344	66.588	34.667	-7.412	74.000	31.921	PK
2			2390.000	65.158	33.235	-8.842	74.000	31.923	PK
3		*	2412.760	93.413	61.550	N/A	N/A	31.863	PK

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

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

Site: AC2	Time: 2016/09/21 - 22:38
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11g at Channel 2412MHz	

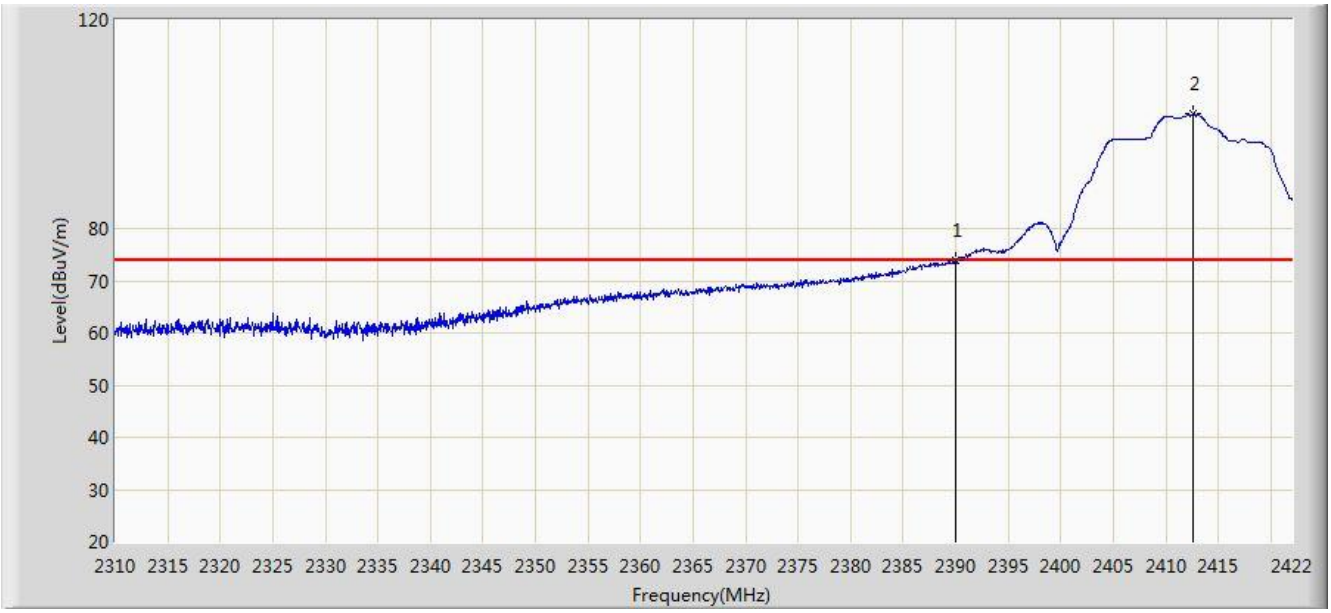


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.919	13.996	-8.081	54.000	31.923	AV
2		*	2415.280	77.612	45.752	N/A	N/A	31.860	AV

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

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

Site: AC2	Time: 2016/09/21 - 22:31
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11g at Channel 2412MHz	

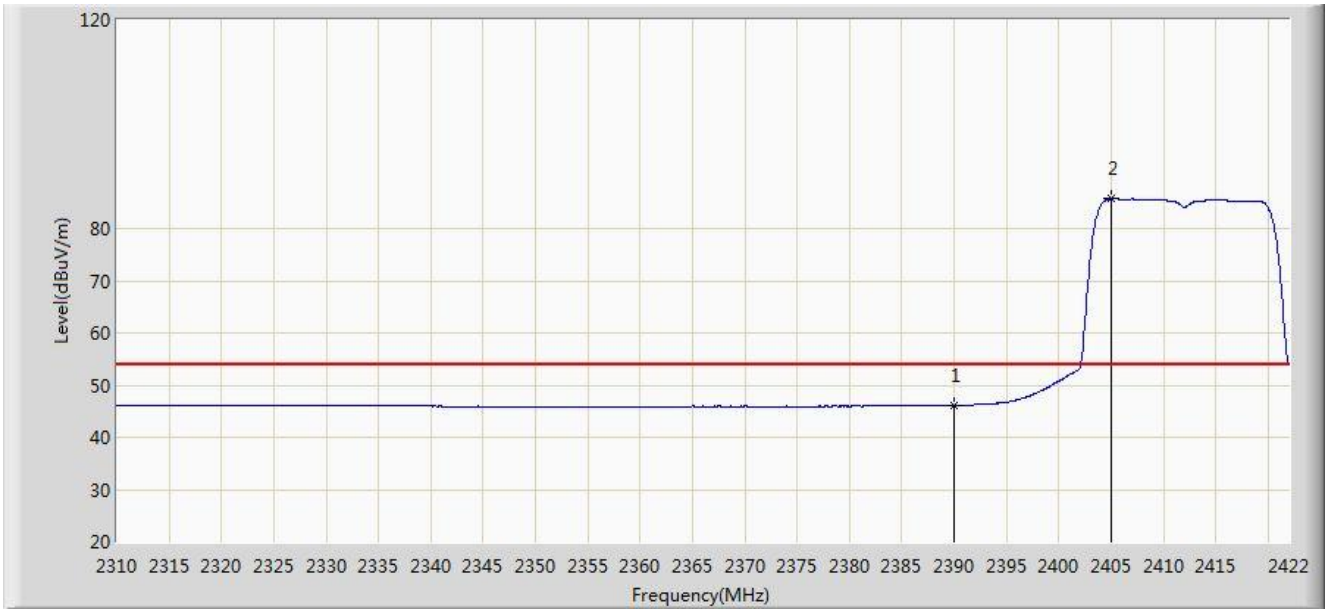


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	73.781	41.858	-0.219	74.000	31.923	PK
2		*	2412.536	101.897	70.033	N/A	N/A	31.864	PK

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

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

Site: AC2	Time: 2016/09/21 - 22:34
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11g at Channel 2412MHz	

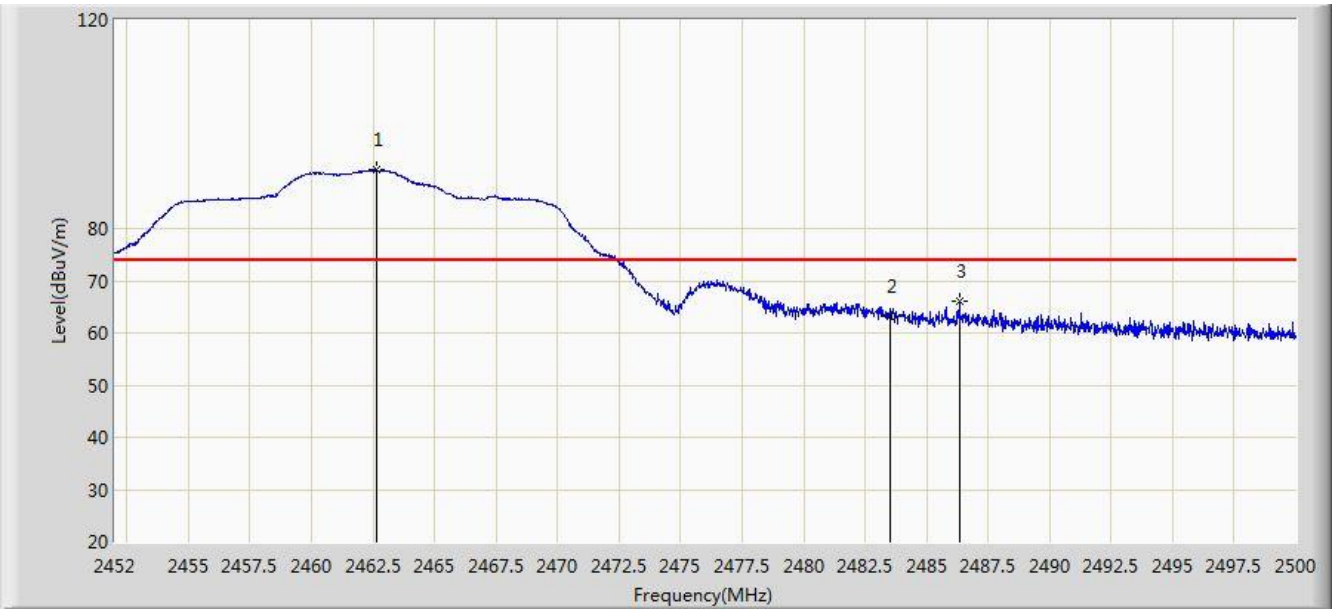


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	46.164	14.241	-7.836	54.000	31.923	AV
2		*	2405.032	85.777	53.890	N/A	N/A	31.887	AV

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

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

Site: AC2	Time: 2016/09/21 - 22:50
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11g at Channel 2462MHz	

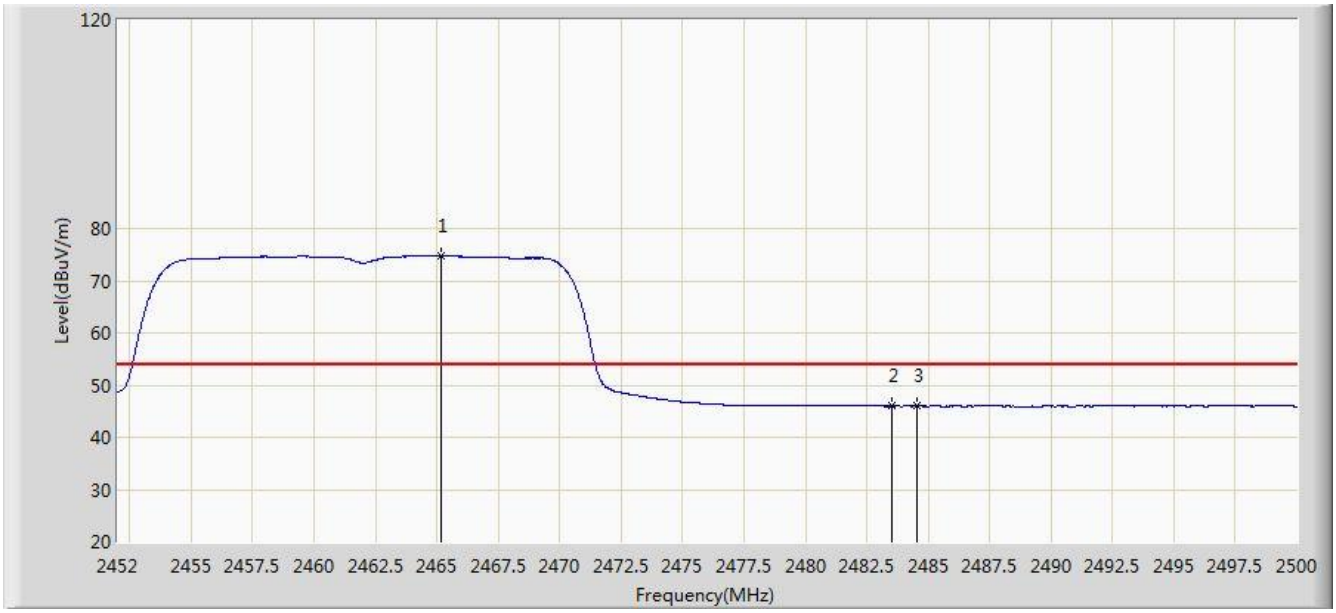


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2462.656	91.227	59.382	N/A	N/A	31.845	PK
2			2483.500	63.328	31.414	-10.672	74.000	31.914	PK
3			2486.320	66.054	34.132	-7.946	74.000	31.922	PK

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

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

Site: AC2	Time: 2016/09/21 - 22:53
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11g at Channel 2462MHz	

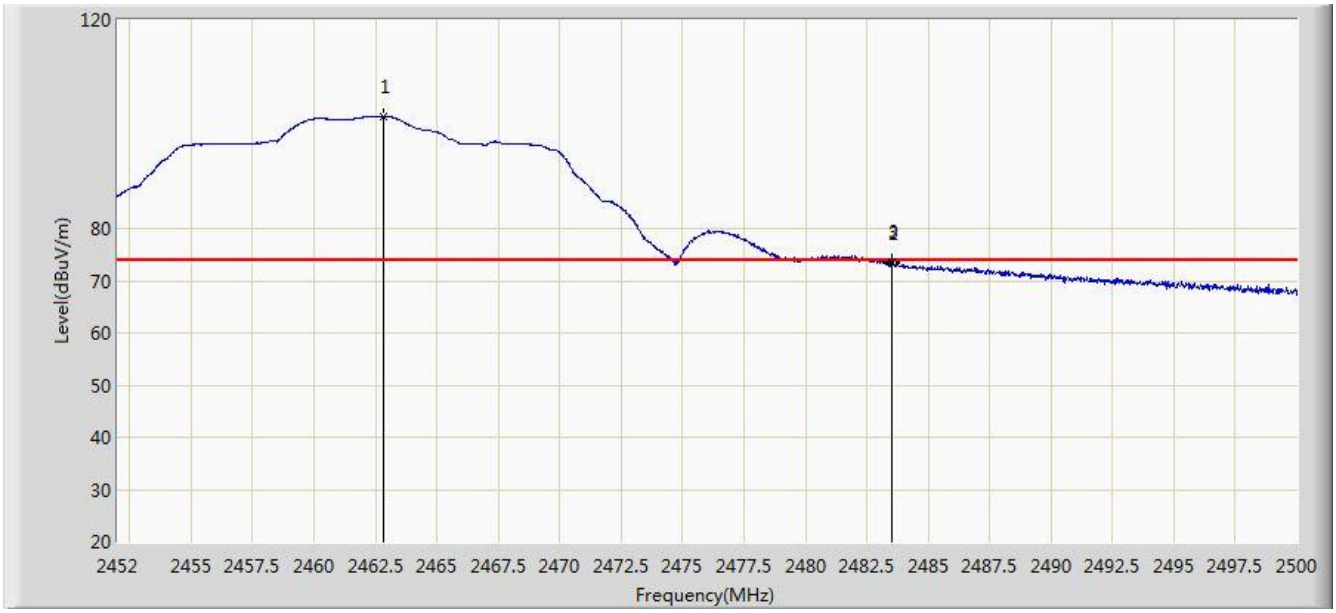


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2465.176	74.868	43.015	N/A	N/A	31.852	AV
2			2483.500	45.953	14.039	-8.047	54.000	31.914	AV
3			2484.520	45.982	14.065	-8.018	54.000	31.916	AV

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

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

Site: AC2	Time: 2016/09/21 - 22:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11g at Channel 2462MHz	

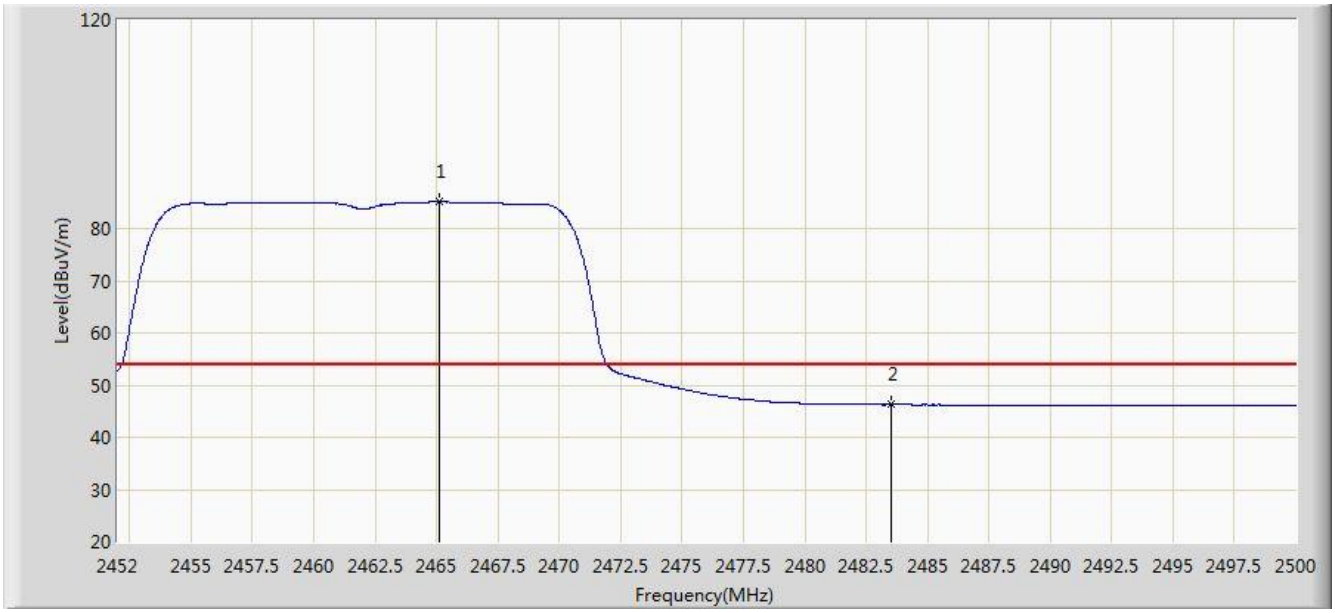


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2462.800	101.547	69.702	N/A	N/A	31.845	PK
2			2483.500	73.424	41.510	-0.576	74.000	31.914	PK
3			2483.512	73.533	41.619	-0.467	74.000	31.914	PK

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

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

Site: AC2	Time: 2016/09/21 - 22:49
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11g at Channel 2462MHz	

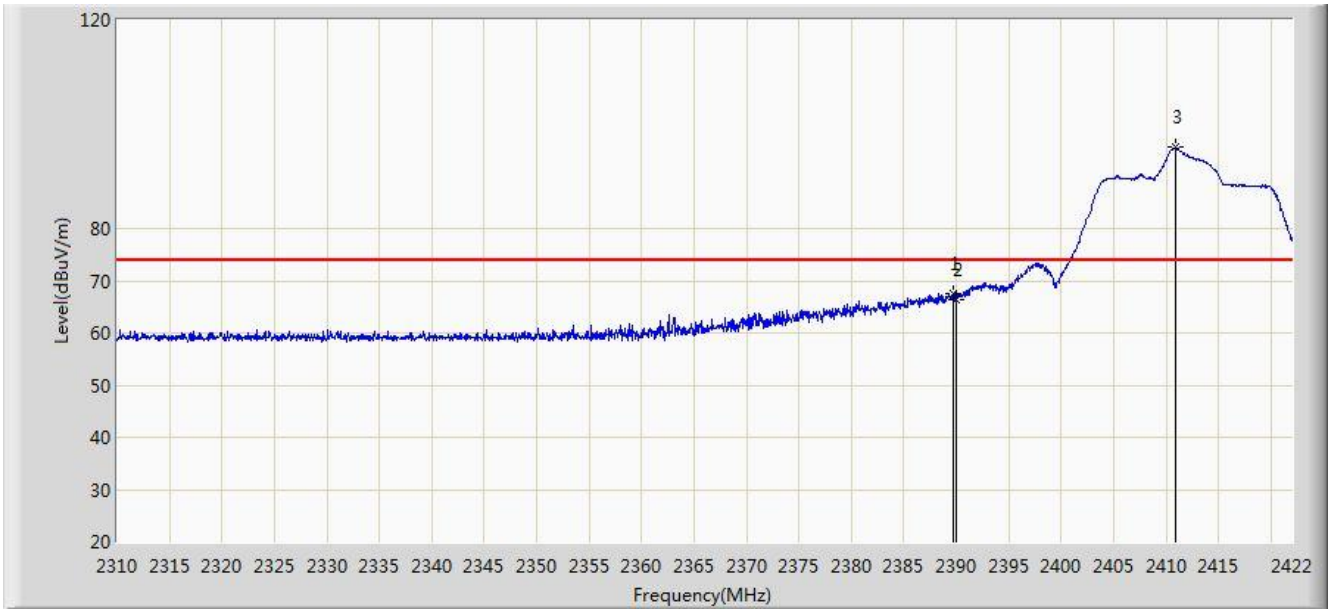


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2465.128	85.114	53.261	N/A	N/A	31.852	AV
2			2483.500	46.287	14.373	-7.713	54.000	31.914	AV

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

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

Site: AC2	Time: 2016/09/21 - 23:01
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT20 at Channel 2412MHz	

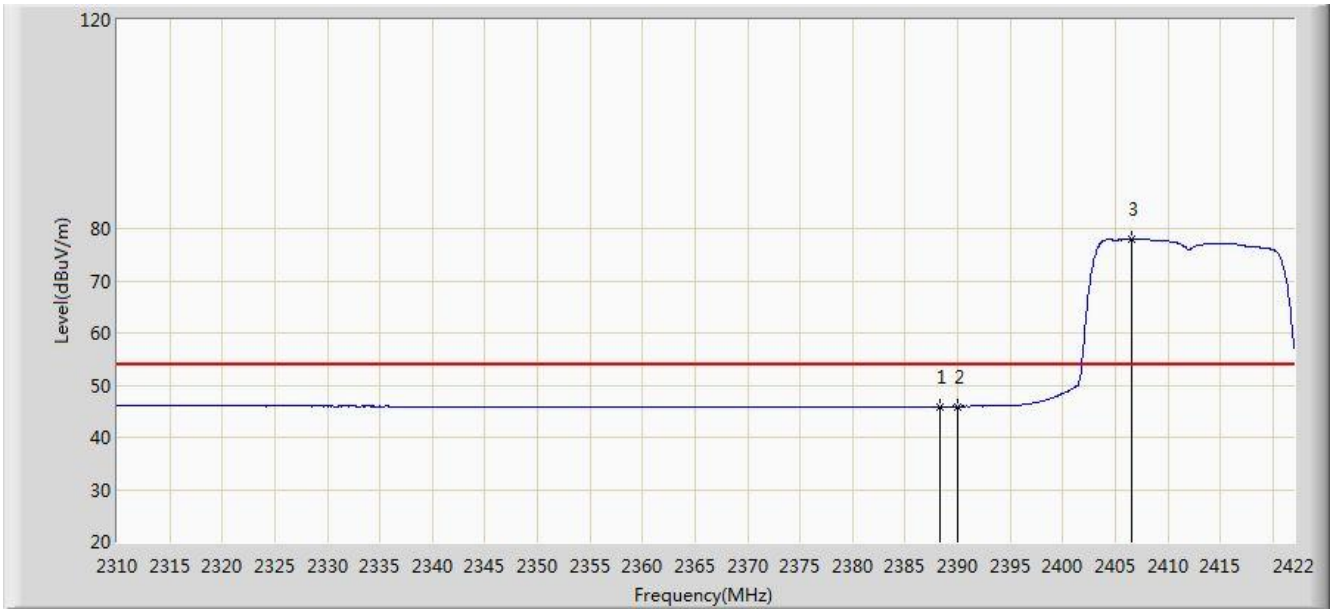


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.688	67.600	35.677	-6.400	74.000	31.923	PK
2			2390.000	66.394	34.471	-7.606	74.000	31.923	PK
3		*	2410.856	95.527	63.661	N/A	N/A	31.866	PK

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

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

Site: AC2	Time: 2016/09/21 - 23:04
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT20 at Channel 2412MHz	

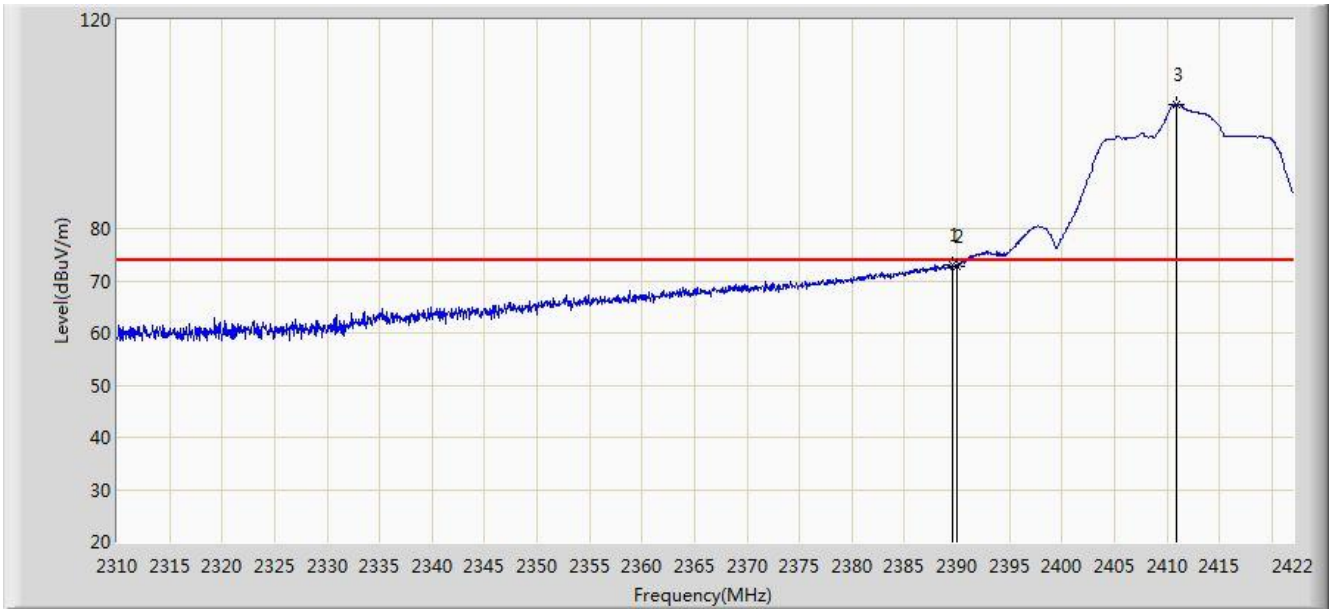


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.344	45.932	14.011	-8.068	54.000	31.921	AV
2			2390.000	45.910	13.987	-8.090	54.000	31.923	AV
3		*	2406.600	78.066	46.185	N/A	N/A	31.881	AV

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

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

Site: AC2	Time: 2016/09/21 - 22:58
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT20 at Channel 2412MHz	

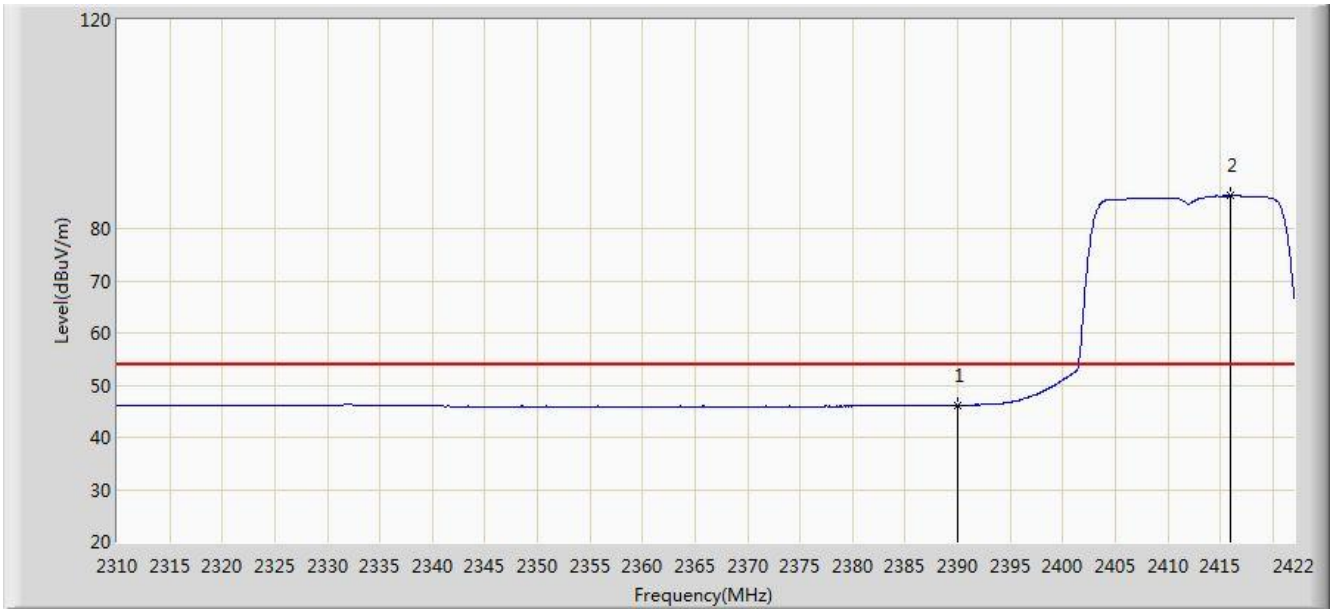


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2389.632	73.148	41.225	-0.852	74.000	31.923	PK
2			2390.000	72.886	40.963	-1.114	74.000	31.923	PK
3		*	2410.912	103.913	72.047	N/A	N/A	31.865	PK

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

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

Site: AC2	Time: 2016/09/21 - 23:00
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT20 at Channel 2412MHz	

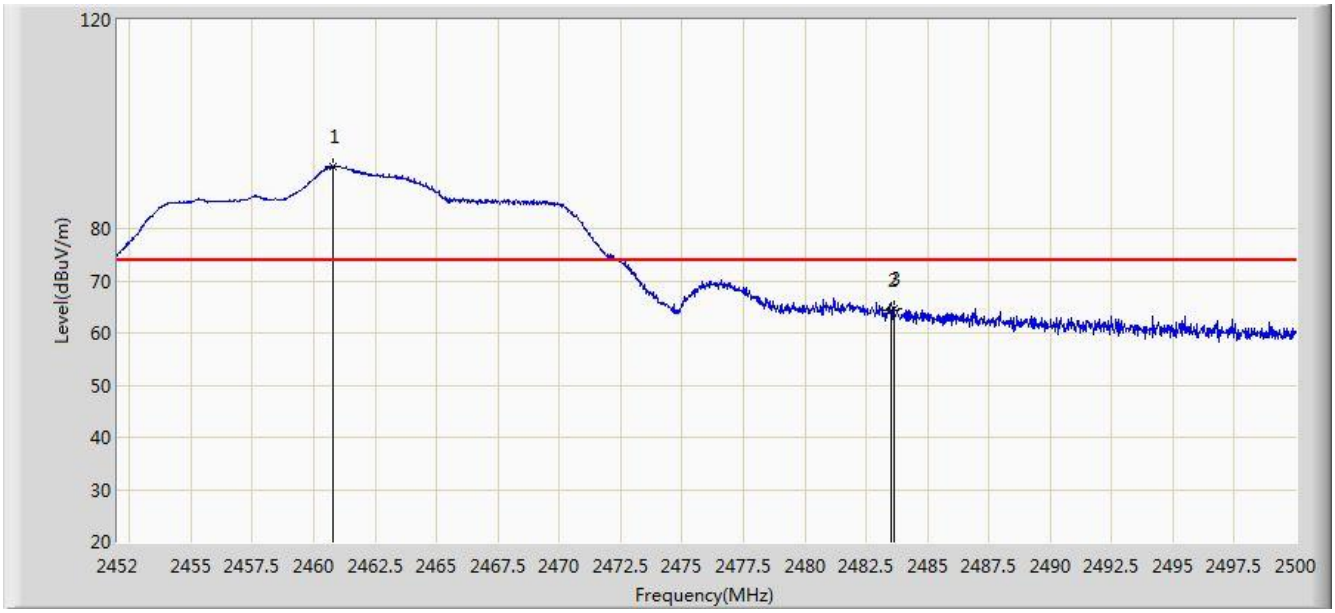


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	46.108	14.185	-7.892	54.000	31.923	AV
2		*	2416.008	86.311	54.451	N/A	N/A	31.859	AV

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

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

Site: AC2	Time: 2016/09/21 - 23:15
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT20 at Channel 2462MHz	

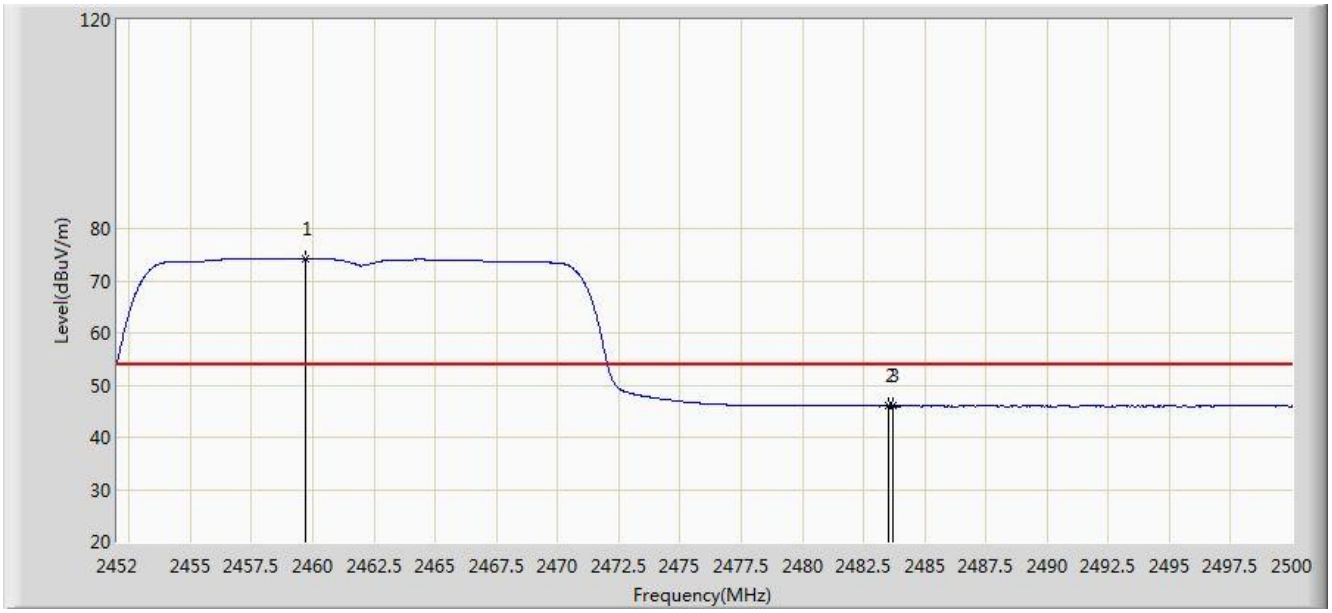


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.808	92.023	60.182	N/A	N/A	31.841	PK
2			2483.500	64.244	32.330	-9.756	74.000	31.914	PK
3			2483.632	64.669	32.755	-9.331	74.000	31.914	PK

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

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

Site: AC2	Time: 2016/09/21 - 23:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT20 at Channel 2462MHz	

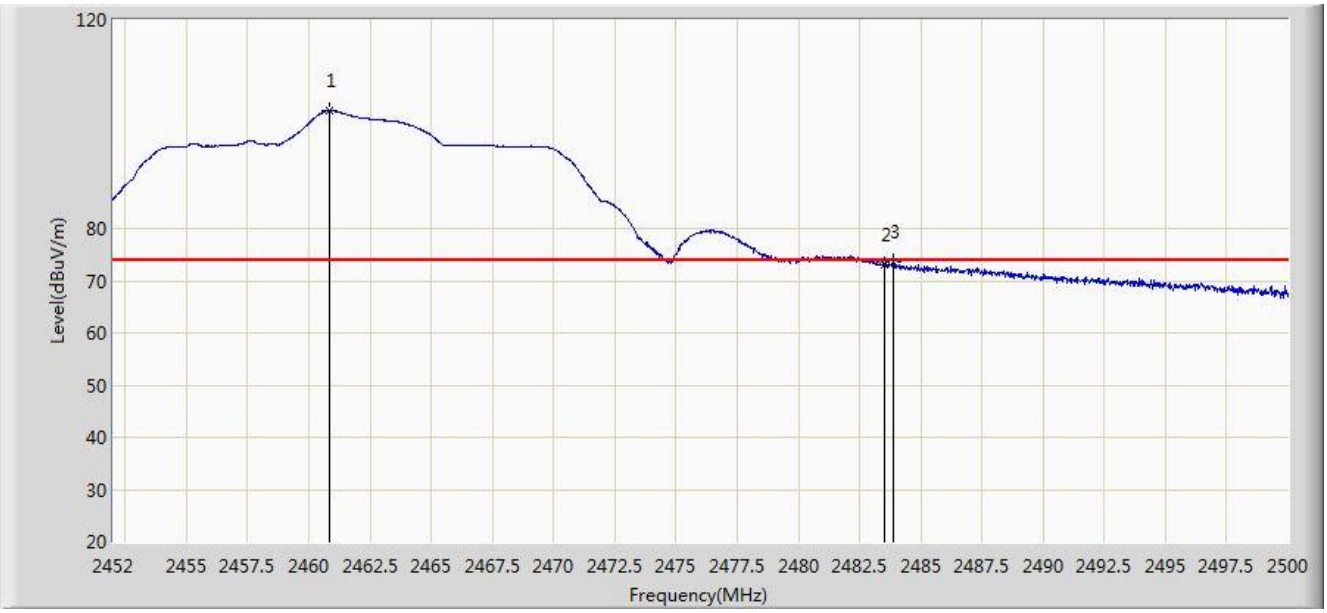


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2459.728	74.243	42.404	N/A	N/A	31.839	AV
2			2483.500	45.964	14.050	-8.036	54.000	31.914	AV
3			2483.704	45.992	14.078	-8.008	54.000	31.914	AV

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

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

Site: AC2	Time: 2016/09/21 - 23:13
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT20 at Channel 2462MHz	

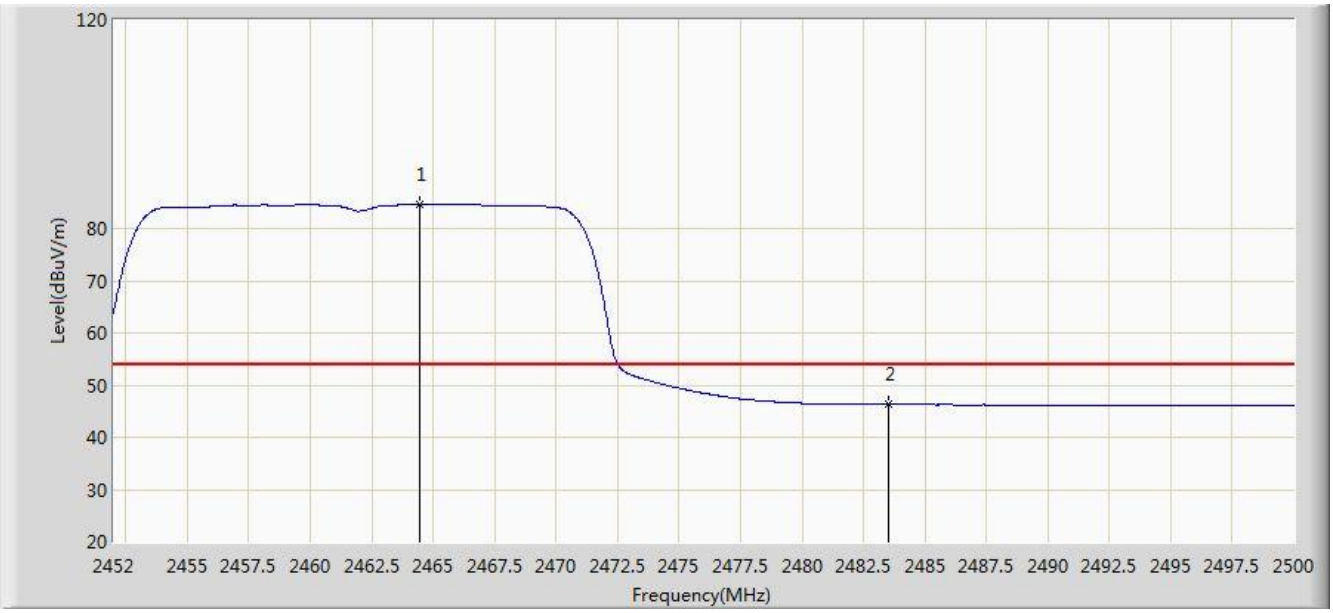


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2460.832	102.552	70.711	N/A	N/A	31.841	PK
2			2483.500	73.142	41.228	-0.858	74.000	31.914	PK
3			2483.872	73.479	41.564	-0.521	74.000	31.914	PK

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

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

Site: AC2	Time: 2016/09/21 - 23:14
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT20 at Channel 2462MHz	

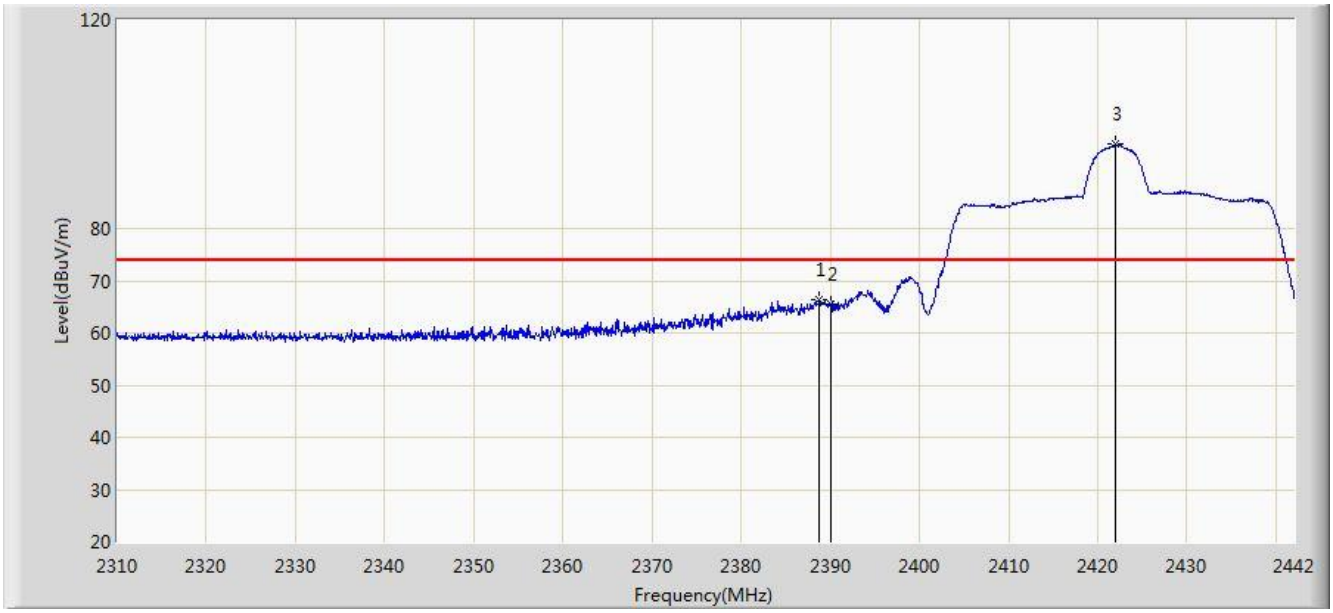


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2464.480	84.687	52.837	N/A	N/A	31.850	AV
2			2483.500	46.286	14.372	-7.714	54.000	31.914	AV

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

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

Site: AC2	Time: 2016/09/21 - 23:29
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT40 at Channel 2422MHz	

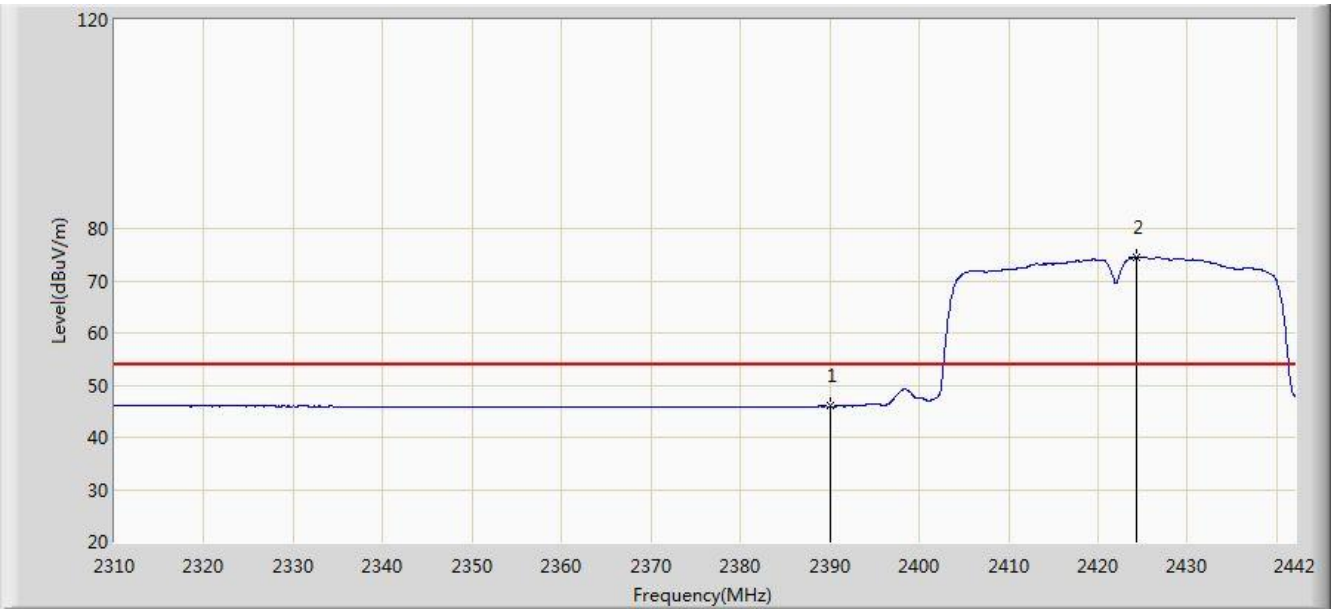


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.804	66.462	34.540	-7.538	74.000	31.922	PK
2			2390.000	65.387	33.464	-8.613	74.000	31.923	PK
3		*	2422.002	96.118	64.265	N/A	N/A	31.853	PK

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

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

Site: AC2	Time: 2016/09/21 - 23:34
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT40 at Channel 2422MHz	

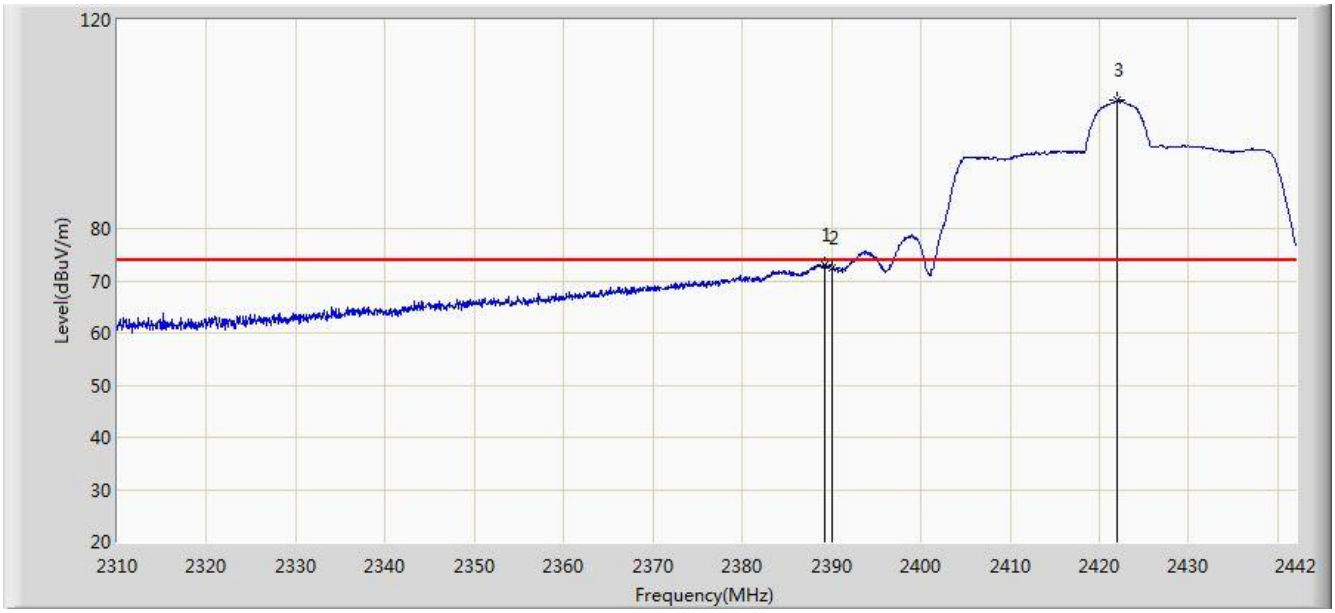


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.959	14.036	-8.041	54.000	31.923	AV
2		*	2424.312	74.510	42.660	N/A	N/A	31.850	AV

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

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

Site: AC2	Time: 2016/09/21 - 23:26
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 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			2389.200	73.173	41.251	-0.827	74.000	31.922	PK
2			2390.000	72.342	40.419	-1.658	74.000	31.923	PK
3		*	2422.002	104.562	72.709	N/A	N/A	31.853	PK

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

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

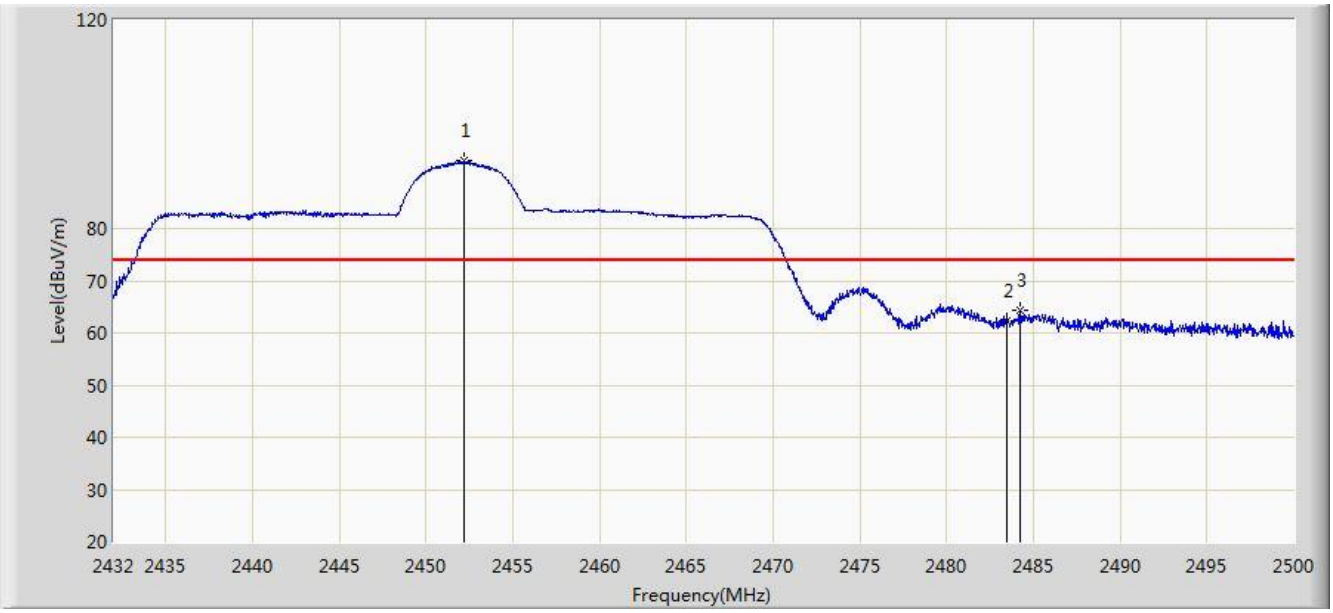
Site: AC2	Time: 2016/09/21 - 23:29
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT40 at Channel 2422MHz	

No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	46.220	14.297	-7.780	54.000	31.923	AV
2		*	2426.886	82.713	50.866	N/A	N/A	31.848	AV

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

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

Site: AC2	Time: 2016/09/21 - 23:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT40 at Channel 2452MHz	

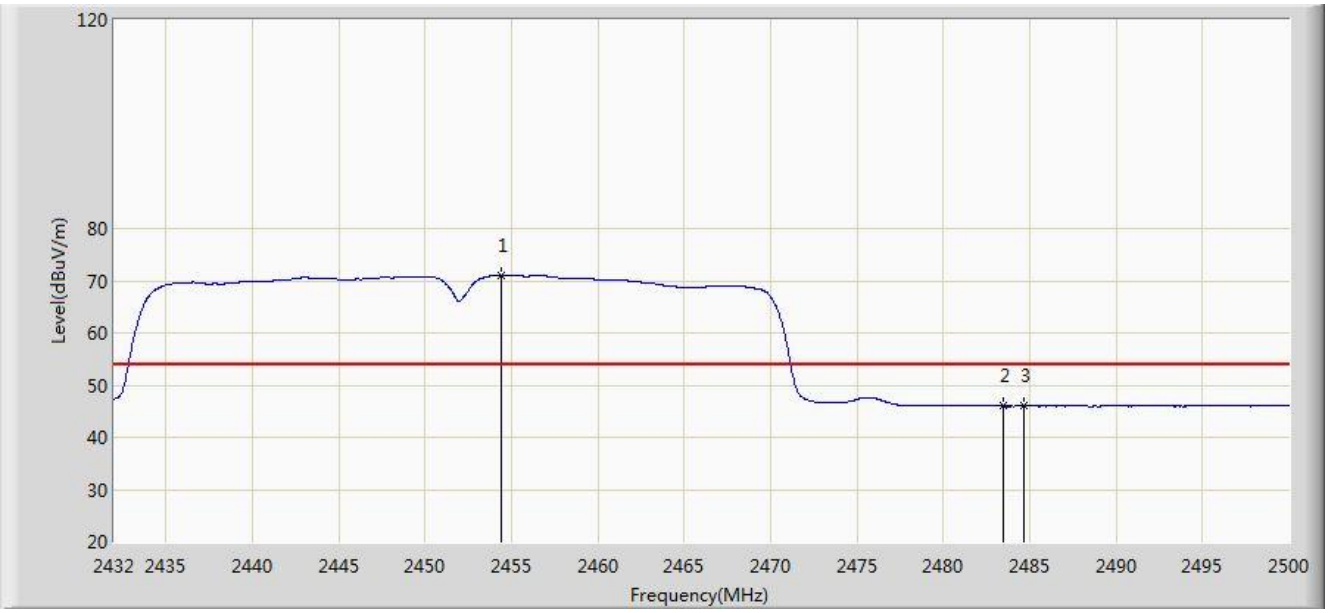


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2452.196	92.925	61.100	N/A	N/A	31.826	PK
2			2483.500	62.441	30.527	-11.559	74.000	31.914	PK
3			2484.258	64.228	32.312	-9.772	74.000	31.916	PK

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

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

Site: AC2	Time: 2016/09/21 - 23:50
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT40 at Channel 2452MHz	

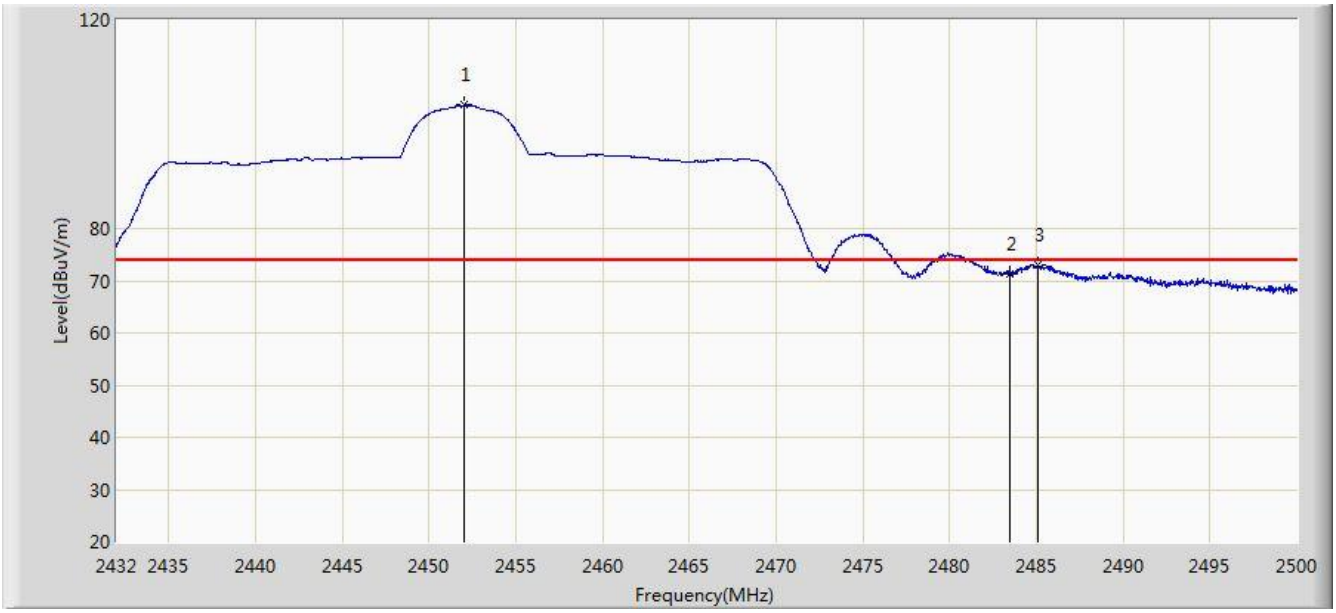


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2454.372	71.088	39.259	N/A	N/A	31.829	AV
2			2483.500	45.968	14.054	-8.032	54.000	31.914	AV
3			2484.666	46.034	14.117	-7.966	54.000	31.917	AV

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

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

Site: AC2	Time: 2016/09/21 - 23:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 802.11n-HT40 at Channel 2452MHz	

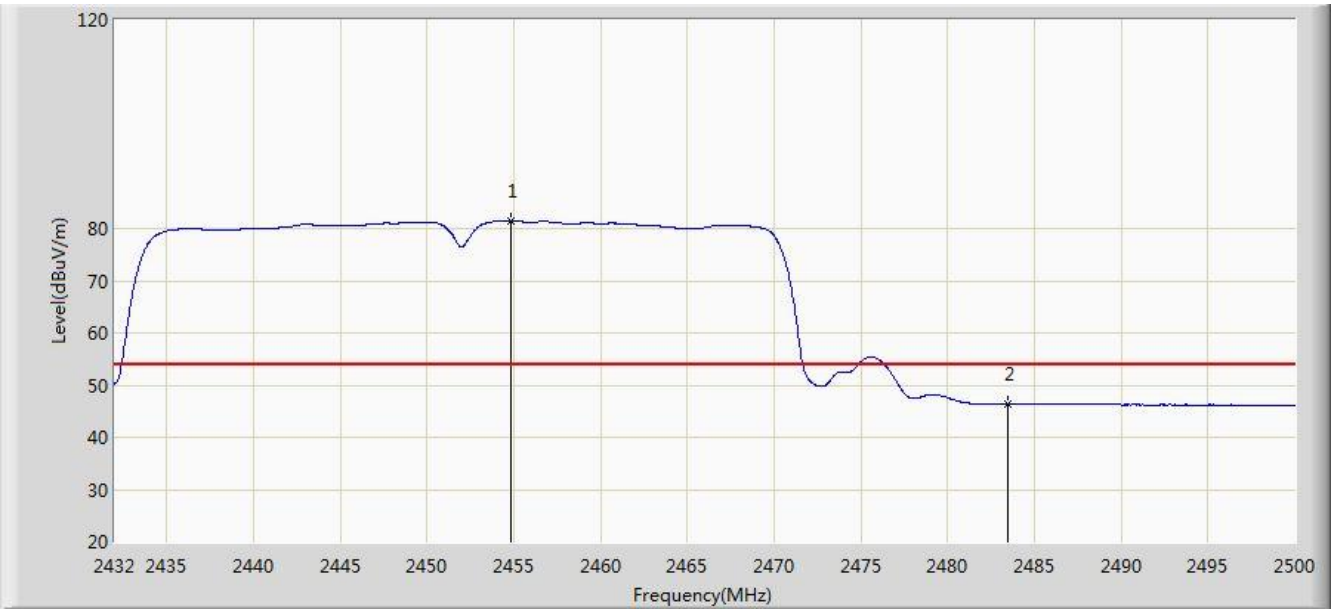


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2452.060	103.667	71.842	N/A	N/A	31.825	PK
2			2483.500	71.416	39.502	-2.584	74.000	31.914	PK
3			2485.074	73.104	41.186	-0.896	74.000	31.918	PK

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

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

Site: AC2	Time: 2016/09/21 - 23:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit at 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		*	2454.814	81.394	49.564	N/A	N/A	31.830	AV
2			2483.500	46.393	14.479	-7.607	54.000	31.914	AV

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

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

7.8. AC Conducted Emissions Measurement

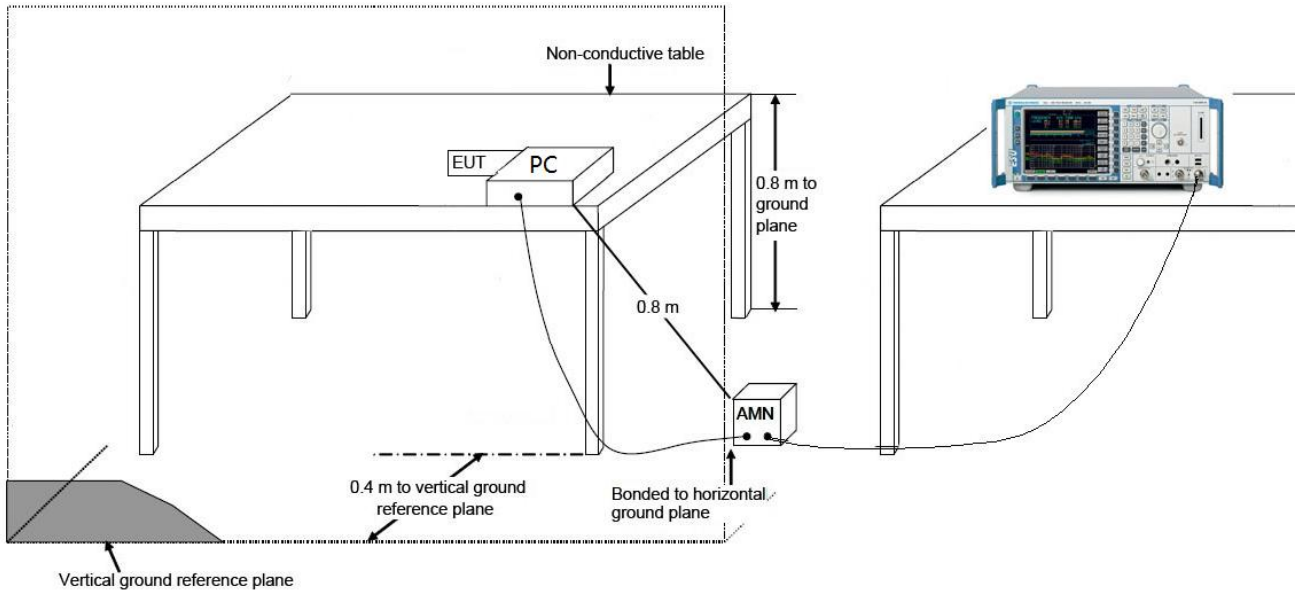
7.8.1. Test Limit

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.

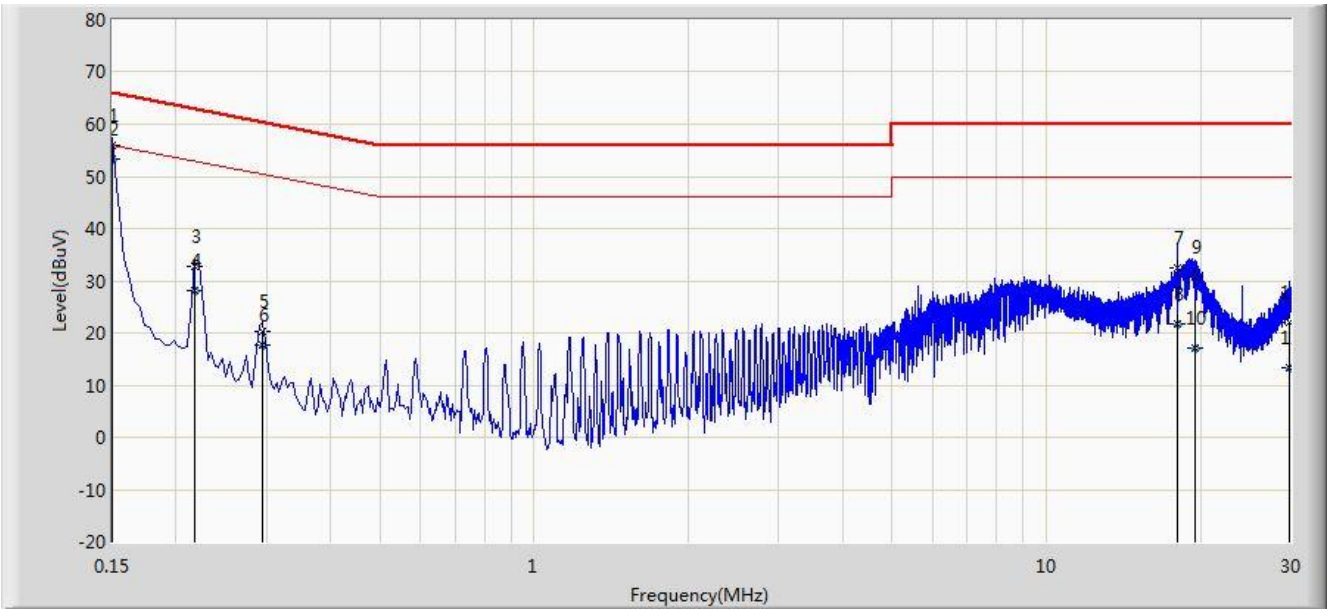
Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.8.2. Test Setup



7.8.3. Test Result

Site: SR2	Time: 2016/09/29 - 14:11
Limit: FCC_Part15.207_CE_AC Power	Engineer: Vince Yu
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit by 802.11g at channel 2412MHz	

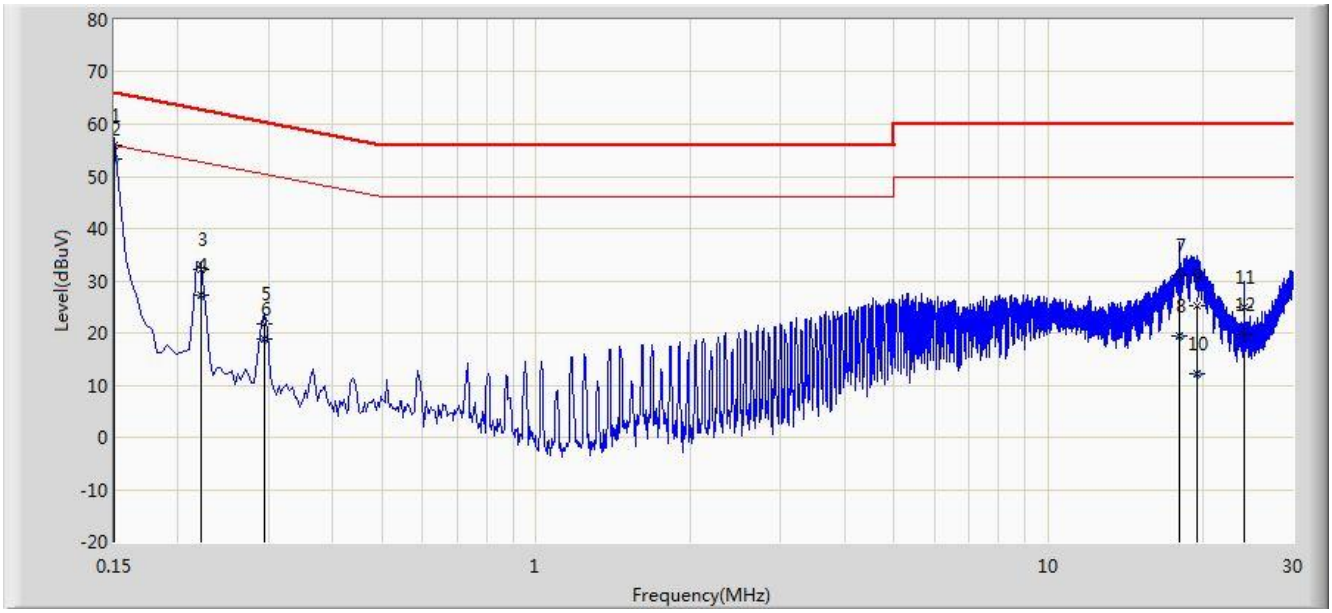


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.150	55.839	44.670	-10.161	66.000	11.168	QP
2		*	0.150	53.471	42.303	-2.529	56.000	11.168	AV
3			0.218	32.799	22.854	-30.096	62.895	9.945	QP
4			0.218	28.230	18.285	-24.665	52.895	9.945	AV
5			0.294	20.418	10.418	-39.993	60.411	9.999	QP
6			0.294	17.778	7.778	-32.633	50.411	9.999	AV
7			18.054	32.597	22.497	-27.403	60.000	10.100	QP
8			18.054	21.679	11.579	-28.321	50.000	10.100	AV
9			19.458	30.620	20.488	-29.380	60.000	10.132	QP
10			19.458	17.175	7.043	-32.825	50.000	10.132	AV
11			29.714	22.153	11.882	-37.847	60.000	10.271	QP
12			29.714	13.442	3.171	-36.558	50.000	10.271	AV

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

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

Site: SR2	Time: 2016/09/29 - 14:17
Limit: FCC_Part15.207_CE_AC Power	Engineer: Vince Yu
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: WIFI Module	Power: By Computer
Test Mode: Transmit by 802.11g at channel 2412MHz	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.150	55.817	44.675	-10.183	66.000	11.142	QP
2		*	0.150	53.372	42.230	-2.628	56.000	11.142	AV
3			0.222	32.247	22.268	-30.496	62.744	9.980	QP
4			0.222	27.146	17.167	-25.598	52.744	9.980	AV
5			0.294	21.597	11.563	-38.814	60.411	10.033	QP
6			0.294	18.754	8.720	-31.657	50.411	10.033	AV
7			18.050	31.019	20.882	-28.981	60.000	10.137	QP
8			18.050	19.535	9.398	-30.465	50.000	10.137	AV
9			19.454	25.197	15.034	-34.803	60.000	10.164	QP
10			19.454	12.294	2.130	-37.706	50.000	10.164	AV
11			24.078	24.840	14.562	-35.160	60.000	10.278	QP
12			24.078	19.791	9.513	-30.209	50.000	10.278	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 **WIFI Module FCC ID:**

2AKCE-S82GESNC is in compliance with Part 15C of the FCC Rules.

The End