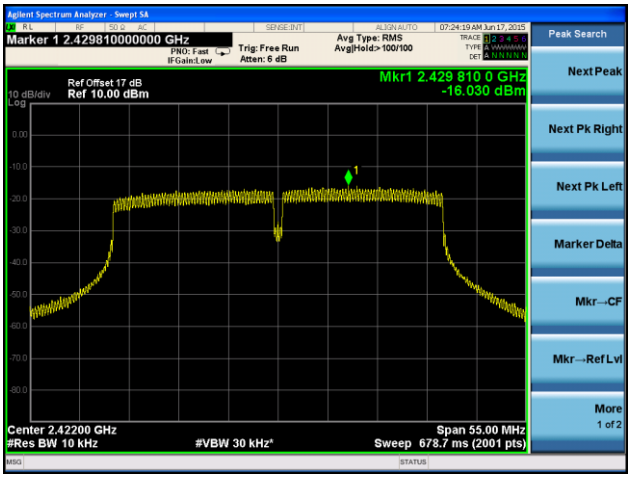
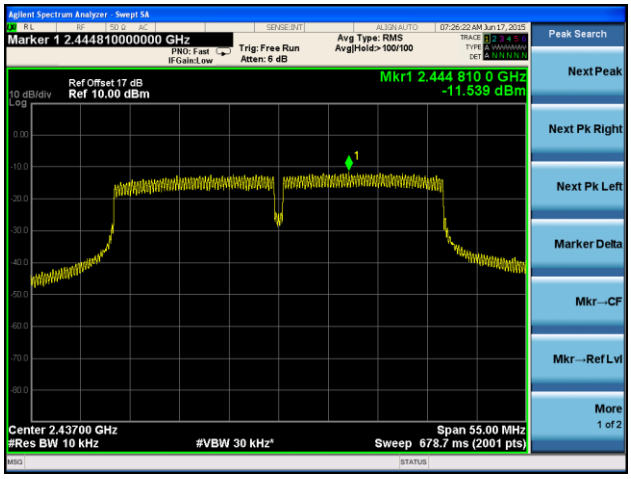
802.11n-HT40 PSD - Ant 1 / Ant 0 + 1

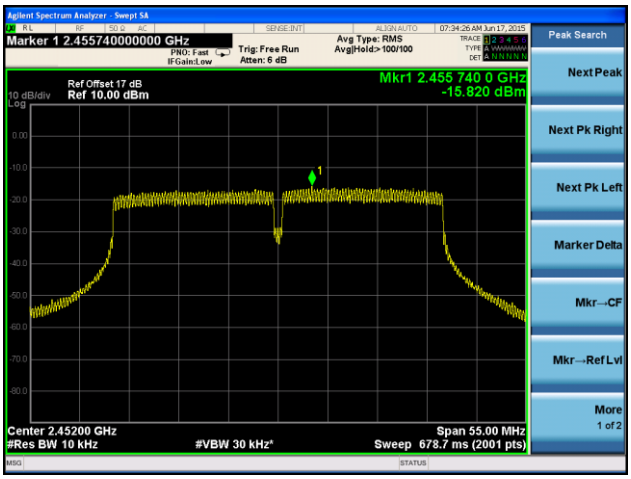
Channel 03 (2422MHz)



Channel 06 (2437MHz)



Channel 09 (2452MHz)



7.5. Conducted Band Edge and Out-of-Band Emissions

7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100 kHz bandwidth per the PSD procedure.

If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

7.5.2. Test Procedure Used

KDB 558074 D01v03r02 - Section 11.2 & Section 11.3

7.5.3. Test Settitng

1. Reference level measurement

(a) Set instrument center frequency to DTS channel center frequency

(b) Set the span to ≥ 1.5 times the DTS bandwidth

(c) Set the RBW = 100 kHz

(d) Set the VBW ≥ 3 x RBW

(e) Detector = peak

(f) Sweep time = auto couple

(g) Trace mode = max hold

(h) Allow trace to fully stabilize

2. Emission level measurement

(a) Set the center frequency and span to encompass frequency range to be measured

(b) RBW = 100kHz

(c) VBW = 300kHz

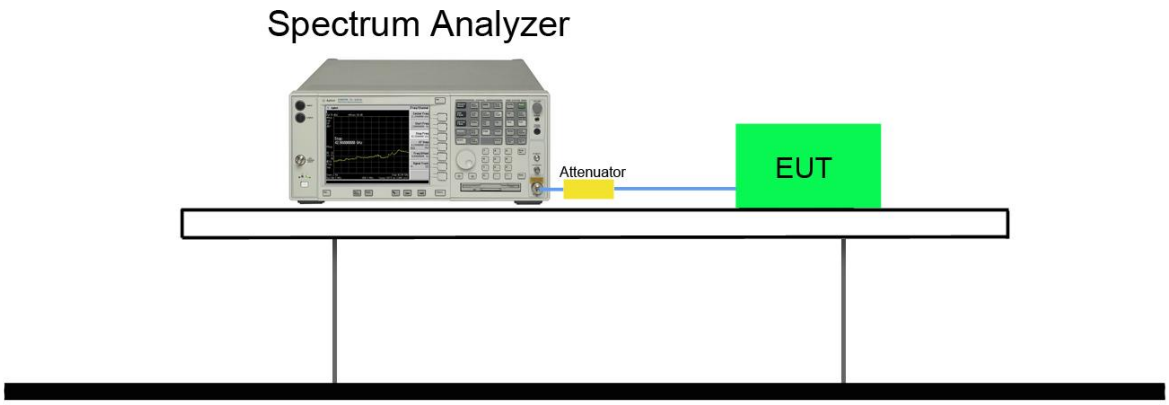
(d) Detector = Peak

(e) Trace mode = max hold

(f) Sweep time = auto couple

(g) The trace was allowed to stabilize

7.5.4. Test Setup



7.5.5. Test Result

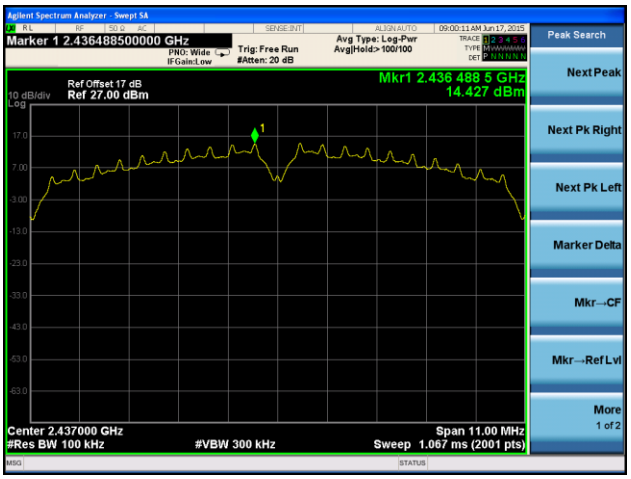
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
802.11b	1	01	2412	30dBc	Pass
802.11b	1	06	2437	30dBc	Pass
802.11b	1	11	2462	30dBc	Pass
802.11g	6	01	2412	30dBc	Pass
802.11g	6	06	2437	30dBc	Pass
802.11g	6	11	2462	30dBc	Pass
802.11n-HT20	13	01	2412	30dBc	Pass
802.11n-HT20	13	06	2437	30dBc	Pass
802.11n-HT20	13	11	2462	30dBc	Pass
802.11n-HT40	27	03	2422	30dBc	Pass
802.11n-HT40	27	06	2437	30dBc	Pass
802.11n-HT40	27	09	2452	30dBc	Pass

Note 1: Conducted Band Edge and Out-of-Band Emissions are measured at ant 0 port, because the ant 0 port has the max power.

Note 2: When the EUT transmit on MIMO mode, the Conducted Band Edge and Out-of-Band Emissions can also satisfy the limit (33dBc below the fundamental emission level). According to the KDB 662911 D01 Multiple Transmitter Output v02r01 Section E) 3) iii), this method is simple and strict for these items.

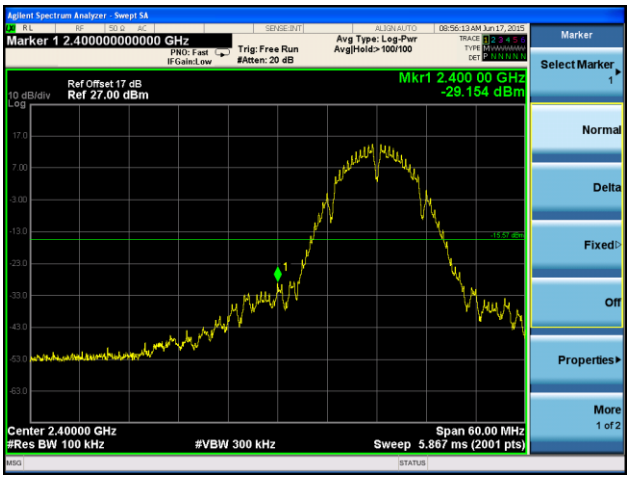
802.11b Out-of-Band Emissions

100kHz PSD reference Level

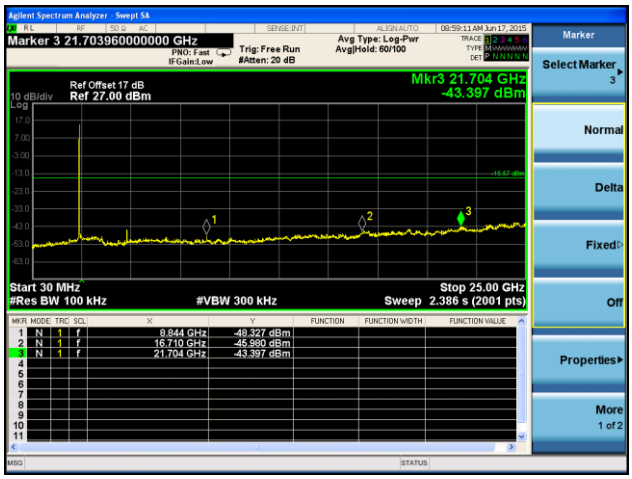


Channel 01 (2412MHz)

Low Band Edge

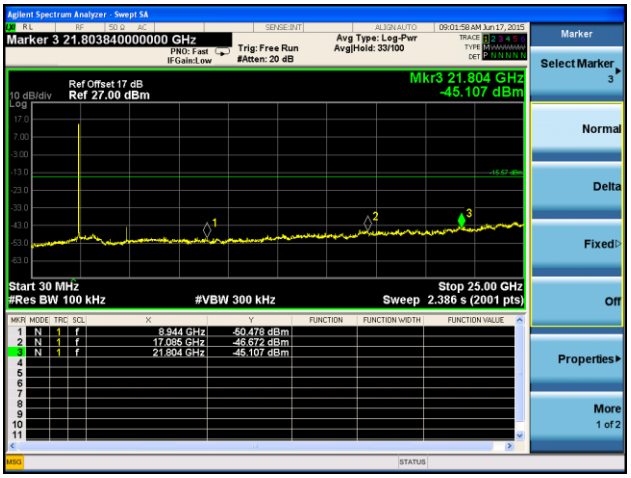


Spurious Emission



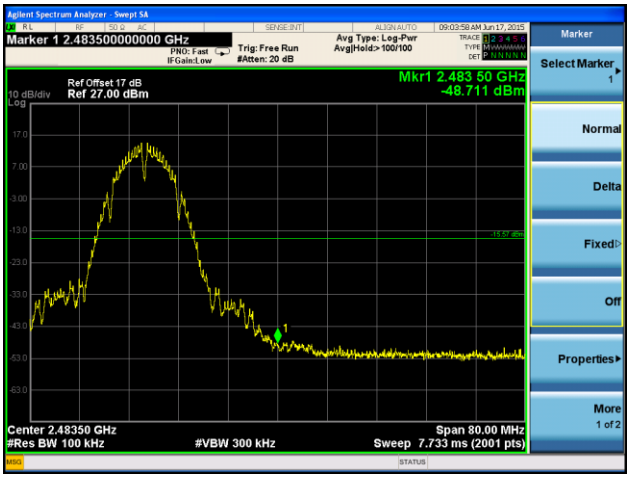
Channel 06 (2437MHz)

Spurious Emission

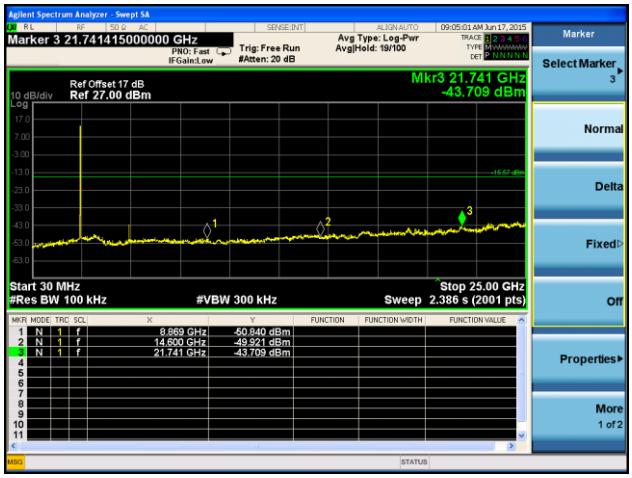


Channel 11 (2462MHz)

High Band Edge

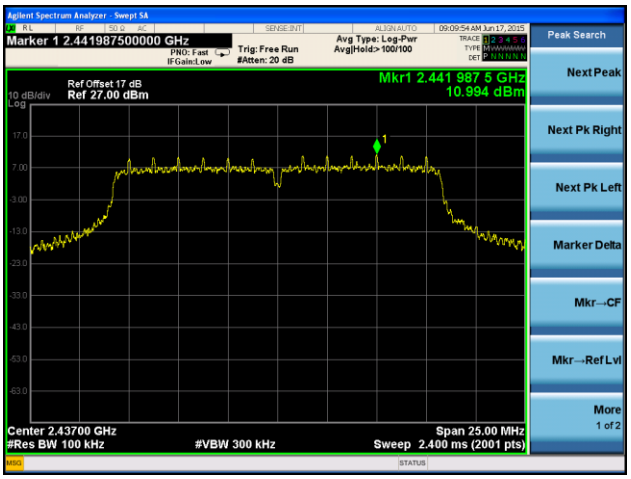


Spurious Emission



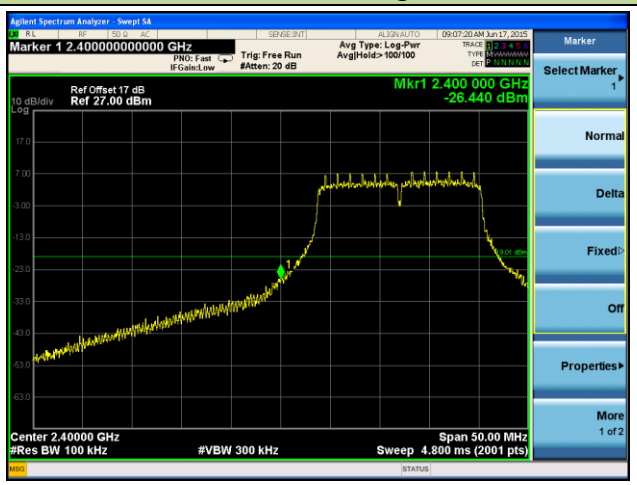
802.11g Out-of-Band Emissions

100kHz PSD reference Level

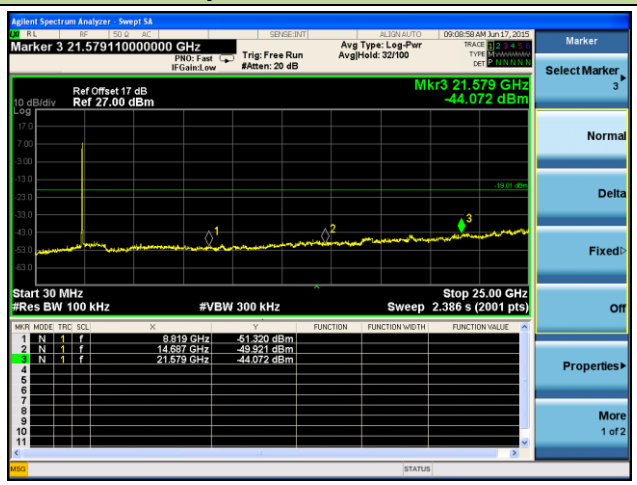


Channel 01 (2412MHz)

Low Band Edge



Spurious Emission

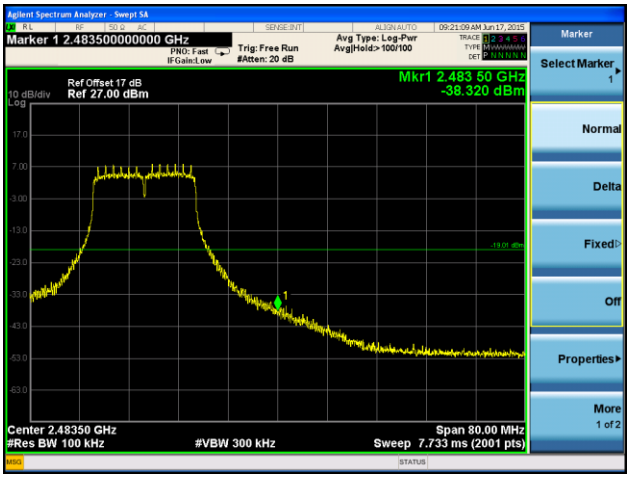


Channel 06 (2437MHz)

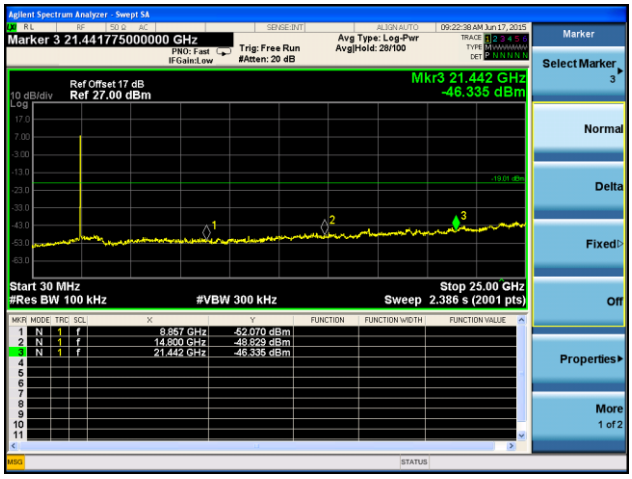
Spurious Emission

Channel 11 (2462MHz)

High Band Edge

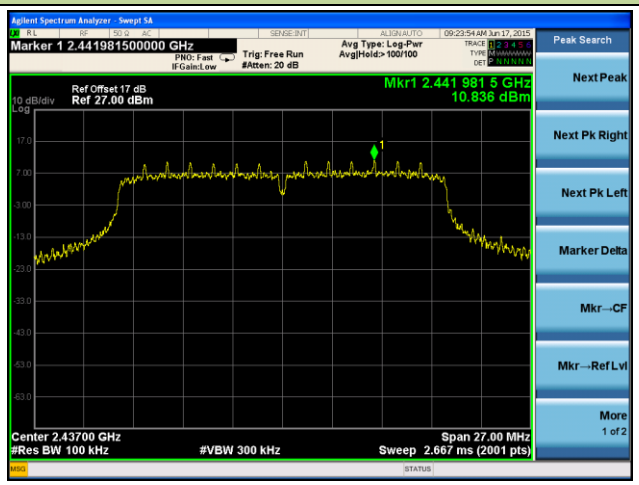


Spurious Emission



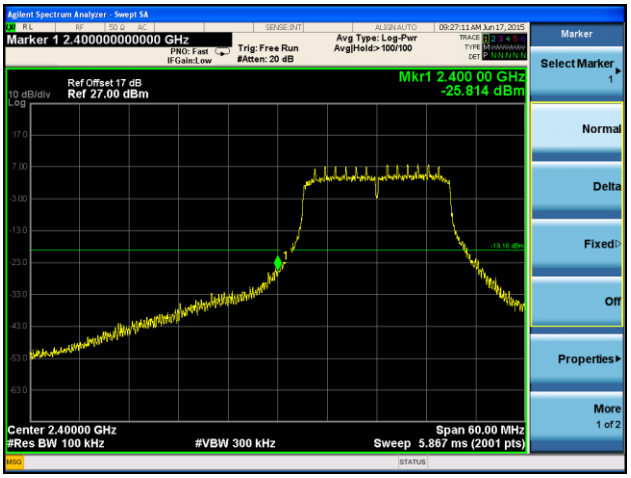
802.11n-HT20 Out-of-Band Emissions

100kHz PSD reference Level

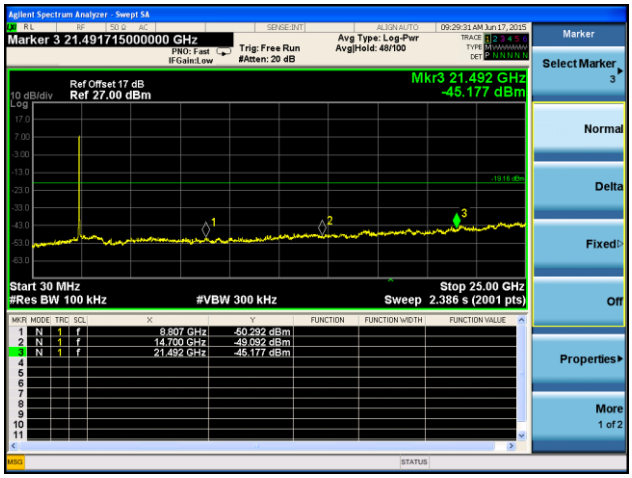


Channel 01 (2412MHz)

Low Band Edge

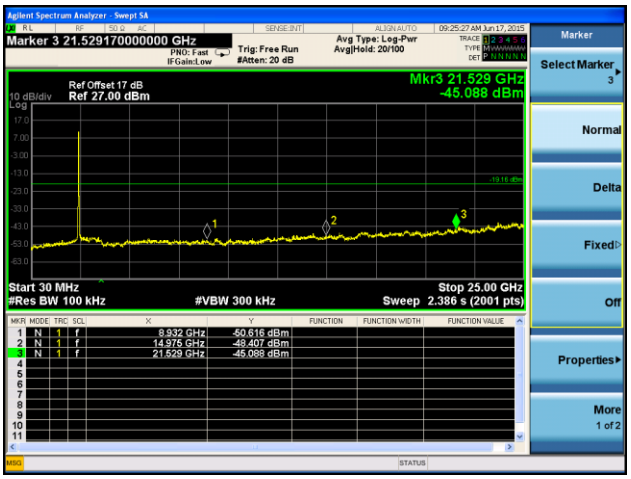


Spurious Emission



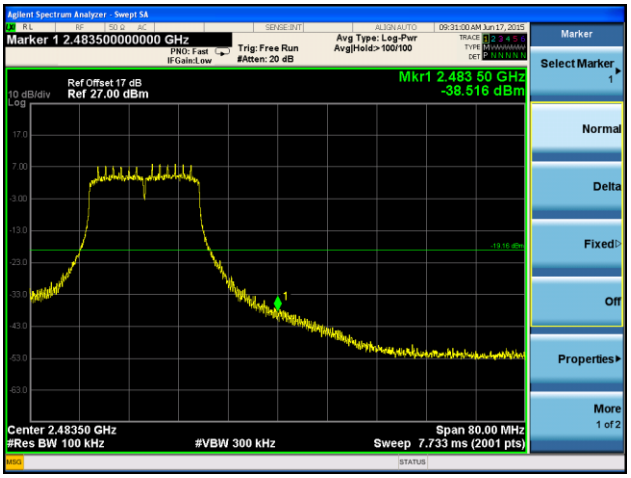
Channel 06 (2437MHz)

Spurious Emission

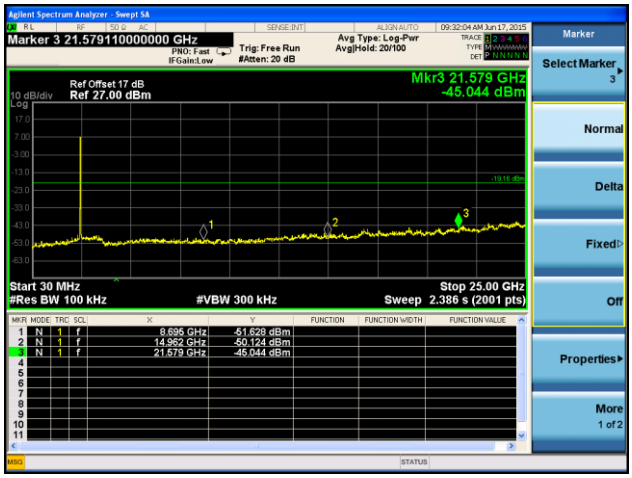


Channel 11 (2462MHz)

High Band Edge

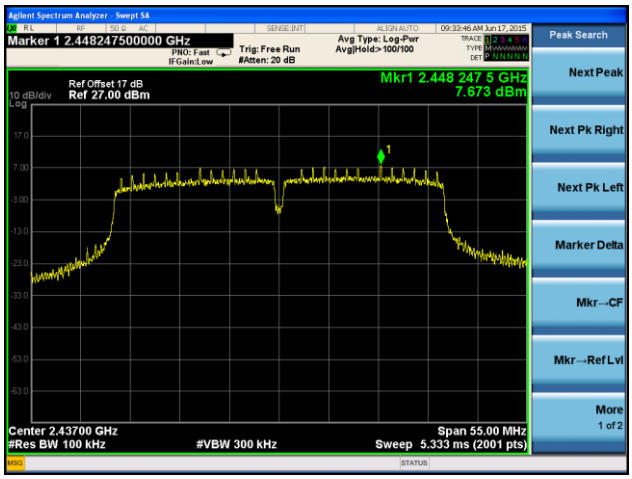


Spurious Emission

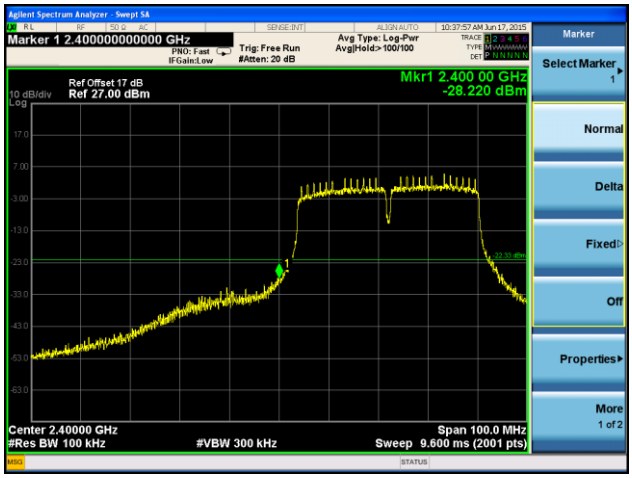


802.11n-HT40 Out-of-Band Emissions

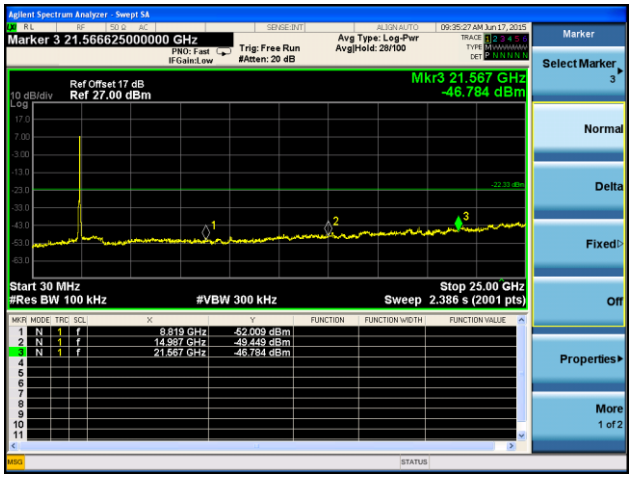
100kHz PSD reference Level

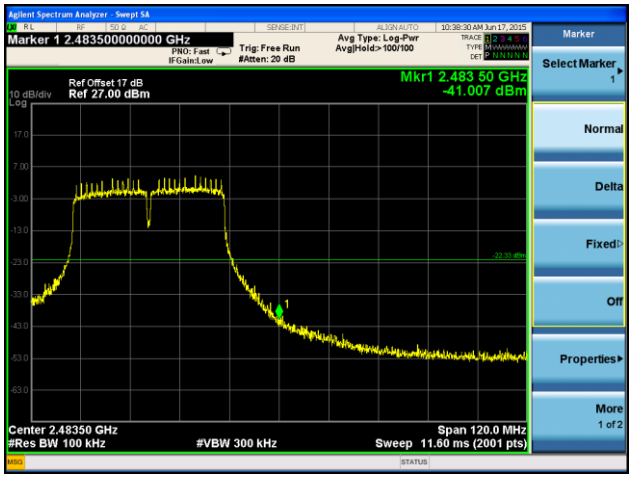


Channel 03 (2422MHz)

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 D01v03r02 – Section 12.2.3 (quasi-peak measurements)

KDB 558074 D01v03r02 – Section 12.2.4 (peak power measurements)

KDB 558074 D01v03r02 – Section 12.2.5 (average power measurements)

7.6.3. Test Setting

Peak Field Strength Measurements per Section 12.2.4 of KDB 558074 D01v03r02

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

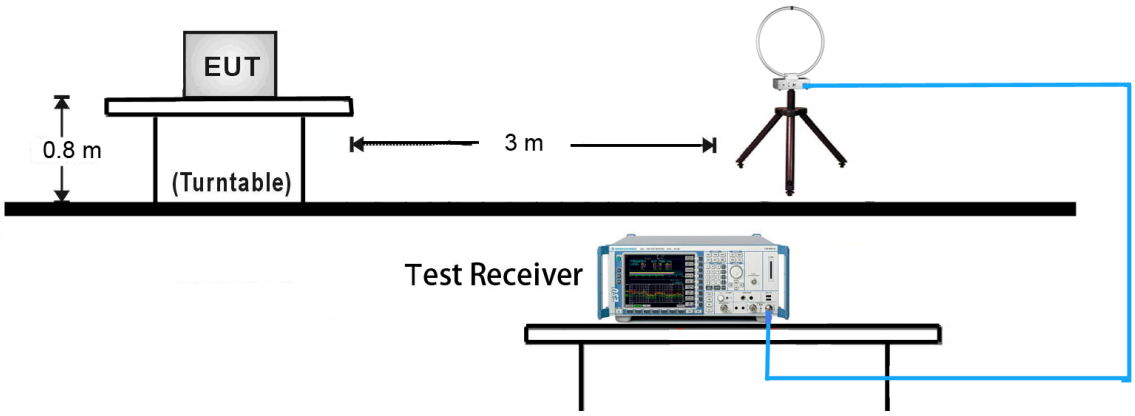
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements per Section 12.2.5.3 of KDB 558074 D01v03r02

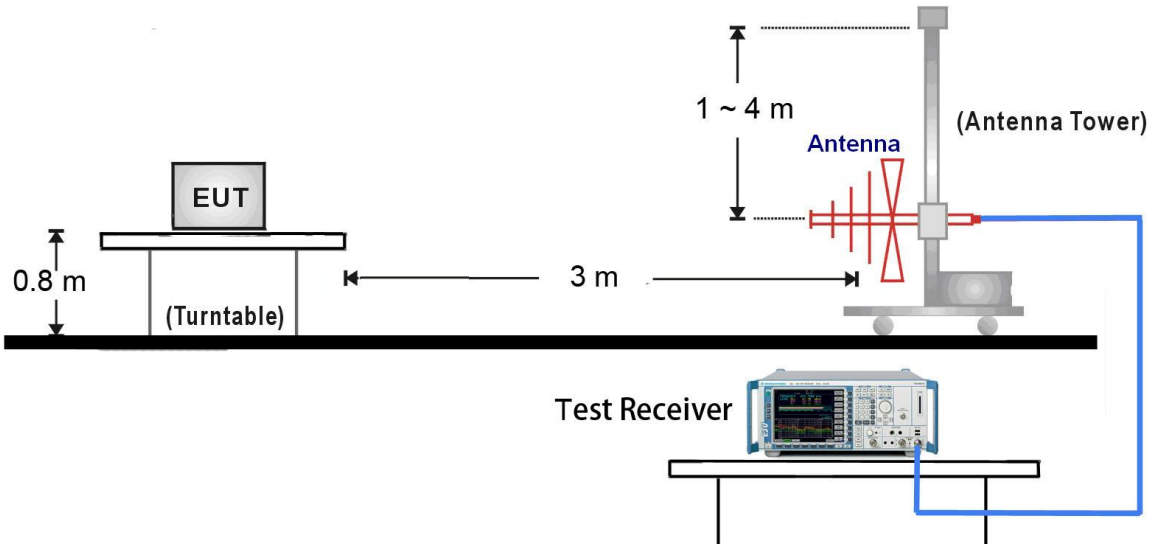
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW ≥ 1/T
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain).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

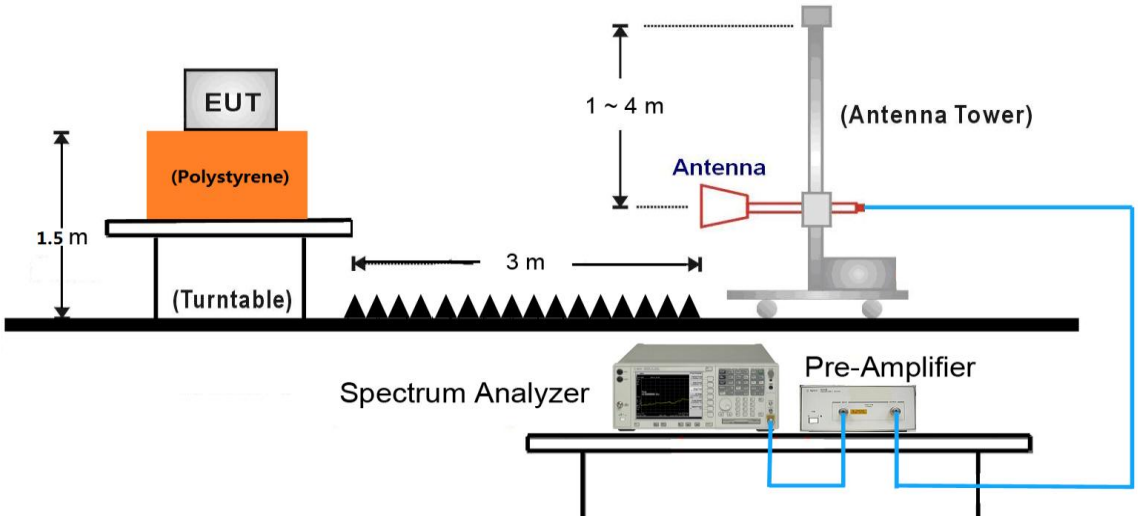
9kHz ~ 30MHz Test Setup:



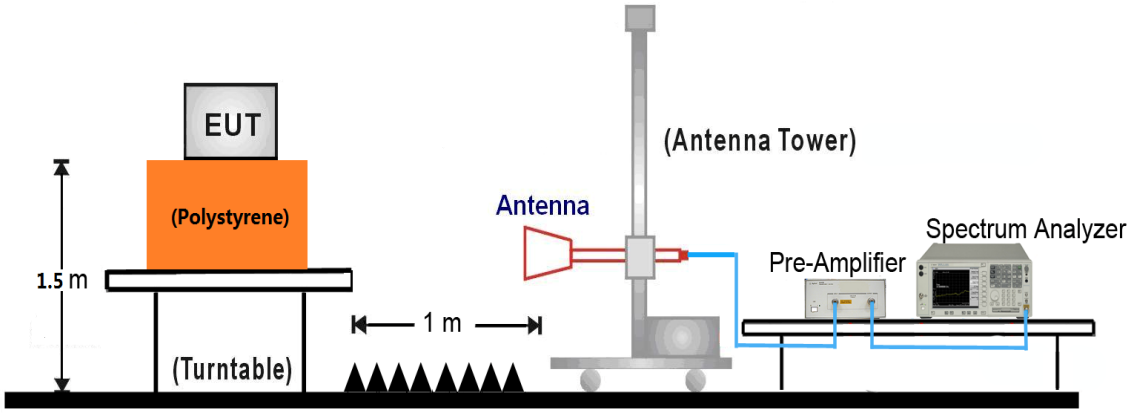
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~25GHz Test Setup:



7.6.5. Test Result

Dipole Antenna 1#

Test Mode:	802.11b - 1Tx	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
	4824.3	50.2	2.7	52.9	54.0	-1.1	Average	Horizontal
	4824.8	62.9	2.7	65.6	74.0	-8.4	Peak	Horizontal
*	6025.7	37.7	4.2	41.9	80.5	-38.6	Peak	Horizontal
	8457.4	38.4	8.2	46.6	74.0	-27.4	Peak	Horizontal
*	9675.9	36.2	10.9	47.1	80.5	-33.4	Peak	Horizontal
	4824.8	49.9	2.7	52.6	74.0	-21.4	Peak	Vertical
*	6473.1	38.4	5.8	44.2	80.5	-36.3	Peak	Vertical
	8258.9	38.3	8.1	46.4	74.0	-27.6	Peak	Vertical
*	9647.5	36.0	11.0	47.0	80.5	-33.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (110.5dBμV/m).

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 - 1Tx	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
	4874.0	50.2	2.7	52.9	54.0	-1.1	Average	Horizontal
	4876.6	59.9	2.7	62.6	74.0	-11.4	Peak	Horizontal
*	6482.8	37.8	5.9	43.7	89.2	-45.5	Peak	Horizontal
	8269.1	37.4	8.1	45.5	74.0	-28.5	Peak	Horizontal
*	9642.6	36.0	11.0	47.0	89.2	-42.2	Peak	Horizontal
	4876.2	51.8	2.7	54.5	74.0	-19.5	Peak	Vertical
*	5674.8	38.2	3.7	41.9	89.2	-47.3	Peak	Vertical
	7307.7	43.3	8.0	51.3	74.0	-22.7	Peak	Vertical
*	9746.4	38.7	11.3	50.0	89.2	-39.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (119.2dBμV/m).

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 - 1Tx	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
	4924.5	49.9	2.8	52.7	54.0	-1.3	Average	Horizontal
	4926.7	58.6	2.8	61.4	74.0	-12.6	Peak	Horizontal
*	6241.9	37.4	4.7	42.1	80.8	-38.7	Peak	Horizontal
	8163.4	36.9	8.4	45.3	74.0	-28.7	Peak	Horizontal
*	9614.5	35.4	10.9	46.3	80.8	-34.5	Peak	Horizontal
	4927.7	51.9	2.8	54.7	74.0	-19.3	Peak	Vertical
*	6352.6	37.2	5.2	42.4	80.8	-38.4	Peak	Vertical
	7384.1	40.7	7.9	48.6	74.0	-25.4	Peak	Vertical
*	9257.2	37.1	10.3	47.4	80.8	-33.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (110.8dBμV/m).

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 - 1Tx	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
	4825.4	45.8	2.7	48.5	54.0	-5.5	Average	Horizontal
	4834.0	59.6	2.7	62.3	74.0	-11.7	Peak	Horizontal
*	6242.1	37.1	4.7	41.8	79.6	-37.8	Peak	Horizontal
	8247.5	37.5	8.1	45.6	74.0	-28.4	Peak	Horizontal
*	9653.9	36.0	11.0	47.0	79.6	-32.6	Peak	Horizontal
	4825.0	40.0	2.7	42.7	54.0	-11.3	Average	Vertical
	4833.7	53.8	2.7	56.5	74.0	-17.5	Peak	Vertical
*	7247.5	44.3	7.9	52.2	79.6	-27.4	Peak	Vertical
	9153.9	36.2	9.8	46.0	74.0	-28.0	Peak	Vertical
*	9661.4	39.3	11.0	50.3	79.6	-29.3	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (109.6dBμV/m).

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 - 1Tx	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
	4867.5	45.2	2.7	47.9	74.0	-26.1	Peak	Horizontal
*	6024.9	38.0	4.2	42.2	87.4	-45.2	Peak	Horizontal
	8163.6	37.1	8.4	45.5	74.0	-28.5	Peak	Horizontal
*	9654.3	36.3	11.0	47.3	87.4	-40.1	Peak	Horizontal
	4876.4	46.0	2.7	48.7	74.0	-25.3	Peak	Vertical
*	5524.5	38.4	3.5	41.9	87.4	-45.5	Peak	Vertical
	7324.2	47.2	8.0	55.2	74.0	-18.8	Peak	Vertical
*	9764.0	44.4	11.4	55.8	87.4	-31.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (117.4dBμV/m).

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 - 1Tx	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
	4919.1	52.3	2.8	55.1	74.0	-18.9	Peak	Horizontal
*	6042.6	37.4	4.1	41.5	79.8	-38.3	Peak	Horizontal
	8153.8	37.2	8.4	45.6	74.0	-28.4	Peak	Horizontal
*	9642.6	36.2	11.0	47.2	79.8	-32.6	Peak	Horizontal
	4926.9	49.9	2.8	52.7	74.0	-21.3	Peak	Vertical
*	6055.4	36.6	4.1	40.7	79.8	-39.1	Peak	Vertical
	8263.9	37.6	8.1	45.7	74.0	-28.3	Peak	Vertical
*	9658.8	35.8	11.0	46.8	79.8	-33.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (109.8dBμV/m).

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 – 2Tx	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
	4833.7	40.8	2.7	43.5	74.0	-30.5	Peak	Horizontal
*	5682.4	37.7	3.7	41.4	80.6	-39.2	Peak	Horizontal
	8143.0	38.0	8.5	46.5	74.0	-27.5	Peak	Horizontal
*	9657.9	36.5	11.0	47.5	80.6	-33.1	Peak	Horizontal
	4833.7	50.3	2.7	53.0	74.0	-21.0	Peak	Vertical
*	6025.2	36.8	4.2	41.0	80.6	-39.6	Peak	Vertical
	8145.8	38.1	8.5	46.6	74.0	-27.4	Peak	Vertical
*	9647.6	36.3	11.0	47.3	80.6	-33.3	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (110.6dBμV/m).

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 – 2Tx	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
	4867.9	50.7	2.7	53.4	74.0	-20.6	Peak	Horizontal
*	5684.7	37.6	3.7	41.3	89.6	-48.3	Peak	Horizontal
	8146.0	37.9	8.5	46.4	74.0	-27.6	Peak	Horizontal
*	9653.6	36.4	11.0	47.4	89.6	-42.2	Peak	Horizontal
	4875.1	49.7	2.7	52.4	54.0	-1.6	Average	Vertical
	4875.8	63.3	2.7	66.0	74.0	-8.0	Peak	Vertical
*	6025.4	37.6	4.2	41.8	89.6	-47.8	Peak	Vertical
	7289.9	41.2	8.0	49.2	74.0	-24.8	Peak	Vertical
*	9738.7	40.2	11.2	51.4	89.6	-38.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (119.6dBμV/m).

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 – 2Tx	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
	4953.4	38.1	2.9	41.0	74.0	-33.0	Peak	Horizontal
*	6054.5	37.2	4.1	41.3	81.3	-40.0	Peak	Horizontal
	8148.9	38.6	8.5	47.1	74.0	-26.9	Peak	Horizontal
*	9626.3	36.5	10.9	47.4	81.3	-33.9	Peak	Horizontal
	4927.1	45.5	2.8	48.3	74.0	-25.7	Peak	Vertical
*	6025.6	37.3	4.2	41.5	81.3	-39.8	Peak	Vertical
	8147.2	37.5	8.5	46.0	74.0	-28.0	Peak	Vertical
*	9653.4	35.3	11.0	46.3	81.3	-35.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (111.3dBμV/m).

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 – 2Tx	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
	4842.8	39.8	2.7	42.5	74.0	-31.5	Peak	Horizontal
*	6025.4	37.2	4.2	41.4	75.3	-33.9	Peak	Horizontal
	8154.3	38.1	8.4	46.5	74.0	-27.5	Peak	Horizontal
*	9647.4	36.4	11.0	47.4	75.3	-27.9	Peak	Horizontal
	4842.2	49.7	2.7	52.4	74.0	-21.6	Peak	Vertical
*	6015.1	37.2	4.2	41.4	75.3	-33.9	Peak	Vertical
	8147.7	38.2	8.5	46.7	74.0	-27.3	Peak	Vertical
*	9655.6	36.6	11.0	47.6	75.3	-27.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (105.3dBμV/m).

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 – 2Tx	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
	4876.4	48.3	2.7	51.0	74.0	-23.0	Peak	Horizontal
*	6049.0	38.0	4.1	42.1	83.7	-41.6	Peak	Horizontal
	8248.6	37.8	8.1	45.9	74.0	-28.1	Peak	Horizontal
*	9654.0	35.7	11.0	46.7	83.7	-37.0	Peak	Horizontal
	4875.9	47.2	2.7	49.9	54.0	-4.1	Average	Vertical
	4875.8	61.9	2.7	64.6	74.0	-9.4	Peak	Vertical
*	6043.7	37.6	4.1	41.7	83.7	-42.0	Peak	Vertical
	8247.7	36.9	8.1	45.0	74.0	-29.0	Peak	Vertical
*	9654.1	36.0	11.0	47.0	83.7	-36.7	Peak	Vertical

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

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 – 2Tx	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
	4876.7	50.1	2.5	52.6	74.0	-21.4	Peak	Horizontal
*	6049.3	39.6	4.2	43.8	78.1	-34.3	Peak	Horizontal
	8248.9	40.1	8.1	48.2	74.0	-25.8	Peak	Horizontal
*	9654.3	37.9	10.9	48.8	78.1	-29.3	Peak	Horizontal
	4876.2	48.8	2.7	51.5	74.0	-22.5	Peak	Vertical
*	4876.1	63.6	4.7	68.3	78.1	-9.8	Peak	Vertical
	6044.0	39.7	8.2	47.9	74.0	-26.1	Peak	Vertical
*	8248.0	39.1	11.0	50.1	78.1	-28.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (108.1dBμV/m).

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

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

Panel Antenna 1# and 2#

Test Mode:	802.11b – 1Tx	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
	4824.3	49.8	2.7	52.5	54.0	-1.5	Average	Horizontal
	4825.3	58.0	2.7	60.7	74.0	-13.3	Peak	Horizontal
*	6142.7	37.5	4.5	42.0	92.8	-50.8	Peak	Horizontal
	8263.9	37.8	8.1	45.9	74.0	-28.1	Peak	Horizontal
*	9648.6	36.1	11.0	47.1	92.8	-45.7	Peak	Horizontal
	4824.2	50.1	2.7	52.8	54.0	-1.2	Average	Vertical
	4825.3	54.2	2.7	56.9	74.0	-17.1	Peak	Vertical
*	6142.9	36.3	4.5	40.8	92.8	-52.0	Peak	Vertical
	8263.9	36.9	8.1	45.0	74.0	-29.0	Peak	Vertical
*	9654.6	34.2	11.0	45.2	92.8	-47.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (122.8dBμV/m).

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 – 1Tx	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
	4874.3	50.1	2.7	52.8	54.0	-1.2	Average	Horizontal
	4876.3	54.5	2.7	57.2	74.0	-16.8	Peak	Horizontal
*	6143.0	36.0	4.5	40.5	94.3	-53.8	Peak	Horizontal
	8246.9	35.8	8.1	43.9	74.0	-30.1	Peak	Horizontal
*	9653.0	35.5	11.0	46.5	94.3	-47.8	Peak	Horizontal
	4874.2	50.3	2.7	53.0	54.0	-1.0	Average	Vertical
	4876.3	56.2	2.7	58.9	74.0	-15.1	Peak	Vertical
*	6425.7	34.6	5.6	40.2	94.3	-54.1	Peak	Vertical
	8248.2	35.3	8.1	43.4	74.0	-30.6	Peak	Vertical
*	9648.6	35.1	11.0	46.1	94.3	-48.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (124.3dBμV/m).

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 – 1Tx	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
	4924.3	48.6	2.8	51.4	54.0	-2.6	Average	Horizontal
	4927.3	55.4	2.8	58.2	74.0	-15.8	Peak	Horizontal
*	6241.4	35.3	4.7	40.0	91.5	-51.5	Peak	Horizontal
	8253.7	36.4	8.1	44.5	74.0	-29.5	Peak	Horizontal
*	9686.8	35.0	10.9	45.9	91.5	-45.6	Peak	Horizontal
	4924.2	49.2	2.8	52.0	54.0	-2.0	Average	Vertical
	4927.3	57.9	2.8	60.7	74.0	-13.3	Peak	Vertical
*	6215.7	35.9	4.7	40.6	91.5	-50.9	Peak	Vertical
	8249.0	35.9	8.1	44.0	74.0	-30.0	Peak	Vertical
*	9653.6	34.0	11.0	45.0	91.5	-46.5	Peak	Vertical

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

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 – 1Tx	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
	4825.3	49.6	2.7	52.3	74.0	-21.7	Peak	Horizontal
*	6235.7	37.2	4.7	41.9	86.7	-44.8	Peak	Horizontal
	8246.7	37.8	8.1	45.9	74.0	-28.1	Peak	Horizontal
*	9658.9	36.1	11.0	47.1	86.7	-39.6	Peak	Horizontal
	4833.8	46.5	2.7	49.2	74.0	-24.8	Peak	Vertical
*	6145.6	36.1	4.5	40.6	86.7	-46.1	Peak	Vertical
	8246.8	36.6	8.1	44.7	74.0	-29.3	Peak	Vertical
*	9659.3	35.2	11.0	46.2	86.7	-40.5	Peak	Vertical

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

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 – 1Tx	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
	4874.7	45.7	2.7	48.4	54.0	-5.6	Average	Horizontal
	4876.3	59.1	2.7	61.8	74.0	-12.2	Peak	Horizontal
*	6142.8	35.8	4.5	40.3	94.5	-54.2	Peak	Horizontal
	8264.3	36.1	8.1	44.2	74.0	-29.8	Peak	Horizontal
*	9653.5	34.4	11.0	45.4	94.5	-49.1	Peak	Horizontal
	4867.8	63.4	2.7	66.1	74.0	-7.9	Peak	Vertical
	4874.1	49.8	2.7	52.5	54.0	-1.5	Average	Vertical
*	6143.2	36.1	4.5	40.6	94.5	-53.9	Peak	Vertical
	8243.9	35.3	8.1	43.4	74.0	-30.6	Peak	Vertical
*	9642.8	34.4	11.0	45.4	94.5	-49.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (124.5dBμV/m).

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 – 1Tx	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
	4918.8	43.7	2.8	46.5	74.0	-27.5	Peak	Horizontal
*	6025.8	35.8	4.2	40.0	88.6	-48.6	Peak	Horizontal
	8152.7	36.1	8.4	44.5	74.0	-29.5	Peak	Horizontal
*	9654.2	35.0	11.0	46.0	88.6	-42.6	Peak	Horizontal
	4927.3	47.8	2.8	50.6	74.0	-23.4	Peak	Vertical
*	6243.9	36.2	4.7	40.9	88.6	-47.7	Peak	Vertical
	8241.8	35.4	8.1	43.5	74.0	-30.5	Peak	Vertical
*	9648.6	35.9	11.0	46.9	88.6	-41.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (118.6dBμV/m).

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 – 2Tx	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
	4825.4	48.1	2.7	50.8	74.0	-23.2	Peak	Horizontal
*	6024.8	38.1	4.2	42.3	85.7	-43.4	Peak	Horizontal
	8142.8	38.2	8.5	46.7	74.0	-27.3	Peak	Horizontal
*	9635.6	37.2	11.0	48.2	85.7	-37.5	Peak	Horizontal
	4824.3	49.8	2.7	52.5	54.0	-1.5	Average	Vertical
	4825.4	62.1	2.7	64.8	74.0	-9.2	Peak	Vertical
*	6045.7	38.5	4.1	42.6	86.7	-44.1	Peak	Vertical
	7715.4	40.9	8.0	48.9	74.0	-25.1	Peak	Vertical
*	9628.7	36.2	11.0	47.2	85.7	-38.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (115.7dBμV/m).

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 – 2Tx	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
	4876.4	44.9	2.7	47.6	74.0	-26.4	Peak	Horizontal
*	6042.8	37.9	4.1	42.0	94.2	-52.2	Peak	Horizontal
	8246.8	37.9	8.1	46.0	74.0	-28.0	Peak	Horizontal
*	9643.7	37.0	11.0	48.0	94.2	-46.2	Peak	Horizontal
	4874.5	50.1	2.7	52.8	54.0	-1.2	Average	Vertical
	4876.4	58.5	2.7	61.2	74.0	-12.8	Peak	Vertical
*	6025.8	37.2	4.2	41.4	94.2	-52.8	Peak	Vertical
	8154.1	37.5	8.4	45.9	74.0	-28.1	Peak	Vertical
*	9653.7	35.4	11.0	46.4	94.2	-47.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (124.2dBμV/m).

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 – 2Tx	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
	4927.4	48.1	2.8	50.9	74.0	-23.1	Peak	Horizontal
*	6125.8	37.0	4.4	41.4	86.2	-44.8	Peak	Horizontal
	8153.8	36.7	8.4	45.1	74.0	-28.9	Peak	Horizontal
*	9625.8	36.3	10.9	47.2	86.2	-39.0	Peak	Horizontal
	4924.3	49.7	2.8	52.5	54.0	-1.5	Average	Vertical
	4927.4	60.3	2.8	63.1	74.0	-10.9	Peak	Vertical
*	6025.8	37.3	4.2	41.5	86.2	-44.7	Peak	Vertical
	8153.9	38.3	8.4	46.7	74.0	-27.3	Peak	Vertical
*	9654.1	36.5	11.0	47.5	86.2	-38.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (116.2dBμV/m).

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 – 2Tx	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
	4927.4	47.1	2.8	49.9	74.0	-24.1	Peak	Horizontal
*	6235.6	37.4	4.1	41.5	79.3	-37.8	Peak	Horizontal
	8406.8	36.0	8.5	44.5	74.0	-29.5	Peak	Horizontal
*	9652.8	35.2	11.0	46.2	79.3	-33.1	Peak	Horizontal
	4918.9	40.1	2.8	42.9	74.0	-31.1	Peak	Vertical
*	6025.8	36.6	4.1	40.7	79.3	-38.6	Peak	Vertical
	8263.9	36.3	8.1	44.4	74.0	-29.6	Peak	Vertical
*	9675.5	34.7	11.3	46.0	79.3	-33.3	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (109.2dBμV/m).

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 – 2Tx	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
	4867.5	52.5	2.7	55.2	74.0	-18.8	Peak	Horizontal
	4873.7	39.3	2.7	42.0	54.0	-12.0	Average	Horizontal
*	6042.4	36.0	4.1	40.1	88.3	-48.2	Peak	Horizontal
	8173.4	36.3	8.4	44.7	74.0	-29.3	Peak	Horizontal
*	9247.9	36.3	10.2	46.5	88.3	-41.8	Peak	Horizontal
	4875.5	49.9	2.7	52.6	54.0	-1.4	Average	Vertical
	4876.0	63.6	2.7	66.3	74.0	-7.7	Peak	Vertical
*	6045.4	35.5	4.1	39.6	88.3	-48.7	Peak	Vertical
	8147.6	36.9	8.5	45.4	74.0	-28.6	Peak	Vertical
*	9653.6	34.0	11.0	45.0	88.3	-43.3	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (118.3dBμV/m).

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 – 2Tx	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
	4731.5	38.5	3.0	41.5	74.0	-32.5	Peak	Horizontal
*	6024.4	35.2	4.1	39.3	79.1	-39.8	Peak	Horizontal
	8247.6	36.1	8.1	44.2	74.0	-29.8	Peak	Horizontal
*	9623.7	34.3	11.0	45.3	79.1	-33.8	Peak	Horizontal
	4910.0	40.6	2.8	43.4	74.0	-30.6	Peak	Vertical
*	6215.5	35.5	4.6	40.1	79.1	-39.0	Peak	Vertical
	8235.5	35.7	8.5	44.2	74.0	-29.8	Peak	Vertical
*	9653.2	34.5	11.0	45.5	79.1	-33.6	Peak	Vertical

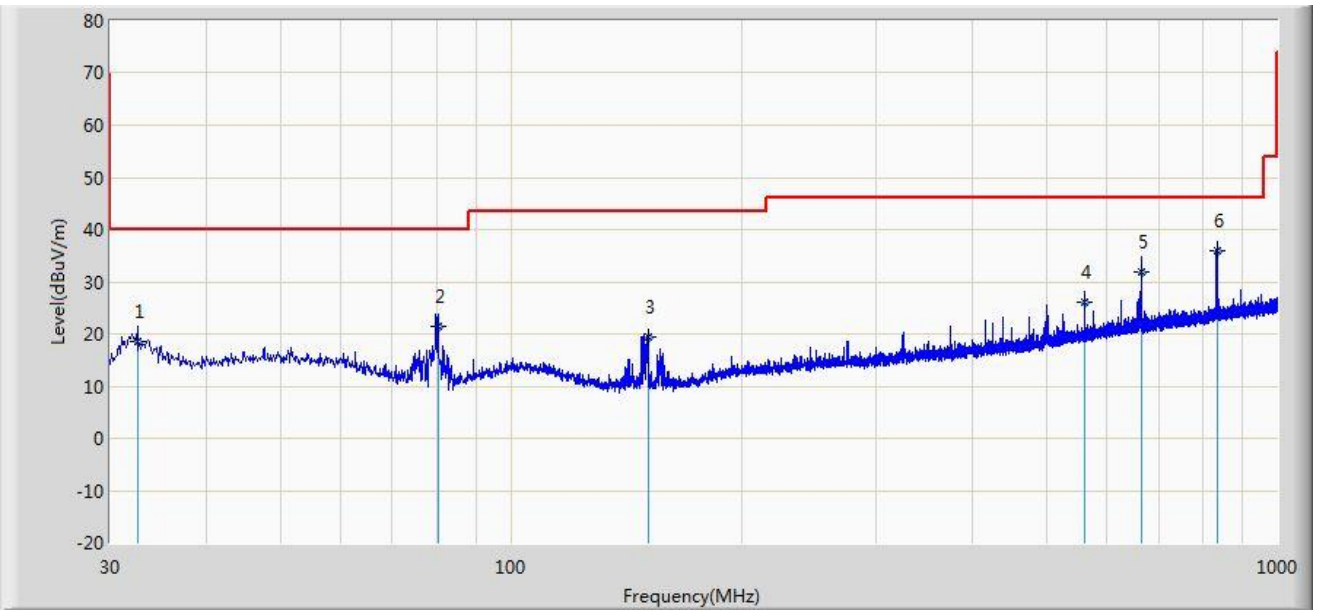
Note 1: "*" is not in restricted band, its limit is 30dBc of the fundamental emission level (109.1dBμV/m).

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

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

The worst case of Radiated Emission below 1GHz:

Site: AC1	Time: 2015/05/10 - 15:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Jame Yuan
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Worse Case Mode: Transmit by 802.11g at channel 2412MHz	

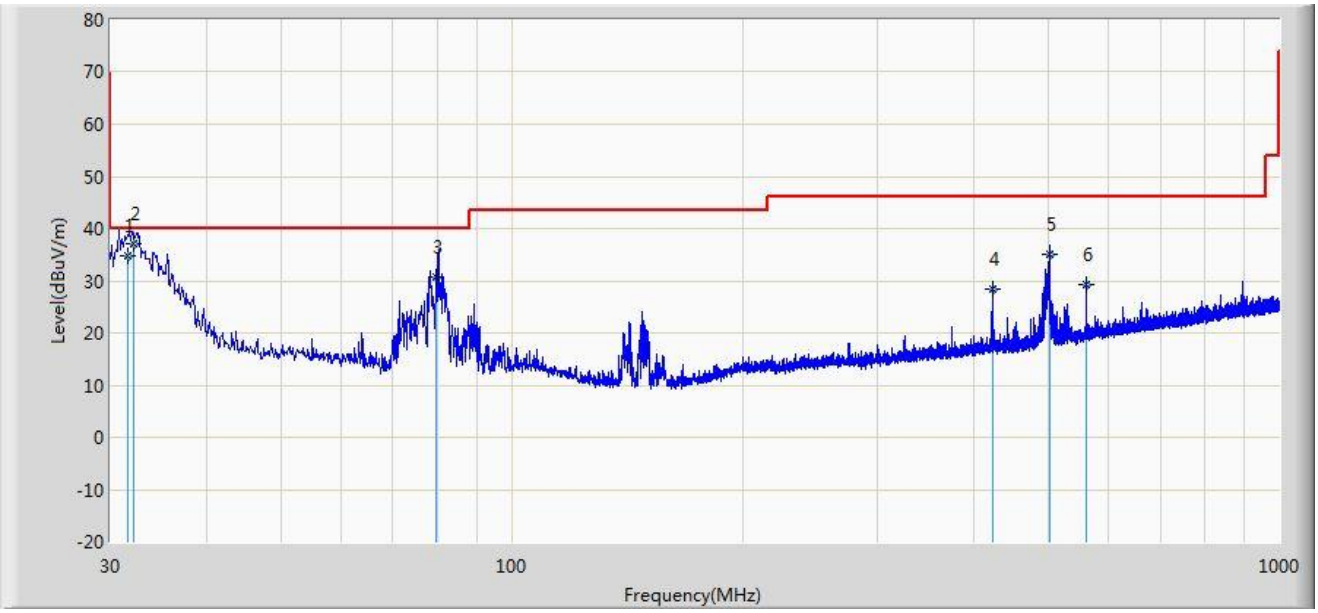


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			32.562	18.411	5.931	-21.589	40.000	12.480	QP
2			80.400	21.477	12.060	-18.523	40.000	9.417	QP
3			151.120	19.352	9.870	-24.148	43.500	9.481	QP
4			560.020	26.056	6.807	-19.944	46.000	19.248	QP
5			664.200	31.889	11.060	-14.111	46.000	20.829	QP
6		*	834.080	35.816	12.580	-10.184	46.000	23.236	QP

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

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

Site: AC1	Time: 2015/05/10 - 15:47
Limit: FCC_Part15.209_RE(3m)	Engineer: Jame Yuan
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Worse Case Mode: Transmit by 802.11g at channel 2412MHz	



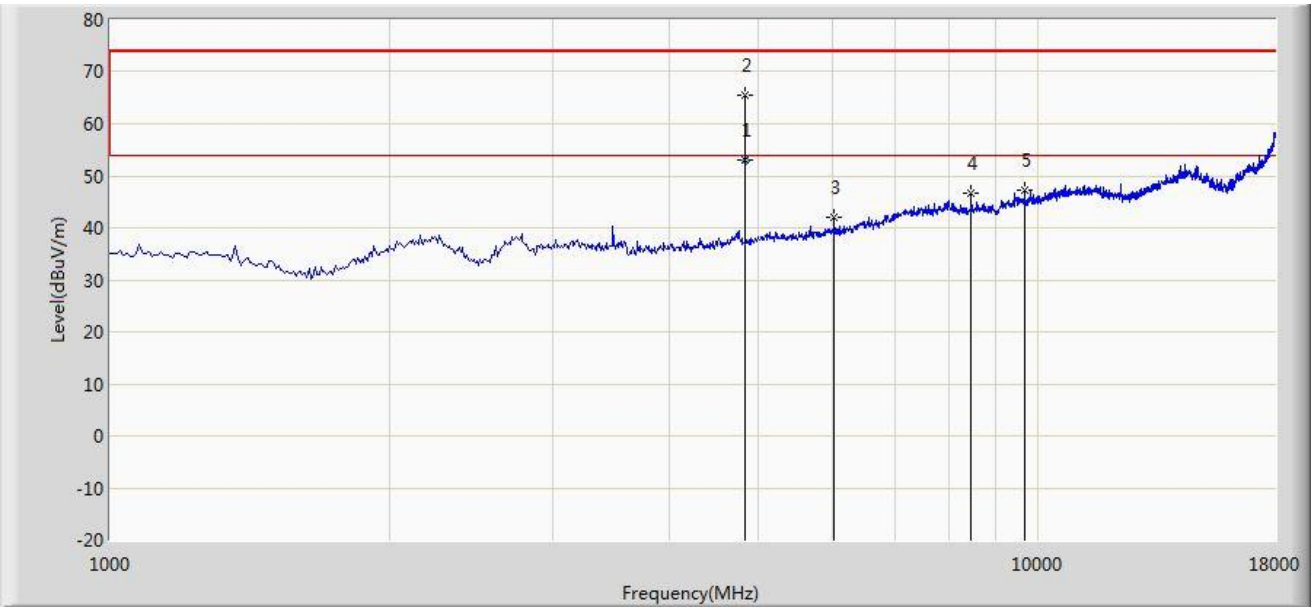
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			31.586	34.902	22.597	-5.098	40.000	12.305	QP
2		*	32.200	37.015	24.600	-2.985	40.000	12.415	QP
3			79.820	30.736	21.400	-9.264	40.000	9.336	QP
4			422.806	28.298	11.320	-17.702	46.000	16.978	QP
5			501.508	35.169	16.921	-10.831	46.000	18.248	QP
6			559.994	29.298	10.050	-16.702	46.000	19.248	QP

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

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

Test plot for Radiated Emission above 1GHz

Site: AC1	Time: 2015/05/15 - 13:54
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Worse Case Mode: Transmit at channel 2412MHz by 802.11b	

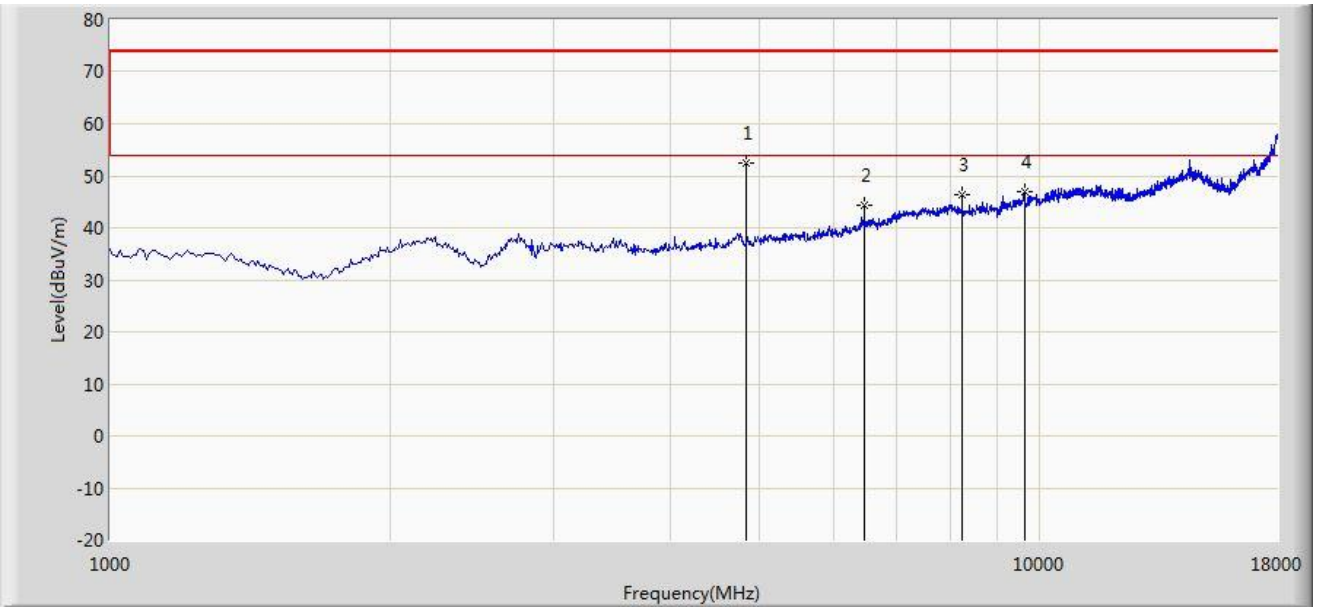


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	4824.300	52.900	50.200	-1.100	54.000	2.700	AV
2			4824.800	65.600	62.900	-8.400	74.000	2.700	PK
3			6025.700	41.888	37.740	-32.112	74.000	4.148	PK
4			8457.400	46.600	38.400	-27.400	74.000	8.200	PK
5			9675.900	47.107	36.200	-26.893	74.000	10.907	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: 2015/05/15 - 13:54
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Worse Case Mode: Transmit at channel 2412MHz by 802.11b	

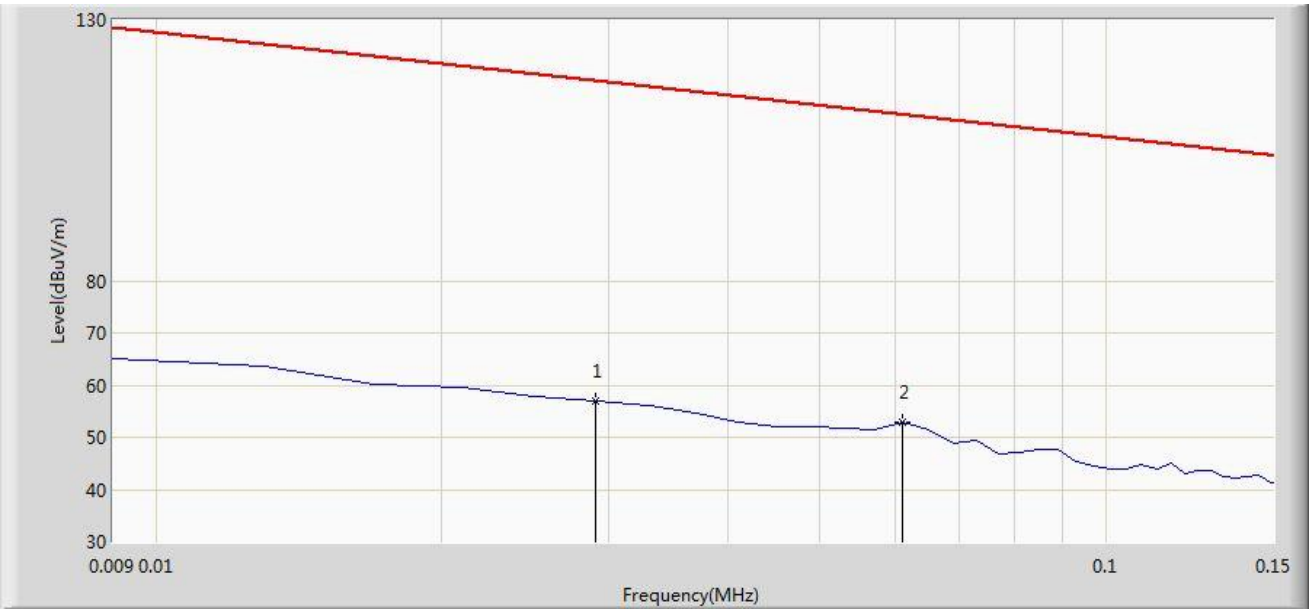


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	4824.800	52.600	49.900	-21.400	74.000	2.700	PK
2			6473.100	44.210	38.400	-29.790	74.000	5.810	PK
3			8258.900	46.438	38.300	-27.562	74.000	8.139	PK
4			9647.500	46.985	36.000	-27.015	74.000	10.986	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: 2015/05/10 - 15:12
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	

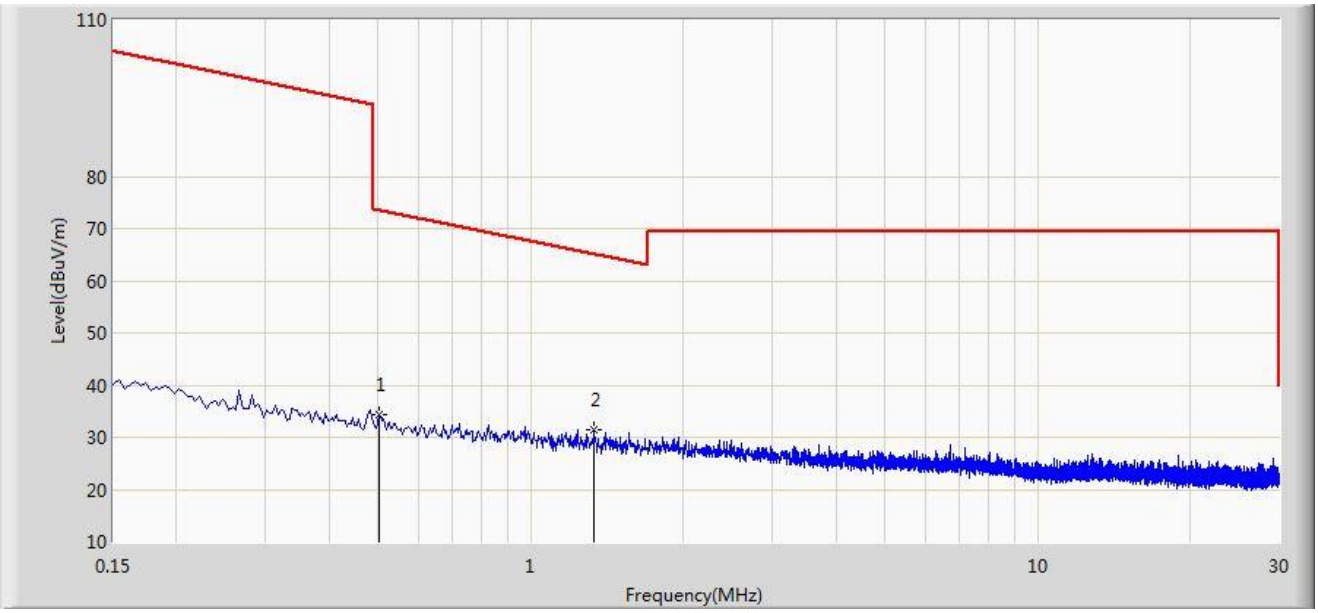


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.029	56.893	35.844	-61.449	118.342	21.049	QP
2		*	0.061	52.853	32.542	-59.034	111.887	20.311	QP

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

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

Site: AC1	Time: 2015/05/10 - 15:16
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	

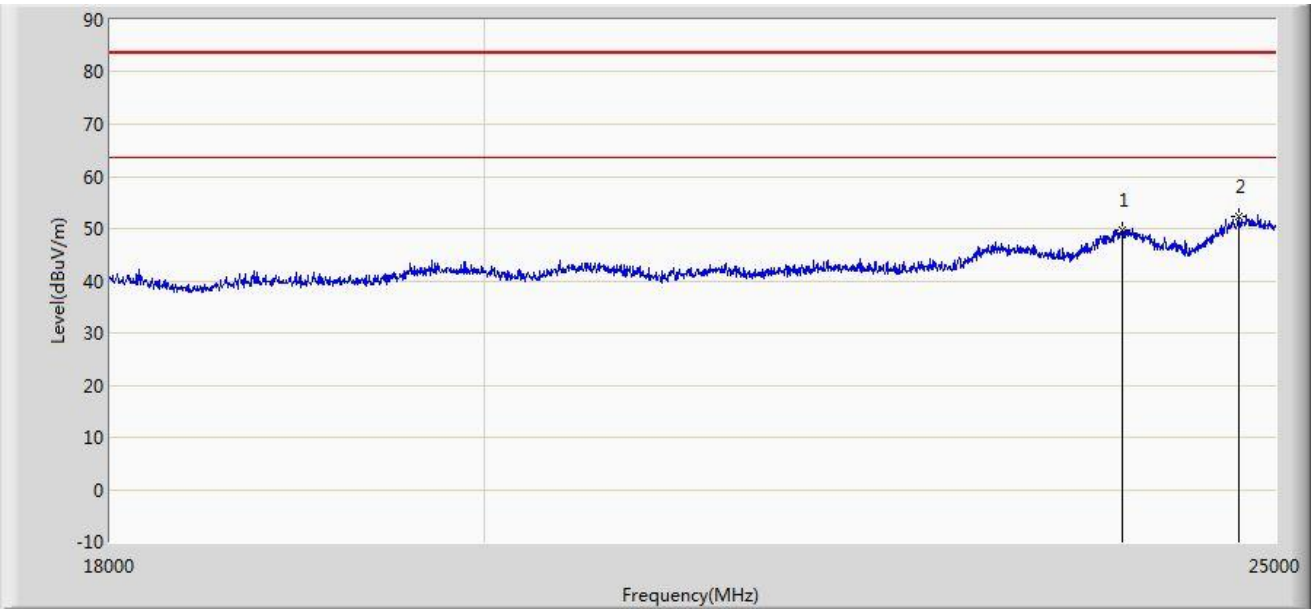


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.502	34.370	13.947	-39.220	73.590	20.423	QP
2		*	1.334	31.595	11.104	-33.530	65.125	20.491	QP

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

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

Site: AC1	Time: 2015/05/10 - 20:21
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 18GHz~25GHz.	

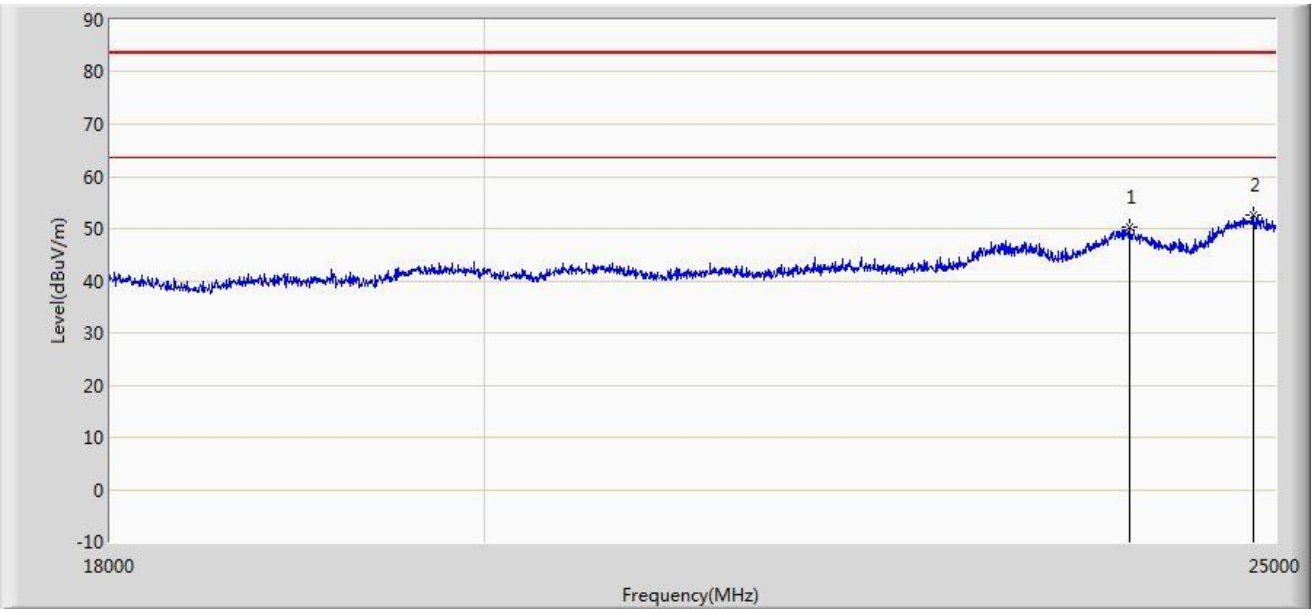


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			23943.000	49.776	35.866	-33.724	83.500	13.910	PK
2		*	24741.000	52.375	37.681	-31.125	83.500	14.694	PK

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: 2015/05/10 - 20:27
Limit: FCC_Part15.209_RE(1m)	Engineer: Roy Cheng
Probe: BBHA9170_18-40GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	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)

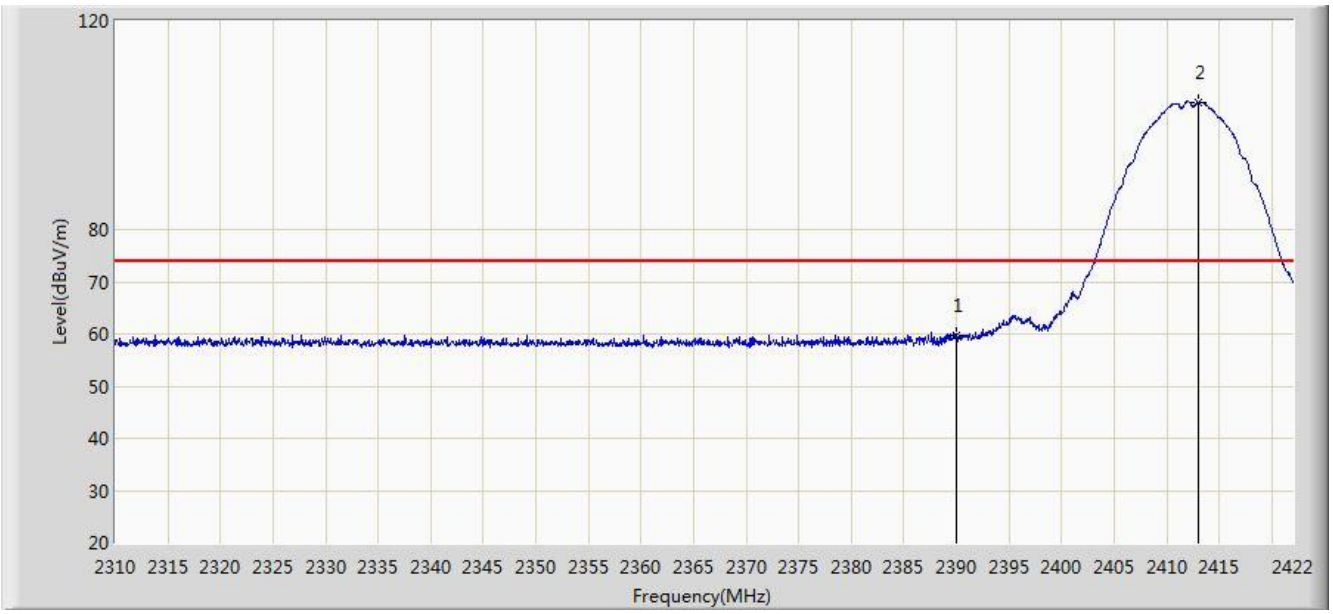
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

7.7. Radiated Restricted Band Edge Measurement

7.7.1. Test Result

Dipole Antenna 1#

Site: AC1	Time: 2015/04/22 - 22:20
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11b 1Tx	

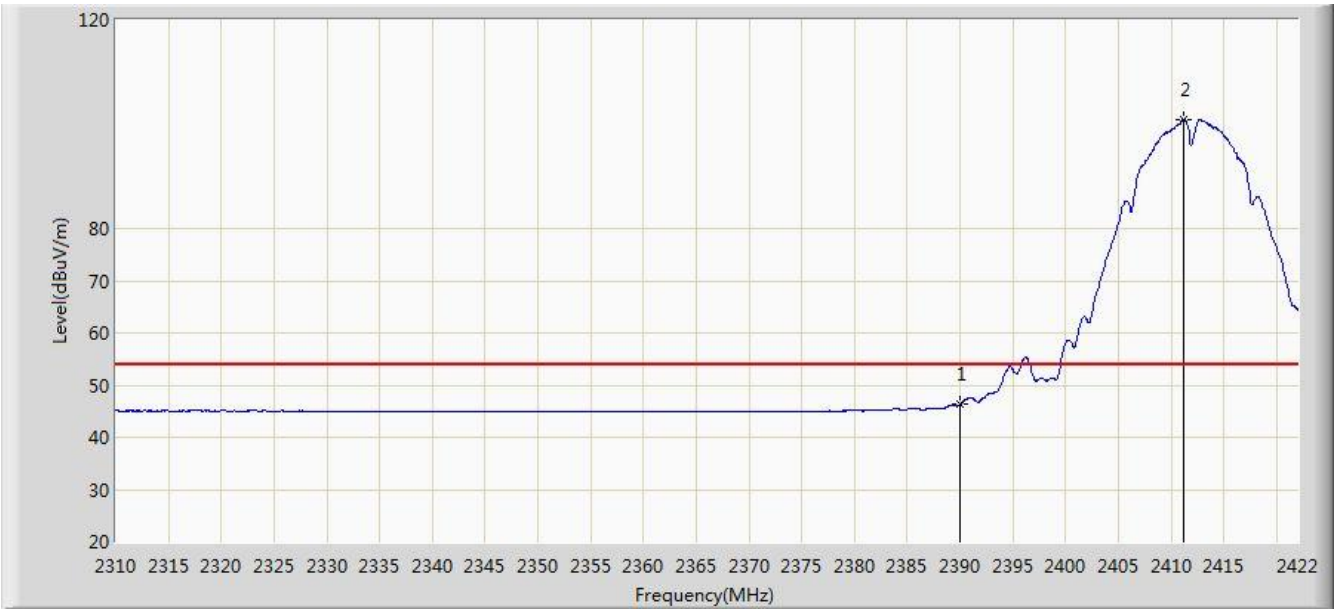


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	59.736	28.533	-14.264	74.000	31.203	PK
2		*	2413.040	104.480	73.312	N/A	N/A	31.167	PK

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

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

Site: AC1	Time: 2015/04/22 - 22:26
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11b 1Tx	

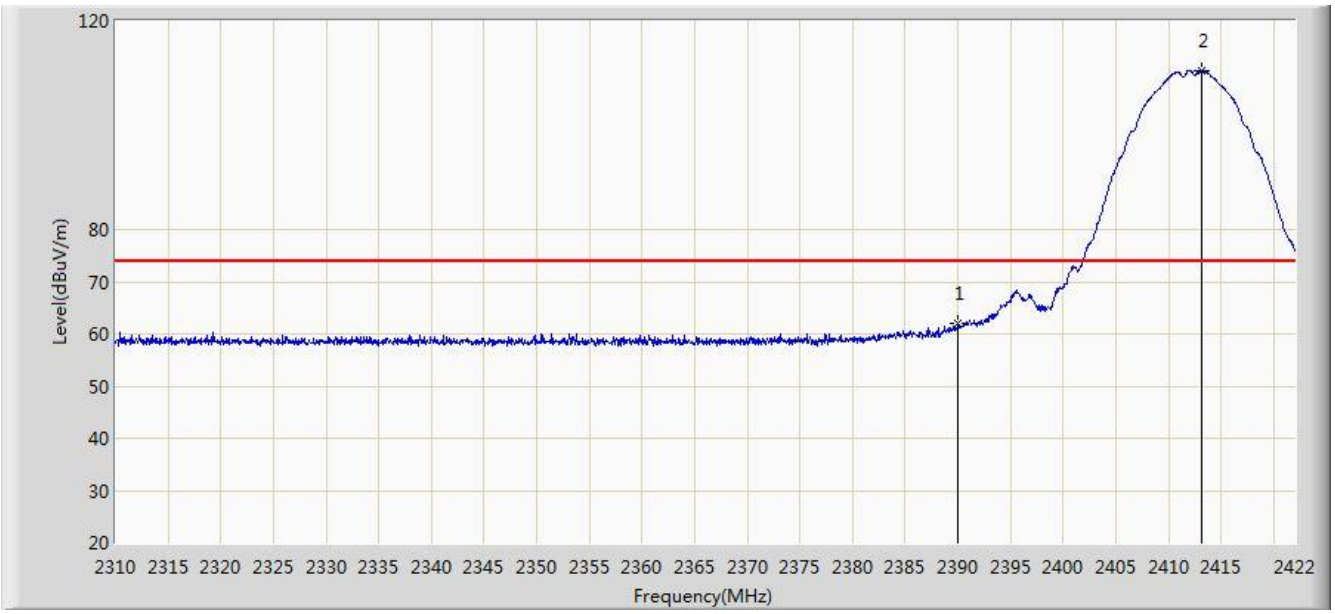


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	46.296	15.093	-7.704	54.000	31.203	AV
2		*	2411.136	100.901	69.730	N/A	N/A	31.171	AV

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

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

Site: AC1	Time: 2015/04/22 - 22:26
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11b 1Tx	

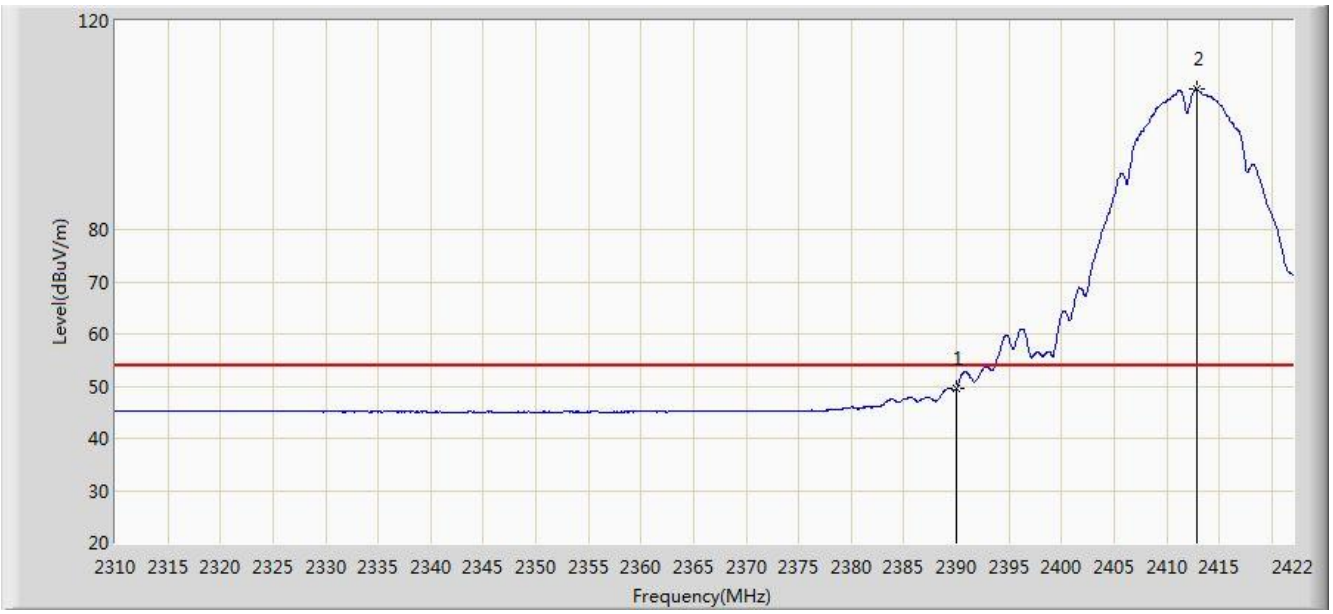


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	61.926	30.723	-12.074	74.000	31.203	PK
2		*	2413.096	110.530	79.362	N/A	N/A	31.167	PK

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

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

Site: AC1	Time: 2015/04/22 - 22:26
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11b 1Tx	

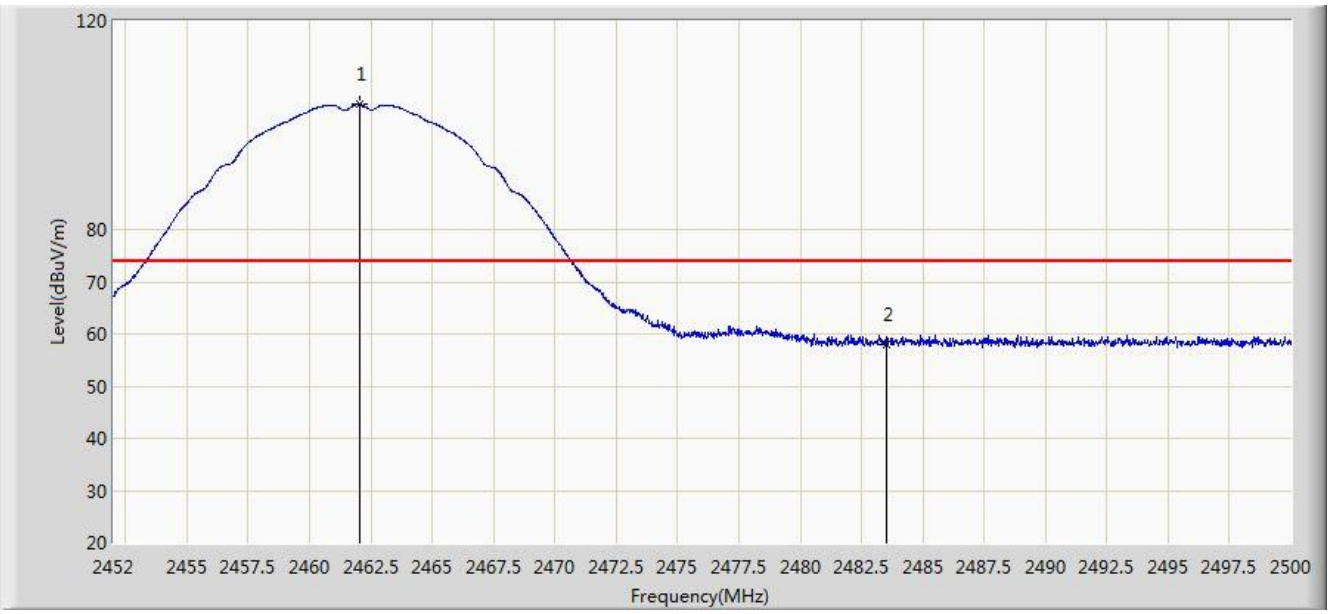


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	49.546	18.343	-4.454	54.000	31.203	AV
2		*	2412.872	106.836	75.668	N/A	N/A	31.168	AV

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

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

Site: AC1	Time: 2015/04/22 - 22:31
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11b 1Tx	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2462.056	104.030	72.895	N/A	N/A	31.135	PK
2			2483.500	57.906	26.713	-16.094	74.000	31.194	PK

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

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

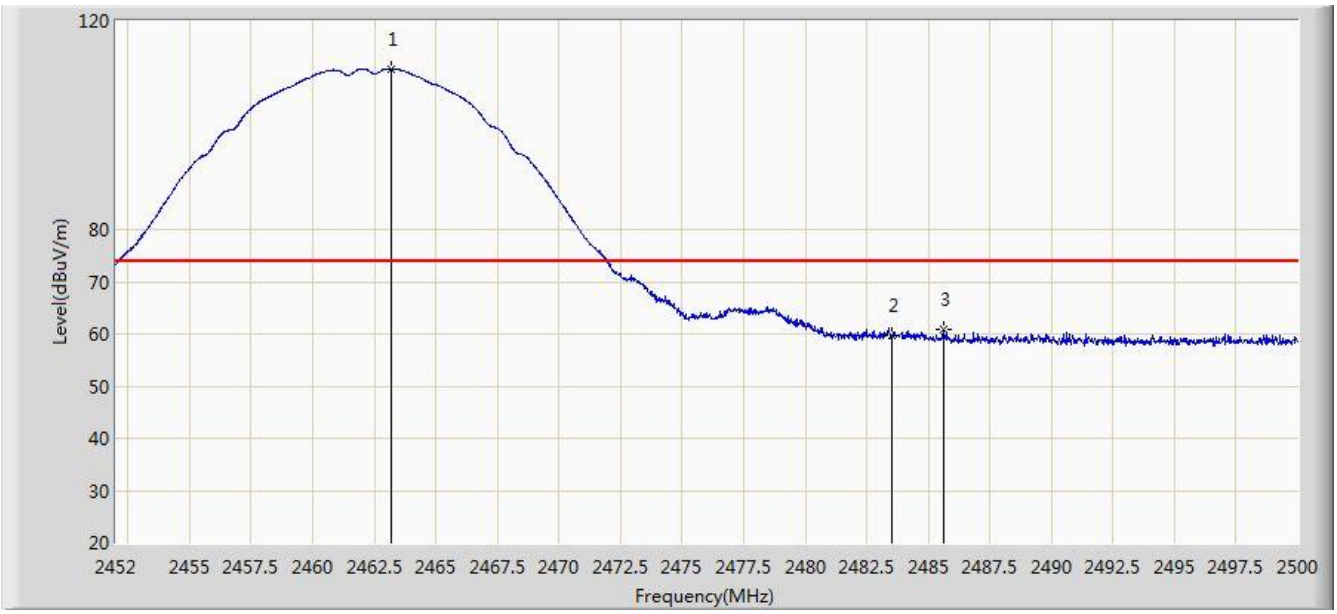
Site: AC1	Time: 2015/04/22 - 22:33
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11b 1Tx	

No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.312	100.328	69.194	N/A	N/A	31.134	AV
2			2483.500	45.685	14.492	-8.315	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/04/22 - 22:34
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11b 1Tx	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.208	110.844	79.706	N/A	N/A	31.137	PK
2			2483.500	59.729	28.536	-14.271	74.000	31.194	PK
3			2485.600	60.898	29.699	-13.102	74.000	31.198	PK

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

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

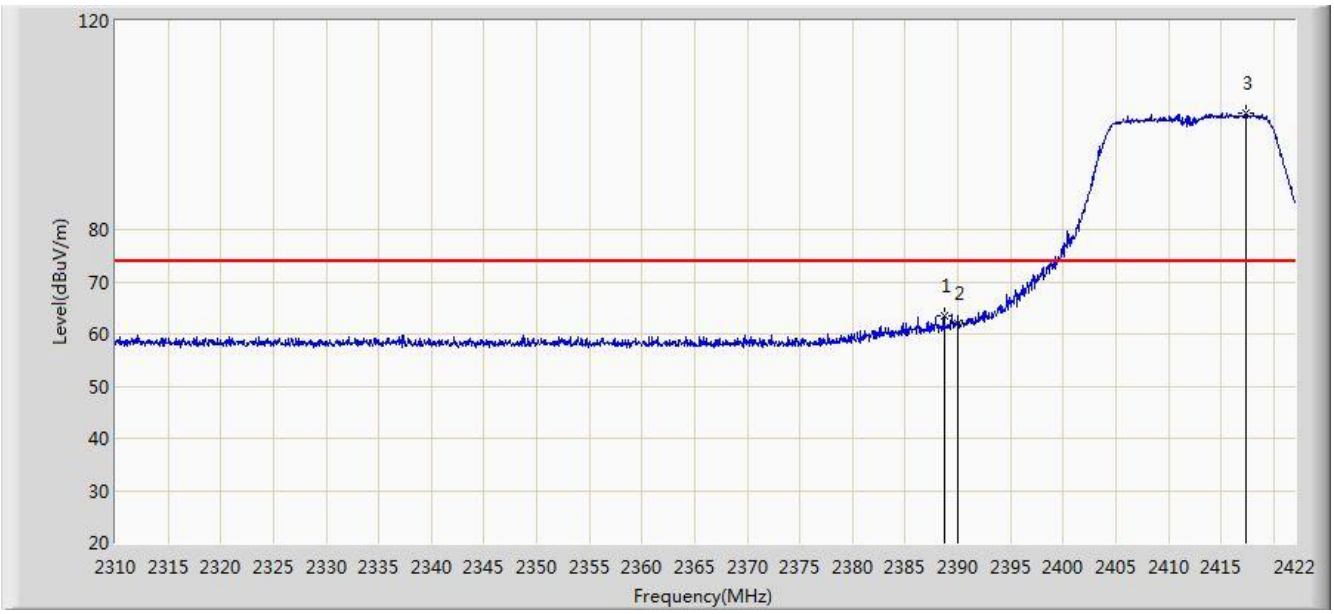
Site: AC1	Time: 2015/04/22 - 22:35
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11b 1Tx	

No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2461.240	107.229	76.095	N/A	N/A	31.134	AV
2			2483.500	47.346	16.153	-6.654	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/04/22 - 22:36
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11g 1Tx	

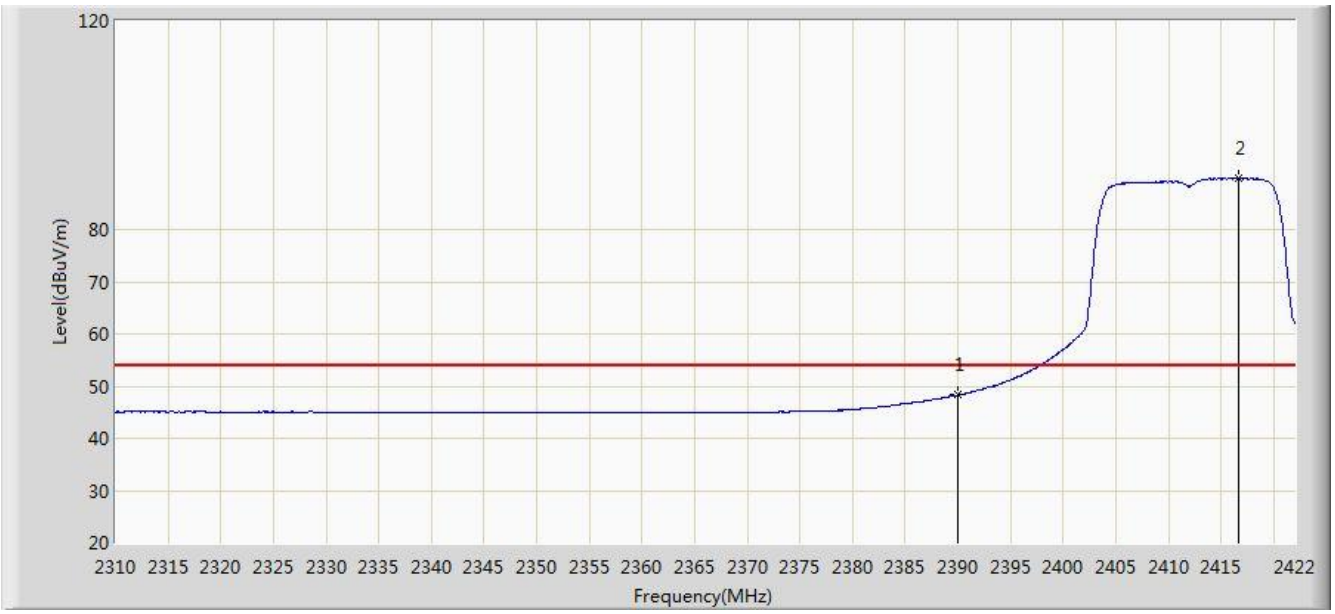


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.680	63.463	32.258	-10.537	74.000	31.205	PK
2			2390.000	62.048	30.845	-11.952	74.000	31.203	PK
3		*	2417.352	102.259	71.099	N/A	N/A	31.160	PK

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

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

Site: AC1	Time: 2015/04/22 - 22:36
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11g 1Tx	

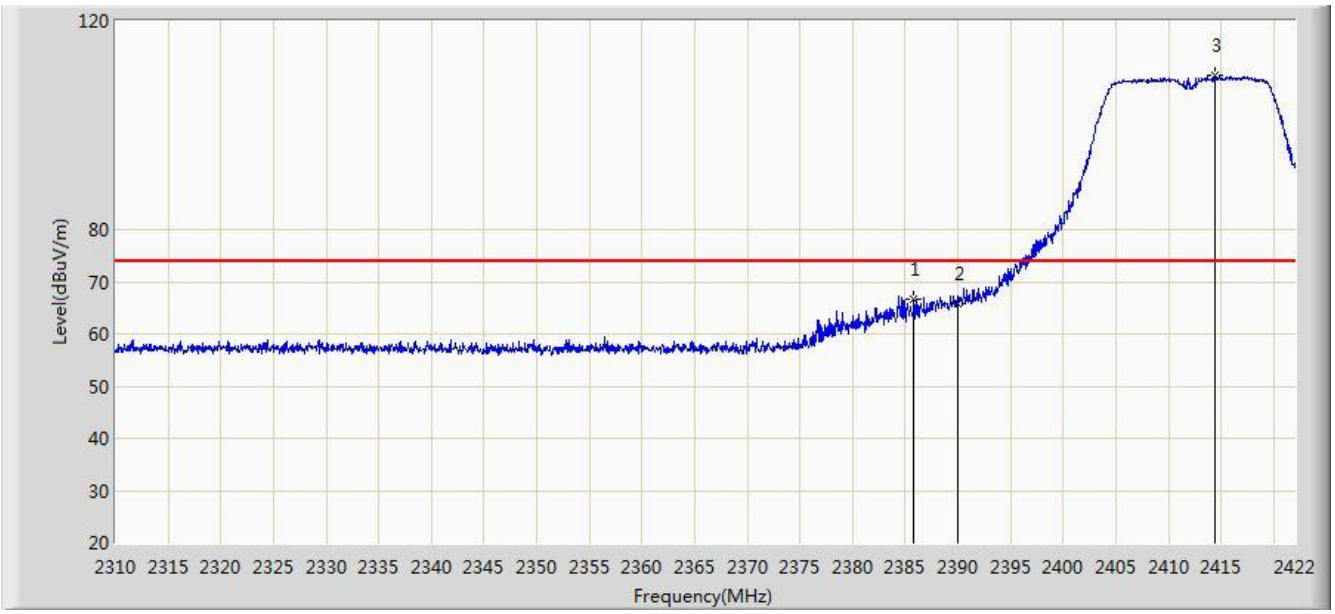


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	48.296	17.093	-5.704	54.000	31.203	AV
2		*	2416.736	89.840	58.679	N/A	N/A	31.162	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:25
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11g 1Tx	

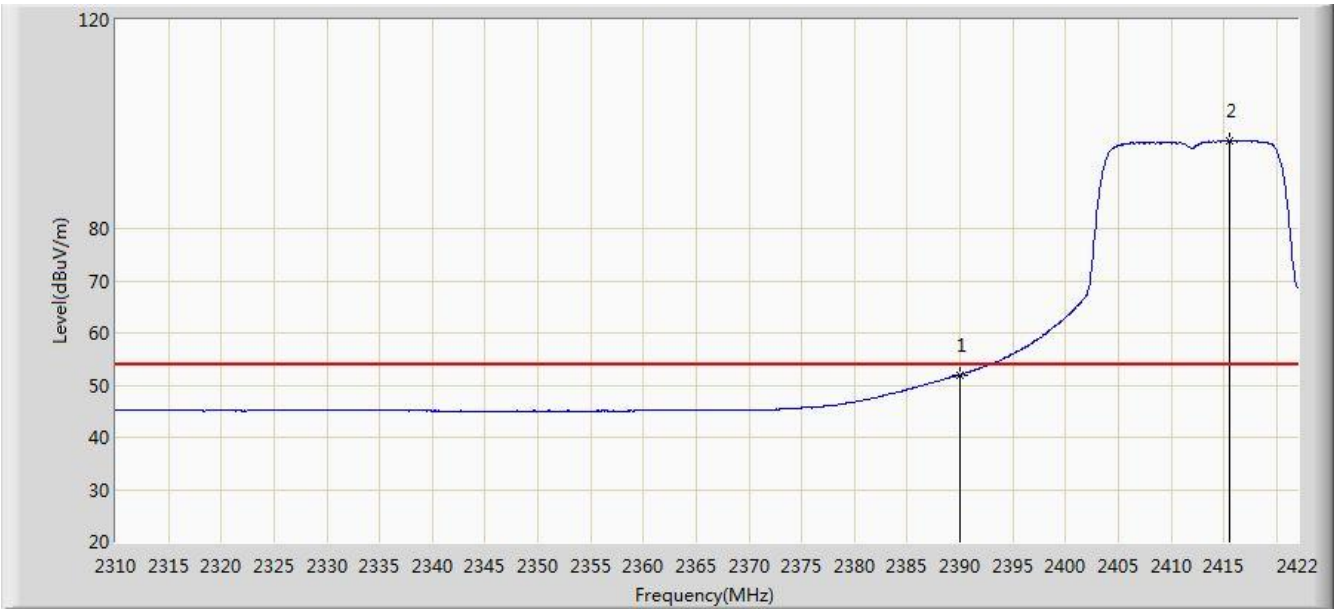


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2385.824	66.763	35.553	-7.237	74.000	31.211	PK
2			2390.000	65.942	34.739	-8.058	74.000	31.203	PK
3		*	2414.440	109.646	78.481	N/A	N/A	31.165	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:25
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11g 1Tx	

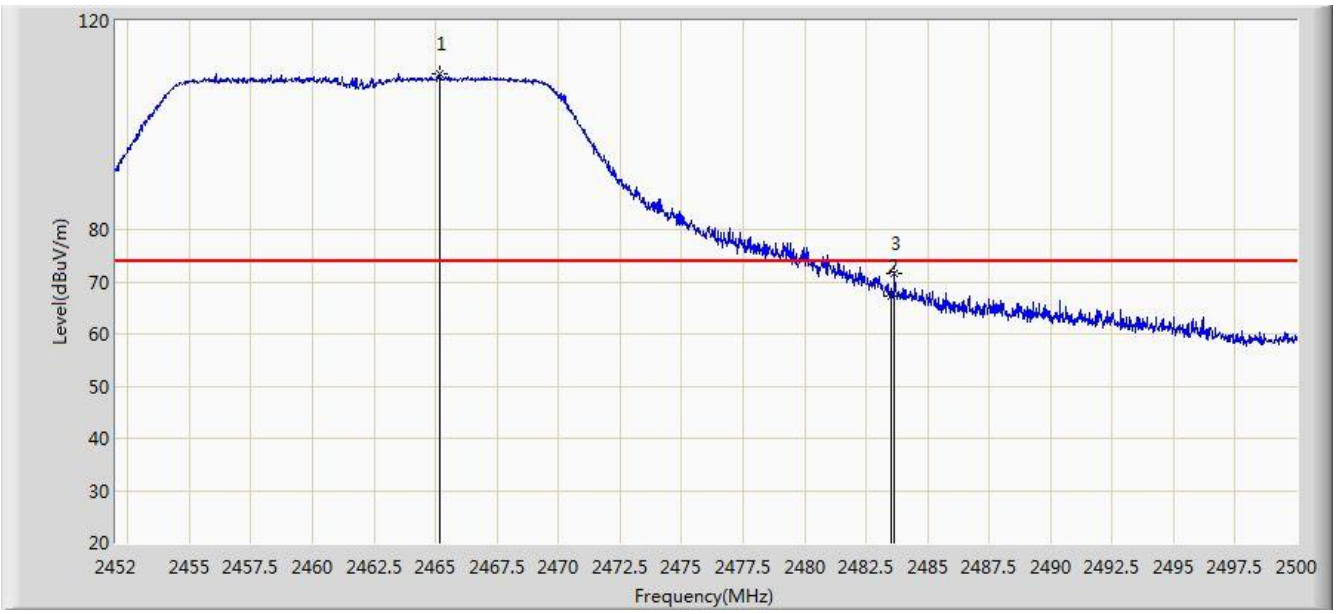


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	51.946	20.743	-2.054	54.000	31.203	AV
2		*	2415.504	96.873	65.709	N/A	N/A	31.164	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:30
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11g 1Tx	

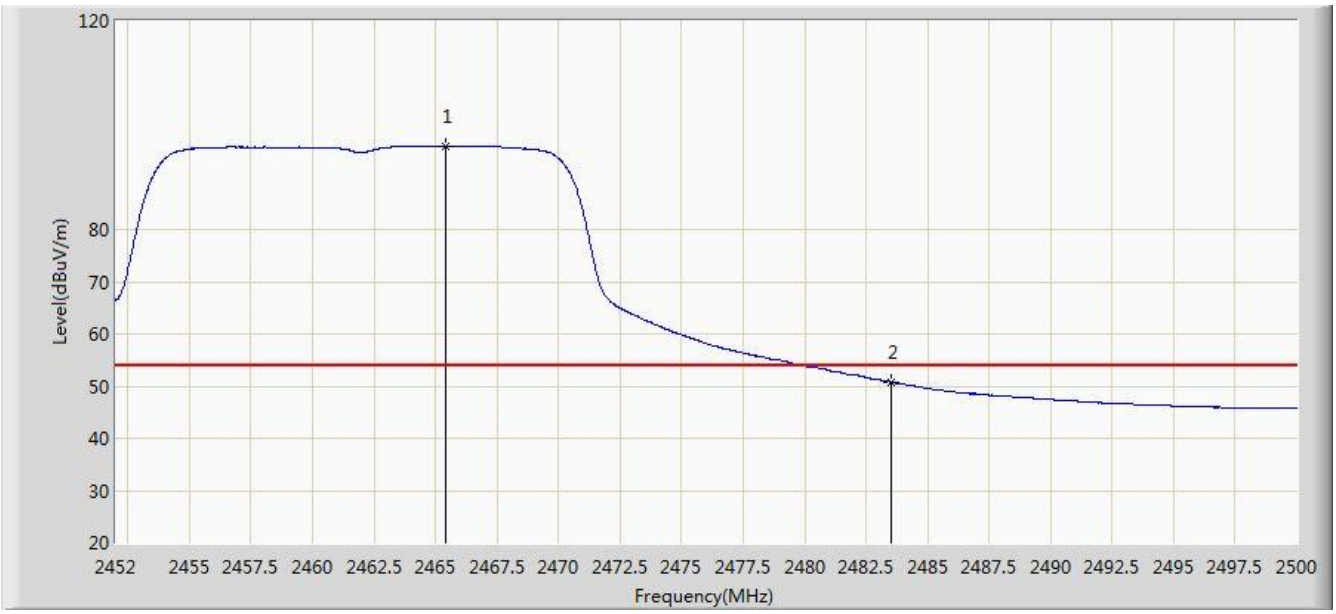


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2465.152	109.767	78.624	N/A	N/A	31.142	PK
2			2483.500	67.382	36.189	-6.618	74.000	31.194	PK
3			2483.656	71.726	40.532	-2.274	74.000	31.194	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:31
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11g 1Tx	

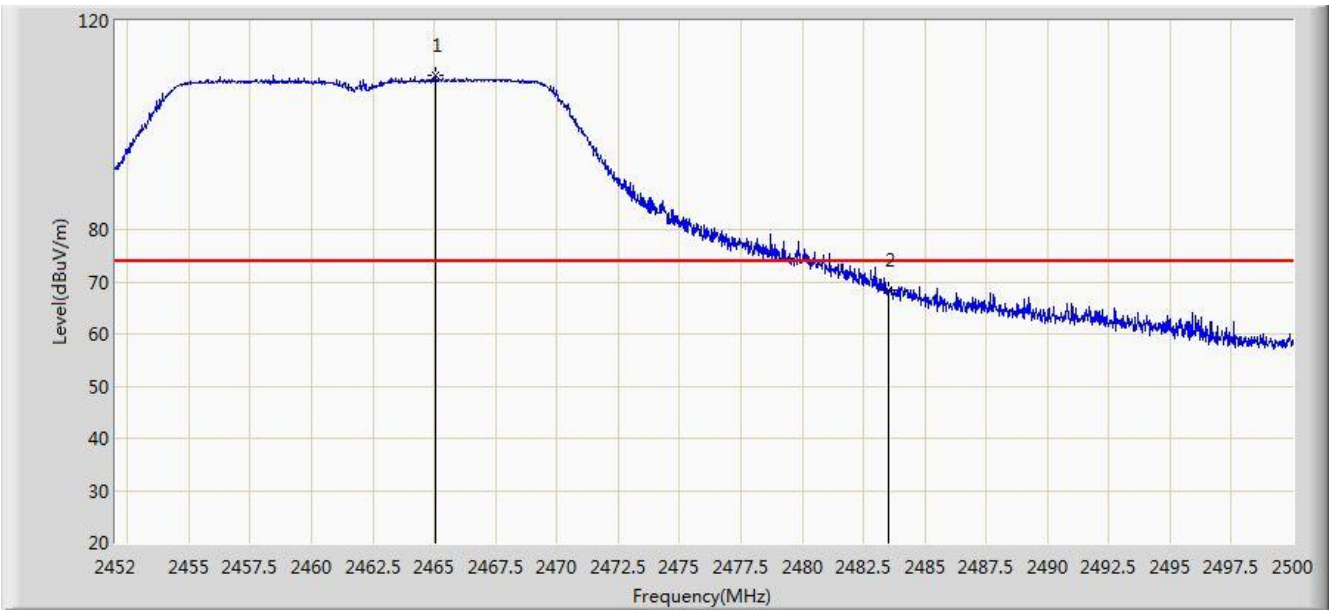


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2465.416	96.007	64.864	N/A	N/A	31.143	AV
2			2483.500	50.783	19.590	-3.217	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:33
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11g 1Tx	

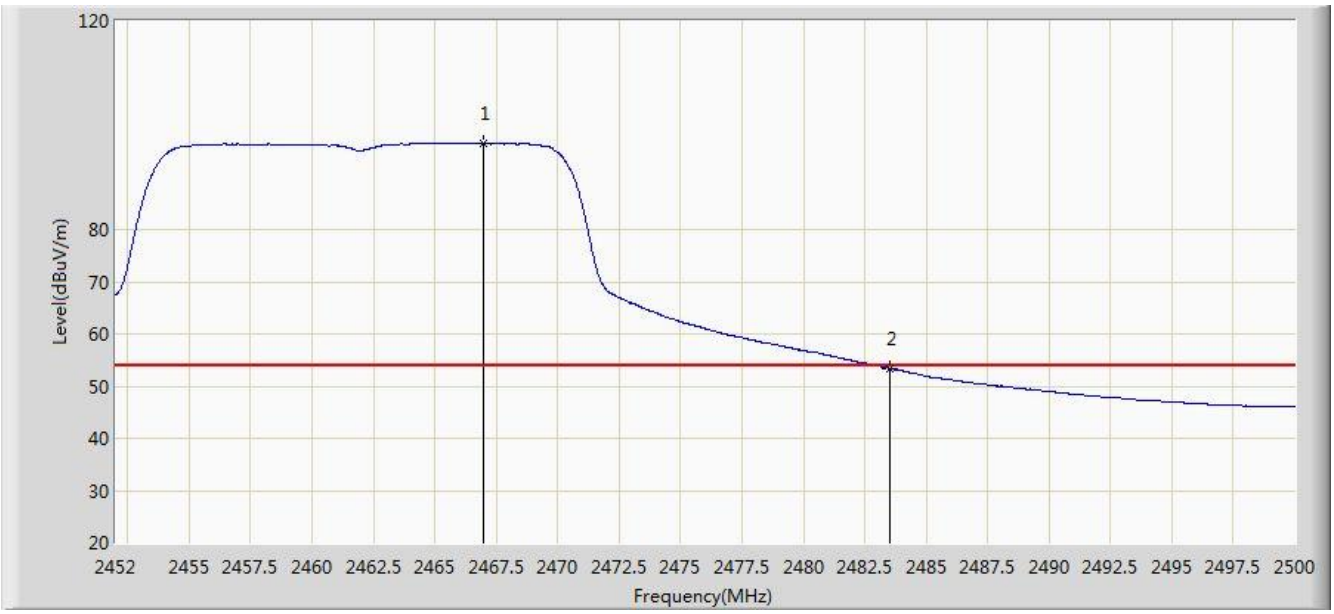


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2465.080	109.450	78.308	N/A	N/A	31.142	PK
2			2483.500	68.413	37.220	-5.587	74.000	31.194	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:33
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11g 1Tx	

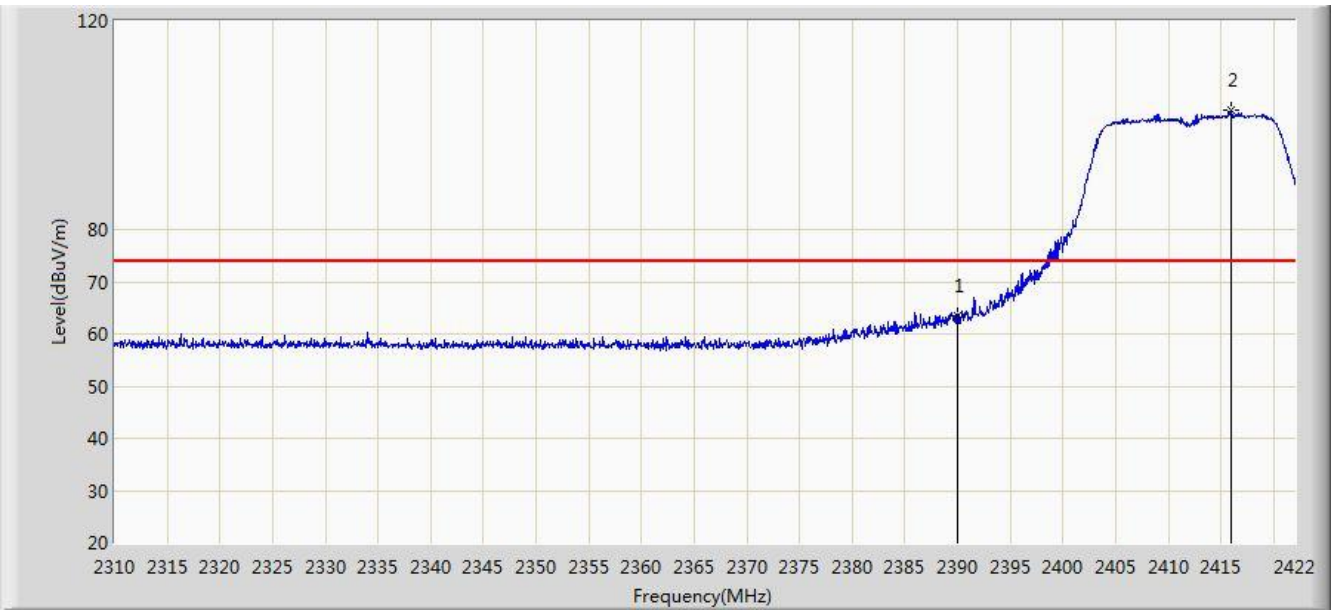


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2466.976	96.619	65.471	N/A	N/A	31.148	AV
2			2483.500	53.437	22.244	-0.563	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:36
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11n-HT20 1Tx	

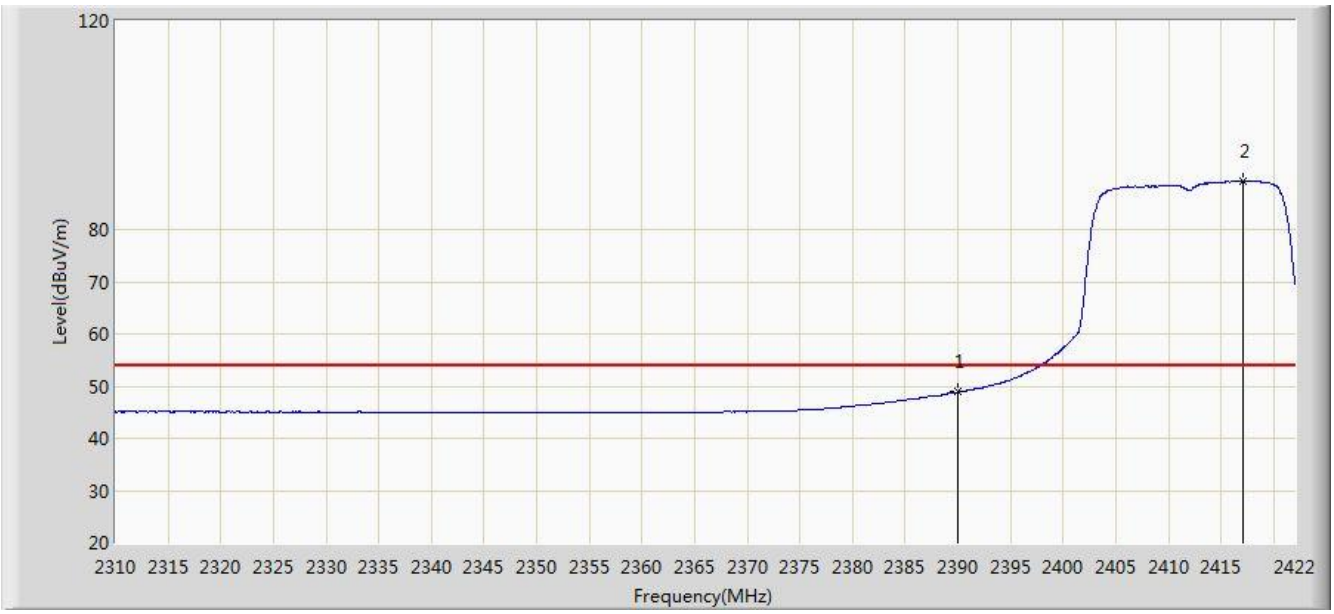


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	63.466	32.263	-10.534	74.000	31.203	PK
2		*	2415.896	102.906	71.743	N/A	N/A	31.163	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:37
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11n-HT20 1Tx	

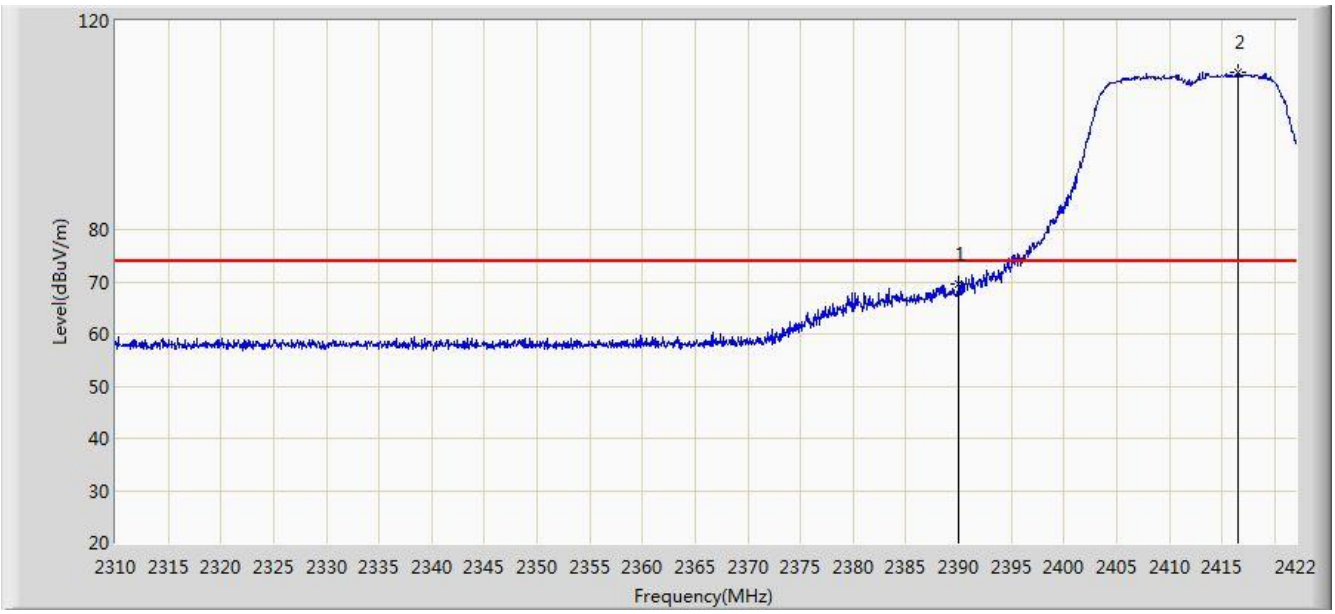


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	48.871	17.668	-5.129	54.000	31.203	AV
2		*	2417.072	89.280	58.119	N/A	N/A	31.161	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:39
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11n-HT20 1Tx	

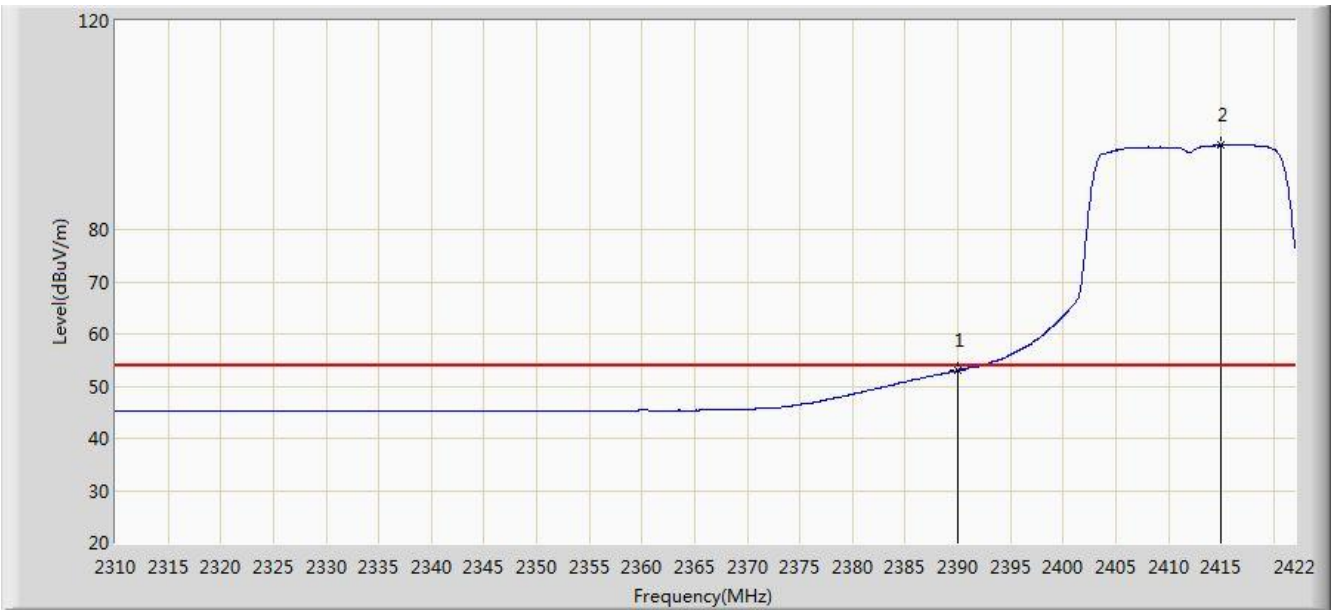


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	69.499	38.296	-4.501	74.000	31.203	PK
2		*	2416.568	110.218	79.056	N/A	N/A	31.162	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:39
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11n-HT20 1Tx	

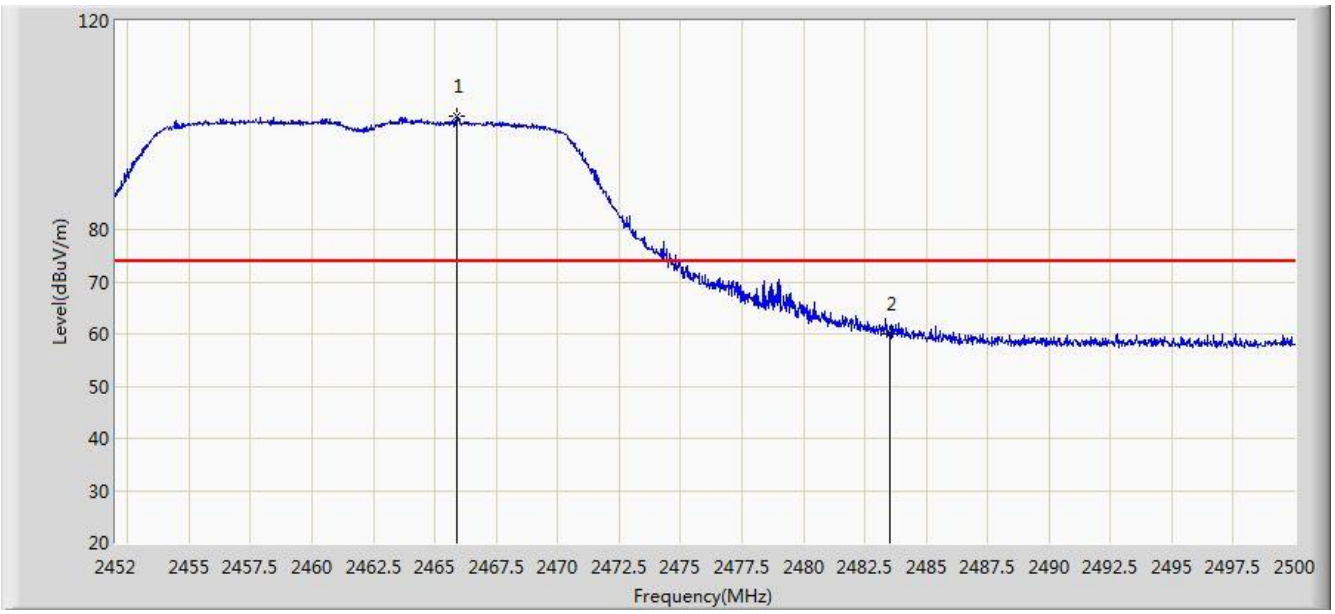


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	52.959	21.756	-1.041	54.000	31.203	AV
2		*	2415.000	96.343	65.179	N/A	N/A	31.165	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11n-HT20 1Tx	

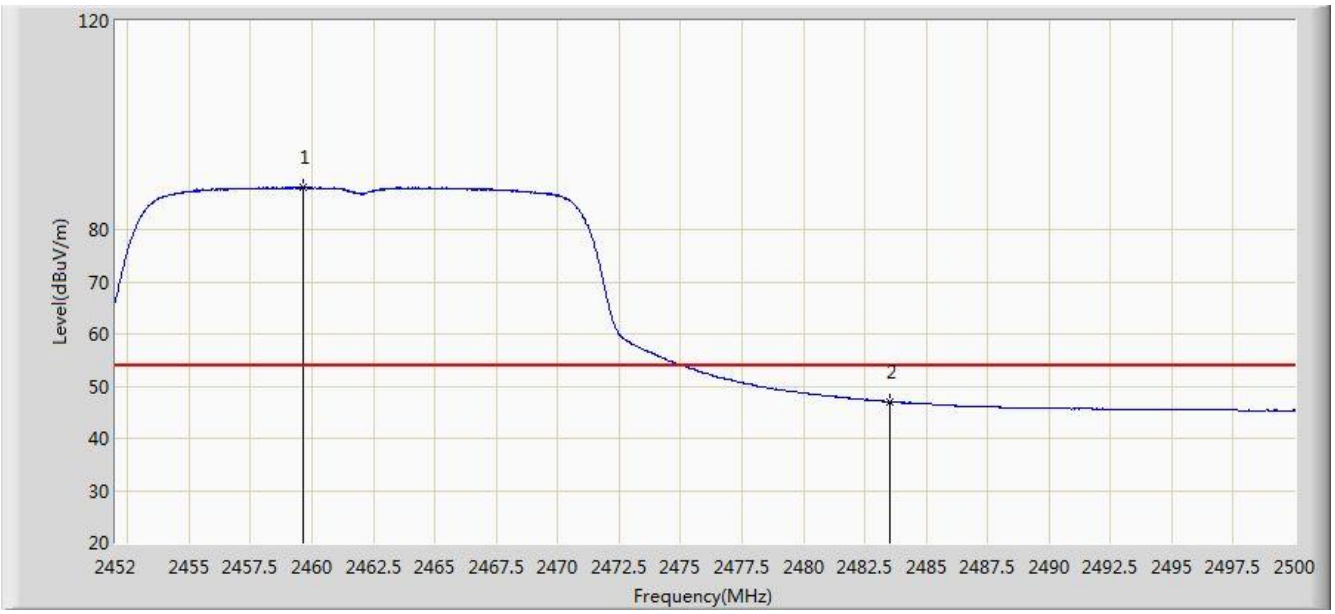


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2465.872	101.695	70.550	N/A	N/A	31.145	PK
2			2483.500	59.987	28.794	-14.013	74.000	31.194	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11n-HT20 1Tx	

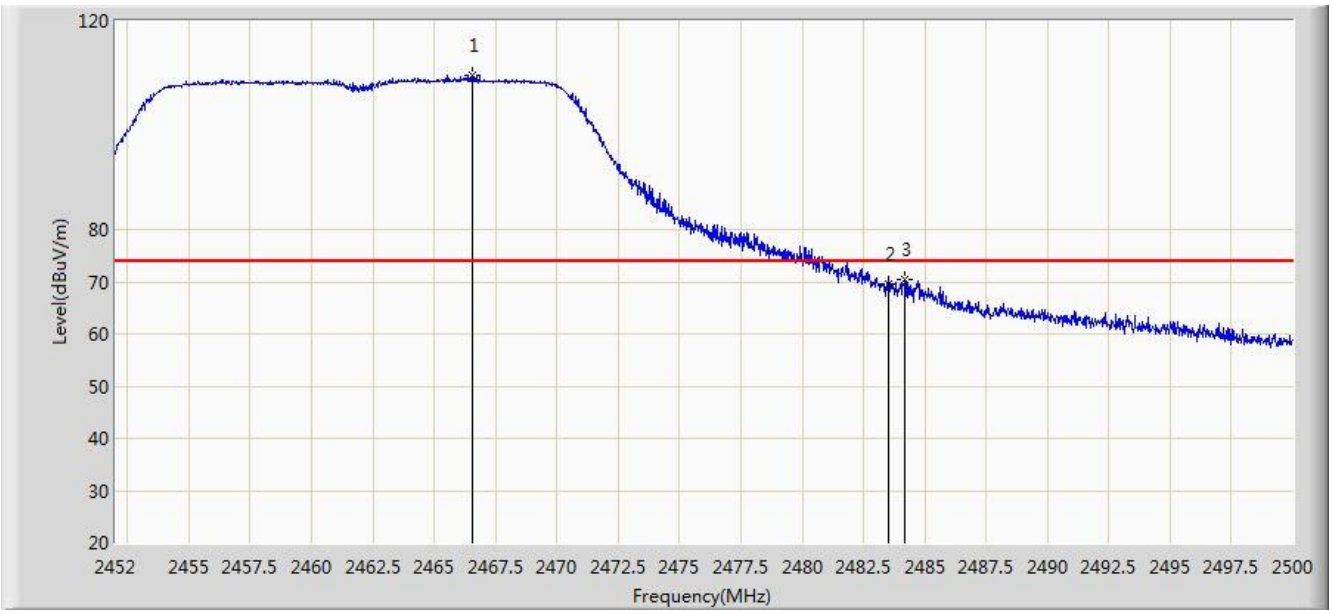


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2459.656	87.999	56.868	N/A	N/A	31.131	AV
2			2483.500	47.016	15.823	-6.984	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11n-HT20 1Tx	

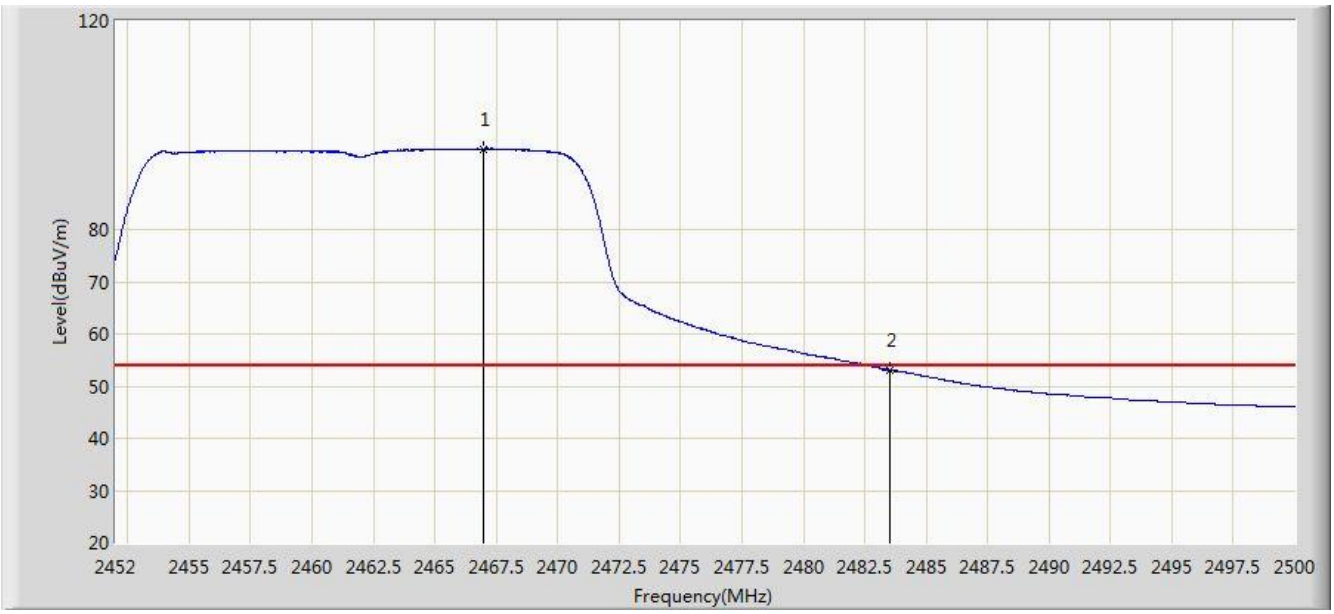


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2466.568	109.547	78.400	N/A	N/A	31.147	PK
2			2483.500	69.570	38.377	-4.430	74.000	31.194	PK
3			2484.208	70.472	39.277	-3.528	74.000	31.195	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:45
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2462MHz by 802.11n-HT20 1Tx	

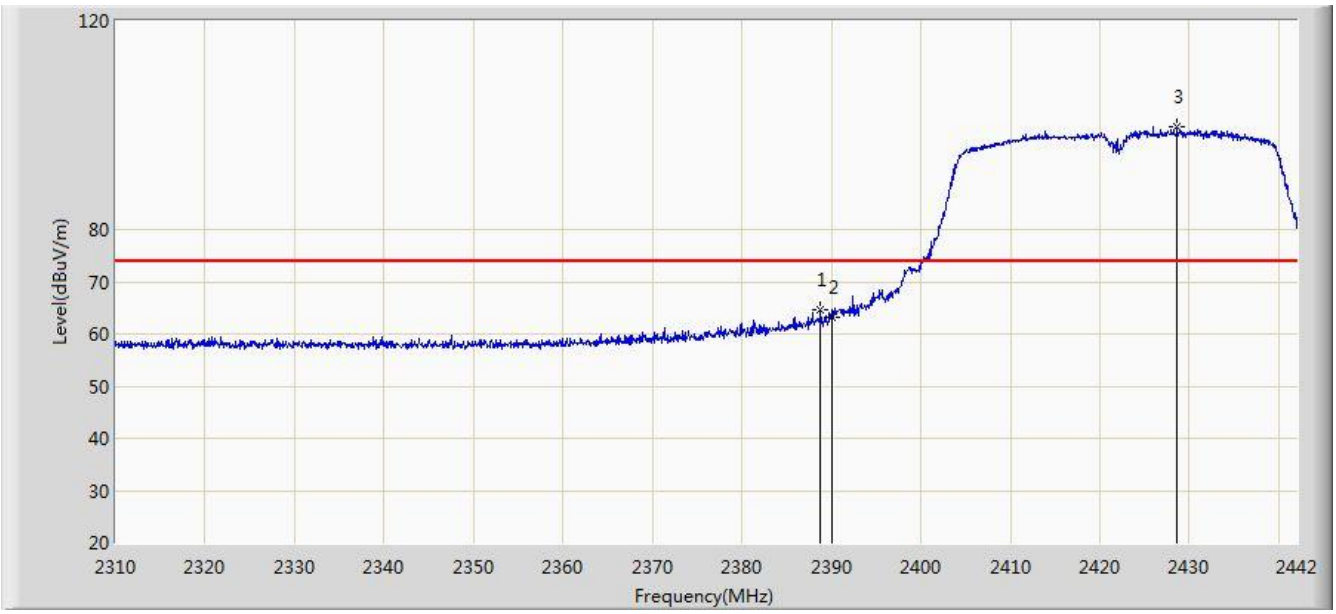


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2466.976	95.489	64.341	N/A	N/A	31.148	AV
2			2483.500	53.148	21.955	-0.852	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:50
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2422MHz by 802.11n-HT40 1Tx	

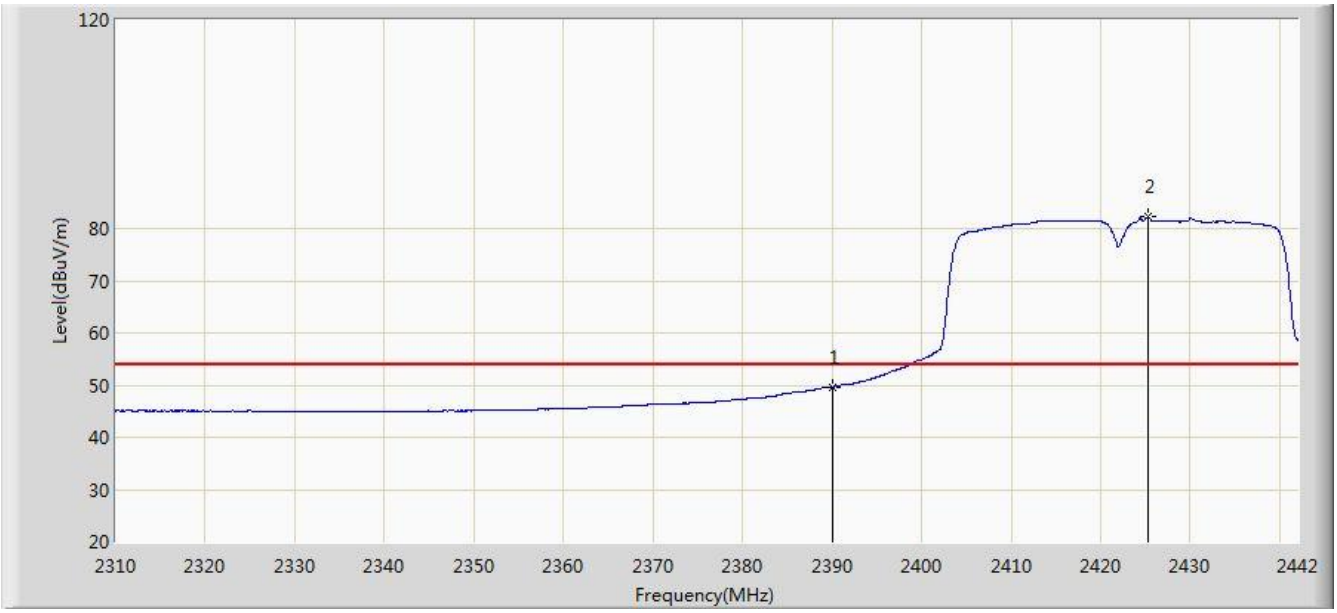


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.804	64.517	33.312	-9.483	74.000	31.205	PK
2			2390.000	63.307	32.104	-10.693	74.000	31.203	PK
3		*	2428.668	99.819	68.678	N/A	N/A	31.140	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:50
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2422MHz by 802.11n-HT40 1Tx	

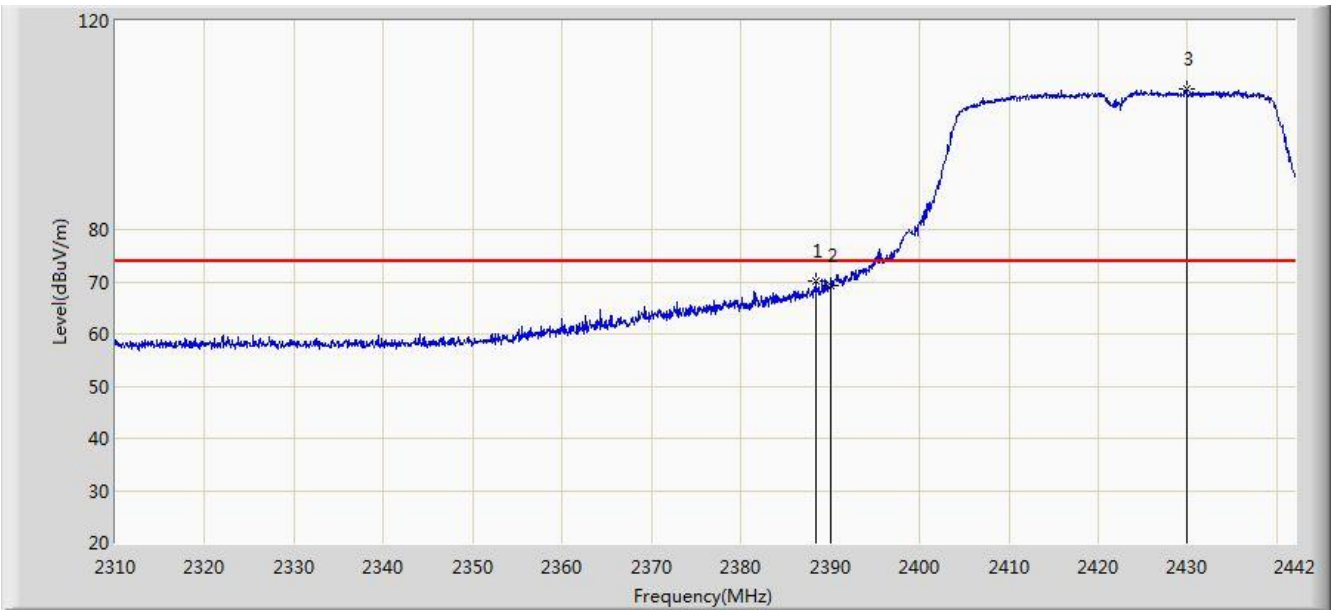


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	49.633	18.430	-4.367	54.000	31.203	AV
2		*	2425.302	82.302	51.155	N/A	N/A	31.146	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:53
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2422MHz by 802.11n-HT40 1Tx	

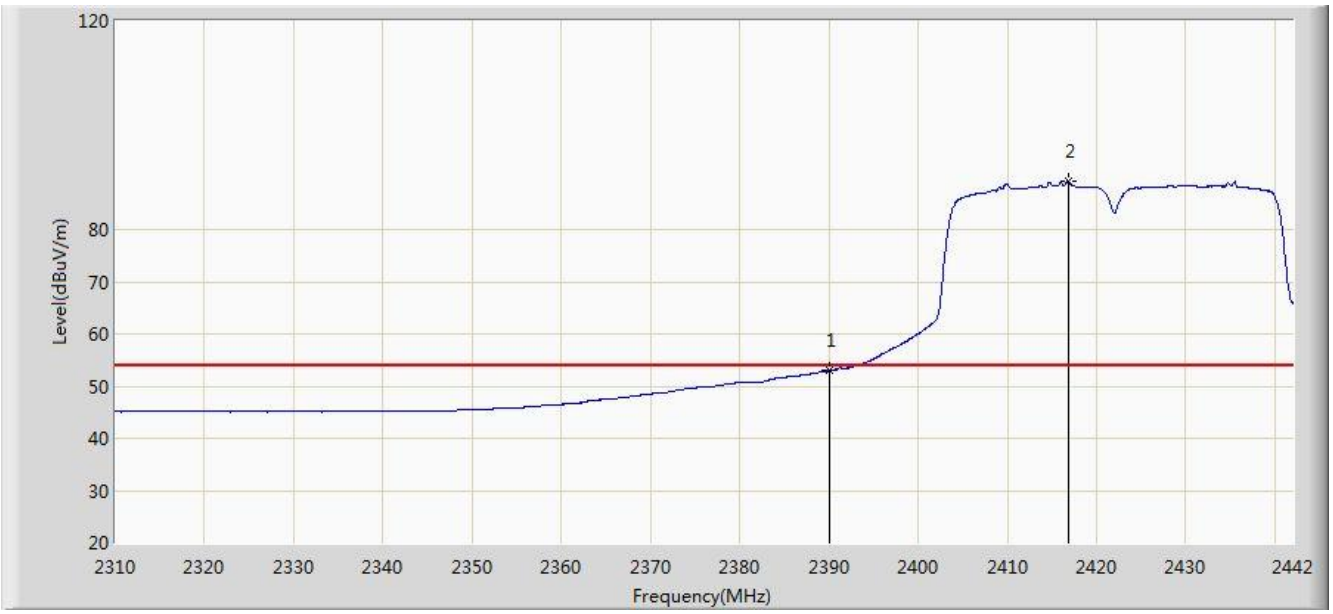


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2388.342	70.275	39.069	-3.725	74.000	31.206	PK
2			2390.000	69.151	37.948	-4.849	74.000	31.203	PK
3		*	2429.922	107.042	75.904	N/A	N/A	31.138	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:53
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2422MHz by 802.11n-HT40 1Tx	

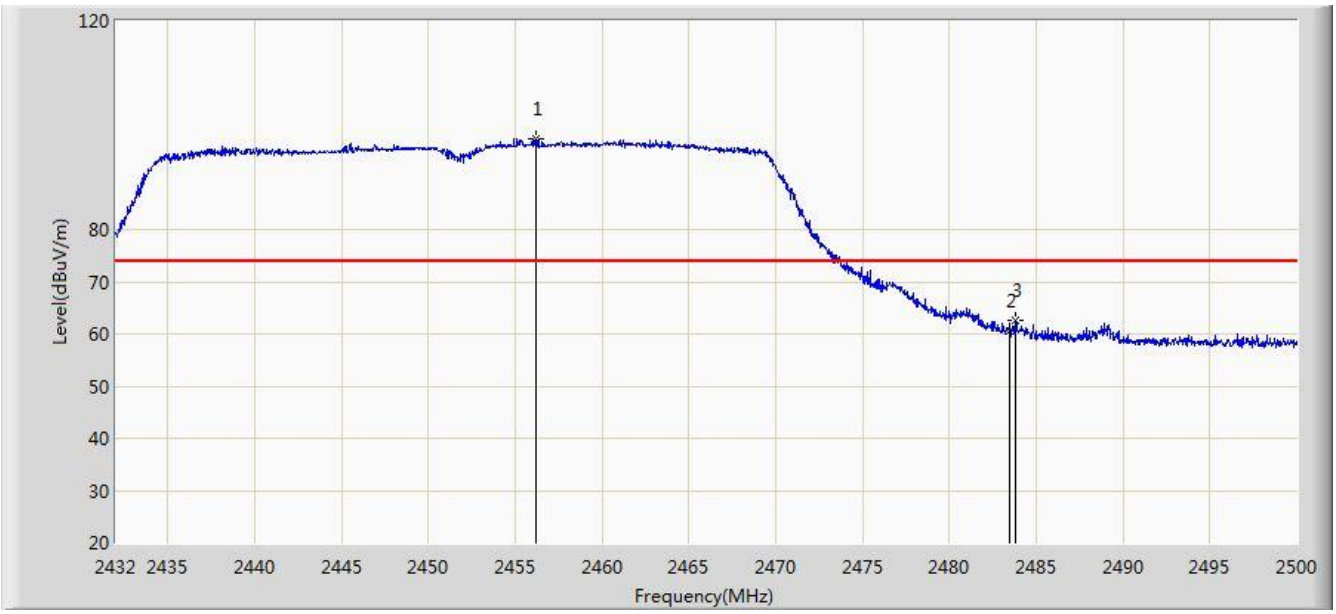


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	52.926	21.723	-1.074	54.000	31.203	AV
2		*	2416.854	89.217	58.056	N/A	N/A	31.161	AV

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

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

Site: AC1	Time: 2015/04/22 - 23:58
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2452MHz by 802.11n-HT40 1Tx	

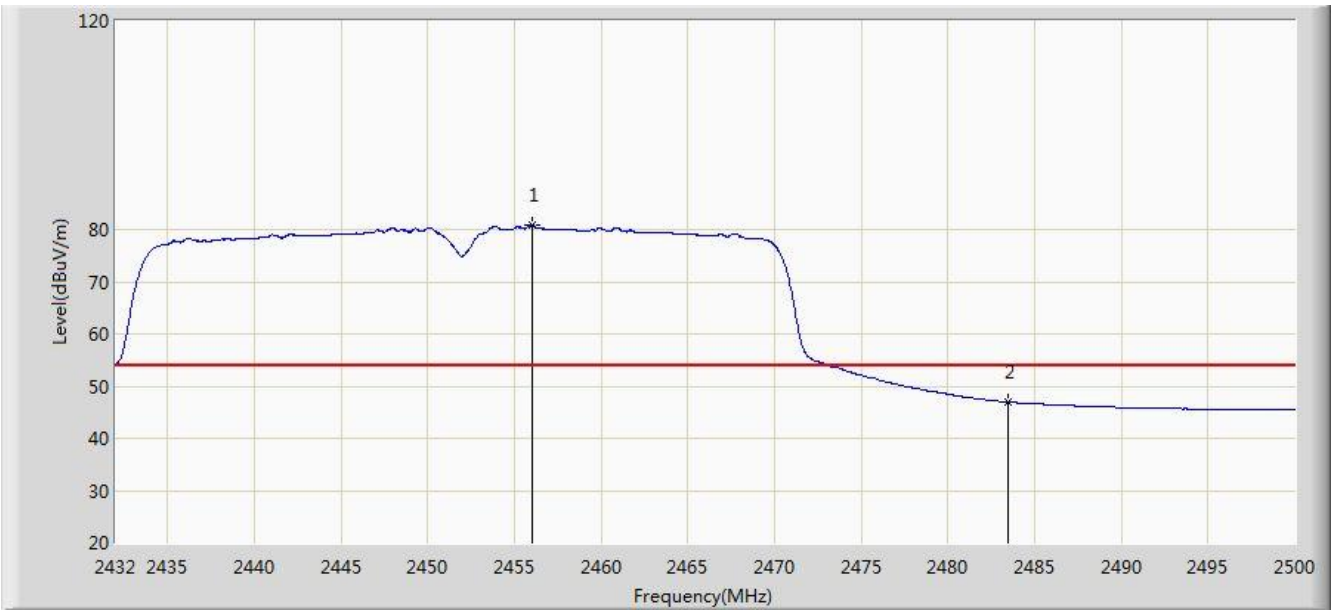


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2456.174	97.502	66.377	N/A	N/A	31.125	PK
2			2483.500	60.561	29.368	-13.439	74.000	31.194	PK
3			2483.850	62.609	31.415	-11.391	74.000	31.194	PK

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

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

Site: AC1	Time: 2015/04/22 - 23:59
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2452MHz by 802.11n-HT40 1Tx	

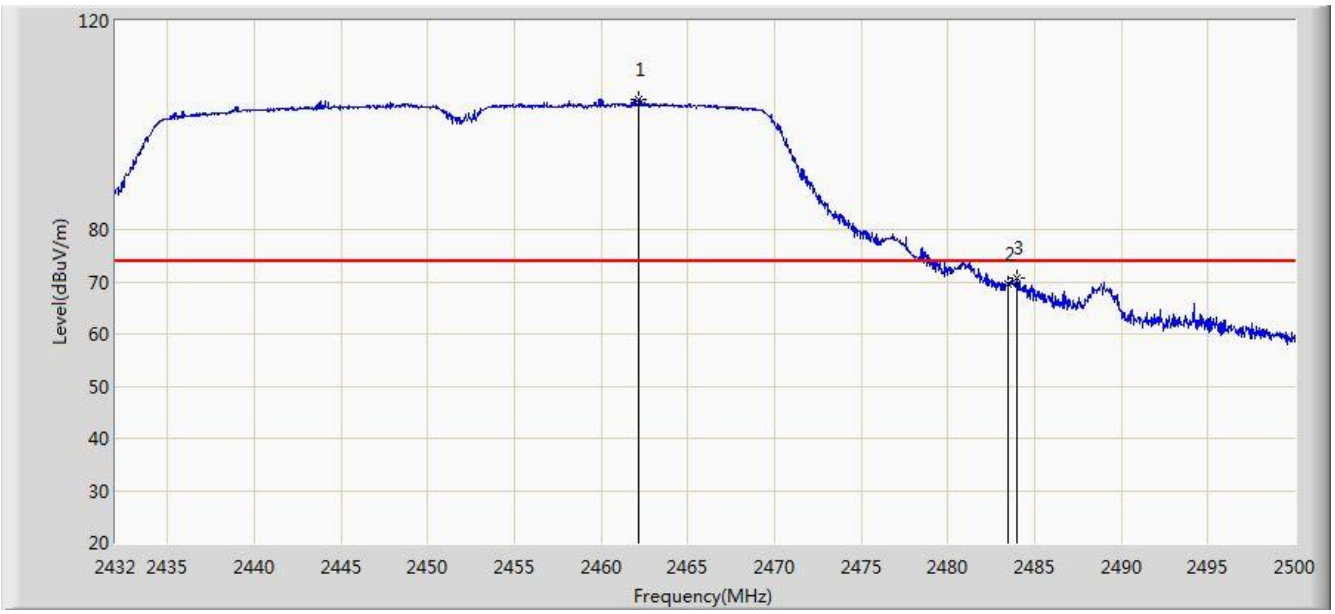


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2456.072	80.819	49.694	N/A	N/A	31.125	AV
2			2483.500	46.953	15.760	-7.047	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/04/23 - 00:02
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2452MHz by 802.11n-HT40 1Tx	

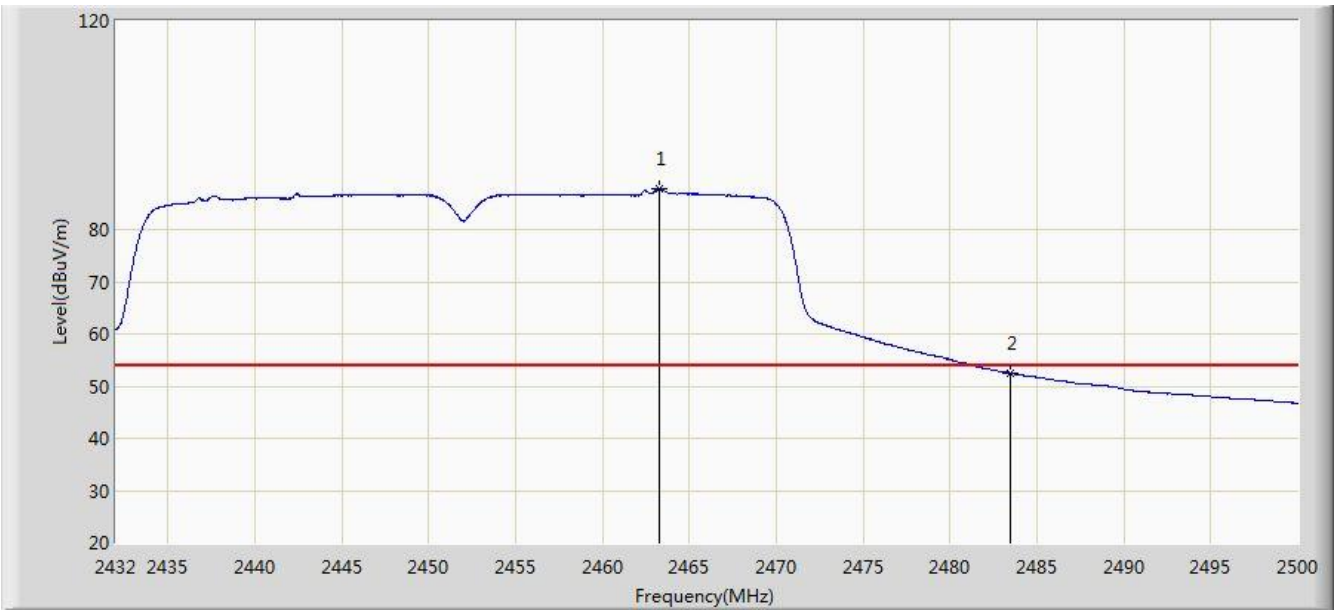


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2462.192	104.964	73.828	N/A	N/A	31.136	PK
2			2483.500	69.425	38.232	-4.575	74.000	31.194	PK
3			2484.020	70.642	39.447	-3.358	74.000	31.195	PK

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

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

Site: AC1	Time: 2015/04/23 - 00:01
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2452MHz by 802.11n-HT40 1Tx	

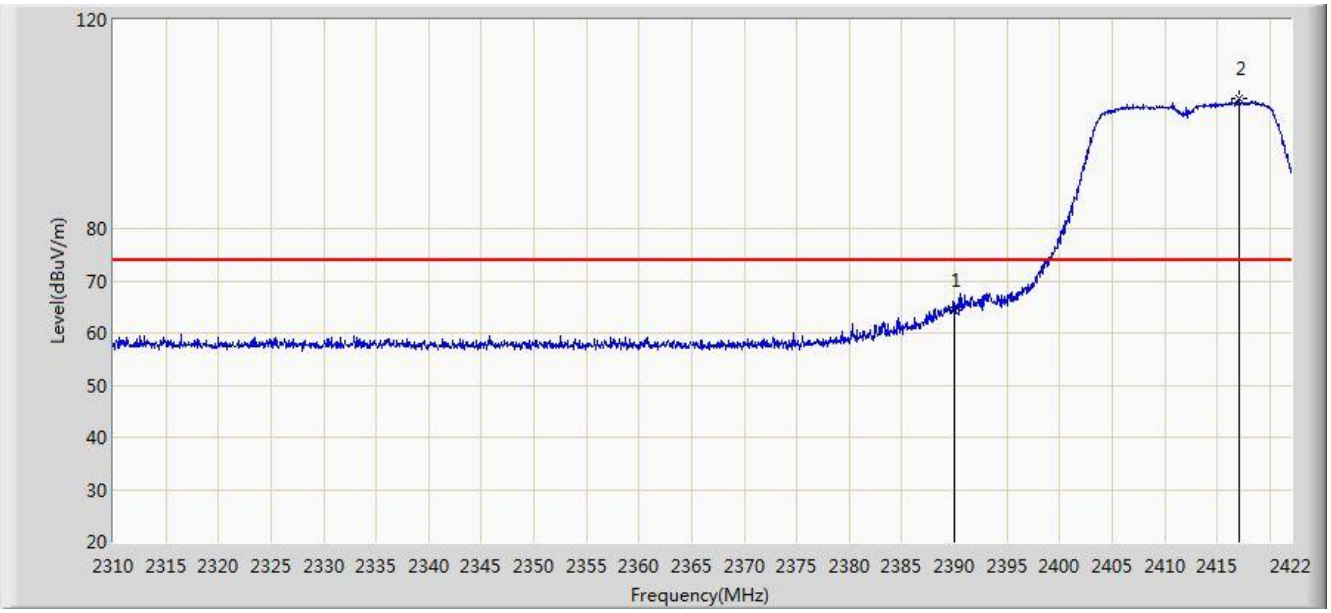


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	2463.280	87.872	56.734	N/A	N/A	31.138	AV
2			2483.500	52.447	21.254	-1.553	54.000	31.194	AV

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

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

Site: AC1	Time: 2015/04/23 - 00:30
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11n-HT20 2Tx	

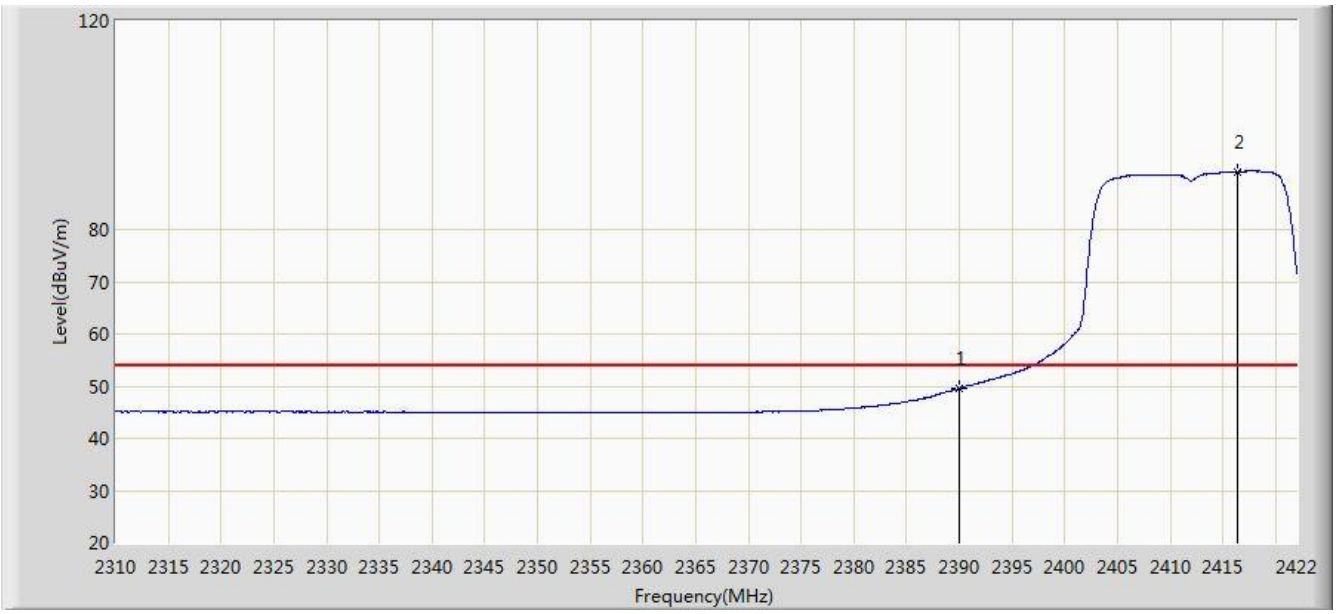


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	64.398	33.195	-9.602	74.000	31.203	PK
2		*	2417.072	105.023	73.862	N/A	N/A	31.161	PK

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

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

Site: AC1	Time: 2015/04/23 - 00:30
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 802.11ac Dual Band Module	Power: AC 120V/60Hz
Test Mode: Transmit at channel 2412MHz by 802.11n-HT20 2Tx	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	49.562	18.359	-4.438	54.000	31.203	AV
2		*	2416.344	91.147	59.985	N/A	N/A	31.162	AV

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

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