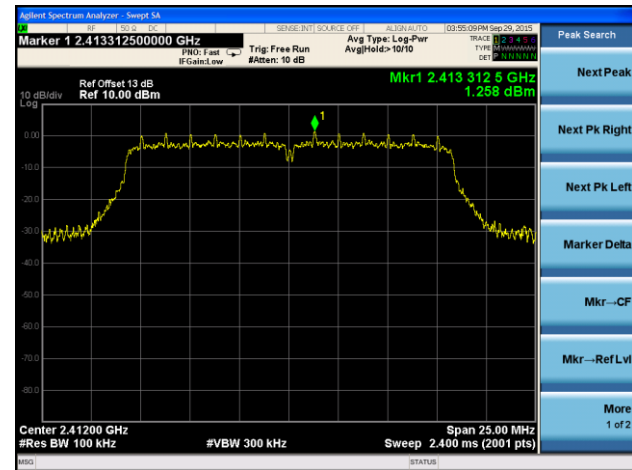


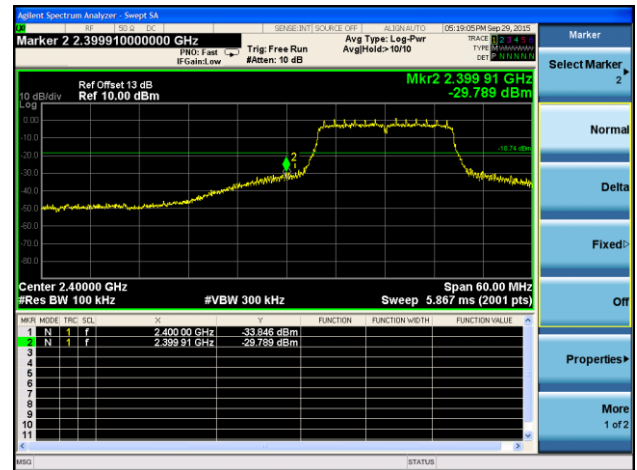
802.11g Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

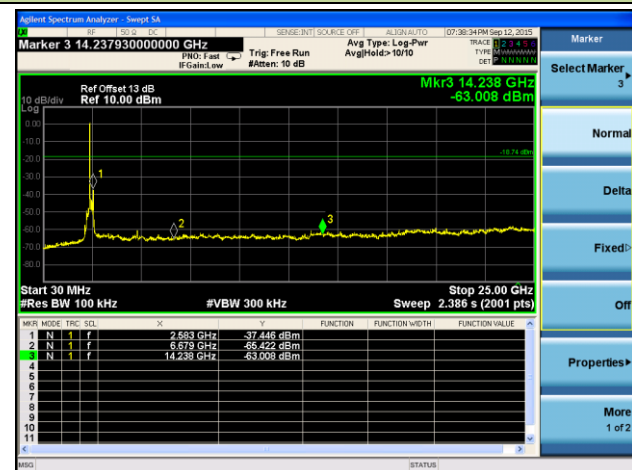
100kHz PSD Reference Level



Low Band Edge

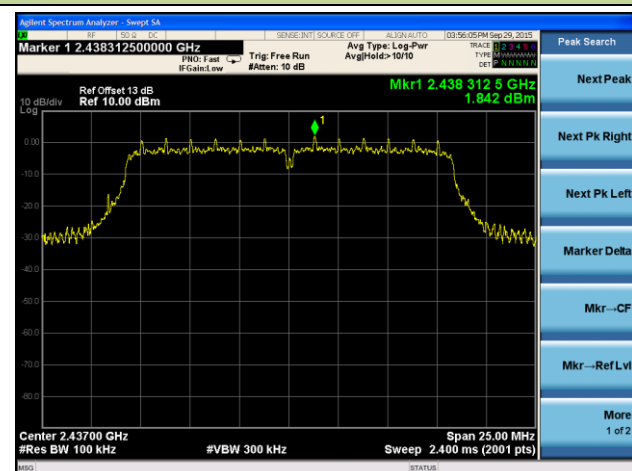


Spurious Emission

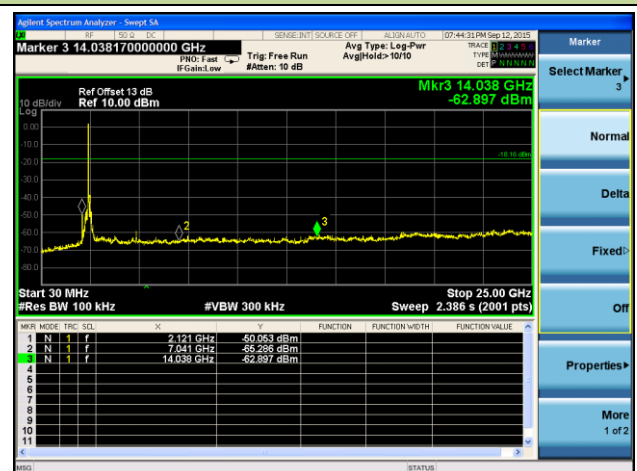


Channel 06 (2437MHz)

100kHz PSD Reference Level

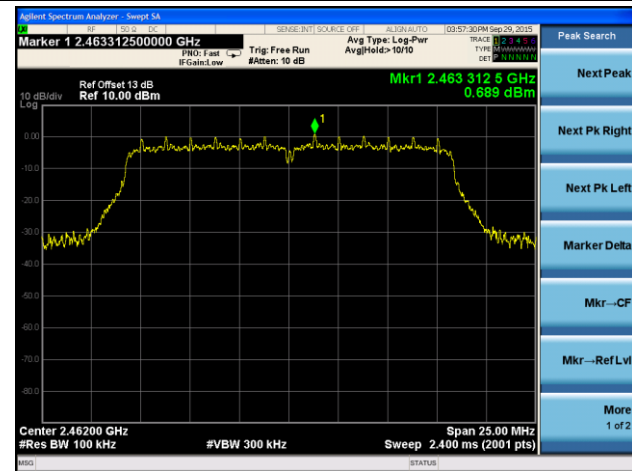


Spurious Emission

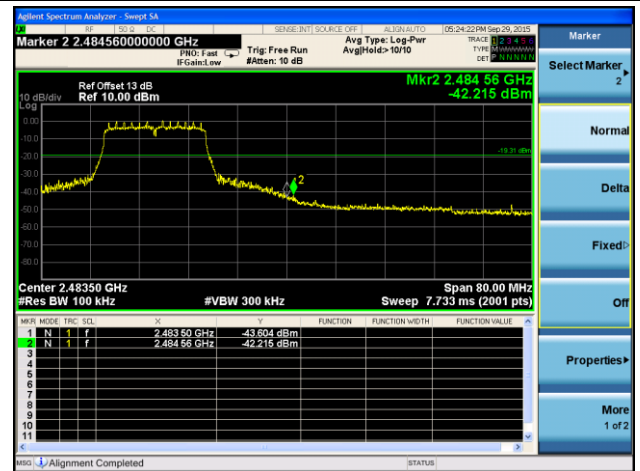


Channel 11 (2462MHz)

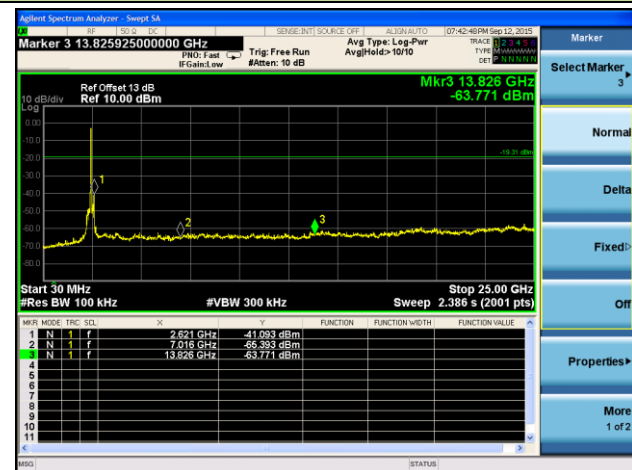
100kHz PSD Reference Level



High Band Edge



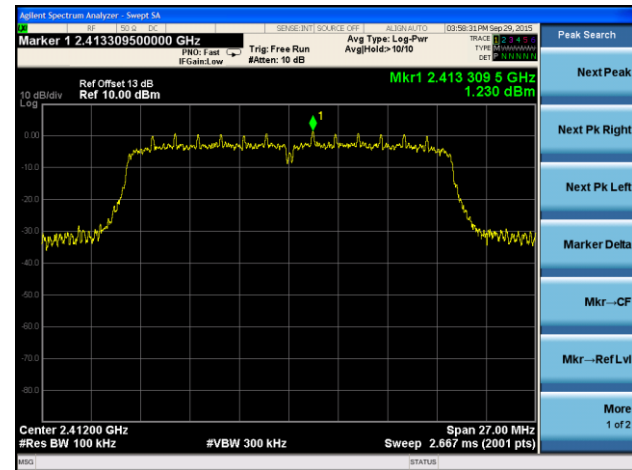
Spurious Emission



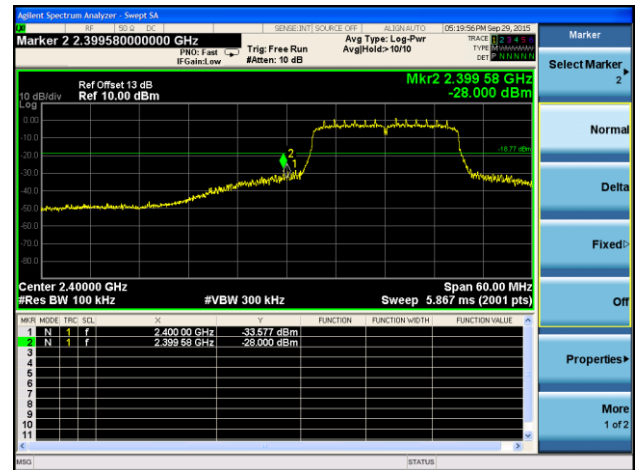
802.11 n-HT20 Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

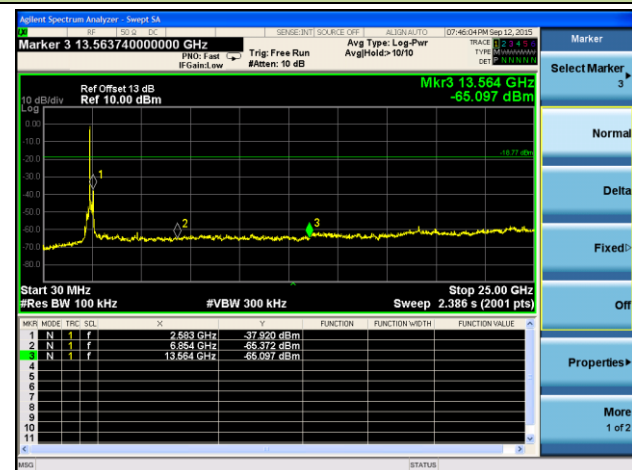
100kHz PSD Reference Level



Low Band Edge

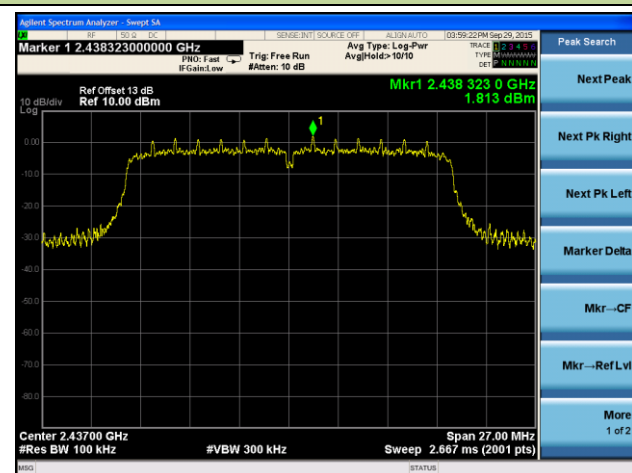


Low Band Edge

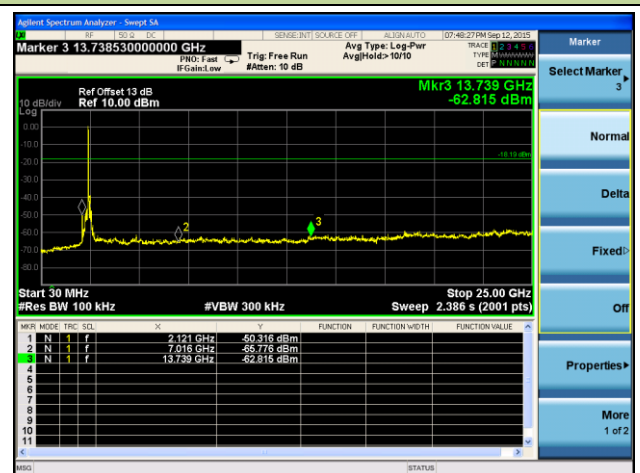


Channel 06 (2437MHz)

100kHz PSD Reference Level

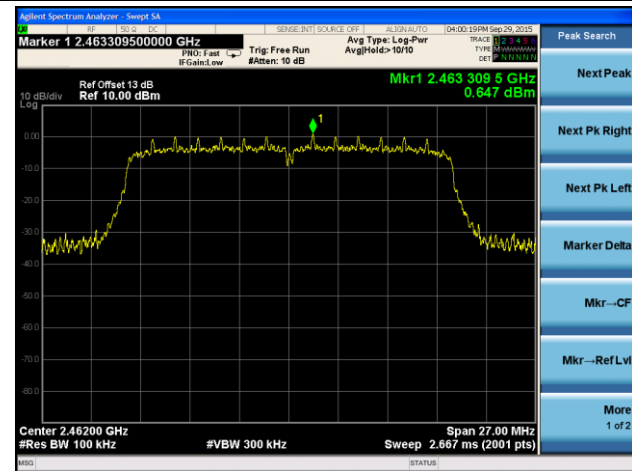


Spurious Emission

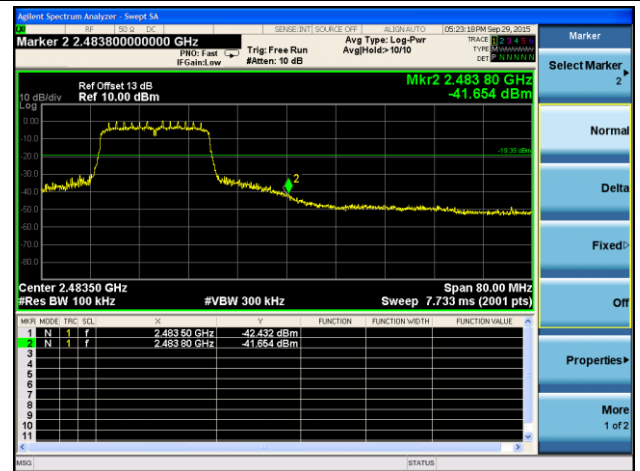


Channel 11 (2462MHz)

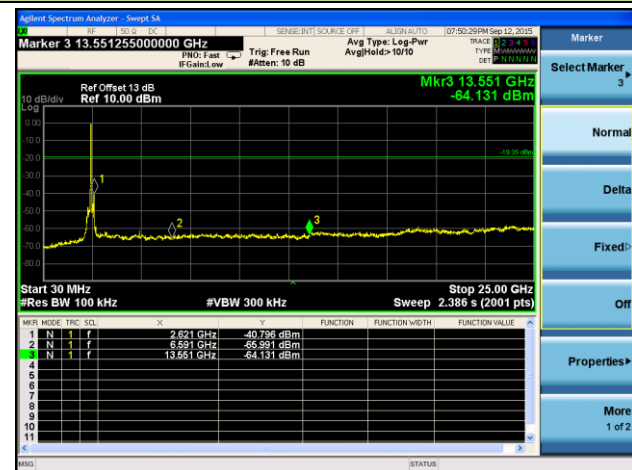
100kHz PSD Reference Level



High Band Edge



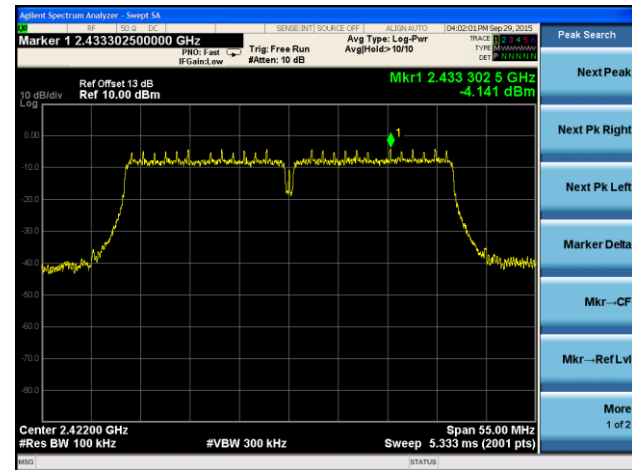
Spurious Emission



802.11 n-HT40 Out-of-Band Emissions - Ant 1

Channel 03 (2422MHz)

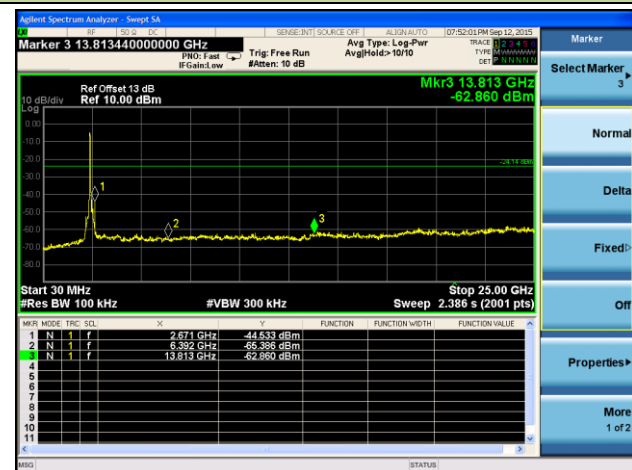
100kHz PSD Reference Level



Low Band Edge

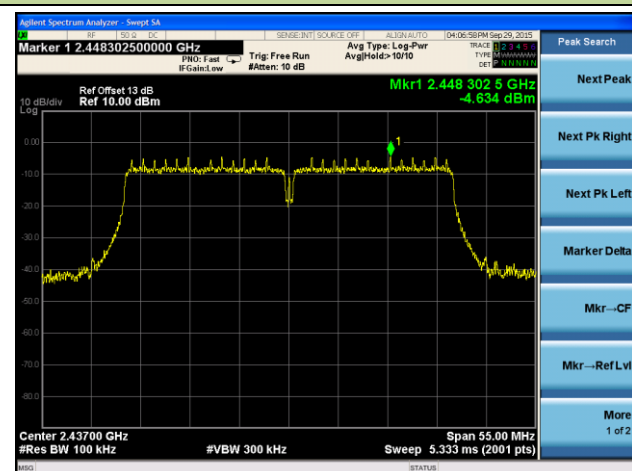


Spurious Emission

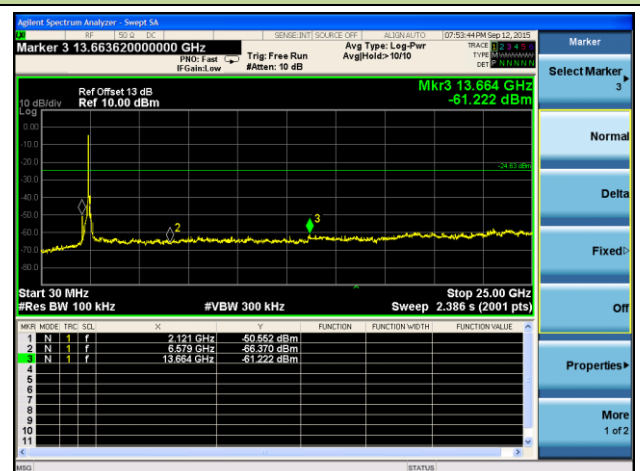


Channel 06 (2437MHz)

100kHz PSD Reference Level

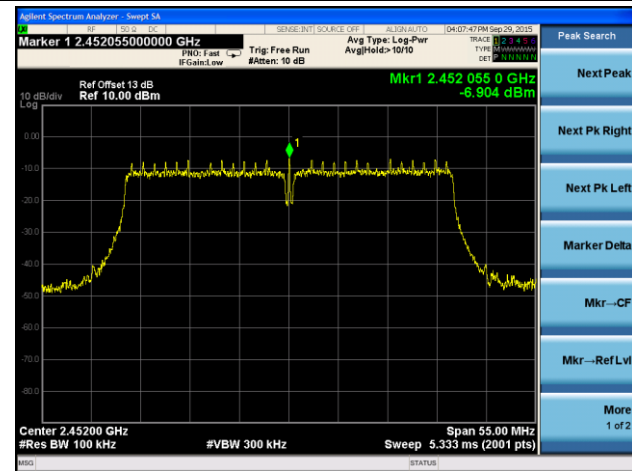


Spurious Emission



Channel 09 (2452MHz)

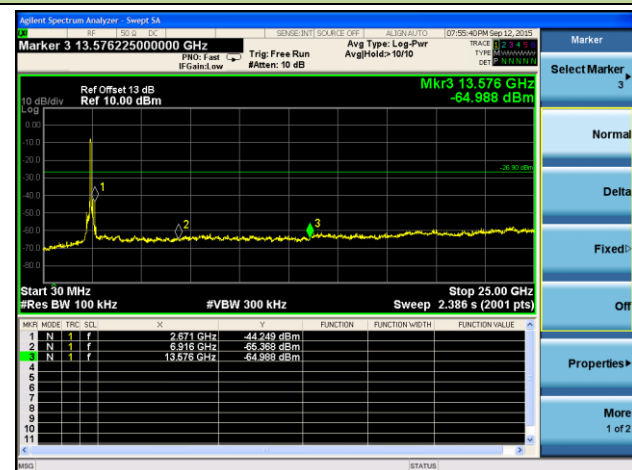
100kHz PSD Reference Level



High Band Edge



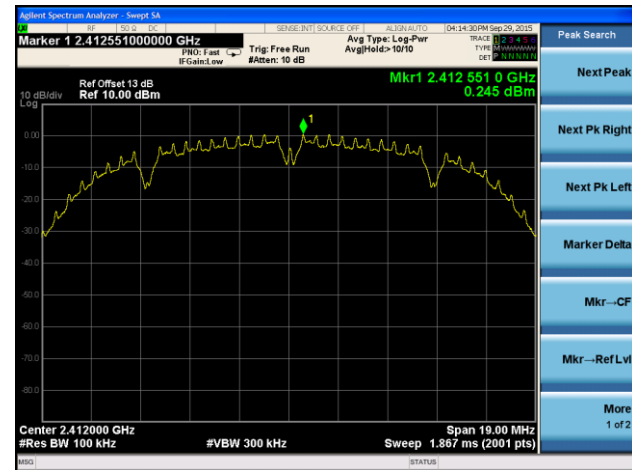
Spurious Emission



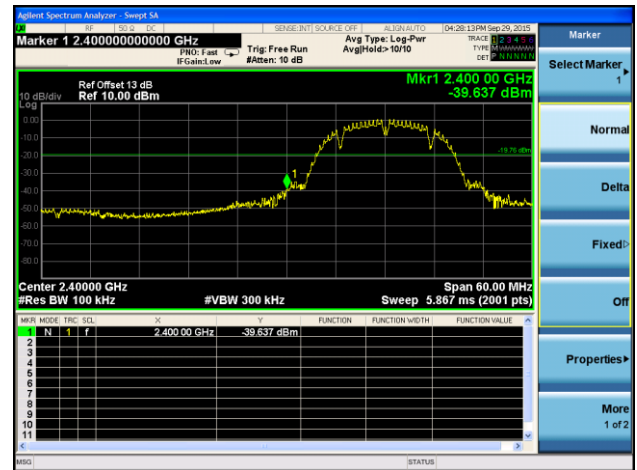
802.11b Out-of-Band Emissions - Ant 2

Channel 01 (2412MHz)

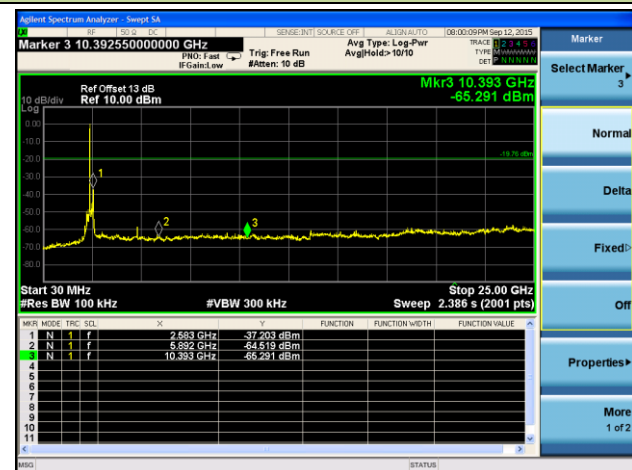
100kHz PSD Reference Level



Low Band Edge

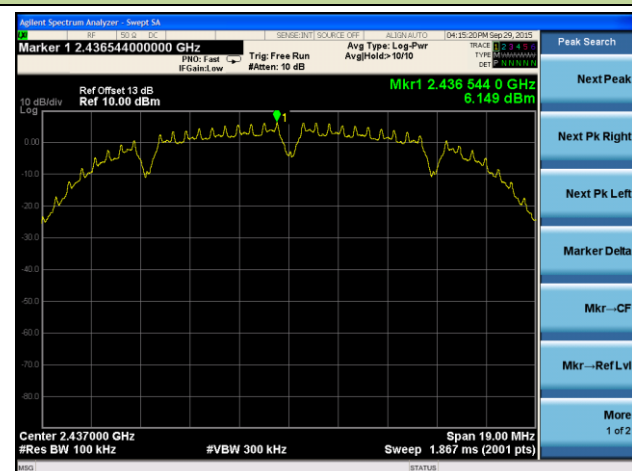


Spurious Emission

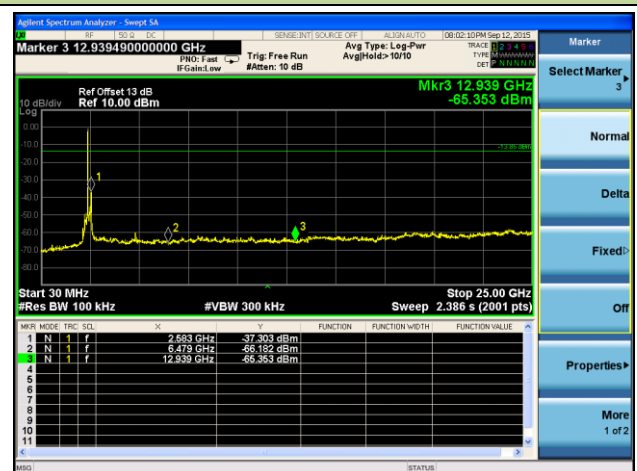


Channel 06 (2437MHz)

100kHz PSD Reference Level

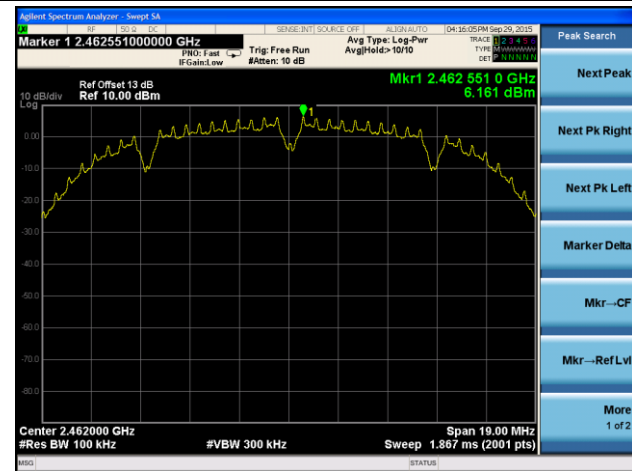


Spurious Emission



Channel 11 (2462MHz)

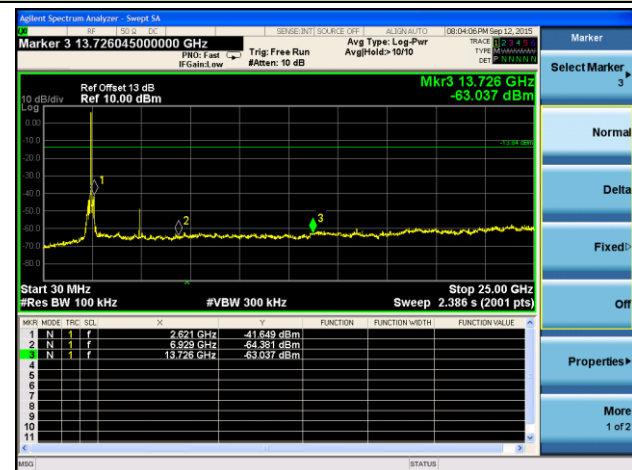
100kHz PSD Reference Level



High Band Edge



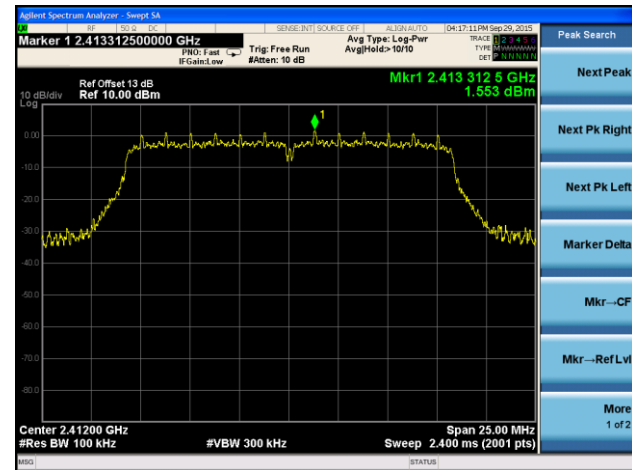
Spurious Emission



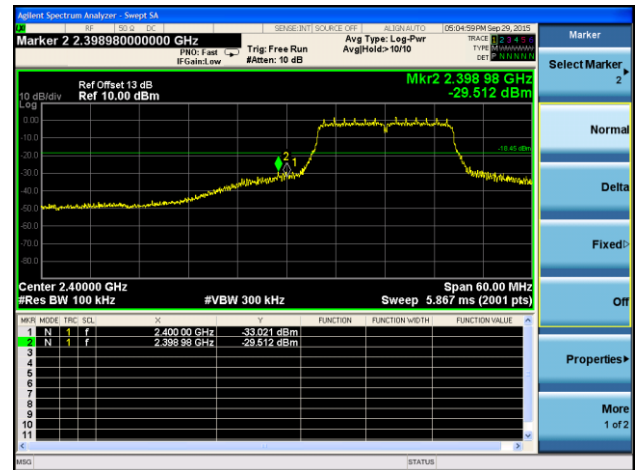
802.11g Out-of-Band Emissions - Ant 2

Channel 01 (2412MHz)

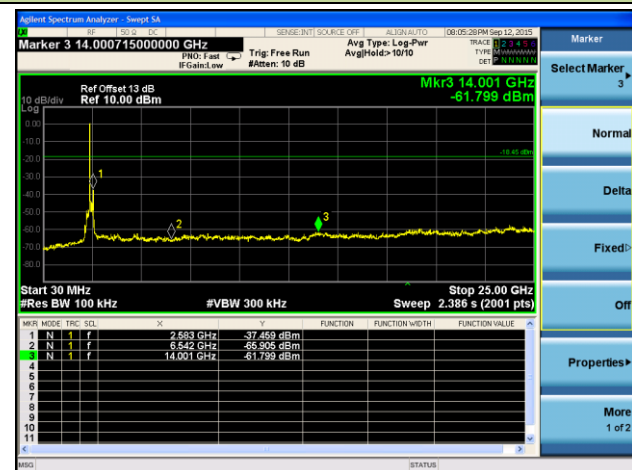
100kHz PSD Reference Level



Low Band Edge

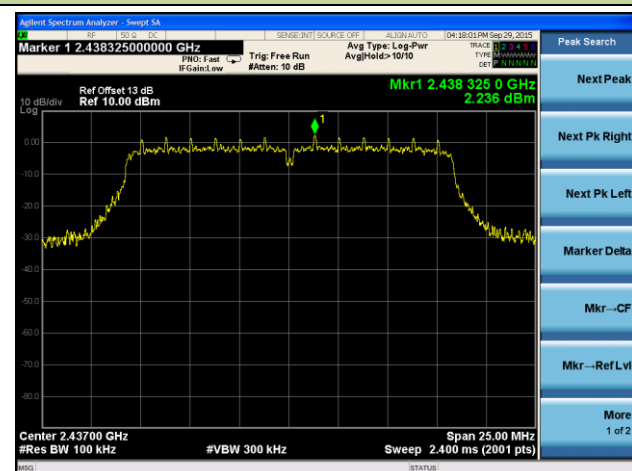


Spurious Emission

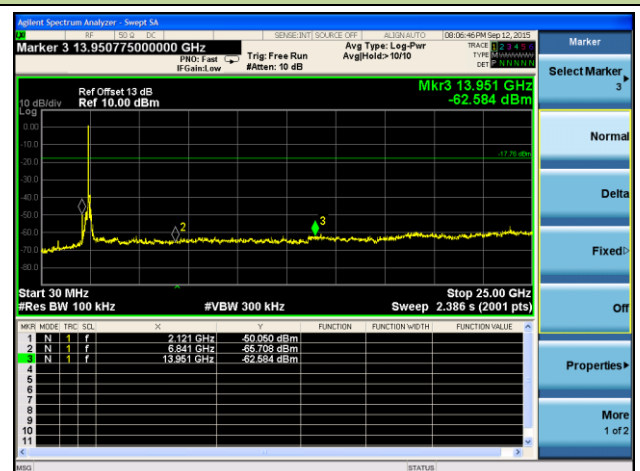


Channel 06 (2437MHz)

100kHz PSD Reference Level

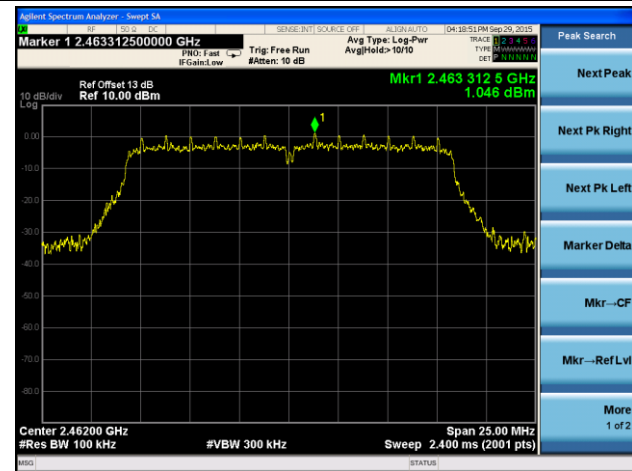


Spurious Emission



Channel 11 (2462MHz)

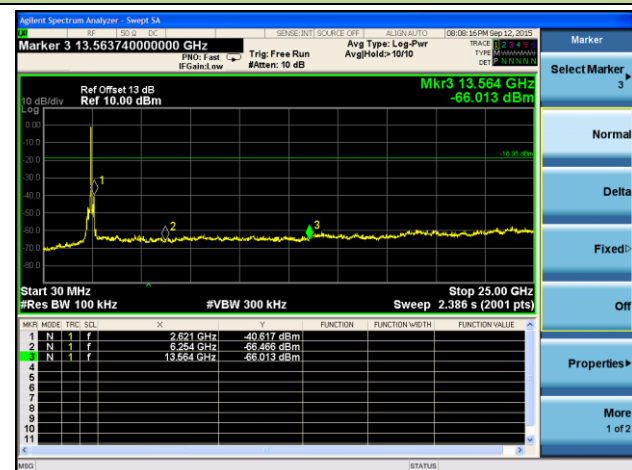
100kHz PSD Reference Level



High Band Edge



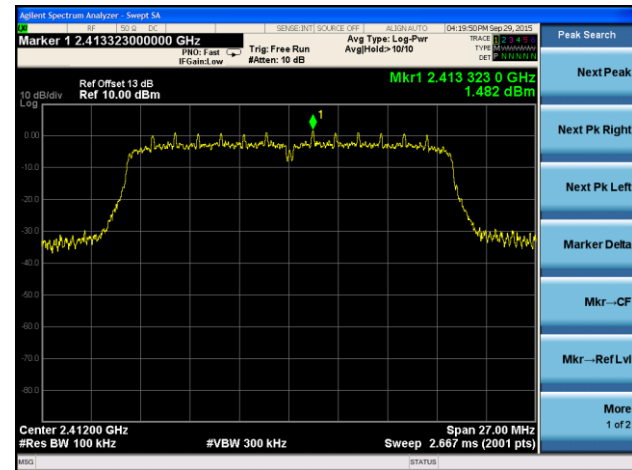
Spurious Emission



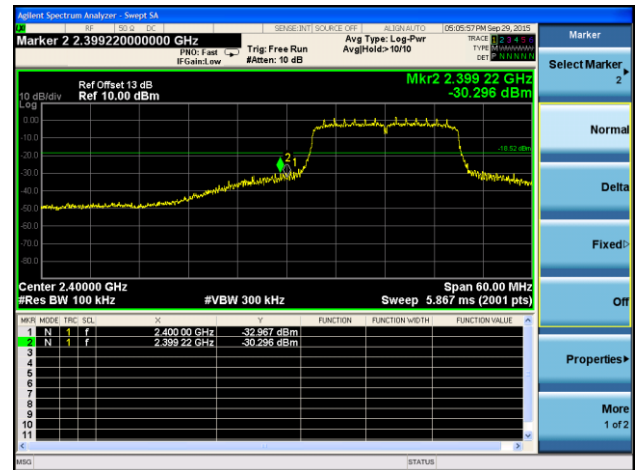
802.11 n-HT20 Out-of-Band Emissions - Ant 2

Channel 01 (2412MHz)

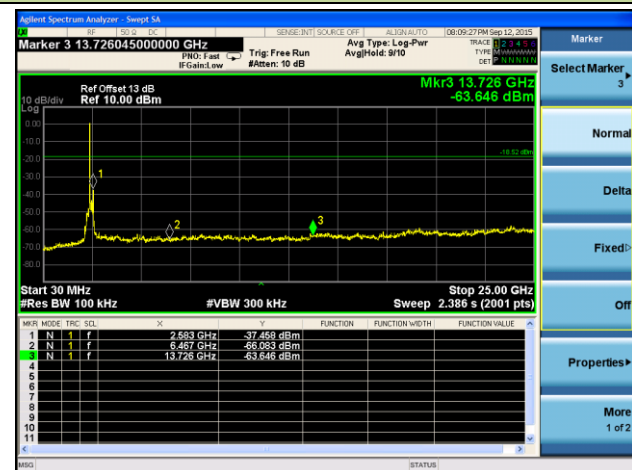
100kHz PSD Reference Level



Low Band Edge

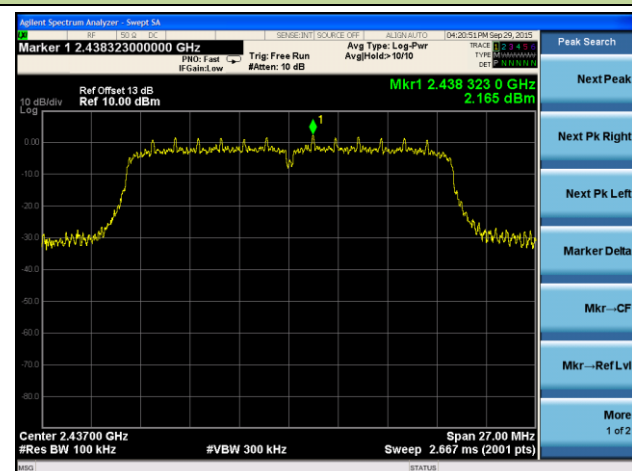


Low Band Edge

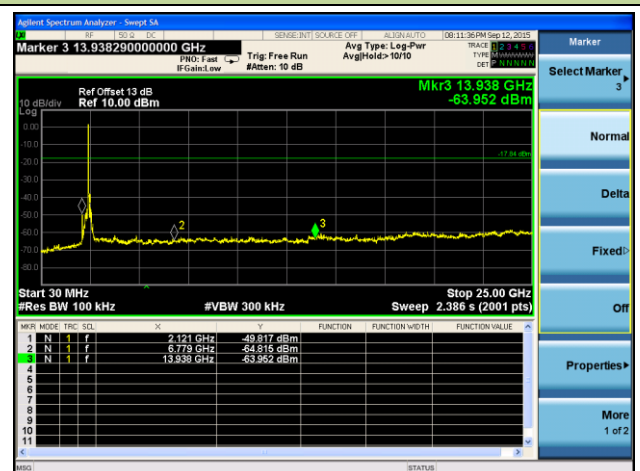


Channel 06 (2437MHz)

100kHz PSD Reference Level

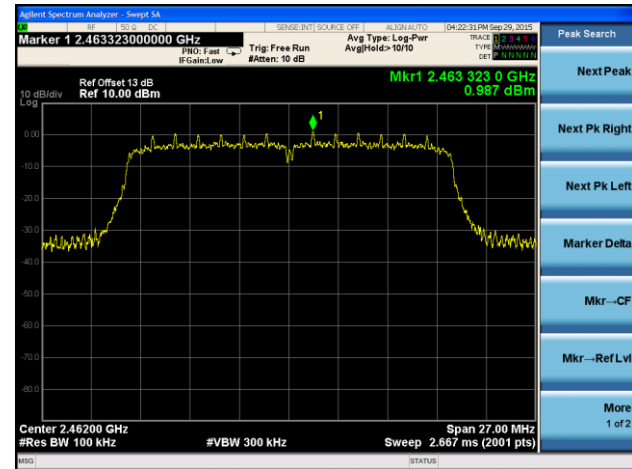


Spurious Emission



Channel 11 (2462MHz)

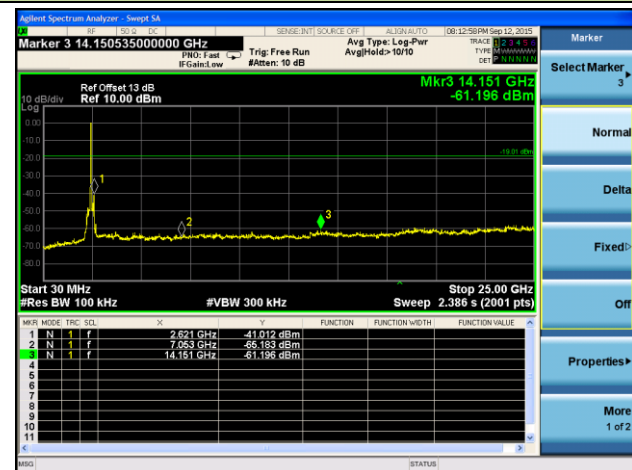
100kHz PSD Reference Level



High Band Edge



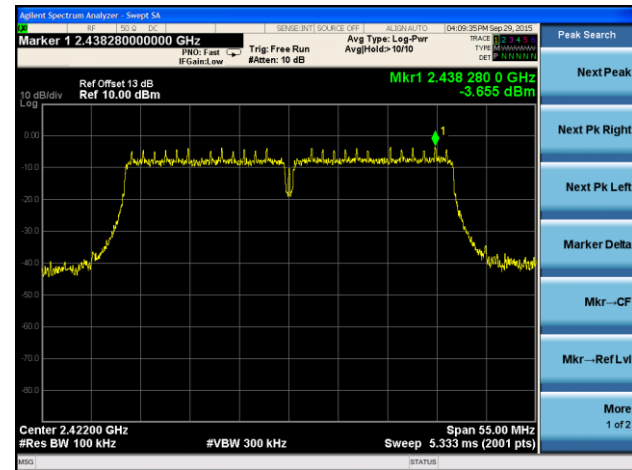
Spurious Emission



802.11 n-HT40 Out-of-Band Emissions - Ant 2

Channel 03 (2422MHz)

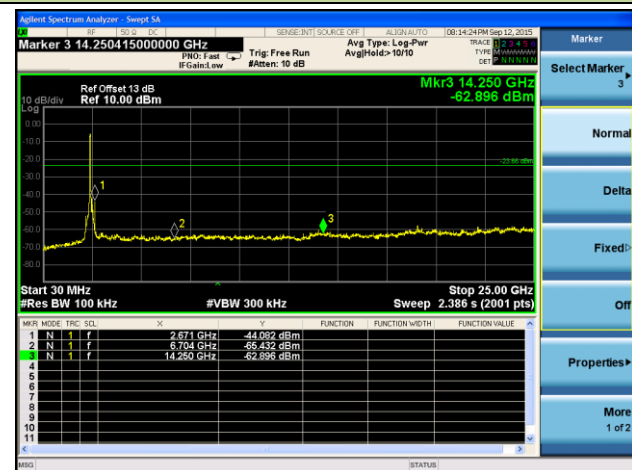
100kHz PSD Reference Level



Low Band Edge

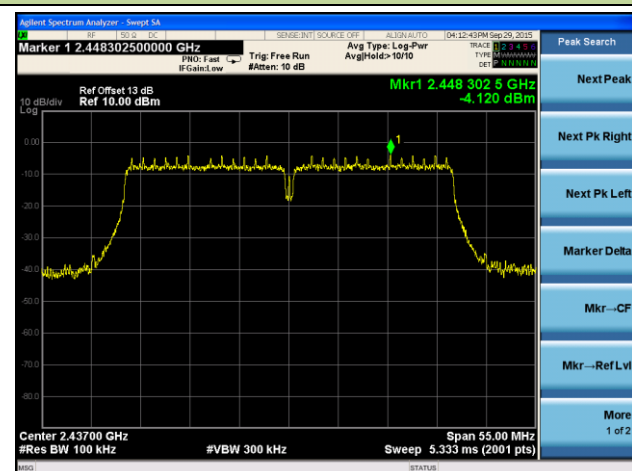


Spurious Emission

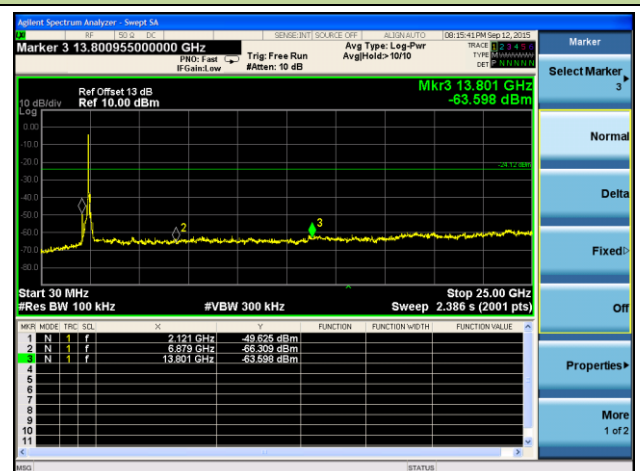


Channel 06 (2437MHz)

100kHz PSD Reference Level

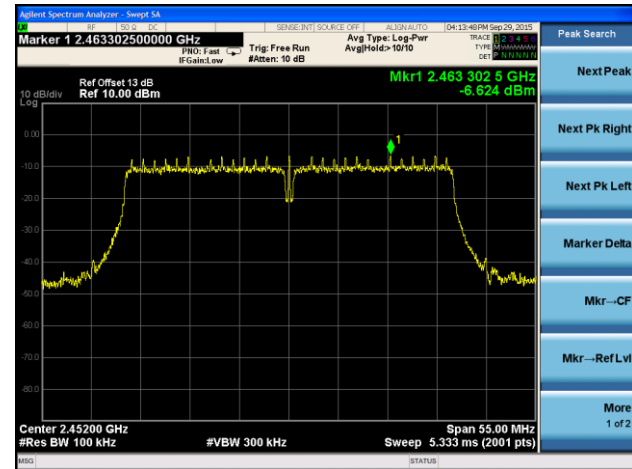


Spurious Emission



Channel 09 (2452MHz)

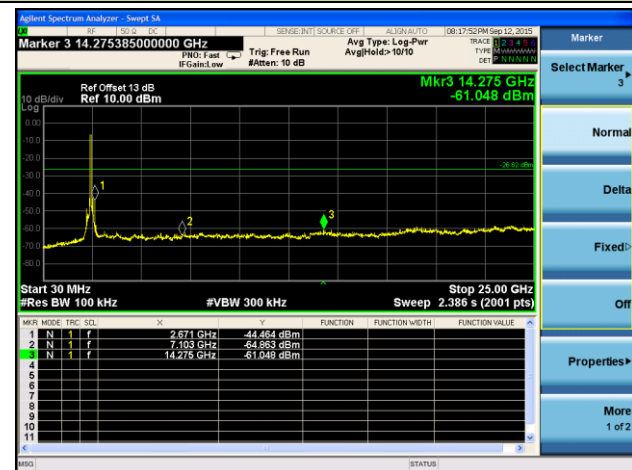
100kHz PSD Reference Level



High Band Edge



Spurious Emission



7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [V/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

7.6.2. Test Procedure Used

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

KDB 558074 D01v03r03 - Section 12.2.4 (peak power measurements)

KDB 558074 D01v03r03 - Section 12.2.5 (average power measurements)

7.6.3. Test Setting

Peak Field Strength Measurements

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

6.Trace mode = max hold

7.Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

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

Average Field Strength Measurements

1.Analyzer center frequency was set to the frequency of the radiated spurious emission of interest

2.RBW = 1MHz

3.VBW $\geq 1/T$

4.De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode

5.Detector = Peak

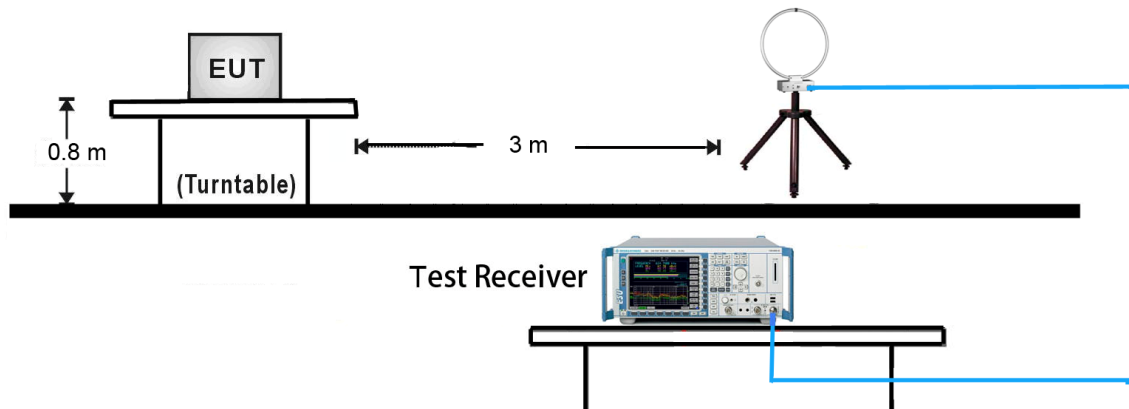
6.Sweep time = auto

7.Trace mode = max hold

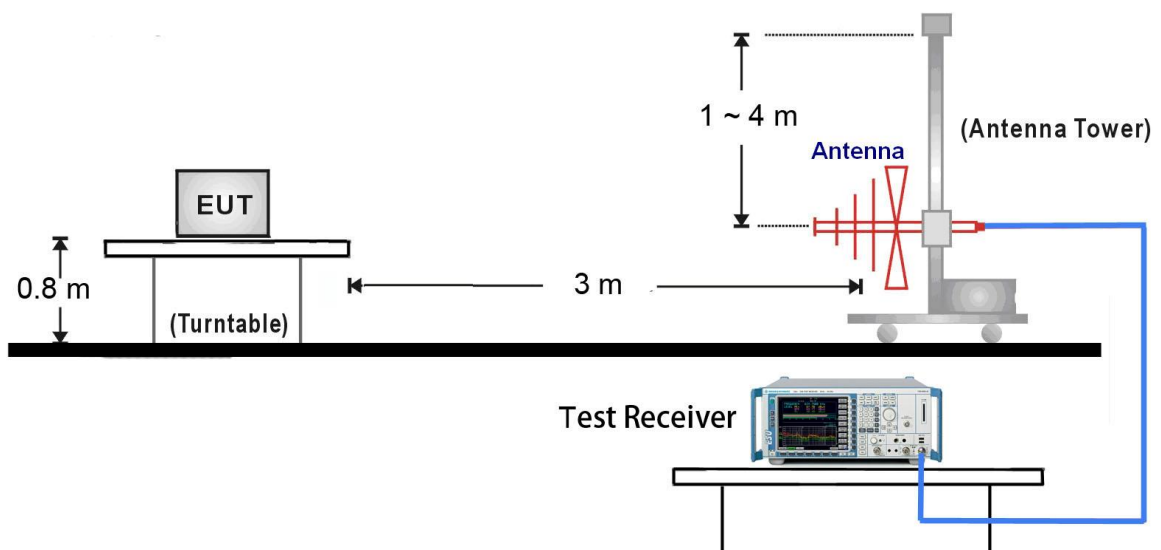
8.Allow max hold to run for at least 50 times (1/duty cycle) traces

7.6.4. Test Setup

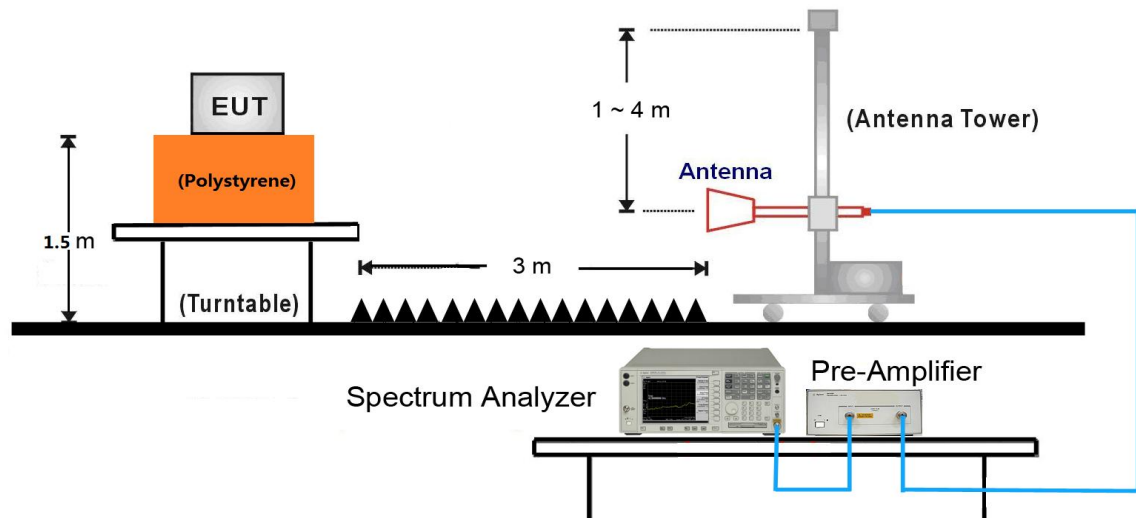
9kHz ~ 30MHz Test Setup:



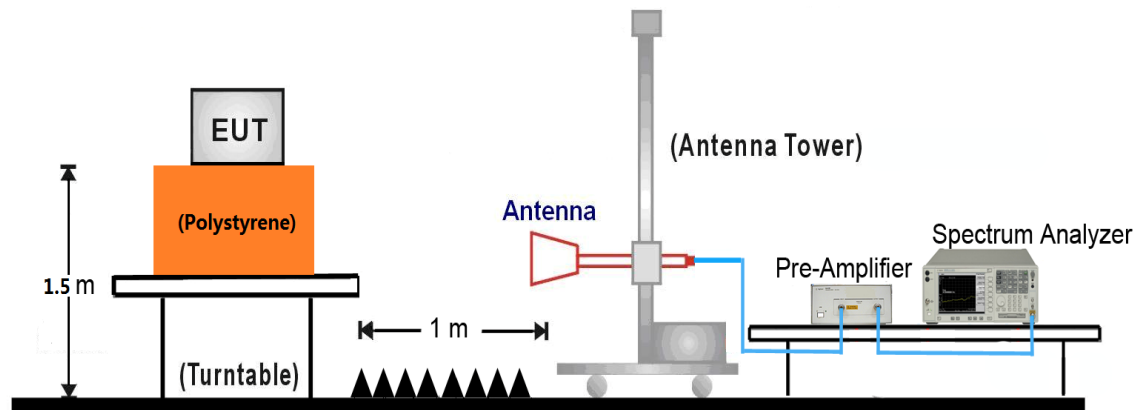
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~ 25GHz Test Setup:



7.6.5. Test Result

Test Mode:	802.11b – Ant 1	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
*	3018.0	39.1	-2.1	37.0	79.2	-42.2	Peak	Horizontal
*	3589.0	37.9	-0.7	37.2	79.2	-42.0	Peak	Horizontal
	4595.5	36.8	2.0	38.8	74.0	-35.2	Peak	Horizontal
	7528.0	36.6	8.3	44.9	74.0	-29.1	Peak	Horizontal
*	3193.0	42.1	-1.6	40.5	79.2	-38.7	Peak	Vertical
*	3578.0	38.1	-0.8	37.3	79.2	-41.9	Peak	Vertical
	4723.0	36.9	2.4	39.3	74.0	-34.7	Peak	Vertical
	7324.0	36.2	8.0	44.2	74.0	-29.8	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (99.2dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11b – Ant 1	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
*	3012.0	38.7	-2.1	36.6	81.6	-45.0	Peak	Horizontal
*	3553.0	37.3	-0.9	36.4	81.6	-45.2	Peak	Horizontal
	4774.0	36.3	2.6	38.9	74.0	-35.1	Peak	Horizontal
	7502.5	36.3	8.3	44.6	74.0	-29.4	Peak	Horizontal
*	3123.0	38.7	-1.7	37.0	81.6	-44.6	Peak	Vertical
*	3578.0	37.1	-0.8	36.3	81.6	-45.3	Peak	Vertical
	4791.0	36.0	2.7	38.7	74.0	-35.3	Peak	Vertical
	7689.5	36.4	8.0	44.4	74.0	-29.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (101.6dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11b – Ant 1	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
*	3014.0	38.6	-2.1	36.5	83.2	-46.7	Peak	Horizontal
*	3562.0	37.1	-0.8	36.3	83.2	-46.9	Peak	Horizontal
	4893.0	35.7	2.7	38.4	74.0	-35.6	Peak	Horizontal
	7553.5	35.8	8.3	44.1	74.0	-29.9	Peak	Horizontal
*	3054.0	37.8	-2.0	35.8	83.2	-47.4	Peak	Vertical
*	3524.0	37.2	-1.0	36.2	83.2	-47.0	Peak	Vertical
	4850.5	35.9	2.7	38.6	74.0	-35.4	Peak	Vertical
	7392.0	36.1	7.9	44.0	74.0	-30.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (103.2dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11g – Ant 1	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
*	3012.3	37.8	-2.1	35.7	84.3	-48.6	Peak	Horizontal
*	3543.0	37.4	-0.9	36.5	84.3	-47.8	Peak	Horizontal
	4791.0	35.4	2.7	38.1	74.0	-35.9	Peak	Horizontal
	7468.5	35.5	8.1	43.6	74.0	-30.4	Peak	Horizontal
*	3011.0	38.9	-2.1	36.8	84.3	-47.5	Peak	Vertical
*	3576.0	36.9	-0.8	36.1	84.3	-48.2	Peak	Vertical
	4876.0	36.4	2.7	39.1	74.0	-34.9	Peak	Vertical
	7519.5	36.0	8.3	44.3	74.0	-29.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.3dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11g – Ant 1	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
*	3068.0	37.8	-1.9	35.9	84.4	-48.5	Peak	Horizontal
*	3576.0	37.1	-0.8	36.3	84.4	-48.1	Peak	Horizontal
	4910.0	35.6	2.7	38.3	74.0	-35.7	Peak	Horizontal
	7366.5	36.2	7.9	44.1	74.0	-29.9	Peak	Horizontal
*	3018.0	38.6	-2.1	36.5	84.4	-47.9	Peak	Vertical
*	3583.0	36.9	-0.8	36.1	84.4	-48.3	Peak	Vertical
	4850.5	36.2	2.7	38.9	74.0	-35.1	Peak	Vertical
	7256.0	36.1	7.9	44.0	74.0	-30.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.4dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11g – Ant 1	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
*	3065.5	40.4	-1.9	38.5	84.6	-46.1	Peak	Horizontal
*	3565.0	37.4	-0.8	36.6	84.6	-48.0	Peak	Horizontal
	4833.5	36.6	2.7	39.3	74.0	-34.7	Peak	Horizontal
	7638.5	36.3	8.0	44.3	74.0	-29.7	Peak	Horizontal
*	3058.0	38.2	-1.9	36.3	84.6	-48.3	Peak	Vertical
*	3595.0	37.4	-0.7	36.7	84.6	-47.9	Peak	Vertical
	4782.5	36.2	2.7	38.9	74.0	-35.1	Peak	Vertical
	7621.5	36.2	8.0	44.2	74.0	-29.8	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.6dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT20 – Ant 1	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
*	3098.0	37.8	-1.8	36.0	84.8	-48.8	Peak	Horizontal
*	3598.0	37.3	-0.7	36.6	84.8	-48.2	Peak	Horizontal
	4816.5	36.8	2.7	39.5	74.0	-34.5	Peak	Horizontal
	7570.5	36.9	8.2	45.1	74.0	-28.9	Peak	Horizontal
*	3133.5	39.4	-1.6	37.8	84.8	-47.0	Peak	Vertical
*	3592.5	38.4	-0.7	37.7	84.8	-47.1	Peak	Vertical
	4536.0	36.3	1.8	38.1	74.0	-35.9	Peak	Vertical
	8191.0	35.2	8.3	43.5	74.0	-30.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.8dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT20 – Ant 1	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
*	3184.5	39.0	-1.6	37.4	84.2	-46.8	Peak	Horizontal
*	3575.5	38.0	-0.8	37.2	84.2	-47.0	Peak	Horizontal
	4697.5	36.5	2.3	38.8	74.0	-35.2	Peak	Horizontal
	8327.0	34.2	8.0	42.2	74.0	-31.8	Peak	Horizontal
*	3125.0	38.9	-1.6	37.3	84.2	-46.9	Peak	Vertical
*	3550.0	38.1	-0.9	37.2	84.2	-47.0	Peak	Vertical
	4808.0	36.4	2.7	39.1	74.0	-34.9	Peak	Vertical
	8352.5	35.0	8.0	43.0	74.0	-31.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.2dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT20 – Ant 1	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
*	3150.5	38.4	-1.5	36.9	83.6	-46.7	Peak	Horizontal
*	3541.5	38.0	-0.9	37.1	83.6	-46.5	Peak	Horizontal
	4731.5	37.6	2.5	40.1	74.0	-33.9	Peak	Horizontal
	8446.0	35.2	8.2	43.4	74.0	-30.6	Peak	Horizontal
*	3201.5	38.2	-1.6	36.6	83.6	-47.0	Peak	Vertical
*	3558.5	38.2	-0.8	37.4	83.6	-46.2	Peak	Vertical
	4757.0	36.1	2.6	38.7	74.0	-35.3	Peak	Vertical
	8429.0	34.8	8.2	43.0	74.0	-31.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (103.6dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT40 – Ant 1	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
*	3142.0	39.3	-1.6	37.7	81.7	-44.0	Peak	Horizontal
*	3524.5	38.0	-1.0	37.0	81.7	-44.7	Peak	Horizontal
	4782.5	35.4	2.7	38.1	74.0	-35.9	Peak	Horizontal
	8276.0	34.7	8.1	42.8	74.0	-31.2	Peak	Horizontal
*	3159.0	38.5	-1.5	37.0	81.7	-44.7	Peak	Vertical
*	3499.0	37.8	-1.1	36.7	81.7	-45.0	Peak	Vertical
	4859.0	35.8	2.7	38.5	74.0	-35.5	Peak	Vertical
	8420.5	34.6	8.2	42.8	74.0	-31.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (101.7dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT40 – Ant 1	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
*	3133.5	37.2	-1.6	35.6	80.1	-44.5	Peak	Horizontal
*	3397.0	38.1	-1.7	36.4	80.1	-43.7	Peak	Horizontal
	4782.5	35.7	2.7	38.4	74.0	-35.6	Peak	Horizontal
	8403.5	35.2	8.1	43.3	74.0	-30.7	Peak	Horizontal
*	3176.0	39.4	-1.6	37.8	80.1	-42.3	Peak	Vertical
*	3558.5	38.0	-0.8	37.2	80.1	-42.9	Peak	Vertical
	4833.5	35.7	2.7	38.4	74.0	-35.6	Peak	Vertical
	8208.0	35.0	8.3	43.3	74.0	-30.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (100.1dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT40 – Ant 1	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
*	3184.5	39.6	-1.6	38.0	78.0	-40.0	Peak	Horizontal
*	3414.0	38.0	-1.6	36.4	78.0	-41.6	Peak	Horizontal
	4927.0	35.7	2.8	38.5	74.0	-35.5	Peak	Horizontal
	8352.5	35.7	8.0	43.7	74.0	-30.3	Peak	Horizontal
*	3176.0	38.1	-1.6	36.5	78.0	-41.5	Peak	Vertical
*	3533.0	38.0	-1.0	37.0	78.0	-41.0	Peak	Vertical
	4774.0	35.7	2.6	38.3	74.0	-35.7	Peak	Vertical
	8165.5	34.2	8.4	42.6	74.0	-31.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.0dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11b – Ant 2	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
*	3184.5	39.6	-1.6	38.0	82.6	-44.6	Peak	Horizontal
*	3499.0	38.6	-1.1	37.5	82.6	-45.1	Peak	Horizontal
	4825.0	35.8	2.7	38.5	74.0	-35.5	Peak	Horizontal
	8310.0	35.0	8.0	43.0	74.0	-31.0	Peak	Horizontal
*	3142.0	39.6	-1.6	38.0	82.6	-44.6	Peak	Vertical
*	3465.0	39.1	-1.3	37.8	82.6	-44.8	Peak	Vertical
	4961.0	36.2	2.9	39.1	74.0	-34.9	Peak	Vertical
	8216.5	35.4	8.2	43.6	74.0	-30.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (102.6dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11b – Ant 2	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
*	3142.0	38.5	-1.6	36.9	84.5	-47.6	Peak	Horizontal
*	3456.5	37.3	-1.4	35.9	84.5	-48.6	Peak	Horizontal
	4850.5	36.2	2.7	38.9	74.0	-35.1	Peak	Horizontal
	8361.0	35.3	8.0	43.3	74.0	-30.7	Peak	Horizontal
*	3116.5	38.9	-1.7	37.2	84.5	-47.3	Peak	Vertical
*	3482.0	38.0	-1.2	36.8	84.5	-47.7	Peak	Vertical
	4901.5	37.4	2.7	40.1	74.0	-33.9	Peak	Vertical
	8293.0	34.7	8.0	42.7	74.0	-31.3	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.5dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11b – Ant 2	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
*	3074.0	37.7	-1.9	35.8	86.3	-50.5	Peak	Horizontal
*	3371.5	38.3	-1.8	36.5	86.3	-49.8	Peak	Horizontal
	4850.5	35.2	2.7	37.9	74.0	-36.1	Peak	Horizontal
	8480.0	35.6	8.3	43.9	74.0	-30.1	Peak	Horizontal
*	3108.0	36.8	-1.7	35.1	86.3	-51.2	Peak	Vertical
*	3541.5	38.5	-0.9	37.6	86.3	-48.7	Peak	Vertical
	4927.0	36.4	2.8	39.2	74.0	-34.8	Peak	Vertical
	8352.5	35.5	8.0	43.5	74.0	-30.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (106.3dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11g – Ant 2	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
*	3074.0	38.5	-1.9	36.6	87.8	-51.2	Peak	Horizontal
*	3490.5	38.1	-1.2	36.9	87.8	-50.9	Peak	Horizontal
	4935.5	35.9	2.8	38.7	74.0	-35.3	Peak	Horizontal
	8310.0	35.6	8.0	43.6	74.0	-30.4	Peak	Horizontal
*	3159.0	38.6	-1.5	37.1	87.8	-50.7	Peak	Vertical
*	3482.0	38.3	-1.2	37.1	87.8	-50.7	Peak	Vertical
	4910.0	35.6	2.7	38.3	74.0	-35.7	Peak	Vertical
	8454.5	35.1	8.2	43.3	74.0	-30.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (107.8dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11g – Ant 2	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
*	3150.5	38.0	-1.5	36.5	87.1	-50.6	Peak	Horizontal
*	3541.5	38.1	-0.9	37.2	87.1	-49.9	Peak	Horizontal
	4782.5	35.7	2.7	38.4	74.0	-35.6	Peak	Horizontal
	8267.5	34.0	8.1	42.1	74.0	-31.9	Peak	Horizontal
*	3159.0	38.8	-1.5	37.3	87.1	-49.8	Peak	Vertical
*	3541.5	37.8	-0.9	36.9	87.1	-50.2	Peak	Vertical
	4833.5	35.7	2.7	38.4	74.0	-35.6	Peak	Vertical
	8267.5	34.0	8.1	42.1	74.0	-31.9	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (107.1dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11g – Ant 2	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
*	3142.0	38.3	-1.6	36.7	86.3	-49.6	Peak	Horizontal
*	3414.0	38.0	-1.6	36.4	86.3	-49.9	Peak	Horizontal
	4876.0	34.2	2.7	36.9	74.0	-37.1	Peak	Horizontal
	8216.5	34.8	8.2	43.0	74.0	-31.0	Peak	Horizontal
*	3159.0	37.8	-1.5	36.3	86.3	-50.0	Peak	Vertical
*	3516.0	37.9	-1.1	36.8	86.3	-49.5	Peak	Vertical
	4952.5	35.1	2.9	38.0	74.0	-36.0	Peak	Vertical
	8250.5	34.9	8.1	43.0	74.0	-31.0	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (106.3dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT20 – Ant 2	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
*	3133.5	39.7	-1.6	38.1	87.5	-49.4	Peak	Horizontal
*	3524.5	38.1	-1.0	37.1	87.5	-50.4	Peak	Horizontal
	4901.5	35.0	2.7	37.7	74.0	-36.3	Peak	Horizontal
	8157.0	34.8	8.4	43.2	74.0	-30.8	Peak	Horizontal
*	3133.5	39.7	-1.6	38.1	87.5	-49.4	Peak	Vertical
*	3490.5	37.4	-1.2	36.2	87.5	-51.3	Peak	Vertical
	4859.0	35.8	2.7	38.5	74.0	-35.5	Peak	Vertical
	8157.0	35.2	8.4	43.6	74.0	-30.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (107.5dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT20 – Ant 2	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
*	3184.5	38.5	-1.6	36.9	86.3	-49.4	Peak	Horizontal
*	3482.0	37.1	-1.2	35.9	86.3	-50.4	Peak	Horizontal
	4969.5	35.9	3.0	38.9	74.0	-35.1	Peak	Horizontal
	8454.5	35.3	8.2	43.5	74.0	-30.5	Peak	Horizontal
*	3201.5	38.2	-1.6	36.6	86.3	-49.7	Peak	Vertical
*	3499.0	37.3	-1.1	36.2	86.3	-50.1	Peak	Vertical
	4867.5	35.6	2.7	38.3	74.0	-35.7	Peak	Vertical
	8225.0	34.9	8.2	43.1	74.0	-30.9	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (106.3dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT20 – Ant 2	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
*	3116.5	38.2	-1.7	36.5	84.7	-48.2	Peak	Horizontal
*	3524.5	37.7	-1.0	36.7	84.7	-48.0	Peak	Horizontal
	4961.0	35.9	2.9	38.8	74.0	-35.2	Peak	Horizontal
	8148.5	35.5	8.5	44.0	74.0	-30.0	Peak	Horizontal
*	3048.5	39.4	-2.0	37.4	84.7	-47.3	Peak	Vertical
*	3516.0	38.1	-1.1	37.0	84.7	-47.7	Peak	Vertical
	5029.0	35.5	3.1	38.6	74.0	-35.4	Peak	Vertical
	8361.0	34.4	8.0	42.4	74.0	-31.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (104.7dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT40 – Ant 2	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
*	3108.0	38.0	-1.7	36.3	82.4	-46.1	Peak	Horizontal
*	3507.5	38.4	-1.1	37.3	82.4	-45.1	Peak	Horizontal
	4808.0	36.0	2.7	38.7	74.0	-35.3	Peak	Horizontal
	8293.0	34.8	8.0	42.8	74.0	-31.2	Peak	Horizontal
*	3099.5	38.3	-1.8	36.5	82.4	-45.9	Peak	Vertical
*	3507.5	38.4	-1.1	37.3	82.4	-45.1	Peak	Vertical
	4808.0	36.0	2.7	38.7	74.0	-35.3	Peak	Vertical
	8335.5	35.4	8.0	43.4	74.0	-30.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (102.4dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT40 – Ant 2	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
*	3167.5	38.6	-1.5	37.1	80.6	-43.5	Peak	Horizontal
*	3482.0	38.5	-1.2	37.3	80.6	-43.3	Peak	Horizontal
	4884.5	36.4	2.7	39.1	74.0	-34.9	Peak	Horizontal
	8199.5	34.9	8.3	43.2	74.0	-30.8	Peak	Horizontal
*	3133.5	39.0	-1.6	37.4	80.6	-43.2	Peak	Vertical
*	3541.5	37.5	-0.9	36.6	80.6	-44.0	Peak	Vertical
	4893.0	35.7	2.7	38.4	74.0	-35.6	Peak	Vertical
	8208.0	35.0	8.3	43.3	74.0	-30.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (100.6dBμV/m) or FCC 15.209 which is higher.

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

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

Test Mode:	802.11n-HT40 – Ant 2	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
*	3074.0	38.0	-1.9	36.1	78.7	-42.6	Peak	Horizontal
*	3524.5	38.3	-1.0	37.3	78.7	-41.4	Peak	Horizontal
	4850.5	35.7	2.7	38.4	74.0	-35.6	Peak	Horizontal
	8301.5	34.7	8.0	42.7	74.0	-31.3	Peak	Horizontal
*	3167.5	39.4	-1.5	37.9	78.7	-40.8	Peak	Vertical
*	3533.0	38.1	-1.0	37.1	78.7	-41.6	Peak	Vertical
	4884.5	35.6	2.7	38.3	74.0	-35.7	Peak	Vertical
	8250.5	35.6	8.1	43.7	74.0	-30.3	Peak	Vertical

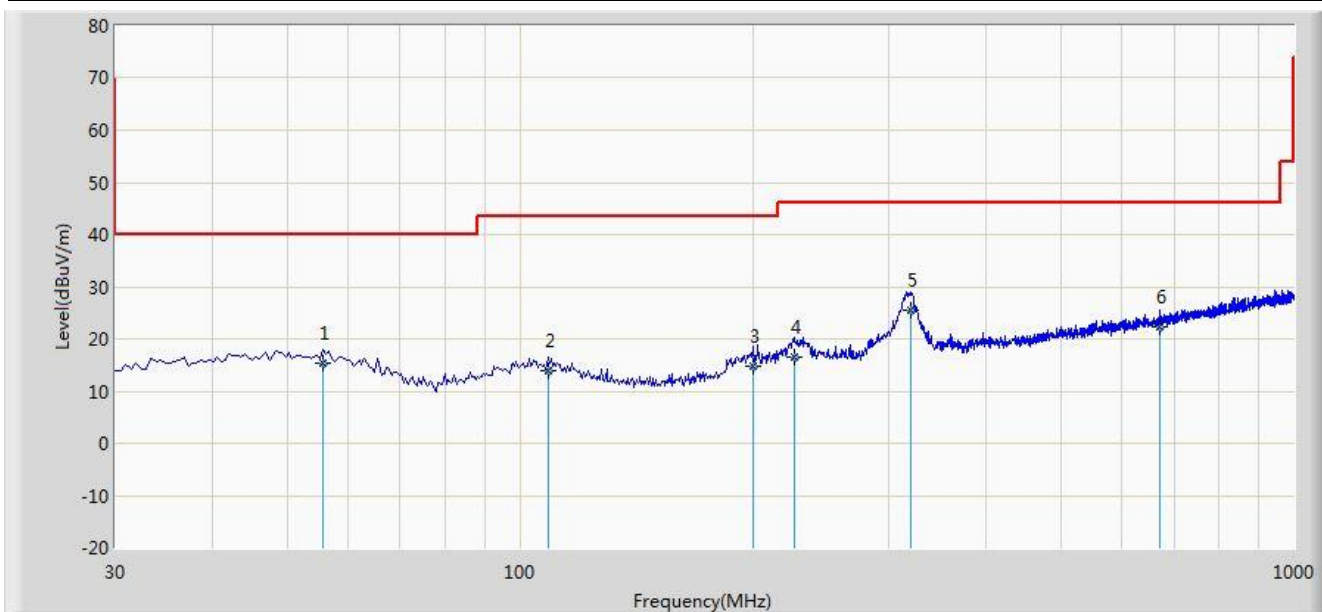
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.7dBμV/m) or FCC 15.209 which is higher.

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

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

The worst case of Radiated Emission below 1GHz:

Site: AC 1	Time: 2015/10/08 - 16:13
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: sengled pulse flex	Power: AC 120V/60Hz
Worse Case Mode: Transmit by 802.11g at channel 2412MHz	

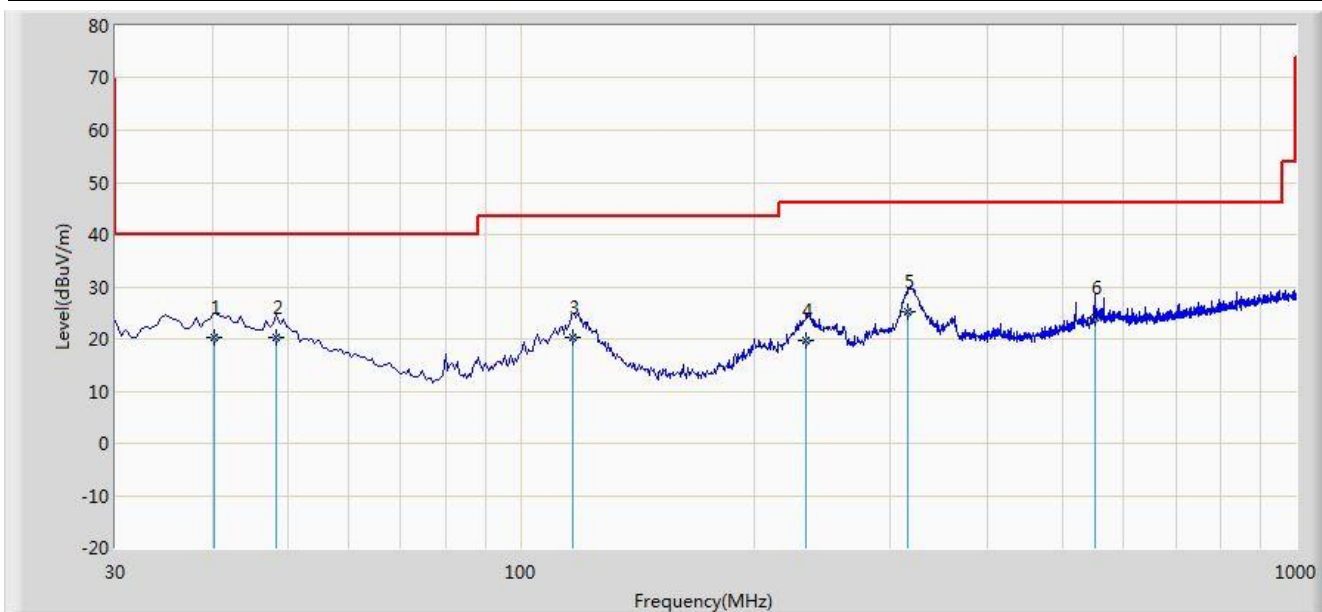


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			55.705	15.291	0.740	-24.709	40.000	14.551	QP
2			109.055	13.998	1.050	-29.502	43.500	12.948	QP
3			199.750	14.685	2.465	-28.815	43.500	12.220	QP
4			225.940	16.390	3.547	-29.610	46.000	12.843	QP
5		*	320.030	25.564	10.542	-20.436	46.000	15.022	QP
6			670.201	22.178	1.240	-23.822	46.000	20.938	QP

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

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

Site: AC 1	Time: 2015/10/08 - 16:13
Limit: FCC_Part15.209_RE(3m)	Engineer: Milo Li
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: sengled pulse flex	Power: AC 120V/60Hz
Worse Case Mode: Transmit by 802.11g at channel 2412MHz	

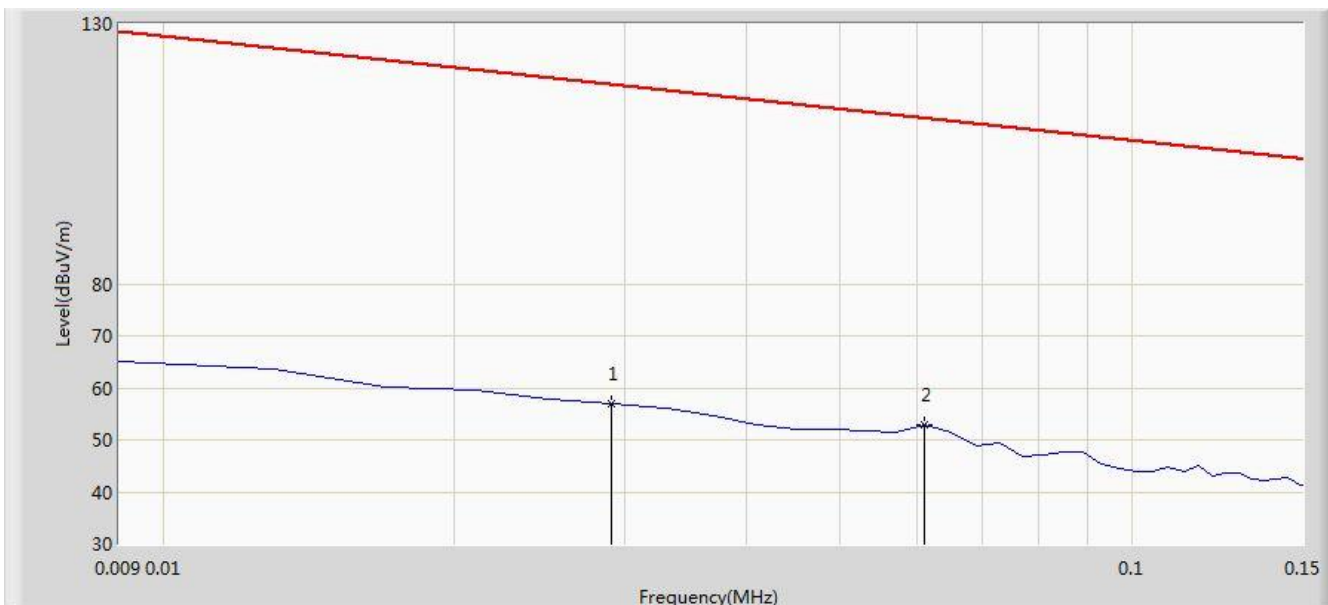


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			40.185	20.303	6.424	-19.697	40.000	13.879	QP
2		*	48.431	20.388	5.457	-19.612	40.000	14.931	QP
3			116.815	20.216	8.471	-23.284	43.500	11.745	QP
4			233.701	19.677	6.525	-26.323	46.000	13.152	QP
5			315.665	25.229	10.325	-20.771	46.000	14.904	QP
6			549.920	24.162	5.124	-21.838	46.000	19.038	QP

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

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

Site: AC1	Time: 2015/10/07 - 09:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: sengled pulse flex	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	

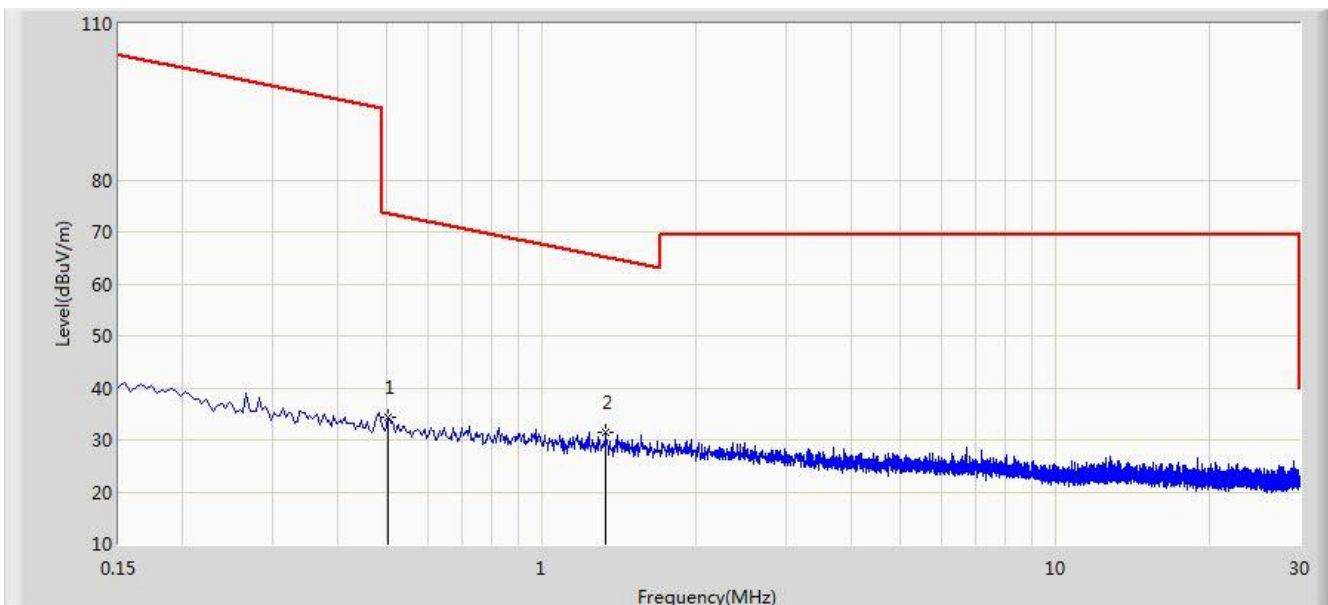


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.029	56.893	35.844	-61.463	118.356	21.049	QP
2		*	0.061	52.853	32.542	-59.045	111.898	20.311	QP

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

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

Site: AC1	Time: 2015/10/07 - 09:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Roy Cheng
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: sengled pulse flex	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	

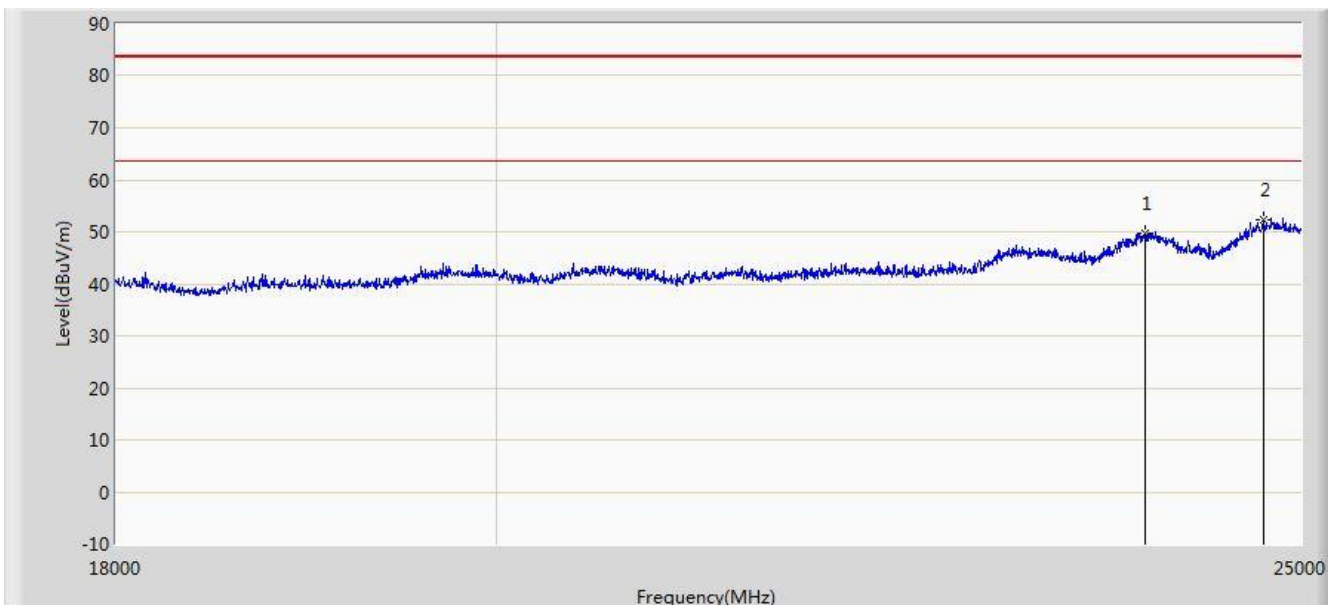


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.502	34.370	13.947	-39.220	73.590	20.423	QP
2		*	1.334	31.595	11.104	-33.530	65.125	20.491	QP

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

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

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

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

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



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

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

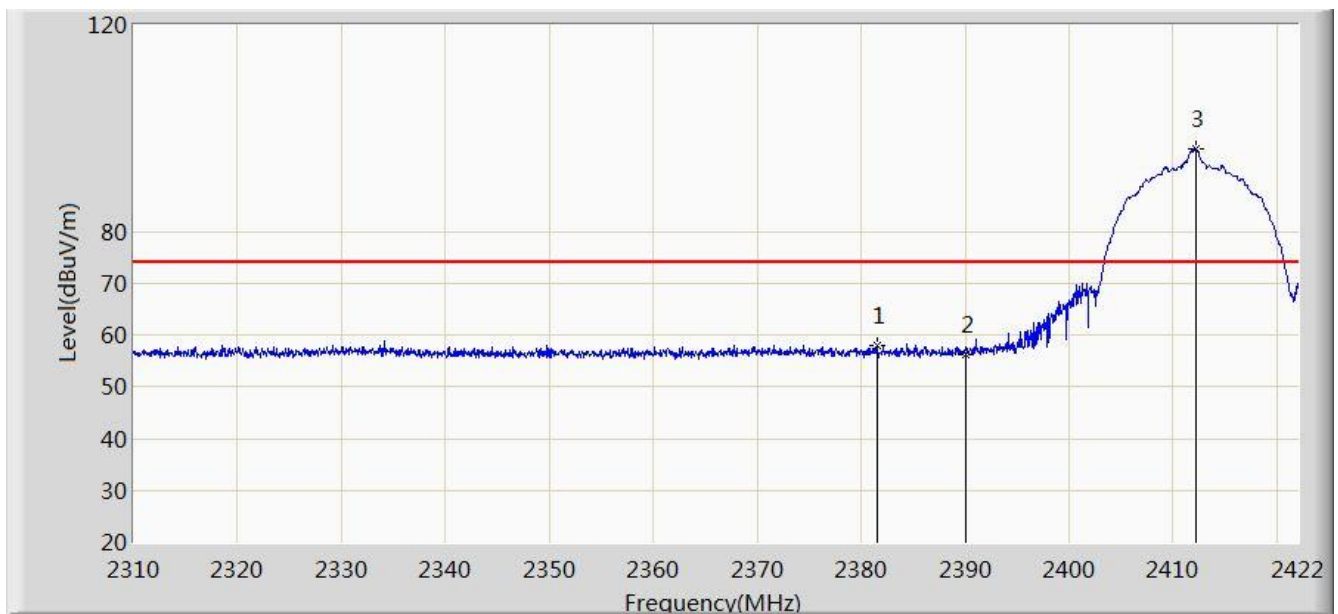
Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre-Amplifier Gain (dB)

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

7.7. Radiated Restricted Band Edge Measurement

7.7.1. Test Result

Site: AC 1	Time: 2015/09/26 - 14:16
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: sengled pulse flex	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 1	

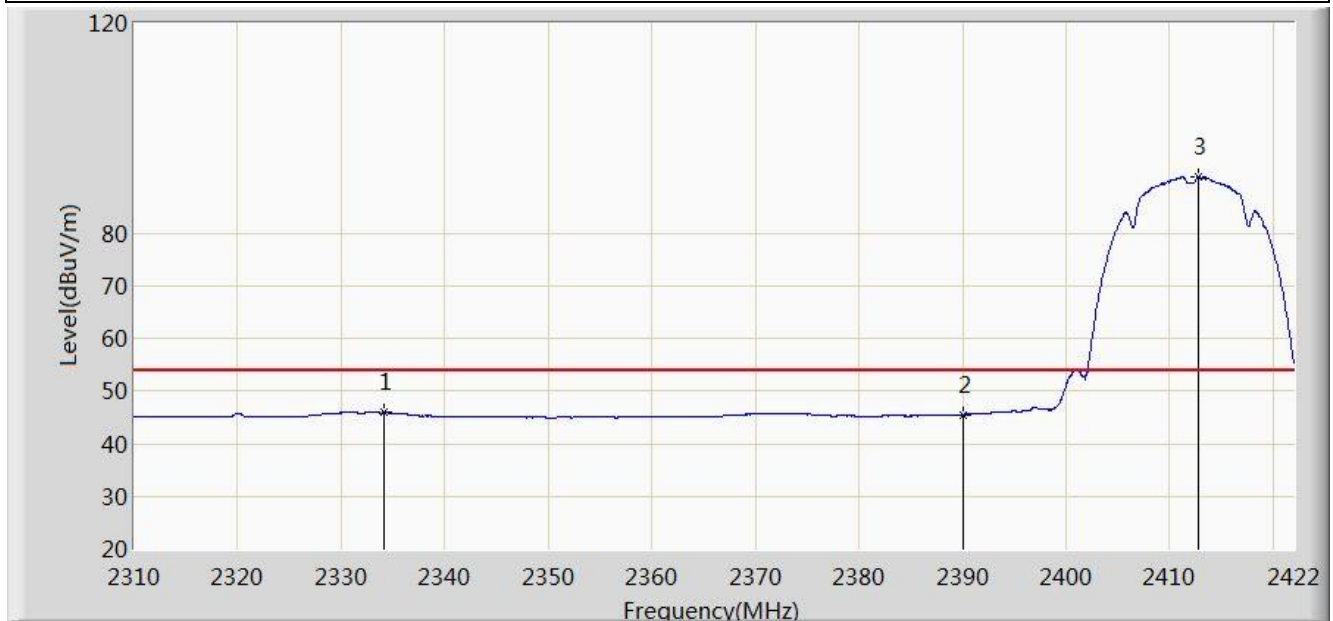


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2381.568	58.091	26.876	-15.909	74.000	31.218	PK
2			2390.000	56.384	25.181	-17.616	74.000	31.203	PK
3		*	2412.144	95.889	64.720	N/A	N/A	31.170	PK

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

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

Site: AC 1	Time: 2015/09/26 - 14:16
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: sengled pulse flex	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 1	

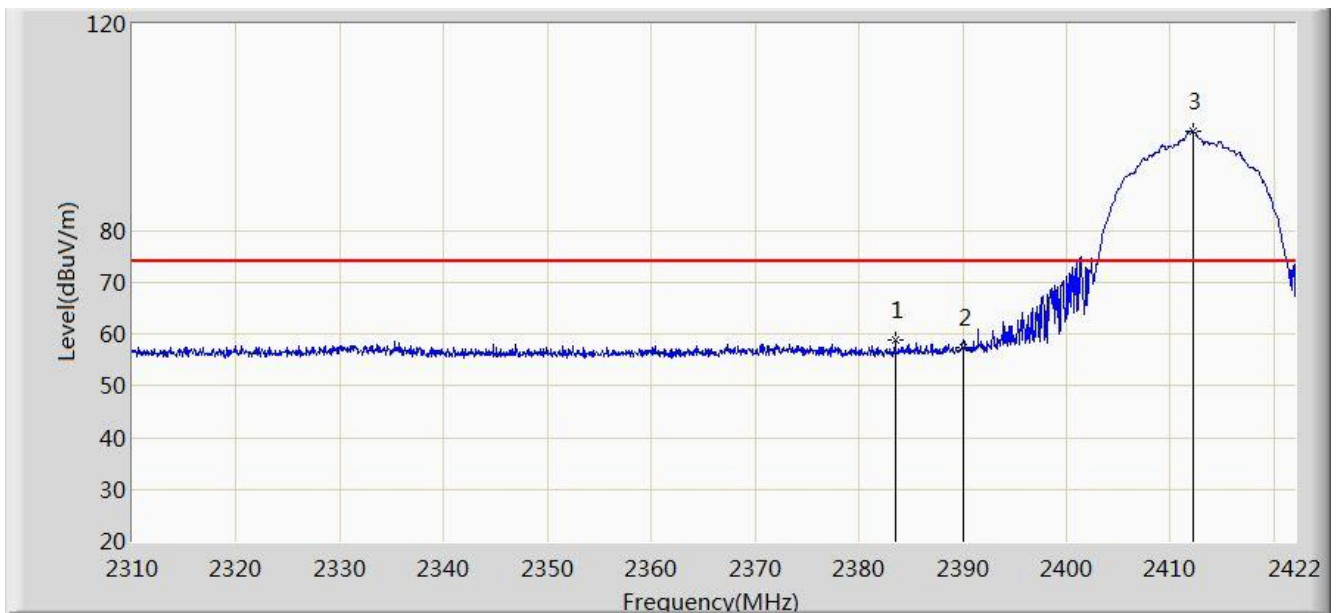


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2334.192	45.947	14.590	-8.053	54.000	31.357	AV
2			2390.000	45.555	14.353	-8.445	54.000	31.203	AV
3		*	2412.760	90.749	59.581	N/A	N/A	31.168	AV

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

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

Site: AC 1	Time: 2015/09/26 - 14:16
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: sengled pulse flex	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 1	

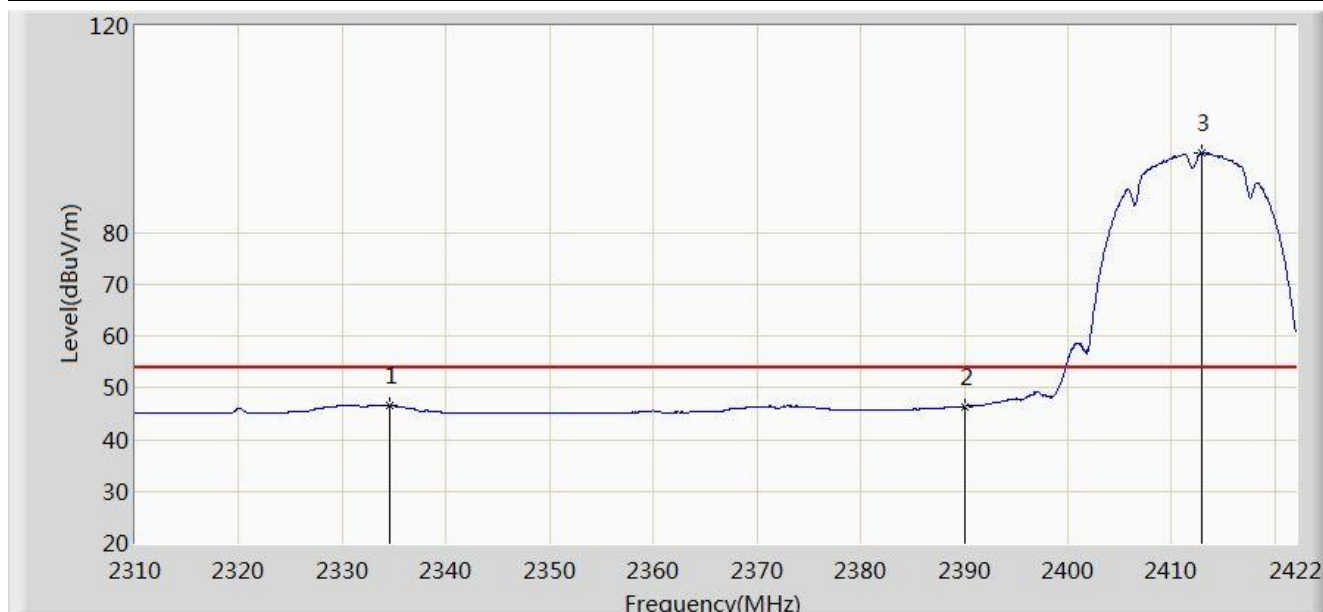


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2383.472	58.855	27.644	-15.145	74.000	31.215	PK
2			2390.000	57.412	26.209	-16.588	74.000	31.203	PK
3		*	2412.144	99.202	68.033	N/A	N/A	31.170	PK

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

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

Site: AC 1	Time: 2015/09/26 - 14:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: sengled pulse flex	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 1	

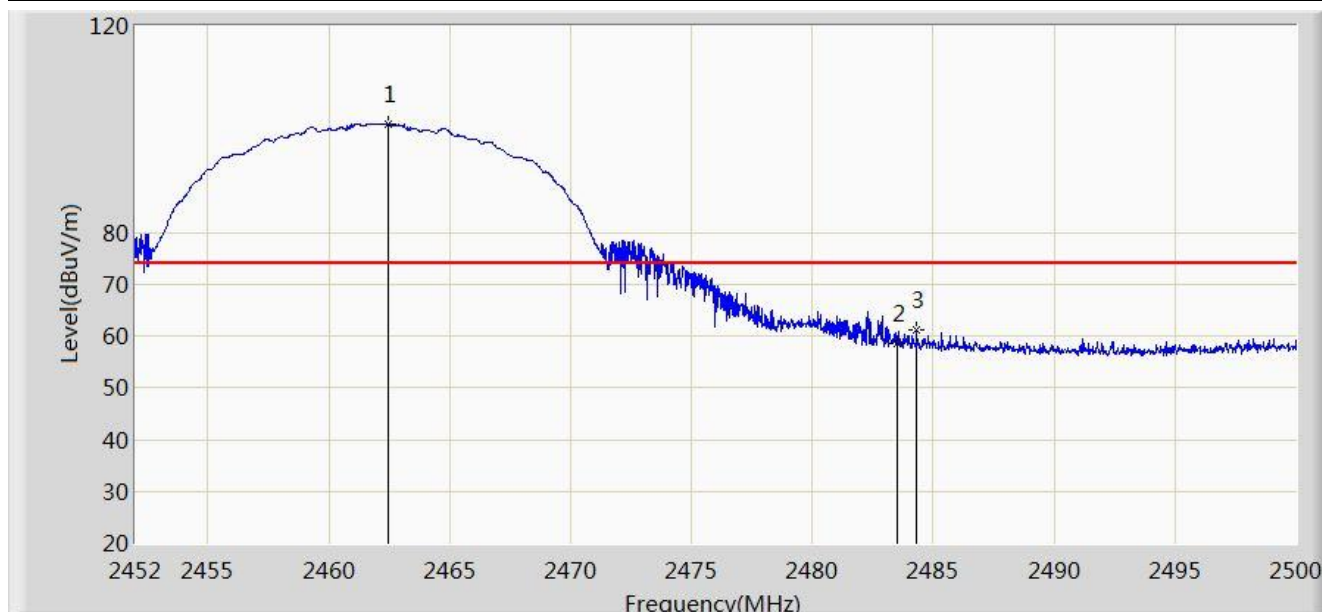


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			2334.584	46.581	15.227	-7.419	54.000	31.355	AV
2			2390.000	46.438	15.235	-7.562	54.000	31.203	AV
3		*	2412.872	95.426	64.258	N/A	N/A	31.168	AV

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

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

Site: AC 1	Time: 2015/09/26 - 14:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: sengled pulse flex	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2462MHz Ant 1	

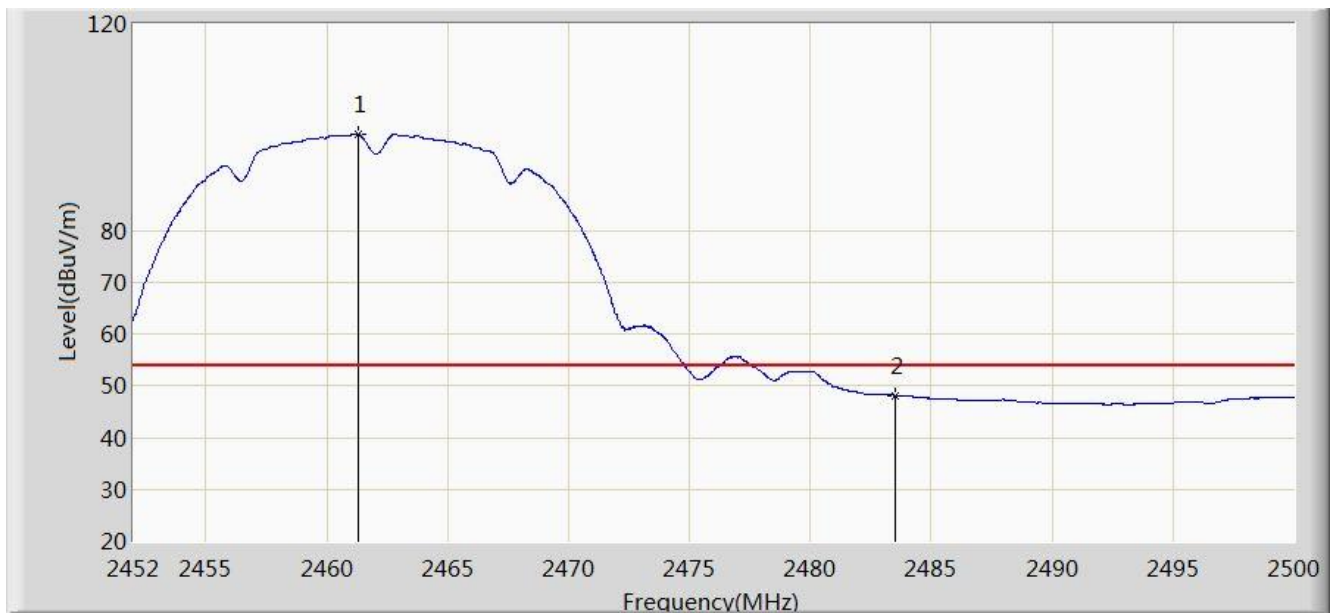


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2462.488	101.019	69.883	N/A	N/A	31.136	PK
2			2483.500	58.564	27.370	-15.436	74.000	31.194	PK
3			2484.304	61.277	30.085	-12.723	74.000	31.195	PK

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

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

Site: AC 1	Time: 2015/09/26 - 14:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Lewis Huang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: sengled pulse flex	Power: AC 120V/60Hz
Test Mode: Transmit by 802.11b at channel 2462MHz Ant 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	2461.312	98.726	67.592	N/A	N/A	31.134	AV
2			2483.500	48.166	16.972	-5.834	54.000	31.194	AV

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

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