

7.5. Conducted Band Edge and Out-of-Band Emissions §15.247(d); RSS-210 [A8.5]

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 100kHz bandwidth per the PSD procedure.

7.5.2. Test Procedure Used

KDB 558074 D01v03r02 – Section 11.2 & Section 11.3

7.5.3. Test Settling

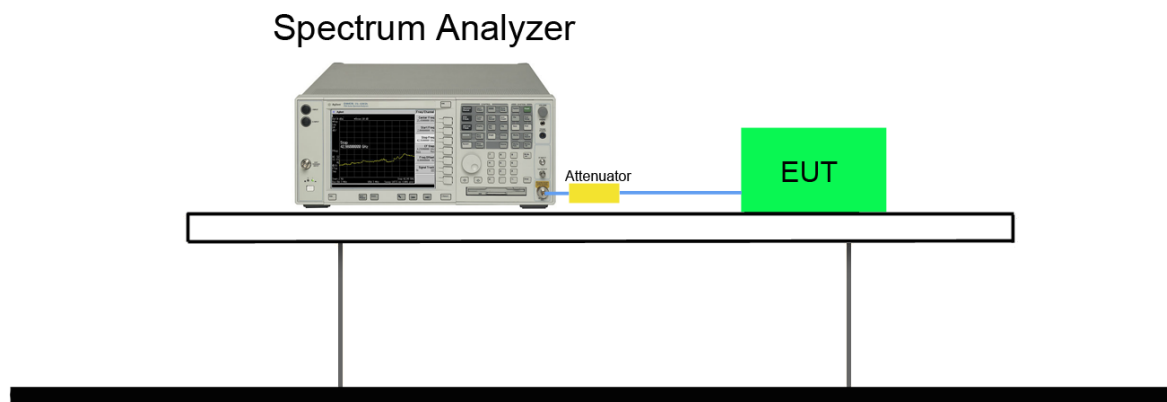
1. Reference level measurement

- (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 $\geq 3 \times$ 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



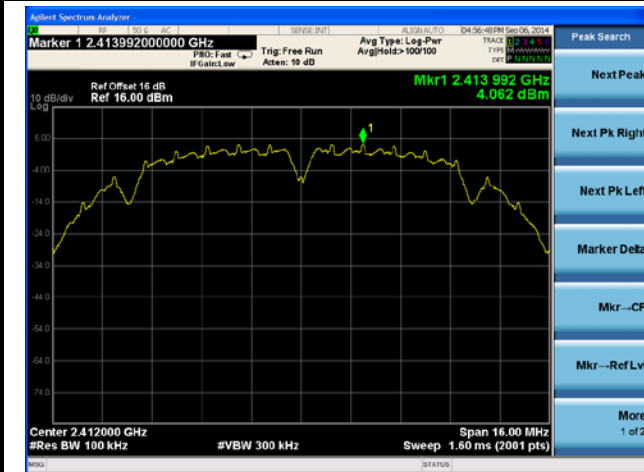
7.5.5. Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
Ant 0					
11b	1	01	2412	20dBc	Pass
11b	1	06	2437	20dBc	Pass
11b	1	11	2462	20dBc	Pass
11g	6	01	2412	20dBc	Pass
11g	6	06	2437	20dBc	Pass
11g	6	11	2462	20dBc	Pass
11n-HT20	6.5	01	2412	20dBc	Pass
11n-HT20	6.5	06	2437	20dBc	Pass
11n-HT20	6.5	11	2462	20dBc	Pass
11n-HT40	13.5	03	2422	20dBc	Pass
11n-HT40	13.5	06	2437	20dBc	Pass
11n-HT40	13.5	09	2452	20dBc	Pass
Ant 1					
11b	1	01	2412	20dBc	Pass
11b	1	06	2437	20dBc	Pass
11b	1	11	2462	20dBc	Pass
11g	6	01	2412	20dBc	Pass
11g	6	06	2437	20dBc	Pass
11g	6	11	2462	20dBc	Pass
11n-HT20	6.5	01	2412	20dBc	Pass
11n-HT20	6.5	06	2437	20dBc	Pass
11n-HT20	6.5	11	2462	20dBc	Pass
11n-HT40	13.5	03	2422	20dBc	Pass
11n-HT40	13.5	06	2437	20dBc	Pass
11n-HT40	13.5	09	2452	20dBc	Pass

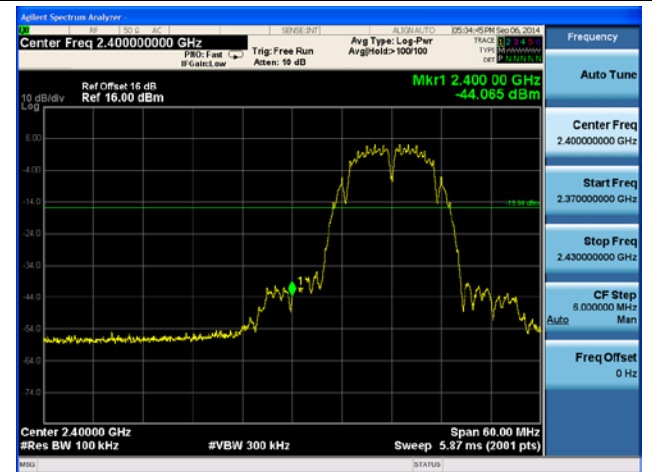
802.11b Out-of-Band Emissions - Ant 0

Channel 01 (2412MHz)

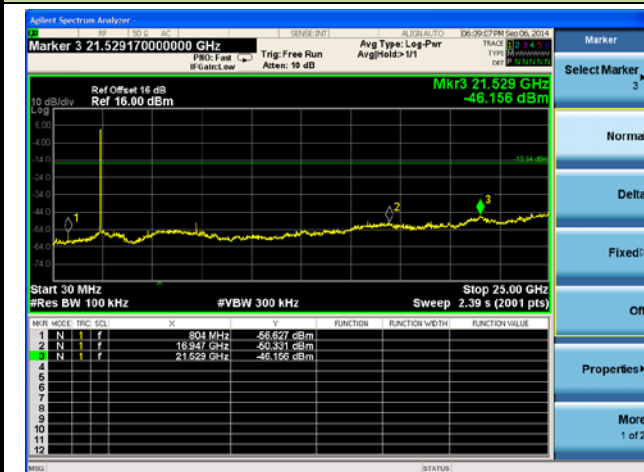
100kHz PSD Reference Level



Low Band Edge



Spurious Emission

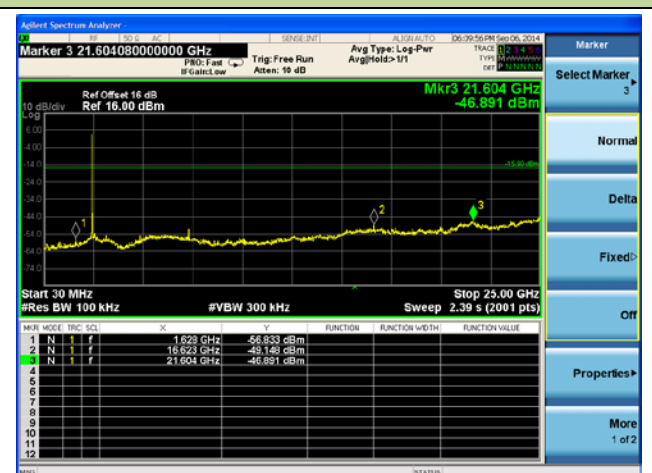


Channel 06 (2437MHz)

100kHz PSD Reference Level



Spurious Emission

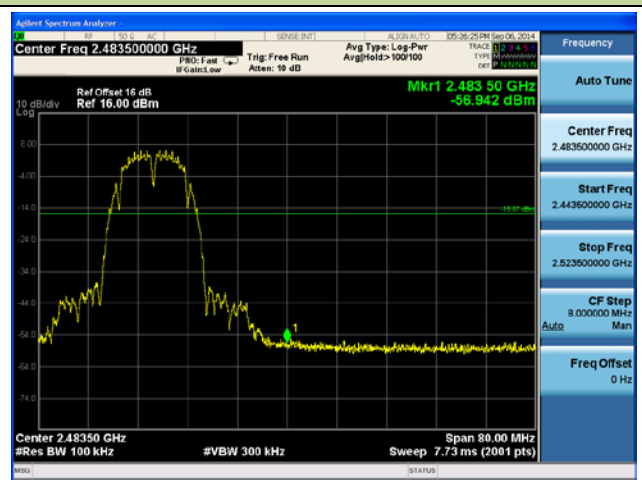


Channel 11 (2462MHz)

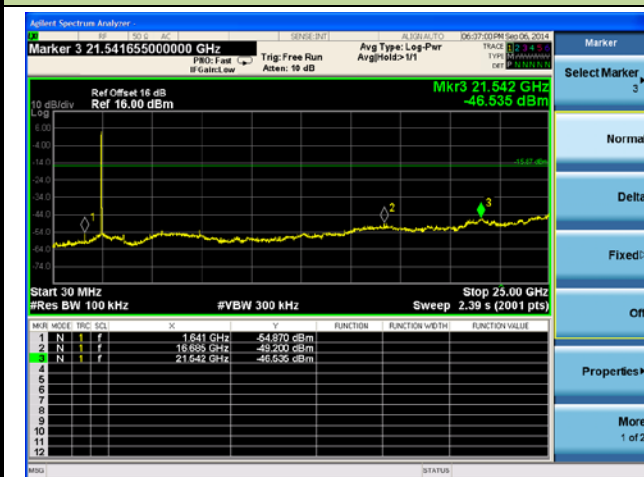
100kHz PSD Reference Level



High Band Edge



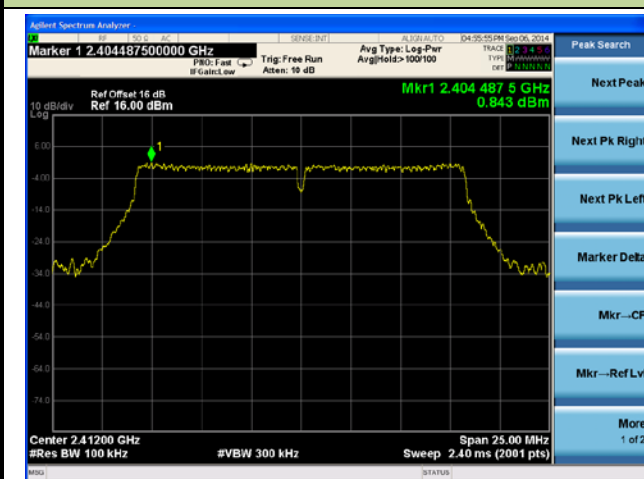
Spurious Emission



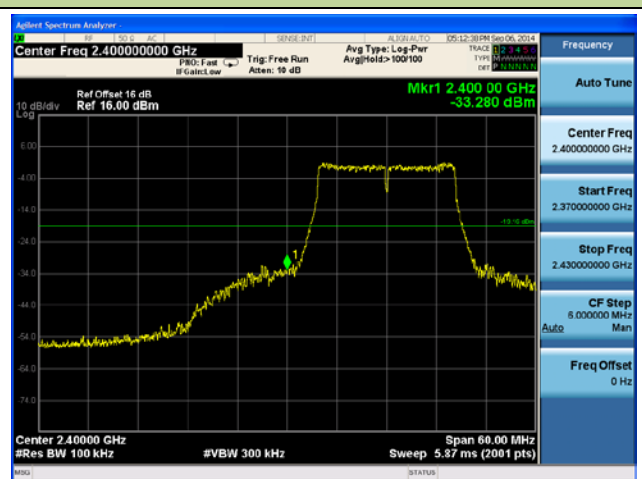
802.11g Out-of-Band Emissions - Ant 0

Channel 01 (2412MHz)

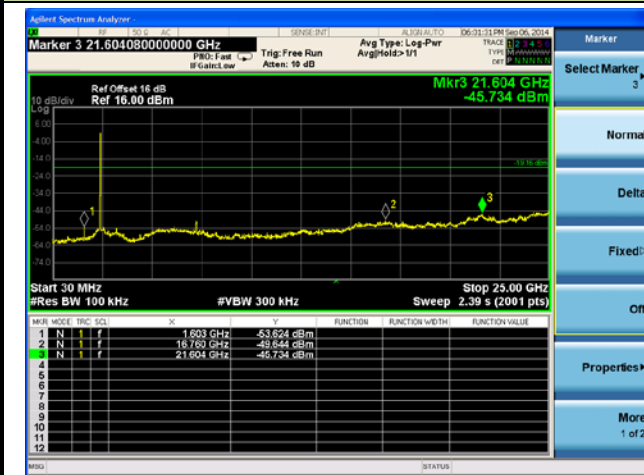
100kHz PSD Reference Level



Low Band Edge

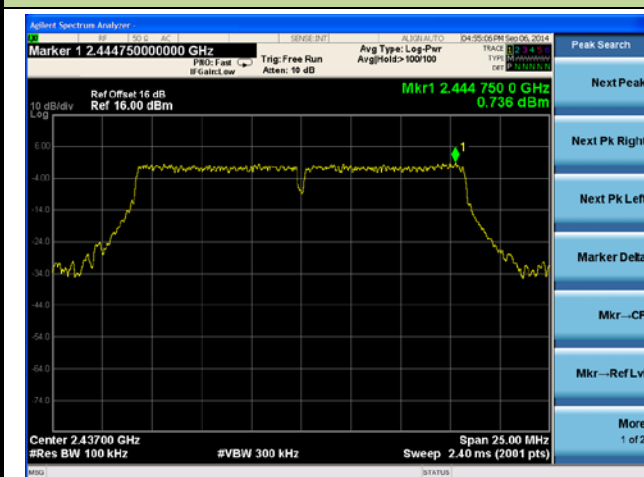


Spurious Emission

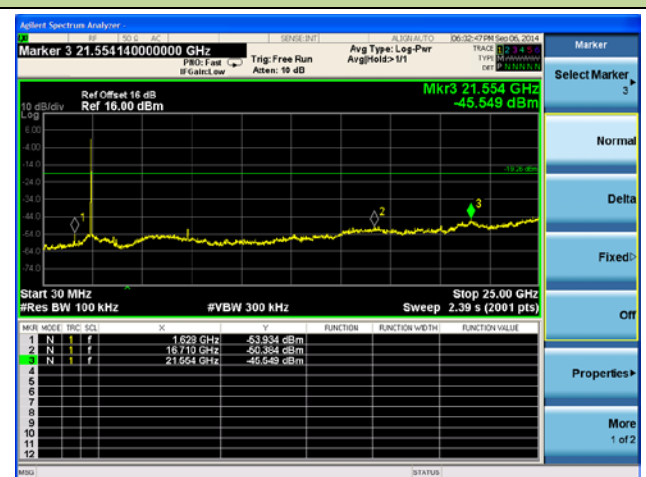


Channel 06 (2437MHz)

100kHz PSD Reference Level

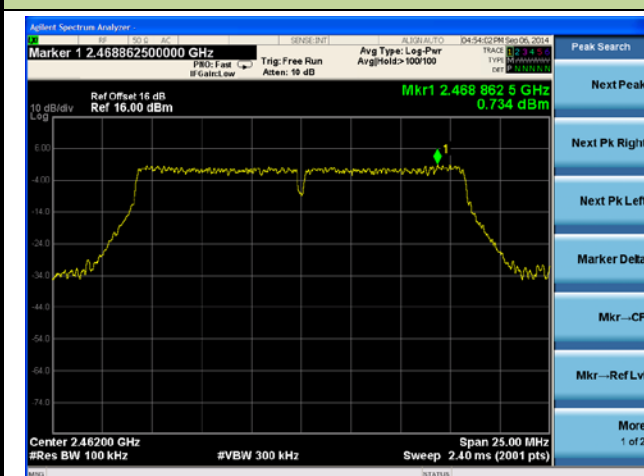


Spurious Emission

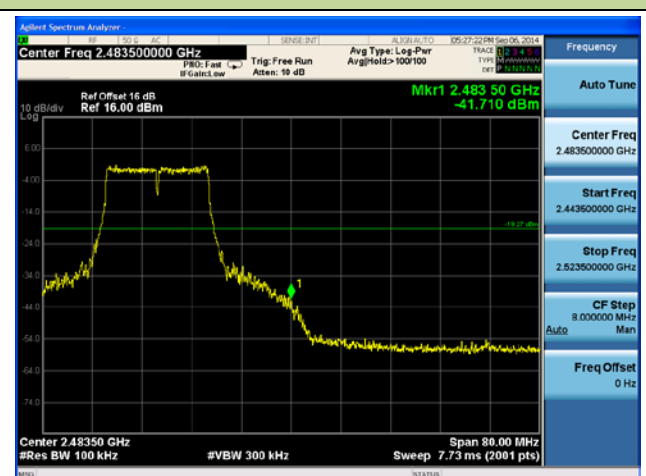


Channel 11 (2462MHz)

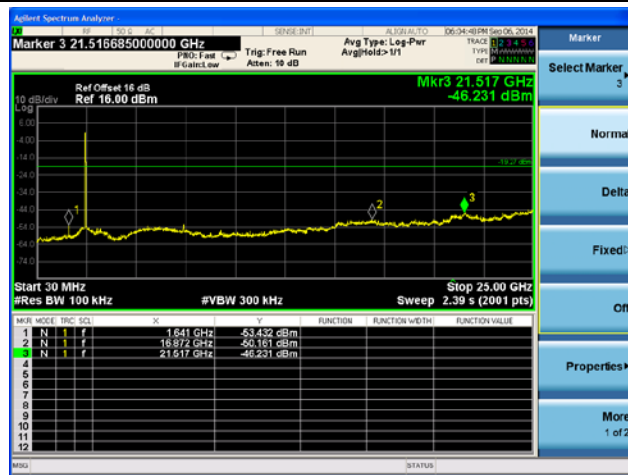
100kHz PSD Reference Level



High Band Edge



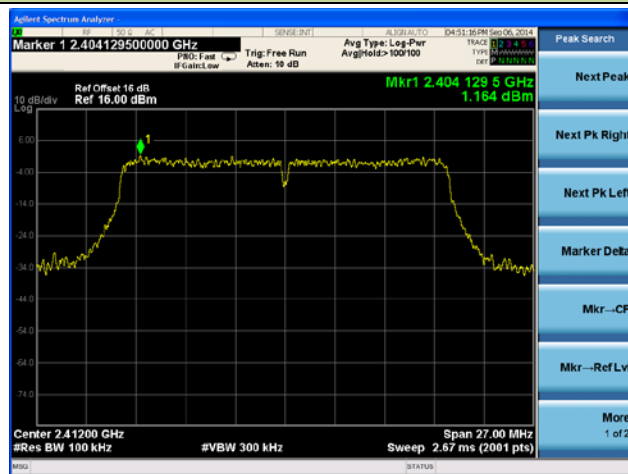
Spurious Emission



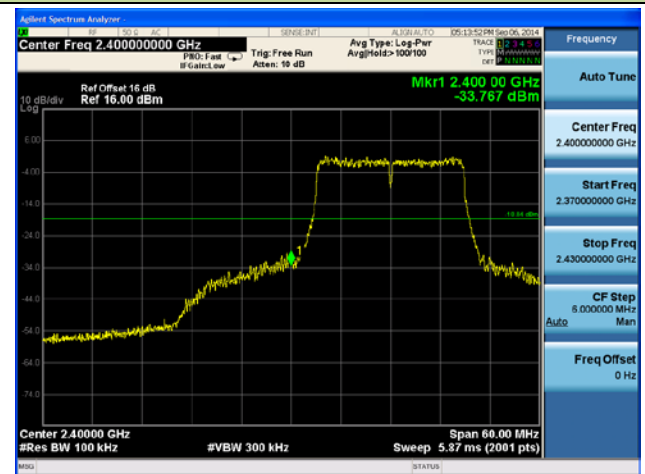
802.11n-HT20 Out-of-Band Emissions - Ant 0

Channel 01 (2412MHz)

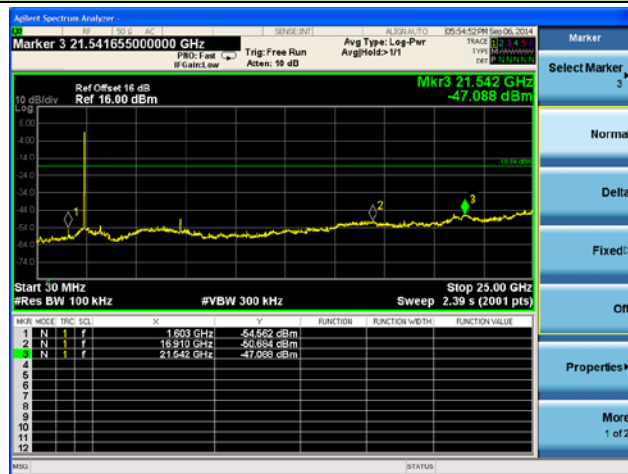
100kHz PSD Reference Level



Low Band Edge

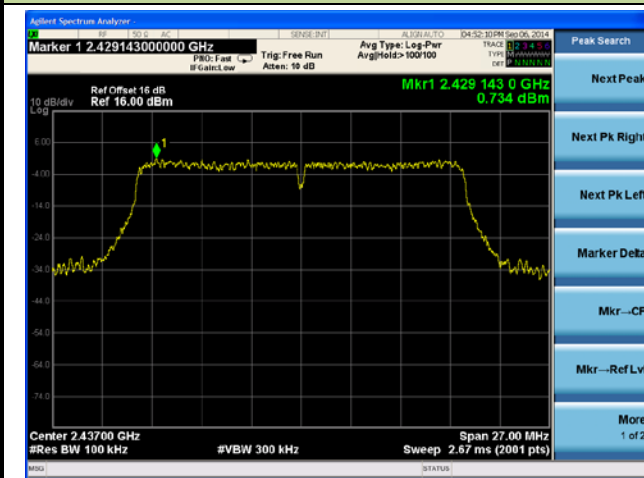


Spurious Emission

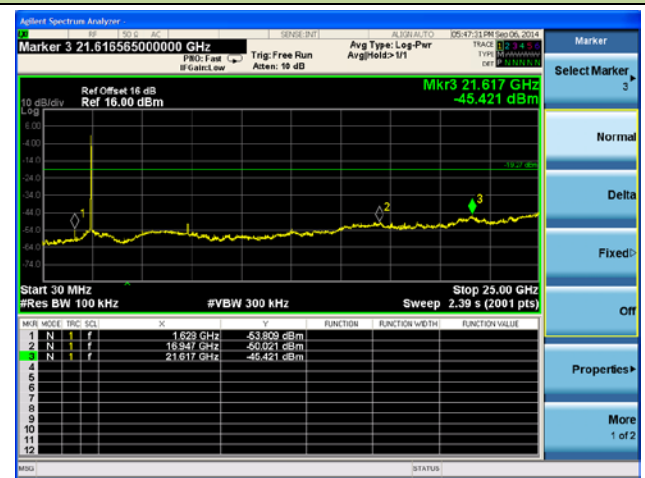


Channel 06 (2437MHz)

100kHz PSD Reference Level

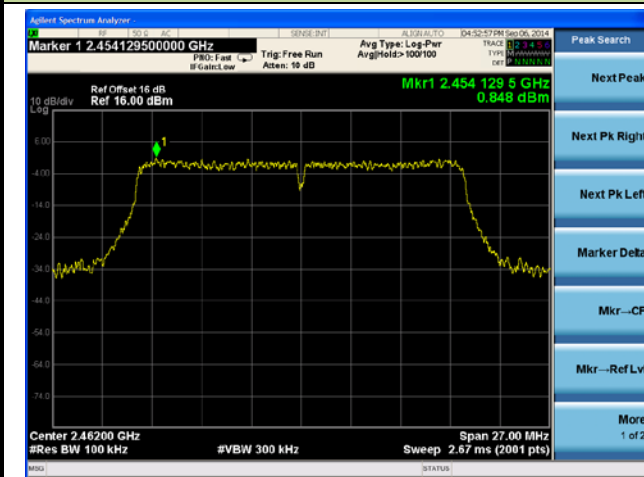


Spurious Emission

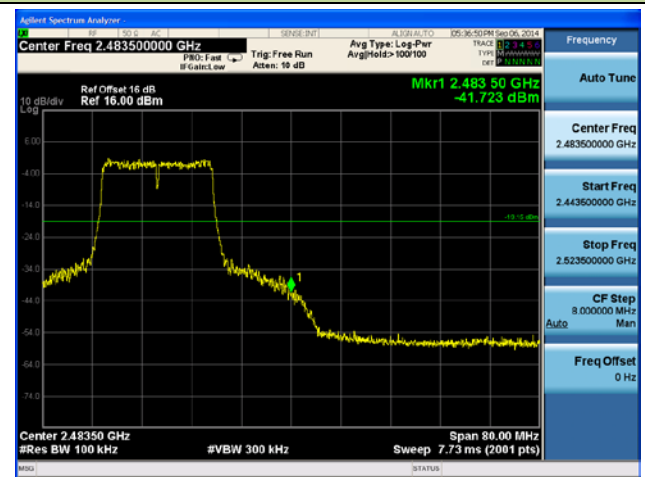


Channel 11 (2462MHz)

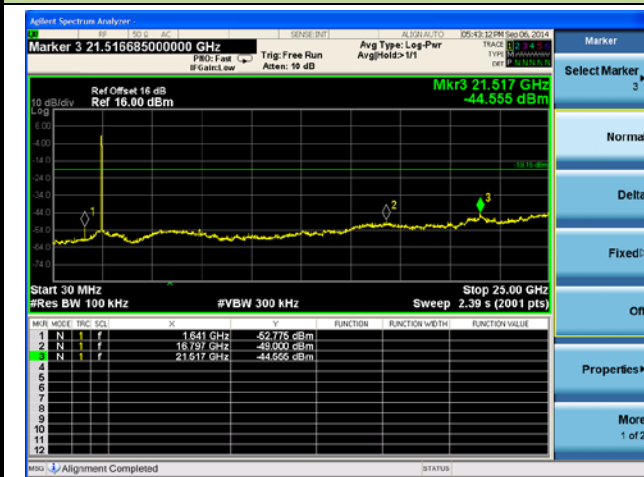
100kHz PSD Reference Level



High Band Edge



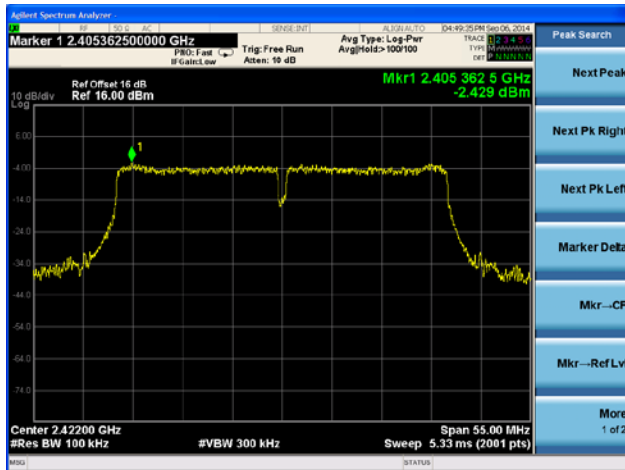
Spurious Emission



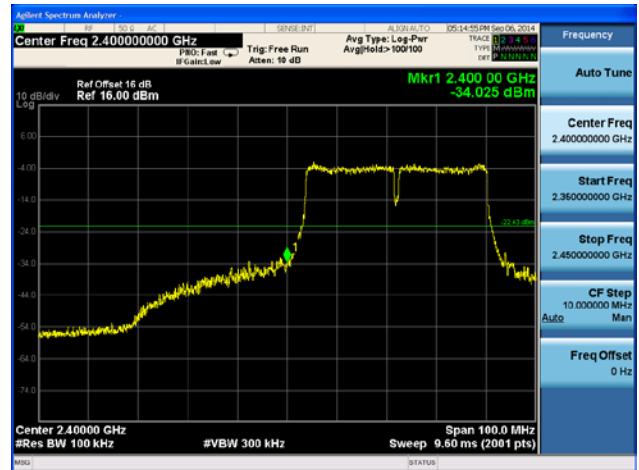
802.11n-HT40 Out-of-Band Emissions - Ant 0

Channel 03 (2422MHz)

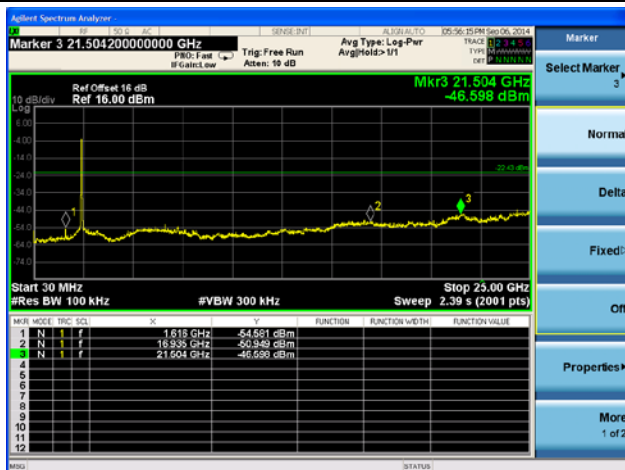
100kHz PSD Reference Level



Low Band Edge

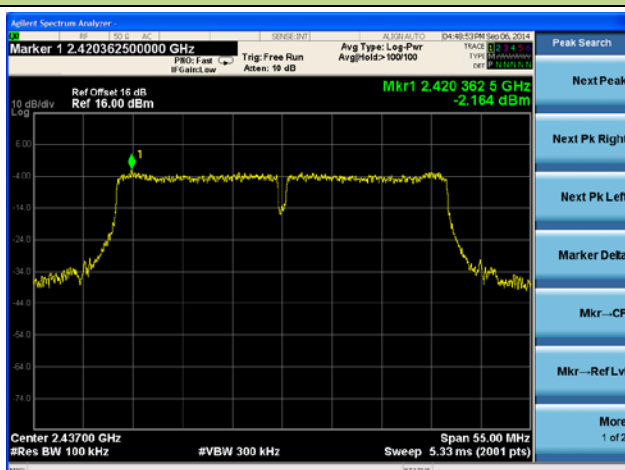


Spurious Emission

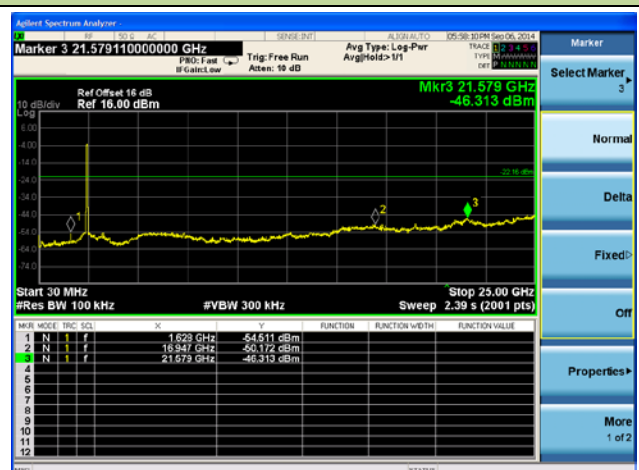


Channel 06 (2437MHz)

100kHz PSD Reference Level

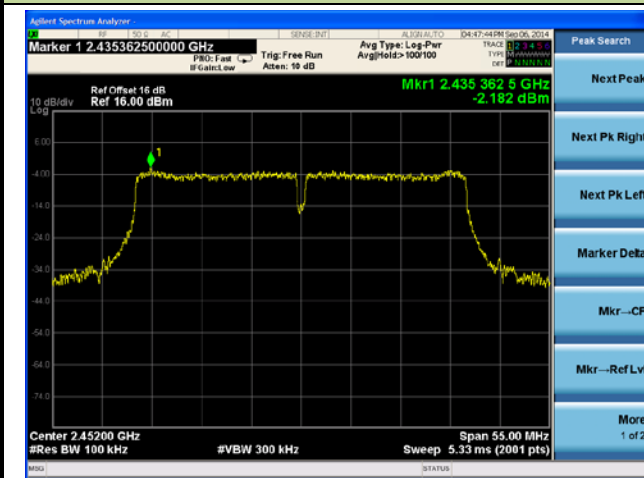


Spurious Emission

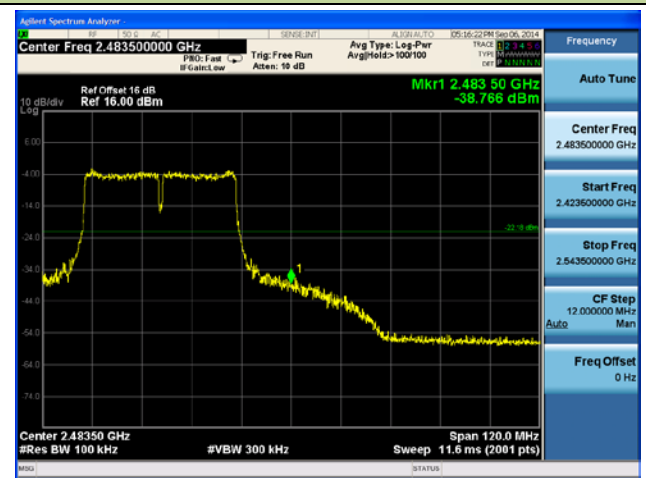


Channel 09 (2452MHz)

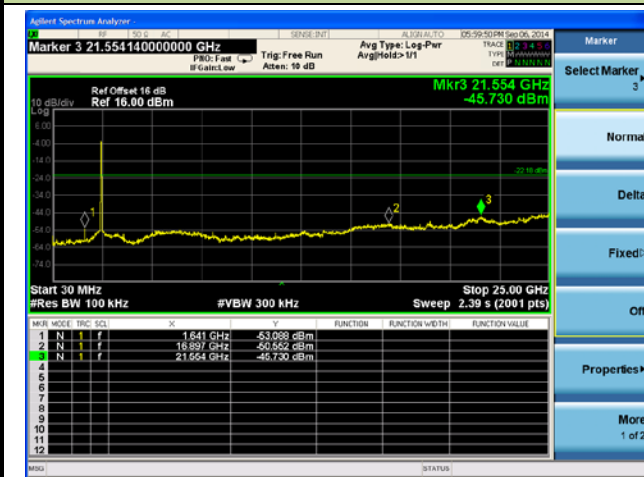
100kHz PSD Reference Level



High Band Edge



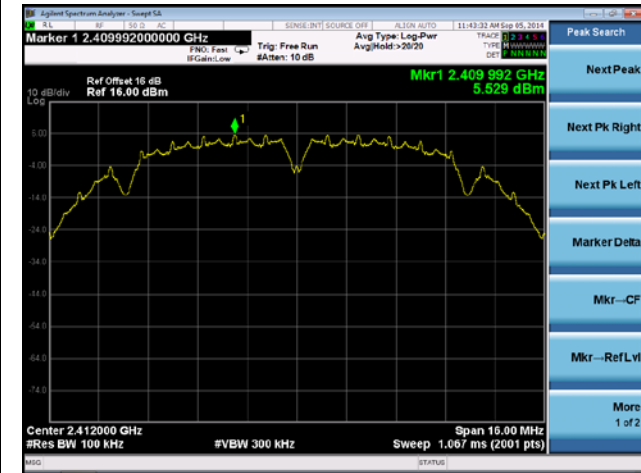
Spurious Emission



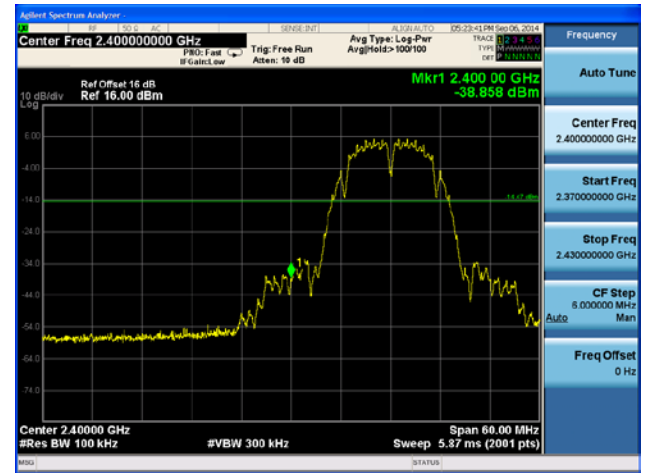
802.11b Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

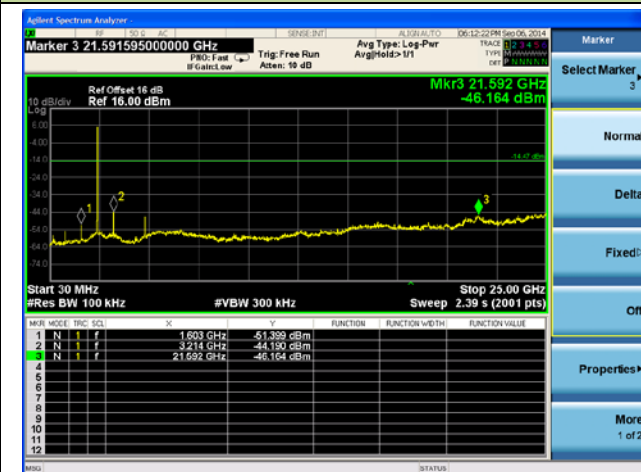
100kHz PSD Reference Level



Low Band Edge



Spurious Emission

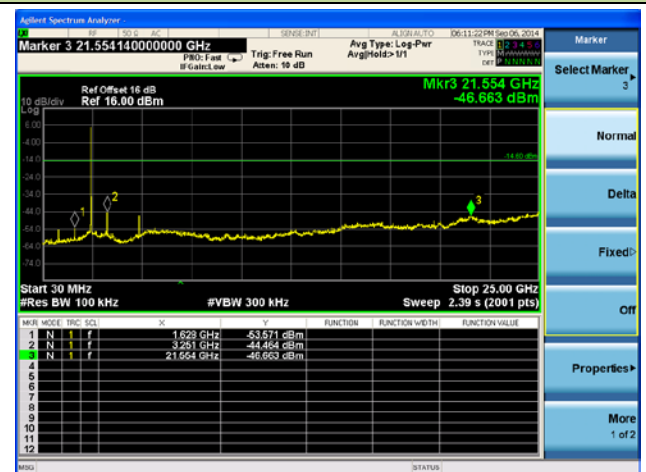


Channel 06 (2437MHz)

100kHz PSD Reference Level



Spurious Emission

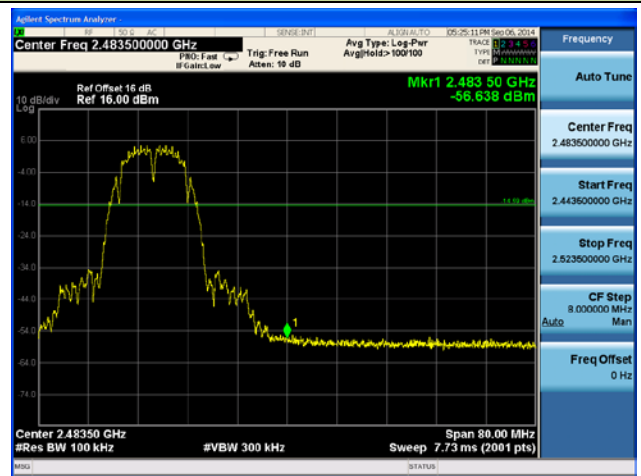


Channel 11 (2462MHz)

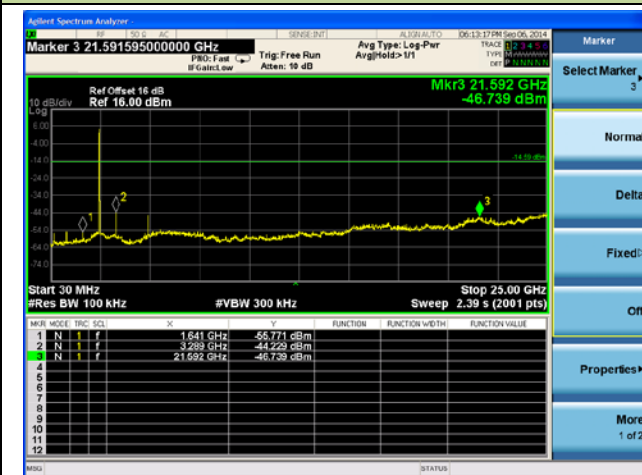
100kHz PSD Reference Level



High Band Edge



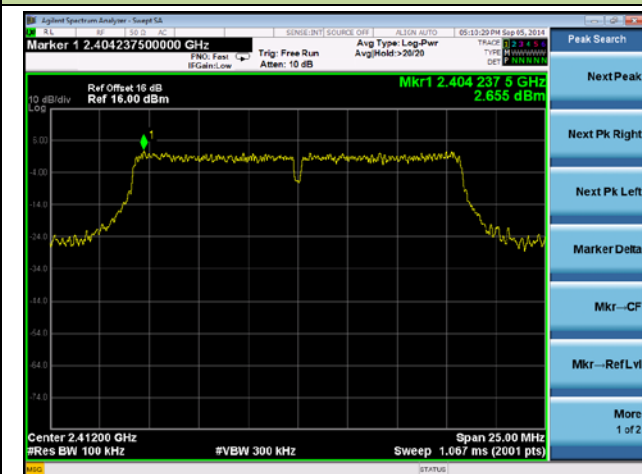
Spurious Emission



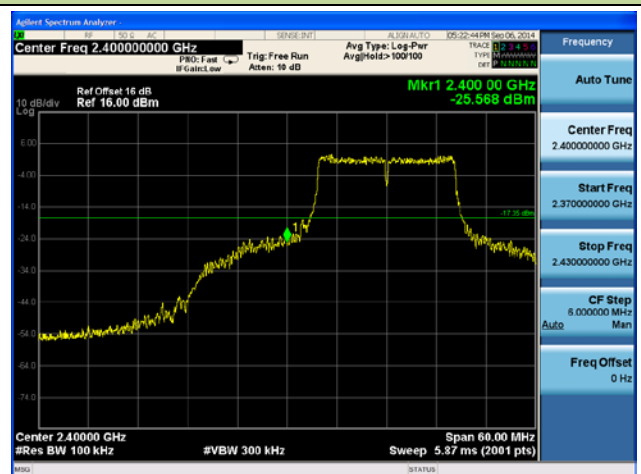
802.11g Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

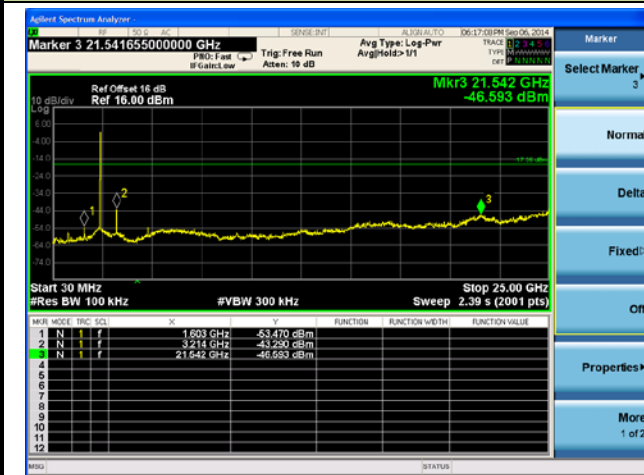
100kHz PSD Reference Level



Low Band Edge

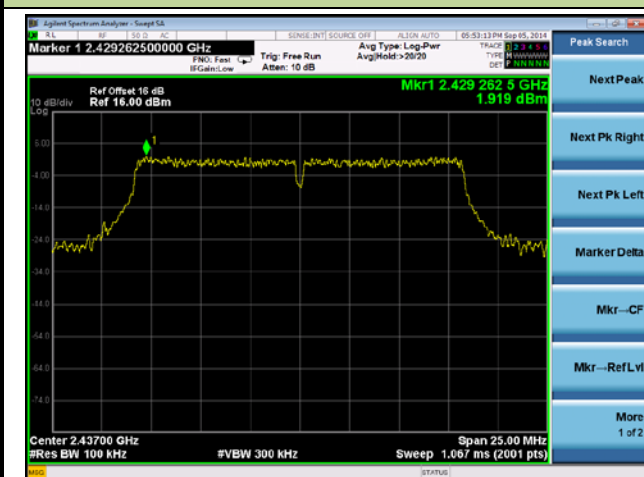


Spurious Emission

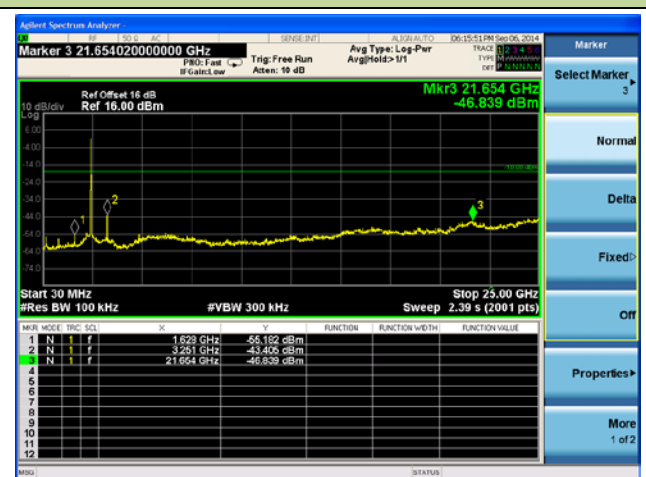


Channel 06 (2437MHz)

100kHz PSD Reference Level

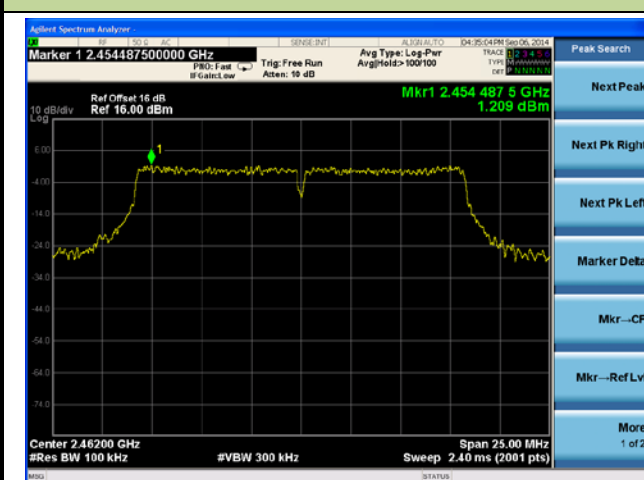


Spurious Emission

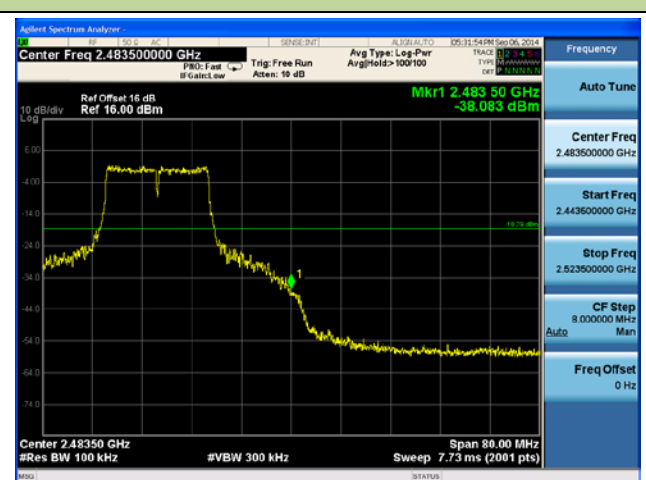


Channel 11 (2462MHz)

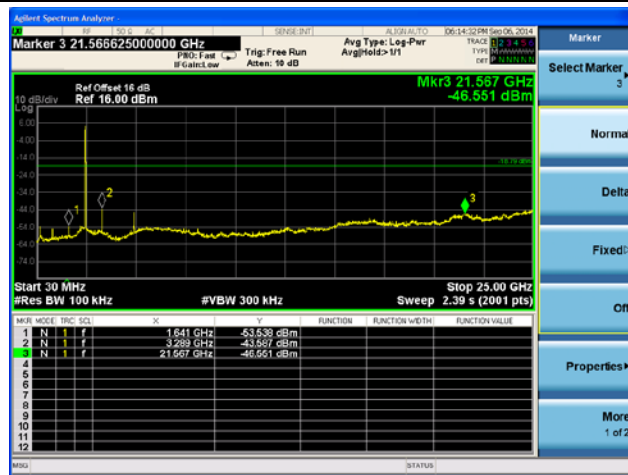
100kHz PSD Reference Level



High Band Edge



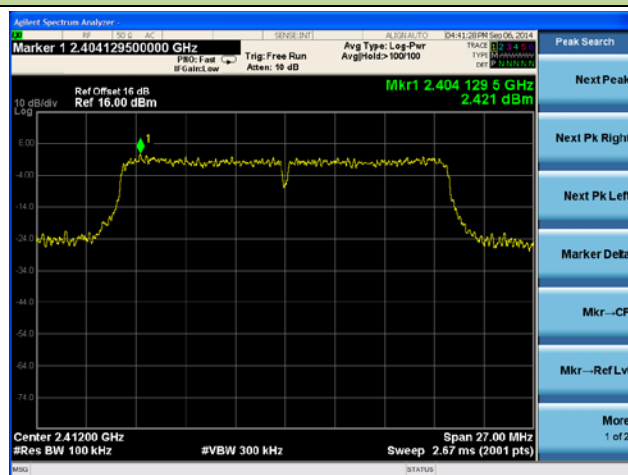
Spurious Emission



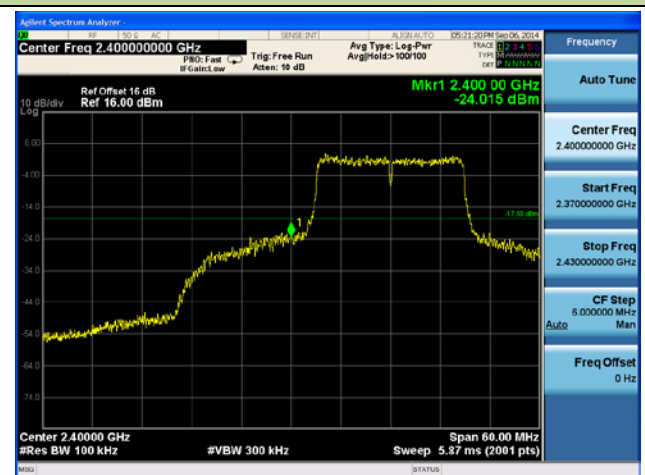
802.11n-HT20 Out-of-Band Emissions - Ant 1

Channel 01 (2412MHz)

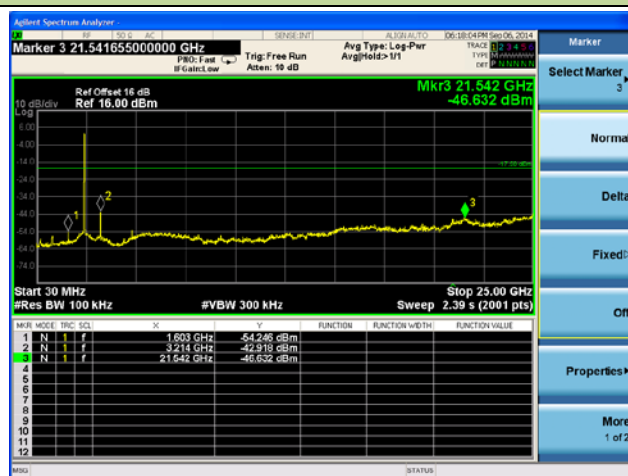
100kHz PSD Reference Level



Low Band Edge

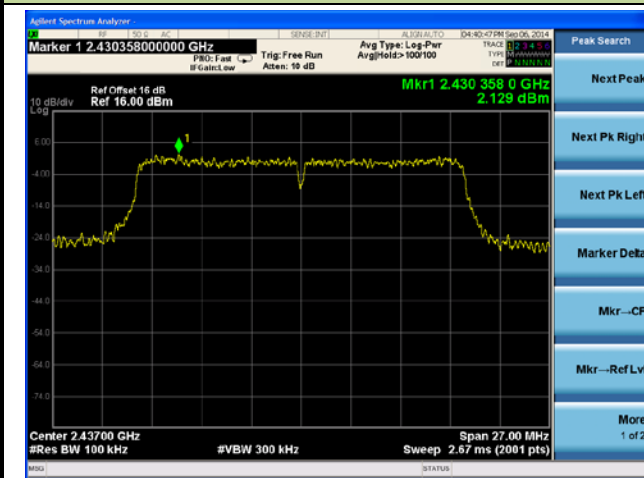


Spurious Emission

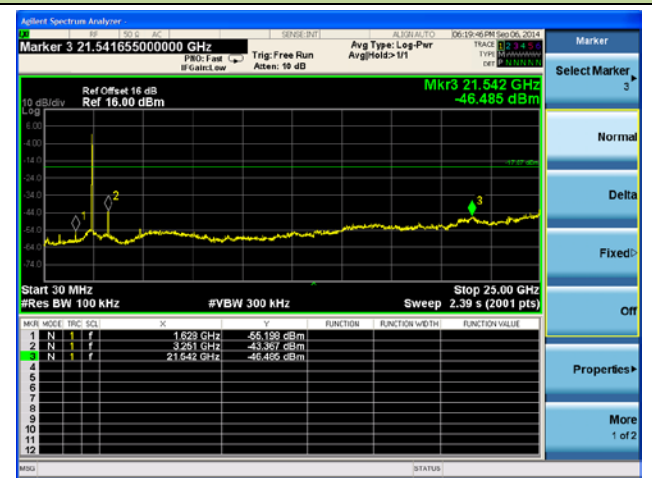


Channel 06 (2437MHz)

100kHz PSD Reference Level

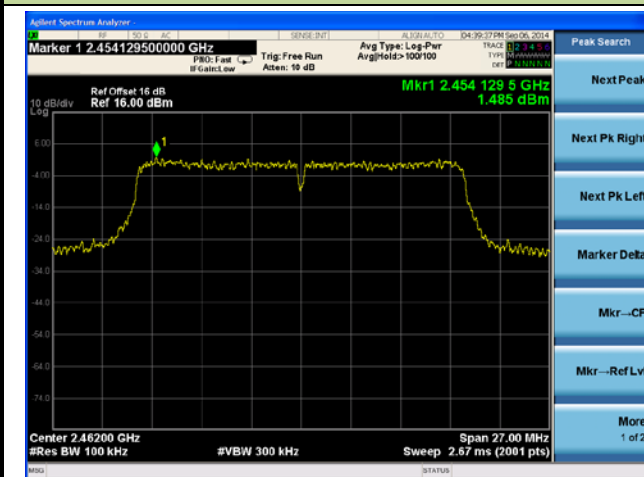


Spurious Emission

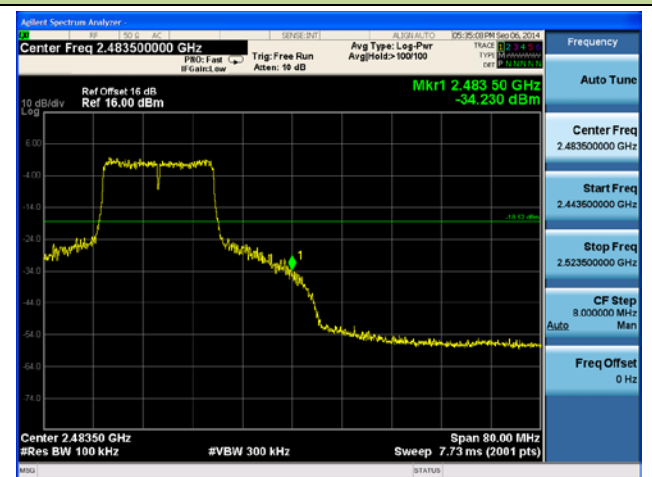


Channel 11 (2462MHz)

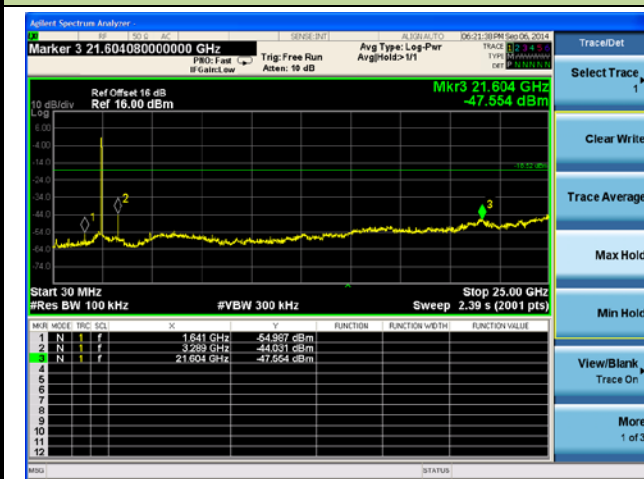
100kHz PSD Reference Level



High Band Edge



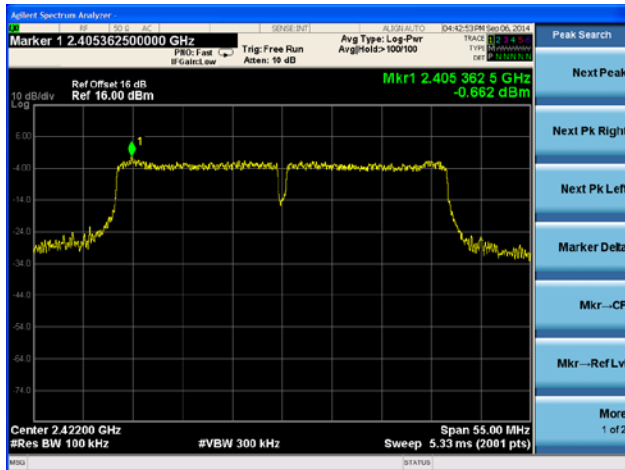
Spurious Emission



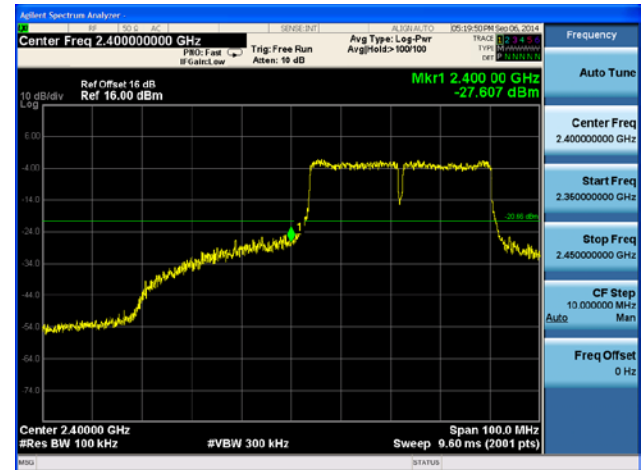
802.11n-HT40 Out-of-Band Emissions - Ant 1

Channel 03 (2422MHz)

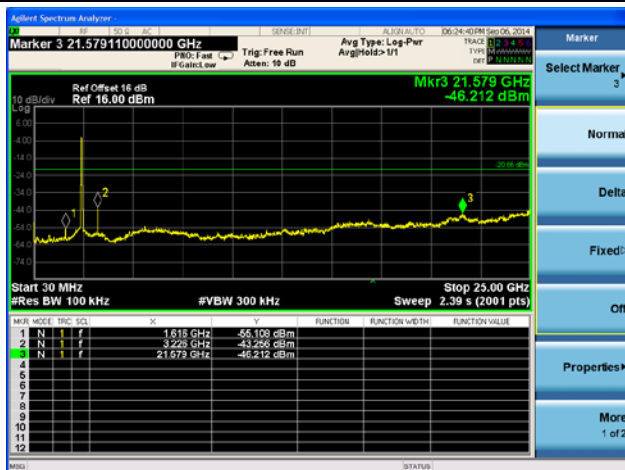
100kHz PSD Reference Level



Low Band Edge

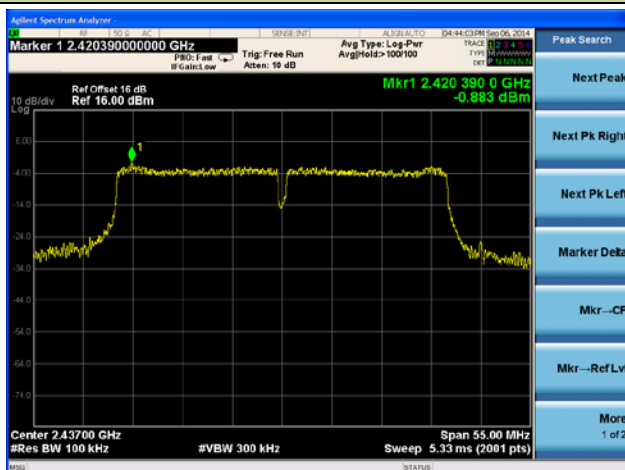


Spurious Emission

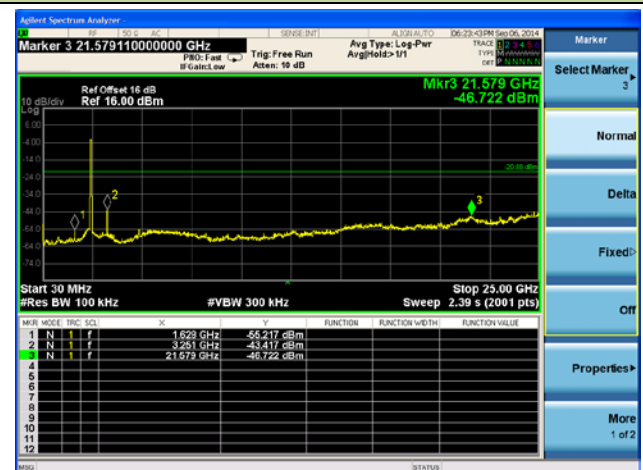


Channel 06 (2437MHz)

100kHz PSD Reference Level

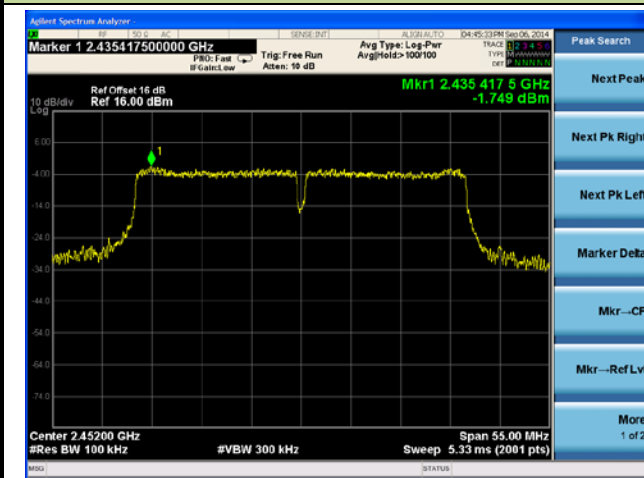


Spurious Emission

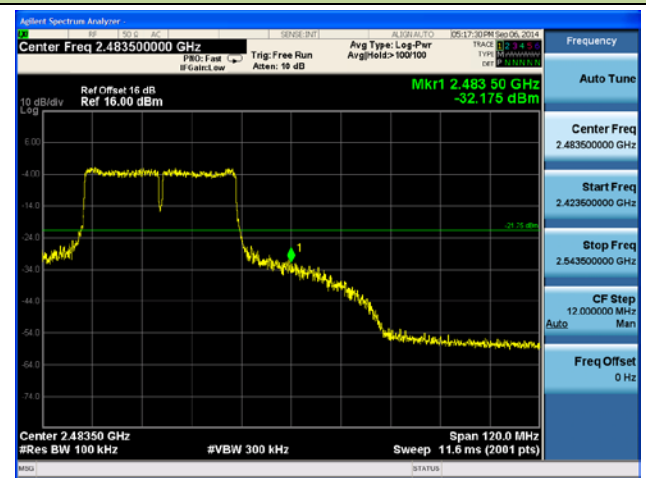


Channel 09 (2452MHz)

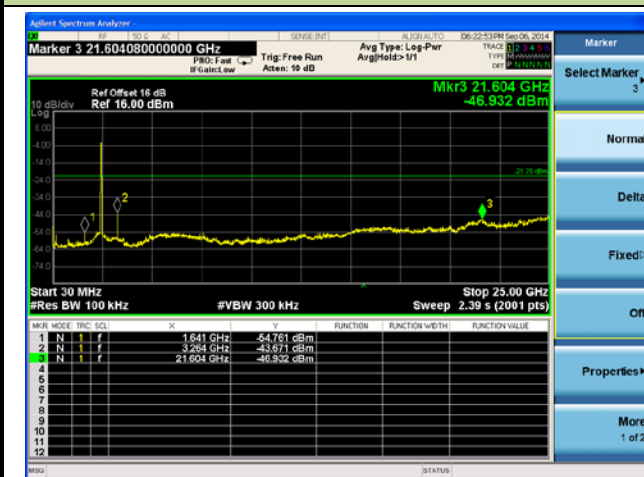
100kHz PSD Reference Level



High Band Edge



Spurious Emission



7.6. Radiated Spurious Emission Measurement §15.247(d) / §15.205 & §15.209; RSS-210 [A8.5]

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

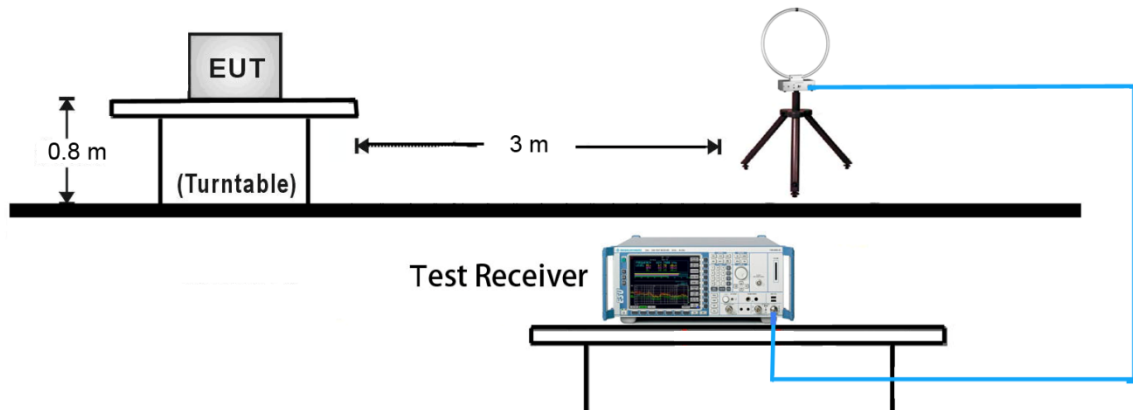
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements per Section 12.2.5.3 of KDB 558074 D01v03r02

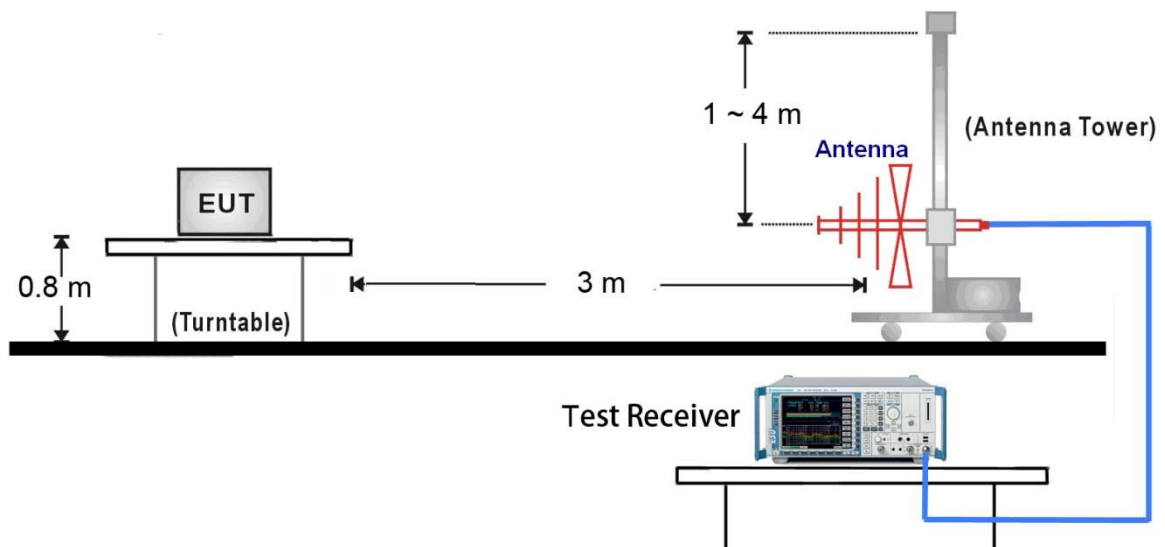
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW $\geq 1/T$
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain).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

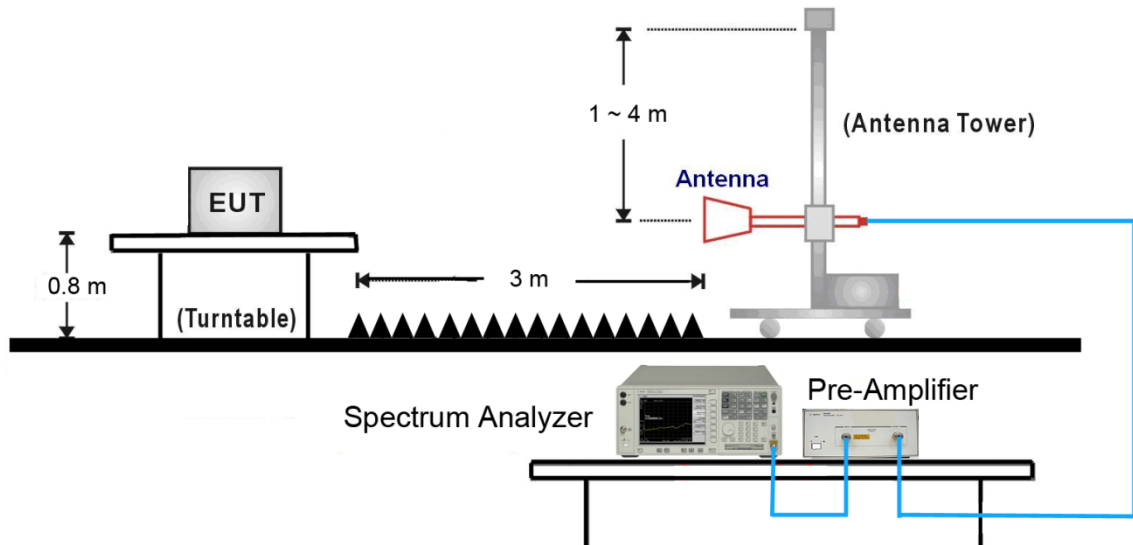
9kHz ~ 30MHz Test Setup:



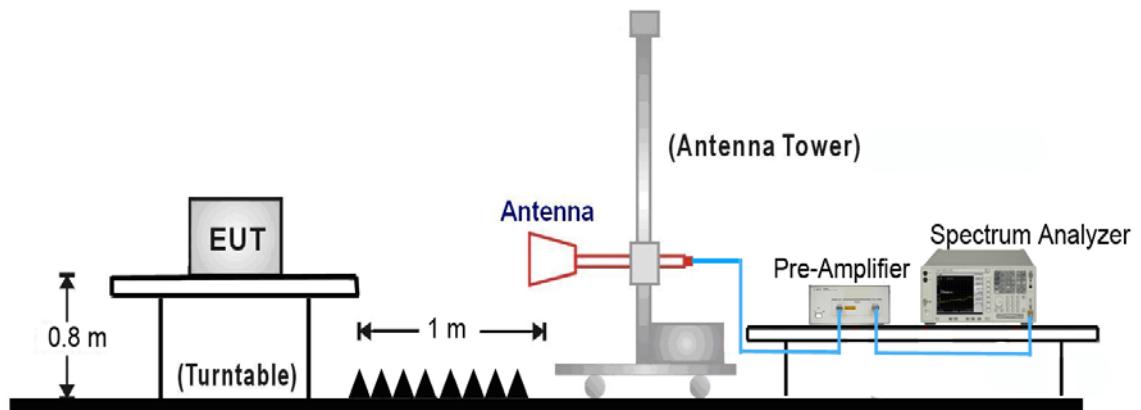
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~25GHz Test Setup:



7.6.5. Test Result

Test Mode:	802.11b – Ant 0	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4825.0	45.1	6.4	51.5	74.0	-22.5	Peak	Horizontal
*	5230.0	34.6	6.8	41.4	75.5	-34.2	Peak	Horizontal
	7236.0	34.7	13.8	48.5	74.0	-25.5	Peak	Horizontal
*	7456.0	34.0	14.2	48.2	75.5	-27.4	Peak	Horizontal
	4825.0	48.4	6.4	54.8	74.0	-19.2	Peak	Vertical
	4824.0	46.6	6.4	53.0	54.0	-1.0	Average	Vertical
*	5230.0	35.3	6.8	42.1	75.5	-33.5	Peak	Vertical
	7239.0	38.6	13.8	52.4	74.0	-21.6	Peak	Vertical
*	7456.0	34.7	14.2	48.9	75.5	-26.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (95.5dBμV/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 – Ant 0	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	45.2	6.6	51.8	74.0	-22.2	Peak	Horizontal
*	6250.0	36.9	9.5	46.4	75.6	-29.2	Peak	Horizontal
	7311.0	35.5	14.0	49.5	74.0	-24.5	Peak	Horizontal
*	7890.0	33.3	15.0	48.3	75.6	-27.3	Peak	Horizontal
	4876.0	46.1	6.6	52.7	74.0	-21.3	Peak	Vertical
*	6250.0	36.0	9.5	45.5	75.6	-30.1	Peak	Vertical
	7311.0	36.3	14.0	50.3	74.0	-23.7	Peak	Vertical
*	7890.0	34.1	15.0	49.1	75.6	-26.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (95.6dBμV/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:	802.11b – Ant 0	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4927.0	46.1	6.7	52.9	74.0	-21.1	Peak	Horizontal
*	6636.0	35.9	10.9	46.7	78.2	-31.5	Peak	Horizontal
	7386.0	34.7	14.1	48.8	74.0	-25.2	Peak	Horizontal
*	7903.0	33.5	15.0	48.5	78.2	-29.7	Peak	Horizontal
	4927.0	45.1	6.7	51.9	74.0	-22.1	Peak	Vertical
*	6636.0	36.3	10.9	47.1	78.2	-31.1	Peak	Vertical
	7386.0	36.3	14.1	50.4	74.0	-23.6	Peak	Vertical
*	7904.0	33.6	15.0	48.6	78.2	-29.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.2dBμV/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:	802.11g – Ant 0	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4825.0	44.0	6.4	50.4	74.0	-23.6	Peak	Horizontal
*	5218.0	35.1	6.8	42.0	78.5	-36.5	Peak	Horizontal
	7247.5	37.2	13.8	51.0	74.0	-23.0	Peak	Horizontal
*	7399.0	34.0	14.1	48.1	78.5	-30.4	Peak	Horizontal
	4825.0	48.8	6.4	55.2	74.0	-18.8	Peak	Vertical
	4824.0	35.3	6.4	41.7	54.0	-12.3	Average	Vertical
*	5266.0	35.4	6.6	42.0	78.5	-36.5	Peak	Vertical
	7247.5	39.3	13.8	53.2	74.0	-20.8	Peak	Vertical
*	7456.0	34.6	14.2	48.8	78.5	-29.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.5dBμV/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 – Ant 0	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	42.5	6.6	49.2	74.0	-24.8	Peak	Horizontal
*	5245.0	34.9	6.7	41.6	78.9	-37.3	Peak	Horizontal
	7311.0	36.6	14.0	50.6	74.0	-23.4	Peak	Horizontal
*	7816.0	33.3	15.0	48.4	78.9	-30.5	Peak	Horizontal
	4876.0	45.0	6.6	51.6	74.0	-22.4	Peak	Vertical
*	5269.0	35.0	6.6	41.6	78.9	-37.3	Peak	Vertical
	7307.0	37.7	14.0	51.6	74.0	-22.4	Peak	Vertical
*	7846.0	34.1	15.1	49.2	78.9	-29.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.9dBμV/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 – Ant 0	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4927.0	44.3	6.7	51.0	74.0	-23.0	Peak	Horizontal
*	5218.0	34.6	6.8	41.4	81.0	-39.6	Peak	Horizontal
	7383.5	36.3	14.1	50.4	74.0	-23.6	Peak	Horizontal
*	7906.0	33.6	15.0	48.6	81.0	-32.4	Peak	Horizontal
	4927.0	45.7	6.7	52.4	74.0	-21.6	Peak	Vertical
*	5269.0	34.1	6.6	40.8	81.0	-40.2	Peak	Vertical
	7383.5	37.5	14.1	51.6	74.0	-22.4	Peak	Vertical
*	7892.0	33.5	15.0	48.5	81.0	-32.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (101.0dBμV/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 – Ant 0	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4825.0	45.8	6.4	52.2	74.0	-21.8	Peak	Horizontal
*	5243.0	35.5	6.7	42.1	78.5	-36.4	Peak	Horizontal
	7230.5	38.1	13.8	51.8	74.0	-22.2	Peak	Horizontal
*	7563.0	34.9	14.7	49.6	78.5	-28.9	Peak	Horizontal
	4825.0	47.8	6.4	54.2	74.0	-19.8	Peak	Vertical
	4824.0	37.2	6.4	43.6	54.0	-10.4	Average	Vertical
*	5198.0	34.2	6.9	41.1	78.5	-37.4	Peak	Vertical
	7239.0	41.8	13.8	55.6	74.0	-18.4	Peak	Vertical
	7238.6	32.1	13.8	45.9	54.0	-8.1	Average	Vertical
*	7369.0	34.9	14.0	48.9	78.5	-29.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.5dBμV/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:	802.11n-HT20 – Ant 0	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	46.4	6.6	53.0	74.0	-21.0	Peak	Horizontal
*	5312.0	35.5	6.7	42.2	78.5	-36.3	Peak	Horizontal
	7315.5	37.3	14.0	51.3	74.0	-22.7	Peak	Horizontal
*	7809.0	34.0	15.0	49.1	78.5	-29.4	Peak	Horizontal
	4876.0	46.6	6.6	53.2	74.0	-20.8	Peak	Vertical
*	5316.0	35.6	6.7	42.3	78.5	-36.2	Peak	Vertical
	7315.5	39.0	14.0	53.0	74.0	-21.0	Peak	Vertical
*	7819.0	32.7	15.0	47.8	78.5	-30.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.5dBμV/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:	802.11n-HT20 – Ant 0	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4927.0	45.9	6.7	52.6	74.0	-21.4	Peak	Horizontal
*	5346.0	35.2	6.8	42.0	81.3	-39.3	Peak	Horizontal
	7386.0	35.9	14.1	50.0	74.0	-24.0	Peak	Horizontal
*	7906.0	33.1	15.0	48.2	81.3	-33.1	Peak	Horizontal
	4927.0	46.3	6.7	53.0	74.0	-21.0	Peak	Vertical
*	5218.0	34.4	6.8	41.2	81.3	-40.1	Peak	Vertical
	7383.5	37.2	14.1	51.3	74.0	-22.7	Peak	Vertical
*	7904.0	33.2	15.0	48.2	81.3	-33.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (101.3dBμV/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 – Ant 0	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
	4850.5	42.4	6.5	48.9	74.0	-25.1	Peak	Horizontal
*	5219.0	34.3	6.8	41.2	76.0	-34.8	Peak	Horizontal
	7266.0	35.4	13.9	49.3	74.0	-24.7	Peak	Horizontal
*	7809.0	34.9	15.0	50.0	76.0	-26.0	Peak	Horizontal
	4842.0	45.5	6.5	51.9	74.0	-22.1	Peak	Vertical
*	5236.0	34.7	6.7	41.4	76.0	-34.6	Peak	Vertical
	7273.0	38.3	13.9	52.3	74.0	-21.7	Peak	Vertical
*	7895.0	33.5	15.0	48.5	76.0	-27.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (96.0dBμV/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 – Ant 0	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	41.4	6.6	48.0	74.0	-26.0	Peak	Horizontal
*	5236.0	35.7	6.7	42.4	75.9	-33.5	Peak	Horizontal
	7311.0	35.0	14.0	49.0	74.0	-25.0	Peak	Horizontal
*	7796.0	34.0	15.0	49.0	75.9	-26.9	Peak	Horizontal
	4867.5	43.4	6.6	49.9	74.0	-24.1	Peak	Vertical
*	5269.0	35.0	6.6	41.6	75.9	-34.3	Peak	Vertical
	7311.0	35.1	14.0	49.1	74.0	-24.9	Peak	Vertical
*	7839.0	33.5	15.1	48.5	75.9	-27.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (95.9dBμV/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 – Ant 0	Test Site:	AC1
Test Channel:	09	Test Engineer:	Roy Cheng
Remark:	1. Average measurement was not performed if peak level lower than average limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4910.0	41.5	6.7	48.2	74.0	-25.8	Peak	Horizontal
*	5269.0	34.5	6.6	41.1	77.6	-36.5	Peak	Horizontal
	7356.0	35.3	14.0	49.3	74.0	-24.7	Peak	Horizontal
*	7798.0	33.9	15.0	48.9	77.6	-28.7	Peak	Horizontal
	4901.5	42.8	6.7	49.5	74.0	-24.5	Peak	Vertical
*	5236.0	35.8	6.7	42.5	77.6	-35.1	Peak	Vertical
	7356.0	34.9	14.0	48.9	74.0	-25.1	Peak	Vertical
*	7916.0	33.5	15.0	48.5	77.6	-29.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (97.6dBμV/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:	802.11b – Ant 1	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4825.0	39.9	6.4	46.3	74.0	-27.7	Peak	Horizontal
*	5236.0	35.4	6.7	42.1	73.0	-30.9	Peak	Horizontal
	7326.0	34.9	14.0	48.9	74.0	-25.1	Peak	Horizontal
*	7796.0	34.2	15.0	49.3	73.0	-23.8	Peak	Horizontal
	4825.0	38.5	6.4	44.9	74.0	-29.1	Peak	Vertical
*	5236.0	35.1	6.7	41.8	73.0	-31.2	Peak	Vertical
	7236.0	35.3	13.8	49.1	74.0	-24.9	Peak	Vertical
*	7569.0	34.1	14.7	48.8	73.0	-24.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (93.0dBμV/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 – Ant 1	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	38.4	6.6	45.1	74.0	-28.9	Peak	Horizontal
*	5236.0	35.1	6.7	41.8	72.7	-30.9	Peak	Horizontal
	7311.0	35.7	14.0	49.7	74.0	-24.3	Peak	Horizontal
*	7569.0	34.7	14.7	49.3	72.7	-23.4	Peak	Horizontal
	4876.0	38.5	6.6	45.2	74.0	-28.8	Peak	Vertical
*	5216.0	35.1	6.8	42.0	72.7	-30.7	Peak	Vertical
	7311.0	35.6	14.0	49.6	74.0	-24.4	Peak	Vertical
*	7891.0	33.3	15.0	48.3	72.7	-24.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (92.7dBμV/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:	802.11b – Ant 1	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4927.0	38.2	6.7	44.9	74.0	-29.1	Peak	Horizontal
*	5263.0	34.7	6.6	41.3	72.8	-31.5	Peak	Horizontal
	7386.0	35.5	14.1	49.6	74.0	-24.4	Peak	Horizontal
*	7819.0	34.3	15.0	49.3	72.8	-23.5	Peak	Horizontal
	4927.0	38.9	6.7	45.6	74.0	-28.4	Peak	Vertical
*	5315.0	35.7	6.7	42.4	72.8	-30.4	Peak	Vertical
	7386.0	35.0	14.1	49.1	74.0	-24.9	Peak	Vertical
*	7809.0	33.3	15.0	48.3	72.8	-24.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (92.8dBμV/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 – Ant 1	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4842.0	38.4	6.5	44.8	74.0	-29.2	Peak	Horizontal
*	5302.0	36.6	6.7	43.3	76.1	-32.8	Peak	Horizontal
	7236.0	35.3	13.8	49.1	74.0	-24.9	Peak	Horizontal
*	7316.0	35.4	14.0	49.4	76.1	-26.7	Peak	Horizontal
	4825.0	38.7	6.4	45.1	74.0	-28.9	Peak	Vertical
*	5216.0	34.6	6.8	41.4	76.1	-34.7	Peak	Vertical
	7236.0	35.6	13.8	49.4	74.0	-24.6	Peak	Vertical
*	7386.0	34.4	14.1	48.5	76.1	-27.6	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (96.1dBμV/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)

Test Mode:	802.11g – Ant 1	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. 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	37.3	6.6	43.9	74.0	-30.1	Peak	Horizontal
*	5216.0	34.7	6.8	41.6	75.7	-34.1	Peak	Horizontal
	7311.0	35.0	14.0	49.0	74.0	-25.0	Peak	Horizontal
*	7891.0	33.3	15.0	48.3	75.7	-27.4	Peak	Horizontal
	4876.0	37.3	6.6	44.0	74.0	-30.1	Peak	Vertical
*	5260.0	34.5	6.6	41.1	75.7	-34.6	Peak	Vertical
	7311.0	35.4	14.0	49.4	74.0	-24.6	Peak	Vertical
*	7891.0	33.3	15.0	48.3	75.7	-27.4	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (95.7dBμV/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 – Ant 1	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4927.0	41.8	6.7	48.6	74.0	-25.4	Peak	Horizontal
*	5236.0	34.5	6.7	41.3	80.5	-39.2	Peak	Horizontal
	7386.0	33.8	14.1	47.9	74.0	-26.1	Peak	Horizontal
*	7794.0	34.0	15.0	49.0	80.5	-31.5	Peak	Horizontal
	4927.0	42.1	6.7	48.8	74.0	-25.2	Peak	Vertical
*	5304.0	35.5	6.7	42.1	80.5	-38.4	Peak	Vertical
	7386.0	34.4	14.1	48.5	74.0	-25.5	Peak	Vertical
*	7838.0	33.7	15.1	48.8	80.5	-31.7	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (100.5dBμV/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:	802.11n-HT20 – Ant 1	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4825.0	40.7	6.4	47.1	74.0	-26.9	Peak	Horizontal
*	5304.0	35.9	6.7	42.5	74.4	-31.9	Peak	Horizontal
	7236.0	35.1	13.8	48.9	74.0	-25.1	Peak	Horizontal
*	7356.0	34.6	14.0	48.7	74.4	-25.7	Peak	Horizontal
	4833.5	40.7	6.4	47.1	74.0	-26.9	Peak	Vertical
*	5168.0	35.3	7.1	42.4	74.4	-32.0	Peak	Vertical
	7236.0	35.2	13.8	49.0	74.0	-25.0	Peak	Vertical
*	7469.0	34.0	14.2	48.2	74.4	-26.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (94.4dBμV/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:	802.11n-HT20 – Ant 1	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	38.0	6.6	44.6	74.0	-29.4	Peak	Horizontal
*	5342.0	34.8	6.8	41.6	74.1	-32.5	Peak	Horizontal
	7311.0	35.0	14.0	49.0	74.0	-25.0	Peak	Horizontal
*	7906.0	33.4	15.0	48.4	74.1	-25.7	Peak	Horizontal
	4867.5	40.6	6.6	47.1	74.0	-26.9	Peak	Vertical
*	5316.0	36.0	6.7	42.7	74.1	-31.4	Peak	Vertical
	7311.0	34.6	14.0	48.6	74.0	-25.4	Peak	Vertical
*	7821.0	33.0	15.0	48.0	74.1	-26.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (94.1dBμV/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)

Test Mode:	802.11n-HT20 – Ant 1	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4918.5	39.4	6.7	46.1	74.0	-27.9	Peak	Horizontal
*	5168.0	35.0	7.1	42.1	78.6	-36.5	Peak	Horizontal
	7386.0	34.0	14.1	48.1	74.0	-25.9	Peak	Horizontal
*	7906.0	33.0	15.0	48.0	78.6	-30.6	Peak	Horizontal
	4935.5	41.8	6.7	48.6	74.0	-25.4	Peak	Vertical
*	5262.0	34.0	6.6	40.6	78.6	-38.0	Peak	Vertical
	7386.0	34.3	14.1	48.4	74.0	-25.6	Peak	Vertical
*	7906.0	33.4	15.0	48.4	78.6	-30.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.6dBμV/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-HT40 – Ant 1	Test Site:	AC1
Test Channel:	03	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4842.0	39.2	6.5	45.6	74.0	-28.4	Peak	Horizontal
*	5302.0	35.7	6.7	42.4	72.3	-29.9	Peak	Horizontal
	7266.0	35.5	13.9	49.4	74.0	-24.6	Peak	Horizontal
*	7809.0	34.0	15.0	49.0	72.3	-23.3	Peak	Horizontal
	4850.5	38.8	6.5	45.3	74.0	-28.7	Peak	Vertical
*	5239.0	35.2	6.7	41.9	72.3	-30.4	Peak	Vertical
	7266.0	35.4	13.9	49.3	74.0	-24.7	Peak	Vertical
*	7908.0	34.1	15.0	49.1	72.3	-23.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (92.3dBμV/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 – Ant 1	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. 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
	4969.5	36.4	6.8	43.3	74.0	-30.7	Peak	Horizontal
*	5236.0	35.5	6.7	42.2	72.0	-29.8	Peak	Horizontal
	7311.0	35.4	14.0	49.4	74.0	-24.6	Peak	Horizontal
*	7809.0	34.7	15.0	49.7	72.0	-22.3	Peak	Horizontal
	4859.0	38.7	6.5	45.2	74.0	-28.8	Peak	Vertical
*	5269.0	34.9	6.6	41.5	72.0	-30.5	Peak	Vertical
	7311.0	34.5	14.0	48.5	74.0	-25.5	Peak	Vertical
*	7906.0	33.9	15.0	48.9	72.0	-23.1	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (92.0dBμV/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 – Ant 1	Test Site:	AC1
Test Channel:	09	Test Engineer:	Roy Cheng
Remark:	3. Average measurement was not performed if peak level lower than average limit. 4. 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
	4904.0	35.9	6.7	42.6	74.0	-31.4	Peak	Horizontal
*	5306.0	36.3	6.7	42.9	74.8	-31.9	Peak	Horizontal
	7356.0	34.0	14.0	48.0	74.0	-26.0	Peak	Horizontal
*	7906.0	33.7	15.0	48.7	74.8	-26.1	Peak	Horizontal
	4910.0	38.7	6.7	45.5	74.0	-28.5	Peak	Vertical
*	5236.0	35.6	6.7	42.3	74.8	-32.5	Peak	Vertical
	7356.0	34.6	14.0	48.6	74.0	-25.4	Peak	Vertical
*	7809.0	34.6	15.0	49.6	74.8	-25.2	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (94.8dBμV/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 – Ant 0+1	Test Site:	AC1
Test Channel:	01	Test Engineer:	Roy Cheng
Remark:	5. Average measurement was not performed if peak level lower than average limit. 6. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4825.0	44.4	6.4	50.8	74.0	-23.2	Peak	Horizontal
*	5160.0	34.7	7.2	41.9	78.8	-36.9	Peak	Horizontal
	7236.0	35.7	13.8	49.5	74.0	-24.5	Peak	Horizontal
*	7619.0	34.5	14.6	49.1	78.8	-29.7	Peak	Horizontal
	4825.0	42.4	6.4	48.9	74.0	-25.1	Peak	Vertical
*	5318.0	35.8	6.7	42.5	78.8	-36.3	Peak	Vertical
	7236.0	37.7	13.8	51.5	74.0	-22.5	Peak	Vertical
*	7569.0	34.2	14.7	48.9	78.8	-29.9	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.8dBμV/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 – Ant 0+1	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	5. Average measurement was not performed if peak level lower than average limit. 6. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	43.1	6.6	49.7	74.0	-24.3	Peak	Horizontal
*	5326.0	35.4	6.7	42.1	78.4	-36.3	Peak	Horizontal
	7311.0	35.6	14.0	49.6	74.0	-24.4	Peak	Horizontal
*	7906.0	33.0	15.0	48.0	78.4	-30.4	Peak	Horizontal
	4876.0	41.8	6.6	48.4	74.0	-25.6	Peak	Vertical
*	5216.0	35.0	6.8	41.8	78.4	-36.6	Peak	Vertical
	7315.5	37.3	14.0	51.3	74.0	-22.7	Peak	Vertical
*	7906.0	33.9	15.0	48.9	78.4	-29.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.4dBμV/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:	802.11n-HT20 – Ant 0+1	Test Site:	AC1
Test Channel:	11	Test Engineer:	Roy Cheng
Remark:	5. Average measurement was not performed if peak level lower than average limit. 6. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4918.5	44.9	6.7	51.6	74.0	-22.4	Peak	Horizontal
*	5239.0	35.1	6.7	41.8	82.0	-40.2	Peak	Horizontal
	7386.0	34.4	14.1	48.5	74.0	-25.5	Peak	Horizontal
*	7908.0	34.3	15.0	49.4	82.0	-32.6	Peak	Horizontal
	4918.5	41.3	6.7	48.0	74.0	-26.0	Peak	Vertical
*	5306.0	35.8	6.7	42.5	82.0	-39.5	Peak	Vertical
	7386.0	35.5	14.1	49.6	74.0	-24.4	Peak	Vertical
*	7916.0	33.2	15.0	48.2	82.0	-33.8	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (102.0dBμV/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 – Ant 0+1	Test Site:	AC1
Test Channel:	03	Test Engineer:	Roy Cheng
Remark:	5. Average measurement was not performed if peak level lower than average limit. 6. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4842.0	41.2	6.5	47.7	74.0	-26.3	Peak	Horizontal
*	5269.0	35.0	6.6	41.6	75.9	-34.3	Peak	Horizontal
	7266.0	34.7	13.9	48.6	74.0	-25.4	Peak	Horizontal
*	7892.0	33.3	15.0	48.4	75.9	-27.5	Peak	Horizontal
	4833.5	40.1	6.4	46.5	74.0	-27.5	Peak	Vertical
*	5236.0	35.3	6.7	42.0	75.9	-33.9	Peak	Vertical
	7266.0	35.5	13.9	49.4	74.0	-24.6	Peak	Vertical
*	7902.0	34.4	15.0	49.4	75.9	-26.5	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (95.9dBμV/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 – Ant 0+1	Test Site:	AC1
Test Channel:	06	Test Engineer:	Roy Cheng
Remark:	5. Average measurement was not performed if peak level lower than average limit. 6. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4876.0	40.1	6.6	46.7	74.0	-27.3	Peak	Horizontal
*	5306.0	35.6	6.7	42.2	75.7	-33.5	Peak	Horizontal
	7311.0	35.0	14.0	48.9	74.0	-25.1	Peak	Horizontal
*	7916.0	33.2	15.0	48.3	75.7	-27.4	Peak	Horizontal
	4876.0	38.5	6.6	45.1	74.0	-28.9	Peak	Vertical
*	5316.0	35.5	6.7	42.2	75.7	-33.5	Peak	Vertical
	7266.0	34.7	13.9	48.6	74.0	-25.5	Peak	Vertical
*	7914.0	32.8	15.0	47.9	75.7	-27.8	Peak	Vertical

Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (95.7dBμV/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 – Ant 0+1	Test Site:	AC1
Test Channel:	09	Test Engineer:	Roy Cheng
Remark:	5. Average measurement was not performed if peak level lower than average limit. 6. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.		

Mark	Frequency (MHz)	Reading Level (dBμV)	Factor (dB)	Measure Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Detector	Polarization
	4910.0	41.4	6.7	48.1	74.0	-25.9	Peak	Horizontal
*	5230.0	34.8	6.8	41.6	78.2	-36.6	Peak	Horizontal
	7356.0	34.4	14.0	48.4	74.0	-25.6	Peak	Horizontal
*	7915.0	33.2	15.0	48.2	78.2	-30.0	Peak	Horizontal
	4893.0	39.2	6.7	45.9	74.0	-28.1	Peak	Vertical
*	5312.0	35.8	6.7	42.4	78.2	-35.8	Peak	Vertical
	7356.0	34.6	14.0	48.6	74.0	-25.4	Peak	Vertical
*	7917.0	33.3	15.0	48.4	78.2	-29.8	Peak	Vertical

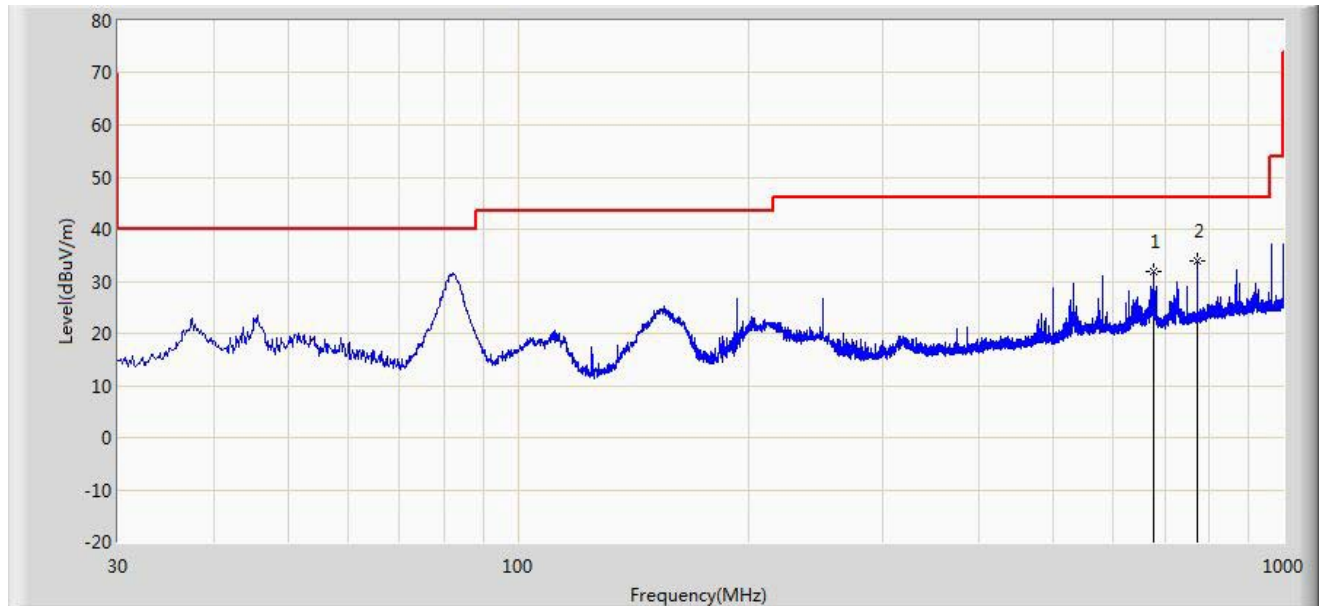
Note 1: “*” is not in restricted band, its limit is 20dBc of the fundamental emission level (98.2dBμV/m).

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

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

The worst case of Radiated Emission below 1GHz:

Engineer: Roy Cheng	
Site: AC1	Time: 2014/09/11 - 15:22
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: VULB9162_0.03-8GHz	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n-HT20	

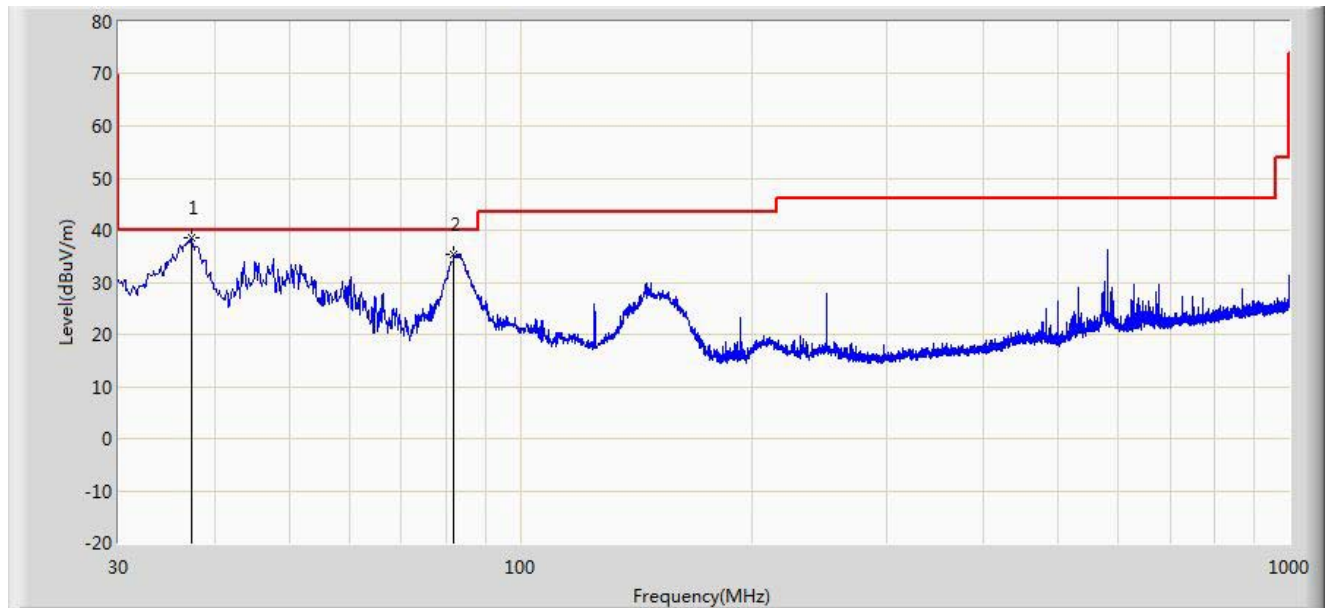


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			676.626	31.933	11.433	-14.067	46.000	20.500	QP
2		*	773.384	33.933	12.142	-12.067	46.000	21.791	QP

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

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

Engineer: Roy Cheng	
Site: AC1	Time: 2014/09/11 - 15:24
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: VULB9162_0.03-8GHz	Polarity: Vertical
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 3: Transmit at channel 2412MHz by 802.11n-HT20	

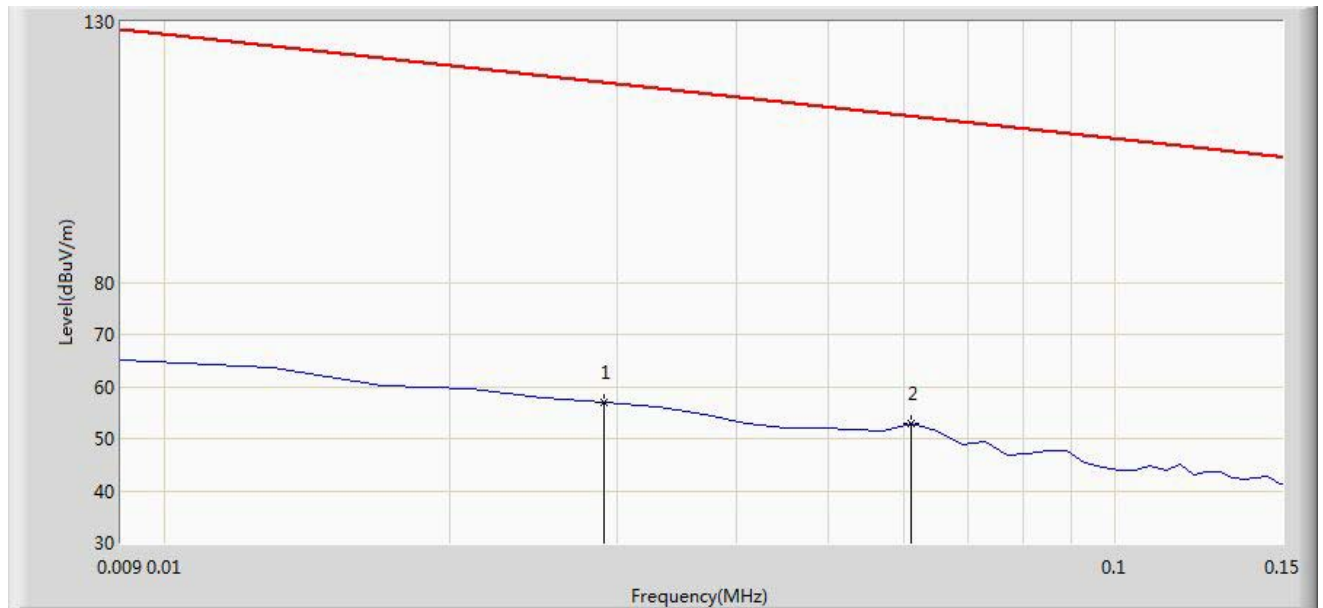


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	37.275	38.515	25.316	-1.485	40.000	13.199	QP
2			82.016	35.477	26.028	-4.523	40.000	9.449	QP

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

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

Engineer: Roy Cheng	
Site: AC1	Time: 2014/09/11 - 17:32
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: LED lamp	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	

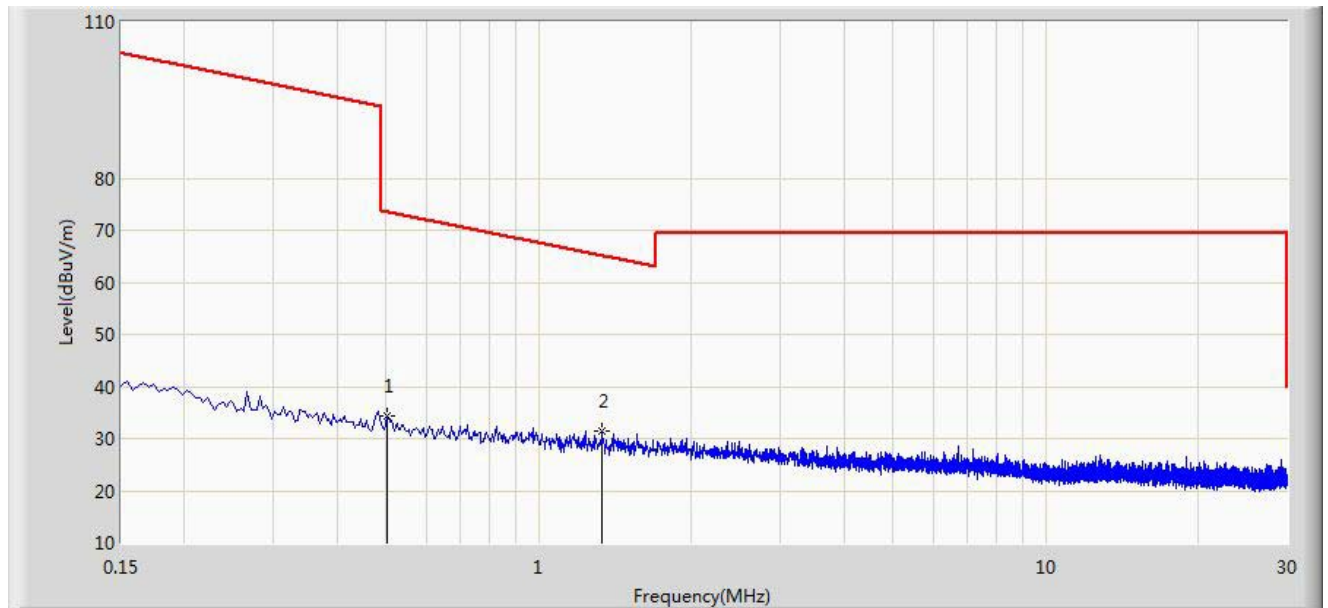


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.029	56.898	35.849	-61.444	118.342	21.049	QP
2		*	0.061	52.856	32.545	-59.031	111.887	20.311	QP

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

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

Engineer: Roy Cheng	
Site: AC1	Time: 2014/09/11 - 17:46
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: FMZB1519_0.009-30MHz	Polarity: Face on
EUT: LED lamp	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 9kHz~30MHz.	

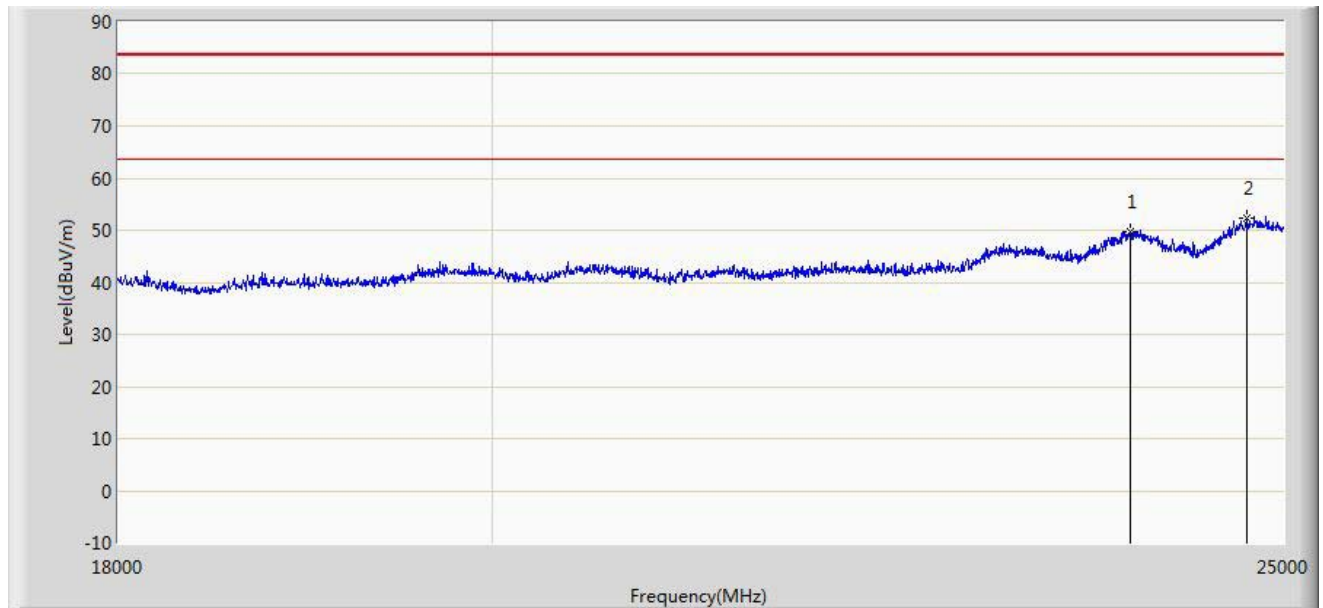


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			0.502	34.381	13.958	-39.209	73.590	20.423	QP
2		*	1.334	31.591	11.100	-33.534	65.125	20.491	QP

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

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

Engineer: Roy Cheng	
Site: AC1	Time: 2014/09/11 - 21:11
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9170_18-40GHz	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: There is the ambient noise within frequency range 18GHz~25GHz.	

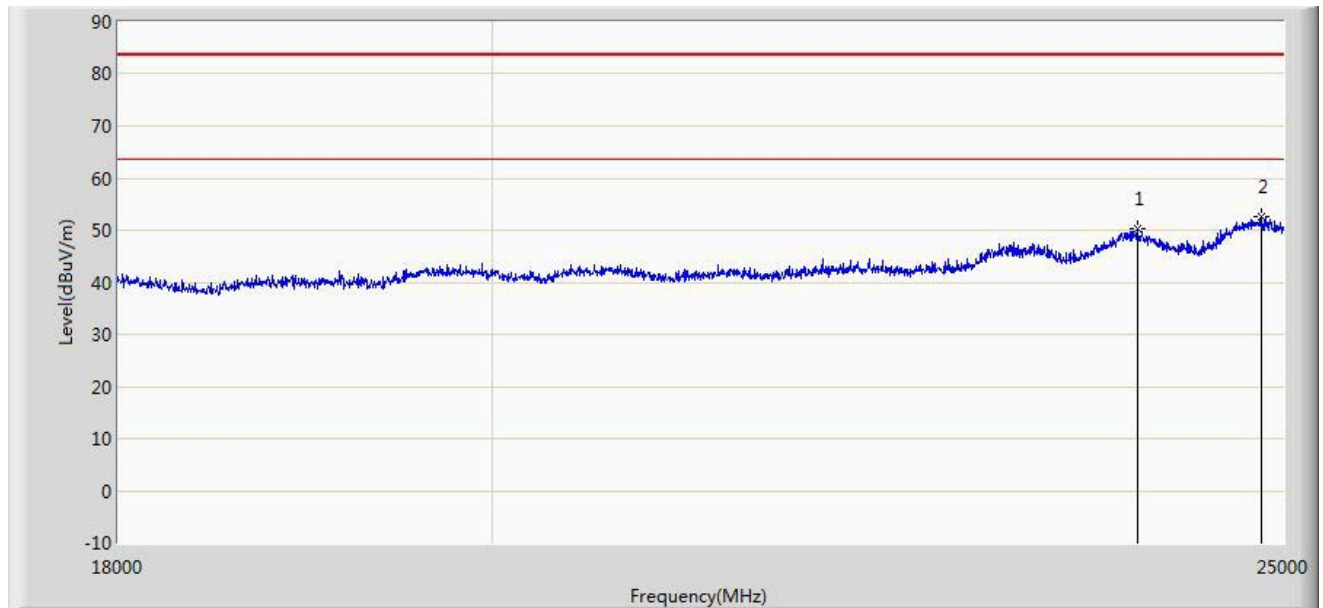


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			23943.000	49.787	35.877	-33.713	83.500	13.910	PK
2		*	24741.000	52.380	37.686	-31.120	83.500	14.694	PK

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

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

Engineer: Roy Cheng	
Site: AC1	Time: 2014/09/11 - 21:12
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9170_18-40GHz	Polarity: Vertical
EUT: LED lamp	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	50.381	36.437	-33.119	83.500	13.944	PK
2		*	24846.000	52.507	37.739	-30.993	83.500	14.768	PK

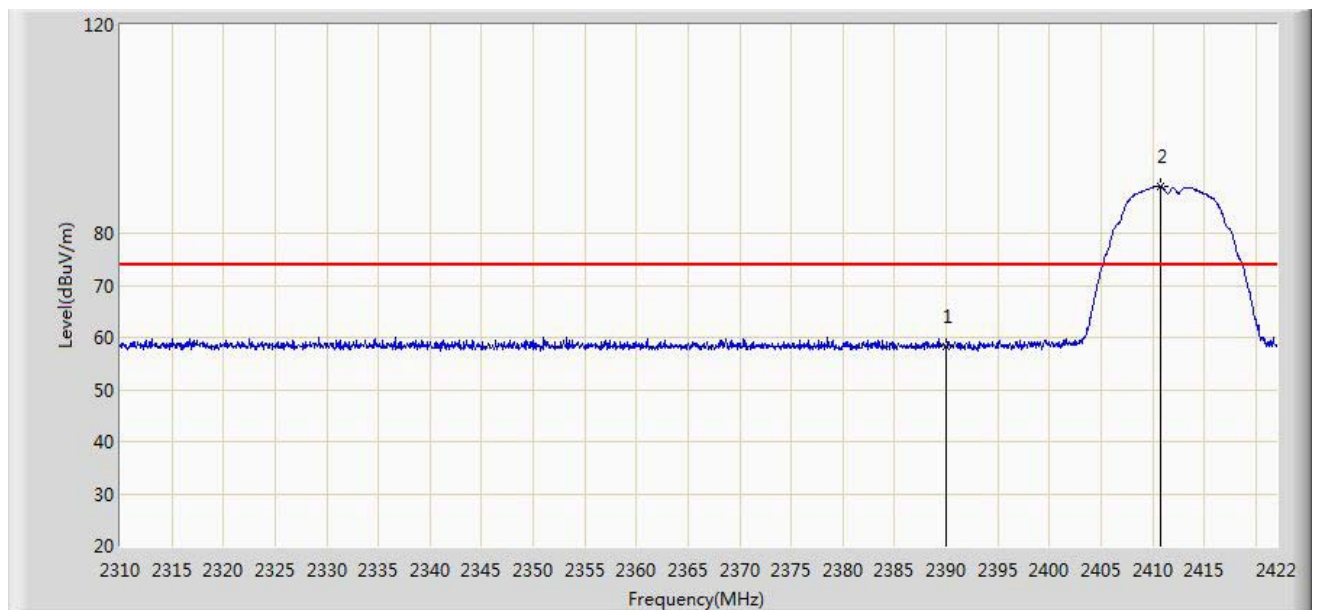
Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)

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

Engineer: Andy Zhu	
Site: AC1	Time: 2014/09/06 - 19:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant 0	

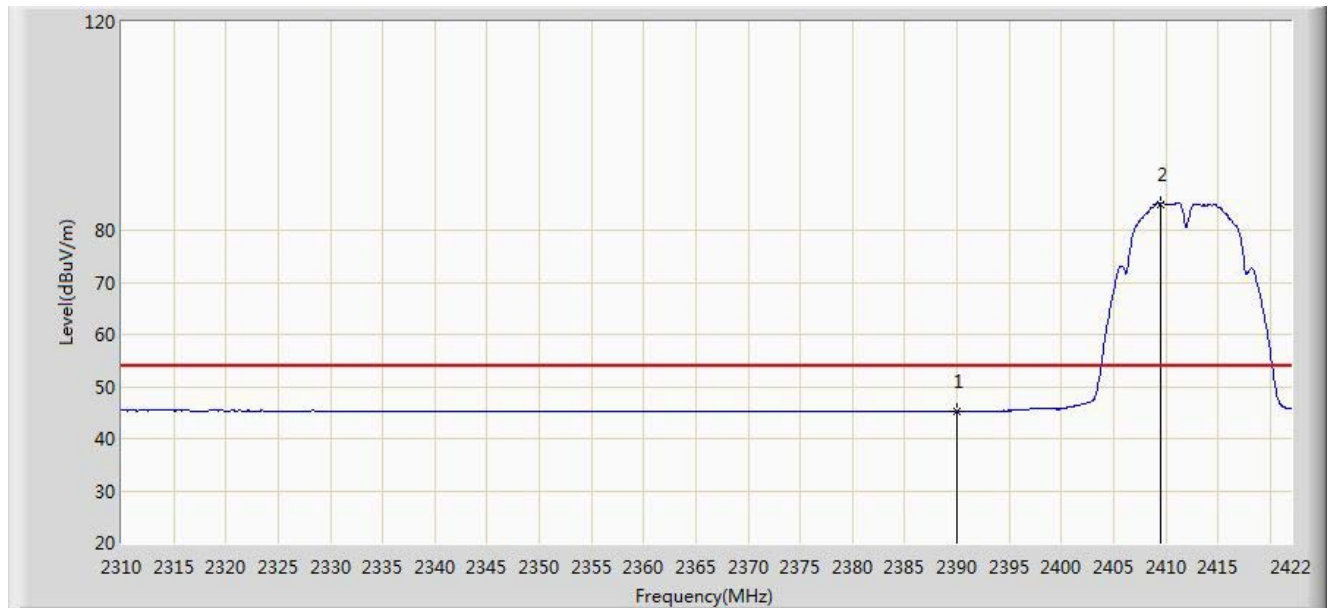


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	58.227	27.543	-15.773	74.000	30.684	PK
2		*	2410.800	88.887	58.240	N/A	N/A	30.647	PK

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

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

Engineer: Andy Zhu	
Site: AC1	Time: 2014/09/06 - 19:23
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: LED lamp	Power: AC 120V/60Hz
Note: Mode 1: Transmit at channel 2412MHz by 802.11b Ant 0	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			2390.000	45.299	14.615	-8.701	54.000	30.684	AV
2		*	2409.456	85.066	54.417	N/A	N/A	30.649	AV

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

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