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

7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 30dB 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 Settitng

1. Reference level measurement

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

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

(c) Set the RBW = 100 kHz

(d) Set the VBW ≥ 3 x RBW

(e) Detector = peak

(f) Sweep time = auto couple

(g) Trace mode = max hold

(h) Allow trace to fully stabilize

2. Emission level measurement

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

(b) RBW = 100kHz

(c) VBW = 300kHz

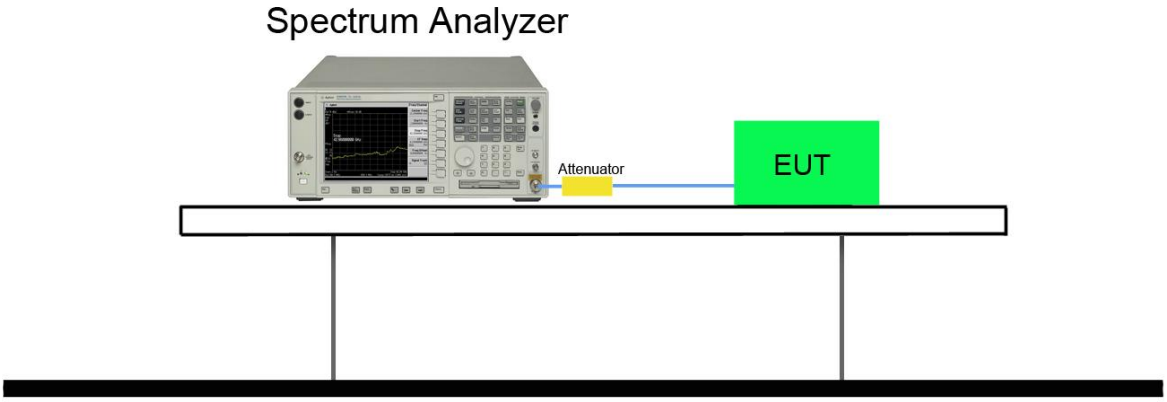
(d) Detector = Peak

(e) Trace mode = max hold

(f) Sweep time = auto couple

(g) The trace was allowed to stabilize

7.5.4. Test Setup



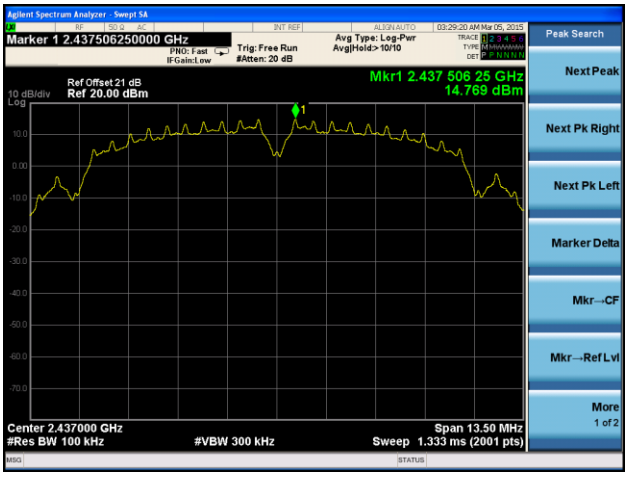
7.5.5. Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
Ant 0					
802.11b	1	01	2412	30dBc	Pass
802.11b	1	06	2437	30dBc	Pass
802.11b	1	11	2462	30dBc	Pass
802.11g	6	01	2412	30dBc	Pass
802.11g	6	06	2437	30dBc	Pass
802.11g	6	11	2462	30dBc	Pass
802.11n-HT20	6.5	01	2412	30dBc	Pass
802.11n-HT20	6.5	06	2437	30dBc	Pass
802.11n-HT20	6.5	11	2462	30dBc	Pass
802.11n-HT40	13.5	03	2422	30dBc	Pass
802.11n-HT40	13.5	06	2437	30dBc	Pass
802.11n-HT40	13.5	09	2452	30dBc	Pass
Ant 1					
802.11n-HT20	6.5	01	2412	30dBc	Pass
802.11n-HT20	6.5	06	2437	30dBc	Pass
802.11n-HT20	6.5	11	2462	30dBc	Pass
802.11n-HT40	13.5	03	2422	30dBc	Pass
802.11n-HT40	13.5	06	2437	30dBc	Pass
802.11n-HT40	13.5	09	2452	30dBc	Pass

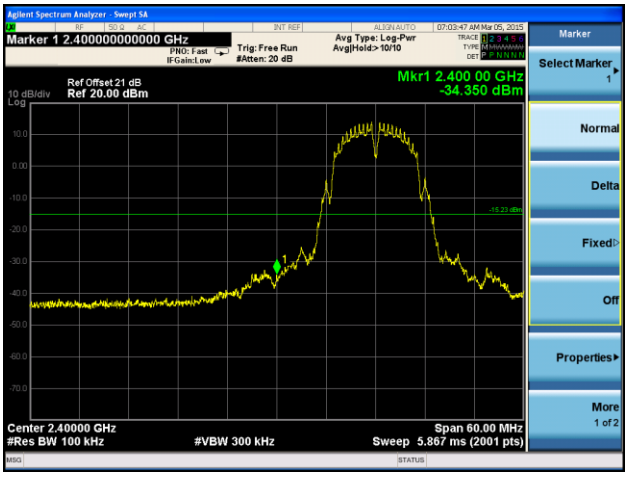
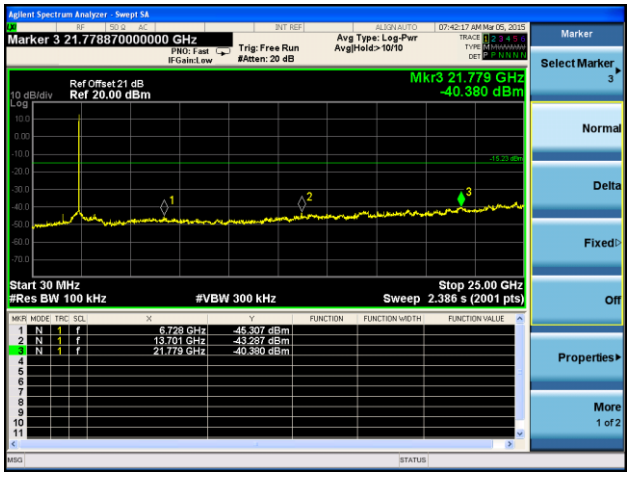
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Limit	Result
Ant 0 / Ant 0 + 1					
802.11n-HT20	6.5	01	2412	30dBc	Pass
802.11n-HT20	6.5	06	2437	30dBc	Pass
802.11n-HT20	6.5	11	2462	30dBc	Pass
802.11n-HT40	13.5	03	2422	30dBc	Pass
802.11n-HT40	13.5	06	2437	30dBc	Pass
802.11n-HT40	13.5	09	2452	30dBc	Pass
Ant 1 / Ant 0 + 1					
802.11n-HT20	6.5	01	2412	30dBc	Pass
802.11n-HT20	6.5	06	2437	30dBc	Pass
802.11n-HT20	6.5	11	2462	30dBc	Pass
802.11n-HT40	13.5	03	2422	30dBc	Pass
802.11n-HT40	13.5	06	2437	30dBc	Pass
802.11n-HT40	13.5	09	2452	30dBc	Pass

802.11b Out-of-Band Emissions - Ant 0

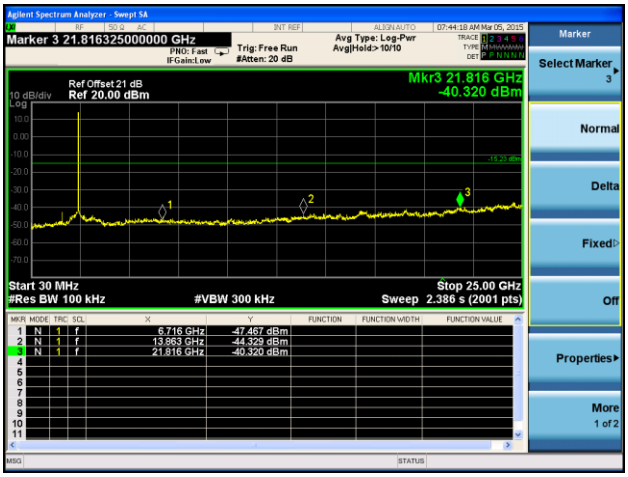
100kHz PSD reference Level

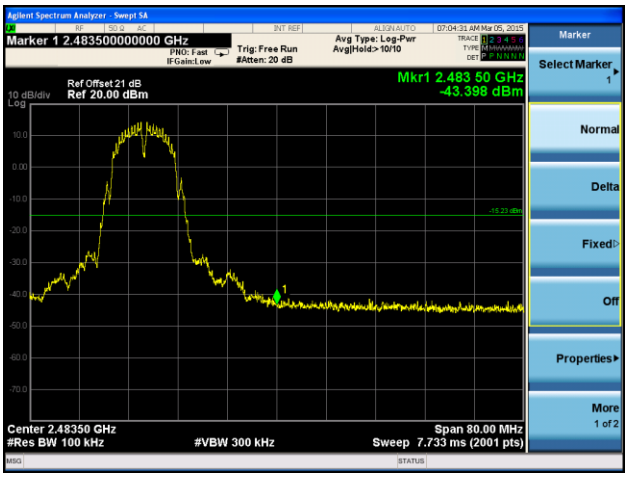
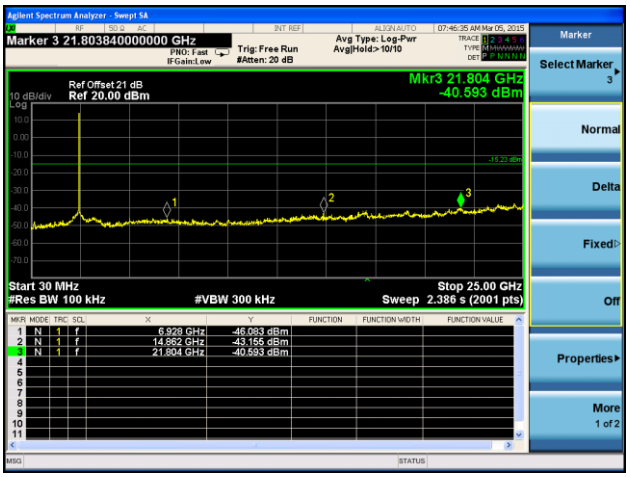


Channel 01 (2412MHz)

Low Band Edge	Spurious Emission
	

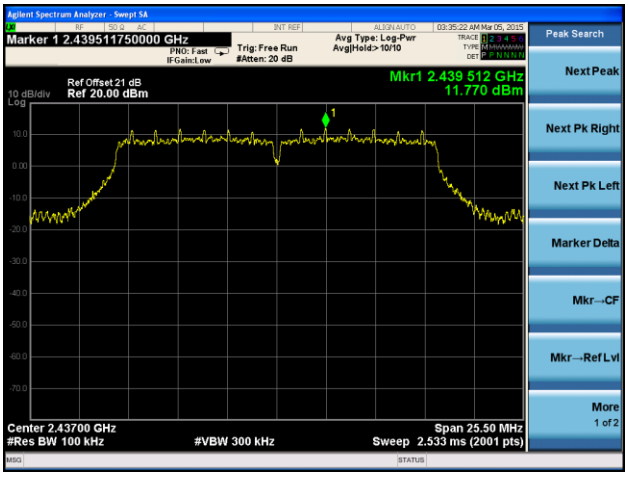
Channel 06 (2437MHz)

Spurious Emission	
	

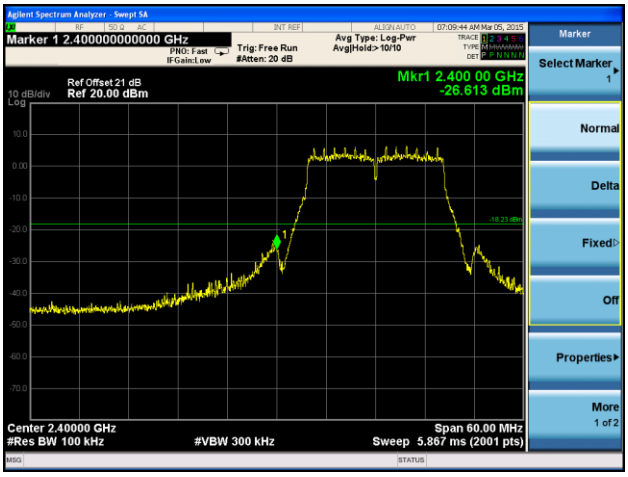
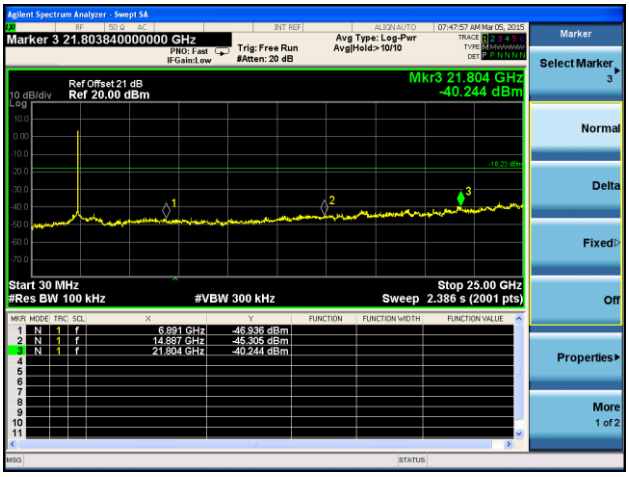
Channel 11 (2462MHz)	
High Band Edge	**Spurious Emission**
	

802.11g Out-of-Band Emissions - Ant 0

100kHz PSD reference Level

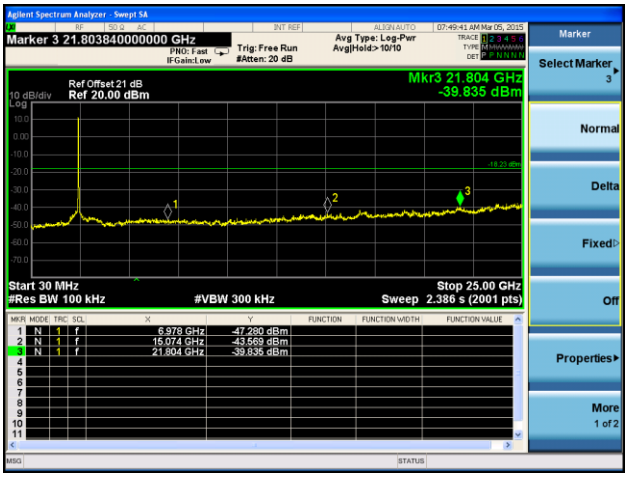


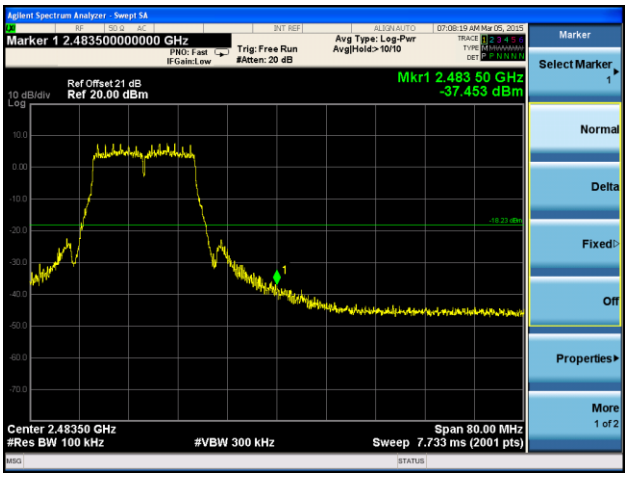
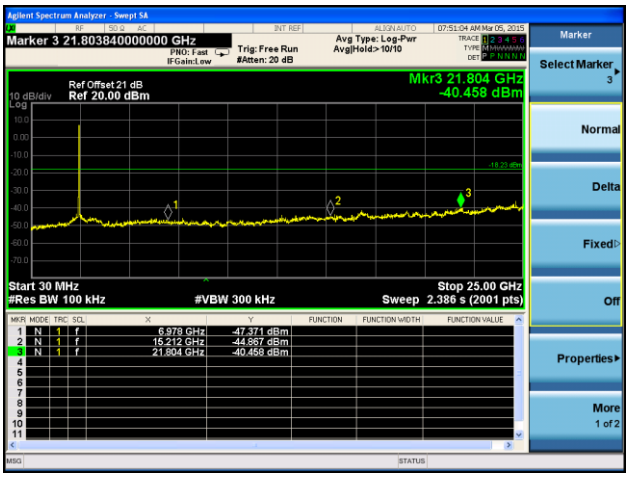
Channel 01 (2412MHz)

Low Band Edge	Spurious Emission
	

Channel 06 (2437MHz)

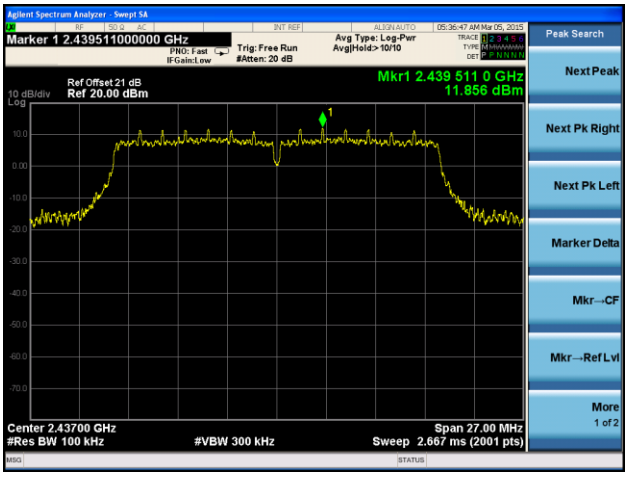
Spurious Emission



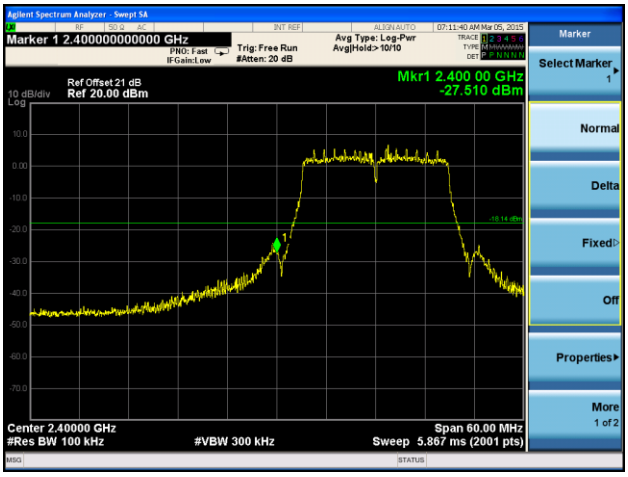
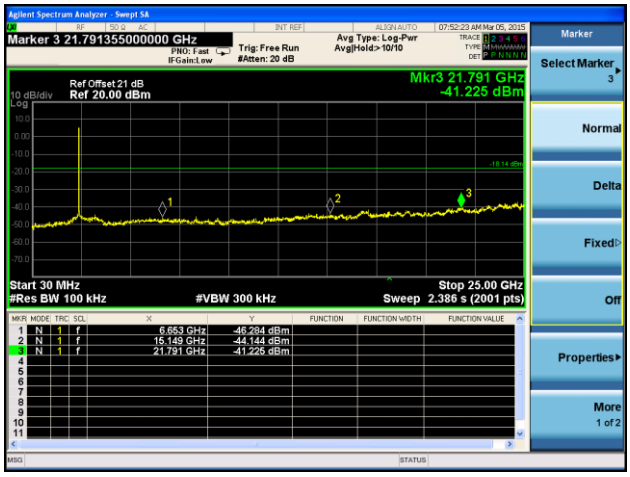
Channel 11 (2462MHz)	
High Band Edge	**Spurious Emission**
	

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

100kHz PSD reference Level

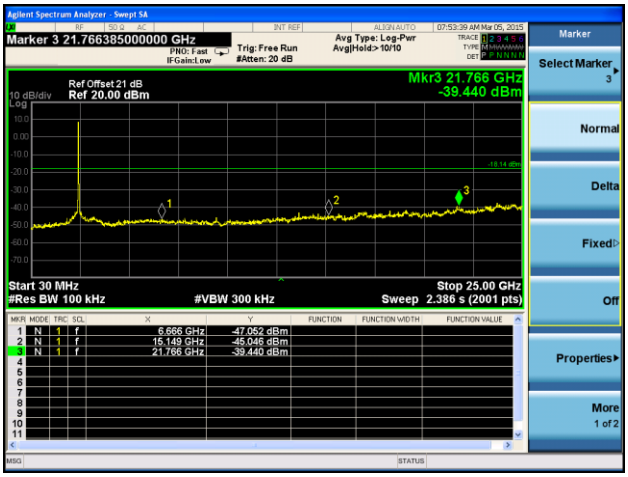


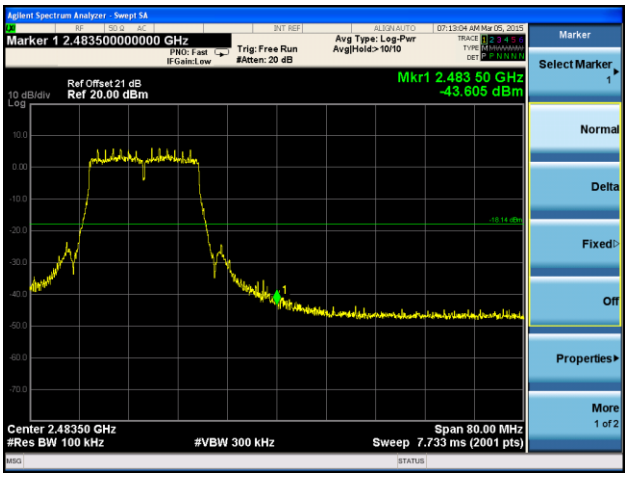
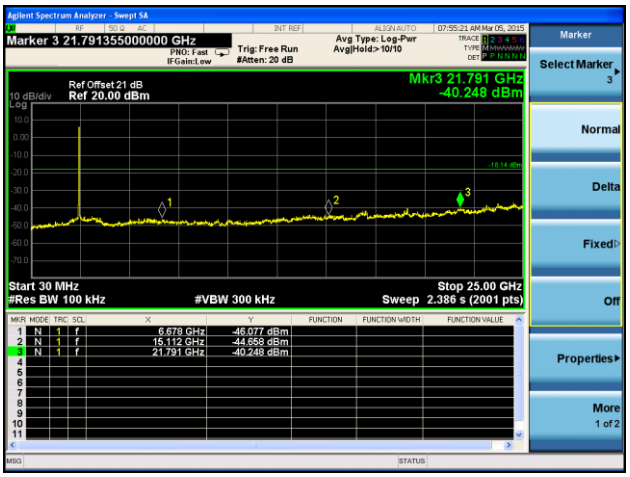
Channel 01 (2412MHz)

Low Band Edge	Spurious Emission
	

Channel 06 (2437MHz)

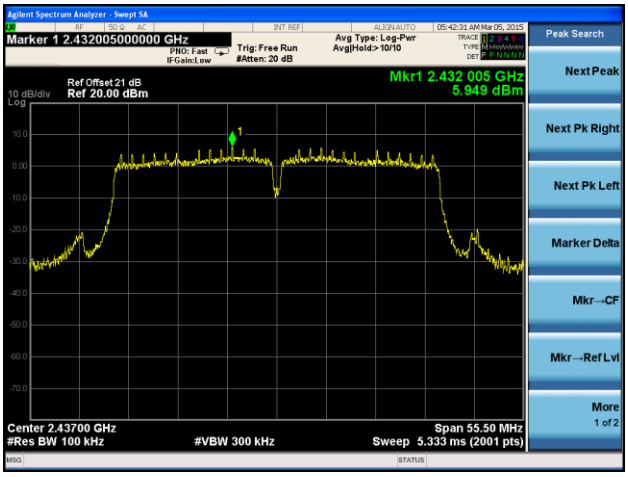
Spurious Emission



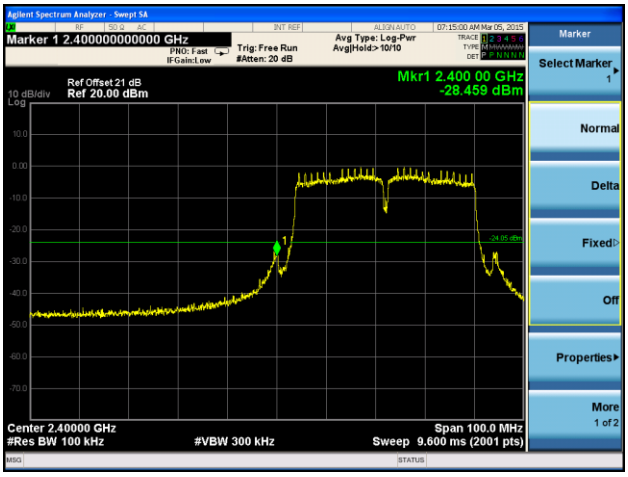
Channel 11 (2462MHz)	
High Band Edge	**Spurious Emission**
	

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

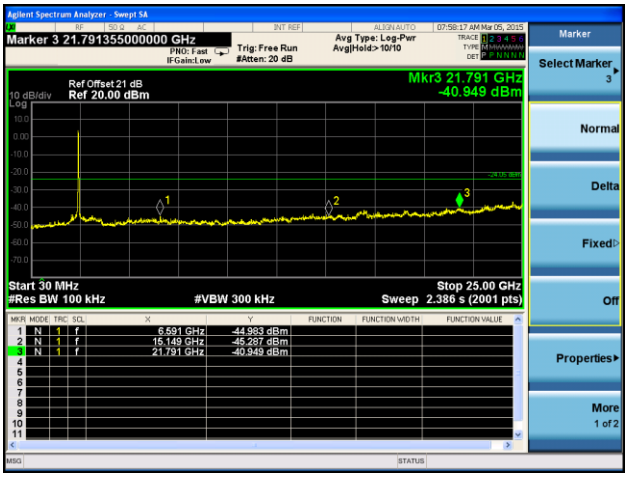
100kHz PSD reference Level

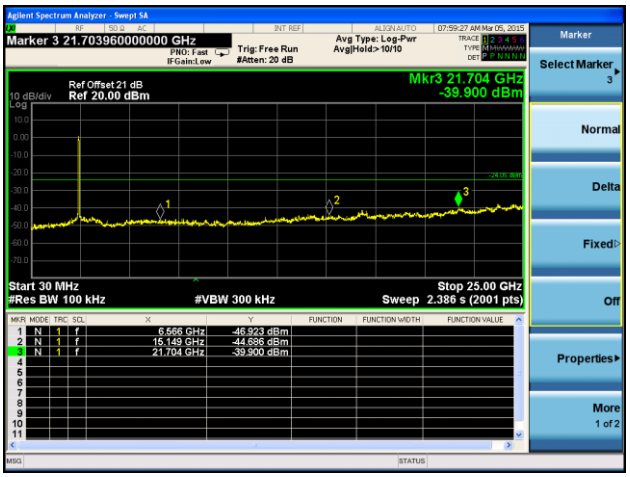


Channel 03 (2422MHz)

Low Band Edge	Spurious Emission
	

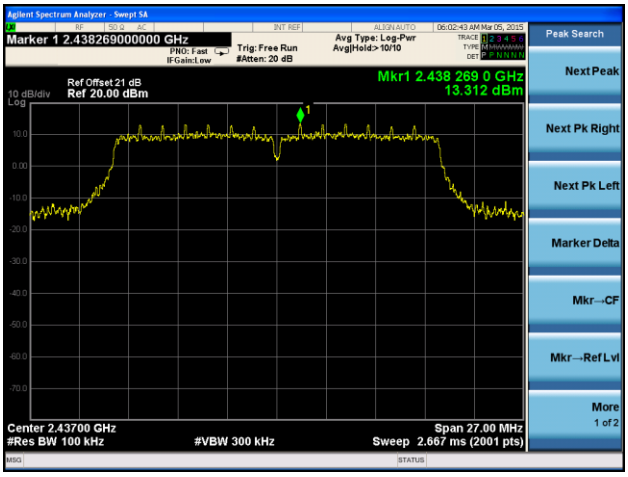
Channel 06 (2437MHz)

Spurious Emission	
	

Channel 9 (2452MHz)	
High Band Edge	**Spurious Emission**
	

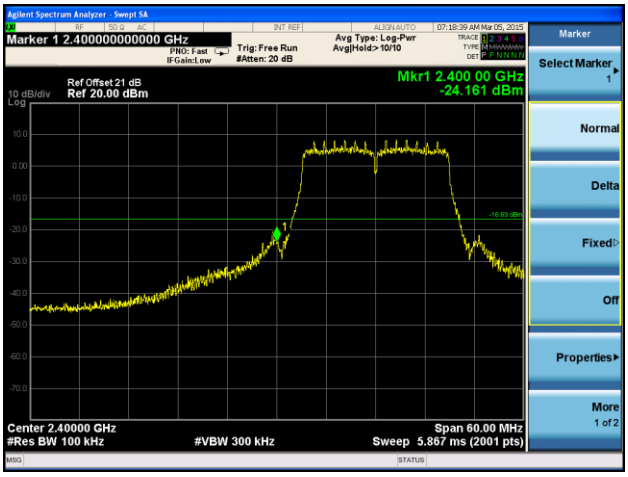
802.11n-HT20 Out-of-Band Emissions - Ant 1

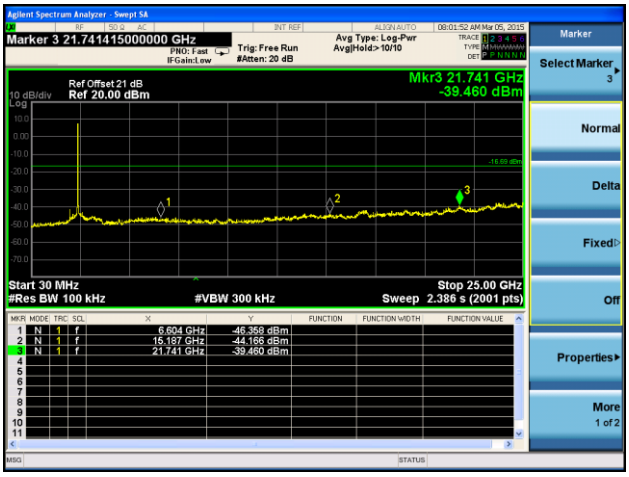
100kHz PSD reference Level



Channel 01 (2412MHz)

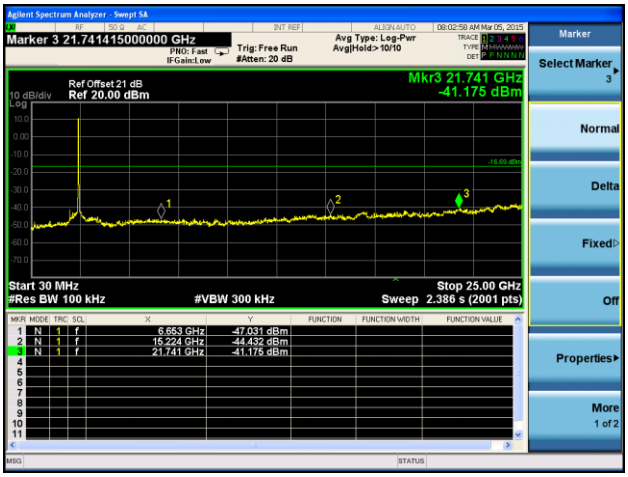
Low Band Edge	Spurious Emission

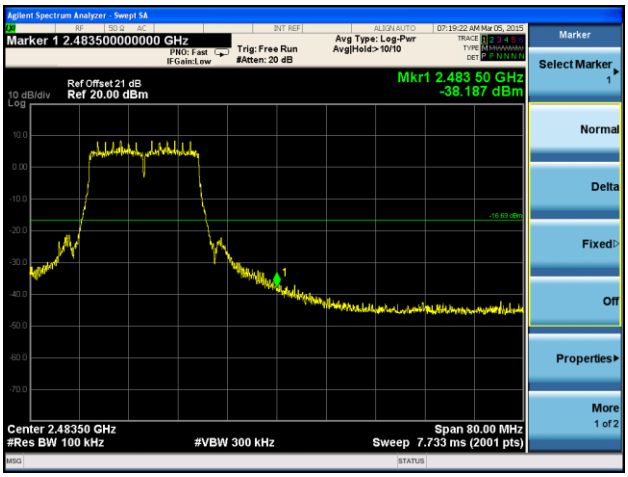
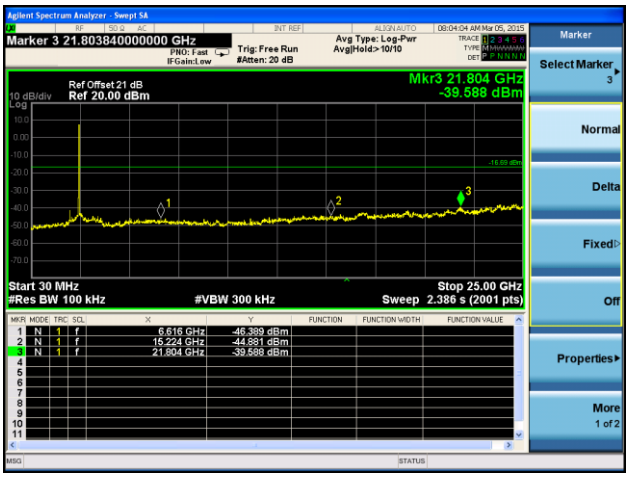




Channel 06 (2437MHz)

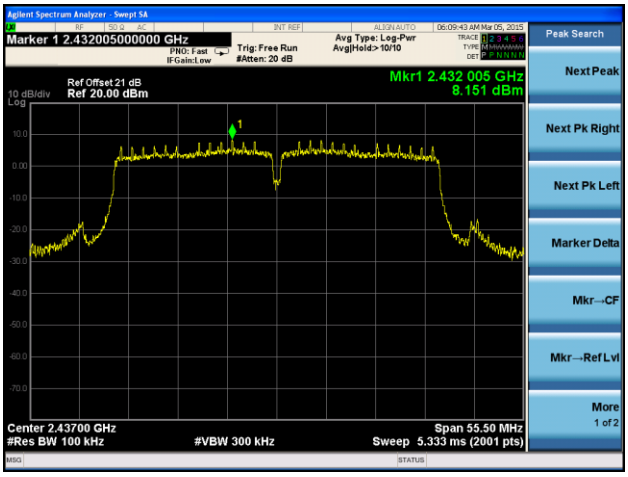
Spurious Emission	



Channel 11 (2462MHz)	
High Band Edge	**Spurious Emission**
	

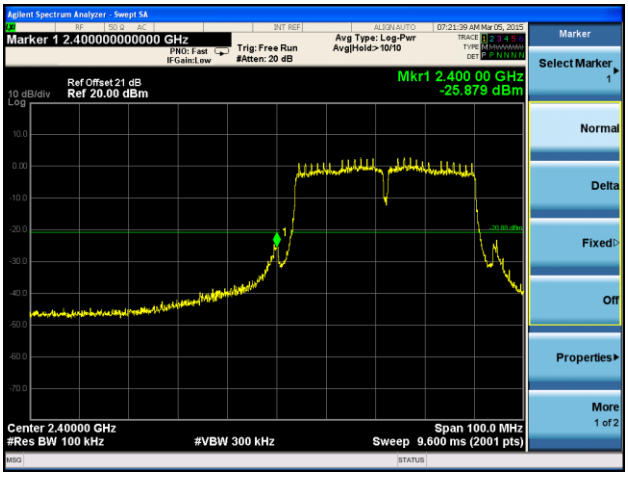
802.11n-HT40 Out-of-Band Emissions - Ant 1

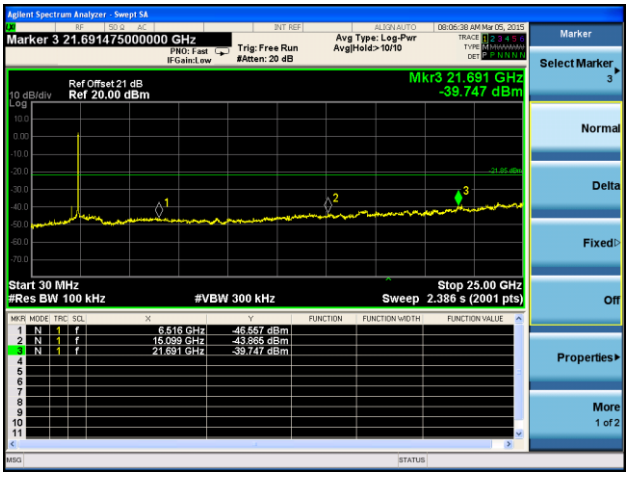
100kHz PSD reference Level



Channel 03 (2422MHz)

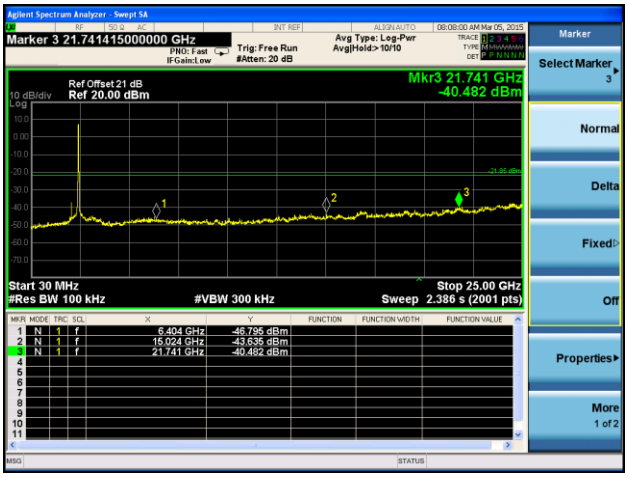
Low Band Edge	Spurious Emission

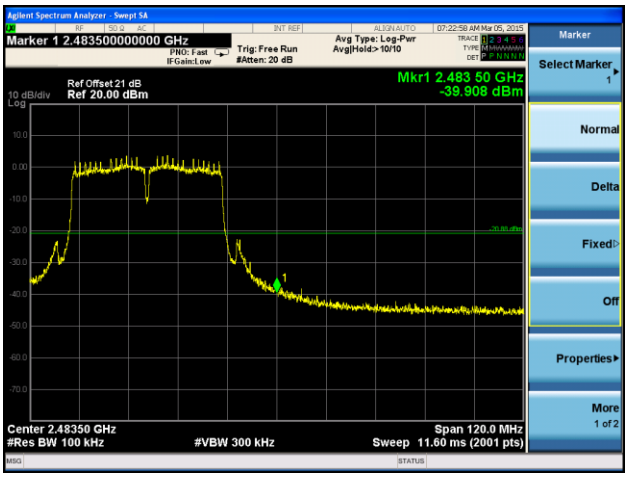
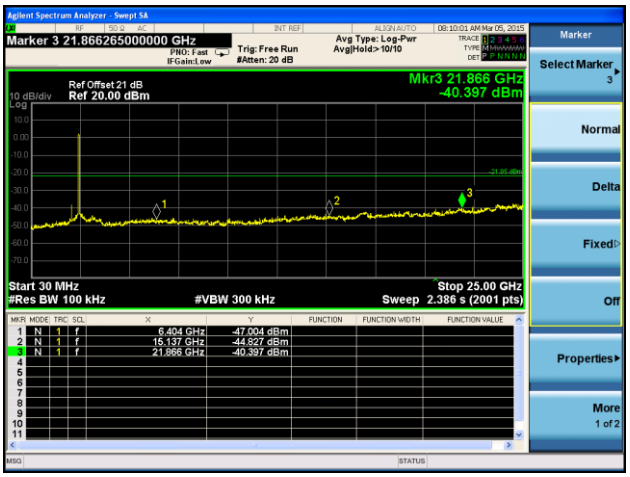




Channel 06 (2437MHz)

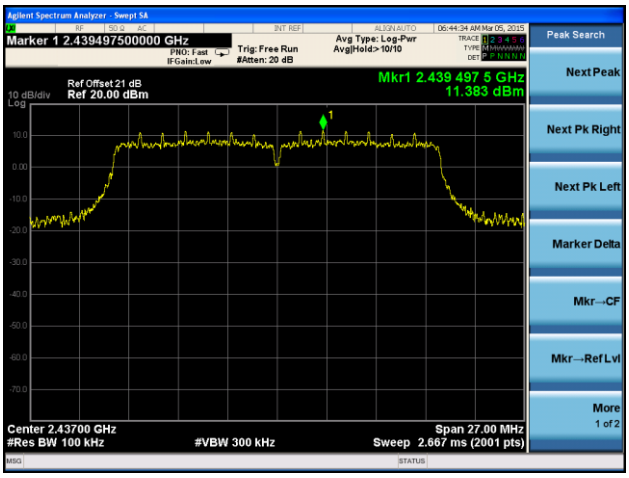
Spurious Emission	



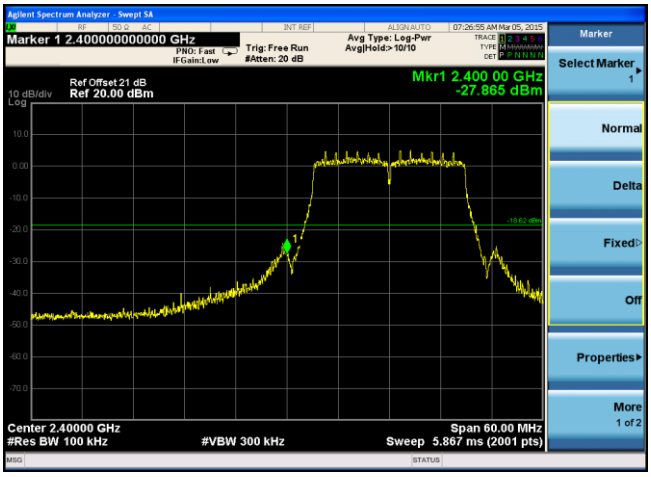
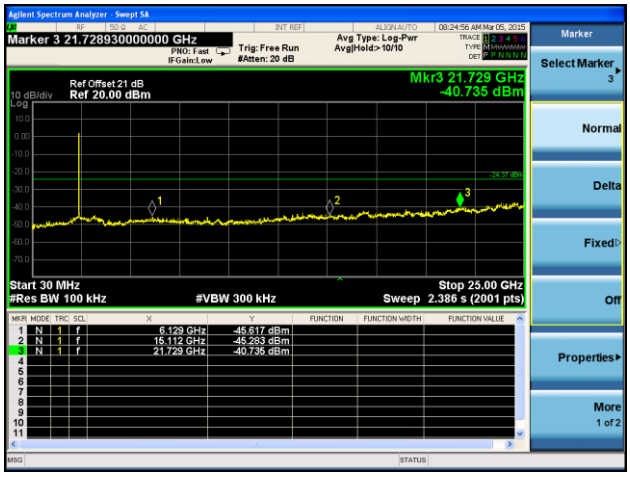
Channel 9 (2452MHz)	
High Band Edge	**Spurious Emission**
	

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

100kHz PSD reference Level

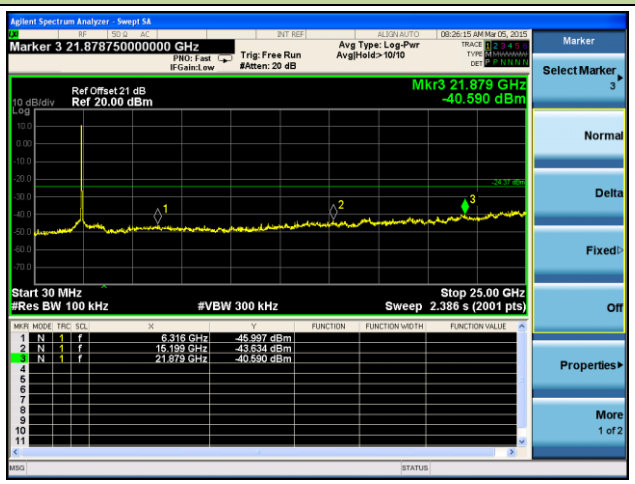


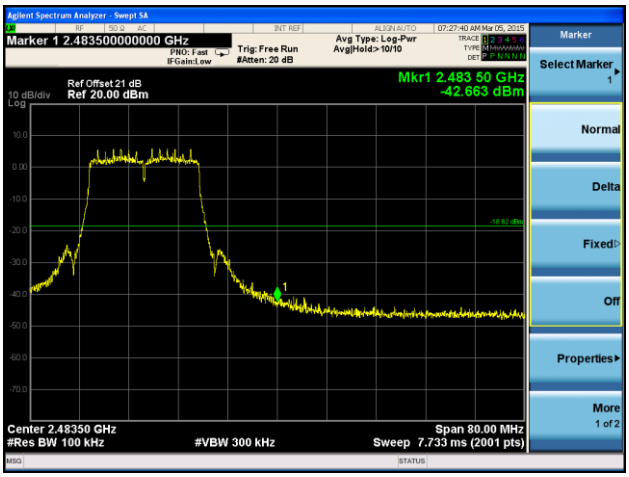
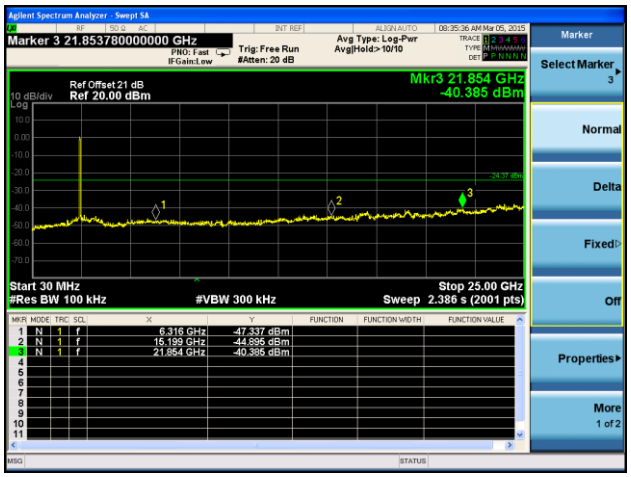
Channel 01 (2412MHz)

Low Band Edge	Spurious Emission
	

Channel 06 (2437MHz)

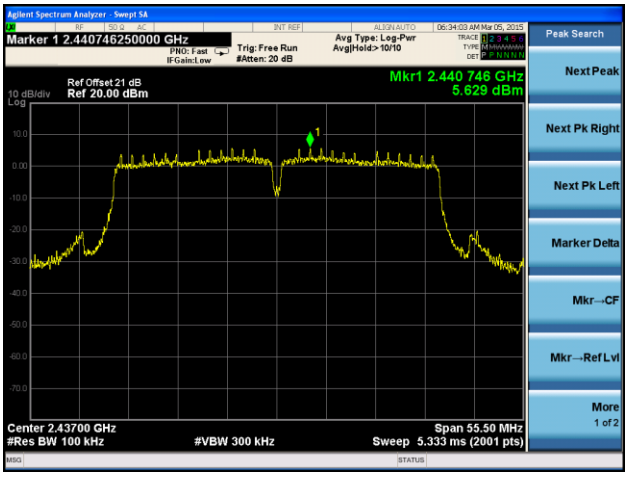
Spurious Emission



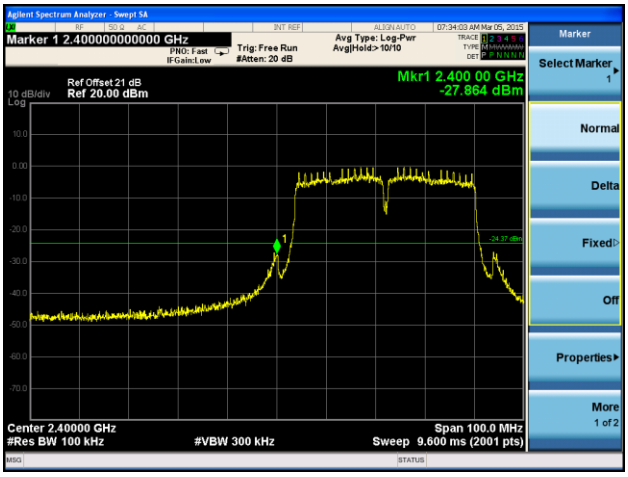
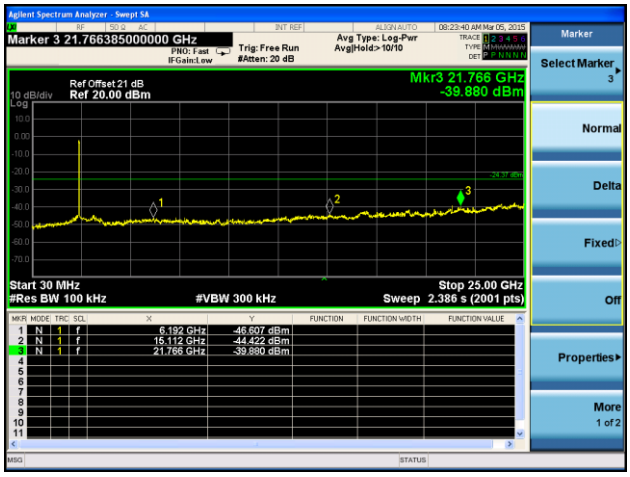
Channel 11 (2462MHz)	
High Band Edge	**Spurious Emission**
	

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

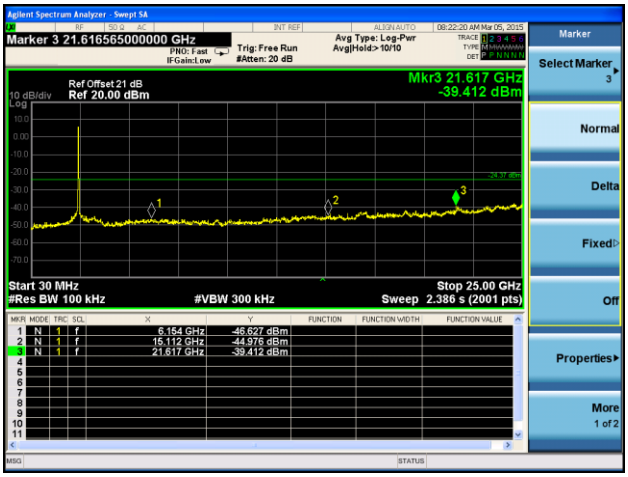
100kHz PSD reference Level

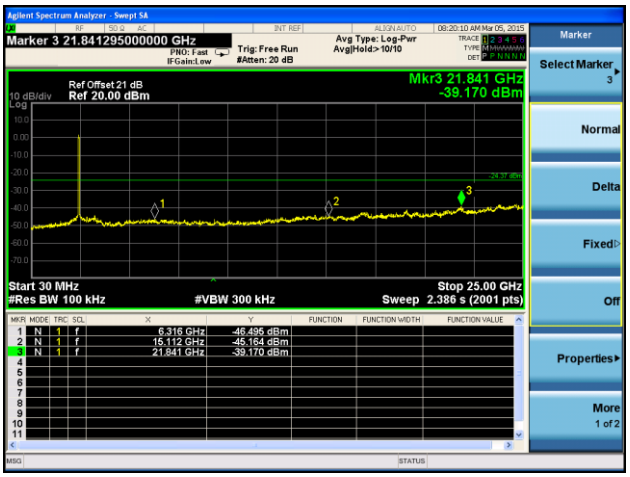


Channel 03 (2422MHz)

Low Band Edge	Spurious Emission
	

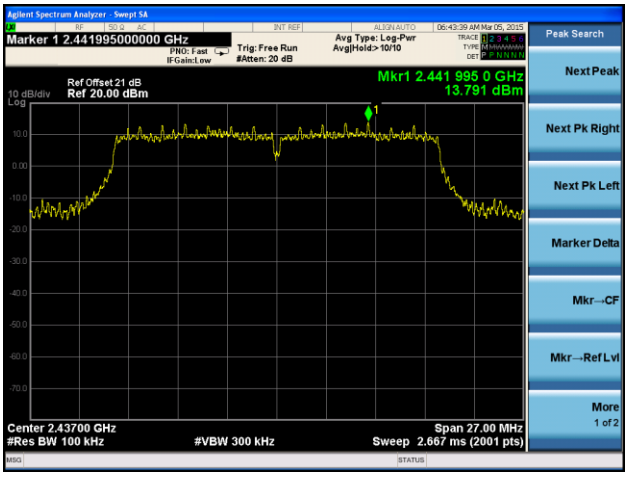
Channel 06 (2437MHz)

Spurious Emission	
	

Channel 9 (2452MHz)	
High Band Edge	**Spurious Emission**
	

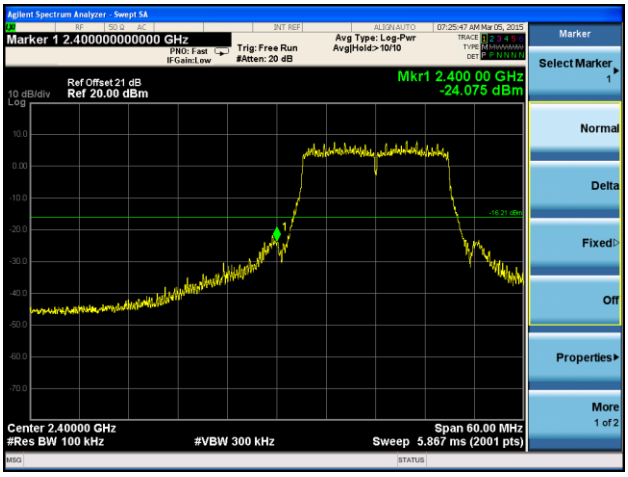
802.11n-HT20 Out-of-Band Emissions - Ant 1 / Ant 0 + 1

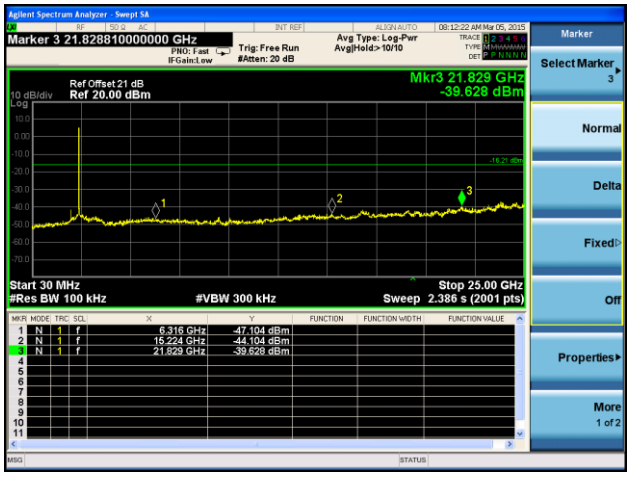
100kHz PSD reference Level



Channel 01 (2412MHz)

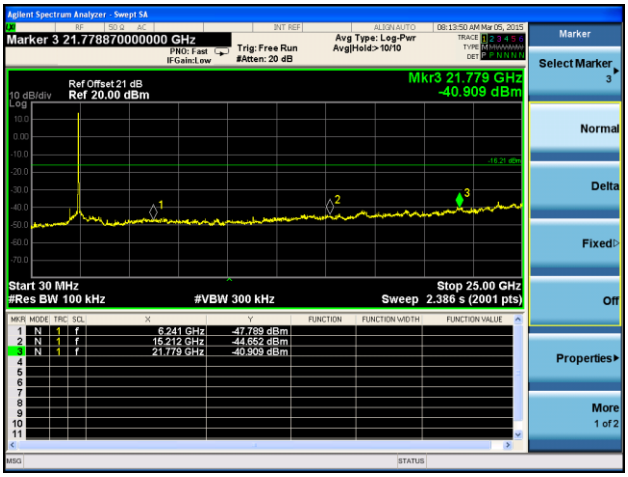
Low Band Edge	Spurious Emission

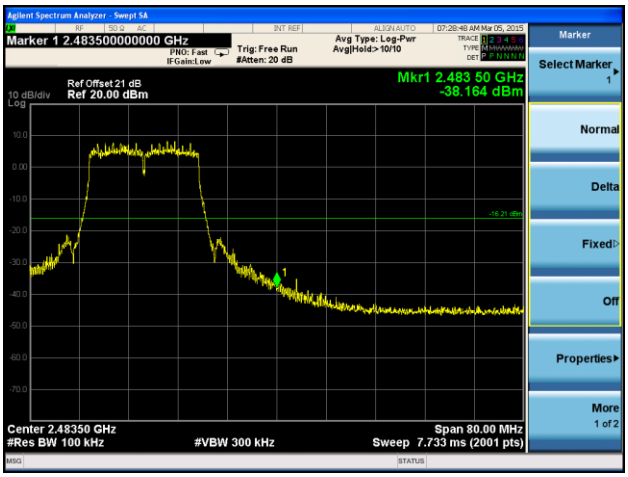
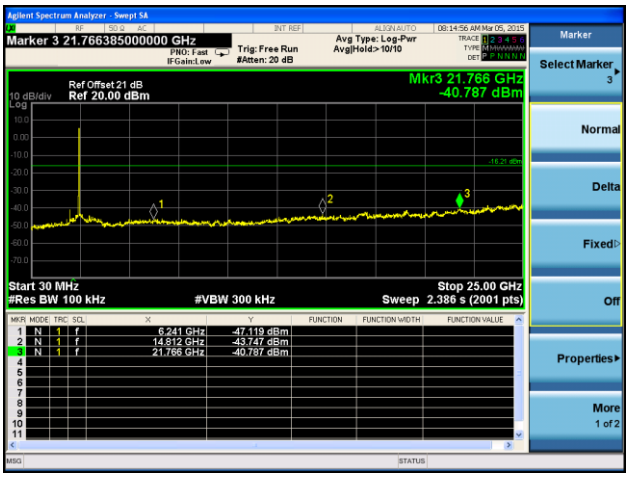




Channel 06 (2437MHz)

Spurious Emission

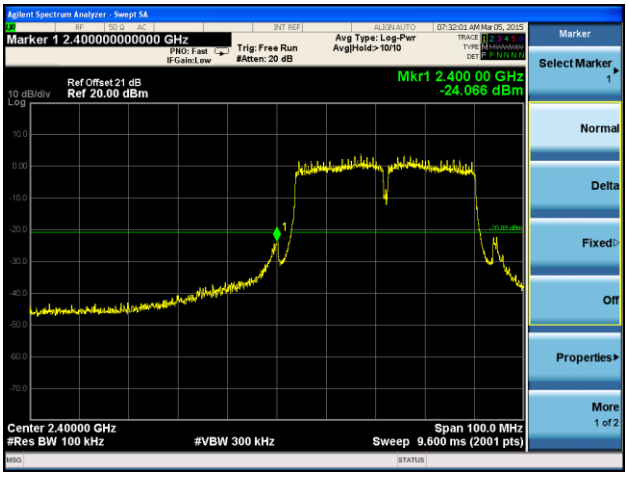
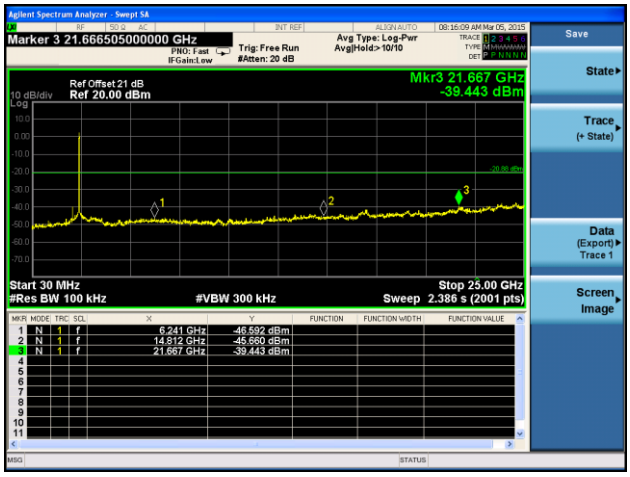


Channel 11 (2462MHz)	
High Band Edge	**Spurious Emission**
	

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

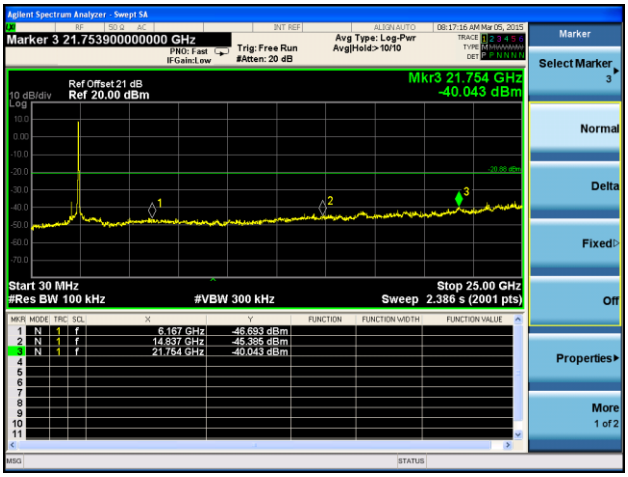
100kHz PSD reference Level

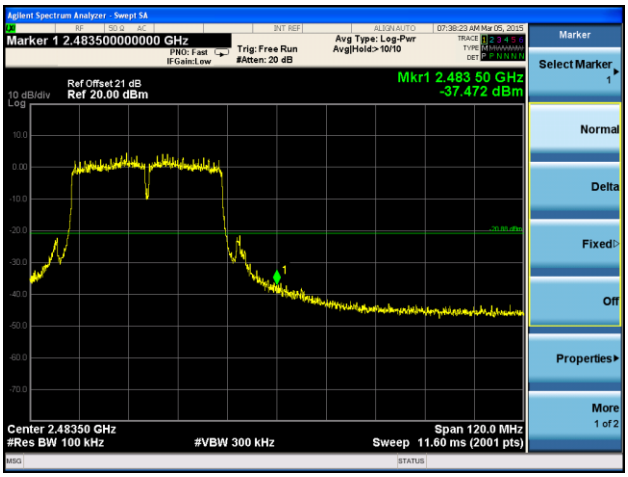
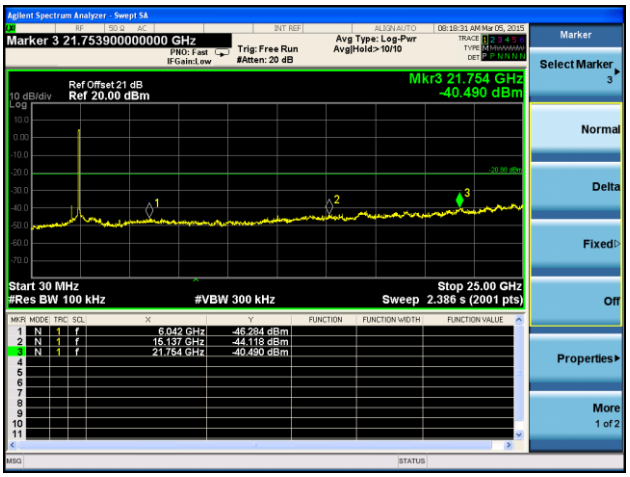
Channel 03 (2422MHz)

Low Band Edge	Spurious Emission
	

Channel 06 (2437MHz)

Spurious Emission



Channel 9 (2452MHz)	
High Band Edge	**Spurious Emission**
	

7.6. Radiated Spurious Emission Measurement

7.6.1. Test Limit

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

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

7.6.2. Test Procedure Used

KDB 558074 D01v03r02 - Section 12.2.3 (quasi-peak measurements)

KDB 558074 D01v03r02 - Section 12.2.4 (peak power measurements)

KDB 558074 D01v03r02 - Section 12.2.5 (average power measurements)

7.6.3. Test Setting

Peak Field Strength Measurements

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

5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

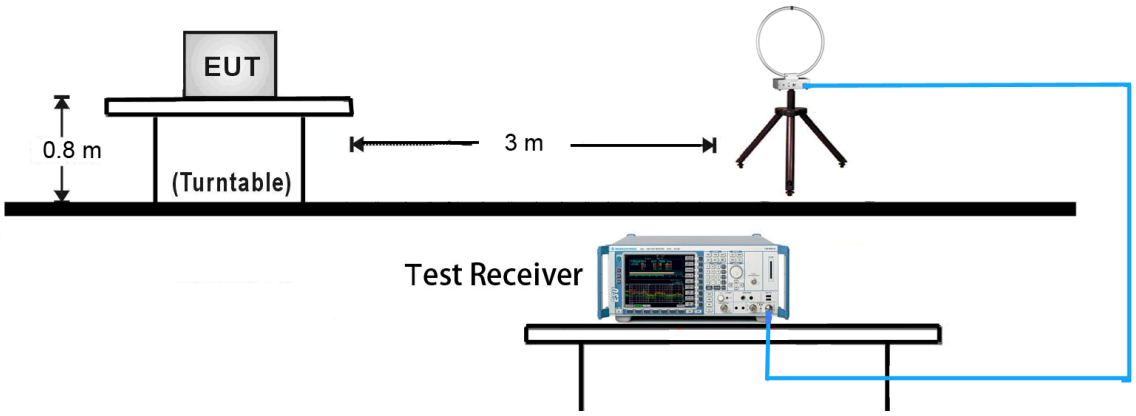
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

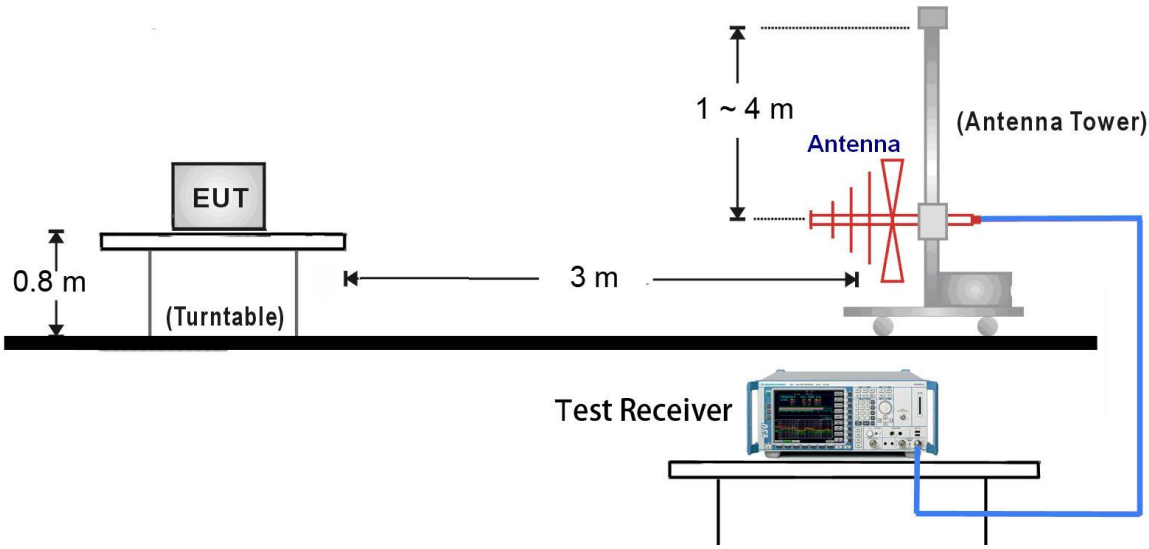
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW ≥ 1/T
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to “Voltage” regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

7.6.4. Test Setup

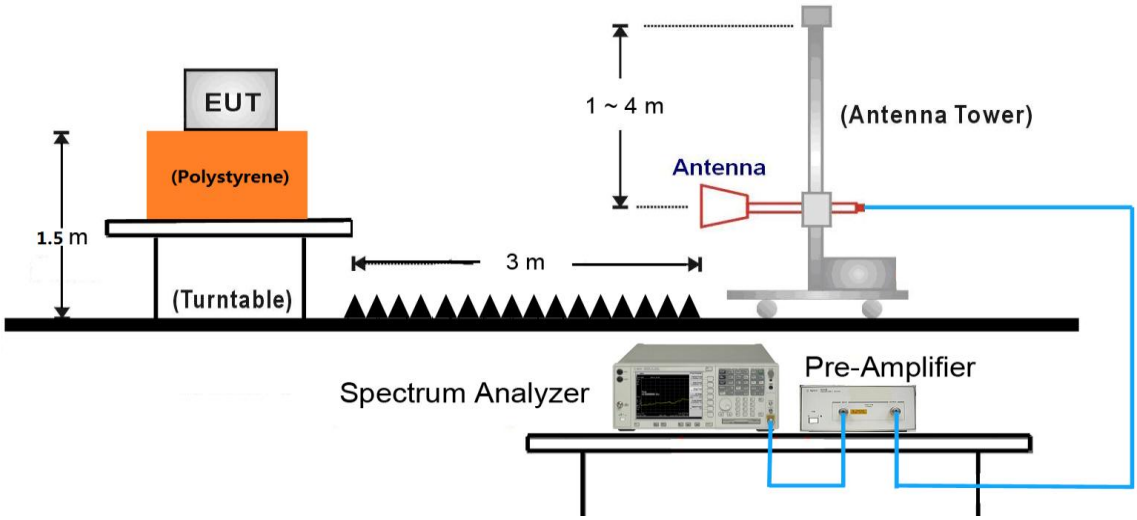
9kHz ~ 30MHz Test Setup:



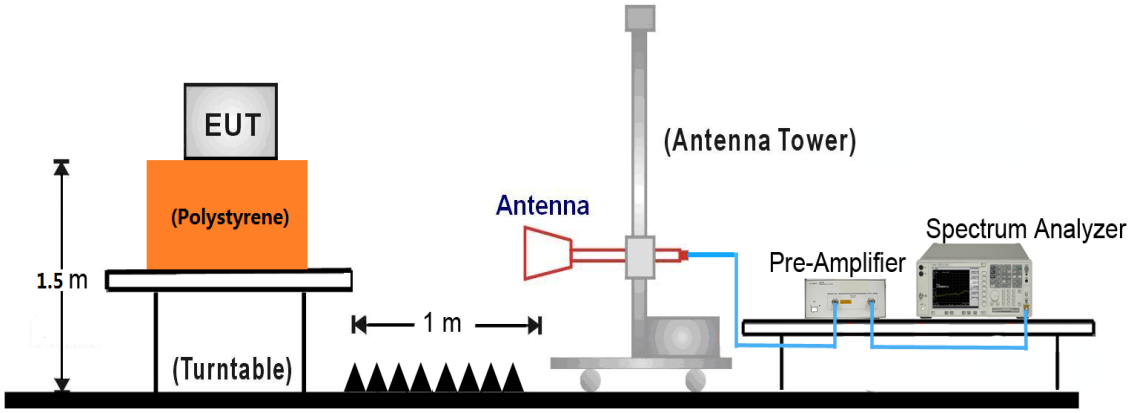
30MHz ~ 1GHz Test Setup:



1GHz ~ 18GHz Test Setup:



18GHz ~25GHz Test Setup:



7.6.5. Test Result

Test Mode:	802.11b - 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	41.9	2.7	44.6	74.0	-29.4	Peak	Horizontal
*	6431.5	41.4	5.6	47.0	96.2	-49.2	Peak	Horizontal
	9127.3	36.9	9.7	46.6	74.0	-27.4	Peak	Horizontal
*	9626.4	34.6	11.0	45.6	96.2	-50.6	Peak	Horizontal
	4825.0	40.3	2.7	43.0	74.0	-31.0	Peak	Vertical
*	6431.5	40.3	5.6	45.9	96.2	-50.3	Peak	Vertical
	9125.4	36.7	9.7	46.4	74.0	-27.6	Peak	Vertical
*	9682.0	36.1	10.9	47.0	96.2	-49.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (116.2dBμV/m).

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

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

Test Mode:	802.11b - 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	43.4	2.7	46.1	74.0	-27.9	Peak	Horizontal
*	6431.5	41.2	5.6	46.8	95.6	-48.8	Peak	Horizontal
	8465.9	37.0	8.2	45.2	74.0	-28.8	Peak	Horizontal
*	9686.4	35.7	10.9	46.6	95.6	-49.0	Peak	Horizontal
	4876.0	39.9	2.7	42.6	74.0	-31.4	Peak	Vertical
*	7843.3	37.3	8.4	45.7	95.6	-49.9	Peak	Vertical
	9140.3	35.9	9.7	45.6	74.0	-28.4	Peak	Vertical
*	12726.3	35.9	11.6	47.5	95.6	-48.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (115.6dBμV/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	42.6	2.8	45.4	74.0	-28.6	Peak	Horizontal
*	6431.5	42.7	5.6	48.3	93.6	-45.3	Peak	Horizontal
	7383.5	39.9	7.9	47.8	74.0	-26.2	Peak	Horizontal
*	12742.4	37.1	11.7	48.8	93.6	-44.8	Peak	Horizontal
	4816.4	37.9	2.7	40.6	74.0	-33.4	Peak	Vertical
*	6826.8	37.1	6.2	43.3	93.6	-50.3	Peak	Vertical
	9142.1	36.7	9.8	46.5	74.0	-27.5	Peak	Vertical
*	12741.4	36.8	11.7	48.5	93.6	-45.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (113.6dBμV/m).

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

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

Test Mode:	802.11g - 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
	4824.3	37.4	2.7	40.1	74.0	-33.9	Peak	Horizontal
*	6431.5	42.3	5.6	47.9	90.5	-42.6	Peak	Horizontal
	9142.9	36.6	9.8	46.4	74.0	-27.6	Peak	Horizontal
*	12742.4	36.2	11.7	47.9	90.5	-42.6	Peak	Horizontal
	4862.6	37.8	2.7	40.5	74.0	-33.5	Peak	Vertical
*	7826.5	37.0	8.4	45.4	90.5	-45.1	Peak	Vertical
	9153.4	35.9	9.8	45.7	74.0	-28.3	Peak	Vertical
*	12715.3	36.1	11.7	47.8	90.5	-42.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (110.5dBμV/m).

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

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

Test Mode:	802.11g - 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
	4825.4	37.0	2.7	39.7	74.0	-34.3	Peak	Horizontal
*	6431.5	41.9	5.6	47.5	96.4	-48.9	Peak	Horizontal
	9143.9	36.1	9.8	45.9	74.0	-28.1	Peak	Horizontal
*	12751.0	36.5	11.7	48.2	96.4	-48.2	Peak	Horizontal
	4641.3	37.4	2.1	39.5	74.0	-34.5	Peak	Vertical
*	6235.4	37.0	4.7	41.7	96.4	-54.7	Peak	Vertical
	7315.5	40.4	8.0	48.4	74.0	-25.6	Peak	Vertical
*	9642.2	36.2	11.0	47.2	96.4	-49.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (116.4dBμV/m).

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

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

Test Mode:	802.11g - 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
	4000.5	40.8	0.4	41.2	74.0	-32.8	Peak	Horizontal
*	6431.5	41.6	5.6	47.2	92.5	-45.3	Peak	Horizontal
	8426.6	36.4	8.2	44.6	74.0	-29.4	Peak	Horizontal
*	9652.5	35.3	11.0	46.3	92.5	-46.2	Peak	Horizontal
	4851.1	37.7	2.7	40.4	74.0	-33.6	Peak	Vertical
*	6431.5	39.5	5.6	45.1	92.5	-47.4	Peak	Vertical
	9153.4	35.7	9.8	45.5	74.0	-28.5	Peak	Vertical
*	9653.3	35.8	11.0	46.8	92.5	-45.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (112.5dBμV/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:	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
	4826.4	37.7	2.7	40.4	74.0	-33.6	Peak	Horizontal
*	6431.5	41.9	5.6	47.5	89.2	-41.7	Peak	Horizontal
	9415.3	37.4	10.6	48.0	74.0	-26.0	Peak	Horizontal
*	9653.8	35.3	11.0	46.3	89.2	-42.9	Peak	Horizontal
	4826.4	37.0	2.7	39.7	74.0	-34.3	Peak	Vertical
*	6431.5	39.7	5.6	45.3	89.2	-43.9	Peak	Vertical
	9152.4	36.4	9.8	46.2	74.0	-27.8	Peak	Vertical
*	12745.5	36.3	11.7	48.0	89.2	-41.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (109.2dBμV/m).

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

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

Test Mode:	802.11n-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
	4816.3	36.8	2.7	39.5	74.0	-34.5	Peak	Horizontal
*	6431.5	41.5	5.6	47.1	92.6	-45.5	Peak	Horizontal
	7315.5	40.3	8.0	48.3	74.0	-25.7	Peak	Horizontal
*	9652.0	34.8	11.0	45.8	92.6	-46.8	Peak	Horizontal
	4653.3	36.8	2.2	39.0	74.0	-35.0	Peak	Vertical
*	6415.3	36.4	5.5	41.9	92.6	-50.7	Peak	Vertical
	7315.5	39.7	8.0	47.7	74.0	-26.3	Peak	Vertical
*	9621.5	35.1	10.9	46.0	92.6	-46.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (112.6dBμV/m).

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

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

Test Mode:	802.11n-HT20 - 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
	4000.5	41.1	0.4	41.5	74.0	-32.5	Peak	Horizontal
*	6431.5	41.0	5.6	46.6	90.2	-43.6	Peak	Horizontal
	9152.4	35.4	9.8	45.2	74.0	-28.8	Peak	Horizontal
*	9653.7	35.5	11.0	46.5	90.2	-43.7	Peak	Horizontal
	4853.4	37.2	2.7	39.9	74.0	-34.1	Peak	Vertical
*	6431.5	39.5	5.6	45.1	90.2	-45.1	Peak	Vertical
	9154.4	36.1	9.8	45.9	74.0	-28.1	Peak	Vertical
*	12715.0	35.8	11.7	47.5	90.2	-42.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (110.2dBμV/m).

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

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

Test Mode:	802.11n-HT40 - 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
	4863.8	36.8	2.7	39.5	74.0	-34.5	Peak	Horizontal
*	6431.5	41.0	5.6	46.6	84.3	-37.7	Peak	Horizontal
	9472.4	35.2	10.5	45.7	74.0	-28.3	Peak	Horizontal
*	12715.0	35.4	11.7	47.1	84.3	-37.2	Peak	Horizontal
	4826.4	36.6	2.7	39.3	74.0	-34.7	Peak	Vertical
*	6431.5	38.9	5.6	44.5	84.3	-39.8	Peak	Vertical
	9452.4	35.5	10.5	46.0	74.0	-28.0	Peak	Vertical
*	12745.1	35.9	11.7	47.6	84.3	-36.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (104.3dBμV/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:	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
	4862.6	37.3	2.7	40.0	74.0	-34.0	Peak	Horizontal
*	6431.5	40.3	5.6	45.9	95.2	-49.3	Peak	Horizontal
	9452.4	35.5	10.5	46.0	74.0	-28.0	Peak	Horizontal
*	12751.0	36.0	11.7	47.7	95.2	-47.5	Peak	Horizontal
	4826.4	36.8	2.7	39.5	74.0	-34.5	Peak	Vertical
*	7846.3	36.8	8.4	45.2	95.2	-50.0	Peak	Vertical
	9452.0	35.9	10.5	46.4	74.0	-27.6	Peak	Vertical
*	12715.7	35.4	11.7	47.1	95.2	-48.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (115.2dBμV/m).

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

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

Test Mode:	802.11n-HT40 - 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
	4852.3	37.1	2.7	39.8	74.0	-34.2	Peak	Horizontal
*	6431.5	41.1	5.6	46.7	80.6	-33.9	Peak	Horizontal
	9142.7	35.7	9.8	45.5	74.0	-28.5	Peak	Horizontal
*	12715.3	35.8	11.7	47.5	80.6	-33.1	Peak	Horizontal
	4815.3	36.8	2.7	39.5	74.0	-34.5	Peak	Vertical
*	6431.5	39.1	5.6	44.7	80.6	-35.9	Peak	Vertical
	9152.0	36.1	9.8	45.9	74.0	-28.1	Peak	Vertical
*	12745.3	36.1	11.7	47.8	80.6	-32.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.6dBμV/m).

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

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

Test Mode:	802.11n-HT20 - 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
	4825.0	44.1	2.7	46.8	74.0	-27.2	Peak	Horizontal
*	6431.5	40.7	5.6	46.3	88.2	-41.9	Peak	Horizontal
	9152.4	35.5	9.8	45.3	74.0	-28.7	Peak	Horizontal
*	12715.4	36.2	11.7	47.9	88.2	-40.3	Peak	Horizontal
	4833.5	43.1	2.7	45.8	74.0	-28.2	Peak	Vertical
*	6253.4	37.2	4.7	41.9	88.2	-46.3	Peak	Vertical
	9154.4	36.2	9.8	46.0	74.0	-28.0	Peak	Vertical
*	12726.4	36.0	11.6	47.6	88.2	-40.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (108.2dBμV/m).

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

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

Test Mode:	802.11n-HT20 - 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
	4867.5	52.1	2.7	54.8	74.0	-19.2	Peak	Horizontal
	4874.8	41.0	2.7	43.7	54.0	-10.3	Average	Horizontal
*	6431.5	41.1	5.6	46.7	95.6	-48.9	Peak	Horizontal
	12194.5	39.8	11.7	51.5	74.0	-22.5	Peak	Horizontal
*	13546.0	35.1	13.9	49.0	95.6	-46.6	Peak	Horizontal
	4874.9	39.8	2.7	42.5	54.0	-11.5	Average	Horizontal
	4884.5	52.1	2.7	54.8	74.0	-19.2	Peak	Vertical
*	6532.1	35.9	5.9	41.8	95.6	-53.8	Peak	Vertical
	9142.4	35.8	9.8	45.6	74.0	-28.4	Peak	Vertical
*	12722.3	35.7	11.7	47.4	95.6	-48.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (115.6dBμV/m).

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

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

Test Mode:	802.11n-HT20 - 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
	4927.0	43.4	2.8	46.2	74.0	-27.8	Peak	Horizontal
*	6431.5	40.3	5.6	45.9	87.8	-41.9	Peak	Horizontal
	8452.2	36.8	8.2	45.0	74.0	-29.0	Peak	Horizontal
*	9263.6	34.9	10.3	45.2	87.8	-42.6	Peak	Horizontal
	4927.0	42.0	2.8	44.8	74.0	-29.2	Peak	Vertical
*	6253.1	36.9	4.7	41.6	87.8	-46.2	Peak	Vertical
	8425.2	36.3	8.2	44.5	74.0	-29.5	Peak	Vertical
*	9253.4	35.8	10.2	46.0	87.8	-41.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (107.8dBμV/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-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
	4825.2	38.0	2.7	40.7	74.0	-33.3	Peak	Horizontal
*	6431.5	40.9	5.6	46.5	81.7	-35.2	Peak	Horizontal
	8426.4	35.6	8.2	43.8	74.0	-30.2	Peak	Horizontal
*	9625.2	35.1	10.9	46.0	81.7	-35.7	Peak	Horizontal
	4842.0	39.9	2.7	42.6	74.0	-31.4	Peak	Vertical
*	6431.5	38.6	5.6	44.2	81.7	-37.5	Peak	Vertical
	9142.1	35.5	9.8	45.3	74.0	-28.7	Peak	Vertical
*	9653.4	34.8	11.0	45.8	81.7	-35.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (101.7dBμV/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 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
	4876.0	45.3	2.7	48.0	74.0	-26.0	Peak	Horizontal
*	6431.5	41.0	5.6	46.6	88.6	-42.0	Peak	Horizontal
	8626.4	35.7	8.8	44.5	74.0	-29.5	Peak	Horizontal
*	12749.4	35.6	11.7	47.3	88.6	-41.3	Peak	Horizontal
	4859.0	46.4	2.7	49.1	74.0	-24.9	Peak	Vertical
*	6532.7	35.7	5.9	41.6	88.6	-47.0	Peak	Vertical
	9142.4	35.5	9.8	45.3	74.0	-28.7	Peak	Vertical
*	12752.4	36.1	11.7	47.8	88.6	-40.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (108.6dBμV/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:	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
	4893.0	40.5	2.7	43.2	74.0	-30.8	Peak	Horizontal
*	6431.5	40.6	5.6	46.2	84.2	-38.0	Peak	Horizontal
	9142.0	35.7	9.8	45.5	74.0	-28.5	Peak	Horizontal
*	12745.9	35.5	11.7	47.2	84.2	-37.0	Peak	Horizontal
	4901.5	38.4	2.7	41.1	74.0	-32.9	Peak	Vertical
*	6431.5	38.3	5.6	43.9	84.2	-40.3	Peak	Vertical
	9142.3	37.0	9.8	46.8	74.0	-27.2	Peak	Vertical
*	12703.4	36.4	11.6	48.0	84.2	-36.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (104.2dBμV/m).

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

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

Test Mode:	802.11n-HT20 - Ant 0 + 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
	4825.0	42.3	2.7	45.0	74.0	-29.0	Peak	Horizontal
*	6431.5	42.0	5.6	47.6	90.0	-42.4	Peak	Horizontal
	7494.0	38.8	8.2	47.0	74.0	-27.0	Peak	Horizontal
*	9626.4	35.4	11.0	46.4	90.0	-43.6	Peak	Horizontal
	4813.0	36.8	2.7	39.5	74.0	-34.5	Peak	Vertical
*	6431.5	38.9	5.6	44.5	90.0	-45.5	Peak	Vertical
	9153.3	35.2	9.8	45.0	74.0	-29.0	Peak	Vertical
*	12715.3	36.0	11.7	47.7	90.0	-42.3	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (110.0dBμV/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 + 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
	3252.5	47.1	-1.7	45.4	74.0	-28.6	Peak	Horizontal
*	4876.0	45.1	2.7	47.8	96.6	-48.8	Peak	Horizontal
	6431.5	41.1	5.6	46.7	74.0	-27.3	Peak	Horizontal
*	7315.5	40.3	8.0	48.3	96.6	-48.3	Peak	Horizontal
	4825.5	36.7	2.7	39.4	74.0	-34.6	Peak	Vertical
*	5263.0	36.4	3.2	39.6	96.6	-57.0	Peak	Vertical
	7315.5	39.4	8.0	47.4	74.0	-26.6	Peak	Vertical
*	9243.2	35.3	10.2	45.5	96.6	-51.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (116.6dBμV/m).

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

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

Test Mode:	802.11n-HT20 - Ant 0 + 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
	4918.5	40.6	2.8	43.4	74.0	-30.6	Peak	Horizontal
*	6431.5	41.2	5.6	46.8	91.5	-44.7	Peak	Horizontal
	9143.4	35.5	9.8	45.3	74.0	-28.7	Peak	Horizontal
*	12763.6	35.8	11.7	47.5	91.5	-44.0	Peak	Horizontal
	4851.2	37.1	2.7	39.8	74.0	-34.2	Peak	Vertical
*	6431.5	39.1	5.6	44.7	91.5	-46.8	Peak	Vertical
	9143.6	34.8	9.8	44.6	74.0	-29.4	Peak	Vertical
*	12736.4	36.2	11.7	47.9	91.5	-43.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (111.5dBμV/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-HT40 - Ant 0 + 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
	4854.0	37.5	2.7	40.2	74.0	-33.8	Peak	Horizontal
*	6431.5	42.0	5.6	47.6	83.9	-36.3	Peak	Horizontal
	9143.6	35.5	9.8	45.3	74.0	-28.7	Peak	Horizontal
*	12726.4	35.5	11.6	47.1	83.9	-36.8	Peak	Horizontal
	4865.3	36.7	2.7	39.4	74.0	-34.6	Peak	Vertical
*	6725.3	35.9	5.7	41.6	83.9	-42.3	Peak	Vertical
	9142.3	35.6	9.8	45.4	74.0	-28.6	Peak	Vertical
*	12753.4	37.0	11.7	48.7	83.9	-35.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (103.9dBμV/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)