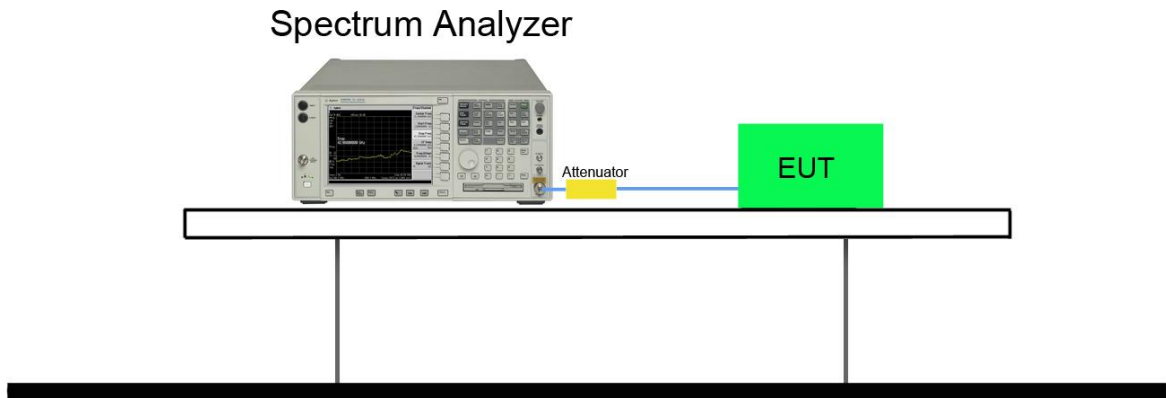


7.5.4. Test Setup



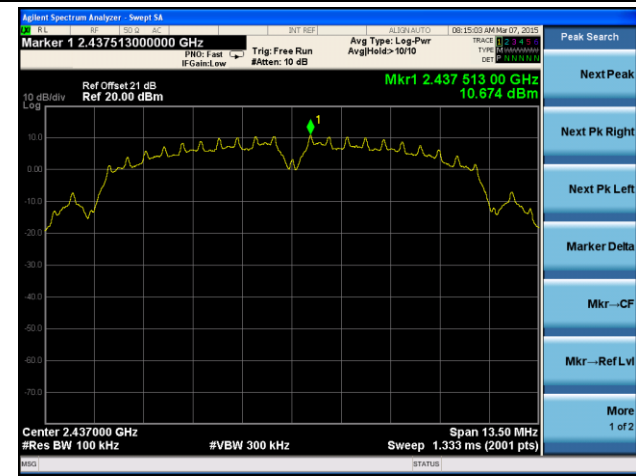
7.5.5. Test Result

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



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

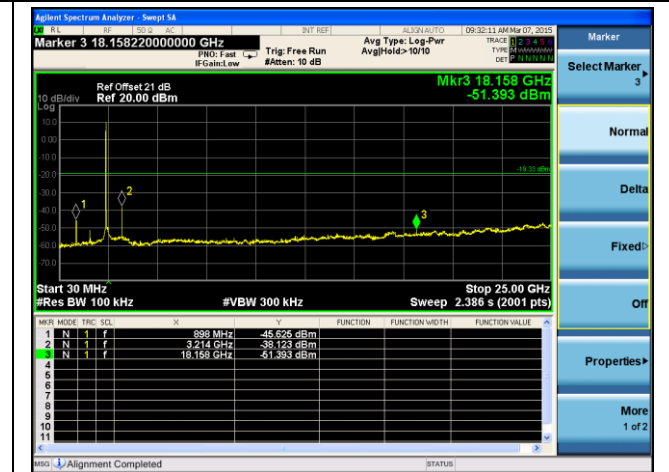
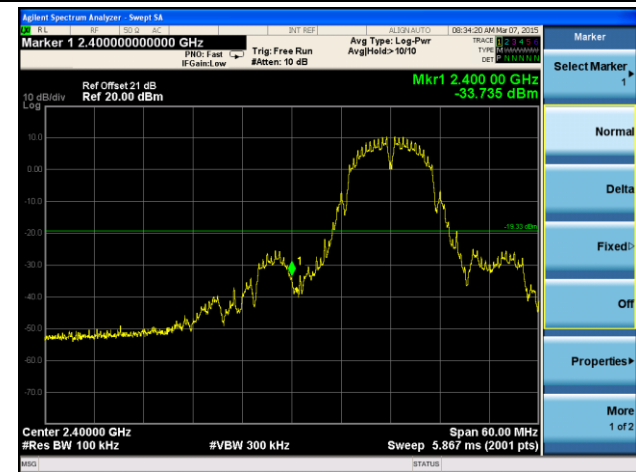
Mkr--CF

Mkr--Ref Lvl

More 1 of 2

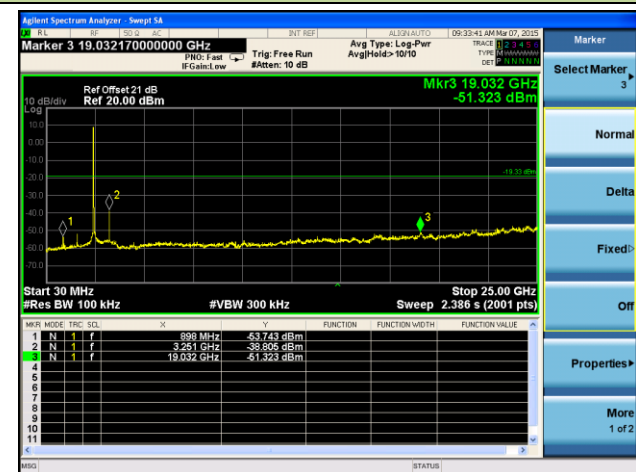
Channel 01 (2412MHz)

Low Band Edge



Channel 06 (2437MHz)

Spurious Emission



Marker

Select Marker

Normal

Delta

Fixed

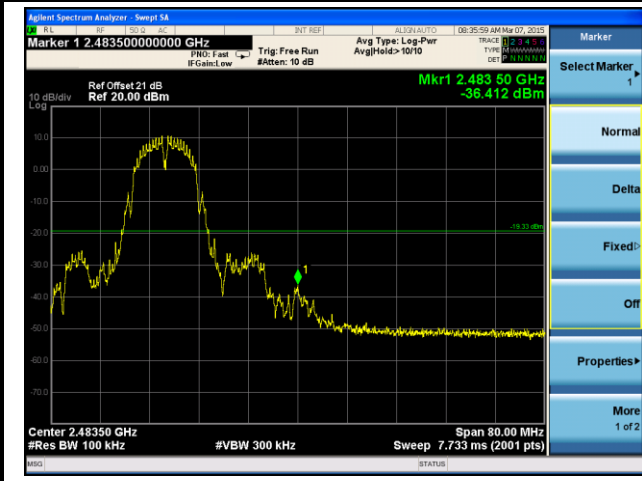
Off

Properties

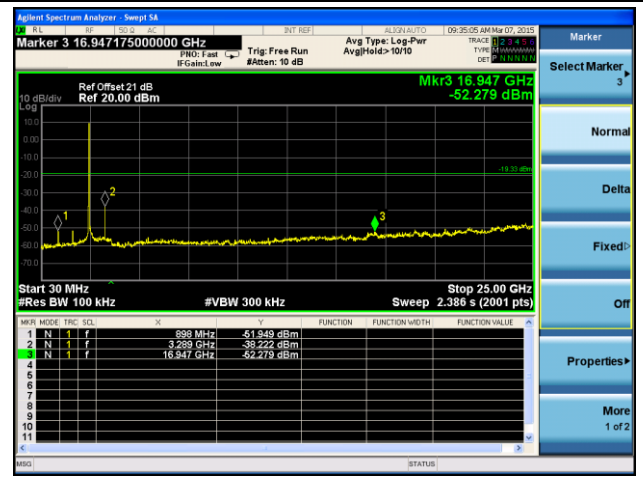
More 1 of 2

Channel 11 (2462MHz)

High Band Edge

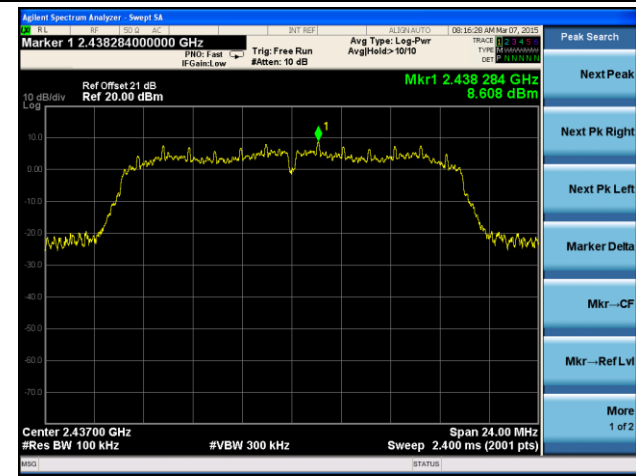


Spurious Emission



802.11g Out-of-Band Emissions - Ant 0

100kHz PSD reference Level



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

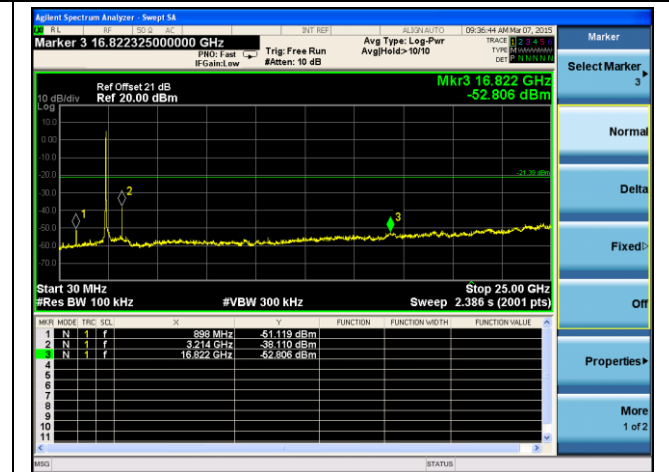
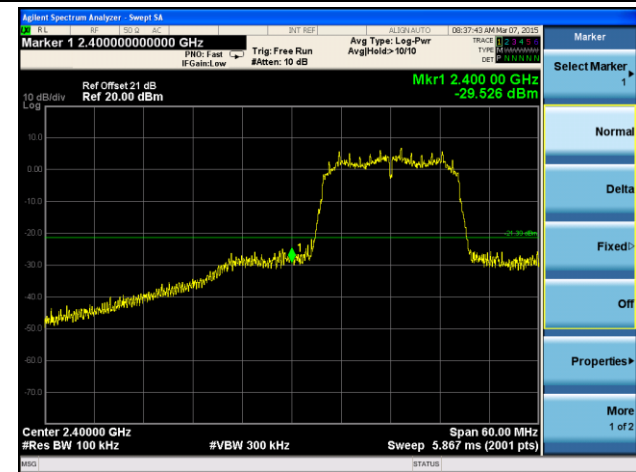
Mkr--CF

Mkr--Ref Lvl

More 1 of 2

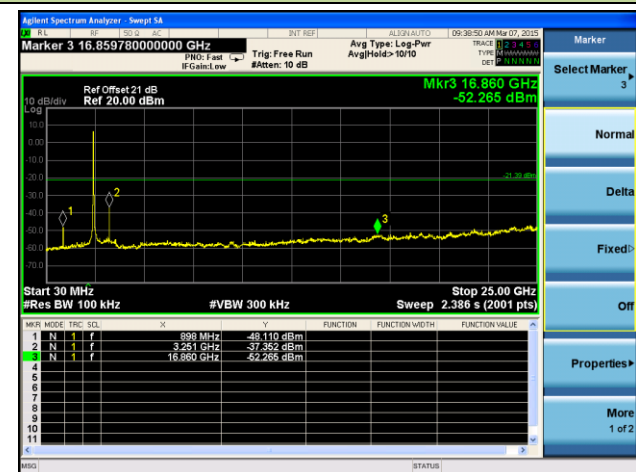
Channel 01 (2412MHz)

Low Band Edge



Channel 06 (2437MHz)

Spurious Emission



Marker

Select Marker

Normal

Delta

Fixed

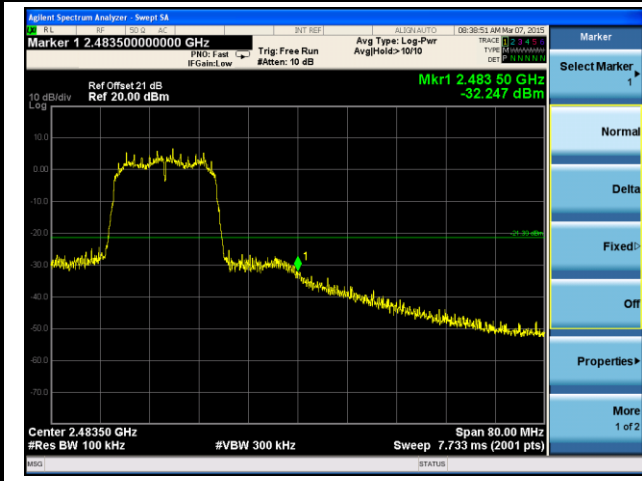
Off

Properties

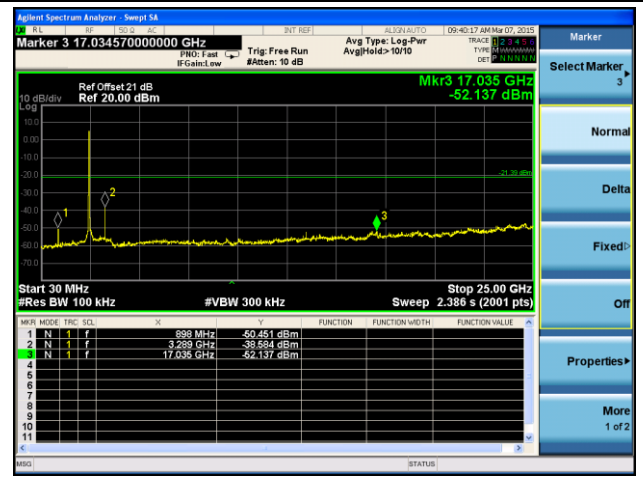
More 1 of 2

Channel 11 (2462MHz)

High Band Edge

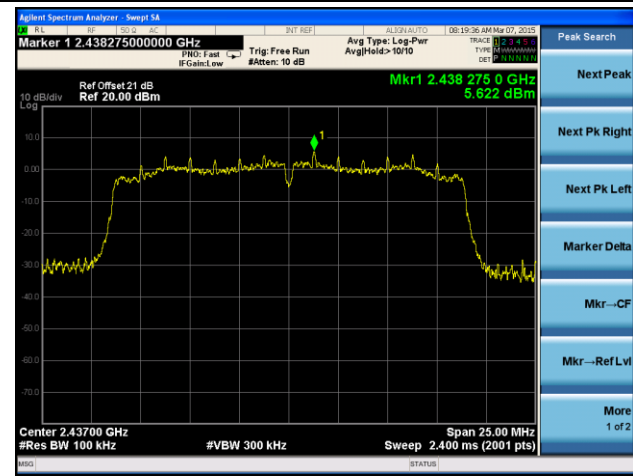


Spurious Emission



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

100kHz PSD reference Level



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

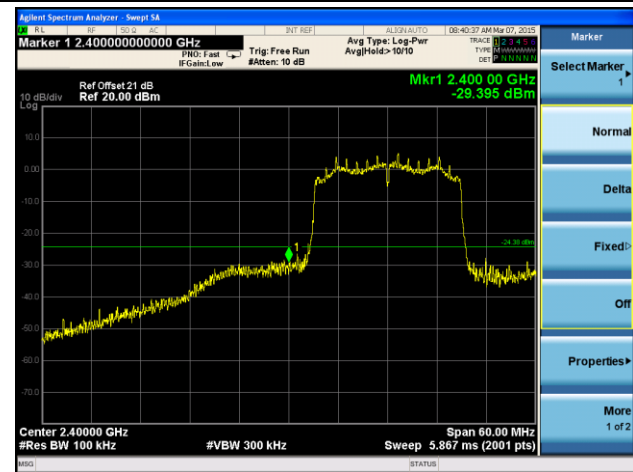
Mkr--CF

Mkr--Ref Lvl

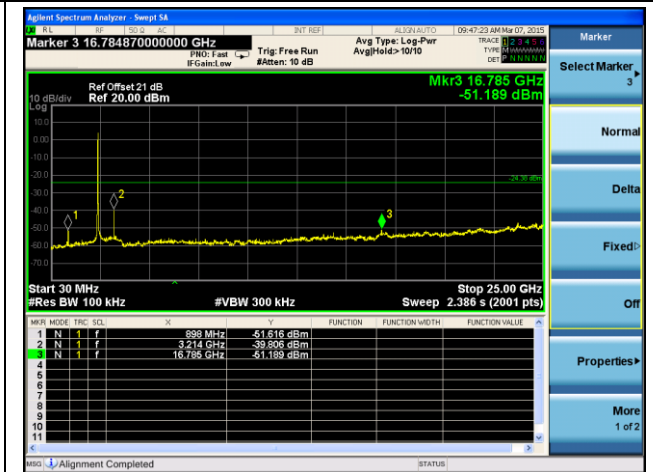
More 1 of 2

Channel 01 (2412MHz)

Low Band Edge

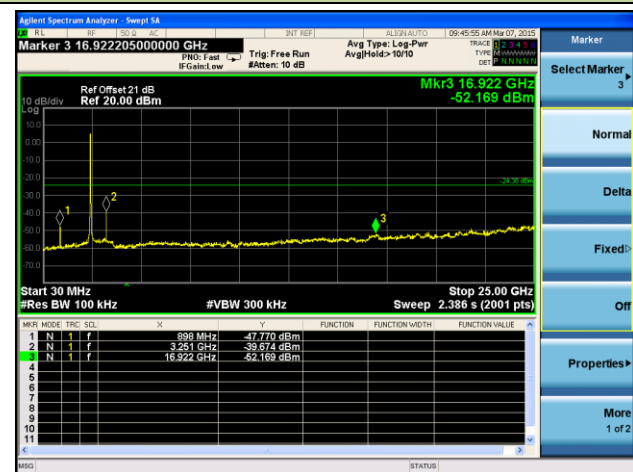


Spurious Emission



Channel 06 (2437MHz)

Spurious Emission



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

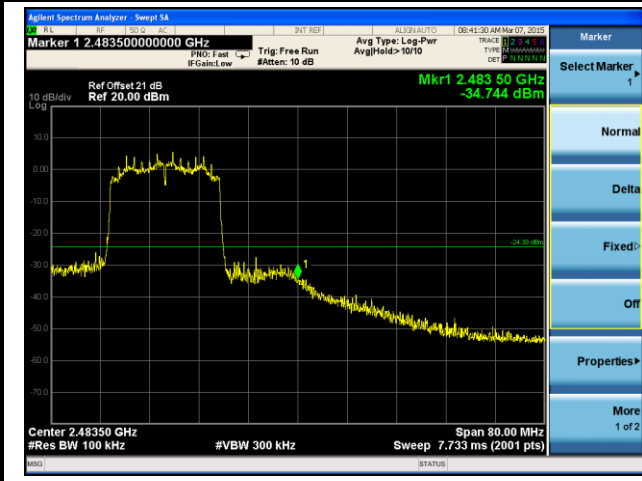
Mkr--CF

Mkr--Ref Lvl

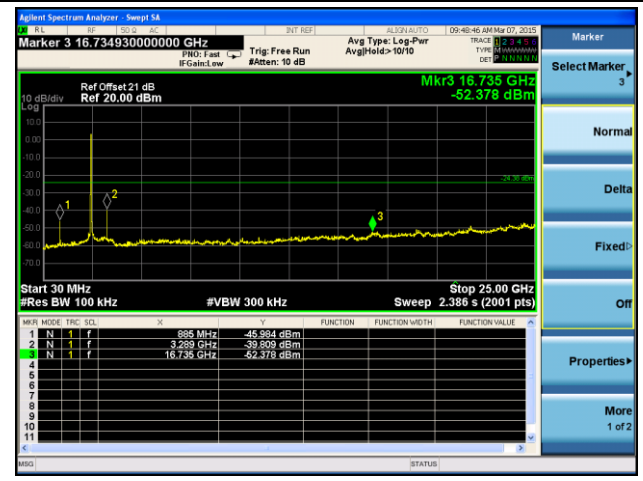
More 1 of 2

Channel 11 (2462MHz)

High Band Edge

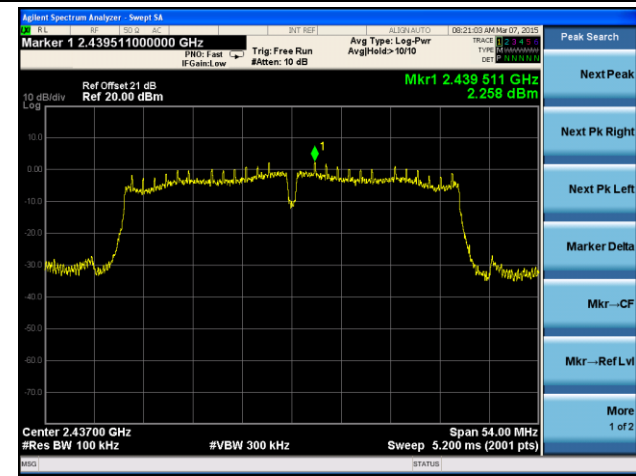


Spurious Emission



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

100kHz PSD reference Level



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

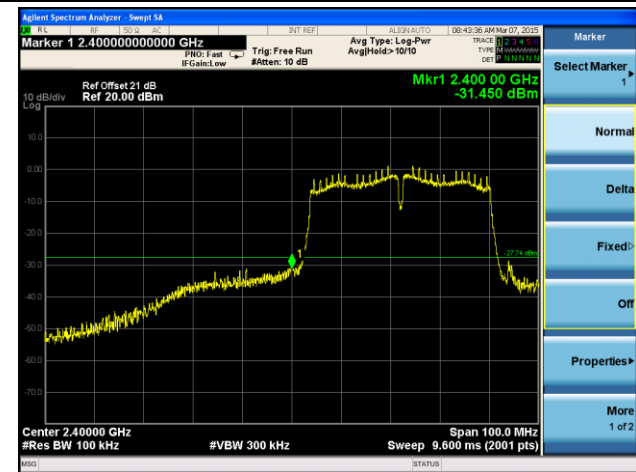
Mkr--CF

Mkr--Ref Lvl

More 1 of 2

Channel 03 (2422MHz)

Low Band Edge



Spurious Emission

Agilent Spectrum Analyzer - Sweep 5A

Marker 3 16.759900000000 GHz

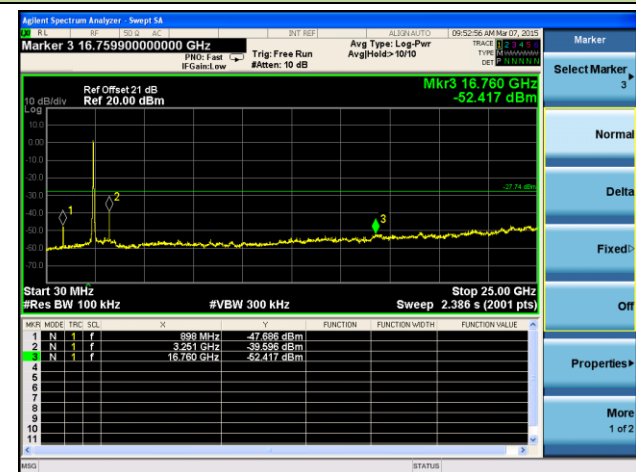
Mkr3 16.760 GHz
-52.848 dBm

Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 25.000 MHz (2001 pts)

MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	898 MHz	-50.583 dBm			
2	N	1	f	3.255 GHz	-49.837 dBm			
3	N	1	f	16.760 GHz	-52.848 dBm			

Channel 06 (2437MHz)

Spurious Emission



Marker

Select Marker

Normal

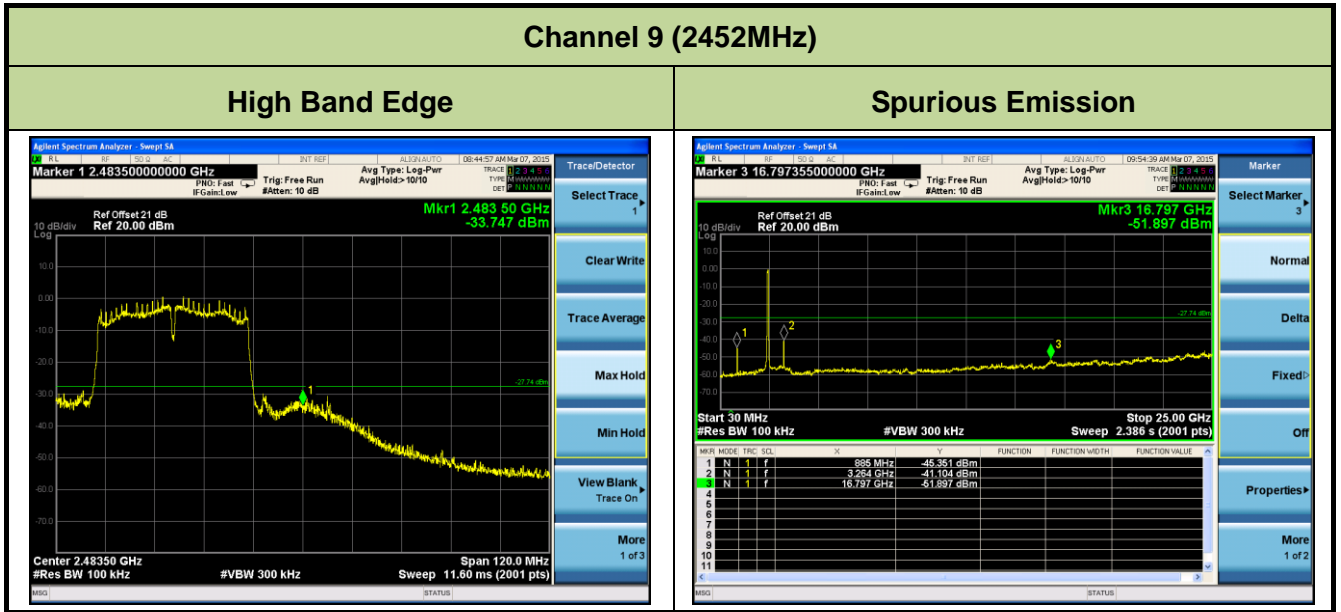
Delta

Fixed

Off

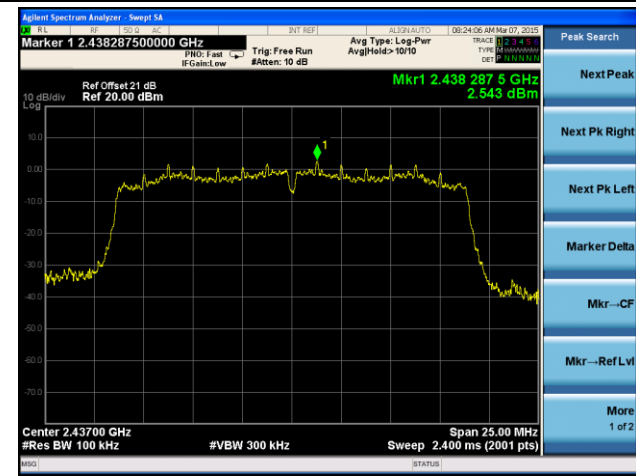
Properties

More 1 of 2



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

100kHz PSD reference Level



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

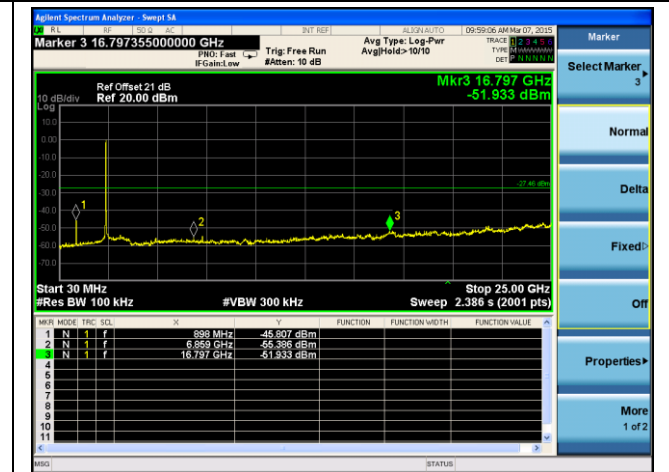
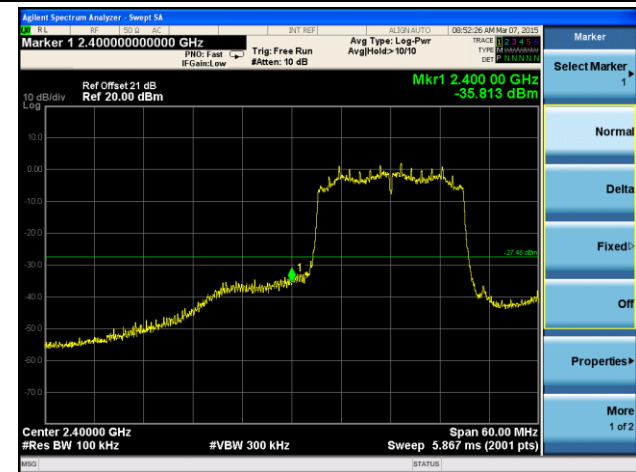
Mkr--CF

Mkr--Ref Lvl

More 1 of 2

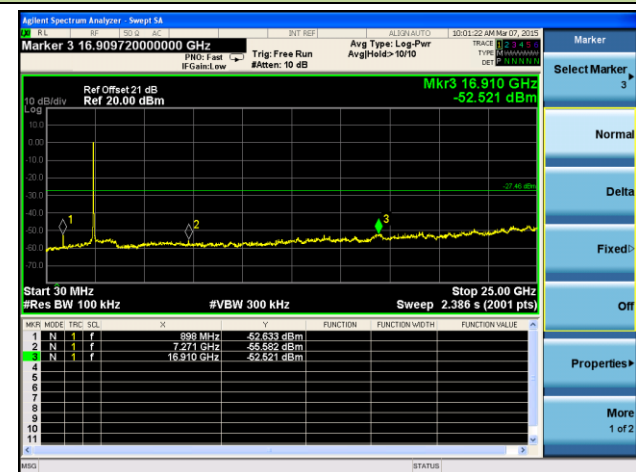
Channel 01 (2412MHz)

Low Band Edge



Channel 06 (2437MHz)

Spurious Emission



Marker

Select Marker

Normal

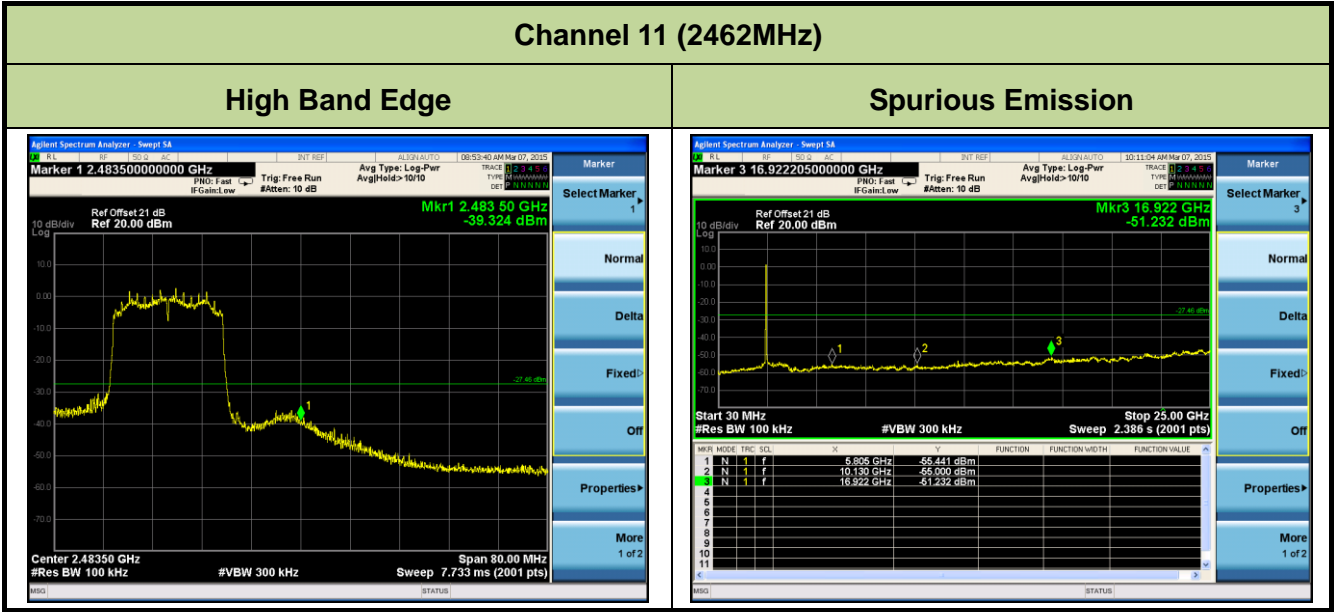
Delta

Fixed

Off

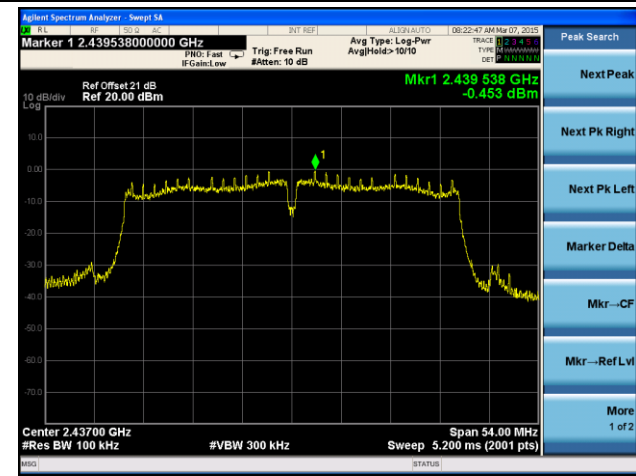
Properties

More 1 of 2



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

100kHz PSD reference Level



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

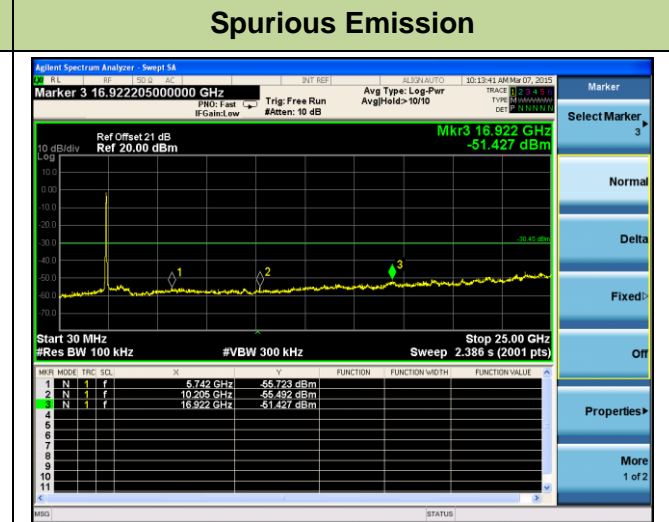
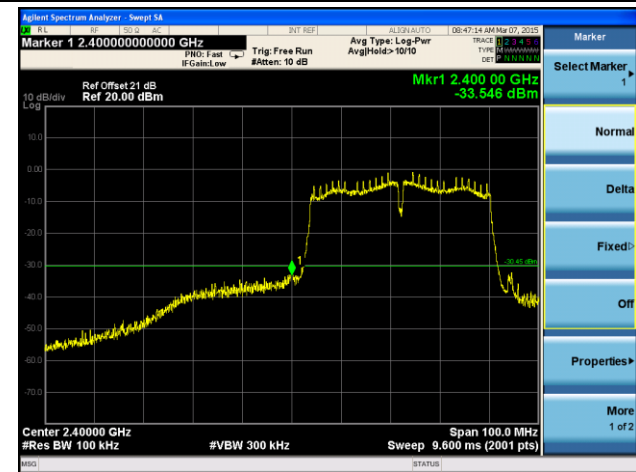
Mkr--CF

Mkr--Ref Lvl

More 1 of 2

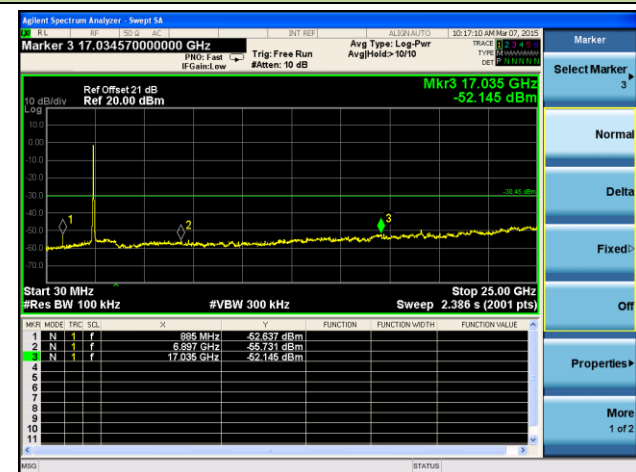
Channel 03 (2422MHz)

Low Band Edge



Channel 06 (2437MHz)

Spurious Emission



Marker

Select Marker

Normal

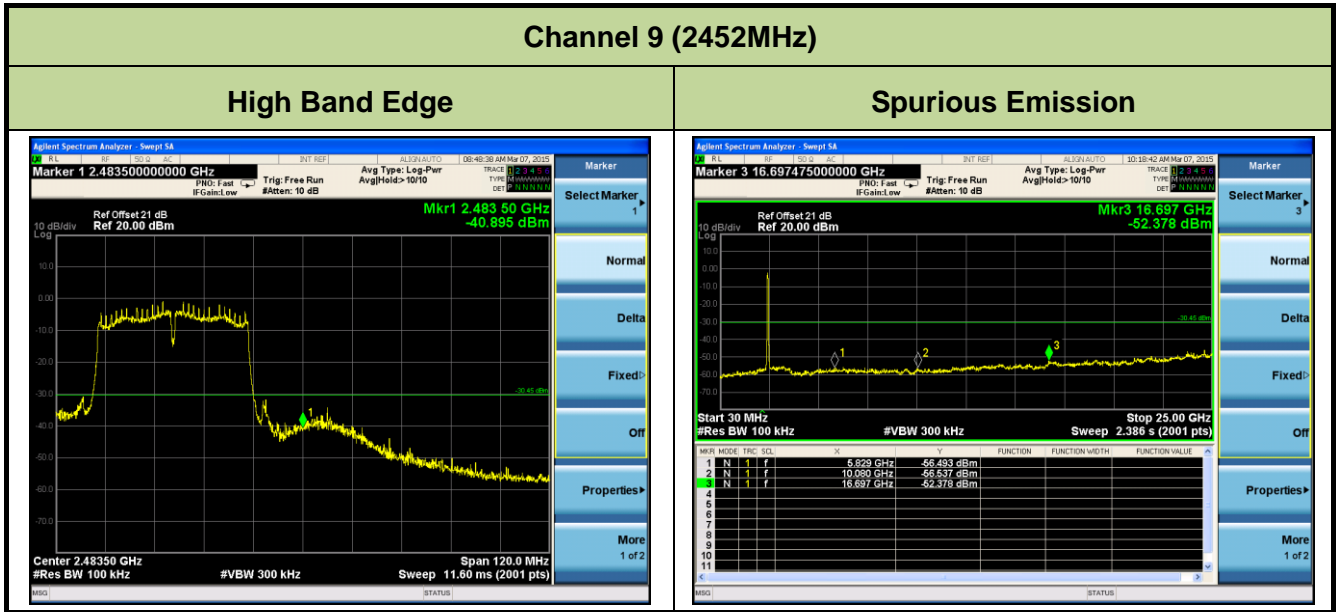
Delta

Fixed

Off

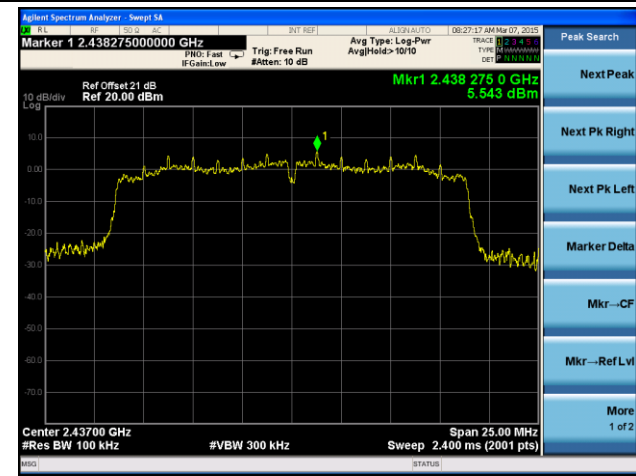
Properties

More 1 of 2



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

100kHz PSD reference Level



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

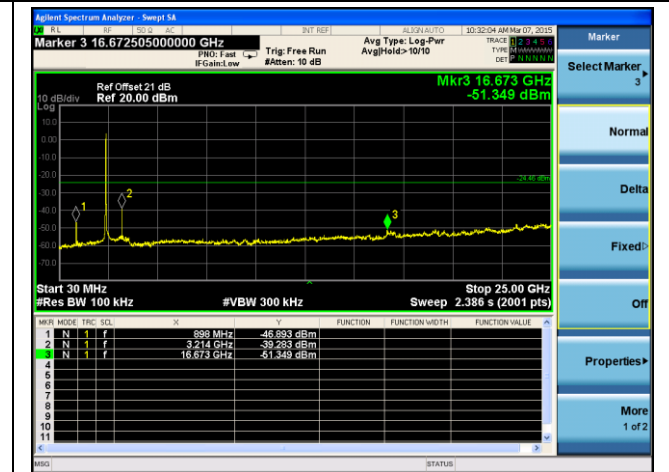
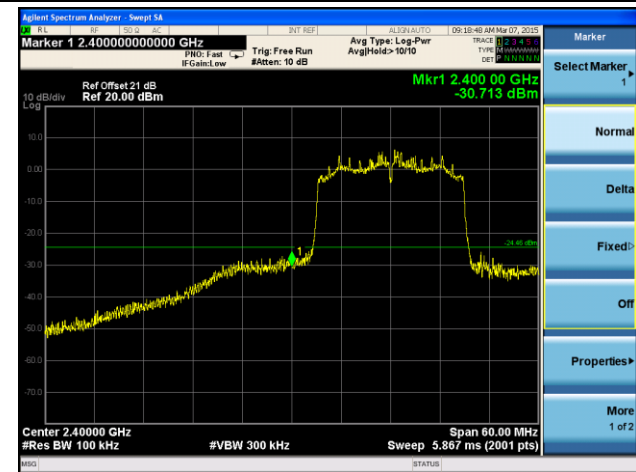
Mkr--CF

Mkr--Ref Lvl

More 1 of 2

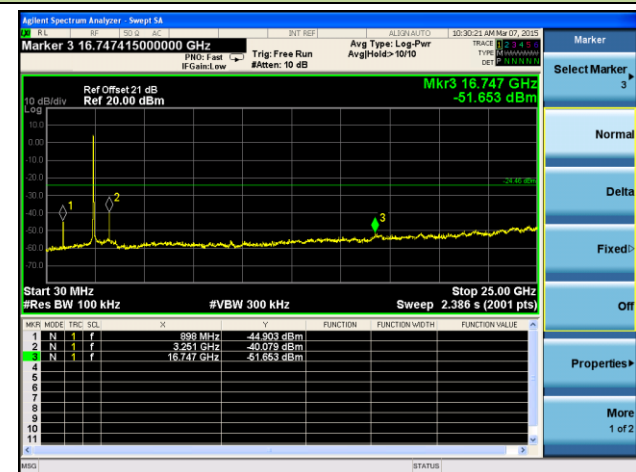
Channel 01 (2412MHz)

Low Band Edge



Channel 06 (2437MHz)

Spurious Emission



Marker

Select Marker

Normal

Delta

Fixed

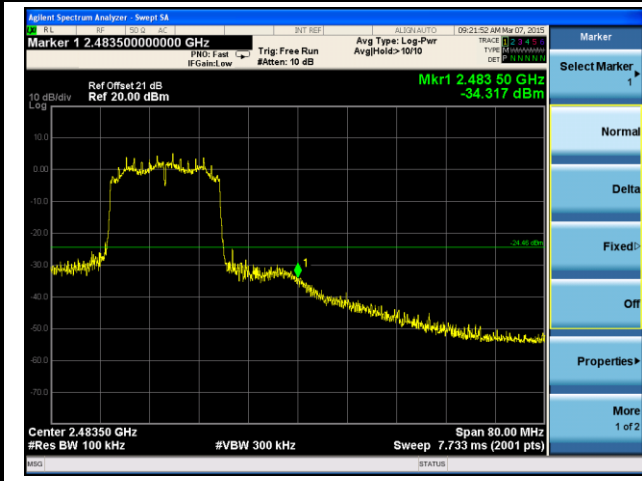
Off

Properties

More 1 of 2

Channel 11 (2462MHz)

High Band Edge

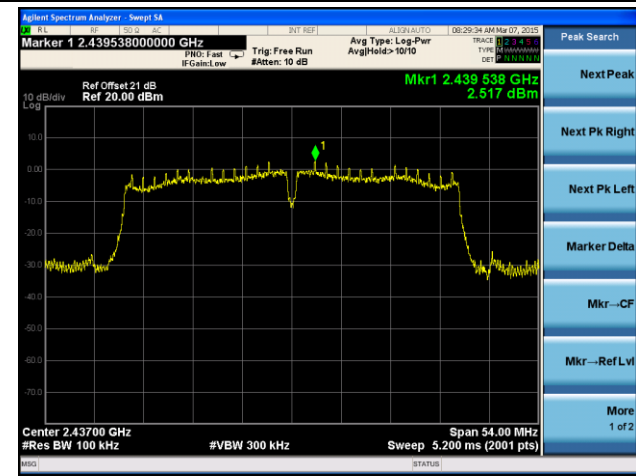


Spurious Emission



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

100kHz PSD reference Level



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

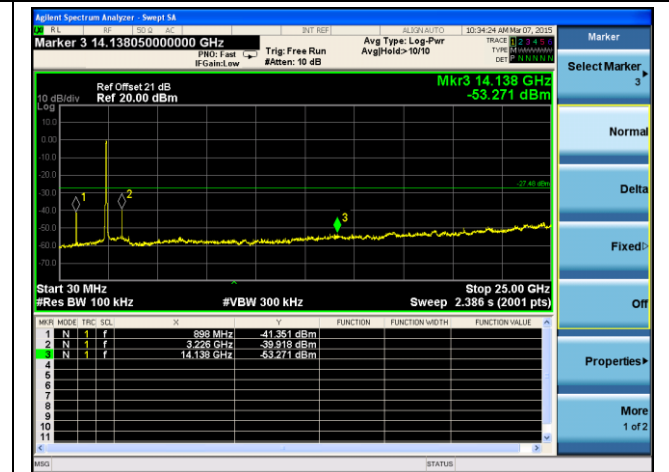
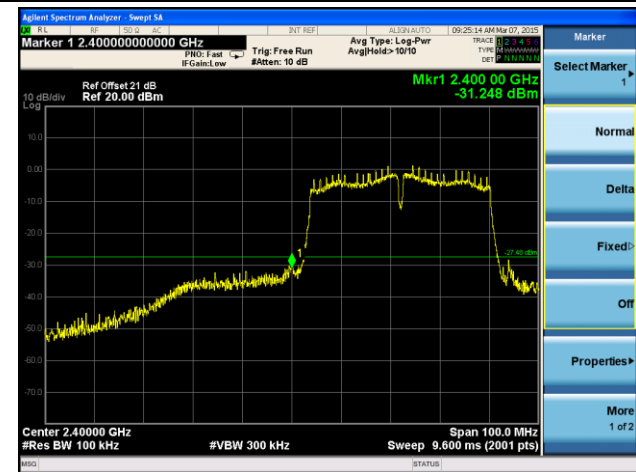
Mkr--CF

Mkr--Ref Lvl

More 1 of 2

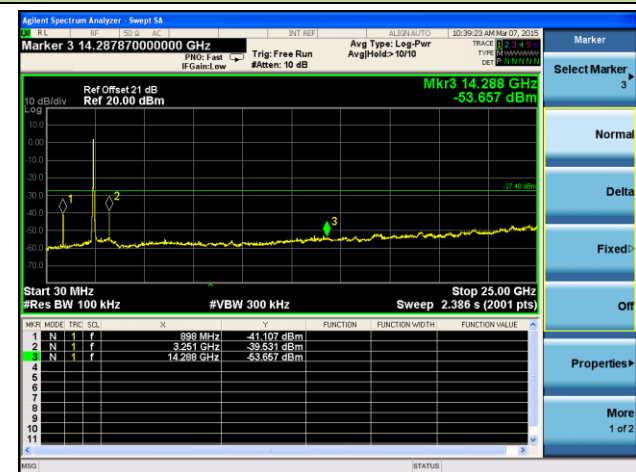
Channel 03 (2422MHz)

Low Band Edge



Channel 06 (2437MHz)

Spurious Emission



Marker

Select Marker

Normal

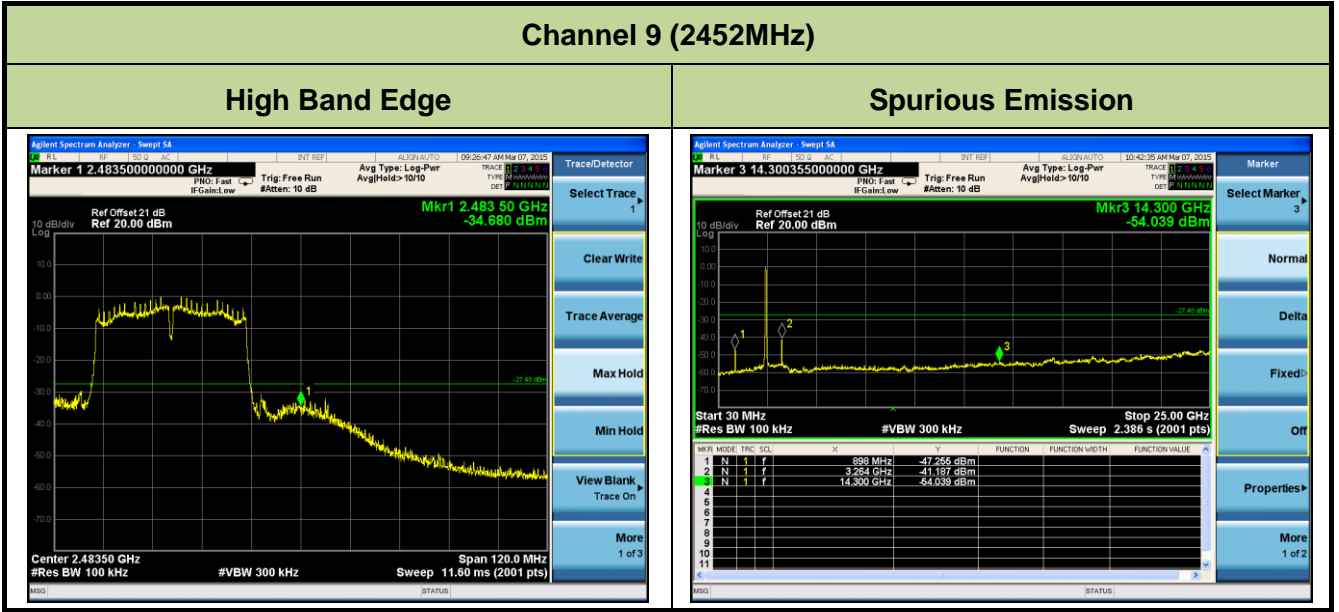
Delta

Fixed

Off

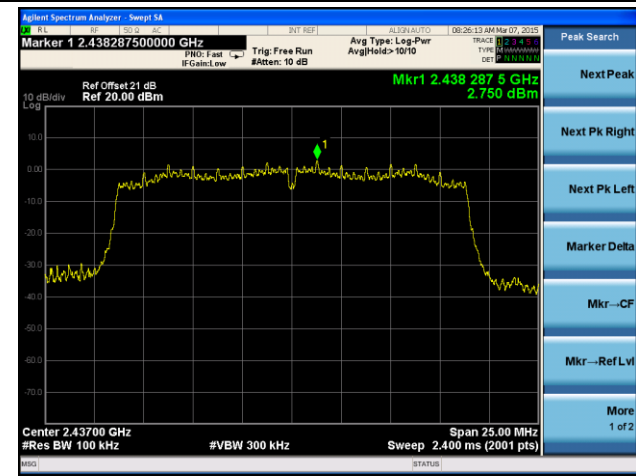
Properties

More 1 of 2



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

100kHz PSD reference Level



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

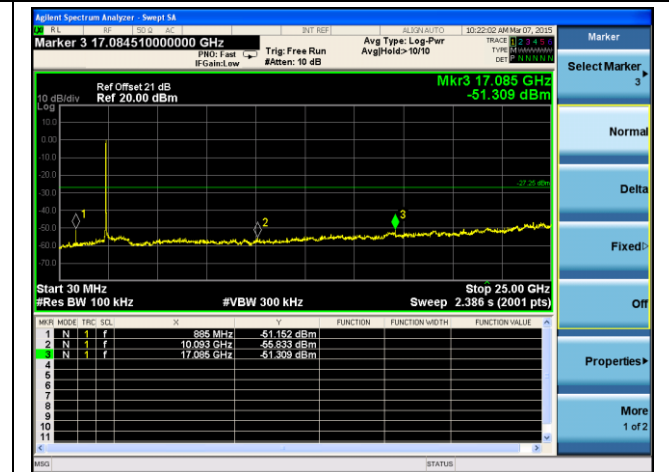
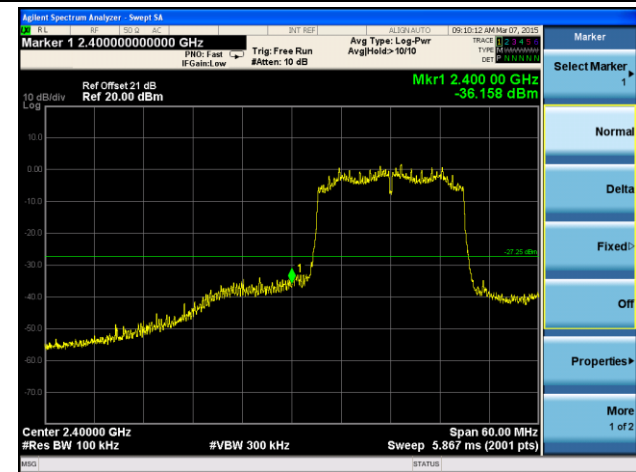
Mkr--CF

Mkr--Ref Lvl

More 1 of 2

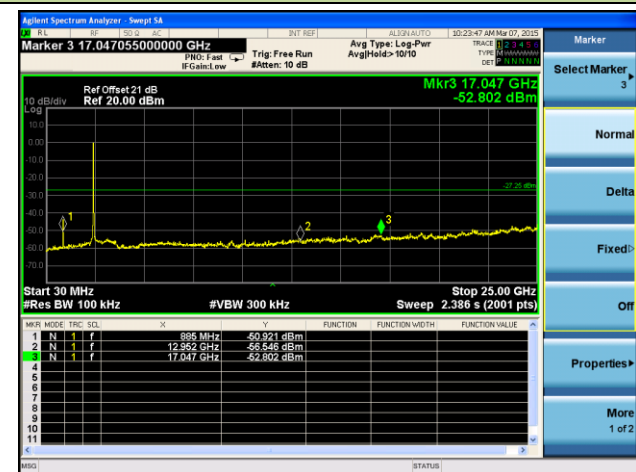
Channel 01 (2412MHz)

Low Band Edge



Channel 06 (2437MHz)

Spurious Emission



Marker

Select Marker

Normal

Delta

Fixed

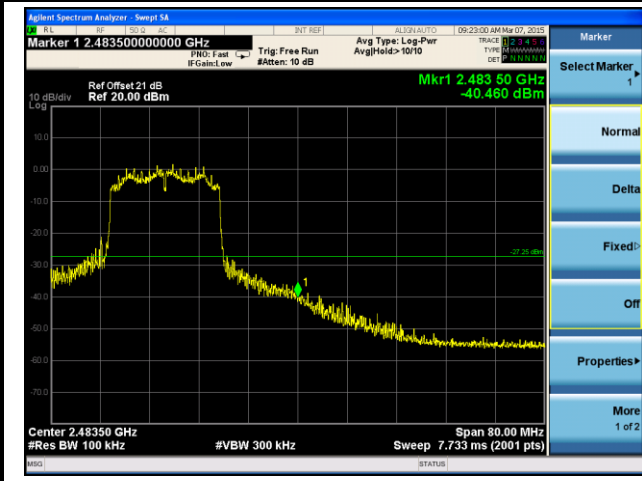
Off

Properties

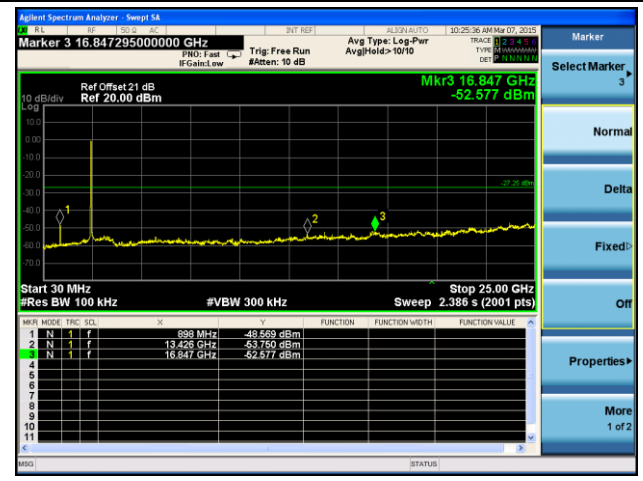
More 1 of 2

Channel 11 (2462MHz)

High Band Edge

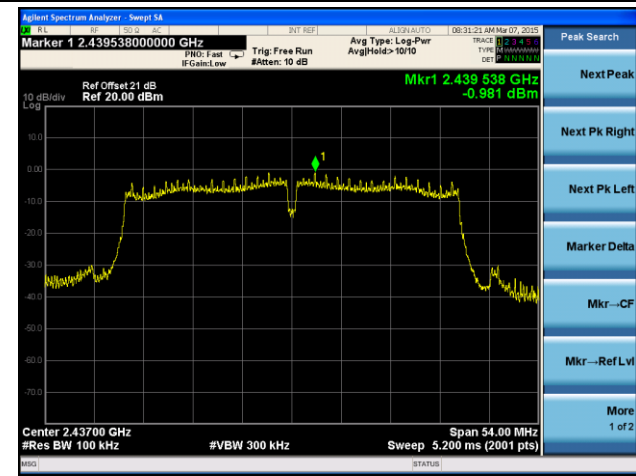


Spurious Emission



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

100kHz PSD reference Level



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

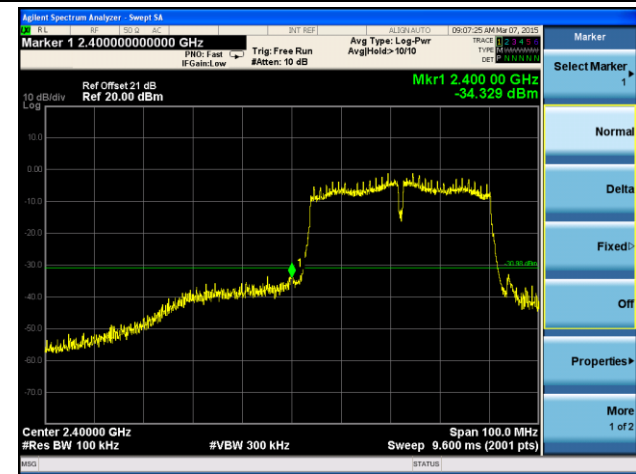
Mkr--CF

Mkr--Ref Lvl

More 1 of 2

Channel 03 (2422MHz)

Low Band Edge



Spurious Emission

Agilent Spectrum Analyzer - Sweep 5A

Marker 3 14.824725000000 GHz

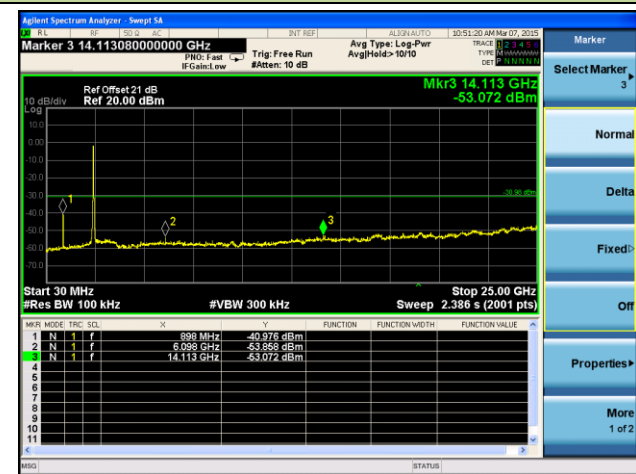
Mkr3 14.825 GHz
-53.264 dBm

Start 30 MHz #Res BW 100 kHz #VBW 300 kHz Stop 25.00 GHz Sweep 2.386 s (2001 pts)

MKR	MODE	TRIG	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	896 MHz	-41.507 dBm			
2	N	1	f	6.210 GHz	-55.769 dBm			
3	N	1	f	14.828 GHz	-53.264 dBm			

Channel 06 (2437MHz)

Spurious Emission



Select Marker 3

Normal

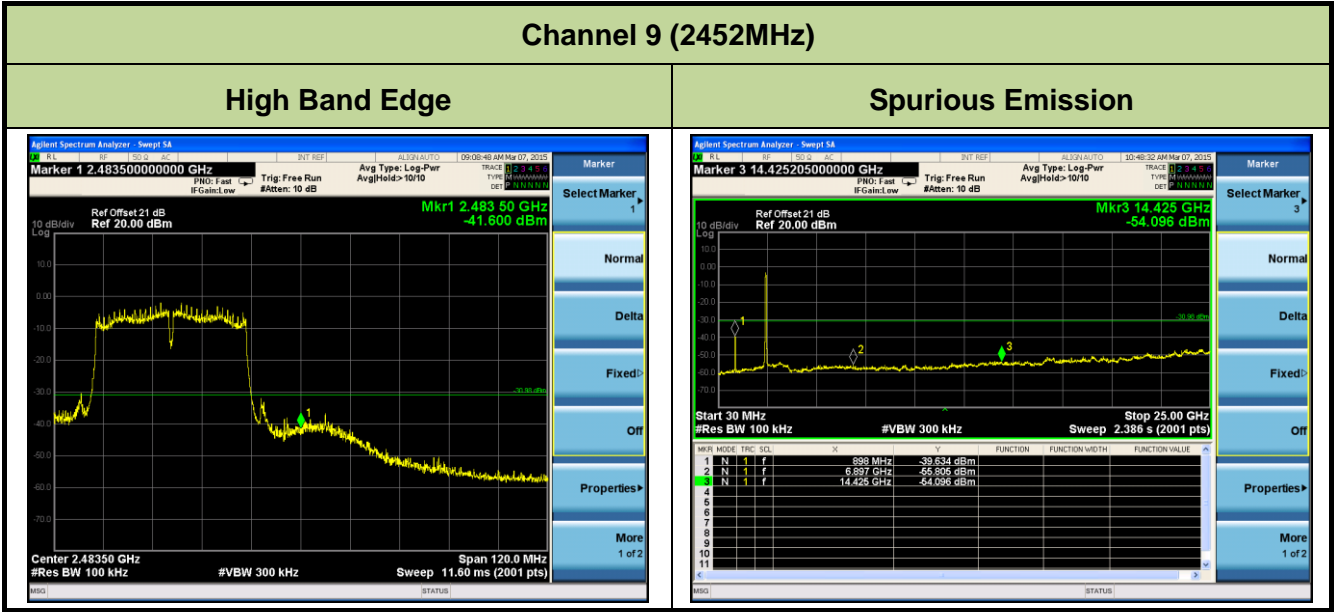
Delta

Fixed

Off

Properties

More 1 of 2



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

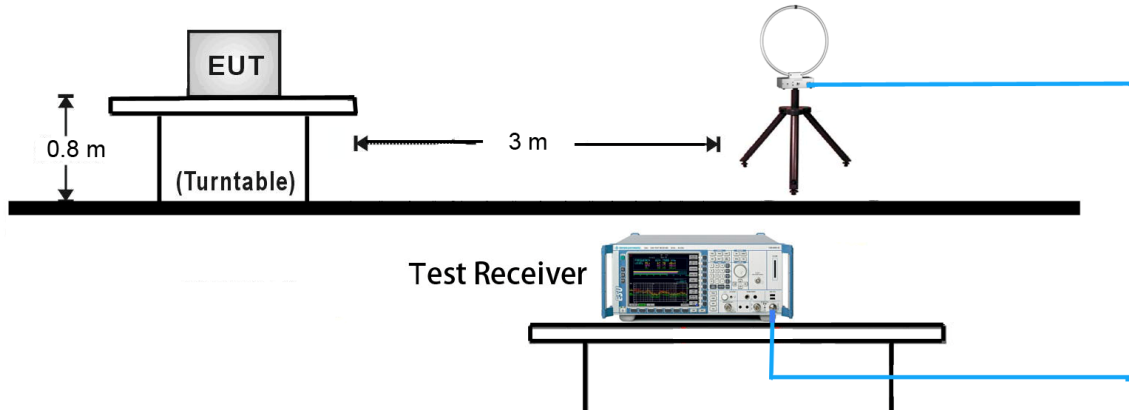
Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

Average Field Strength Measurements

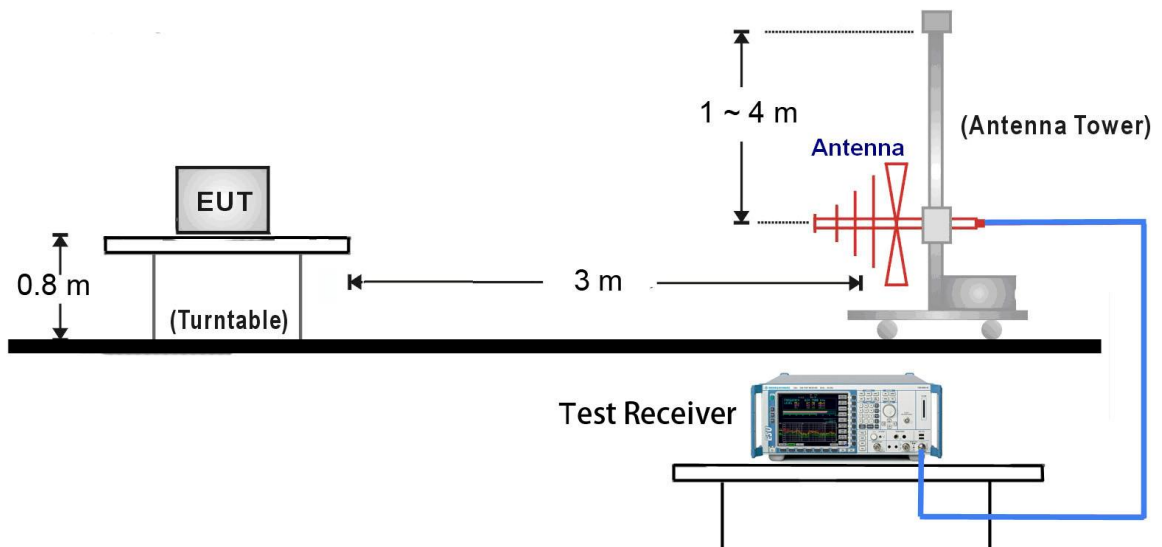
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW \geq 1/T
4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain).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

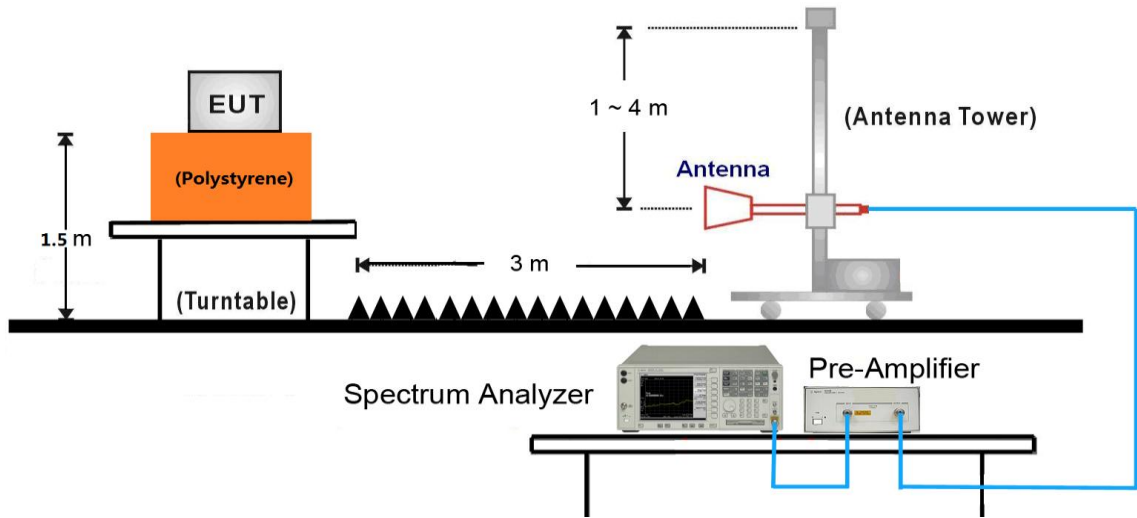
9kHz ~ 30MHz Test Setup:



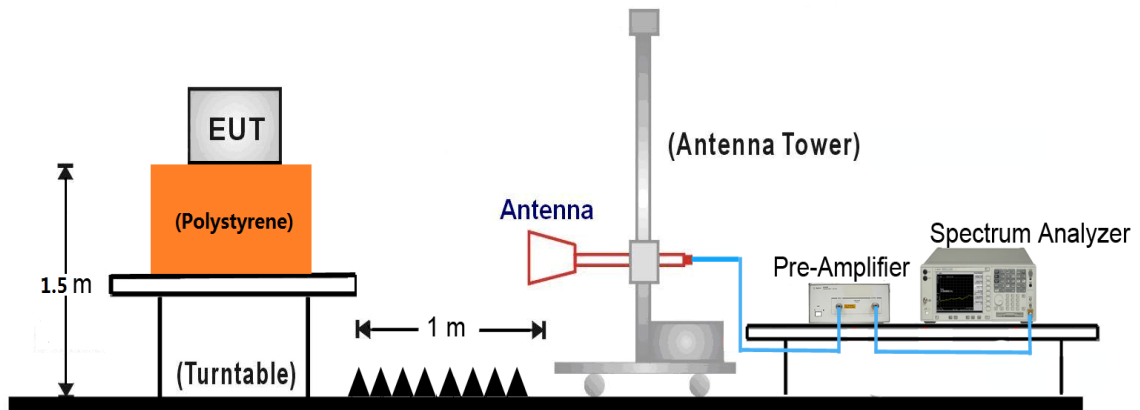
30MHz ~ 1GHz Test Setup:



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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4826.6	37.7	2.7	40.4	74.0	-33.6	Peak	Horizontal
*	6253.4	36.6	4.7	41.3	86.2	-44.9	Peak	Horizontal
	9152.6	35.9	9.8	45.7	74.0	-28.3	Peak	Horizontal
*	12982.3	35.6	12.1	47.7	86.2	-38.5	Peak	Horizontal
	4825.4	39.2	2.7	41.9	74.0	-32.1	Peak	Vertical
*	6255.7	36.2	4.7	40.9	86.2	-45.3	Peak	Vertical
	9144.4	35.2	9.8	45.0	74.0	-29.0	Peak	Vertical
*	12756.4	36.1	11.7	47.8	86.2	-38.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (106.2dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4926.4	36.6	2.8	39.4	74.0	-34.6	Peak	Horizontal
*	6423.7	37.6	5.6	43.2	85.8	-42.6	Peak	Horizontal
	9415.0	36.4	10.6	47.0	74.0	-27.0	Peak	Horizontal
*	12716.4	36.1	11.7	47.8	85.8	-38.0	Peak	Horizontal
	4892.1	36.5	2.7	39.2	74.0	-34.8	Peak	Vertical
*	6723.5	36.0	5.7	41.7	85.8	-44.1	Peak	Vertical
	9142.0	35.9	9.8	45.7	74.0	-28.3	Peak	Vertical
*	12746.4	36.0	11.7	47.7	85.8	-38.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (105.8dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4865.3	37.7	2.7	40.4	74.0	-33.6	Peak	Horizontal
*	6742.4	36.7	5.7	42.4	85.9	-43.5	Peak	Horizontal
	9165.5	35.8	9.8	45.6	74.0	-28.4	Peak	Horizontal
*	12746.4	35.6	11.7	47.3	85.9	-38.6	Peak	Horizontal
	4862.4	37.1	2.7	39.8	74.0	-34.2	Peak	Vertical
*	6253.3	36.8	4.7	41.5	85.9	-44.4	Peak	Vertical
	9142.9	36.0	9.8	45.8	74.0	-28.2	Peak	Vertical
*	12824.7	35.7	11.8	47.5	85.9	-38.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (105.9dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4862.1	36.8	2.7	39.5	74.0	-34.5	Peak	Horizontal
*	6323.7	36.1	5.0	41.1	88.9	-47.8	Peak	Horizontal
	9142.9	35.6	9.8	45.4	74.0	-28.6	Peak	Horizontal
*	12762.4	36.3	11.7	48.0	88.9	-40.9	Peak	Horizontal
	4868.3	36.8	2.7	39.5	74.0	-34.5	Peak	Vertical
*	6723.7	36.2	5.7	41.9	88.9	-47.0	Peak	Vertical
	9143.0	35.1	9.8	44.9	74.0	-29.1	Peak	Vertical
*	12792.4	36.2	11.7	47.9	88.9	-41.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (108.9dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4863.3	37.0	2.7	39.7	74.0	-34.3	Peak	Horizontal
*	6553.3	36.0	6.0	42.0	91.3	-49.3	Peak	Horizontal
	9143.7	35.2	9.8	45.0	74.0	-29.0	Peak	Horizontal
*	12764.4	35.4	11.7	47.1	91.3	-44.2	Peak	Horizontal
	4956.7	36.1	2.9	39.0	74.0	-35.0	Peak	Vertical
*	6583.7	36.0	6.0	42.0	91.3	-49.3	Peak	Vertical
	9143.4	35.1	9.8	44.9	74.0	-29.1	Peak	Vertical
*	12764.0	35.3	11.7	47.0	91.3	-44.3	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (111.3dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4915.4	36.4	2.7	39.1	74.0	-34.9	Peak	Horizontal
*	6845.2	36.2	6.3	42.5	87.7	-45.2	Peak	Horizontal
	9147.3	35.5	9.8	45.3	74.0	-28.7	Peak	Horizontal
*	12763.4	35.0	11.7	46.7	87.7	-41.0	Peak	Horizontal
	4953.6	36.7	2.9	39.6	74.0	-34.4	Peak	Vertical
*	6537.6	35.9	5.9	41.8	87.7	-45.9	Peak	Vertical
	9146.4	35.3	9.8	45.1	74.0	-28.9	Peak	Vertical
*	12764.0	35.6	11.7	47.3	87.7	-40.4	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (107.7dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4953.2	36.2	2.9	39.1	74.0	-34.9	Peak	Horizontal
*	6486.4	35.6	5.9	41.5	86.9	-45.4	Peak	Horizontal
	9124.7	36.4	9.6	46.0	74.0	-28.0	Peak	Horizontal
*	12764.9	35.0	11.7	46.7	86.9	-40.2	Peak	Horizontal
	4891.6	36.3	2.7	39.0	74.0	-35.0	Peak	Vertical
*	6753.1	36.3	5.7	42.0	86.9	-44.9	Peak	Vertical
	9147.9	35.2	9.8	45.0	74.0	-29.0	Peak	Vertical
*	12746.6	35.5	11.7	47.2	86.9	-39.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (106.9dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4921.1	36.3	2.8	39.1	74.0	-34.9	Peak	Horizontal
*	6853.3	35.7	6.3	42.0	89.7	-47.7	Peak	Horizontal
	9147.7	35.2	9.8	45.0	74.0	-29.0	Peak	Horizontal
*	12746.3	34.7	11.7	46.4	89.7	-43.3	Peak	Horizontal
	4927.3	37.4	2.8	40.2	74.0	-33.8	Peak	Vertical
*	6259.4	35.8	4.8	40.6	89.7	-49.1	Peak	Vertical
	9465.4	35.6	10.5	46.1	74.0	-27.9	Peak	Vertical
*	12763.1	35.0	11.7	46.7	89.7	-43.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (109.7dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4963.0	35.8	2.9	38.7	74.0	-35.3	Peak	Horizontal
*	6842.1	36.4	6.3	42.7	85.9	-43.2	Peak	Horizontal
	9143.1	35.0	9.8	44.8	74.0	-29.2	Peak	Horizontal
*	12796.9	35.4	11.7	47.1	85.9	-38.8	Peak	Horizontal
	4968.6	36.1	2.9	39.0	74.0	-35.0	Peak	Vertical
*	6826.4	35.7	6.2	41.9	85.9	-44.0	Peak	Vertical
	9144.5	34.9	9.8	44.7	74.0	-29.3	Peak	Vertical
*	12769.4	35.3	11.7	47.0	85.9	-38.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (105.9dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4972.9	35.9	3.0	38.9	74.0	-35.1	Peak	Horizontal
*	6874.3	36.4	6.4	42.8	84.3	-41.5	Peak	Horizontal
	9176.4	35.1	10.0	45.1	74.0	-28.9	Peak	Horizontal
*	12765.4	35.4	11.7	47.1	84.3	-37.2	Peak	Horizontal
	4978.4	36.3	3.0	39.3	74.0	-34.7	Peak	Vertical
*	6821.5	35.6	6.2	41.8	84.3	-42.5	Peak	Vertical
	9182.6	35.2	10.0	45.2	74.0	-28.8	Peak	Vertical
*	12763.4	35.5	11.7	47.2	84.3	-37.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (104.3dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4952.1	36.0	2.9	38.9	74.0	-35.1	Peak	Horizontal
*	6431.5	41.7	5.6	47.3	88.4	-41.1	Peak	Horizontal
	9143.6	35.3	9.8	45.1	74.0	-28.9	Peak	Horizontal
*	12756.4	35.3	11.7	47.0	88.4	-41.4	Peak	Horizontal
	4921.2	36.1	2.8	38.9	74.0	-35.1	Peak	Vertical
*	6743.6	36.1	5.7	41.8	88.4	-46.6	Peak	Vertical
	9142.4	35.1	9.8	44.9	74.0	-29.1	Peak	Vertical
*	12742.7	35.6	11.7	47.3	88.4	-41.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (108.4dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4915.4	35.7	2.7	38.4	74.0	-35.6	Peak	Horizontal
*	6473.2	35.7	5.8	41.5	82.8	-41.3	Peak	Horizontal
	9163.5	35.4	9.8	45.2	74.0	-28.8	Peak	Horizontal
*	12763.8	35.0	11.7	46.7	82.8	-36.1	Peak	Horizontal
	4963.8	36.0	2.9	38.9	74.0	-35.1	Peak	Vertical
*	6345.0	36.1	5.1	41.2	82.8	-41.6	Peak	Vertical
	9142.4	35.0	9.8	44.8	74.0	-29.2	Peak	Vertical
*	12756.7	35.4	11.7	47.1	82.8	-35.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (102.8dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4971.3	36.6	3.0	39.6	74.0	-34.4	Peak	Horizontal
*	6431.2	40.4	5.6	46.0	80.2	-34.2	Peak	Horizontal
	9143.4	34.8	9.8	44.6	74.0	-29.4	Peak	Horizontal
*	12795.9	35.3	11.7	47.0	80.2	-33.2	Peak	Horizontal
	4963.4	35.9	2.9	38.8	74.0	-35.2	Peak	Vertical
*	6741.5	36.1	5.7	41.8	80.2	-38.4	Peak	Vertical
	9142.4	35.4	9.8	45.2	74.0	-28.8	Peak	Vertical
*	12769.0	35.8	11.7	47.5	80.2	-32.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (100.2dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4972.4	35.9	3.0	38.9	74.0	-35.1	Peak	Horizontal
*	6932.6	35.7	6.6	42.3	85.2	-42.9	Peak	Horizontal
	9145.0	34.8	9.8	44.6	74.0	-29.4	Peak	Horizontal
*	12763.4	35.7	11.7	47.4	85.2	-37.8	Peak	Horizontal
	4926.4	35.3	2.8	38.1	74.0	-35.9	Peak	Vertical
*	6533.7	35.4	5.9	41.3	85.2	-43.9	Peak	Vertical
	9148.0	34.9	9.8	44.7	74.0	-29.3	Peak	Vertical
*	12762.4	35.9	11.7	47.6	85.2	-37.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (105.2dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4975.6	36.1	3.0	39.1	74.0	-34.9	Peak	Horizontal
*	6746.4	35.5	5.7	41.2	79.8	-38.6	Peak	Horizontal
	9145.7	34.6	9.8	44.4	74.0	-29.6	Peak	Horizontal
*	12763.4	35.6	11.7	47.3	79.8	-32.5	Peak	Horizontal
	4968.3	35.4	2.9	38.3	74.0	-35.7	Peak	Vertical
*	6853.4	36.0	6.3	42.3	79.8	-37.5	Peak	Vertical
	9143.4	36.0	9.8	45.8	74.0	-28.2	Peak	Vertical
*	12741.5	35.5	11.7	47.2	79.8	-32.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (99.8dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4986.4	36.0	3.0	39.0	74.0	-35.0	Peak	Horizontal
*	6854.0	35.7	6.3	42.0	79.8	-37.8	Peak	Horizontal
	9176.9	34.8	10.0	44.8	74.0	-29.2	Peak	Horizontal
*	12763.4	36.1	11.7	47.8	79.8	-32.0	Peak	Horizontal
	4971.9	36.0	3.0	39.0	74.0	-35.0	Peak	Vertical
*	6853.6	36.3	6.3	42.6	79.8	-37.2	Peak	Vertical
	9145.4	35.4	9.8	45.2	74.0	-28.8	Peak	Vertical
*	12756.4	35.1	11.7	46.8	79.8	-33.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (99.8dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4873.2	36.4	2.7	39.1	74.0	-34.9	Peak	Horizontal
*	6748.9	35.8	5.7	41.5	83.4	-41.9	Peak	Horizontal
	9155.3	34.8	9.8	44.6	74.0	-29.4	Peak	Horizontal
*	12745.1	35.4	11.7	47.1	83.4	-36.3	Peak	Horizontal
	4976.9	36.0	3.0	39.0	74.0	-35.0	Peak	Vertical
*	6583.4	35.8	6.0	41.8	83.4	-41.6	Peak	Vertical
	9148.4	34.6	9.8	44.4	74.0	-29.6	Peak	Vertical
*	12744.9	35.8	11.7	47.5	83.4	-35.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (103.4dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4925.4	36.4	2.8	39.2	74.0	-34.8	Peak	Horizontal
*	6283.7	35.5	4.9	40.4	77.4	-37.0	Peak	Horizontal
	9469.0	35.2	10.5	45.7	74.0	-28.3	Peak	Horizontal
*	12863.8	35.4	12.0	47.4	77.4	-30.0	Peak	Horizontal
	4983.4	36.4	3.0	39.4	74.0	-34.6	Peak	Vertical
*	6873.5	36.9	6.4	43.3	77.4	-34.1	Peak	Vertical
	9427.6	35.8	10.5	46.3	74.0	-27.7	Peak	Vertical
*	13543.3	34.7	13.8	48.5	77.4	-28.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.4dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4985.3	35.6	3.0	38.6	74.0	-35.4	Peak	Horizontal
*	6824.6	36.1	6.2	42.3	88.5	-46.2	Peak	Horizontal
	9142.4	34.8	9.8	44.6	74.0	-29.4	Peak	Horizontal
*	12745.8	34.8	11.7	46.5	88.5	-42.0	Peak	Horizontal
	4926.4	36.1	2.8	38.9	74.0	-35.1	Peak	Vertical
*	6285.7	35.8	4.9	40.7	88.5	-47.8	Peak	Vertical
	9143.7	34.8	9.8	44.6	74.0	-29.4	Peak	Vertical
*	12763.9	36.1	11.7	47.8	88.5	-40.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (108.5dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4973.4	36.4	3.0	39.4	74.0	-34.6	Peak	Horizontal
*	6582.5	35.8	6.0	41.8	92.7	-50.9	Peak	Horizontal
	9172.4	35.2	9.9	45.1	74.0	-28.9	Peak	Horizontal
*	12763.4	35.2	11.7	46.9	92.7	-45.8	Peak	Horizontal
	4975.4	36.1	3.0	39.1	74.0	-34.9	Peak	Vertical
*	6863.6	36.8	6.4	43.2	92.7	-49.5	Peak	Vertical
	9147.9	35.5	9.8	45.3	74.0	-28.7	Peak	Vertical
*	12768.4	36.1	11.7	47.8	92.7	-44.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (112.7dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4985.4	36.8	3.0	39.8	74.0	-34.2	Peak	Horizontal
*	6845.8	35.5	6.3	41.8	86.1	-44.3	Peak	Horizontal
	9186.7	35.3	10.0	45.3	74.0	-28.7	Peak	Horizontal
*	12758.7	35.3	11.7	47.0	86.1	-39.1	Peak	Horizontal
	4978.7	37.0	3.0	40.0	74.0	-34.0	Peak	Vertical
*	6873.3	35.6	6.4	42.0	86.1	-44.1	Peak	Vertical
	9143.7	34.7	9.8	44.5	74.0	-29.5	Peak	Vertical
*	12782.6	35.7	11.7	47.4	86.1	-38.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (106.1dB μ V/m).

Note 2: 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)

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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4972.3	35.6	3.0	38.6	74.0	-35.4	Peak	Horizontal
*	6798.5	35.1	6.0	41.1	84.1	-43.0	Peak	Horizontal
	9175.4	34.8	10.0	44.8	74.0	-29.2	Peak	Horizontal
*	12785.4	35.6	11.7	47.3	84.1	-36.8	Peak	Horizontal
	4925.4	35.6	2.8	38.4	74.0	-35.6	Peak	Vertical
*	6986.5	36.0	6.8	42.8	84.1	-41.3	Peak	Vertical
	9175.4	34.9	10.0	44.9	74.0	-29.1	Peak	Vertical
*	12763.7	35.4	11.7	47.1	84.1	-37.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (104.1dB μ V/m).

Note 2: 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)

Test Mode:	802.11n-HT40 - 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 (dB μ V)	Factor (dB)	Measure Level (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Detector	Polarization
	4927.4	35.9	2.8	38.7	74.0	-35.3	Peak	Horizontal
*	6824.4	36.2	6.2	42.4	86.3	-43.9	Peak	Horizontal
	9177.4	34.9	10.0	44.9	74.0	-29.1	Peak	Horizontal
*	12752.3	35.8	11.7	47.5	86.3	-38.8	Peak	Horizontal
	4963.6	36.6	2.9	39.5	74.0	-34.5	Peak	Vertical
*	6587.9	35.5	6.0	41.5	86.3	-44.8	Peak	Vertical
	9148.4	35.1	9.8	44.9	74.0	-29.1	Peak	Vertical
*	12786.4	35.4	11.7	47.1	86.3	-39.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is 20dBc of the fundamental emission level (106.3dB μ V/m).

Note 2: 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)