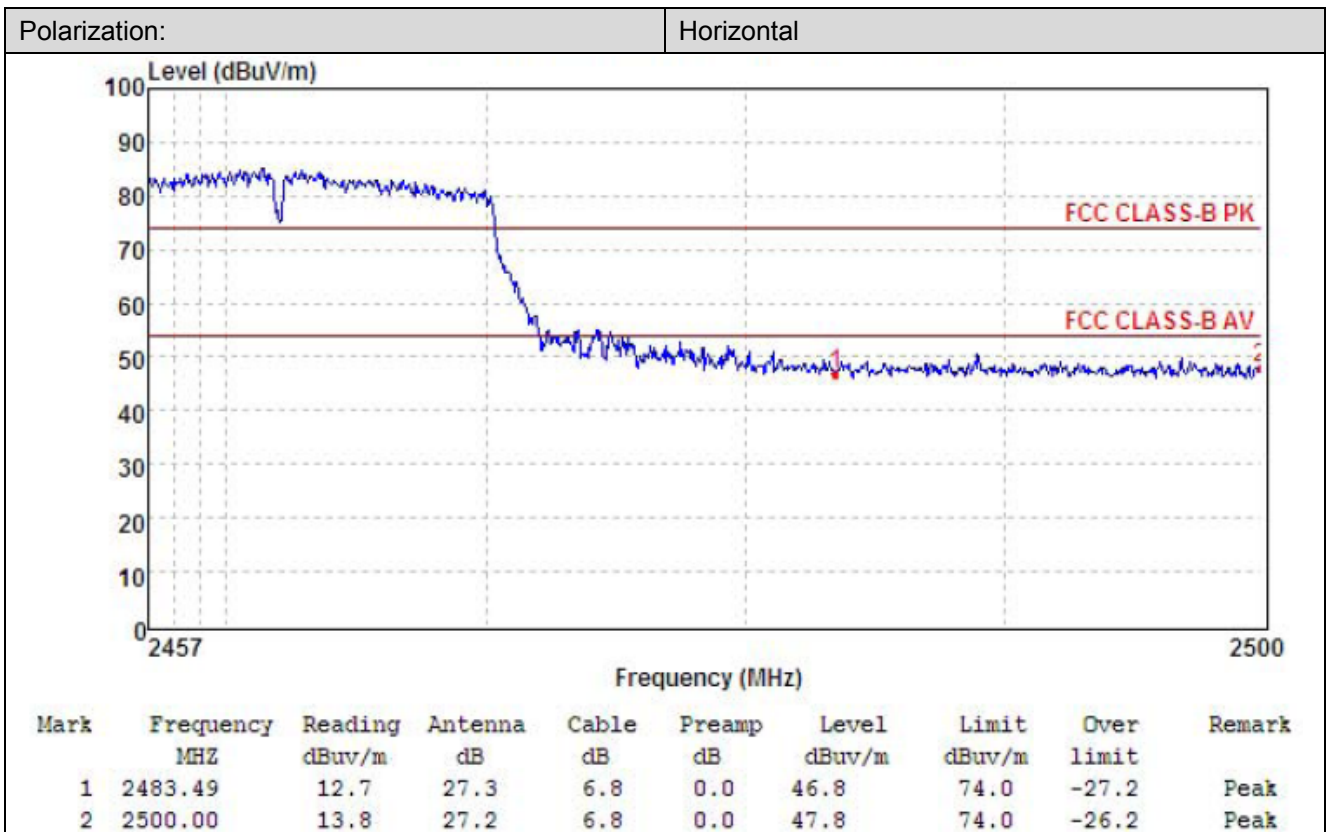
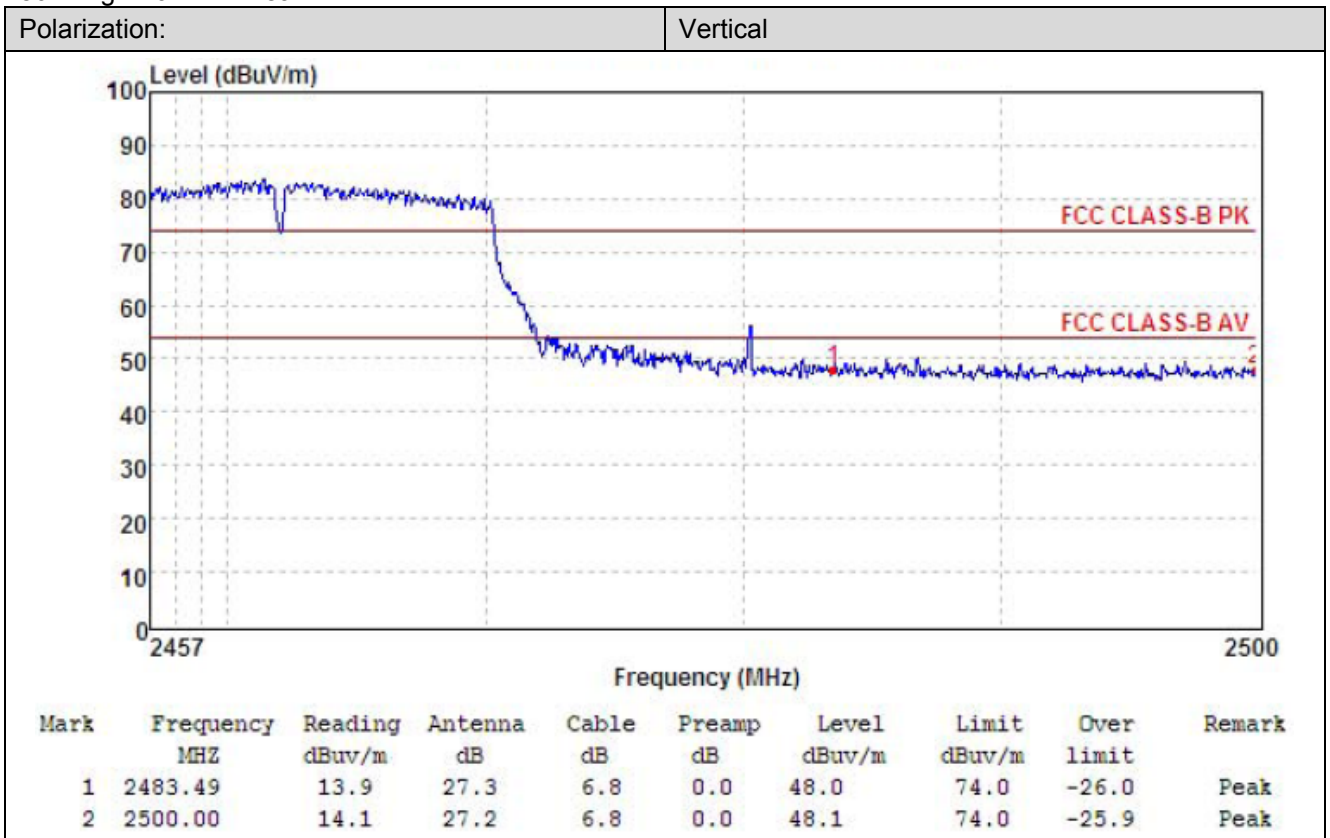
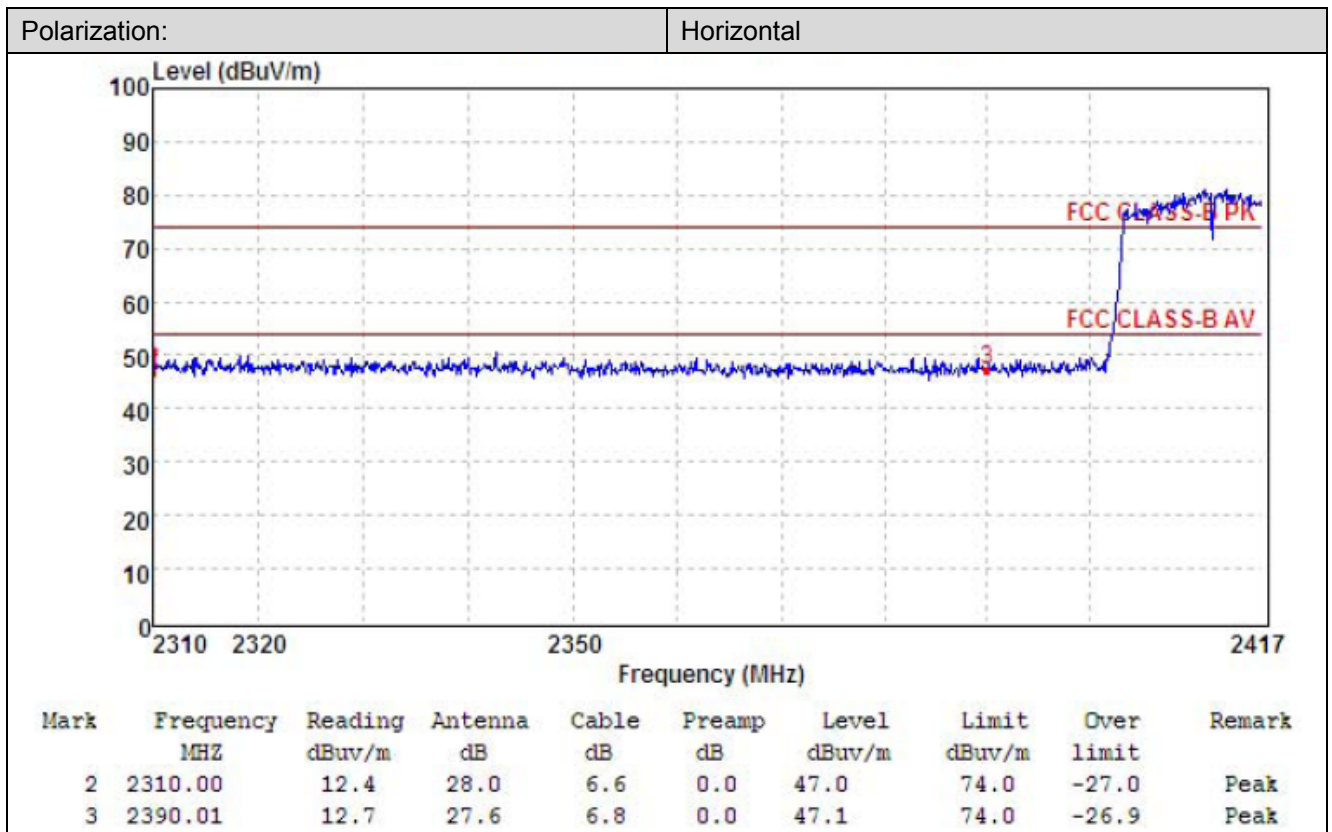
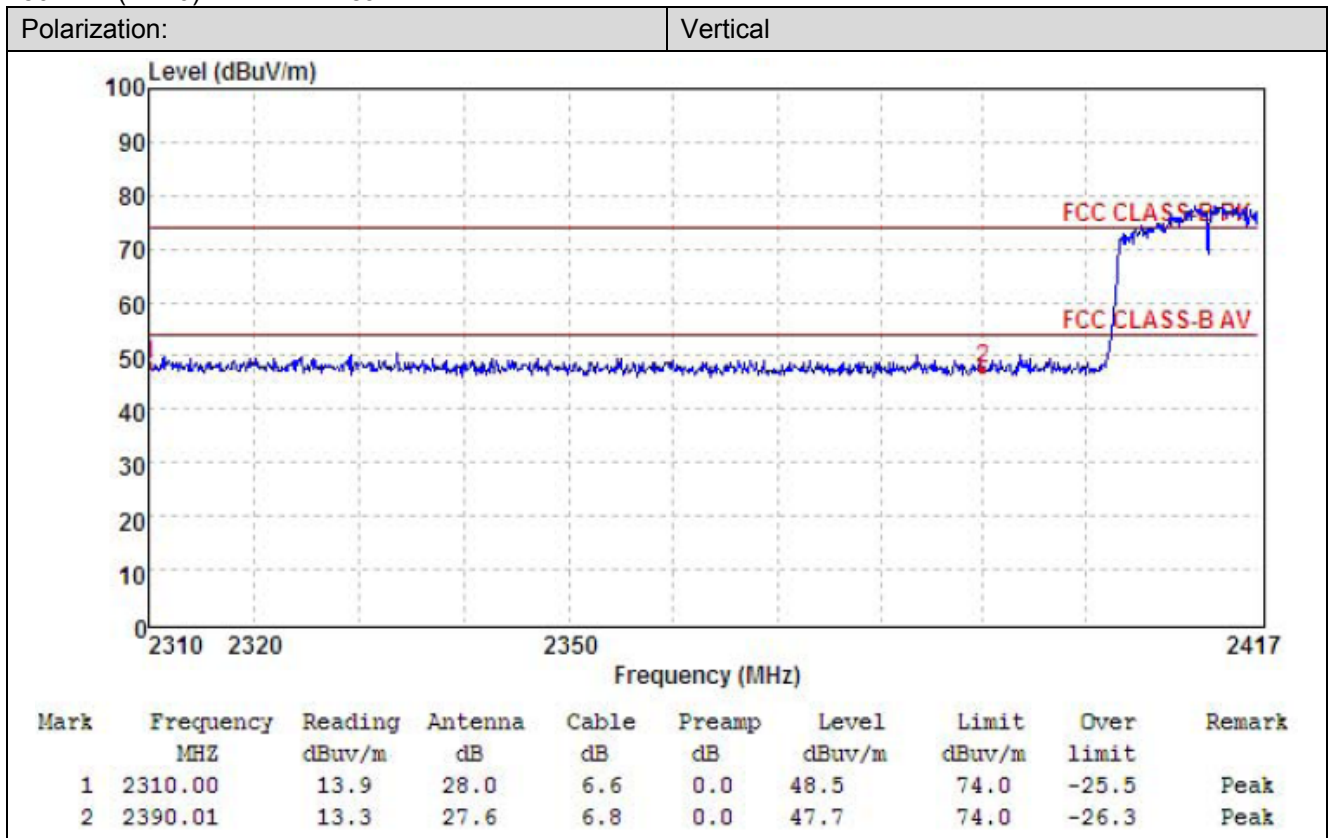


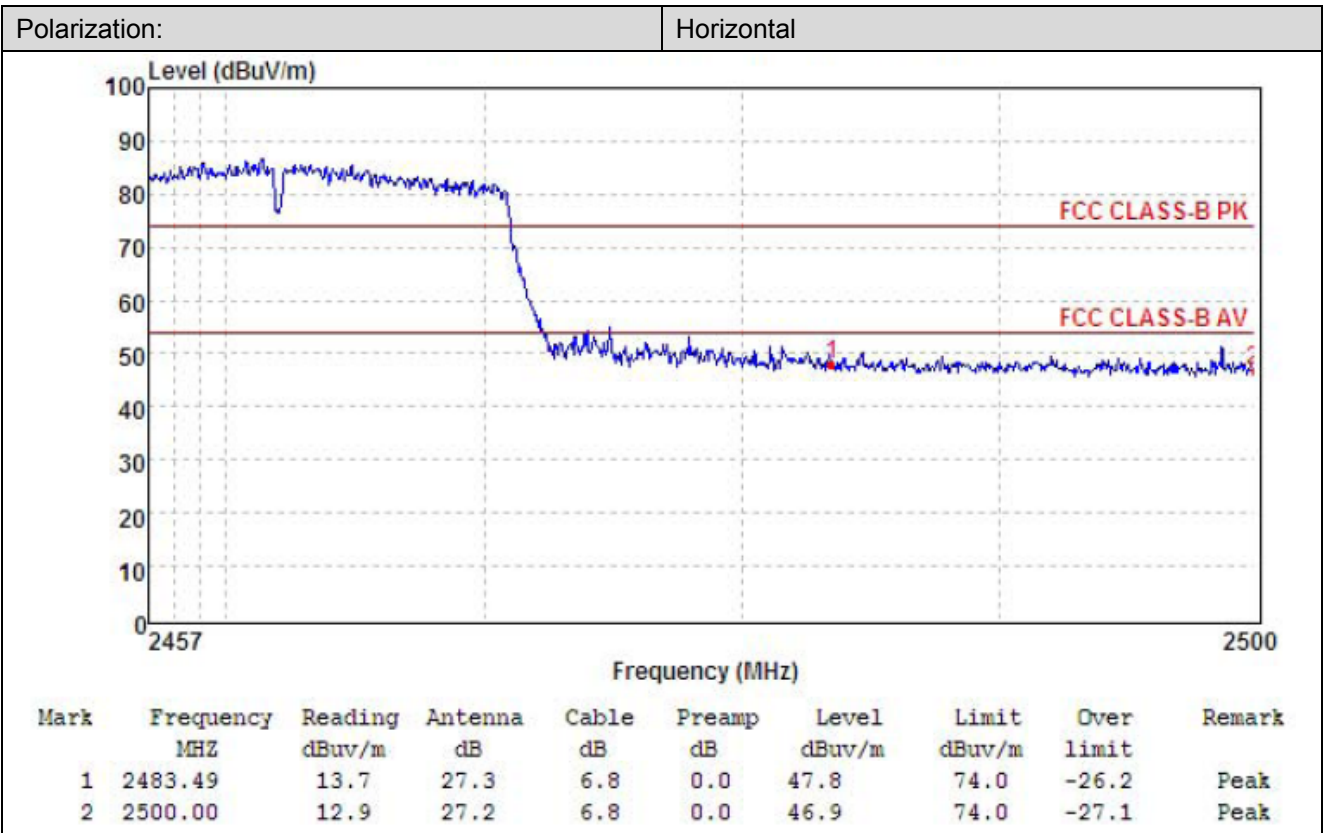
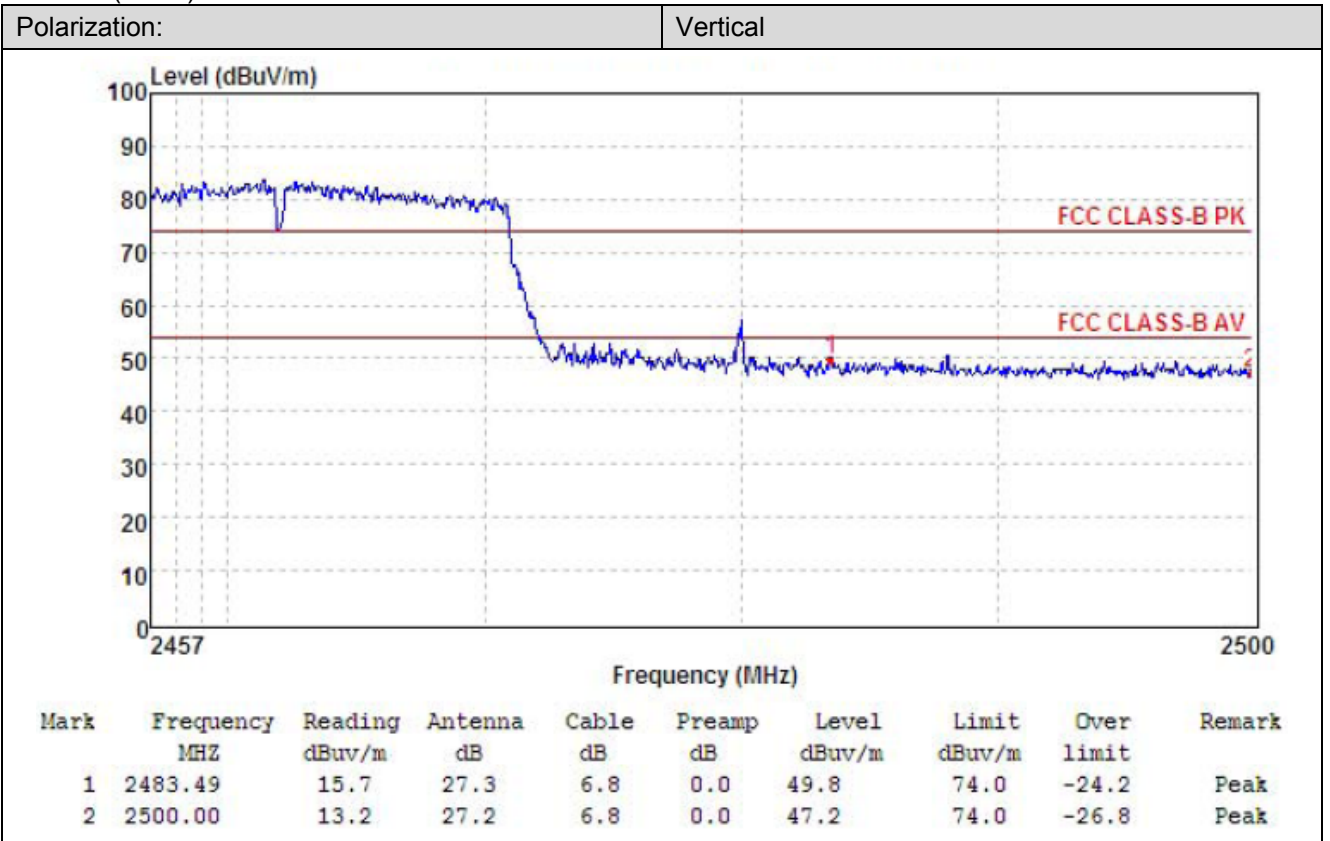
802.11g-2462MHz Peak:



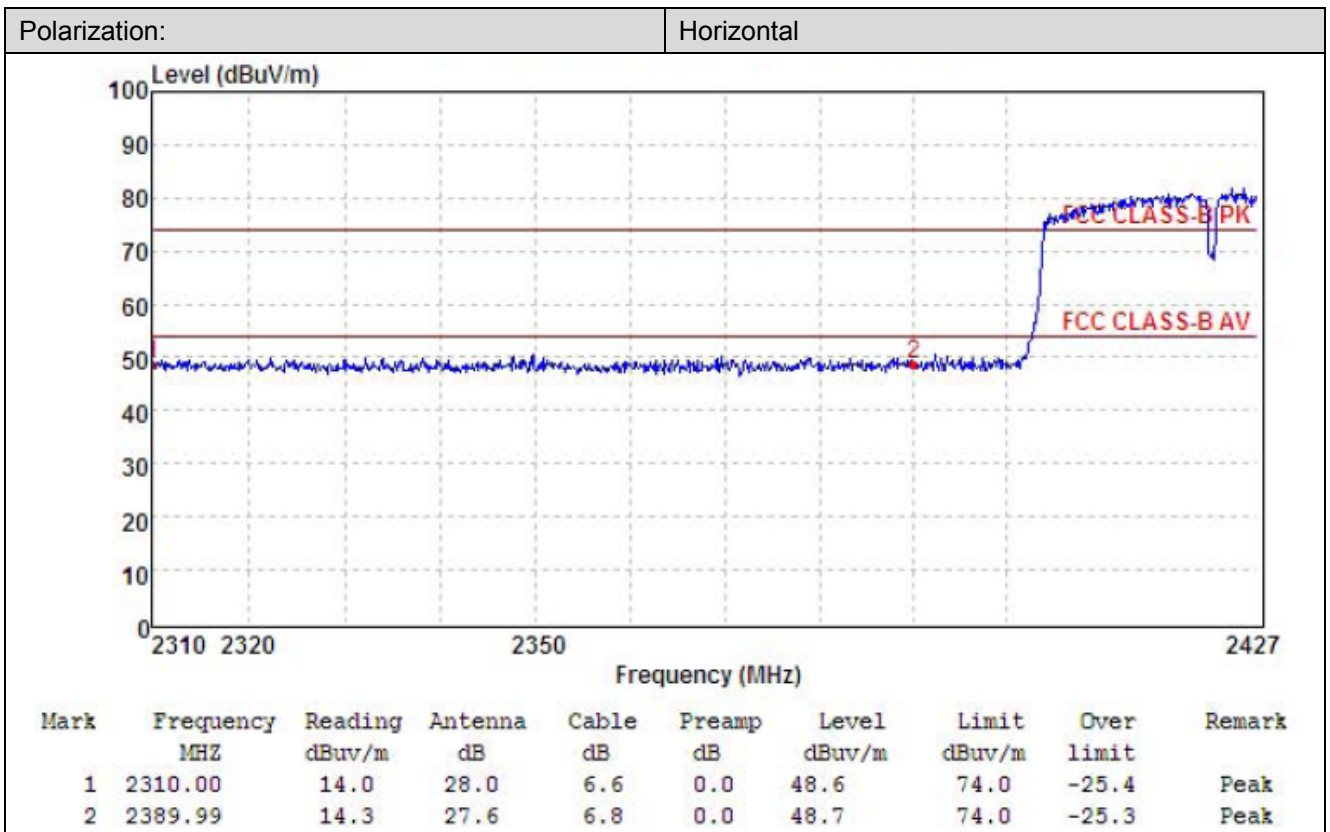
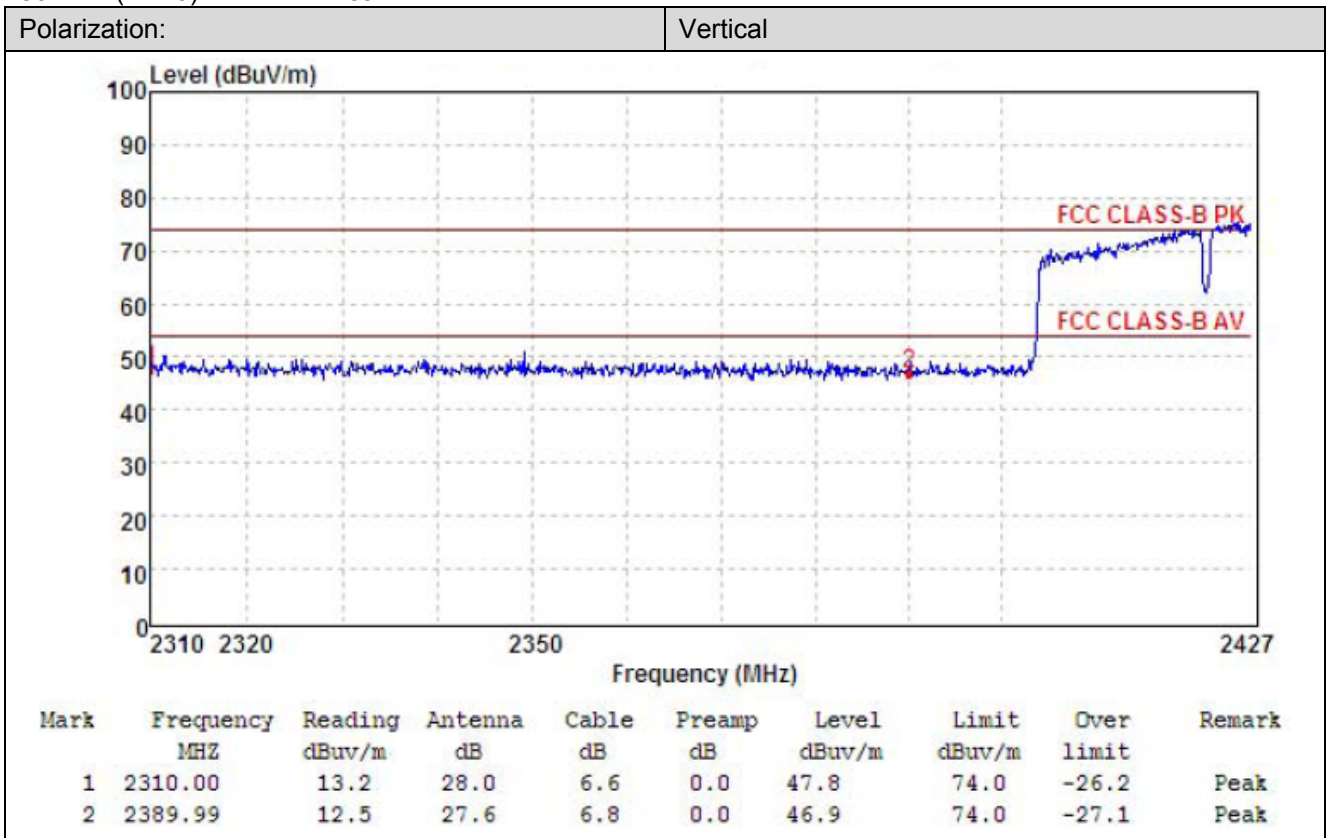
802.11n(HT20)-2412MHz Peak:



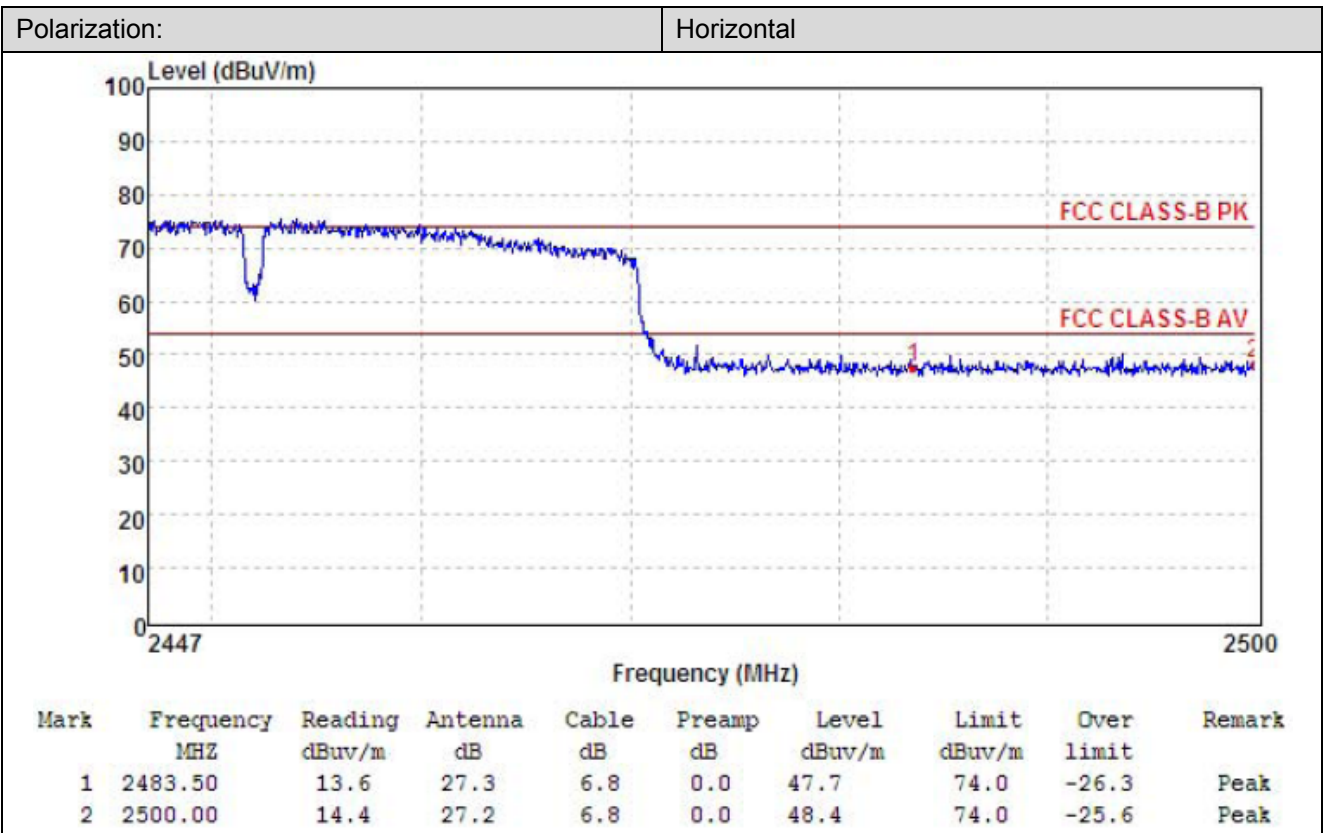
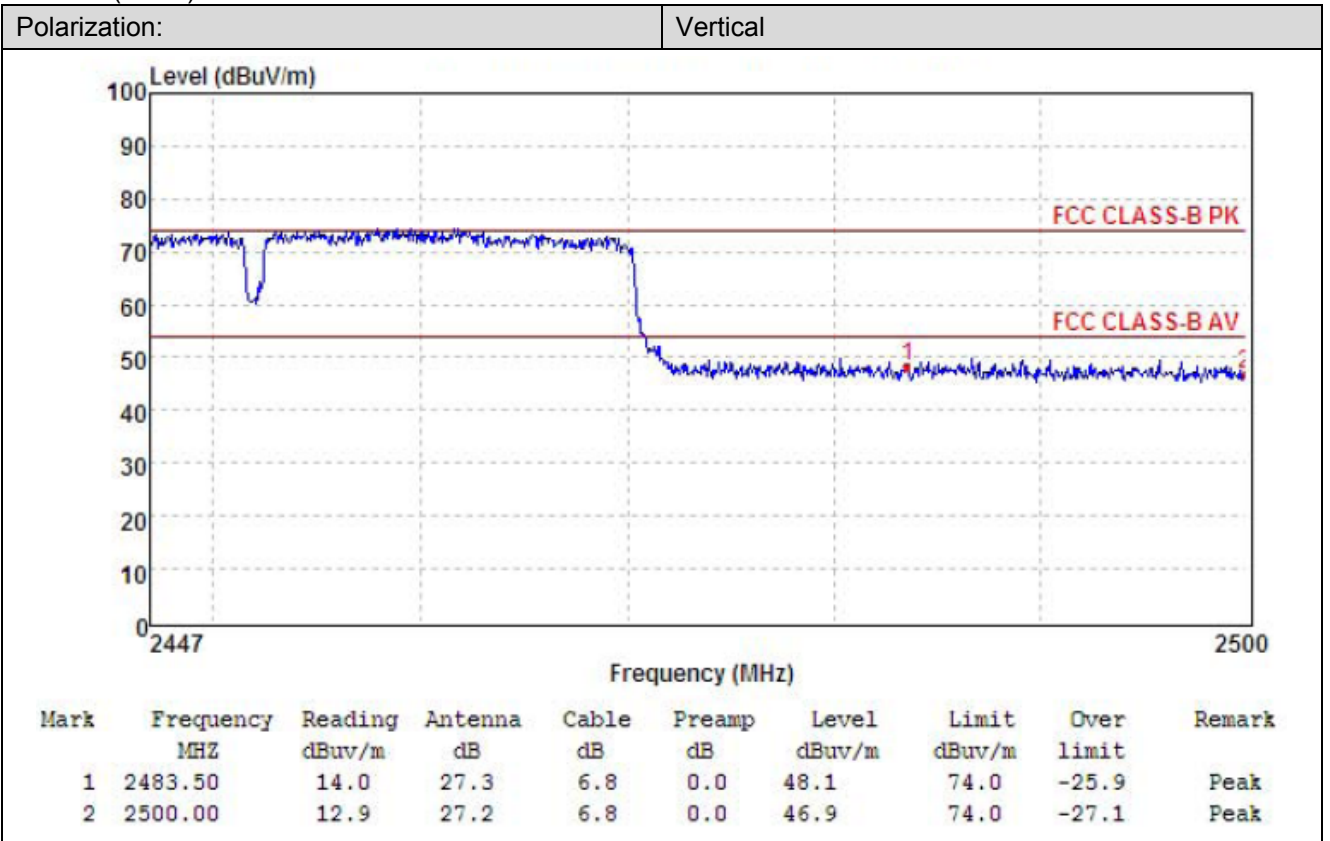
802.11n(HT20)-2462MHz Peak:



802.11n(HT40)-2422MHz Peak:



802.11n(HT40)-2452MHz Peak:



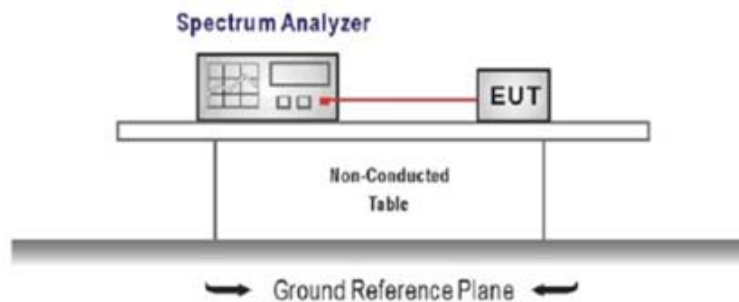
5.7. Band edge and Spurious Emissions (conducted)

LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.247 (d):

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

TEST CONFIGURATION



TEST PROCEDURE

1. Connect the antenna port(s) to the spectrum analyzer input.
2. Establish a reference level by using the following procedure
Center frequency=DTS channel center frequency
The span = 1.5 times the DTS bandwidth.
RBW = 100 kHz, VBW $\geq 3 \times$ RBW
Detector = peak, Sweep time = auto couple, Trace mode = max hold
Allow trace to fully stabilize
Use the peak marker function to determine the maximum PSD level



Note: the channel found to contain the maximum PSD level can be used to establish the reference level.
3. Emission level measurement
Set the center frequency and span to encompass frequency range to be measured
RBW = 100 kHz, VBW $\geq 3 \times$ RBW
Detector = peak, Sweep time = auto couple, Trace mode = max hold
Allow trace to fully stabilize
Use the peak marker function to determine the maximum amplitude level.
4. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter waveform on the spectrum analyzer.
5. Ensure that the amplitude of all unwanted emission outside of the authorized frequency band excluding restricted frequency bands) are attenuated by at least the minimum requirements specified (at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz). Report the three highest emission relative to the limit.

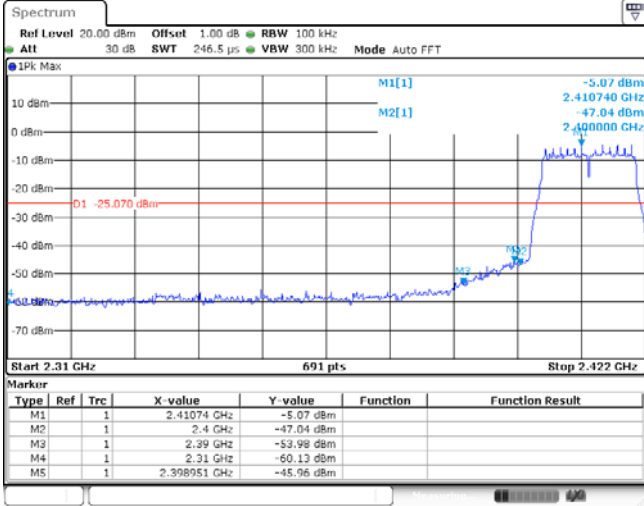
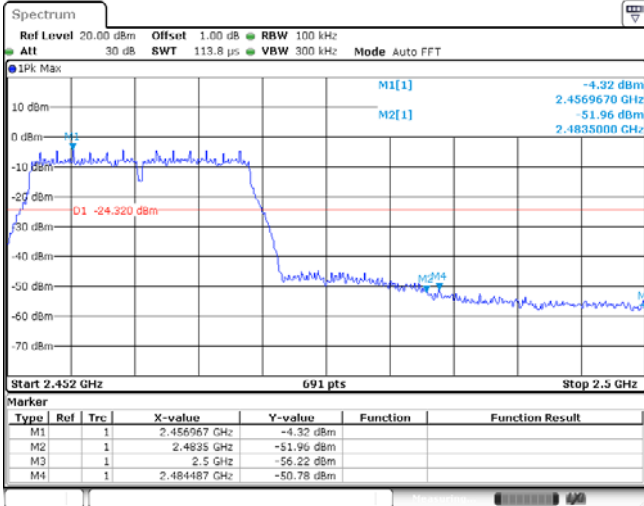
TEST MODE:

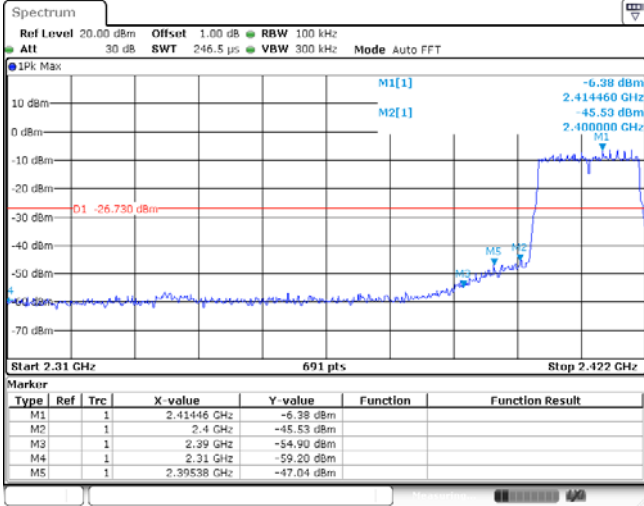
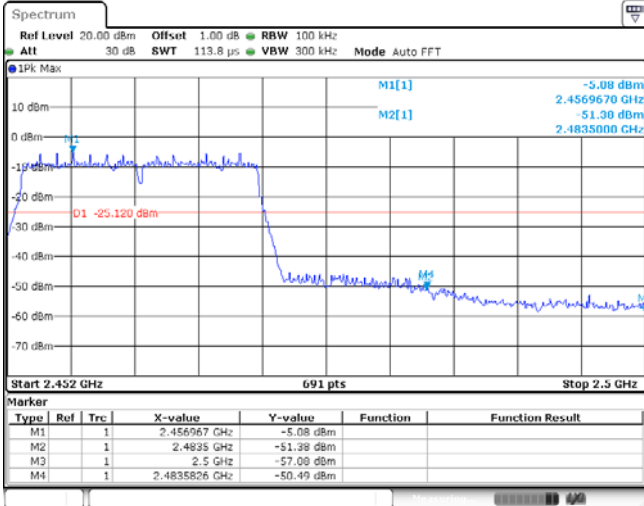
Please refer to the clause 3.3

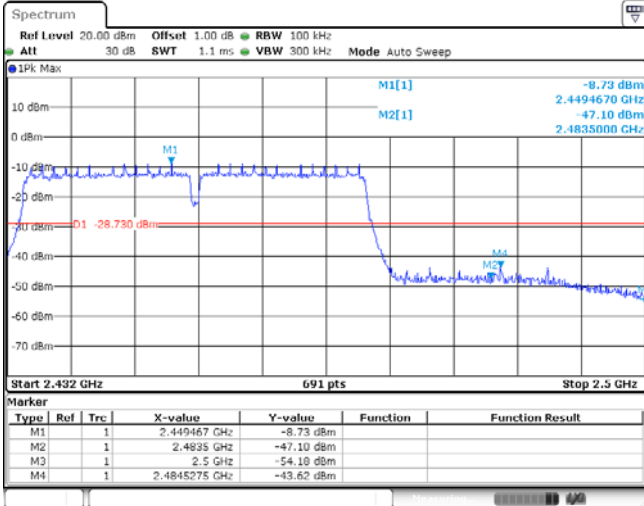
TEST RESULTS

Passed Not Applicable

Test Item:	Bandedge	Type:	802.11b																																										
CH01	 <p>Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 246.5 μs VBW 300 kHz Mode Auto FFT</p> <p>IPK Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm</p> <p>Start 2.31 GHz 691 pts Stop 2.422 GHz</p> <p>Marker</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.413 GHz</td> <td>6.24 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-42.22 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-53.09 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-59.99 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.397003 GHz</td> <td>-34.63 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.413 GHz	6.24 dBm			M2	1		2.4 GHz	-42.22 dBm			M3	1		2.39 GHz	-53.09 dBm			M4	1		2.31 GHz	-59.99 dBm			M5	1		2.397003 GHz	-34.63 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1	1		2.413 GHz	6.24 dBm																																									
M2	1		2.4 GHz	-42.22 dBm																																									
M3	1		2.39 GHz	-53.09 dBm																																									
M4	1		2.31 GHz	-59.99 dBm																																									
M5	1		2.397003 GHz	-34.63 dBm																																									
CH11	 <p>Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 113.8 μs VBW 300 kHz Mode Auto FFT</p> <p>IPK Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm</p> <p>Start 2.452 GHz 691 pts Stop 2.5 GHz</p> <p>Marker</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.46301 GHz</td> <td>6.40 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4835 GHz</td> <td>-47.81 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.5 GHz</td> <td>-54.91 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.4860174 GHz</td> <td>-46.46 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.46301 GHz	6.40 dBm			M2	1		2.4835 GHz	-47.81 dBm			M3	1		2.5 GHz	-54.91 dBm			M4	1		2.4860174 GHz	-46.46 dBm									
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1	1		2.46301 GHz	6.40 dBm																																									
M2	1		2.4835 GHz	-47.81 dBm																																									
M3	1		2.5 GHz	-54.91 dBm																																									
M4	1		2.4860174 GHz	-46.46 dBm																																									

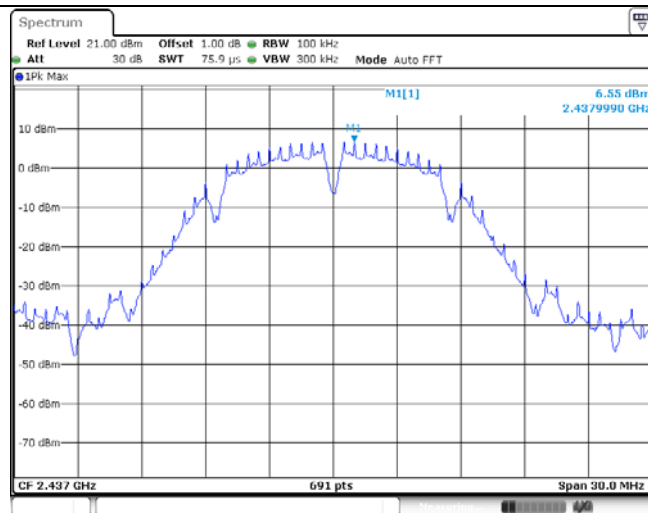
Test Item:	Bandedge	Type:	802.11g																																										
CH01	 <p>Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 246.5 μs VBW 300 kHz Mode Auto FFT</p> <p>IPK Max</p> <p>M1[1] -5.07 dBm 2.410740 GHz M2[1] -47.04 dBm 2.400000 GHz</p> <p>D1 -25.070 dBm</p> <p>Start 2.31 GHz 691 pts Stop 2.422 GHz</p> <p>Marker</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.41074 GHz</td> <td>-5.07 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-47.04 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-53.98 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-60.13 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.398951 GHz</td> <td>-45.96 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.41074 GHz	-5.07 dBm			M2	1		2.4 GHz	-47.04 dBm			M3	1		2.39 GHz	-53.98 dBm			M4	1		2.31 GHz	-60.13 dBm			M5	1		2.398951 GHz	-45.96 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1	1		2.41074 GHz	-5.07 dBm																																									
M2	1		2.4 GHz	-47.04 dBm																																									
M3	1		2.39 GHz	-53.98 dBm																																									
M4	1		2.31 GHz	-60.13 dBm																																									
M5	1		2.398951 GHz	-45.96 dBm																																									
CH11	 <p>Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 113.8 μs VBW 300 kHz Mode Auto FFT</p> <p>IPK Max</p> <p>M1[1] -4.32 dBm 2.4569670 GHz M2[1] -51.96 dBm 2.4835000 GHz</p> <p>D1 -24.320 dBm</p> <p>Start 2.452 GHz 691 pts Stop 2.5 GHz</p> <p>Marker</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.456967 GHz</td> <td>-4.32 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4835 GHz</td> <td>-51.96 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.5 GHz</td> <td>-56.22 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.484487 GHz</td> <td>-50.78 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.456967 GHz	-4.32 dBm			M2	1		2.4835 GHz	-51.96 dBm			M3	1		2.5 GHz	-56.22 dBm			M4	1		2.484487 GHz	-50.78 dBm									
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1	1		2.456967 GHz	-4.32 dBm																																									
M2	1		2.4835 GHz	-51.96 dBm																																									
M3	1		2.5 GHz	-56.22 dBm																																									
M4	1		2.484487 GHz	-50.78 dBm																																									

Test Item:	Bandedge	Type:	802.11n(HT20)																																										
CH01	 <p>Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 246.5 μs VBW 300 kHz Mode Auto FFT</p> <p>IPK Max M1[1] -6.38 dBm 2.414460 GHz M2[1] -45.53 dBm 2.400000 GHz M5 -47.04 dBm 2.39538 GHz</p> <p>D1 -26.730 dBm</p> <p>Start 2.31 GHz 691 pts Stop 2.422 GHz</p> <p>Marker</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.41446 GHz</td> <td>-6.38 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-45.53 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-54.90 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-59.20 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.39538 GHz</td> <td>-47.04 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.41446 GHz	-6.38 dBm			M2	1		2.4 GHz	-45.53 dBm			M3	1		2.39 GHz	-54.90 dBm			M4	1		2.31 GHz	-59.20 dBm			M5	1		2.39538 GHz	-47.04 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1	1		2.41446 GHz	-6.38 dBm																																									
M2	1		2.4 GHz	-45.53 dBm																																									
M3	1		2.39 GHz	-54.90 dBm																																									
M4	1		2.31 GHz	-59.20 dBm																																									
M5	1		2.39538 GHz	-47.04 dBm																																									
CH11	 <p>Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 113.8 μs VBW 300 kHz Mode Auto FFT</p> <p>IPK Max M1[1] -5.08 dBm 2.456967 GHz M2[1] -51.30 dBm 2.4835000 GHz</p> <p>D1 -25.120 dBm</p> <p>Start 2.452 GHz 691 pts Stop 2.5 GHz</p> <p>Marker</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.456967 GHz</td> <td>-5.08 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4835 GHz</td> <td>-51.30 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.5 GHz</td> <td>-57.00 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.4835826 GHz</td> <td>-50.49 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.456967 GHz	-5.08 dBm			M2	1		2.4835 GHz	-51.30 dBm			M3	1		2.5 GHz	-57.00 dBm			M4	1		2.4835826 GHz	-50.49 dBm									
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1	1		2.456967 GHz	-5.08 dBm																																									
M2	1		2.4835 GHz	-51.30 dBm																																									
M3	1		2.5 GHz	-57.00 dBm																																									
M4	1		2.4835826 GHz	-50.49 dBm																																									

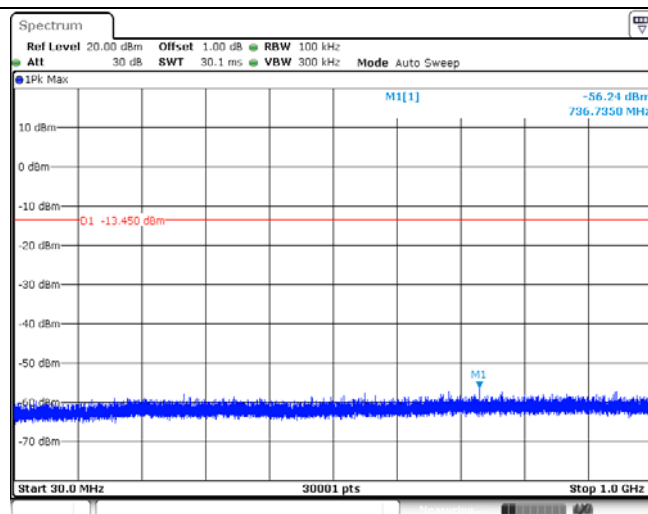
Test Item:	Bandedge	Type:	802.11n(HT40)																																										
CH03	 <p>Marker</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.4058 GHz</td> <td>-10.15 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-48.97 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-52.68 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-59.56 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.39953 GHz</td> <td>-47.30 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.4058 GHz	-10.15 dBm			M2	1		2.4 GHz	-48.97 dBm			M3	1		2.39 GHz	-52.68 dBm			M4	1		2.31 GHz	-59.56 dBm			M5	1		2.39953 GHz	-47.30 dBm		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1	1		2.4058 GHz	-10.15 dBm																																									
M2	1		2.4 GHz	-48.97 dBm																																									
M3	1		2.39 GHz	-52.68 dBm																																									
M4	1		2.31 GHz	-59.56 dBm																																									
M5	1		2.39953 GHz	-47.30 dBm																																									
CH09	 <p>Marker</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.449467 GHz</td> <td>-8.73 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4835 GHz</td> <td>-47.10 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.5 GHz</td> <td>-54.18 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.4845275 GHz</td> <td>-43.62 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.449467 GHz	-8.73 dBm			M2	1		2.4835 GHz	-47.10 dBm			M3	1		2.5 GHz	-54.18 dBm			M4	1		2.4845275 GHz	-43.62 dBm									
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1	1		2.449467 GHz	-8.73 dBm																																									
M2	1		2.4835 GHz	-47.10 dBm																																									
M3	1		2.5 GHz	-54.18 dBm																																									
M4	1		2.4845275 GHz	-43.62 dBm																																									

Test Item:	SE	Type:	802.11b
<p>CH01 Reference level</p>			
<p>CH01 30MHz~1000MHz</p>			
<p>CH01 1GHz~26GHz</p>			

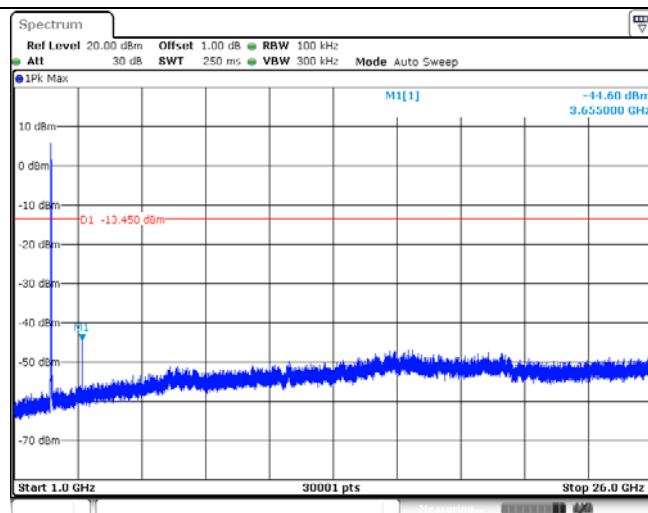
CH06
Reference level



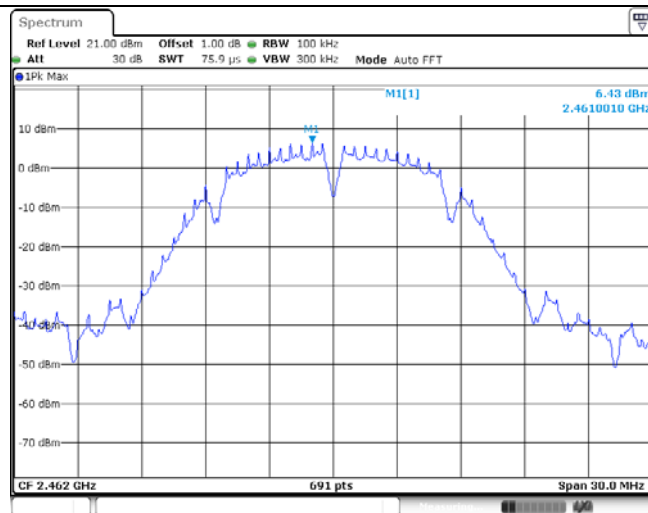
CH06
30MHz~1000MHz



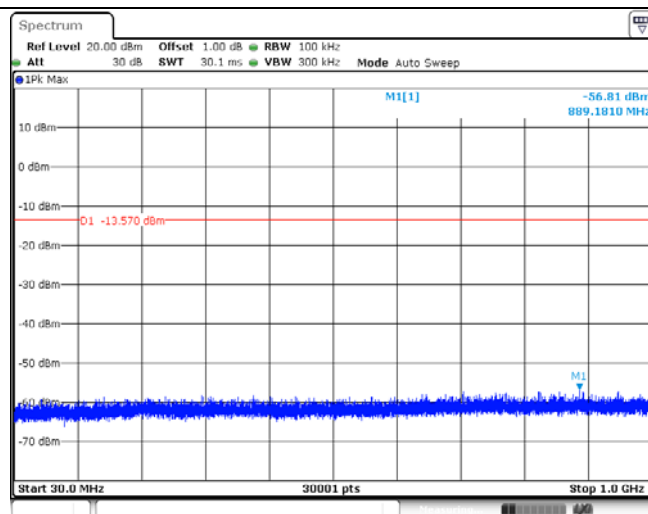
CH06
1GHz~26GHz



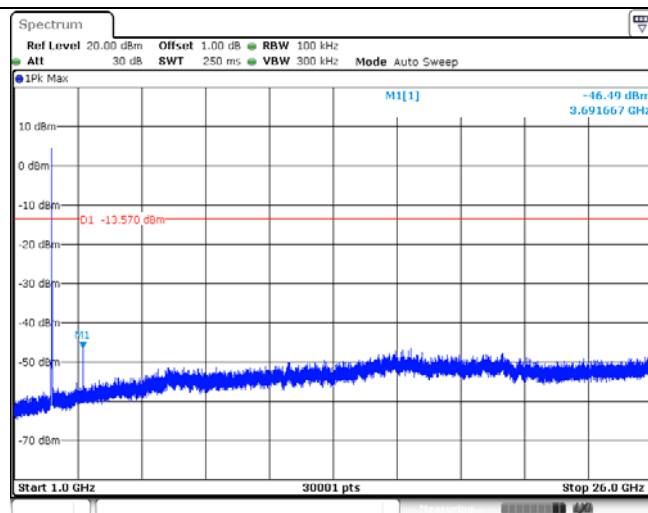
CH11
Reference level

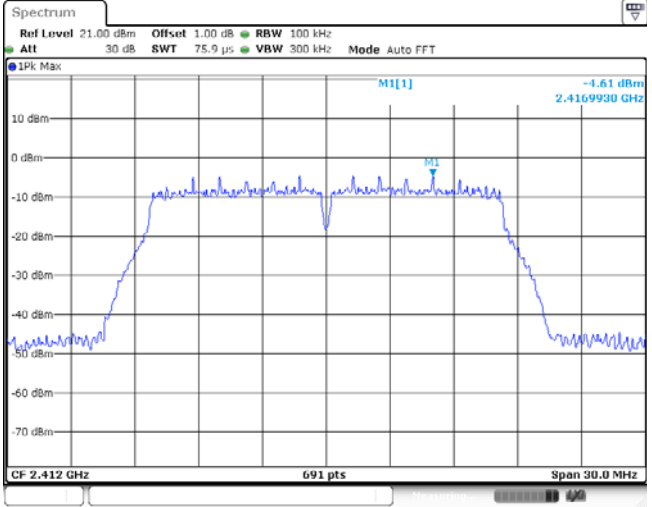
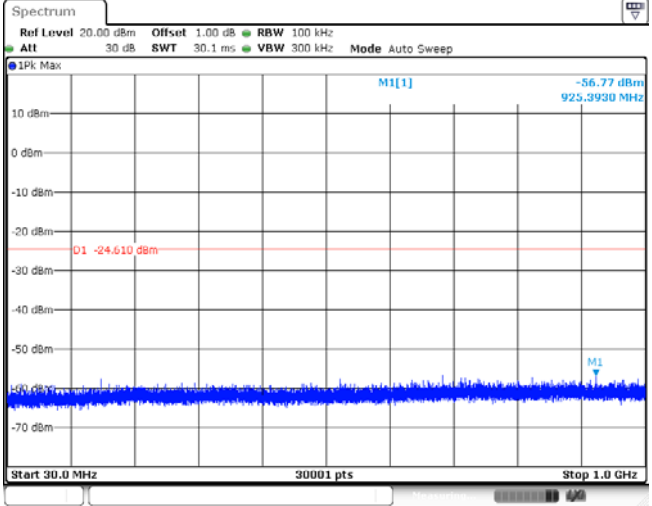
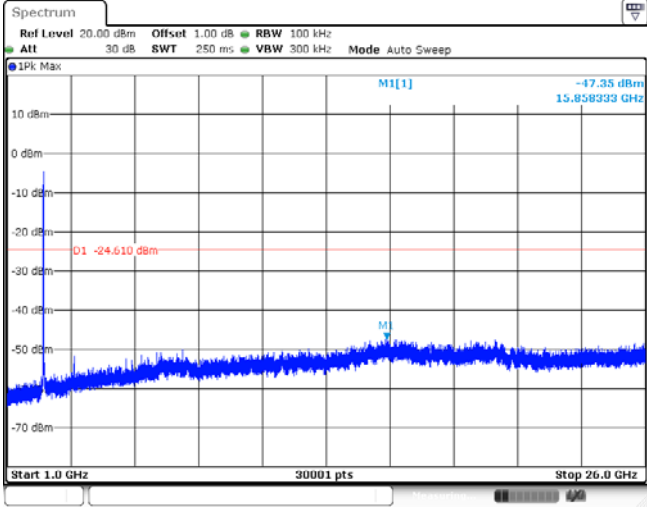


CH11
30MHz~1000MHz

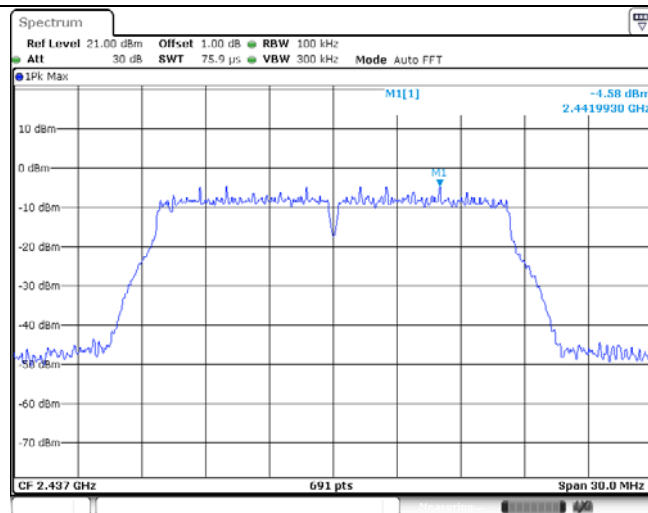


CH11
1GHz~26GHz

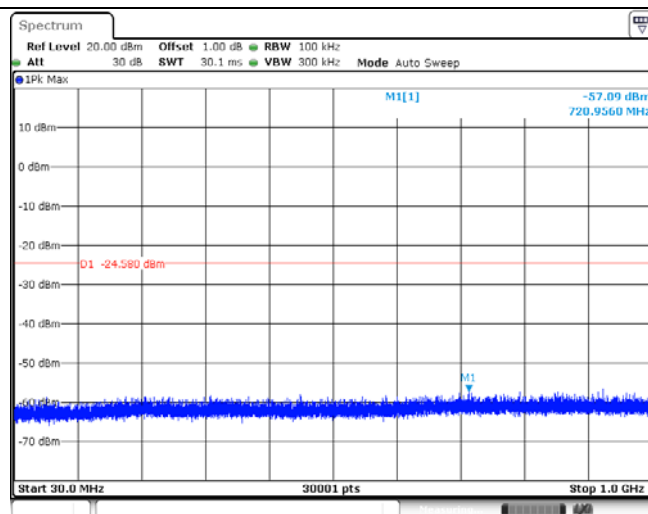


Test Item:	SE	Type:	802.11g
<p>CH01 Reference level</p>			
<p>CH01 30MHz~1000MHz</p>			
<p>CH01 1GHz~26GHz</p>			

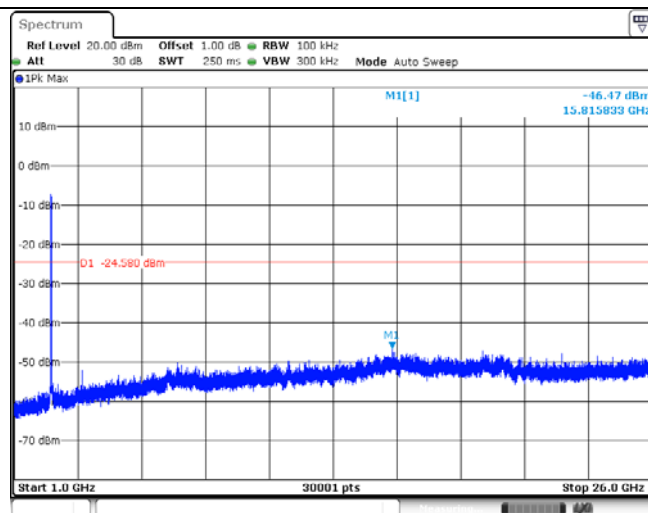
CH06
Reference level



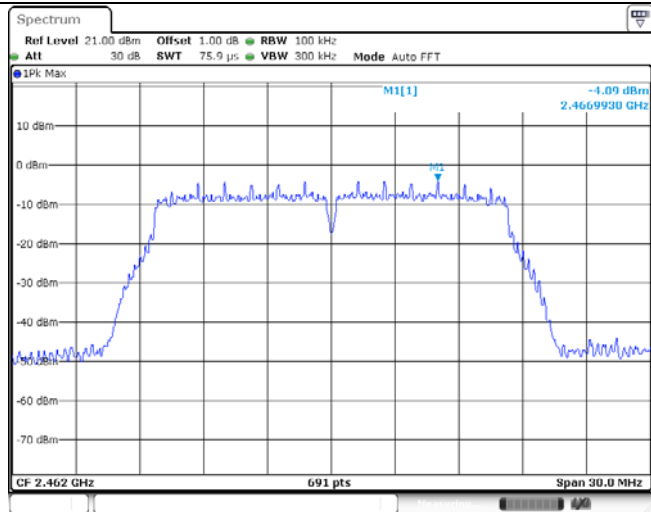
CH06
30MHz~1000MHz



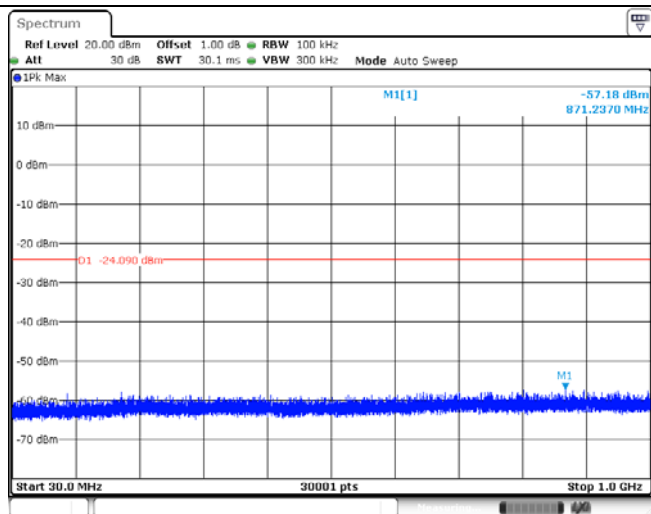
CH06
1GHz~26GHz



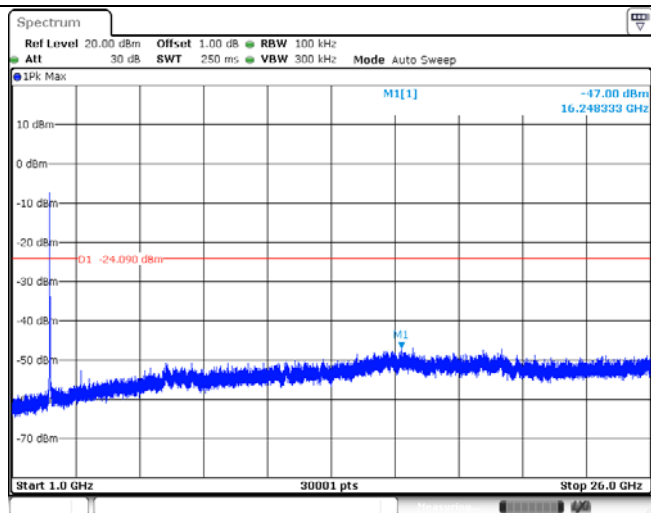
CH11
Reference level

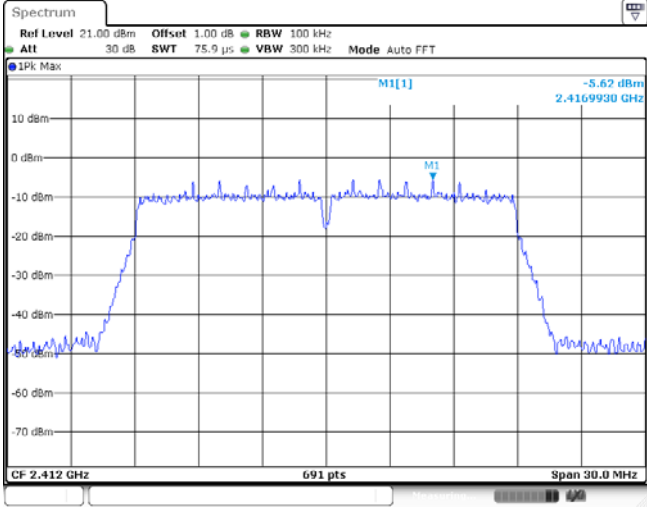
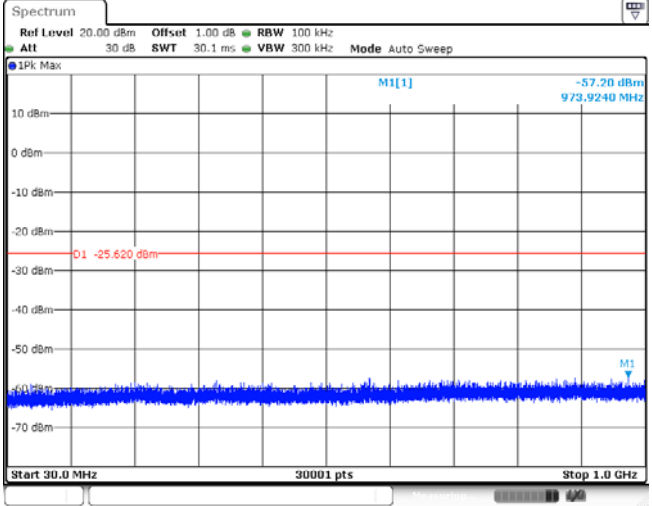
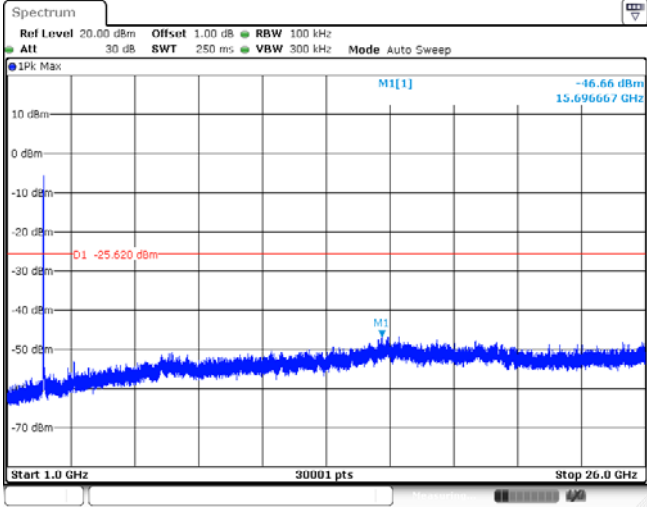


CH11
30MHz~1000MHz

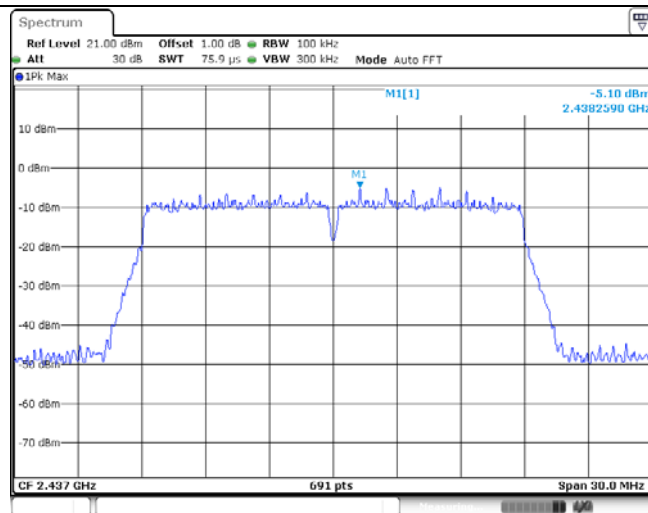


CH11
1GHz~26GHz

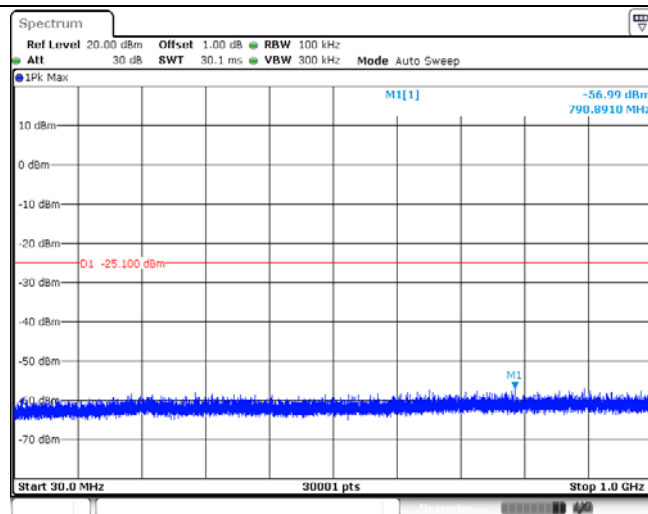


Test Item:	SE	Type:	802.11n(HT20)
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

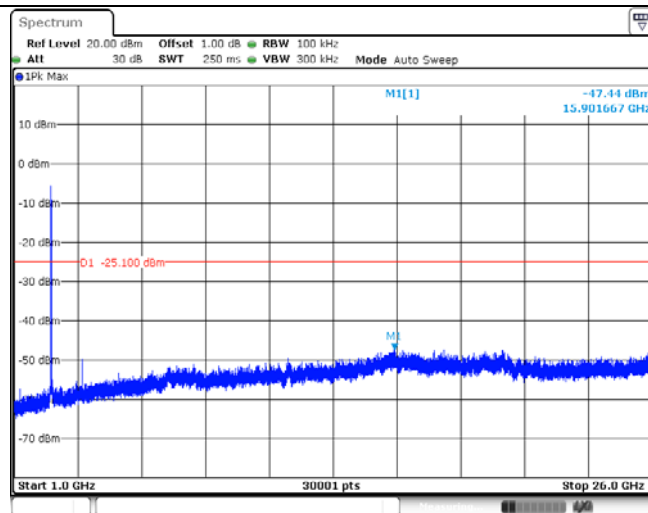
CH06
Reference level



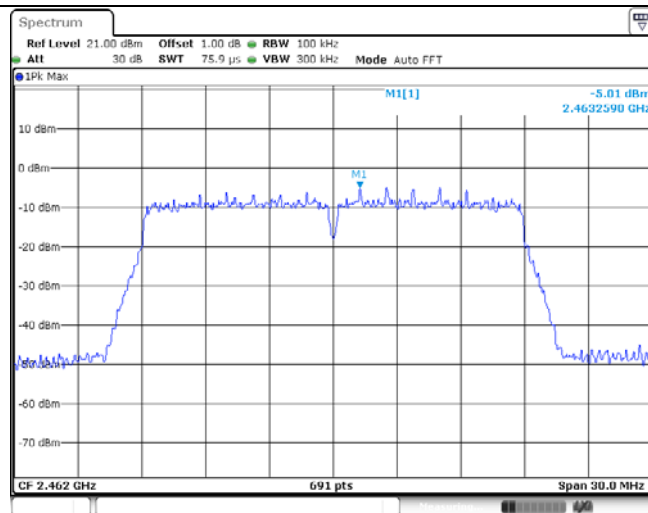
CH06
30MHz~1000MHz



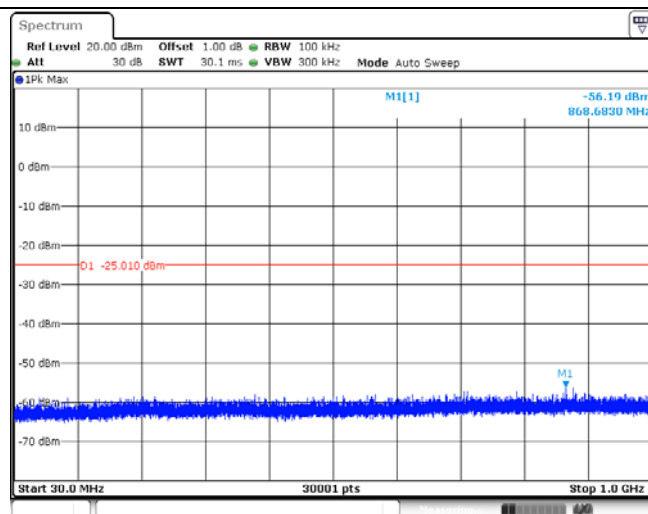
CH06
1GHz~26GHz



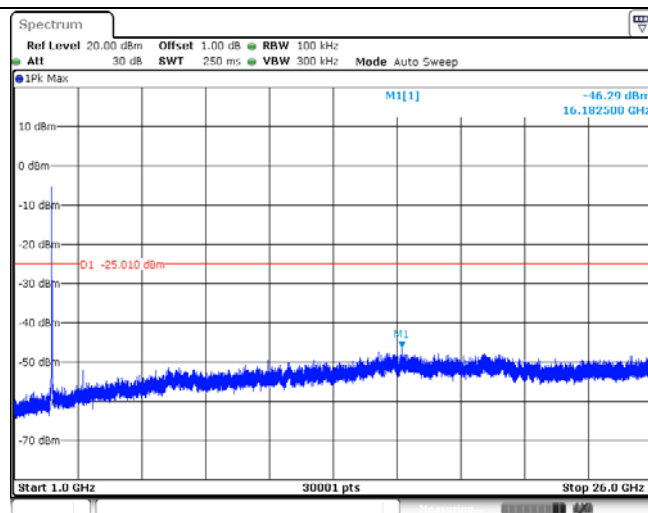
CH11
Reference level

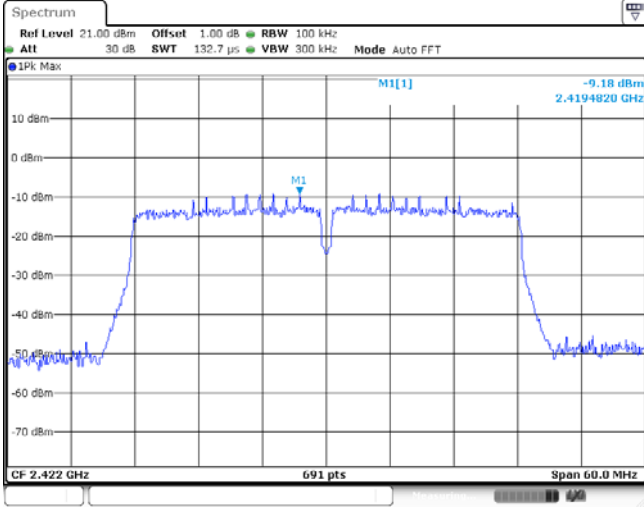
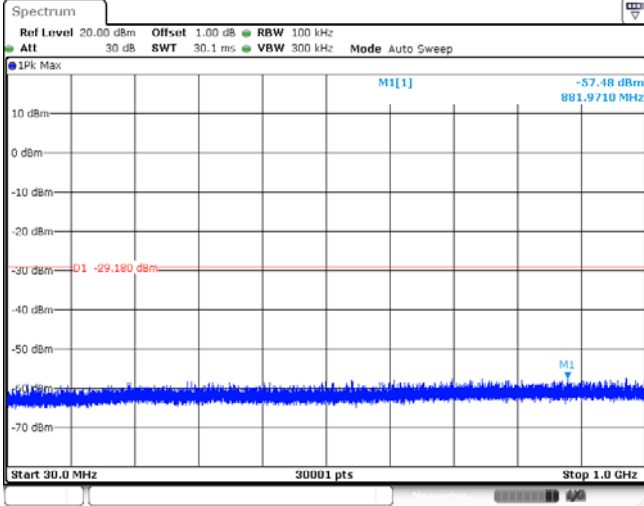
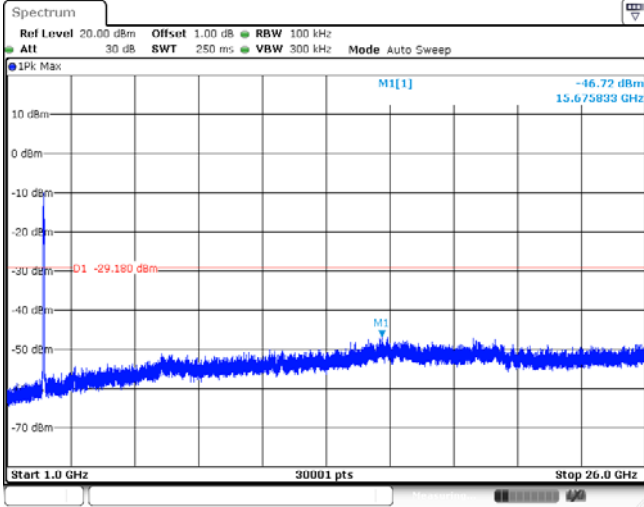


CH11
30MHz~1000MHz

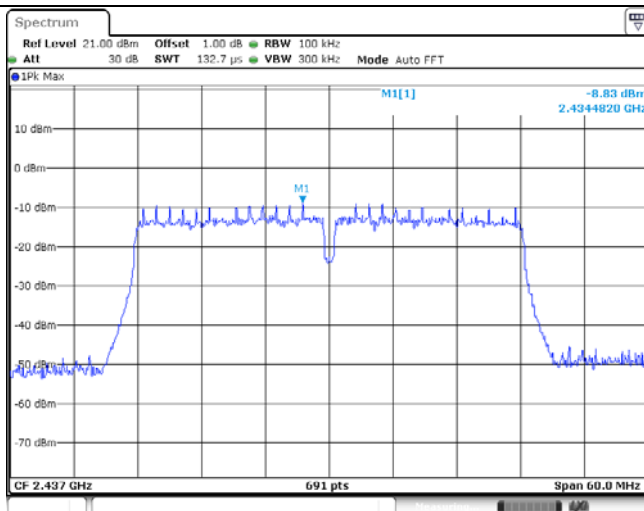


CH11
1GHz~26GHz

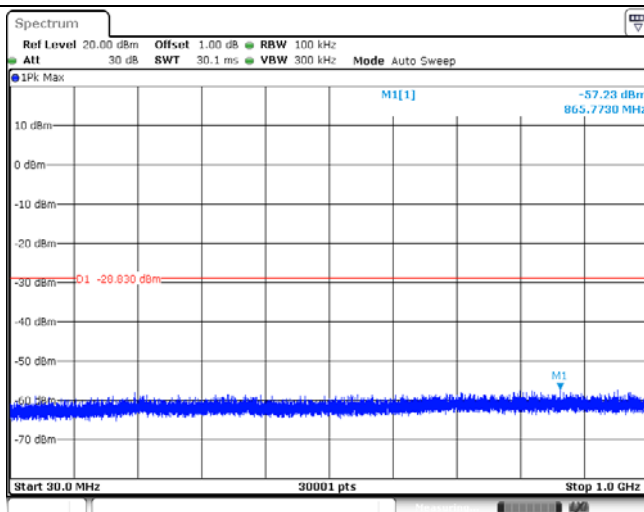


Test Item:	SE	Type:	802.11n(HT40)
<p>CH03 Reference level</p>			
<p>CH03 30MHz~1000MHz</p>			
<p>CH03 1GHz~26GHz</p>			

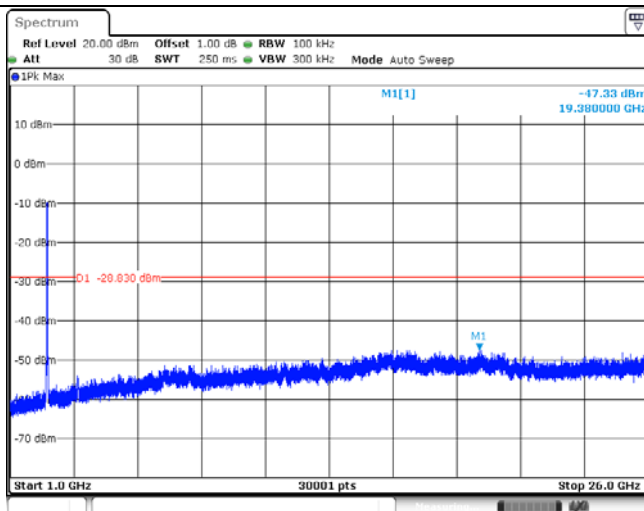
CH06
Reference level



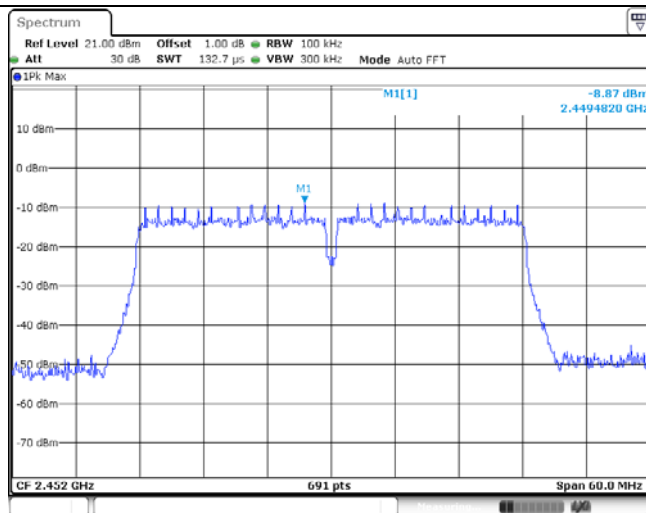
CH06
30MHz~1000MHz



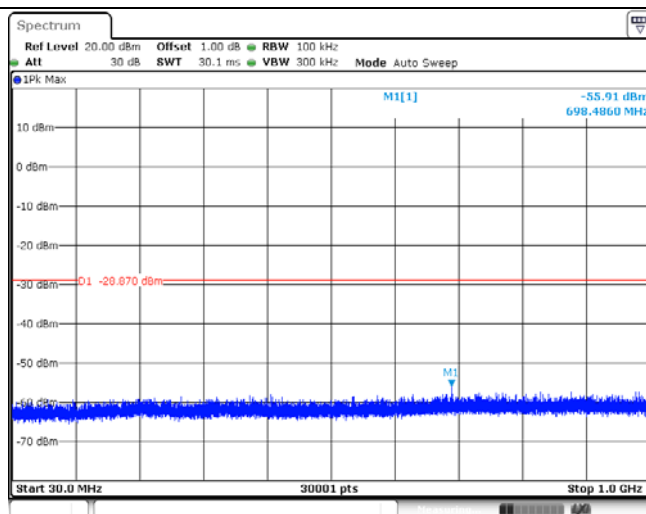
CH06
1GHz~26GHz



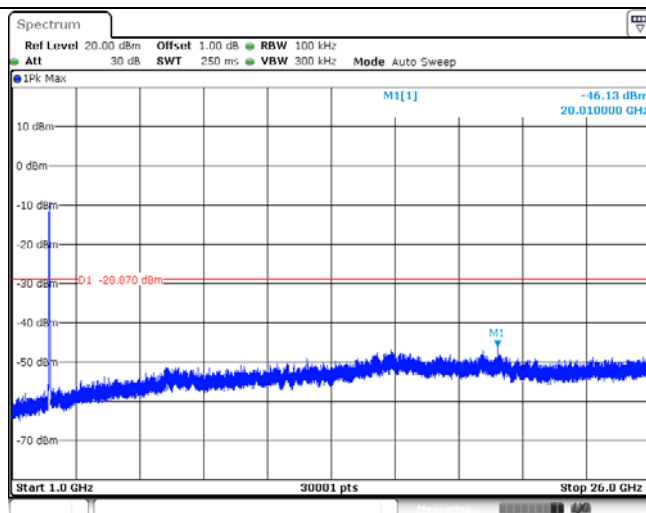
CH09
Reference level



CH09
30MHz~1000MHz



CH09
1GHz~26GHz



5.8. Spurious Emissions (radiated)

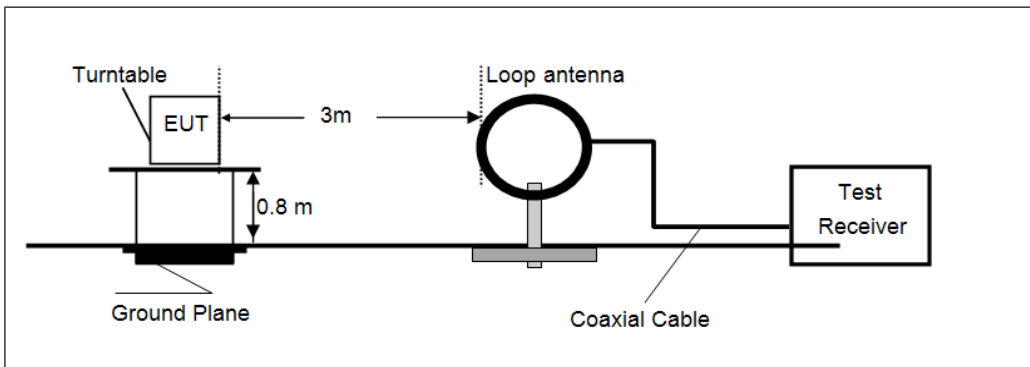
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.209

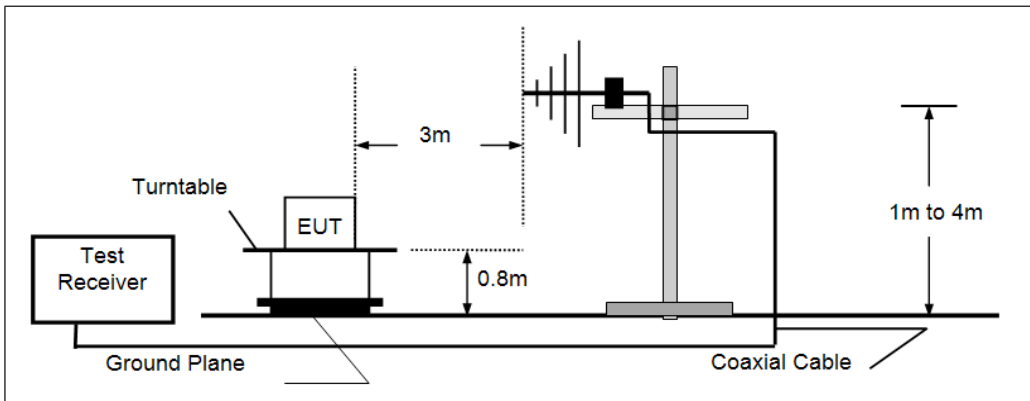
Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

TEST CONFIGURATION

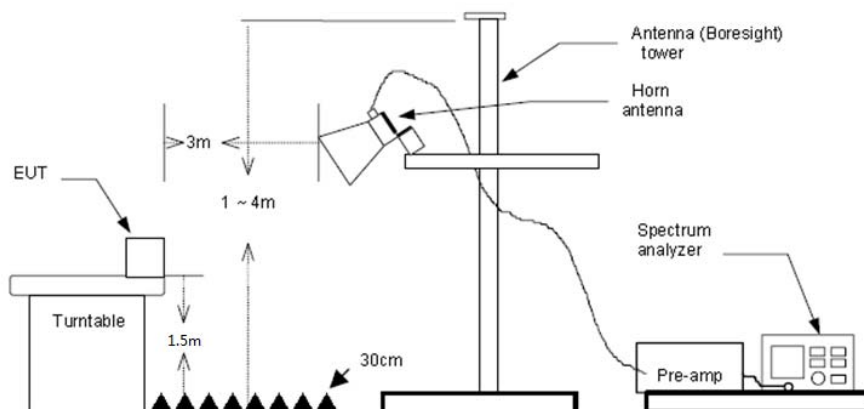
➤ 9kHz ~30MHz



➤ 30MHz ~ 1GHz



➤ Above 1GHz



TEST PROCEDURE

1. The EUT was setup and tested according to ANSI C63.10:2013 for compliance to FCC 47CFR 15.247 requirements.
2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Use the following spectrum analyzer settings
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Below 1 GHz:
RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;
If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
 - (3) From 1 GHz to 10th harmonic:
RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW=3MHz RMS detector for Average value.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

Passed **Not Applicable**

Note:

- 1) Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- 2) The emission levels of other frequencies are very lower than the limit and not show in test report.

➤ **9kHz ~ 30MHz**

The EUT was pre-scanned the frequency band (9kHz~30MHz), found the radiated level lower than the limit, so don't show on the report.

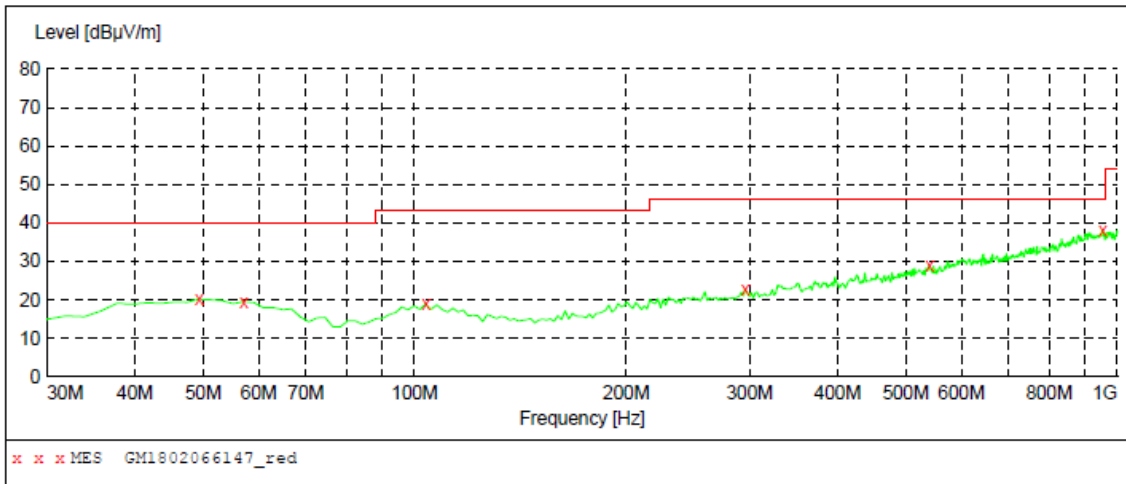
➤ **30MHz ~1000MHz**

Have pre-scan all modulation mode, found the 802.11b mode CH01 which it was worst case, so only the worst case's data on the test report.

➤ 30MHz ~ 1GHz

Polarization:

Vertical



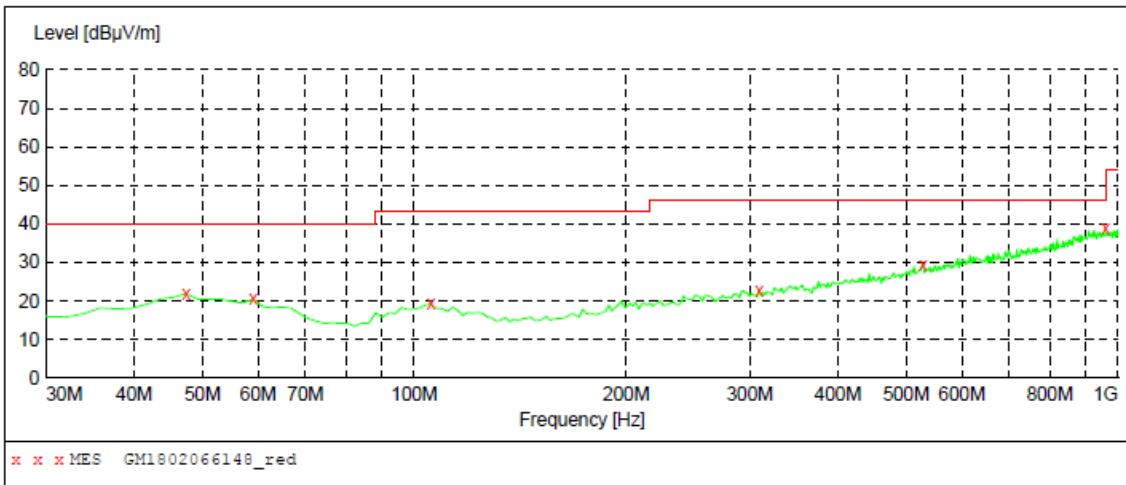
MEASUREMENT RESULT: "GM1802066147_red"

2/6/2018 10:24PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
49.400000	20.20	-8.7	40.0	19.8	QP	100.0	297.00	VERTICAL
57.160000	19.60	-9.4	40.0	20.4	QP	100.0	193.00	VERTICAL
103.720000	18.90	-10.5	43.5	24.6	QP	100.0	33.00	VERTICAL
295.780000	22.70	-7.3	46.0	23.3	QP	100.0	245.00	VERTICAL
540.220000	28.90	-1.0	46.0	17.1	QP	100.0	153.00	VERTICAL
953.440000	38.10	7.3	46.0	7.9	QP	100.0	33.00	VERTICAL

Polarization:

Horizontal



MEASUREMENT RESULT: "GM1802066148_red"

2/6/2018 10:27PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
47.460000	22.00	-8.8	40.0	18.0	QP	300.0	167.00	HORIZONTAL
59.100000	20.50	-9.8	40.0	19.5	QP	100.0	0.00	HORIZONTAL
105.660000	19.30	-10.5	43.5	24.2	QP	100.0	266.00	HORIZONTAL
309.360000	22.70	-7.1	46.0	23.3	QP	100.0	79.00	HORIZONTAL
528.580000	29.50	-1.2	46.0	16.5	QP	300.0	87.00	HORIZONTAL
959.260000	38.80	7.3	46.0	7.2	QP	300.0	34.00	HORIZONTAL

➤ 1 GHz ~ 25 GHz

802.11b					CH01				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1702.36	35.08	25.20	5.77	36.93	29.12	74.00	-44.88	Vertical	Peak
3616.45	37.31	29.30	8.29	38.27	36.63	74.00	-37.37	Vertical	Peak
4821.76	41.47	31.56	9.55	36.90	45.68	74.00	-28.32	Vertical	Peak
7081.70	32.81	35.55	11.85	34.91	45.30	74.00	-28.70	Vertical	Peak
1782.18	37.09	25.37	5.93	37.10	31.29	74.00	-42.71	Horizontal	Peak
3616.45	35.49	29.30	8.29	38.27	34.81	74.00	-39.19	Horizontal	Peak
4821.76	39.86	31.56	9.55	36.90	44.07	74.00	-29.93	Horizontal	Peak
7227.39	31.45	36.23	11.89	35.04	44.53	74.00	-29.47	Horizontal	Peak

802.11b					CH06				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1719.78	35.42	25.24	5.80	36.97	29.49	74.00	-44.51	Vertical	Peak
3616.45	36.29	29.30	8.29	38.27	35.61	74.00	-38.39	Vertical	Peak
4871.10	41.41	31.46	9.59	36.76	45.70	74.00	-28.30	Vertical	Peak
7451.57	31.95	36.20	12.24	34.86	45.53	74.00	-28.47	Vertical	Peak
1565.20	36.04	25.21	5.47	36.67	30.05	74.00	-43.95	Horizontal	Peak
3176.16	35.50	28.80	7.69	38.20	33.79	74.00	-40.21	Horizontal	Peak
4871.10	40.82	31.46	9.59	36.76	45.11	74.00	-28.89	Horizontal	Peak
7190.69	30.90	36.14	11.86	35.07	43.83	74.00	-30.17	Horizontal	Peak

802.11b					CH11				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1768.62	44.55	25.34	5.90	37.07	38.72	74.00	-35.28	Vertical	Peak
3588.94	34.64	29.27	8.25	38.29	33.87	74.00	-40.13	Vertical	Peak
4920.96	36.86	31.42	9.62	36.62	41.28	74.00	-32.72	Vertical	Peak
6992.14	31.74	35.25	11.84	34.80	44.03	74.00	-29.97	Vertical	Peak
1759.64	34.78	25.32	5.88	37.06	28.92	74.00	-45.08	Horizontal	Peak
3690.85	36.67	29.30	8.37	38.25	36.09	74.00	-37.91	Horizontal	Peak
4920.96	39.44	31.42	9.62	36.62	43.86	74.00	-30.14	Horizontal	Peak
7338.62	31.69	36.30	12.01	34.90	45.10	74.00	-28.90	Horizontal	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. The peak level is lower than average limit (54 dBuV/m), this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies (test frequency band is 1GHz to 25GHz) are very lower than the limit and not show in test report.

802.11g					CH01				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1814.22	34.00	25.39	5.98	37.15	28.22	74.00	-45.78	Vertical	Peak
3672.11	35.13	29.30	8.35	38.26	34.52	74.00	-39.48	Vertical	Peak
5244.30	32.99	31.41	9.90	36.33	37.97	74.00	-36.03	Vertical	Peak
7117.84	30.73	35.71	11.86	34.96	43.34	74.00	-30.66	Vertical	Peak
1192.01	35.97	26.24	4.64	36.57	30.28	74.00	-43.72	Horizontal	Peak
4159.93	35.06	29.96	8.91	37.74	36.19	74.00	-37.81	Horizontal	Peak
5244.30	33.99	31.41	9.90	36.33	38.97	74.00	-35.03	Horizontal	Peak
8927.68	33.60	37.83	13.23	34.36	50.30	74.00	-23.70	Horizontal	Peak

802.11g					CH06				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1782.18	37.85	25.37	5.93	37.10	32.05	74.00	-41.95	Vertical	Peak
3653.46	36.21	29.30	8.33	38.26	35.58	74.00	-38.42	Vertical	Peak
5086.52	32.46	31.85	9.74	36.31	37.74	74.00	-36.26	Vertical	Peak
7880.77	32.18	36.59	12.87	34.85	46.79	74.00	-27.21	Vertical	Peak
2590.96	43.63	27.75	6.90	37.84	40.44	74.00	-33.56	Horizontal	Peak
3653.46	36.31	29.30	8.33	38.26	35.68	74.00	-38.32	Horizontal	Peak
5112.49	32.46	31.85	9.76	36.29	37.78	74.00	-36.22	Horizontal	Peak
7413.73	31.41	36.27	12.11	34.83	44.96	74.00	-29.04	Horizontal	Peak

802.11g					CH11				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1894.45	34.55	25.31	6.11	37.22	28.75	74.00	-45.25	Vertical	Peak
3700.26	36.00	29.30	8.39	38.25	35.44	74.00	-38.56	Vertical	Peak
4958.68	32.30	31.46	9.64	36.52	36.88	74.00	-37.12	Vertical	Peak
7027.82	30.64	35.38	11.85	34.83	43.04	74.00	-30.96	Vertical	Peak
1746.25	36.42	25.29	5.86	37.03	30.54	74.00	-43.46	Horizontal	Peak
3690.85	36.43	29.30	8.37	38.25	35.85	74.00	-38.15	Horizontal	Peak
4920.96	34.49	31.42	9.62	36.62	38.91	74.00	-35.09	Horizontal	Peak
7009.96	31.73	35.33	11.85	34.80	44.11	74.00	-29.89	Horizontal	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies(test frequency band is 1GHz to 25GHz) are very lower than the limit and not show in test report.

802.11n(HT20)					CH01				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1846.83	34.61	25.35	6.03	37.18	28.81	74.00	-45.19	Vertical	Peak
3184.25	35.35	28.80	7.70	38.20	33.65	74.00	-40.35	Vertical	Peak
4834.05	33.46	31.53	9.56	36.86	37.69	74.00	-36.31	Vertical	Peak
6172.20	32.39	32.79	10.96	35.31	40.83	74.00	-33.17	Vertical	Peak
2584.37	41.92	27.71	6.90	37.84	38.69	74.00	-35.31	Horizontal	Peak
3616.45	34.14	29.30	8.29	38.27	33.46	74.00	-40.54	Horizontal	Peak
5138.58	31.91	31.74	9.78	36.26	37.17	74.00	-36.83	Horizontal	Peak
7301.36	30.49	36.30	11.97	34.95	43.81	74.00	-30.19	Horizontal	Peak

802.11n(HT20)					CH06				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1764.12	37.86	25.33	5.89	37.06	32.02	74.00	-41.98	Vertical	Peak
3653.46	36.69	29.30	8.33	38.26	36.06	74.00	-37.94	Vertical	Peak
4582.42	33.14	30.87	9.43	37.26	36.18	74.00	-37.82	Vertical	Peak
7394.88	31.20	36.30	12.06	34.83	44.73	74.00	-29.27	Vertical	Peak
1417.28	40.29	25.88	5.05	36.48	34.74	74.00	-39.26	Horizontal	Peak
3662.78	36.73	29.30	8.34	38.26	36.11	74.00	-37.89	Horizontal	Peak
5603.13	31.17	31.79	10.28	35.86	37.38	74.00	-36.62	Horizontal	Peak
7840.75	31.25	36.35	13.06	34.96	45.70	74.00	-28.30	Horizontal	Peak

802.11n(HT20)					CH11				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1777.65	41.13	25.36	5.92	37.09	35.32	74.00	-38.68	Vertical	Peak
3690.85	36.38	29.30	8.37	38.25	35.80	74.00	-38.20	Vertical	Peak
5177.97	32.04	31.59	9.81	36.22	37.22	74.00	-36.78	Vertical	Peak
7413.73	31.67	36.27	12.11	34.83	45.22	74.00	-28.78	Vertical	Peak
2577.80	50.34	27.67	6.89	37.85	47.05	74.00	-26.95	Horizontal	Peak
3690.85	35.40	29.30	8.37	38.25	34.82	74.00	-39.18	Horizontal	Peak
4920.96	32.26	31.42	9.62	36.62	36.68	74.00	-37.32	Horizontal	Peak
6992.14	30.55	35.25	11.84	34.80	42.84	74.00	-31.16	Horizontal	Peak

Remark:

- Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
- The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
- The emission levels of other frequencies(test frequency band is 1GHz to 25GHz) are very lower than the limit and not show in test report.

802.11n(HT40)					CH03				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1750.70	33.46	25.30	5.86	37.04	27.58	74.00	-46.42	Vertical	Peak
3104.22	33.39	28.80	7.61	38.21	31.59	74.00	-42.41	Vertical	Peak
3844.28	34.86	29.64	8.56	38.20	34.86	74.00	-39.14	Vertical	Peak
6219.51	29.70	32.94	11.01	35.29	38.36	74.00	-35.64	Vertical	Peak
1777.65	42.81	25.36	5.92	37.09	37.00	74.00	-37.00	Horizontal	Peak
3653.46	33.82	29.30	8.33	38.26	33.19	74.00	-40.81	Horizontal	Peak
5099.49	31.74	31.90	9.75	36.30	37.09	74.00	-36.91	Horizontal	Peak
7190.69	30.98	36.14	11.86	35.07	43.91	74.00	-30.09	Horizontal	Peak

802.11n(HT40)					CH06				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1750.70	40.47	25.30	5.86	37.04	34.59	74.00	-39.41	Vertical	Peak
3543.55	34.18	29.13	8.18	38.35	33.14	74.00	-40.86	Vertical	Peak
4366.07	32.70	30.40	9.10	37.58	34.62	74.00	-39.38	Vertical	Peak
5821.21	36.70	32.14	10.60	35.33	44.11	74.00	-29.89	Vertical	Peak
1777.65	41.28	25.36	5.92	37.09	35.47	74.00	-38.53	Horizontal	Peak
3128.01	33.56	28.80	7.63	38.21	31.78	74.00	-42.22	Horizontal	Peak
4641.12	32.31	31.02	9.48	37.17	35.64	74.00	-38.36	Horizontal	Peak
7282.79	30.70	36.28	11.95	34.97	43.96	74.00	-30.04	Horizontal	Peak

802.11n(HT40)					CH09				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	Test value
1768.62	42.99	25.34	5.90	37.07	37.16	74.00	-36.84	Vertical	Peak
3644.18	33.62	29.30	8.32	38.26	32.98	74.00	-41.02	Vertical	Peak
5217.66	31.97	31.46	9.86	36.25	37.04	74.00	-36.96	Vertical	Peak
7721.91	30.90	36.10	13.05	35.03	45.02	74.00	-28.98	Vertical	Peak
1659.57	34.24	25.08	5.69	36.85	28.16	74.00	-45.84	Horizontal	Peak
3681.47	34.92	29.30	8.36	38.25	34.33	74.00	-39.67	Horizontal	Peak
5034.99	31.69	31.64	9.70	36.37	36.66	74.00	-37.34	Horizontal	Peak
7027.82	30.72	35.38	11.85	34.83	43.12	74.00	-30.88	Horizontal	Peak

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor
2. The peak level is lower than average limit(54 dBuV/m), this data is the too weak instrument of signal is unable to test.
3. The emission levels of other frequencies(test frequency band is 1GHz to 25GHz) are very lower than the limit and not show in test report.

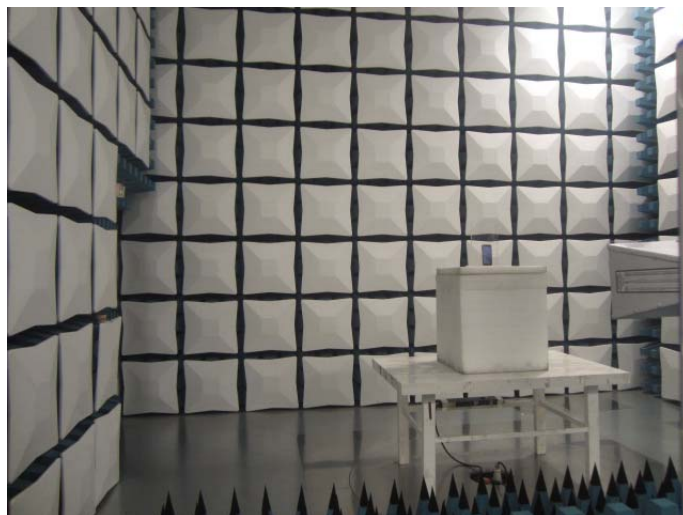
6. TEST SETUP PHOTOS

Conducted Emissions (AC Mains)



Radiated Emissions





EXTERANAL AND INTERNAL PHOTOS

Reference to the test report No.: TRE1801023801.

-----End of Report-----