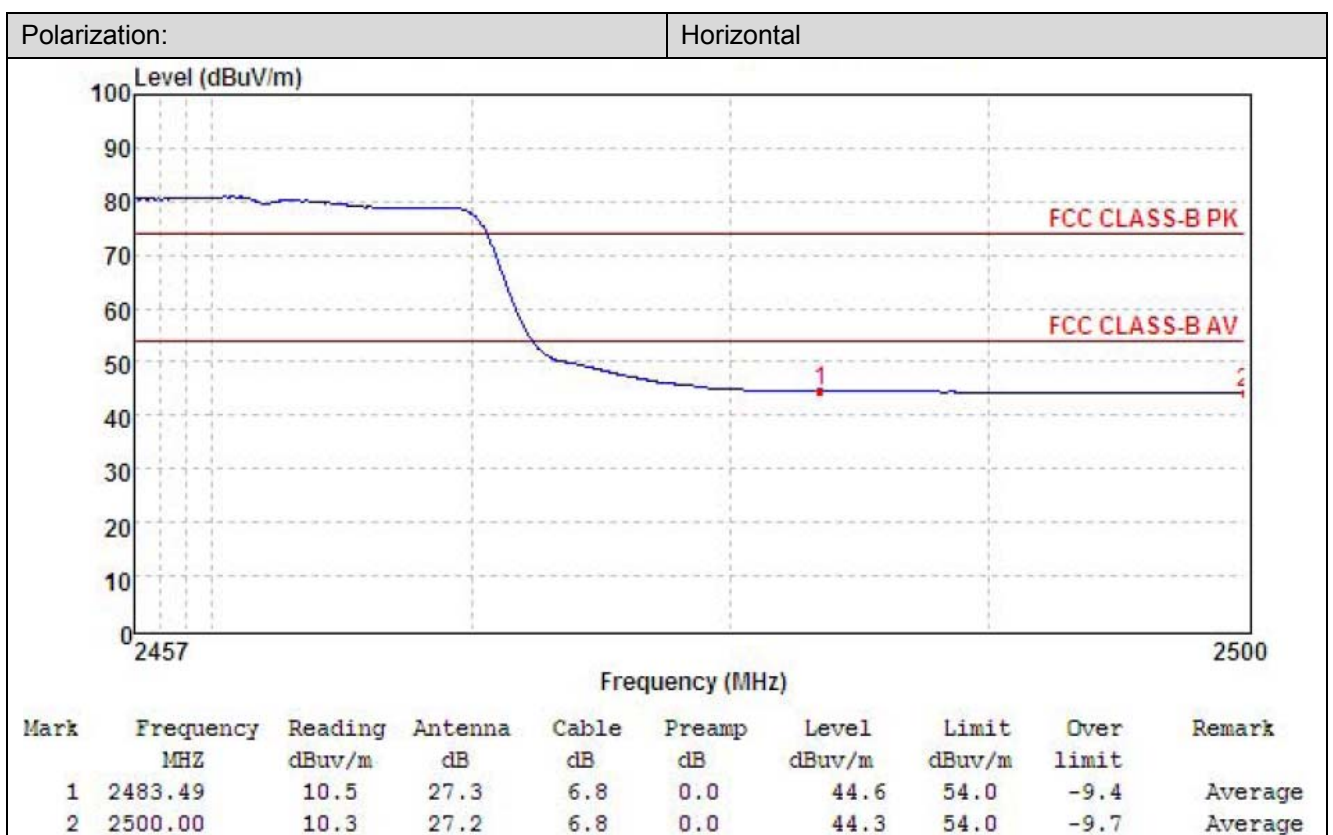
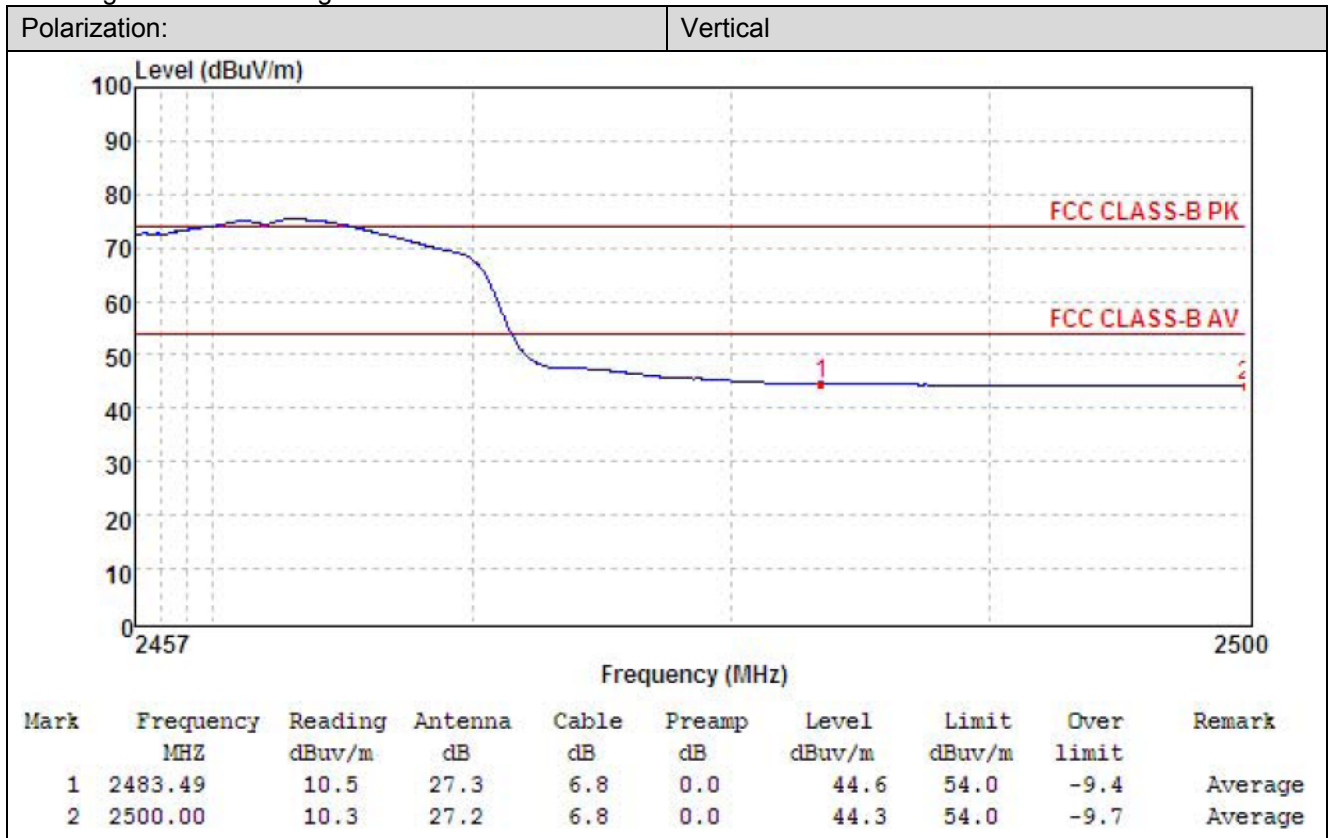
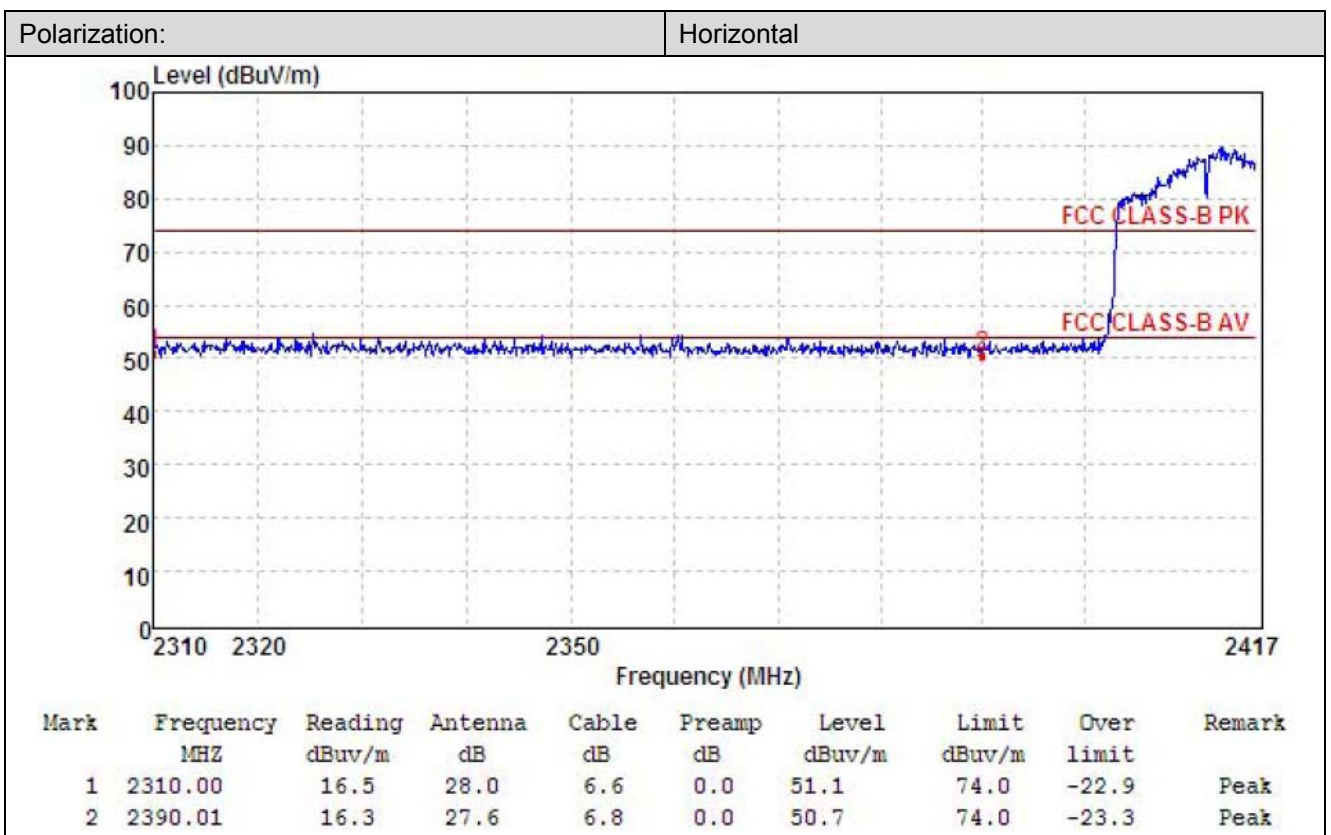
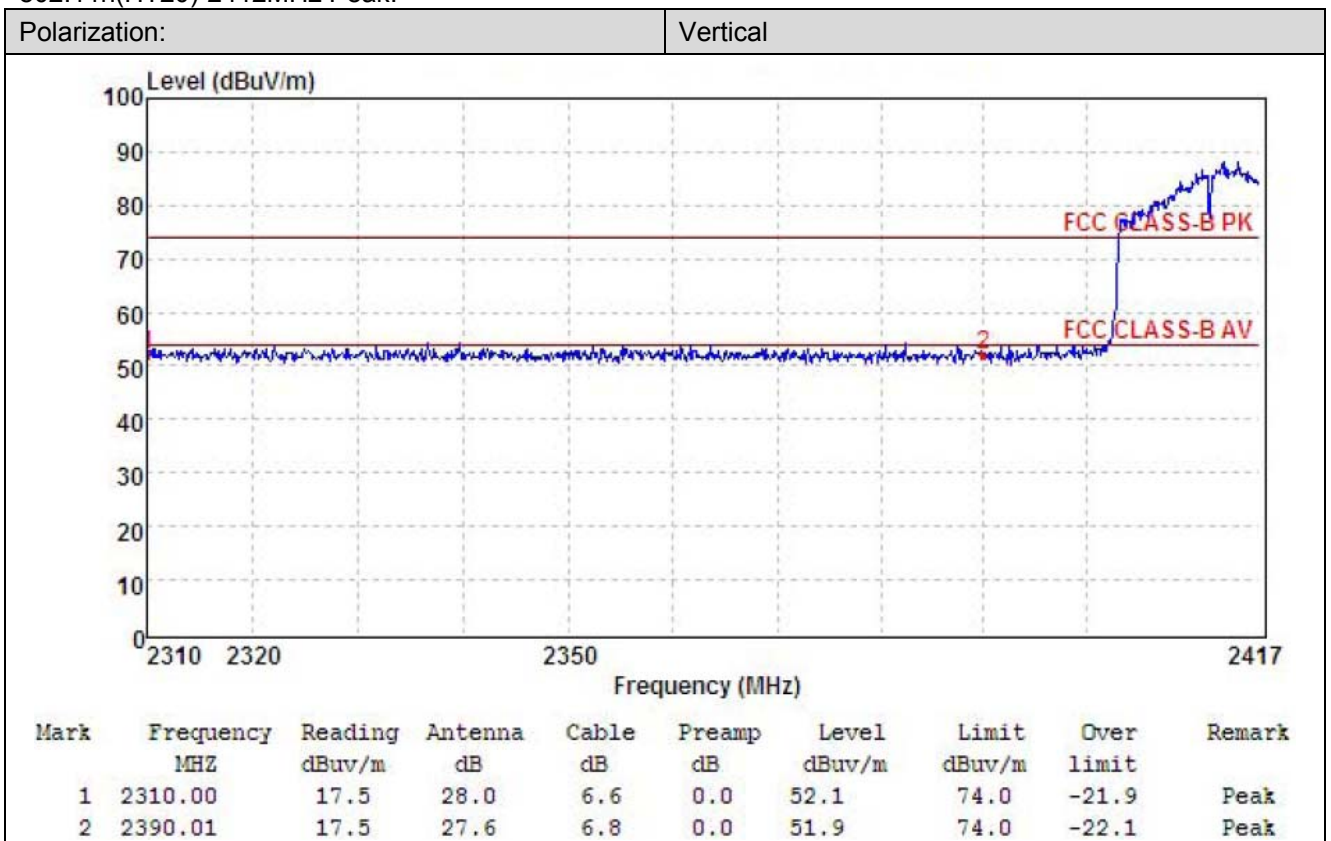


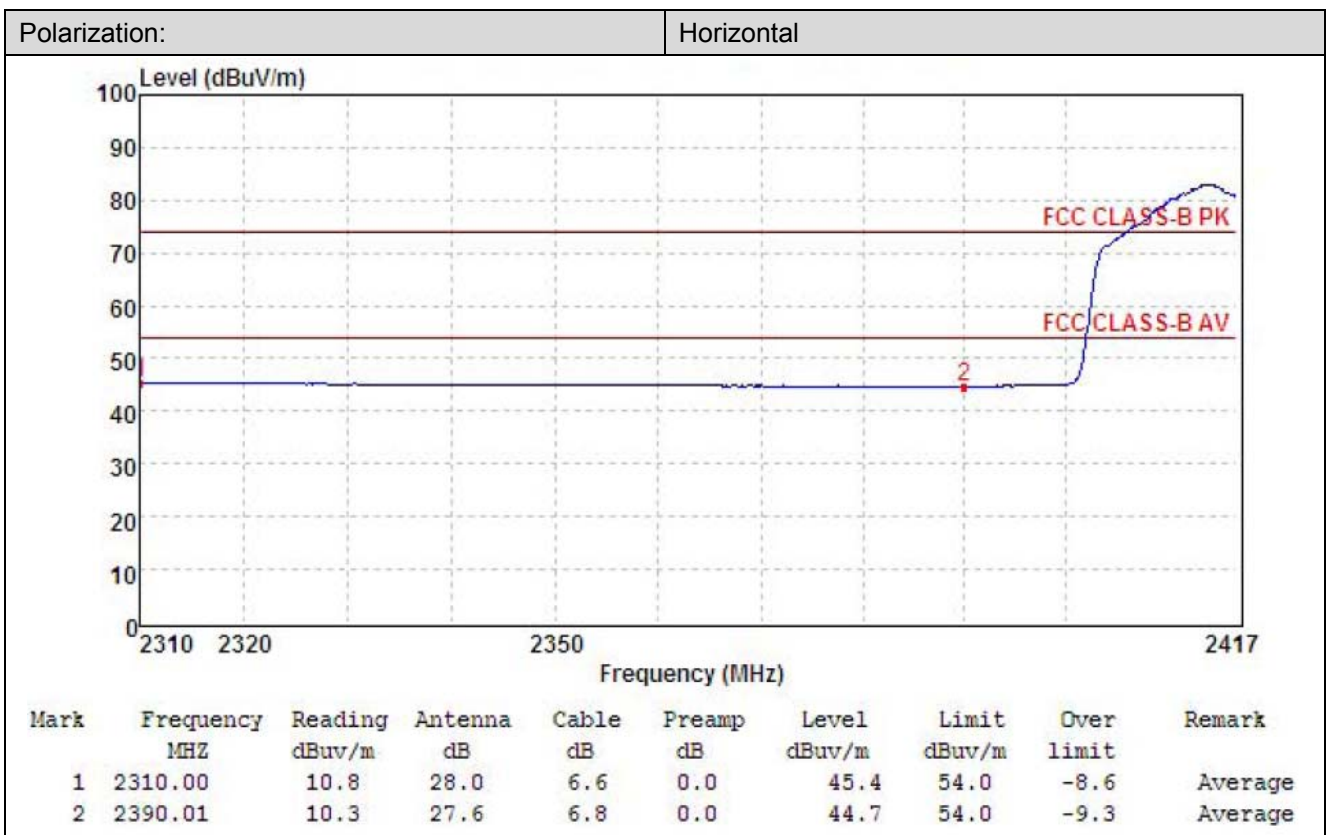
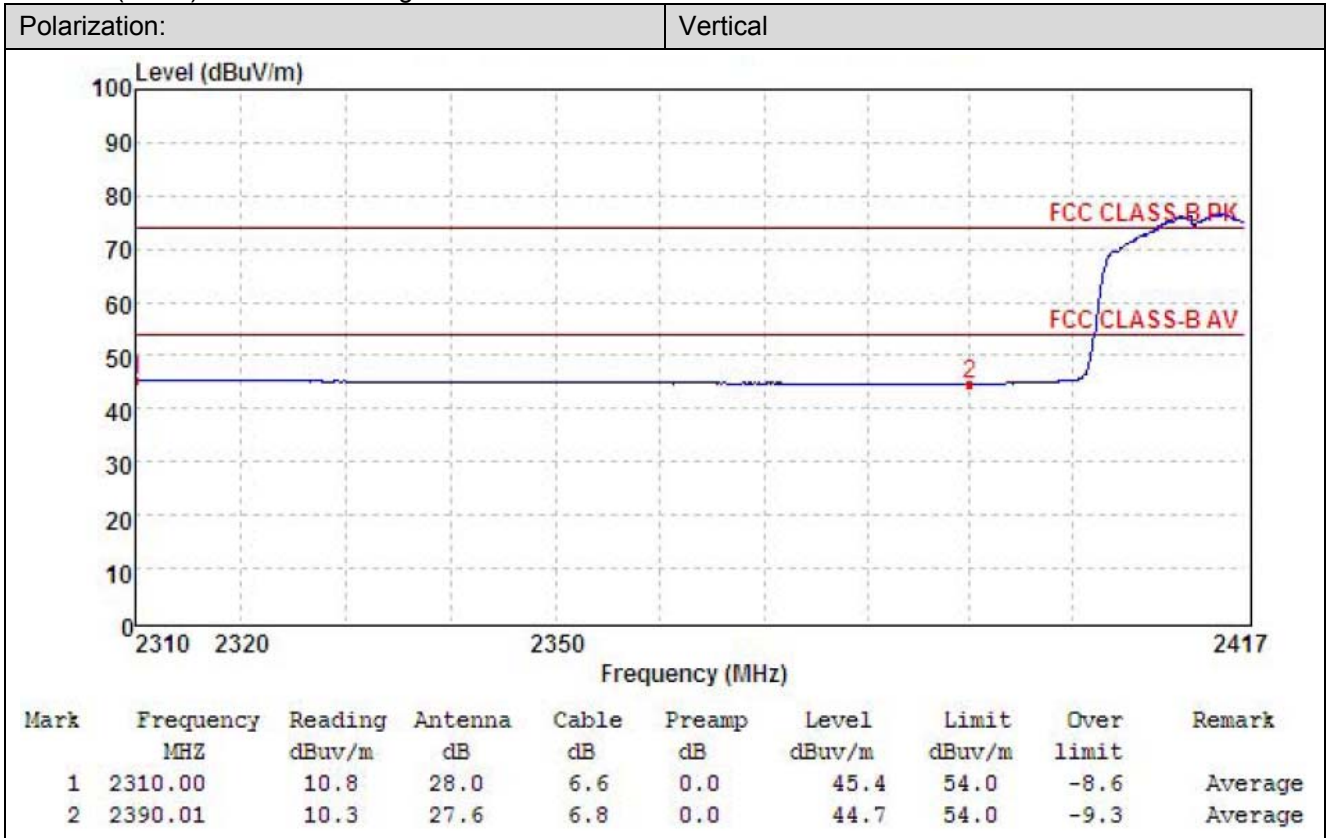
802.11g-2462MHz Average:



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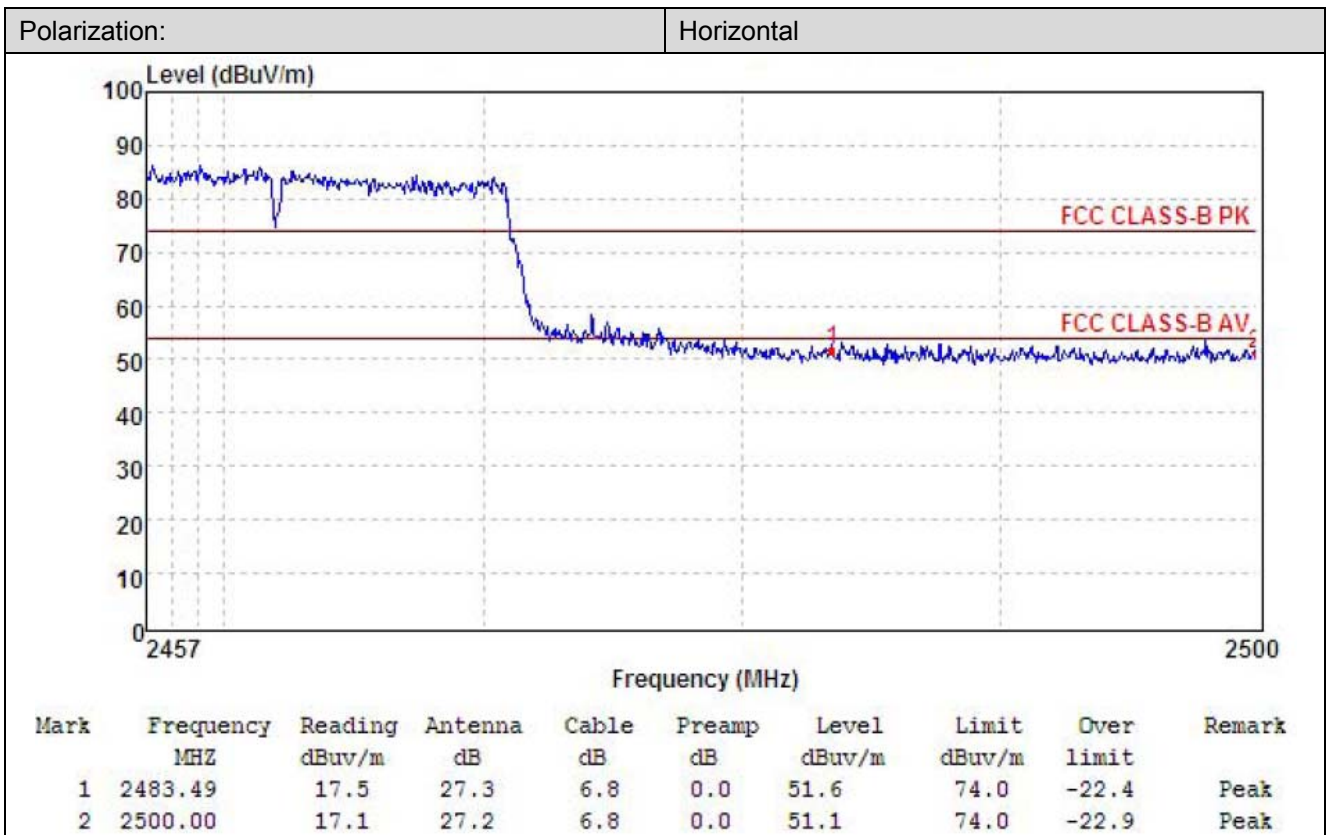
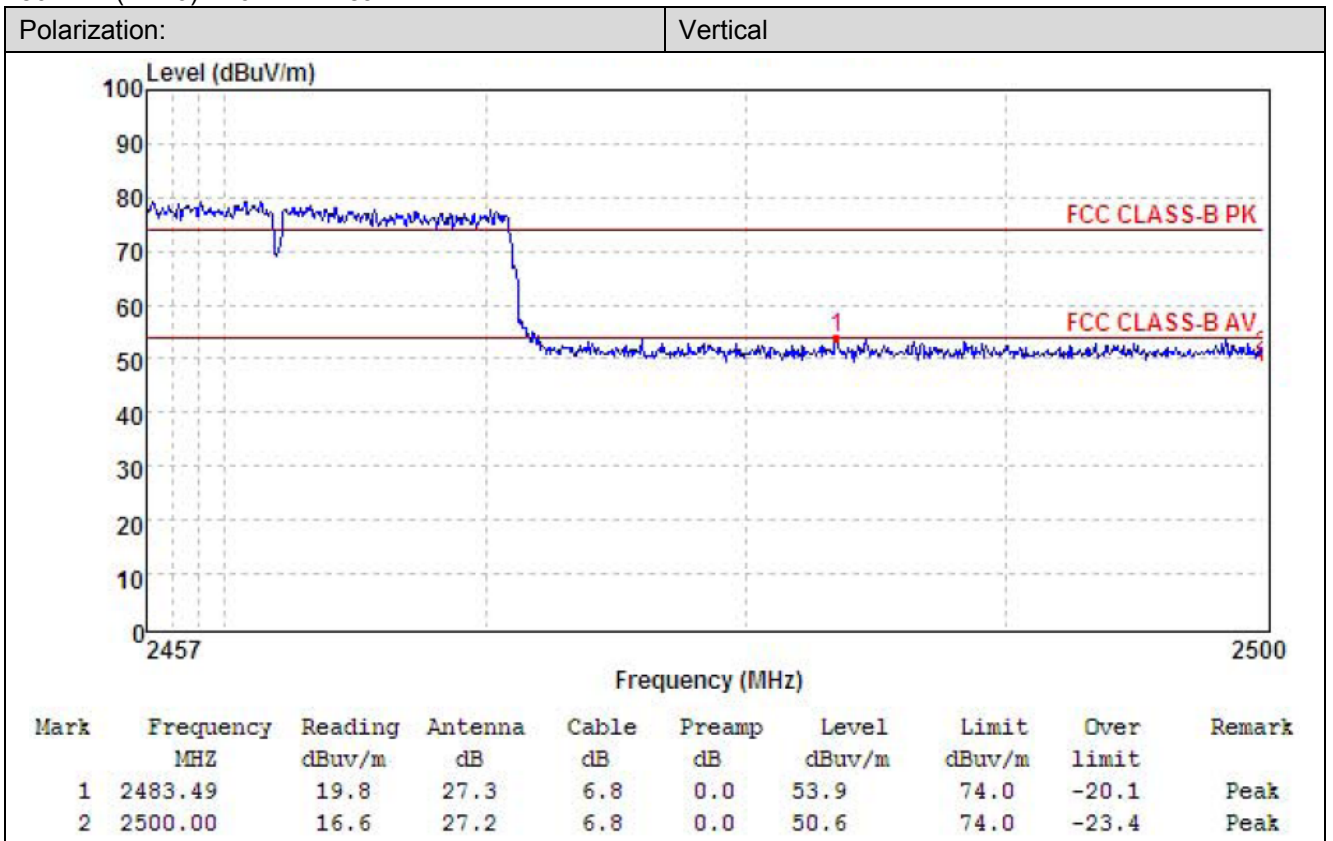


802.11n(HT20)-2412MHz Average:

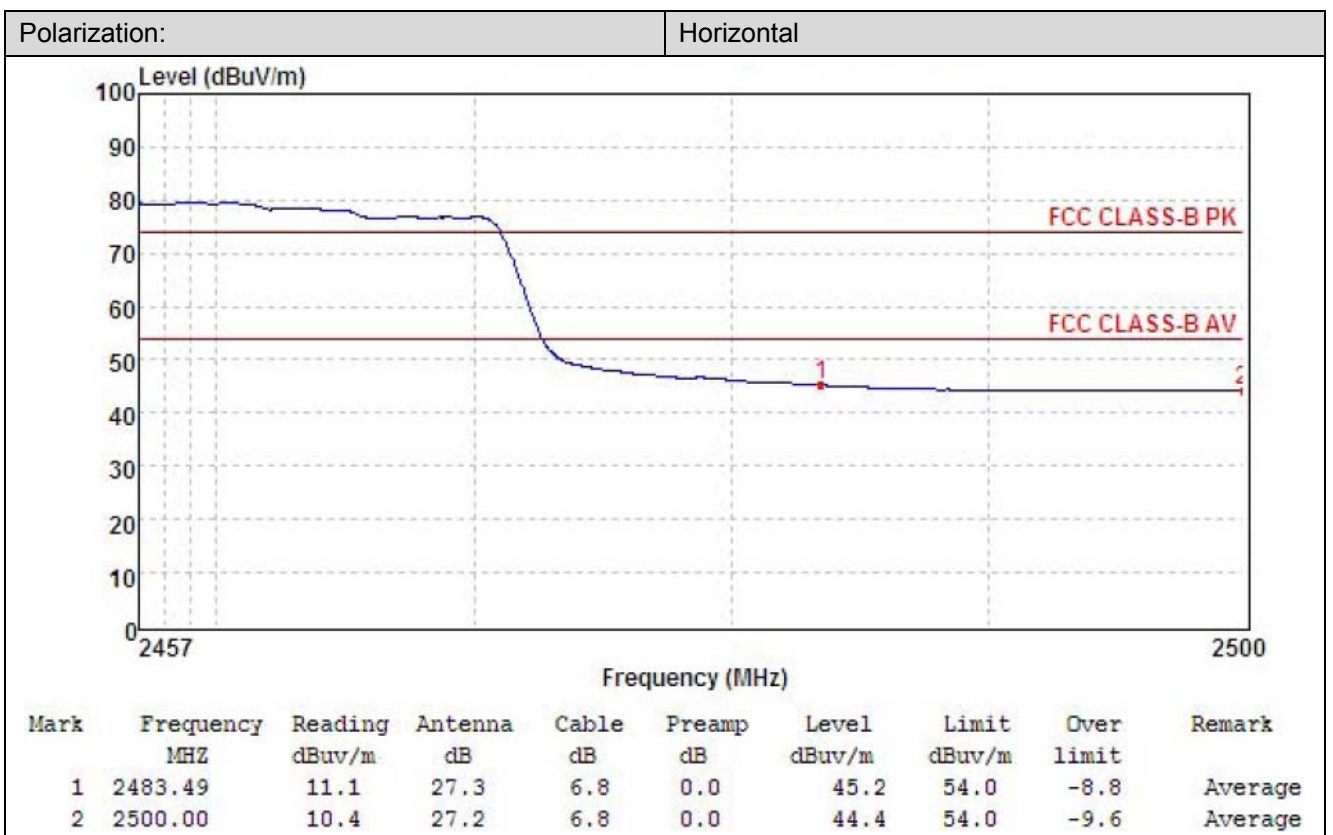
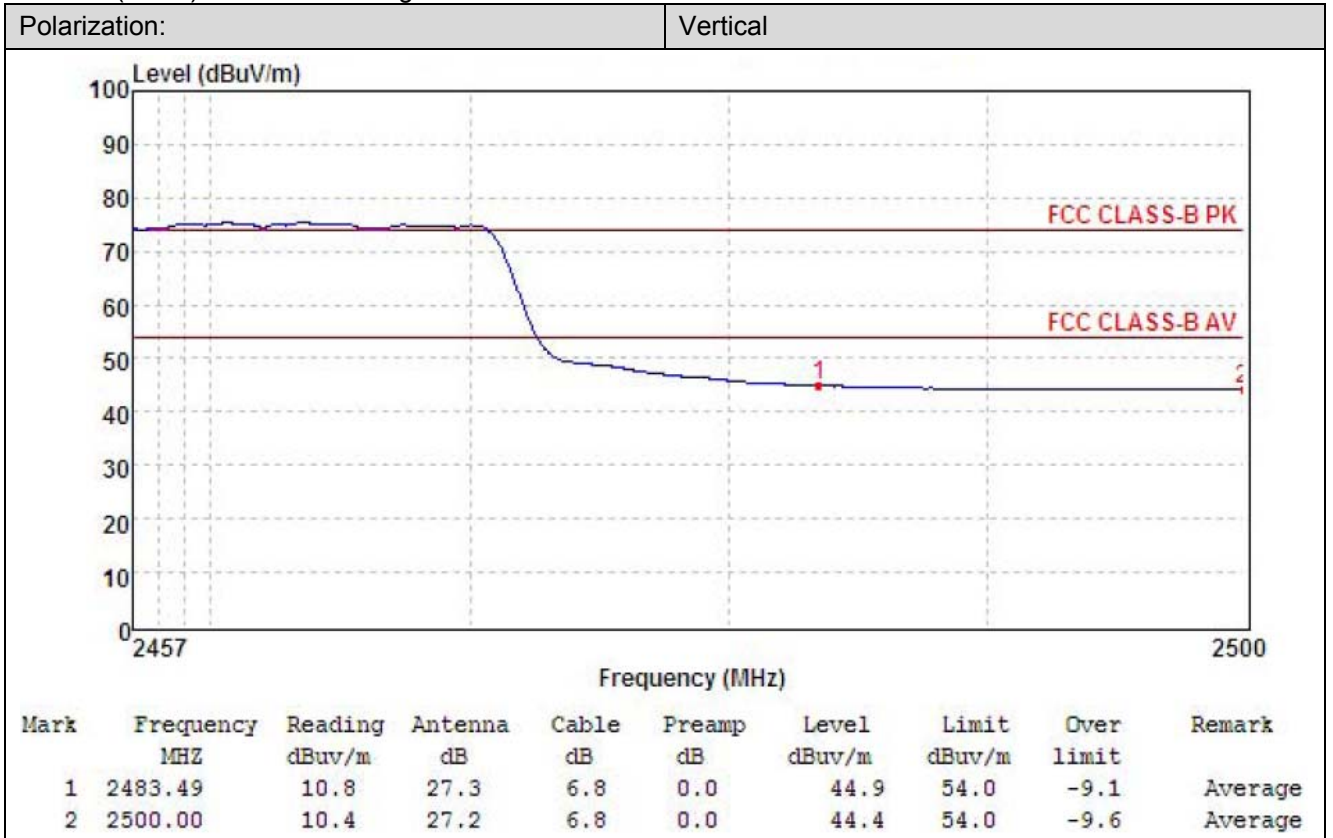




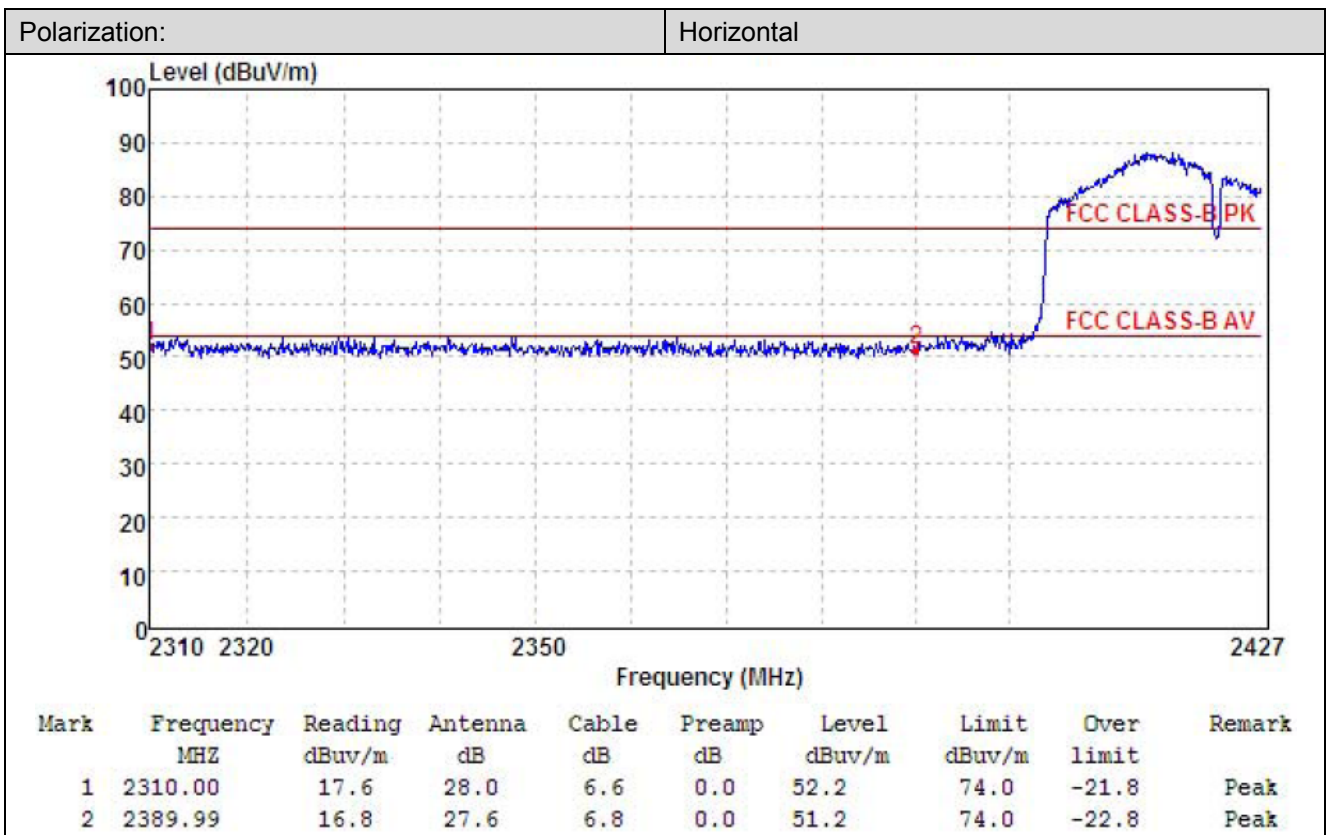
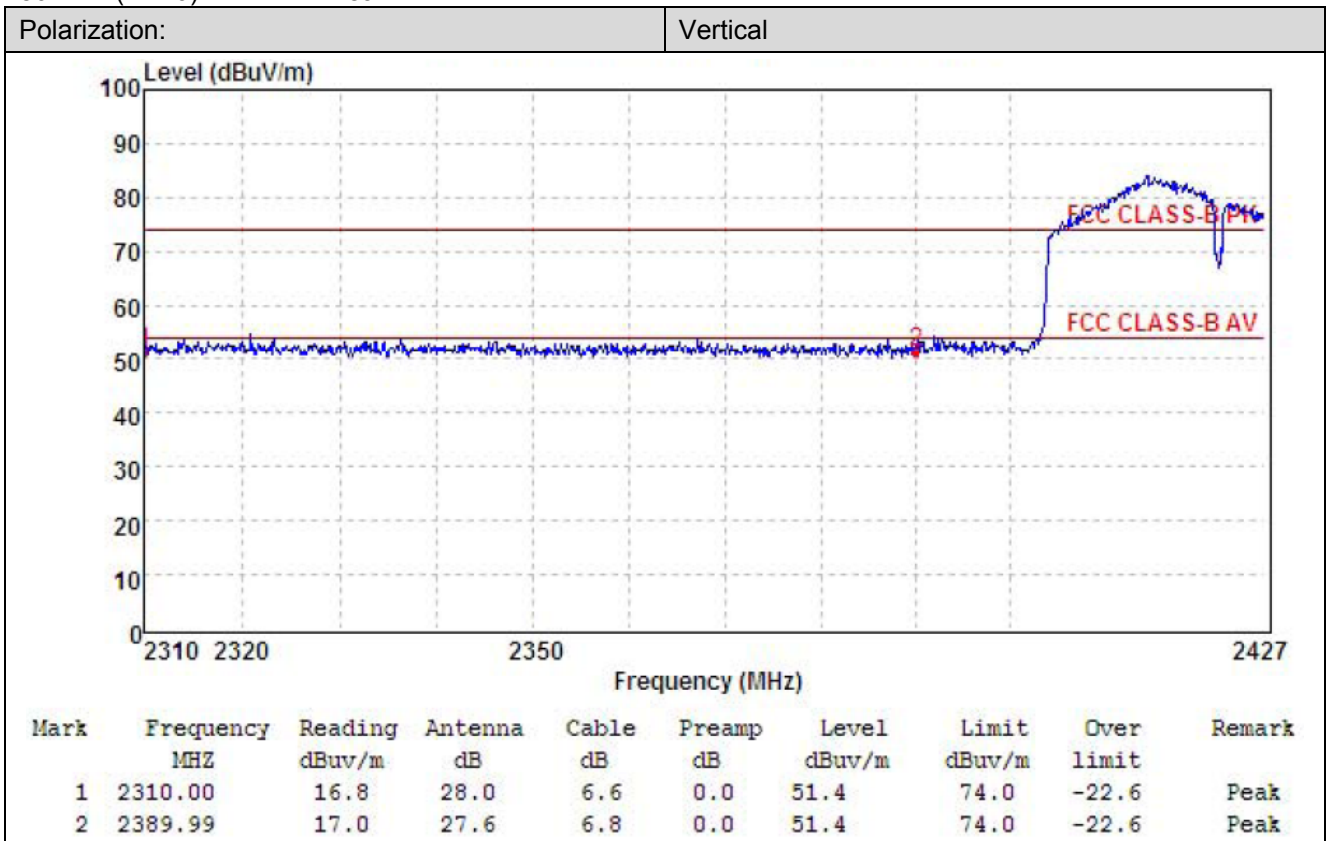
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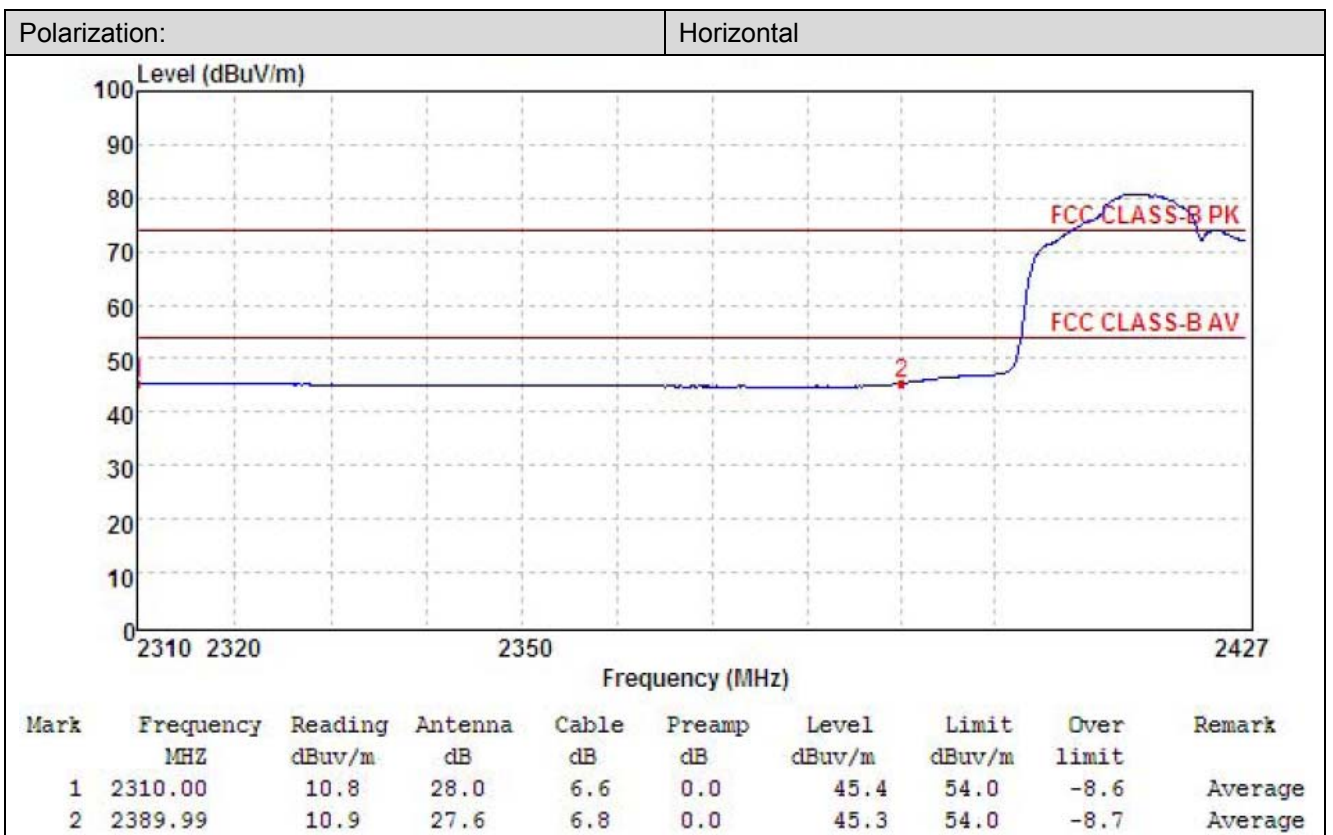
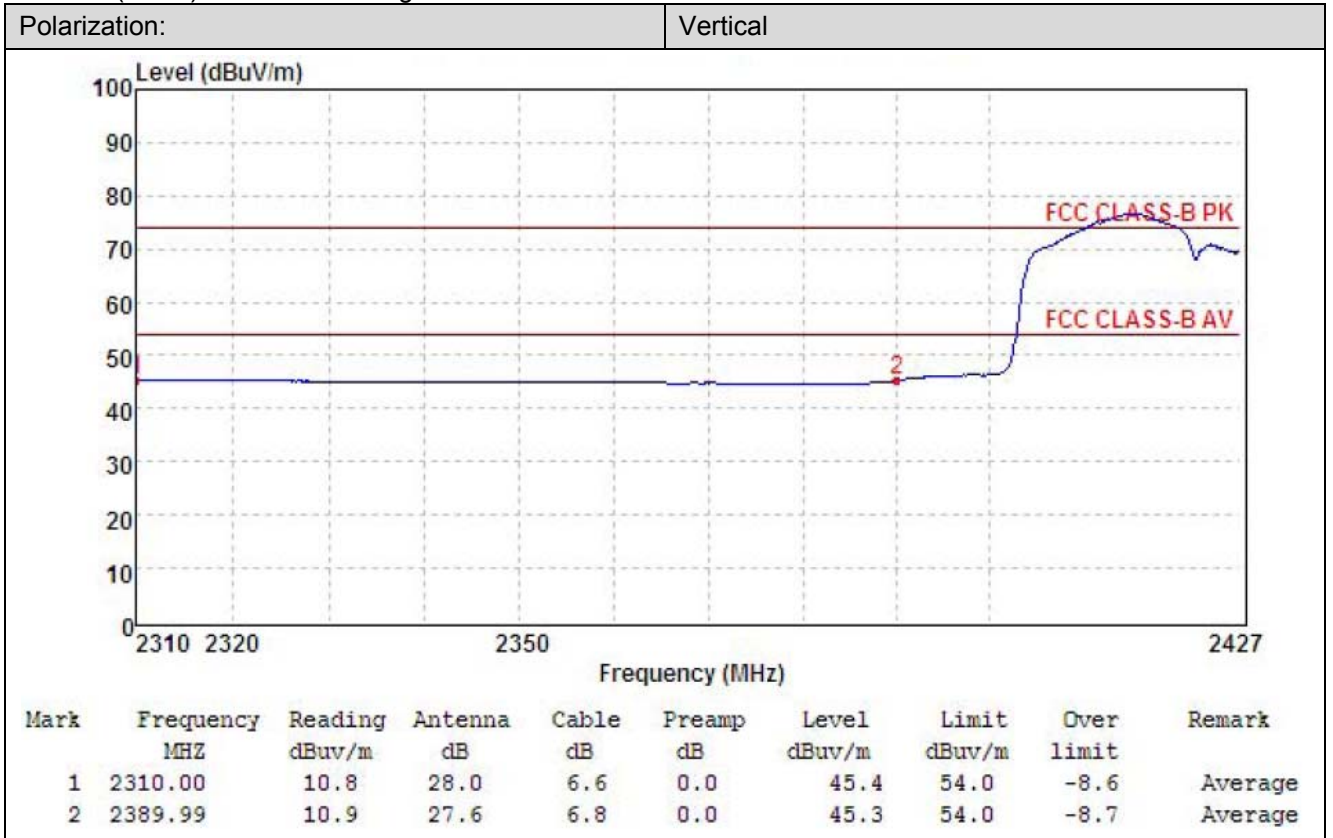


802.11n(HT40)-2422MHz Peak:

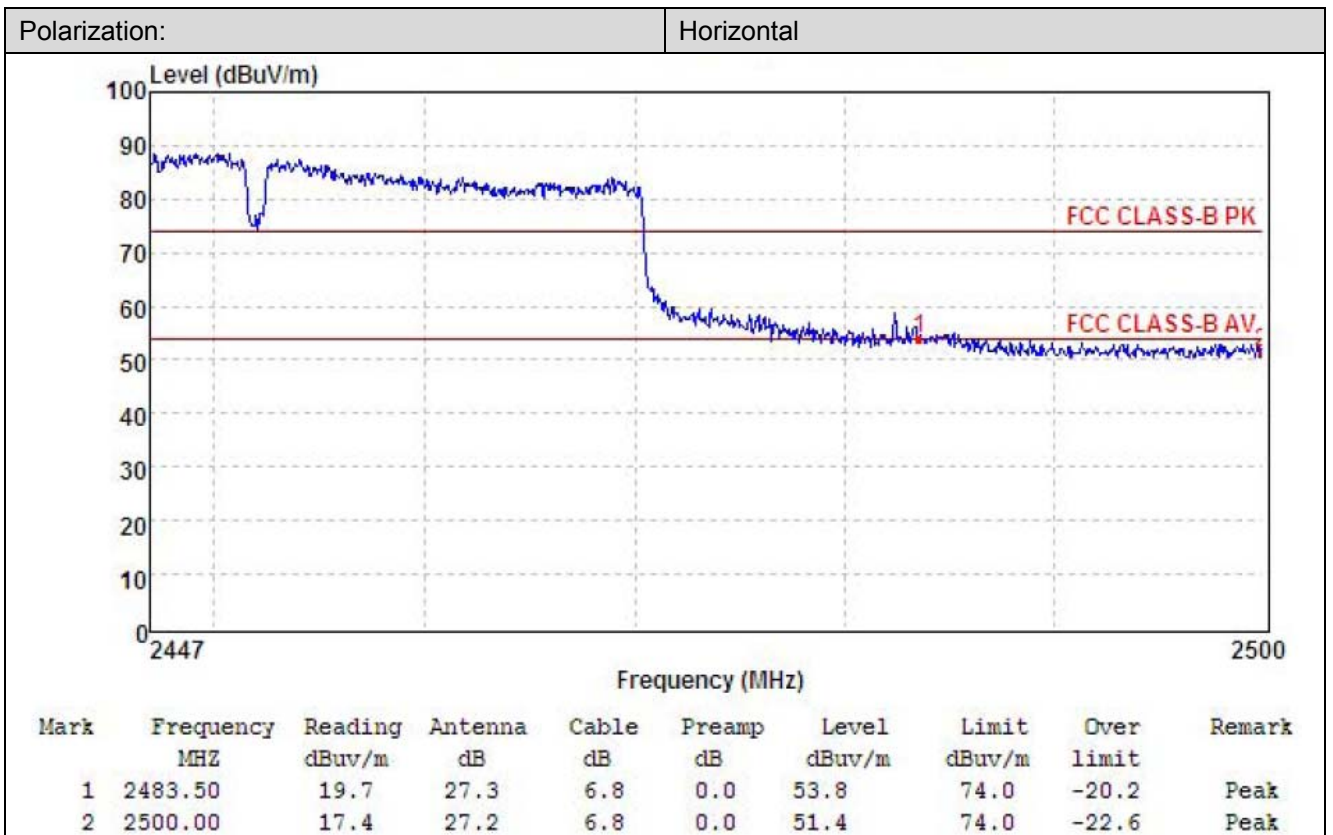
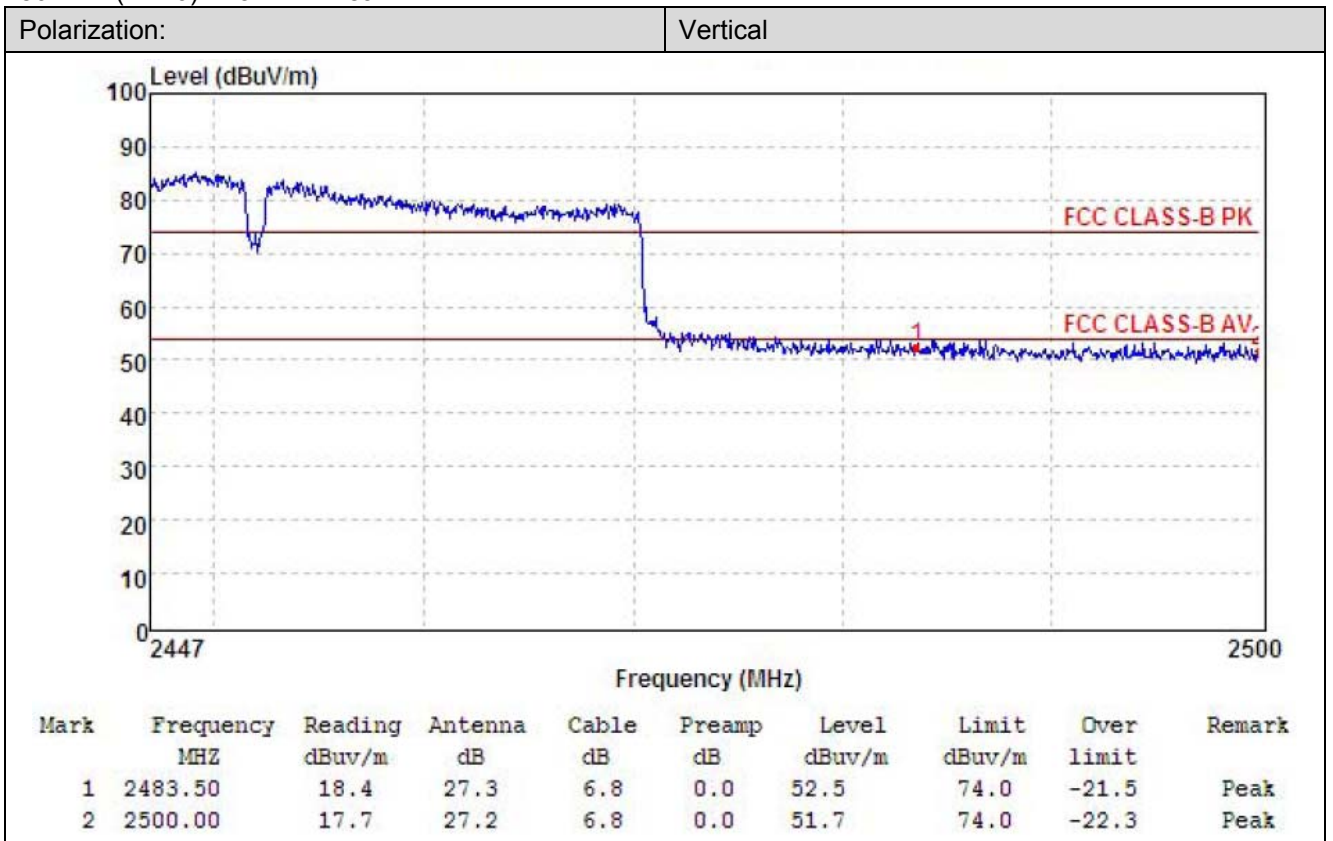




802.11n(HT40)-2422MHz Average:

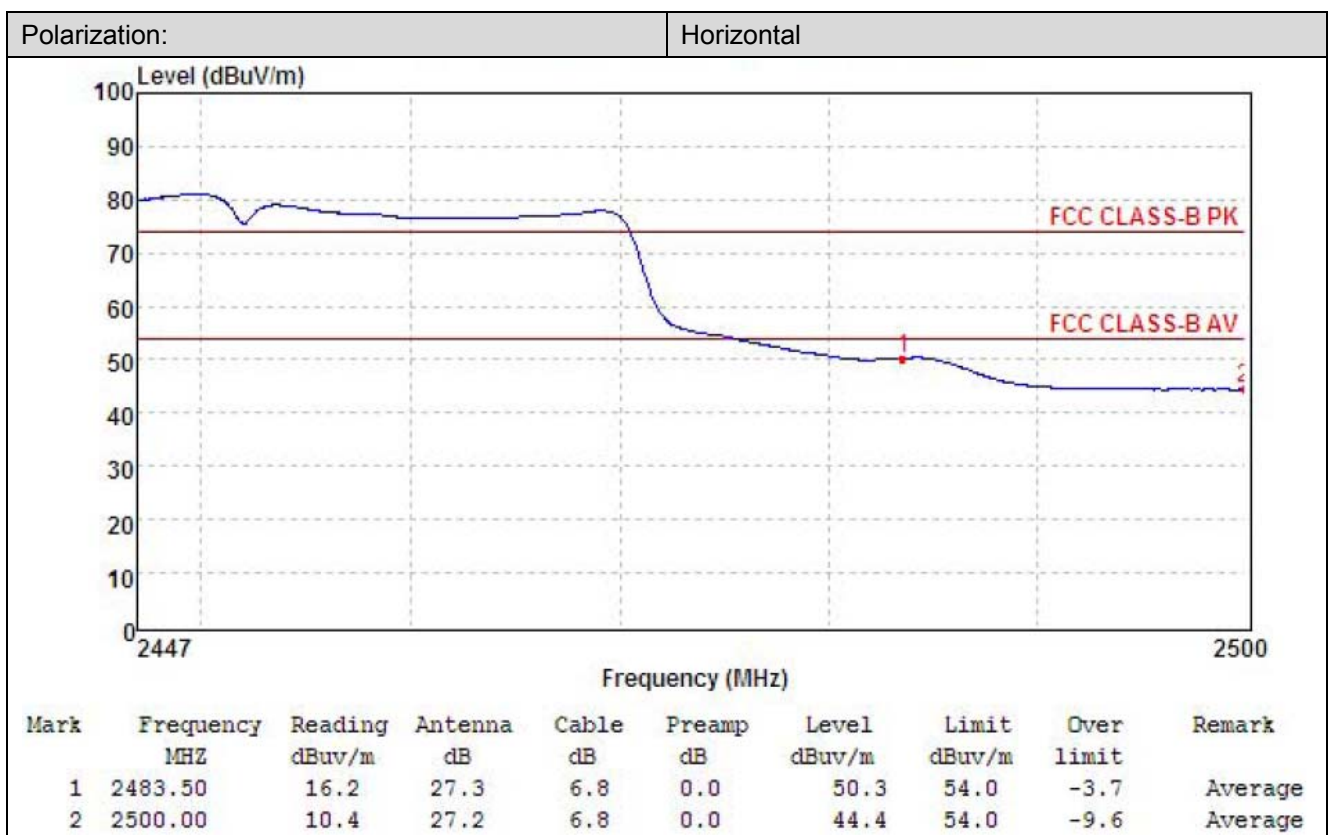
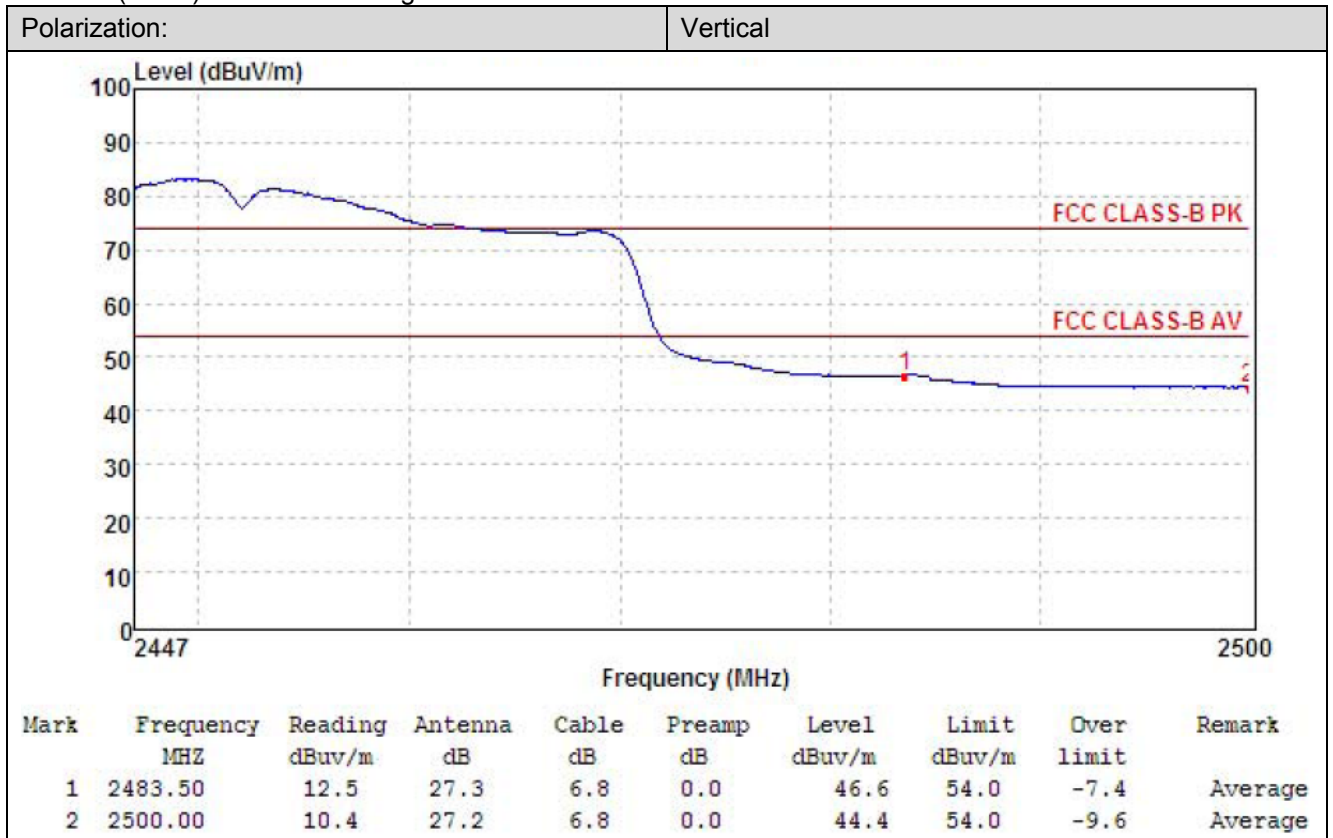


802.11n(HT40)-2452MHz Peak:





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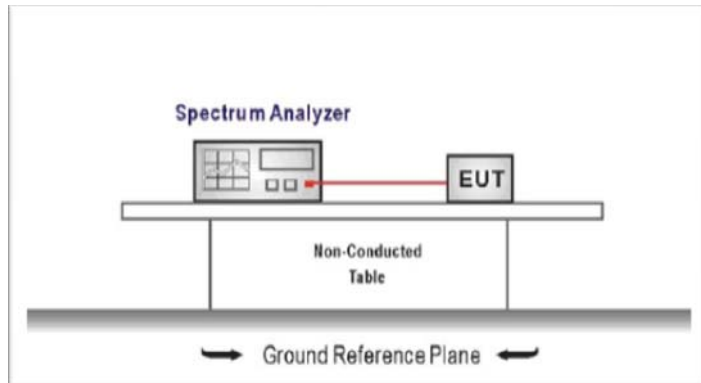
## 5.7. Band edge and Spurious Emissions (conducted)

### LIMIT

#### **FCC CFR Title 47 Part 15 Subpart C Section15.247 (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:

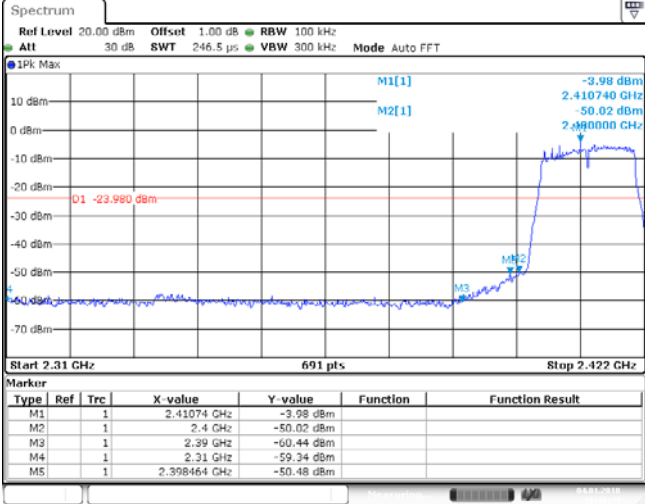
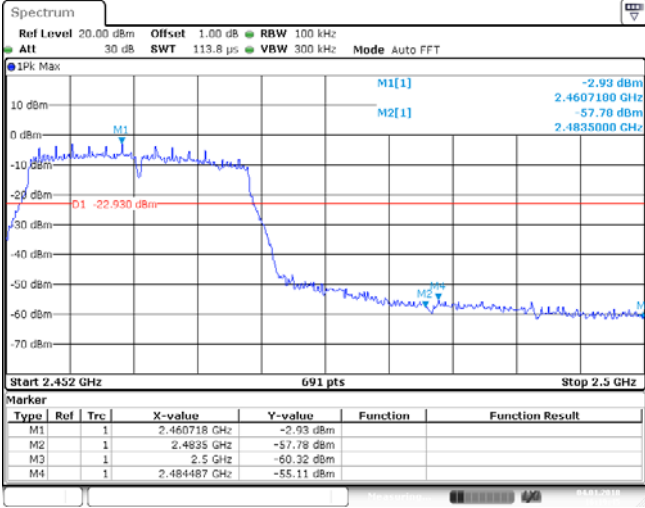
Please refer to the clause 3.3

### TEST RESULTS

Passed       Not Applicable

Test Item:	Bandedge	Type:	802.11b																																										
CH01	 <p><b>Marker</b></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>2.41998 GHz</td> <td>5.45 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-49.35 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-59.55 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-60.15 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.3996 GHz</td> <td>-46.42 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.41998 GHz	5.45 dBm			M2	1		2.4 GHz	-49.35 dBm			M3	1		2.39 GHz	-59.55 dBm			M4	1		2.31 GHz	-60.15 dBm			M5	1		2.3996 GHz	-46.42 dBm		
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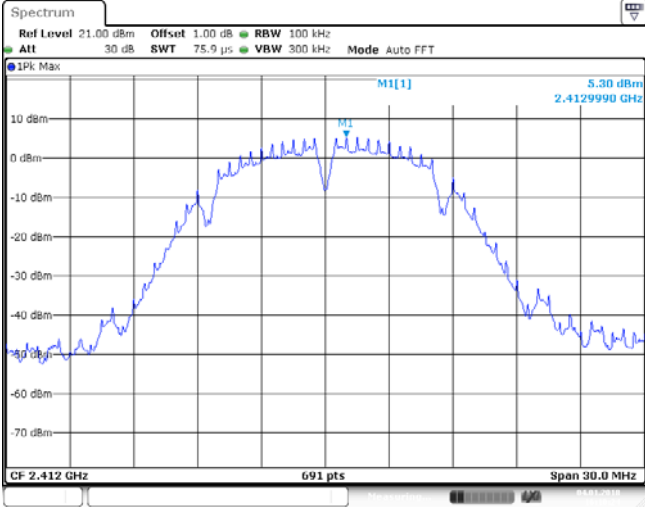
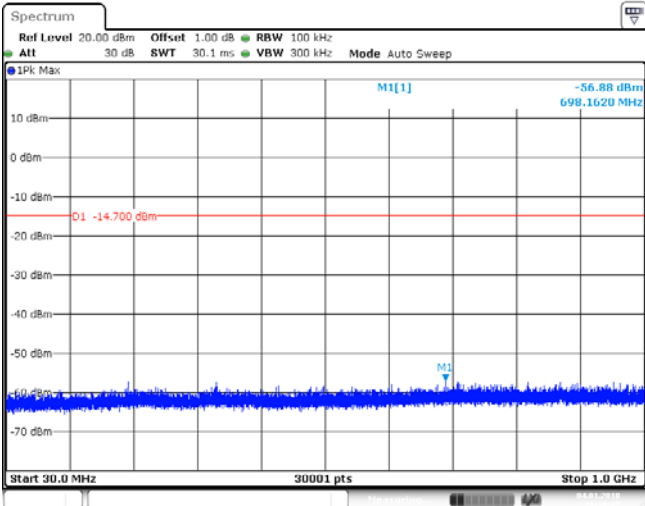
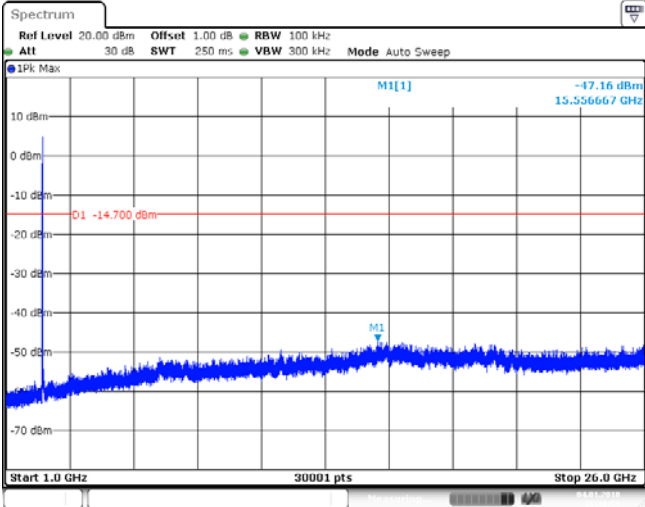


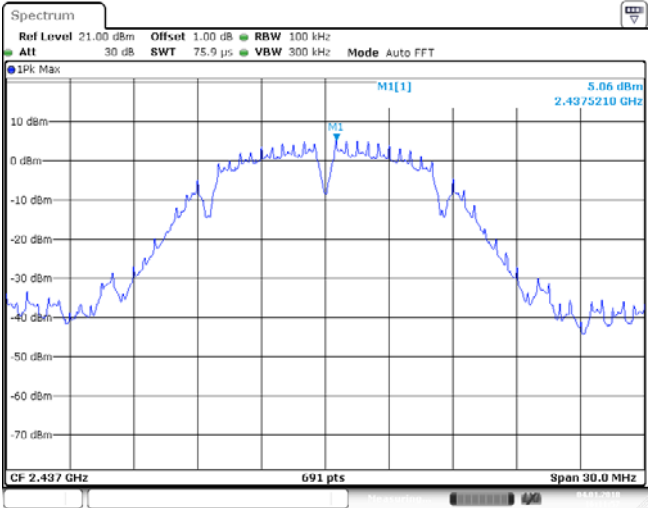
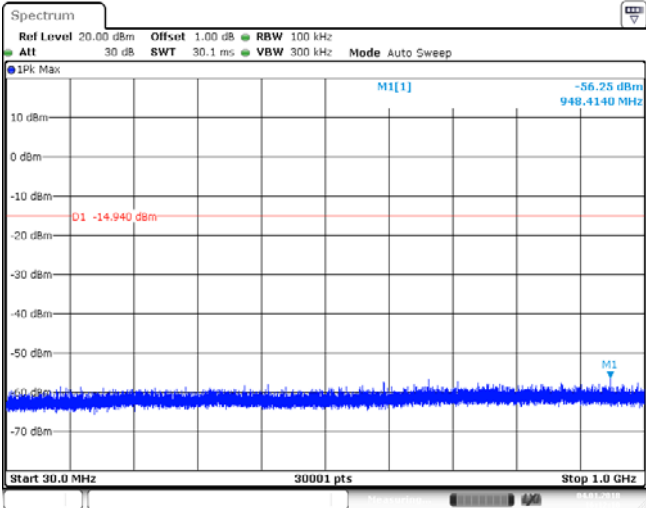
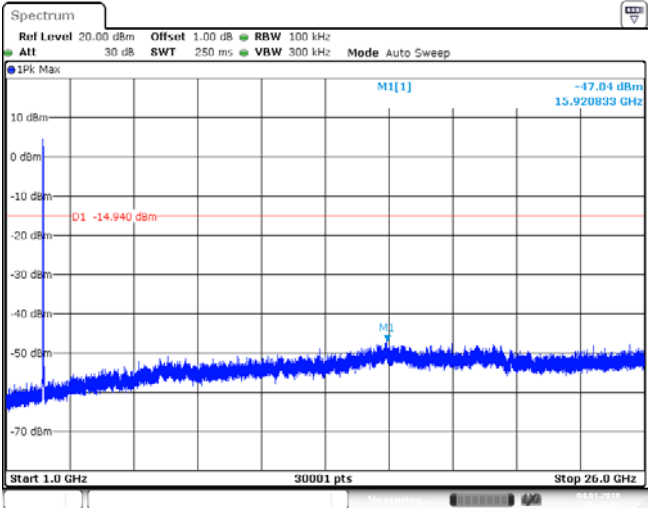
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CH01	 <table border="1" data-bbox="687 607 1334 734"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>2.41074 GHz</td> <td>-3.98 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-50.02 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-60.44 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-59.34 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.398464 GHz</td> <td>-50.48 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.41074 GHz	-3.98 dBm			M2	1		2.4 GHz	-50.02 dBm			M3	1		2.39 GHz	-60.44 dBm			M4	1		2.31 GHz	-59.34 dBm			M5	1		2.398464 GHz	-50.48 dBm		
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CH11	 <table border="1" data-bbox="687 1146 1334 1265"> <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>2.460718 GHz</td> <td>-2.93 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4695 GHz</td> <td>-57.78 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.5 GHz</td> <td>-60.32 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.484487 GHz</td> <td>-55.11 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.460718 GHz	-2.93 dBm			M2	1		2.4695 GHz	-57.78 dBm			M3	1		2.5 GHz	-60.32 dBm			M4	1		2.484487 GHz	-55.11 dBm									
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Test Item:	Bandedge	Type:	802.11n(HT20)																																										
CH01	<p>Spectrum</p> <p>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>1Pk Max</p> <p>M1[1] -5.22 dBm 2.41074 GHz          M2[1] -52.57 dBm 2.400000 GHz</p> <p>D1 -25.220 dBm</p> <p>Start 2.31 GHz 691 pts Stop 2.422 GHz</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>-5.22 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-52.57 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-60.93 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-60.21 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.399438 GHz</td> <td>-51.60 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.41074 GHz	-5.22 dBm			M2	1		2.4 GHz	-52.57 dBm			M3	1		2.39 GHz	-60.93 dBm			M4	1		2.31 GHz	-60.21 dBm			M5	1		2.399438 GHz	-51.60 dBm		
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M5	1		2.399438 GHz	-51.60 dBm																																									
CH11	<p>Spectrum</p> <p>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>1Pk Max</p> <p>M1[1] -4.32 dBm 2.460718 GHz          M2[1] -56.89 dBm 2.4835000 GHz</p> <p>D1 -24.320 dBm</p> <p>Start 2.452 GHz 691 pts Stop 2.5 GHz</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>2.460718 GHz</td> <td>-4.32 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4635 GHz</td> <td>-56.89 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.5 GHz</td> <td>-60.99 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.4857391 GHz</td> <td>-56.04 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.460718 GHz	-4.32 dBm			M2	1		2.4635 GHz	-56.89 dBm			M3	1		2.5 GHz	-60.99 dBm			M4	1		2.4857391 GHz	-56.04 dBm									
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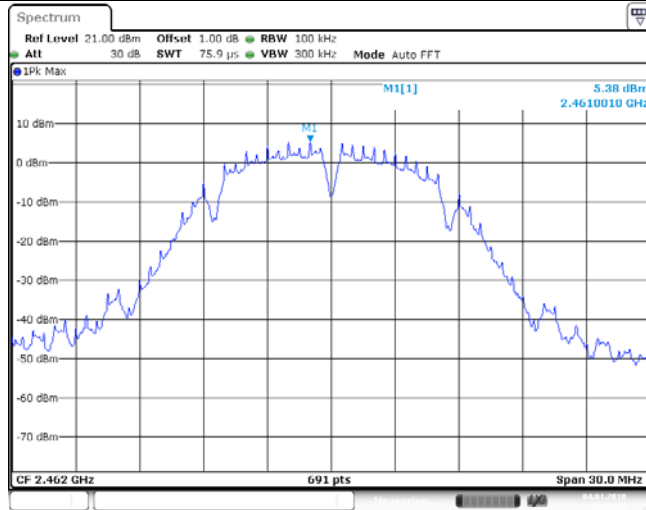
Test Item:	Bandedge	Type:	802.11n(HT40)																																										
CH03	 <p><b>Spectrum</b>          Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz          Att 30 dB SWT 303.4 <math>\mu</math>s VBW 300 kHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -7.08 dBm          2.416888 GHz          53.85 dBm          2.400000 GHz</p> <p>M2[1]</p> <p>M3</p> <p>M4</p> <p>M5</p> <p>D1 -27.080 dBm</p> <p>Start 2.31 GHz 691 pts Stop 2.442 GHz</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>2.41688 GHz</td> <td>-7.08 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4 GHz</td> <td>-53.85 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.39 GHz</td> <td>-58.95 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.31 GHz</td> <td>-60.41 dBm</td> <td></td> <td></td> </tr> <tr> <td>M5</td> <td>1</td> <td></td> <td>2.396278 GHz</td> <td>-51.13 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.41688 GHz	-7.08 dBm			M2	1		2.4 GHz	-53.85 dBm			M3	1		2.39 GHz	-58.95 dBm			M4	1		2.31 GHz	-60.41 dBm			M5	1		2.396278 GHz	-51.13 dBm		
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M4	1		2.31 GHz	-60.41 dBm																																									
M5	1		2.396278 GHz	-51.13 dBm																																									
CH09	 <p><b>Spectrum</b>          Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz          Att 30 dB SWT 1.1 ms VBW 300 kHz Mode Auto Sweep</p> <p>1Pk Max</p> <p>M1[1] -5.83 dBm          2.457045 GHz          54.53 dBm          2.4835000 GHz</p> <p>M2[1]</p> <p>M3</p> <p>M4</p> <p>D1 -25.630 dBm</p> <p>Start 2.432 GHz 691 pts Stop 2.5 GHz</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>2.457045 GHz</td> <td>-5.83 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>2.4635 GHz</td> <td>-54.53 dBm</td> <td></td> <td></td> </tr> <tr> <td>M3</td> <td>1</td> <td></td> <td>2.5 GHz</td> <td>-58.00 dBm</td> <td></td> <td></td> </tr> <tr> <td>M4</td> <td>1</td> <td></td> <td>2.4862029 GHz</td> <td>-51.53 dBm</td> <td></td> <td></td> </tr> </tbody> </table>			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.457045 GHz	-5.83 dBm			M2	1		2.4635 GHz	-54.53 dBm			M3	1		2.5 GHz	-58.00 dBm			M4	1		2.4862029 GHz	-51.53 dBm									
Type	Ref	Trc	X-value	Y-value	Function	Function Result																																							
M1	1		2.457045 GHz	-5.83 dBm																																									
M2	1		2.4635 GHz	-54.53 dBm																																									
M3	1		2.5 GHz	-58.00 dBm																																									
M4	1		2.4862029 GHz	-51.53 dBm																																									



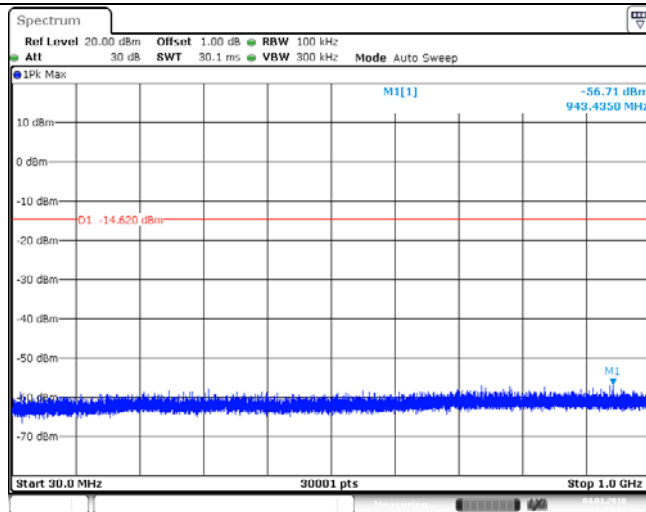
Test Item:	SE	Type:	802.11b
<p>CH01 Reference level</p>			
<p>CH01 30MHz~1000MHz</p>			
<p>CH01 1GHz~26GHz</p>			

<p>CH06 Reference level</p>	 <p>Spectrum Ref Level 21.00 dBm Offset 1.00 dB RBW 100 kHz Alt 30 dB SWT 75.9 <math>\mu</math>s VBW 300 kHz Mode Auto FFT 1Pk Max M1[1] 5.06 dBm 2.4375210 GHz CF 2.437 GHz 691 pts Span 30.0 MHz</p>
<p>CH06 30MHz~1000MHz</p>	 <p>Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Alt 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep 1Pk Max M1[1] -56.75 dBm 948.4140 MHz D1 -14.940 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz</p>
<p>CH06 1GHz~26GHz</p>	 <p>Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Alt 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep 1Pk Max M1[1] -47.04 dBm 15.920833 GHz D1 -14.940 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz</p>

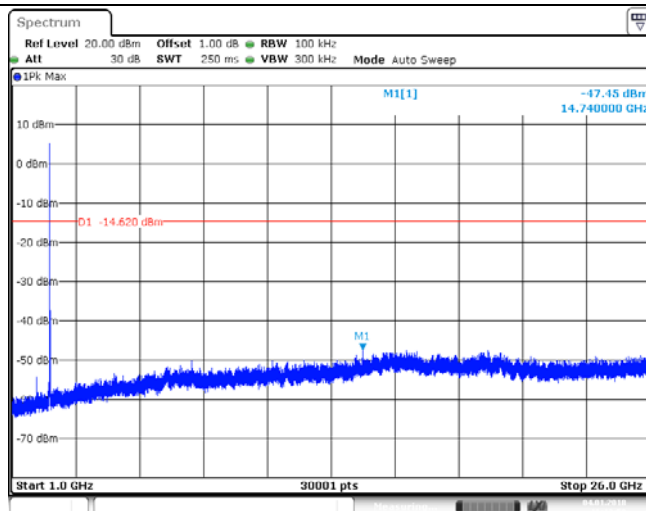
CH11  
Reference level



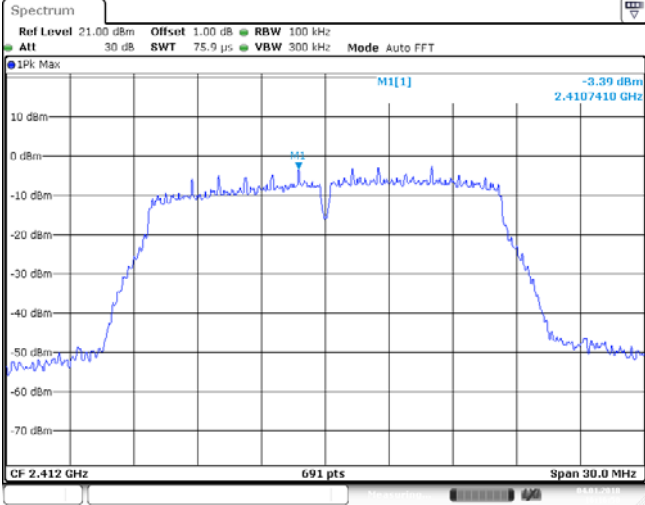
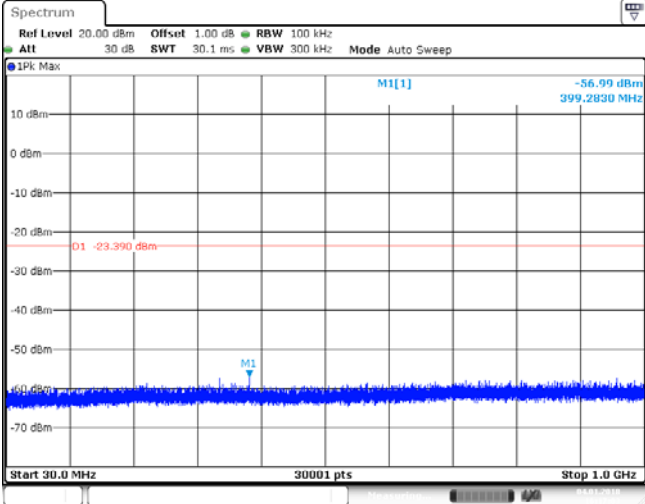
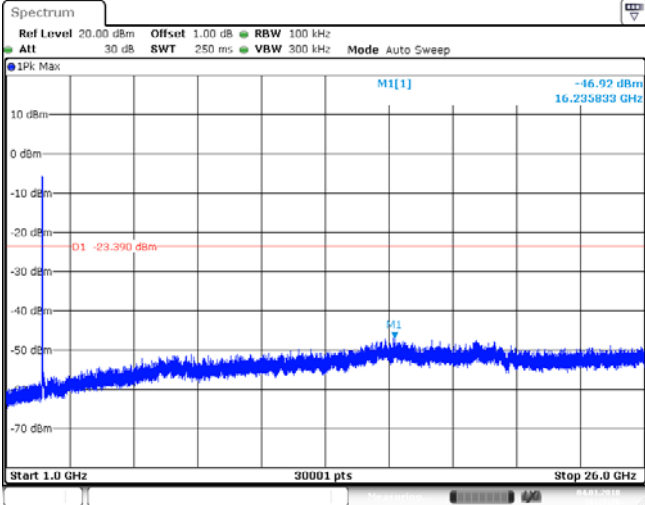
CH11  
30MHz~1000MHz



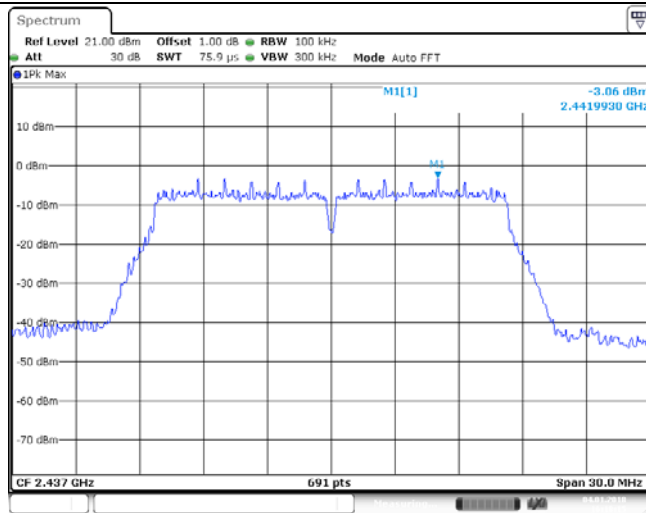
CH11  
1GHz~26GHz



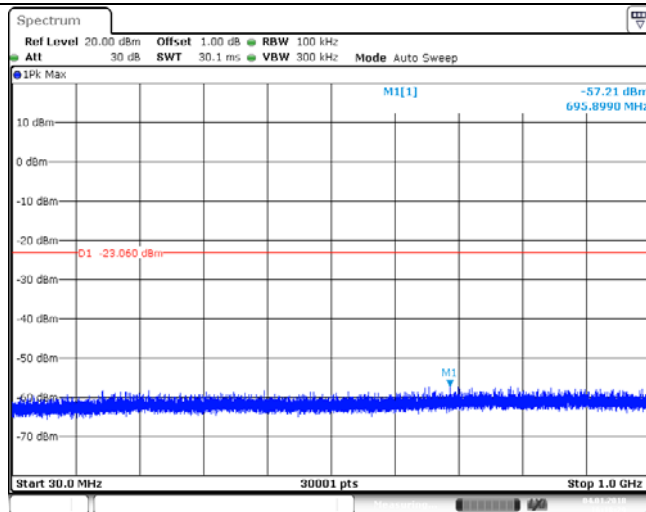


Test Item:	SE	Type:	802.11g
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

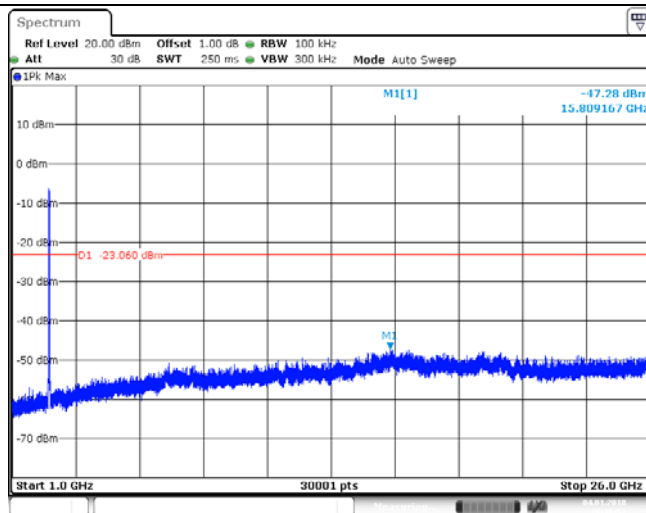
CH06  
Reference level



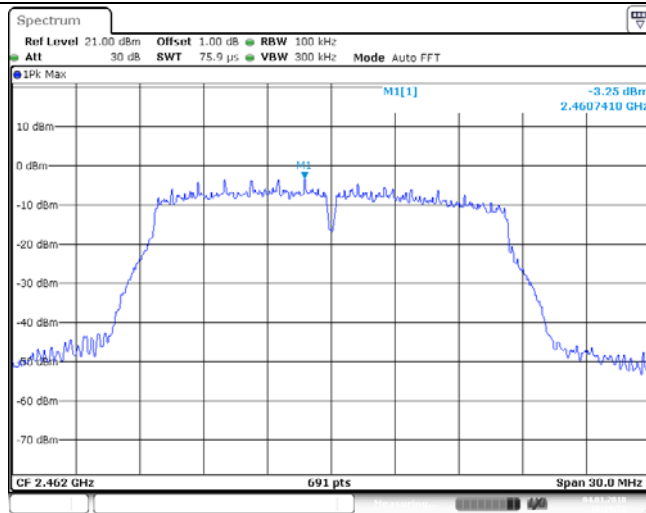
CH06  
30MHz~1000MHz



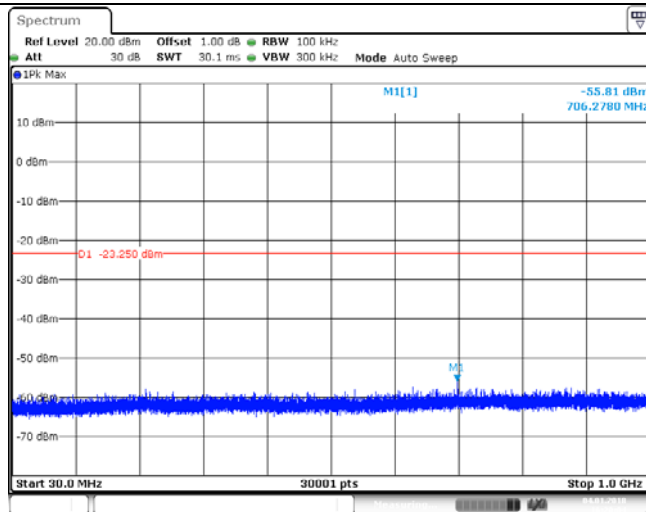
CH06  
1GHz~26GHz



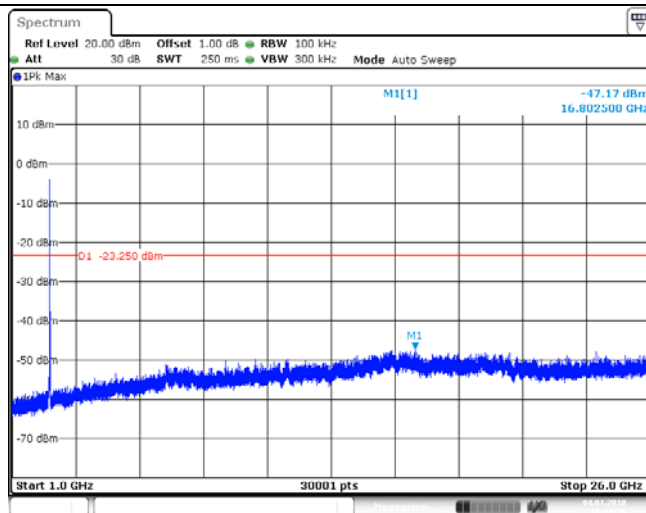
CH11  
Reference level

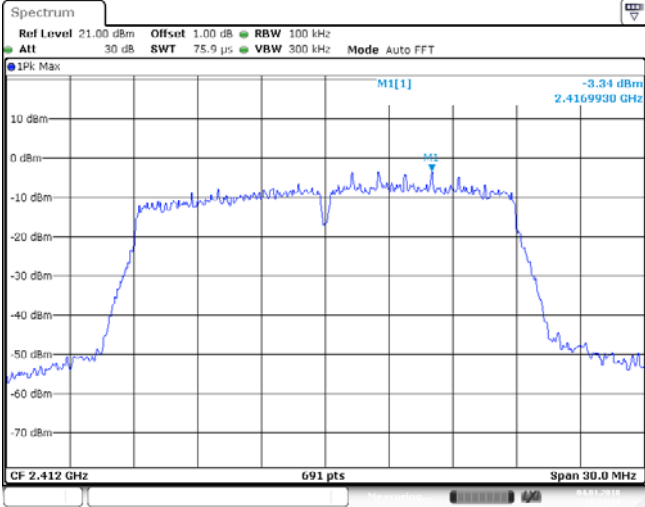
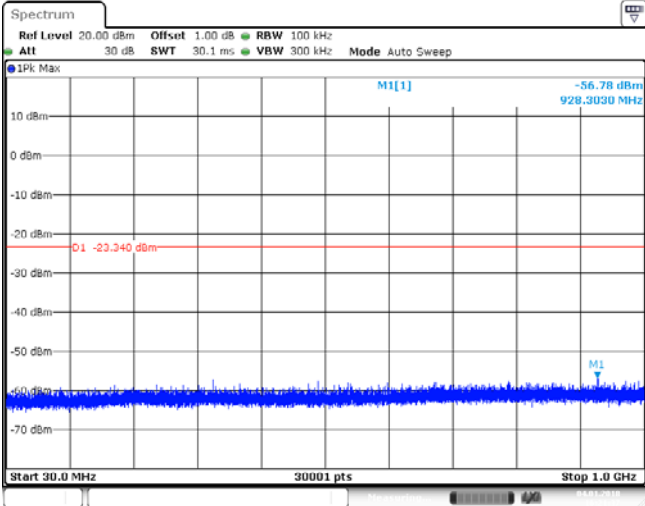
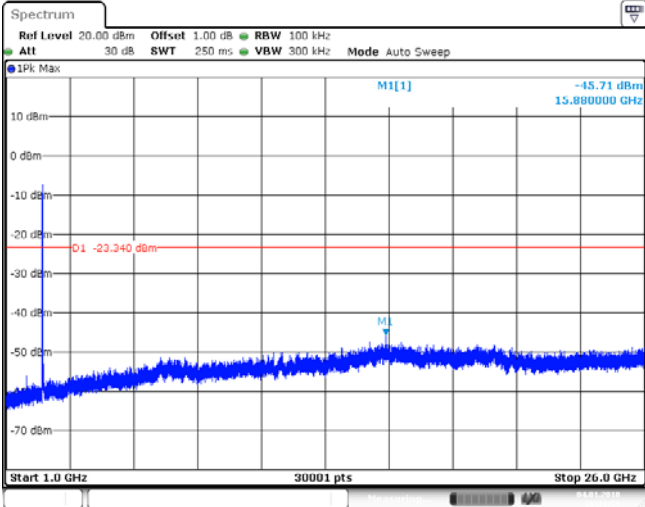


CH11  
30MHz~1000MHz

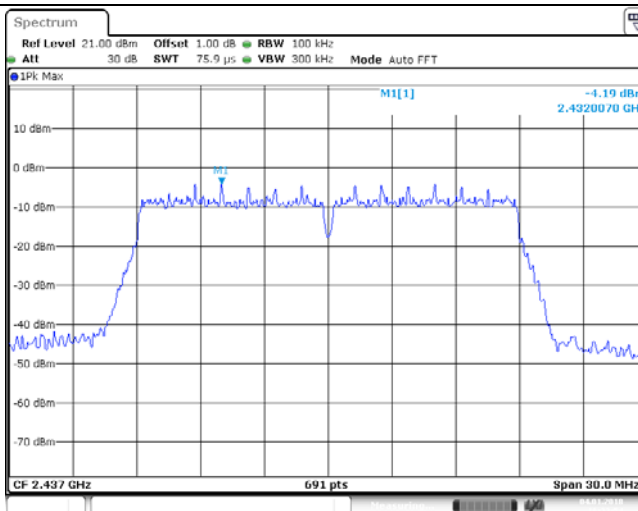


CH11  
1GHz~26GHz

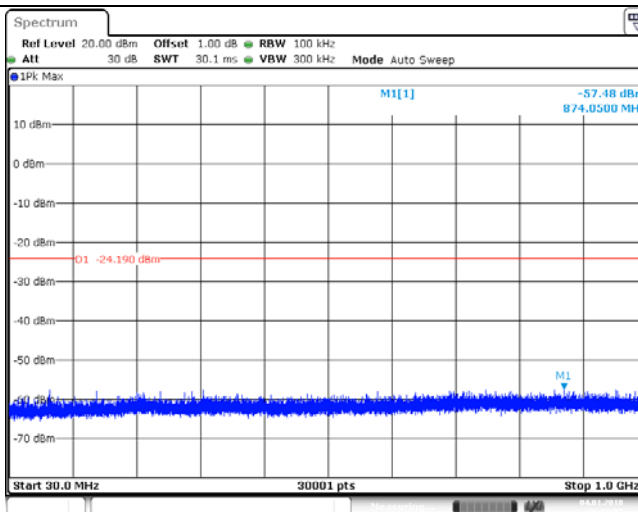


Test Item:	SE	Type:	802.11n(HT20)
<p>CH01 Reference level</p>			
<p>CH01 30MHz~1000MHz</p>			
<p>CH01 1GHz~26GHz</p>			

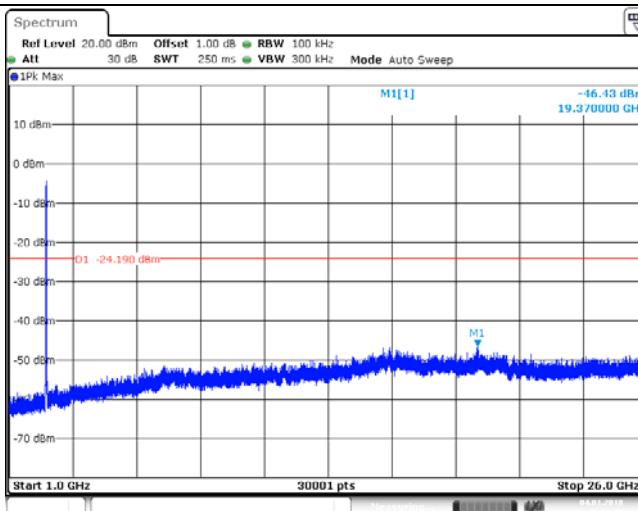
CH06  
Reference level



CH06  
30MHz~1000MHz

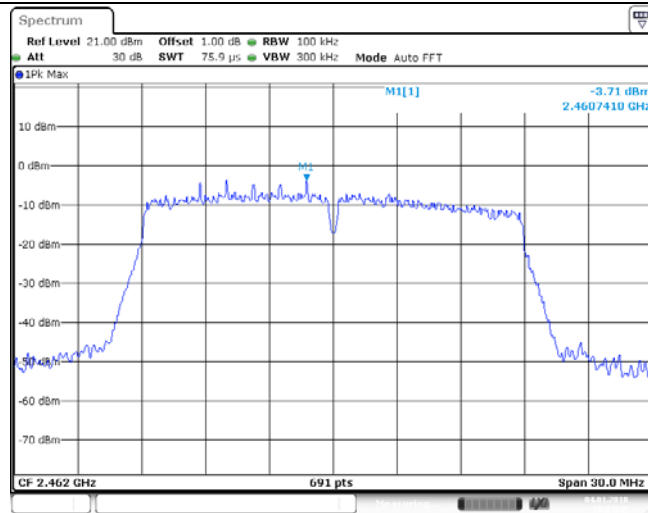


CH06  
1GHz~26GHz

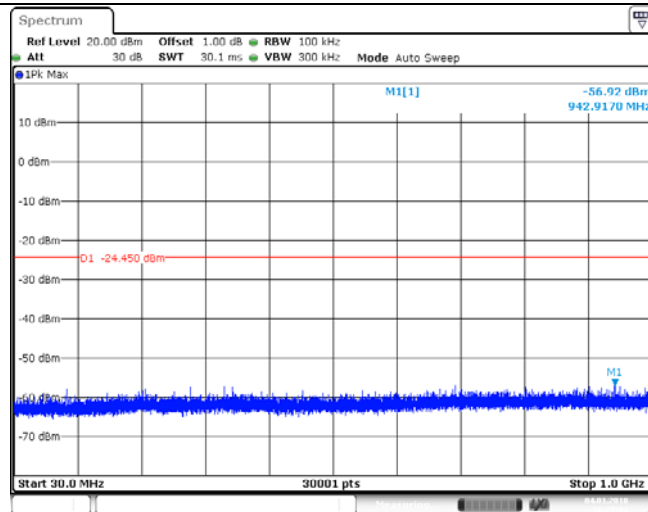




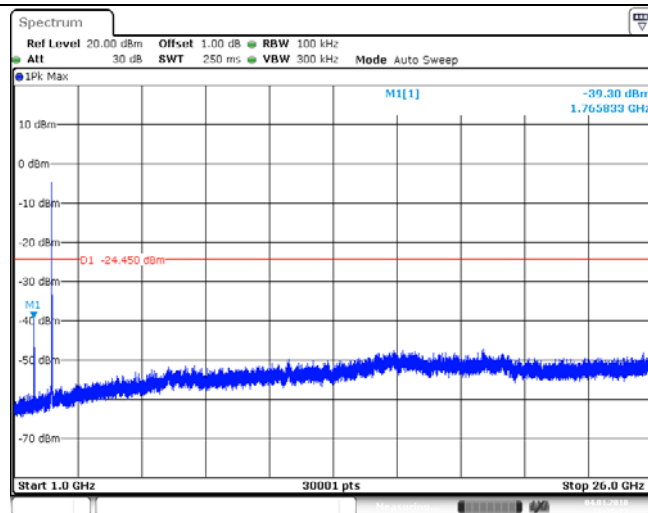
CH11  
Reference level

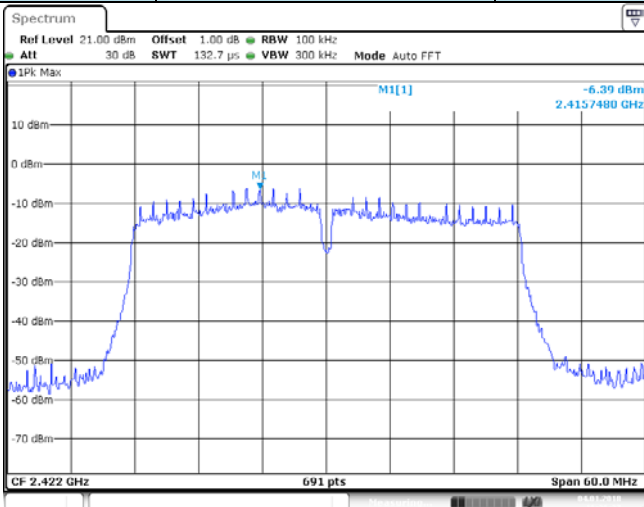
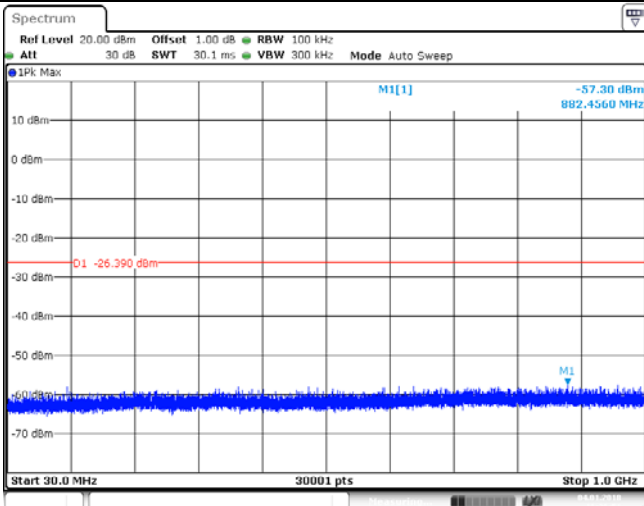
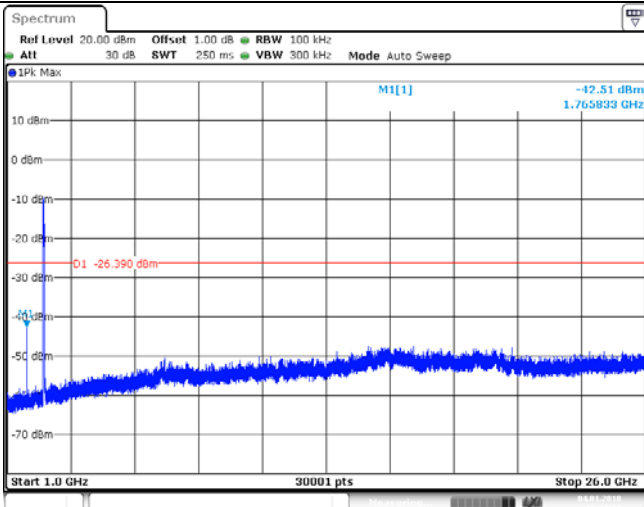


CH11  
30MHz~1000MHz

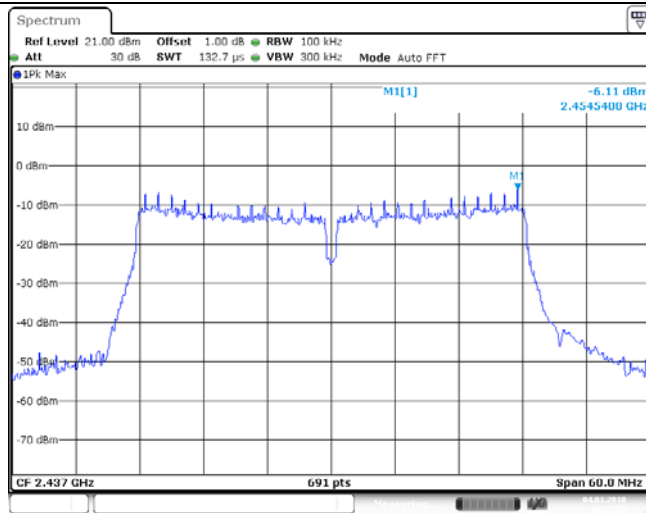


CH11  
1GHz~26GHz

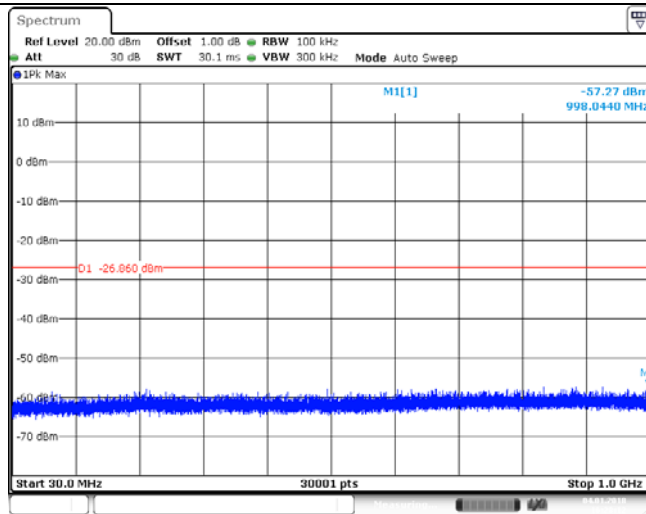


Test Item:	SE	Type:	802.11n(HT40)
CH03 Reference level		 <p>Spectrum plot showing a signal between 2.422 GHz and 2.457480 GHz. The peak level is -6.39 dBm. Parameters: Ref Level 21.00 dBm, Att 30 dB, Offset 1.00 dB, RBW 100 kHz, Mode Auto FFT. Span 60.0 MHz.</p>	
CH03 30MHz~1000MHz		 <p>Spectrum plot showing a noise floor between 30.0 MHz and 1.0 GHz. The peak level is -57.30 dBm. Parameters: Ref Level 20.00 dBm, Att 30 dB, Offset 1.00 dB, RBW 100 kHz, Mode Auto Sweep. Start 30.0 MHz, Stop 1.0 GHz.</p>	
CH03 1GHz~26GHz		 <p>Spectrum plot showing a noise floor between 1.0 GHz and 26.0 GHz. The peak level is -42.51 dBm. Parameters: Ref Level 20.00 dBm, Att 30 dB, Offset 1.00 dB, RBW 100 kHz, Mode Auto Sweep. Start 1.0 GHz, Stop 26.0 GHz.</p>	

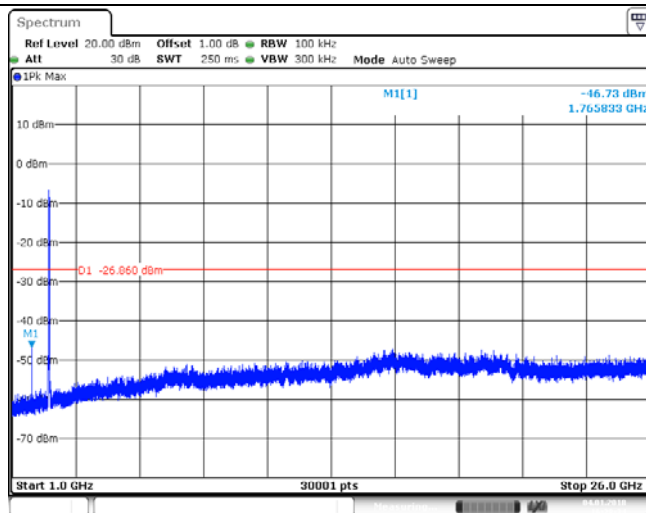
CH06  
Reference level



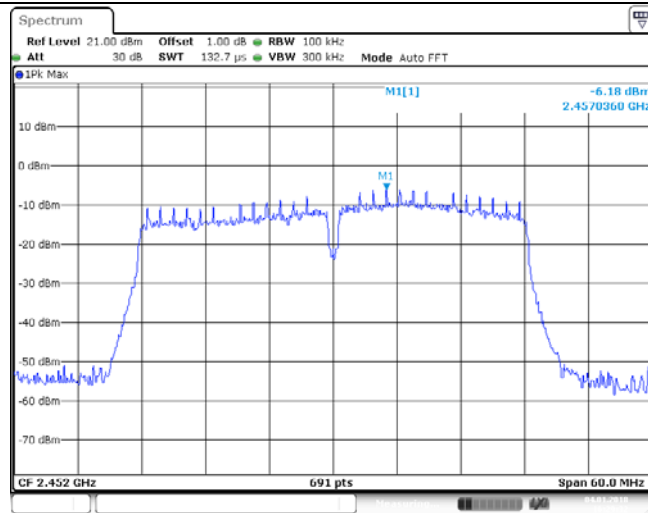
CH06  
30MHz~1000MHz



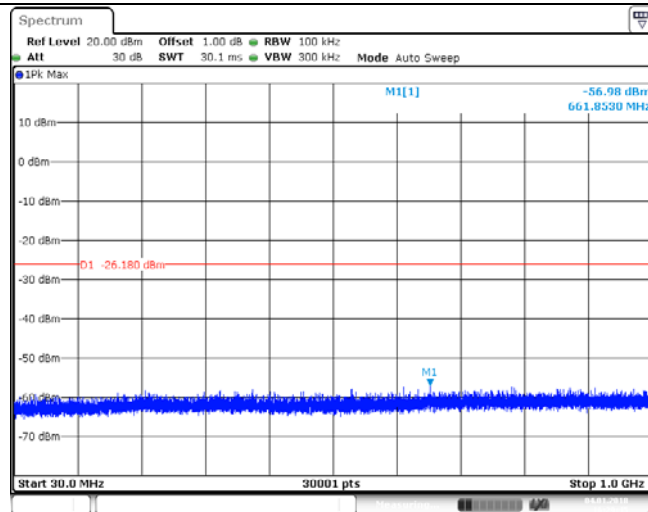
CH06  
1GHz~26GHz



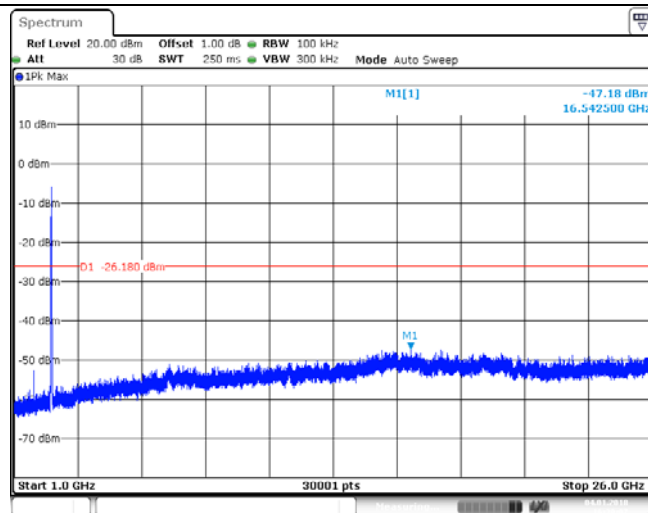
CH09  
Reference level



CH09  
30MHz~1000MHz



CH09  
1GHz~26GHz



### 5.8. Spurious Emissions (radiated)

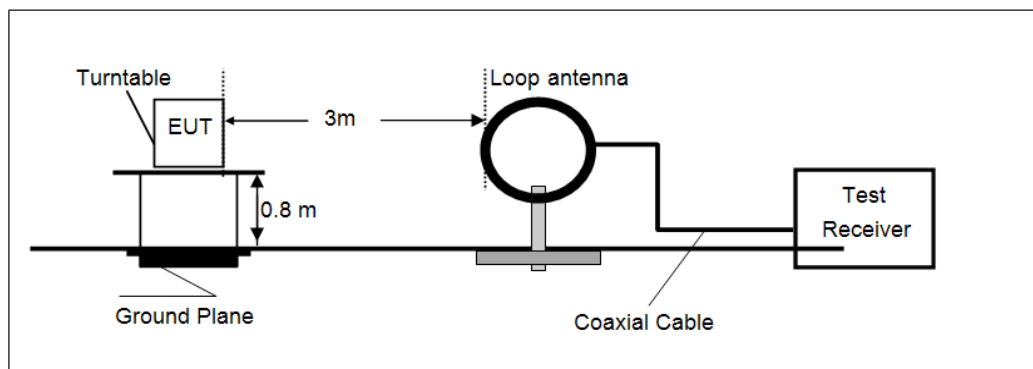
#### LIMIT

#### FCC CFR Title 47 Part 15 Subpart C Section 15.209

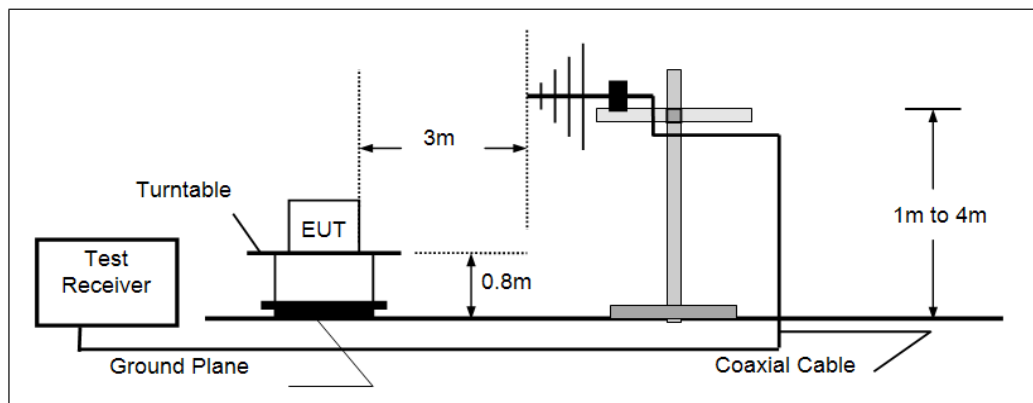
Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

#### TEST CONFIGURATION

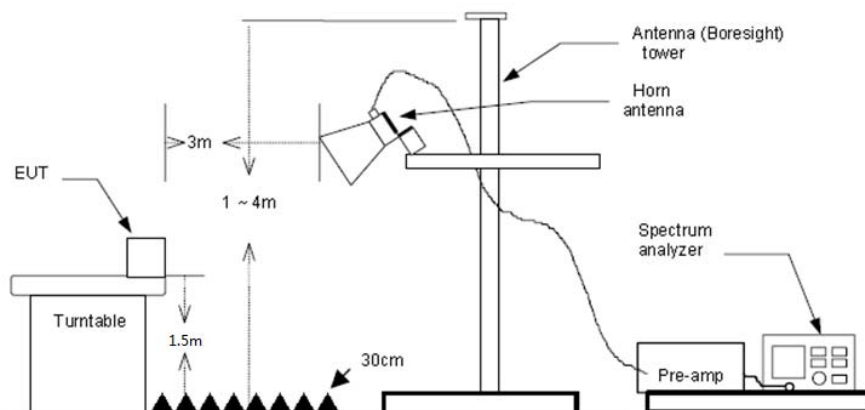
➤ 9kHz ~30MHz



➤ 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 10<sup>th</sup> 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**

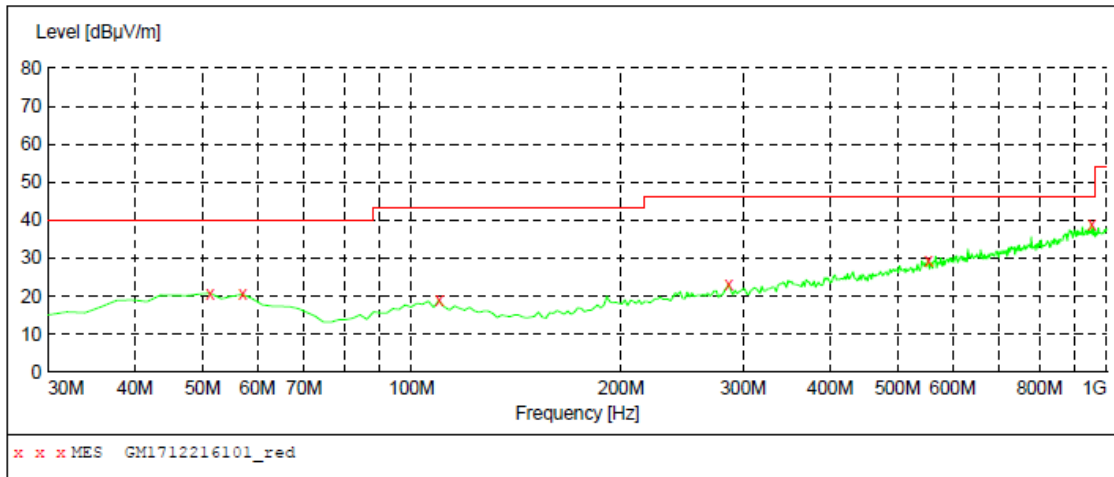
The EUT was pre-scanned the frequency band (9kHz~30MHz), found the radiated level lower than the limit, so don't show on the report.

**➤ 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

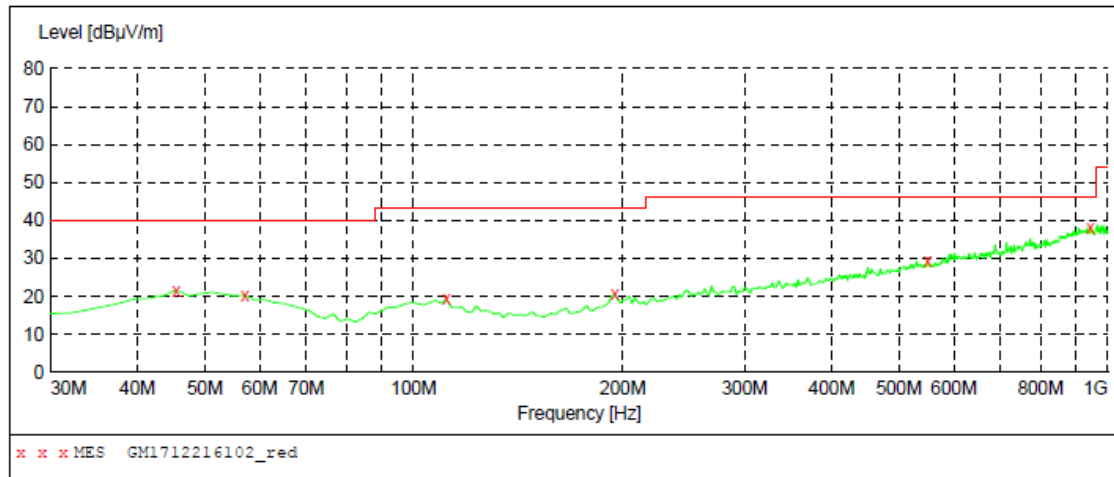


**MEASUREMENT RESULT: "GM1712216101\_red"**

12/21/2017 10:13PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
51.340000	20.80	-8.8	40.0	19.2	QP	100.0	0.00	VERTICAL
57.160000	20.50	-9.4	40.0	19.5	QP	100.0	201.00	VERTICAL
109.540000	18.90	-10.8	43.5	24.6	QP	100.0	133.00	VERTICAL
286.080000	23.10	-7.5	46.0	22.9	QP	100.0	29.00	VERTICAL
553.800000	29.60	-0.7	46.0	16.4	QP	100.0	54.00	VERTICAL
951.500000	39.10	7.3	46.0	6.9	QP	100.0	321.00	VERTICAL

Polarization: Horizontal



**MEASUREMENT RESULT: "GM1712216102\_red"**

12/21/2017 10:16PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
45.520000	21.70	-8.8	40.0	18.3	QP	100.0	200.00	HORIZONTAL
57.160000	20.40	-9.4	40.0	19.6	QP	300.0	125.00	HORIZONTAL
111.480000	19.30	-11.0	43.5	24.2	QP	100.0	0.00	HORIZONTAL
194.900000	20.50	-10.1	43.5	23.0	QP	300.0	113.00	HORIZONTAL
549.920000	29.20	-0.8	46.0	16.8	QP	100.0	108.00	HORIZONTAL
943.740000	38.20	7.2	46.0	7.8	QP	300.0	245.00	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
1750.70	44.85	25.30	5.86	37.04	38.97	74.00	-35.03	Vertical	Peak
3805.33	36.44	29.61	8.51	38.23	36.33	74.00	-37.67	Vertical	Peak
4821.76	41.40	31.56	9.55	36.90	45.61	74.00	-28.39	Vertical	Peak
7245.81	33.36	36.25	11.91	35.02	46.50	74.00	-27.50	Vertical	Peak
1764.12	38.91	25.33	5.89	37.06	33.07	74.00	-40.93	Horizontal	Peak
3923.37	31.67	29.70	8.67	38.16	31.88	74.00	-42.12	Horizontal	Peak
5099.49	31.23	31.90	9.75	36.30	36.58	74.00	-37.42	Horizontal	Peak
7027.82	29.51	35.38	11.85	34.83	41.91	74.00	-32.09	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
1750.70	45.31	25.30	5.86	37.04	39.43	74.00	-34.57	Vertical	Peak
3815.03	32.99	29.62	8.52	38.22	32.91	74.00	-41.09	Vertical	Peak
4821.76	35.25	31.56	9.55	36.90	39.46	74.00	-34.54	Vertical	Peak
8837.24	30.73	37.74	13.14	34.30	47.31	74.00	-26.69	Vertical	Peak
1495.10	31.48	25.80	5.27	36.58	25.97	74.00	-48.03	Horizontal	Peak
3570.71	31.98	29.21	8.22	38.31	31.10	74.00	-42.90	Horizontal	Peak
4821.76	35.75	31.56	9.55	36.90	39.96	74.00	-34.04	Horizontal	Peak
7245.81	30.66	36.25	11.91	35.02	43.80	74.00	-30.20	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
1764.12	39.44	25.33	5.89	37.06	33.60	74.00	-40.40	Vertical	Peak
3834.51	32.45	29.63	8.55	38.21	32.42	74.00	-41.58	Vertical	Peak
4920.96	39.37	31.42	9.62	36.62	43.79	74.00	-30.21	Vertical	Peak
7394.88	34.27	36.30	12.06	34.83	47.80	74.00	-26.20	Vertical	Peak
2157.07	29.90	27.16	6.40	37.33	26.13	74.00	-47.87	Horizontal	Peak
3160.03	33.52	28.80	7.67	38.21	31.78	74.00	-42.22	Horizontal	Peak
5047.83	31.57	31.69	9.71	36.35	36.62	74.00	-37.38	Horizontal	Peak
7394.88	34.92	36.30	12.06	34.83	48.45	74.00	-25.55	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.

802.11g					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
1728.56	32.14	25.26	5.82	36.99	26.23	74.00	-47.77	Vertical	Peak
3350.56	32.38	28.20	7.90	38.46	30.02	74.00	-43.98	Vertical	Peak
4321.84	30.66	30.27	9.06	37.60	32.39	74.00	-41.61	Vertical	Peak
5850.92	29.69	32.20	10.61	35.35	37.15	74.00	-36.85	Vertical	Peak
2168.08	30.36	27.25	6.41	37.33	26.69	74.00	-47.31	Horizontal	Peak
3644.18	32.19	29.30	8.32	38.26	31.55	74.00	-42.45	Horizontal	Peak
4834.05	32.77	31.53	9.56	36.86	37.00	74.00	-37.00	Horizontal	Peak
6851.19	31.51	34.36	11.66	34.94	42.59	74.00	-31.41	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
1741.81	32.35	25.29	5.85	37.02	26.47	74.00	-47.53	Vertical	Peak
3543.55	32.20	29.13	8.18	38.35	31.16	74.00	-42.84	Vertical	Peak
5271.06	34.37	31.36	9.94	36.41	39.26	74.00	-34.74	Vertical	Peak
7301.36	32.57	36.30	11.97	34.95	45.89	74.00	-28.11	Vertical	Peak
1626.12	32.26	24.98	5.62	36.77	26.09	74.00	-47.91	Horizontal	Peak
3072.77	33.90	28.75	7.57	38.22	32.00	74.00	-42.00	Horizontal	Peak
5112.49	30.57	31.85	9.76	36.29	35.89	74.00	-38.11	Horizontal	Peak
6938.94	30.13	34.93	11.77	34.85	41.98	74.00	-32.02	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
1254.27	33.98	26.24	4.75	36.54	28.43	74.00	-45.57	Vertical	Peak
3681.47	32.34	29.30	8.36	38.25	31.75	74.00	-42.25	Vertical	Peak
4920.96	32.55	31.42	9.62	36.62	36.97	74.00	-37.03	Vertical	Peak
7376.08	31.42	36.30	12.04	34.85	44.91	74.00	-29.09	Vertical	Peak
1676.56	31.77	25.13	5.72	36.88	25.74	74.00	-48.26	Horizontal	Peak
3662.78	32.85	29.30	8.34	38.26	32.23	74.00	-41.77	Horizontal	Peak
4933.50	34.66	31.43	9.63	36.59	39.13	74.00	-34.87	Horizontal	Peak
7394.88	35.42	36.30	12.06	34.83	48.95	74.00	-25.05	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
1150.28	33.01	25.91	4.55	36.59	26.88	74.00	-47.12	Vertical	Peak
3681.47	32.34	29.30	8.36	38.25	31.75	74.00	-42.25	Vertical	Peak
4920.96	31.55	31.42	9.62	36.62	35.97	74.00	-38.03	Vertical	Peak
7376.08	30.42	36.30	12.04	34.85	43.91	74.00	-30.09	Vertical	Peak
1299.77	33.13	26.20	4.83	36.52	27.64	74.00	-46.36	Horizontal	Peak
2235.33	29.95	27.72	6.50	37.44	26.73	74.00	-47.27	Horizontal	Peak
3662.78	32.85	29.30	8.34	38.26	32.23	74.00	-41.77	Horizontal	Peak
4920.96	34.39	31.42	9.62	36.62	38.81	74.00	-35.19	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
1195.05	34.64	26.26	4.65	36.57	28.98	74.00	-45.02	Vertical	Peak
3233.26	33.03	28.60	7.76	38.26	31.13	74.00	-42.87	Vertical	Peak
4536.00	31.38	30.77	9.35	37.34	34.16	74.00	-39.84	Vertical	Peak
7301.36	31.57	36.30	11.97	34.95	44.89	74.00	-29.11	Vertical	Peak
1323.14	30.63	26.13	4.87	36.50	25.13	74.00	-48.87	Horizontal	Peak
3552.58	30.76	29.16	8.20	38.34	29.78	74.00	-44.22	Horizontal	Peak
4501.49	30.82	30.70	9.30	37.39	33.43	74.00	-40.57	Horizontal	Peak
6851.19	29.50	34.36	11.66	34.94	40.58	74.00	-33.42	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
1286.61	33.42	26.21	4.81	36.52	27.92	74.00	-46.08	Vertical	Peak
3728.63	33.00	29.39	8.42	38.24	32.57	74.00	-41.43	Vertical	Peak
4983.99	30.00	31.48	9.66	36.44	34.70	74.00	-39.30	Vertical	Peak
7209.02	29.01	36.21	11.87	35.07	42.02	74.00	-31.98	Vertical	Peak
1138.63	34.19	25.82	4.52	36.60	27.93	74.00	-46.07	Horizontal	Peak
3662.78	31.93	29.30	8.34	38.26	31.31	74.00	-42.69	Horizontal	Peak
4181.16	31.14	29.98	8.92	37.69	32.35	74.00	-41.65	Horizontal	Peak
7489.60	29.59	36.12	12.36	34.89	43.18	74.00	-30.82	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
1402.92	32.48	25.90	5.01	36.46	26.93	74.00	-47.07	Vertical	Peak
3738.13	35.31	29.42	8.43	38.24	34.92	74.00	-39.08	Vertical	Peak
5125.52	31.78	31.80	9.77	36.27	37.08	74.00	-36.92	Vertical	Peak
7264.28	31.60	36.26	11.93	35.00	44.79	74.00	-29.21	Vertical	Peak
1689.41	32.49	25.17	5.74	36.91	26.49	74.00	-47.51	Horizontal	Peak
3200.50	32.46	28.80	7.72	38.20	30.78	74.00	-43.22	Horizontal	Peak
4809.50	30.84	31.58	9.55	36.93	35.04	74.00	-38.96	Horizontal	Peak
6125.24	30.70	32.60	10.88	35.35	38.83	74.00	-35.17	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
1828.13	31.45	25.37	6.00	37.16	25.66	74.00	-48.34	Vertical	Peak
3216.84	32.23	28.70	7.74	38.23	30.44	74.00	-43.56	Vertical	Peak
4202.50	31.70	30.01	8.94	37.65	33.00	74.00	-41.00	Vertical	Peak
6125.24	29.53	32.60	10.88	35.35	37.66	74.00	-36.34	Vertical	Peak
2003.57	29.49	26.31	6.27	37.30	24.77	74.00	-49.23	Horizontal	Peak
3135.99	32.15	28.80	7.64	38.21	30.38	74.00	-43.62	Horizontal	Peak
3983.75	32.52	29.70	8.76	38.12	32.86	74.00	-41.14	Horizontal	Peak
6125.24	30.70	32.60	10.88	35.35	38.83	74.00	-35.17	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
1764.12	42.01	25.33	5.89	37.06	36.17	74.00	-37.83	Vertical	Peak
3672.11	32.52	29.30	8.35	38.26	31.91	74.00	-42.09	Vertical	Peak
4676.70	31.07	31.13	9.49	37.13	34.56	74.00	-39.44	Vertical	Peak
6886.15	30.10	34.60	11.71	34.90	41.51	74.00	-32.49	Vertical	Peak
1899.28	36.63	25.30	6.11	37.22	30.82	74.00	-43.18	Horizontal	Peak
3525.56	32.04	29.08	8.15	38.37	30.90	74.00	-43.10	Horizontal	Peak
4908.44	32.90	31.41	9.61	36.66	37.26	74.00	-36.74	Horizontal	Peak
7376.08	34.86	36.30	12.04	34.85	48.35	74.00	-25.65	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.

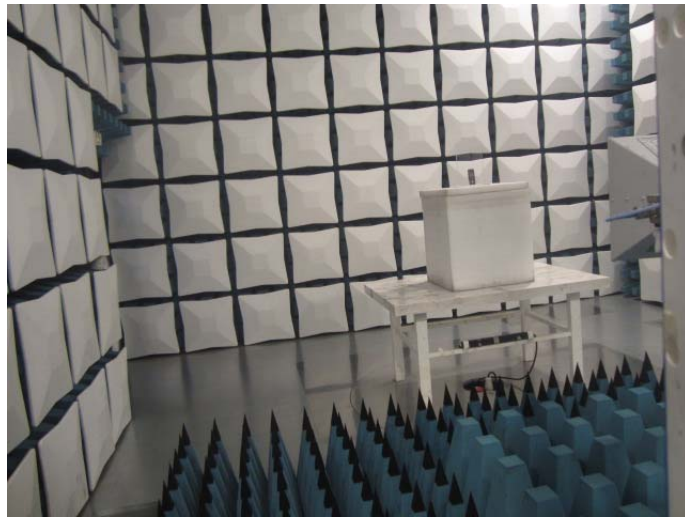
## 6. TEST SETUP PHOTOS

### Conducted Emissions



### Radiated Emissions





## 7. EXTERANAL AND INTERNAL PHOTOS

Reference to the test report No.: TRE1712015301.

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