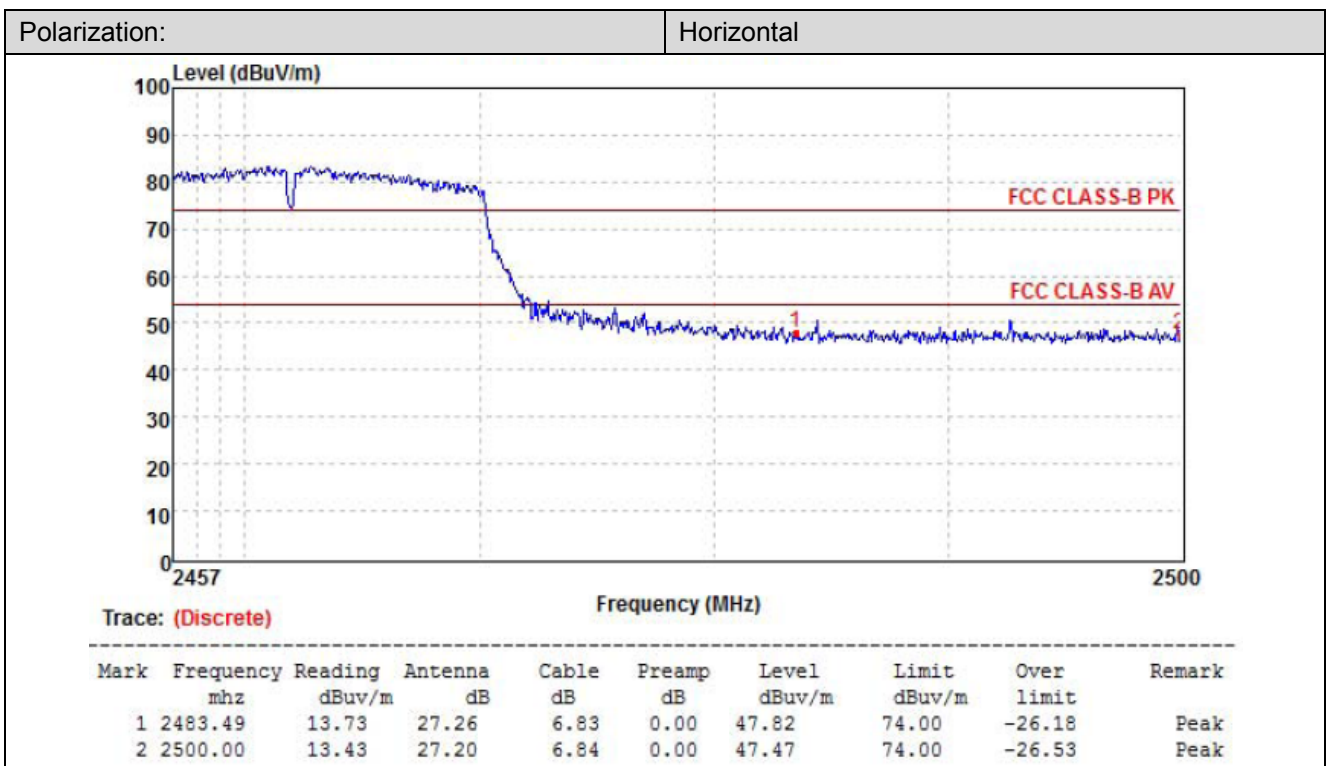
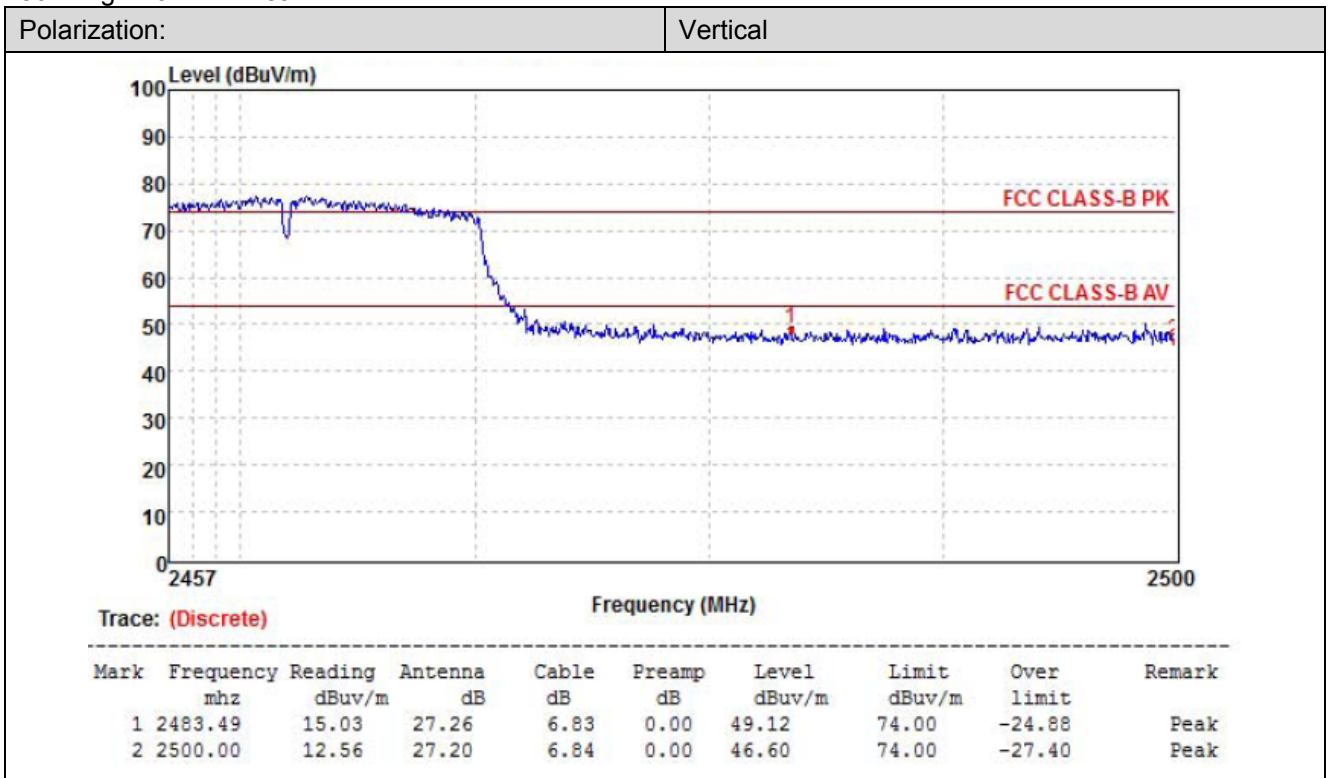
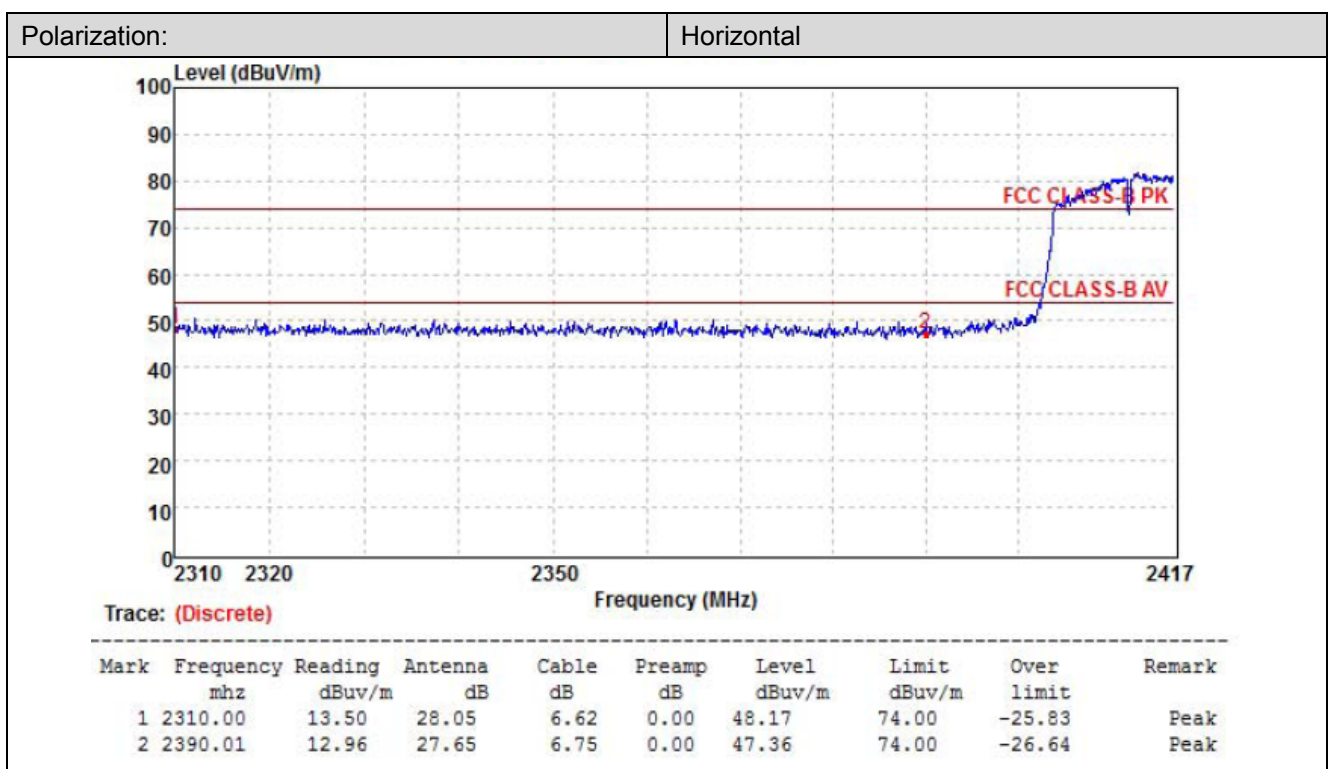
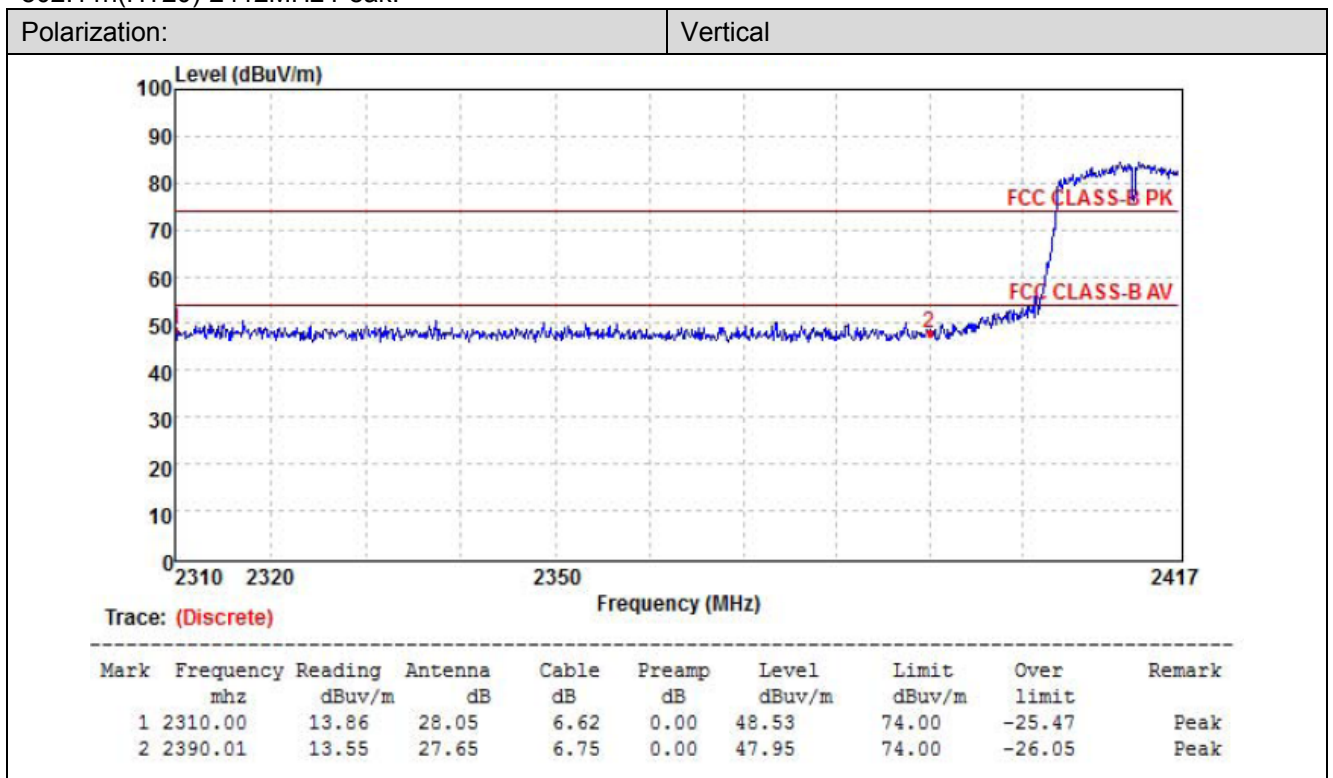


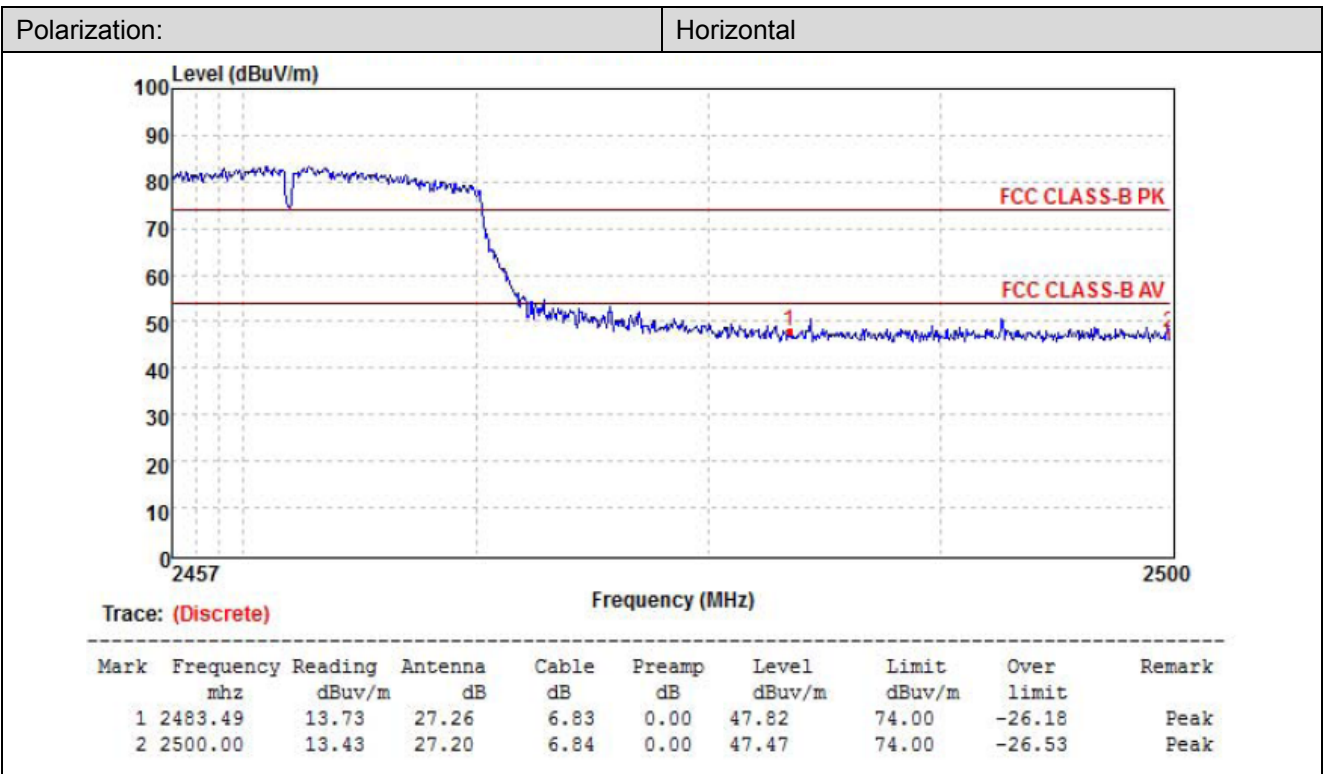
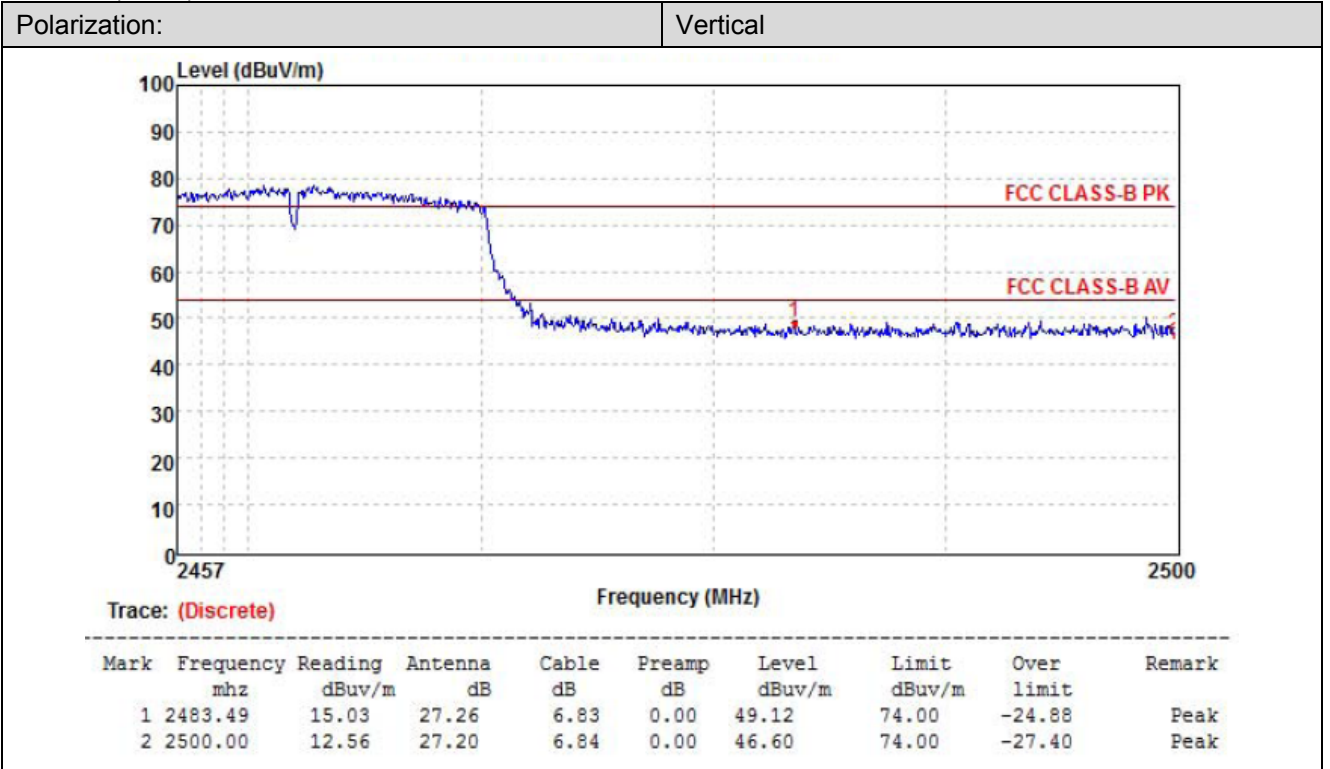
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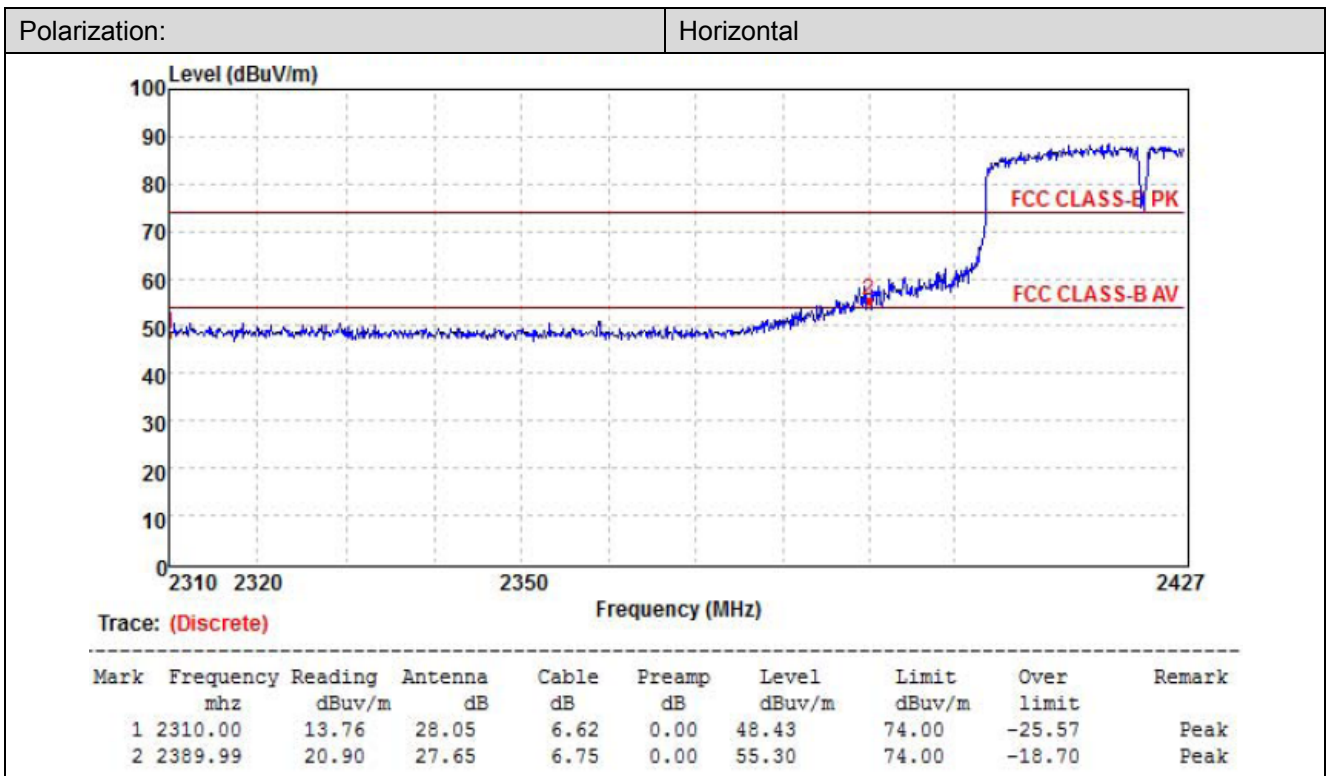
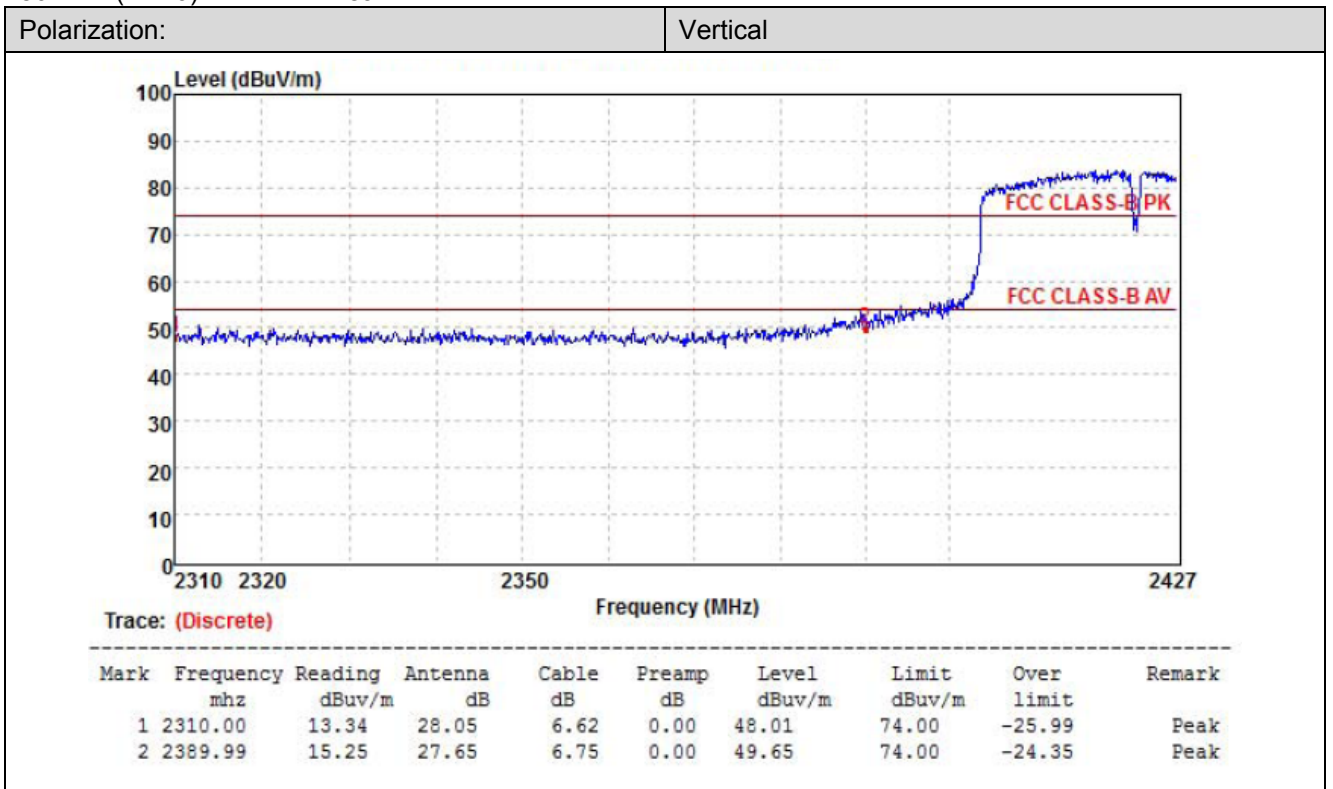
802.11n(HT20)-2412MHz Peak:



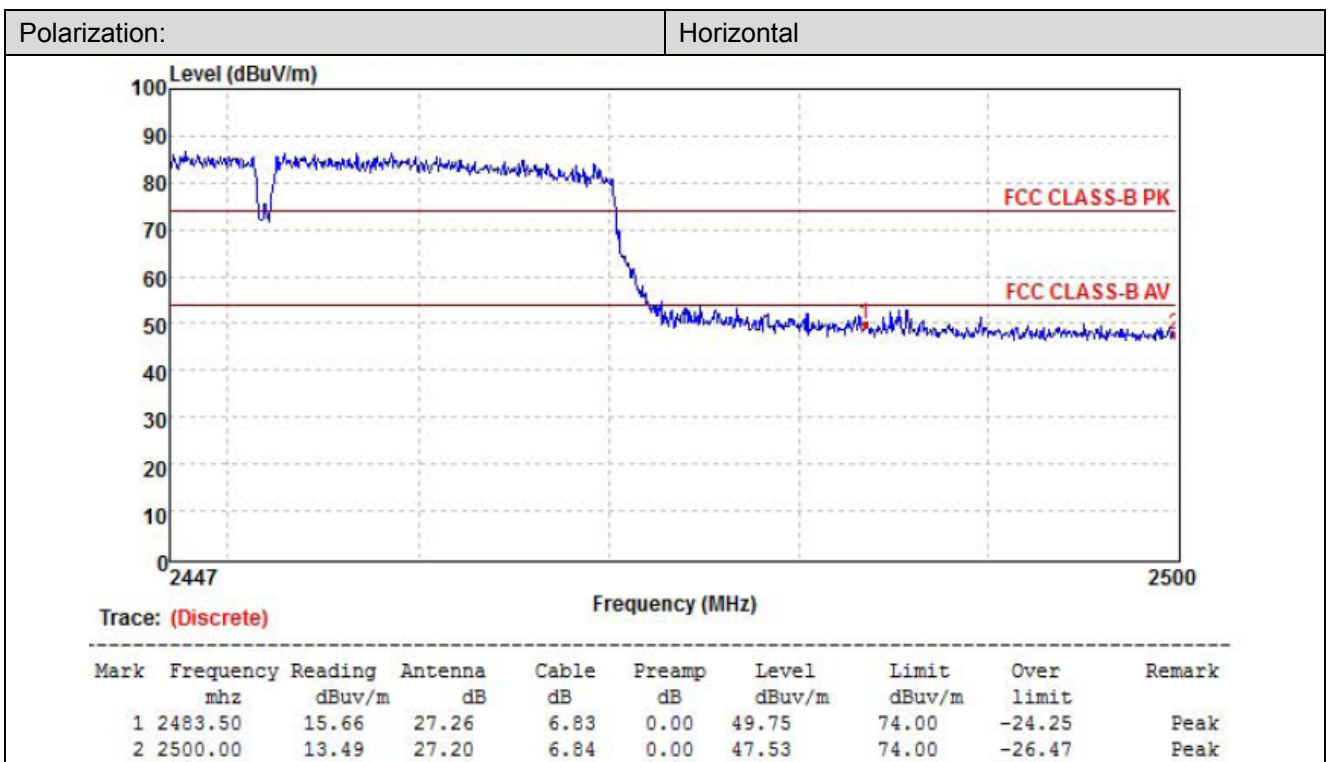
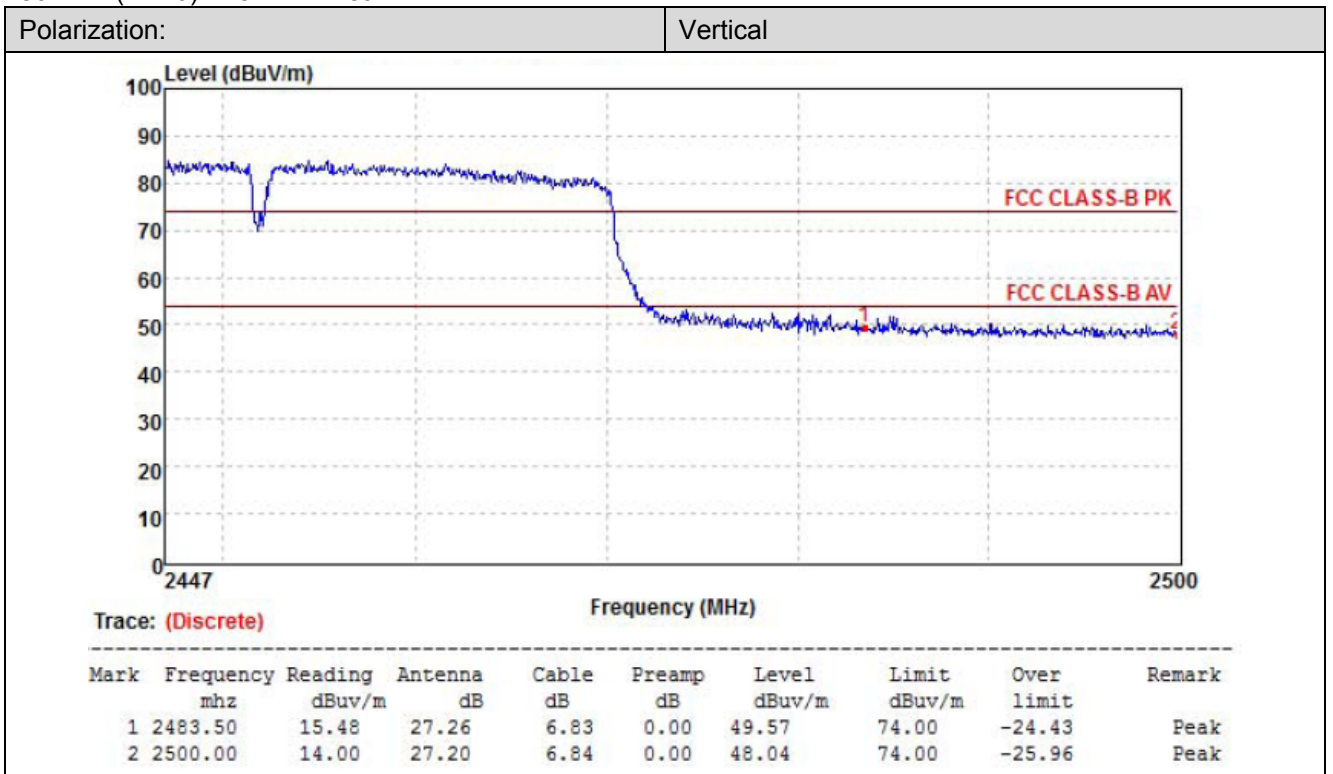
802.11n(HT20)-2462MHz Peak:



802.11n(HT40)-2422MHz Peak:



802.11n(HT40)-2452MHz Peak:

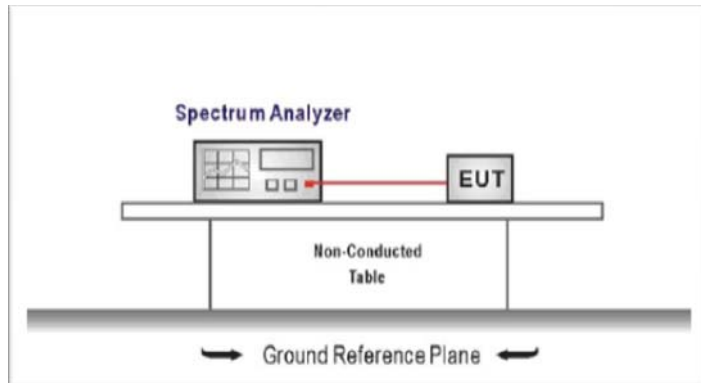


## 5.7. Band edge and Spurious Emissions (conducted)

### 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 x 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 x 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.

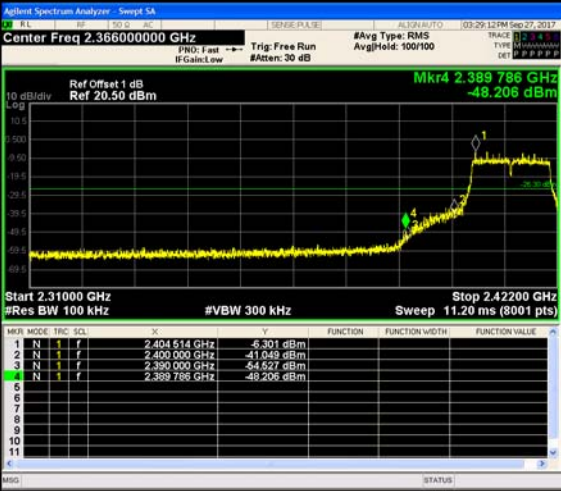
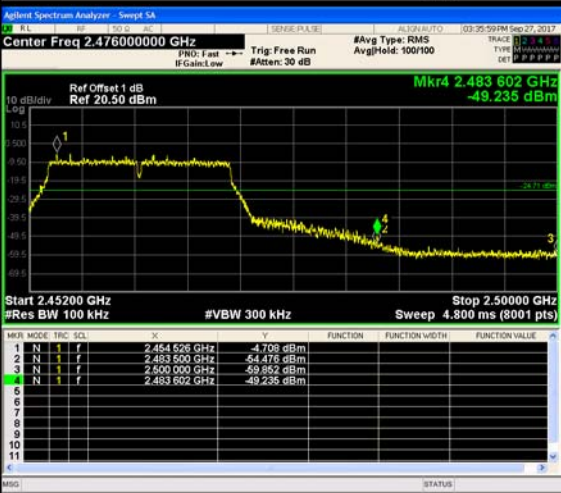
### TEST MODE:

Please refer to the clause 3.3

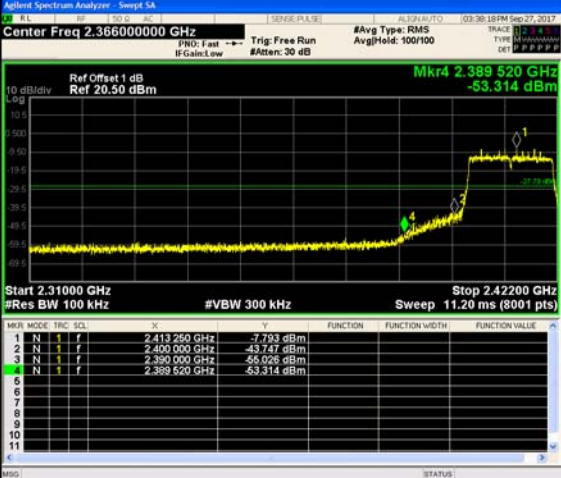
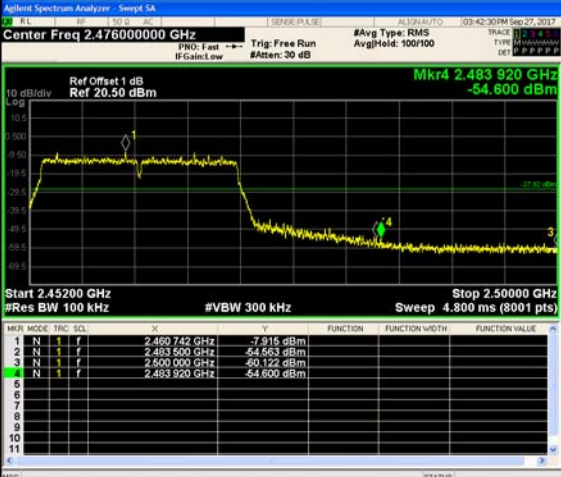
### TEST RESULTS

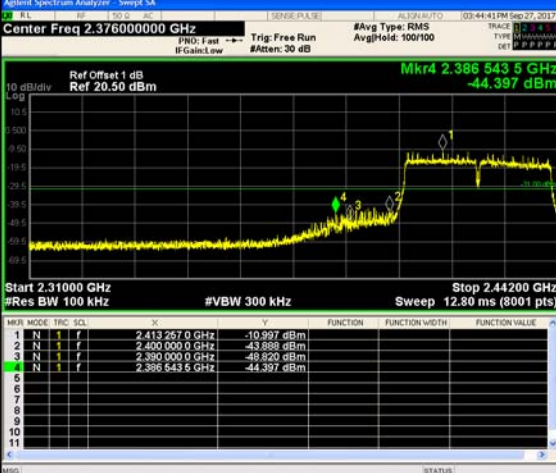
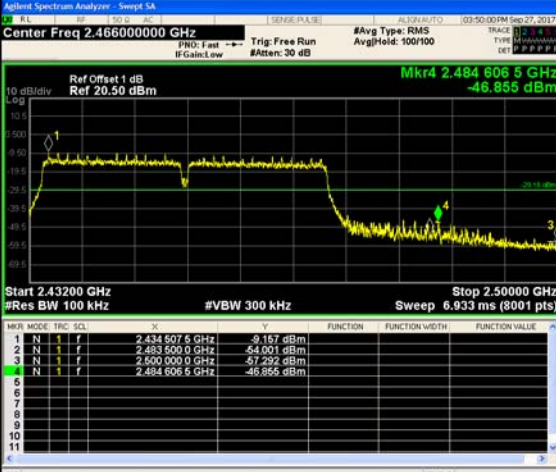
Passed       Not Applicable


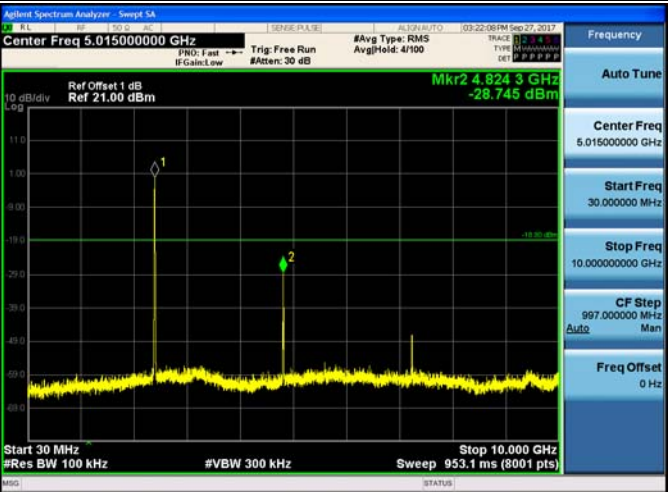

Test Item:	Bandedge	Type:	802.11 b																																													
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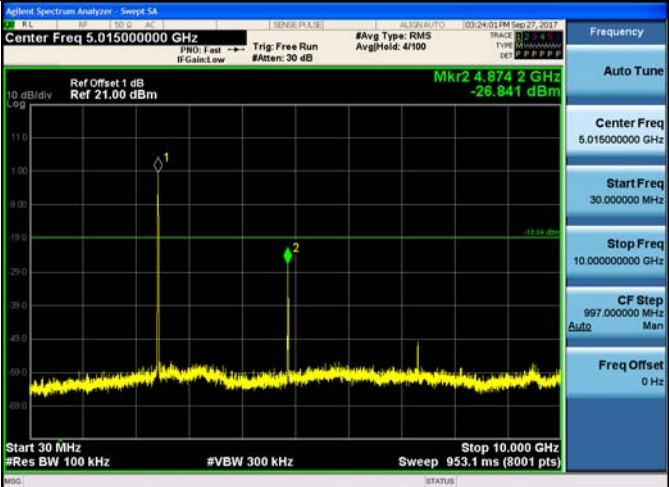

Test Item:	Bandedge	Type:	802.11 g																																													
CH01		 <table border="1" data-bbox="678 548 1241 683"> <thead> <tr> <th>MKR</th> <th>MODE</th> <th>TRC</th> <th>SCL</th> <th>X</th> <th>Y</th> <th>FUNCTION</th> <th>FUNCTION WIDTH</th> <th>FUNCTION VALUE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>N</td> <td>1</td> <td>f</td> <td>2.404514 GHz</td> <td>-6.301 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>N</td> <td>1</td> <td>f</td> <td>2.400000 GHz</td> <td>-41.049 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>N</td> <td>1</td> <td>f</td> <td>2.390000 GHz</td> <td>-44.521 dBm</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>N</td> <td>1</td> <td>f</td> <td>2.389786 GHz</td> <td>-48.206 dBm</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	N	1	f	2.404514 GHz	-6.301 dBm				2	N	1	f	2.400000 GHz	-41.049 dBm				3	N	1	f	2.390000 GHz	-44.521 dBm				4	N	1	f	2.389786 GHz	-48.206 dBm				<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.36600000 GHz</p> <p>Start Freq 2.31000000 GHz</p> <p>Stop Freq 2.42200000 GHz</p> <p>CF Step 11.200000 MHz</p> <p>Freq Offset 0 Hz</p>
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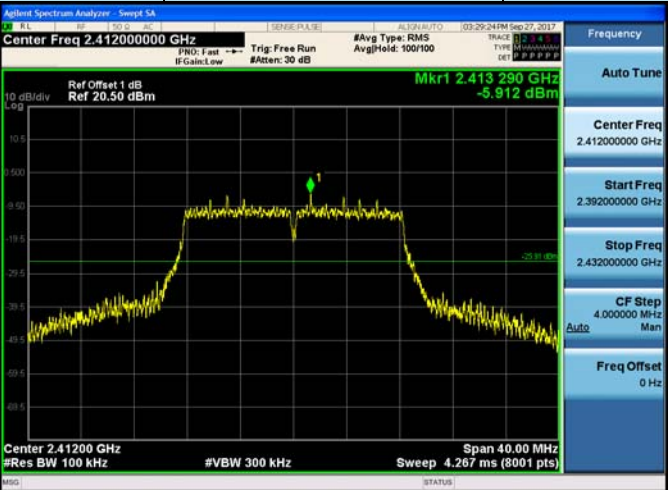
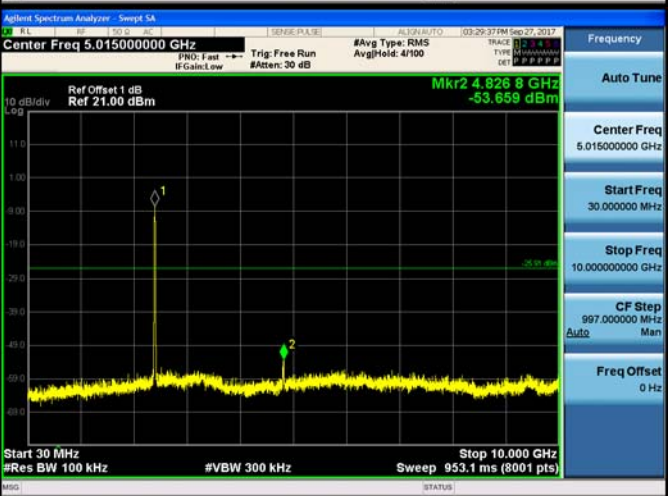

Test Item:	Bandedge	Type:	802.11 n(HT20)																																													
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Test Item:	Bandedge	Type:	802.11 n(HT40)
CH03			<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.37600000 GHz</p> <p>Start Freq 2.31000000 GHz</p> <p>Stop Freq 2.44200000 GHz</p> <p>CF Step 13.200000 MHz</p> <p>Freq Offset 0 Hz</p>
CH09			<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.46600000 GHz</p> <p>Start Freq 2.43200000 GHz</p> <p>Stop Freq 2.50000000 GHz</p> <p>CF Step 6.800000 MHz</p> <p>Freq Offset 0 Hz</p>

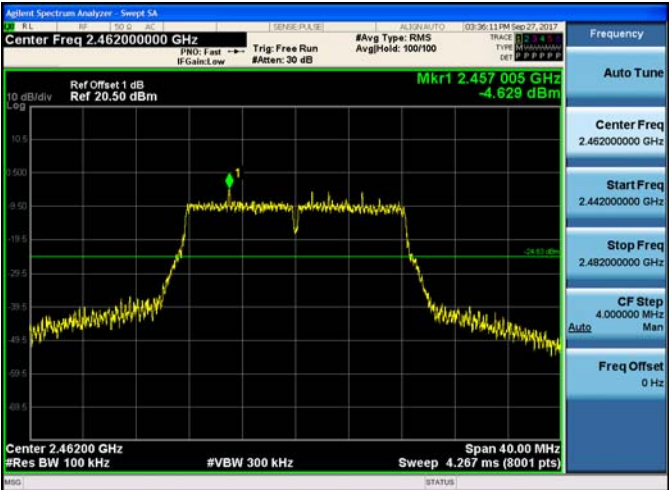
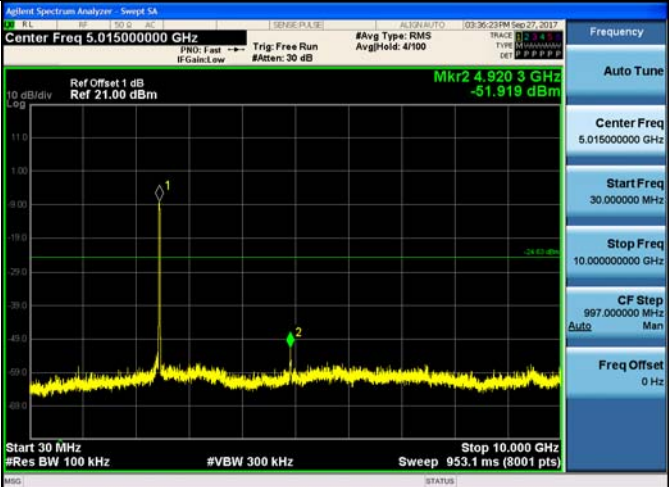

Test Item:	SE	Type:	802.11 b
<p>CH01 Reference Level</p>			
<p>CH01 30MHz~10GHz</p>			
<p>CH01 10GHz~26GHz</p>			

<p>CH06 Reference Level</p>	 <p>Agilent Spectrum Analyzer - Sweep 5A Center Freq 2.43700000 GHz Mkr1 2.435 615 GHz 1.159 dBm Ref Offset 1 dB Ref 20.50 dBm Span 40.00 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms (8001 pts)</p>
<p>CH06 30MHz~10GHz</p>	 <p>Agilent Spectrum Analyzer - Sweep 5A Center Freq 5.01500000 GHz Mkr2 4.874 2 GHz -26.841 dBm Ref Offset 1 dB Ref 21.00 dBm Start 30 MHz Stop 10.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 953.1 ms (8001 pts)</p>
<p>CH06 10GHz~26GHz</p>	 <p>Agilent Spectrum Analyzer - Sweep 5A Center Freq 18.00000000 GHz Mkr1 25.620 GHz -44.672 dBm Ref Offset 1 dB Ref 21.00 dBm Start 10.000 GHz Stop 26.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.530 s (8001 pts)</p>


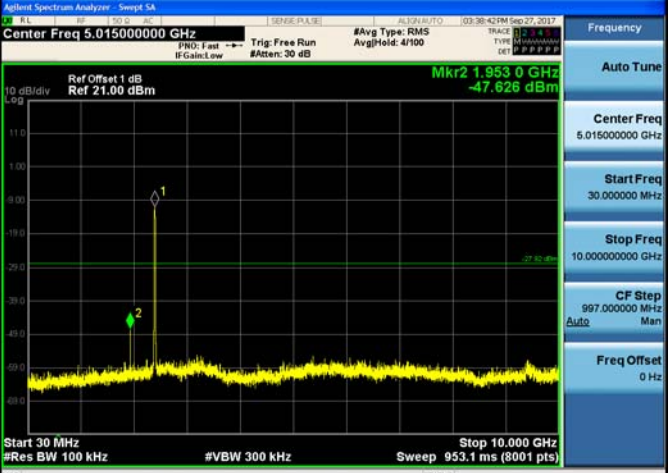

<p>CH11 Reference Level</p>	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.46200000 GHz Ref Offset 1 dB Ref 20.50 dBm Mkr1 2.463 500 GHz 2.955 dBm Span 40.00 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms (8001 pts)</p>
<p>CH11 30MHz~10GHz</p>	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 5.01500000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr2 4.924 0 GHz -26.568 dBm Mkr1 5.015 0 GHz -17.06 dBm Start 30 MHz Stop 10.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 953.1 ms (8001 pts)</p>
<p>CH11 10GHz~26GHz</p>	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 18.00000000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr1 25.544 GHz -43.967 dBm Start 10.000 GHz Stop 26.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.530 s (8001 pts)</p>

Test Item:	SE	Type:	802.11 g
<p>CH01 Reference Level</p>			
<p>CH01 30MHz~10GHz</p>			
<p>CH01 10GHz~26GHz</p>			


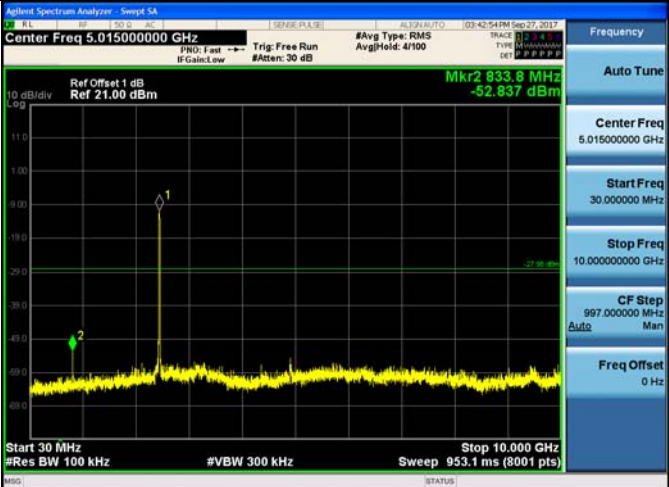

<p>CH06 Reference Level</p>	<p>Agilent Spectrum Analyzer - Sweep 5A</p> <p>Center Freq 2.437000000 GHz</p> <p>Mkr1 2.435 750 GHz -6.466 dBm</p> <p>Center Freq 2.437000000 GHz</p> <p>Start Freq 2.417000000 GHz</p> <p>Stop Freq 2.457000000 GHz</p> <p>CF Step 4.000000 MHz</p> <p>Freq Offset 0 Hz</p> <p>Center 2.43700 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Sweep 4.267 ms (8001 pts)</p>
<p>CH06 30MHz~10GHz</p>	<p>Agilent Spectrum Analyzer - Sweep 5A</p> <p>Center Freq 5.015000000 GHz</p> <p>Mkr2 4.871 7 GHz -52.942 dBm</p> <p>Center Freq 5.015000000 GHz</p> <p>Start Freq 30.000000 MHz</p> <p>Stop Freq 10.000000000 GHz</p> <p>CF Step 997.000000 MHz</p> <p>Freq Offset 0 Hz</p> <p>Start 30 MHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Sweep 953.1 ms (8001 pts)</p>
<p>CH06 10GHz~26GHz</p>	<p>Agilent Spectrum Analyzer - Sweep 5A</p> <p>Center Freq 18.000000000 GHz</p> <p>Mkr1 25.736 GHz -4.949 dBm</p> <p>Center Freq 18.000000000 GHz</p> <p>Start Freq 10.000000000 GHz</p> <p>Stop Freq 26.000000000 GHz</p> <p>CF Step 1.600000000 GHz</p> <p>Freq Offset 0 Hz</p> <p>Start 10.000 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Sweep 1.530 s (8001 pts)</p>

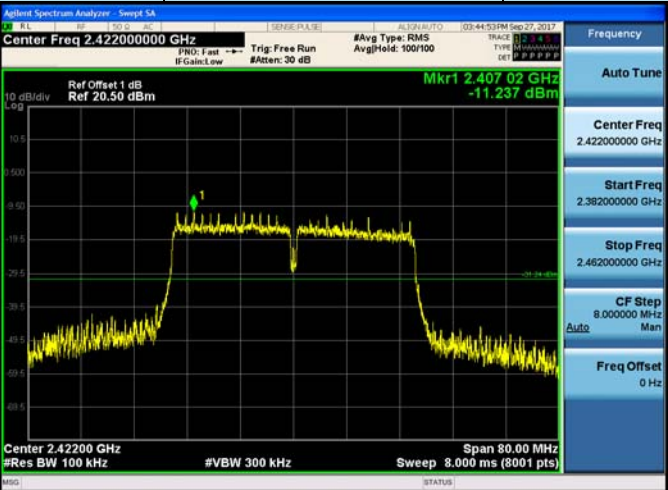
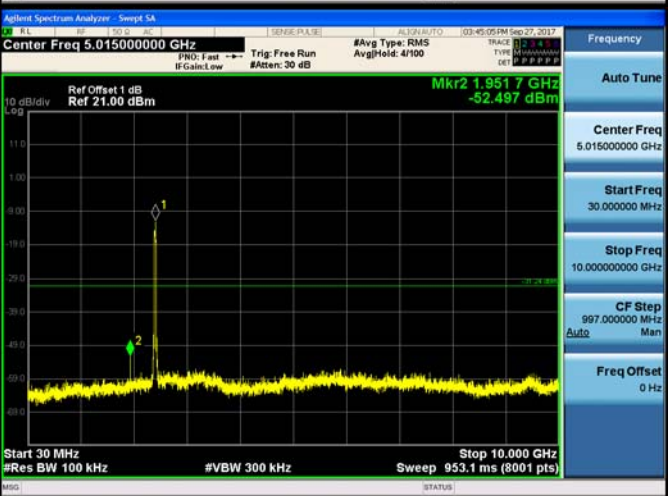

<p>CH11 Reference Level</p>	 <p>Agilent Spectrum Analyzer - Sweep 5A Center Freq 2.46200000 GHz Ref Offset 1 dB Ref 20.50 dBm Mkr1 2.457 005 GHz -4.629 dBm Span 40.00 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms (8001 pts)</p>
<p>CH11 30MHz~10GHz</p>	 <p>Agilent Spectrum Analyzer - Sweep 5A Center Freq 5.01500000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr2 4.920 3 GHz -51.919 dBm Start 30 MHz Stop 10.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 953.1 ms (8001 pts)</p>
<p>CH11 10GHz~26GHz</p>	 <p>Agilent Spectrum Analyzer - Sweep 5A Center Freq 18.00000000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr1 25.506 GHz -44.672 dBm Start 10.000 GHz Stop 26.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.530 s (8001 pts)</p>

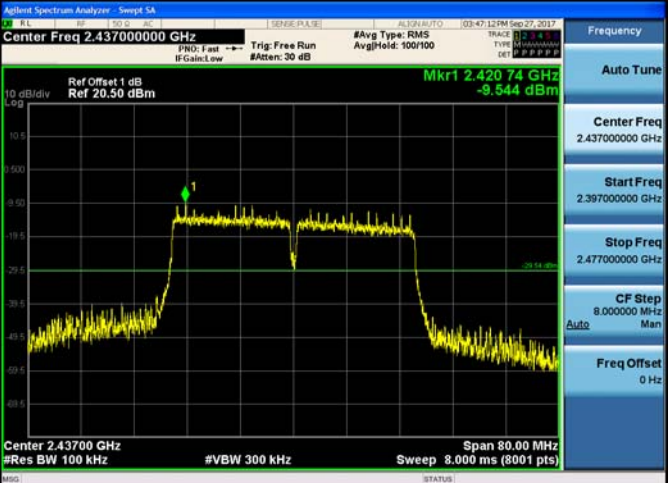
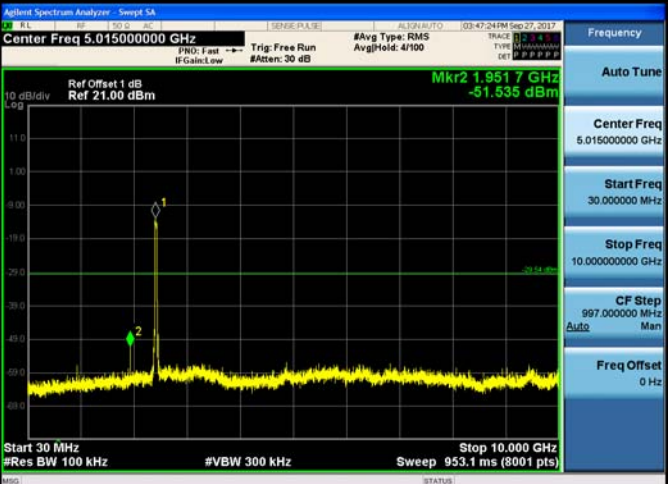

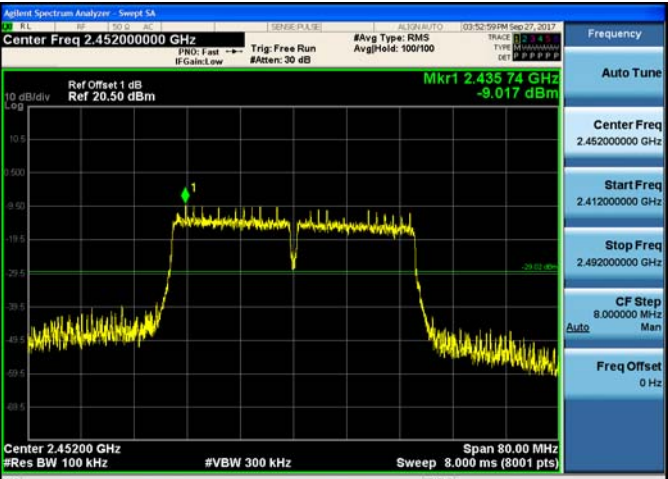


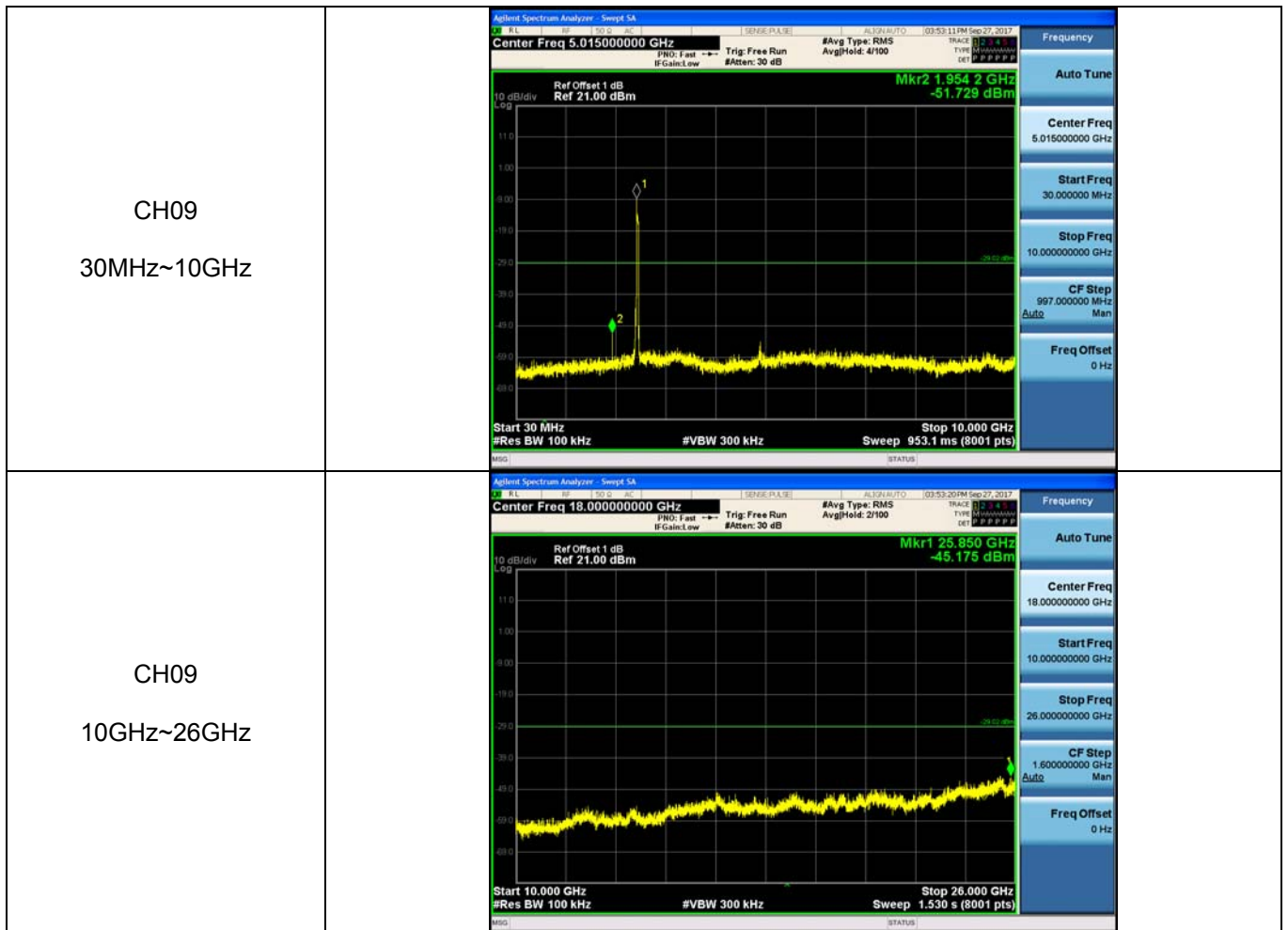
Test Item:	SE	Type:	802.11 n(HT20)
<p>CH01 Reference Level</p>			
<p>CH01 30MHz~10GHz</p>			
<p>CH01 10GHz~26GHz</p>			

<p>CH06 Reference Level</p>	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.437000000 GHz Ref Offset 1 dB Ref 20.50 dBm Mkr1 2.435740 GHz -8.599 dBm Center Freq 2.437000000 GHz Start Freq 2.417000000 GHz Stop Freq 2.457000000 GHz CF Step 4.000000 MHz Freq Offset 0 Hz Span 40.00 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms (8001 pts)</p>
<p>CH06 30MHz~10GHz</p>	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 5.015000000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr2 5.9023 GHz -55.389 dBm Start 30 MHz Stop 10.000 GHz Center Freq 5.015000000 GHz Start Freq 30.000000 MHz Stop Freq 10.000000000 GHz CF Step 997.000000 MHz Freq Offset 0 Hz #Res BW 100 kHz #VBW 300 kHz Sweep 953.1 ms (8001 pts)</p>
<p>CH06 10GHz~26GHz</p>	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 18.000000000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr1 25.610 GHz -4.665 dBm Start 10.000 GHz Stop 26.000 GHz Center Freq 18.000000000 GHz Start Freq 10.000000000 GHz Stop Freq 26.000000000 GHz CF Step 1.600000000 GHz Freq Offset 0 Hz #Res BW 100 kHz #VBW 300 kHz Sweep 1.530 s (8001 pts)</p>

<p>CH11 Reference Level</p>	 <p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.46200000 GHz Ref Offset 1 dB Ref 20.50 dBm Mkr1 2.457 030 GHz -7.976 dBm Span 40.00 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 4.267 ms (8001 pts)</p>
<p>CH11 30MHz~10GHz</p>	 <p>Agilent Spectrum Analyzer - Swept SA Center Freq 5.01500000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr2 833.8 MHz -52.837 dBm Stop 10.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 953.1 ms (8001 pts)</p>
<p>CH11 10GHz~26GHz</p>	 <p>Agilent Spectrum Analyzer - Swept SA Center Freq 18.00000000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr1 25.508 GHz -4.350 dBm Stop 26.000 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.530 s (8001 pts)</p>

Test Item:	SE	Type:	802.11 n(HT40)
<p>CH03 Reference Level</p>			
<p>CH03 30MHz~10GHz</p>			
<p>CH01 10GHz~26GHz</p>			

<p>CH06 Reference Level</p>	 <p>Agilent Spectrum Analyzer - Sweep SA Center Freq 2.43700000 GHz Ref Offset 1 dB Ref 20.50 dBm Mkr1 2.420 74 GHz -9.544 dBm Span 80.00 MHz Sweep 8.000 ms (8001 pts)</p>
<p>CH06 30MHz~10GHz</p>	 <p>Agilent Spectrum Analyzer - Sweep SA Center Freq 5.01500000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr2 1.951 7 GHz -51.535 dBm Sweep 953.1 ms (8001 pts)</p>
<p>CH06 10GHz~26GHz</p>	 <p>Agilent Spectrum Analyzer - Sweep SA Center Freq 18.00000000 GHz Ref Offset 1 dB Ref 21.00 dBm Mkr1 25.542 GHz -43.634 dBm Sweep 1.530 s (8001 pts)</p>
<p>CH09 Reference Level</p>	 <p>Agilent Spectrum Analyzer - Sweep SA Center Freq 2.45200000 GHz Ref Offset 1 dB Ref 20.50 dBm Mkr1 2.435 74 GHz -9.017 dBm Span 80.00 MHz Sweep 8.000 ms (8001 pts)</p>



### 5.8. Spurious Emissions (radiated)

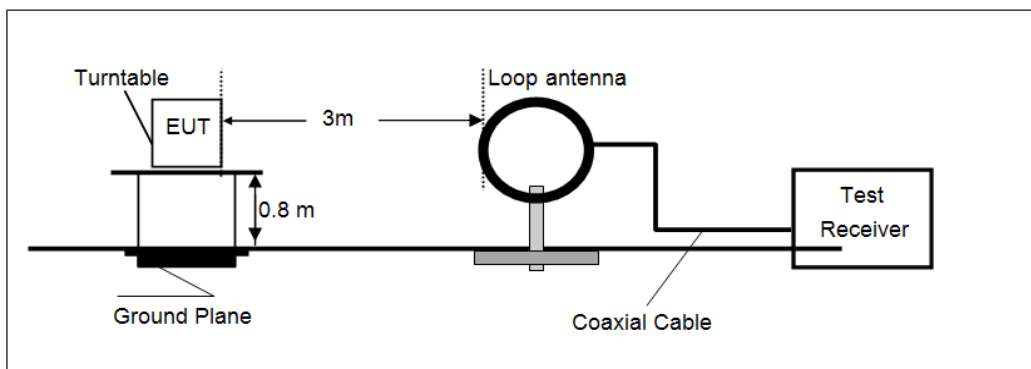
#### LIMIT

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

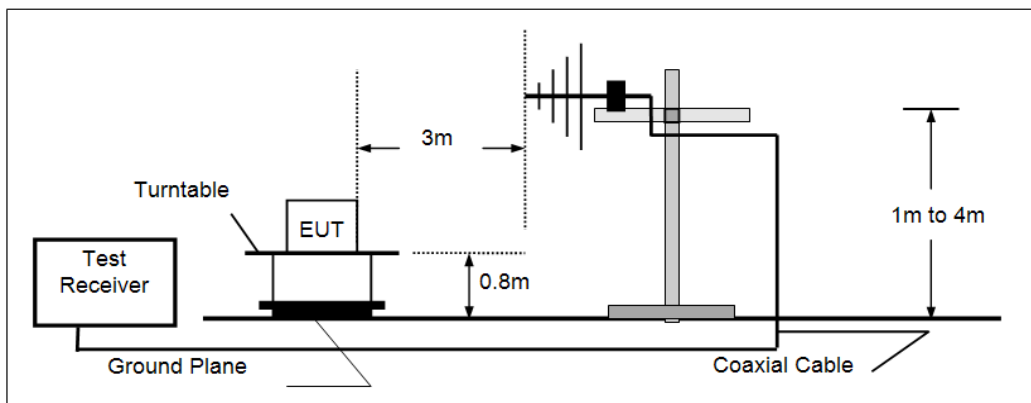
Frequency	Limit (dBuV/m @3m)	Value
30MHz-88MHz	40.00	Quasi-peak
88MHz-216MHz	43.50	Quasi-peak
216MHz-960MHz	46.00	Quasi-peak
960MHz-1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

#### TEST CONFIGURATION

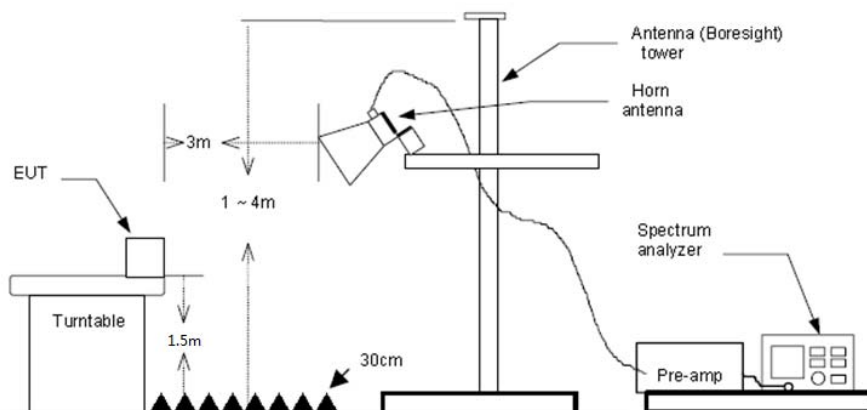
➤ 9kHz ~30MHz



➤ 30MHz ~ 1GHz



➤ Above 1GHz



**TEST PROCEDURE**

1. The EUT was 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. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna.
5. Use the following spectrum analyzer settings
  - (1) Span shall wide enough to fully capture the emission being measured;
  - (2) Below 1GHz, RBW=120kHz, VBW=300kHz, 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) Above 1GHz, 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.

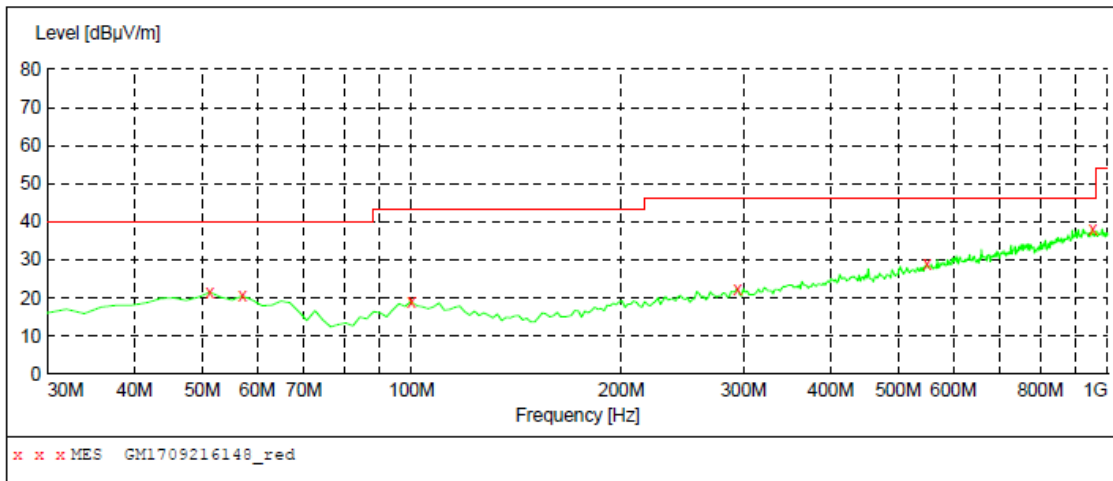
➤ **30MHz ~1000MHz**

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

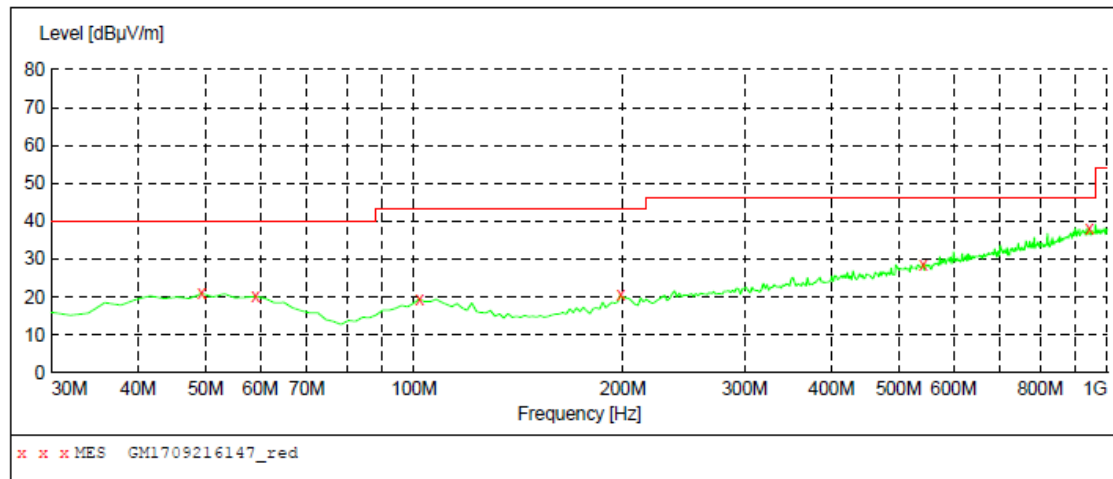


**MEASUREMENT RESULT: "GM1709216148\_red"**

9/21/2017 8:32PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
51.340000	21.50	-8.8	40.0	18.5	QP	100.0	282.00	VERTICAL
57.160000	20.50	-9.4	40.0	19.5	QP	100.0	282.00	VERTICAL
99.840000	19.10	-10.6	43.5	24.4	QP	100.0	93.00	VERTICAL
293.840000	22.50	-7.4	46.0	23.5	QP	100.0	214.00	VERTICAL
549.920000	28.80	-0.8	46.0	17.2	QP	100.0	214.00	VERTICAL
951.500000	38.10	7.3	46.0	7.9	QP	100.0	0.00	VERTICAL

Polarization: Horizontal



**MEASUREMENT RESULT: "GM1709216147\_red"**

9/21/2017 8:29PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
49.400000	21.00	-8.7	40.0	19.0	QP	100.0	314.00	HORIZONTAL
59.100000	20.20	-9.8	40.0	19.8	QP	300.0	184.00	HORIZONTAL
101.780000	19.50	-10.5	43.5	24.0	QP	300.0	27.00	HORIZONTAL
198.780000	20.50	-9.8	43.5	23.0	QP	100.0	72.00	HORIZONTAL
542.160000	28.70	-0.9	46.0	17.3	QP	300.0	27.00	HORIZONTAL
941.800000	38.20	7.2	46.0	7.8	QP	100.0	0.00	HORIZONTAL

## ➤ Above 1 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
1809.61	37.86	25.39	5.97	37.15	32.07	74.00	-41.93	Vertical	Peak
3616.45	40.53	29.30	8.29	38.27	39.85	74.00	-34.15	Vertical	Peak
4834.05	42.26	31.53	9.56	36.86	46.49	74.00	-27.51	Vertical	Peak
7172.41	32.61	36.04	11.86	35.04	45.47	74.00	-28.53	Vertical	Peak
1791.27	35.48	25.38	5.94	37.12	29.68	74.00	-44.32	Horizontal	Peak
3176.16	35.76	28.80	7.69	38.20	34.05	74.00	-39.95	Horizontal	Peak
4821.76	41.72	31.56	9.55	36.90	45.93	74.00	-28.07	Horizontal	Peak
6662.01	32.20	34.20	11.43	35.25	42.58	74.00	-31.42	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
1685.12	36.37	25.16	5.74	36.90	30.37	74.00	-43.63	Vertical	Peak
3041.64	36.70	28.68	7.53	38.22	34.69	74.00	-39.31	Vertical	Peak
4871.10	36.07	31.46	9.59	36.76	40.36	74.00	-33.64	Vertical	Peak
8022.46	32.69	37.08	12.35	34.53	47.59	74.00	-26.41	Vertical	Peak
1773.13	35.67	25.35	5.91	37.08	29.85	74.00	-44.15	Horizontal	Peak
3010.83	36.35	28.62	7.49	38.23	34.23	74.00	-39.77	Horizontal	Peak
4871.10	37.42	31.46	9.59	36.76	41.71	74.00	-32.29	Horizontal	Peak
6868.65	32.09	34.48	11.69	34.92	43.34	74.00	-30.66	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
2162.57	34.76	27.20	6.41	37.33	31.04	74.00	-42.96	Vertical	Peak
3570.71	37.21	29.21	8.22	38.31	36.33	74.00	-37.67	Vertical	Peak
4920.96	42.61	31.42	9.62	36.62	47.03	74.00	-26.97	Vertical	Peak
7981.72	34.34	37.03	12.39	34.58	49.18	74.00	-24.82	Vertical	Peak
1306.41	35.27	26.18	4.84	36.51	29.78	74.00	-44.22	Horizontal	Peak
3480.97	36.45	28.85	8.09	38.44	34.95	74.00	-39.05	Horizontal	Peak
4920.96	43.09	31.42	9.62	36.62	47.51	74.00	-26.49	Horizontal	Peak
7063.69	32.24	35.49	11.85	34.88	44.70	74.00	-29.30	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 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
1207.28	37.77	26.29	4.67	36.57	32.16	74.00	-41.84	Vertical	Peak
3598.09	36.95	29.29	8.27	38.27	36.24	74.00	-37.76	Vertical	Peak
4821.76	39.61	31.56	9.55	36.90	43.82	74.00	-30.18	Vertical	Peak
7663.17	33.30	36.14	12.89	35.01	47.32	74.00	-26.68	Vertical	Peak
1573.19	35.70	25.14	5.49	36.69	29.64	74.00	-44.36	Horizontal	Peak
3064.96	35.10	28.73	7.56	38.22	33.17	74.00	-40.83	Horizontal	Peak
4821.76	38.72	31.56	9.55	36.90	42.93	74.00	-31.07	Horizontal	Peak
7117.84	31.23	35.71	11.86	34.96	43.84	74.00	-30.16	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
1228.98	36.54	26.27	4.71	36.55	30.97	74.00	-43.03	Vertical	Peak
3041.64	36.70	28.68	7.53	38.22	34.69	74.00	-39.31	Vertical	Peak
4871.10	40.07	31.46	9.59	36.76	44.36	74.00	-29.64	Vertical	Peak
7357.33	31.72	36.30	12.03	34.88	45.17	74.00	-28.83	Vertical	Peak
1506.56	34.85	25.74	5.30	36.60	29.29	74.00	-44.71	Horizontal	Peak
3010.83	36.35	28.62	7.49	38.23	34.23	74.00	-39.77	Horizontal	Peak
4871.10	39.42	31.46	9.59	36.76	43.71	74.00	-30.29	Horizontal	Peak
7451.57	31.87	36.20	12.24	34.86	45.45	74.00	-28.55	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
1306.41	35.56	26.18	4.84	36.51	30.07	74.00	-43.93	Vertical	Peak
3064.96	36.11	28.73	7.56	38.22	34.18	74.00	-39.82	Vertical	Peak
4920.96	41.61	31.42	9.62	36.62	46.03	74.00	-27.97	Vertical	Peak
6764.54	32.64	34.07	11.56	35.06	43.21	74.00	-30.79	Vertical	Peak
1306.41	35.27	26.18	4.84	36.51	29.78	74.00	-44.22	Horizontal	Peak
3480.97	36.45	28.85	8.09	38.44	34.95	74.00	-39.05	Horizontal	Peak
4920.96	40.09	31.42	9.62	36.62	44.51	74.00	-29.49	Horizontal	Peak
7547.01	32.04	36.15	12.55	34.94	45.80	74.00	-28.20	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 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
1388.71	37.06	25.93	4.98	36.47	31.50	74.00	-42.50	Vertical	Peak
3786.01	35.84	29.56	8.48	38.23	35.65	74.00	-38.35	Vertical	Peak
4933.50	41.25	31.43	9.63	36.59	45.72	74.00	-28.28	Vertical	Peak
7376.08	32.14	36.30	12.04	34.85	45.63	74.00	-28.37	Vertical	Peak
1746.25	37.45	25.29	5.86	37.03	31.57	74.00	-42.43	Horizontal	Peak
3498.74	36.87	28.99	8.11	38.41	35.56	74.00	-38.44	Horizontal	Peak
4920.96	45.61	31.42	9.62	36.62	50.03	74.00	-23.97	Horizontal	Peak
6156.51	34.15	32.73	10.94	35.32	42.50	74.00	-31.50	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
1818.84	35.34	25.38	5.99	37.16	29.55	74.00	-44.45	Vertical	Peak
3570.71	35.42	29.21	8.22	38.31	34.54	74.00	-39.46	Vertical	Peak
4883.52	37.82	31.43	9.59	36.73	42.11	74.00	-31.89	Vertical	Peak
7981.72	33.22	37.03	12.39	34.58	48.06	74.00	-25.94	Vertical	Peak
1711.05	35.39	25.22	5.79	36.95	29.45	74.00	-44.55	Horizontal	Peak
3096.33	35.27	28.79	7.60	38.22	33.44	74.00	-40.56	Horizontal	Peak
4871.10	42.50	31.46	9.59	36.76	46.79	74.00	-27.21	Horizontal	Peak
7319.96	31.78	36.30	11.99	34.92	45.15	74.00	-28.85	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
1791.27	36.08	25.38	5.94	37.12	30.28	74.00	-43.72	Vertical	Peak
3184.25	35.72	28.80	7.70	38.20	34.02	74.00	-39.98	Vertical	Peak
4821.76	38.82	31.56	9.55	36.90	43.03	74.00	-30.97	Vertical	Peak
7117.84	31.54	35.71	11.86	34.96	44.15	74.00	-29.85	Vertical	Peak
1689.41	36.71	25.17	5.74	36.91	30.71	74.00	-43.29	Horizontal	Peak
3854.08	35.05	29.65	8.58	38.20	35.08	74.00	-38.92	Horizontal	Peak
4834.05	37.69	31.53	9.56	36.86	41.92	74.00	-32.08	Horizontal	Peak
7245.81	31.61	36.25	11.91	35.02	44.75	74.00	-29.25	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 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
1746.25	35.80	25.29	5.86	37.03	29.92	74.00	-44.08	Vertical	Peak
3112.13	36.44	28.80	7.61	38.21	34.64	74.00	-39.36	Vertical	Peak
4846.37	35.41	31.51	9.57	36.83	39.66	74.00	-34.34	Vertical	Peak
6347.47	32.11	33.20	11.00	35.30	41.01	74.00	-32.99	Vertical	Peak
1185.96	36.53	26.19	4.63	36.58	30.77	74.00	-43.23	Horizontal	Peak
3010.83	36.17	28.62	7.49	38.23	34.05	74.00	-39.95	Horizontal	Peak
4858.72	34.18	31.48	9.58	36.80	38.44	74.00	-35.56	Horizontal	Peak
6594.52	31.98	34.19	11.35	35.36	42.16	74.00	-31.84	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
1630.26	35.12	24.99	5.63	36.78	28.96	74.00	-45.04	Vertical	Peak
3151.99	35.82	28.80	7.66	38.21	34.07	74.00	-39.93	Vertical	Peak
4883.52	37.20	31.43	9.59	36.73	41.49	74.00	-32.51	Vertical	Peak
6696.01	32.44	34.20	11.48	35.18	42.94	74.00	-31.06	Vertical	Peak
1948.25	39.64	25.79	6.19	37.26	34.36	74.00	-39.64	Horizontal	Peak
3766.79	35.04	29.50	8.46	38.24	34.76	74.00	-39.24	Horizontal	Peak
4858.72	35.69	31.48	9.58	36.80	39.95	74.00	-34.05	Horizontal	Peak
8063.40	33.57	37.04	12.45	34.54	48.52	74.00	-25.48	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	43.37	25.33	5.89	37.06	37.53	74.00	-36.47	Vertical	Peak
1948.25	39.28	25.79	6.19	37.26	34.00	74.00	-40.00	Vertical	Peak
3795.66	36.82	29.59	8.50	38.23	36.68	74.00	-37.32	Vertical	Peak
4895.97	37.07	31.41	9.60	36.69	41.39	74.00	-32.61	Vertical	Peak
1828.13	35.00	25.37	6.00	37.16	29.21	74.00	-44.79	Horizontal	Peak
3151.99	35.80	28.80	7.66	38.21	34.05	74.00	-39.95	Horizontal	Peak
4895.97	33.90	31.41	9.60	36.69	38.22	74.00	-35.78	Horizontal	Peak
6903.71	32.28	34.72	11.73	34.89	43.84	74.00	-30.16	Horizontal	Peak

## Remark:

- Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier 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 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.: TRE1709016401.

.....**End of Report**.....