

APPENDIX REPORT

Project No.	SHT1911051203EW	Radio Specification	WIFI 5G
Test sample No.	YPHT19110512009	Model No.	iData K1S
Start test date	2019/12/20	Finish date	2019/12/20
Temperature	25°C	Humidity	50%
Test Engineer	Ximing.Huang	Auditor	<i>William.wang</i>

Appendix clause	Test item	Result
A	Maximum Conducted Output Power	PASS
B	Maximum Power Spectral Density	PASS
C	26 dB Bandwidth	PASS
D	99% Occupy bandwidth	PASS
E	6 dB Bandwidth	PASS
F	Frequency stability	PASS

Appendix A: Maximum Conducted Output Power

Band	Bandwidth (MHz)	Type	Channel	Conducted Output Power (dBm)	Limit (dBm)	Result
I	20	802.11ac	CH _L	19.69	24.00	Pass
			CH _M	19.50		
			CH _H	19.72		
		802.11n	CH _L	20.11	24.00	Pass
			CH _M	19.54		
			CH _H	19.70		
		802.11a	CH _L	19.89	24.00	Pass
			CH _M	19.61		
			CH _H	19.81		
	40	802.11ac	CH _L	19.76	24.00	Pass
			CH _H	20.02		
		802.11n	CH _L	20.17	24.00	Pass
CH _H			20.00			
80	802.11ac	CH _M	19.58	24.00	Pass	
II	20	802.11ac	CH _L	19.05	24.00	Pass
			CH _M	18.72		
			CH _H	18.65		
		802.11n	CH _L	18.95	24.00	Pass
			CH _M	18.68		
			CH _H	18.66		
		802.11a	CH _L	19.32	24.00	Pass
			CH _M	18.89		
			CH _H	18.71		
	40	802.11ac	CH _L	19.11	24.00	Pass
			CH _H	18.53		
		802.11n	CH _L	19.05	24.00	Pass
CH _H			18.46			
80	802.11ac	CH _M	19.07	24.00	Pass	

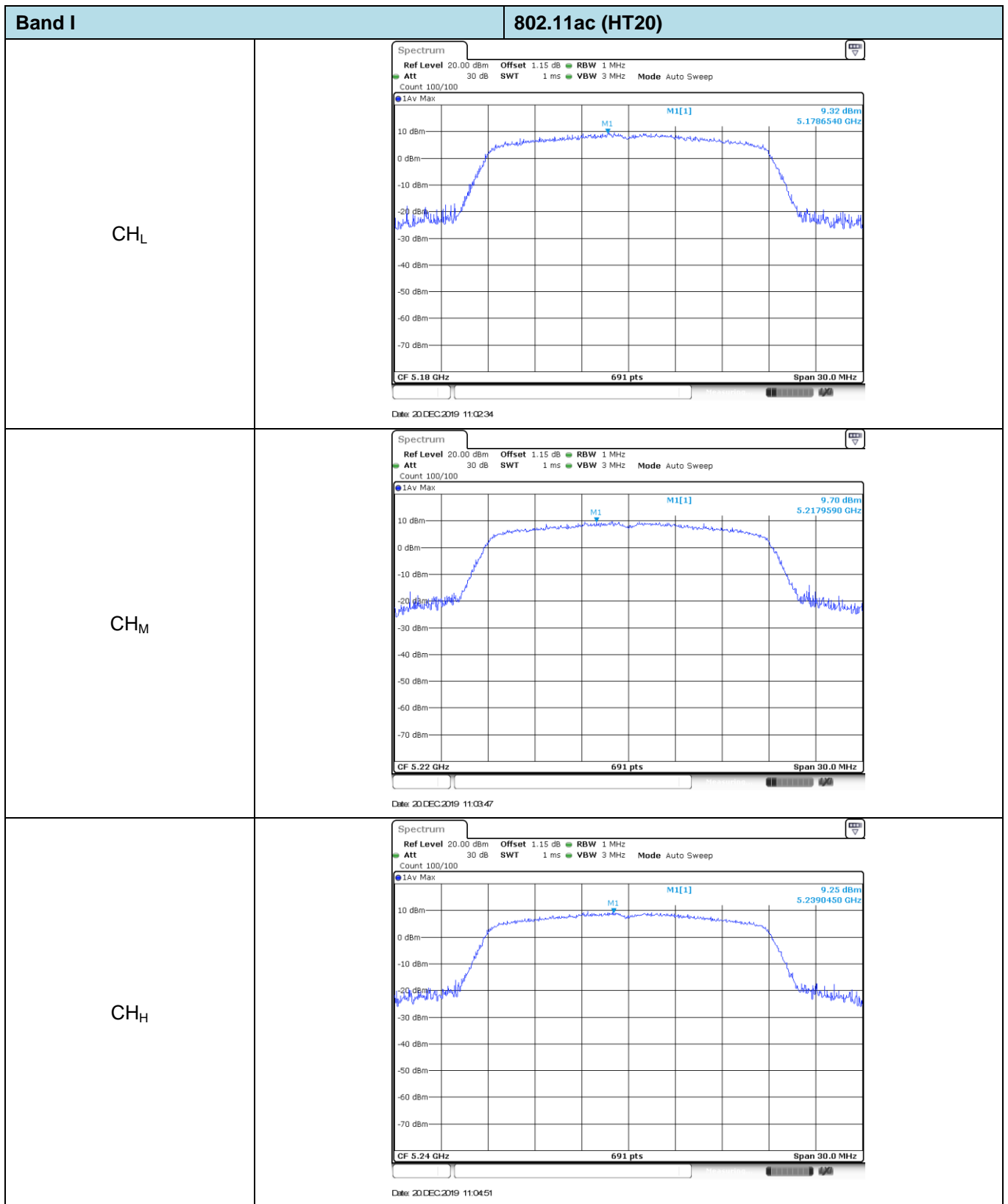
Band	Bandwidth (MHz)	Type	Channel	Conducted Output Power (dBm)	Limit (dBm)	Result
III	20	802.11ac	CH _L	17.71	24.00	Pass
			CH _M	17.45		
			CH _H	17.51		
		802.11n	CH _L	18.43	24.00	Pass
			CH _M	17.53		
			CH _H	18.00		
		802.11a	CH _L	18.35	24.00	Pass
			CH _M	17.81		
			CH _H	18.05		
	40	802.11ac	CH _L	17.98	24.00	Pass
			CH _M	17.43		
			CH _H	18.03		
		802.11n	CH _L	18.08	24.00	Pass
			CH _M	17.57		
			CH _H	17.29		
80	802.11ac	CH _L	17.80	24.00	Pass	
		CH _M	17.93			
		CH _H	18.17			
IV	20	802.11ac	CH _L	17.58	30.00	Pass
			CH _M	17.34		
			CH _H	17.49		
		802.11n	CH _L	17.87	30.00	Pass
			CH _M	17.58		
			CH _H	17.63		
		802.11a	CH _L	17.50	30.00	Pass
			CH _M	17.62		
			CH _H	17.93		
	40	802.11ac	CH _L	17.62	30.00	Pass
			CH _H	17.57		
		802.11n	CH _L	17.69	30.00	Pass
CH _H			17.65			
80	802.11ac	CH _M	18.09	30.00	Pass	

Appendix B: Maximum Power Spectral Density

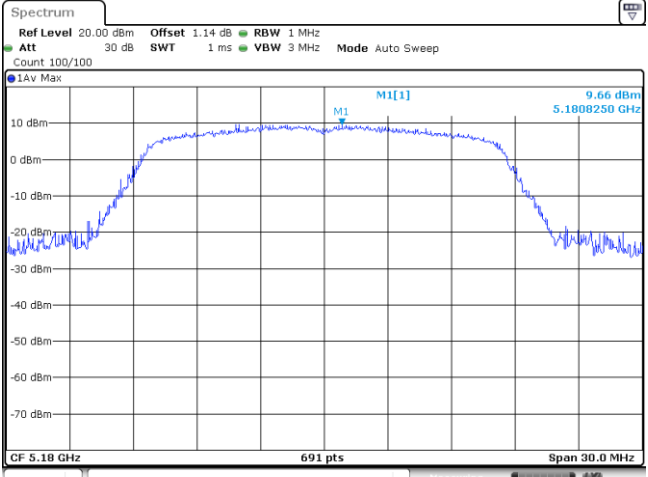
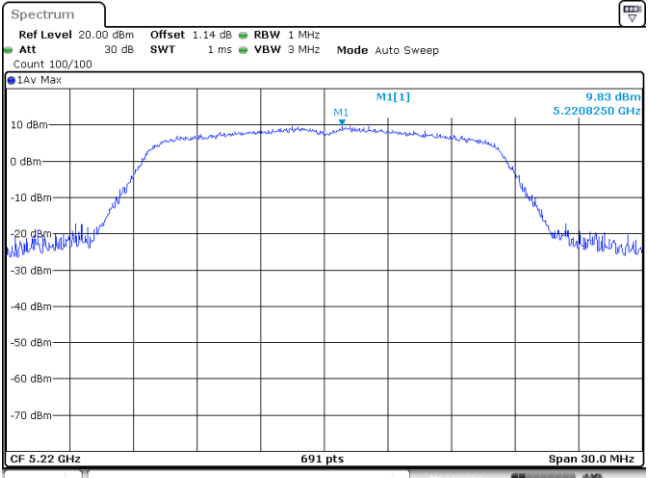
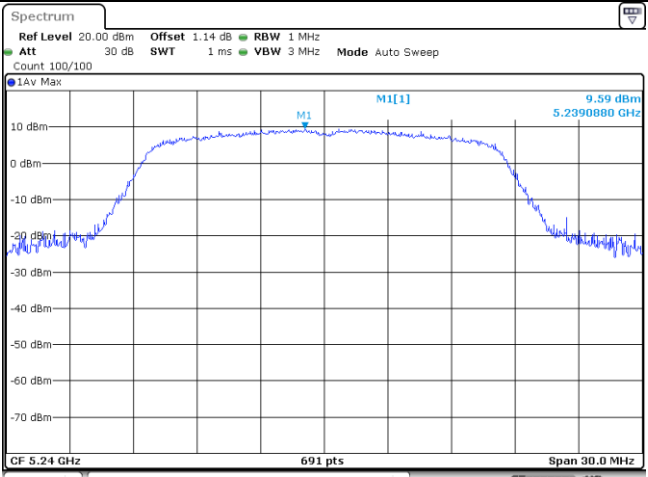
Band	Bandwidth (MHz)	Type	Channel	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
I	20	802.11ac	CH _L	9.32	11.00	Pass
			CH _M	9.70		
			CH _H	9.25		
		802.11n	CH _L	9.77	11.00	Pass
			CH _M	9.72		
			CH _H	9.56		
		802.11a	CH _L	9.66	11.00	Pass
			CH _M	9.83		
			CH _H	9.59		
	40	802.11ac	CH _L	6.57	11.00	Pass
			CH _H	7.26		
		802.11n	CH _L	6.87	11.00	Pass
CH _H			6.62			
80	802.11ac	CH _M	3.72	11.00	Pass	
II	20	802.11ac	CH _L	8.78	11.00	Pass
			CH _M	8.40		
			CH _H	8.14		
		802.11n	CH _L	9.13	11.00	Pass
			CH _M	8.83		
			CH _H	8.71		
		802.11a	CH _L	9.19	11.00	Pass
			CH _M	8.50		
			CH _H	8.48		
	40	802.11ac	CH _L	6.48	11.00	Pass
			CH _H	5.65		
		802.11n	CH _L	5.82	11.00	Pass
CH _H			5.27			
80	802.11ac	CH _M	3.21	11.00	Pass	

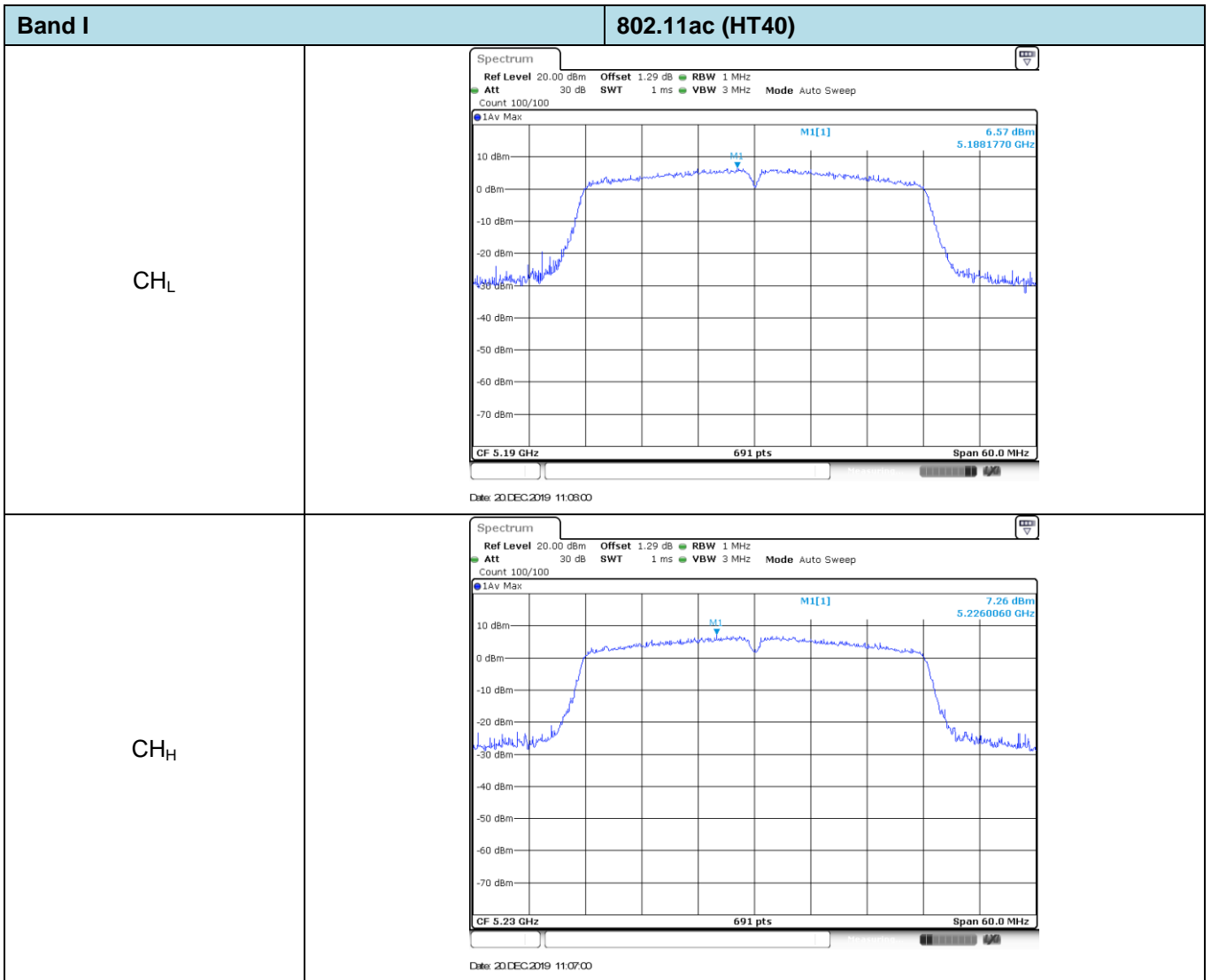
Band	Bandwidth (MHz)	Type	Channel	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
III	20	802.11ac	CH _L	7.39	11.00	Pass
			CH _M	7.43		
			CH _H	7.09		
		802.11n	CH _L	8.31	11.00	Pass
			CH _M	7.90		
			CH _H	8.04		
		802.11a	CH _L	8.46	11.00	Pass
			CH _M	7.81		
			CH _H	8.54		
	40	802.11ac	CH _L	5.36	11.00	Pass
			CH _M	4.33		
			CH _H	4.80		
		802.11n	CH _L	5.37	11.00	Pass
			CH _M	4.81		
			CH _H	5.54		
80	802.11ac	CH _L	1.89	11.00	Pass	
		CH _M	1.46			
		CH _H	2.50			
Band	Bandwidth (MHz)	Type	Channel	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)	Result
IV	20	802.11ac	CH _L	6.28	30.00	Pass
			CH _M	5.61		
			CH _H	6.39		
		802.11n	CH _L	6.66	30.00	Pass
			CH _M	6.30		
			CH _H	6.00		
		802.11a	CH _L	6.88	30.00	Pass
			CH _M	6.23		
			CH _H	7.25		
	40	802.11ac	CH _L	3.05	30.00	Pass
			CH _H	3.06		
		802.11n	CH _L	3.52	30.00	Pass
			CH _H	3.03		
	80	802.11ac	CH _M	0.45	30.00	Pass

Test plot as follows:



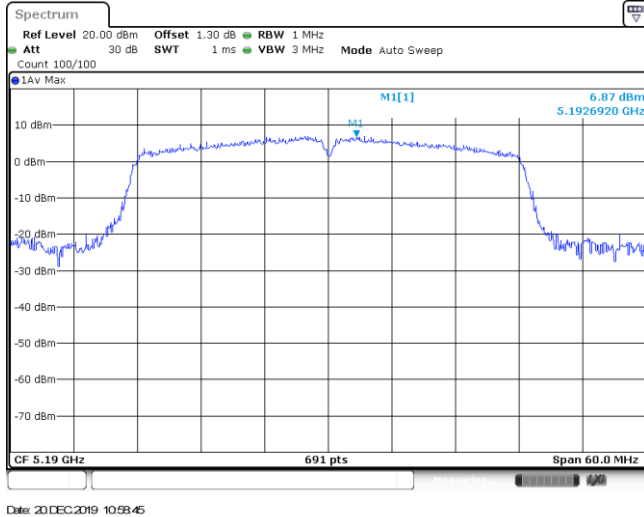
Band I		802.11n (HT20)
CH _L	<p> Spectrum Ref Level 20.00 dBm Offset 1.15 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max 9.77 dBm 5.179160 GHz CF 5.18 GHz 691 pts Span 30.0 MHz Date: 20 DEC 2019 10:53:41 </p>	
CH _M	<p> Spectrum Ref Level 20.00 dBm Offset 1.15 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max 9.72 dBm 5.2219100 GHz CF 5.22 GHz 691 pts Span 30.0 MHz Date: 20 DEC 2019 10:54:22 </p>	
CH _H	<p> Spectrum Ref Level 20.00 dBm Offset 1.15 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max 9.56 dBm 5.2391750 GHz CF 5.24 GHz 691 pts Span 30.0 MHz Date: 20 DEC 2019 10:55:07 </p>	

Band I		802.11a
CH _L	 <p>Ref Level 20.00 dBm Att 30 dB Offset 1.14 dB RBW 1 MHz SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max M1 M1[1] 9.66 dBm 5.1808250 GHz CF 5.18 GHz 691 pts Span 30.0 MHz Date: 20 DEC 2019 10:45:40</p>	
CH _M	 <p>Ref Level 20.00 dBm Att 30 dB Offset 1.14 dB RBW 1 MHz SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max M1 M1[1] 9.83 dBm 5.2208250 GHz CF 5.22 GHz 691 pts Span 30.0 MHz Date: 20 DEC 2019 10:47:11</p>	
CH _H	 <p>Ref Level 20.00 dBm Att 30 dB Offset 1.14 dB RBW 1 MHz SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max M1 M1[1] 9.59 dBm 5.2390880 GHz CF 5.24 GHz 691 pts Span 30.0 MHz Date: 20 DEC 2019 10:49:02</p>	

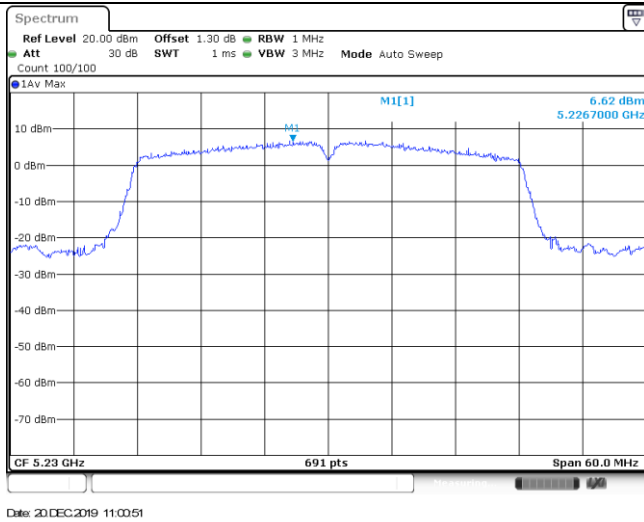


Band I **802.11n (HT40)**

CH_L

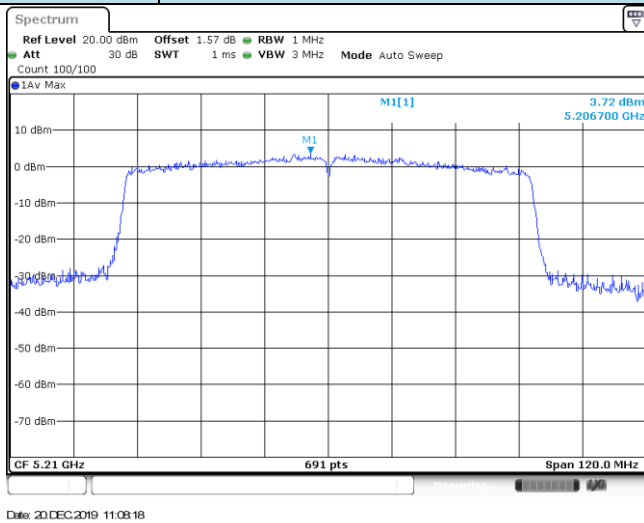


CH_H



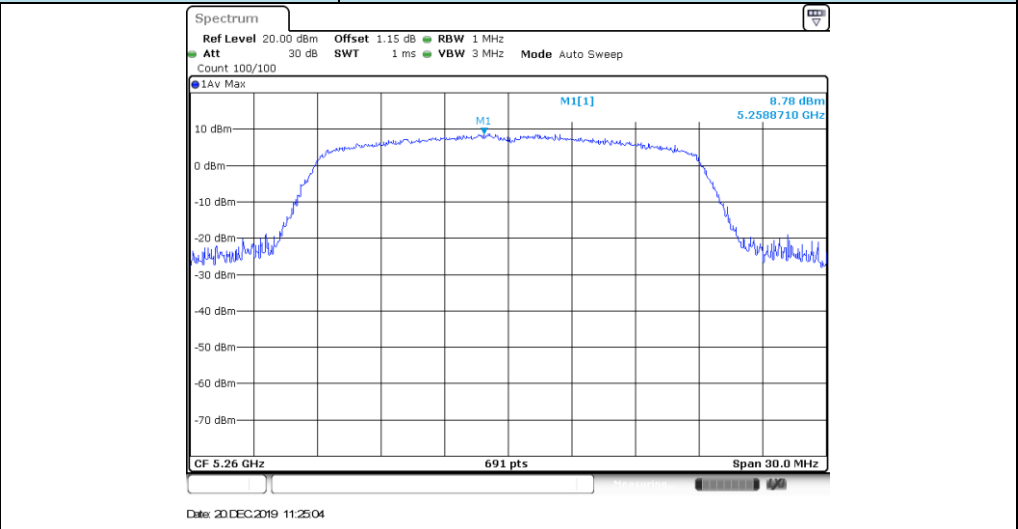
Band I **802.11ac (HT80)**

CH_M

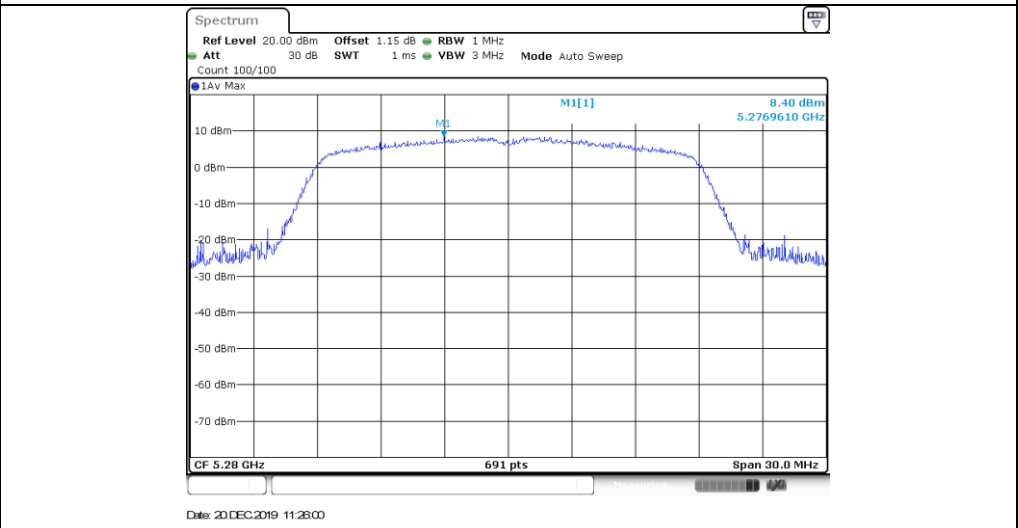


Band II **802.11ac (HT20)**

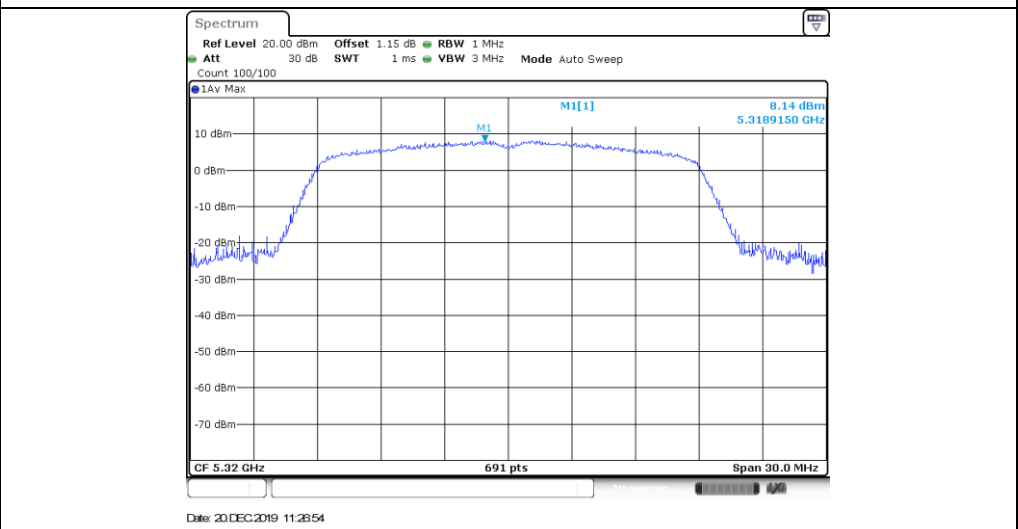
CH_L



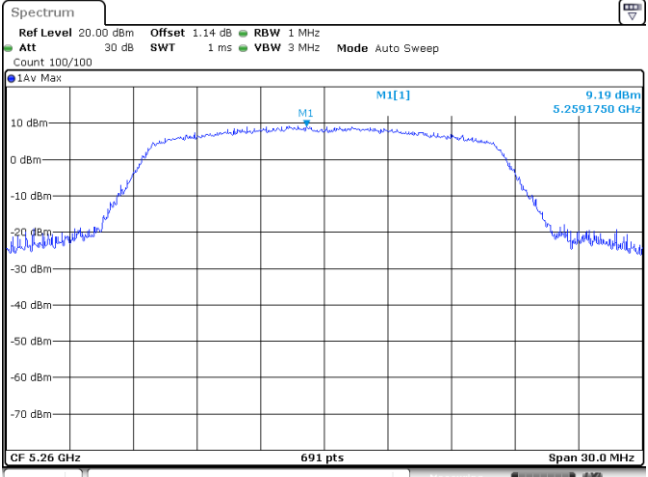
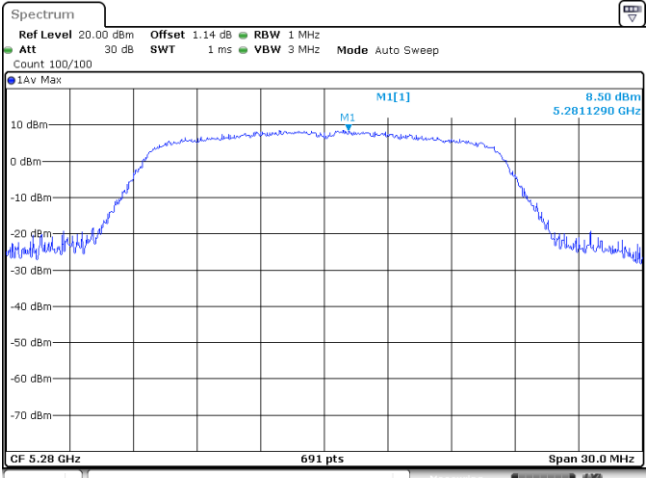
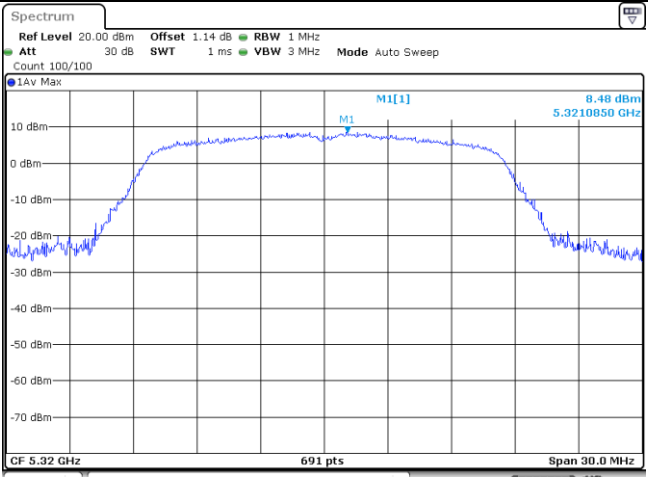
CH_M

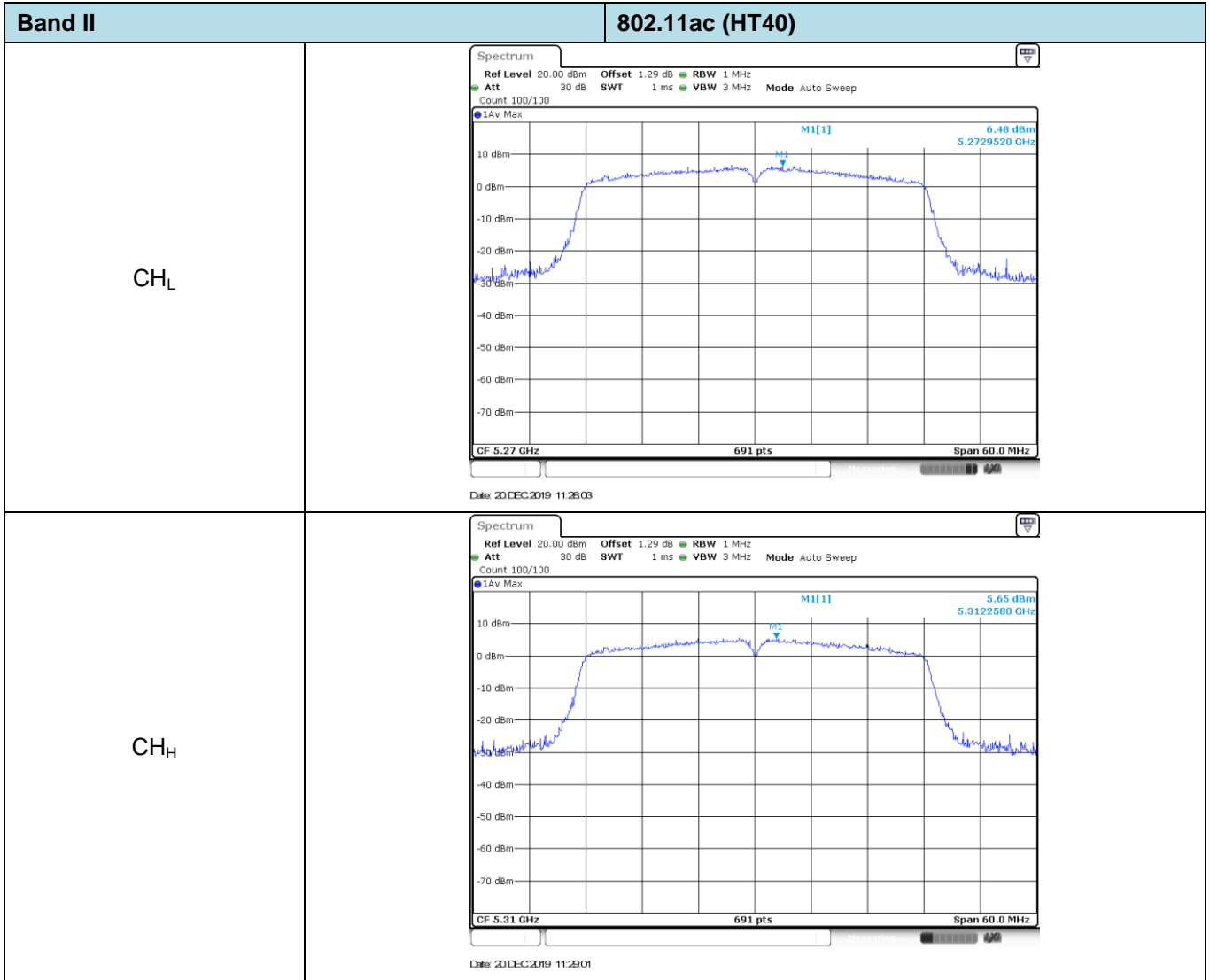


CH_H



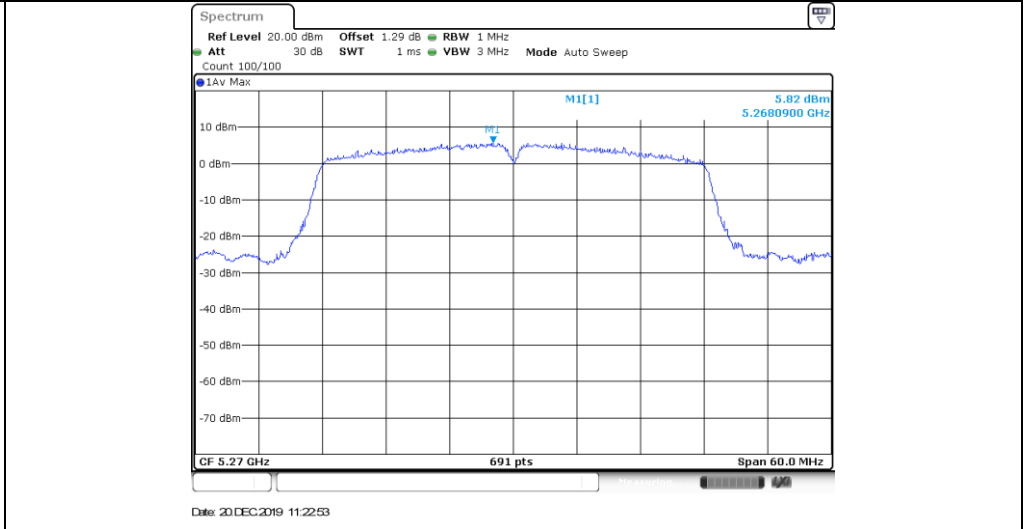
Band II		802.11n (HT20)
CH _L		
CH _M		
CH _H		

Band II		802.11a
CH _L	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.14 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100</p> <p>IAv Max</p> <p>9.19 dBm 5.2591750 GHz</p> <p>CF 5.26 GHz 691 pts Span 30.0 MHz</p> <p>Date: 20 DEC 2019 11:15:08</p>	
CH _M	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.14 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100</p> <p>IAv Max</p> <p>8.50 dBm 5.2811290 GHz</p> <p>CF 5.28 GHz 691 pts Span 30.0 MHz</p> <p>Date: 20 DEC 2019 11:16:07</p>	
CH _H	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.14 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100</p> <p>IAv Max</p> <p>8.48 dBm 5.3210850 GHz</p> <p>CF 5.32 GHz 691 pts Span 30.0 MHz</p> <p>Date: 20 DEC 2019 11:18:16</p>	

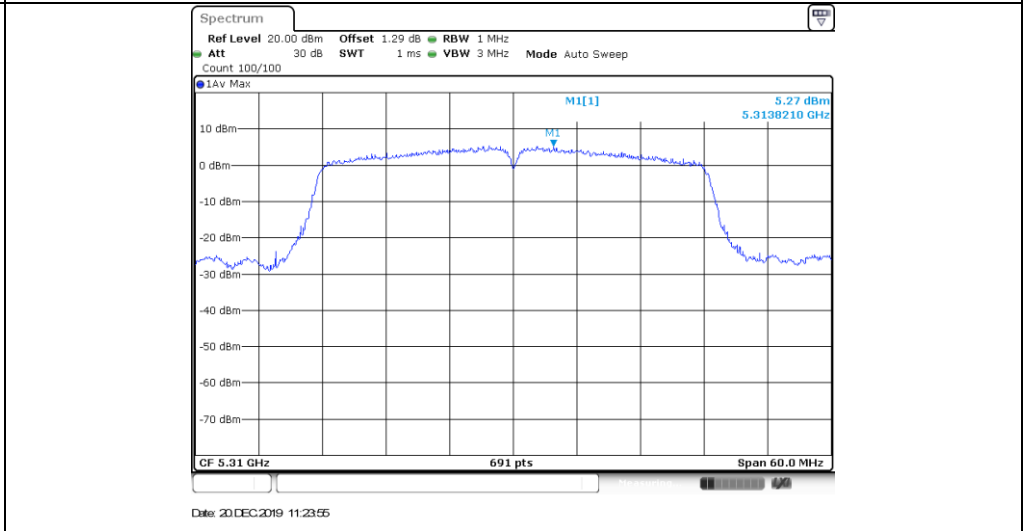


Band II **802.11n (HT40)**

CH_L

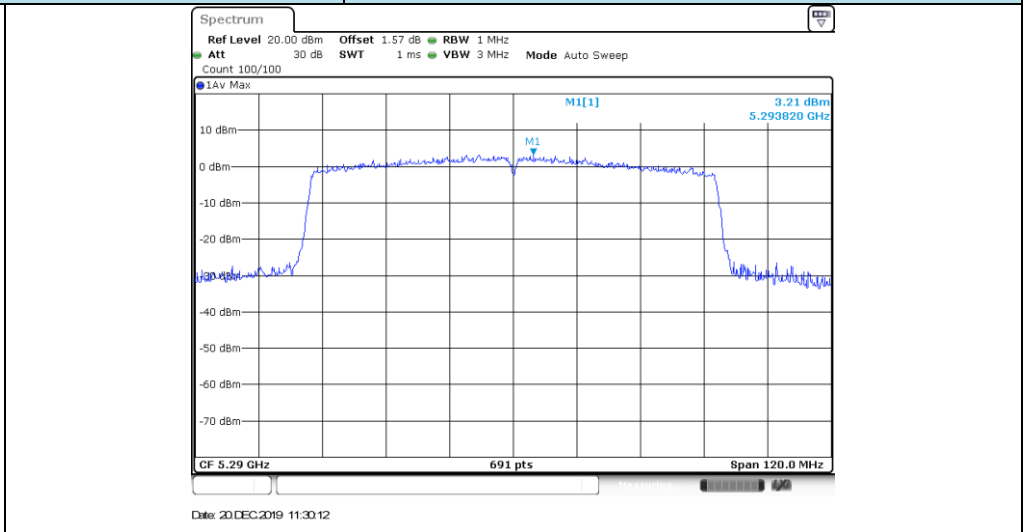


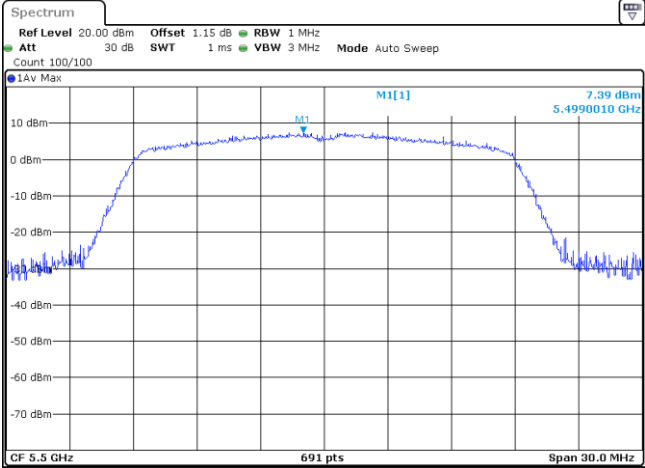
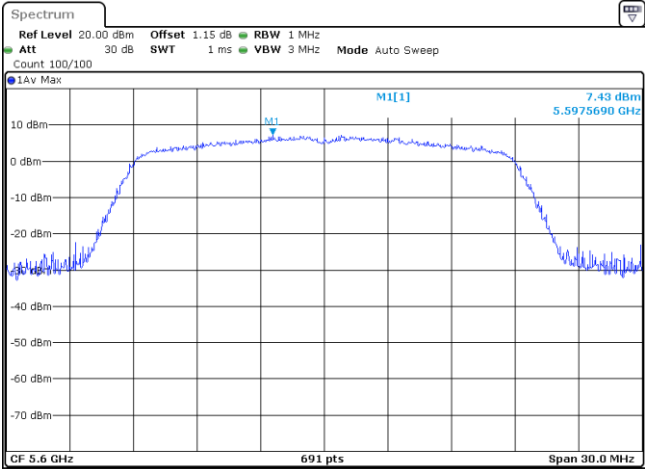
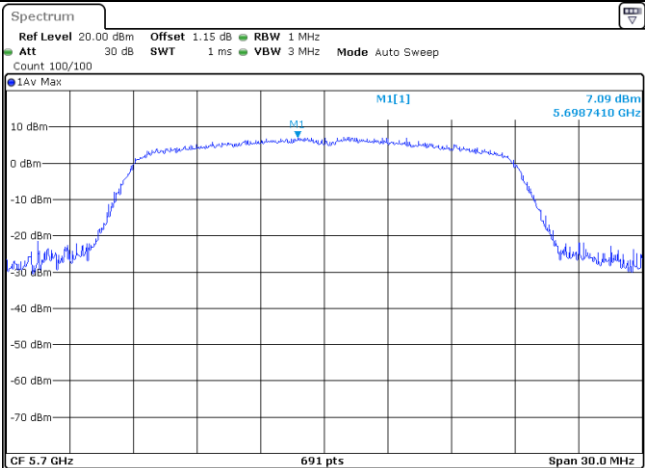
CH_H



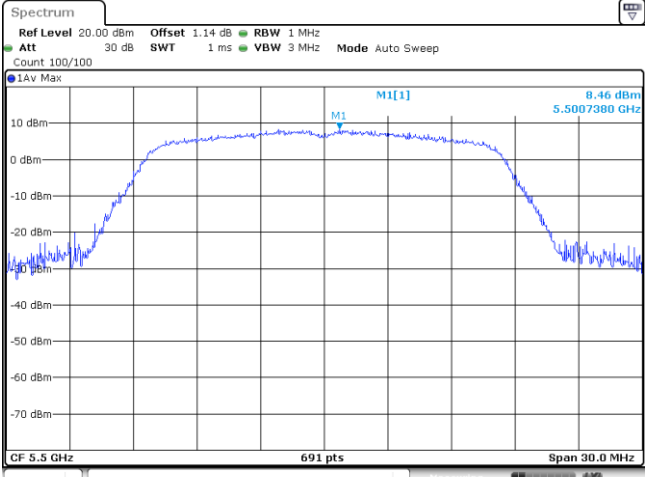
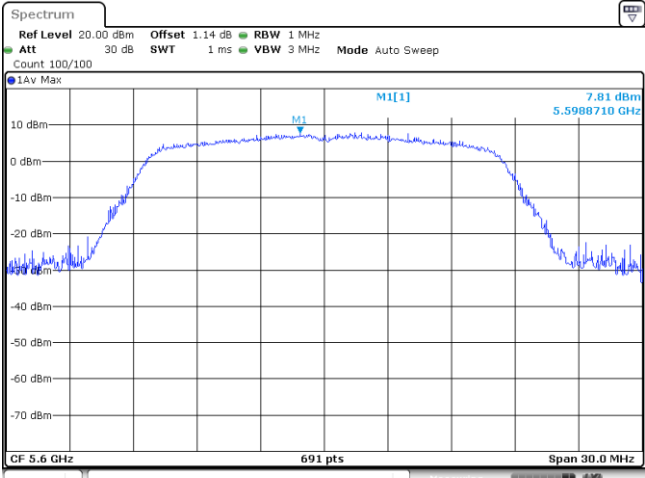
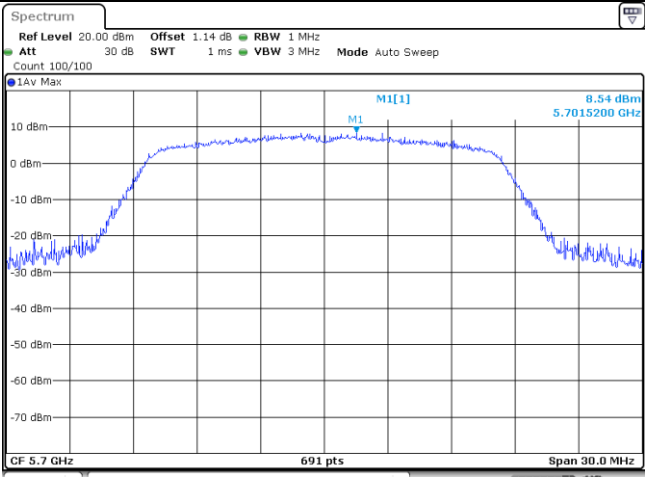
Band II **802.11ac (HT80)**

CH_M

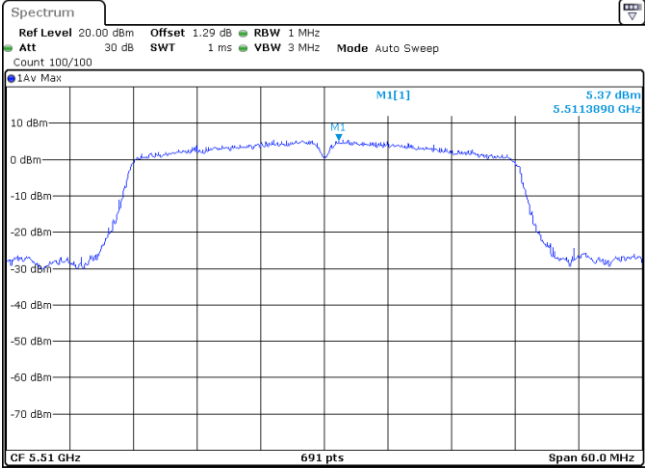
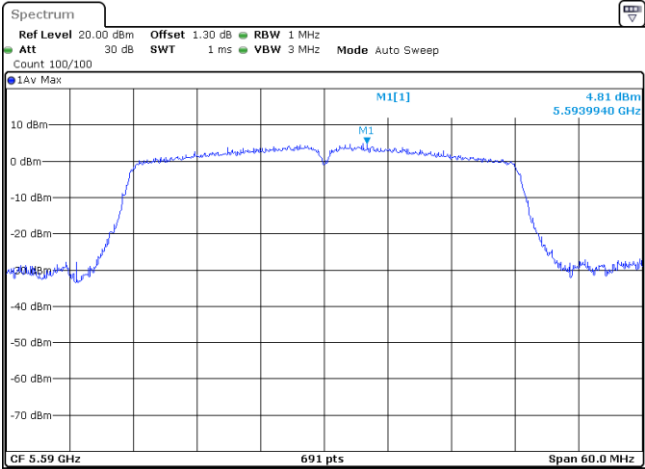
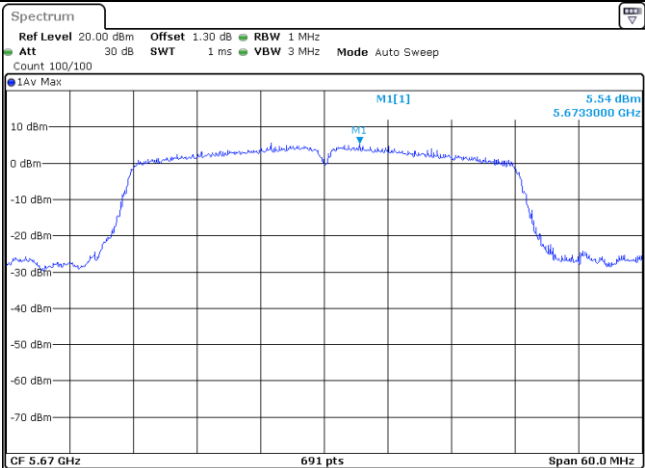


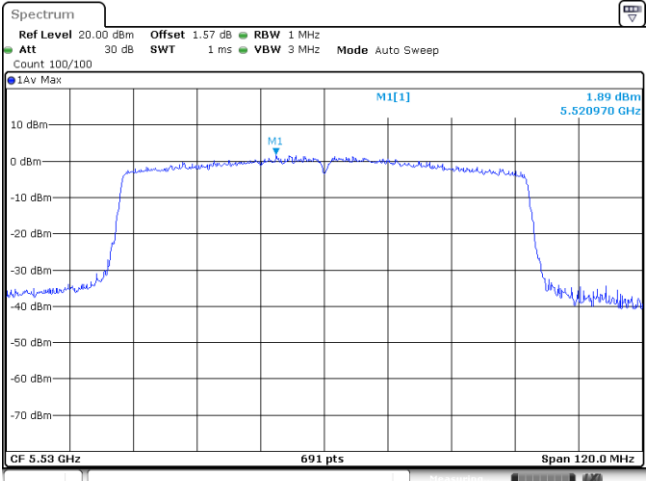
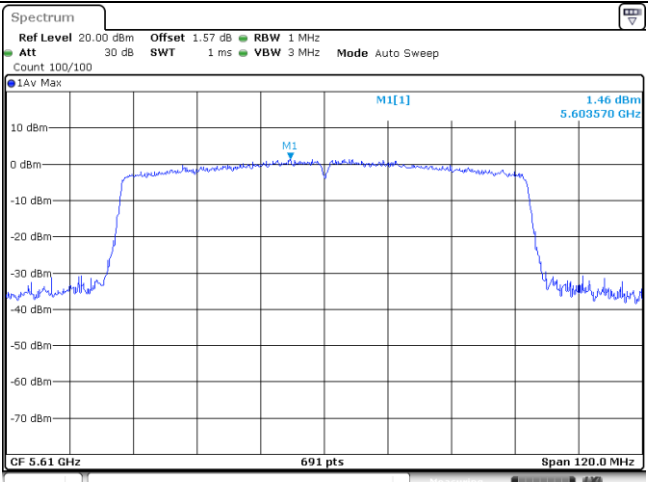
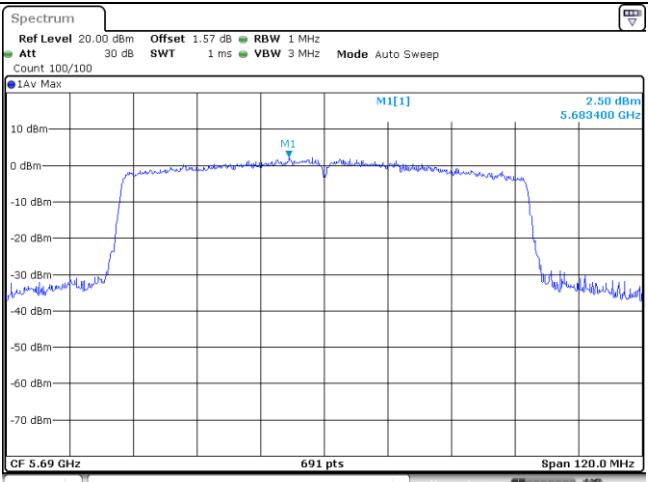
Band III		802.11ac (HT20)
CH _L	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.15 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max 7.39 dBm 5.4990010 GHz CF 5.5 GHz 691 pts Span 30.0 MHz Date: 20 DEC 2019 13:22:53</p>	
CH _M	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.15 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max 7.43 dBm 5.5975690 GHz CF 5.6 GHz 691 pts Span 30.0 MHz Date: 20 DEC 2019 13:23:45</p>	
CH _H	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.15 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max 7.09 dBm 5.6987410 GHz CF 5.7 GHz 691 pts Span 30.0 MHz Date: 20 DEC 2019 13:24:37</p>	

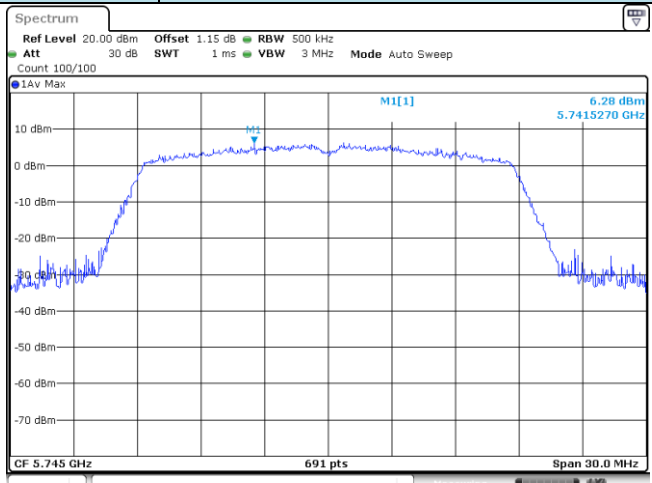
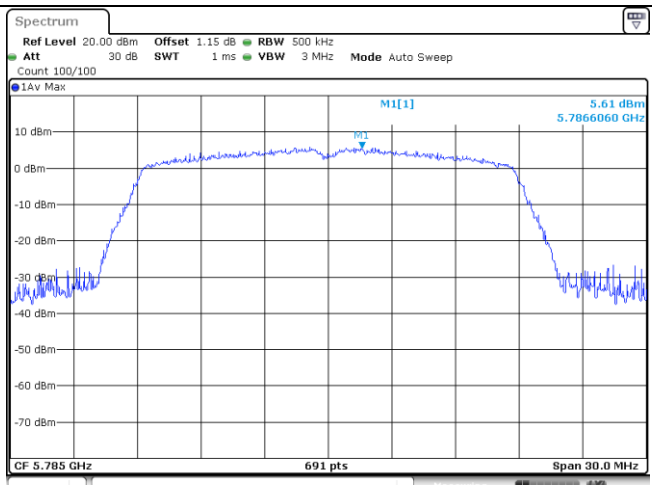
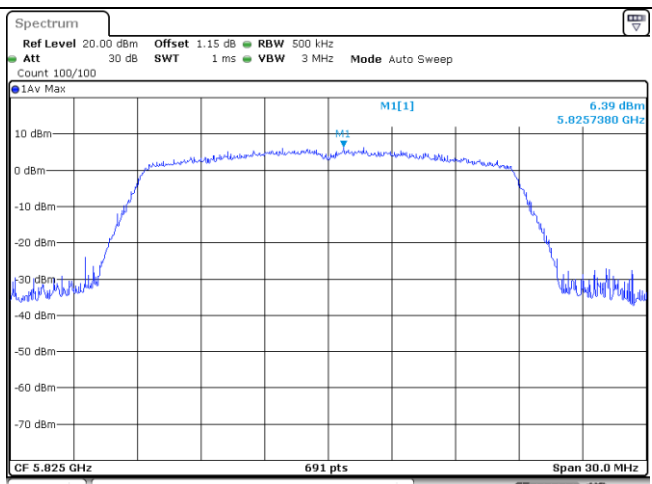
Band III		802.11n (HT20)
CH _L	<p>The spectrum plot for channel CH_L shows a signal centered at 5.55 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in GHz, with a span of 30.0 MHz. The signal is approximately 5 dBm wide. A peak is marked at 8.31 dBm at 5.5010420 GHz. The plot includes parameters: Ref Level 20.00 dBm, Att 30 dB, Offset 1.15 dB, RBW 1 MHz, SWT 1 ms, VBW 3 MHz, Mode Auto Sweep, Count 100/100, and IAv Max. The center frequency (CF) is 5.5 GHz and there are 691 points.</p>	
CH _M	<p>The spectrum plot for channel CH_M shows a signal centered at 5.65 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in GHz, with a span of 30.0 MHz. The signal is approximately 5 dBm wide. A peak is marked at 7.90 dBm at 5.5971780 GHz. The plot includes parameters: Ref Level 20.00 dBm, Att 30 dB, Offset 1.15 dB, RBW 1 MHz, SWT 1 ms, VBW 3 MHz, Mode Auto Sweep, Count 100/100, and IAv Max. The center frequency (CF) is 5.6 GHz and there are 691 points.</p>	
CH _H	<p>The spectrum plot for channel CH_H shows a signal centered at 5.75 GHz. The y-axis represents power in dBm, ranging from -70 to 10. The x-axis represents frequency in GHz, with a span of 30.0 MHz. The signal is approximately 5 dBm wide. A peak is marked at 8.04 dBm at 5.6976560 GHz. The plot includes parameters: Ref Level 20.00 dBm, Att 30 dB, Offset 1.15 dB, RBW 1 MHz, SWT 1 ms, VBW 3 MHz, Mode Auto Sweep, Count 100/100, and IAv Max. The center frequency (CF) is 5.7 GHz and there are 691 points.</p>	

Band III		802.11a
CH _L	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.14 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max</p> <p>8.46 dBm 5.5007380 GHz</p> <p>CF 5.5 GHz 691 pts Span 30.0 MHz</p> <p>Date: 20 DEC 2019 11:37:08</p>	
CH _M	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.14 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max</p> <p>7.81 dBm 5.5988710 GHz</p> <p>CF 5.6 GHz 691 pts Span 30.0 MHz</p> <p>Date: 20 DEC 2019 11:38:03</p>	
CH _H	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.14 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max</p> <p>8.54 dBm 5.7015200 GHz</p> <p>CF 5.7 GHz 691 pts Span 30.0 MHz</p> <p>Date: 20 DEC 2019 11:39:10</p>	

Band III		802.11ac (HT40)
CH _L	<p> Spectrum Ref Level 20.00 dBm Offset 1.29 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max 5.36 dBm 5.5115630 GHz CF 5.51 GHz 691 pts Span 60.0 MHz Date: 20 DEC 2019 13:26:14 </p>	
CH _M	<p> Spectrum Ref Level 20.00 dBm Offset 1.29 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max 4.33 dBm 5.5986110 GHz CF 5.59 GHz 691 pts Span 60.0 MHz Date: 20 DEC 2019 13:27:15 </p>	
CH _H	<p> Spectrum Ref Level 20.00 dBm Offset 1.29 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 IAv Max 4.80 dBm 5.6686980 GHz CF 5.67 GHz 691 pts Span 60.0 MHz Date: 20 DEC 2019 13:28:10 </p>	

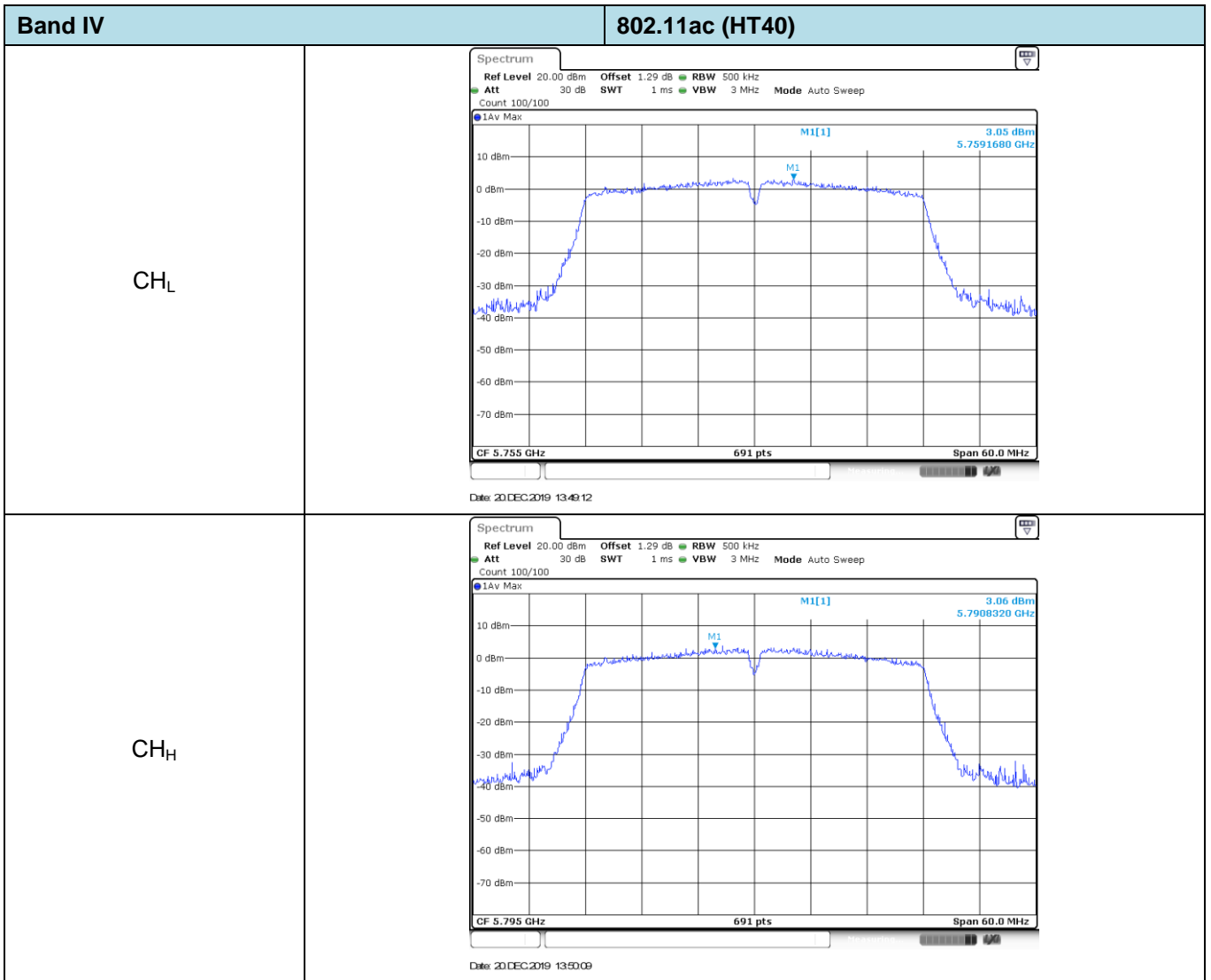
Band III		802.11n (HT40)
CH _L	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.29 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100</p> <p>IAv Max</p> <p>M1[1] 5.37 dBm 5.513890 GHz</p> <p>CF 5.51 GHz 691 pts Span 60.0 MHz</p> <p>Date: 20 DEC 2019 11:44:20</p>	
CH _M	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.30 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100</p> <p>IAv Max</p> <p>M1[1] 4.81 dBm 5.5939940 GHz</p> <p>CF 5.59 GHz 691 pts Span 60.0 MHz</p> <p>Date: 20 DEC 2019 11:45:18</p>	
CH _H	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.30 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100</p> <p>IAv Max</p> <p>M1[1] 5.54 dBm 5.6733000 GHz</p> <p>CF 5.67 GHz 691 pts Span 60.0 MHz</p> <p>Date: 20 DEC 2019 13:21:40</p>	

Band III		802.11ac (HT80)
CH _L	 <p>1.89 dBm 5.520970 GHz</p> <p>CF 5.53 GHz 691 pts Span 120.0 MHz</p> <p>Date: 20 DEC 2019 13:29:14</p>	
CH _M	 <p>1.46 dBm 5.603570 GHz</p> <p>CF 5.61 GHz 691 pts Span 120.0 MHz</p> <p>Date: 20 DEC 2019 13:30:12</p>	
CH _H	 <p>2.50 dBm 5.683400 GHz</p> <p>CF 5.69 GHz 691 pts Span 120.0 MHz</p> <p>Date: 20 DEC 2019 13:31:05</p>	

Band IV		802.11ac (HT20)
CH _L	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.15 dB RBW 500 kHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100</p> <p>IAv Max</p> <p>6.28 dBm 5.7415270 GHz</p> <p>CF 5.745 GHz 691 pts Span 30.0 MHz</p> <p>Date: 20 DEC 2019 13:46:00</p>	
CH _M	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.15 dB RBW 500 kHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100</p> <p>IAv Max</p> <p>5.61 dBm 5.7866060 GHz</p> <p>CF 5.785 GHz 691 pts Span 30.0 MHz</p> <p>Date: 20 DEC 2019 13:47:02</p>	
CH _H	 <p>Spectrum</p> <p>Ref Level 20.00 dBm Offset 1.15 dB RBW 500 kHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100</p> <p>IAv Max</p> <p>6.39 dBm 5.8257380 GHz</p> <p>CF 5.825 GHz 691 pts Span 30.0 MHz</p> <p>Date: 20 DEC 2019 13:47:59</p>	

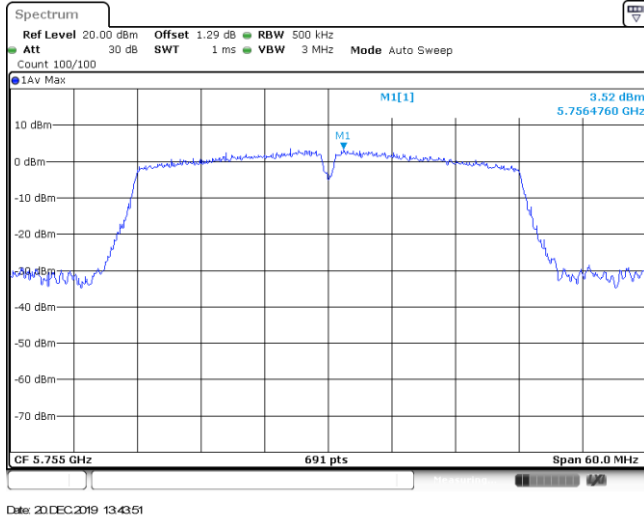
Band IV		802.11n (HT20)
CH _L		
CH _M		
CH _H		

Band IV		802.11a
CH _L		
CH _M		
CH _H		

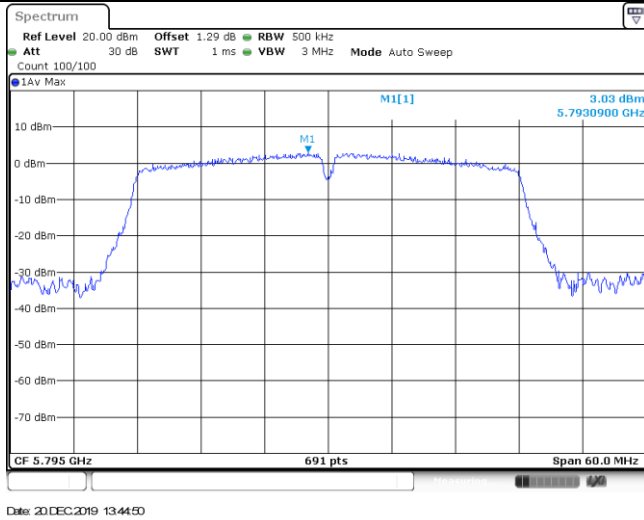


Band IV **802.11n (HT40)**

CH_L

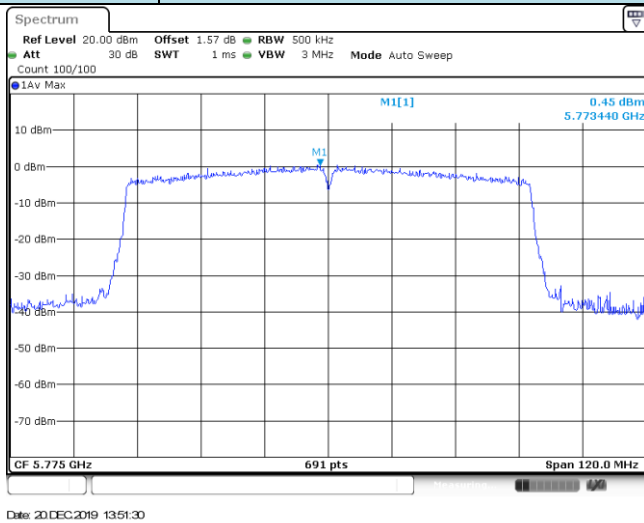


CH_H



Band IV **802.11ac (HT80)**

CH_M



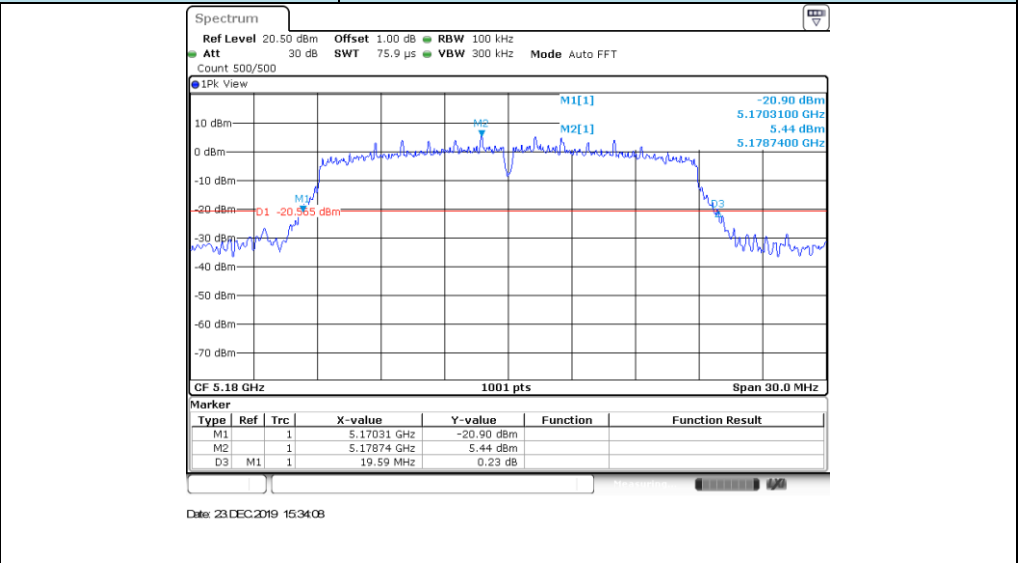
Appendix C: 26dB bandwidth

Band	Bandwidth (MHz)	Type	Channel	26dB bandwidth (MHz)	Result
I	20	802.11ac	CH _L	19.59	Pass
			CH _M	19.50	
			CH _H	19.86	
		802.11n	CH _L	19.38	Pass
			CH _M	19.68	
			CH _H	19.74	
		802.11a	CH _L	18.90	Pass
			CH _M	18.69	
			CH _H	18.84	
	40	802.11ac	CH _L	38.22	Pass
			CH _H	38.64	
		802.11n	CH _L	38.40	Pass
CH _H			38.46		
80	802.11ac	CH _M	78.12	Pass	
II	20	802.11ac	CH _L	20.46	Pass
			CH _M	20.16	
			CH _H	20.46	
		802.11n	CH _L	20.52	Pass
			CH _M	20.40	
			CH _H	20.46	
		802.11a	CH _L	20.16	Pass
			CH _M	20.13	
			CH _H	20.04	
	40	802.11ac	CH _L	42.42	Pass
			CH _H	40.92	
		802.11n	CH _L	41.28	Pass
			CH _H	41.10	
	80	802.11ac	CH _M	81.96	Pass

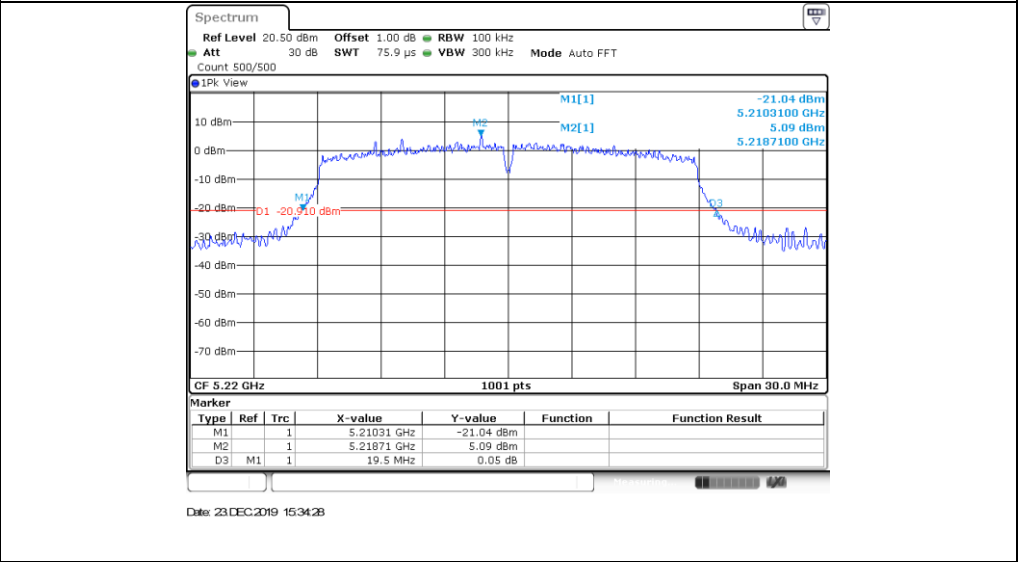
Band	Bandwidth (MHz)	Type	Channel	26dB bandwidth (MHz)	Result
III	20	802.11ac	CH _L	20.40	Pass
			CH _M	20.46	
			CH _H	20.40	
		802.11n	CH _L	20.37	Pass
			CH _M	20.13	
			CH _H	20.28	
		802.11a	CH _L	19.98	Pass
			CH _M	20.07	
			CH _H	19.86	
	40	802.11ac	CH _L	40.92	Pass
			CH _M	41.04	
			CH _H	41.22	
		802.11n	CH _L	41.10	Pass
			CH _M	40.92	
			CH _H	40.92	
80	802.11ac	CH _L	81.36	Pass	
		CH _M	81.60		
		CH _H	81.24		

Band I **802.11ac (HT20)**

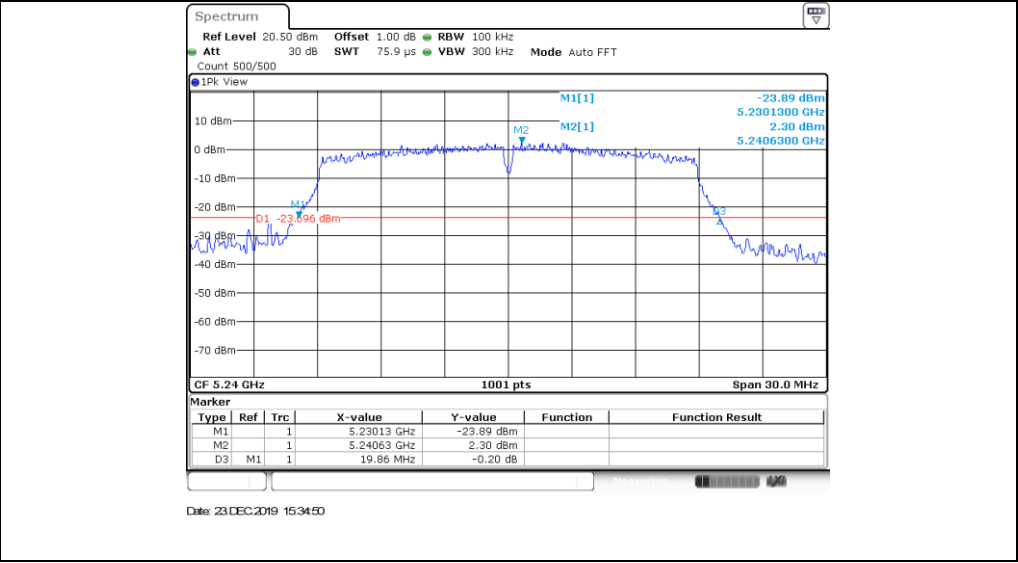
CH_L



CH_M

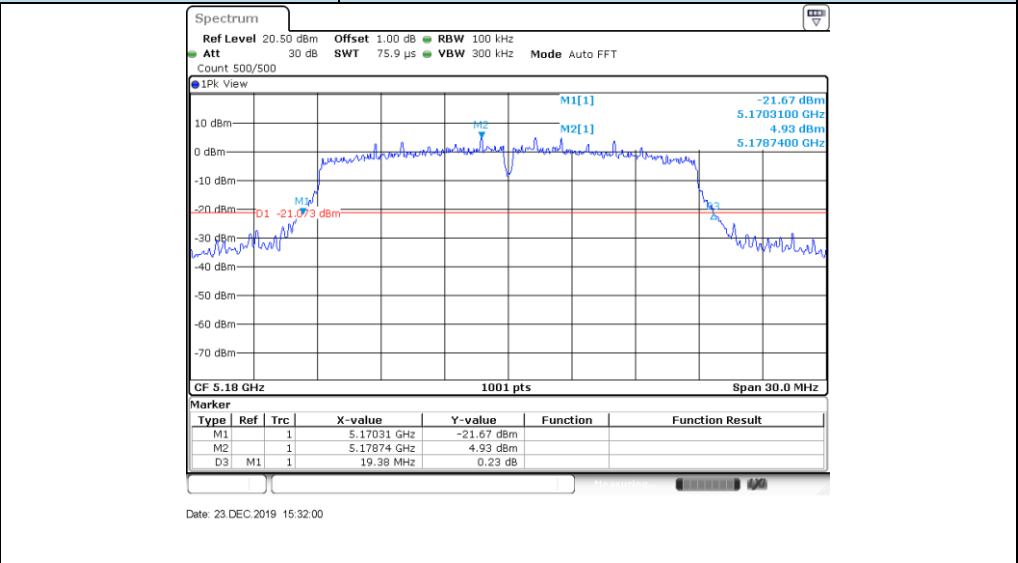


CH_H

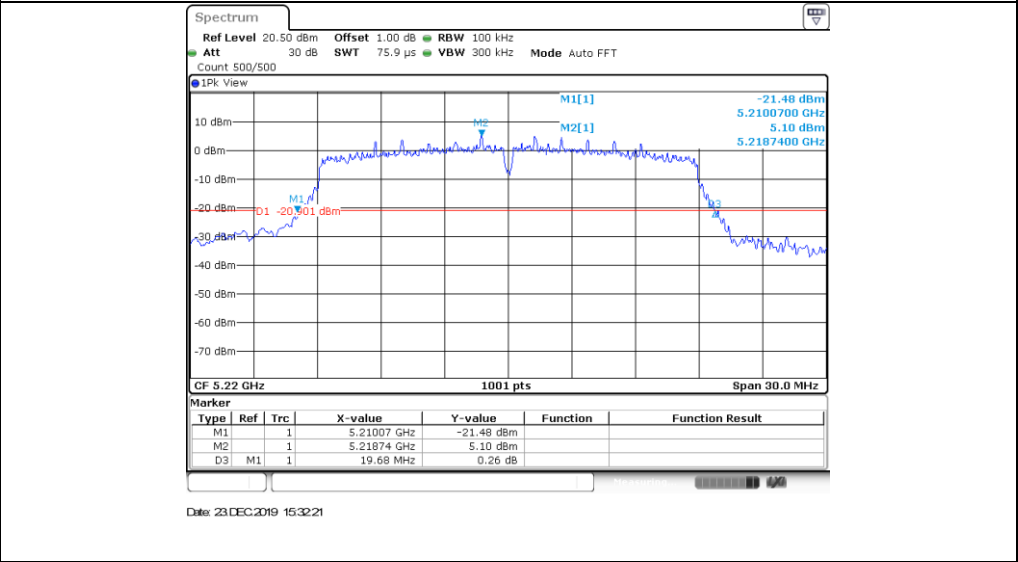


Band I **802.11n (HT20)**

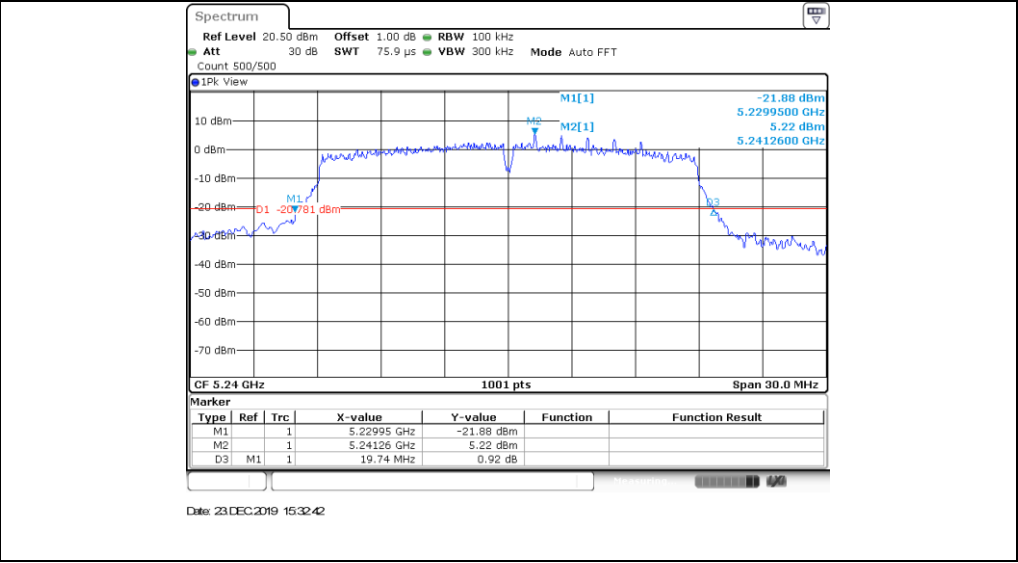
CH_L



CH_M



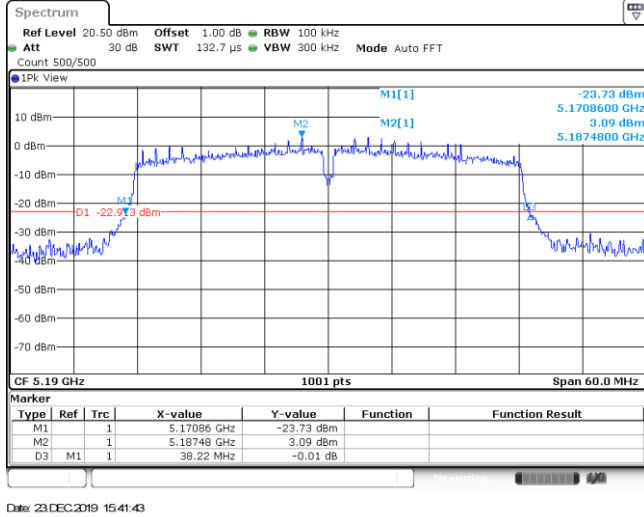
CH_H



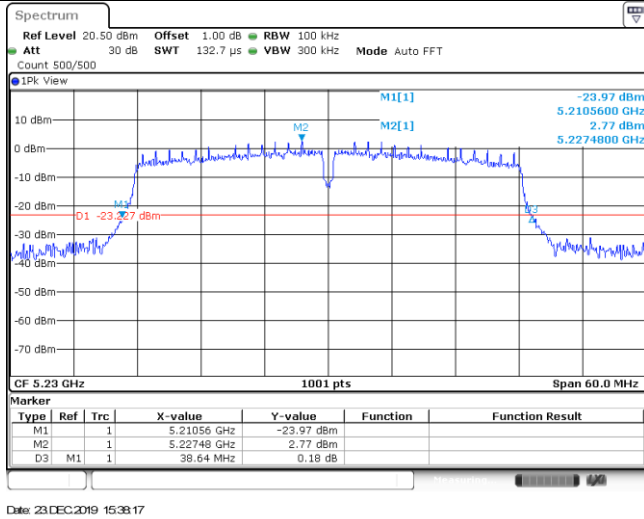
Band I		802.11a																												
CH _L	<p> Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 500/500 IPK View CF 5.18 GHz 1001 pts Span 30.0 MHz </p> <table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td>1</td> <td>5.17043 GHz</td> <td>-21.37 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td>1</td> <td>5.18126 GHz</td> <td>5.15 dBm</td> <td></td> <td></td> </tr> <tr> <td>D3</td> <td>M1</td> <td>1</td> <td>18.9 MHz</td> <td>0.08 dB</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 23 DEC 2019 15:29:20</p>		Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1	1	5.17043 GHz	-21.37 dBm			M2	1	1	5.18126 GHz	5.15 dBm			D3	M1	1	18.9 MHz	0.08 dB		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																								
M1	1	1	5.17043 GHz	-21.37 dBm																										
M2	1	1	5.18126 GHz	5.15 dBm																										
D3	M1	1	18.9 MHz	0.08 dB																										
CH _M	<p> Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 500/500 IPK View CF 5.22 GHz 1001 pts Span 30.0 MHz </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>1</td> <td>5.21064 GHz</td> <td>-21.30 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td>1</td> <td>5.21874 GHz</td> <td>5.19 dBm</td> <td></td> <td></td> </tr> <tr> <td>D3</td> <td>M1</td> <td>1</td> <td>18.69 MHz</td> <td>0.35 dB</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 23 DEC 2019 15:30:57</p>		Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1	1	5.21064 GHz	-21.30 dBm			M2	1	1	5.21874 GHz	5.19 dBm			D3	M1	1	18.69 MHz	0.35 dB		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																								
M1	1	1	5.21064 GHz	-21.30 dBm																										
M2	1	1	5.21874 GHz	5.19 dBm																										
D3	M1	1	18.69 MHz	0.35 dB																										
CH _H	<p> Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 500/500 IPK View CF 5.24 GHz 1001 pts Span 30.0 MHz </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>1</td> <td>5.23055 GHz</td> <td>-21.92 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td>1</td> <td>5.23874 GHz</td> <td>5.17 dBm</td> <td></td> <td></td> </tr> <tr> <td>D3</td> <td>M1</td> <td>1</td> <td>18.84 MHz</td> <td>0.70 dB</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 23 DEC 2019 15:31:16</p>		Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1	1	5.23055 GHz	-21.92 dBm			M2	1	1	5.23874 GHz	5.17 dBm			D3	M1	1	18.84 MHz	0.70 dB		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																								
M1	1	1	5.23055 GHz	-21.92 dBm																										
M2	1	1	5.23874 GHz	5.17 dBm																										
D3	M1	1	18.84 MHz	0.70 dB																										

Band I **802.11ac (HT40)**

CH_L

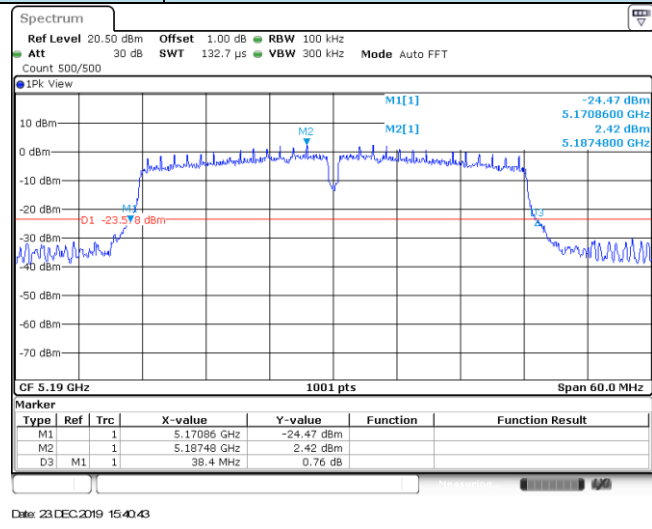


CH_H

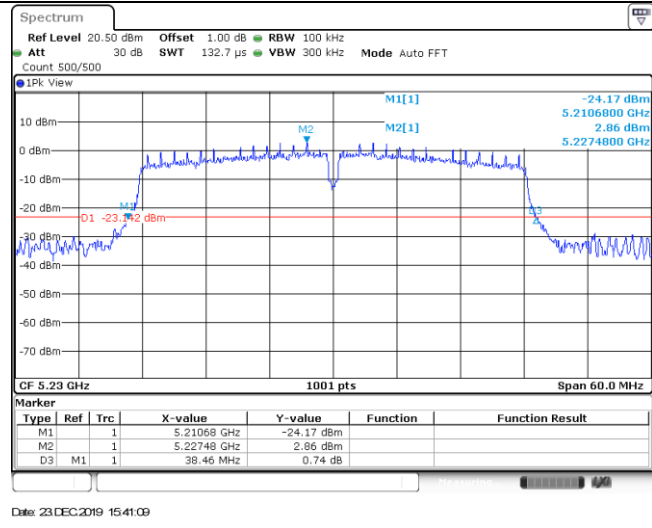


Band I **802.11n (HT40)**

CH_L

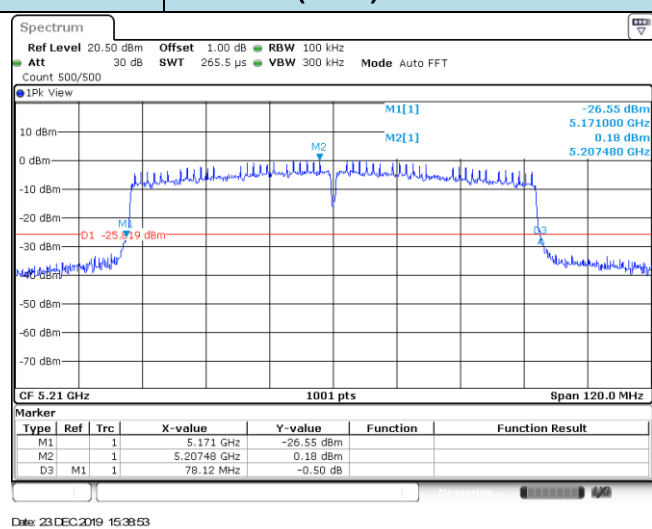


CH_H



Band I **802.11ac (HT80)**

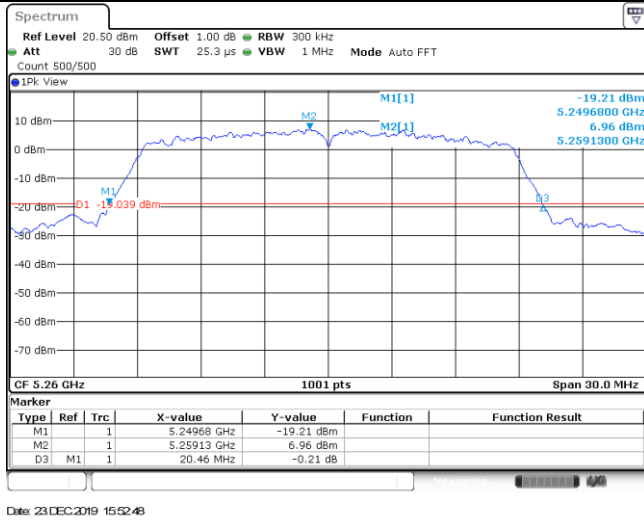
CH_M



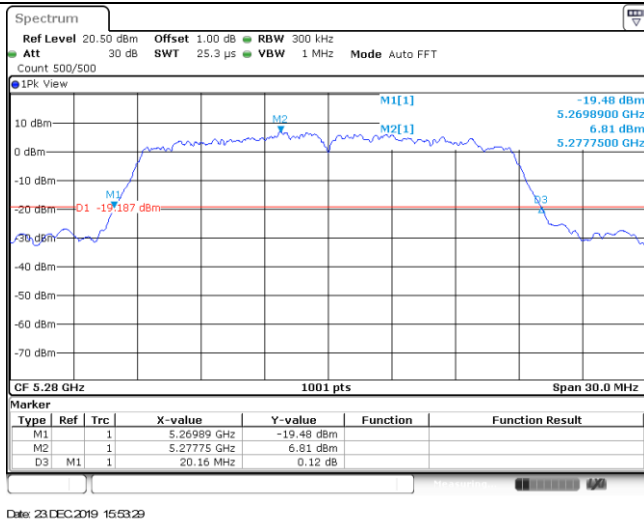
Band II

802.11ac (HT20)

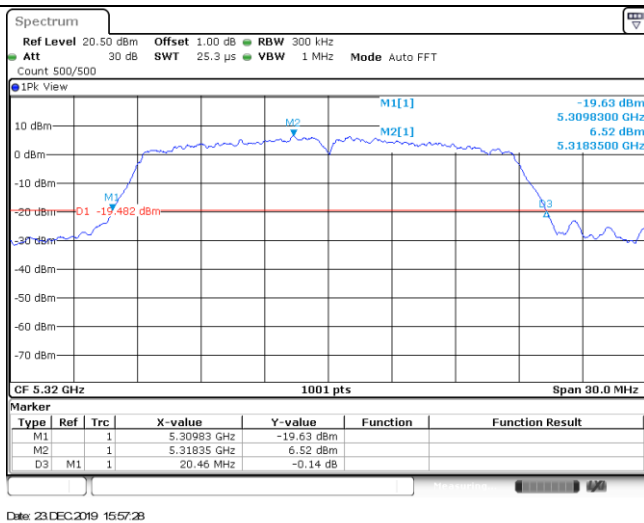
CH_L



CH_M



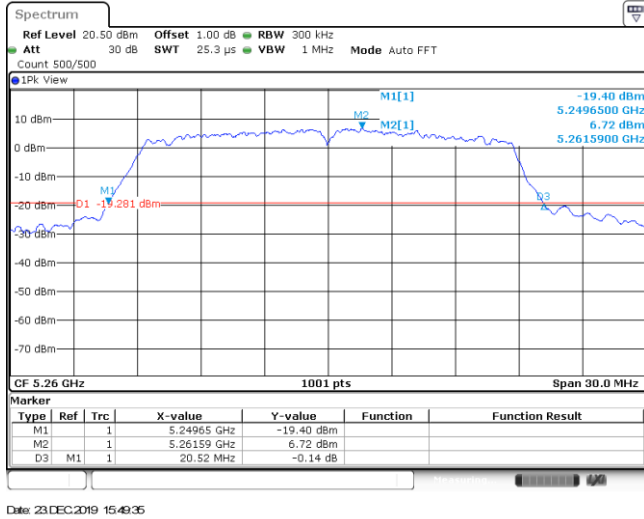
CH_H



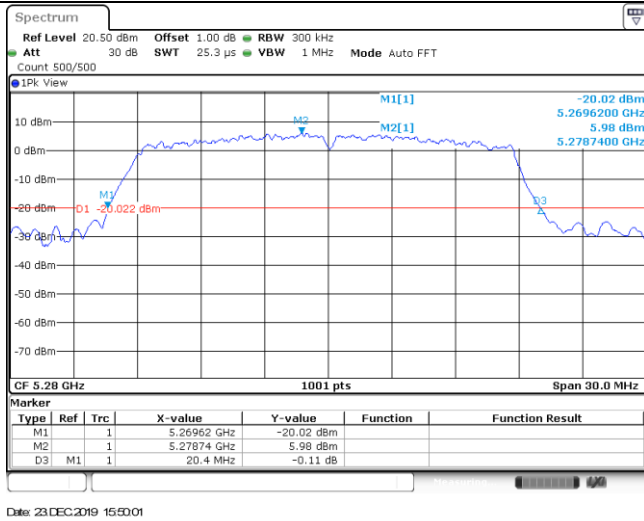
Band II

802.11n (HT20)

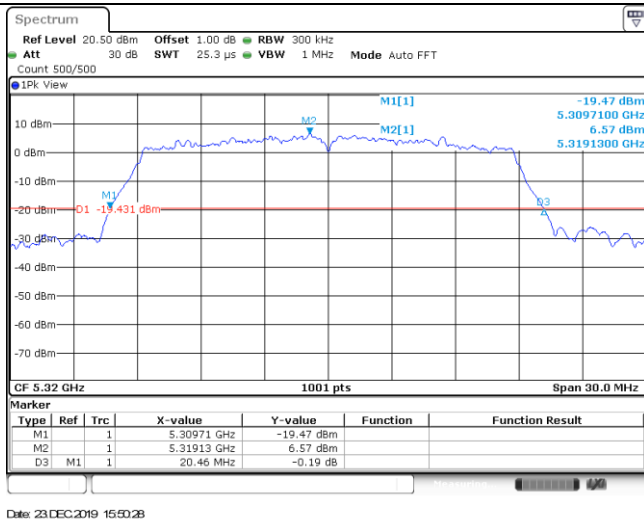
CH_L



CH_M



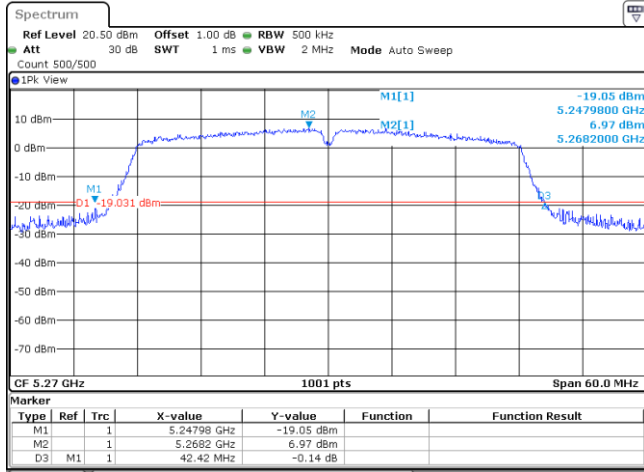
CH_H



Band II		802.11a																												
CH _L	<p>Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 300 kHz Att 30 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT Count 500/500</p> <p>IPK View</p> <p>CF 5.26 GHz 1001 pts Span 30.0 MHz</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>5.24989 GHz</td> <td>-19.51 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>5.26228 GHz</td> <td>6.77 dBm</td> <td></td> <td></td> </tr> <tr> <td>D3</td> <td>M1</td> <td>1</td> <td>20.16 MHz</td> <td>0.14 dB</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 23 DEC 2019 15:47:34</p>		Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		5.24989 GHz	-19.51 dBm			M2	1		5.26228 GHz	6.77 dBm			D3	M1	1	20.16 MHz	0.14 dB		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																								
M1	1		5.24989 GHz	-19.51 dBm																										
M2	1		5.26228 GHz	6.77 dBm																										
D3	M1	1	20.16 MHz	0.14 dB																										
CH _M	<p>Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 300 kHz Att 30 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT Count 500/500</p> <p>IPK View</p> <p>CF 5.28 GHz 1001 pts Span 30.0 MHz</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>5.26985 GHz</td> <td>-19.34 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>5.27922 GHz</td> <td>7.02 dBm</td> <td></td> <td></td> </tr> <tr> <td>D3</td> <td>M1</td> <td>1</td> <td>20.13 MHz</td> <td>0.15 dB</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 23 DEC 2019 15:48:09</p>		Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		5.26985 GHz	-19.34 dBm			M2	1		5.27922 GHz	7.02 dBm			D3	M1	1	20.13 MHz	0.15 dB		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																								
M1	1		5.26985 GHz	-19.34 dBm																										
M2	1		5.27922 GHz	7.02 dBm																										
D3	M1	1	20.13 MHz	0.15 dB																										
CH _H	<p>Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 300 kHz Att 30 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT Count 500/500</p> <p>IPK View</p> <p>CF 5.32 GHz 1001 pts Span 30.0 MHz</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>5.30995 GHz</td> <td>-20.09 dBm</td> <td></td> <td></td> </tr> <tr> <td>M2</td> <td>1</td> <td></td> <td>5.31931 GHz</td> <td>6.12 dBm</td> <td></td> <td></td> </tr> <tr> <td>D3</td> <td>M1</td> <td>1</td> <td>20.04 MHz</td> <td>0.19 dB</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 23 DEC 2019 15:48:55</p>		Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		5.30995 GHz	-20.09 dBm			M2	1		5.31931 GHz	6.12 dBm			D3	M1	1	20.04 MHz	0.19 dB		
Type	Ref	Trc	X-value	Y-value	Function	Function Result																								
M1	1		5.30995 GHz	-20.09 dBm																										
M2	1		5.31931 GHz	6.12 dBm																										
D3	M1	1	20.04 MHz	0.19 dB																										

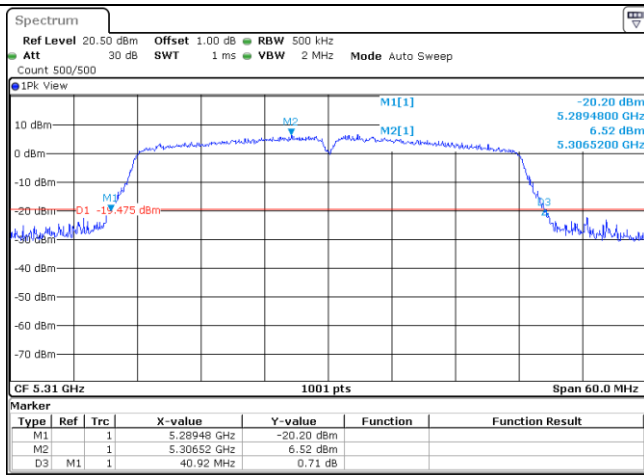
Band II **802.11ac (HT40)**

CH_L



Date: 23 DEC 2019 15:54:49

CH_H

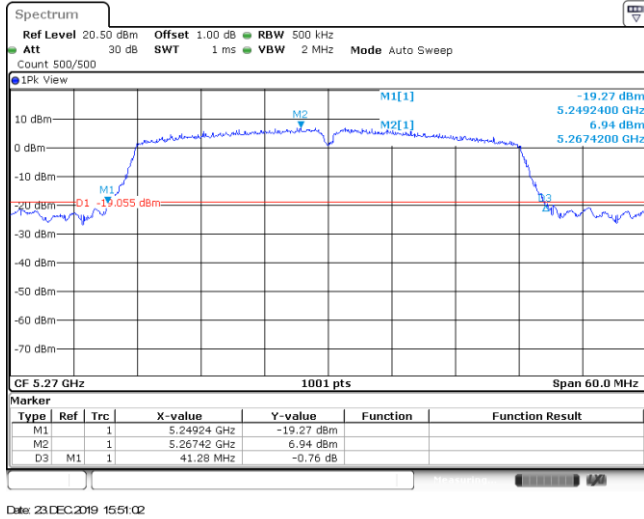


Date: 23 DEC 2019 15:55:15

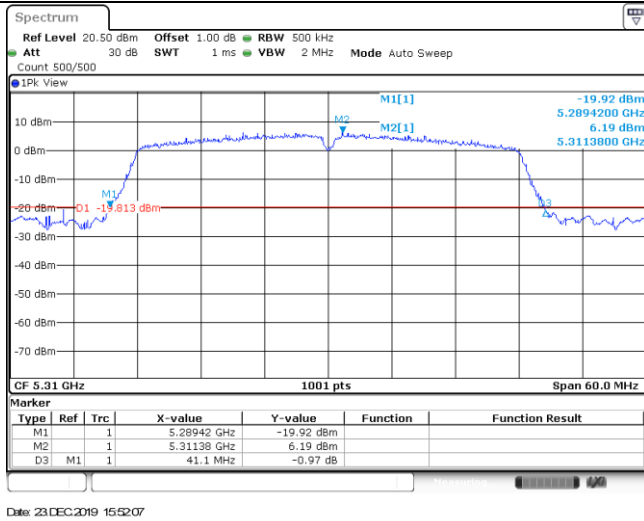
Band II

802.11n (HT40)

CH_L



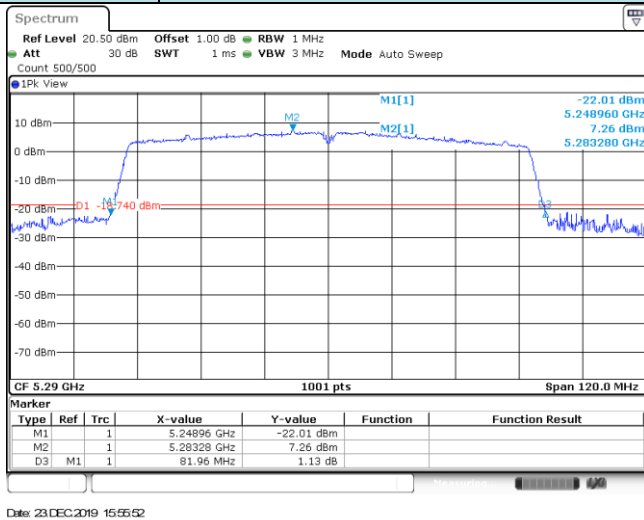
CH_H



Band II

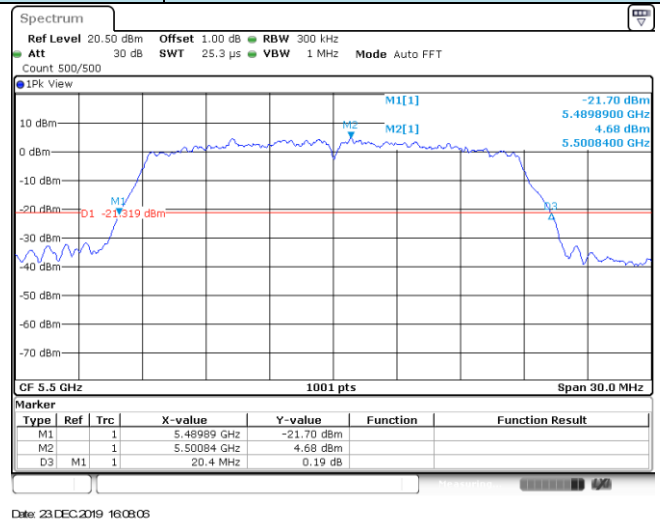
802.11ac (HT80)

CH_M

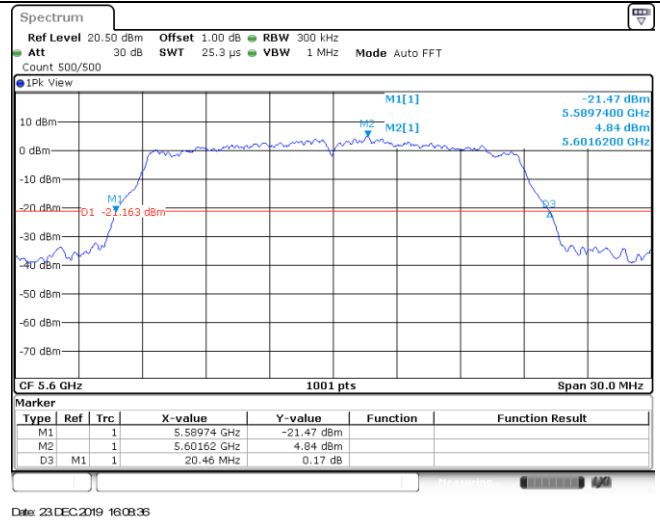


Band III **802.11ac (HT20)**

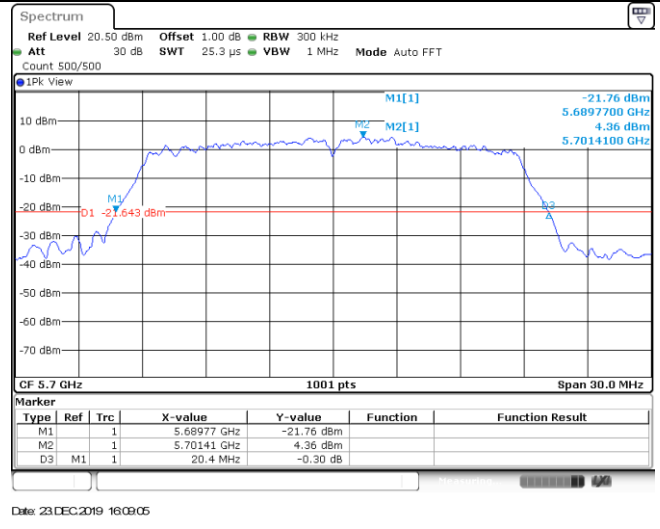
CH_L



CH_M

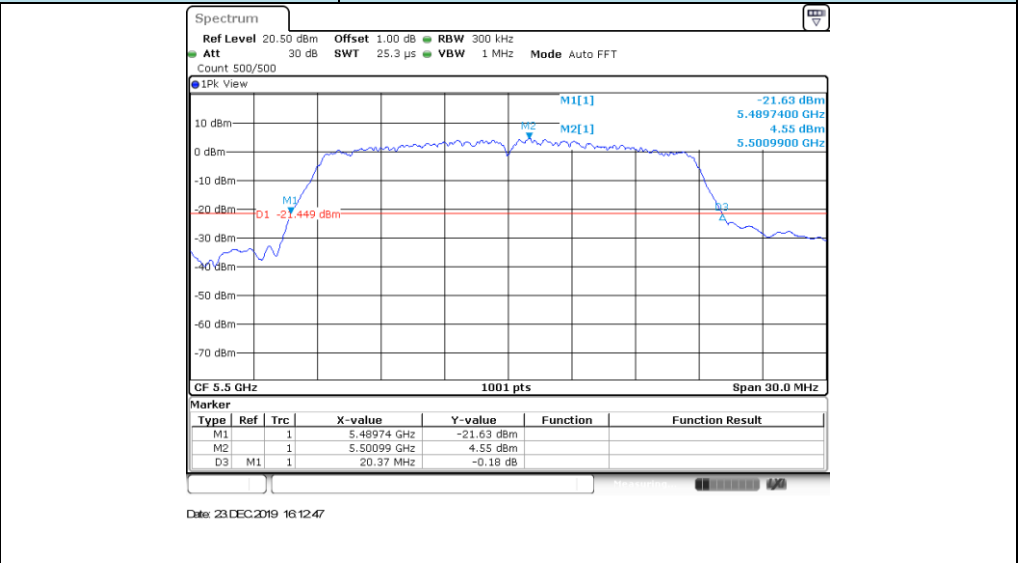


CH_H

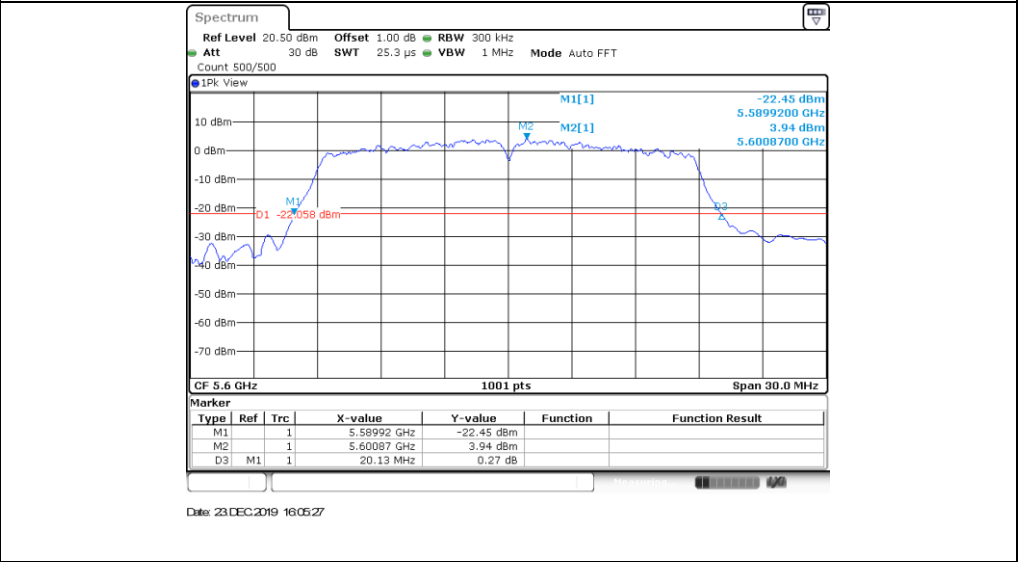


Band III **802.11n (HT20)**

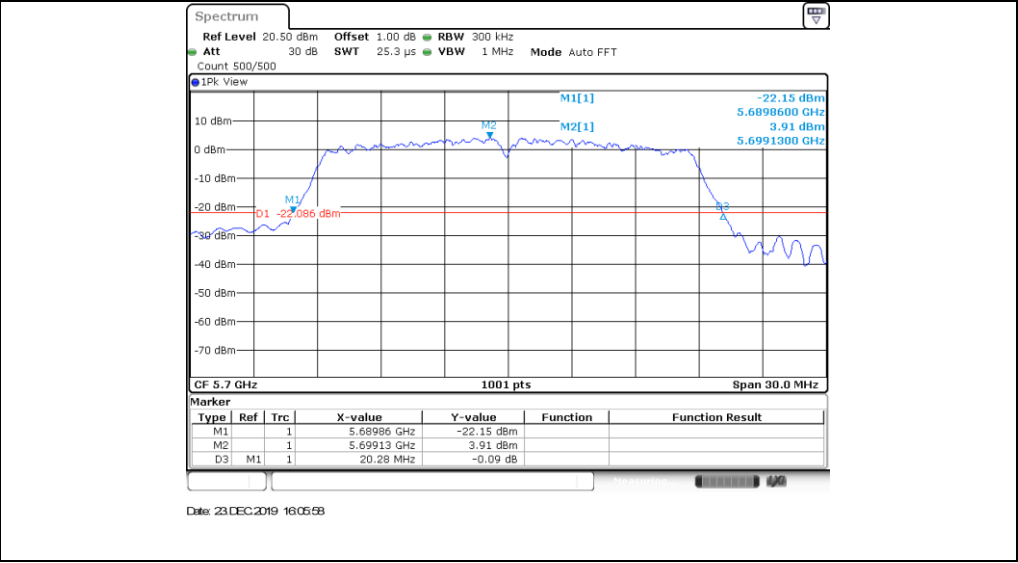
CH_L



CH_M

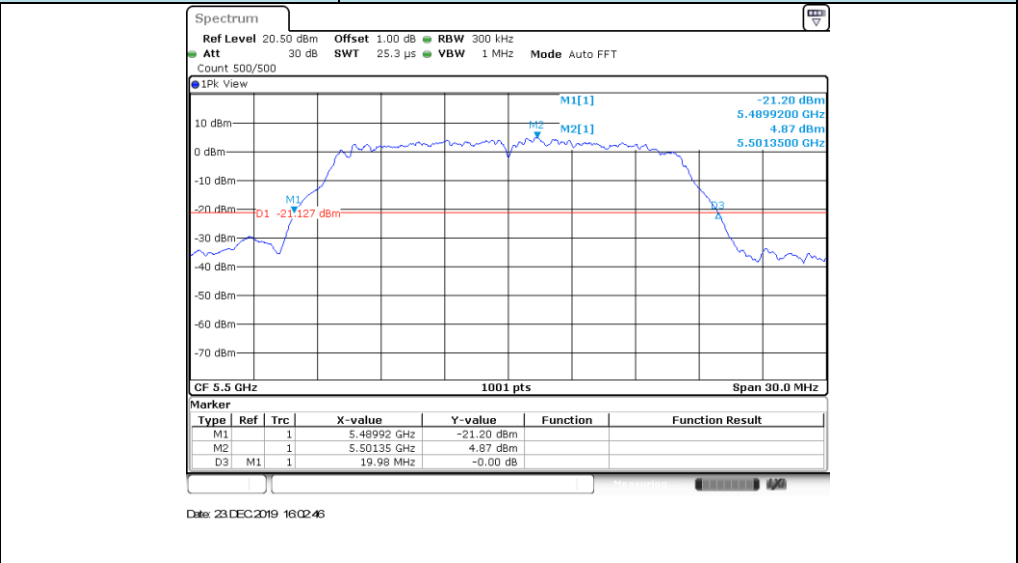


CH_H

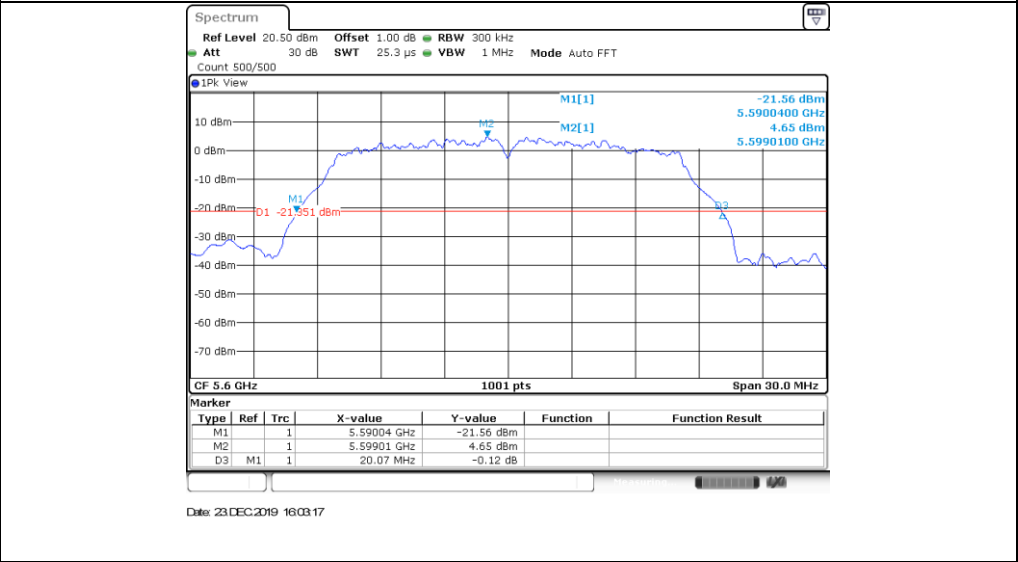


Band III **802.11a**

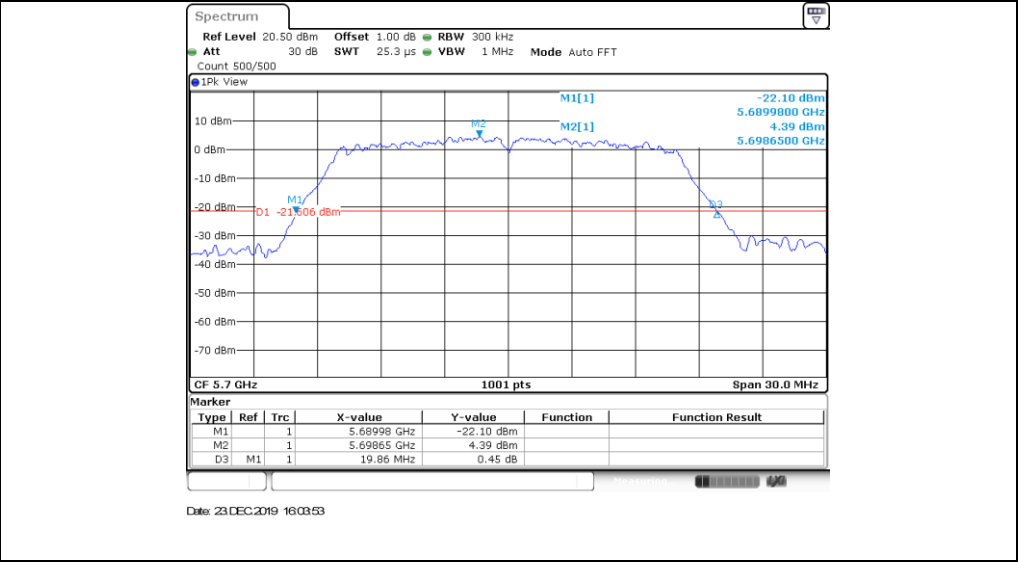
CH_L



CH_M

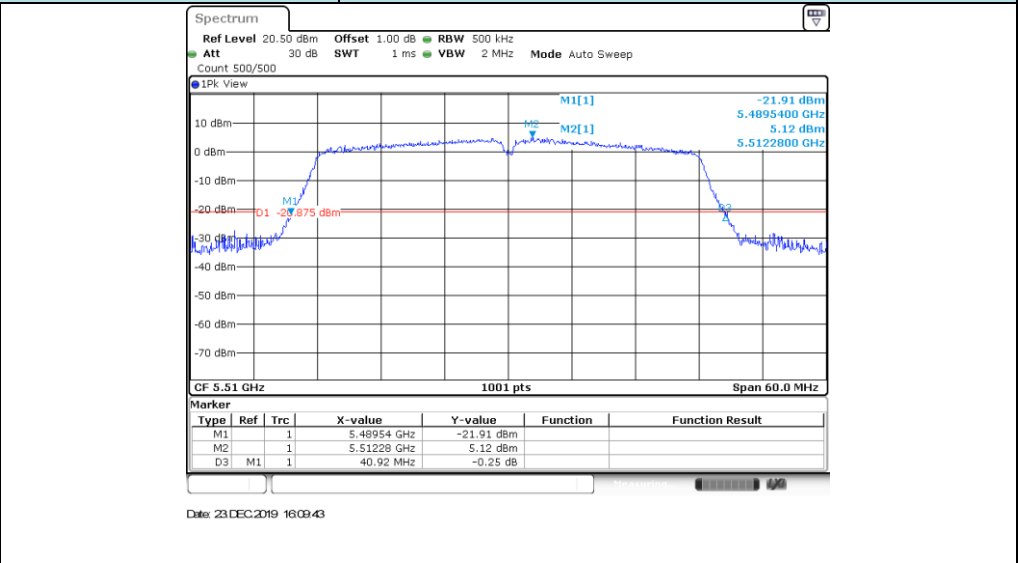


CH_H

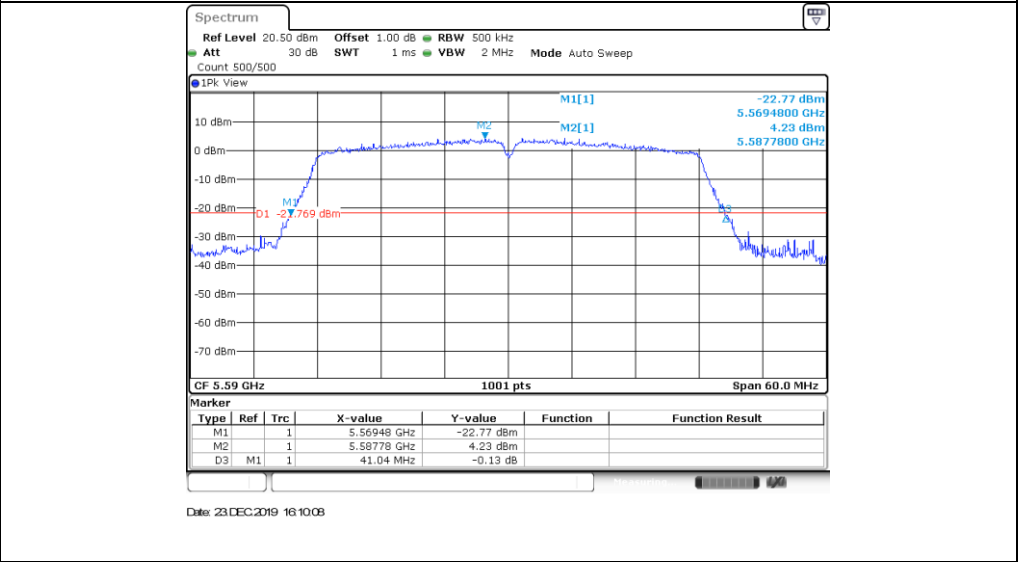


Band III **802.11ac (HT40)**

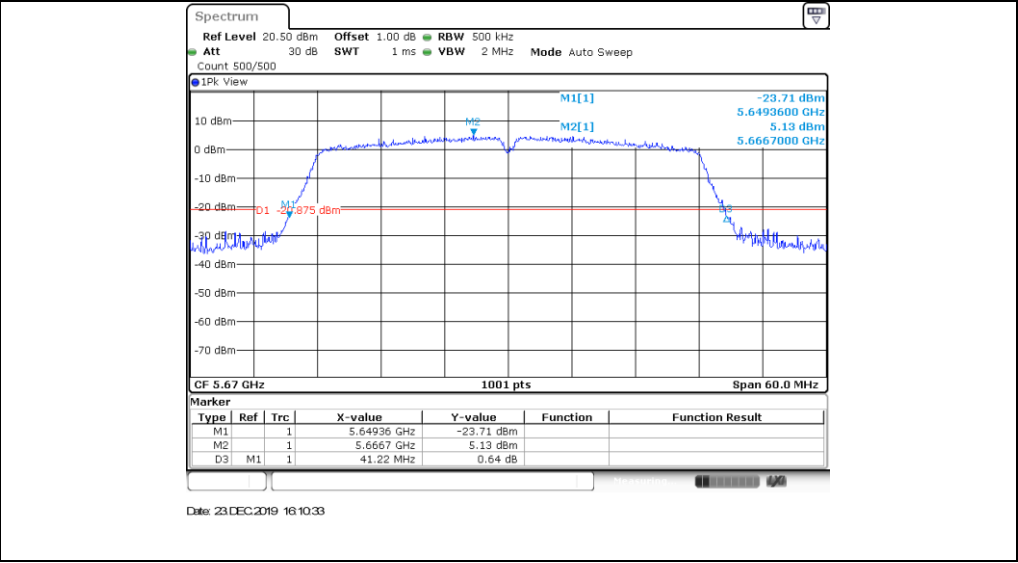
CH_L



CH_M



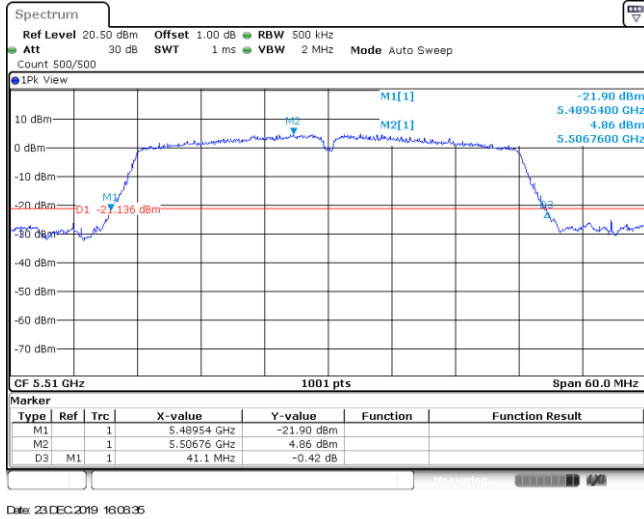
CH_H



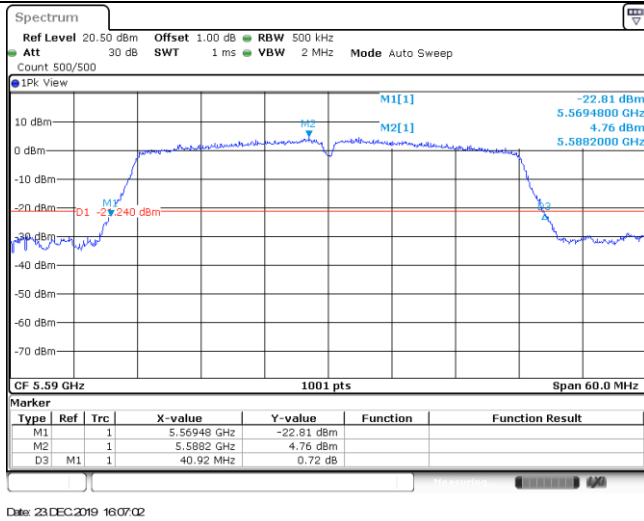
Band III

802.11n (HT40)

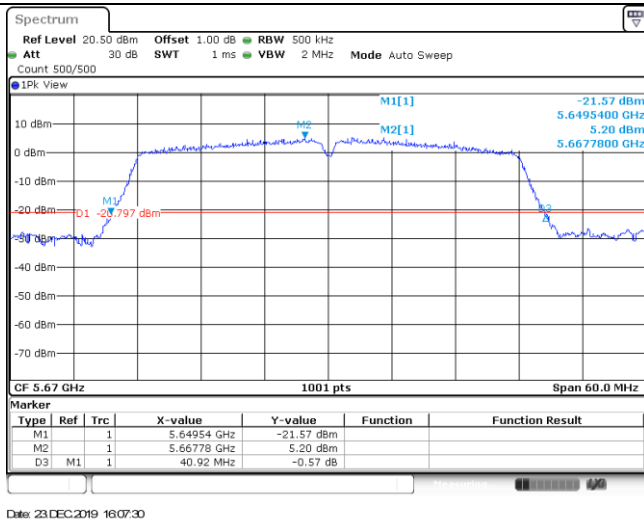
CH_L



CH_M

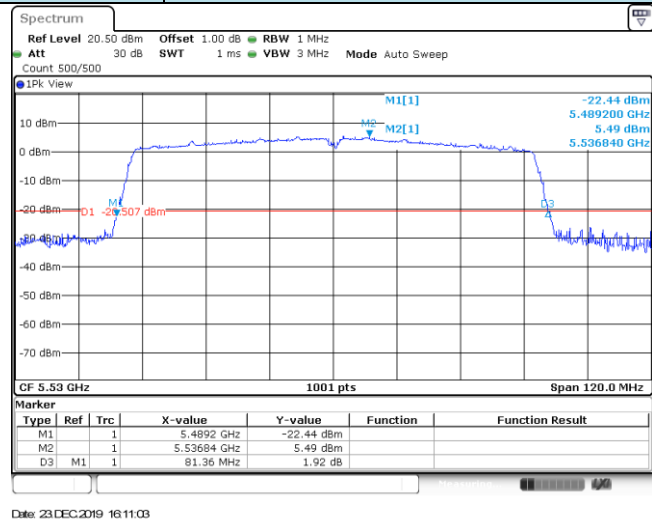


CH_H

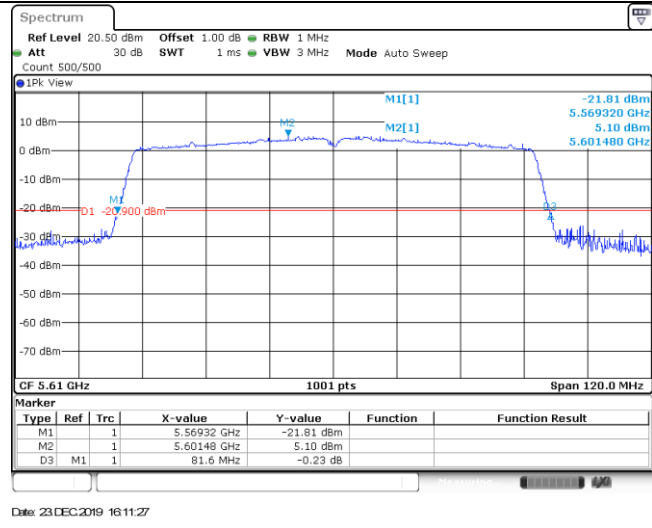


Band III **802.11ac (HT80)**

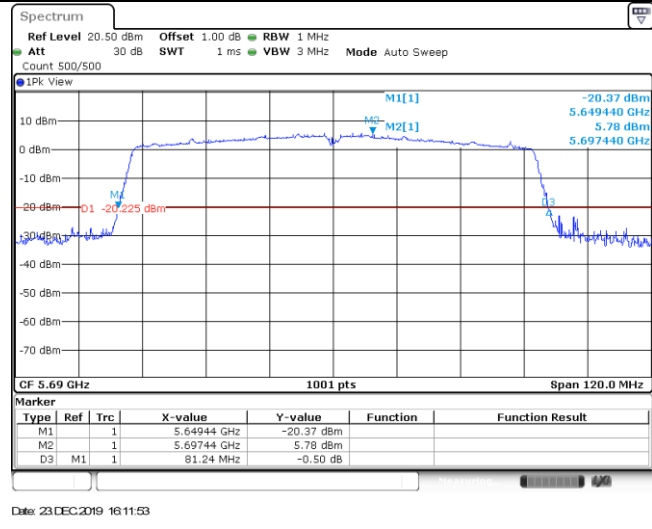
CH_L



CH_M



CH_H



Appendix D: 99% Occupy bandwidth

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwidth (MHz)	Result
I	20	802.11ac	CH _L	17.68	Pass
			CH _M	17.83	
			CH _H	17.56	
		802.11n	CH _L	18.25	Pass
			CH _M	18.04	
			CH _H	18.43	
	802.11a	CH _L	18.01	Pass	
		CH _M	17.32		
		CH _H	18.22		
	40	802.11ac	CH _L	36.02	Pass
			CH _H	36.08	
		802.11n	CH _L	36.14	Pass
CH _H			36.20		
80	802.11ac	CH _M	75.29	Pass	
II	20	802.11ac	CH _L	17.62	Pass
			CH _M	17.62	
			CH _H	17.68	
		802.11n	CH _L	17.80	Pass
			CH _M	17.62	
			CH _H	17.77	
	802.11a	CH _L	16.75	Pass	
		CH _M	16.69		
		CH _H	16.75		
	40	802.11ac	CH _L	36.08	Pass
			CH _H	36.08	
		802.11n	CH _L	36.20	Pass
CH _H			36.20		
80	802.11ac	CH _M	75.29	Pass	

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwidth (MHz)	Result
III	20	802.11ac	CH _L	17.59	Pass
			CH _M	17.62	
			CH _H	17.59	
		802.11n	CH _L	17.65	Pass
			CH _M	17.77	
			CH _H	17.74	
		802.11a	CH _L	16.63	Pass
			CH _M	16.60	
			CH _H	16.57	
	40	802.11ac	CH _L	36.08	Pass
			CH _M	36.02	
			CH _H	36.08	
		802.11n	CH _L	36.08	Pass
			CH _M	36.14	
			CH _H	36.20	
80	802.11ac	CH _L	75.05	Pass	
		CH _M	75.17		
		CH _H	75.05		

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwidth (MHz)	Result
IV	20	802.11ac	CH _L	17.59	Pass
			CH _M	17.59	
			CH _H	17.62	
		802.11n	CH _L	17.77	Pass
			CH _M	17.59	
			CH _H	17.65	
		802.11a	CH _L	16.60	Pass
			CH _M	16.51	
			CH _H	16.63	
	40	802.11ac	CH _L	36.14	Pass
			CH _H	36.08	
		802.11n	CH _L	36.12	Pass
			CH _H	36.12	
	80	802.11ac	CH _M	75.17	Pass