

APPENDIX REPORT

Project No.	SHT2106047304EW	Radio Specification	WIFI 5G
Test sample No.	YPHT20110322004	Model No.	AR3XAT00
Start test date	2021-02-02	Finish date	2021-02-02
Temperature	23.5°C	Humidity	50%
Test Engineer	Hailey Chen	Auditor	Xiaodong Zheo

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	Band Edge	PASS
G	Frequency stability	PASS

Appendix A: Maximum Conducted Output Power

Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Conducted Output Power (dBm)	Limit (dBm)	Result
I	20	802.11ac	CH _L	13.30	98.02	0.09	13.39	24.00	Pass
			CH _M	14.66	93.26	0.30	14.96		
			CH _H	15.46	93.26	0.30	15.76		
		802.11n	CH _L	13.03	97.08	0.13	13.16	24.00	Pass
			CH _M	14.32	97.08	0.13	14.45		
			CH _H	15.29	92.83	0.32	15.61		
		802.11a	CH _L	13.20	94.10	0.26	13.46	24.00	Pass
			CH _M	14.44	96.82	0.14	14.58		
			CH _H	15.45	95.25	0.21	15.66		
	40	802.11ac	CH _L	13.01	93.49	0.29	13.30	24.00	Pass
			CH _H	14.70	90.37	0.44	15.14		
		802.11n	CH _L	13.00	89.42	0.49	13.49	24.00	Pass
			CH _H	14.50	95.10	0.22	14.72		
	80	802.11ac	CH _M	13.95	79.33	1.01	14.96	24.00	Pass
IV	20	802.11ac	CH _L	14.21	94.59	0.24	14.45	30.00	Pass
			CH _M	13.93	93.33	0.30	14.23		
			CH _H	13.40	93.73	0.28	13.68		
		802.11n	CH _L	14.23	93.69	0.28	14.51	30.00	Pass
			CH _M	14.07	92.89	0.32	14.39		
			CH _H	13.64	93.23	0.30	13.94		
		802.11a	CH _L	13.92	94.86	0.23	14.15	30.00	Pass
			CH _M	13.87	92.93	0.32	14.19		
			CH _H	13.54	94.10	0.26	13.80		
	40	802.11ac	CH _L	13.75	89.68	0.47	14.22	30.00	Pass
			CH _H	13.58	91.19	0.40	13.98		
		802.11n	CH _L	13.71	85.16	0.70	14.41	30.00	Pass
			CH _H	14.43	91.90	0.37	14.80		
	80	802.11ac	CH _M	13.49	87.65	0.57	14.06	30.00	Pass

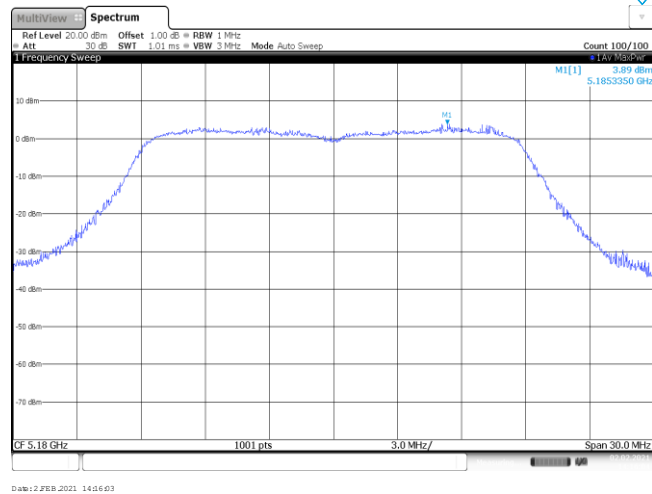
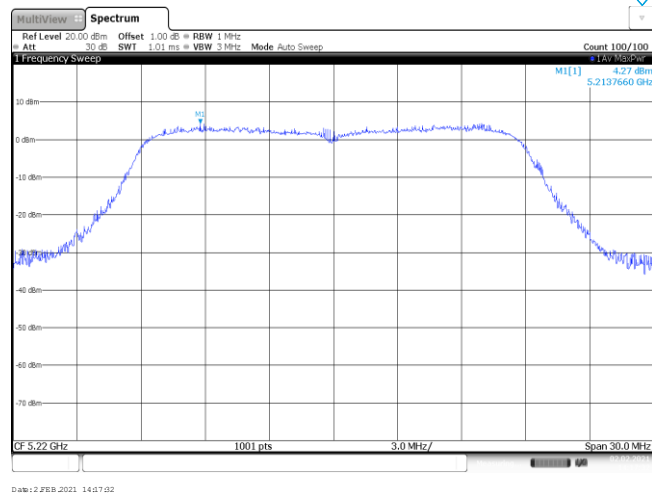
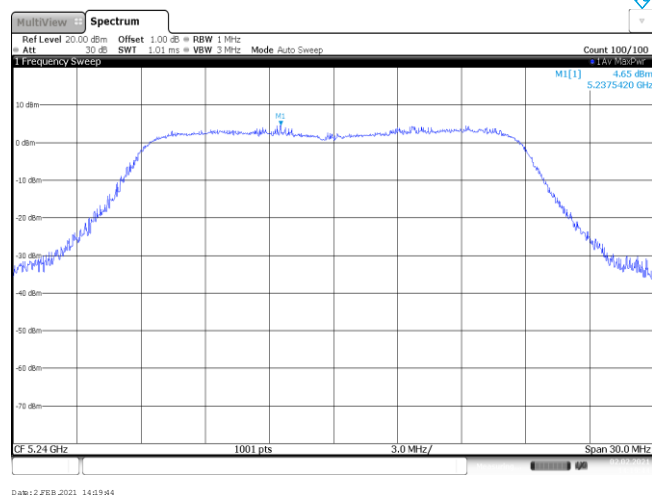
NOTE: duty cycle factor =10LOG(1/ duty cycle)

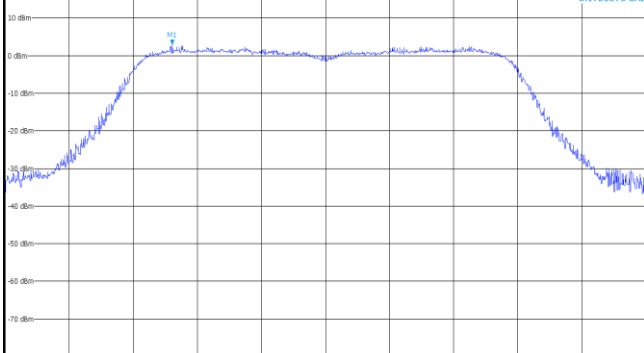
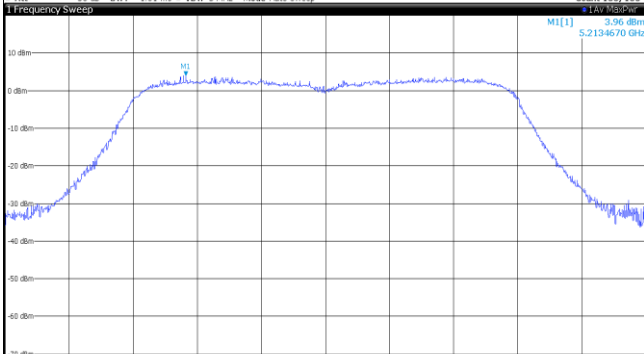
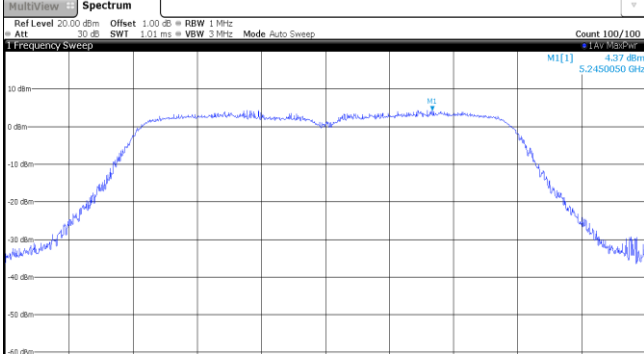
Appendix B: Maximum Power Spectral Density

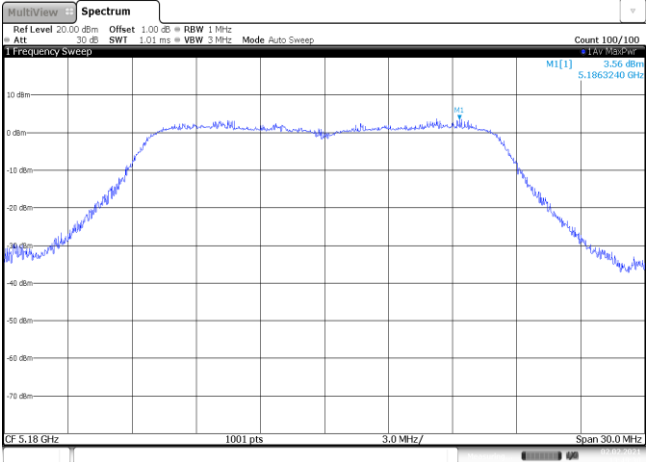
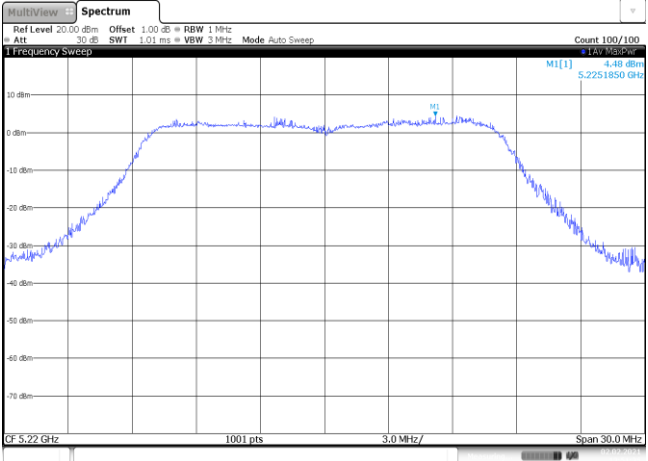
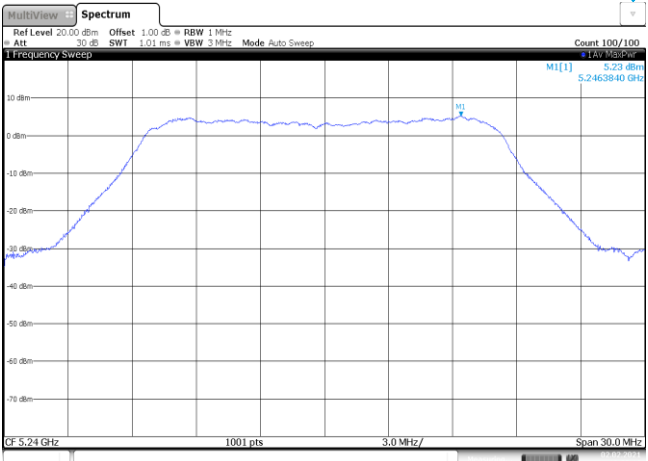
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
I	20	802.11ac	CH _L	3.89	98.02	0.09	3.98	11.00	Pass
			CH _M	4.27	93.26	0.30	4.57		
			CH _H	4.65	93.26	0.30	4.95		
		802.11n	CH _L	3.07	97.08	0.13	3.20	11.00	Pass
			CH _M	3.96	97.08	0.13	4.09		
			CH _H	4.37	92.83	0.32	4.69		
		802.11a	CH _L	3.56	94.10	0.26	3.82	11.00	Pass
			CH _M	4.48	96.82	0.14	4.62		
			CH _H	5.23	95.25	0.21	5.44		
	40	802.11ac	CH _L	-0.18	93.49	0.29	0.11	11.00	Pass
			CH _H	1.22	90.37	0.44	1.66		
		802.11n	CH _L	0.10	89.42	0.49	0.59	11.00	Pass
			CH _H	0.83	95.10	0.22	1.05		
	80	802.11ac	CH _M	-1.41	79.33	1.01	-0.40	11.00	Pass
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Power Spectral Density (dBm/500KHz)	Limit (dBm/500KHz)	Result
IV	20	802.11ac	CH _L	1.54	94.59	0.24	1.78	30.00	Pass
			CH _M	1.93	93.33	0.30	2.23		
			CH _H	1.11	93.73	0.28	1.39		
		802.11n	CH _L	2.50	93.69	0.28	2.78	30.00	Pass
			CH _M	1.90	92.89	0.32	2.22		
			CH _H	1.25	93.23	0.30	1.55		
		802.11a	CH _L	1.64	94.86	0.23	1.87	30.00	Pass
			CH _M	2.65	92.93	0.32	2.97		
			CH _H	1.35	94.10	0.26	1.61		
	40	802.11ac	CH _L	-1.50	89.68	0.47	-1.03	30.00	Pass
			CH _H	-1.93	91.19	0.40	-1.53		
		802.11n	CH _L	-1.65	85.16	0.70	-0.95	30.00	Pass
			CH _H	-1.06	91.90	0.37	-0.69		
	80	802.11ac	CH _M	-3.66	87.65	0.57	-3.09	30.00	Pass

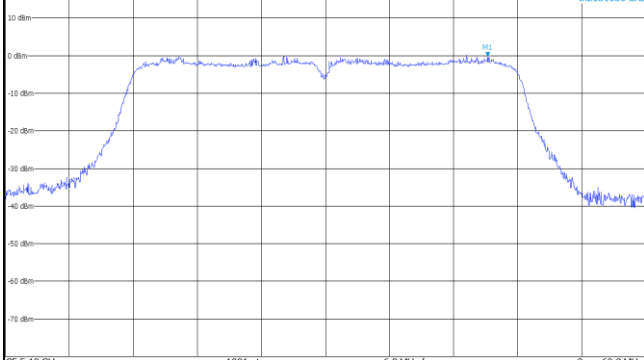
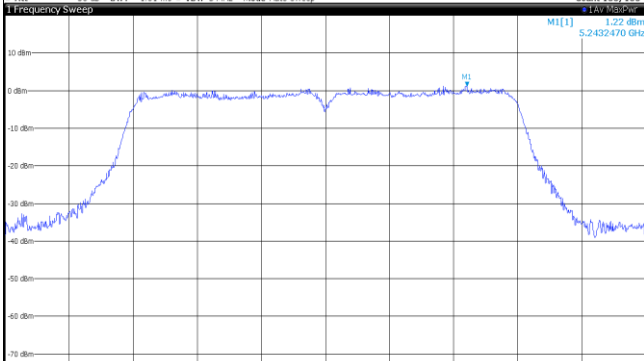
Band I

802.11ac (HT20)

CH_LCH_MCH_H

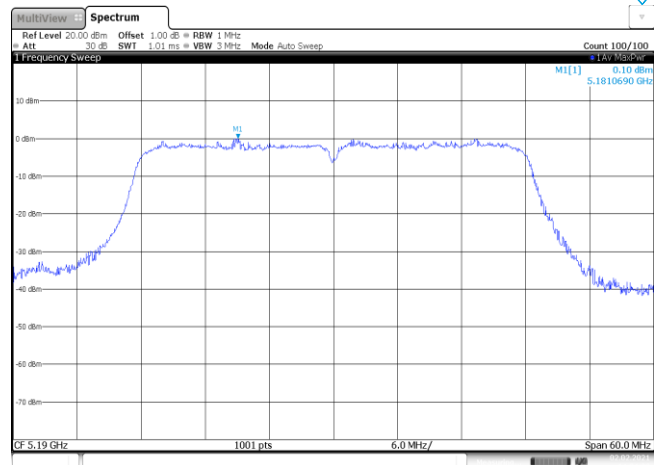
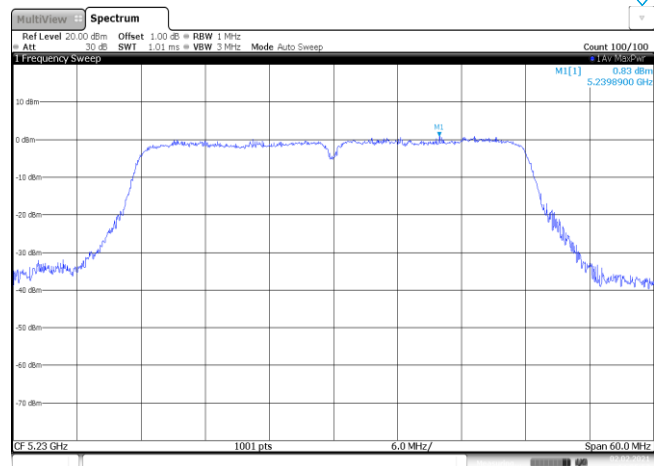
Band I		802.11n (HT20)
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] 3.07 dBm 5.1728370 GHz  CF 5.18 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 2.FEB.2021 14:08:12	
CH _M	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] 3.96 dBm 5.2134670 GHz  CF 5.22 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 2.FEB.2021 14:09:57	
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep M1[1] 4.37 dBm 5.2450050 GHz  CF 5.24 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 2.FEB.2021 14:11:14	

Band I	802.11a
CH _L	 Count 100/100 M1[1] 5.1865240 GHz 4.48 dBm 14V MeasPwr Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VBW 3 MHz Mode Auto Sweep CF 5.18 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 2.FEB.2021 13:49:00
CH _M	 Count 100/100 M1[1] 5.2251850 GHz 4.48 dBm 14V MeasPwr Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VBW 3 MHz Mode Auto Sweep CF 5.22 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 2.FEB.2021 13:01:04
CH _H	 Count 100/100 M1[1] 5.2463840 GHz 5.23 dBm 14V MeasPwr Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VBW 3 MHz Mode Auto Sweep CF 5.24 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 2.FEB.2021 13:03:02

Band I		802.11ac (HT40)
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 14V MeasPwr M1[1] -0.18 dBm 5.2051650 GHz 1 Frequency Sweep  CF 5.19 GHz1001 pts6.0 MHz/Span 60.0 MHz Date: 2.FEB.2021 14:28:08	
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 14V MeasPwr M1[1] 1.22 dBm 5.2432470 GHz 1 Frequency Sweep  CF 5.23 GHz1001 pts6.0 MHz/Span 60.0 MHz Date: 2.FEB.2021 14:43:01	

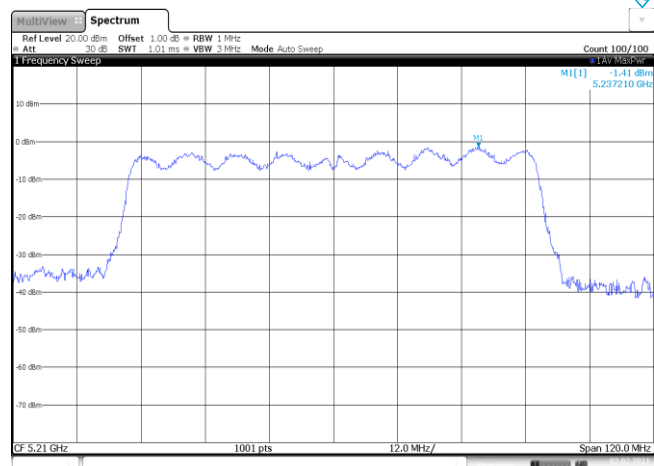
Band I

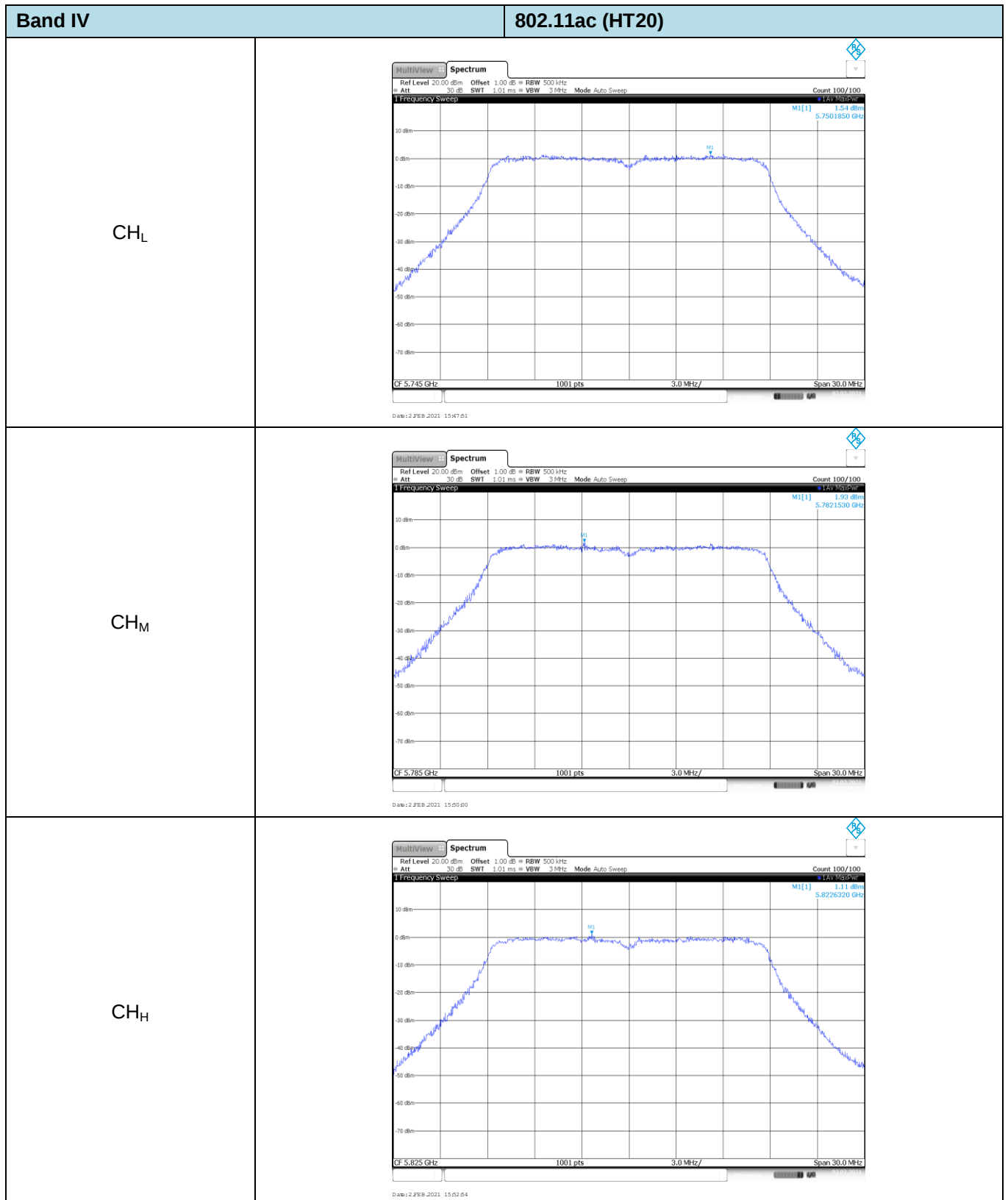
802.11n (HT40)

CH_LCH_H

Band I

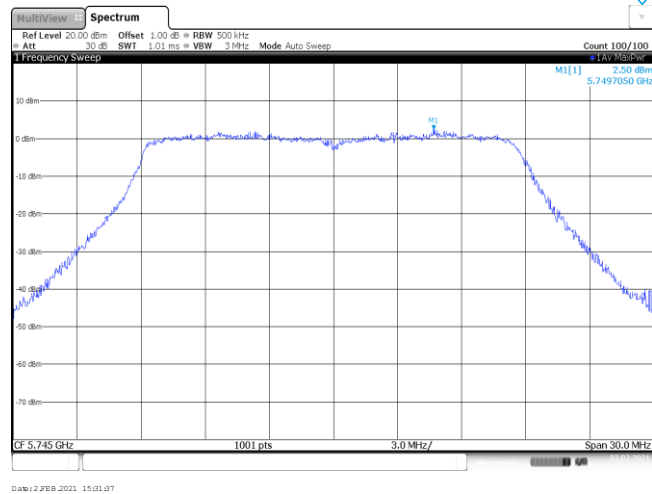
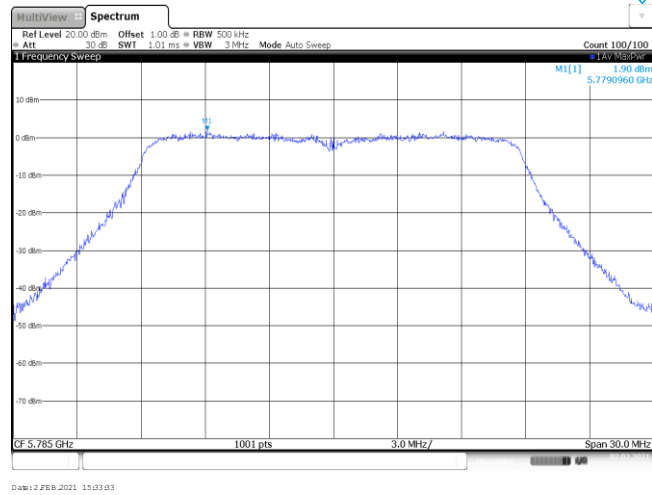
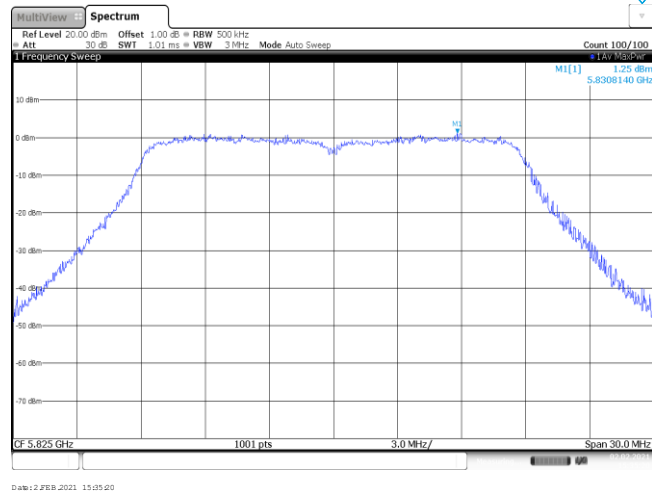
802.11ac (HT80)

CH_M



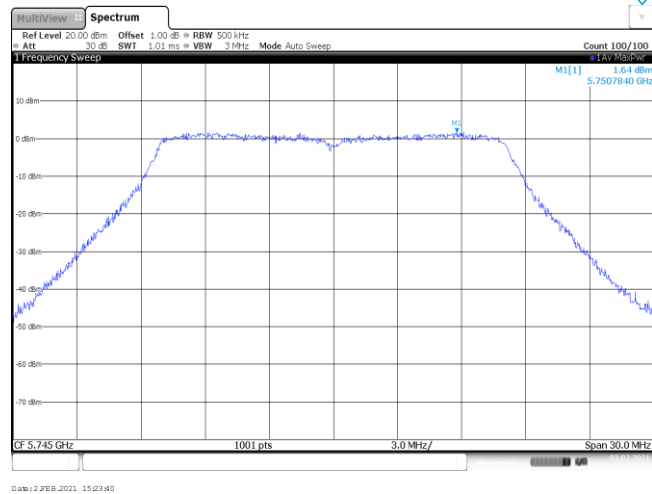
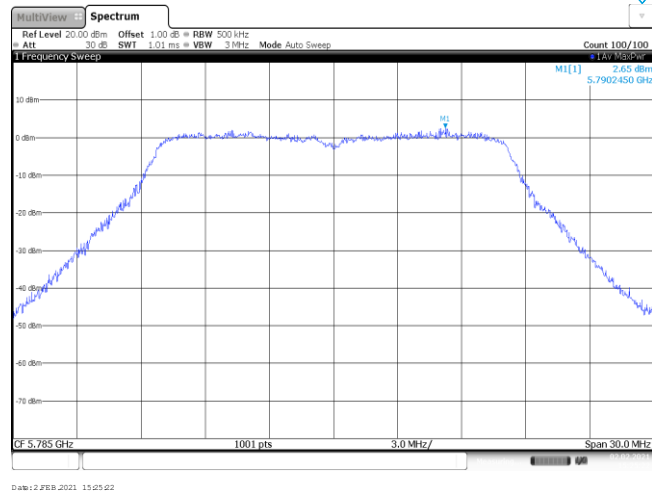
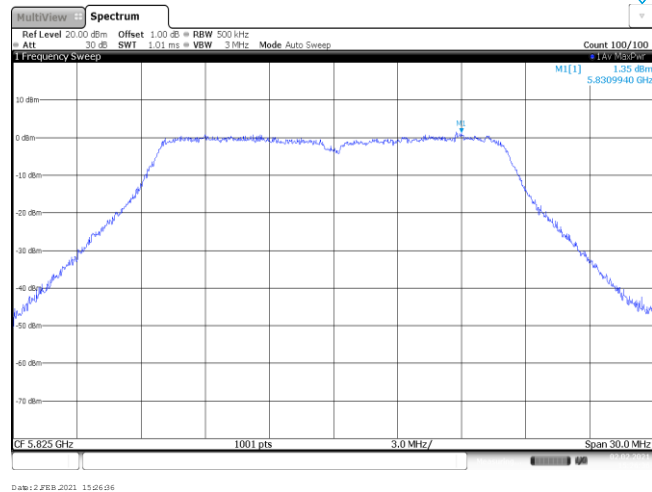
Band IV

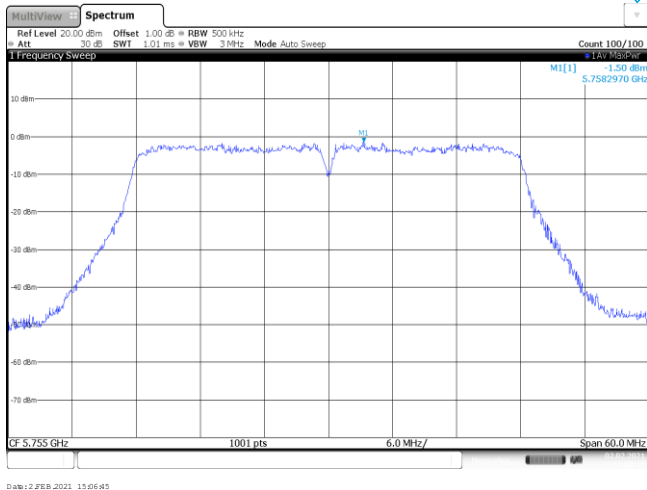
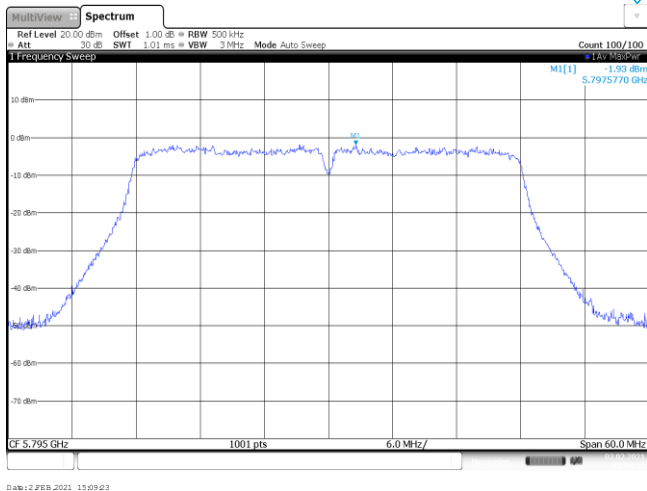
802.11n (HT20)

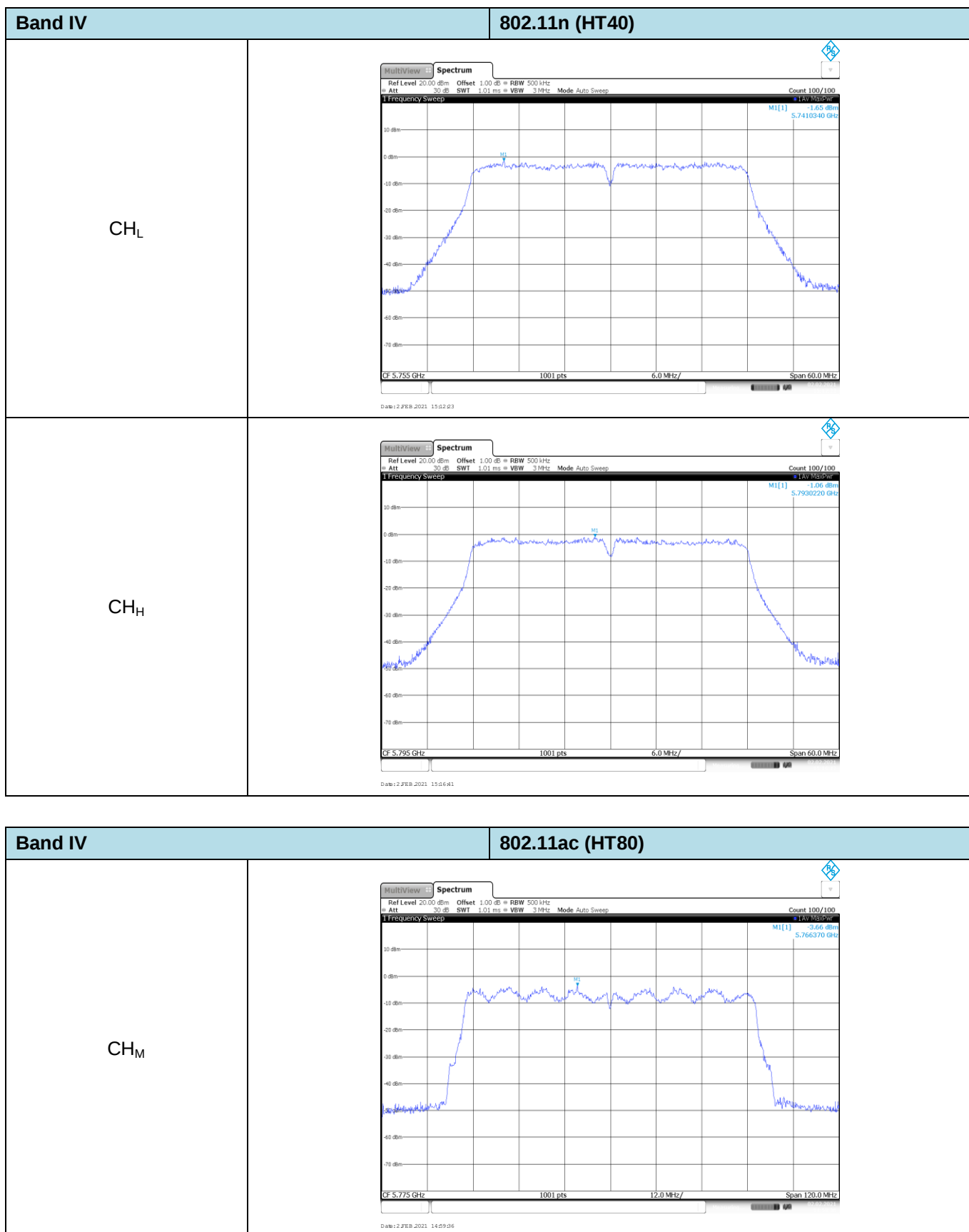
CH_LCH_MCH_H

Band IV

802.11a

CH_LCH_MCH_H

Band IV		802.11ac (HT40)
CH _L		
CH _H		

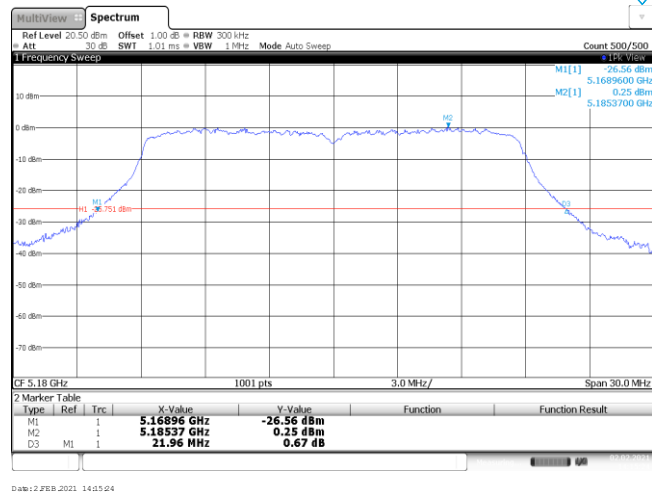
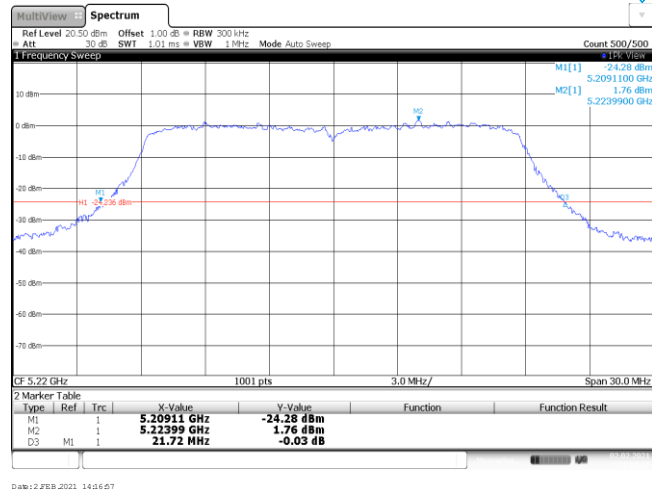
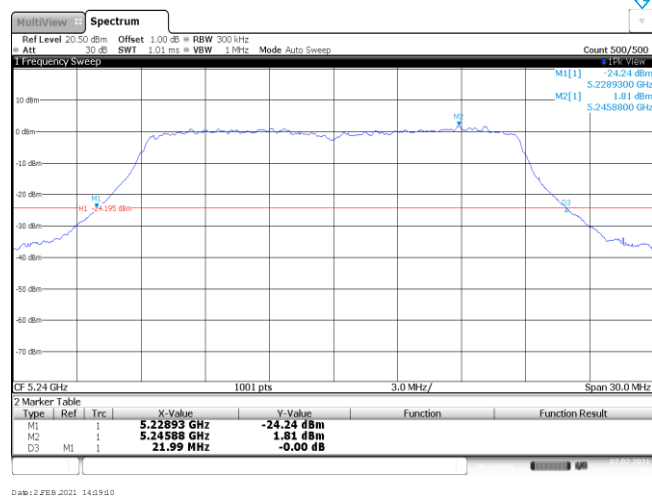


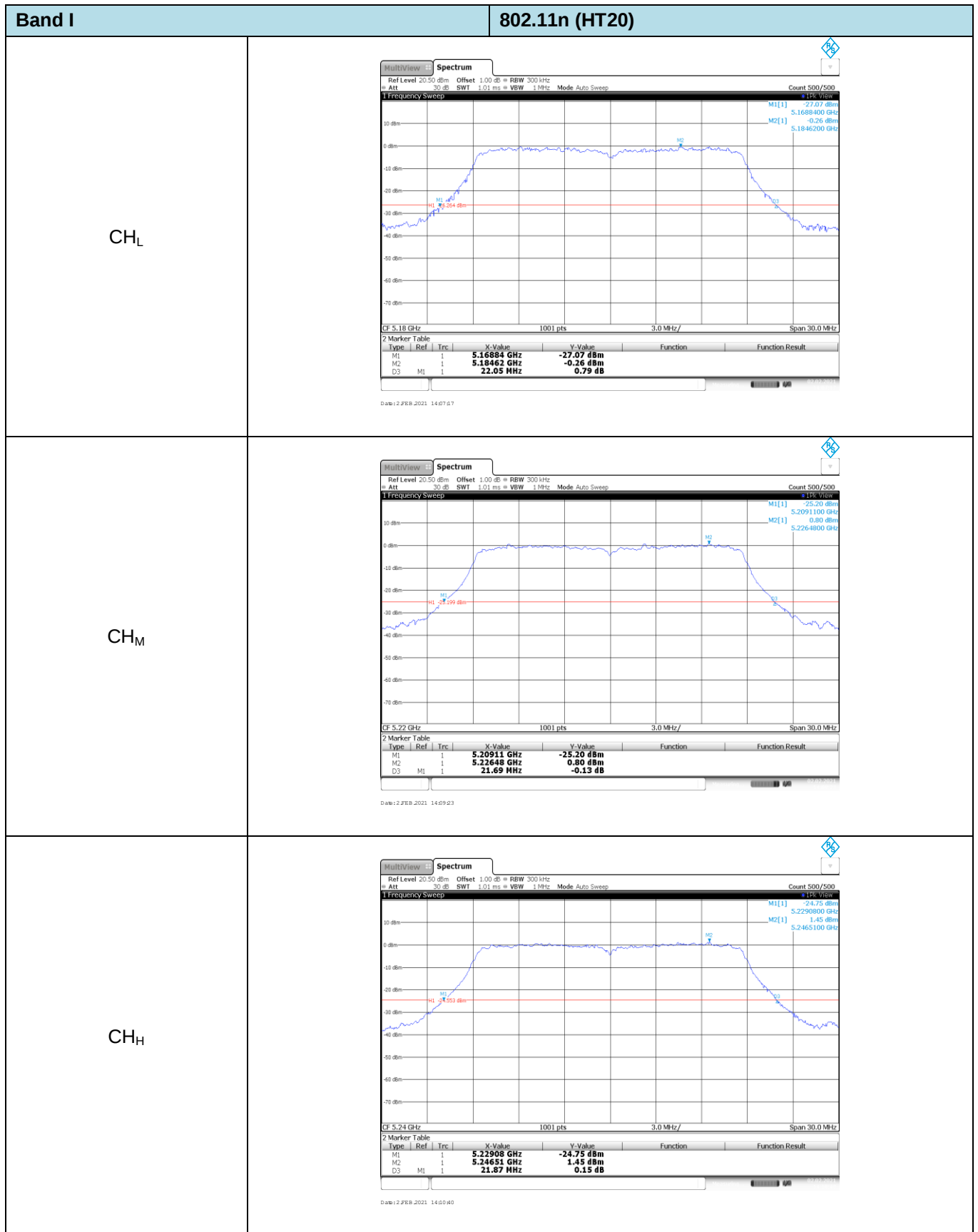
Appendix C: 26dB bandwidth

Band	Bandwidth (MHz)	Type	Channel	26dB bandwidth (MHz)	Result
I	20	802.11ac	CH _L	21.96	Pass
			CH _M	21.72	
			CH _H	21.99	
		802.11n	CH _L	22.05	Pass
			CH _M	21.69	
			CH _H	21.87	
		802.11a	CH _L	21.15	Pass
			CH _M	21.60	
			CH _H	21.57	
	40	802.11ac	CH _L	42.24	Pass
			CH _H	42.48	
		802.11n	CH _L	41.94	Pass
			CH _H	42.90	
	80	802.11ac	CH _M	82.44	Pass

Band I

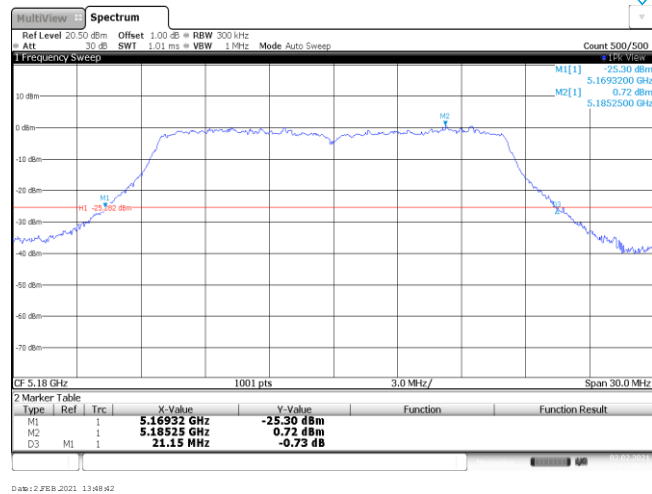
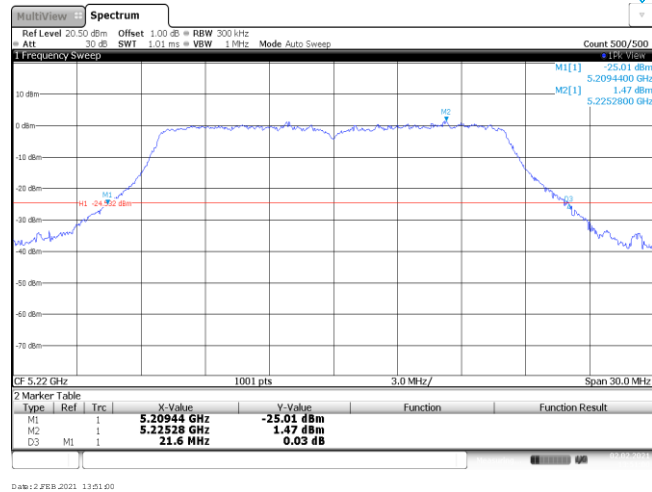
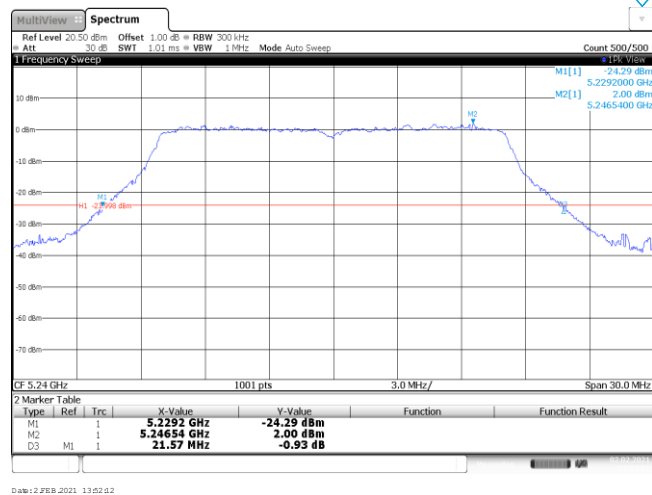
802.11ac (HT20)

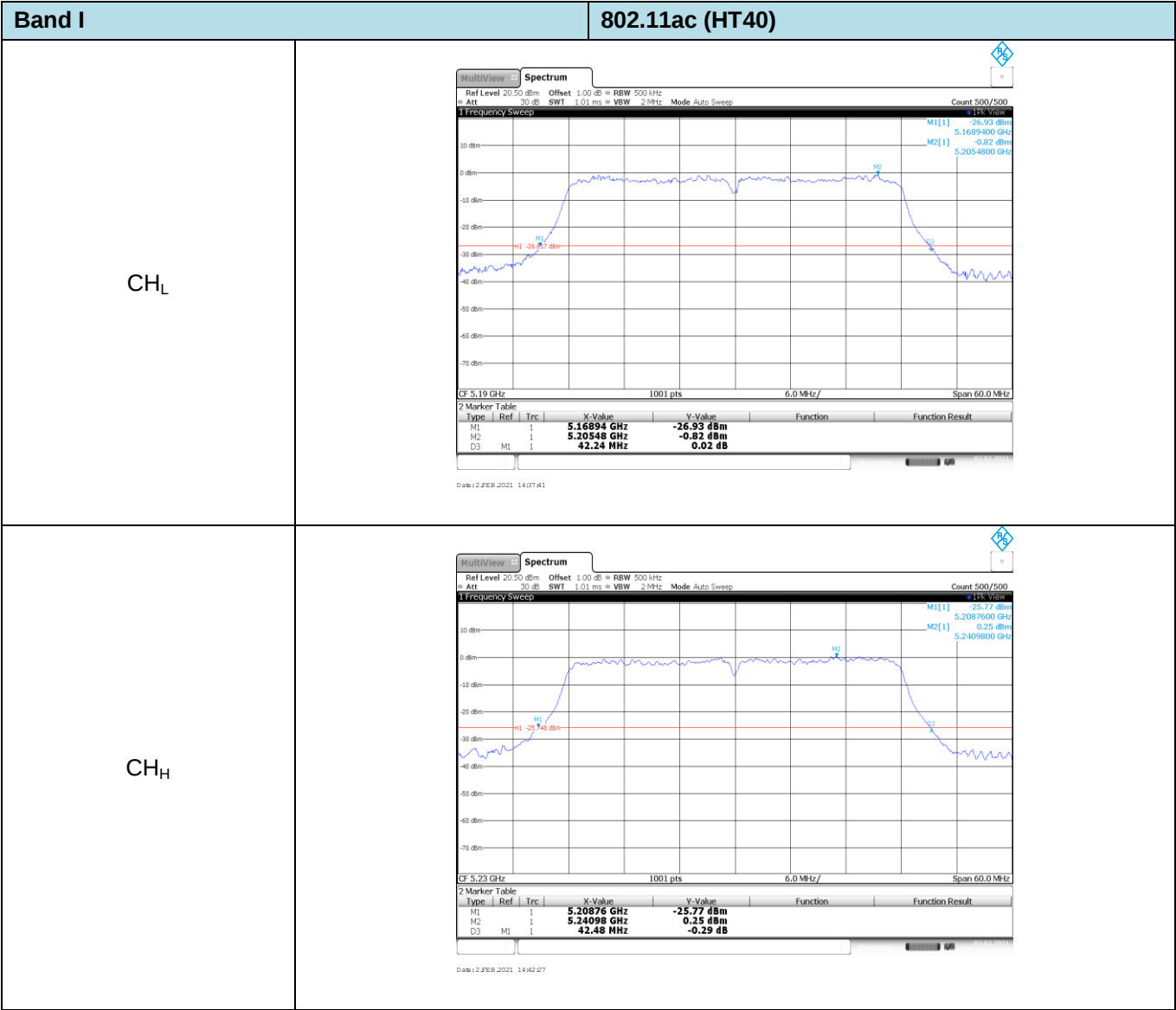
CH_LCH_MCH_H



Band I

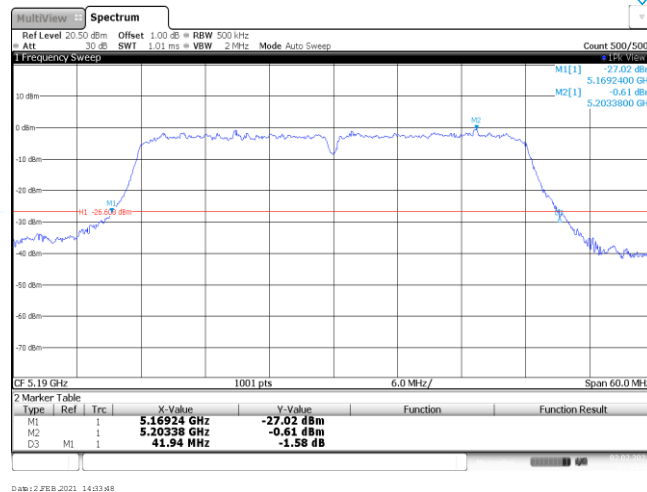
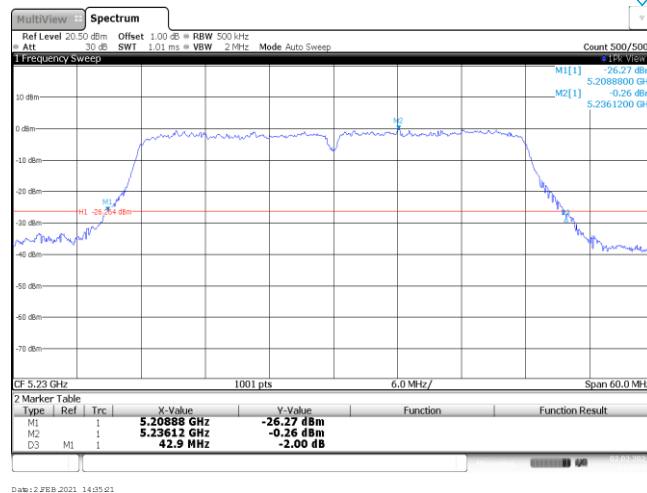
802.11a

CH_LCH_MCH_H



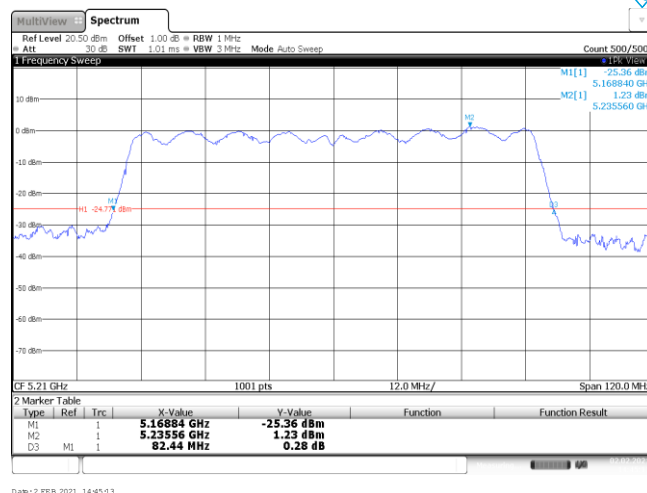
Band I

802.11n (HT40)

CH_LCH_H

Band I

802.11ac (HT80)

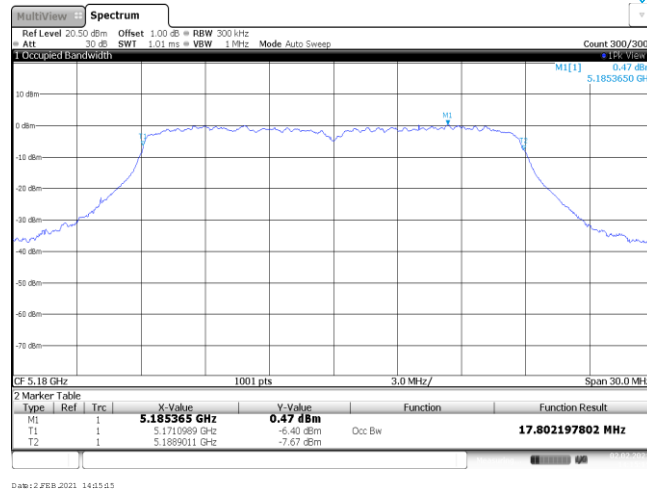
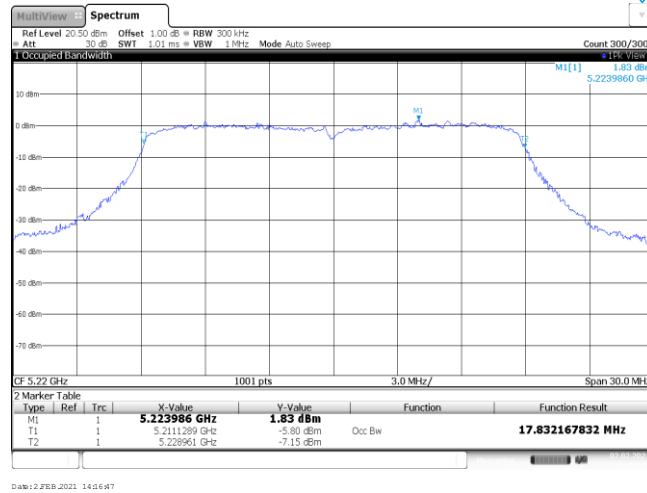
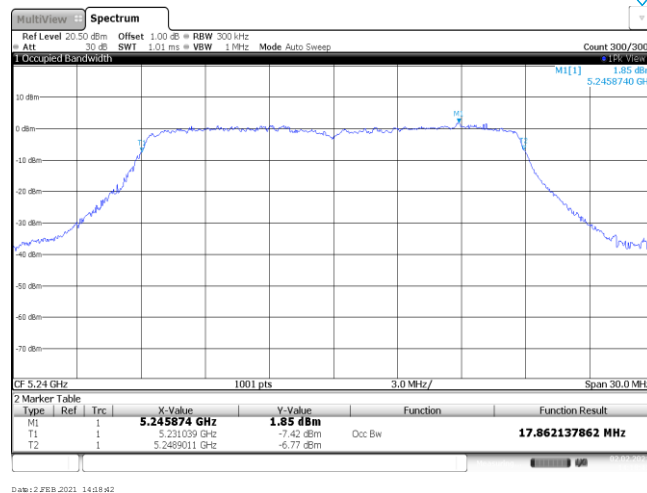
CH_M

Appendix D: 99% Occupy bandwidth

Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwidth (MHz)	Result
I	20	802.11ac	CH _L	17.80	Pass
			CH _M	17.83	
			CH _H	17.86	
		802.11n	CH _L	17.86	Pass
			CH _M	17.83	
			CH _H	17.95	
		802.11a	CH _L	16.87	Pass
			CH _M	16.87	
			CH _H	16.81	
	40	802.11ac	CH _L	36.26	Pass
			CH _H	36.20	
		802.11n	CH _L	36.32	Pass
			CH _H	36.32	
	80	802.11ac	CH _M	75.64	Pass
IV	20	802.11ac	CH _L	17.68	Pass
			CH _M	17.83	
			CH _H	17.77	
		802.11n	CH _L	17.86	Pass
			CH _M	17.80	
			CH _H	17.98	
		802.11a	CH _L	16.87	Pass
			CH _M	16.87	
			CH _H	16.78	
	40	802.11ac	CH _L	36.26	Pass
			CH _H	36.26	
		802.11n	CH _L	36.47	Pass
			CH _H	36.21	
	80	802.11ac	CH _M	75.52	Pass

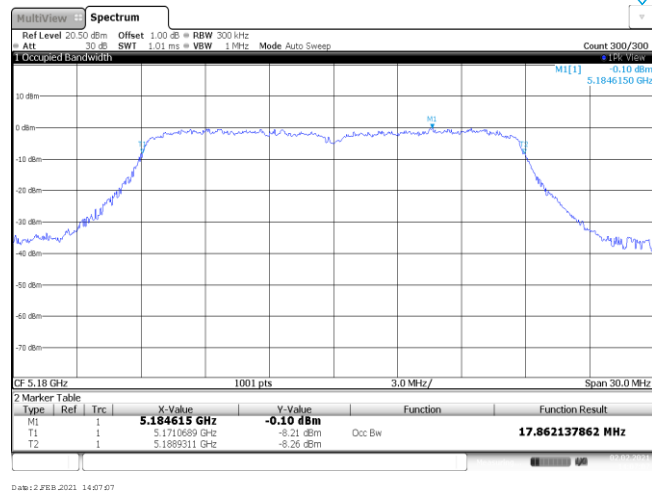
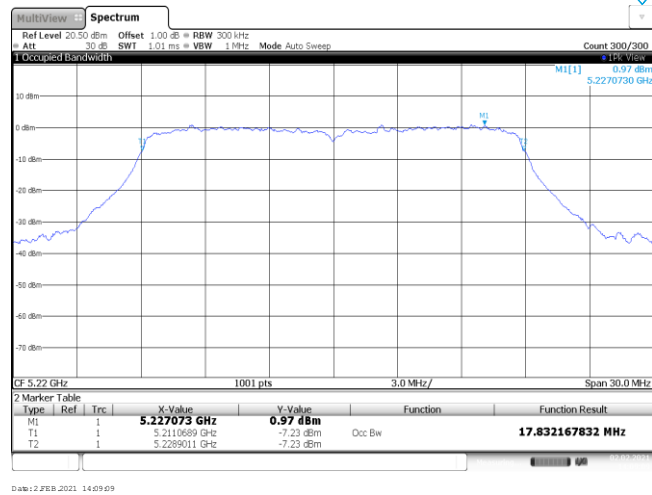
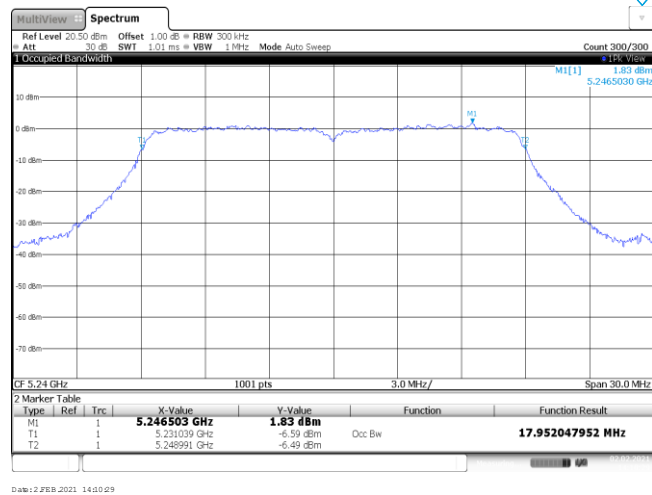
Band I

802.11ac (HT20)

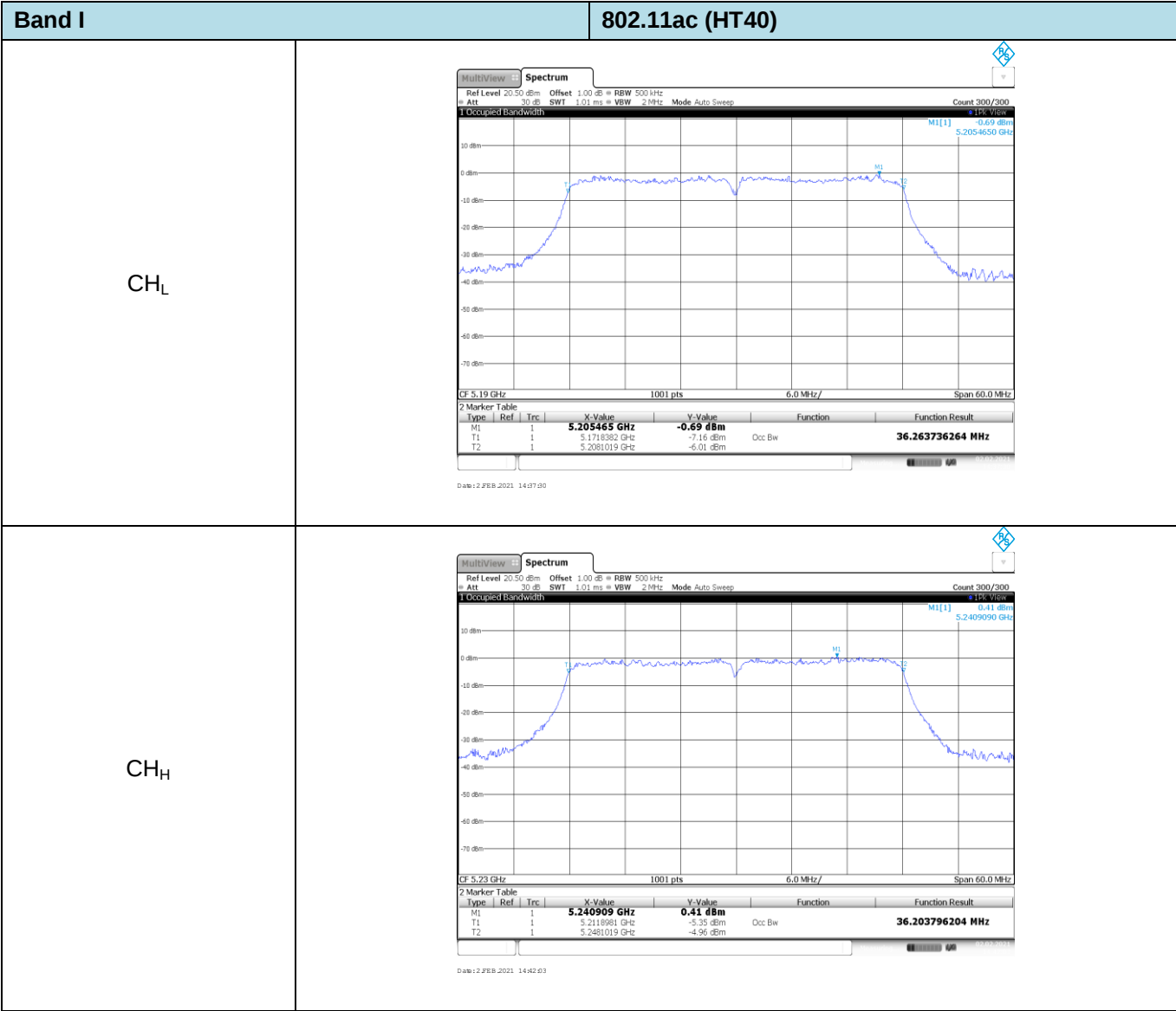
CH_LCH_MCH_H

Band I

802.11n (HT20)

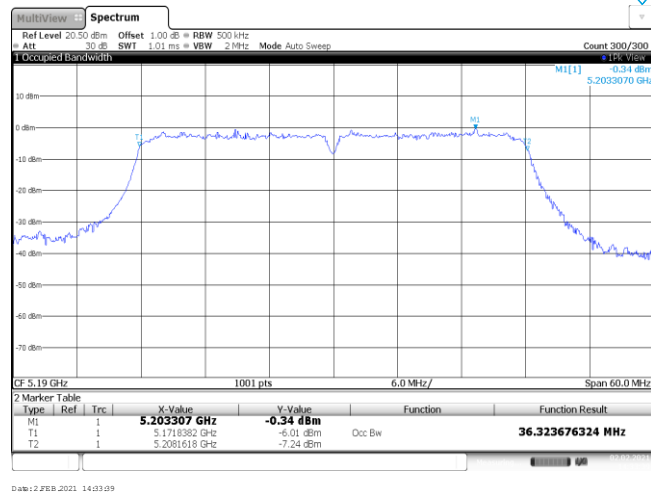
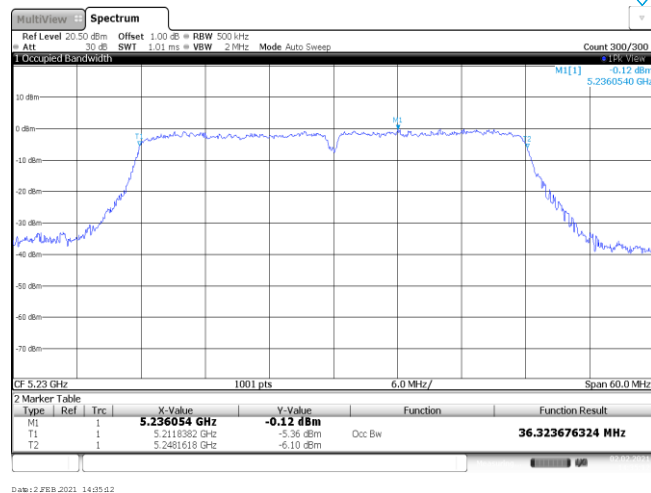
CH_LCH_MCH_H

Band I		802.11a																											
CH _L	MultiView Spectrum Ref Level 20.50 dBm Att 30 dB Offset 1.00 dB RBW 300 kHz SWT 1.01 ms VBW 1 MHz Mode Auto Sweep Count 300/300 1 Occupied Bandwidth M1[1] 0.93 dBm 5.1852150 GHz CF 5.18 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table <table><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><tr><td>M1</td><td>1</td><td></td><td>5.185215 GHz</td><td>0.93 dBm</td><td></td><td></td></tr><tr><td>T1</td><td>1</td><td></td><td>5.1715185 GHz</td><td>-7.82 dBm</td><td>Occ Bw</td><td>16.873126873 MHz</td></tr><tr><td>T2</td><td>1</td><td></td><td>5.1883916 GHz</td><td>-8.13 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 13:48:02	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.185215 GHz	0.93 dBm			T1	1		5.1715185 GHz	-7.82 dBm	Occ Bw	16.873126873 MHz	T2	1		5.1883916 GHz	-8.13 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1	1		5.185215 GHz	0.93 dBm																									
T1	1		5.1715185 GHz	-7.82 dBm	Occ Bw	16.873126873 MHz																							
T2	1		5.1883916 GHz	-8.13 dBm																									
CH _M	MultiView Spectrum Ref Level 20.50 dBm Att 30 dB Offset 1.00 dB RBW 300 kHz SWT 1.01 ms VBW 1 MHz Mode Auto Sweep Count 300/300 1 Occupied Bandwidth M1[1] 1.39 dBm 5.2251850 GHz CF 5.22 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table <table><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><tr><td>M1</td><td>1</td><td></td><td>5.225185 GHz</td><td>1.39 dBm</td><td></td><td></td></tr><tr><td>T1</td><td>1</td><td></td><td>5.2116084 GHz</td><td>-7.12 dBm</td><td>Occ Bw</td><td>16.873126873 MHz</td></tr><tr><td>T2</td><td>1</td><td></td><td>5.2284815 GHz</td><td>-8.73 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 13:00:00	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.225185 GHz	1.39 dBm			T1	1		5.2116084 GHz	-7.12 dBm	Occ Bw	16.873126873 MHz	T2	1		5.2284815 GHz	-8.73 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1	1		5.225185 GHz	1.39 dBm																									
T1	1		5.2116084 GHz	-7.12 dBm	Occ Bw	16.873126873 MHz																							
T2	1		5.2284815 GHz	-8.73 dBm																									
CH _H	MultiView Spectrum Ref Level 20.50 dBm Att 30 dB Offset 1.00 dB RBW 300 kHz SWT 1.01 ms VBW 1 MHz Mode Auto Sweep Count 300/300 1 Occupied Bandwidth M1[1] 2.32 dBm 5.2464740 GHz CF 5.24 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table <table><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><tr><td>M1</td><td>1</td><td></td><td>5.246474 GHz</td><td>2.32 dBm</td><td></td><td></td></tr><tr><td>T1</td><td>1</td><td></td><td>5.2315485 GHz</td><td>-6.49 dBm</td><td>Occ Bw</td><td>16.813186813 MHz</td></tr><tr><td>T2</td><td>1</td><td></td><td>5.2483616 GHz</td><td>-6.41 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 13:02:02	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.246474 GHz	2.32 dBm			T1	1		5.2315485 GHz	-6.49 dBm	Occ Bw	16.813186813 MHz	T2	1		5.2483616 GHz	-6.41 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1	1		5.246474 GHz	2.32 dBm																									
T1	1		5.2315485 GHz	-6.49 dBm	Occ Bw	16.813186813 MHz																							
T2	1		5.2483616 GHz	-6.41 dBm																									



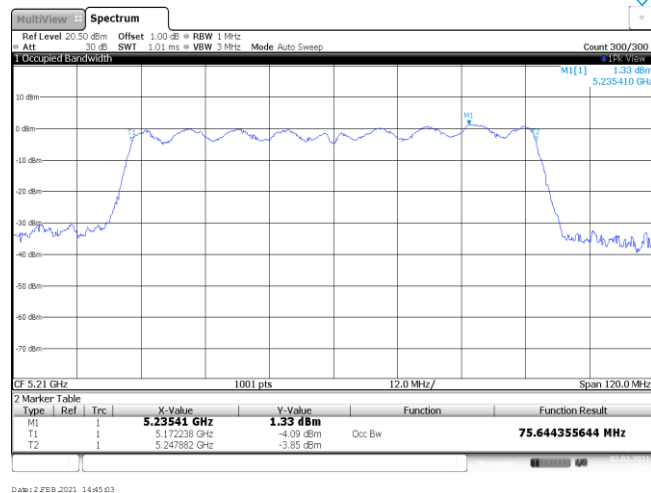
Band I

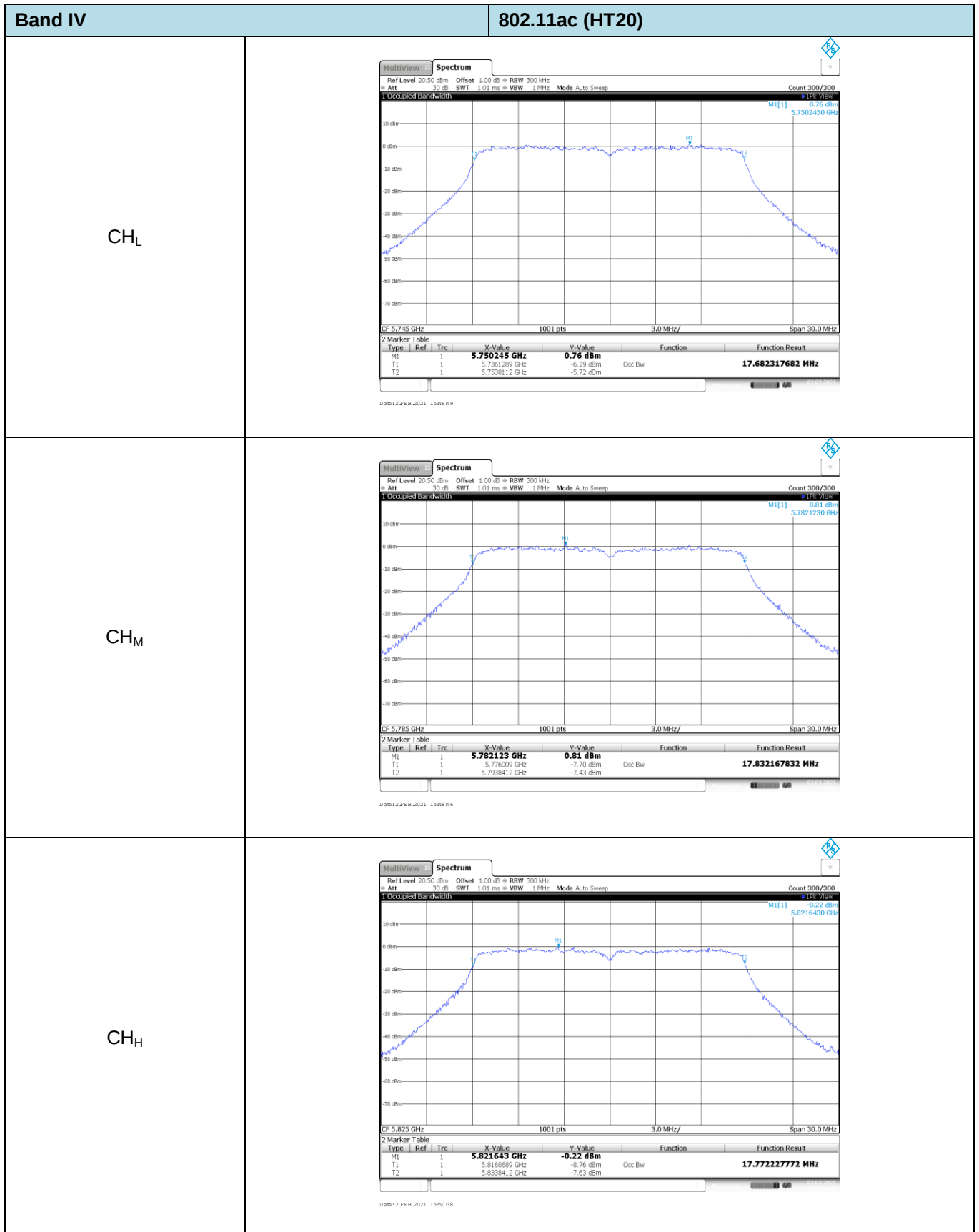
802.11n (HT40)

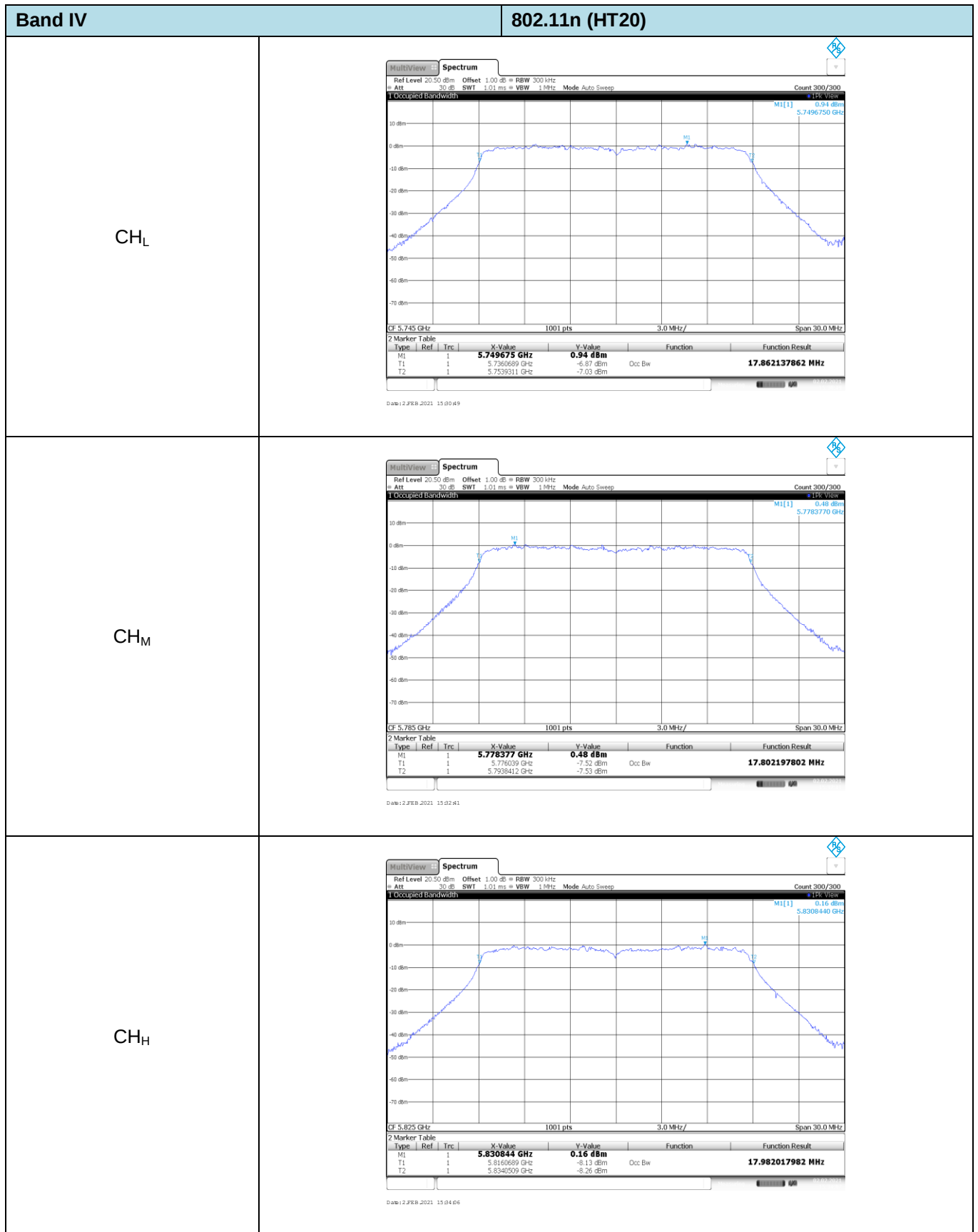
CH_LCH_H

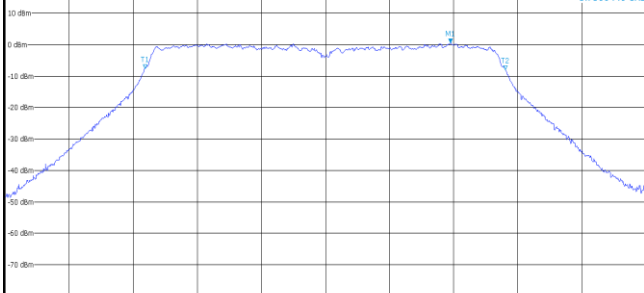
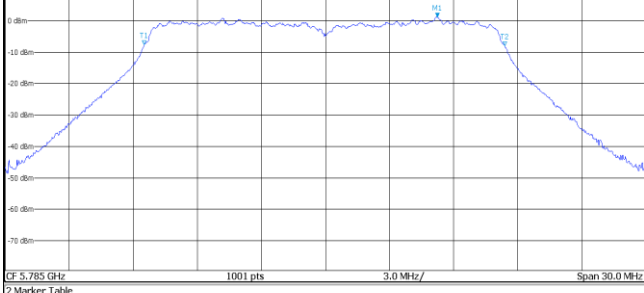
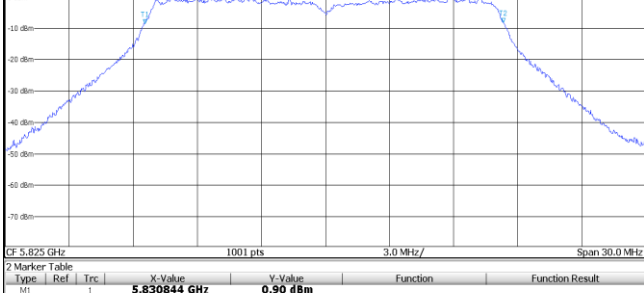
Band I

802.11ac (HT80)

CH_M



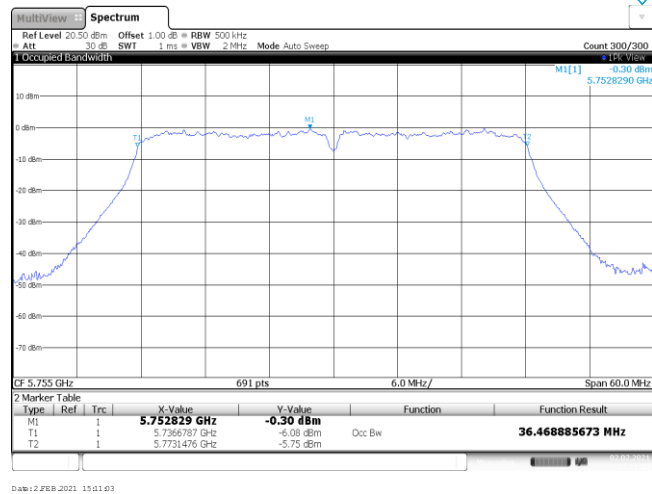
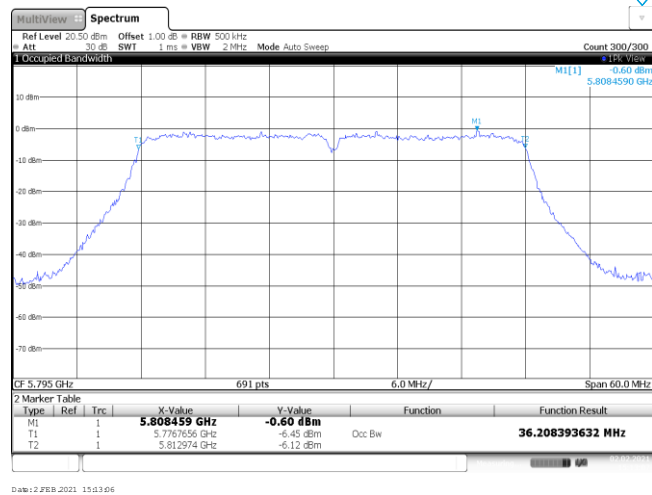


Band IV		802.11a																												
CH _L	MultiView Spectrum Ref Level 20.50 dBm Att 30 dB Offset 1.00 dB RBW 300 kHz SWT 1.01 ms VBW 1 MHz Mode Auto Sweep Count 300/300 1 Occupied Bandwidth M1[1] 0.53 dBm 5.7508440 GHz  CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table <table><tr><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><tr><td>M1</td><td>1</td><td></td><td>5.750844 GHz</td><td>0.53 dBm</td><td></td><td></td></tr><tr><td>T1</td><td>1</td><td></td><td>5.7365485 GHz</td><td>-7.58 dBm</td><td>Occ Bw</td><td>16.873126873 MHz</td></tr><tr><td>T2</td><td>1</td><td></td><td>5.7534216 GHz</td><td>-7.92 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 15:22:22	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.750844 GHz	0.53 dBm			T1	1		5.7365485 GHz	-7.58 dBm	Occ Bw	16.873126873 MHz	T2	1		5.7534216 GHz	-7.92 dBm			
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																								
M1	1		5.750844 GHz	0.53 dBm																										
T1	1		5.7365485 GHz	-7.58 dBm	Occ Bw	16.873126873 MHz																								
T2	1		5.7534216 GHz	-7.92 dBm																										
CH _M	MultiView Spectrum Ref Level 20.50 dBm Att 30 dB Offset 1.00 dB RBW 300 kHz SWT 1.01 ms VBW 1 MHz Mode Auto Sweep Count 300/300 1 Occupied Bandwidth M1[1] 1.13 dBm 5.7902450 GHz  CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table <table><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><tr><td>M1</td><td>1</td><td></td><td>5.790245 GHz</td><td>1.13 dBm</td><td></td><td></td></tr><tr><td>T1</td><td>1</td><td></td><td>5.7765185 GHz</td><td>-7.65 dBm</td><td>Occ Bw</td><td>16.873126873 MHz</td></tr><tr><td>T2</td><td>1</td><td></td><td>5.7933916 GHz</td><td>-7.90 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 15:24:09	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.790245 GHz	1.13 dBm			T1	1		5.7765185 GHz	-7.65 dBm	Occ Bw	16.873126873 MHz	T2	1		5.7933916 GHz	-7.90 dBm			
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																								
M1	1		5.790245 GHz	1.13 dBm																										
T1	1		5.7765185 GHz	-7.65 dBm	Occ Bw	16.873126873 MHz																								
T2	1		5.7933916 GHz	-7.90 dBm																										
CH _H	MultiView Spectrum Ref Level 20.50 dBm Att 30 dB Offset 1.00 dB RBW 300 kHz SWT 1.01 ms VBW 1 MHz Mode Auto Sweep Count 300/300 1 Occupied Bandwidth M1[1] 0.90 dBm 5.8308440 GHz  CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table <table><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><tr><td>M1</td><td>1</td><td></td><td>5.830844 GHz</td><td>0.90 dBm</td><td></td><td></td></tr><tr><td>T1</td><td>1</td><td></td><td>5.8165485 GHz</td><td>-8.50 dBm</td><td>Occ Bw</td><td>16.783216783 MHz</td></tr><tr><td>T2</td><td>1</td><td></td><td>5.8333317 GHz</td><td>-8.18 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 15:25:51	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.830844 GHz	0.90 dBm			T1	1		5.8165485 GHz	-8.50 dBm	Occ Bw	16.783216783 MHz	T2	1		5.8333317 GHz	-8.18 dBm			
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																								
M1	1		5.830844 GHz	0.90 dBm																										
T1	1		5.8165485 GHz	-8.50 dBm	Occ Bw	16.783216783 MHz																								
T2	1		5.8333317 GHz	-8.18 dBm																										

Band IV		802.11ac (HT40)																													
CH _L	MultiView Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 500 kHz Att 30 dB SWT 1.01 ms VBW 2 MHz Mode Auto Sweep Count 300/300 1 Occupied Bandwidth 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.755 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz M1[1] -0.24 dBm 5.7582970 GHz <table><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><tr><td>M1</td><td>1</td><td></td><td>5.758297 GHz</td><td>-0.24 dBm</td><td></td><td></td></tr><tr><td>T1</td><td>1</td><td></td><td>5.7568382 GHz</td><td>-5.79 dBm</td><td>Occ Bw</td><td>36.263736264 MHz</td></tr><tr><td>T2</td><td>1</td><td></td><td>5.7731019 GHz</td><td>-6.29 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 15:06:01			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.758297 GHz	-0.24 dBm			T1	1		5.7568382 GHz	-5.79 dBm	Occ Bw	36.263736264 MHz	T2	1		5.7731019 GHz	-6.29 dBm		
	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																								
M1	1		5.758297 GHz	-0.24 dBm																											
T1	1		5.7568382 GHz	-5.79 dBm	Occ Bw	36.263736264 MHz																									
T2	1		5.7731019 GHz	-6.29 dBm																											
CH _H	MultiView Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 500 kHz Att 30 dB SWT 1.01 ms VBW 2 MHz Mode Auto Sweep Count 300/300 1 Occupied Bandwidth 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.795 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz M1[1] -0.96 dBm 5.7974580 GHz <table><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><tr><td>M1</td><td>1</td><td></td><td>5.797458 GHz</td><td>-0.96 dBm</td><td></td><td></td></tr><tr><td>T1</td><td>1</td><td></td><td>5.7767183 GHz</td><td>-5.90 dBm</td><td>Occ Bw</td><td>36.263736264 MHz</td></tr><tr><td>T2</td><td>1</td><td></td><td>5.812982 GHz</td><td>-6.27 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 15:07:58			Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.797458 GHz	-0.96 dBm			T1	1		5.7767183 GHz	-5.90 dBm	Occ Bw	36.263736264 MHz	T2	1		5.812982 GHz	-6.27 dBm		
	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																								
M1	1		5.797458 GHz	-0.96 dBm																											
T1	1		5.7767183 GHz	-5.90 dBm	Occ Bw	36.263736264 MHz																									
T2	1		5.812982 GHz	-6.27 dBm																											

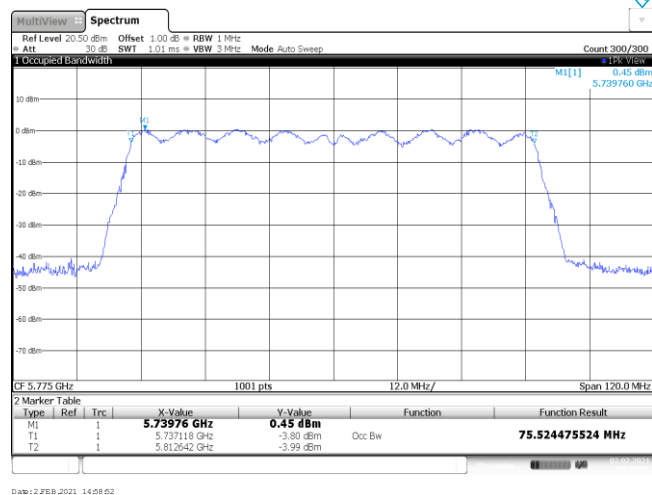
Band IV

802.11n (HT40)

CH_LCH_H

Band IV

802.11ac (HT80)

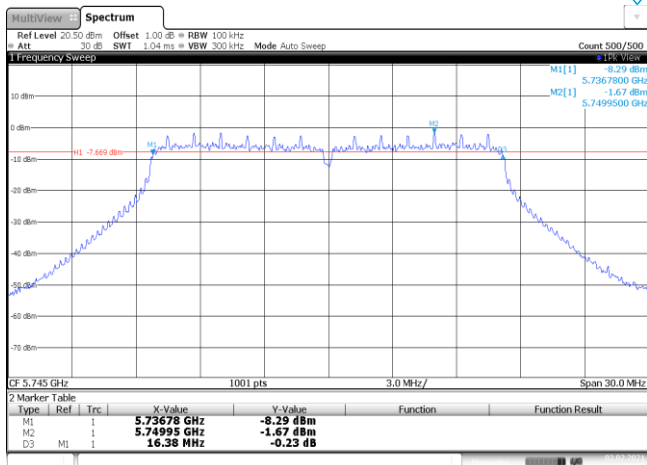
CH_M

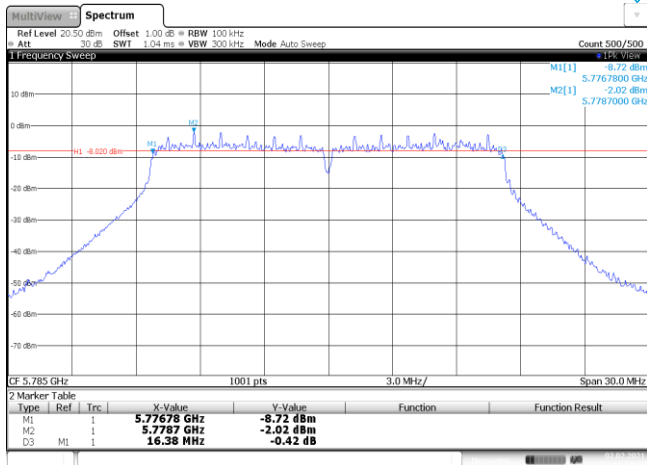
Appendix E: 6dB Bandwidth

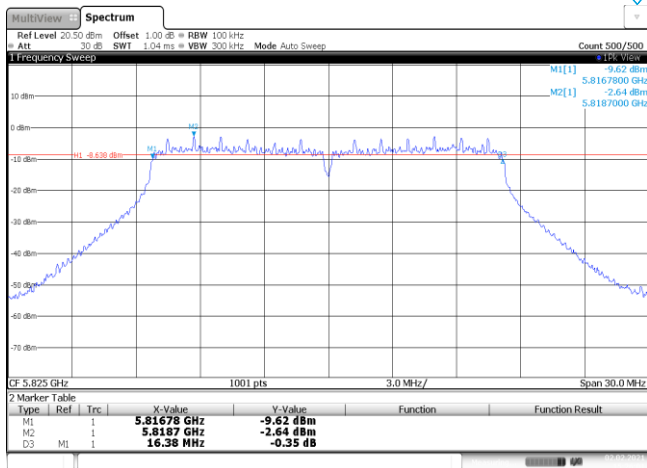
Band	Bandwidth (MHz)	Type	Channel	6dB bandwidth (MHz)	Result
IV	20	802.11ac	CH _L	17.37	Pass
			CH _M	17.22	
			CH _H	17.13	
		802.11n	CH _L	17.13	Pass
			CH _M	17.10	
			CH _H	17.13	
		802.11a	CH _L	16.38	Pass
			CH _M	16.38	
			CH _H	16.38	
	40	802.11ac	CH _L	35.46	Pass
			CH _H	35.52	
		802.11n	CH _L	35.83	Pass
			CH _H	35.91	
	80	802.11ac	CH _M	75.48	Pass

Test channel	802.11ac (HT20)
CH _L	MultiView Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Count 500/500 1 Frequency Sweep

Test channel	802.11n (HT20)																												
CH _L	MultiView Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 1.04 ms VBW 300 kHz Mode Auto Sweep Count 500/500 1 Frequency Sweep 30 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 5.736390 GHz -8.10 dBm M2 5.738700 GHz -1.72 dBm M3 5.7387000 GHz -1.72 dBm CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table <table><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><tr><td>M1</td><td>1</td><td></td><td>5.73639 GHz</td><td>-8.10 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>5.7387 GHz</td><td>-1.72 dBm</td><td></td><td></td></tr><tr><td>D3</td><td>M1</td><td>1</td><td>17.13 MHz</td><td>-0.27 dB</td><td></td><td></td></tr></table> Date: 2 FEB 2021 15:00:58	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.73639 GHz	-8.10 dBm			M2	1		5.7387 GHz	-1.72 dBm			D3	M1	1	17.13 MHz	-0.27 dB		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1	1		5.73639 GHz	-8.10 dBm																									
M2	1		5.7387 GHz	-1.72 dBm																									
D3	M1	1	17.13 MHz	-0.27 dB																									
CH _M	MultiView Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 1.04 ms VBW 300 kHz Mode Auto Sweep Count 500/500 1 Frequency Sweep 30 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 5.776420 GHz -7.81 dBm M2 5.778700 GHz -1.80 dBm M3 5.7787000 GHz -1.80 dBm CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table <table><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><tr><td>M1</td><td>1</td><td></td><td>5.77642 GHz</td><td>-7.81 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>5.7787 GHz</td><td>-1.80 dBm</td><td></td><td></td></tr><tr><td>D3</td><td>M1</td><td>1</td><td>17.1 MHz</td><td>-0.45 dB</td><td></td><td></td></tr></table> Date: 2 FEB 2021 15:02:50	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.77642 GHz	-7.81 dBm			M2	1		5.7787 GHz	-1.80 dBm			D3	M1	1	17.1 MHz	-0.45 dB		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1	1		5.77642 GHz	-7.81 dBm																									
M2	1		5.7787 GHz	-1.80 dBm																									
D3	M1	1	17.1 MHz	-0.45 dB																									
CH _H	MultiView Spectrum Ref Level 20.50 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 1.04 ms VBW 300 kHz Mode Auto Sweep Count 500/500 1 Frequency Sweep 30 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1 5.816390 GHz -9.94 dBm M2 5.818700 GHz -2.84 dBm M3 5.8187000 GHz -2.84 dBm CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz 2 Marker Table <table><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><tr><td>M1</td><td>1</td><td></td><td>5.81639 GHz</td><td>-9.94 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>5.8187 GHz</td><td>-2.84 dBm</td><td></td><td></td></tr><tr><td>D3</td><td>M1</td><td>1</td><td>17.13 MHz</td><td>0.77 dB</td><td></td><td></td></tr></table> Date: 2 FEB 2021 15:04:17	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.81639 GHz	-9.94 dBm			M2	1		5.8187 GHz	-2.84 dBm			D3	M1	1	17.13 MHz	0.77 dB		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1	1		5.81639 GHz	-9.94 dBm																									
M2	1		5.8187 GHz	-2.84 dBm																									
D3	M1	1	17.13 MHz	0.77 dB																									

Test channel	802.11a																												
CH _L	 Ref Level 20.50 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SW 1.04 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz <table> <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> <tr> <td>M1</td><td></td><td>1</td><td>5.73678 GHz</td><td>-8.29 dBm</td><td></td><td></td></tr> <tr> <td>M2</td><td></td><td>1</td><td>5.74995 GHz</td><td>-1.67 dBm</td><td></td><td></td></tr> <tr> <td>D3</td><td>M1</td><td>1</td><td>16.38 MHz</td><td>-0.23 dB</td><td></td><td></td></tr> </table> Date: 2 FEB 2021 15:23:07	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1		1	5.73678 GHz	-8.29 dBm			M2		1	5.74995 GHz	-1.67 dBm			D3	M1	1	16.38 MHz	-0.23 dB		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1		1	5.73678 GHz	-8.29 dBm																									
M2		1	5.74995 GHz	-1.67 dBm																									
D3	M1	1	16.38 MHz	-0.23 dB																									

CH _M	 Ref Level 20.50 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SW 1.04 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep CF 5.775 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz <table> <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> <tr> <td>M1</td><td></td><td>1</td><td>5.77678 GHz</td><td>-8.72 dBm</td><td></td><td></td></tr> <tr> <td>M2</td><td></td><td>1</td><td>5.7787 GHz</td><td>-2.02 dBm</td><td></td><td></td></tr> <tr> <td>D3</td><td>M1</td><td>1</td><td>16.38 MHz</td><td>-0.42 dB</td><td></td><td></td></tr> </table> Date: 2 FEB 2021 15:24:49	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1		1	5.77678 GHz	-8.72 dBm			M2		1	5.7787 GHz	-2.02 dBm			D3	M1	1	16.38 MHz	-0.42 dB		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1		1	5.77678 GHz	-8.72 dBm																									
M2		1	5.7787 GHz	-2.02 dBm																									
D3	M1	1	16.38 MHz	-0.42 dB																									

CH _H	 Ref Level 20.50 dBm Offset 1.00 dB BW 100 kHz Att 30 dB SW 1.04 ms VBW 300 kHz Mode Auto Sweep Count 500/500 Frequency Sweep CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz <table> <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> <tr> <td>M1</td><td></td><td>1</td><td>5.81678 GHz</td><td>-9.62 dBm</td><td></td><td></td></tr> <tr> <td>M2</td><td></td><td>1</td><td>5.8187 GHz</td><td>-2.64 dBm</td><td></td><td></td></tr> <tr> <td>D3</td><td>M1</td><td>1</td><td>16.38 MHz</td><td>-0.35 dB</td><td></td><td></td></tr> </table> Date: 2 FEB 2021 15:26:01	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1		1	5.81678 GHz	-9.62 dBm			M2		1	5.8187 GHz	-2.64 dBm			D3	M1	1	16.38 MHz	-0.35 dB		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1		1	5.81678 GHz	-9.62 dBm																									
M2		1	5.8187 GHz	-2.64 dBm																									
D3	M1	1	16.38 MHz	-0.35 dB																									

Test channel

802.11ac (HT40)

CH_L

MultiView Spectrum

Ref Level 20.50 dBm Offset 1.00 dB BW 100 kHz
Att 30 dB SWT 1.07 ms VBW 300 kHz Mode Auto Sweep Count 500/500

Frequency Sweep

CF 5.795 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz

Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		5.7373 GHz	-11.84 dBm		
M2	1		5.73994 GHz	-4.93 dBm		
D3	M1	1	35.46 MHz	0.74 dB		

Date: 12 FEB 2021 15:06:10

CH_H

MultiView Spectrum

Ref Level 20.50 dBm Offset 1.00 dB BW 100 kHz
Att 30 dB SWT 1.07 ms VBW 300 kHz Mode Auto Sweep Count 500/500

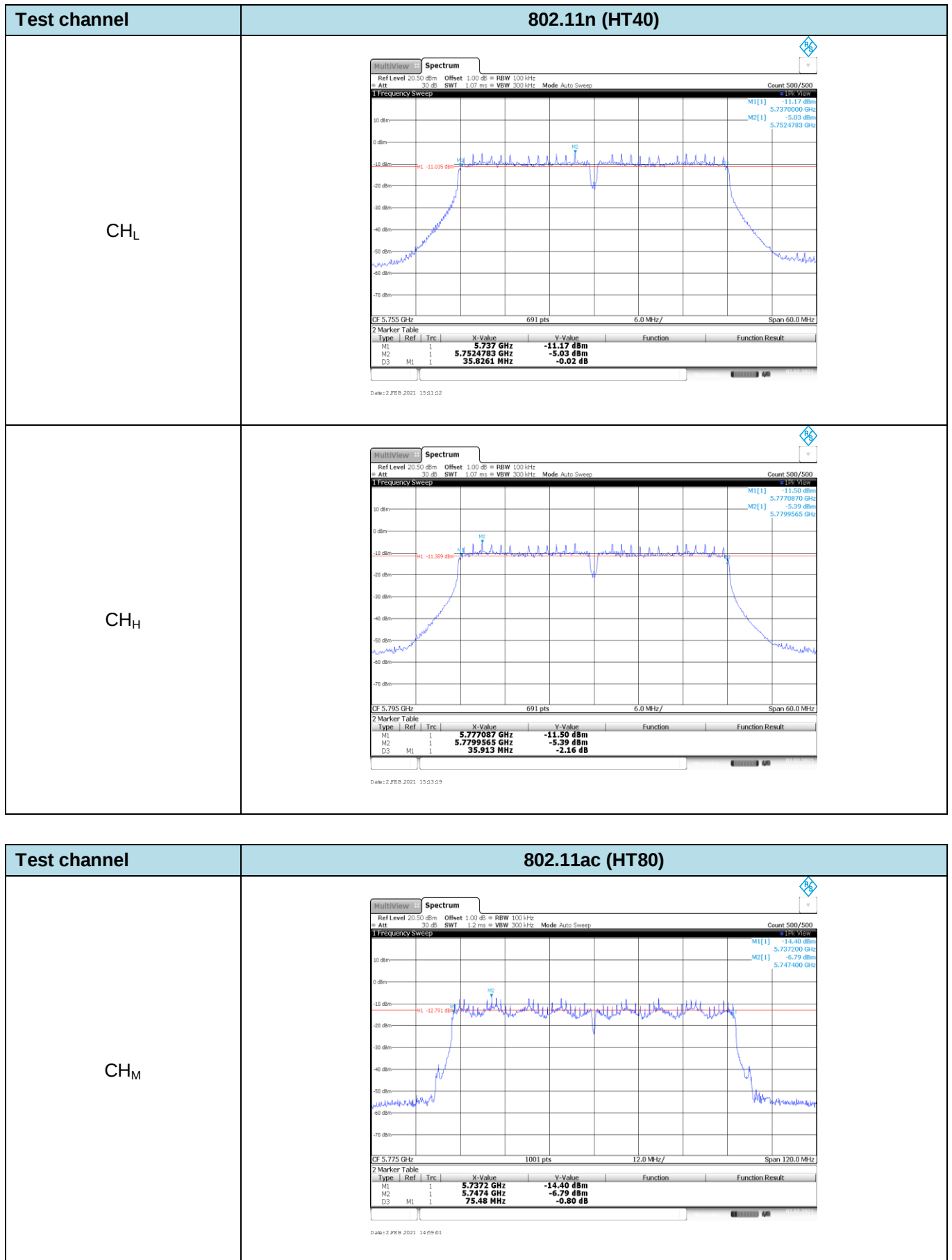
Frequency Sweep

CF 5.795 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz

Marker Table

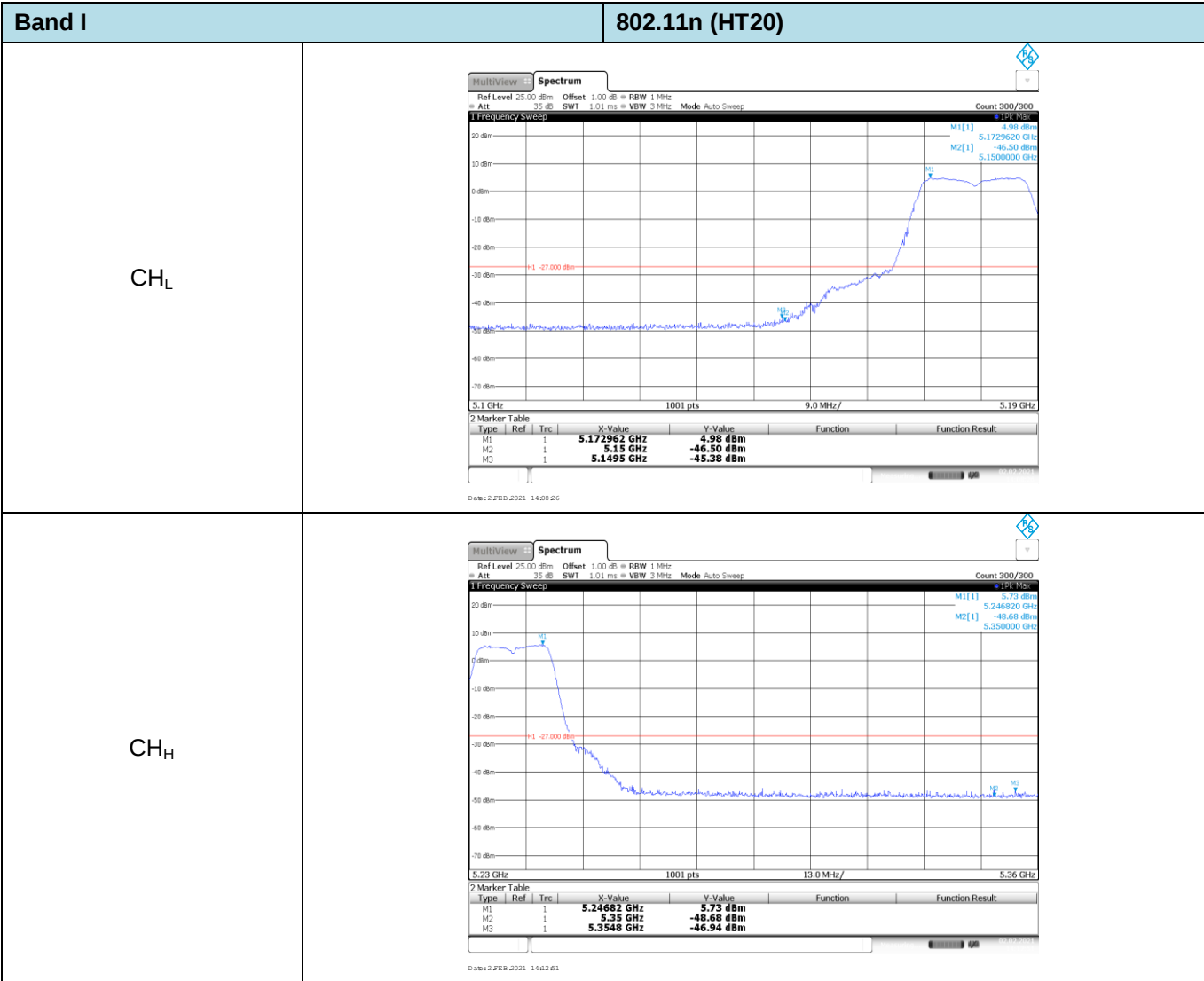
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		5.7773 GHz	-12.54 dBm		
M2	1		5.77994 GHz	-5.78 dBm		
D3	M1	1	35.52 MHz	-0.13 dB		

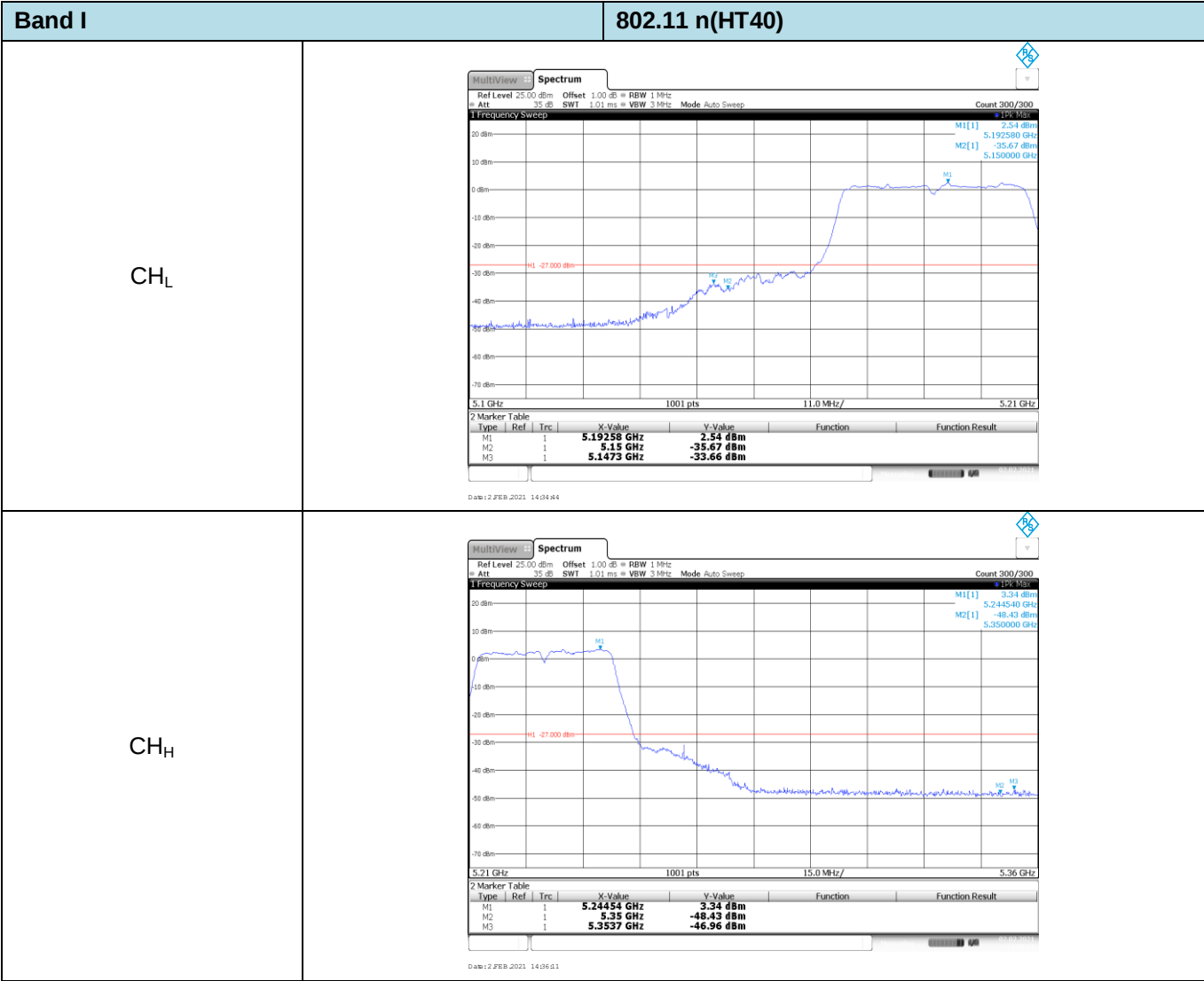
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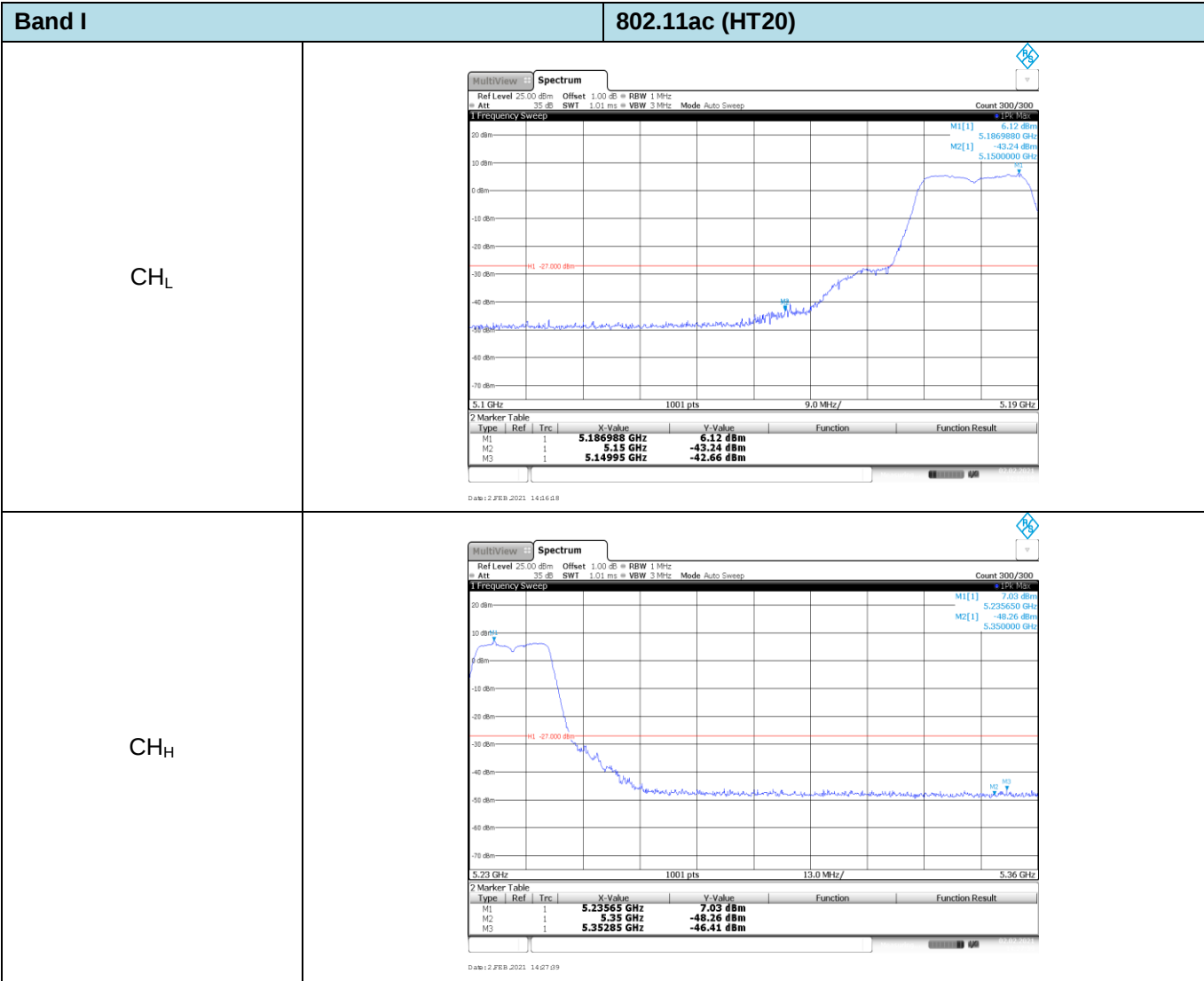


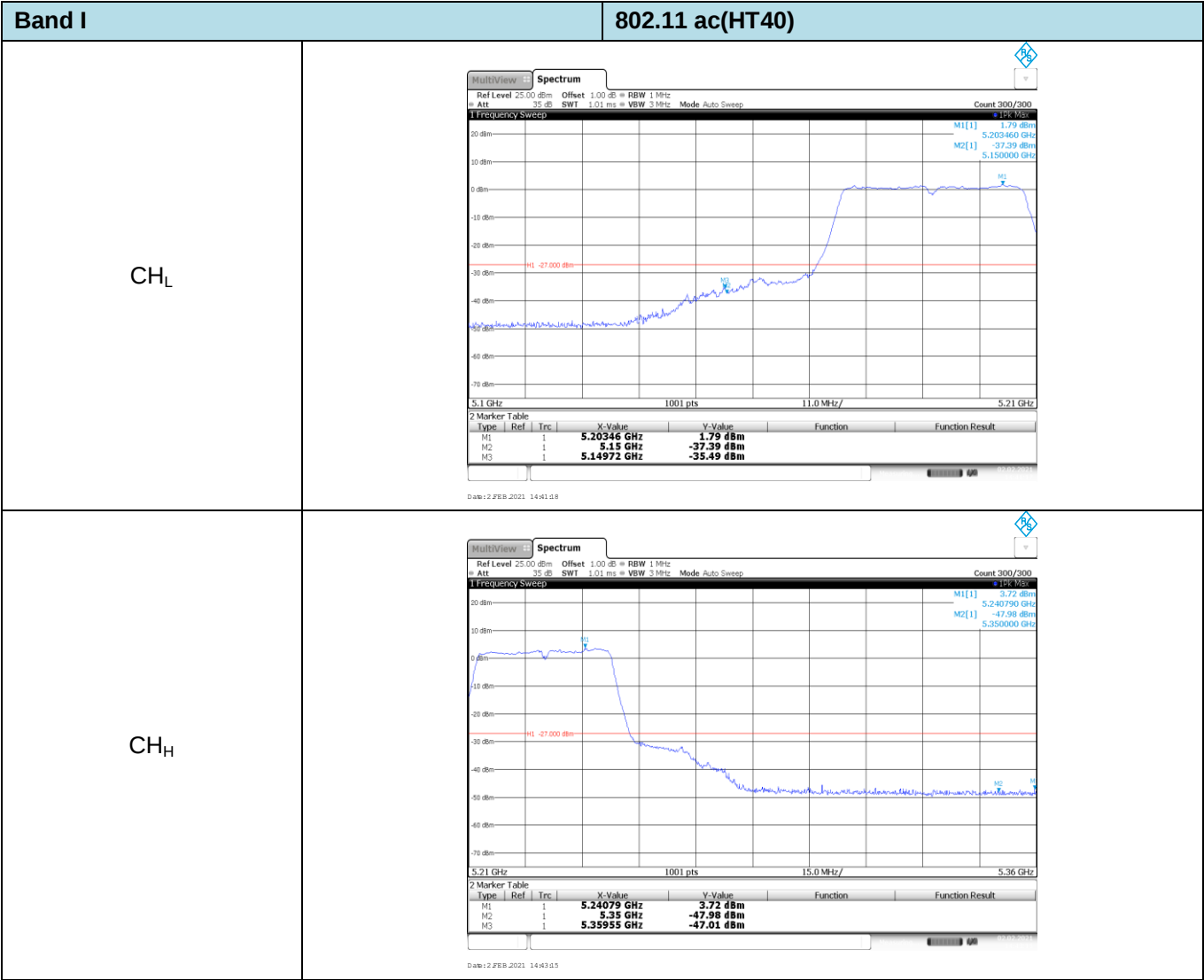
Appendix F: Band edge

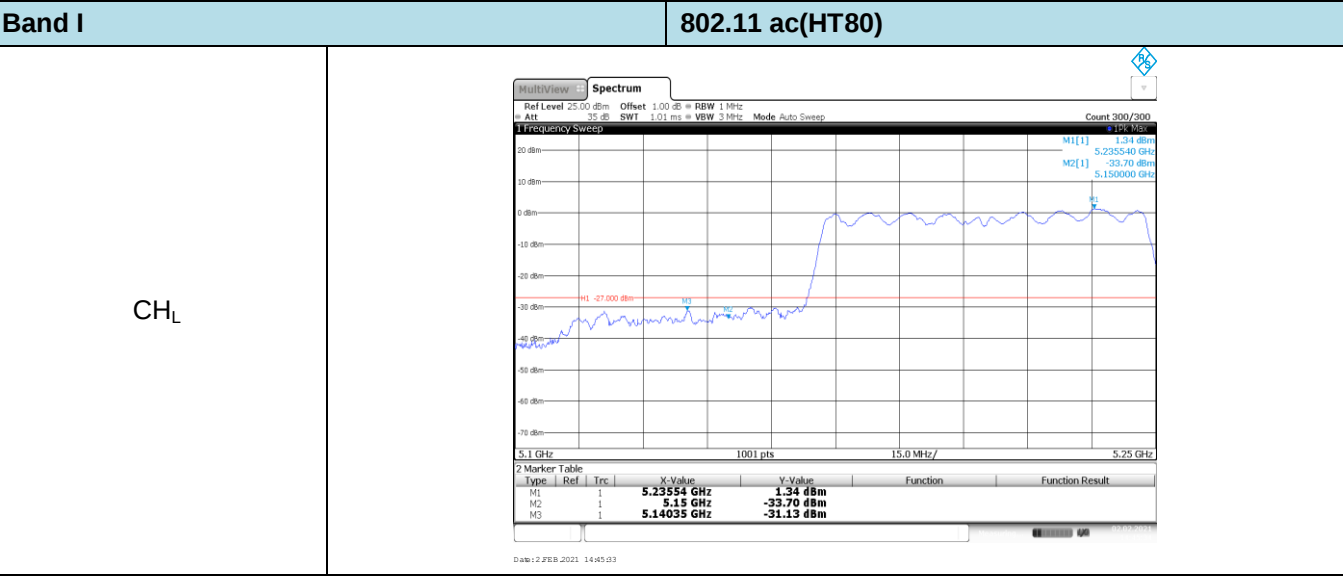
Band I		802.11a																											
CH _L	MultiView Spectrum Ref Level 25.00 dBm Offset 1.00 dB RBW 1 MHz Att 35 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300 1 Frequency Sweep 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] 5.17 dBm M2[1] -47.05 dBm M3 5.1500000 GHz 5.1 GHz 1001 pts 9.0 MHz/ 5.19 GHz <table><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><tr><td>M1</td><td>1</td><td></td><td>5.183661 GHz</td><td>5.17 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>5.15 GHz</td><td>-47.05 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>5.10162 GHz</td><td>-46.31 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 13:09:02	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.183661 GHz	5.17 dBm			M2	1		5.15 GHz	-47.05 dBm			M3	1		5.10162 GHz	-46.31 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1	1		5.183661 GHz	5.17 dBm																									
M2	1		5.15 GHz	-47.05 dBm																									
M3	1		5.10162 GHz	-46.31 dBm																									
CH _H	MultiView Spectrum Ref Level 25.00 dBm Offset 1.00 dB RBW 1 MHz Att 35 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 300/300 1 Frequency Sweep 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] 6.55 dBm M2[1] -47.92 dBm M3 5.3500000 GHz 5.29 GHz 1001 pts 13.0 MHz/ 5.36 GHz <table><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><tr><td>M1</td><td>1</td><td></td><td>5.24591 GHz</td><td>6.55 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>5.35 GHz</td><td>-47.92 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>5.35493 GHz</td><td>-47.18 dBm</td><td></td><td></td></tr></table> Date: 2 FEB 2021 13:03:57	Type	Ref	Trc	X-Value	Y-Value	Function	Function Result	M1	1		5.24591 GHz	6.55 dBm			M2	1		5.35 GHz	-47.92 dBm			M3	1		5.35493 GHz	-47.18 dBm		
Type	Ref	Trc	X-Value	Y-Value	Function	Function Result																							
M1	1		5.24591 GHz	6.55 dBm																									
M2	1		5.35 GHz	-47.92 dBm																									
M3	1		5.35493 GHz	-47.18 dBm																									

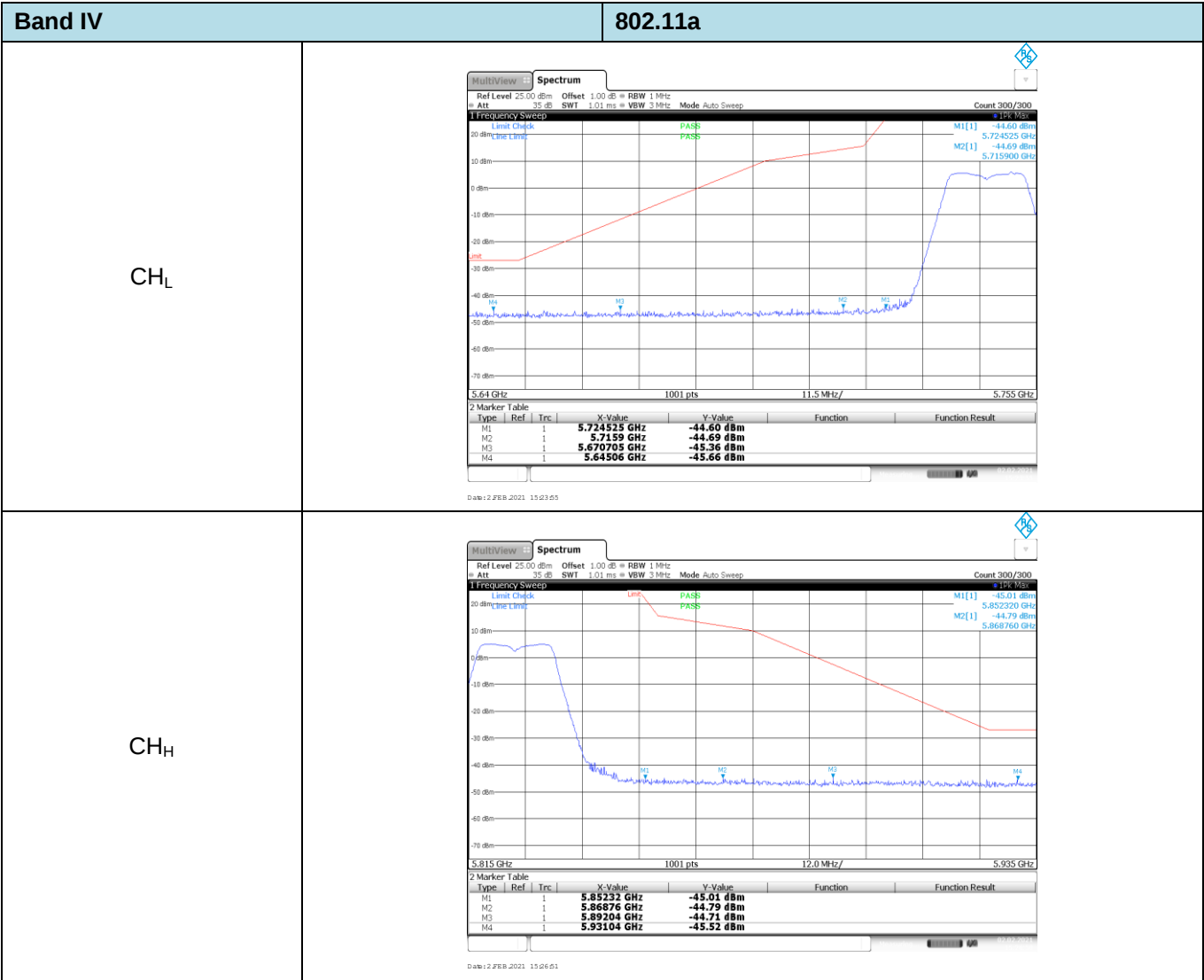


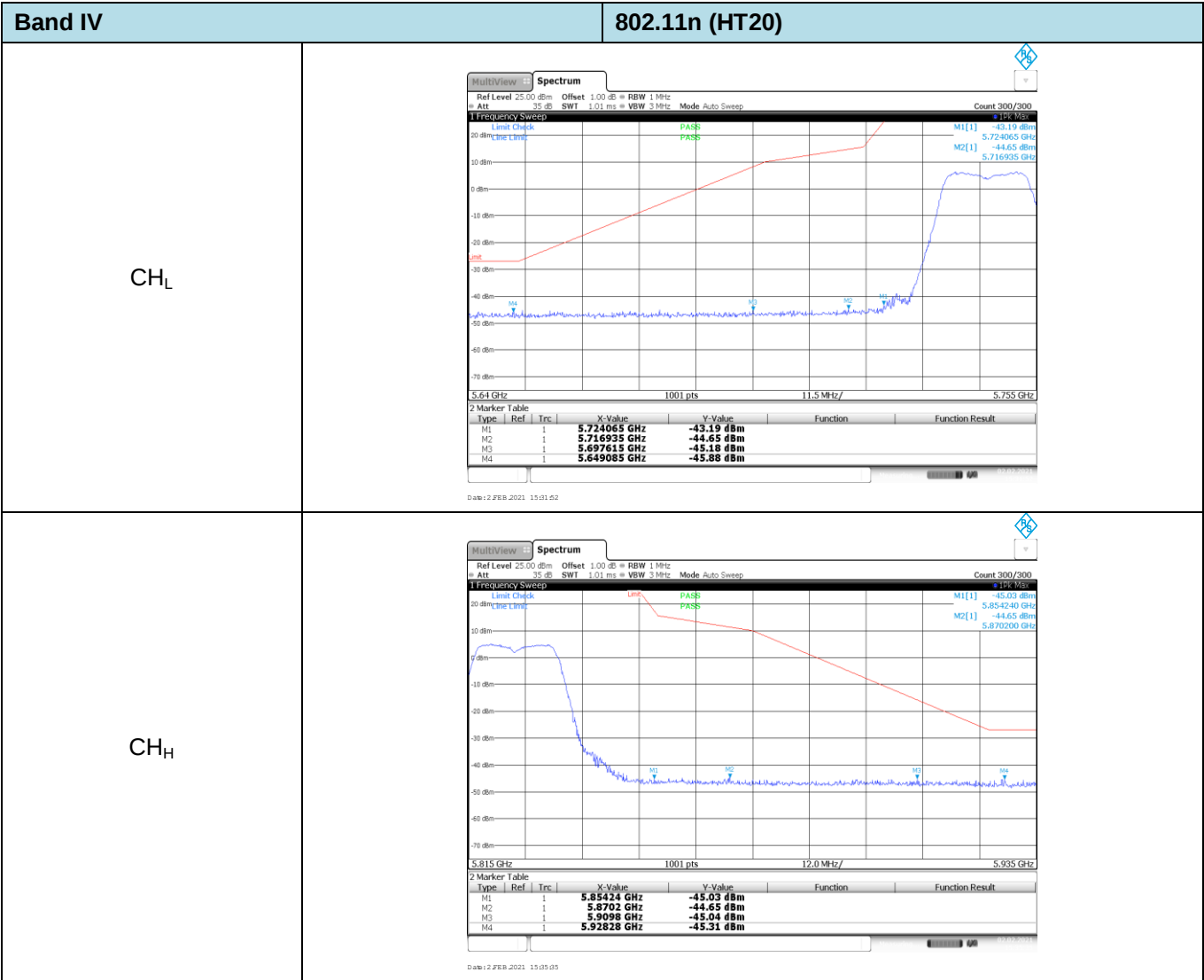


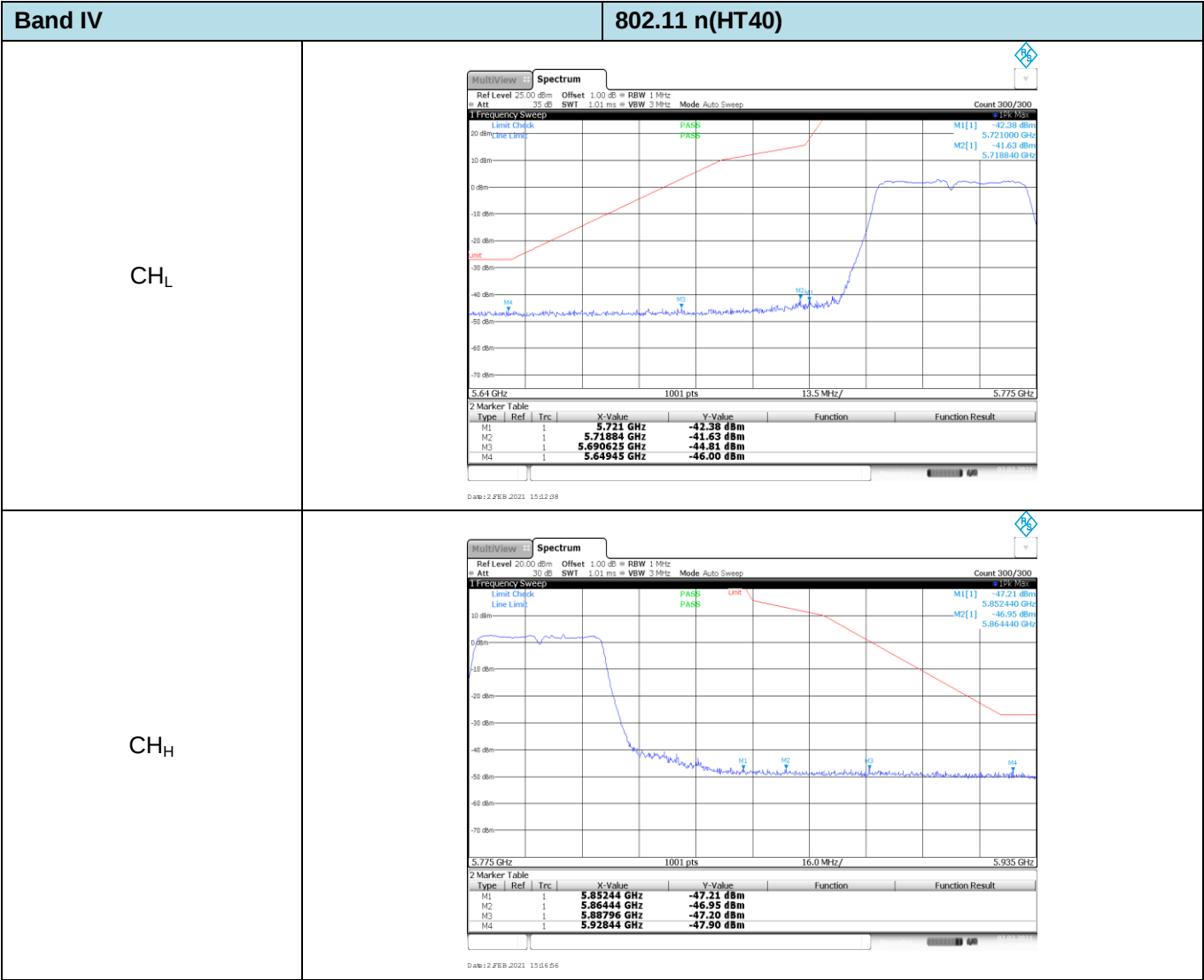


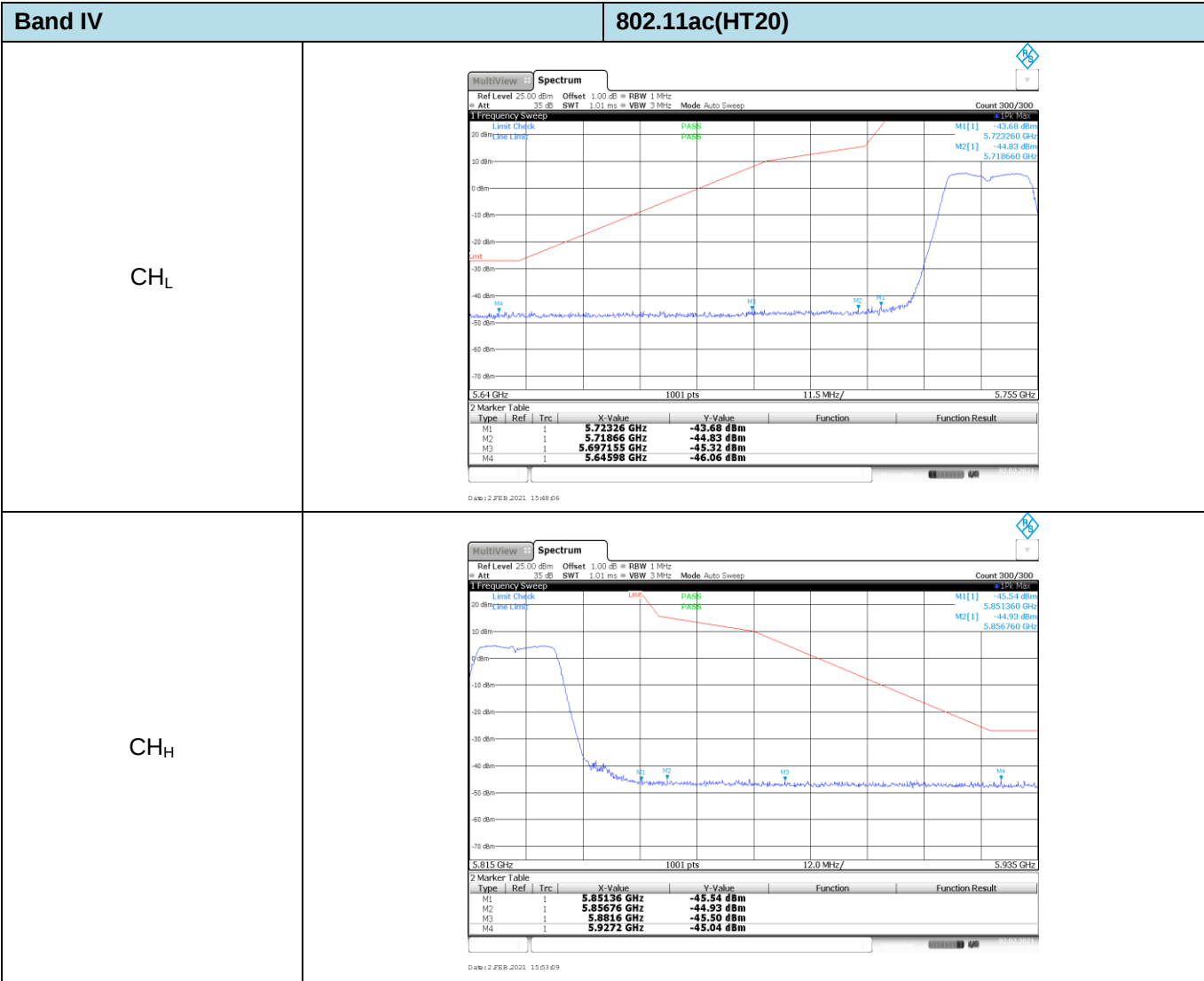


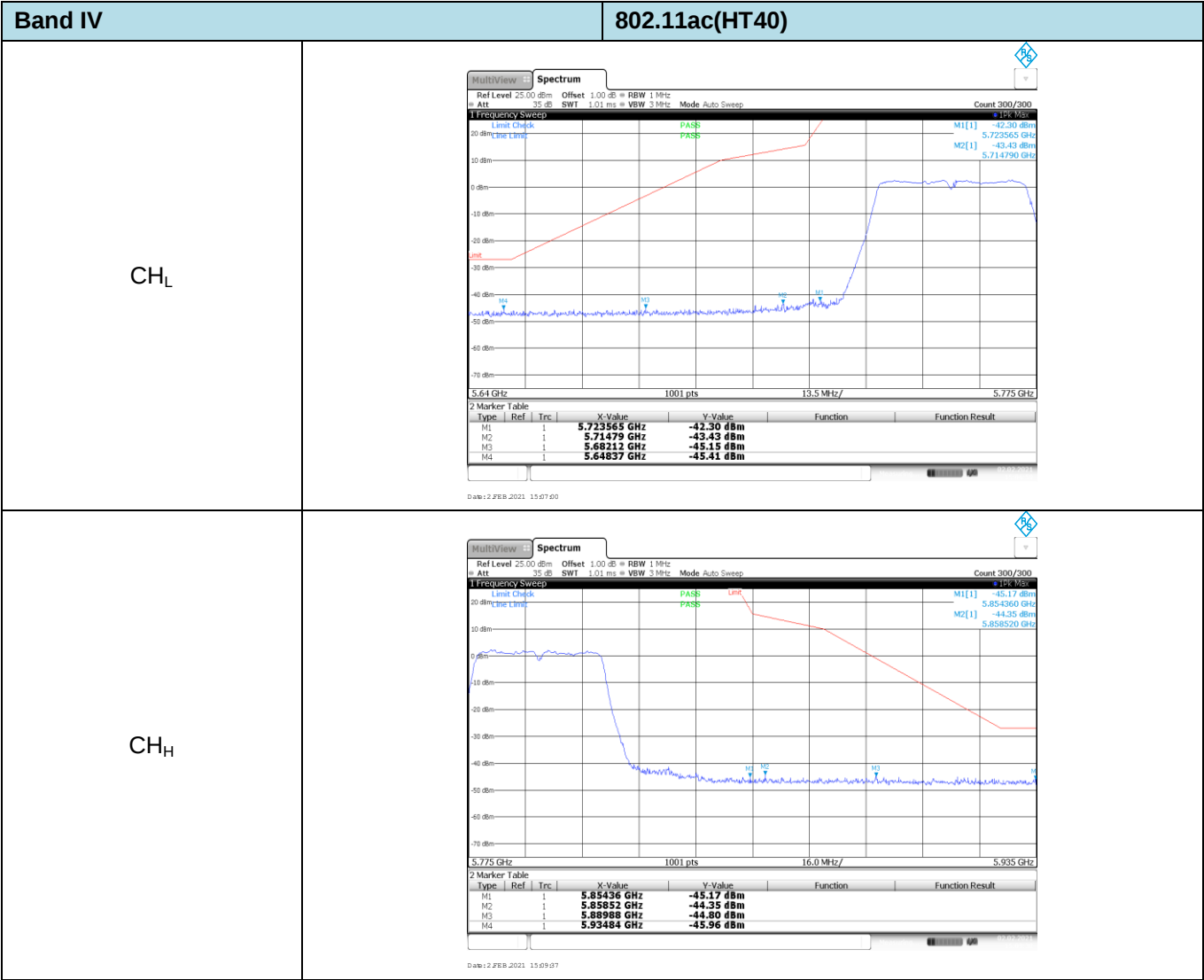


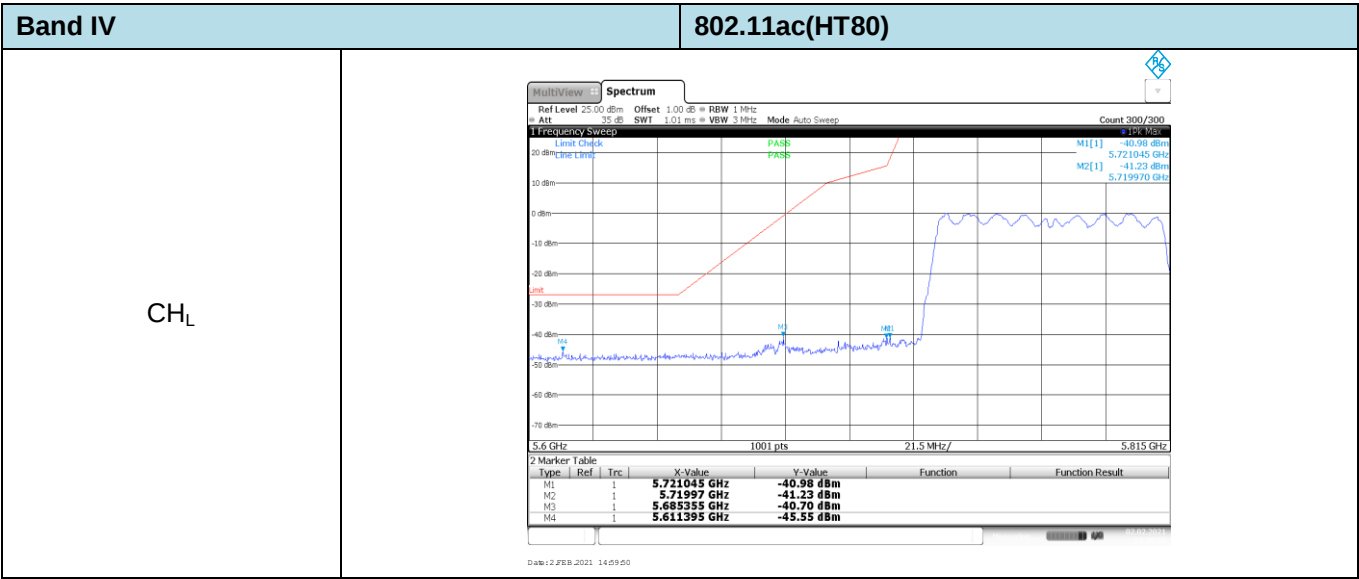












Appendix G: Frequency stability**Voltage VS Frequency stability**

Band: I			Test Frequency: 5180.00MHz	
Temperature (°C)	Voltage (V)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
T _N	V _L	-3000.00	-0.57915	PASS
T _N	V _N	-28000.00	-5.40541	PASS
T _N	V _H	17000.00	3.28185	PASS

Band: IV			Test Frequency: 5745.00MHz	
Temperature (°C)	Voltage (V)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
T _N	V _L	55900.00	9.73020	PASS
T _N	V _N	36000.00	6.26632	PASS
T _N	V _H	57900.00	10.07833	PASS

Temperature VS Frequency stability

Band: I			Test Frequency: 5180.00MHz	
Voltage (V)	Temperature (°C)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
V _N	-20	41000.00	7.91506	PASS
V _N	-10	50000.00	9.65251	PASS
V _N	0	58900.00	11.37066	PASS
V _N	10	64900.00	12.52896	PASS
V _N	20	72900.00	14.07336	PASS
V _N	30	77900.00	15.03861	PASS
V _N	40	83900.00	16.19691	PASS
V _N	50	85900.00	16.58301	PASS

Band: IV			Test Frequency: 5745.00MHz	
Voltage (V)	Temperature (°C)	Frequency Deviation (Hz)	Frequency Deviation (ppm)	Result
V _N	-20	62900.00	10.94865	PASS
V _N	-10	61900.00	10.77459	PASS
V _N	0	64900.00	11.29678	PASS
V _N	10	63900.00	11.12272	PASS
V _N	20	62900.00	10.94865	PASS
V _N	30	63900.00	11.12272	PASS
V _N	40	61900.00	10.77459	PASS
V _N	50	62900.00	10.94865	PASS

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