

APPENDIX REPORT

Project No.	SHT2101090701EW	Radio Specification	WIFI 5G
Test sample No.	YPHT21010907009	Model No.	i-Scan
Start test date	2021-02-09	Finish date	2021-02-09
Temperature	23.6°C	Humidity	47%
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	Band width (MHz)	Type	Channel	Reading (dBm)		Duty cycle (%)		Duty cycle factor (dB)		Conducted Output Power (dBm)		Total Power (dBm)	Limit (dBm)	Result
				Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1			
I	20	802.11ac	CH _L	9.64	7.63	100	100	0	0	9.64	7.63	11.76	24.00	Pass
			CH _M	10.58	8.58	100	100	0	0	10.58	8.58	12.70		
			CH _H	11.07	9.08	100	100	0	0	11.07	9.08	13.20		
		802.11n	CH _L	10.03	8.32	100	100	0	0	10.03	8.32	12.27	24.00	Pass
			CH _M	10.86	8.81	100	100	0	0	10.86	8.81	12.97		
			CH _H	11.33	9.19	100	100	0	0	11.33	9.19	13.40		
		802.11a	CH _L	12.27	11.23	100	100	0	0	12.27	11.23	-	24.00	Pass
			CH _M	13.47	11.58	100	100	0	0	13.47	11.58	-		
			CH _H	14.01	11.98	100	100	0	0	14.01	11.98	-		
	40	802.11ac	CH _L	10.61	8.75	100	100	0	0	10.61	8.75	12.79	24.00	Pass
			CH _H	11.46	9.79	100	100	0	0	11.46	9.79	13.72		
		802.11n	CH _L	10.60	8.72	100	100	0	0	10.60	8.72	12.77	24.00	Pass
			CH _H	11.56	9.90	100	100	0	0	11.56	9.90	13.82		
	80	802.11ac	CH _M	10.45	8.79	100	100	0	0	10.45	8.79	12.71	24.00	Pass

Band	Band width (MHz)	Type	Channel	Reading (dBm)		Duty cycle (%)		Duty cycle factor (dB)		Conducted Output Power (dBm)		Total Power (dBm)	Limit (dBm)	Result
				Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1			
II	20	802.11ac	CH _L	11.21	8.32	100	100	0	0	11.21	8.32	13.01	24.00	Pass
			CH _M	10.52	7.81	100	100	0	0	10.52	7.81	12.38		
			CH _H	10.30	7.69	100	100	0	0	10.30	7.69	12.20		
		802.11n	CH _L	11.41	9.23	100	100	0	0	11.41	9.23	13.47	24.00	Pass
			CH _M	10.99	8.55	100	100	0	0	10.99	8.55	12.95		
			CH _H	10.61	8.21	100	100	0	0	10.61	8.21	12.58		
		802.11a	CH _L	13.38	11.87	100	100	0	0	13.38	11.87	-	24.00	Pass
			CH _M	12.99	11.14	100	100	0	0	12.99	11.14	-		
			CH _H	12.54	10.73	100	100	0	0	12.54	10.73	-		
	40	802.11ac	CH _L	11.79	8.93	100	100	0	0	11.79	8.93	13.60	24.00	Pass
			CH _H	11.19	8.62	100	100	0	0	11.19	8.62	13.10		
		802.11n	CH _L	12.01	8.76	100	100	0	0	12.01	8.76	13.69	24.00	Pass
			CH _H	11.21	8.52	100	100	0	0	11.21	8.52	13.08		
	80	802.11ac	CH _M	11.02	8.09	100	100	0	0	11.02	8.09	12.81	24.00	Pass

Band	Band width (MHz)	Type	Channel	Reading (dBm)		Duty cycle (%)		Duty cycle factor (dB)		Conducted Output Power (dBm)		Total Power (dBm)	Limit (dBm)	Result
				Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1			
IV	20	802.11ac	CH _L	10.87	8.46	100	100	0	0	10.87	8.46	12.84	30.00	Pass
			CH _M	10.90	8.41	100	100	0	0	10.90	8.41	12.84		
			CH _H	11.27	8.66	100	100	0	0	11.27	8.66	13.17		
		802.11n	CH _L	11.99	9.28	100	100	0	0	11.99	9.28	13.85	30.00	Pass
			CH _M	11.69	9.04	100	100	0	0	11.69	9.04	13.57		
			CH _H	11.81	9.20	100	100	0	0	11.81	9.20	13.71		
		802.11a	CH _L	14.01	11.60	100	100	0	0	14.01	11.60	-	30.00	Pass
			CH _M	14.10	11.49	100	100	0	0	14.10	11.49	-		
			CH _H	14.29	11.57	100	100	0	0	14.29	11.57	-		
	40	802.11ac	CH _L	10.95	8.88	100	100	0	0	10.95	8.88	13.05	30.00	Pass
			CH _H	11.18	8.72	100	100	0	0	11.18	8.72	13.13		
		802.11n	CH _L	11.57	9.36	100	100	0	0	11.57	9.36	13.61	30.00	Pass
			CH _H	11.59	9.22	100	100	0	0	11.59	9.22	13.58		
	80	802.11ac	CH _M	10.60	8.30	100	100	0	0	10.60	8.30	12.61	30.00	Pass

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

Appendix B: Maximum Power Spectral Density

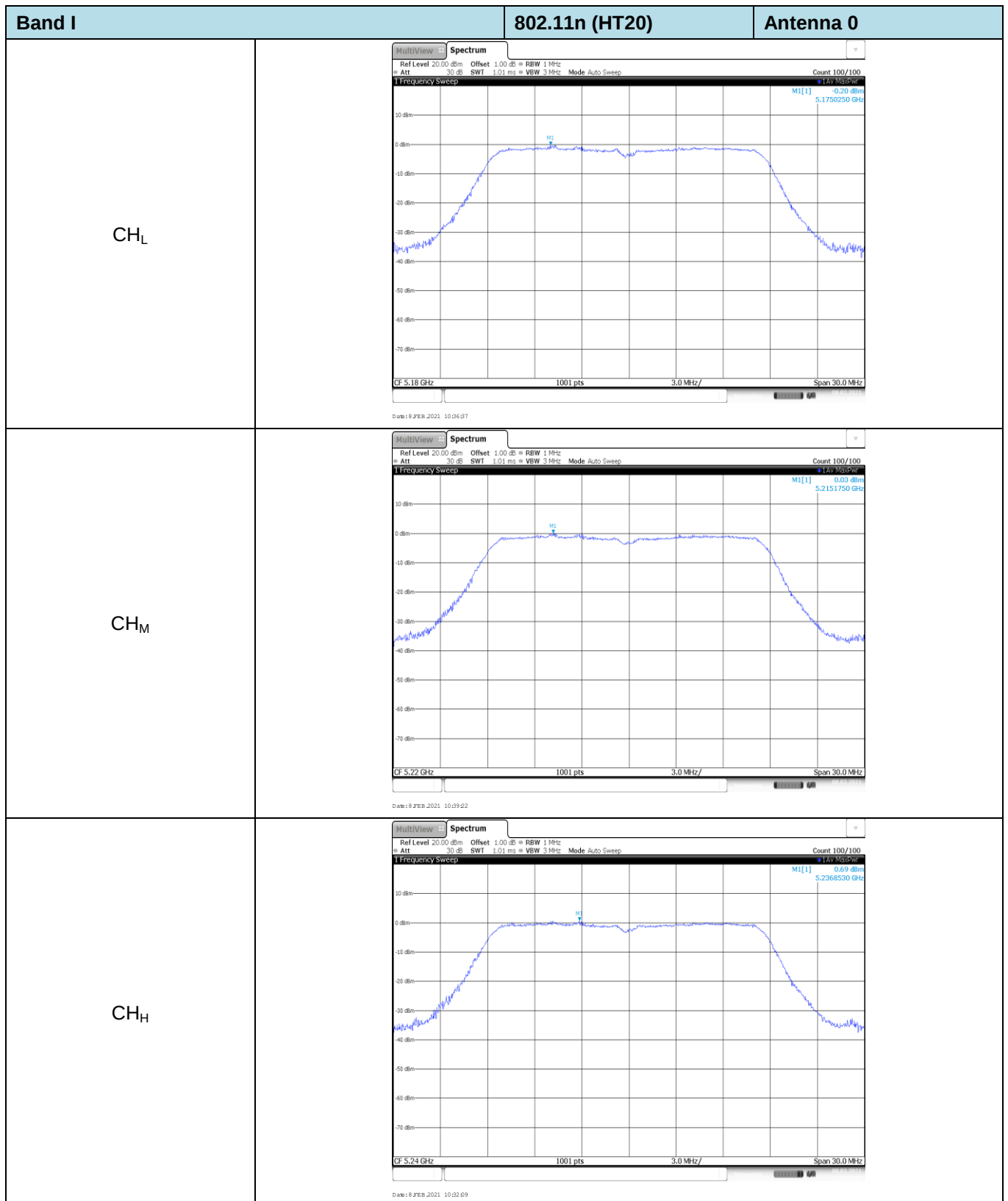
Band	Band width (MHz)	Type	Channel	Reading (dBm)		Duty cycle (%)		Duty cycle factor (dB)		Power Spectral Density (dBm/MHz)		Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
				Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1			
I	20	802.11ac	CH _L	-0.42	-2.73	100	100	0	0	-0.42	-2.73	1.59	11.00	Pass
			CH _M	-0.22	-2.32	100	100	0	0	-0.22	-2.32	1.87		
			CH _H	0.55	-1.98	100	100	0	0	0.55	-1.98	2.48		
		802.11n	CH _L	-0.20	-2.19	100	100	0	0	-0.20	-2.19	1.93	11.00	Pass
			CH _M	0.03	-2.22	100	100	0	0	0.03	-2.22	2.06		
			CH _H	0.69	-2.10	100	100	0	0	0.69	-2.10	2.53		
		802.11a	CH _L	2.14	0.88	100	100	0	0	2.14	0.88	-	11.00	Pass
			CH _M	2.75	0.67	100	100	0	0	2.75	0.67	-		
			CH _H	3.29	1.05	100	100	0	0	3.29	1.05	-		
	40	802.11ac	CH _L	-3.05	-4.98	100	100	0	0	-3.05	-4.98	-0.90	11.00	Pass
			CH _H	-2.34	-4.08	100	100	0	0	-2.34	-4.08	-0.11		
		802.11n	CH _L	-3.21	-4.54	100	100	0	0	-3.21	-4.54	-0.81	11.00	Pass
			CH _H	-2.54	-4.06	100	100	0	0	-2.54	-4.06	-0.22		
	80	802.11ac	CH _M	-5.39	-7.24	100	100	0	0	-5.39	-7.24	-3.21	11.00	Pass

Band	Band width (MHz)	Type	Channel	Reading (dBm)		Duty cycle (%)		Duty cycle factor (dB)		Power Spectral Density (dBm/MHz)		Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
				Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1			
II	20	802.11ac	CH _L	0.63	-2.36	100	100	0	0	0.63	-2.36	2.40	11.00	Pass
			CH _M	-0.09	-3.16	100	100	0	0	-0.09	-3.16	1.65		
			CH _H	-0.06	-2.60	100	100	0	0	-0.06	-2.60	1.86		
		802.11n	CH _L	0.69	-1.54	100	100	0	0	0.69	-1.54	2.73	11.00	Pass
			CH _M	0.36	-2.04	100	100	0	0	0.36	-2.04	2.33		
			CH _H	-0.12	-2.18	100	100	0	0	-0.12	-2.18	1.98		
		802.11a	CH _L	2.53	1.02	100	100	0	0	2.53	1.02	-	11.00	Pass
			CH _M	2.68	0.82	100	100	0	0	2.68	0.82	-		
			CH _H	2.28	0.13	100	100	0	0	2.28	0.13	-		
	40	802.11ac	CH _L	-1.76	-5.01	100	100	0	0	-1.76	-5.01	-0.08	11.00	Pass
			CH _H	-2.18	-5.14	100	100	0	0	-2.18	-5.14	-0.40		
		802.11n	CH _L	-1.78	-4.71	100	100	0	0	-1.78	-4.71	0.01	11.00	Pass
			CH _H	-1.97	-5.30	100	100	0	0	-1.97	-5.30	-0.31		
	80	802.11ac	CH _M	-4.66	-8.16	100	100	0	0	-4.66	-8.16	-3.06	11.00	Pass

Band	Band width (MHz)	Type	Channel	Reading (dBm)		Duty cycle (%)		Duty cycle factor (dB)		Power Spectral Density (dBm/500kHz)		Total PSD (dBm/MHz)	Limit (dBm/500KHz)	Result
				Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1	Antenna 0	Antenna 1			
IV	20	802.11ac	CH _L	-0.77	-3.14	100	100	0	0	-0.77	-3.14	1.22	30.00	Pass
			CH _M	-1.62	-3.90	100	100	0	0	-1.62	-3.90	0.40		
			CH _H	-1.01	-3.58	100	100	0	0	-1.01	-3.58	0.90		
		802.11n	CH _L	0.07	-2.90	100	100	0	0	0.07	-2.90	1.84	30.00	Pass
			CH _M	-1.00	-3.16	100	100	0	0	-1.00	-3.16	1.06		
			CH _H	-0.36	-3.24	100	100	0	0	-0.36	-3.24	1.44		
		802.11a	CH _L	2.31	-0.16	100	100	0	0	2.31	-0.16	-	30.00	Pass
			CH _M	1.72	-1.02	100	100	0	0	1.72	-1.02	-		
			CH _H	2.41	-0.83	100	100	0	0	2.41	-0.83	-		
	40	802.11ac	CH _L	-4.04	-6.08	100	100	0	0	-4.04	-6.08	-0.93	30.00	Pass
			CH _H	-4.54	-6.91	100	100	0	0	-4.54	-6.91	-2.56		
		802.11n	CH _L	-3.70	-5.52	100	100	0	0	-3.70	-5.52	-1.51	30.00	Pass
			CH _H	-3.92	-6.28	100	100	0	0	-3.92	-6.28	-1.93		
	80	802.11ac	CH _M	-7.41	-9.48	100	100	0	0	-7.41	-9.48	-5.31	30.00	Pass

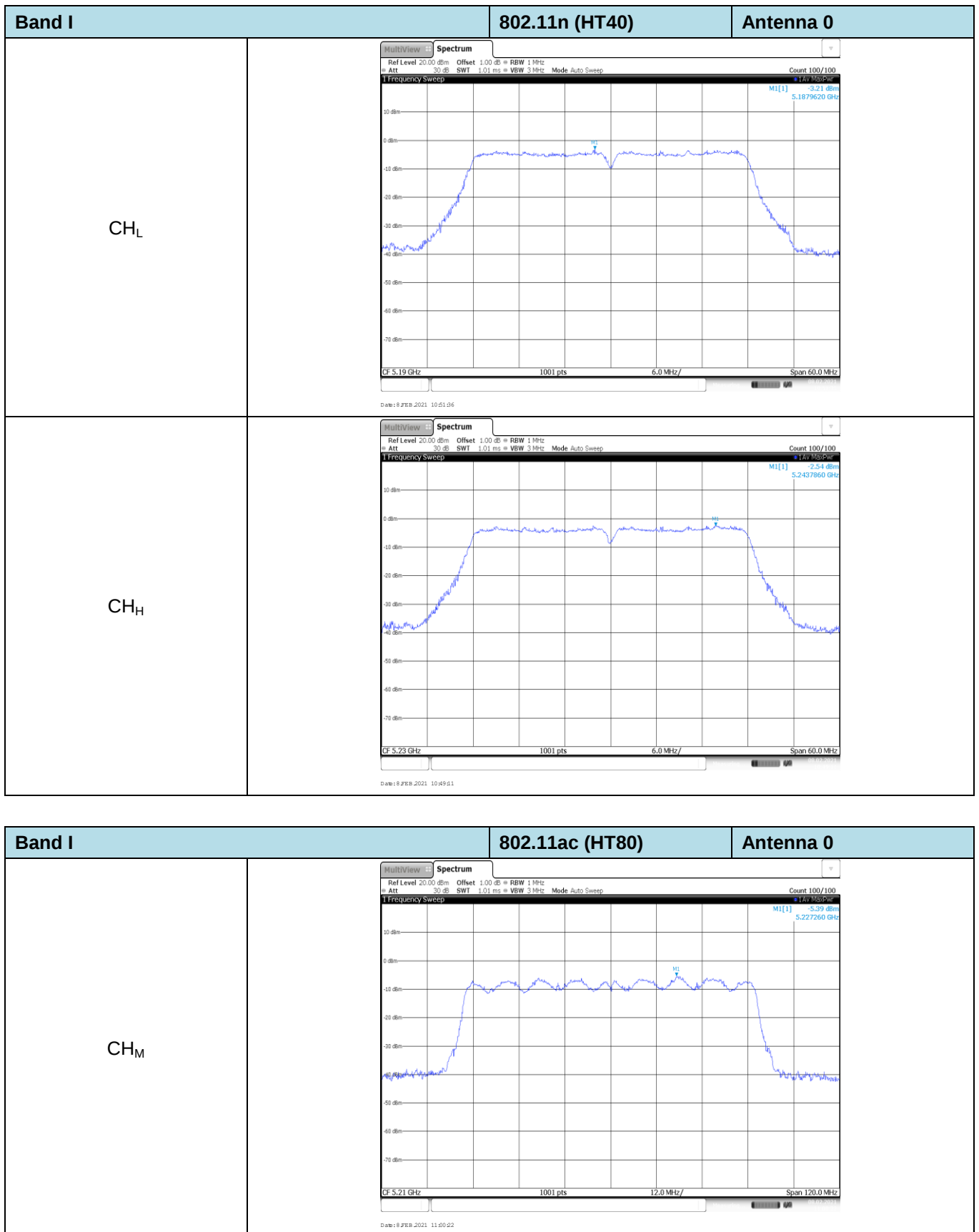
Test plot as follows:

Band I		802.11ac (HT20)	Antenna 0
CH _L	MultViewSpectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SW1 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep 20 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 5.18 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz MI[1] -0.42 dBm 5.1751750 GHz Date: 8 FEB 2021 10:44:26		
CH _M	MultViewSpectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SW1 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep 20 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 5.22 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz MI[1] -0.22 dBm 5.2150850 GHz Date: 8 FEB 2021 10:46:56		
CH _H	MultViewSpectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SW1 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep 20 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm 5.24 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz MI[1] 0.35 dBm 5.2351750 GHz Date: 8 FEB 2021 10:40:59		



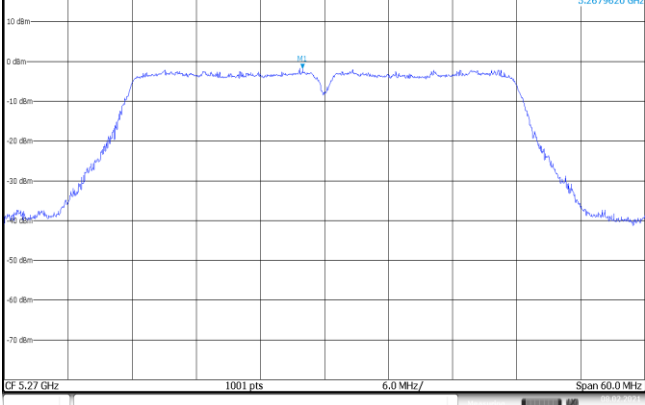
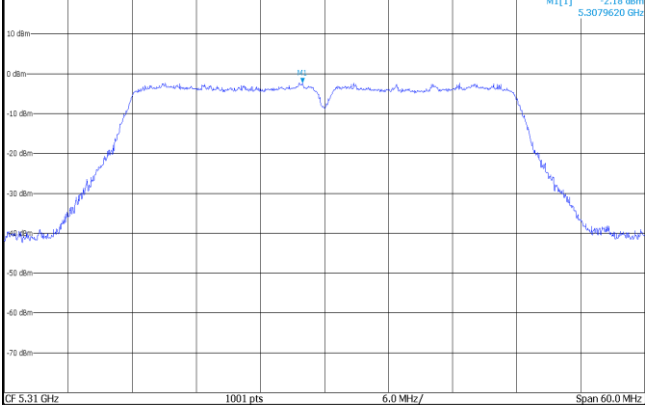
Band I		802.11a	Antenna 0
CH _L			
CH _M			
CH _H			

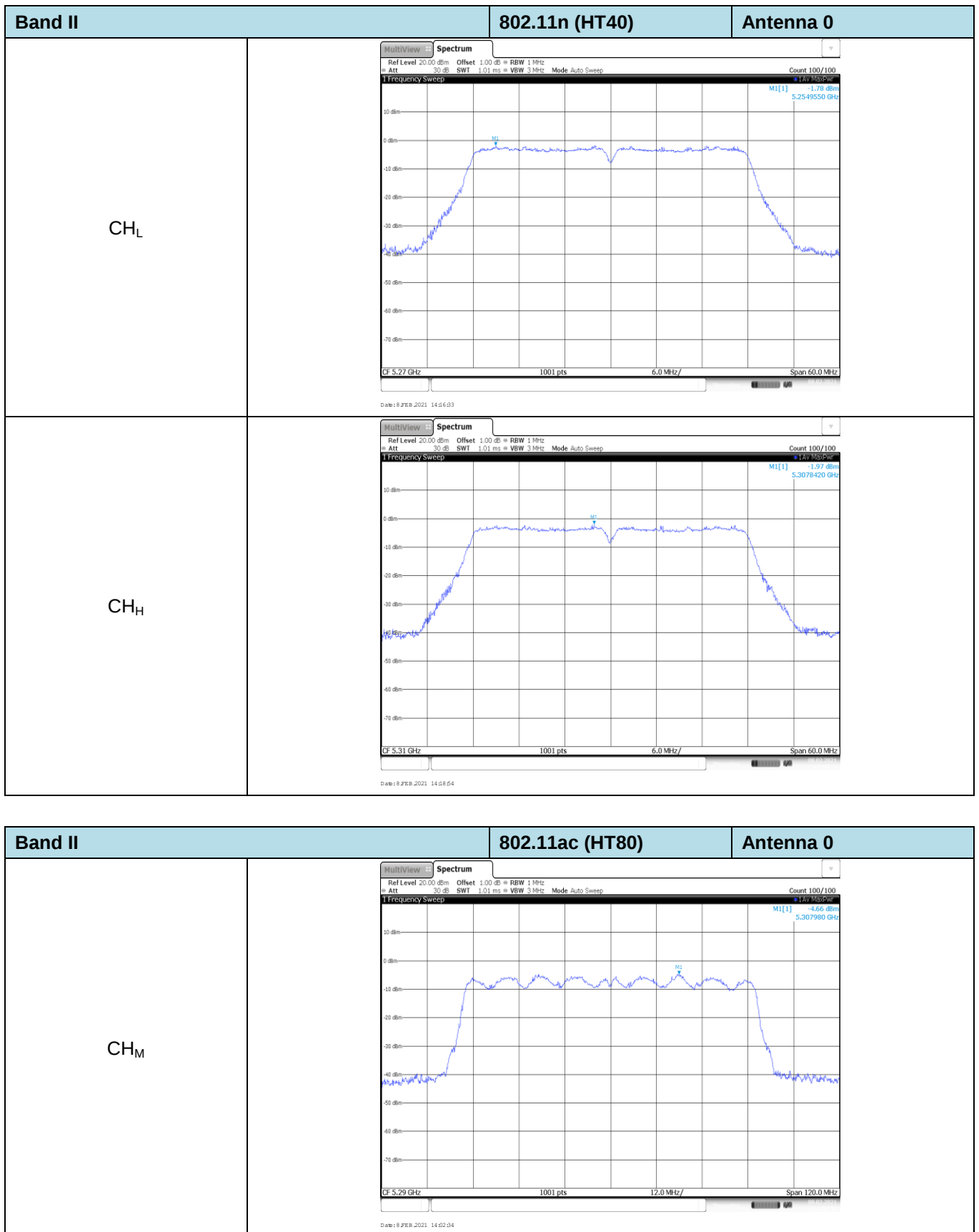
Band I	802.11ac (HT40)	Antenna 0
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep MU[1] -3.05 dBm 5.1878420 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.19 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 8 FEB 2021 10:56:46	
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep MU[1] -2.34 dBm 5.2458240 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.23 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date: 8 FEB 2021 10:53:39	

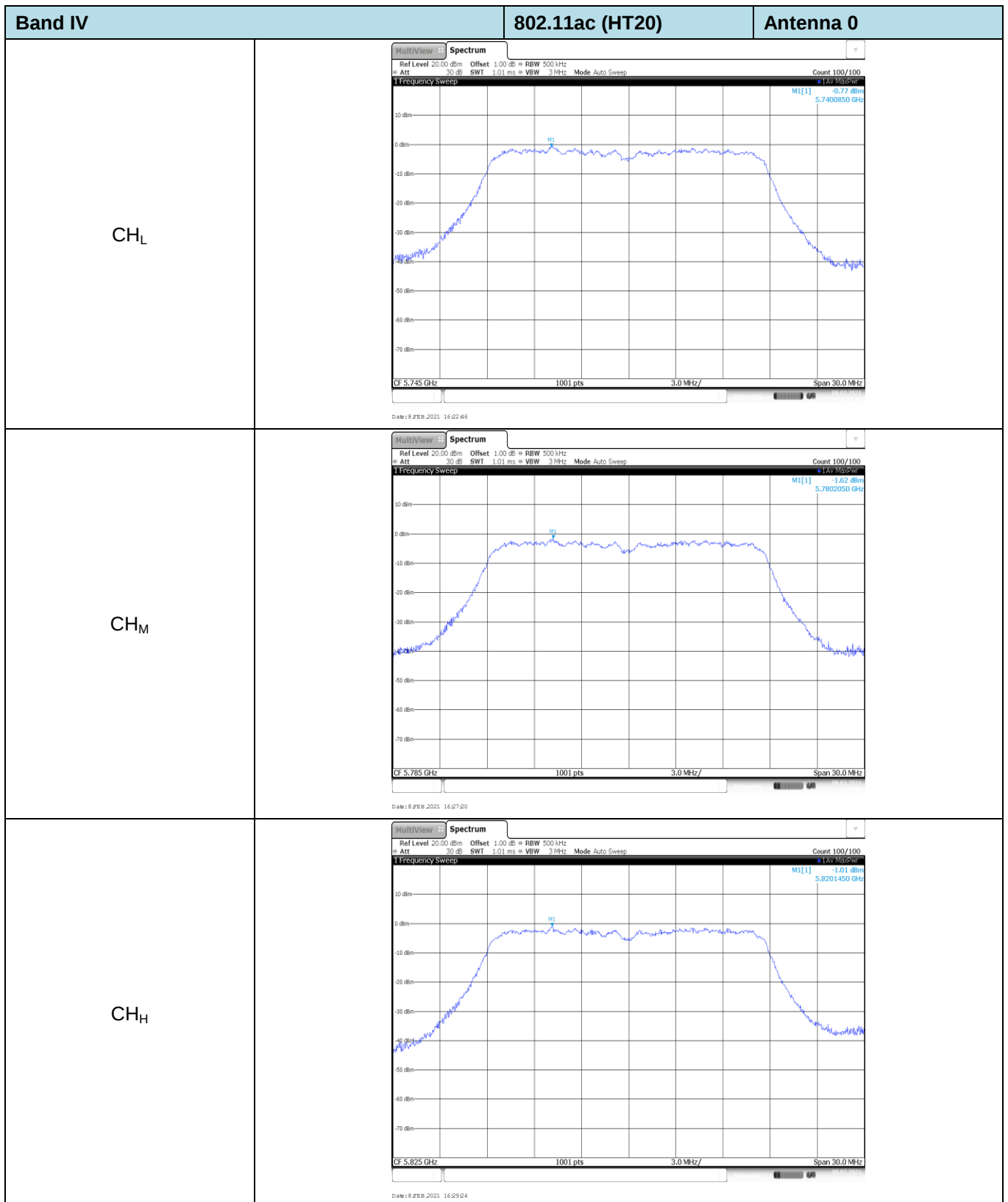


Band II		802.11n (HT20)	Antenna 0
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VEW 3 MHz Mode Auto Sweep Count 100/100 5.17350250 GHz Frequency Sweep M1[1] 0.69 dBm 5.2550250 GHz 30 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.26 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 14:34:28		
CH _M	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VEW 3 MHz Mode Auto Sweep Count 100/100 5.17350250 GHz Frequency Sweep M1[1] 0.36 dBm 5.2751750 GHz 30 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.28 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 14:36:45		
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWI 1.01 ms VEW 3 MHz Mode Auto Sweep Count 100/100 5.17350250 GHz Frequency Sweep M1[1] -0.12 dBm 5.3150850 GHz 30 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.32 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 14:38:05		

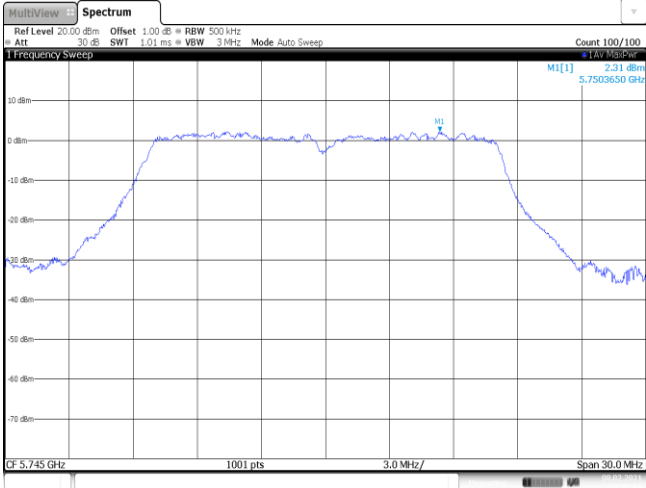
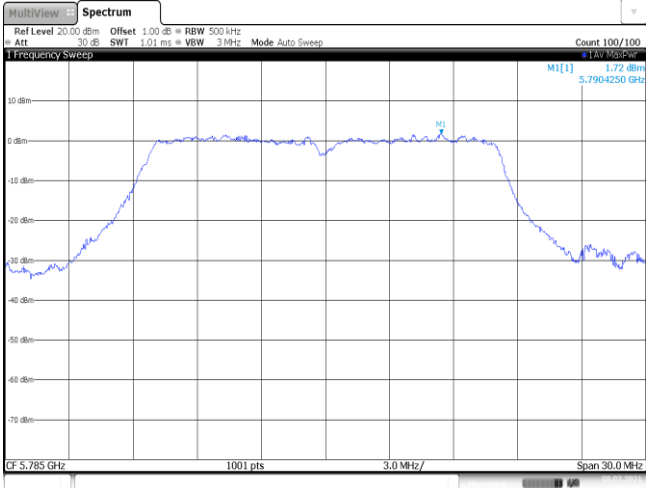
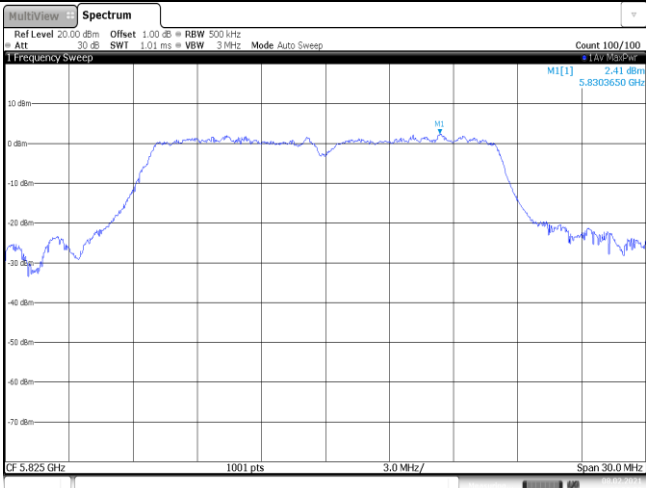
Band II	802.11a	Antenna 0
CH _L	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1AV MS/PPW 1 Frequency Sweep M1 2.53 dBm 5.2559840 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.26 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 14:43:55	
CH _M	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1AV MS/PPW 1 Frequency Sweep M1 2.68 dBm 5.2735260 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.28 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 14:45:08	
CH _H	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1AV MS/PPW 1 Frequency Sweep M1 2.28 dBm 5.3154750 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.32 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 14:47:27	

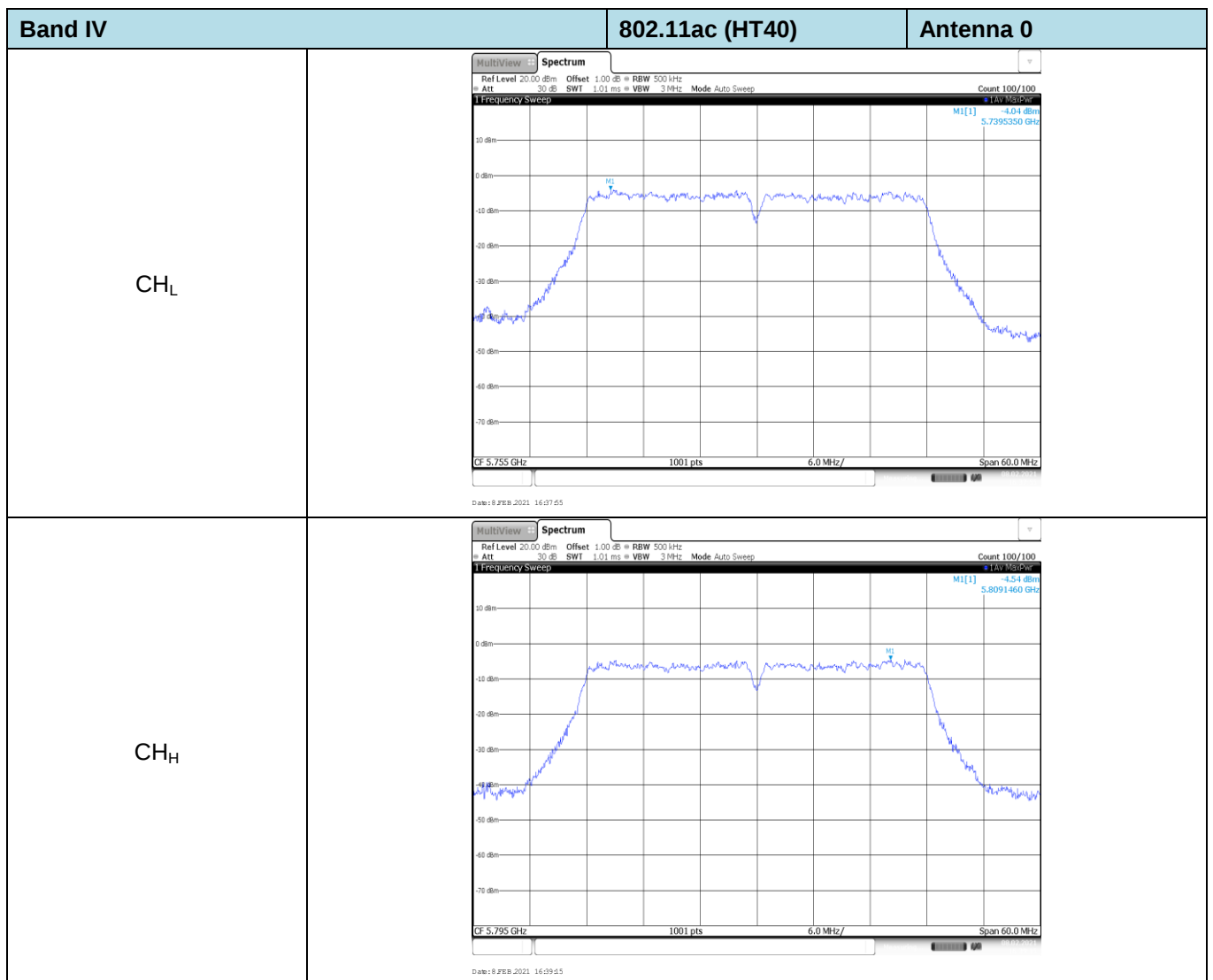
Band II		802.11ac (HT40)	Antenna 0
CH _L	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MS/Power Frequency Sweep  MI[1] -1.76 dBm 5.2679620 GHz CF 5.27 GHz1001 pts6.0 MHz/Span 60.0 MHz Date: 8 FEB 2021 14:11:17		
CH _H	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MS/Power Frequency Sweep  MI[1] -2.18 dBm 5.3079620 GHz CF 5.31 GHz1001 pts6.0 MHz/Span 60.0 MHz Date: 8 FEB 2021 14:09:37		

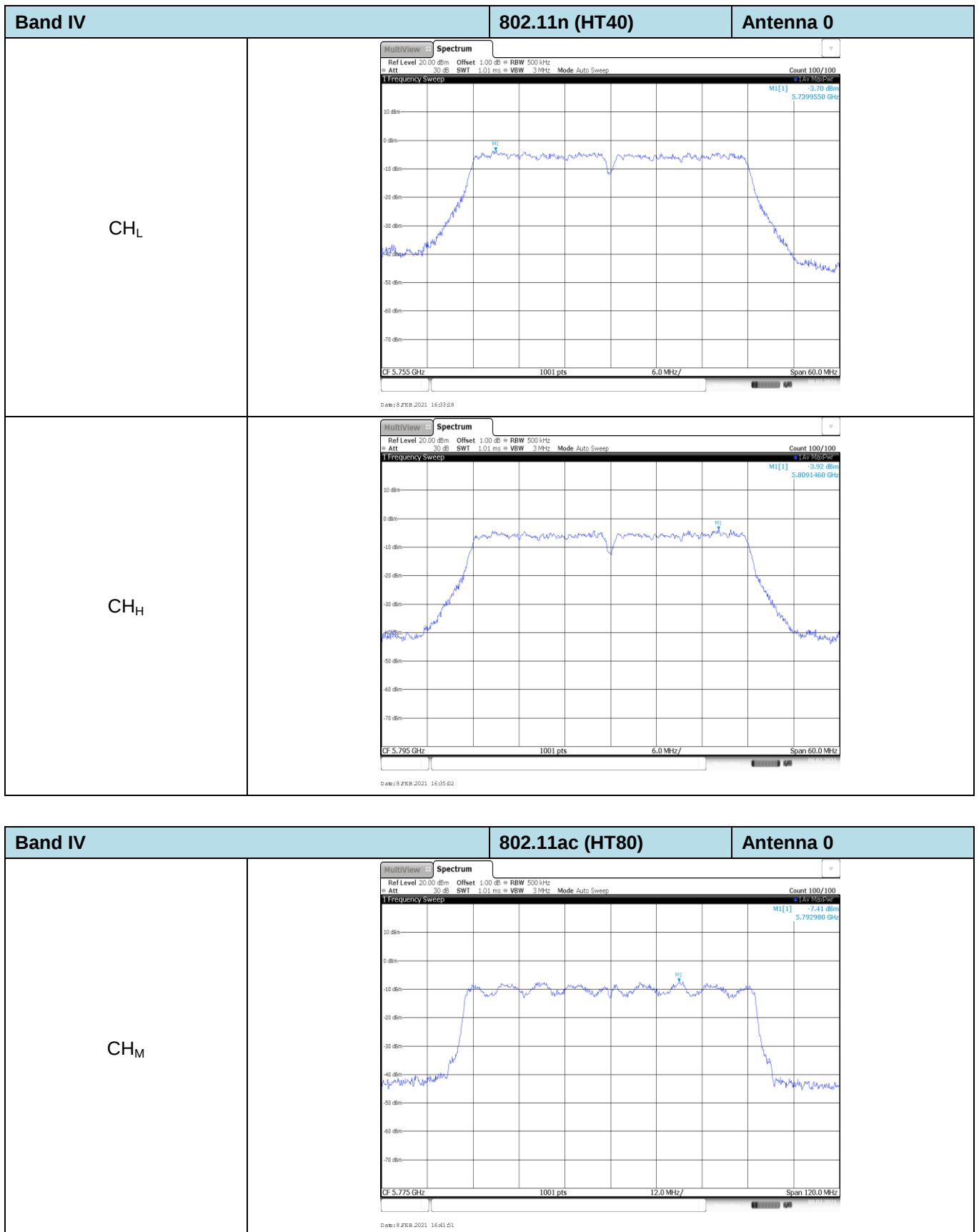


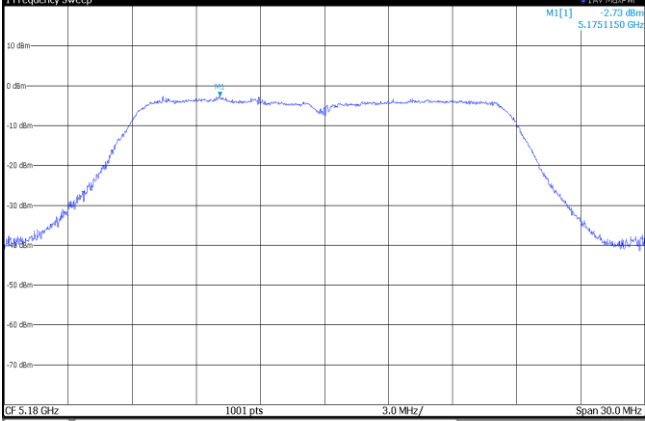
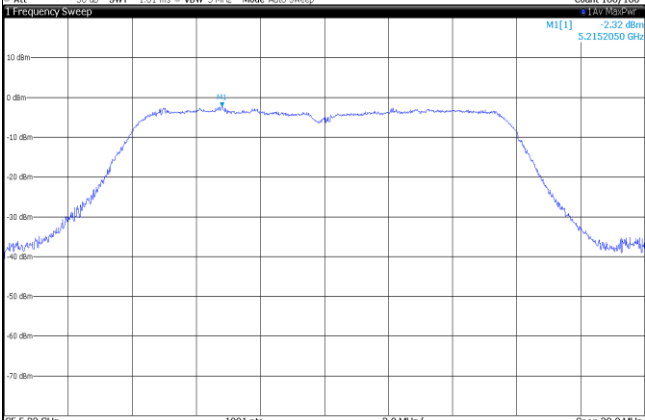
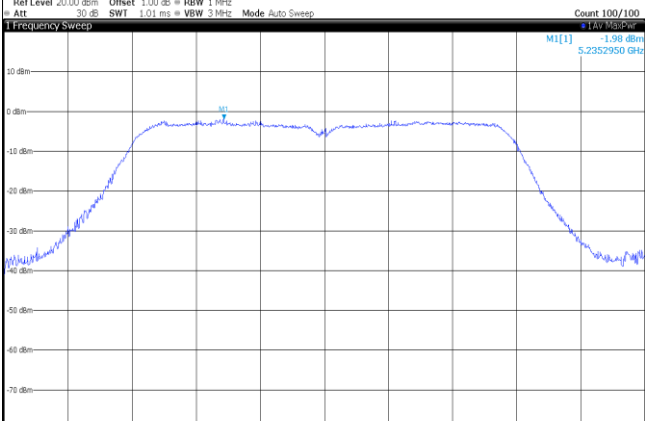


Band IV	802.11n (HT20)	Antenna 0
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MSPW 1 Frequency Sweep MU[1] 0.07 dBm 5.7400850 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:12:02	
CH _M	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MSPW 1 Frequency Sweep MU[1] -1.00 dBm 5.7800850 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:15:42	
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 500 kHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MSPW 1 Frequency Sweep MU[1] -0.36 dBm 5.8201450 GHz 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:20:06	

Band IV	802.11a	Antenna 0
CH _L	 Ref Level 20.00 dBm Offset 1.00 dB BW 500 kHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] 2.31 dBm 5.7503650 GHz CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:05:58	
CH _M	 Ref Level 20.00 dBm Offset 1.00 dB BW 500 kHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] 1.72 dBm 5.7904250 GHz CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:07:25	
CH _H	 Ref Level 20.00 dBm Offset 1.00 dB BW 500 kHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] 2.41 dBm 5.8303650 GHz CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:08:05	

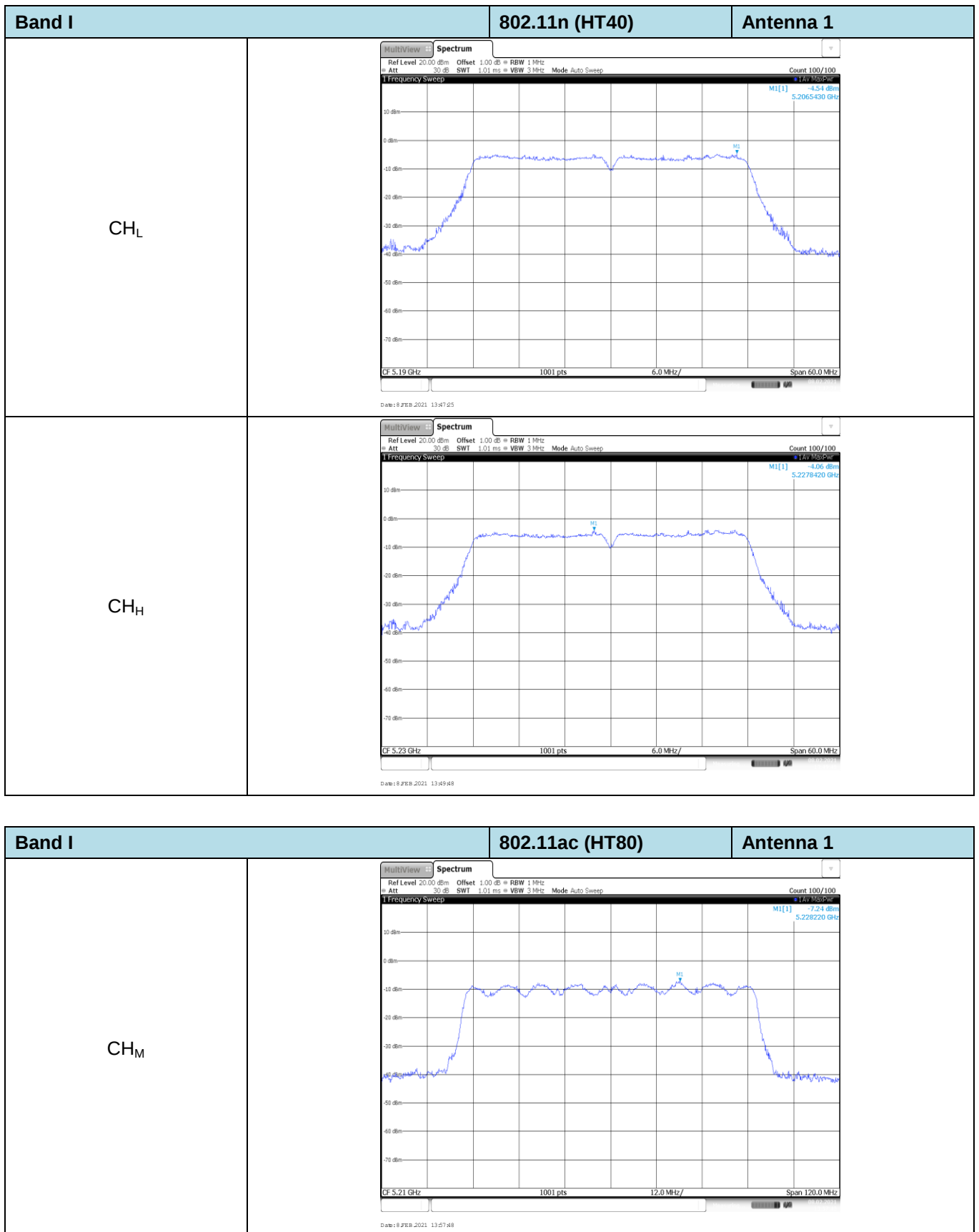


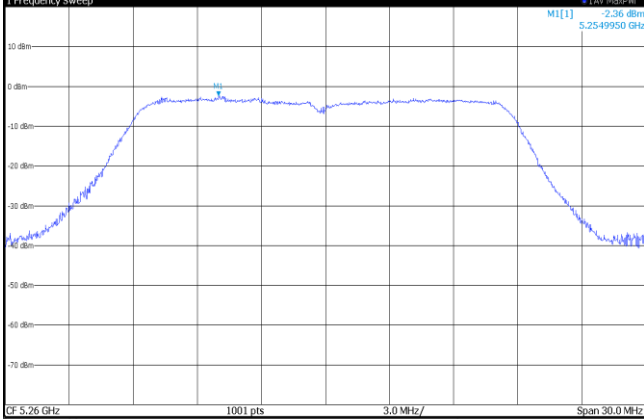
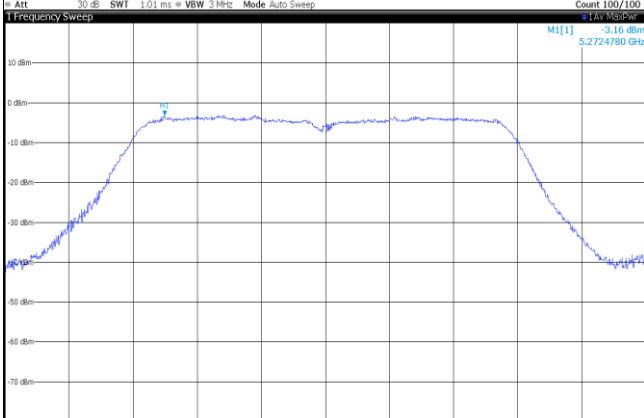
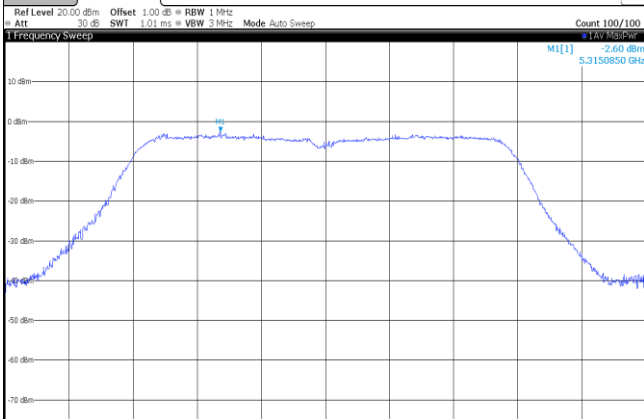


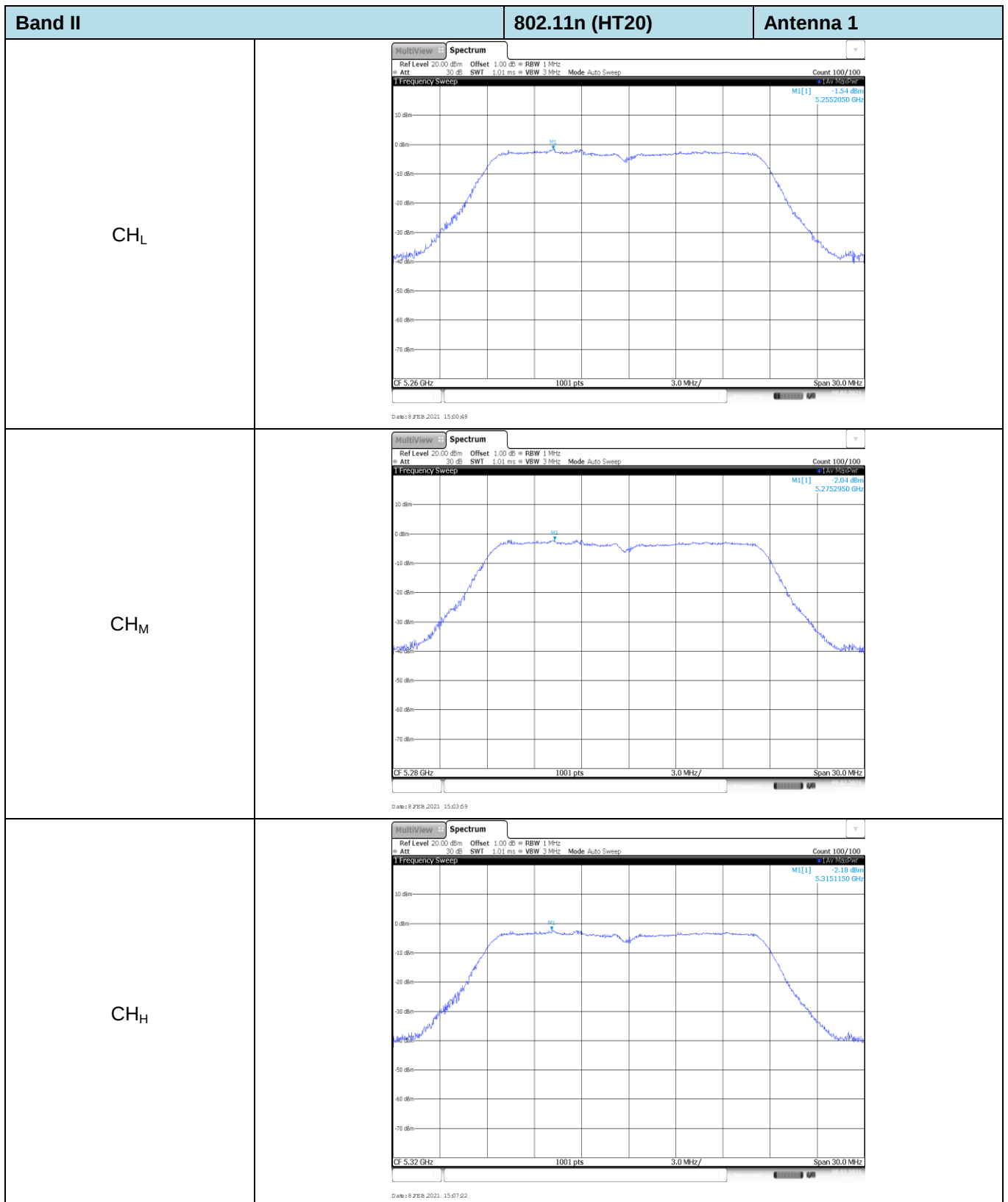
Band I		802.11ac (HT20)	Antenna 1
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VSW 3.14Hz Mode Auto Sweep Count 100/100 1 Frequency Sweep MI[1] -2.73 dBm 5.1751150 GHz  CF 5.18 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 13:41:02		
CH _M	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VSW 3.14Hz Mode Auto Sweep Count 100/100 1 Frequency Sweep MI[1] -2.32 dBm 5.2152050 GHz  CF 5.22 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 13:43:52		
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VSW 3.14Hz Mode Auto Sweep Count 100/100 1 Frequency Sweep MI[1] -1.98 dBm 5.2352950 GHz  CF 5.24 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 13:45:05		

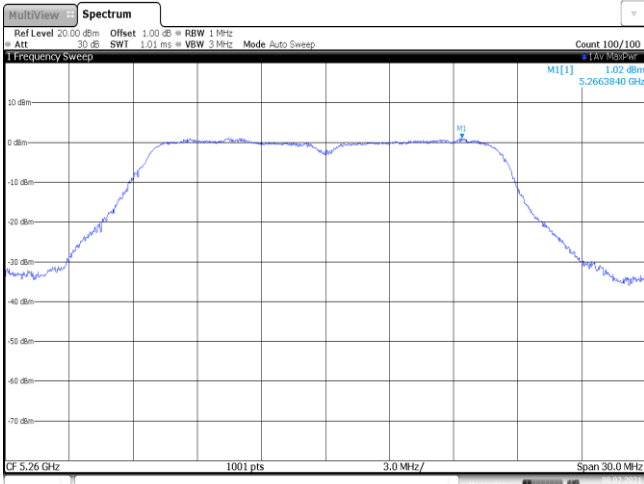
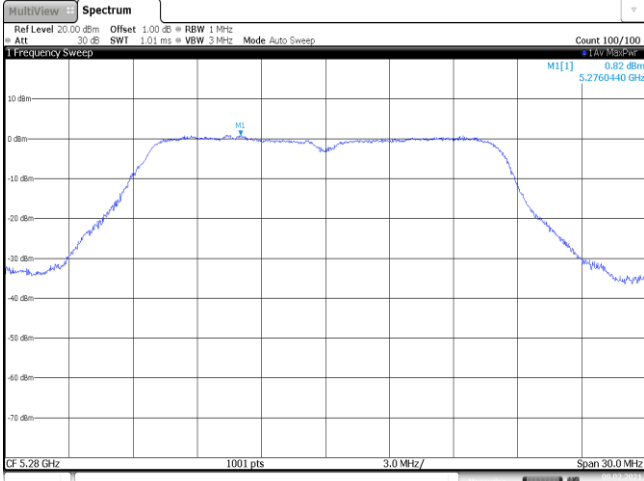
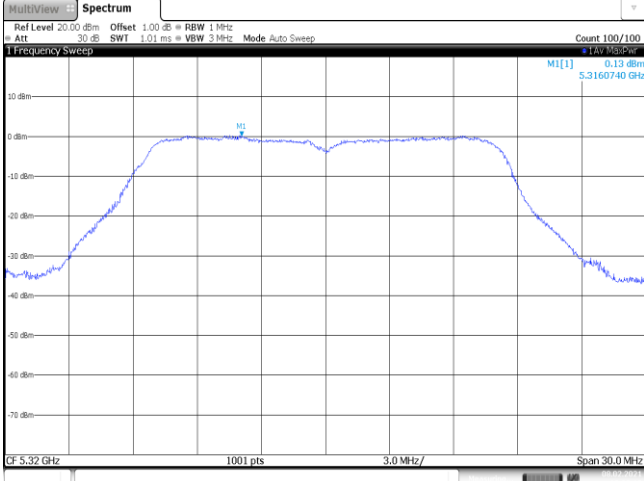
Band I	802.11n (HT20)		Antenna 1
CH _L			

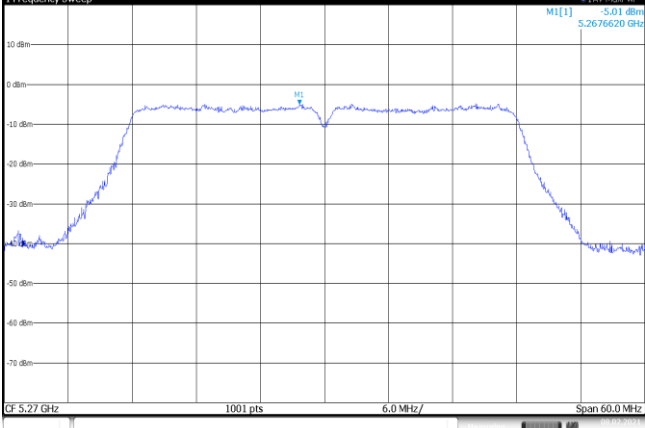
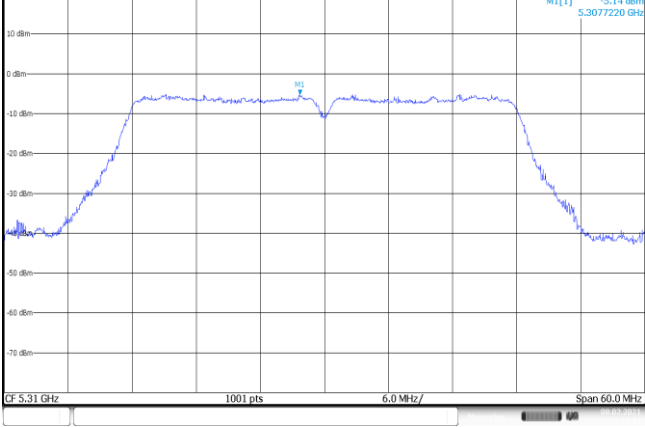
Band I		802.11a	Antenna 1
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 5.1736460 GHz Frequency Sweep M1[1] 0.88 dBm 5.1736460 GHz 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm CF 5.18 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 13:22:27		
CH _M	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 5.2263240 GHz Frequency Sweep M1[1] 0.67 dBm 5.2263240 GHz 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm CF 5.22 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 13:24:49		
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 5.2463840 GHz Frequency Sweep M1[1] 1.05 dBm 5.2463840 GHz 0 dBm 10 dBm 20 dBm 30 dBm 40 dBm 50 dBm 60 dBm 70 dBm CF 5.24 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 13:26:08		

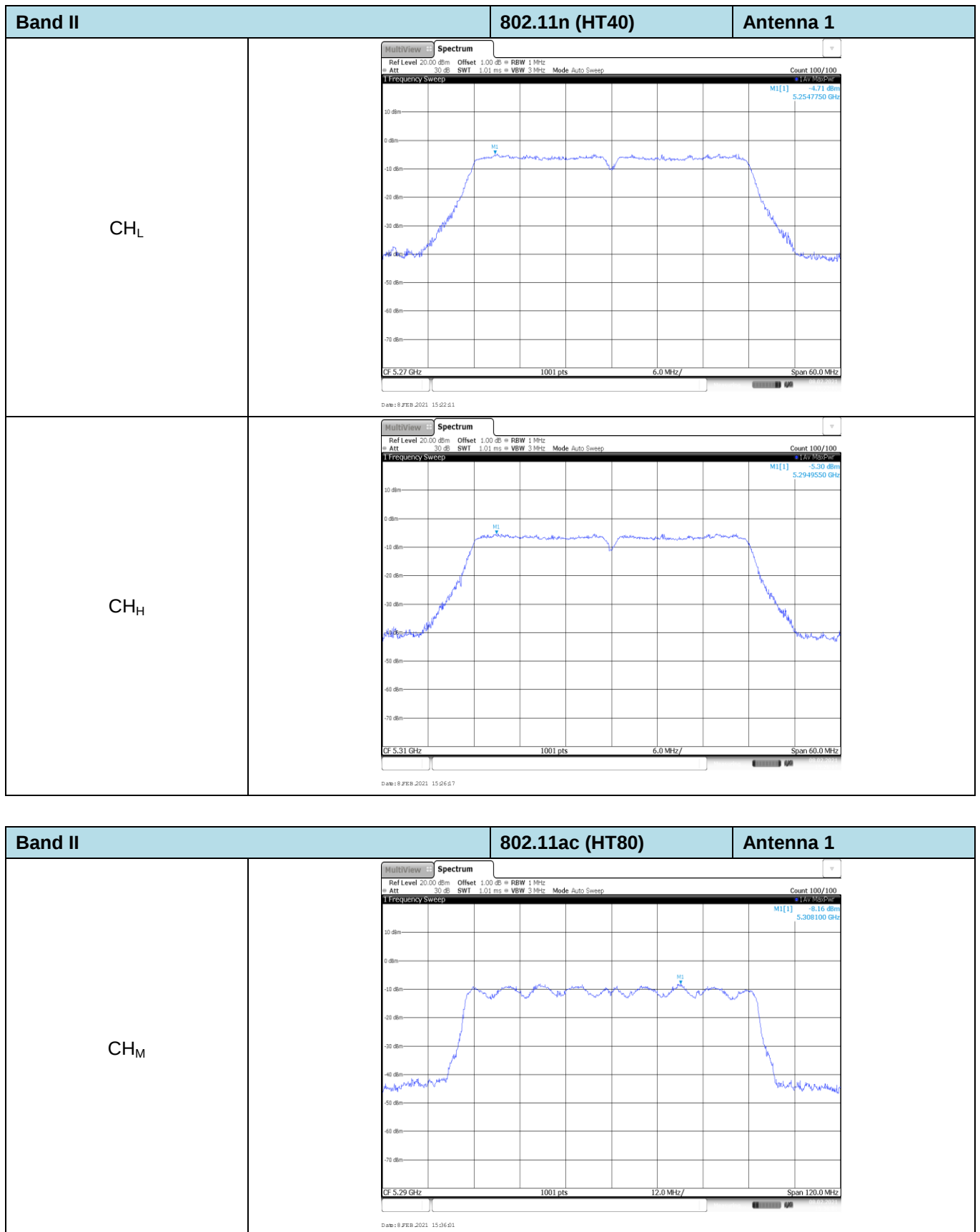


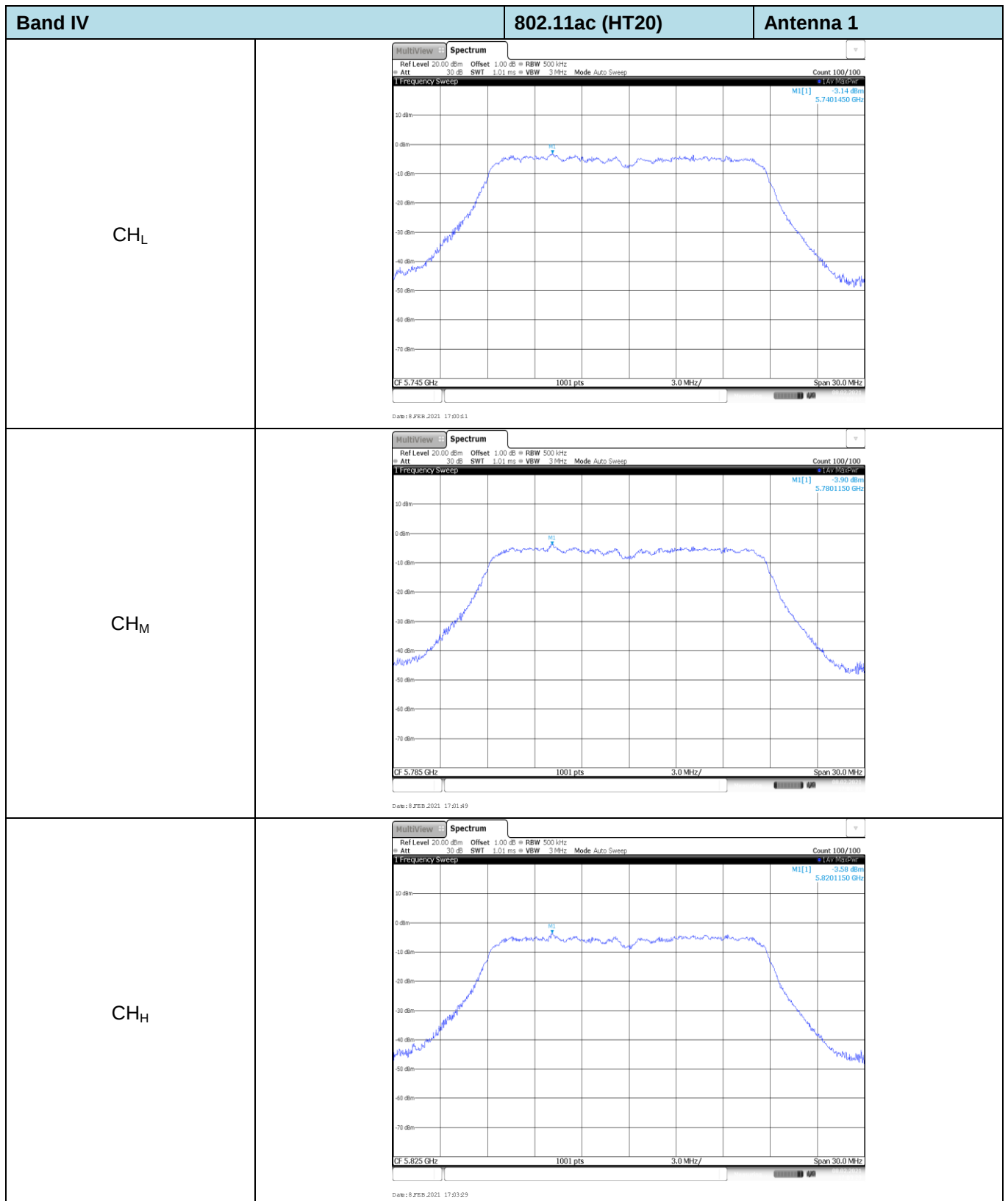
Band II	802.11ac (HT20)		Antenna 1
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 STAT MSdPM 1 Frequency Sweep MU[1] -2.36 dBm 5.2549950 GHz  CF 5.26 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 15:11:09		
CH _M	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 STAT MSdPM 1 Frequency Sweep MU[1] -3.16 dBm 5.2724780 GHz  CF 5.28 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 15:14:09		
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 STAT MSdPM 1 Frequency Sweep MU[1] -2.60 dBm 5.3150850 GHz  CF 5.32 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 15:19:03		

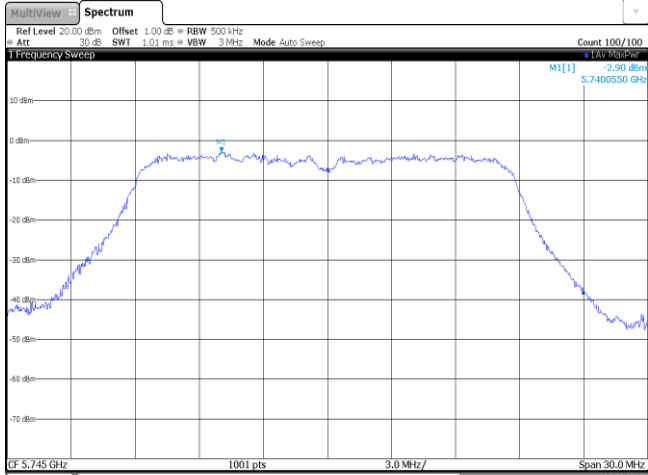
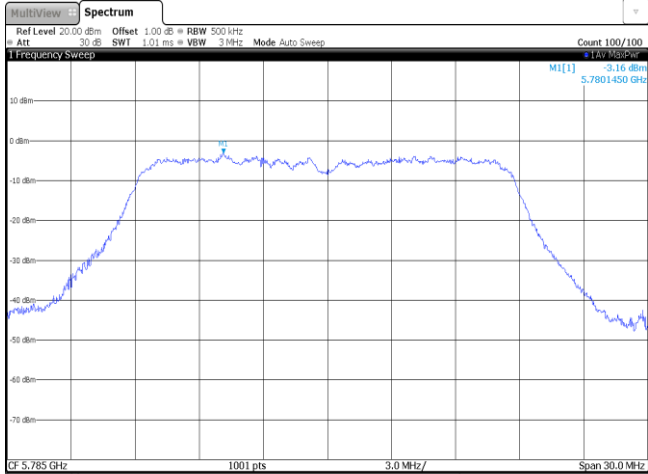
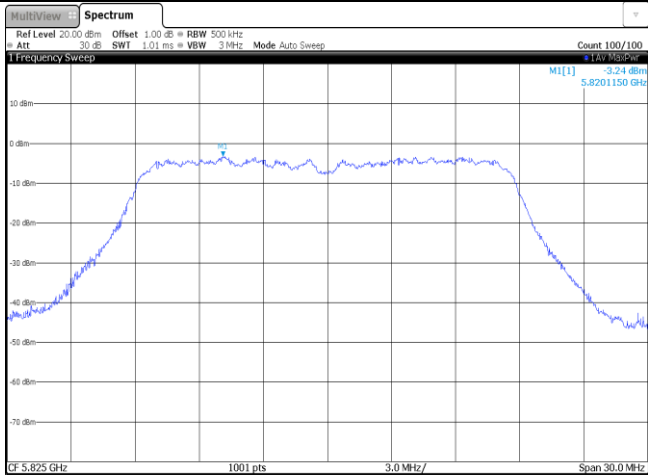


Band II	802.11a	Antenna 1
CH _L	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MSPW ↑Frequency Sweep MU[1] 1.02 dBm 5.2663840 GHz  CF 5.26 GHz1001 pts3.0 MHz/Span 30.0 MHz Date: 8 FEB 2021 15:45:01	
CH _M	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MSPW ↑Frequency Sweep MU[1] 0.82 dBm 5.2760440 GHz  CF 5.28 GHz1001 pts3.0 MHz/Span 30.0 MHz Date: 8 FEB 2021 15:48:17	
CH _H	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MSPW ↑Frequency Sweep MU[1] 0.13 dBm 5.3160740 GHz  CF 5.32 GHz1001 pts3.0 MHz/Span 30.0 MHz Date: 8 FEB 2021 15:52:19	

Band II		802.11ac (HT40)	Antenna 1
CH _L	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MdBm 1 Frequency Sweep  CF 5.27 GHz1001 pts6.0 MHz/Span 60.0 MHz Date: 8 FEB 2021 15:29:16		
CH _H	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 1 MHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 ↑TAT MdBm 1 Frequency Sweep  CF 5.31 GHz1001 pts6.0 MHz/Span 60.0 MHz Date: 8 FEB 2021 15:03:15		

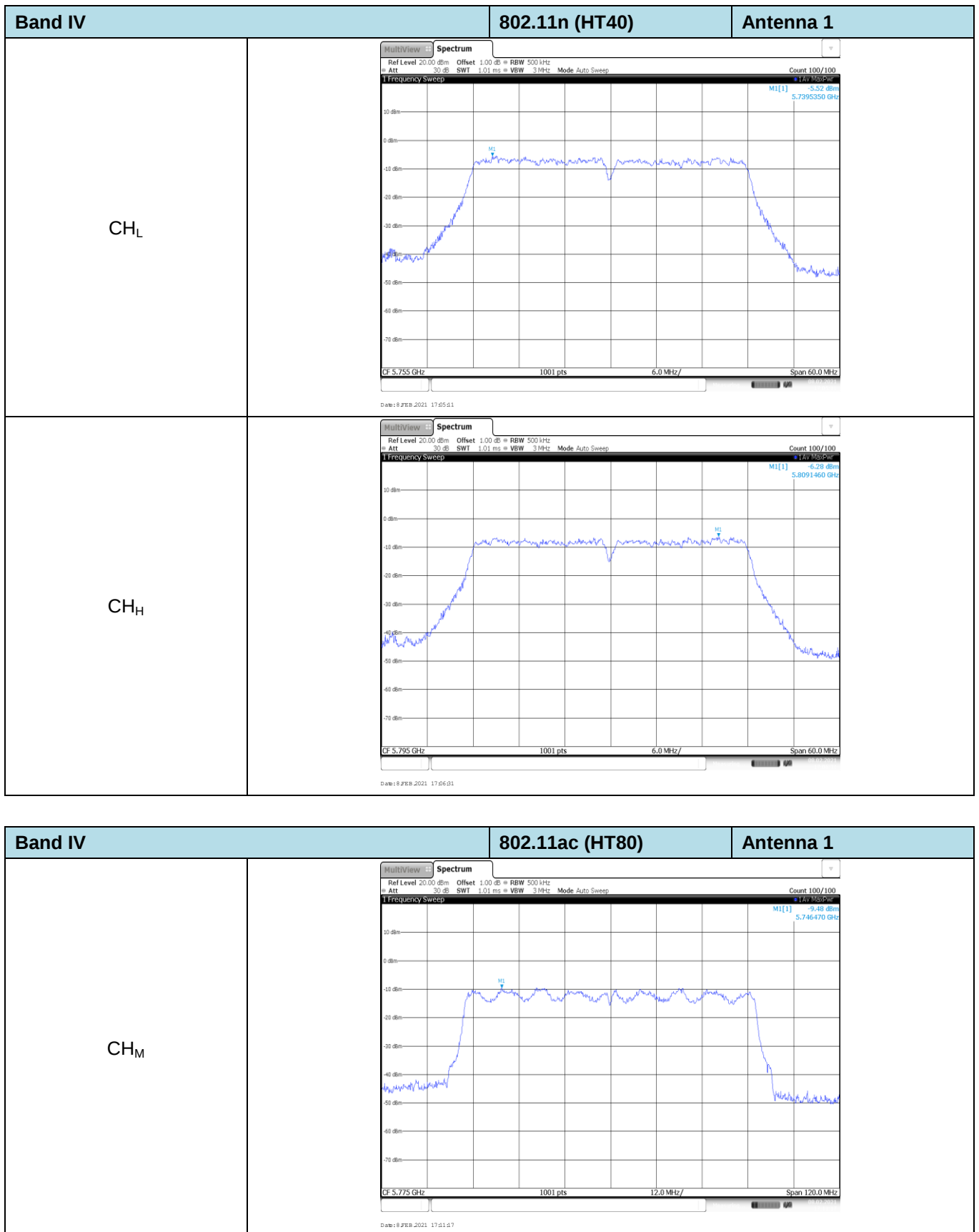




Band IV	802.11n (HT20)	Antenna 1
CH _L	 Ref Level 20.00 dBm Offset 1.00 dB BW 500 kHz Att 30 dB SW 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] -2.90 dBm 5.7400550 GHz CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:54:00	
CH _M	 Ref Level 20.00 dBm Offset 1.00 dB BW 500 kHz Att 30 dB SW 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] -3.16 dBm 5.7801450 GHz CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:56:14	
CH _H	 Ref Level 20.00 dBm Offset 1.00 dB BW 500 kHz Att 30 dB SW 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 M1[1] -3.24 dBm 5.8201150 GHz CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:57:46	

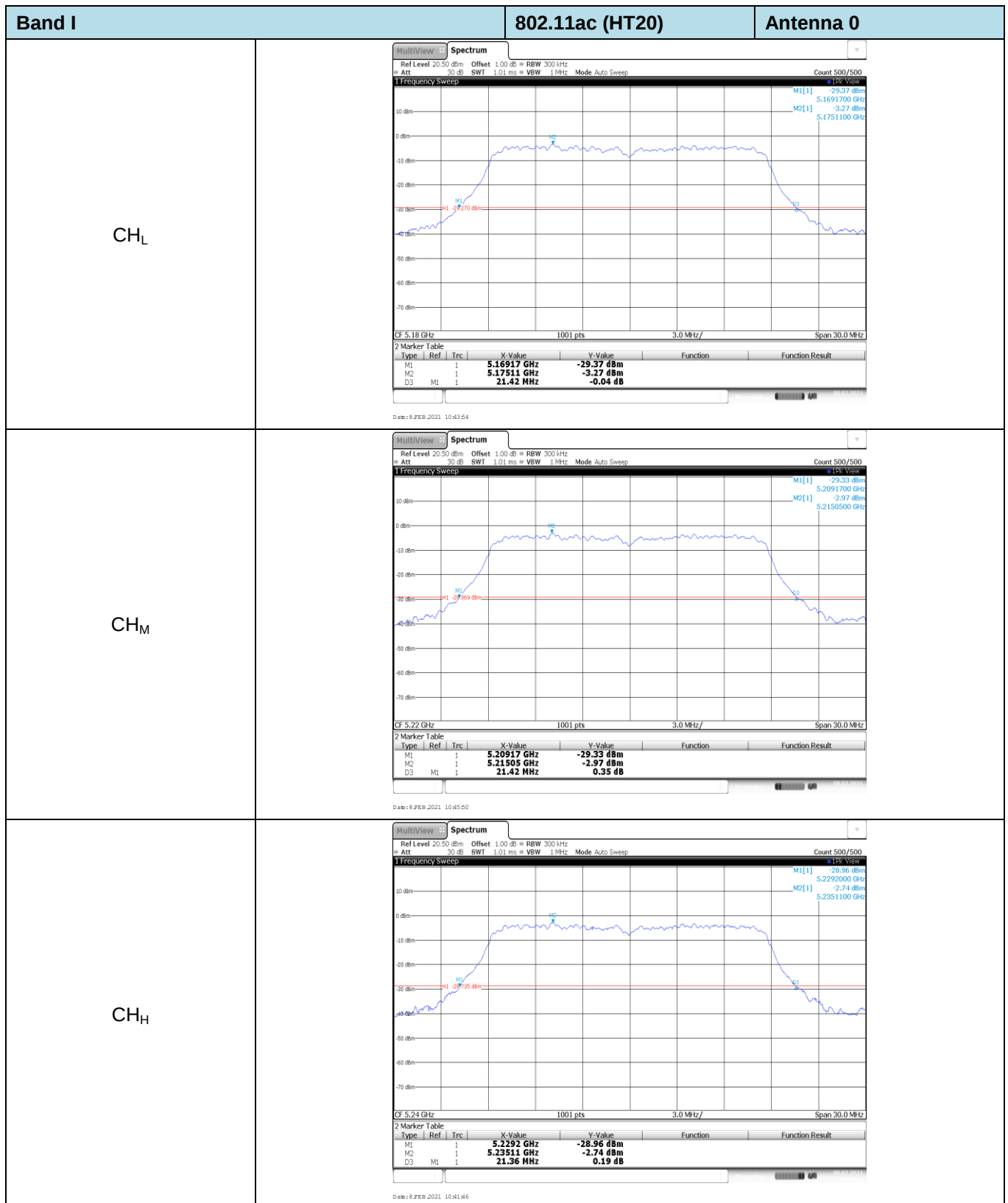
Band IV	802.11a	Antenna 1
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 500 kHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 5.7503650 GHz Frequency Sweep M1[1] -0.16 dBm 5.7503650 GHz CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:48:01	
CH _M	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 500 kHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 5.7903950 GHz Frequency Sweep M1[1] -1.02 dBm 5.7903950 GHz CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:50:03	
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.00 dB BW 500 kHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 5.8291060 GHz Frequency Sweep M1[1] -0.83 dBm 5.8291060 GHz CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 8 FEB 2021 16:52:03	

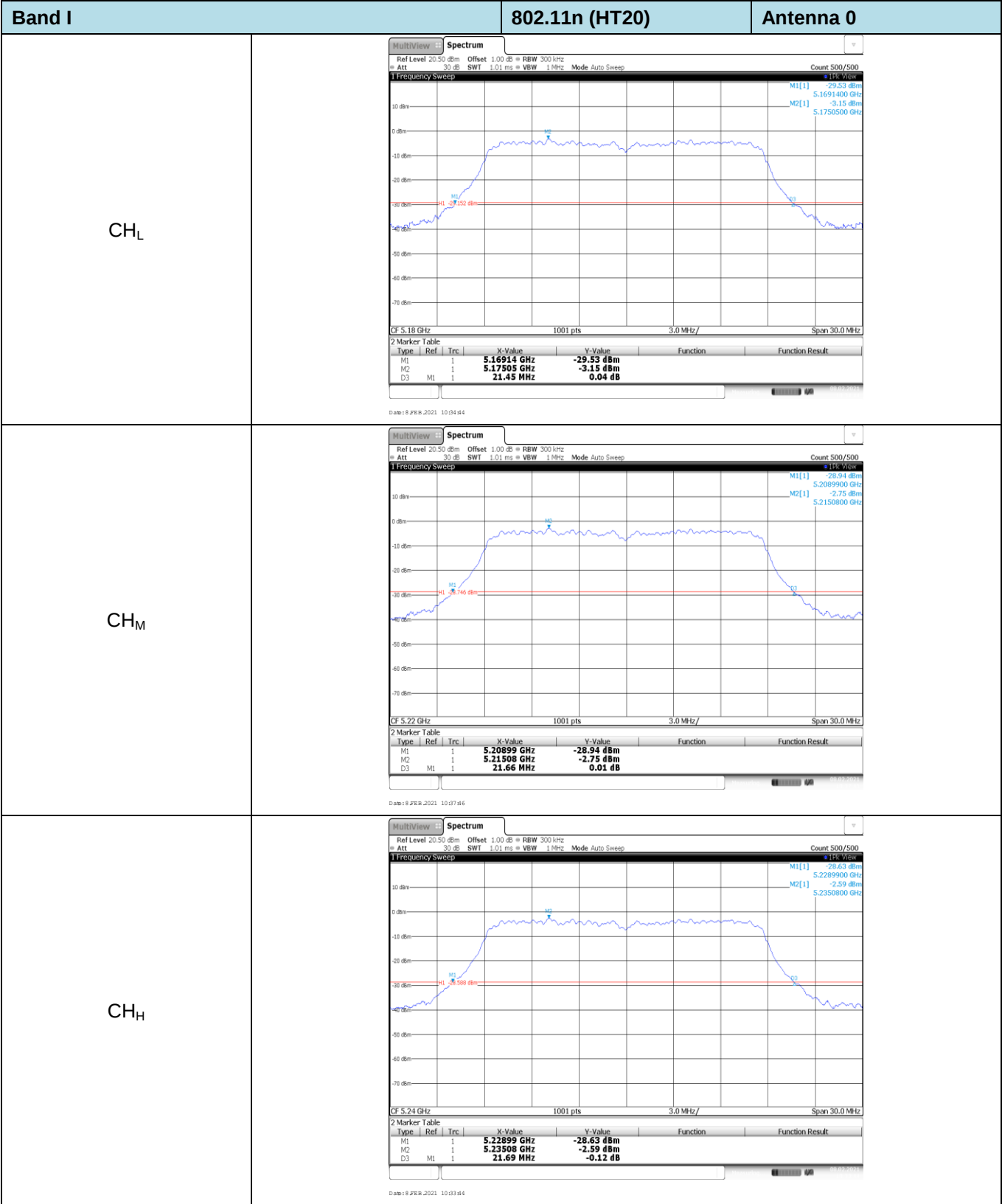
Band IV		802.11ac (HT40)	Antenna 1
CH _L	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 500 kHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.755 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz MU[1] -6.08 dBm 5.7382170 GHz Date: 8 FEB 2021 17:08:17		
CH _H	MultiView Spectrum Ref Level 20.00 dBm Att 30.0 dB Offset 1.00 dB RBW 500 kHz SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep 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 MU[1] -6.91 dBm 5.7800150 GHz Date: 8 FEB 2021 17:09:45		

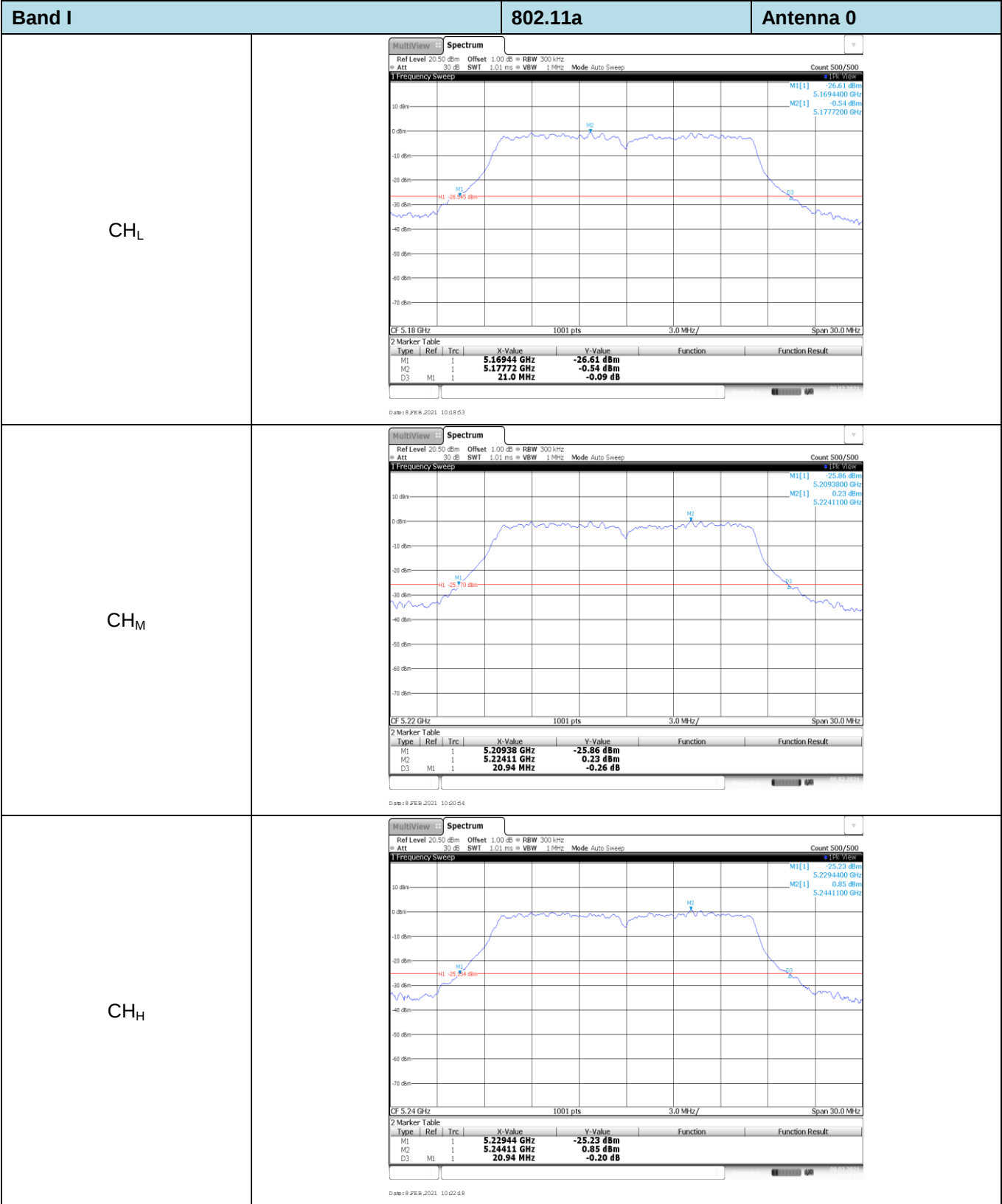


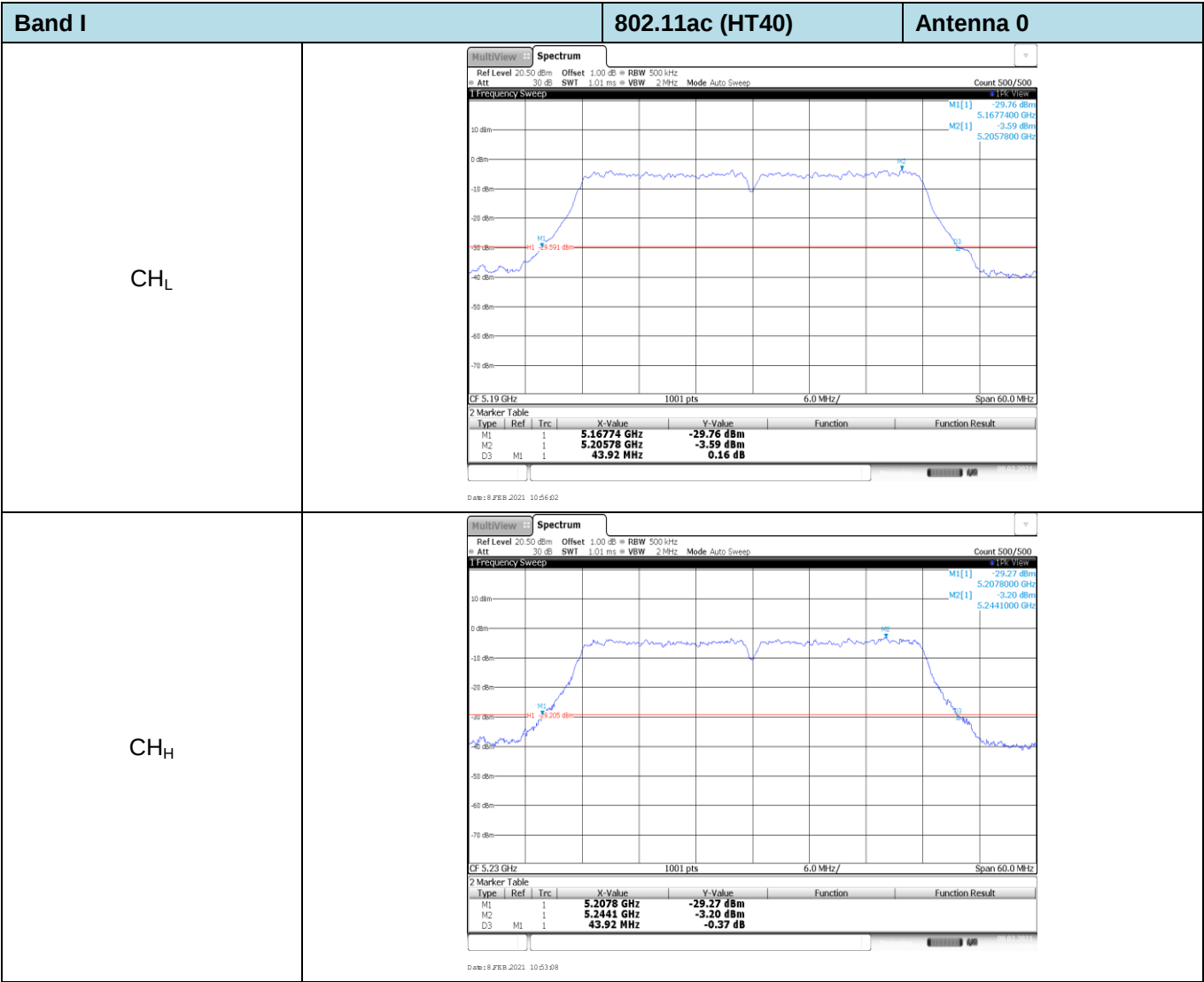
Appendix C: 26dB bandwidth

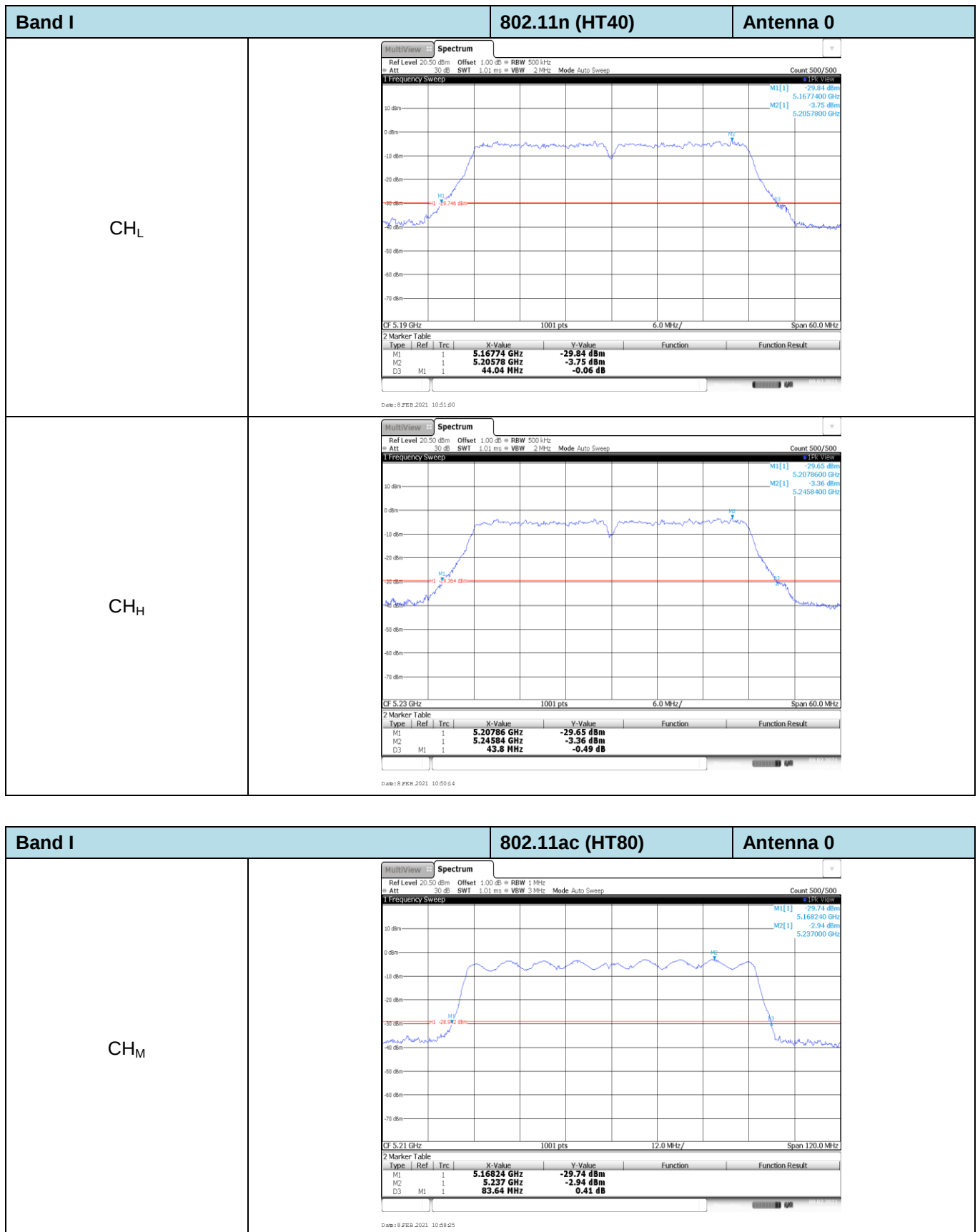
Band	Bandwidth (MHz)	Type	Channel	26dB bandwidth (MHz)		Result
				Antenna 0	Antenna 1	
I	20	802.11ac	CH _L	21.42	21.72	Pass
			CH _M	21.42	21.81	
			CH _H	21.36	21.93	
		802.11n	CH _L	21.45	21.90	Pass
			CH _M	21.66	21.84	
			CH _H	21.69	21.81	
		802.11a	CH _L	21.00	21.75	Pass
			CH _M	20.94	21.72	
			CH _H	20.94	21.18	
	40	802.11ac	CH _L	43.92	44.04	Pass
			CH _H	43.92	44.04	
		802.11n	CH _L	44.04	44.10	Pass
			CH _H	43.80	43.86	
	80	802.11ac	CH _M	83.64	83.52	Pass
II	20	802.11ac	CH _L	21.51	21.72	Pass
			CH _M	21.51	21.72	
			CH _H	21.48	21.66	
		802.11n	CH _L	21.54	21.75	Pass
			CH _M	21.57	21.72	
			CH _H	21.51	21.84	
		802.11a	CH _L	20.97	21.75	Pass
			CH _M	20.97	21.63	
			CH _H	20.94	21.24	
	40	802.11ac	CH _L	43.80	43.80	Pass
			CH _H	43.92	44.04	
		802.11n	CH _L	43.92	44.10	Pass
			CH _H	43.92	43.92	
	80	802.11ac	CH _M	83.40	83.52	Pass

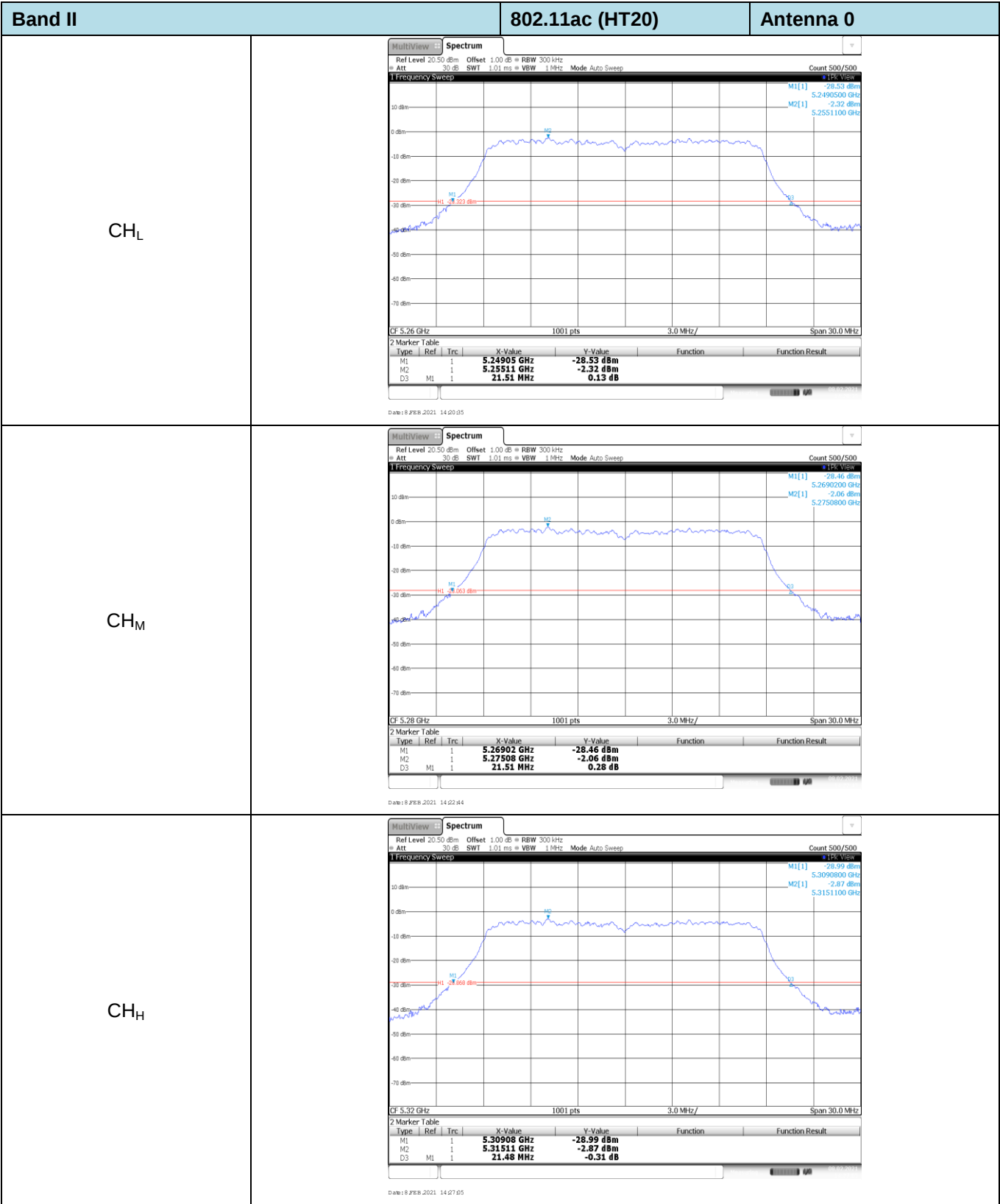


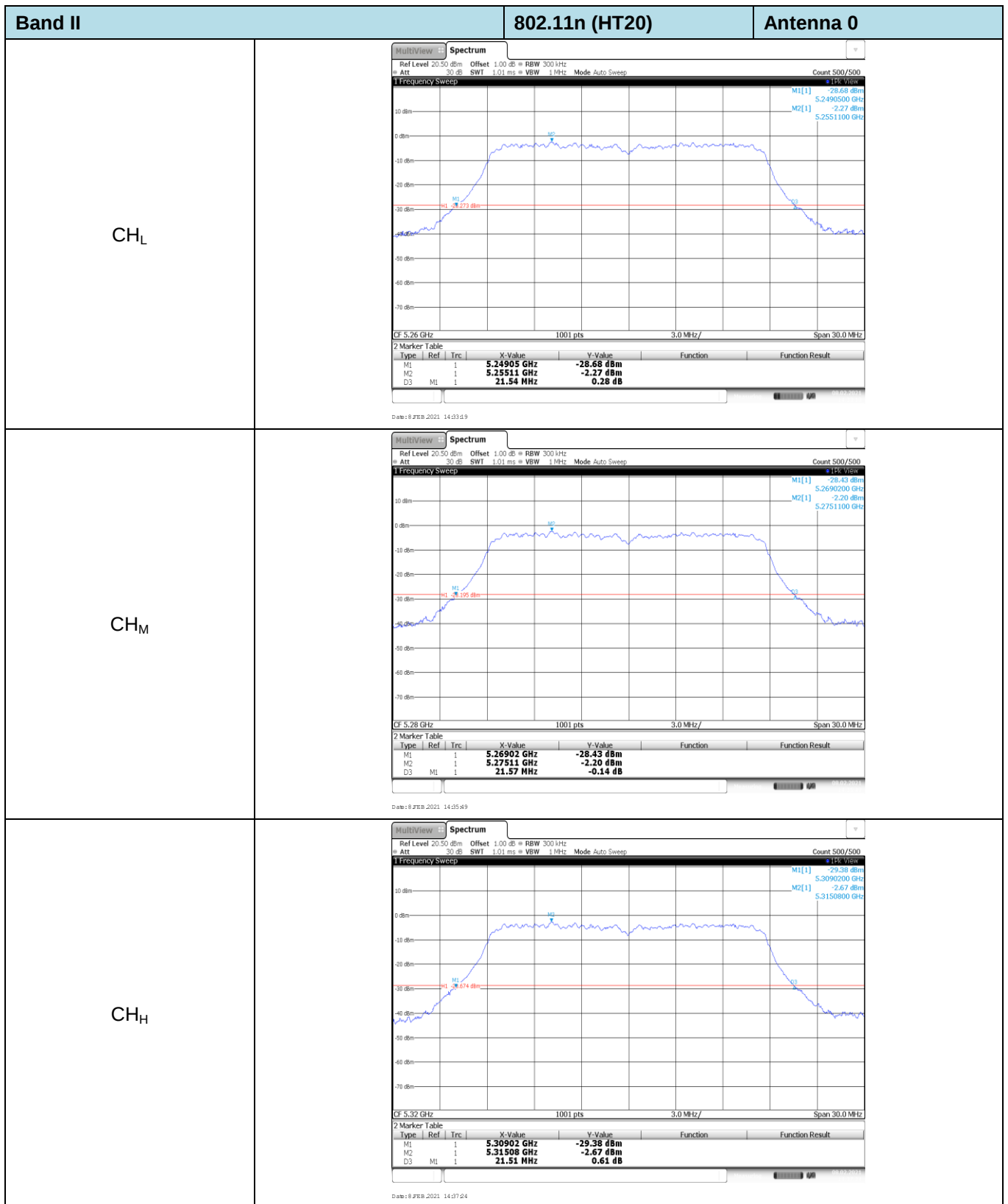


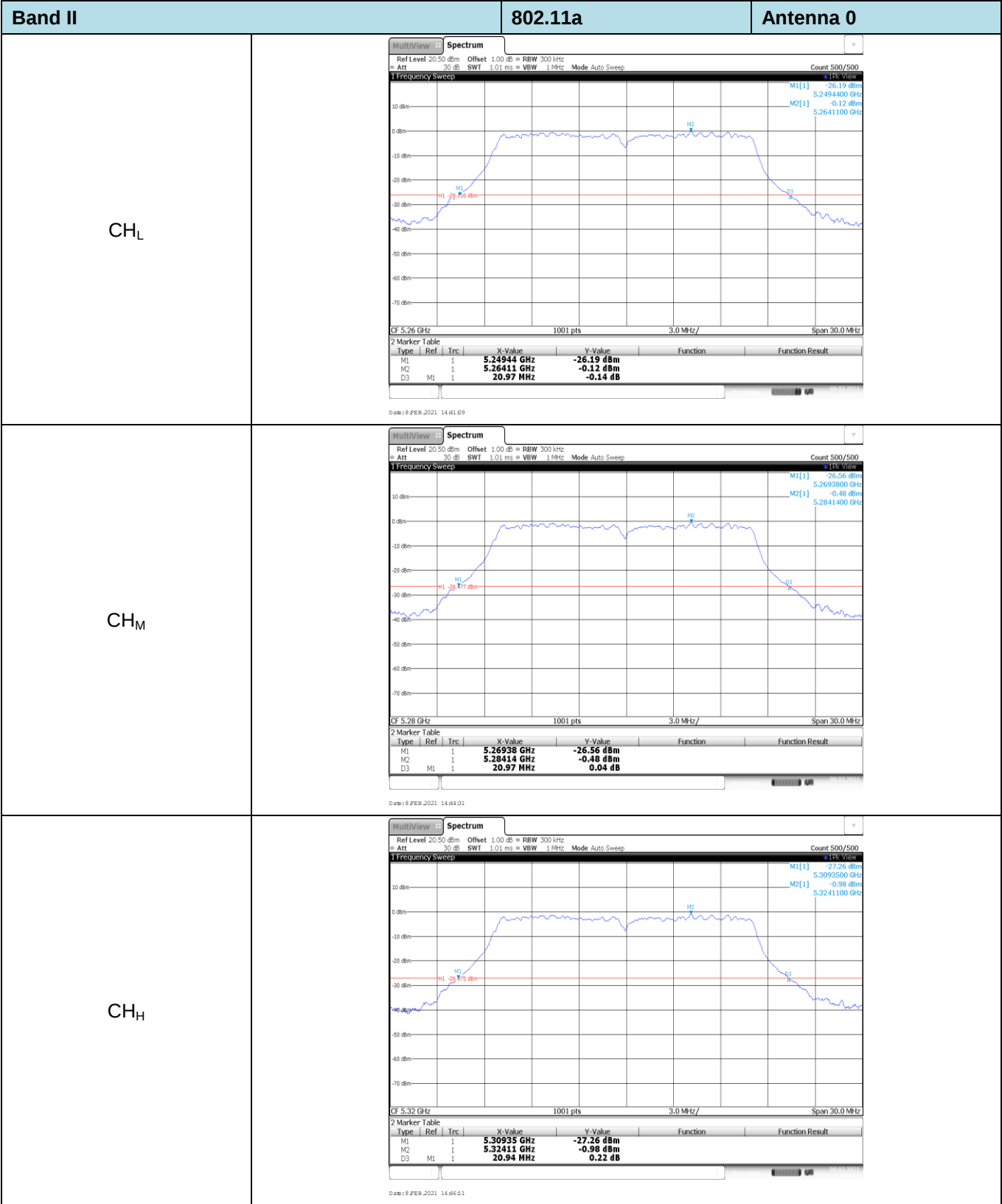


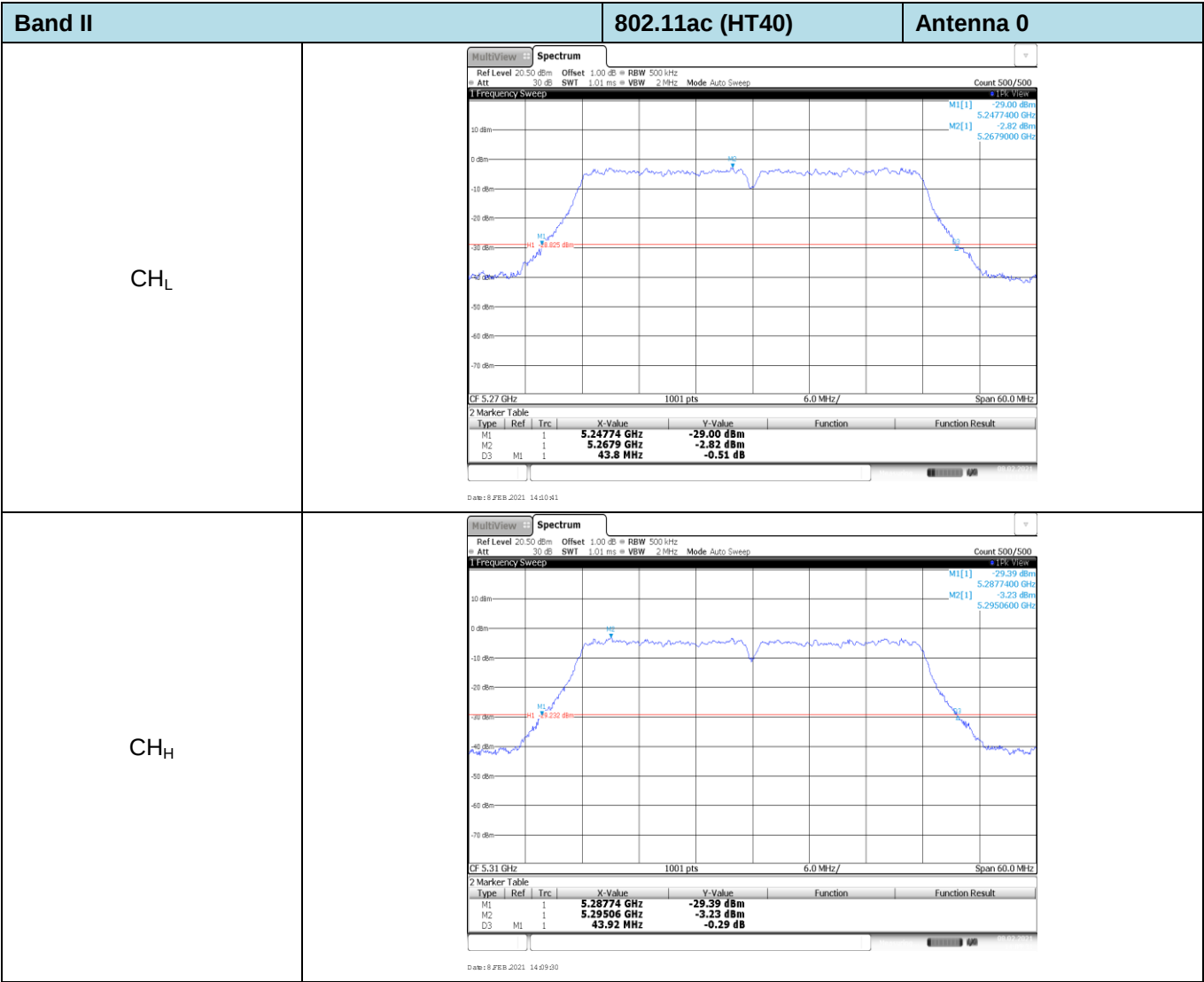


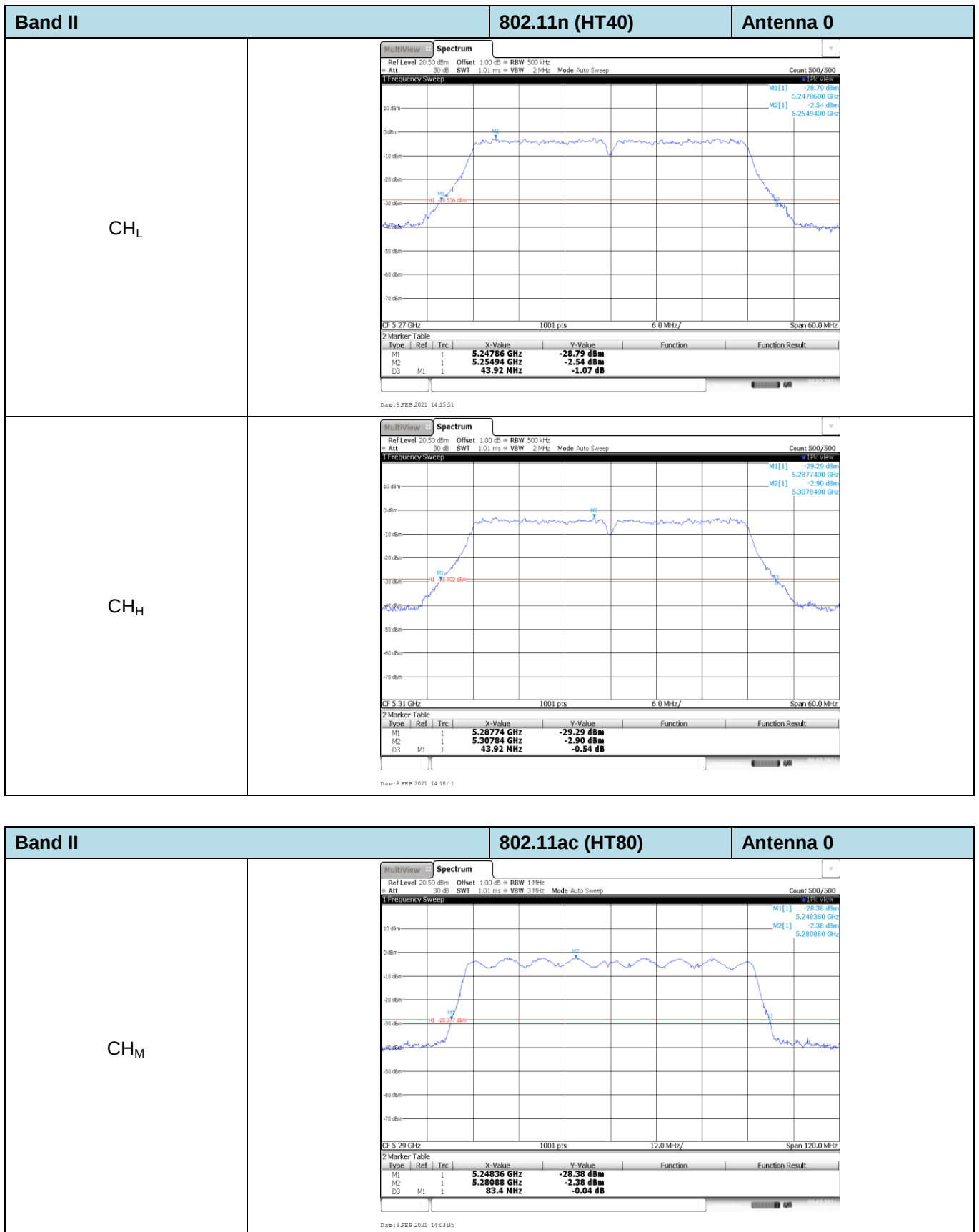


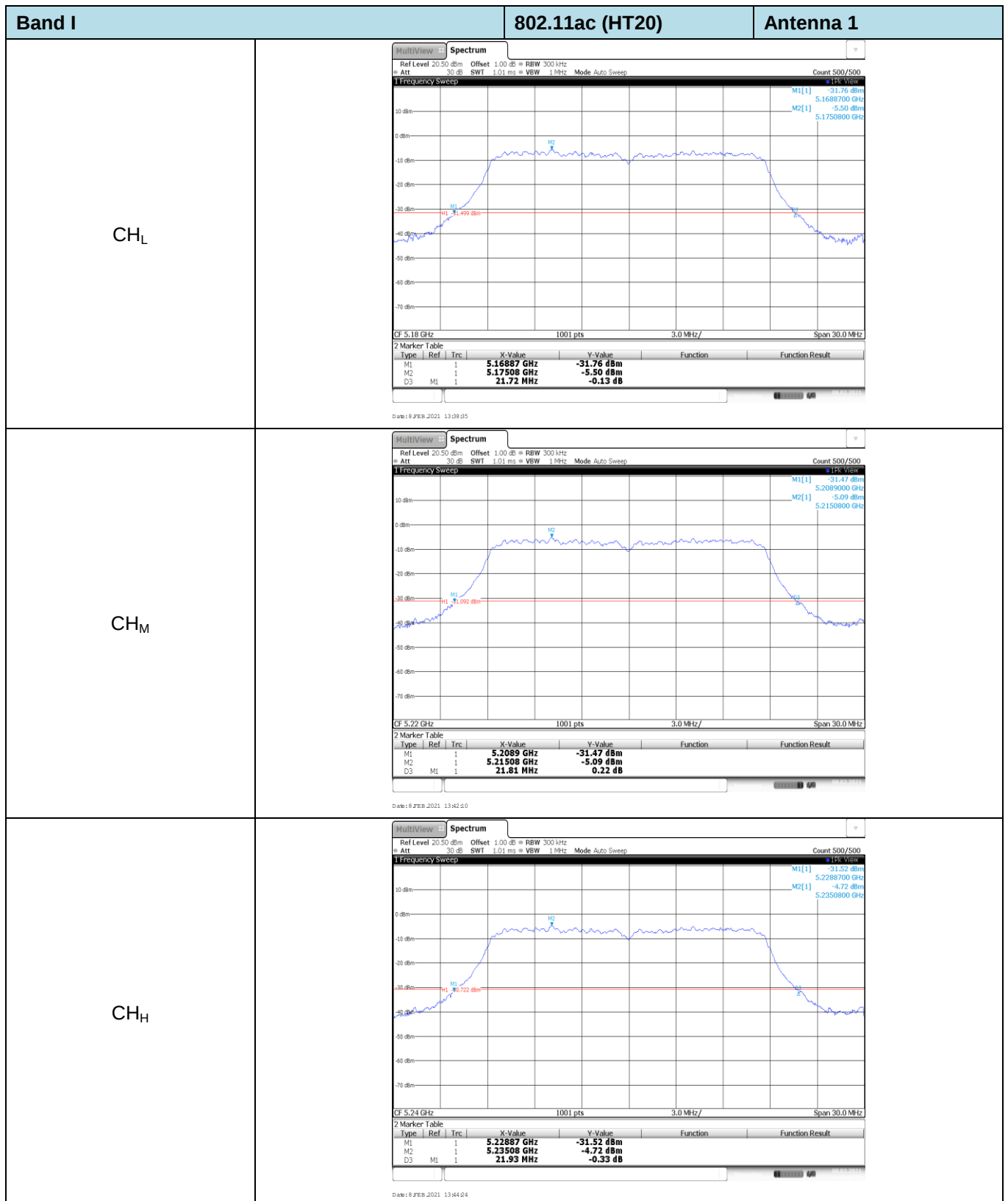


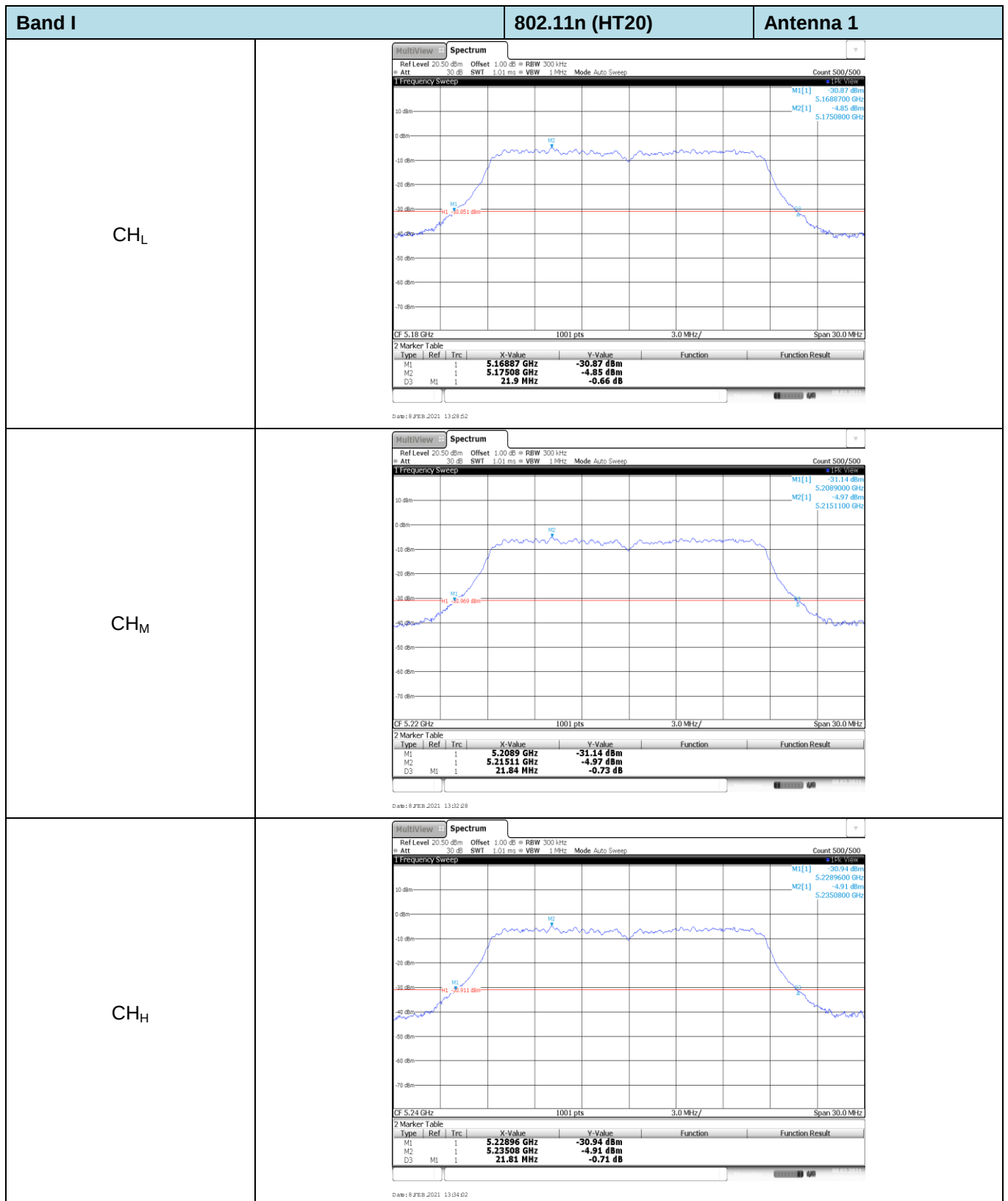












Band I

802.11a

Antenna 1

CH_L

Spectrum
Ref Level 20.50 dBm Offset 1.00 dB BW 300 kHz
Att 30 dB SWI 1.01 ms VBW 1 MHz Mode Auto Sweep
Count 500/500
1 Frequency Sweep
CF 5.18 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz
2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		5.16878 GHz	-27.84 dBm		
M2	1		5.18417 GHz	-1.64 dBm		
D3	M1	1	21.75 MHz	0.07 dB		

Date: 8 FEB 2021 13:20:45

CH_M

Spectrum
Ref Level 20.50 dBm Offset 1.00 dB BW 300 kHz
Att 30 dB SWI 1.01 ms VBW 1 MHz Mode Auto Sweep
Count 500/500
1 Frequency Sweep
CF 5.22 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz
2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		5.20884 GHz	-27.85 dBm		
M2	1		5.22414 GHz	-1.85 dBm		
D3	M1	1	21.72 MHz	-0.09 dB		

Date: 8 FEB 2021 13:23:13

CH_H

Spectrum
Ref Level 20.50 dBm Offset 1.00 dB BW 300 kHz
Att 30 dB SWI 1.01 ms VBW 1 MHz Mode Auto Sweep
Count 500/500
1 Frequency Sweep
CF 5.24 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz
2 Marker Table

Type	Ref	Trc	X-Value	Y-Value	Function	Function Result
M1	1		5.23935 GHz	-27.83 dBm		
M2	1		5.24414 GHz	-1.61 dBm		
D3	M1	1	21.18 MHz	0.18 dB		

Date: 8 FEB 2021 13:25:25