

APPENDIX REPORT

Project No.	SHT2202018603EW	Radio Specification	WIFI 5G
Test sample No.	YPHT22020186003	Model No.	EyeOn-12WC
Start test date	2022-02-26	Finish date	2022-04-01
Temperature	21.3℃	Humidity	49%
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	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	12.99	97.21	0.12	13.11	24.00	Pass
			CH _M	12.68	97.11	0.13	12.81		
			CH _H	13.09	97.21	0.12	13.21		
		802.11n	CH _L	12.99	97.09	0.13	13.12	24.00	Pass
			CH _M	12.67	97.09	0.13	12.80		
			CH _H	13.08	97.09	0.13	13.21		
		802.11a	CH _L	13.15	97.36	0.12	13.27	24.00	Pass
			CH _M	12.84	97.28	0.12	12.96		
			CH _H	13.25	97.28	0.12	13.37		
	40	802.11ac	CH _L	12.74	94.60	0.24	12.98	24.00	Pass
			CH _H	12.90	94.60	0.24	13.14		
		802.11n	CH _L	12.75	94.56	0.24	12.99	24.00	Pass
			CH _H	12.88	94.65	0.24	13.12		
	80	802.11ac	CH _M	12.79	89.67	0.47	13.26	24.00	Pass
II	20	802.11ac	CH _L	13.14	97.12	0.13	13.27	24.00	Pass
			CH _M	13.14	97.12	0.13	13.27		
			CH _H	12.07	97.21	0.12	12.19		
		802.11n	CH _L	13.13	97.09	0.13	13.26	24.00	Pass
			CH _M	13.14	97.09	0.13	13.27		
			CH _H	12.07	97.09	0.13	12.20		
		802.11a	CH _L	13.30	97.28	0.12	13.42	24.00	Pass
			CH _M	13.31	97.36	0.12	13.43		
			CH _H	12.24	97.28	0.12	12.36		
	40	802.11ac	CH _L	13.08	94.60	0.24	13.32	24.00	Pass
			CH _H	12.34	94.60	0.24	12.58		
		802.11n	CH _L	13.09	94.65	0.24	13.33	24.00	Pass
			CH _H	12.35	94.57	0.24	12.59		
	80	802.11ac	CH _M	12.56	89.84	0.47	13.03	24.00	Pass

Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Conducted Output Power (dBm)	Limit (dBm)	Result
III	20	802.11ac	CH _L	13.36	97.11	0.13	13.49	24.00	Pass
			CH _{M1}	13.51	97.20	0.12	13.63		
			CH _{M2}	13.42	97.20	0.12	13.54		
			CH _H	13.32	97.11	0.13	13.45		
		802.11n	CH _L	13.17	97.18	0.12	13.29	24.00	Pass
			CH _{M1}	13.41	97.18	0.12	13.53		
			CH _{M2}	13.44	97.18	0.12	13.56		
			CH _H	13.33	97.18	0.12	13.45		
		802.11a	CH _L	13.36	97.36	0.12	13.48	24.00	Pass
			CH _{M1}	13.61	97.27	0.12	13.73		
			CH _{M2}	13.62	97.27	0.12	13.74		
			CH _H	13.50	97.27	0.12	13.62		
	40	802.11ac	CH _L	13.03	94.66	0.24	13.27	24.00	Pass
			CH _{M1}	13.35	94.66	0.24	13.59		
			CH _{M2}	13.48	94.66	0.24	13.72		
			CH _H	13.31	94.66	0.24	13.55		
		802.11n	CH _L	13.00	94.54	0.24	13.24	24.00	Pass
			CH _{M1}	13.35	94.63	0.24	13.59		
			CH _{M2}	13.46	94.63	0.24	13.70		
			CH _H	13.29	94.63	0.24	13.53		
	80	802.11ac	CH _L	12.98	89.81	0.47	13.45	24.00	Pass
			CH _M	13.34	89.81	0.47	13.81		
			CH _H	13.24	89.63	0.48	13.72		
IV	20	802.11ac	CH _L	13.33	97.21	0.12	13.45	30.00	Pass
			CH _M	13.22	97.11	0.13	13.35		
			CH _H	13.25	97.12	0.13	13.38		
		802.11n	CH _L	13.33	97.09	0.13	13.46	30.00	Pass
			CH _M	13.23	97.18	0.12	13.35		
			CH _H	13.26	97.09	0.13	13.39		
		802.11a	CH _L	13.51	97.36	0.12	13.63	30.00	Pass
			CH _M	13.41	97.28	0.12	13.53		
			CH _H	13.42	97.36	0.12	13.54		
	40	802.11ac	CH _L	13.22	94.68	0.24	13.46	30.00	Pass
			CH _H	13.00	94.60	0.24	13.24		
		802.11n	CH _L	13.22	94.65	0.24	13.46	30.00	Pass
			CH _H	13.01	94.65	0.24	13.25		
	80	802.11ac	CH _M	13.02	89.84	0.47	13.49	30.00	Pass

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

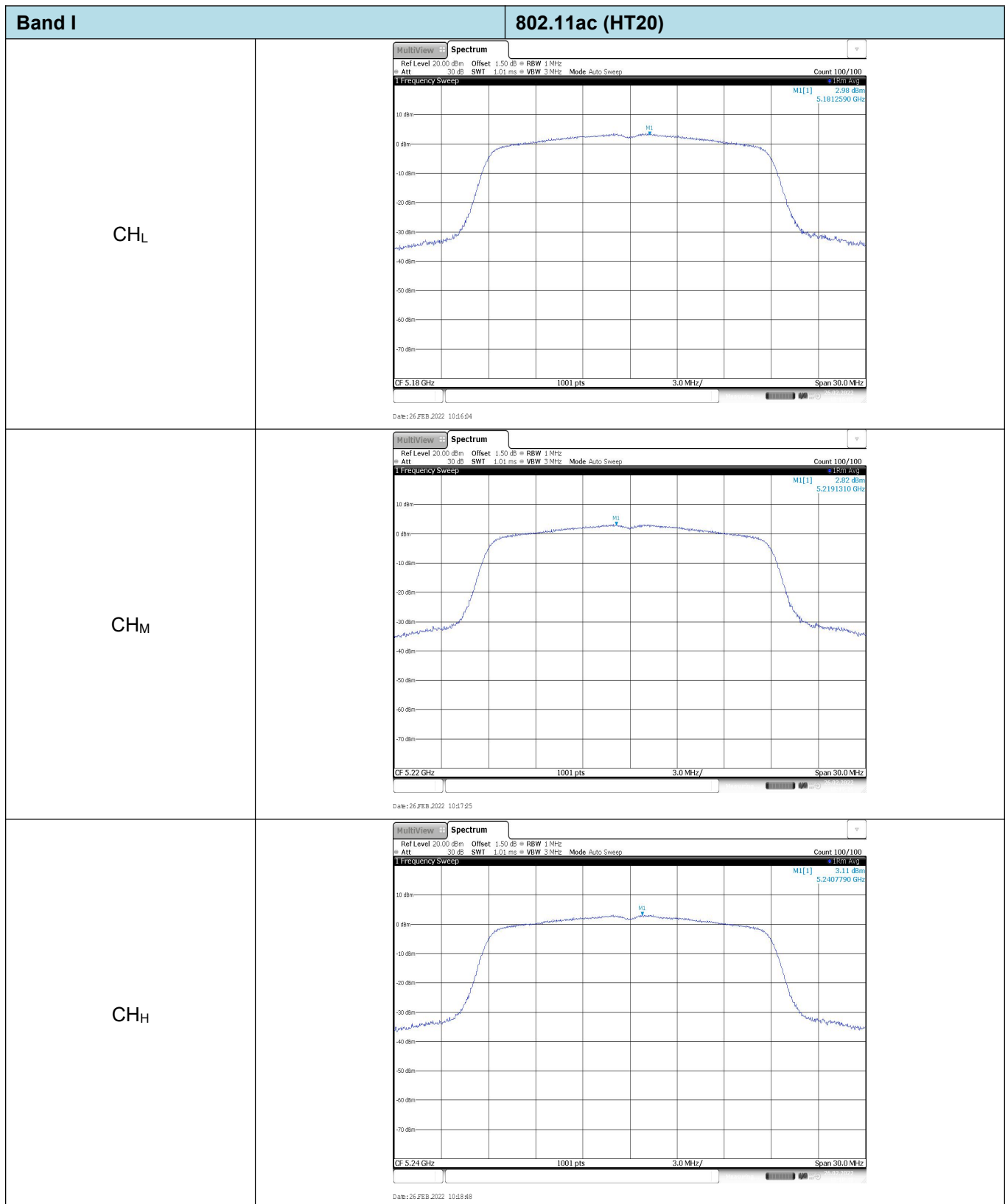
Appendix B: Maximum Power Spectral Density

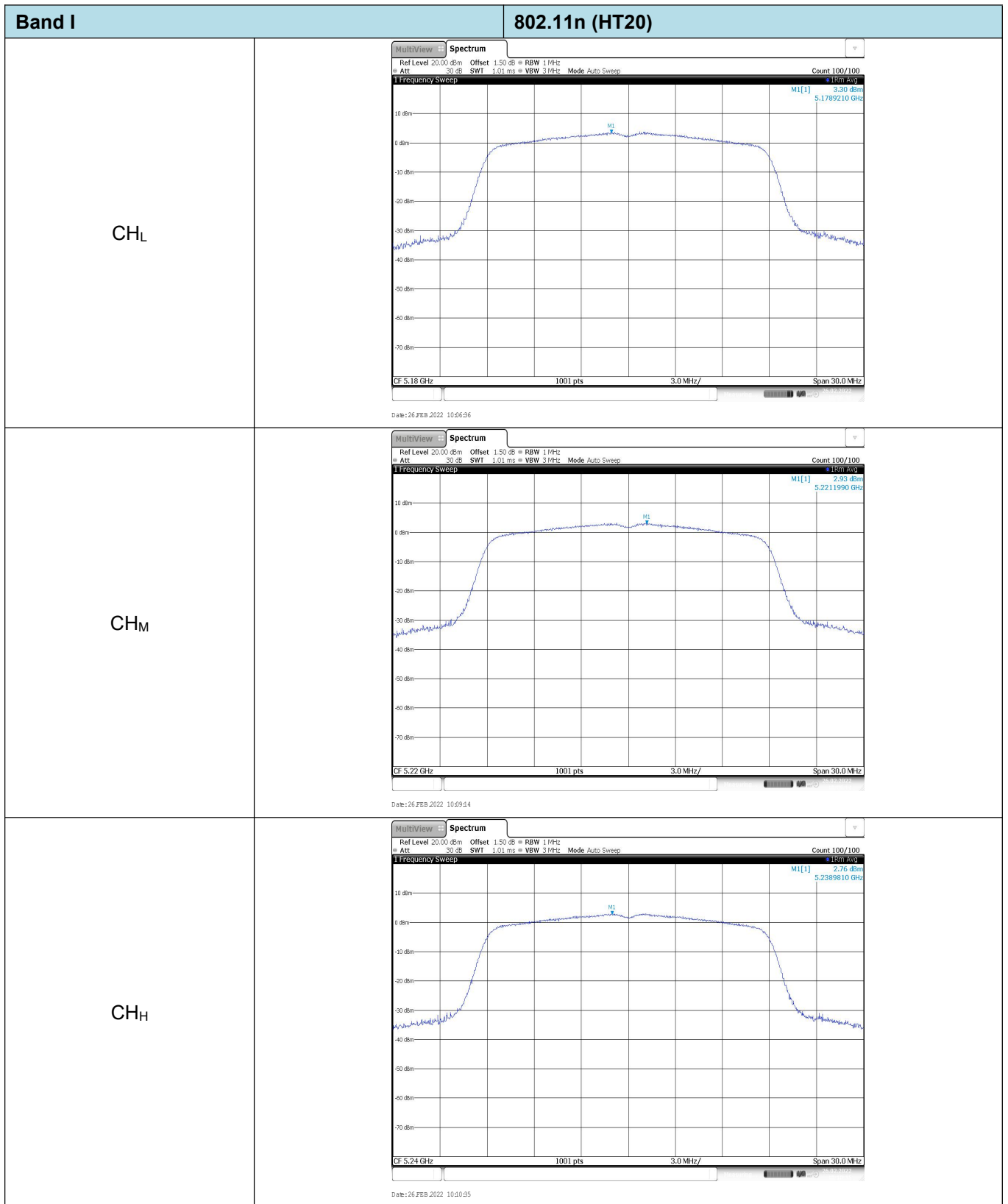
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
I	20	802.11ac	CH _L	2.98	97.21	0.12	3.10	11.00	Pass
			CH _M	2.82	97.11	0.13	2.95		
			CH _H	3.11	97.21	0.12	3.23		
		802.11n	CH _L	3.30	97.09	0.13	3.43	11.00	Pass
			CH _M	2.93	97.09	0.13	3.06		
			CH _H	2.76	97.09	0.13	2.89		
		802.11a	CH _L	3.61	97.36	0.12	3.73	11.00	Pass
			CH _M	2.87	97.28	0.12	2.99		
			CH _H	2.89	97.28	0.12	3.01		
	40	802.11ac	CH _L	0.58	94.60	0.24	0.82	11.00	Pass
			CH _H	-0.07	94.60	0.24	0.17		
		802.11n	CH _L	0.50	94.56	0.24	0.74	11.00	Pass
			CH _H	-0.17	94.65	0.24	0.07		
	80	802.11ac	CH _M	-3.62	89.67	0.47	-3.15	11.00	Pass
II	20	802.11ac	CH _L	3.06	97.12	0.13	3.19	11.00	Pass
			CH _M	2.53	97.12	0.13	2.66		
			CH _H	2.55	97.21	0.12	2.67		
		802.11n	CH _L	2.83	97.09	0.13	2.96	11.00	Pass
			CH _M	2.96	97.09	0.13	3.09		
			CH _H	2.73	97.09	0.13	2.86		
		802.11a	CH _L	3.27	97.28	0.12	3.39	11.00	Pass
			CH _M	3.68	97.36	0.12	3.80		
			CH _H	2.89	97.28	0.12	3.01		
	40	802.11ac	CH _L	0.22	94.60	0.24	0.46	11.00	Pass
			CH _H	0.00	94.60	0.24	0.24		
		802.11n	CH _L	-0.29	94.65	0.24	-0.05	11.00	Pass
			CH _H	-0.21	94.57	0.24	0.03		
	80	802.11ac	CH _M	-3.77	89.84	0.47	-3.30	11.00	Pass

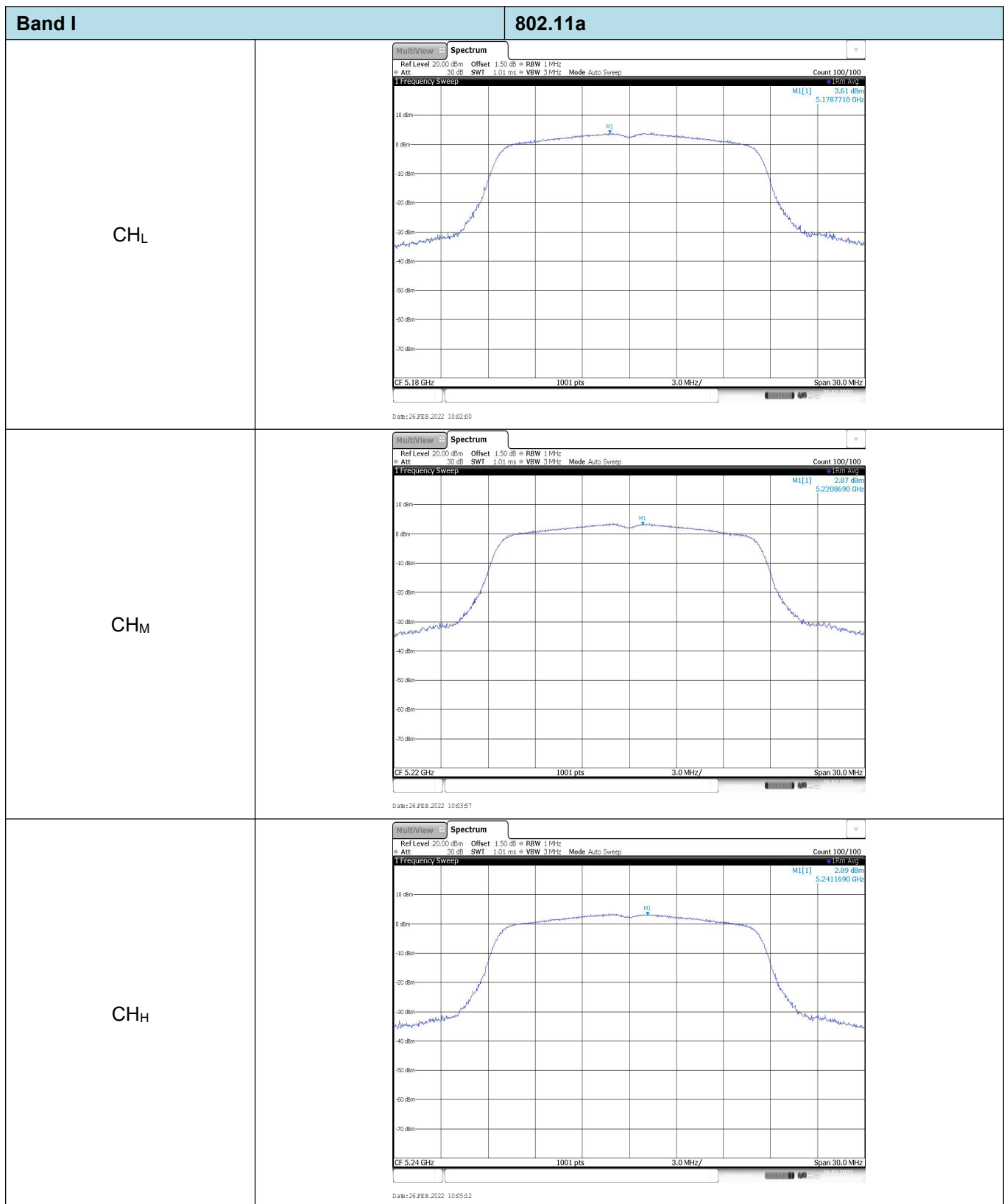
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)	Result
III	20	802.11ac	CH _L	1.51	97.11	0.13	1.64	11.00	Pass
			CH _M	1.72	97.20	0.12	1.84		
			CH _H	1.68	97.11	0.13	1.81		
		802.11n	CH _L	1.54	97.18	0.12	1.66	11.00	Pass
			CH _M	1.90	97.18	0.12	2.02		
			CH _H	1.69	97.18	0.12	1.81		
		802.11a	CH _L	1.90	97.36	0.12	2.02	11.00	Pass
			CH _M	2.45	97.27	0.12	2.57		
			CH _H	1.69	97.27	0.12	1.81		
	40	802.11ac	CH _L	-1.74	94.66	0.24	-1.5	11.00	Pass
			CH _M	-1.26	94.66	0.24	-1.02		
			CH _H	-1.09	94.66	0.24	-0.85		
		802.11n	CH _L	1.50	94.63	0.24	1.74	11.00	Pass
			CH _M	-0.94	94.63	0.24	-0.7		
			CH _H	-1.23	94.63	0.24	-0.99		
	80	802.11ac	CH _L	-5.36	89.81	0.47	-4.89	11.00	Pass
			CH _H	-5.06	89.63	0.48	-4.58		

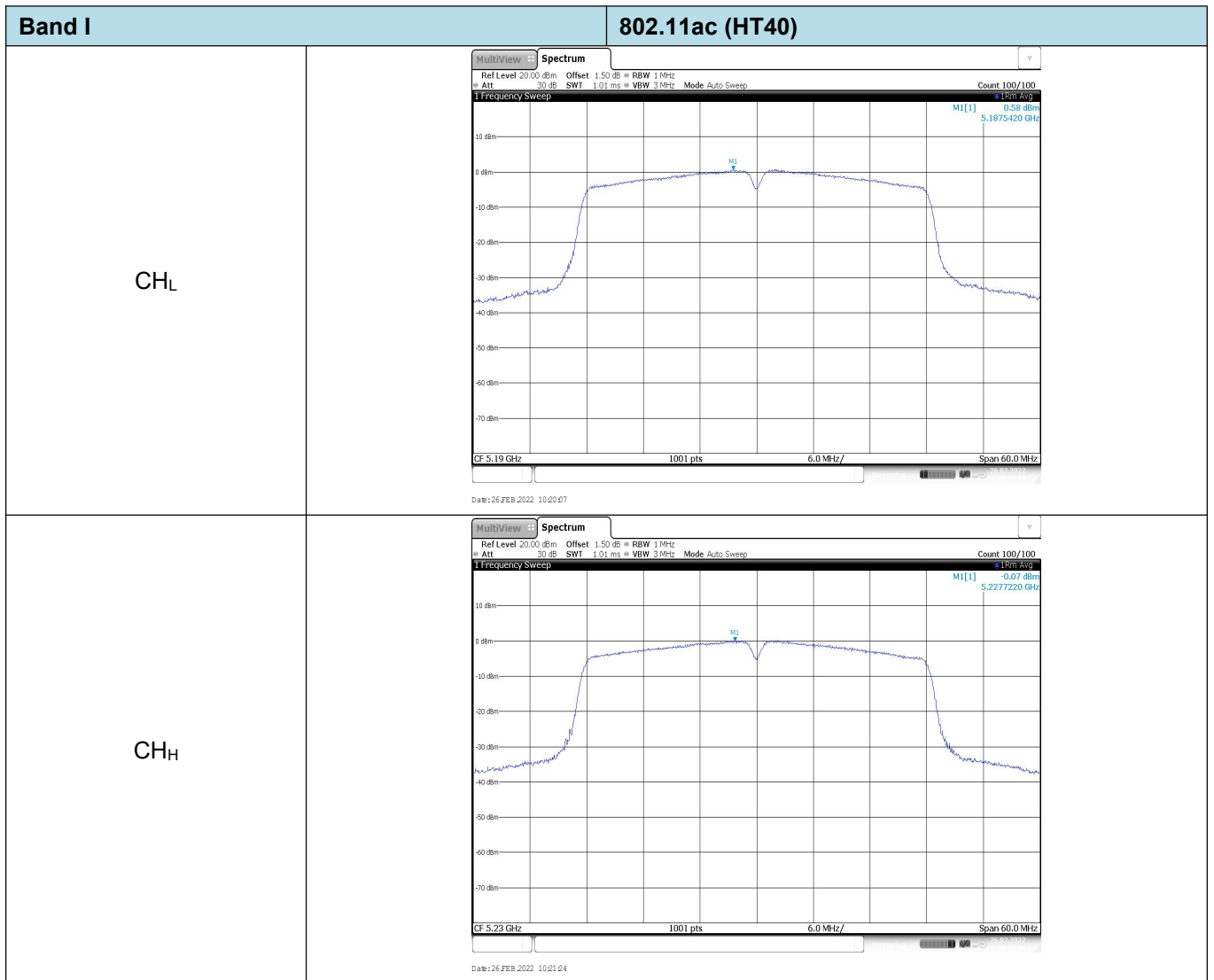
Band	Bandwidth (MHz)	Type	Channel	Reading (dBm)	Duty cycle (%)	Duty cycle factor (dB)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500KHz)	Result
IV	20	802.11ac	CH _L	0.81	97.21	0.12	0.93	30.00	Pass
			CH _M	0.79	97.11	0.13	0.92		
			CH _H	-0.13	97.12	0.13	0.00		
		802.11n	CH _L	0.92	97.09	0.13	1.05	30.00	Pass
			CH _M	0.54	97.18	0.12	0.66		
			CH _H	0.25	97.09	0.13	0.38		
		802.11a	CH _L	0.49	97.36	0.12	0.61	30.00	Pass
			CH _M	0.90	97.28	0.12	1.02		
			CH _H	0.68	97.36	0.12	0.80		
	40	802.11ac	CH _L	-2.38	94.68	0.24	-2.14	30.00	Pass
			CH _H	-2.55	94.60	0.24	-2.31		
		802.11n	CH _L	-2.34	94.65	0.24	-2.10	30.00	Pass
			CH _H	-2.91	94.65	0.24	-2.67		
	80	802.11ac	CH _M	-6.90	89.84	0.47	-6.43	30.00	Pass

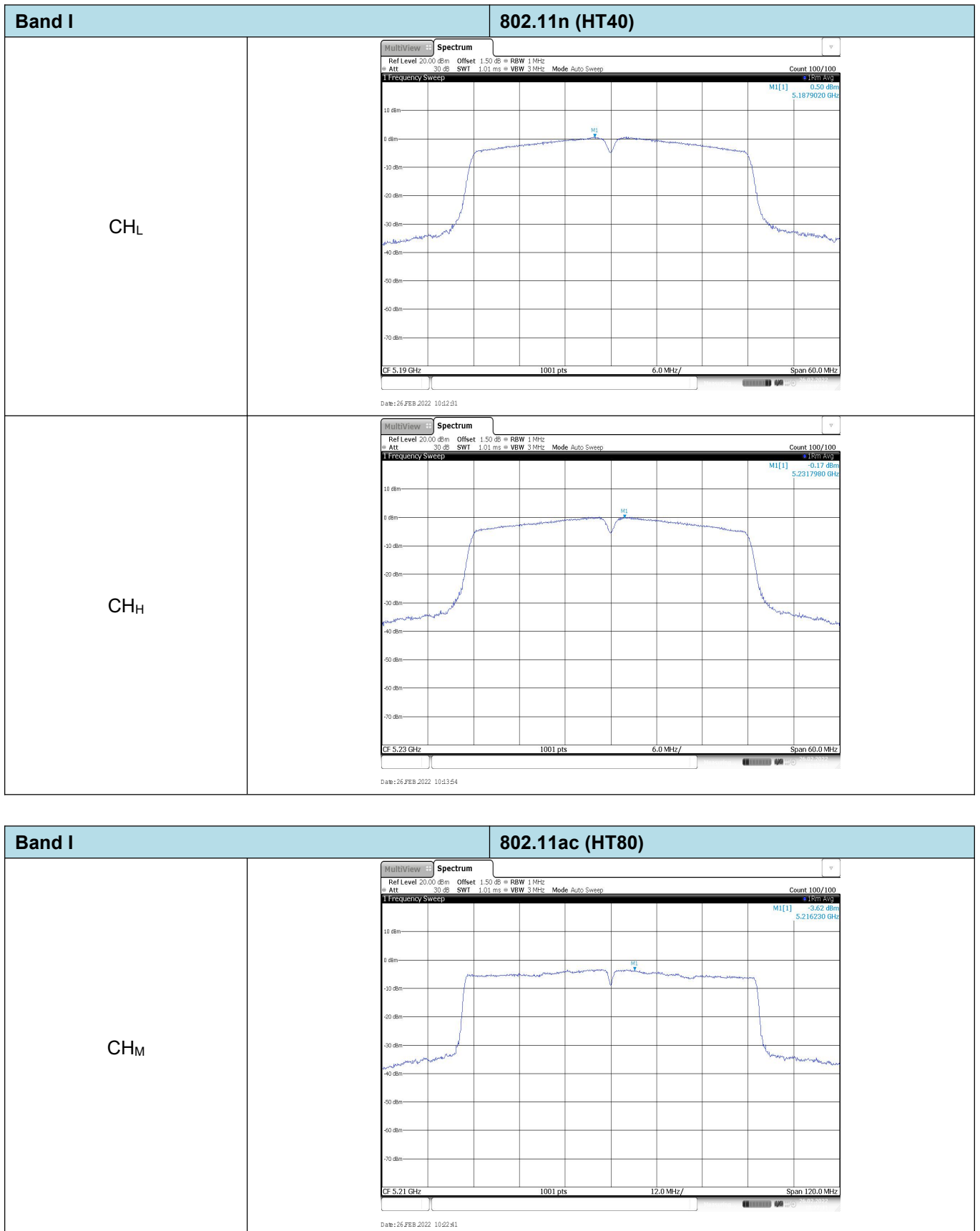
Test plot as follows:

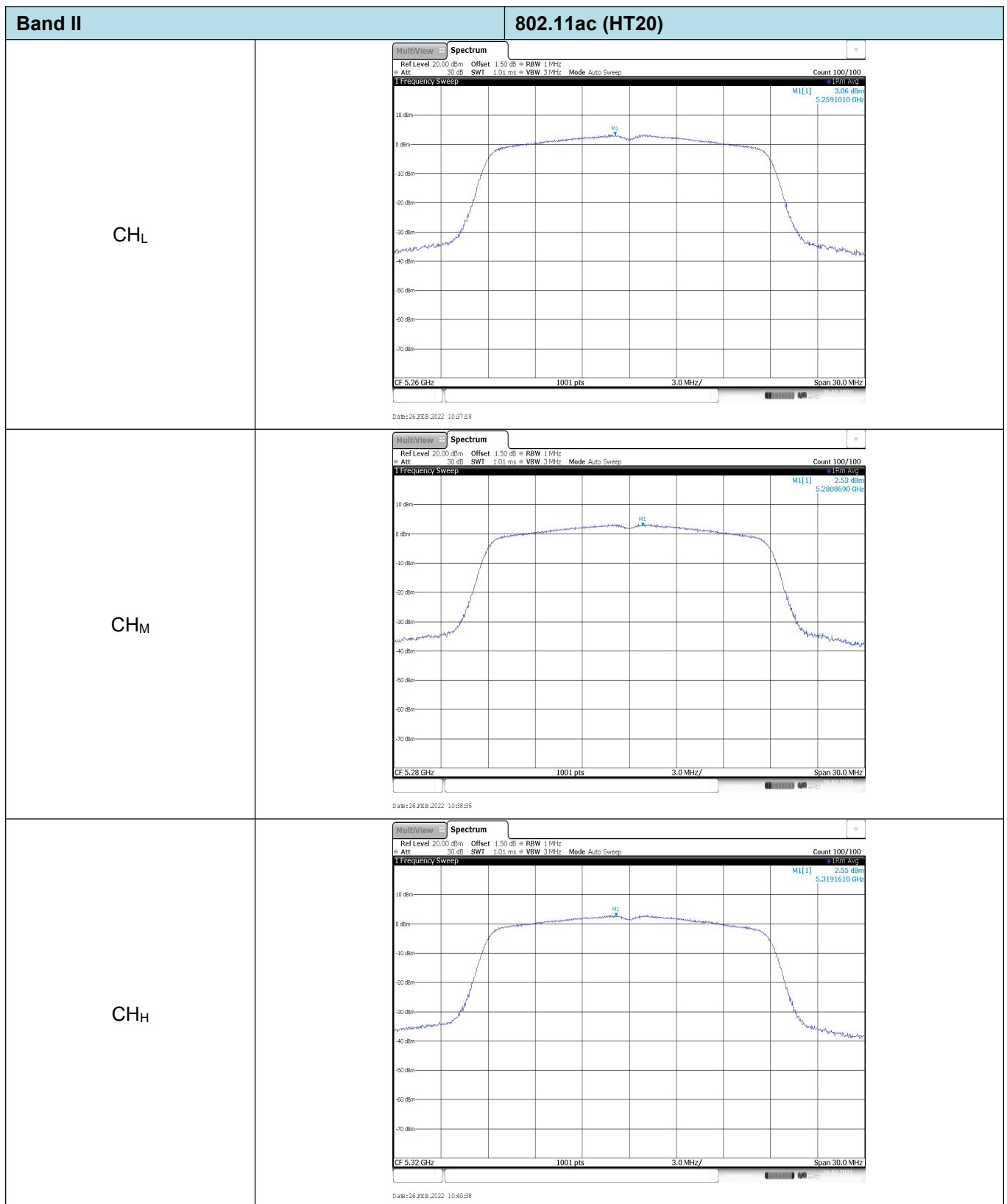


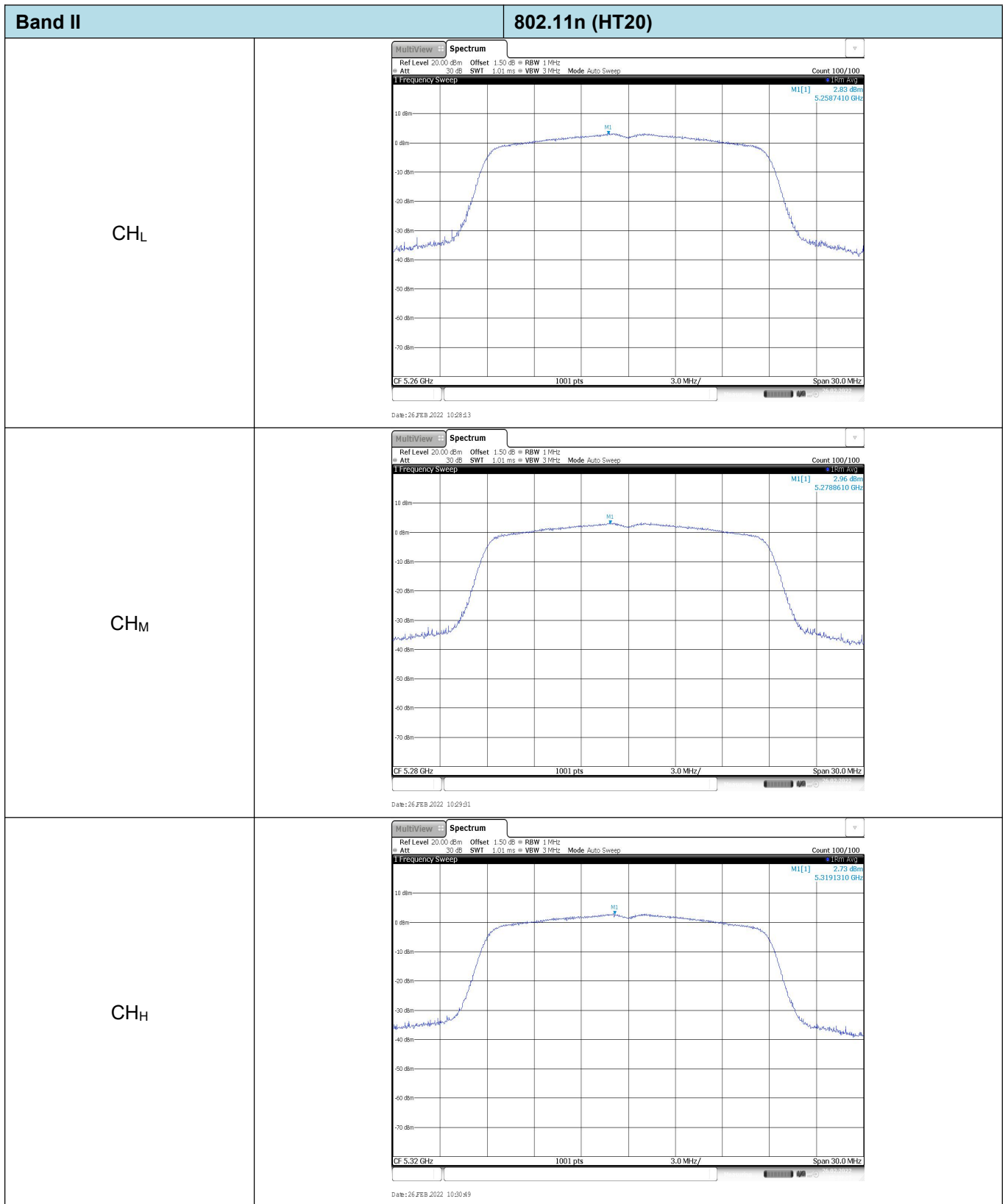


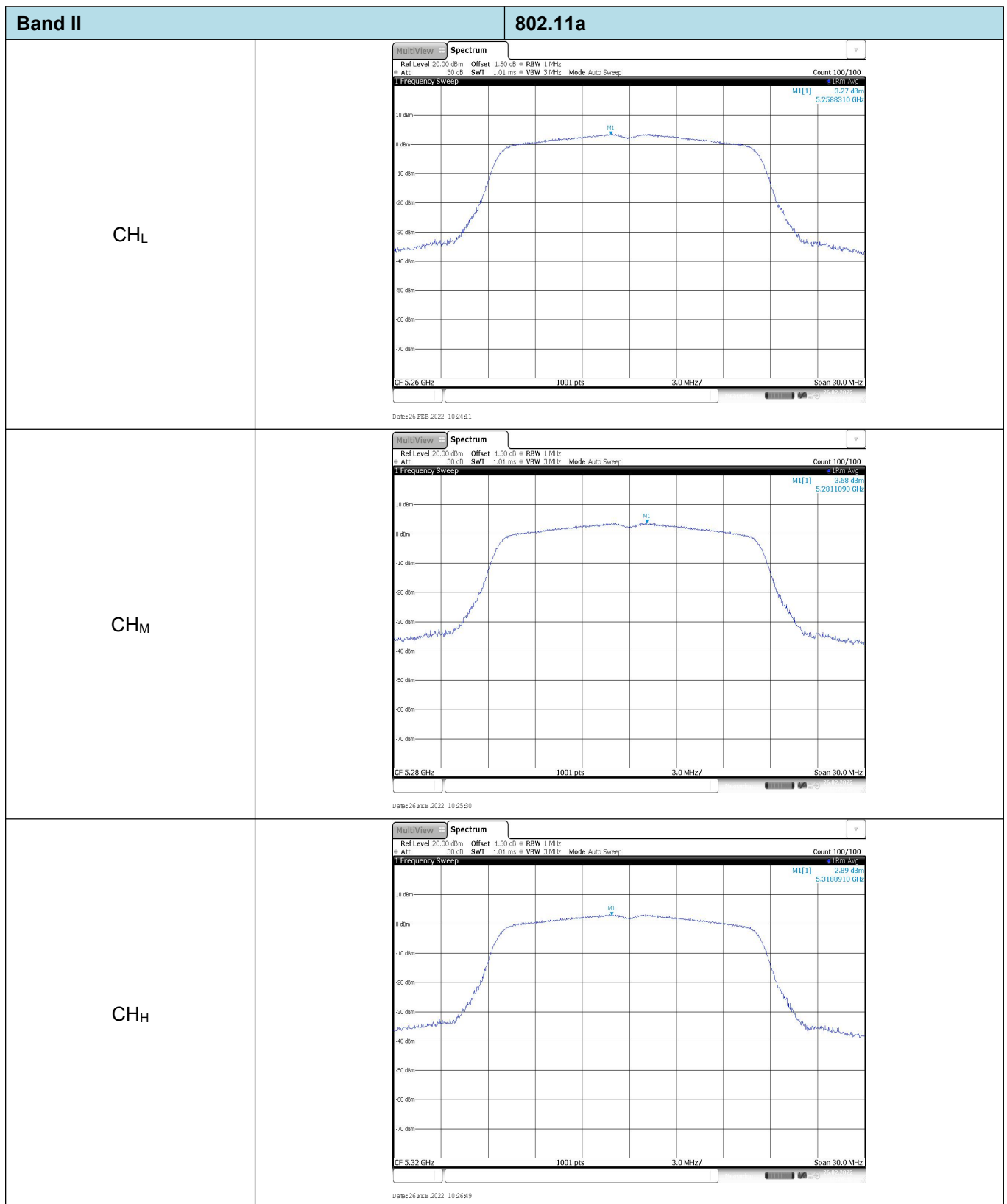


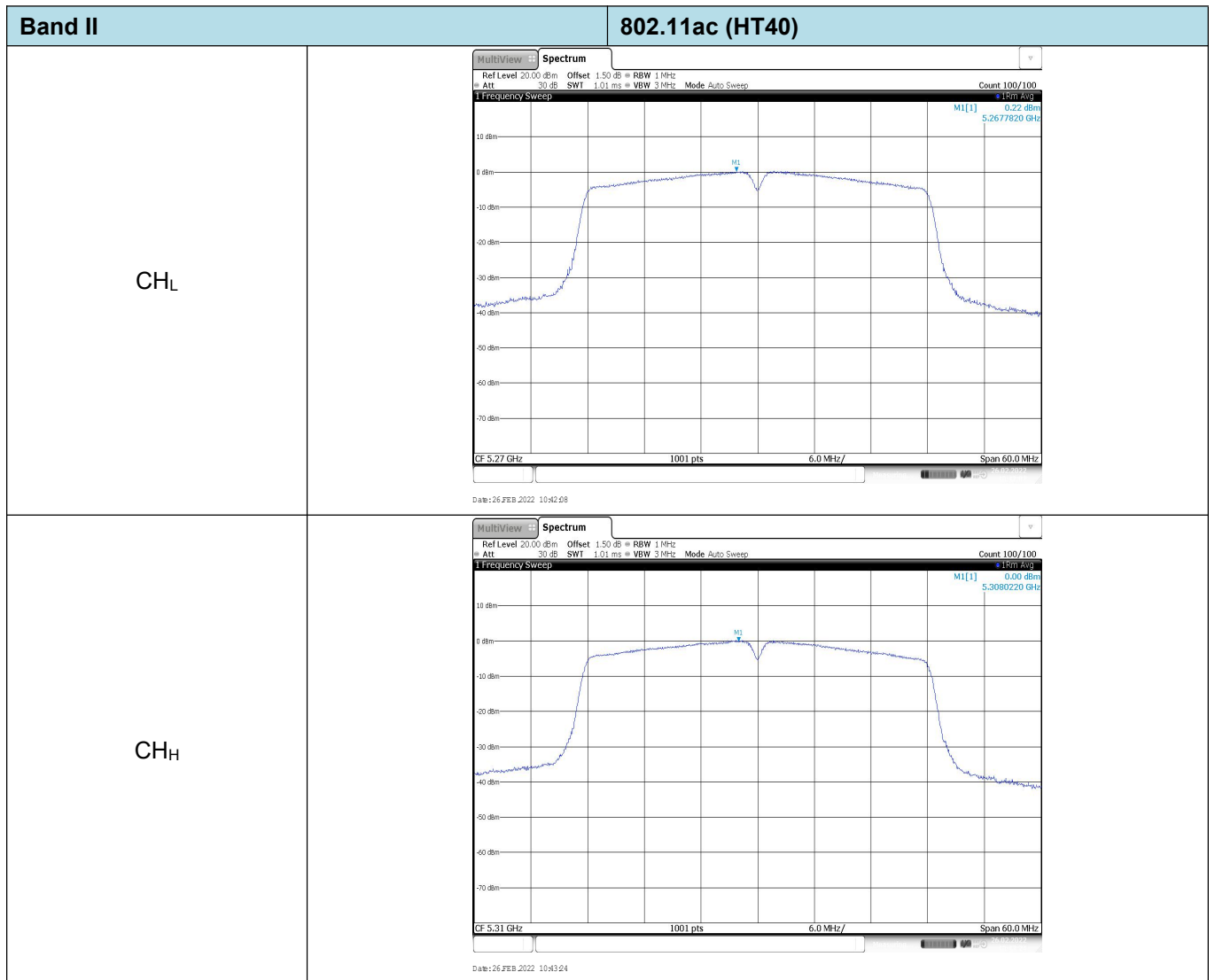


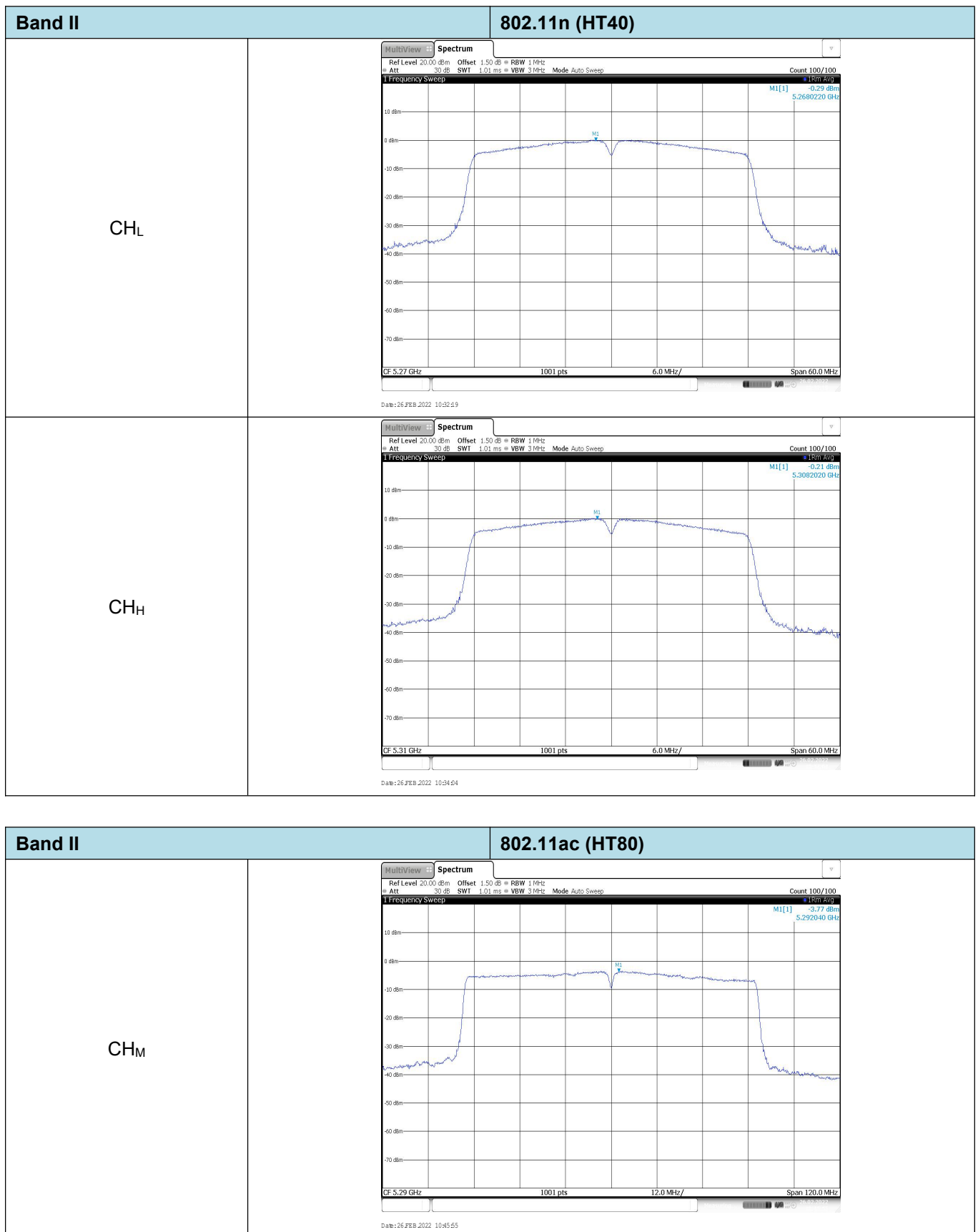


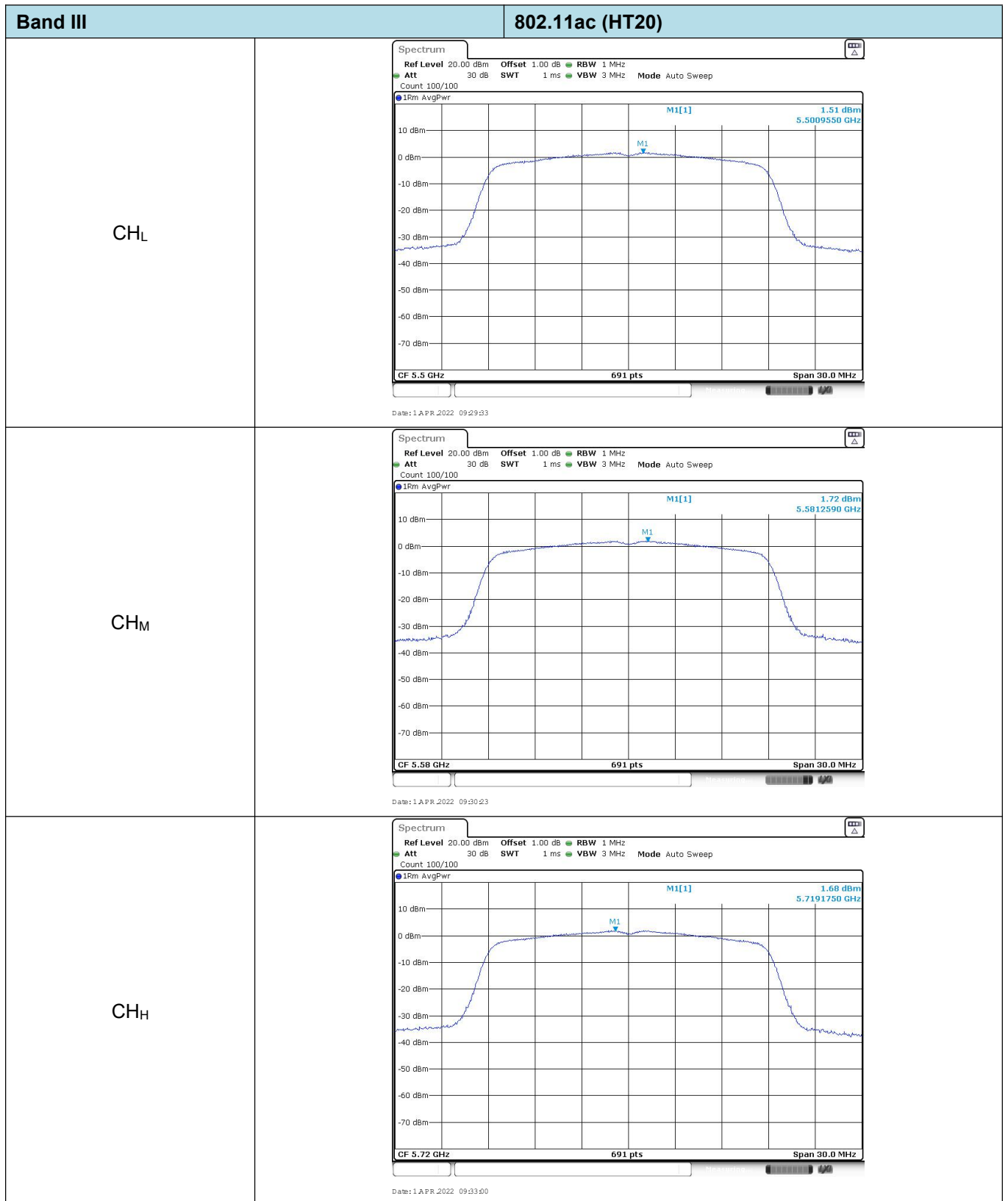


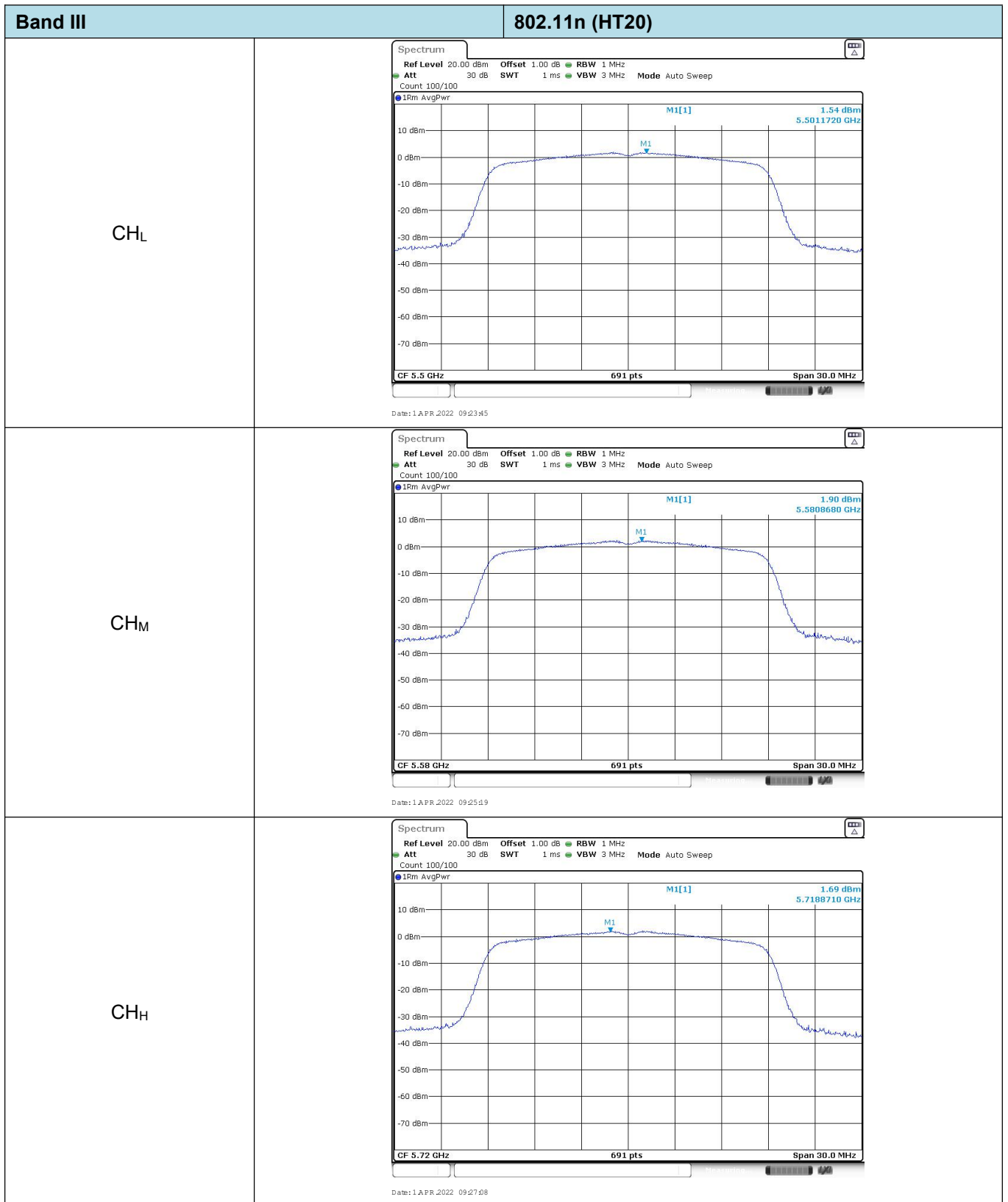


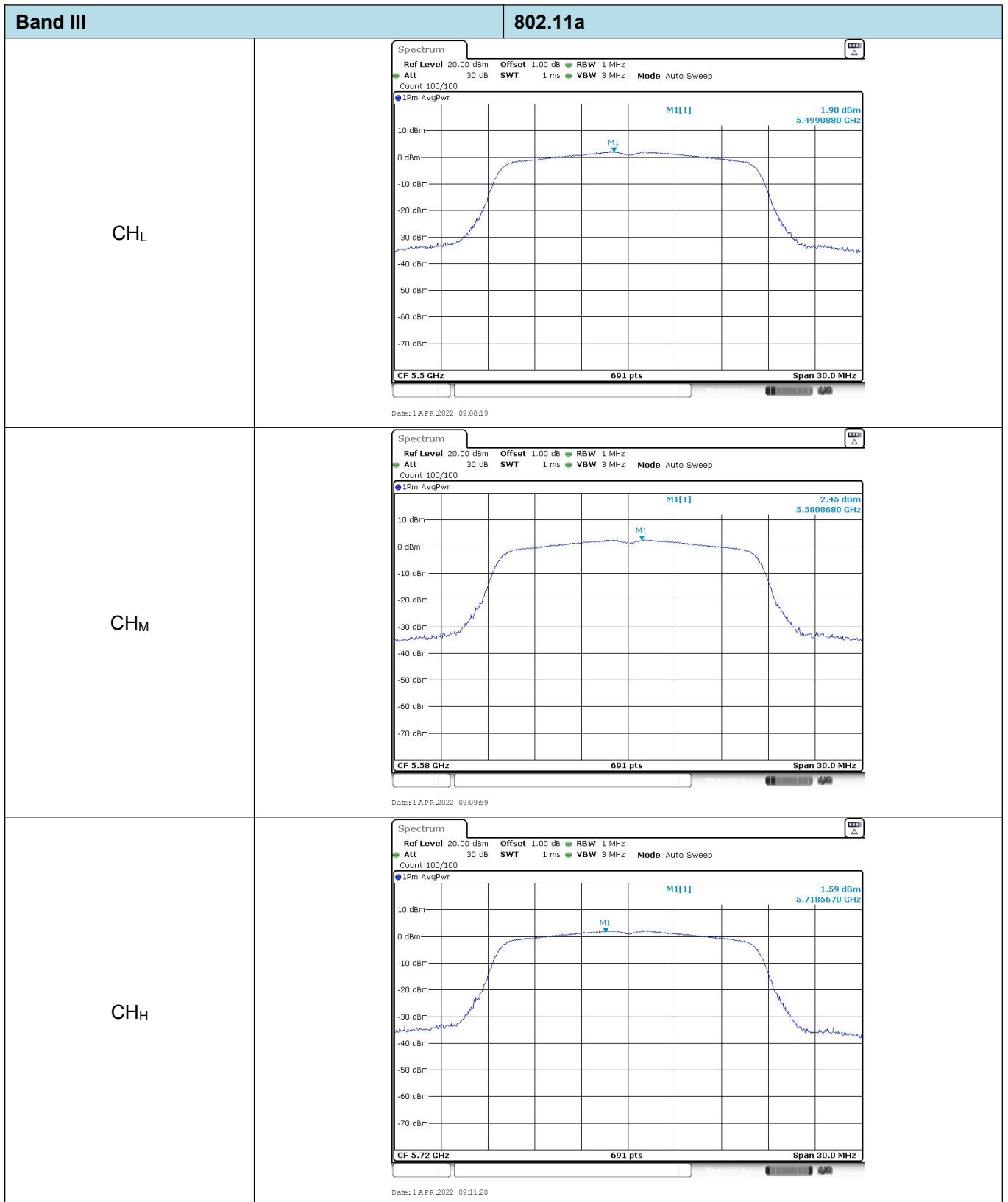




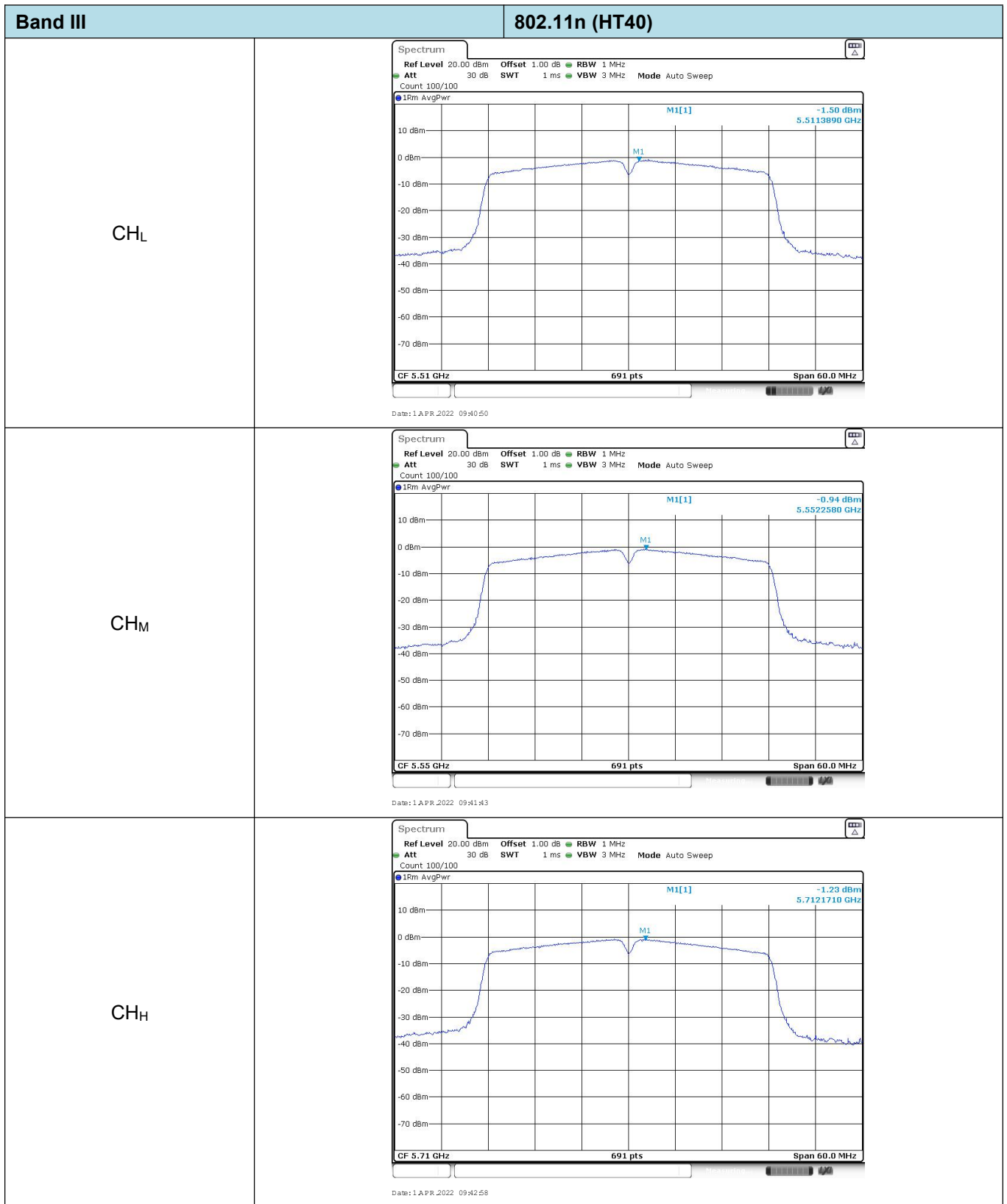


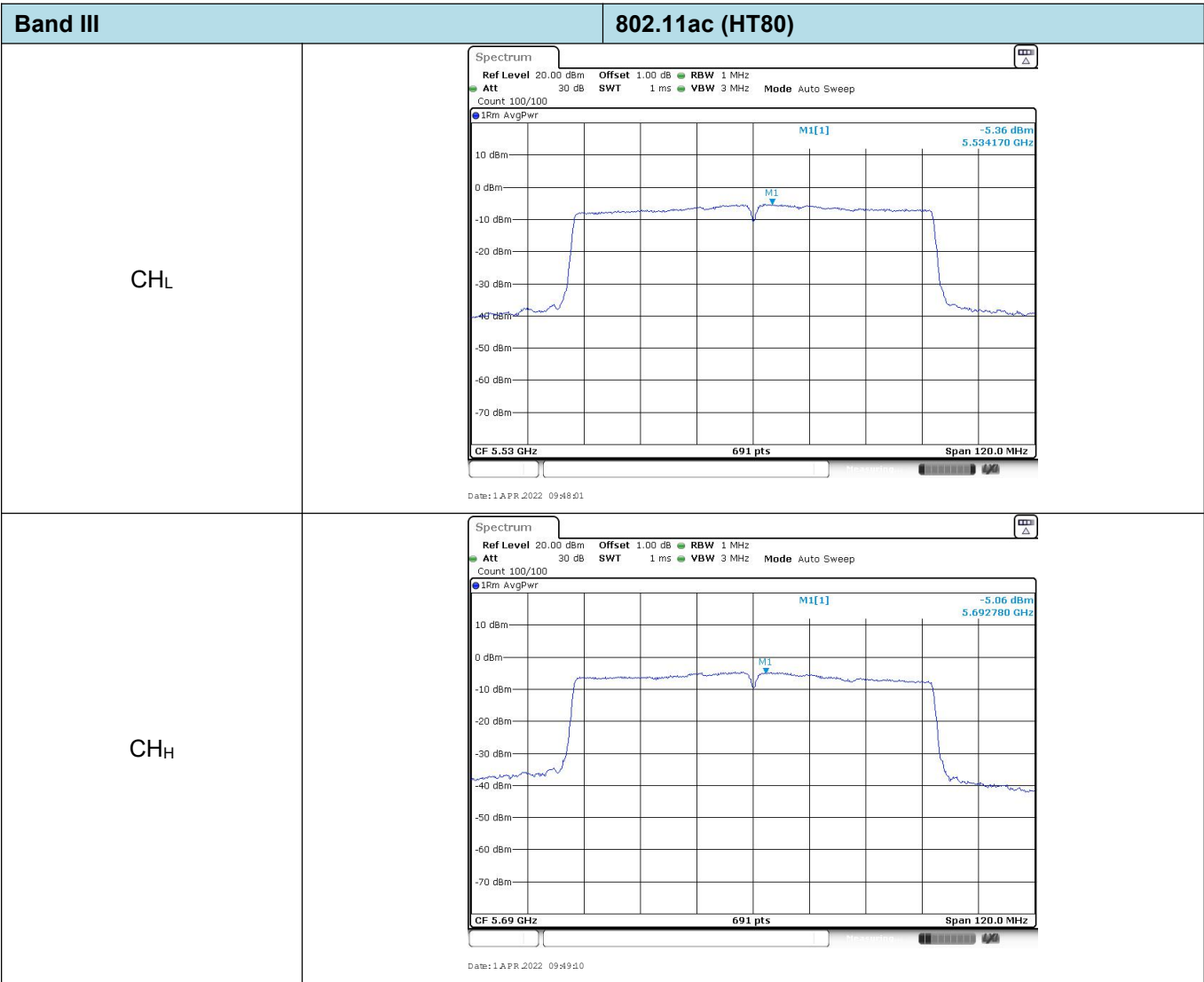


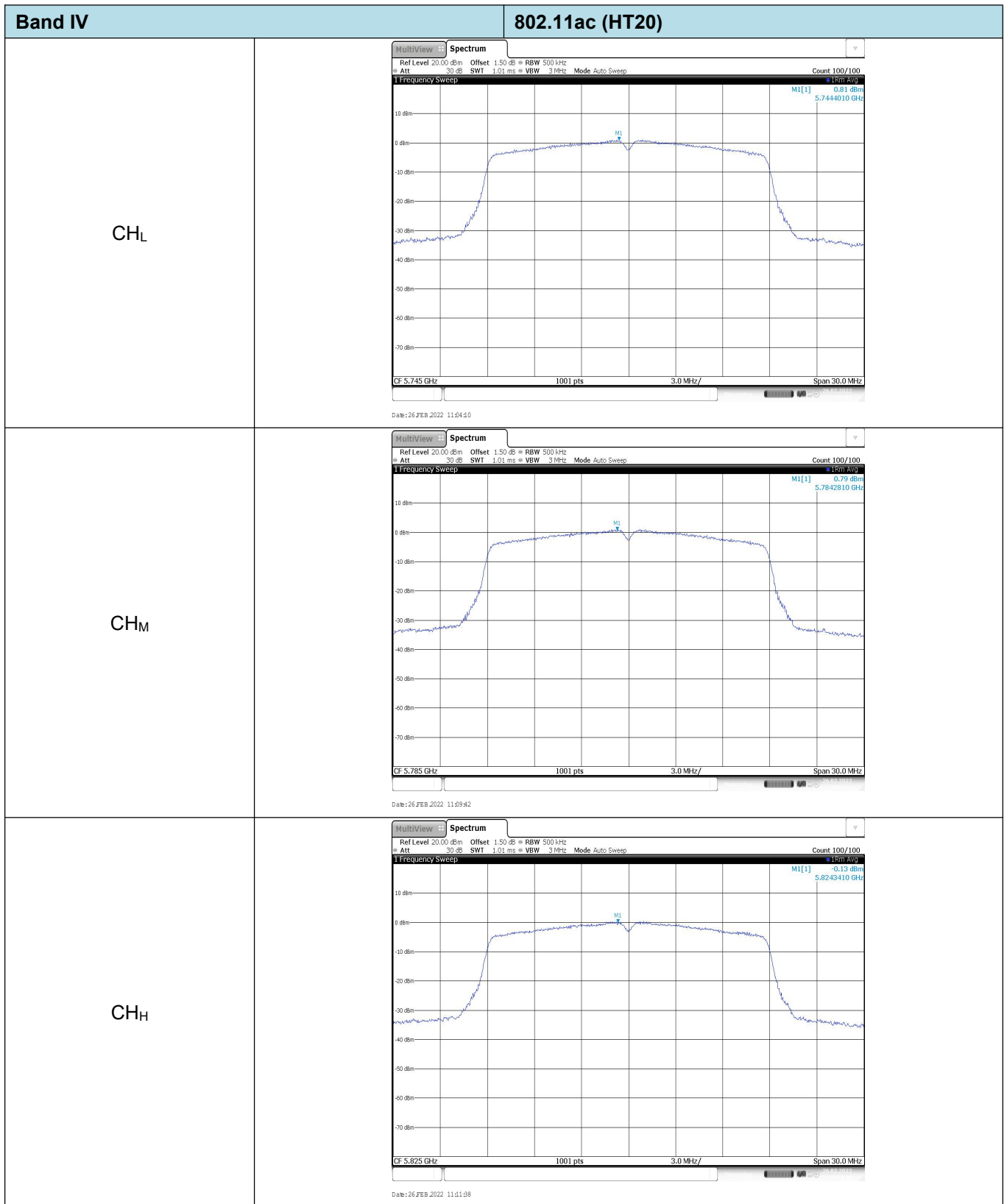


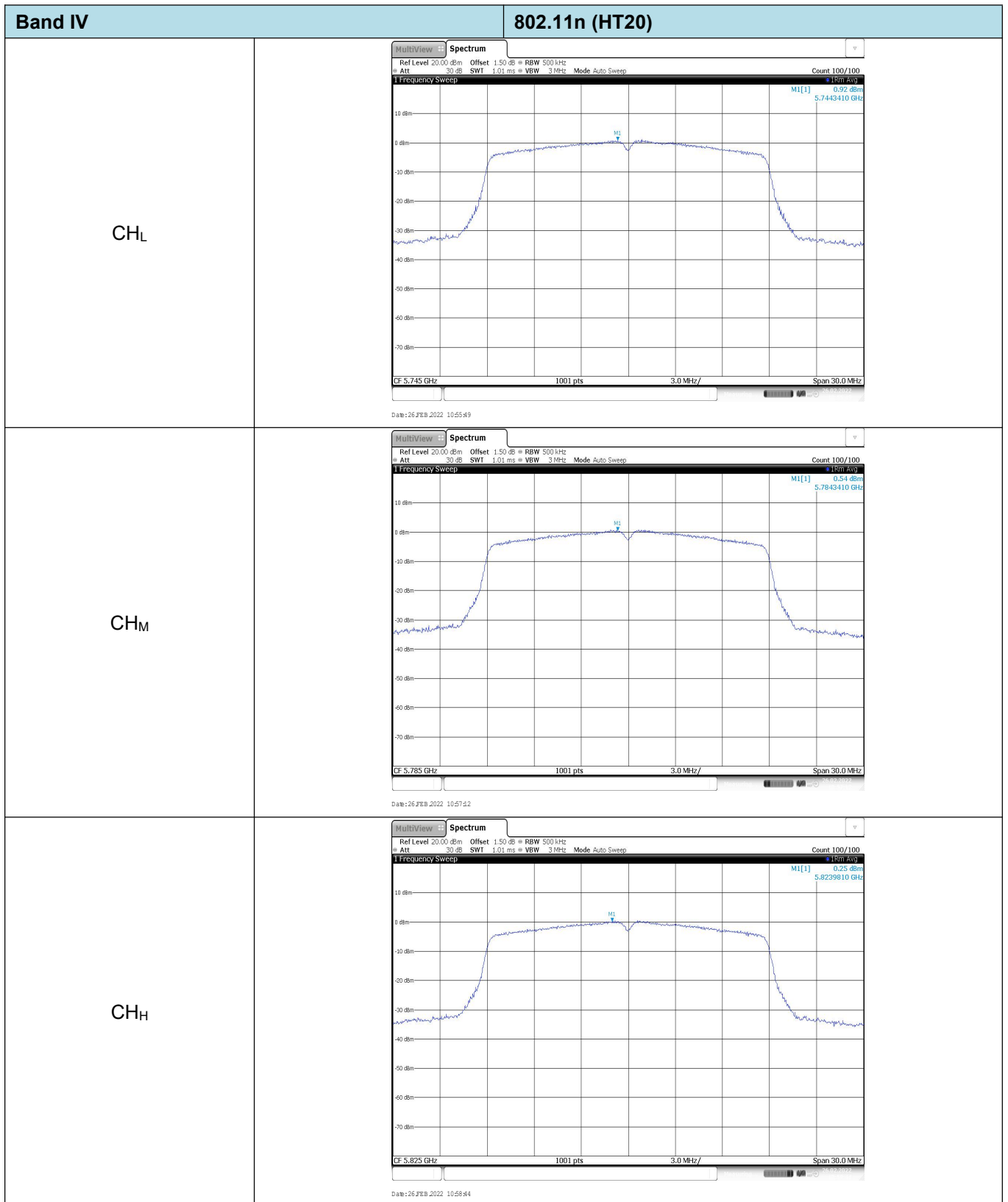


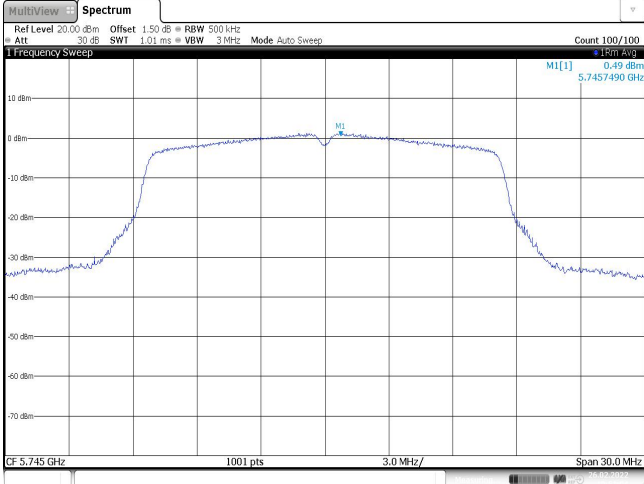
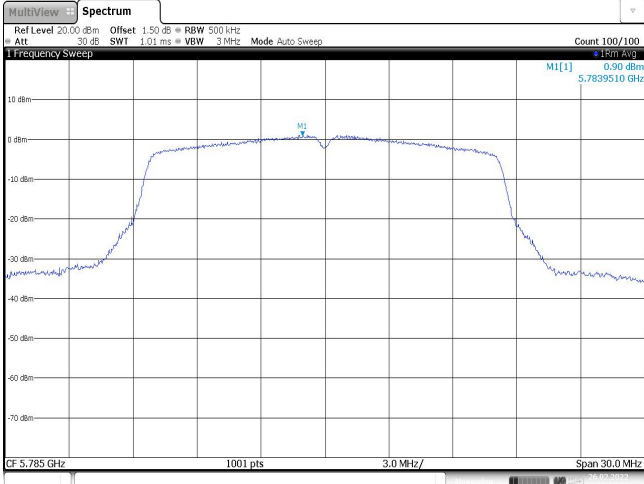
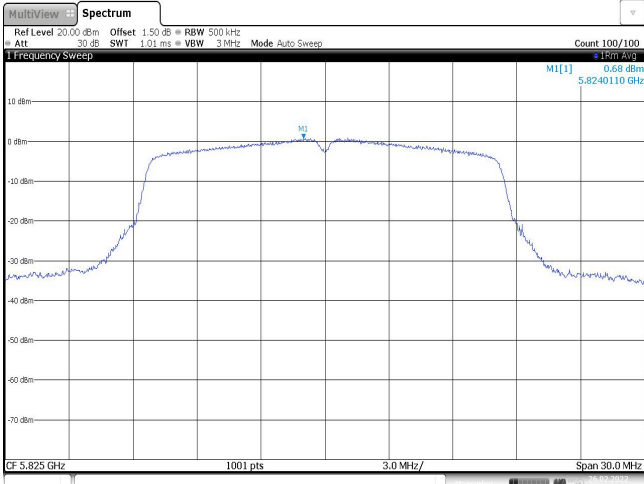
Band III		802.11ac (HT40)
CH _L	Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1Rm AvgPwr M1[1] -1.74 dBm 5.5125180 GHz M1 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.51 GHz 691 pts Span 60.0 MHz Date: 1 APR 2022 09:44:44	
CH _M	Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1Rm AvgPwr M1[1] -1.26 dBm 5.5524310 GHz M1 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.55 GHz 691 pts Span 60.0 MHz Date: 1 APR 2022 09:45:05	
CH _H	Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 1 MHz Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1Rm AvgPwr M1[1] -1.09 dBm 5.7085240 GHz M1 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm CF 5.71 GHz 691 pts Span 60.0 MHz Date: 1 APR 2022 09:46:21	

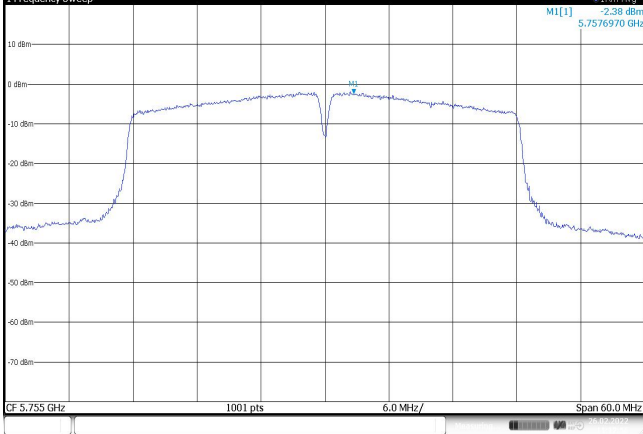
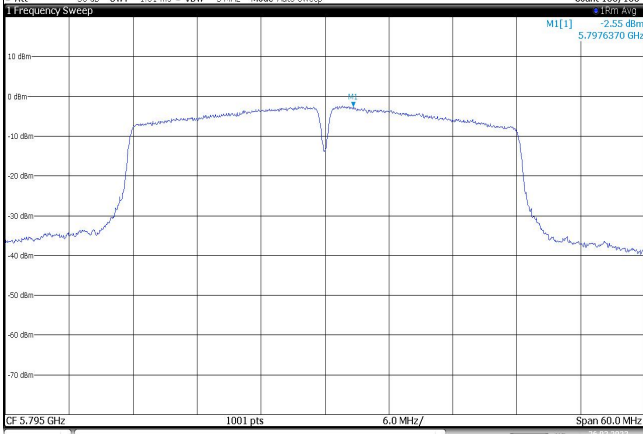








Band IV	802.11a
CH _L	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.50 dB RBW 500 kHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 MI[1] 0.49 dBm 5.7457490 GHz CF 5.745 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 26 FEB 2022 10:51:04
CH _M	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.50 dB RBW 500 kHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 MI[1] 0.90 dBm 5.7839510 GHz CF 5.785 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 26 FEB 2022 10:52:22
CH _H	 MultiView Spectrum Ref Level 20.00 dBm Offset 1.50 dB RBW 500 kHz Att 30 dB SWF 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 MI[1] 0.68 dBm 5.8240110 GHz CF 5.825 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 26 FEB 2022 10:53:39

Band IV		802.11ac (HT40)
CH _L	MultiView Spectrum Ref Level 20.00 dBm Offset 1.50 dB RBW 500 kHz Att -30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep MI[1] -2.38 dBm 5.7576970 GHz  CF 5.755 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date:26 FEB 2022 11:12:56	
CH _H	MultiView Spectrum Ref Level 20.00 dBm Offset 1.50 dB RBW 500 kHz Att -30 dB SWT 1.01 ms VBW 3 MHz Mode Auto Sweep Count 100/100 1 Frequency Sweep MI[1] -2.55 dBm 5.7976370 GHz  CF 5.795 GHz 1001 pts 6.0 MHz/ Span 60.0 MHz Date:26 FEB 2022 11:14:19	