

APPENDIX REPORT

Project No.	SHT2202047301EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT22020473003	Model No.	R1
Start test date	2022-02-24	Finish date	2022-02-24
Temperature	22.1℃	Humidity	43%
Test Engineer	Xiaoqin Li	Auditor	Xiaodong Zheo

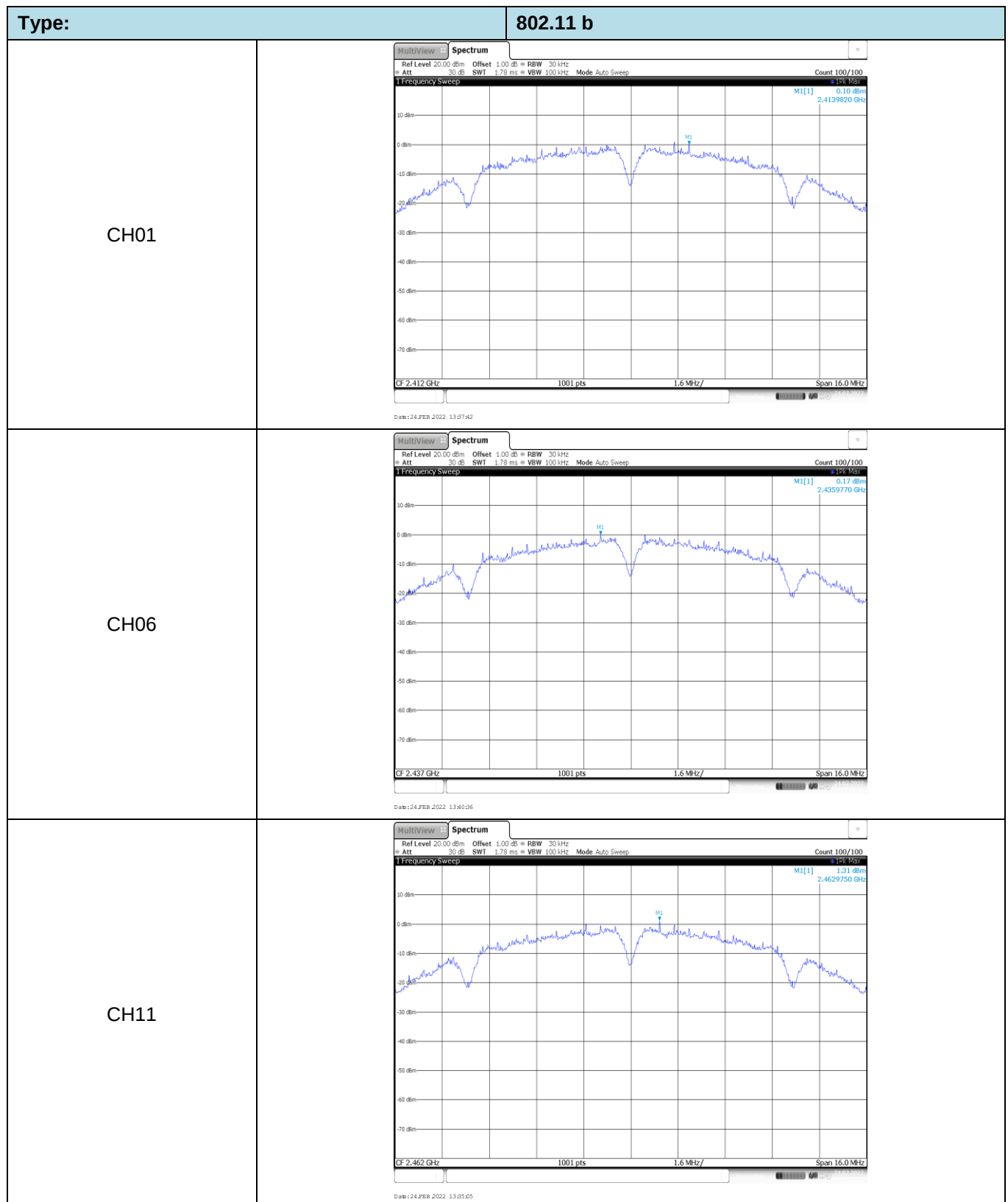
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

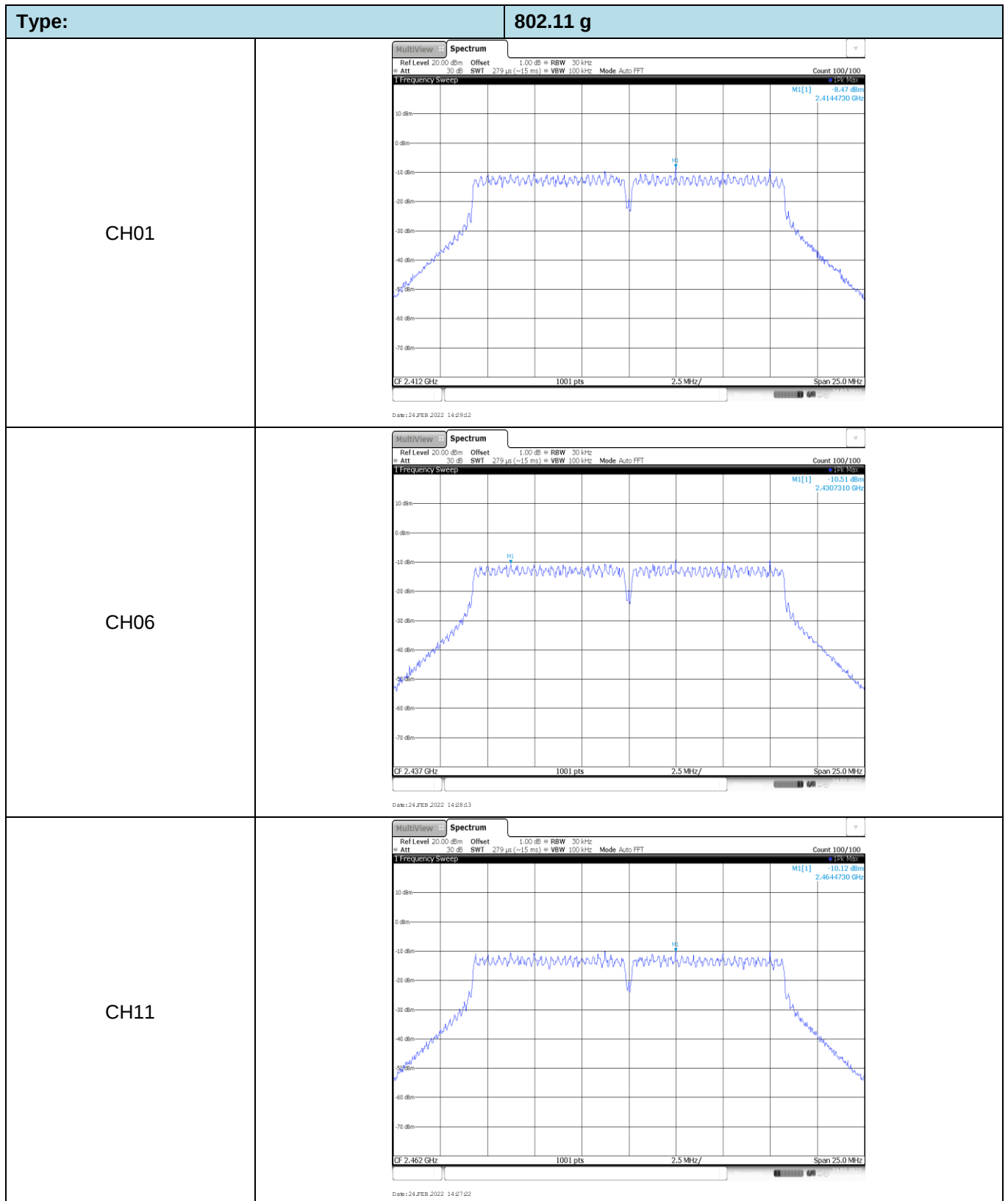
Appendix A: Conducted Peak Output Power

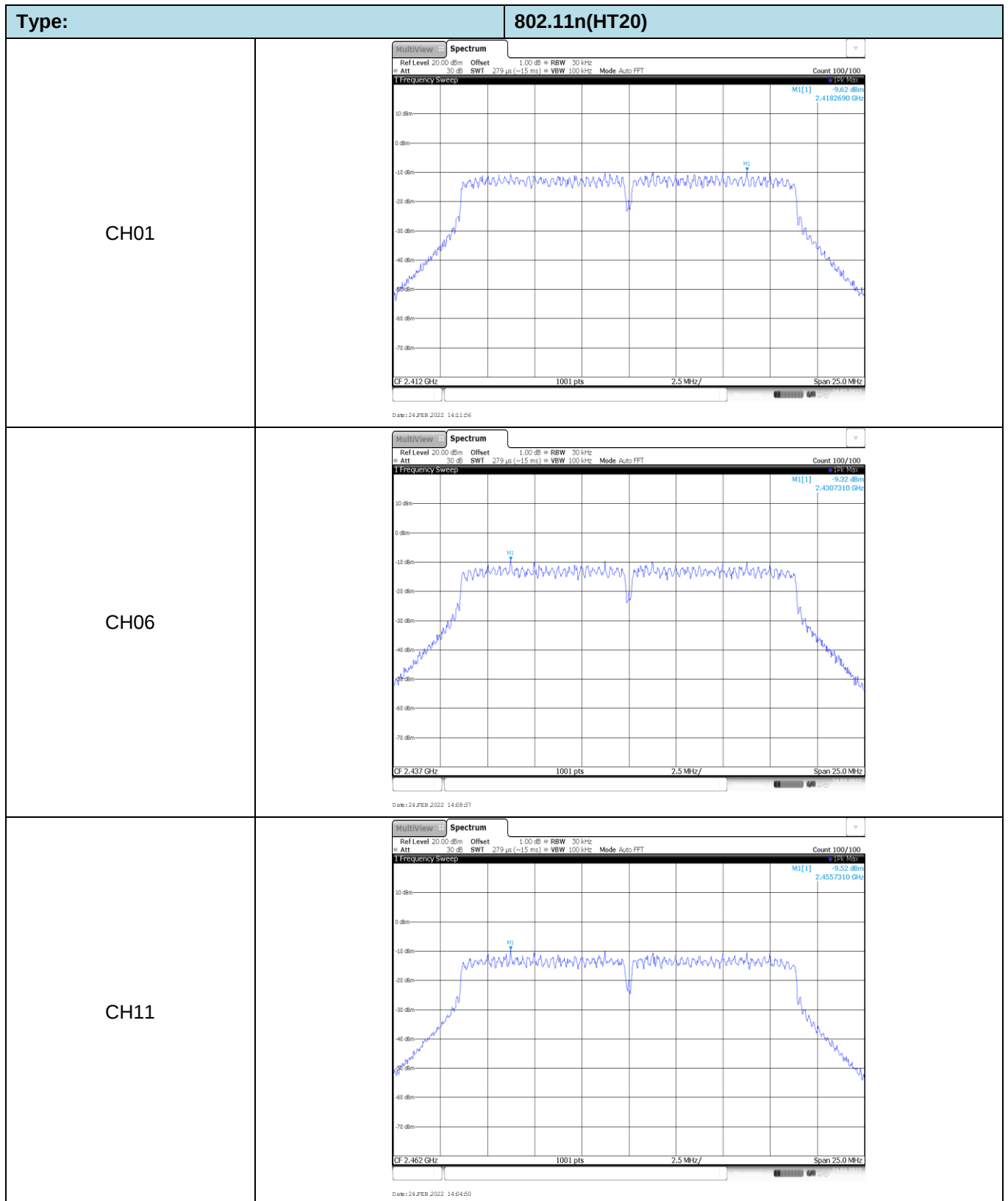
Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	14.48	12.00	≤ 30.00	Pass
	06	14.77	12.34		
	11	15.12	12.64		
802.11g	01	14.60	11.84	≤ 30.00	Pass
	06	15.06	12.26		
	11	15.08	12.28		
802.11n (HT20)	01	14.63	11.96	≤ 30.00	Pass
	06	15.15	12.44		
	11	15.09	12.32		
802.11n(HT40)	03	14.90	12.06	≤ 30.00	Pass
	06	15.17	12.36		
	09	15.31	12.42		

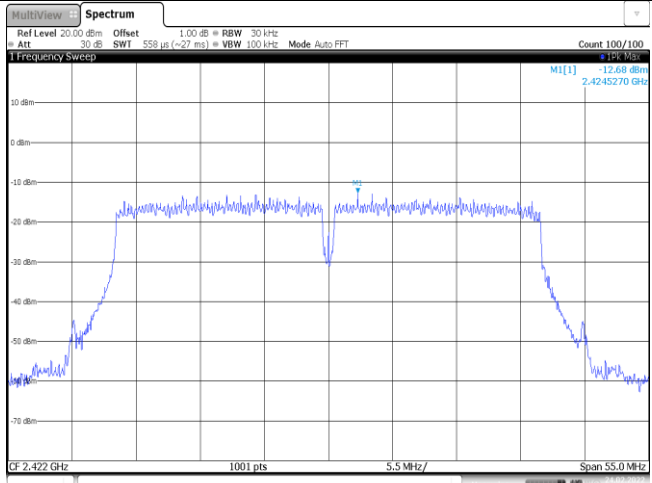
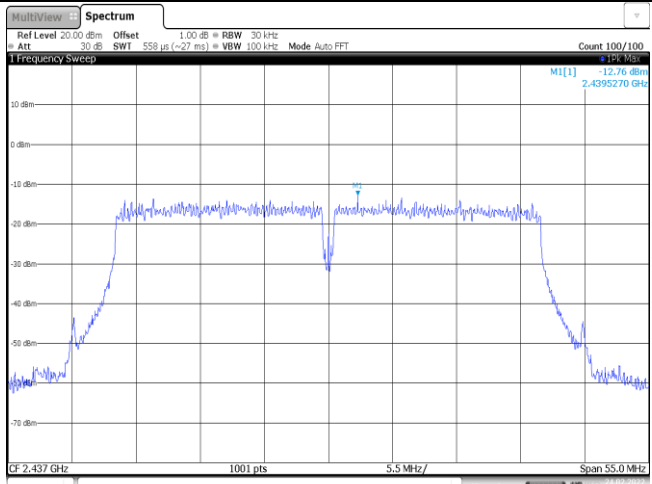
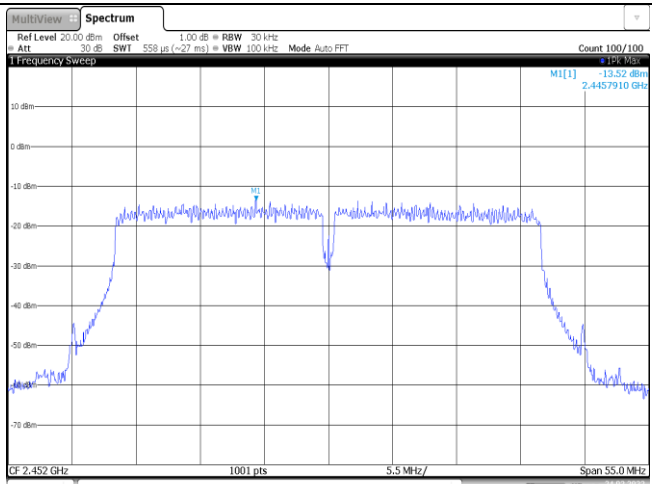
Appendix B: Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	0.10	≤8.00	Pass
	06	0.17		
	11	1.31		
802.11g	01	-8.47	≤8.00	Pass
	06	-10.51		
	11	-10.12		
802.11n(HT20)	01	-9.62	≤8.00	Pass
	06	-9.32		
	11	-9.52		
802.11n(HT40)	03	-12.68	≤8.00	Pass
	06	-12.76		
	09	-13.52		



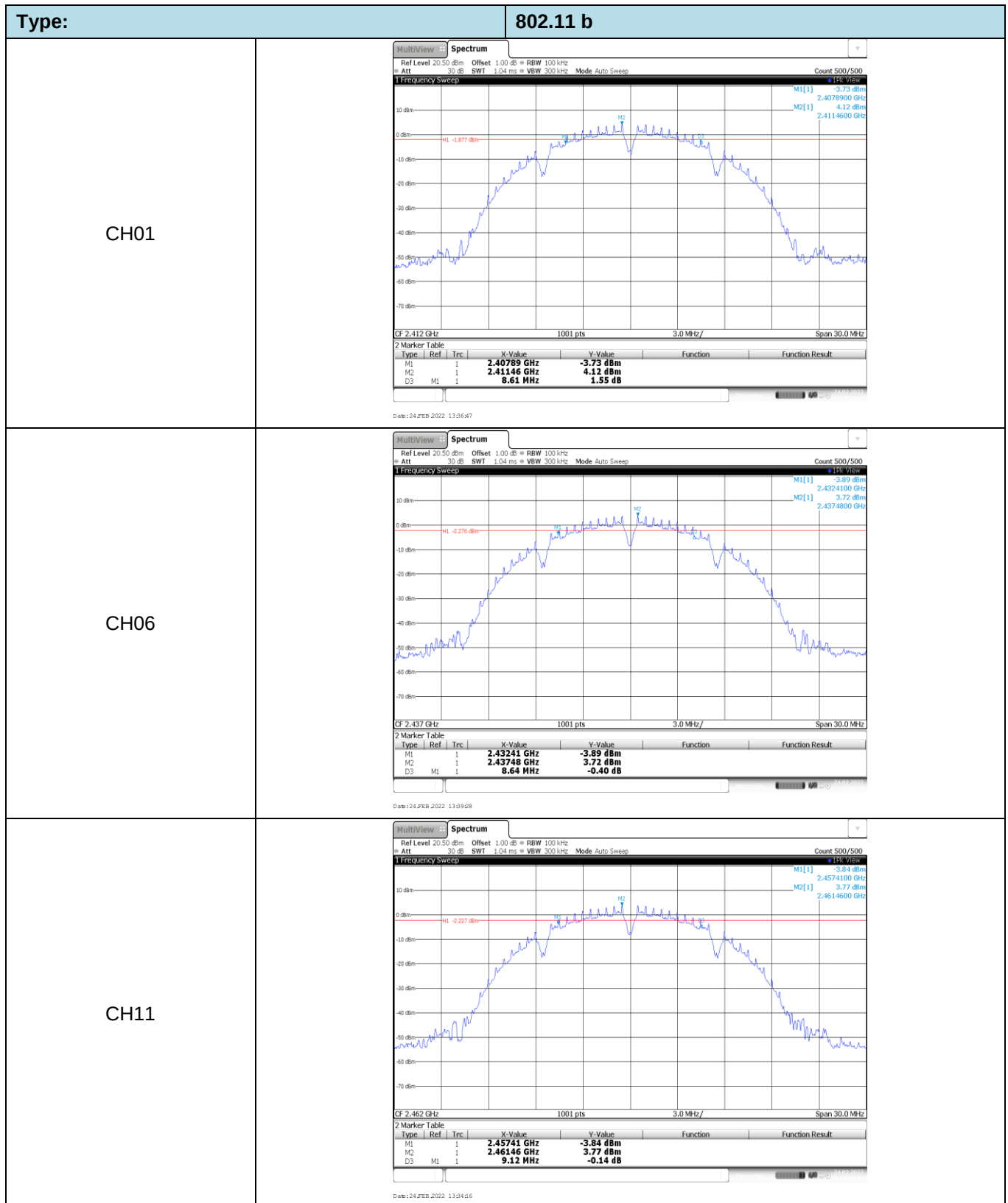


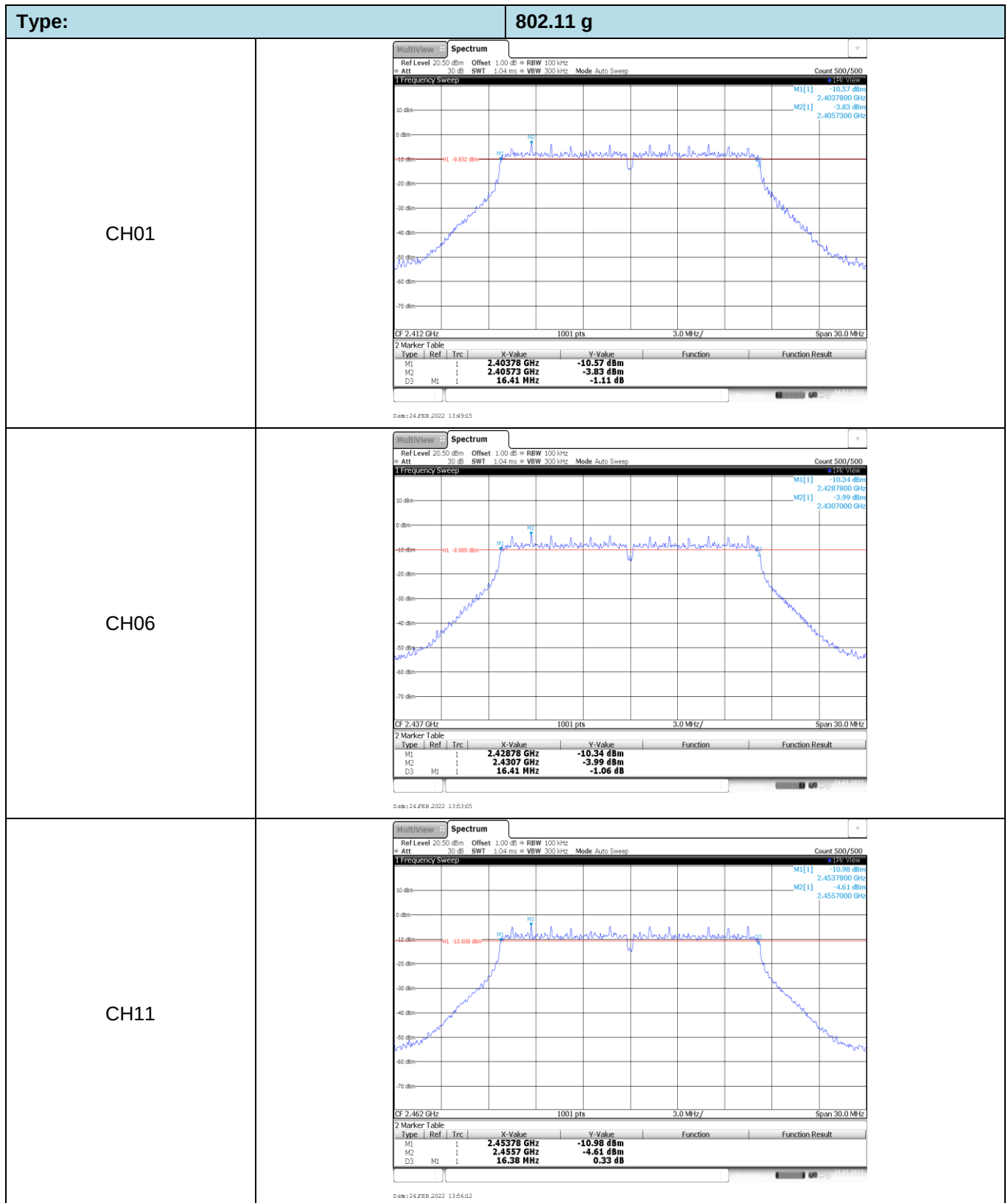


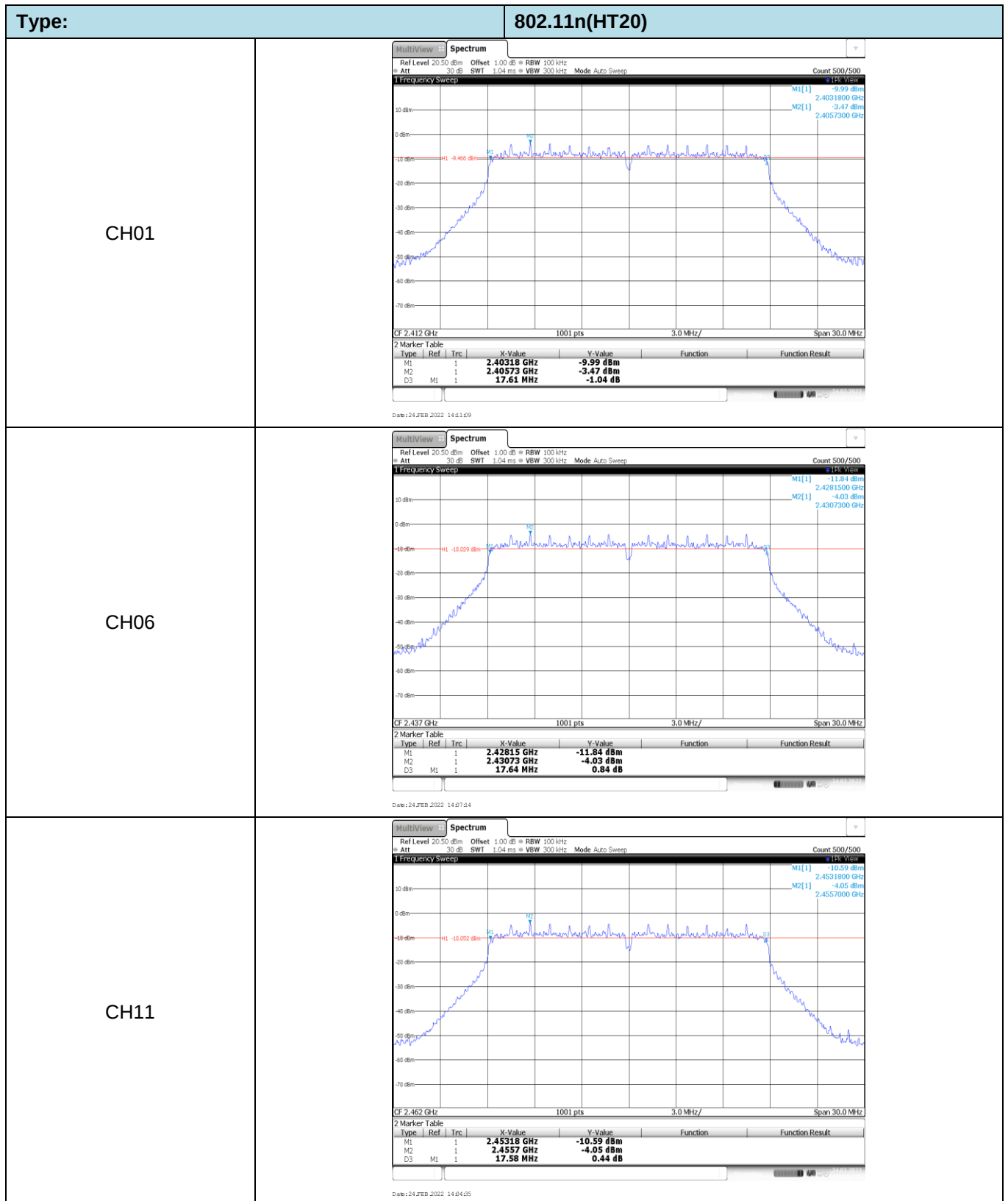
Type:	802.11n(HT40)
CH03	 Ref Level 20.00 dBm Offset 1.00 dB BW 30 kHz Att 30 dB SWI 558 us (~27 ms) VBW 100 kHz Mode Auto FFT Count 100/100 MI[1] -12.68 dBm 2.4245270 GHz CF 2.422 GHz 1001 pts 5.5 MHz/ Span 55.0 MHz Date: 24.FEB.2022 14:04:31
CH06	 Ref Level 20.00 dBm Offset 1.00 dB BW 30 kHz Att 30 dB SWI 558 us (~27 ms) VBW 100 kHz Mode Auto FFT Count 100/100 MI[1] -12.76 dBm 2.4395270 GHz CF 2.437 GHz 1001 pts 5.5 MHz/ Span 55.0 MHz Date: 24.FEB.2022 14:02:50
CH09	 Ref Level 20.00 dBm Offset 1.00 dB BW 30 kHz Att 30 dB SWI 558 us (~27 ms) VBW 100 kHz Mode Auto FFT Count 100/100 MI[1] -13.52 dBm 2.4457910 GHz CF 2.452 GHz 1001 pts 5.5 MHz/ Span 55.0 MHz Date: 24.FEB.2022 14:08:25

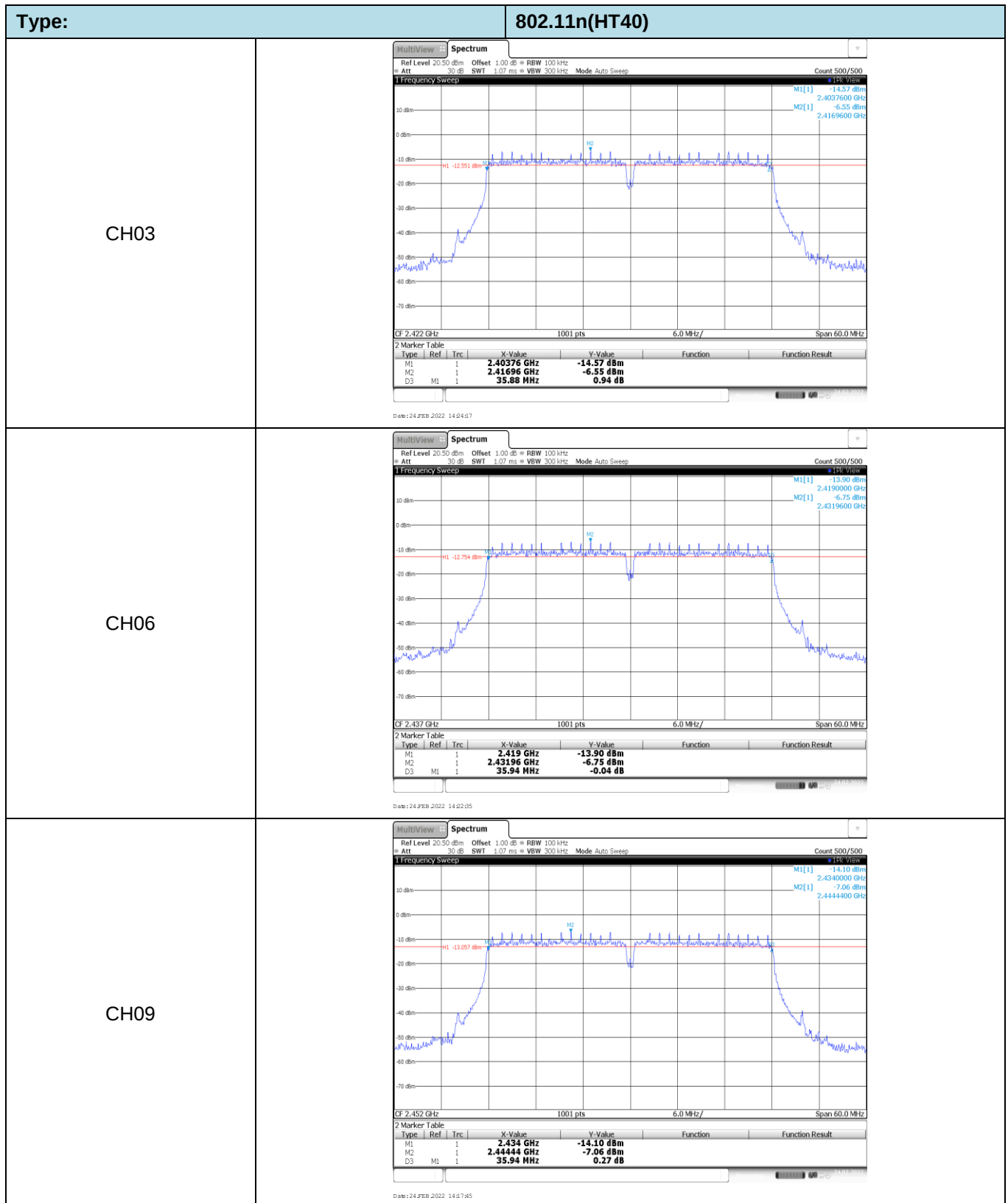
Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	8.61	≥0.5	Pass
	06	8.64		
	11	9.12		
802.11g	01	16.41	≥0.5	Pass
	06	16.41		
	11	16.38		
802.11n(HT20)	01	17.61	≥0.5	Pass
	06	17.64		
	11	17.58		
802.11n(HT40)	03	35.88	≥0.5	Pass
	06	35.94		
	09	35.94		



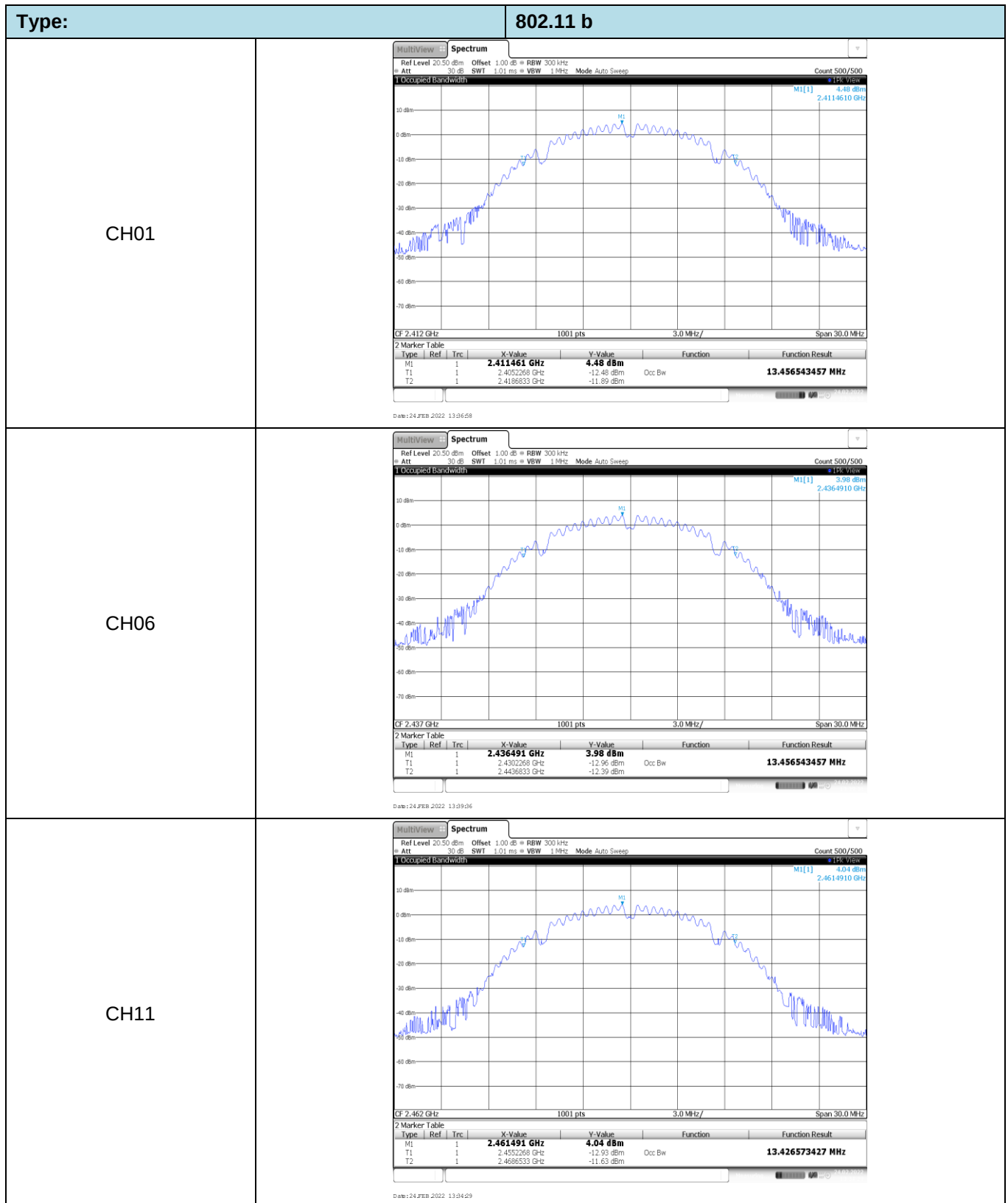


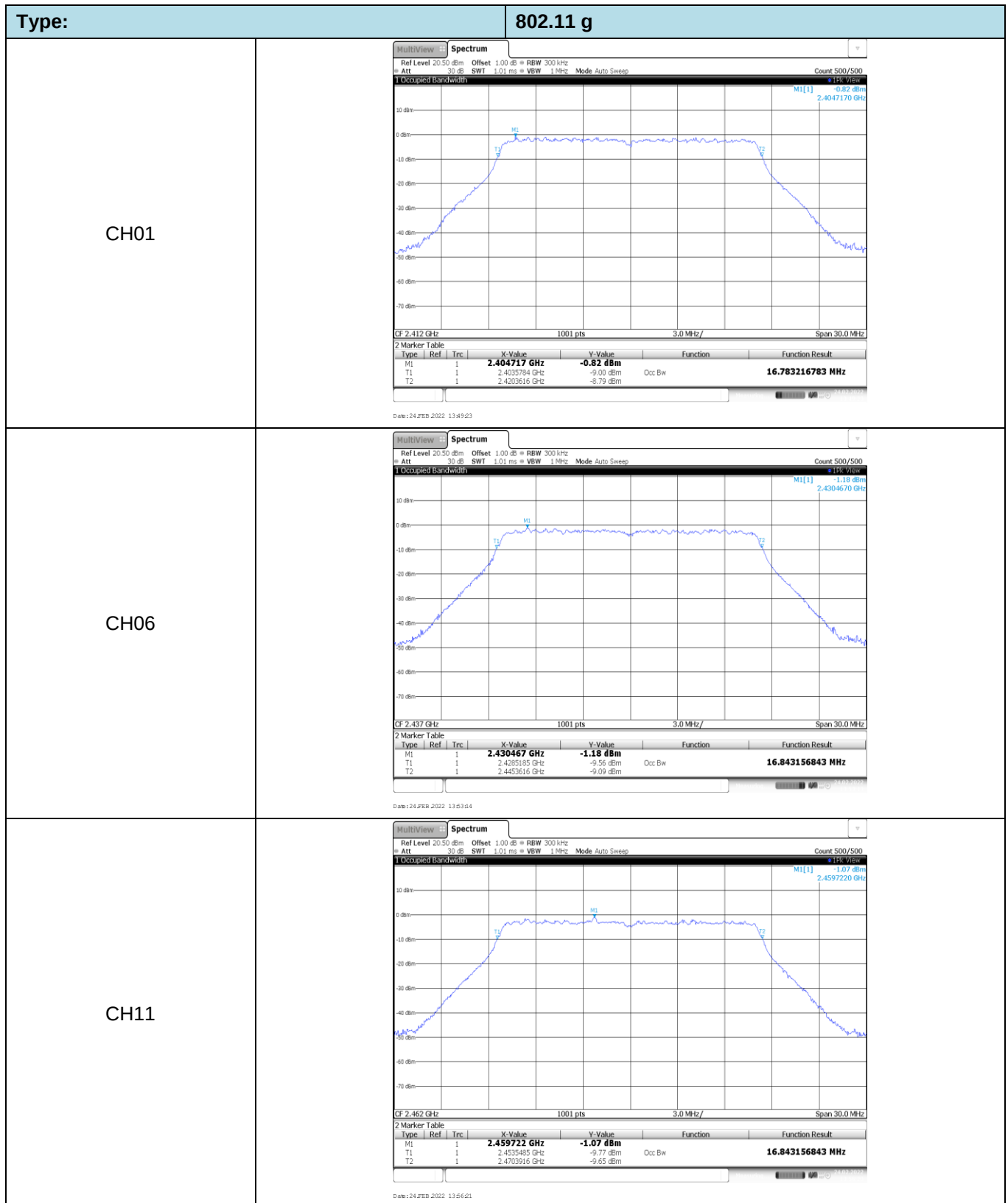


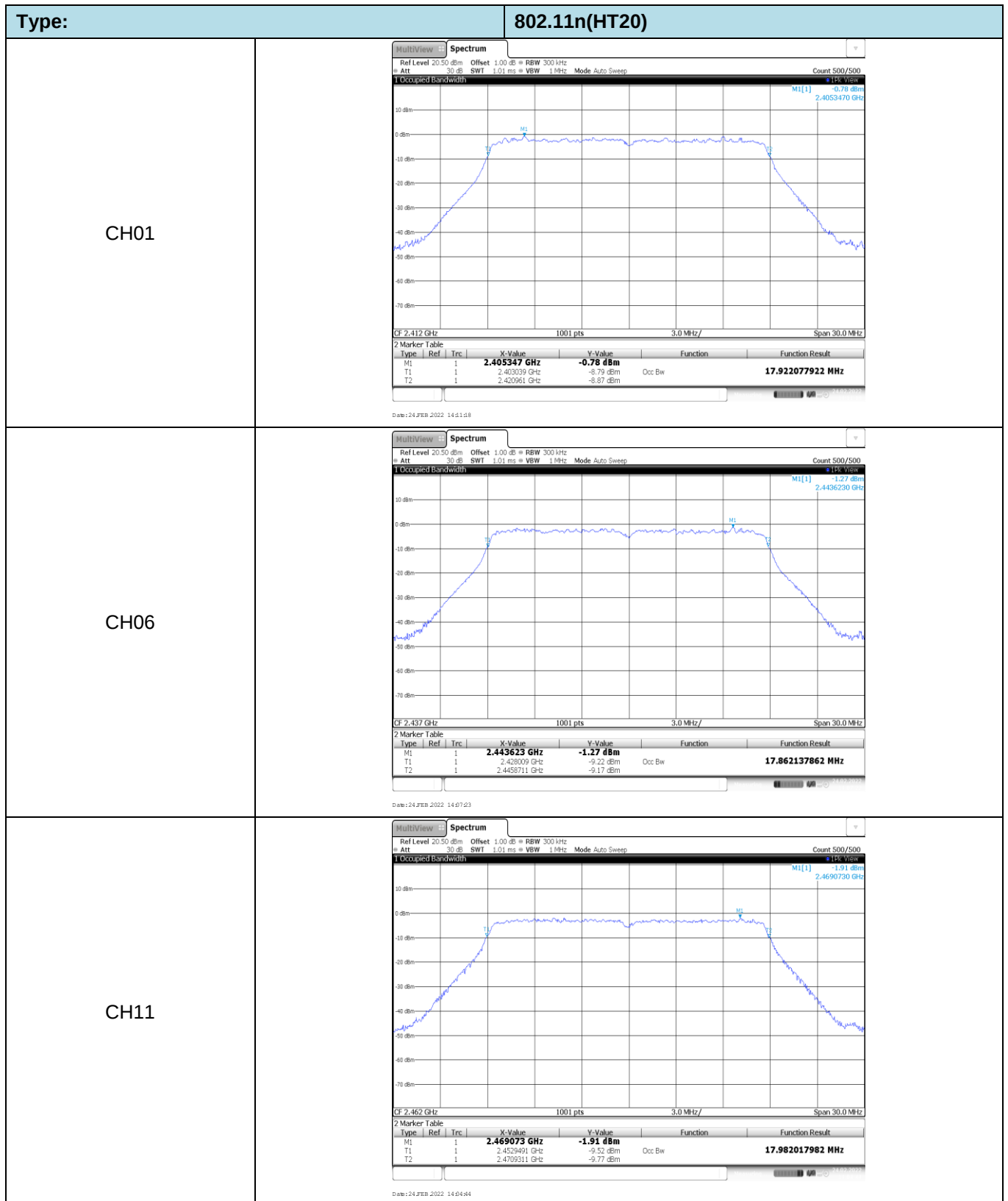


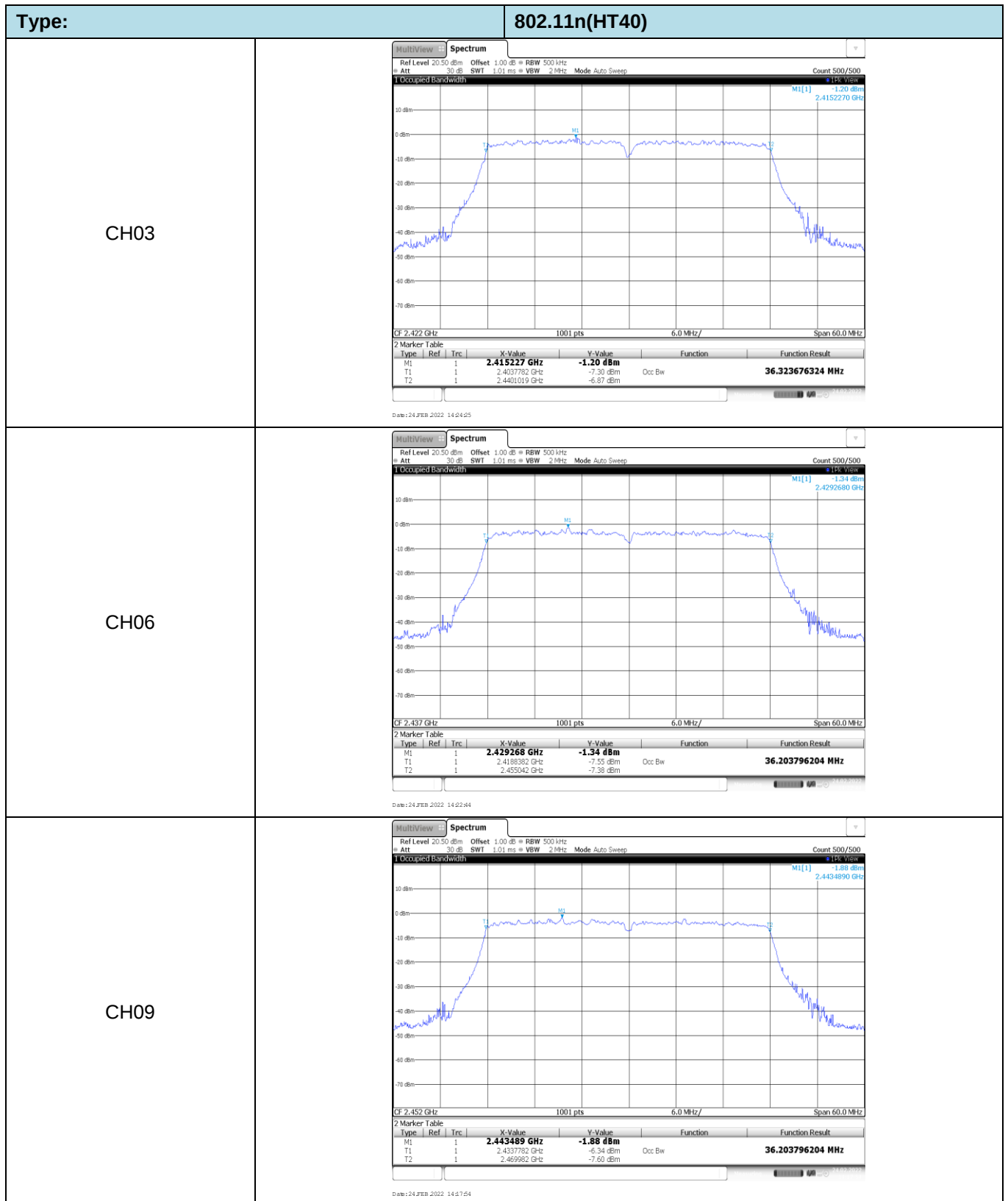
Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	13.46	-	Pass
	06	13.46		
	11	13.43		
802.11g	01	16.78	-	Pass
	06	16.84		
	11	16.84		
802.11n(HT20)	01	17.92	-	Pass
	06	17.86		
	11	17.98		
802.11n(HT40)	03	36.32	-	Pass
	06	36.20		
	09	36.20		





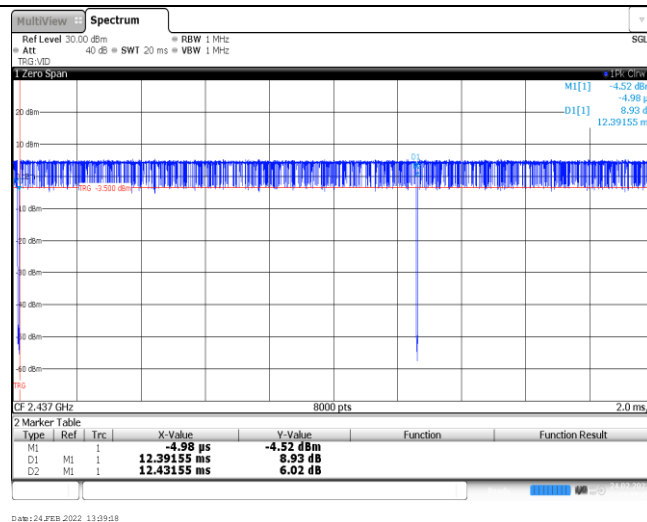




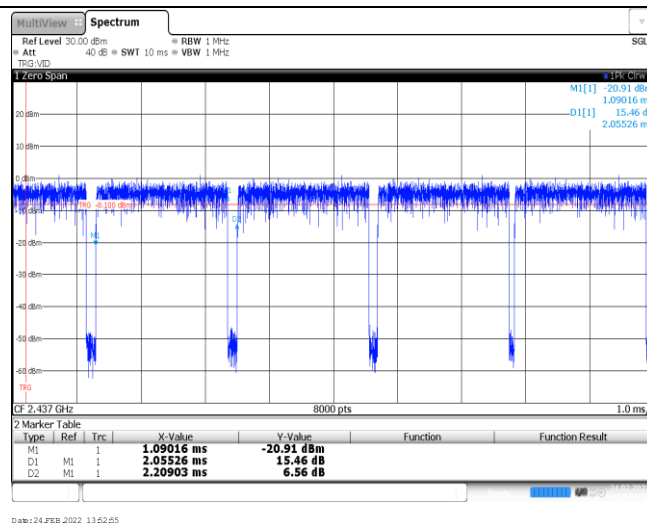
Appendix E: Duty Cycle

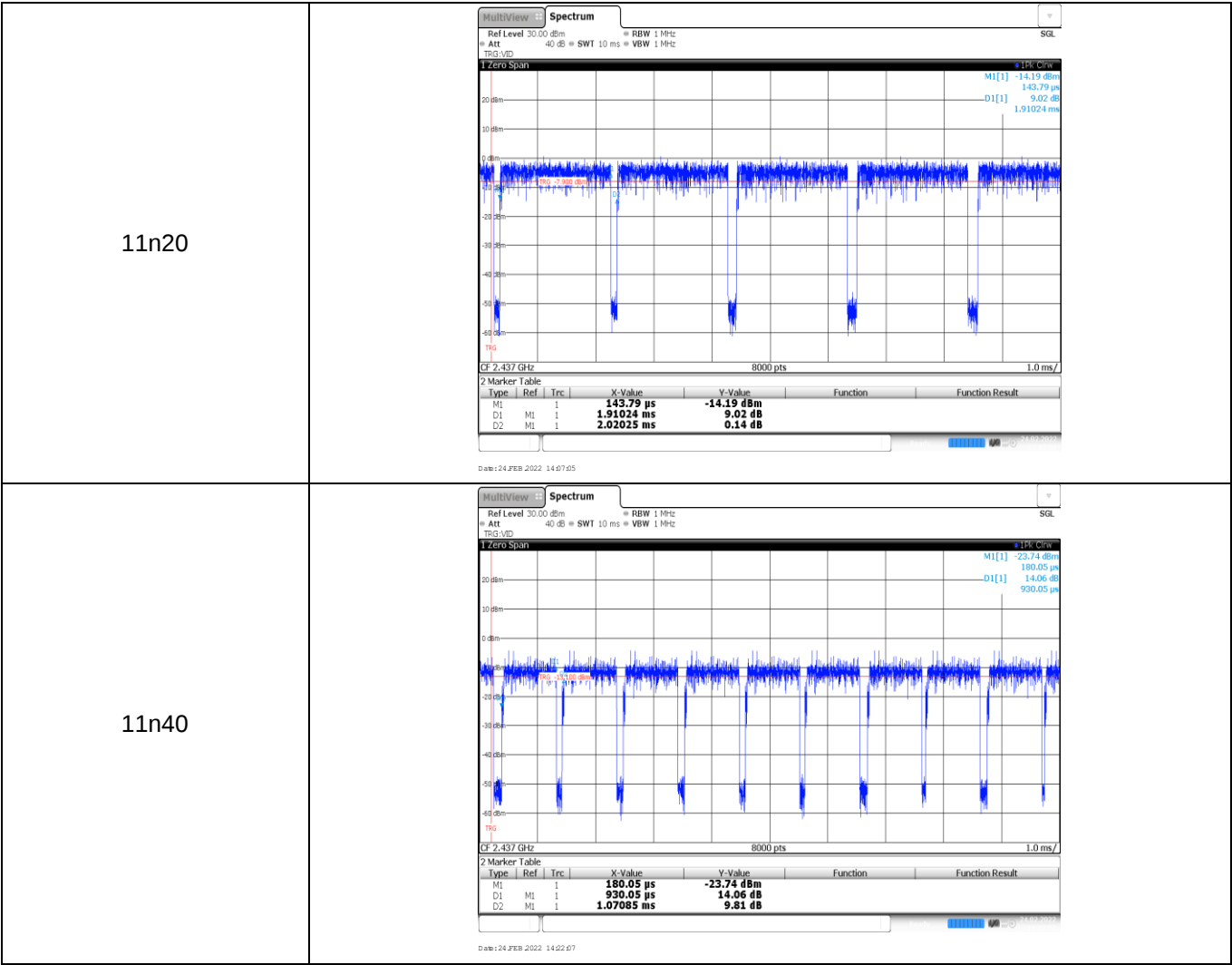
Modulation Type	Test Frequency (MHz)	T _{on time} for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on time} (kHz)
11b	2437	12.39	12.43	99.7%	0.1
11g	2437	2.06	2.21	93.2%	0.5
11n20	2437	1.91	2.02	94.6%	0.5
11n40	2437	0.93	1.07	86.9%	1.1

11b

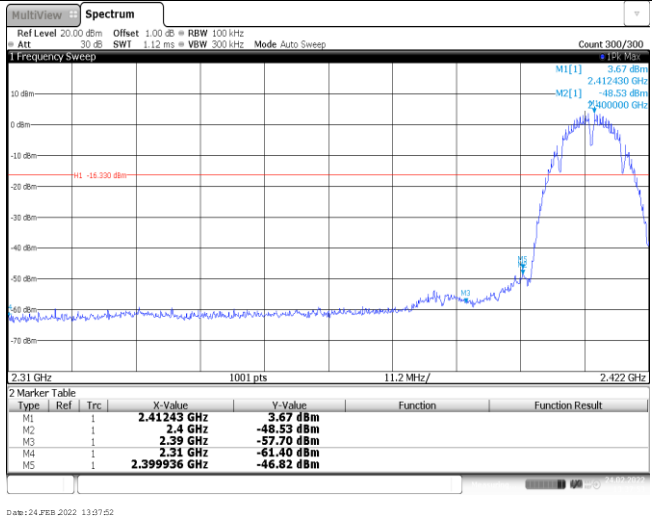
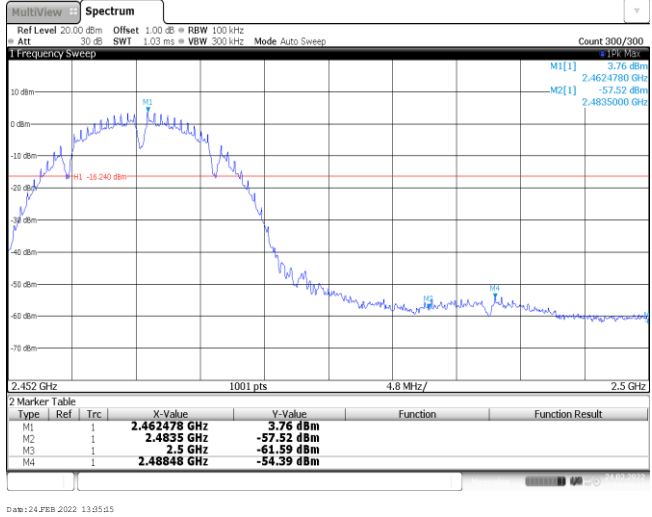


11g





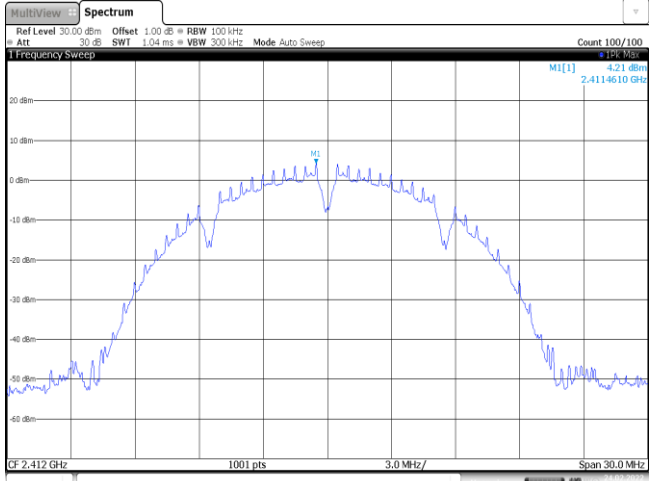
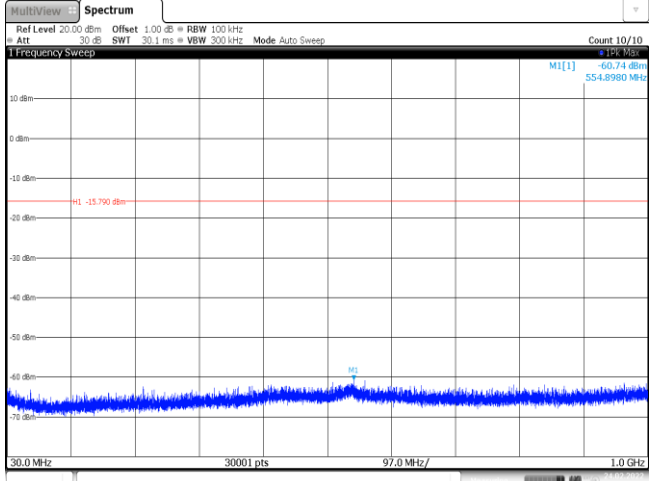
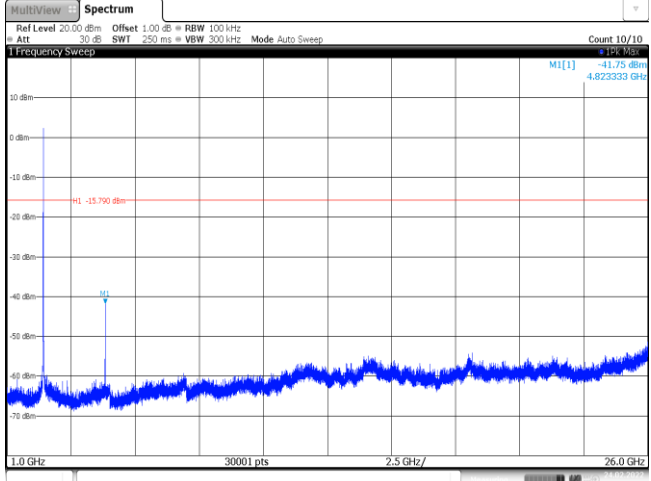
Appendix F: Band edge and Spurious Emissions (conducted)

Test Item:	Bandedge	Type:	802.11 b
CH01			
CH11			

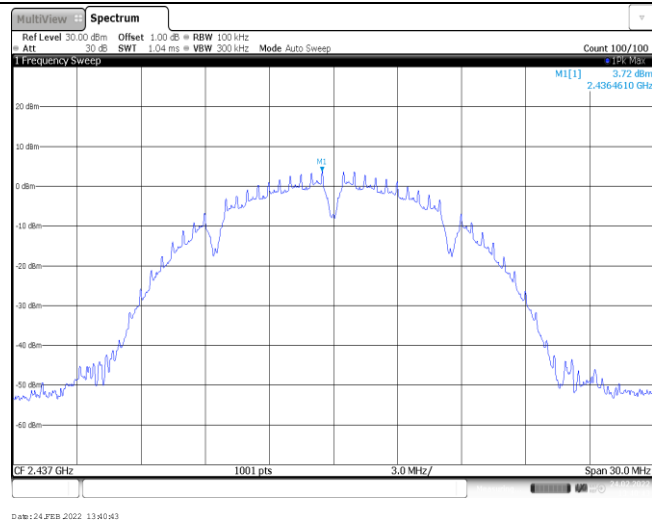
Test Item:	Bandedge	Type:	802.11 g
CH01	<		

Test Item:	Bandedge	Type:	802.11 n(HT20)
CH01	</		

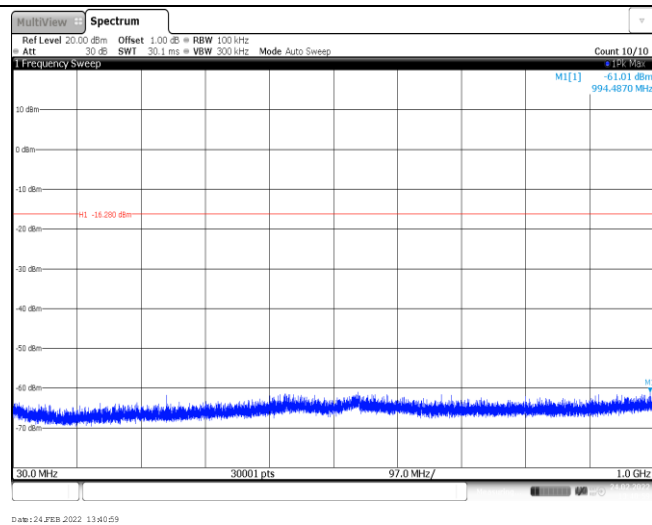
Test Item:	Bandedge	Type:	802.11 n(HT40)
CH03	</		

Test Item:	SE	Type:	802.11b
CH01 Reference level		 Ref Level 30.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 1.04 ms VBW 300 kHz Mode Auto Sweep Count 100/100 Frequency Sweep MI[1] 4.21 dBm 2.4114610 GHz 2.412 GHz 1001 pts 3.0 MHz/ Span 30.0 MHz Date: 24.FEB.2022 13:07:59	
CH01 30MHz~1000MHz		 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 Frequency Sweep MI[1] -60.74 dBm 554.8980 MHz 30.0 MHz 30001 pts 97.0 MHz/ 1.0 GHz Date: 24.FEB.2022 13:08:15	
CH01 1GHz~26GHz		 Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWI 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 Frequency Sweep MI[1] -41.75 dBm 4.825333 GHz 1.0 GHz 30001 pts 2.5 GHz/ 26.0 GHz Date: 24.FEB.2022 13:08:02	

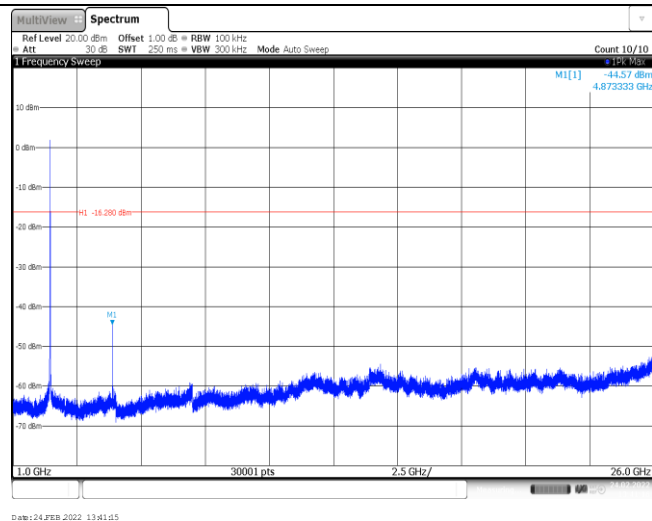
CH06
Reference level

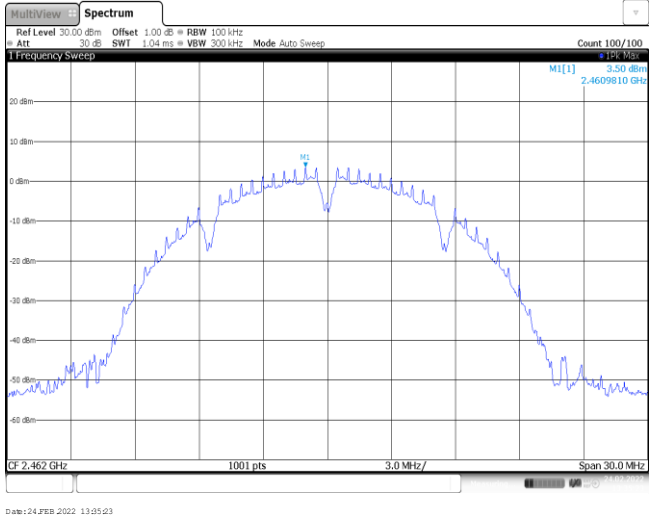
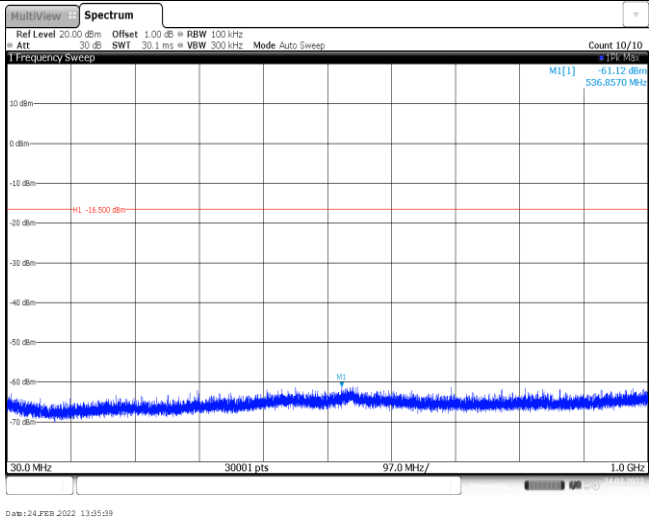
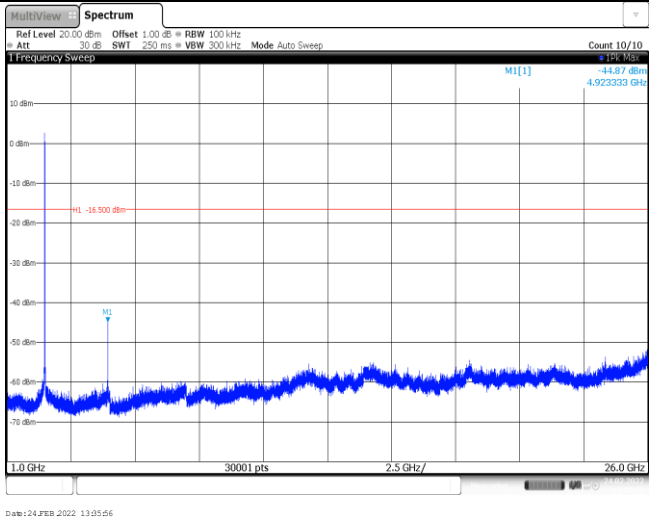


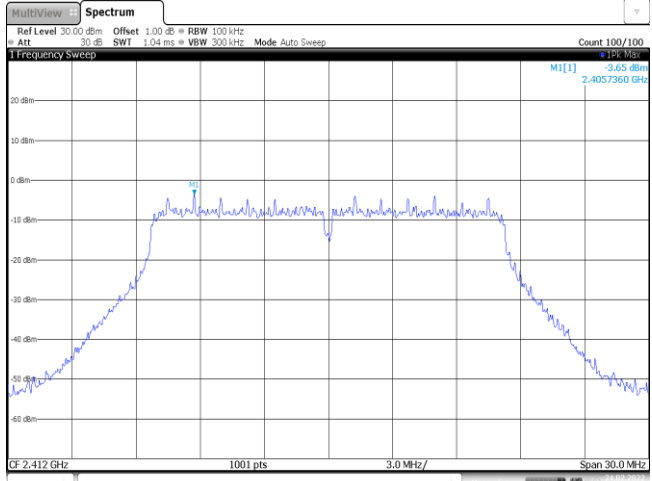
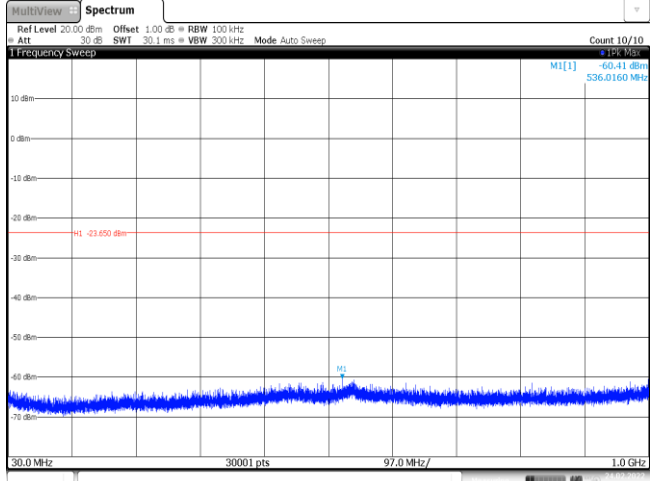
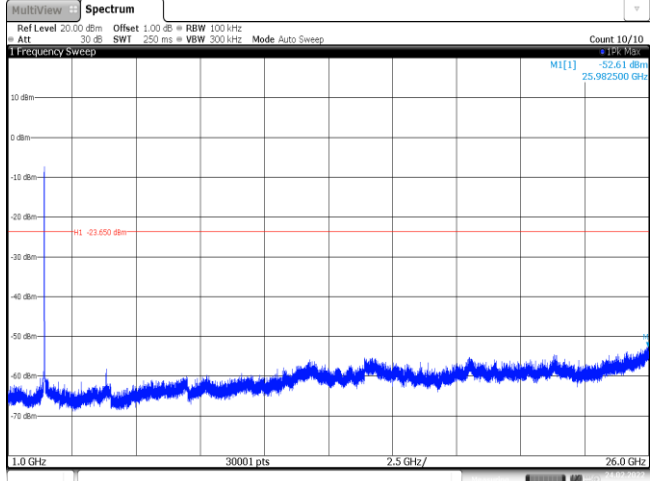
CH06
30MHz~1000MHz

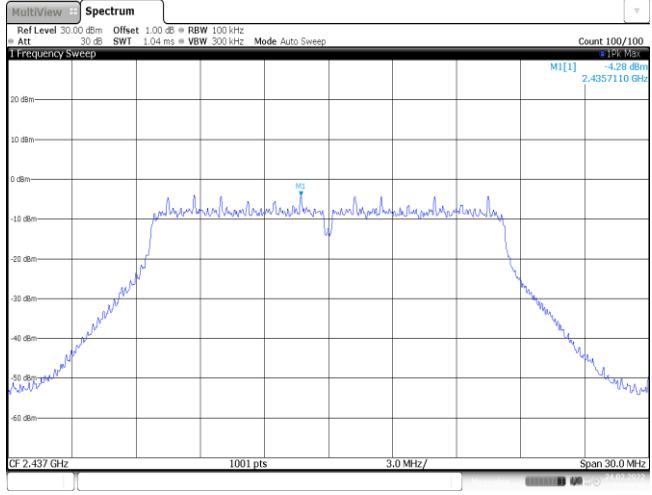
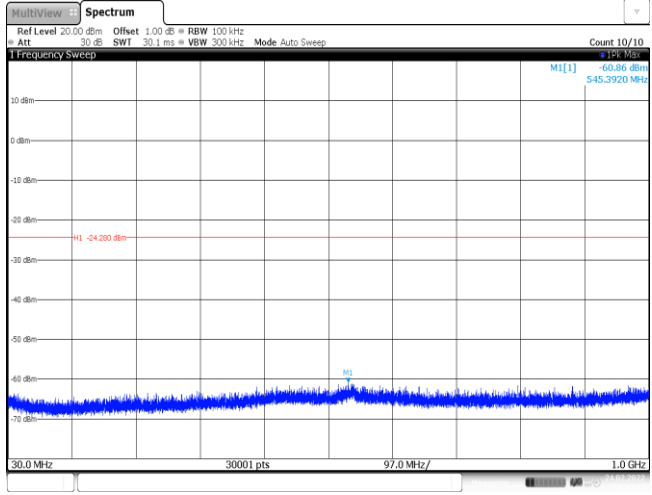
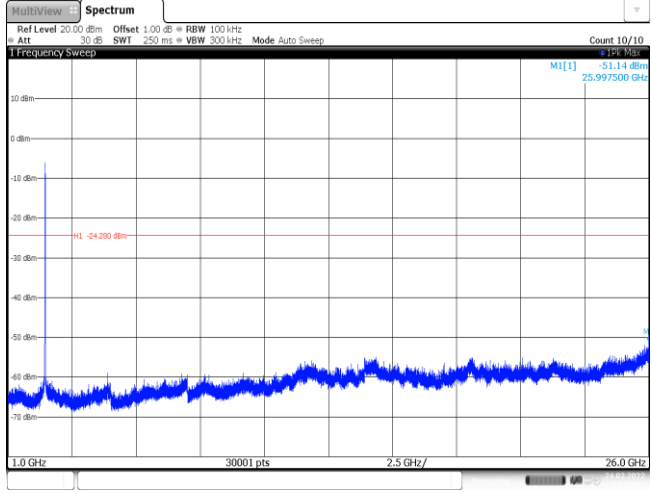


CH06
1GHz~26GHz

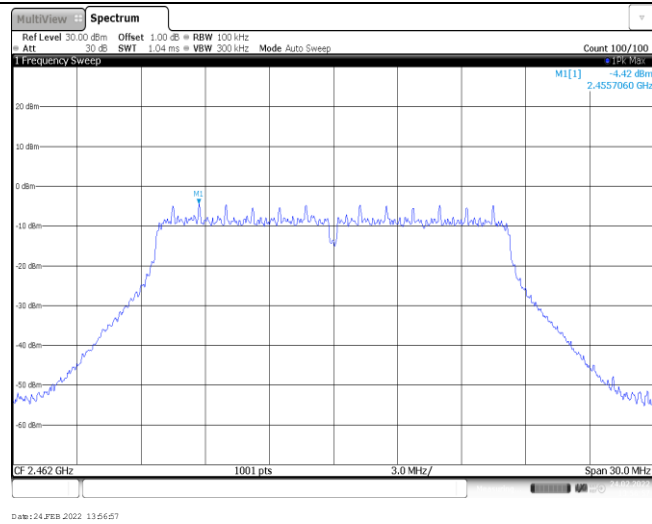


CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

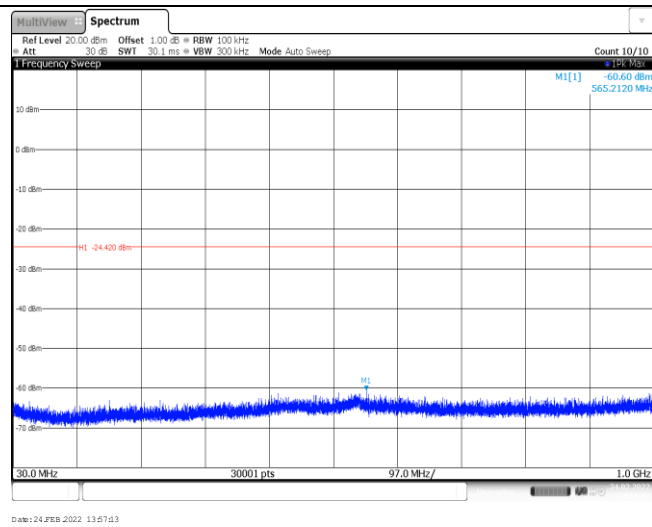
Test Item:	SE	Type:	802.11g
CH01 Reference level		 Date: 24.FEB.2022 13:45:58	
CH01 30MHz~1000MHz		 Date: 24.FEB.2022 13:50:14	
CH01 1GHz~26GHz		 Date: 24.FEB.2022 13:50:21	

CH06 Reference level	 Date: 24.FEB.2022 13:53:04
CH06 30MHz~1000MHz	 Date: 24.FEB.2022 13:53:50
CH06 1GHz~26GHz	 Date: 24.FEB.2022 13:54:07

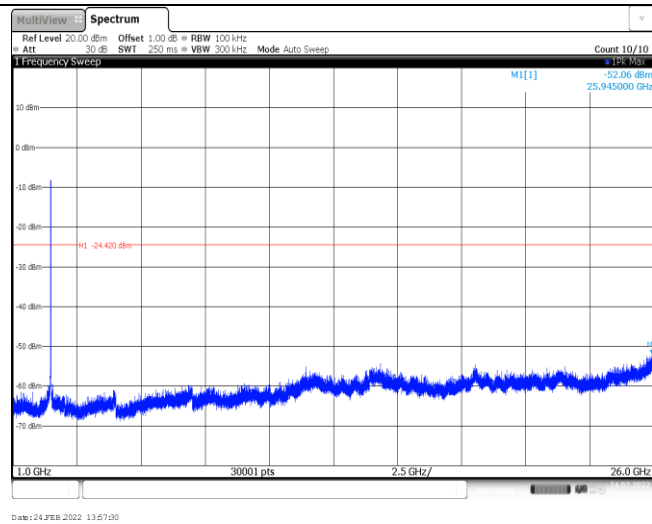
CH11
Reference level

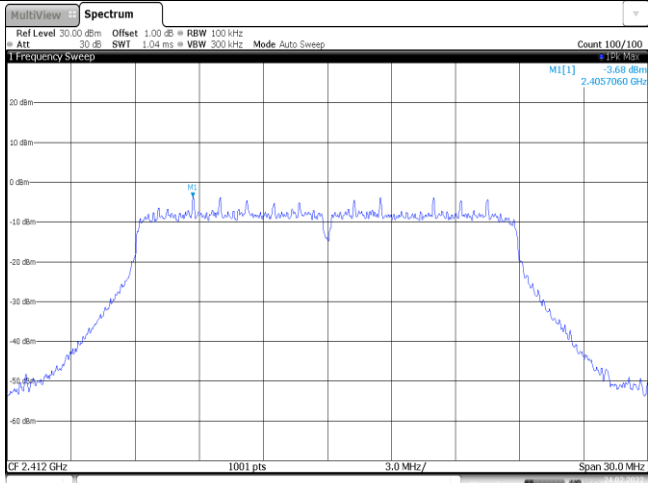
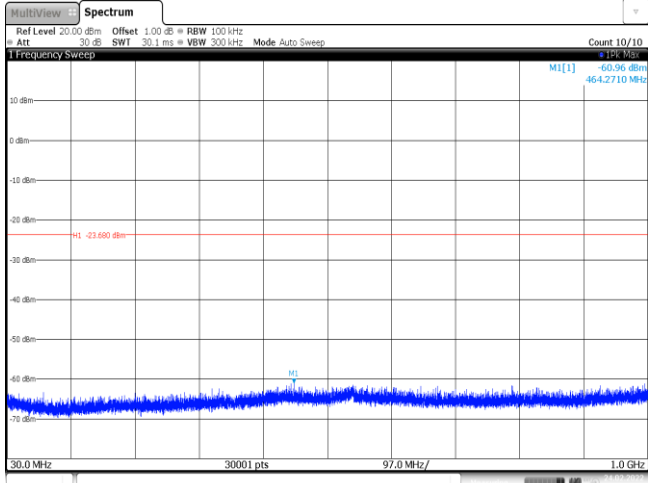
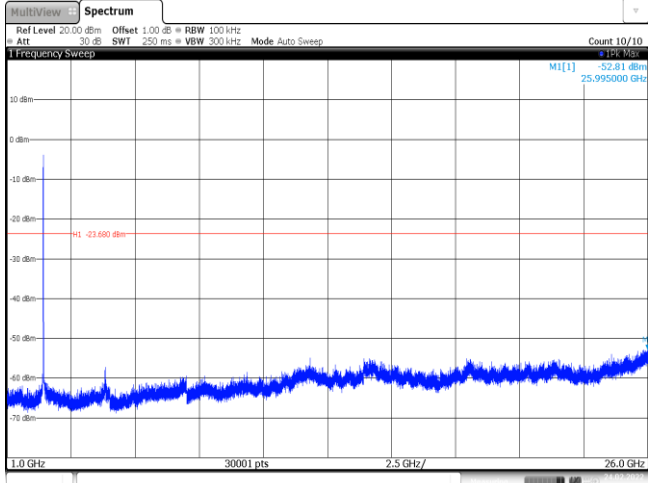


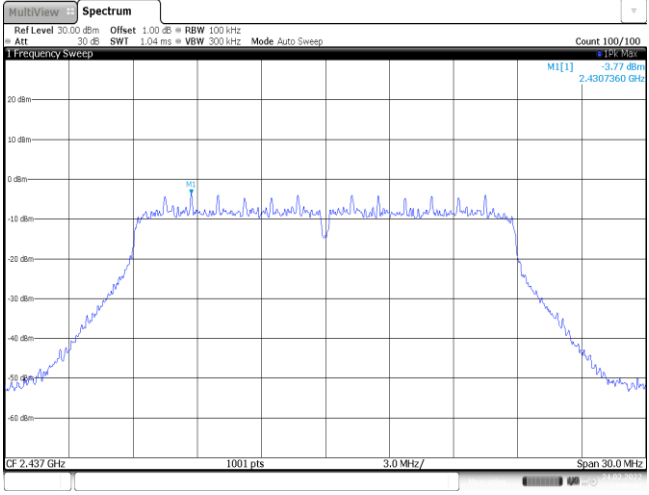
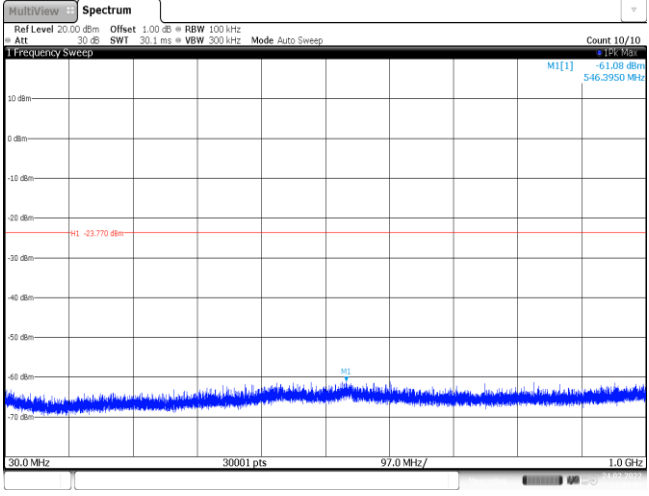
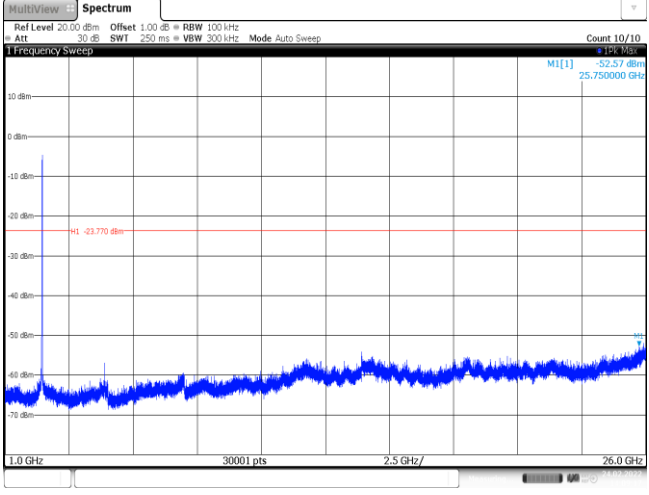
CH11
30MHz~1000MHz



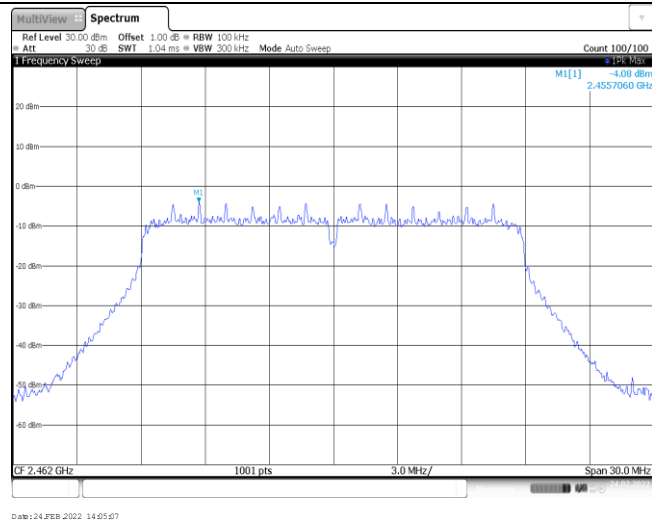
CH11
1GHz~26GHz



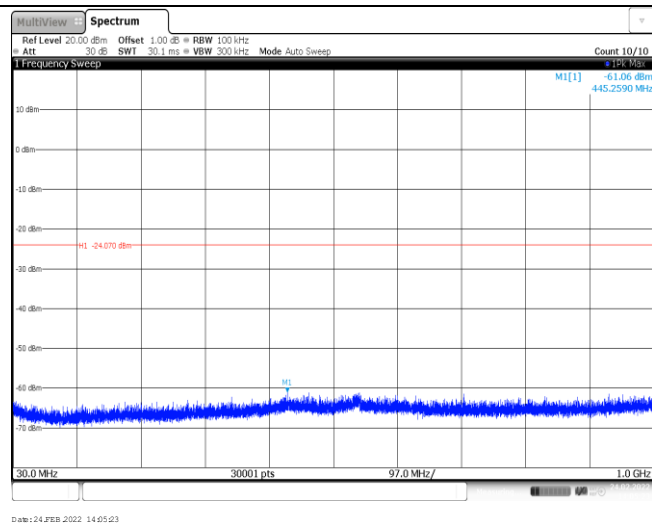
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CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

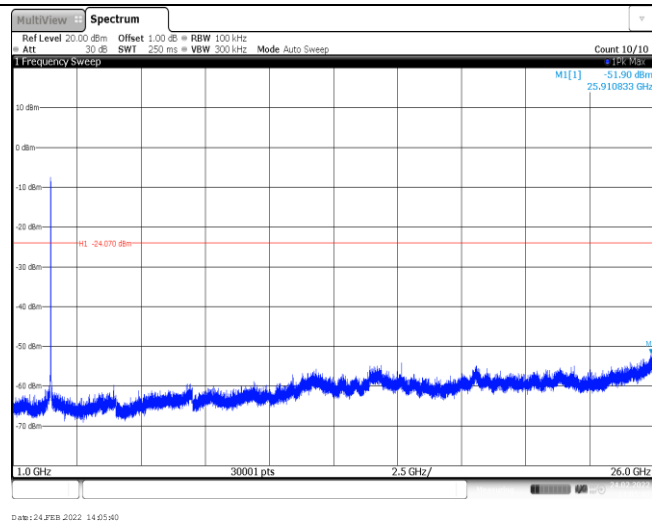
CH11
Reference level

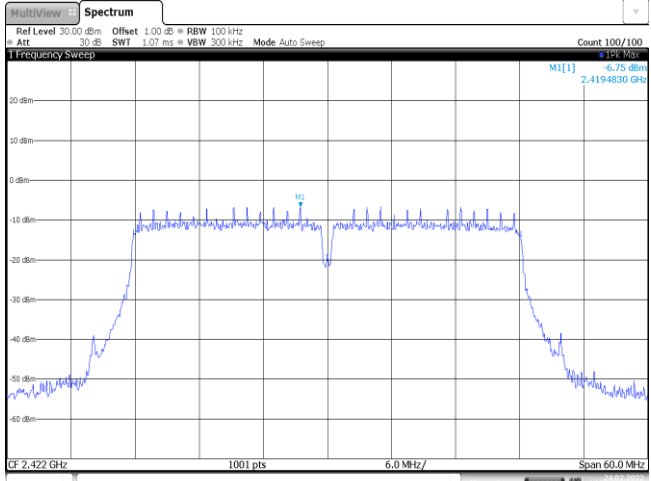
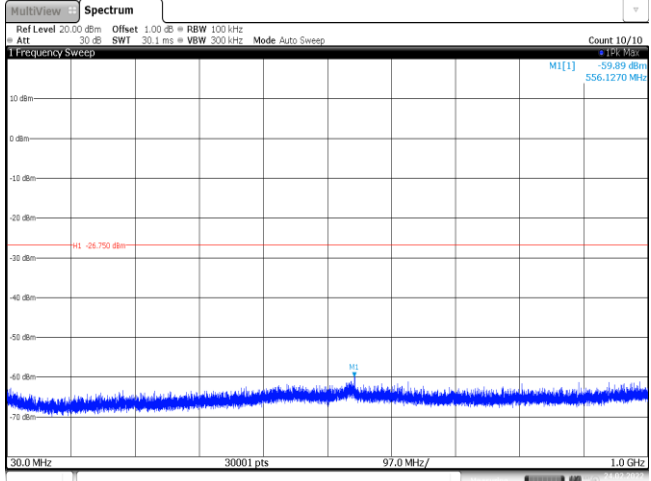
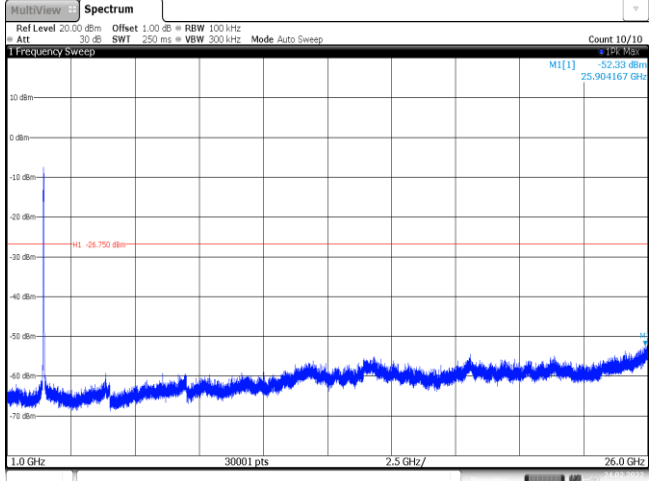


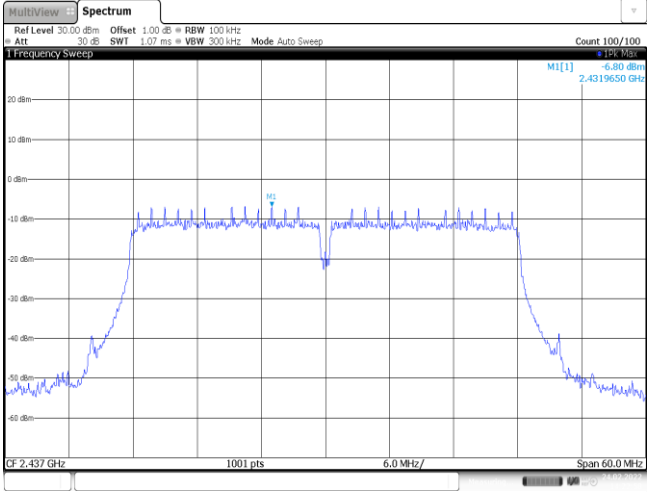
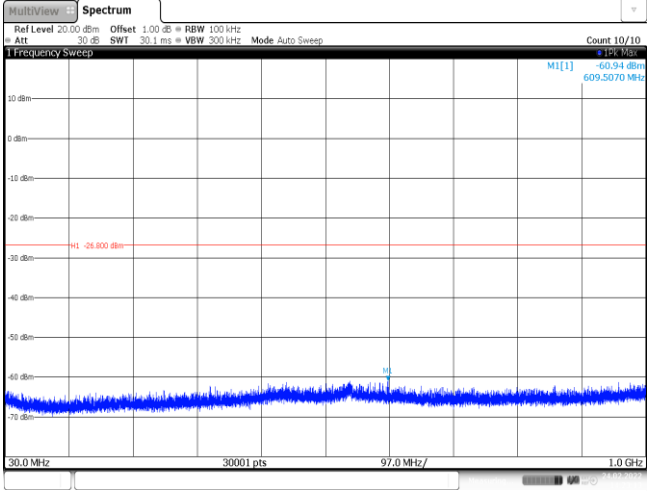
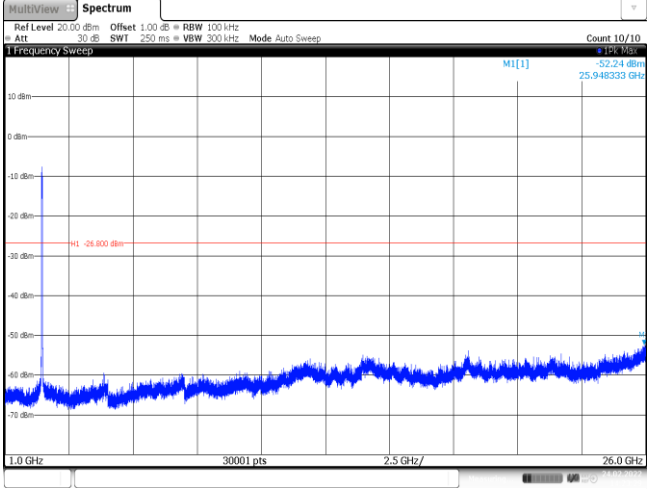
CH11
30MHz~1000MHz

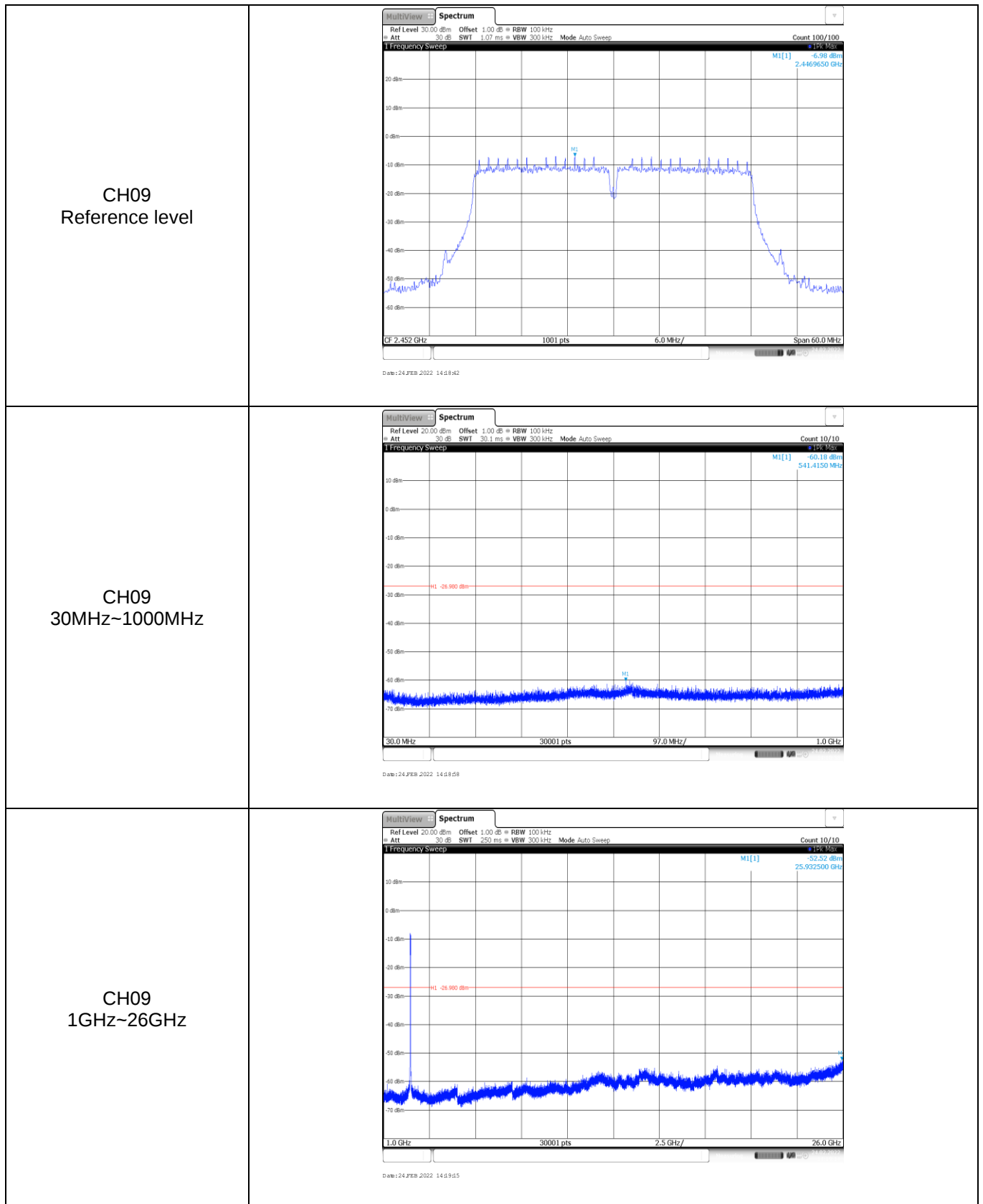


CH11
1GHz~26GHz



Test Item:	SE	Type:	802.11n(HT40)
CH03 Reference level			
CH03 30MHz~1000MHz			
CH03 1GHz~26GHz			

CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	



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