

APPENDIX REPORT

Project No.	SHT2010025503EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT20100255016	Model No.	C55 Pro
Start test date	2020/10/27	Finish date	2020/10/27
Temperature	25°C	Humidity	50%
Test Engineer	Jiongsheng.Feng	Auditor	Xiaodong Zheo

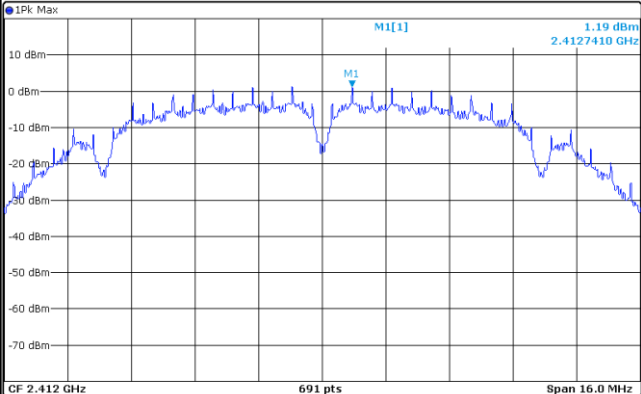
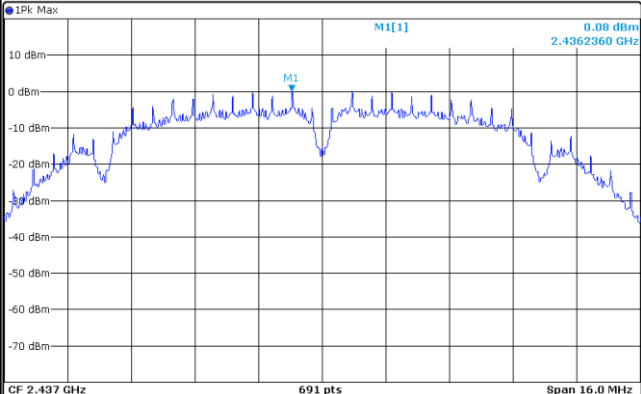
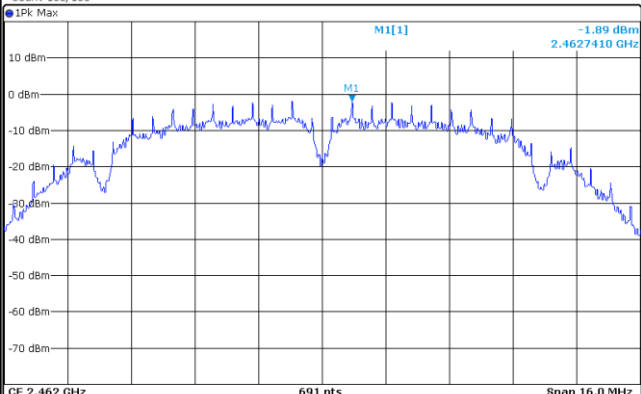
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

Appendix A: Conducted Peak Output Power

Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	15.44	13.21	≤ 30.00	Pass
	06	14.25	12.08		
	11	12.38	10.18		
802.11g	01	18.20	14.46	≤ 30.00	Pass
	06	19.08	15.33		
	11	17.50	13.77		
802.11n (HT20)	01	19.23	15.86	≤ 30.00	Pass
	06	18.21	14.81		
	11	16.56	13.12		

Appendix B: Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	1.19	≤8.00	Pass
	06	0.08		
	11	-1.89		
802.11g	01	-5.84	≤8.00	Pass
	06	-5.39		
	11	-6.74		
802.11n(HT20)	01	-5.06	≤8.00	Pass
	06	-6.13		
	11	-8.11		

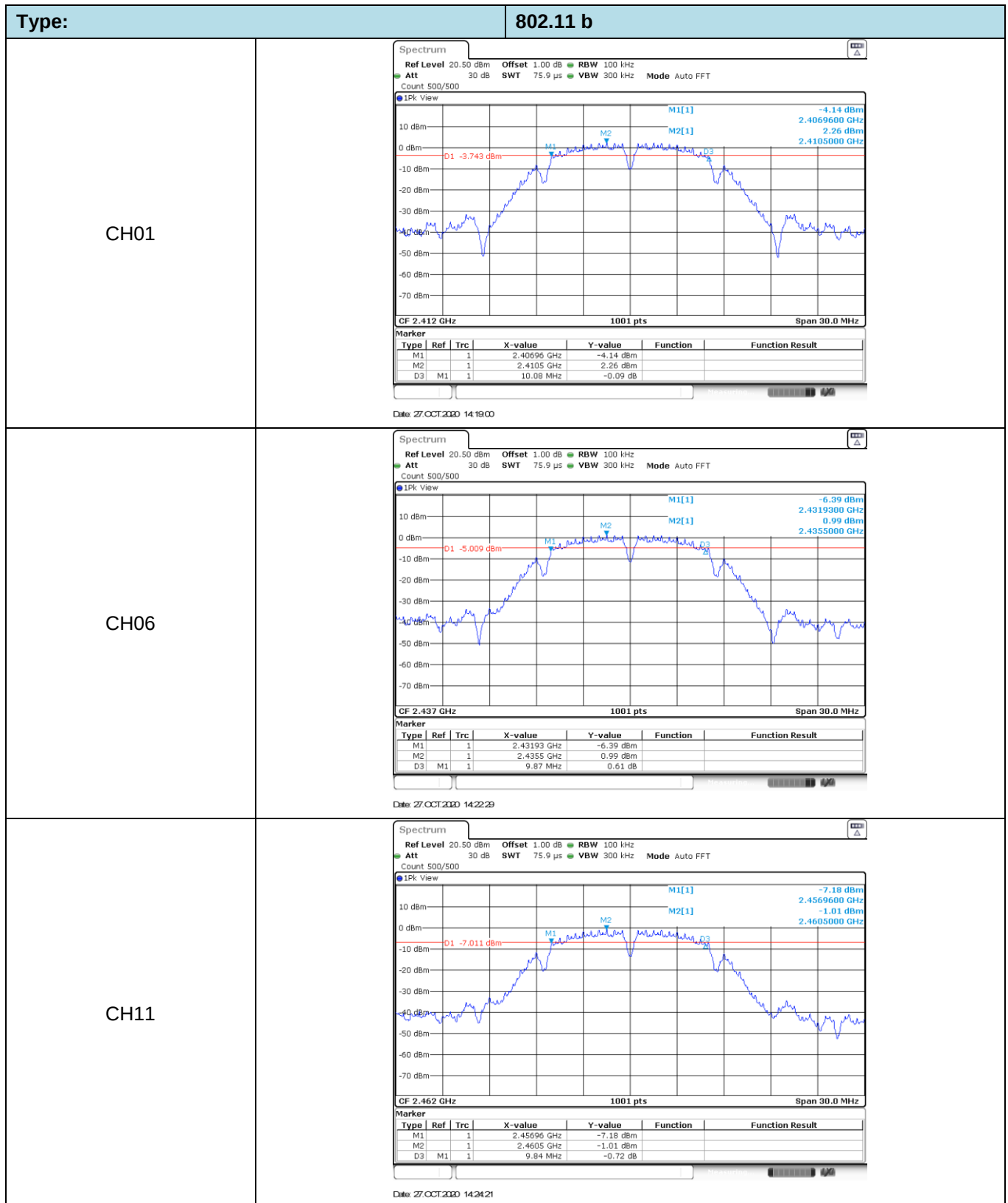
Type:		802.11 b
CH01	Spectrum Ref Level 20.00 dBm Att 30 dB Count 100/100 Offset 1.00 dB SWT 126.4 μs RBW 30 kHz VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] 1.19 dBm 2.4127410 GHz  CF 2.412 GHz 691 pts Span 16.0 MHz Date: 27/OCT/2020 14:19:36	
CH06	Spectrum Ref Level 20.00 dBm Att 30 dB Count 100/100 Offset 1.00 dB SWT 126.4 μs RBW 30 kHz VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] 0.00 dBm 2.4362360 GHz  CF 2.437 GHz 691 pts Span 16.0 MHz Date: 27/OCT/2020 14:23:07	
CH11	Spectrum Ref Level 20.00 dBm Att 30 dB Count 100/100 Offset 1.00 dB SWT 126.4 μs RBW 30 kHz VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -1.09 dBm 2.4627410 GHz  CF 2.462 GHz 691 pts Span 16.0 MHz Date: 27/OCT/2020 14:25:43	

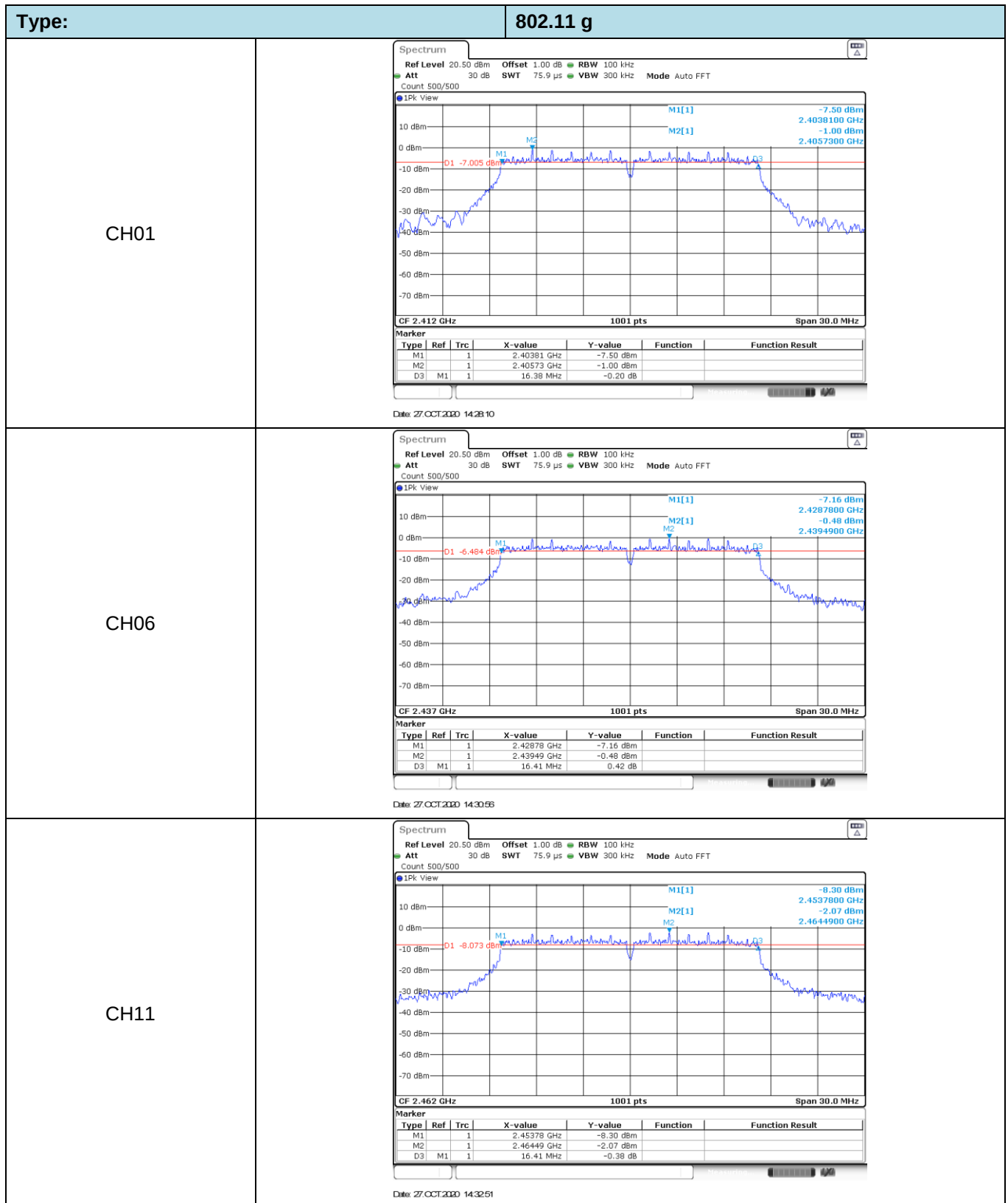
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Appendix C: 6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	10.08	≥0.5	Pass
	06	9.87		
	11	9.84		
802.11g	01	16.38	≥0.5	Pass
	06	16.41		
	11	16.41		
802.11n(HT20)	01	17.64	≥0.5	Pass
	06	17.37		
	11	17.64		



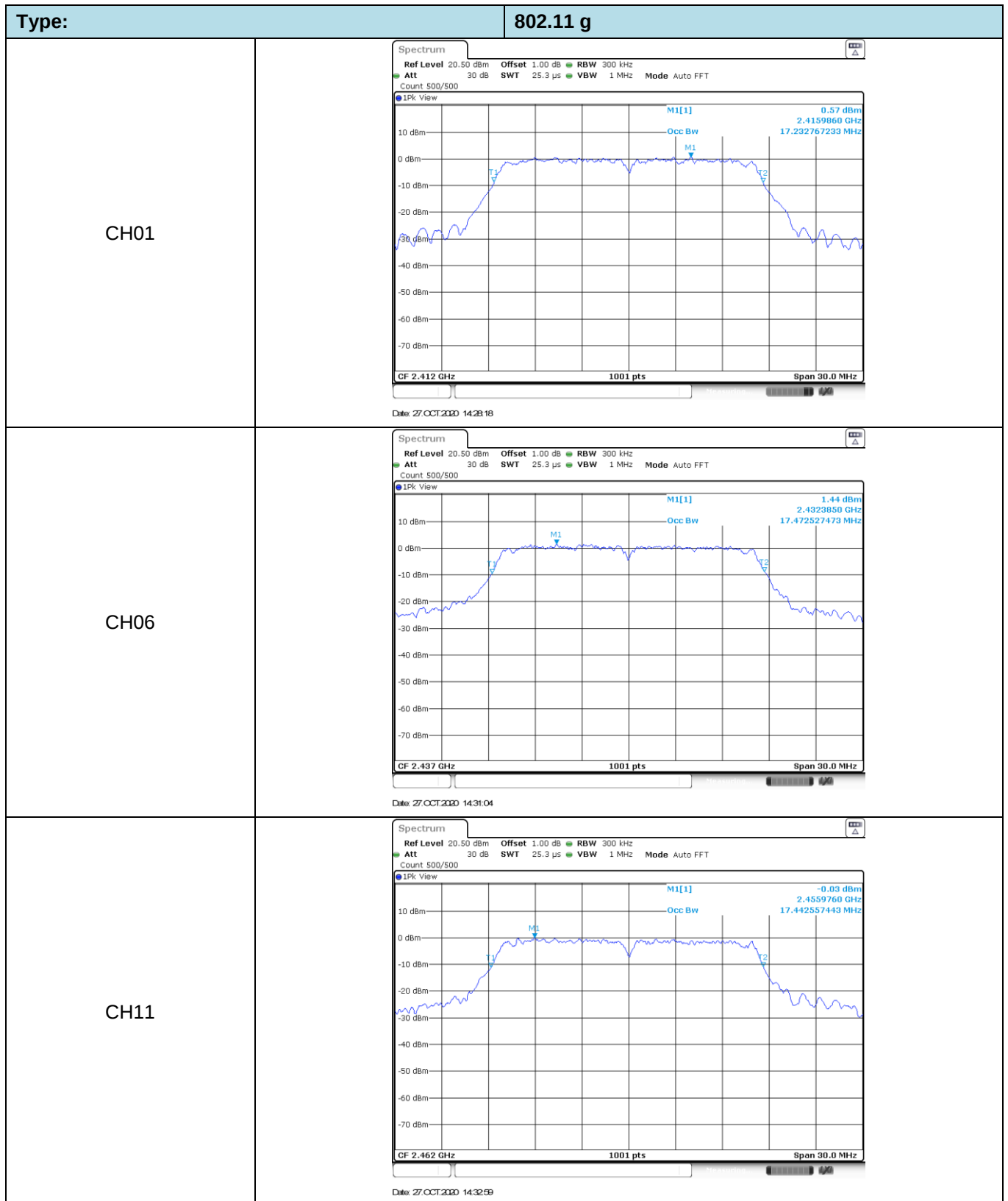


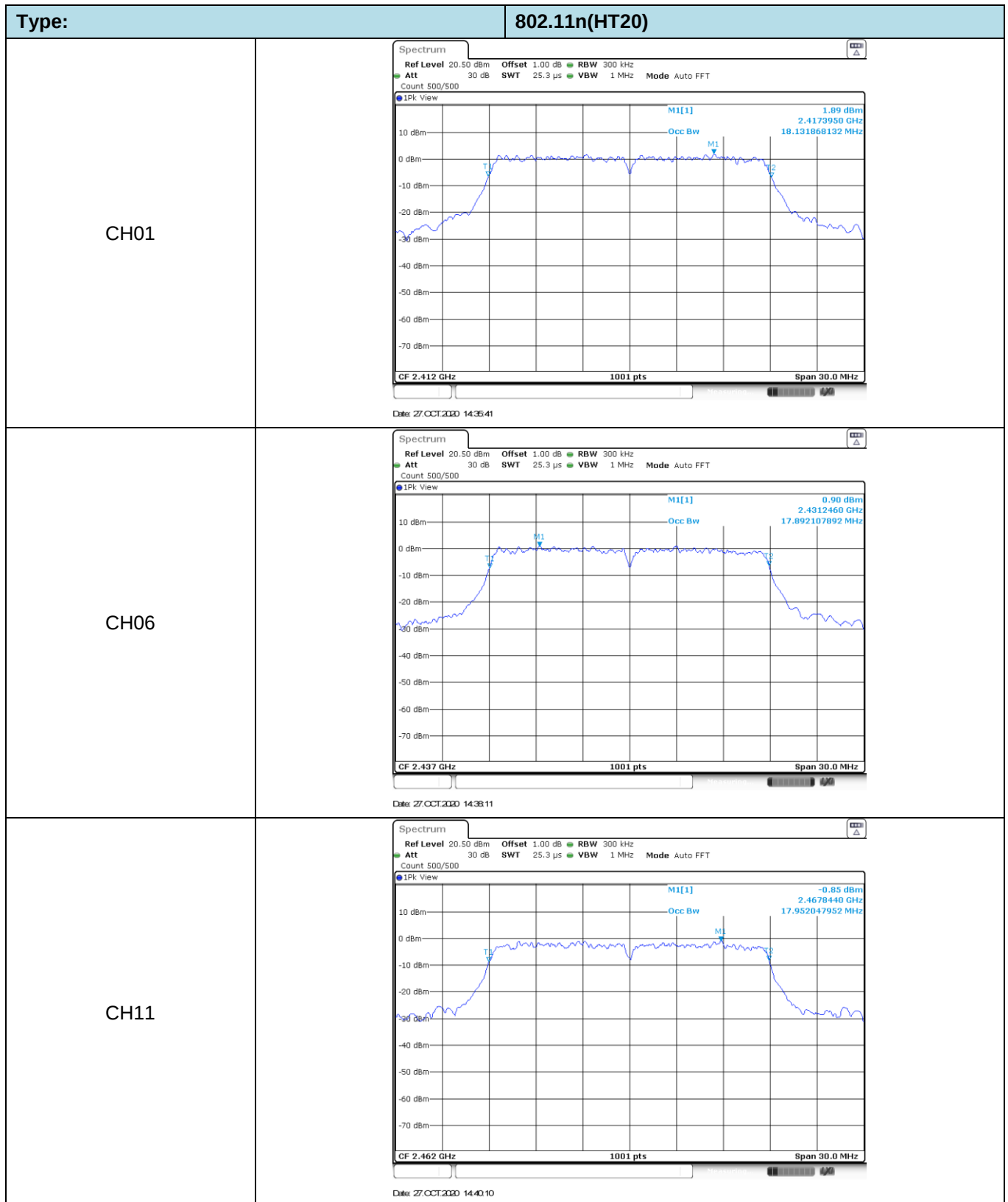
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Appendix D: 99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	12.38	-	Pass
	06	12.26		
	11	12.17		
802.11g	01	17.23	-	Pass
	06	17.47		
	11	17.44		
802.11n(HT20)	01	18.13	-	Pass
	06	17.89		
	11	17.95		

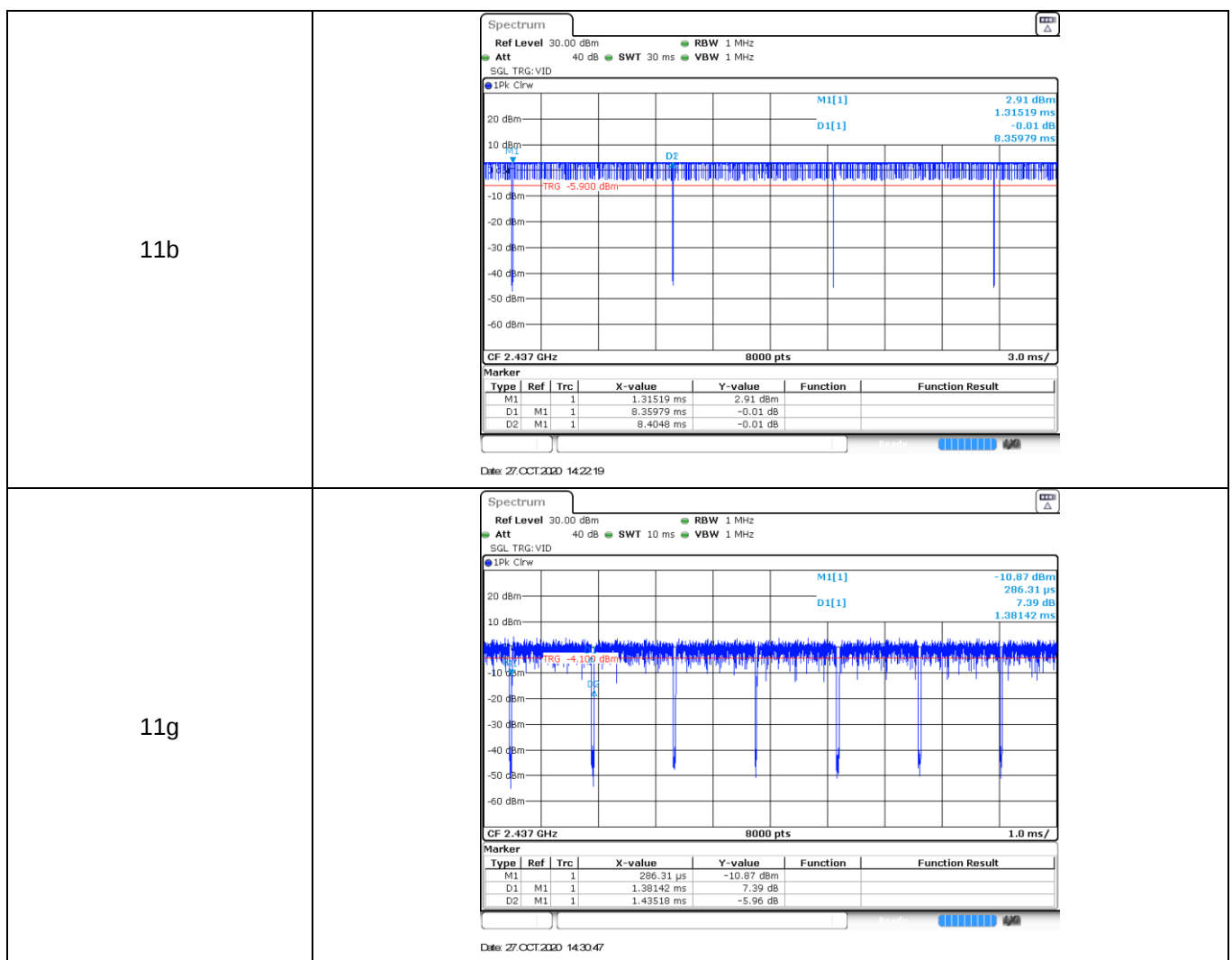
Type:		802.11 b
CH01	Spectrum Ref Level 20.50 dBm Att 30 dB Count 500/500 Offset 1.00 dB SWT 25.3 μs RBW 300 kHz VBW 1 MHz Mode Auto FFT 1Pk View 3.68 dBm 2.4105010 GHz 12.377622378 MHz M1[1] Occ Bw T1 M1 T2 CF 2.412 GHz 1001 pts Span 30.0 MHz Date: 27/OCT/2020 14:19:09	
CH06	Spectrum Ref Level 20.50 dBm Att 30 dB Count 500/500 Offset 1.00 dB SWT 25.3 μs RBW 300 kHz VBW 1 MHz Mode Auto FFT 1Pk View 2.48 dBm 2.4355010 GHz 12.257742258 MHz M1[1] Occ Bw T1 M1 T2 CF 2.437 GHz 1001 pts Span 30.0 MHz Date: 27/OCT/2020 14:22:37	
CH11	Spectrum Ref Level 20.50 dBm Att 30 dB Count 500/500 Offset 1.00 dB SWT 25.3 μs RBW 300 kHz VBW 1 MHz Mode Auto FFT 1Pk View 0.46 dBm 2.4605010 GHz 12.167832168 MHz M1[1] Occ Bw T1 M1 T2 CF 2.462 GHz 1001 pts Span 30.0 MHz Date: 27/OCT/2020 14:24:30	

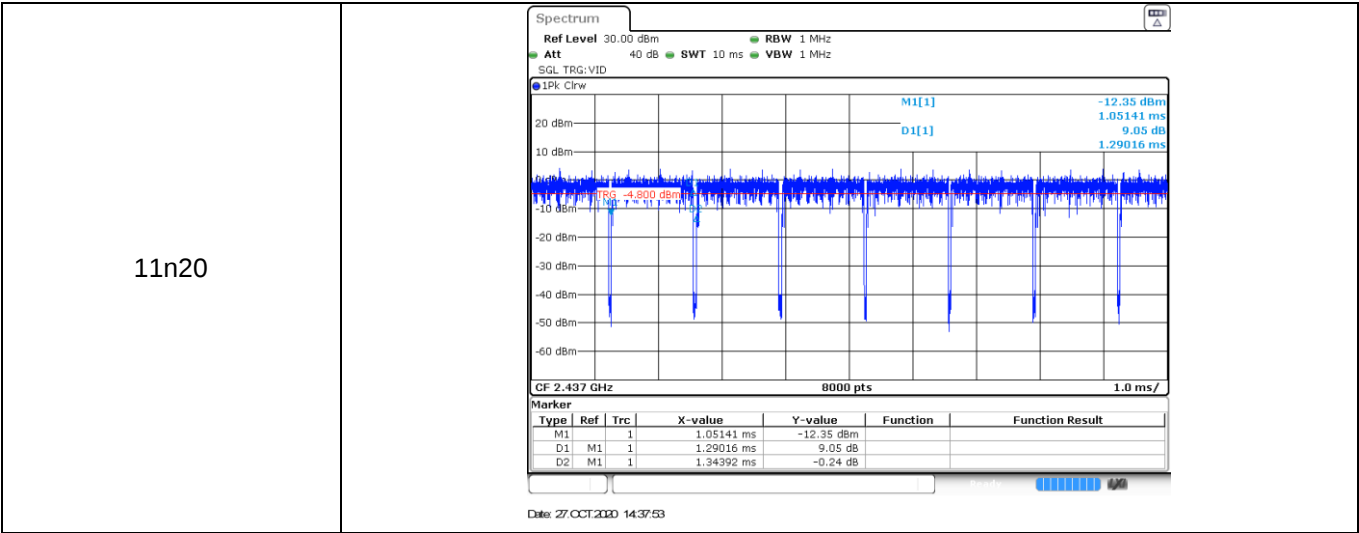




Appendix E: Duty Cycle

Modulation Type	Test Frequency (MHz)	T _{on time} for single burst (ms)	T _{period} (ms)	Duty cycle	1/T _{on time} (kHz)
11b	2437	8.36	8.40	99.5%	0.1
11g	2437	1.38	1.44	95.8%	0.7
11n20	2437	1.29	1.34	96.3%	0.8



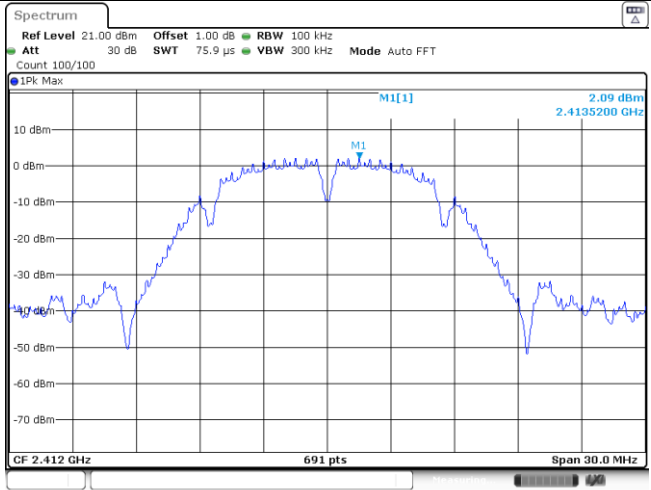
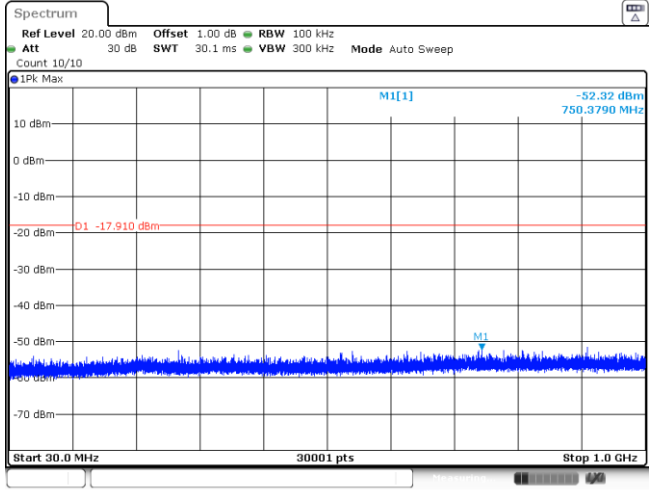
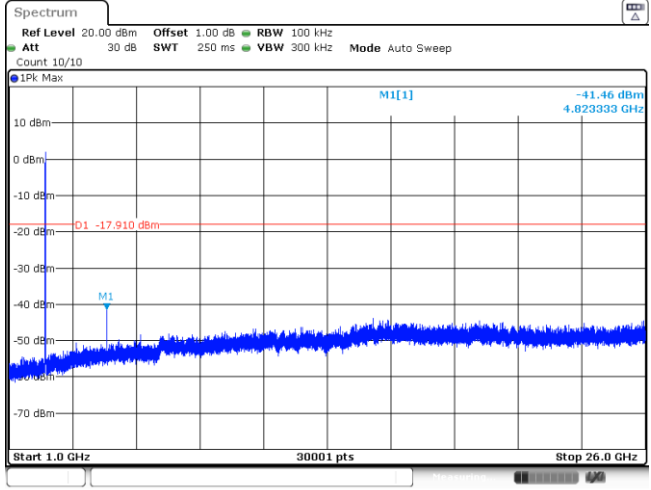


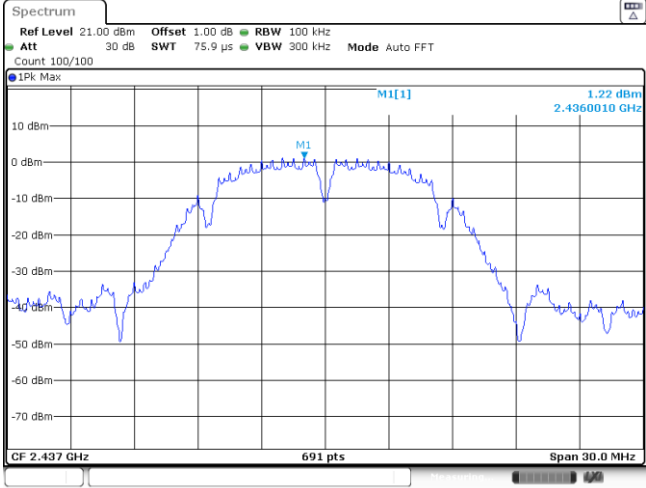
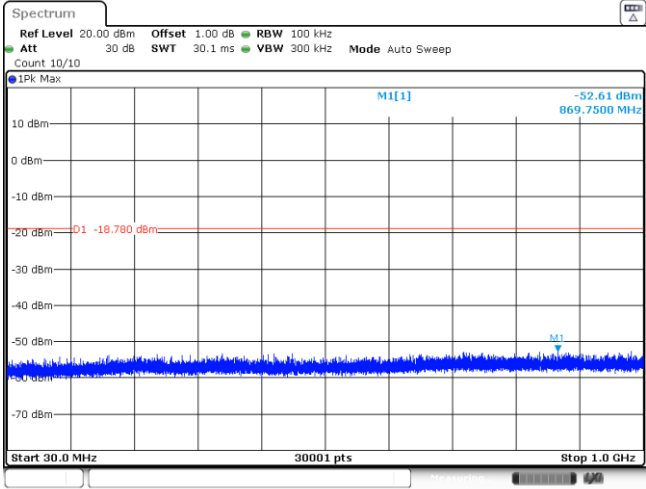
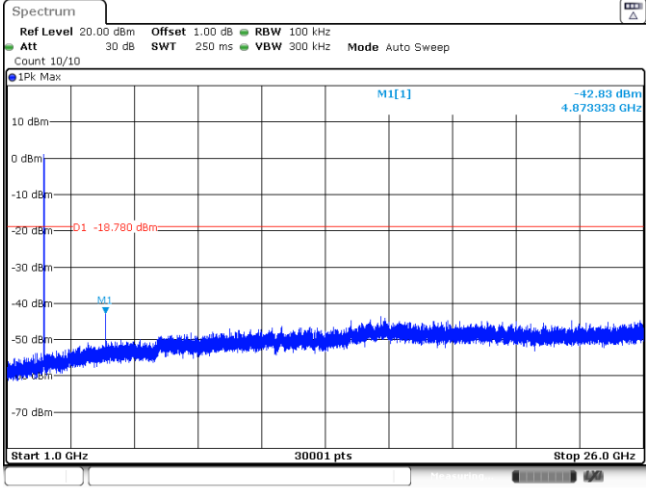
Appendix F: Band edge and Spurious Emissions (conducted)

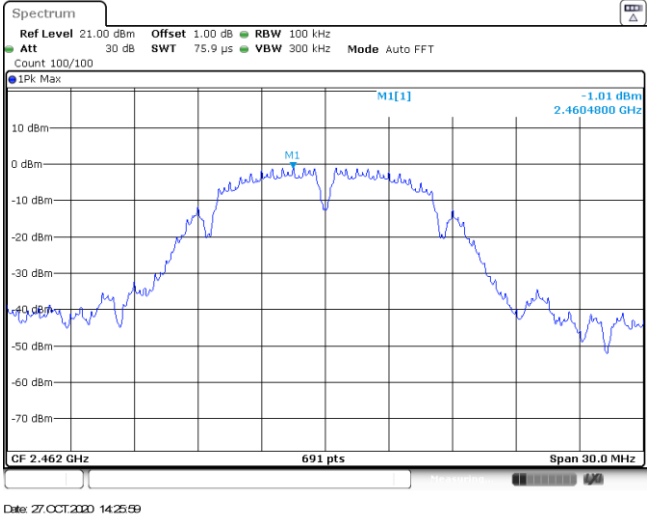
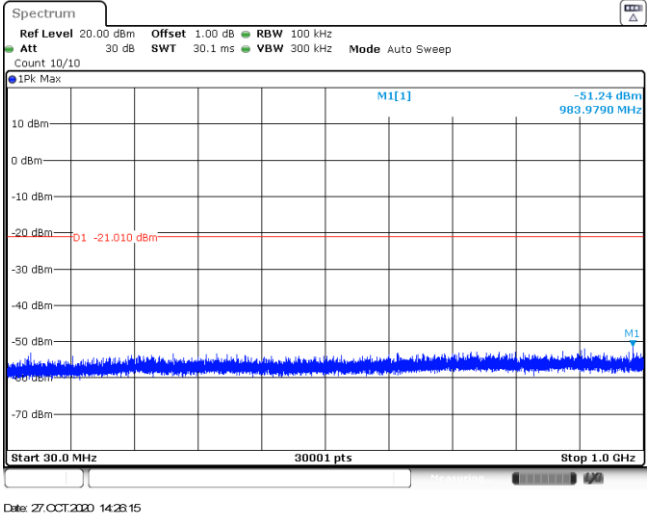
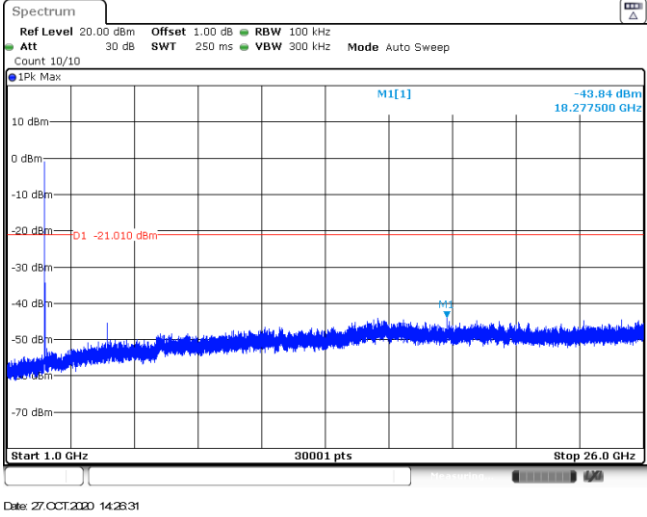
Test Item:	Bandedge	Type:	802.11 b																																										
CH01	Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 246.5 μs VBW 300 kHz Mode Auto FFT Count 300/300 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] M3 M4 M5 1.96 dBm 2.413980 GHz -40.06 dBm 2.399113 GHz -60.32 dBm 2.31 GHz -35.26 dBm D1 -18.040 dBm Start 2.31 GHz 691 pts Stop 2.422 GHz Marker <table><thead><tr><th>Type</th><th>Ref</th><th>Trc</th><th>X-value</th><th>Y-value</th><th>Function</th><th>Function Result</th></tr></thead><tbody><tr><td>M1</td><td>1</td><td></td><td>2.41398 GHz</td><td>1.96 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-40.06 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-50.63 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-60.32 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.399113 GHz</td><td>-35.26 dBm</td><td></td><td></td></tr></tbody></table> Date: 27.OCT.2020 14:19:47			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.41398 GHz	1.96 dBm			M2	1		2.4 GHz	-40.06 dBm			M3	1		2.39 GHz	-50.63 dBm			M4	1		2.31 GHz	-60.32 dBm			M5	1		2.399113 GHz	-35.26 dBm		
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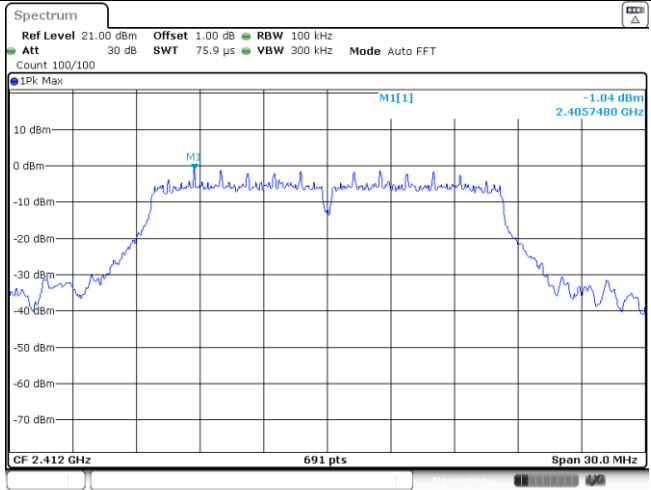
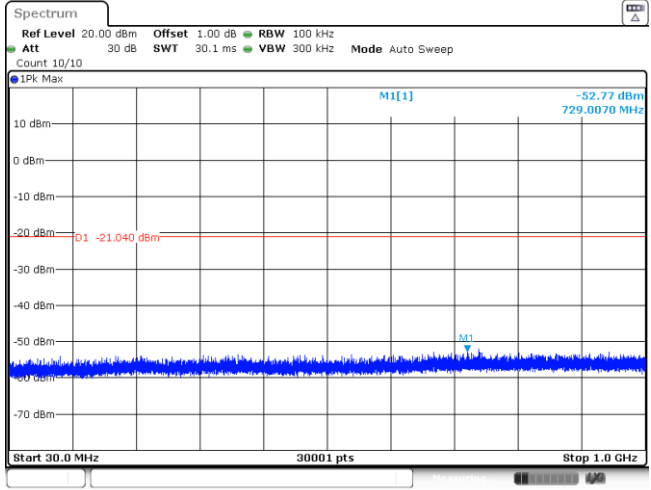
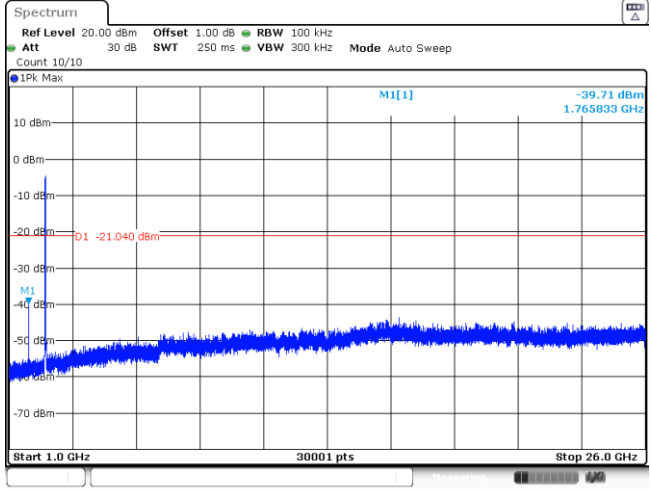
Test Item:	Bandedge	Type:	802.11 g																																										
CH01	Spectrum Ref Level 20.00 dBm Att 30 dB Offset 1.00 dB RBW 100 kHz SWT 246.5 μs VBW 300 kHz Mode Auto FFT Count 300/300 1Pk Max 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm -70 dBm M1[1] M2[1] M3 M4 M5 -1.38 dBm 2.414460 GHz -33.27 dBm 2.400900 GHz -21.380 dBm Start 2.31 GHz 691 pts Stop 2.422 GHz Marker <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>2.41446 GHz</td><td>-1.38 dBm</td><td></td><td></td></tr><tr><td>M2</td><td>1</td><td></td><td>2.4 GHz</td><td>-33.27 dBm</td><td></td><td></td></tr><tr><td>M3</td><td>1</td><td></td><td>2.39 GHz</td><td>-45.68 dBm</td><td></td><td></td></tr><tr><td>M4</td><td>1</td><td></td><td>2.31 GHz</td><td>-59.07 dBm</td><td></td><td></td></tr><tr><td>M5</td><td>1</td><td></td><td>2.398788 GHz</td><td>-31.29 dBm</td><td></td><td></td></tr></table> Date: 27/OCT/2020 14:28:40			Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		2.41446 GHz	-1.38 dBm			M2	1		2.4 GHz	-33.27 dBm			M3	1		2.39 GHz	-45.68 dBm			M4	1		2.31 GHz	-59.07 dBm			M5	1		2.398788 GHz	-31.29 dBm		
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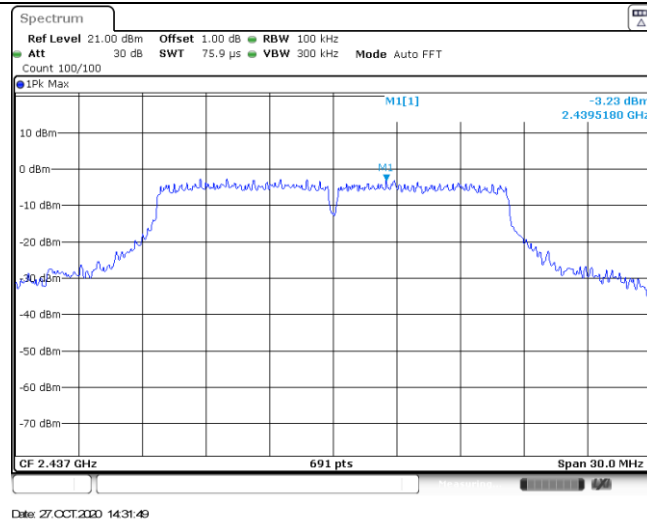
Test Item:	SE	Type:	802.11 b
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

CH06 Reference level	 Spectrum Ref Level 21.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 75.9 μs VBW 300 kHz Mode Auto FFT Count 100/100 IPk Max M1[1] 1.22 dBm 2.4360010 GHz CF 2.437 GHz 691 pts Span 30.0 MHz Date: 27/OCT/2020 14:23:14
CH06 30MHz~1000MHz	 Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 30.1 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -52.61 dBm 869.7500 MHz D1 -18.780 dBm Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 27/OCT/2020 14:23:29
CH06 1GHz~26GHz	 Spectrum Ref Level 20.00 dBm Offset 1.00 dB RBW 100 kHz Att 30 dB SWT 250 ms VBW 300 kHz Mode Auto Sweep Count 10/10 IPk Max M1[1] -42.83 dBm 4.873333 GHz D1 -18.780 dBm Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 27/OCT/2020 14:23:45

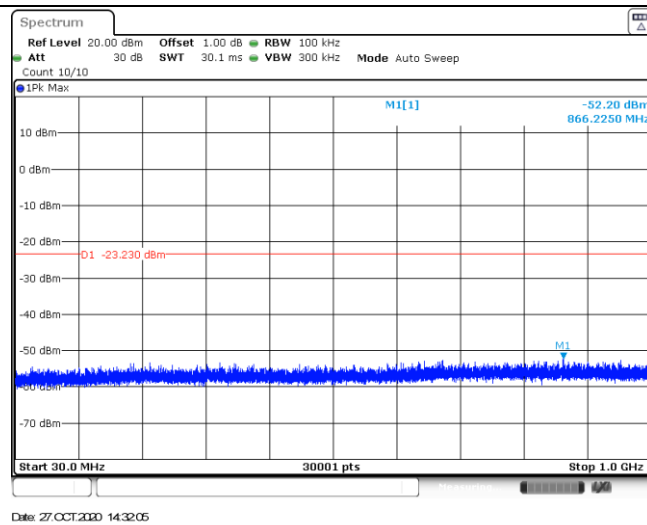
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

Test Item:	SE	Type:	802.11 g
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

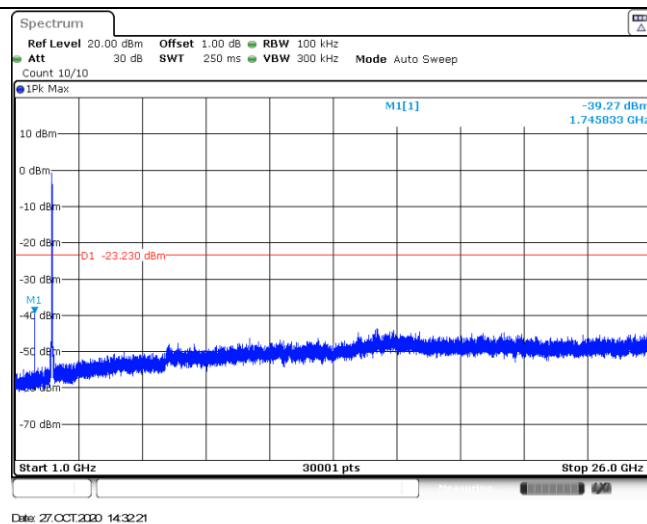
CH06
Reference level

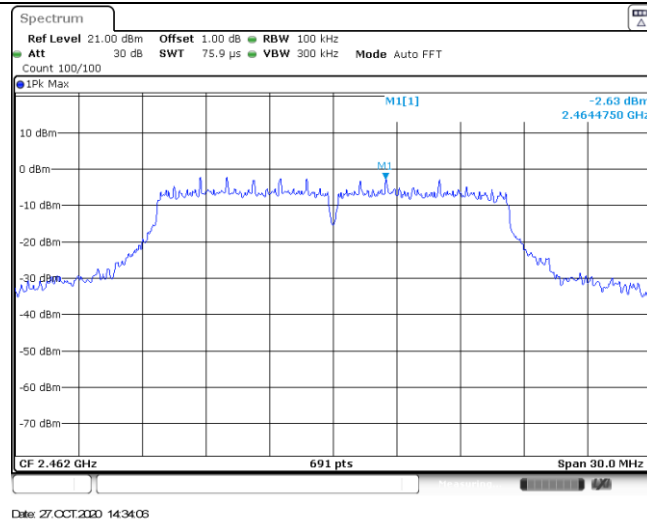
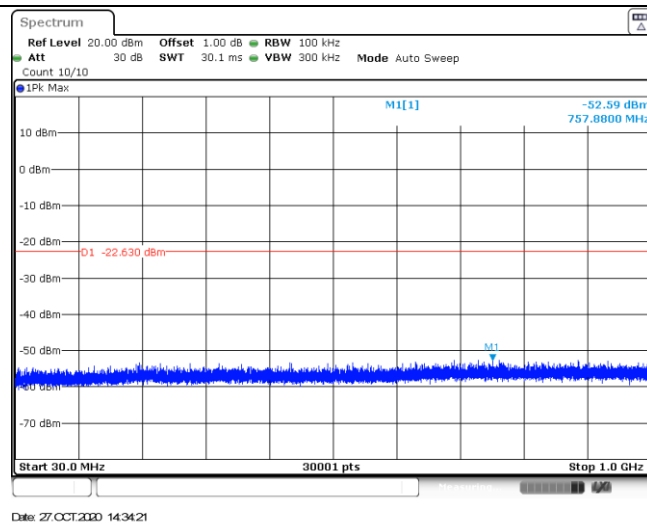
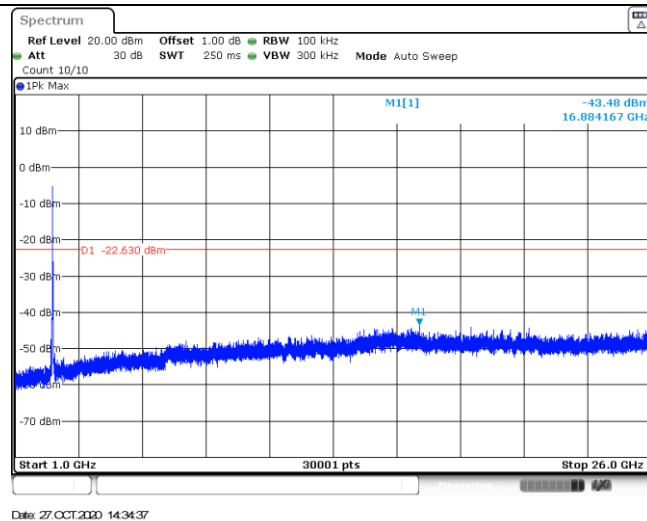


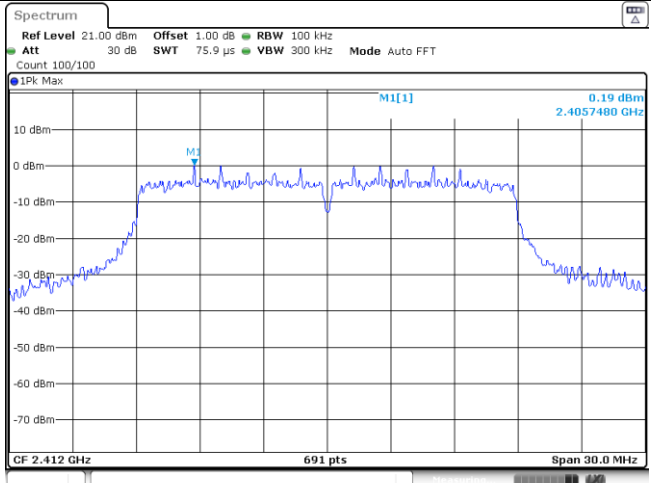
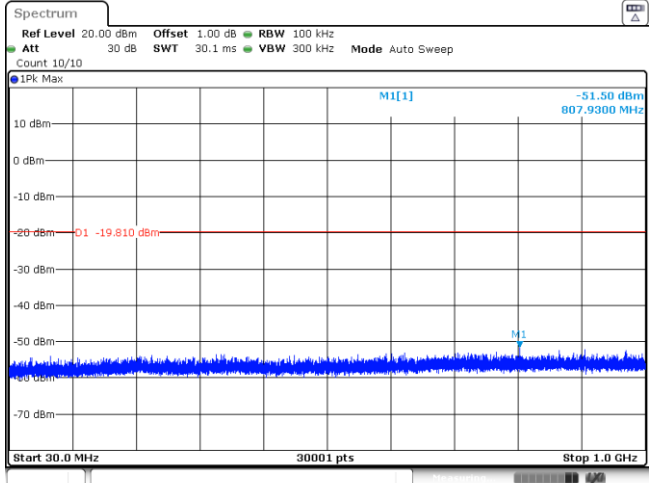
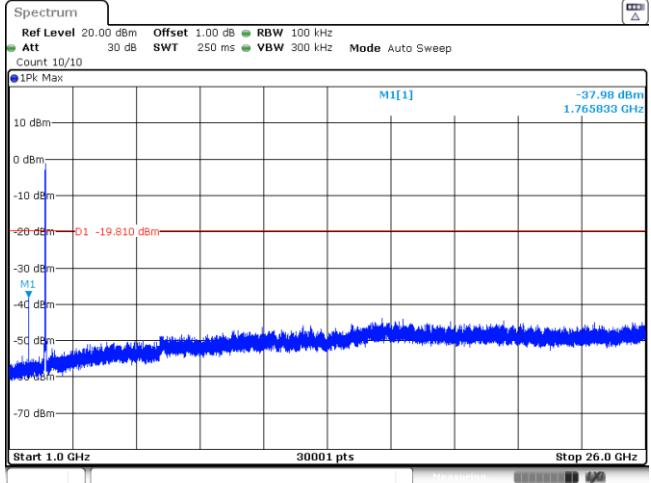
CH06
30MHz~1000MHz



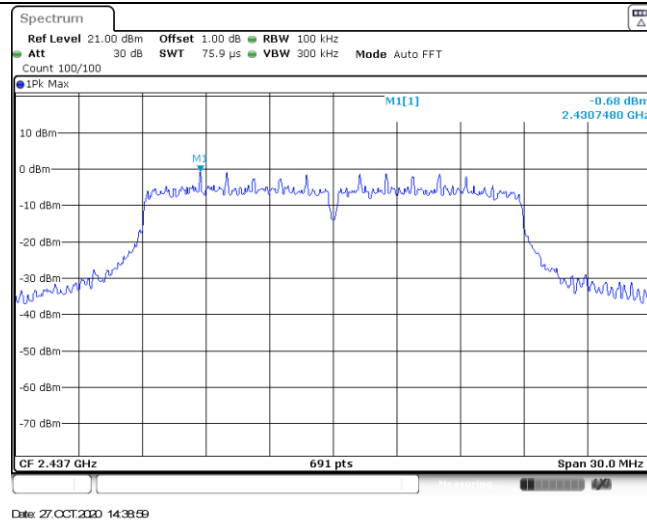
CH06
1GHz~26GHz



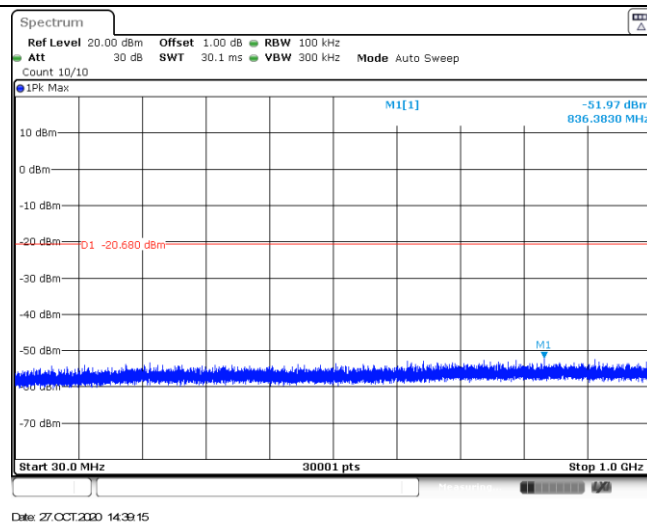
CH11
Reference levelCH11
30MHz~1000MHzCH11
1GHz~26GHz

Test Item:	SE	Type:	802.11 n(HT20)
CH01 Reference level		 0.19 dBm 2.4057480 GHz CF 2.412 GHz 691 pts Span 30.0 MHz Date: 27/OCT/2020 14:36:47	
CH01 30MHz~1000MHz		 -51.50 dBm 807.9300 MHz Start 30.0 MHz 30001 pts Stop 1.0 GHz Date: 27/OCT/2020 14:37:02	
CH01 1GHz~26GHz		 -37.98 dBm 1.765833 GHz Start 1.0 GHz 30001 pts Stop 26.0 GHz Date: 27/OCT/2020 14:37:18	

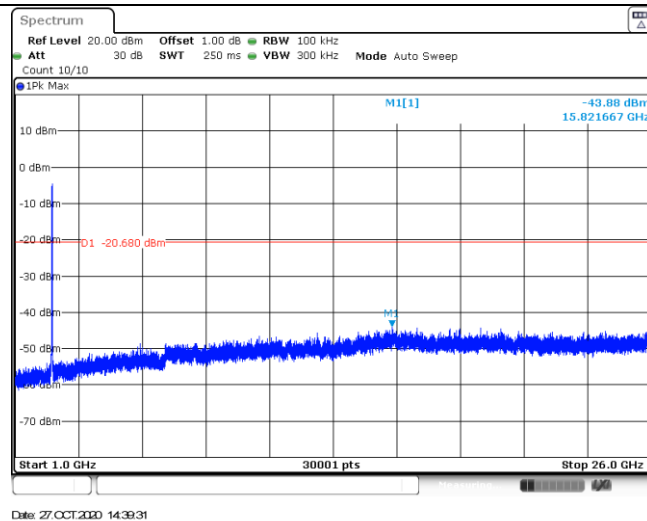
CH06
Reference level

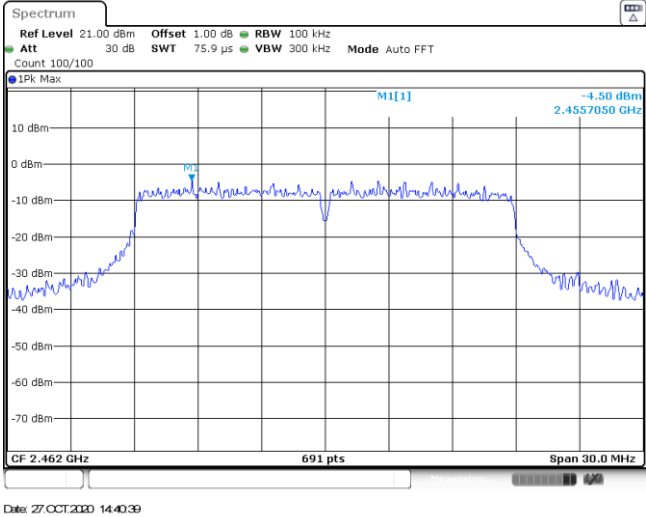
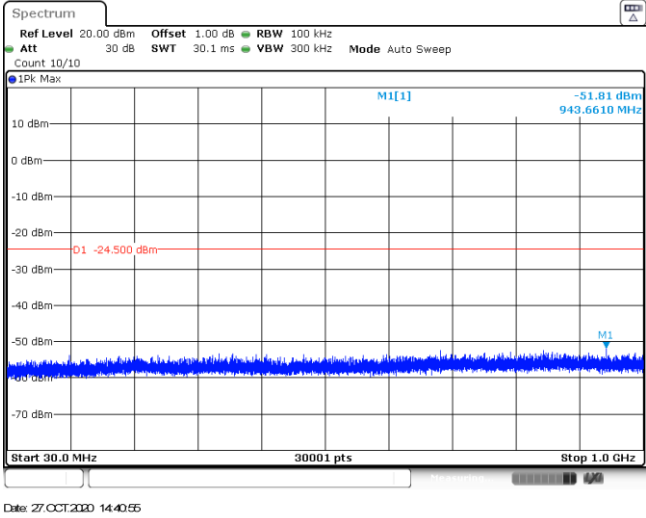
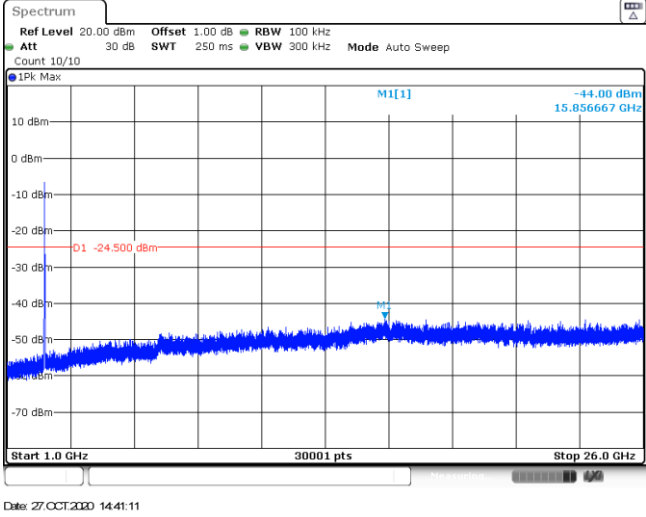


CH06
30MHz~1000MHz



CH06
1GHz~26GHz



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

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