APPENDIX REPORT

Project No.	SHT2011090201EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT20110902004	Model No.	W125K
Start test date	2020-12-01	Finish date	2020-12-01
Temperature	25.7°C	Humidity	43%
Test Engineer	Qizhi Zhang	Auditor	Xiaodong Zhao

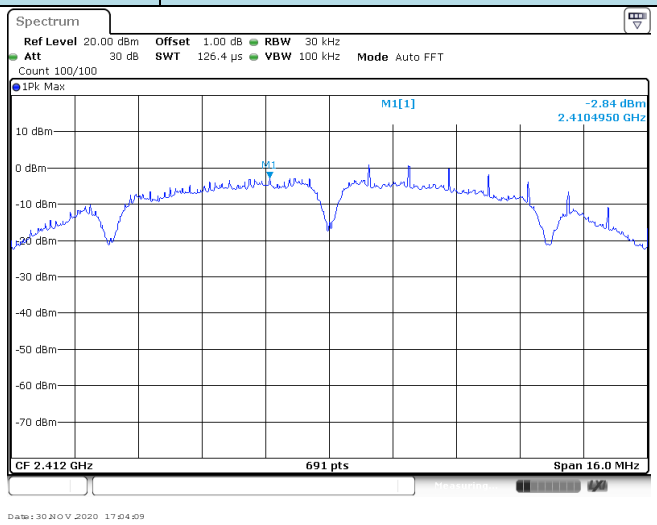
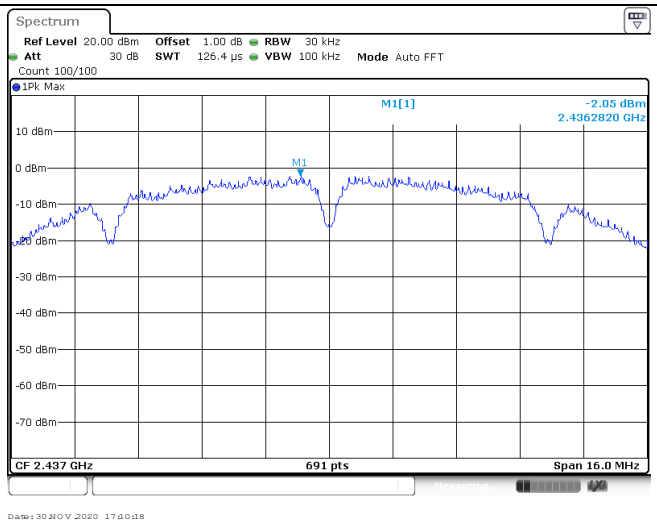
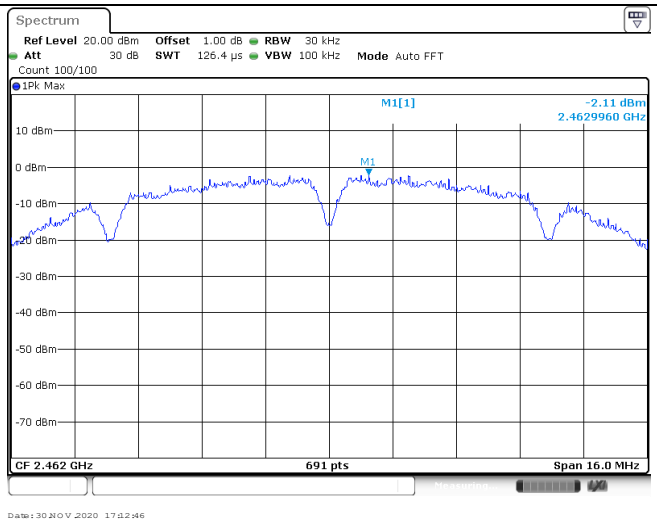
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

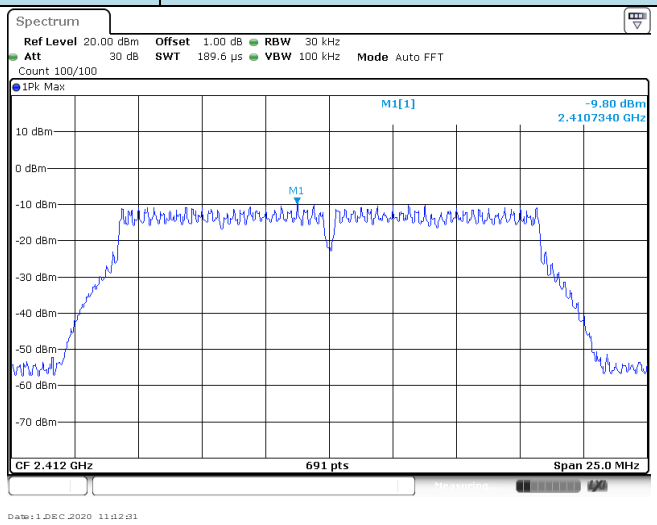
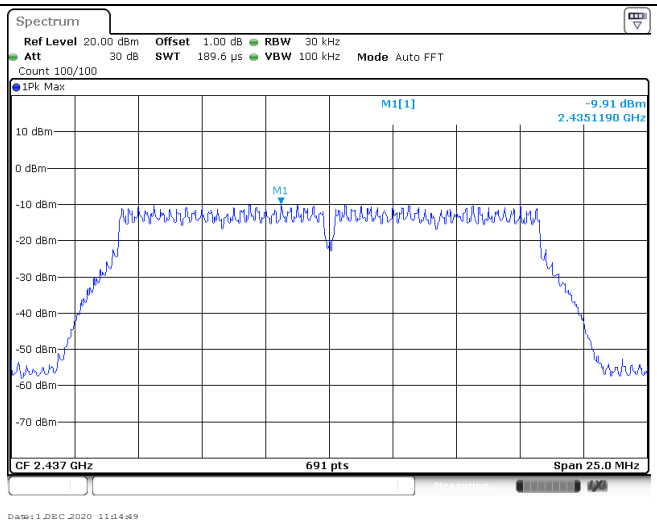
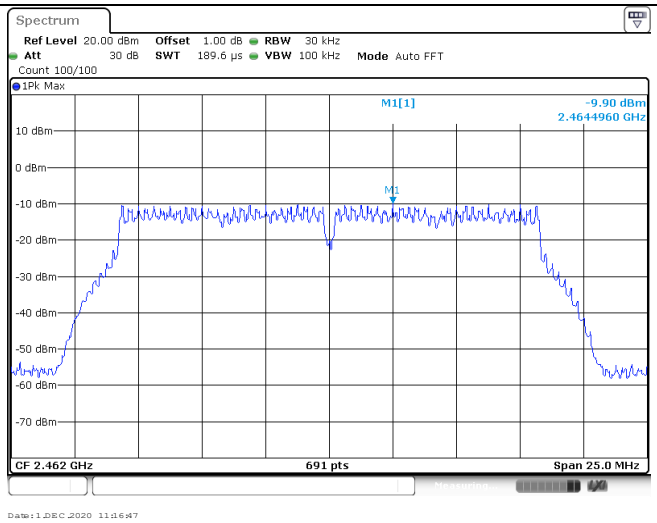
Appendix A: Conducted Peak Output Power

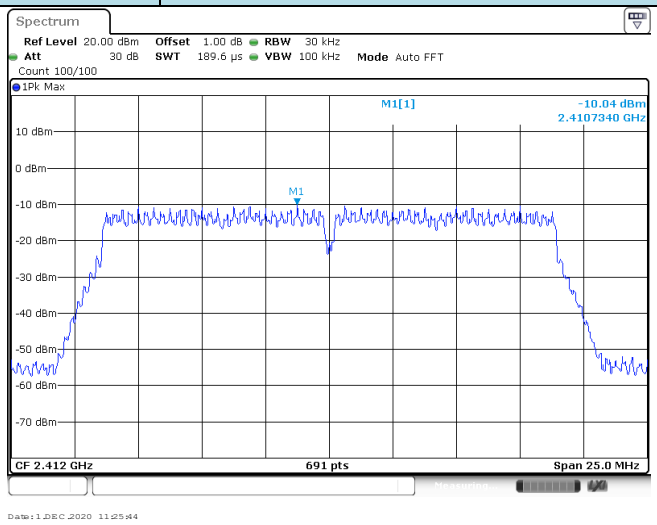
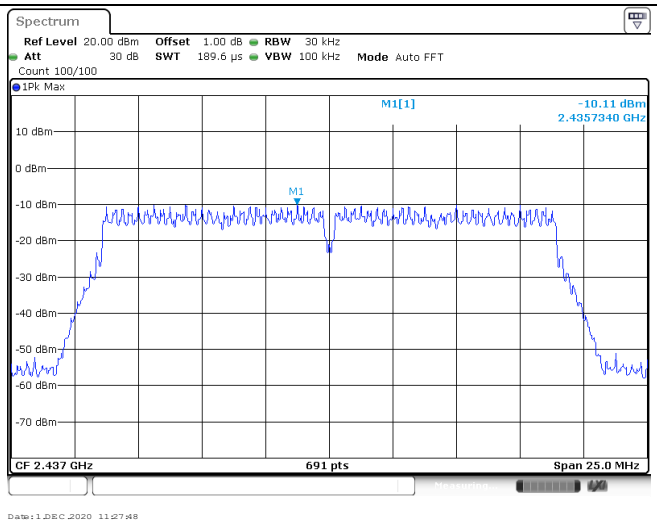
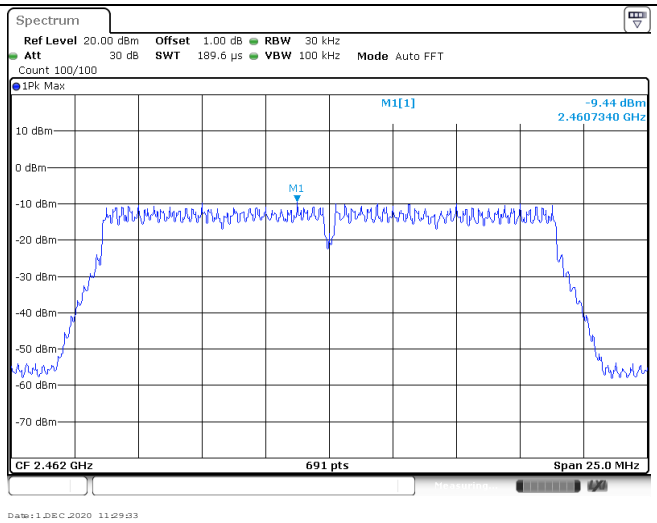
Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	14.33	12.13	≤ 30.00	Pass
	06	14.40	12.18		
	11	14.68	12.46		
802.11g	01	14.79	12.57	≤ 30.00	Pass
	06	14.41	12.19		
	11	14.75	12.53		
802.11n (HT20)	01	14.22	12.00	≤ 30.00	Pass
	06	14.33	12.11		
	11	14.64	12.42		
802.11n(HT40)	03	14.40	12.18	≤ 30.00	Pass
	06	14.25	12.03		
	09	14.52	12.30		

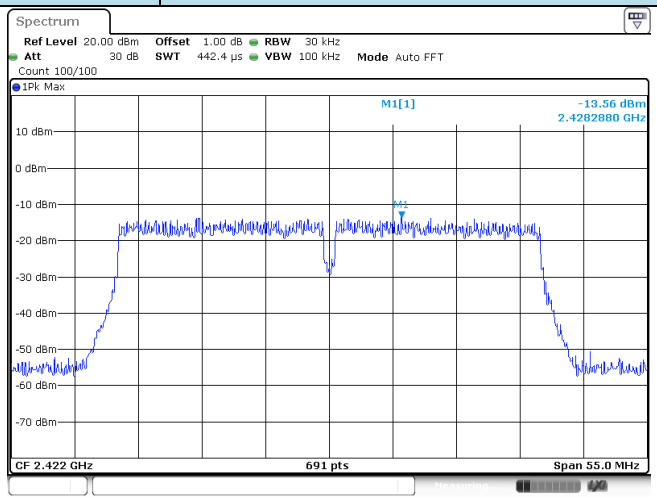
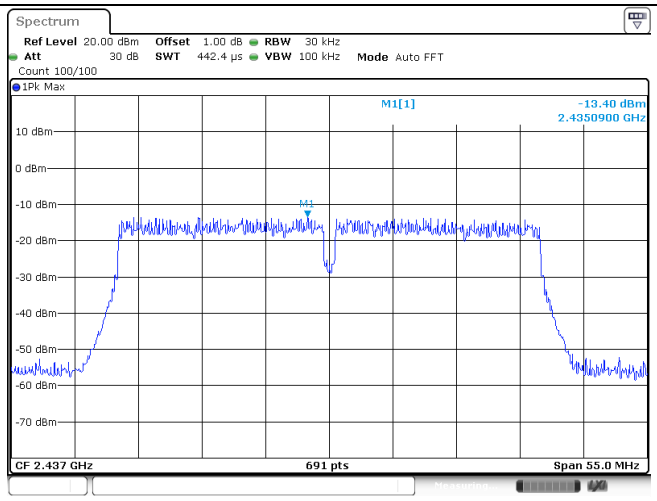
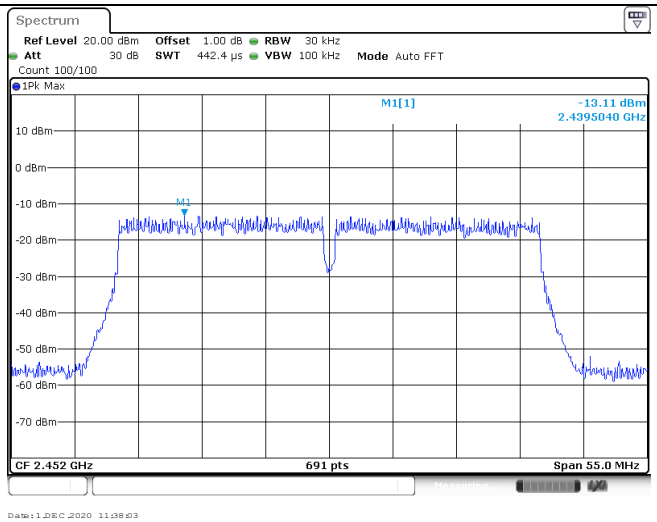
Appendix B：Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	-2.84	≤8.00	Pass
	06	-2.05		
	11	-2.11		
802.11g	01	-9.80	≤8.00	Pass
	06	-9.91		
	11	-9.90		
802.11n(HT20)	01	-10.04	≤8.00	Pass
	06	-10.11		
	11	-9.44		
802.11n(HT40)	03	-13.56	≤8.00	Pass
	06	-13.40		
	09	-13.11		

Type:	802.11 b
CH01	
CH06	
CH11	

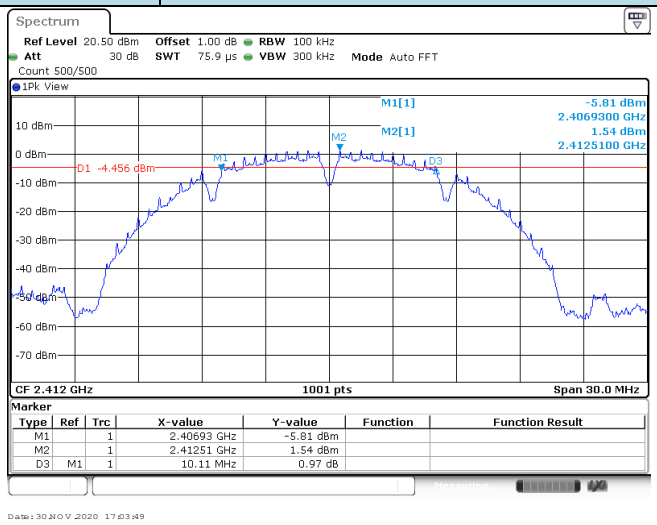
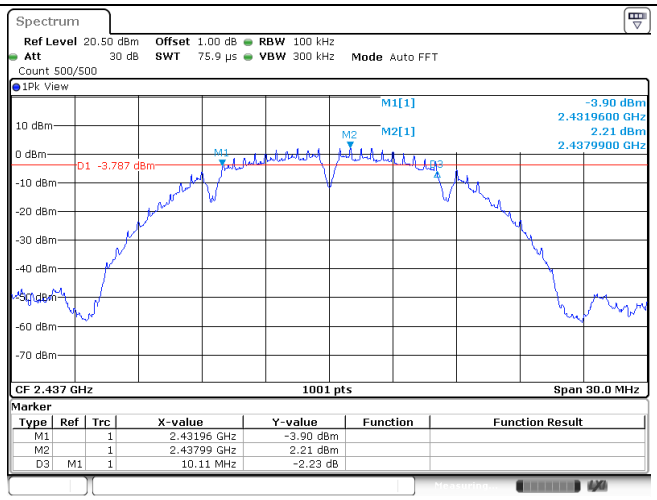
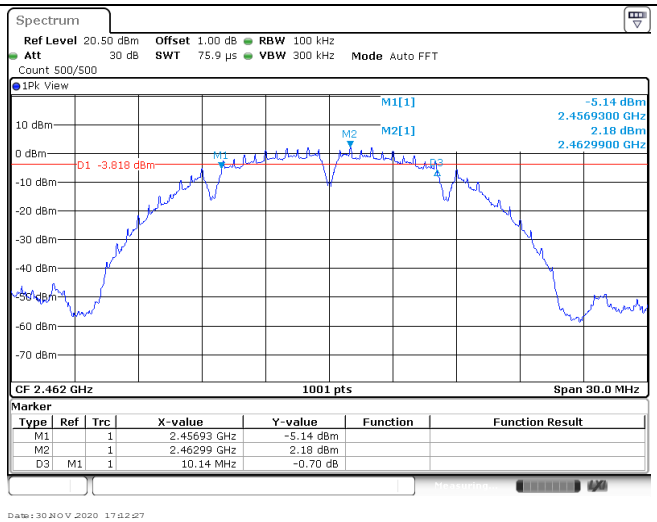
Type:	802.11 g
CH01	
CH06	
CH11	

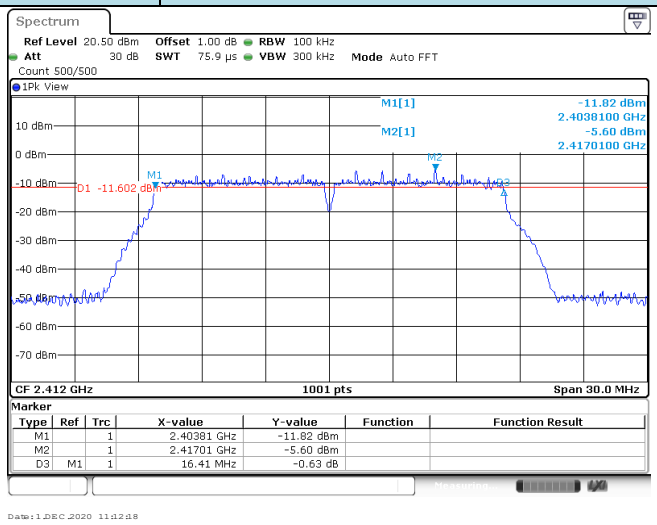
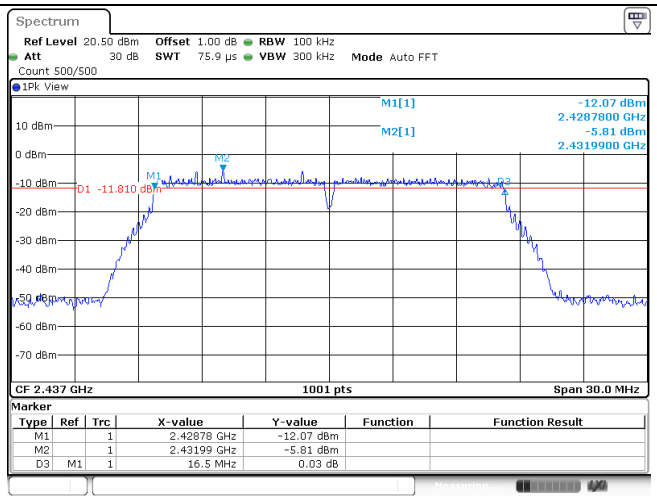
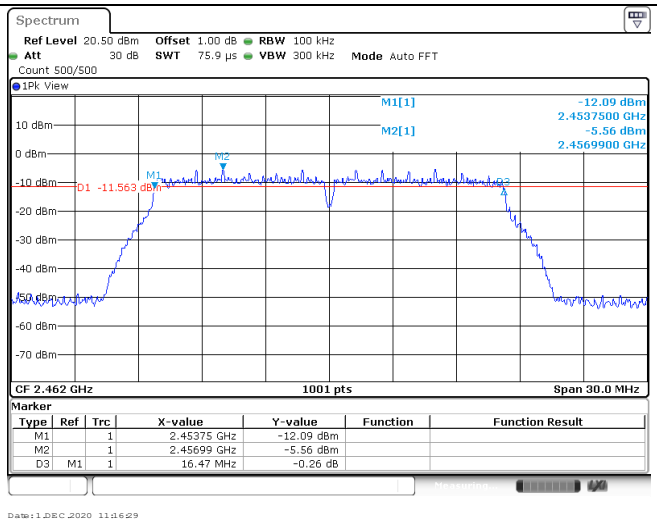
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

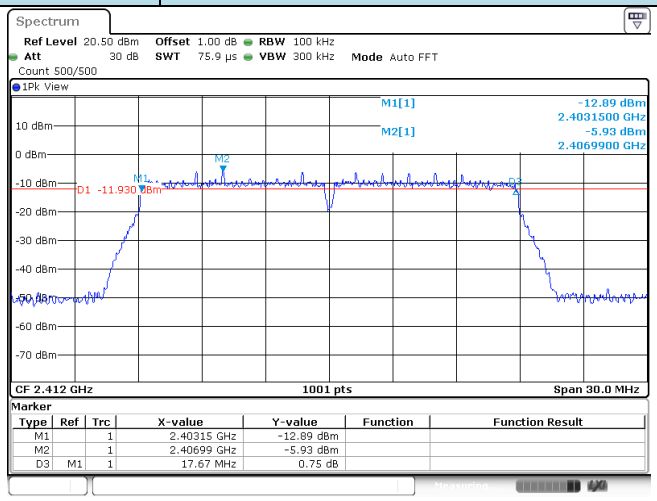
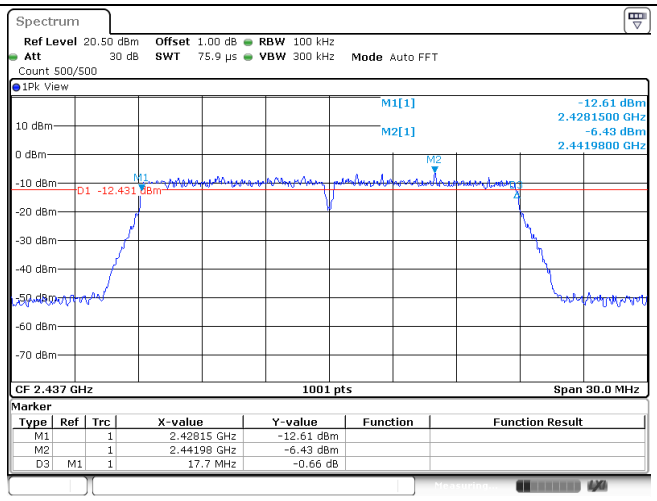
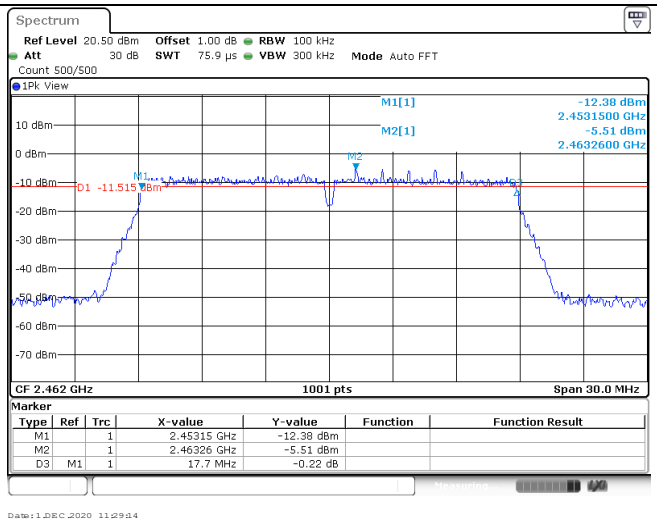
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

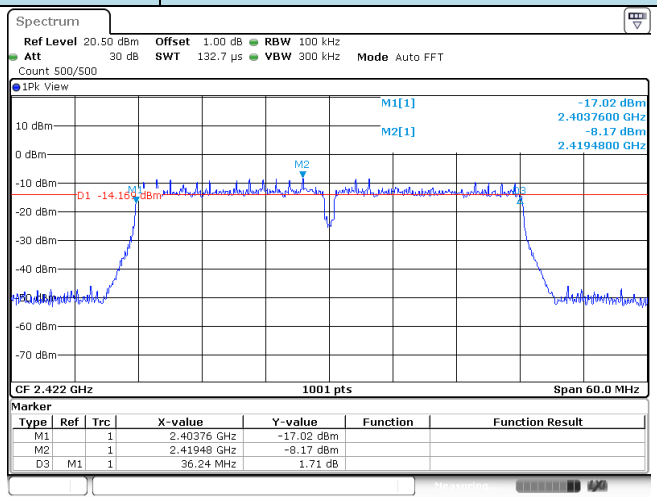
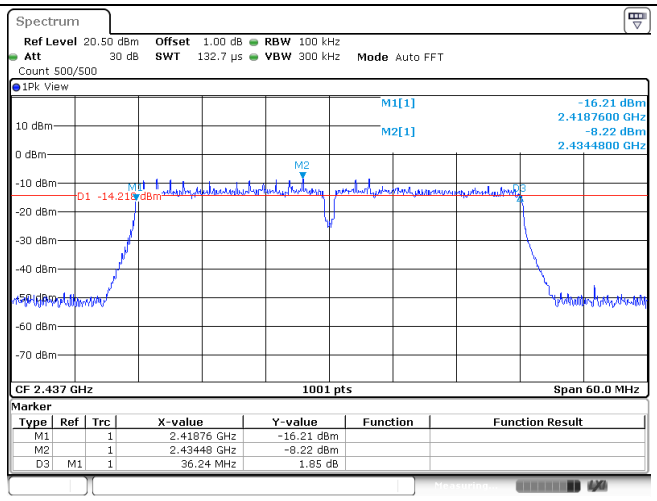
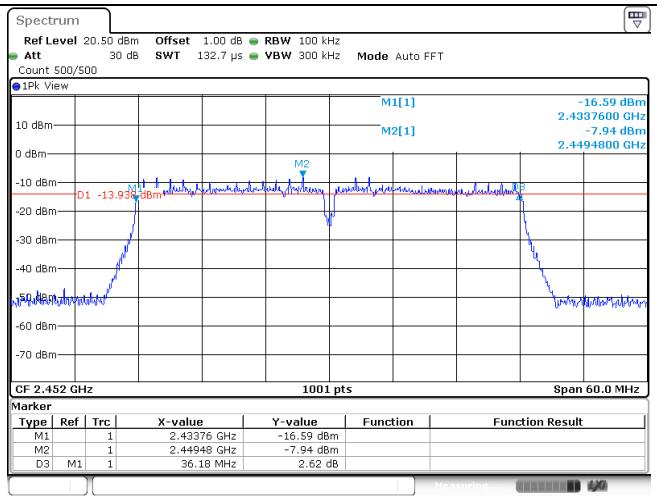
Appendix C：6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	10.11	≥0.5	Pass
	06	10.11		
	11	10.14		
802.11g	01	16.41	≥0.5	Pass
	06	16.50		
	11	16.47		
802.11n(HT20)	01	17.67	≥0.5	Pass
	06	17.70		
	11	17.70		
802.11n(HT40)	03	36.24	≥0.5	Pass
	06	36.24		
	09	36.18		

Type:	802.11 b
CH01	
CH06	
CH11	

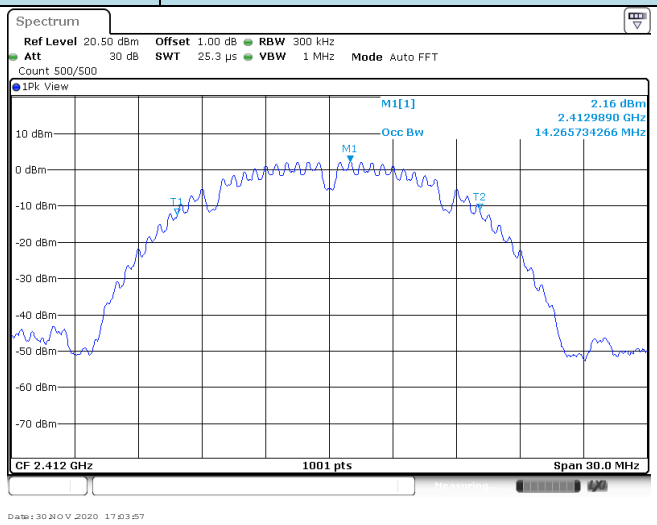
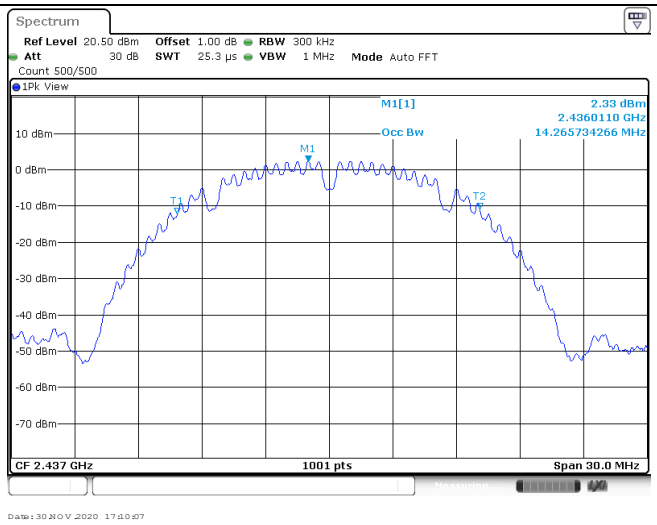
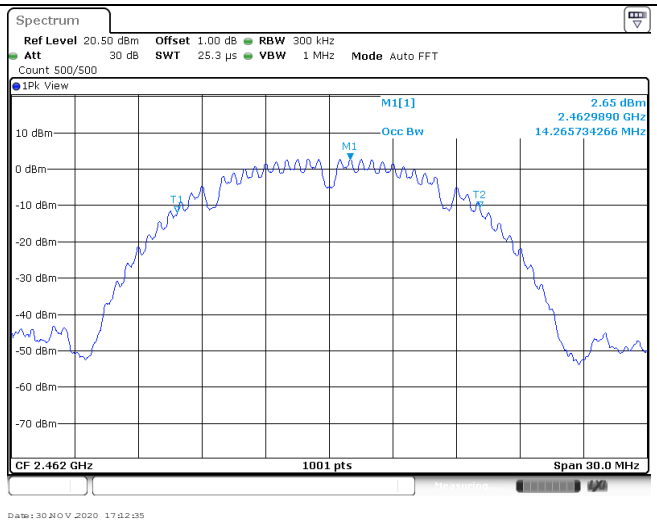
Type:	802.11 g
CH01	
CH06	
CH11	

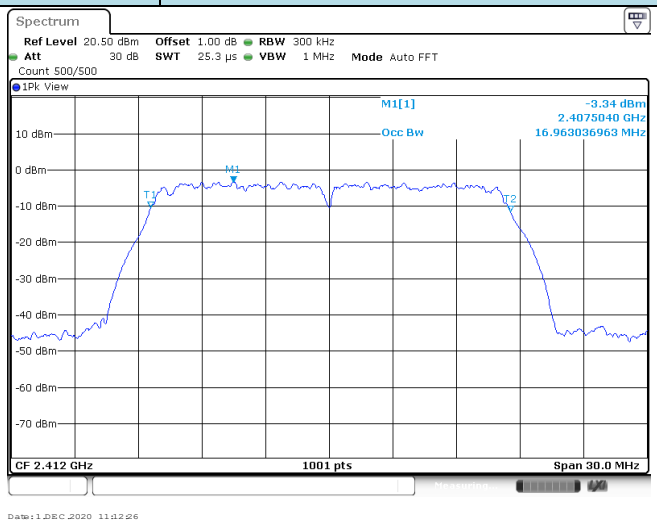
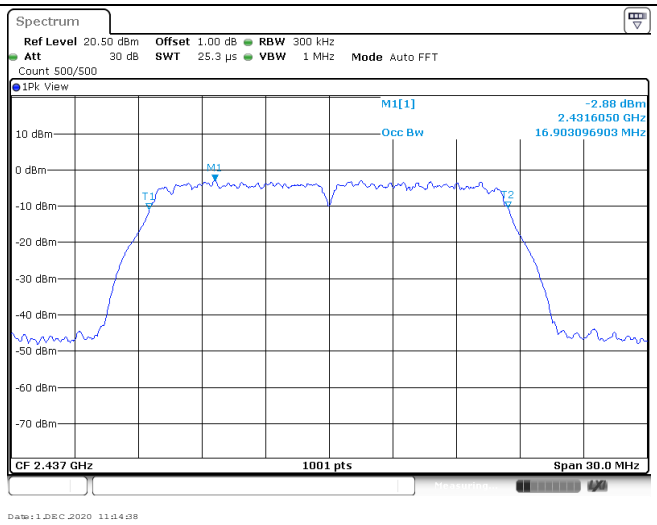
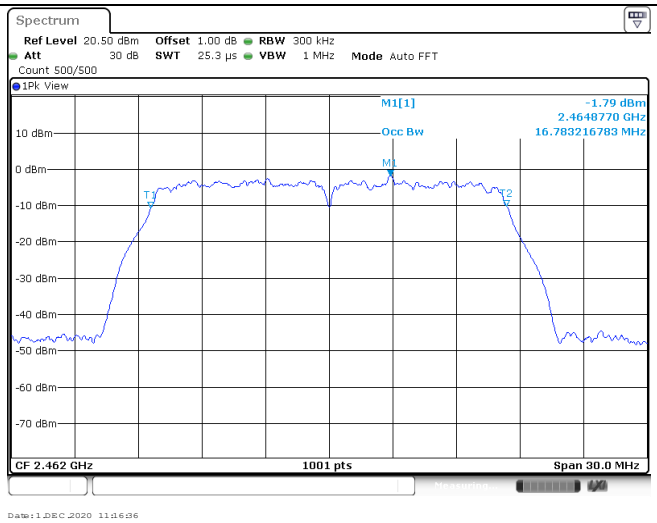
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

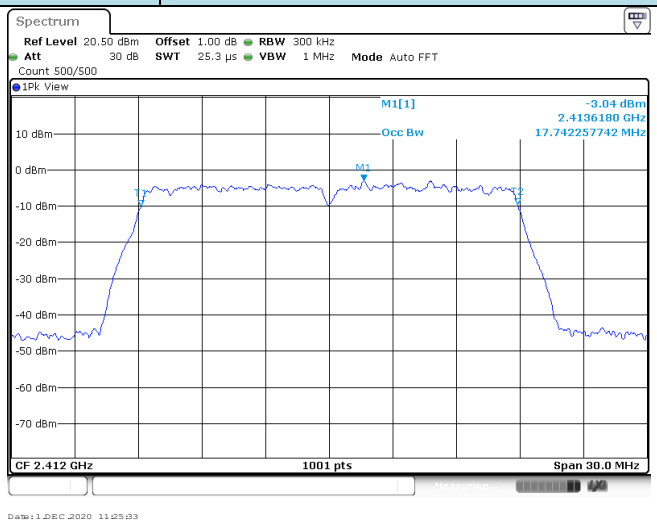
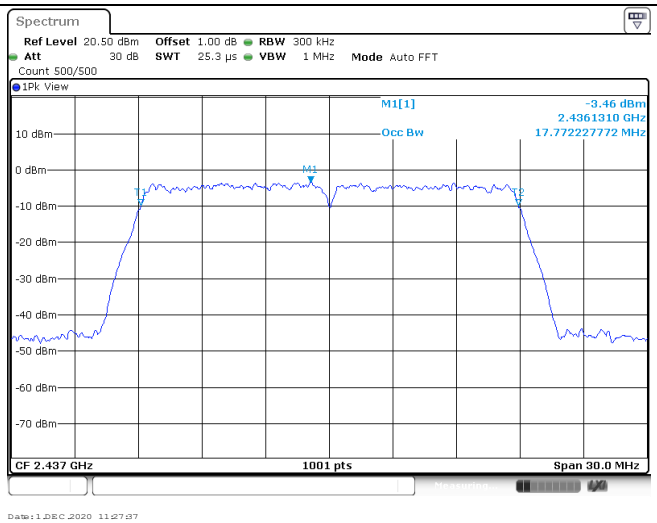
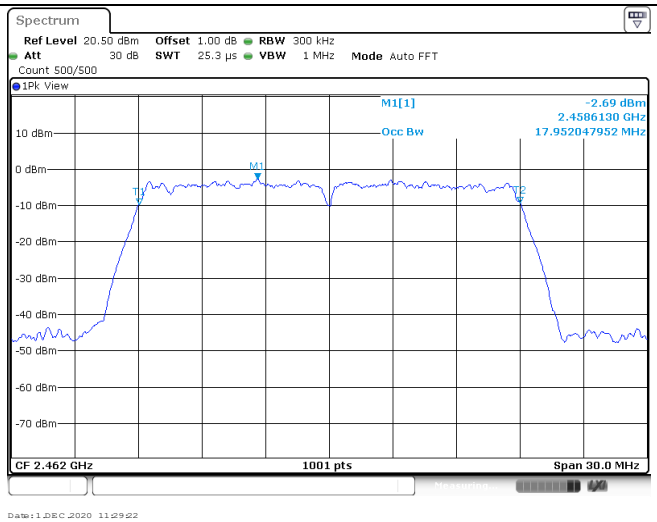
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

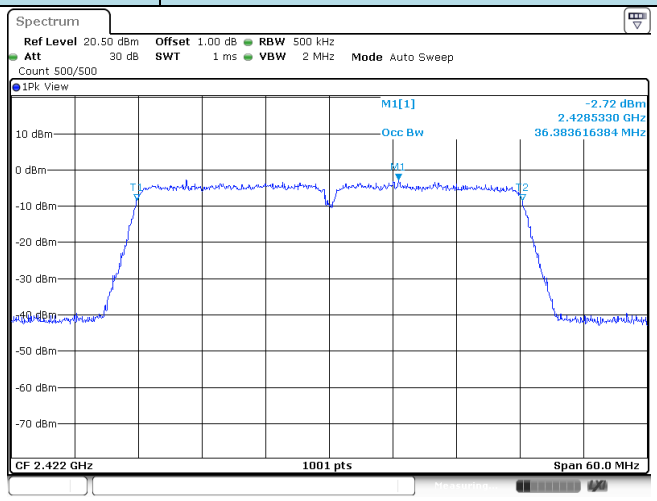
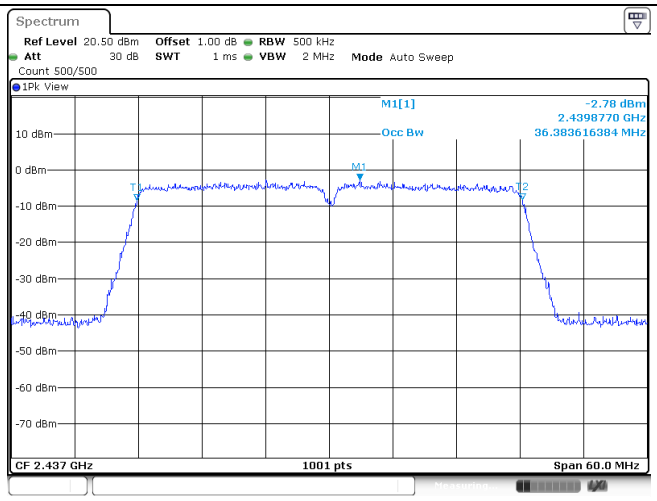
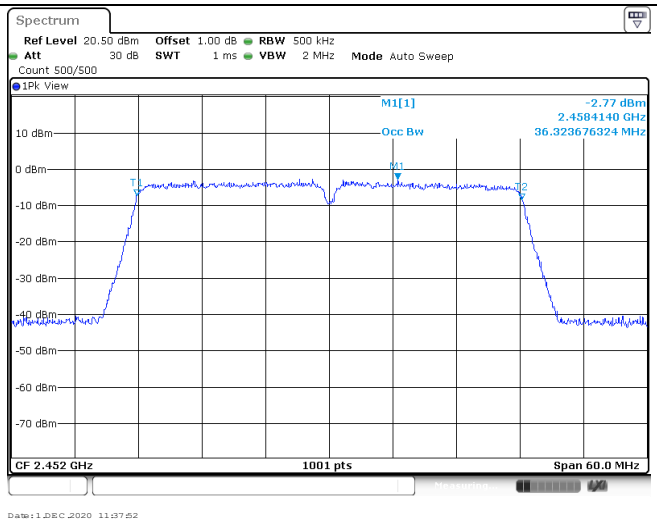
Appendix D：99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	14.27	-	Pass
	06	14.27		
	11	14.27		
802.11g	01	16.96	-	Pass
	06	16.90		
	11	16.78		
802.11n(HT20)	01	17.74	-	Pass
	06	17.77		
	11	17.95		
802.11n(HT40)	03	36.38	-	Pass
	06	36.38		
	09	36.32		

Type:	802.11 b
CH01	
CH06	
CH11	

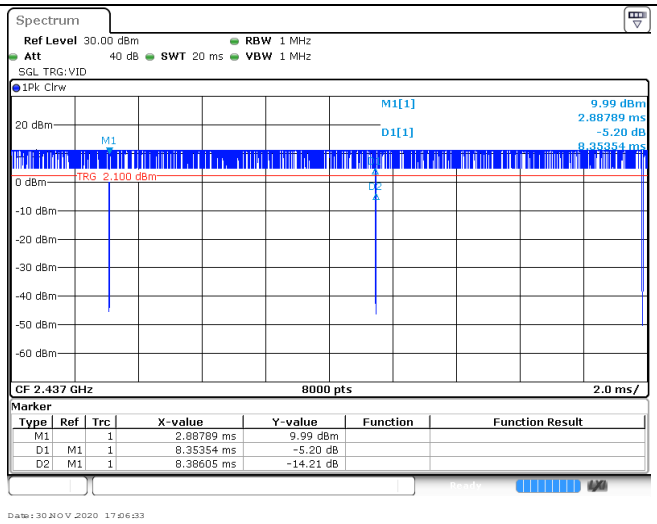
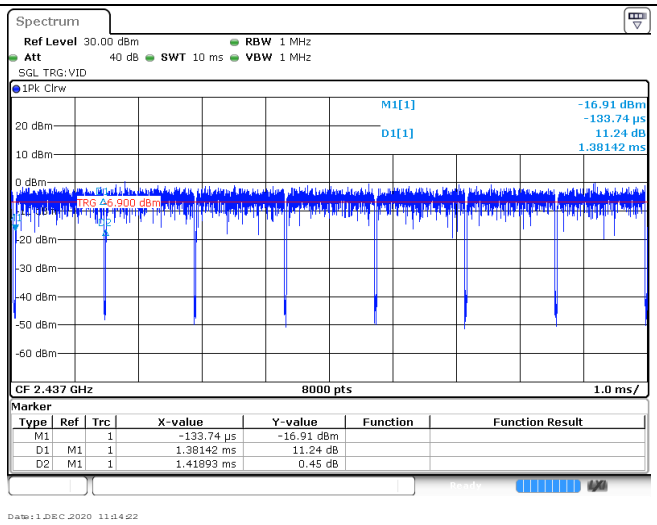
Type:	802.11 g
CH01	
CH06	
CH11	

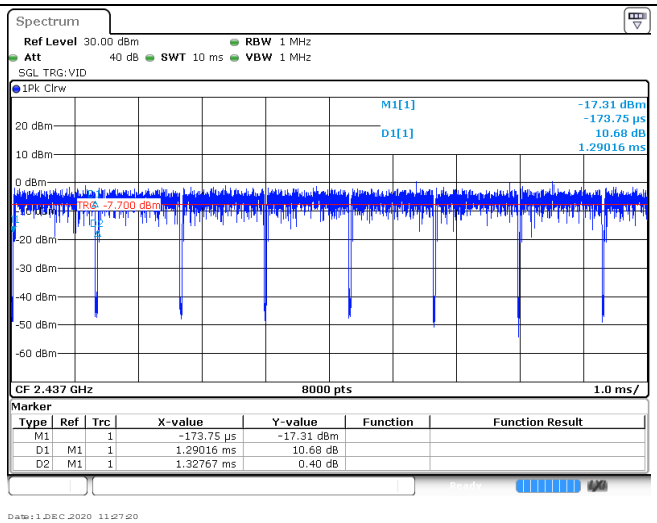
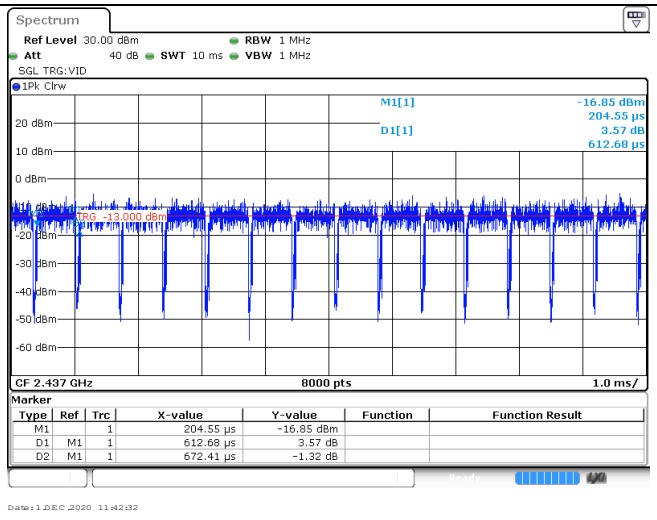
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

Type:	802.11n(HT40)
CH03	
CH06	
CH09	

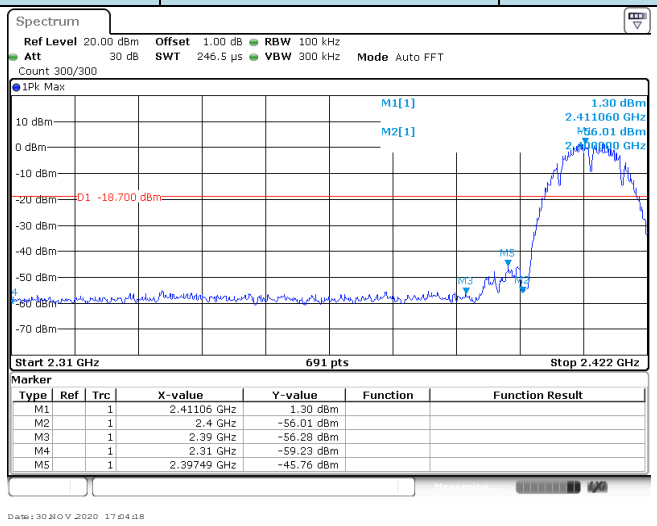
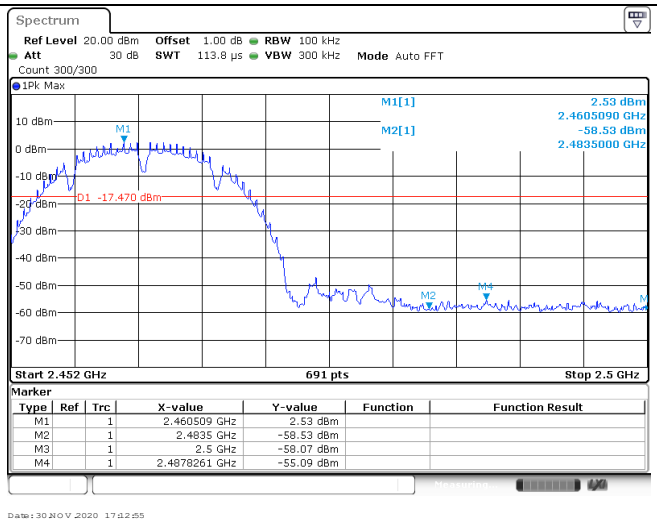
Appendix E：Duty Cycle

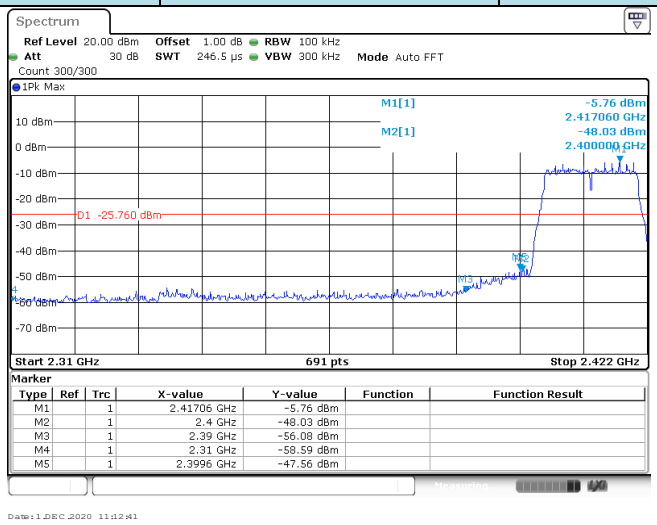
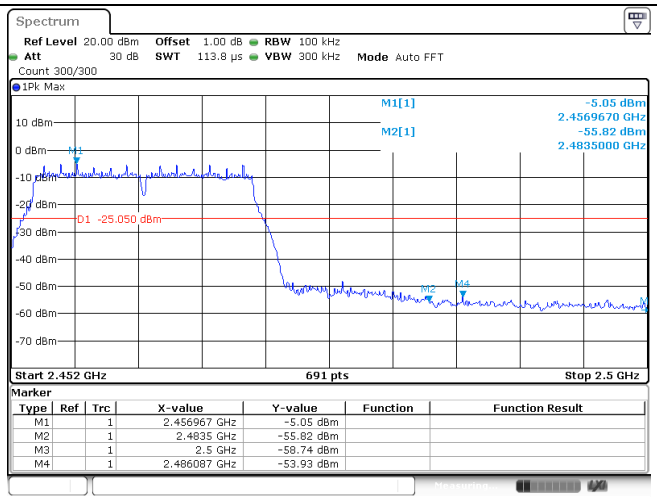
Modulation Type	Test Frequency （MHz）	$T_{on\ time}$ for single burst (ms)	T_{period} (ms)	Duty cycle	$1/T_{on\ time}$ (kHz)
11b	2437	8.35	8.39	99.5%	0.1
11g	2437	1.38	1.42	97.2%	0.7
11n20	2437	1.29	1.33	97.0%	0.8
11n40	2437	0.61	0.67	91.0%	1.6

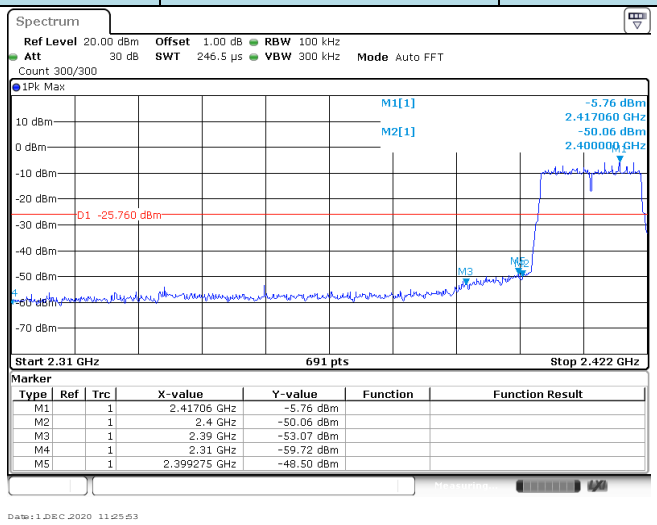
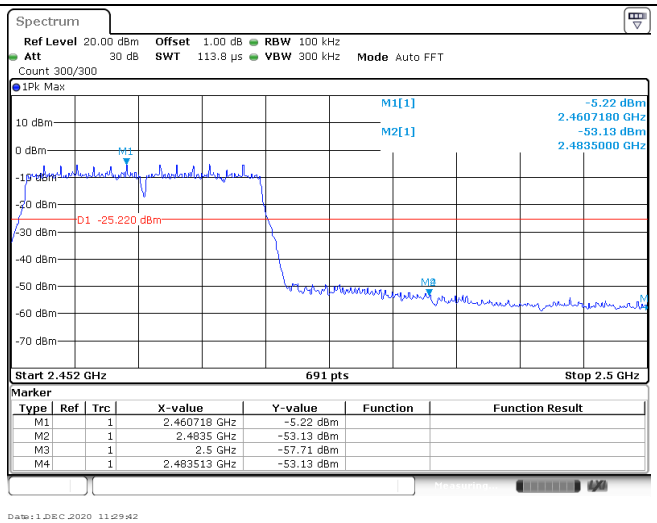
11b	
11g	

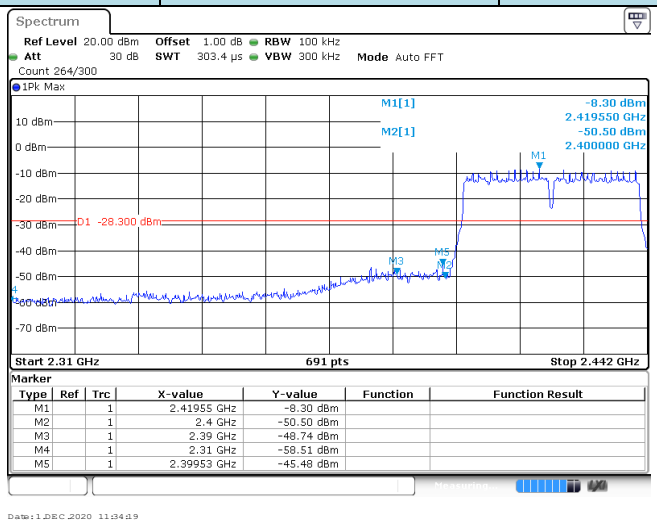
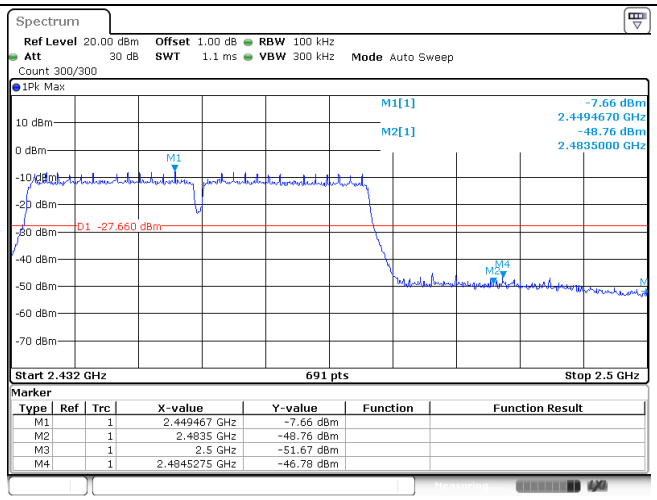
11n20	 Spectrum Ref Level 30.00 dBm RBW 1 MHz Att 40 dB SWT 10 ms VBW 1 MHz SGL TRG:VID 1Pk Clrw M1[1] -17.31 dBm -173.75 µs D1[1] 10.68 dB 1.29016 ms TRG -7.700 dBm CF 2.437 GHz 8000 pts 1.0 ms/ Marker Type Ref Trc X-value Y-value Function Function Result M1 1 -173.75 µs -17.31 dBm D1 M1 1 1.29016 ms 10.68 dB D2 M1 1 1.32767 ms 0.40 dB Date: 1.DEC.2020 11:27:20
11n40	 Spectrum Ref Level 30.00 dBm RBW 1 MHz Att 40 dB SWT 10 ms VBW 1 MHz SGL TRG:VID 1Pk Clrw M1[1] -16.85 dBm 204.55 µs D1[1] 3.57 dB 612.68 µs TRG -13.000 dBm CF 2.437 GHz 8000 pts 1.0 ms/ Marker Type Ref Trc X-value Y-value Function Function Result M1 1 204.55 µs -16.85 dBm D1 M1 1 612.68 µs 3.57 dB D2 M1 1 672.41 µs -1.32 dB Date: 1.DEC.2020 11:42:32

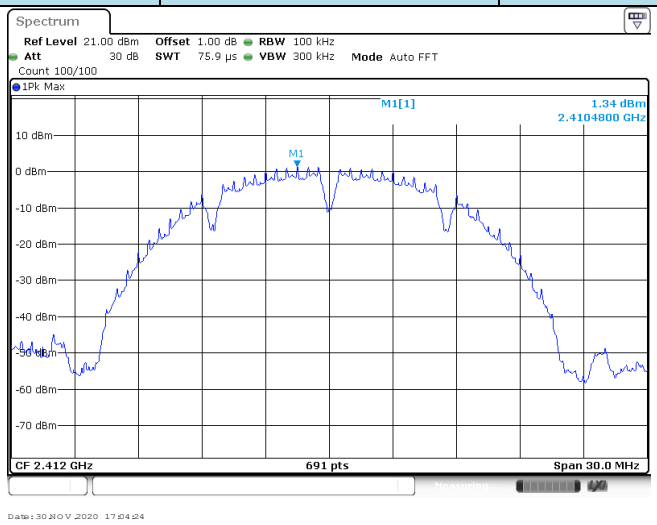
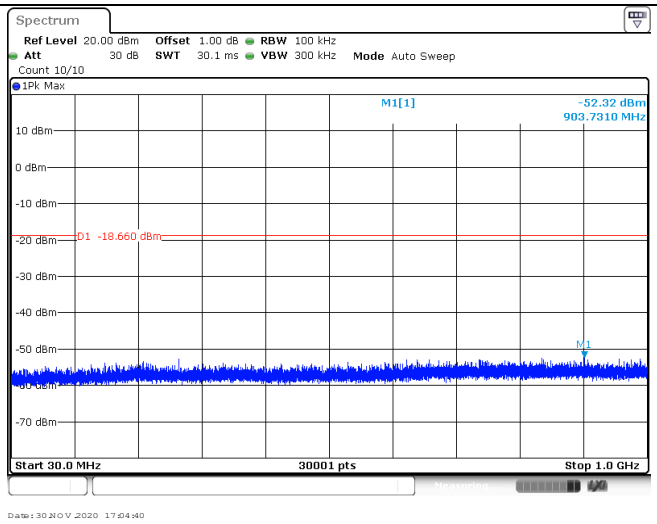
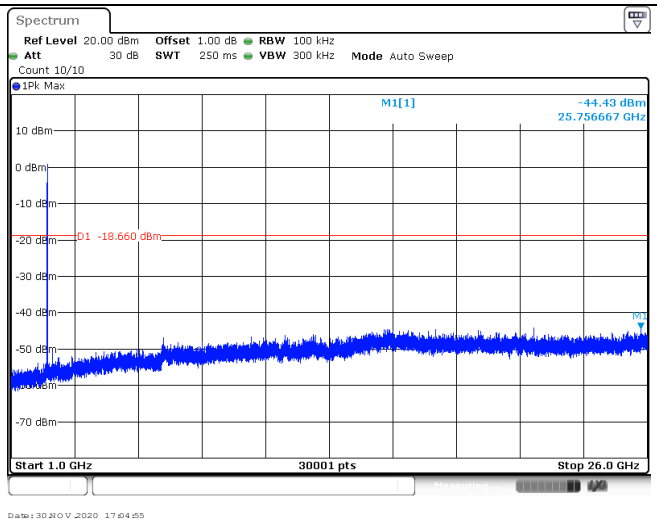
Appendix F：Band edge and Spurious Emissions (conducted)

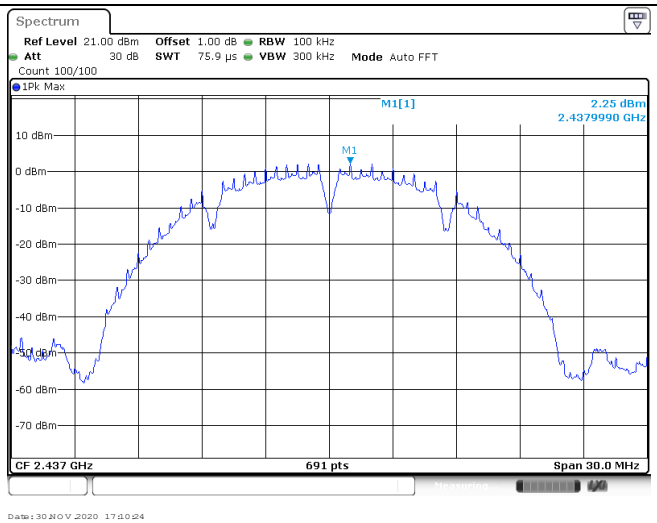
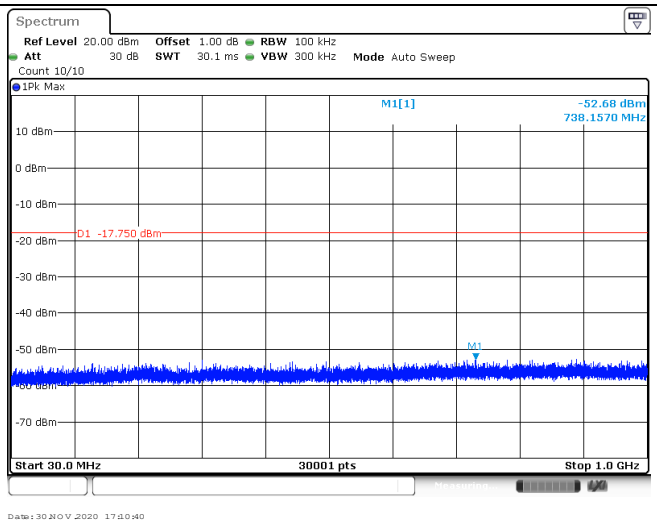
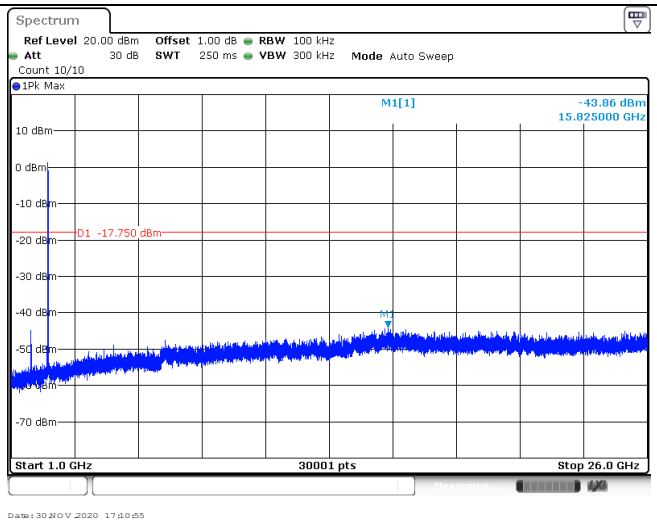
Test Item:	Bandedge	Type:	802.11 b
CH01	
CH11	

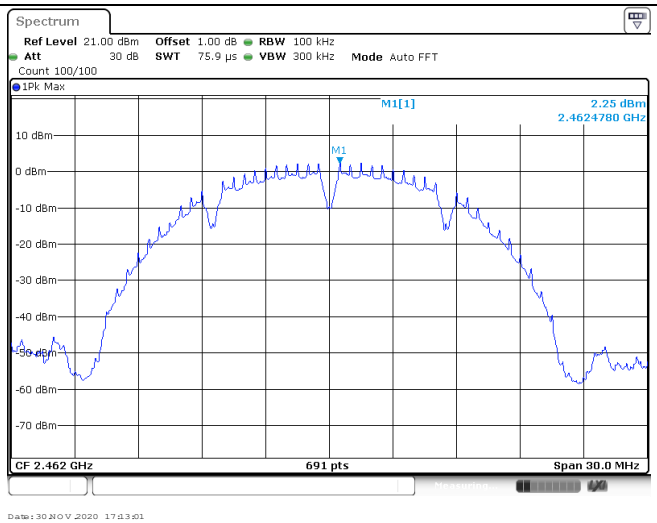
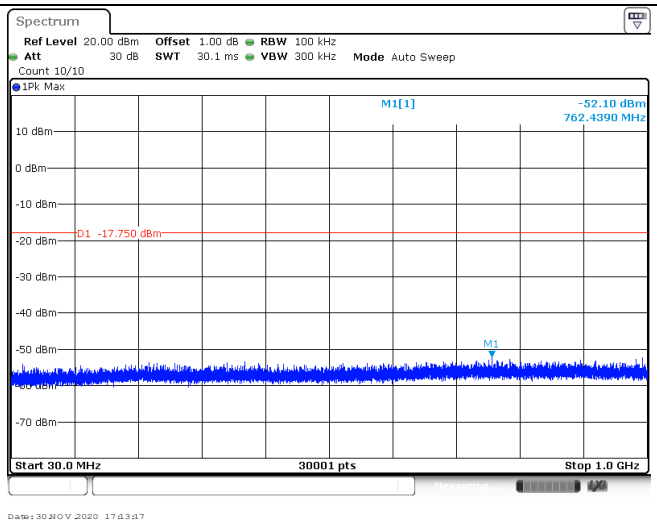
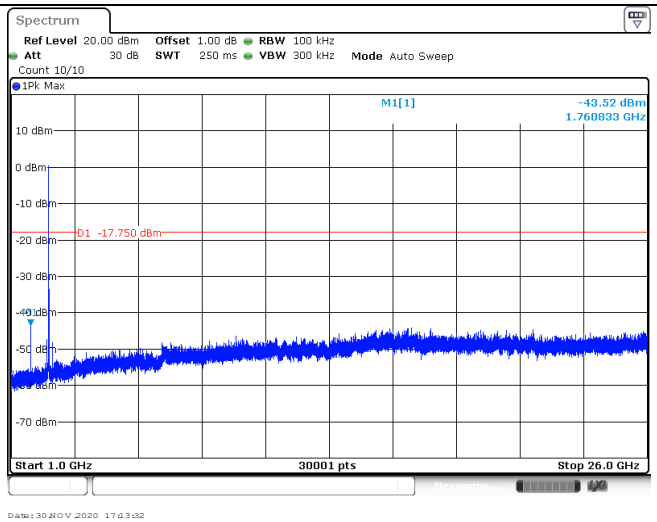
Test Item:	Bandedge	Type:	802.11 g
CH01			
CH11			

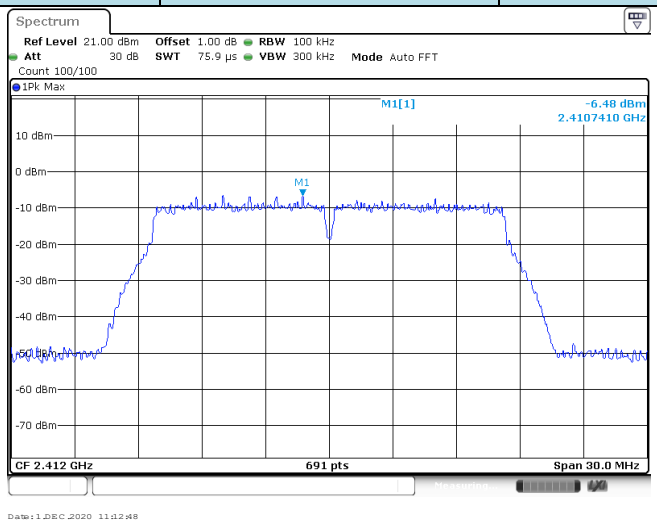
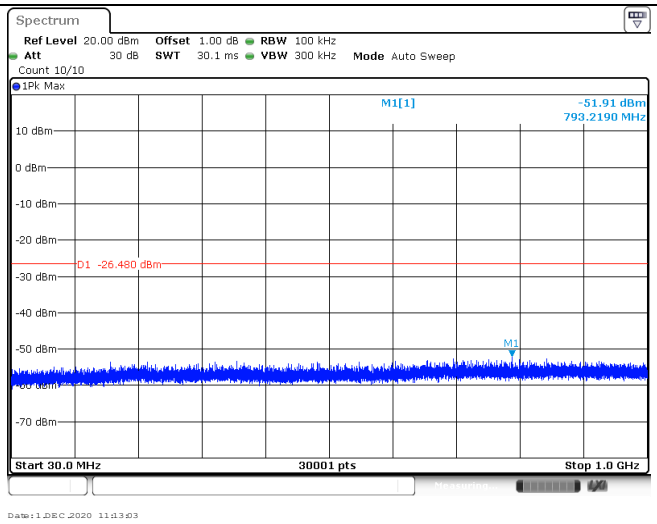
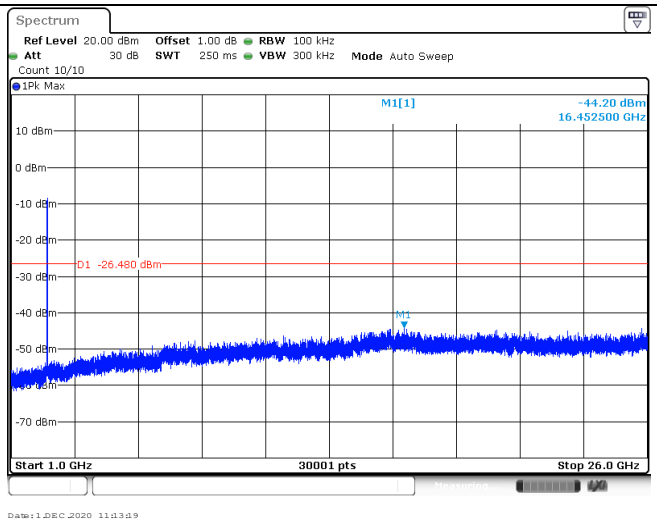
Test Item:	Bandedge	Type:	802.11 n(HT20)
CH01			
CH11			

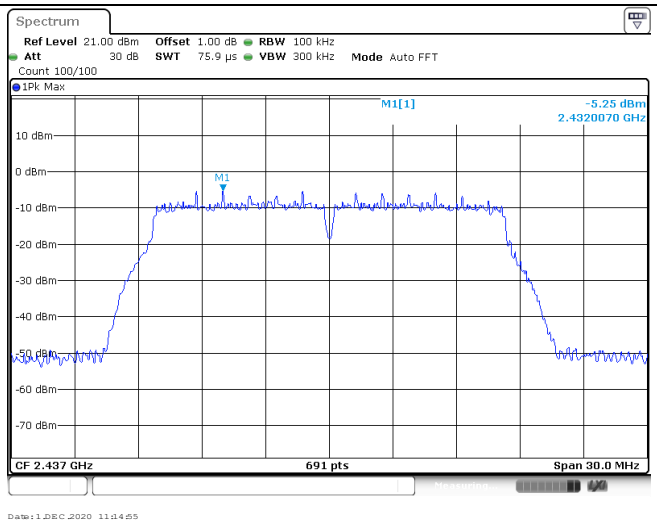
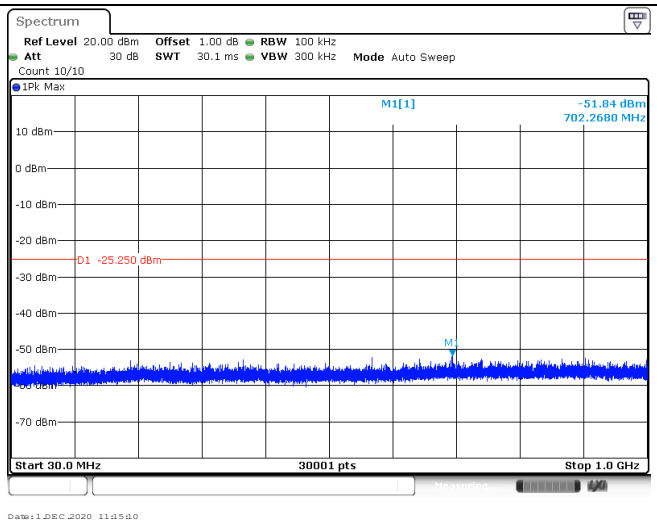
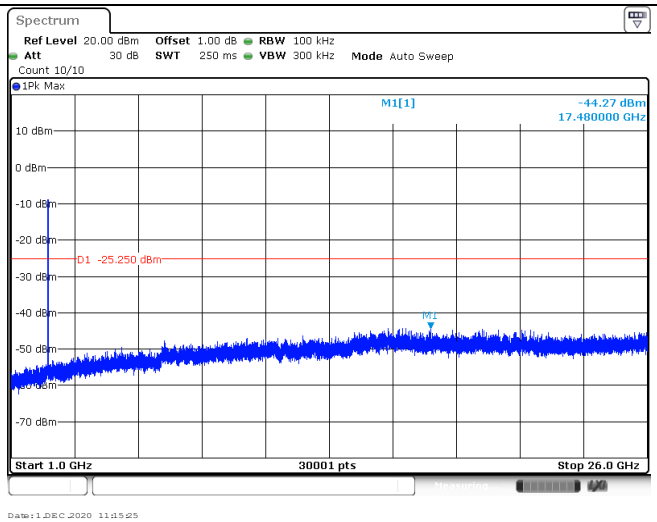
Test Item:	Bandedge	Type:	802.11 n(HT40)
CH03			
CH09			

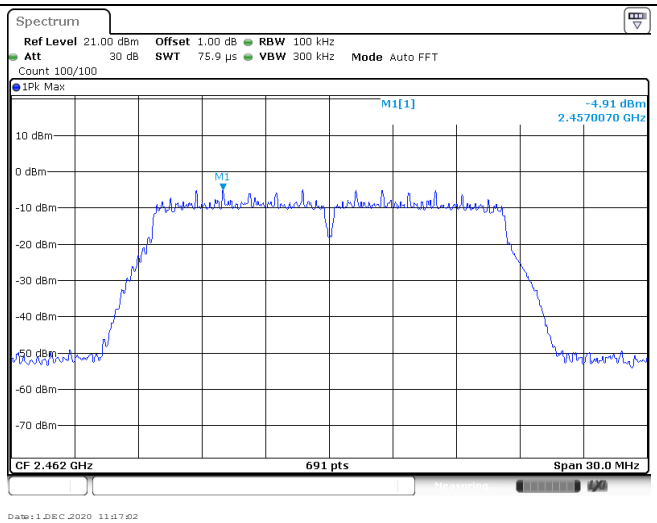
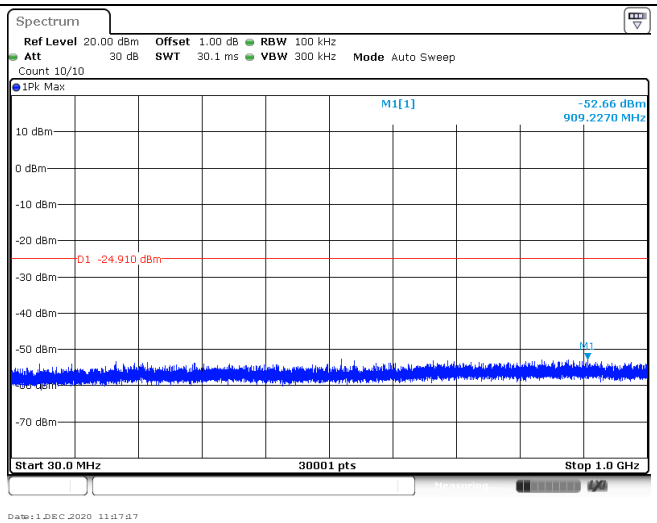
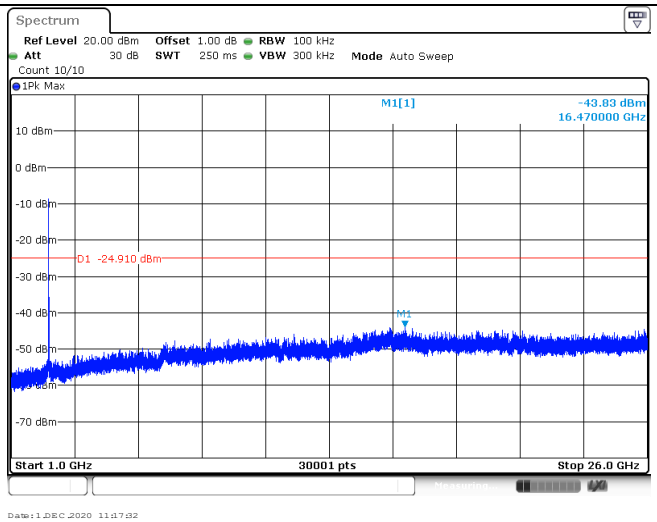
Test Item:	SE	Type:	802.11b
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

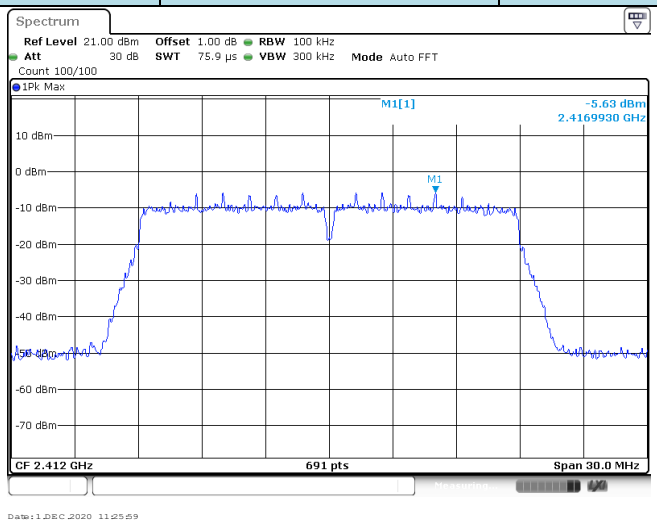
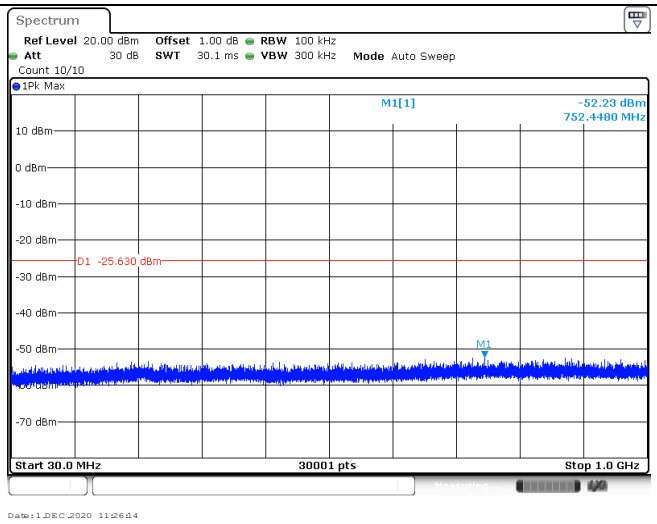
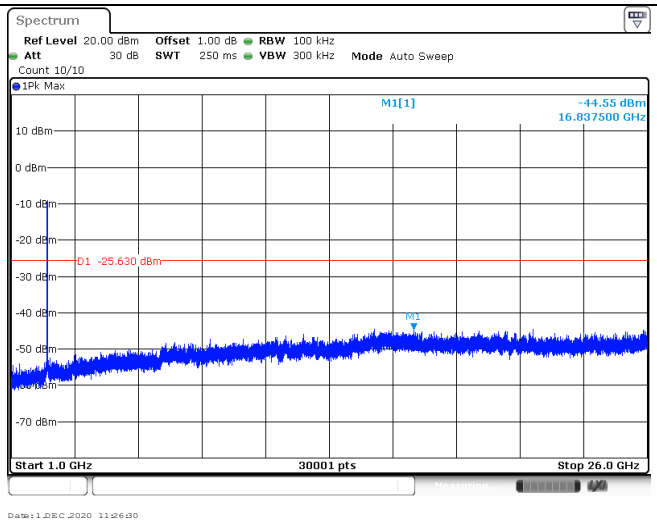
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

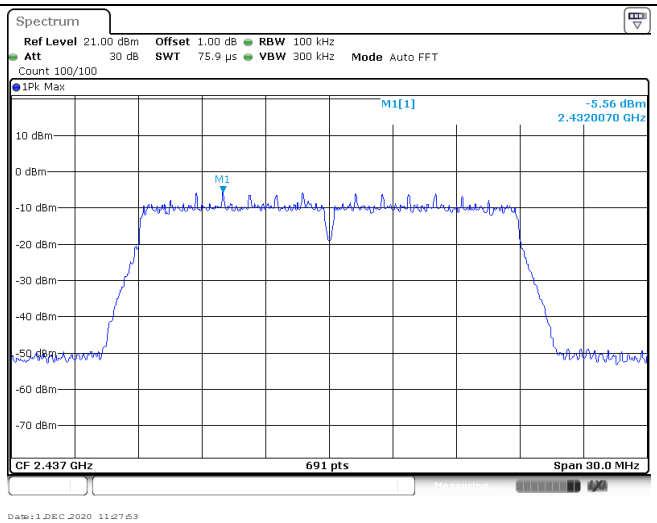
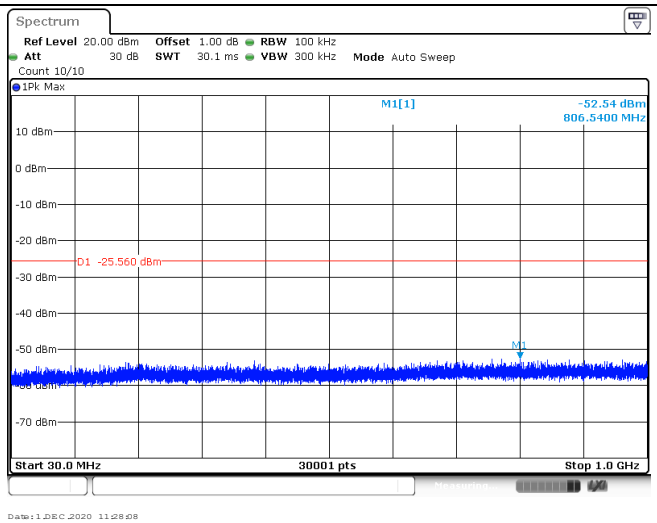
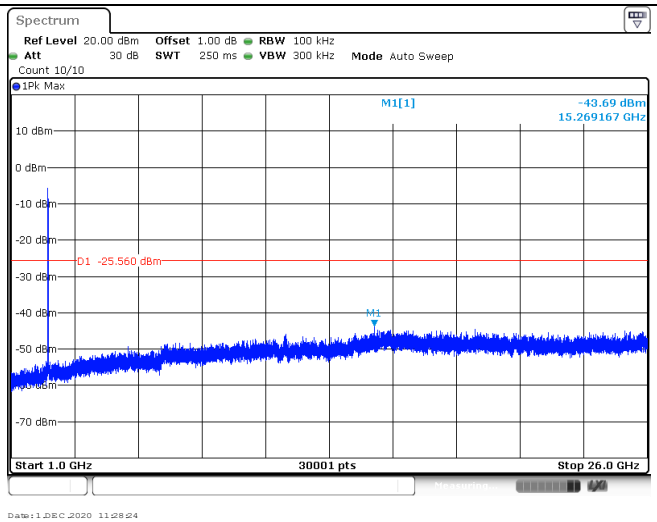
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

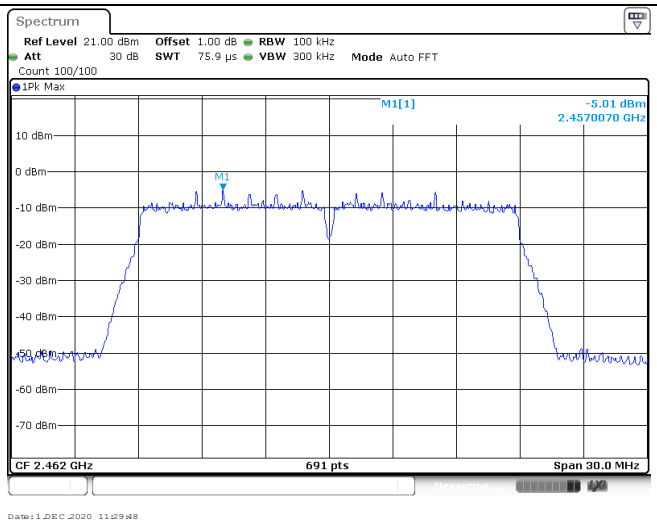
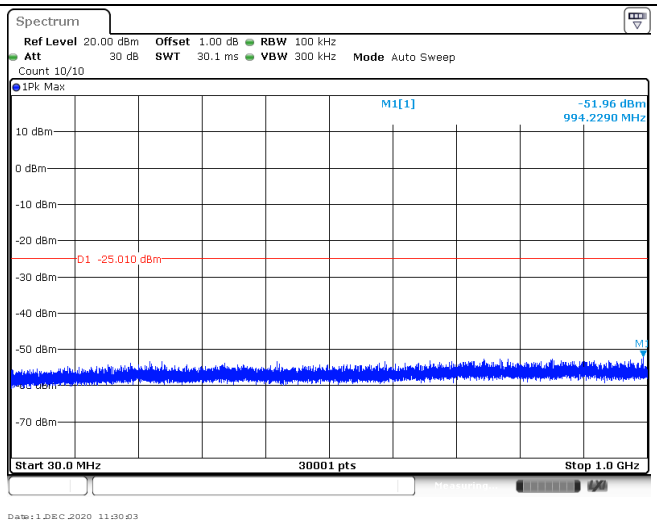
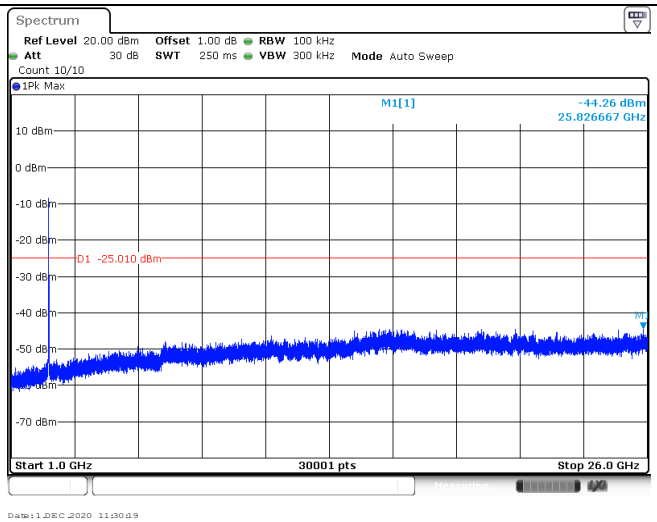
Test Item:	SE	Type:	802.11g
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

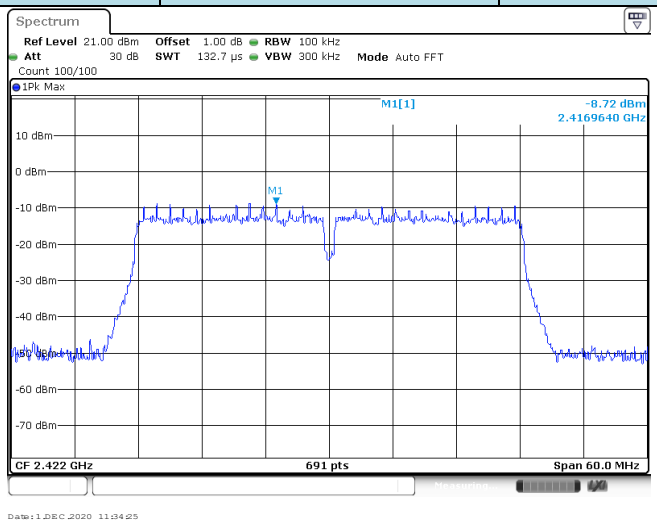
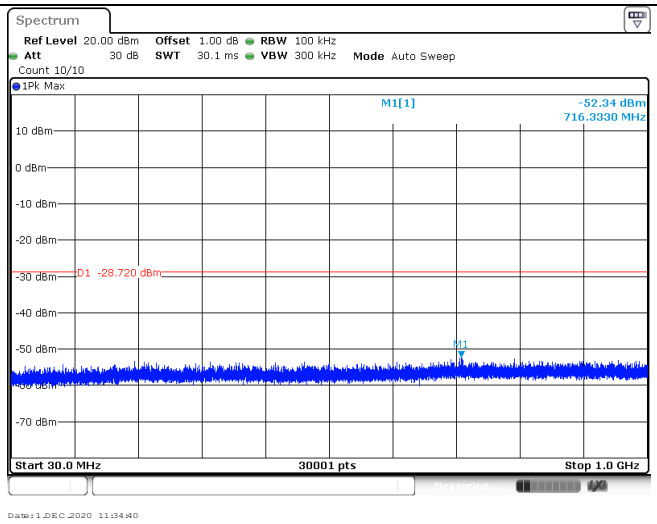
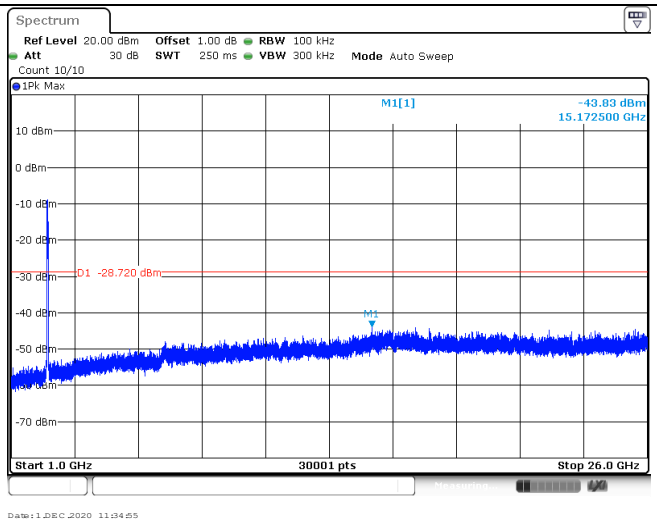
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

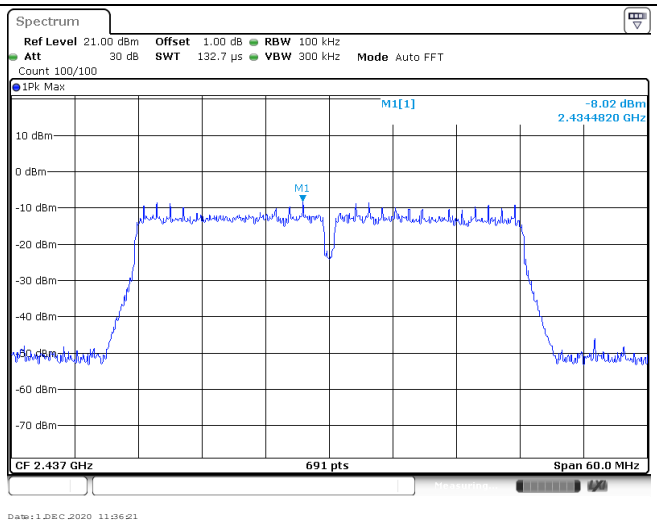
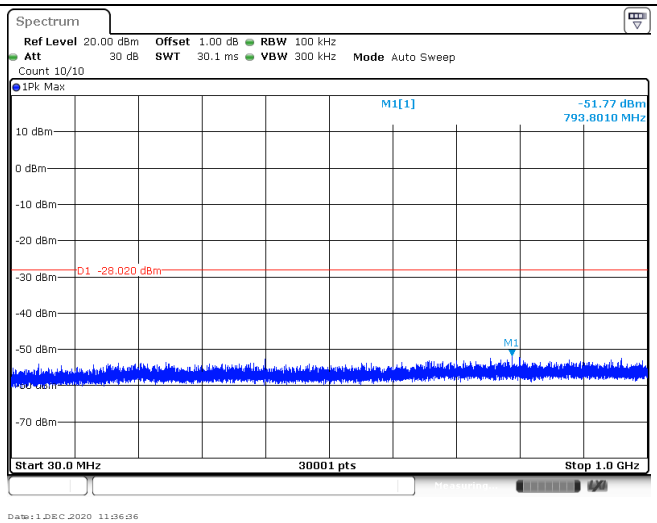
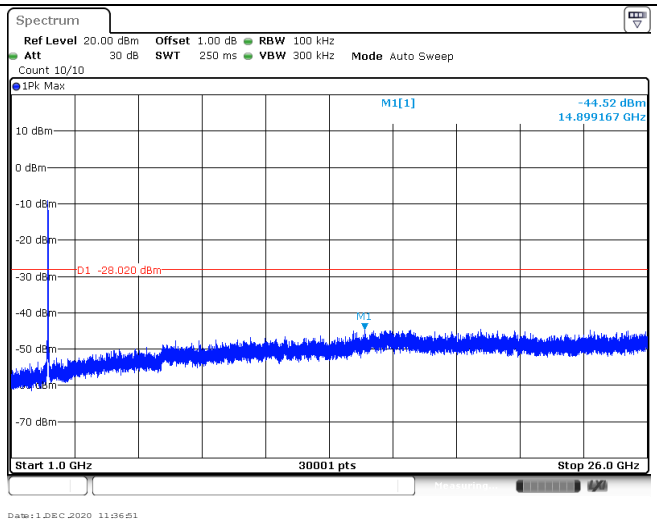
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

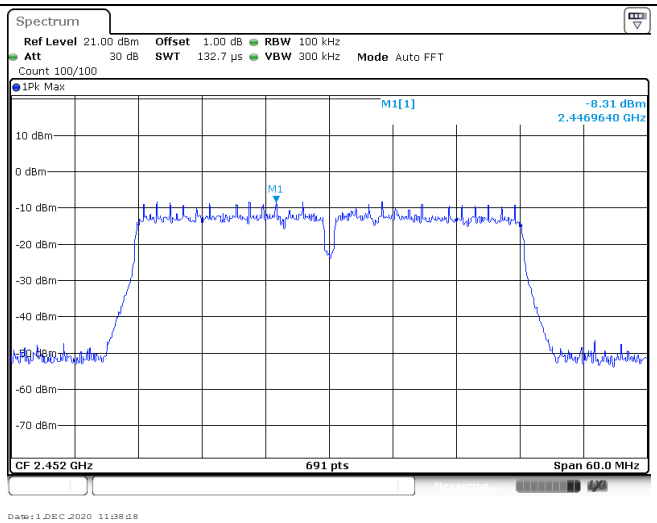
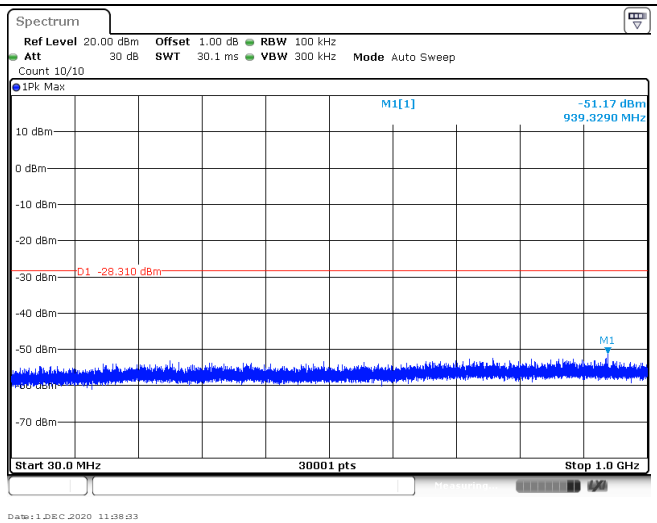
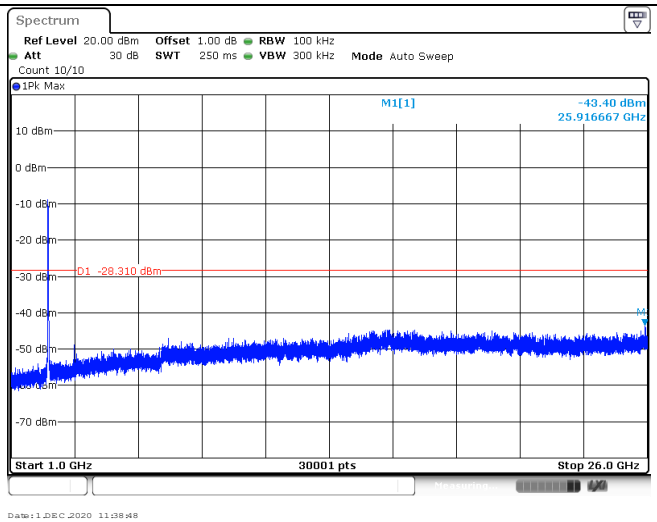
Test Item:	SE	Type:	802.11n(HT20)
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

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	

CH09 Reference level	
CH09 30MHz~1000MHz	
CH09 1GHz~26GHz	

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