APPENDIX REPORT

Project No.	SHT2007069101EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT20070691001	Model No.	7WC1
Start test date	2020/8/6	Finish date	2020/8/6
Temperature	25°C	Humidity	50%
Test Engineer	Jiongsheng.Feng	Auditor	Xiaodong Zhao

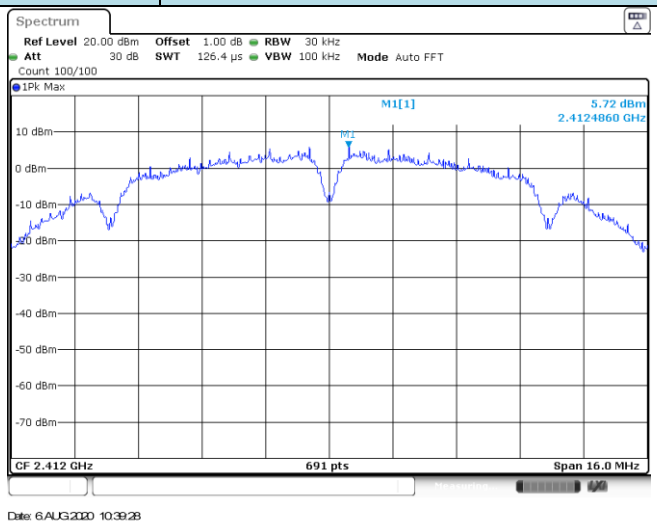
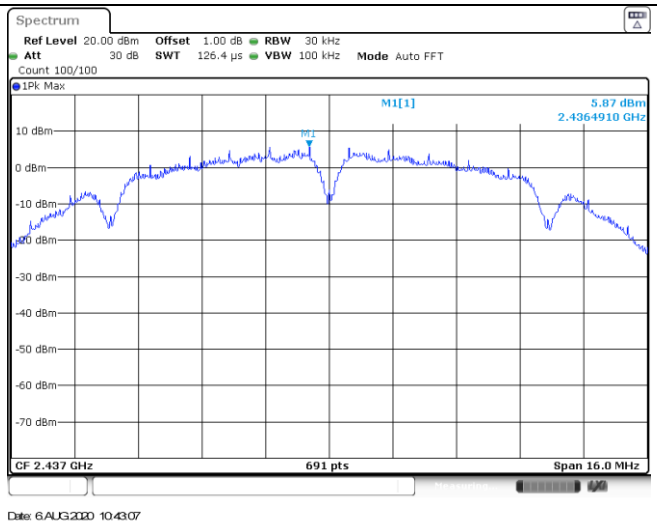
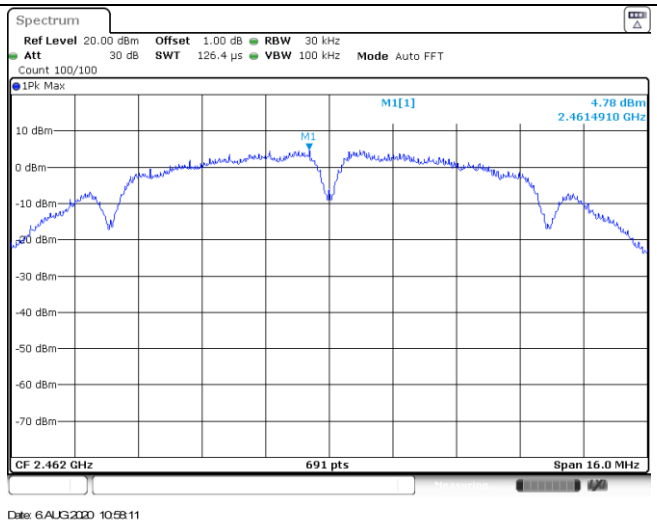
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
E	Band edge and Spurious Emissions (conducted)	PASS

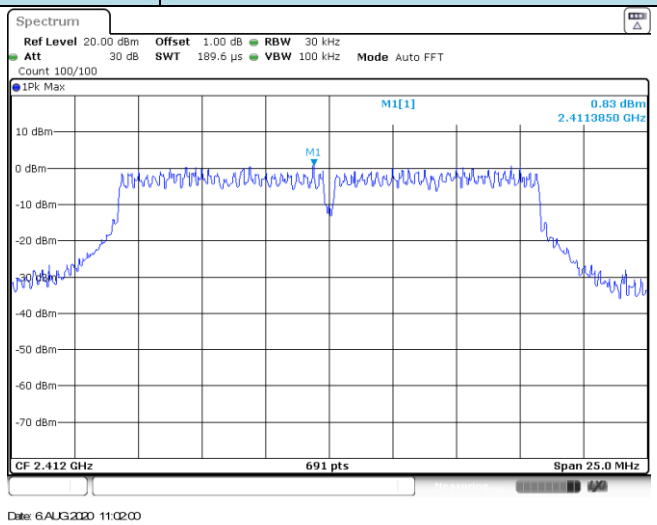
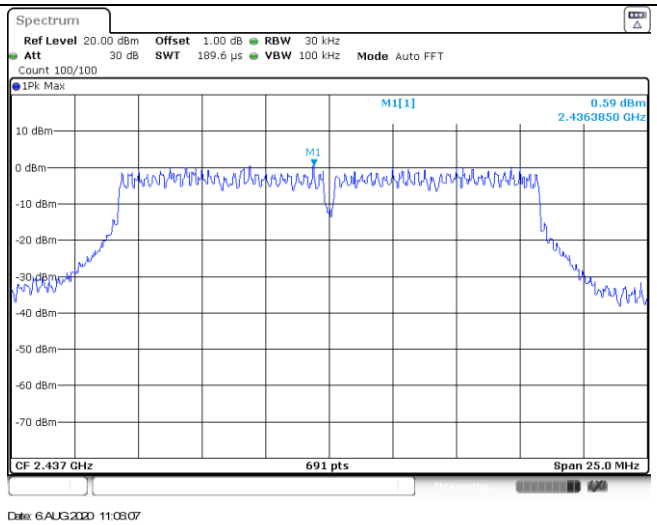
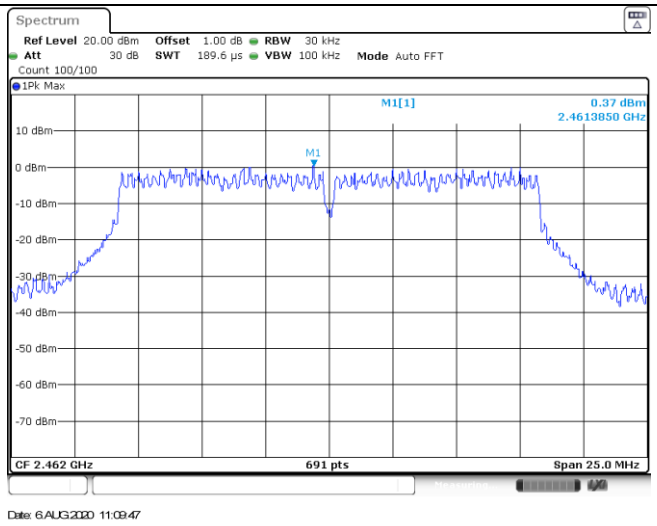
Appendix A: Conducted Peak Output Power

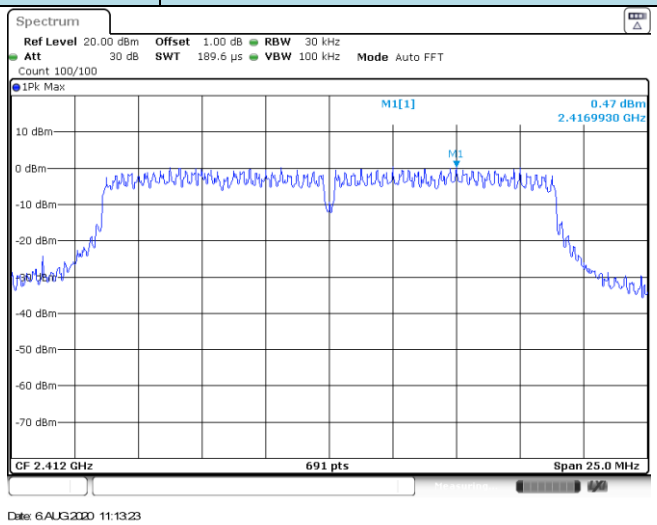
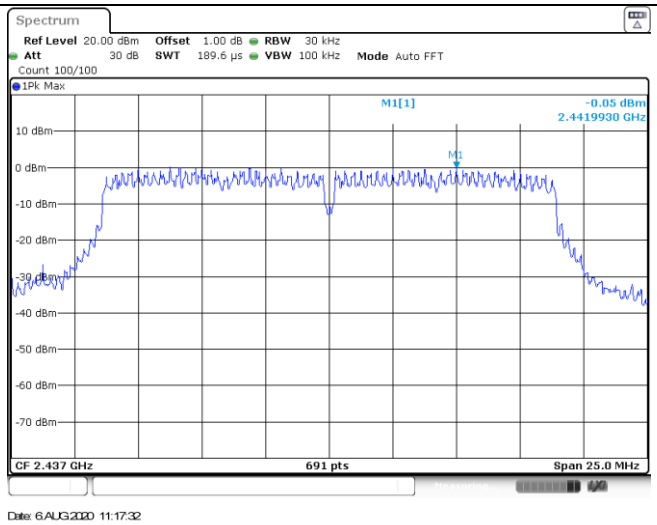
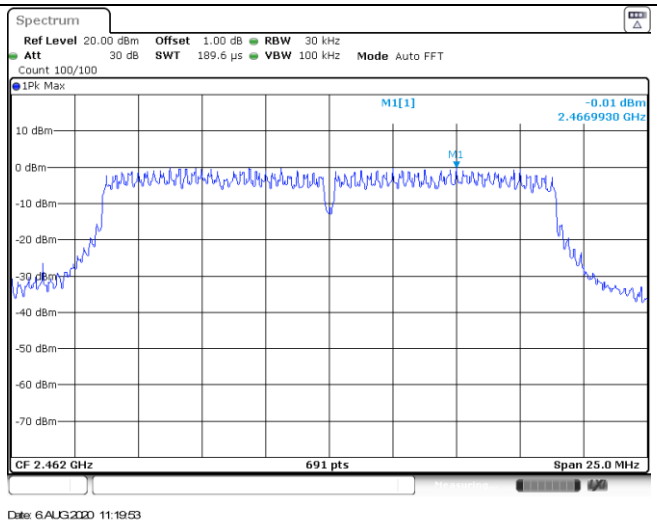
Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	20.90	18.81	≤ 30.00	Pass
	06	20.89	18.77		
	11	21.01	18.86		
802.11g	01	25.06	20.64	≤ 30.00	Pass
	06	24.74	20.36		
	11	24.74	20.37		
802.11n (HT20)	01	24.85	20.39	≤ 30.00	Pass
	06	24.54	20.16		
	11	24.58	20.21		
802.11n(HT40)	03	24.77	20.38	≤ 30.00	Pass
	06	24.74	20.36		
	09	24.69	20.32		

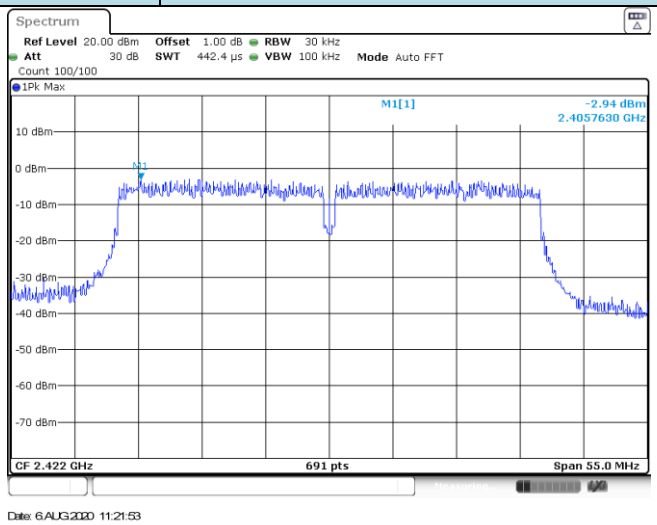
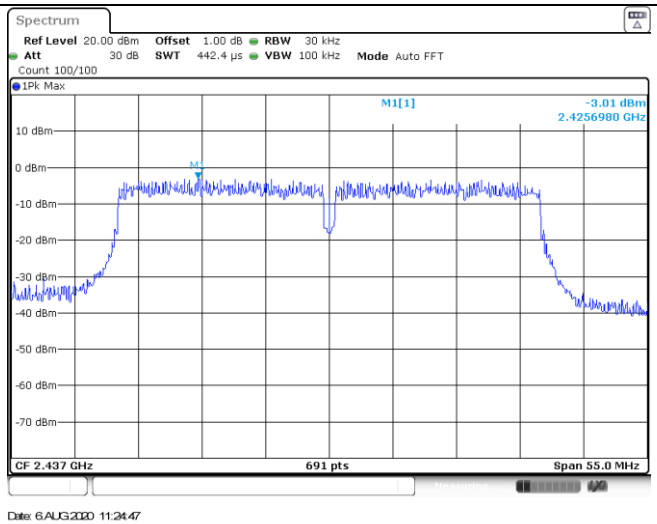
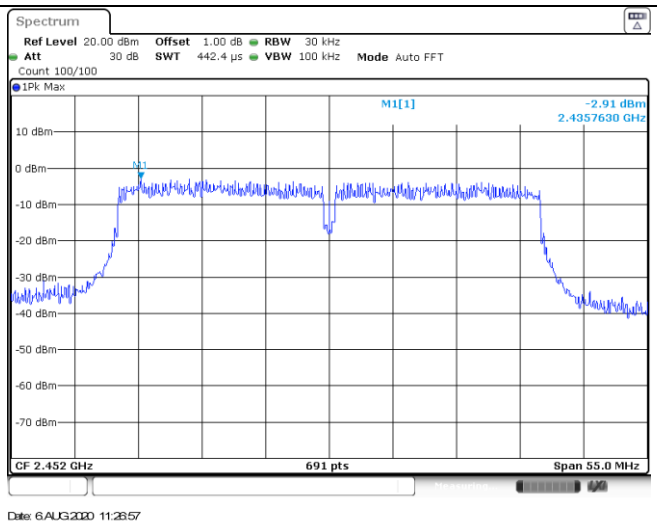
Appendix B：Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	5.72	≤8.00	Pass
	06	5.87		
	11	4.78		
802.11g	01	0.83	≤8.00	Pass
	06	0.59		
	11	0.37		
802.11n(HT20)	01	0.47	≤8.00	Pass
	06	-0.05		
	11	-0.01		
802.11n(HT40)	03	-2.94	≤8.00	Pass
	06	-3.01		
	09	-2.91		

Type:	802.11 b
CH01	
CH06	
CH11	

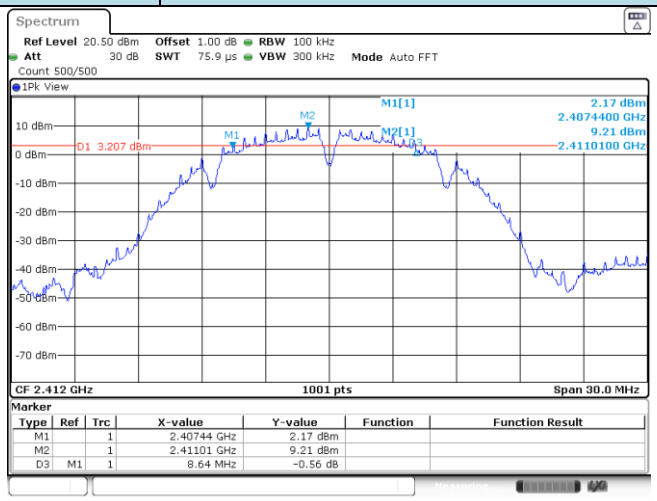
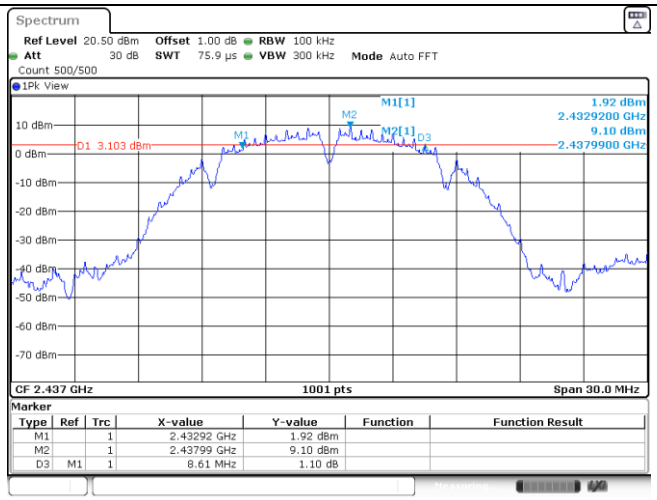
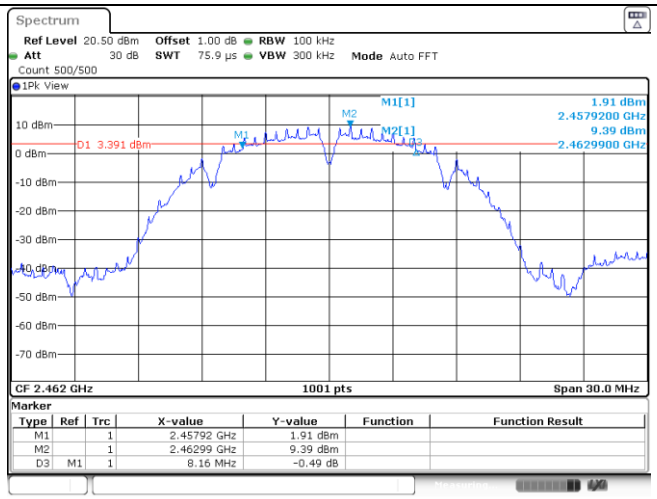
Type:	802.11 g
CH01	
CH06	
CH11	

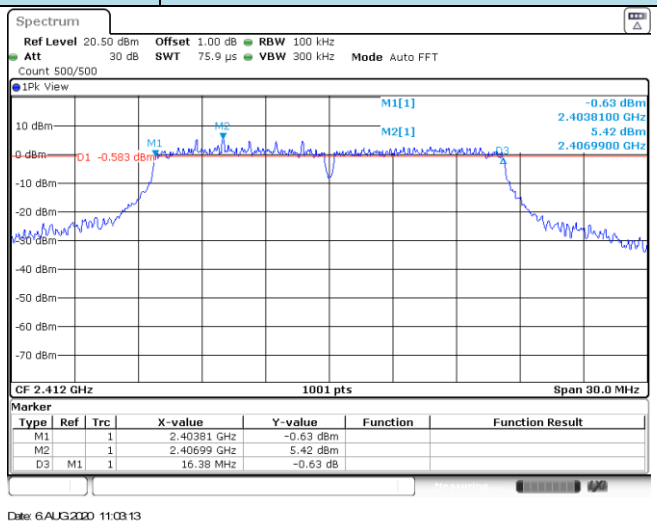
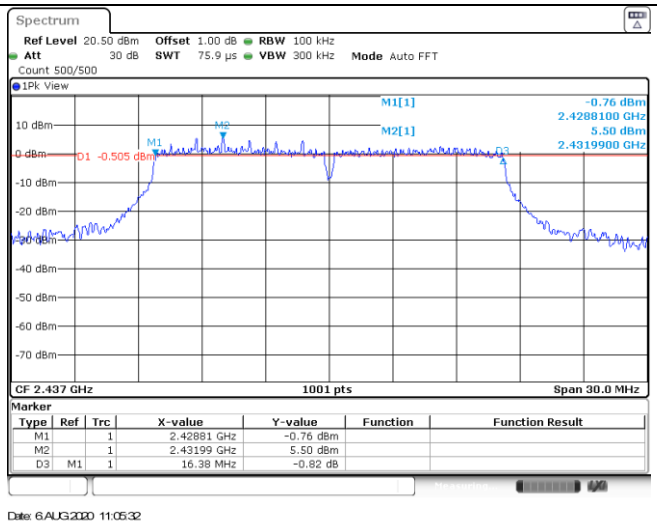
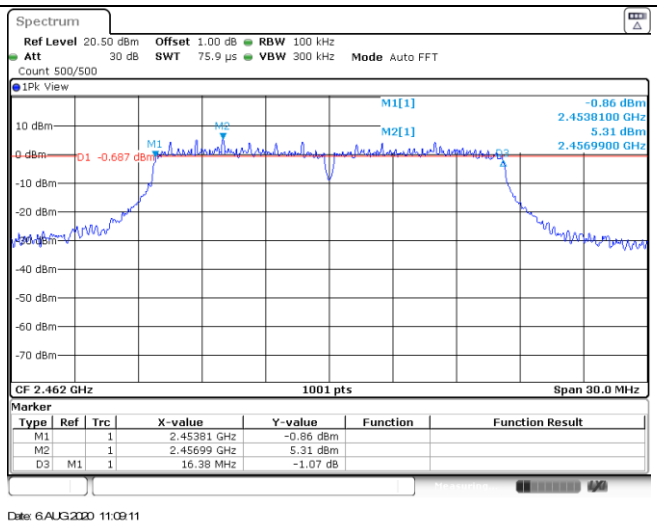
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

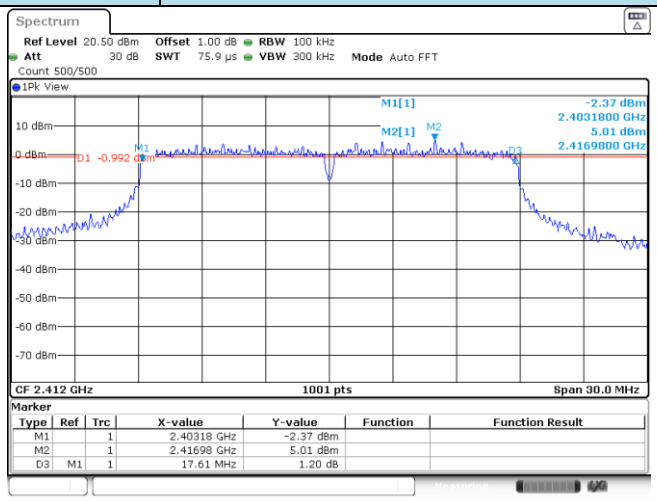
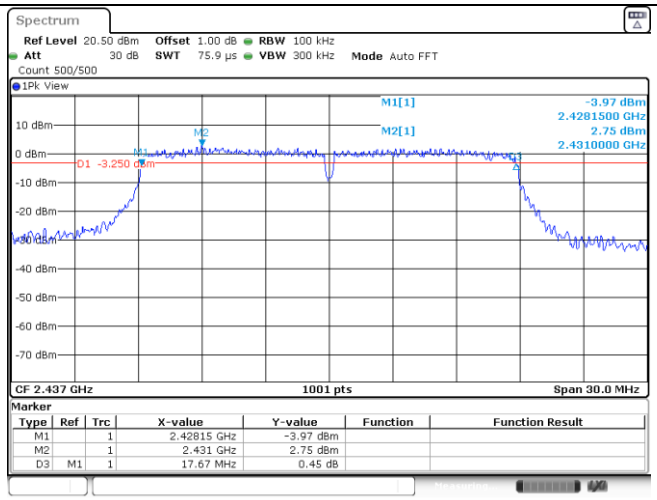
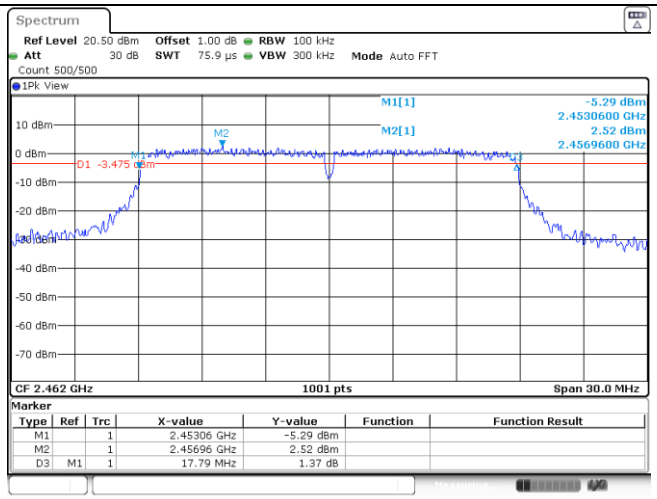
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

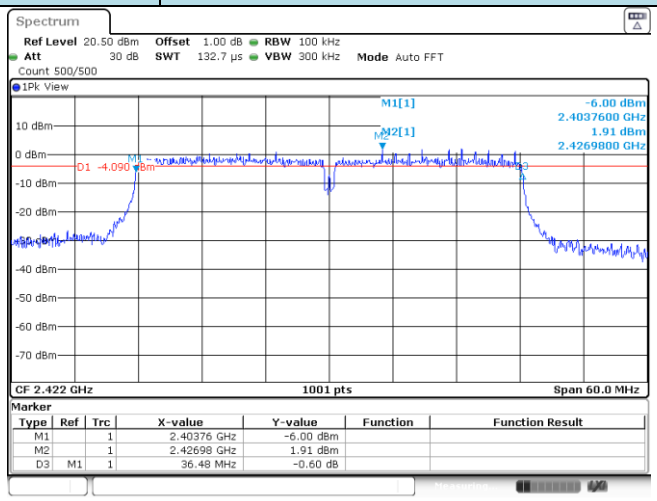
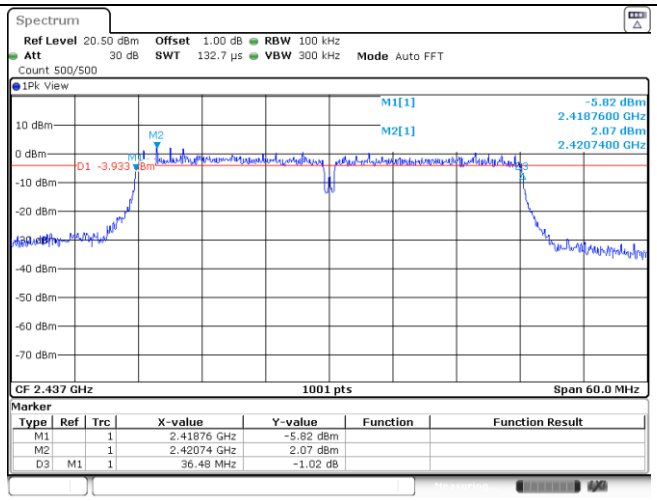
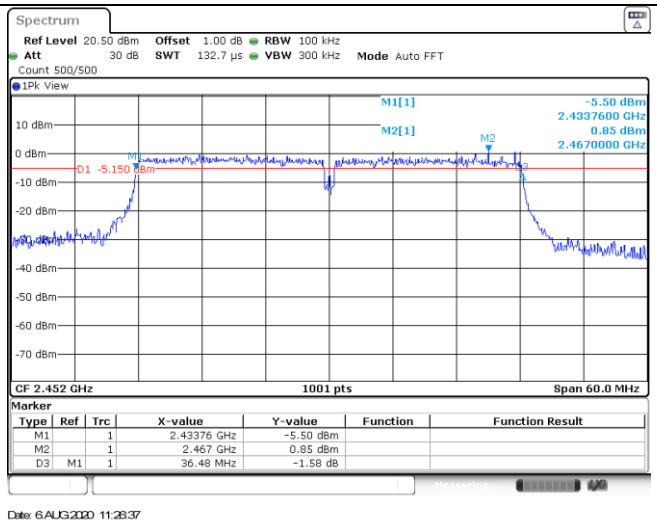
Appendix C：6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	8.64	≥0.5	Pass
	06	8.61		
	11	8.16		
802.11g	01	16.38	≥0.5	Pass
	06	16.38		
	11	16.38		
802.11n(HT20)	01	17.61	≥0.5	Pass
	06	17.67		
	11	17.79		
802.11n(HT40)	03	36.48	≥0.5	Pass
	06	36.48		
	09	36.48		

Type:	802.11 b
CH01	
CH06	
CH11	

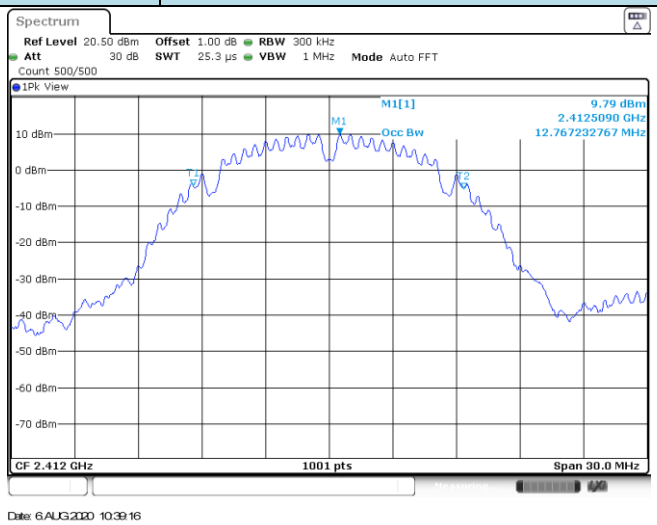
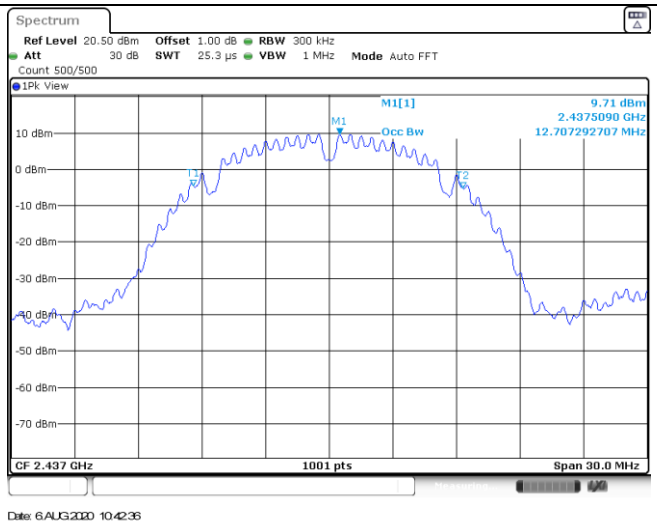
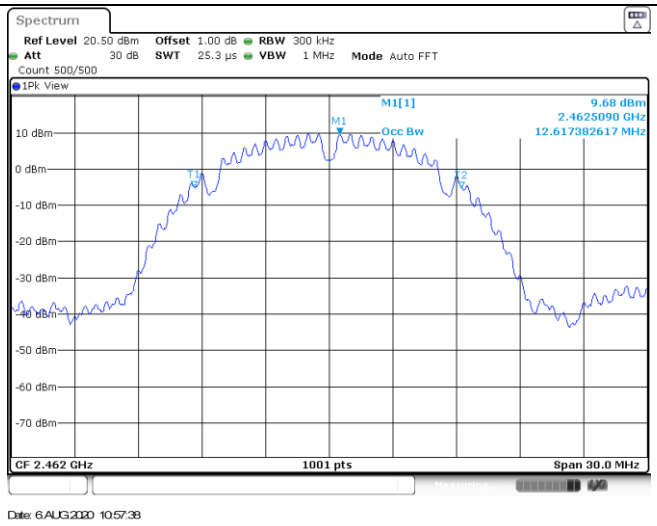
Type:	802.11 g
CH01	
CH06	
CH11	

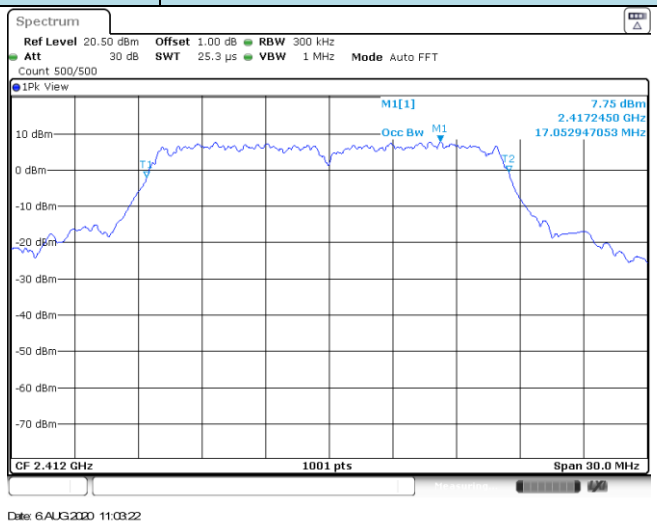
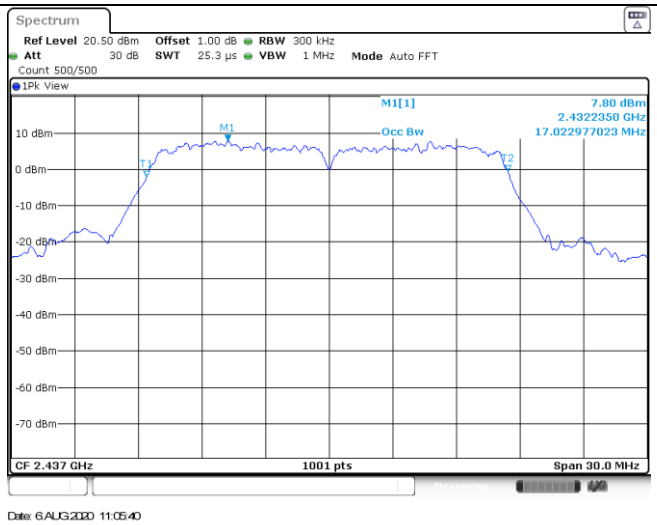
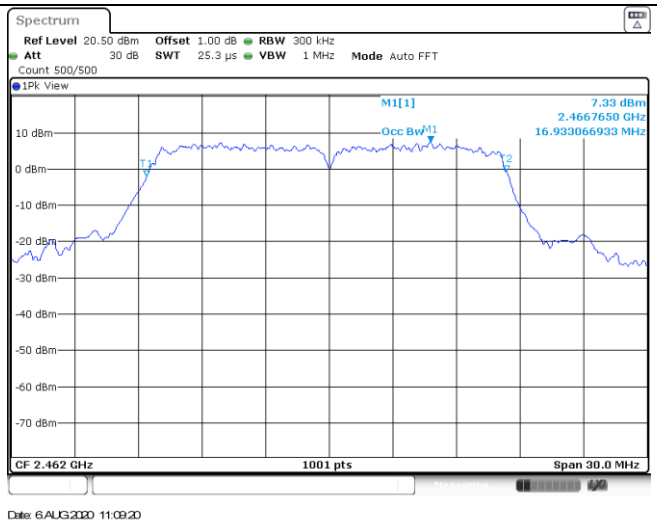
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

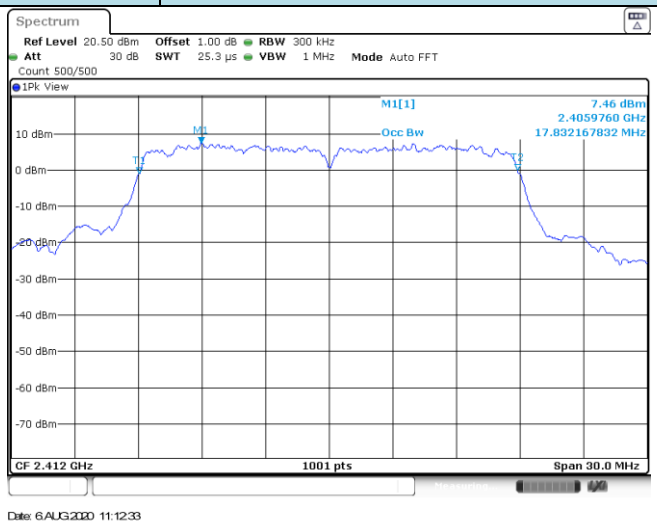
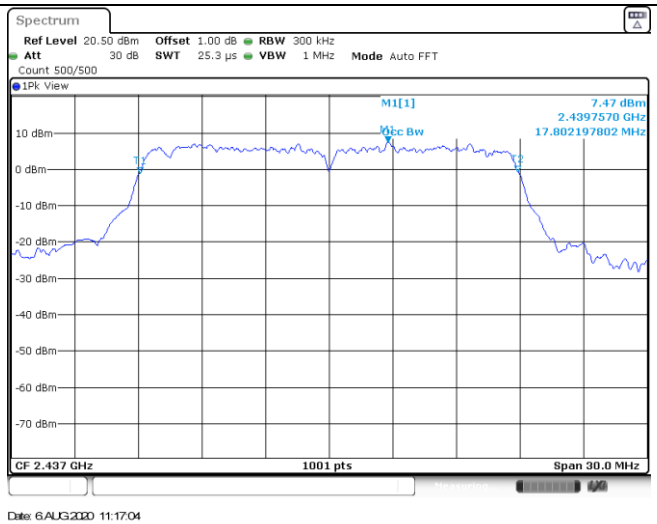
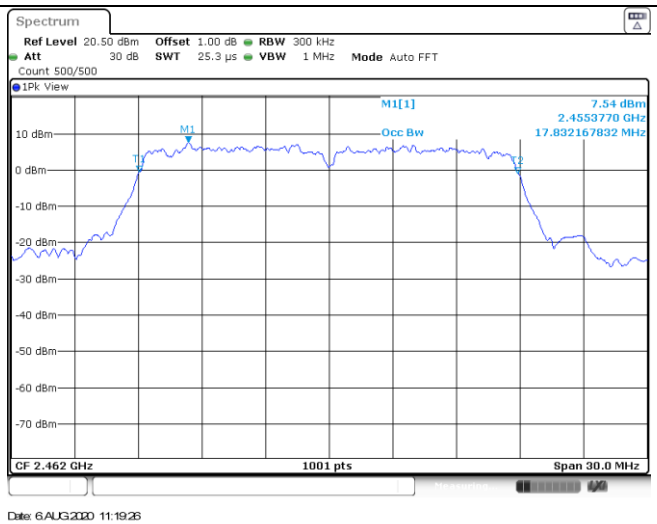
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

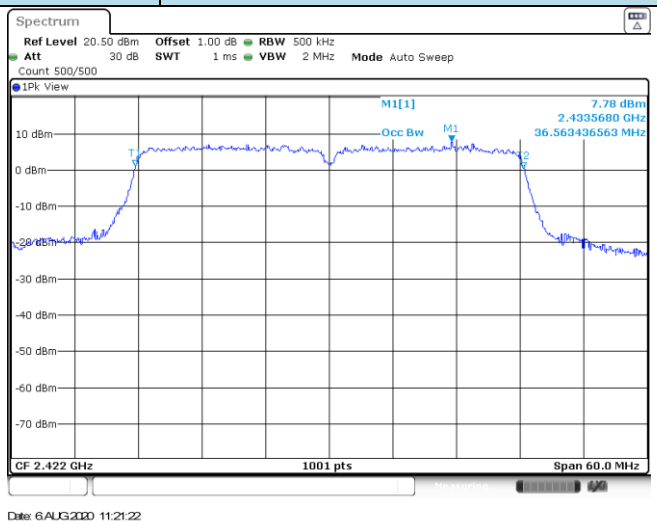
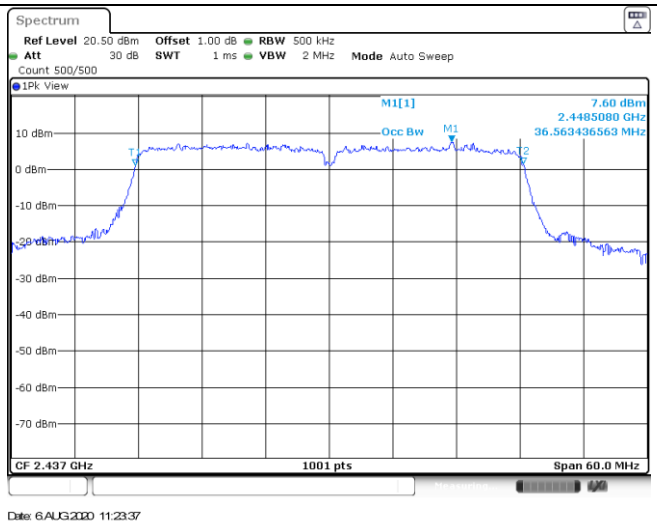
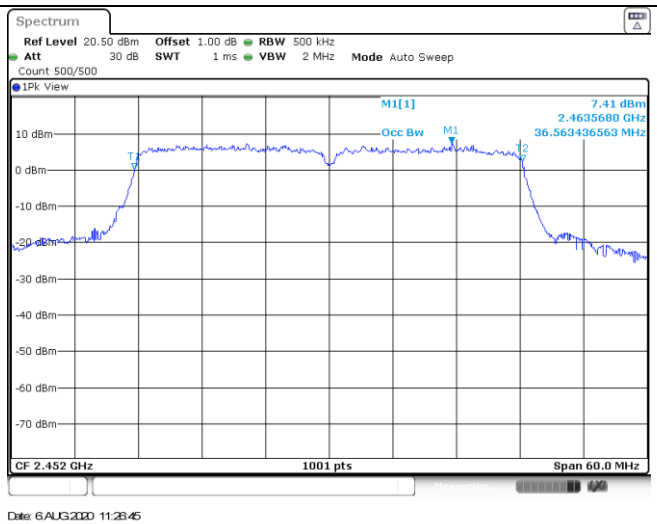
Appendix D：99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	12.77	-	Pass
	06	12.71		
	11	12.62		
802.11g	01	17.05	-	Pass
	06	17.02		
	11	16.93		
802.11n(HT20)	01	17.83	-	Pass
	06	17.80		
	11	17.83		
802.11n(HT40)	03	36.56	-	Pass
	06	36.56		
	09	36.56		

Type:	802.11 b
CH01	
CH06	
CH11	

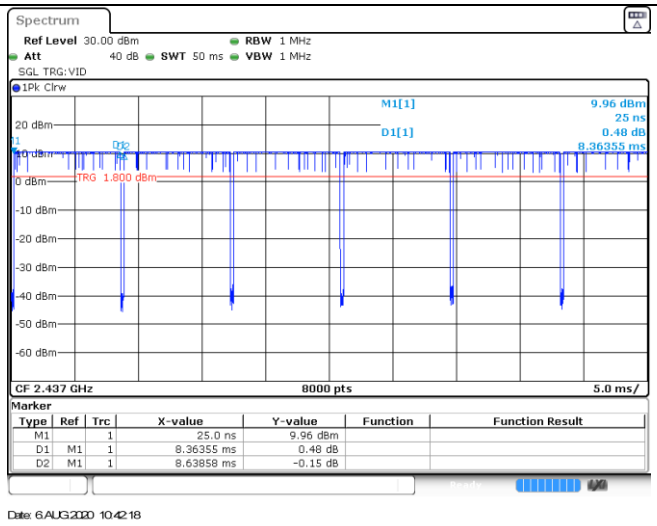
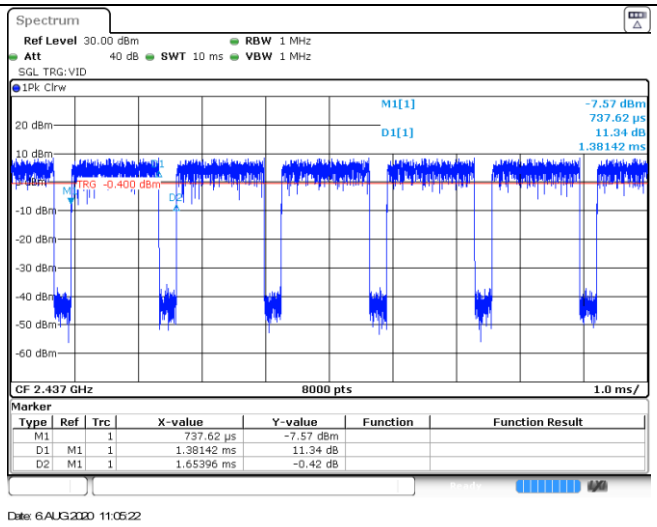
Type:	802.11 g
CH01	
CH06	
CH11	

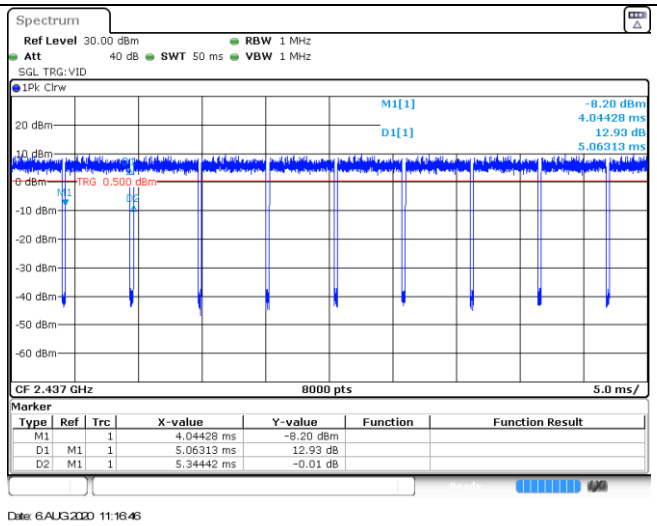
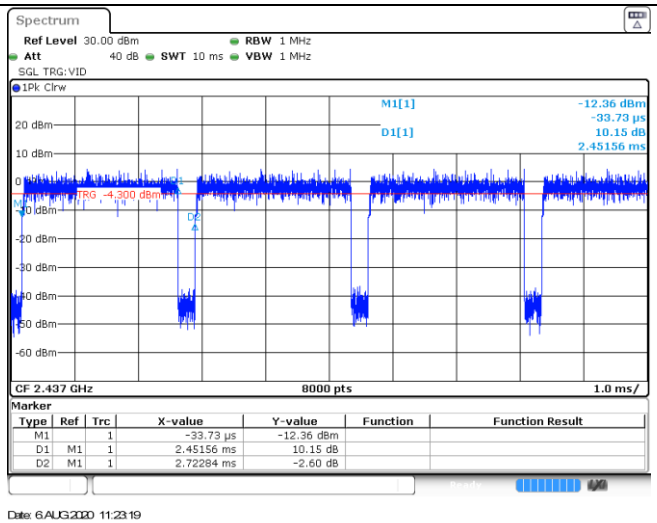
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

Type:	802.11n(HT40)
CH03	
CH06	
CH09	

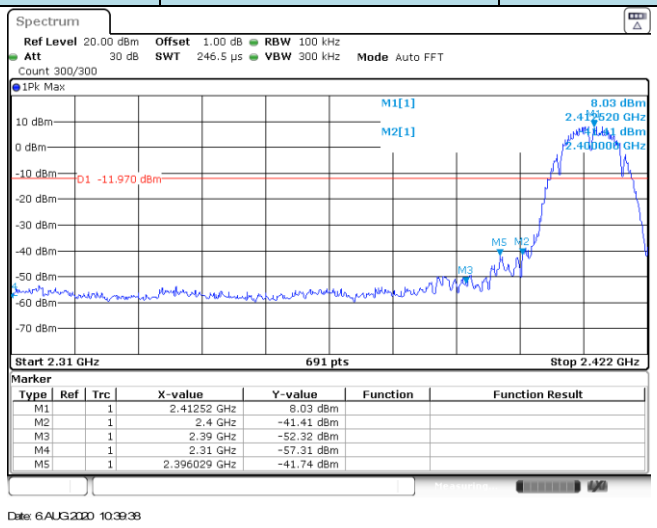
Appendix E：Duty Cycle

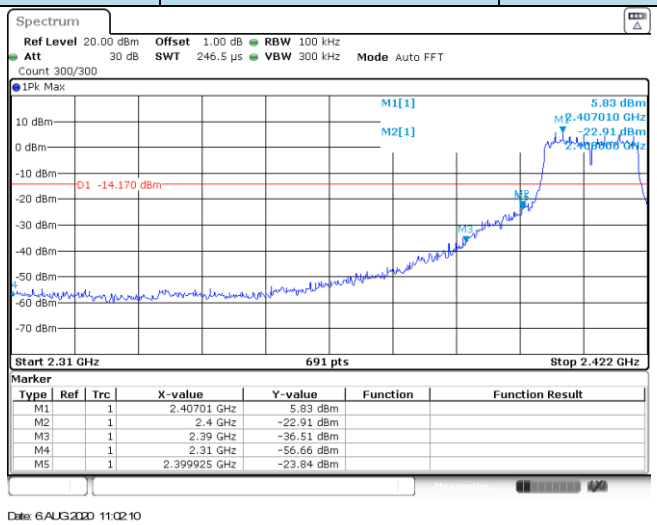
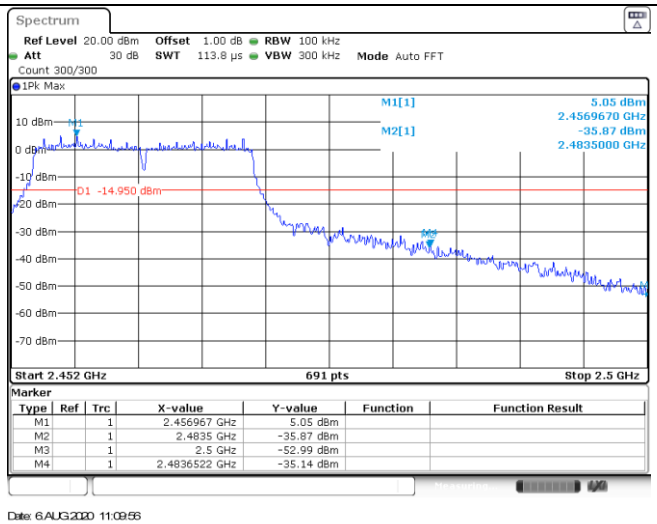
Modulation Type	Test Frequency（MHz）	$T_{on\ time}$ for single burst (ms)	T_{period} (ms)	Duty cycle	$1/T_{on\ time}$ (kHz)
11b	2437	8.36	8.64	96.8%	0.1
11g	2437	1.38	1.65	83.6%	0.7
11n20	2437	5.06	5.34	94.8%	0.2
11n40	2437	2.45	2.72	90.1%	0.4

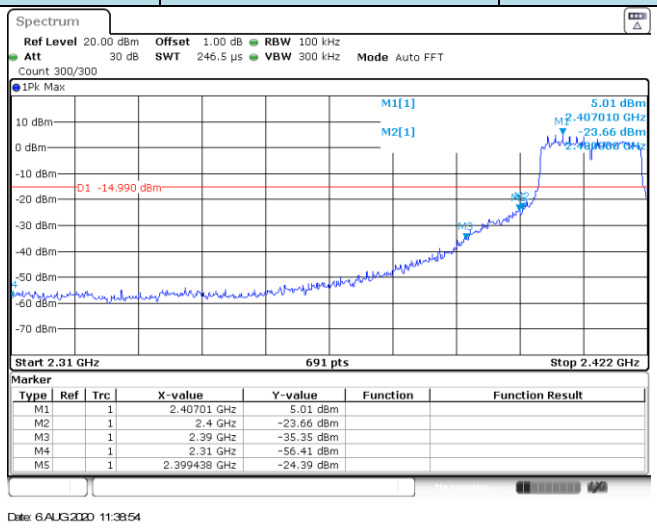
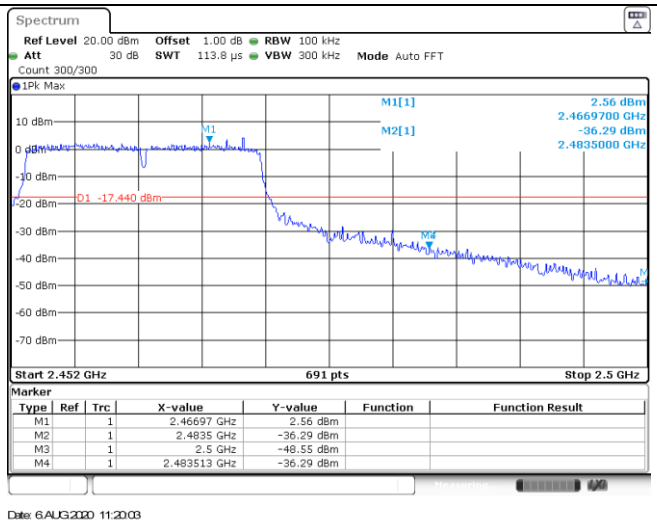
11b	
11g	

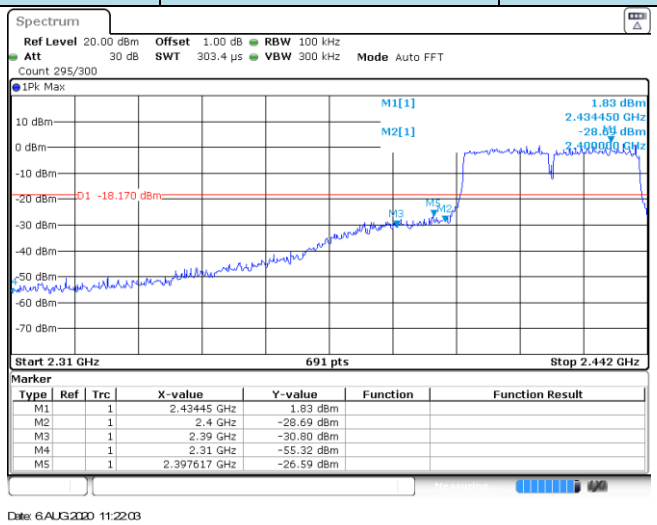
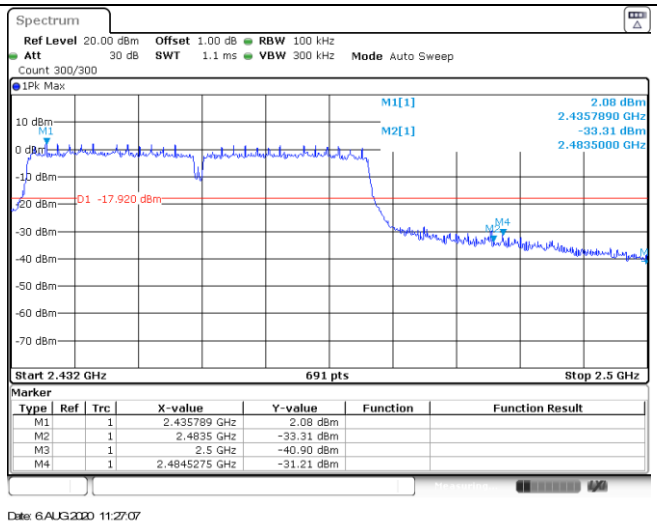
11n20	 Spectrum Ref Level 30.00 dBm RBW 1 MHz Att 40 dB SWT 50 ms VBW 1 MHz SGL TRG:VID 1Pk Clrw M1[1] -8.20 dBm 4.04428 ms D1[1] 12.93 dB 5.06313 ms TRG 0.500 dBm CF 2.437 GHz 8000 pts 5.0 ms/ Marker Type Ref Trc X-value Y-value Function Function Result M1 1 4.04428 ms -8.20 dBm D1 M1 1 5.06313 ms 12.93 dB D2 M1 1 5.34442 ms -0.01 dB Date: 6.AUG.2020 11:16:46
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] -12.36 dBm -33.73 µs D1[1] 10.15 dB 2.45156 ms TRG -4.300 dBm CF 2.437 GHz 8000 pts 1.0 ms/ Marker Type Ref Trc X-value Y-value Function Function Result M1 1 -33.73 µs -12.36 dBm D1 M1 1 2.45156 ms 10.15 dB D2 M1 1 2.72284 ms -2.60 dB Date: 6.AUG.2020 11:23:19

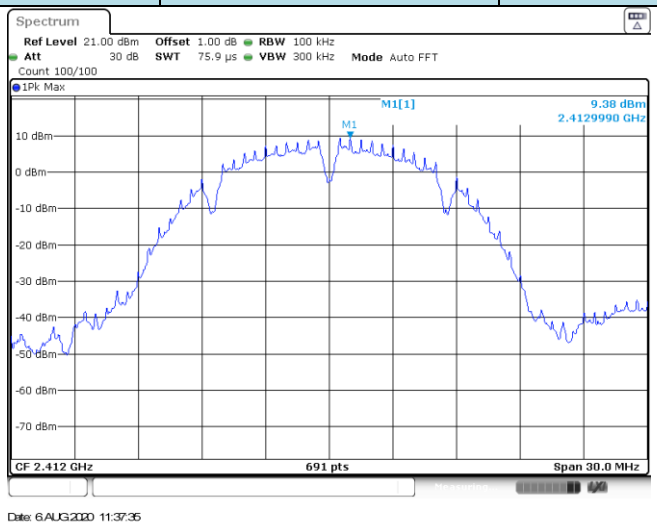
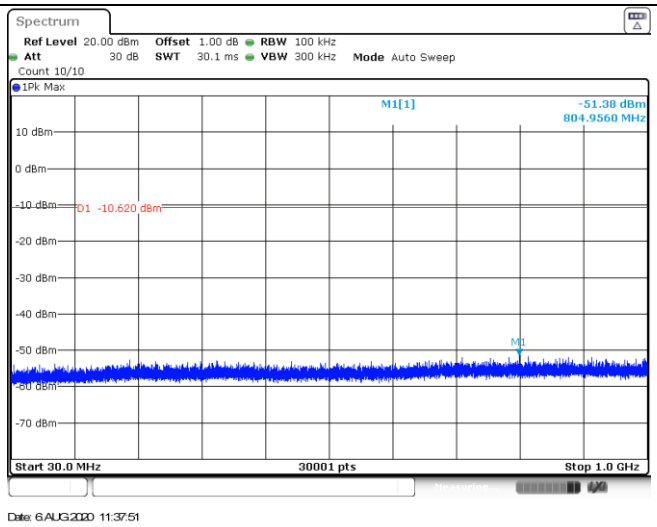
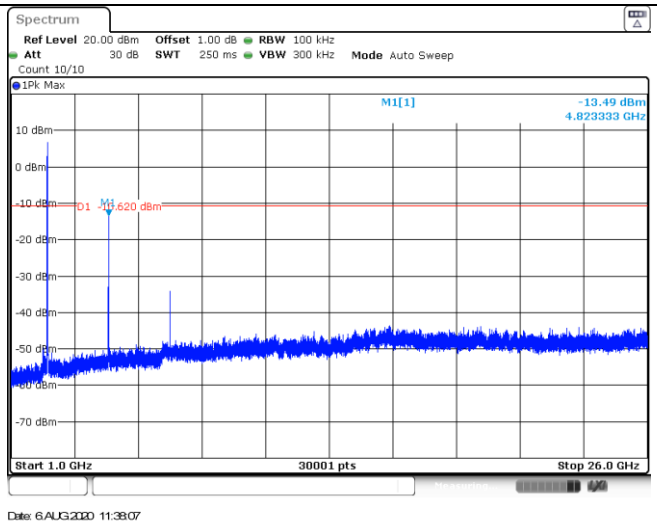
Appendix F：Band edge and Spurious Emissions (conducted)

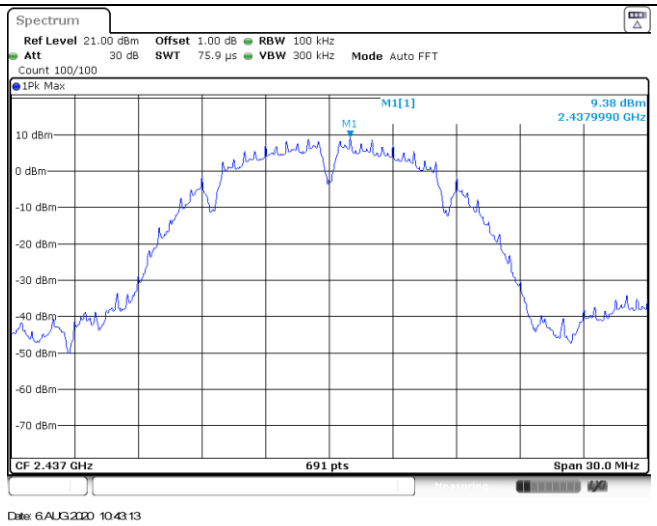
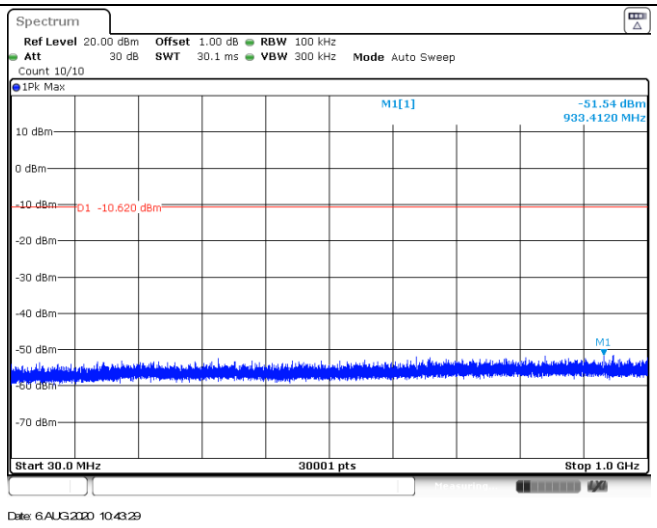
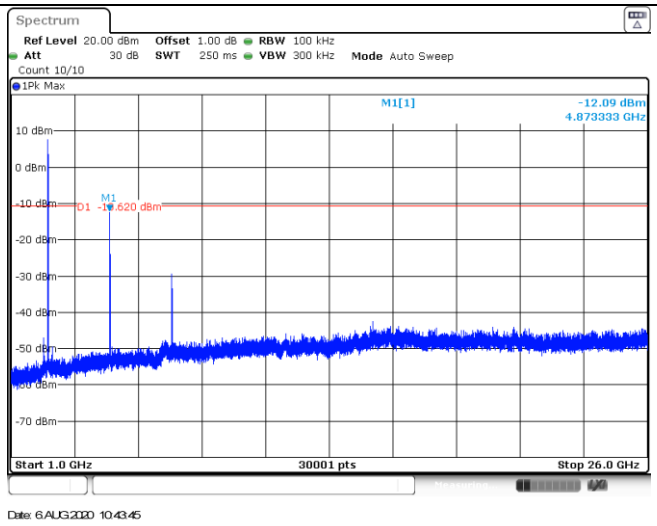
Test Item:	Bandedge	Type:	802.11 b
CH01			
CH11			

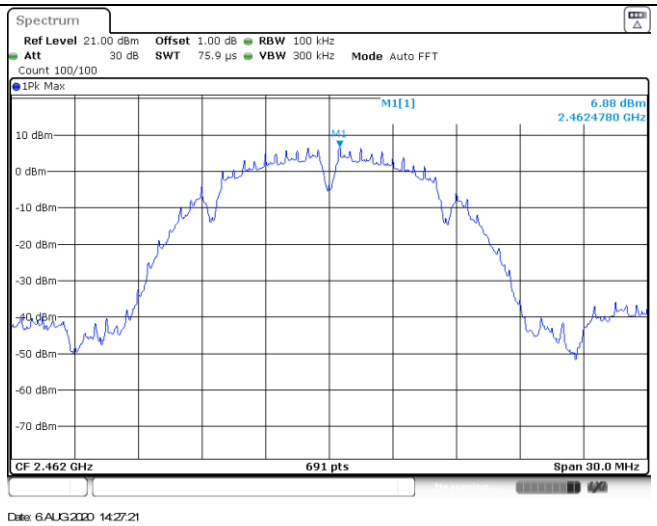
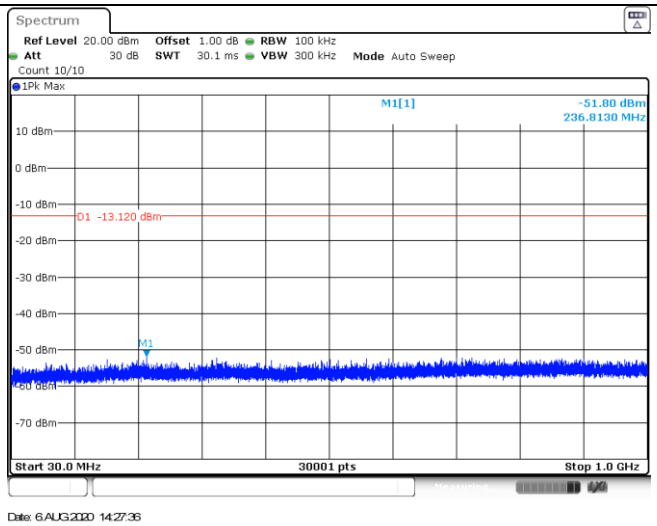
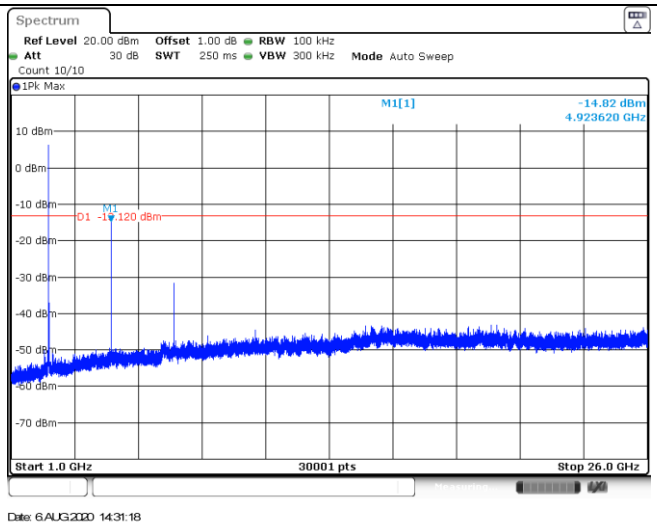
Test Item:	Bandedge	Type:	802.11 g
CH01			
CH11			

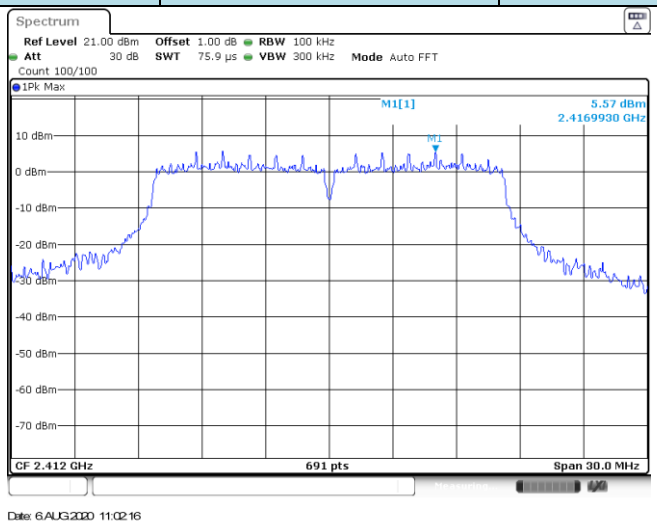
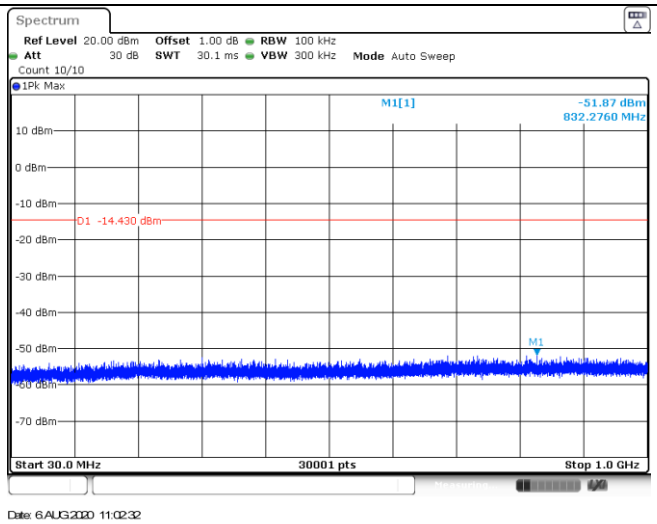
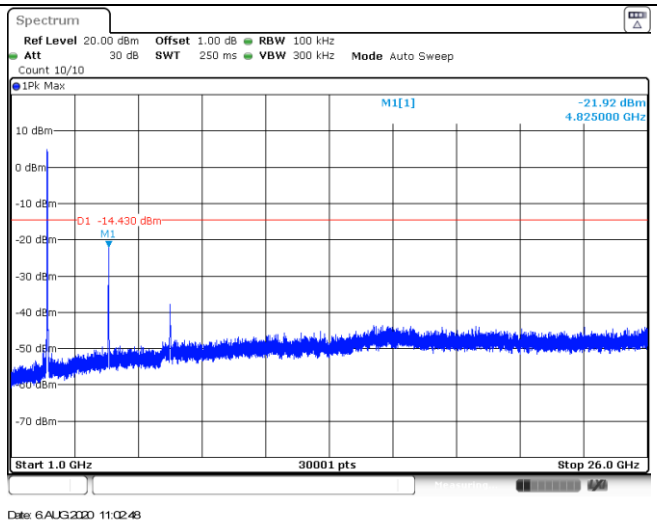
Test Item:	Bandedge	Type:	802.11 n(HT20)
CH01			
CH11			

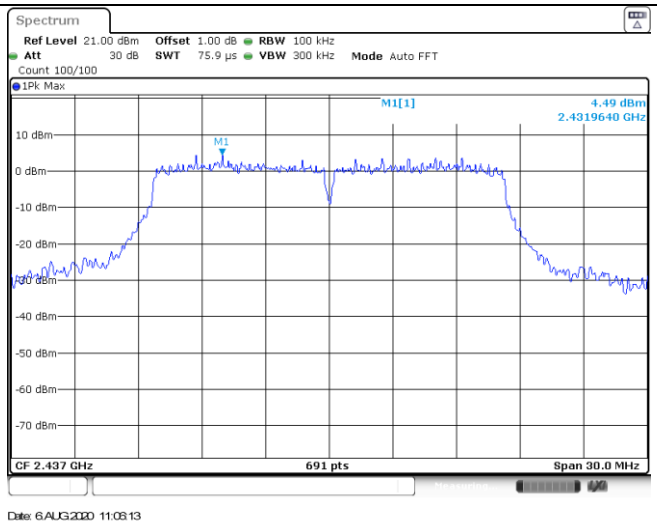
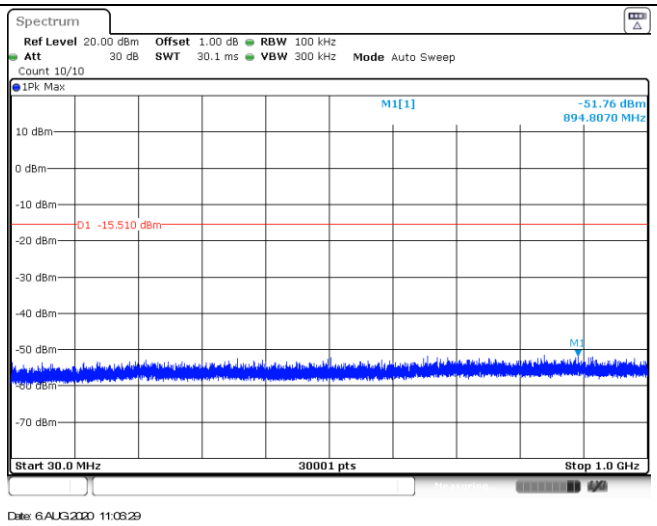
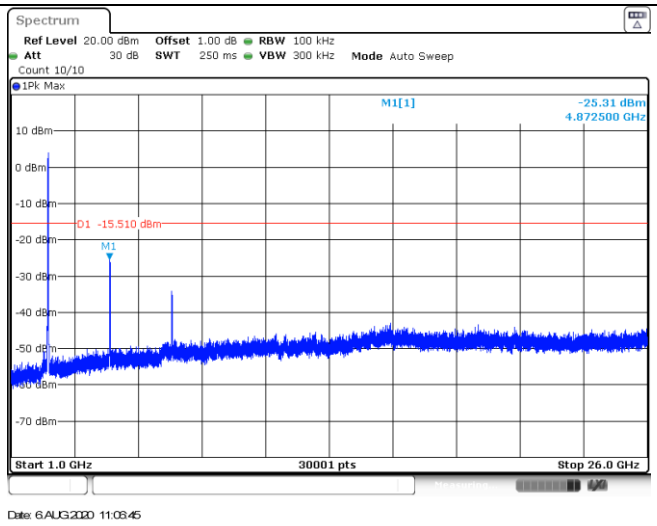
Test Item:	Bandedge	Type:	802.11 n(HT40)
CH03			
CH09			

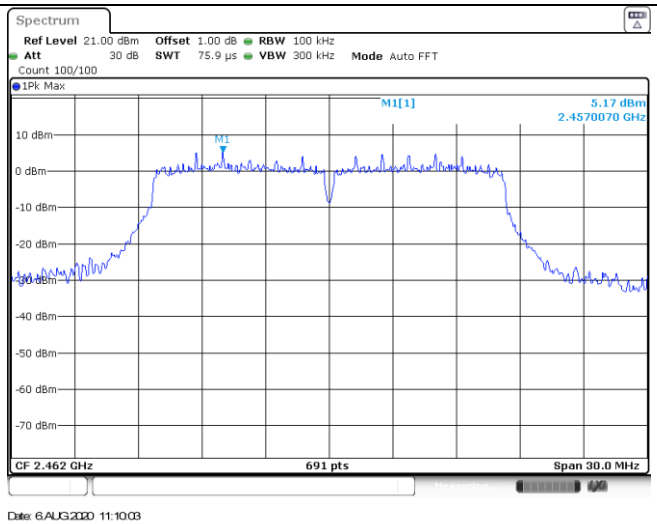
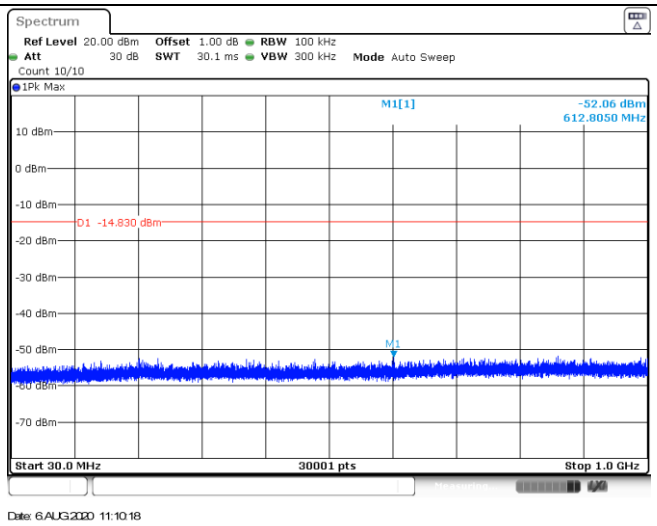
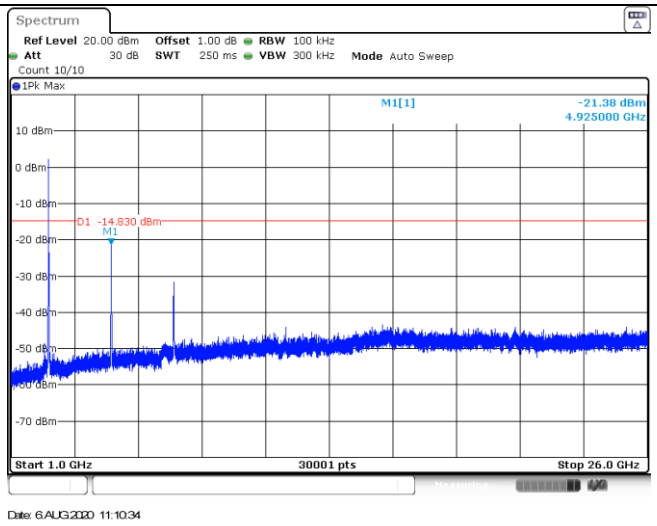
Test Item:	SE	Type:	802.11b
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

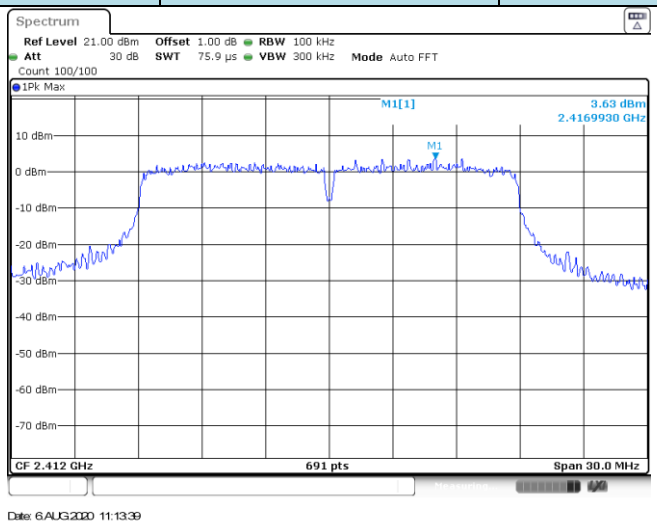
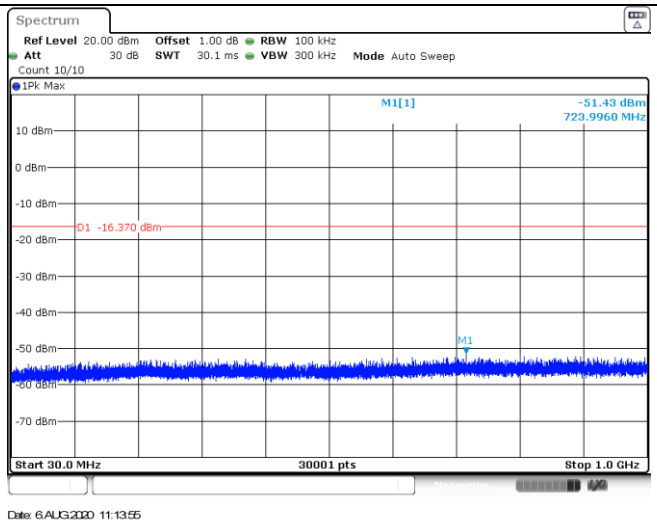
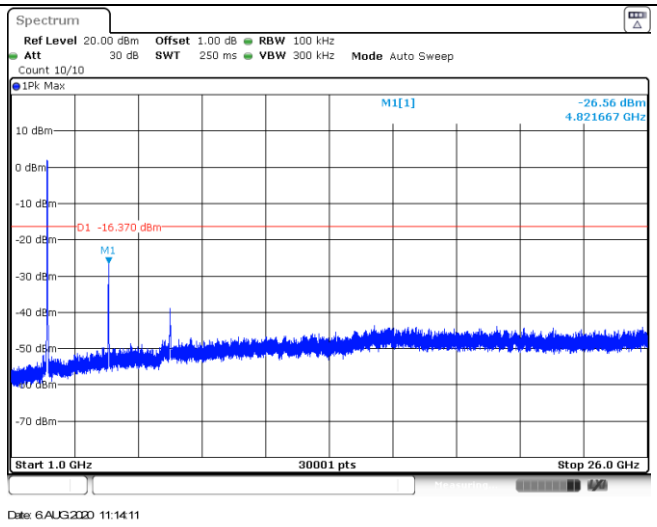
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

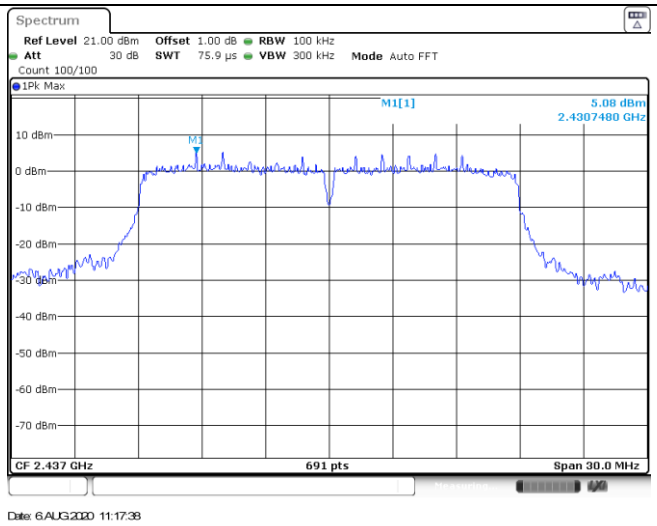
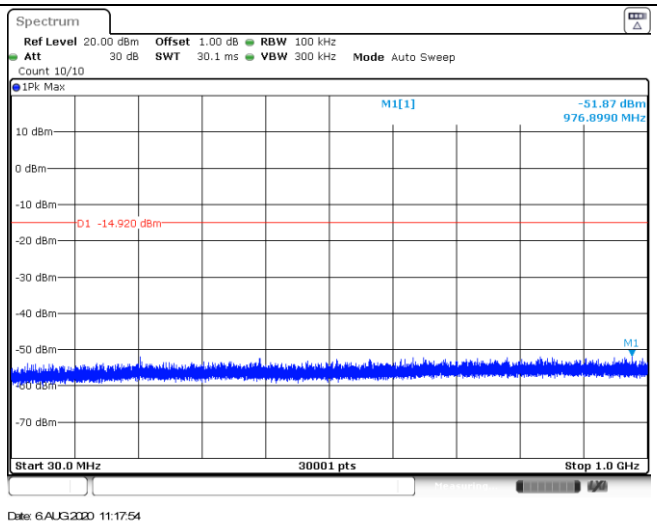
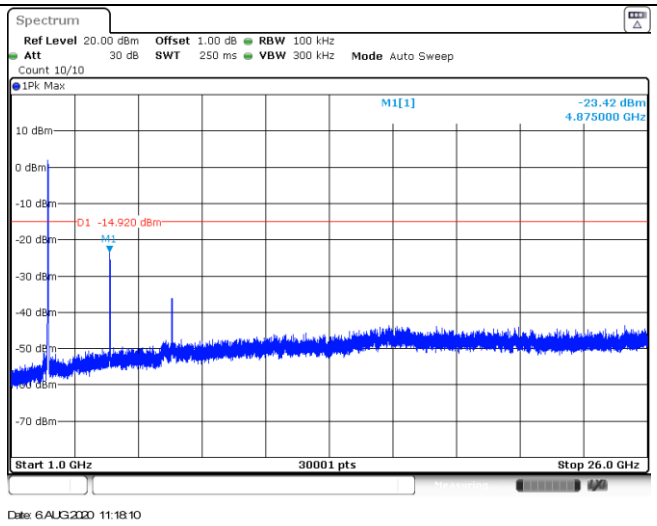
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

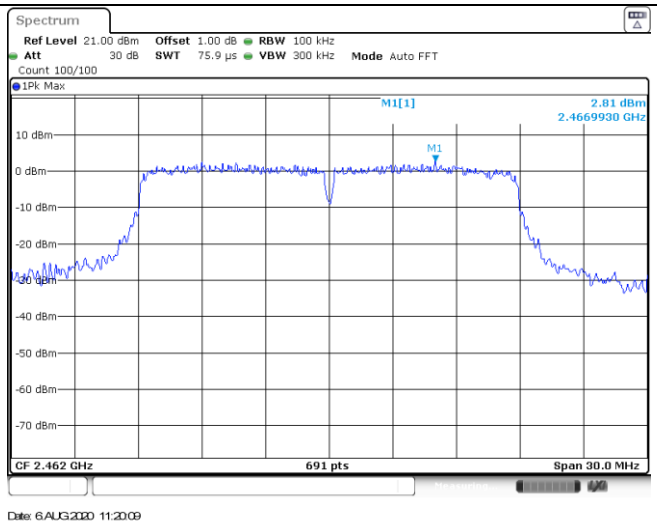
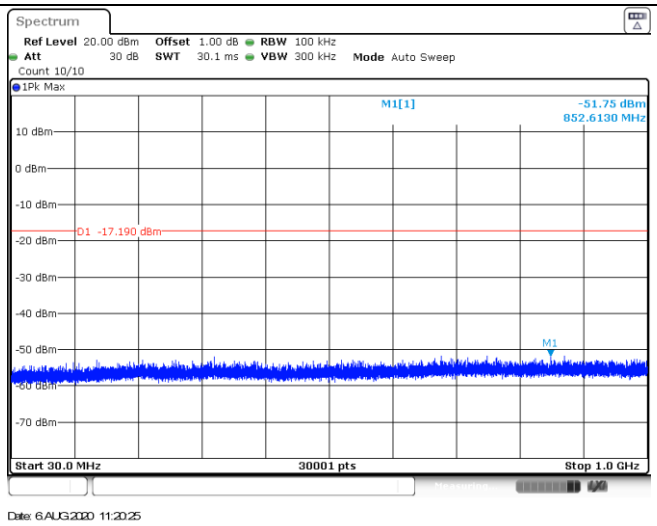
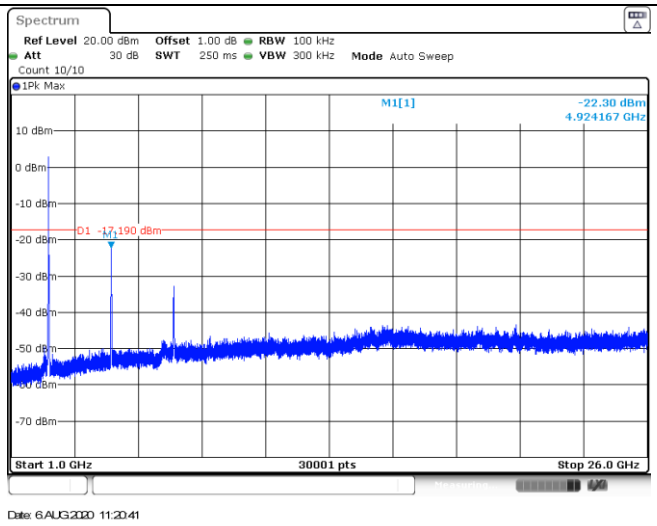
Test Item:	SE	Type:	802.11g
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

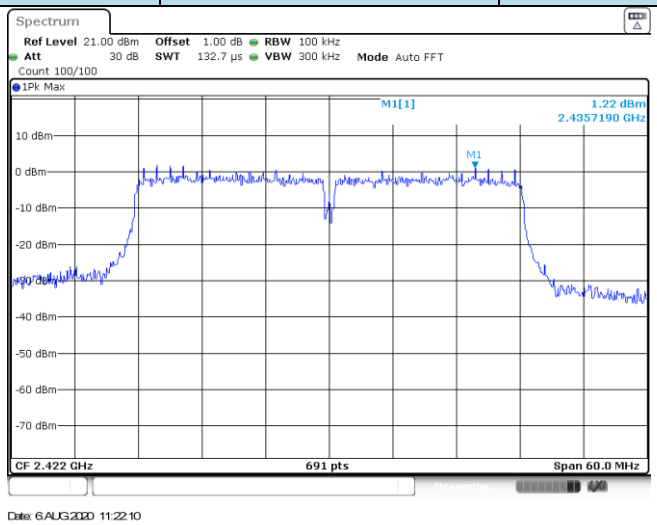
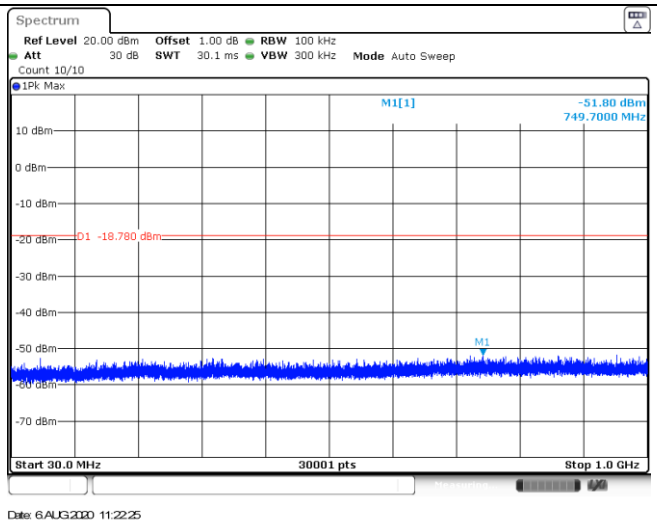
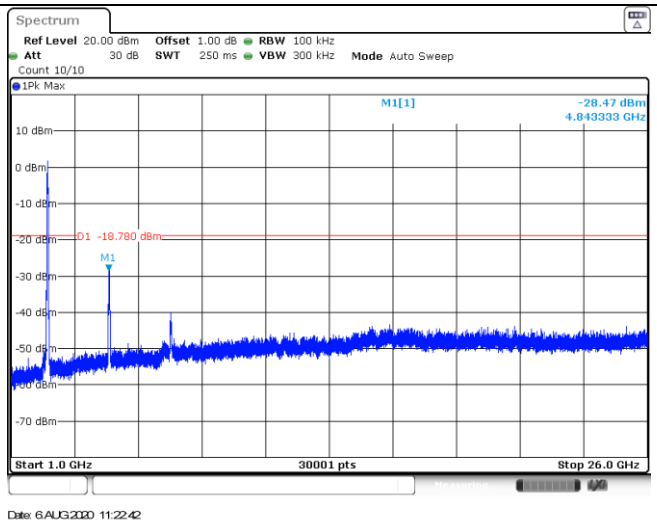
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

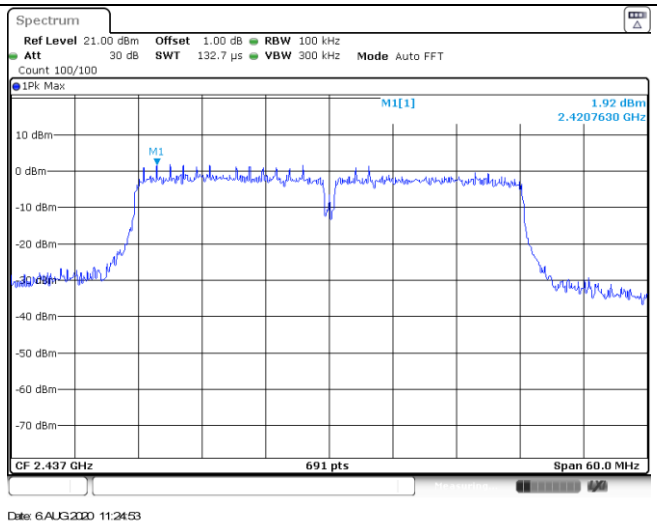
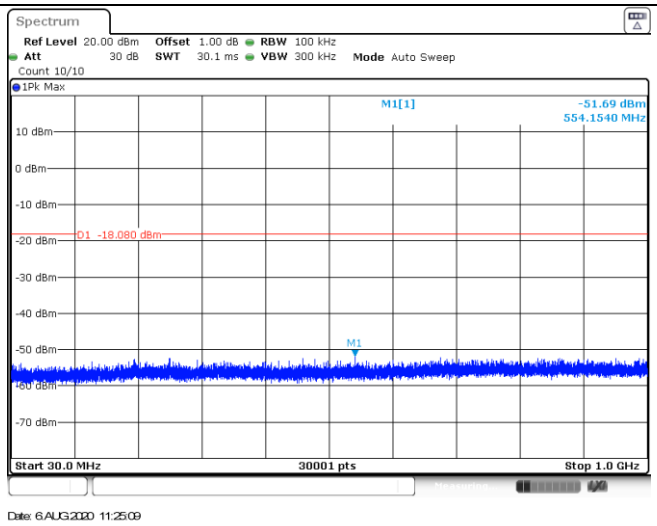
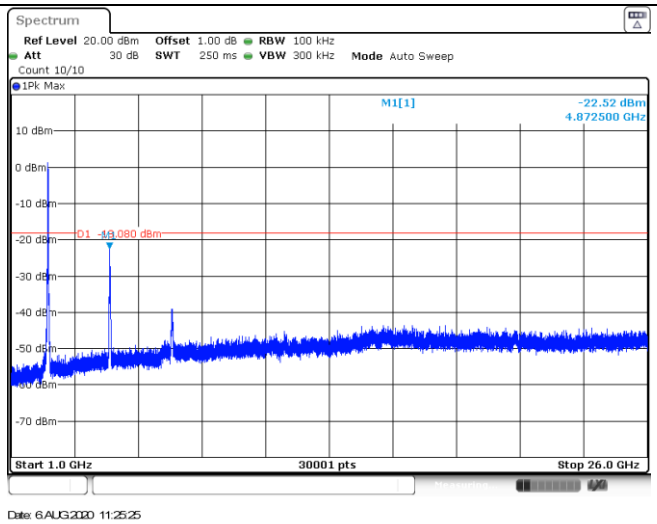
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

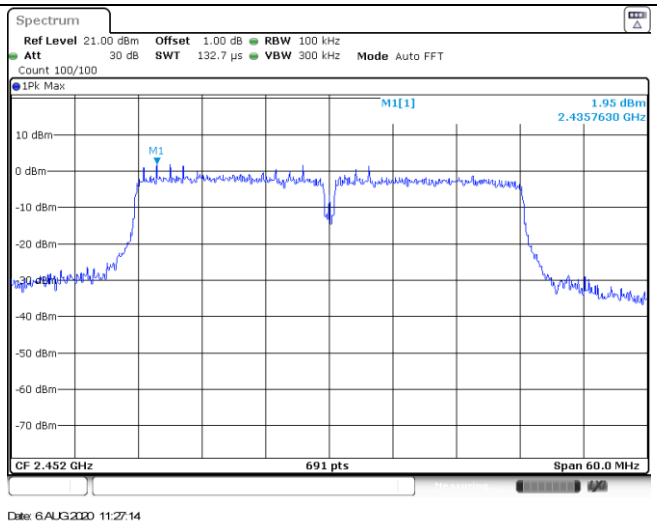
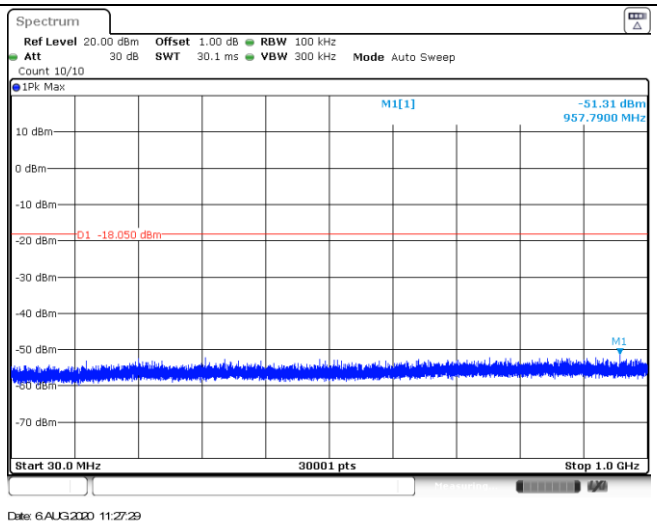
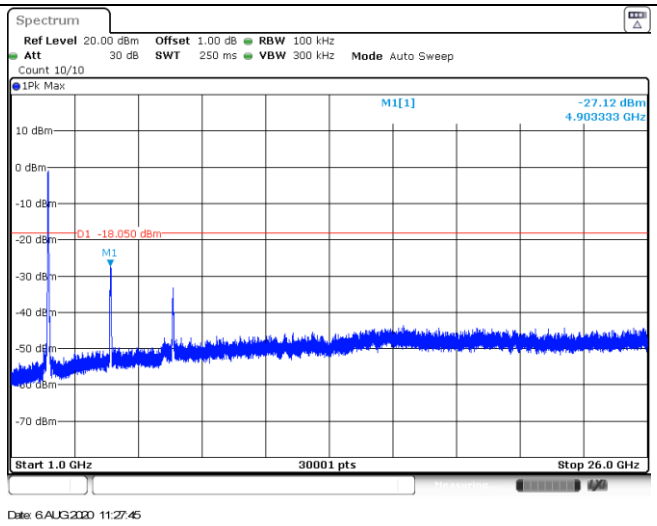
Test Item:	SE	Type:	802.11n(HT20)
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

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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