APPENDIX REPORT

Project No.	SHT2109065201EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT21090652004	Model No.	AS10W
Start test date	2021-10-13	Finish date	2021-10-13
Temperature	25.7℃	Humidity	36%
Test Engineer	Xiaoqin Li	Auditor	Xiaodong Zhao

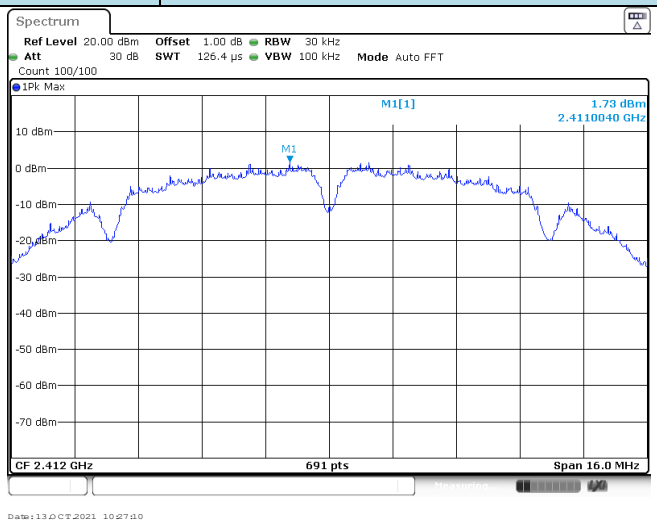
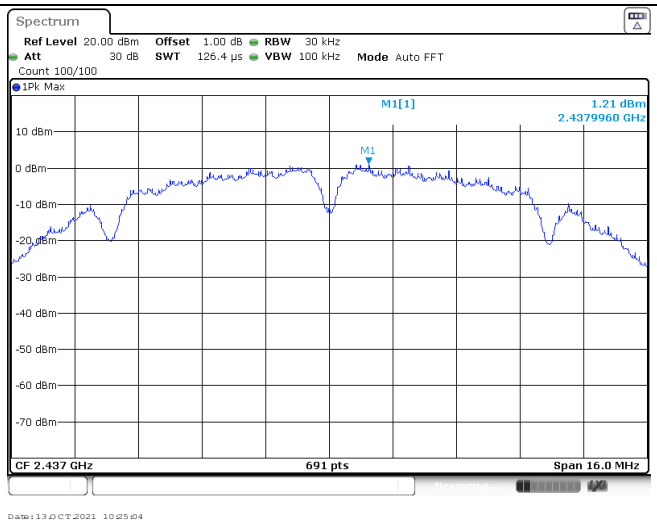
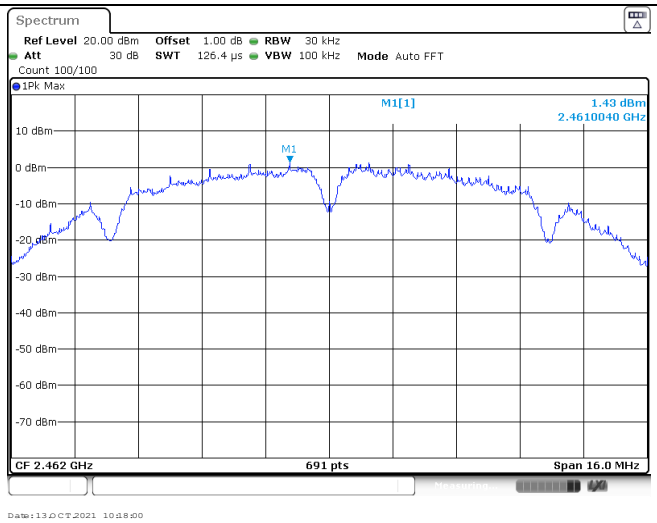
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

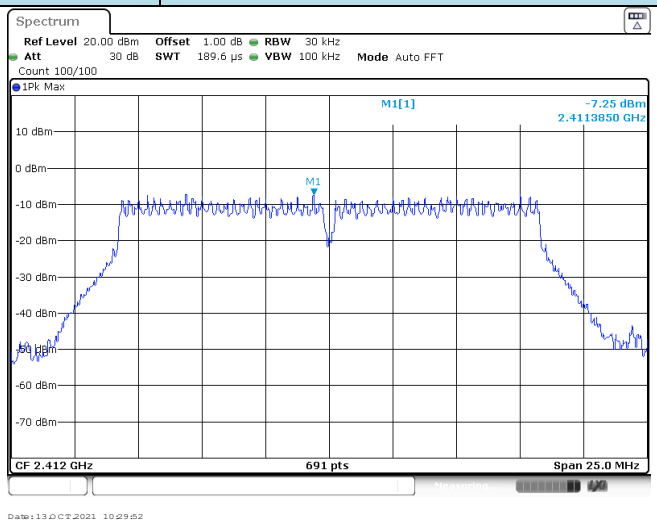
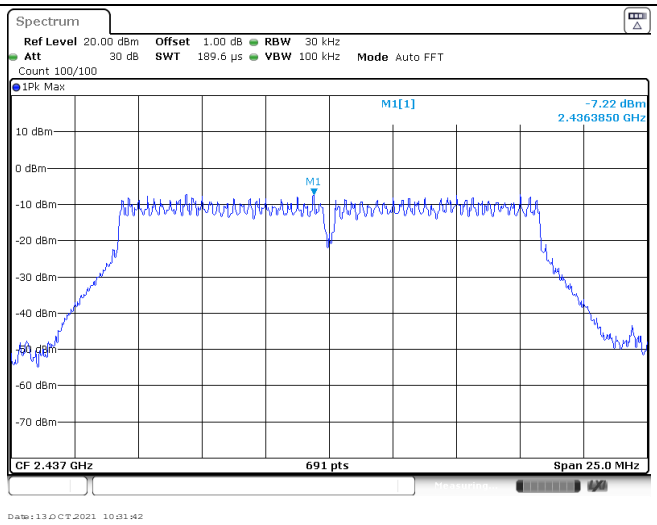
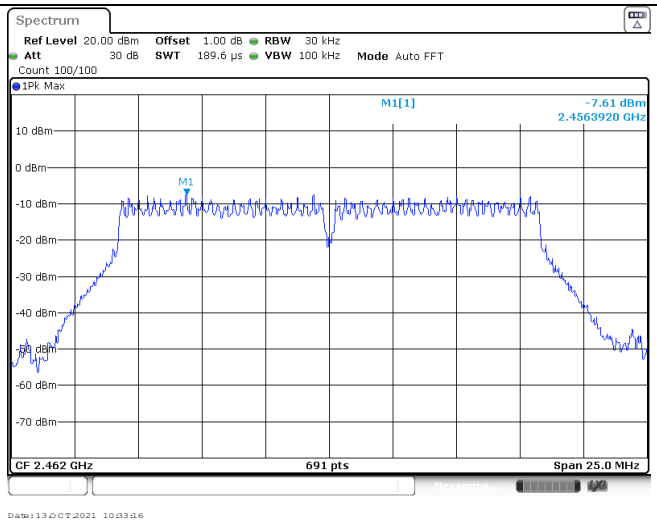
Appendix A: Conducted Peak Output Power

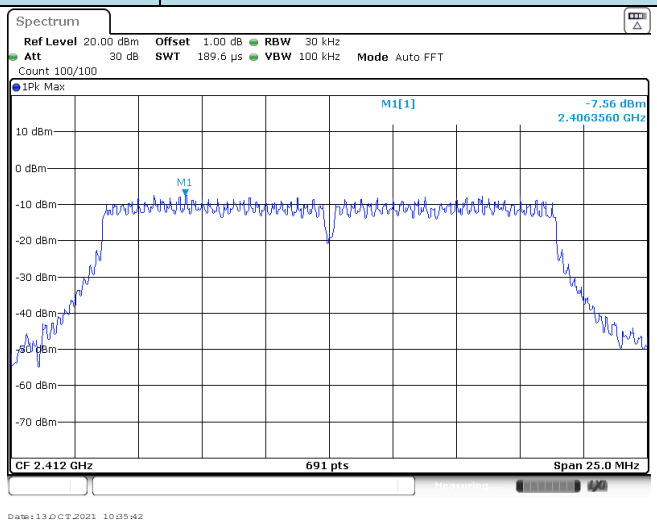
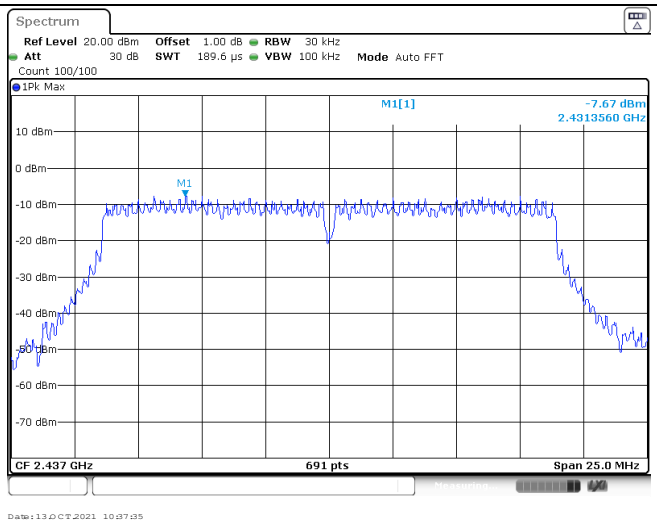
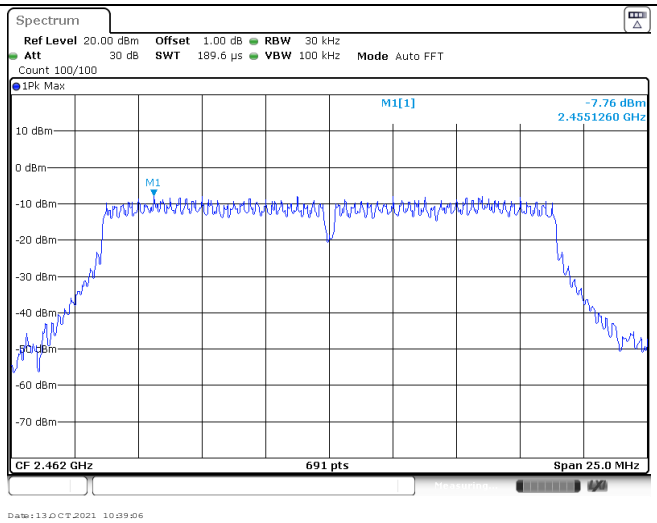
Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	15.74	13.02	≤ 30.00	Pass
	06	15.70	12.82		
	11	15.39	12.78		
802.11g	01	15.27	10.92	≤ 30.00	Pass
	06	15.32	11.10		
	11	15.31	11.04		
802.11n (HT20)	01	15.11	11.54	≤ 30.00	Pass
	06	15.19	11.68		
	11	15.14	11.36		
802.11n(HT40)	03	15.15	11.16	≤ 30.00	Pass
	06	15.34	12.12		
	09	15.38	12.38		

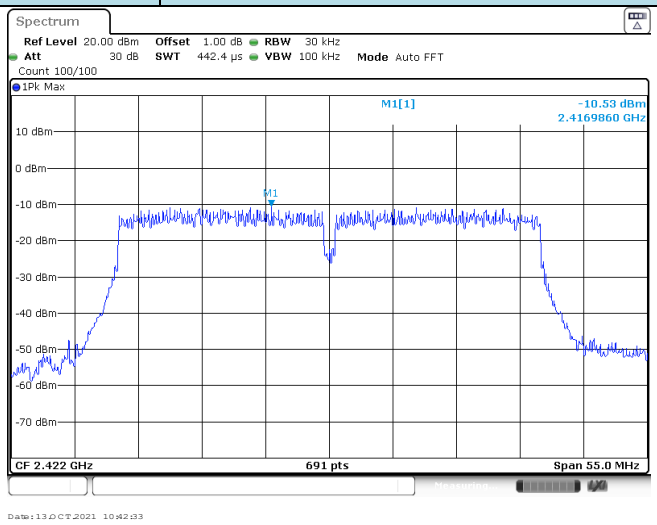
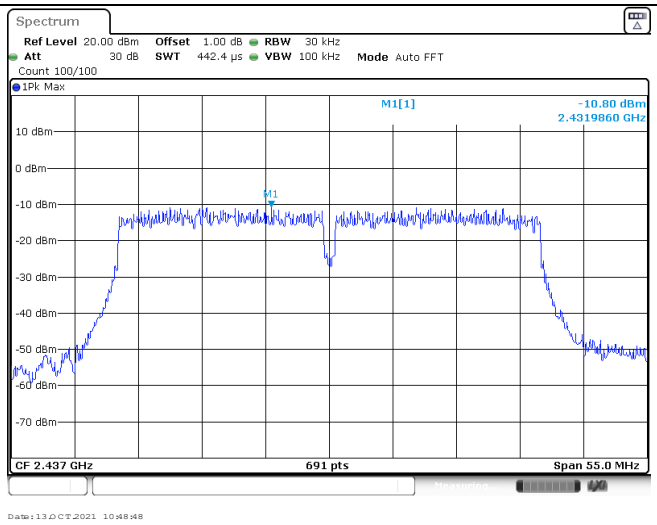
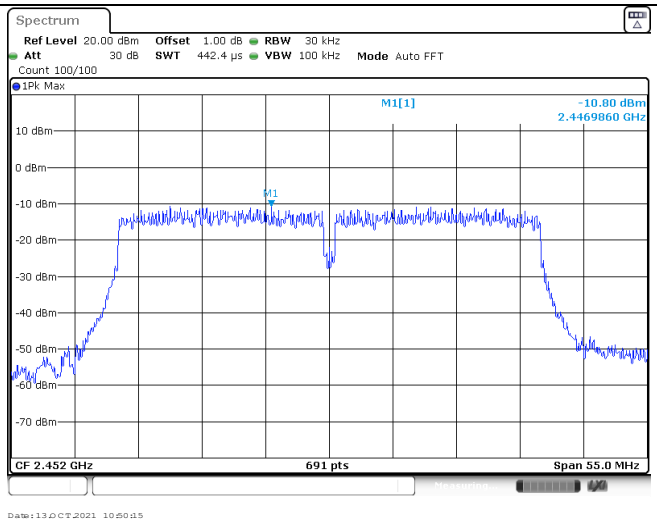
Appendix B：Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	1.73	≤8.00	Pass
	06	1.21		
	11	1.43		
802.11g	01	-7.25	≤8.00	Pass
	06	-7.22		
	11	-7.61		
802.11n(HT20)	01	-7.56	≤8.00	Pass
	06	-7.67		
	11	-7.76		
802.11n(HT40)	03	-10.53	≤8.00	Pass
	06	-10.80		
	09	-10.80		

Type:	802.11 b
CH01	
CH06	
CH11	

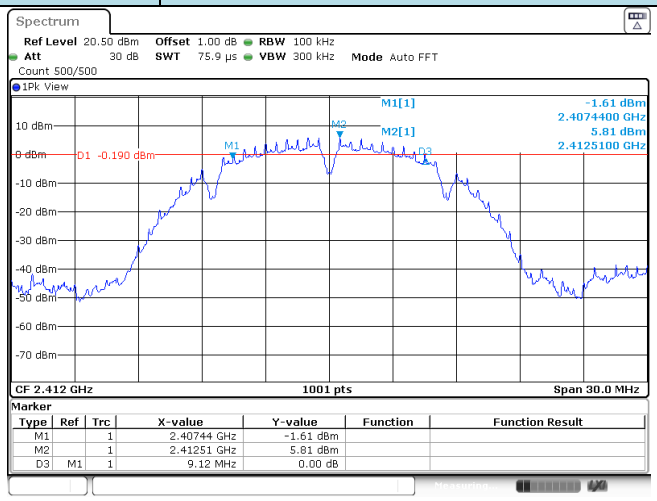
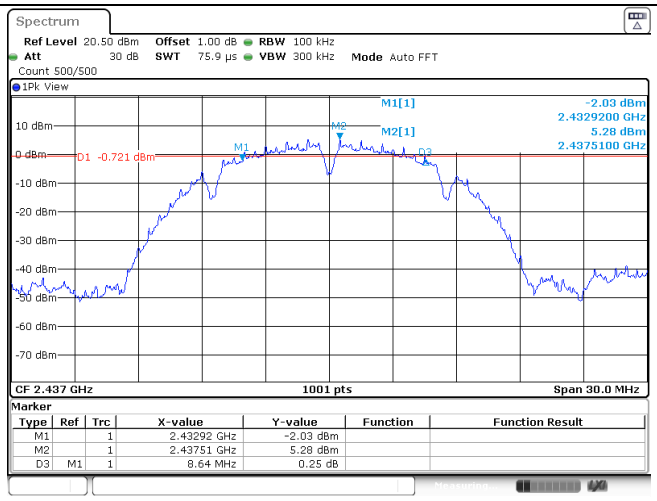
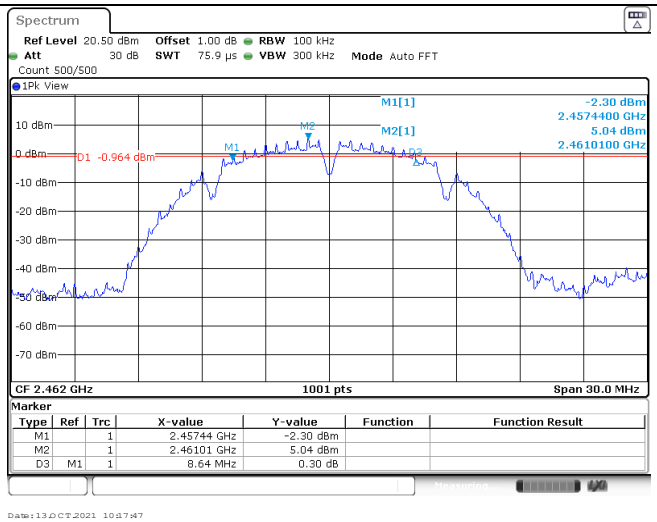
Type:	802.11 g
CH01	
CH06	
CH11	

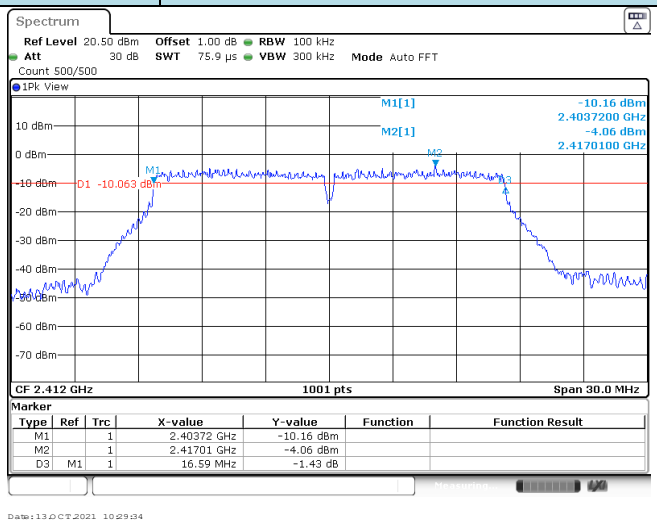
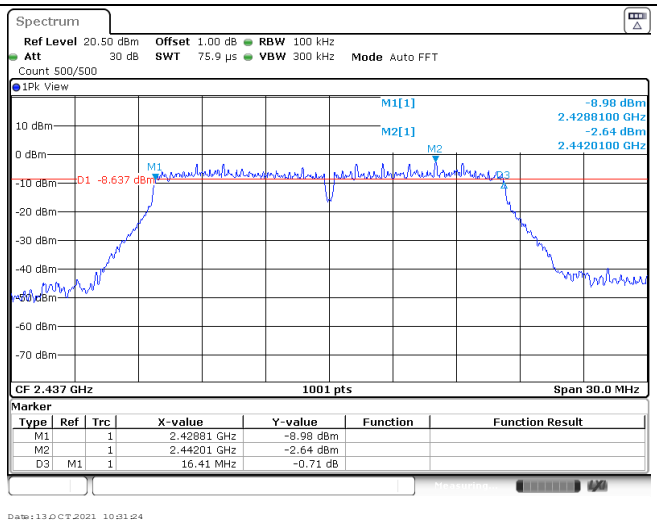
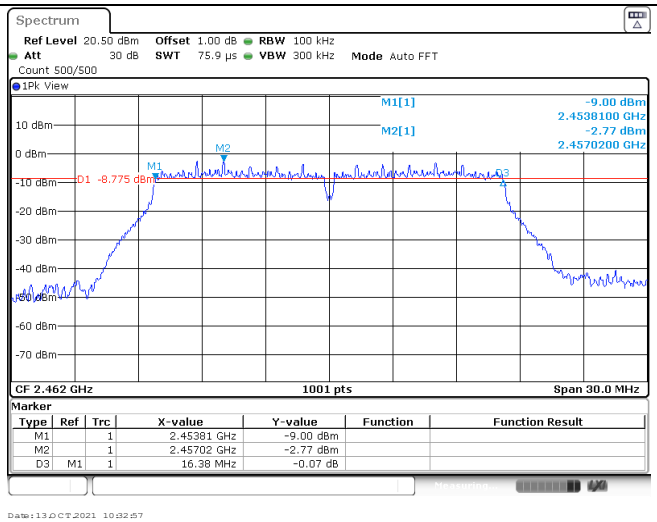
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

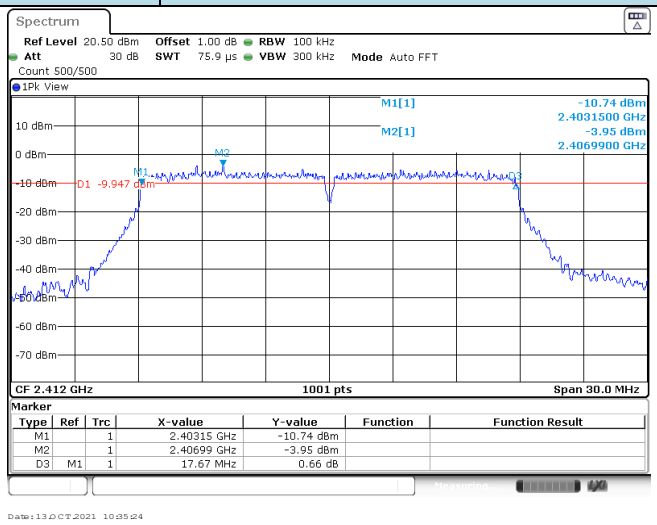
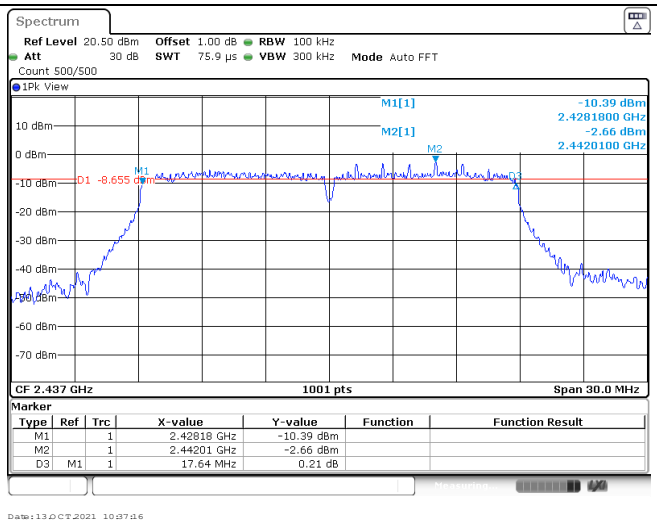
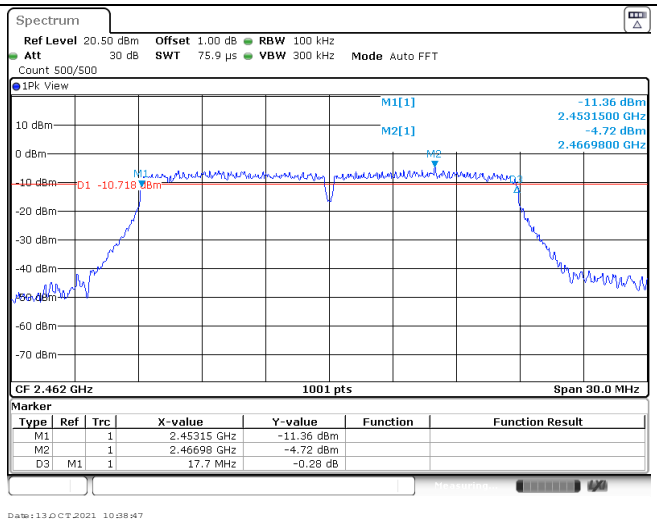
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

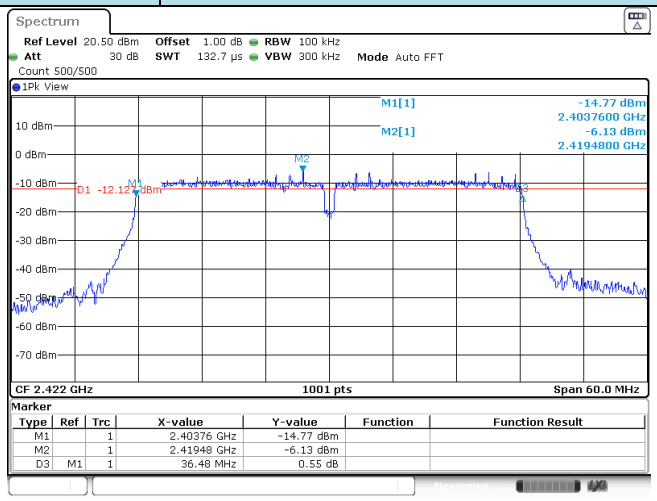
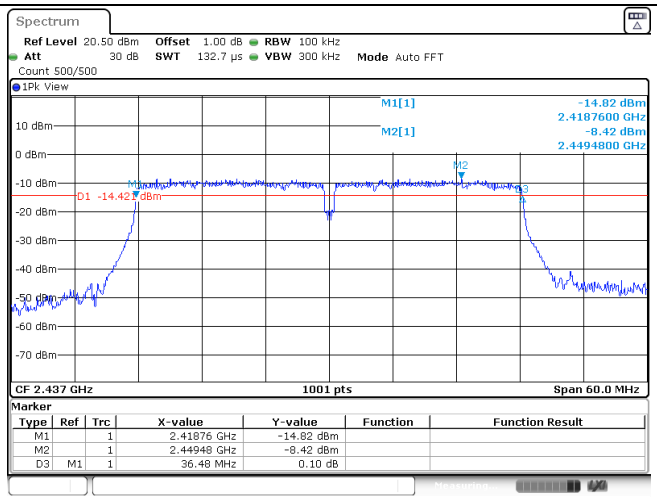
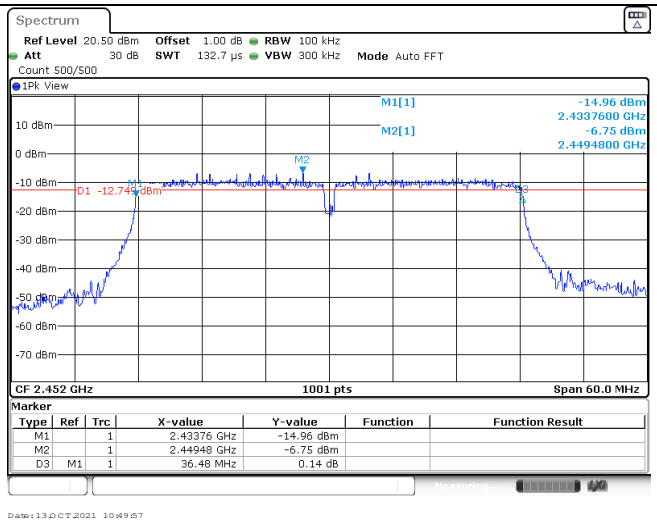
Appendix C：6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	9.12	≥0.5	Pass
	06	8.64		
	11	8.64		
802.11g	01	16.59	≥0.5	Pass
	06	16.41		
	11	16.38		
802.11n(HT20)	01	17.67	≥0.5	Pass
	06	17.64		
	11	17.70		
802.11n(HT40)	03	36.48	≥0.5	Pass
	06	36.48		
	09	36.48		

Type:	802.11 b
CH01	
CH06	
CH11	

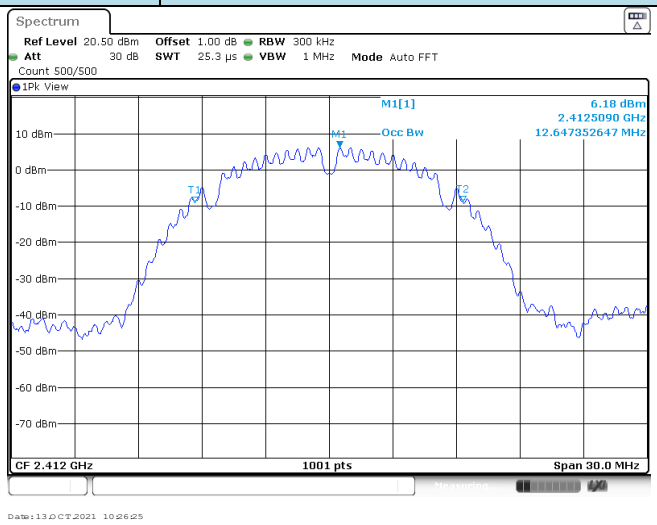
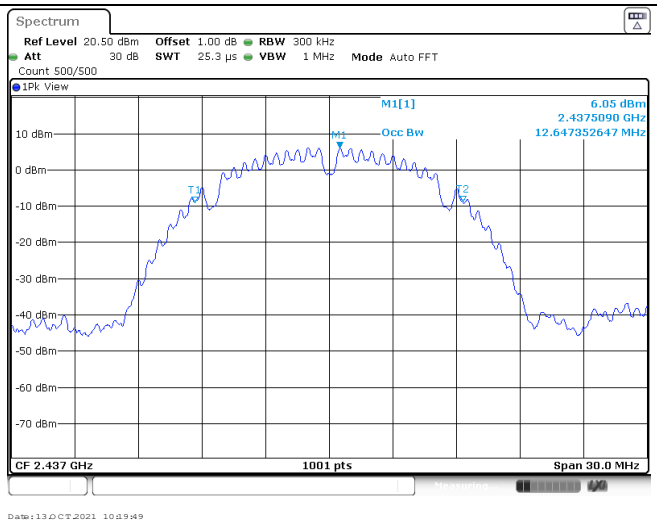
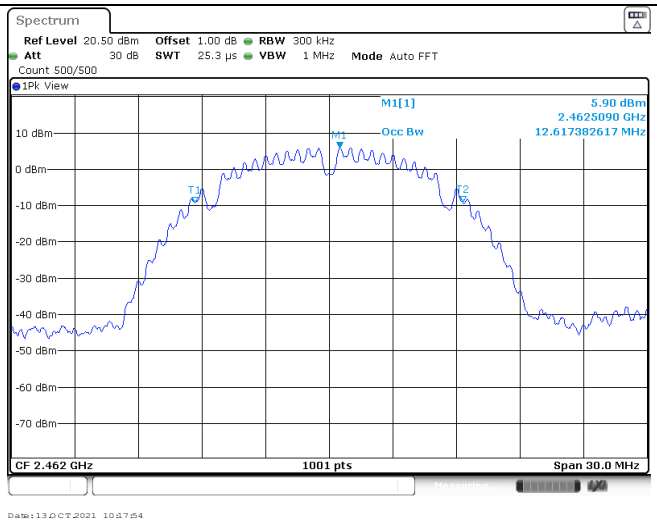
Type:	802.11 g
CH01	
CH06	
CH11	

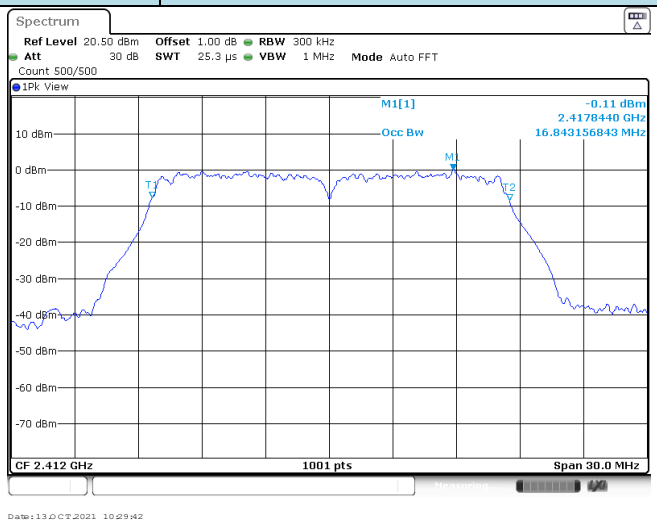
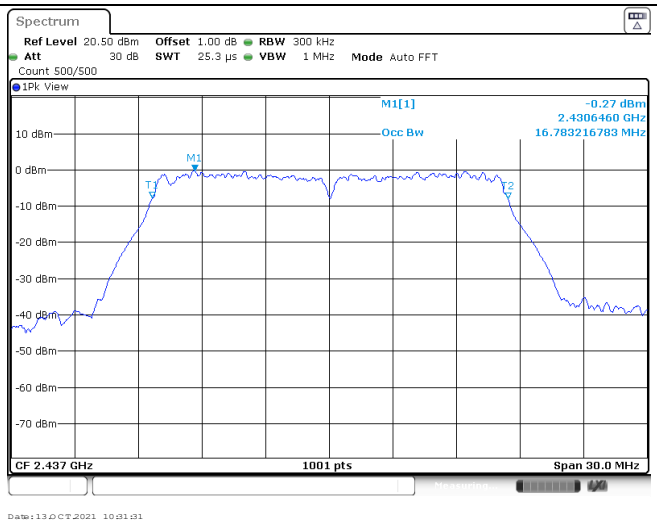
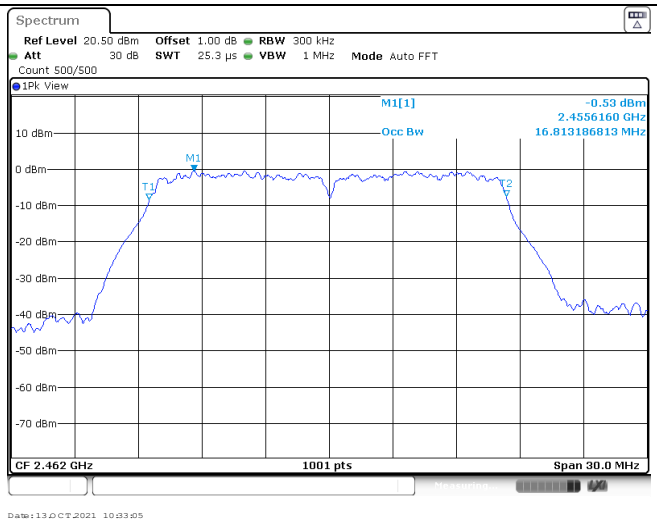
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

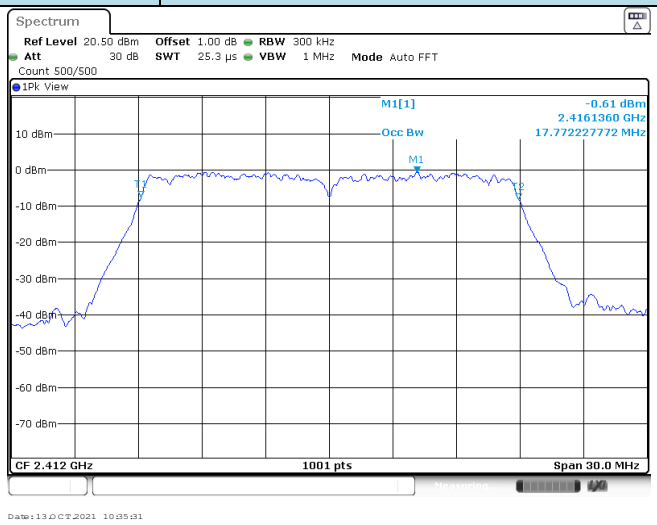
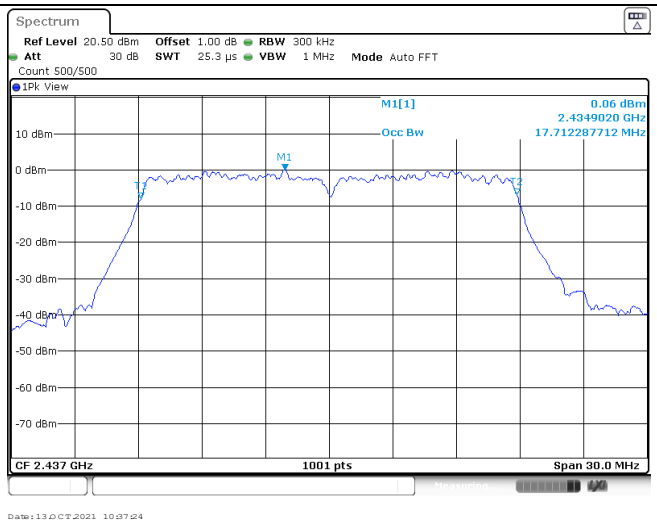
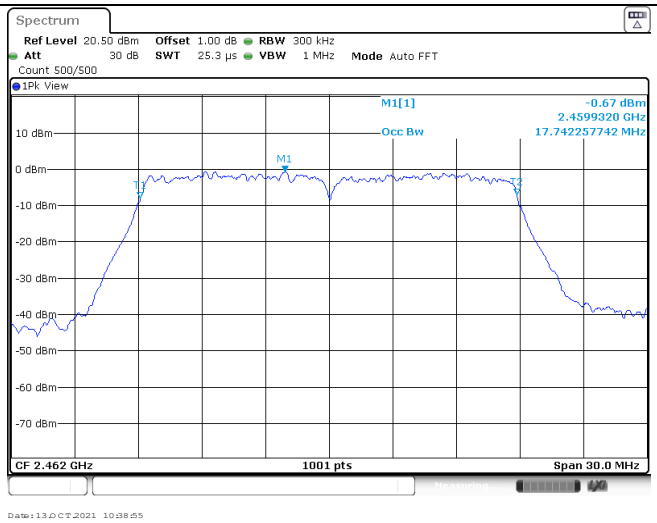
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

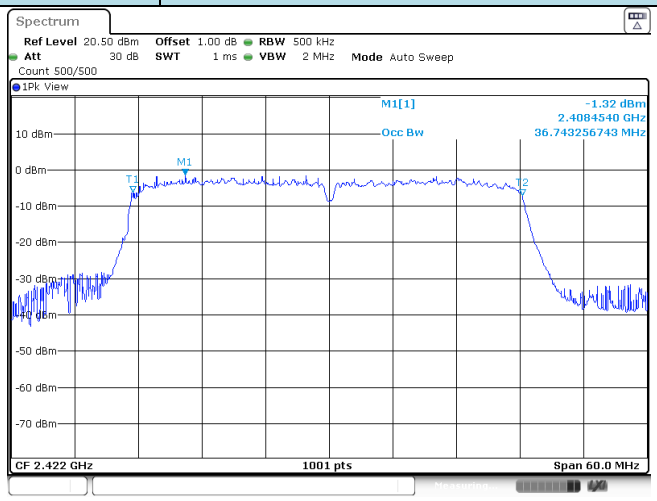
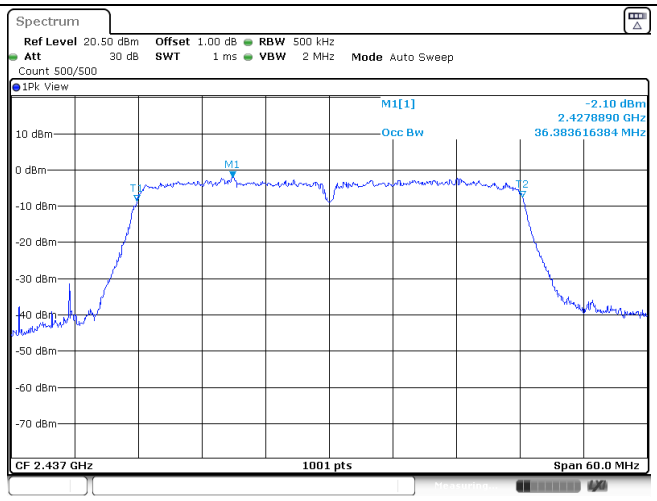
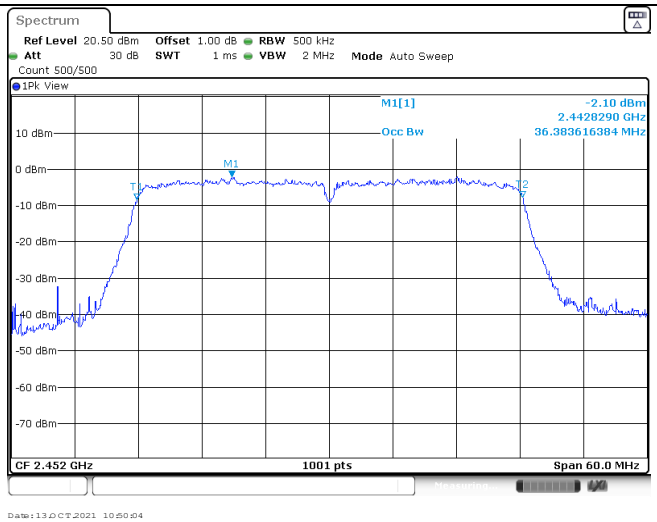
Appendix D：99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	12.65	-	Pass
	06	12.65		
	11	12.62		
802.11g	01	16.84	-	Pass
	06	16.78		
	11	16.81		
802.11n(HT20)	01	17.77	-	Pass
	06	17.71		
	11	17.74		
802.11n(HT40)	03	36.74	-	Pass
	06	36.38		
	09	36.38		

Type:	802.11 b
CH01	
CH06	
CH11	

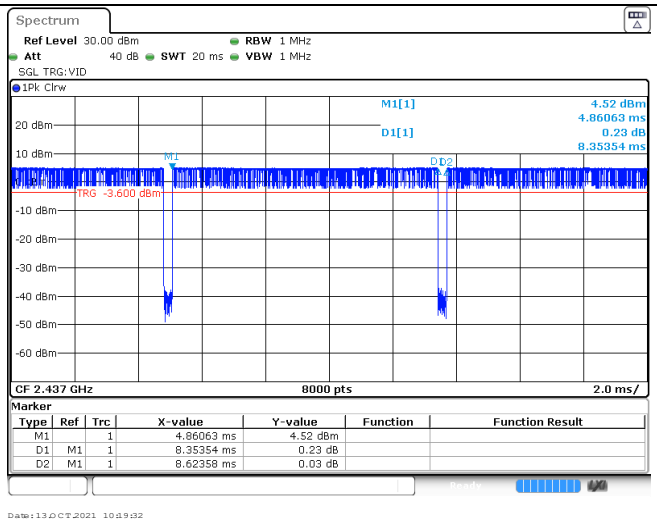
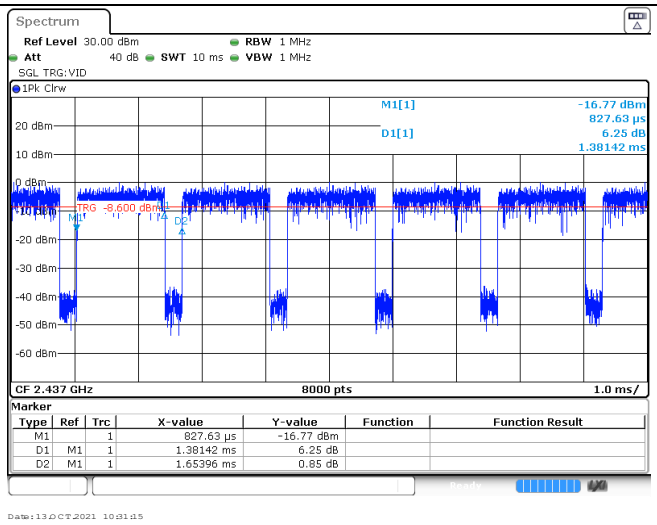
Type:	802.11 g
CH01	
CH06	
CH11	

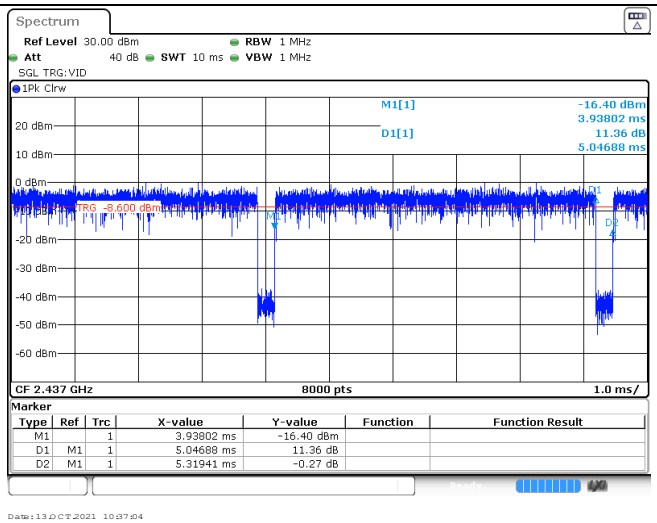
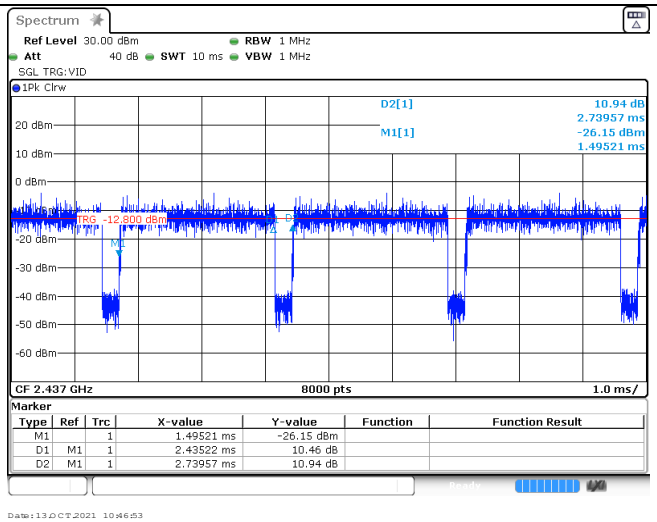
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

Type:	802.11n(HT40)
CH03	
CH06	
CH09	

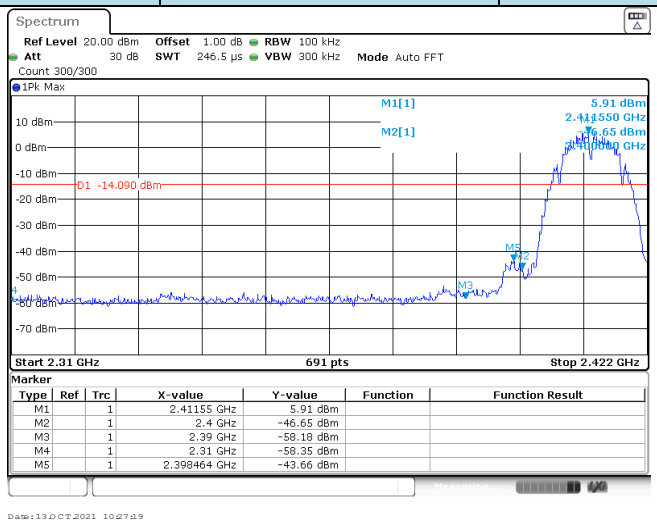
Appendix E：Duty Cycle

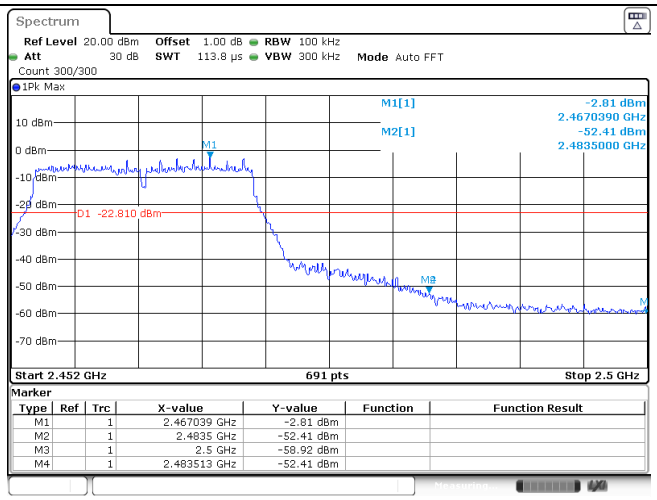
Modulation Type	Test Frequency（MHz）	$T_{on\ time}$ for single burst (ms)	T_{period} (ms)	Duty cycle	$1/T_{on\ time}$ (kHz)
11b	2437	8.35	8.62	96.9%	0.1
11g	2437	1.38	1.65	83.6%	0.7
11n20	2437	5.05	5.32	94.9%	0.2
11n40	2437	2.44	2.74	89.1%	0.4

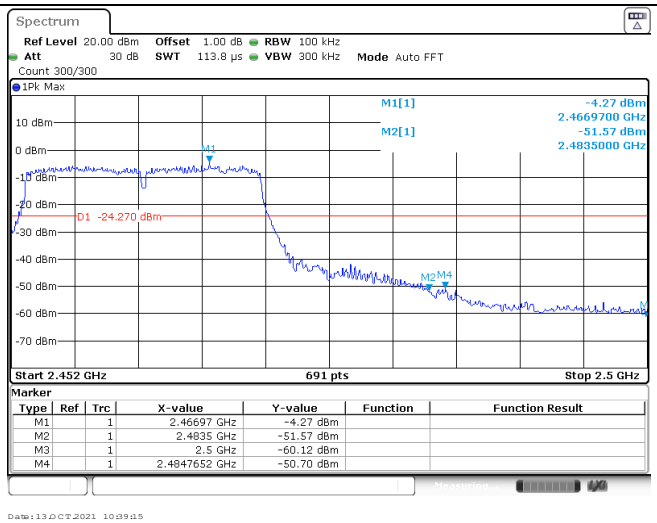
11b	
11g	

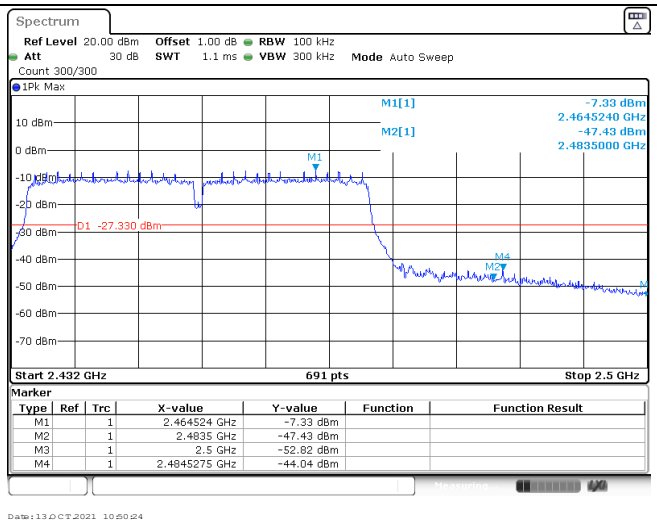
11n20	 Spectrum Ref Level 30.00 dBm RBW 1 MHz Att 40 dB SWT 10 ms VBW 1 MHz SGL TRG:VID 1Pk Clrw M1[1] -16.40 dBm 3.93802 ms D1[1] 11.36 dB 5.04688 ms 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm TRG -8.600 dBm CF 2.437 GHz 8000 pts 1.0 ms/ Marker Type Ref Trc X-value Y-value Function Function Result M1 1 3.93802 ms -16.40 dBm D1 M1 1 5.04688 ms 11.36 dB D2 M1 1 5.31941 ms -0.27 dB Date:13.OCT.2021 10:37:04
11n40	 Spectrum Ref Level 30.00 dBm RBW 1 MHz Att 40 dB SWT 10 ms VBW 1 MHz SGL TRG:VID 1Pk Clrw D2[1] 10.94 dB 2.73957 ms M1[1] -26.15 dBm 1.49521 ms 20 dBm 10 dBm 0 dBm -10 dBm -20 dBm -30 dBm -40 dBm -50 dBm -60 dBm TRG -12.800 dBm CF 2.437 GHz 8000 pts 1.0 ms/ Marker Type Ref Trc X-value Y-value Function Function Result M1 1 1.49521 ms -26.15 dBm D1 M1 1 2.43522 ms 10.46 dB D2 M1 1 2.73957 ms 10.94 dB Date:13.OCT.2021 10:46:53

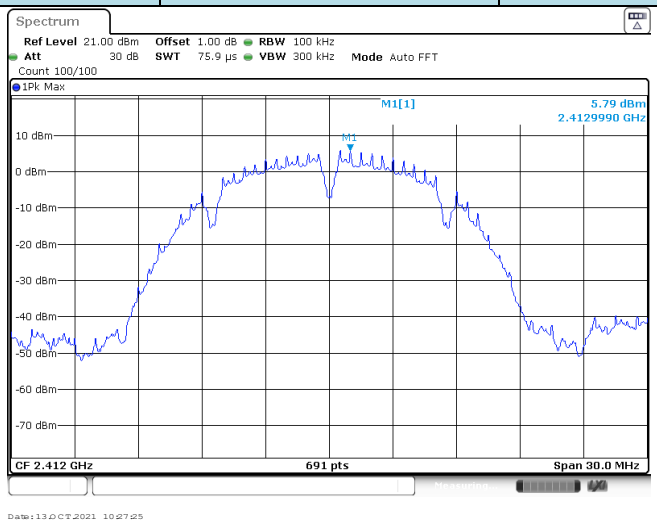
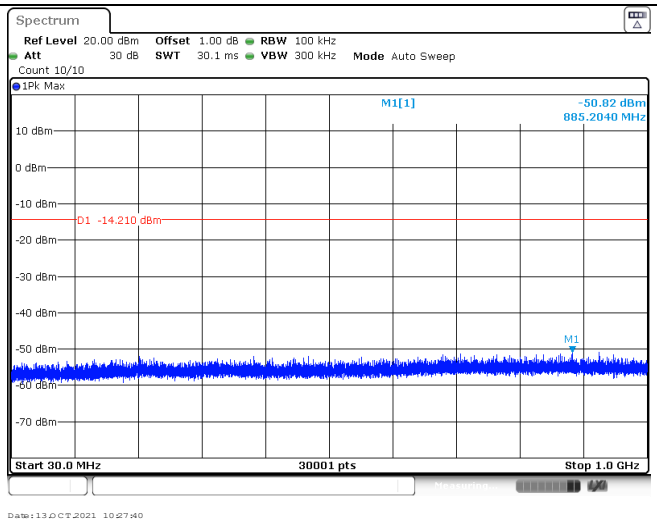
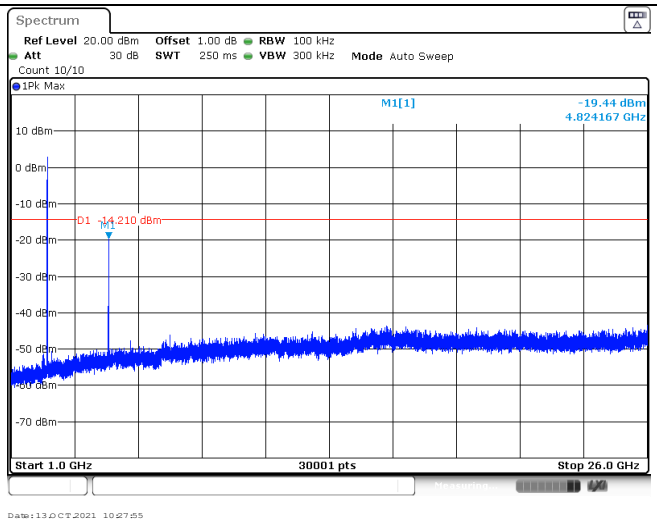
Appendix F：Band edge and Spurious Emissions (conducted)

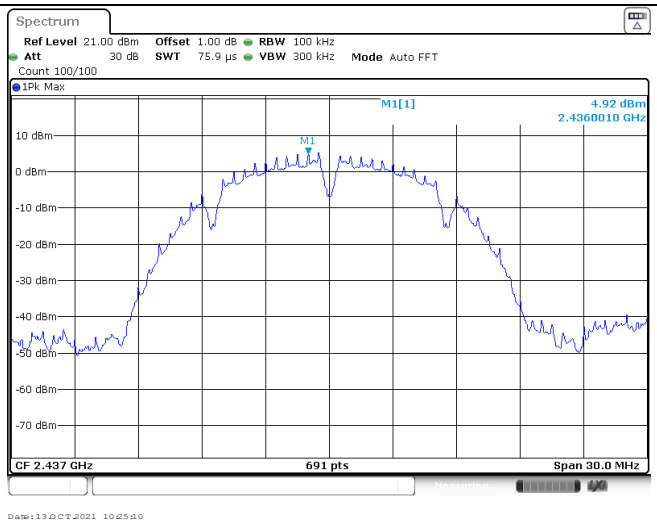
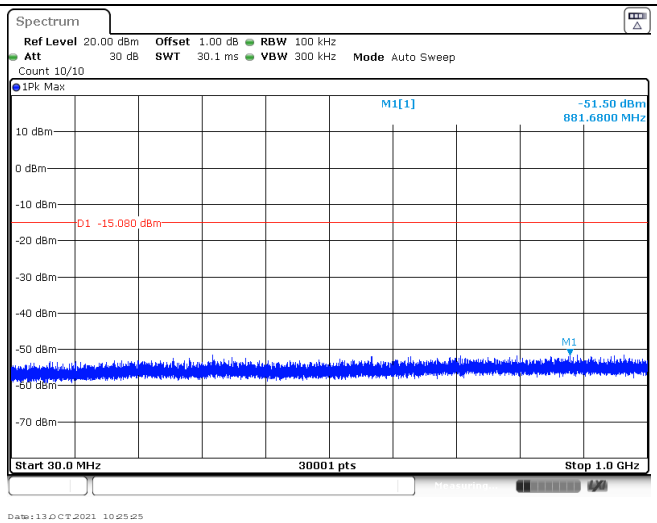
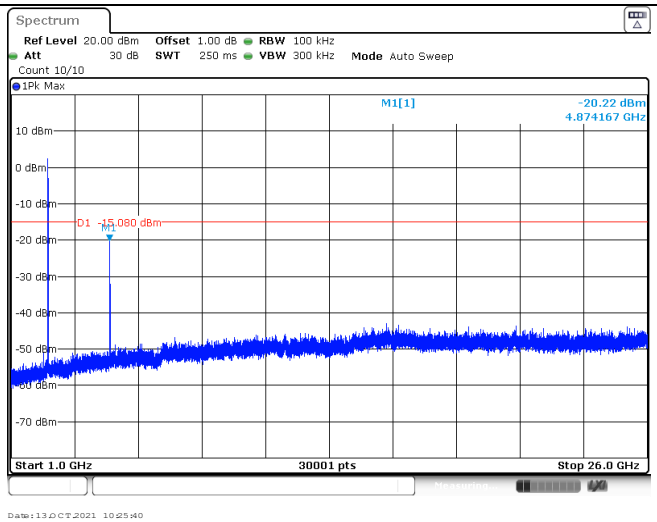
Test Item:	Bandedge	Type:	802.11 b
CH01			
CH11			

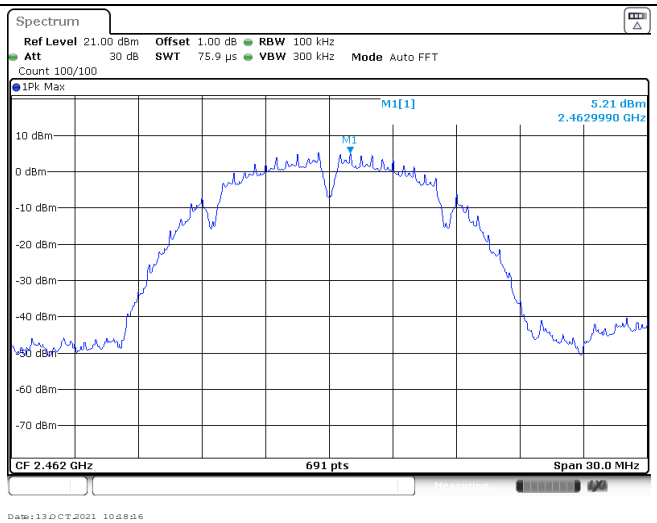
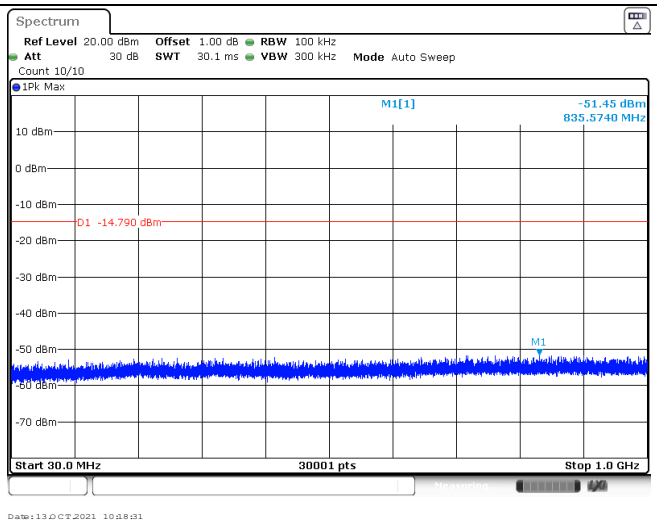
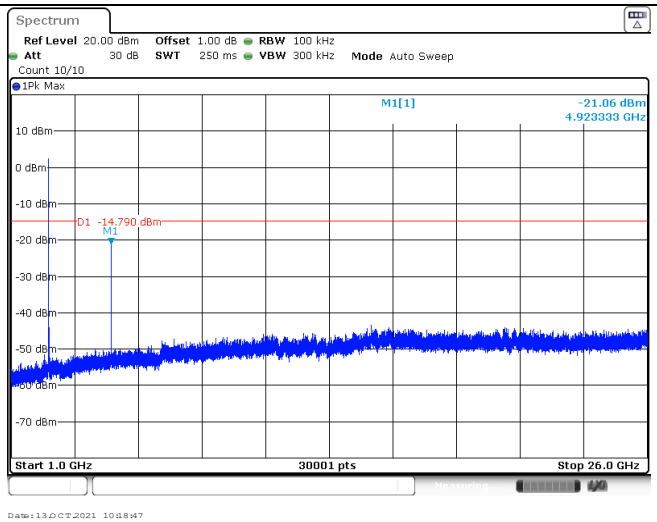
Test Item:	Bandedge	Type:	802.11 g
CH01			
CH11			

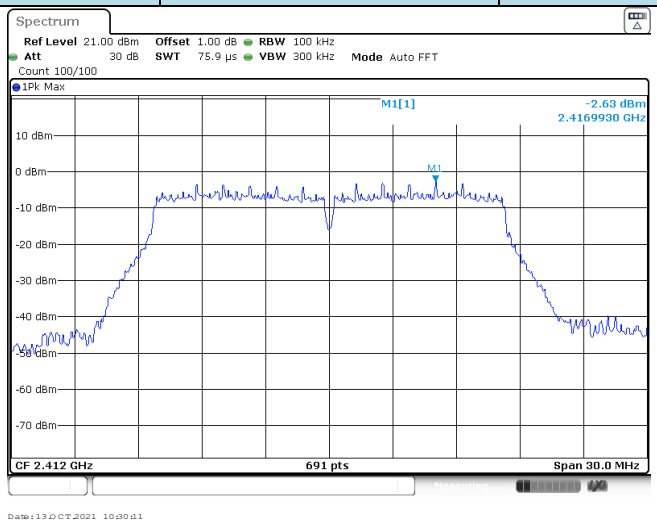
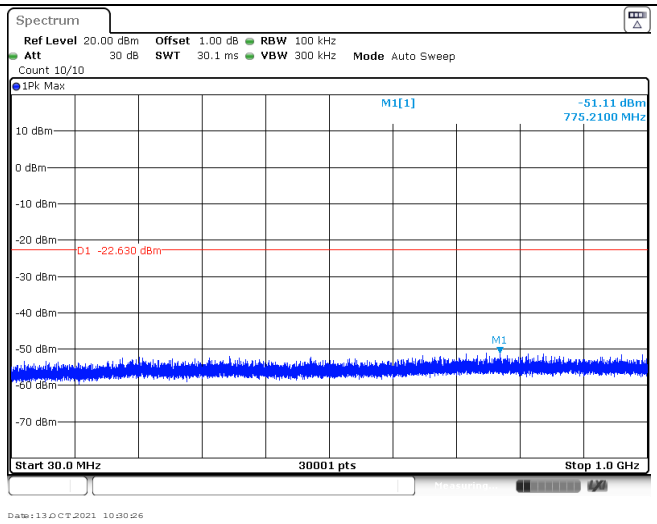
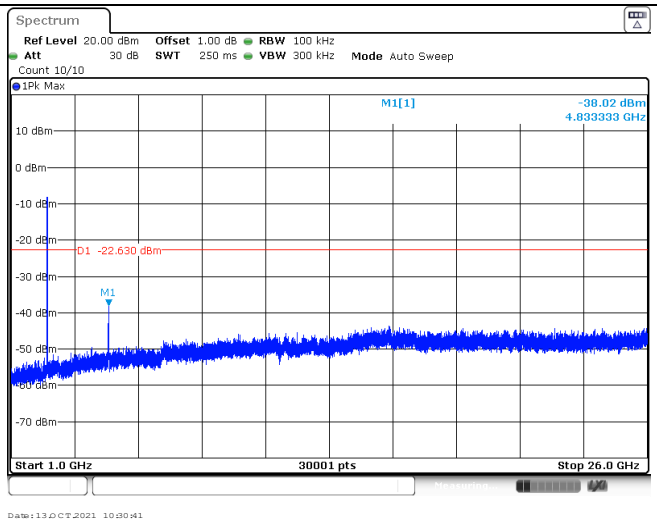
Test Item:	Bandedge	Type:	802.11 n(HT20)
CH01			
CH11			

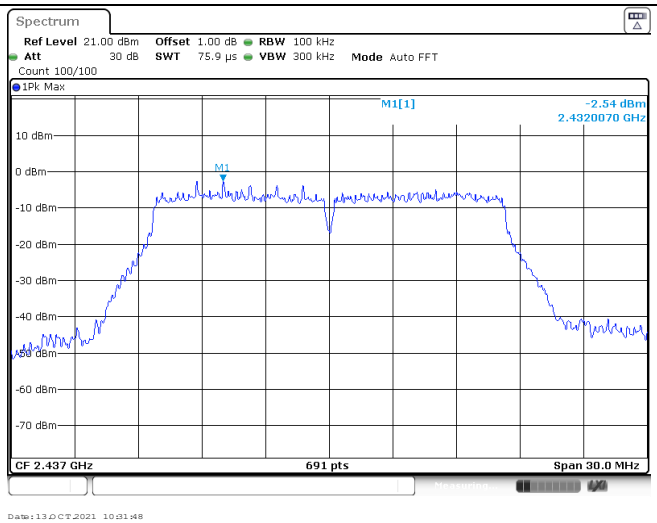
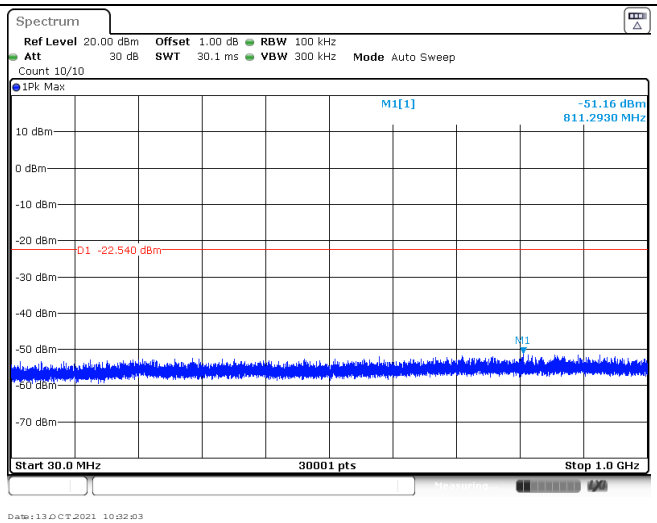
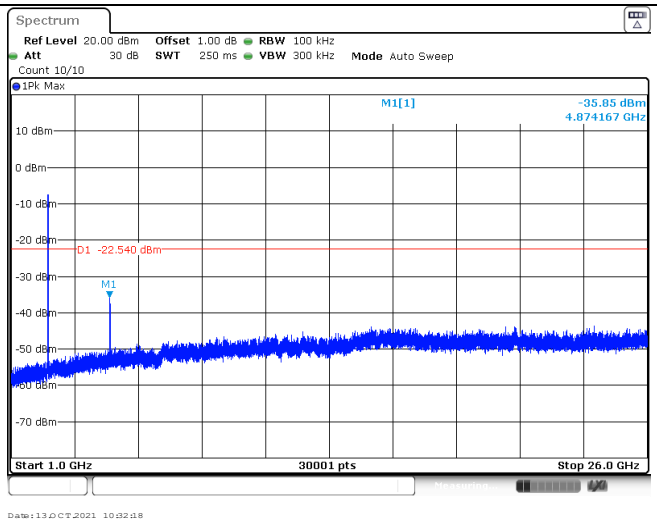
Test Item:	Bandedge	Type:	802.11 n(HT40)
CH03			
CH09			

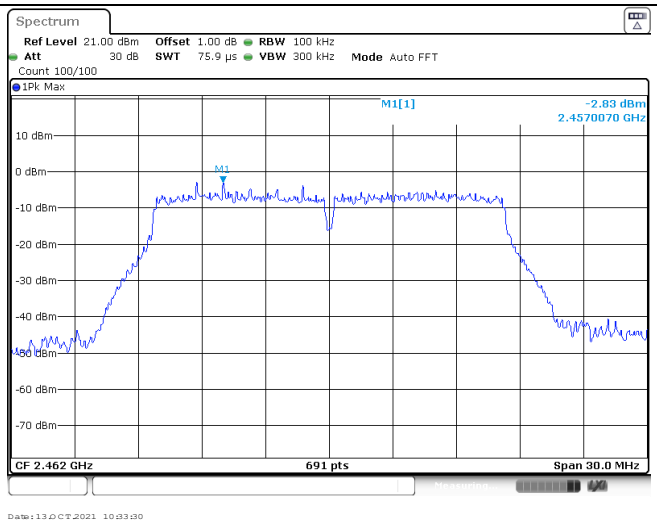
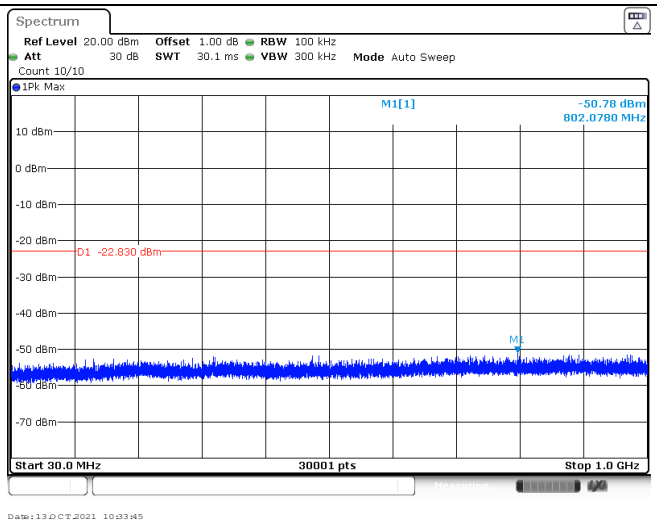
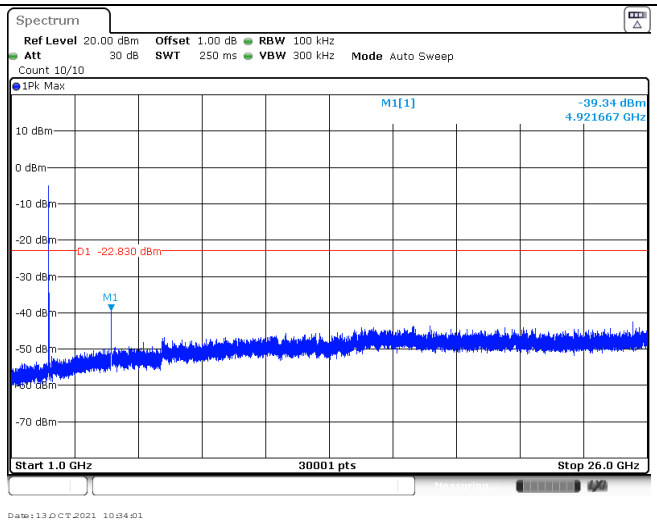
Test Item:	SE	Type:	802.11b
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

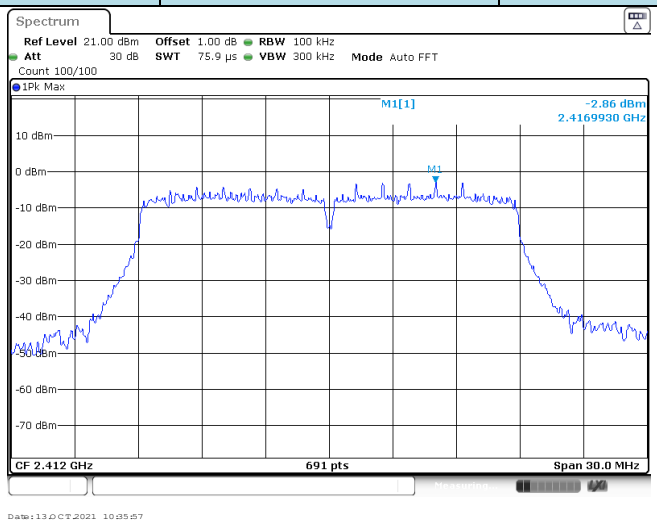
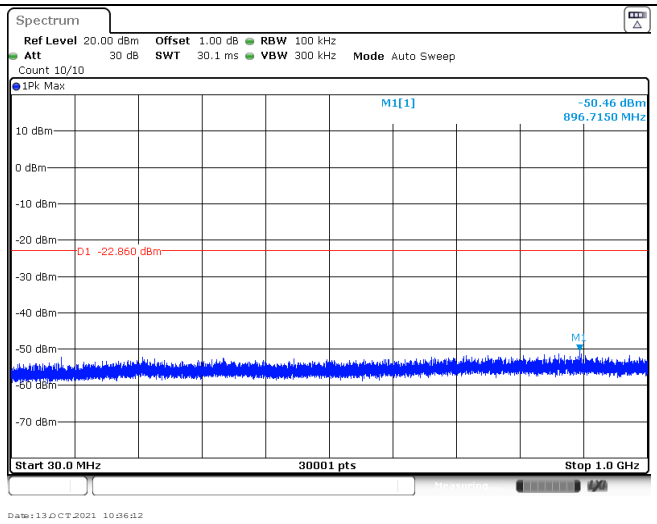
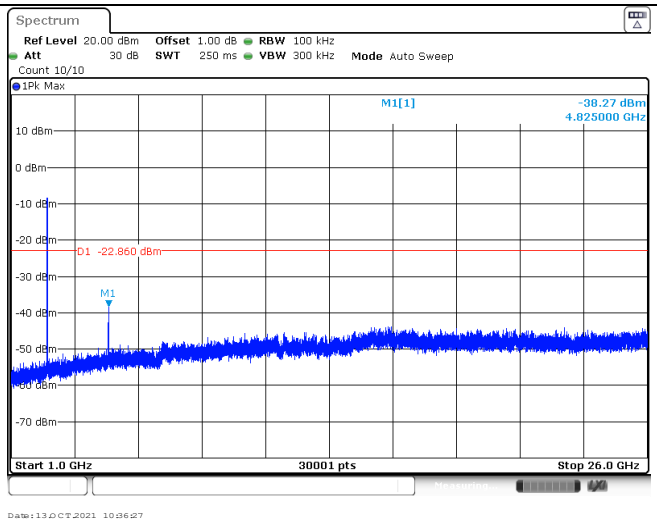
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

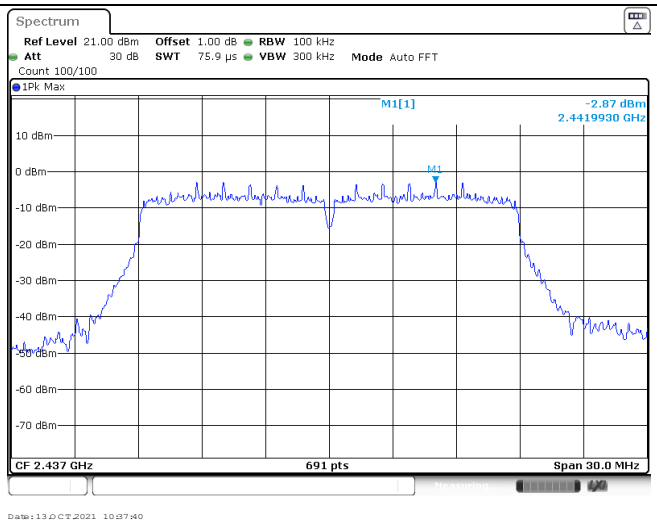
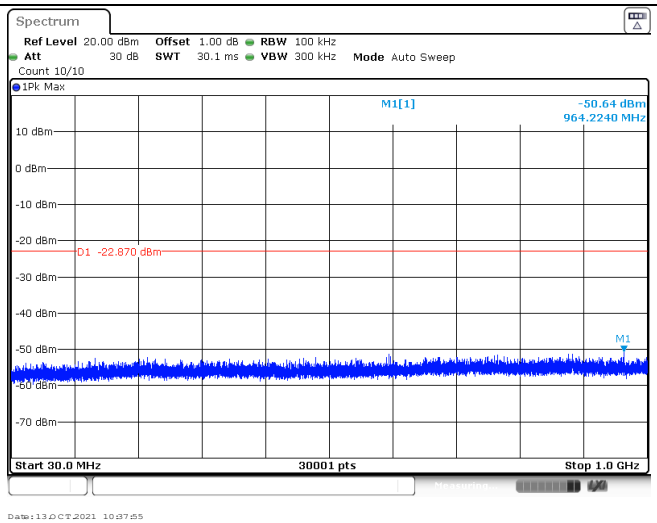
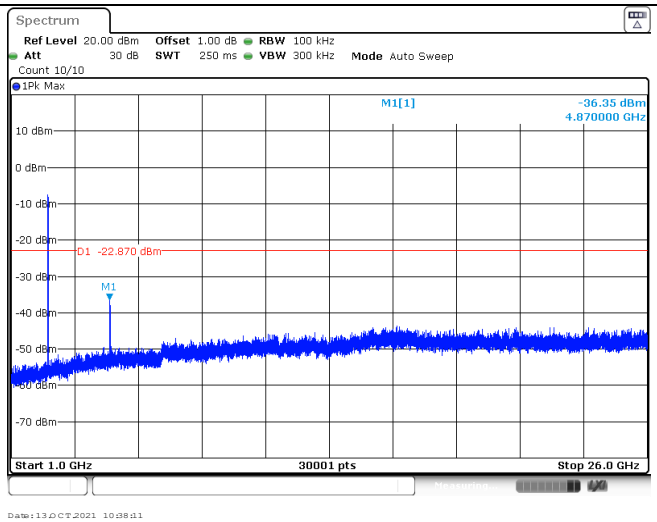
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

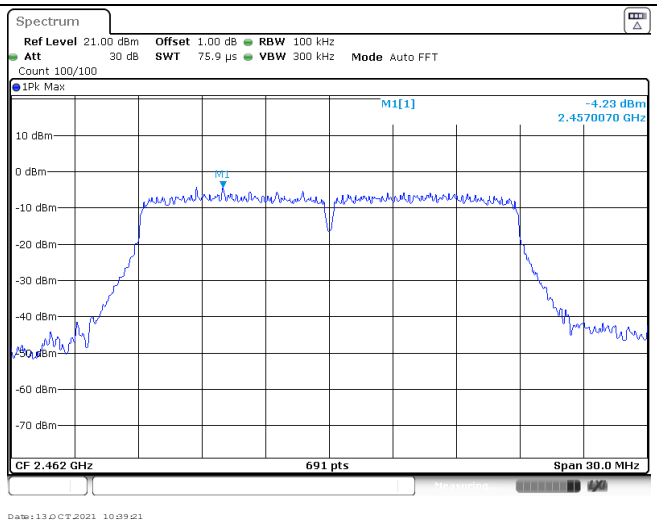
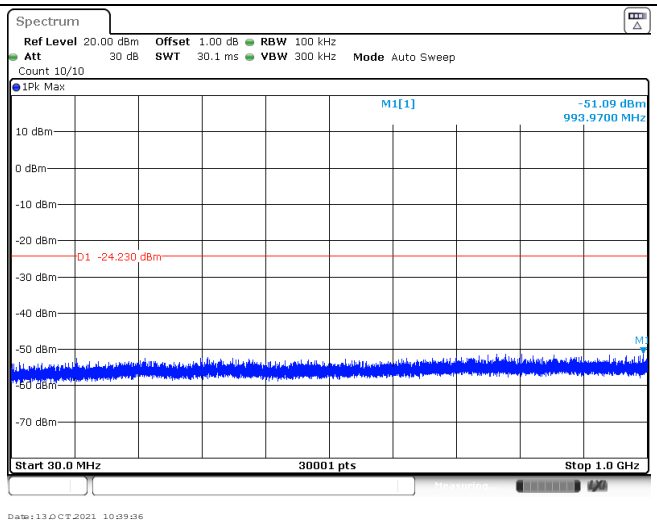
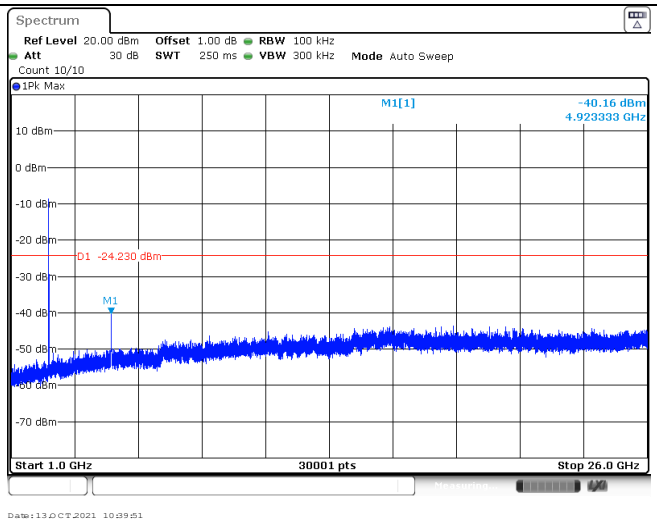
Test Item:	SE	Type:	802.11g
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

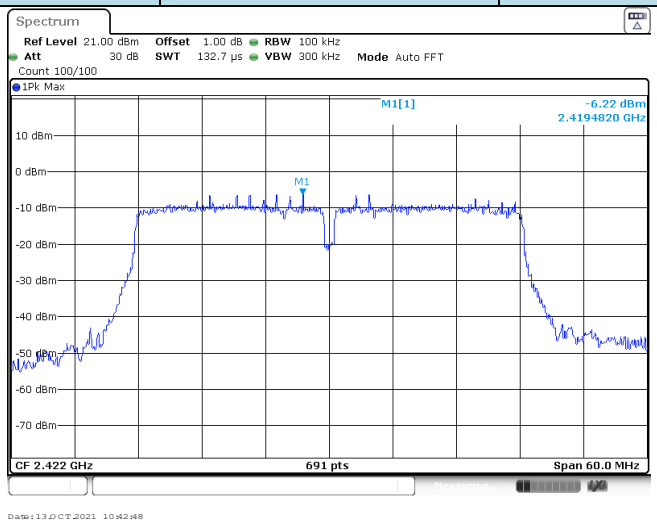
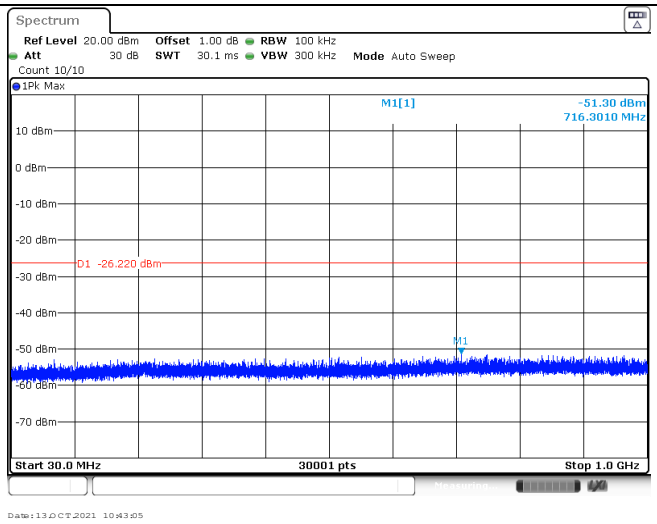
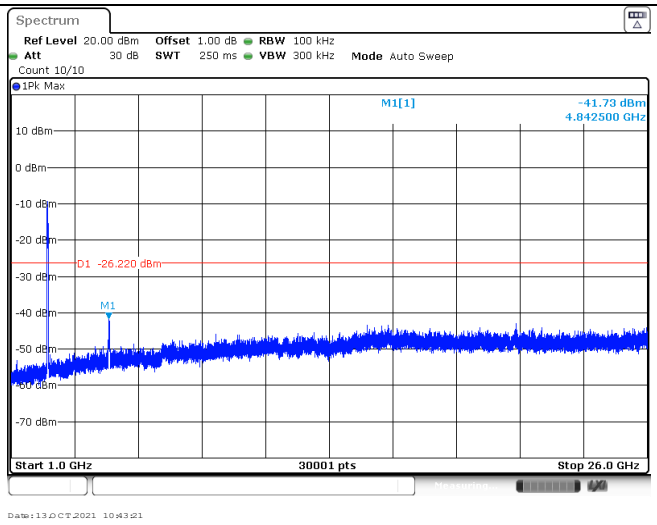
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

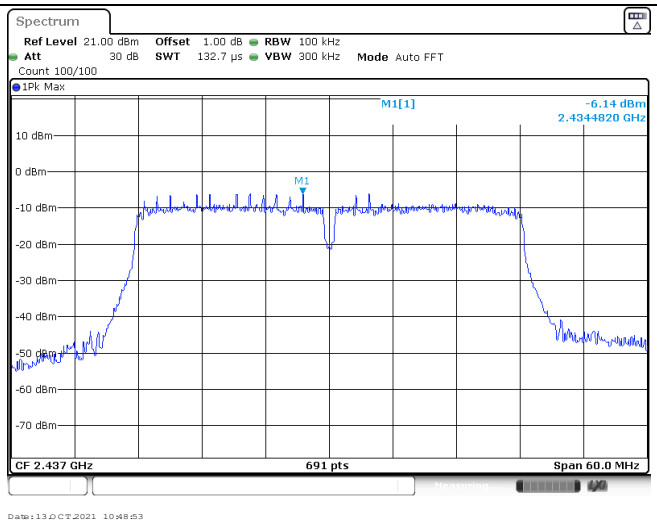
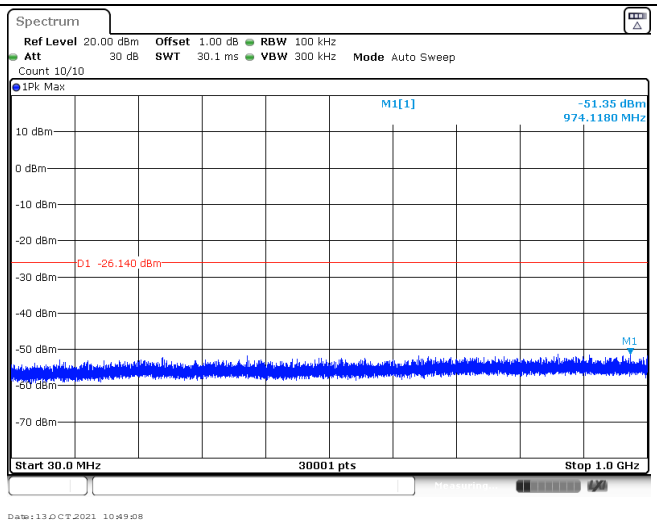
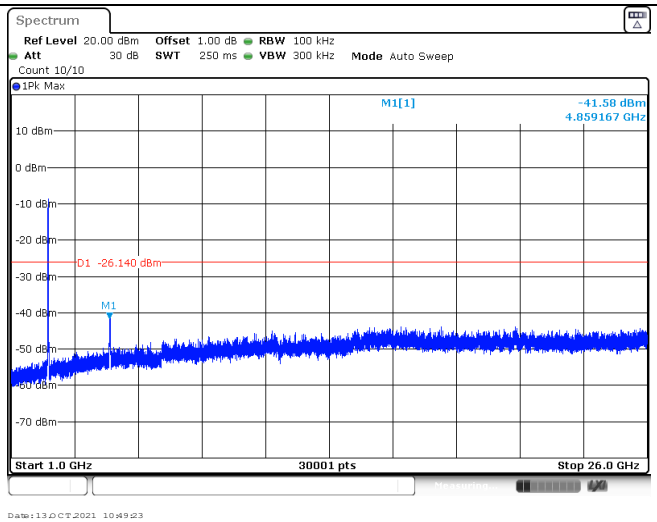
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

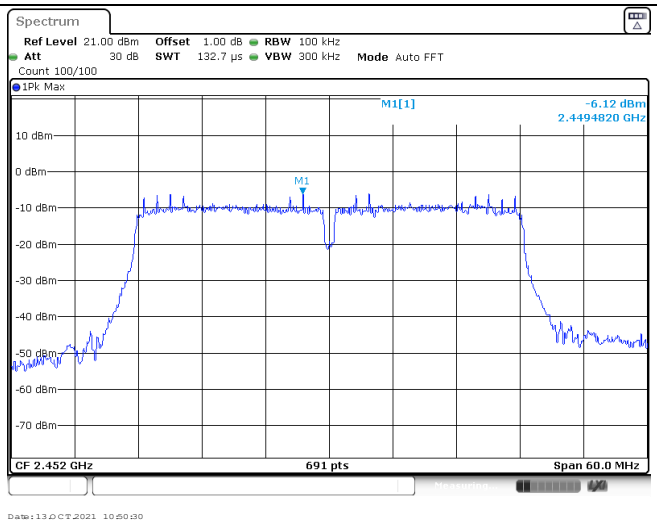
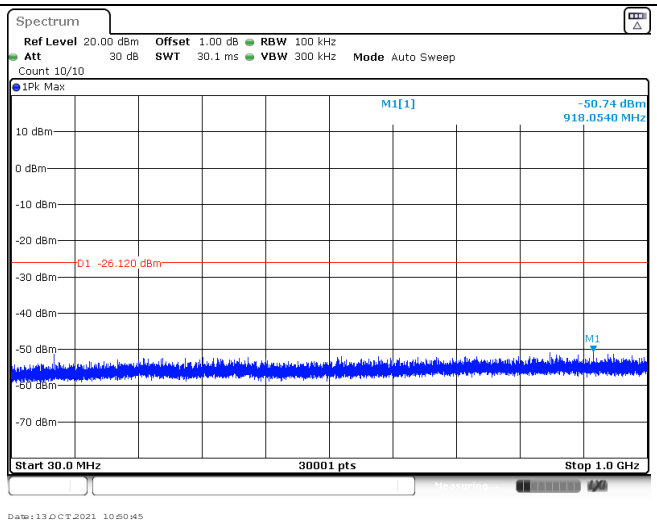
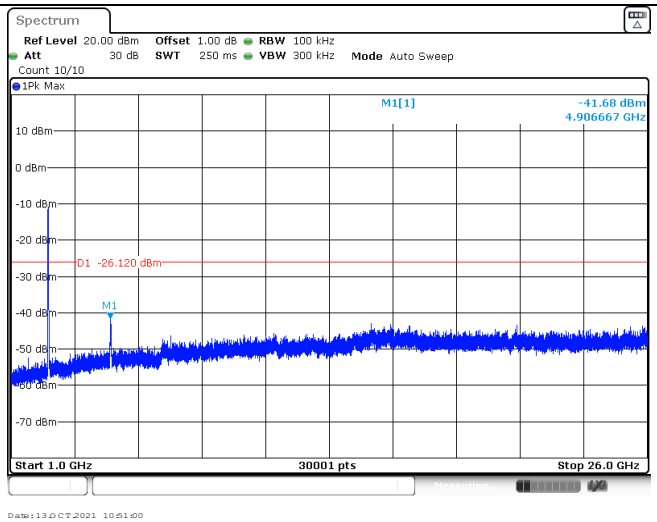
Test Item:	SE	Type:	802.11n(HT20)
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

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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