APPENDIX REPORT

Project No.	SHT2202047302EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT22020473006	Model No.	Z3Pro
Start test date	2022-02-24	Finish date	2022-02-24
Temperature	22.7℃	Humidity	40%
Test Engineer	Hailey Chen	Auditor	Xiaodong Zhao

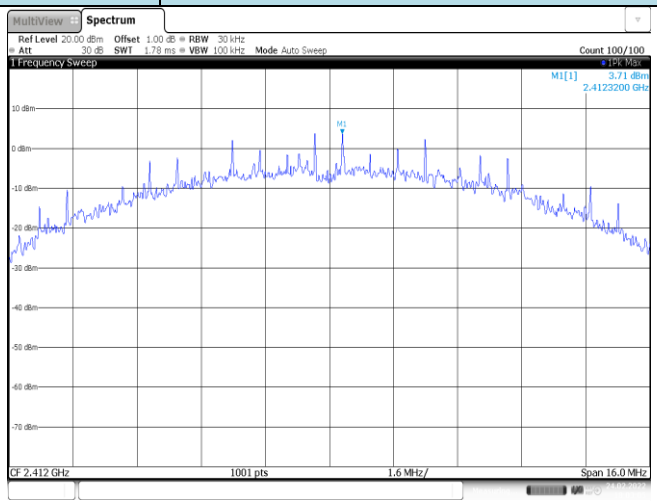
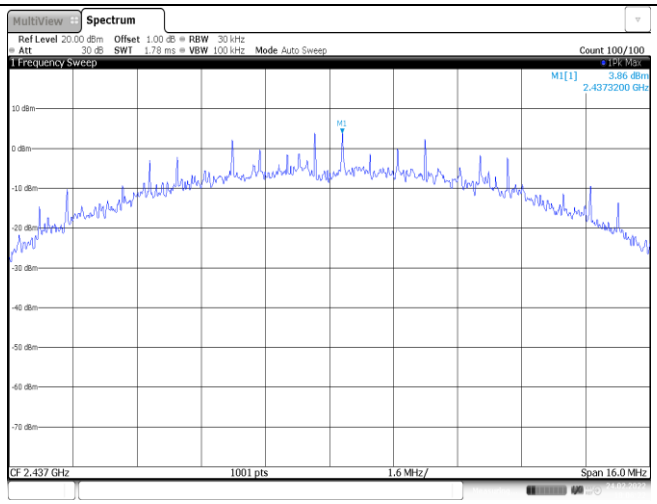
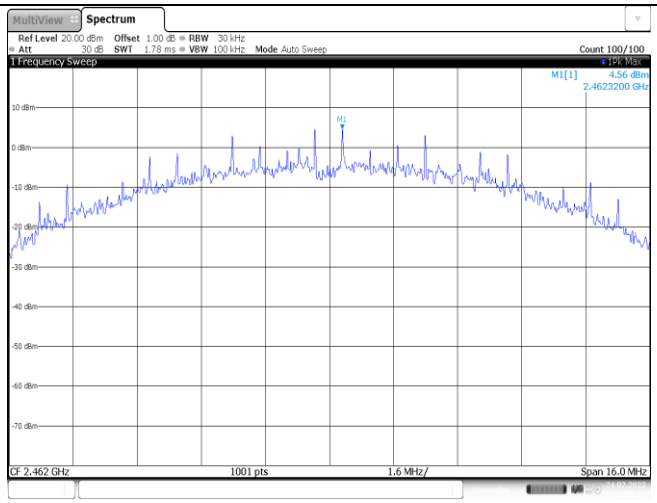
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

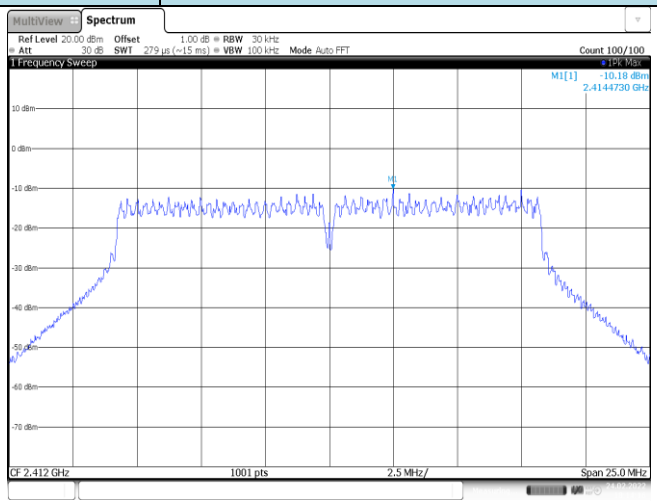
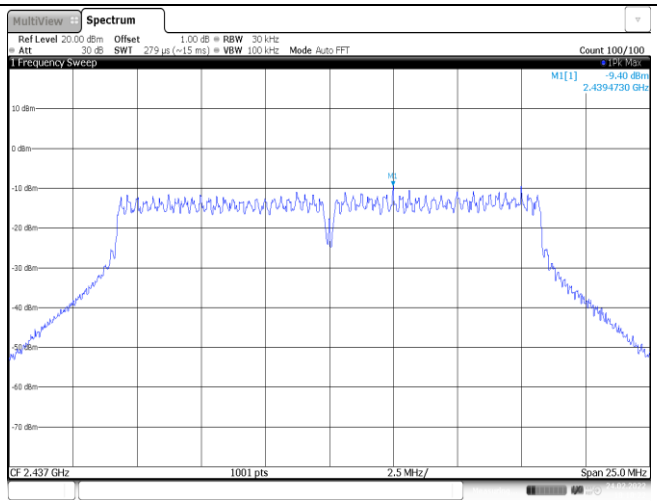
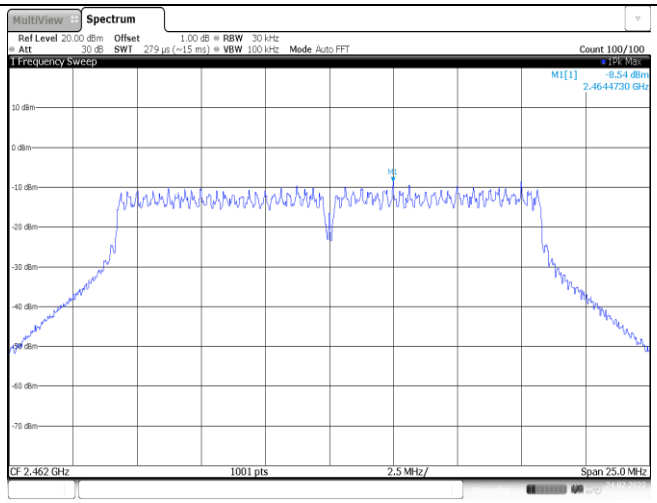
Appendix A：Conducted Peak Output Power

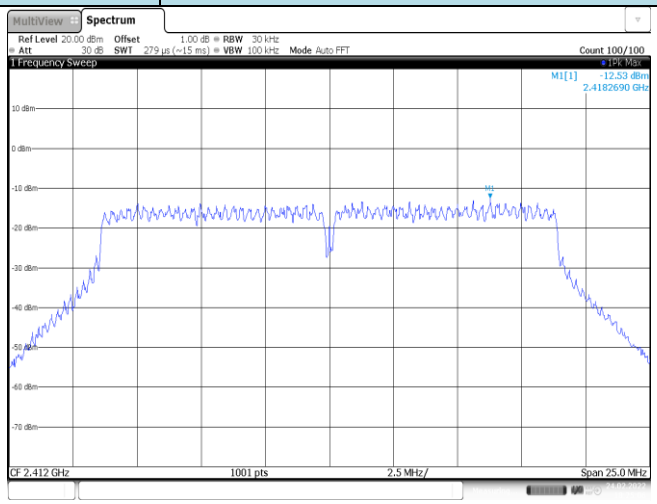
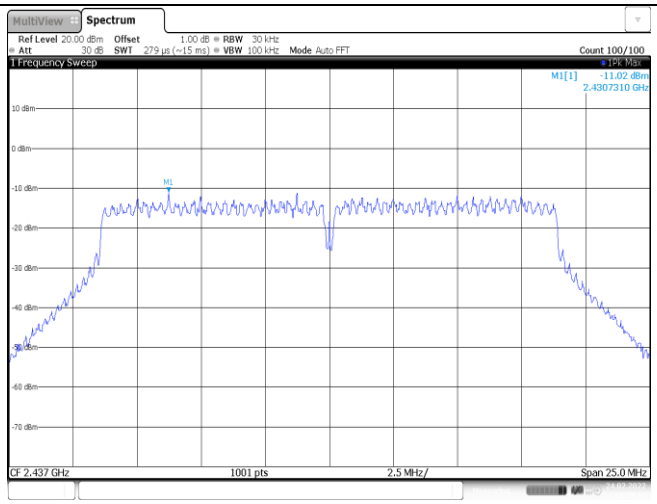
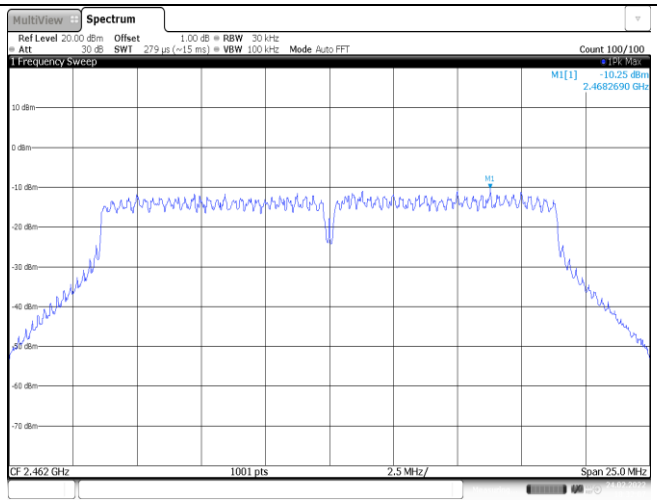
Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	11.55	8.84	≤ 30.00	Pass
	06	13.26	10.70		
	11	15.17	12.61		
802.11g	01	12.16	9.16	≤ 30.00	Pass
	06	13.75	10.72		
	11	15.32	12.36		
802.11n (HT20)	01	12.23	9.42	≤ 30.00	Pass
	06	13.94	11.24		
	11	15.65	13.04		
802.11n(HT40)	03	12.97	10.14	≤ 30.00	Pass
	06	14.10	11.32		
	09	15.16	12.14		

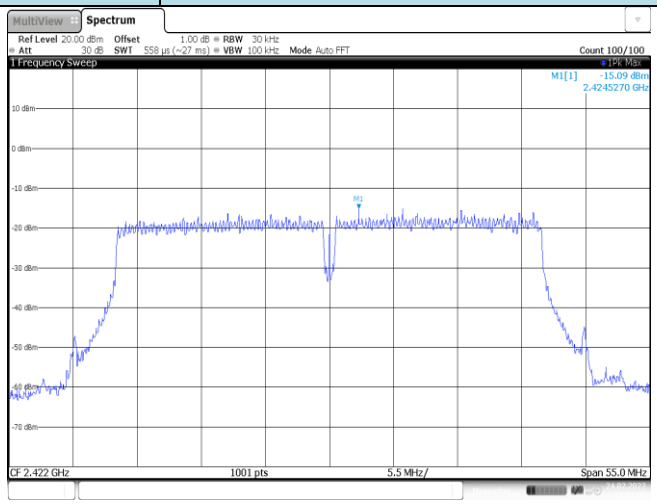
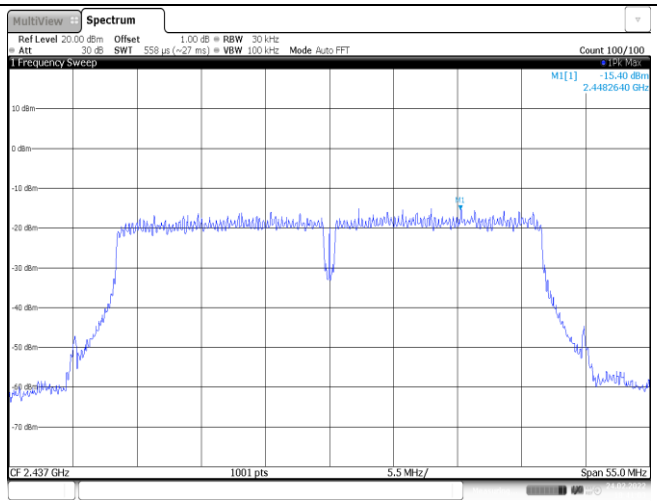
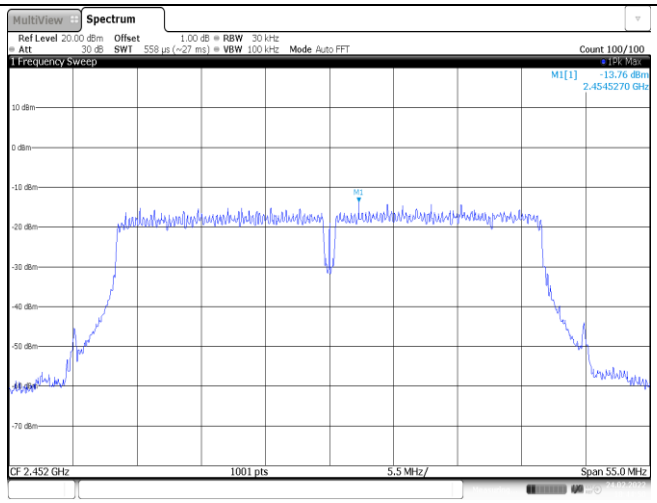
Appendix B：Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	3.71	≤8.00	Pass
	06	3.86		
	11	4.56		
802.11g	01	-10.18	≤8.00	Pass
	06	-9.40		
	11	-8.54		
802.11n(HT20)	01	-12.53	≤8.00	Pass
	06	-11.02		
	11	-10.25		
802.11n(HT40)	03	-15.09	≤8.00	Pass
	06	-15.40		
	09	-13.76		

Type:	802.11 b
CH01	
CH06	
CH11	

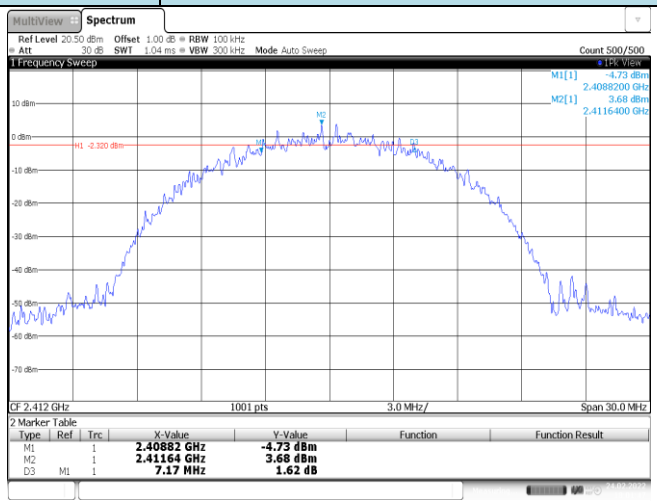
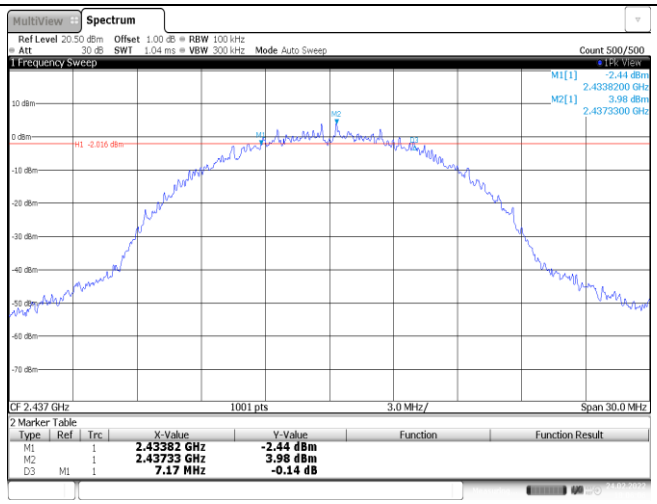
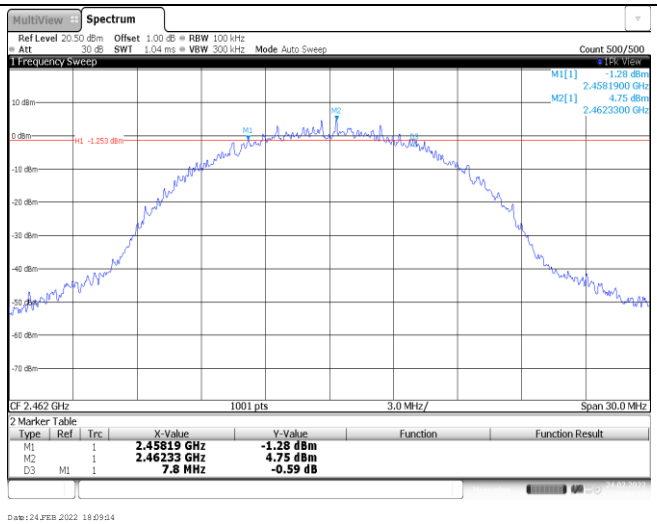
Type:	802.11 g
CH01	
CH06	
CH11	

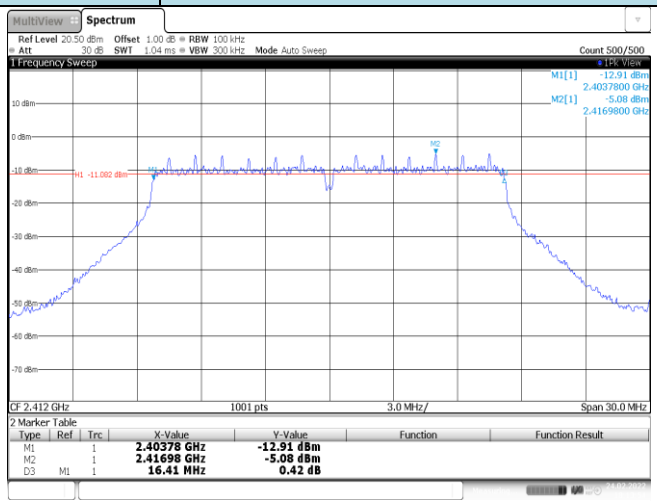
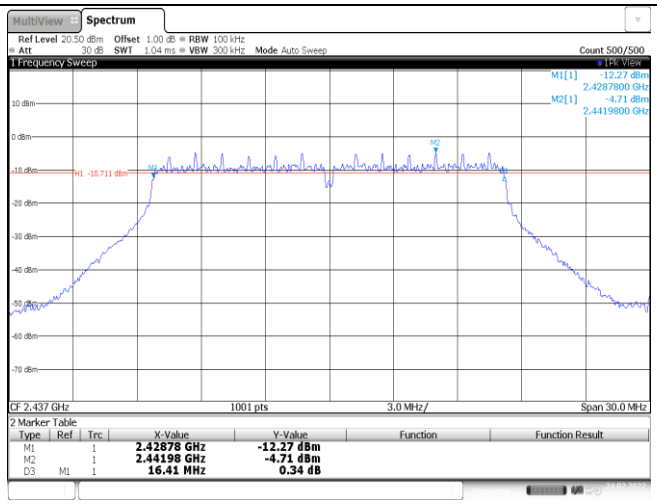
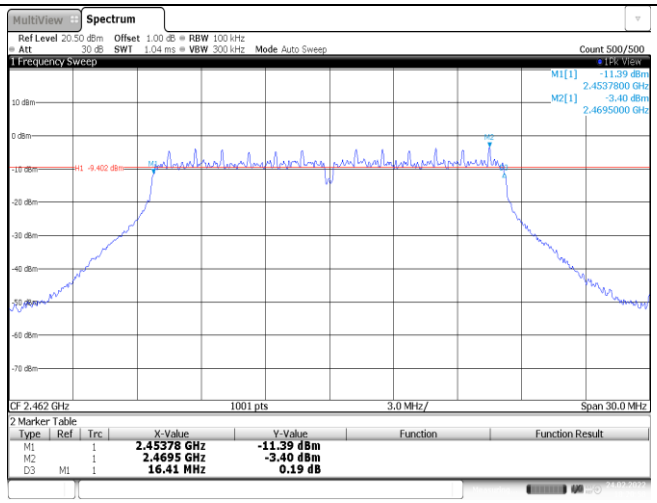
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

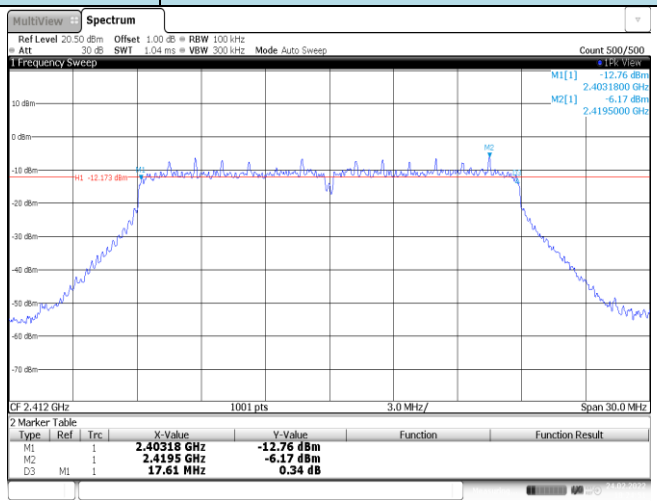
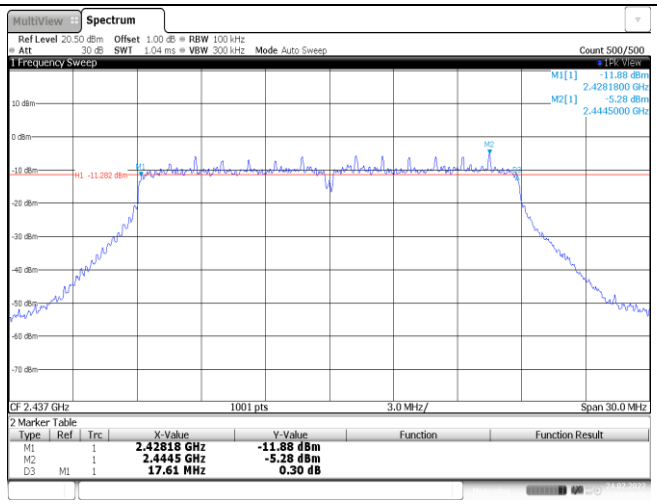
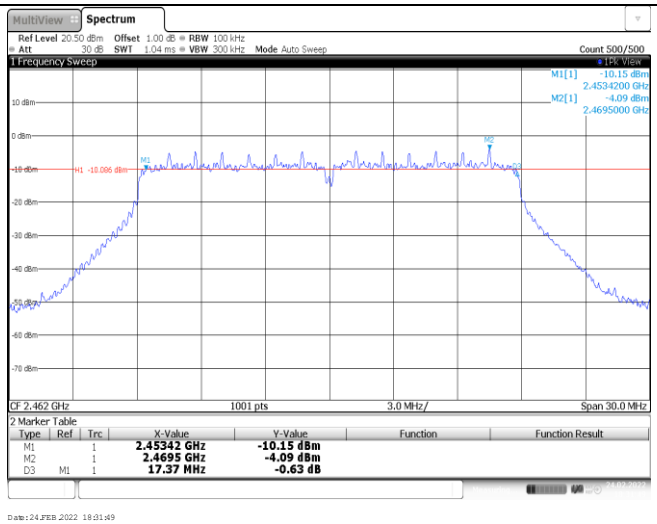
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

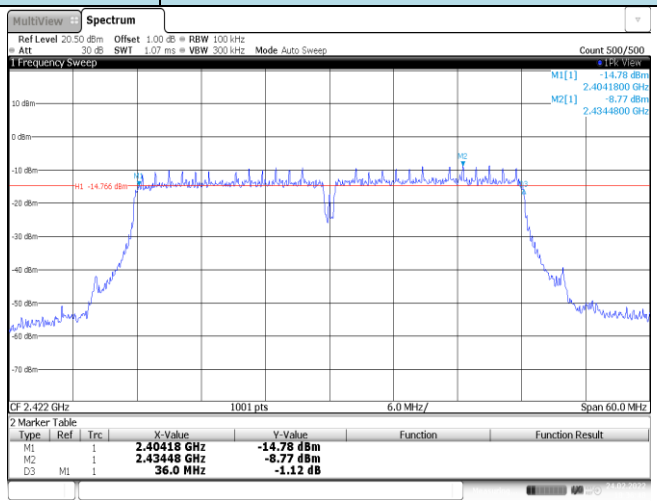
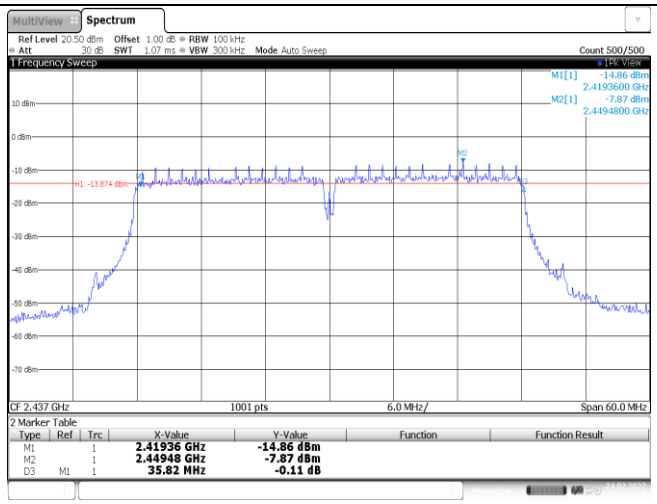
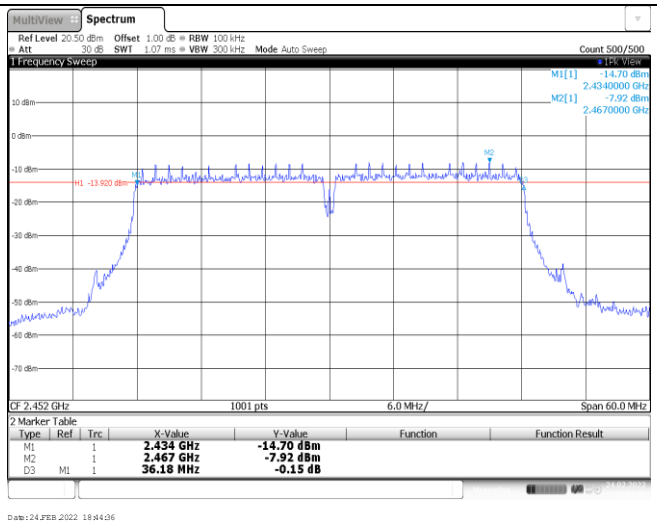
Appendix C：6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	7.17	≥0.5	Pass
	06	7.17		
	11	7.80		
802.11g	01	16.41	≥0.5	Pass
	06	16.41		
	11	16.41		
802.11n(HT20)	01	17.61	≥0.5	Pass
	06	17.61		
	11	17.37		
802.11n(HT40)	03	36.00	≥0.5	Pass
	06	35.82		
	09	36.18		

Type:	802.11 b
CH01	
CH06	
CH11	

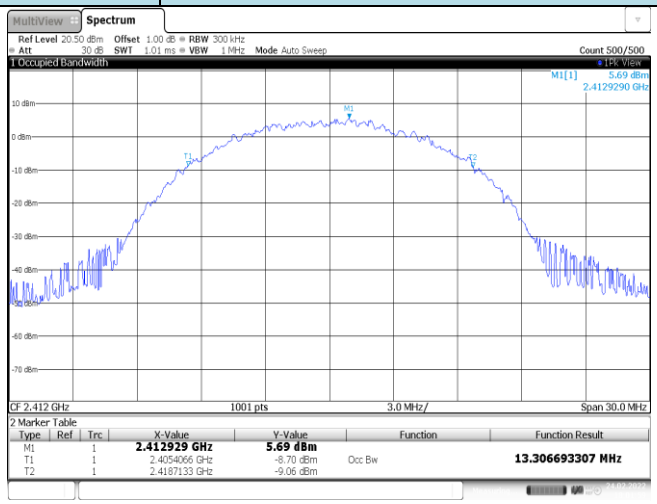
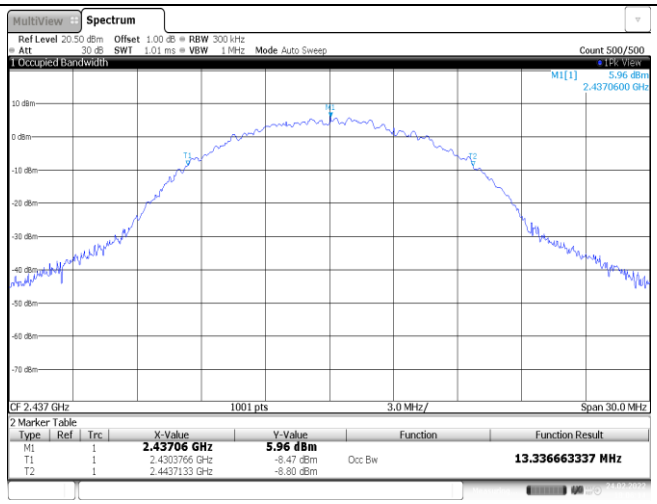
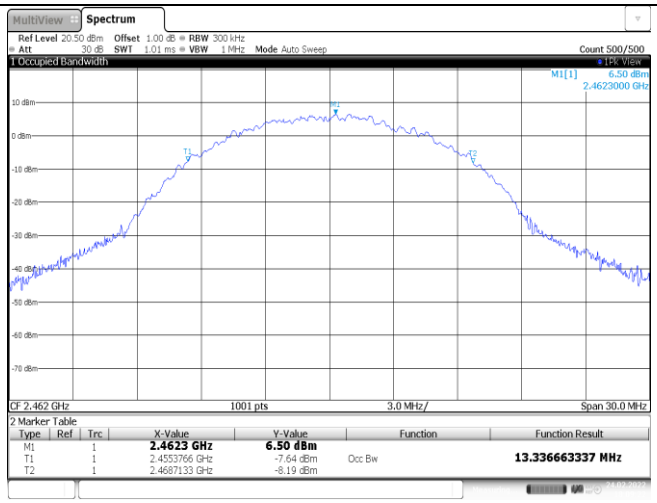
Type:	802.11 g
CH01	
CH06	
CH11	

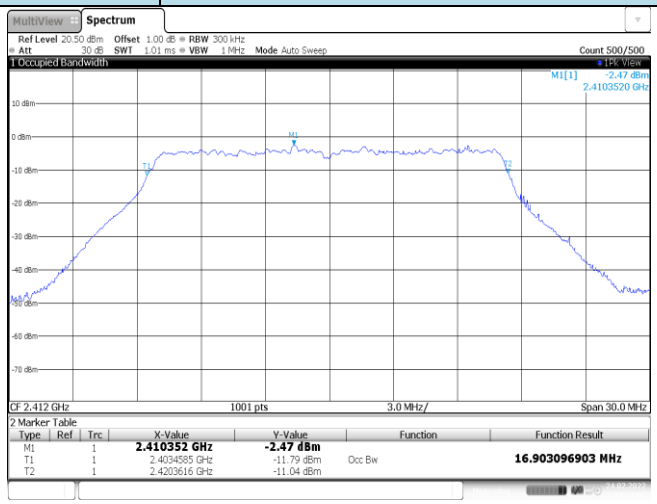
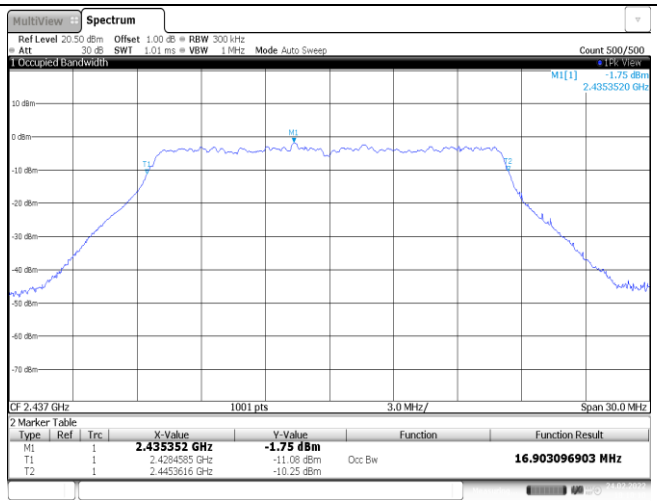
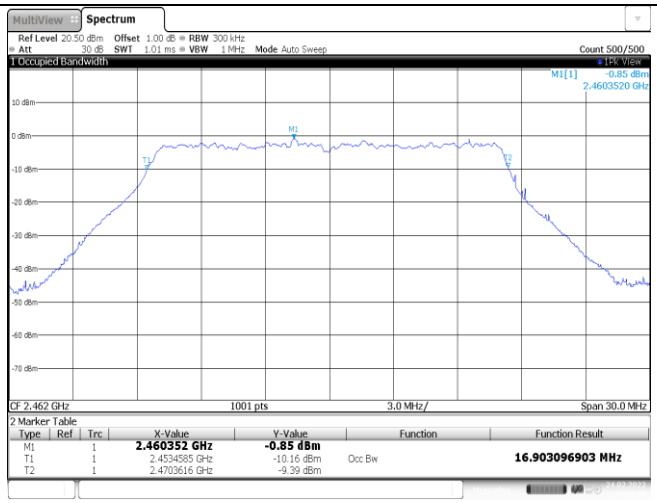
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

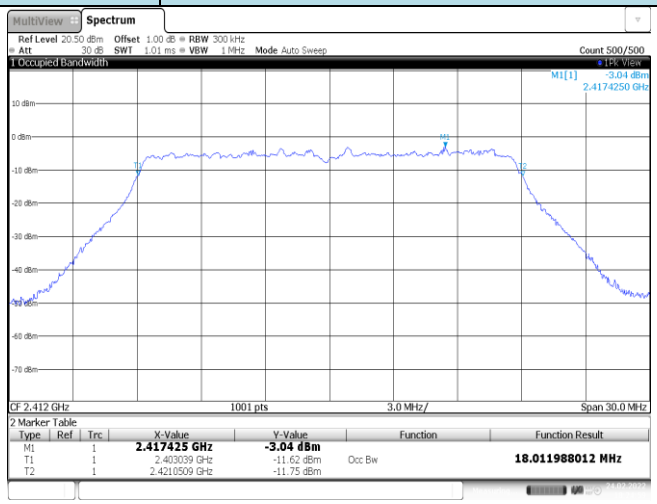
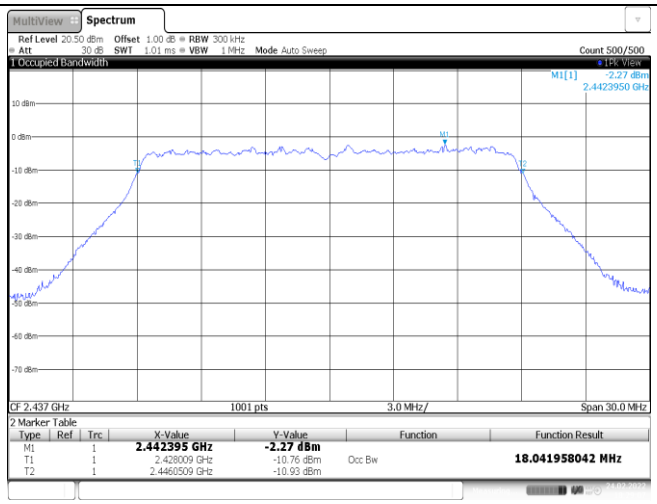
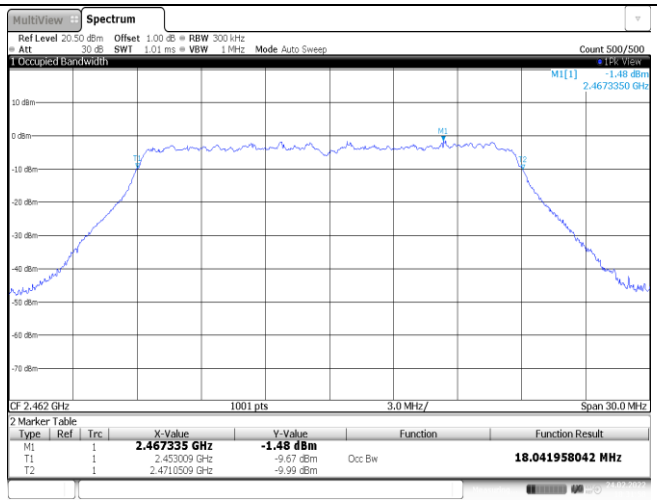
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

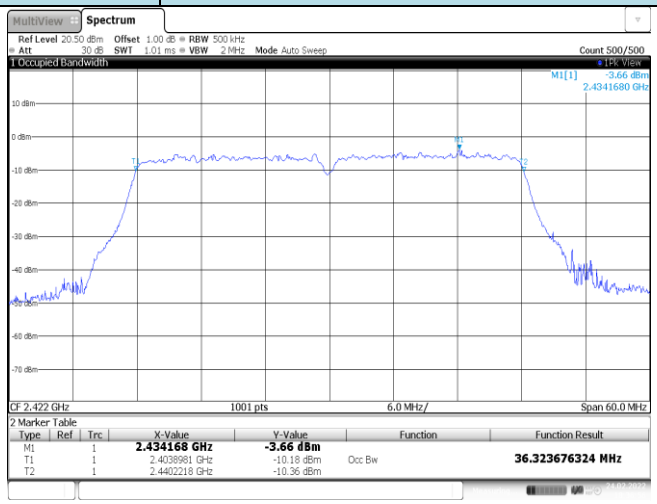
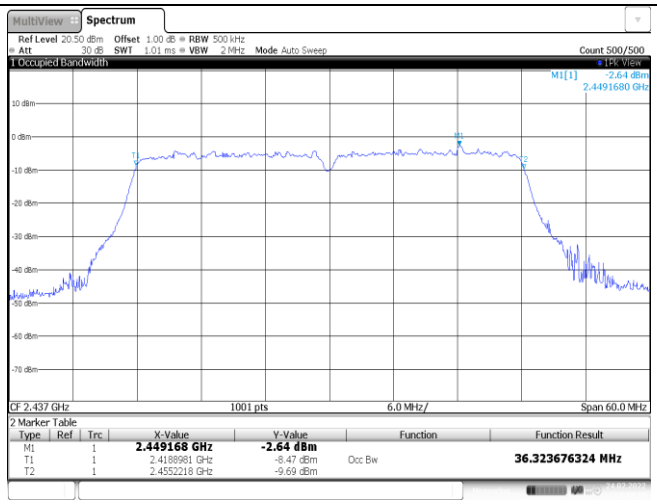
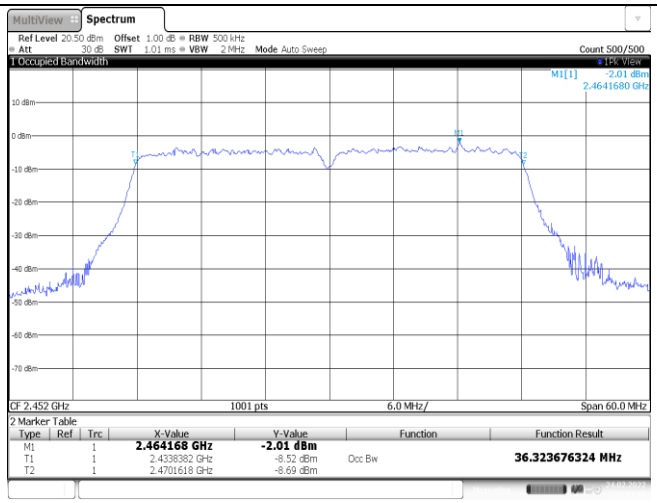
Appendix D：99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	13.31	-	Pass
	06	13.34		
	11	13.34		
802.11g	01	16.90	-	Pass
	06	16.90		
	11	16.90		
802.11n(HT20)	01	18.01	-	Pass
	06	18.04		
	11	18.04		
802.11n(HT40)	03	36.32	-	Pass
	06	36.32		
	09	36.32		

Type:	802.11 b
CH01	
CH06	
CH11	

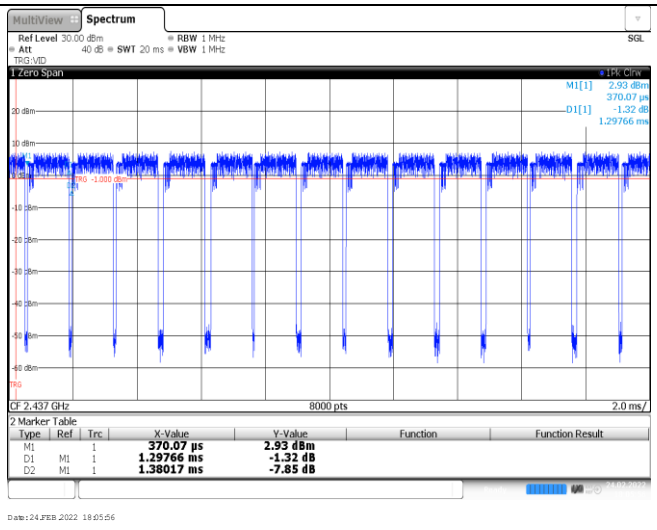
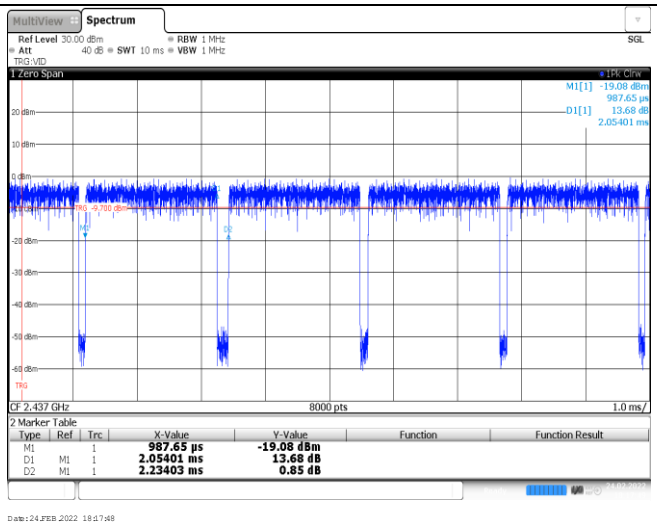
Type:	802.11 g
CH01	
CH06	
CH11	

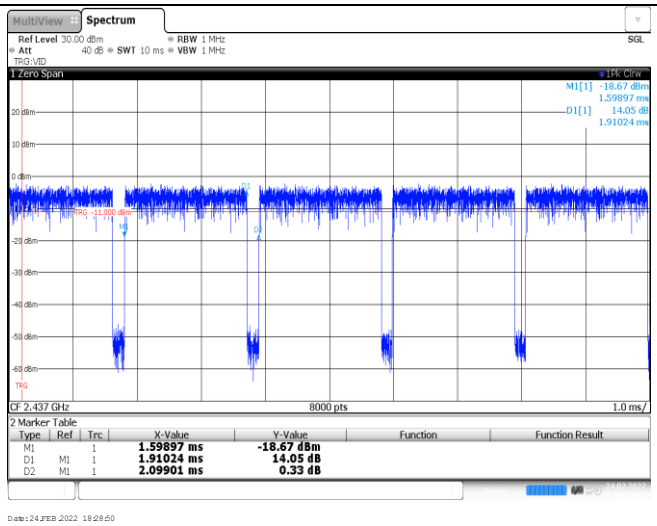
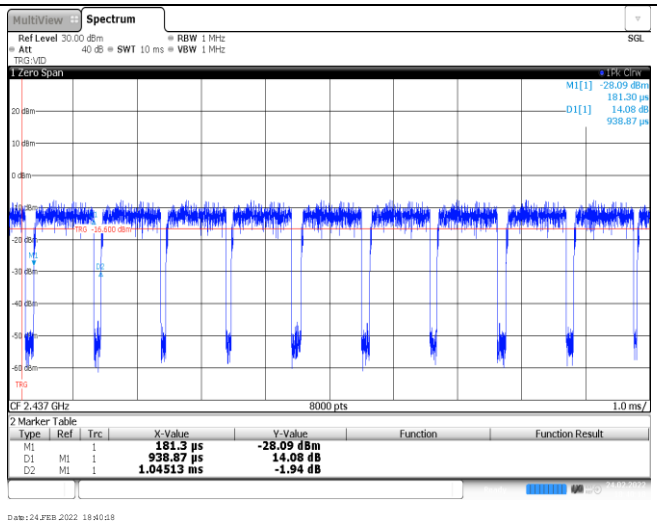
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

Type:	802.11n(HT40)
CH03	
CH06	
CH09	

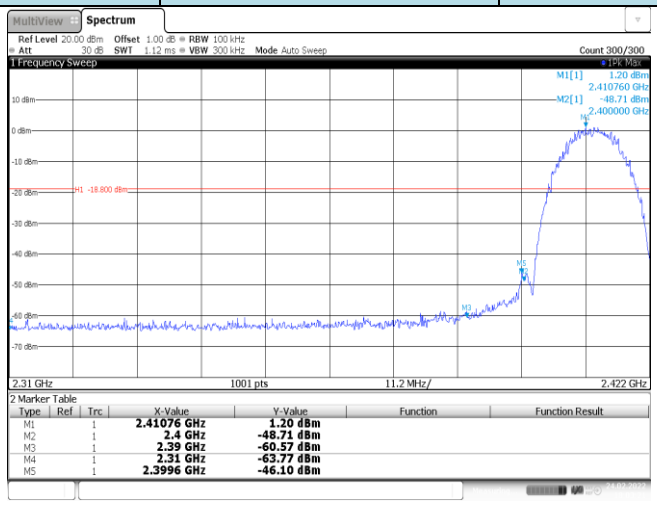
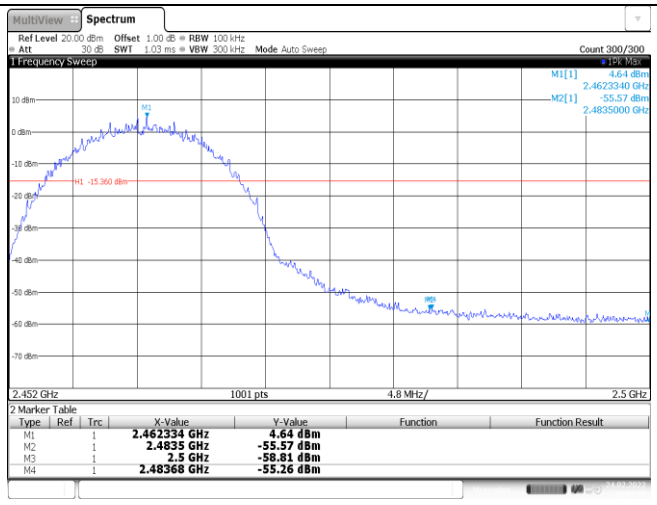
Appendix E：Duty Cycle

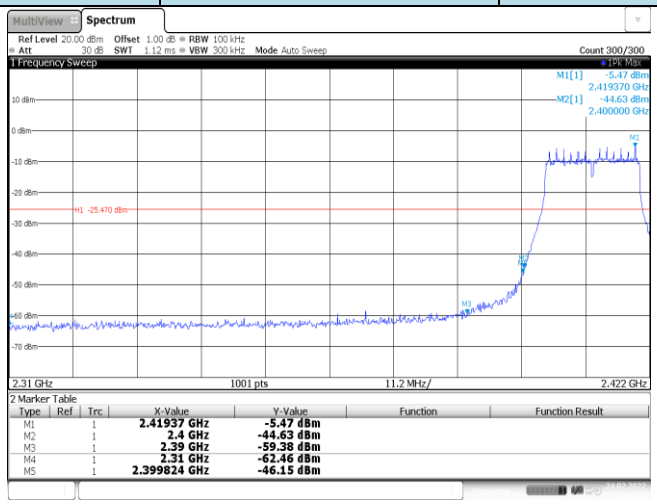
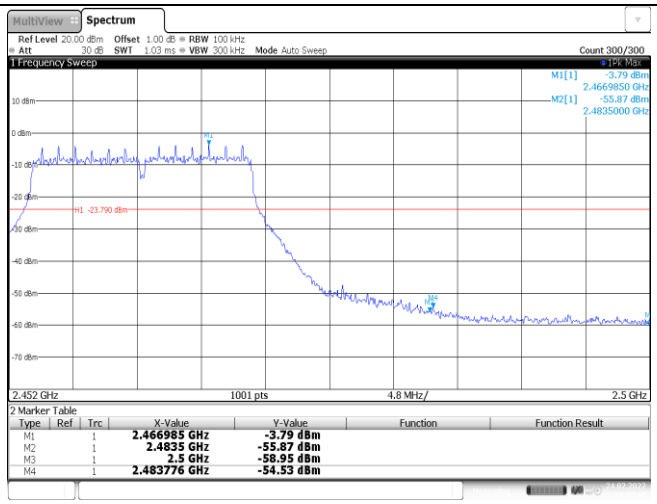
Modulation Type	Test Frequency （MHz）	$T_{on\ time}$ for single burst (ms)	T_{period} (ms)	Duty cycle	$1/T_{on\ time}$ (kHz)
11b	2437	1.30	1.38	94.2%	0.8
11g	2437	2.05	2.23	91.9%	0.5
11n20	2437	1.91	2.10	91.0%	0.5
11n40	2437	0.94	1.05	89.5%	1.1

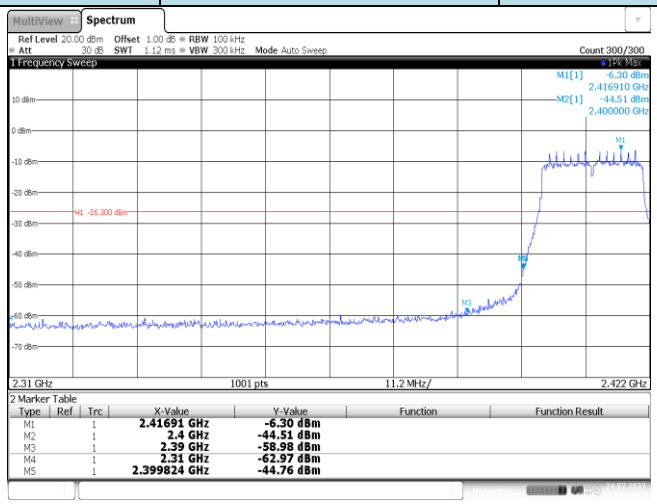
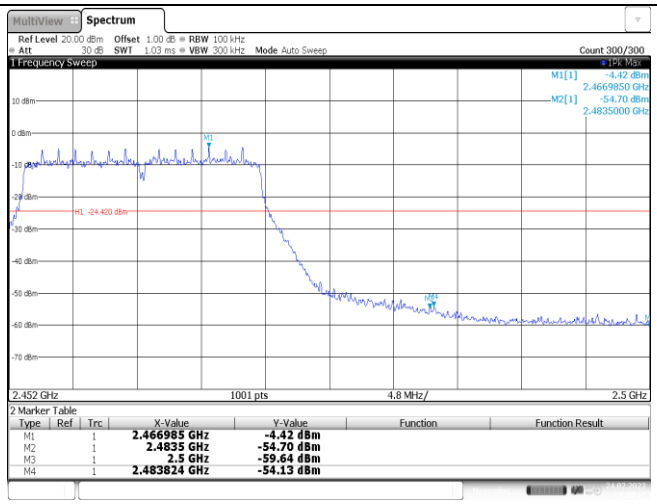
11b	
11g	

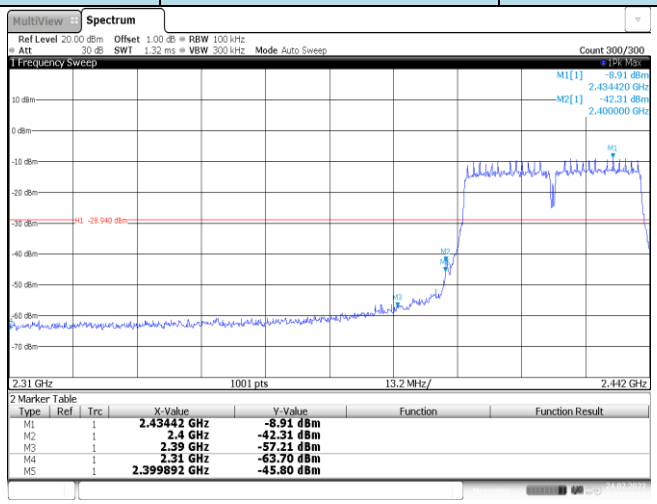
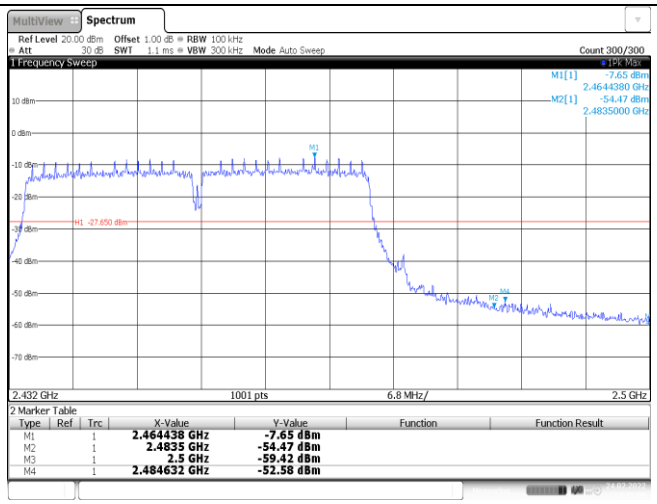
11n20	 MultiView Spectrum Ref Level 30.00 dBm RBW 1 MHz Att 40 dB SWT 10 ms VBW 1 MHz SGL TRG:VID 1 Zero Span 1Pk Clrw M1[1] -18.67 dBm 1.59897 ms D1[1] 14.05 dB 1.91024 ms CF 2.437 GHz 8000 pts 1.0 ms/ 2 Marker Table Type Ref Trc X-Value Y-Value Function Function Result M1 1 1.59897 ms -18.67 dBm D1 M1 1 1.91024 ms 14.05 dB D2 M1 1 2.09901 ms 0.33 dB Date: 24.FEB.2022 18:28:50
11n40	 MultiView Spectrum Ref Level 30.00 dBm RBW 1 MHz Att 40 dB SWT 10 ms VBW 1 MHz SGL TRG:VID 1 Zero Span 1Pk Clrw M1[1] -28.09 dBm 181.30 µs D1[1] 14.08 dB 938.87 µs CF 2.437 GHz 8000 pts 1.0 ms/ 2 Marker Table Type Ref Trc X-Value Y-Value Function Function Result M1 1 181.3 µs -28.09 dBm D1 M1 1 938.87 µs 14.08 dB D2 M1 1 1.04513 ms -1.94 dB Date: 24.FEB.2022 18:40:18

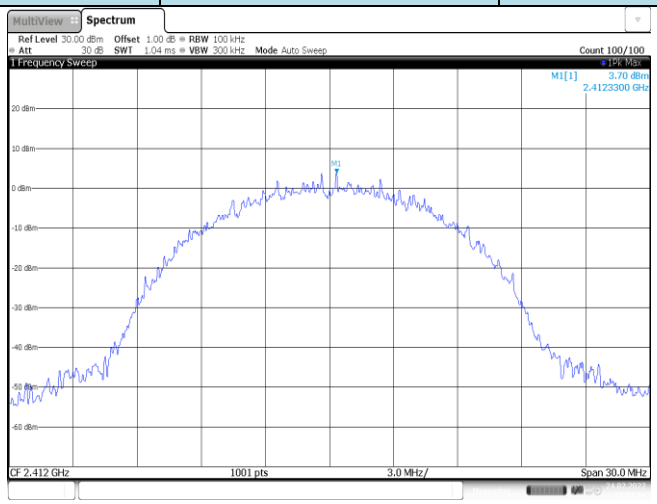
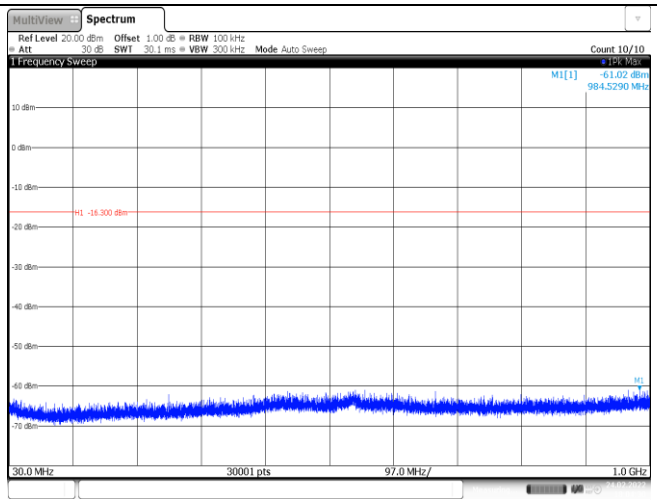
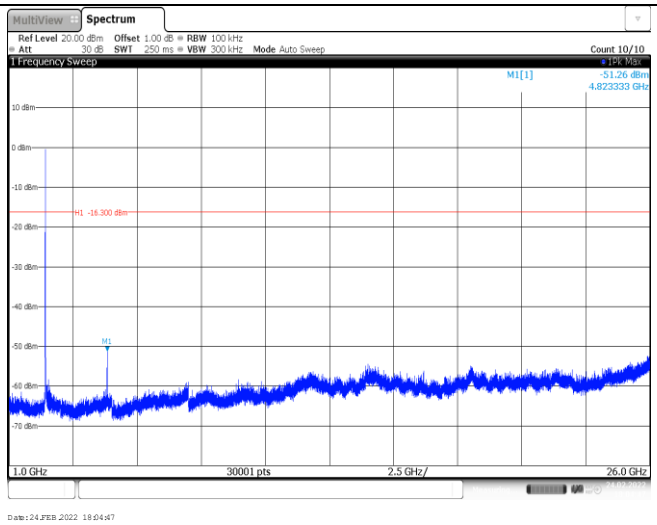
Appendix F：Band edge and Spurious Emissions (conducted)

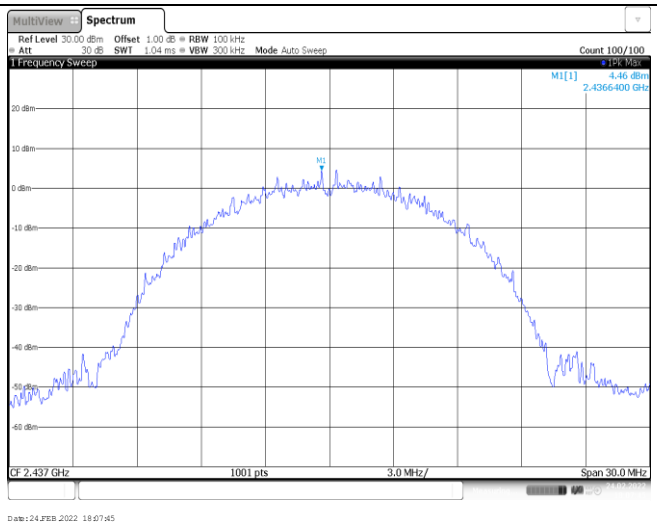
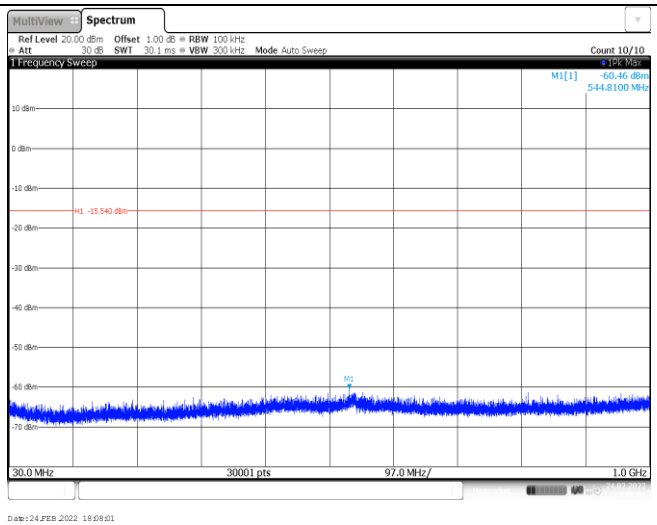
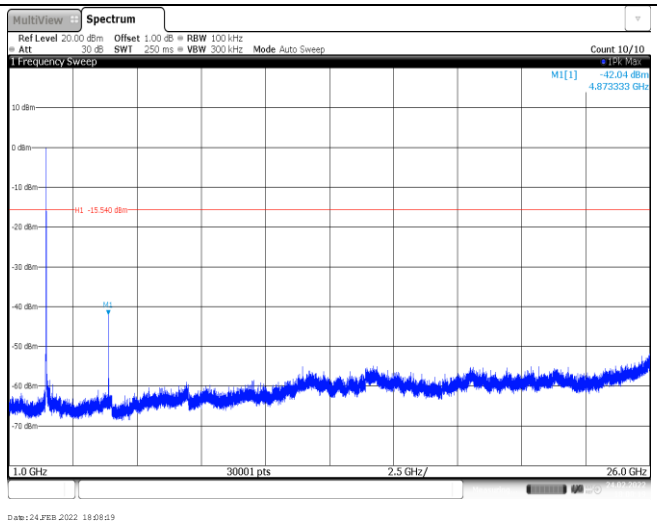
Test Item:	Bandedge	Type:	802.11 b
CH01			
CH11			

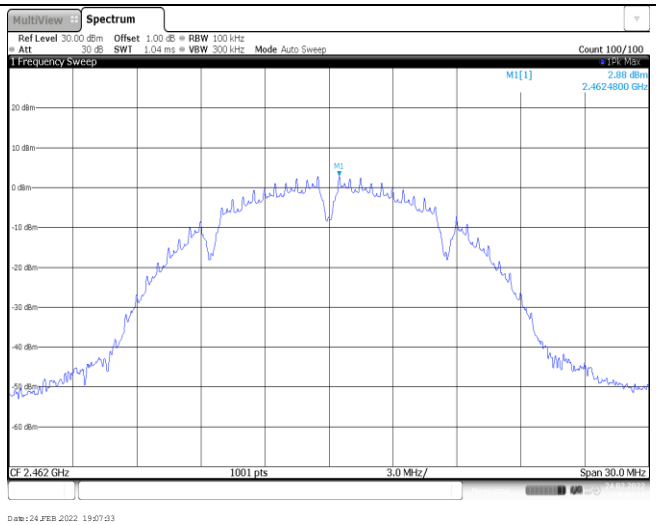
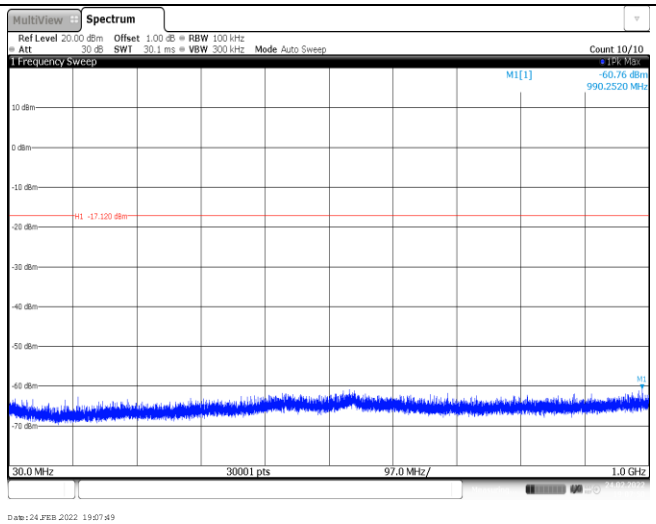
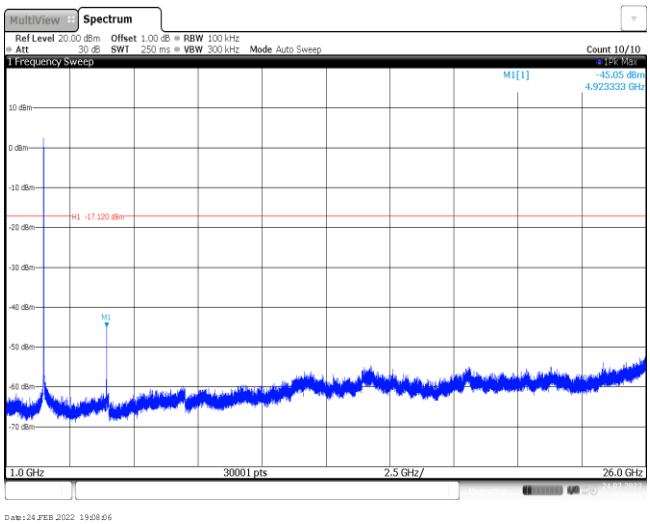
Test Item:	Bandedge	Type:	802.11 g
CH01			
CH11			

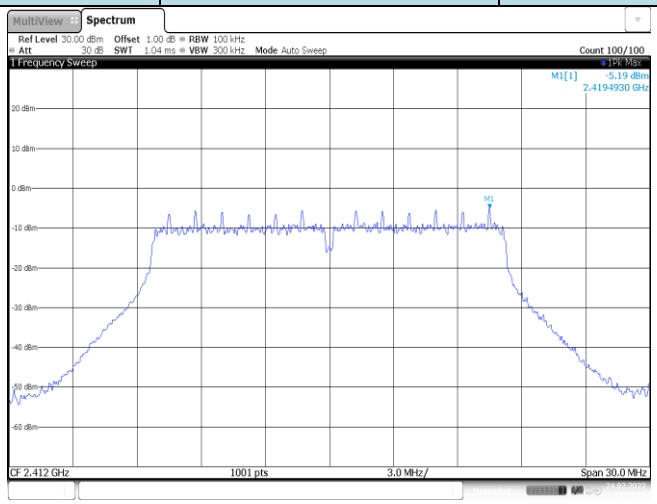
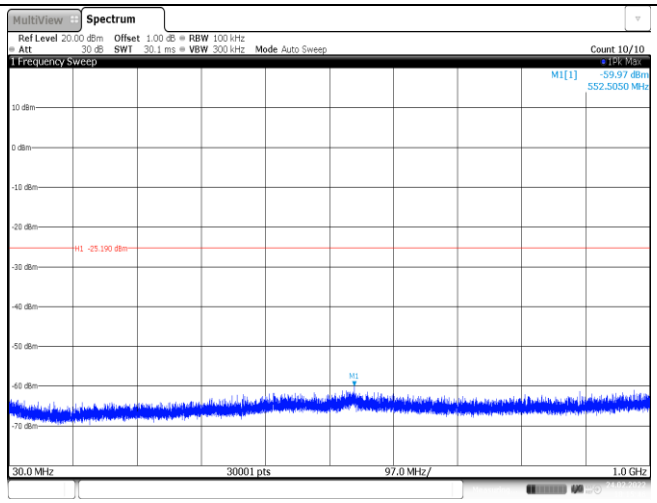
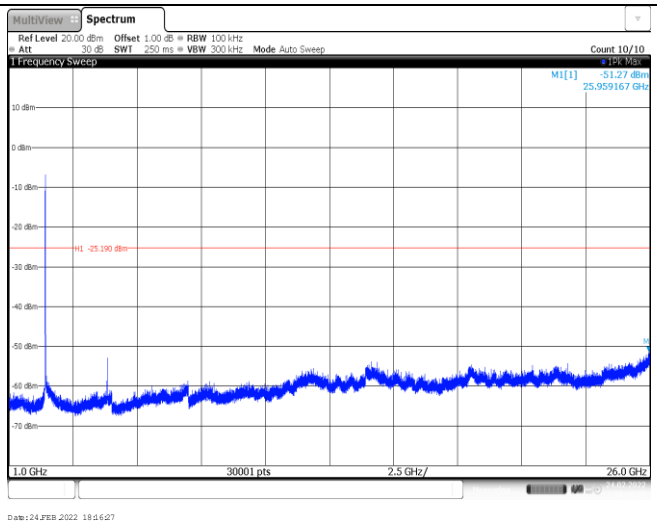
Test Item:	Bandedge	Type:	802.11 n(HT20)
CH01			
CH11			

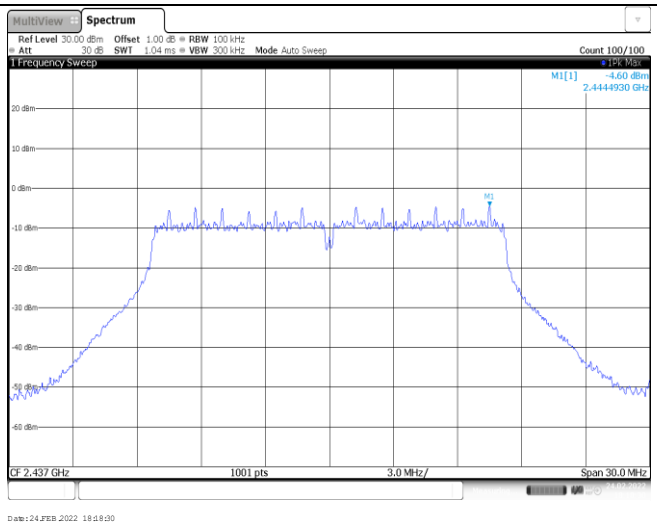
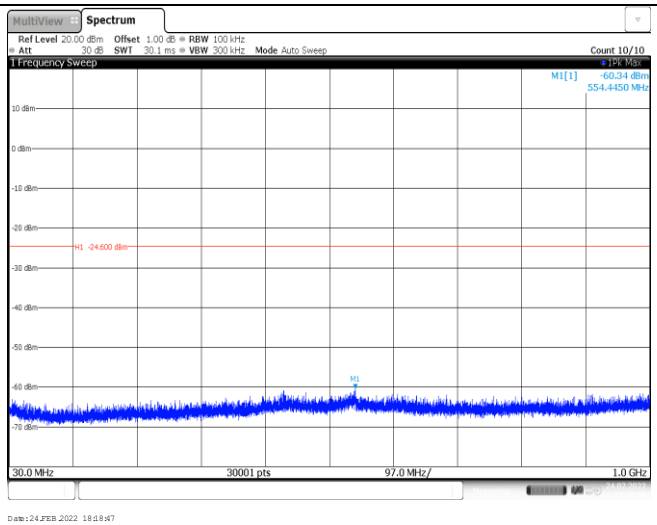
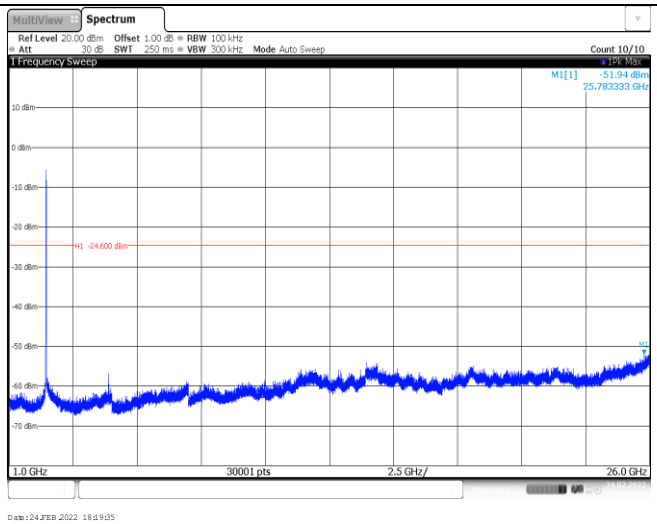
Test Item:	Bandedge	Type:	802.11 n(HT40)
CH03			
CH09			

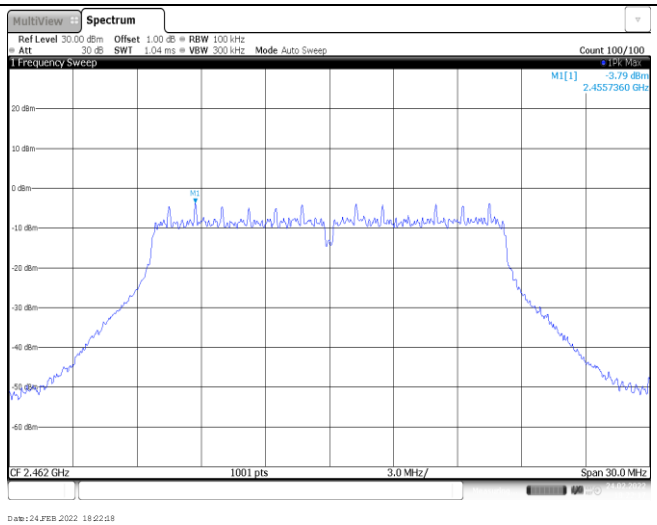
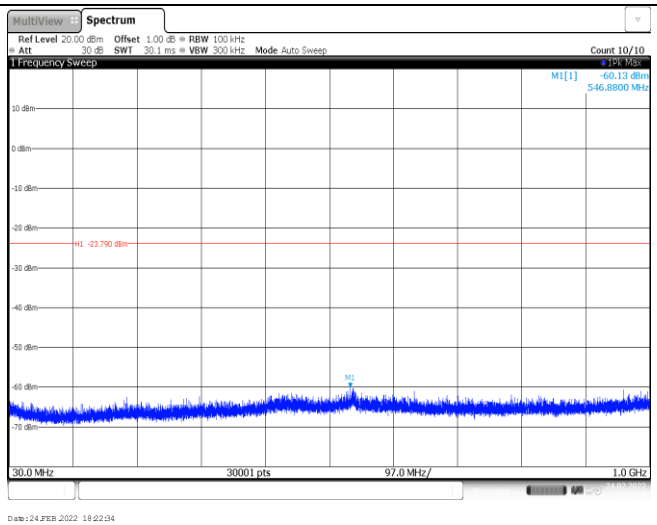
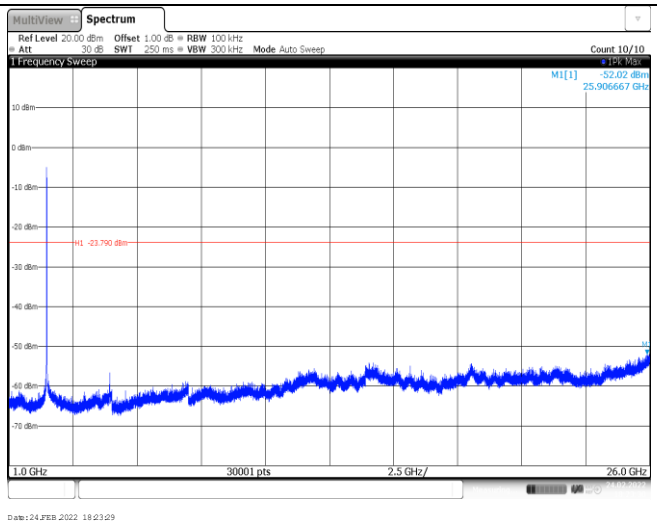
Test Item:	SE	Type:	802.11b
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

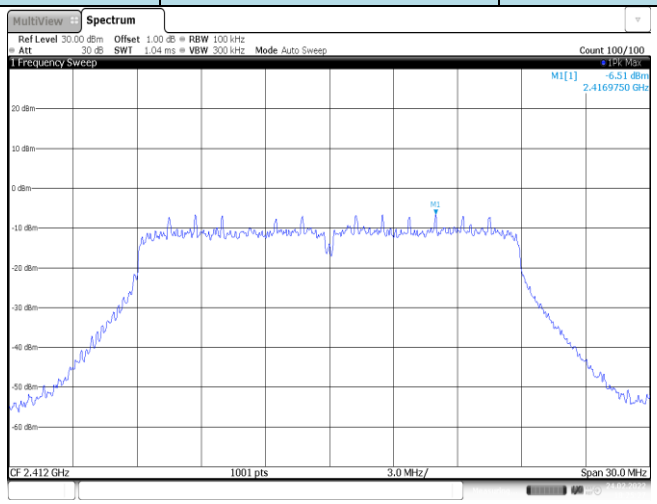
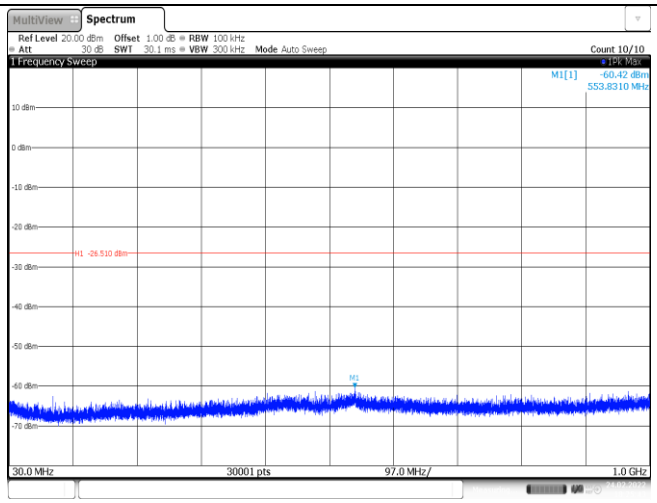
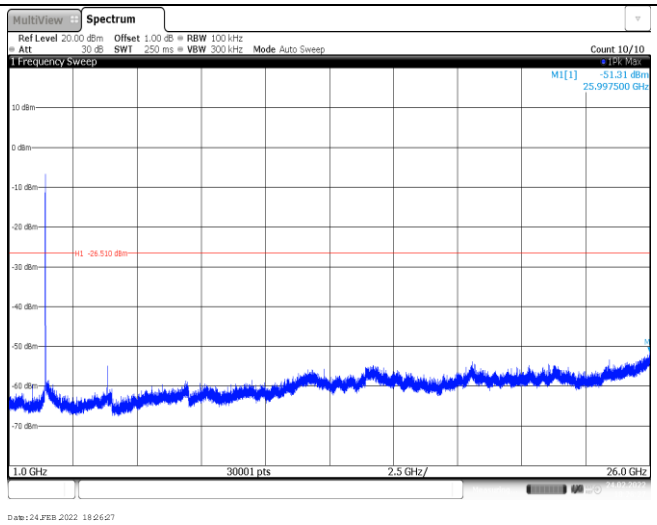
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

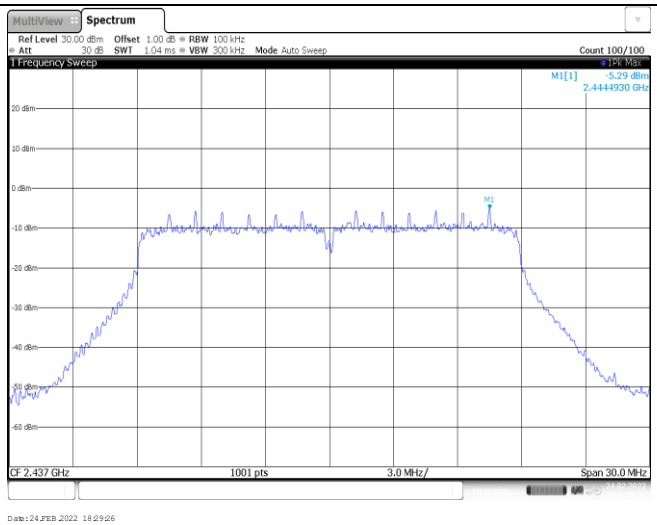
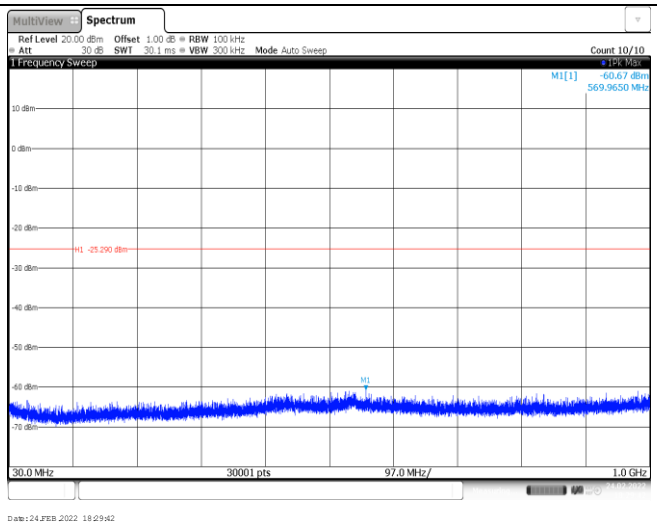
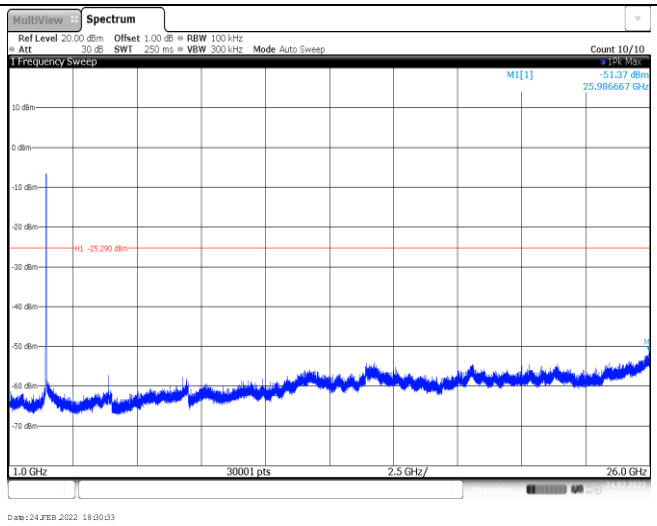
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

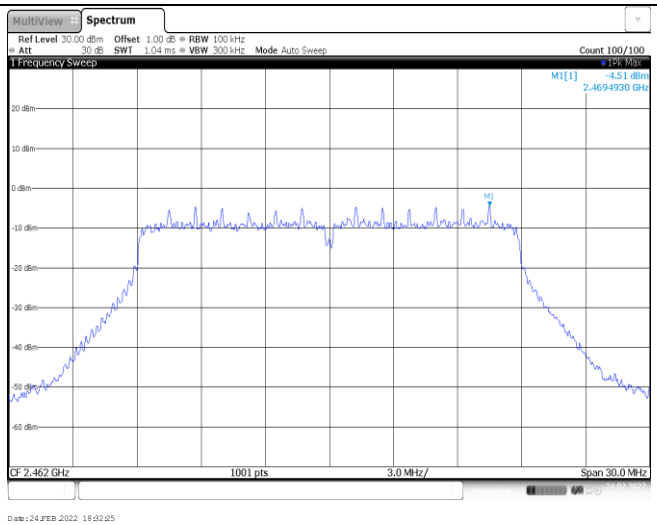
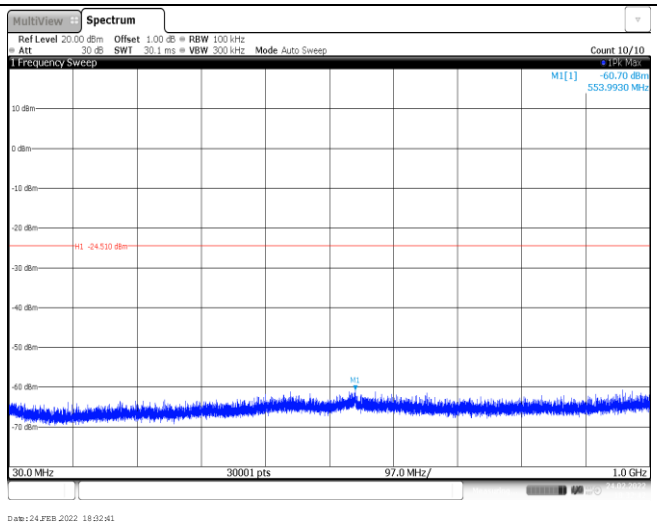
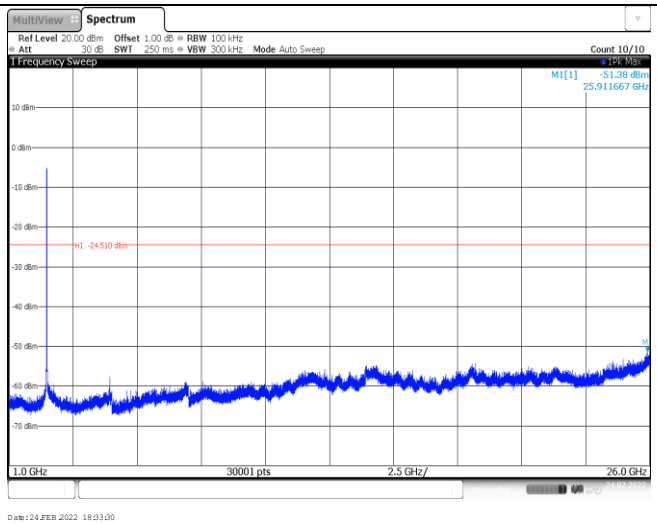
Test Item:	SE	Type:	802.11g
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

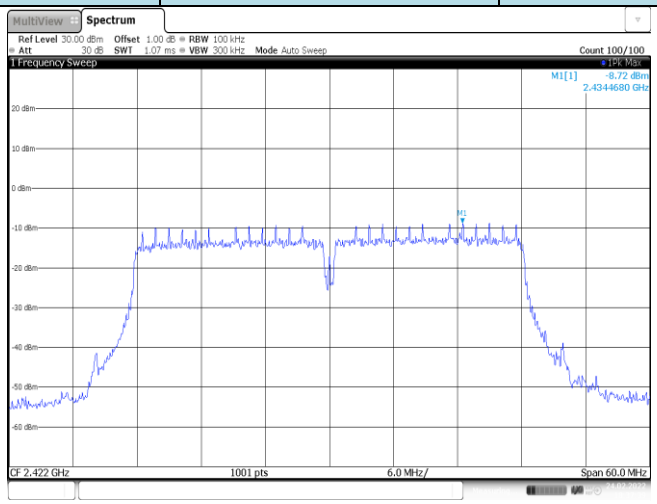
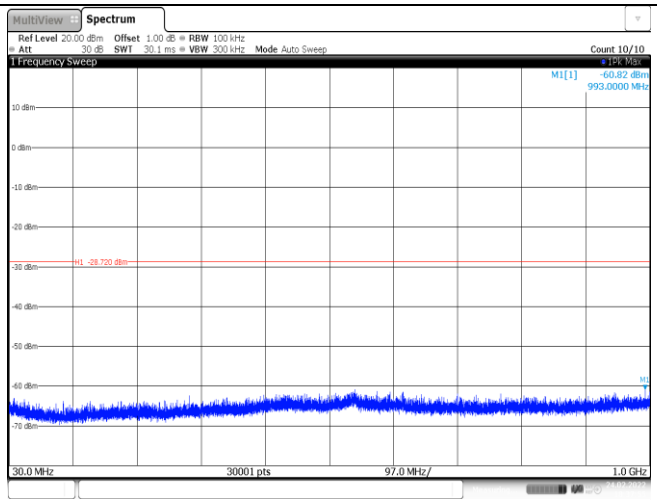
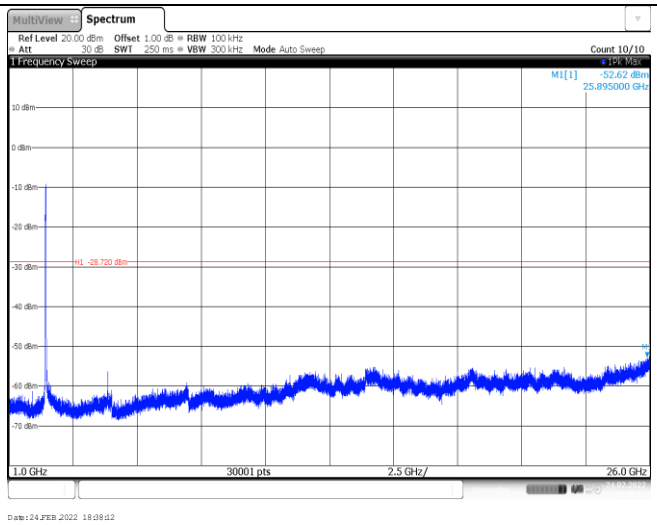
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

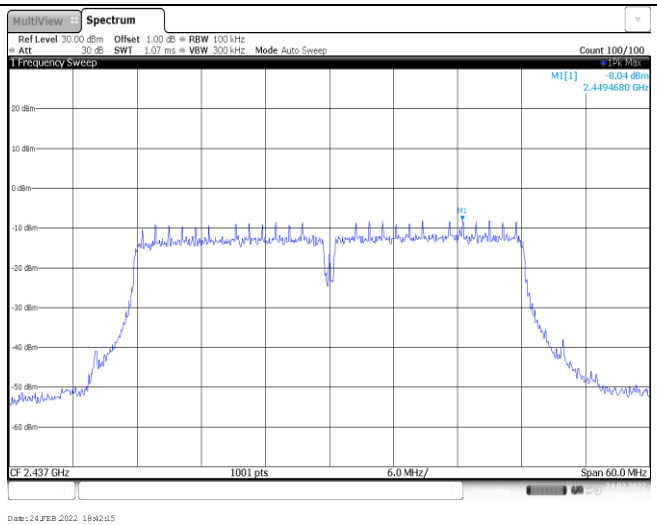
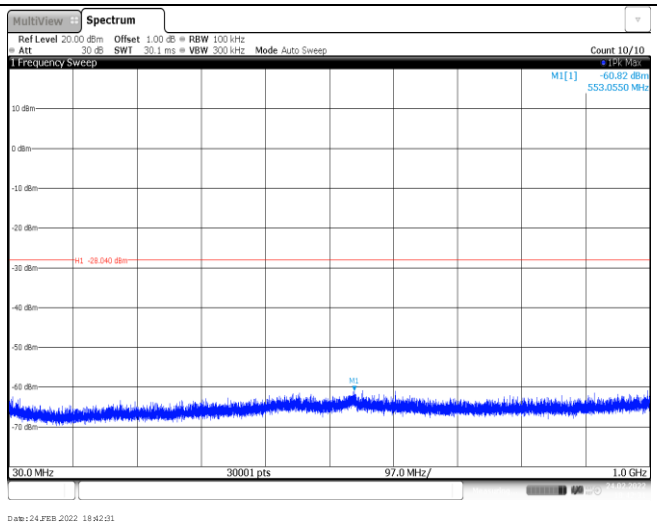
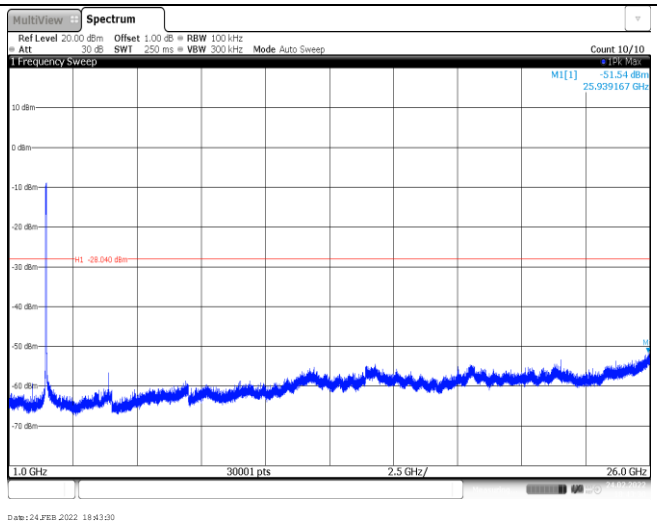
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

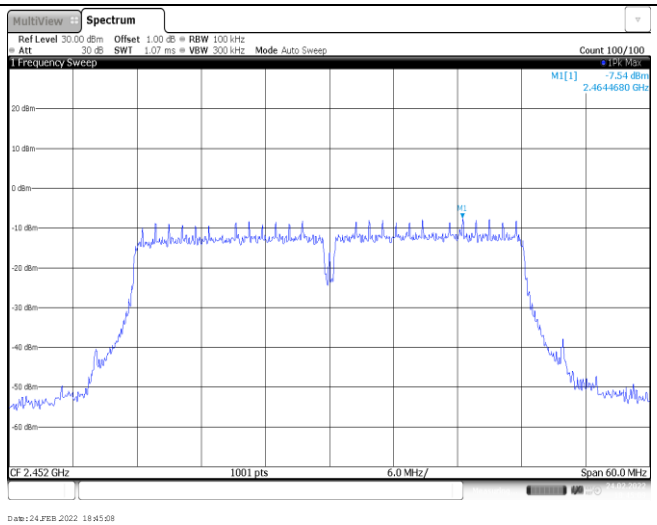
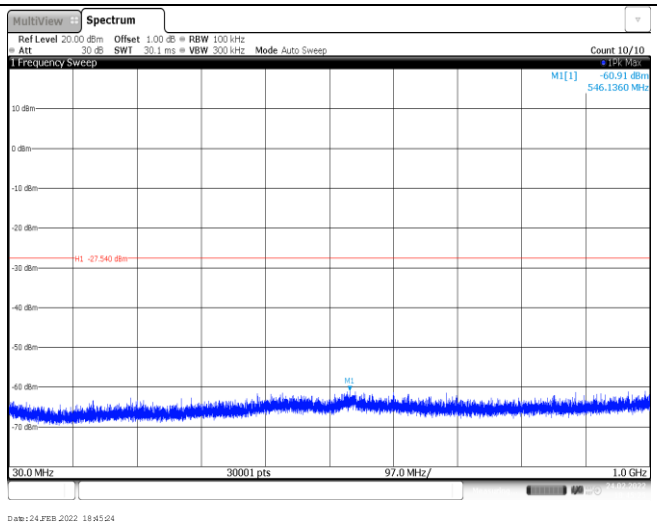
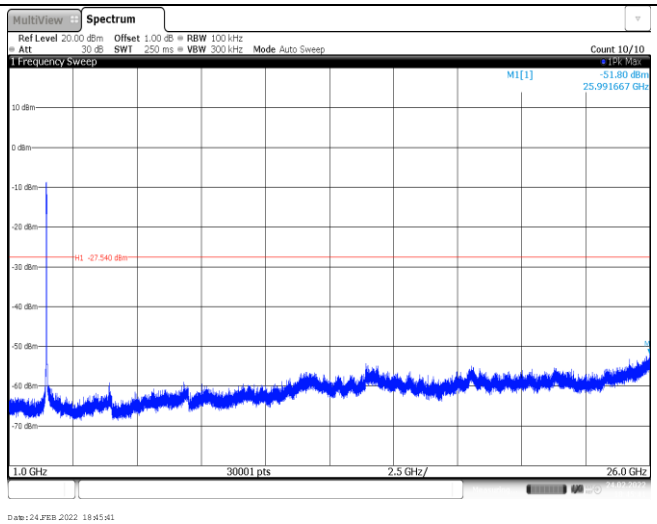
Test Item:	SE	Type:	802.11n(HT20)
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

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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