APPENDIX REPORT

Project No.	SHT2205024703EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT22050247007	Model No.	ProFace X(DS)
Start test date	2022-05-18	Finish date	2022-05-18
Temperature	24.4℃	Humidity	33%
Test Engineer	Hailey Chen	Auditor	Xiaodong Zhao

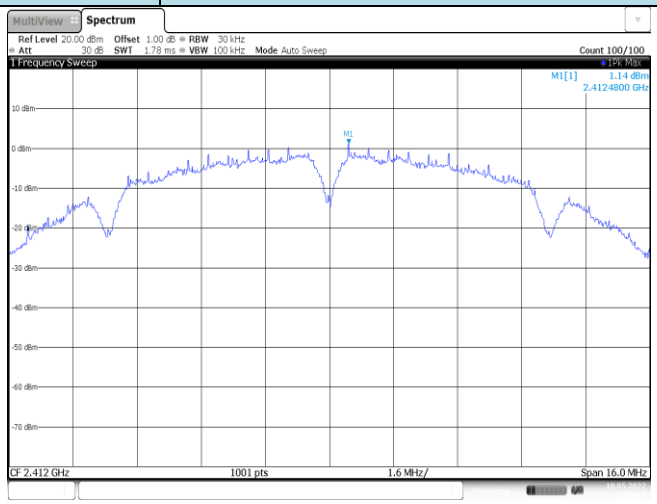
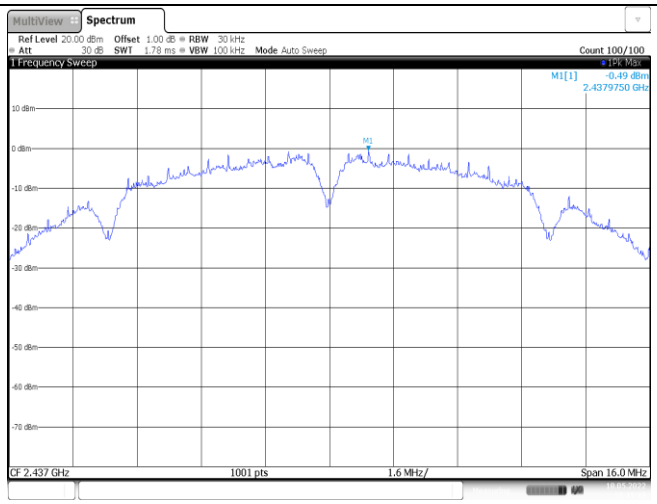
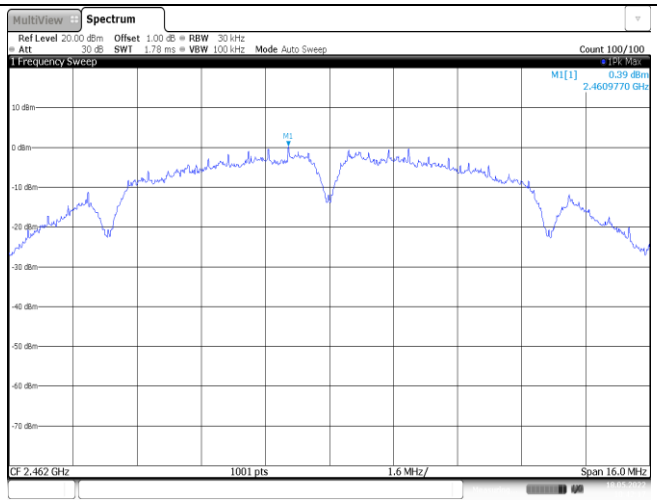
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

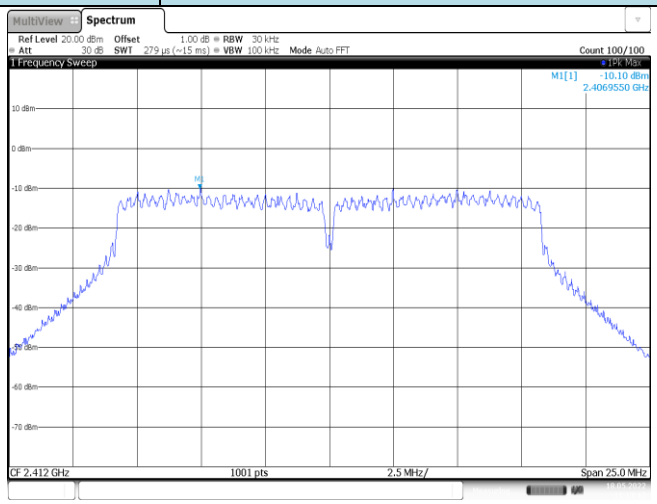
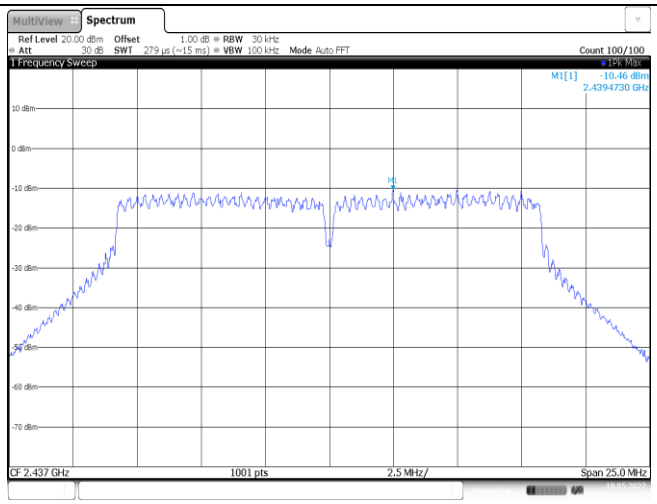
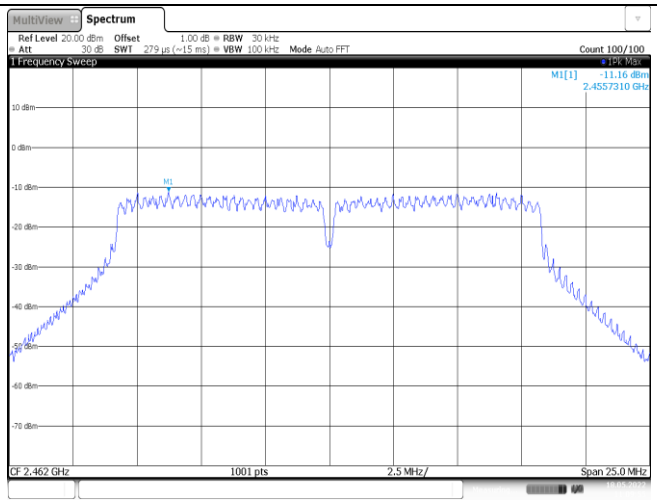
Appendix A: Conducted Peak Output Power

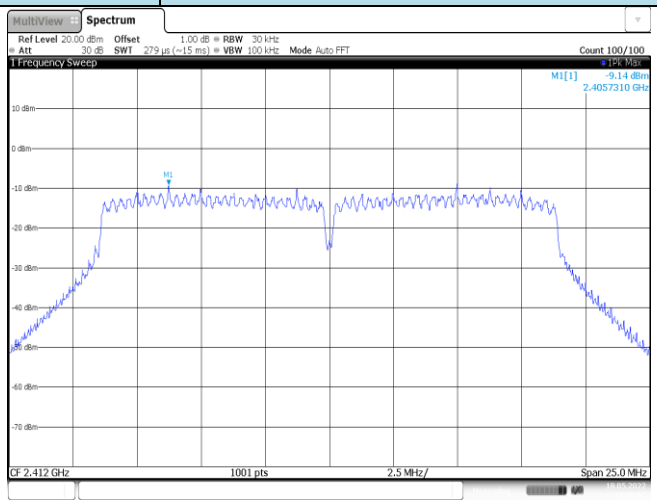
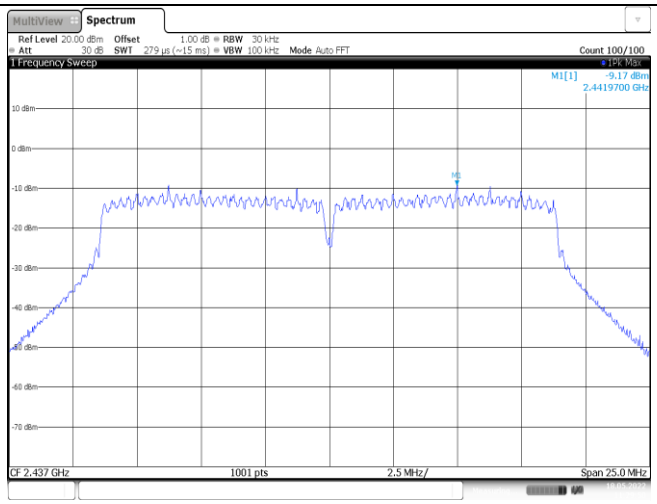
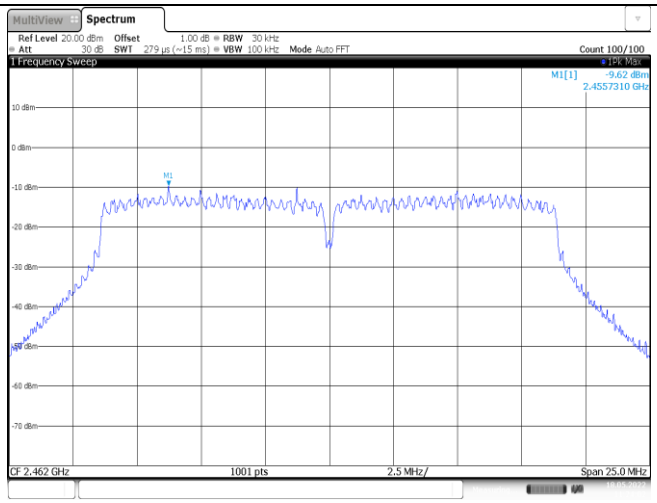
Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	14.98	12.42	≤ 30.00	Pass
	06	14.98	12.31		
	11	14.45	11.76		
802.11g	01	14.95	12.23	≤ 30.00	Pass
	06	14.93	12.17		
	11	14.21	11.43		
802.11n (HT20)	01	14.95	12.35	≤ 30.00	Pass
	06	14.91	12.13		
	11	14.36	11.69		
802.11n(HT40)	03	15.02	11.93	≤ 30.00	Pass
	06	14.94	11.87		
	09	14.49	11.61		

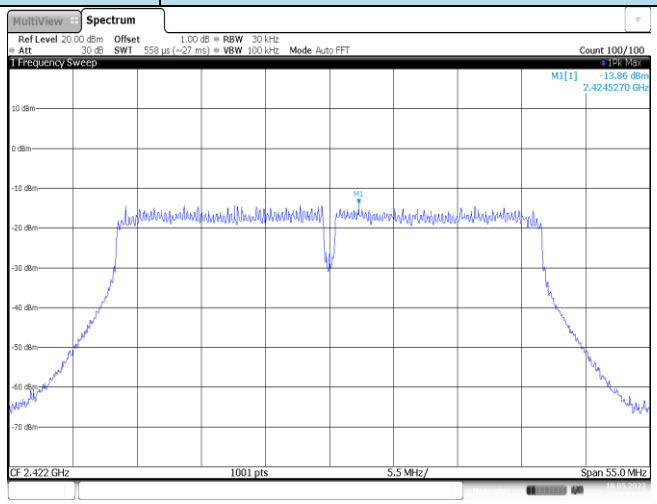
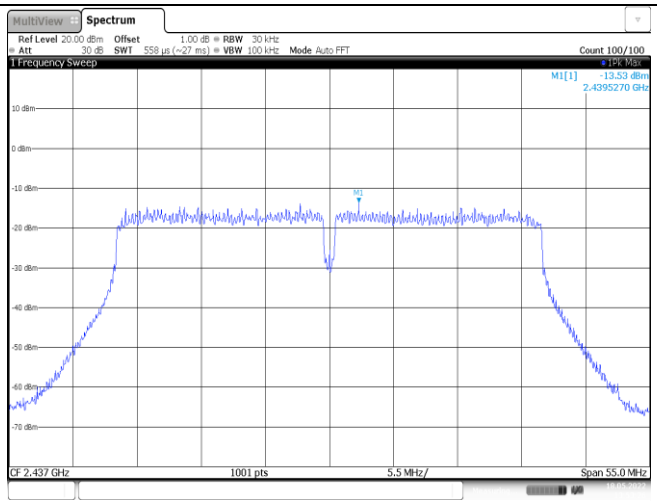
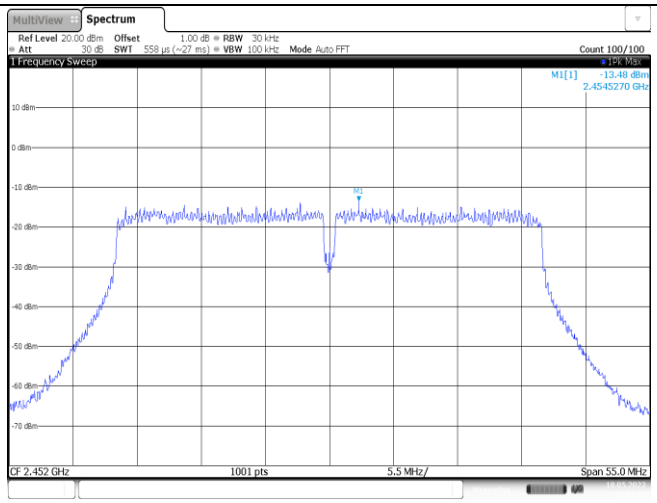
Appendix B：Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	1.14	≤8.00	Pass
	06	-0.49		
	11	0.39		
802.11g	01	-10.10	≤8.00	Pass
	06	-10.46		
	11	-11.16		
802.11n(HT20)	01	-9.14	≤8.00	Pass
	06	-9.17		
	11	-9.62		
802.11n(HT40)	03	-13.86	≤8.00	Pass
	06	-13.53		
	09	-13.48		

Type:	802.11 b
CH01	
CH06	
CH11	

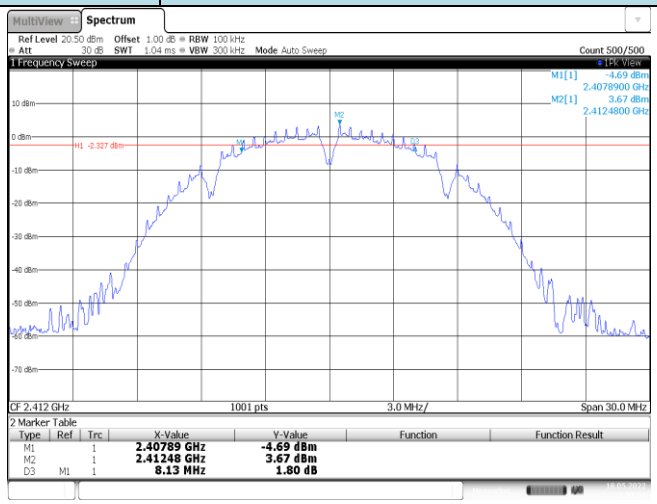
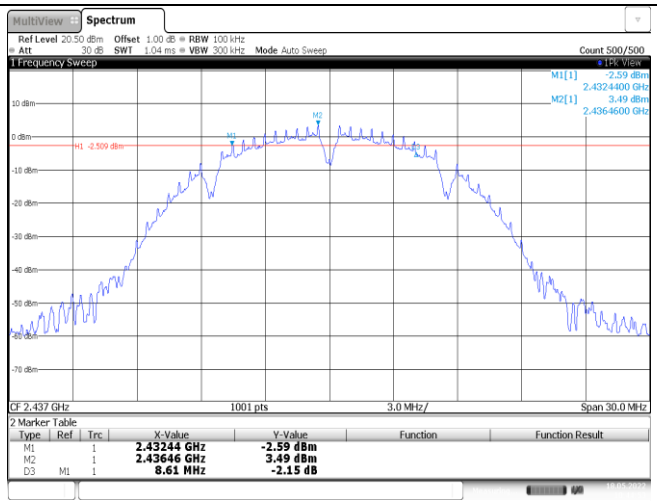
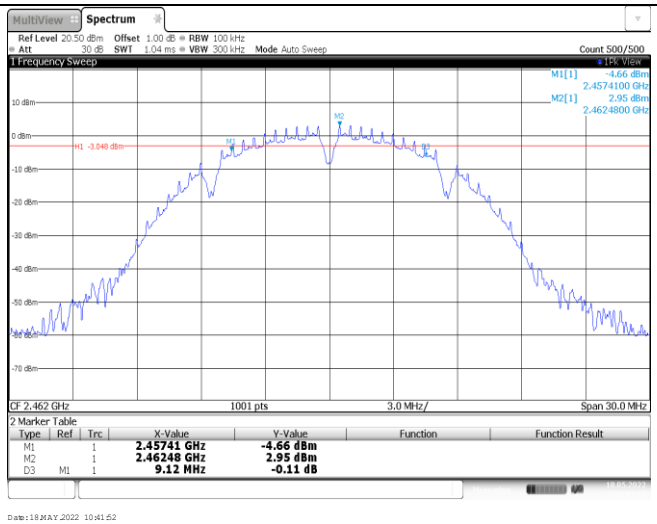
Type:	802.11 g
CH01	
CH06	
CH11	

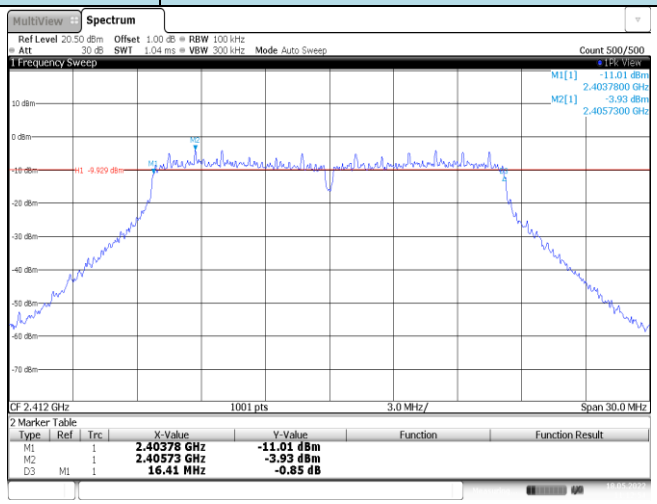
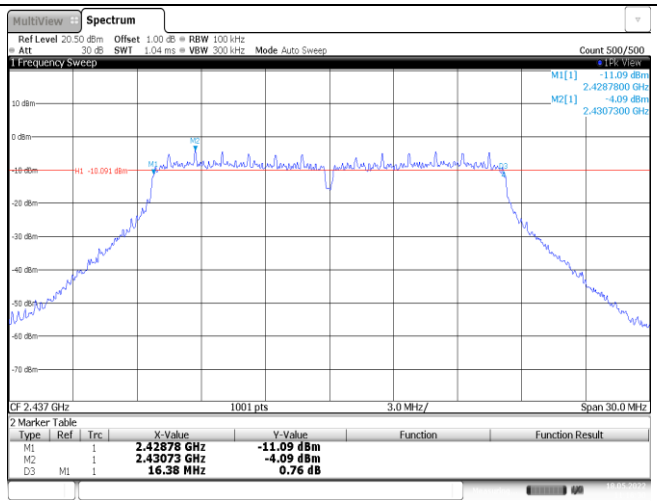
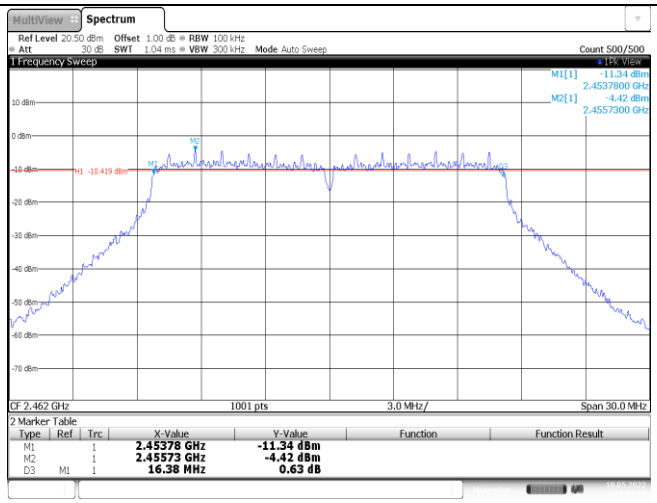
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

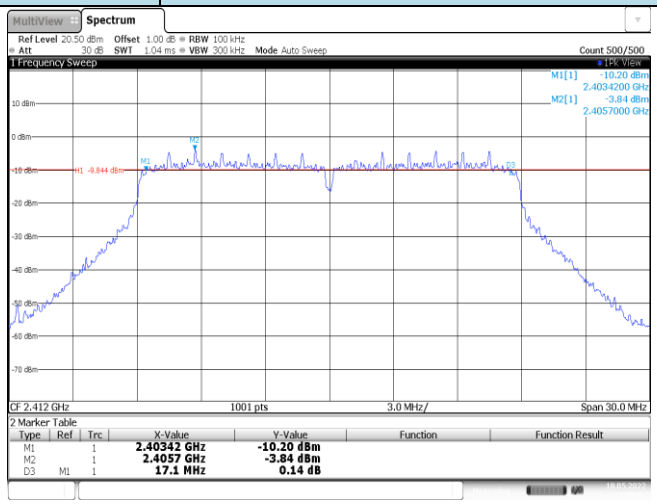
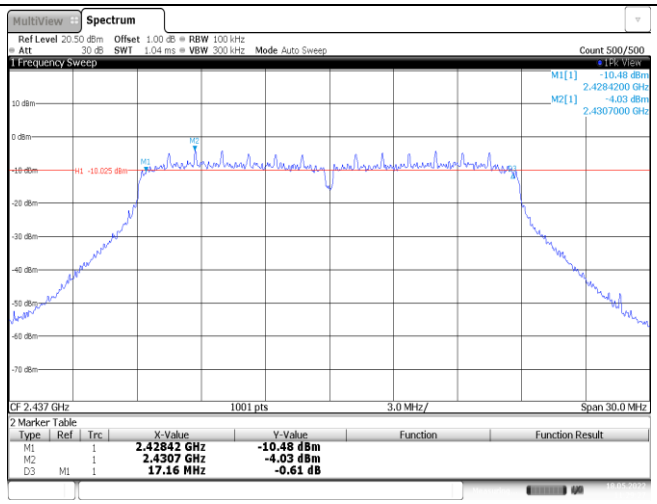
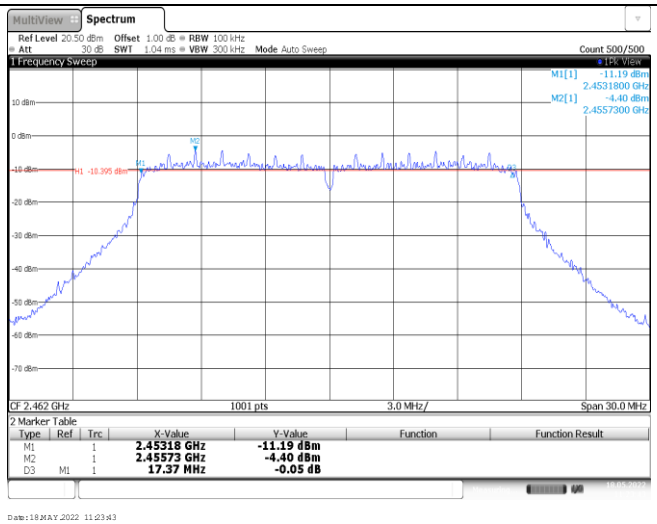
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

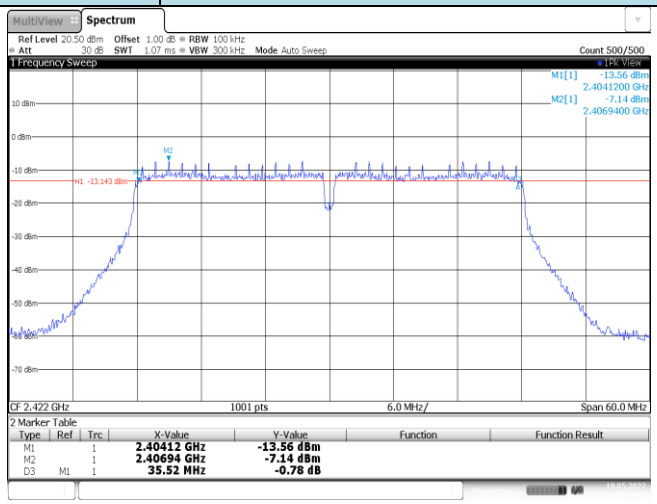
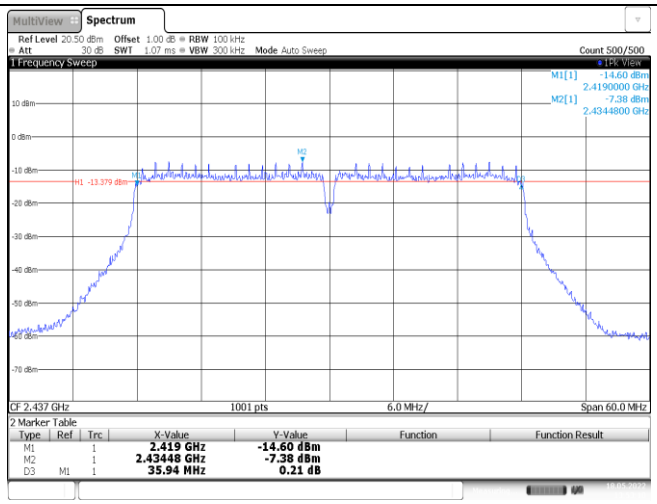
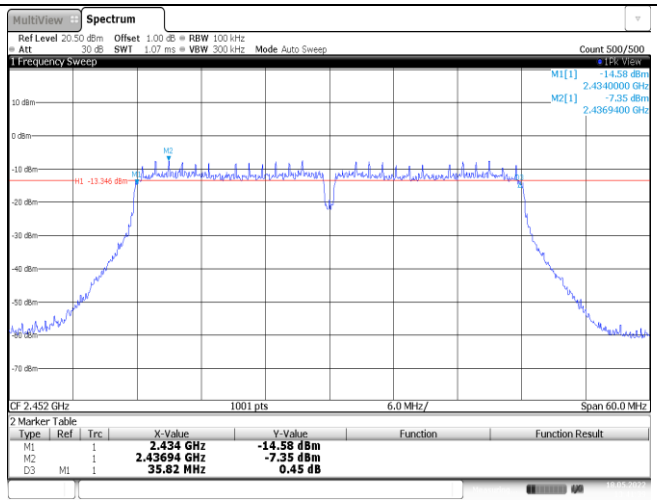
Appendix C：6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	8.13	≥0.5	Pass
	06	8.61		
	11	9.12		
802.11g	01	16.41	≥0.5	Pass
	06	16.38		
	11	16.38		
802.11n(HT20)	01	17.10	≥0.5	Pass
	06	17.16		
	11	17.37		
802.11n(HT40)	03	35.52	≥0.5	Pass
	06	35.94		
	09	35.82		

Type:	802.11 b
CH01	
CH06	
CH11	

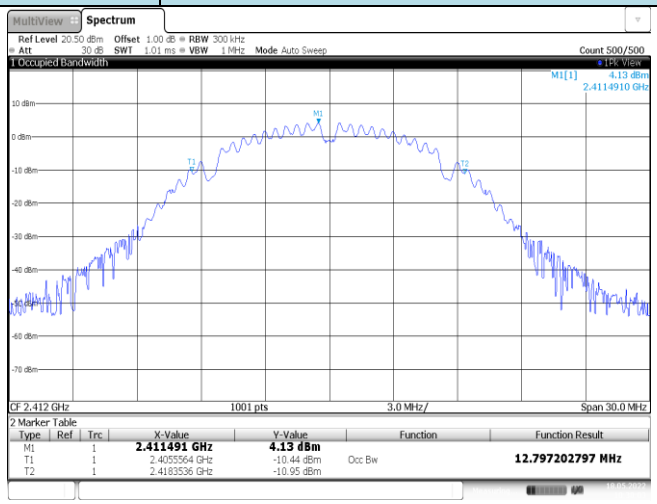
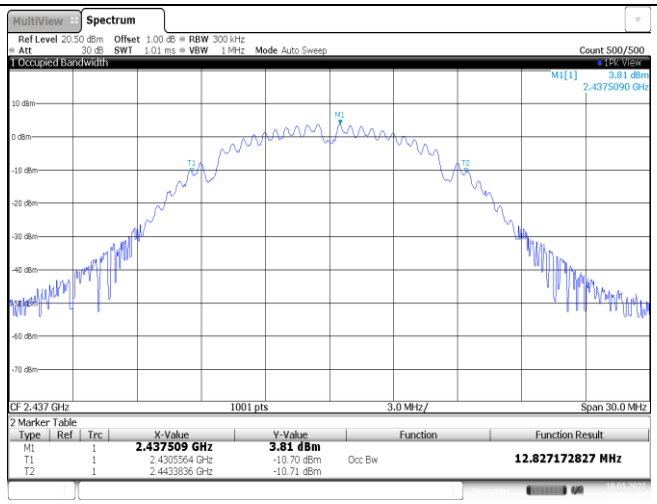
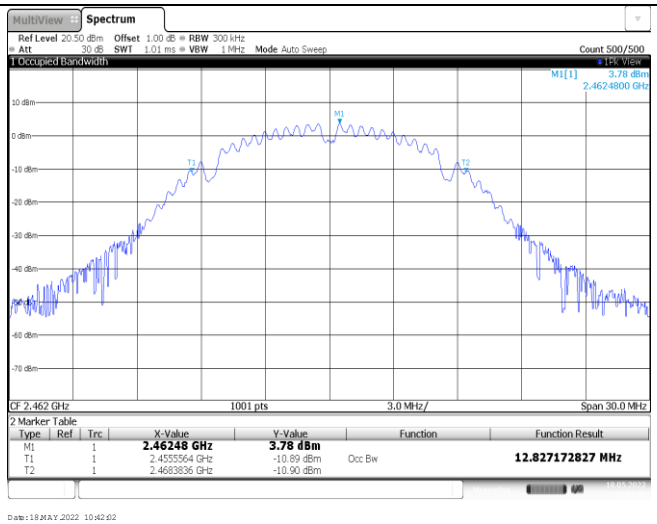
Type:	802.11 g
CH01	
CH06	
CH11	

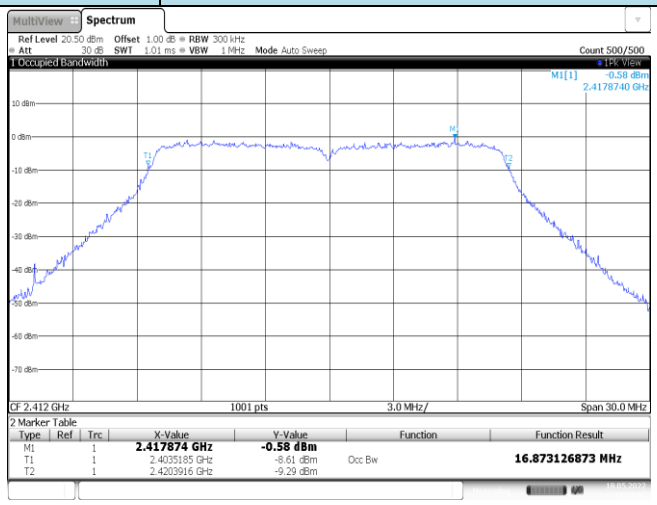
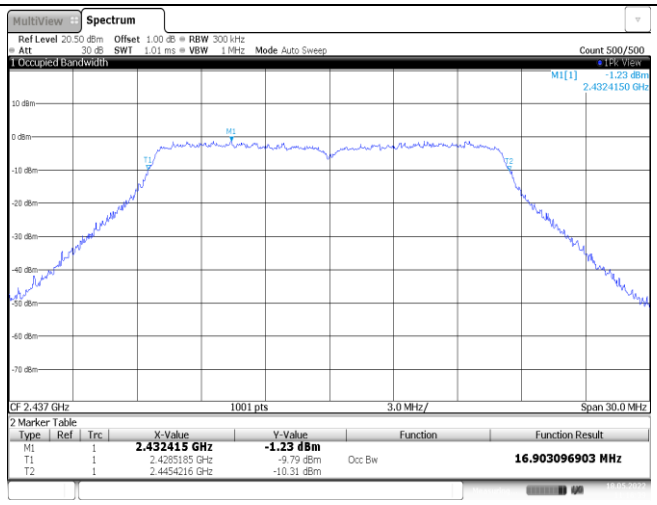
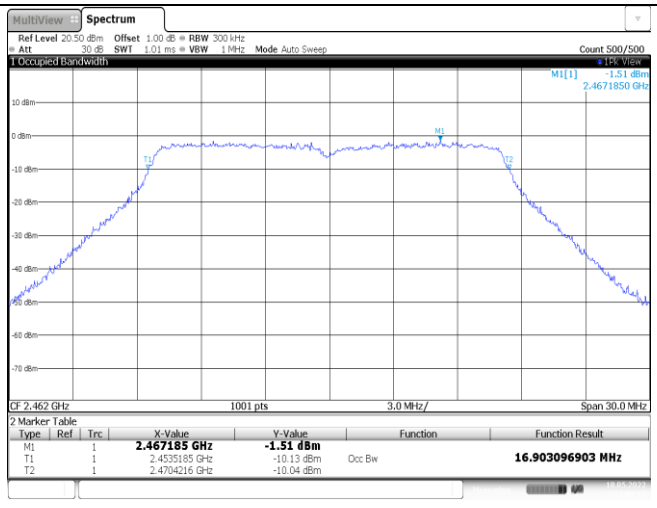
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

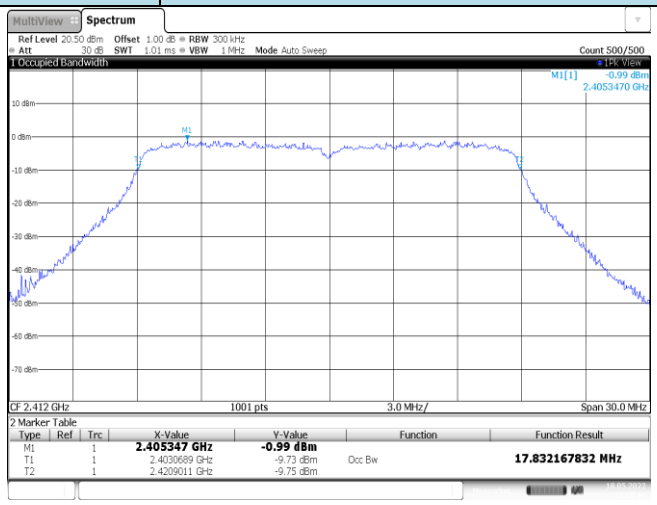
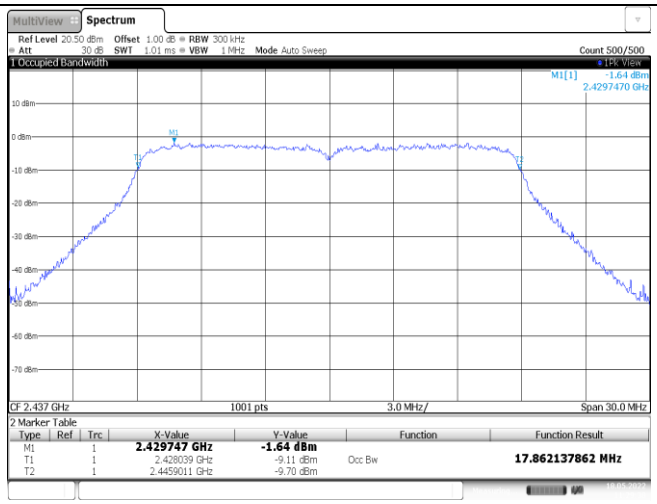
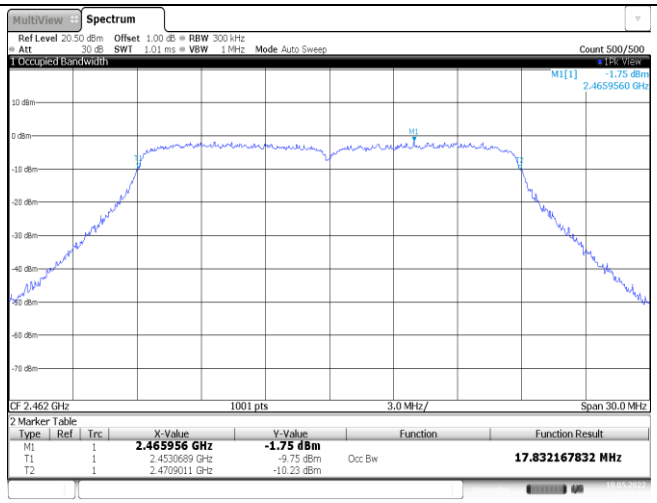
Type:	802.11n(HT40)
CH03	
CH06	
CH09	

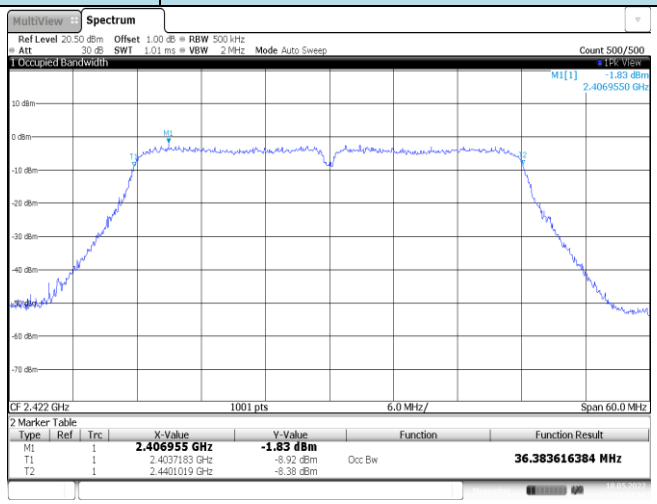
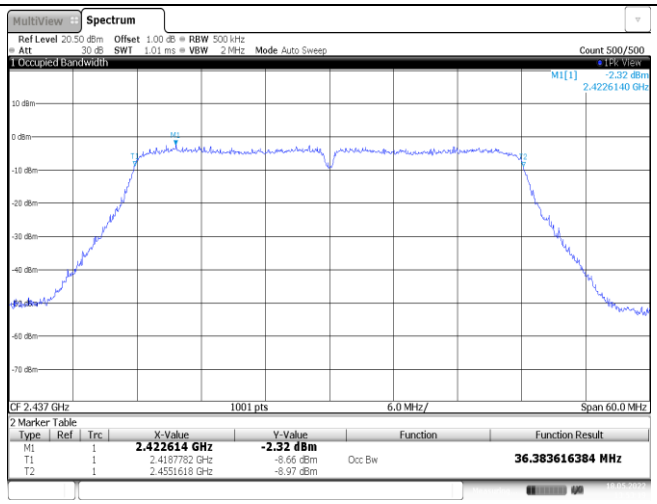
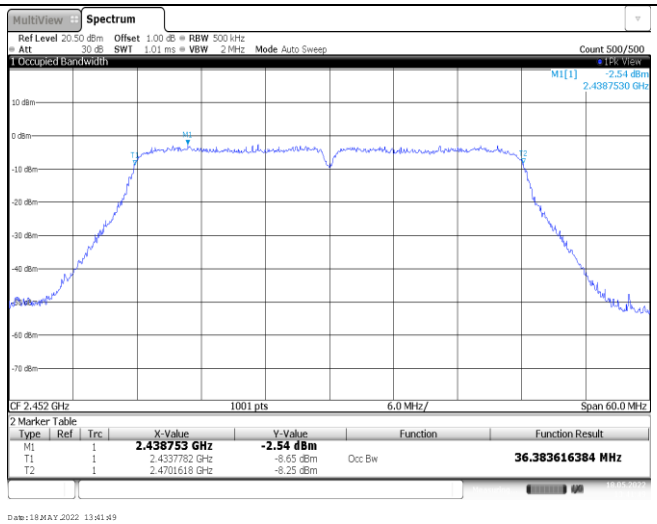
Appendix D：99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (kHz)	Result
802.11b	01	12.80	-	Pass
	06	12.83		
	11	12.83		
802.11g	01	16.87	-	Pass
	06	16.90		
	11	16.90		
802.11n(HT20)	01	17.83	-	Pass
	06	17.86		
	11	17.83		
802.11n(HT40)	03	36.38	-	Pass
	06	36.38		
	09	36.38		

Type:	802.11 b
CH01	
CH06	
CH11	

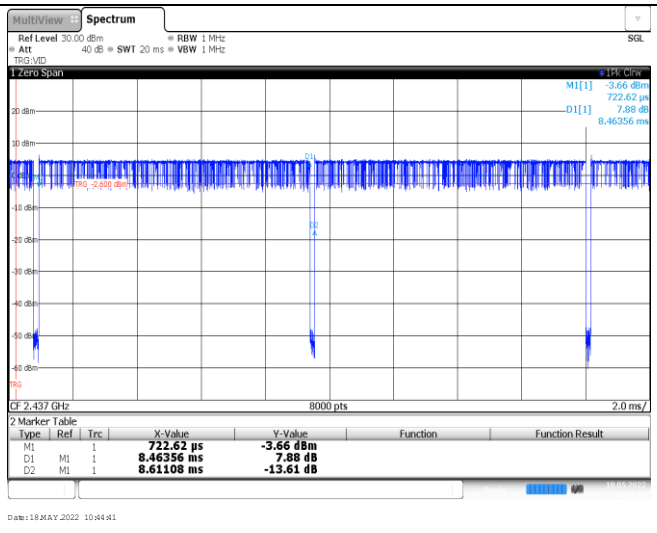
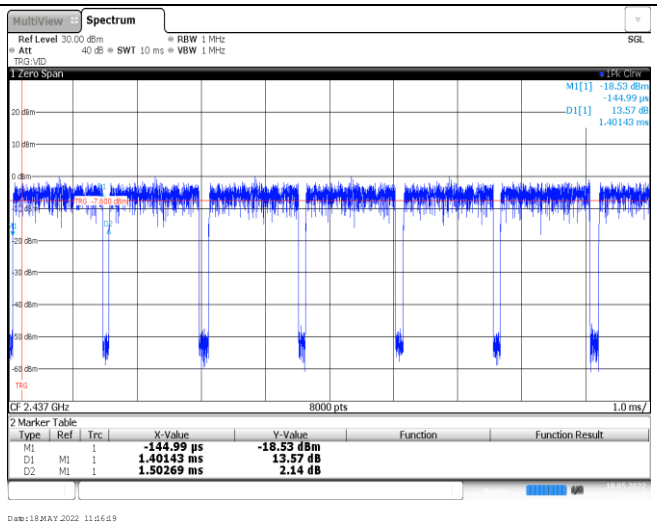
Type:	802.11 g
CH01	
CH06	
CH11	

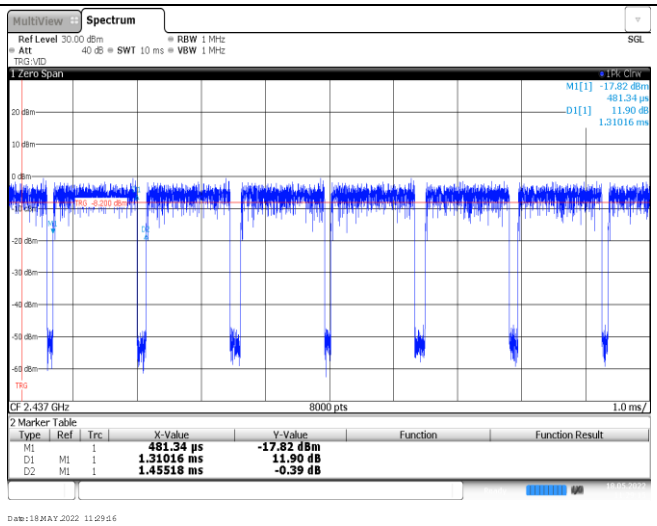
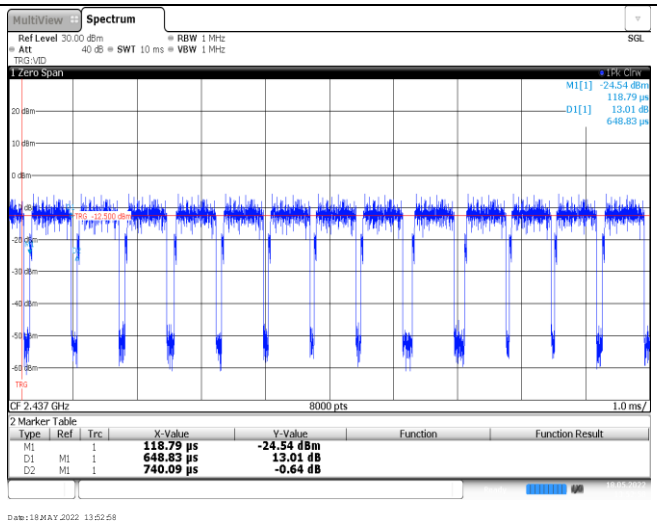
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

Type:	802.11n(HT40)
CH03	
CH06	
CH09	

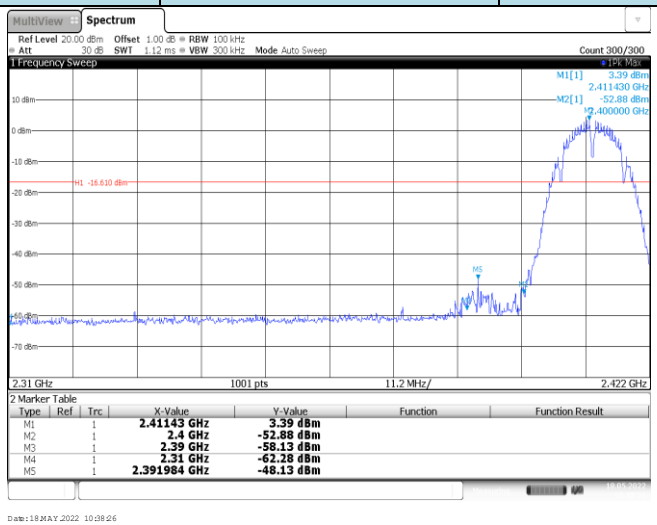
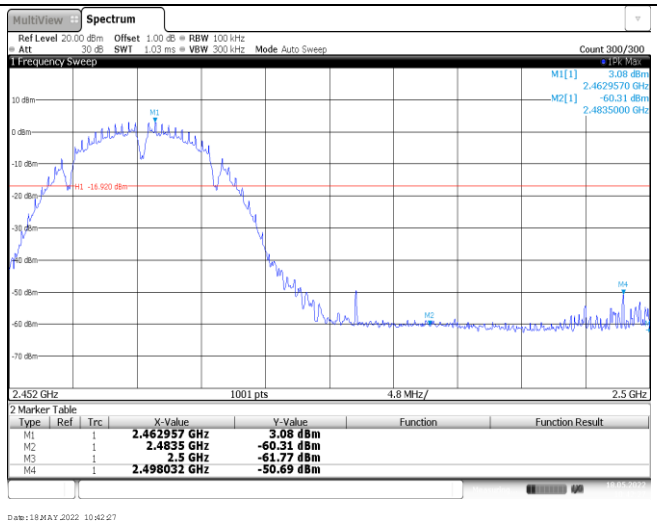
Appendix E：Duty Cycle

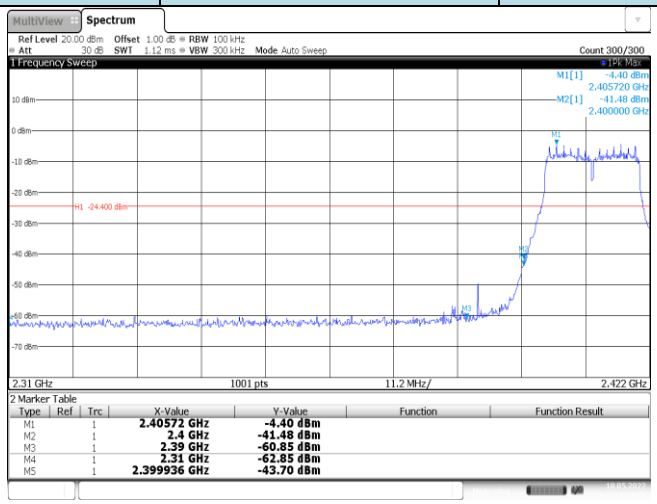
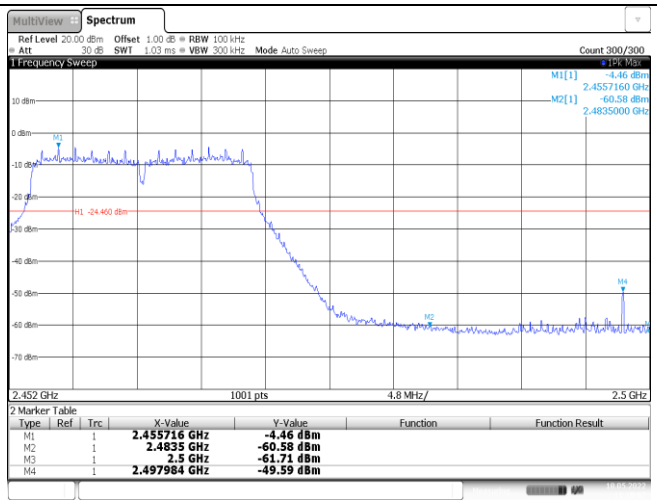
Modulation Type	Test Frequency（MHz）	$T_{on\ time}$ for single burst (ms)	T_{period} (ms)	Duty cycle	$1/T_{on\ time}$ (kHz)
11b	2437	8.46	8.61	98.3%	0.1
11g	2437	1.40	1.50	93.3%	0.7
11n20	2437	1.31	1.46	89.7%	0.8
11n40	2437	0.65	0.74	87.8%	1.5

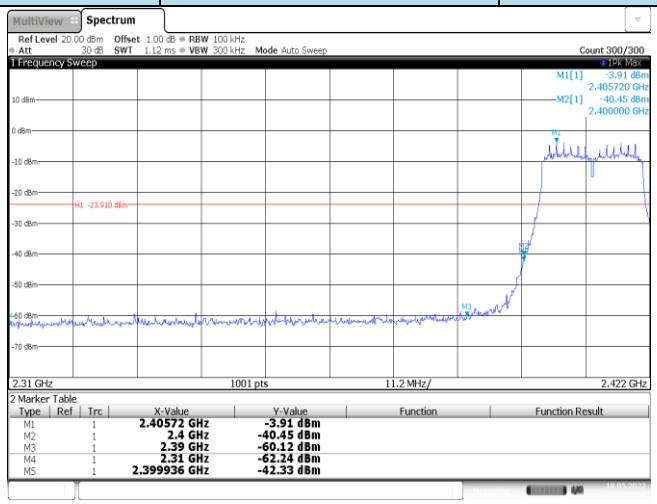
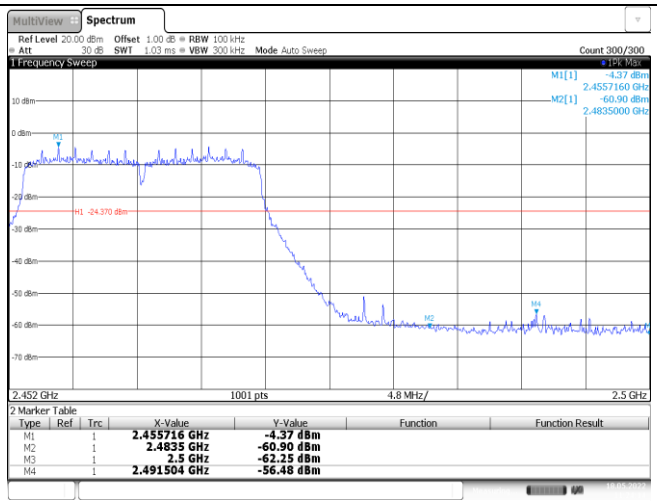
11b	
11g	

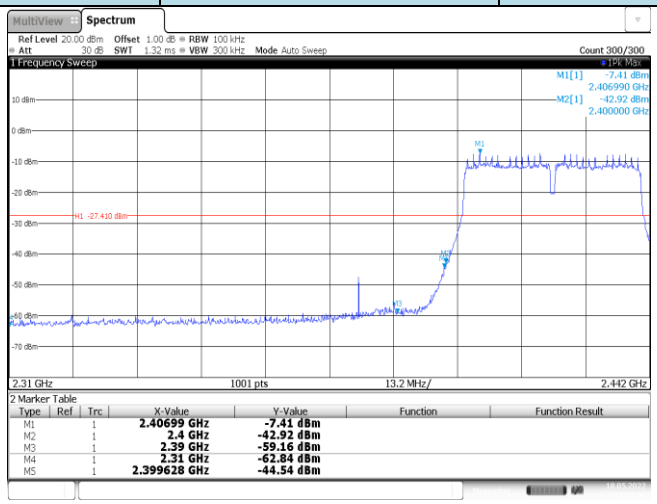
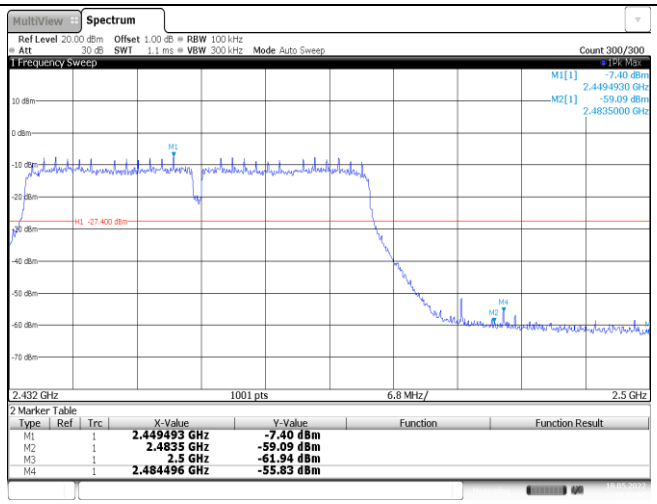
11n20	 MultiView Spectrum Ref Level 30.00 dBm RBW 1 MHz Att 40 dB SWT 10 ms VBW 1 MHz SGL TRG:VID 1 Zero Span 1Pk Clrw M1[1] -17.82 dBm 481.34 µs D1[1] 11.90 dB 1.31016 ms CF 2.437 GHz 8000 pts 1.0 ms/ 2 Marker Table Type Ref Trc X-Value Y-Value Function Function Result M1 1 481.34 µs -17.82 dBm D1 M1 1 1.31016 ms 11.90 dB D2 M1 1 1.45518 ms -0.39 dB Date: 18.MAY.2022 11:29:16
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] -24.54 dBm 118.79 µs D1[1] 13.01 dB 648.83 µs CF 2.437 GHz 8000 pts 1.0 ms/ 2 Marker Table Type Ref Trc X-Value Y-Value Function Function Result M1 1 118.79 µs -24.54 dBm D1 M1 1 648.83 µs 13.01 dB D2 M1 1 740.09 µs -0.64 dB Date: 18.MAY.2022 13:52:58

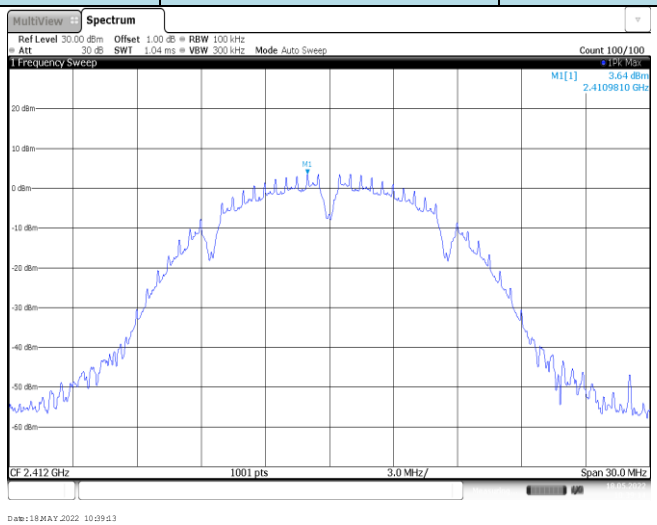
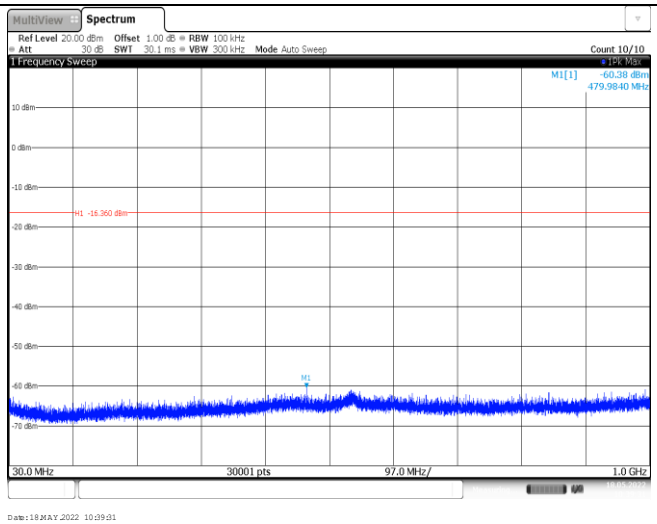
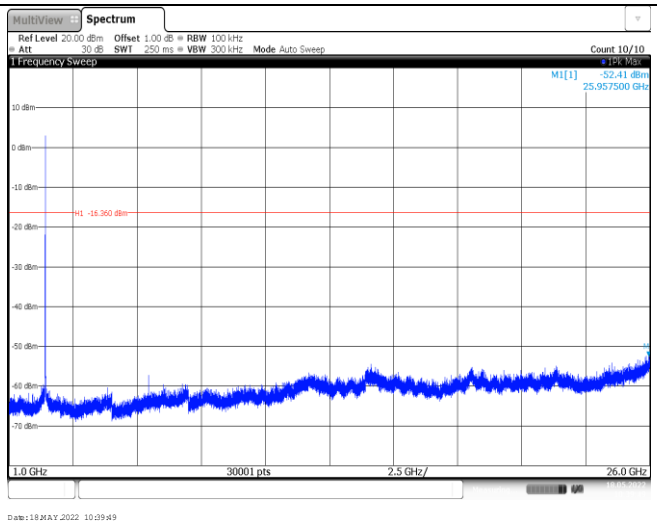
Appendix F：Band edge and Spurious Emissions (conducted)

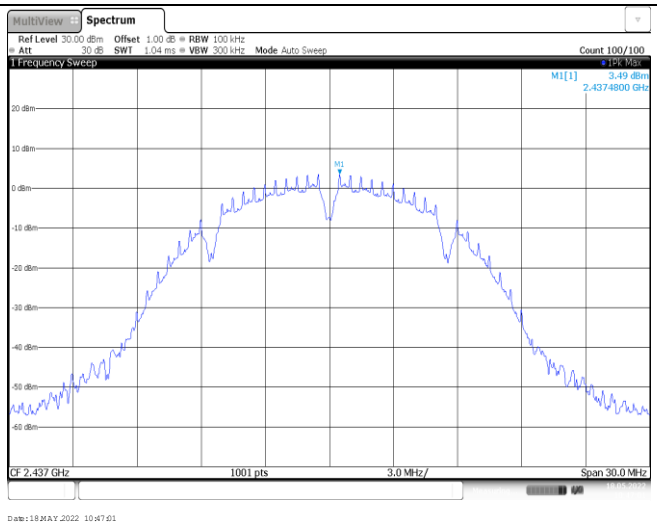
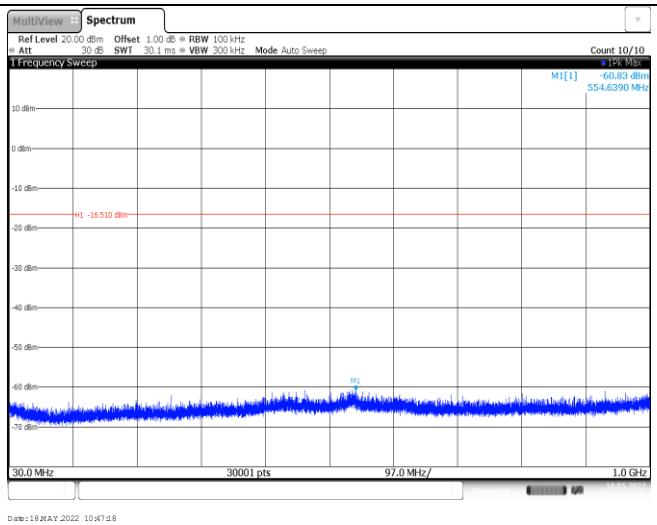
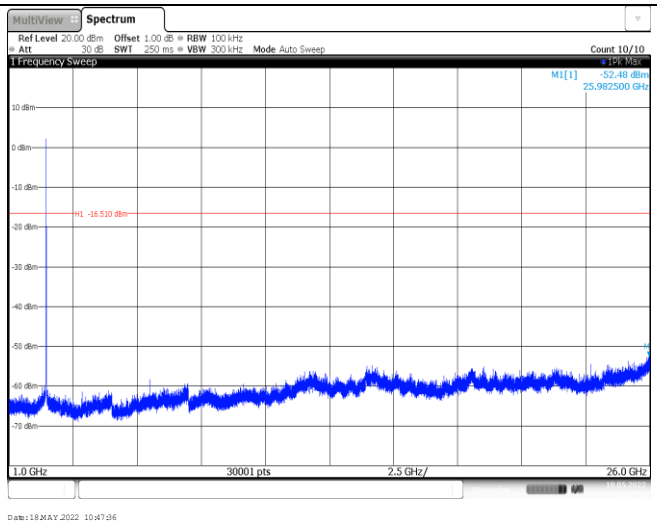
Test Item:	Bandedge	Type:	802.11 b
CH01			
CH11			

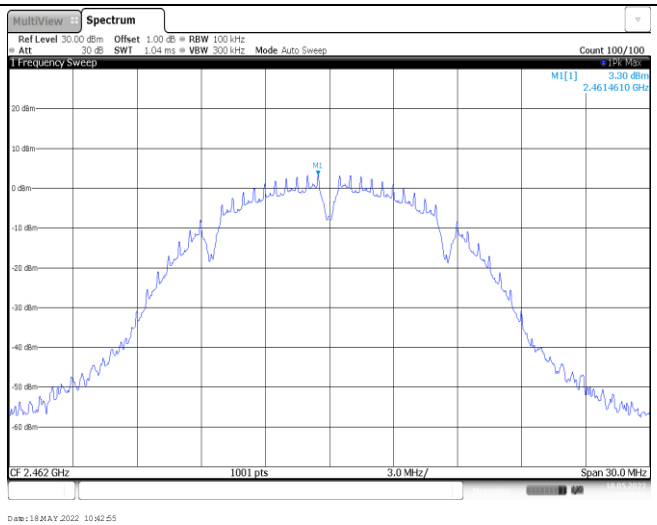
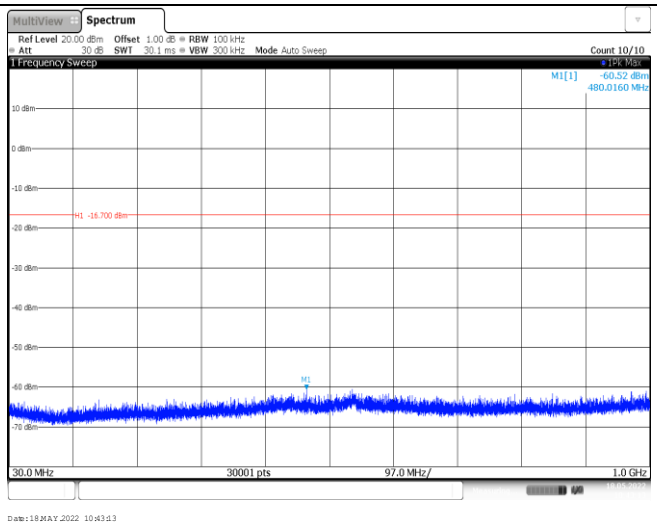
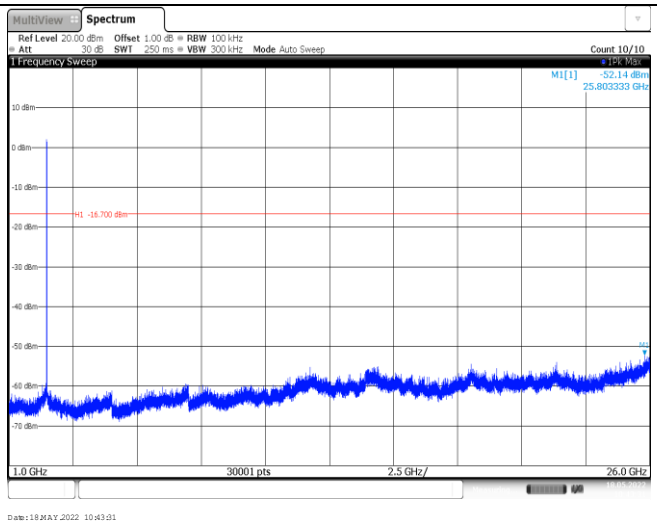
Test Item:	Bandedge	Type:	802.11 g
CH01			
CH11			

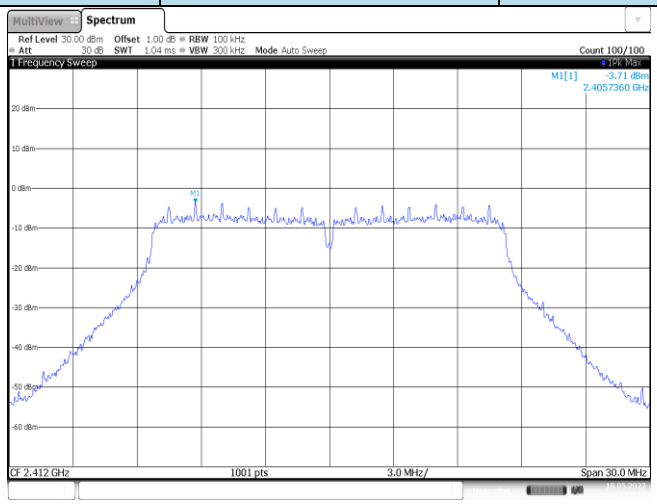
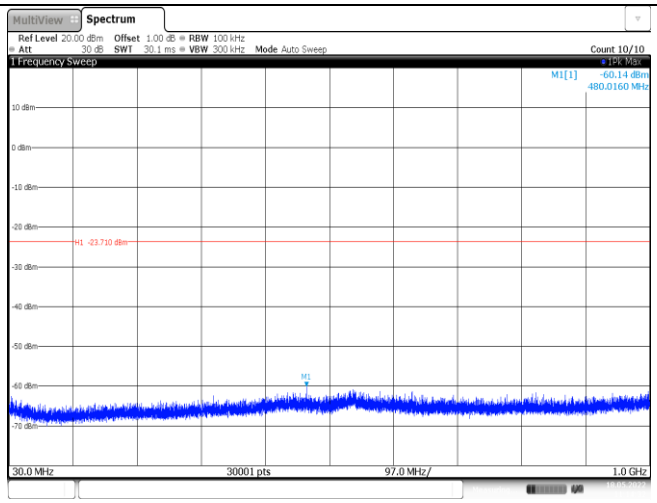
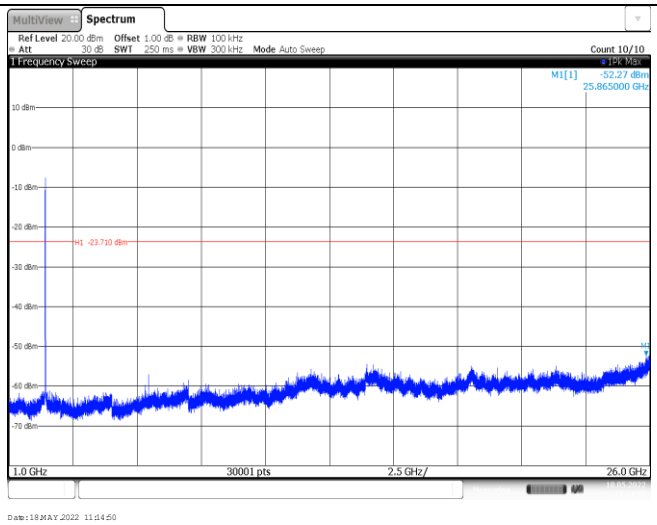
Test Item:	Bandedge	Type:	802.11 n(HT20)
CH01			
CH11			

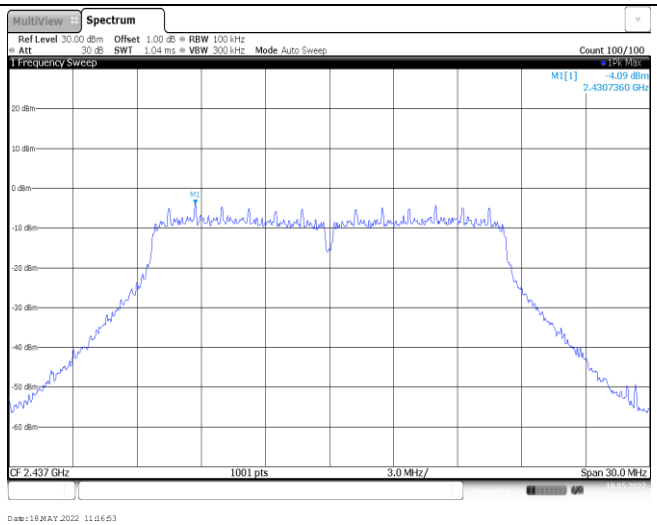
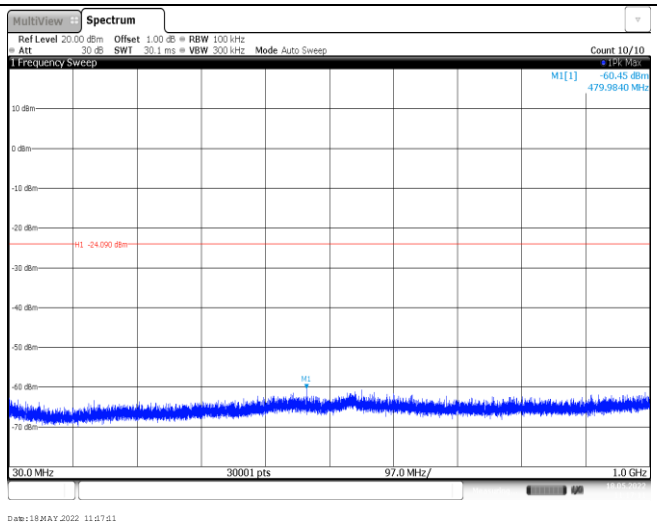
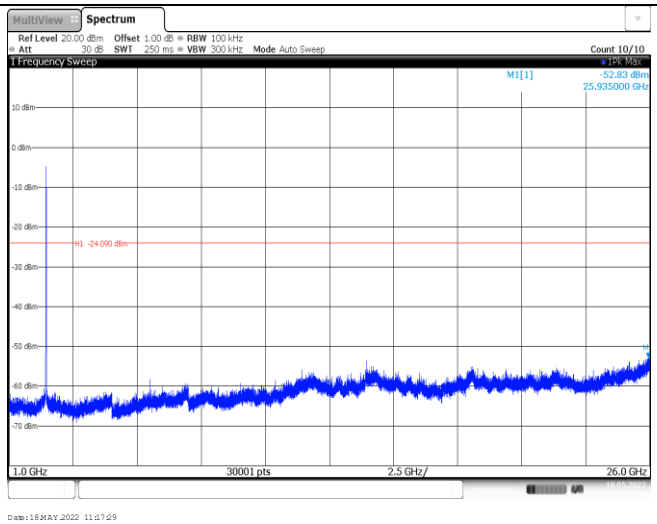
Test Item:	Bandedge	Type:	802.11 n(HT40)
CH03			
CH09			

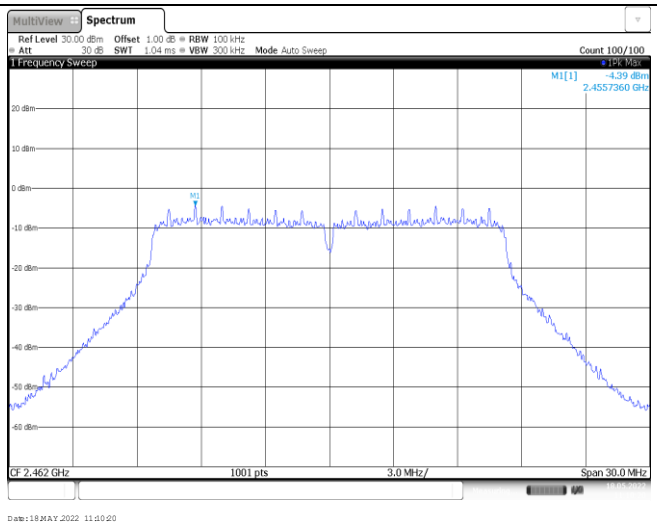
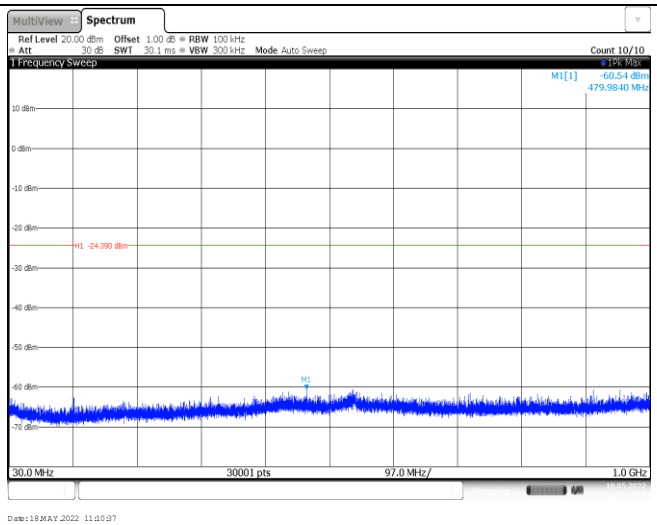
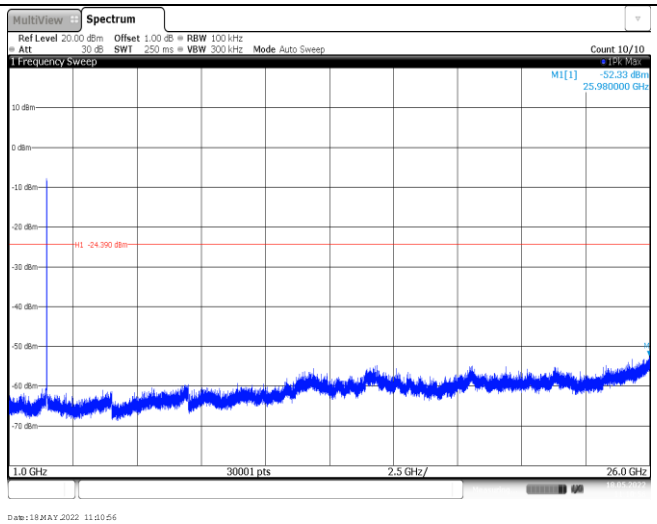
Test Item:	SE	Type:	802.11b
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

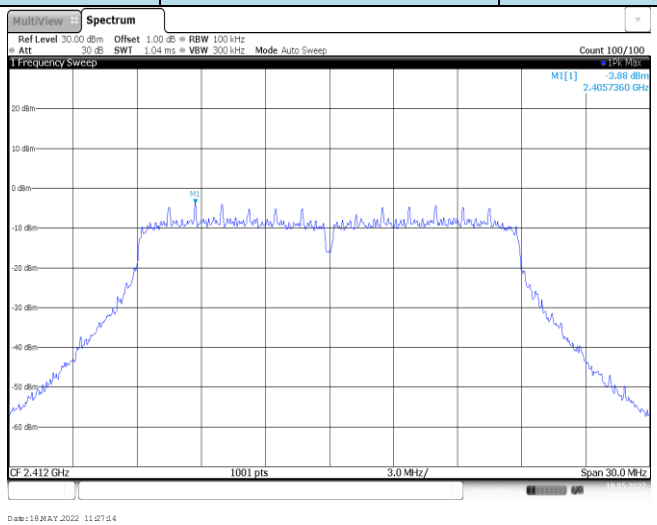
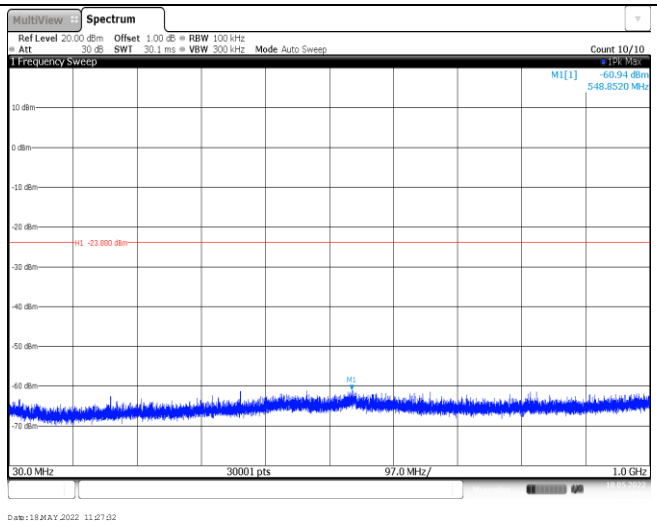
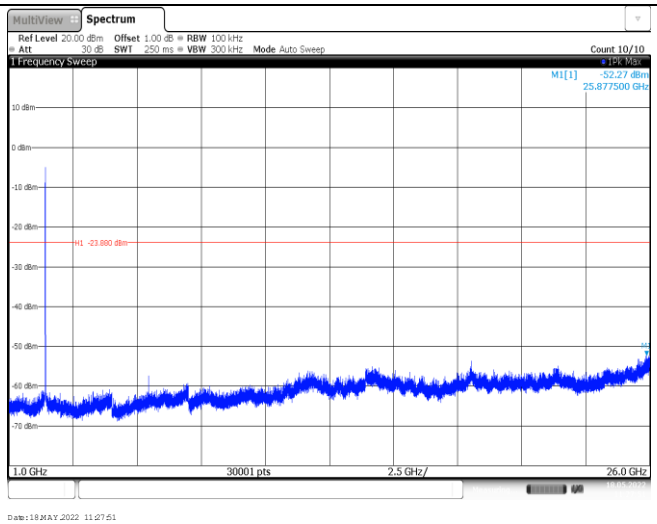
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

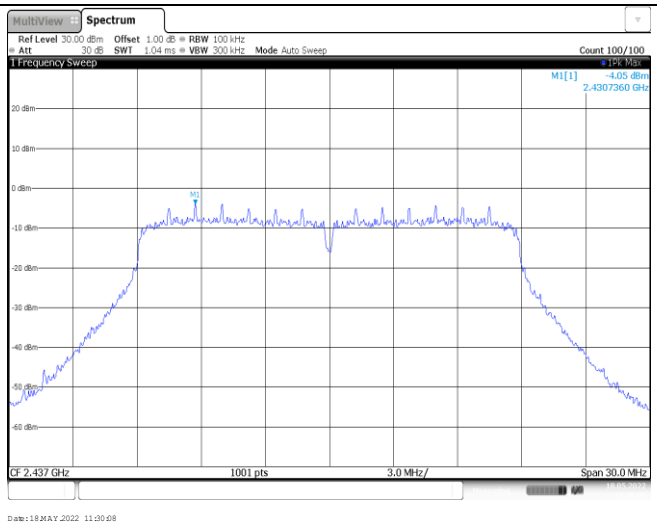
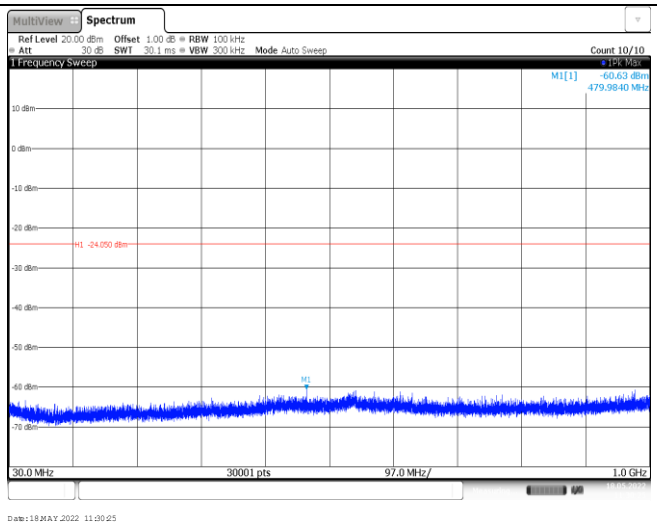
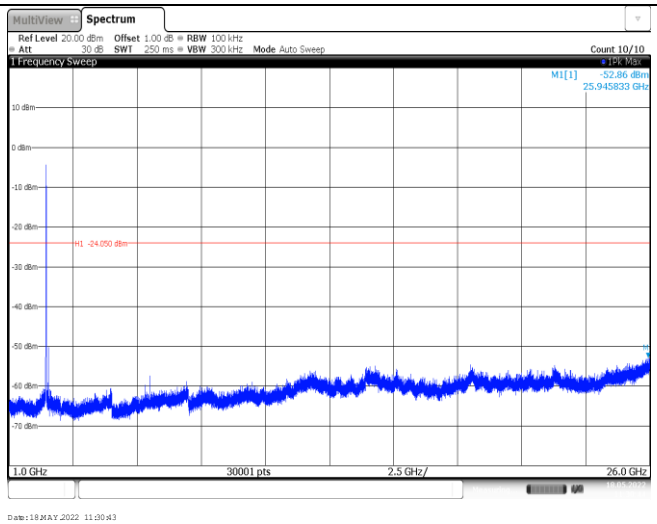
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

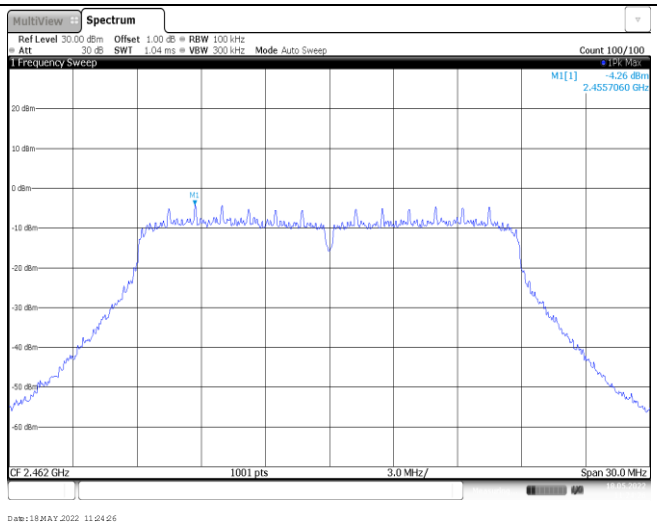
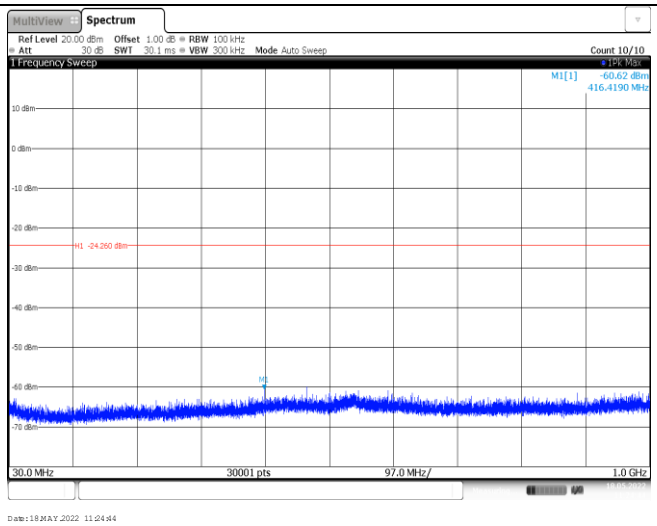
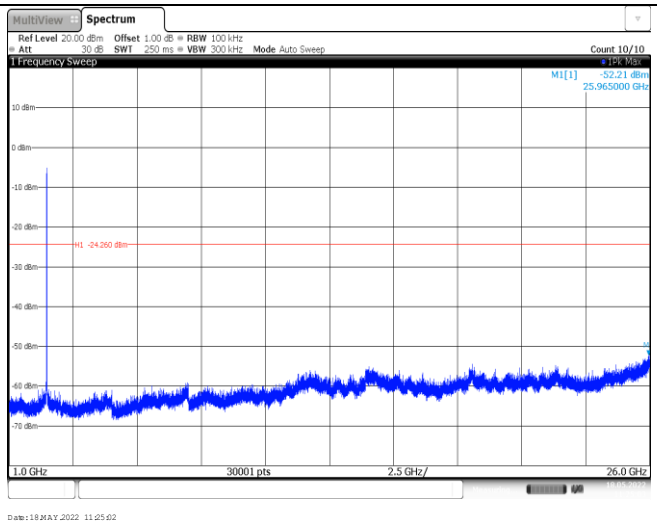
Test Item:	SE	Type:	802.11g
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

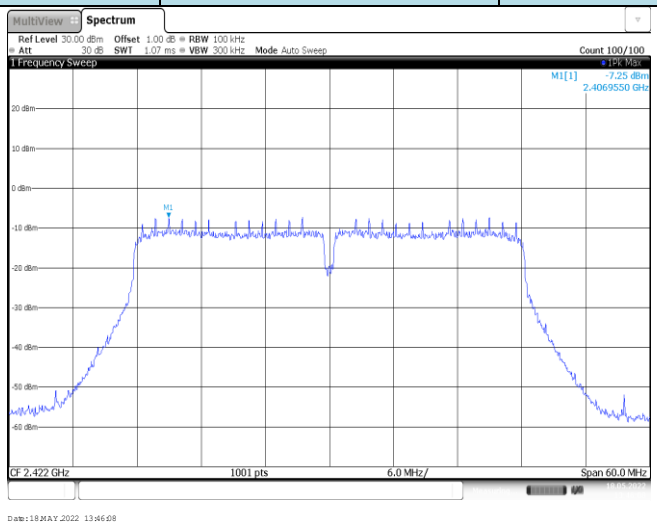
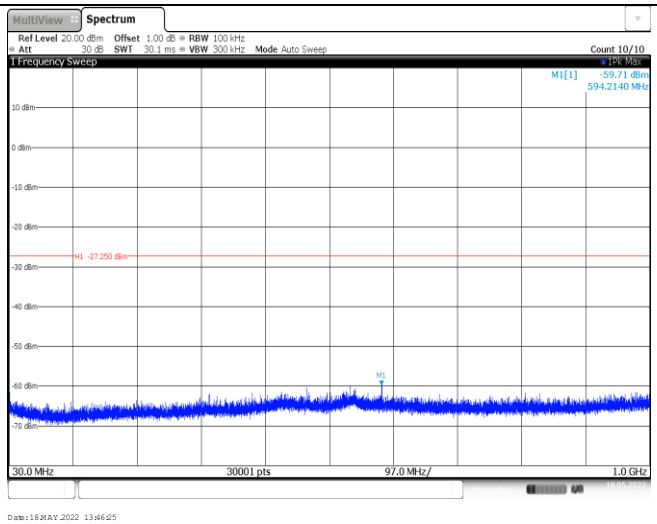
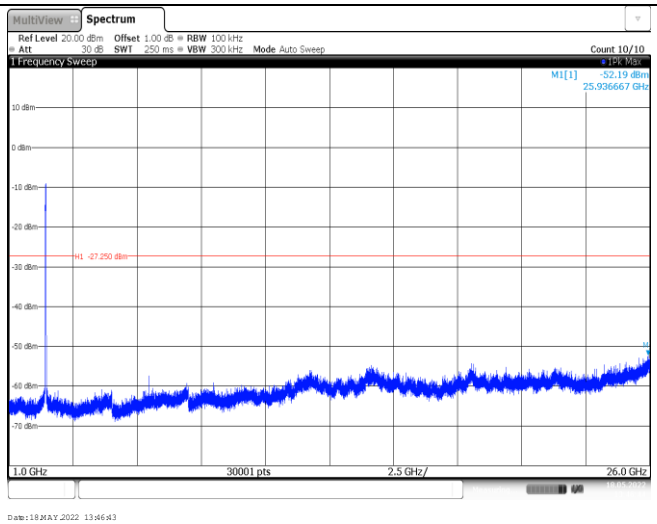
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

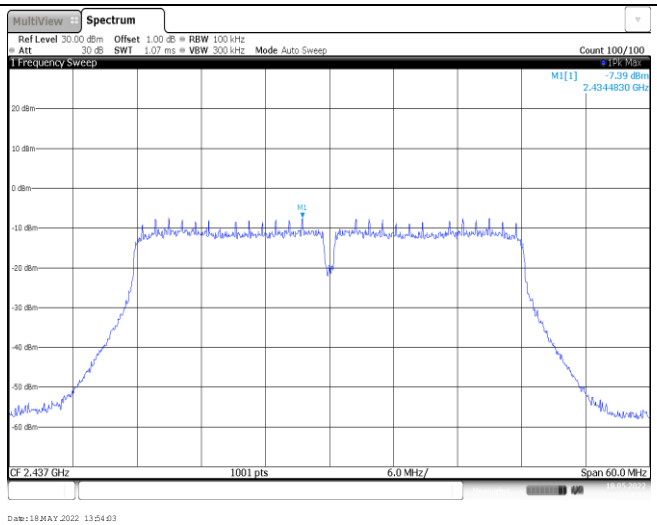
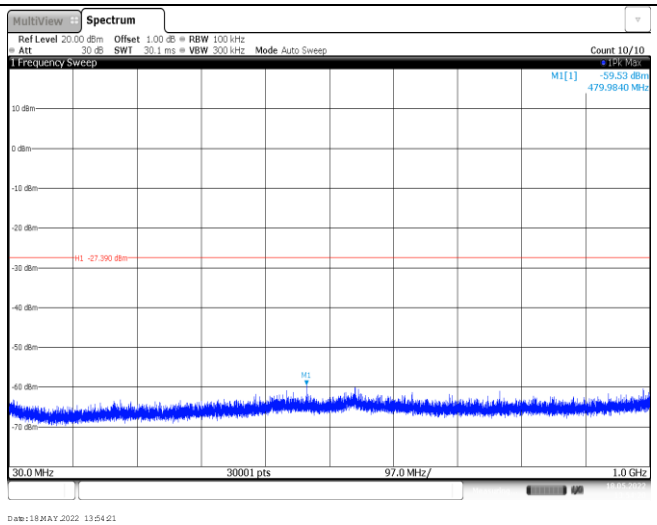
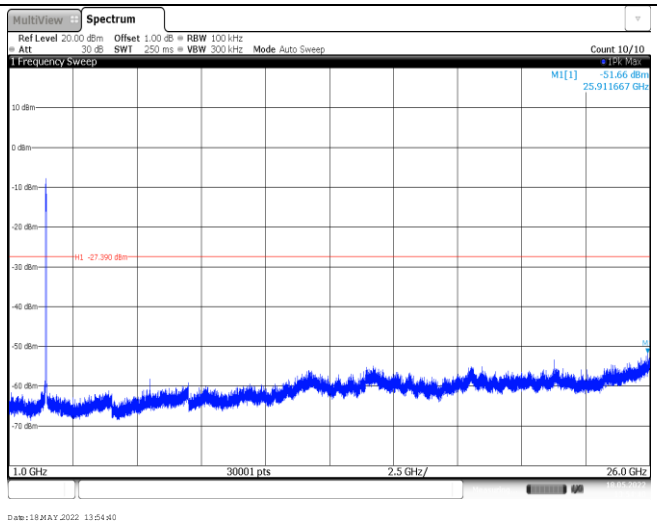
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

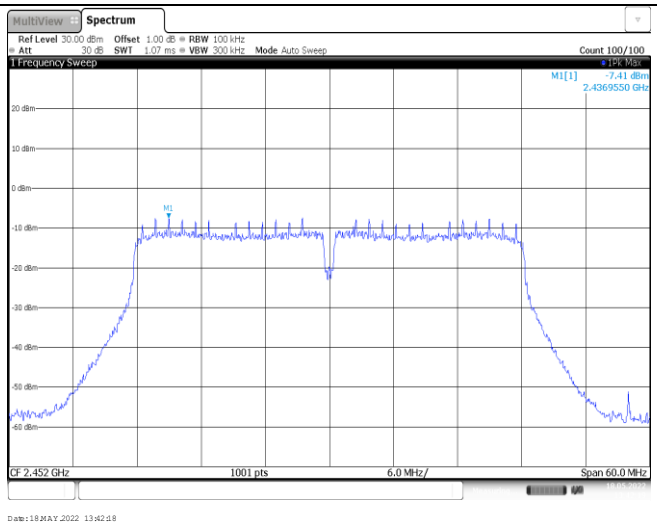
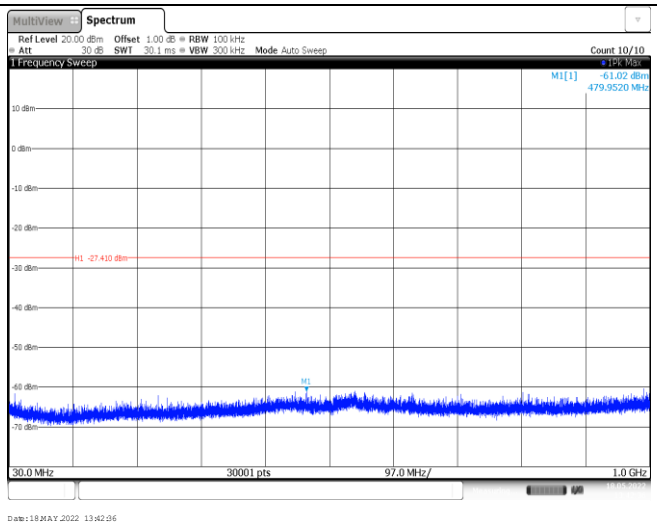
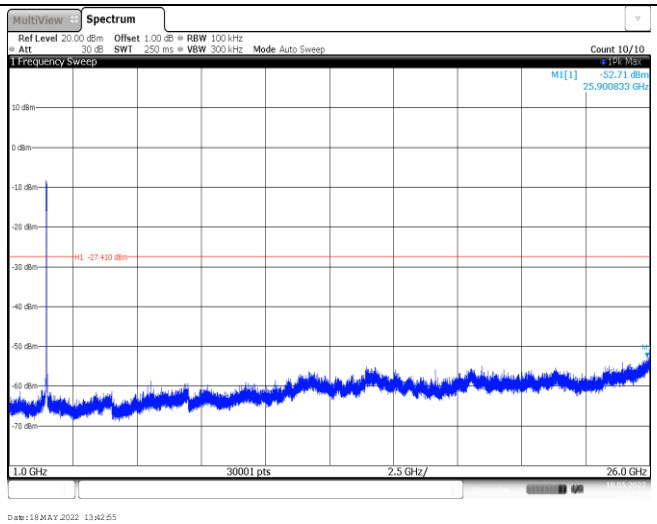
Test Item:	SE	Type:	802.11n(HT20)
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

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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