APPENDIX REPORT

Project No.	SHT2106110101EW	Radio Specification	WIFI 2.4G
Test sample No.	YPHT21061101002	Model No.	R80
Start test date	2021-07-08	Finish date	2021-07-08
Temperature	25.5°C	Humidity	32%
Test Engineer	Weiyang Xiang	Auditor	Xiaodong Zhao

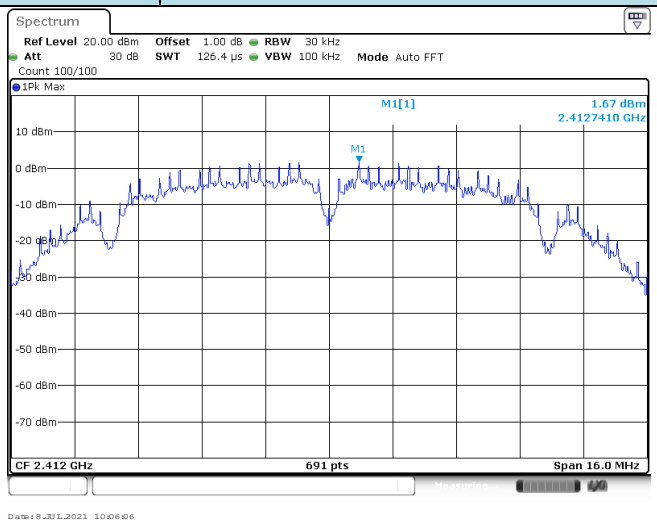
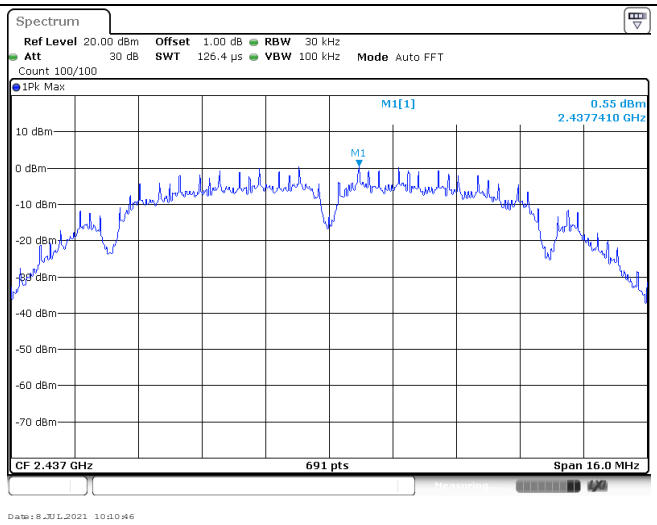
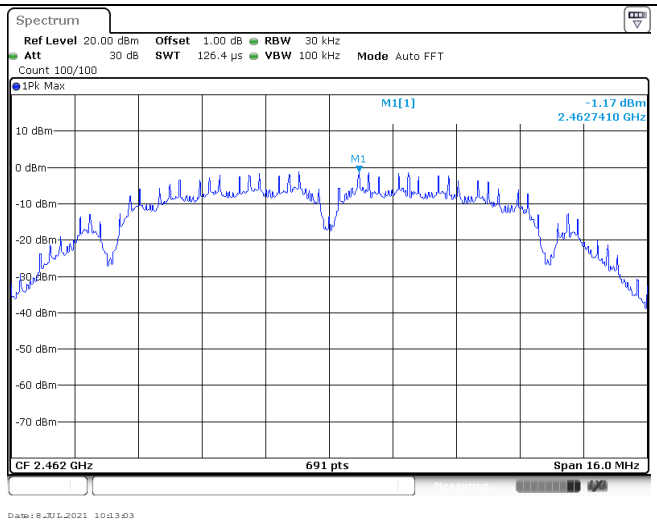
Appendix clause	Test item	Result
A	Conducted Peak Output Power	PASS
B	Power Spectral Density	PASS
C	6 dB Bandwidth	PASS
D	99% Occupied Bandwidth	PASS
E	Duty Cycle	PASS
F	Band edge and Spurious Emissions (conducted)	PASS

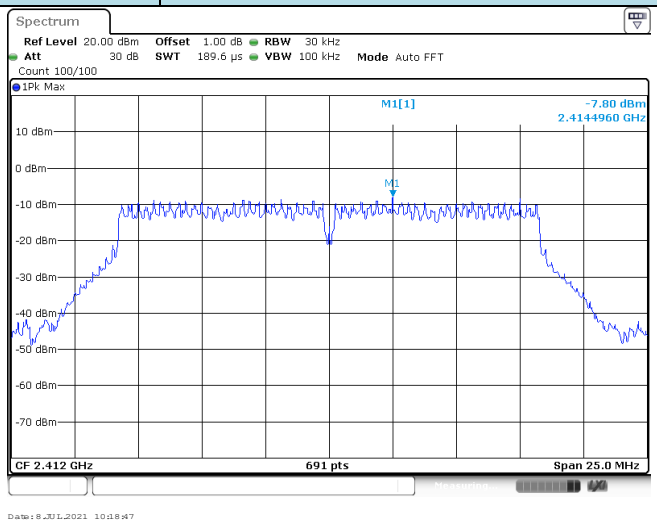
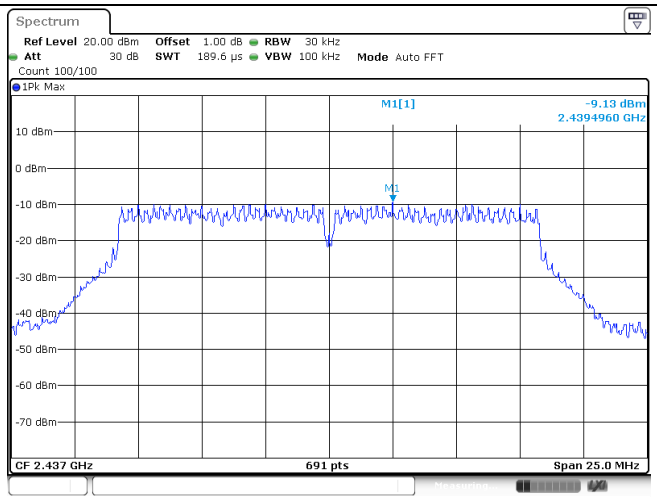
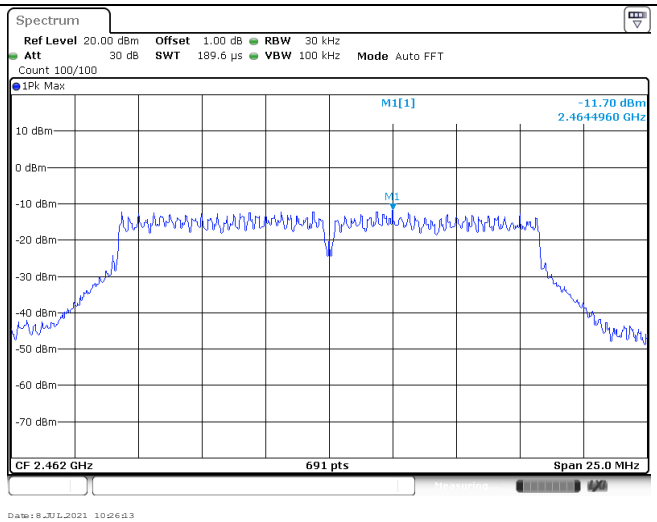
Appendix A：Conducted Peak Output Power

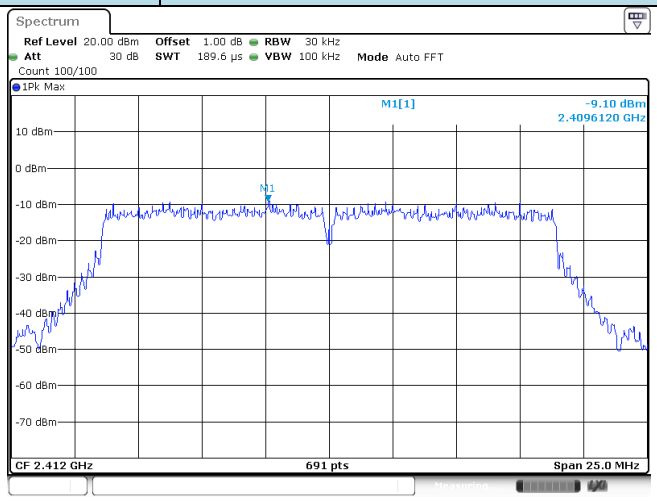
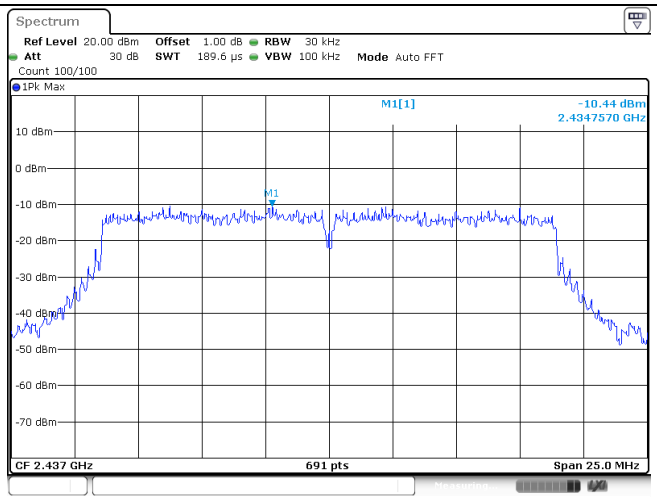
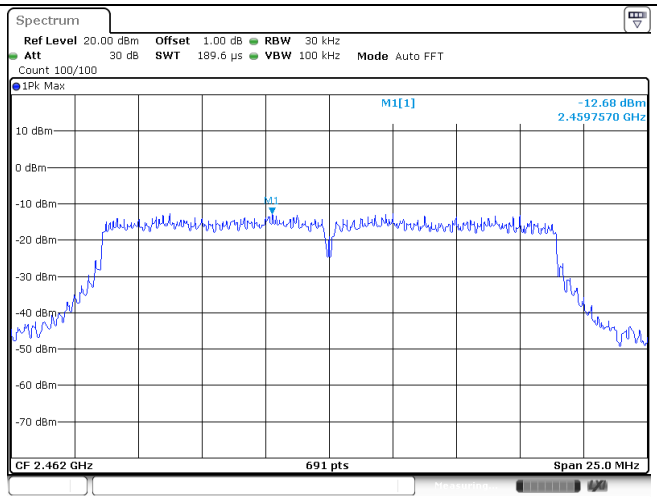
Type	Channel	Peak Output power (dBm)	Average Output power (dBm)	Limit (dBm)	Result
802.11b	01	16.04	13.82	≤ 30.00	Pass
	06	14.86	12.68		
	11	13.29	11.10		
802.11g	01	16.07	12.50	≤ 30.00	Pass
	06	14.77	11.20		
	11	13.02	9.40		
802.11n (HT20)	01	16.58	13.37	≤ 30.00	Pass
	06	15.35	12.06		
	11	13.32	10.03		

Appendix B：Power Spectral Density

Type	Channel	Power Spectral Density (dBm/30KHz)	Limit (dBm/3KHz)	Result
802.11b	01	1.67	≤8.00	Pass
	06	0.55		
	11	-1.17		
802.11g	01	-7.80	≤8.00	Pass
	06	-9.13		
	11	-11.70		
802.11n(HT20)	01	-9.10	≤8.00	Pass
	06	-10.44		
	11	-12.68		

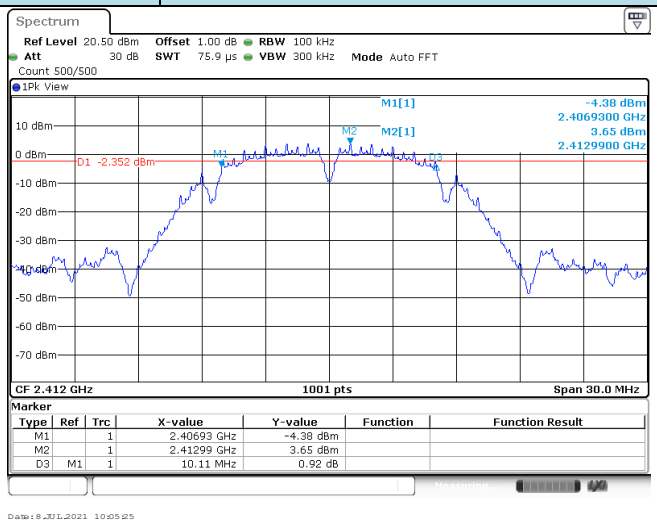
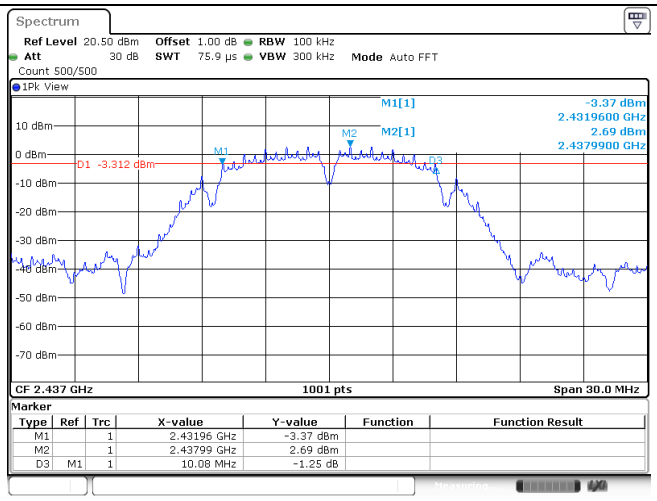
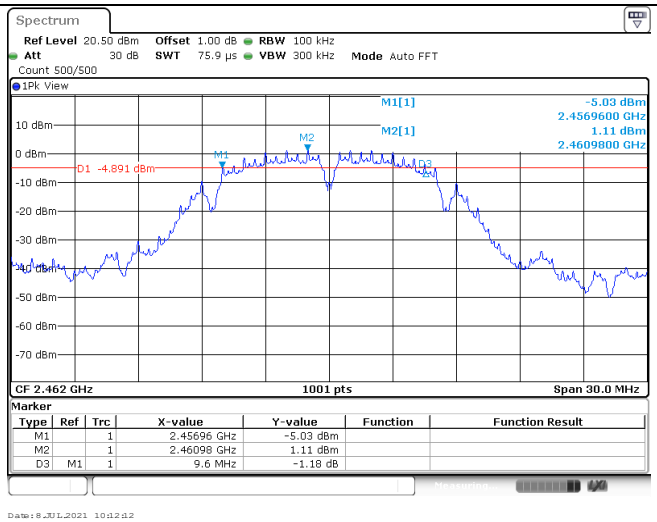
Type:	802.11 b
CH01	
CH06	
CH11	

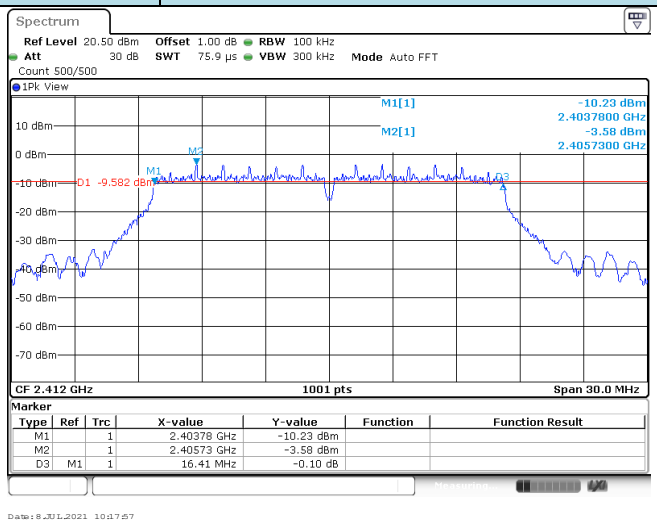
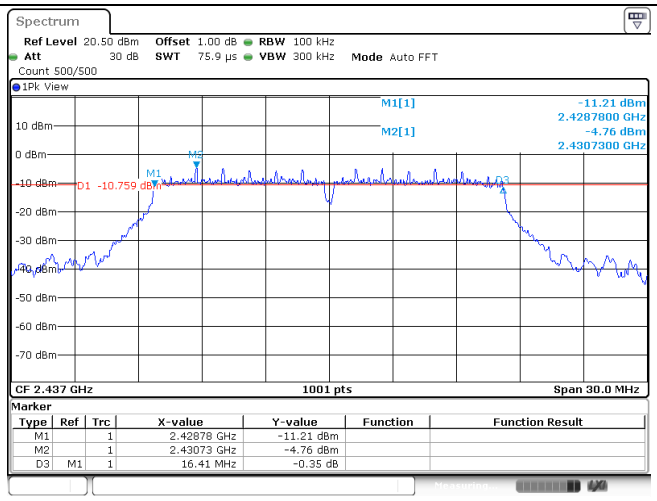
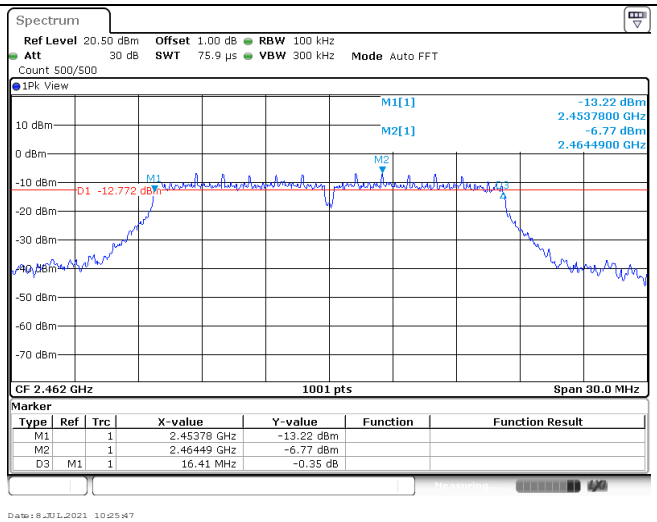
Type:	802.11 g
CH01	
CH06	
CH11	

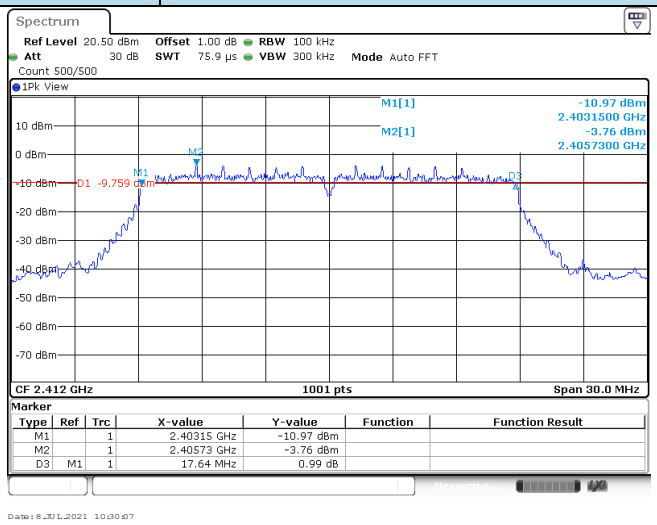
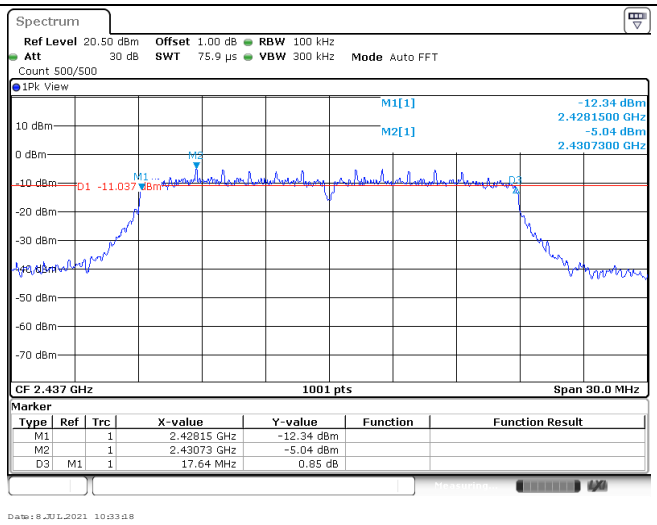
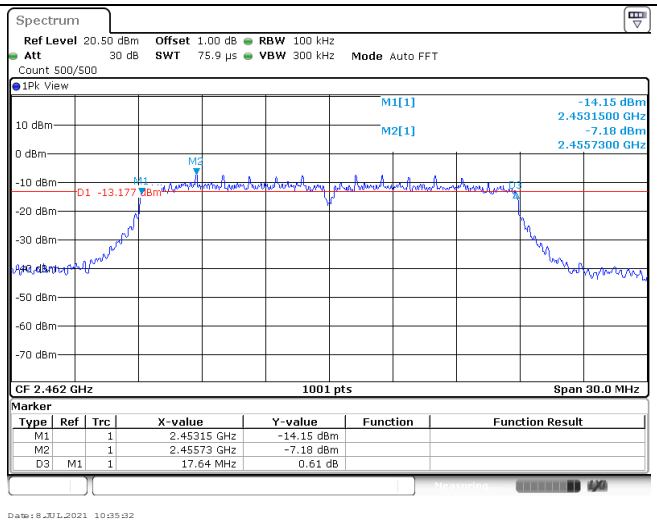
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

Appendix C：6dB bandwidth

Type	Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	10.11	≥0.5	Pass
	06	10.08		
	11	9.60		
802.11g	01	16.41	≥0.5	Pass
	06	16.41		
	11	16.41		
802.11n(HT20)	01	17.64	≥0.5	Pass
	06	17.64		
	11	17.64		

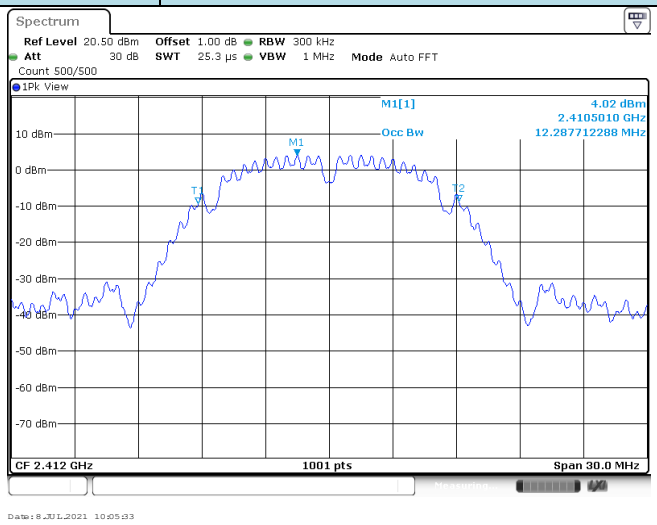
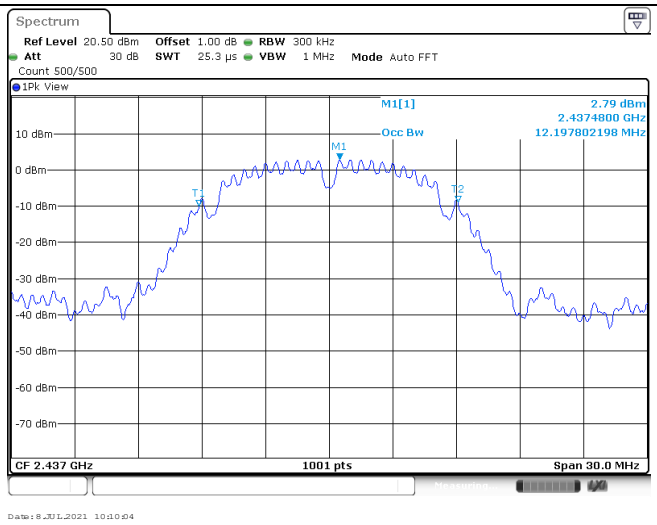
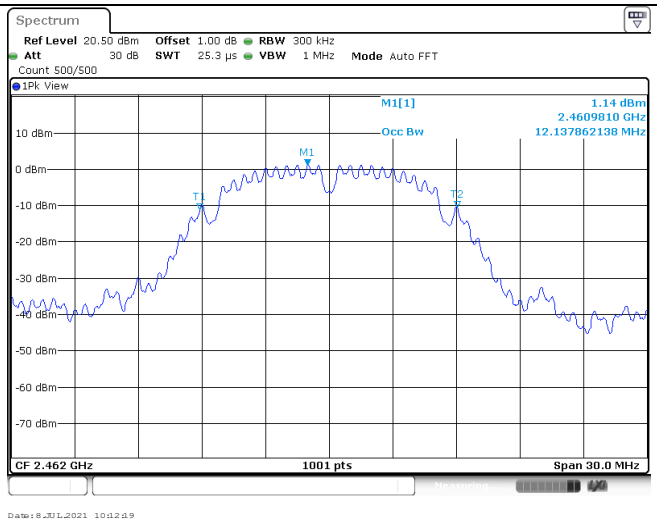
Type:	802.11 b
CH01	
CH06	
CH11	

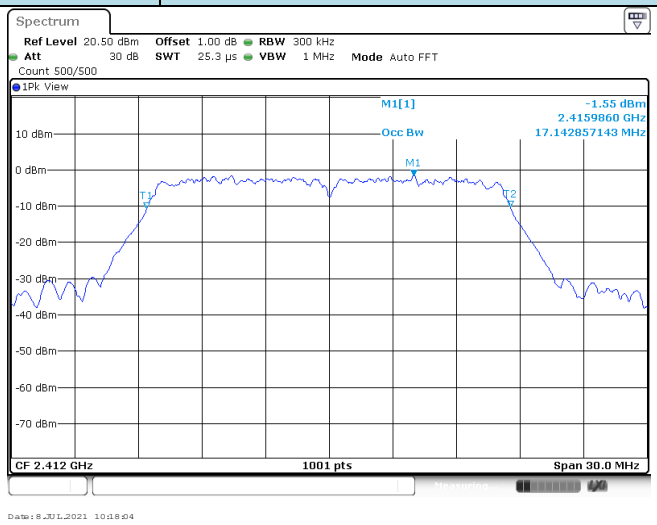
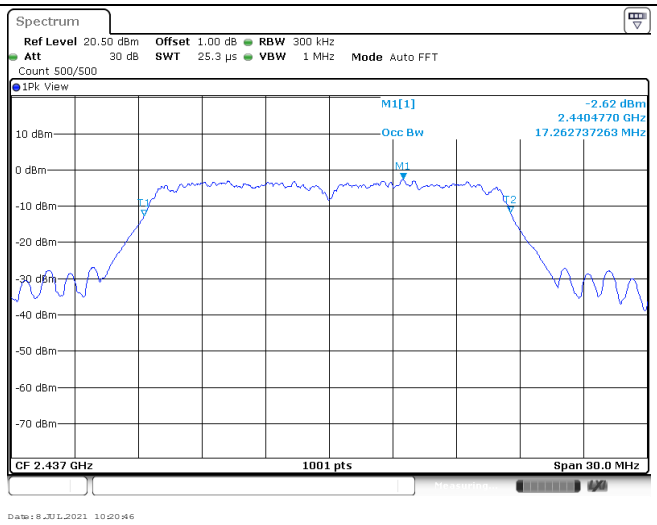
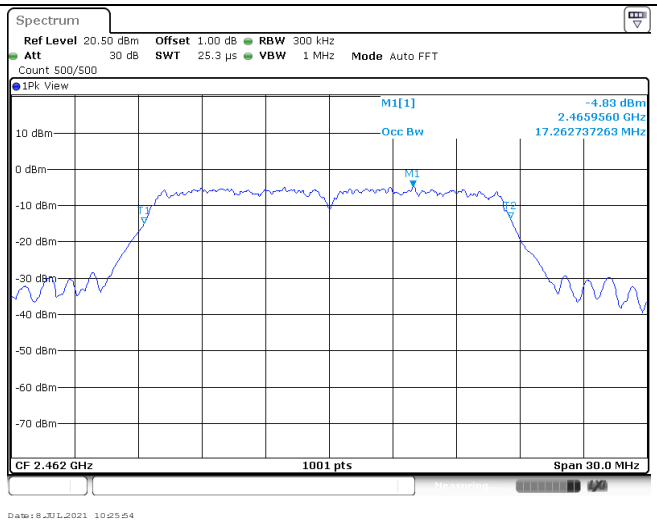
Type:	802.11 g
CH01	
CH06	
CH11	

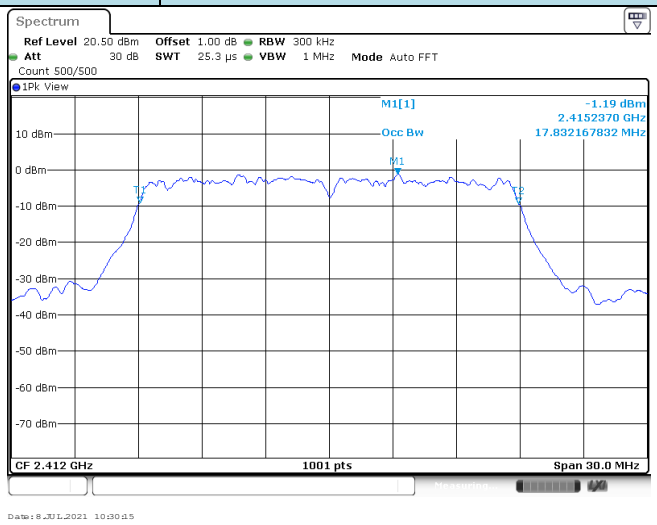
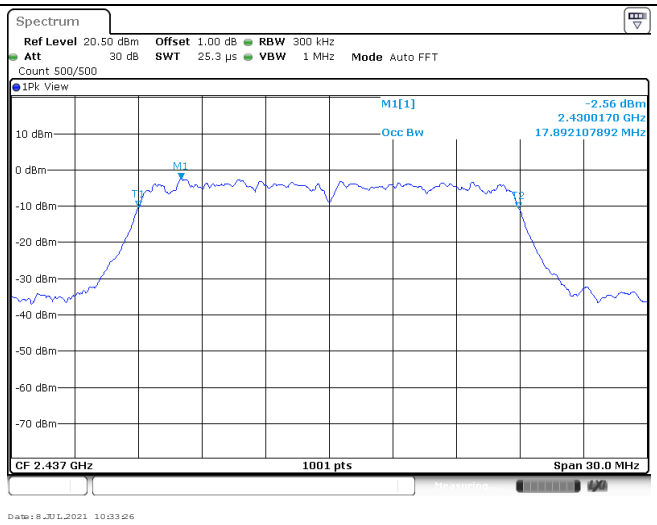
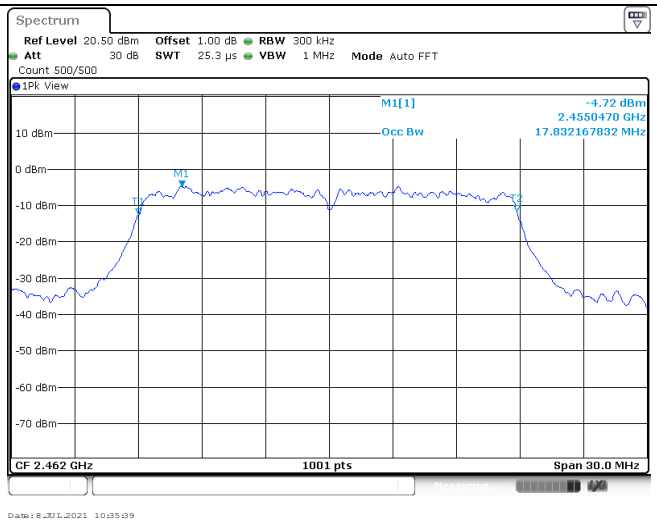
Type:	802.11n(HT20)
CH01	
CH06	
CH11	

Appendix D：99% Occupied Bandwidth

Type	Channel	99% Bandwidth (MHz)	Limit (MHz)	Result
802.11b	01	12.29	-	Pass
	06	12.20		
	11	12.14		
802.11g	01	17.14	-	Pass
	06	17.26		
	11	17.26		
802.11n(HT20)	01	17.83	-	Pass
	06	17.89		
	11	17.83		

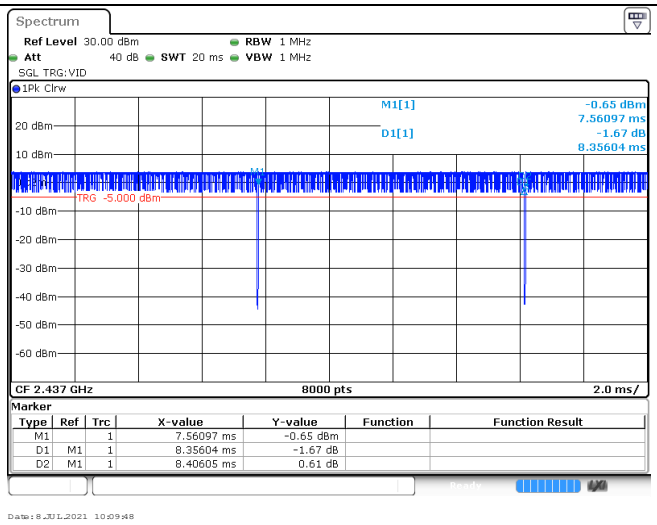
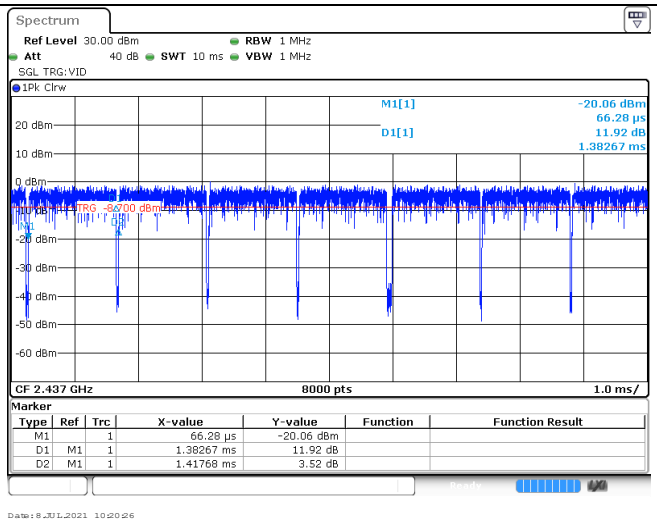
Type:	802.11 b
CH01	
CH06	
CH11	

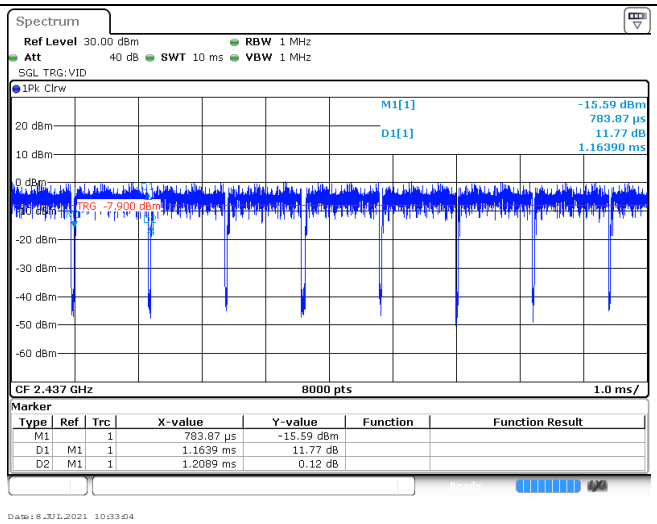
Type:	802.11 g
CH01	
CH06	
CH11	

Type:	802.11n(HT20)
CH01	
CH06	
CH11	

Appendix E：Duty Cycle

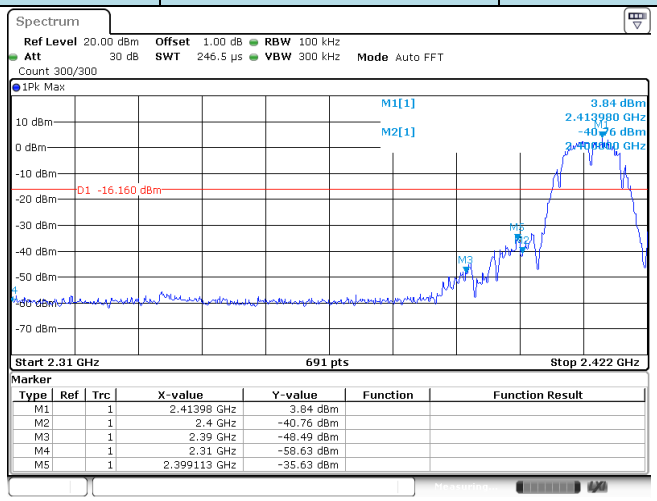
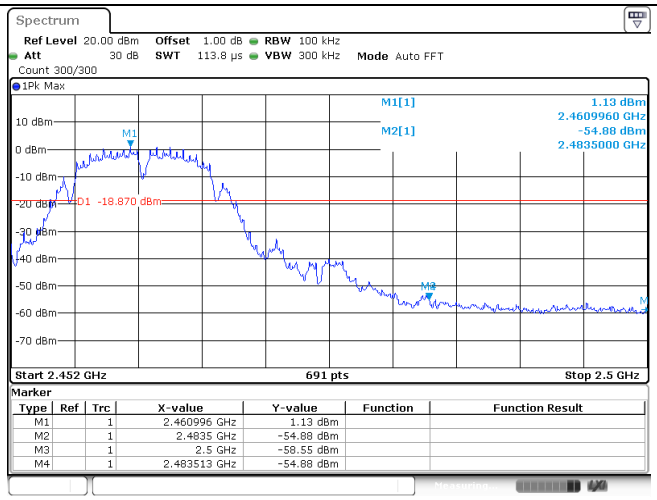
Modulation Type	Test Frequency （MHz）	$T_{on\ time}$ for single burst (ms)	T_{period} (ms)	Duty cycle	$1/T_{on\ time}$ (kHz)
11b	2437	8.36	8.41	99.4%	0.1
11g	2437	1.38	1.42	97.2%	0.7
11n20	2437	1.16	1.21	95.9%	0.9

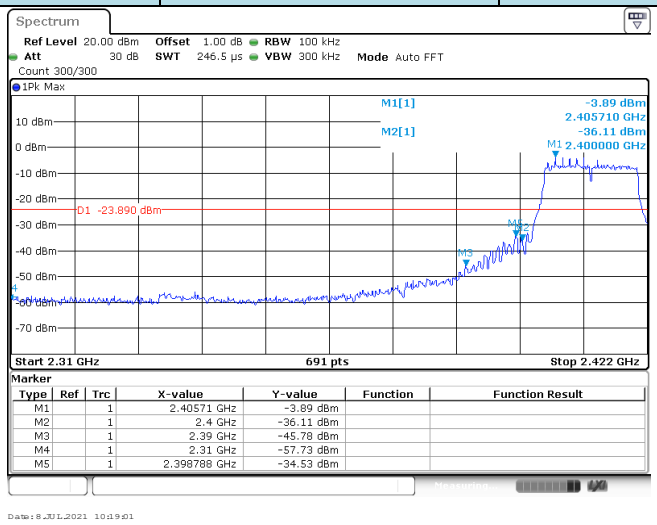
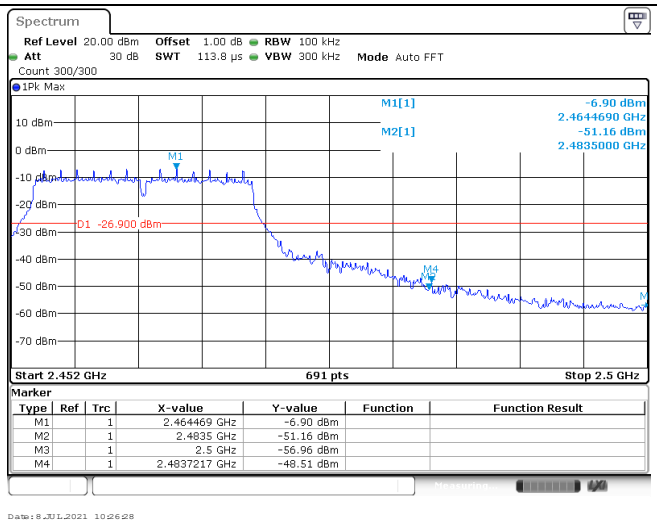
11b	
11g	

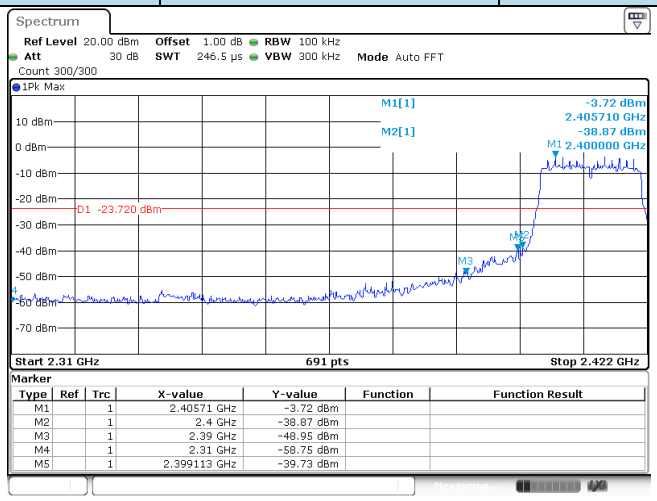
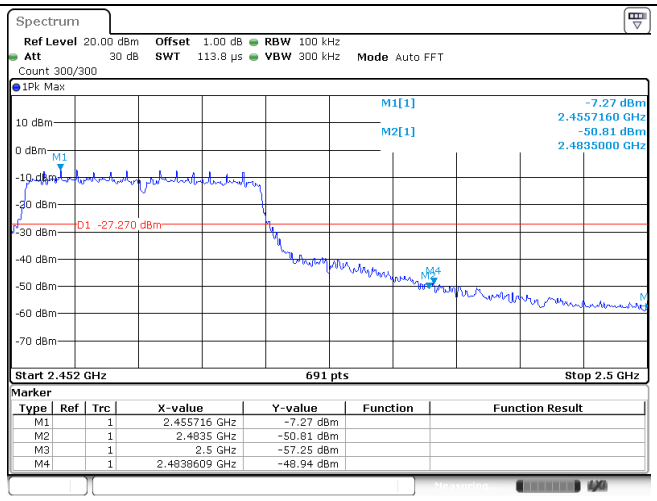
11n20	

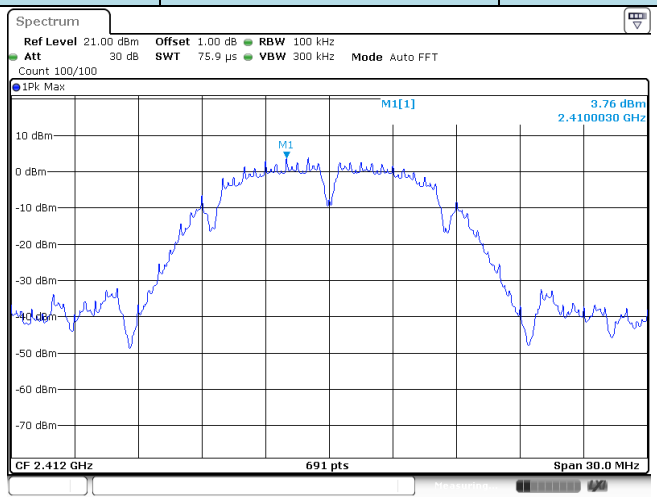
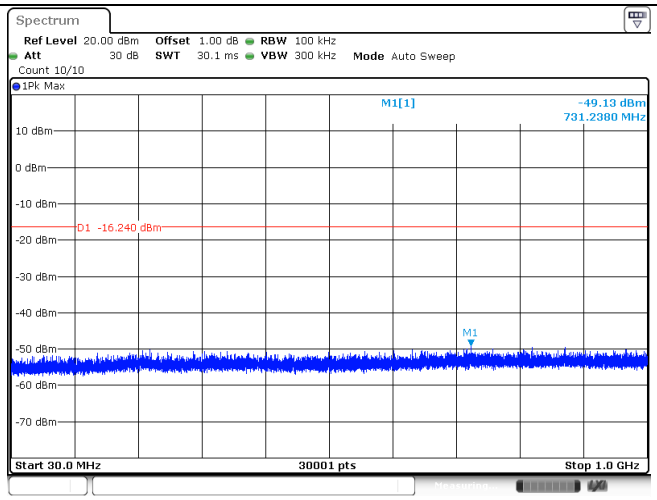
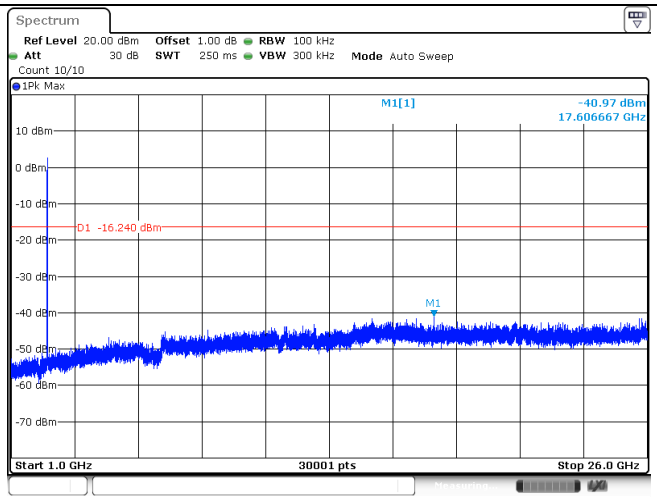
Spectrum
Ref Level 30.00 dBm
RBW 1 MHz
Att 40 dB SWT 10 ms VBW 1 MHz
SGL TRG:VID
1Pk Clrw
M1[1] -15.59 dBm
783.87 µs
D1[1] 11.77 dB
1.16390 ms
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
TRG -7.900 dBm
CF 2.437 GHz
8000 pts
1.0 ms/
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 783.87 µs -15.59 dBm
D1 M1 1 1.1639 ms 11.77 dB
D2 M1 1 1.2089 ms 0.12 dB
Date: 8.JUL.2021 10:33:04

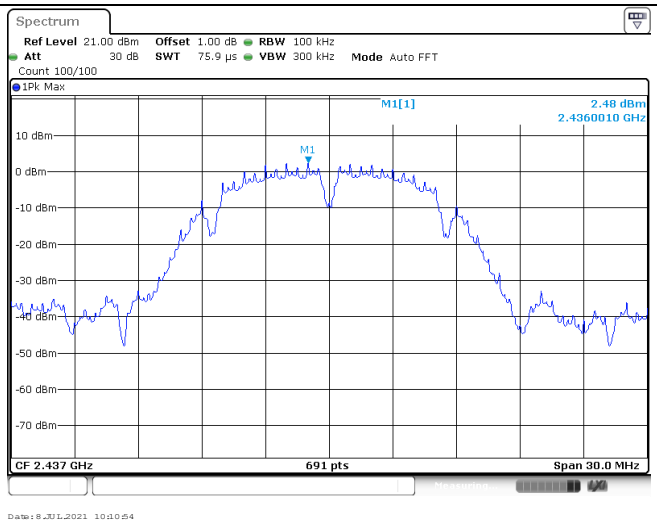
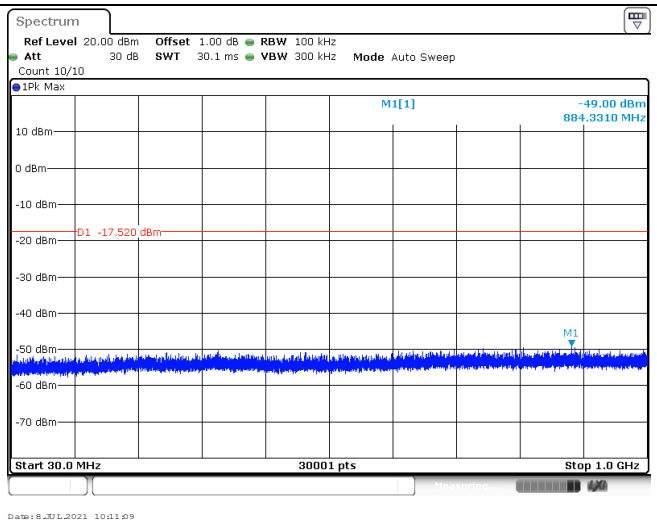
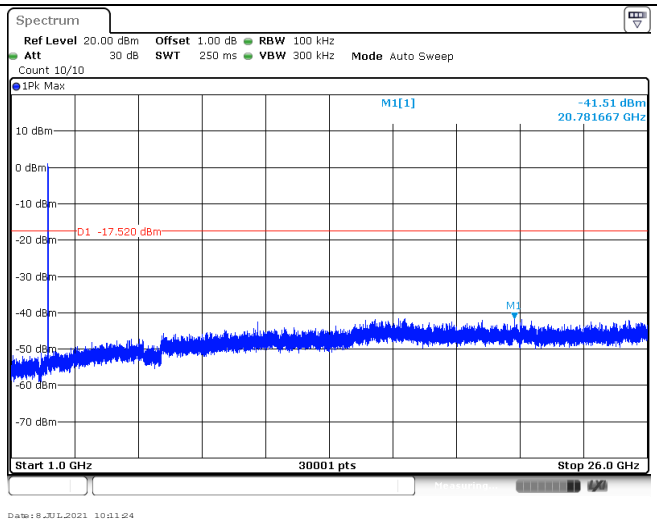
Appendix F：Band edge and Spurious Emissions (conducted)

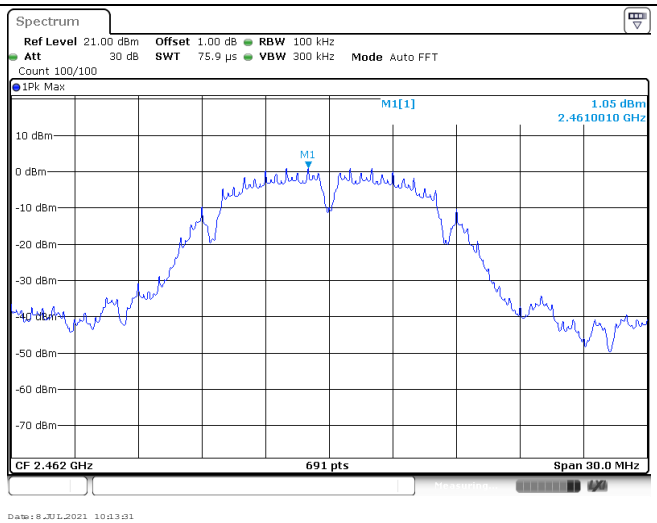
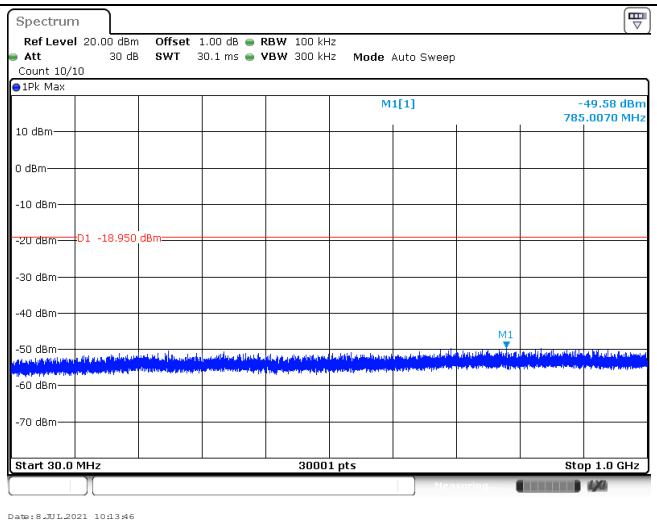
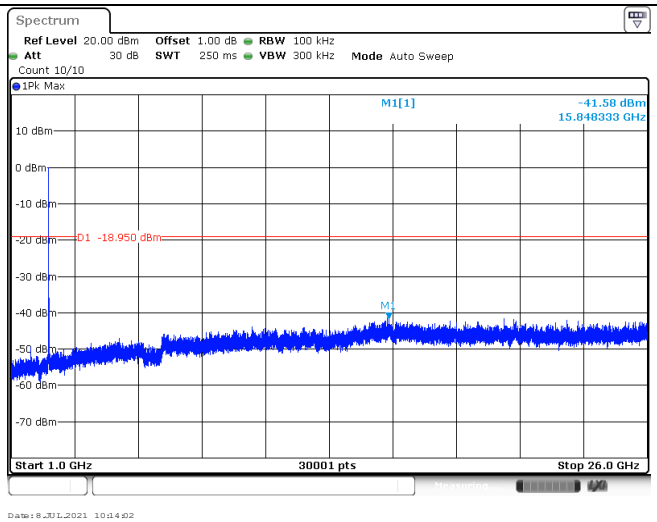
Test Item:	Bandedge	Type:	802.11 b
CH01			
CH11			

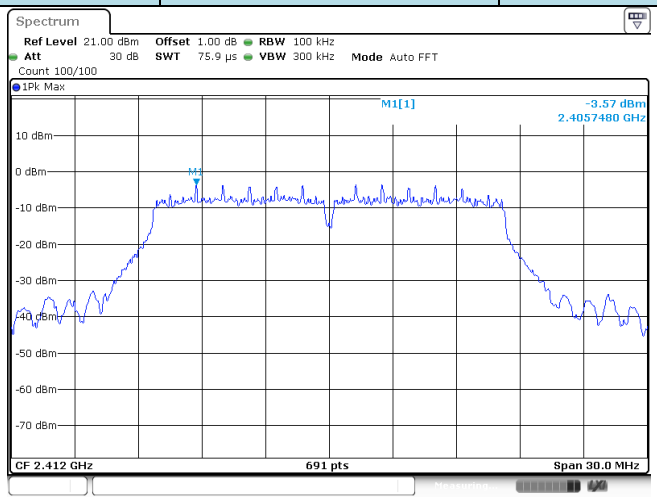
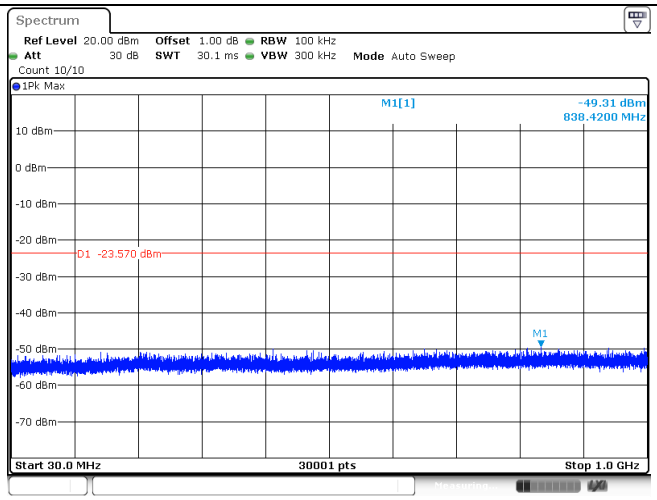
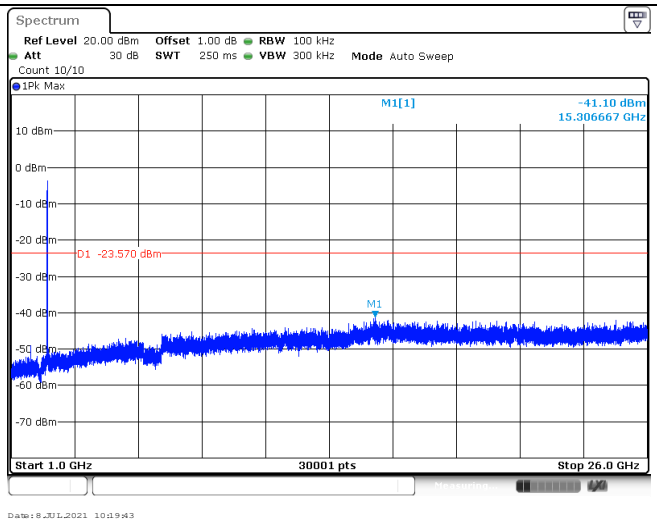
Test Item:	Bandedge	Type:	802.11 g
CH01			
CH11			

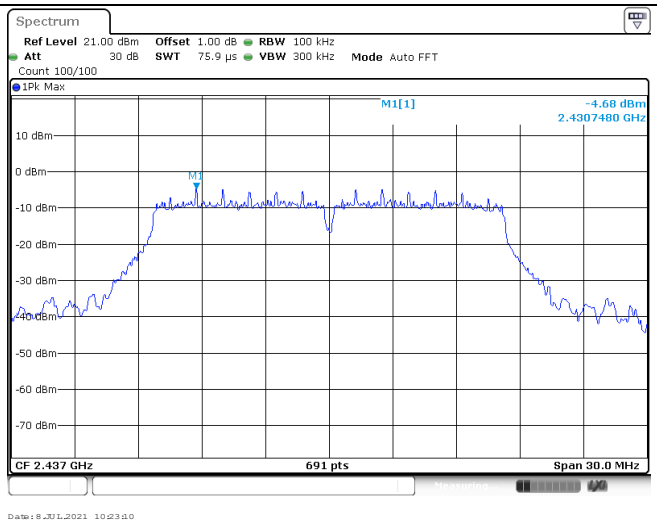
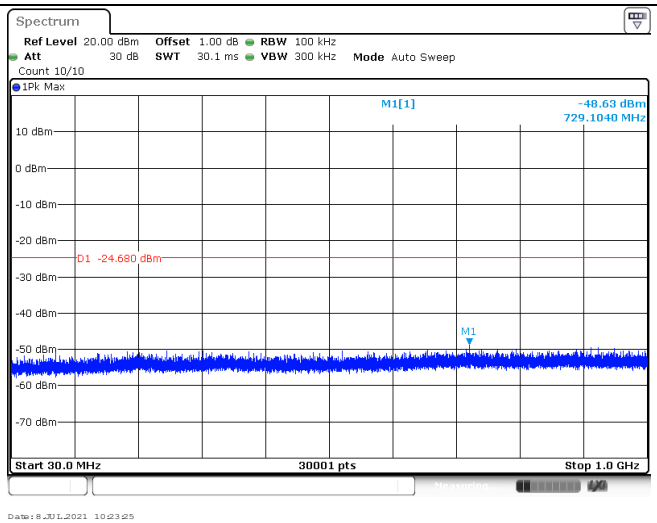
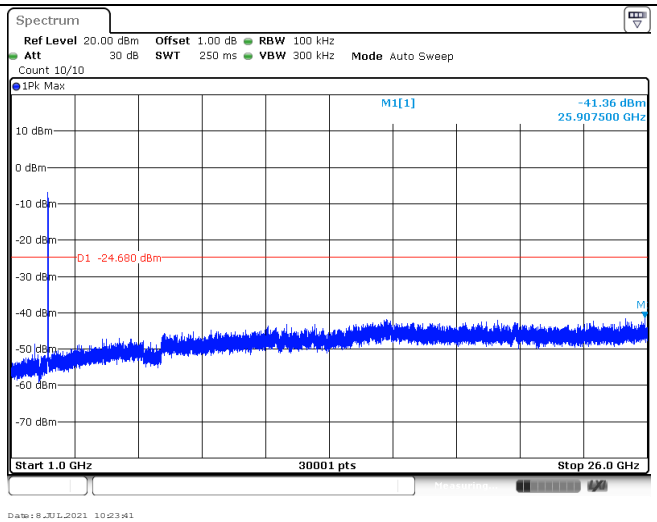
Test Item:	Bandedge	Type:	802.11 n(HT20)
CH01			
CH11			

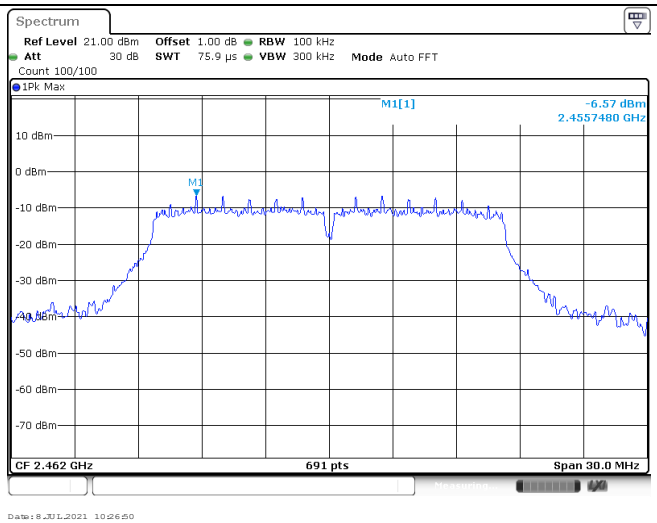
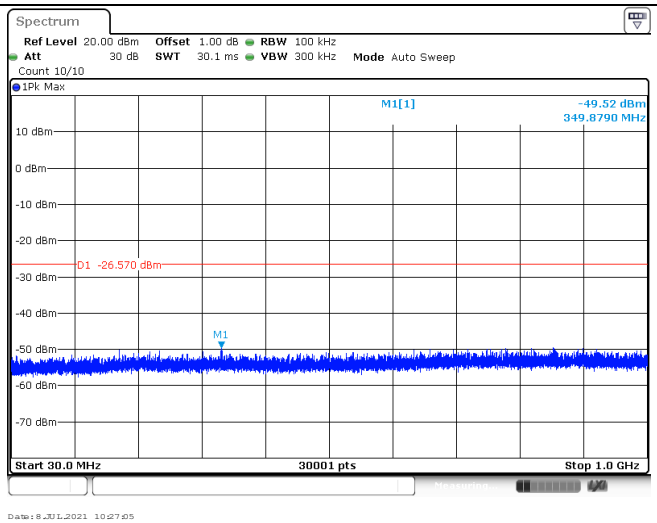
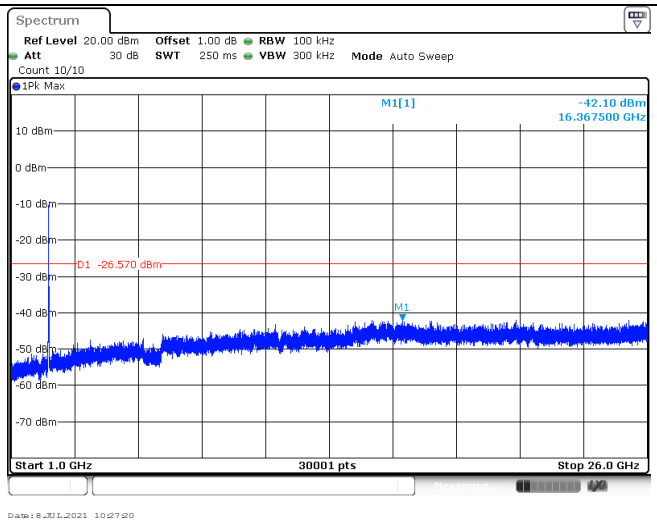
Test Item:	SE	Type:	802.11 b
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

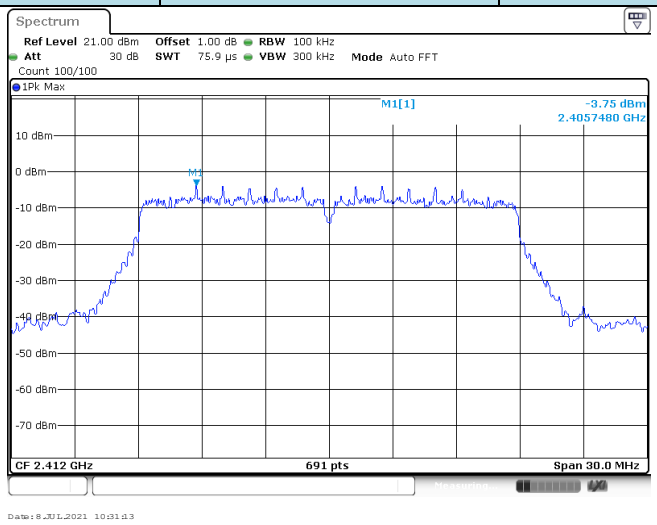
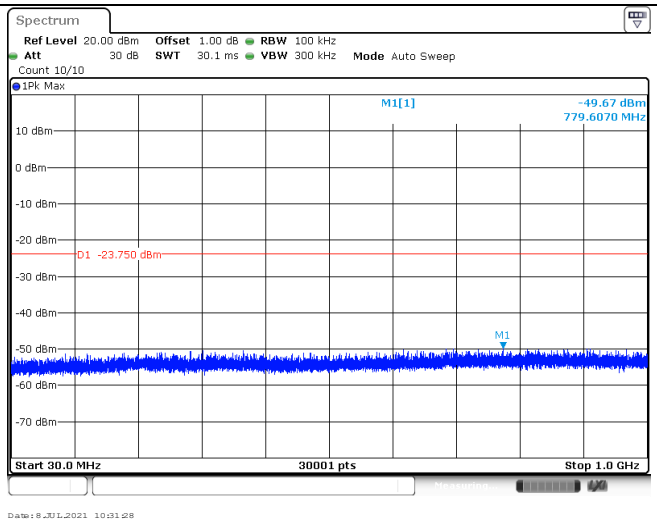
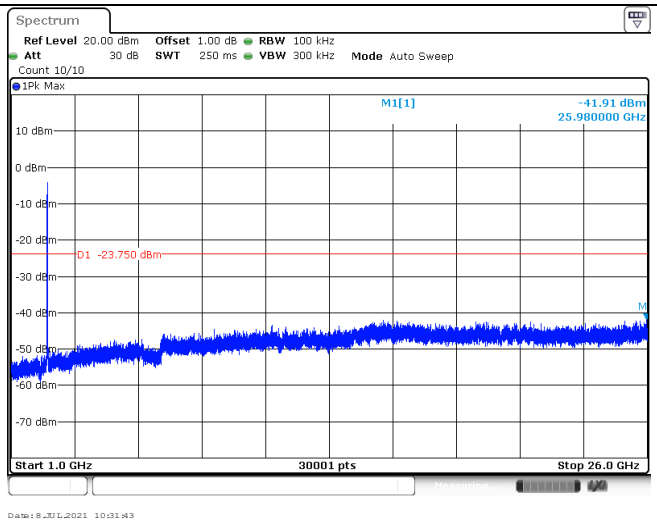
CH06 Reference level	
CH06 30MHz~1000MHz	
CH06 1GHz~26GHz	

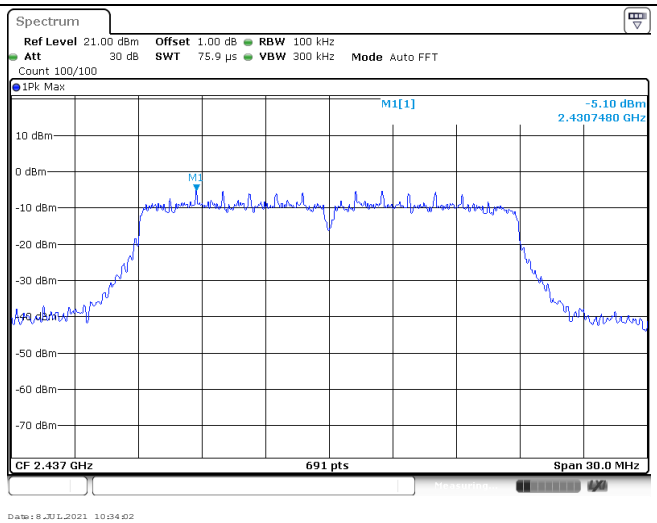
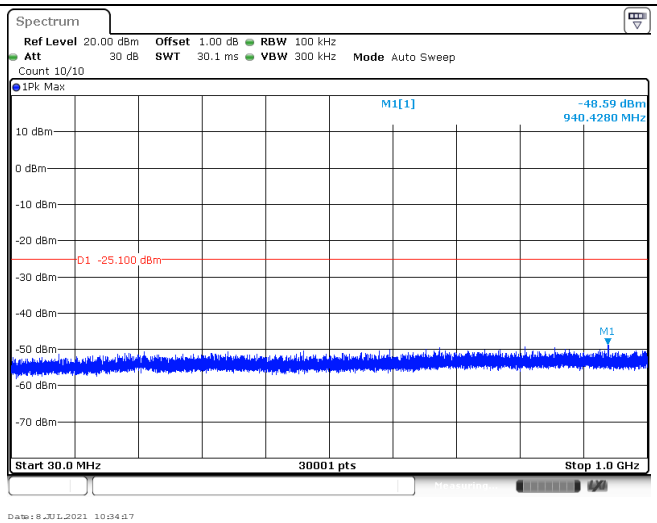
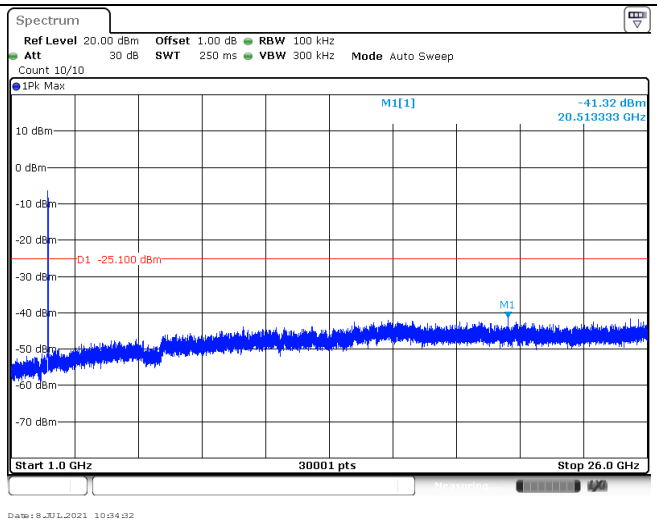
CH11 Reference level	
CH11 30MHz~1000MHz	
CH11 1GHz~26GHz	

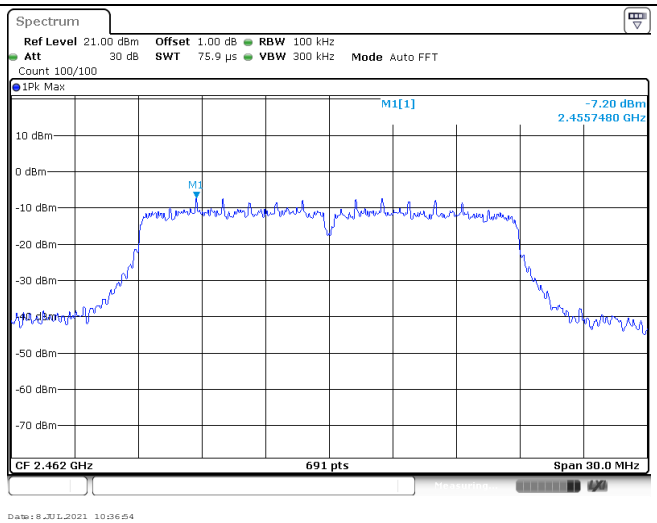
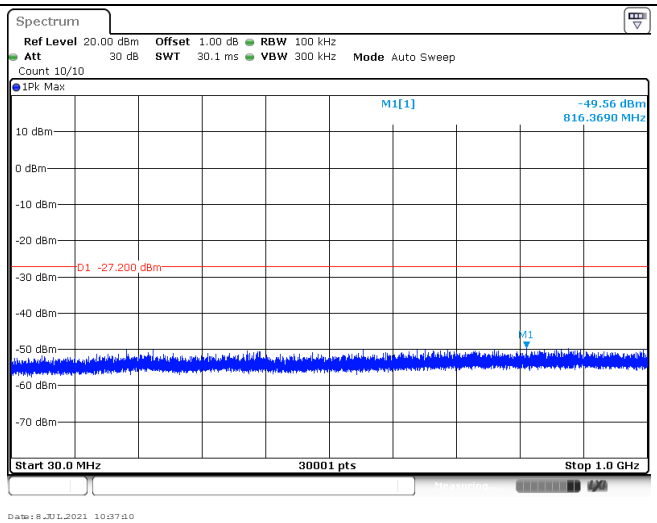
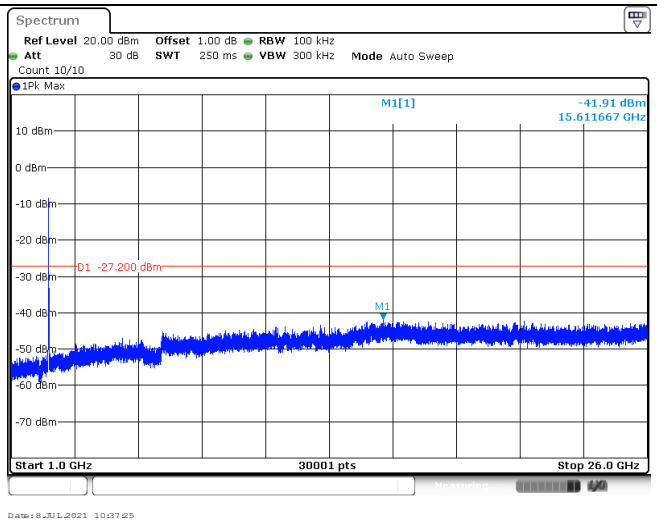
Test Item:	SE	Type:	802.11 g
CH01 Reference level			
CH01 30MHz~1000MHz			
CH01 1GHz~26GHz			

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

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

Test Item:	SE	Type:	802.11 n(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	

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