Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Survey Camera

Trade Mark: MAPIR

Test Model: Survey3

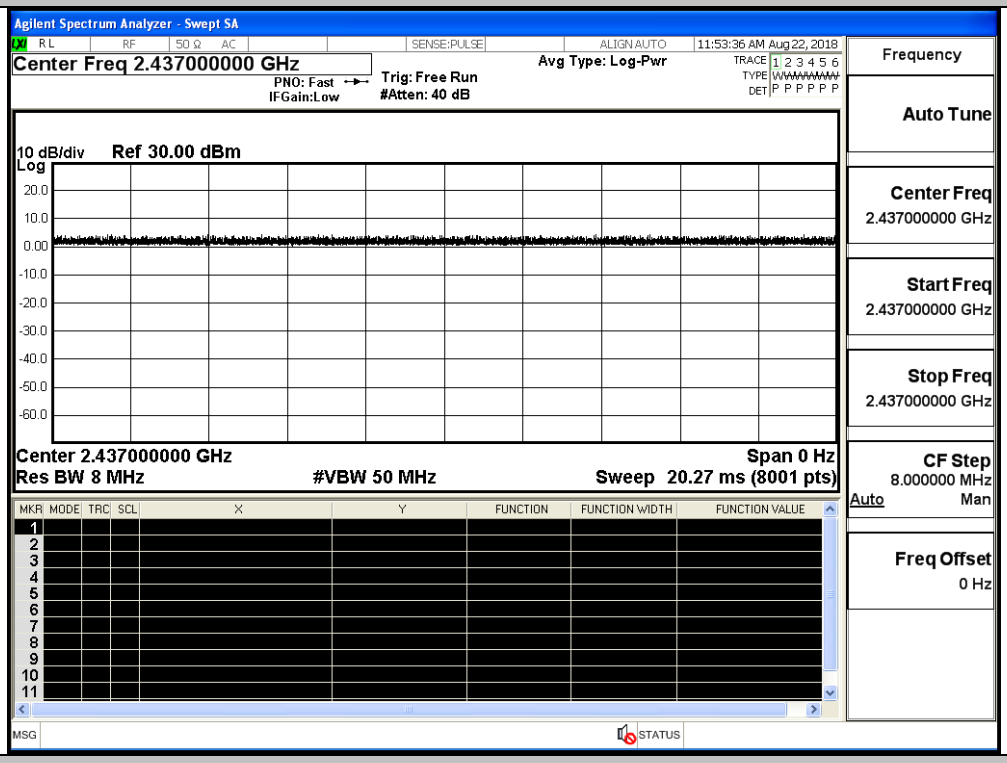
Environmental Conditions

Temperature:	23.6 ° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Wilson.Hong
Supervised by:	Jayden.Zhuo

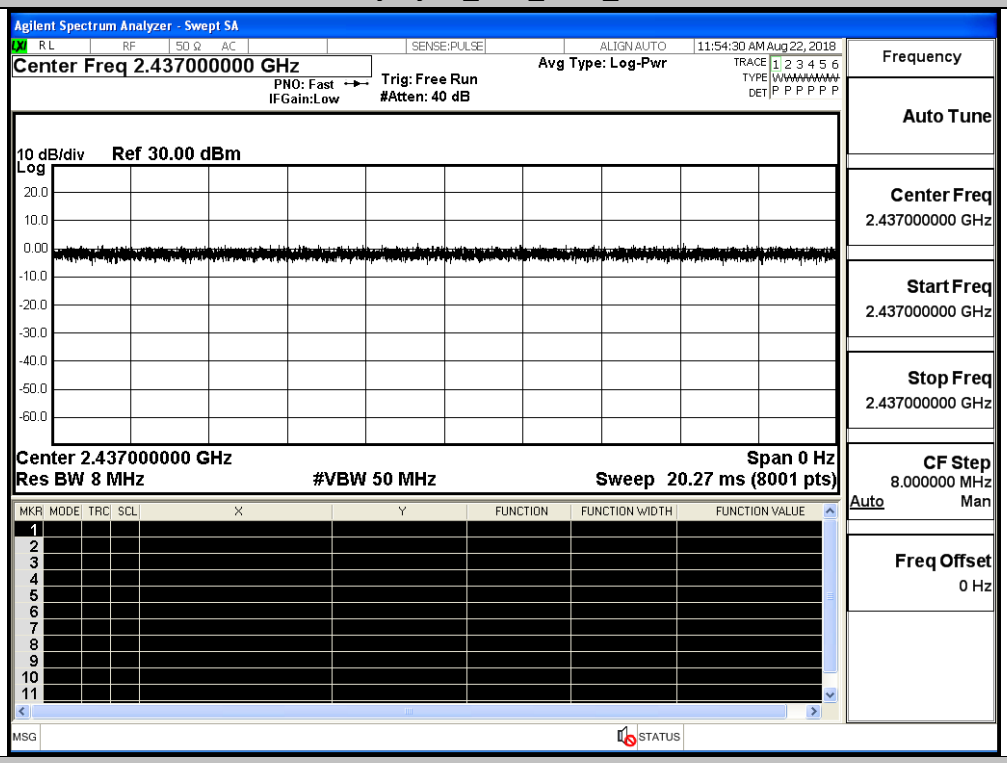
B.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS

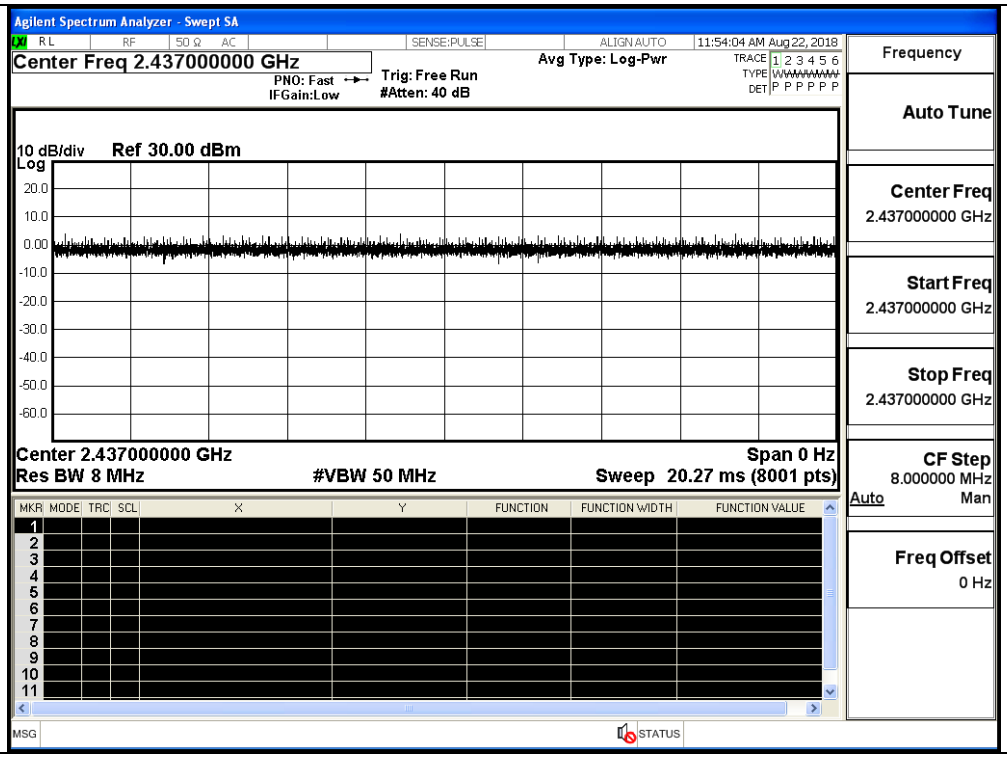
Duty Cycle_11B_2437_Ant1



Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1

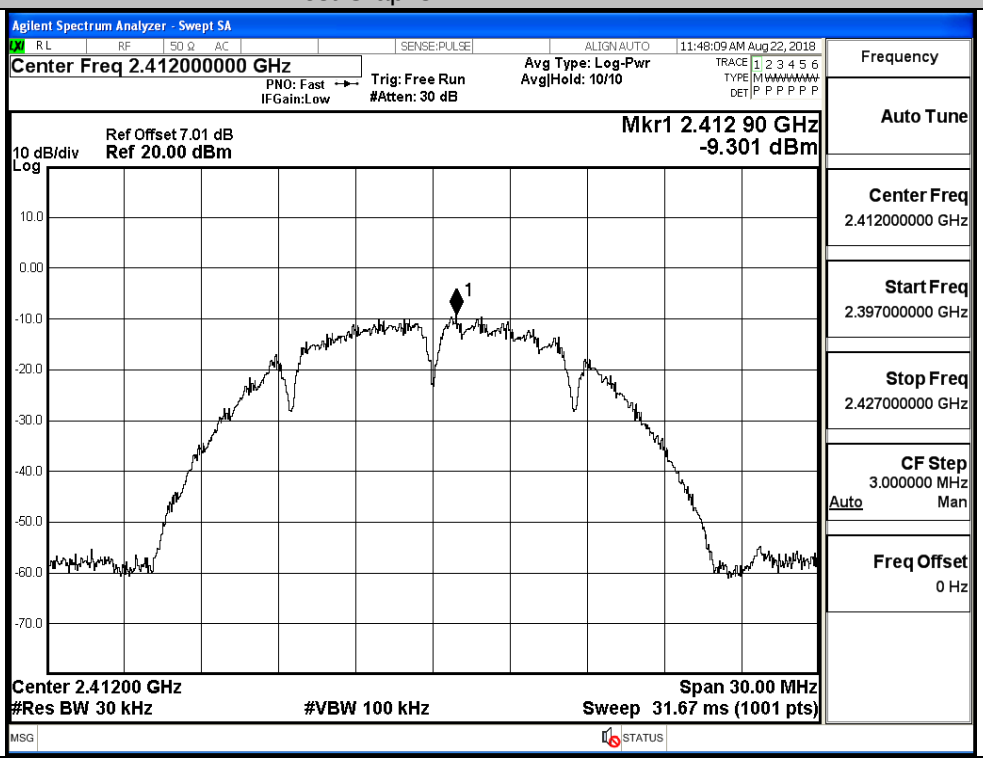

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
Avg Type: Log-Pwr
11:54:04 AM Aug 22, 2018
10 dB/div
Ref 30.00 dBm
Log
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 2.437000000 GHz
Span 0 Hz
Res BW 8 MHz
#VBW 50 MHz
Sweep 20.27 ms (8001 pts)
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.437000000 GHz
Stop Freq
2.437000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

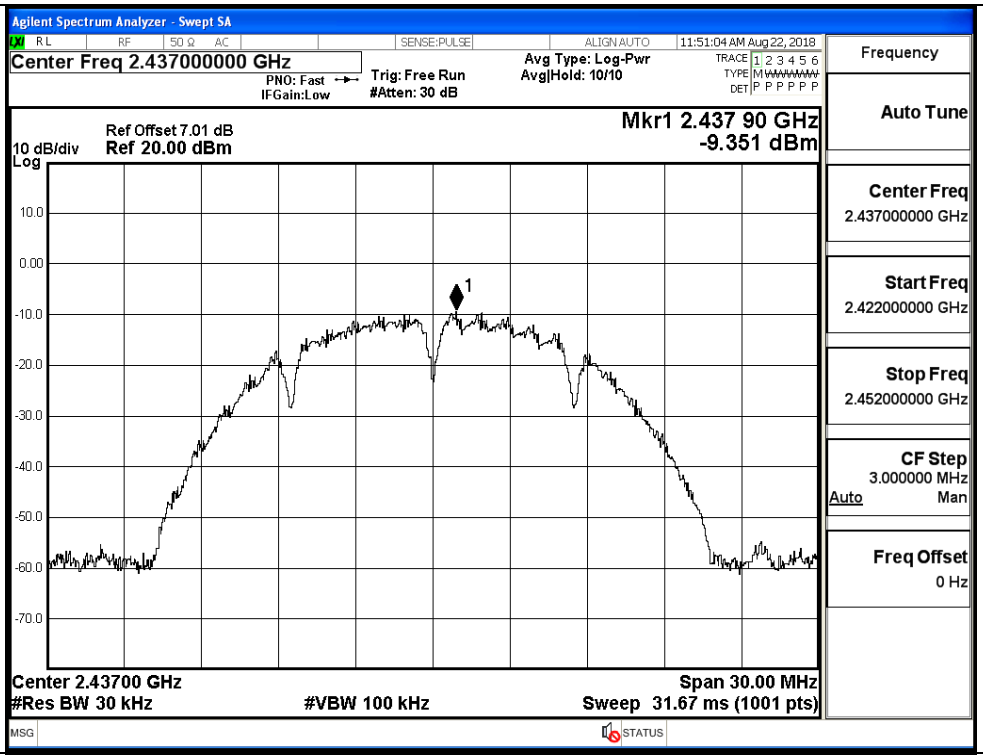
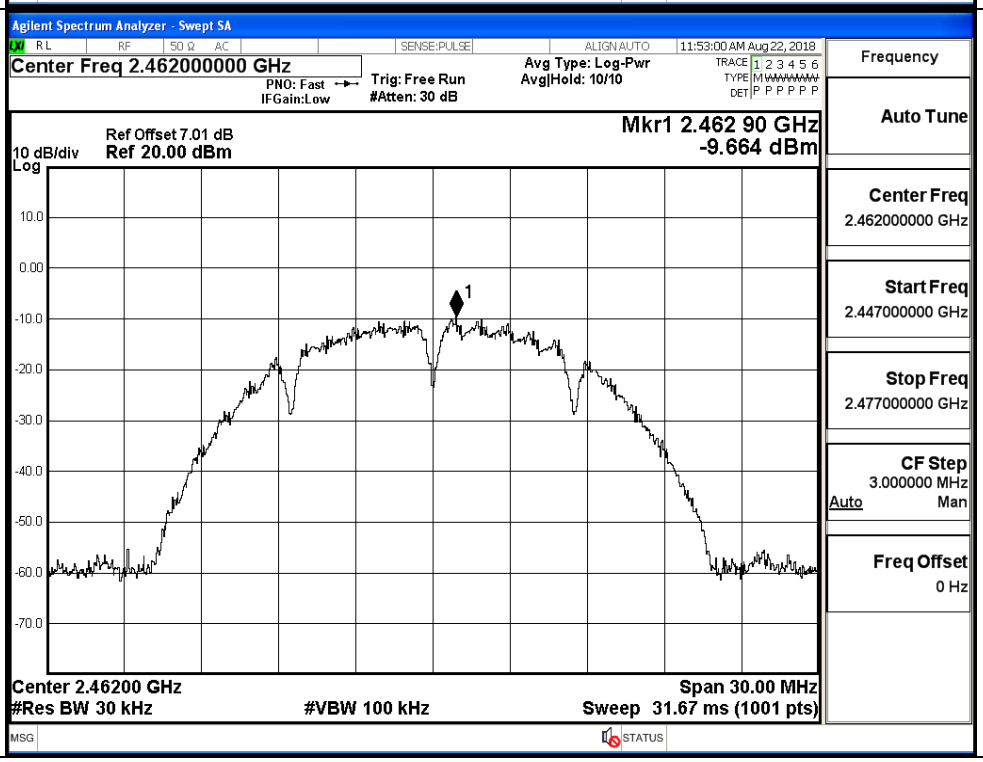
B.2 Maximum Peak Conducted Output Power

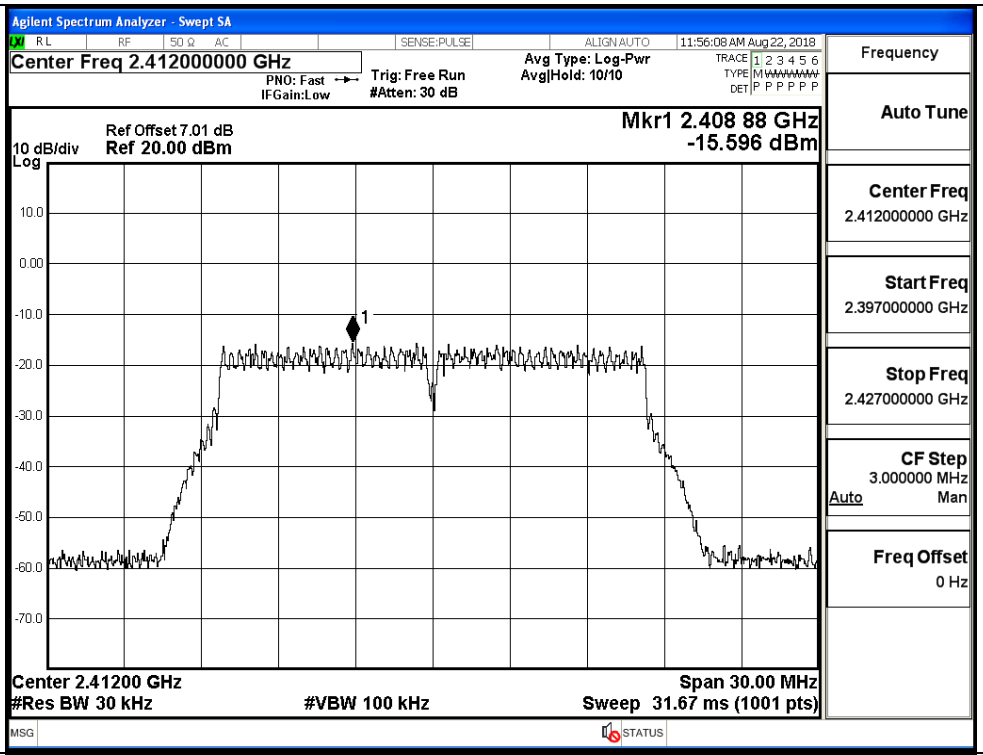
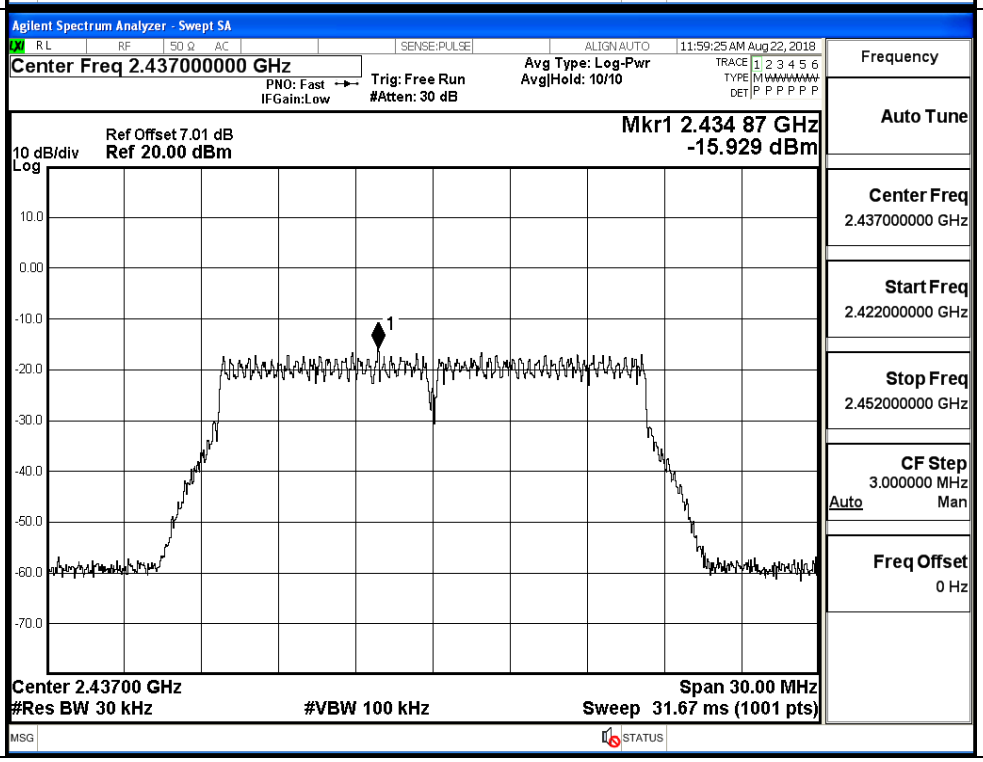
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	10.97	30	PASS
	MCH	10.88	30	PASS
	HCH	10.53	30	PASS
11G	LCH	12.29	30	PASS
	MCH	12.32	30	PASS
	HCH	13.08	30	PASS
11N20SISO	LCH	14.02	30	PASS
	MCH	13.87	30	PASS
	HCH	14.33	30	PASS

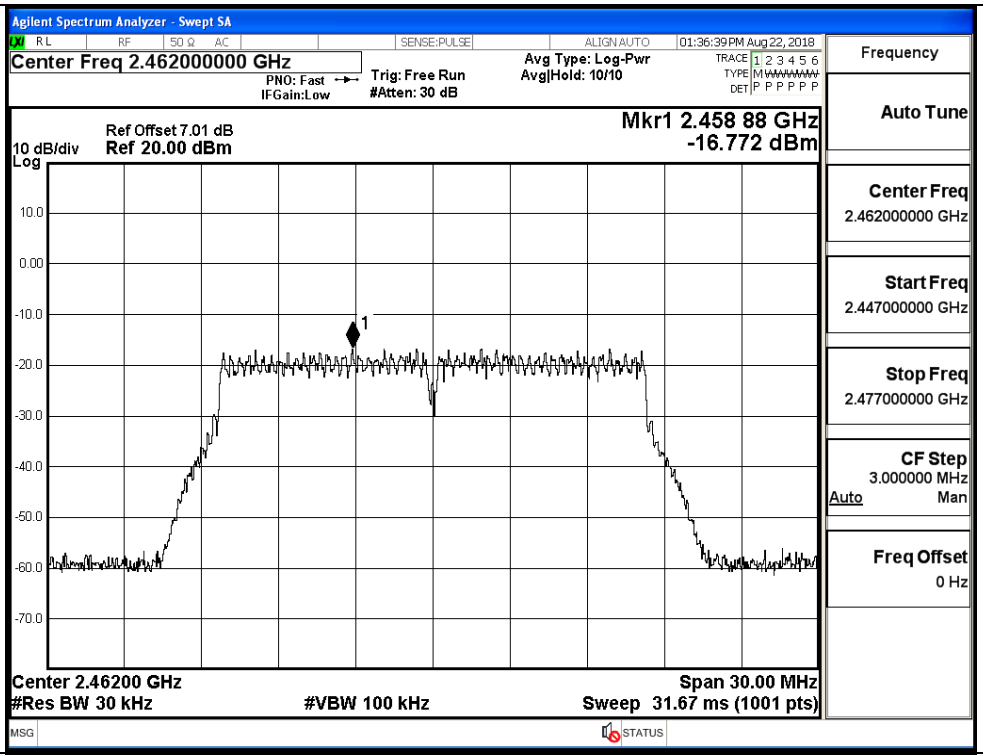
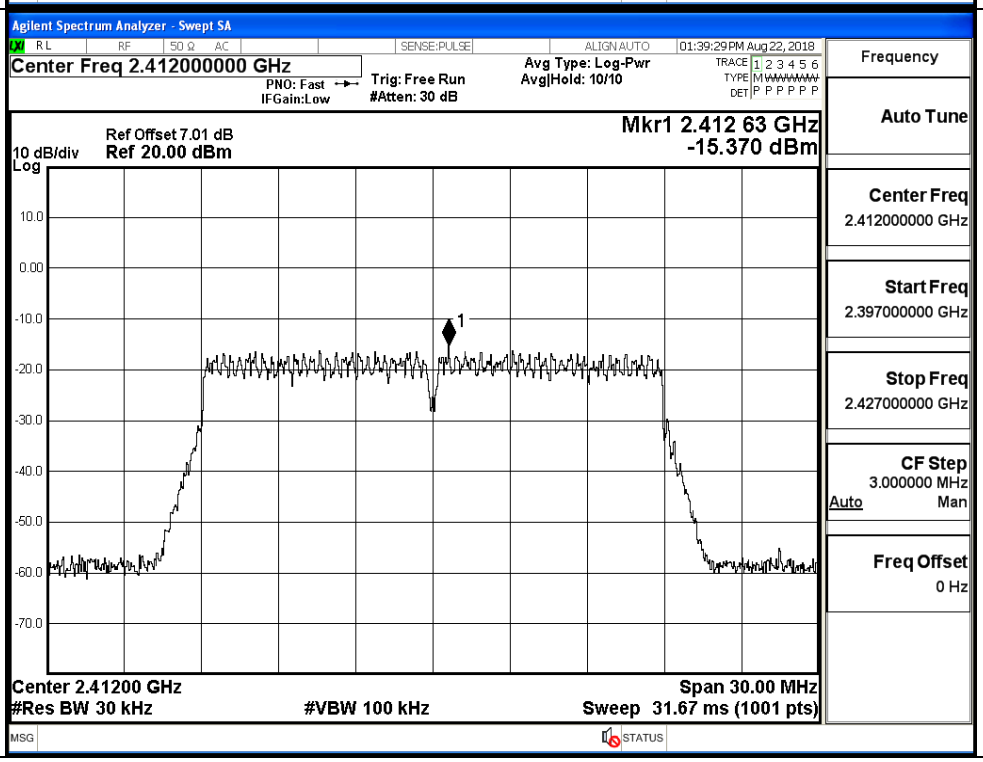
B.3 Maximum Power Spectral Density

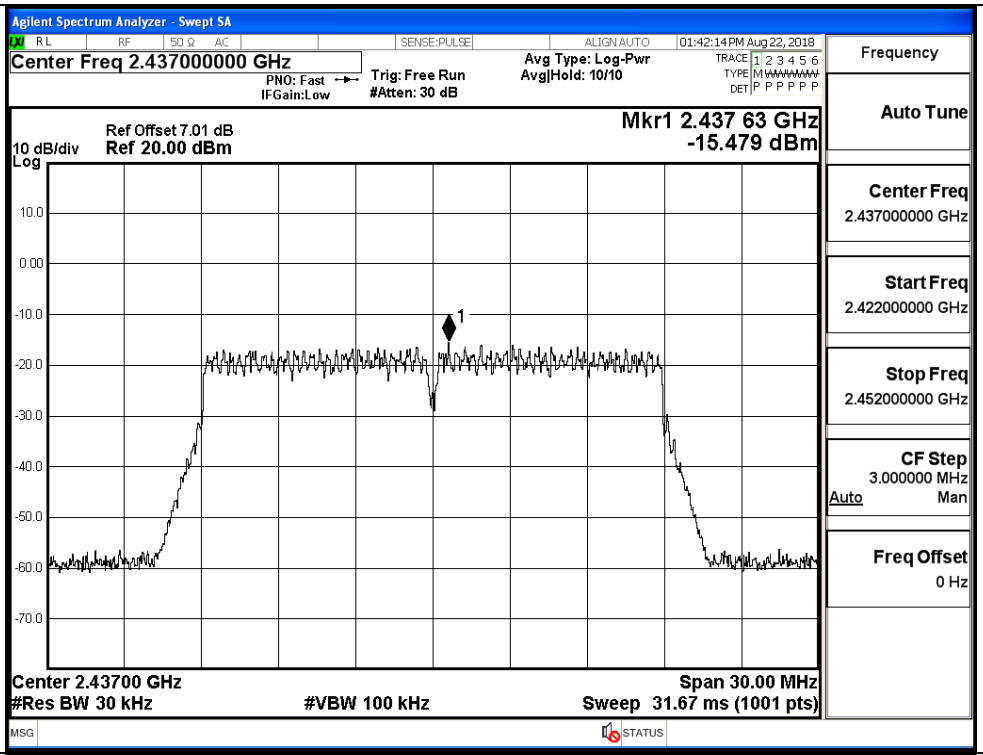
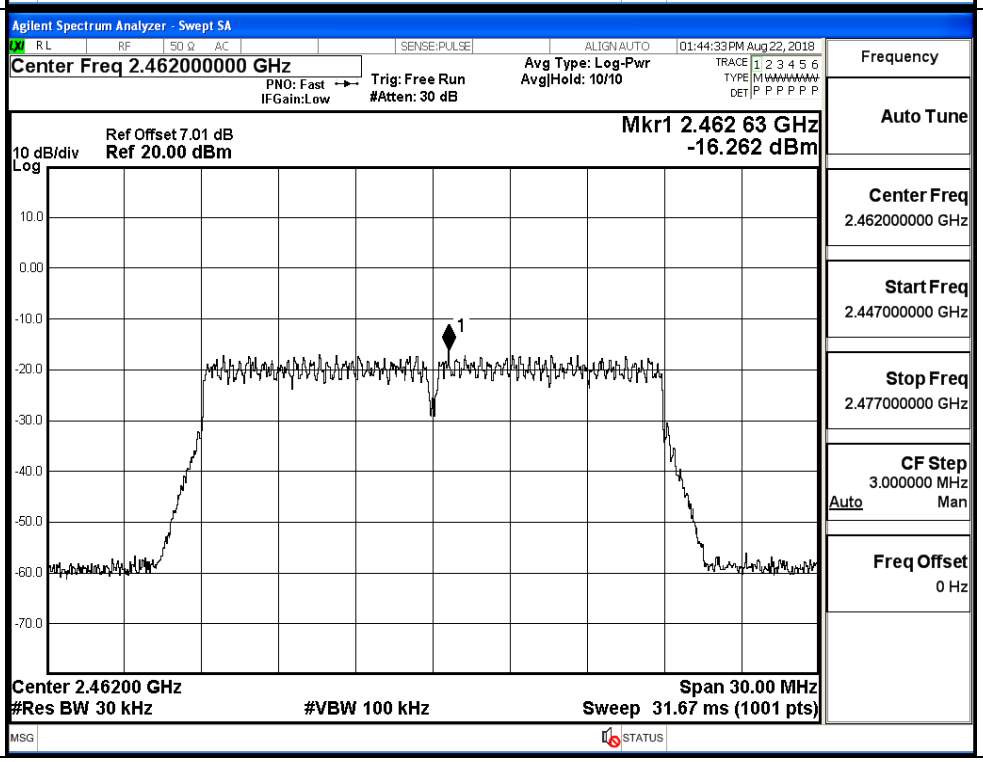
Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-9.301	8	PASS
	MCH	-9.351	8	PASS
	HCH	-9.664	8	PASS
11G	LCH	-15.596	8	PASS
	MCH	-15.929	8	PASS
	HCH	-16.772	8	PASS
11N20SISO	LCH	-15.370	8	PASS
	MCH	-15.479	8	PASS
	HCH	-16.262	8	PASS

Test Graphs	
11B/LCH	

11B/MCH		
11B/HCH		

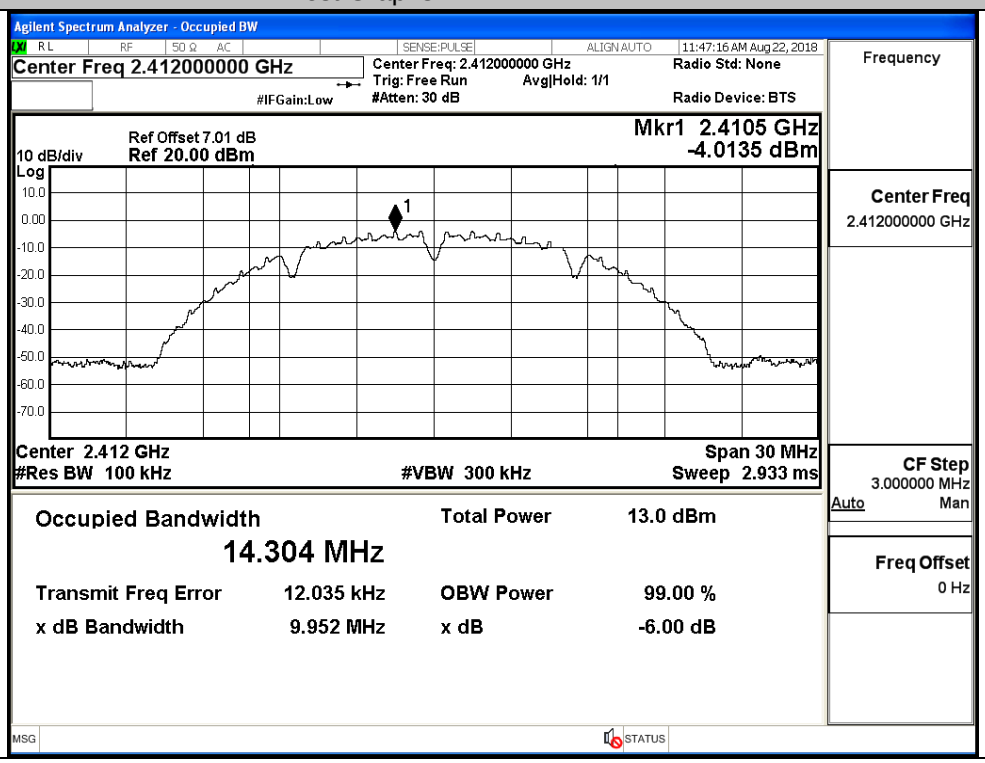
11G/LCH		
11G/MCH		

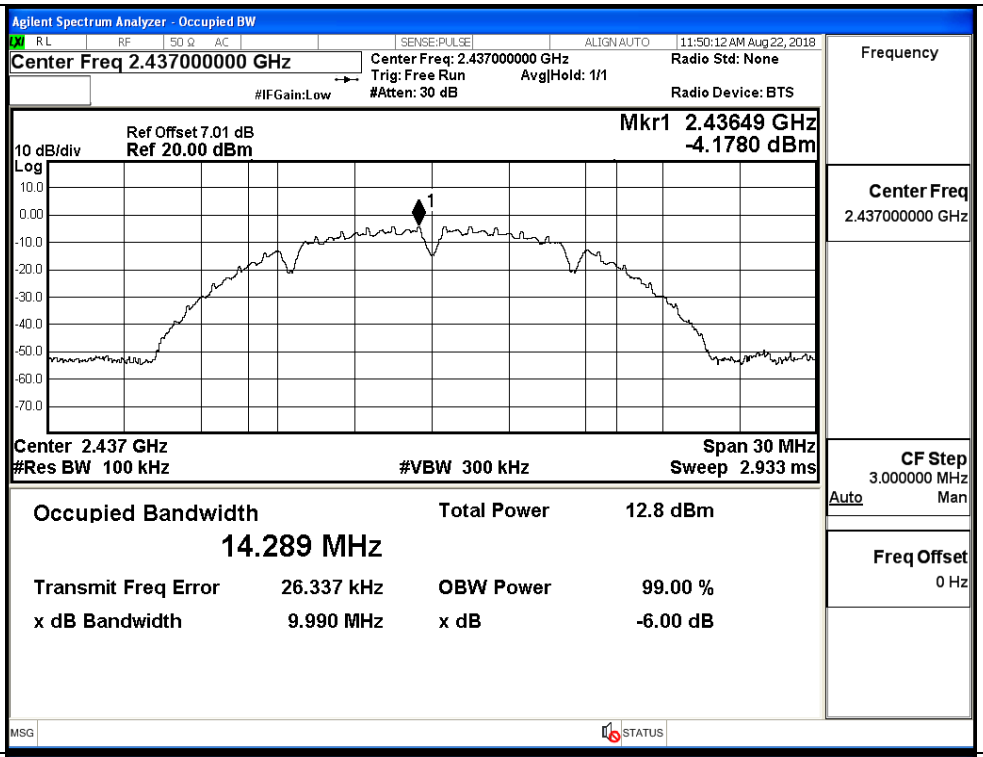
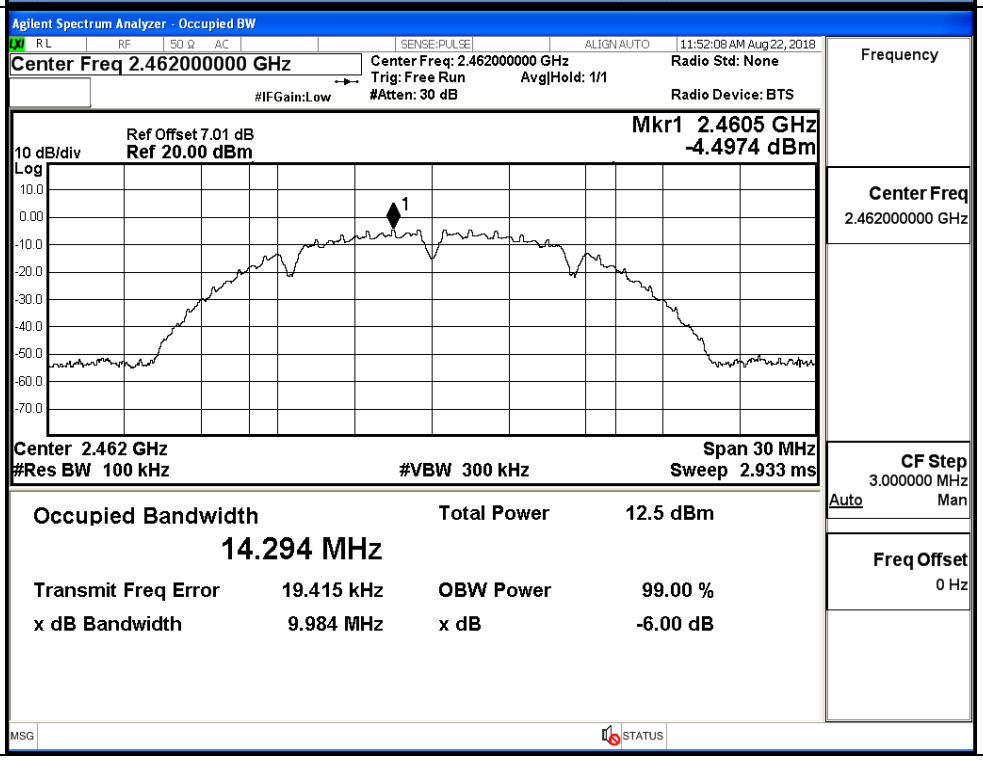
11G/HCH		
11N20SISO/LCH		

11N20SISO/MCH		
11N20SISO/HCH		

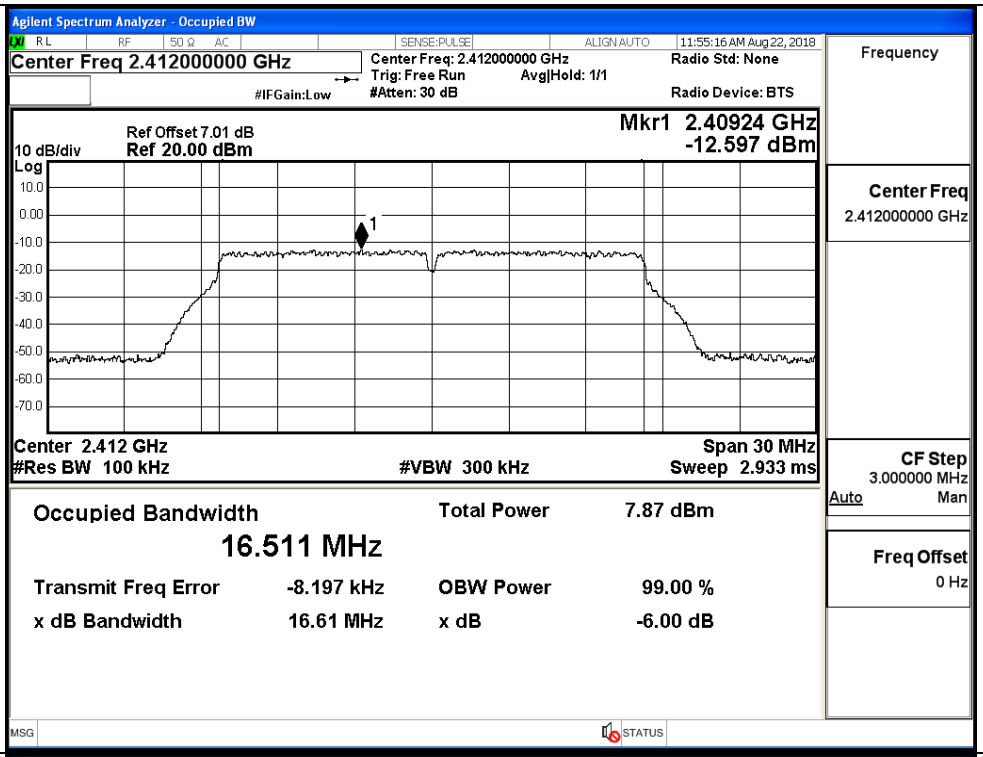
B.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.952	≥0.5	PASS
	MCH	9.990	≥0.5	PASS
	HCH	9.984	≥0.5	PASS
11G	LCH	16.61	≥0.5	PASS
	MCH	16.61	≥0.5	PASS
	HCH	16.61	≥0.5	PASS
11N20SISO	LCH	17.82	≥0.5	PASS
	MCH	17.83	≥0.5	PASS
	HCH	17.83	≥0.5	PASS

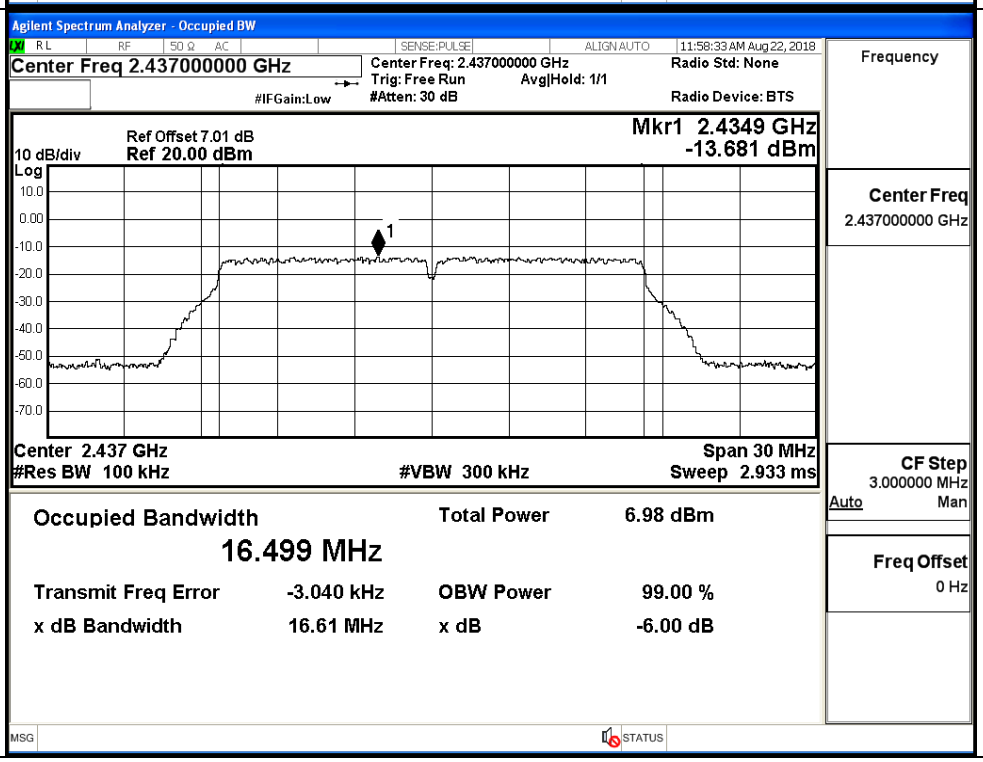
Test Graphs	
11B/LCH	

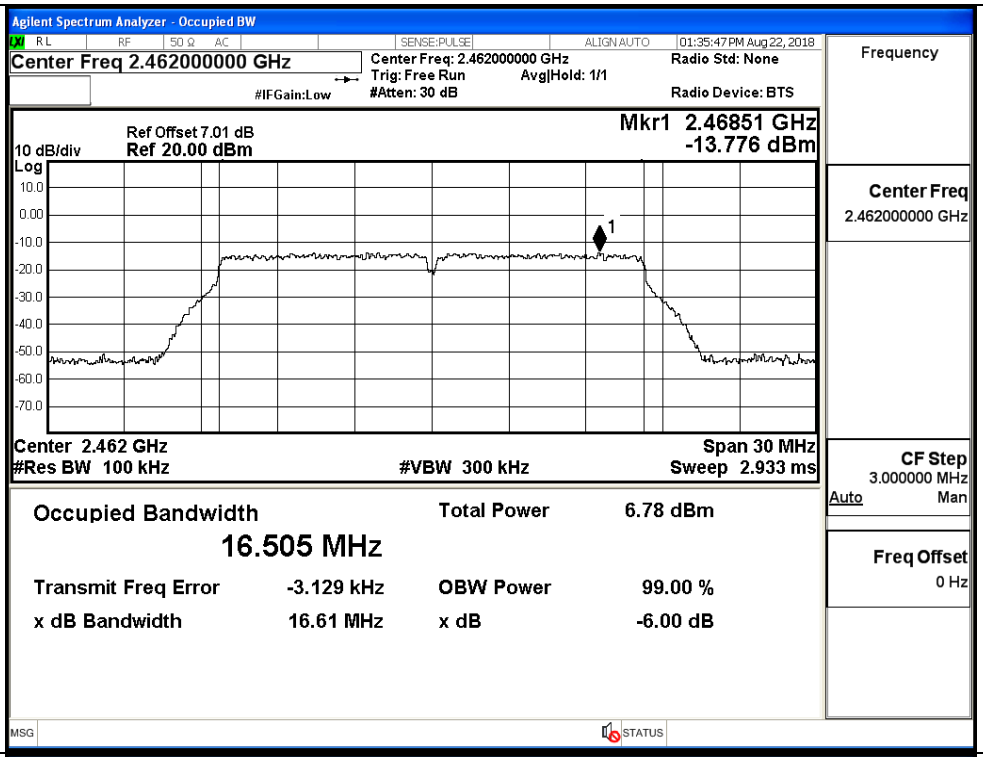
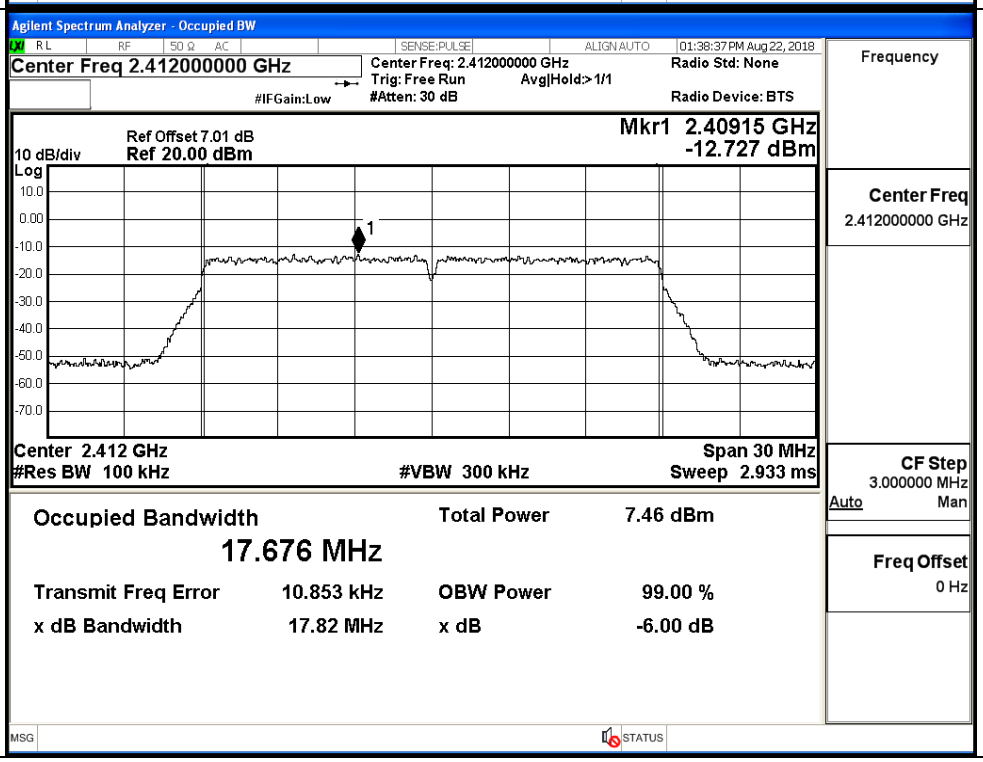
11B/MCH	
11B/HCH	

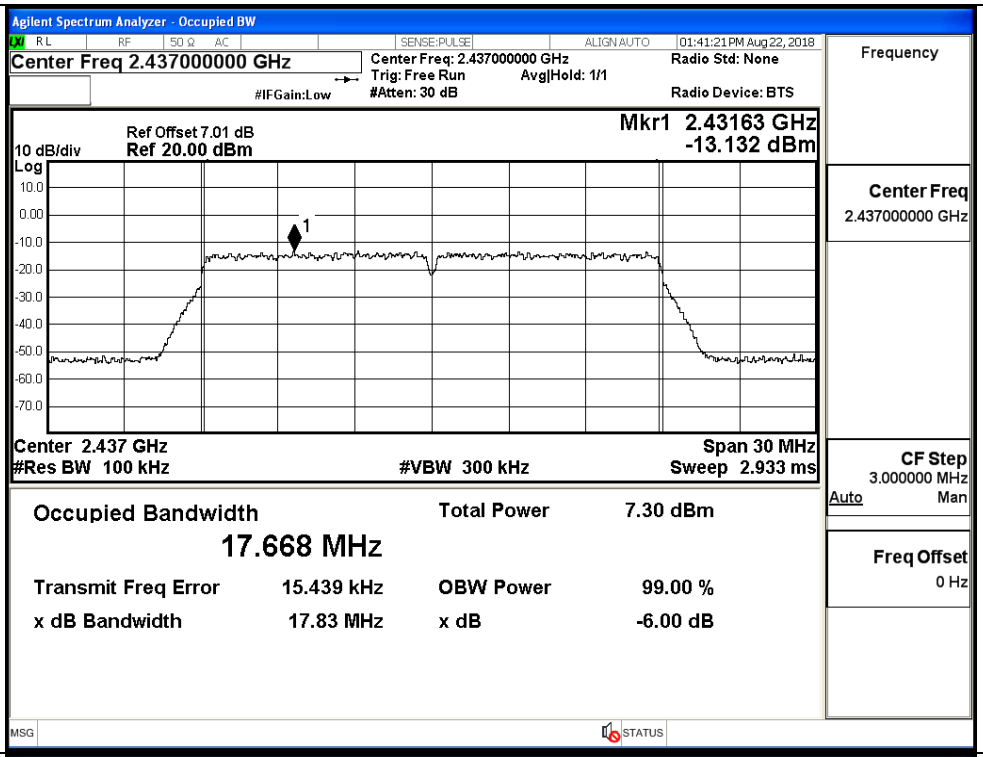
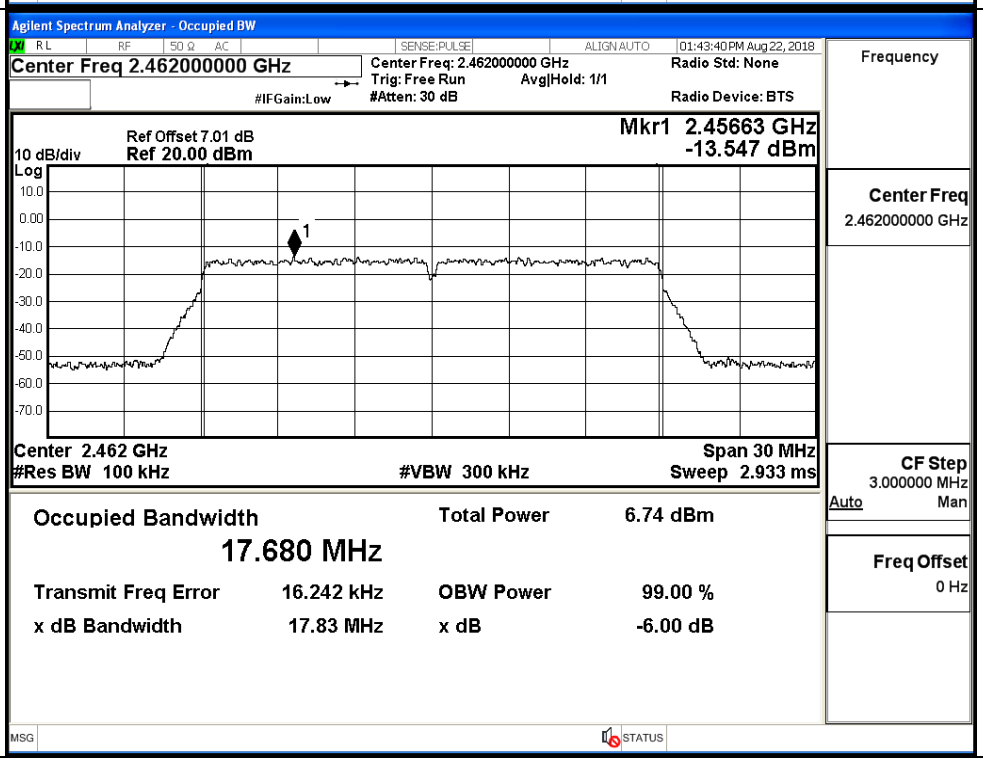
11G/LCH



11G/MCH

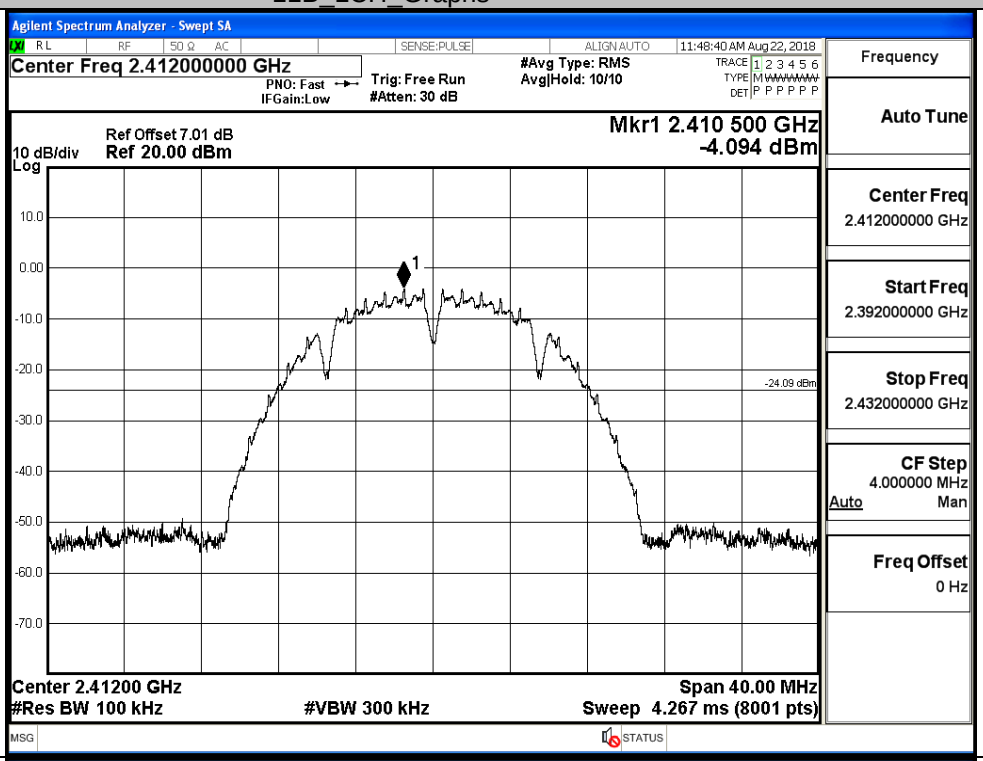
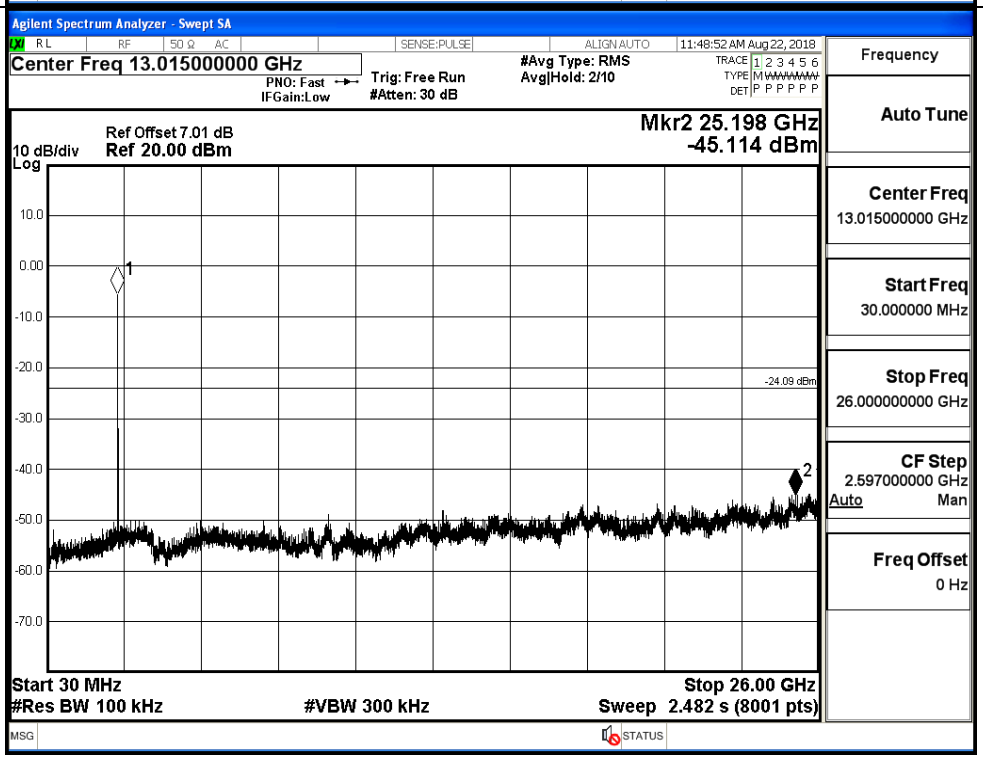


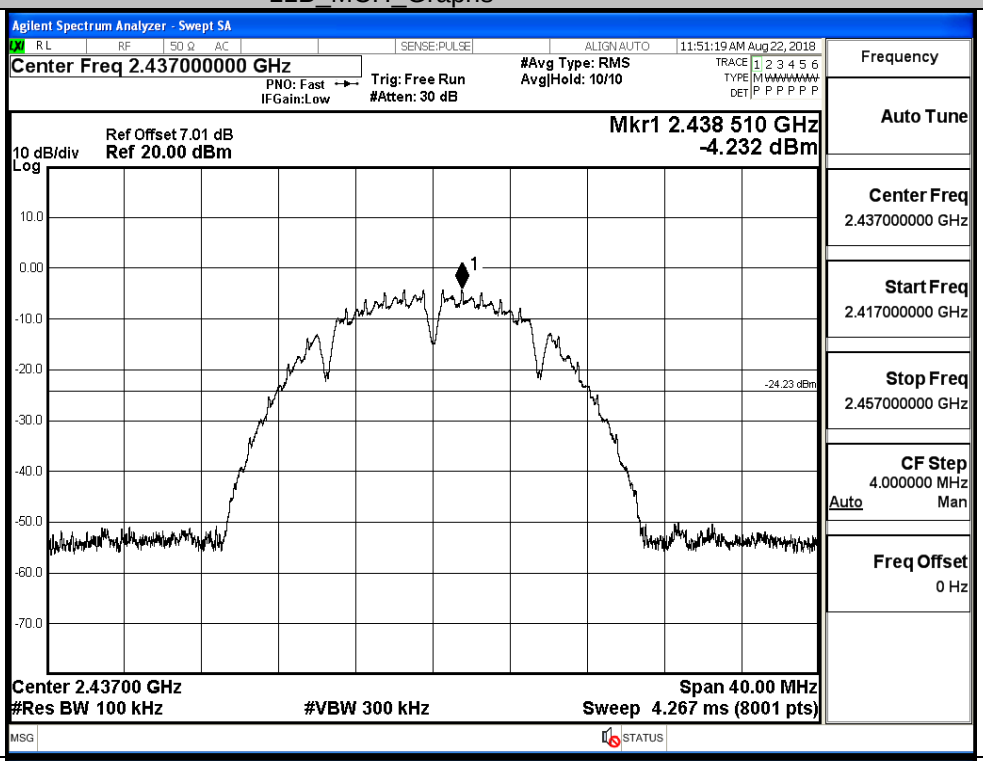
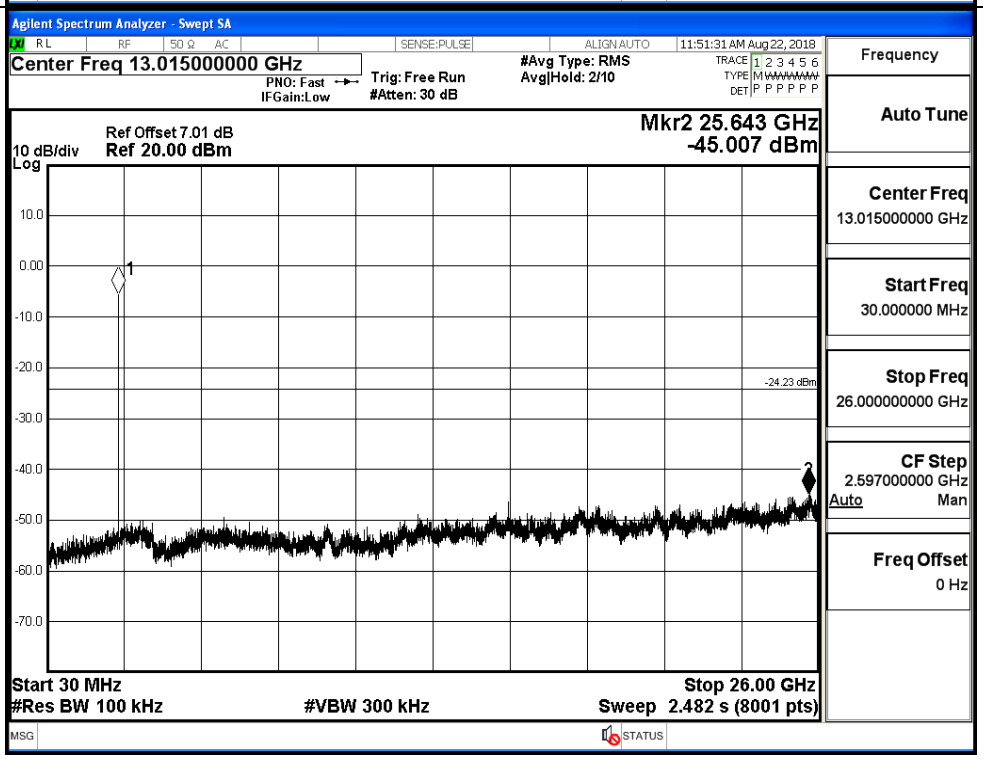
11G/HCH	
11N20SISO/LCH	

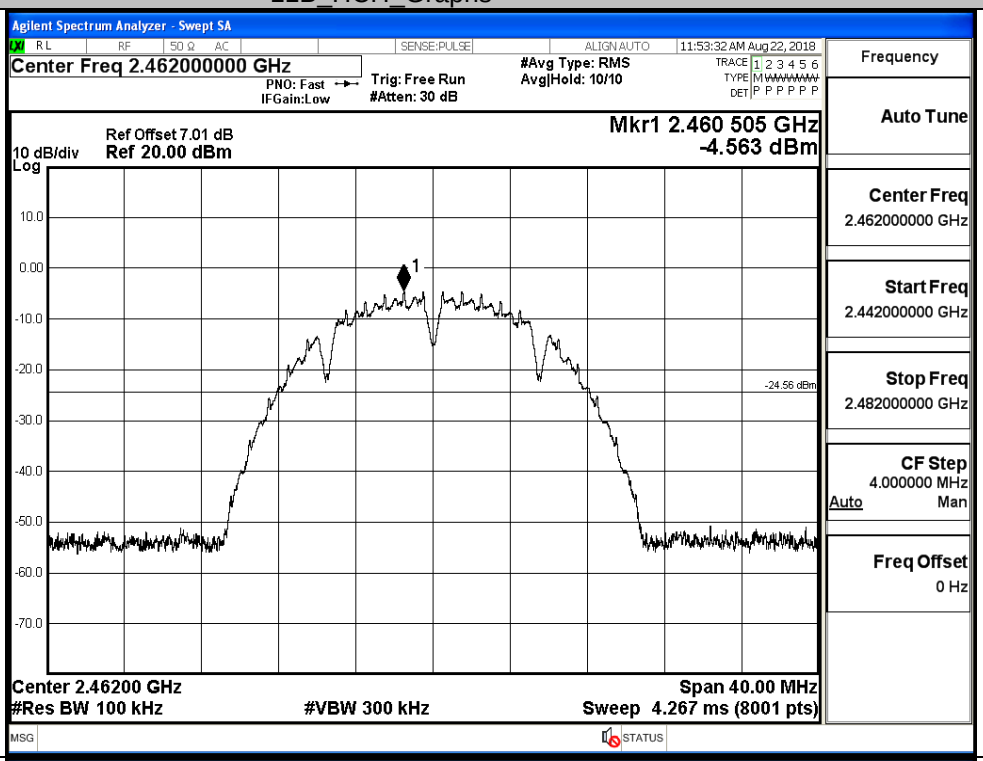
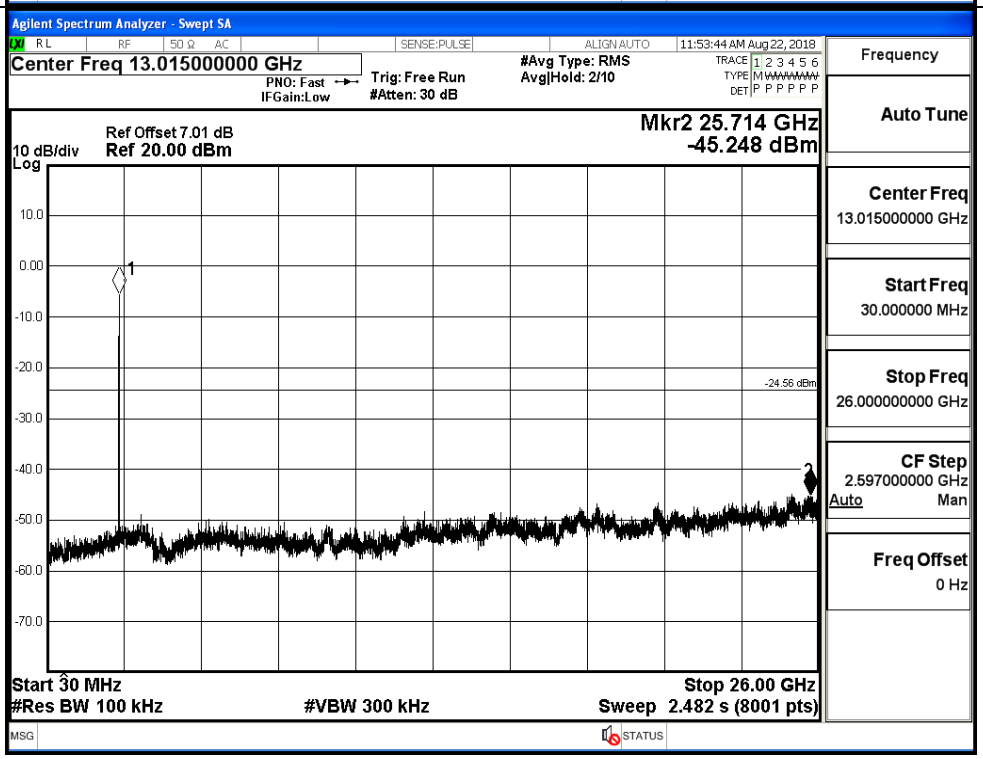
11N20SISO/MCH	
11N20SISO/HCH	

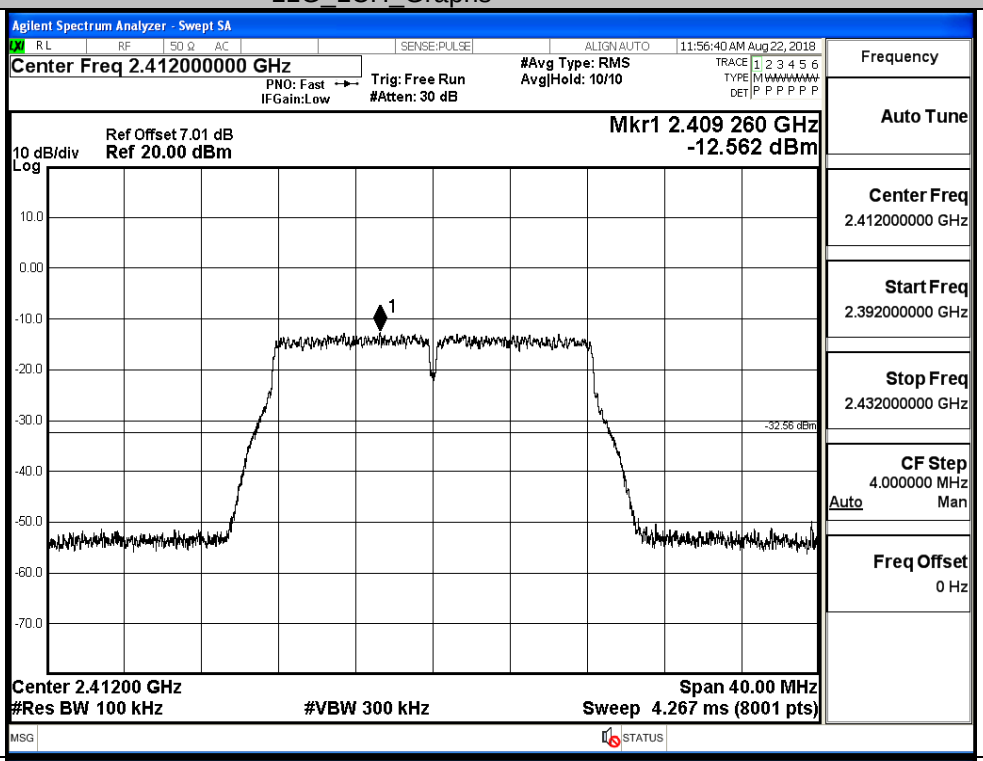
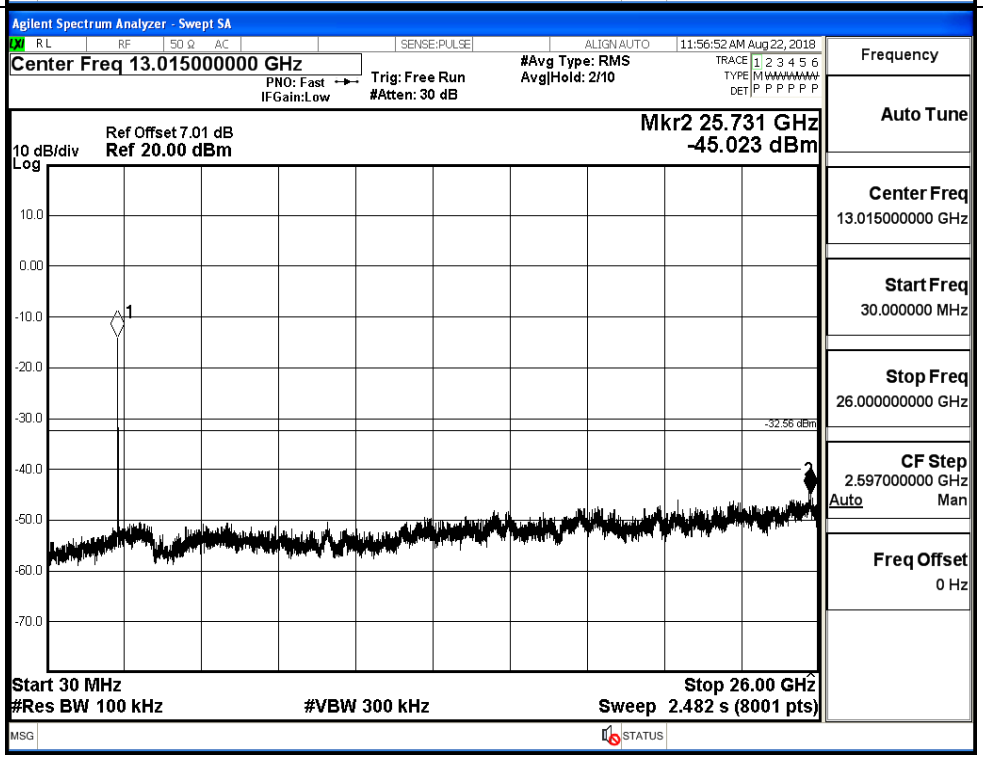
B.5 RF Conducted Spurious Emissions

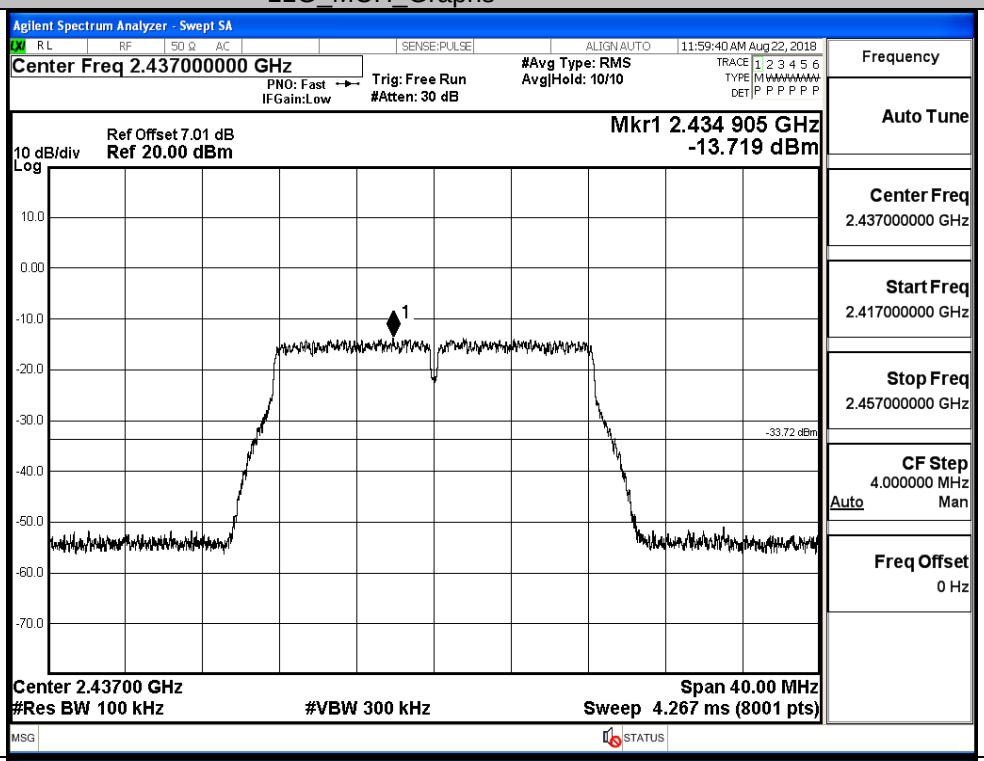
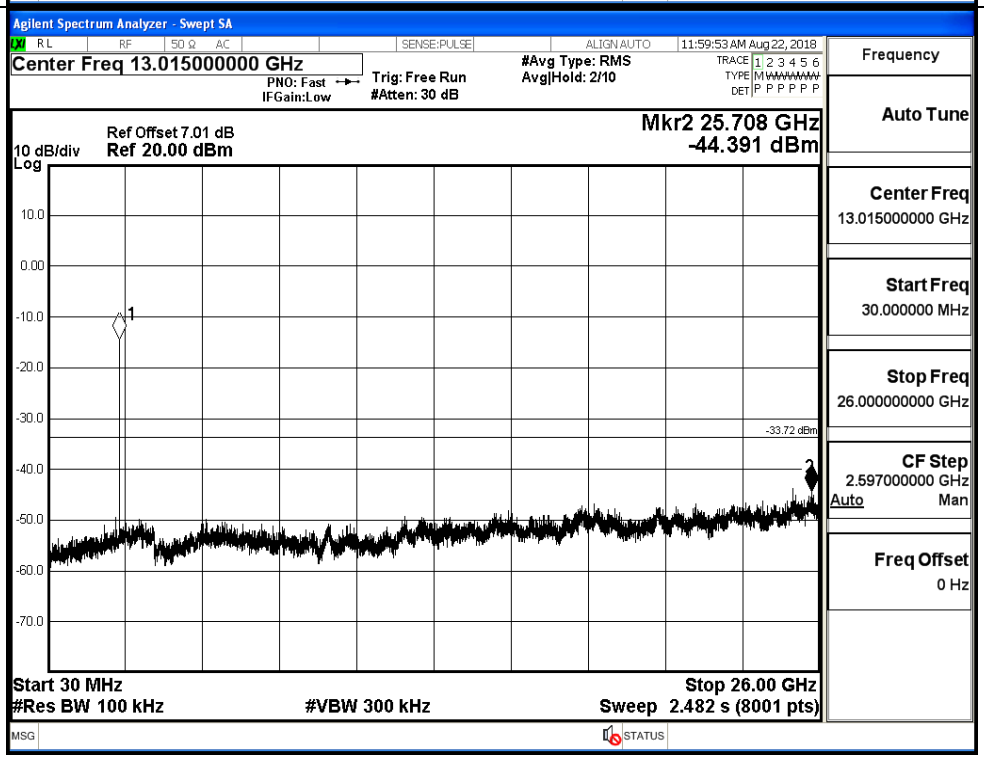
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-4.094	-45.114	-24.094	PASS
	MCH	-4.232	-45.007	-24.232	PASS
	HCH	-4.563	-45.248	-24.563	PASS
11G	LCH	-12.562	-45.023	-32.562	PASS
	MCH	-13.719	-44.391	-33.719	PASS
	HCH	-13.925	-44.867	-33.925	PASS
11N20 SISO	LCH	-12.643	-45.346	-32.643	PASS
	MCH	-13.138	-45.504	-33.138	PASS
	HCH	-13.754	-43.912	-33.754	PASS

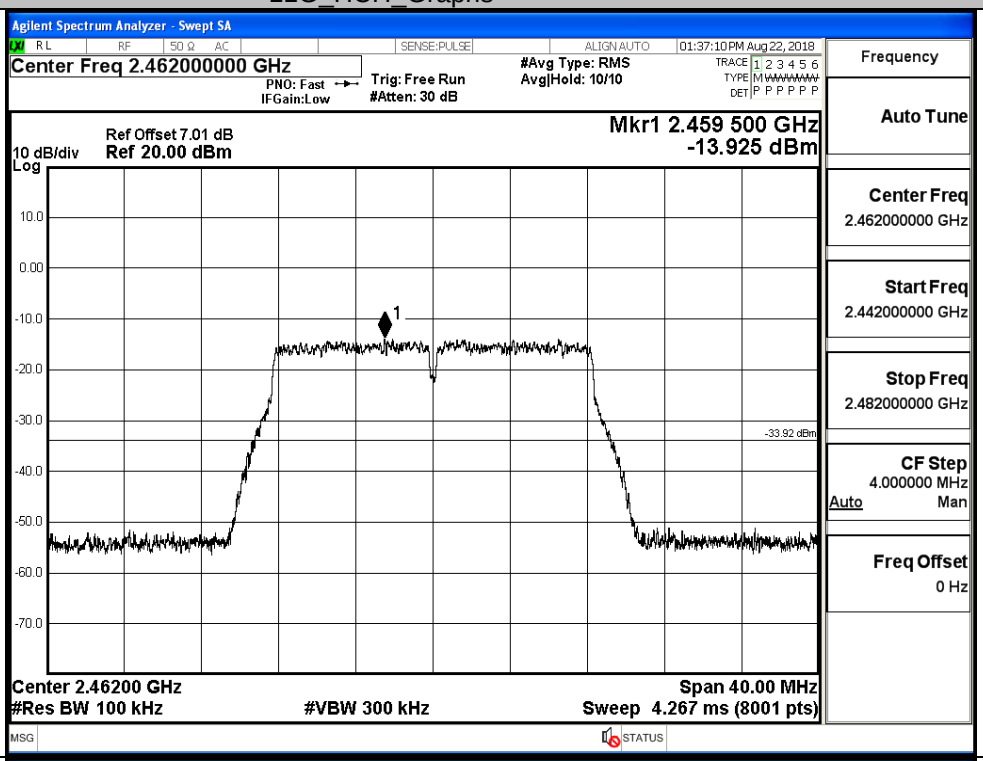
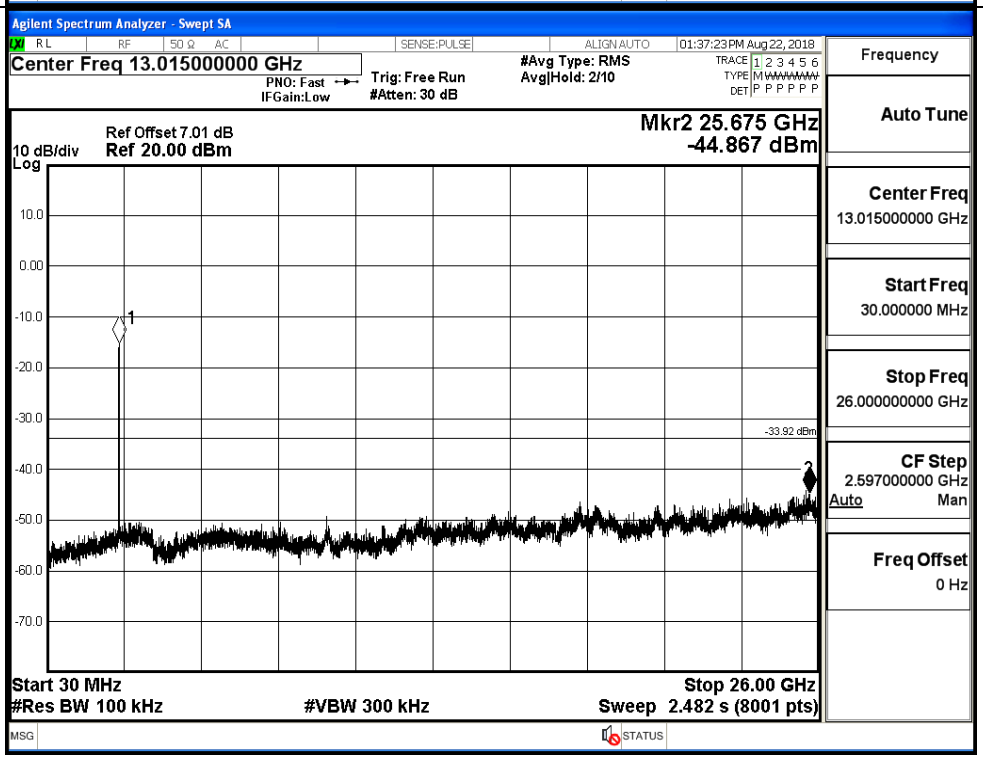
11B_LCH_Graphs		
Pref/11B/LCH		
Puw/11B/LCH		

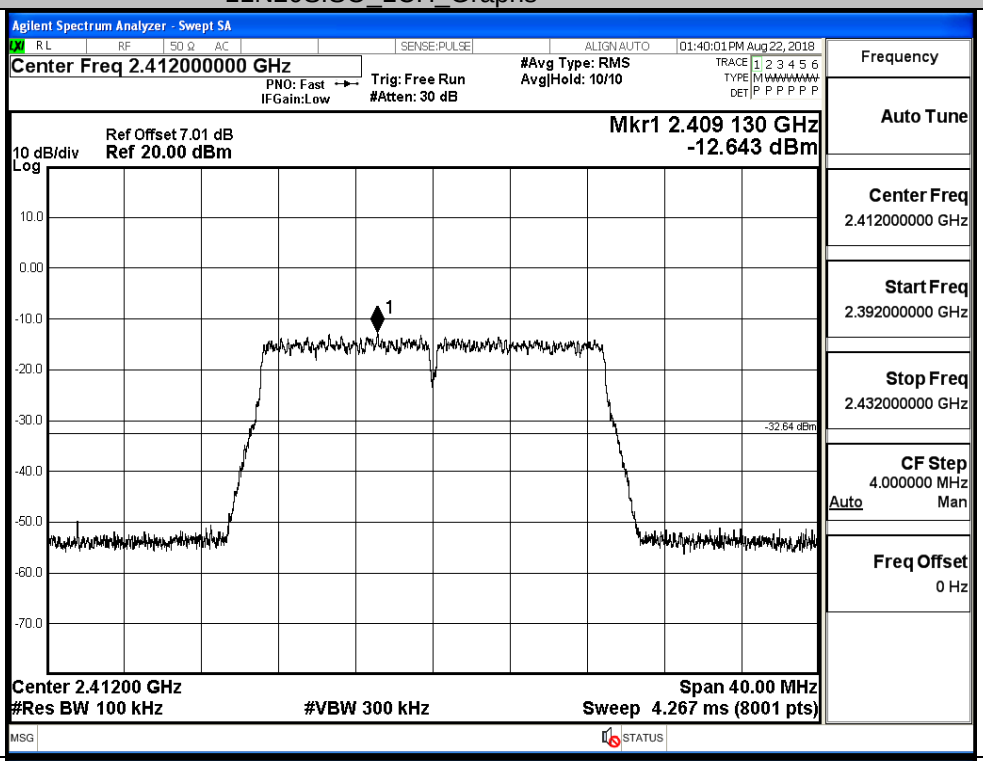
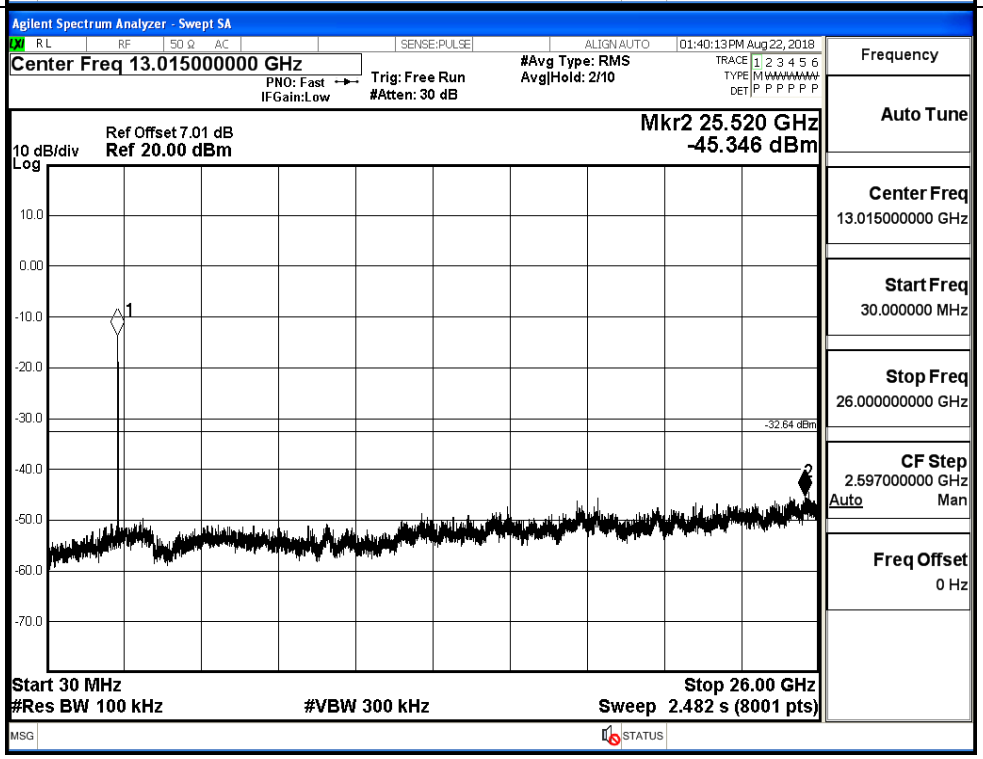
11B_MCH_Graphs	
Pref/11B/MCH	
Puw/11B/MCH	

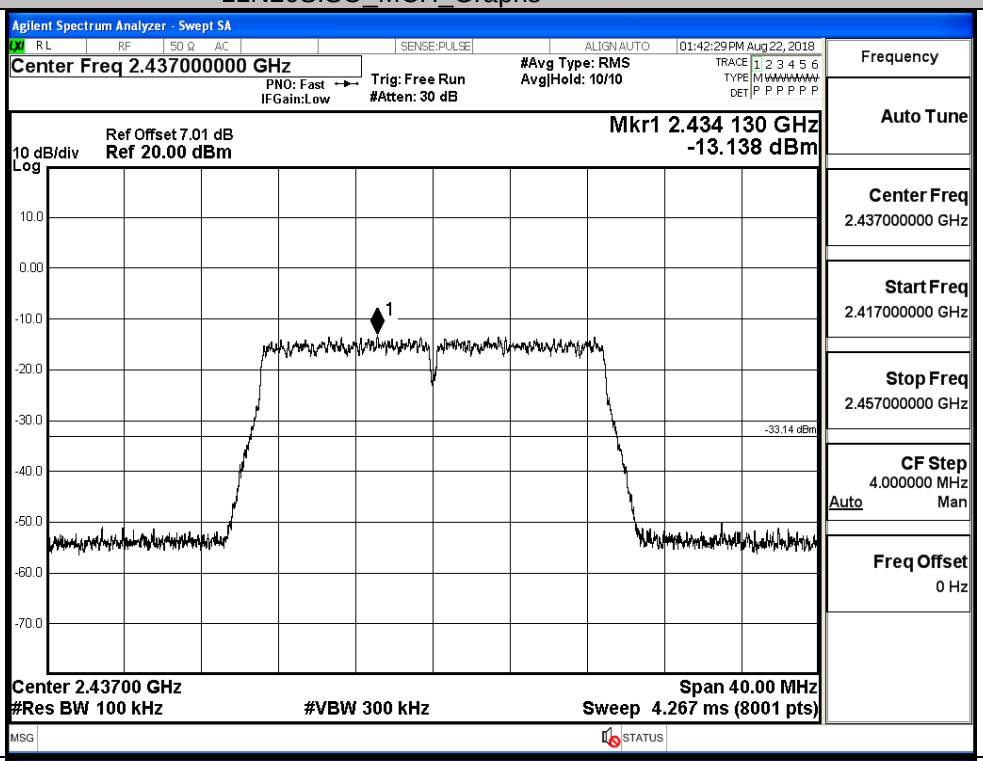
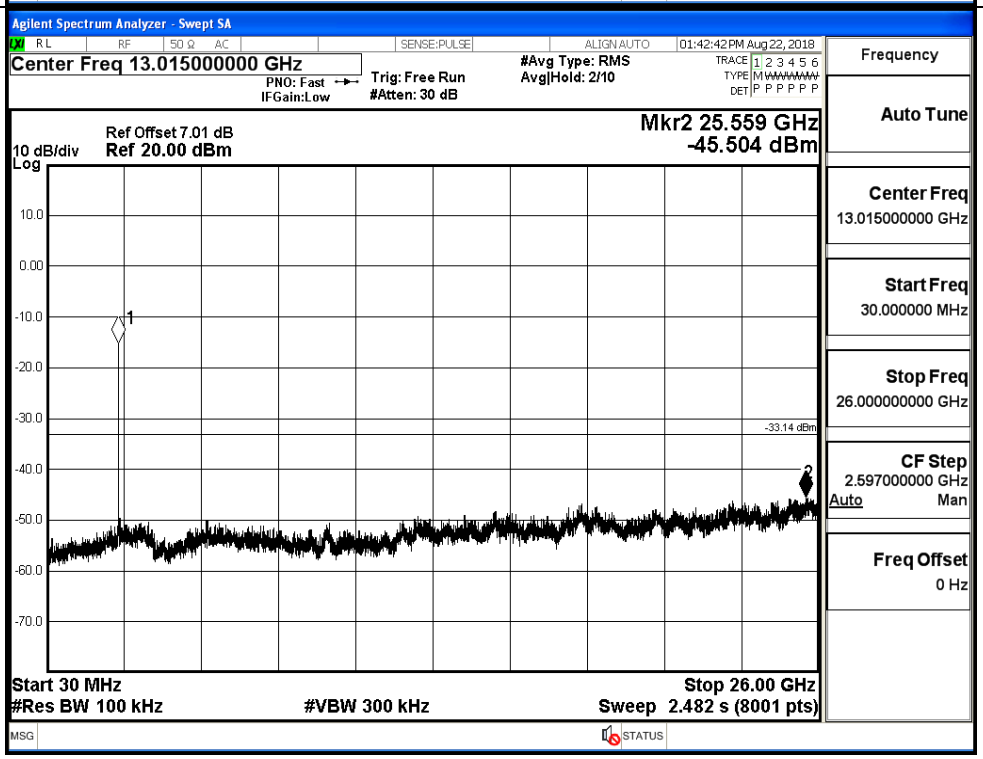
11B_HCH_Graphs		
Pref/11B/HCH		
Puw/11B/HCH		

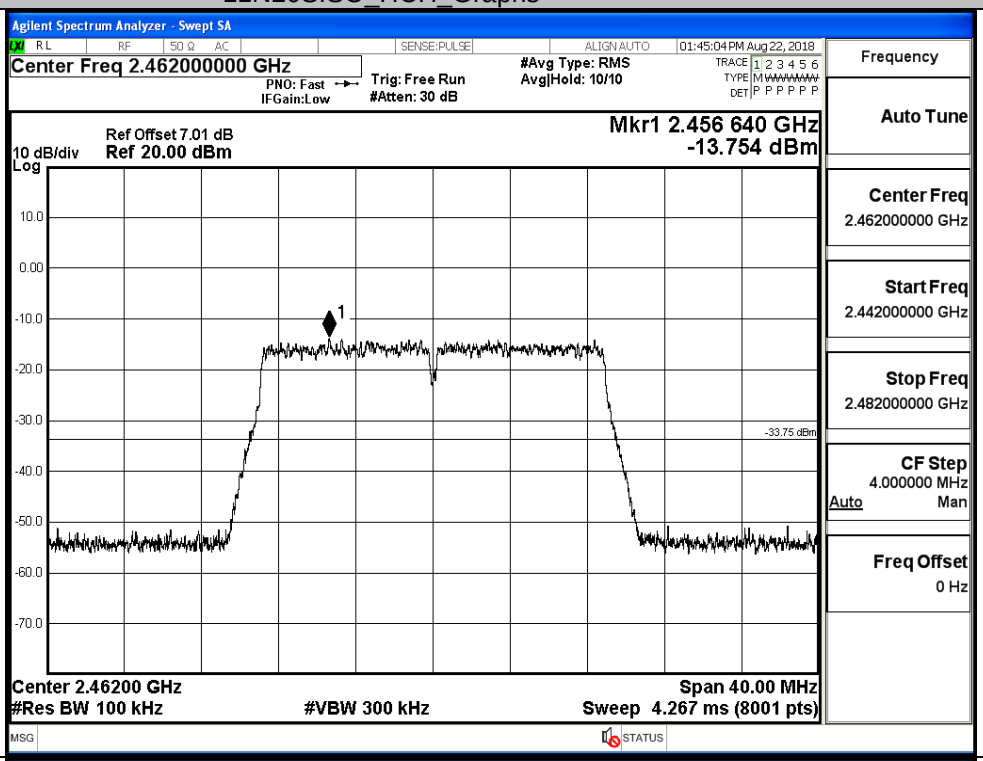
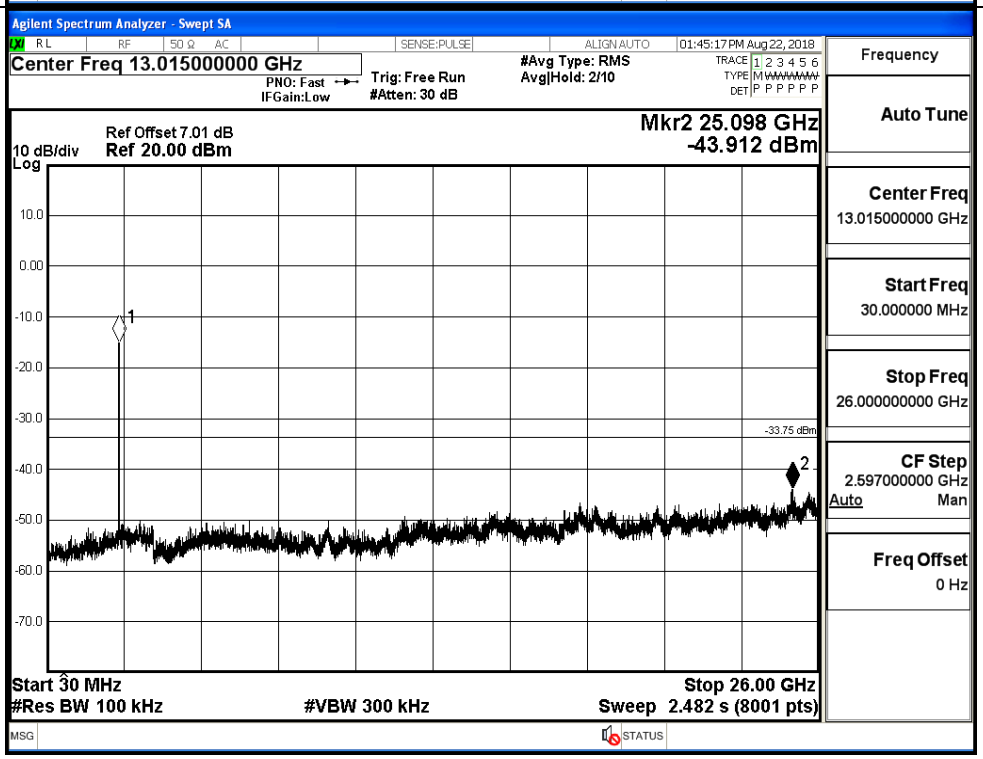
11G_LCH_Graphs		
Pref/11G/LCH		
Puw/11G/LCH		

11G_MCH_Graphs	
Pref/11G/MCH	
Puw/11G/MCH	

11G_HCH_Graphs		
Pref/11G/HCH		
Puw/11G/HCH		

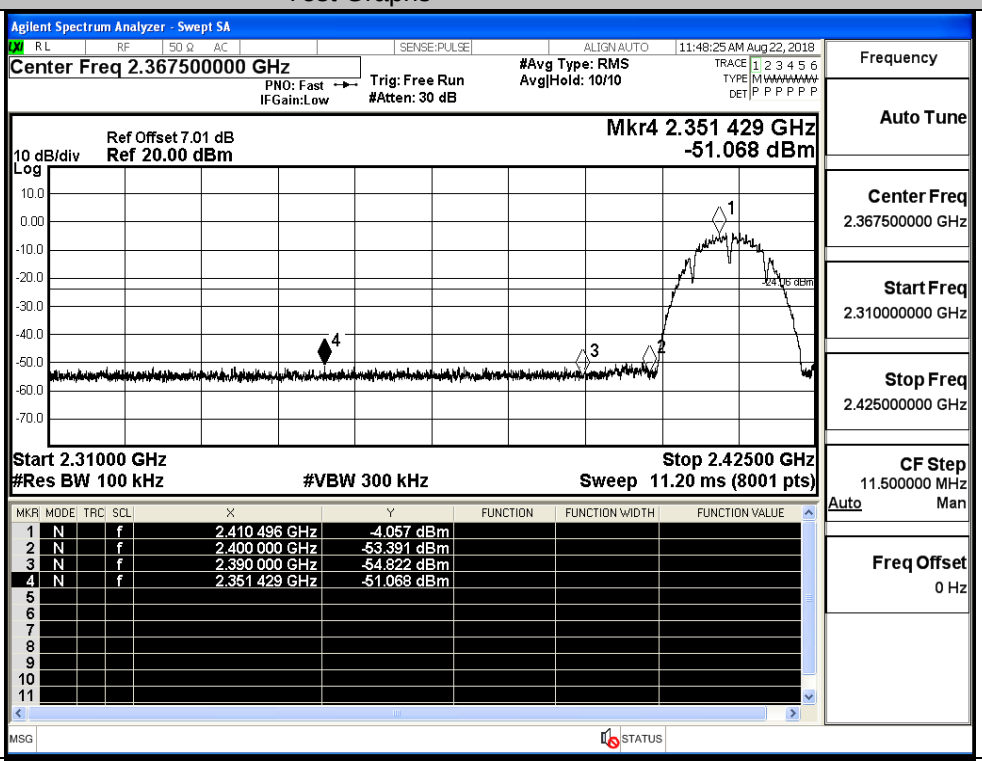
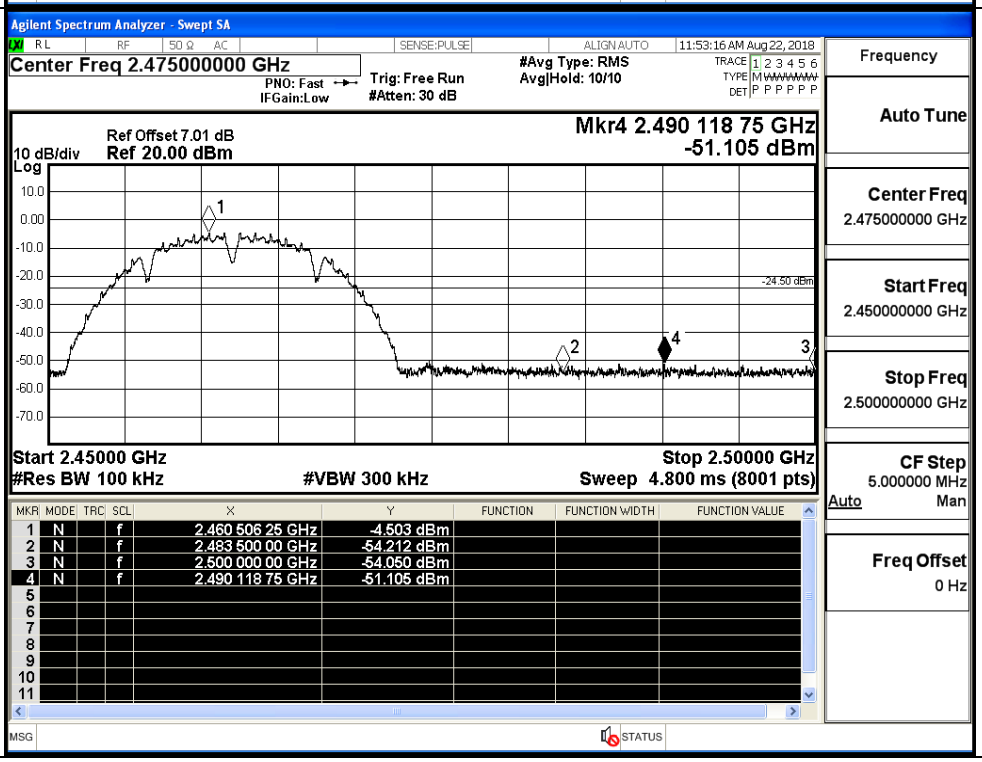
11N20SISO_LCH_Graphs		
Pref/11N20SISO/LCH		
Puw/11N20SISO/LCH		

11N20SISO_MCH_Graphs	
Pref/11N20 SISO/MCH	
Puw/11N20 SISO/MCH	

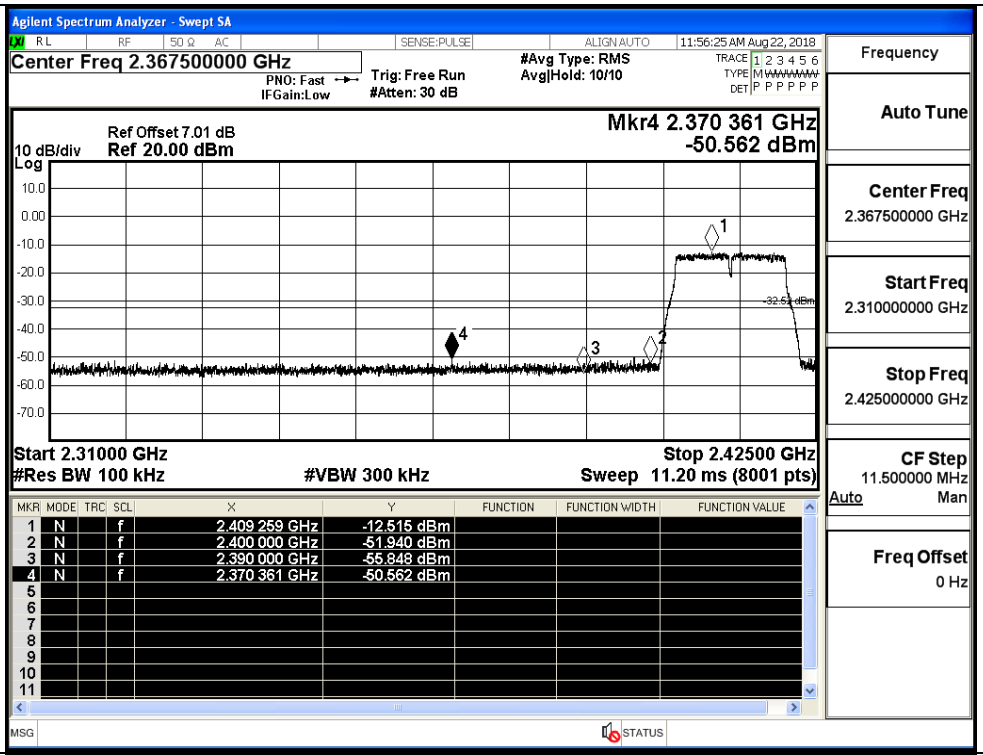
11N20SISO_HCH_Graphs	
Pref/11N20 SISO/HCH	
Puw/11N20 SISO/HCH	

B.6 Band-edge for RF Conducted Emissions

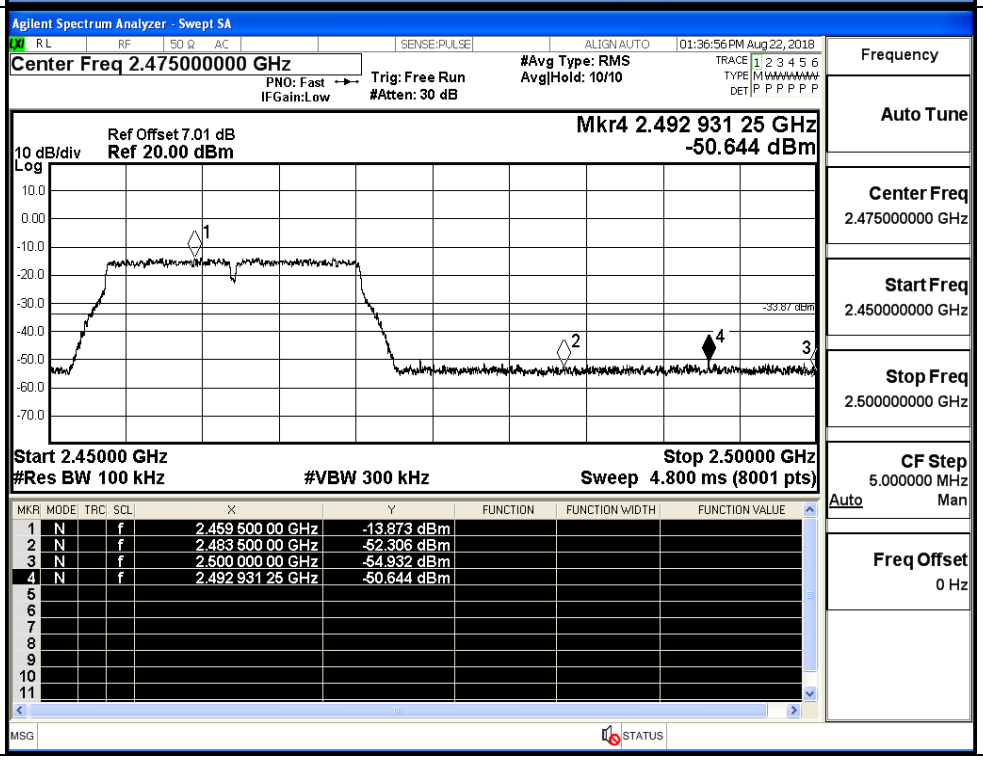
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-4.057	-51.068	-24.06	PASS
	HCH	-4.503	-51.105	-24.5	PASS
11G	LCH	-12.515	-50.562	-32.52	PASS
	HCH	-13.873	-50.644	-33.87	PASS
11N20SISO	LCH	-12.690	-51.368	-32.69	PASS
	HCH	-13.560	-50.193	-33.56	PASS

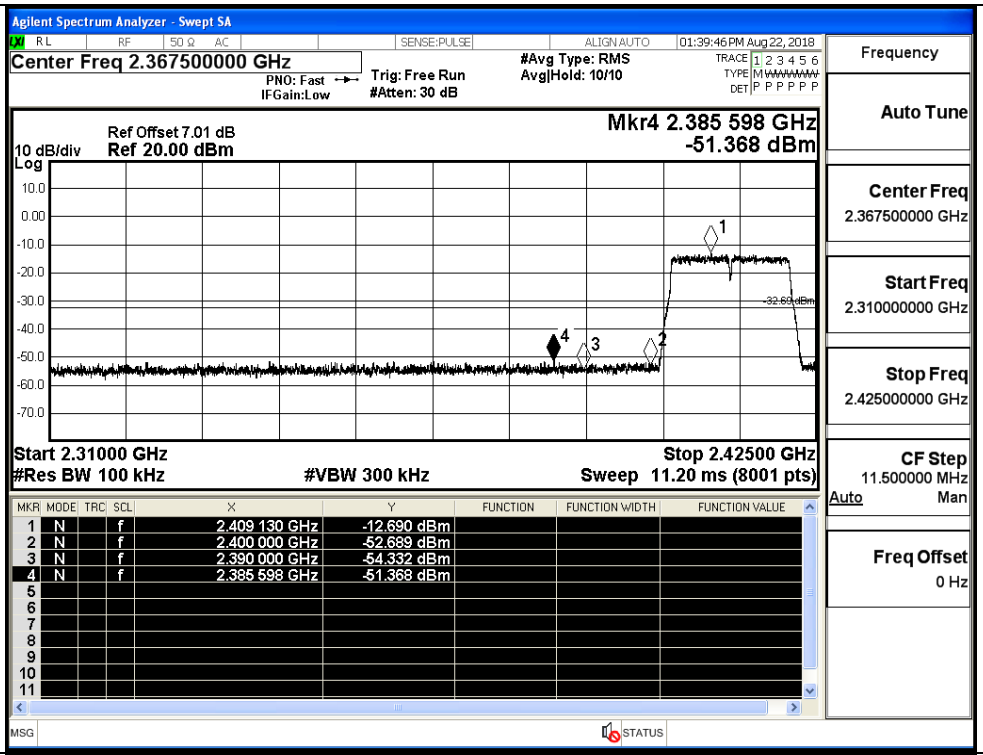
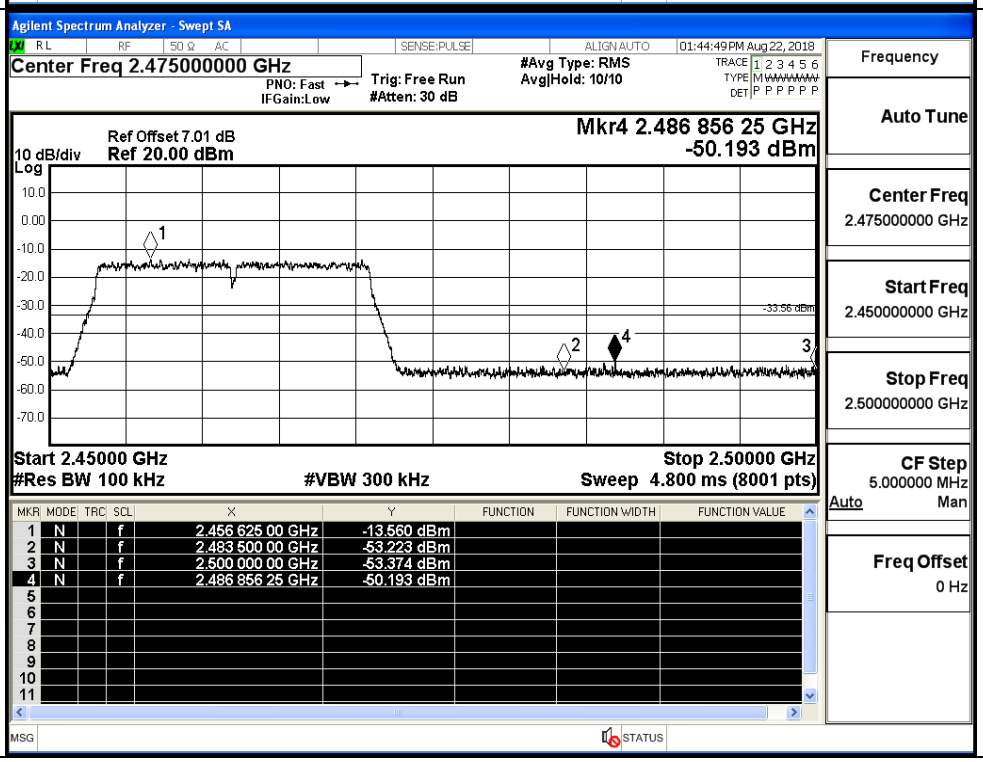
Test Graphs		
11B/LCH		
11B/HCH		

11G/LCH



11G/HCH

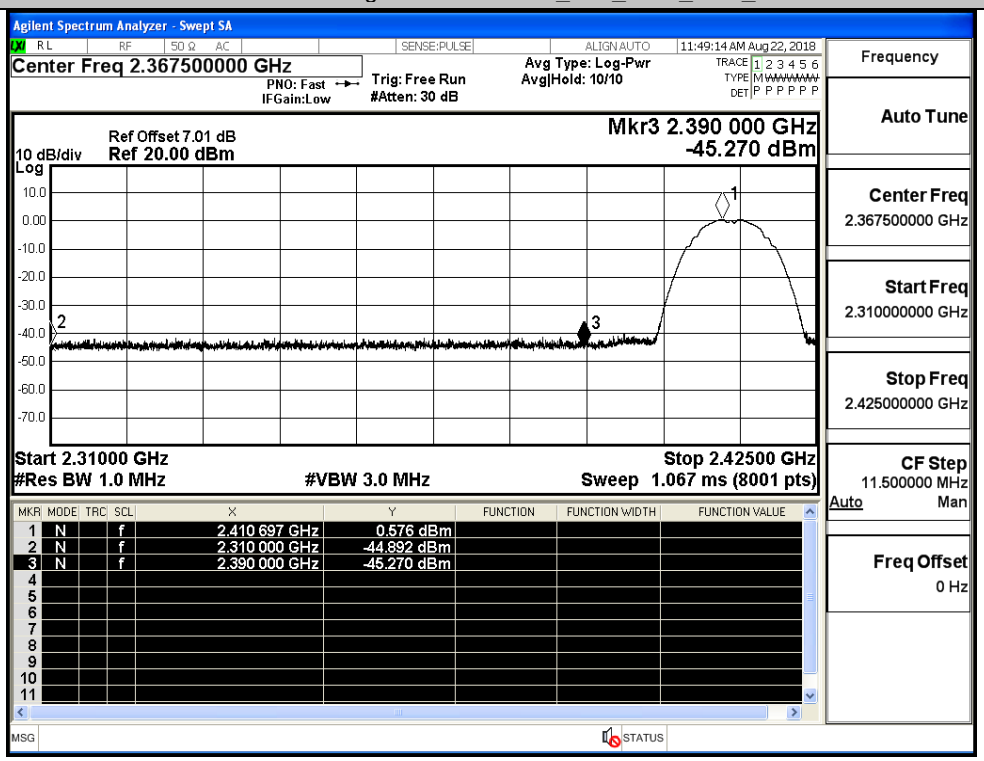


11N20SISO/LCH		
11N20SISO/HCH		

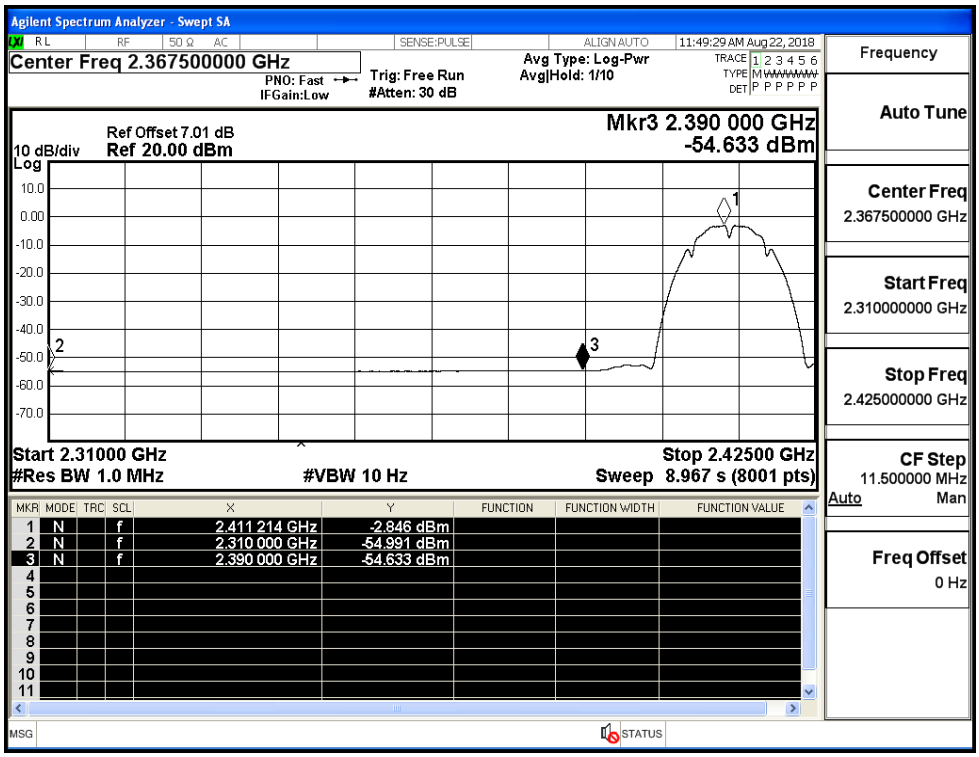
B.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-44.89	2.43	0	52.74	PEAK	74	PASS
	2412	Ant1	2310.0	-54.99	2.43	0	42.64	AV	54	PASS
	2412	Ant1	2390.0	-45.27	2.43	0	52.36	PEAK	74	PASS
	2412	Ant1	2390.0	-54.63	2.43	0	43.00	AV	54	PASS
	2462	Ant1	2483.5	-44.74	2.43	0	52.89	PEAK	74	PASS
	2462	Ant1	2483.5	-54.50	2.43	0	43.13	AV	54	PASS
	2462	Ant1	2500.0	-41.99	2.43	0	55.64	PEAK	74	PASS
	2462	Ant1	2500.0	-54.30	2.43	0	43.33	AV	54	PASS
11G	2412	Ant1	2310.0	-44.15	2.43	0	53.48	PEAK	74	PASS
	2412	Ant1	2310.0	-55.00	2.43	0	42.63	AV	54	PASS
	2412	Ant1	2390.0	-44.08	2.43	0	53.55	PEAK	74	PASS
	2412	Ant1	2390.0	-54.35	2.43	0	43.28	AV	54	PASS
	2462	Ant1	2483.5	-43.61	2.43	0	54.02	PEAK	74	PASS
	2462	Ant1	2483.5	-54.30	2.43	0	43.33	AV	54	PASS
	2462	Ant1	2500.0	-43.14	2.43	0	54.49	PEAK	74	PASS
	2462	Ant1	2500.0	-54.18	2.43	0	43.45	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-45.73	2.43	0	51.90	PEAK	74	PASS
	2412	Ant1	2310.0	-54.97	2.43	0	42.66	AV	54	PASS
	2412	Ant1	2390.0	-43.11	2.43	0	54.52	PEAK	74	PASS
	2412	Ant1	2390.0	-54.32	2.43	0	43.31	AV	54	PASS
	2462	Ant1	2483.5	-45.14	2.43	0	52.49	PEAK	74	PASS
	2462	Ant1	2483.5	-54.27	2.43	0	43.36	AV	54	PASS
	2462	Ant1	2500.0	-44.03	2.43	0	53.60	PEAK	74	PASS
	2462	Ant1	2500.0	-54.18	2.43	0	43.45	AV	54	PASS

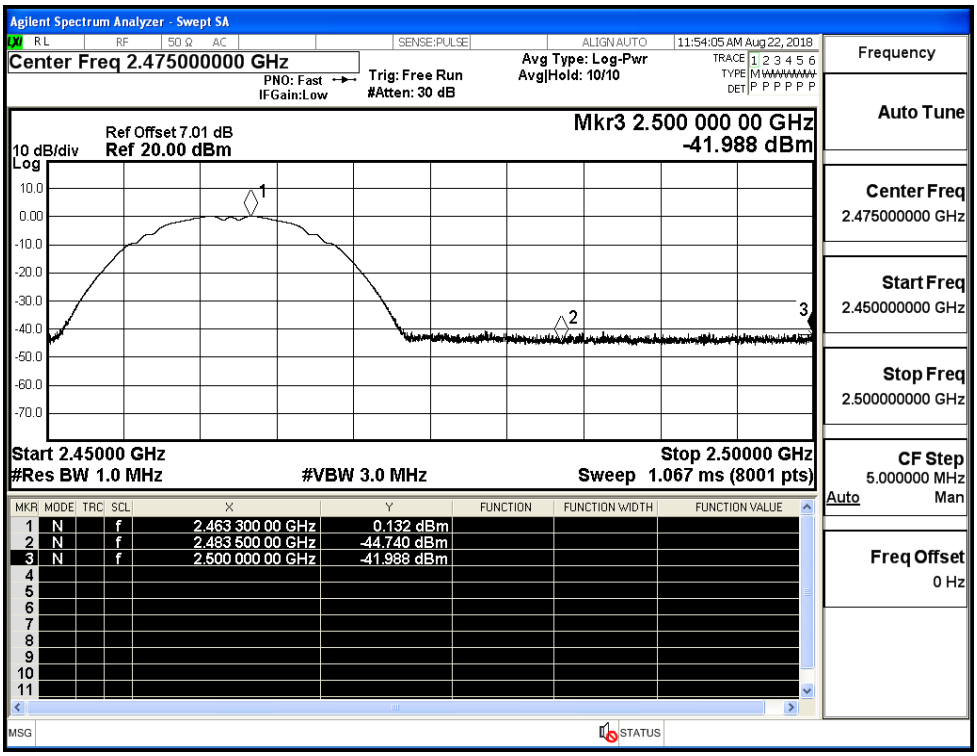
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



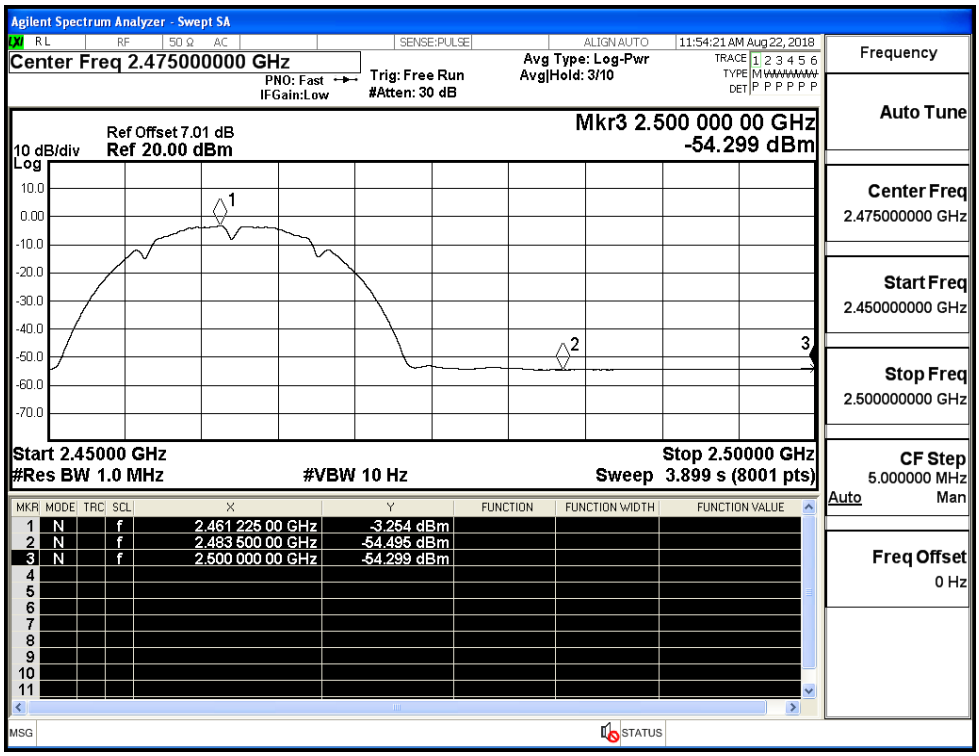
Restrict-band band-edge measurements_11B_2412_Ant1_AV



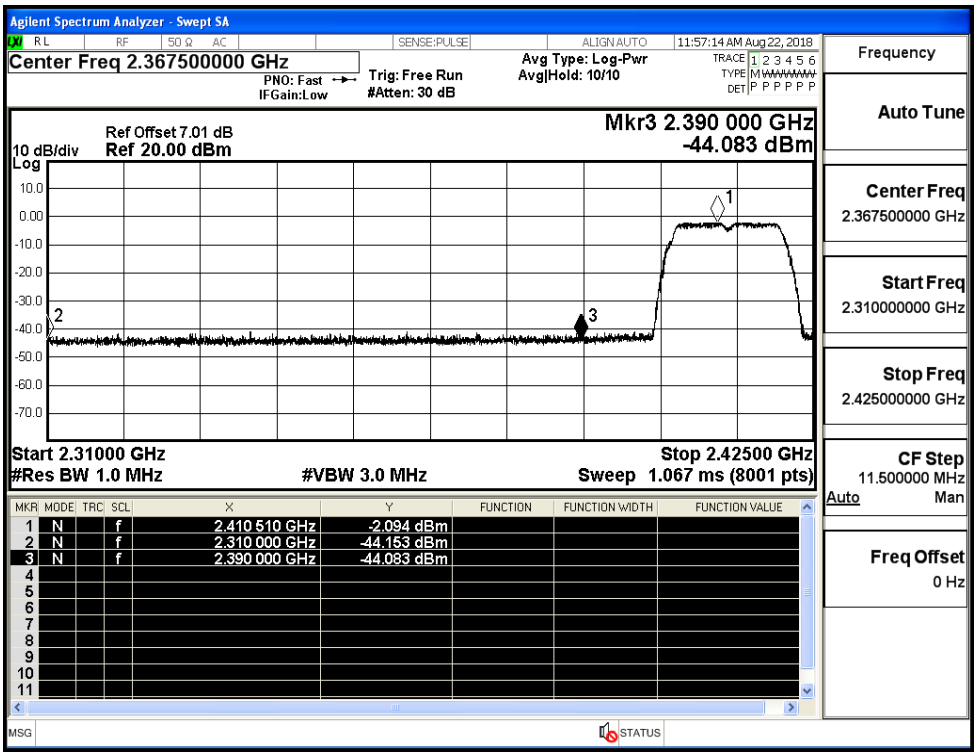
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



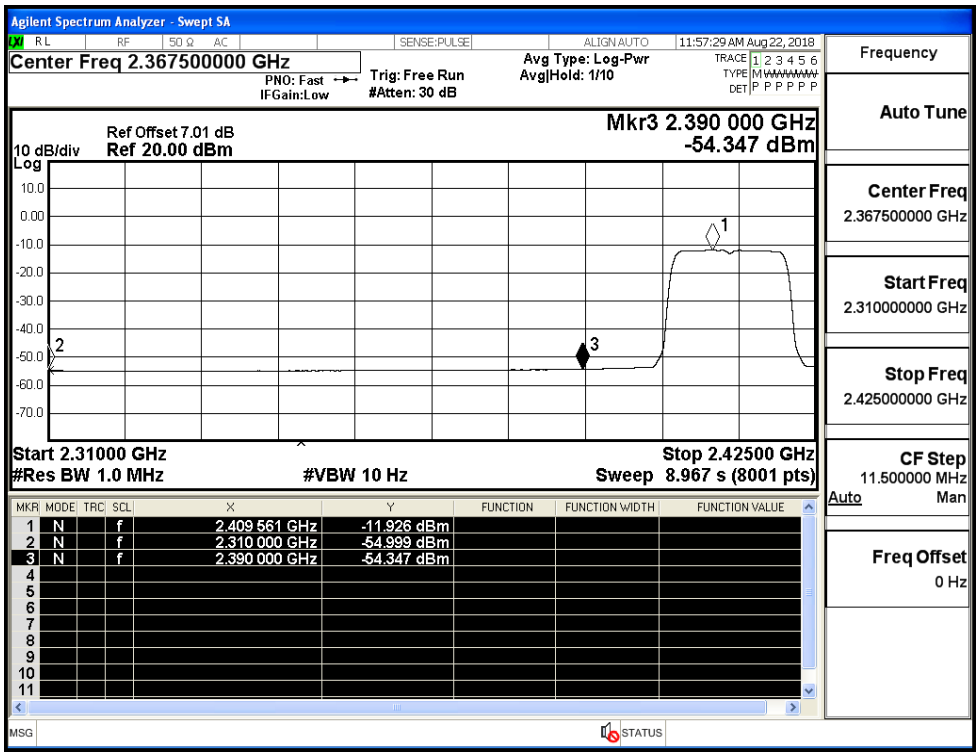
Restrict-band band-edge measurements_11B_2462_Ant1_AV



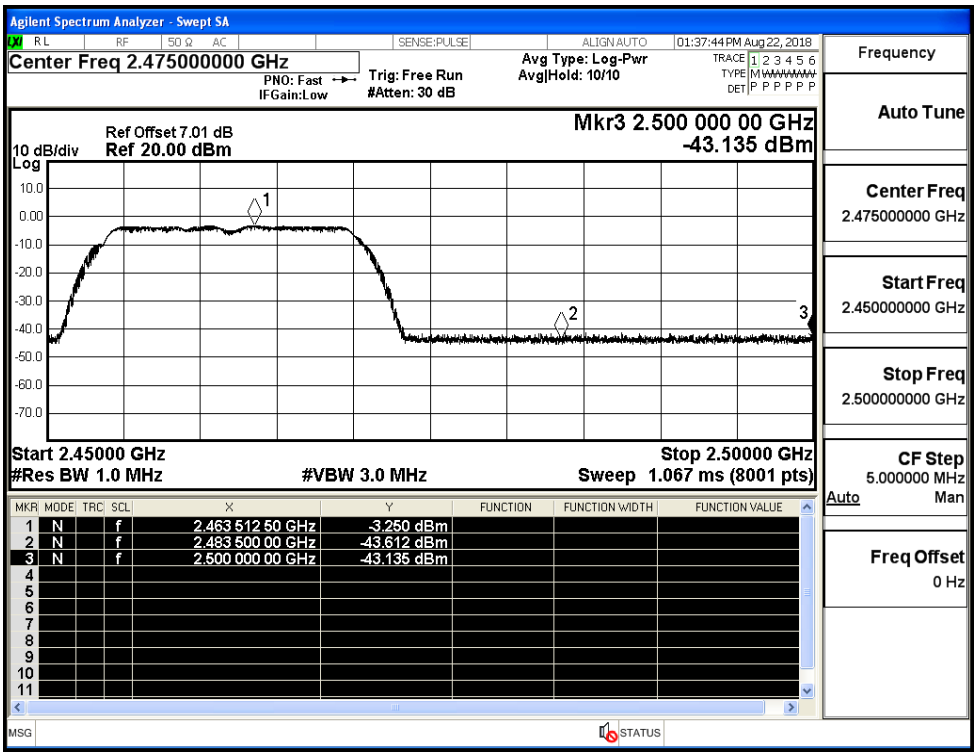
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



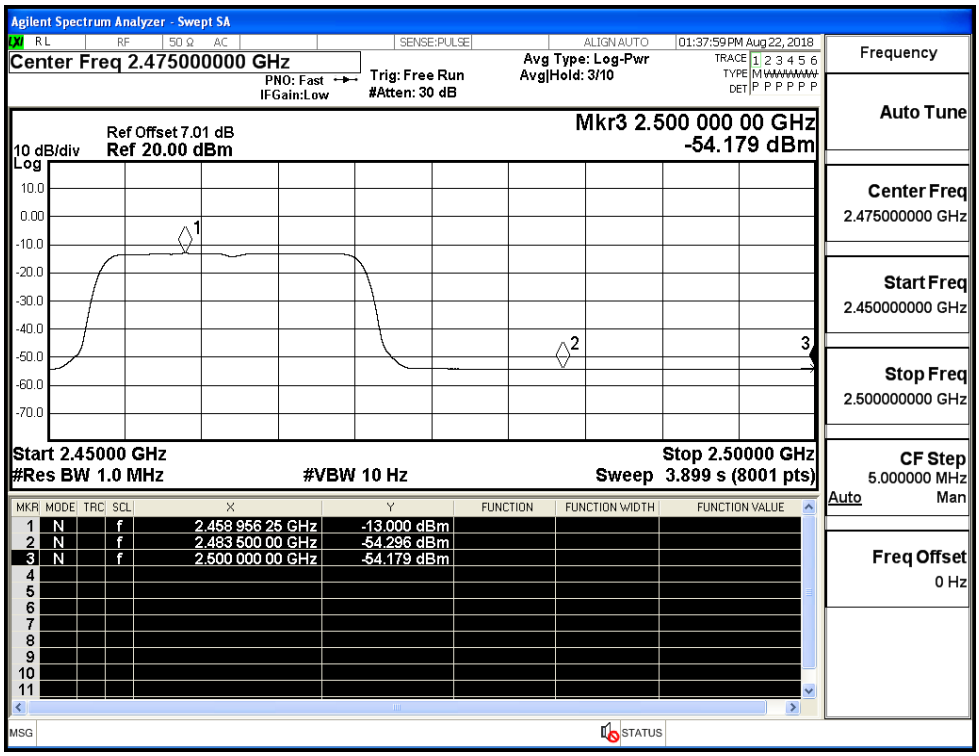
Restrict-band band-edge measurements_11G_2412_Ant1_AV



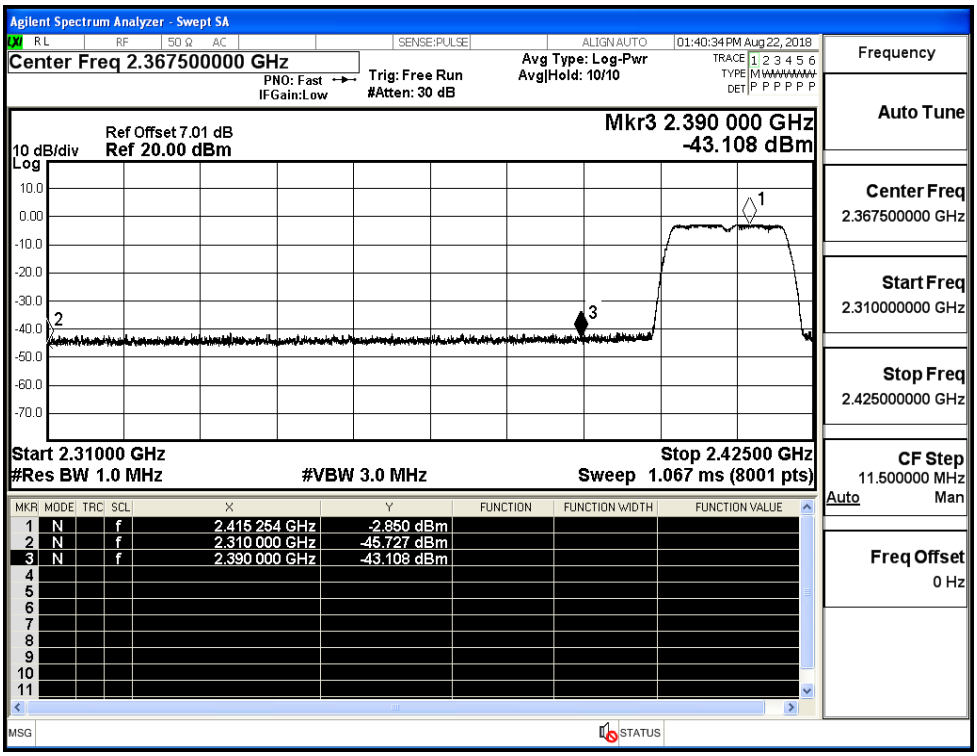
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



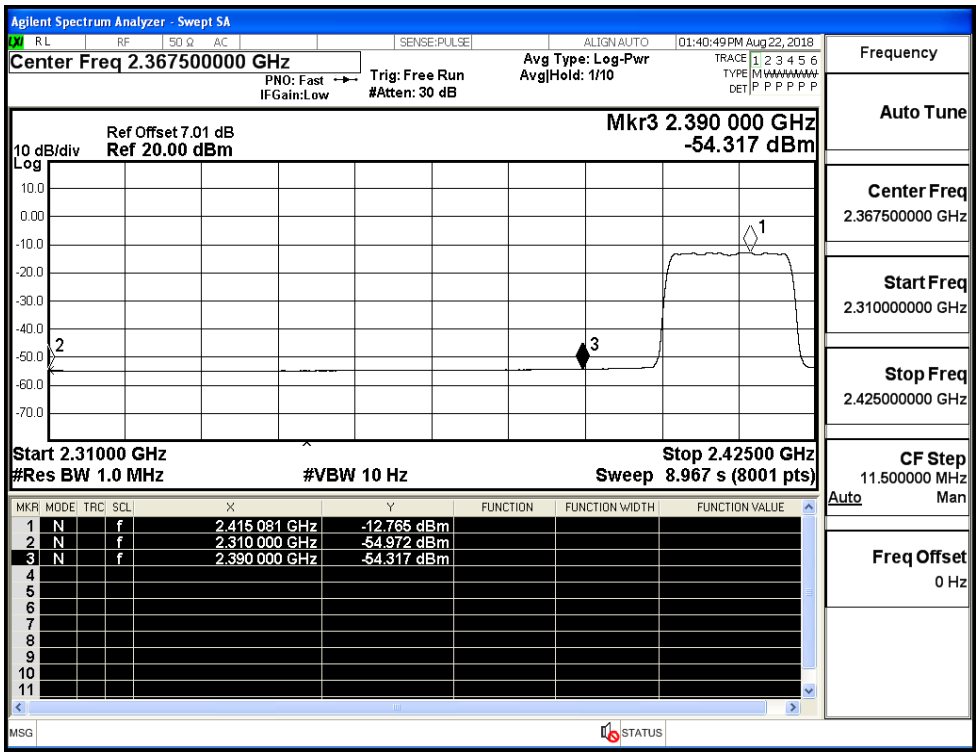
Restrict-band band-edge measurements_11G_2462_Ant1_AV



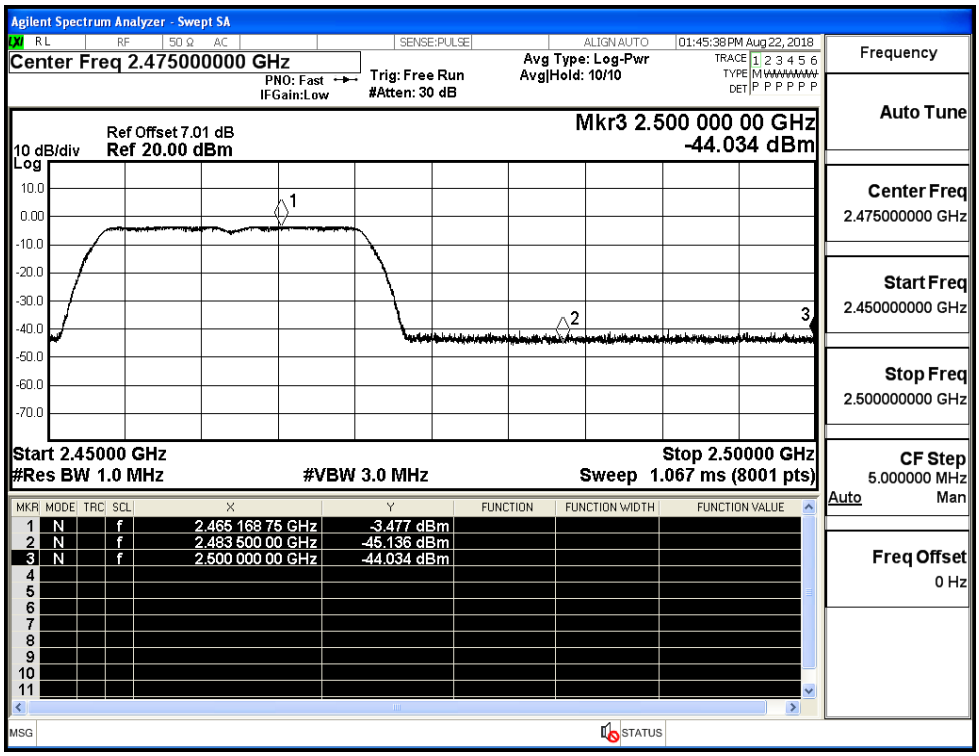
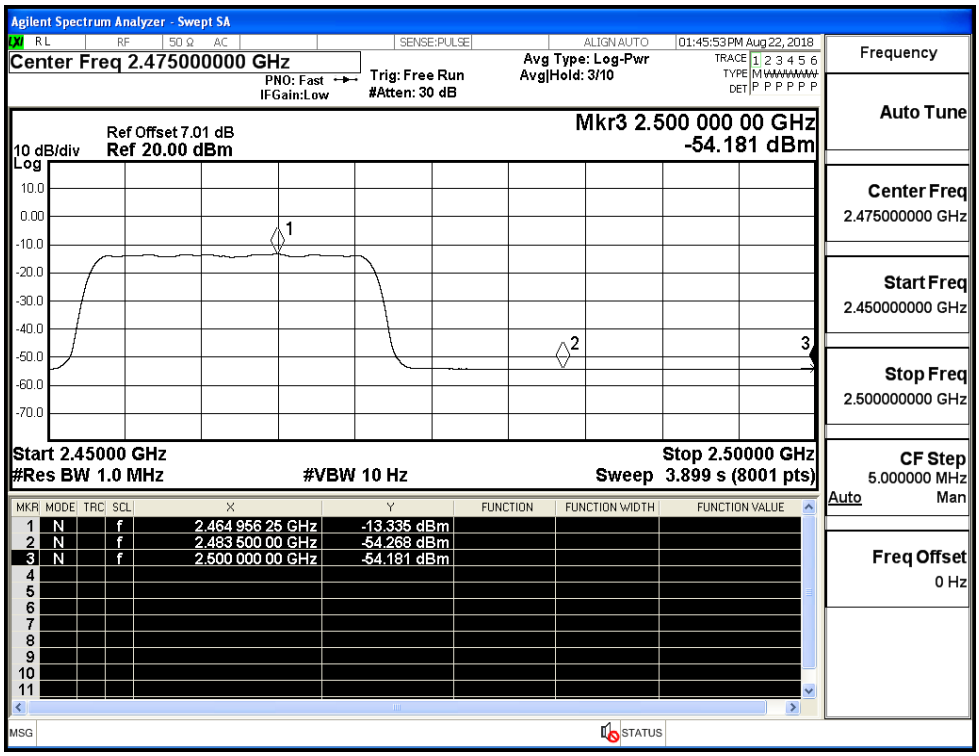
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



Restrict-band band-edge measurements_11N20SISO_2412_Ant1_AV



Restrict-band band-edge measurements_11N20SISO_2462_Ant1_PEAK



Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV