Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: TriFi Dual Band WiFi Booster
Trade Mark: RangeXTD
Test Model: 30590

Environmental Conditions

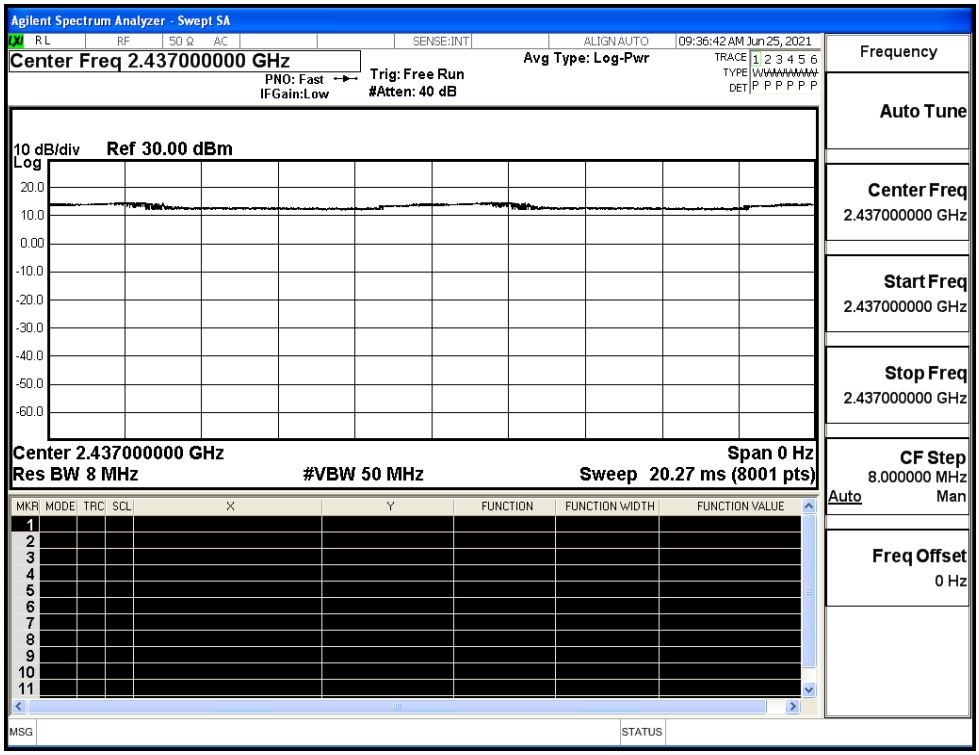
Temperature:	21.6° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

A.1 Duty Cycle

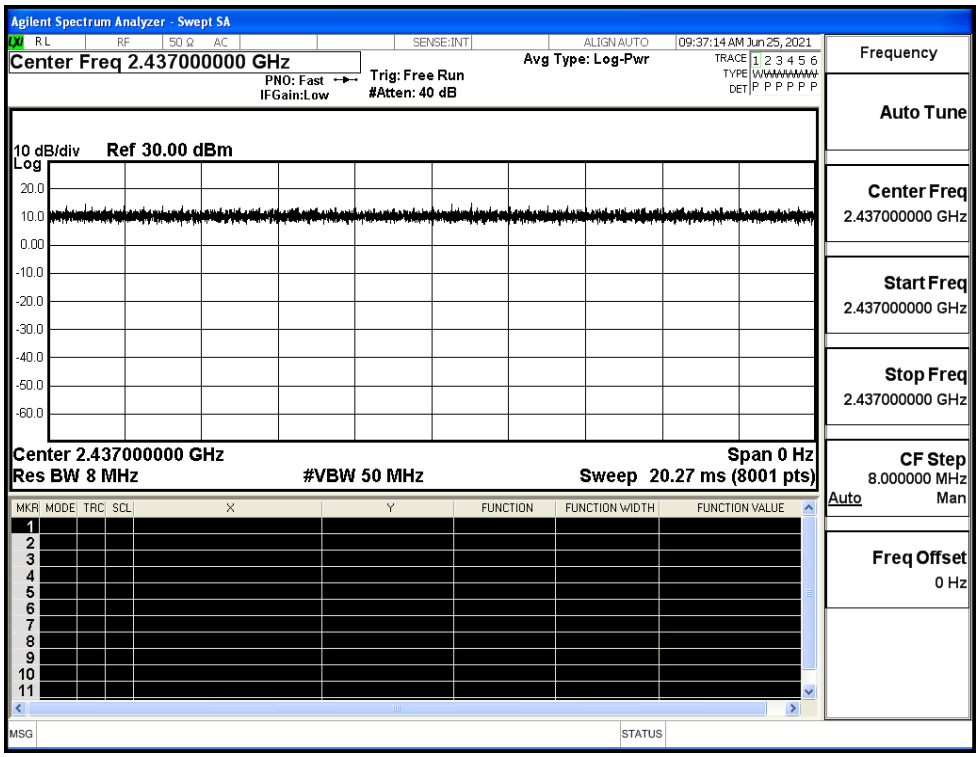
ANT0

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant0	100	PASS
11G	2437	Ant0	100	PASS
11N20SISO	2437	Ant0	100	PASS
11N40SISO	2437	Ant0	100	PASS

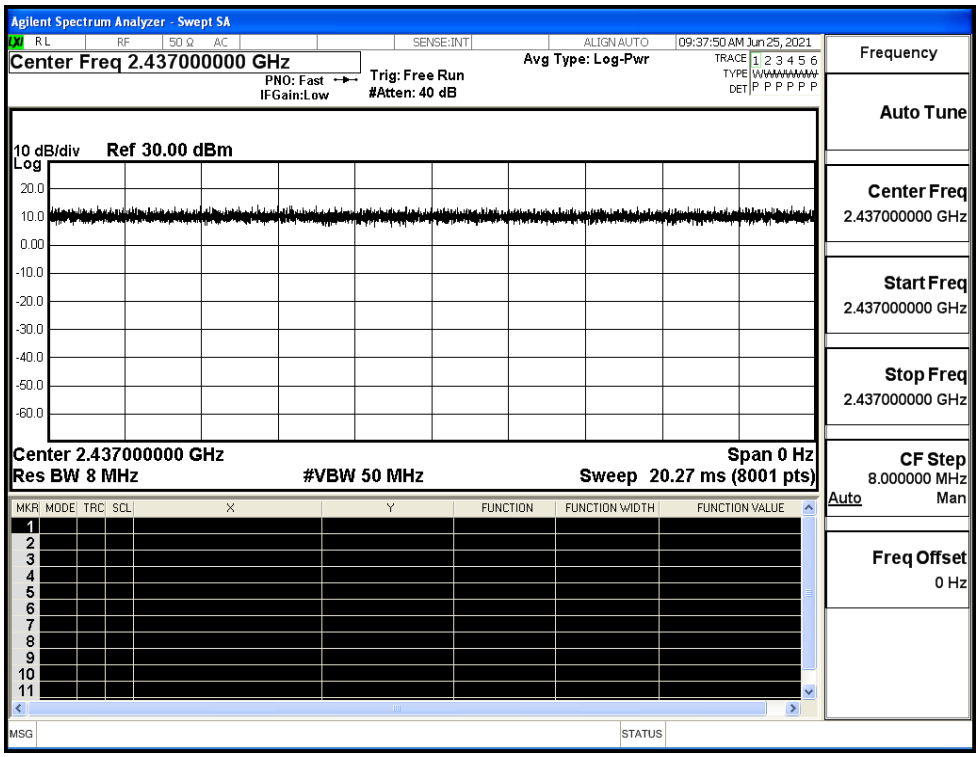
Duty Cycle_11B_2437_Ant0



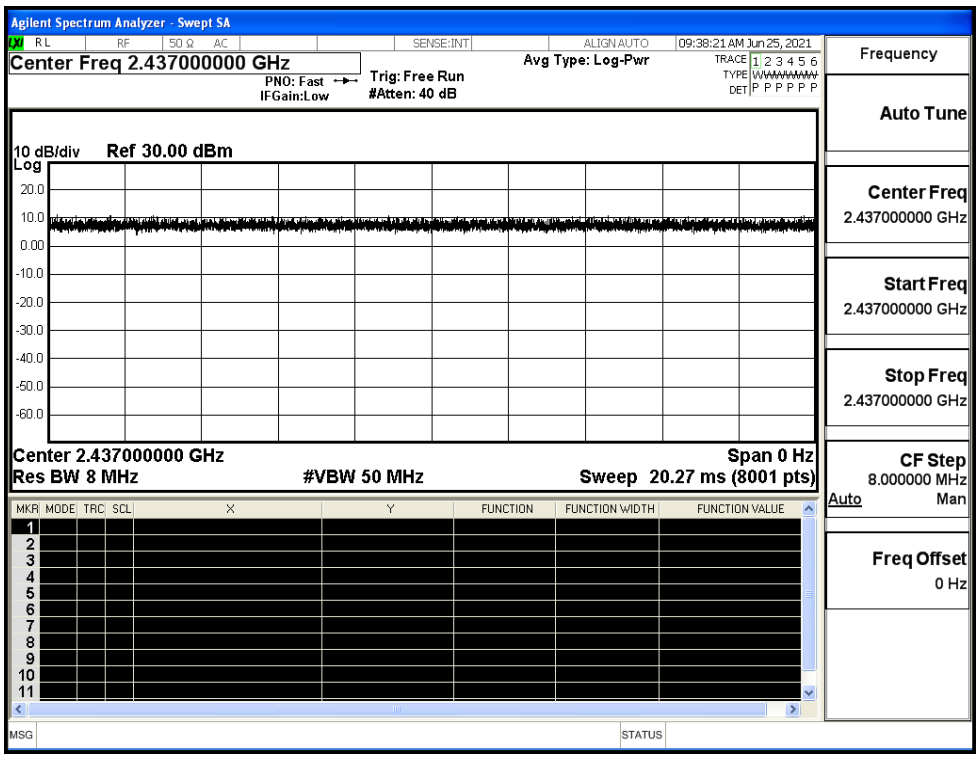
Duty Cycle_11G_2437_Ant0



Duty Cycle_11N20SISO_2437_Ant0



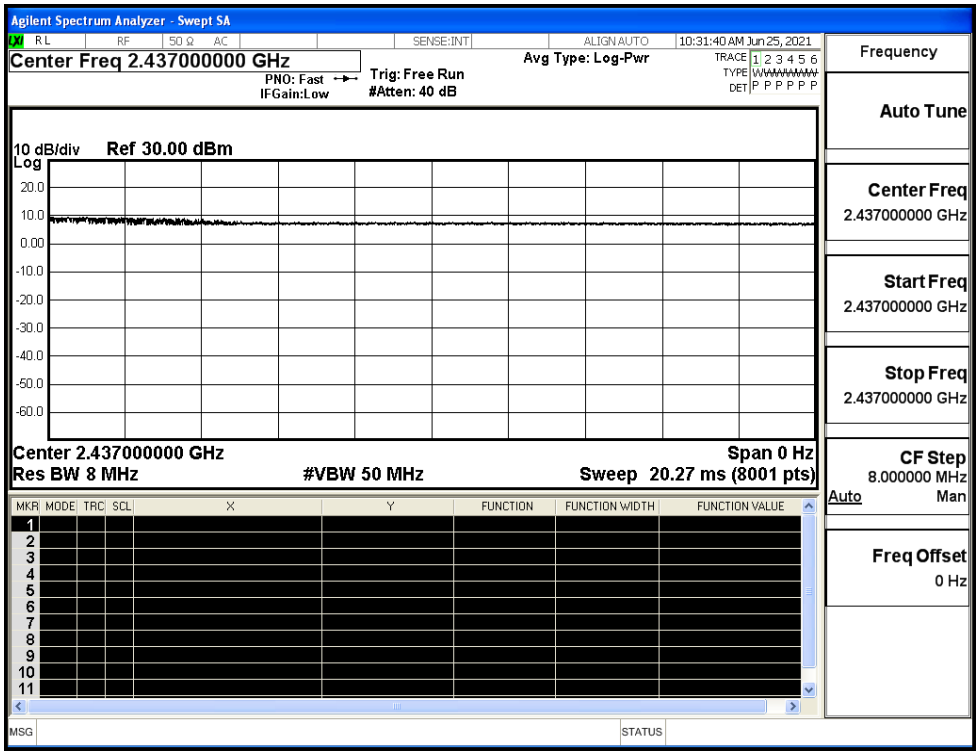
Duty Cycle_11N40SISO_2437_Ant0



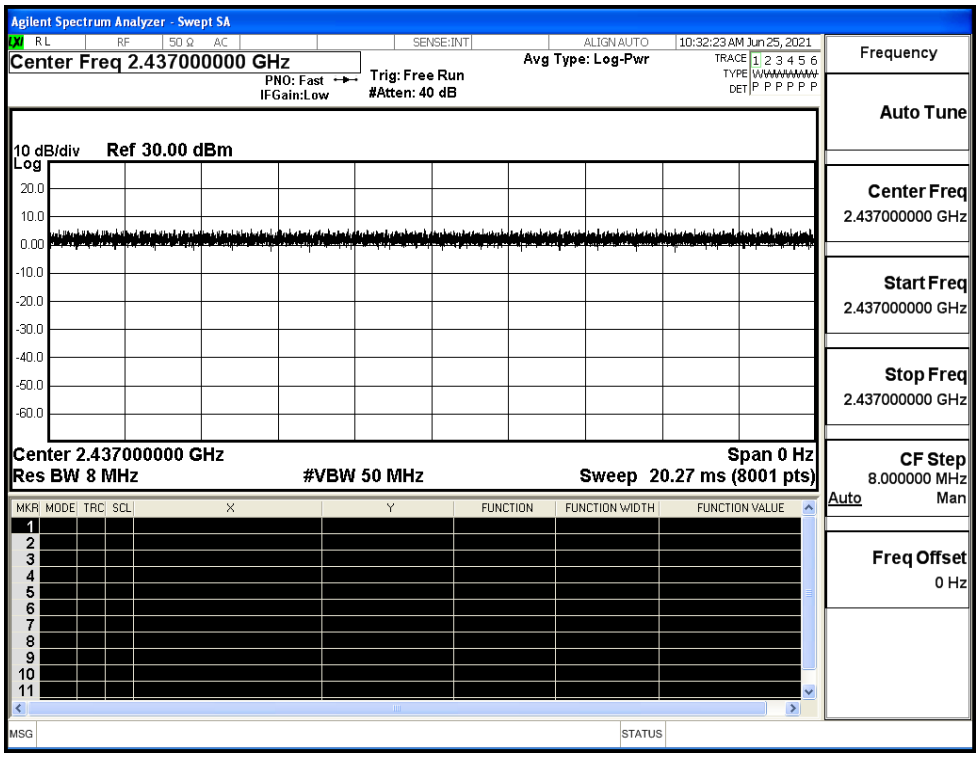
ANT1

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS
11N40SISO	2437	Ant1	100	PASS

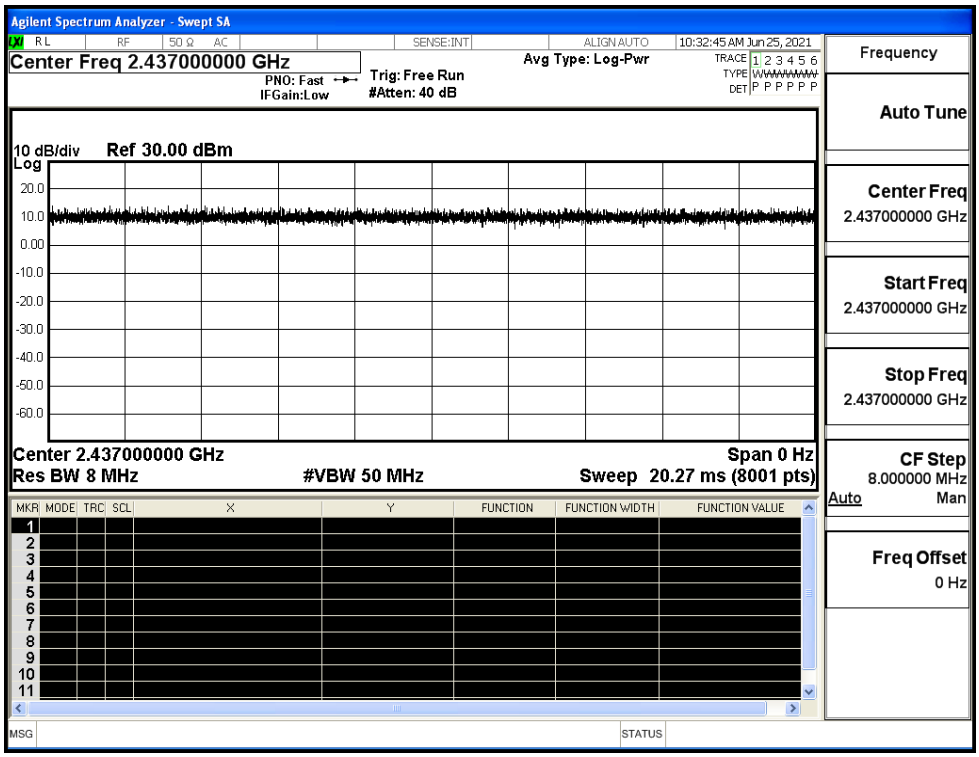
Duty Cycle_11B_2437_Ant1



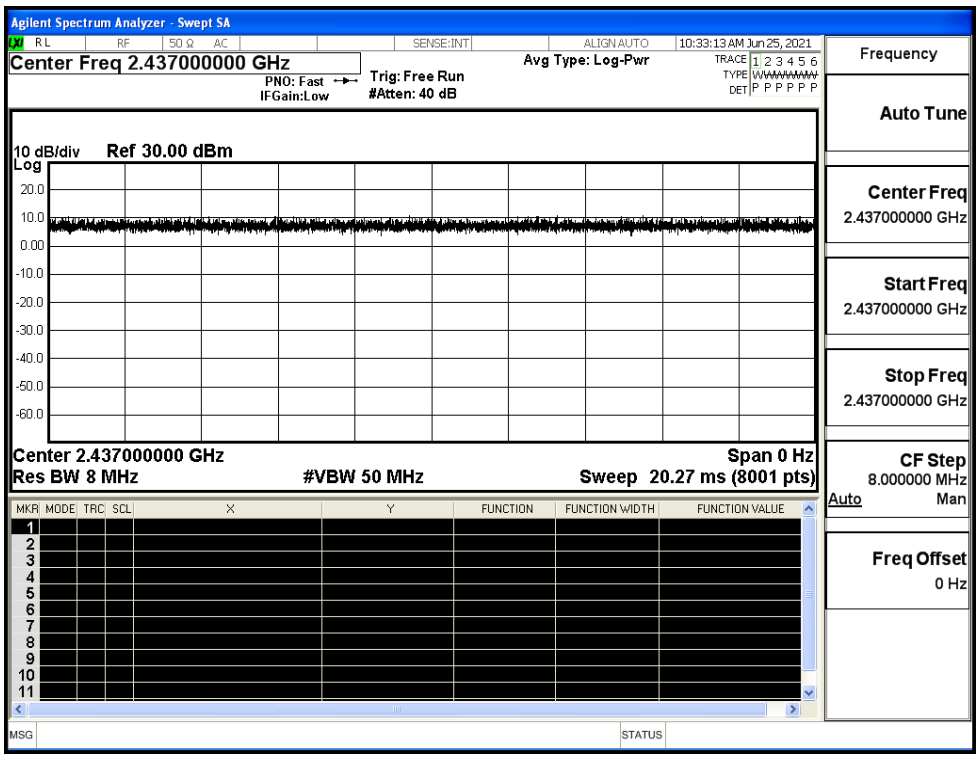
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



A.2 Maximum Conducted Output Power

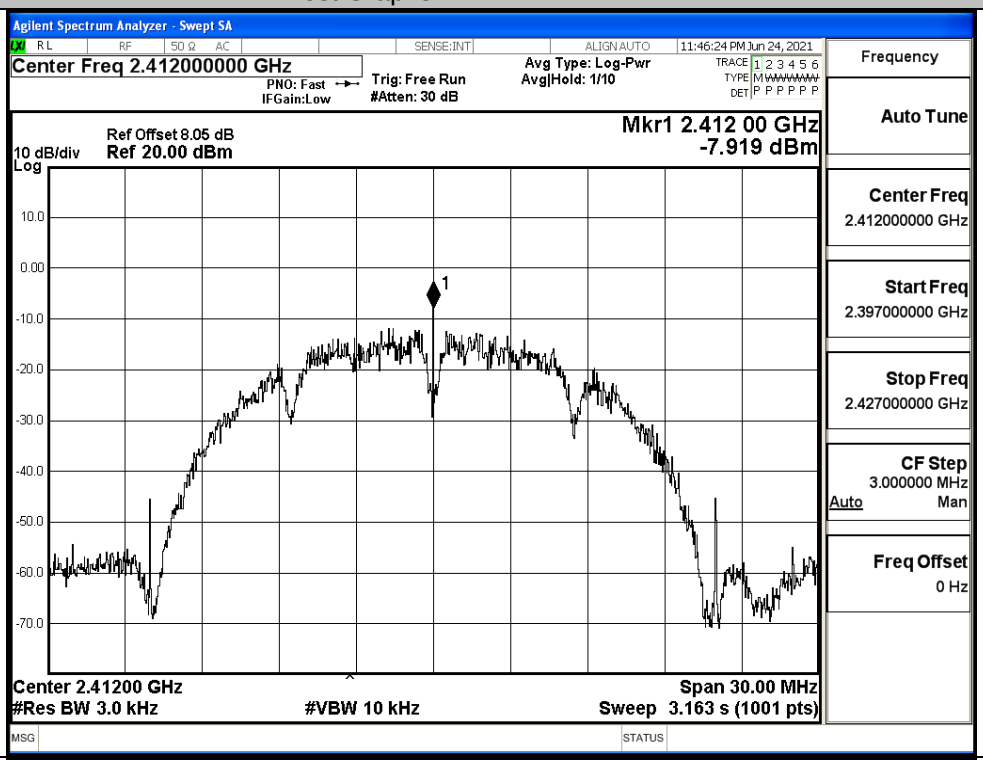
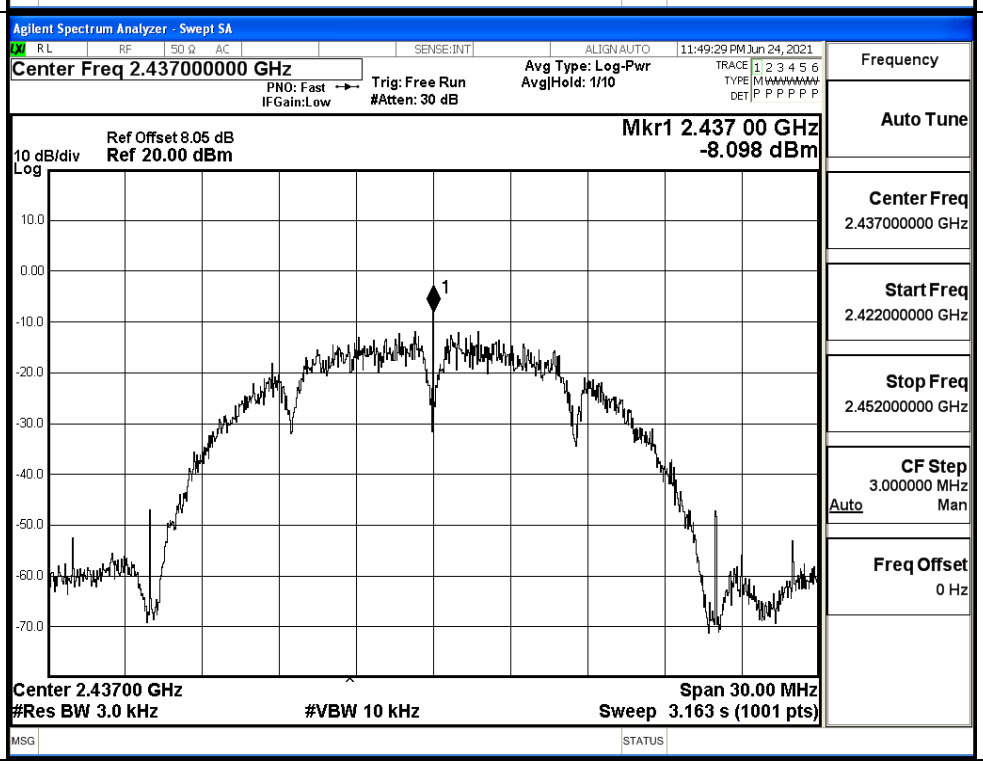
Mode	Channel	Peak Power [dBm]			Limit [dBm]	Verdict
		Ant 0	Ant 1	Sum		
11B	LCH	15.17	15.6	/	30	PASS
	MCH	15.43	15.29	/	30	PASS
	HCH	15.03	15.34	/	30	PASS
11G	LCH	16.86	15.17	/	30	PASS
	MCH	15.69	15.55	/	30	PASS
	HCH	15.39	15.19	/	30	PASS
11N20	LCH	15.4	15.15	18.29	30	PASS
	MCH	15.02	15.44	18.25	30	PASS
	HCH	15.02	15.09	18.07	30	PASS
11N40	LCH	17.84	15.58	19.87	30	PASS
	MCH	15.41	15.34	18.39	30	PASS
	HCH	15.21	15.18	18.21	30	PASS

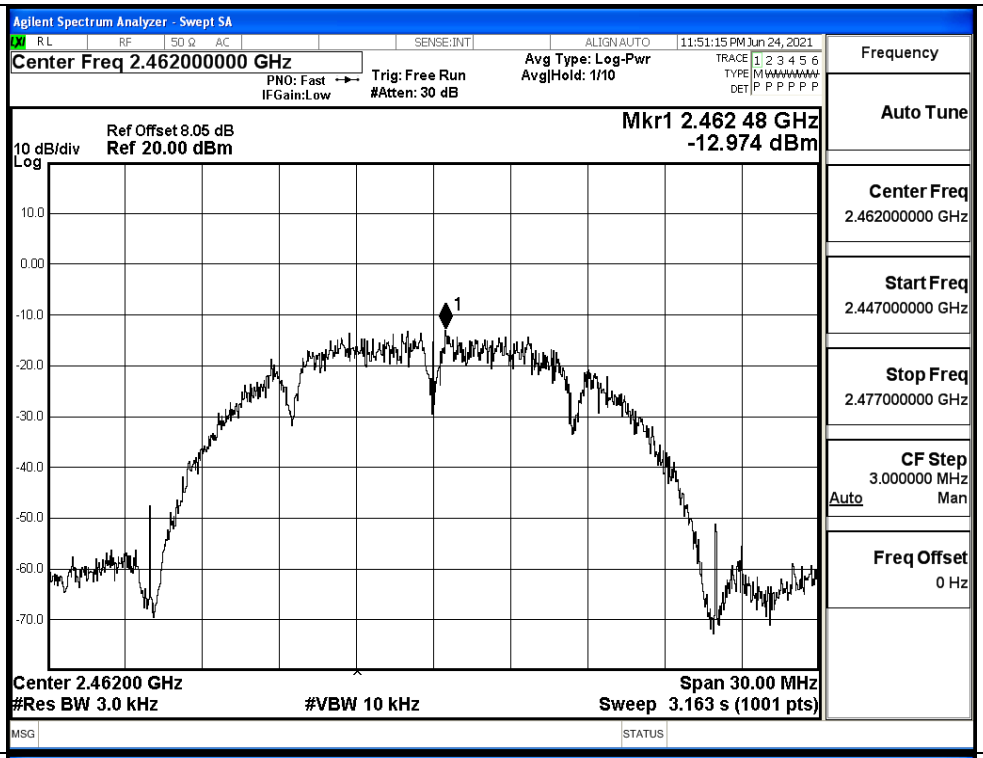
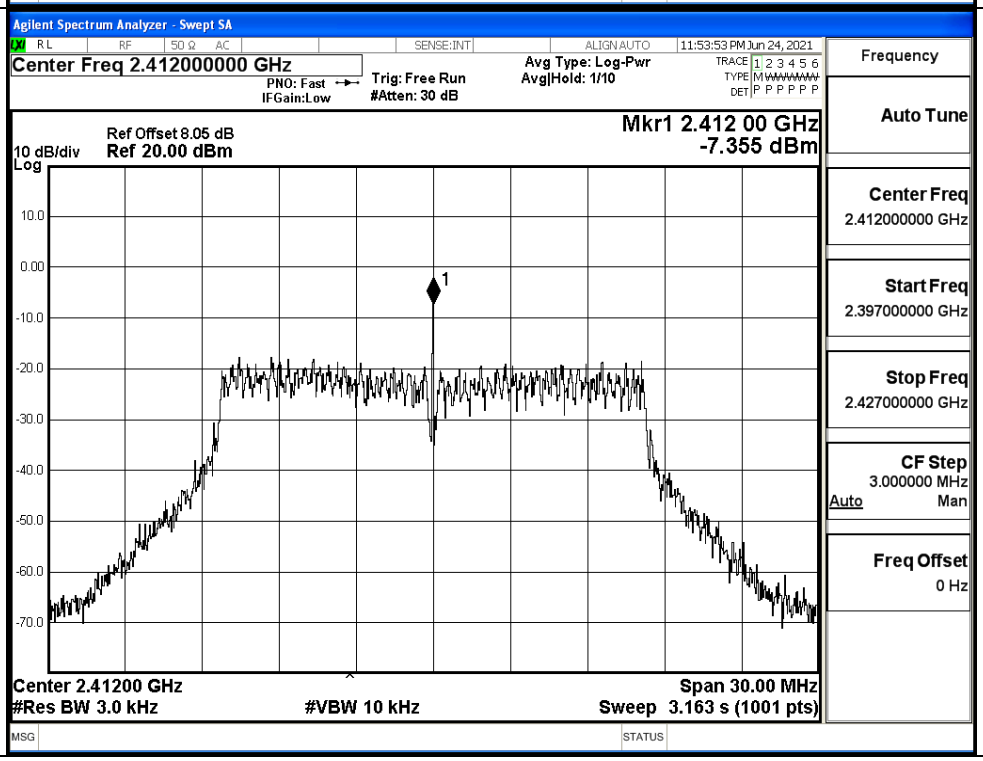
A.3 Maximum Power Spectral Density

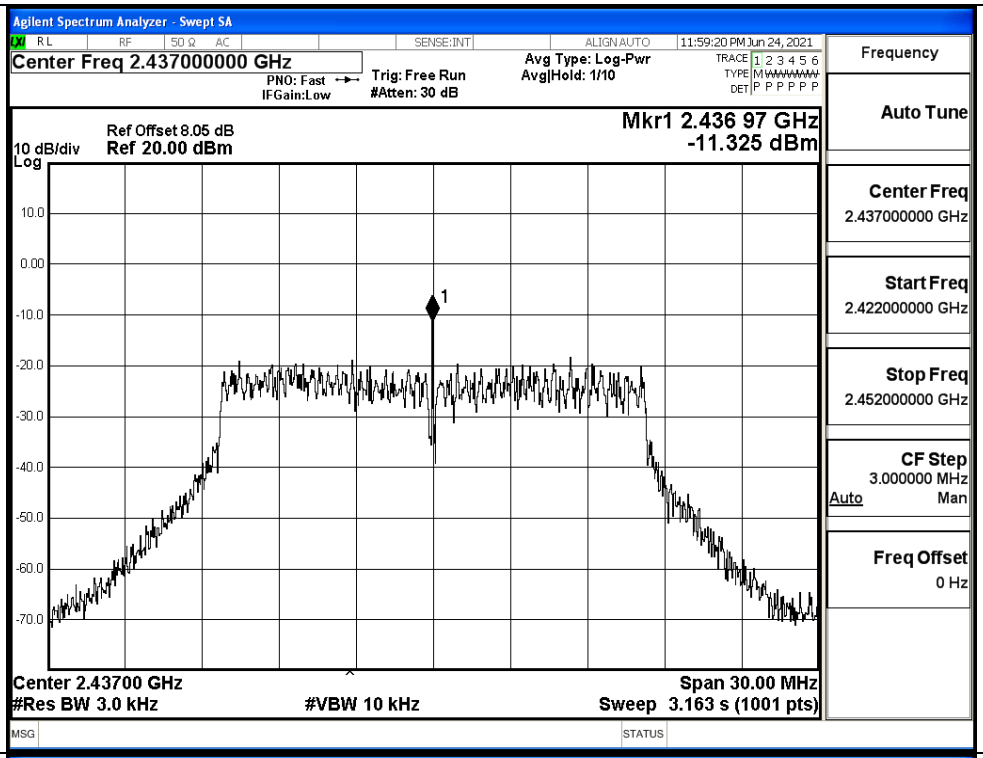
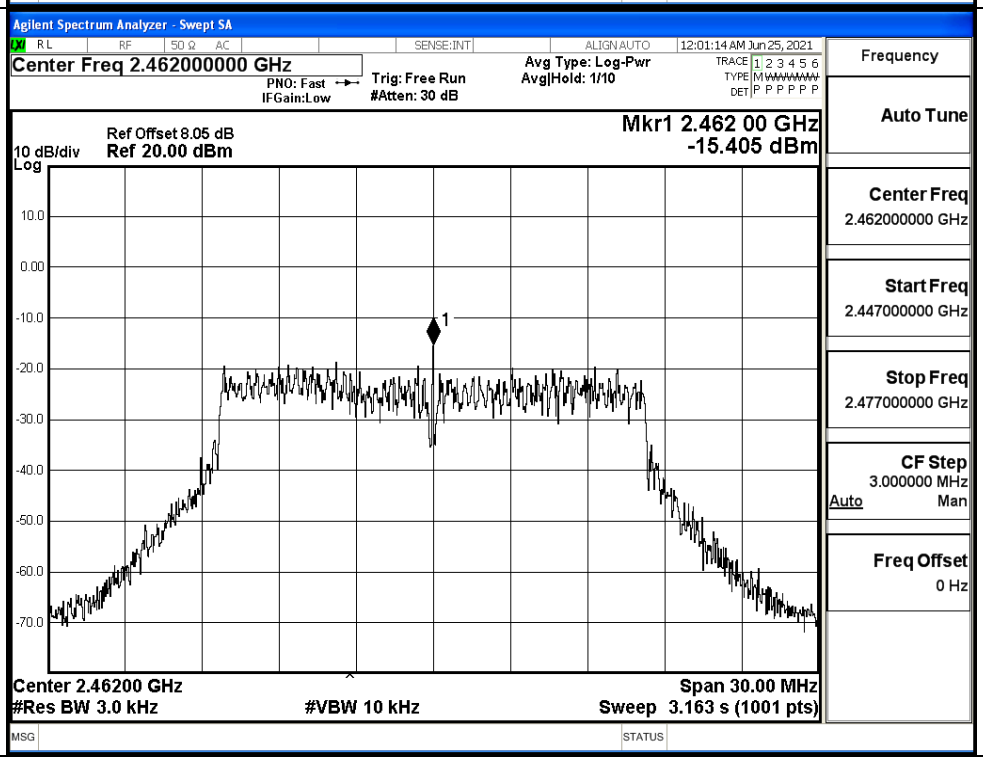
Mode	Channel	PSD Level [dBm/3KHz]		Limit [dBm/3KHz]	Verdict
		Ant 0	Ant 1		
11B	LCH	-7.919	-7.616	8	PASS
	MCH	-8.098	-7.782	8	PASS
	HCH	-12.974	-8.165	8	PASS
11G	LCH	-7.355	-17.701	8	PASS
	MCH	-11.325	-16.309	8	PASS
	HCH	-15.405	-8.817	8	PASS
11N20	LCH	-7.743	-8.148	8	PASS
	MCH	-8.011	-7.289	8	PASS
	HCH	-8.354	-7.702	8	PASS
11N40	LCH	-3.507	-17.553	8	PASS
	MCH	-8.578	-11.369	8	PASS
	HCH	-8.425	-8.519	8	PASS

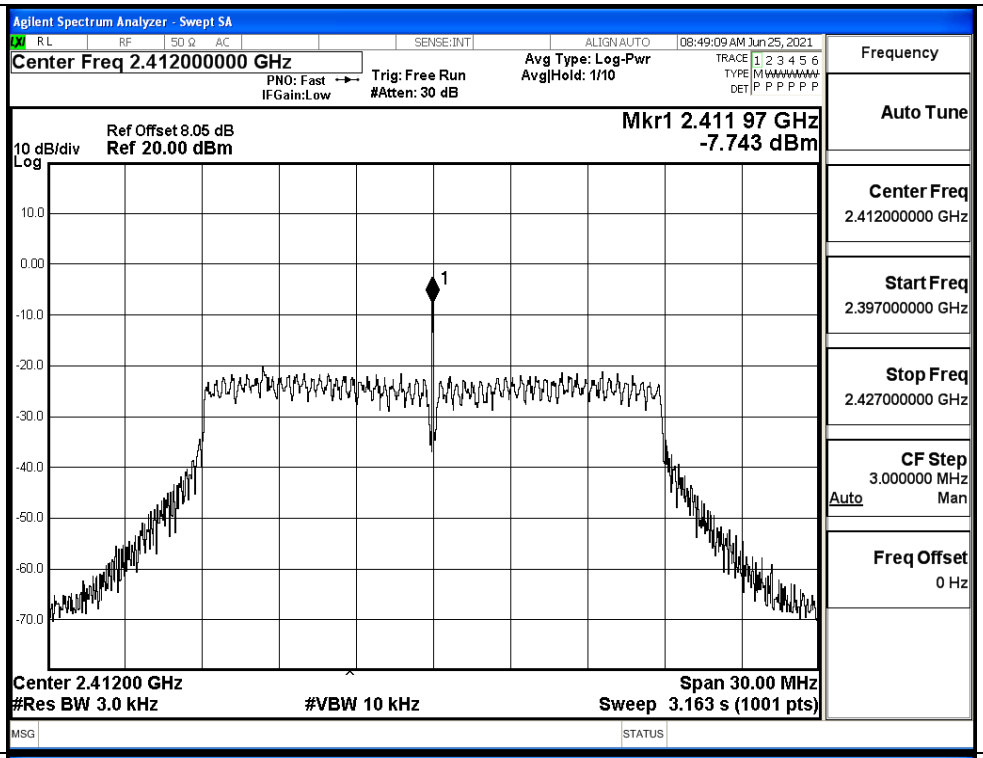
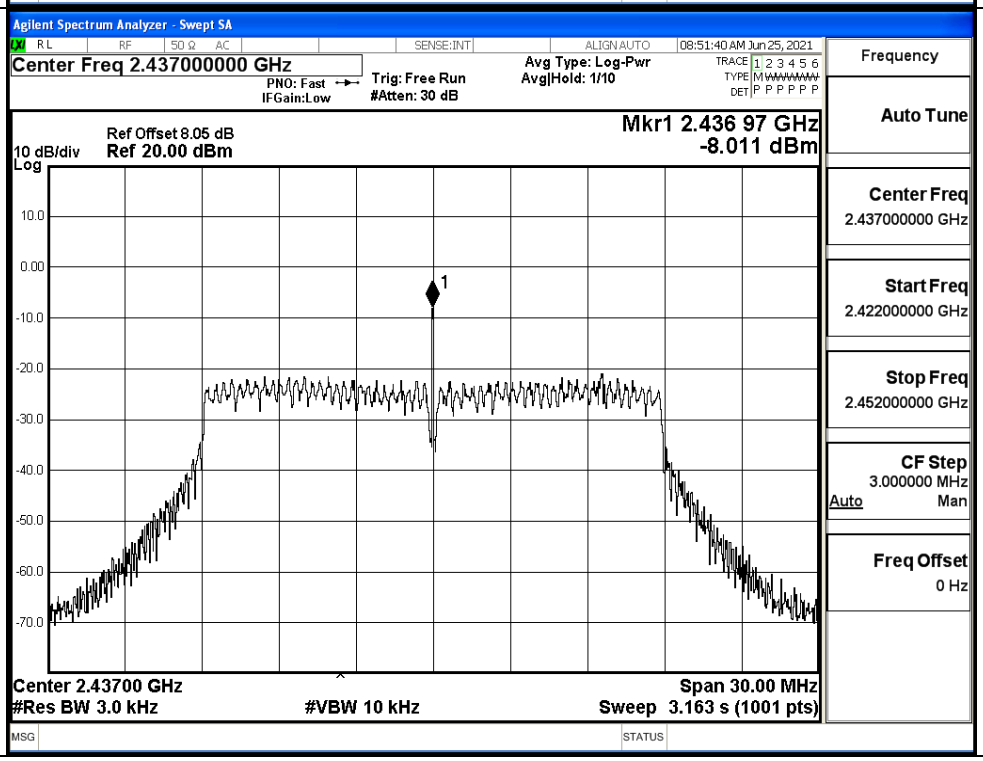
Mode	Channel	MIMO PSD [dBm/3KHz]			Limit [dBm/3KHz]	Verdict
		Ant 0	Ant 1	Sum		
11N20	LCH	-7.743	-8.148	-4.93	8	PASS
	MCH	-8.011	-7.289	-4.62	8	PASS
	HCH	-8.354	-7.702	-5.01	8	PASS
11N40	LCH	-3.507	-17.553	-3.34	8	PASS
	MCH	-8.578	-11.369	-6.74	8	PASS
	HCH	-8.425	-8.519	-5.46	8	PASS

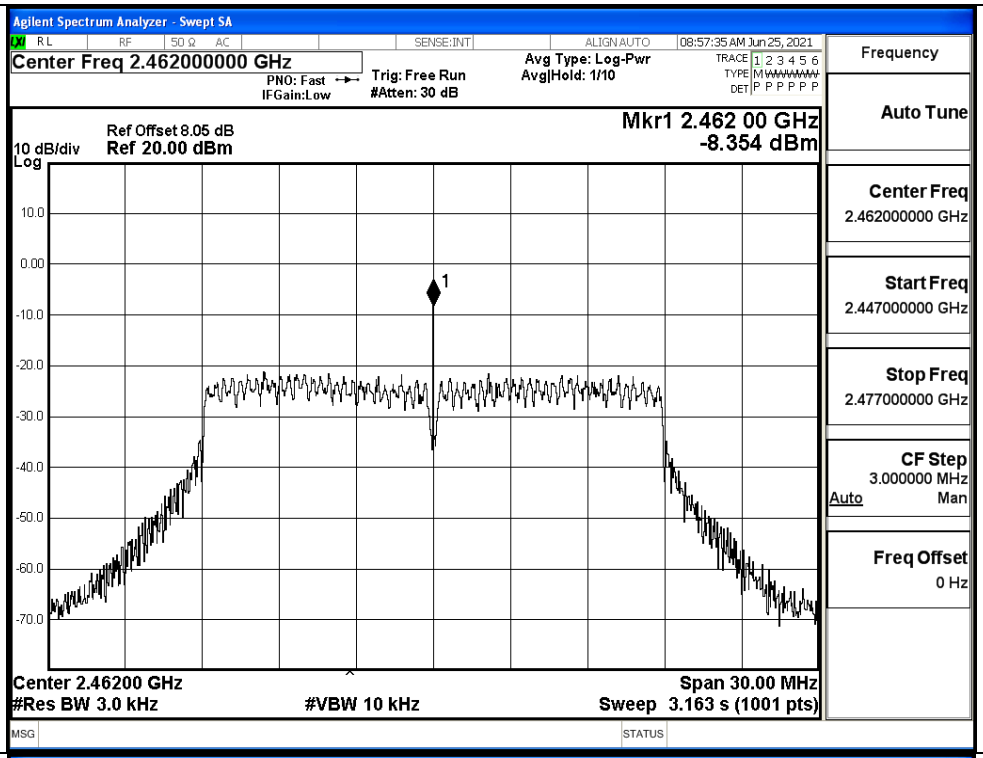
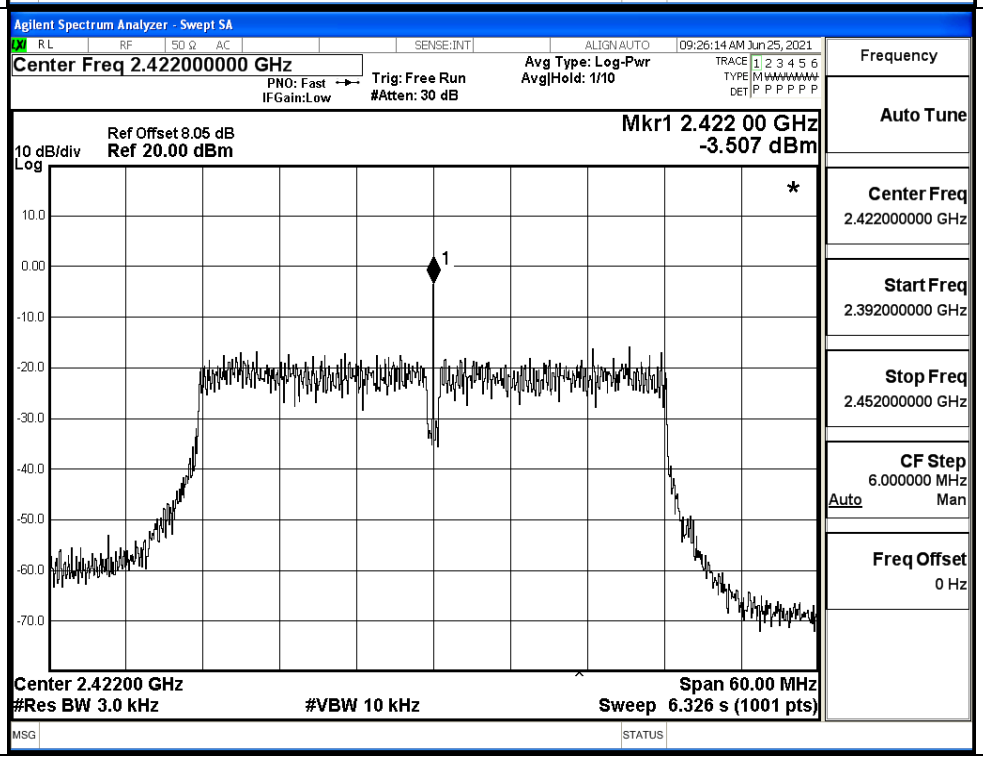
ANT0

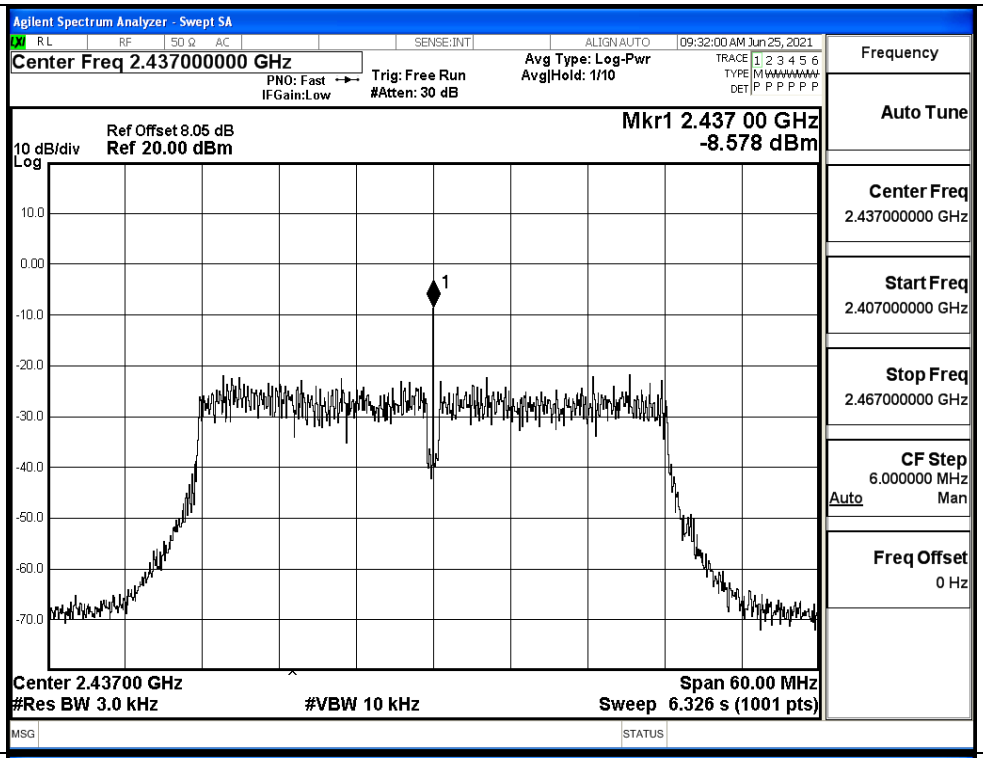
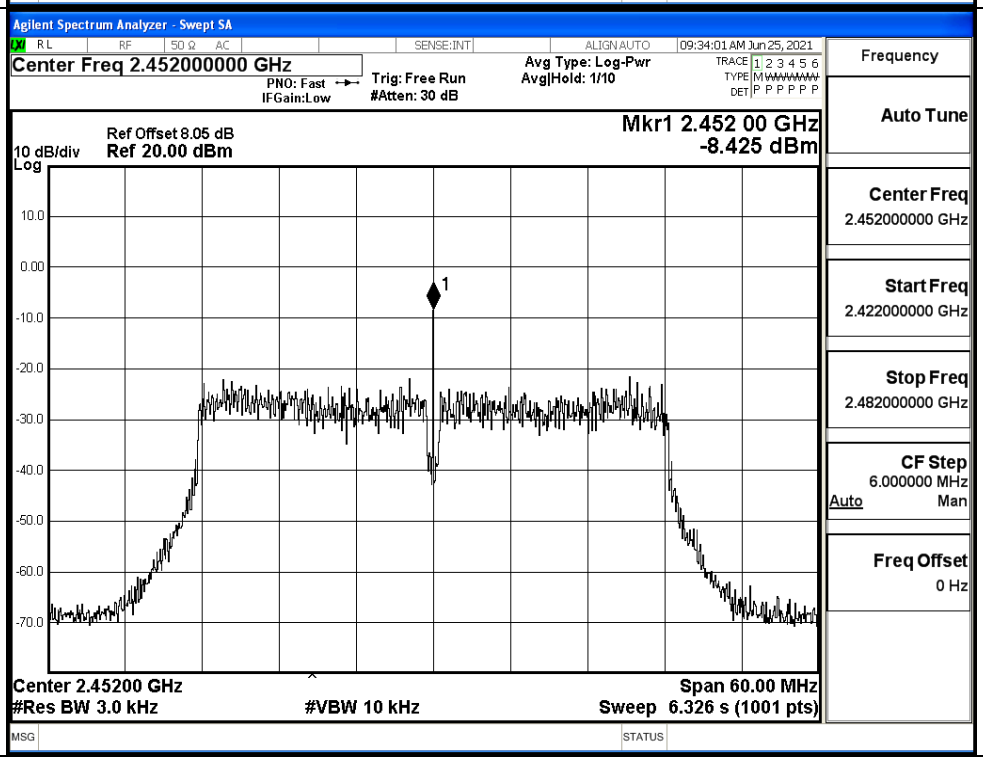
Test Graphs		
11B/LCH		
11B/MCH		

11B/HCH		
11G/LCH		

11G/MCH		
11G/HCH		

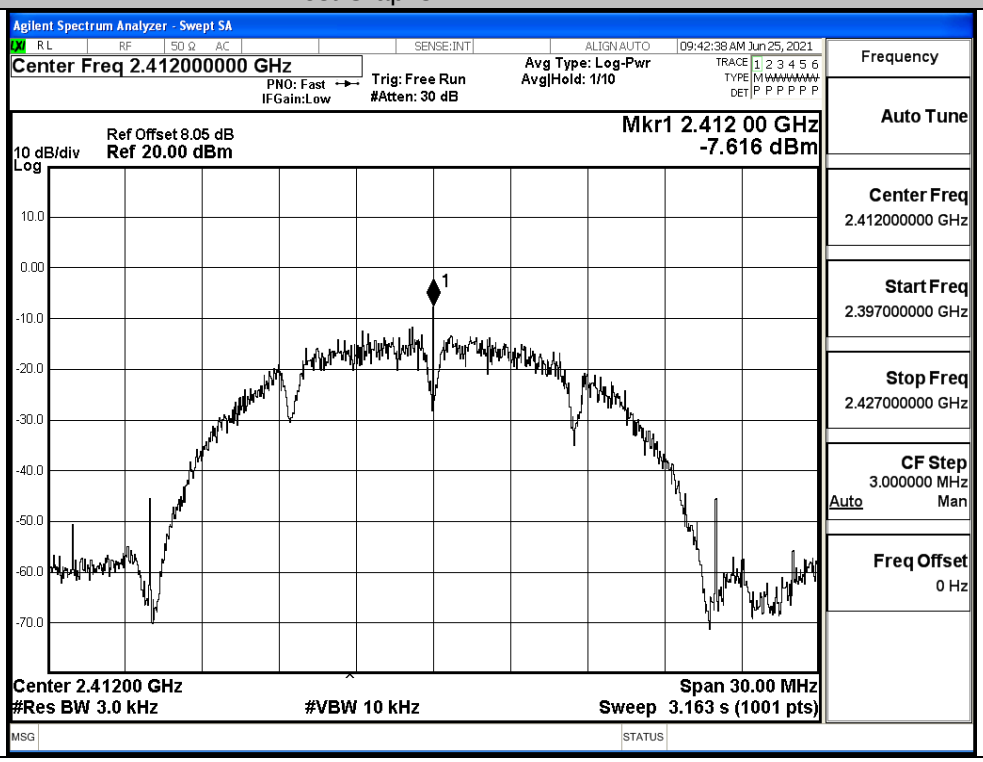
11N20SISO/LCH		
11N20SISO/MCH		

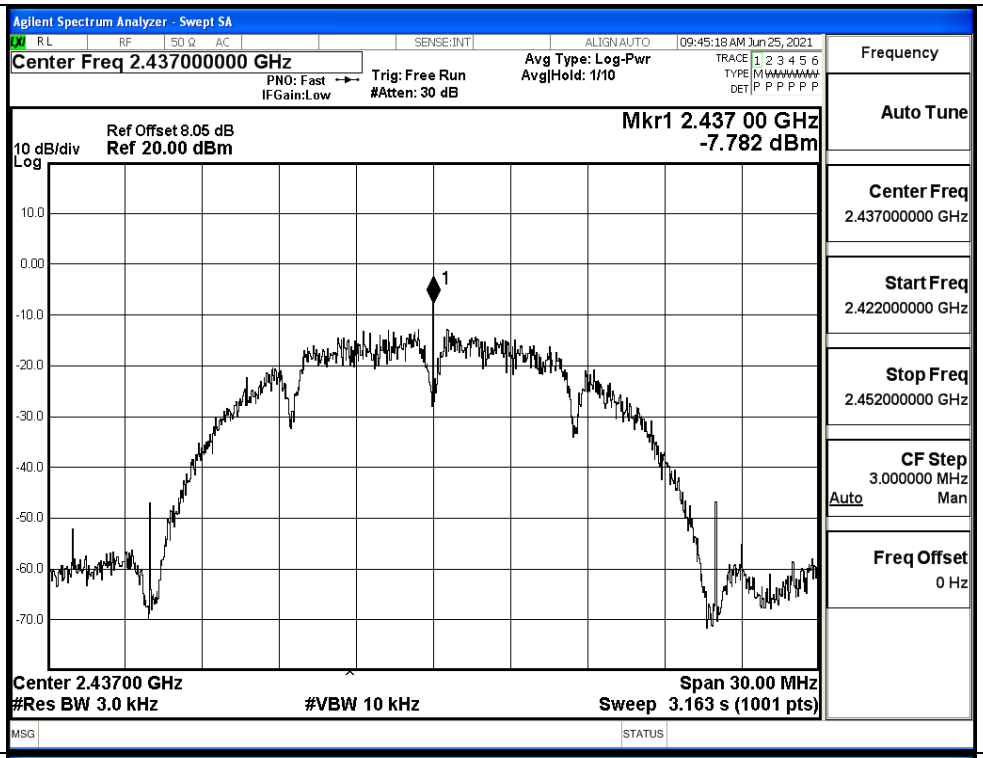
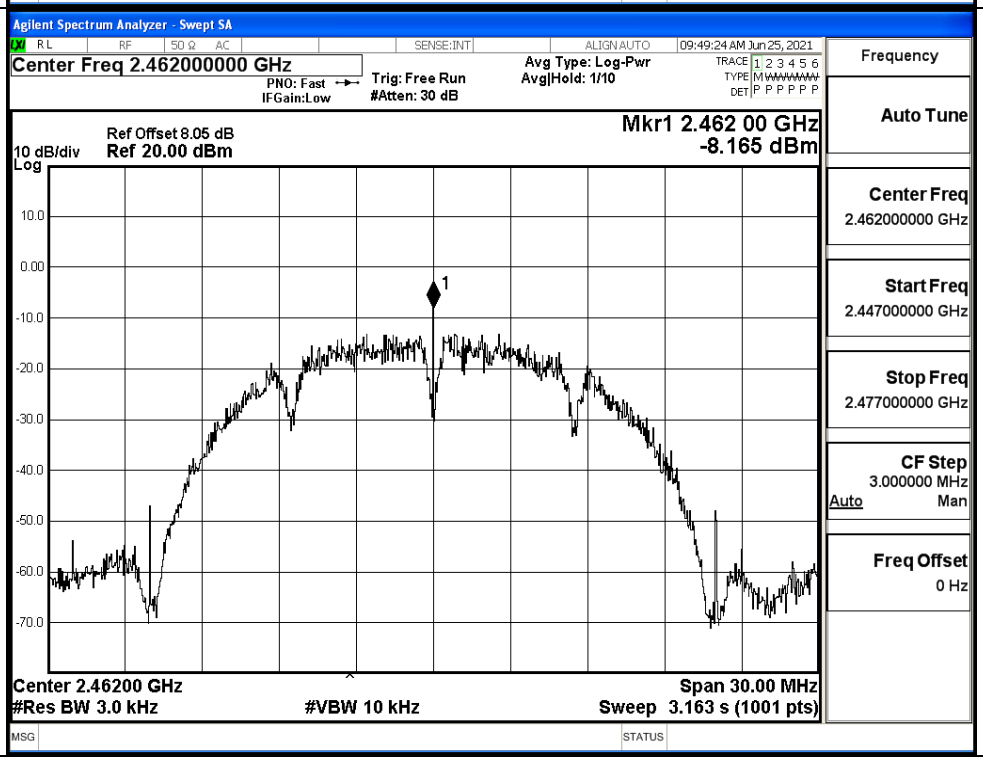
11N20SISO/HCH		
11N40SISO/LCH		

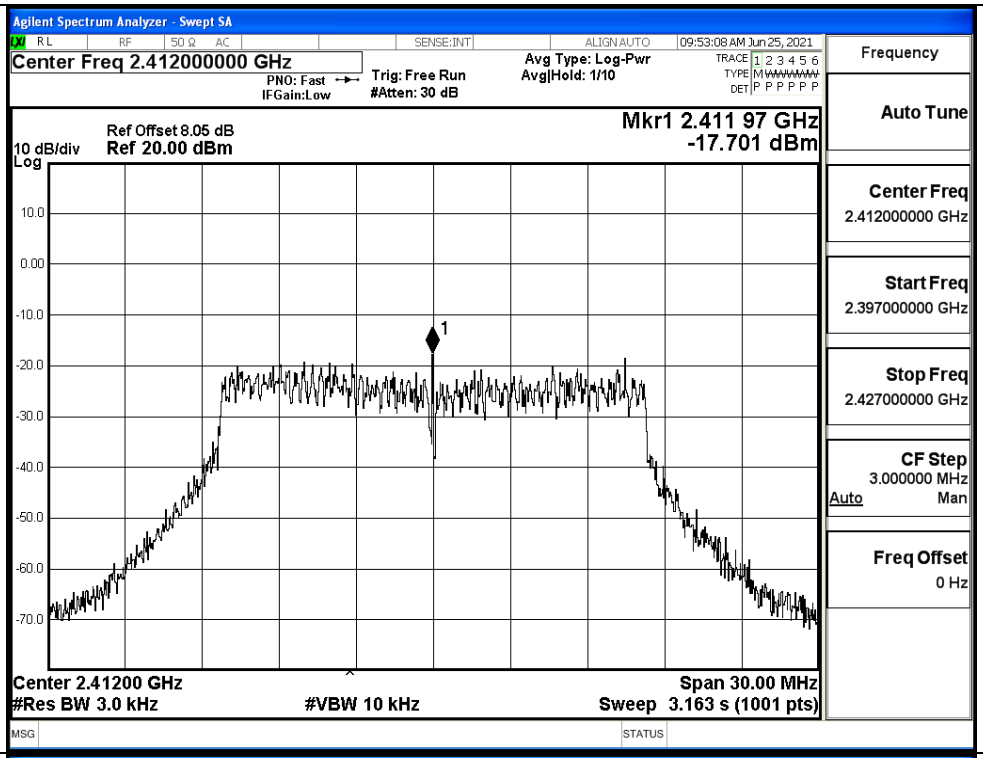
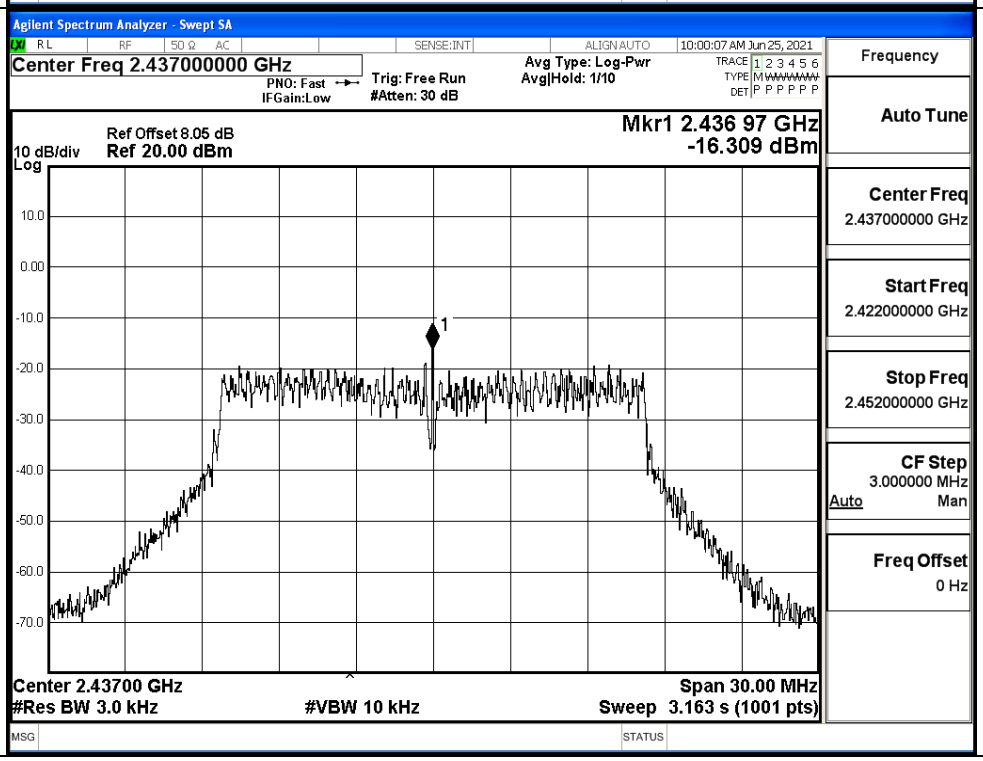
11N40SISO/MCH		
11N40SISO/HCH		

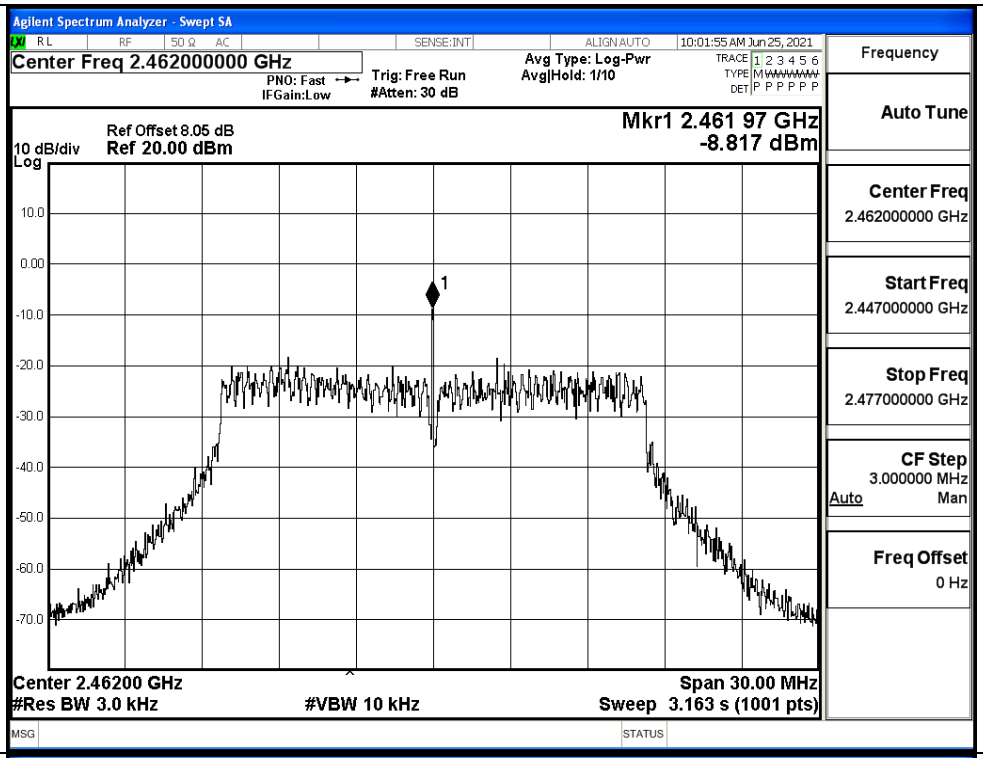
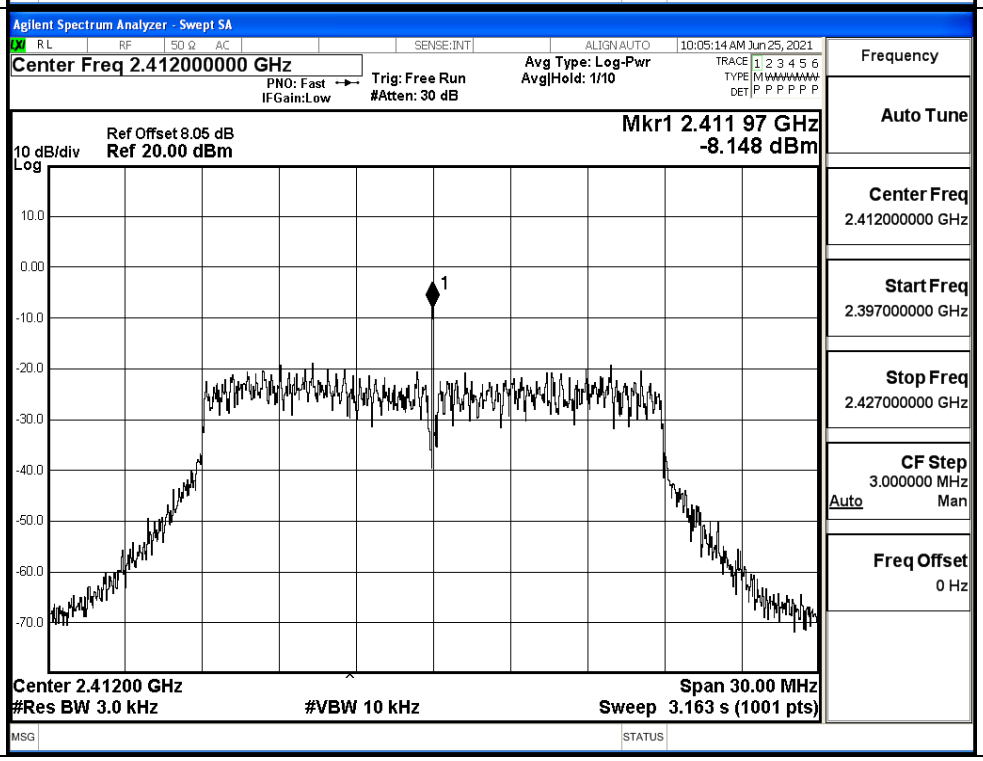
ANT1

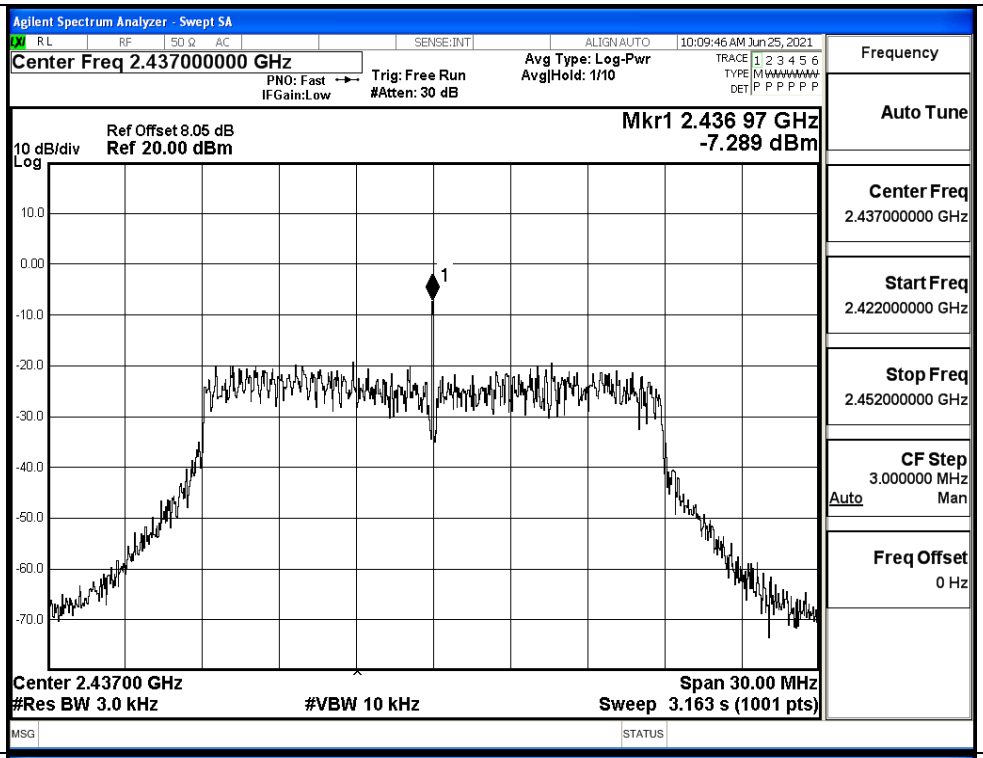
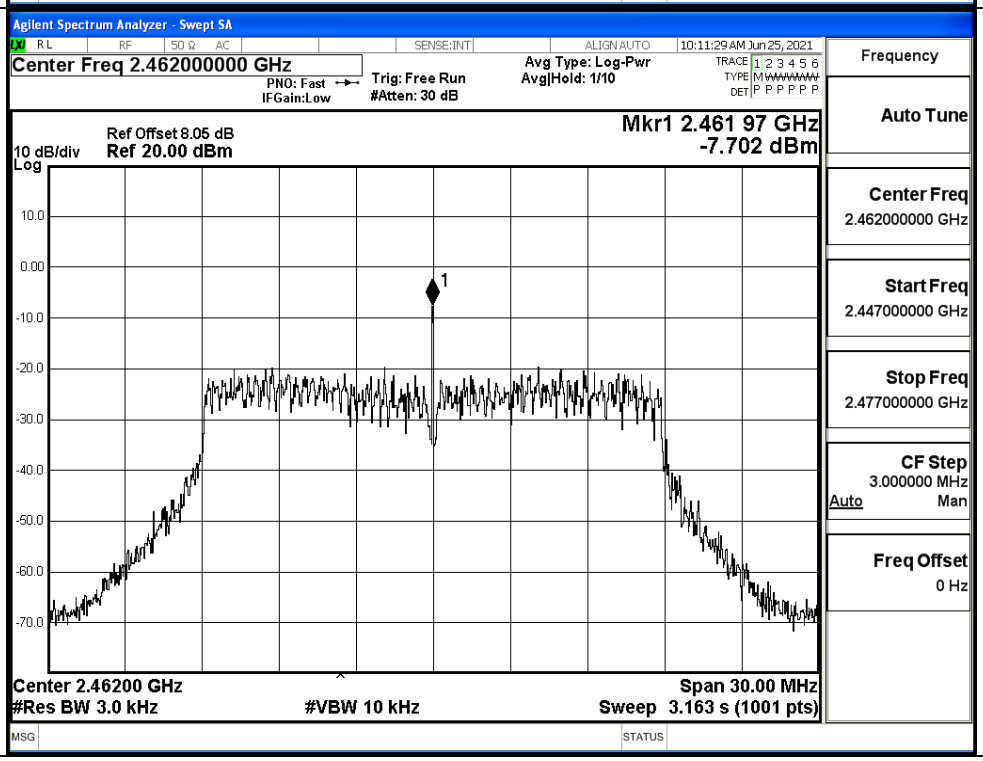
Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-7.616	8	PASS
	MCH	-7.782	8	PASS
	HCH	-8.165	8	PASS
11G	LCH	-17.701	8	PASS
	MCH	-16.309	8	PASS
	HCH	-8.817	8	PASS
11N20SISO	LCH	-8.148	8	PASS
	MCH	-7.289	8	PASS
	HCH	-7.702	8	PASS
11N40SISO	LCH	-17.553	8	PASS
	MCH	-11.369	8	PASS
	HCH	-8.519	8	PASS

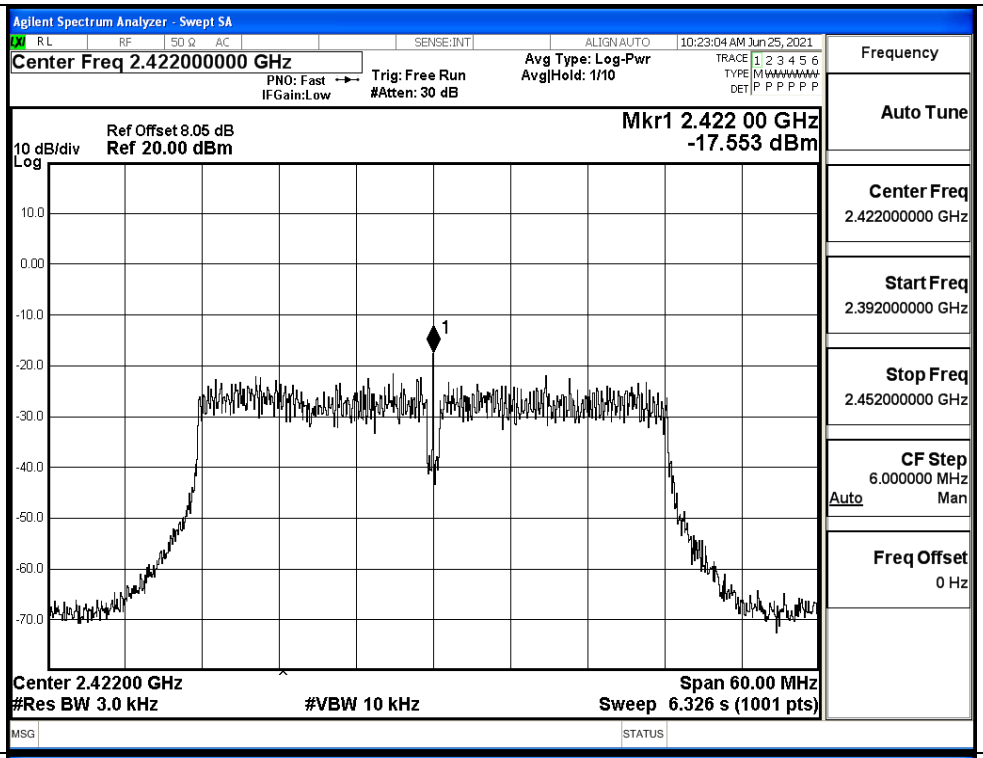
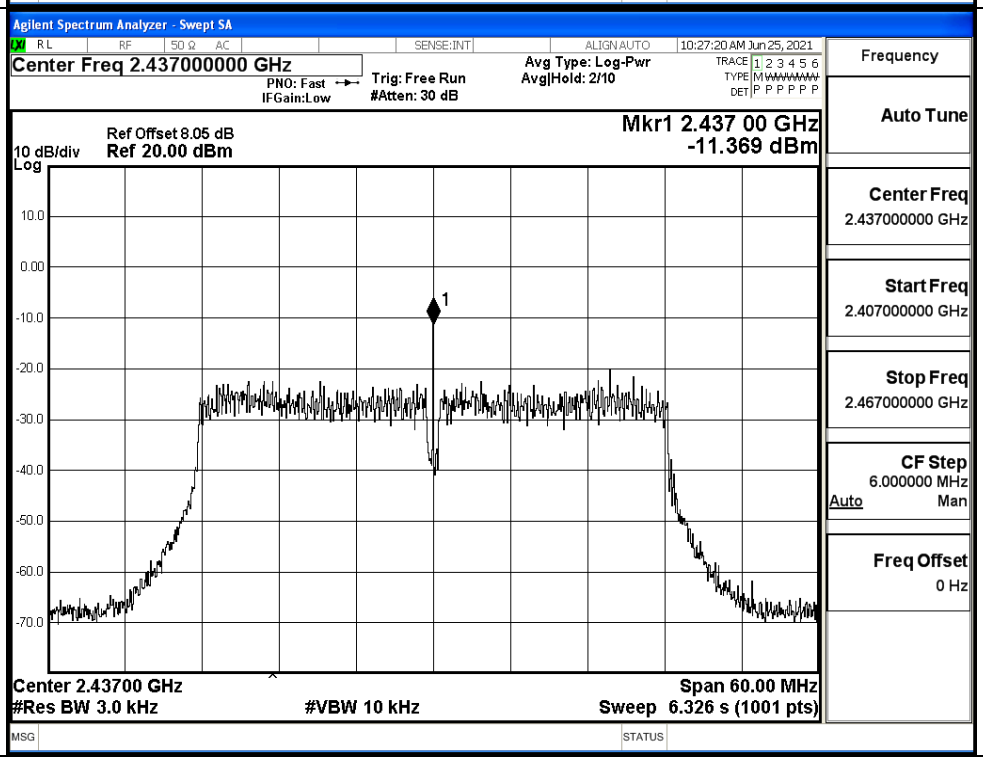
Test Graphs		
11B/LCH		

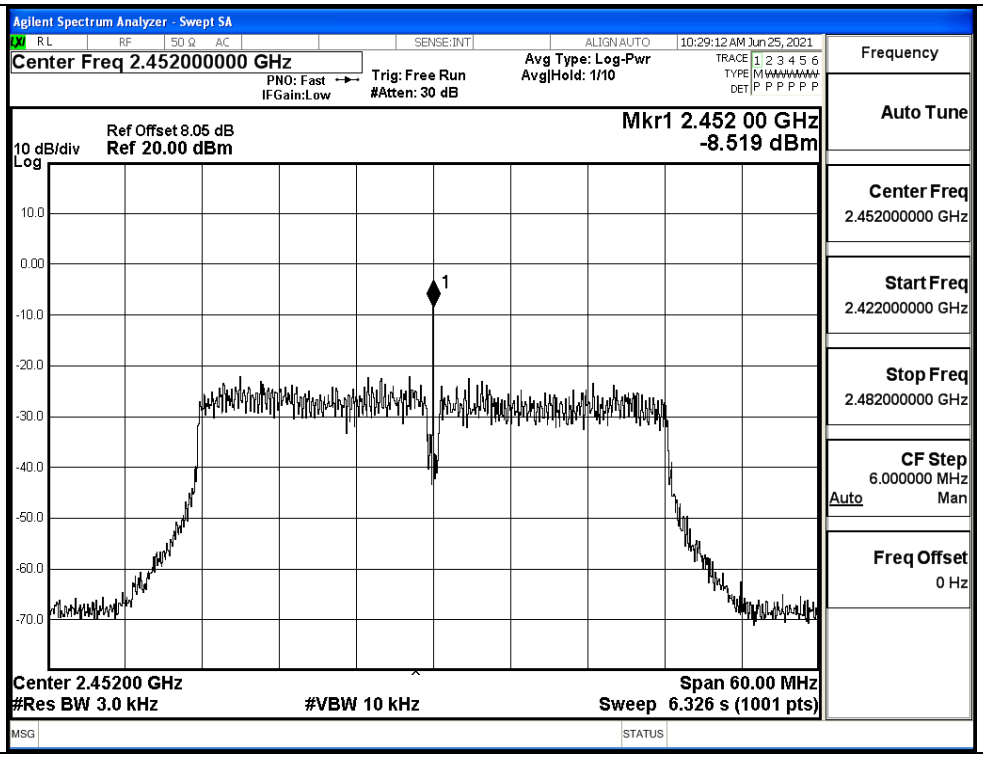
11B/MCH		
11B/HCH		

11G/LCH		
11G/MCH		

11G/HCH	
11N20SISO/LCH	

11N20SISO/MCH		
11N20SISO/HCH		

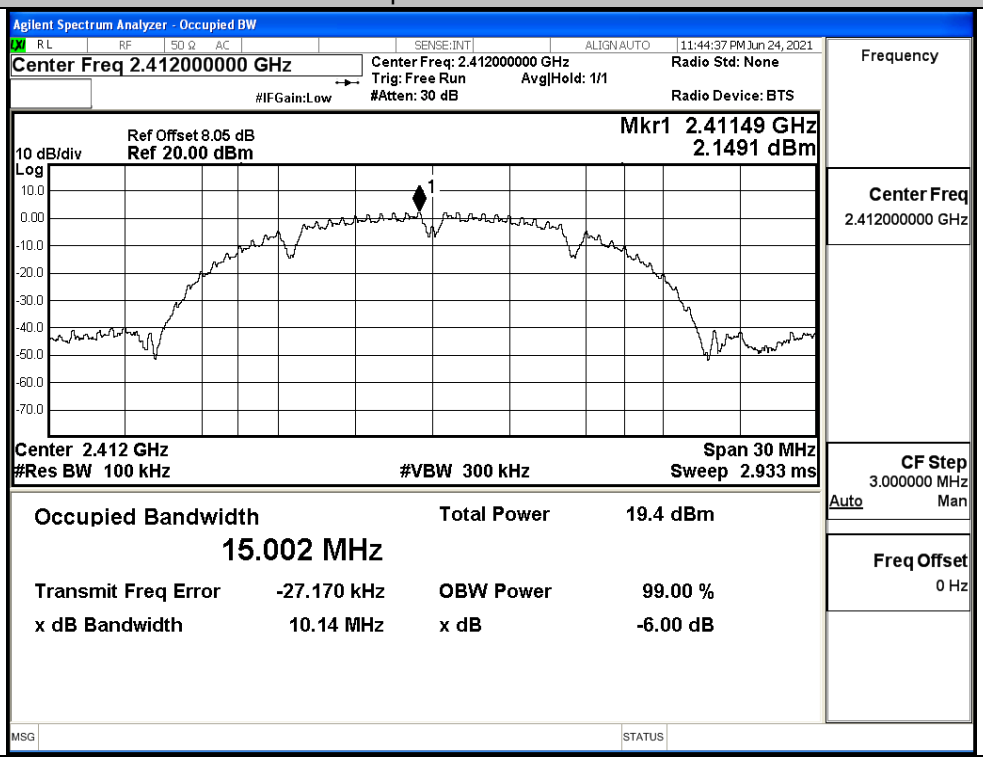
11N40SISO/LCH		
11N40SISO/MCH		

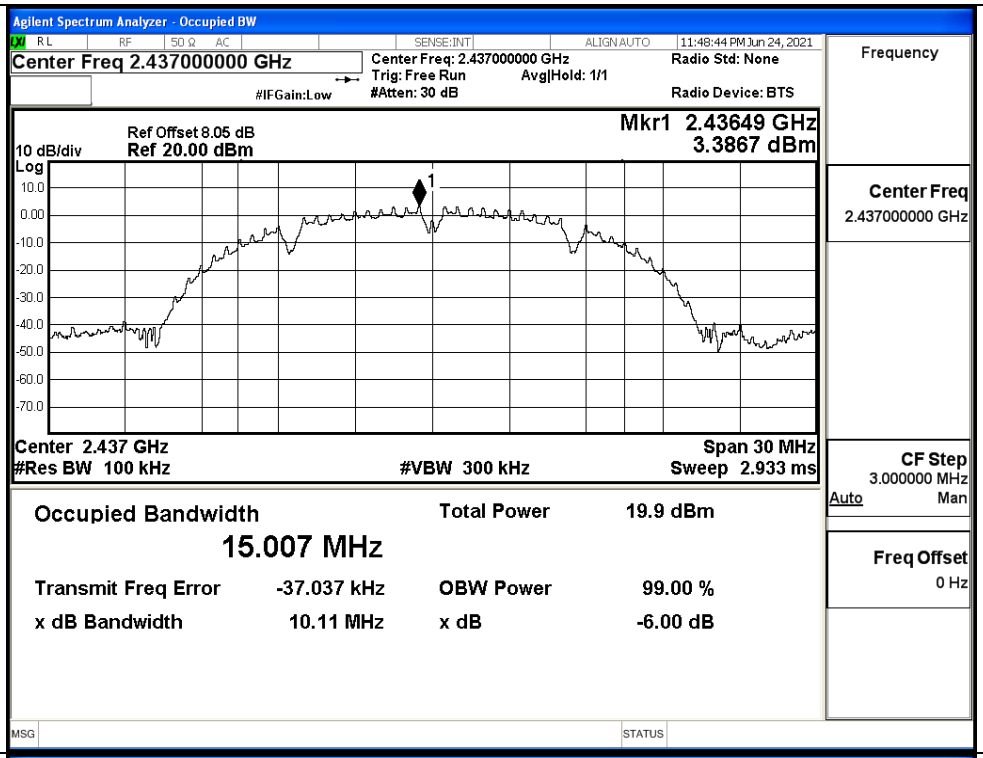
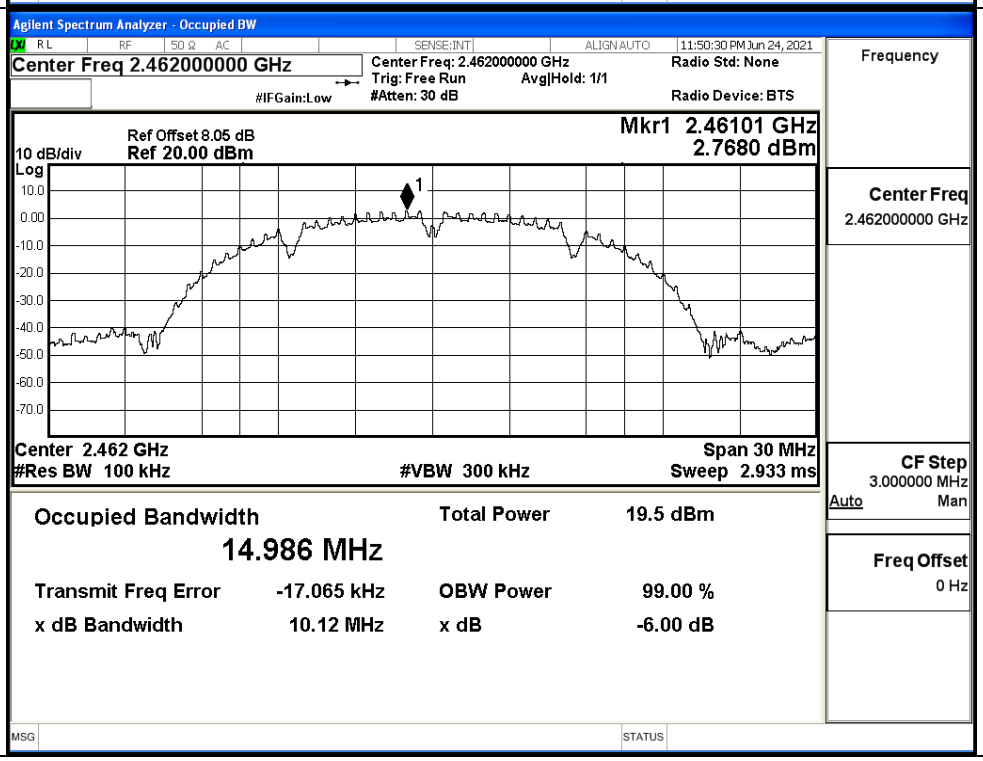
11N40SISO/HCH	

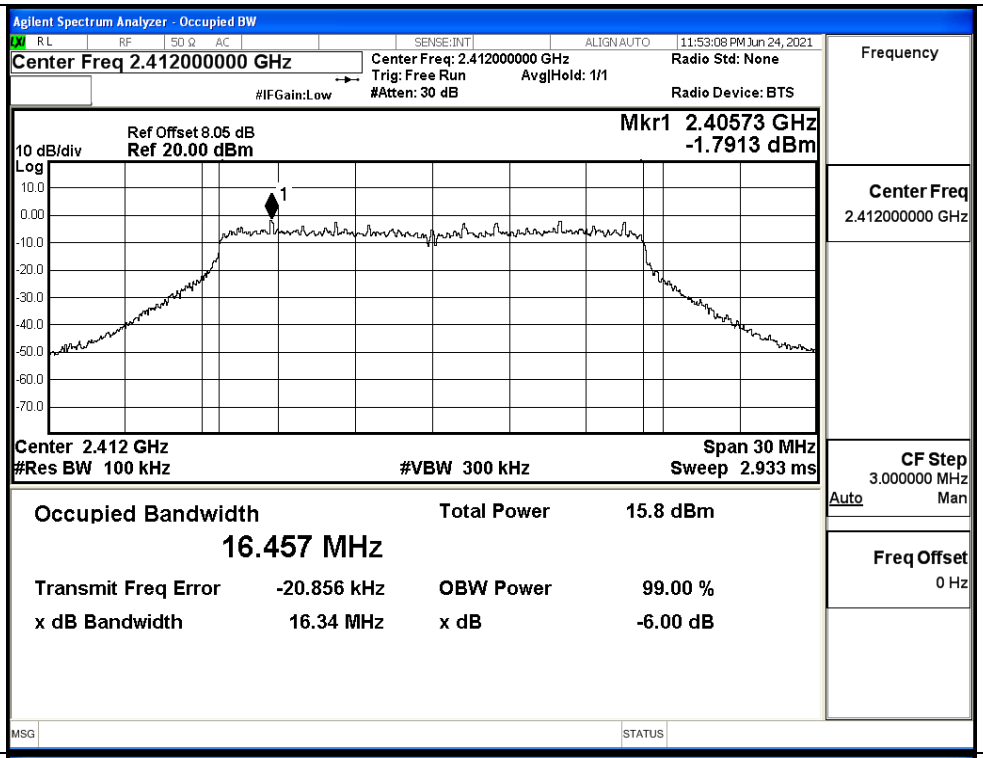
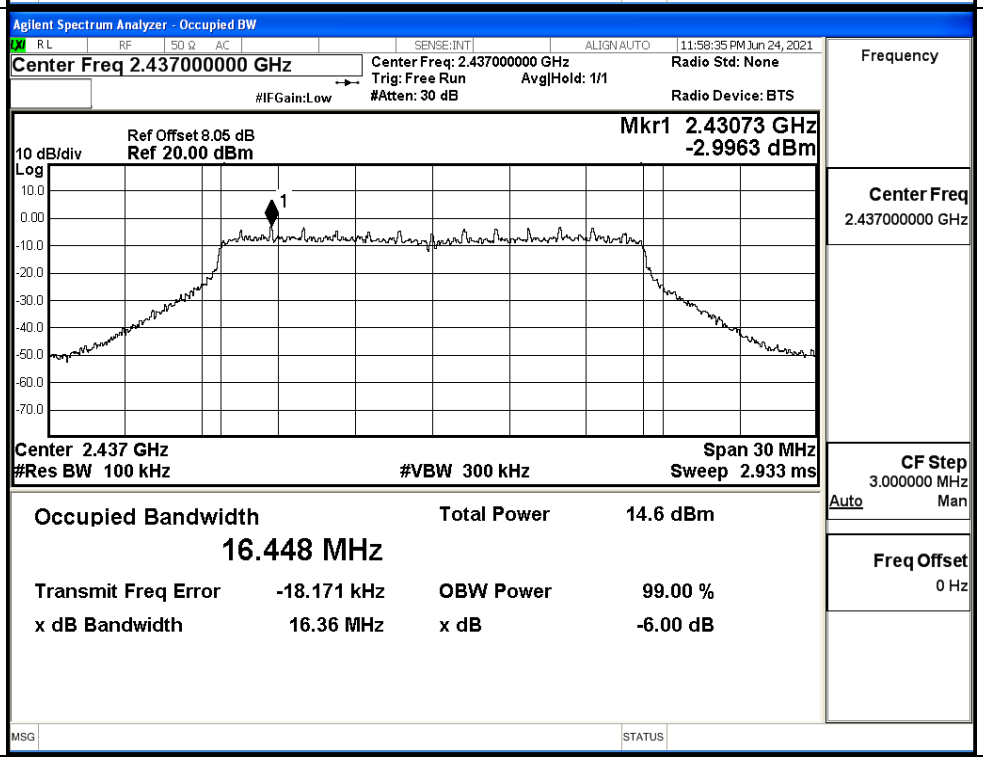
A.4 6dB Bandwidth

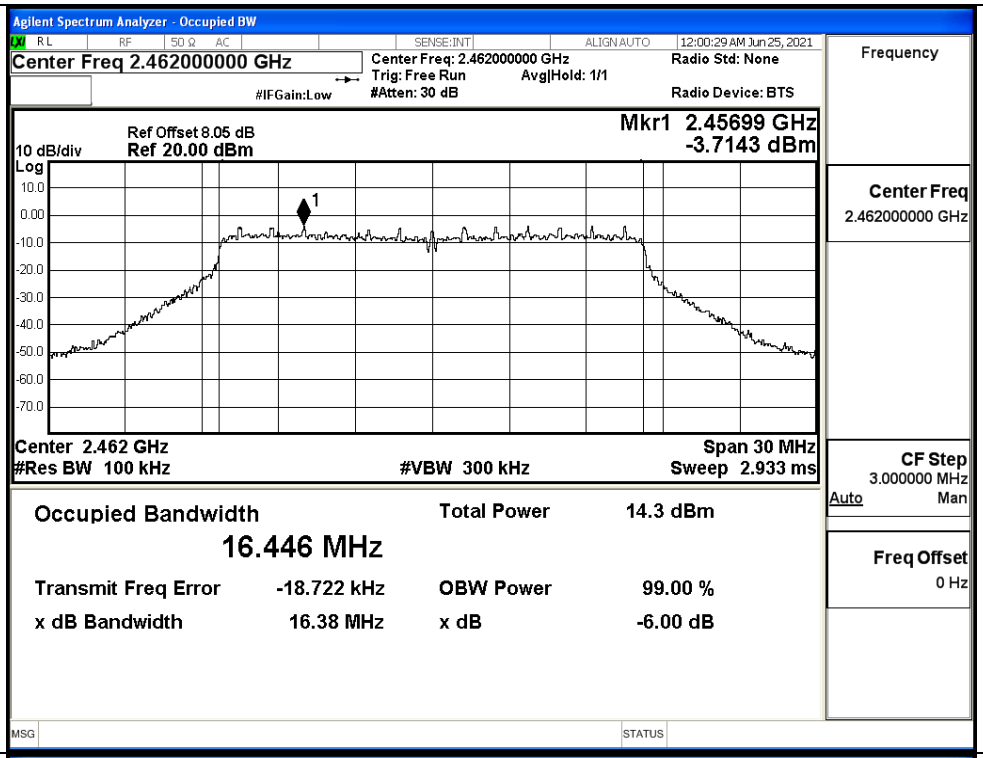
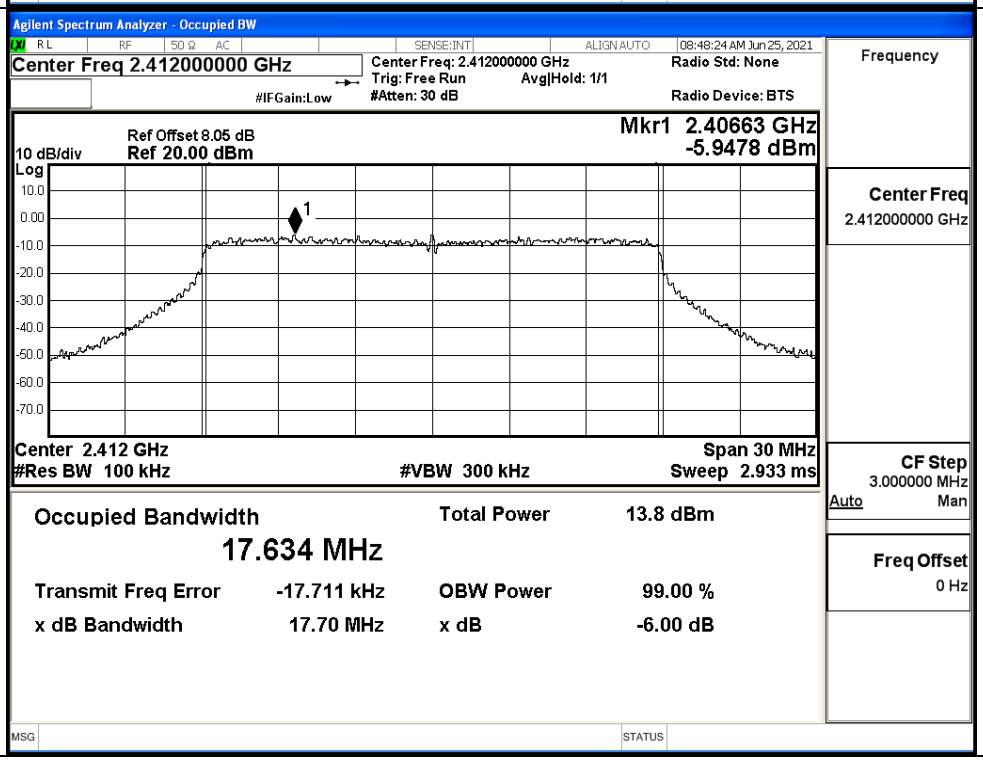
ANT0

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.14	⩾0.5	PASS
	MCH	10.11	⩾0.5	PASS
	HCH	10.12	⩾0.5	PASS
11G	LCH	16.34	⩾0.5	PASS
	MCH	16.36	⩾0.5	PASS
	HCH	16.38	⩾0.5	PASS
11N20SISO	LCH	17.70	⩾0.5	PASS
	MCH	17.71	⩾0.5	PASS
	HCH	17.69	⩾0.5	PASS
11N40SISO	LCH	35.92	⩾0.5	PASS
	MCH	35.70	⩾0.5	PASS
	HCH	35.71	⩾0.5	PASS

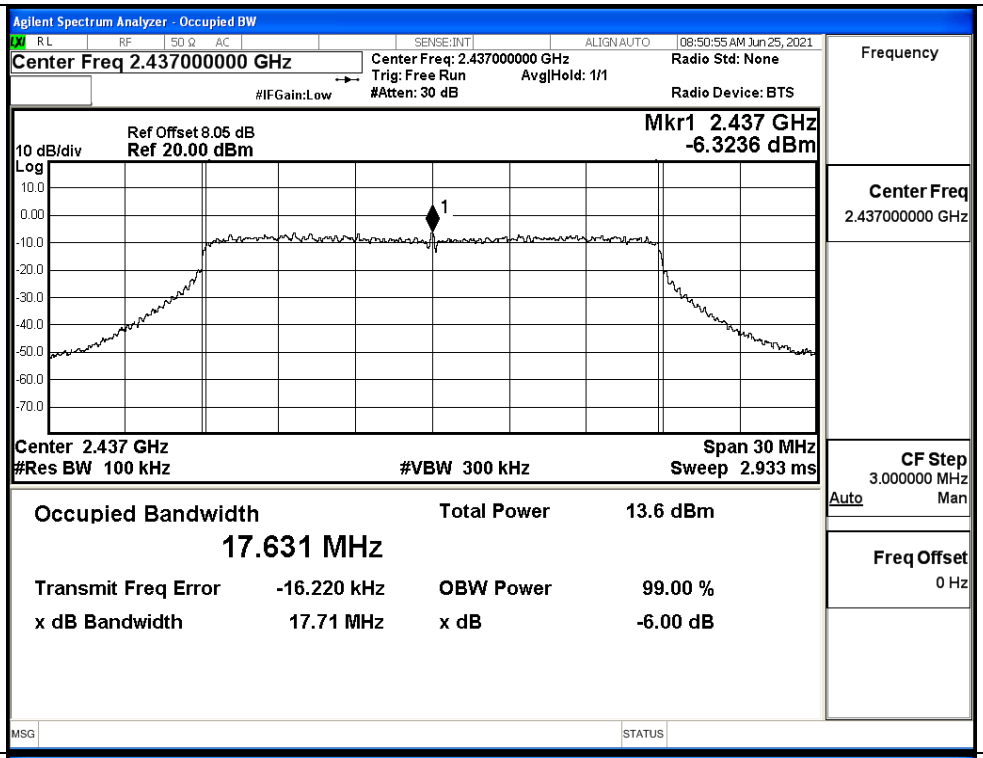
Test Graphs	
11B/LCH	

11B/MCH	
11B/HCH	

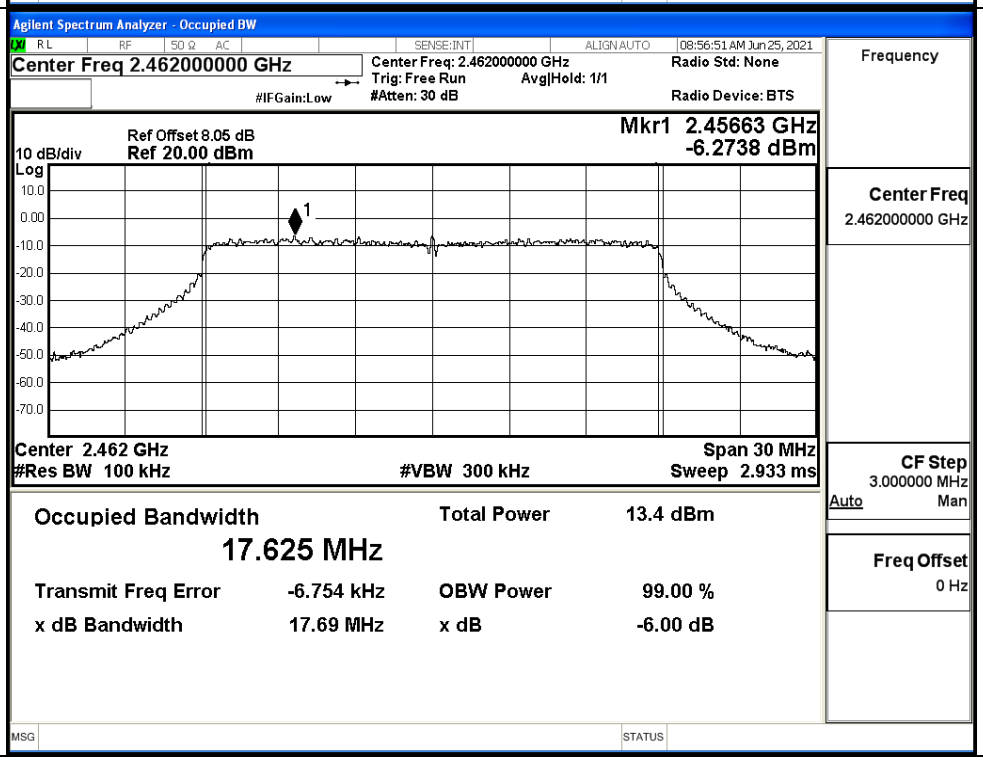
11G/LCH	
11G/MCH	

11G/HCH	
11N20SISO/LCH	

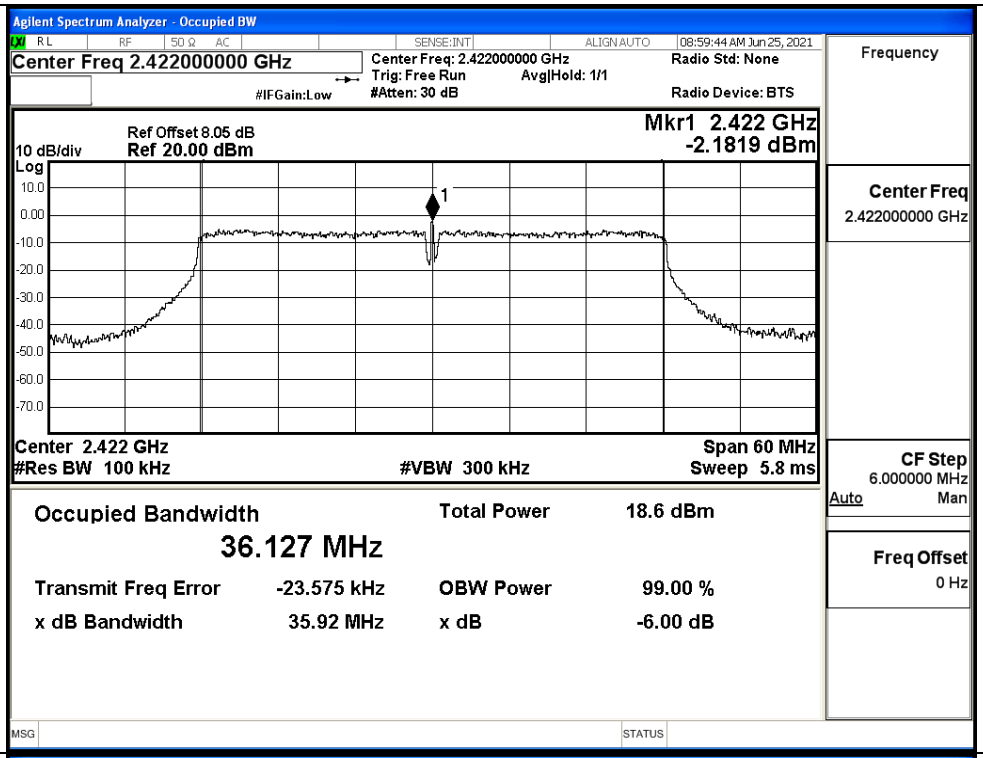
11N20SISO/MCH



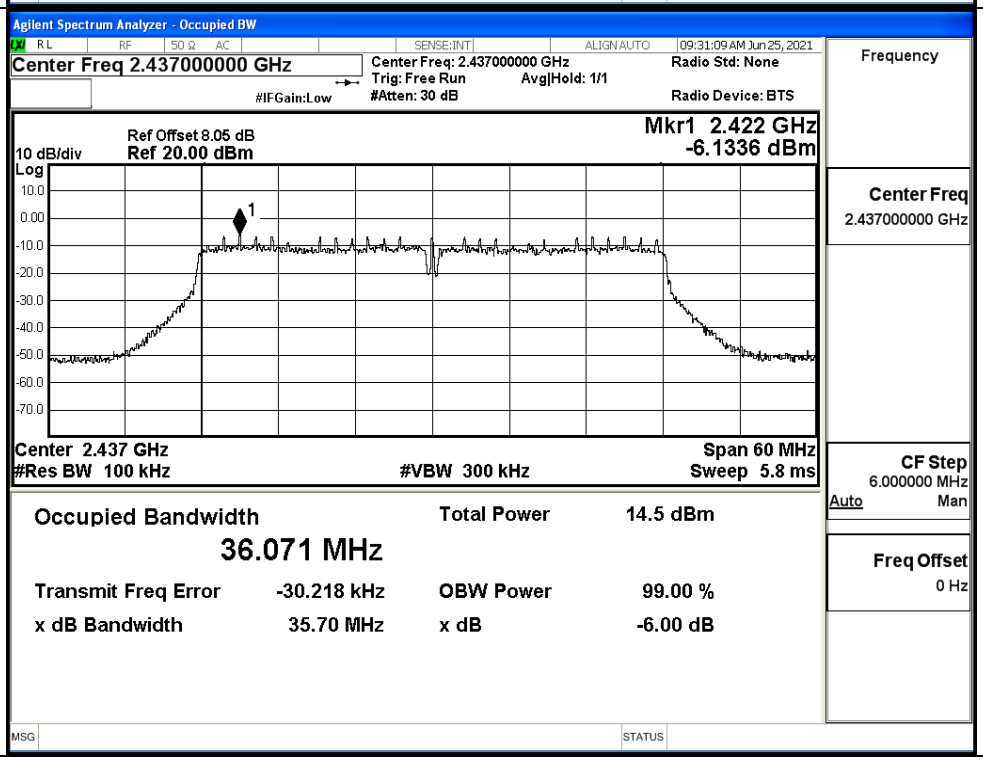
11N20SISO/HCH



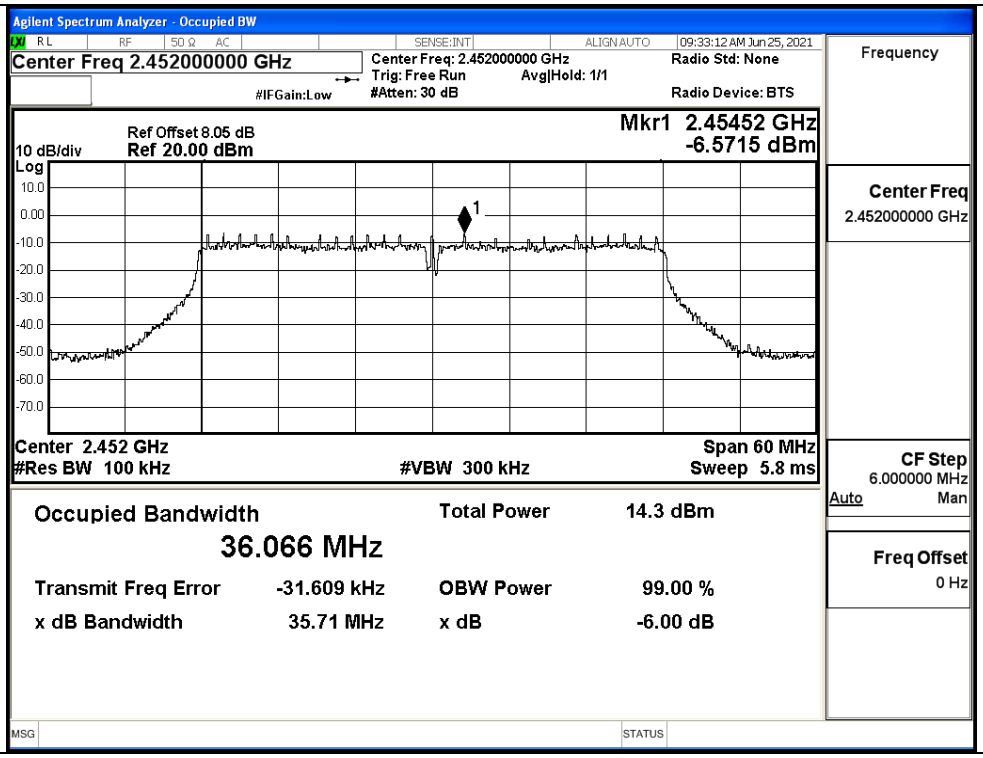
11N40SISO/LCH



11N40SISO/MCH

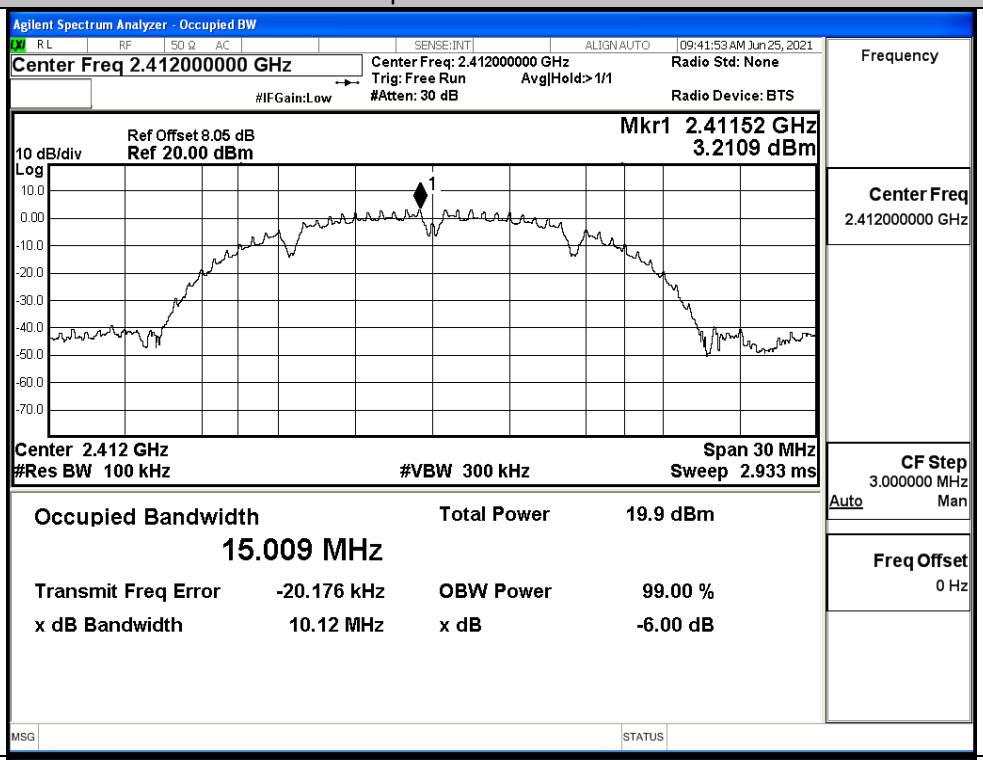
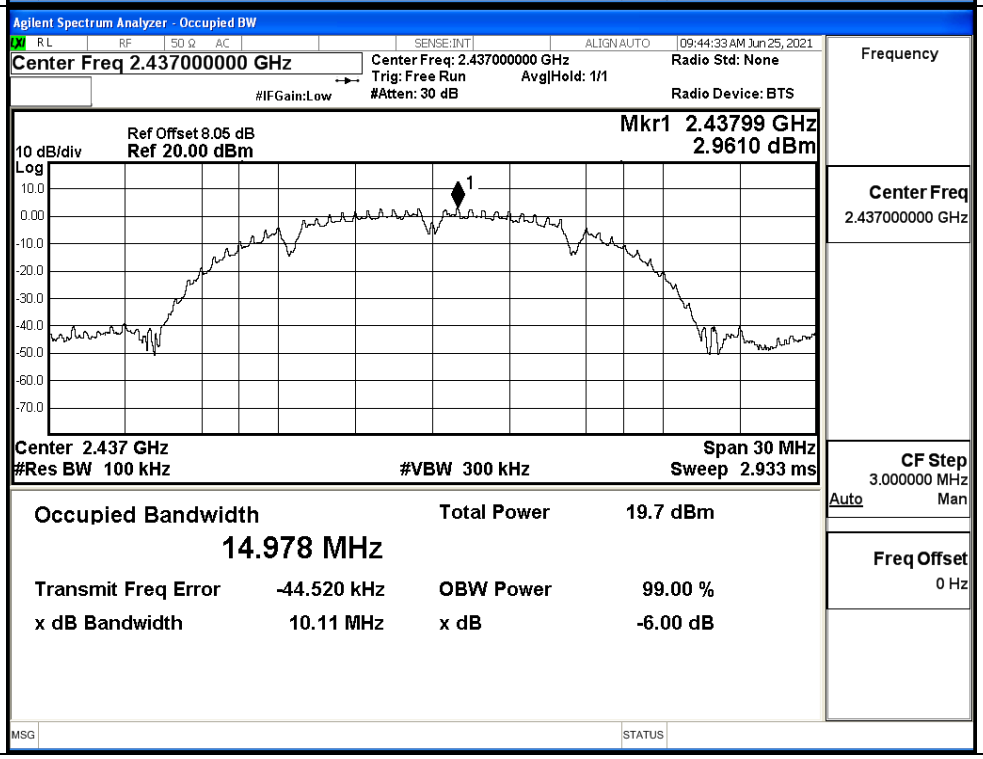


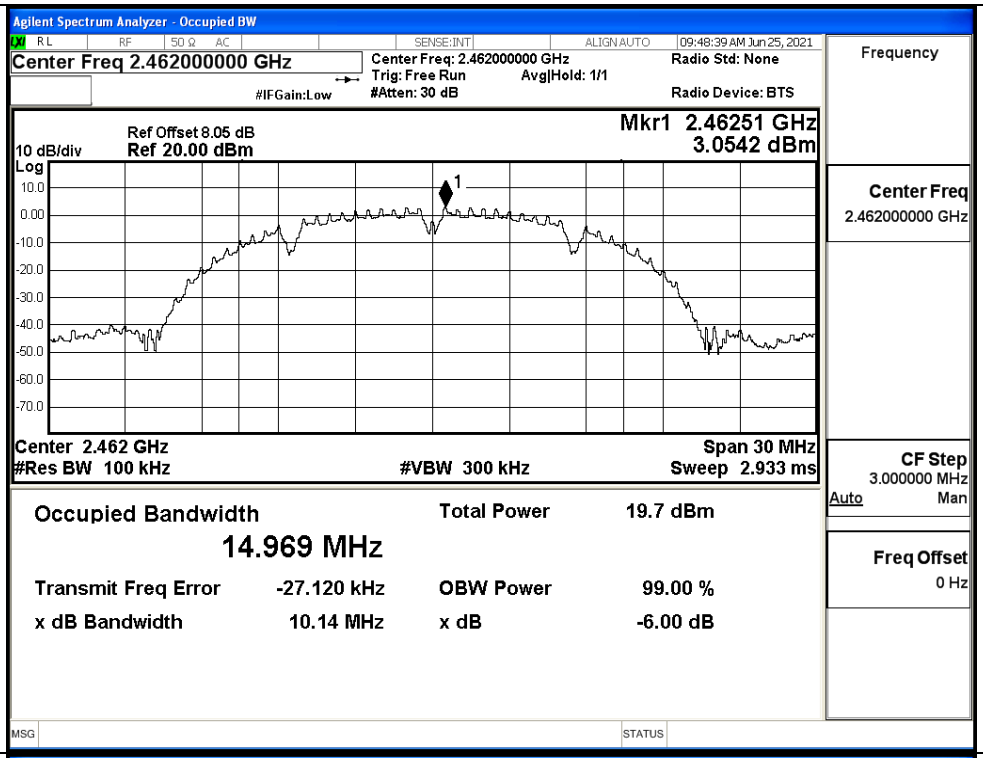
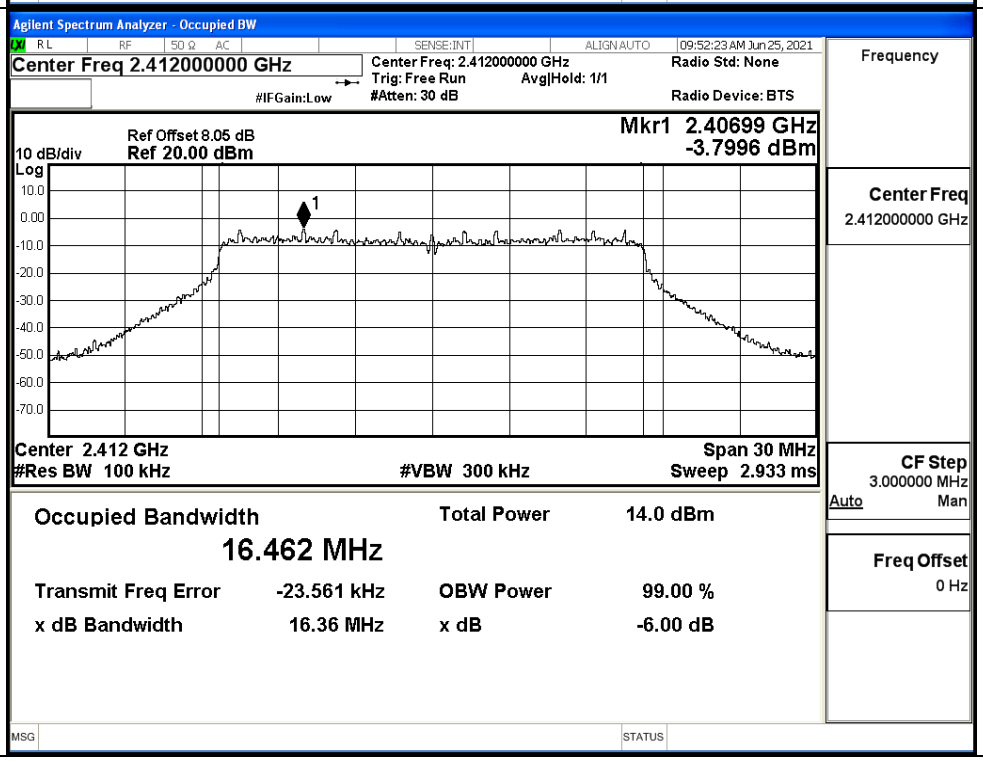
11N40SISO/HCH

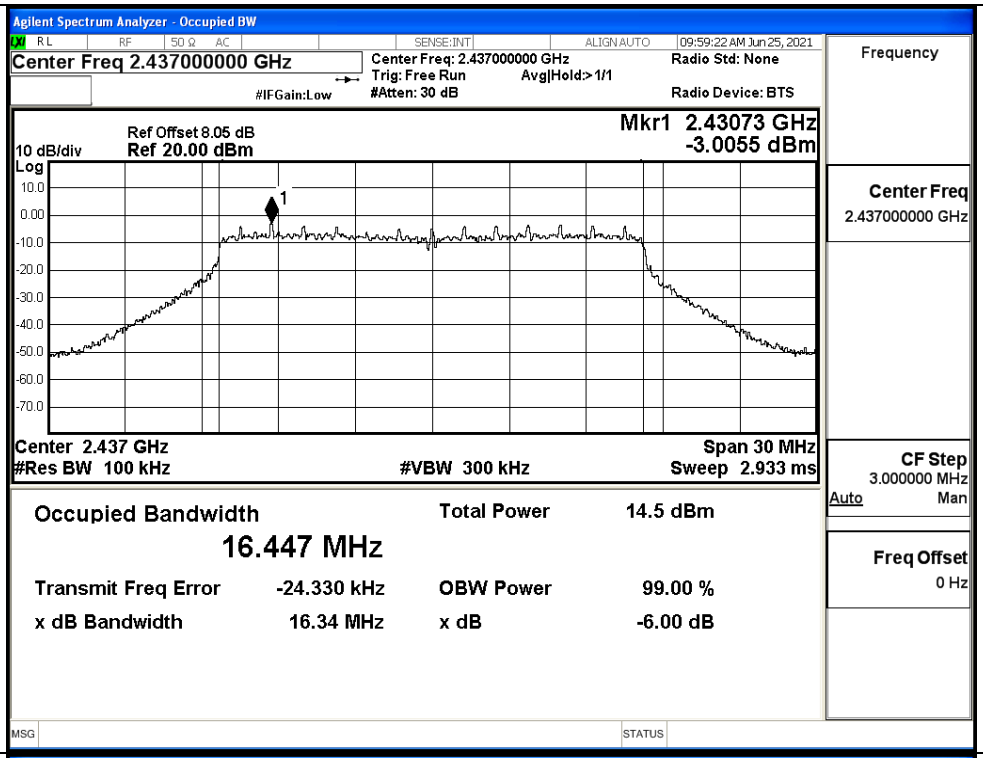
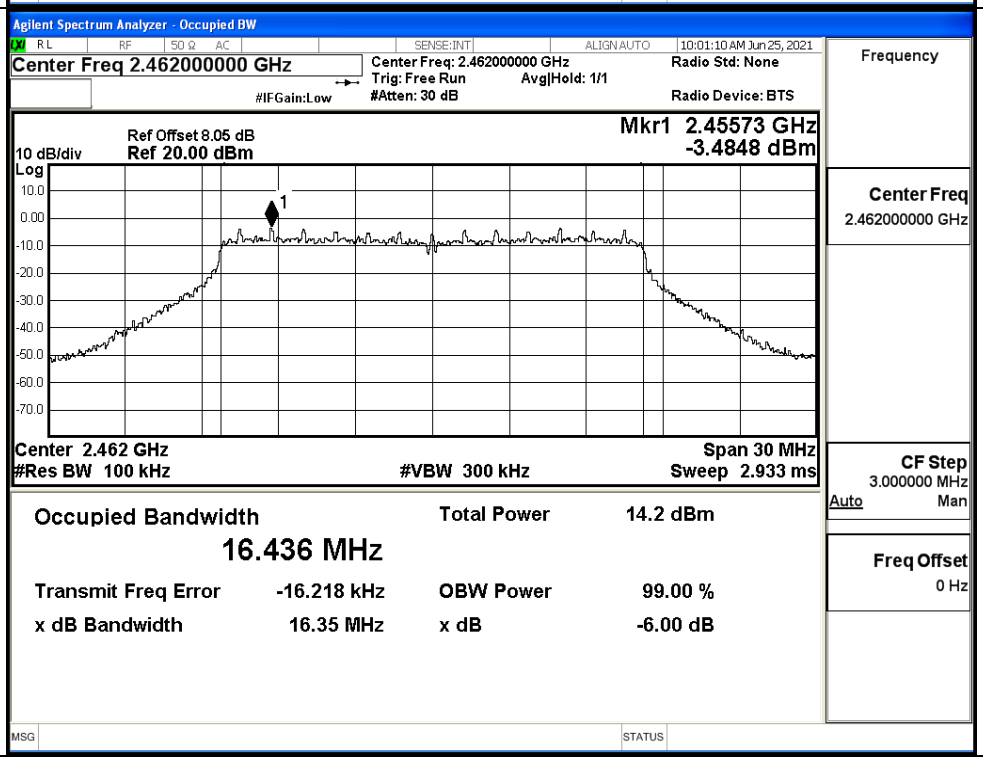


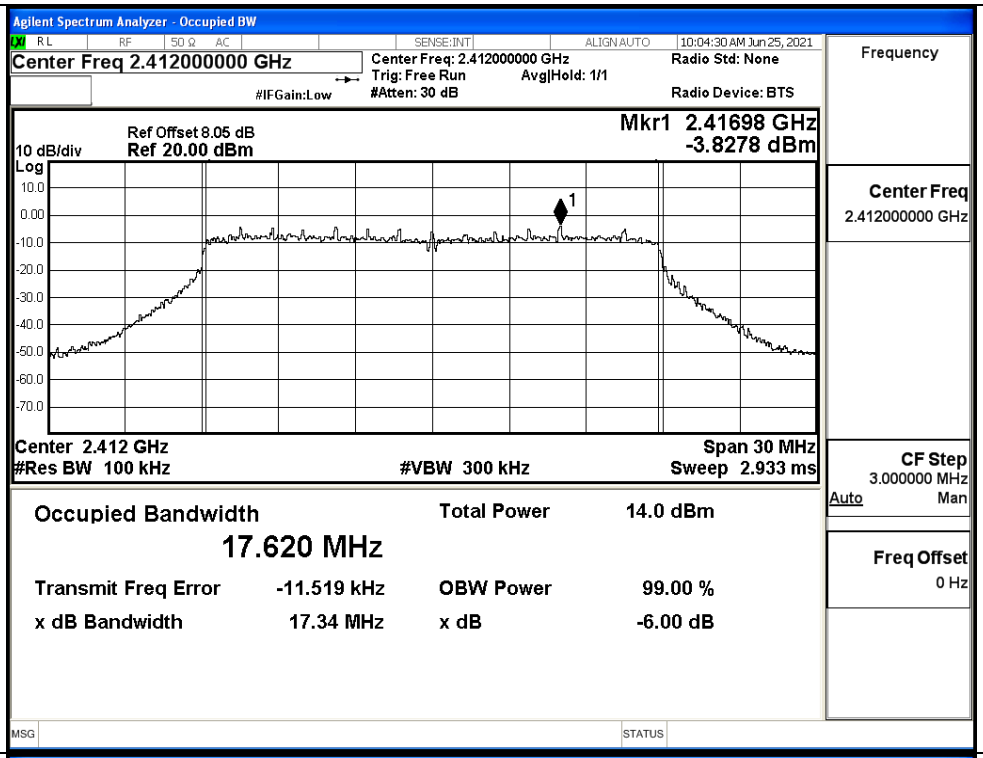
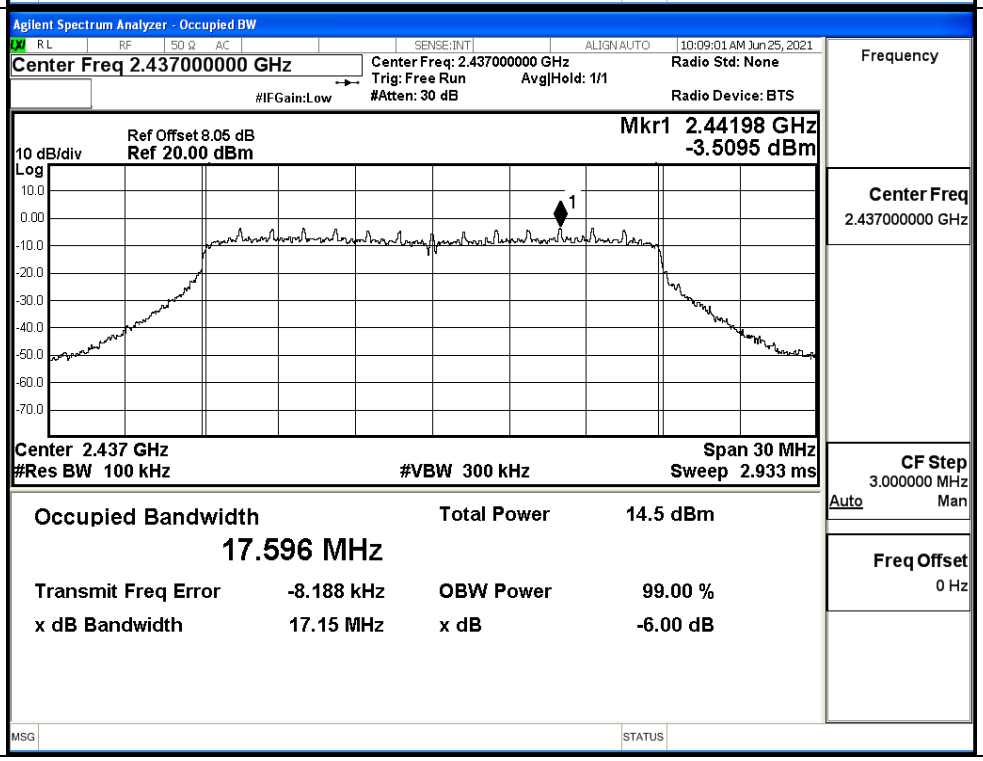
ANT1

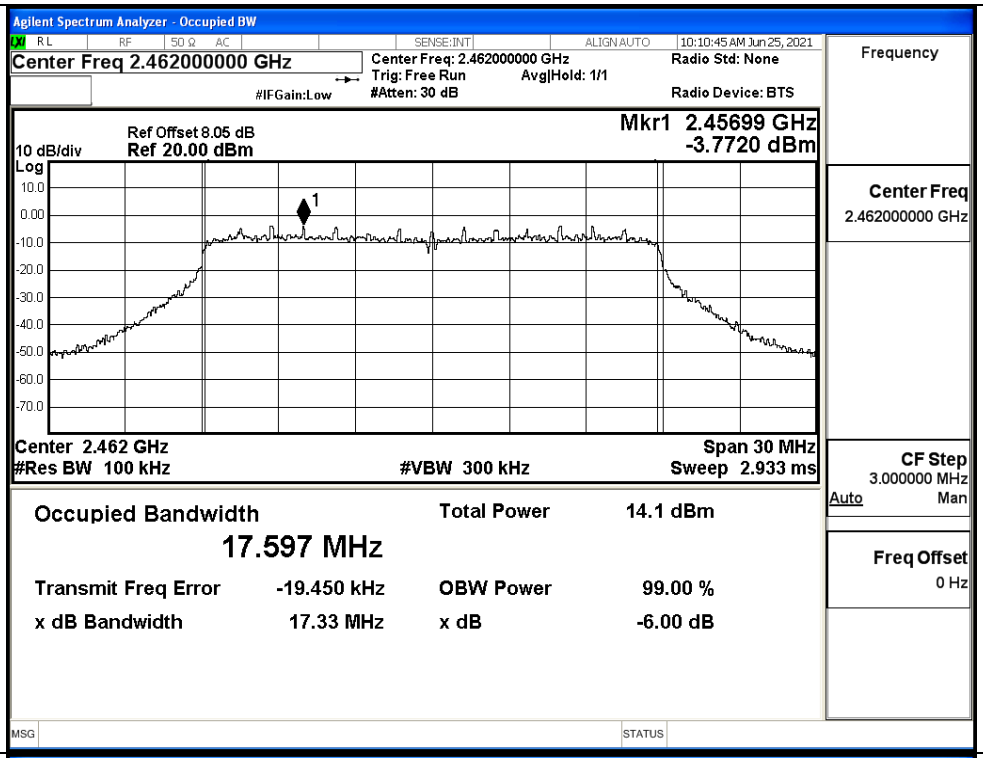
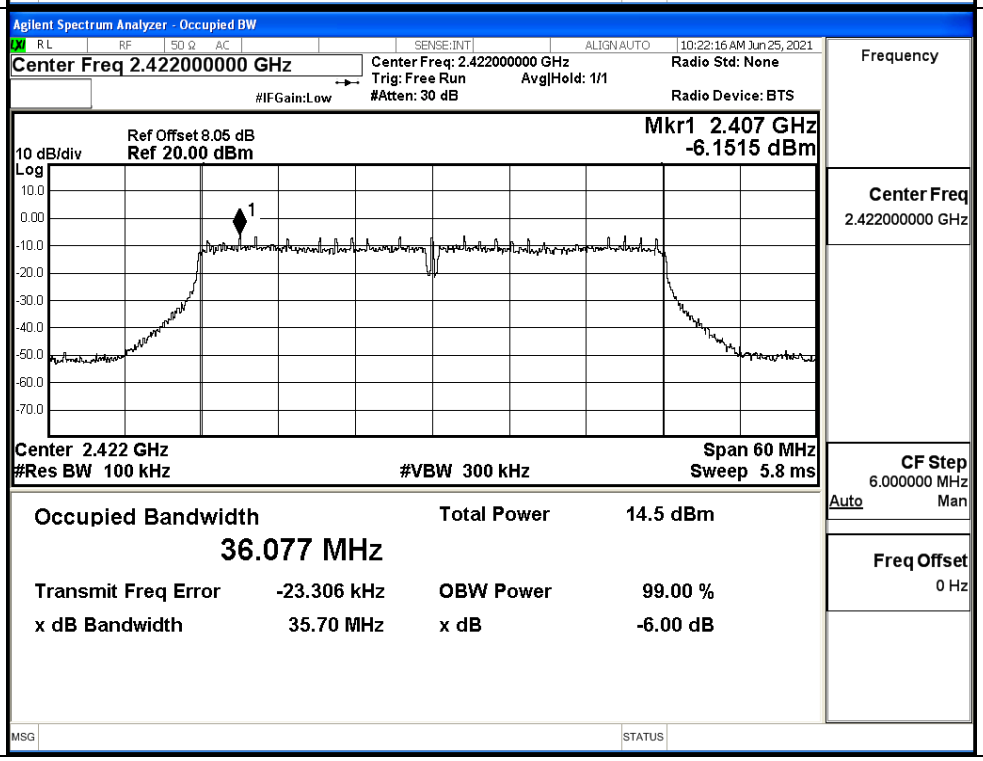
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.12	⩾0.5	PASS
	MCH	10.11	⩾0.5	PASS
	HCH	10.14	⩾0.5	PASS
11G	LCH	16.36	⩾0.5	PASS
	MCH	16.34	⩾0.5	PASS
	HCH	16.35	⩾0.5	PASS
11N20SISO	LCH	17.34	⩾0.5	PASS
	MCH	17.15	⩾0.5	PASS
	HCH	17.33	⩾0.5	PASS
11N40SISO	LCH	35.70	⩾0.5	PASS
	MCH	35.53	⩾0.5	PASS
	HCH	35.71	⩾0.5	PASS

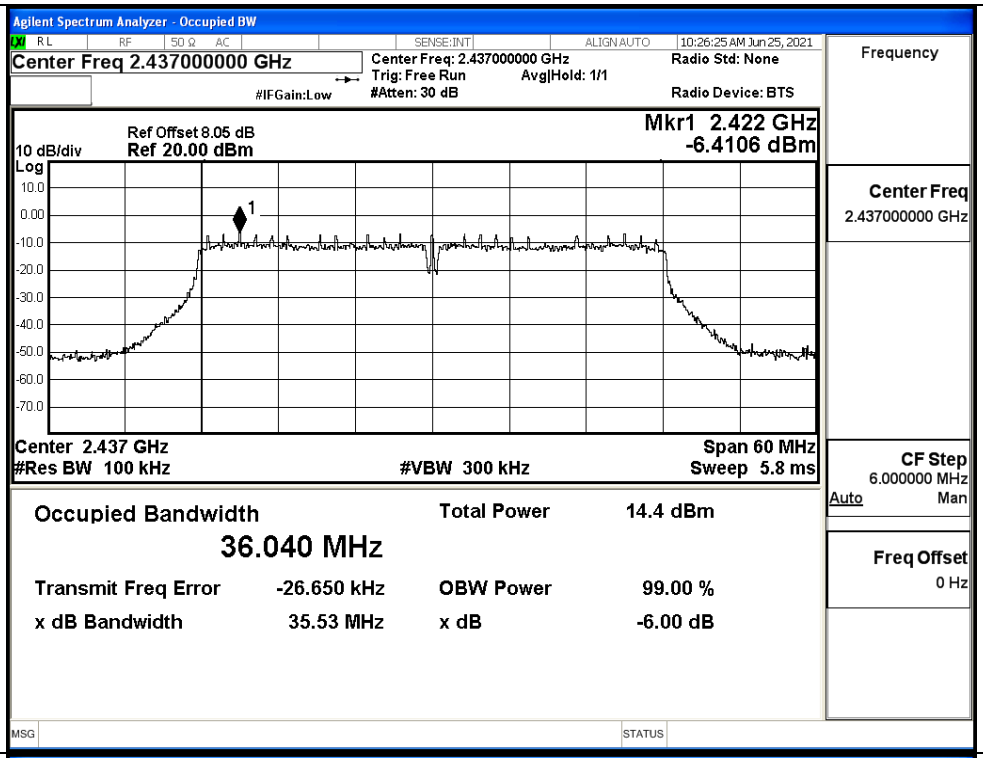
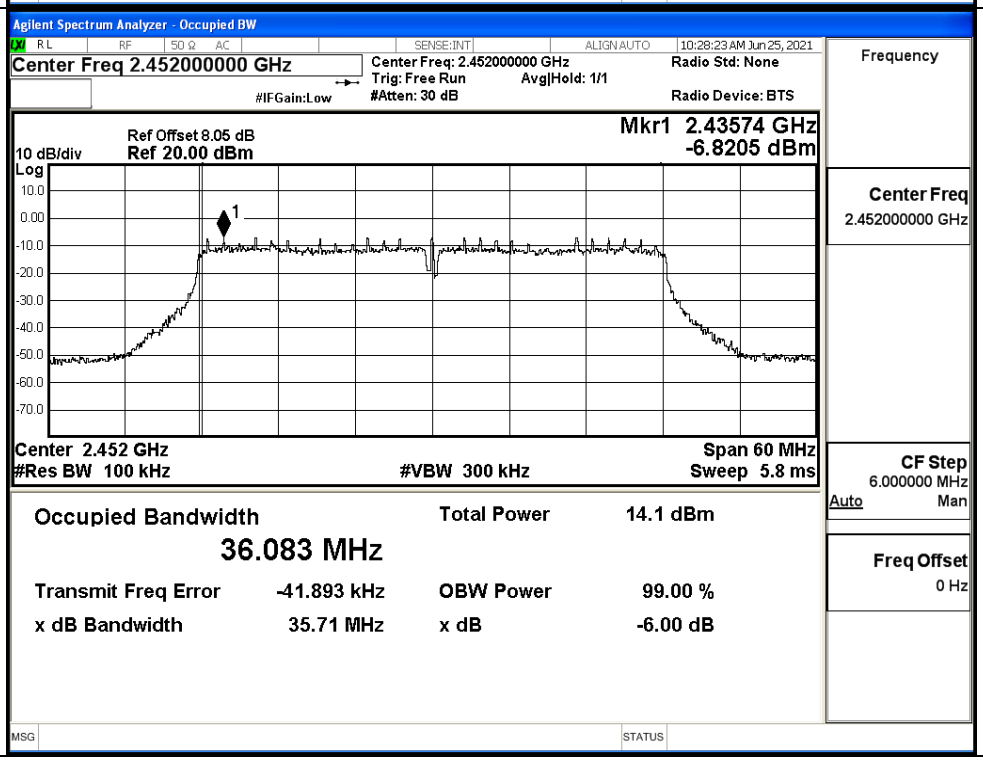
Test Graphs		
11B/LCH		
11B/MCH		

11B/HCH	
11G/LCH	

11G/MCH	
11G/HCH	

11N20SISO/LCH		
11N20SISO/MCH		

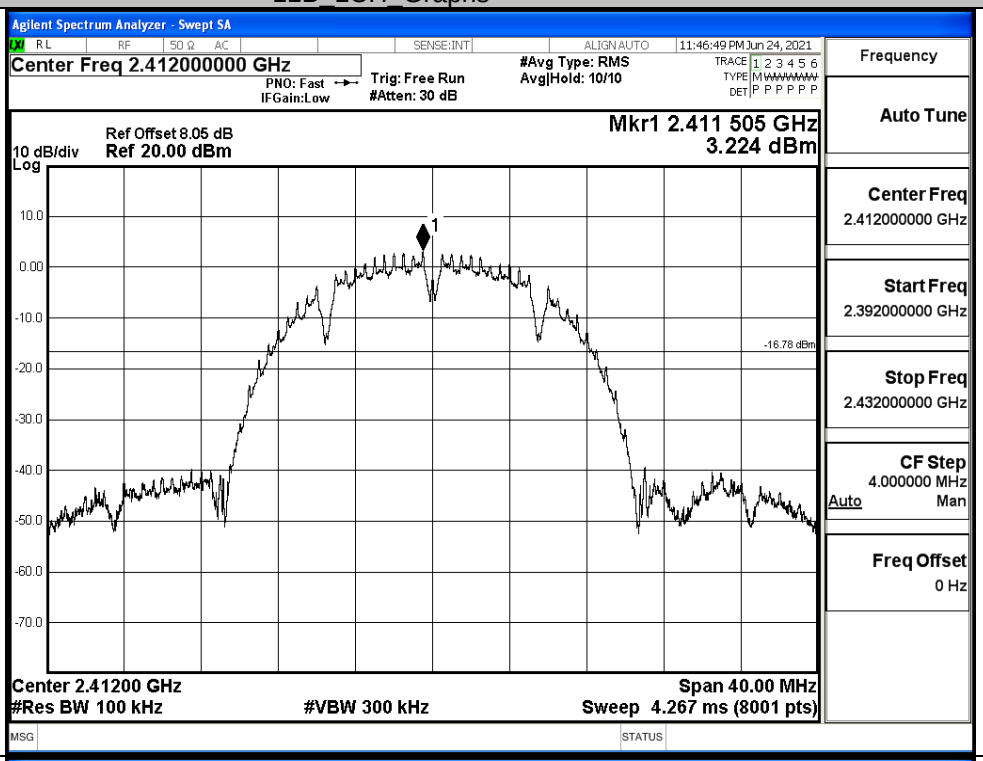
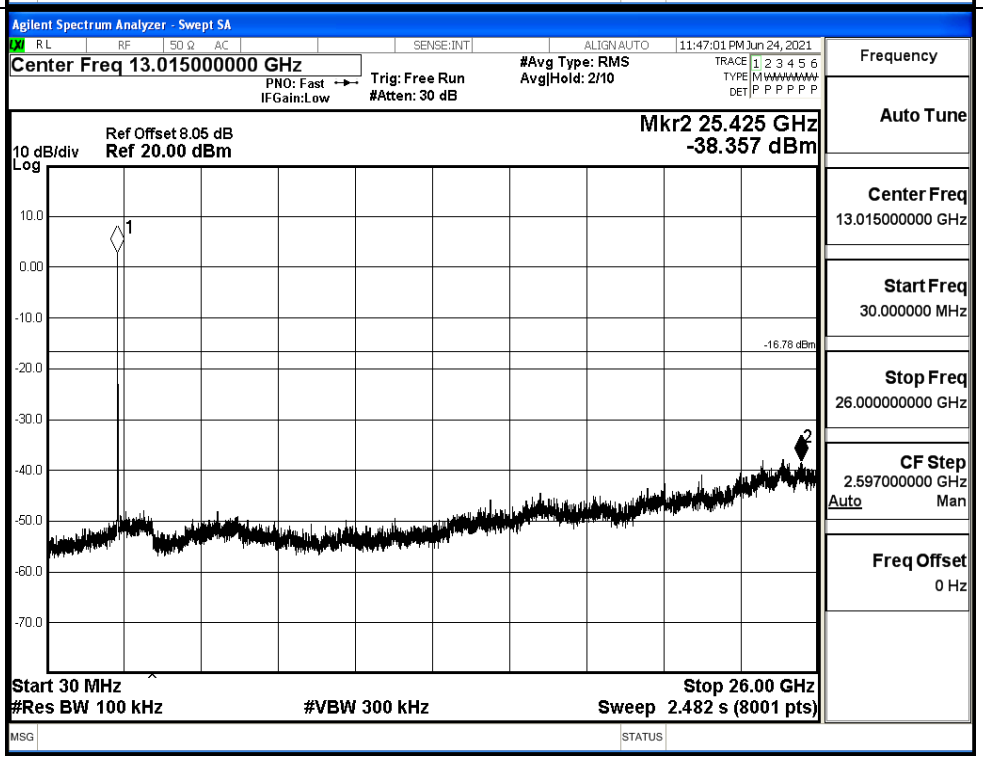
11N20SISO/HCH	
11N40SISO/LCH	

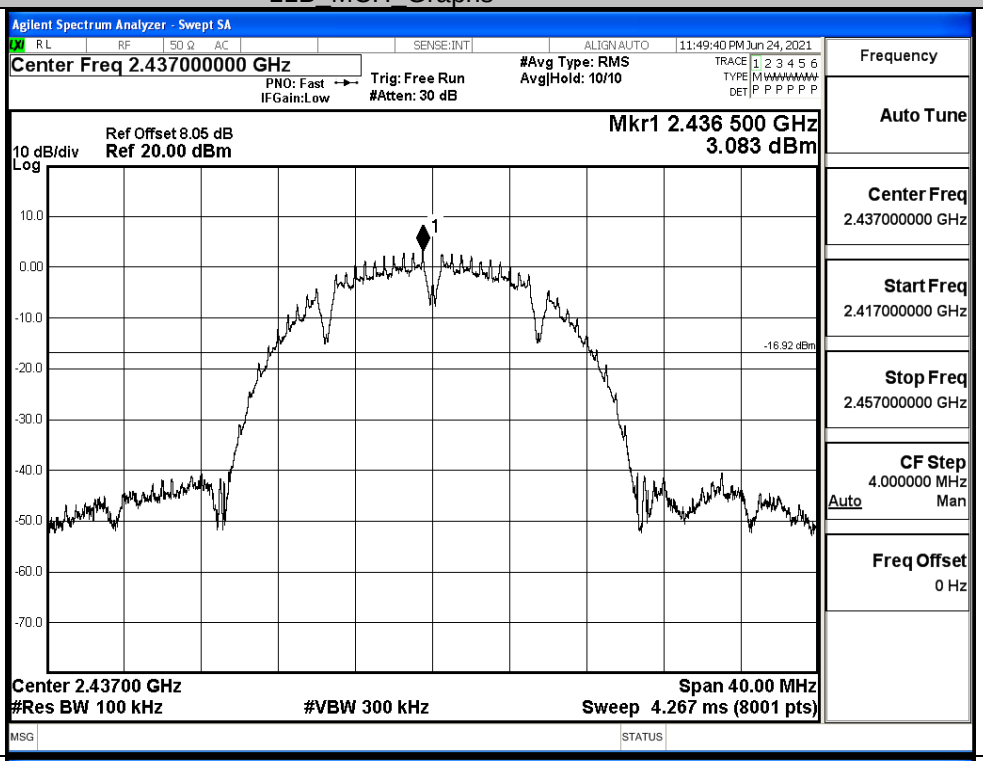
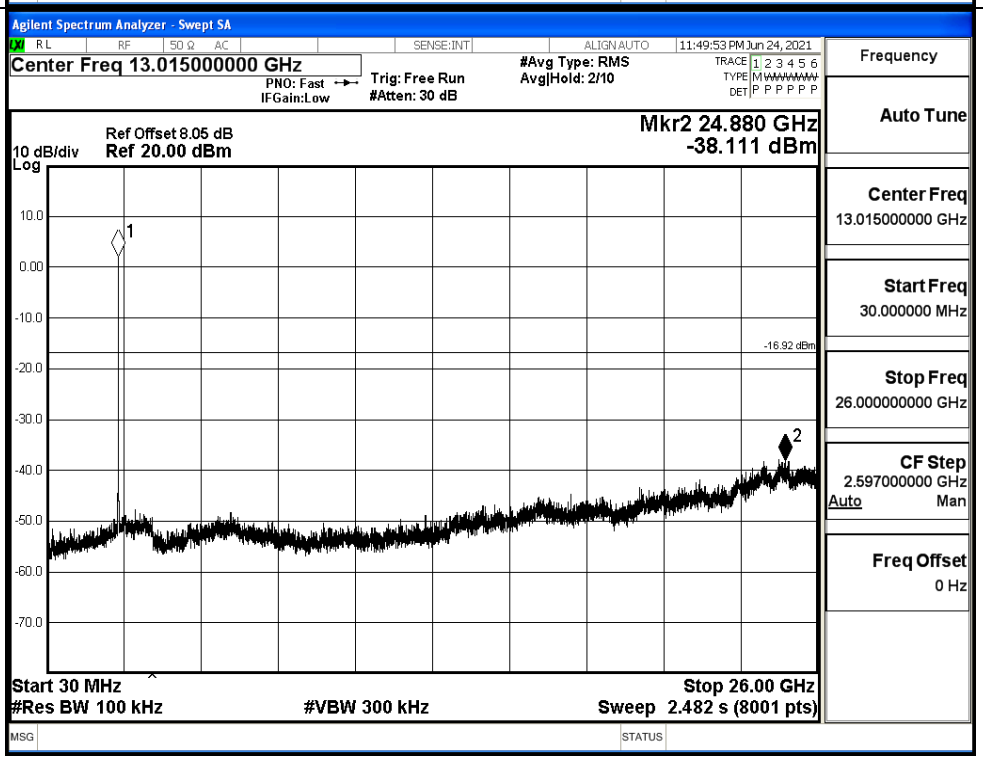
11N40SISO/MCH	
11N40SISO/HCH	

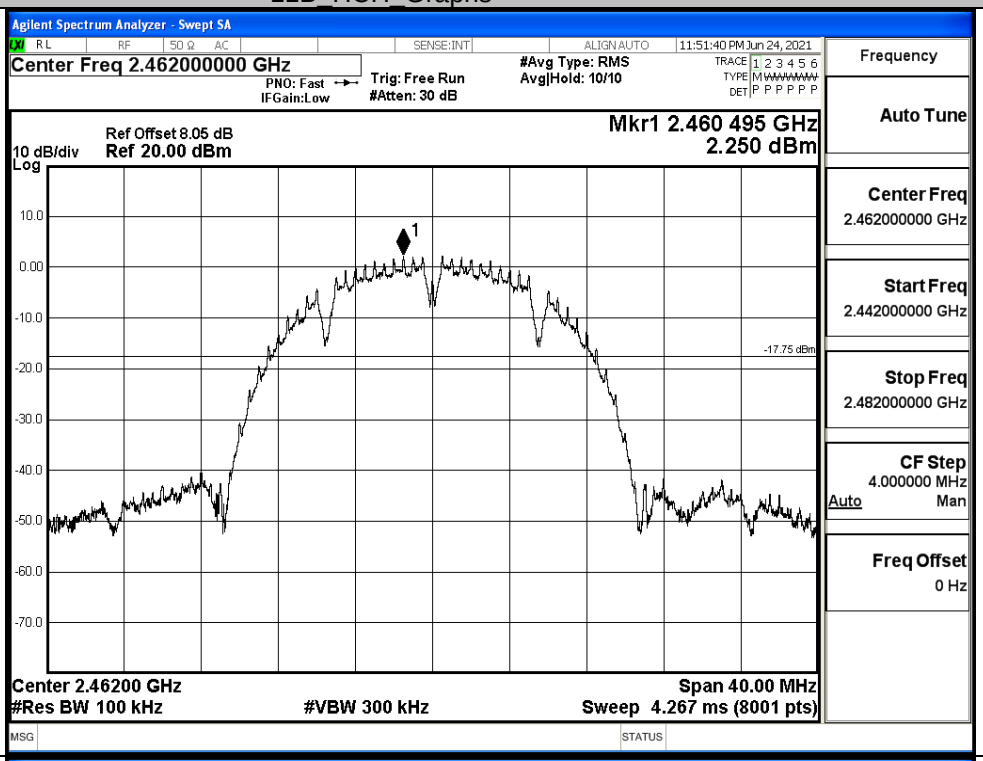
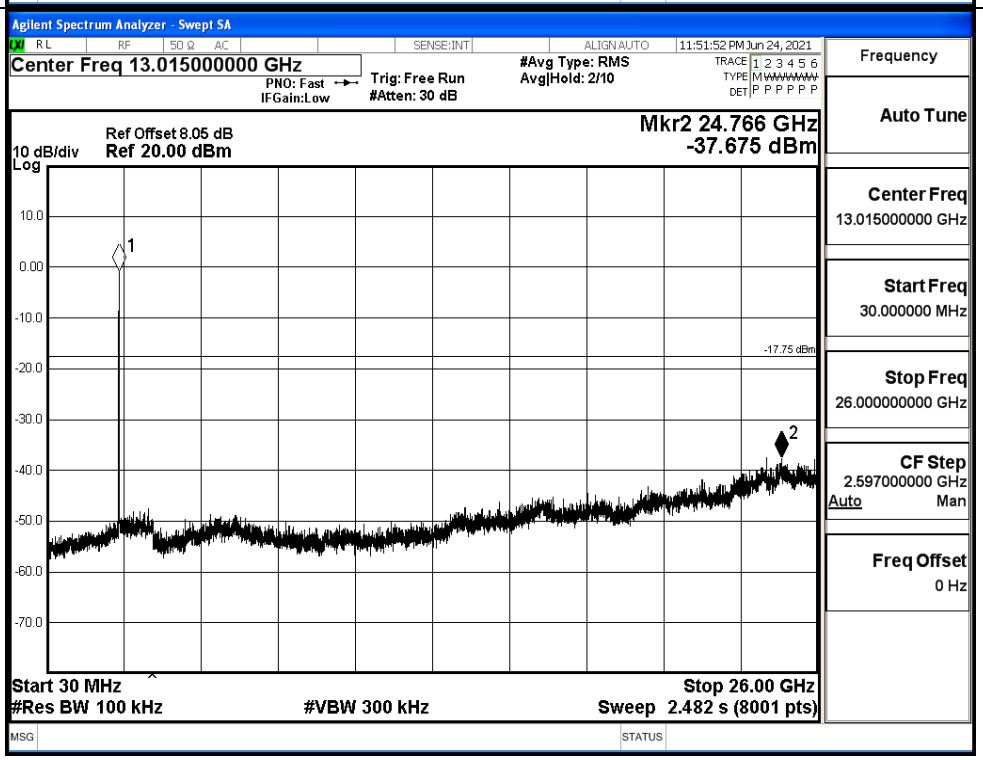
A.5 RF Conducted Spurious Emissions

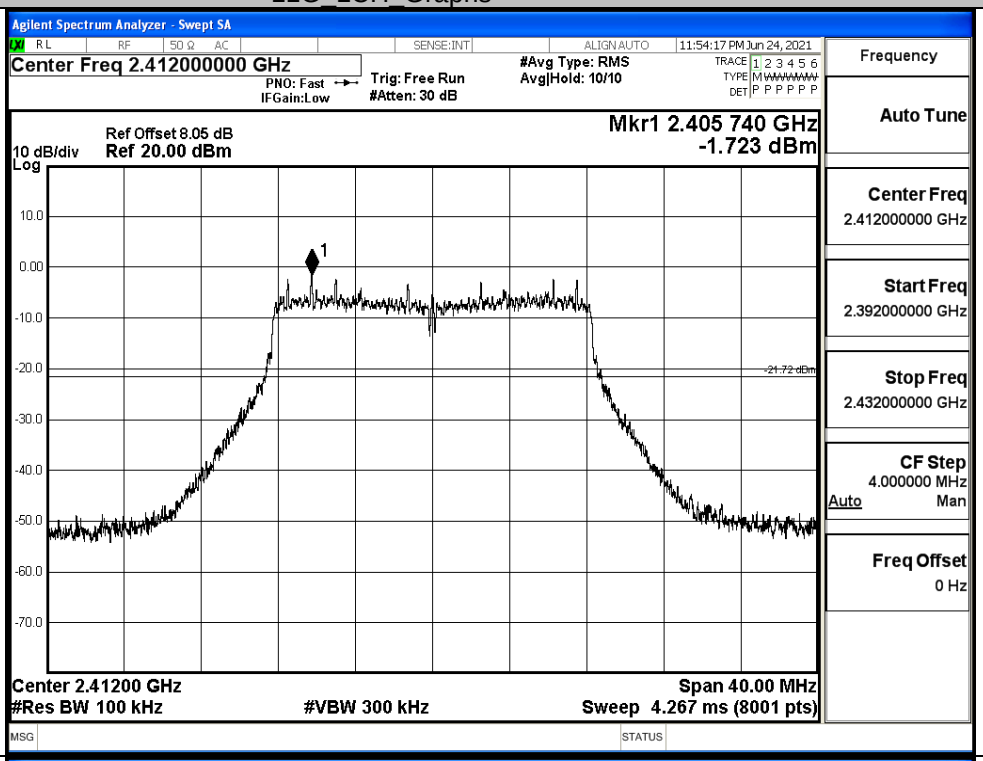
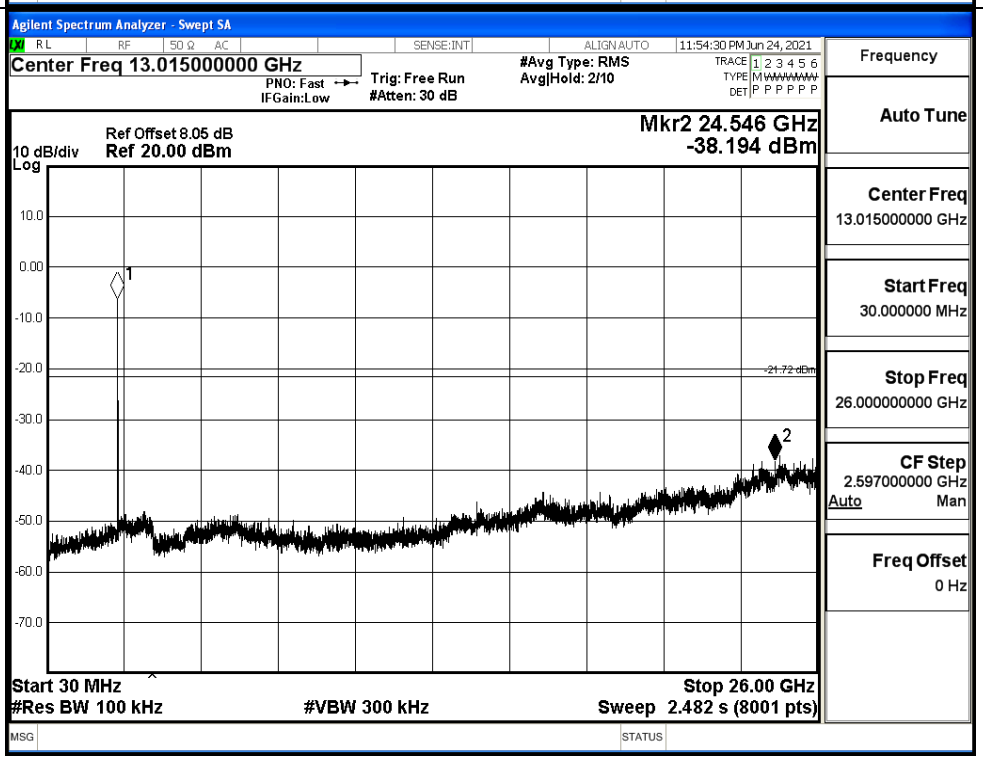
ANT0

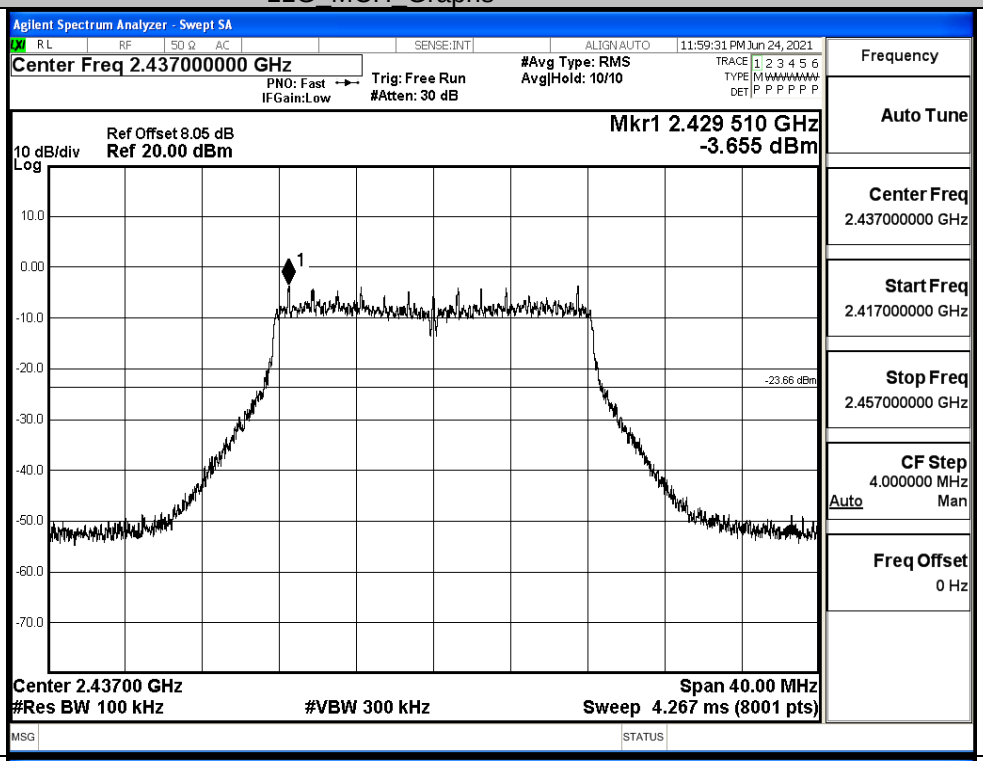
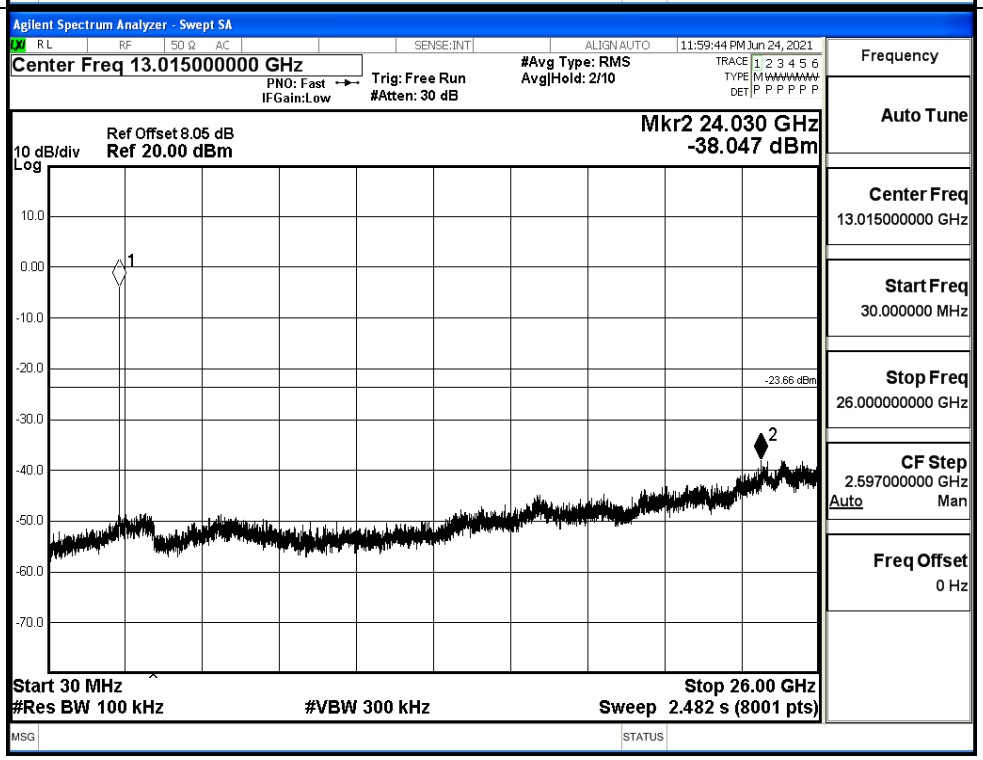
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	3.224	-38.357	-16.776	PASS
	MCH	3.083	-38.111	-16.917	PASS
	HCH	2.25	-37.675	-17.750	PASS
11G	LCH	-1.723	-38.194	-21.723	PASS
	MCH	-3.655	-38.047	-23.655	PASS
	HCH	-5.871	-38.587	-25.871	PASS
11N20 SISO	LCH	-6.083	-38.359	-26.083	PASS
	MCH	-6.371	-37.559	-26.371	PASS
	HCH	-6.44	-38.139	-26.440	PASS
11N40 SISO	LCH	-0.066	-37.829	-20.066	PASS
	MCH	-6.425	-37.984	-26.425	PASS
	HCH	-6.617	-38.468	-26.617	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		

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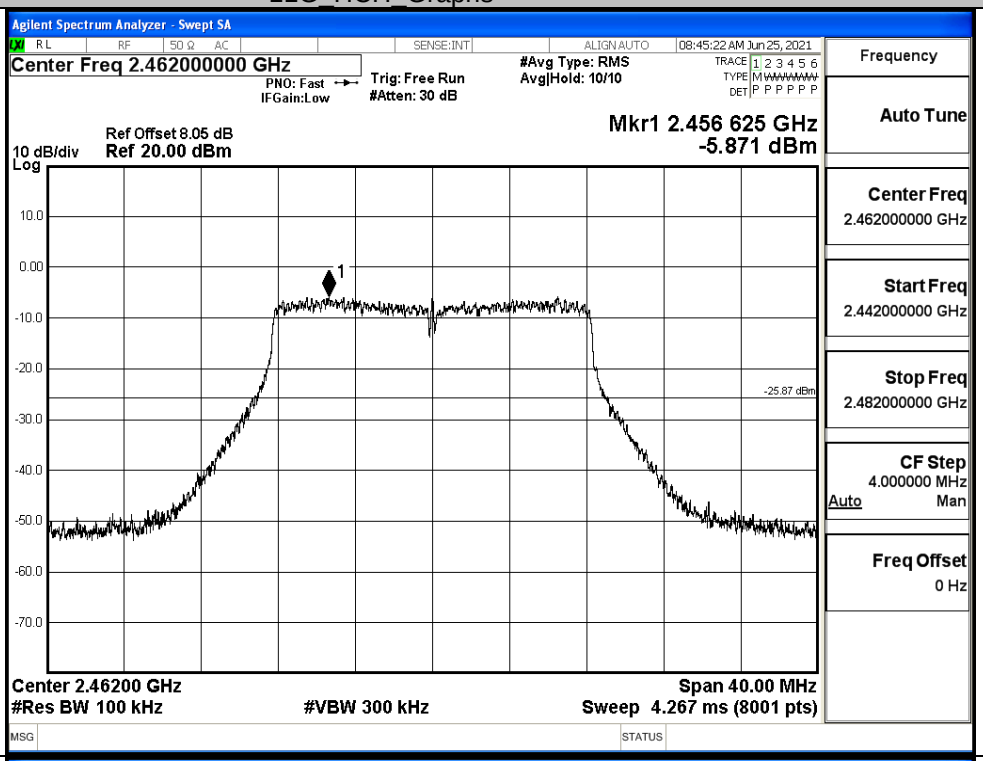
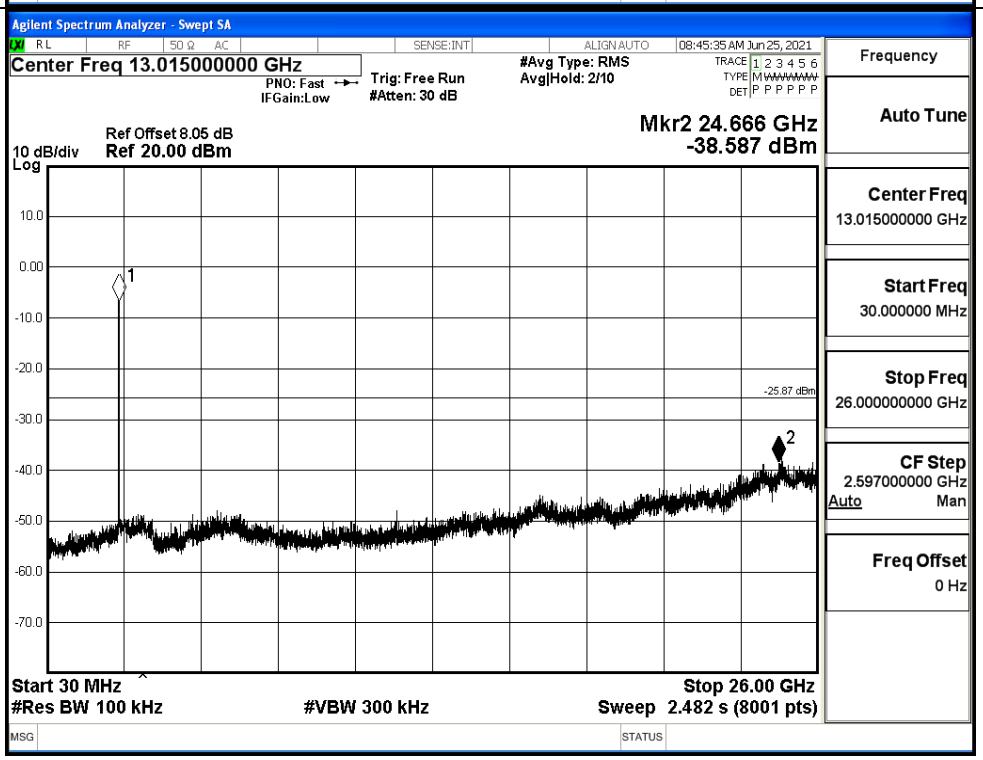
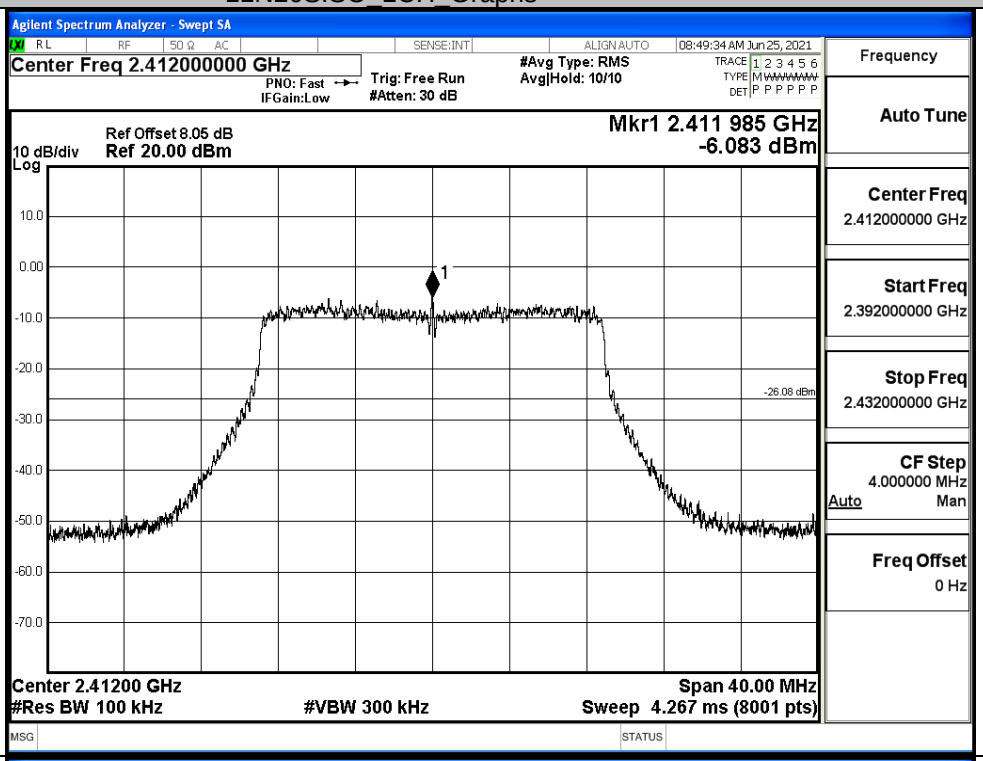
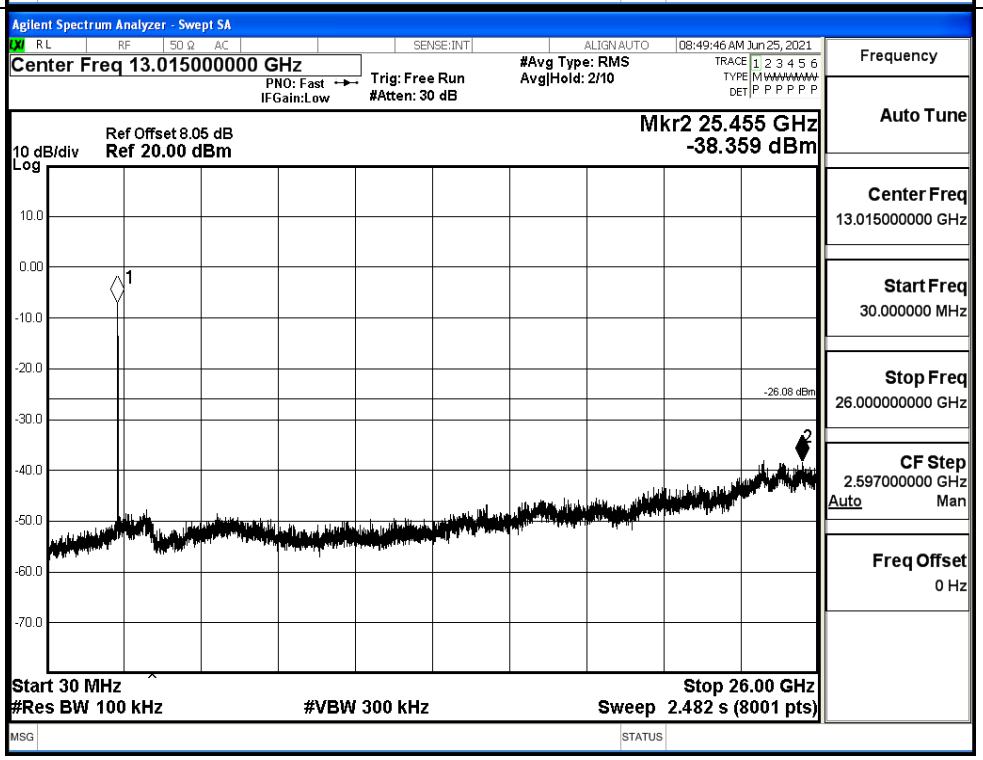
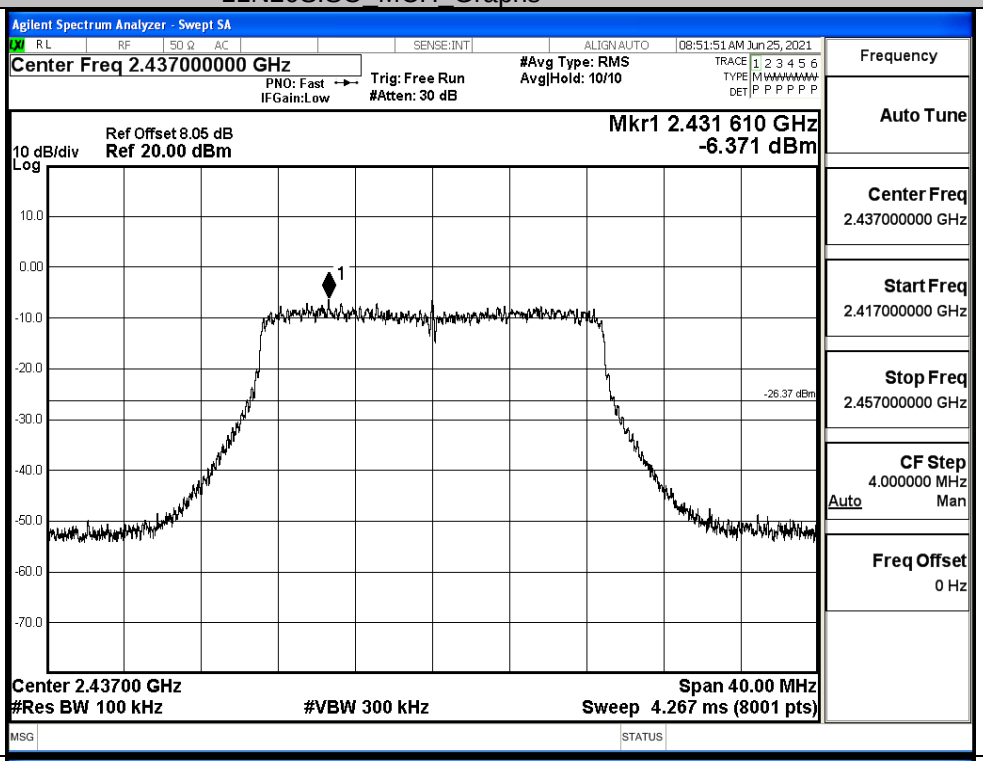
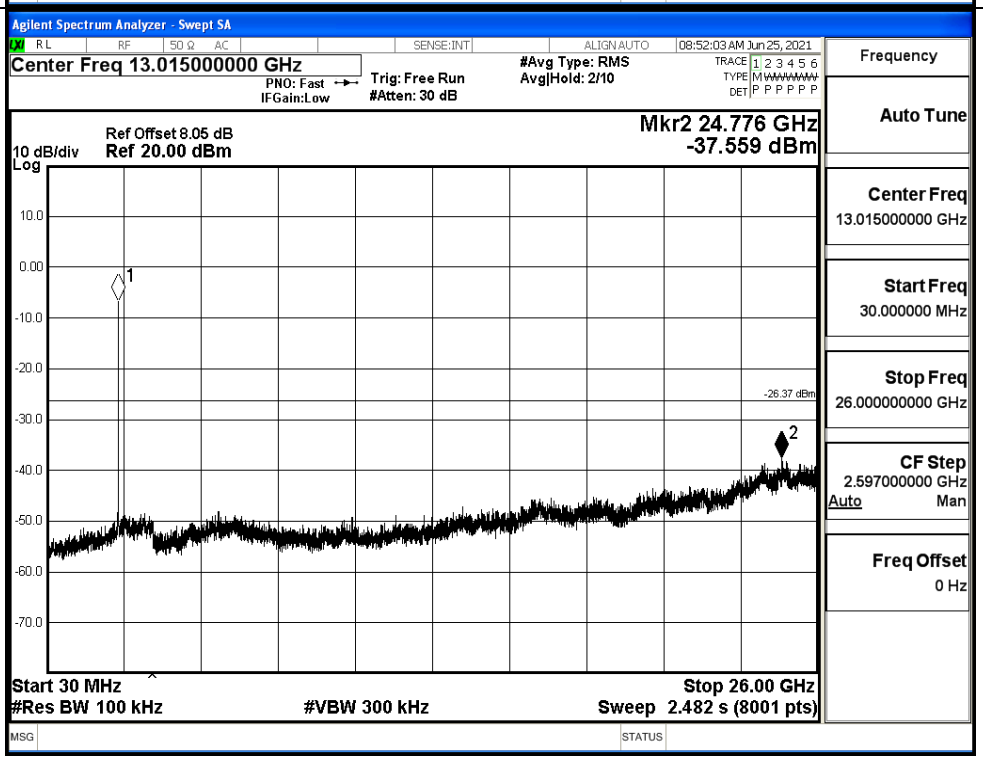
Pref/11G/HCH		
Puw/11G/HCH		

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

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

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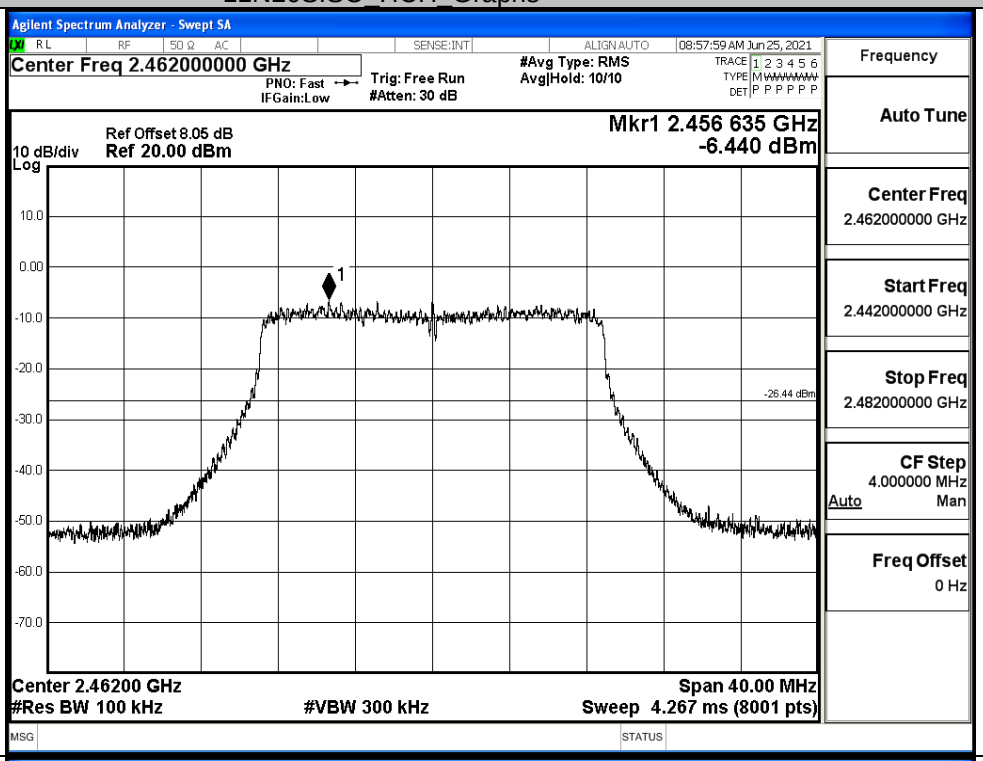
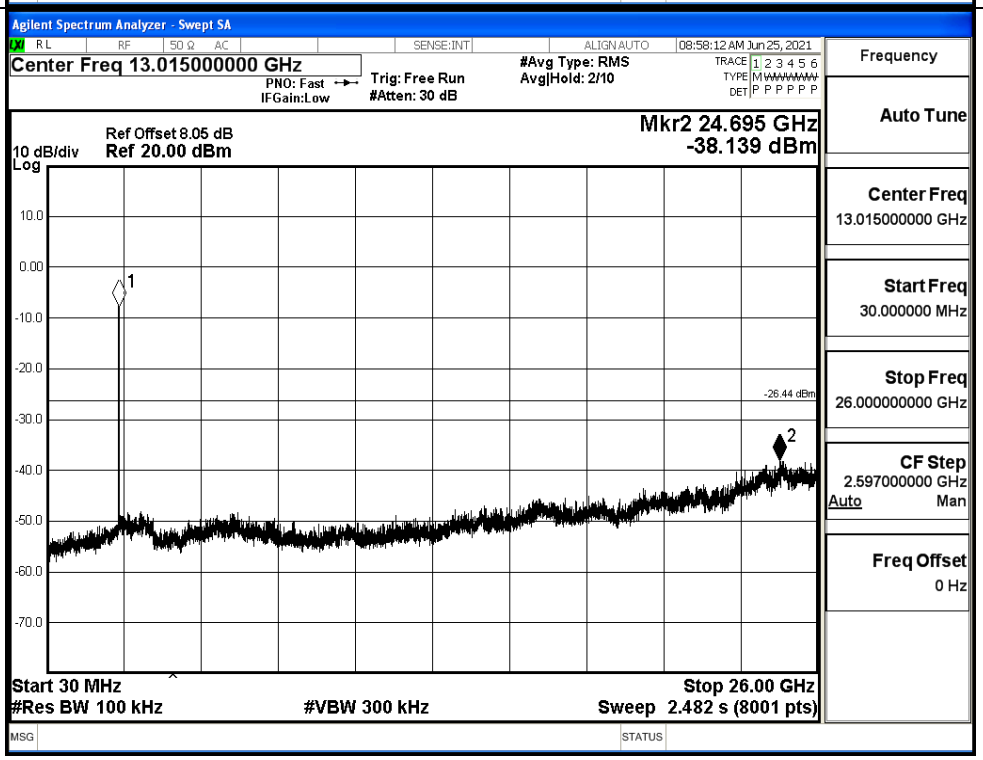
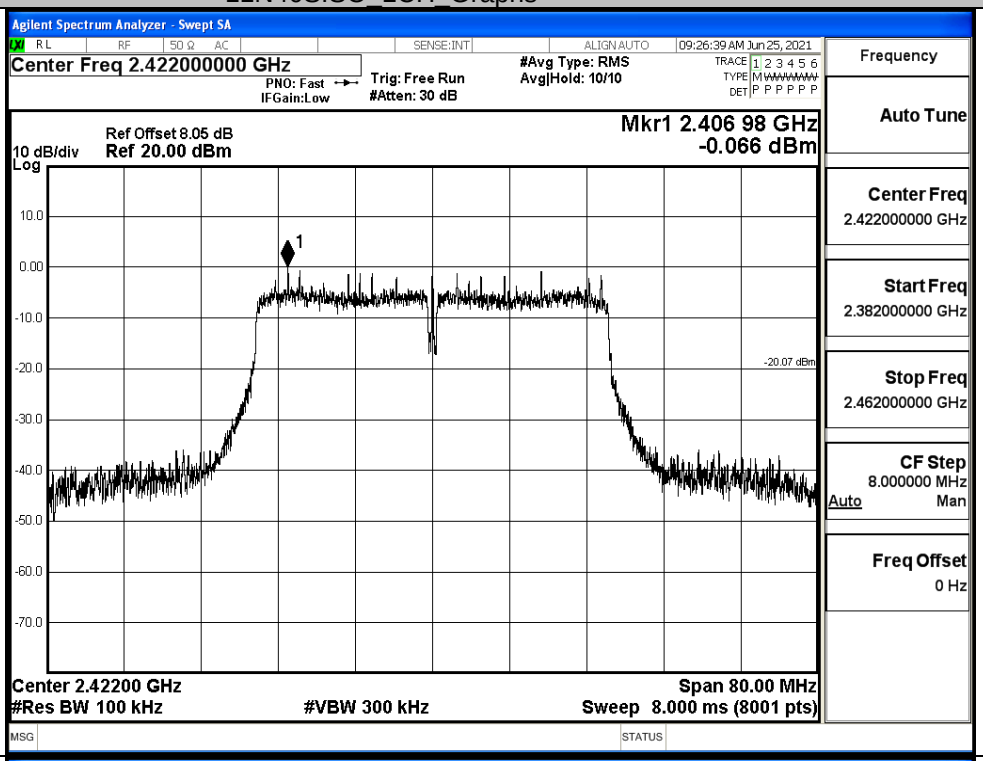
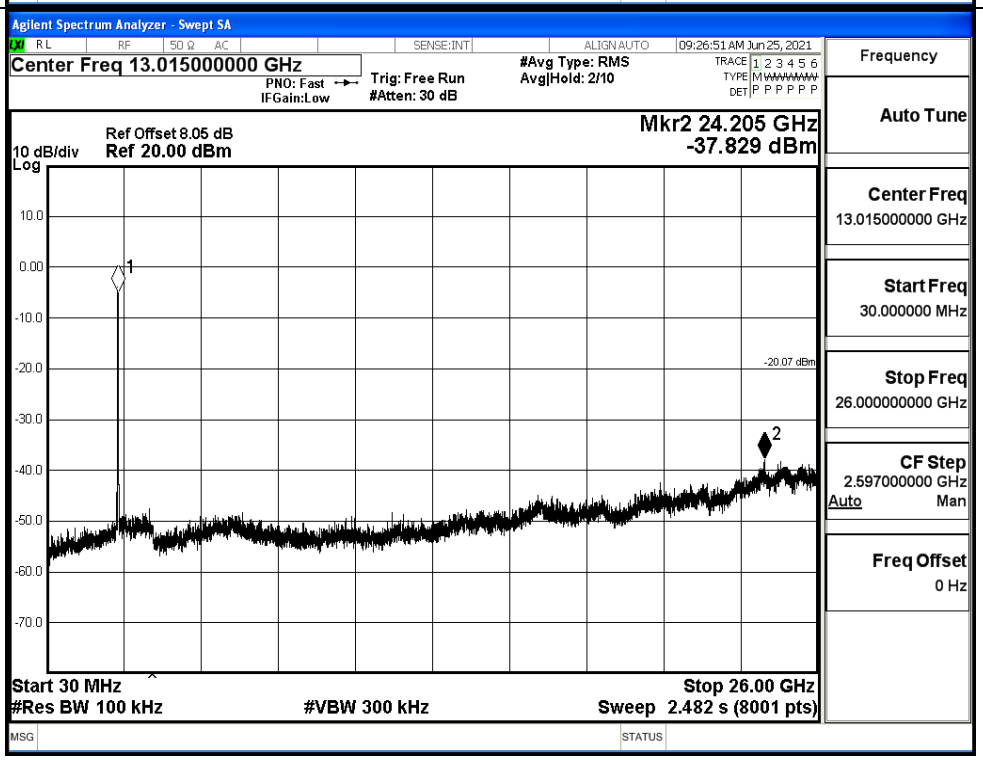
Pref/11N20 SISO/HCH		
Puw/11N20 SISO/HCH		

11N40SISO_LCH_Graphs		
Pref/11N40 SISO/LCH		
Puw/11N40 SISO/LCH		

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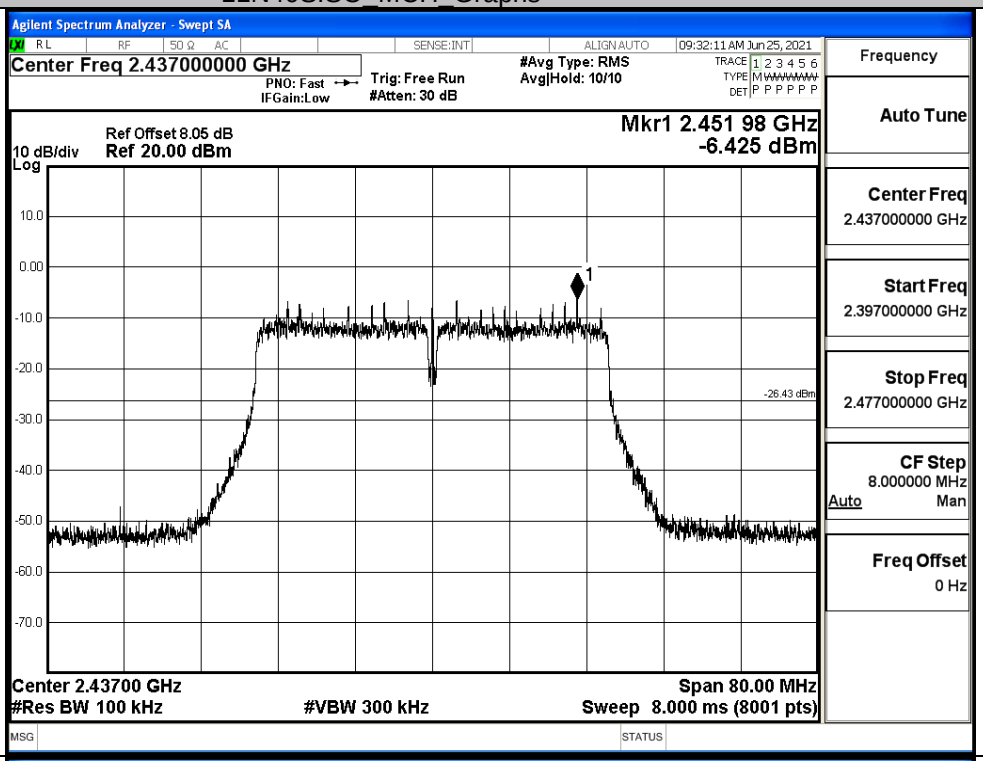
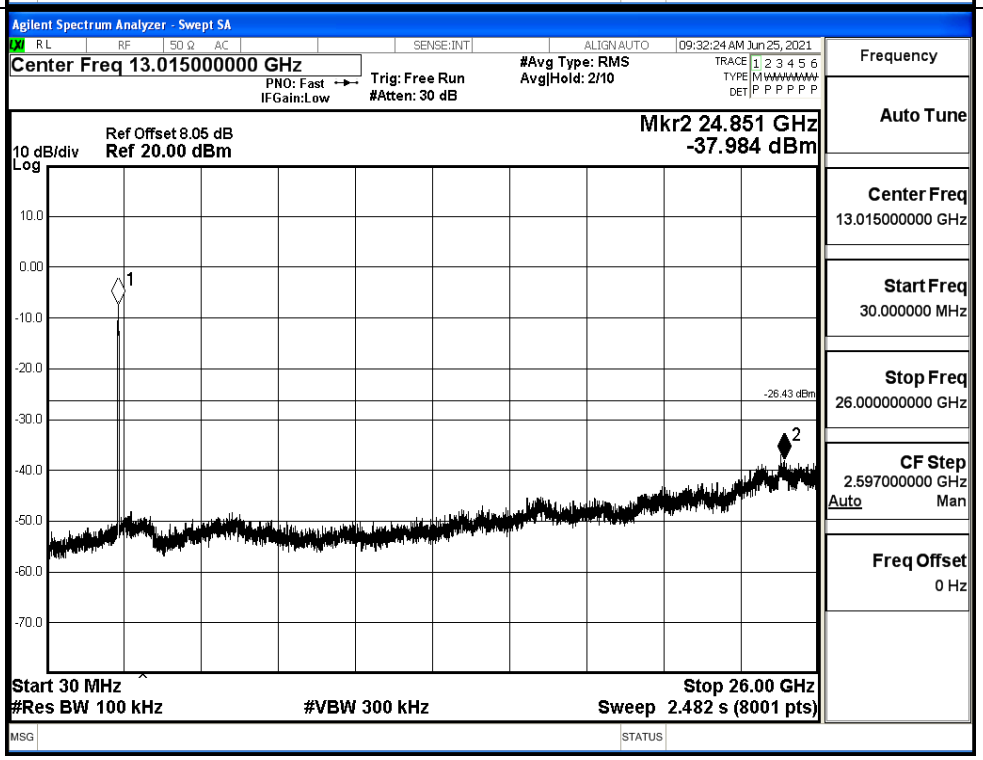
Pref/11N40 SISO/MCH	
Puw/11N40 SISO/MCH	

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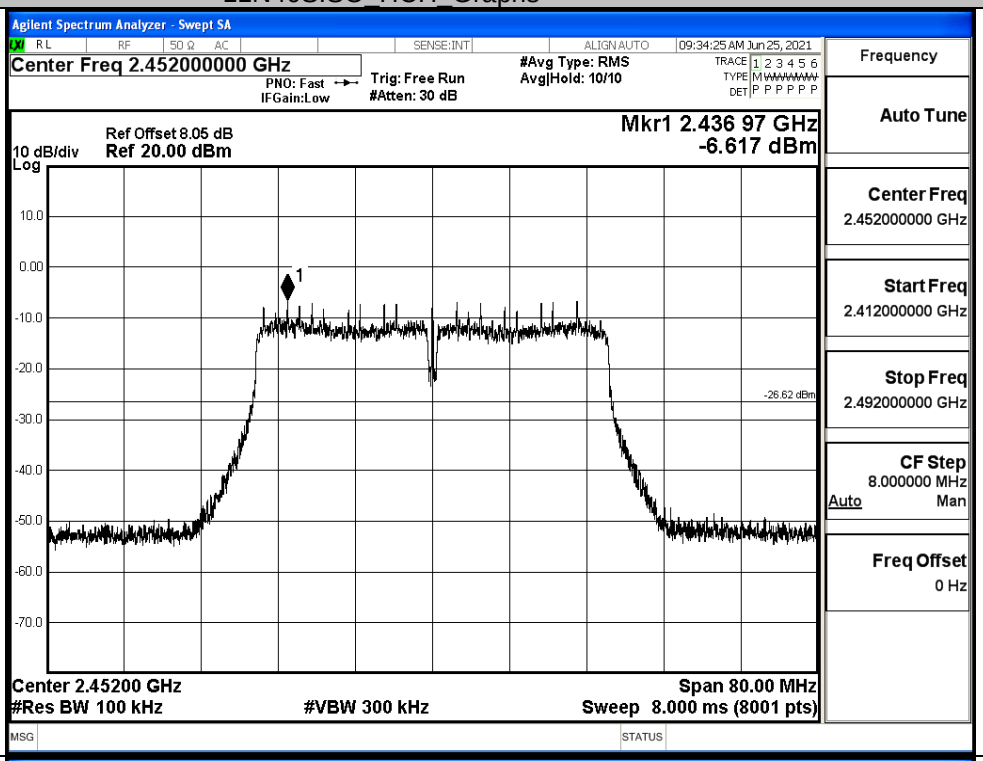
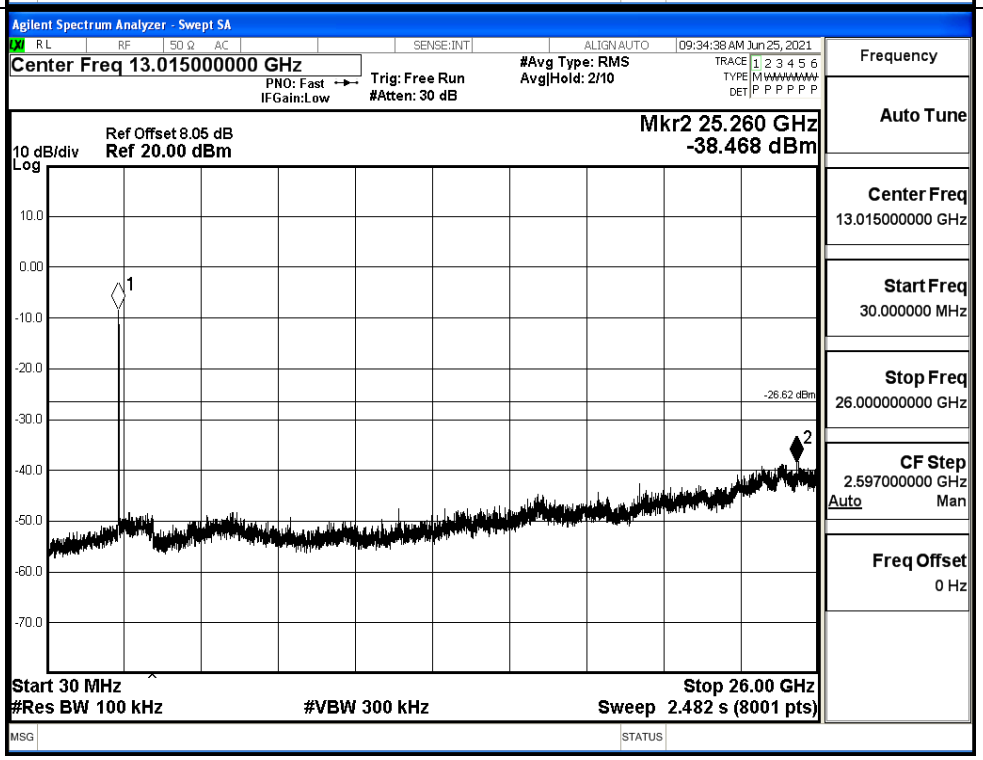
Pref/11N40 SISO/HCH		
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