Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Projector

Trade Mark: DBPOWER, TENKER, SPACEKEY

Test Model: Q6

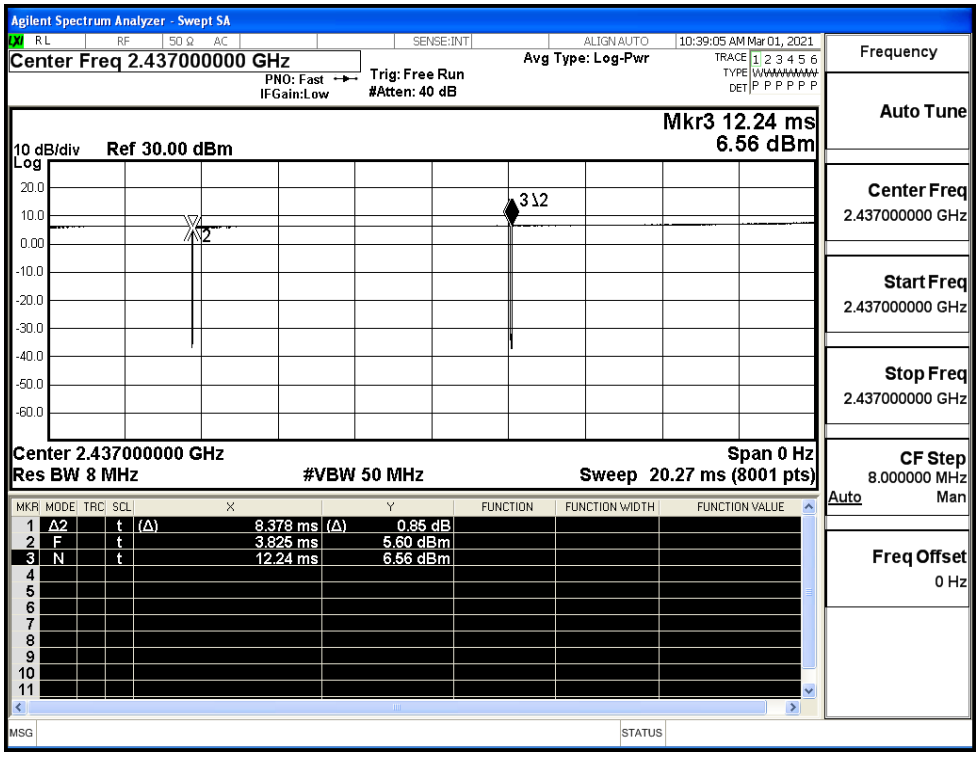
Environmental Conditions

Temperature:	23.2° C
Relative Humidity:	51.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan

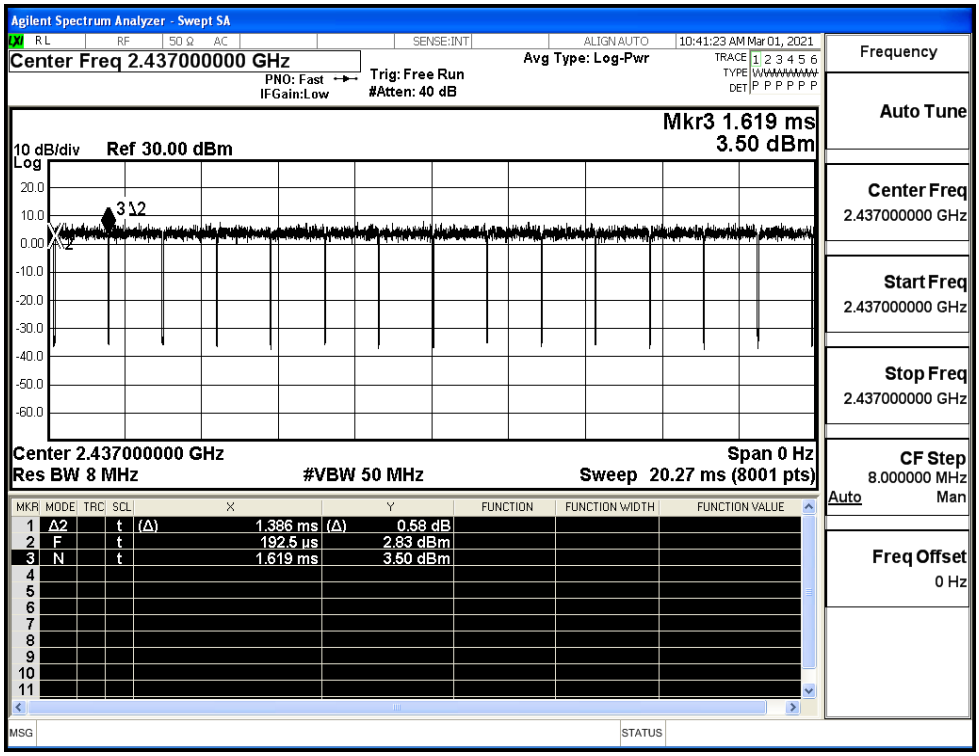
B.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11B	2437	Ant1	99.58	0.02	0.01
11G	2437	Ant1	97.16	0.13	0.01
11N20SISO	2437	Ant1	96.78	0.14	0.01
11N40SISO	2437	Ant1	94.07	0.27	0.01

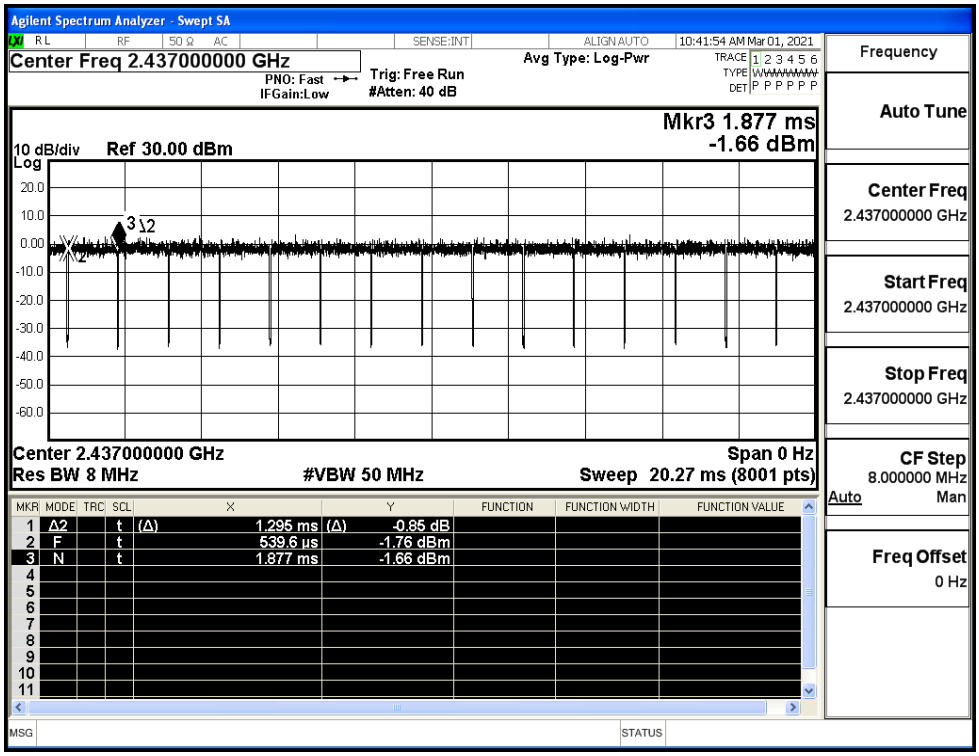
Duty Cycle_11B_2437_Ant1



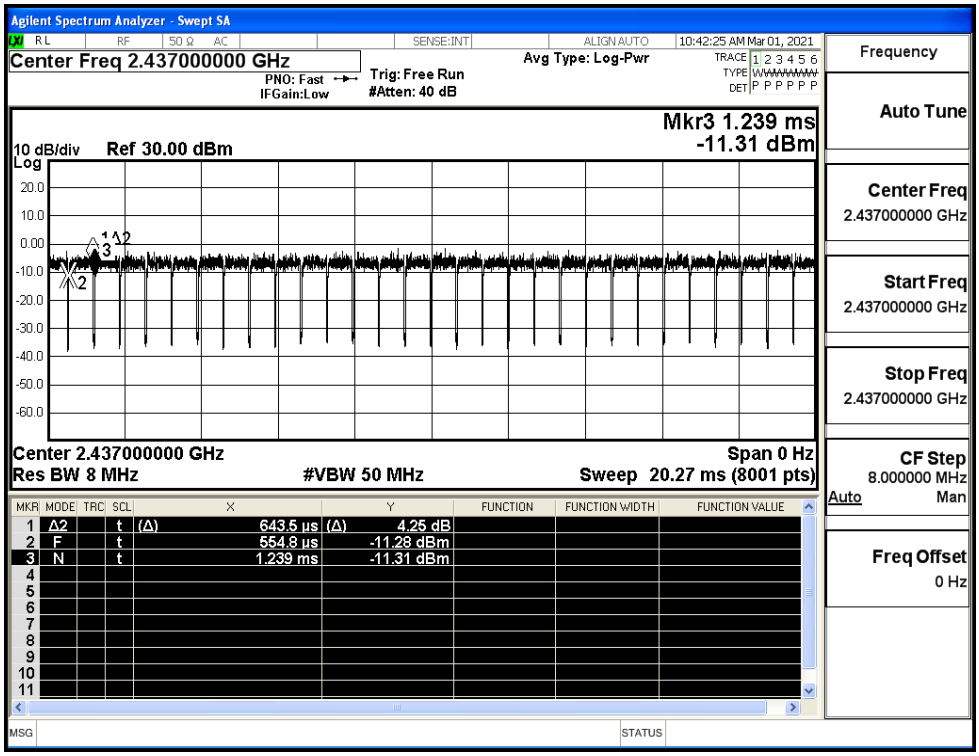
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



B.2 Maximum Conducted Output Power

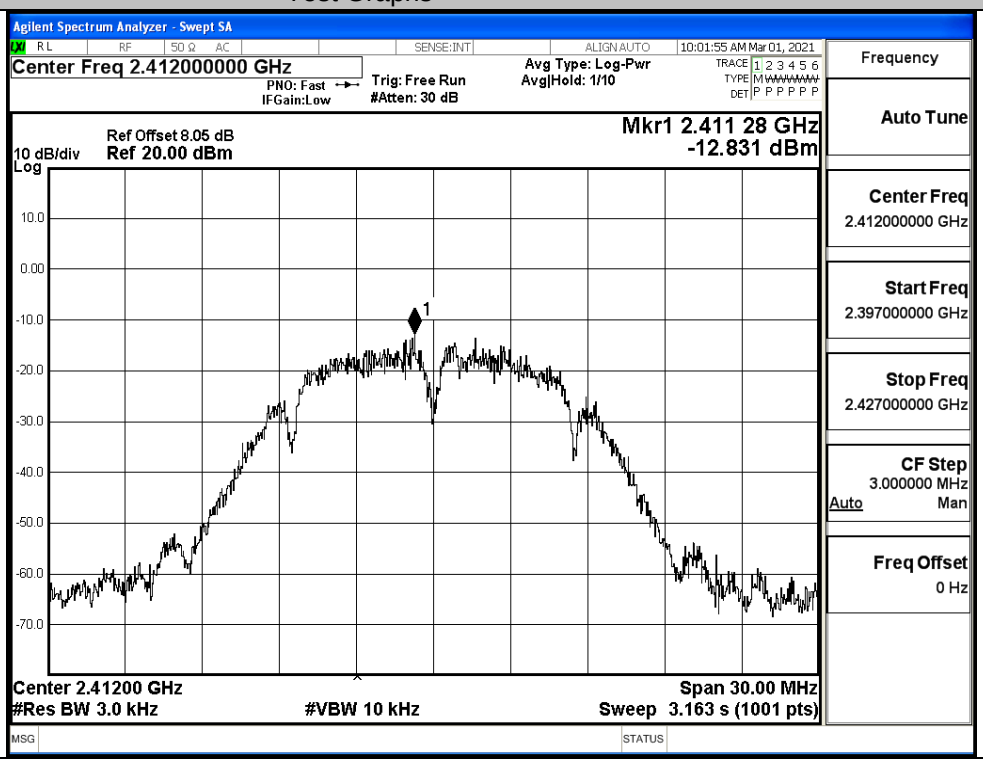
Mode	Channel	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit [dBm]	Verdict
11B	LCH	12.81	0.02	12.83	30	PASS
	MCH	13.28	0.02	13.30	30	PASS
	HCH	12.54	0.02	12.56	30	PASS
11G	LCH	11.27	0.13	11.40	30	PASS
	MCH	11.78	0.13	11.91	30	PASS
	HCH	10.99	0.13	11.12	30	PASS
11N20SISO	LCH	9.53	0.14	9.67	30	PASS
	MCH	9.84	0.14	9.98	30	PASS
	HCH	9.16	0.14	9.30	30	PASS
11N40SISO	LCH	9.82	0.27	10.09	30	PASS
	MCH	9.89	0.27	10.16	30	PASS
	HCH	9.67	0.27	9.94	30	PASS

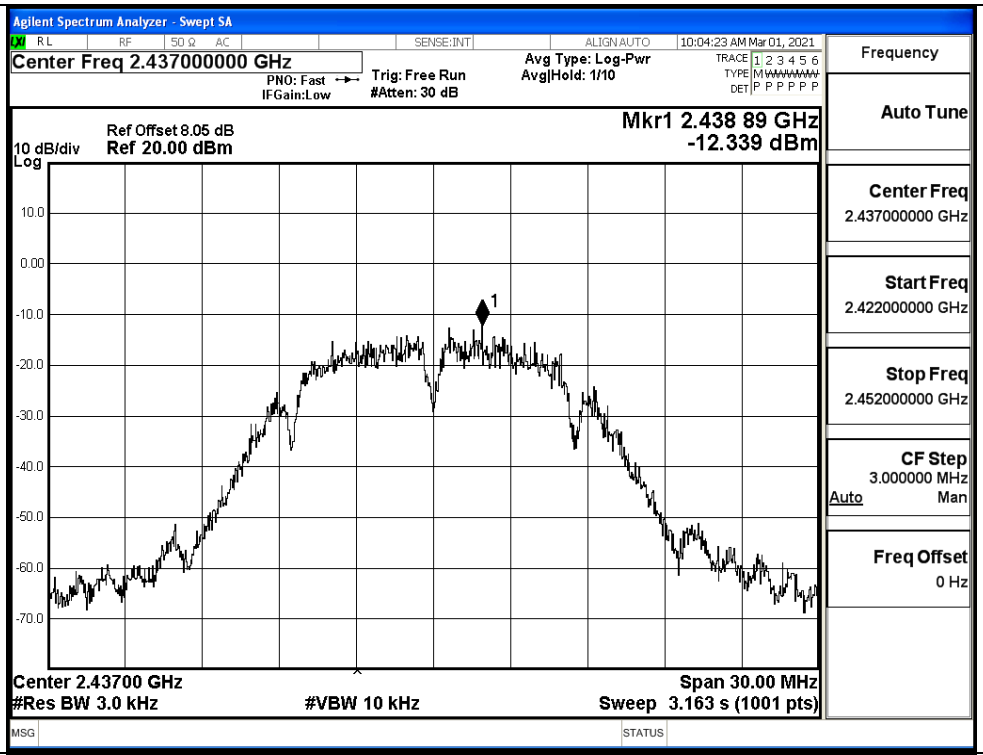
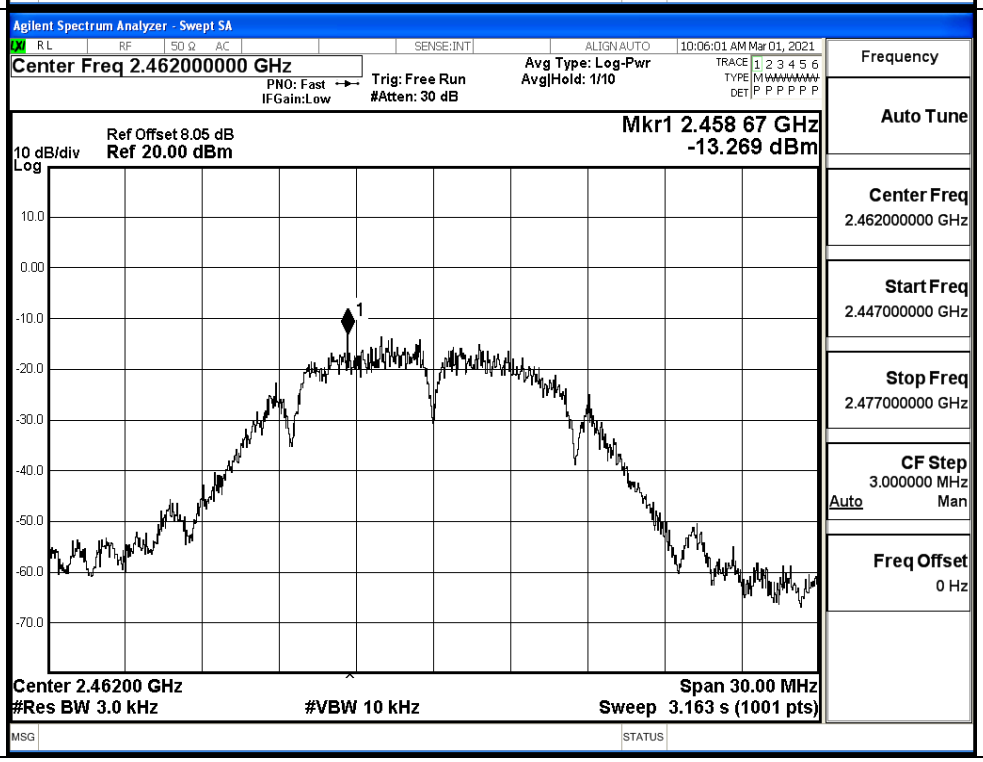
B.3 Maximum Power Spectral Density

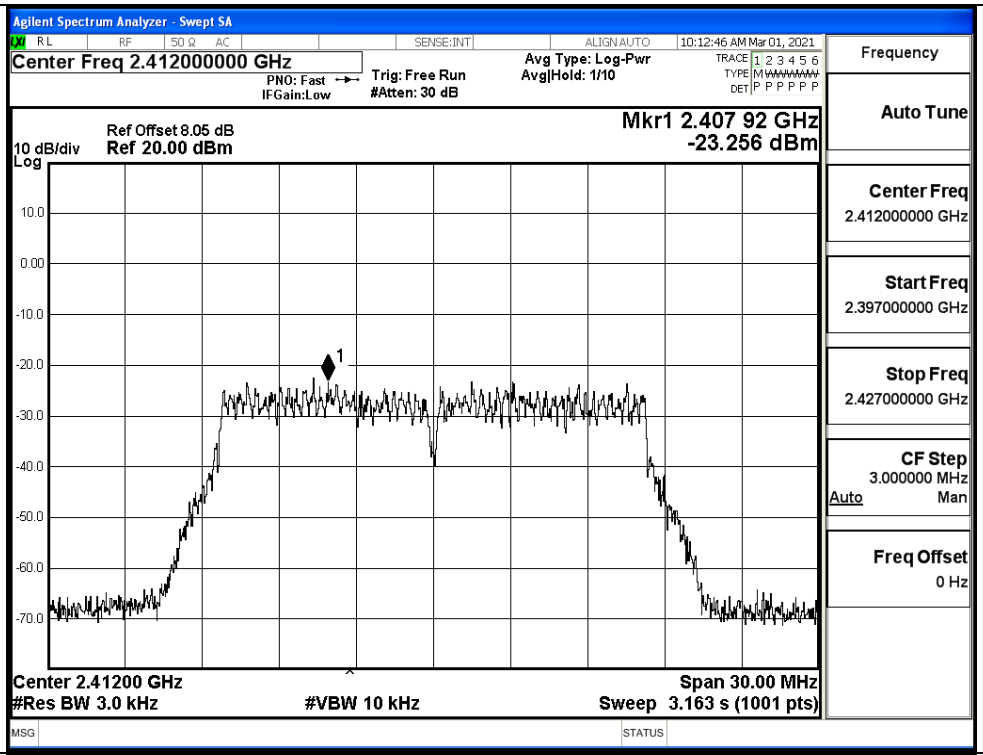
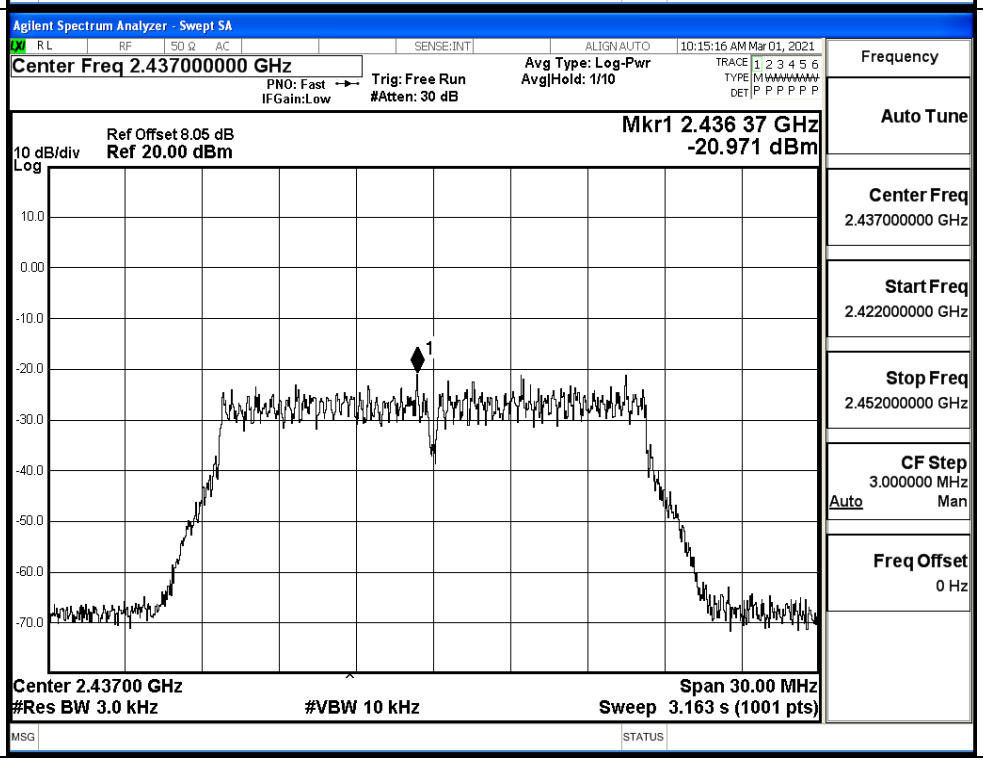
Mode	Channel	Power Density [dBm/3KHz]	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-12.831	0.02	0	-12.811	8	PASS
	MCH	-12.339	0.02	0	-12.319	8	PASS
	HCH	-13.269	0.02	0	-13.249	8	PASS
11G	LCH	-23.256	0.13	0	-23.126	8	PASS
	MCH	-20.971	0.13	0	-20.841	8	PASS
	HCH	-20.999	0.13	0	-20.869	8	PASS
11N20 SISO	LCH	-25.140	0.14	0	-25.000	8	PASS
	MCH	-24.820	0.14	0	-24.680	8	PASS
	HCH	-24.841	0.14	0	-24.701	8	PASS
11N40 SISO	LCH	-28.073	0.27	0	-27.803	8	PASS
	MCH	-25.404	0.27	0	-25.134	8	PASS
	HCH	-26.129	0.27	0	-25.859	8	PASS

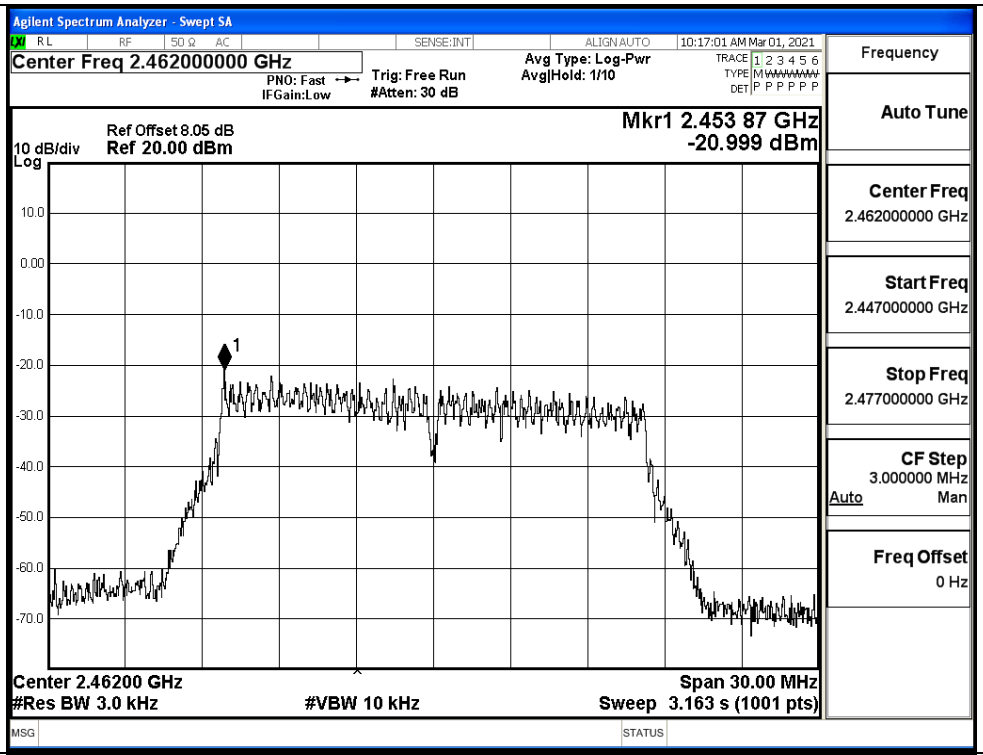
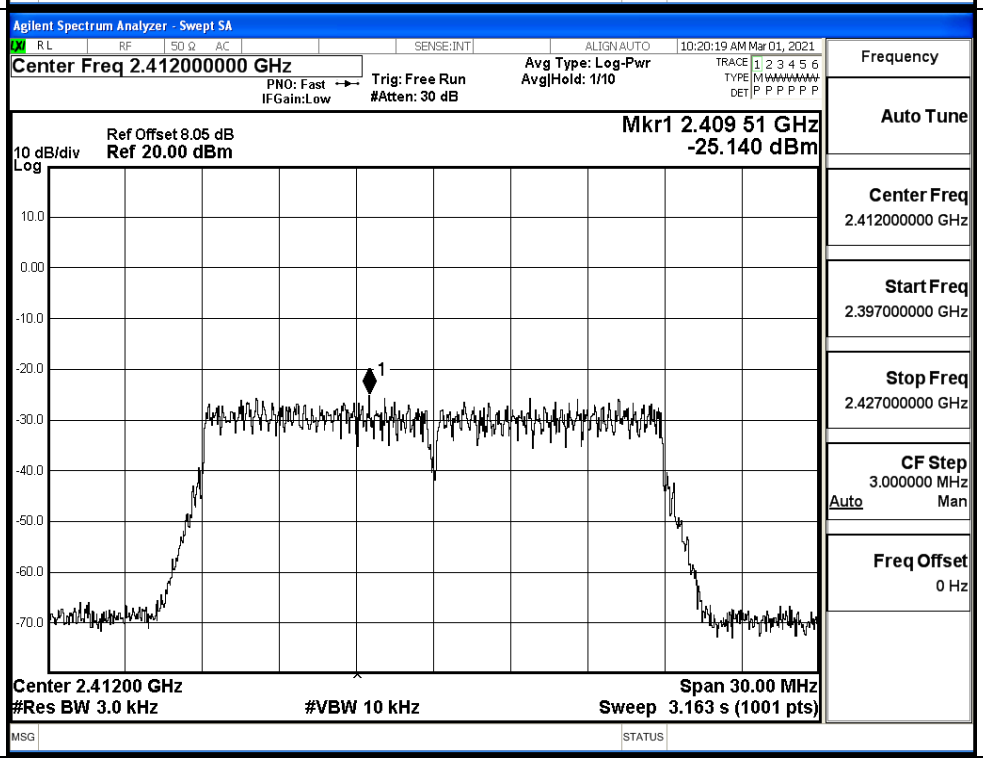
Note: 1. RBW Factor(dB)=10log(3/3)

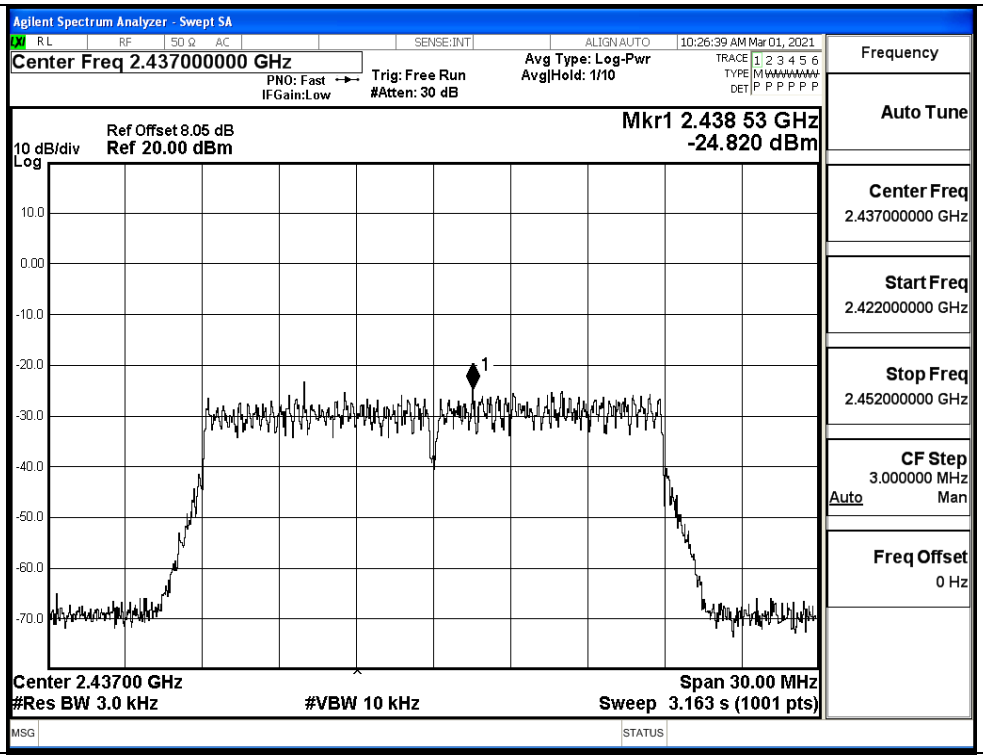
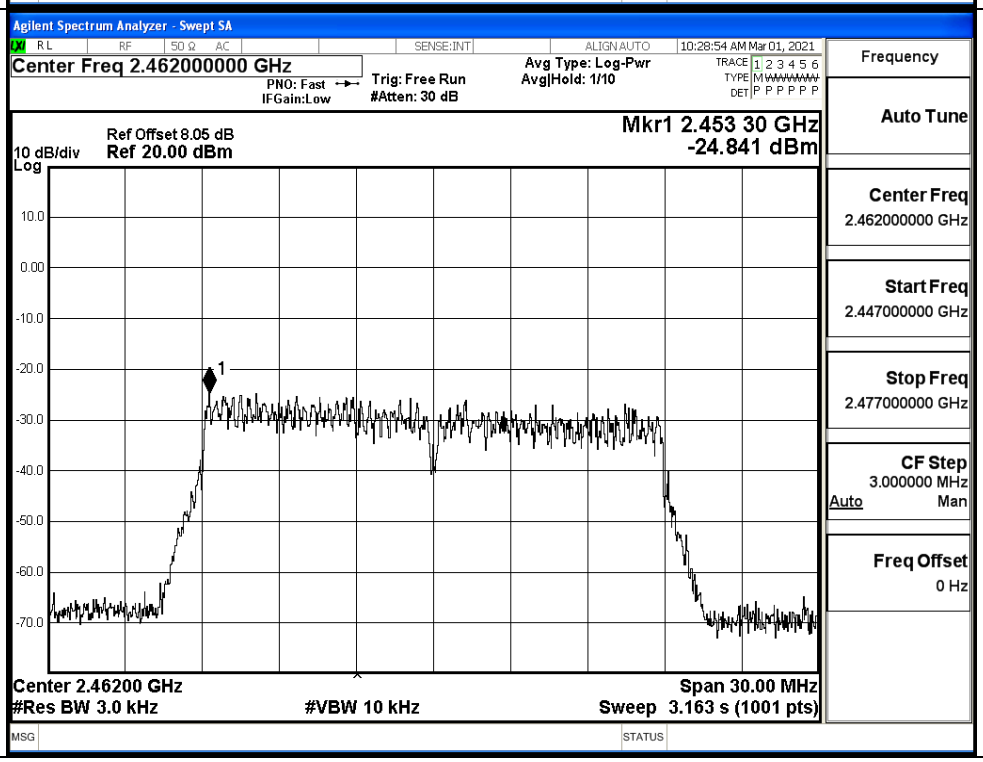
2. Report Power Density [dBm/3KHz]= Power Density[dBm/3KHz]+ Duty Cycle Factor(dB)+ RBW Factor(dB)

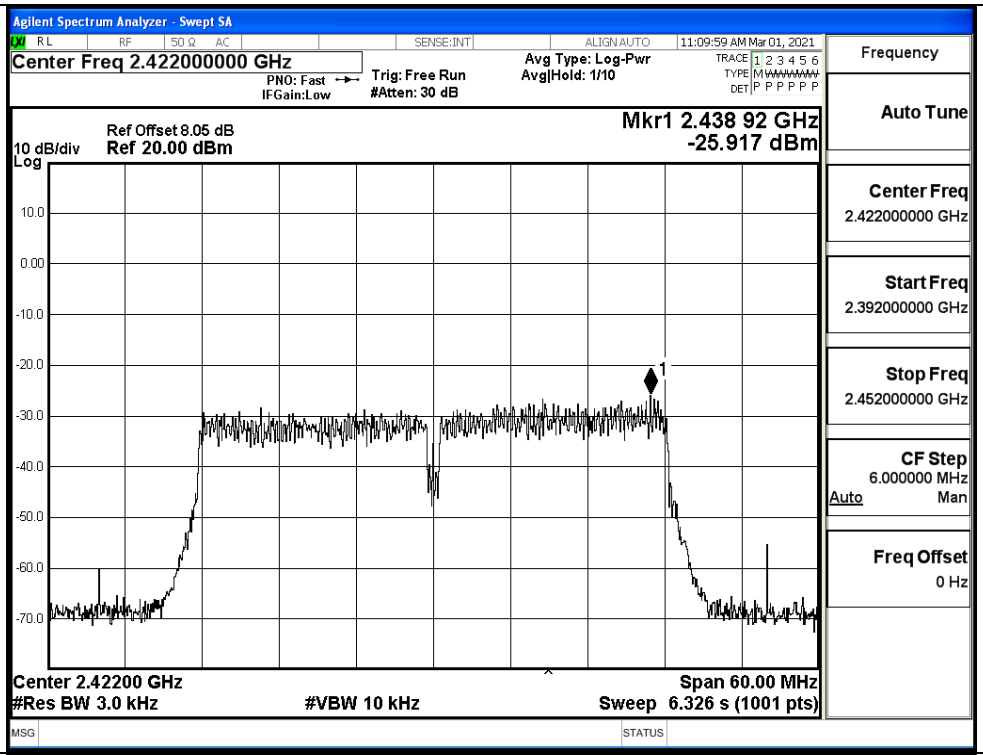
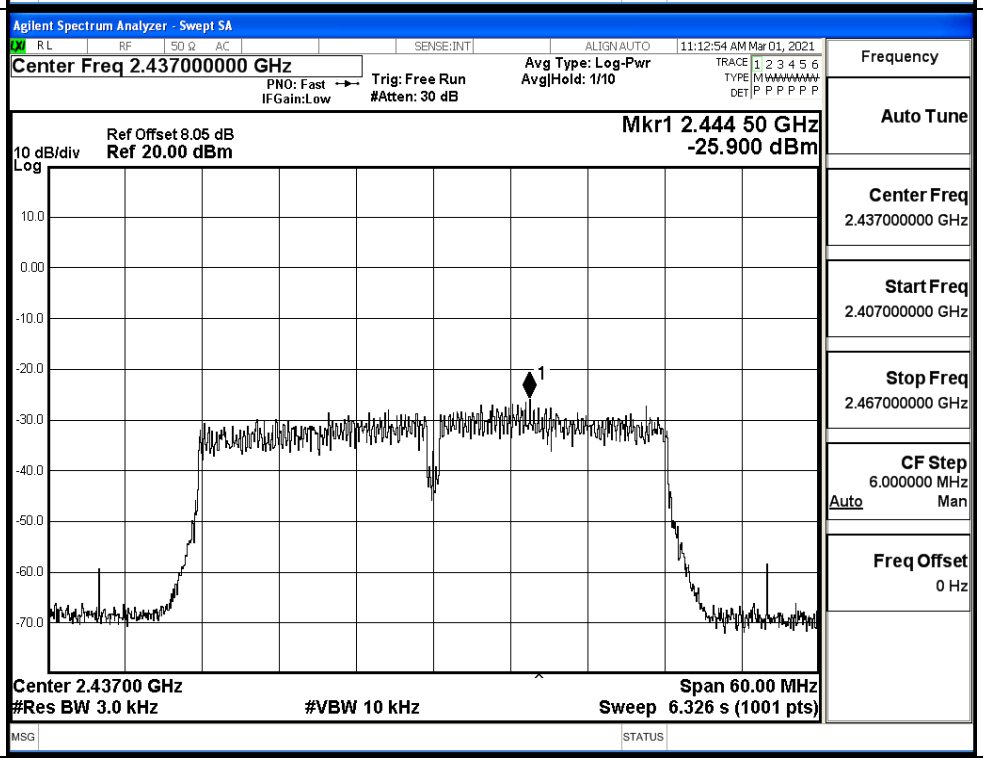
Test Graphs	
11B/LCH	

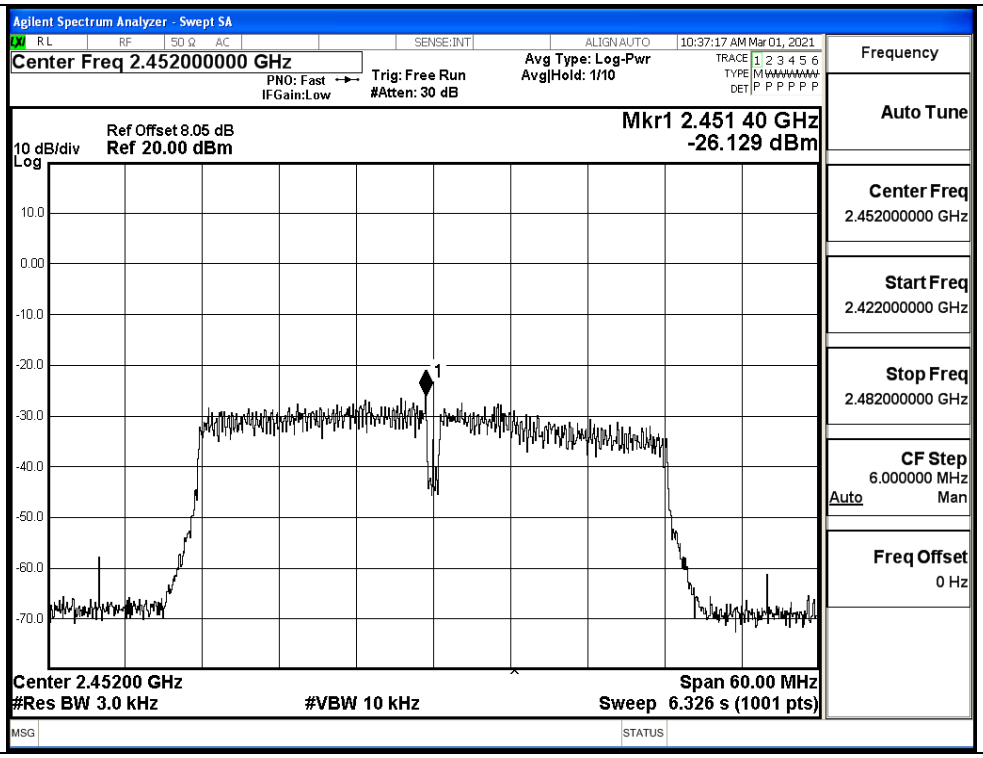
11B/MCH		
11B/HCH		

11G/LCH		
11G/MCH		

11G/HCH		
11N20SISO/LCH		

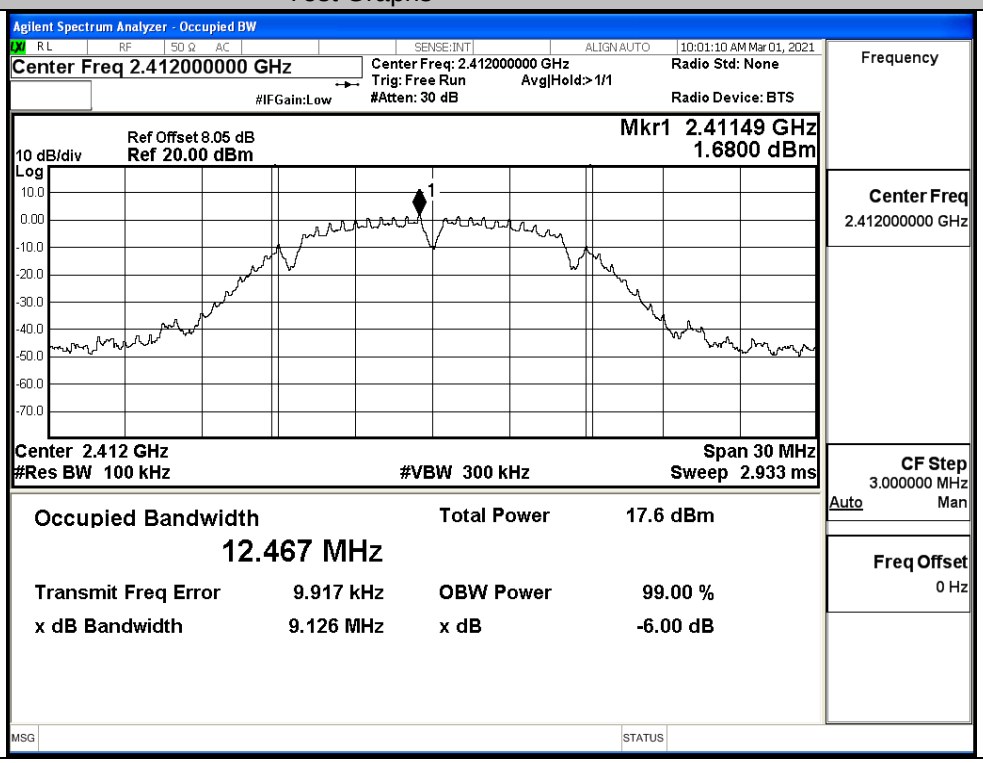
11N20SISO/MCH		
11N20SISO/HCH		

11N40SISO/LCH		
11N40SISO/MCH		

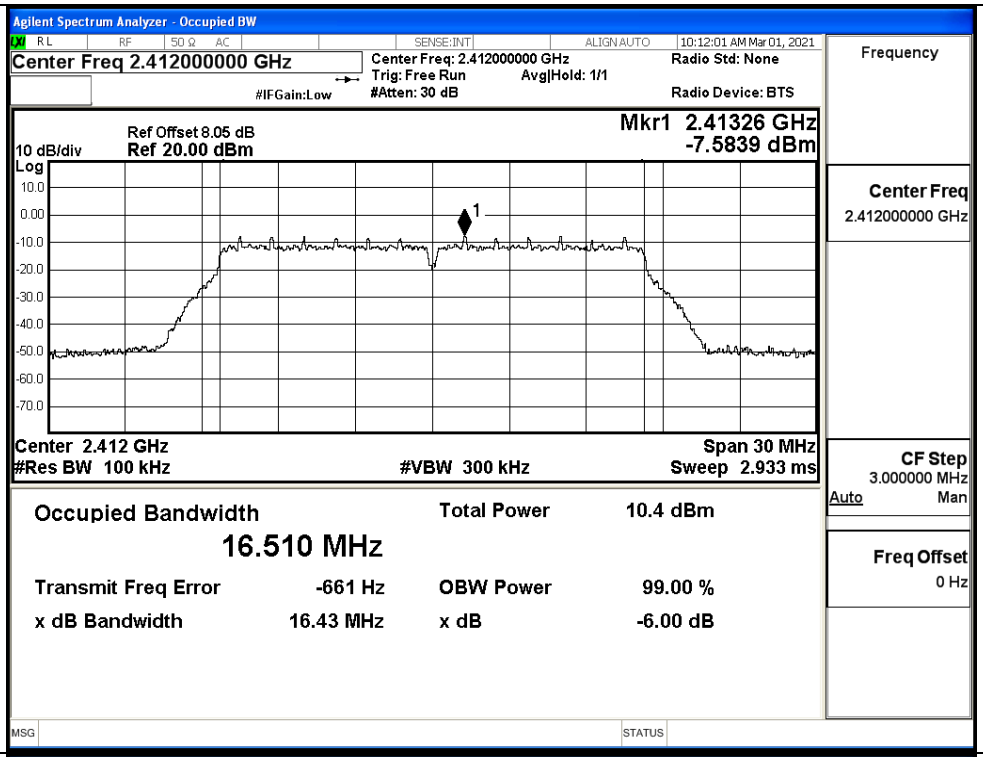
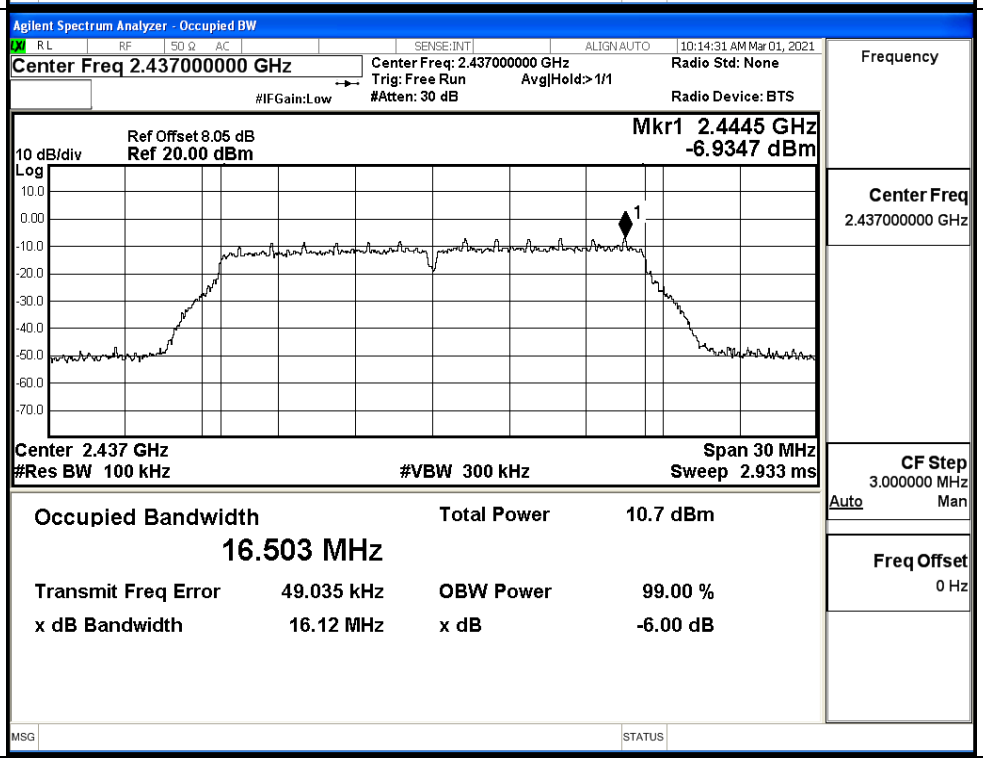
11N40SISO/HCH		

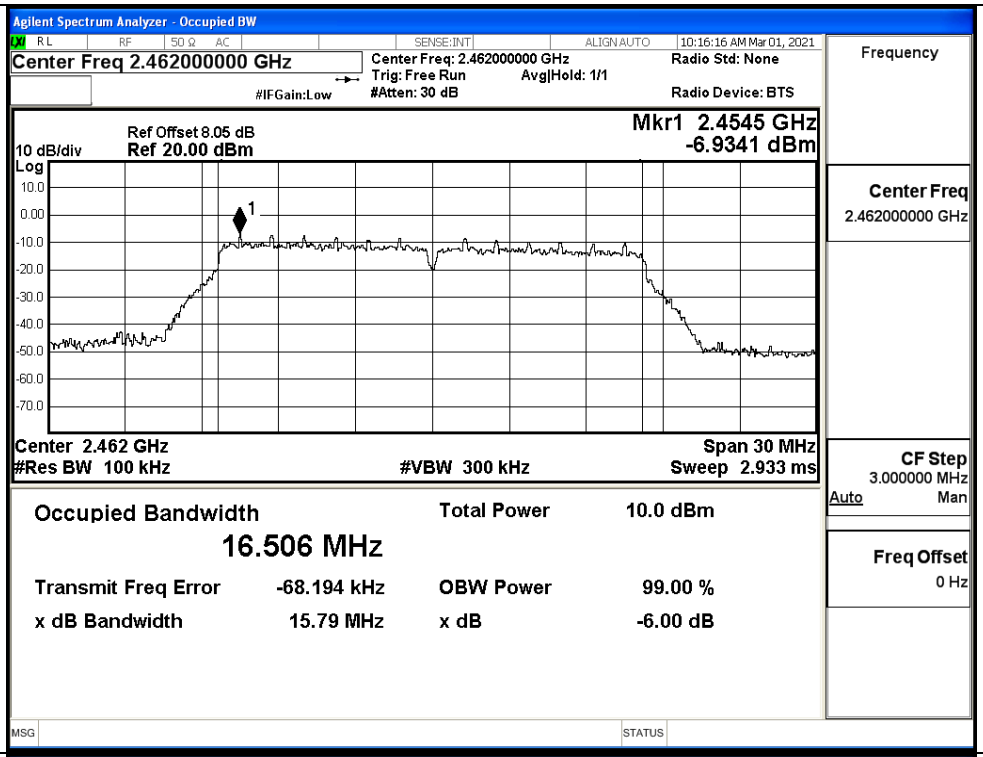
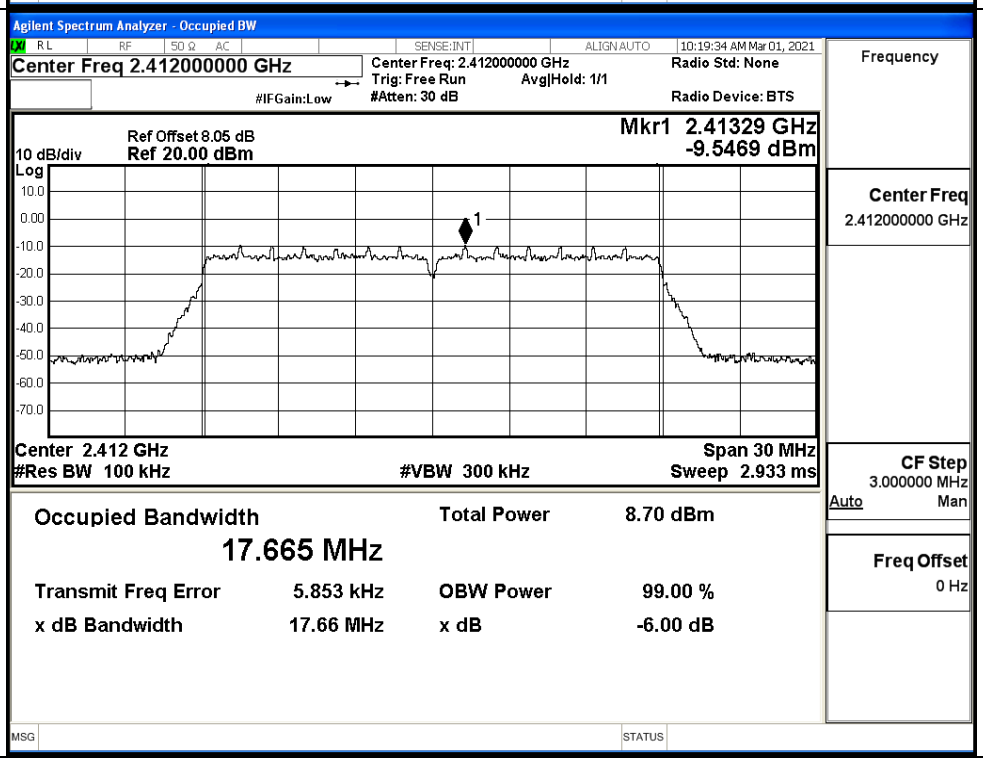
B.4 6dB Bandwidth

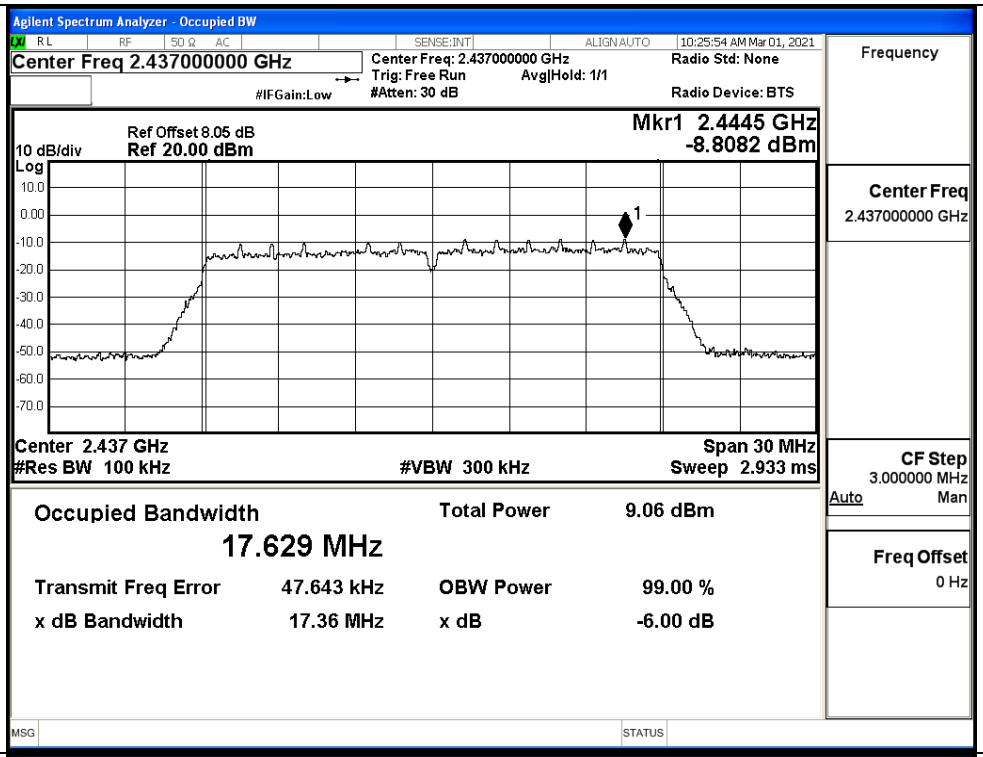
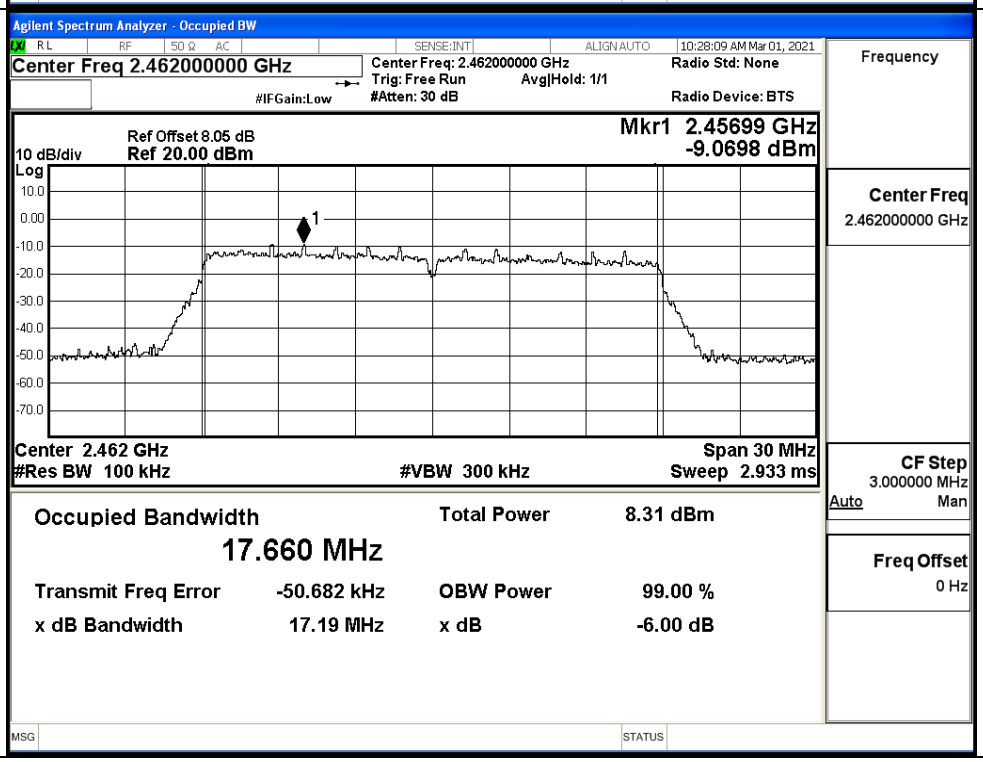
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.126	⩾0.5	PASS
	MCH	9.105	⩾0.5	PASS
	HCH	9.570	⩾0.5	PASS
11G	LCH	16.43	⩾0.5	PASS
	MCH	16.12	⩾0.5	PASS
	HCH	15.79	⩾0.5	PASS
11N20SISO	LCH	17.66	⩾0.5	PASS
	MCH	17.36	⩾0.5	PASS
	HCH	17.19	⩾0.5	PASS
11N40SISO	LCH	35.78	⩾0.5	PASS
	MCH	35.51	⩾0.5	PASS
	HCH	35.47	⩾0.5	PASS

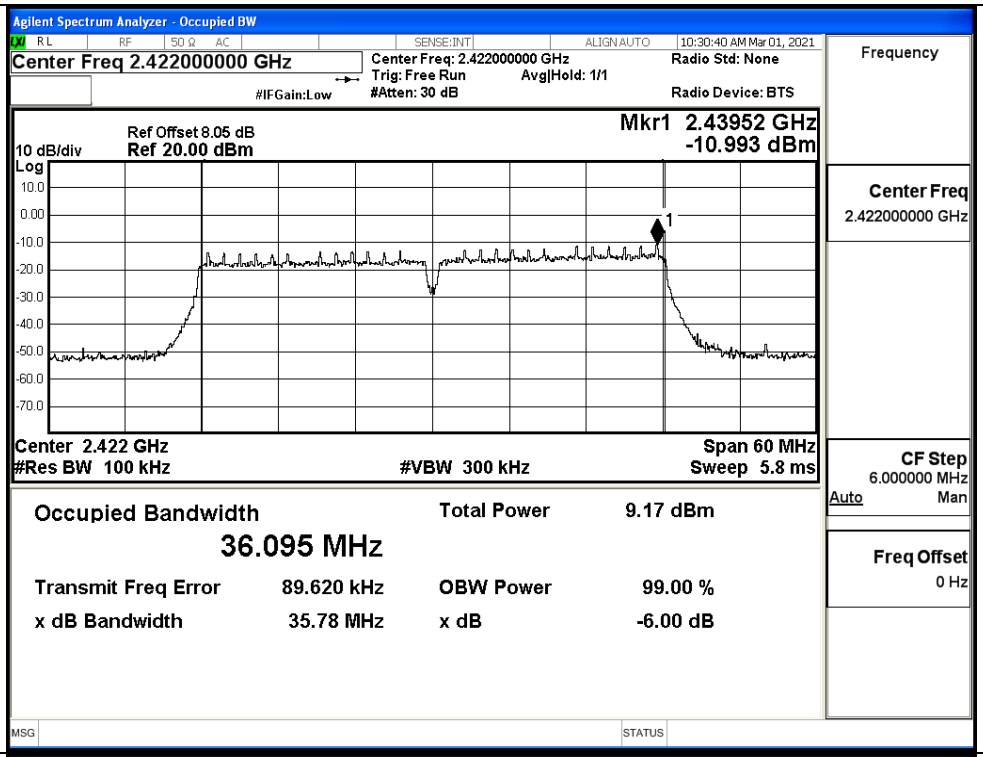
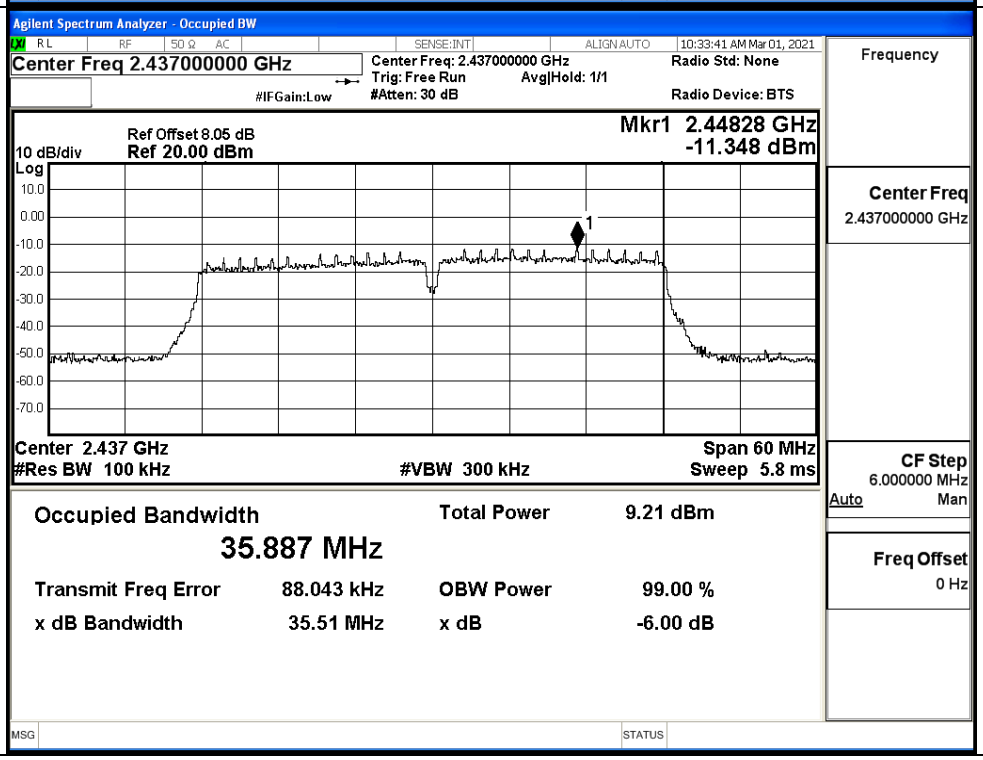
Test Graphs	
11B/LCH	

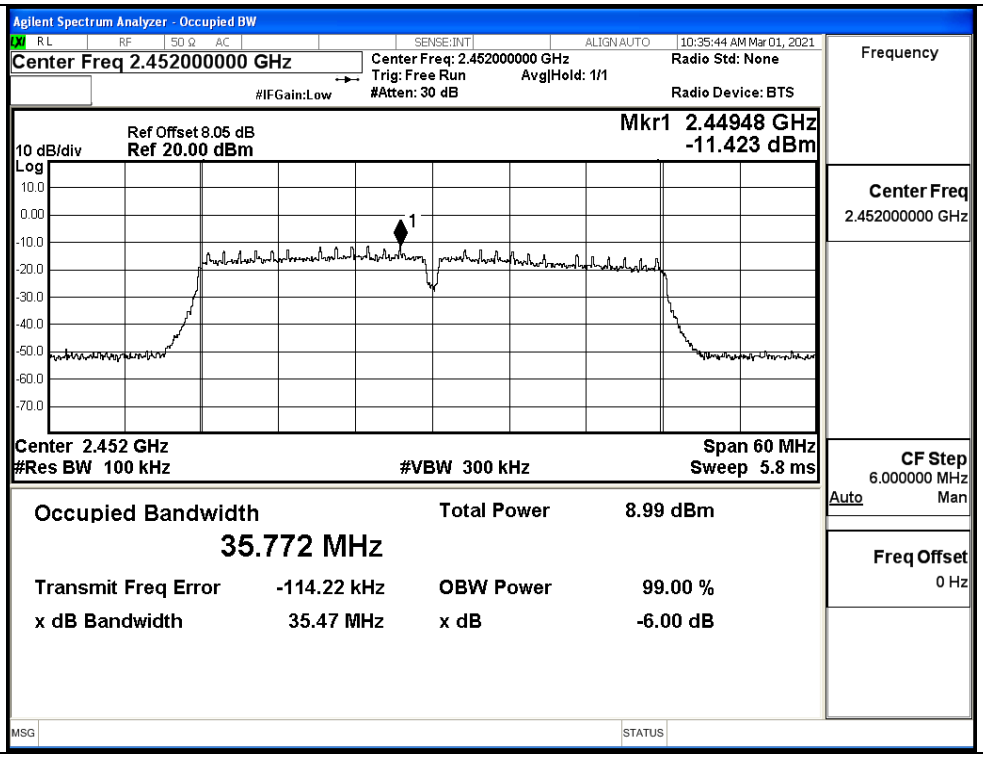
11B/MCH		
11B/HCH		

11G/LCH		
11G/MCH		

11G/HCH	
11N20SISO/LCH	

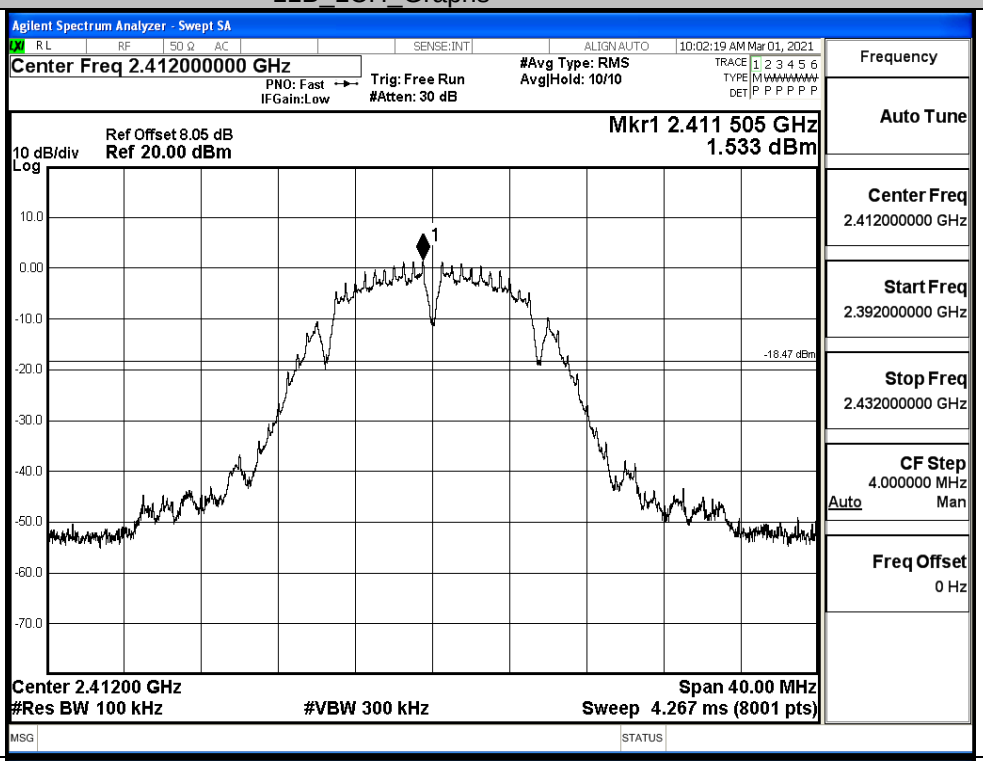
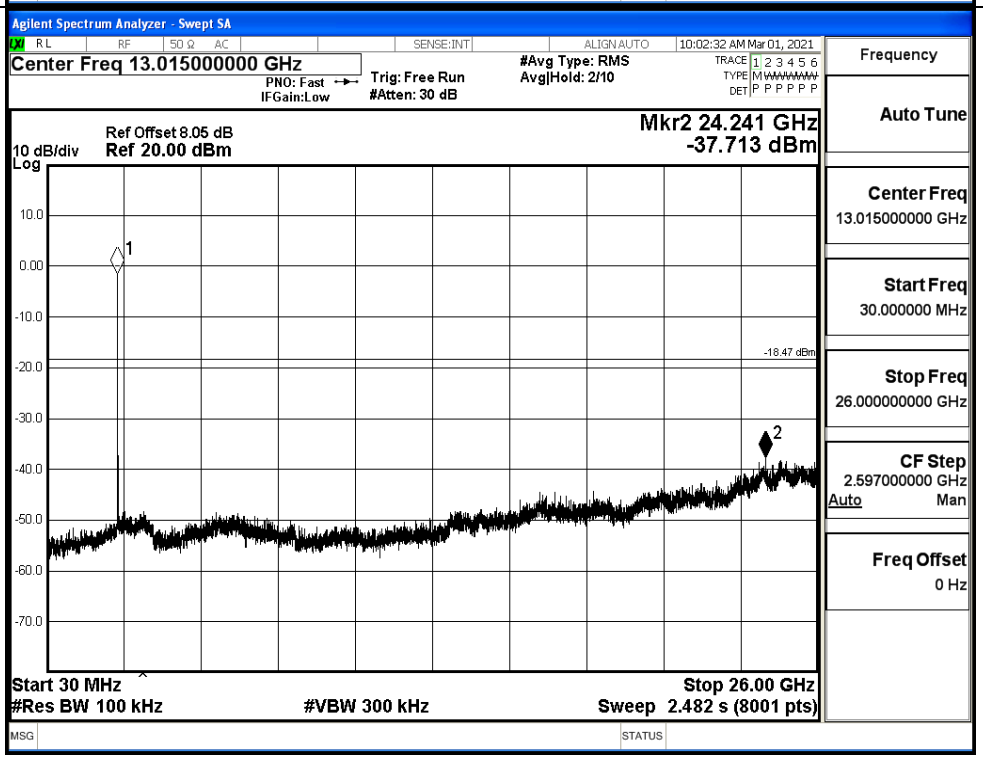
11N20SISO/MCH	
11N20SISO/HCH	

11N40SISO/LCH	
11N40SISO/MCH	

11N40SISO/HCH	

B.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	1.533	-37.713	-18.467	PASS
	MCH	2.1	-38.512	-17.900	PASS
	HCH	1.225	-38.349	-18.775	PASS
11G	LCH	-7.989	-38.348	-27.989	PASS
	MCH	-6.782	-38.247	-26.782	PASS
	HCH	-7.171	-36.749	-27.171	PASS
11N20 SISO	LCH	-10.177	-38.076	-30.177	PASS
	MCH	-8.733	-38.035	-28.733	PASS
	HCH	-8.914	-38.279	-28.914	PASS
11N40 SISO	LCH	-11.054	-37.625	-31.054	PASS
	MCH	-11.517	-38.082	-31.517	PASS
	HCH	-11.25	-38.106	-31.250	PASS

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

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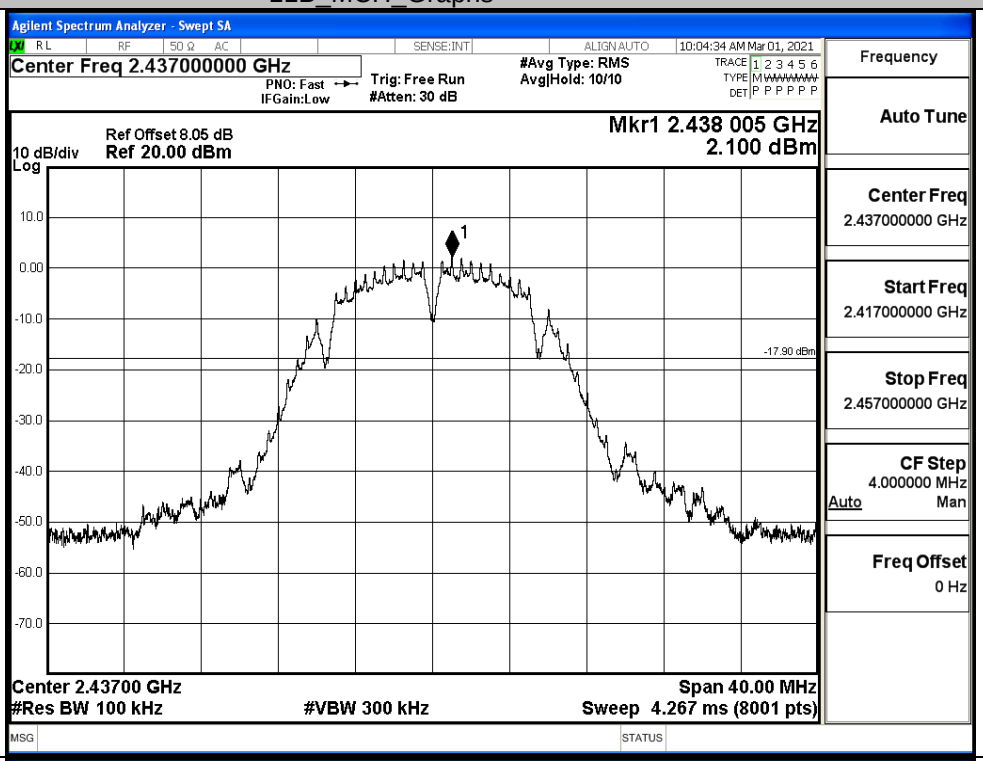
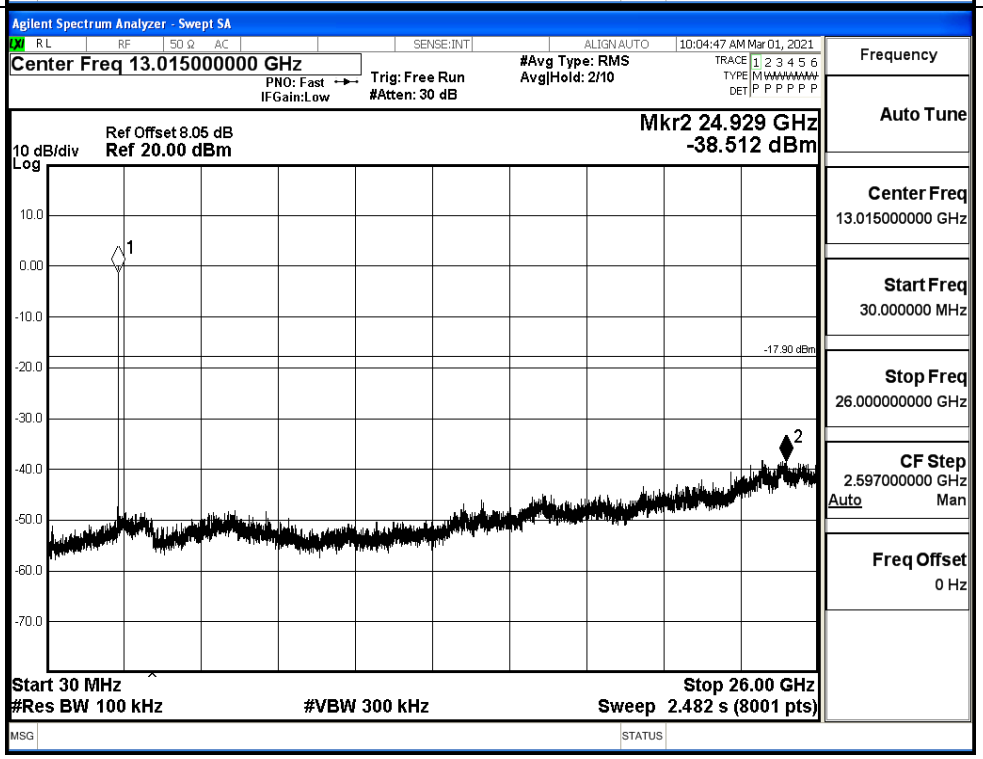
Pref/11B/MCH		
Puw/11B/MCH		

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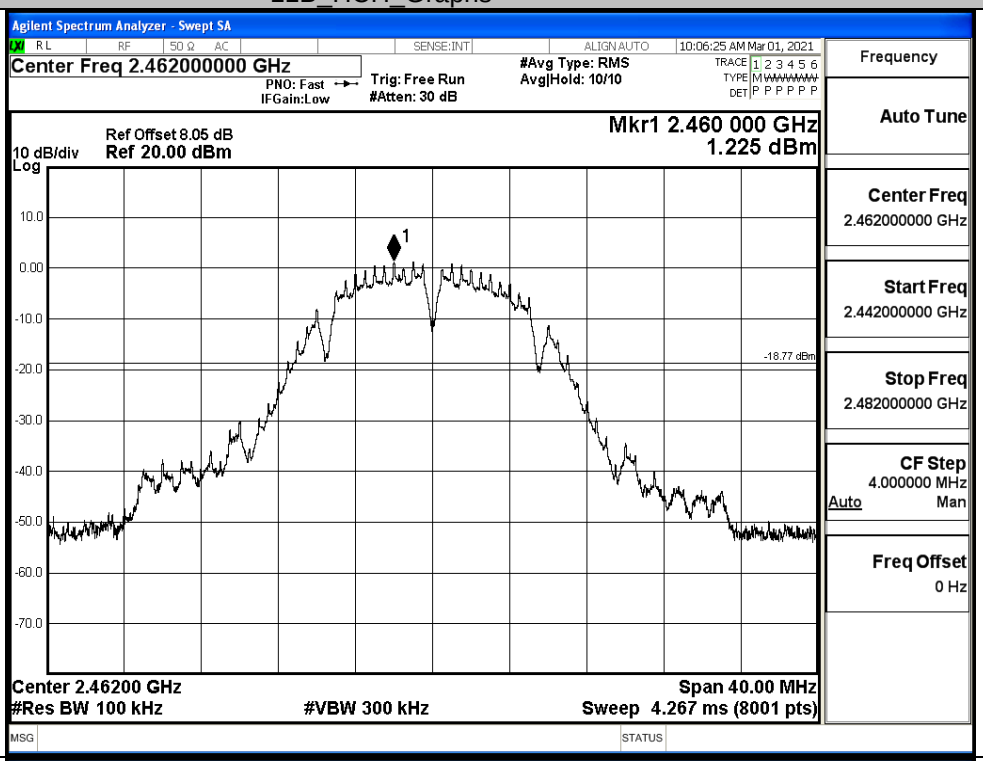
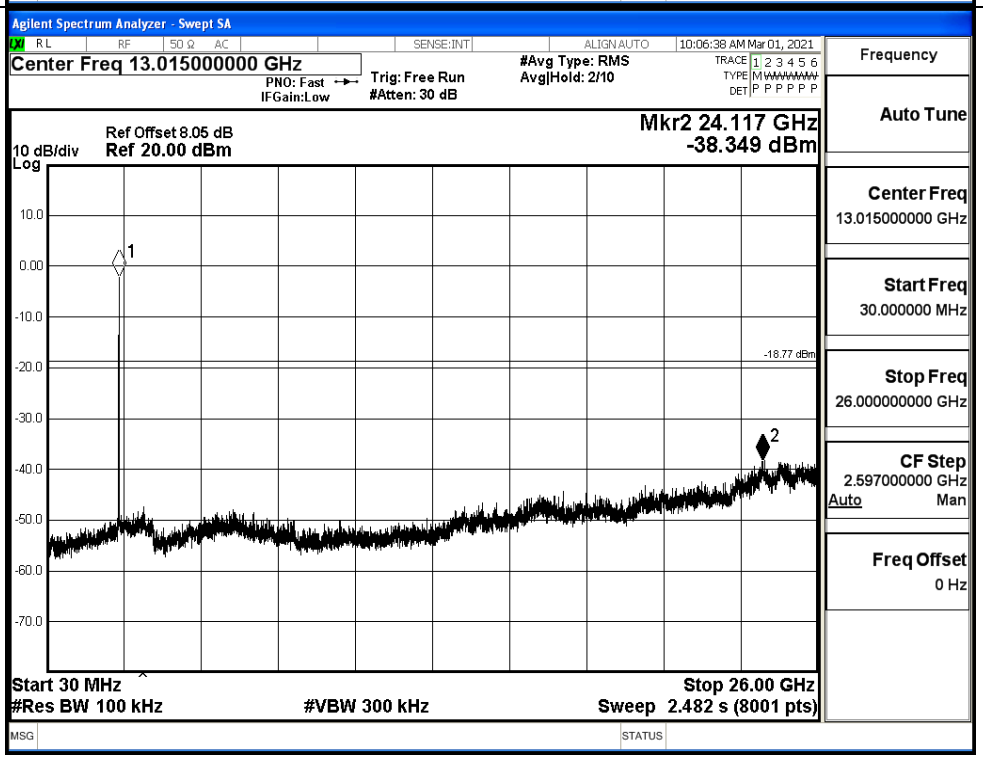
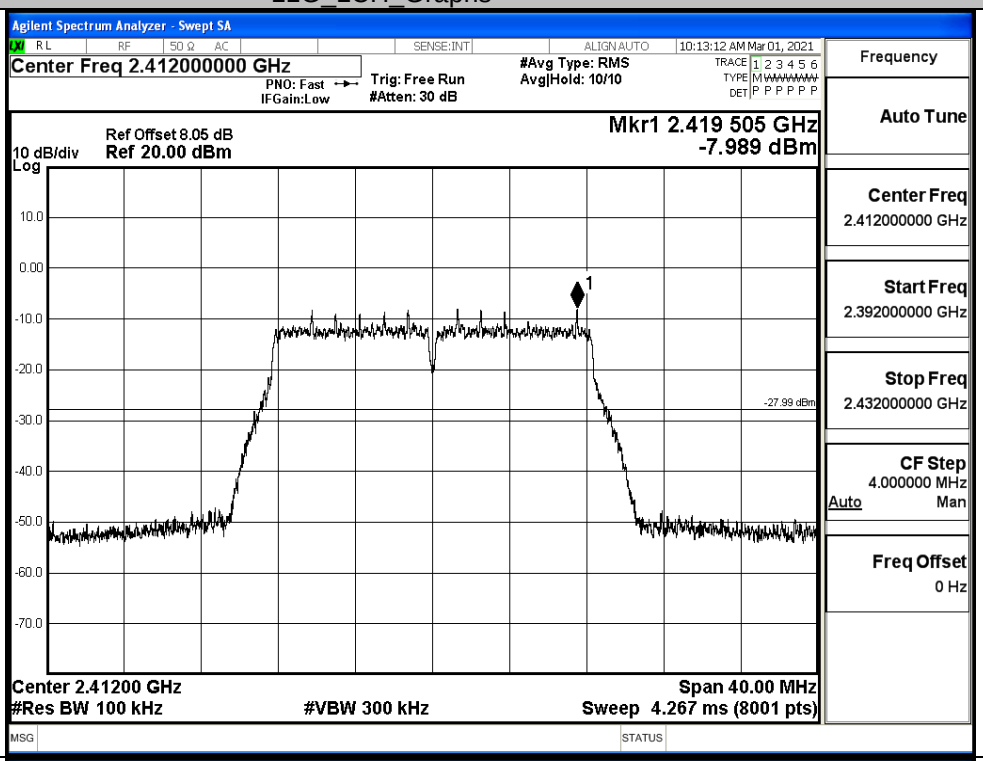
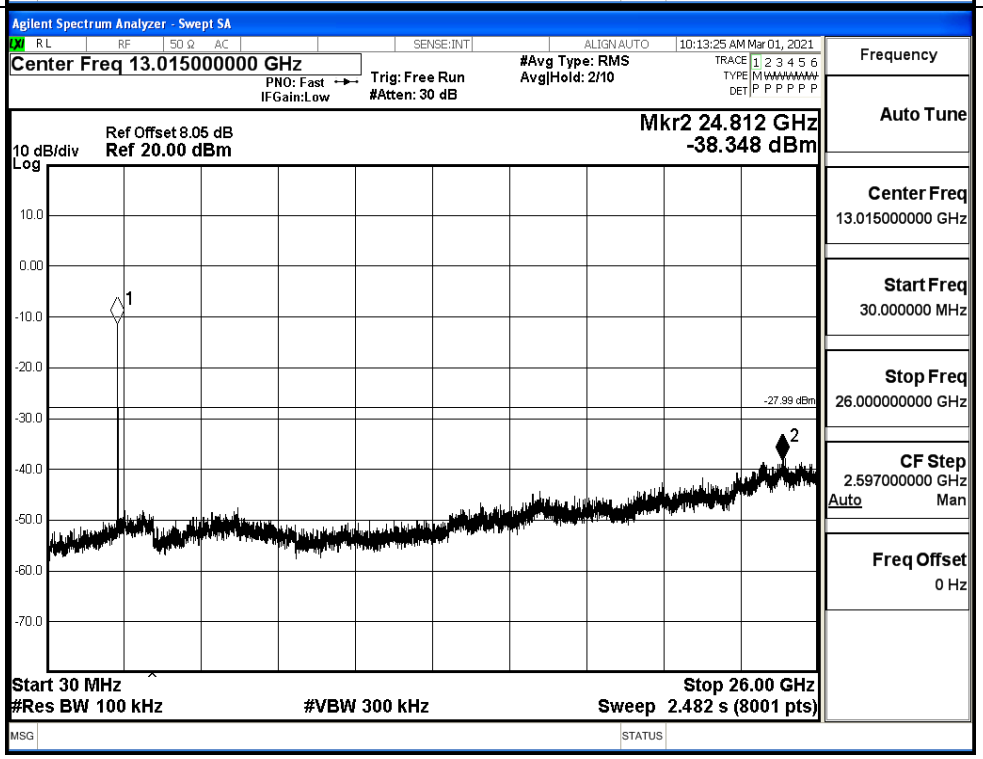
Pref/11B/HCH		
Puw/11B/HCH		

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

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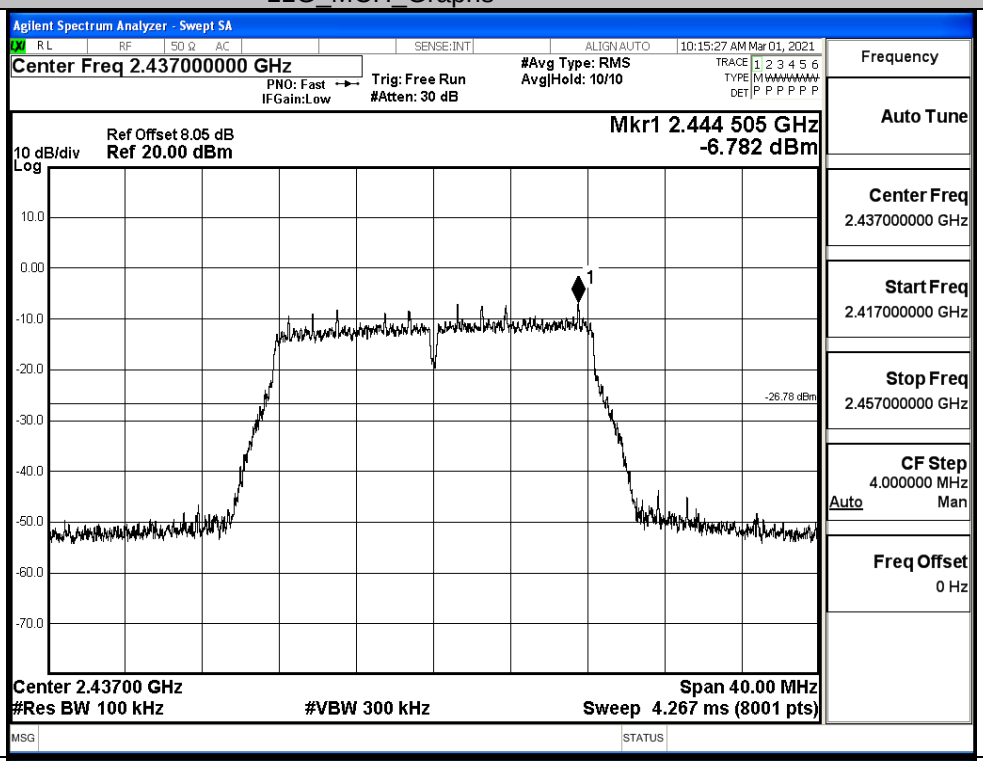
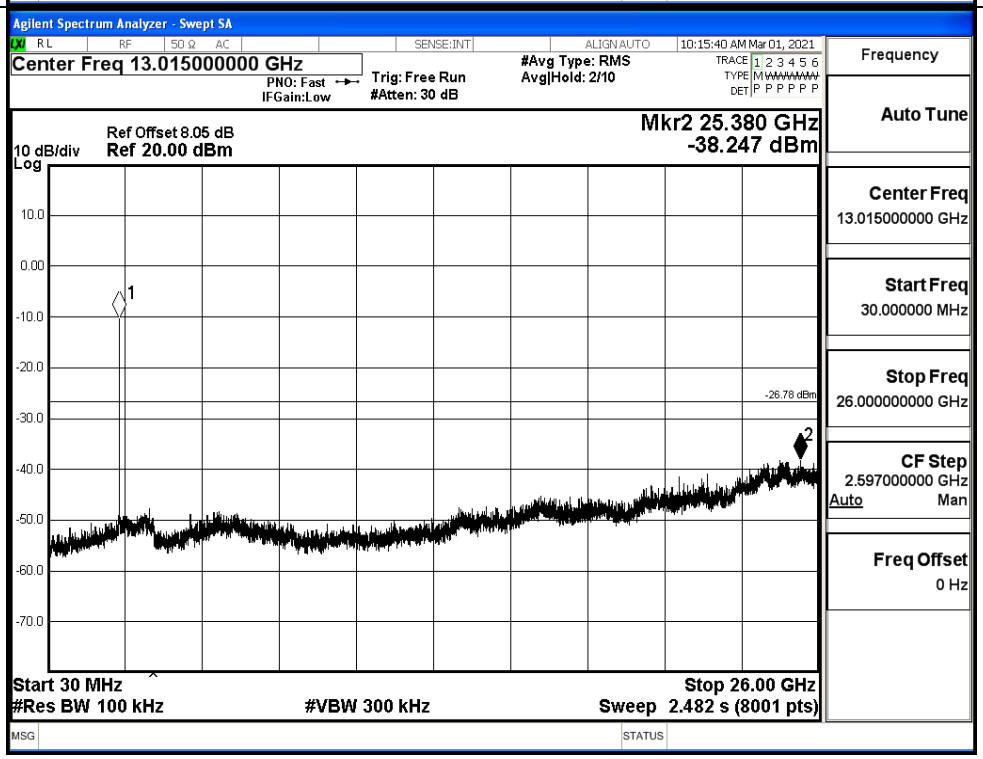
Pref/11G/MCH		
Puw/11G/MCH		

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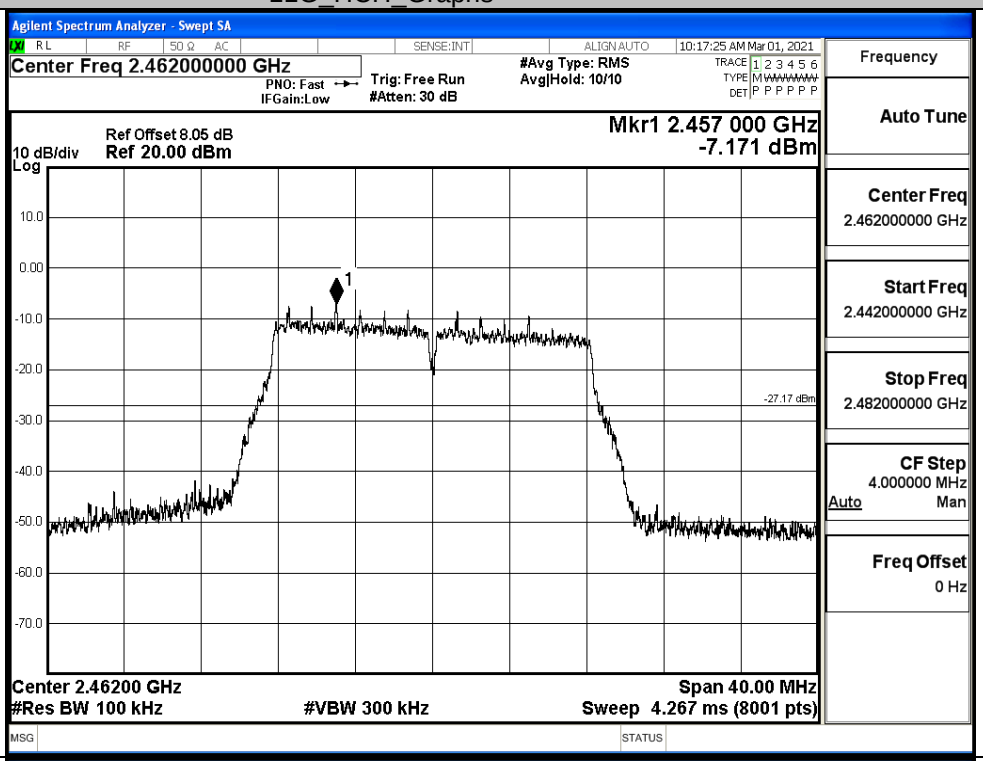
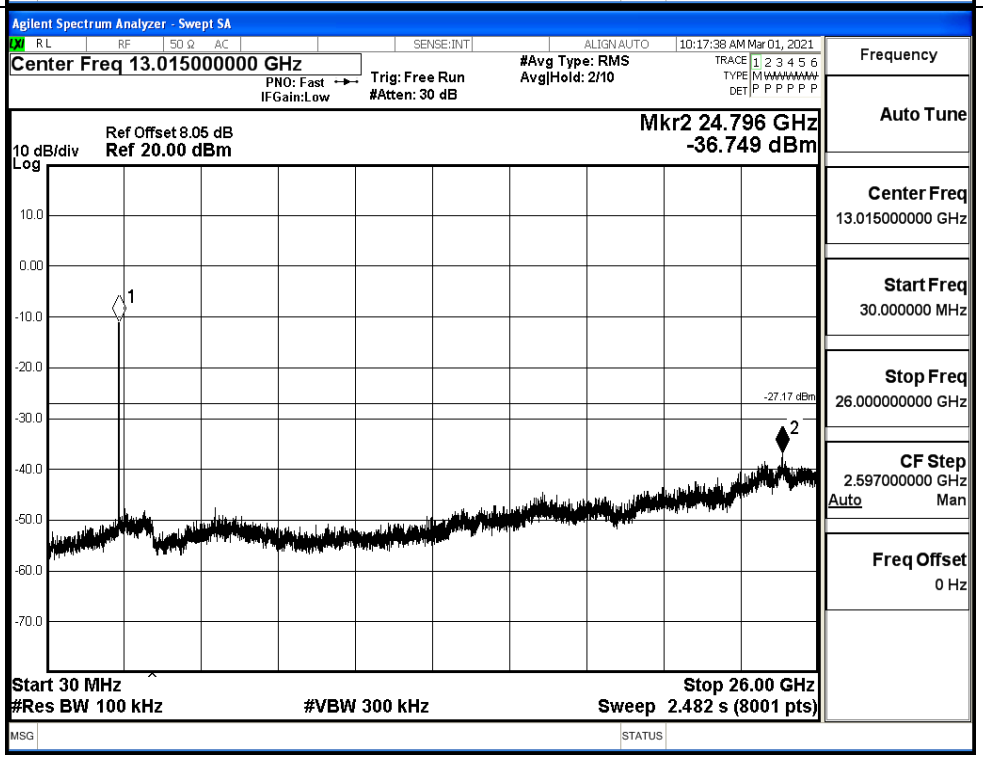
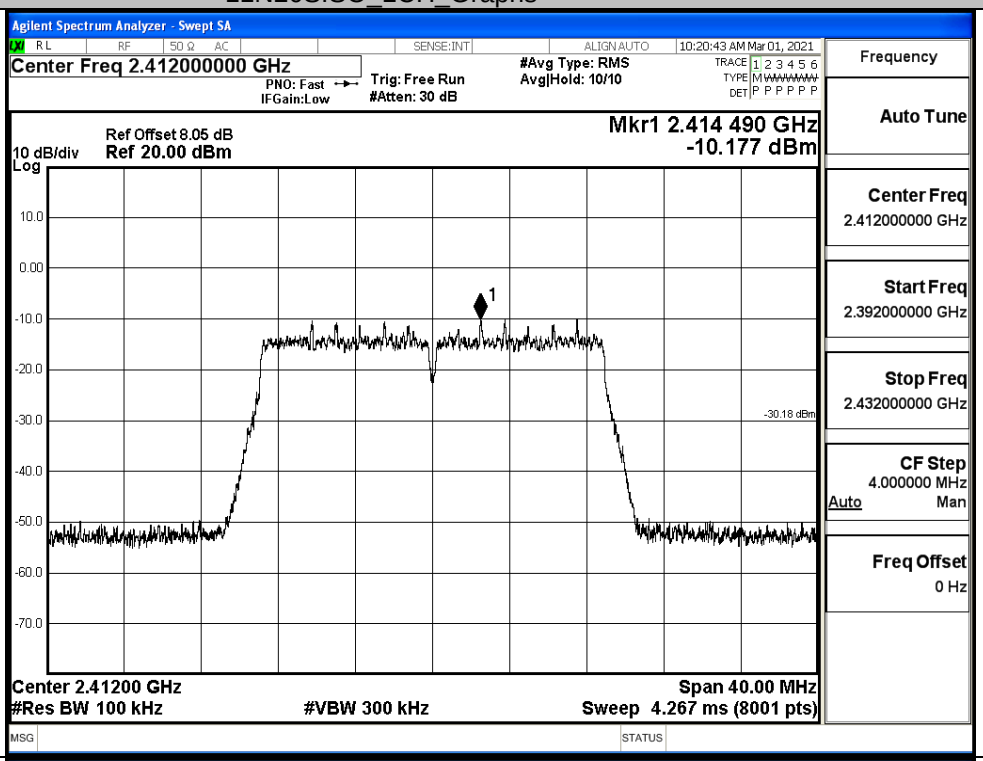
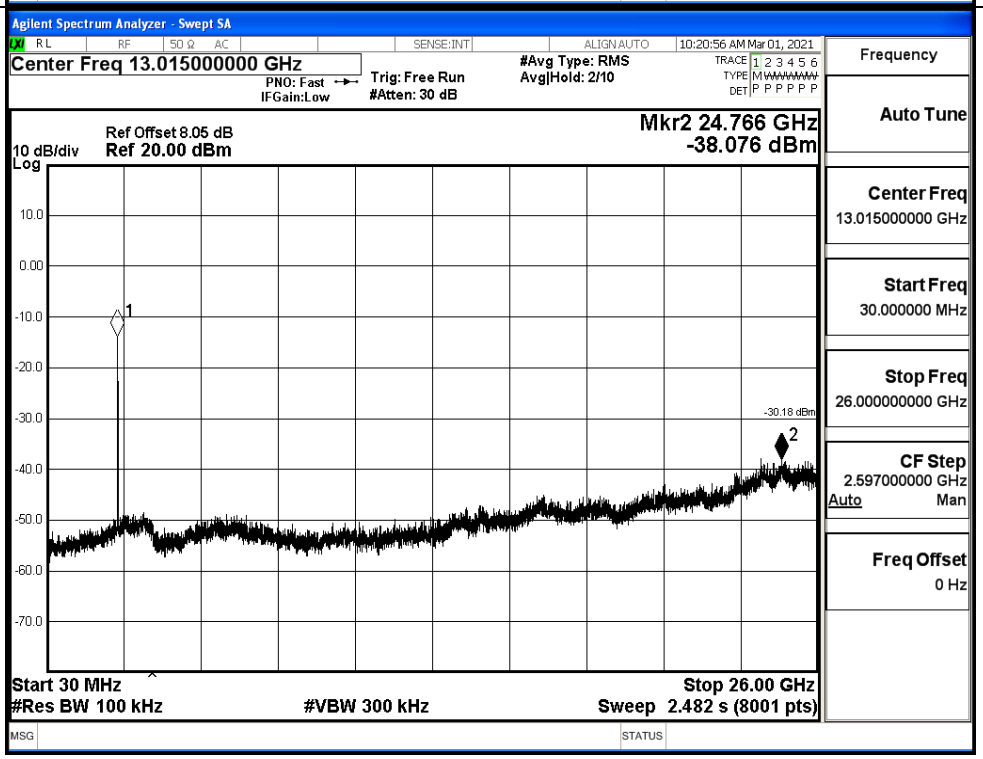
Pref/11G/HCH		
Puw/11G/HCH		

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

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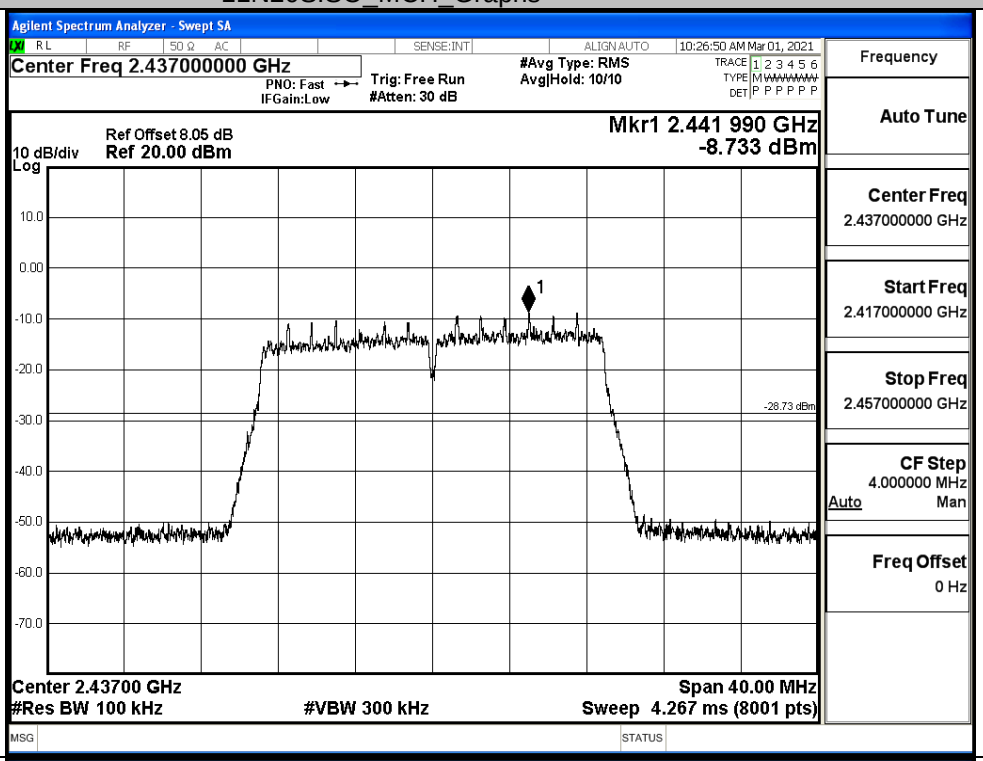
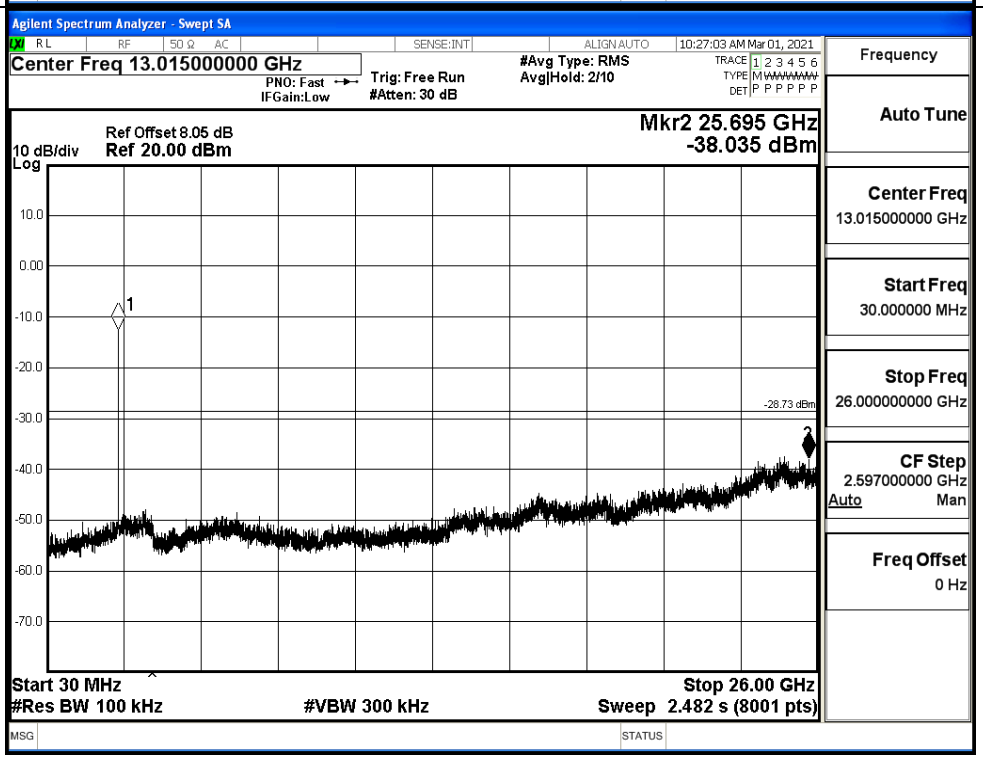
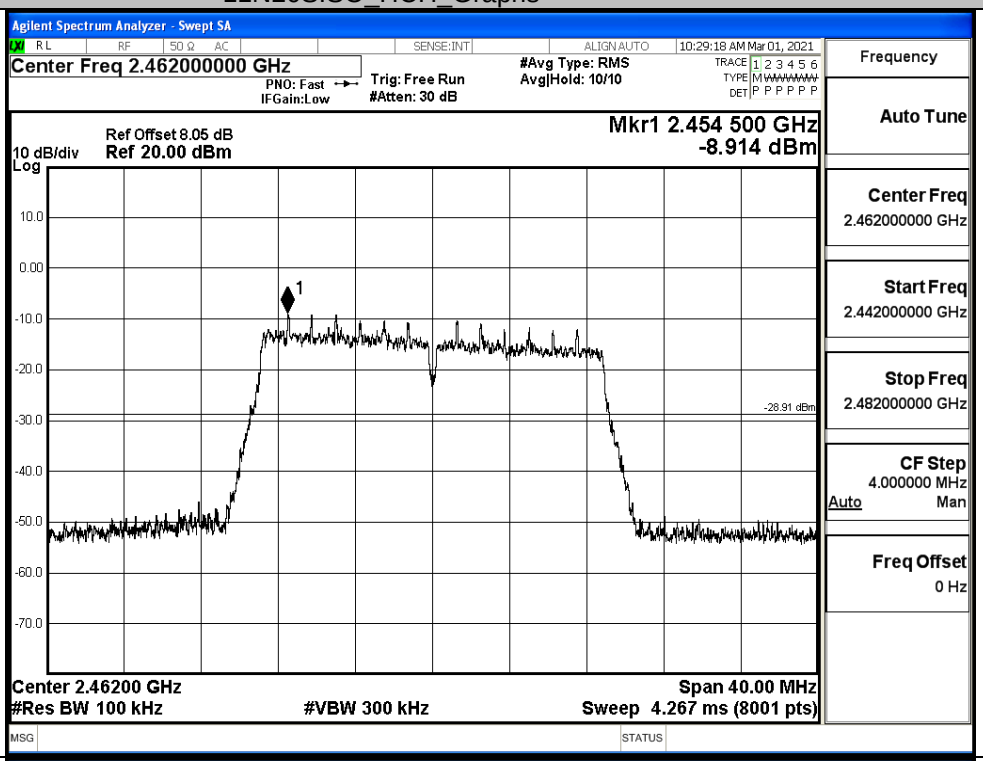
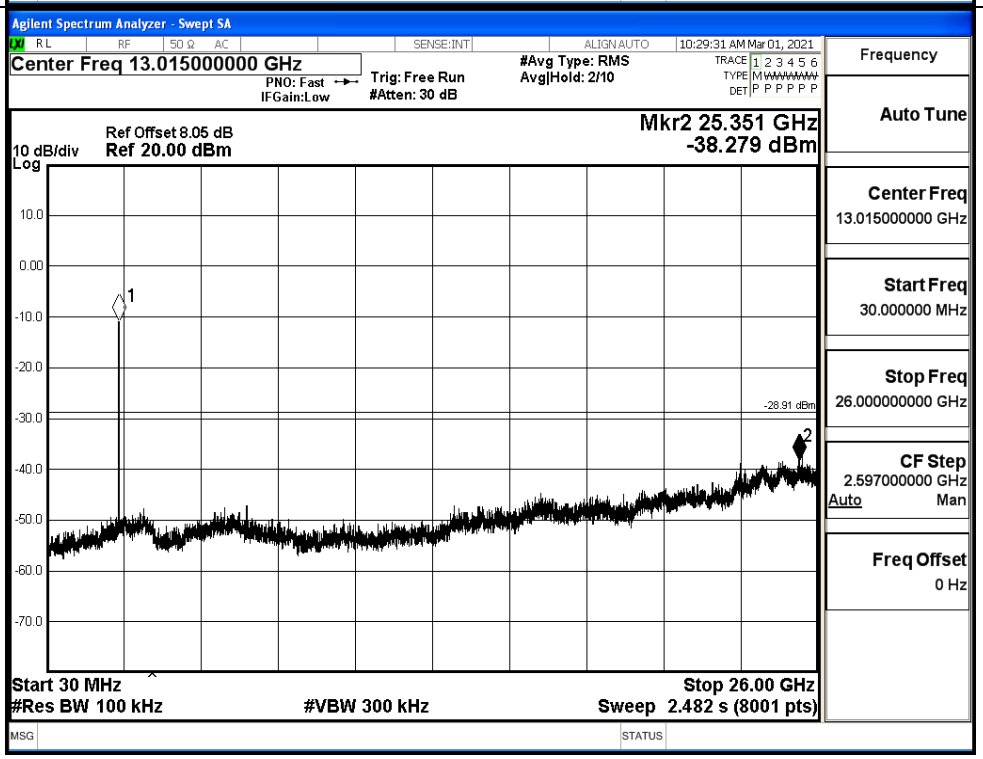
Pref/11N20 SISO/MCH	
Puw/11N20 SISO/MCH	

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

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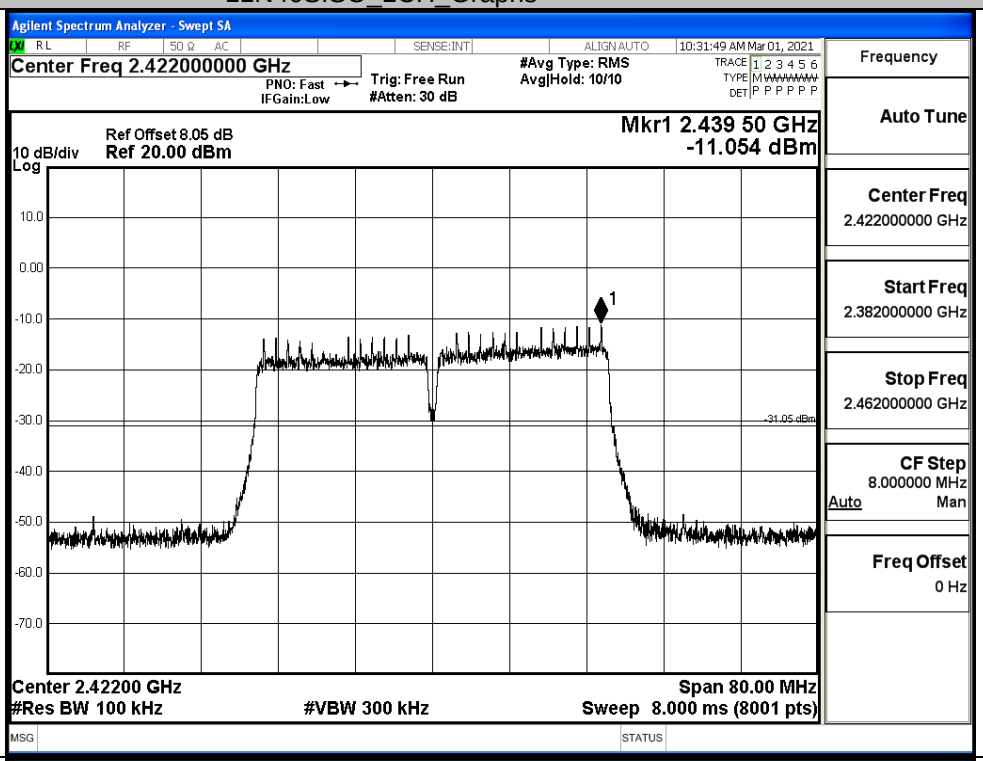
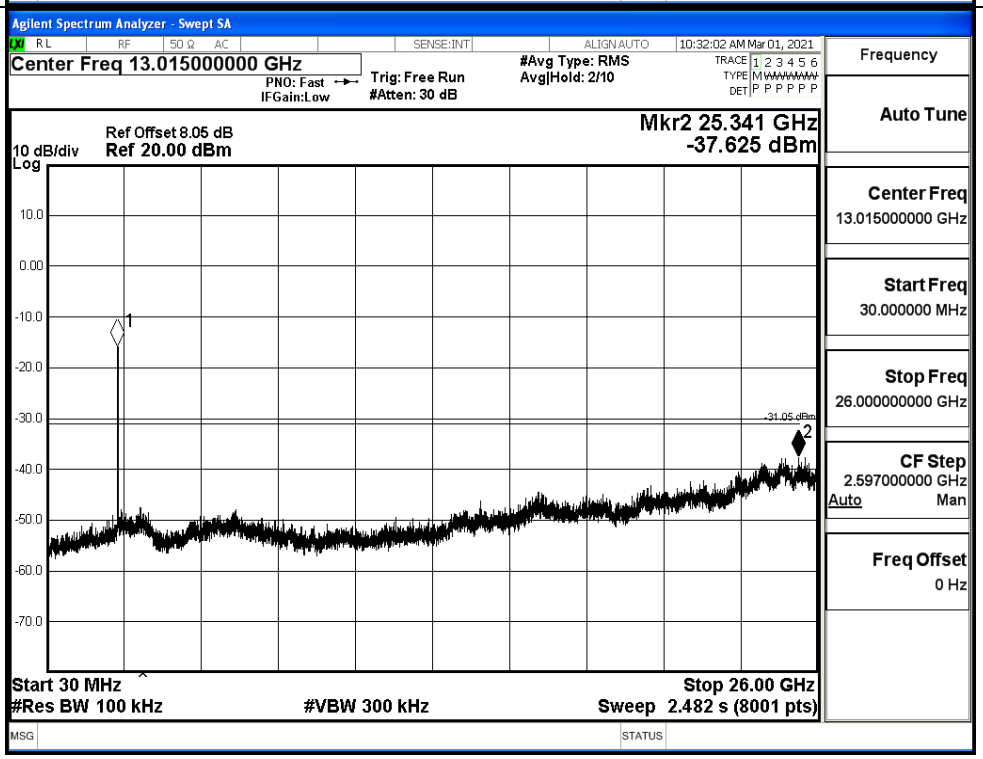
Pref/11N40 SISO/LCH	
Puw/11N40 SISO/LCH	

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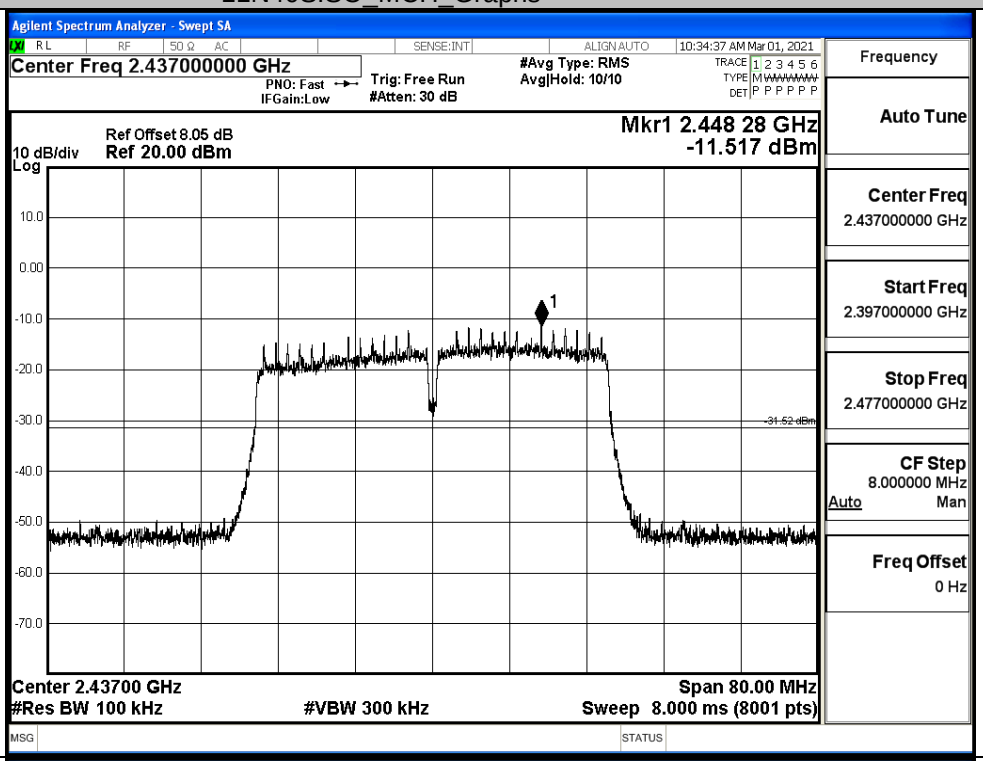
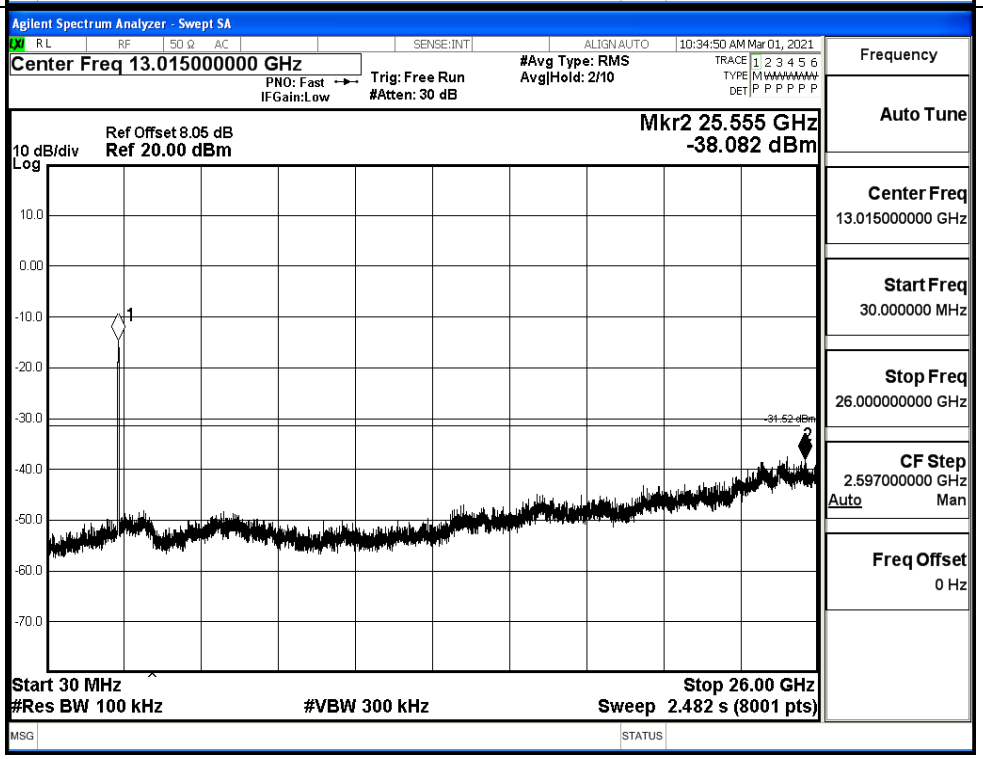
Pref/11N40 SISO/MCH	
Puw/11N40 SISO/MCH	

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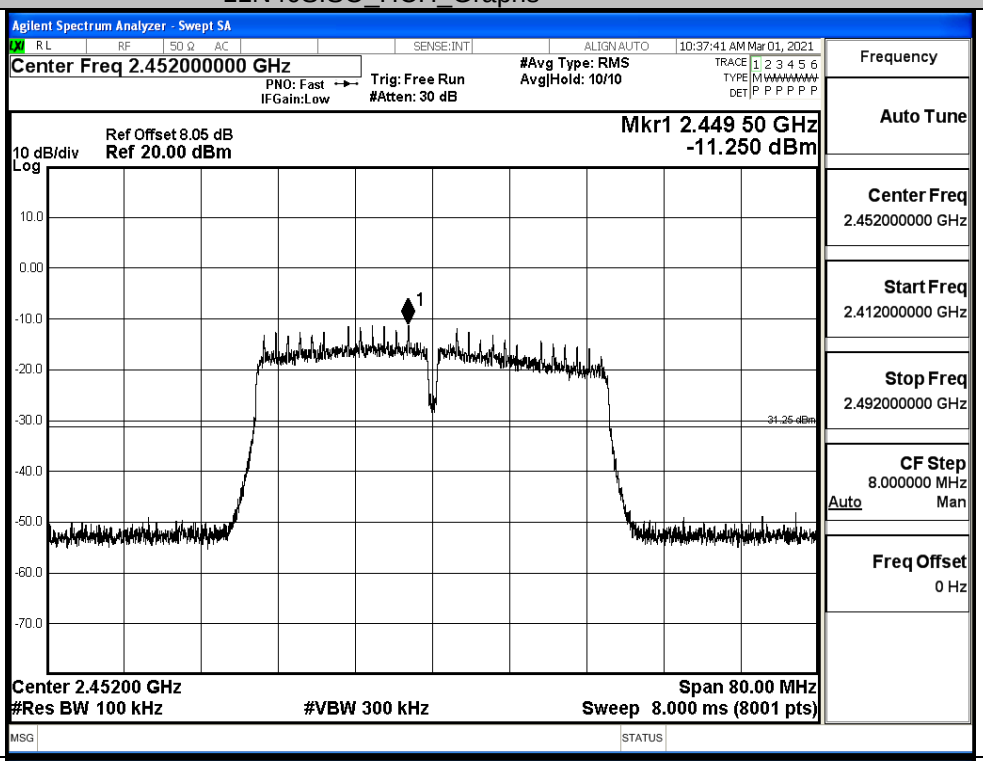
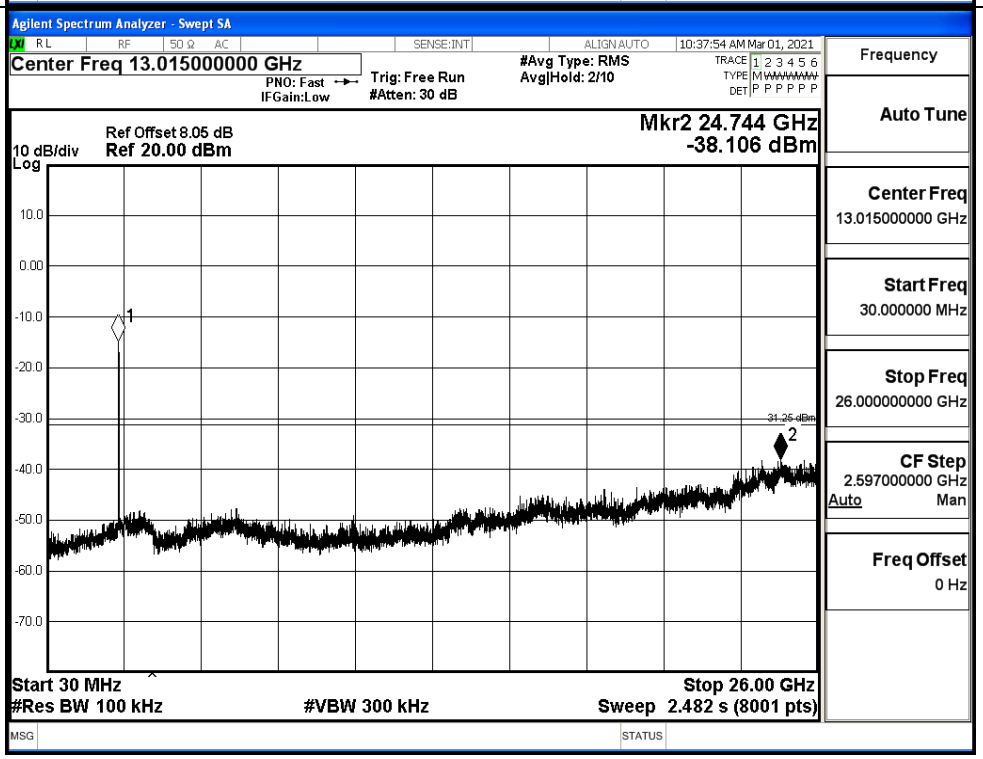
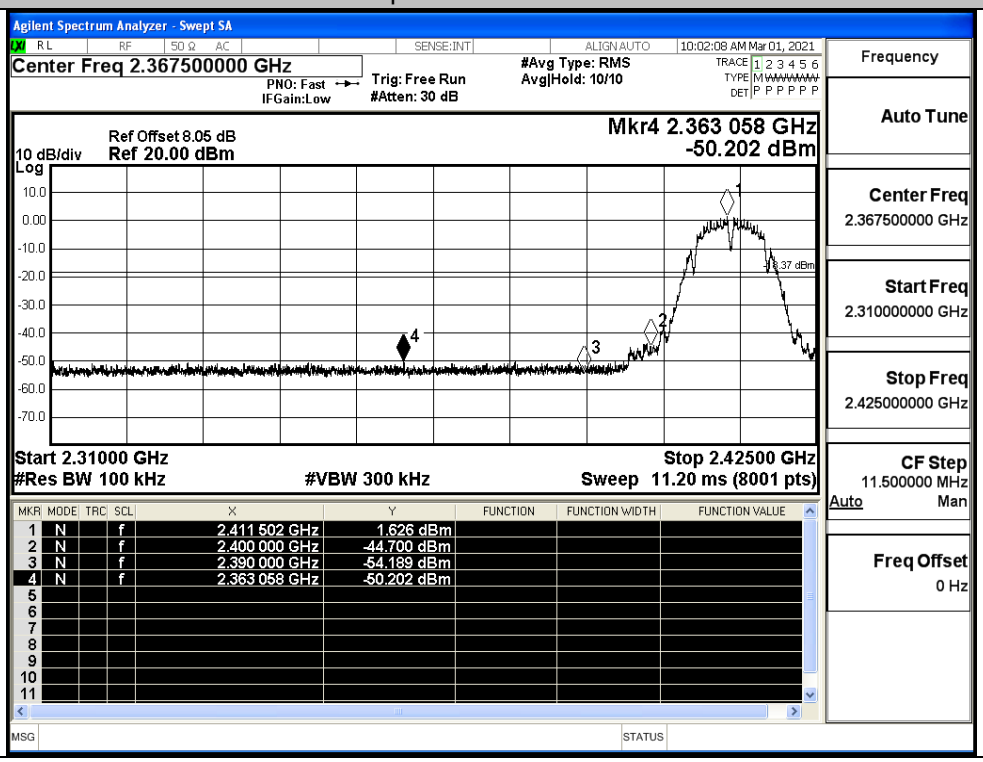
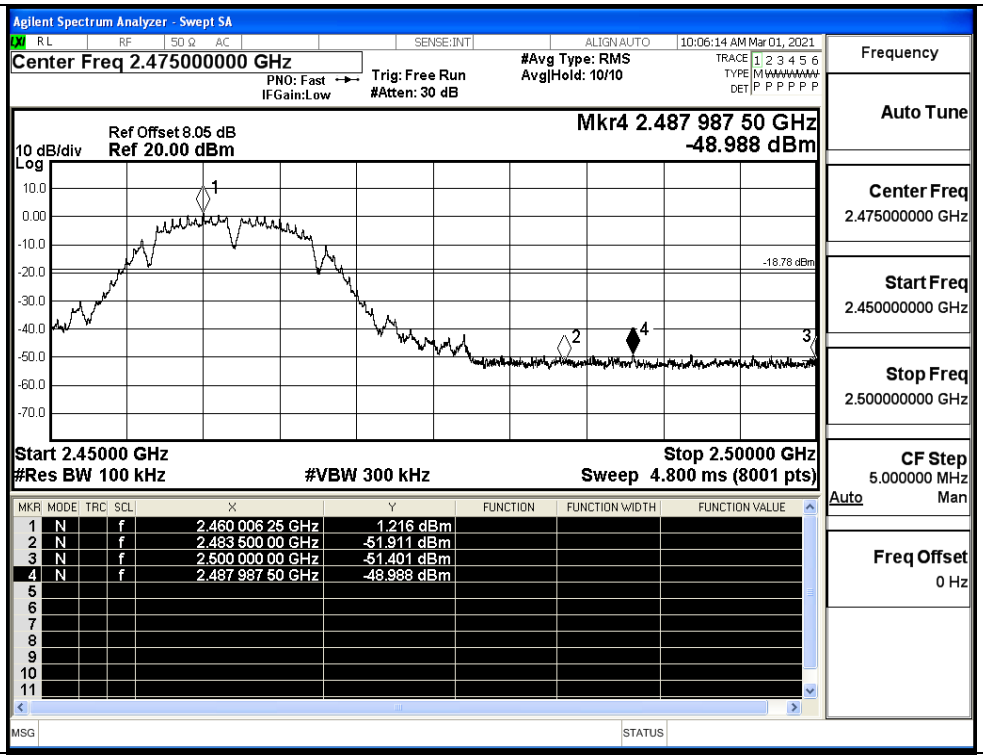
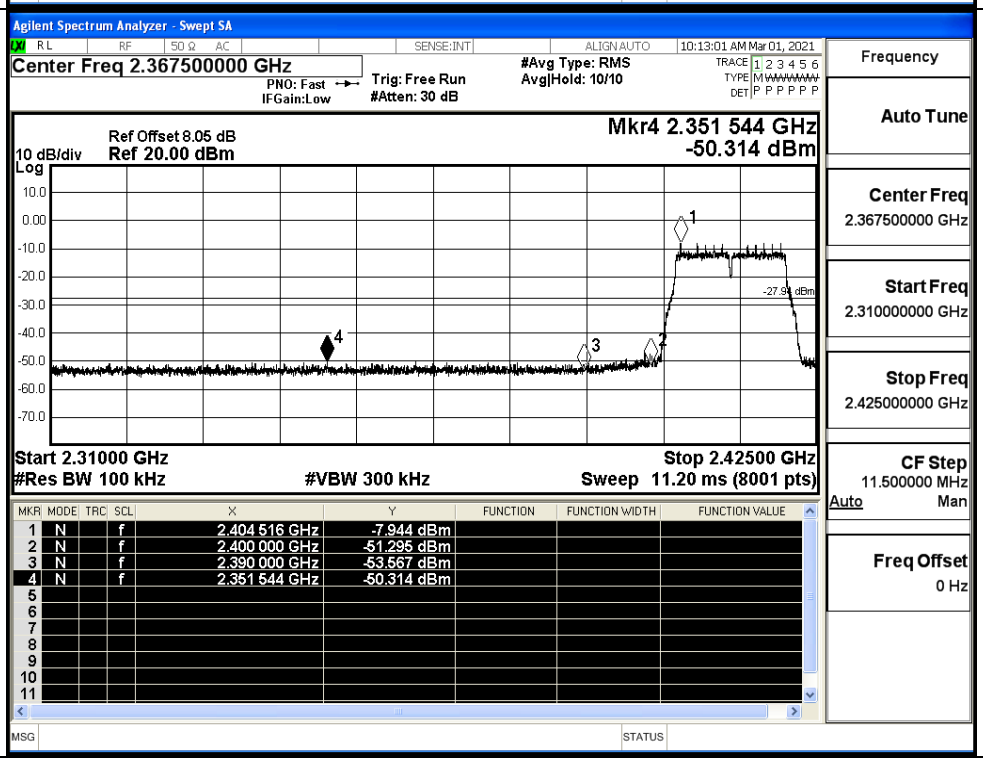
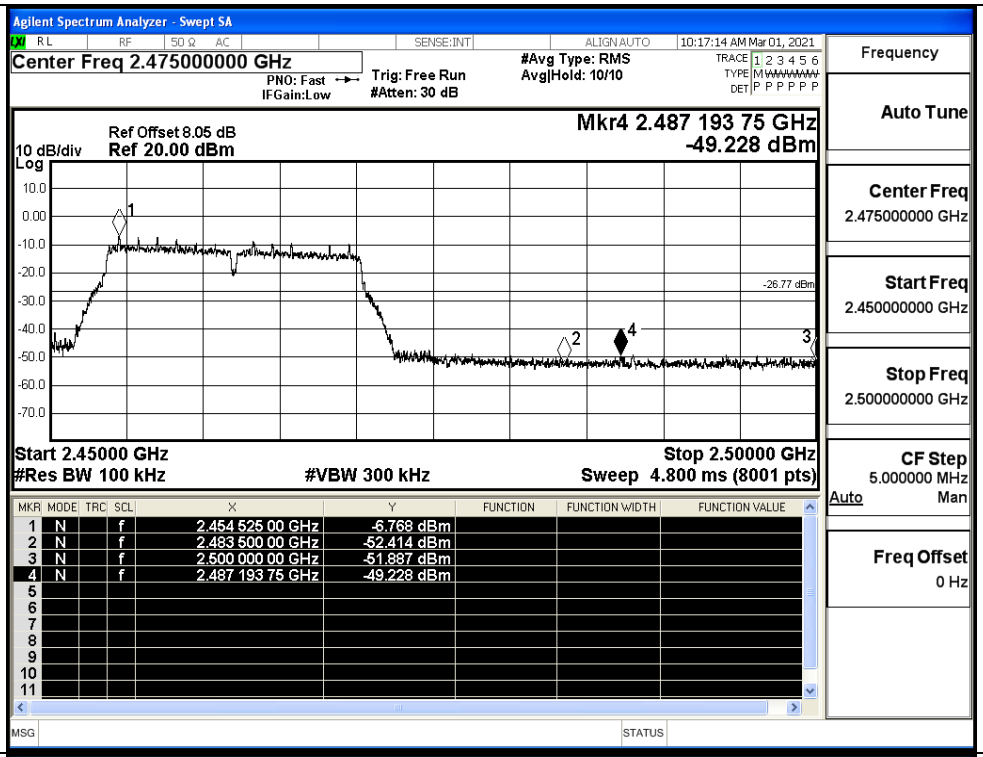
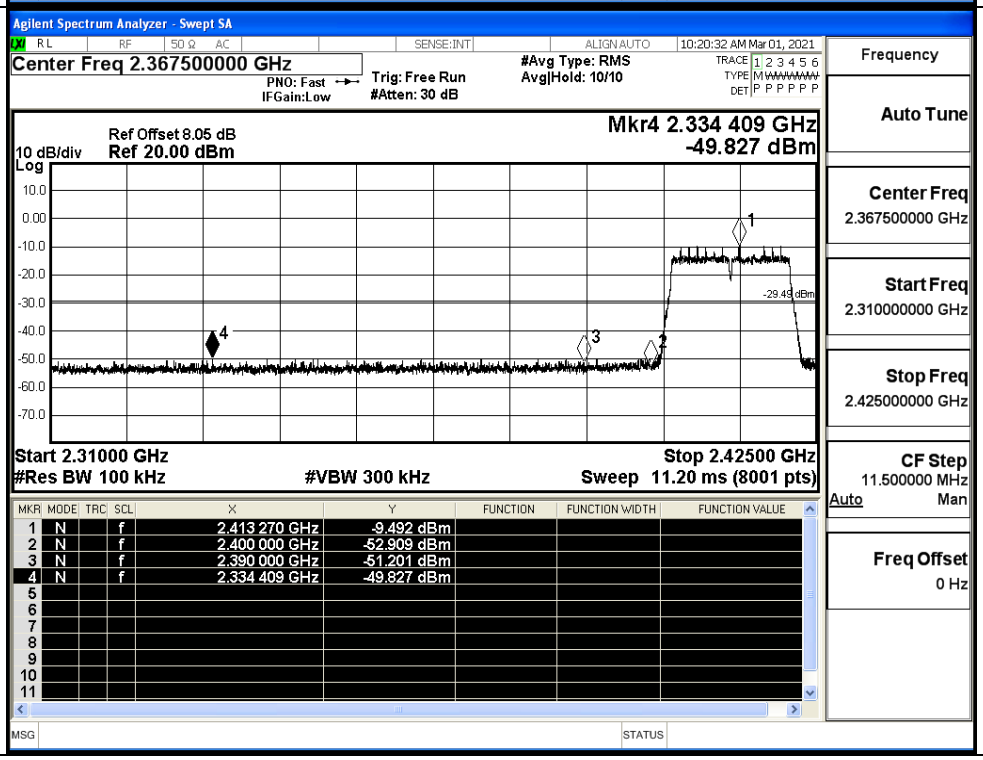
Pref/11N40 SISO/HCH	
Puw/11N40 SISO/HCH	

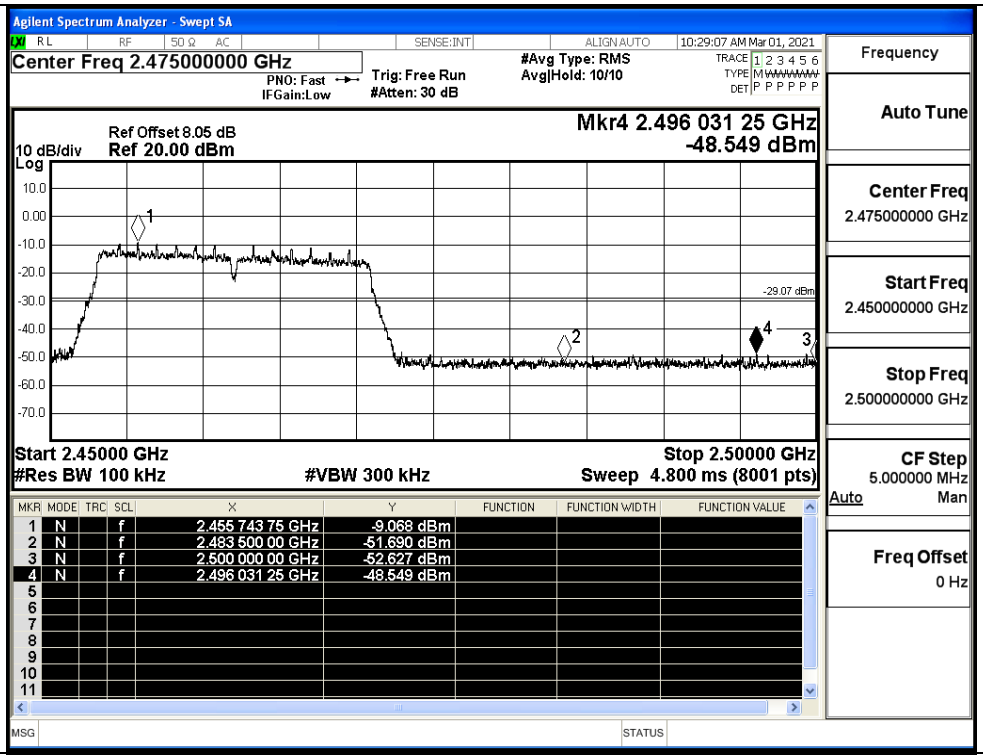
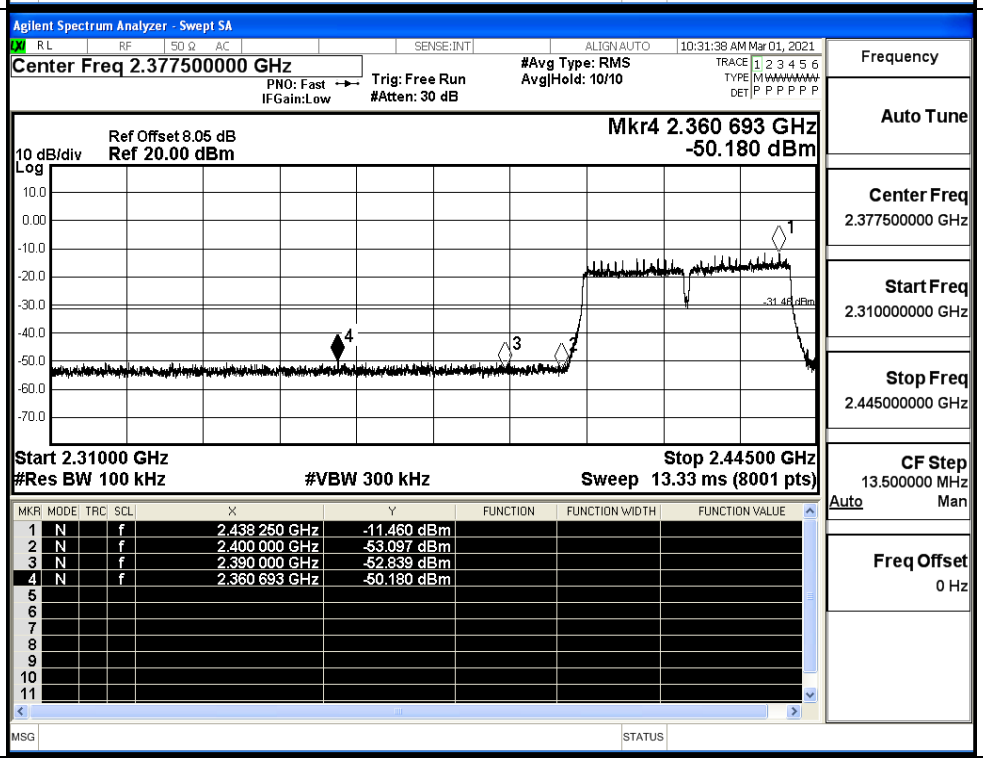
B.6 Band-edge for RF Conducted Emissions

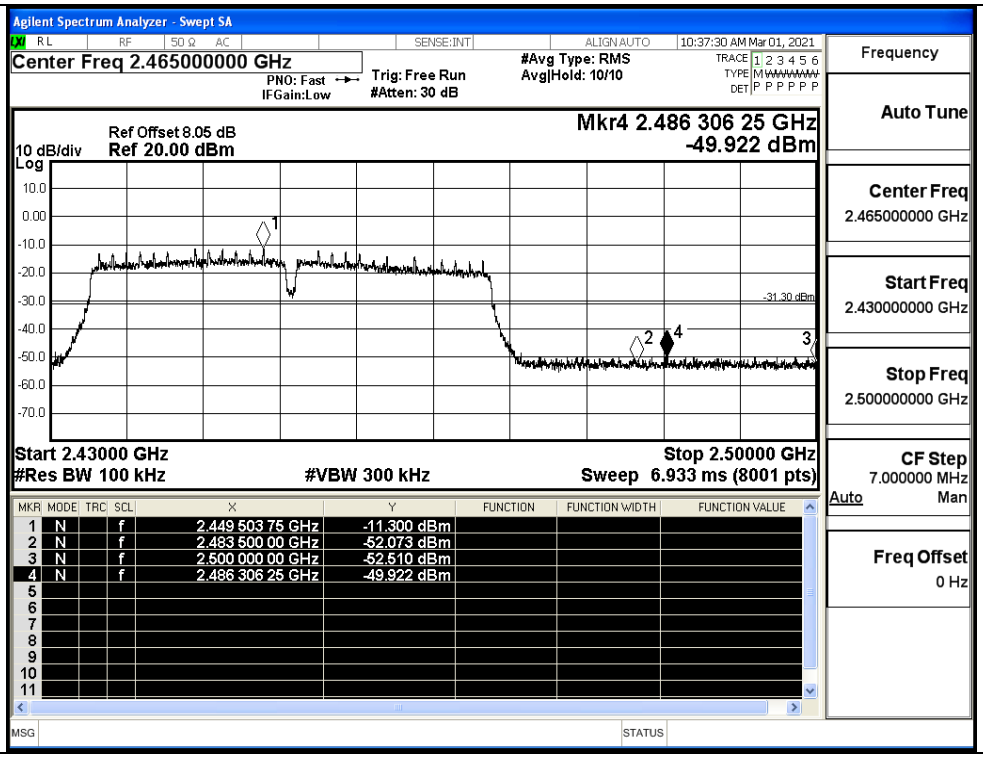
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	1.626	-50.202	-18.37	PASS
	HCH	1.216	-48.988	-18.78	PASS
11G	LCH	-7.944	-50.314	-27.94	PASS
	HCH	-6.768	-49.228	-26.77	PASS
11N20SISO	LCH	-9.492	-49.827	-29.49	PASS
	HCH	-9.068	-48.549	-29.07	PASS
11N40SISO	LCH	-11.460	-50.180	-31.46	PASS
	HCH	-11.300	-49.922	-31.3	PASS

Test Graphs	
11B/LCH	

11B/HCH		
11G/LCH		

11G/HCH		
11N20SISO/LCH		

11N20SISO/HCH		
11N40SISO/LCH		

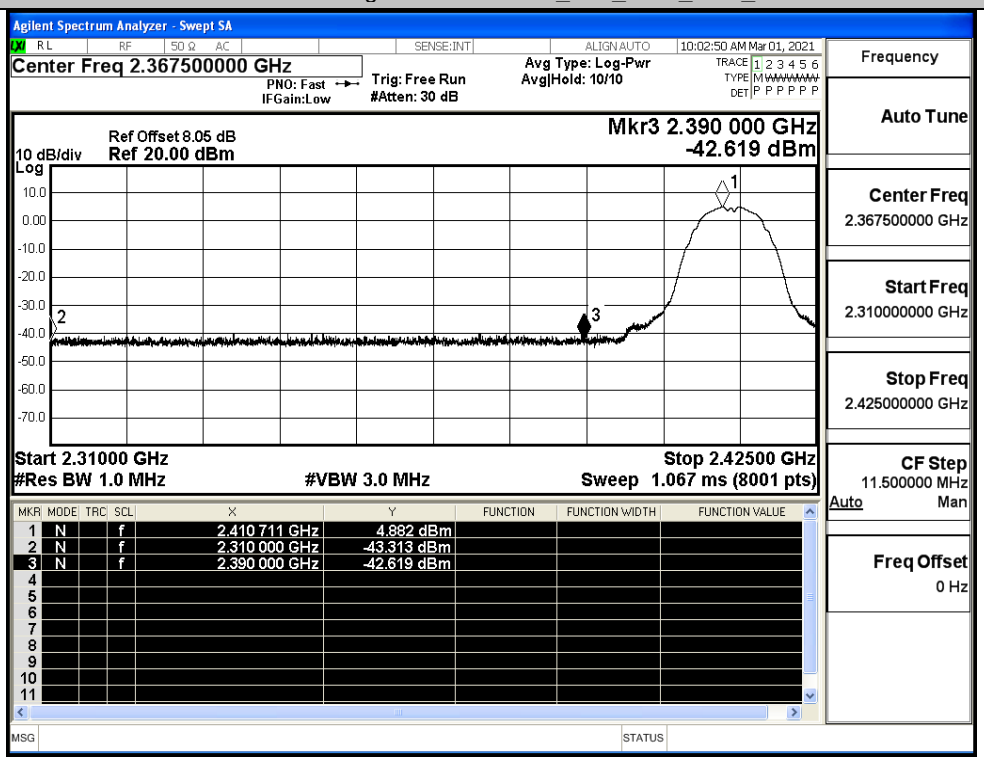
11N40SISO/HCH	

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	-43.31	2.0	0	51.94	PEAK	74	PASS
	2412	Ant1	2310.0	-53.65	2.0	0	41.61	AV	54	PASS
	2412	Ant1	2390.0	-42.62	2.0	0	52.64	PEAK	74	PASS
	2412	Ant1	2390.0	-53.23	2.0	0	42.03	AV	54	PASS
	2462	Ant1	2483.5	-40.21	2.0	0	55.05	PEAK	74	PASS
	2462	Ant1	2483.5	-51.95	2.0	0	43.31	AV	54	PASS
	2462	Ant1	2500.0	-42.79	2.0	0	52.47	PEAK	74	PASS
	2462	Ant1	2500.0	-52.67	2.0	0	42.58	AV	54	PASS
11G	2412	Ant1	2310.0	-42.35	2.0	0	52.91	PEAK	74	PASS
	2412	Ant1	2310.0	-53.67	2.0	0	41.59	AV	54	PASS
	2412	Ant1	2390.0	-42.28	2.0	0	52.98	PEAK	74	PASS
	2412	Ant1	2390.0	-53.30	2.0	0	41.96	AV	54	PASS
	2462	Ant1	2483.5	-42.24	2.0	0	53.02	PEAK	74	PASS
	2462	Ant1	2483.5	-52.56	2.0	0	42.70	AV	54	PASS
	2462	Ant1	2500.0	-42.79	2.0	0	52.47	PEAK	74	PASS
	2462	Ant1	2500.0	-52.74	2.0	0	42.52	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-43.28	2.0	0	51.98	PEAK	74	PASS
	2412	Ant1	2310.0	-53.71	2.0	0	41.54	AV	54	PASS
	2412	Ant1	2390.0	-42.89	2.0	0	52.37	PEAK	74	PASS
	2412	Ant1	2390.0	-53.30	2.0	0	41.95	AV	54	PASS
	2462	Ant1	2483.5	-42.31	2.0	0	52.95	PEAK	74	PASS
	2462	Ant1	2483.5	-52.71	2.0	0	42.55	AV	54	PASS
	2462	Ant1	2500.0	-42.66	2.0	0	52.60	PEAK	74	PASS
	2462	Ant1	2500.0	-52.71	2.0	0	42.55	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-43.32	2.0	0	51.94	PEAK	74	PASS
	2422	Ant1	2310.0	-53.67	2.0	0	41.58	AV	54	PASS

	2422	Ant1	2390.0	-42.29	2.0	0	52.97	PEAK	74	PASS
	2422	Ant1	2390.0	-53.30	2.0	0	41.95	AV	54	PASS
	2452	Ant1	2483.5	-43.52	2.0	0	51.74	PEAK	74	PASS
	2452	Ant1	2483.5	-52.74	2.0	0	42.52	AV	54	PASS
	2452	Ant1	2500.0	-42.35	2.0	0	52.91	PEAK	74	PASS
	2452	Ant1	2500.0	-52.71	2.0	0	42.55	AV	54	PASS

Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



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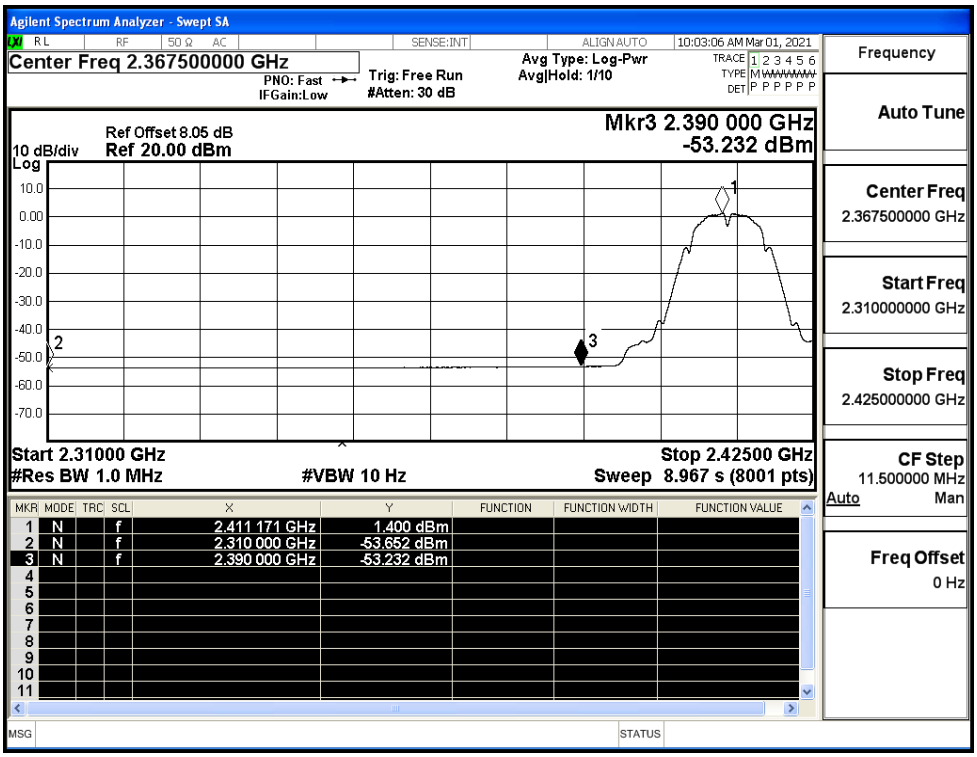

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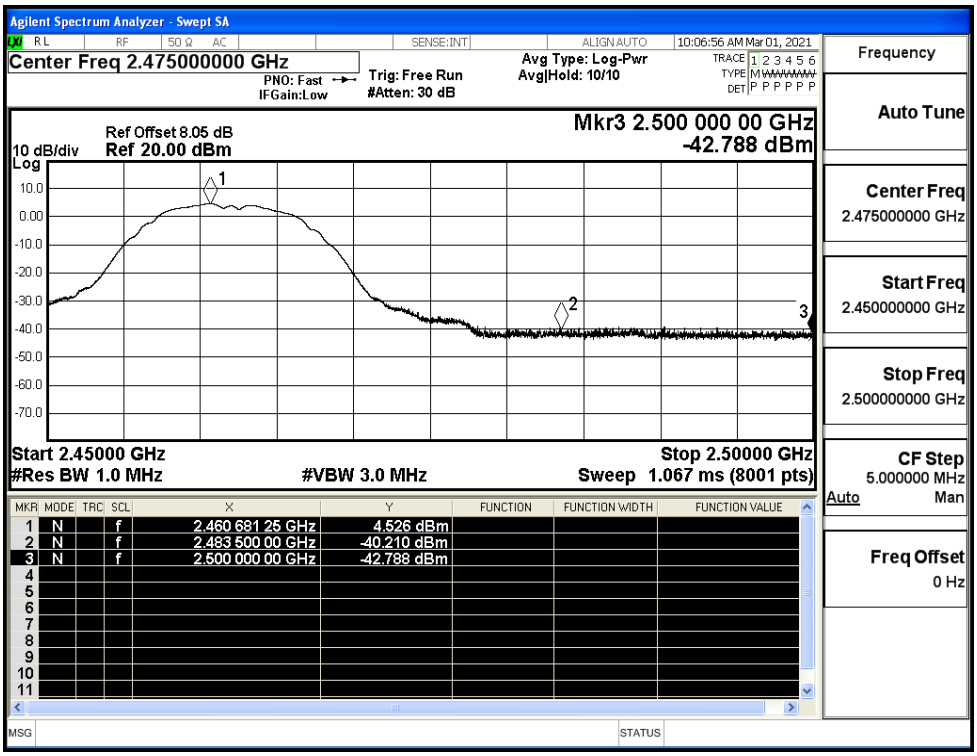

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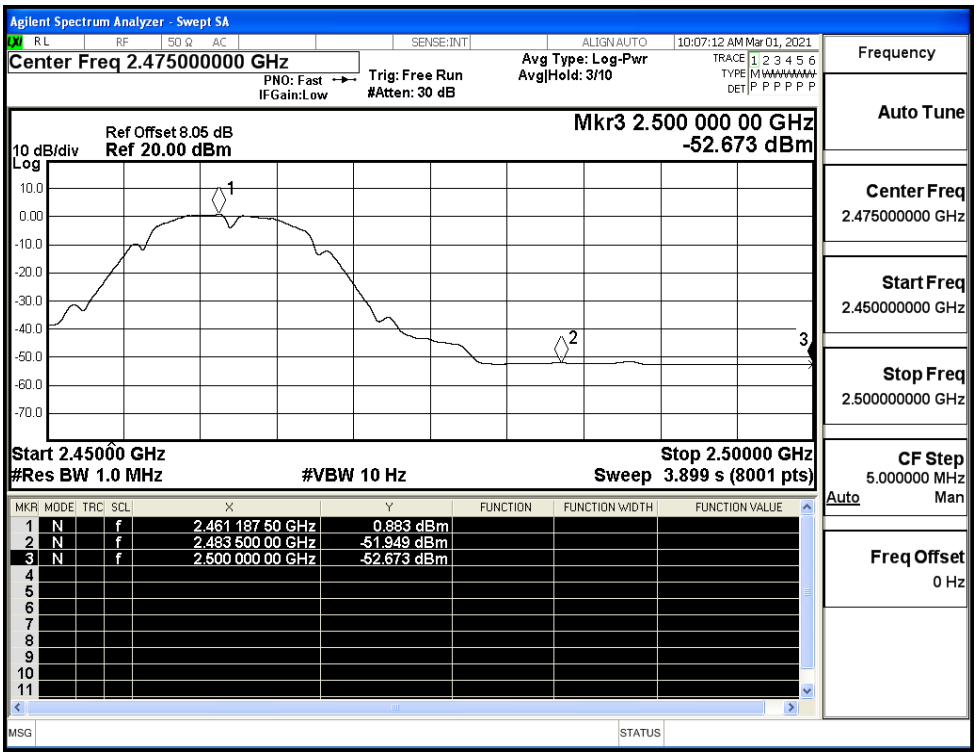
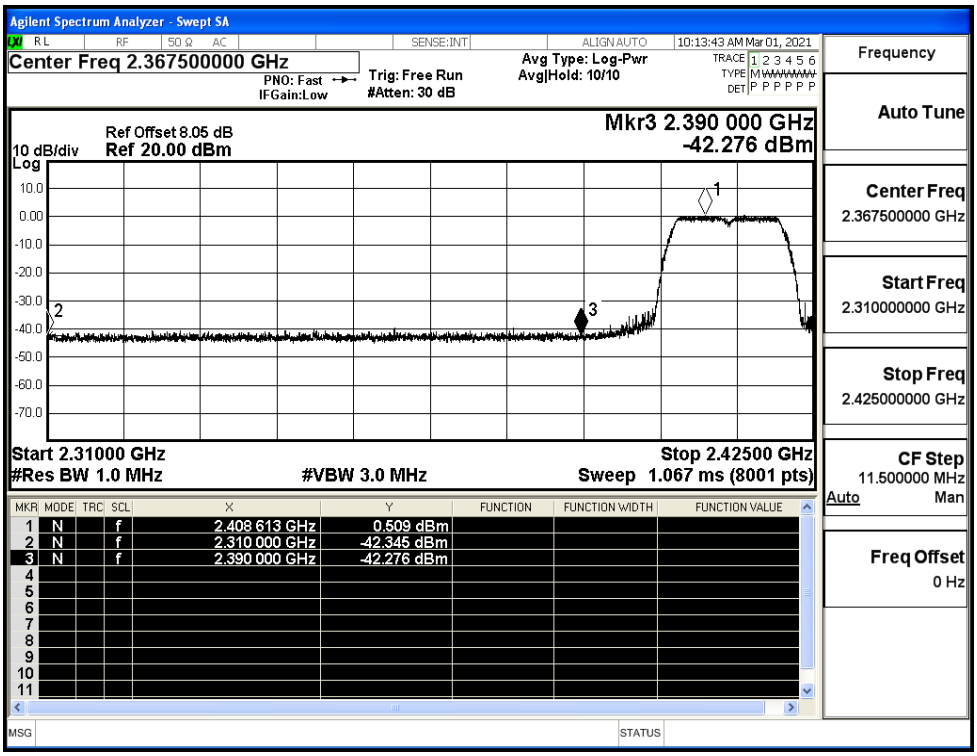


Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



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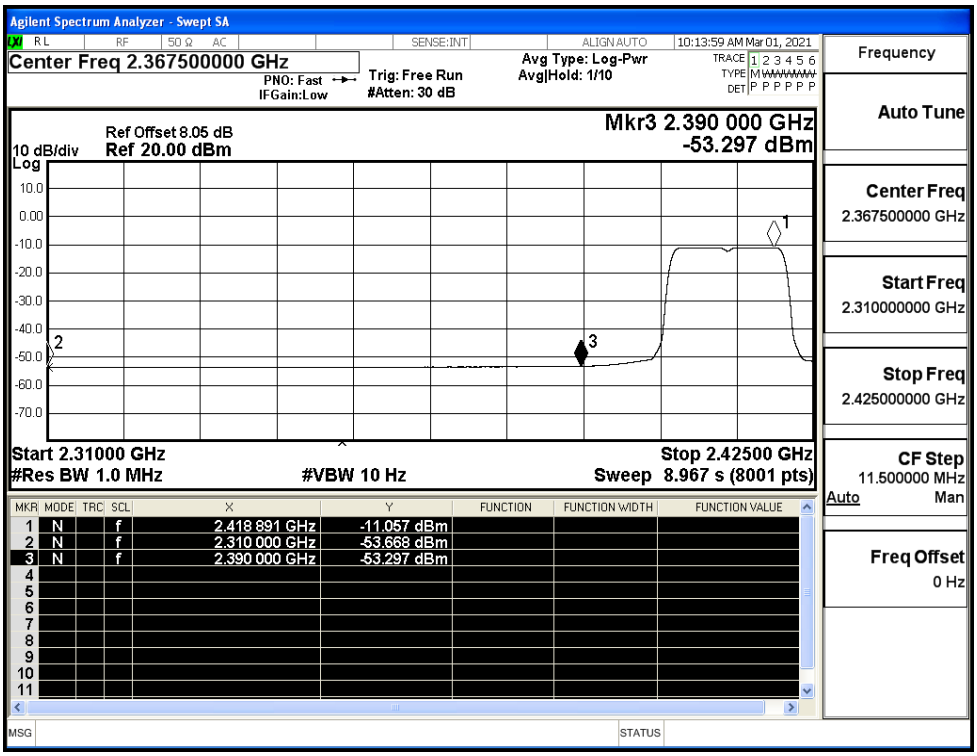

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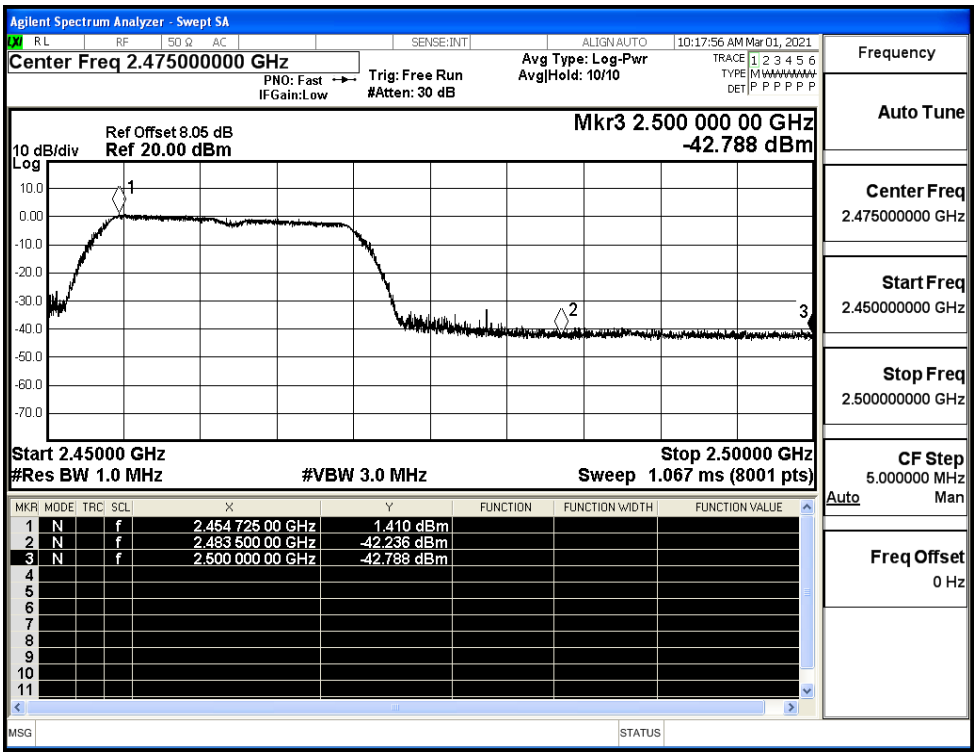

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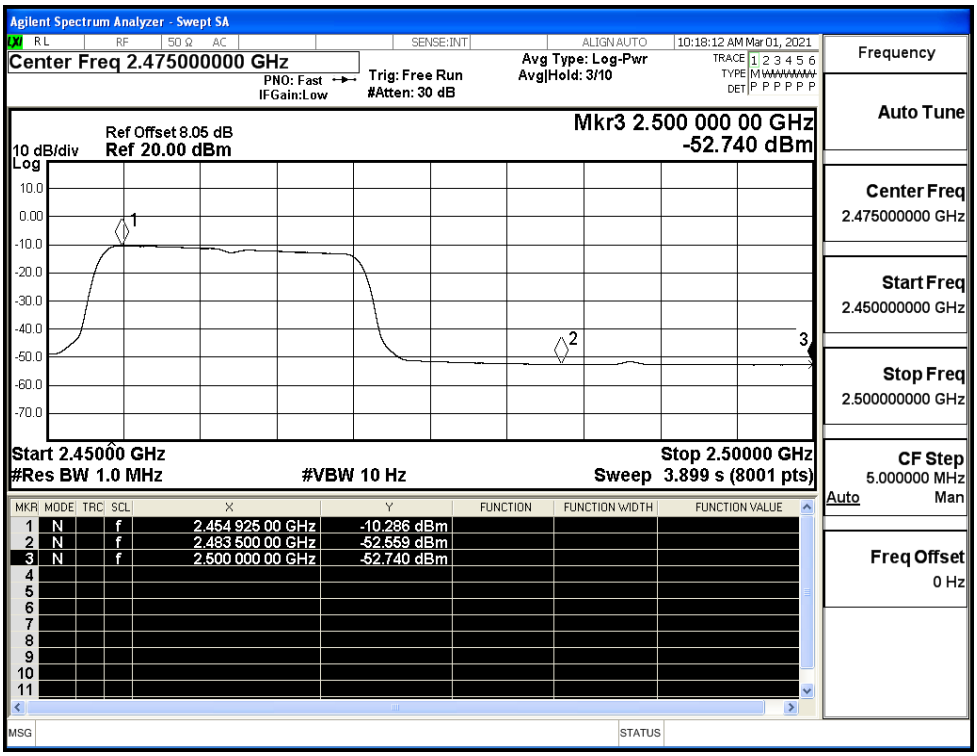

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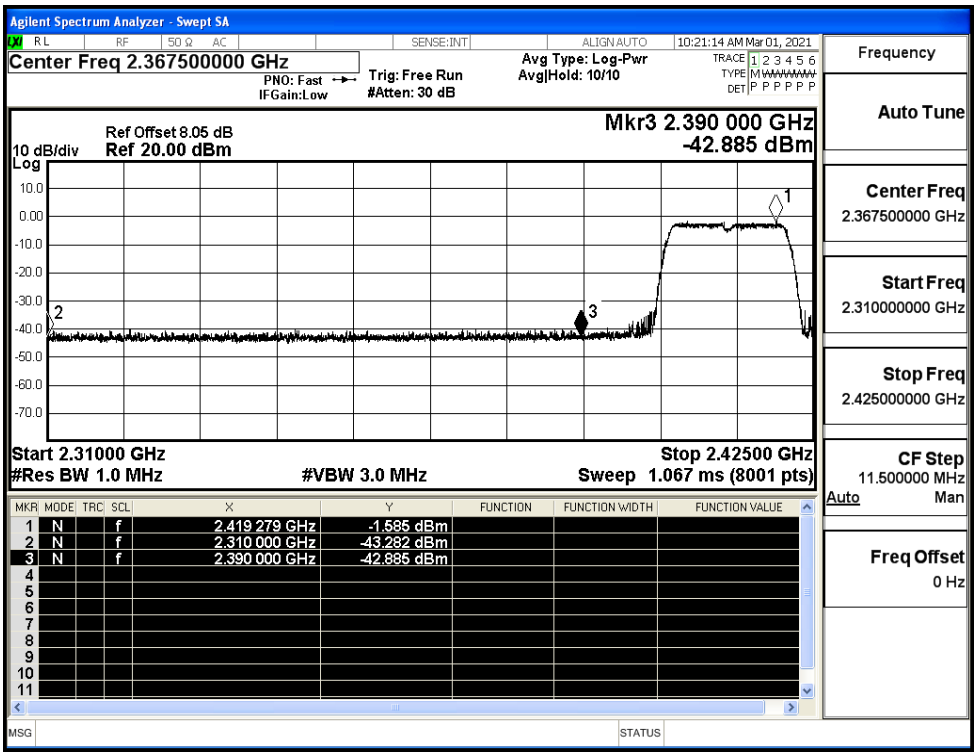

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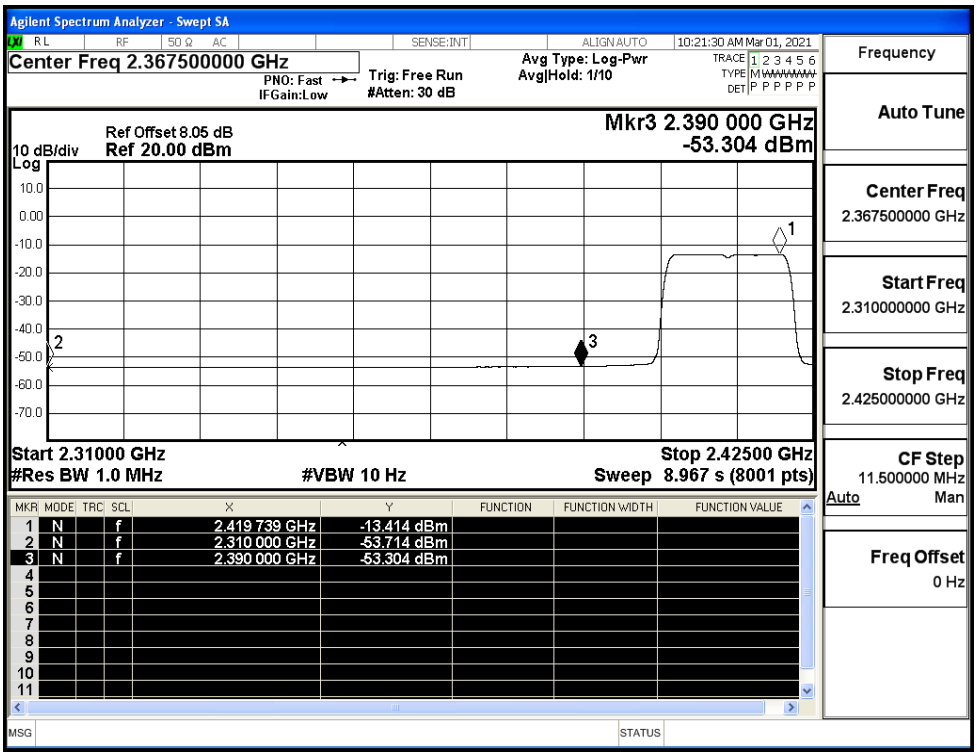

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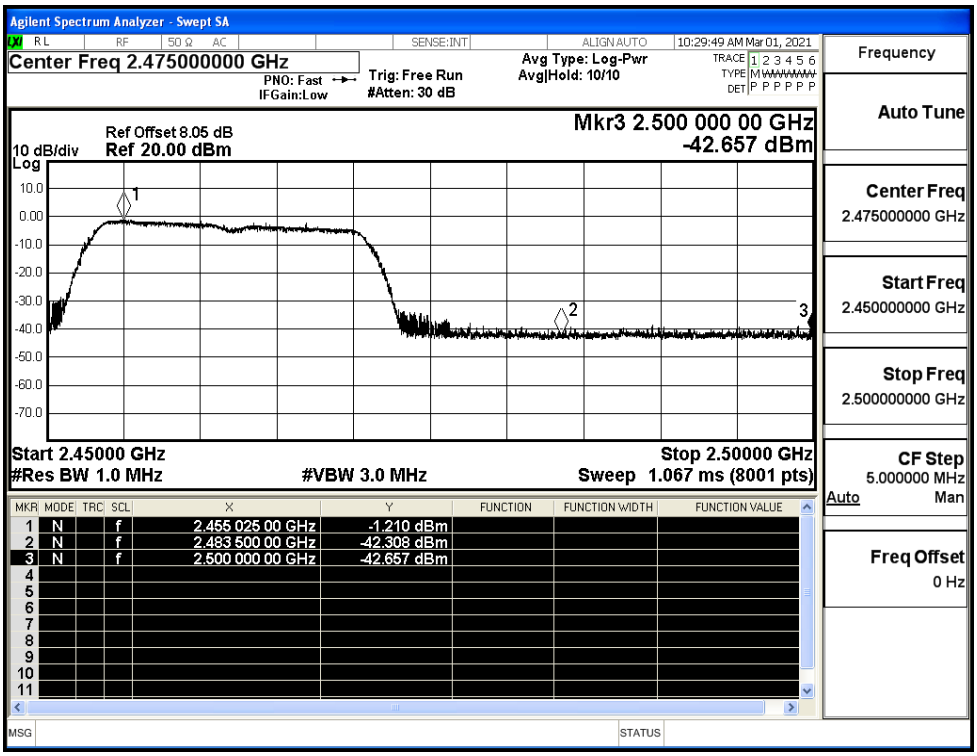

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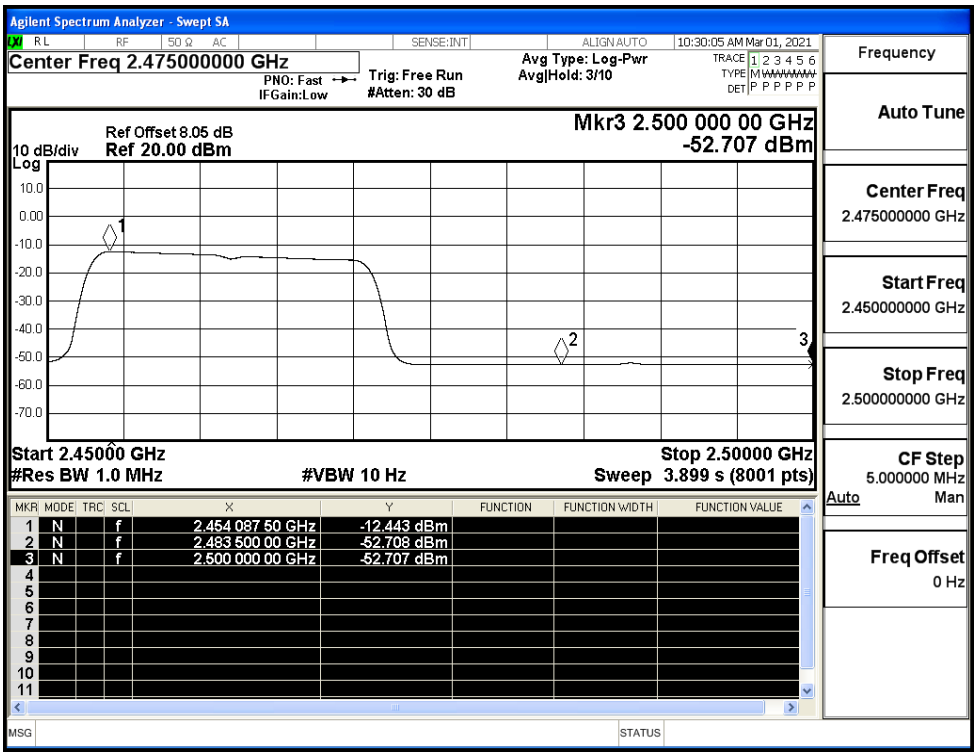

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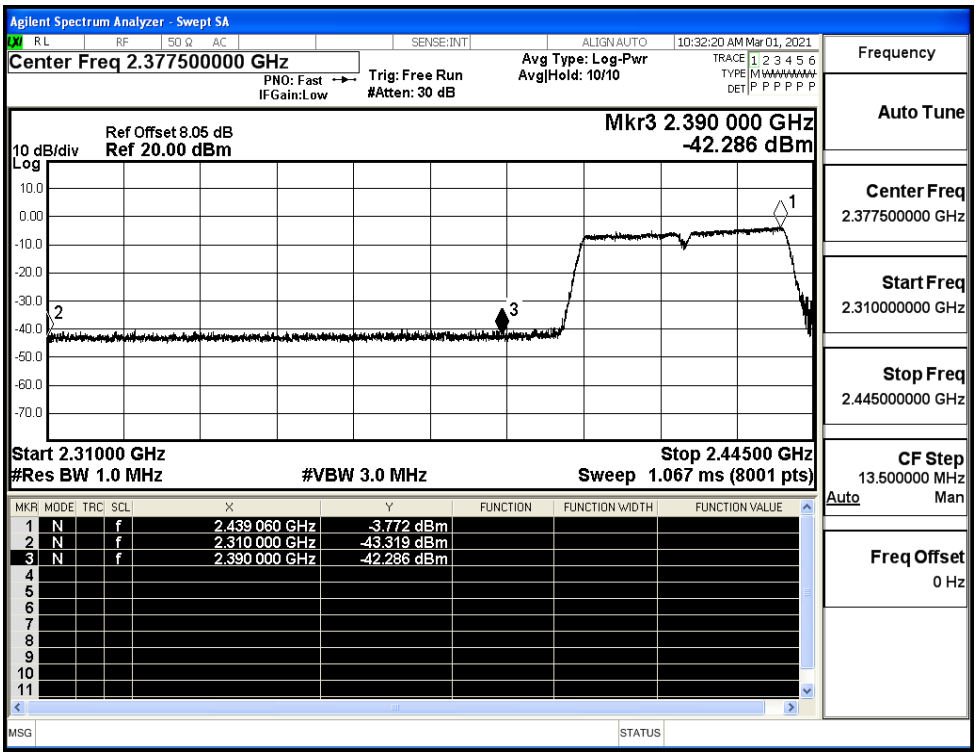
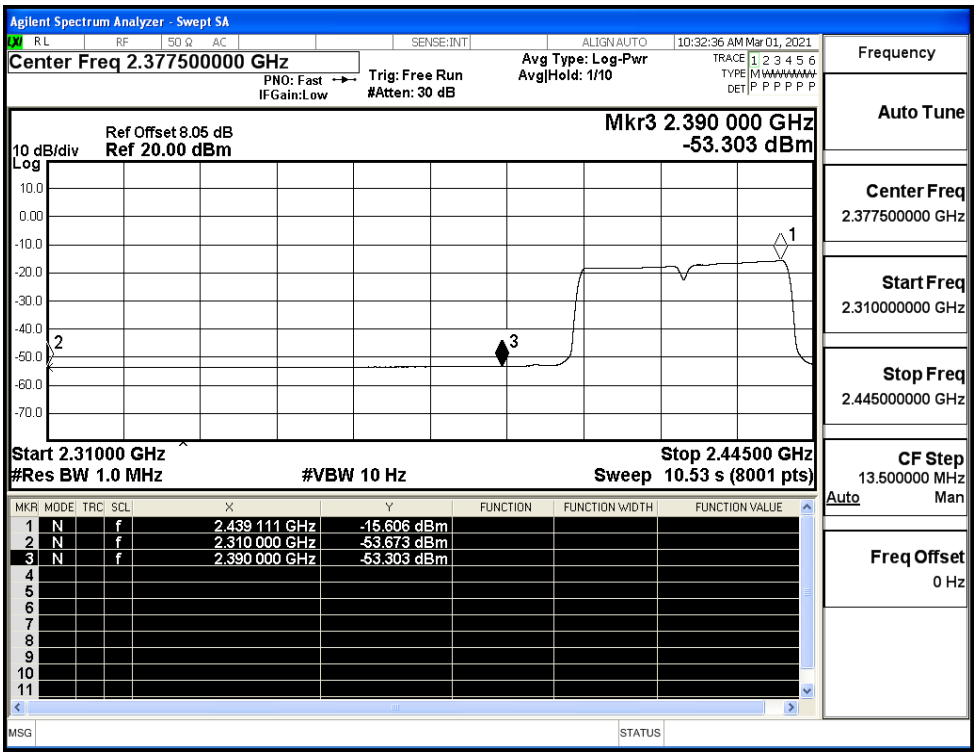


Restrict-band band-edge measurements_11N40SISO_2422_Ant1_AV



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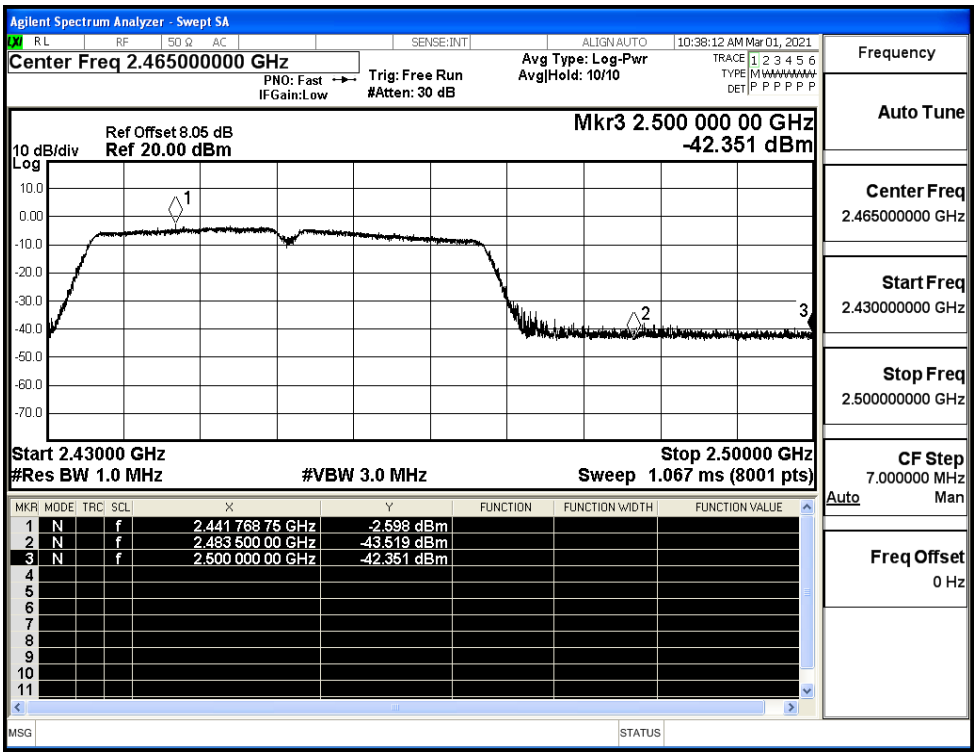
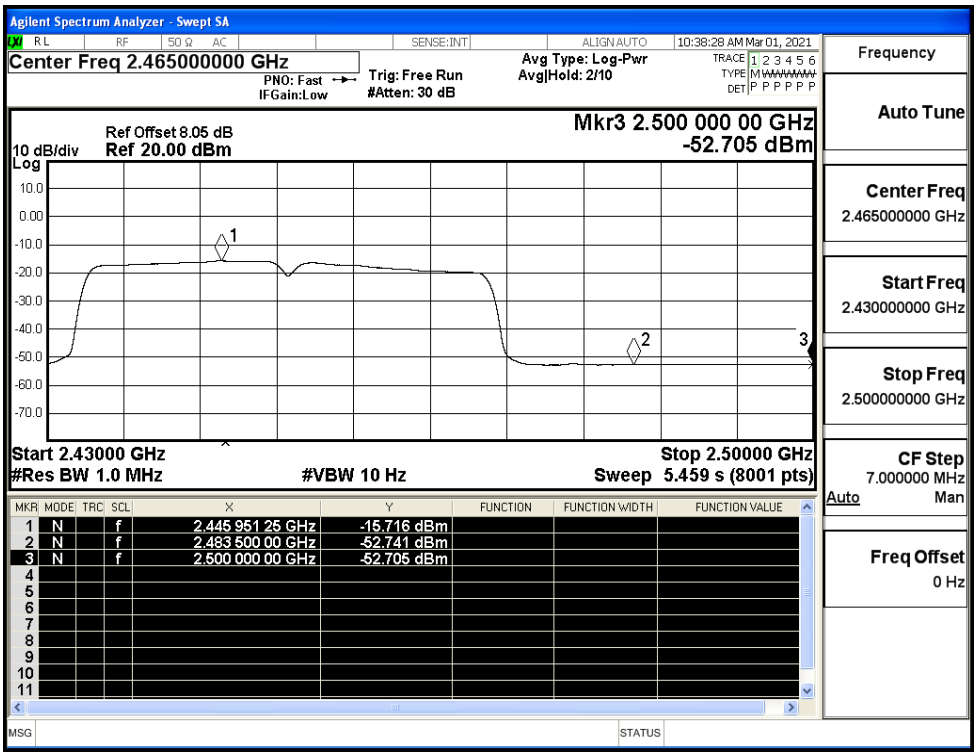
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