

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Smart WIFI Lamp

Trade Mark: N/A

Test Model: SQPA6005-A

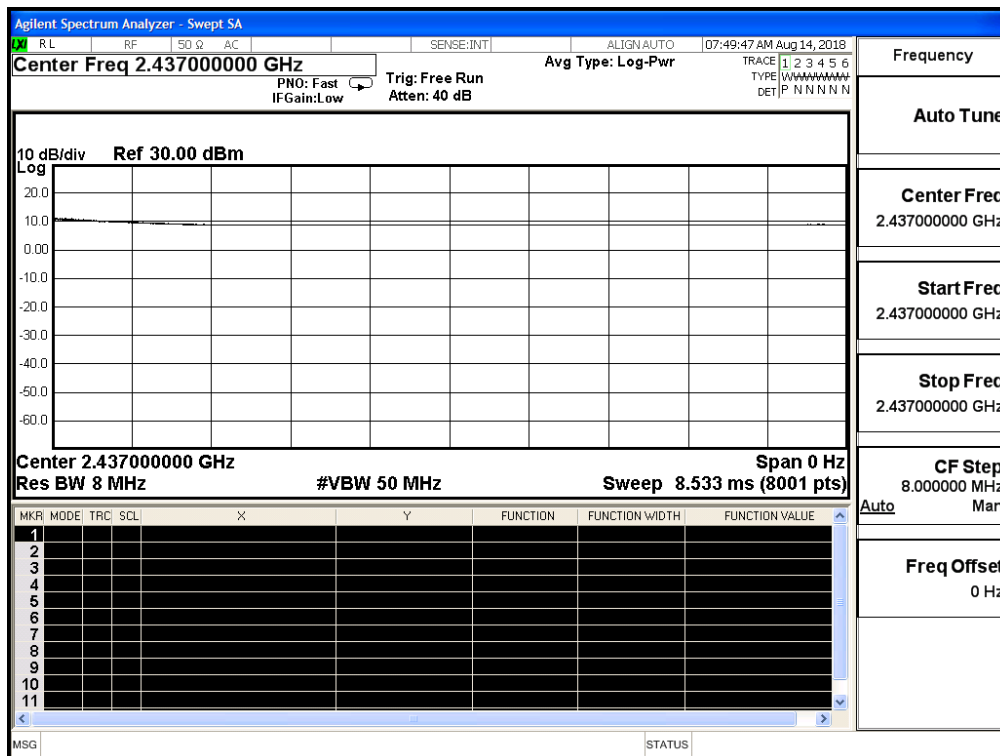
Environmental Conditions

Temperature:	23.6 ° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Wilson hong
Supervised by:	Jayden.Zhuo

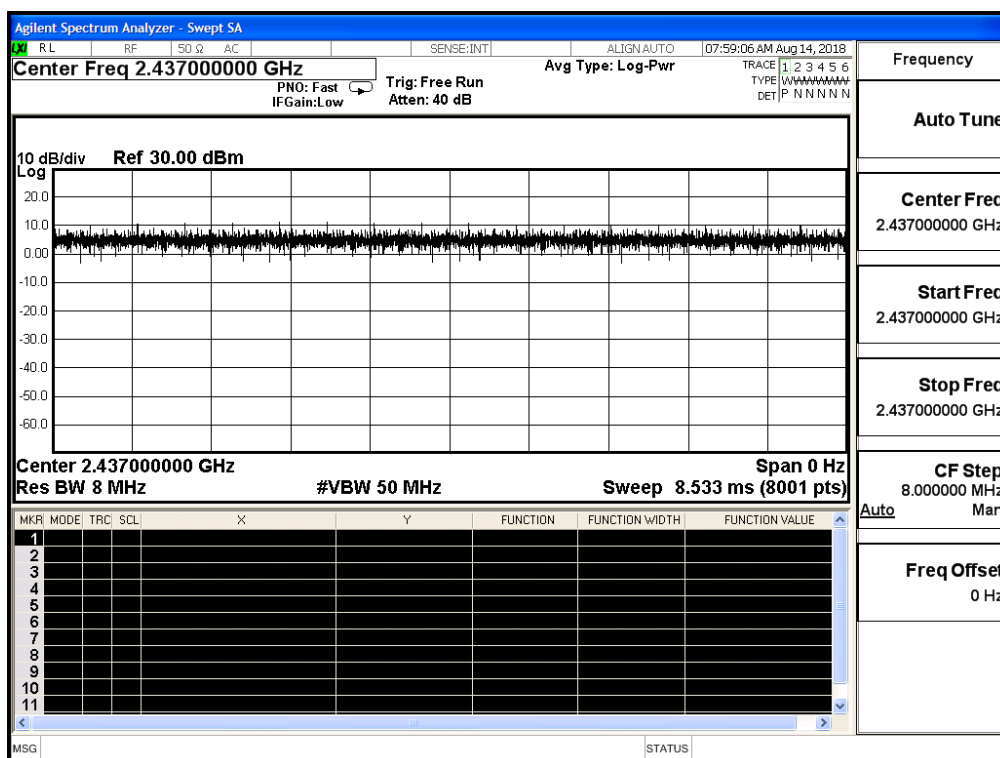
A.1 Duty Cycle

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

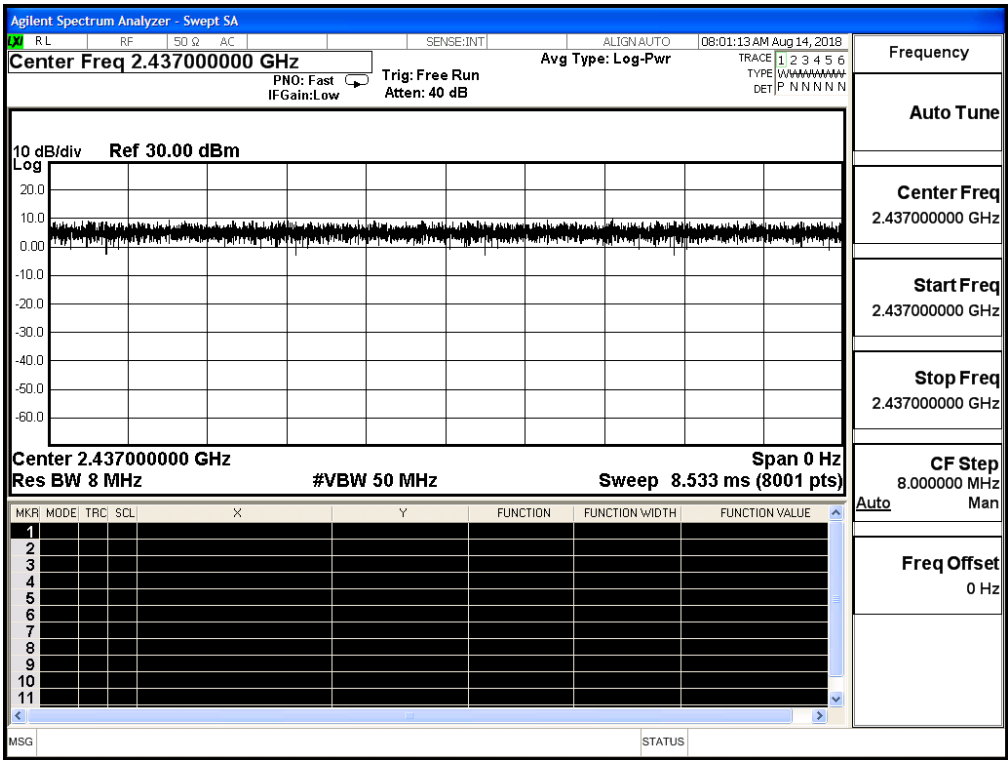
Duty Cycle_11B_2437_Ant1



Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



A.2 Maximum Conducted Output Power

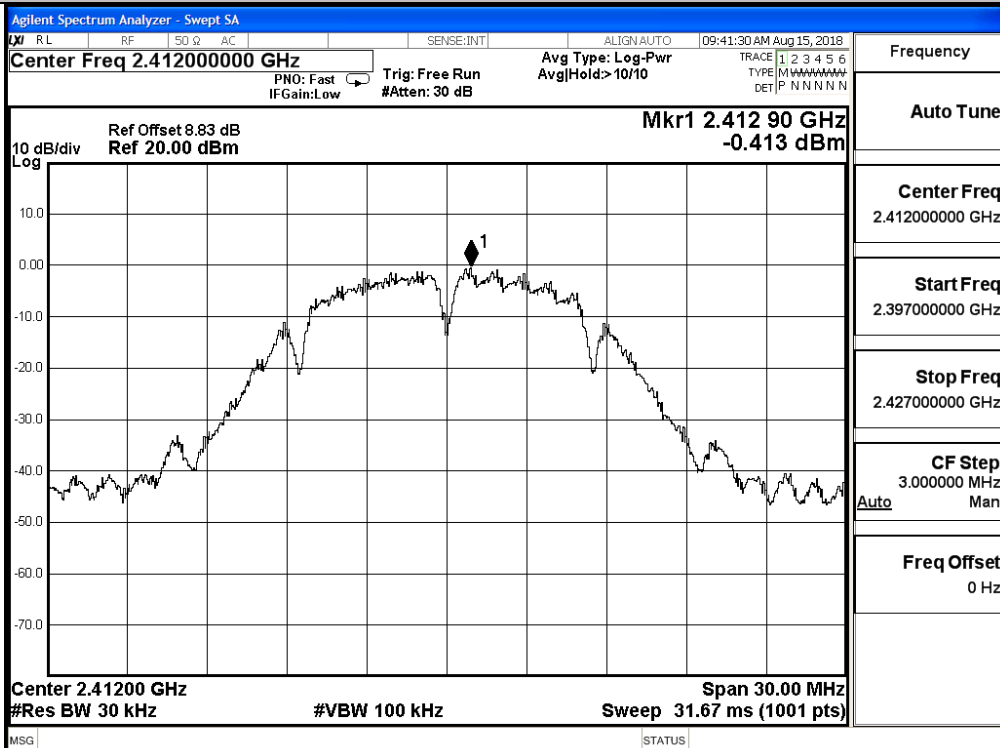
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	15.33	30	PASS
	MCH	15.37	30	PASS
	HCH	15.35	30	PASS
11G	LCH	11.68	30	PASS
	MCH	11.28	30	PASS
	HCH	11.19	30	PASS
11N20SISO	LCH	11.47	30	PASS
	MCH	11.16	30	PASS
	HCH	11.13	30	PASS

A.3 Maximum Power Spectral Density

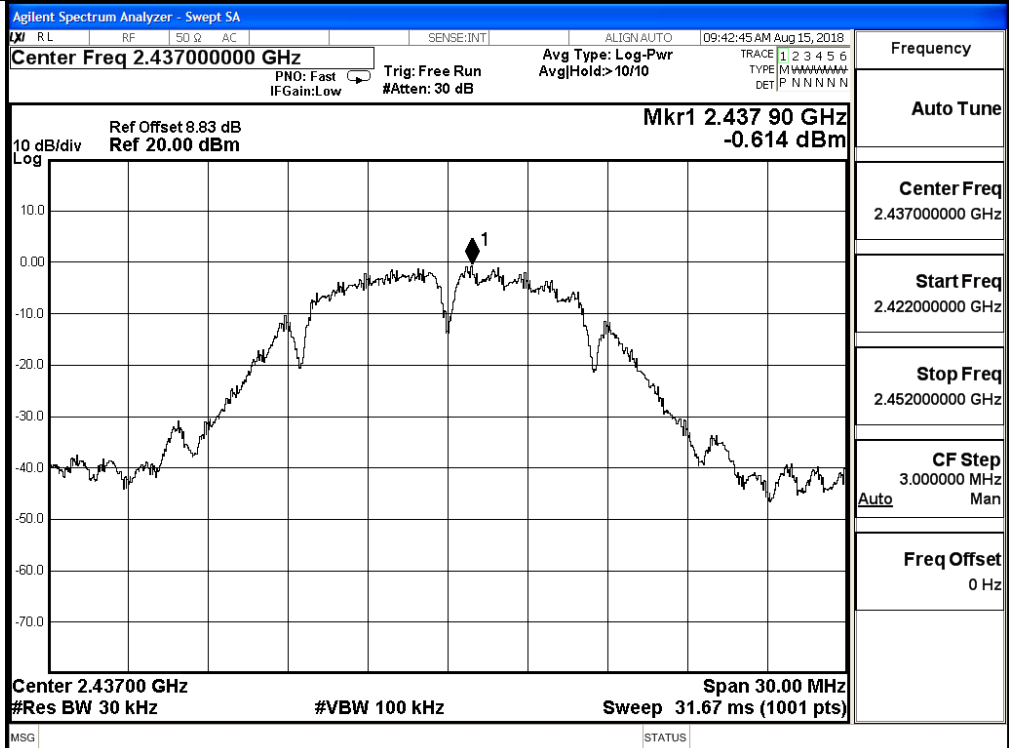
Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-0.413	8	PASS
	MCH	-0.614	8	PASS
	HCH	-0.667	8	PASS
11G	LCH	-3.994	8	PASS
	MCH	-4.582	8	PASS
	HCH	-4.068	8	PASS
11N20SISO	LCH	-3.248	8	PASS
	MCH	-4.011	8	PASS
	HCH	-3.482	8	PASS

Test Graphs

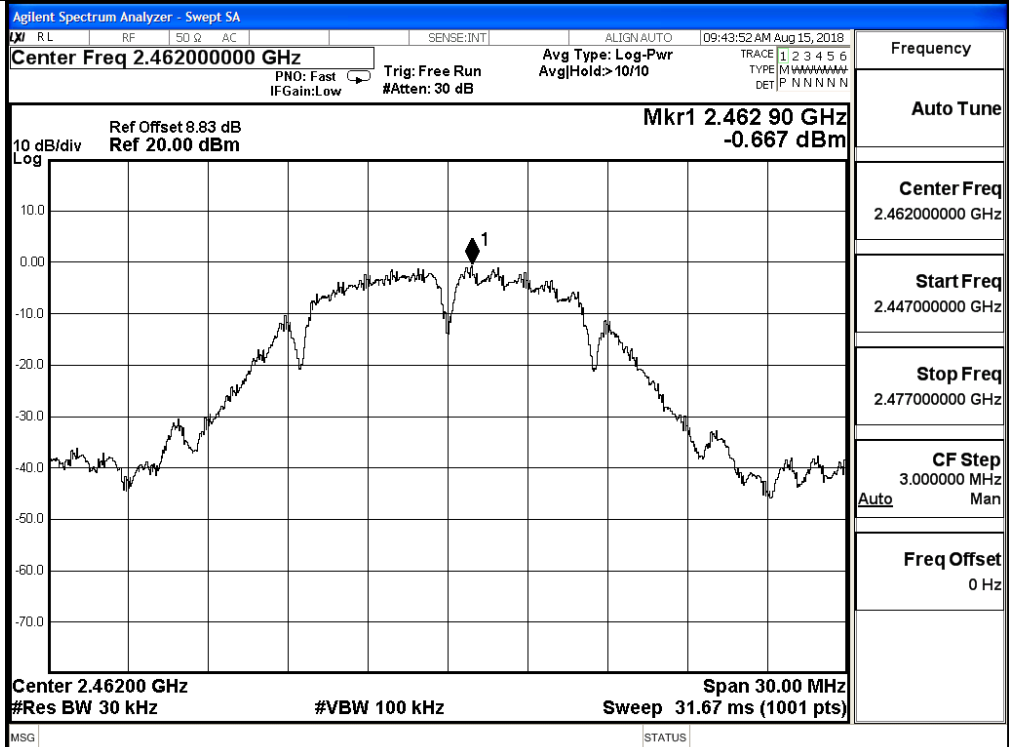
11B/LCH



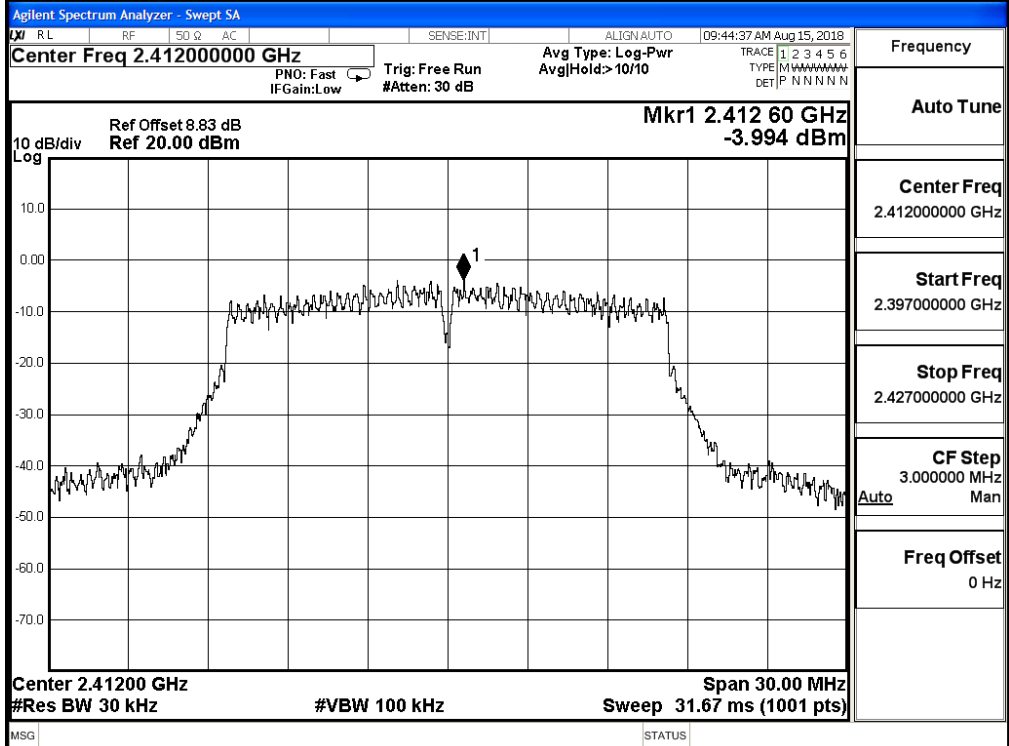
11B/MCH



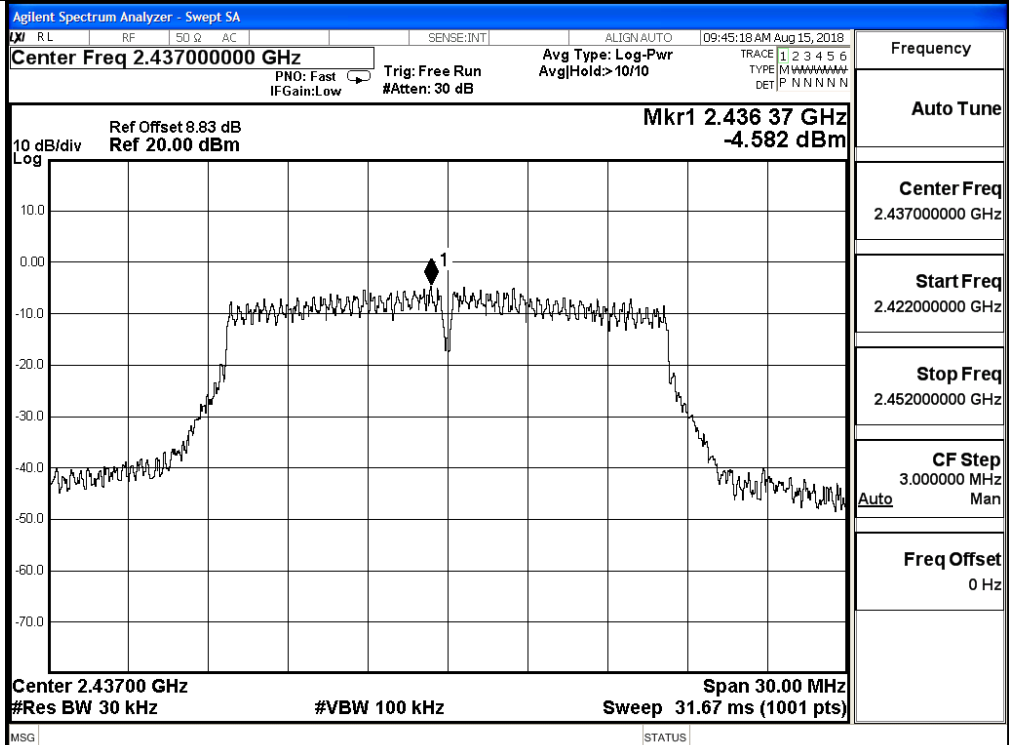
11B/HCH



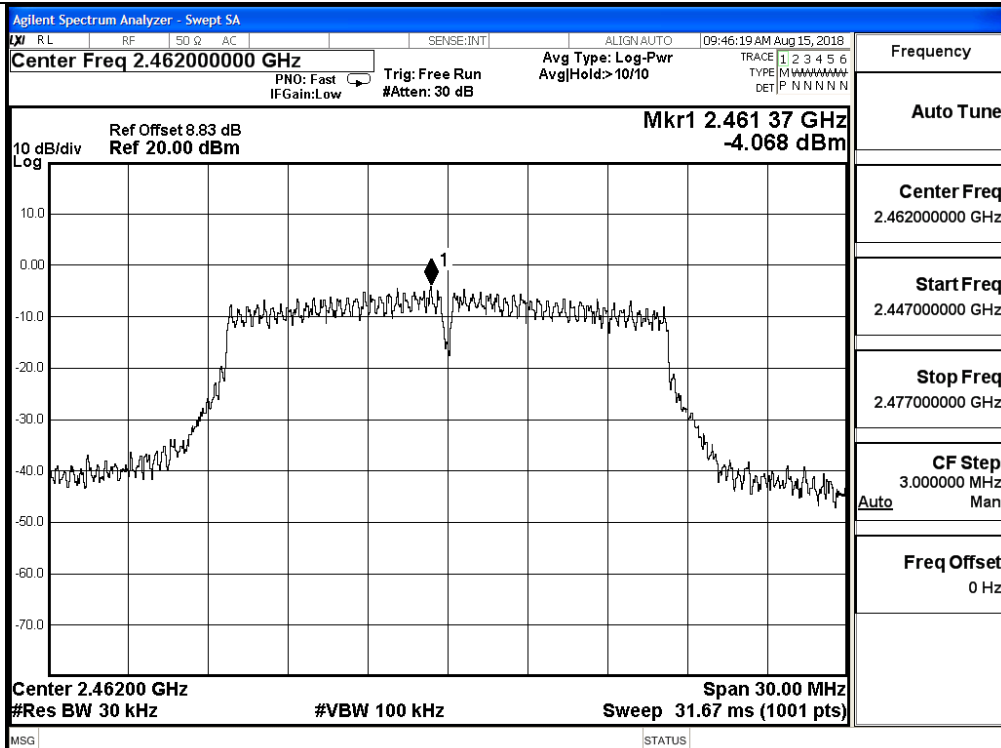
11G/LCH



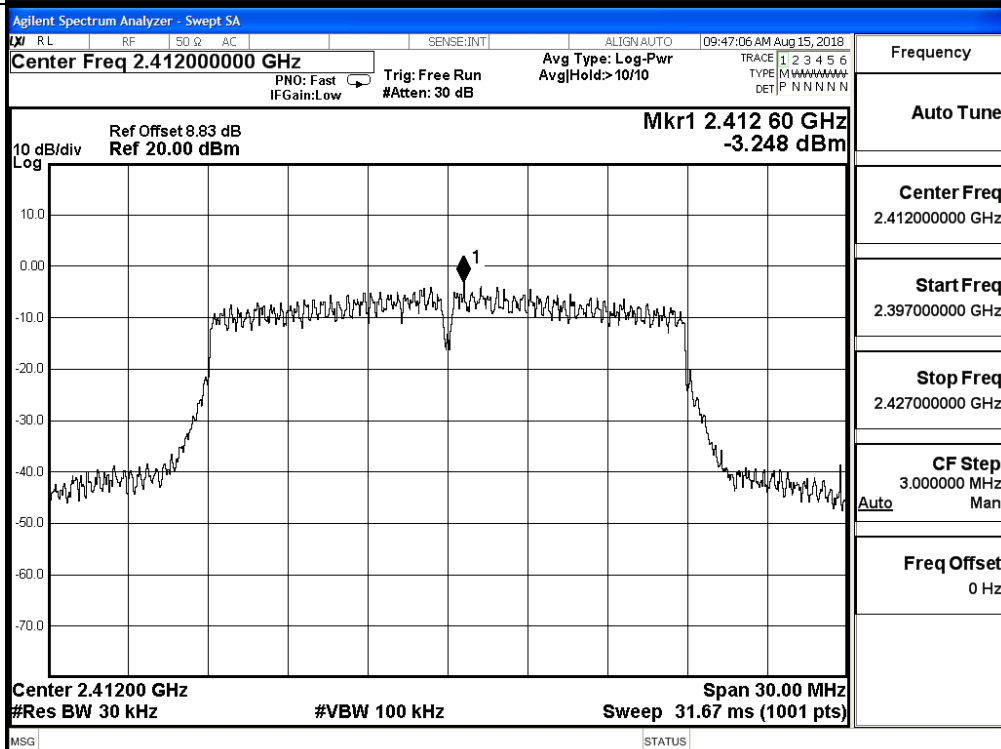
11G/MCH



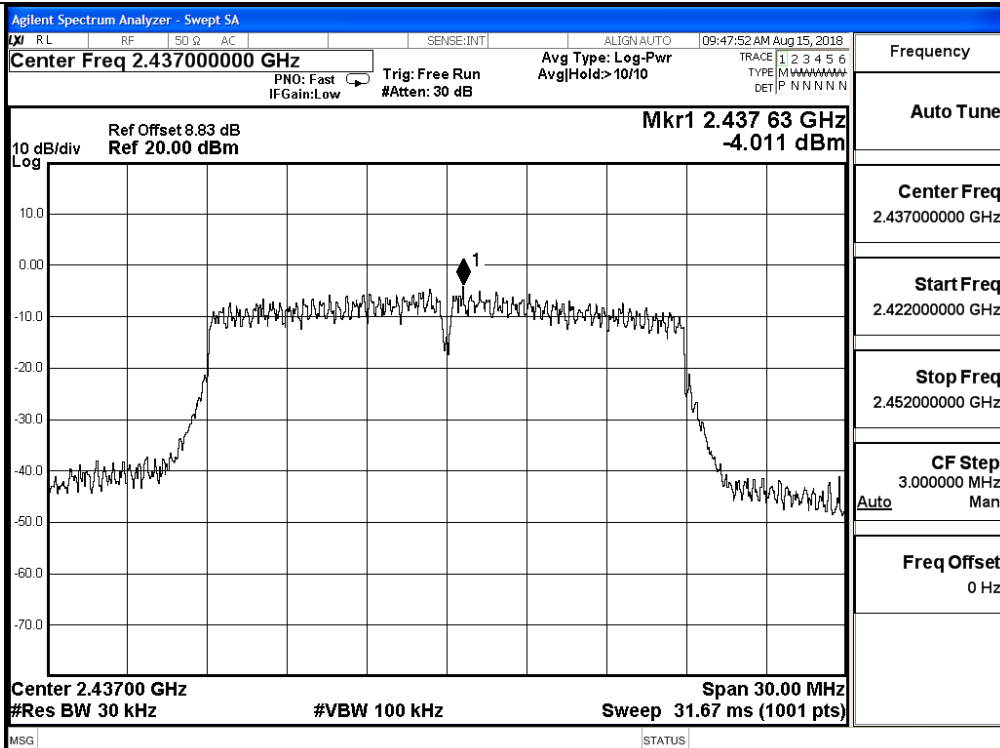
11G/HCH



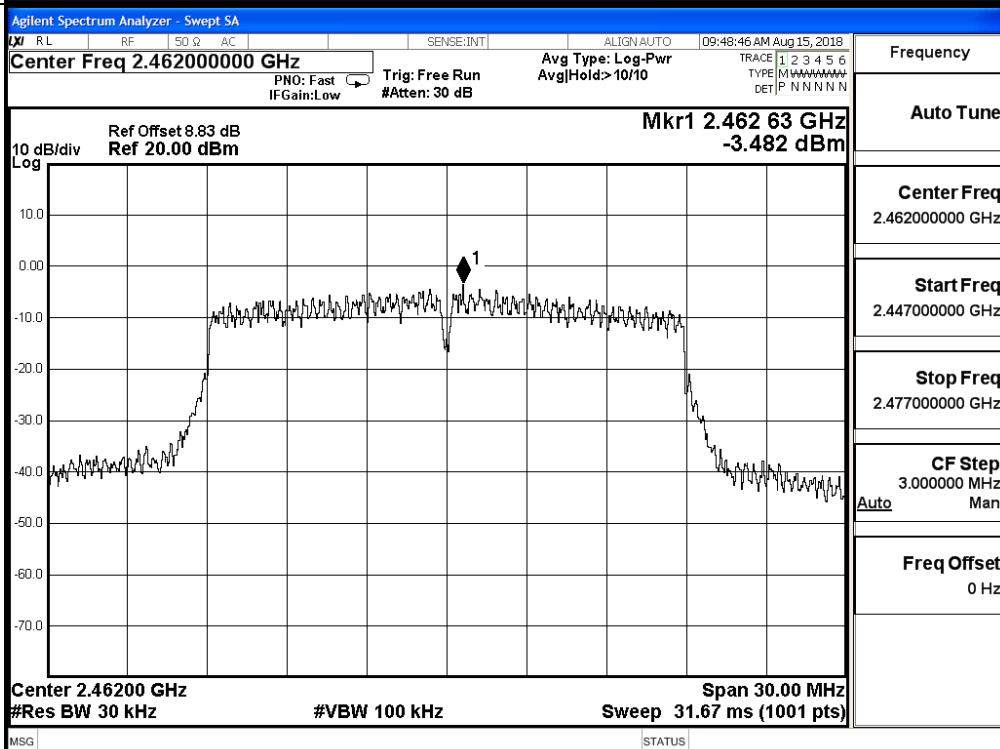
11N20SISO/LCH



11N20SISO/MCH



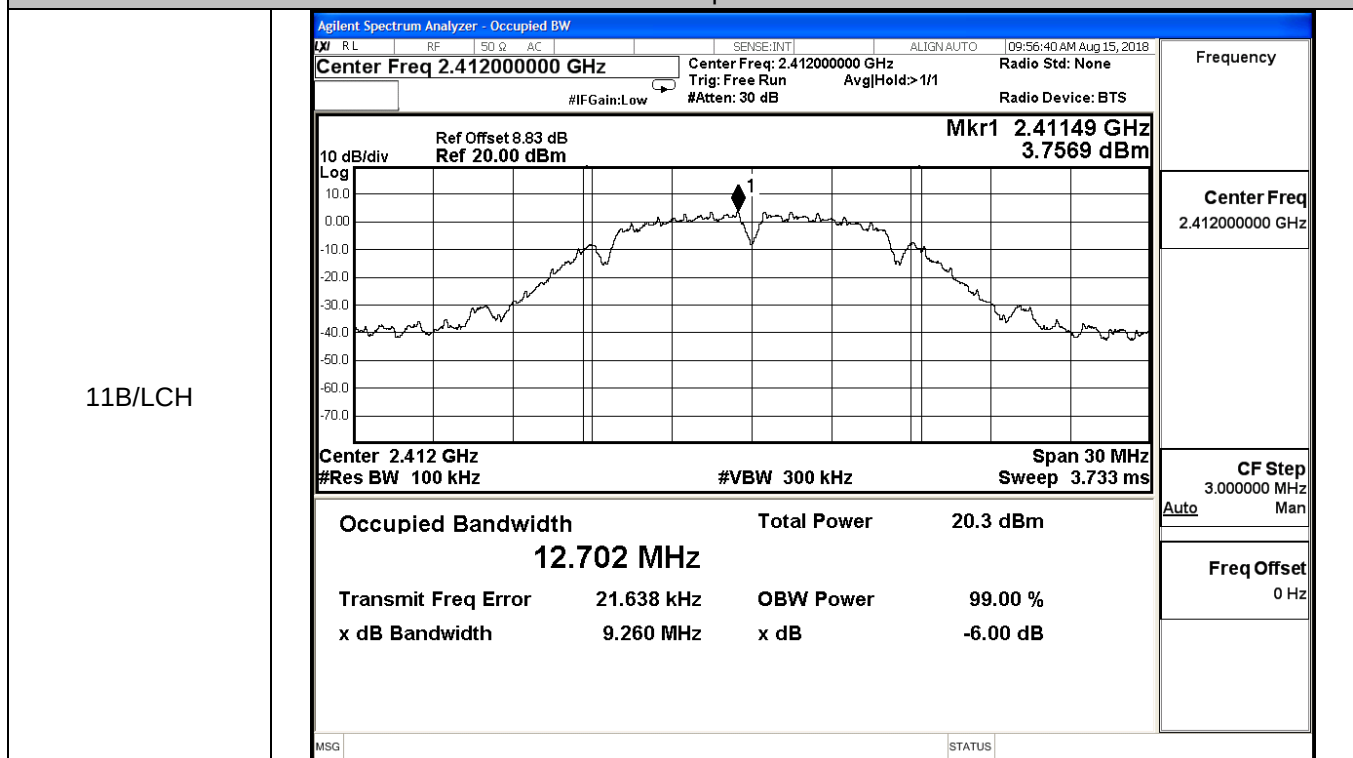
11N20SISO/HCH



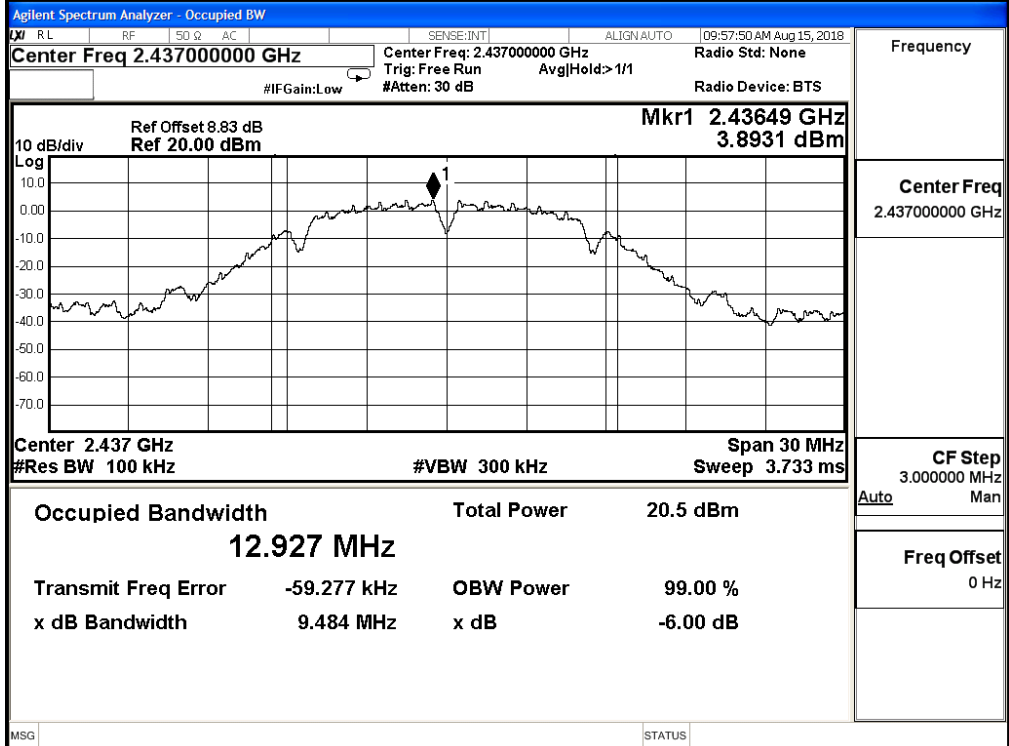
A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.260	≥ 0.5	PASS
	MCH	9.484	≥ 0.5	PASS
	HCH	9.486	≥ 0.5	PASS
11G	LCH	16.38	≥ 0.5	PASS
	MCH	16.39	≥ 0.5	PASS
	HCH	16.39	≥ 0.5	PASS
11N20SISO	LCH	17.60	≥ 0.5	PASS
	MCH	17.60	≥ 0.5	PASS
	HCH	17.60	≥ 0.5	PASS

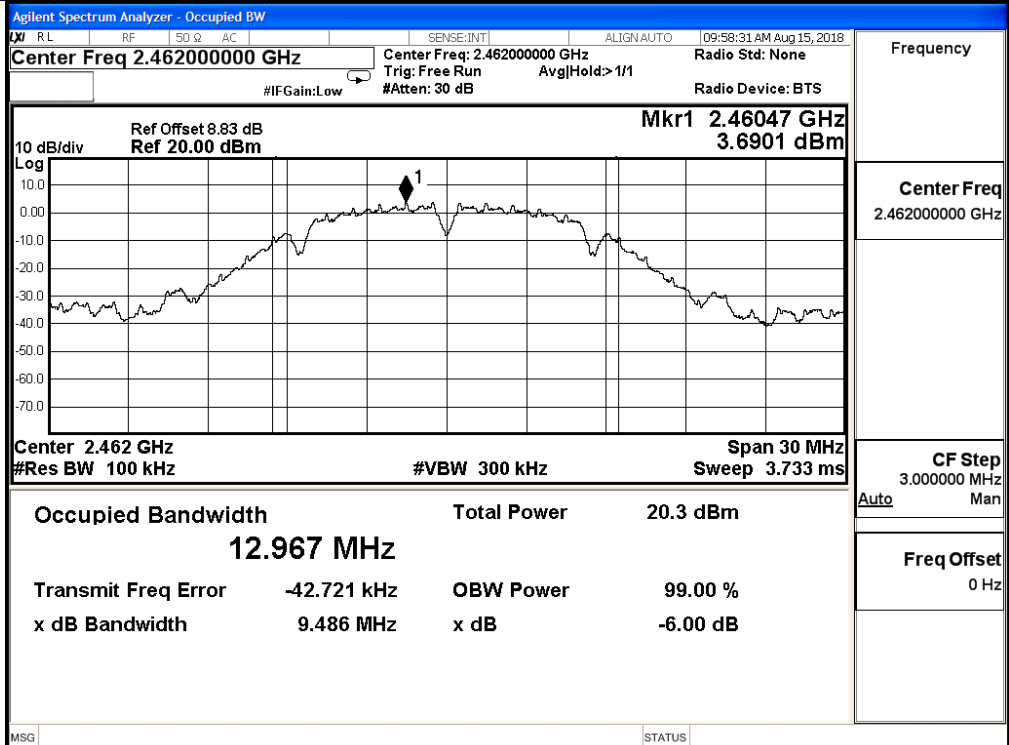
Test Graphs



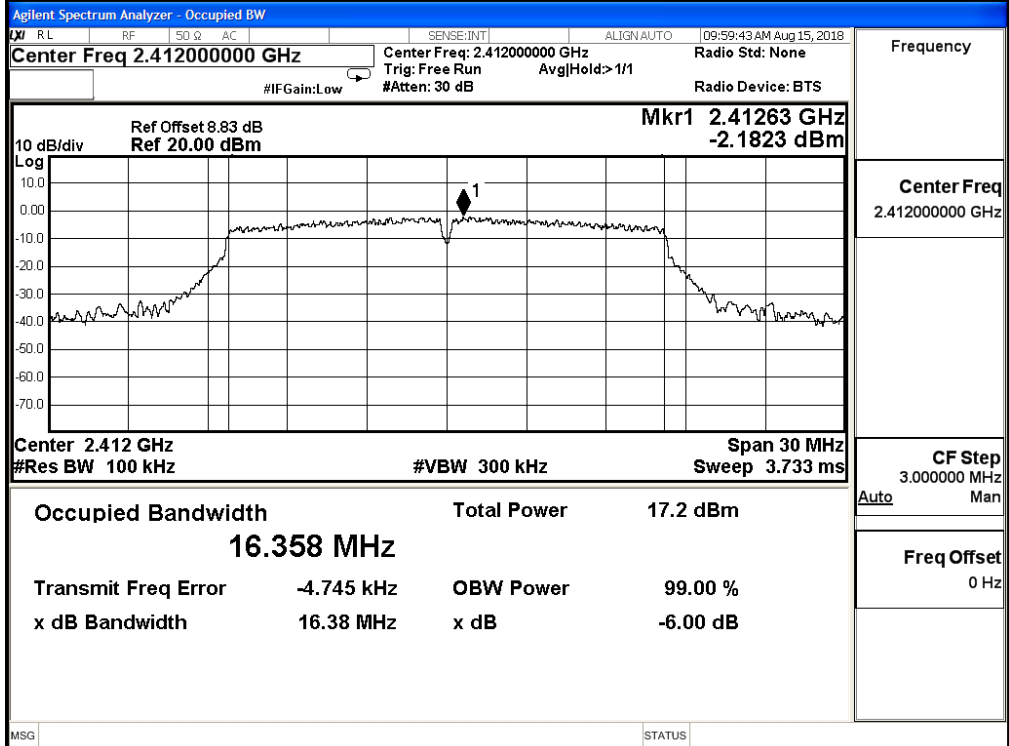
11B/MCH



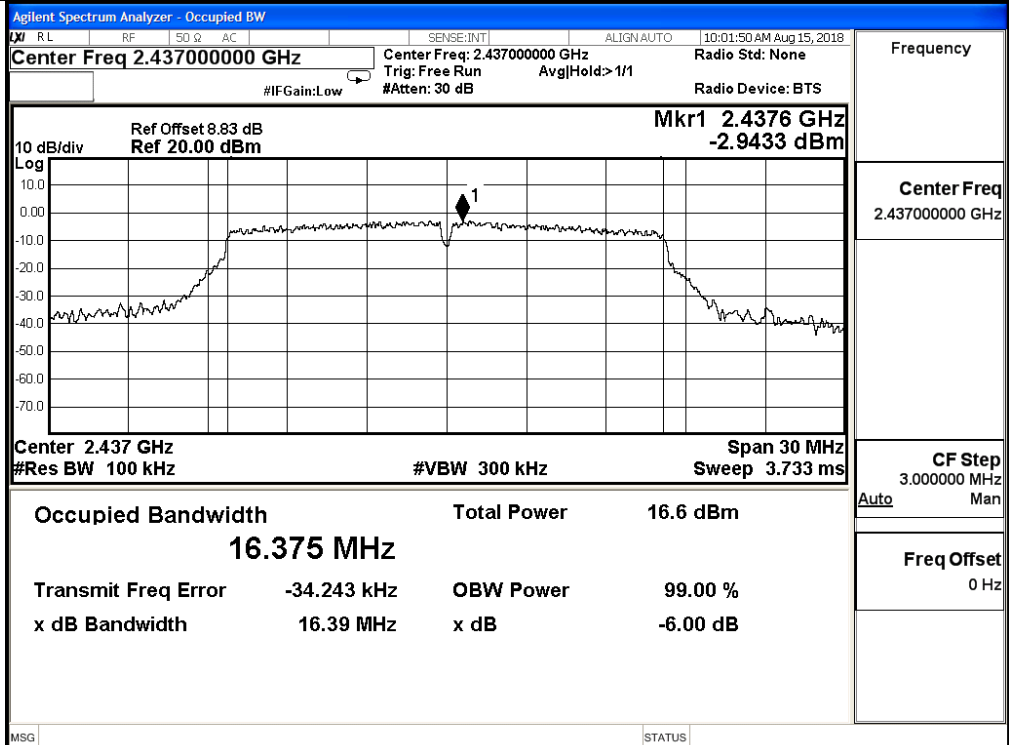
11B/HCH



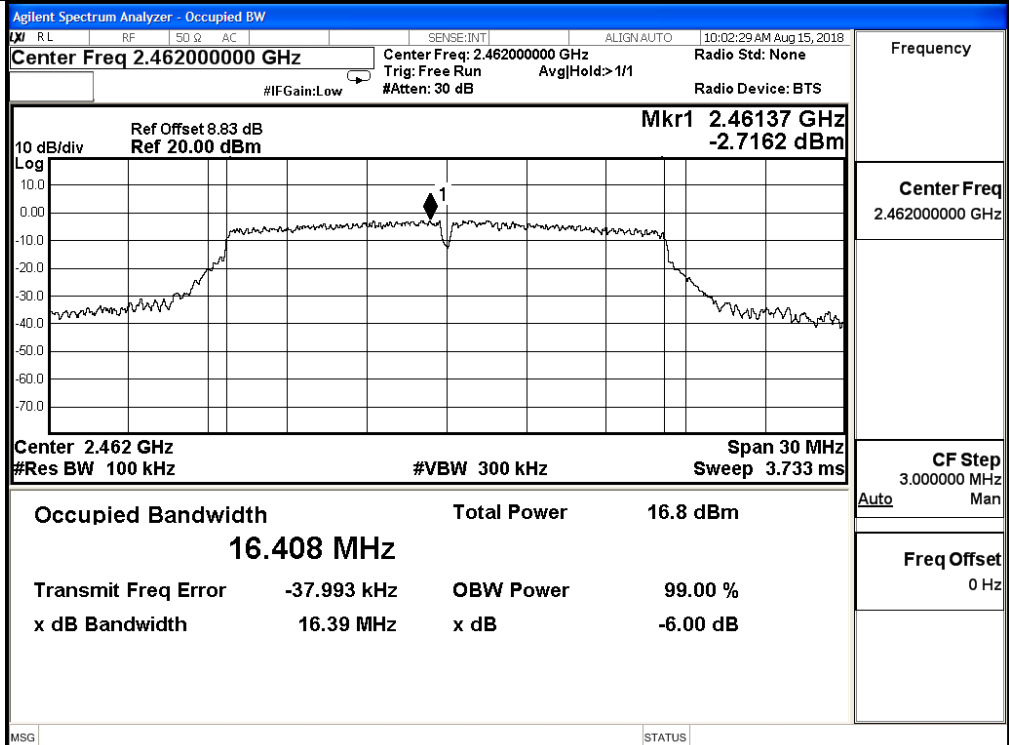
11G/LCH



11G/MCH



11G/HCH



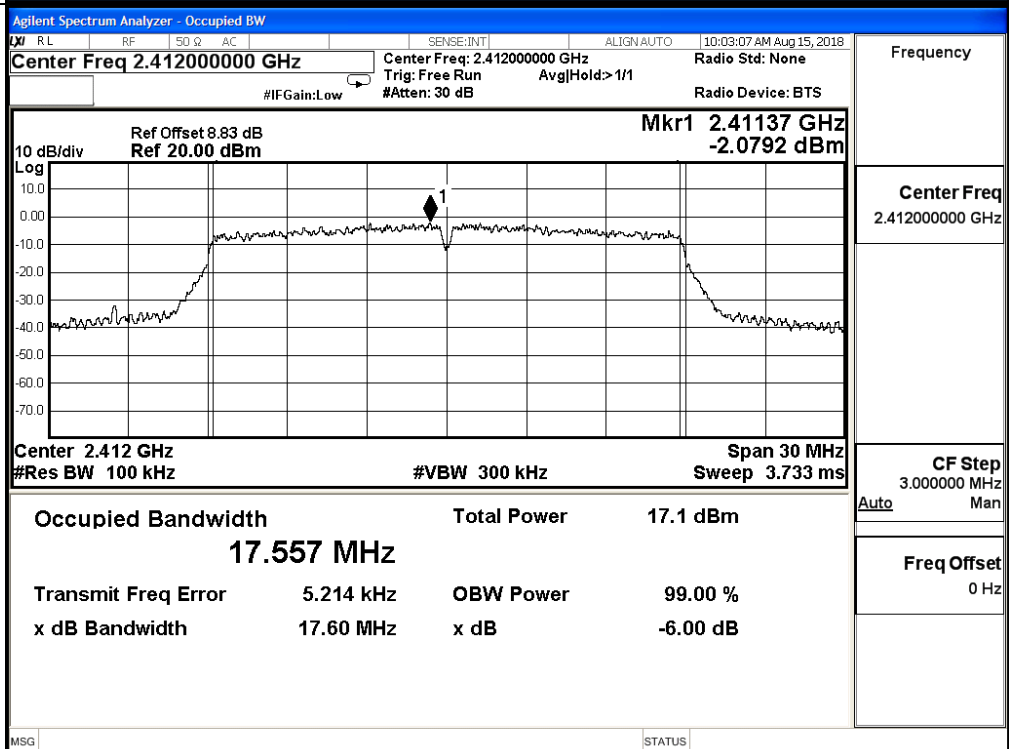
Frequency

Center Freq
2.462000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/LCH



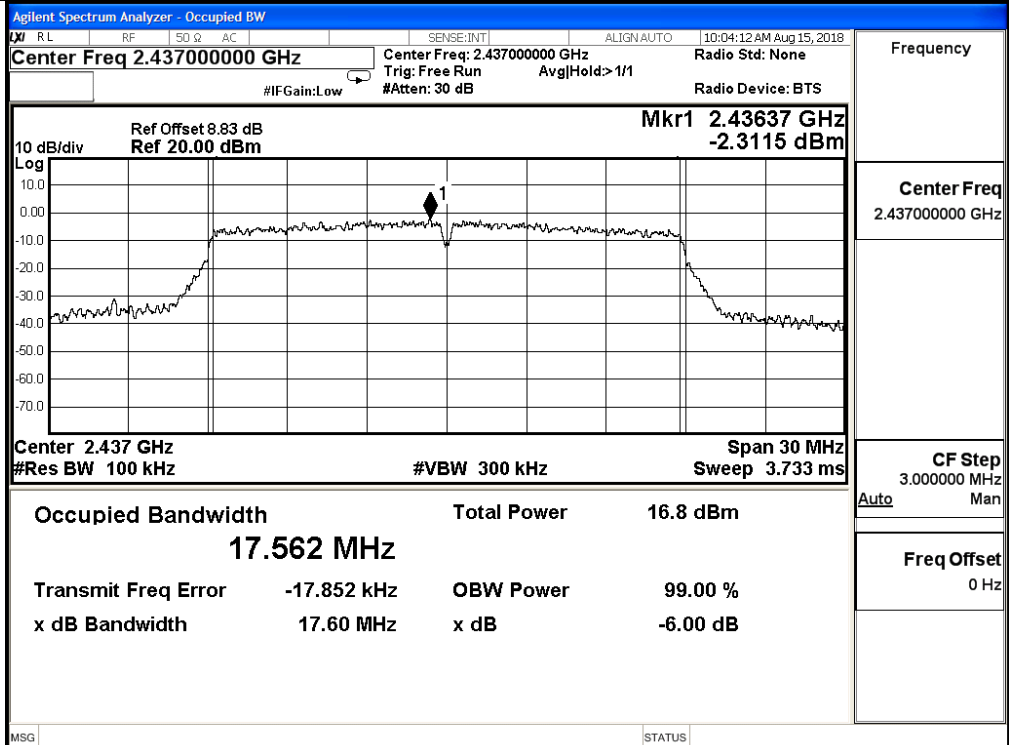
Frequency

Center Freq
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CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/MCH



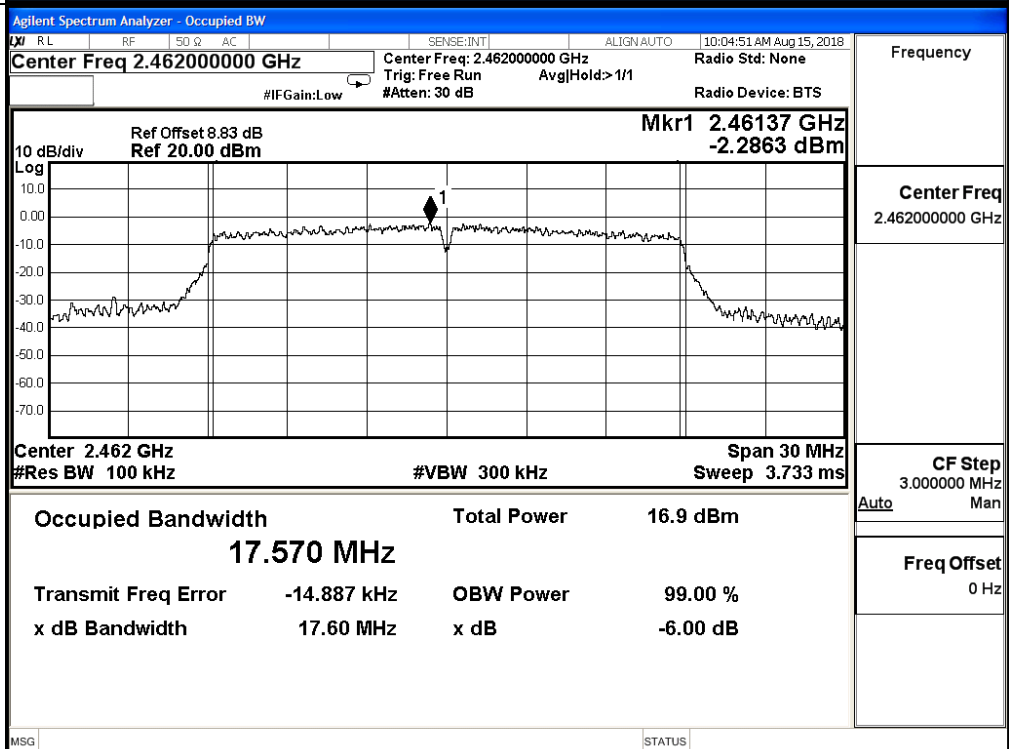
Frequency

Center Freq
2.437000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/HCH



Frequency

Center Freq
2.462000000 GHz

CF Step
3.000000 MHz
Auto Man

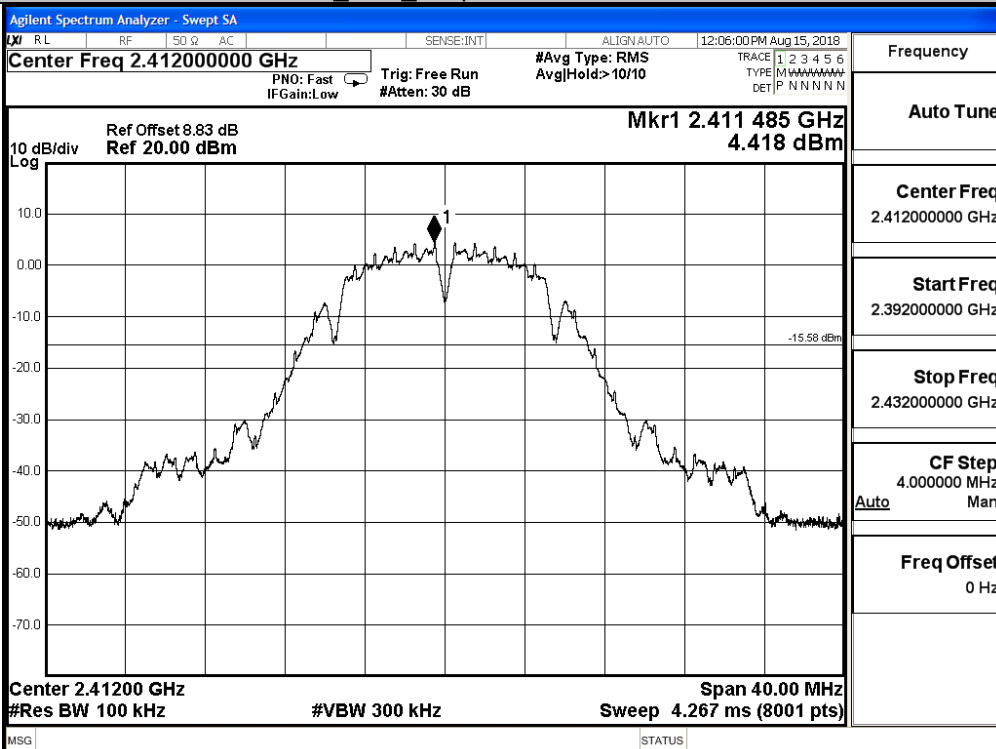
Freq Offset
0 Hz

A.5 RF Conducted Spurious Emissions

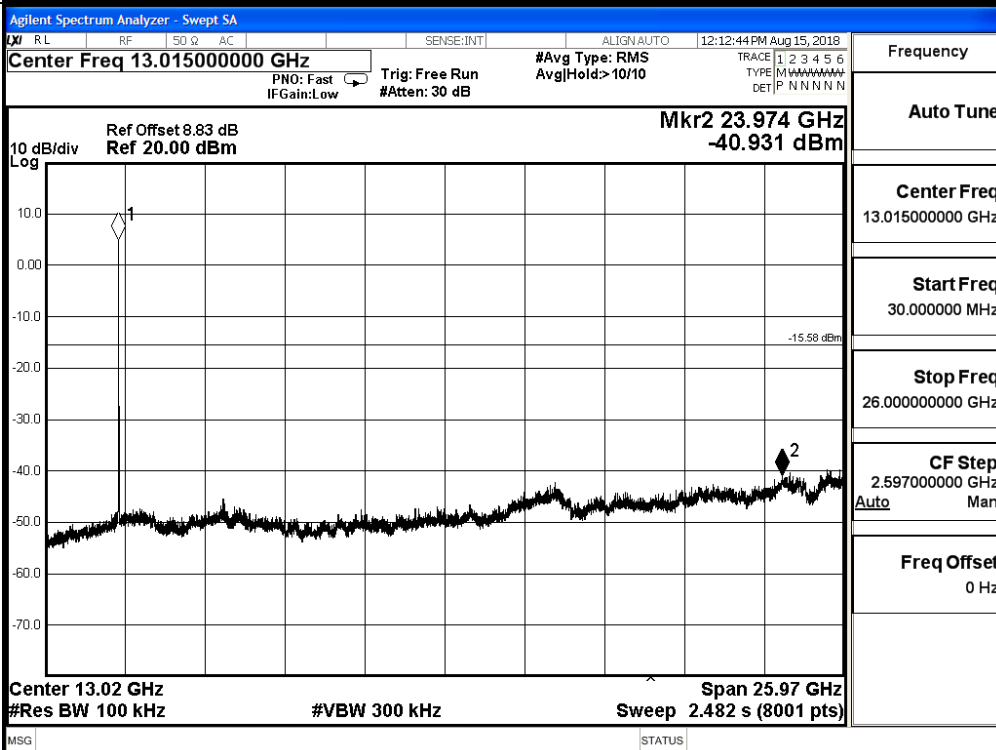
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.418	-40.931	-15.582	PASS
	MCH	4.698	-39.333	-15.302	PASS
	HCH	4.700	-41.393	-15.300	PASS
11G	LCH	-1.783	-41.205	-21.783	PASS
	MCH	-1.685	-40.703	-21.685	PASS
	HCH	-1.708	-40.215	-21.708	PASS
11N20 SISO	LCH	-1.254	-41.451	-21.254	PASS
	MCH	-1.535	-40.642	-21.535	PASS
	HCH	-1.694	-41.086	-21.694	PASS

11B LCH Graphs

Pref/11B/LCH

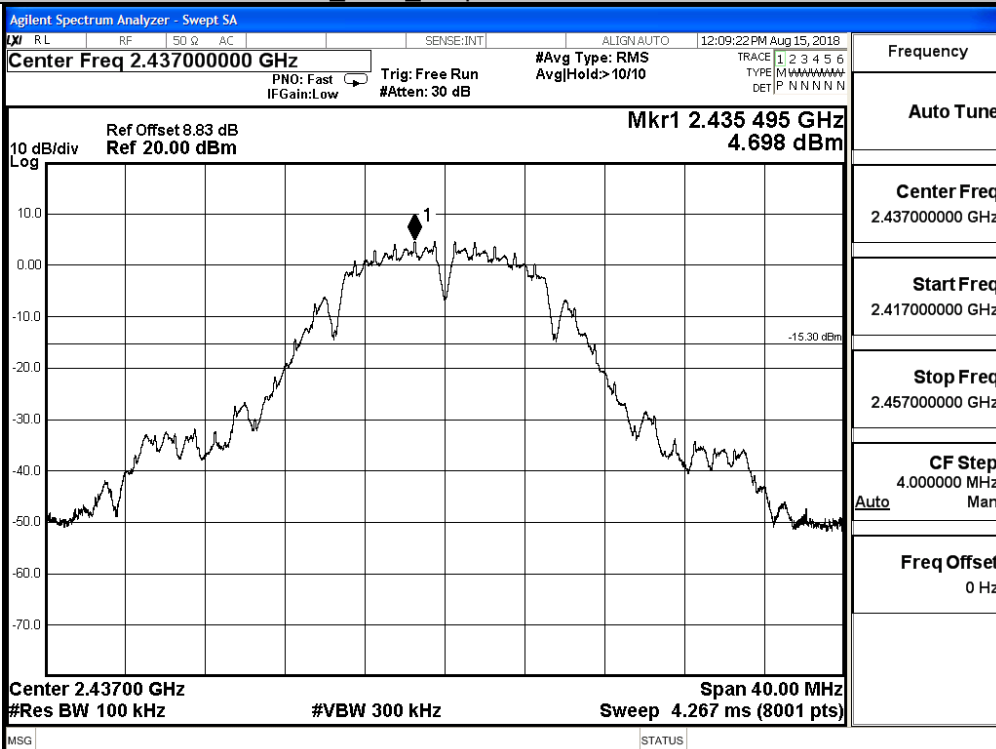


Puw/11B/LCH

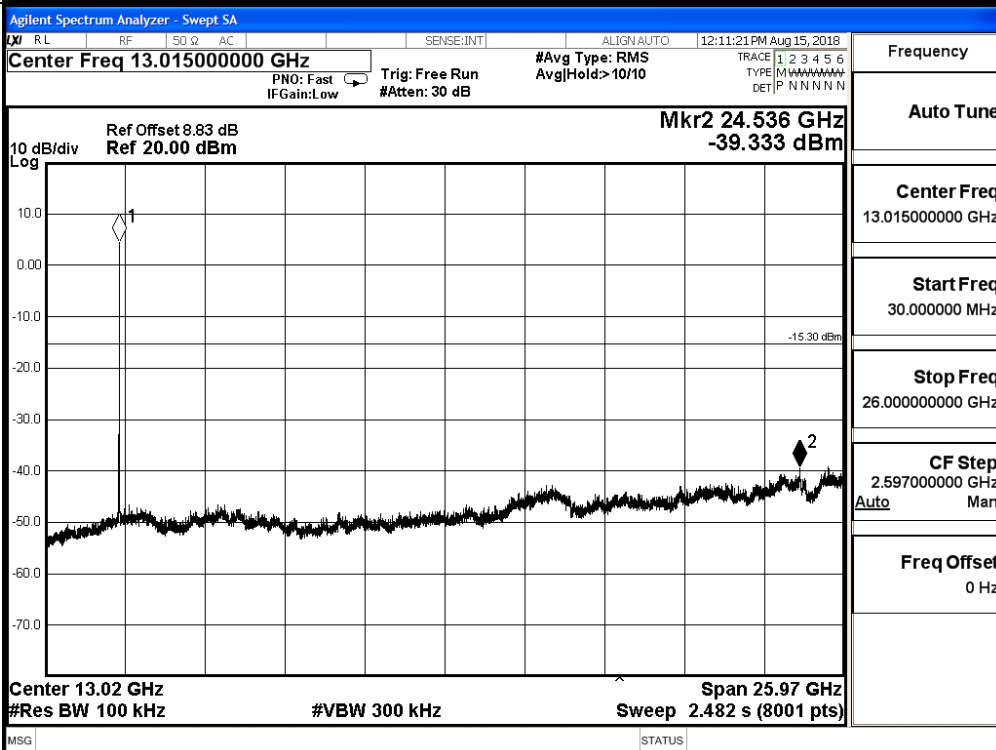


11B MCH Graphs

Pref/11B/MCH

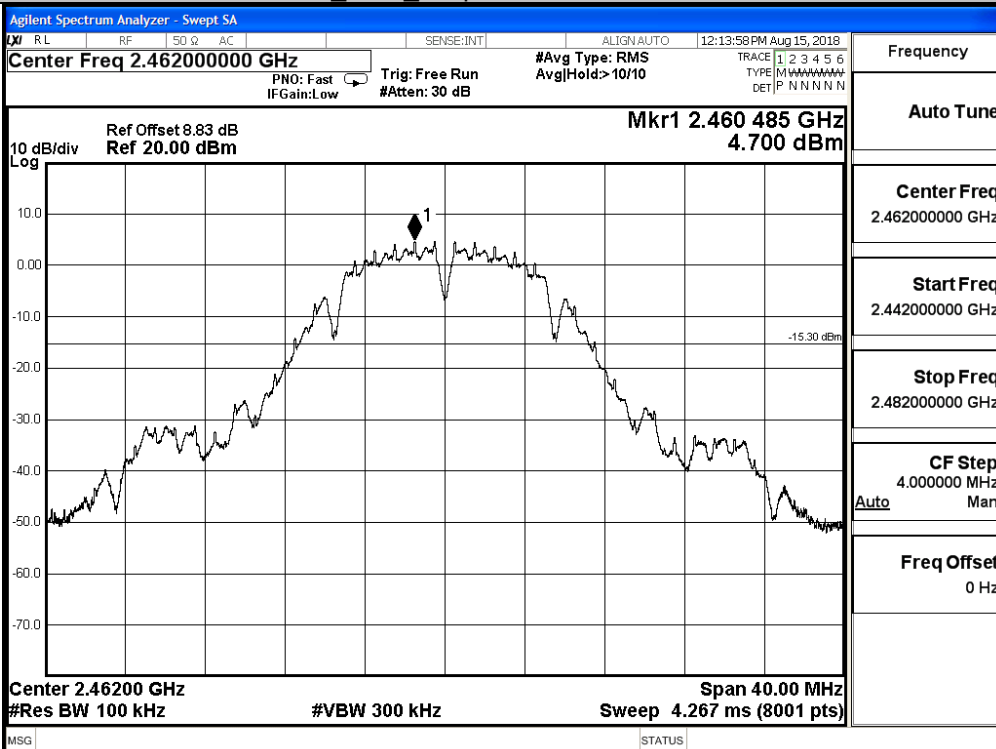


Puw/11B/MCH

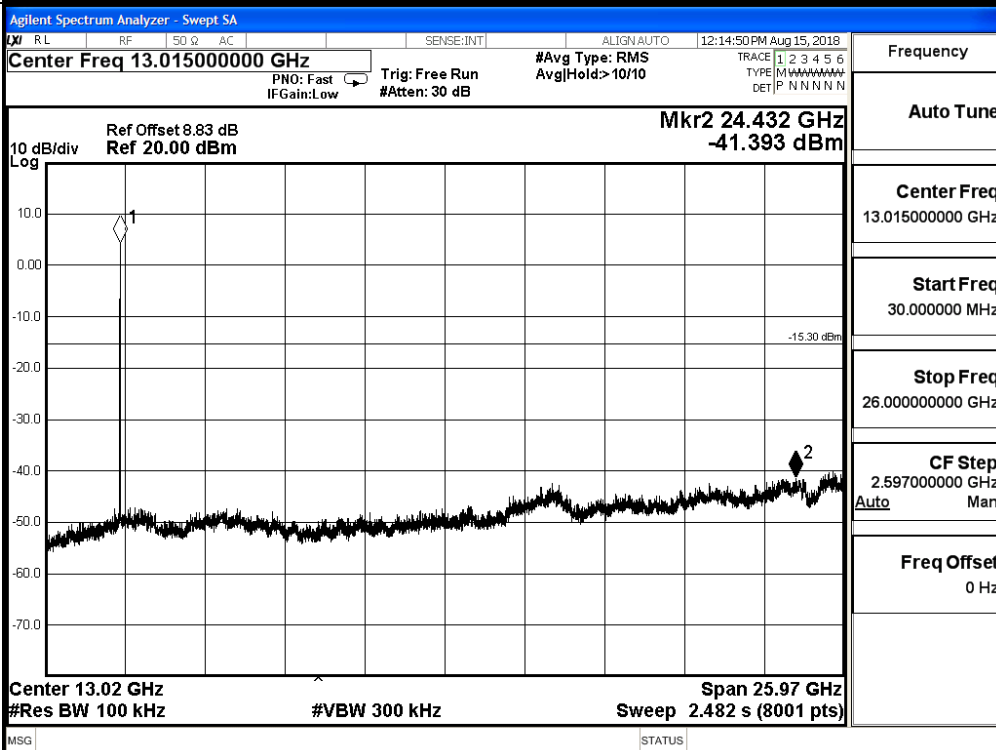


11B HCH Graphs

Pref/11B/HCH

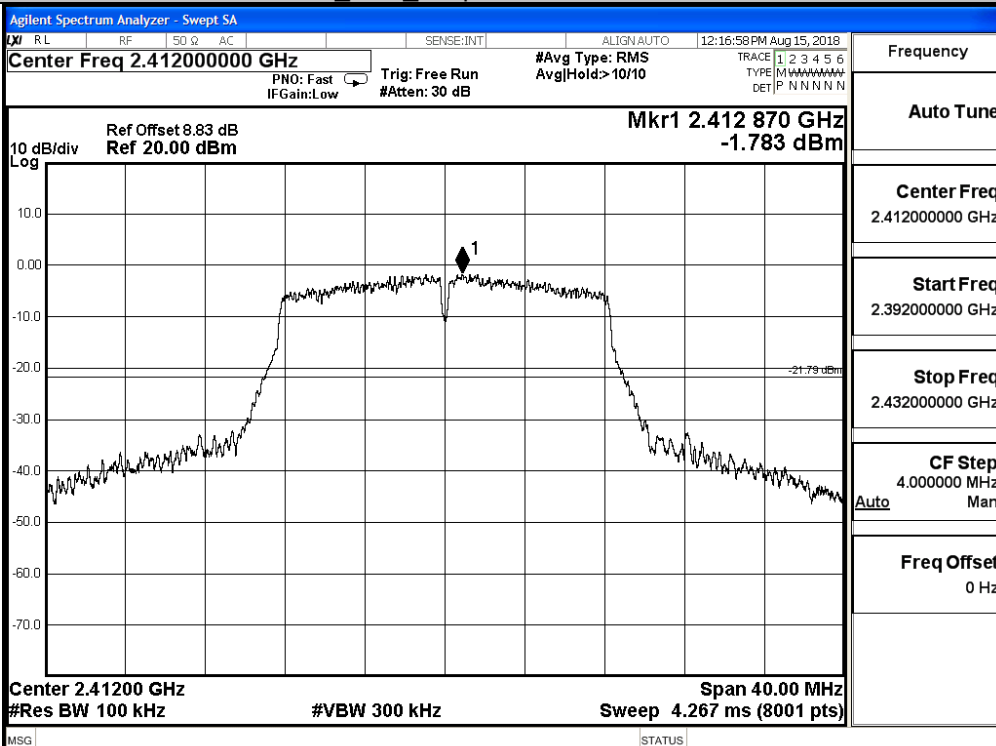


Puw/11B/HCH

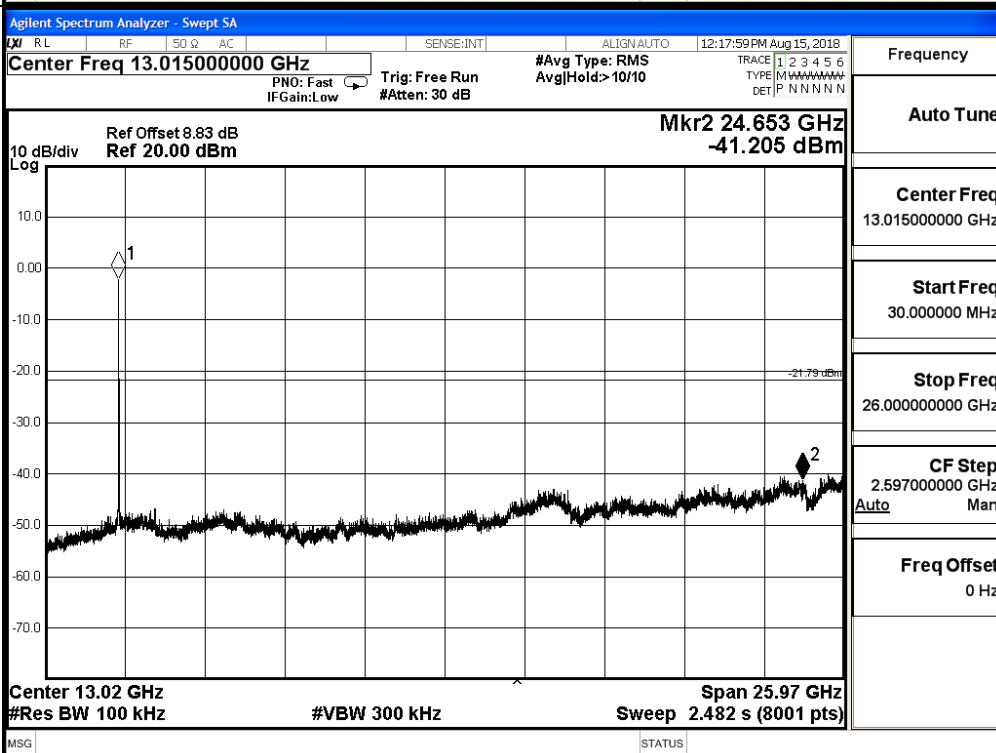


11G LCH Graphs

Pref/11G/LCH

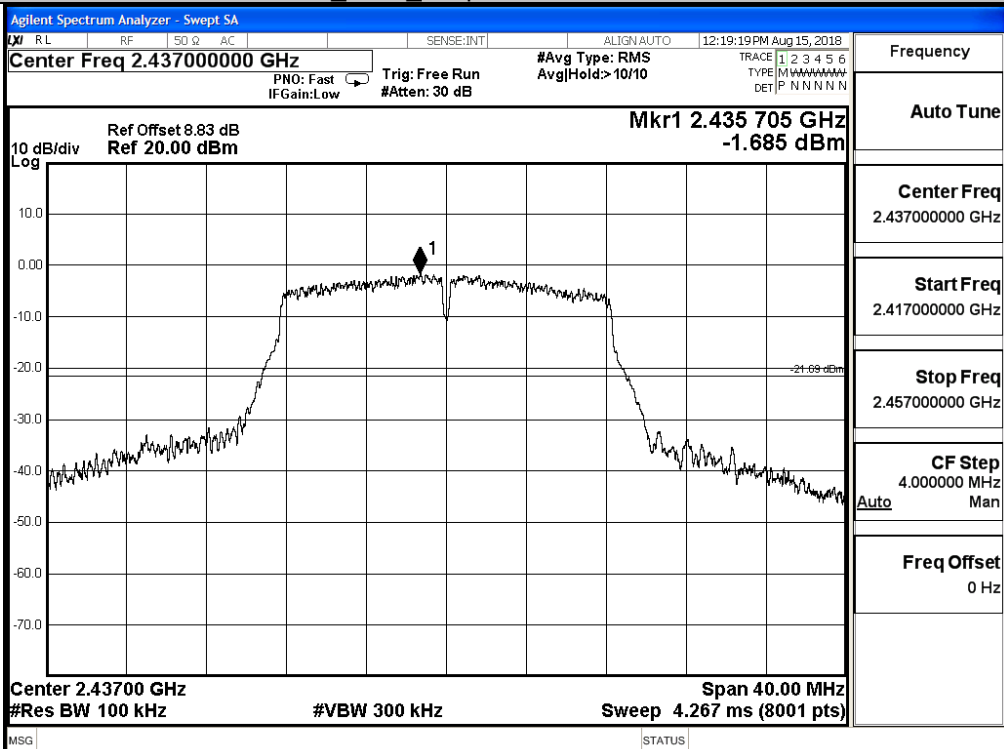


Puw/11G/LCH

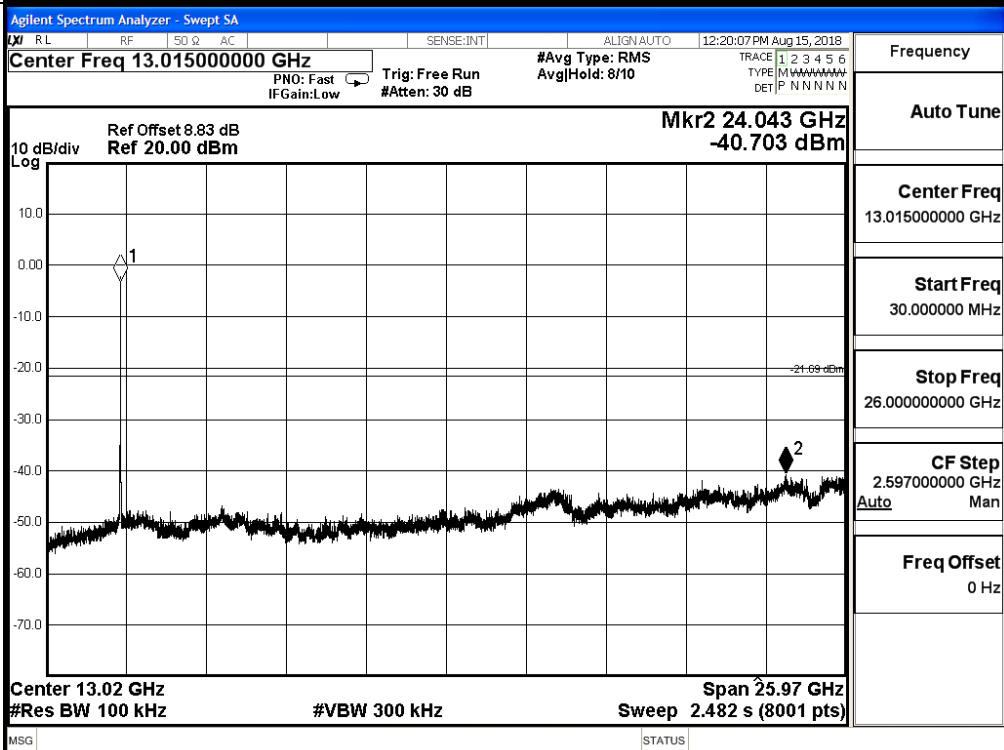


11G MCH Graphs

Pref/11G/MCH

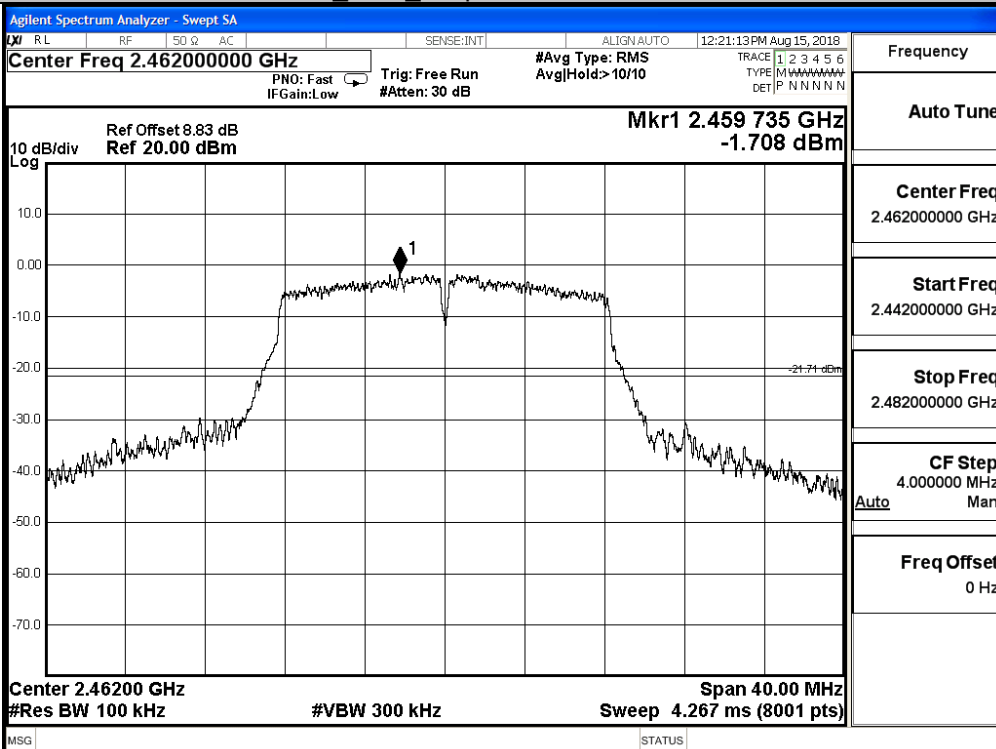


Puw/11G/MCH

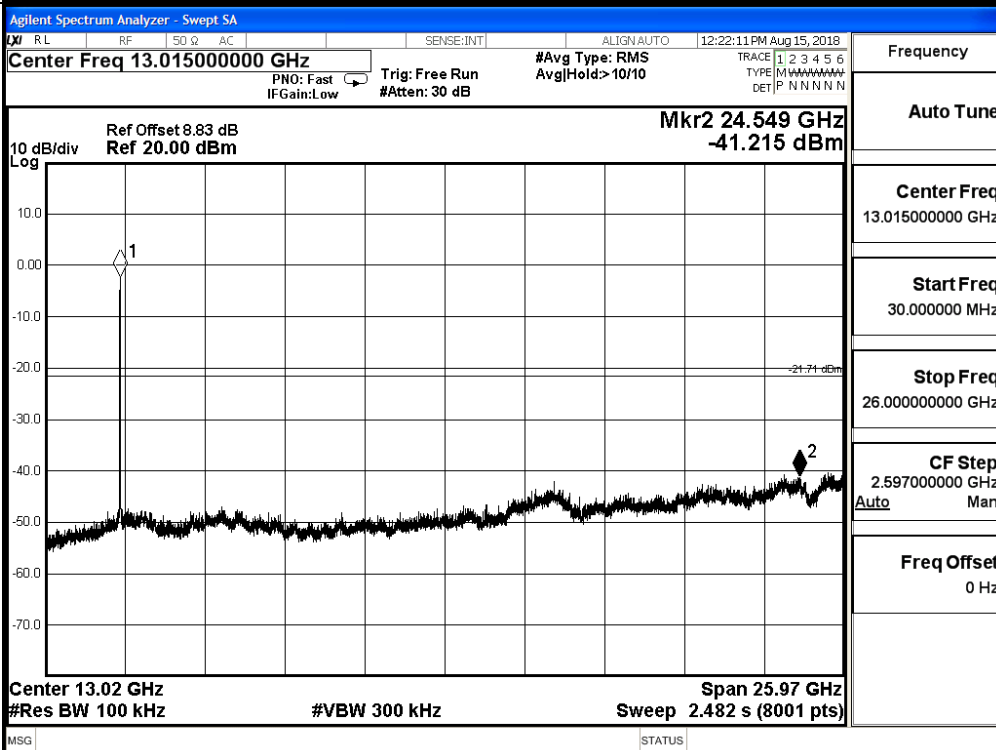


11G HCH Graphs

Pref/11G/HCH

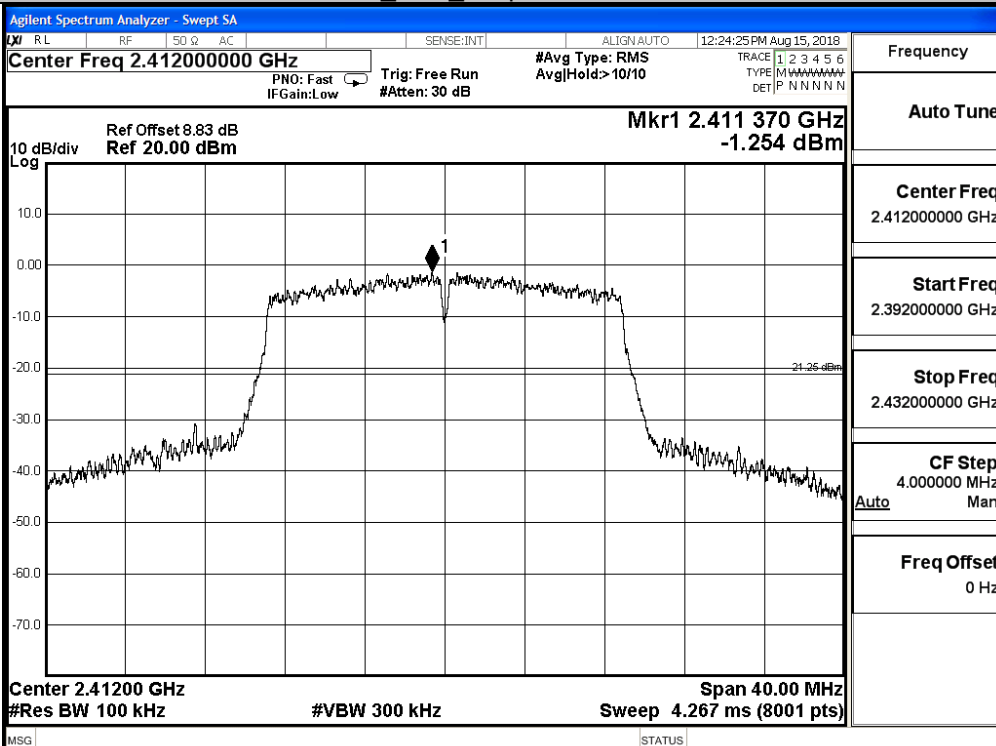


Puw/11G/HCH

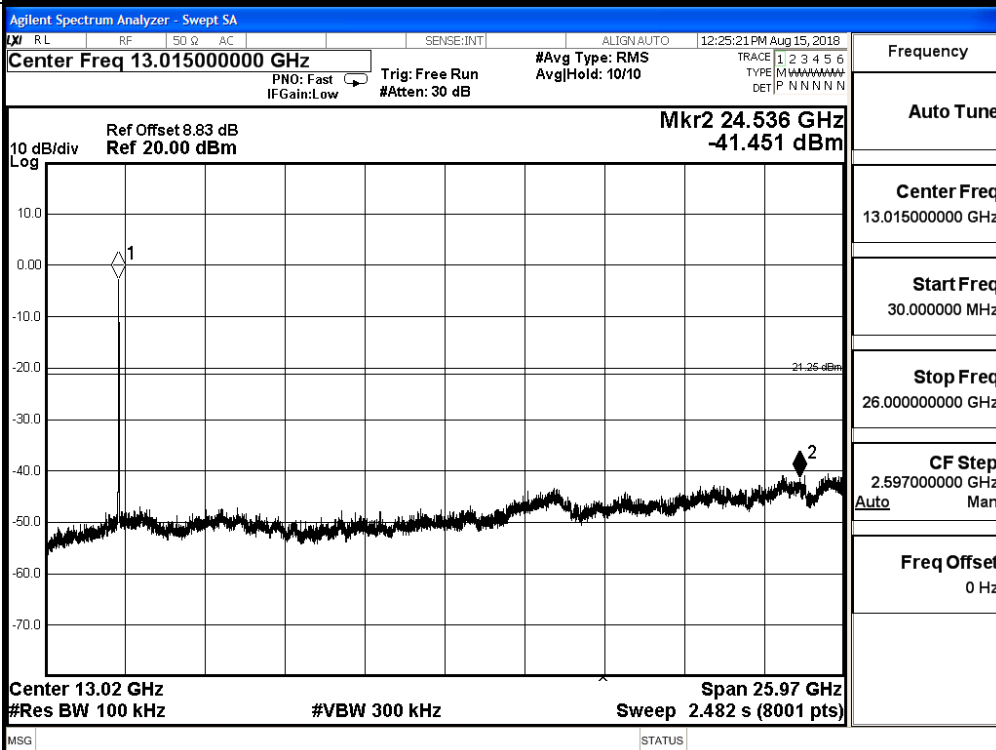


11N20SISO LCH Graphs

Pref/11N20SIS
O/LCH

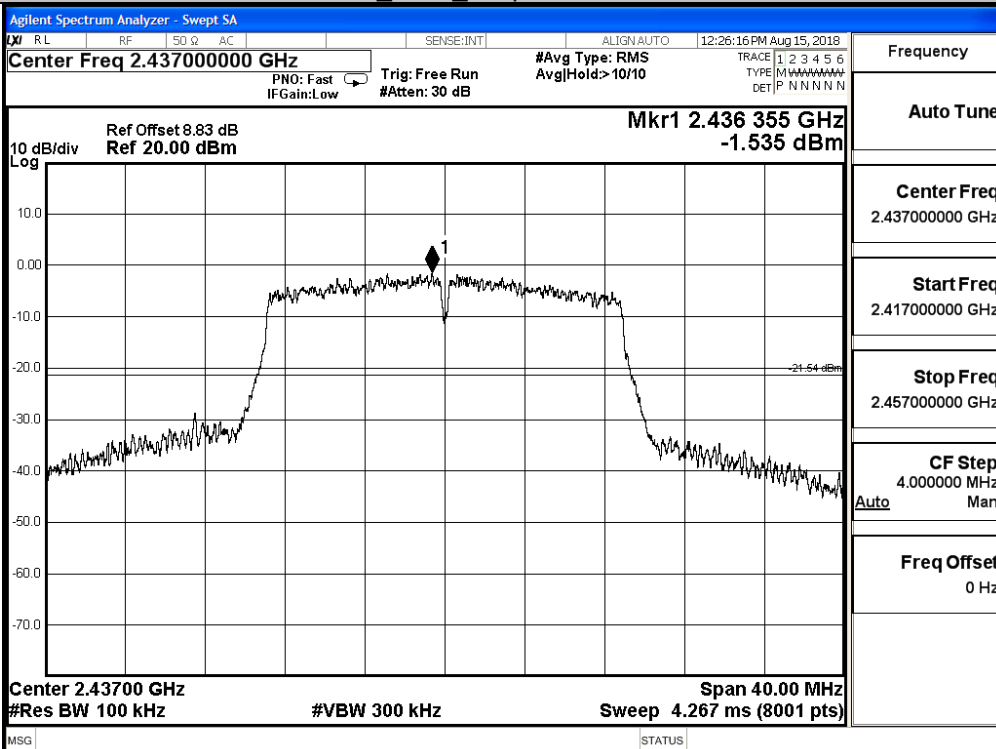


Puw/11N20
SISO/LCH

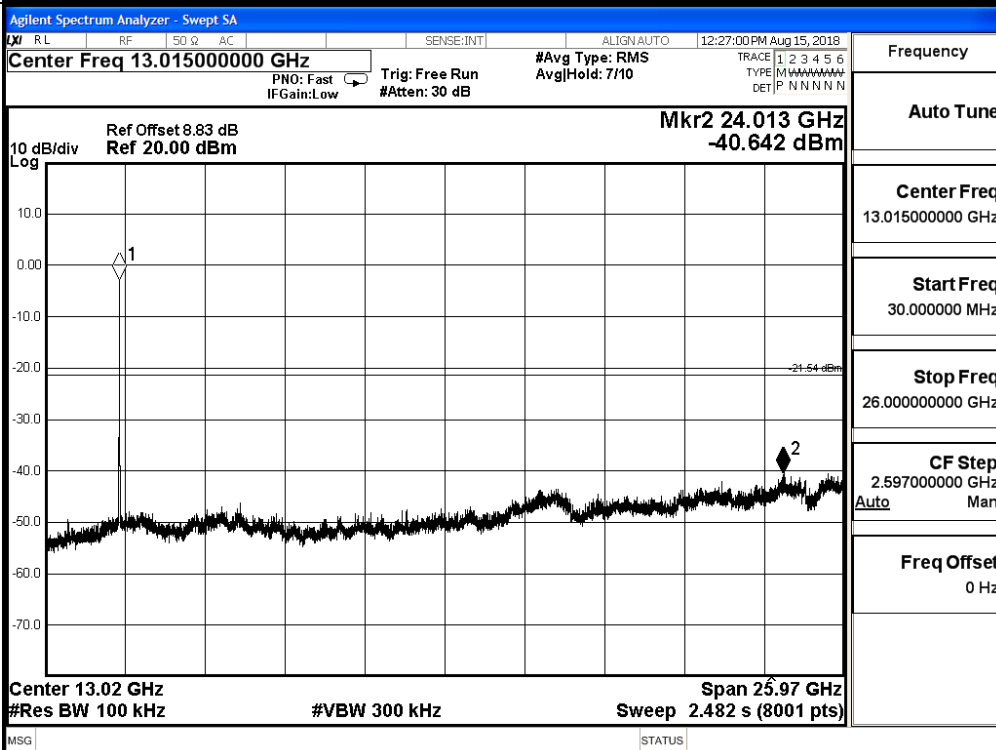


11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCH

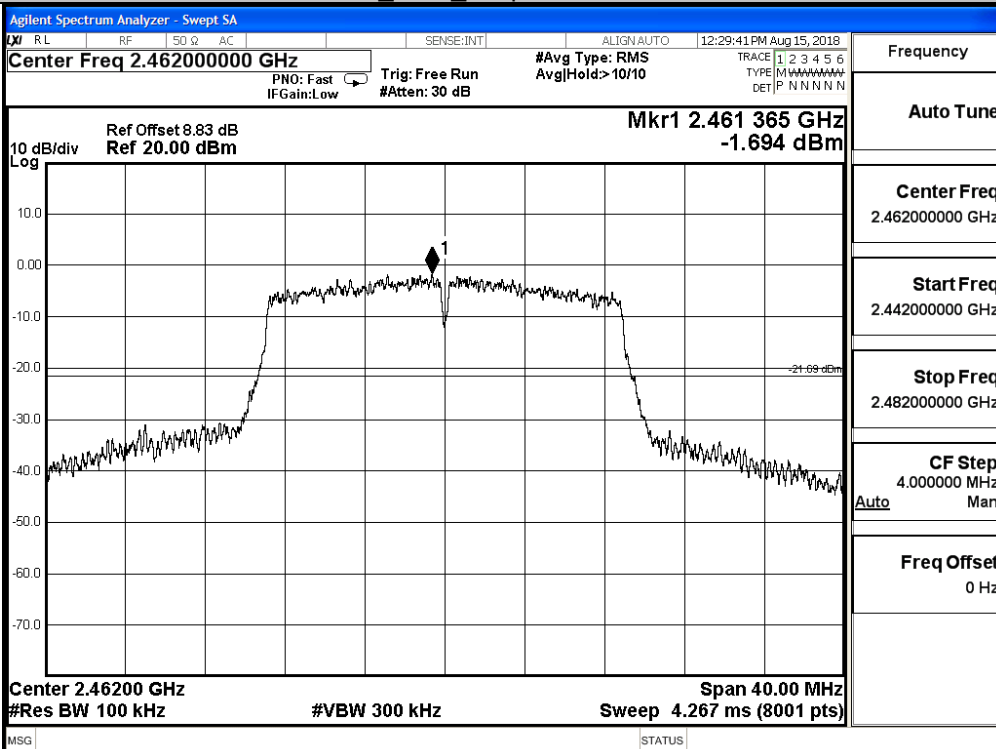


Puw/11N20
SISO/MCH

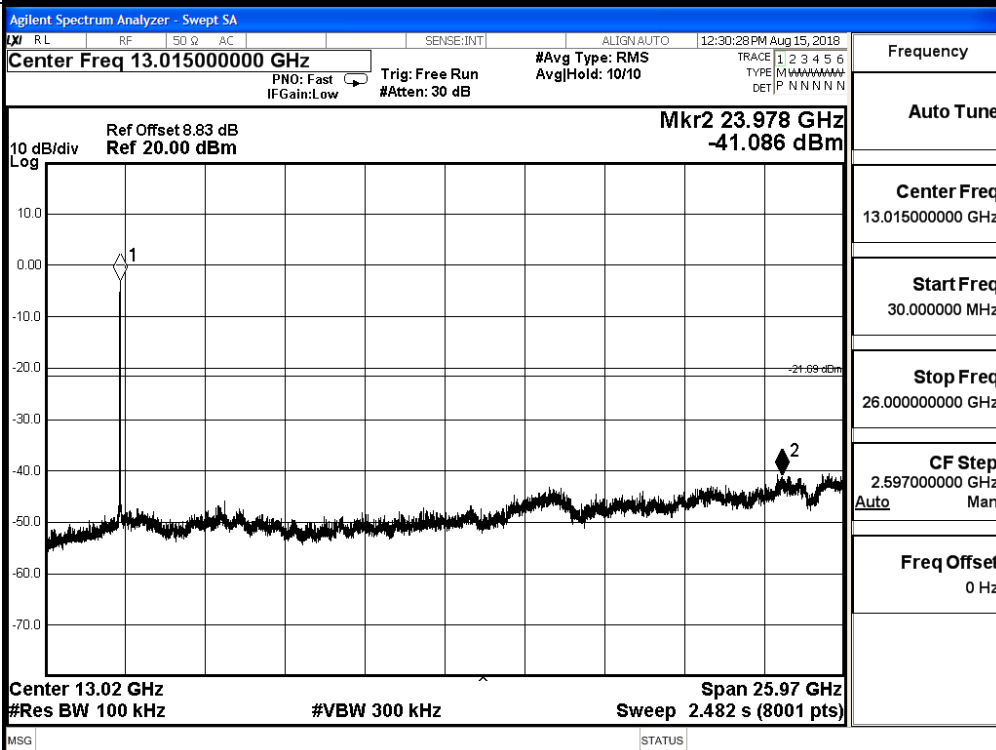


11N20SISO HCH_Graphs

Pref/11N20
SISO/HCH

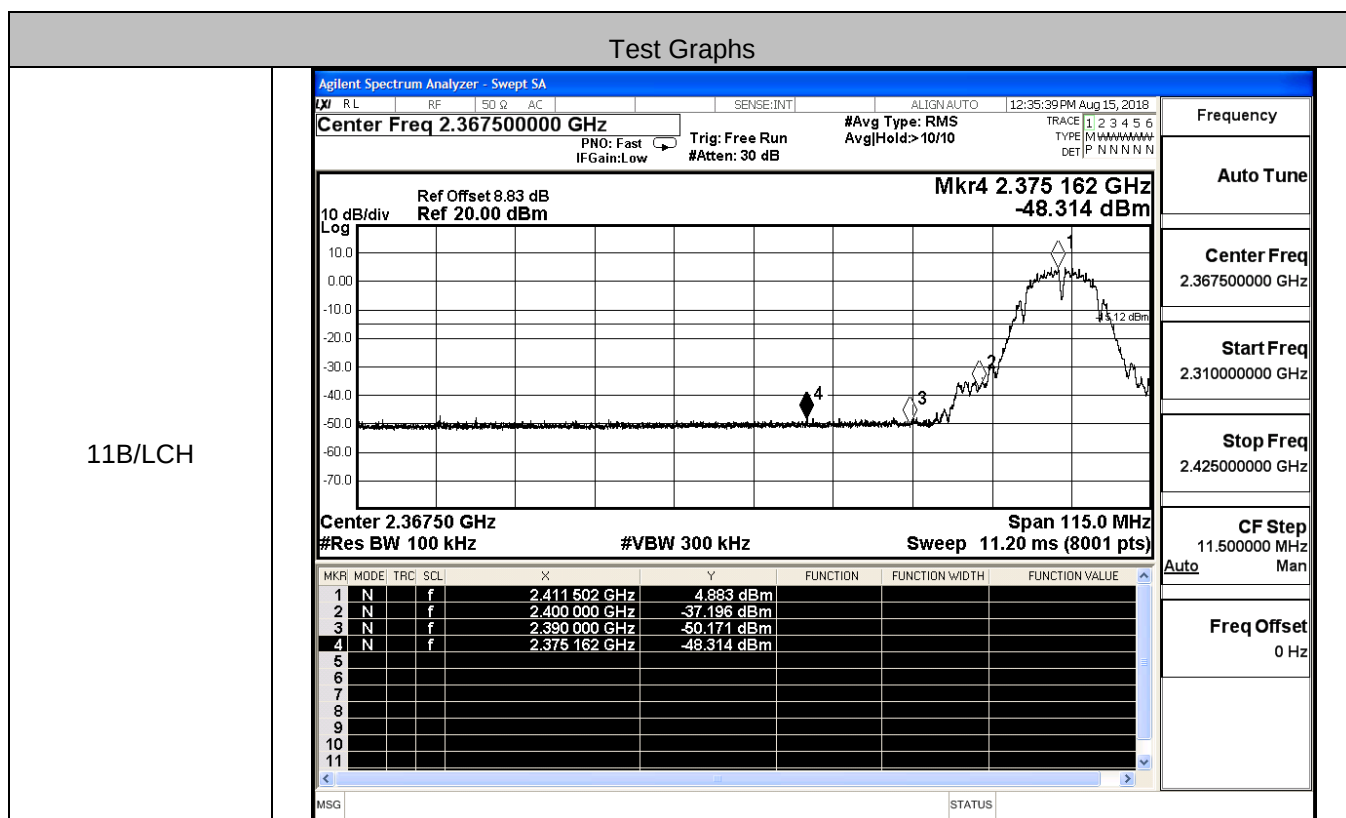


Puw/11N20
SISO/HCH

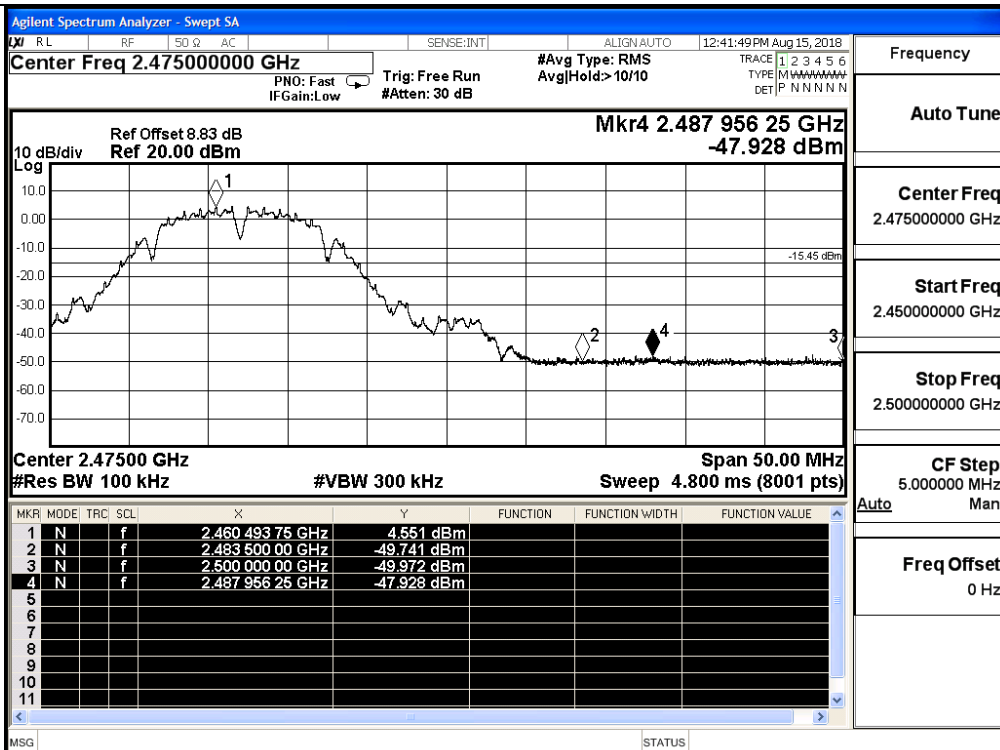


A.6 Band-edge for RF Conducted Emissions

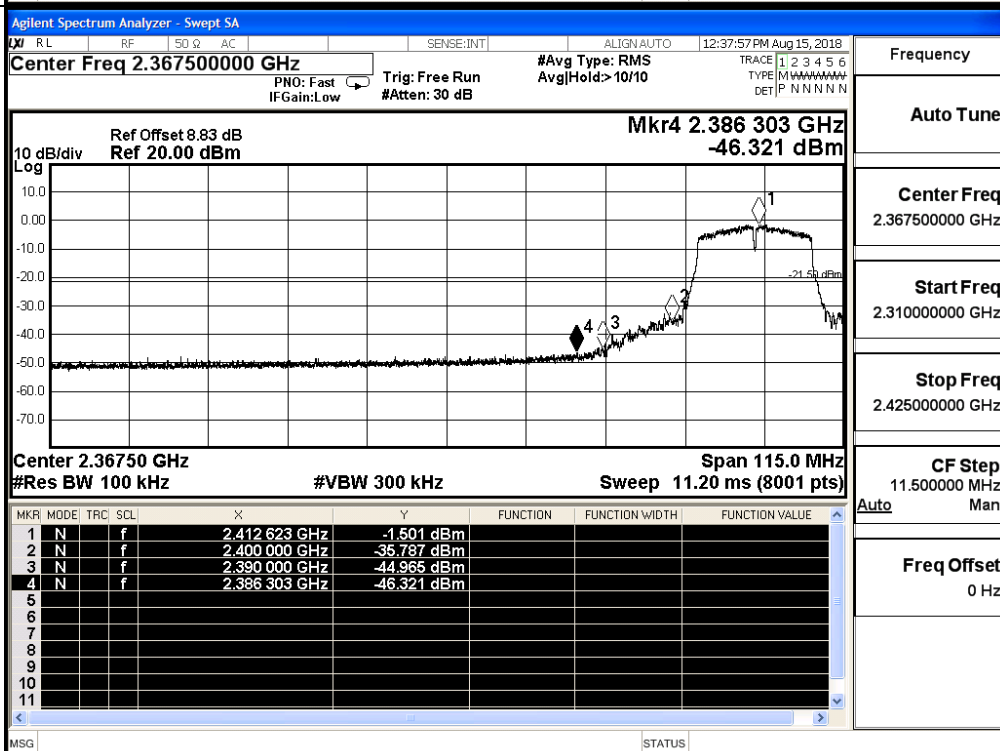
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.883	-48.314	-15.117	PASS
	HCH	4.551	-47.928	-15.449	PASS
11G	LCH	-1.501	-46.321	-21.501	PASS
	HCH	-1.257	-44.935	-21.257	PASS
11N20SISO	LCH	-1.653	-46.554	-21.653	PASS
	HCH	-1.692	-43.099	-21.692	PASS



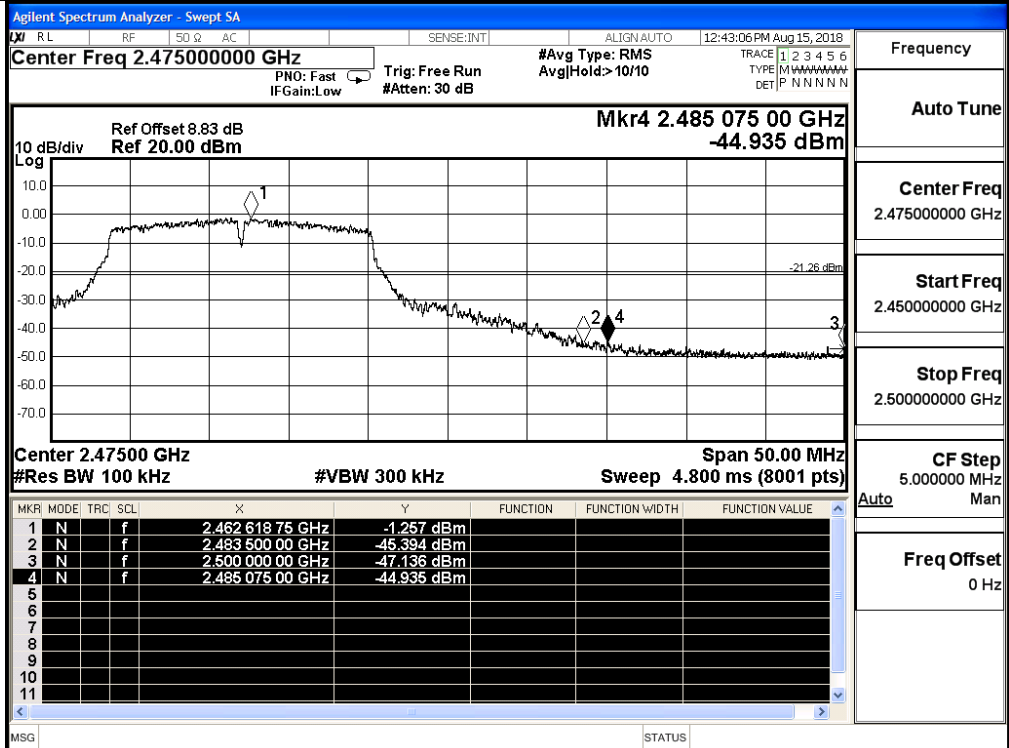
11B/HCH



11G/LCH



11G/HCH



Frequency

Auto Tune

Center Freq
2.47500000 GHz

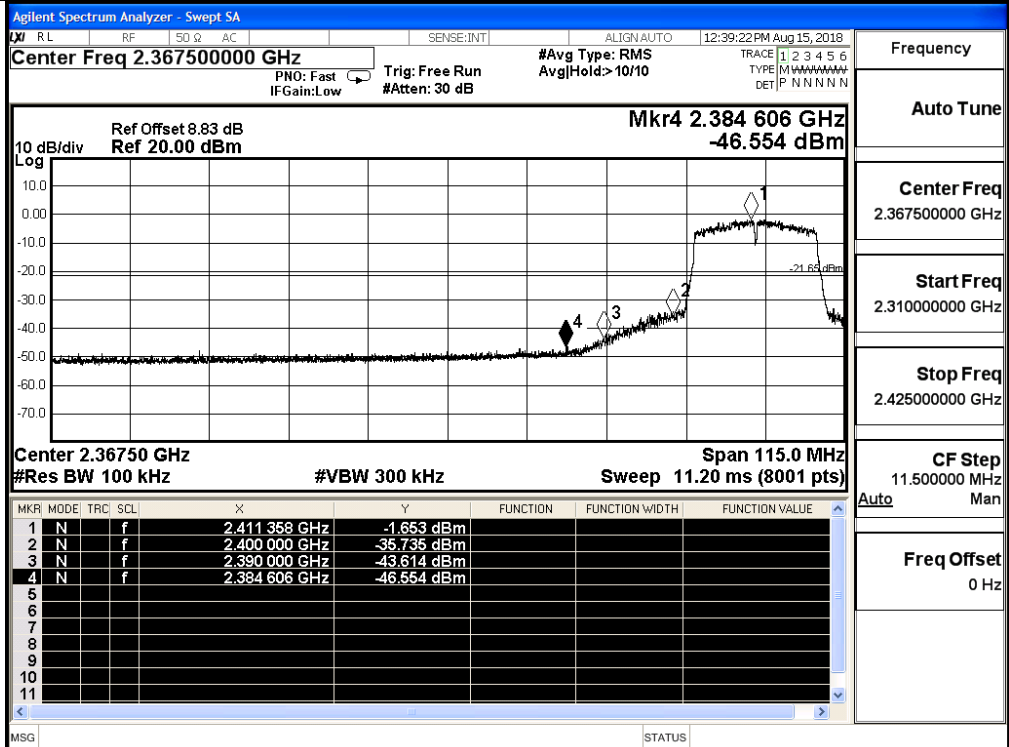
Start Freq
2.450000000 GHz

Stop Freq
2.500000000 GHz

CF Step
5.000000 MHz
Man

Freq Offset
0 Hz

11N20SISO/LCH



Frequency

Auto Tune

Center Freq
2.367500000 GHz

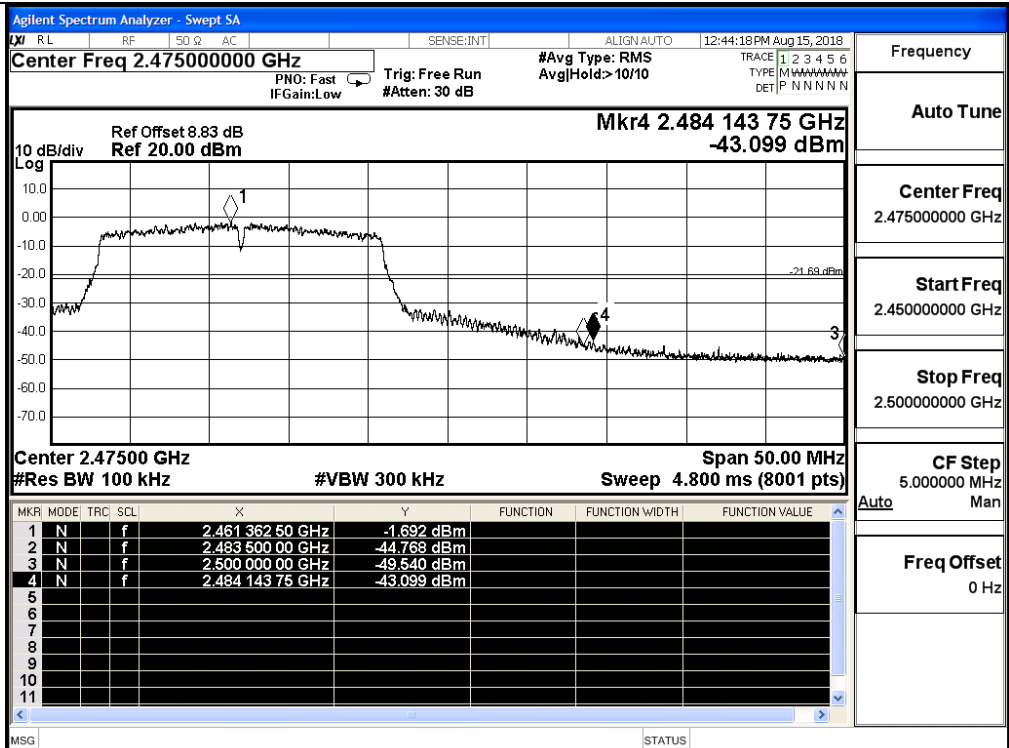
Start Freq
2.310000000 GHz

Stop Freq
2.425000000 GHz

CF Step
11.500000 MHz
Man

Freq Offset
0 Hz

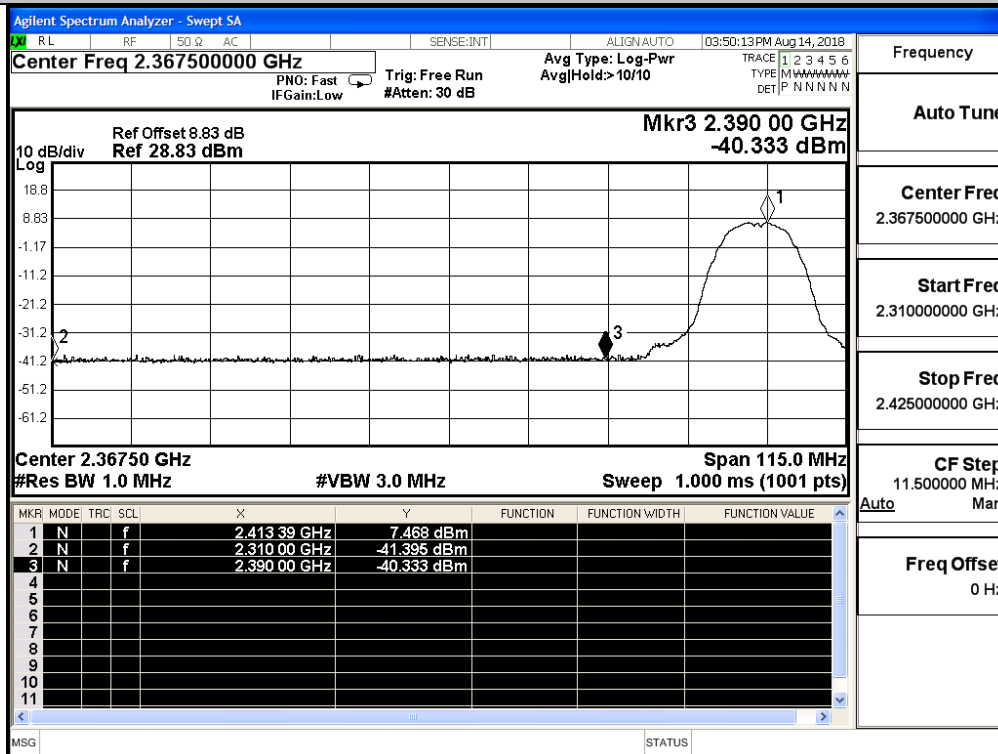
11N20SISO/HCH



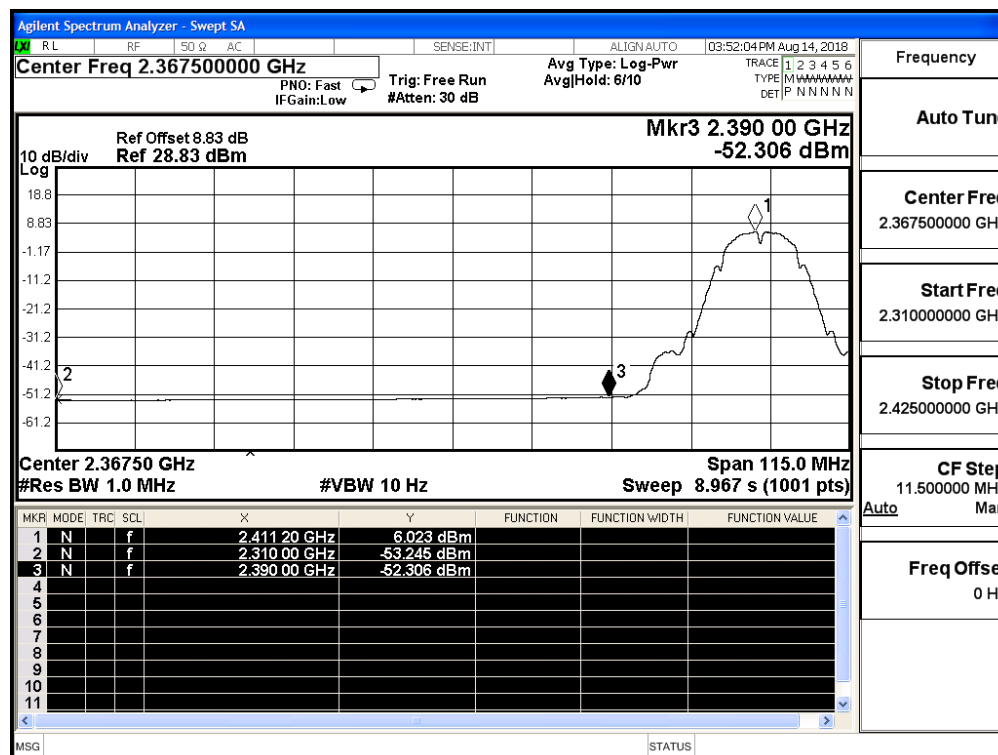
A.7 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-41.395	2.0	0	55.865	PEAK	74	PASS
	2412	Ant1	2310.0	-53.245	2.0	0	44.015	AV	54	PASS
	2412	Ant1	2390.0	-40.333	2.0	0	56.927	PEAK	74	PASS
	2412	Ant1	2390.0	-52.306	2.0	0	44.954	AV	54	PASS
	2462	Ant1	2483.5	-40.574	2.0	0	56.686	PEAK	74	PASS
	2462	Ant1	2483.5	-52.217	2.0	0	45.043	AV	54	PASS
	2462	Ant1	2500.0	-41.328	2.0	0	55.932	PEAK	74	PASS
	2462	Ant1	2500.0	-52.234	2.0	0	45.026	AV	54	PASS
11G	2412	Ant1	2310.0	-41.207	2.0	0	56.053	PEAK	74	PASS
	2412	Ant1	2310.0	-53.265	2.0	0	43.995	AV	54	PASS
	2412	Ant1	2390.0	-33.269	2.0	0	63.991	PEAK	74	PASS
	2412	Ant1	2390.0	-48.332	2.0	0	48.928	AV	54	PASS
	2462	Ant1	2483.5	-30.795	2.0	0	66.465	PEAK	74	PASS
	2462	Ant1	2483.5	-47.244	2.0	0	50.016	AV	54	PASS
	2462	Ant1	2500.0	-39.011	2.0	0	58.249	PEAK	74	PASS
	2462	Ant1	2500.0	-51.472	2.0	0	45.788	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-42.351	2.0	0	54.909	PEAK	74	PASS
	2412	Ant1	2310.0	-53.292	2.0	0	43.968	AV	54	PASS
	2412	Ant1	2390.0	-28.340	2.0	0	68.920	PEAK	74	PASS
	2412	Ant1	2390.0	-46.606	2.0	0	50.654	AV	54	PASS
	2462	Ant1	2483.5	-32.383	2.0	0	64.877	PEAK	74	PASS
	2462	Ant1	2483.5	-46.248	2.0	0	51.012	AV	54	PASS
	2462	Ant1	2500.0	-40.110	2.0	0	57.150	PEAK	74	PASS
	2462	Ant1	2500.0	-51.385	2.0	0	45.875	AV	54	PASS

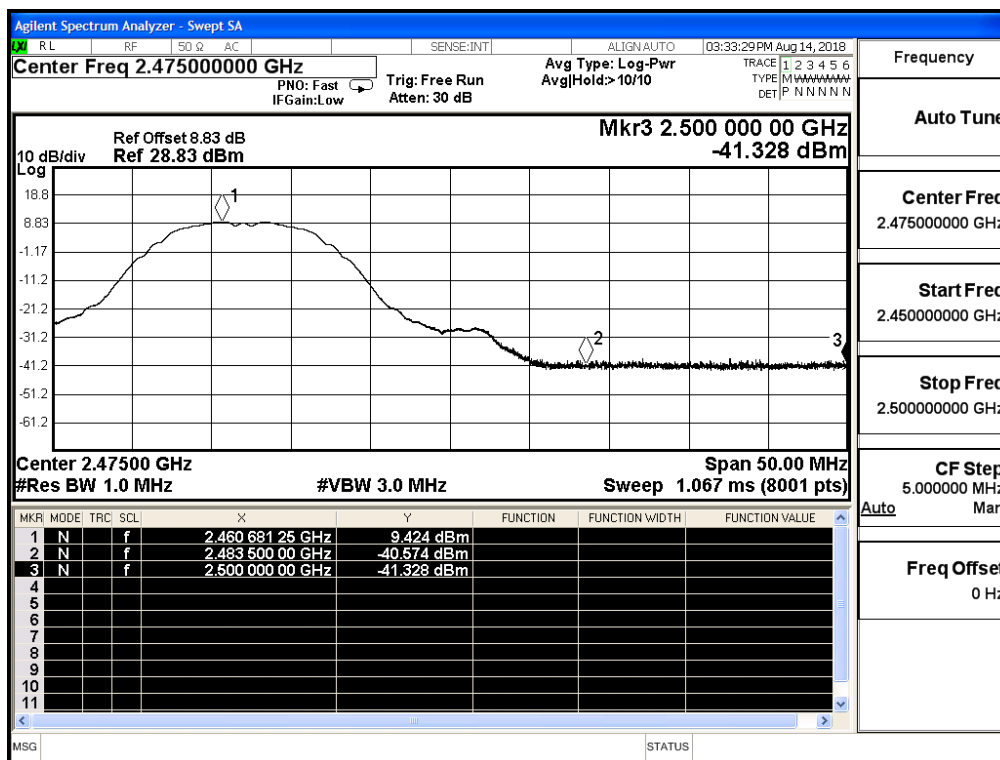
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



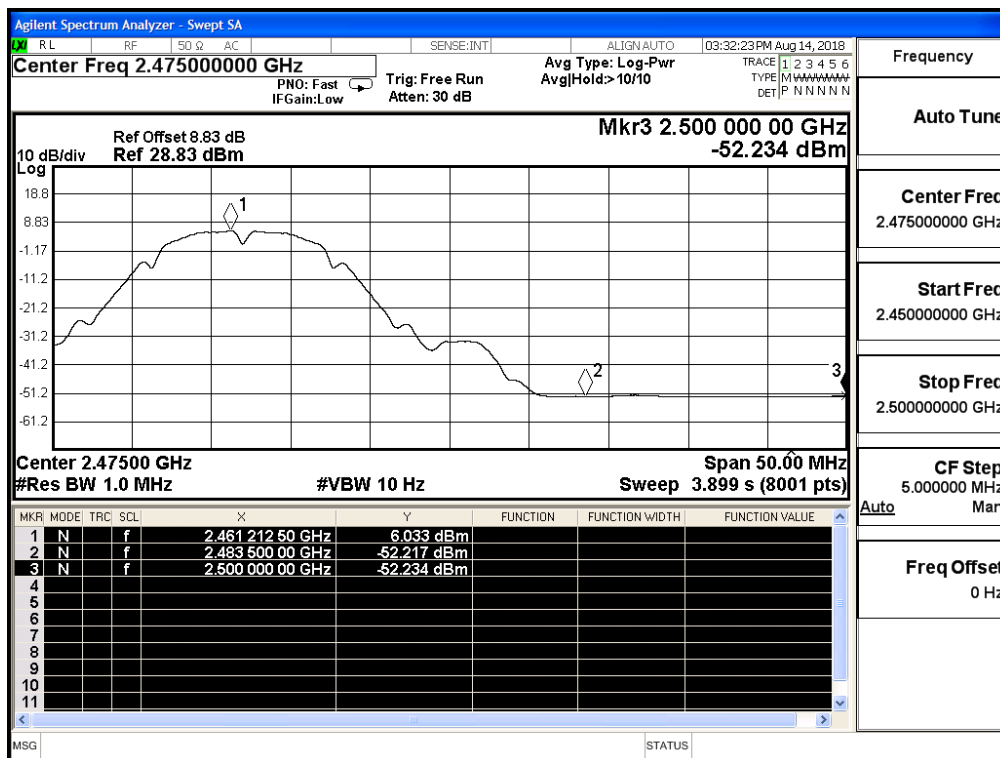
Restrict-band band-edge measurements_11B_2412_Ant1_AV



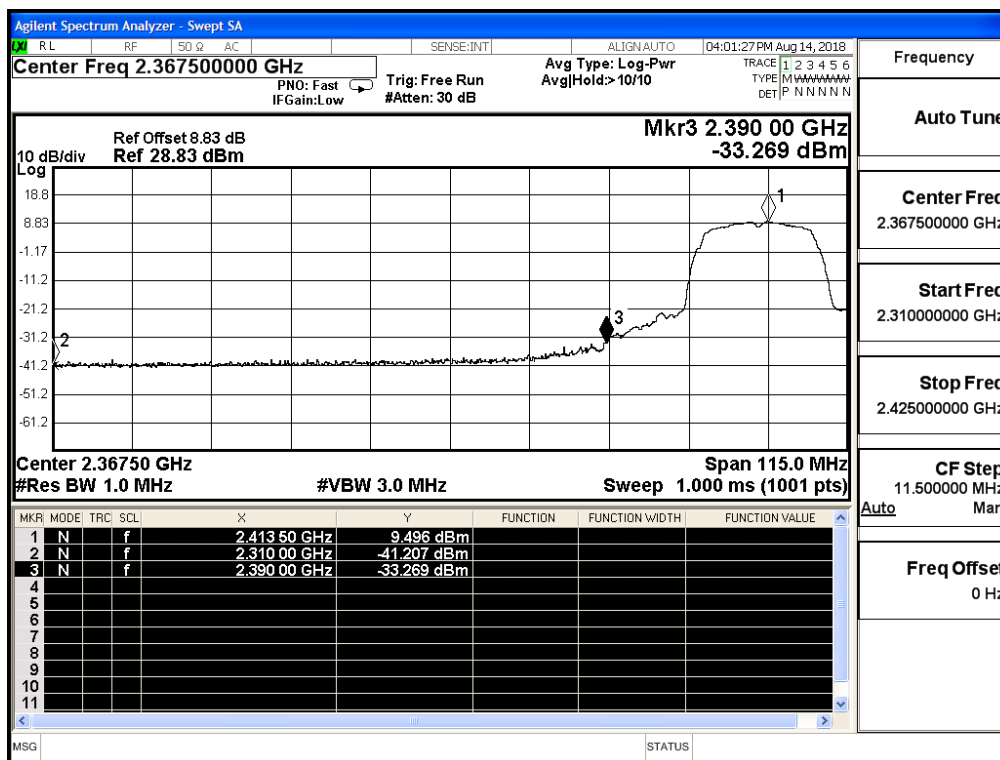
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



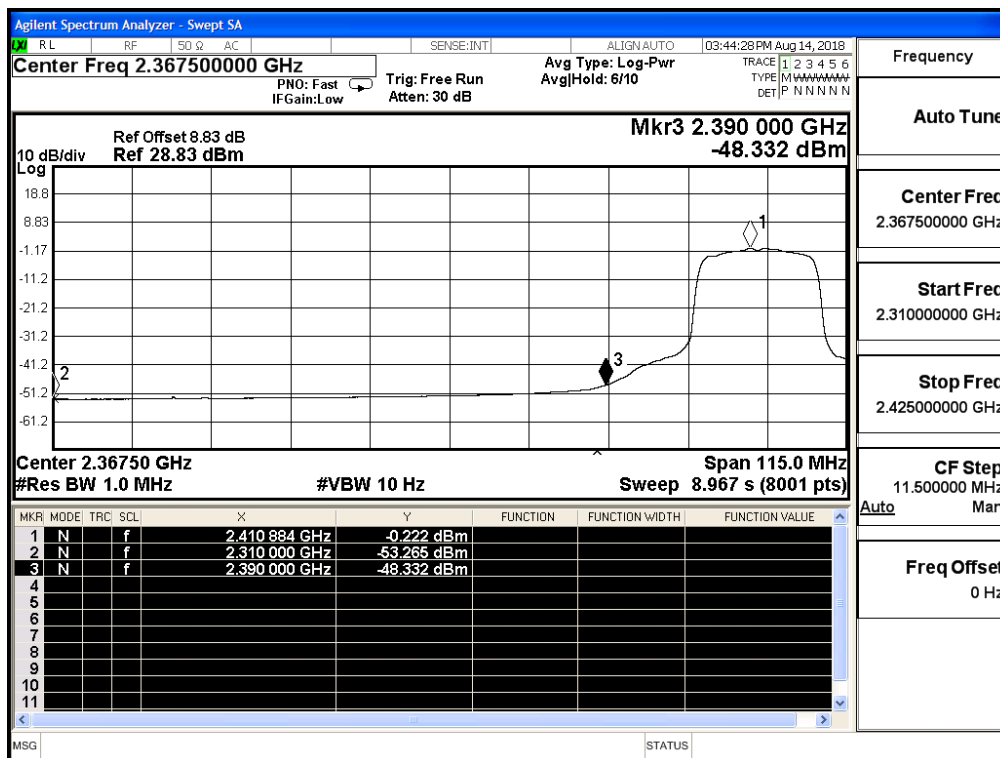
Restrict-band band-edge measurements_11B_2462_Ant1_AV



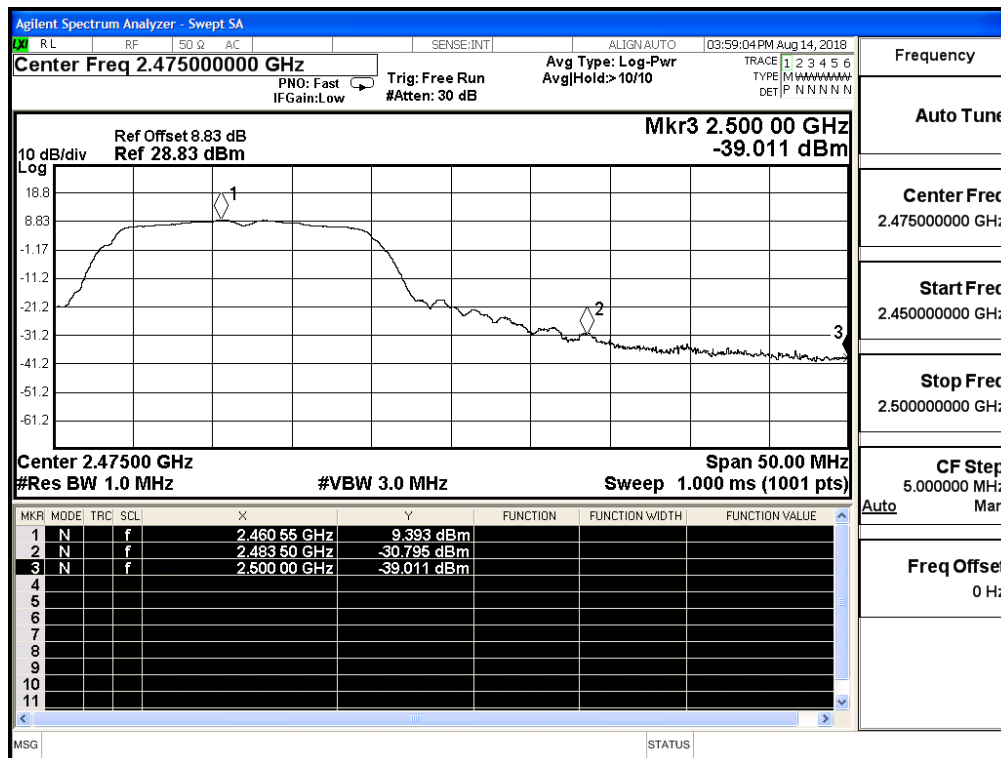
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



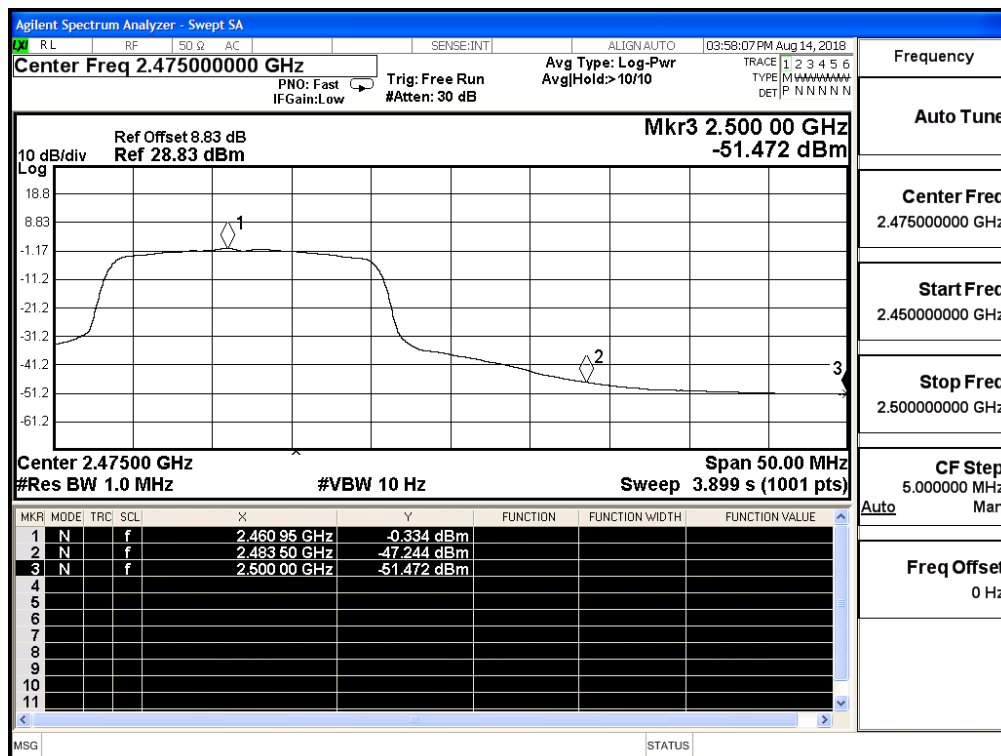
Restrict-band band-edge measurements_11G_2412_Ant1_AV



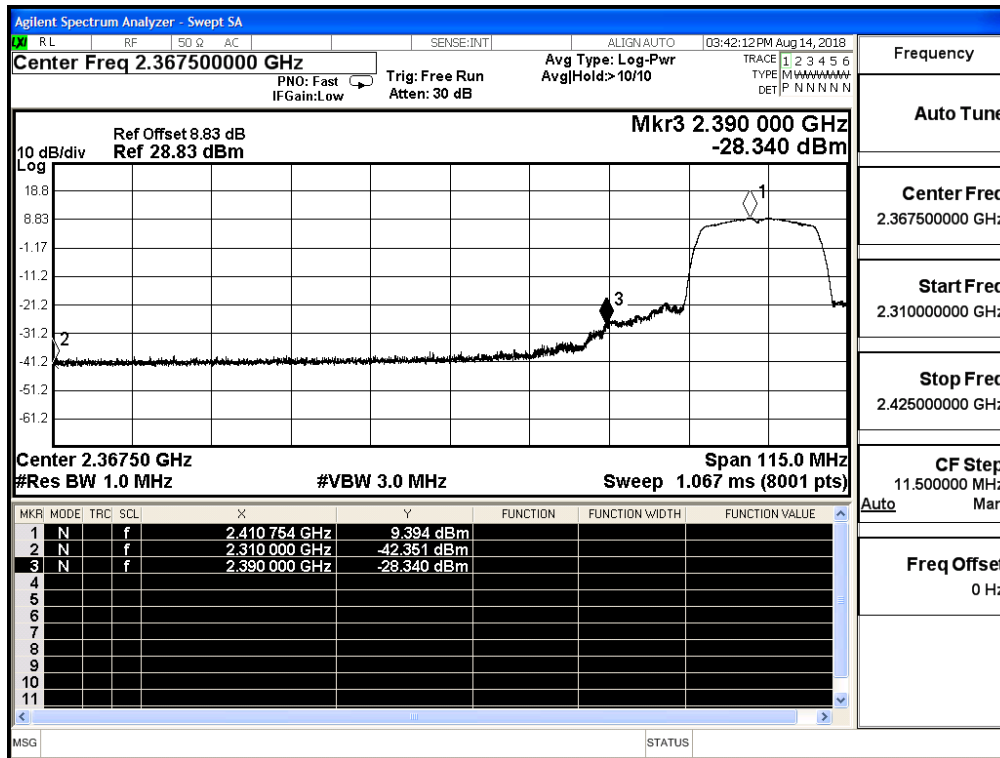
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



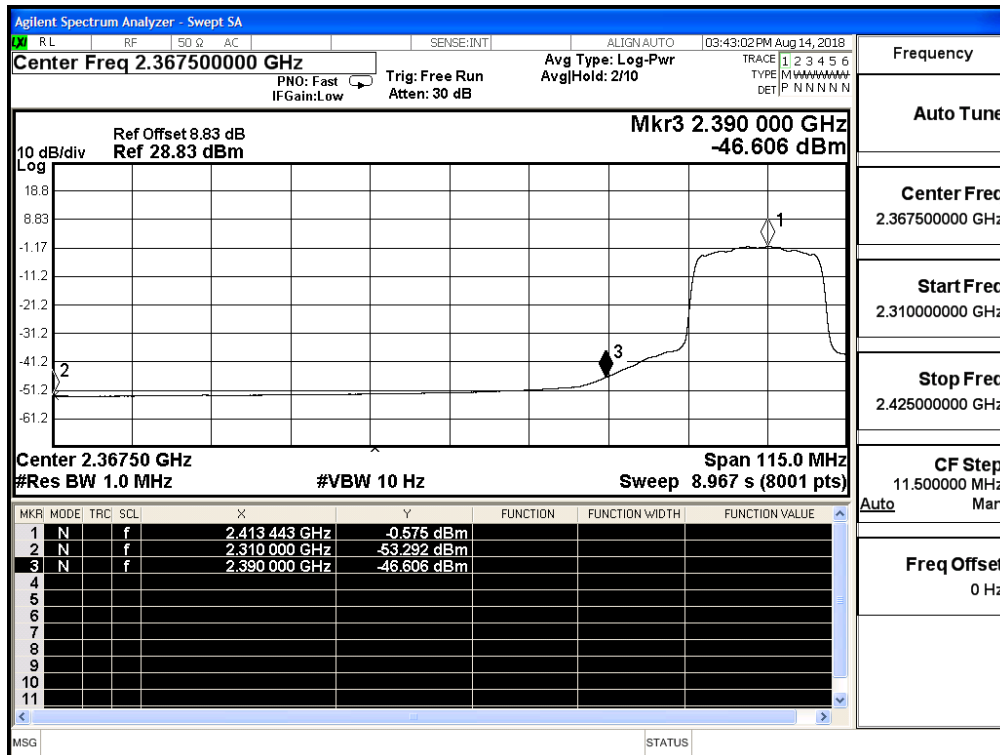
Restrict-band band-edge measurements_11G_2462_Ant1_AV



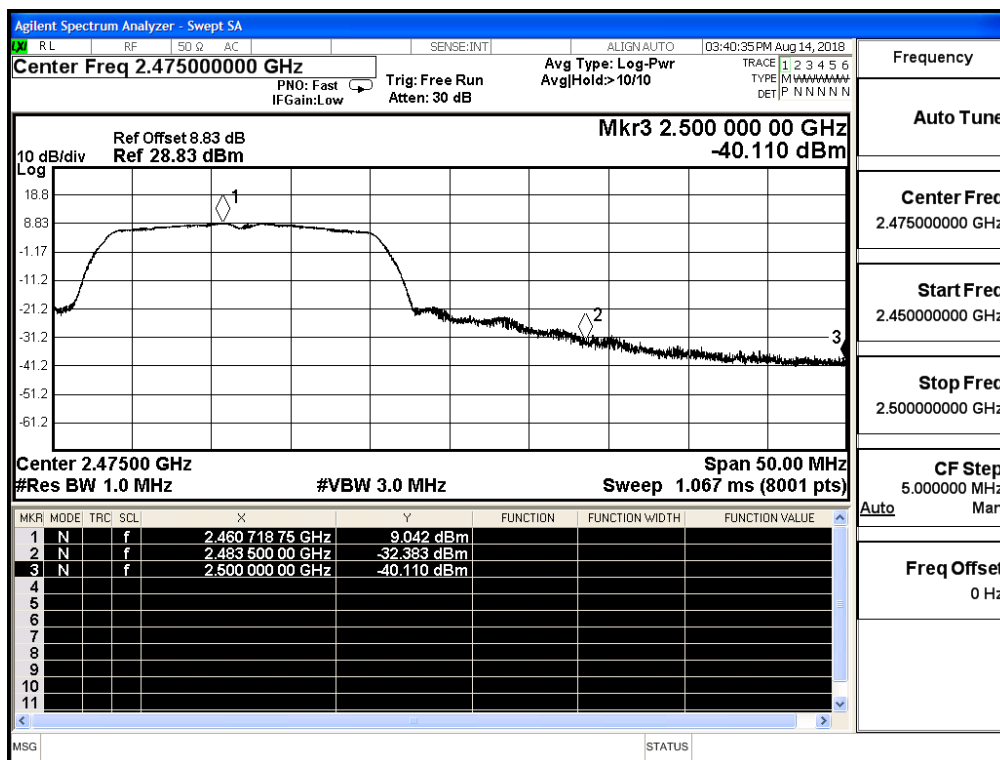
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



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

