

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Robot vacuum cleaner

Trade Mark: **SILVER STAR**

Test Model: M6s

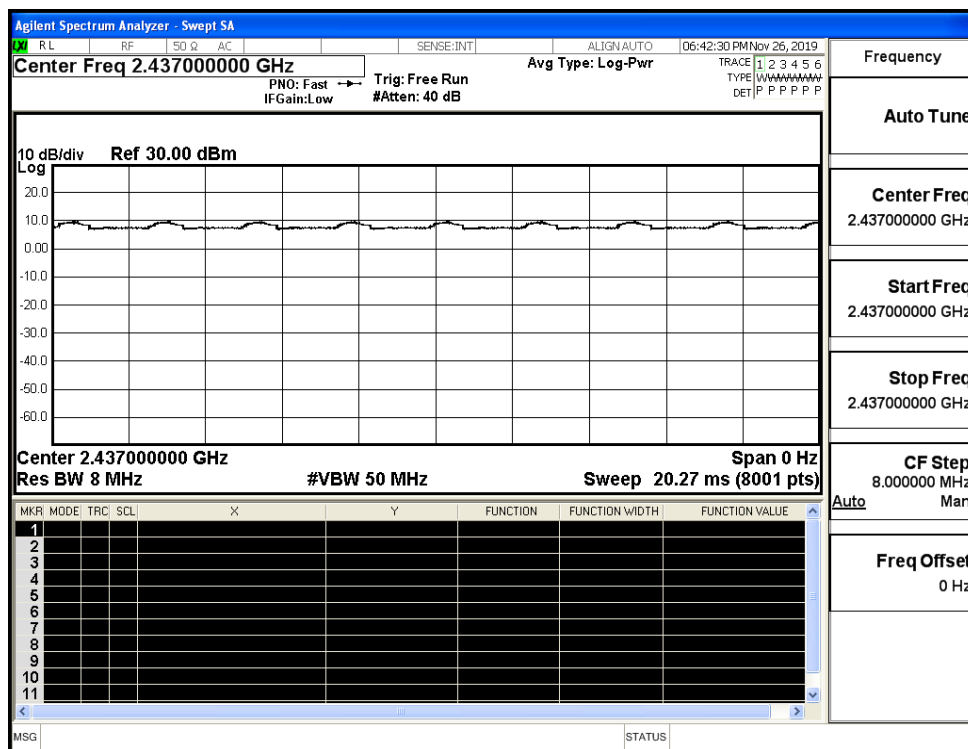
Environmental Conditions

Temperature:	23.3 ° C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Alisa Huang
Supervised by:	Tom.Liu

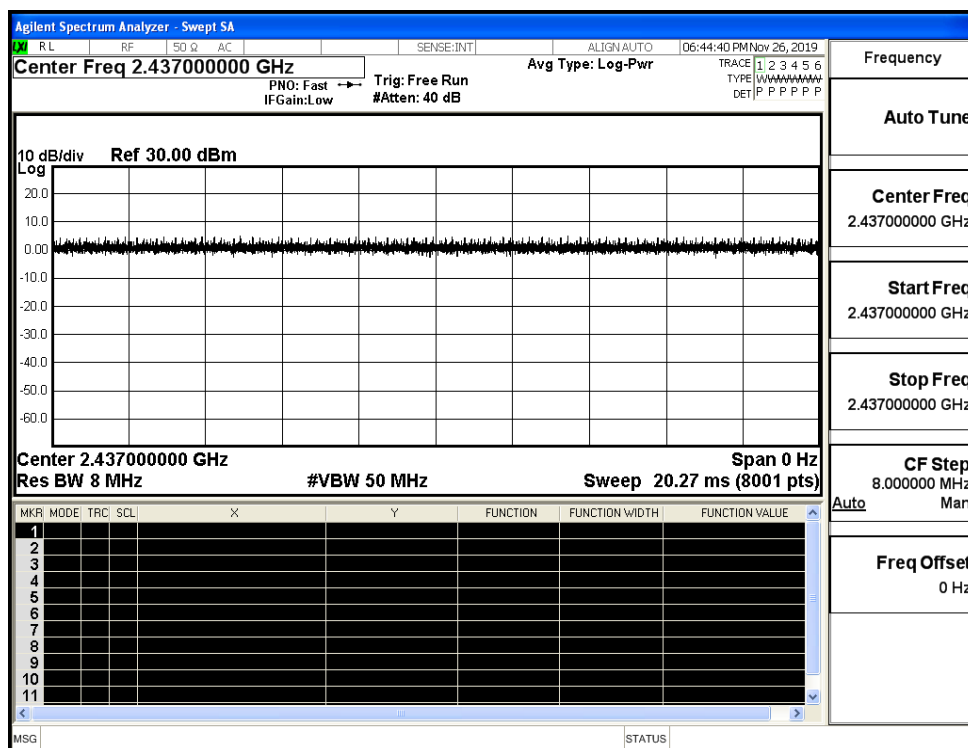
A.1 Duty Cycle

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

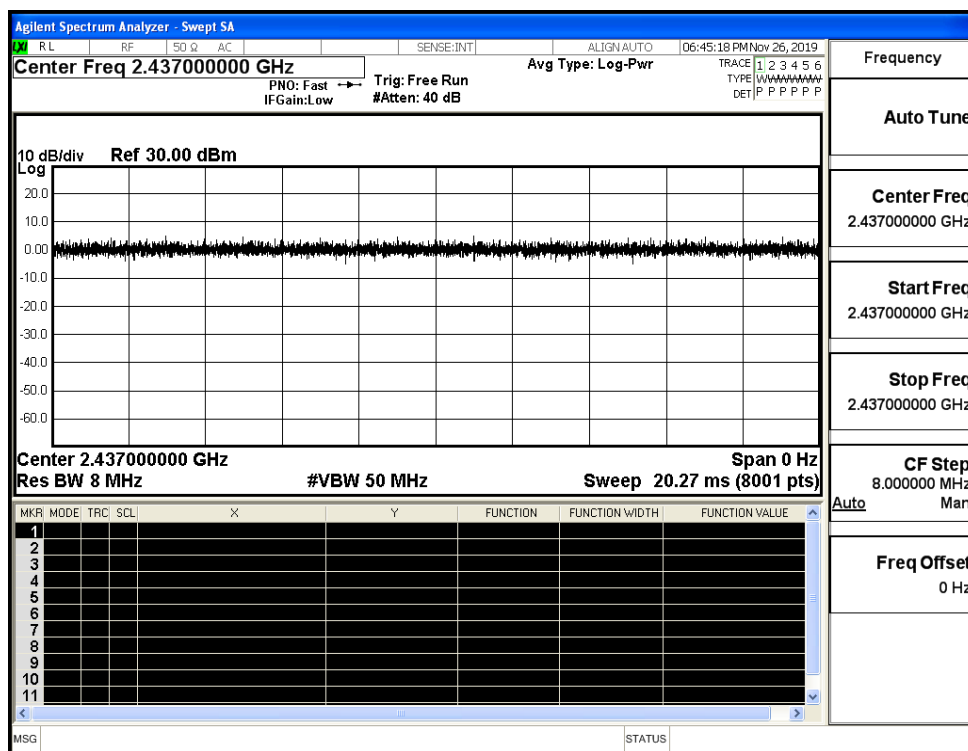
Duty Cycle_11B_2437_Ant1



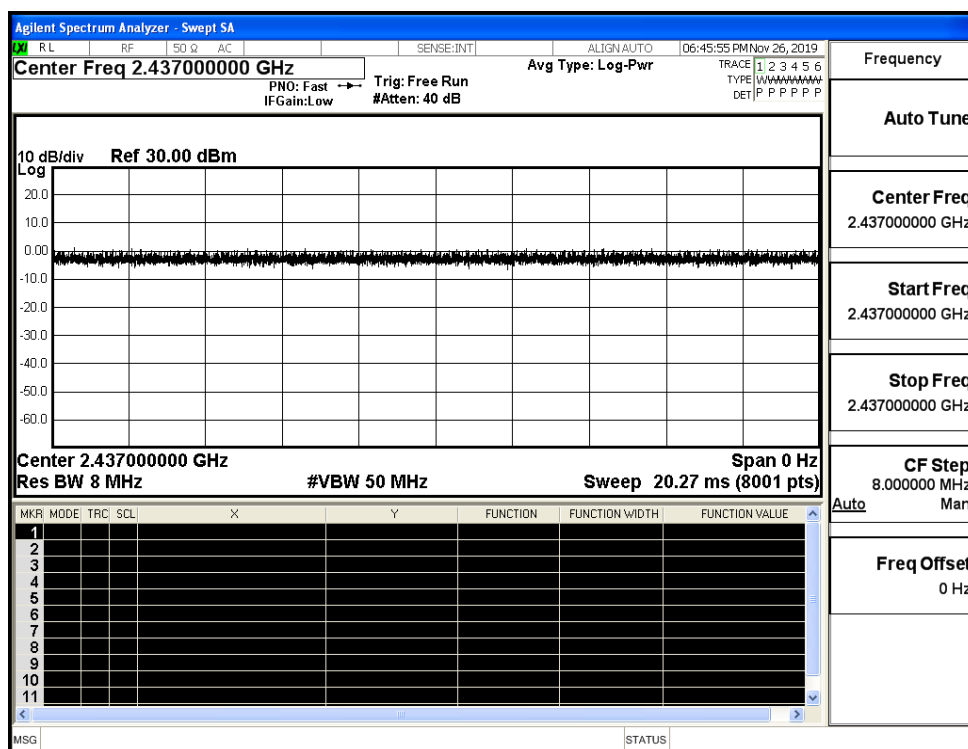
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



A.2 Maximum Conducted Output Power

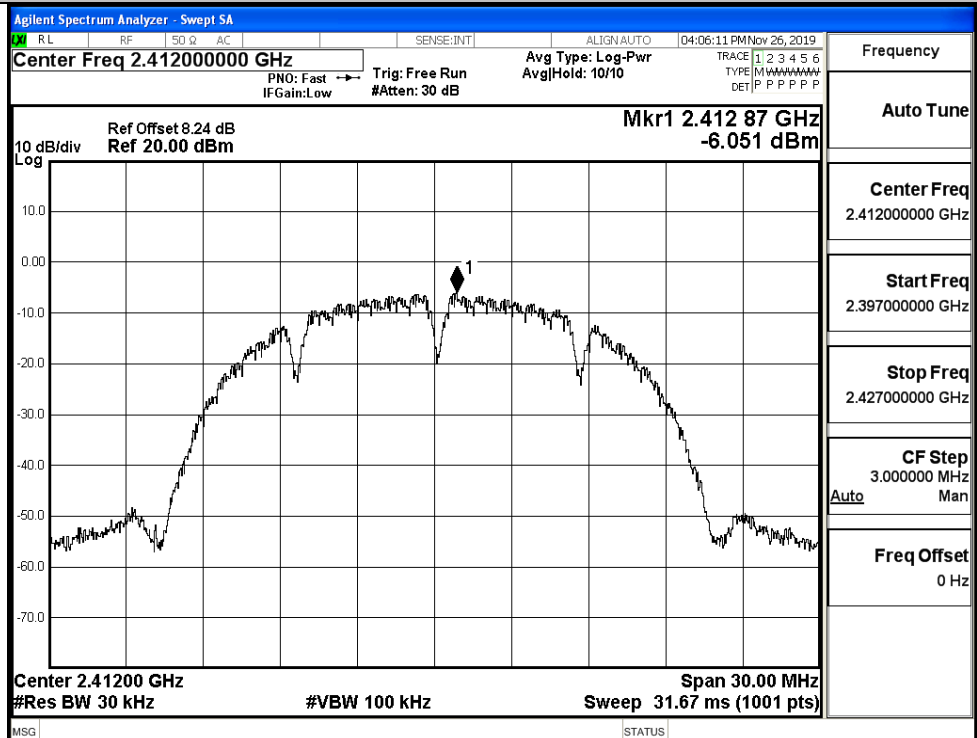
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	12.32	30	PASS
	MCH	13.37	30	PASS
	HCH	13.13	30	PASS
11G	LCH	13.53	30	PASS
	MCH	13.74	30	PASS
	HCH	13.38	30	PASS
11N20SISO	LCH	14.63	30	PASS
	MCH	14.39	30	PASS
	HCH	13.83	30	PASS
11N40SISO	LCH	14.09	30	PASS
	MCH	14.53	30	PASS
	HCH	14.34	30	PASS

A.3 Maximum Power Spectral Density

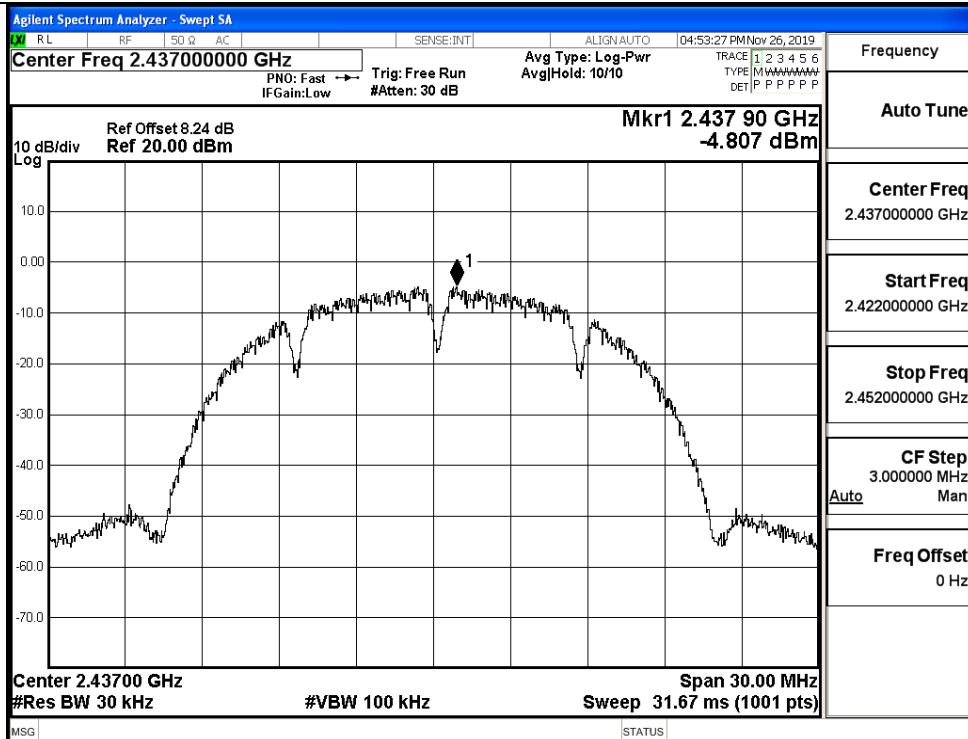
Mode	Channel	Meas. Level [dBm/30KHz]	Convert Factor	Result [dBm/30KHz]	Limit [dBm/30KHz]	Verdict
11B	LCH	-6.051	-10	-16.05	8	PASS
	MCH	-4.807	-10	-14.81	8	PASS
	HCH	-5.254	-10	-15.25	8	PASS
11G	LCH	-9.907	-10	-19.91	8	PASS
	MCH	-10.630	-10	-20.63	8	PASS
	HCH	-10.805	-10	-20.81	8	PASS
11N20SISO	LCH	-10.243	-10	-20.24	8	PASS
	MCH	-10.641	-10	-20.64	8	PASS
	HCH	-11.133	-10	-21.13	8	PASS
11N40SISO	LCH	-12.794	-10	-22.79	8	PASS
	MCH	-12.414	-10	-22.41	8	PASS
	HCH	-12.525	-10	-22.53	8	PASS

Test Graphs

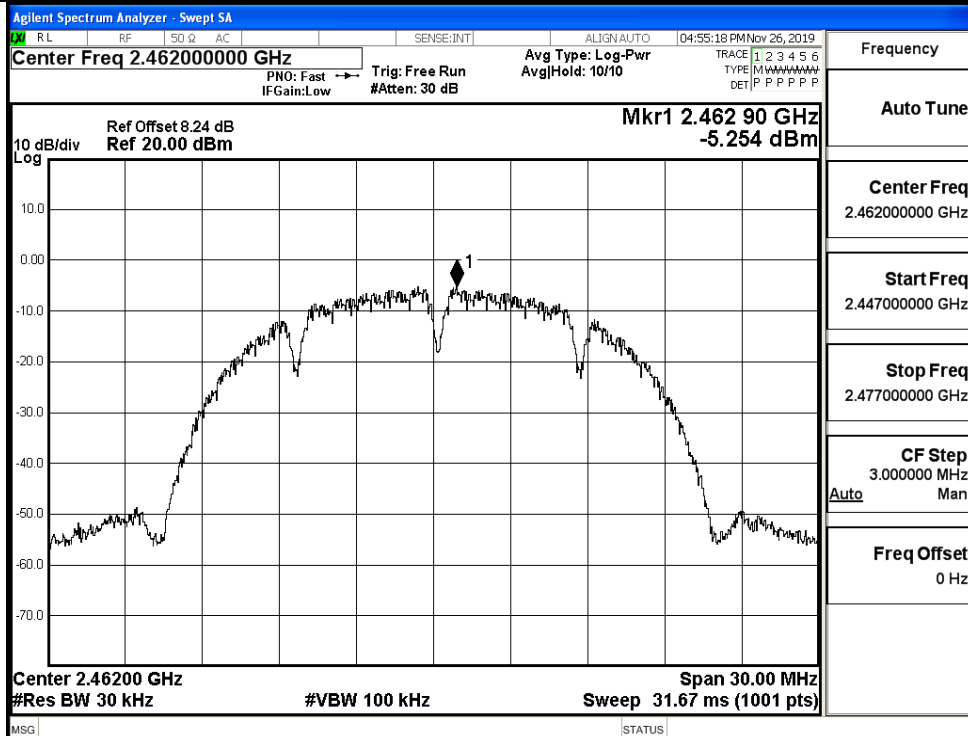
11B/LCH



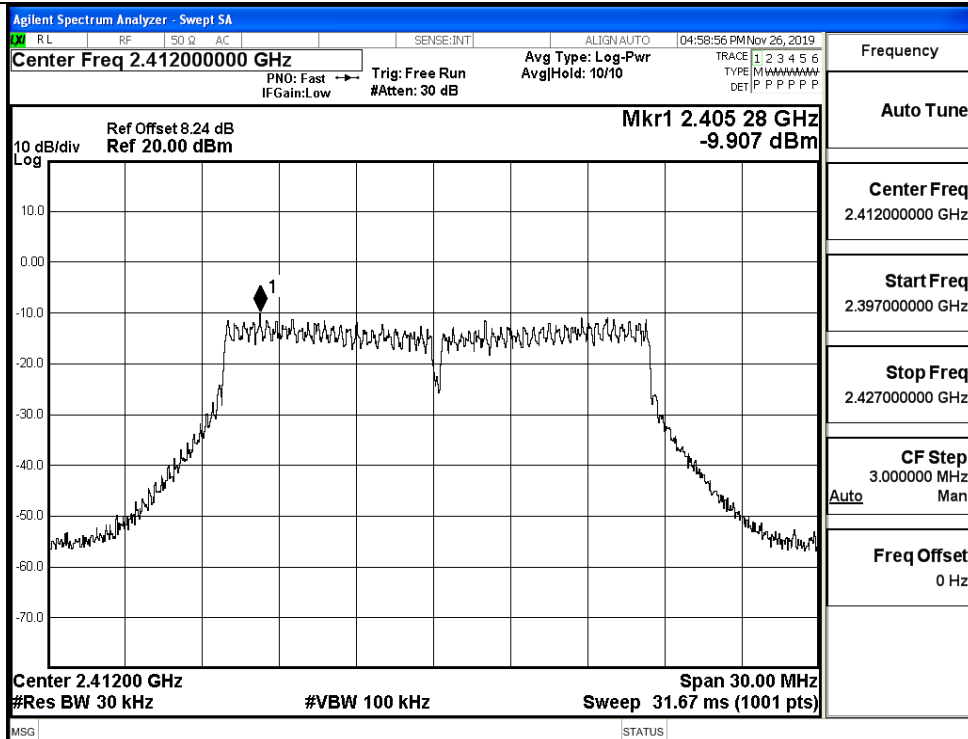
11B/MCH



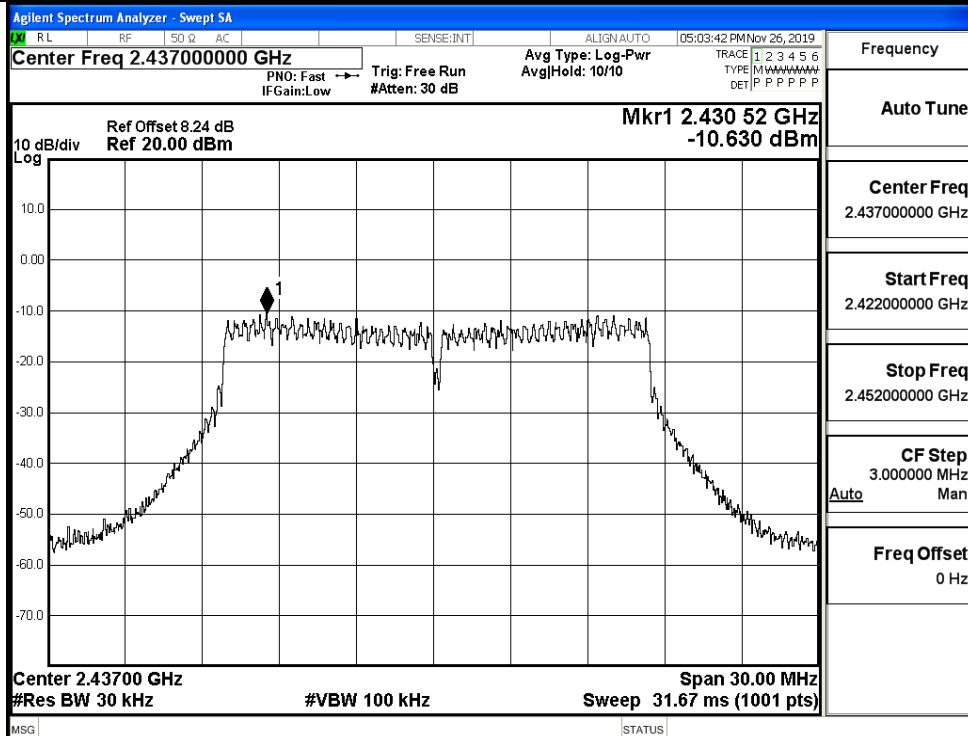
11B/HCH



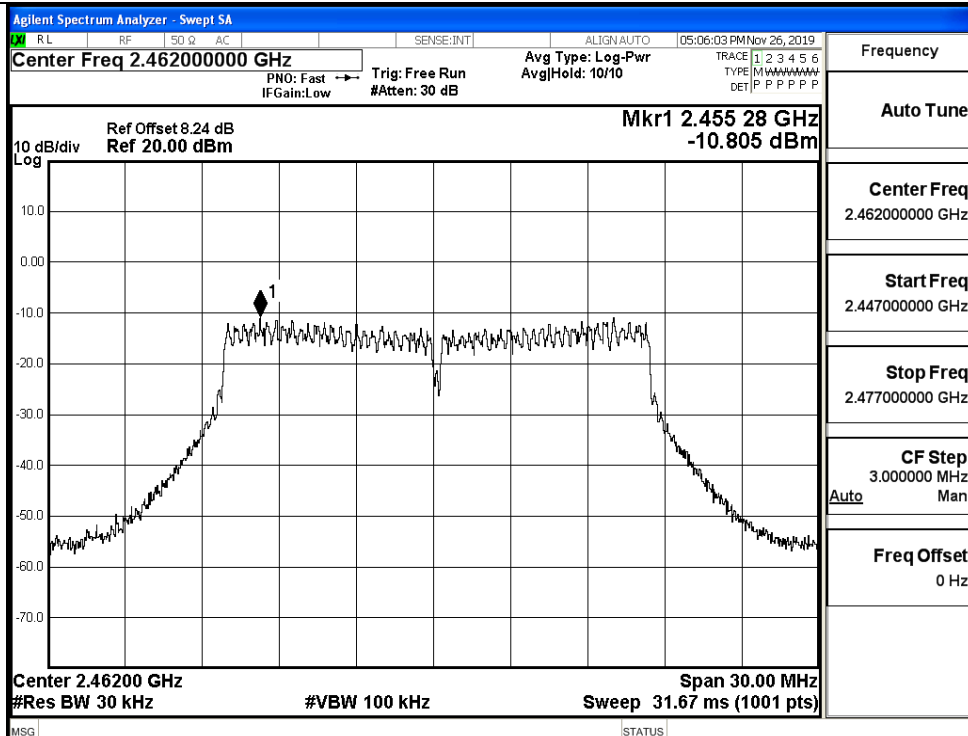
11G/LCH



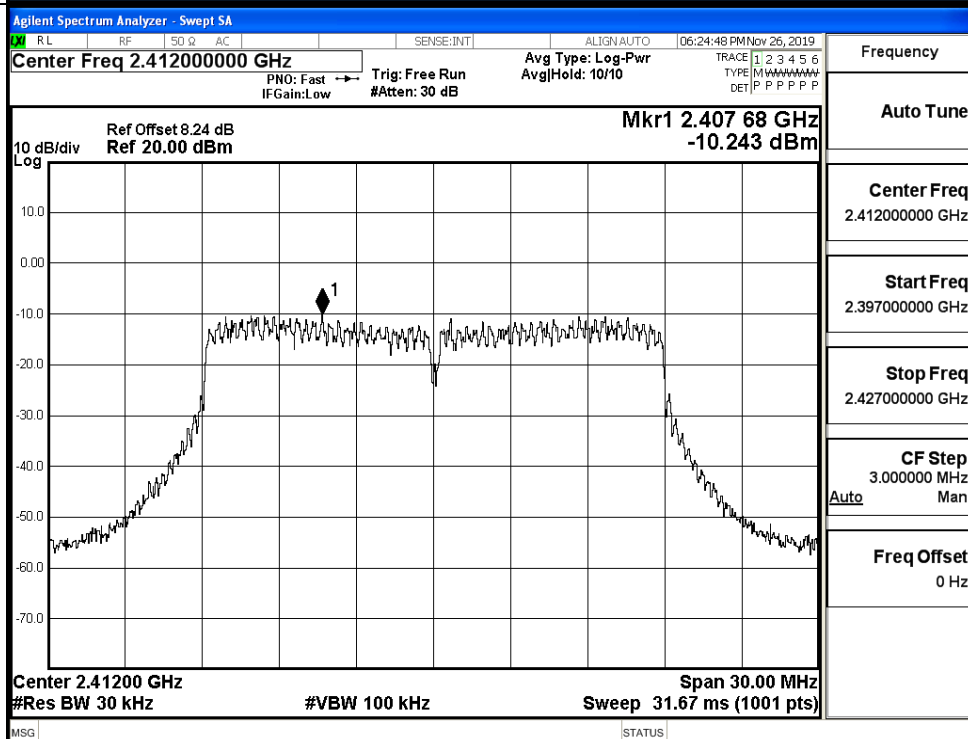
11G/MCH



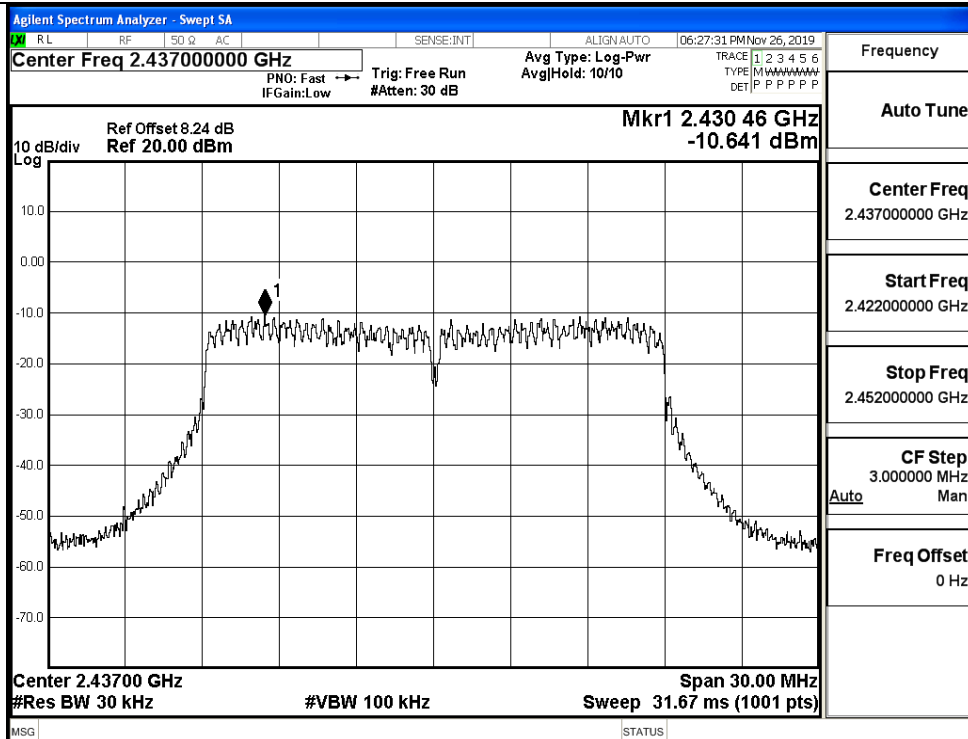
11G/HCH



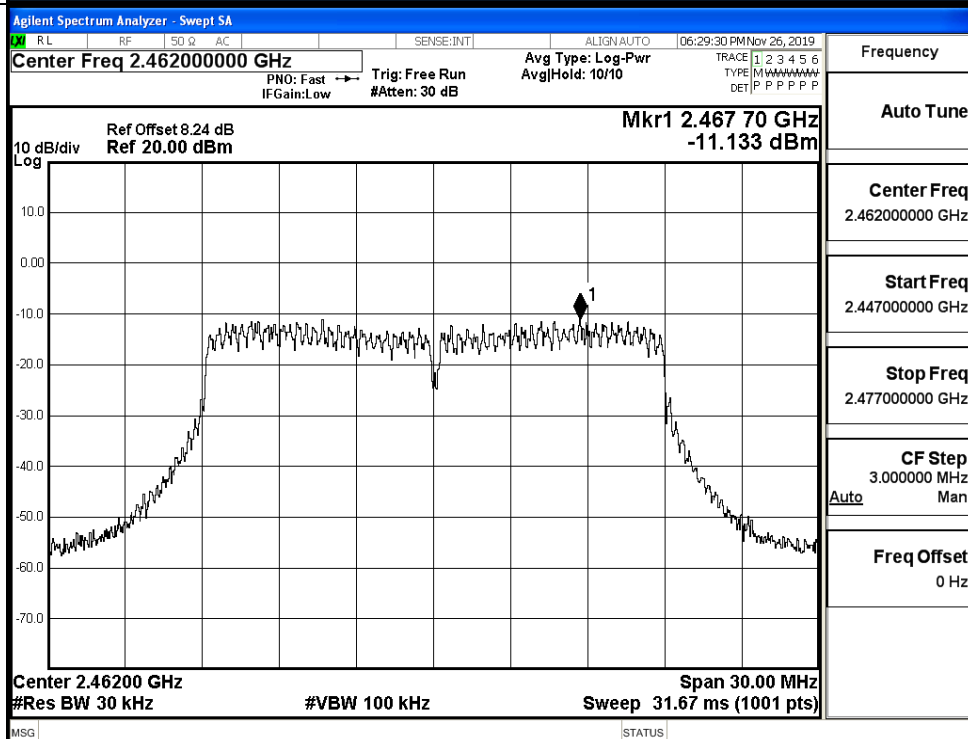
11N20SISO/LCH



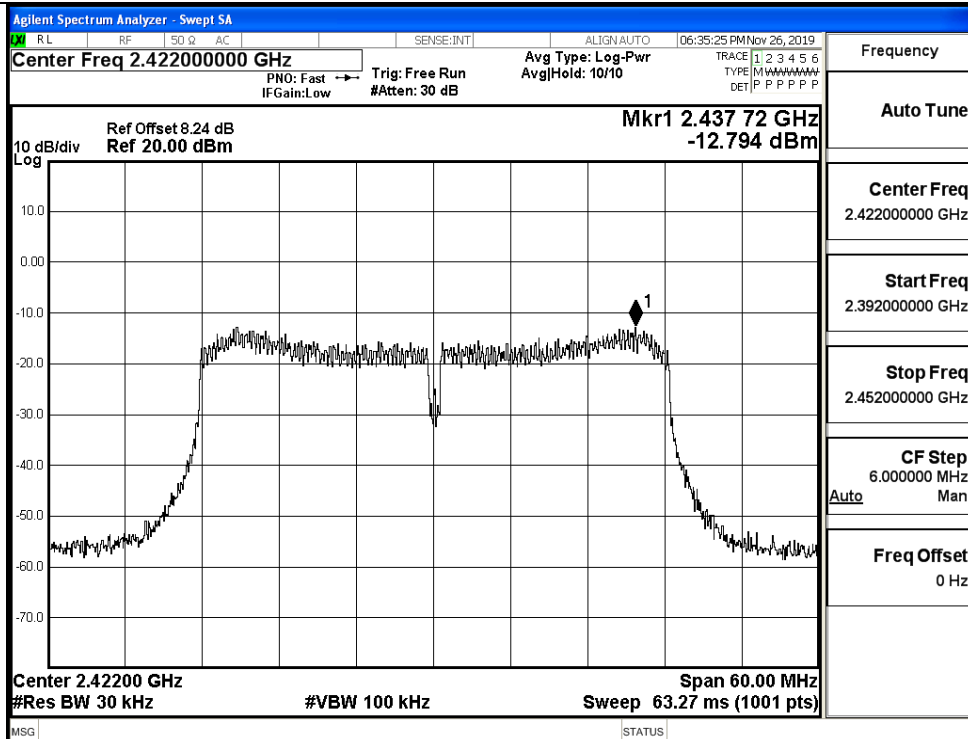
11N20SISO/MCH



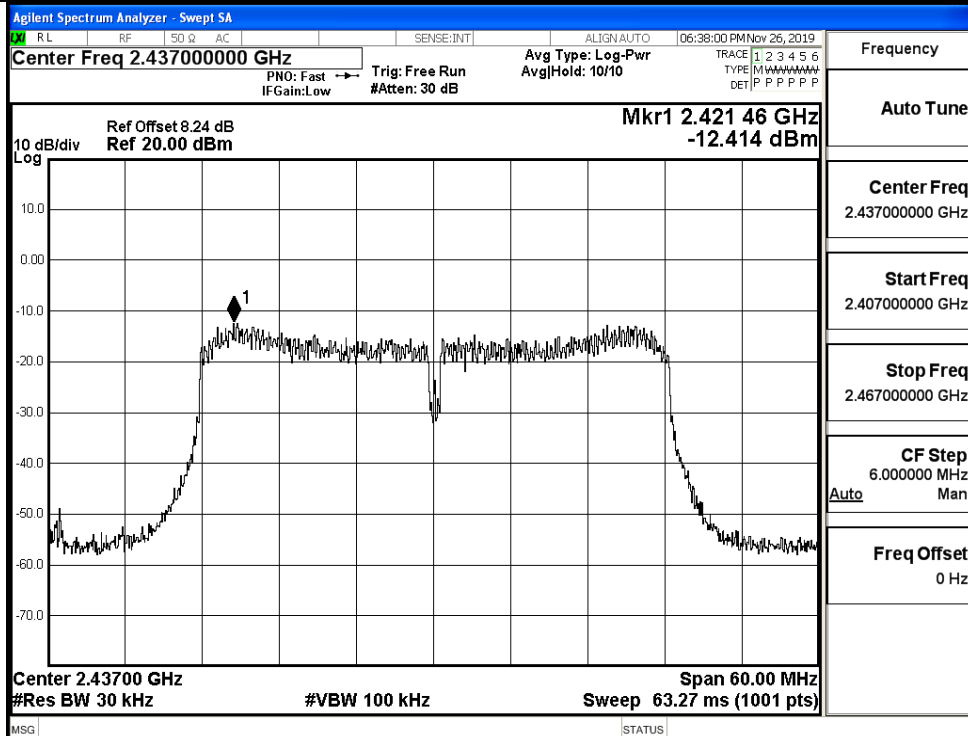
11N20SISO/HCH



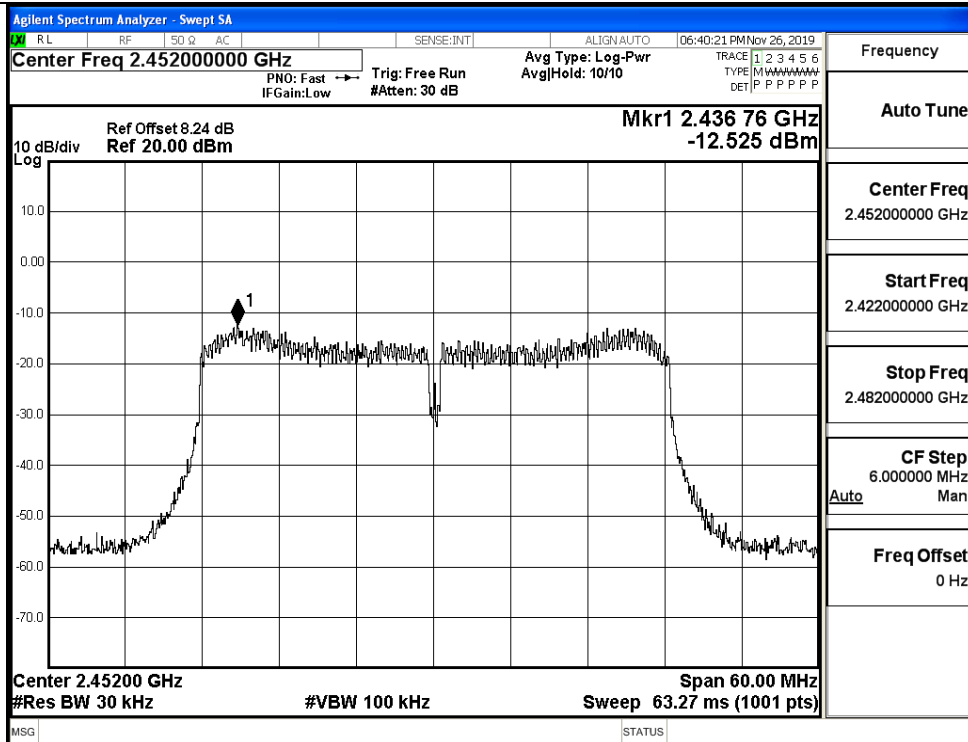
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

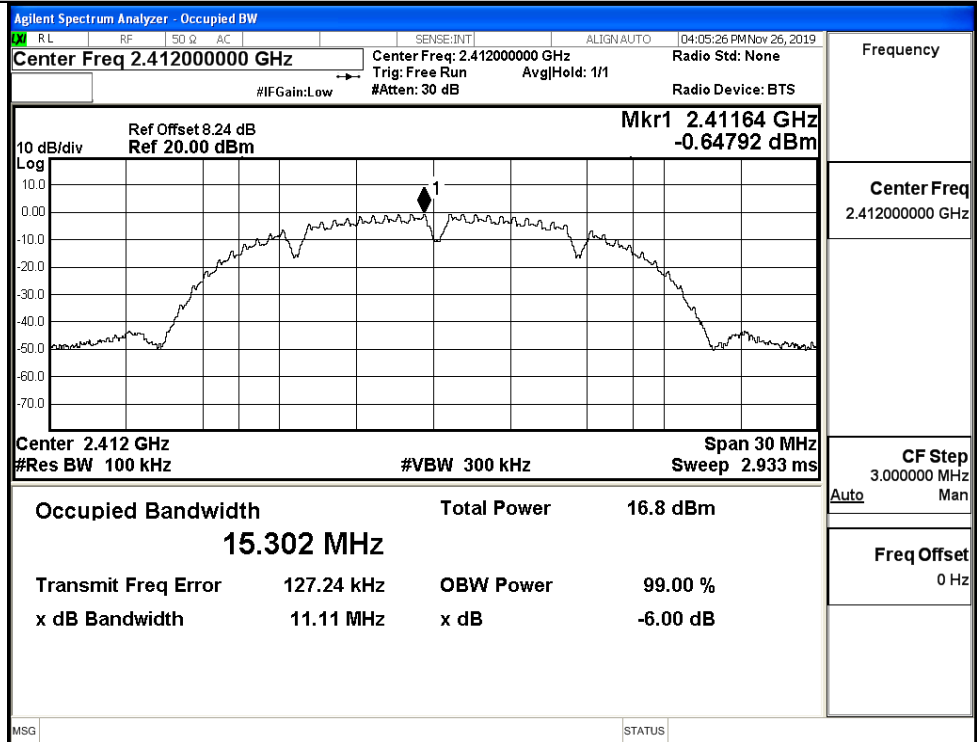


A.4 6dB Bandwidth

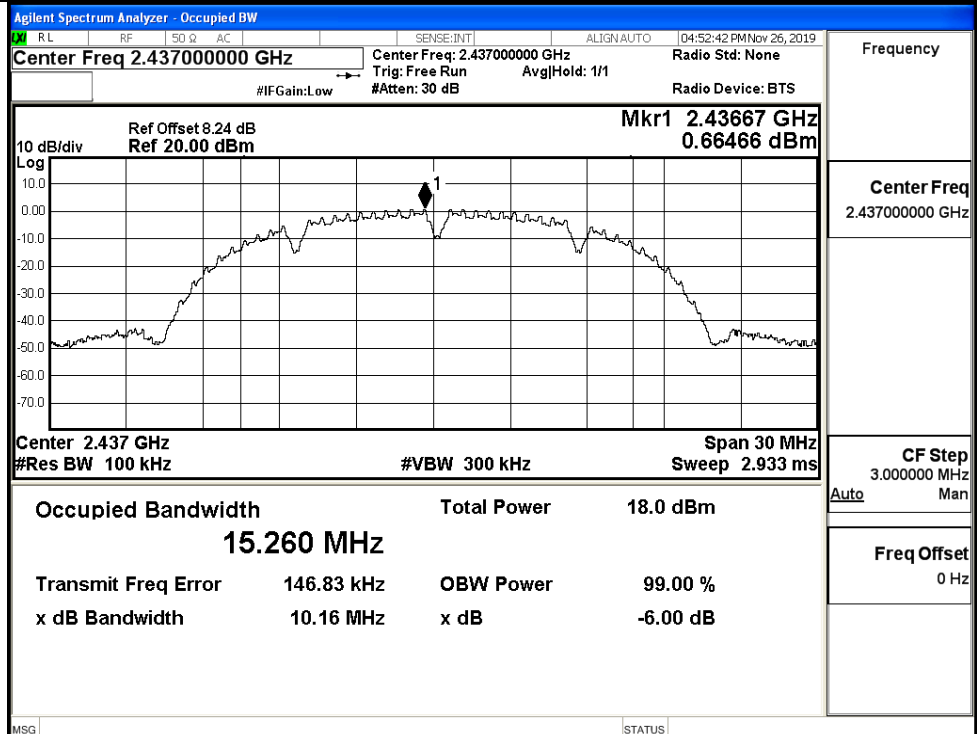
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	11.11	≥ 0.5	PASS
	MCH	10.16	≥ 0.5	PASS
	HCH	11.08	≥ 0.5	PASS
11G	LCH	16.57	≥ 0.5	PASS
	MCH	16.59	≥ 0.5	PASS
	HCH	16.60	≥ 0.5	PASS
11N20SISO	LCH	17.70	≥ 0.5	PASS
	MCH	17.70	≥ 0.5	PASS
	HCH	17.69	≥ 0.5	PASS
11N40SISO	LCH	36.33	≥ 0.5	PASS
	MCH	36.31	≥ 0.5	PASS
	HCH	36.33	≥ 0.5	PASS

Test Graphs

11B/LCH



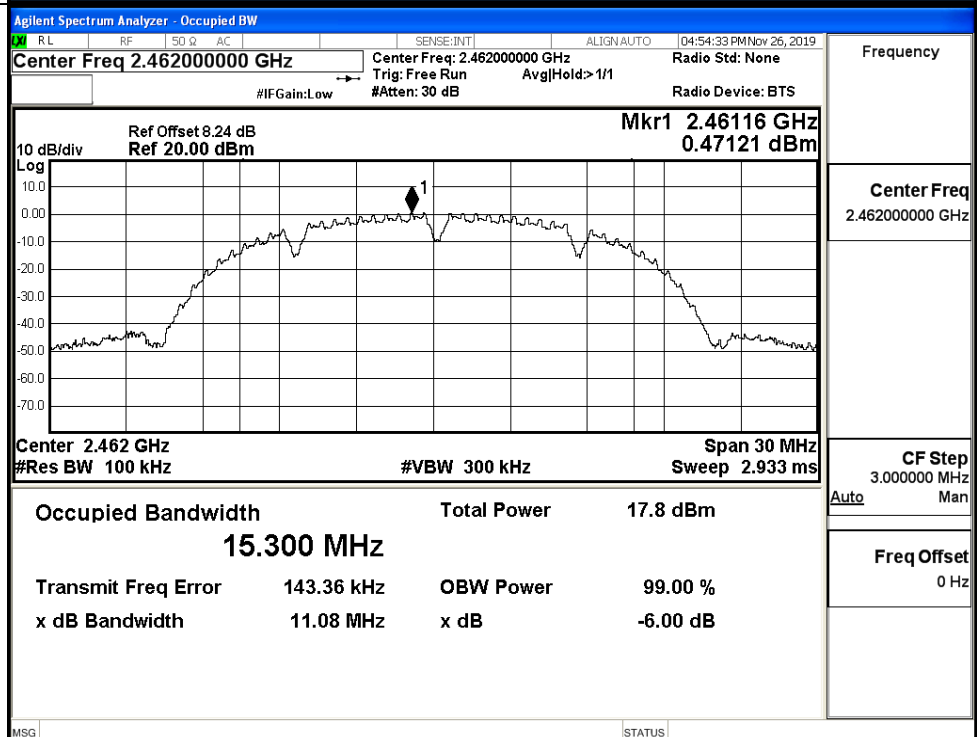
11B/MCH



Frequency

Center Freq
2.437000000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz

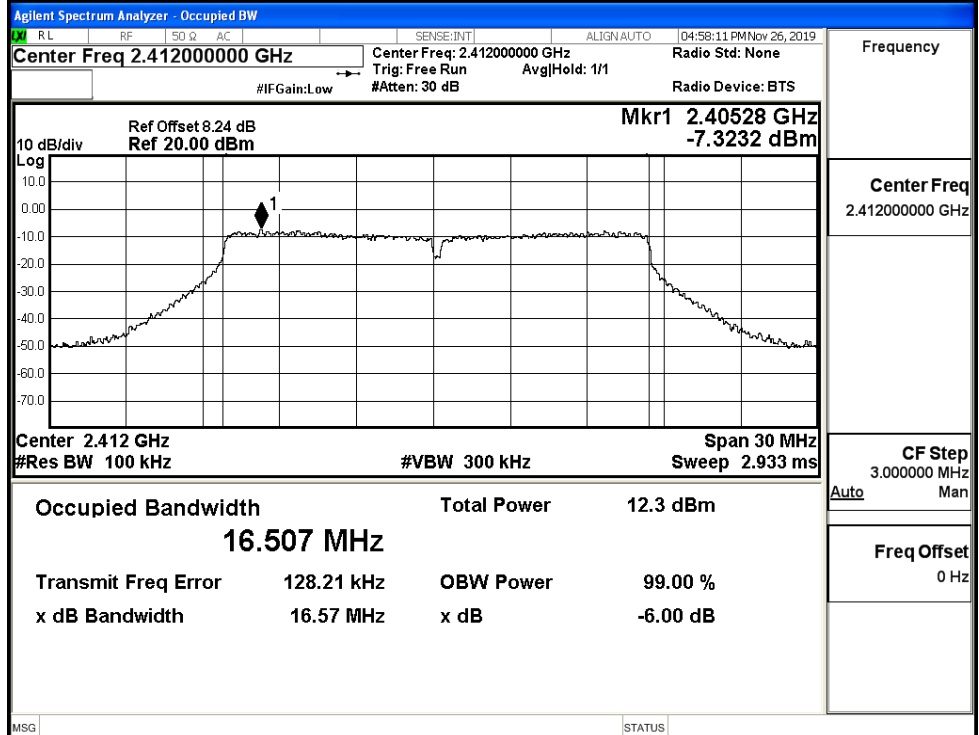
11B/HCH



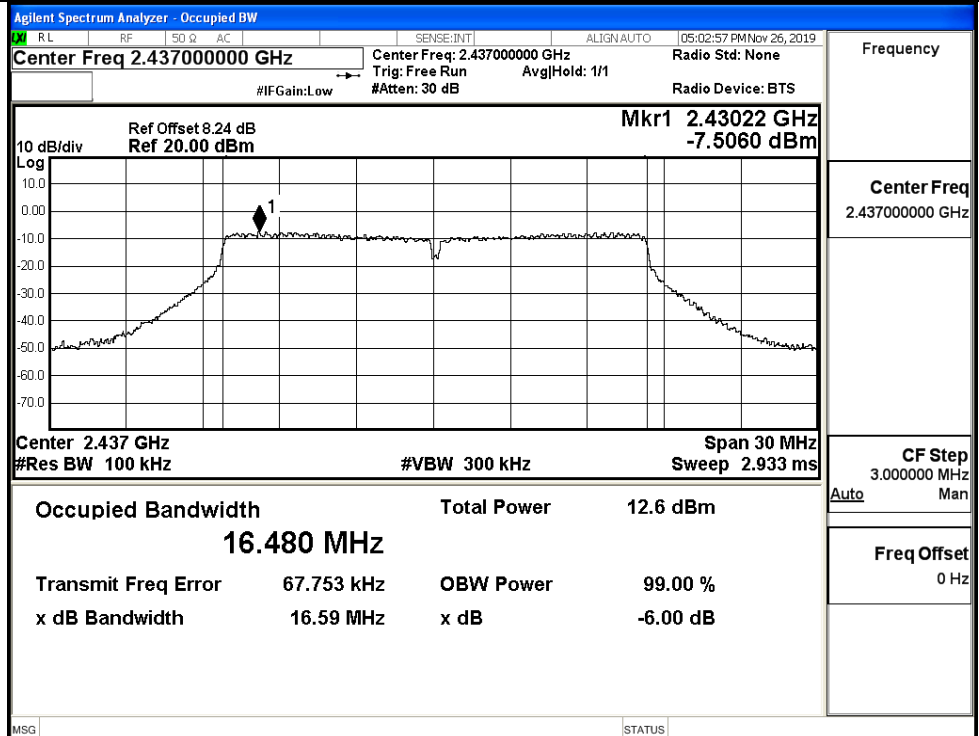
Frequency

Center Freq
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3.000000 MHz
Auto ManFreq Offset
0 Hz

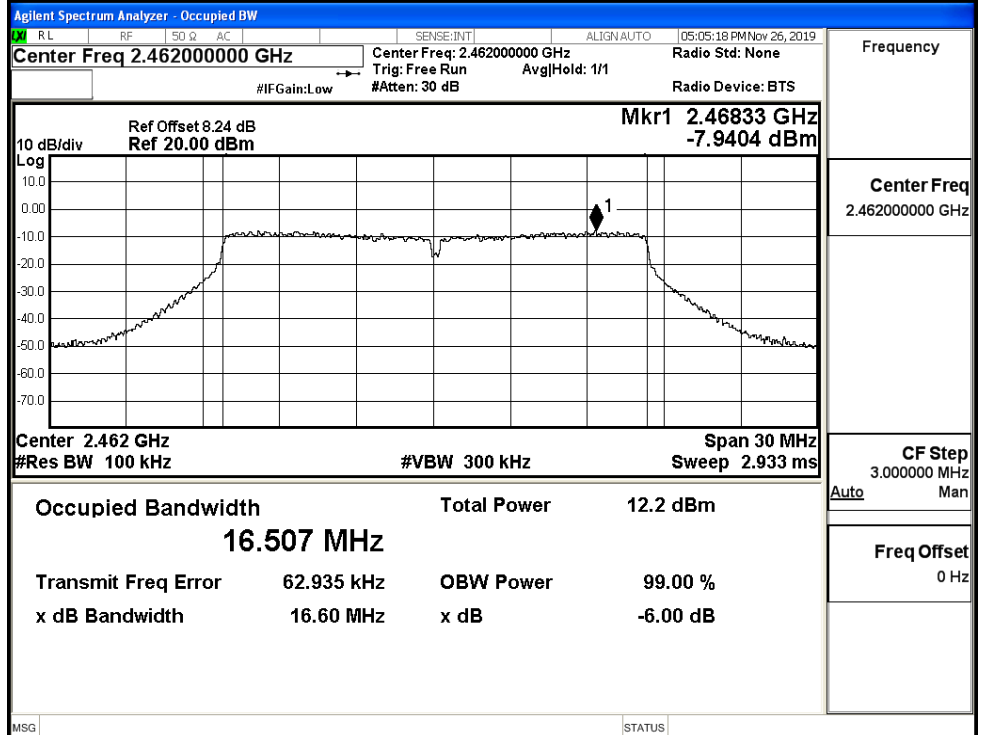
11G/LCH



11G/MCH



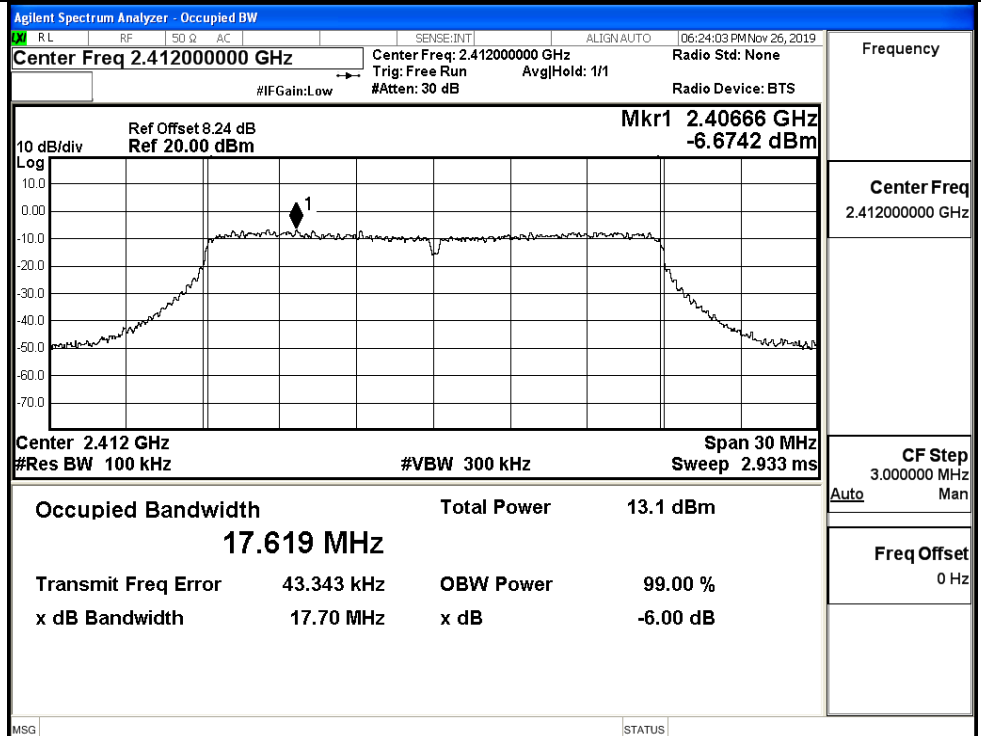
11G/HCH



Frequency

Center Freq
2.462000000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz

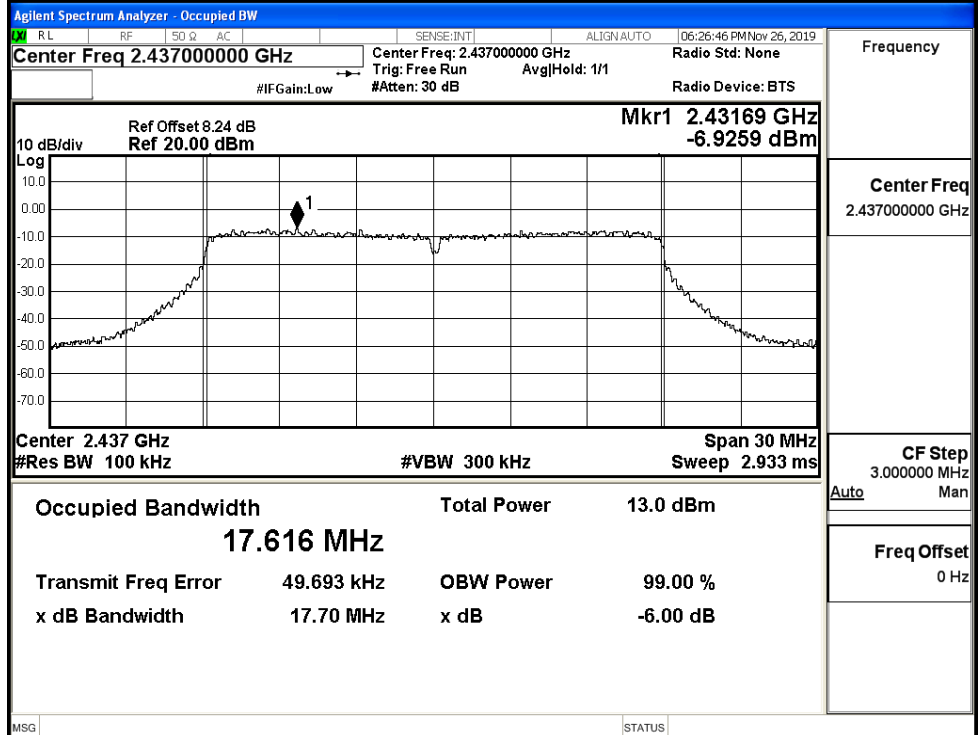
11N20SISO/LCH



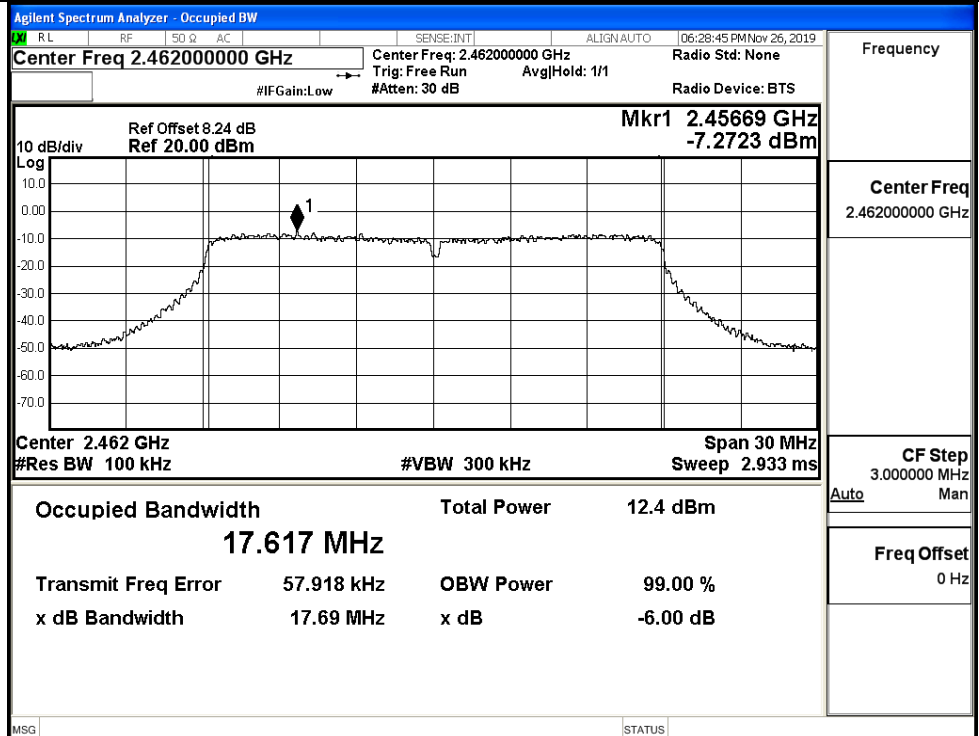
Frequency

Center Freq
2.412000000 GHzCF Step
3.000000 MHz
Auto ManFreq Offset
0 Hz

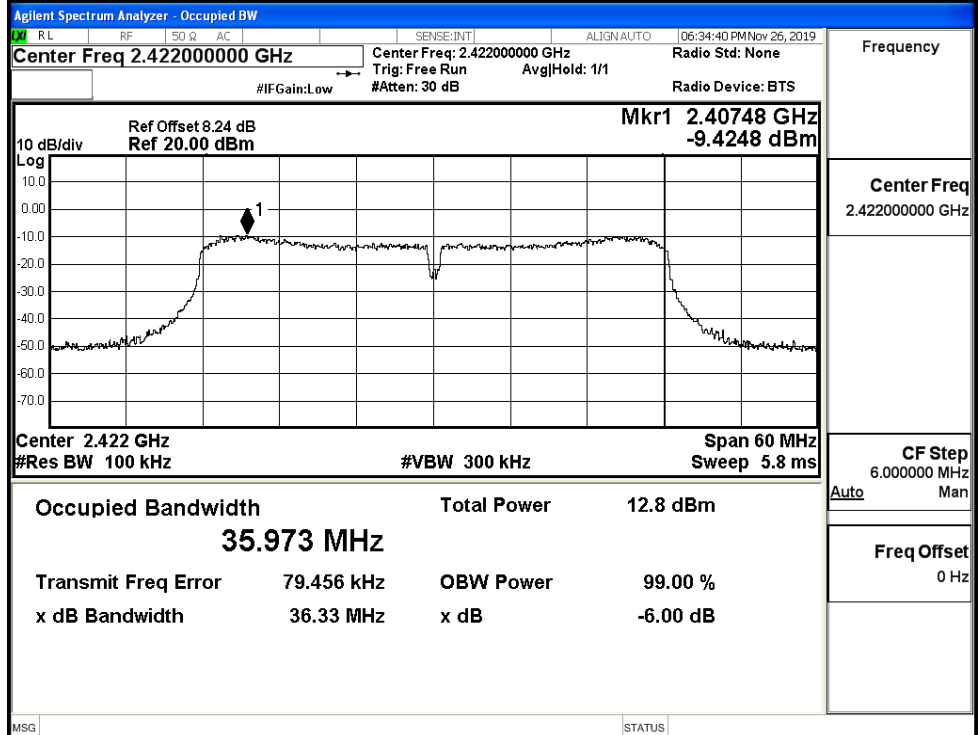
11N20SISO/MCH



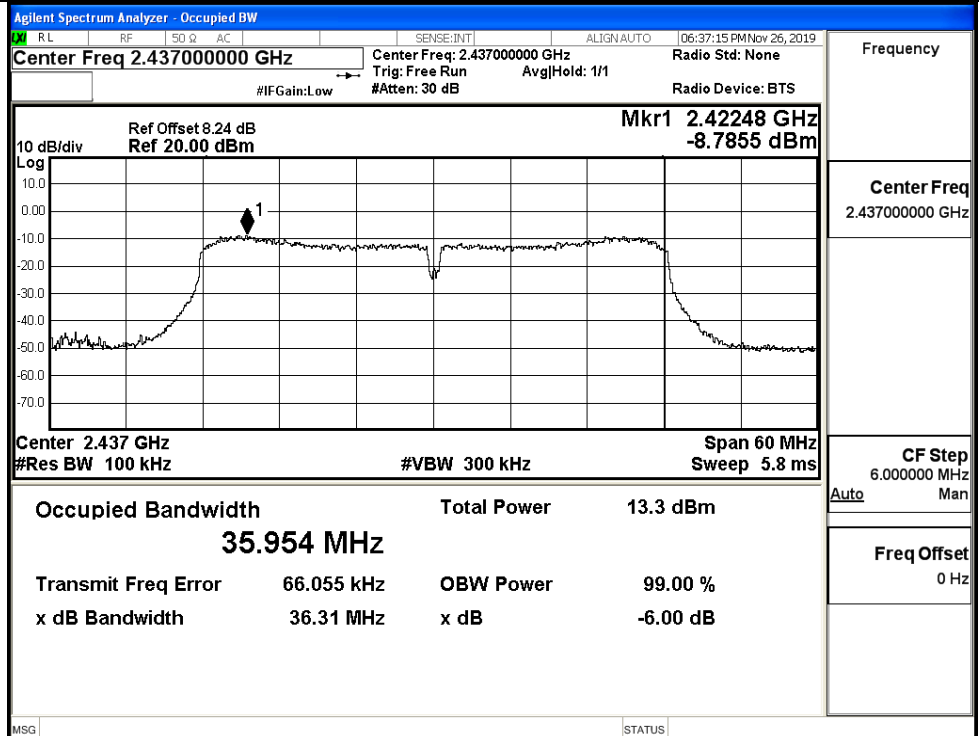
11N20SISO/HCH



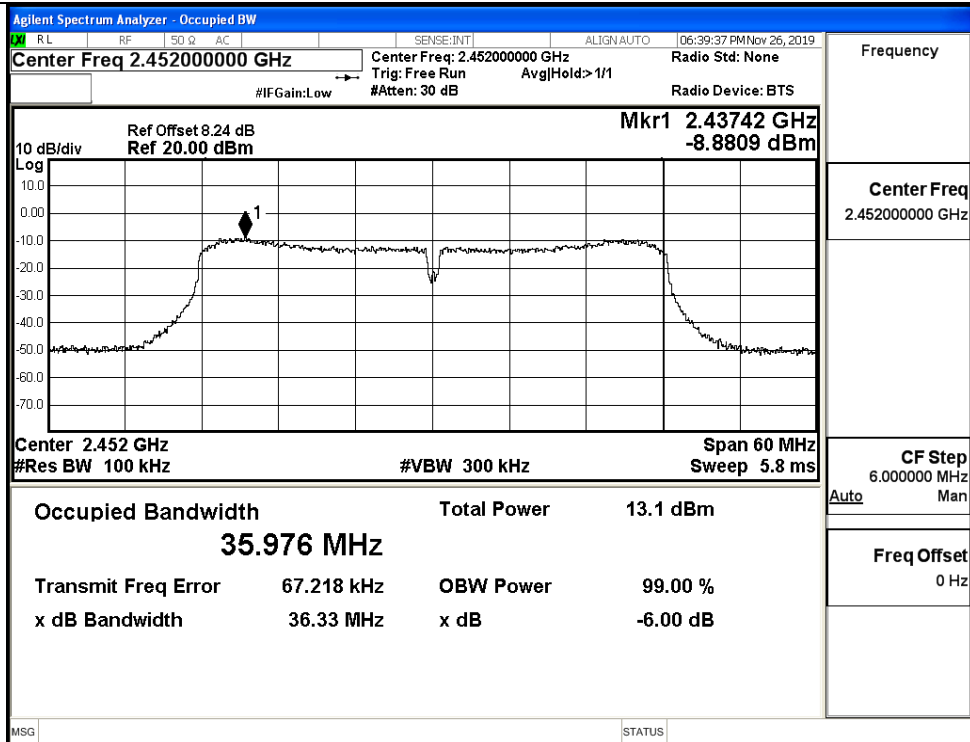
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

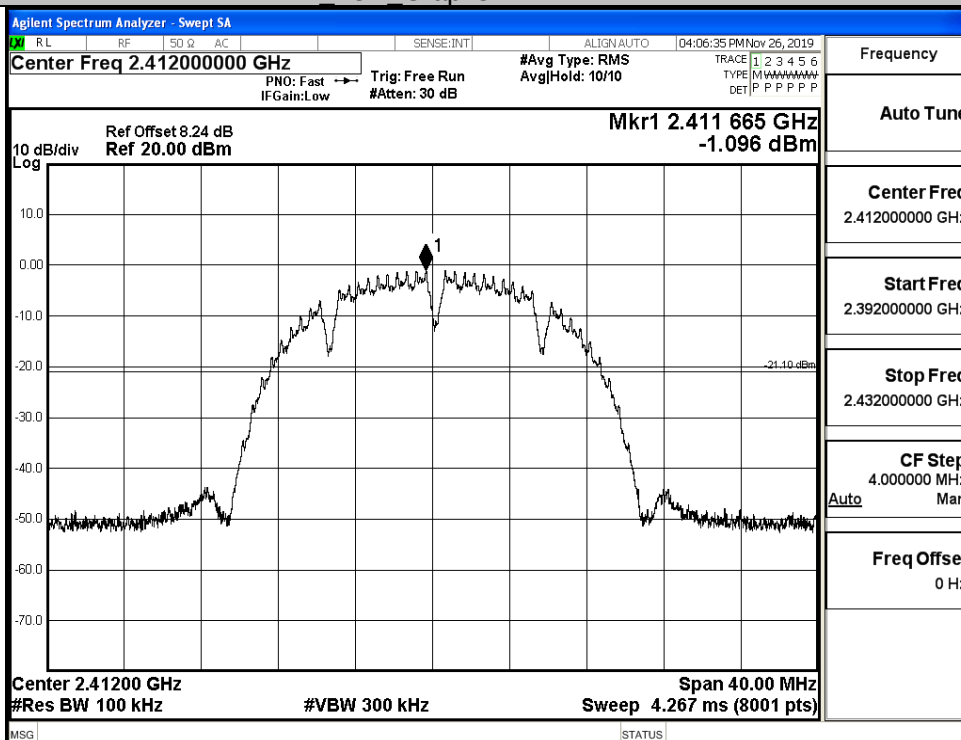


A.5 RF Conducted Spurious Emissions

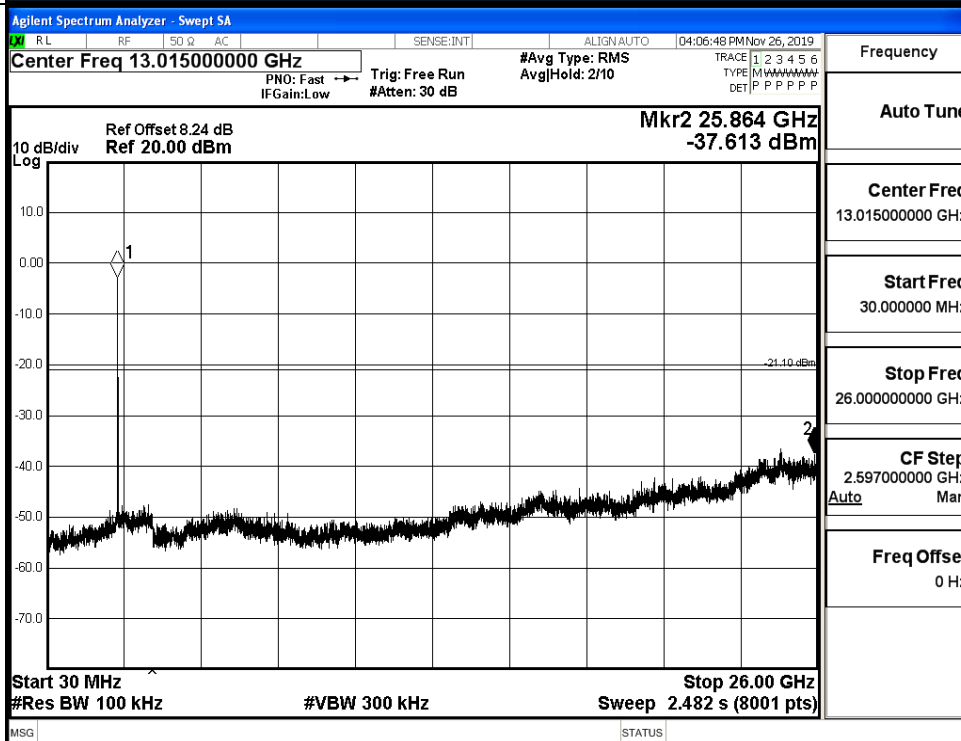
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-1.096	-37.613	-21.096	PASS
	MCH	0.173	-37.500	-19.827	PASS
	HCH	-0.258	-37.878	-20.258	PASS
11G	LCH	-7.319	-37.478	-27.319	PASS
	MCH	-8.033	-37.851	-28.033	PASS
	HCH	-8.373	-36.634	-28.373	PASS
11N20 SISO	LCH	-6.777	-37.891	-26.777	PASS
	MCH	-7.025	-37.759	-27.025	PASS
	HCH	-7.857	-37.804	-27.857	PASS
11N40 SISO	LCH	-9.846	-36.627	-29.846	PASS
	MCH	-9.338	-38.005	-29.338	PASS
	HCH	-9.436	-37.288	-29.436	PASS

11B LCH Graphs

Pref/11B/LCH

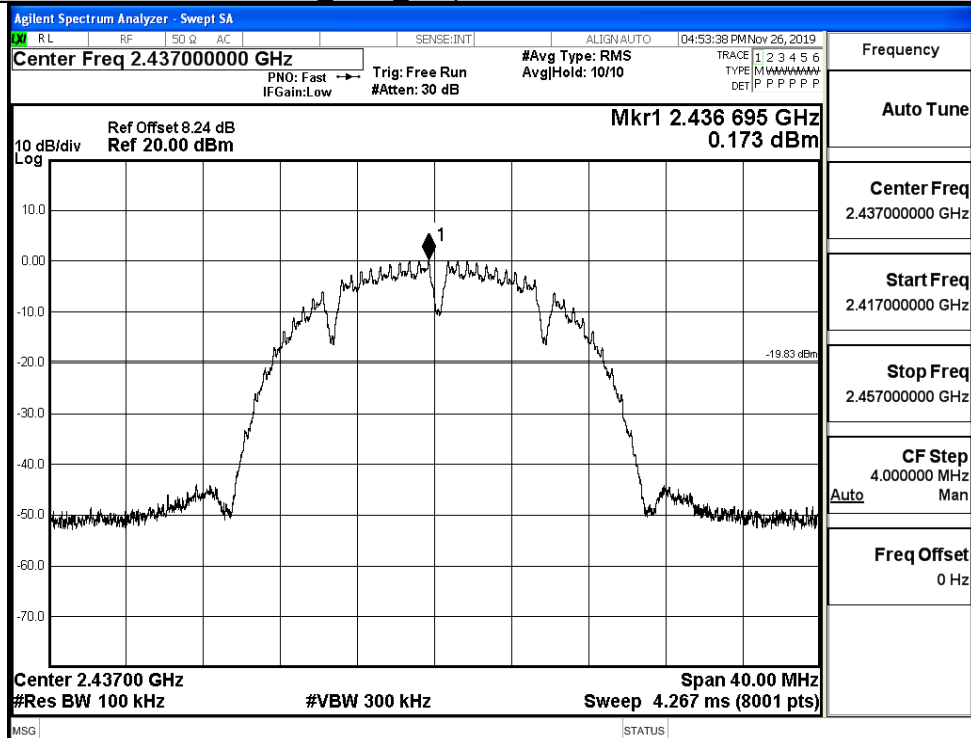


Puw/11B/LCH

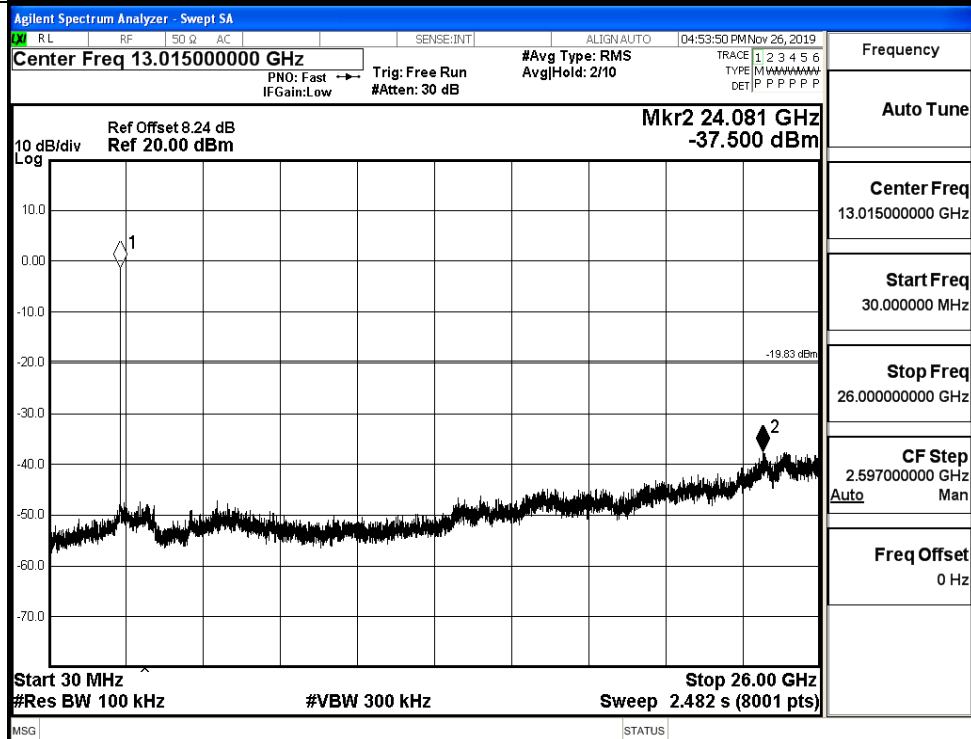


11B MCH Graphs

Pref/11B/MCH

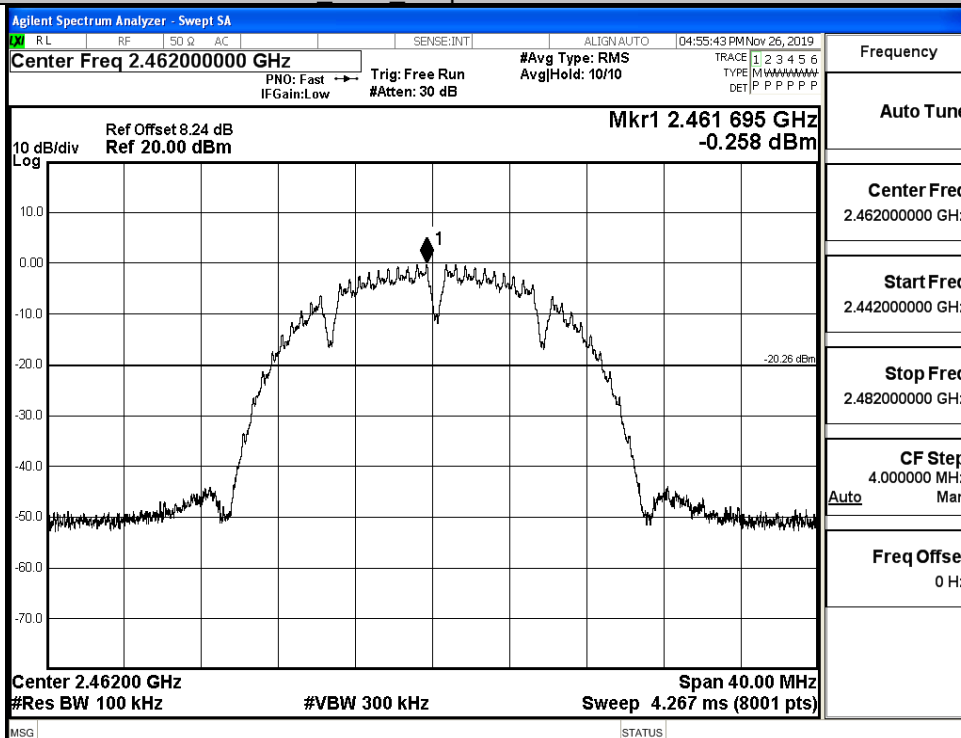


Puw/11B/MCH

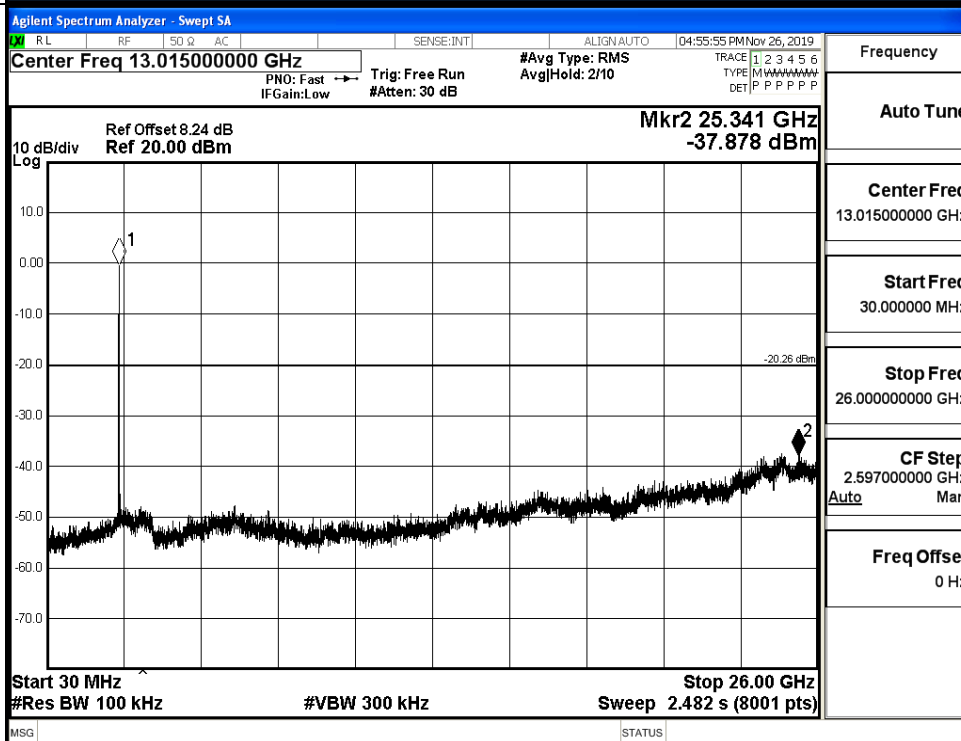


11B HCH Graphs

Pref/11B/HCH

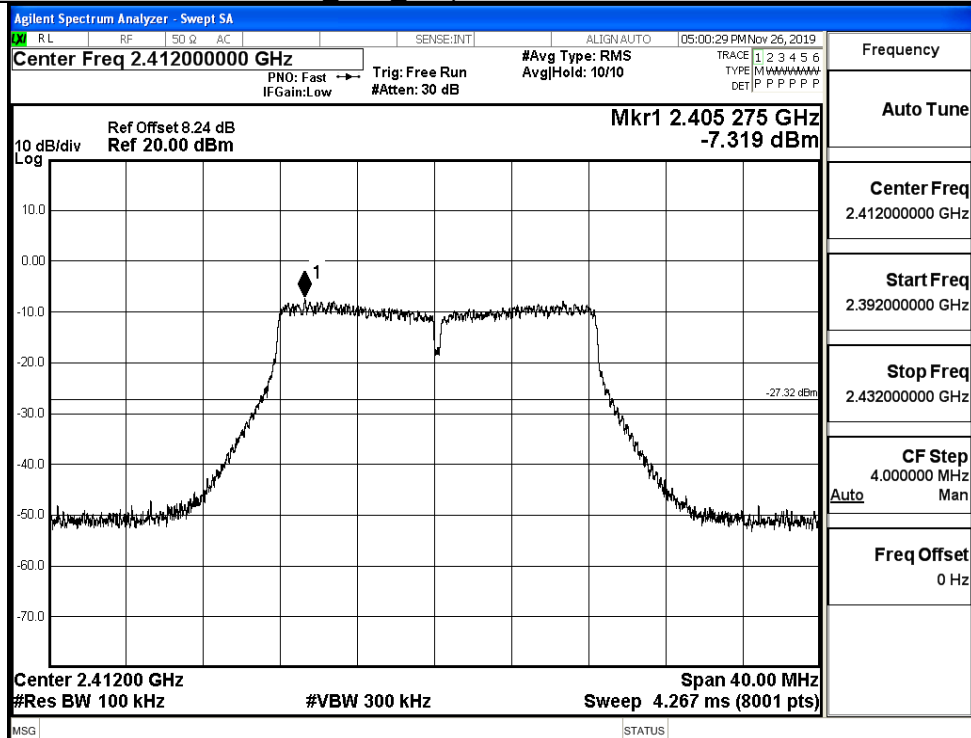


Puw/11B/HCH

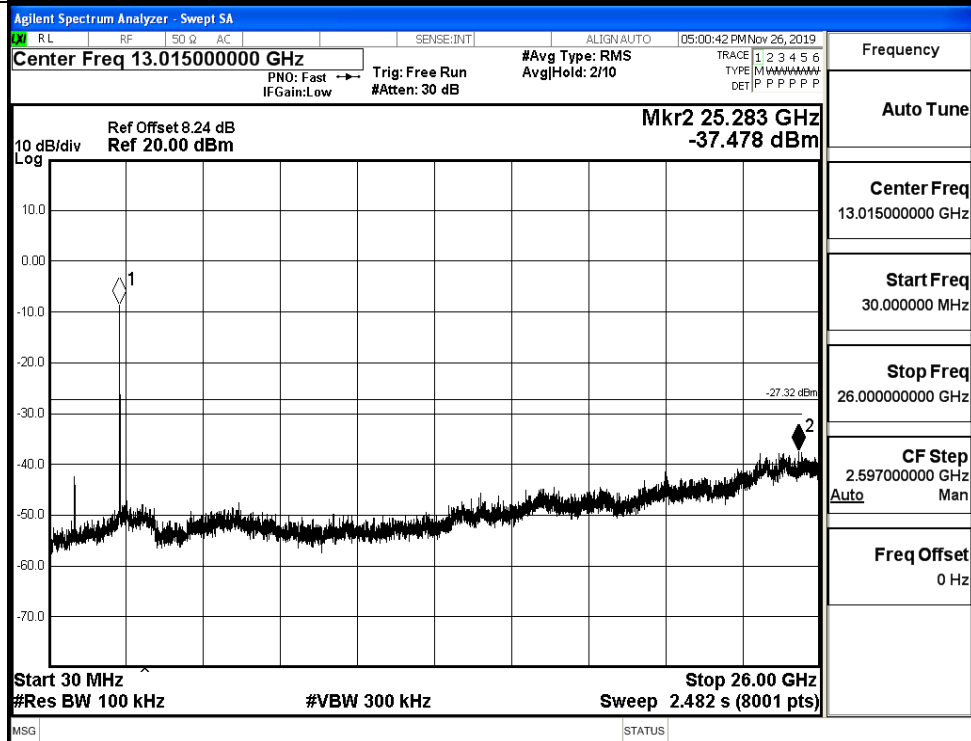


11G LCH Graphs

Pref/11G/LCH

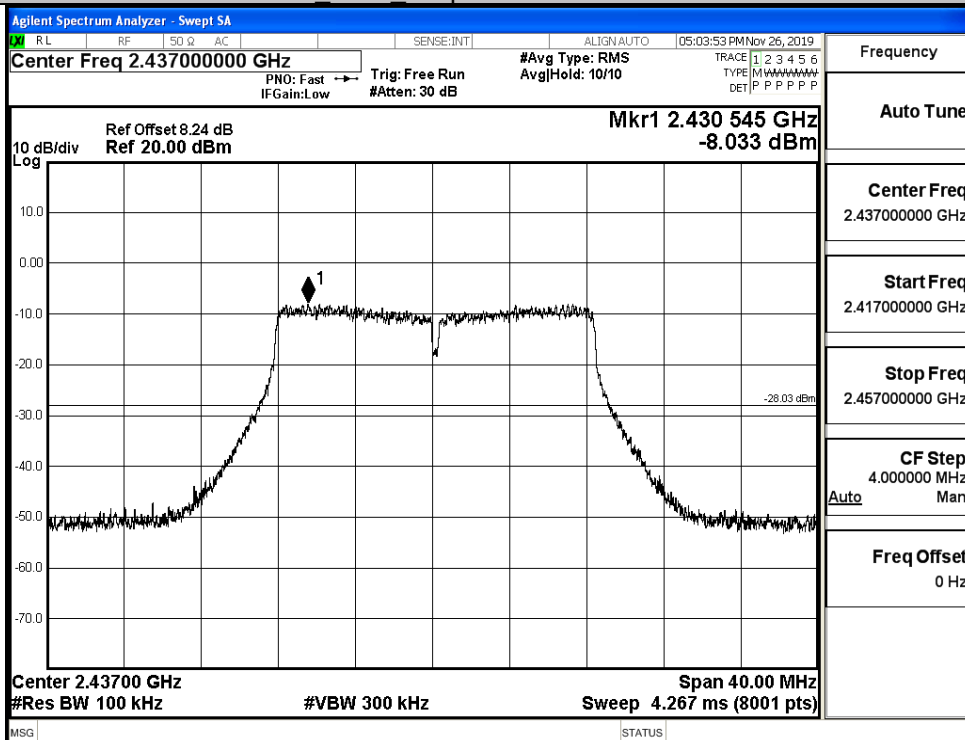


Puw/11G/LCH

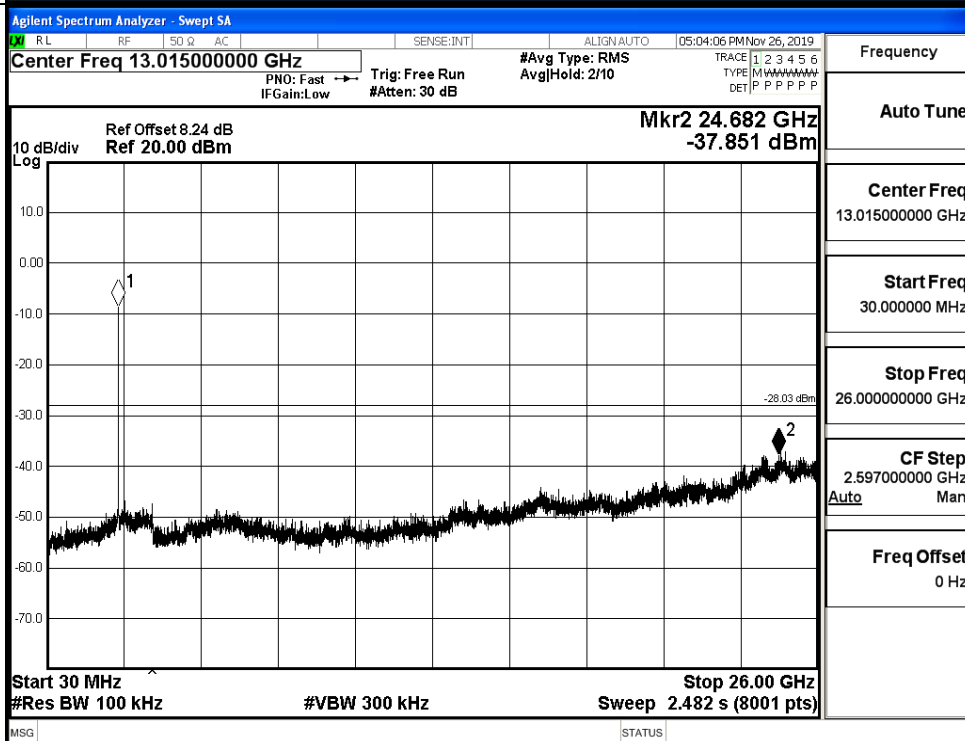


11G MCH Graphs

Pref/11G/MCH

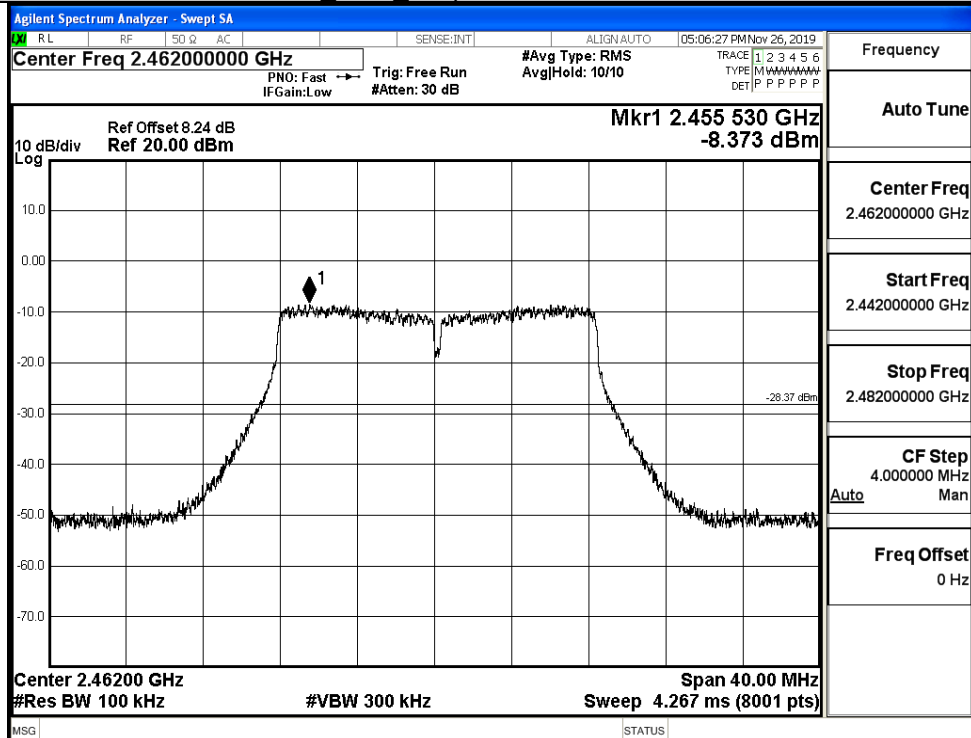


Puw/11G/MCH

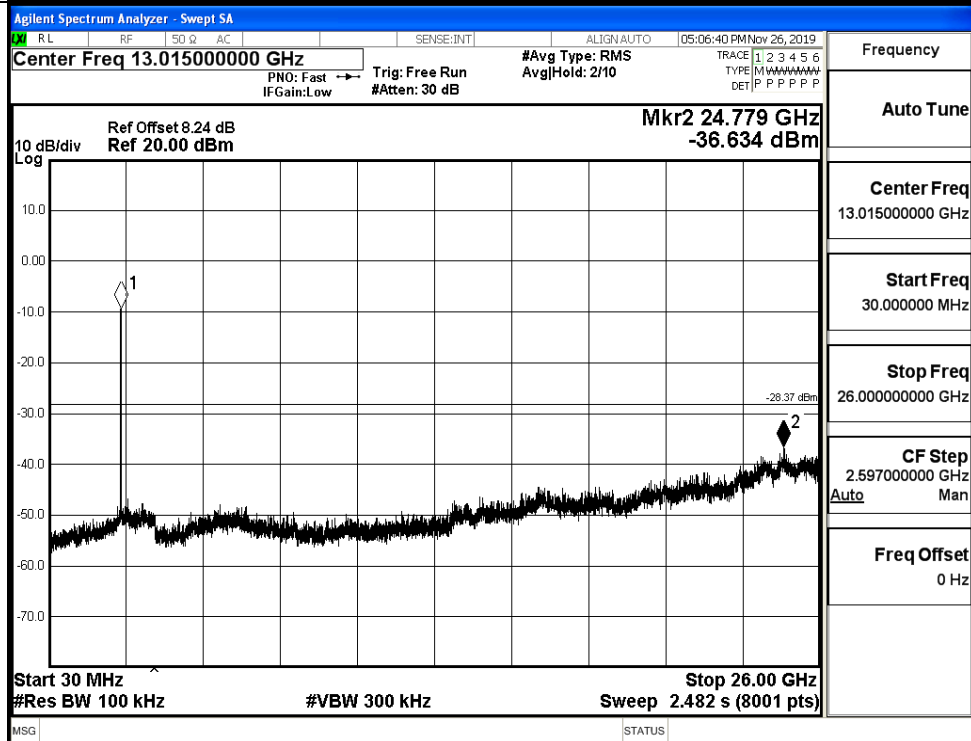


11G HCH Graphs

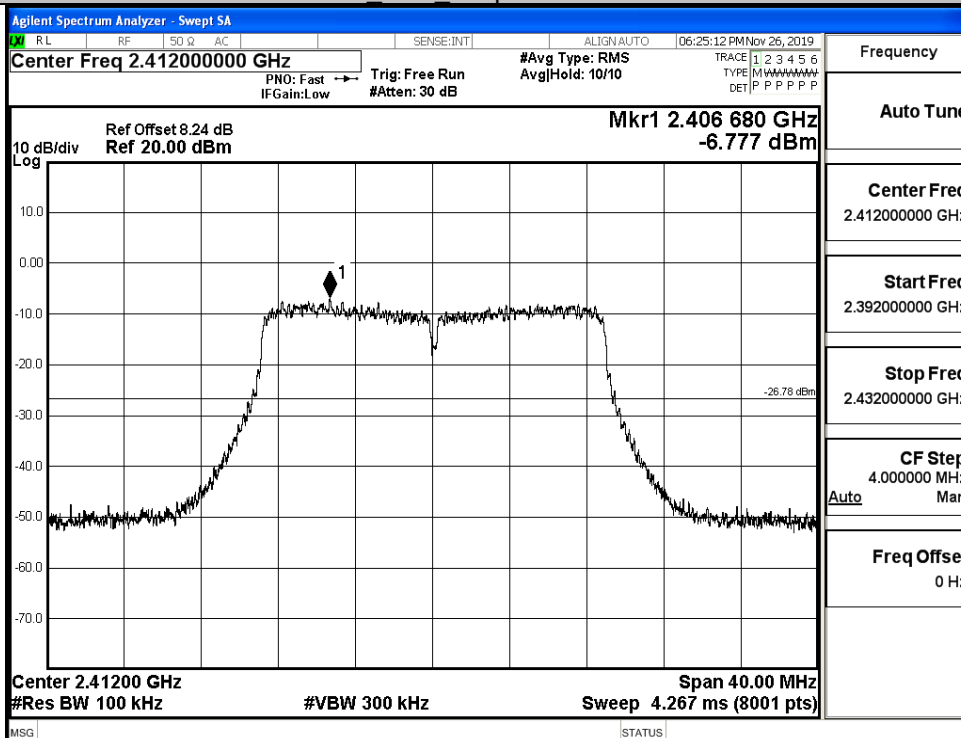
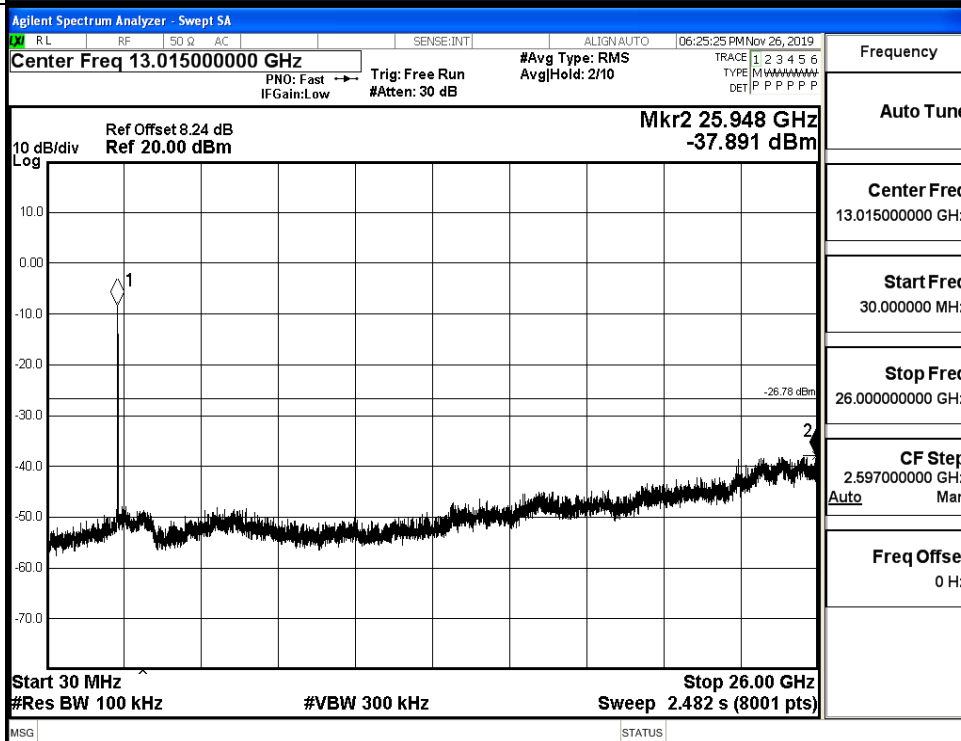
Pref/11G/HCH



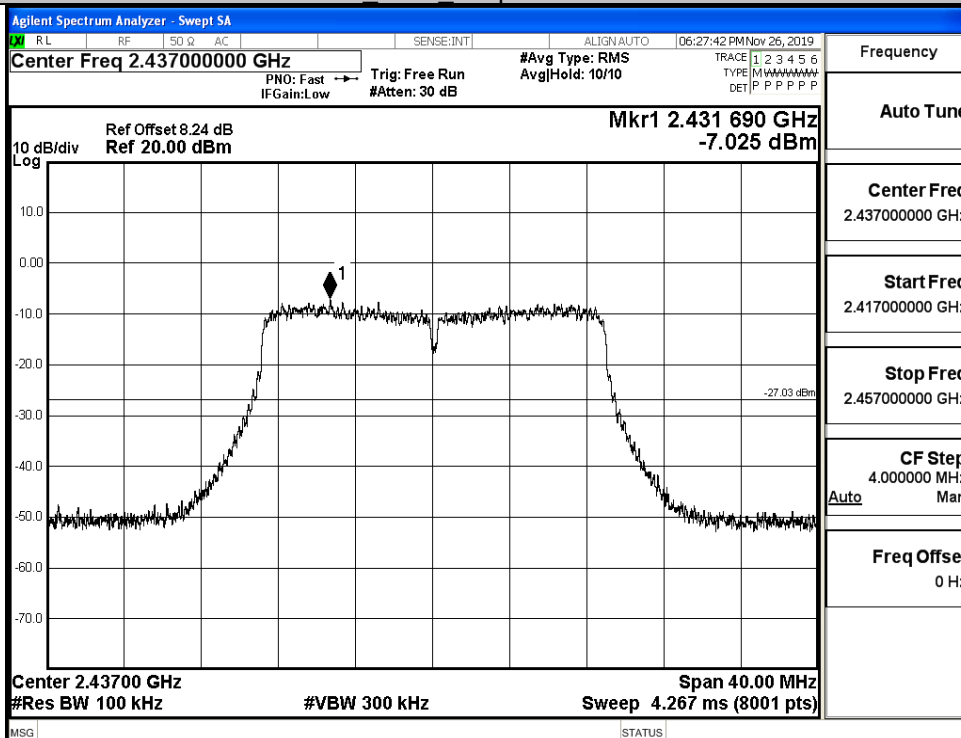
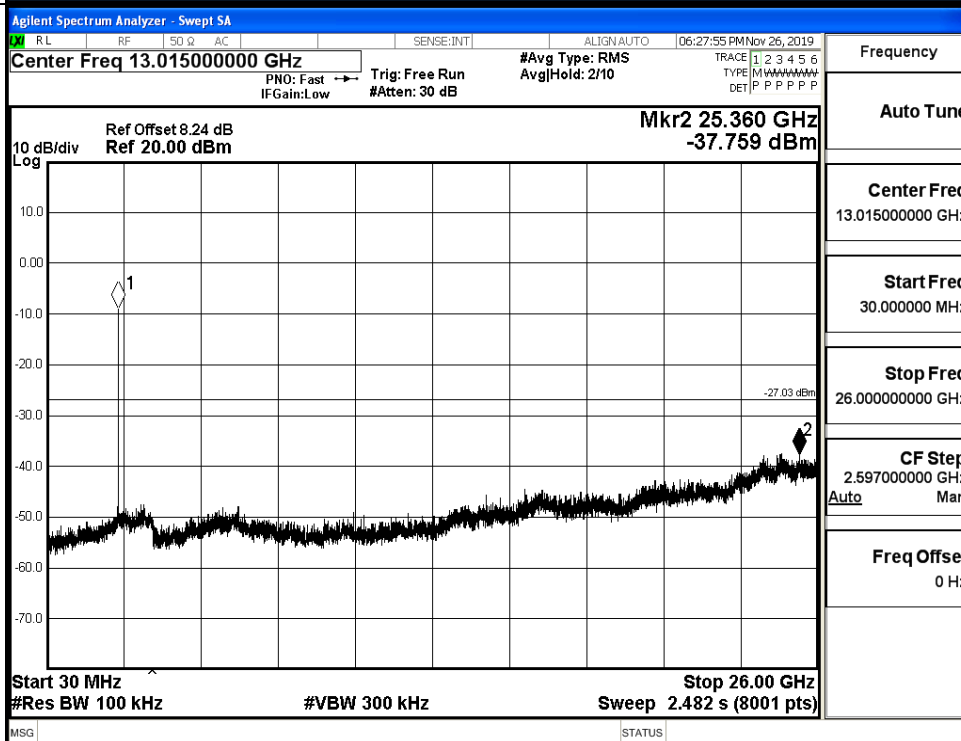
Puw/11G/HCH



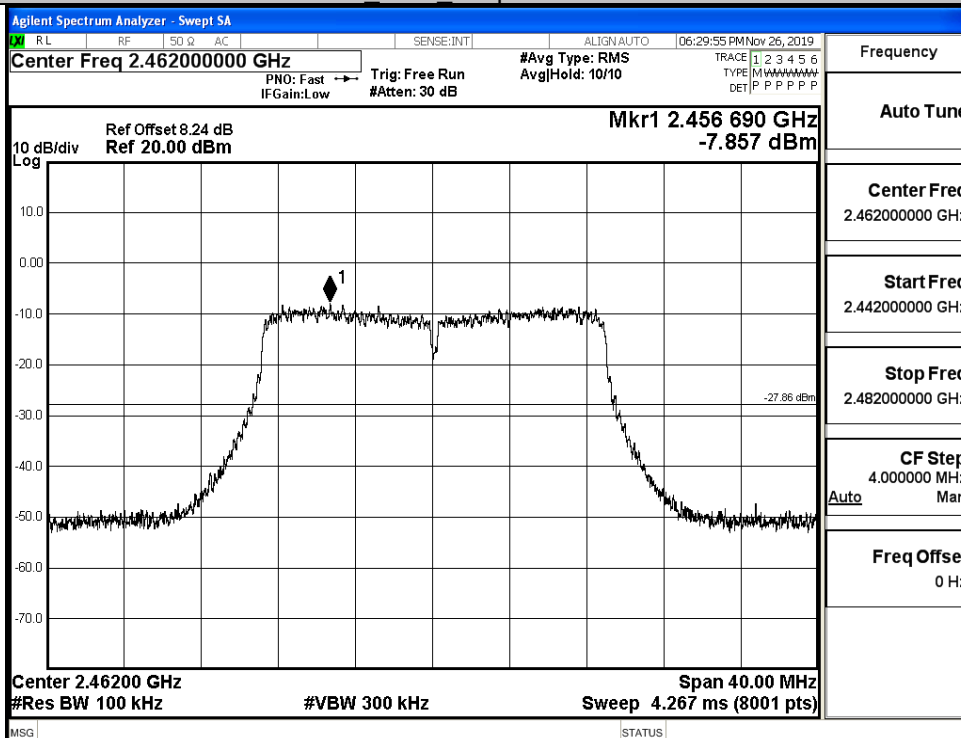
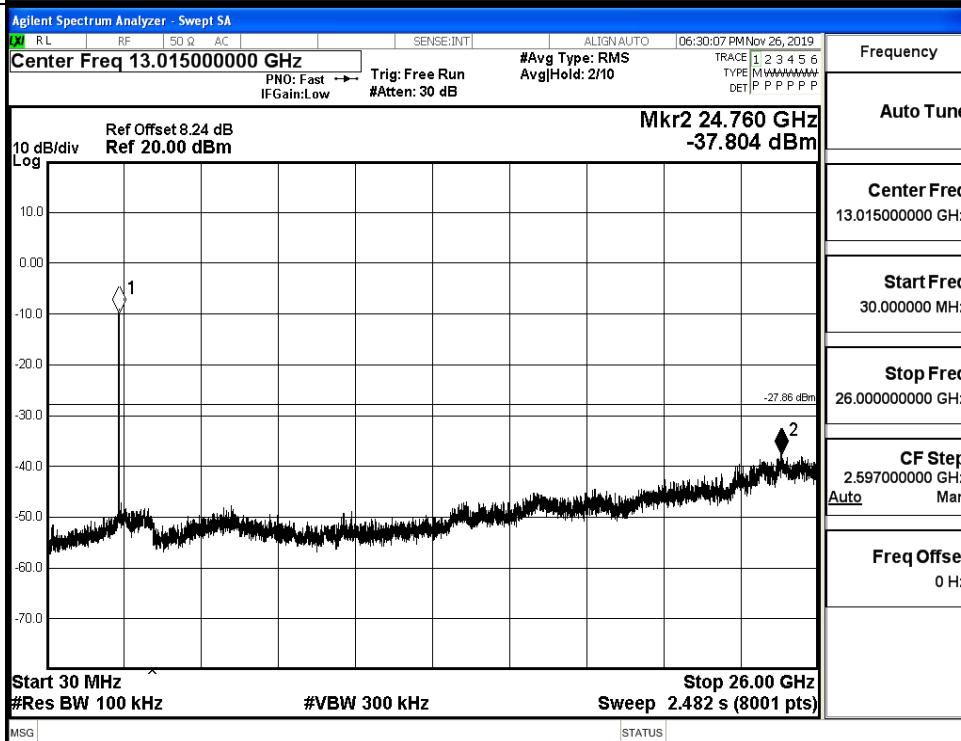
11N20SISO LCH Graphs

Pref/11N20SIS
O/LCHPuw/11N20
SISO/LCH

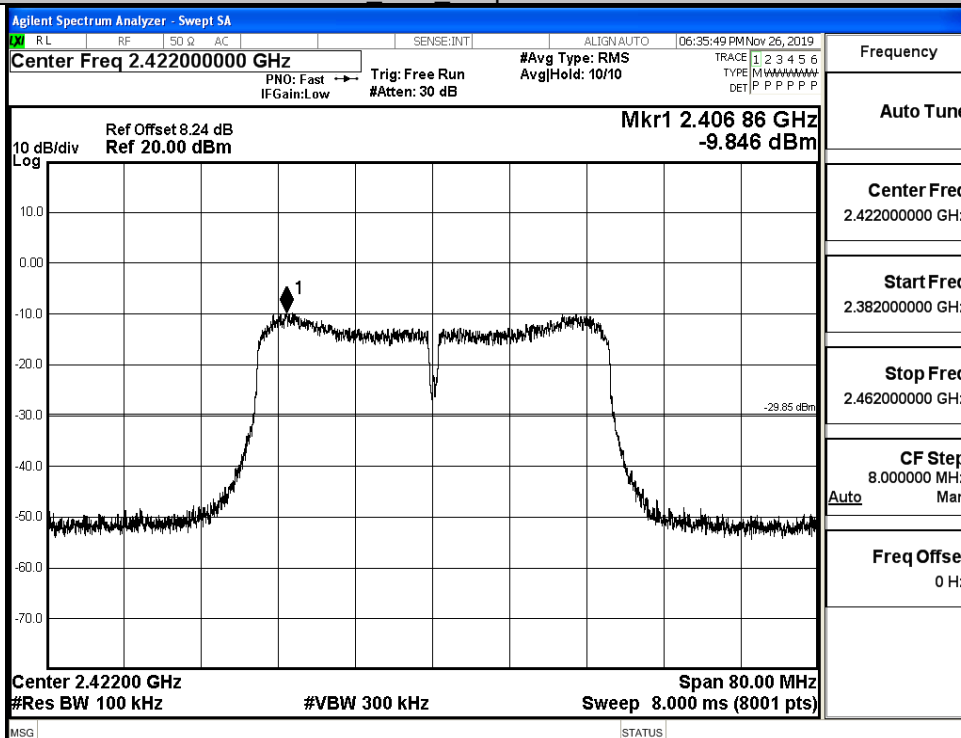
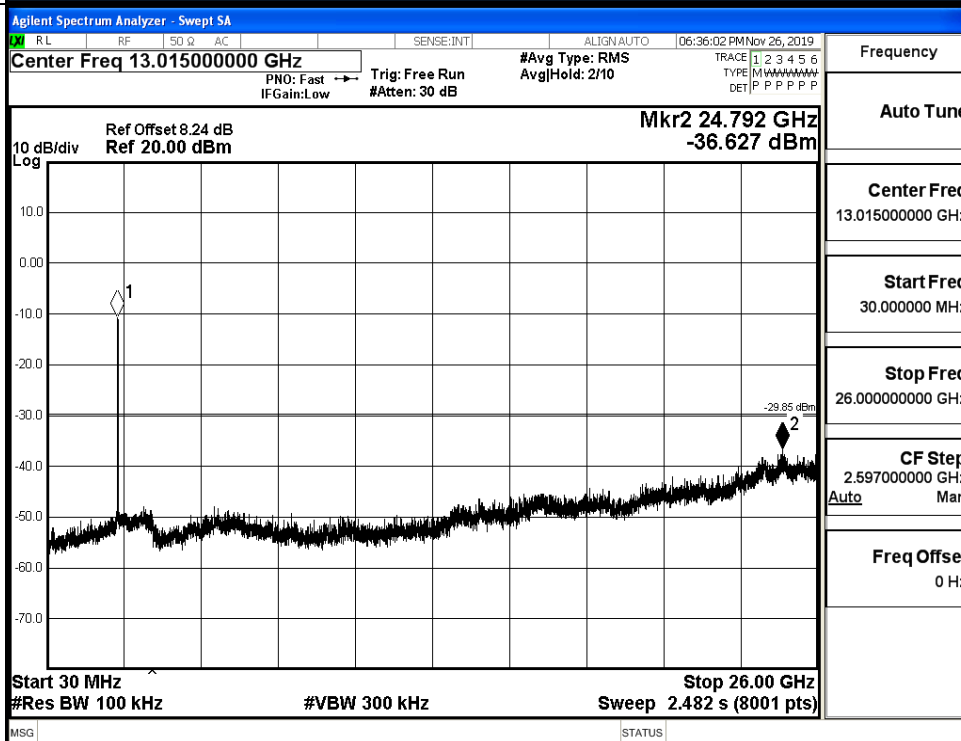
11N20SISO MCH Graphs

Pref/11N20
SISO/MCHPuw/11N20
SISO/MCH

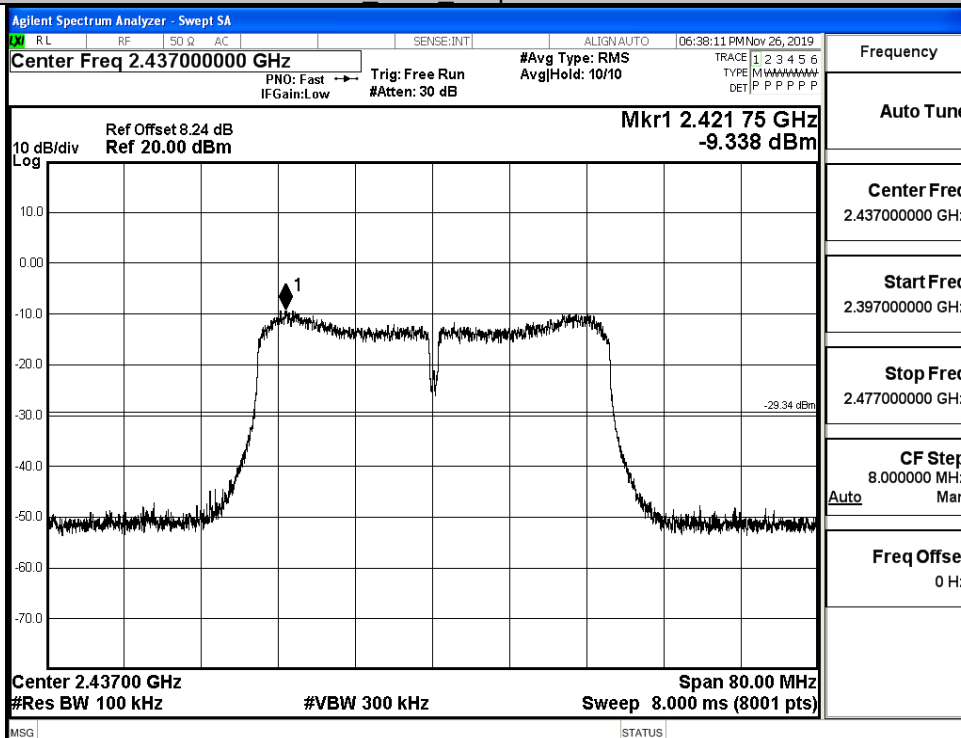
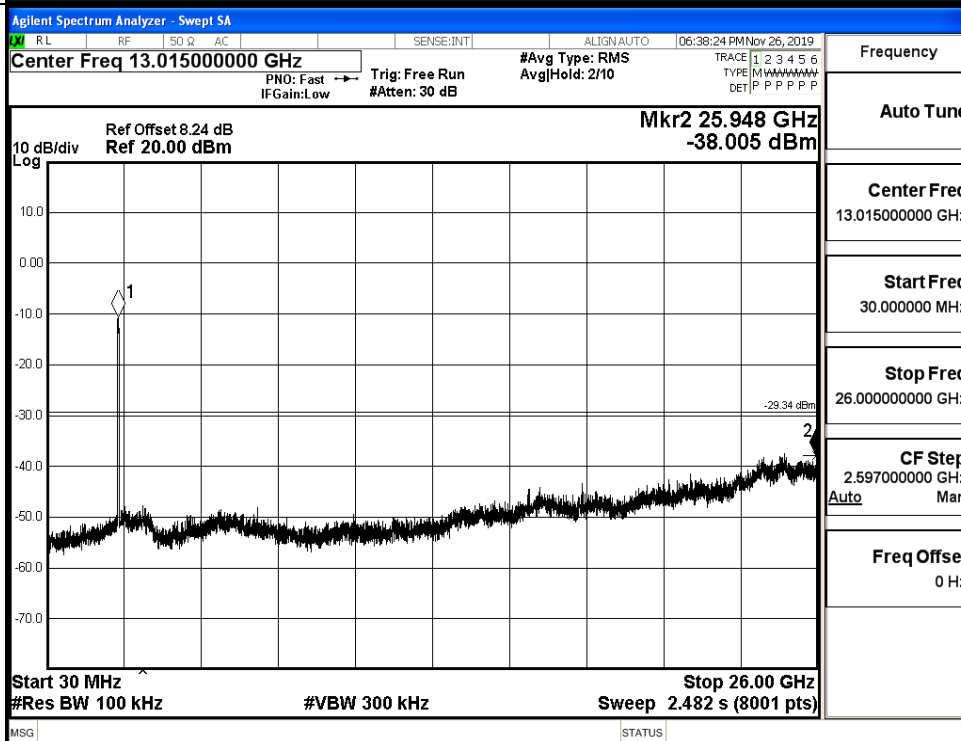
11N20SISO HCH Graphs

Pref/11N20
SISO/HCHPuw/11N20
SISO/HCH

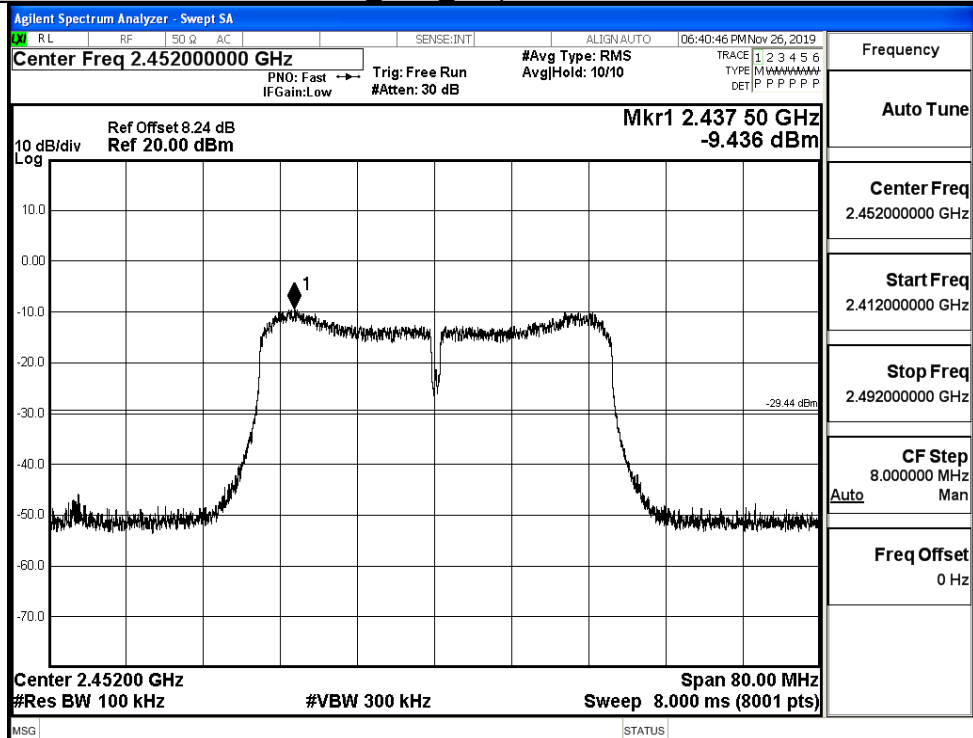
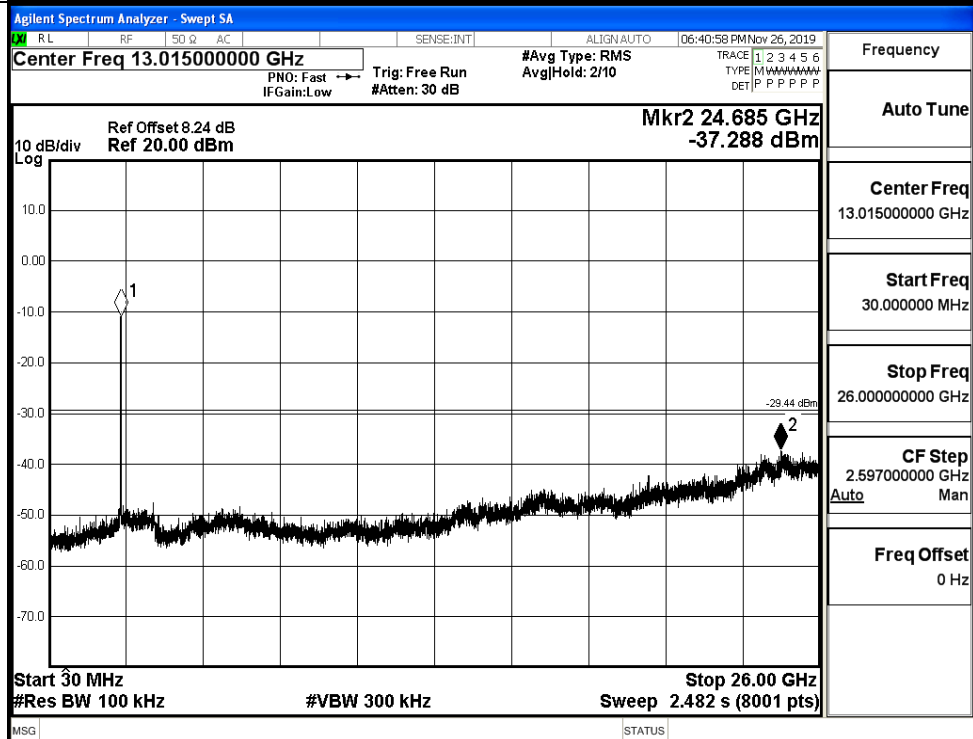
11N40SISO LCH Graphs

Pref/11N40
SISO/LCHPuw/11N40
SISO/LCH

11N40SISO MCH Graphs

Pref/11N40
SISO/MCHPuw/11N40
SISO/MCH

11N40SISO HCH Graphs

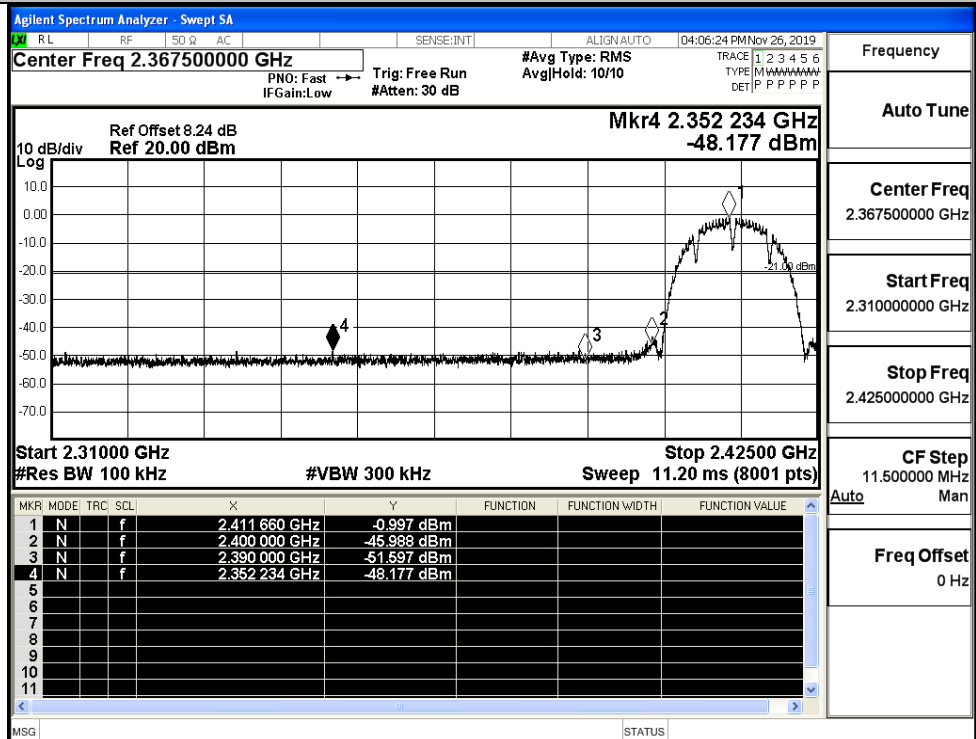
Pref/11N40
SISO/HCHPuw/11N40
SISO/HCH

A.6 Band-edge for RF Conducted Emissions

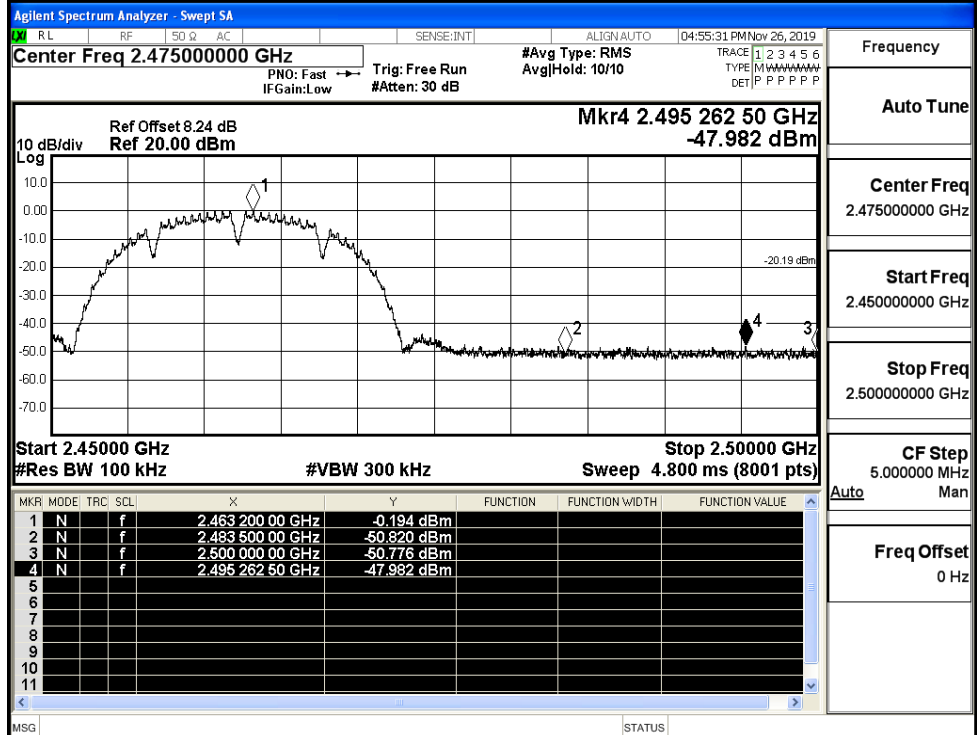
Mode	Channel	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-0.997	-48.177	-21	PASS
	HCH	-0.194	-47.982	-20.19	PASS
11G	LCH	-7.935	-47.943	-27.94	PASS
	HCH	-8.261	-48.461	-28.26	PASS
11N20SISO	LCH	-7.211	-48.216	-27.21	PASS
	HCH	-7.787	-48.183	-27.79	PASS
11N40SISO	LCH	-9.692	-48.933	-29.69	PASS
	HCH	-9.191	-48.066	-29.19	PASS

Test Graphs

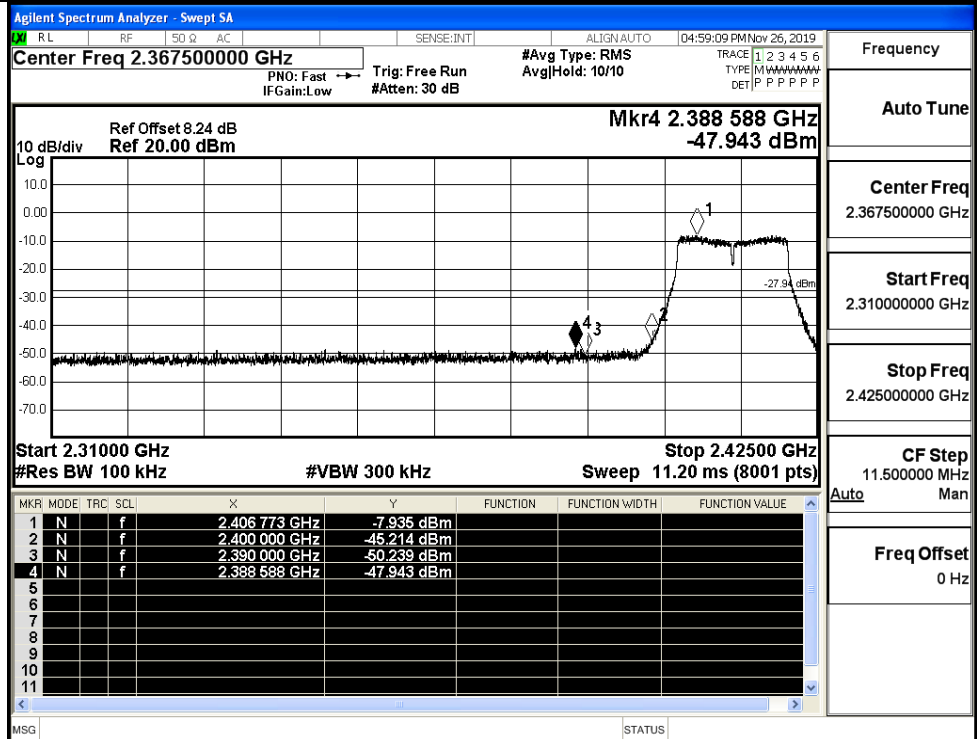
11B/LCH



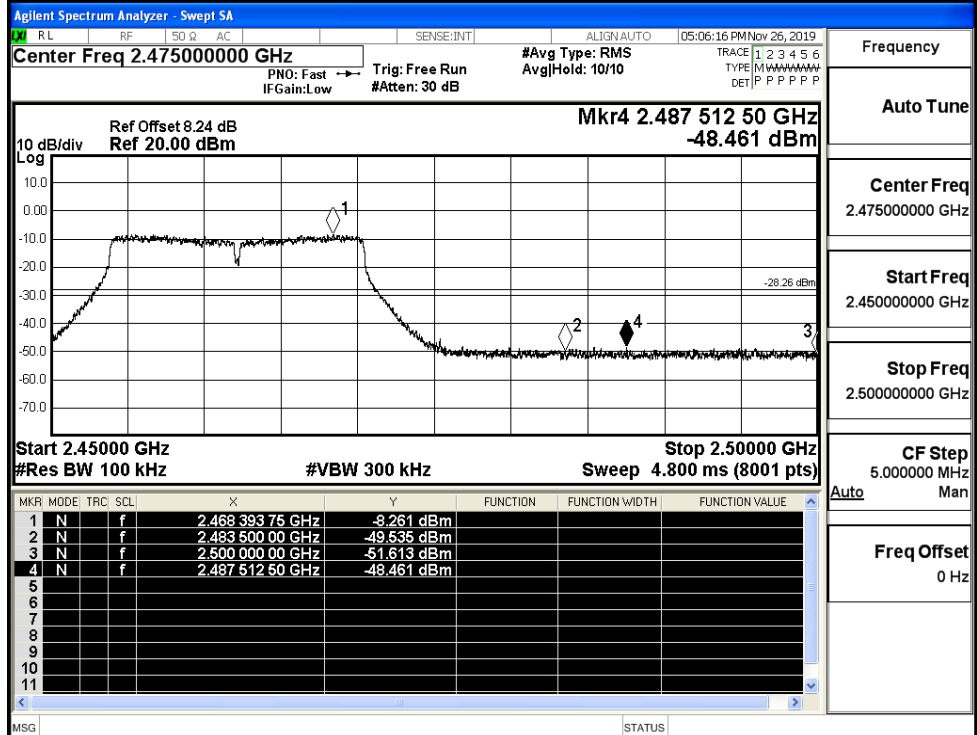
11B/HCH



11G/LCH



11G/HCH

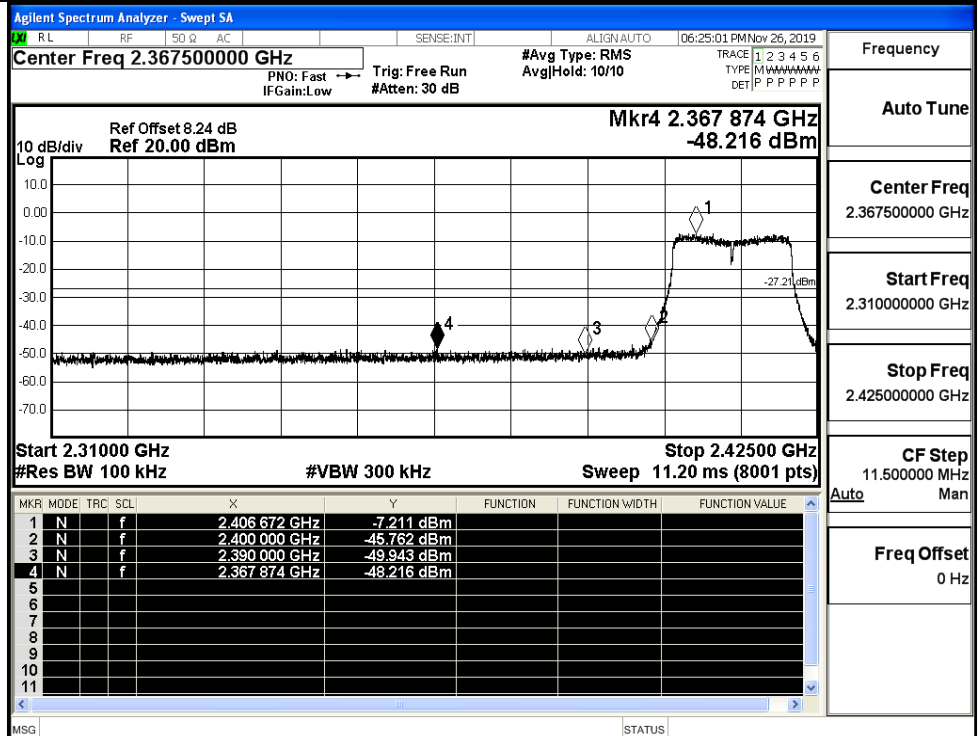


Frequency

Auto Tune

Center Freq
2.475000000 GHzStart Freq
2.450000000 GHzStop Freq
2.500000000 GHzCF Step
5.000000 MHz
Auto ManFreq Offset
0 Hz

11N20SISO/LCH

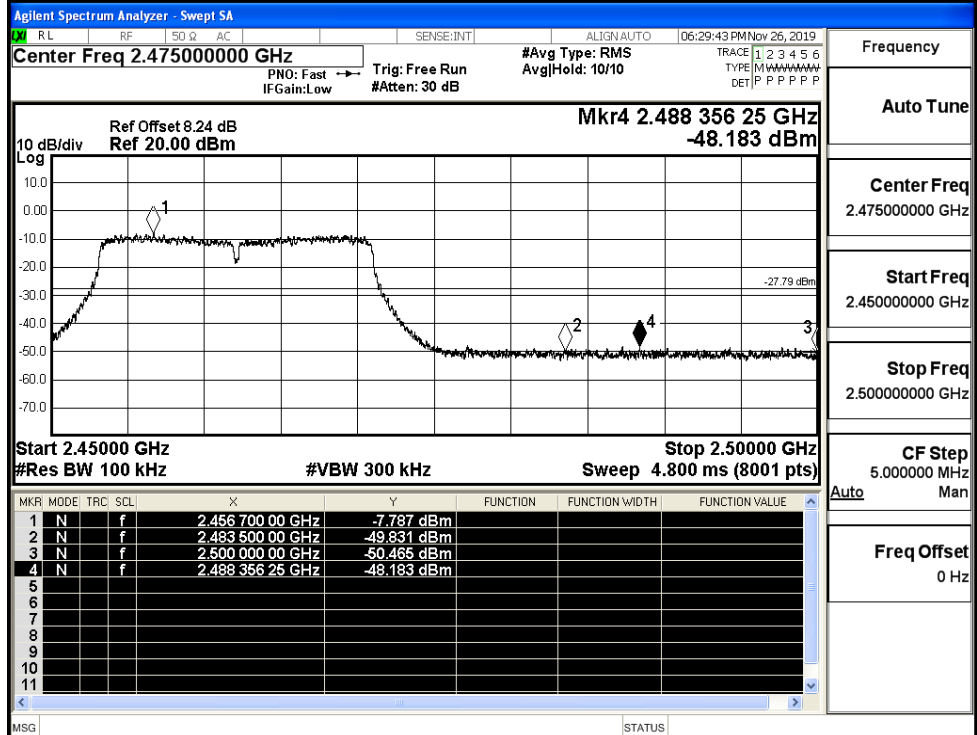


Frequency

Auto Tune

Center Freq
2.367500000 GHzStart Freq
2.310000000 GHzStop Freq
2.425000000 GHzCF Step
11.500000 MHz
Auto ManFreq Offset
0 Hz

11N20SISO/HCH

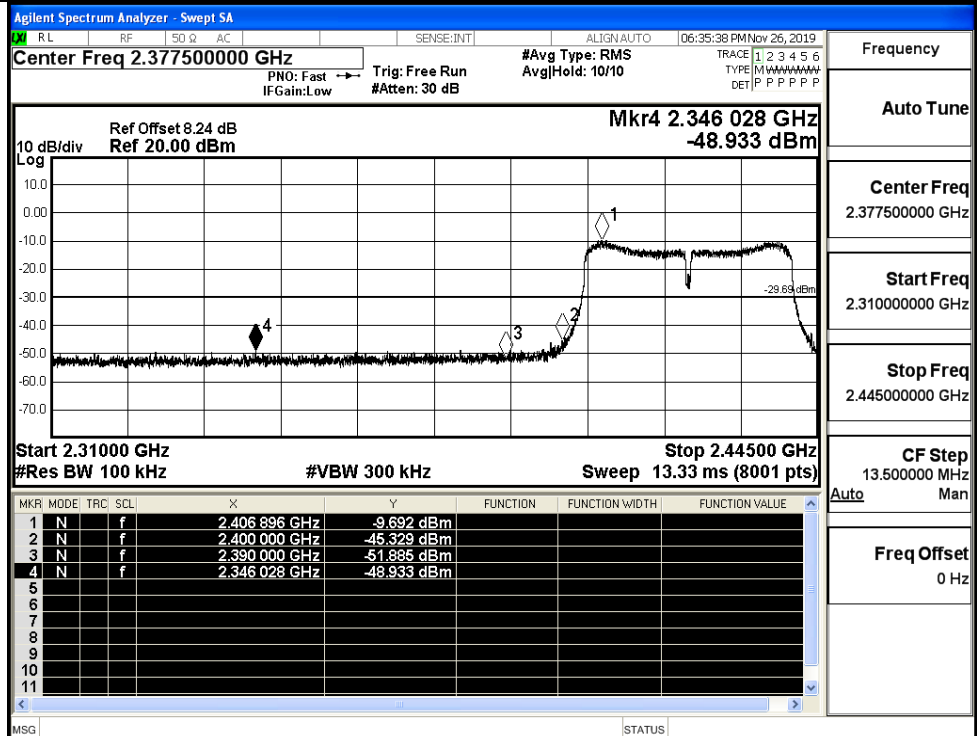


Frequency

Auto Tune

Center Freq
2.475000000 GHzStart Freq
2.450000000 GHzStop Freq
2.500000000 GHzCF Step
5.000000 MHz
Auto ManFreq Offset
0 Hz

11N40SISO/LCH

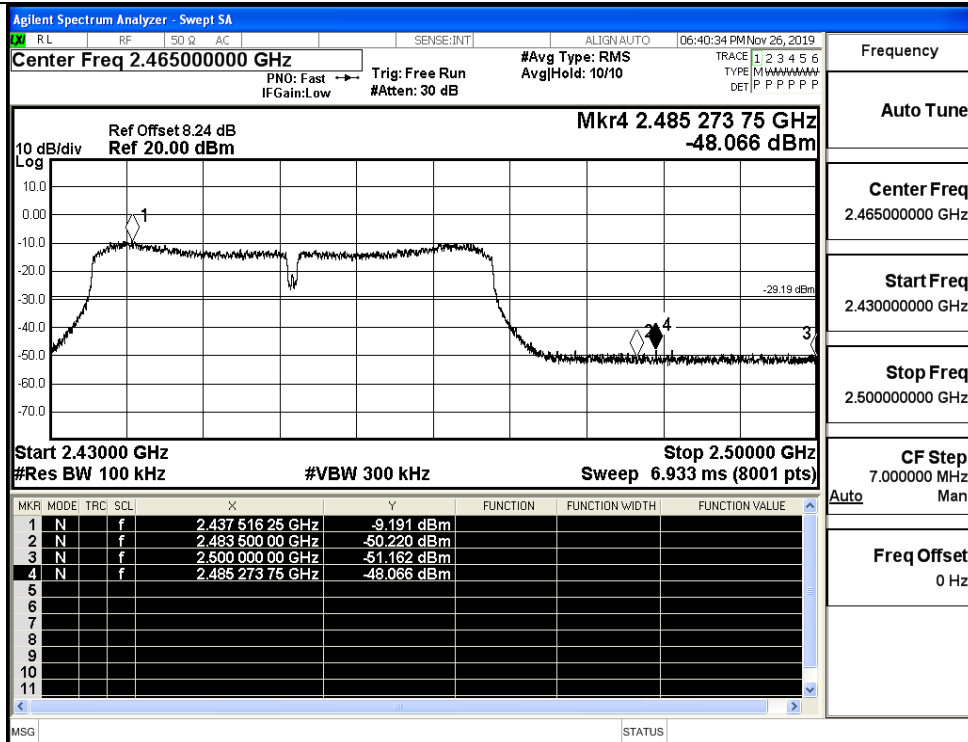


Frequency

Auto Tune

Center Freq
2.377500000 GHzStart Freq
2.310000000 GHzStop Freq
2.445000000 GHzCF Step
13.500000 MHz
Auto ManFreq Offset
0 Hz

11N40SISO/HCH

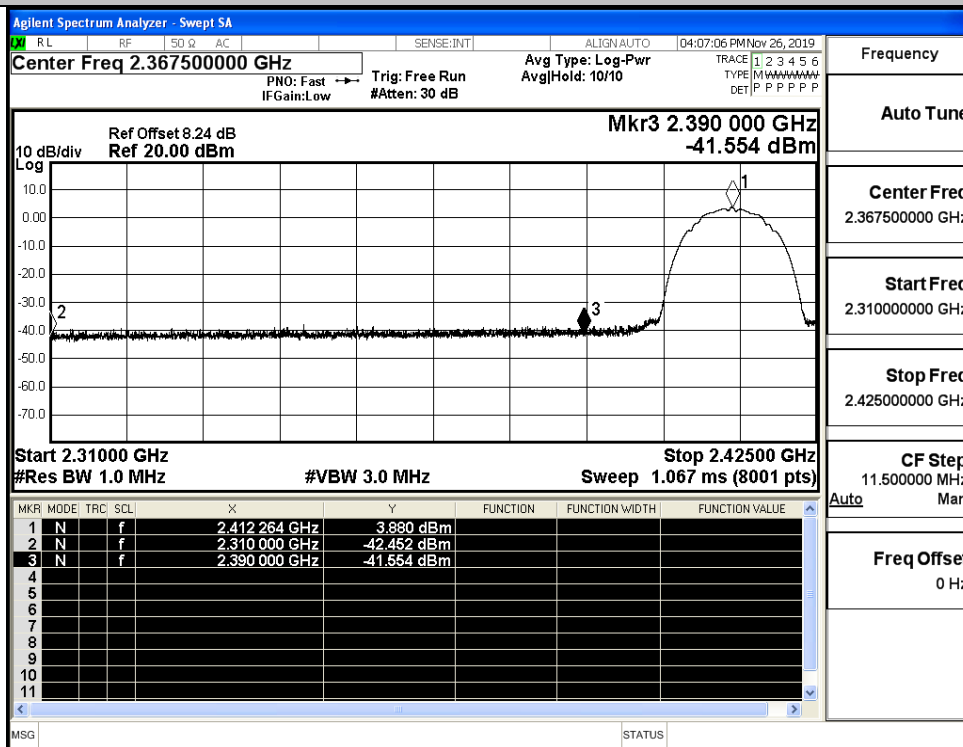


A.7 Restrict-band band-edge measurements

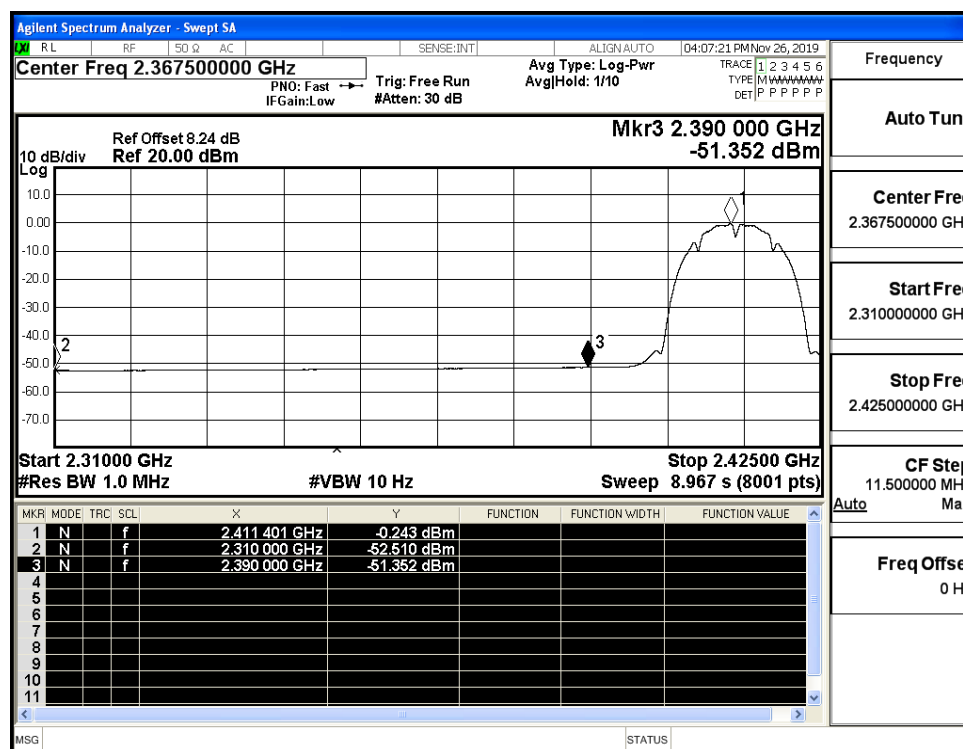
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-42.45	2.5	0	55.28	PEAK	74	PASS
	2412	Ant1	2310.0	-52.51	2.5	0	45.22	AV	54	PASS
	2412	Ant1	2390.0	-41.55	2.5	0	56.18	PEAK	74	PASS
	2412	Ant1	2390.0	-51.35	2.5	0	46.38	AV	54	PASS
	2462	Ant1	2483.5	-40.17	2.5	0	57.56	PEAK	74	PASS
	2462	Ant1	2483.5	-51.18	2.5	0	46.55	AV	54	PASS
	2462	Ant1	2500.0	-40.92	2.5	0	56.81	PEAK	74	PASS
	2462	Ant1	2500.0	-51.33	2.5	0	46.40	AV	54	PASS
11G	2412	Ant1	2310.0	-41.60	2.5	0	56.13	PEAK	74	PASS
	2412	Ant1	2310.0	-52.64	2.5	0	45.09	AV	54	PASS
	2412	Ant1	2390.0	-40.69	2.5	0	57.04	PEAK	74	PASS
	2412	Ant1	2390.0	-51.38	2.5	0	46.35	AV	54	PASS
	2462	Ant1	2483.5	-41.33	2.5	0	56.40	PEAK	74	PASS
	2462	Ant1	2483.5	-51.35	2.5	0	46.38	AV	54	PASS
	2462	Ant1	2500.0	-40.60	2.5	0	57.13	PEAK	74	PASS
	2462	Ant1	2500.0	-51.49	2.5	0	46.24	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-40.67	2.5	0	57.06	PEAK	74	PASS
	2412	Ant1	2310.0	-52.47	2.5	0	45.26	AV	54	PASS
	2412	Ant1	2390.0	-40.11	2.5	0	57.62	PEAK	74	PASS
	2412	Ant1	2390.0	-51.04	2.5	0	46.69	AV	54	PASS
	2462	Ant1	2483.5	-41.13	2.5	0	56.60	PEAK	74	PASS
	2462	Ant1	2483.5	-51.25	2.5	0	46.48	AV	54	PASS
	2462	Ant1	2500.0	-40.43	2.5	0	57.30	PEAK	74	PASS
	2462	Ant1	2500.0	-51.45	2.5	0	46.28	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-42.37	2.5	0	55.36	PEAK	74	PASS
	2422	Ant1	2310.0	-52.84	2.5	0	44.89	AV	54	PASS

	2422	Ant1	2390.0	-41.44	2.5	0	56.29	PEAK	74	PASS
	2422	Ant1	2390.0	-51.64	2.5	0	46.09	AV	54	PASS
	2452	Ant1	2483.5	-39.75	2.5	0	57.98	PEAK	74	PASS
	2452	Ant1	2483.5	-51.40	2.5	0	46.33	AV	54	PASS
	2452	Ant1	2500.0	-42.04	2.5	0	55.69	PEAK	74	PASS
	2452	Ant1	2500.0	-51.58	2.5	0	46.15	AV	54	PASS

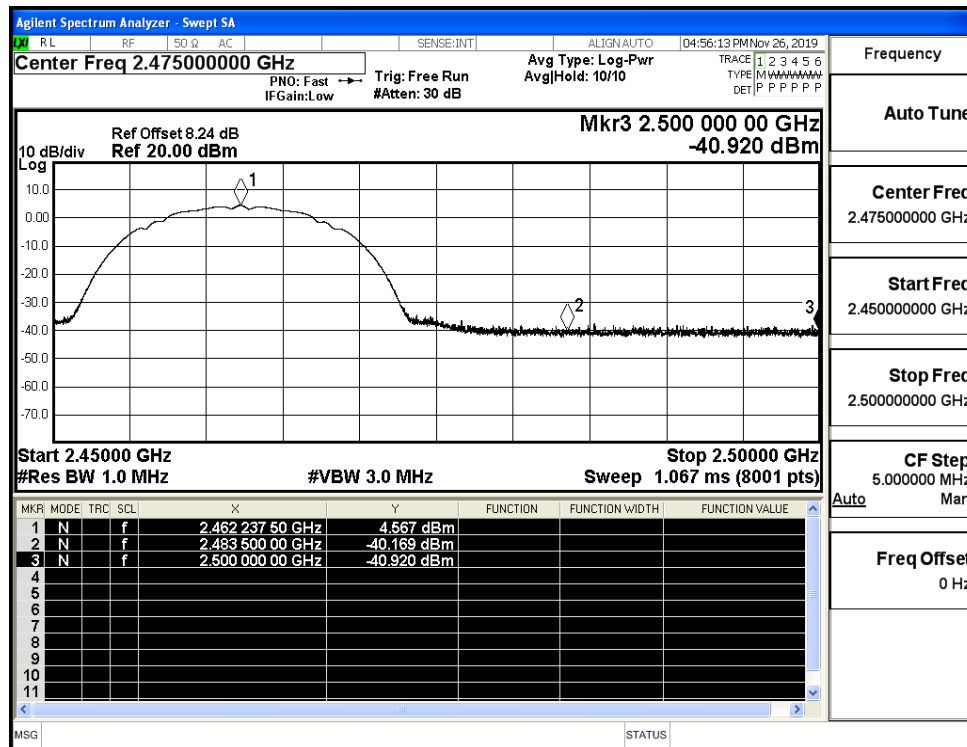
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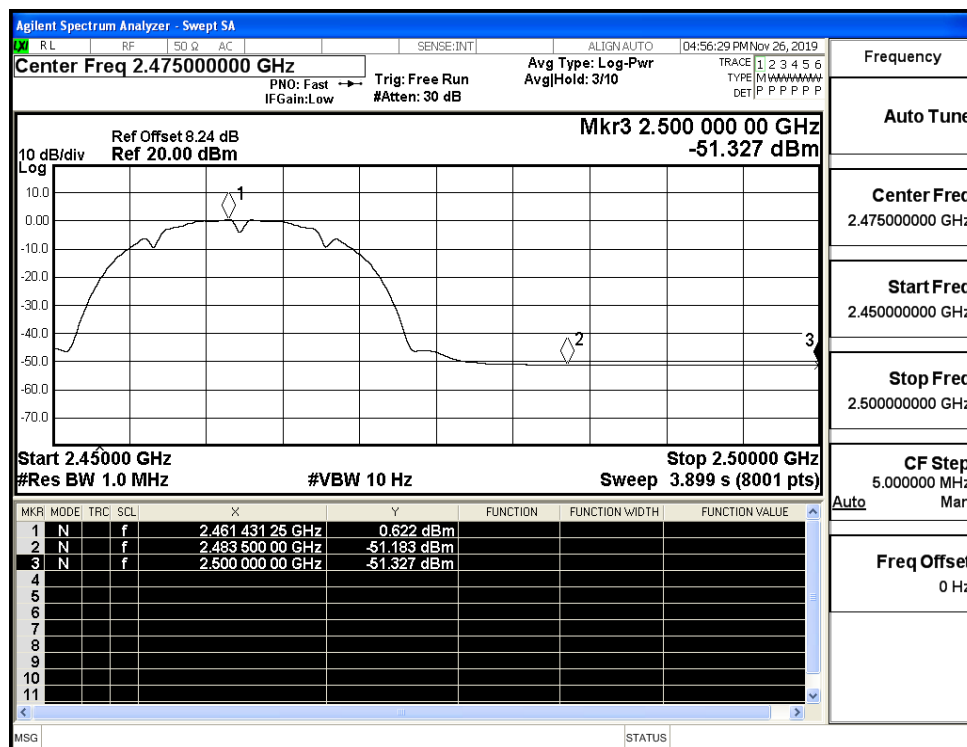
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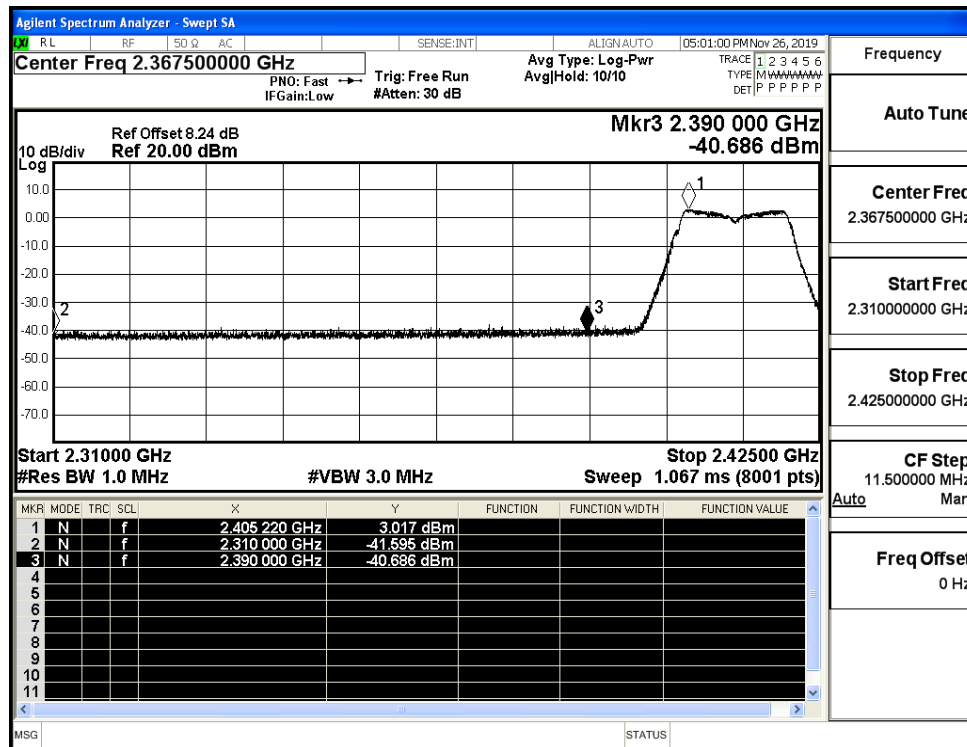
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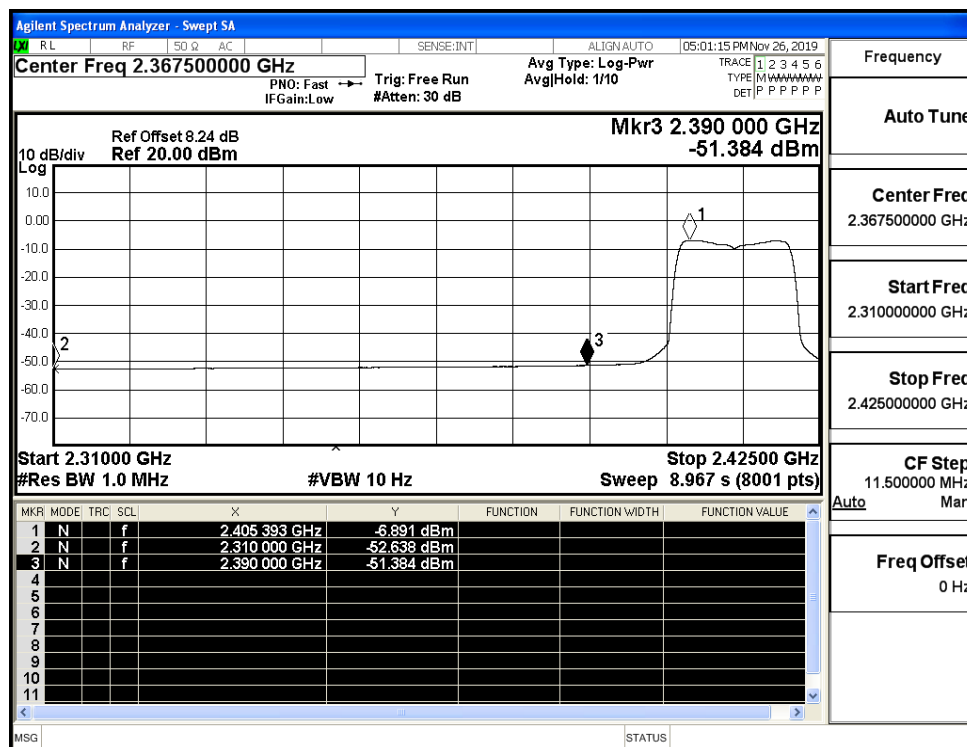
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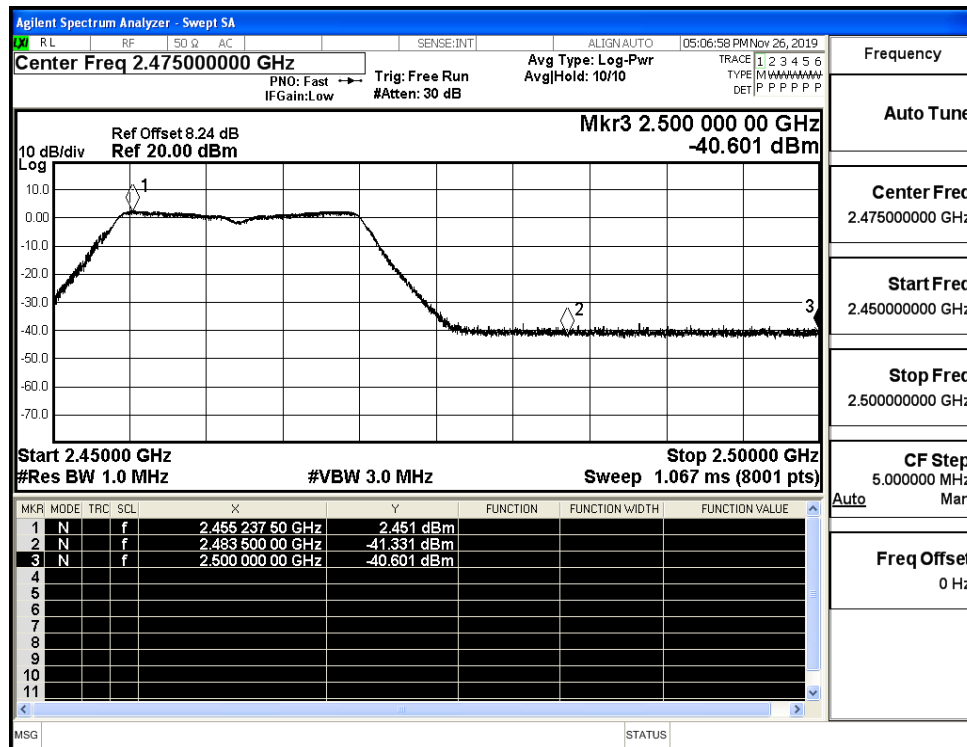
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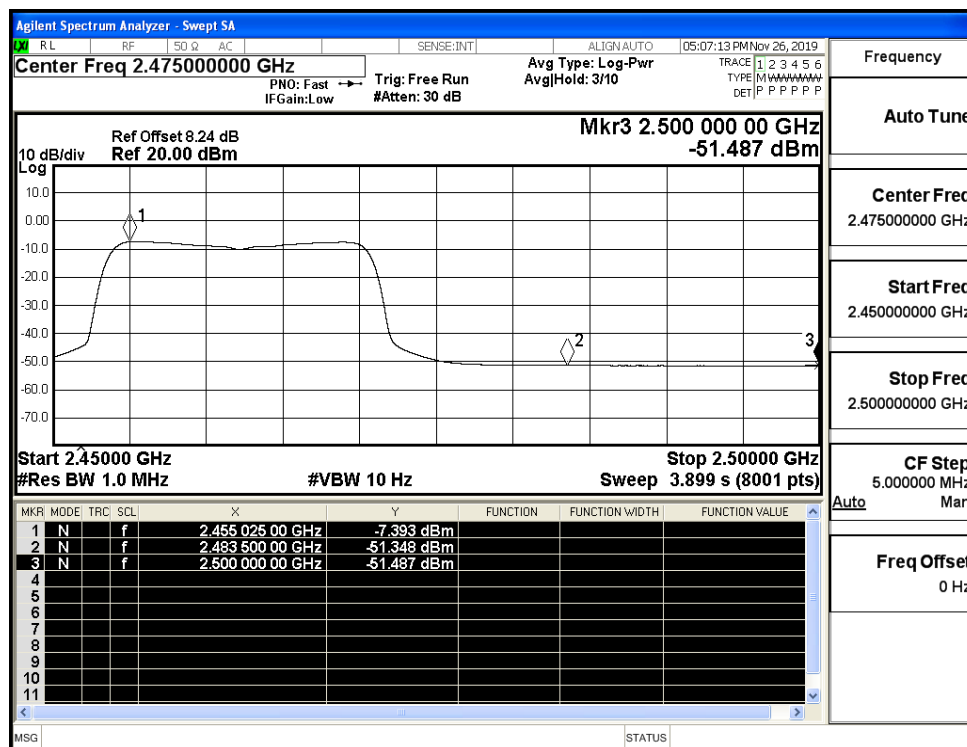
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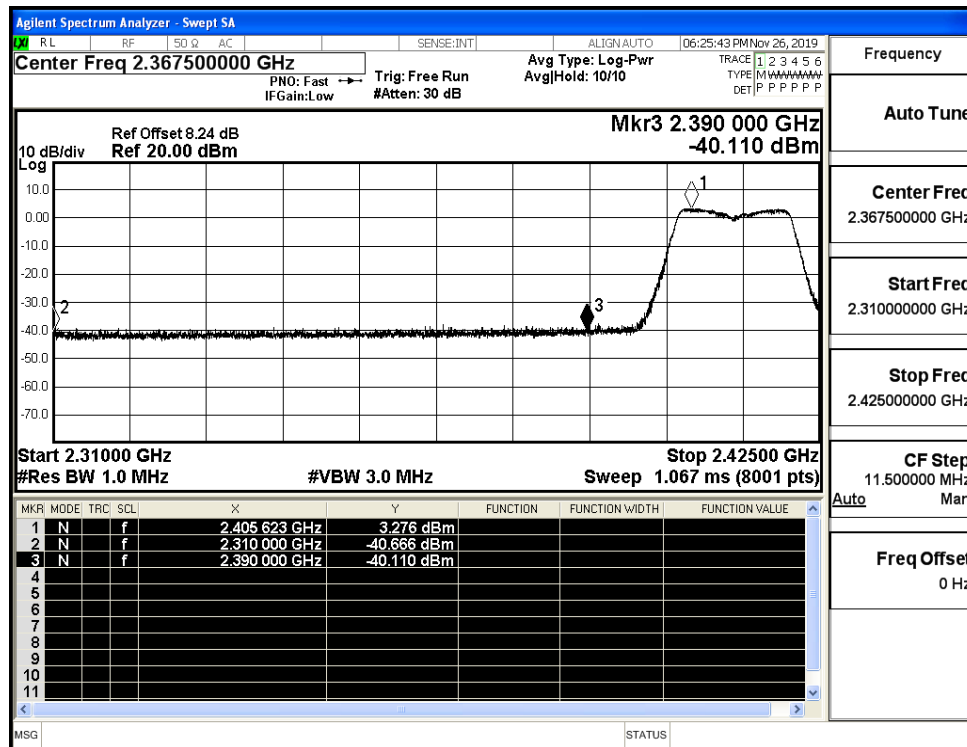
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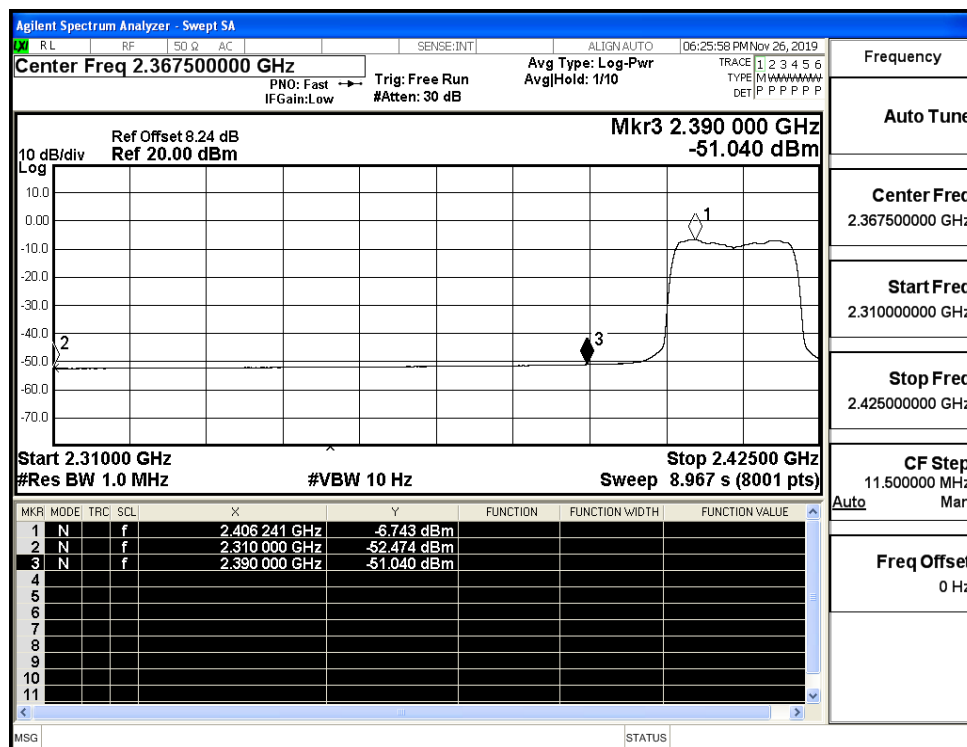
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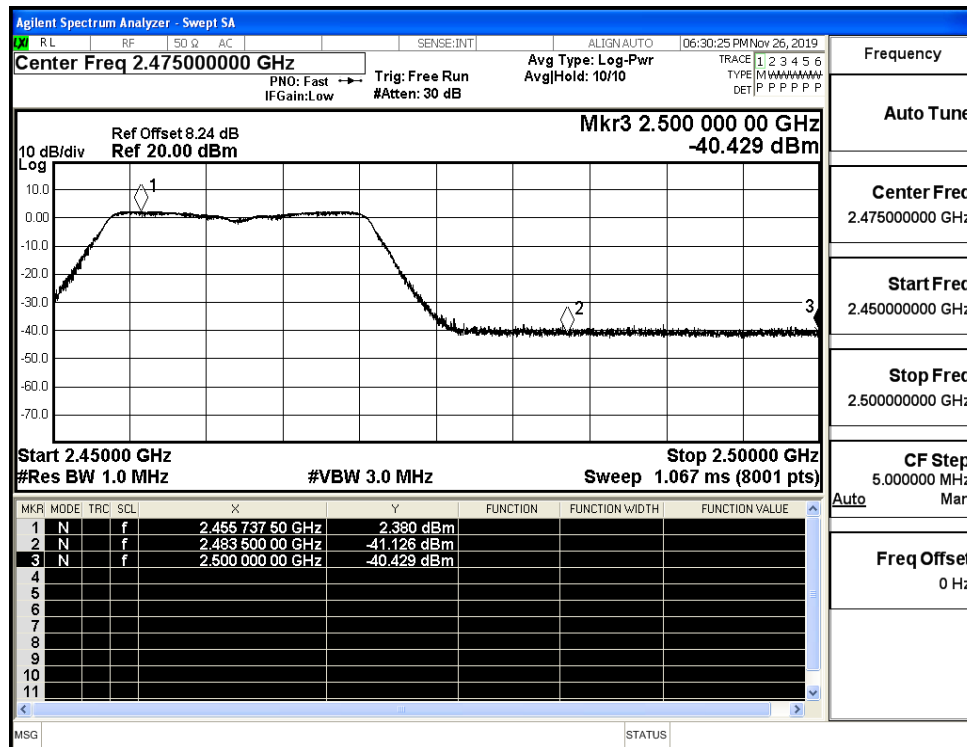
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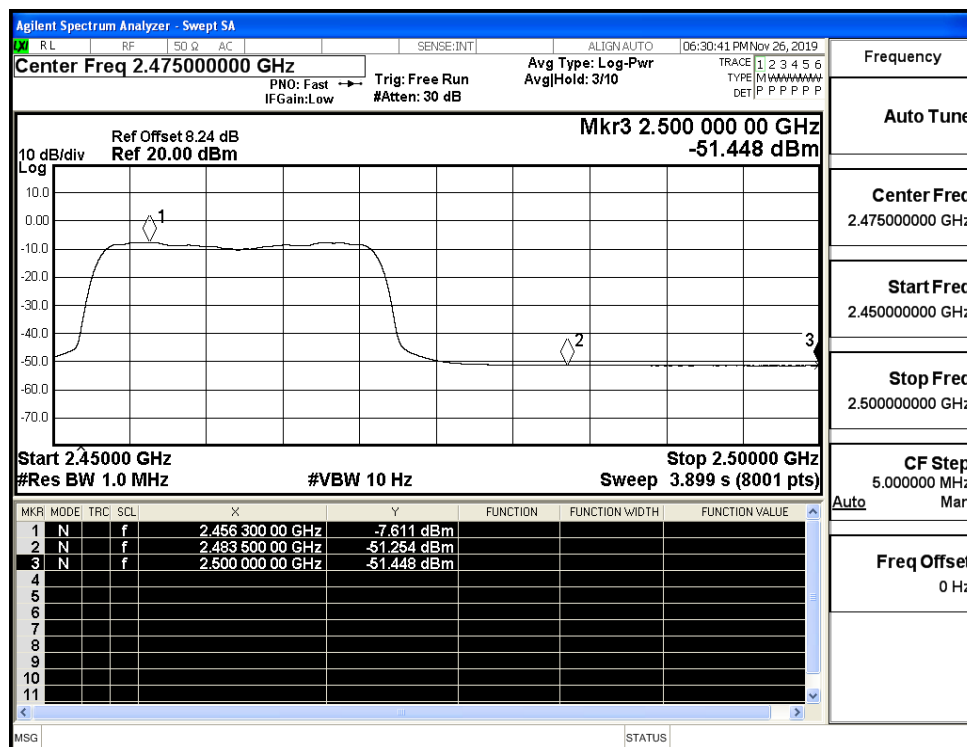
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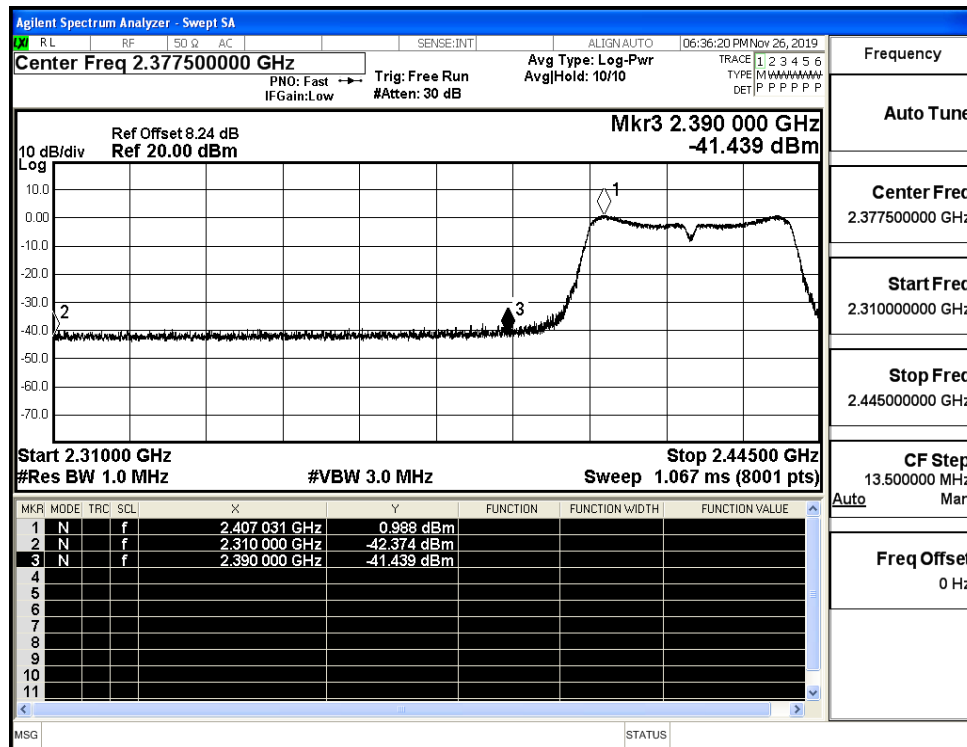
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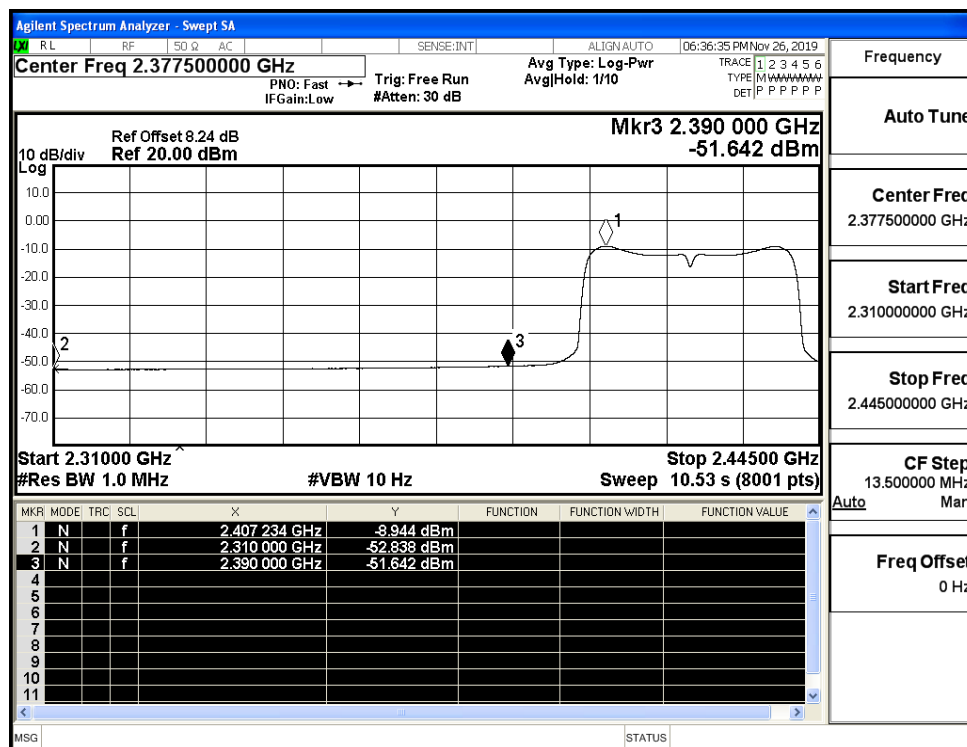
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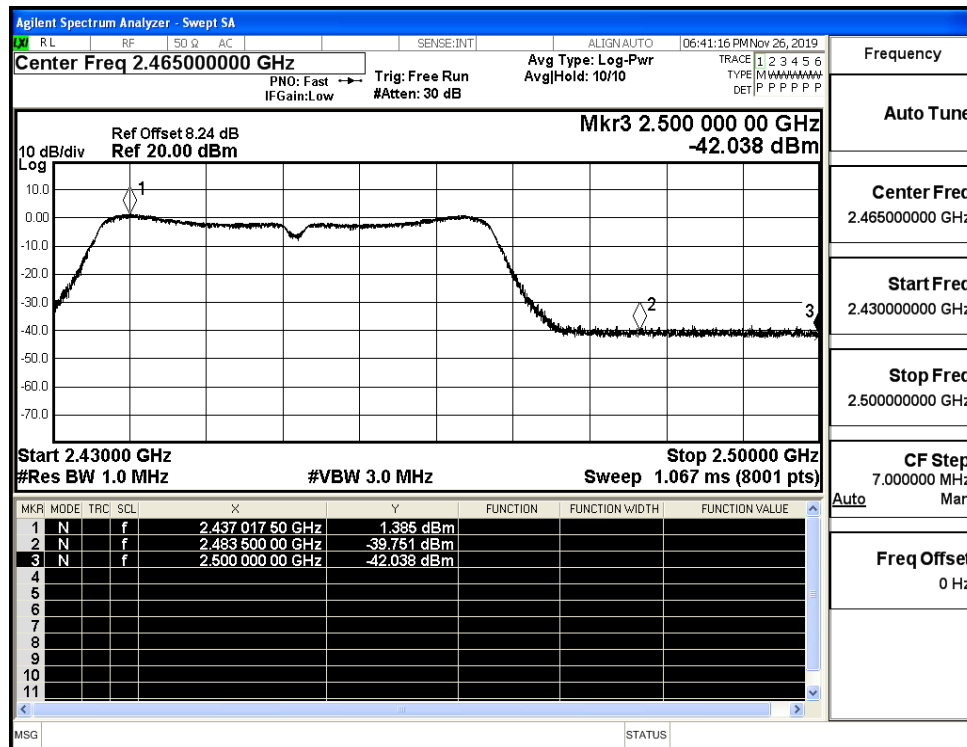
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Restrict-band band-edge measurements_11N40SISO_2422_Ant1_AV



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_PEAK



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_AV

