

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

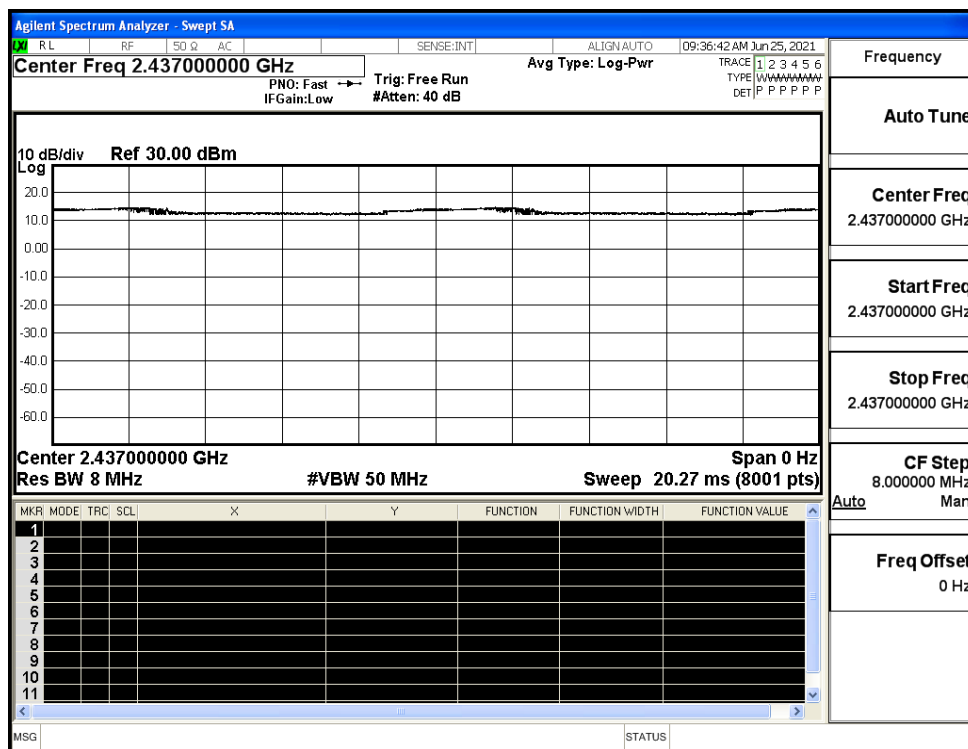
Temperature:	21.6° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

A.1 Duty Cycle

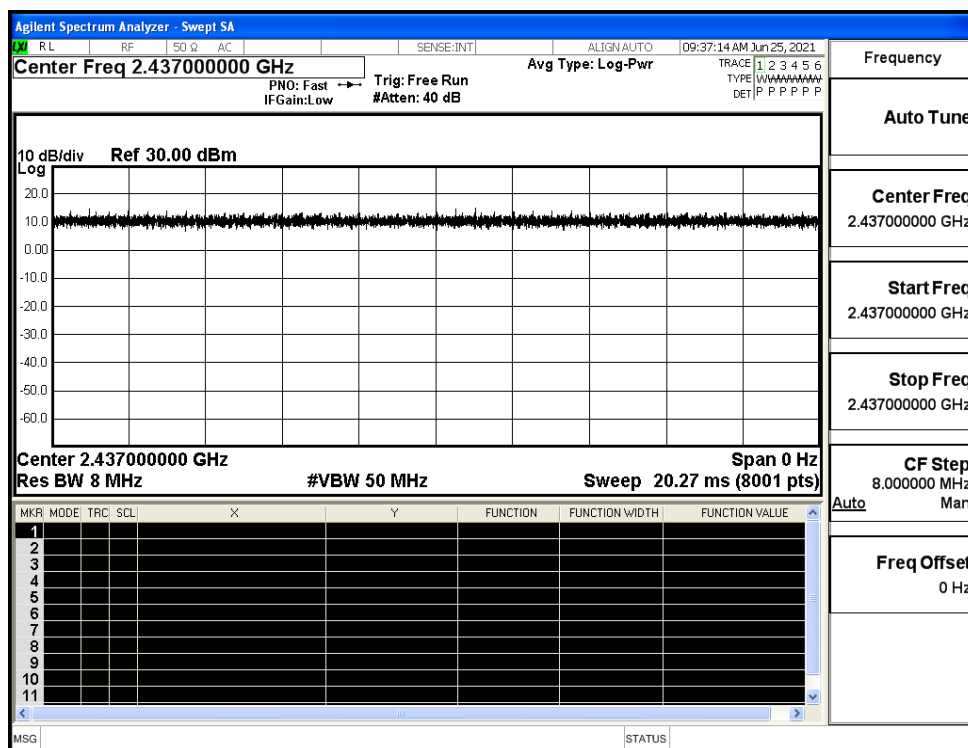
ANT0

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

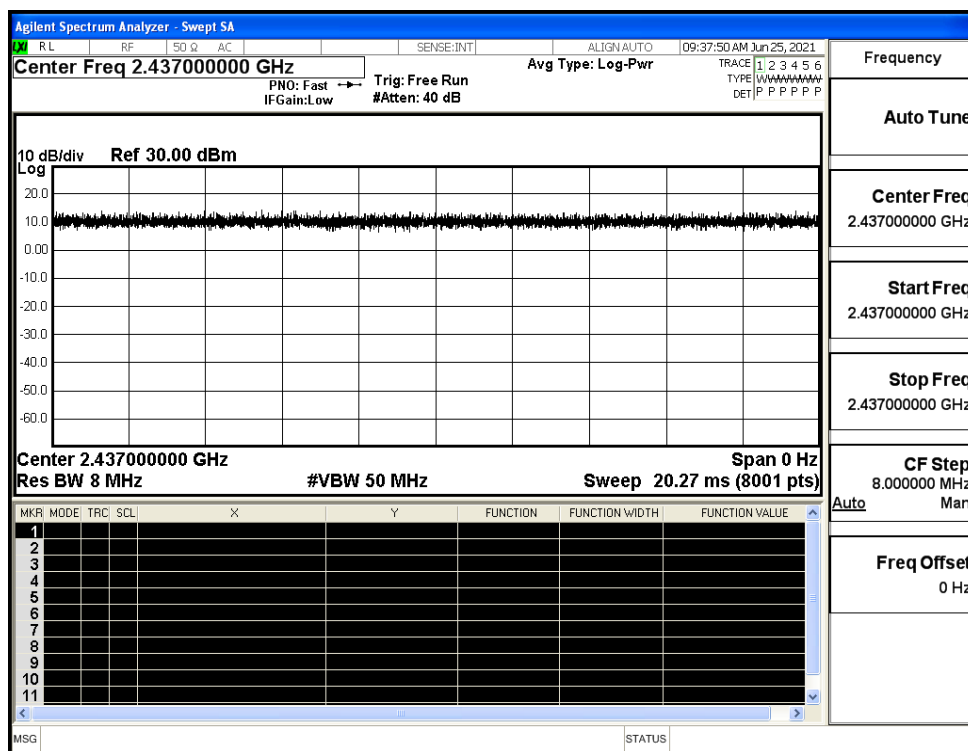
Duty Cycle_11B_2437_Ant0



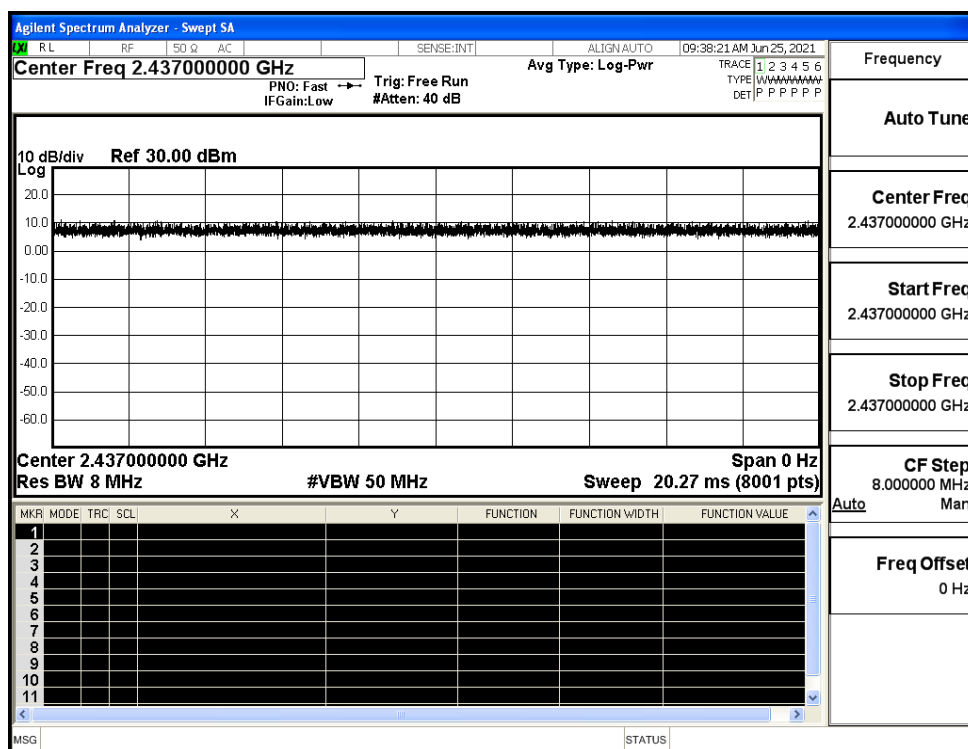
Duty Cycle_11G_2437_Ant0



Duty Cycle_11N20SISO_2437_Ant0



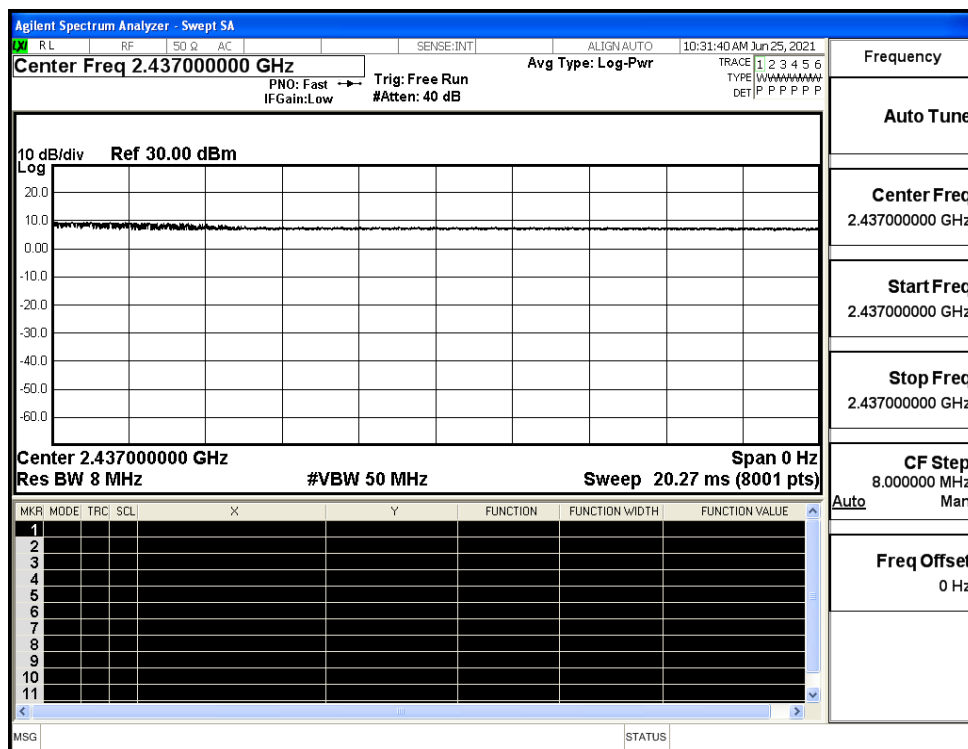
Duty Cycle_11N40SISO_2437_Ant0



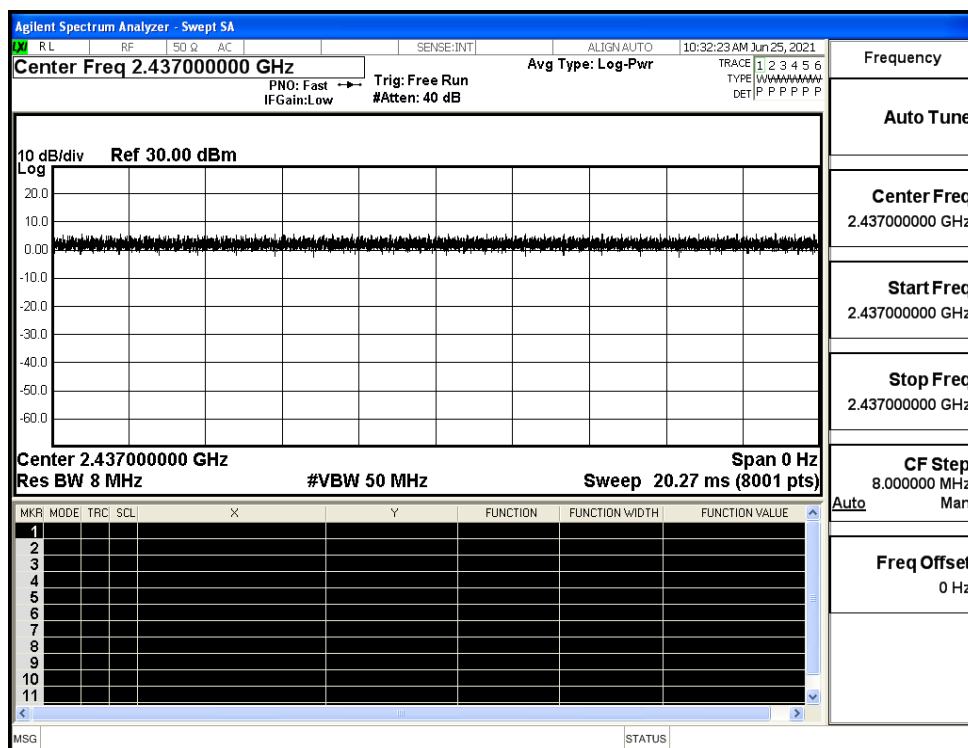
ANT1

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

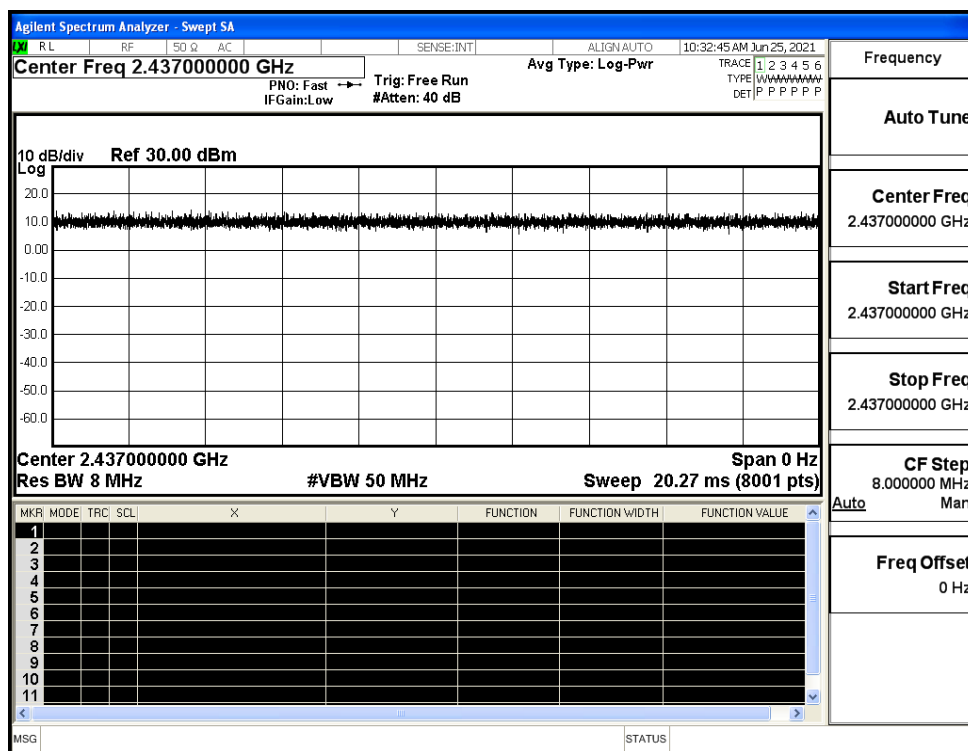
Duty Cycle_11B_2437_Ant1



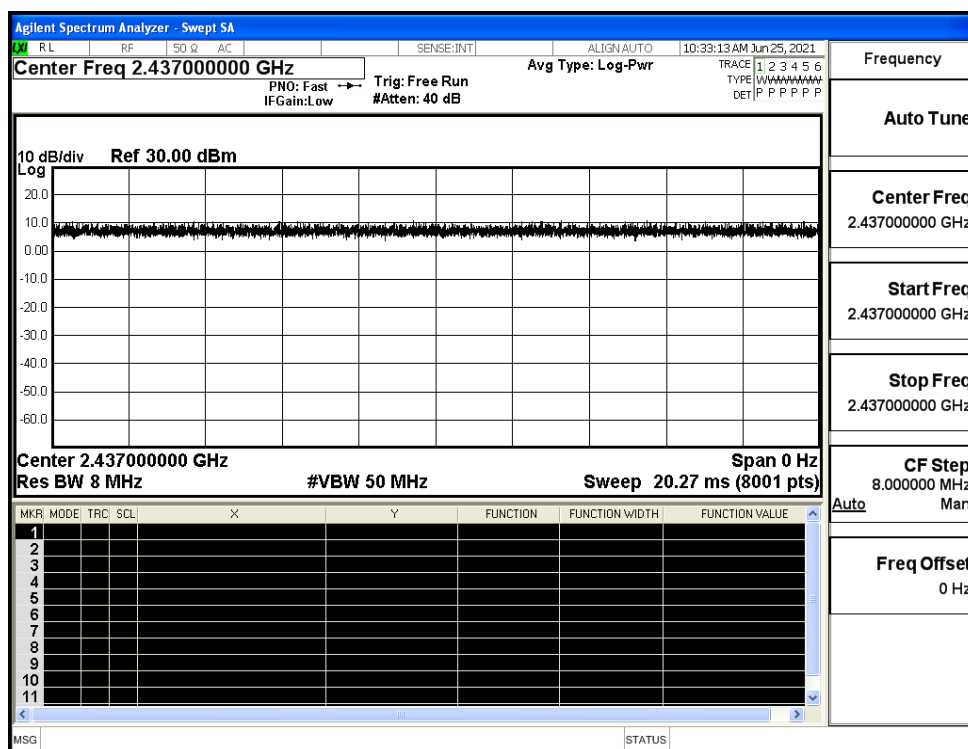
Duty Cycle_11G_2437_Ant1



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

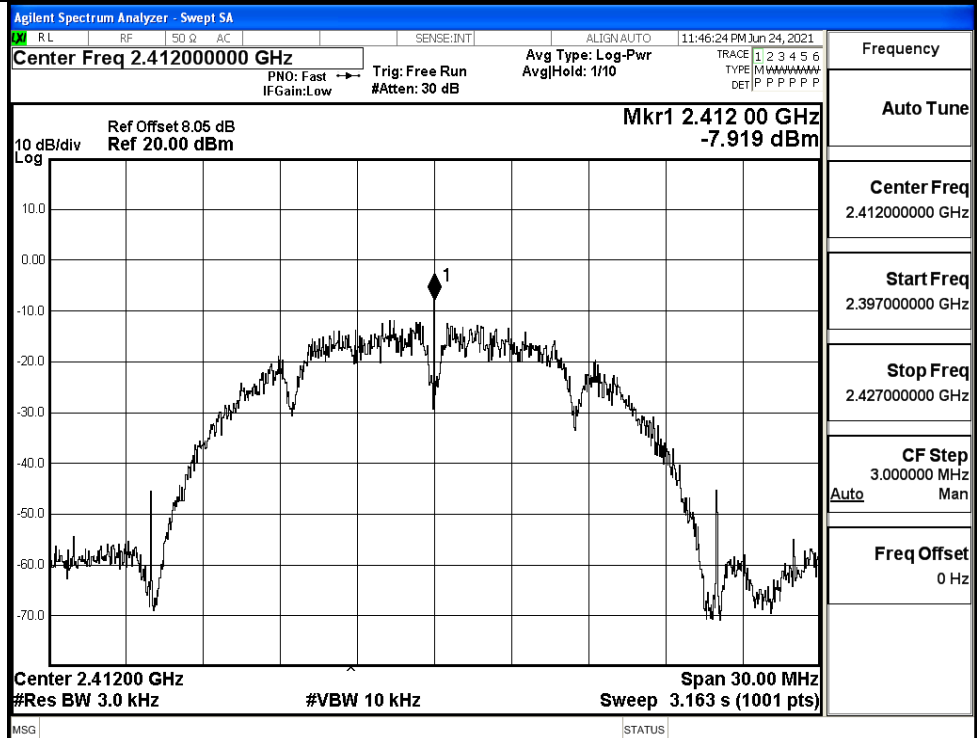
Mode	Channel	PSD Level [dBm/3KHz]		Limit [dBm/3KHz]	Verdict
		Ant 0	Ant 1		
11B	LCH	-7.919	-7.616	8	PASS
	MCH	-8.098	-7.782	8	PASS
	HCH	-12.974	-8.165	8	PASS
11G	LCH	-7.355	-17.701	8	PASS
	MCH	-11.325	-16.309	8	PASS
	HCH	-15.405	-8.817	8	PASS
11N20	LCH	-7.743	-8.148	8	PASS
	MCH	-8.011	-7.289	8	PASS
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

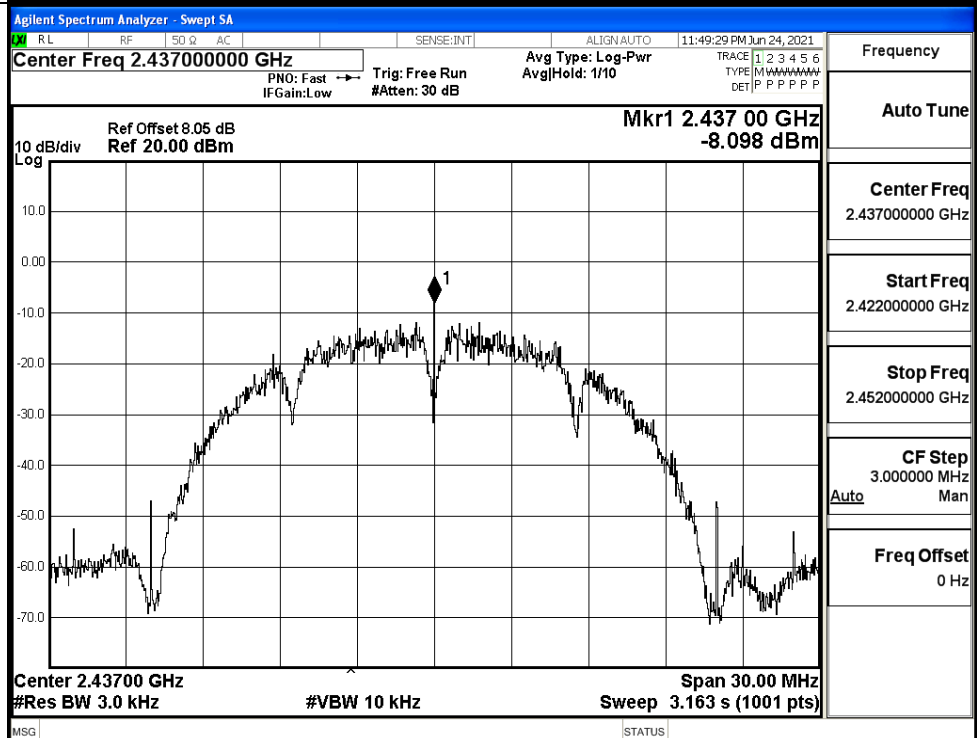
ANTO

Test Graphs

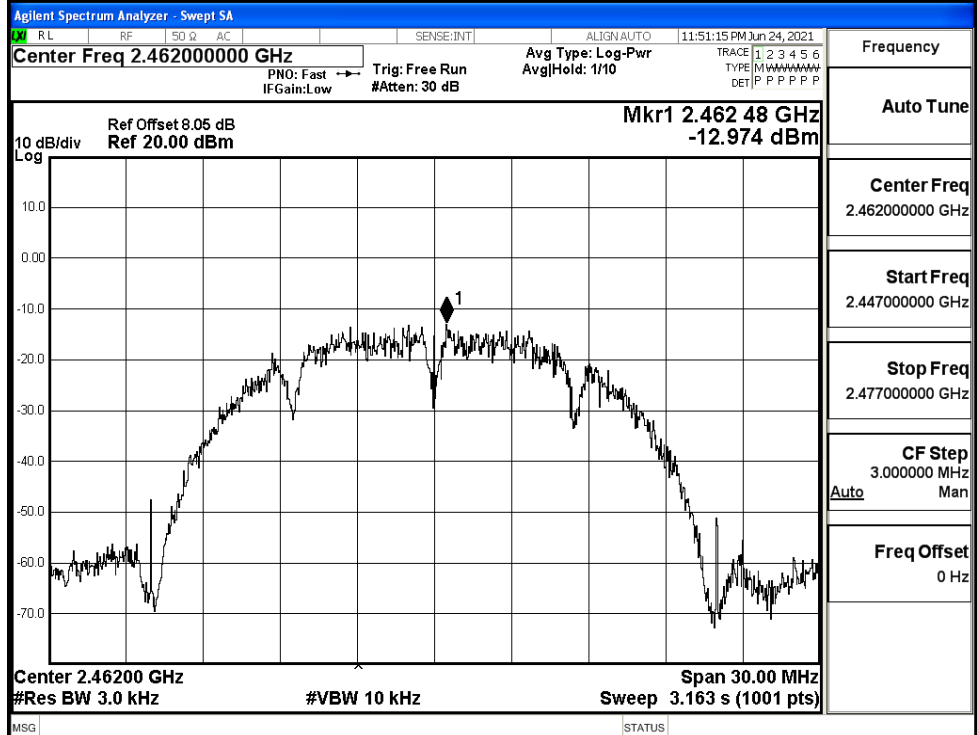
11B/LCH



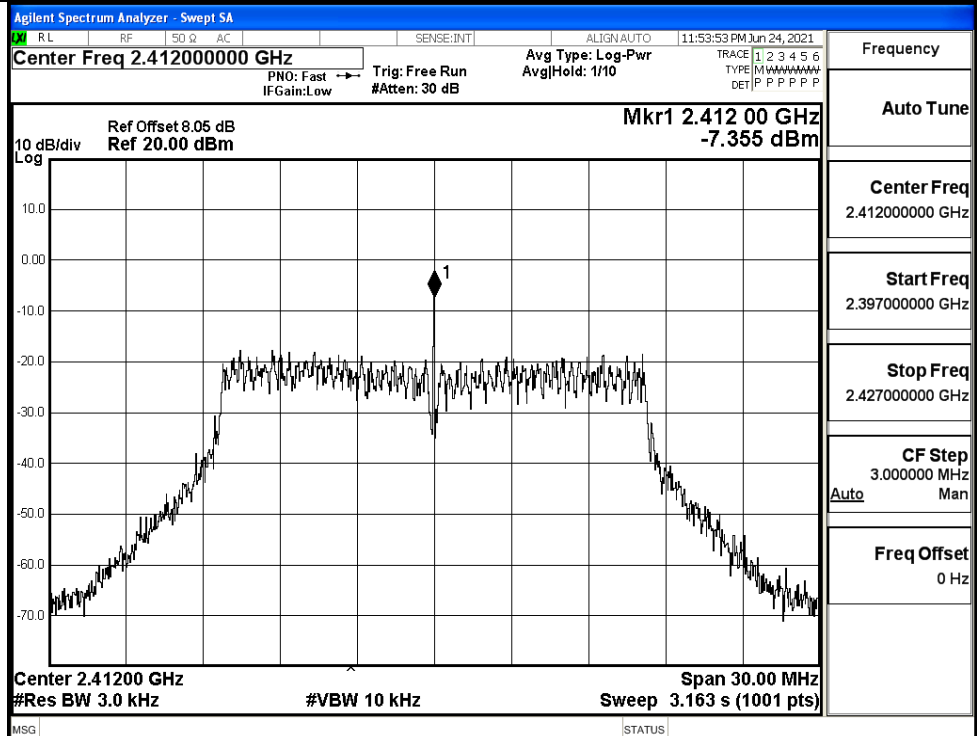
11B/MCH



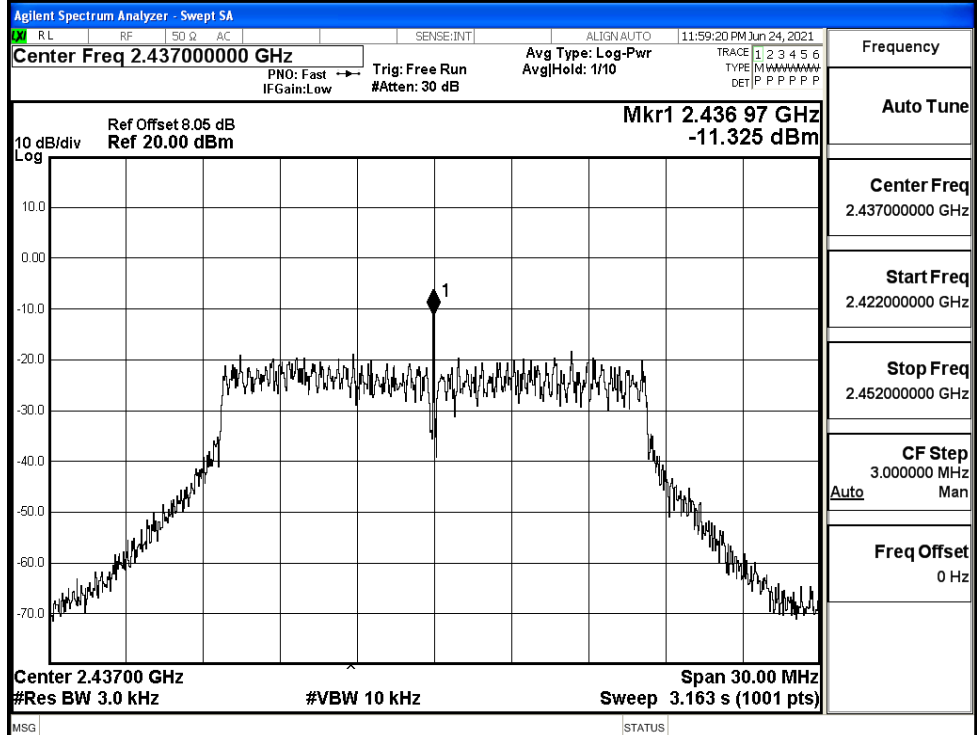
11B/HCH



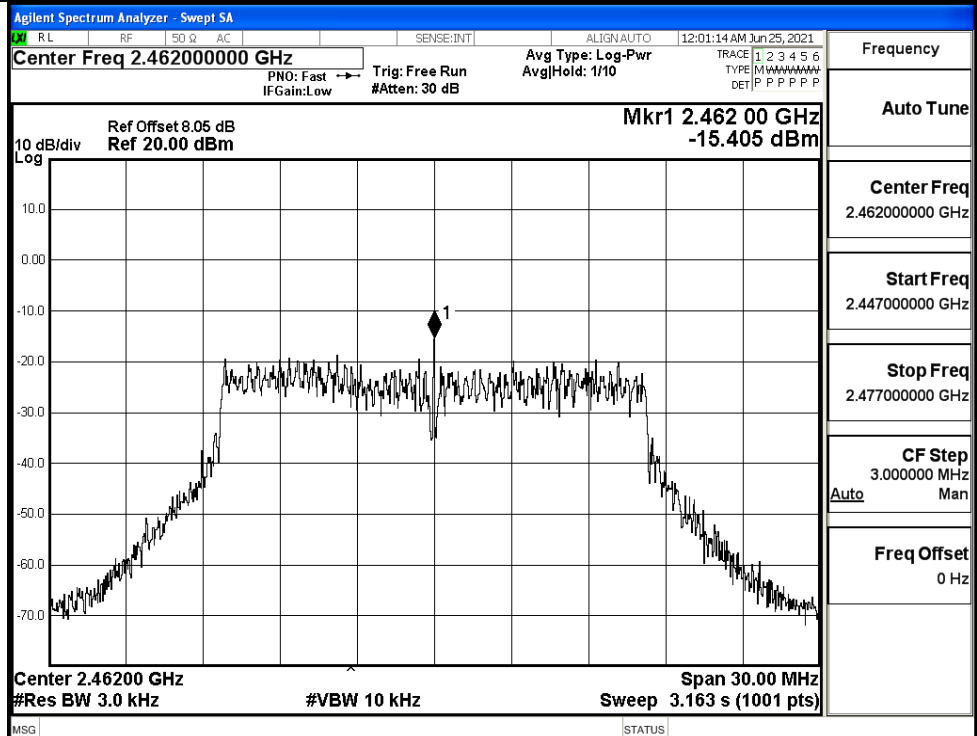
11G/LCH



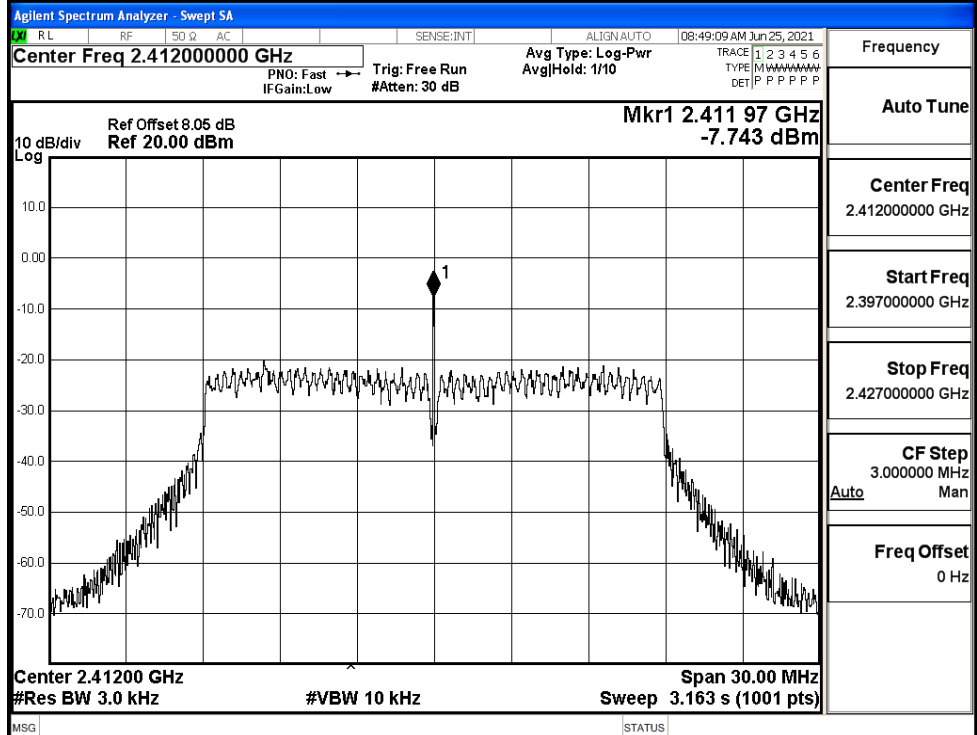
11G/MCH



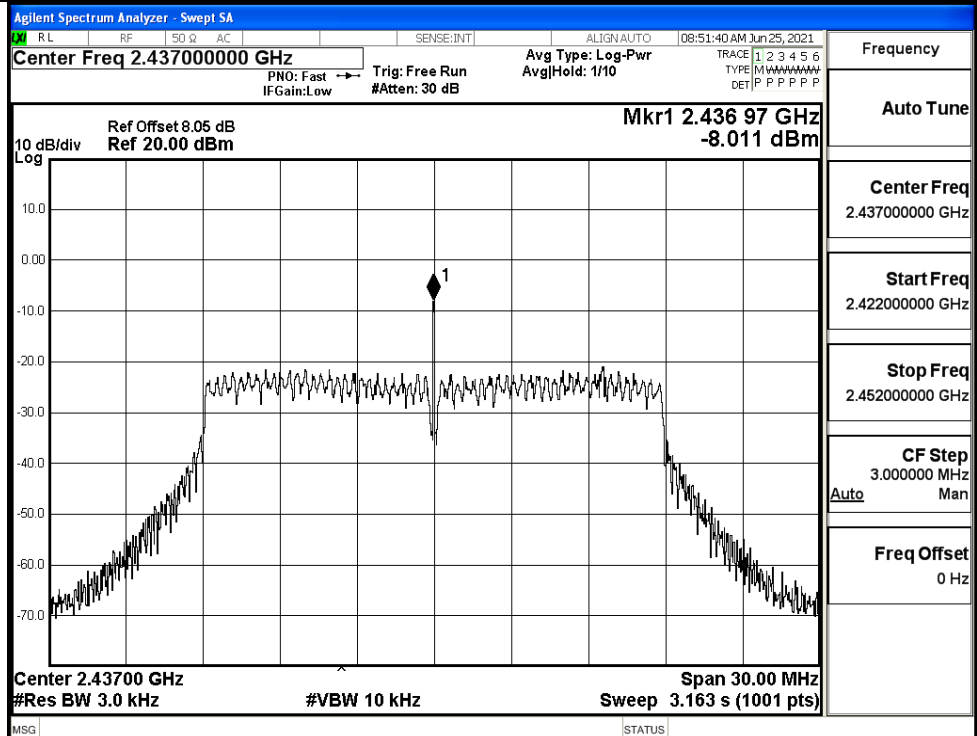
11G/HCH



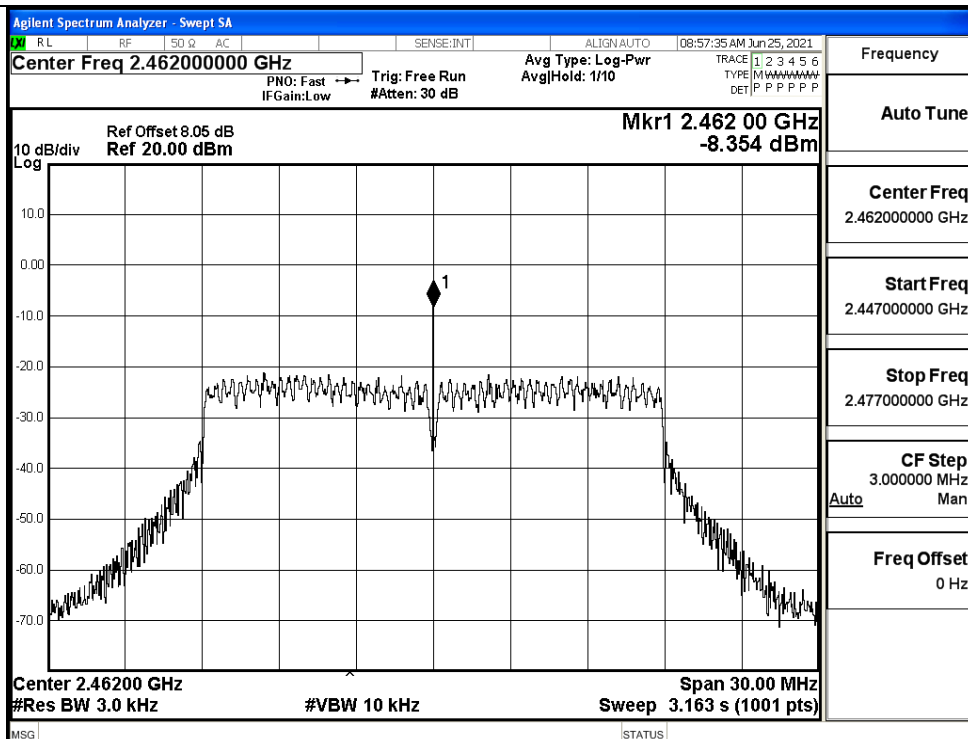
11N20SISO/LCH



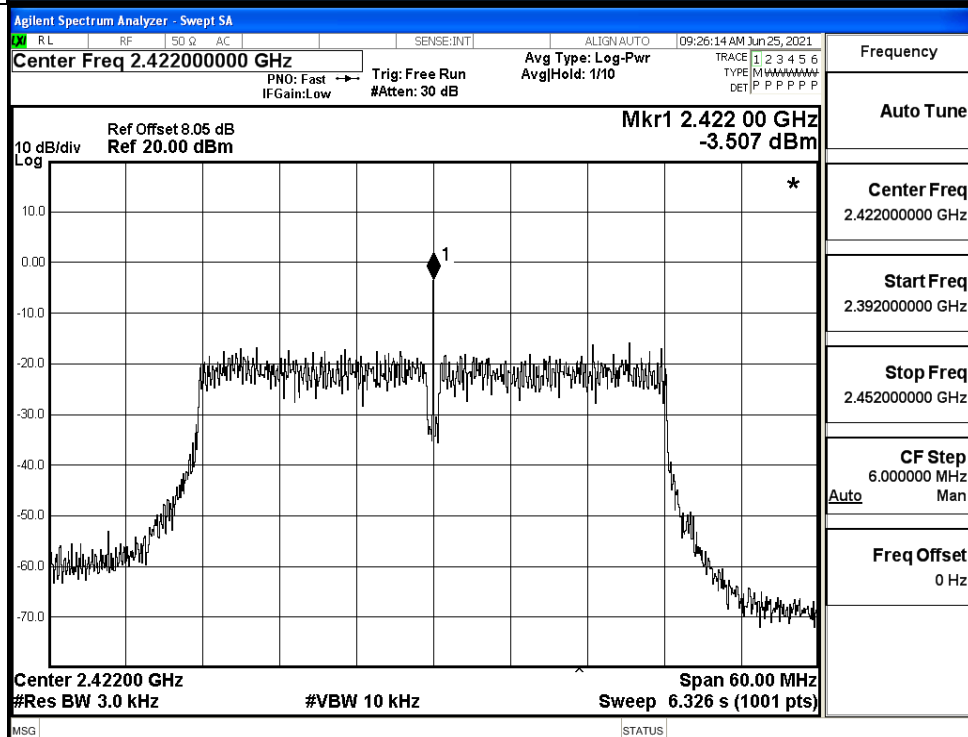
11N20SISO/MCH



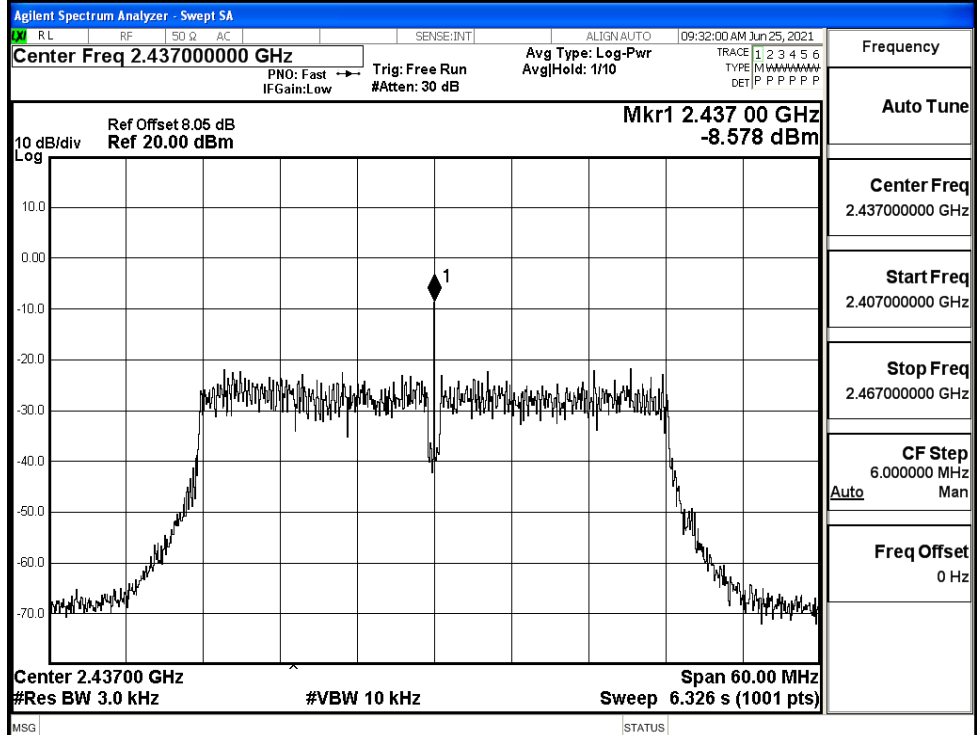
11N20SISO/HCH



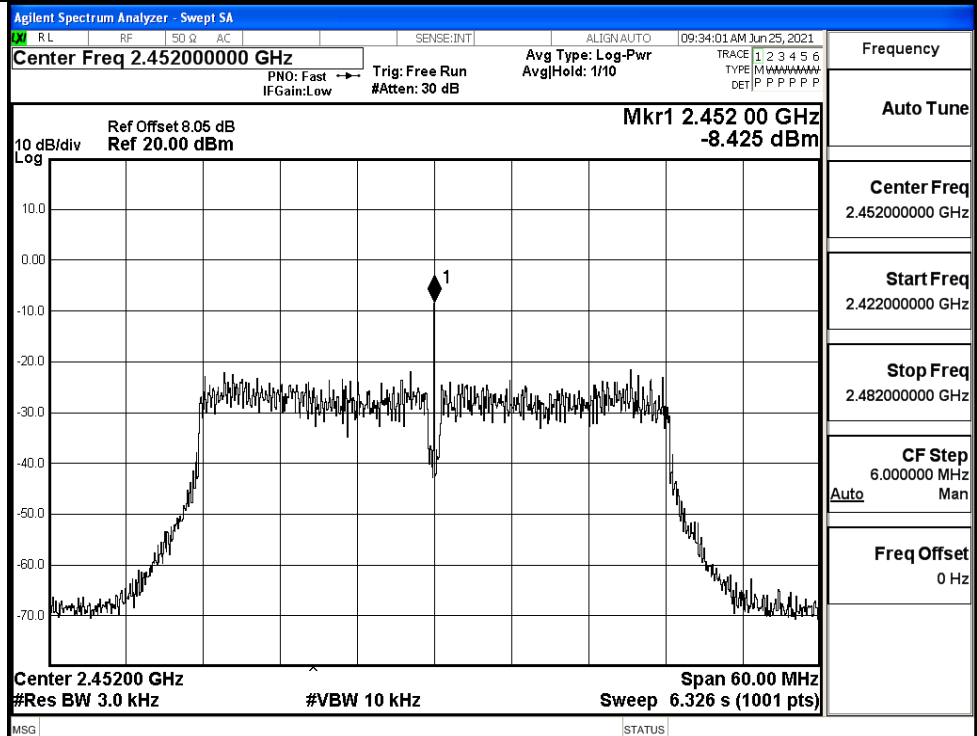
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

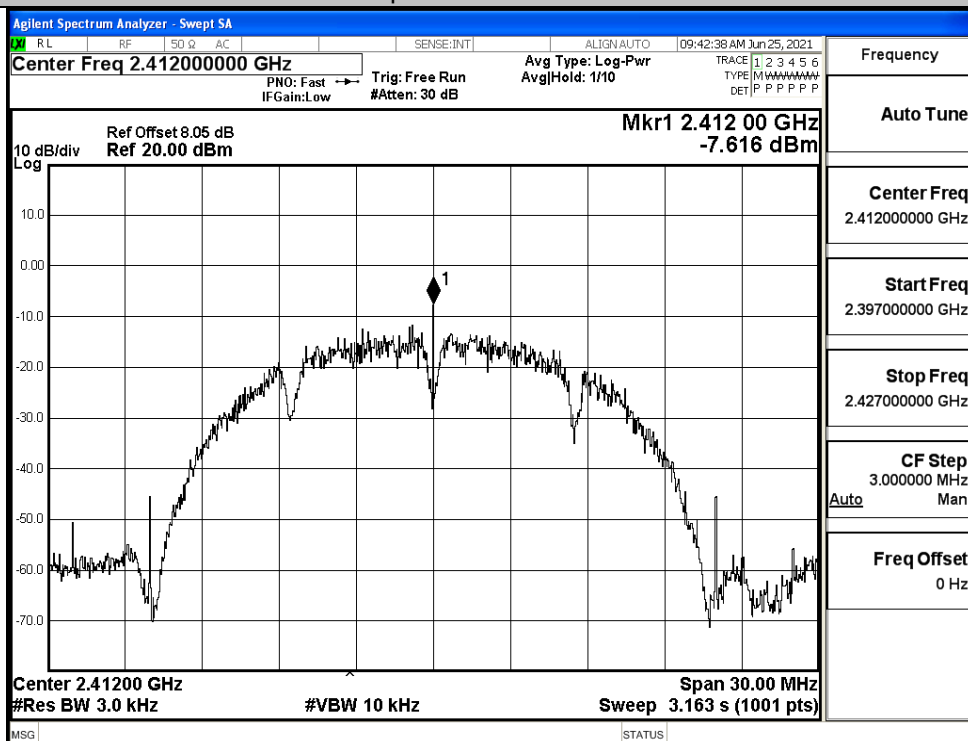


ANT1

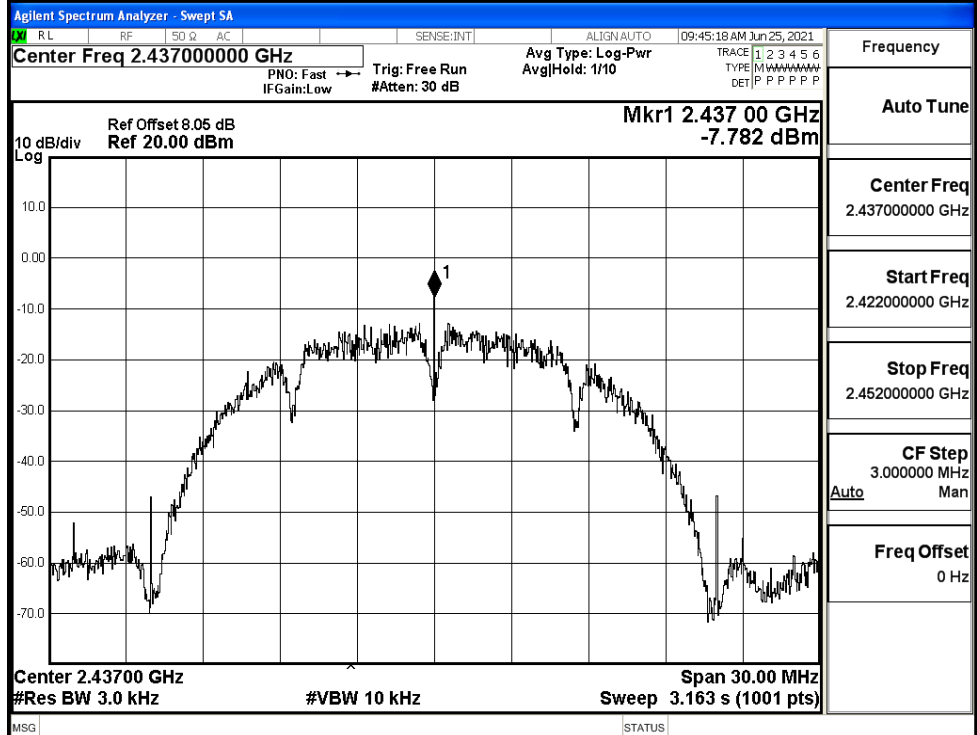
Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-7.616	8	PASS
	MCH	-7.782	8	PASS
	HCH	-8.165	8	PASS
11G	LCH	-17.701	8	PASS
	MCH	-16.309	8	PASS
	HCH	-8.817	8	PASS
11N20SISO	LCH	-8.148	8	PASS
	MCH	-7.289	8	PASS
	HCH	-7.702	8	PASS
11N40SISO	LCH	-17.553	8	PASS
	MCH	-11.369	8	PASS
	HCH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

Test Graphs

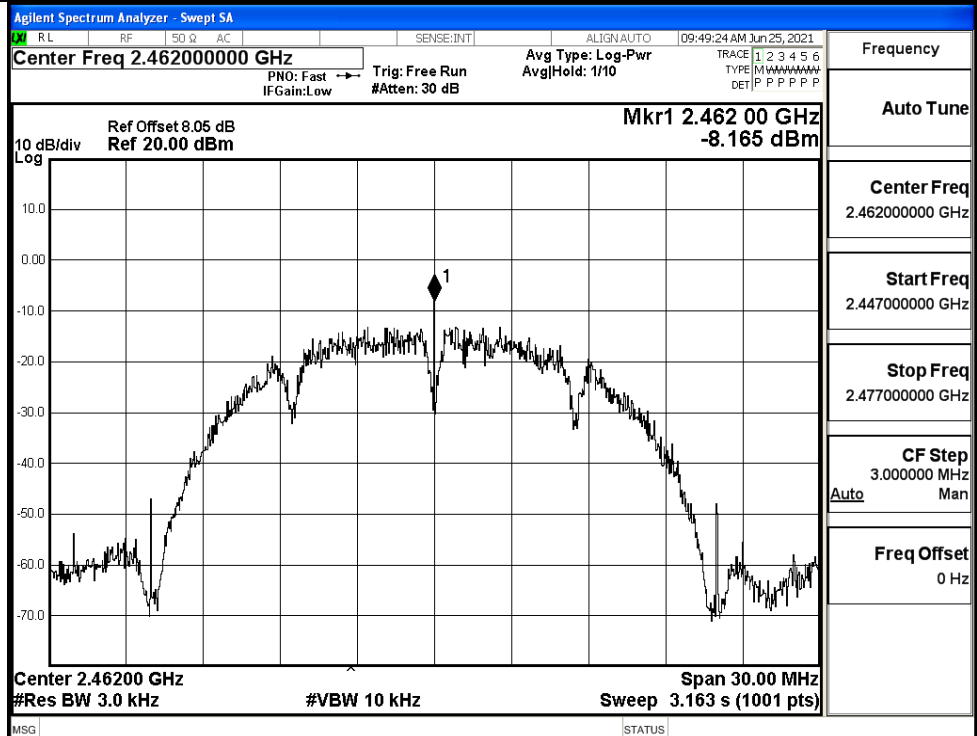
11B/LCH



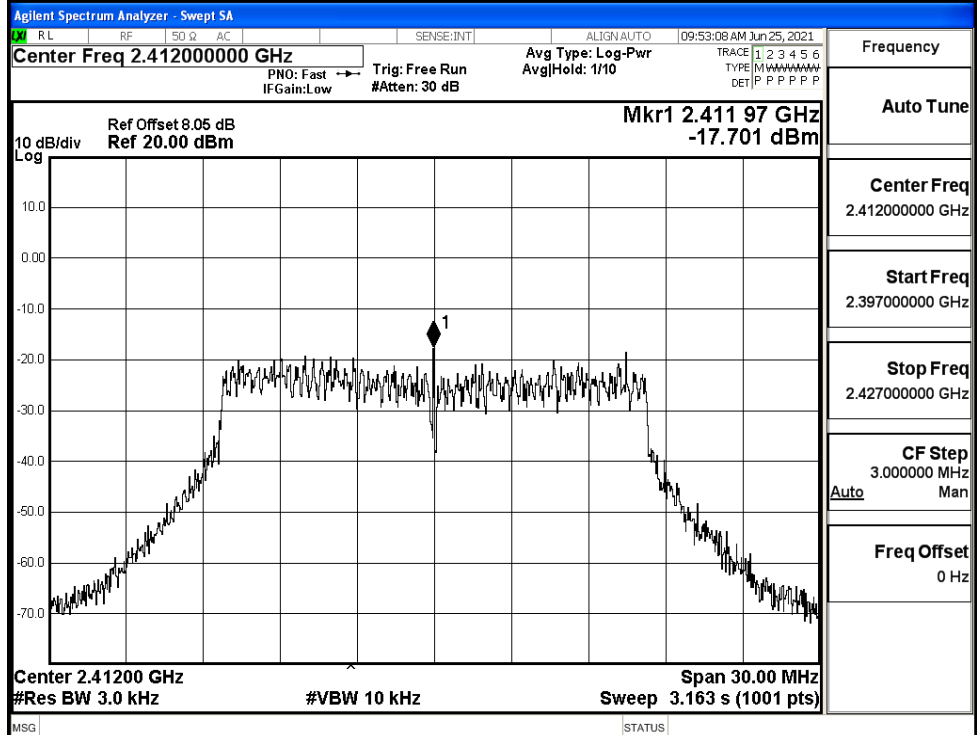
11B/MCH



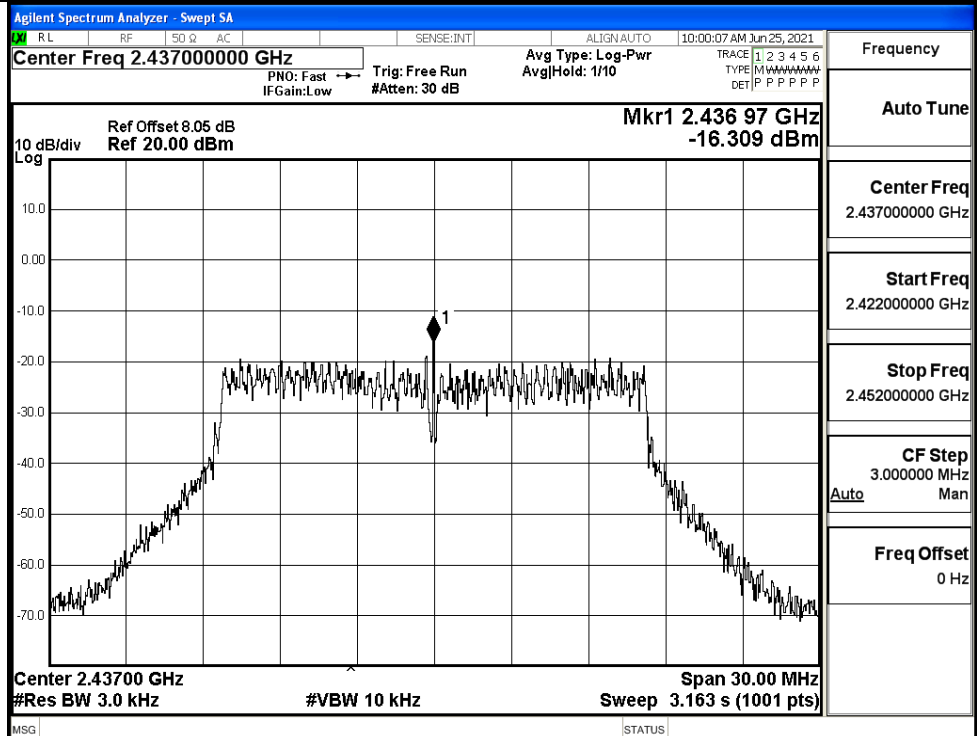
11B/HCH



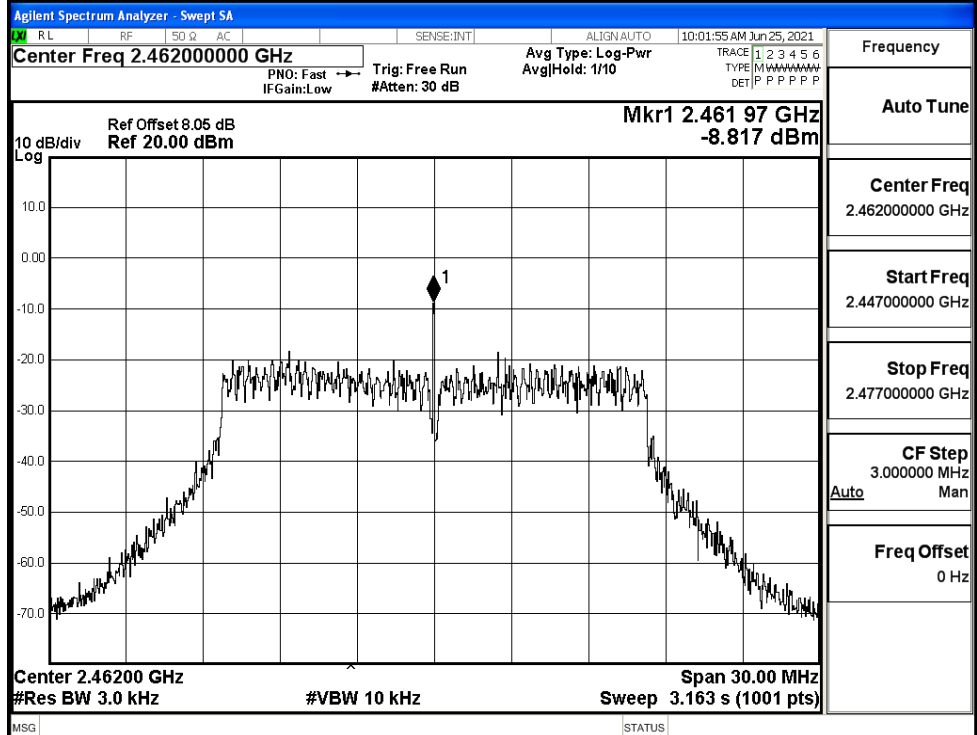
11G/LCH



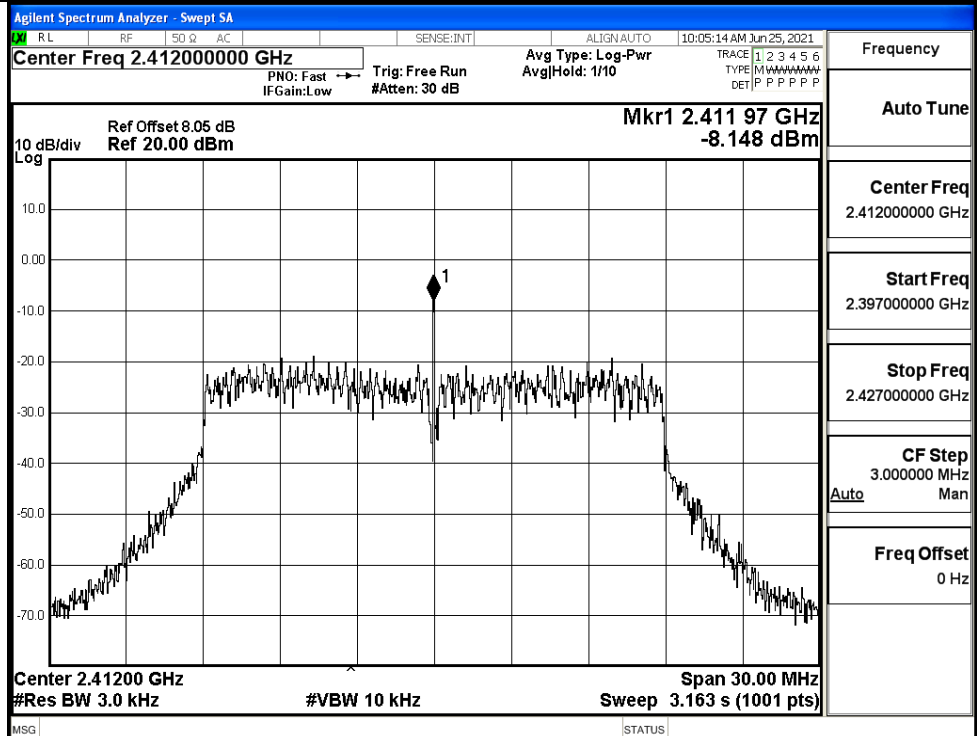
11G/MCH



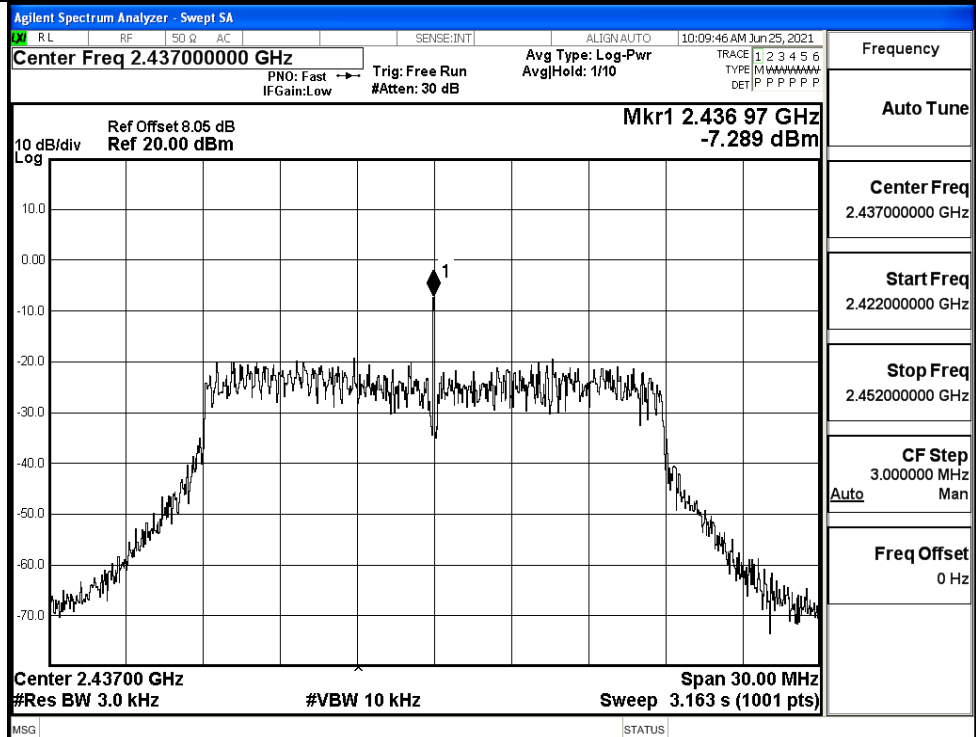
11G/HCH



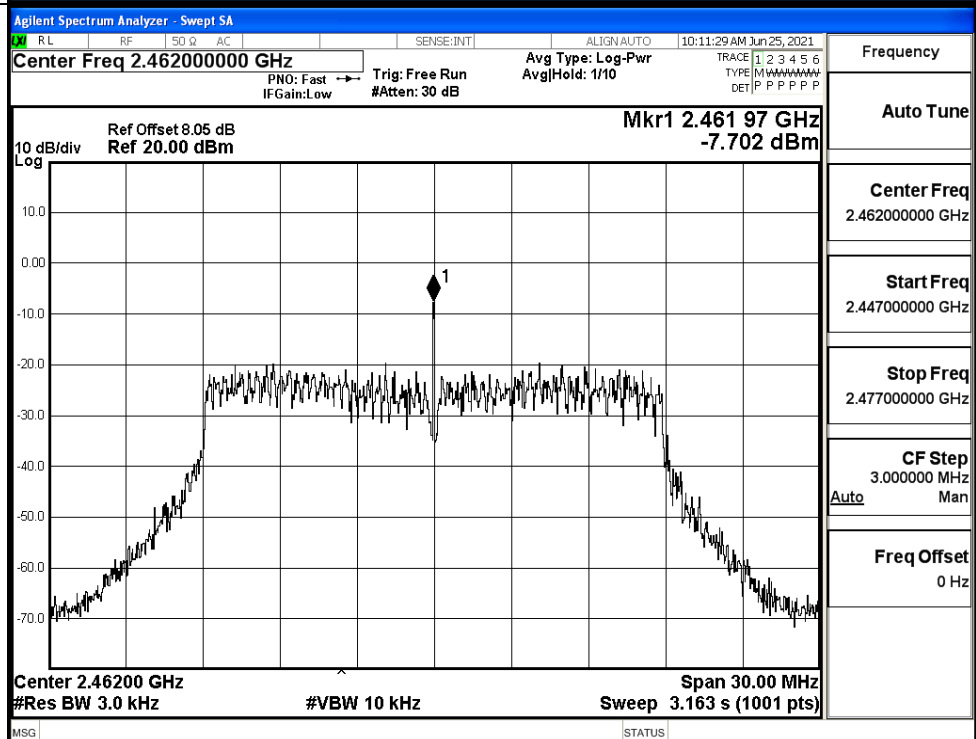
11N20SISO/LCH



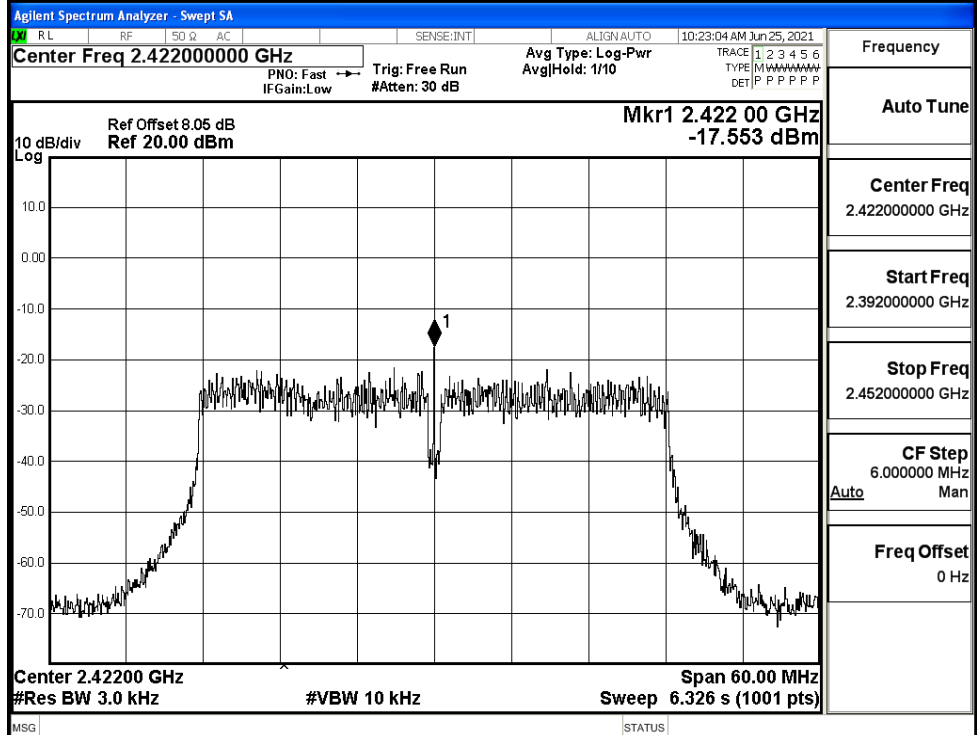
11N20SISO/MCH



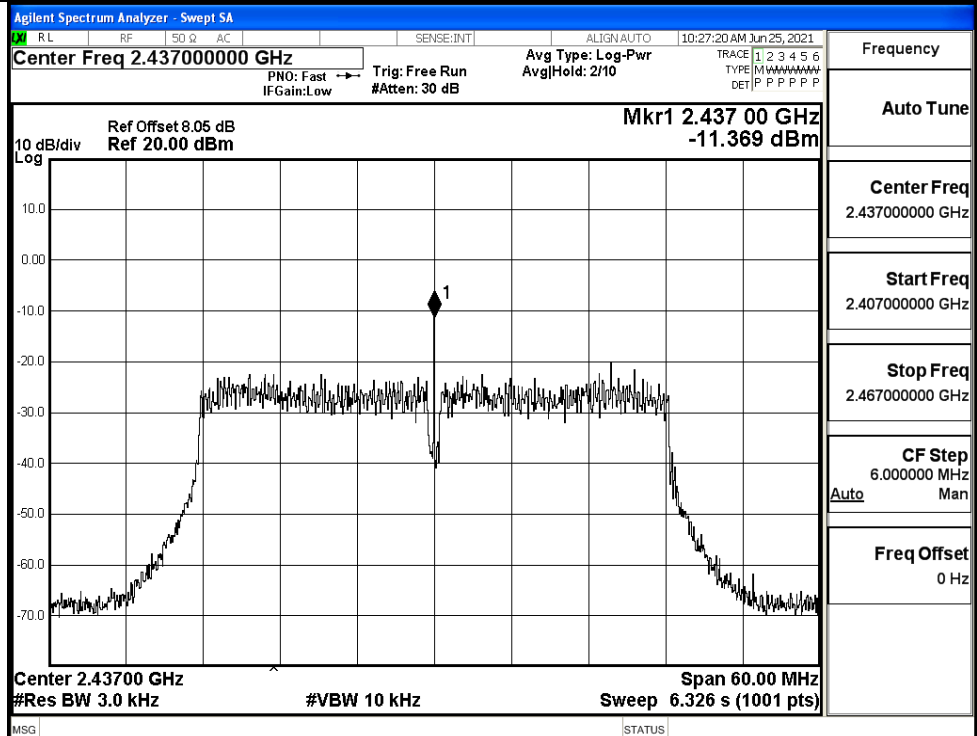
11N20SISO/HCH



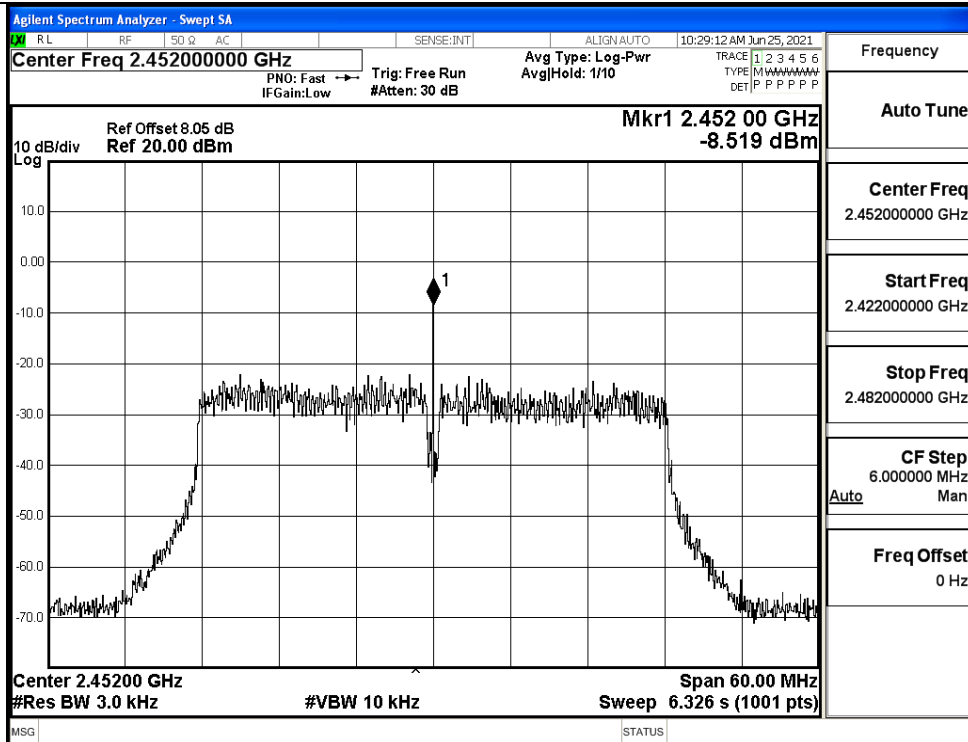
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH



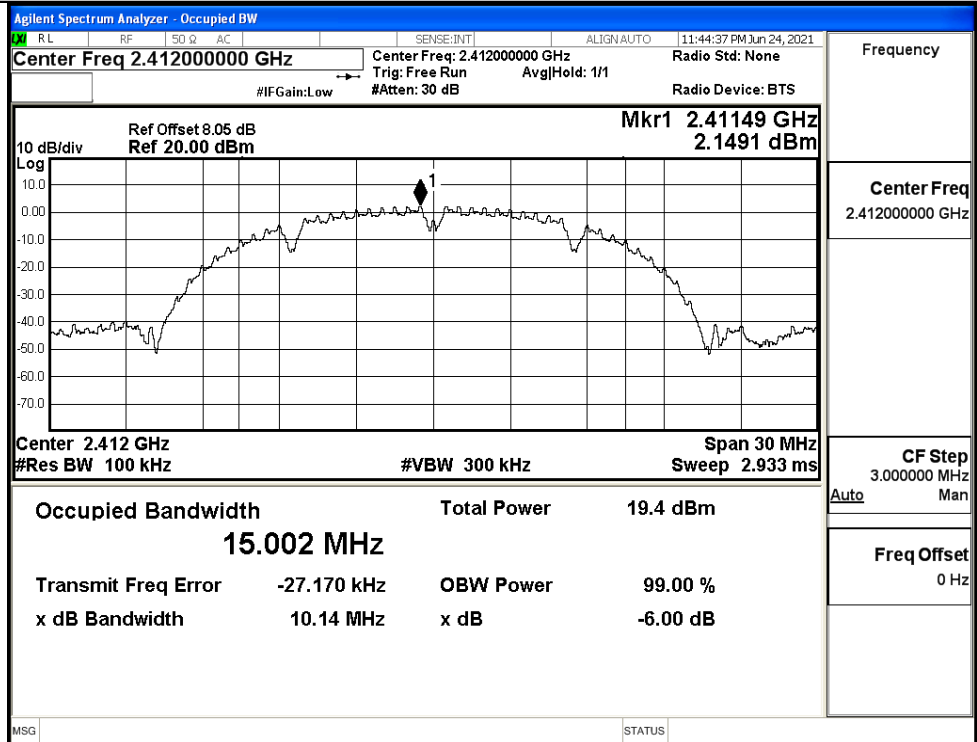
A.4 6dB Bandwidth

ANTO

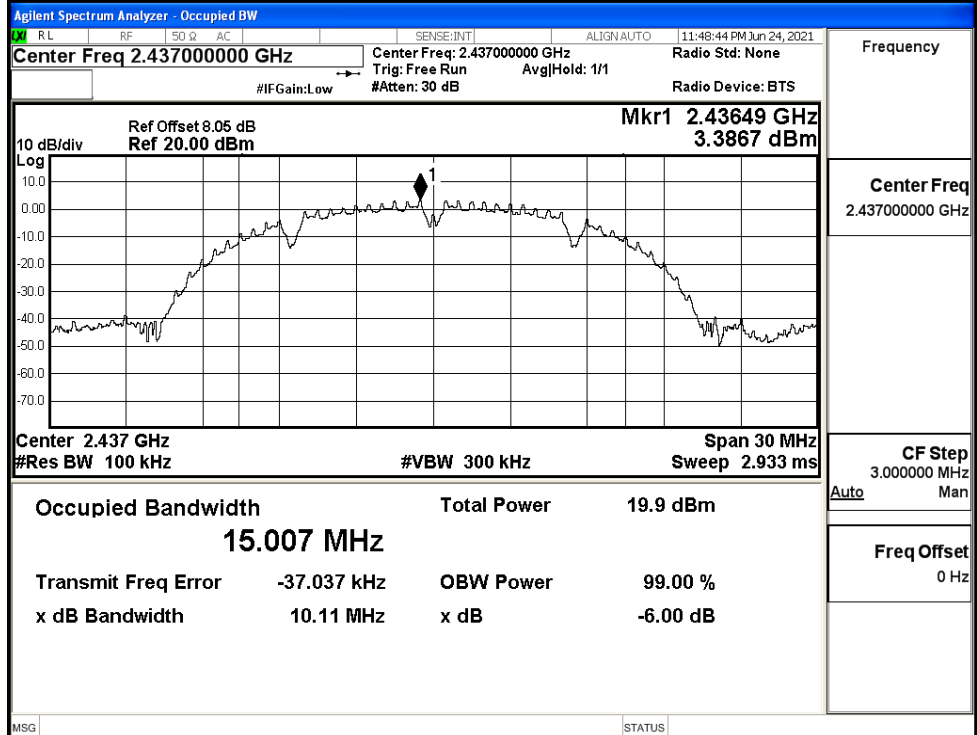
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.14	≥ 0.5	PASS
	MCH	10.11	≥ 0.5	PASS
	HCH	10.12	≥ 0.5	PASS
11G	LCH	16.34	≥ 0.5	PASS
	MCH	16.36	≥ 0.5	PASS
	HCH	16.38	≥ 0.5	PASS
11N20SISO	LCH	17.70	≥ 0.5	PASS
	MCH	17.71	≥ 0.5	PASS
	HCH	17.69	≥ 0.5	PASS
11N40SISO	LCH	35.92	≥ 0.5	PASS
	MCH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

Test Graphs

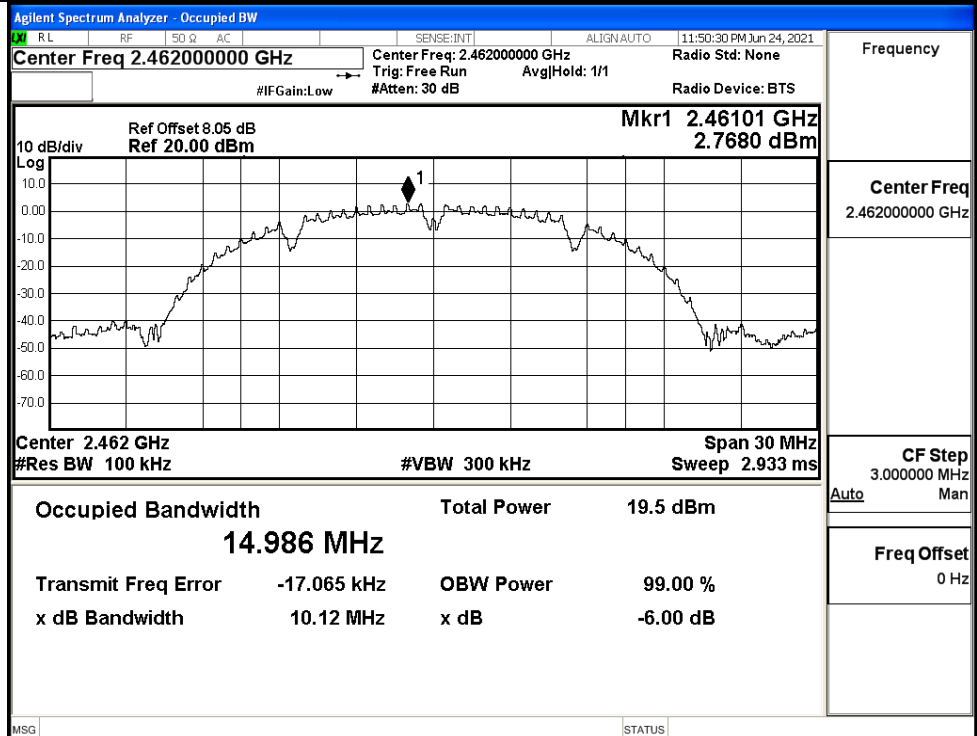
11B/LCH



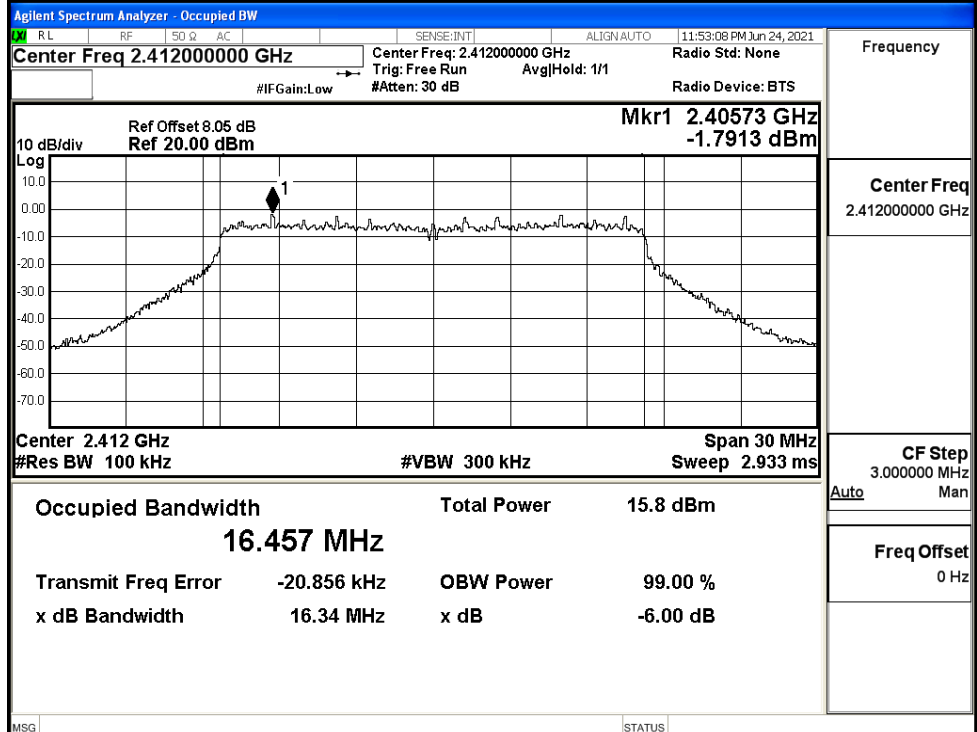
11B/MCH



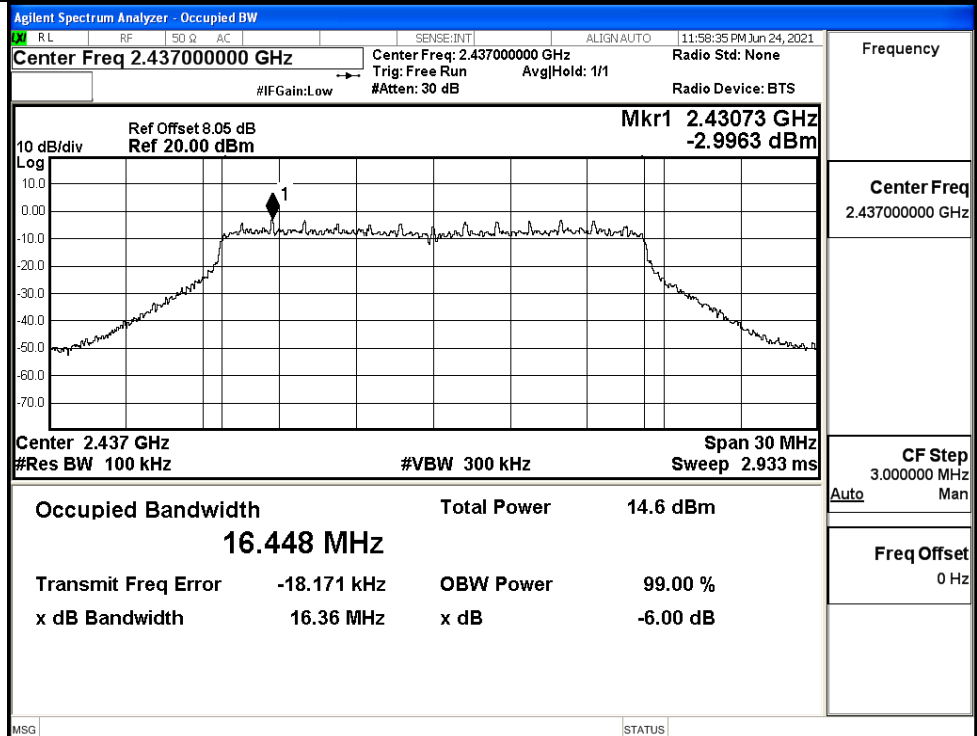
11B/HCH



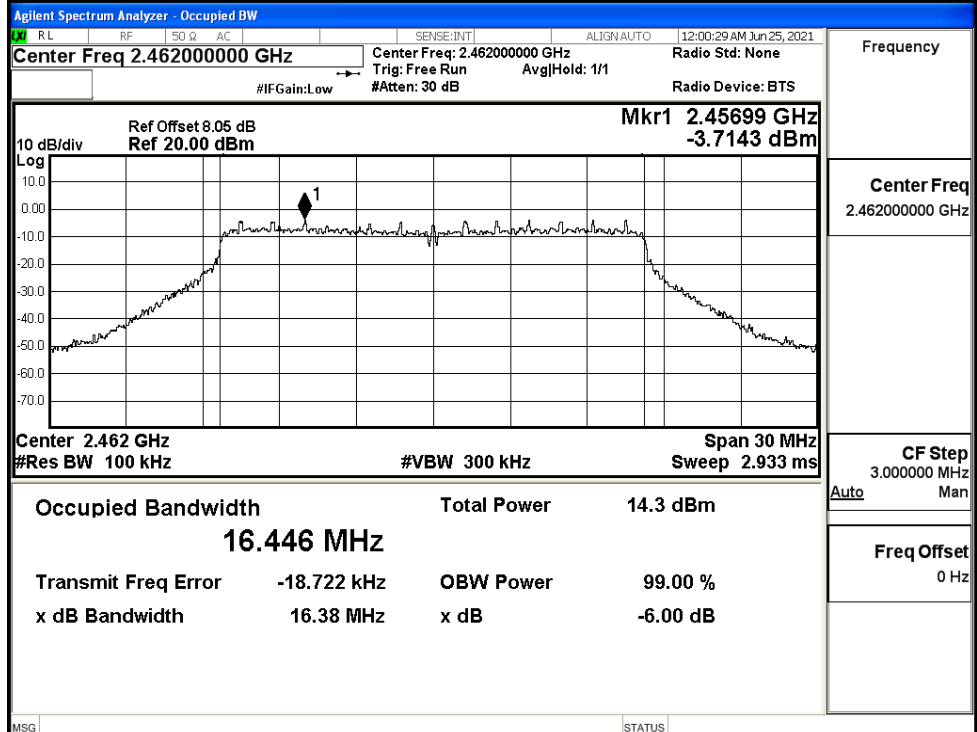
11G/LCH



11G/MCH



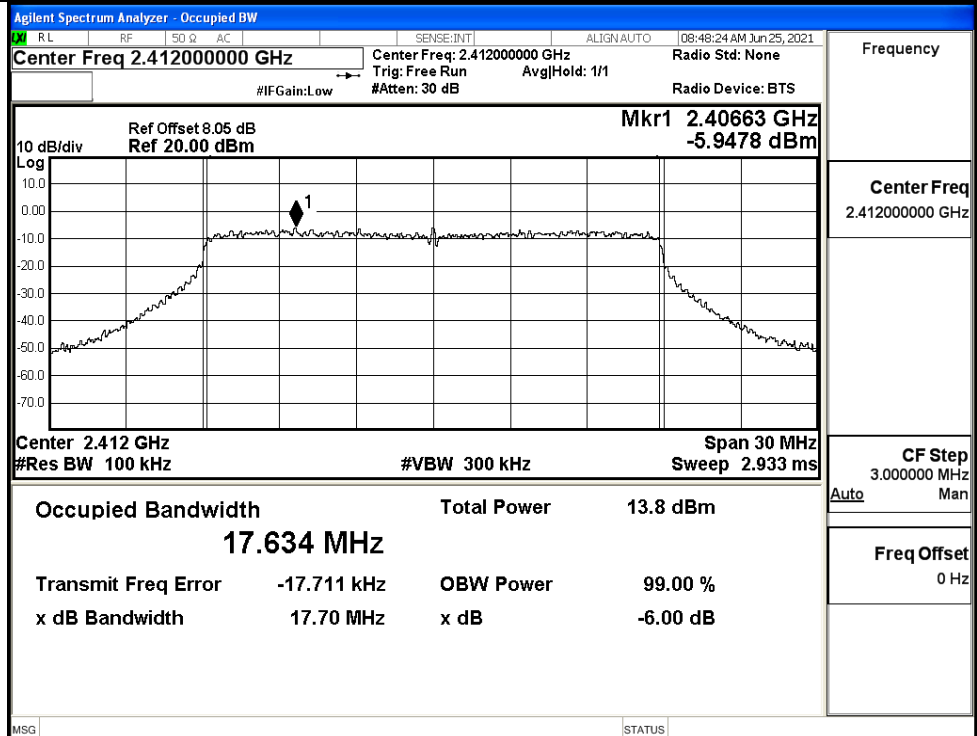
11G/HCH



Frequency

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

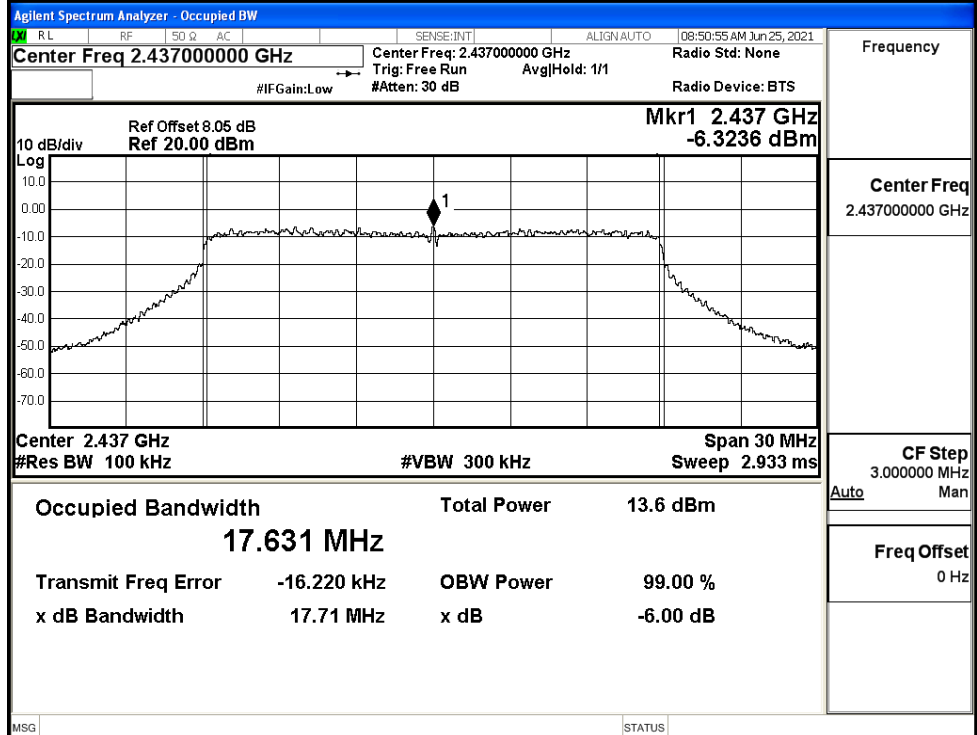
11N20SISO/LCH



Frequency

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

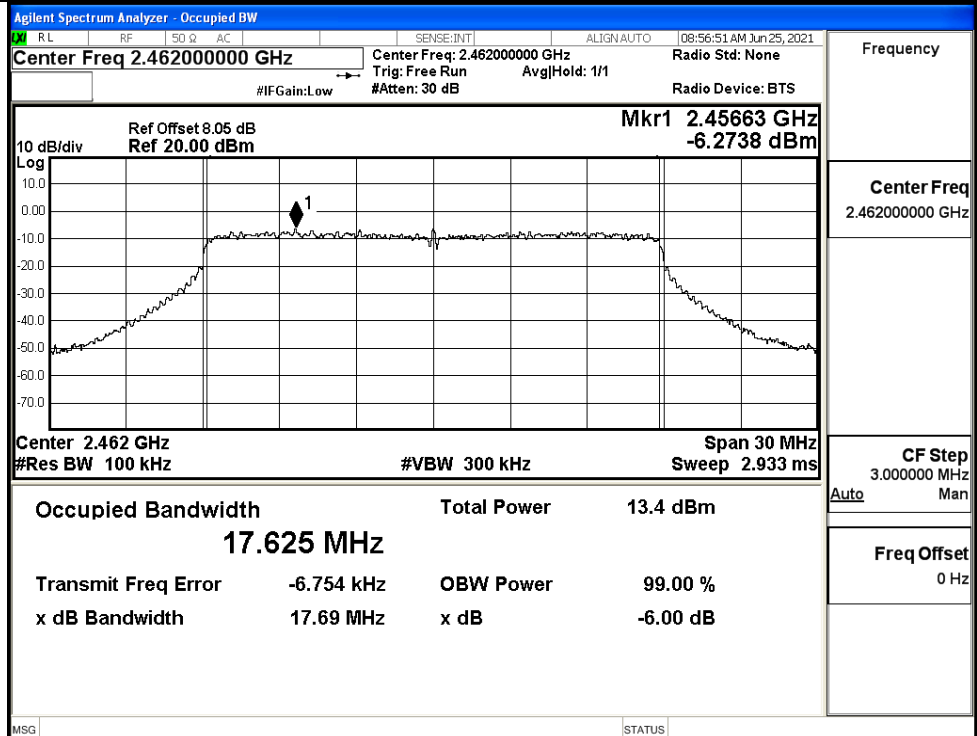
11N20SISO/MCH



Frequency

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

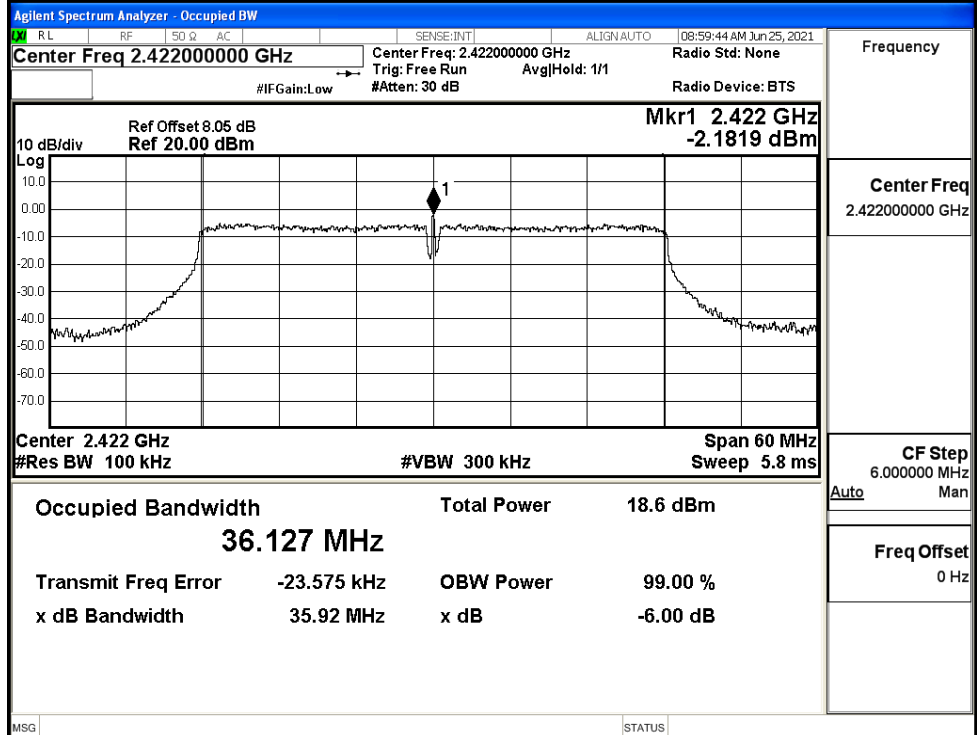
11N20SISO/HCH



Frequency

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

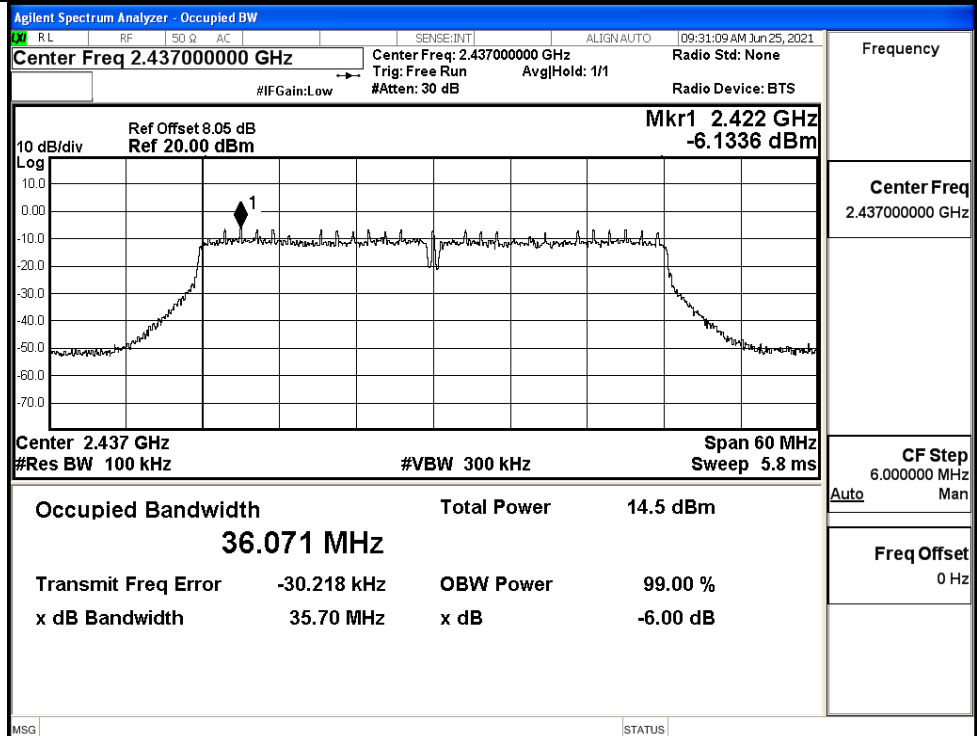
11N40SISO/LCH



Frequency

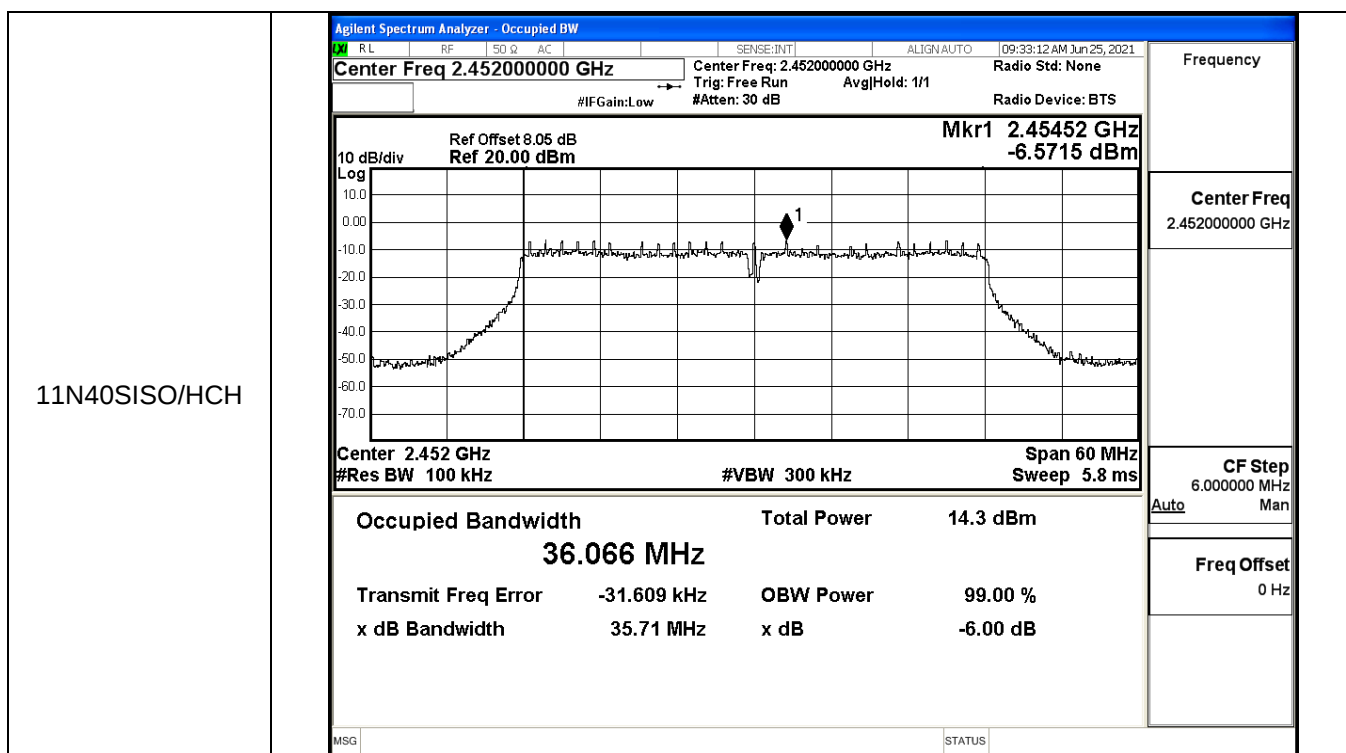
Center Freq
2.422000000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

11N40SISO/MCH



Frequency

Center Freq
2.437000000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

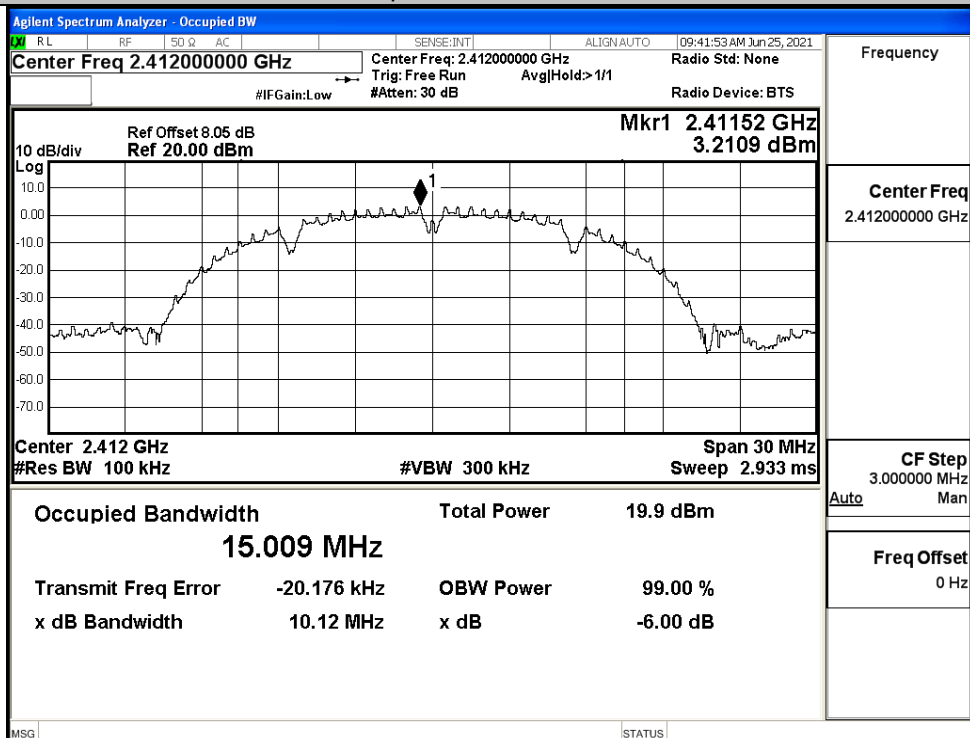


ANT1

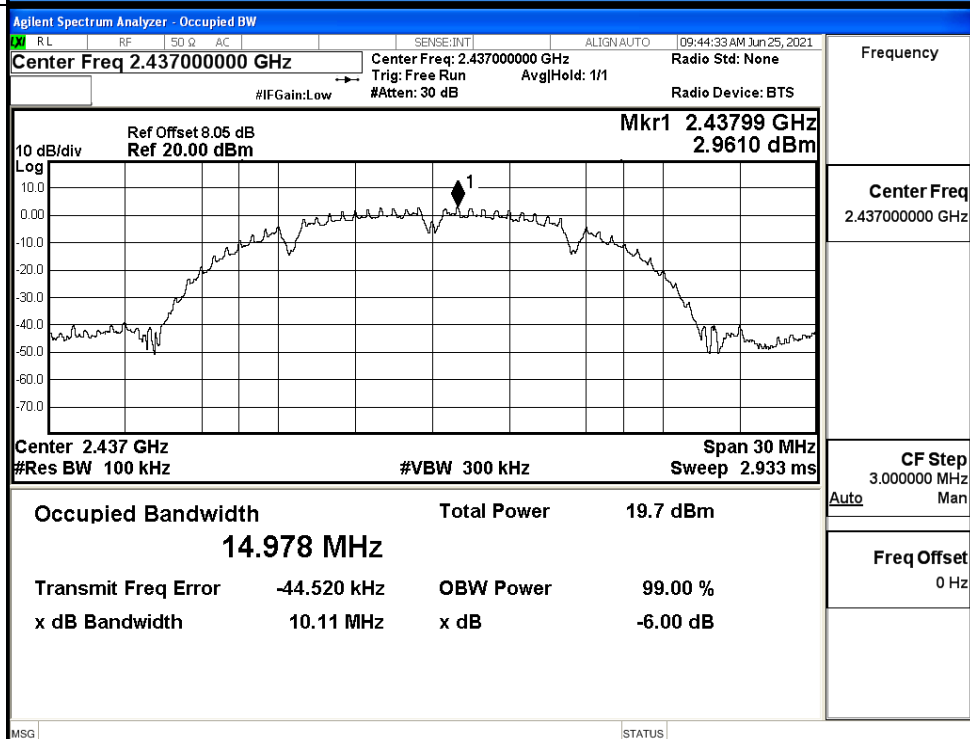
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.12	≥ 0.5	PASS
	MCH	10.11	≥ 0.5	PASS
	HCH	10.14	≥ 0.5	PASS
11G	LCH	16.36	≥ 0.5	PASS
	MCH	16.34	≥ 0.5	PASS
	HCH	16.35	≥ 0.5	PASS
11N20SISO	LCH	17.34	≥ 0.5	PASS
	MCH	17.15	≥ 0.5	PASS
	HCH	17.33	≥ 0.5	PASS
11N40SISO	LCH	35.70	≥ 0.5	PASS
	MCH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

Test Graphs

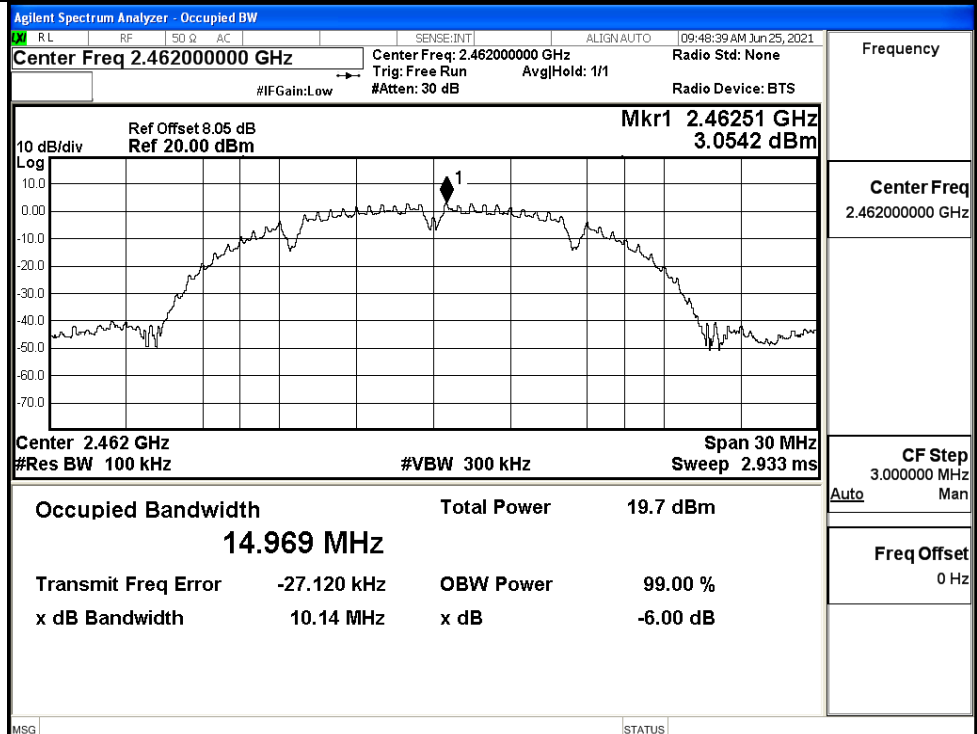
11B/LCH



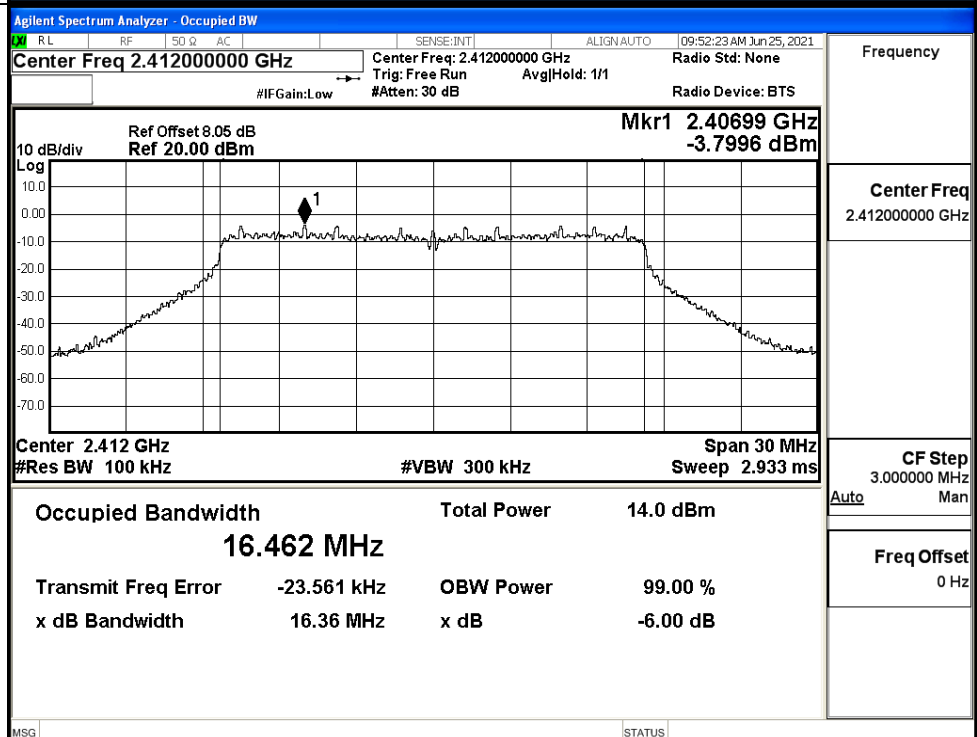
11B/MCH



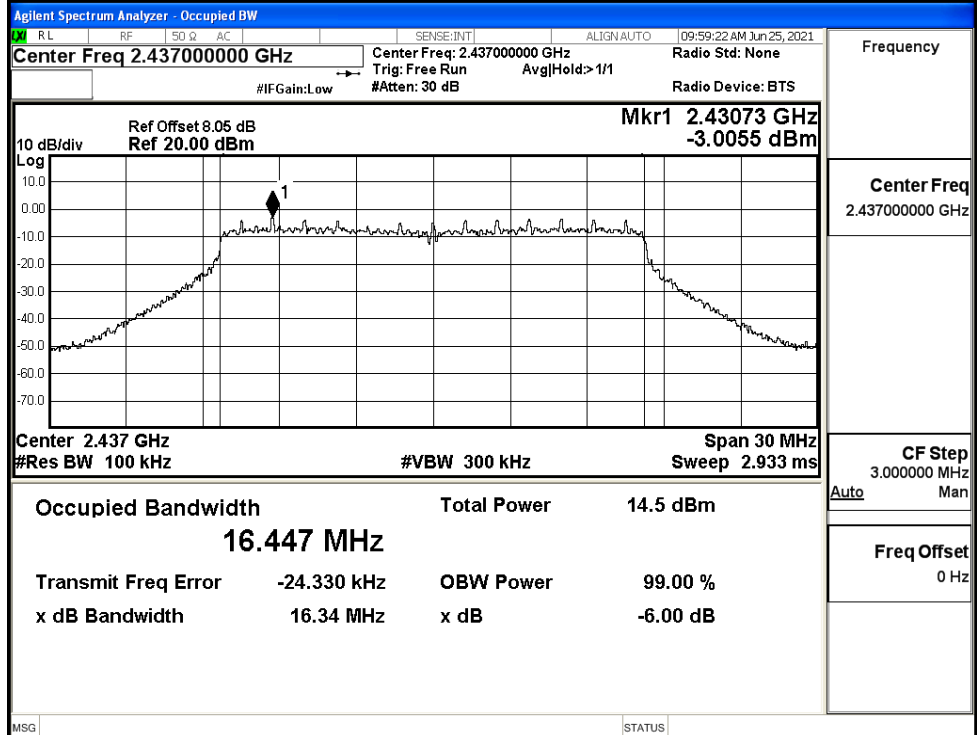
11B/HCH



11G/LCH



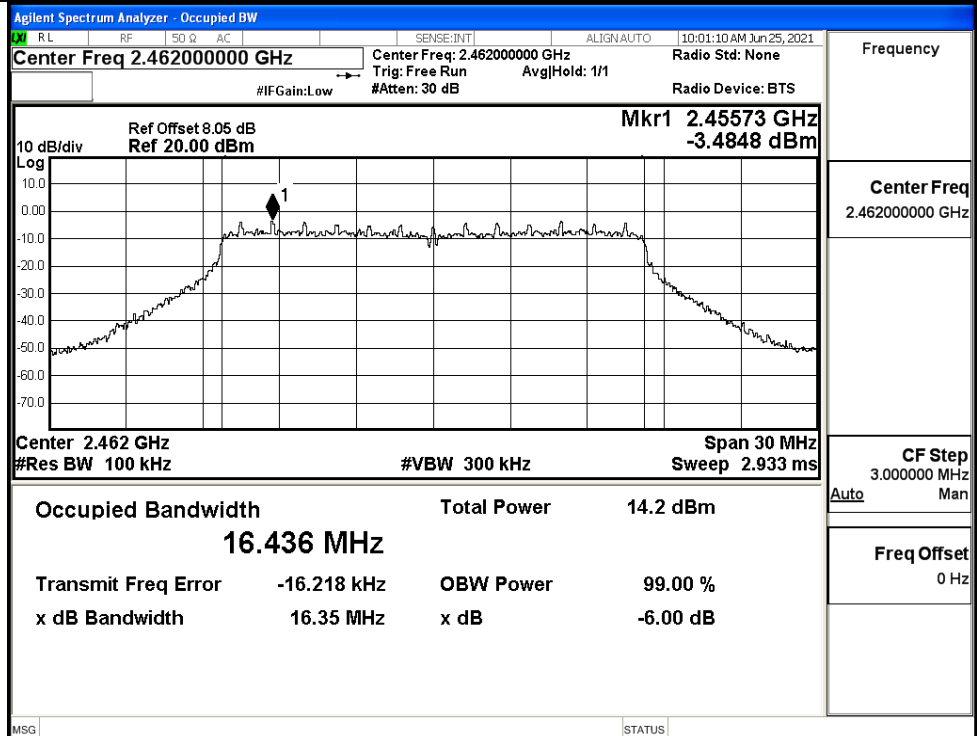
11G/MCH



Frequency

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

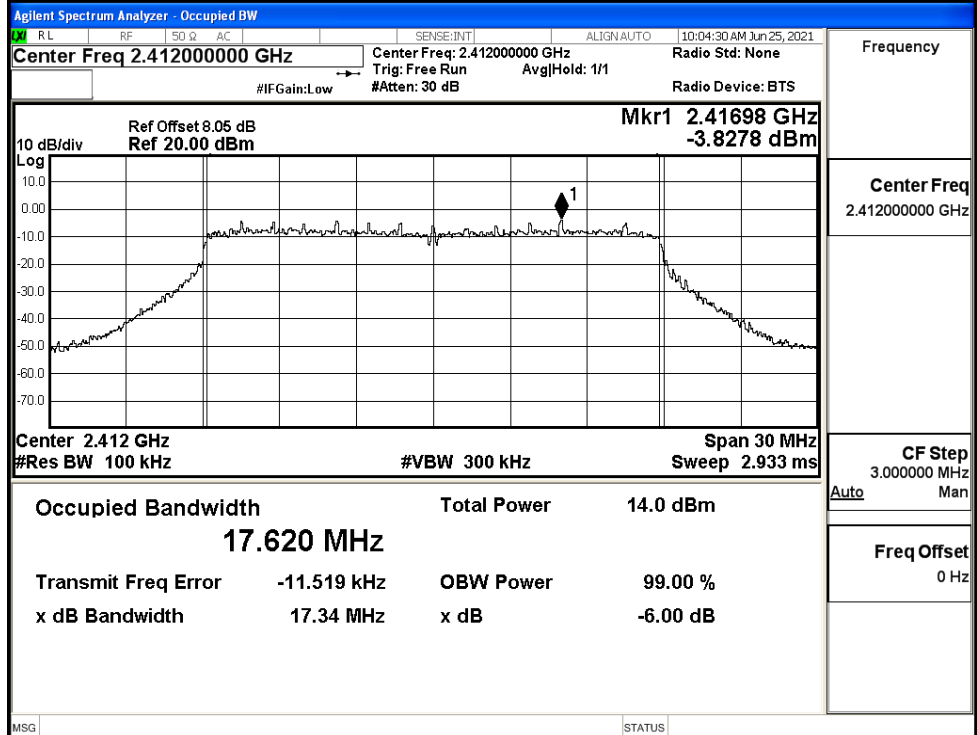
11G/HCH



Frequency

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

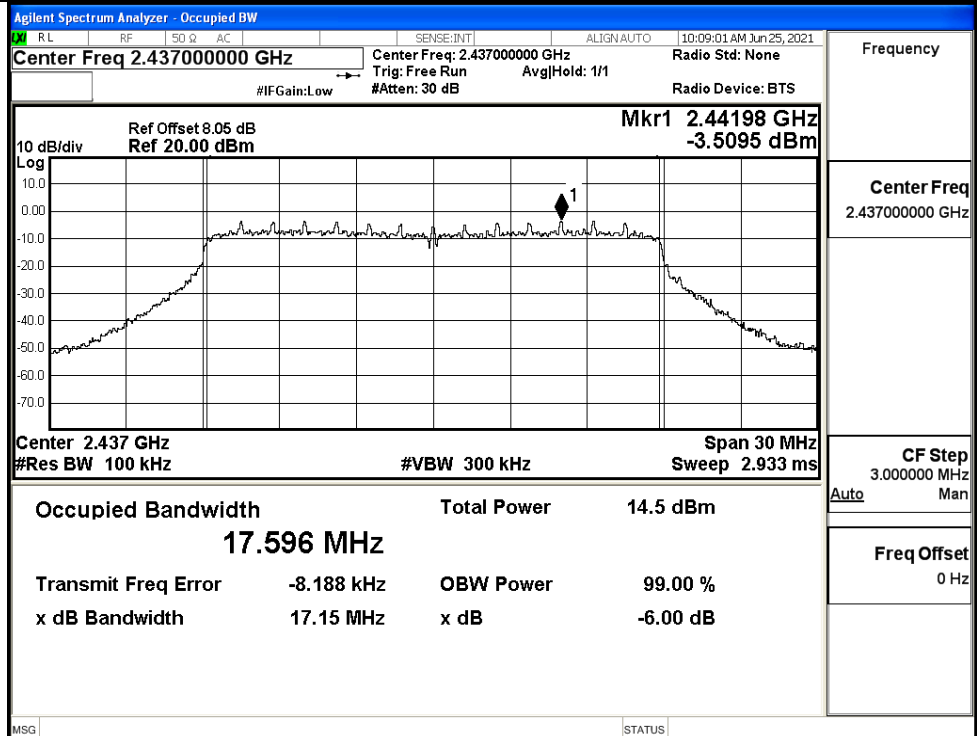
11N20SISO/LCH



Frequency

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

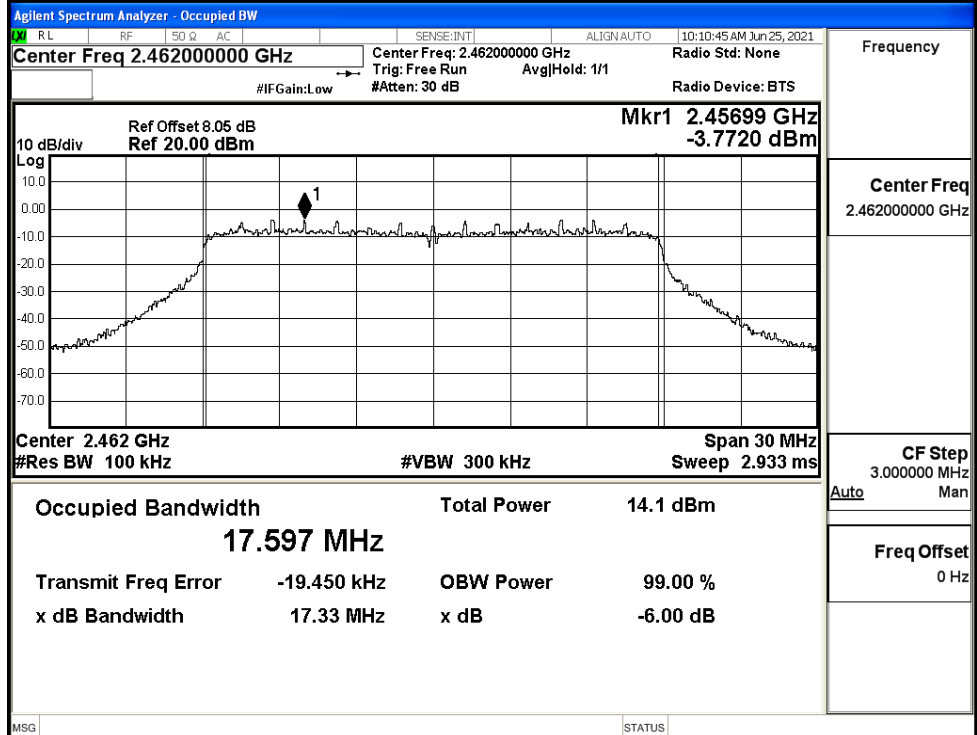
11N20SISO/MCH



Frequency

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

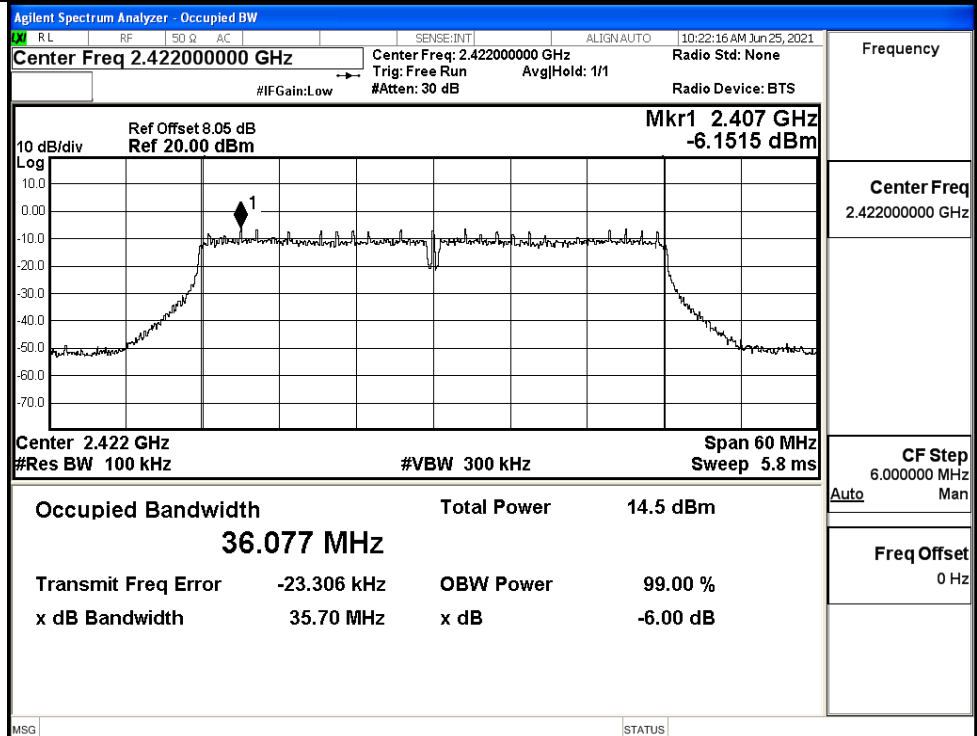
11N20SISO/HCH



Frequency

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

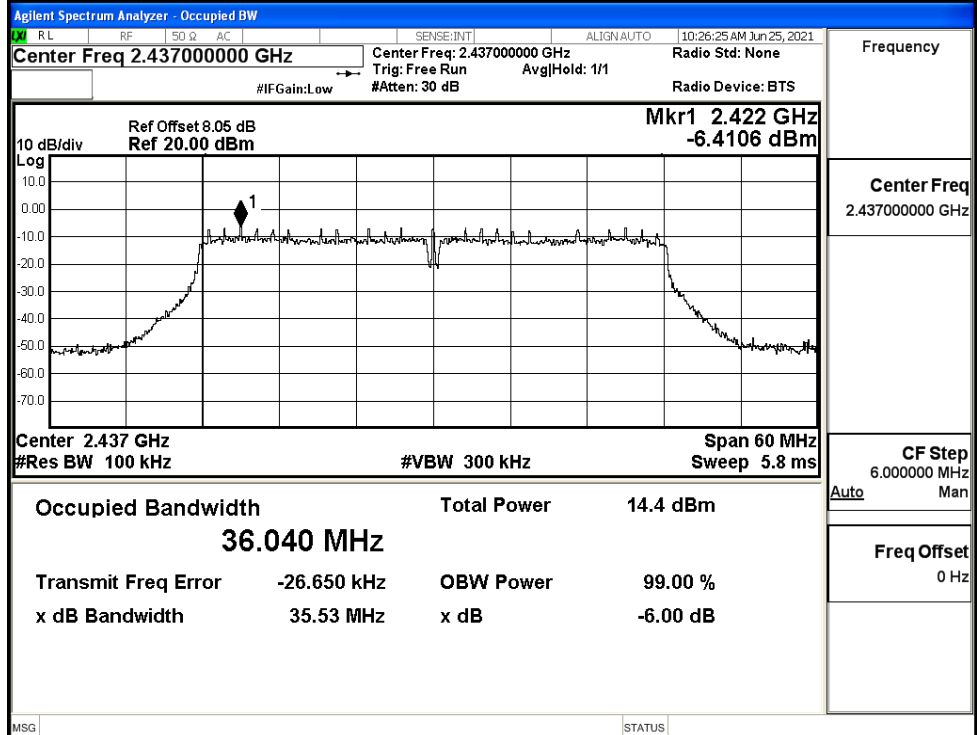
11N40SISO/LCH



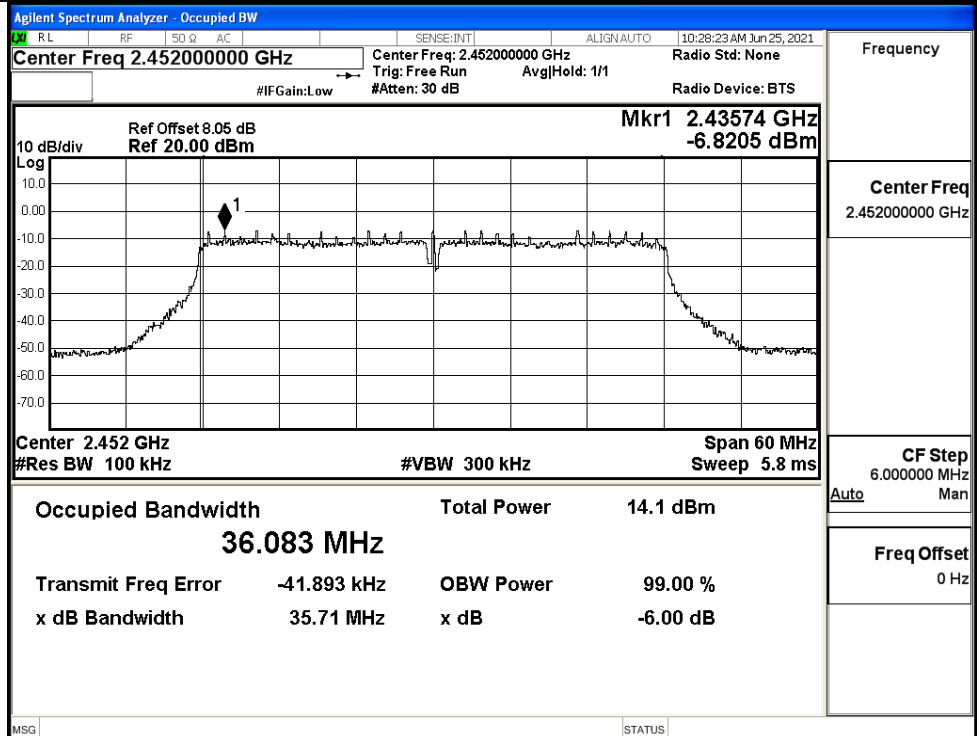
Frequency

Center Freq
2.422000000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

11N40SISO/MCH



11N40SISO/HCH



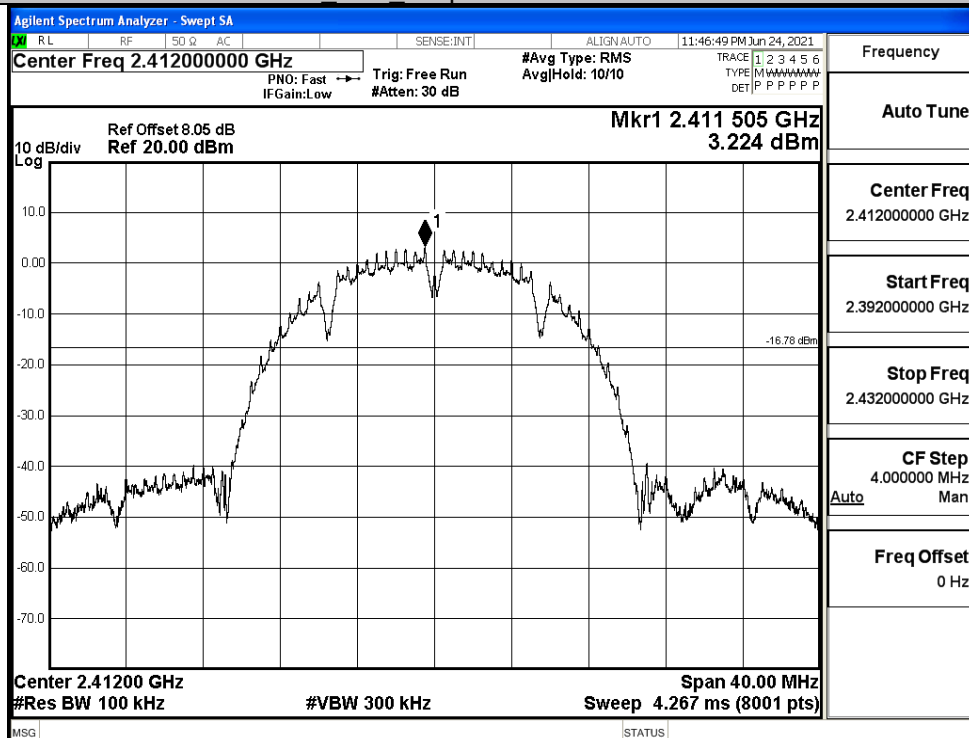
A.5 RF Conducted Spurious Emissions

ANT0

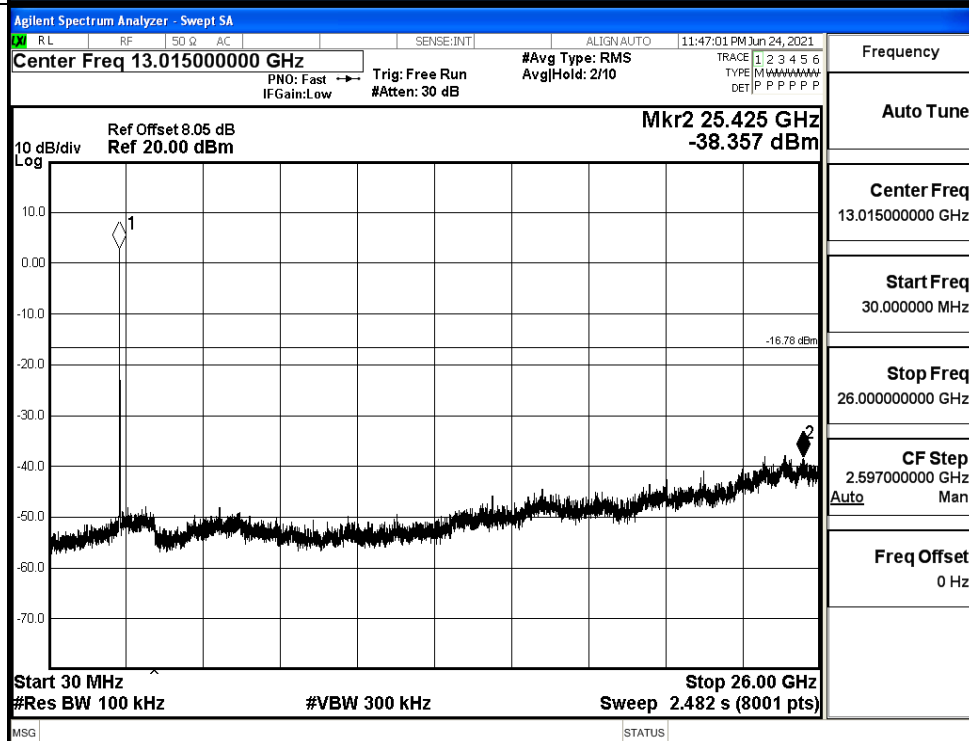
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	3.224	-38.357	-16.776	PASS
	MCH	3.083	-38.111	-16.917	PASS
	HCH	2.25	-37.675	-17.750	PASS
11G	LCH	-1.723	-38.194	-21.723	PASS
	MCH	-3.655	-38.047	-23.655	PASS
	HCH	-5.871	-38.587	-25.871	PASS
11N20 SISO	LCH	-6.083	-38.359	-26.083	PASS
	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

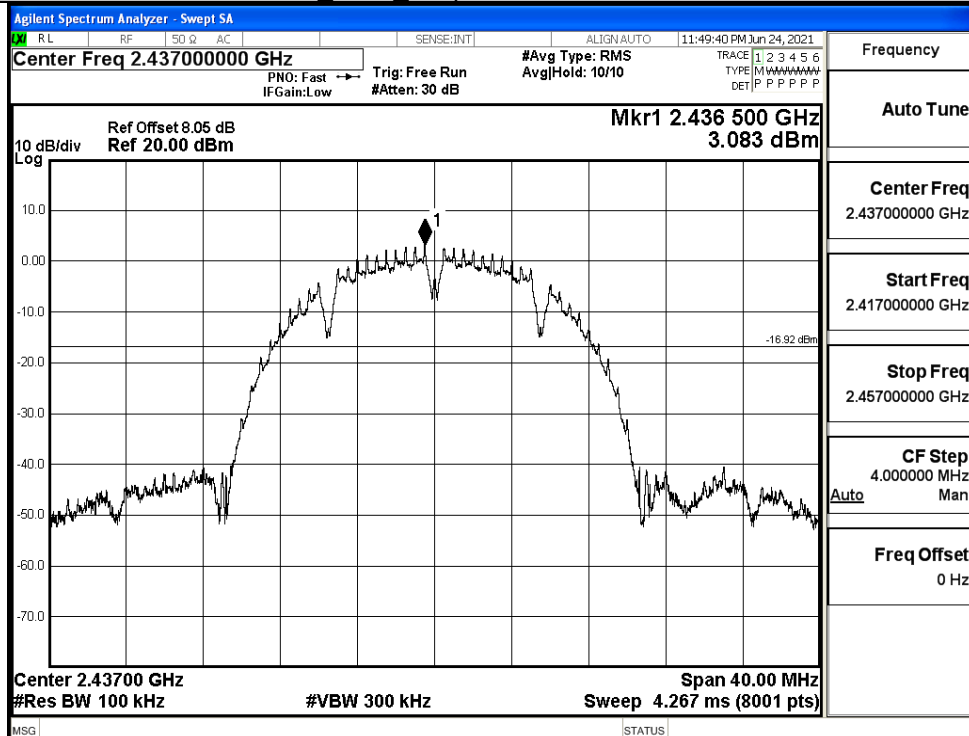


Puw/11B/LCH

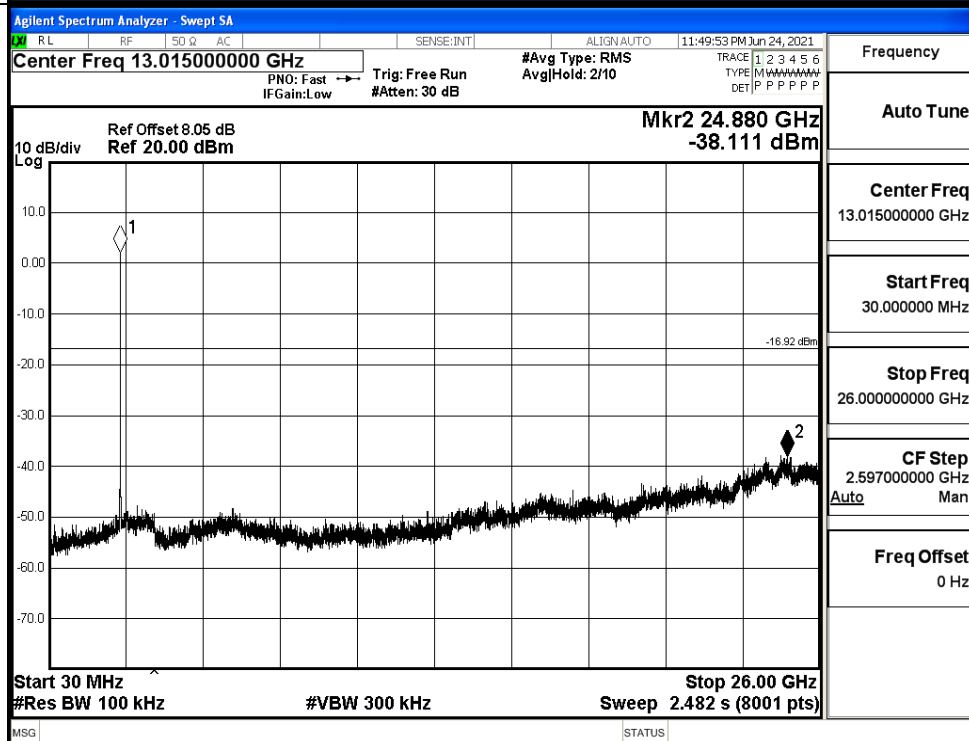


11B MCH Graphs

Pref/11B/MCH

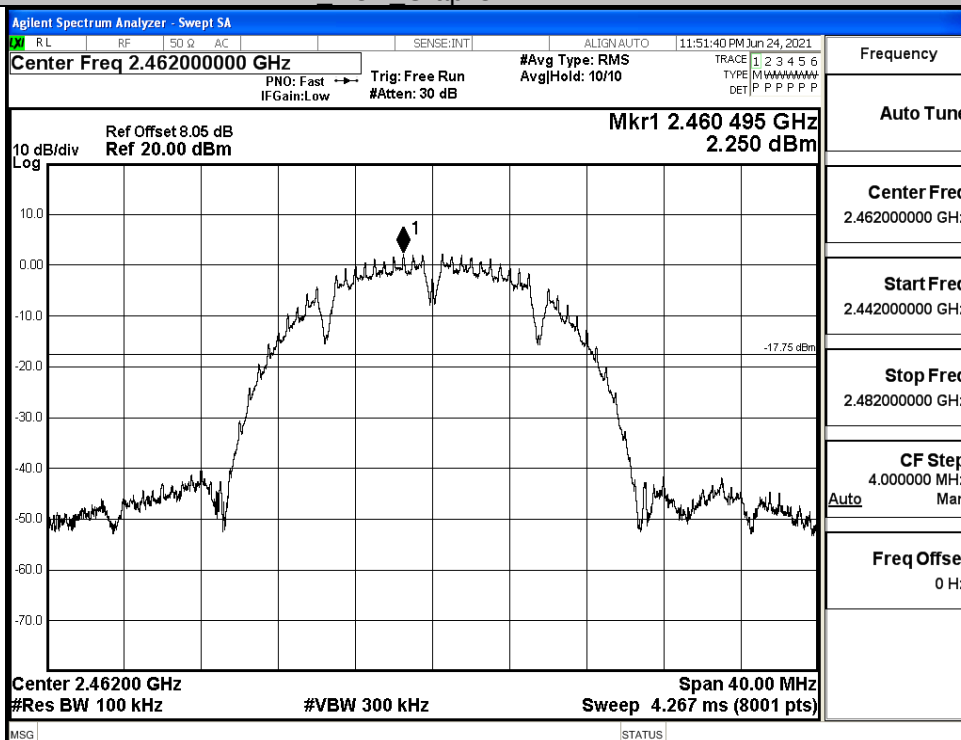


Puw/11B/MCH

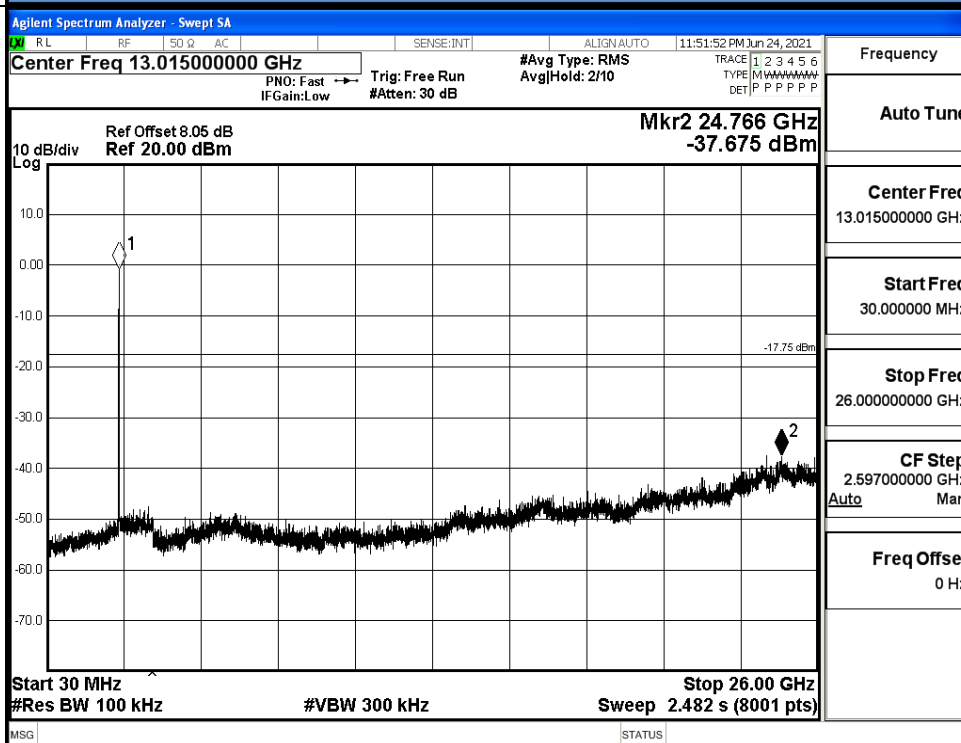


11B HCH Graphs

Pref/11B/HCH

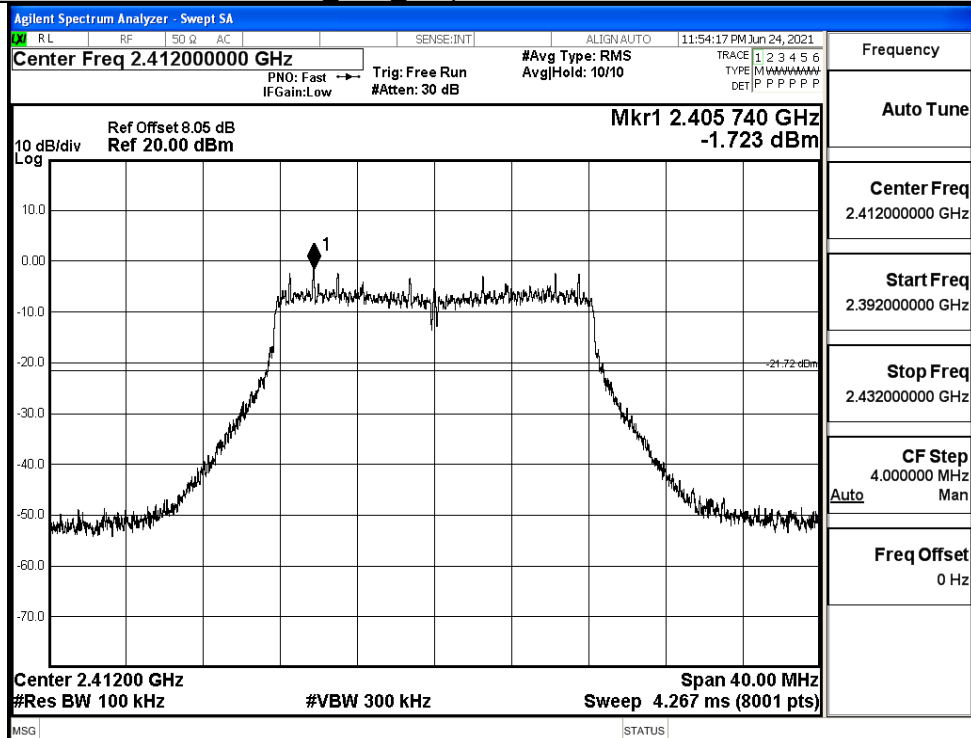


Puw/11B/HCH

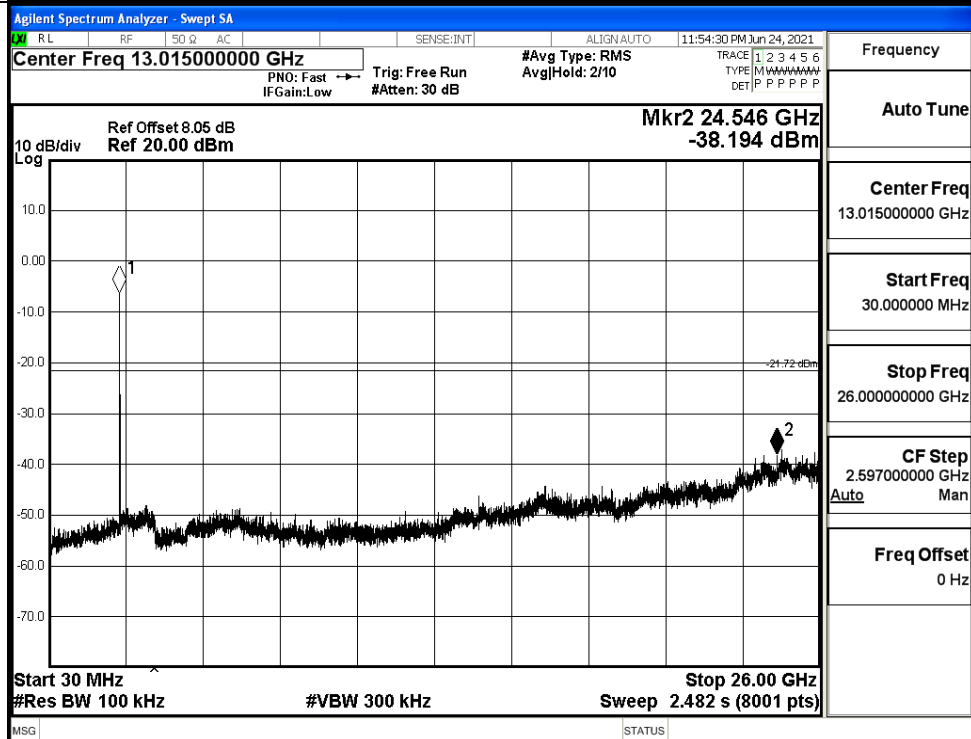


11G LCH Graphs

Pref/11G/LCH

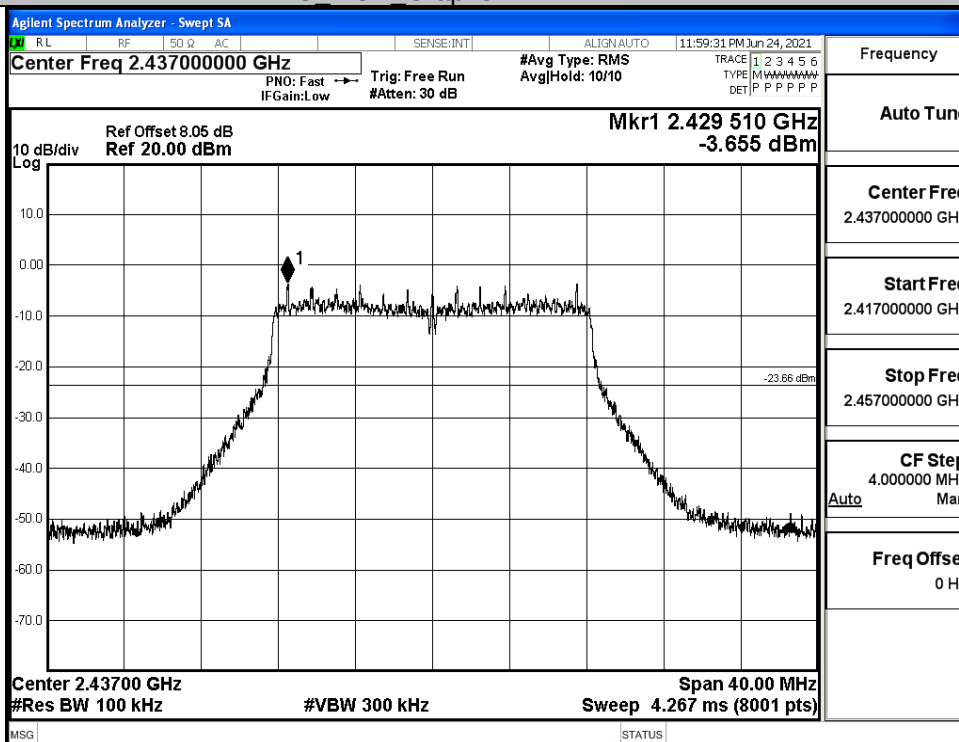


Puw/11G/LCH

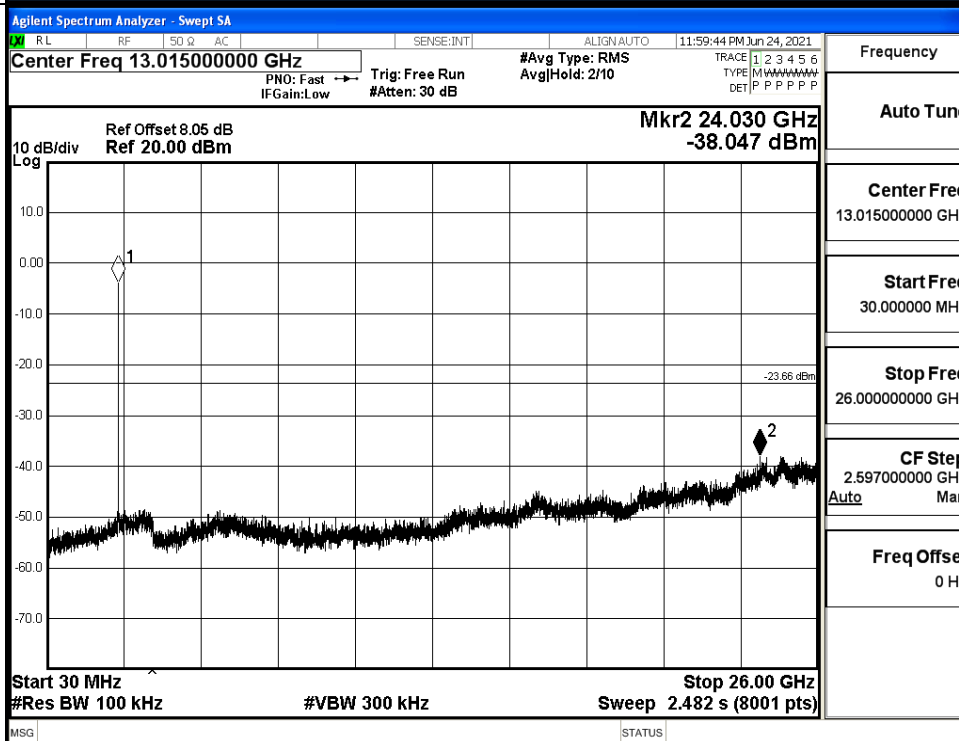


11G MCH Graphs

Pref/11G/MCH

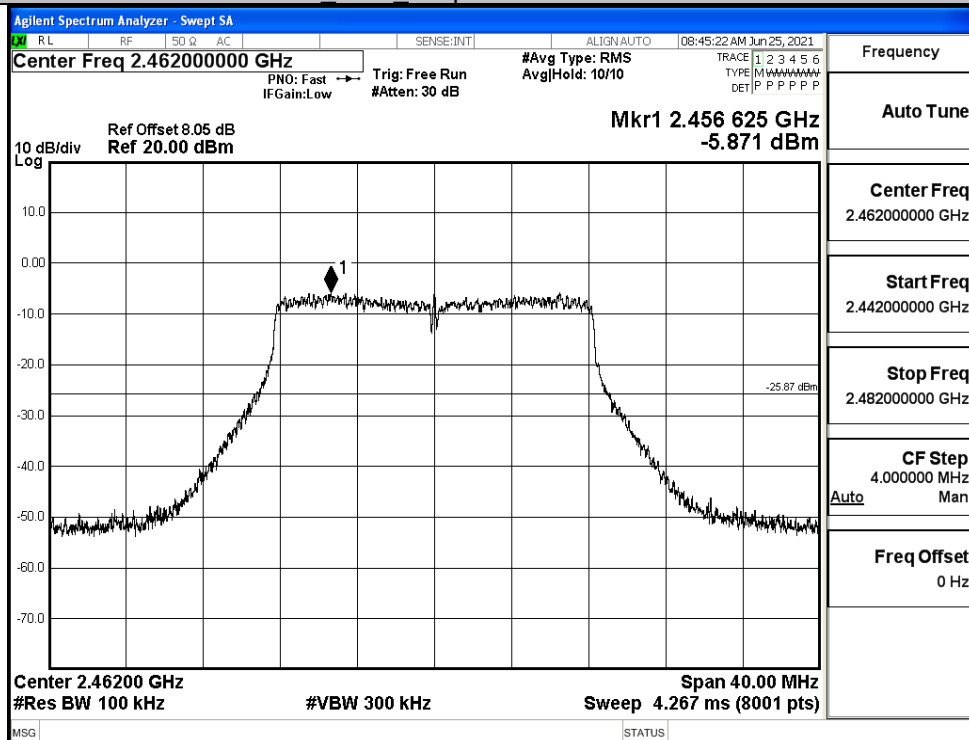


Puw/11G/MCH

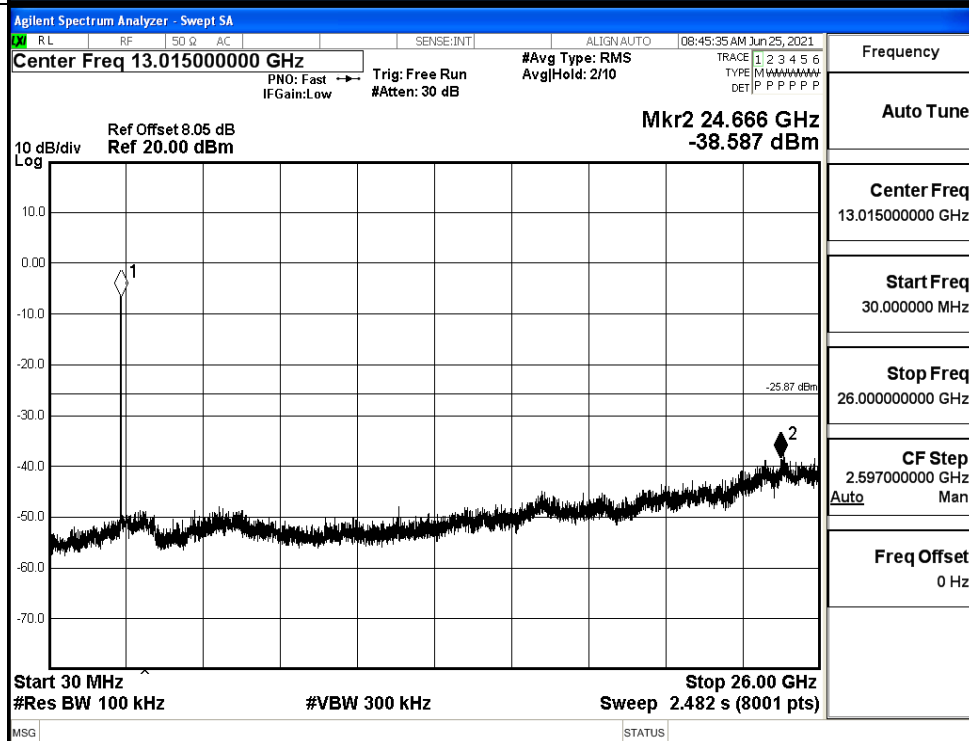


11G HCH Graphs

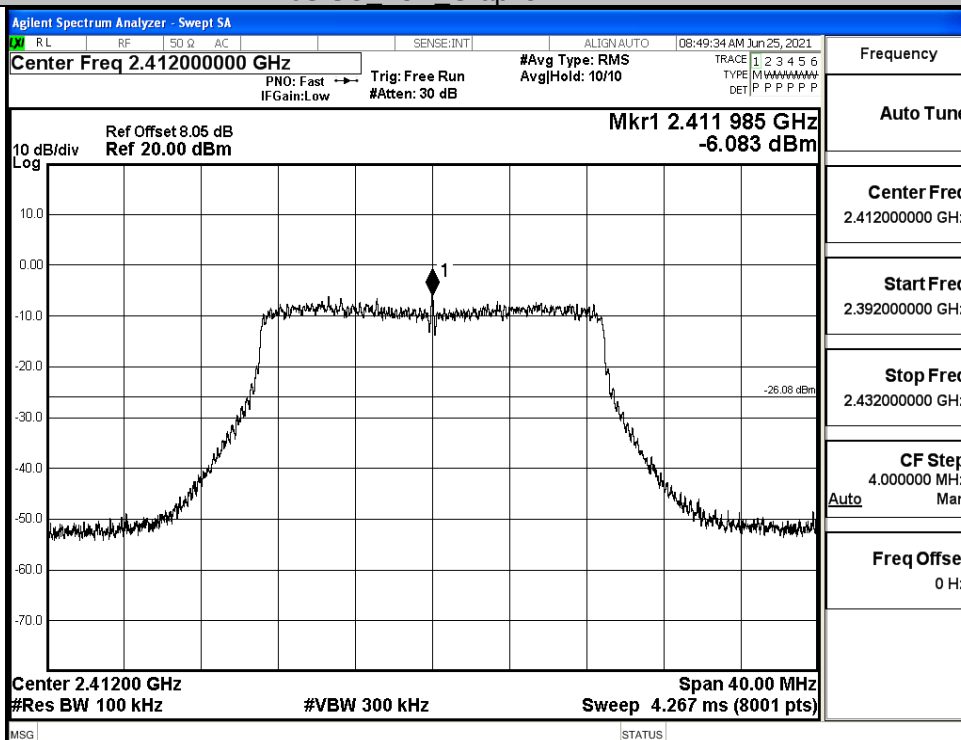
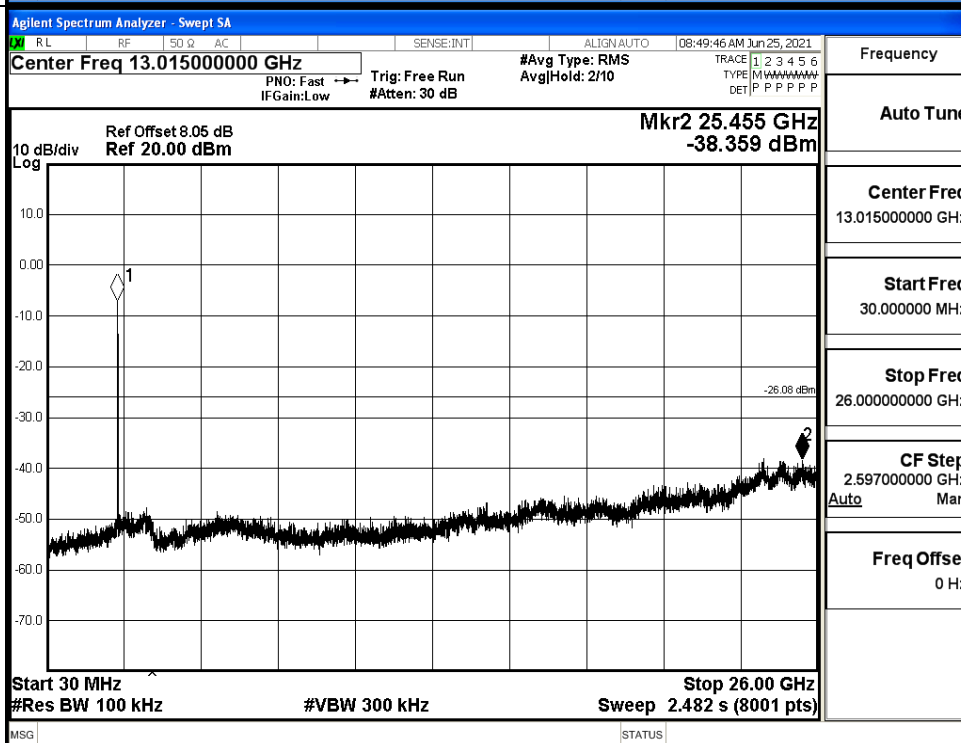
Pref/11G/HCH



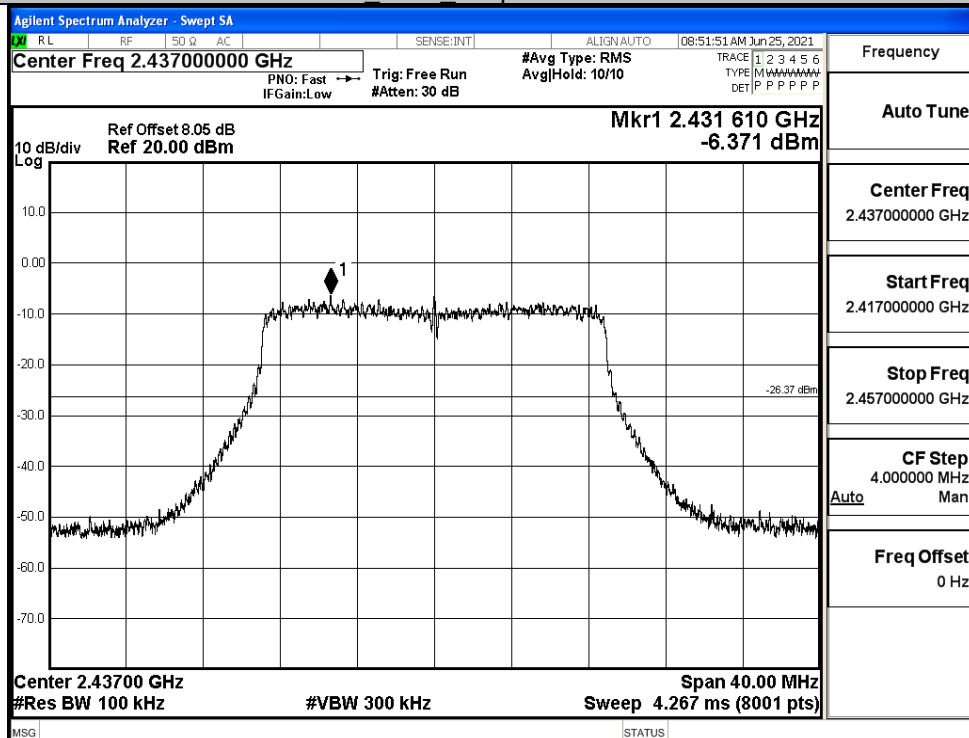
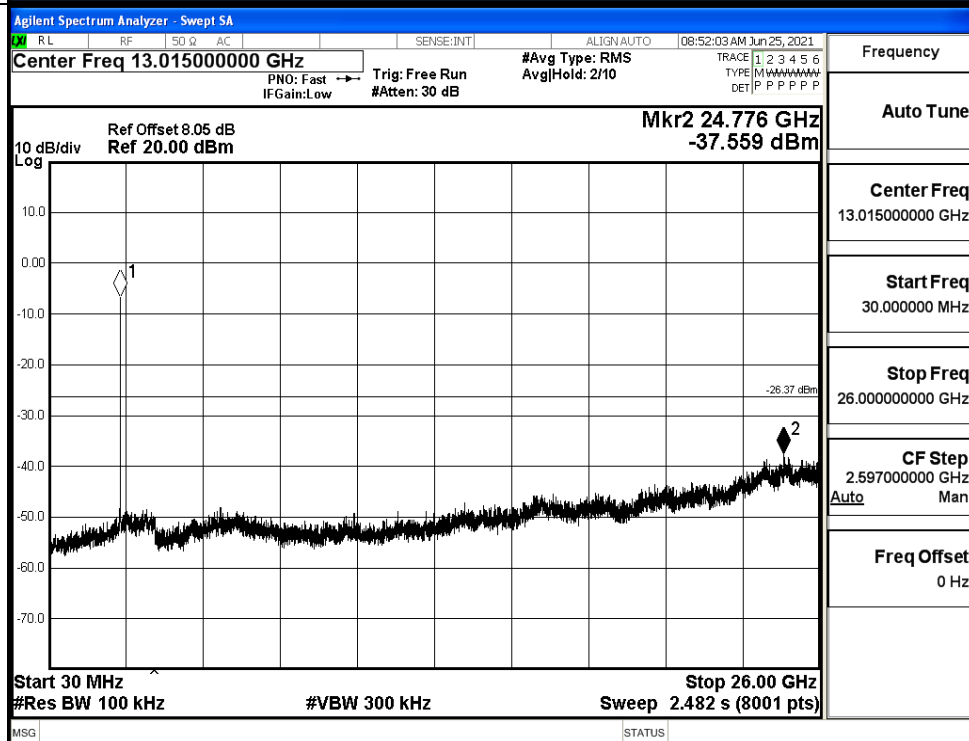
Puw/11G/HCH



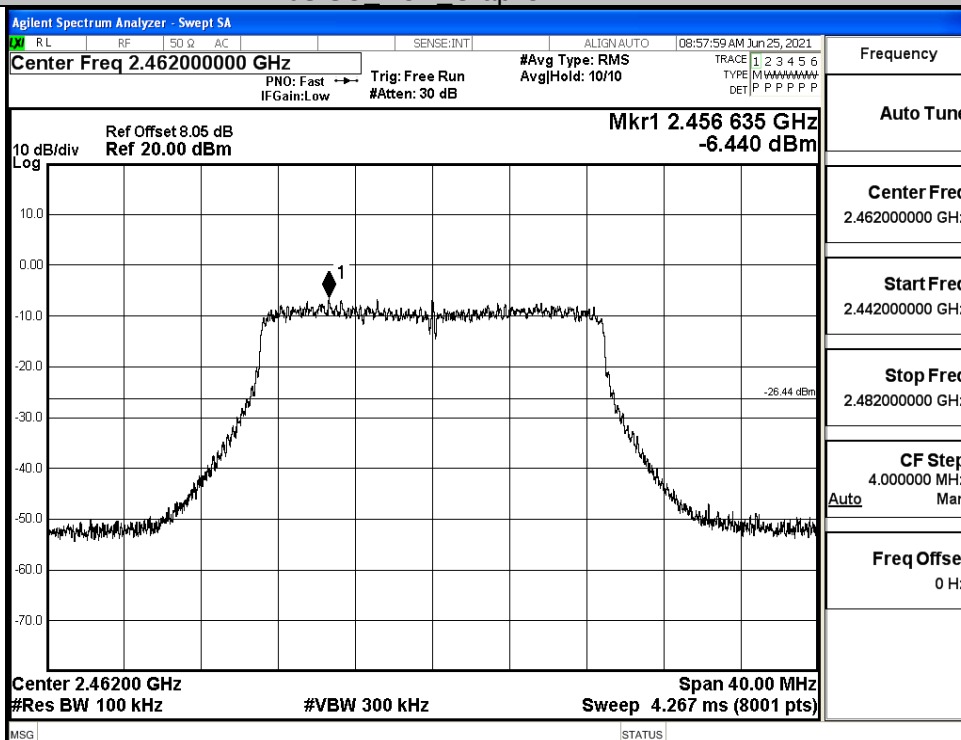
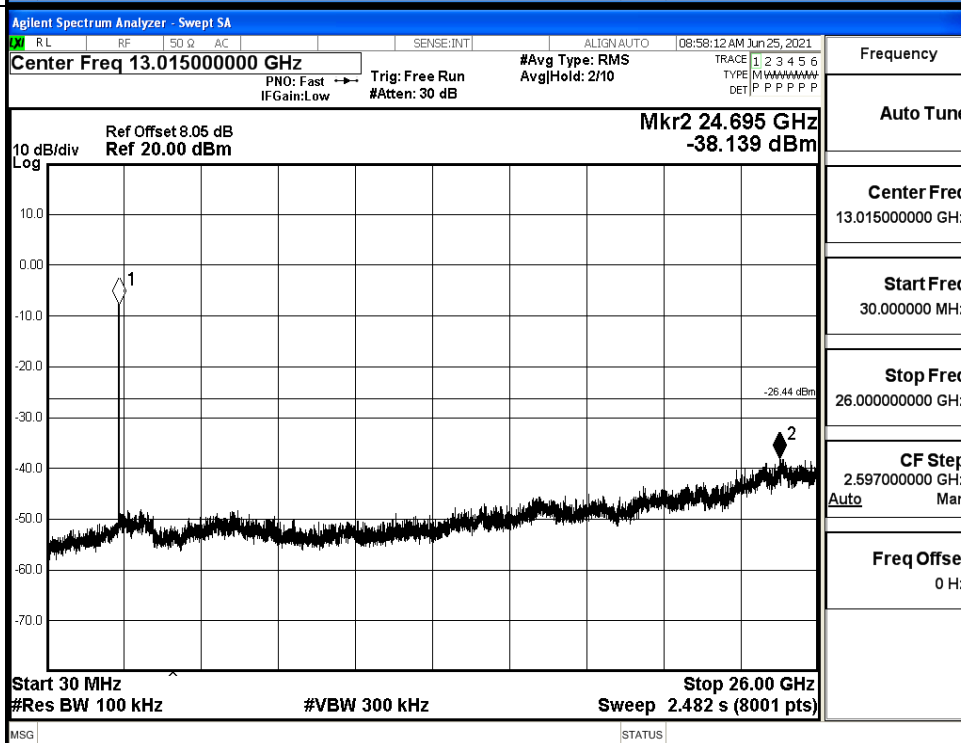
11N20SISO LCH Graphs

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

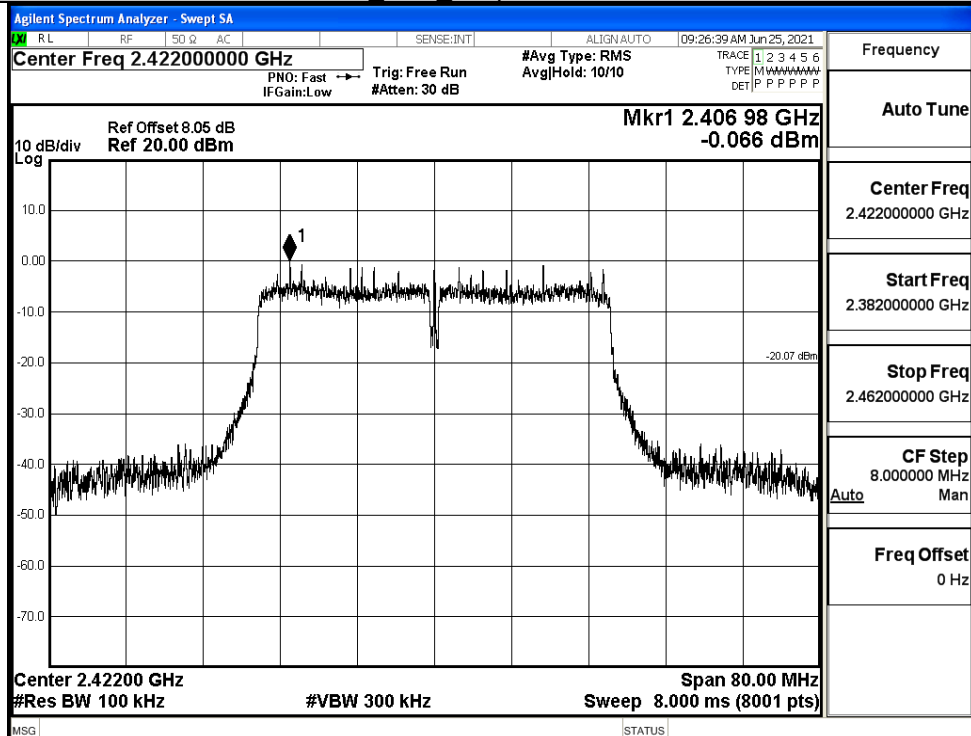
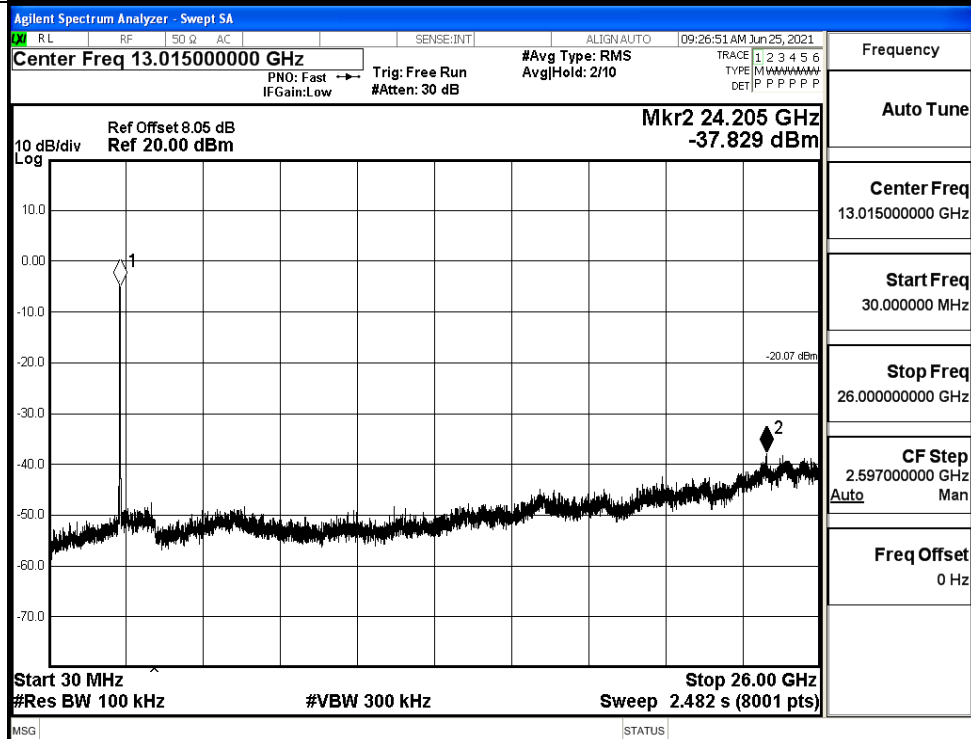
11N20SISO MCH Graphs

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

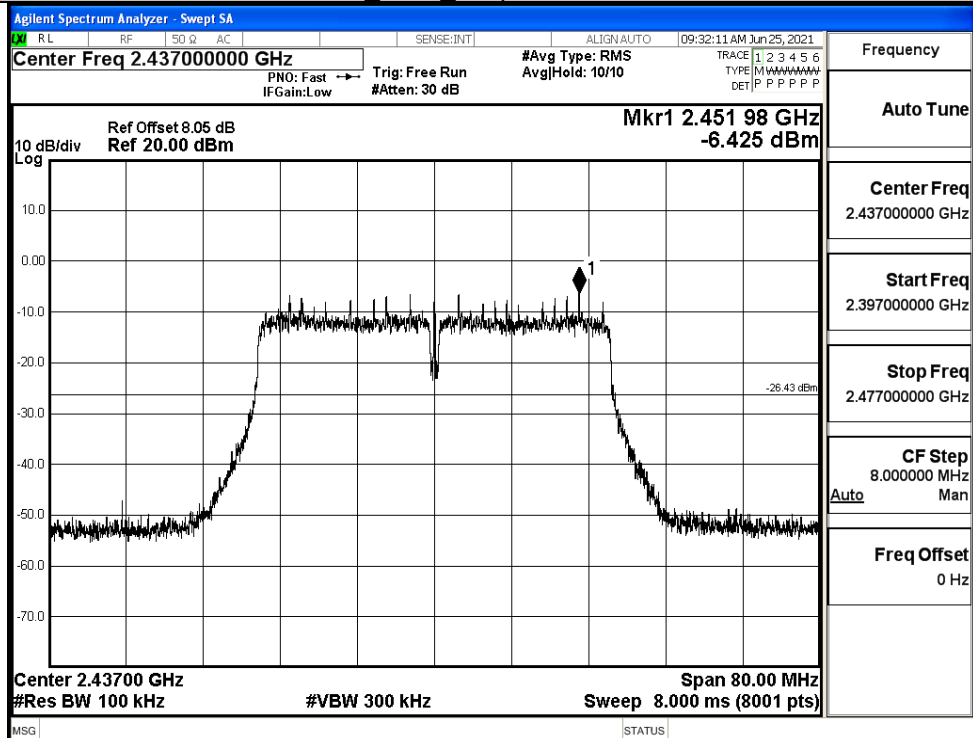
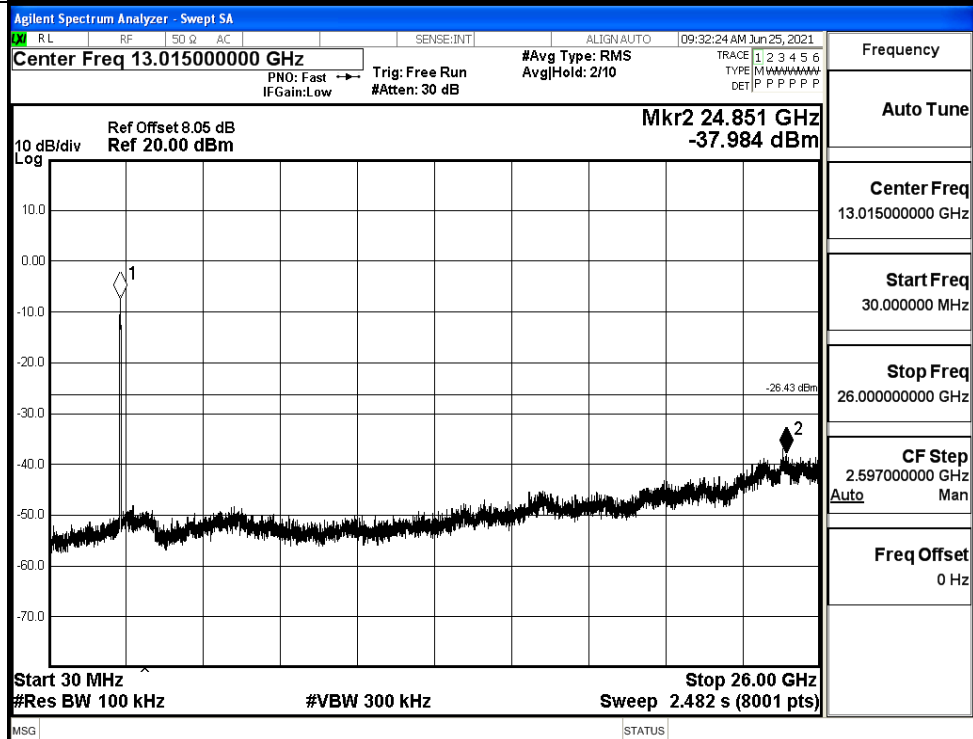
11N20SISO HCH Graphs

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

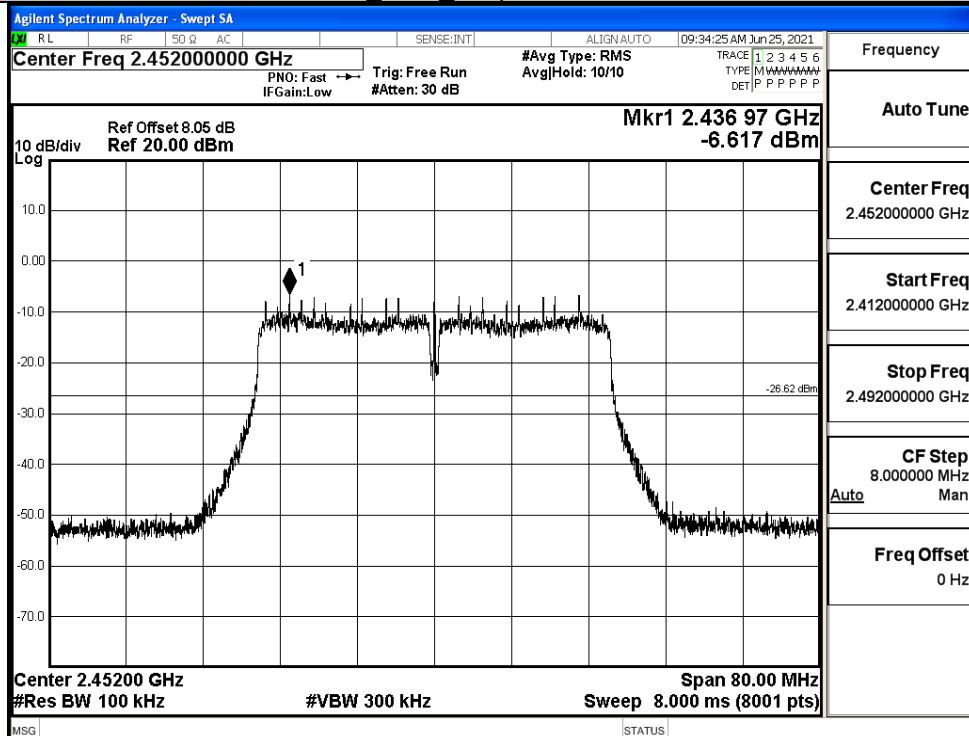
11N40SISO LCH Graphs

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