

Appendix A
RF Test Data for 2.4G WIFI (Conducted Measurement)
Product Name: Smart WIFI Strip Light Kit
Trade Mark: N/A
Test Model: AC1275-RWF-24LFW-G

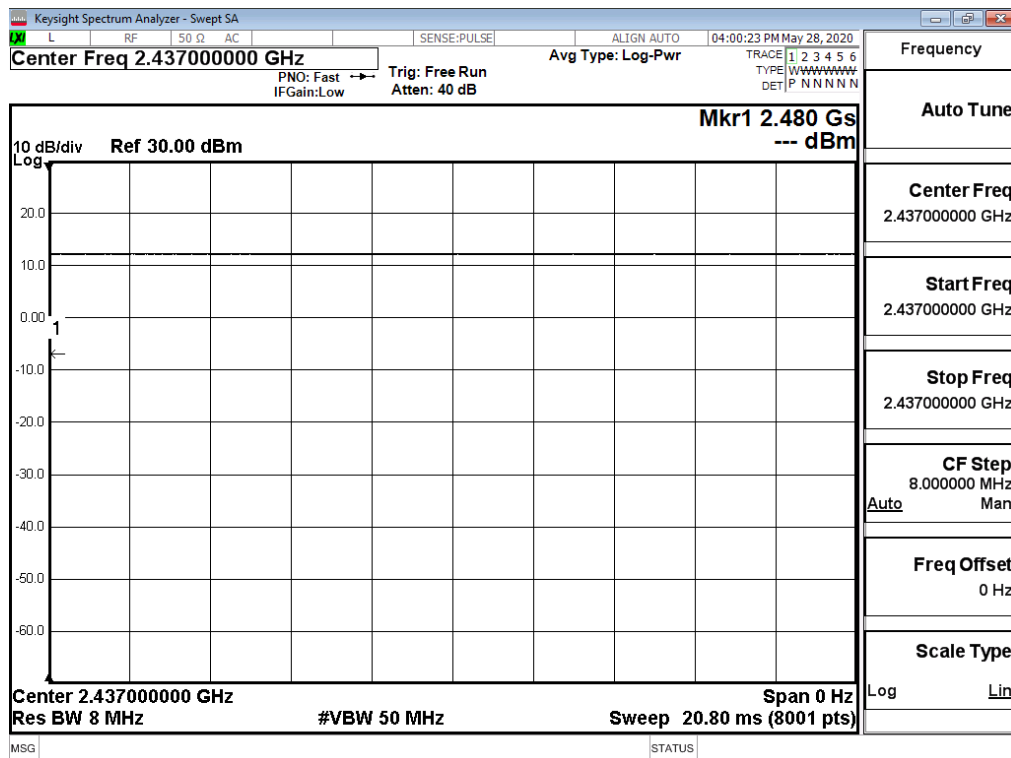
Environmental Conditions

Temperature:	23.7 ° C
Relative Humidity:	53.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

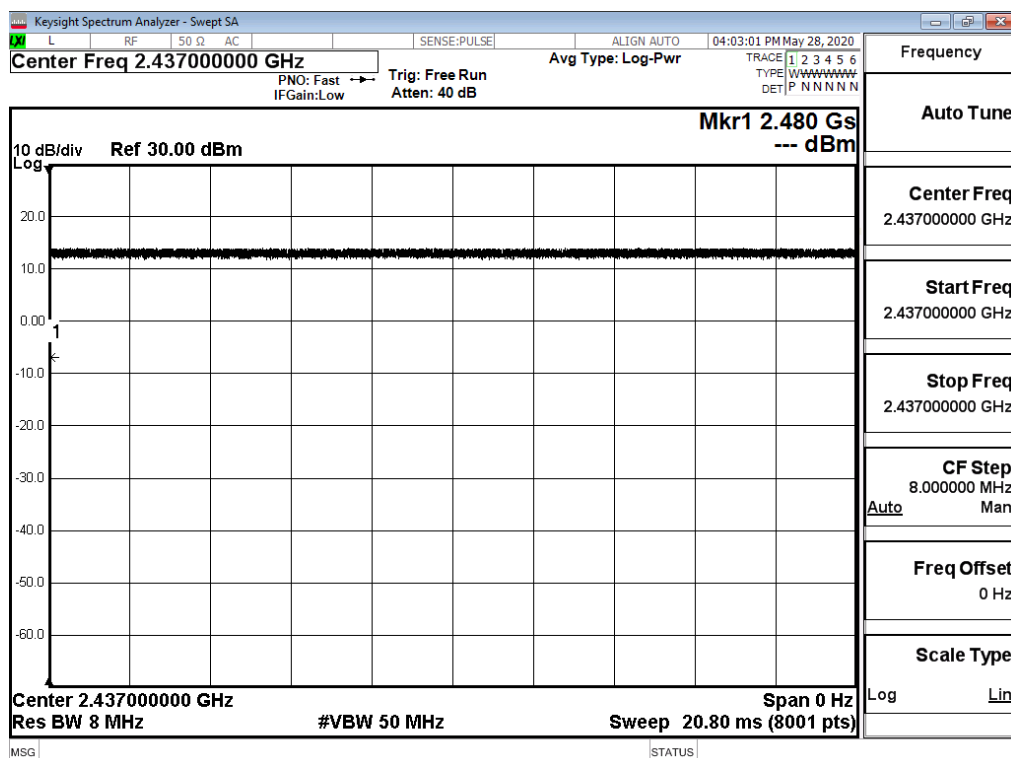
A.1 Duty Cycle

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

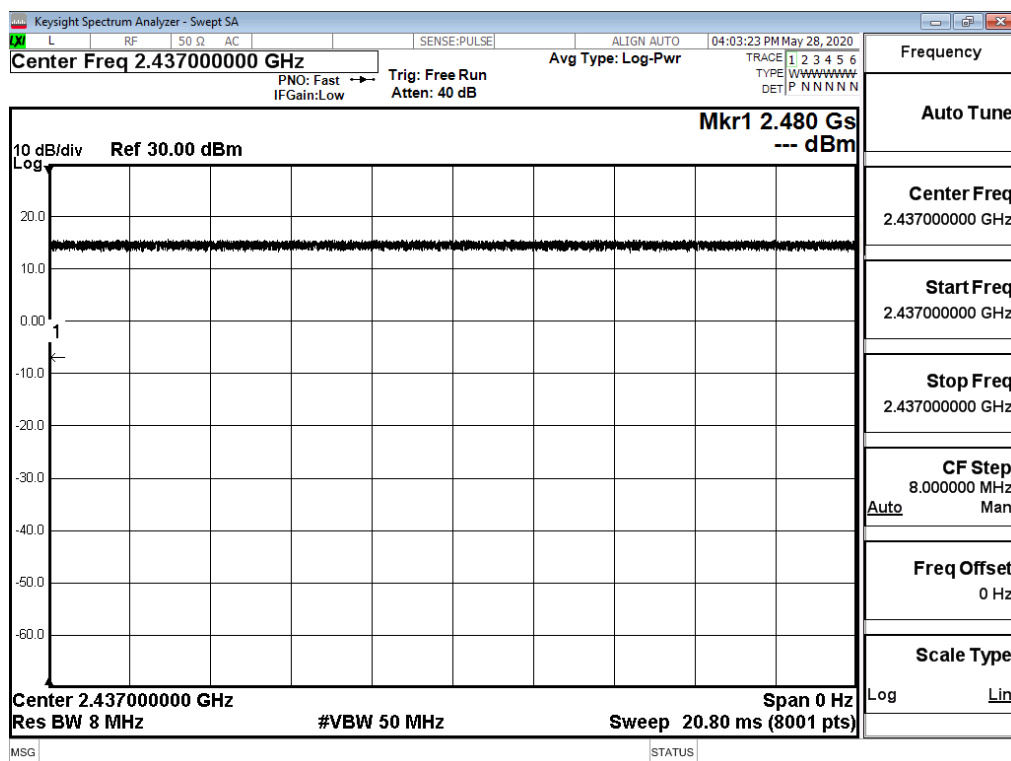
Duty Cycle_11B_2437_Ant1



Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1

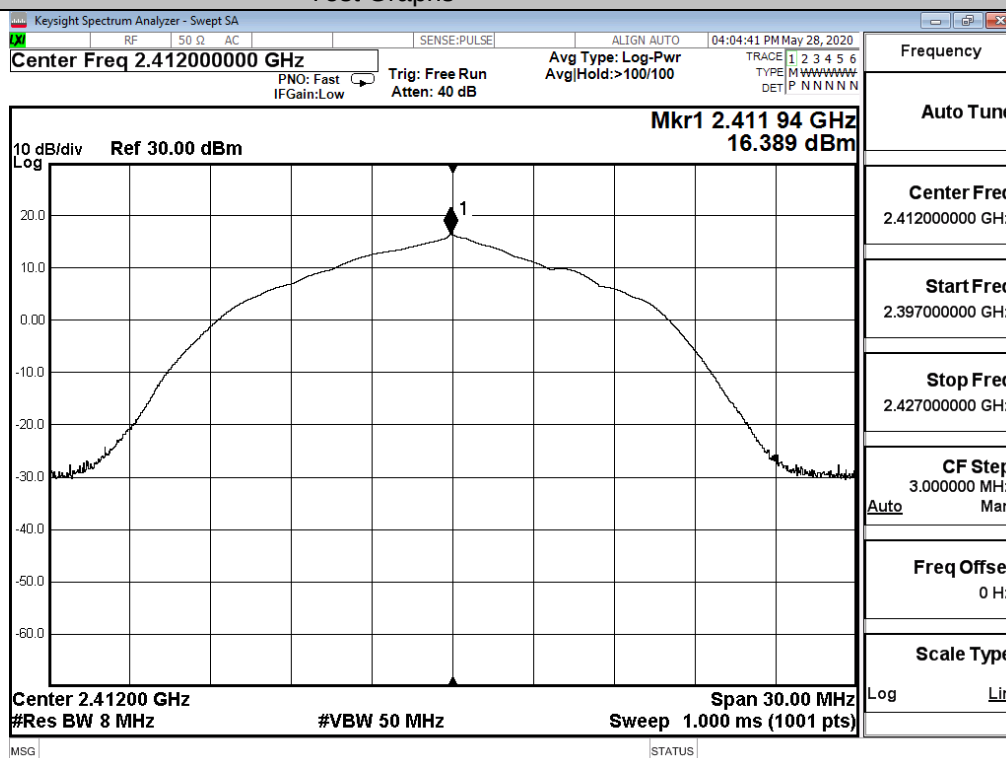


A.2 Maximum Conducted Output Power

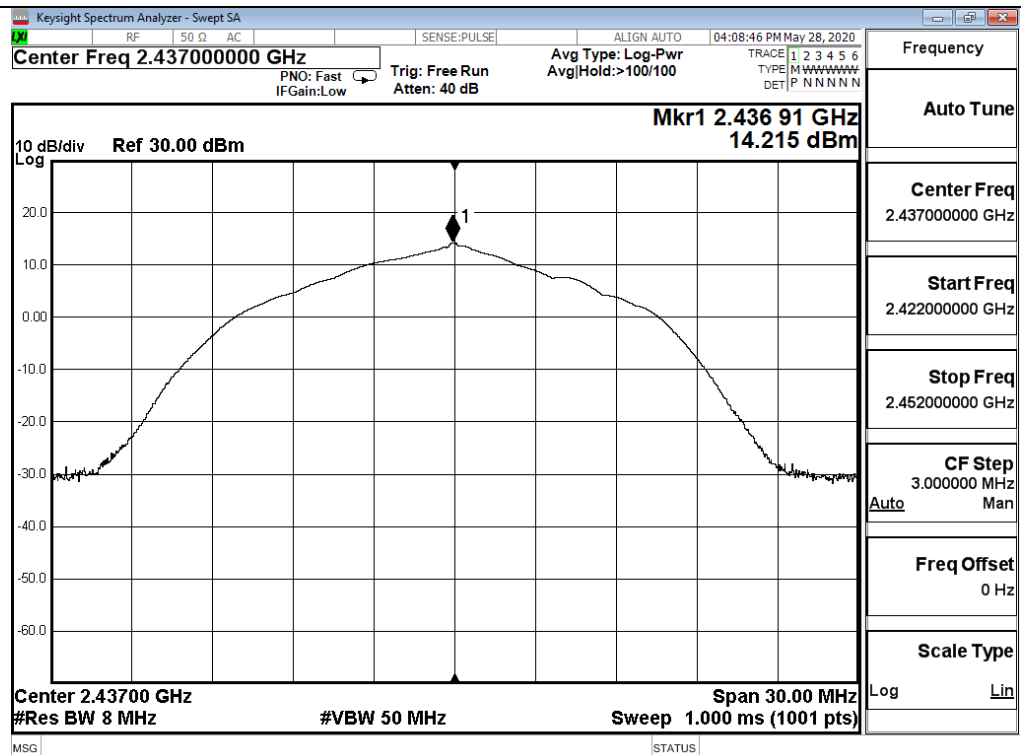
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	16.389	30	PASS
	MCH	14.215	30	PASS
	HCH	11.820	30	PASS
11G	LCH	17.646	30	PASS
	MCH	15.835	30	PASS
	HCH	13.790	30	PASS
11N20SISO	LCH	17.670	30	PASS
	MCH	16.082	30	PASS
	HCH	13.940	30	PASS

Test Graphs

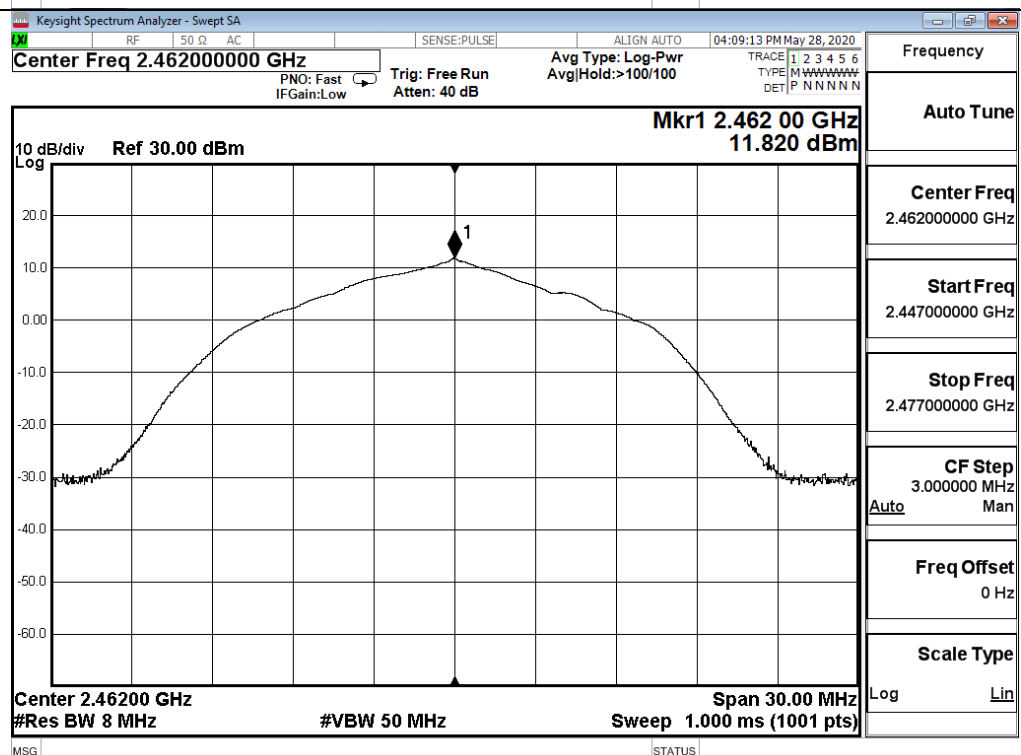
11B/LCH



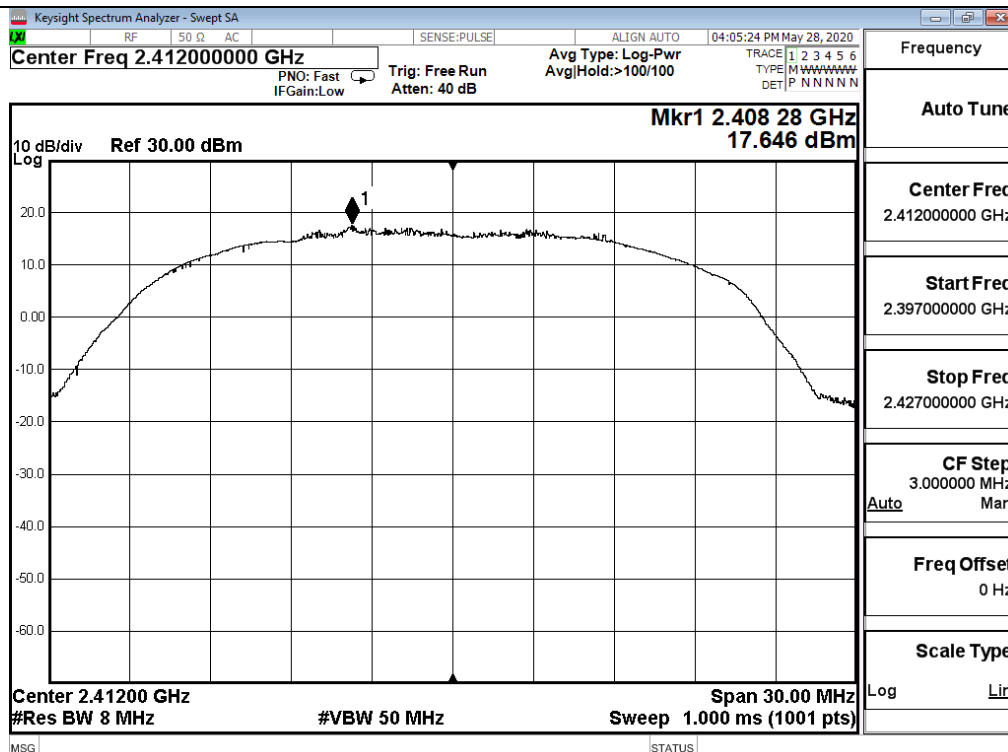
11B/MCH



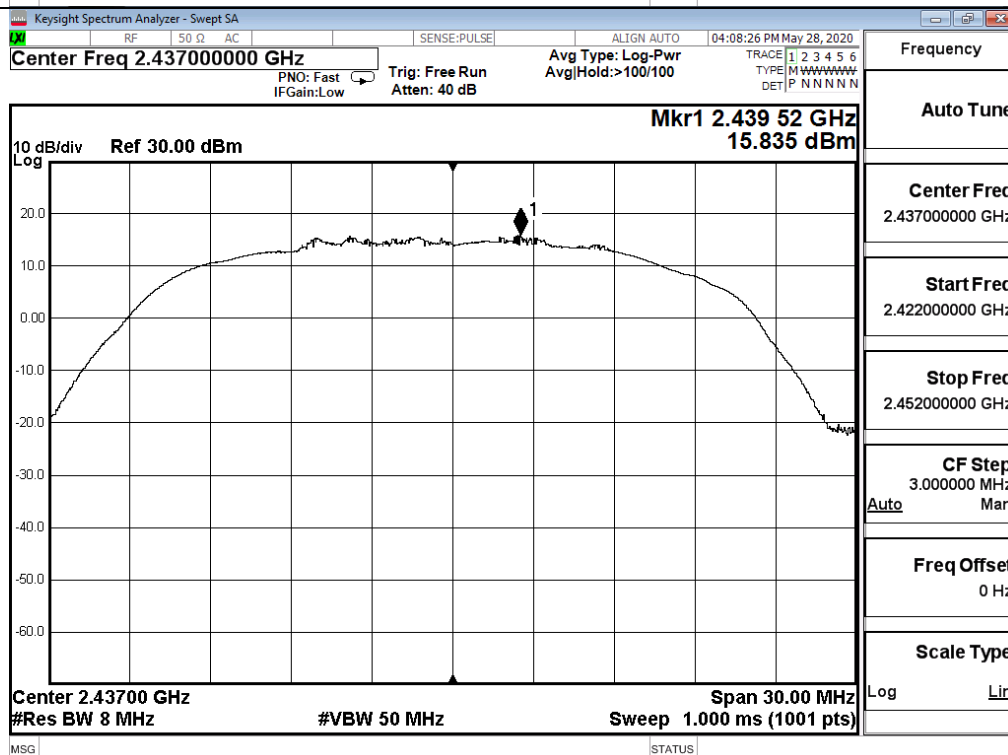
11B/HCH



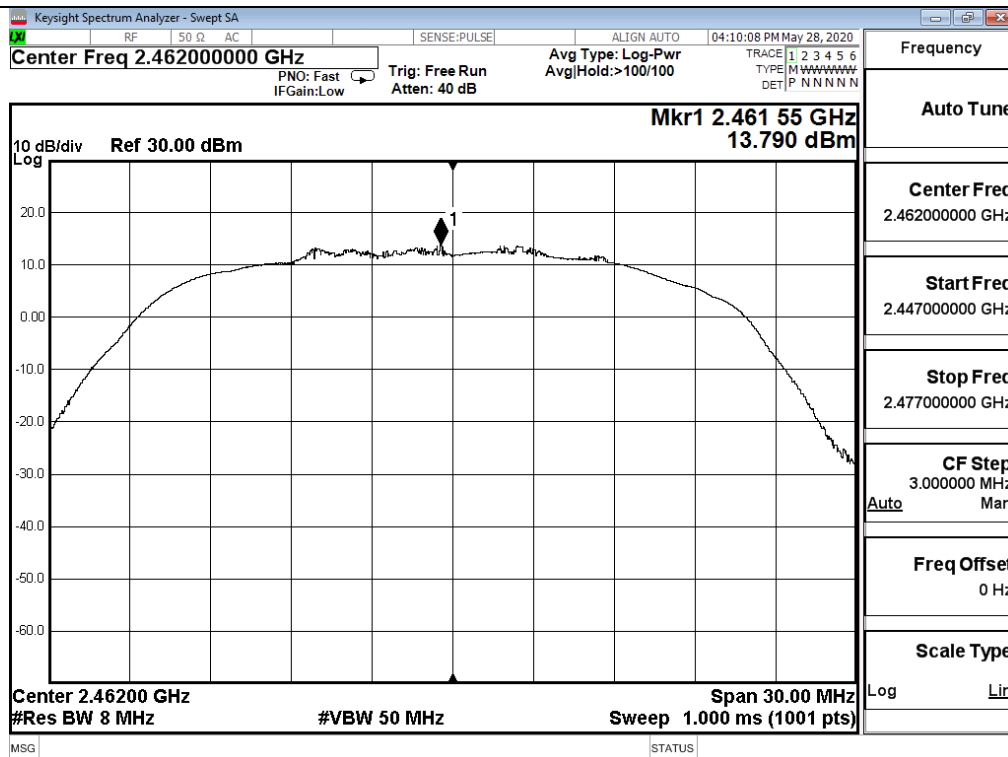
11G/LCH



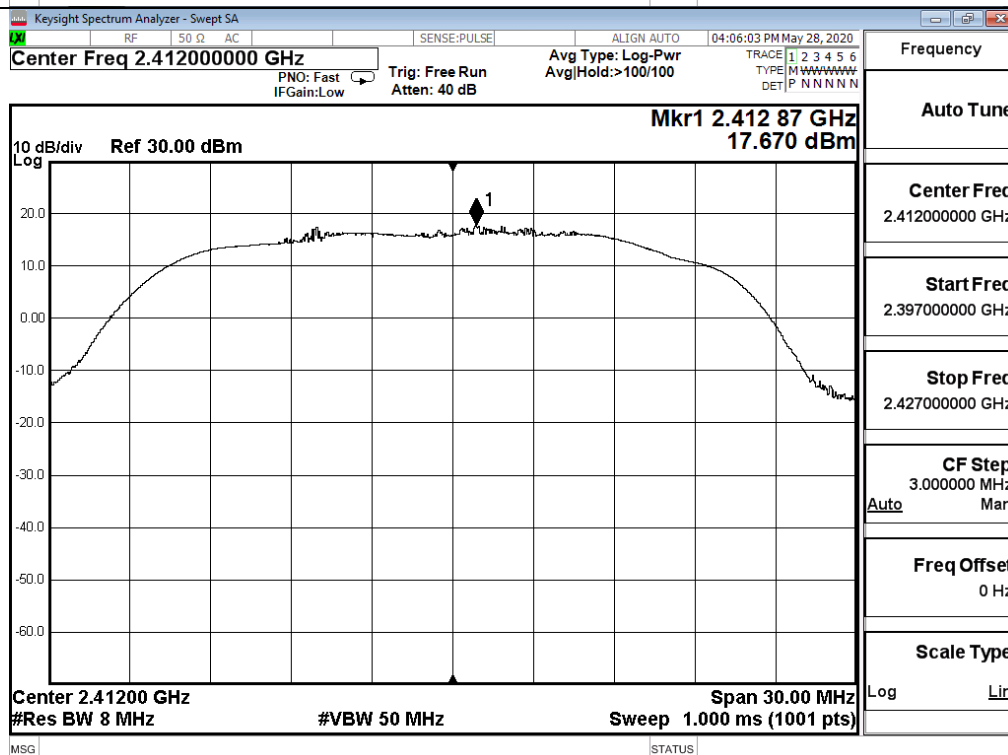
11G/MCH



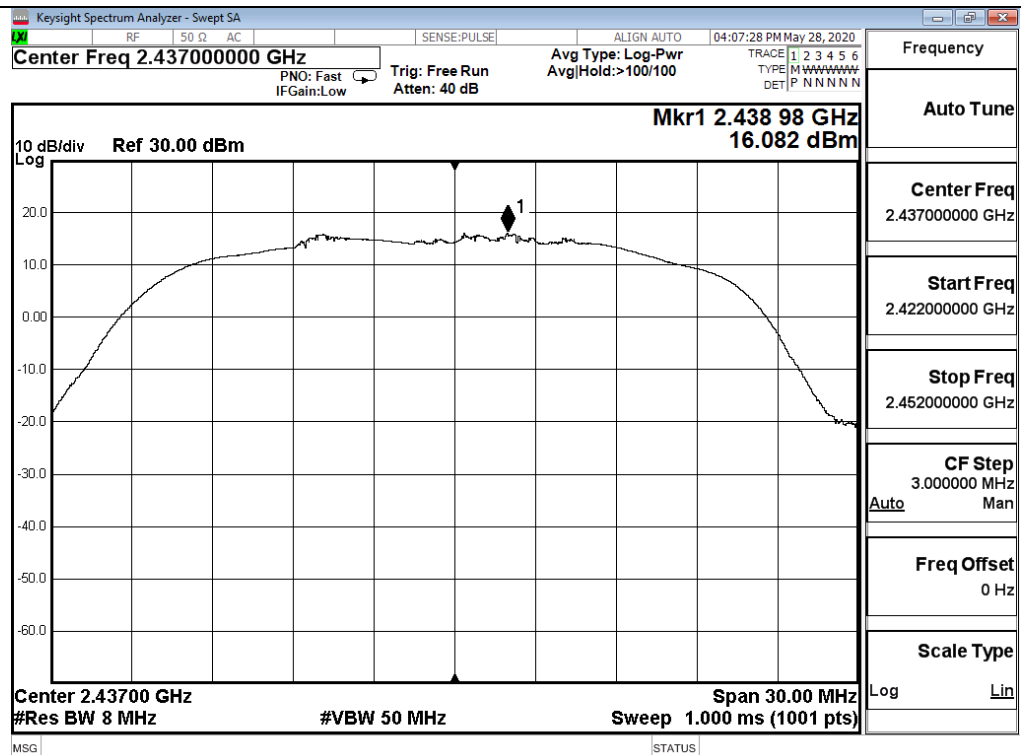
11G/HCH



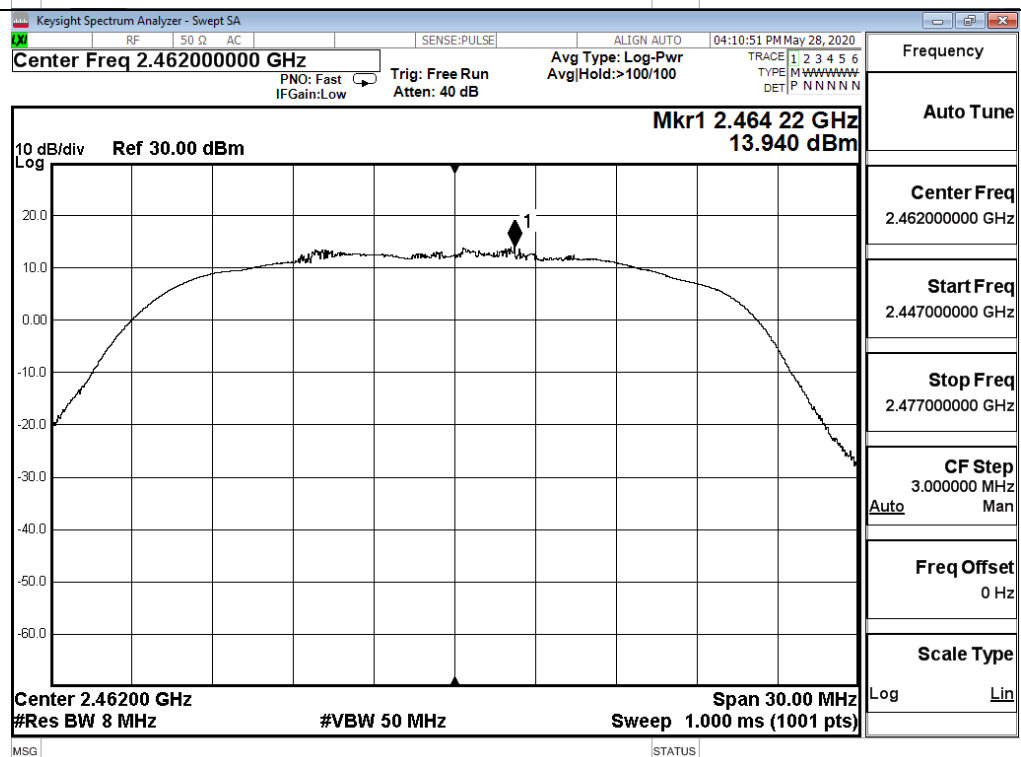
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH

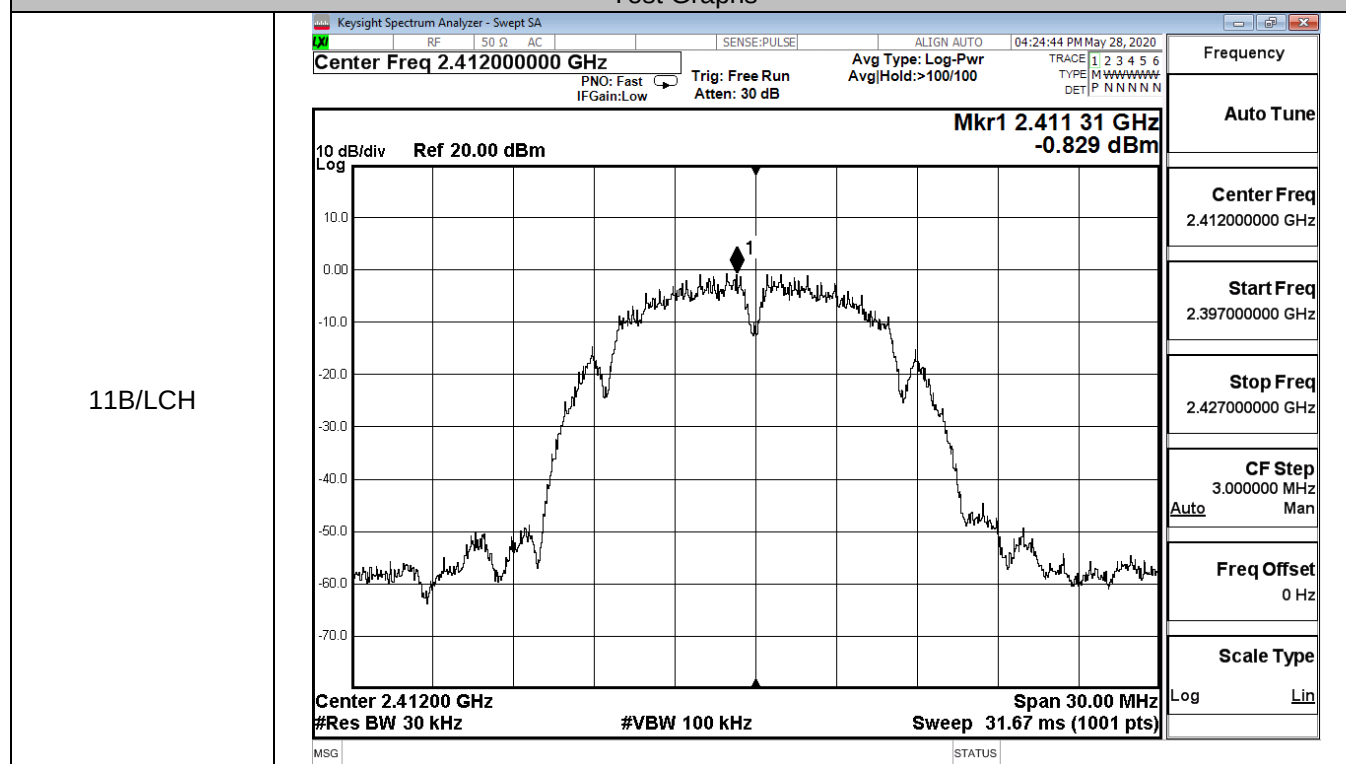


A.3 Maximum Power Spectral Density

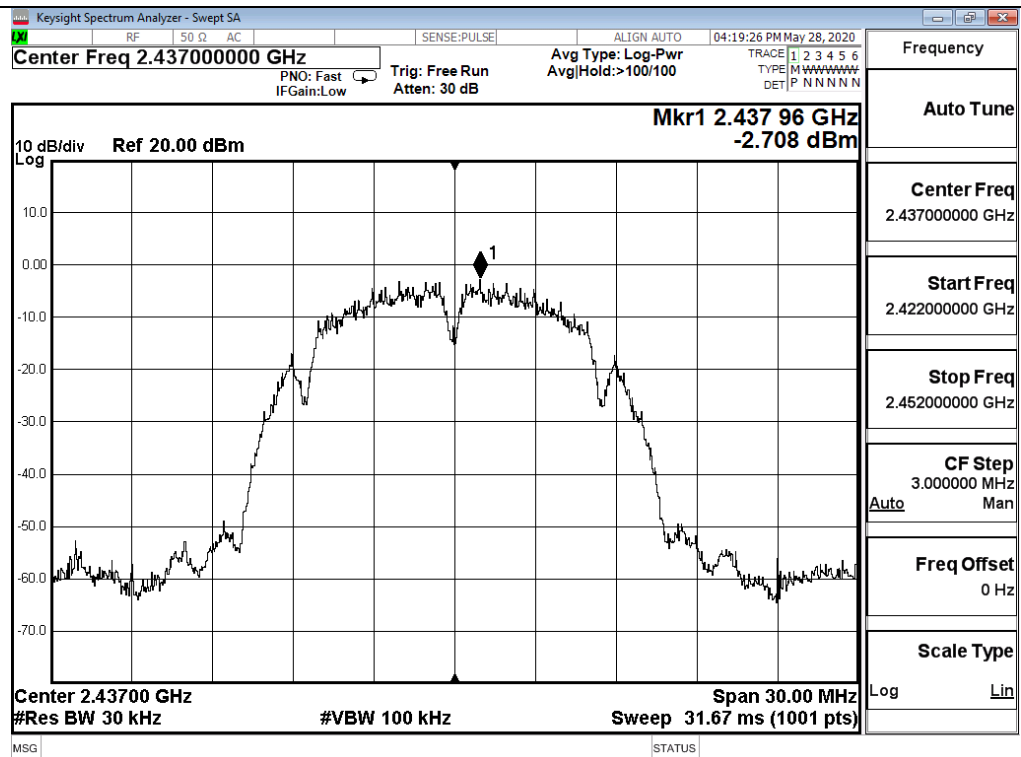
Mode	Channel	Meas.Level [dBm/30KHz]	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-0.829	-10.829	8	PASS
	MCH	-2.708	-12.708	8	PASS
	HCH	-5.020	-15.020	8	PASS
11G	LCH	-5.583	-15.583	8	PASS
	MCH	-7.863	-17.863	8	PASS
	HCH	-10.221	-20.221	8	PASS
11N20SIS O	LCH	-5.089	-15.089	8	PASS
	MCH	-7.259	-17.259	8	PASS
	HCH	-9.513	-19.513	8	PASS

Note: $\text{Meas.Level [dBm/3KHz]} = \text{Meas.Level [dBm/30KHz]} - 10 \log(30 / 3)$

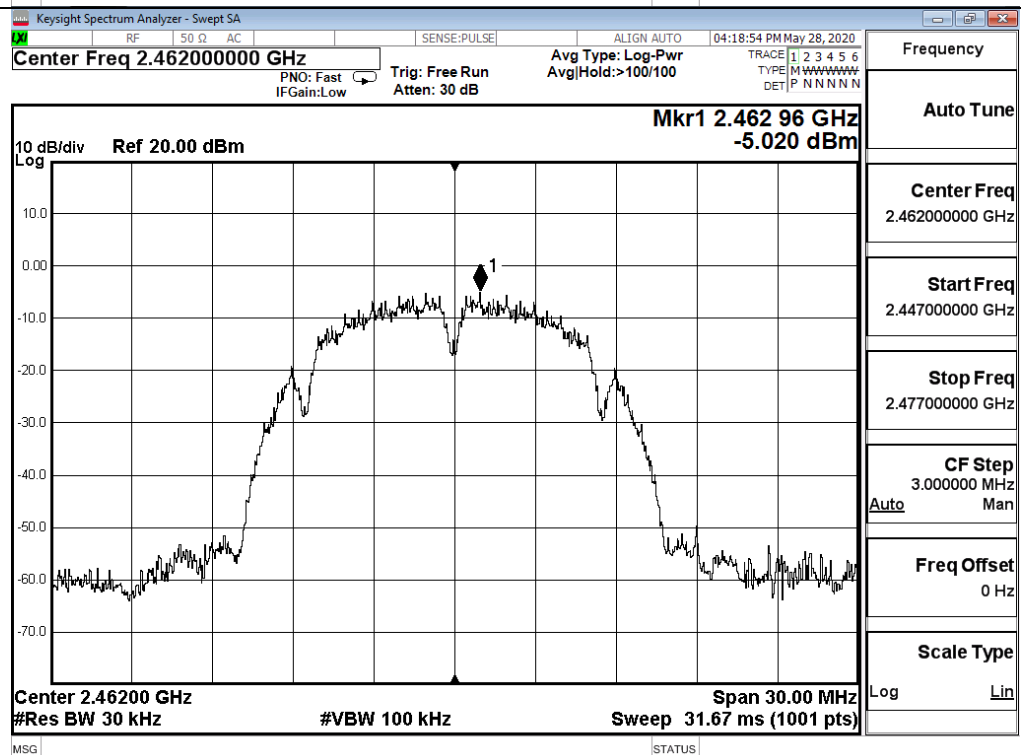
Test Graphs



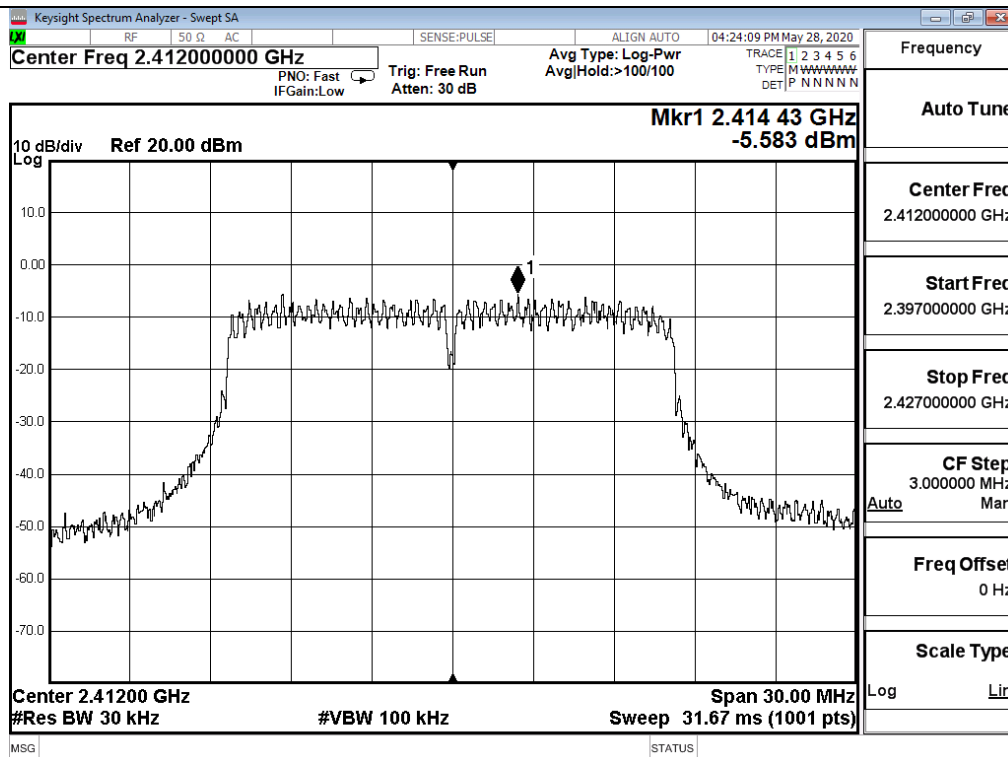
11B/MCH



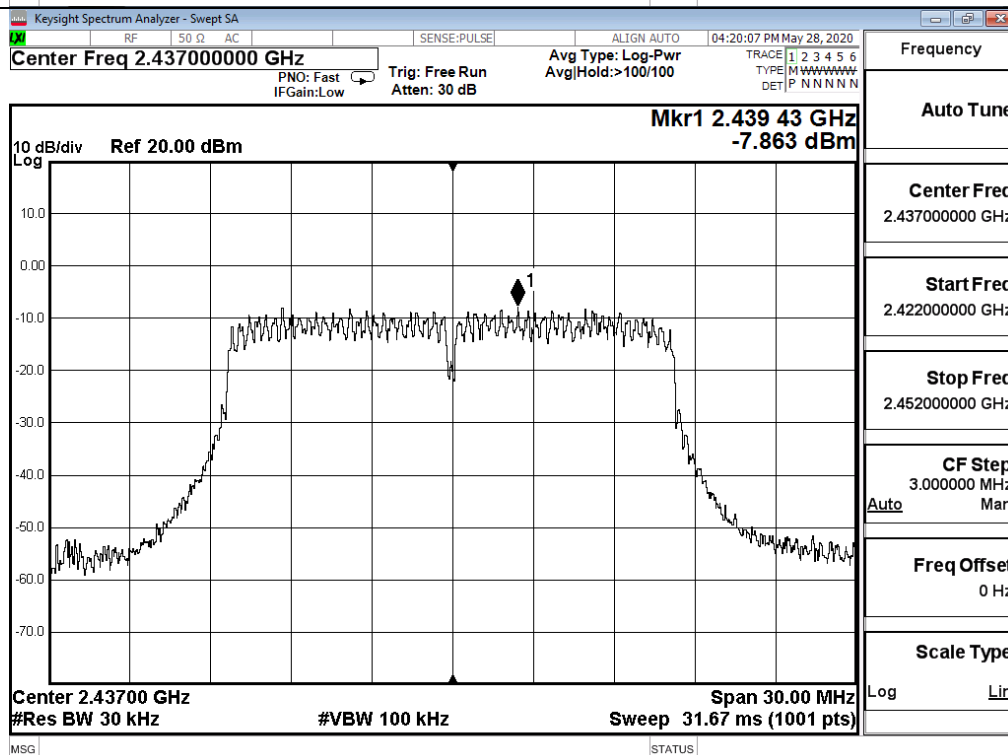
11B/HCH



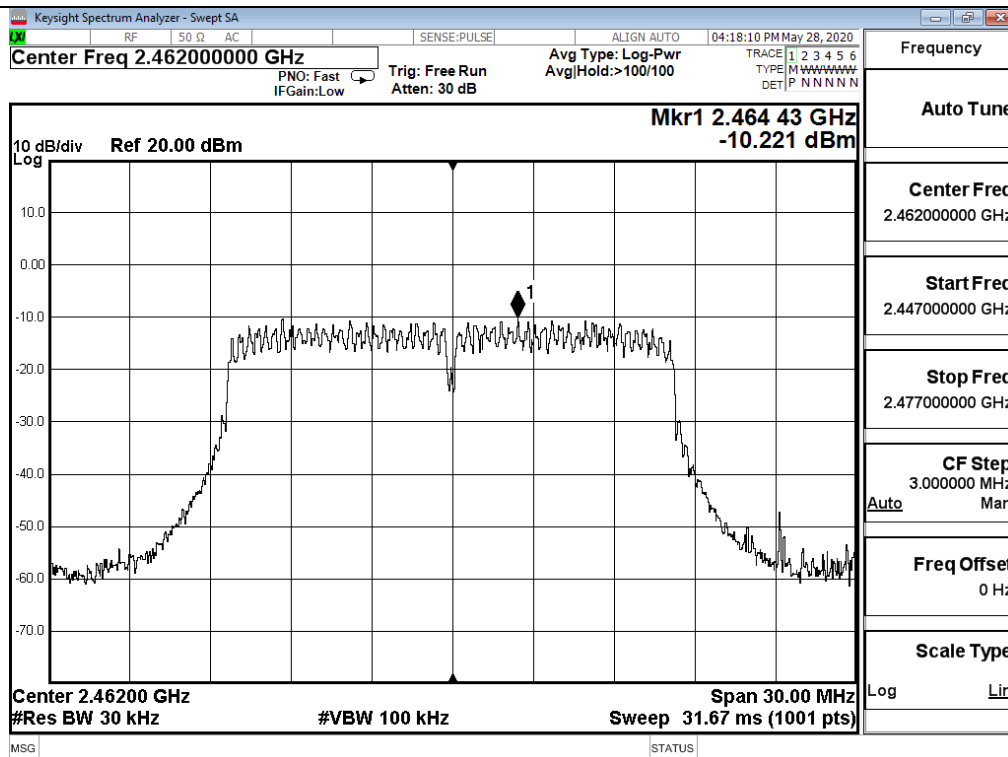
11G/LCH



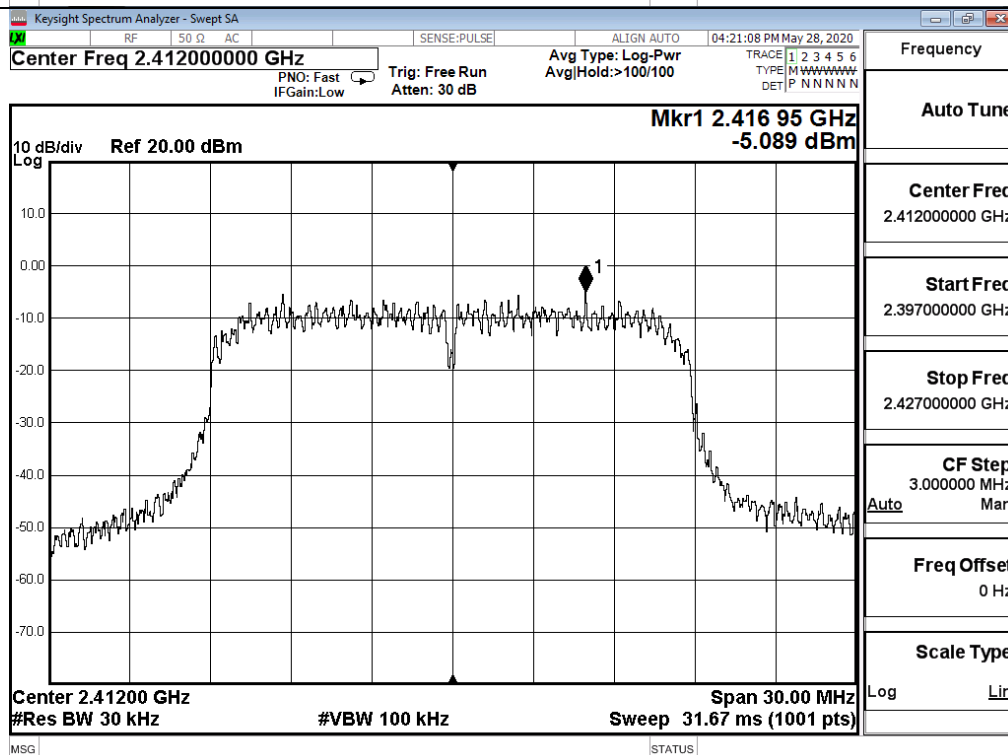
11G/MCH



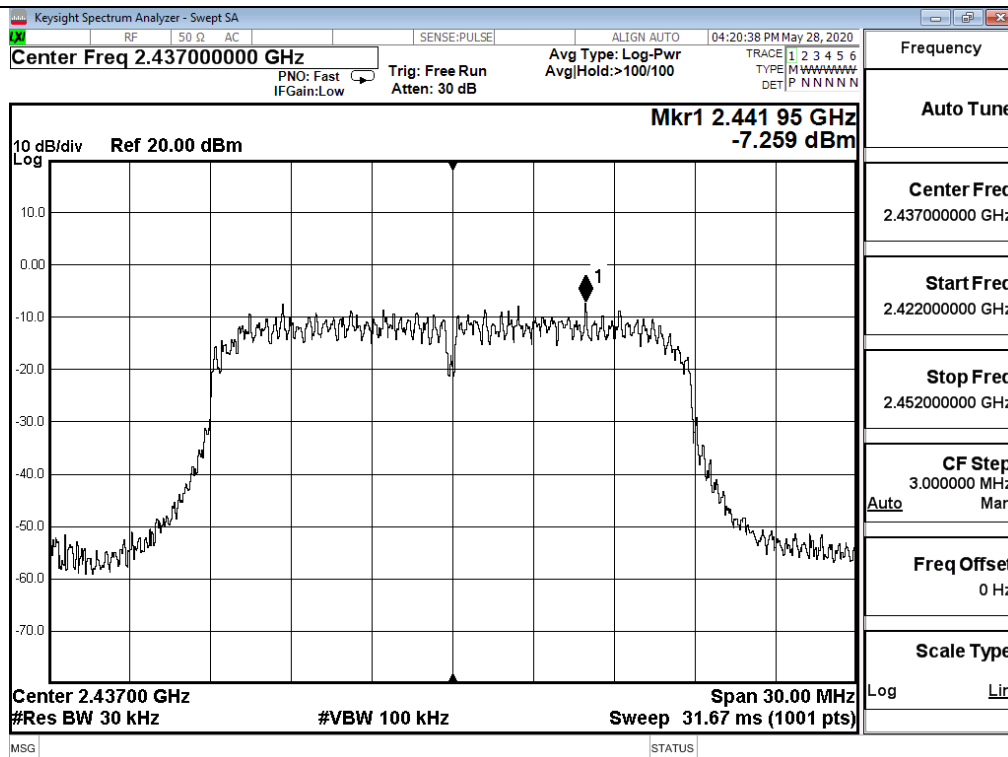
11G/HCH



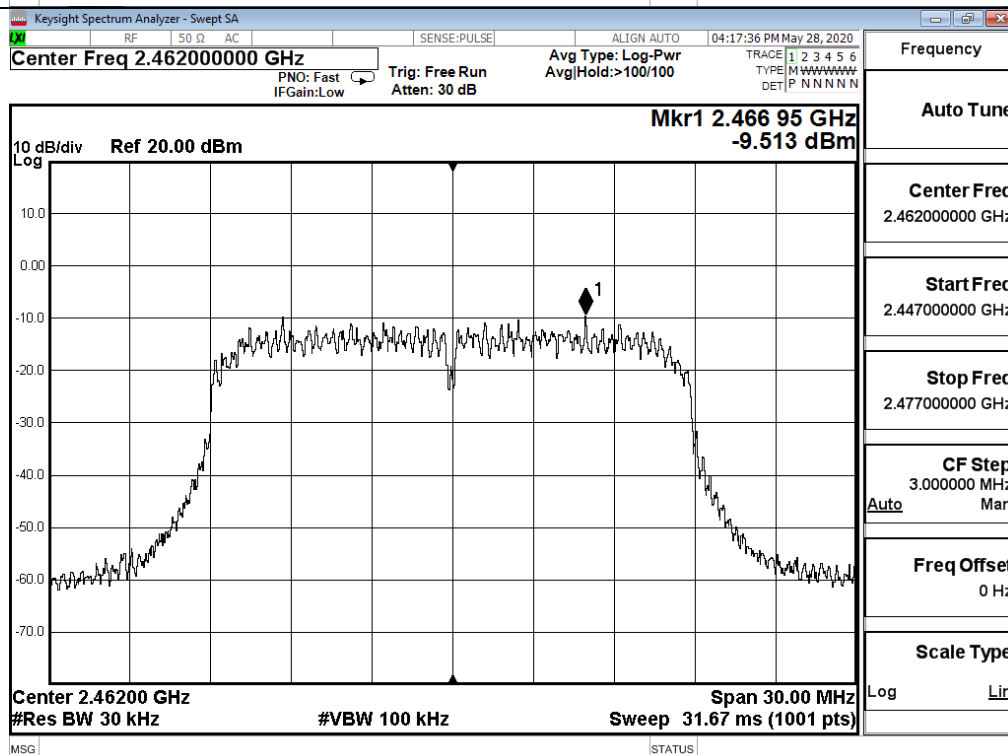
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH

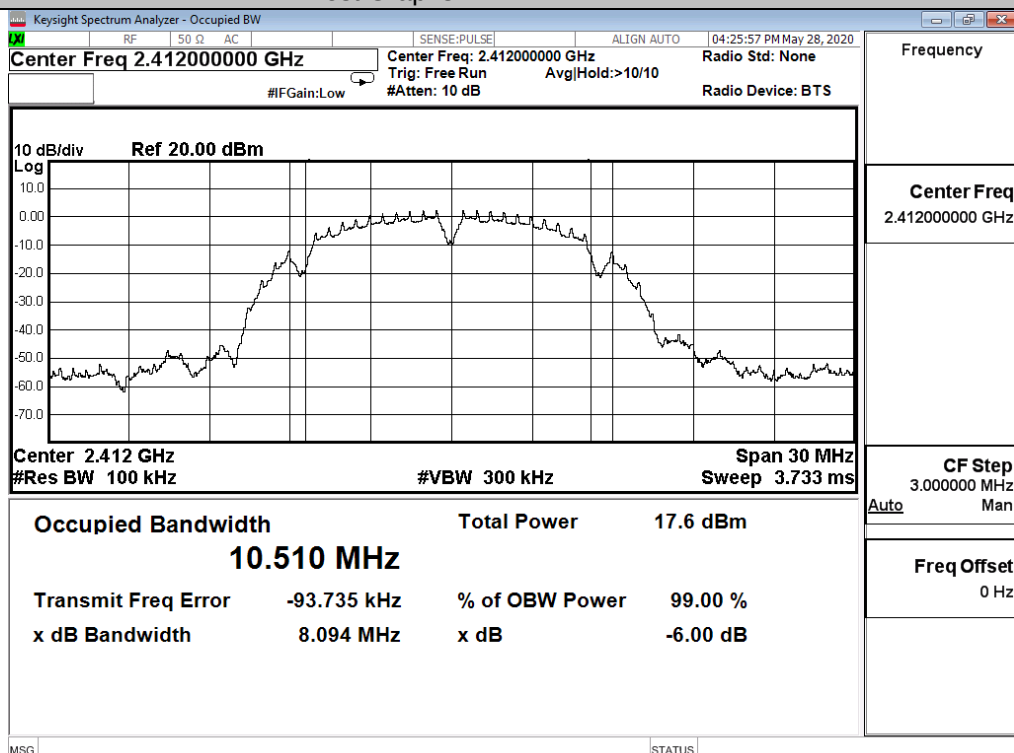


A.4 6dB Bandwidth

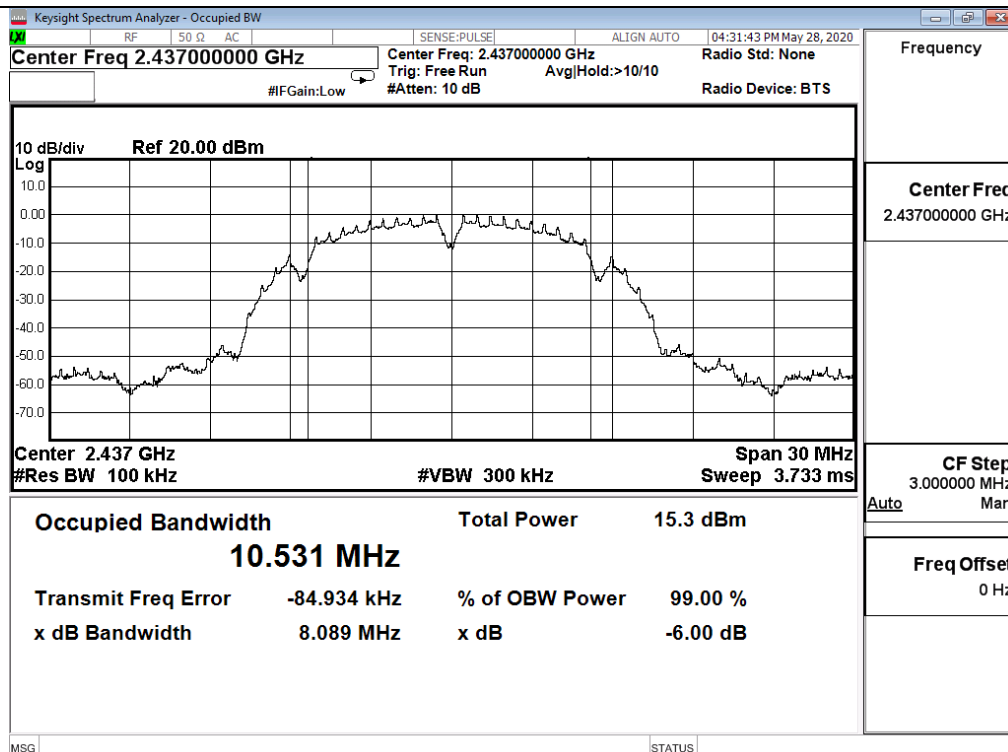
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	8.094	≥ 0.5	PASS
	MCH	8.089	≥ 0.5	PASS
	HCH	8.091	≥ 0.5	PASS
11G	LCH	15.36	≥ 0.5	PASS
	MCH	15.66	≥ 0.5	PASS
	HCH	15.66	≥ 0.5	PASS
11N20SISO	LCH	15.65	≥ 0.5	PASS
	MCH	15.66	≥ 0.5	PASS
	HCH	15.66	≥ 0.5	PASS

Test Graphs

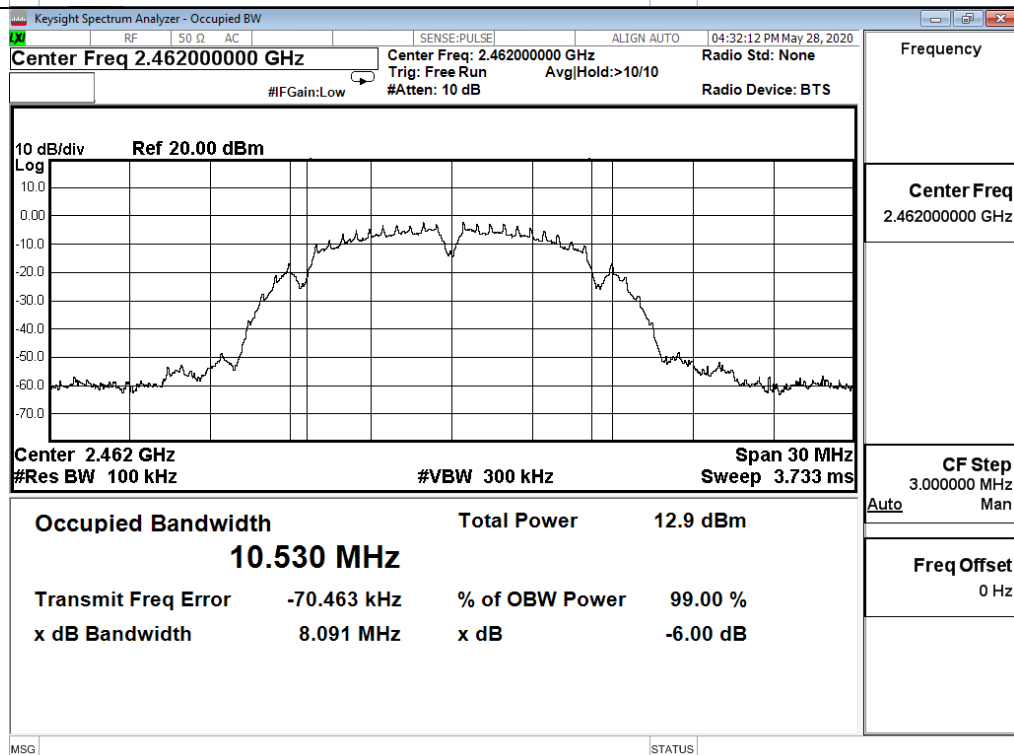
11B/LCH



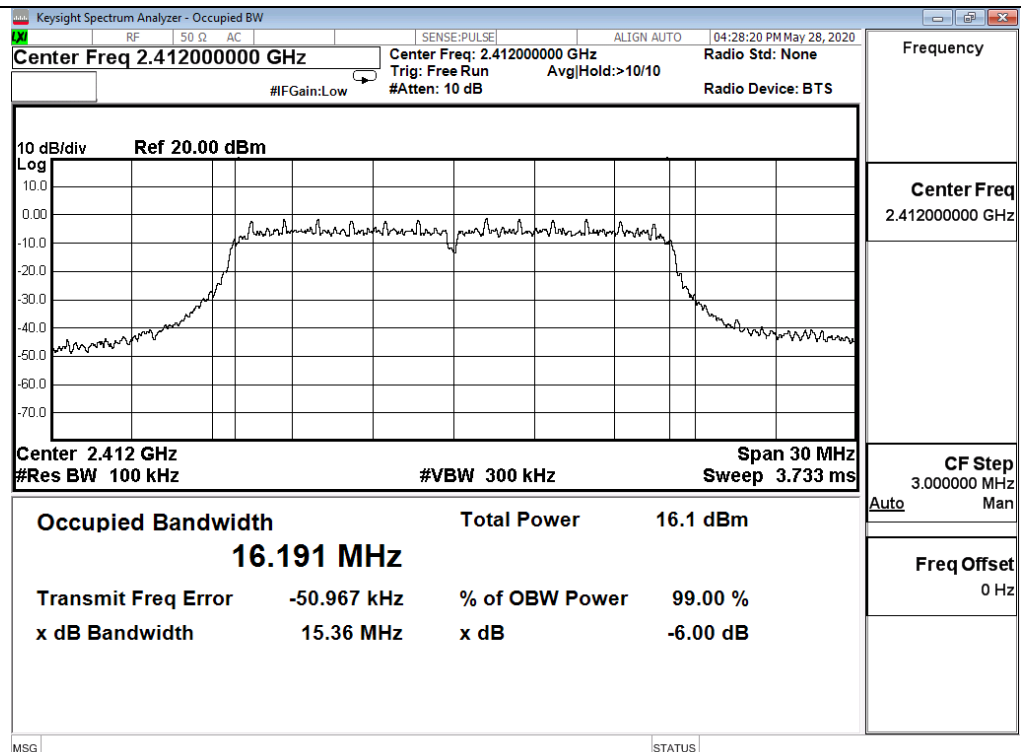
11B/MCH



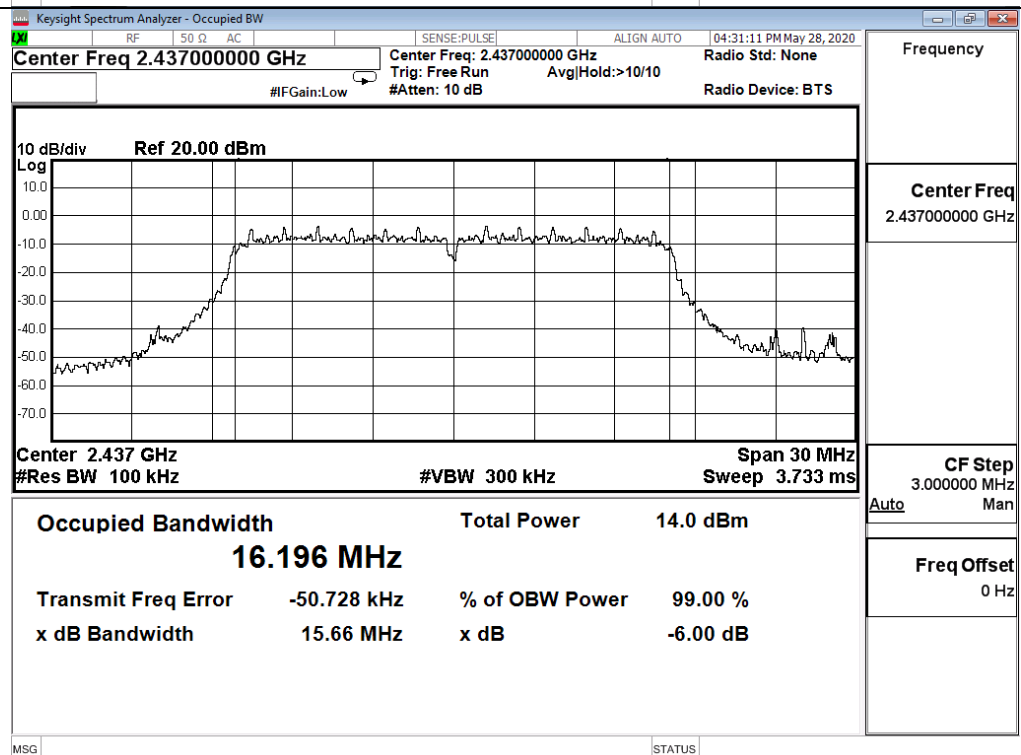
11B/HCH



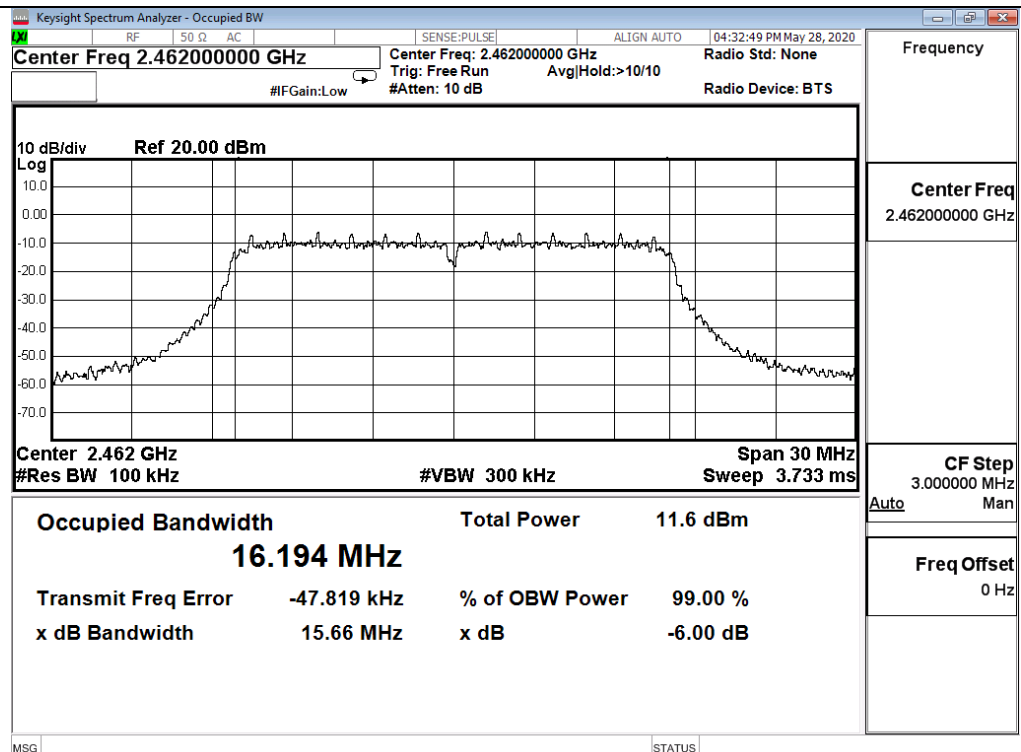
11G/LCH



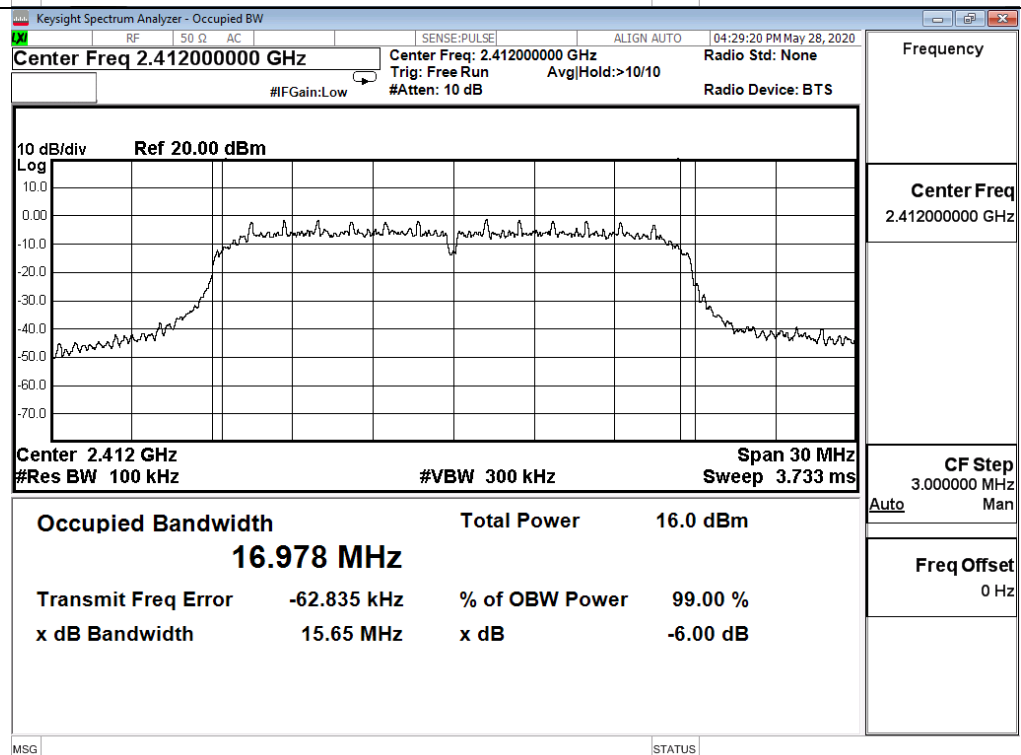
11G/MCH



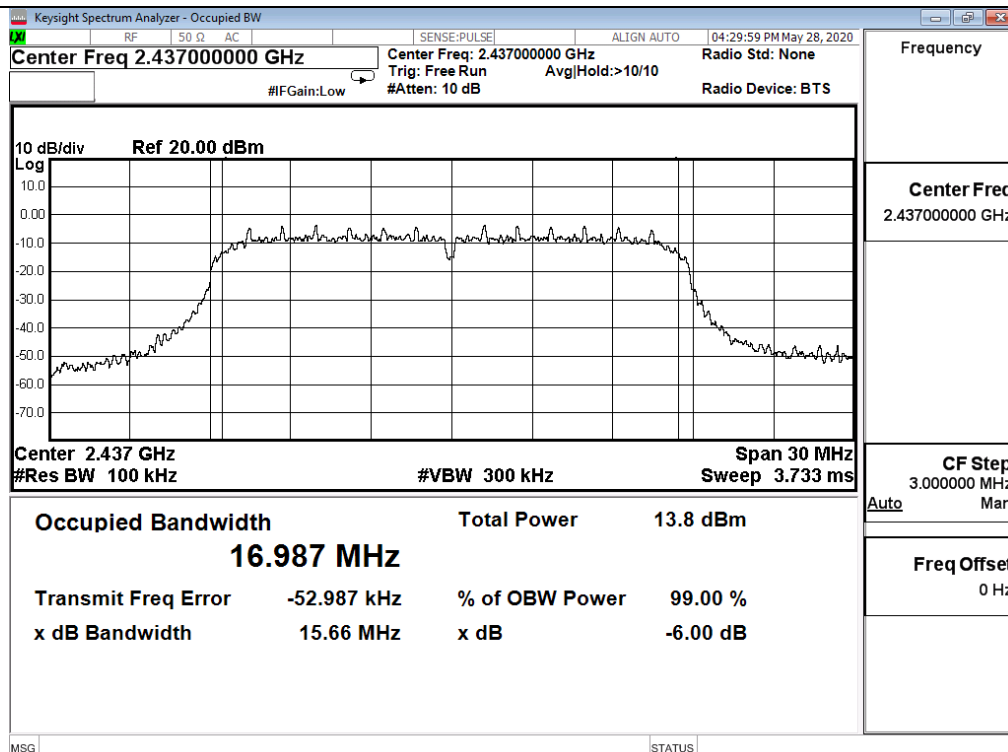
11G/HCH



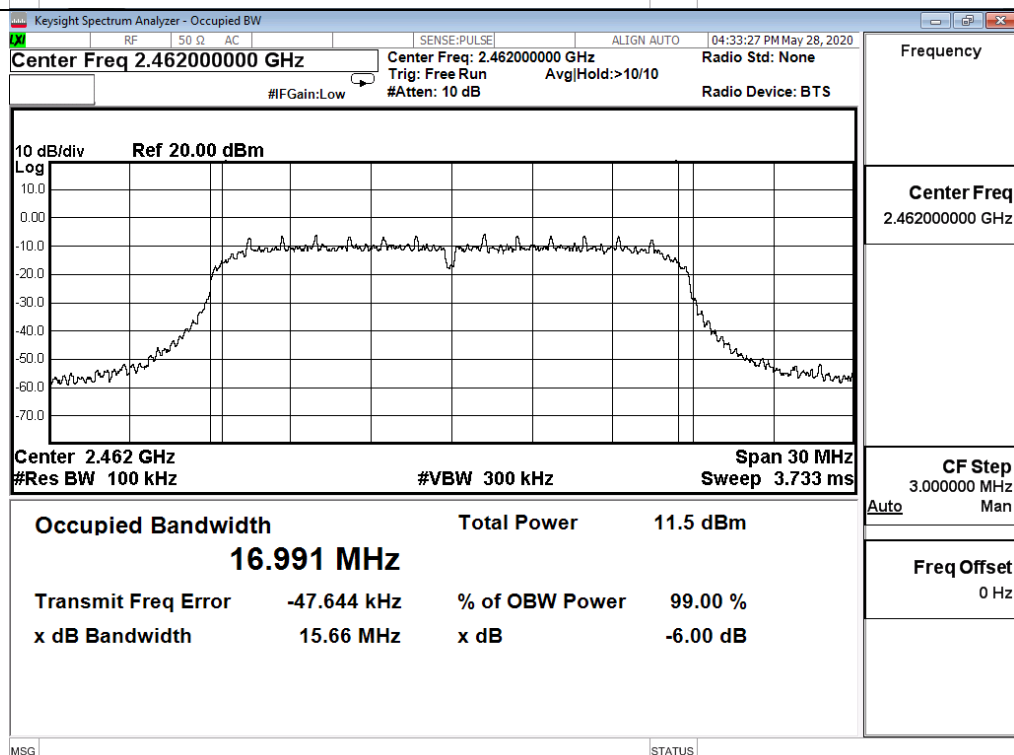
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH

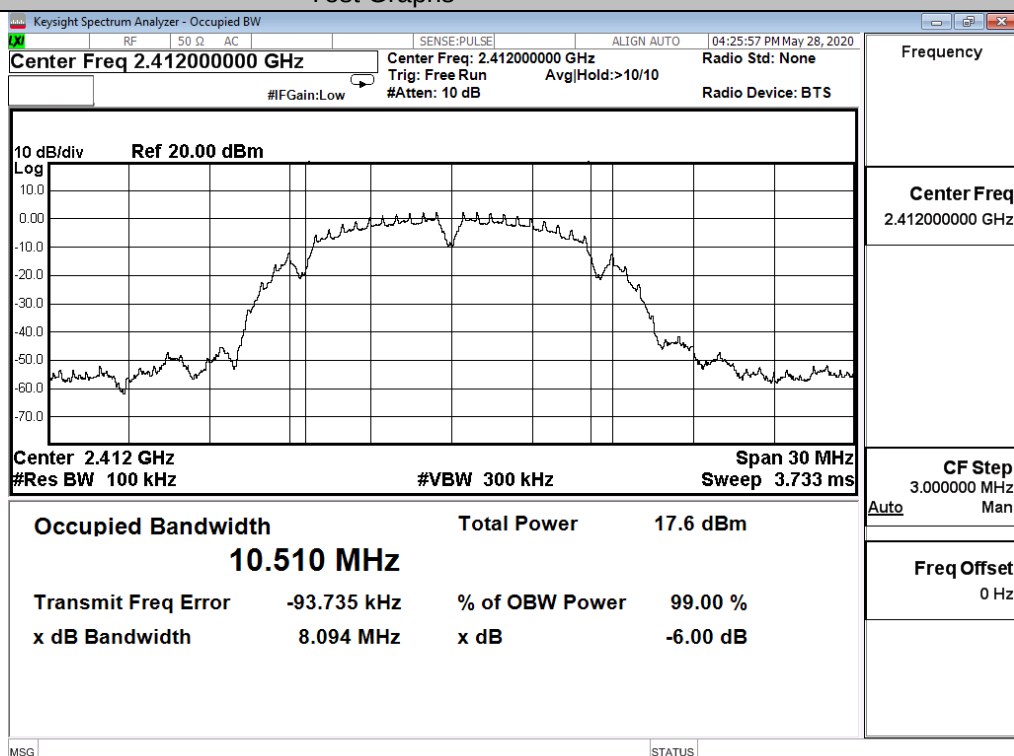


A.5 Occupied Bandwidth

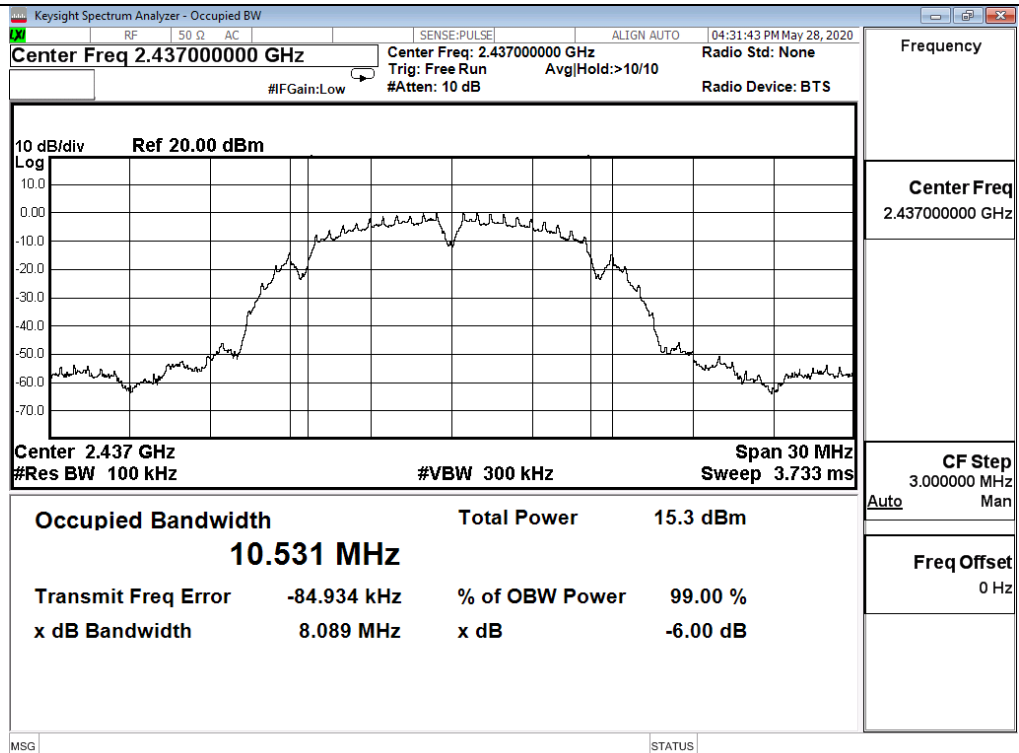
Mode	Channel	Occupied Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.510	≥ 0.5	PASS
	MCH	10.531	≥ 0.5	PASS
	HCH	10.530	≥ 0.5	PASS
11G	LCH	16.191	≥ 0.5	PASS
	MCH	16.196	≥ 0.5	PASS
	HCH	16.194	≥ 0.5	PASS
11N20SISO	LCH	16.978	≥ 0.5	PASS
	MCH	16.987	≥ 0.5	PASS
	HCH	16.991	≥ 0.5	PASS

Test Graphs

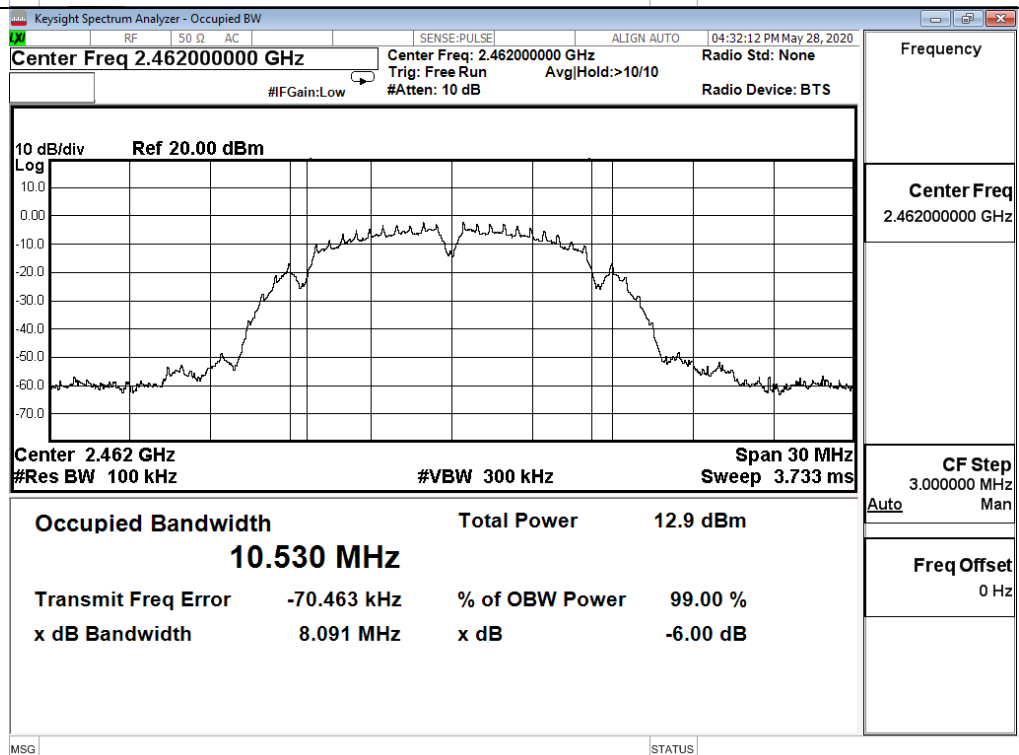
11B/LCH



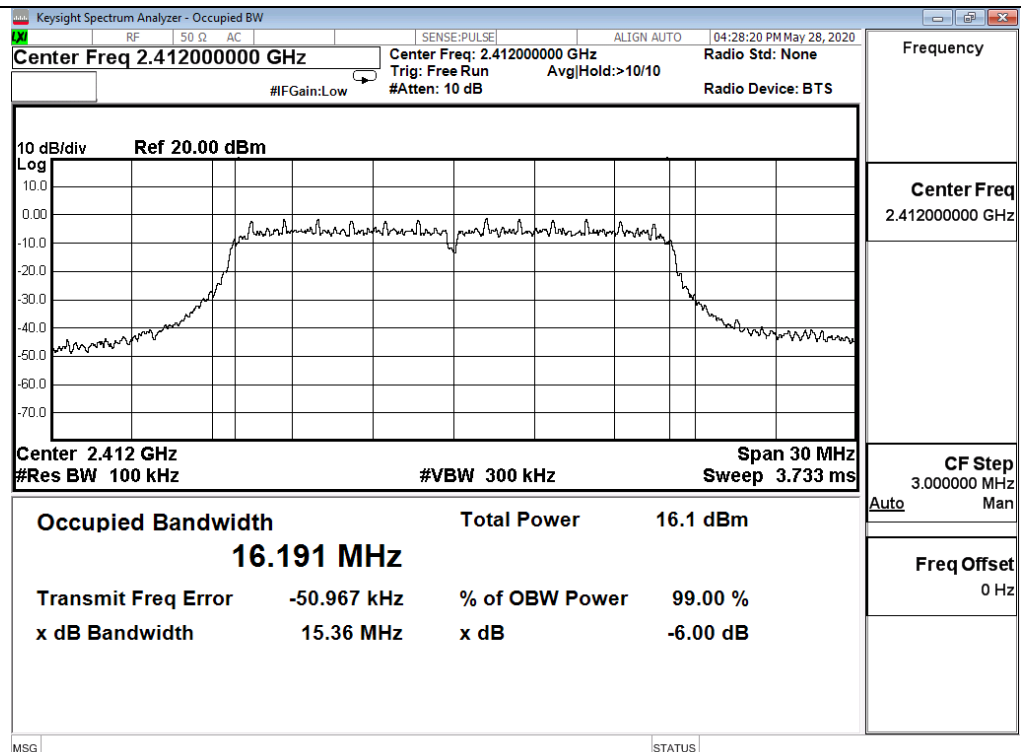
11B/MCH



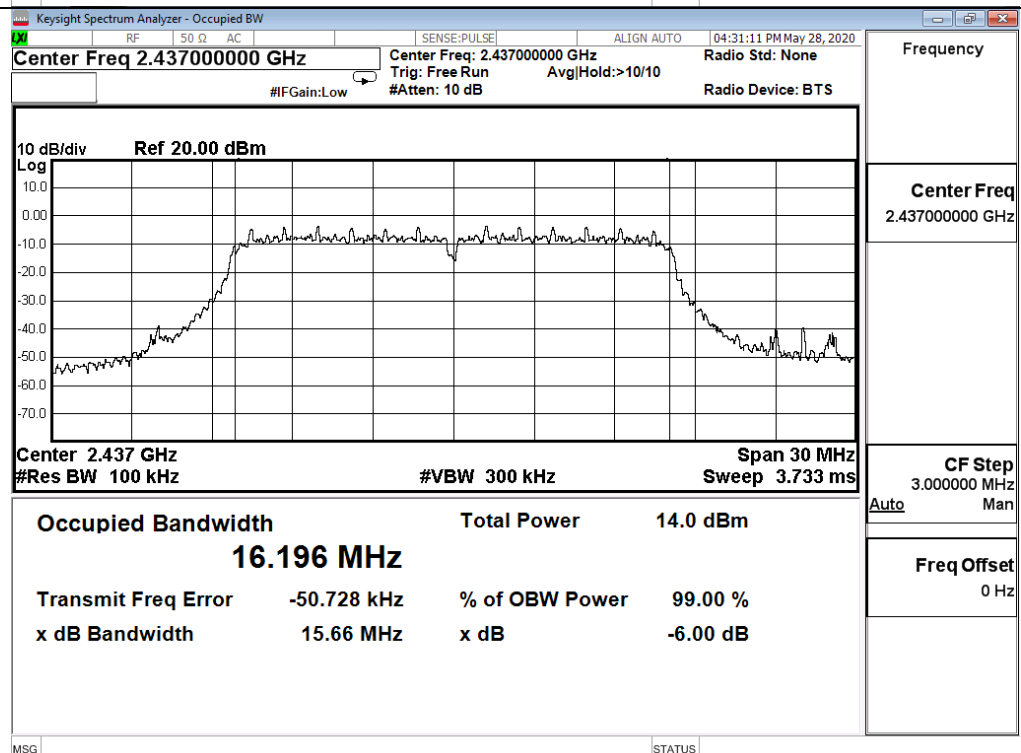
11B/HCH



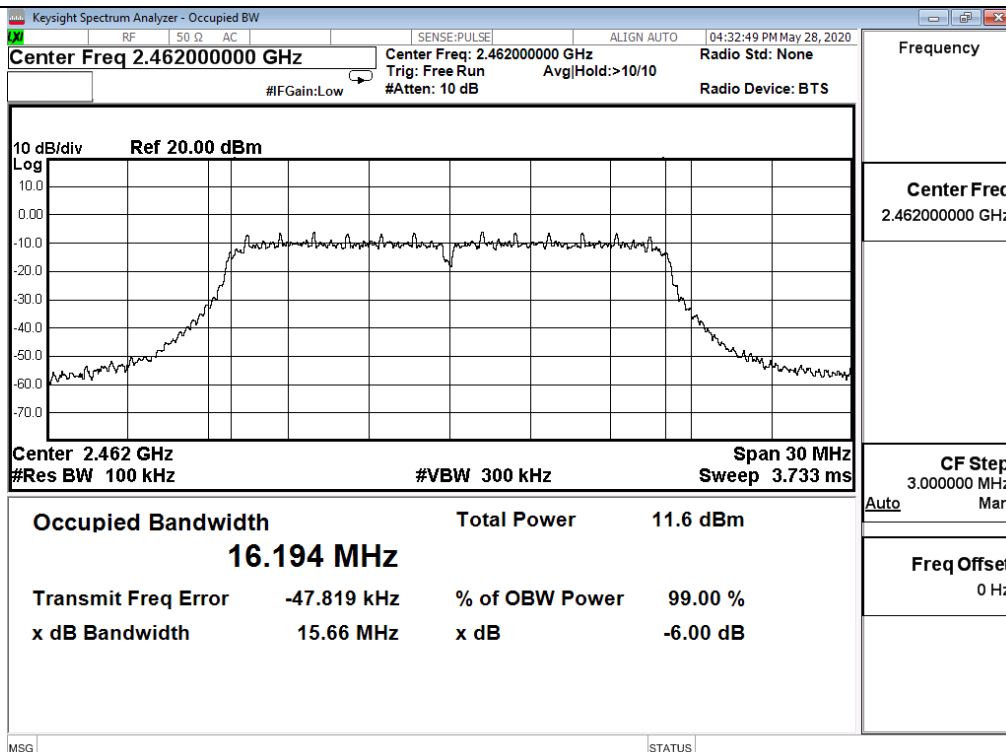
11G/LCH



11G/MCH



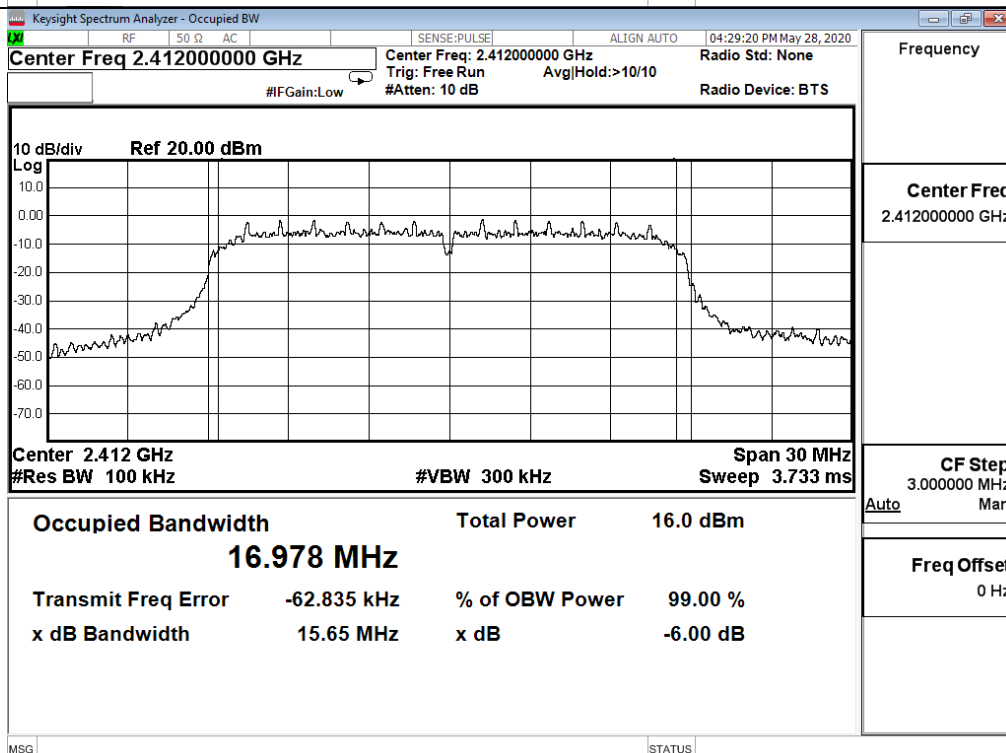
11G/HCH



Frequency

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

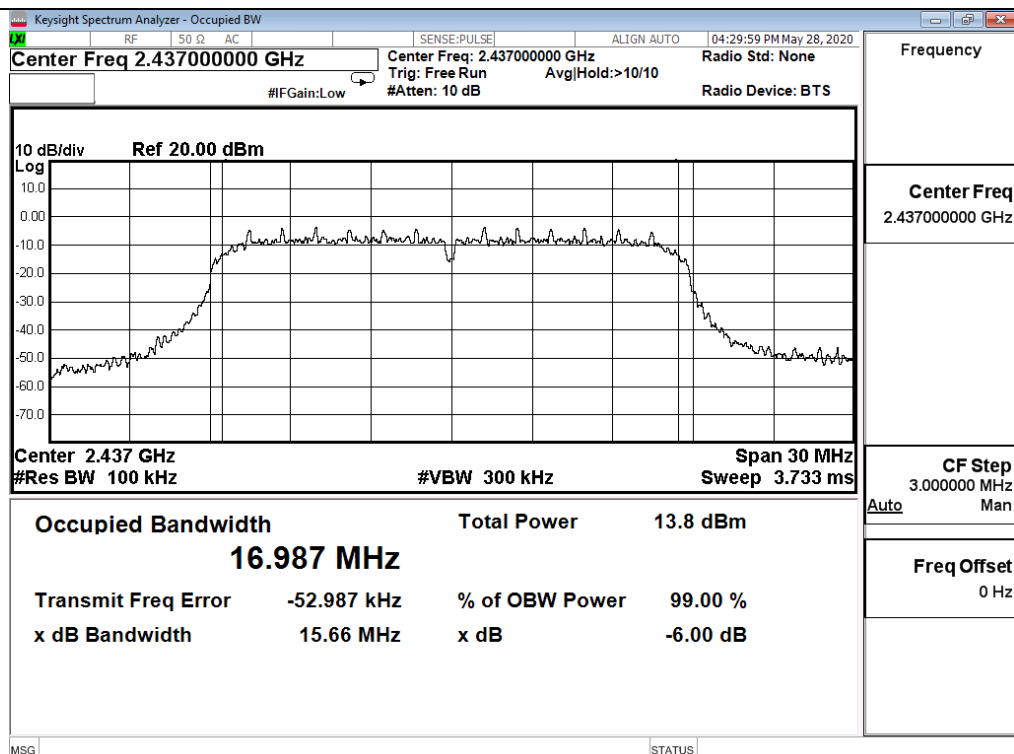
11N20SISO/LCH



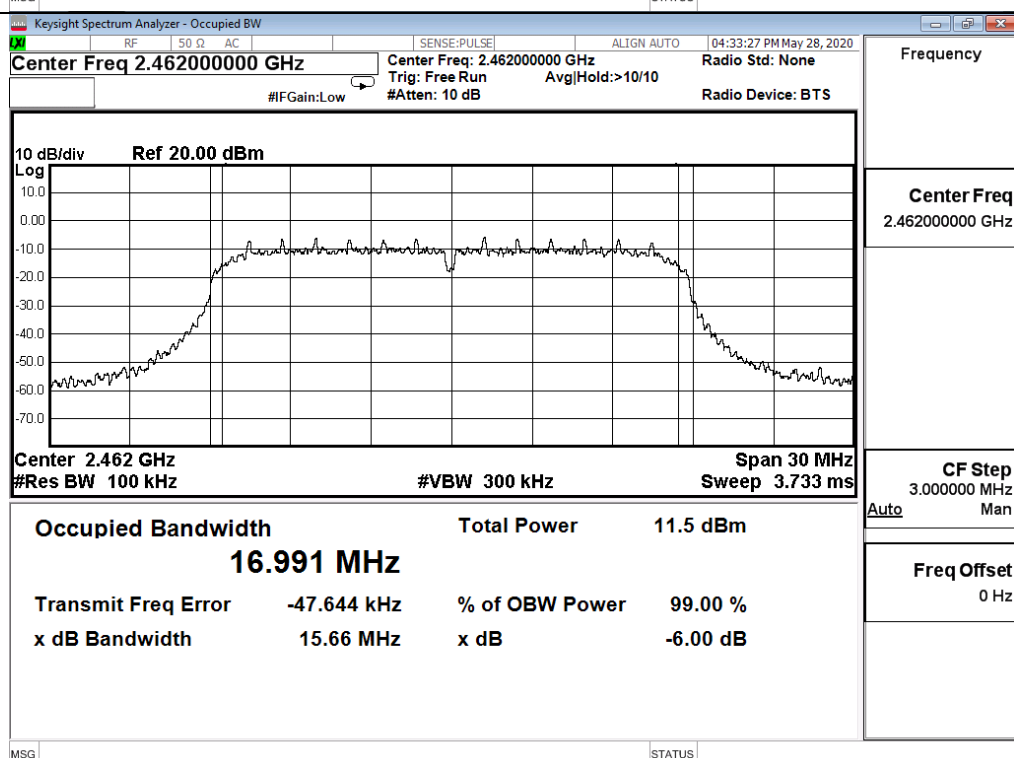
Frequency

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

11N20SISO/MCH



11N20SISO/HCH

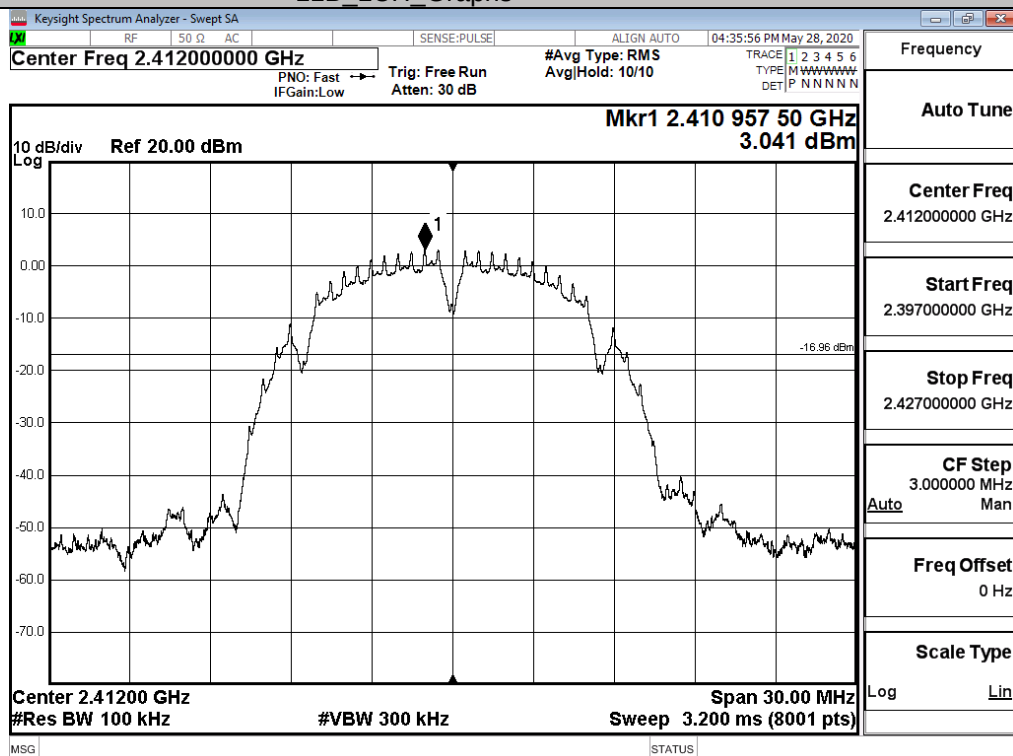


A.6 RF Conducted Spurious Emissions

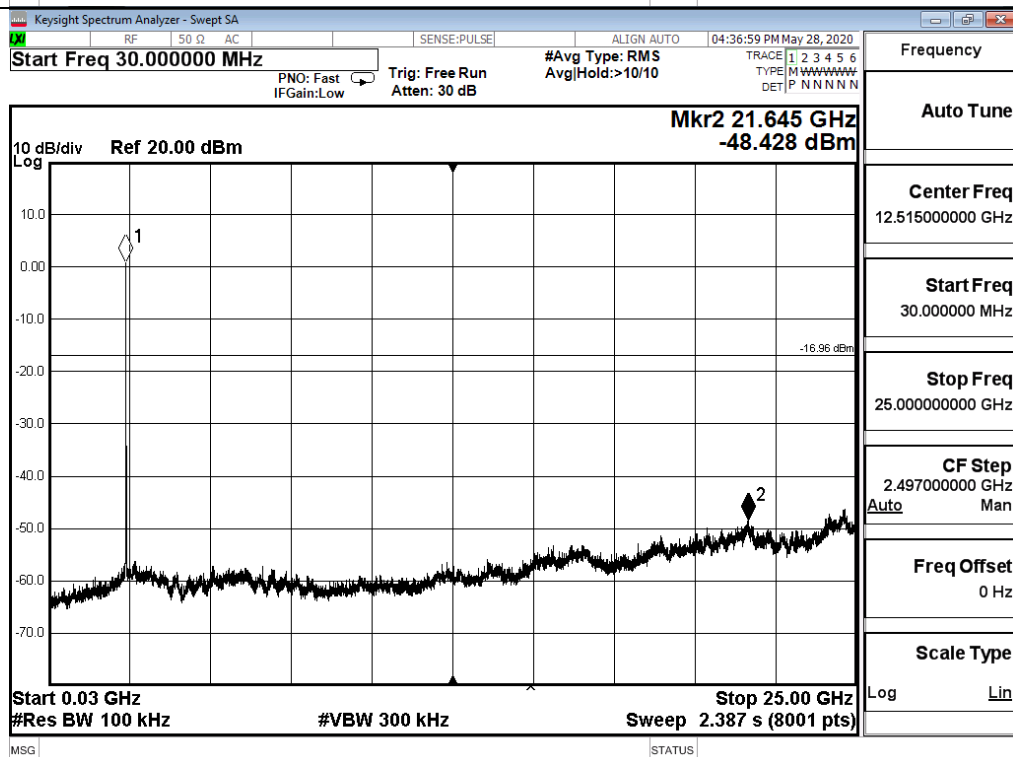
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	3.041	-48.428	-16.96	PASS
	MCH	0.661	-47.429	-19.34	PASS
	HCH	-1.595	-48.622	-21.00	PASS
11G	LCH	-0.426	-48.952	-20.43	PASS
	MCH	-2.563	-47.927	-22.56	PASS
	HCH	-4.946	-48.766	-24.95	PASS
11N20 SISO	LCH	-0.355	-48.930	-20.36	PASS
	MCH	-2.570	-48.635	-22.57	PASS
	HCH	-4.968	-49.123	-24.97	PASS

11B LCH Graphs

Pref/11B/LCH

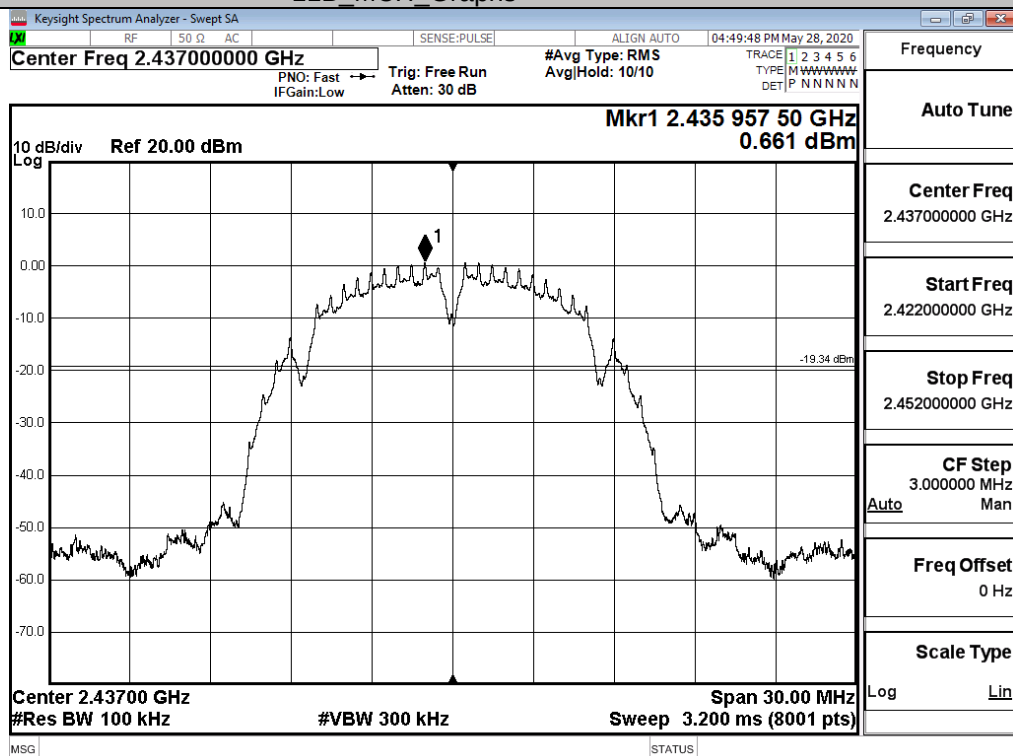


Puw/11B/LCH

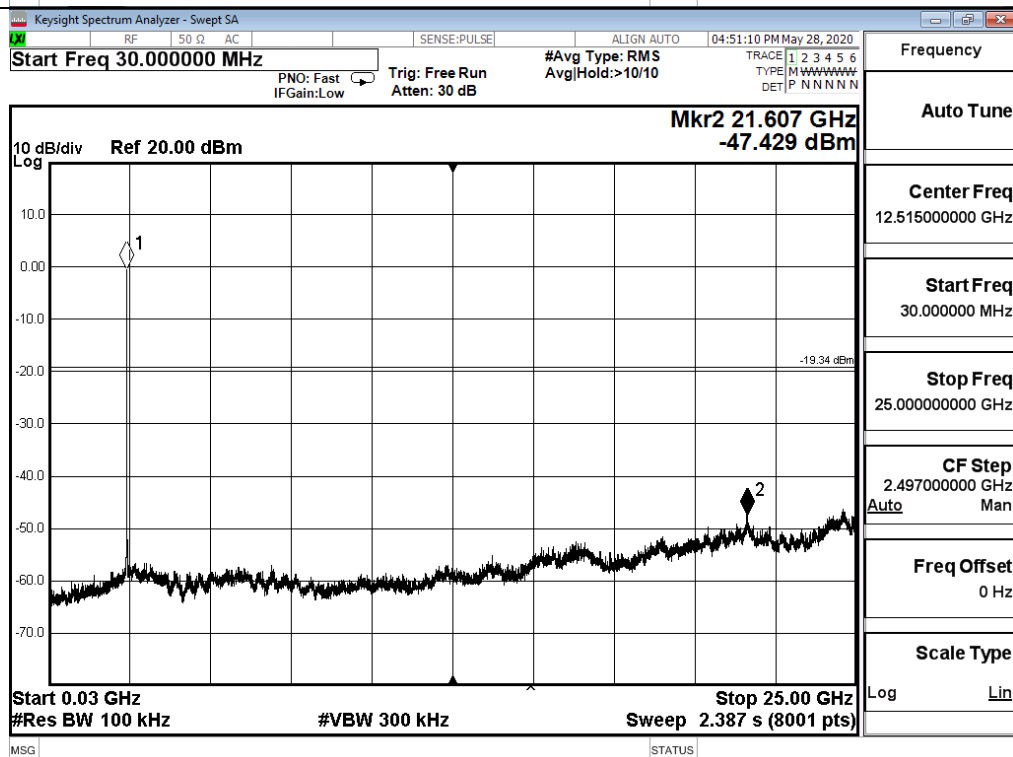


11B MCH Graphs

Pref/11B/MCH

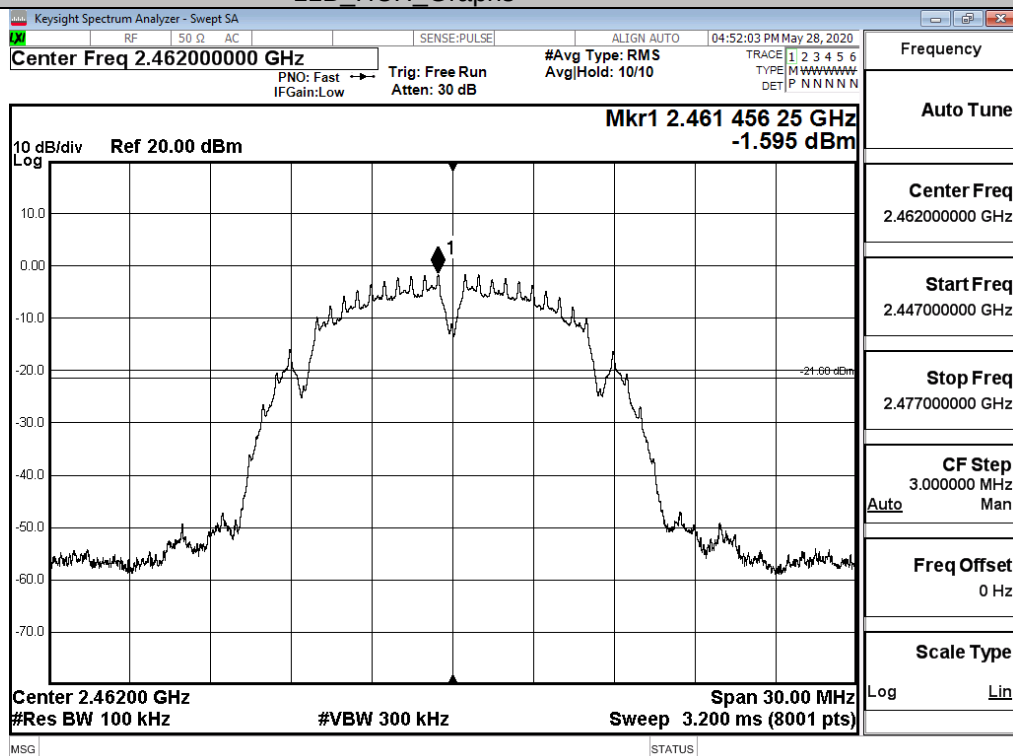


Puw/11B/MCH

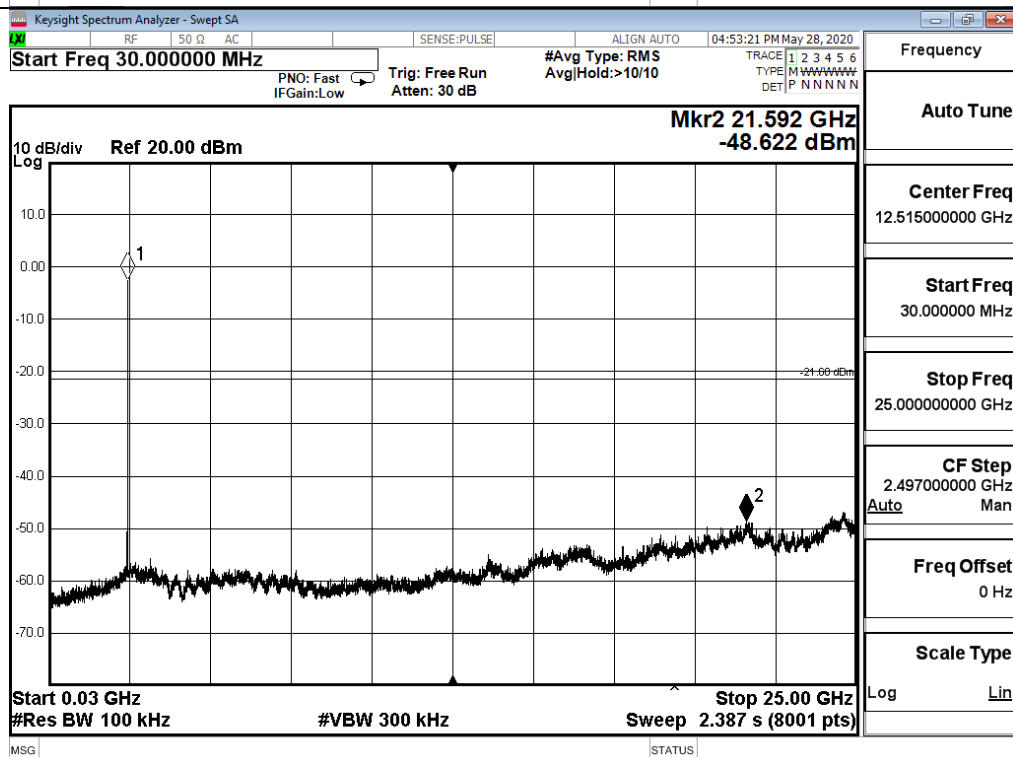


11B HCH Graphs

Pref/11B/HCH

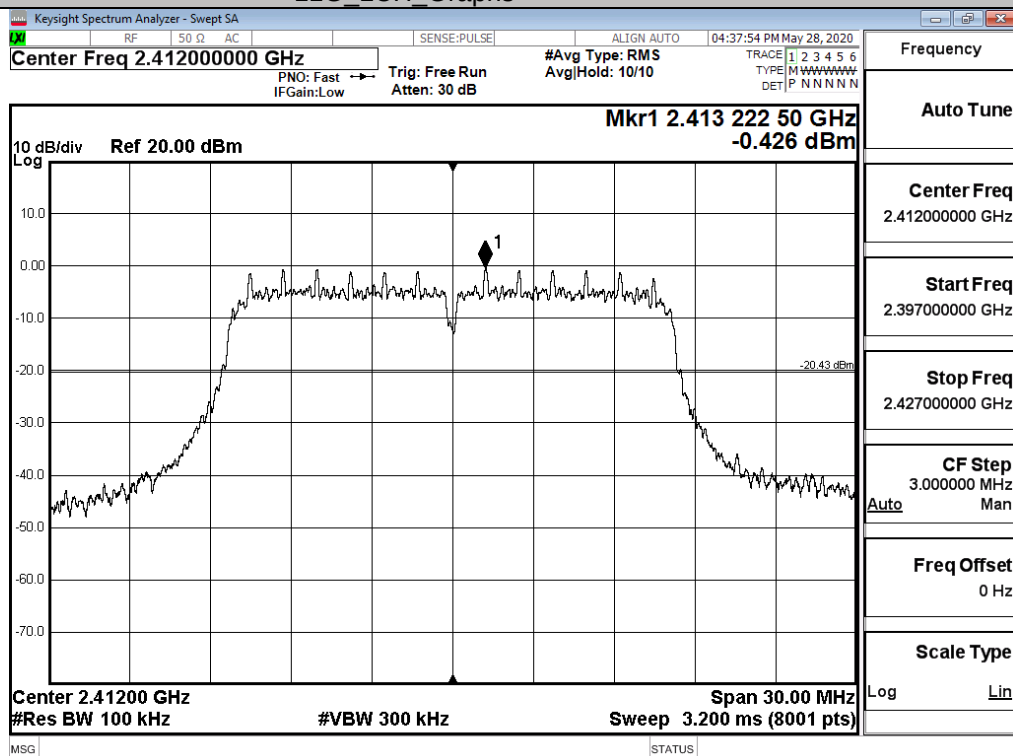


Puw/11B/HCH

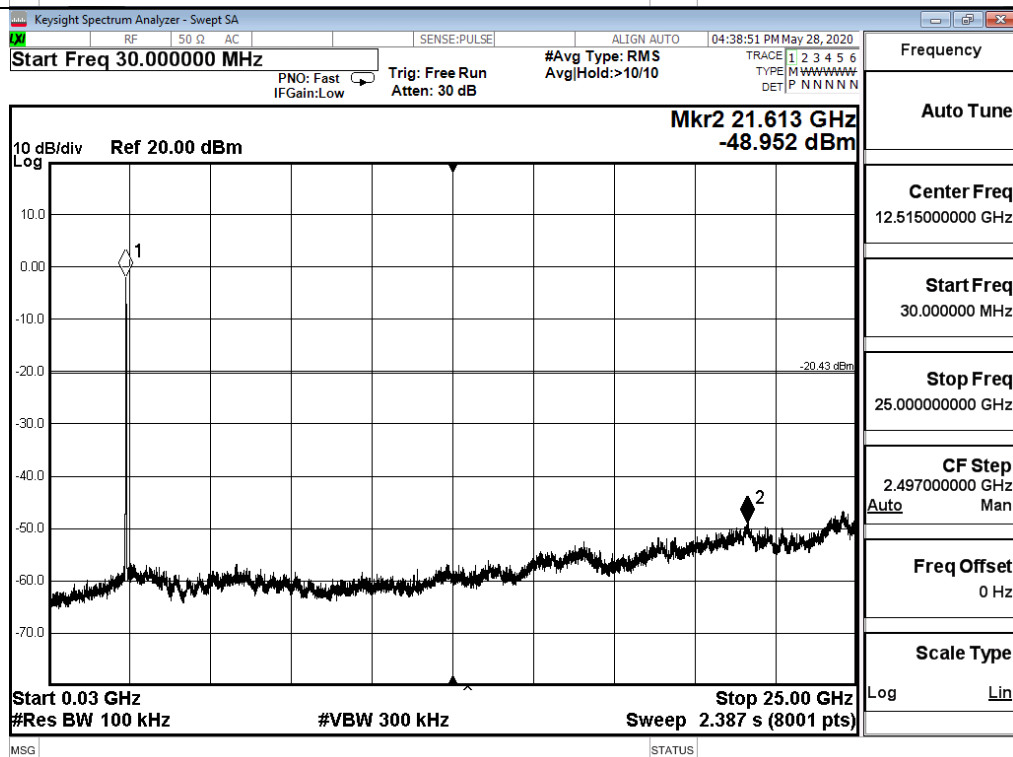


11G_LCH_Graphs

Pref/11G/LCH

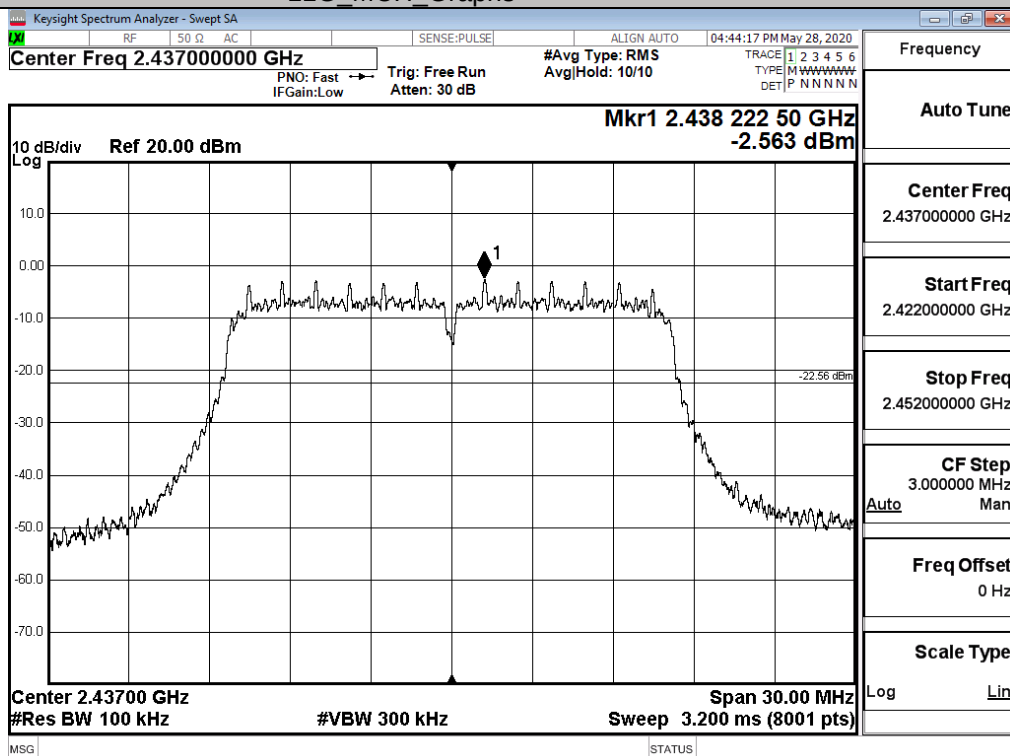


Puw/11G/LCH

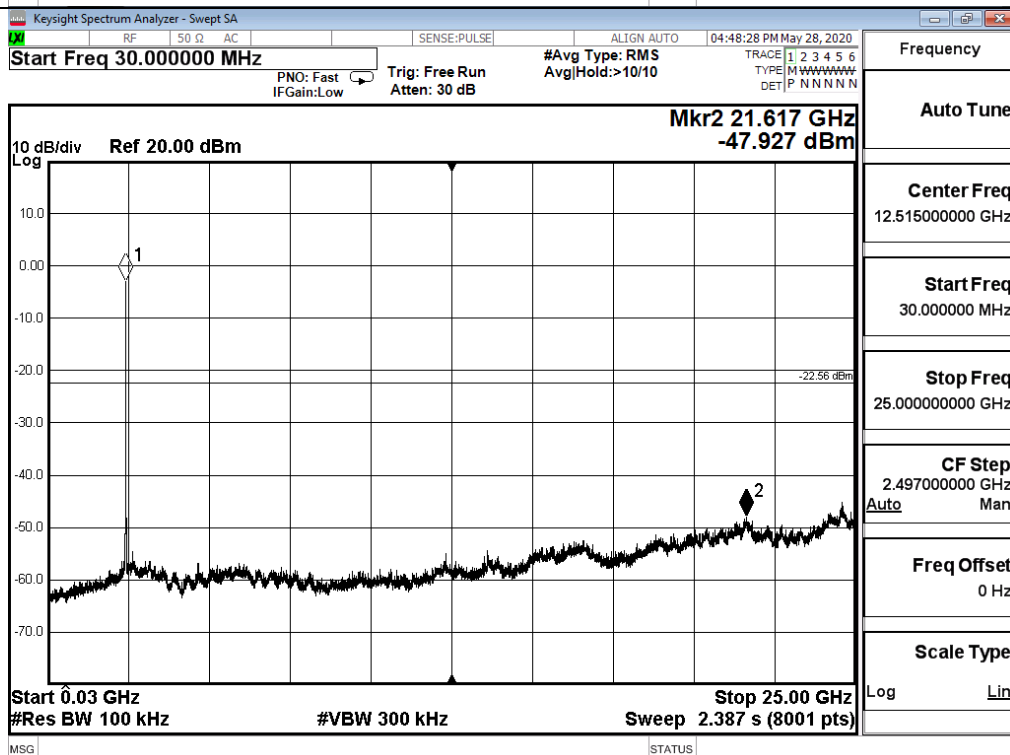


11G MCH Graphs

Pref/11G/MCH

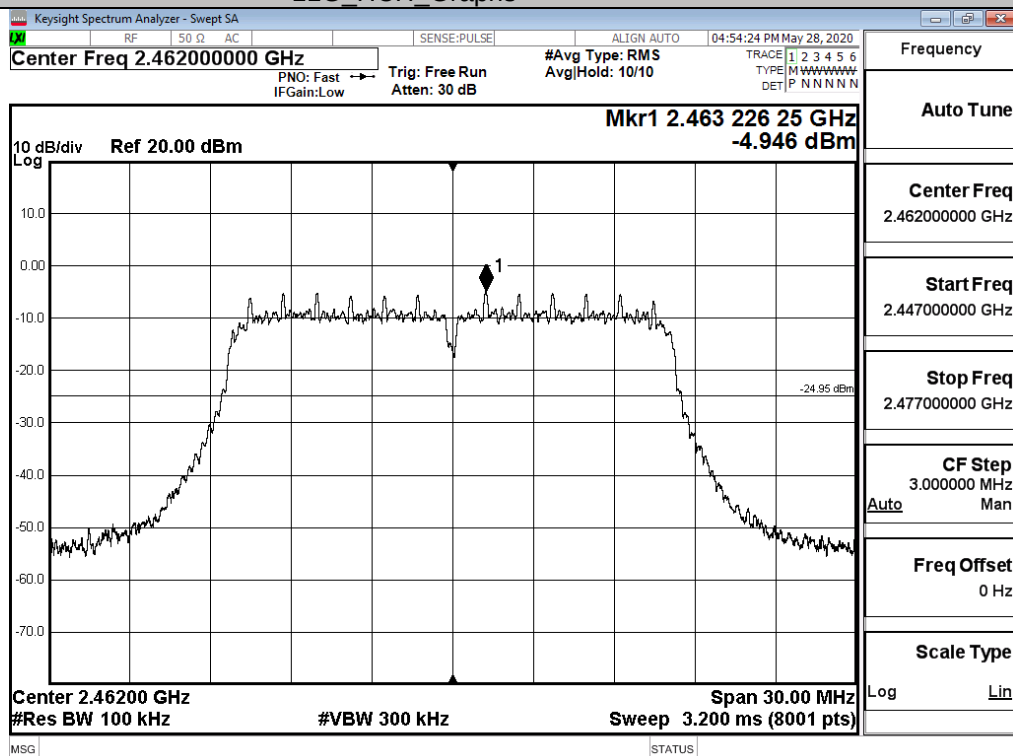


Puw/11G/MCH

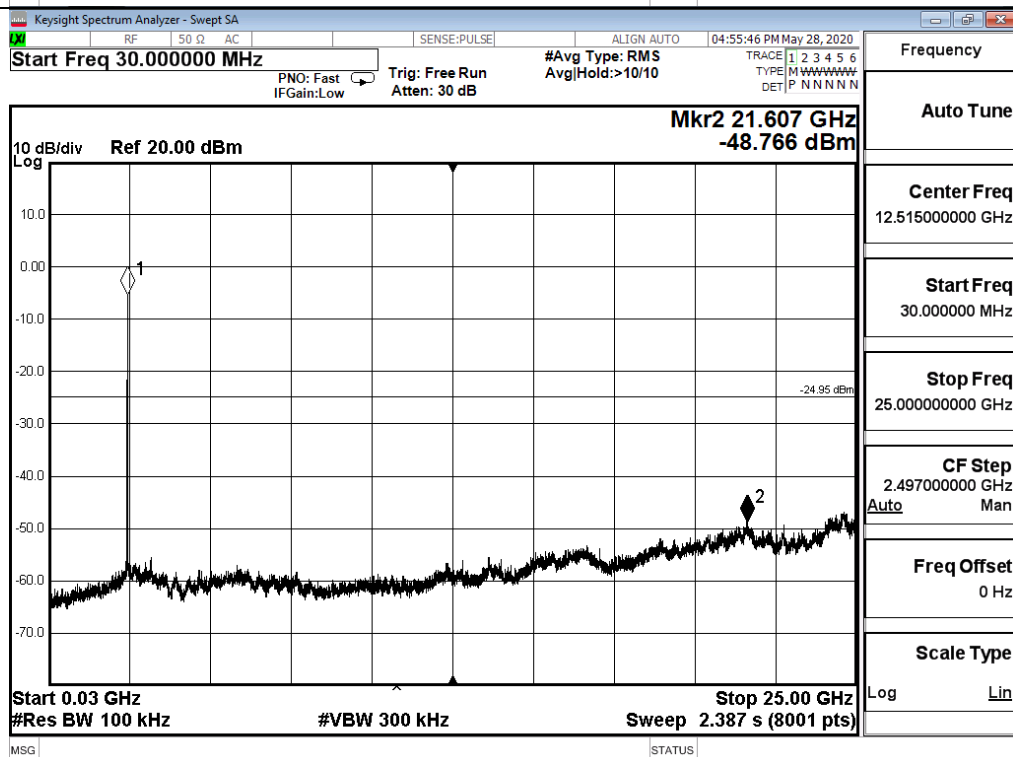


11G HCH Graphs

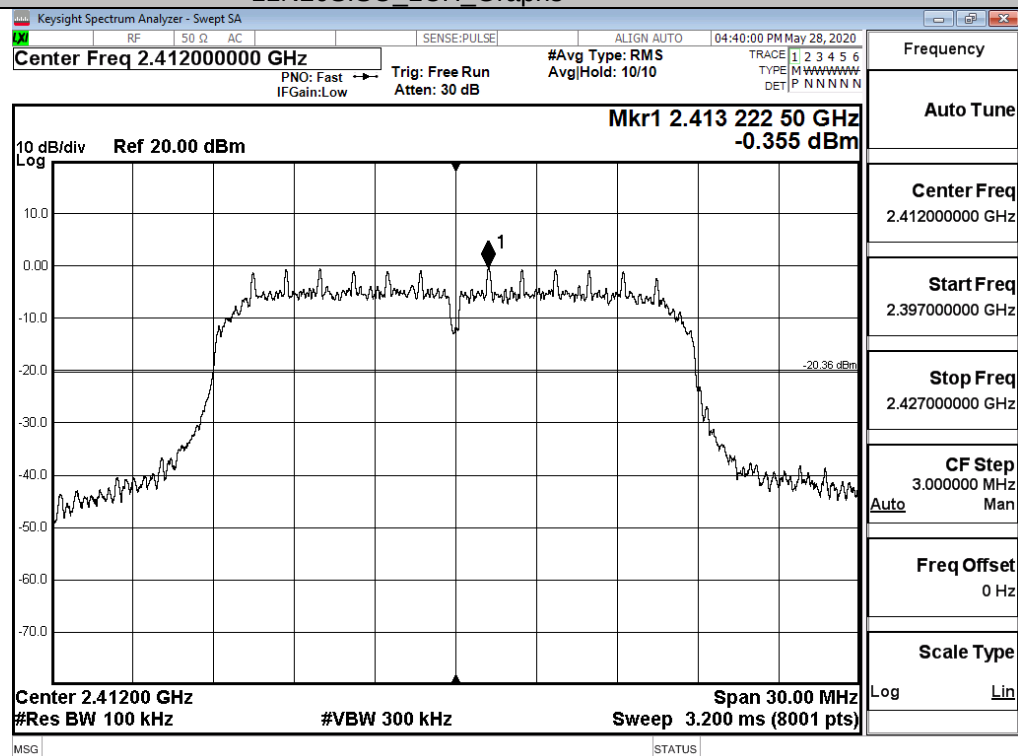
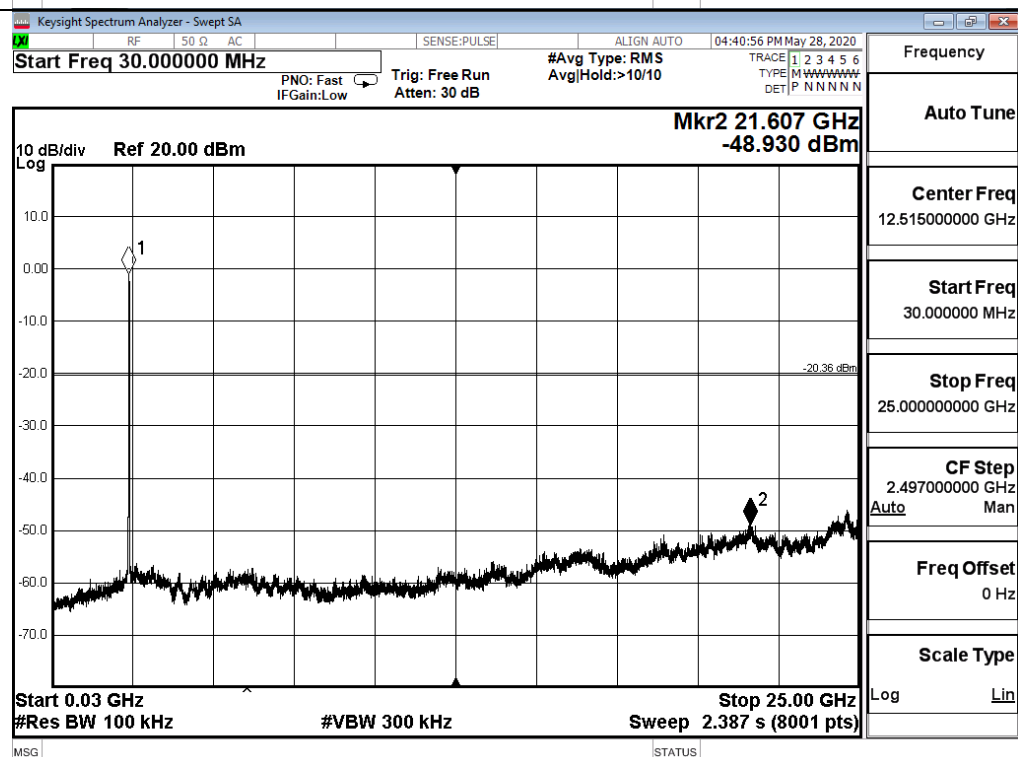
Pref/11G/HCH



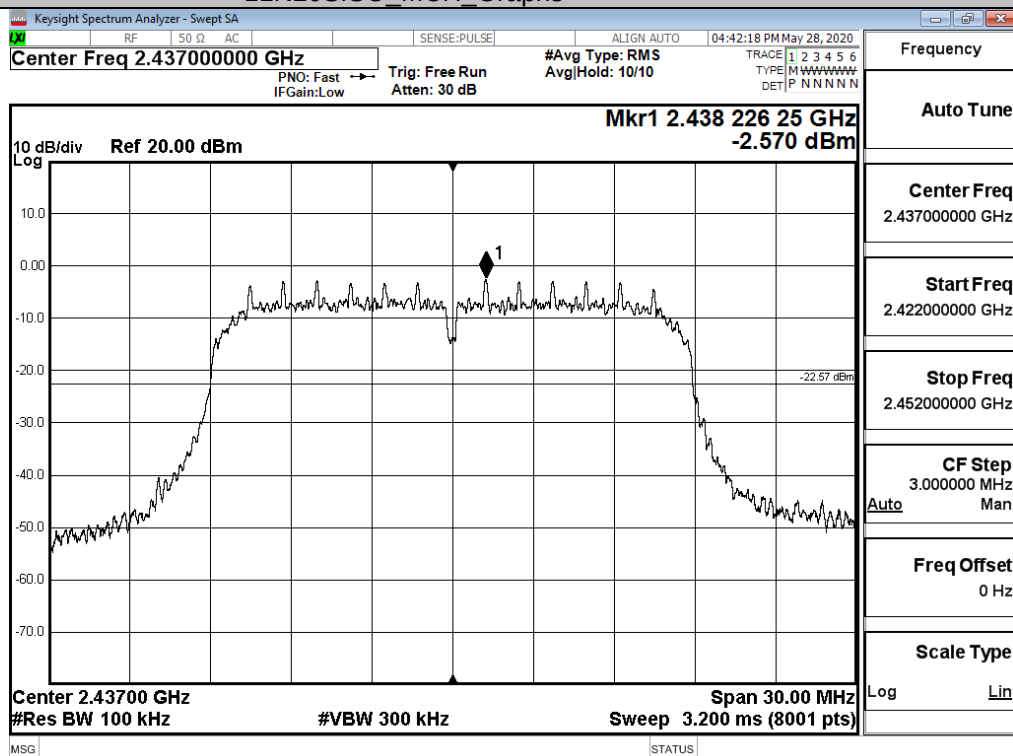
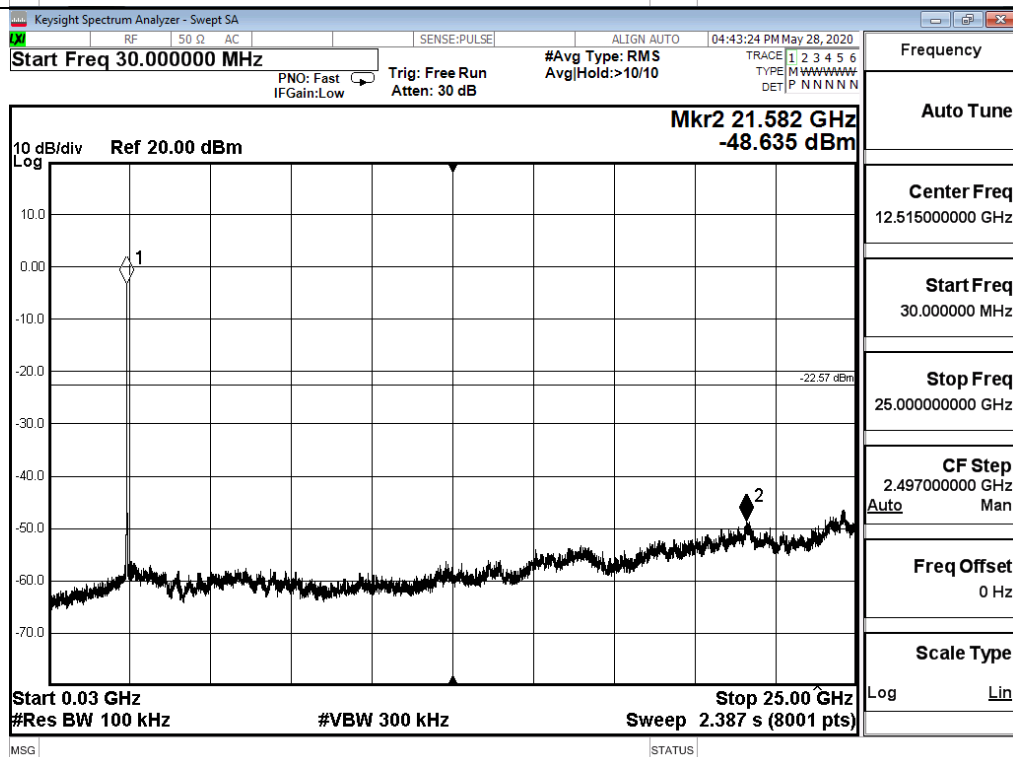
Puw/11G/HCH



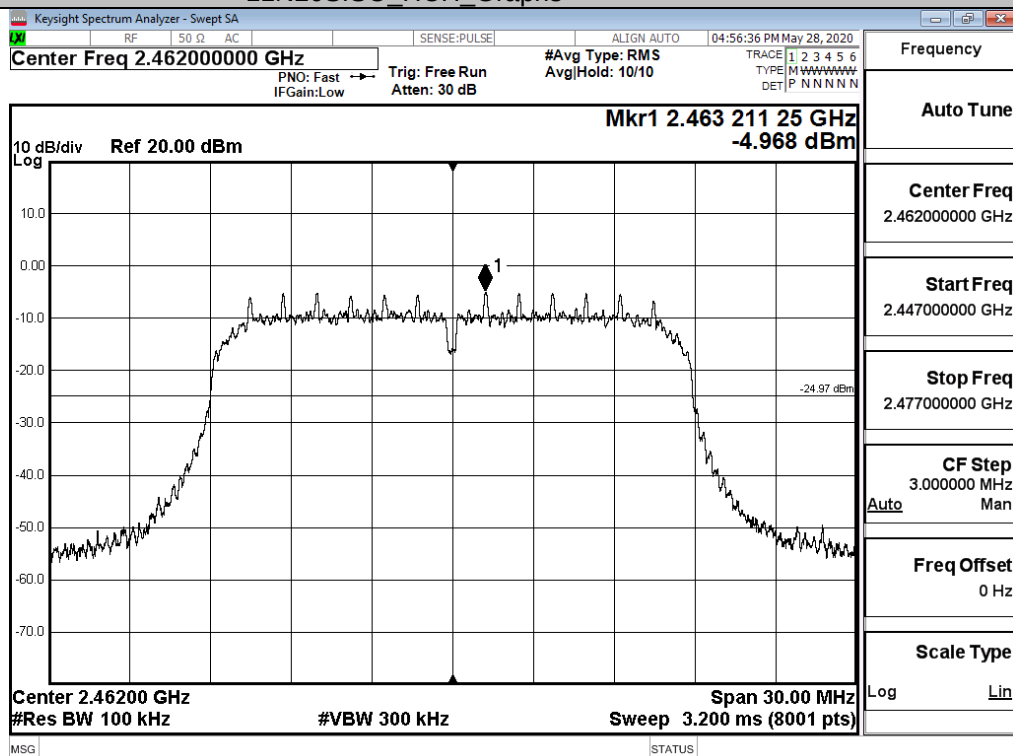
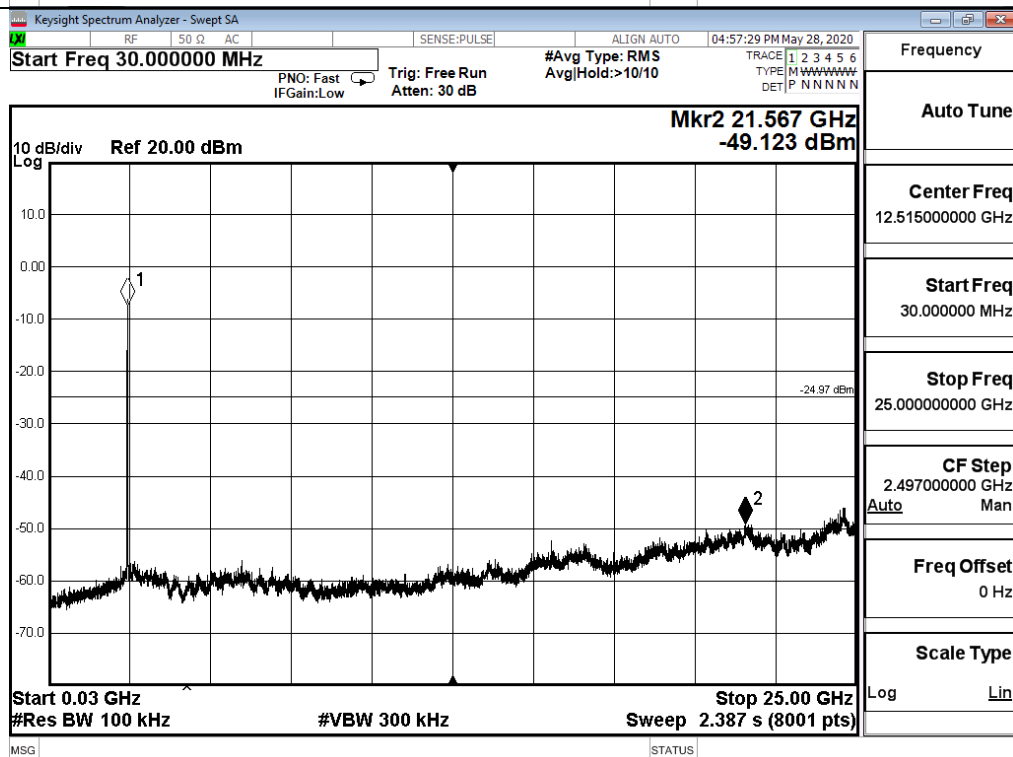
11N20SISO LCH Graphs

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

11N20SISO_MCH_Graphs

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

11N20SISO_HCH_Graphs

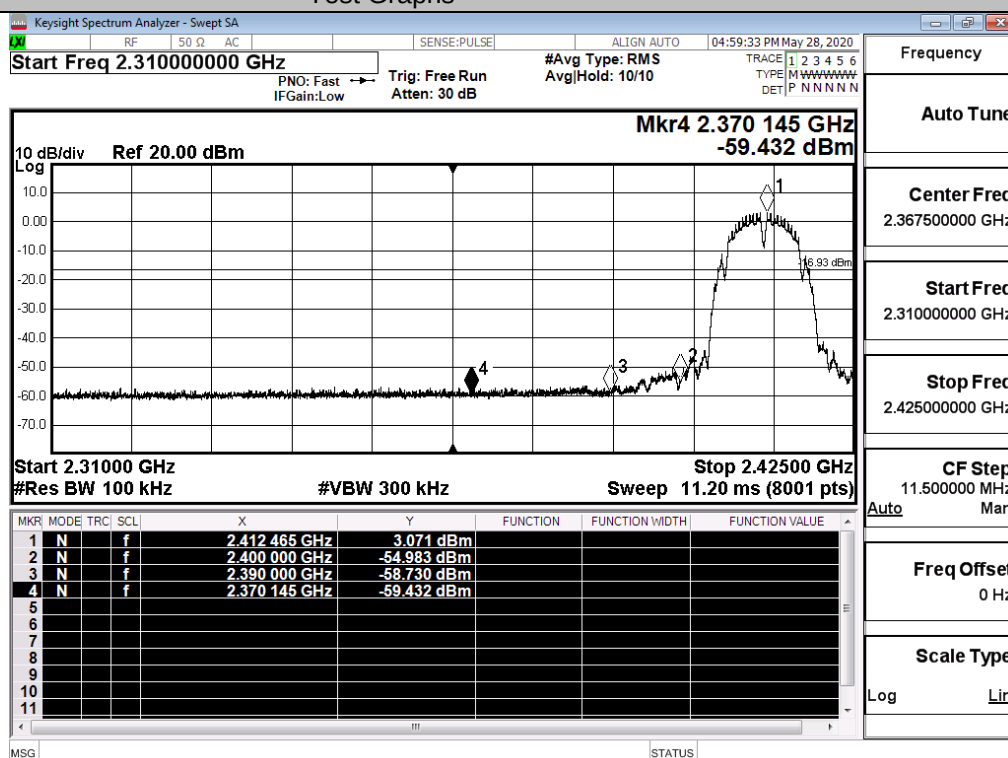
Pref/11N20
SISO/HCHPuw/11N20
SISO/HCH

A.7 Band-edge for RF Conducted Emissions

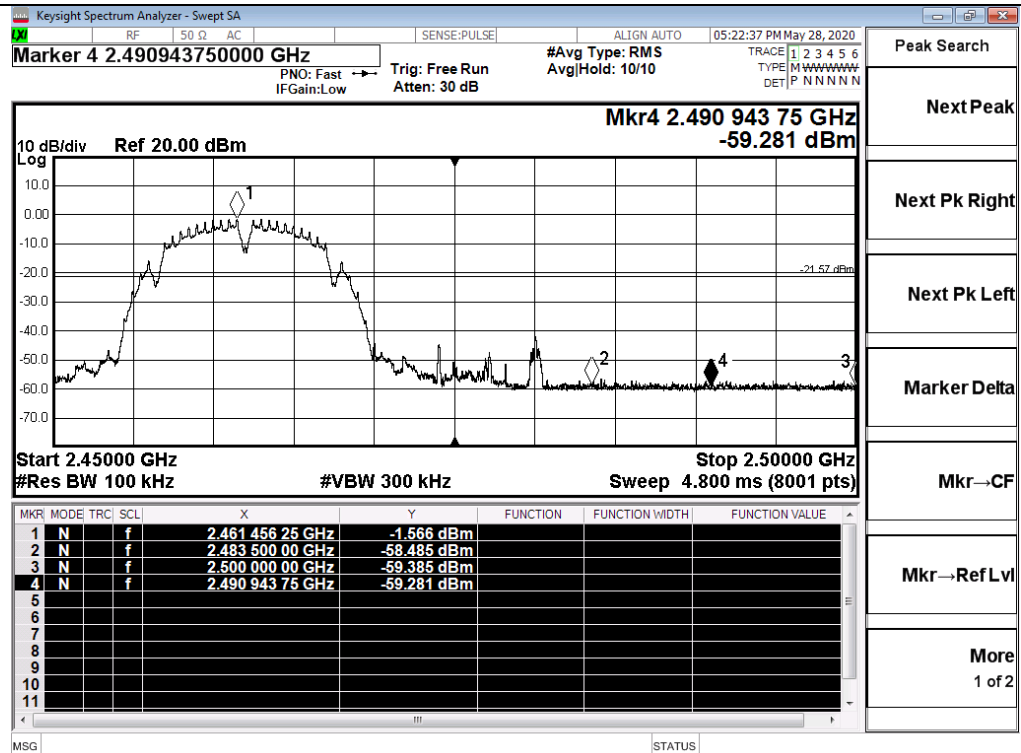
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	3.071	-59.432	-16.93	PASS
	HCH	-1.566	-59.281	-21.57	PASS
11G	LCH	-0.297	-59.136	-20.30	PASS
	HCH	-3.575	-55.992	-23.58	PASS
11N20SISO	LCH	-0.196	-56.280	-20.20	PASS
	HCH	-5.007	-56.569	-25.01	PASS

Test Graphs

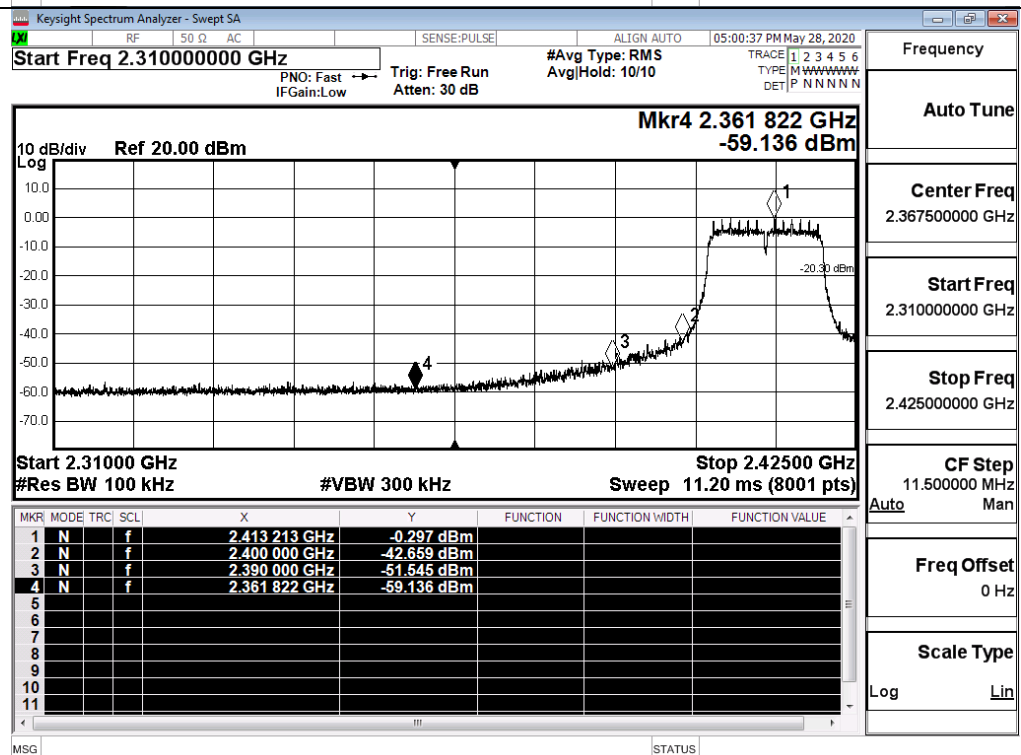
11B/LCH



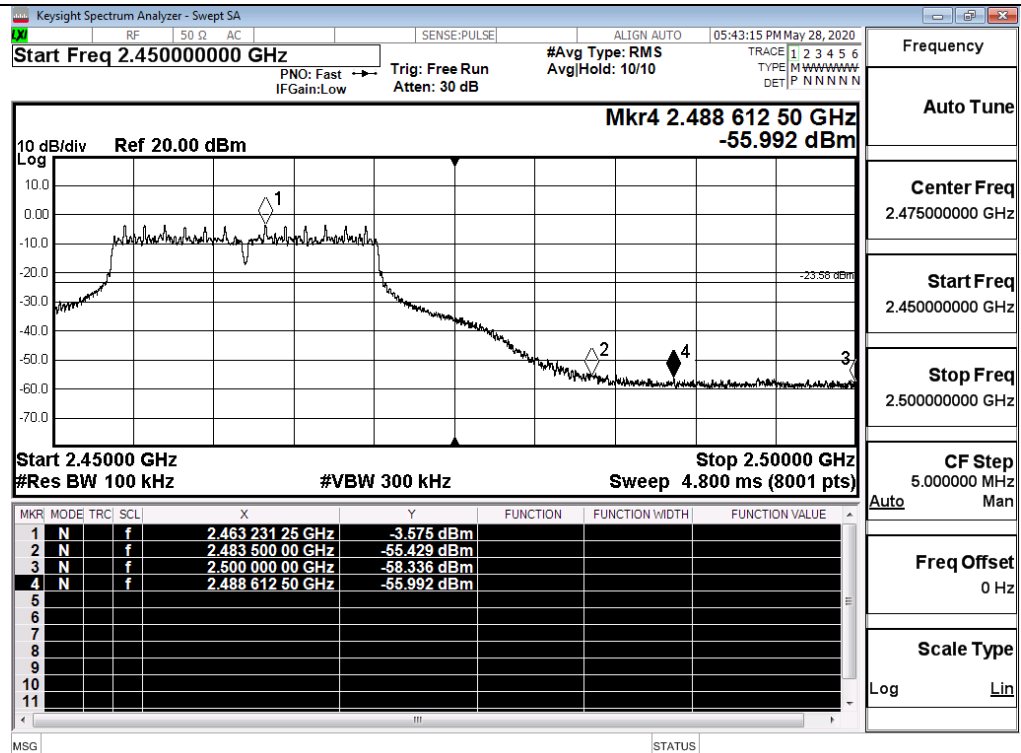
11B/HCH



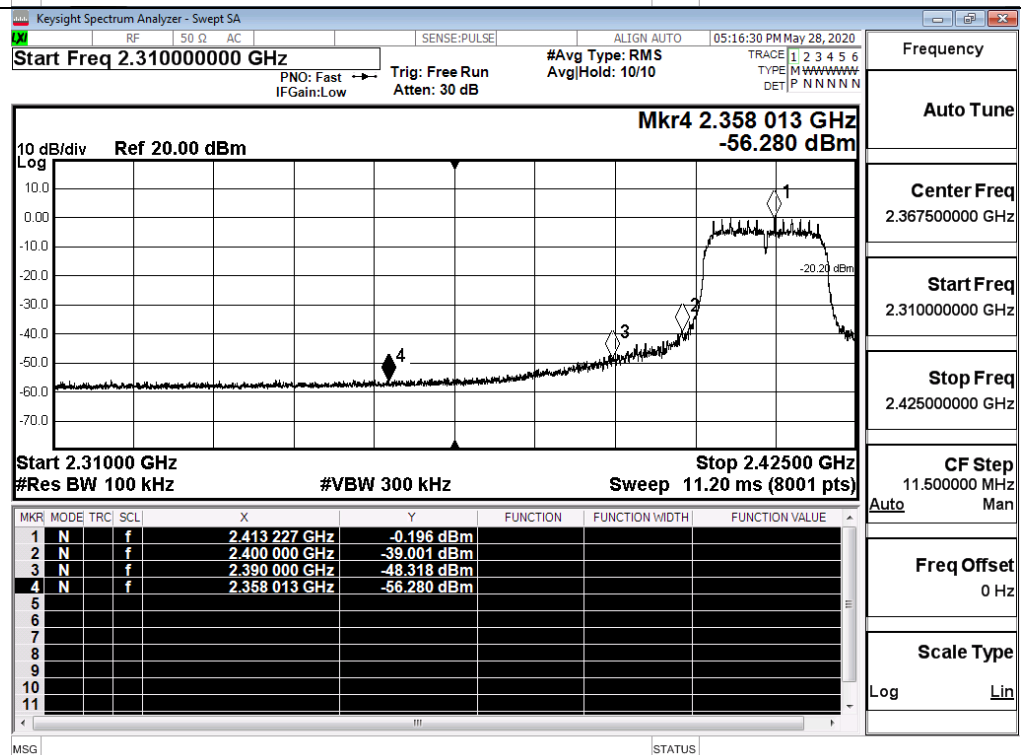
11G/LCH



11G/HCH



11N20SISO/LCH



Keysight Spectrum Analyzer - Sweep SA

RF 50 Ω AC SENSE:PULSE ALIGN AUTO 05:18:27 PM May 28, 2020

Start Freq 2.450000000 GHz #Avg Type: RMS AvgHold: 10/10

PNO: Fast IFGain:Low Trig: Free Run Atten: 30 dB

TRACE 1 2 3 4 5 6 TYPE M W W W W W W W DET P N N N N N

10 dB/div Ref 20.00 dBm

Mkr4 2.489 362 50 GHz -56.469 dBm

Start 2.45000 GHz Stop 2.50000 GHz

#Res BW 100 kHz #VBW 300 kHz Sweep 4.800 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	f	f	2.463 225 00 GHz	-5.007 dBm			
2	N	f	f	2.483 500 00 GHz	-56.992 dBm			
3	N	f	f	2.500 000 00 GHz	-59.869 dBm			
4	N	f	f	2.489 362 50 GHz	-56.469 dBm			
5								
6								
7								
8								
9								
10								
11								

Auto Tune

Center Freq 2.475000000 GHz

Start Freq 2.450000000 GHz

Stop Freq 2.500000000 GHz

CF Step 5.000000 MHz Man

Auto

Freq Offset 0 Hz

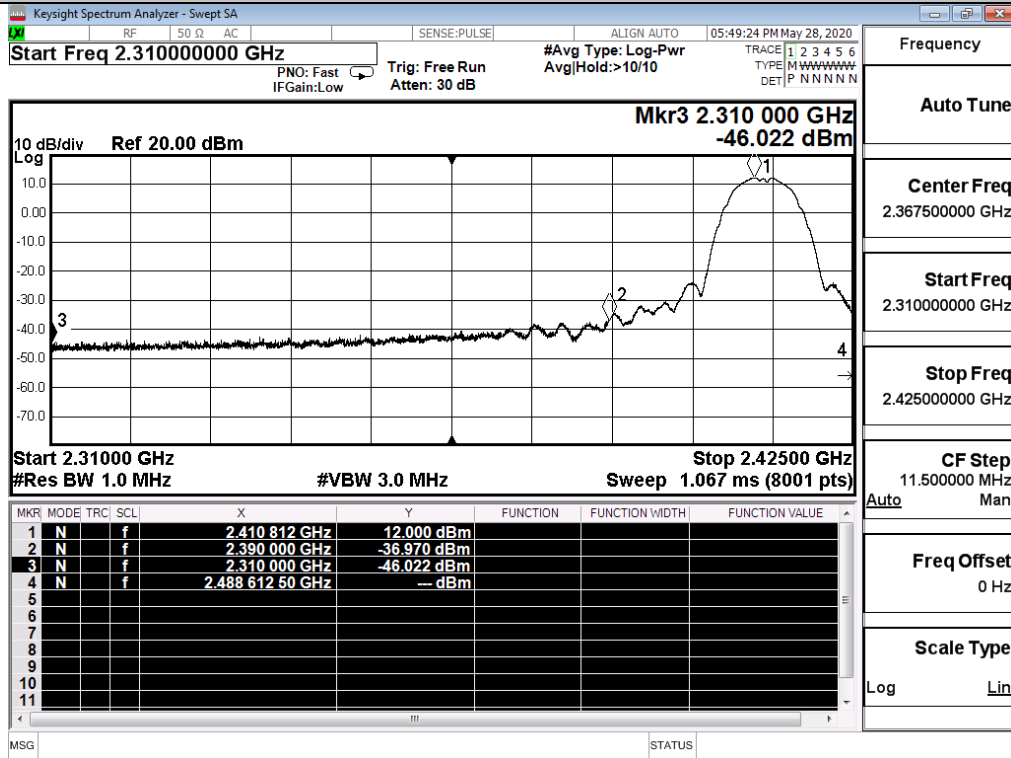
Scale Type Log Lin

MSG STATUS

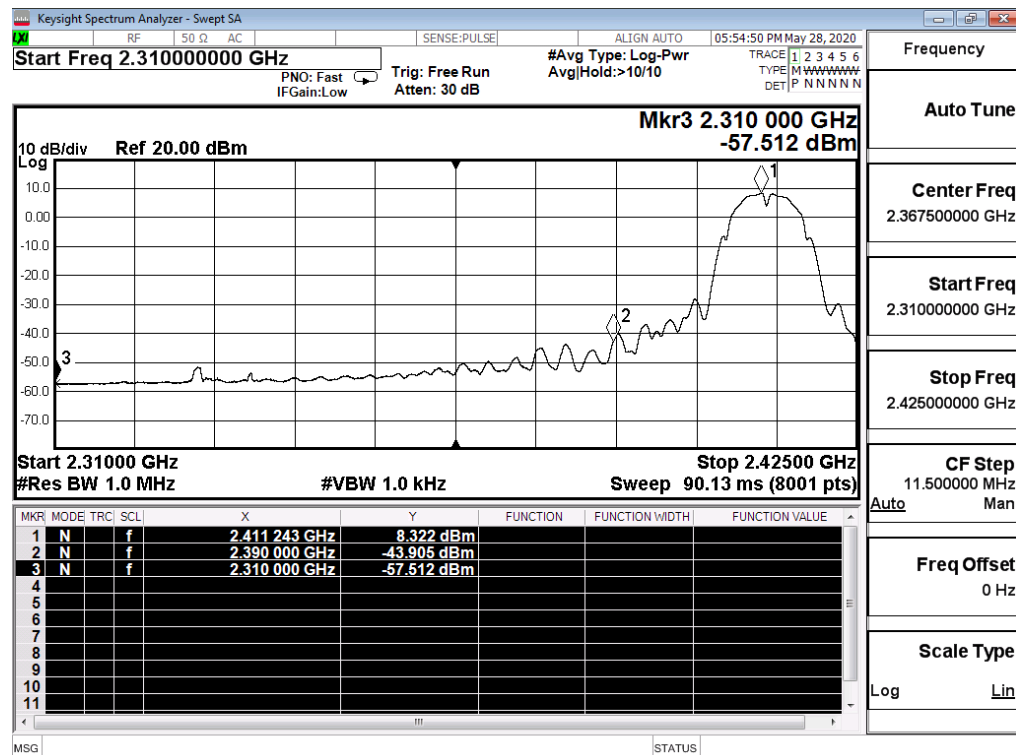
A.8 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-46.022	2.5	0	51.74	PEAK	74	PASS
	2412	Ant1	2310.0	-57.512	2.5	0	40.25	AV	54	PASS
	2412	Ant1	2390.0	-36.970	2.5	0	60.79	PEAK	74	PASS
	2412	Ant1	2390.0	-43.905	2.5	0	53.86	AV	54	PASS
	2462	Ant1	2483.5	-46.025	2.5	0	51.74	PEAK	74	PASS
	2462	Ant1	2483.5	-55.637	2.5	0	42.12	AV	54	PASS
	2462	Ant1	2500.0	-46.287	2.5	0	51.47	PEAK	74	PASS
	2462	Ant1	2500.0	-56.170	2.5	0	41.59	AV	54	PASS
11G	2412	Ant1	2310.0	-47.194	2.5	0	50.57	PEAK	74	PASS
	2412	Ant1	2310.0	-57.585	2.5	0	40.18	AV	54	PASS
	2412	Ant1	2390.0	-24.480	2.5	0	73.28	PEAK	74	PASS
	2412	Ant1	2390.0	-44.279	2.5	0	53.48	AV	54	PASS
	2462	Ant1	2483.5	-25.673	2.5	0	72.09	PEAK	74	PASS
	2462	Ant1	2483.5	-44.864	2.5	0	52.90	AV	54	PASS
	2462	Ant1	2500.0	-37.674	2.5	0	60.09	PEAK	74	PASS
	2462	Ant1	2500.0	-54.219	2.5	0	43.54	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-46.463	2.5	0	51.30	PEAK	74	PASS
	2412	Ant1	2310.0	-57.582	2.5	0	40.18	AV	54	PASS
	2412	Ant1	2390.0	-24.533	2.5	0	73.23	PEAK	74	PASS
	2412	Ant1	2390.0	-44.031	2.5	0	53.73	AV	54	PASS
	2462	Ant1	2483.5	-23.957	2.5	0	73.80	PEAK	74	PASS
	2462	Ant1	2483.5	-44.950	2.5	0	52.81	AV	54	PASS
	2462	Ant1	2500.0	-35.307	2.5	0	62.45	PEAK	74	PASS
	2462	Ant1	2500.0	-54.536	2.5	0	43.22	AV	54	PASS

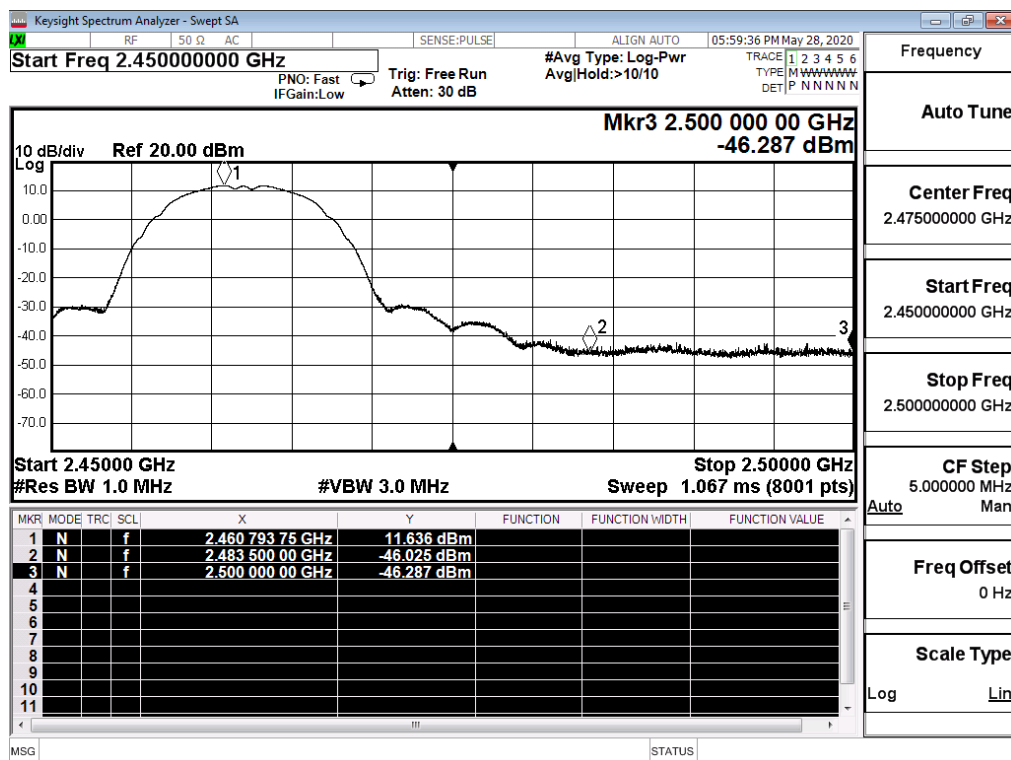
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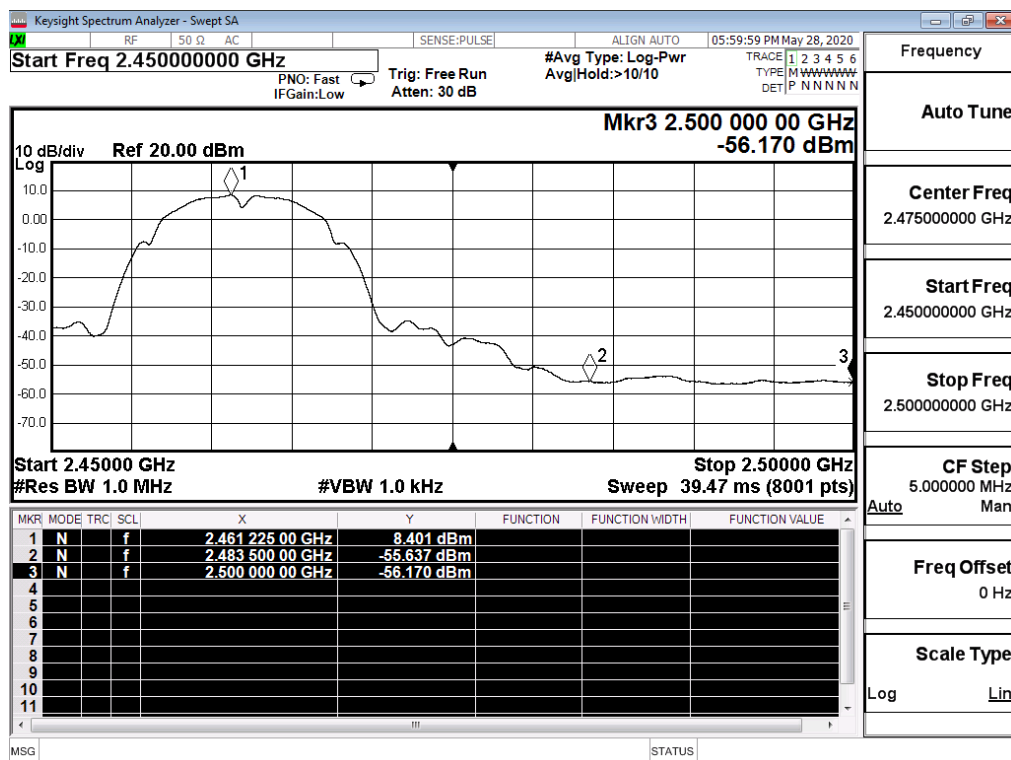
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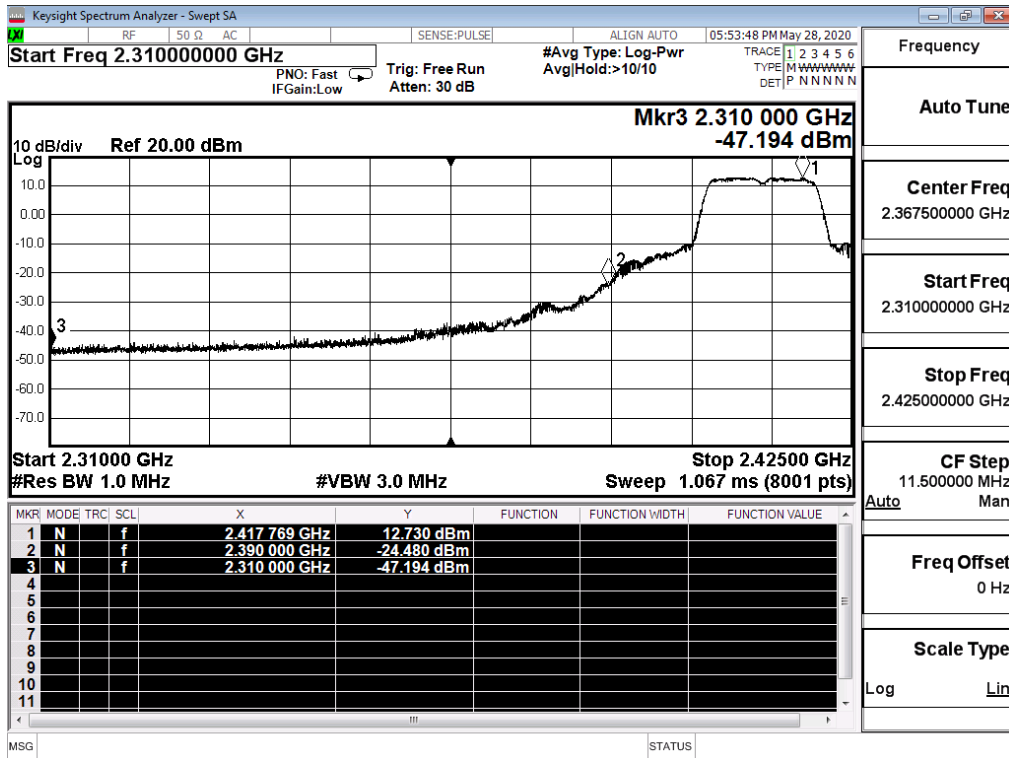
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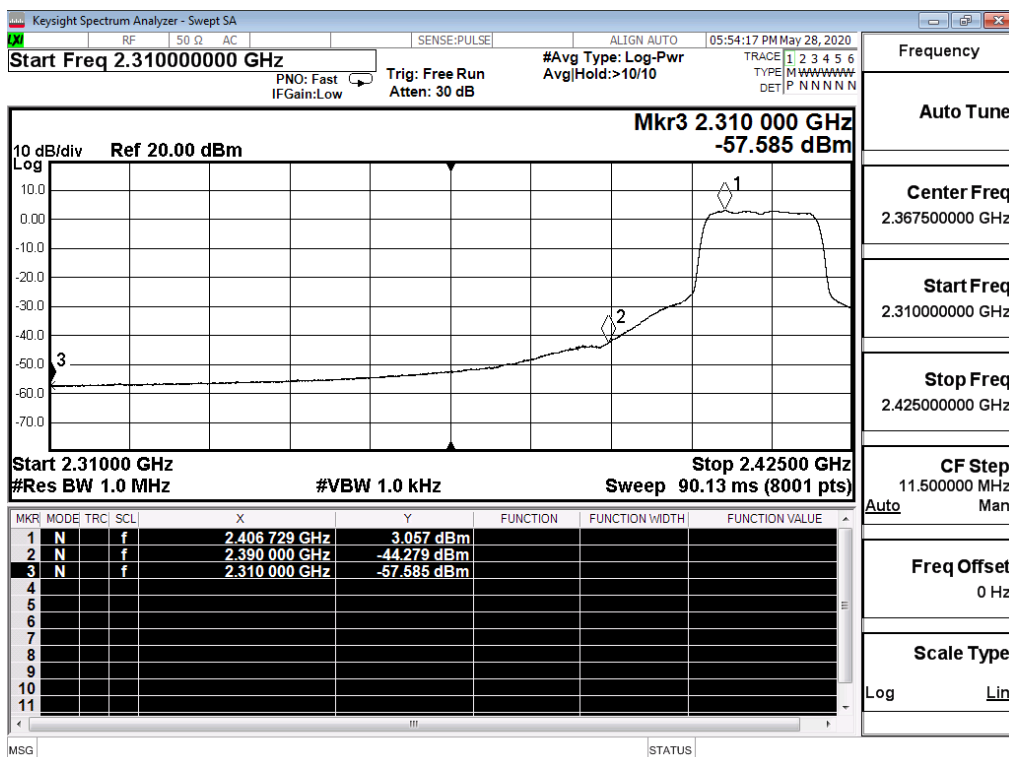
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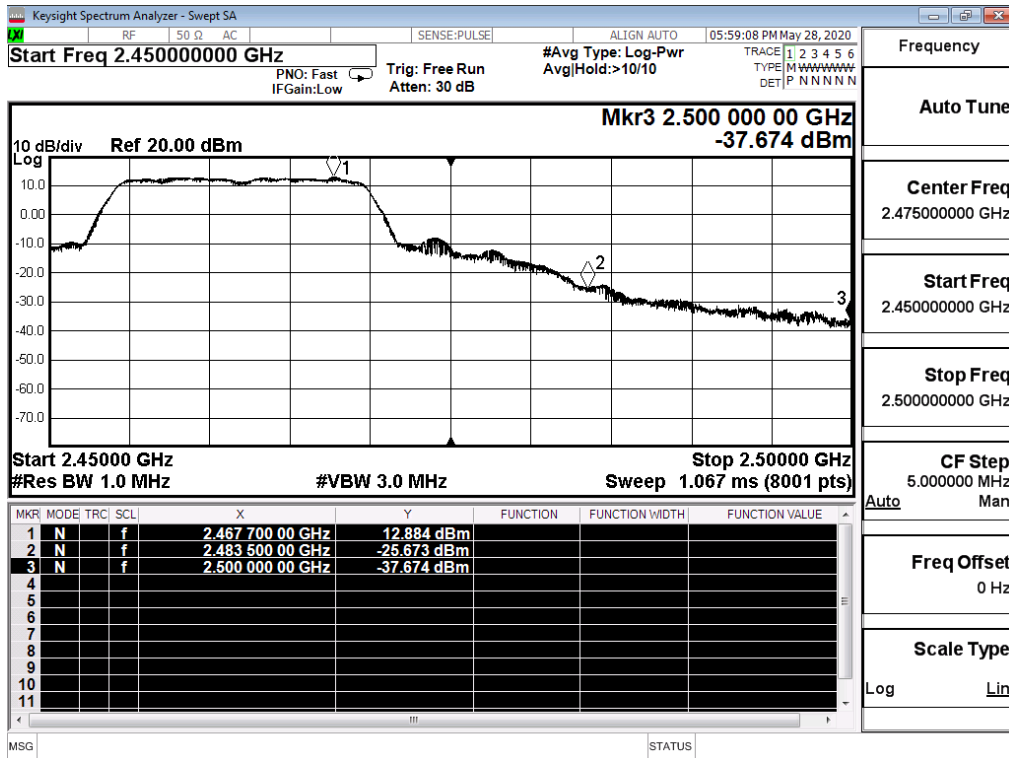
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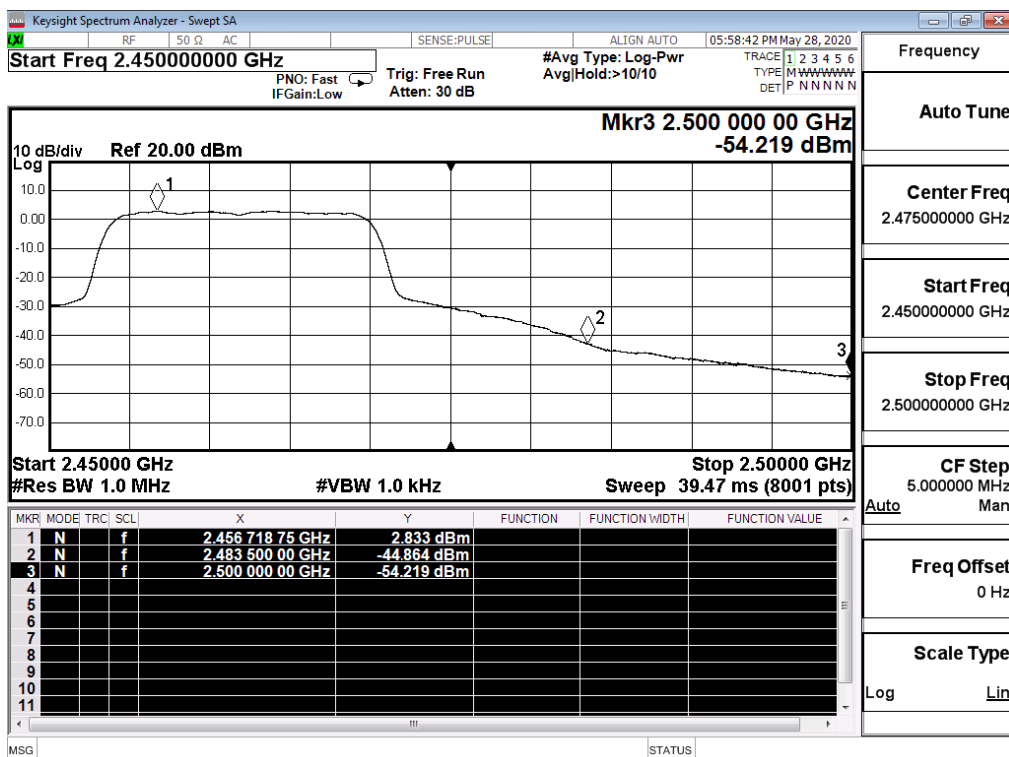
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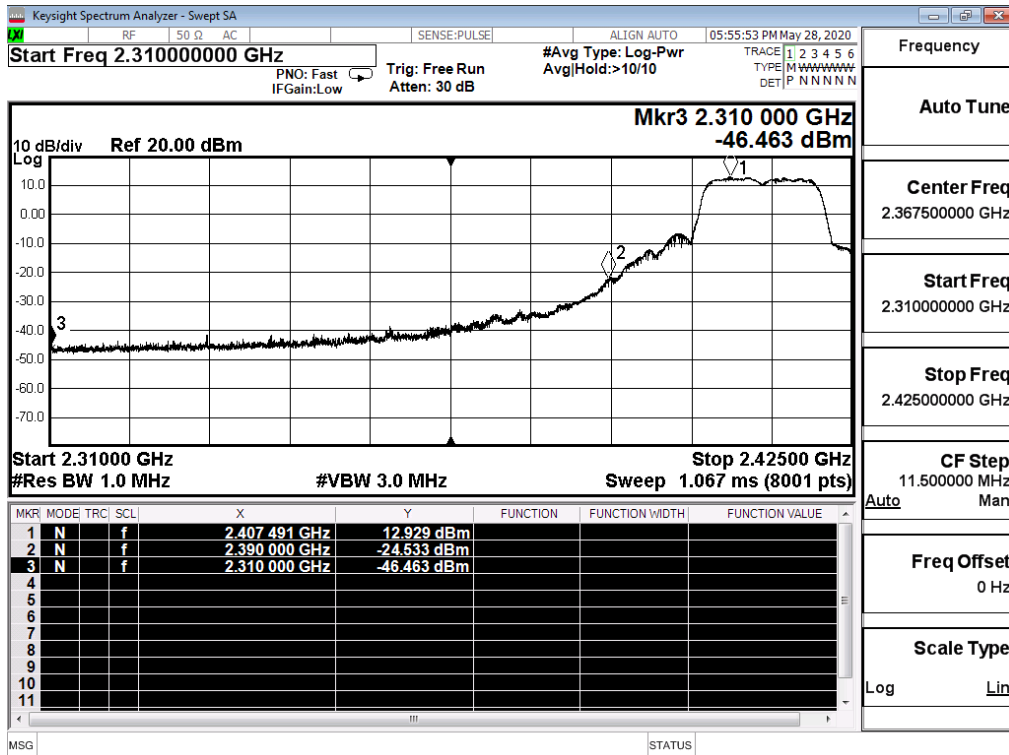
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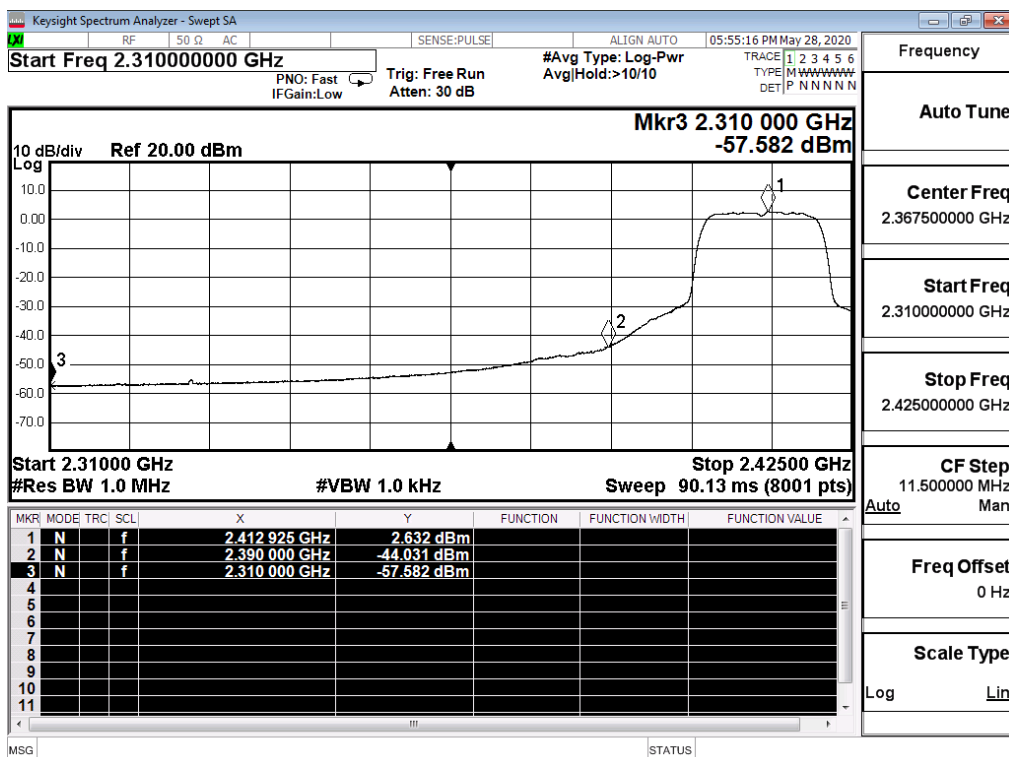
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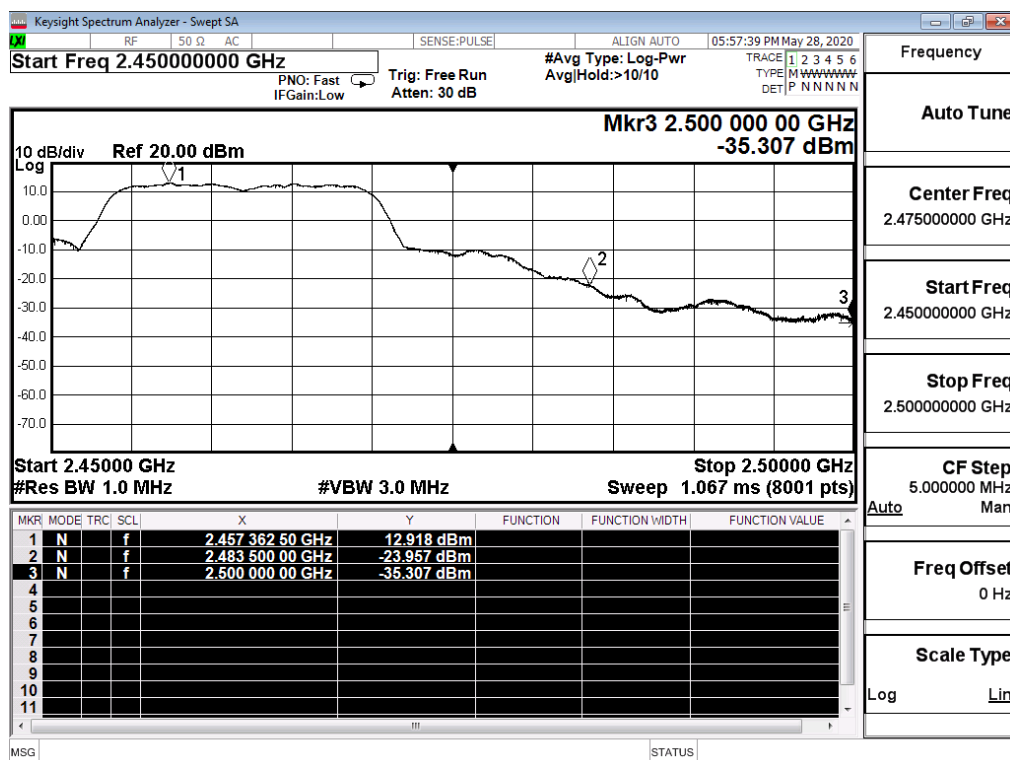
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Restrict-band band-edge measurements_11N20SISO_2462_Ant1_PEAK



Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV

