

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Smart strip light

Trade Mark: Gosund NiteBird

Test Model: SL3

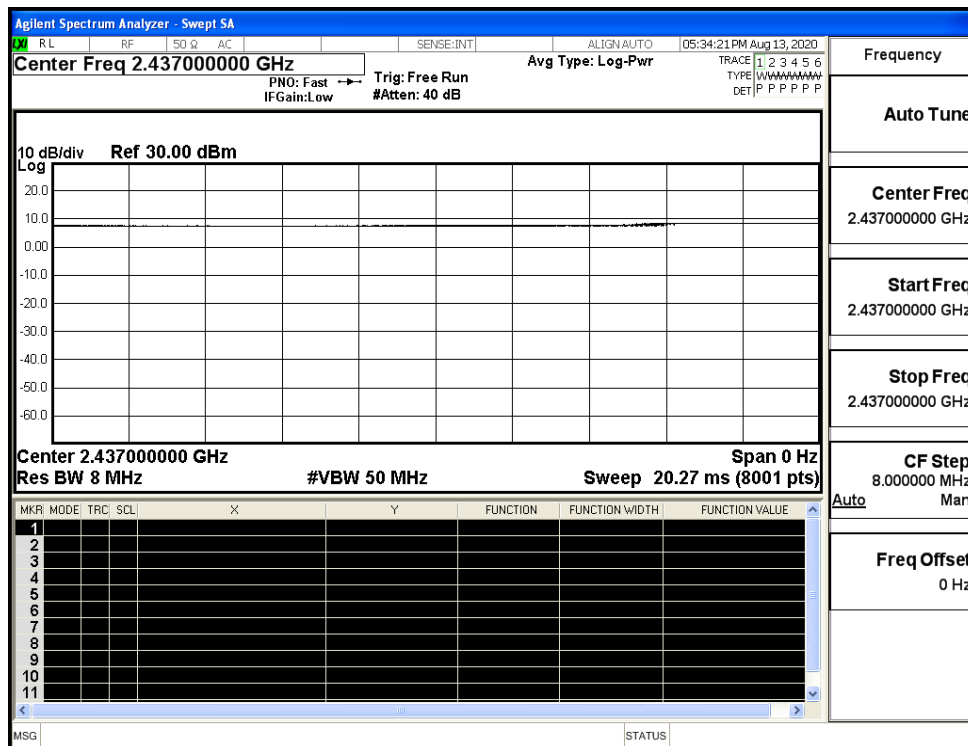
Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Jam Zheng
Supervised by:	Tom.Liu

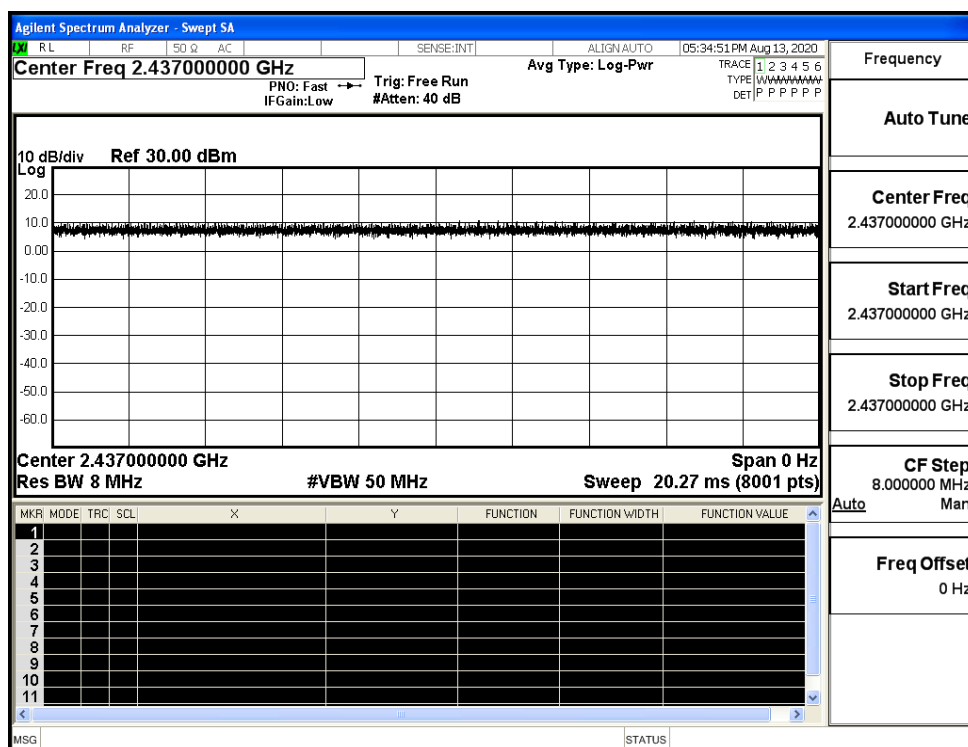
A.1 Duty Cycle

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

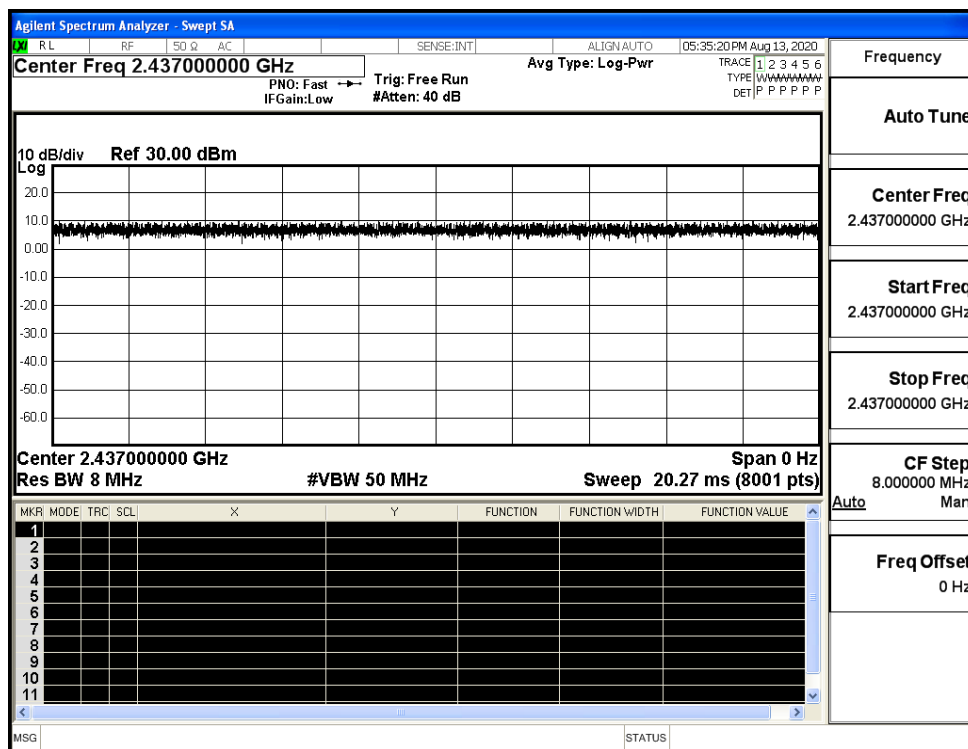
Duty Cycle_11B_2437_Ant1



Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1

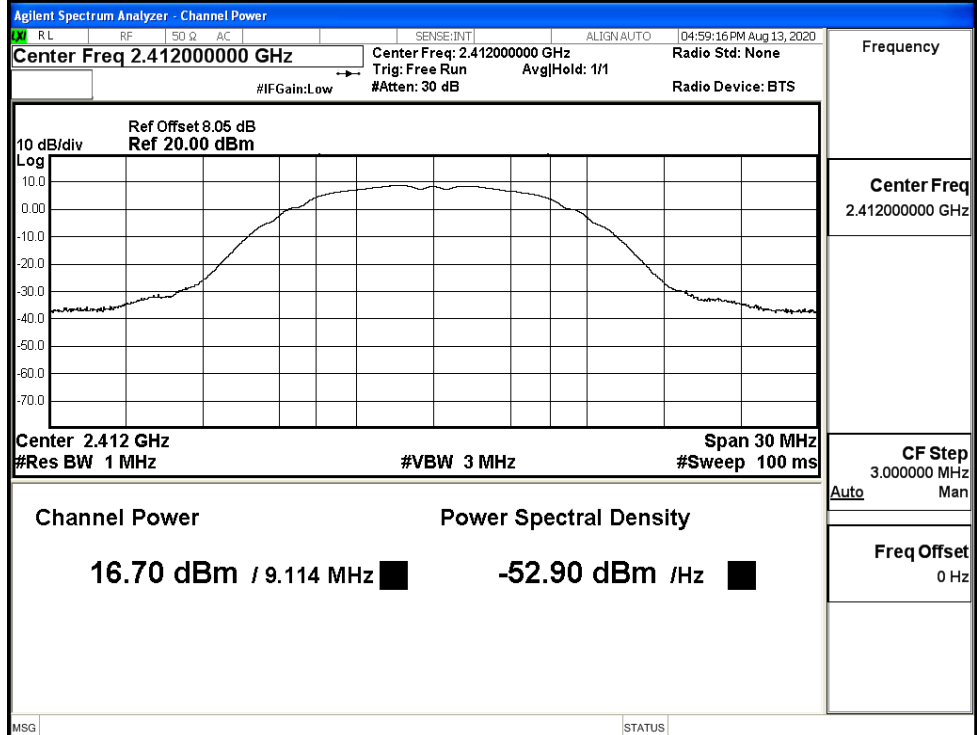


A.2 Maximum Conducted Output Power

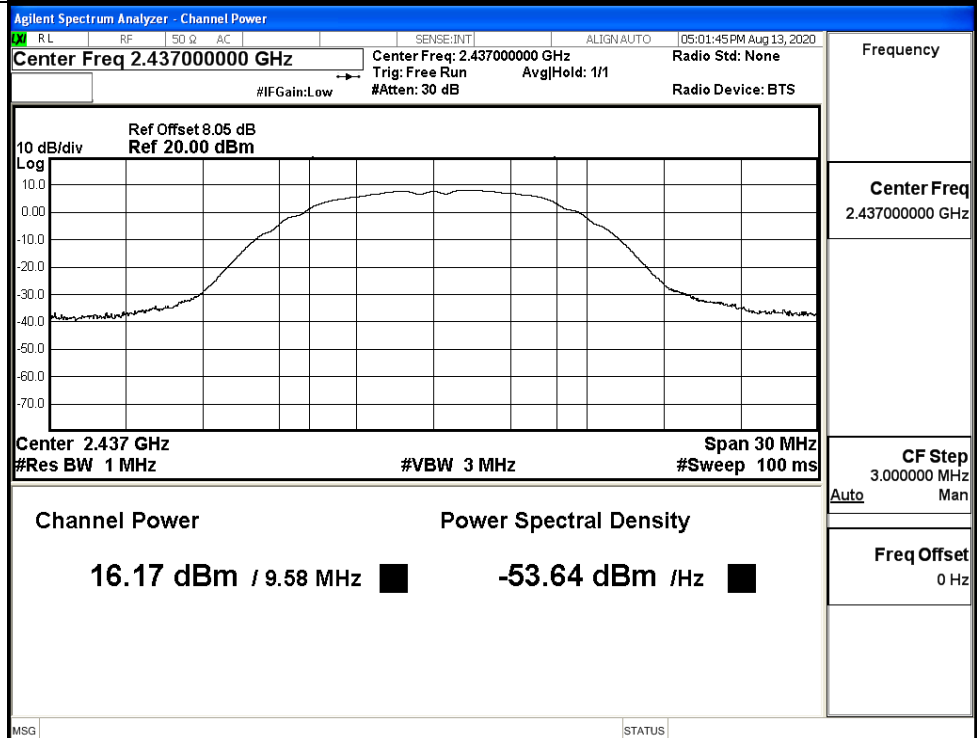
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	16.7	30	PASS
	MCH	16.17	30	PASS
	HCH	16.64	30	PASS
11G	LCH	16.77	30	PASS
	MCH	16.84	30	PASS
	HCH	16.33	30	PASS
11N20SISO	LCH	16.61	30	PASS
	MCH	16.71	30	PASS
	HCH	16.83	30	PASS

Test Graphs

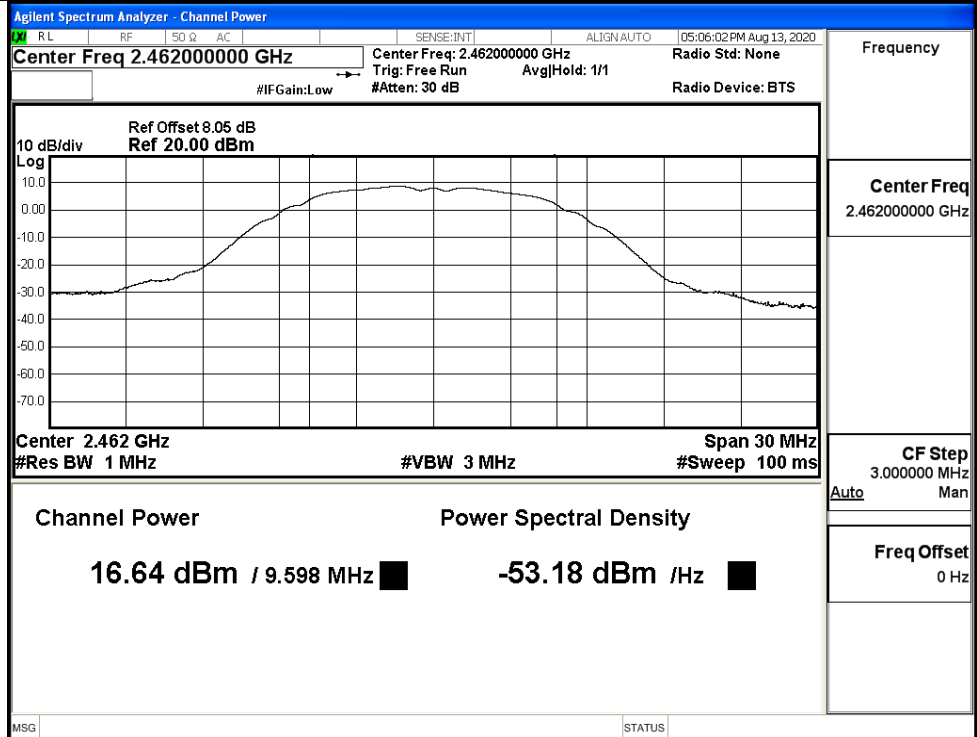
11B/LCH



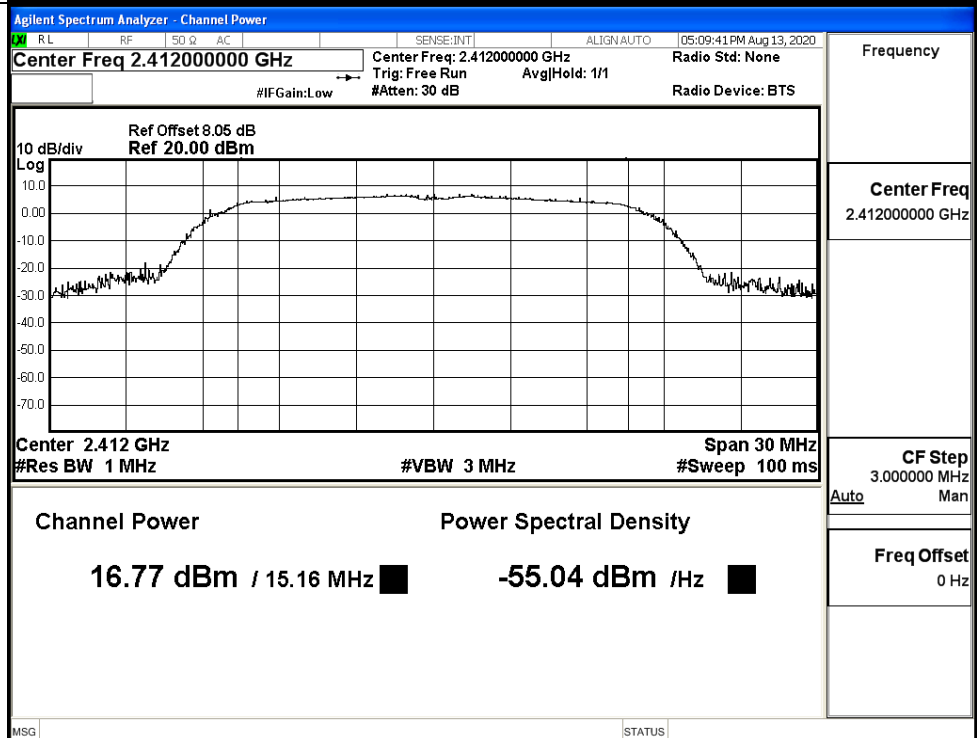
11B/MCH



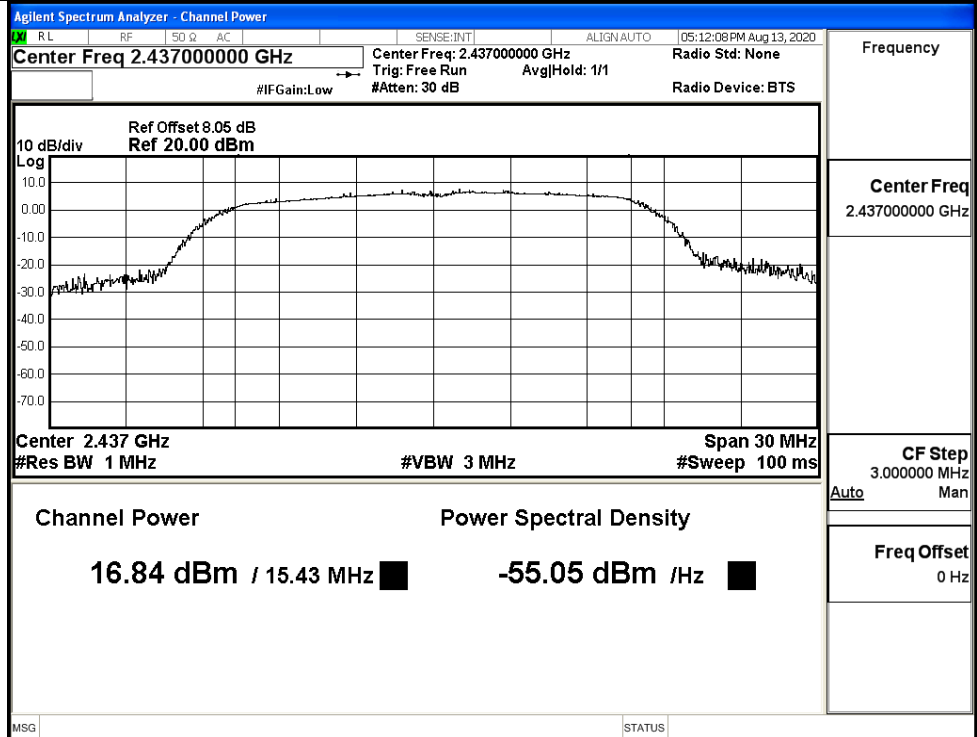
11B/HCH



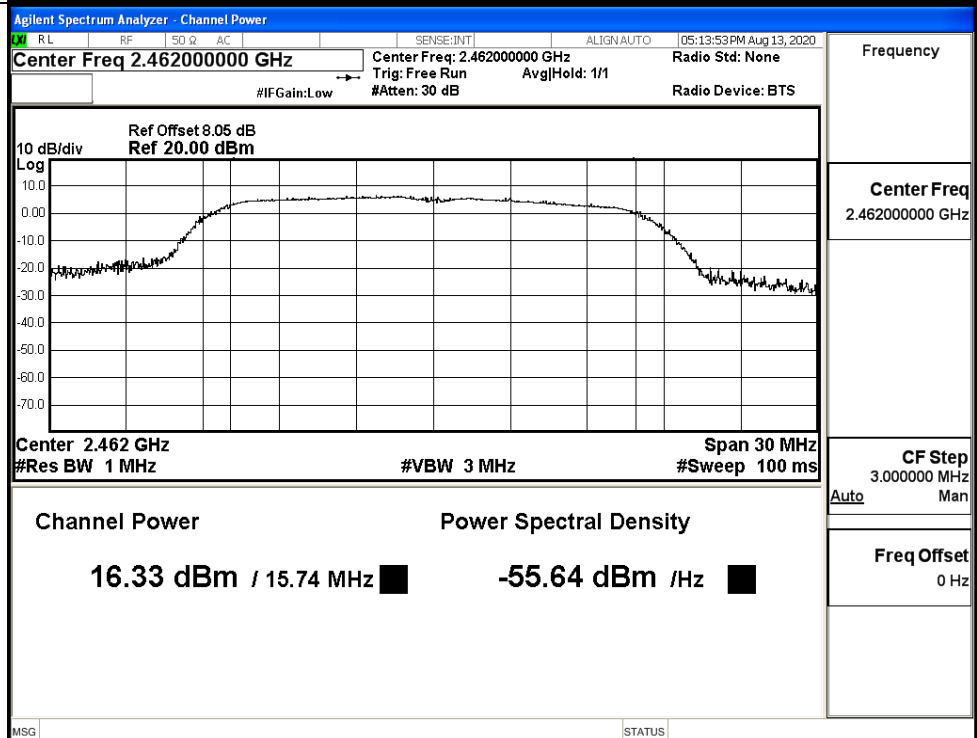
11G/LCH



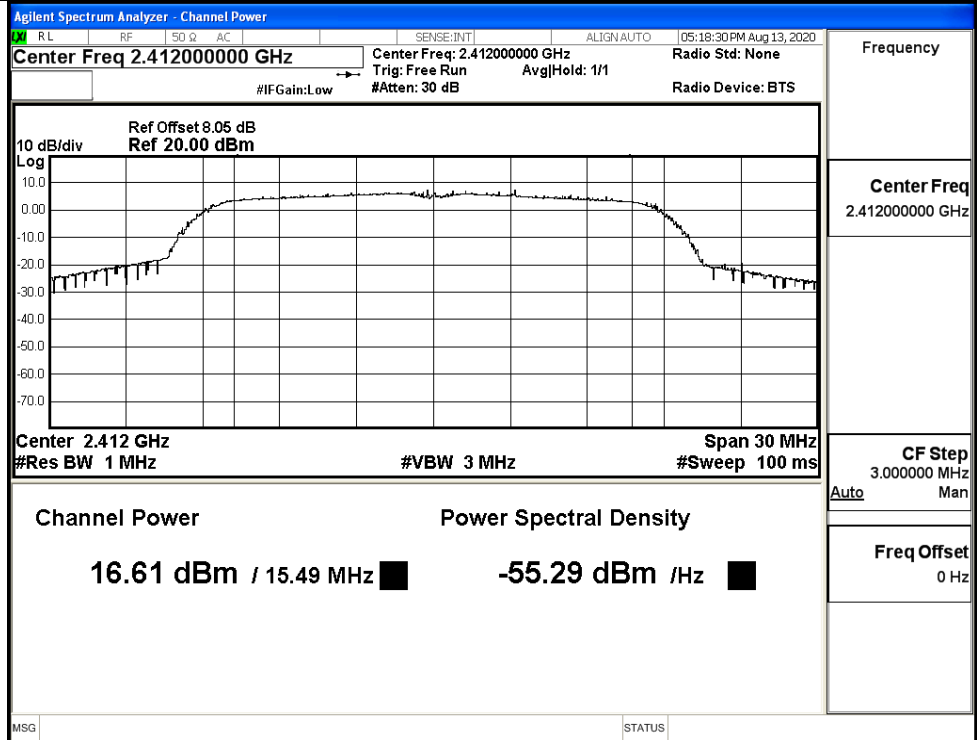
11G/MCH



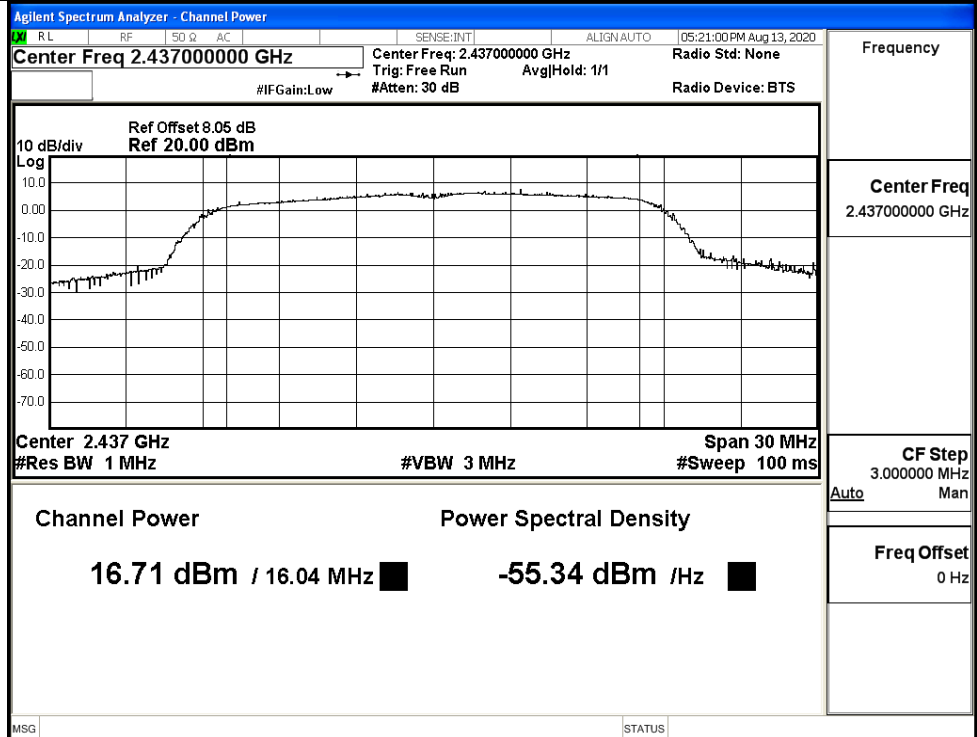
11G/HCH



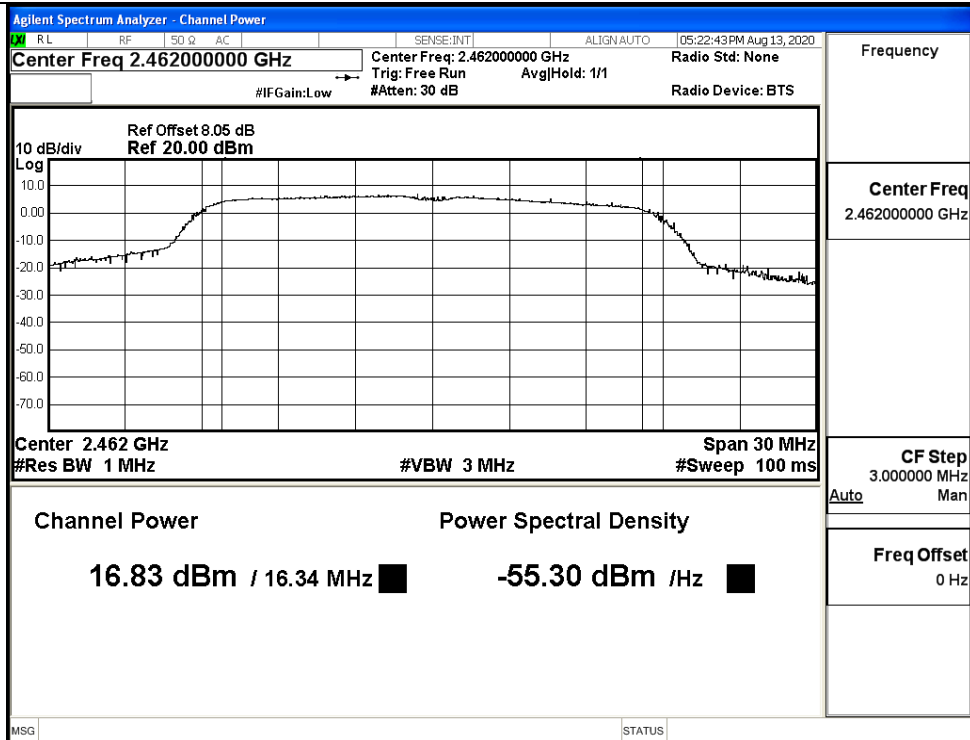
11N20SISO/LCH



11N20SISO/MCH



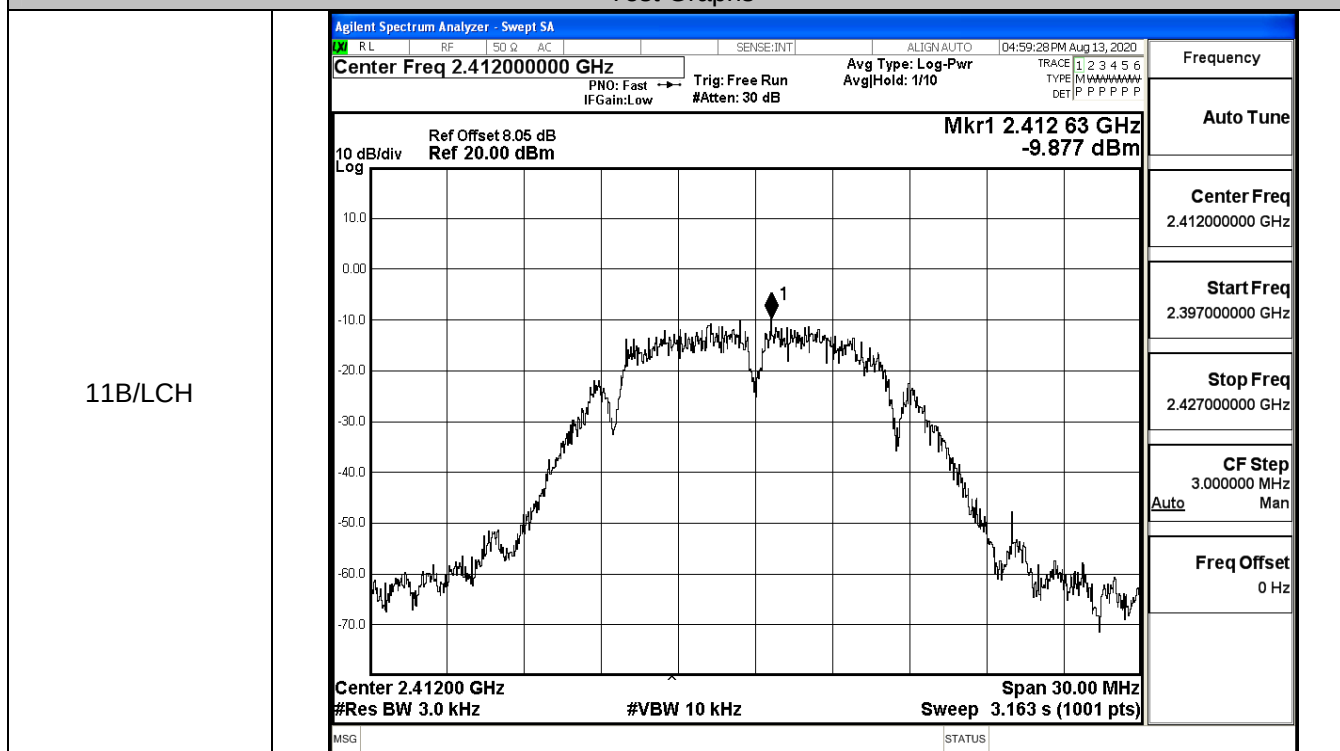
11N20SISO/HCH



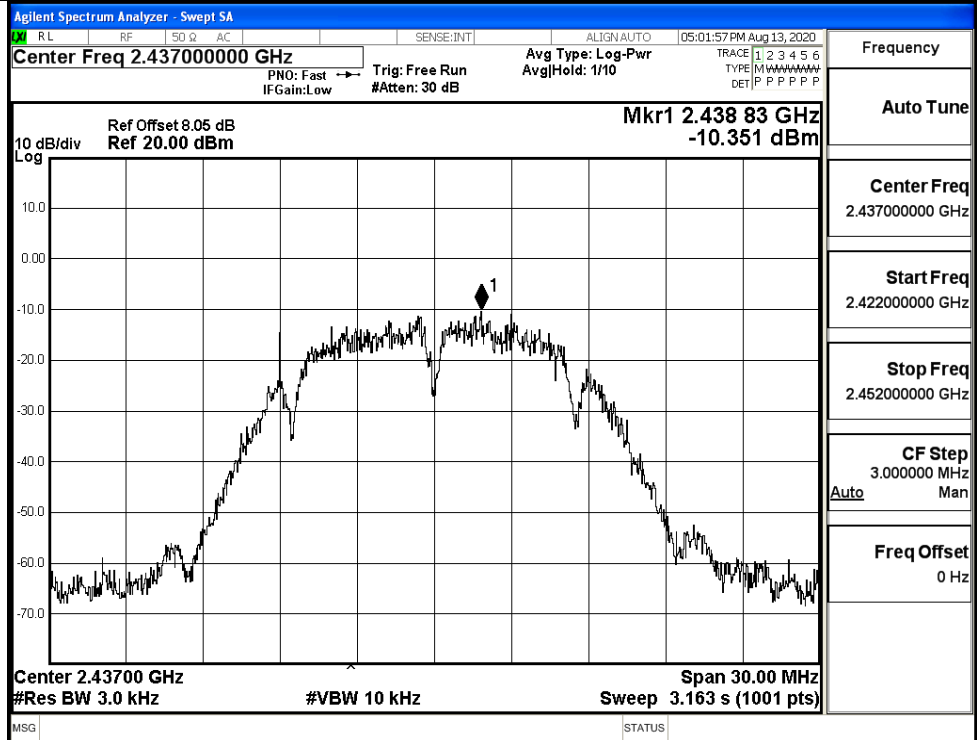
A.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-9.877	8	PASS
	MCH	-10.351	8	PASS
	HCH	-7.834	8	PASS
11G	LCH	-15.816	8	PASS
	MCH	-16.626	8	PASS
	HCH	-16.484	8	PASS
11N20SISO	LCH	-16.734	8	PASS
	MCH	-15.338	8	PASS
	HCH	-15.882	8	PASS

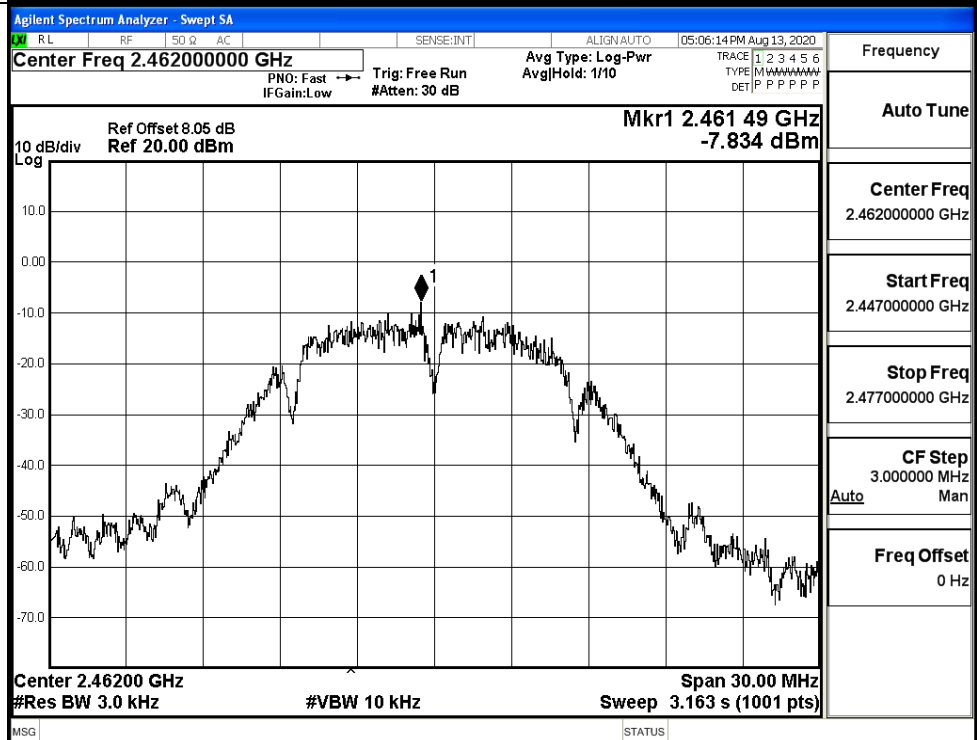
Test Graphs



11B/MCH

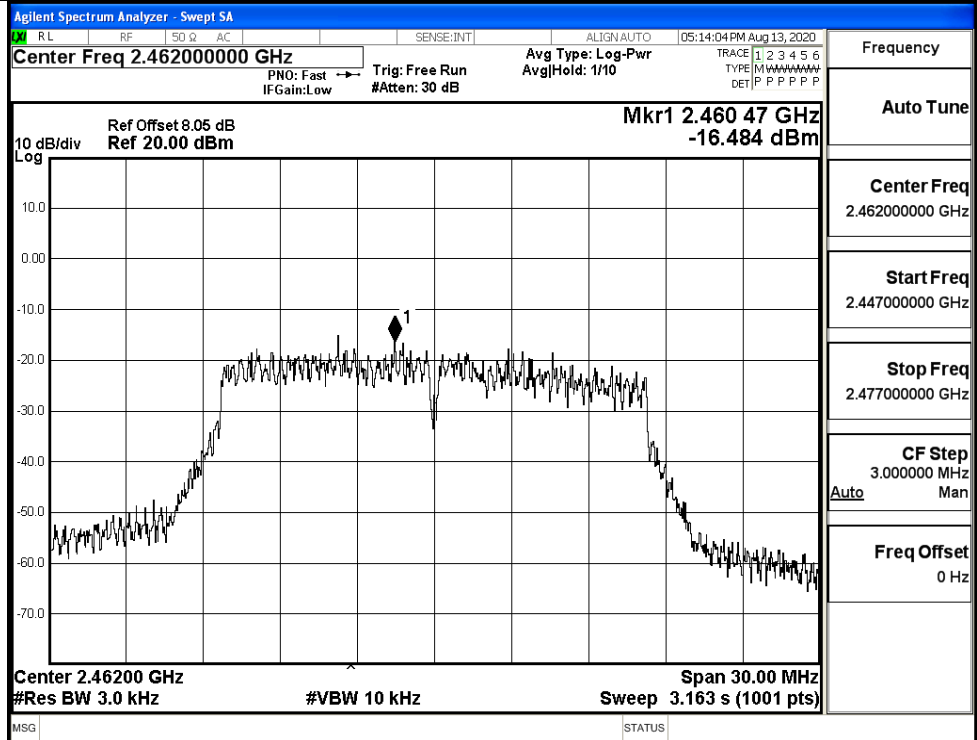


11B/HCH

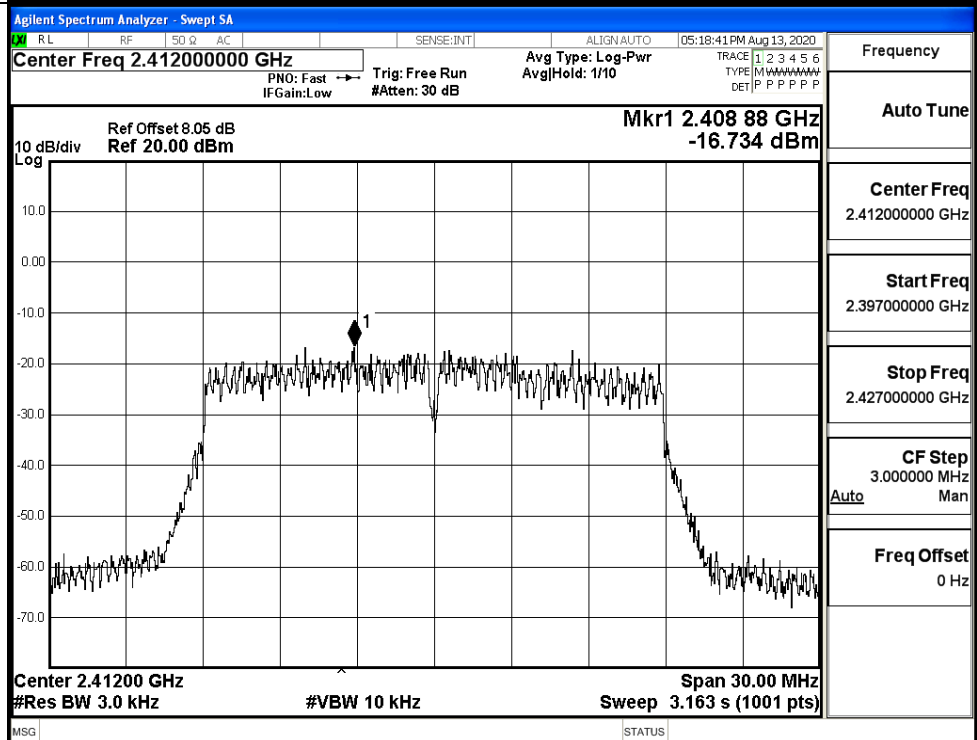


11G/LCH	Agilent Spectrum Analyzer - Swept SA
	Center Freq 2.41200000 GHz Ref Offset 8.05 dB Ref 20.00 dBm 10 dB/div Log Center 2.41200 GHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 3.163 s (1001 pts) Frequency Auto Tune Center Freq 2.412000000 GHz Start Freq 2.397000000 GHz Stop Freq 2.427000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz
11G/MCH	Agilent Spectrum Analyzer - Swept SA Center Freq 2.43700000 GHz Ref Offset 8.05 dB Ref 20.00 dBm 10 dB/div Log Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 3.163 s (1001 pts) Frequency Auto Tune Center Freq 2.437000000 GHz Start Freq 2.422000000 GHz Stop Freq 2.452000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz

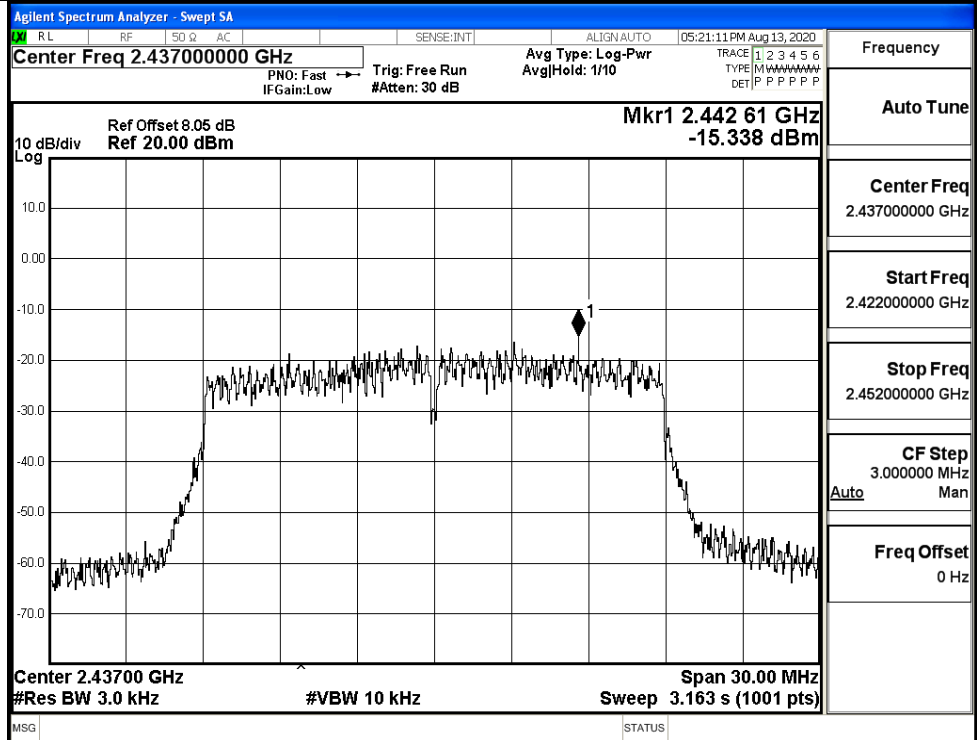
11G/HCH



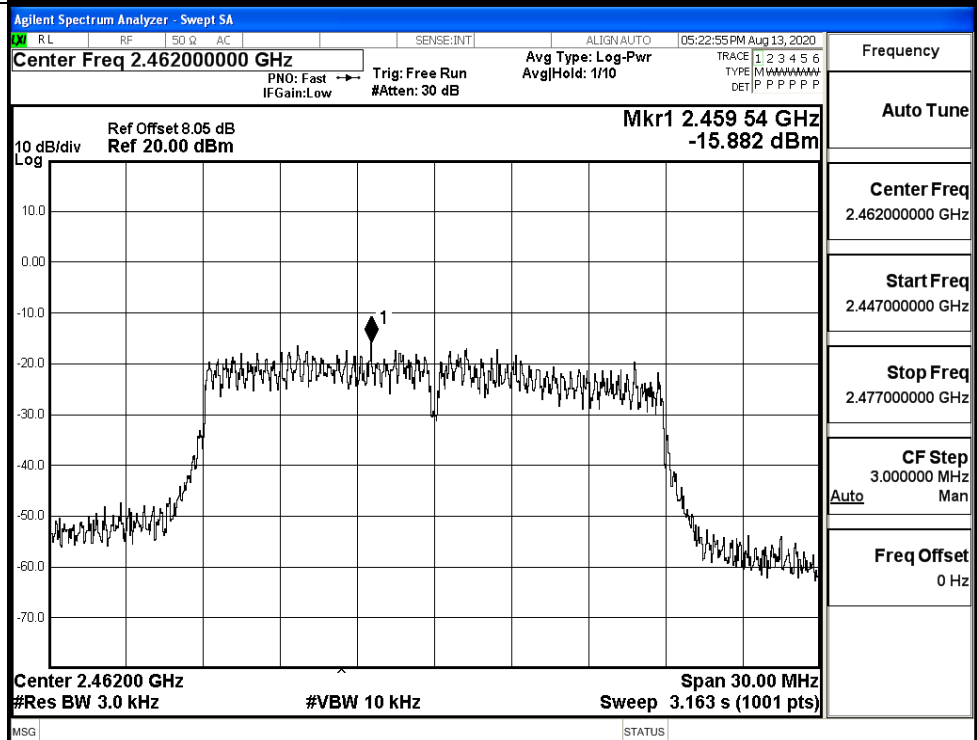
11N20SISO/LCH



11N20SISO/MCH



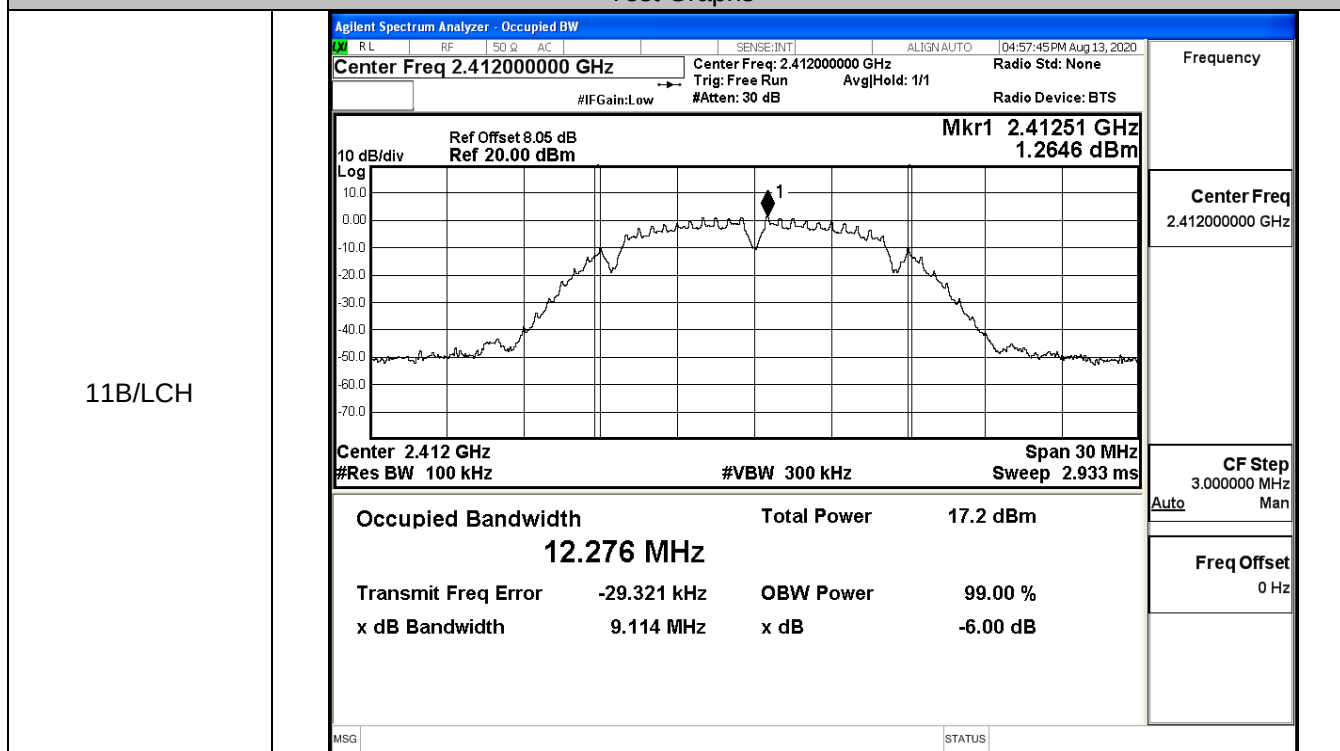
11N20SISO/HCH



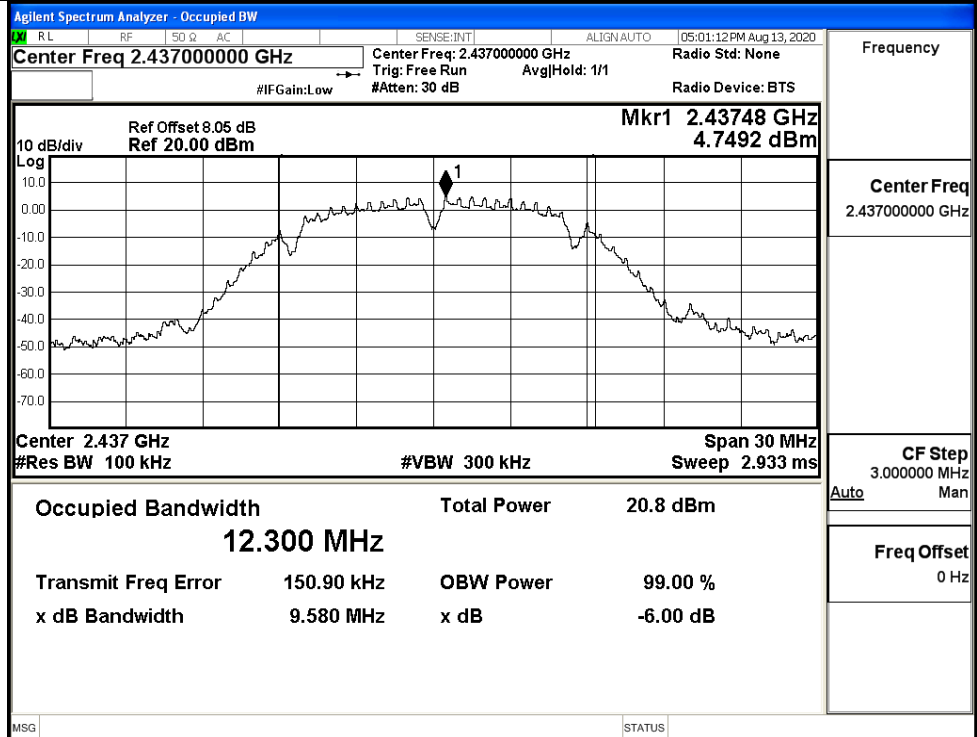
A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.114	≥ 0.5	PASS
	MCH	9.580	≥ 0.5	PASS
	HCH	9.598	≥ 0.5	PASS
11G	LCH	15.16	≥ 0.5	PASS
	MCH	15.43	≥ 0.5	PASS
	HCH	15.74	≥ 0.5	PASS
11N20SISO	LCH	15.49	≥ 0.5	PASS
	MCH	16.04	≥ 0.5	PASS
	HCH	16.34	≥ 0.5	PASS

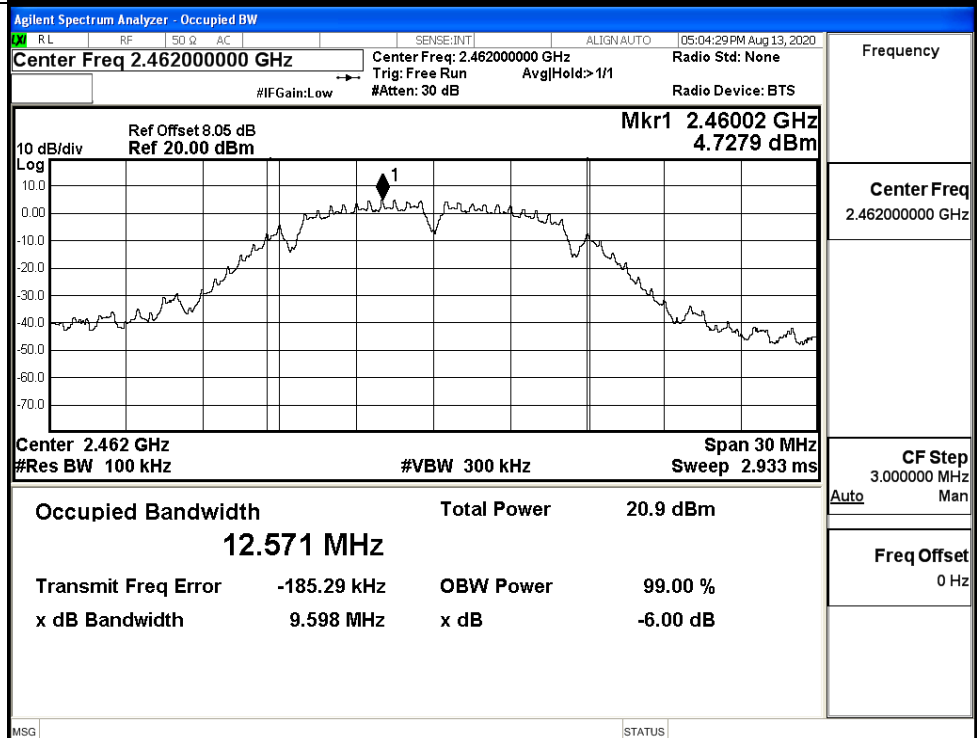
Test Graphs



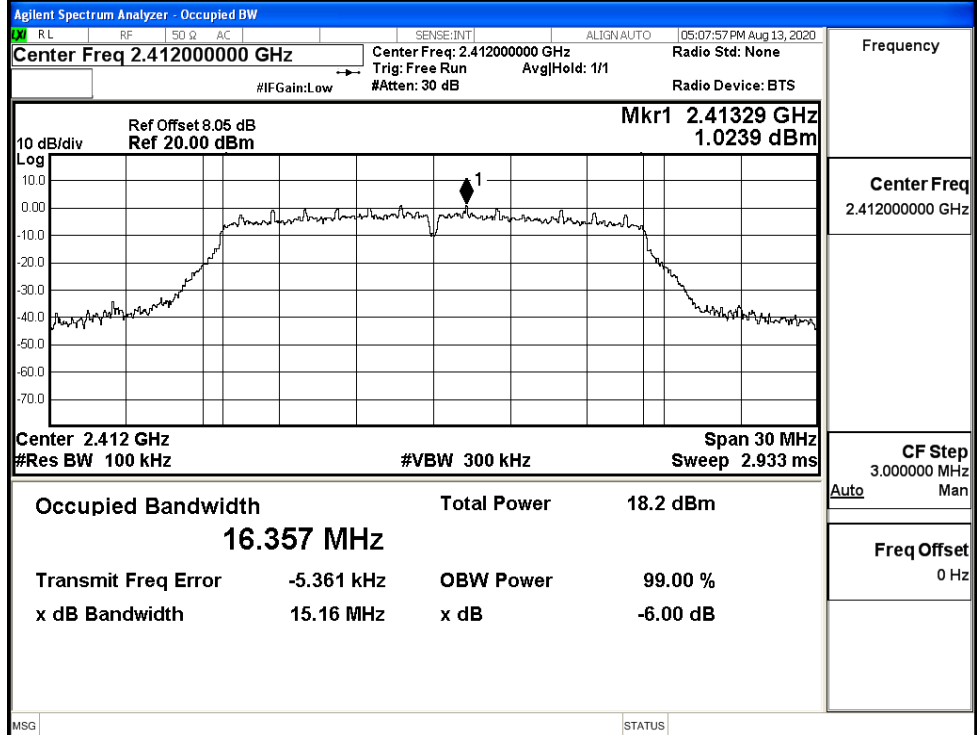
11B/MCH



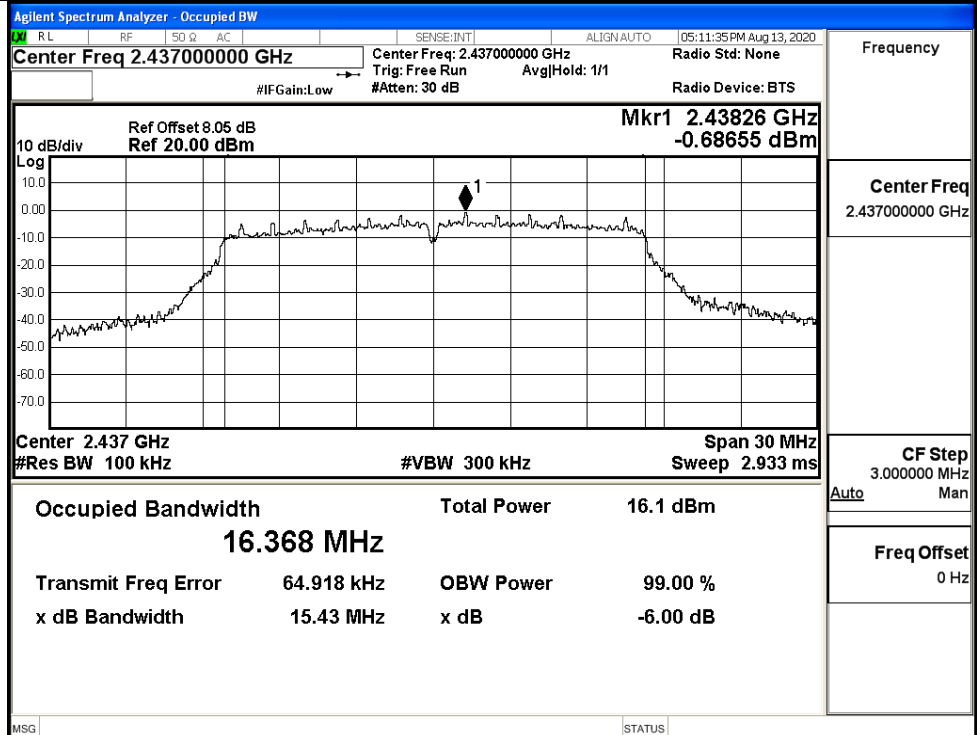
11B/HCH



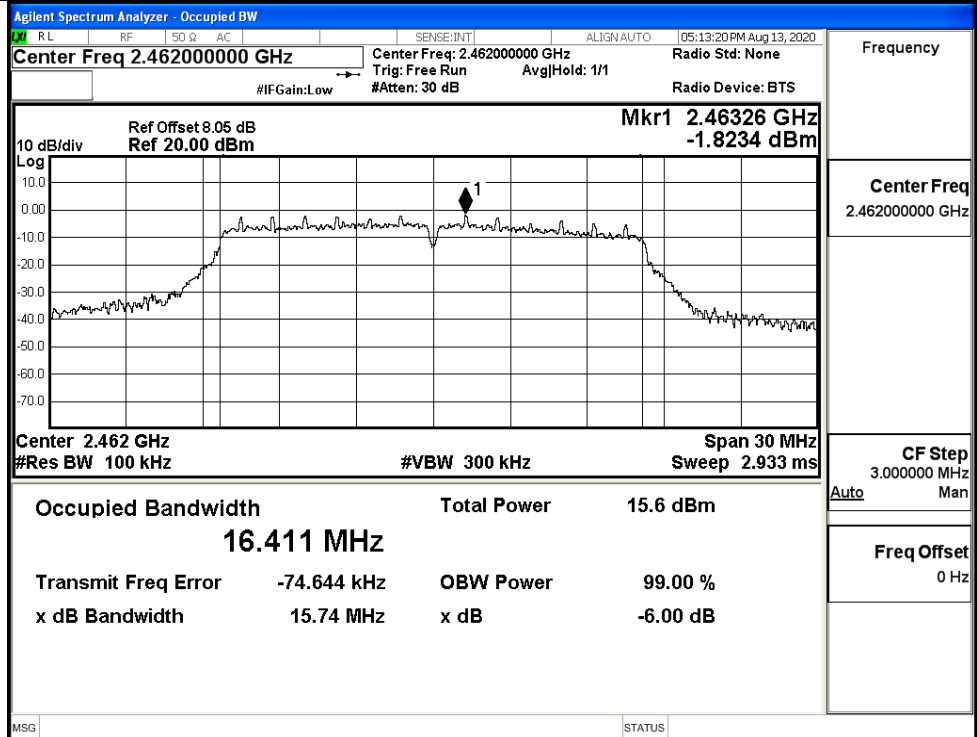
11G/LCH



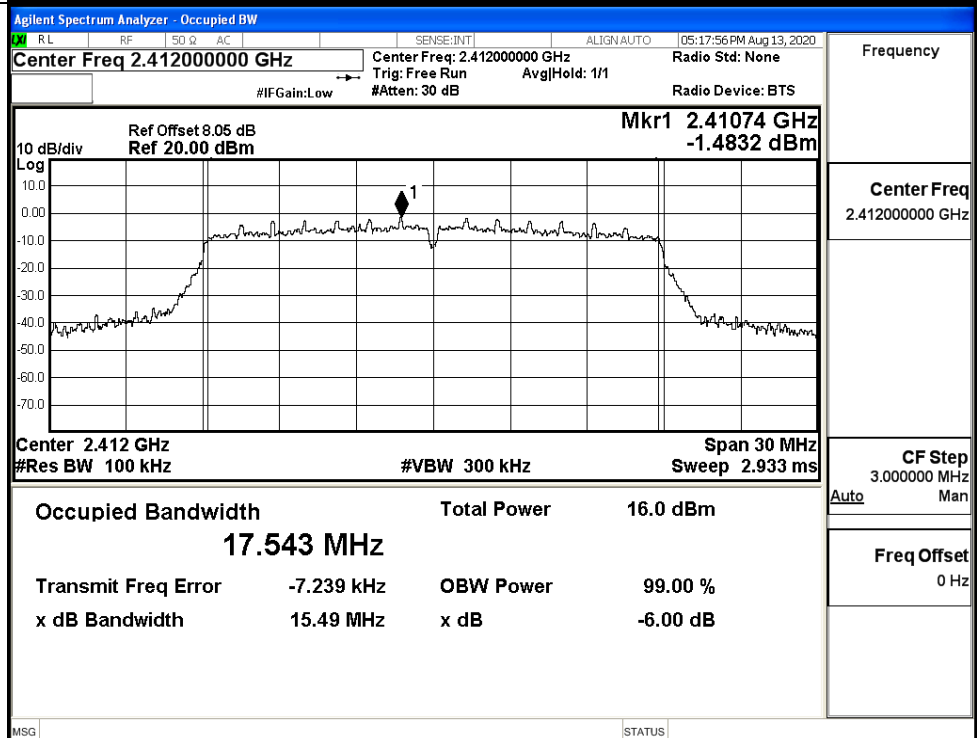
11G/MCH



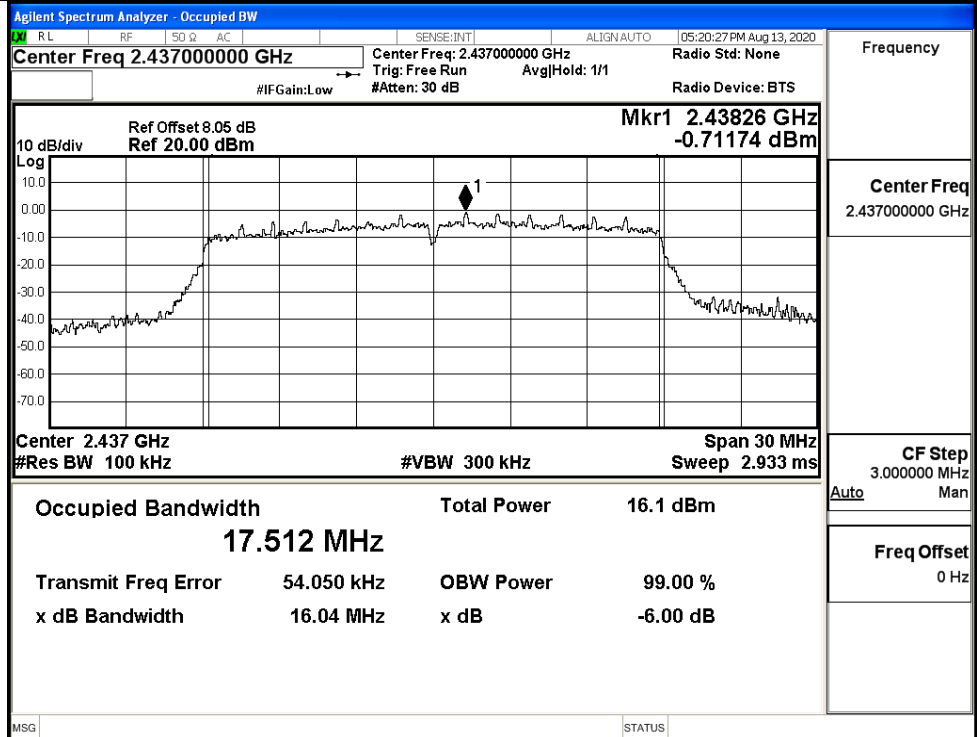
11G/HCH



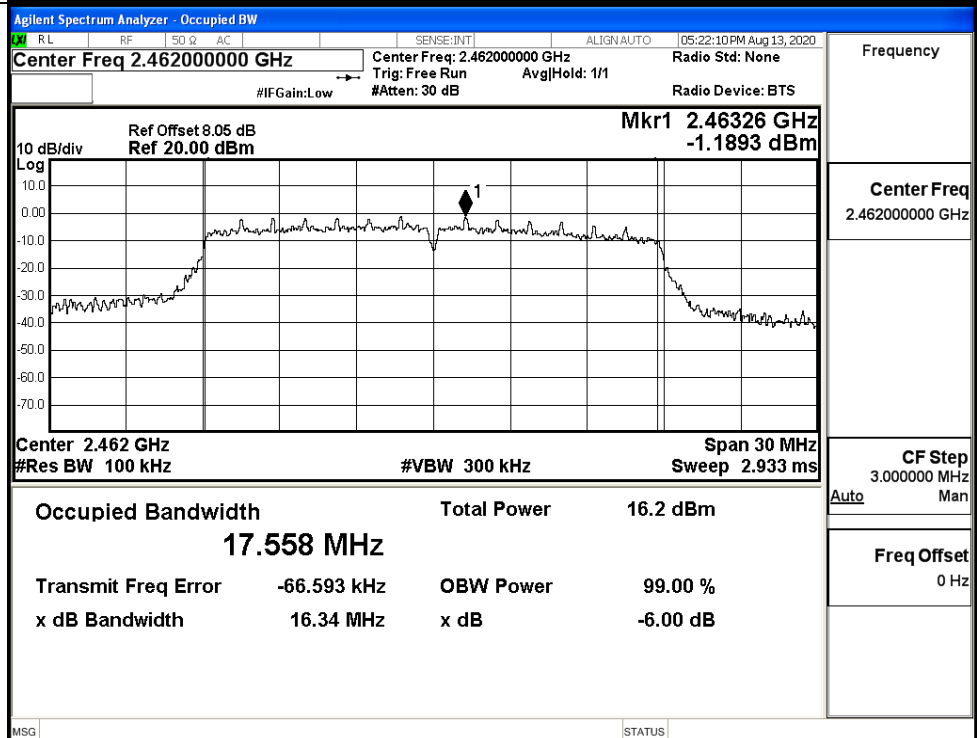
11N20SISO/LCH



11N20SISO/MCH



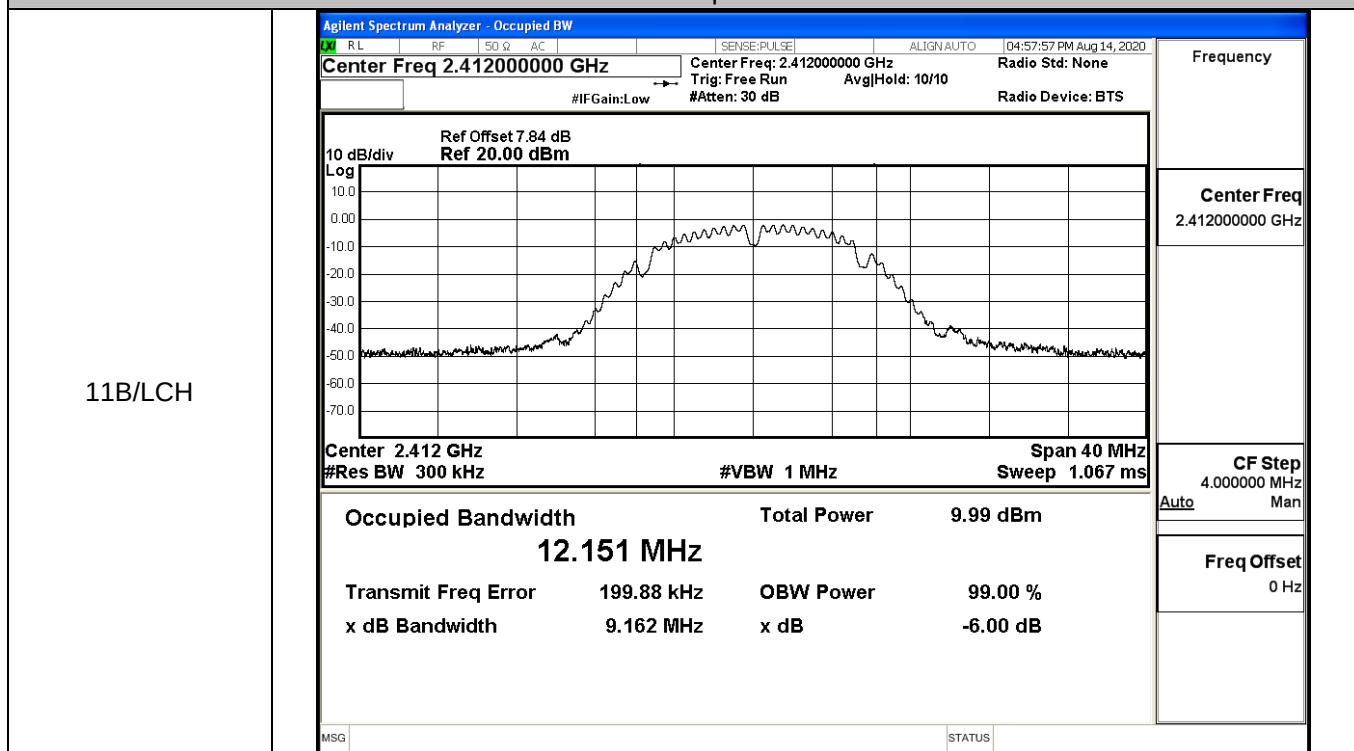
11N20SISO/HCH



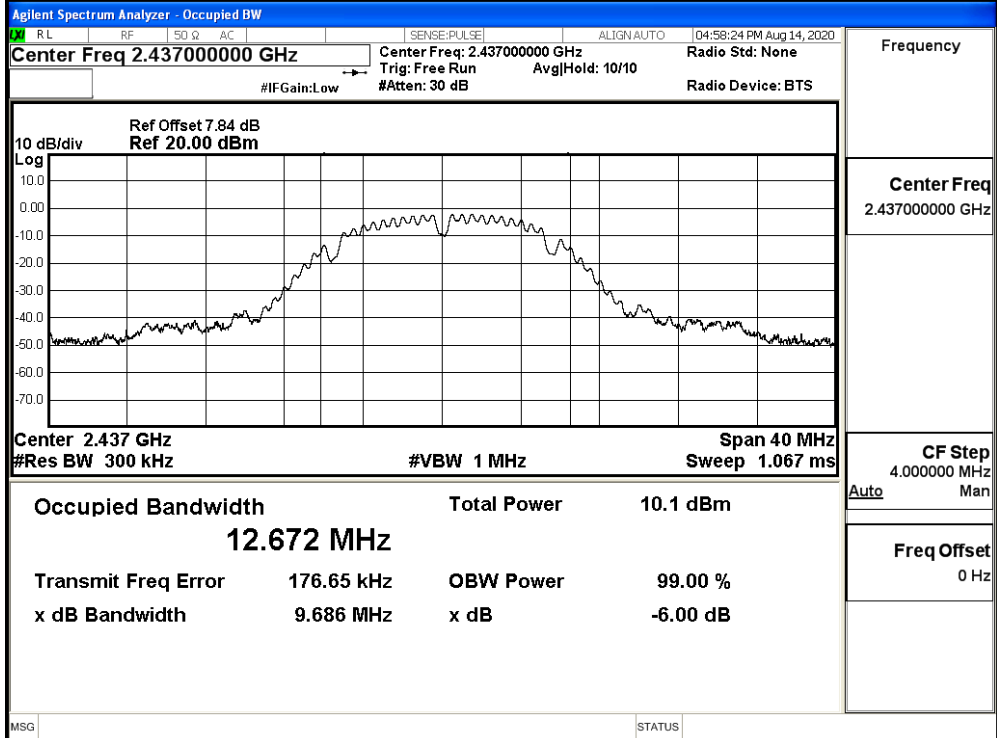
A.5 Occupied Bandwidth

Mode	Channel	Occupied Bandwidth [MHz]	Verdict
11B	LCH	12.151	PASS
	MCH	12.672	PASS
	HCH	12.799	PASS
11G	LCH	16.356	PASS
	MCH	16.806	PASS
	HCH	16.737	PASS
11N20SISO	LCH	17.387	PASS
	MCH	17.808	PASS
	HCH	17.675	PASS

Test Graphs



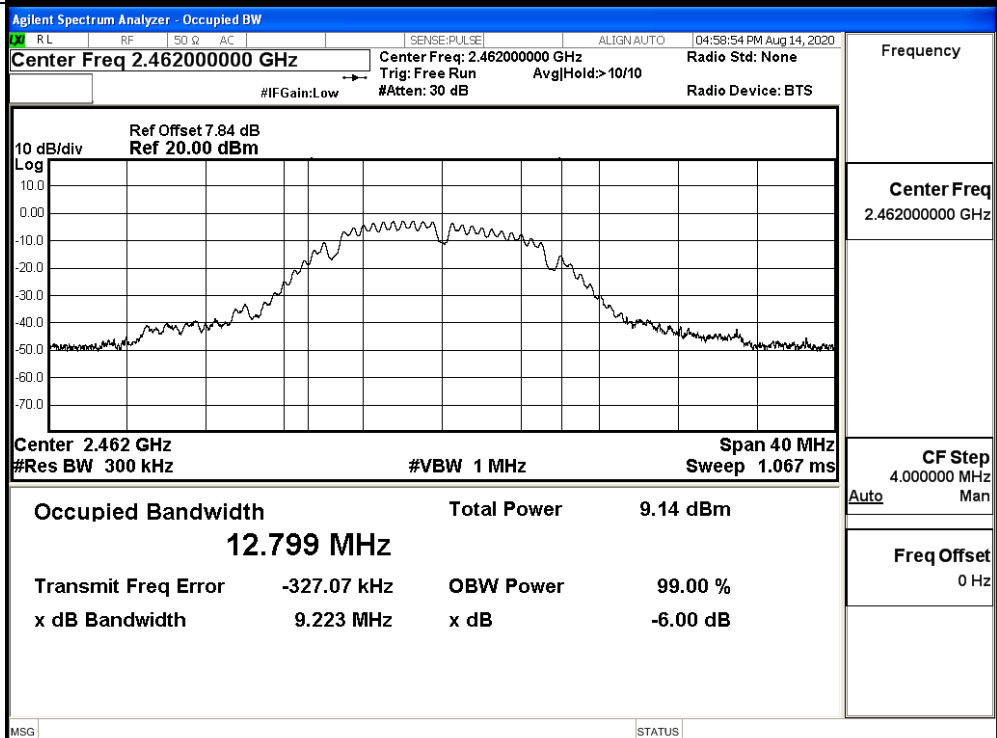
11B/MCH



Frequency

Center Freq
2.437000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

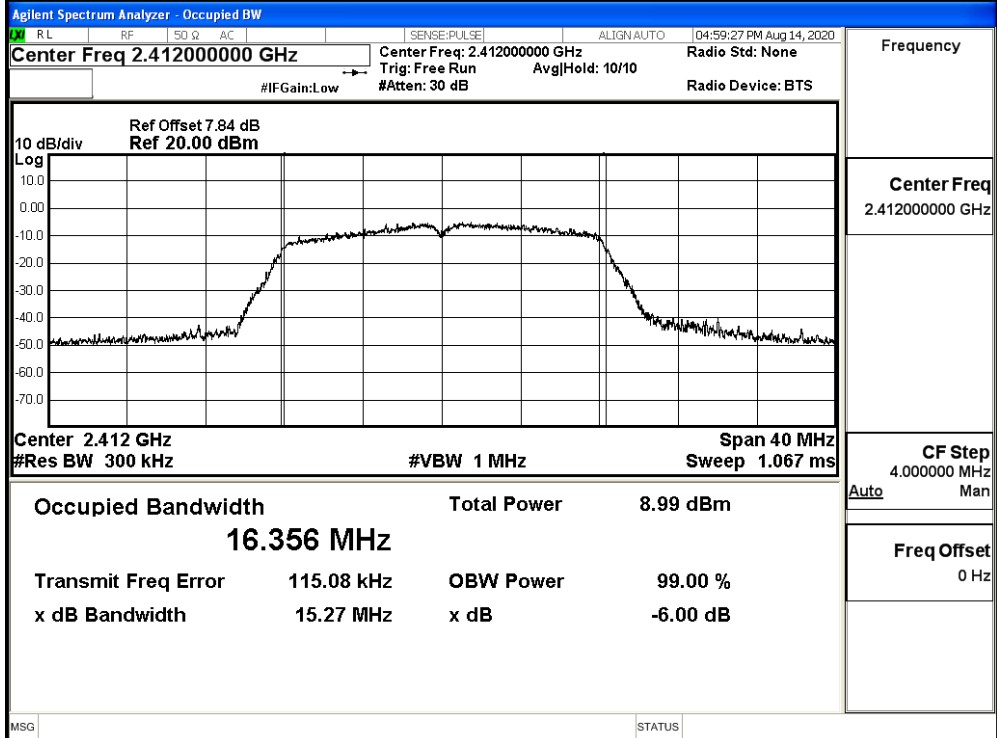
11B/HCH



Frequency

Center Freq
2.462000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

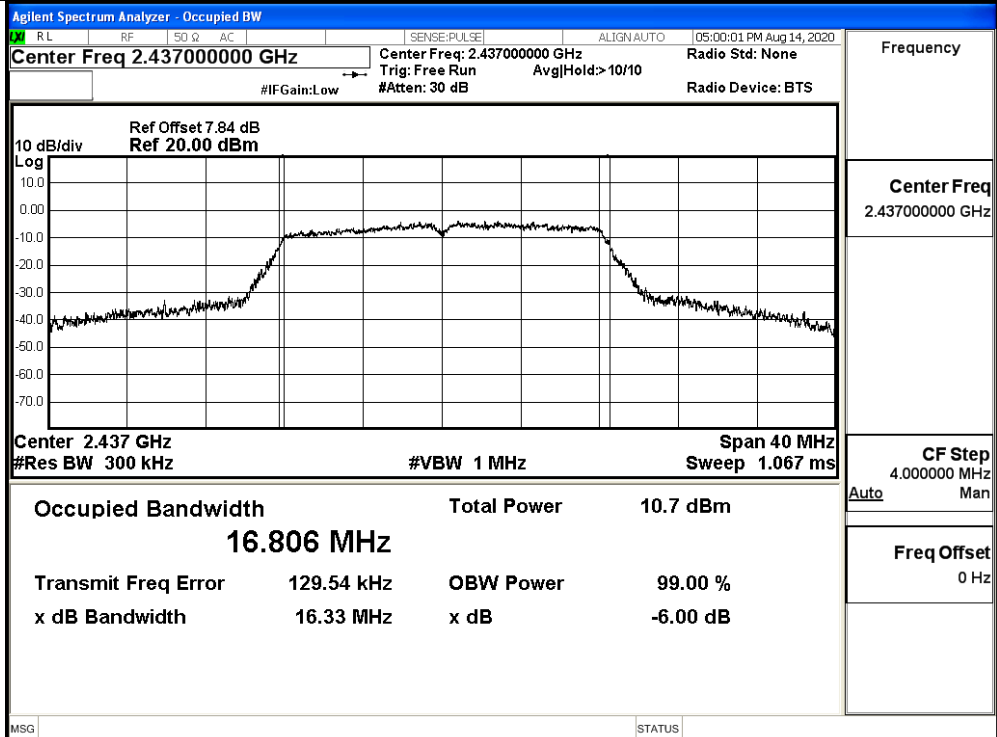
11G/LCH



Frequency

Center Freq
2.412000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

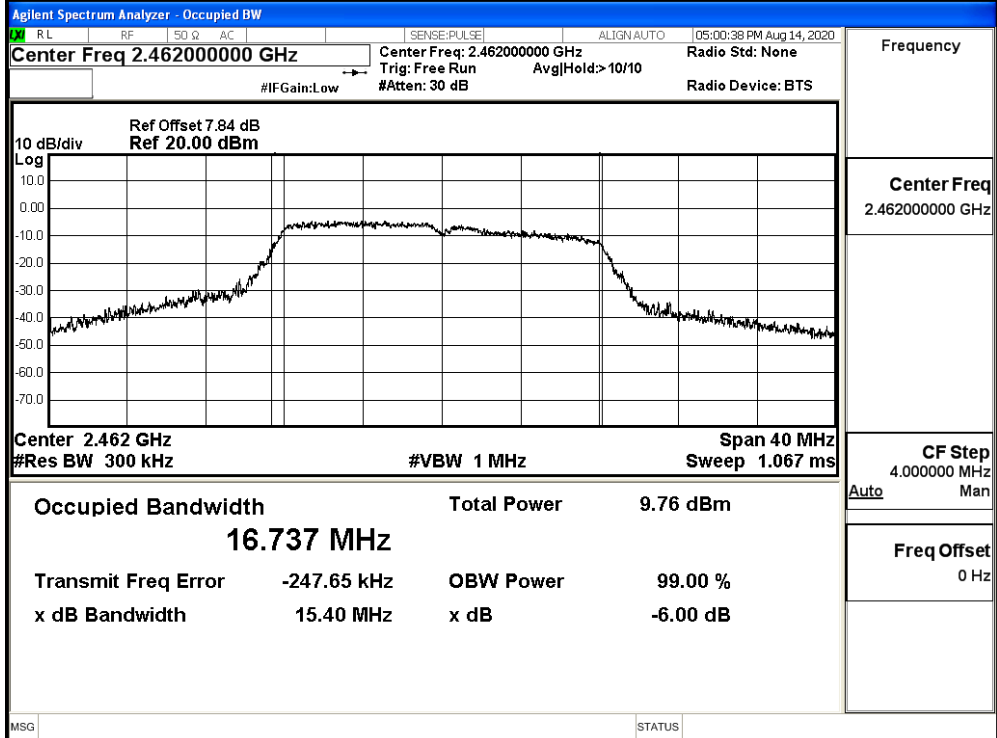
11G/MCH



Frequency

Center Freq
2.437000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

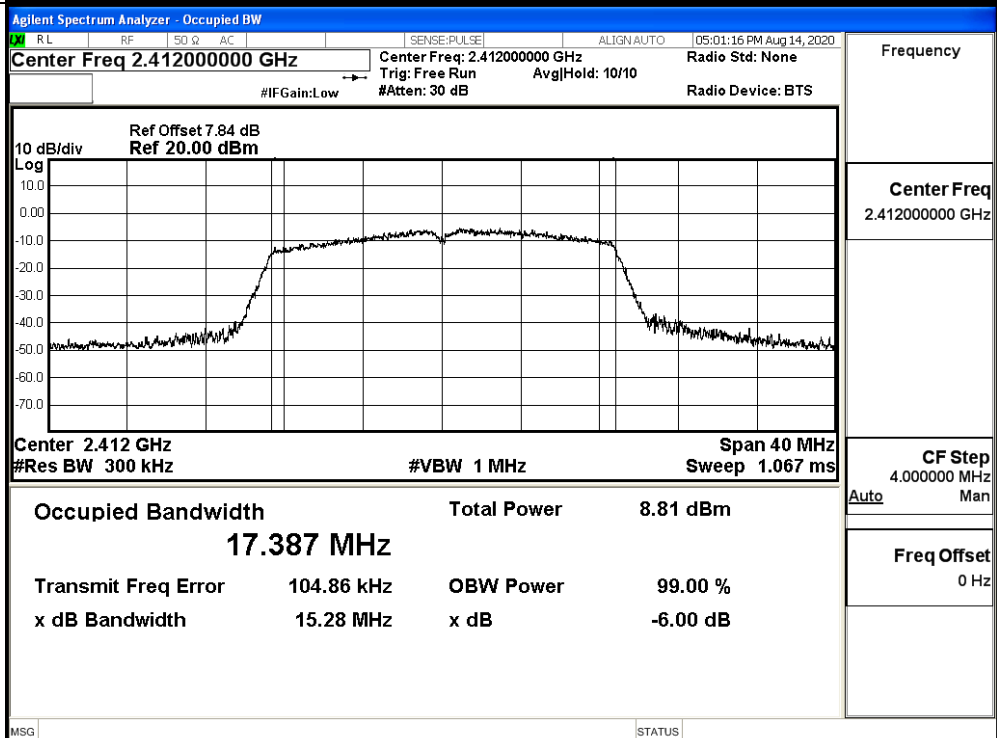
11G/HCH



Frequency

Center Freq
2.462000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

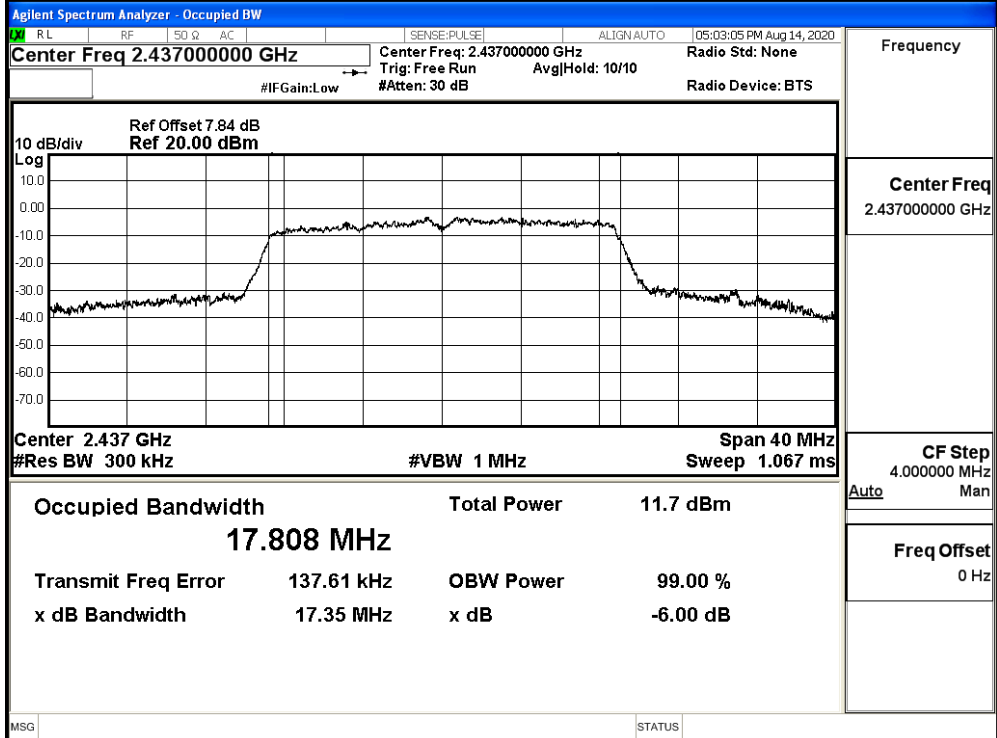
11N20SISO/LCH



Frequency

Center Freq
2.412000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

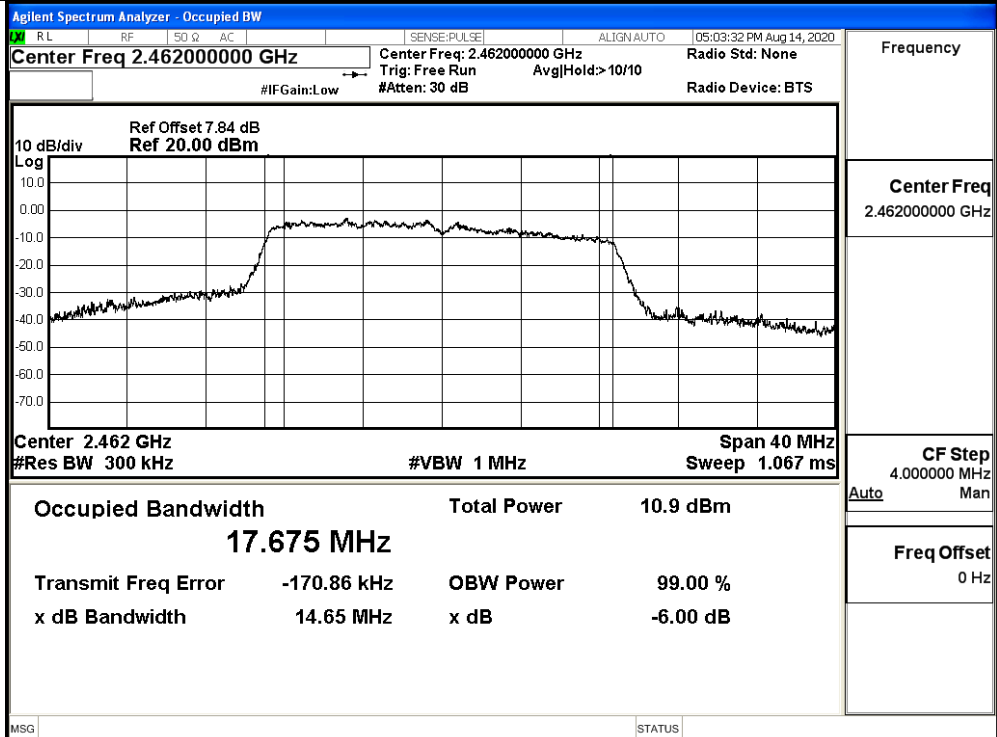
11N20SISO/MCH



Frequency

Center Freq
2.437000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

11N20SISO/HCH



Frequency

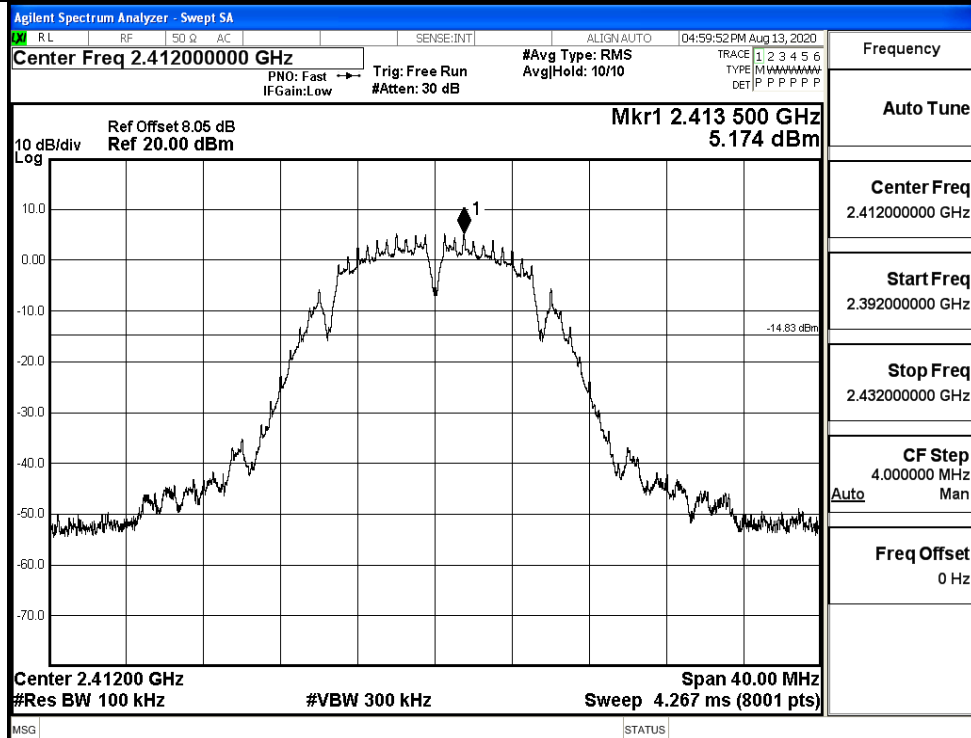
Center Freq
2.462000000 GHzCF Step
4.000000 MHz
Auto ManFreq Offset
0 Hz

A.6 RF Conducted Spurious Emissions

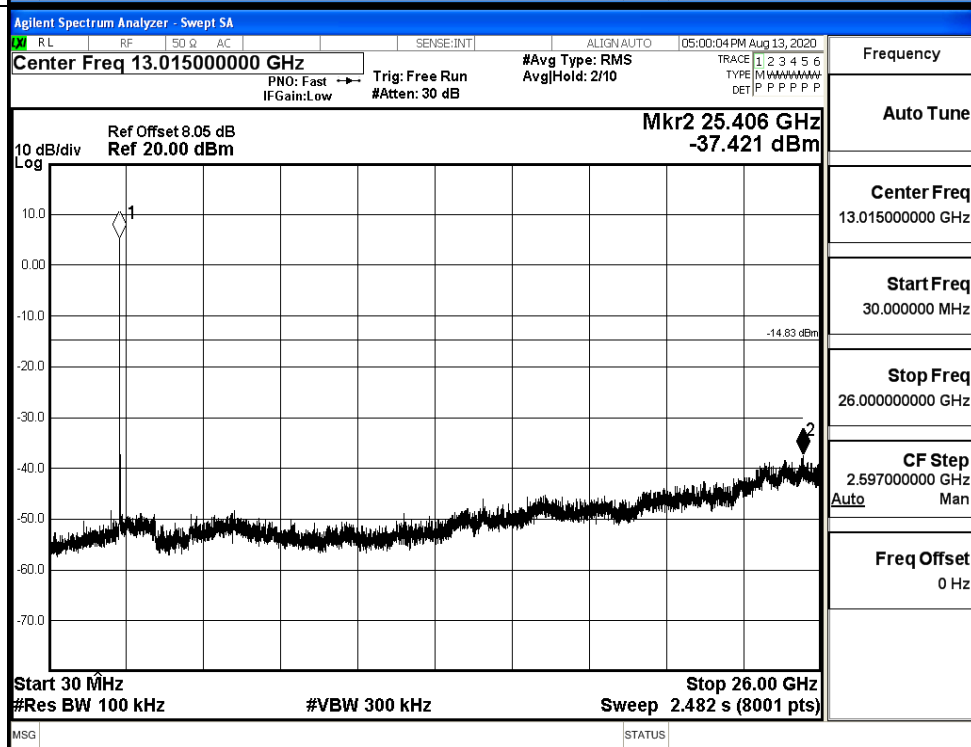
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	5.174	-37.421	-14.826	PASS
	MCH	4.788	-38.022	-15.212	PASS
	HCH	4.72	-38.132	-15.280	PASS
11G	LCH	-1.081	-38.421	-21.081	PASS
	MCH	-1.594	-37.722	-21.594	PASS
	HCH	-1.703	-37.803	-21.703	PASS
11N20 SISO	LCH	-1.906	-37.330	-21.906	PASS
	MCH	-0.877	-38.421	-20.877	PASS
	HCH	-1.548	-37.955	-21.548	PASS

11B LCH Graphs

Pref/11B/LCH

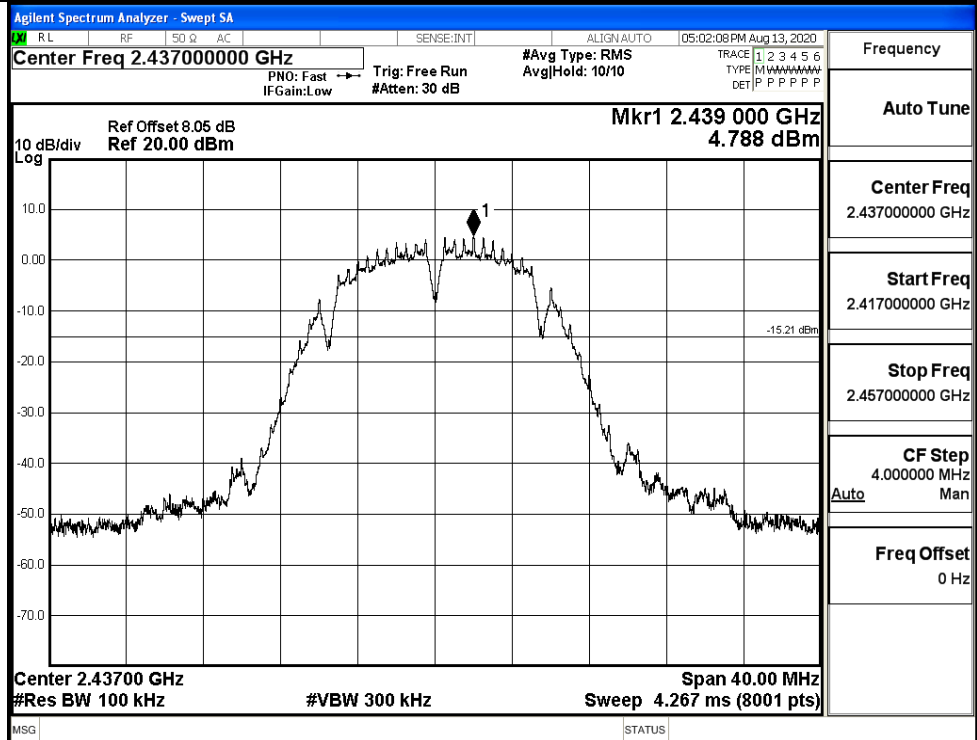


Puw/11B/LCH

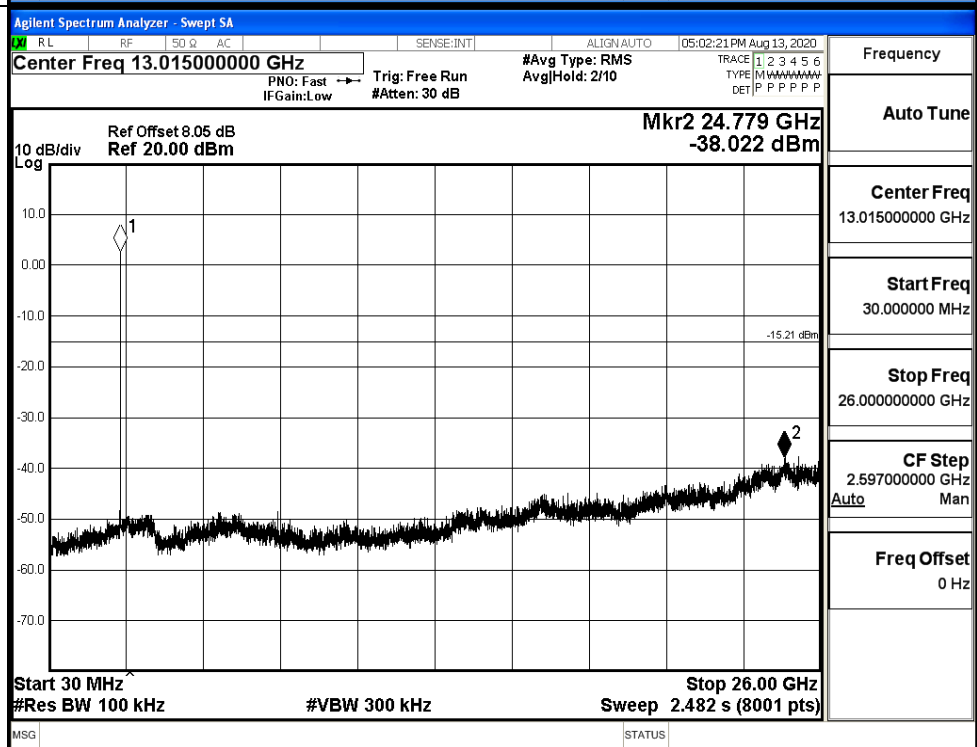


11B MCH Graphs

Pref/11B/MCH

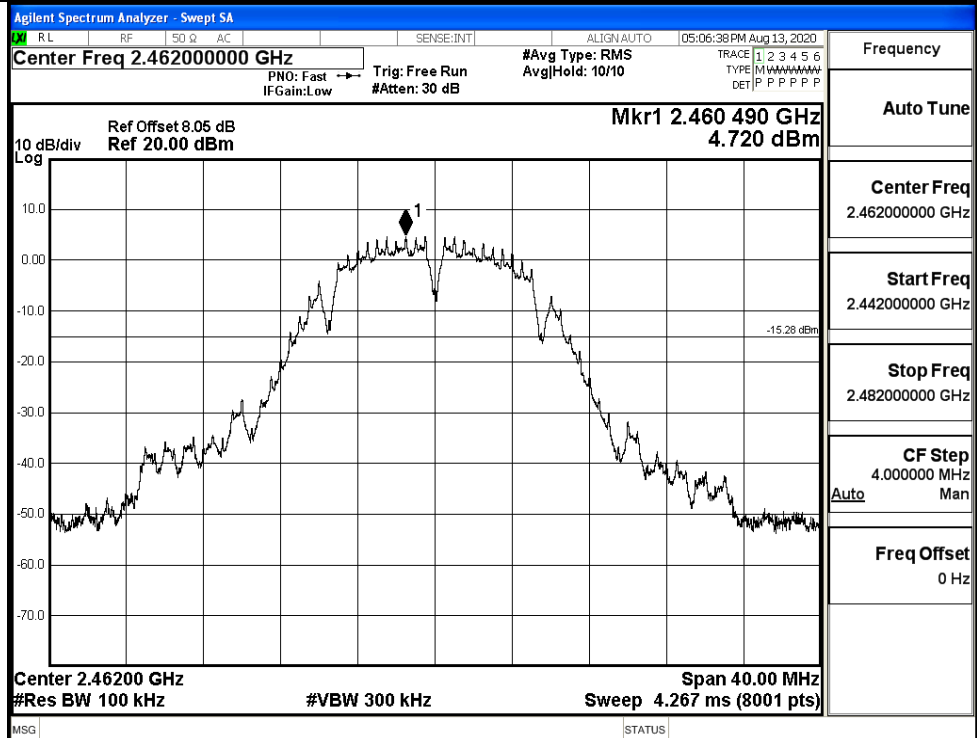


Puw/11B/MCH

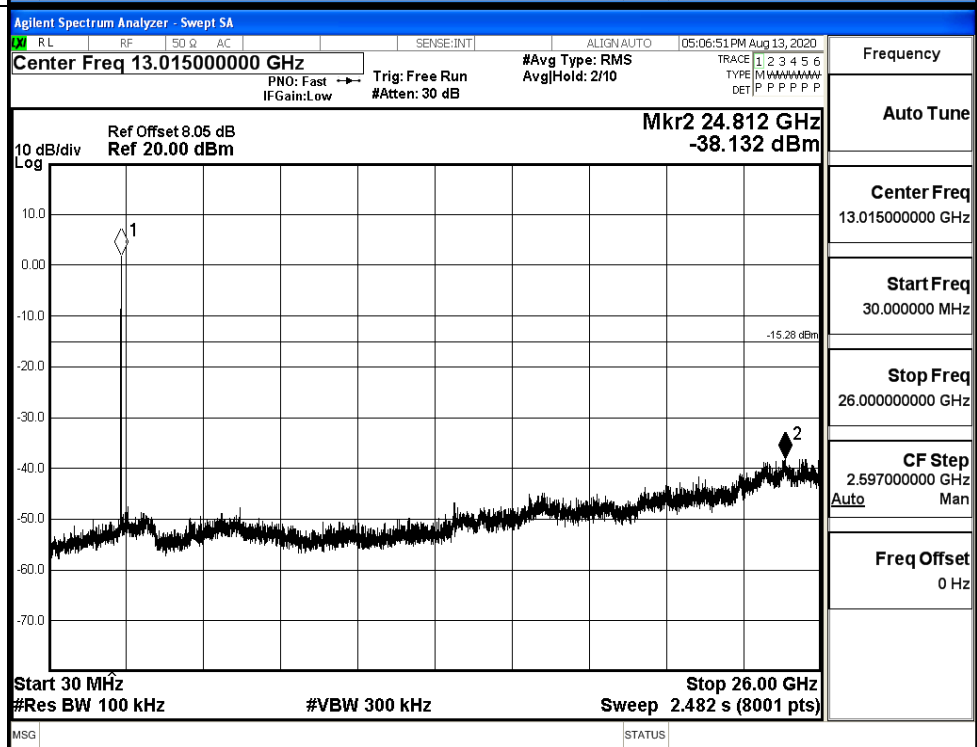


11B HCH Graphs

Pref/11B/HCH

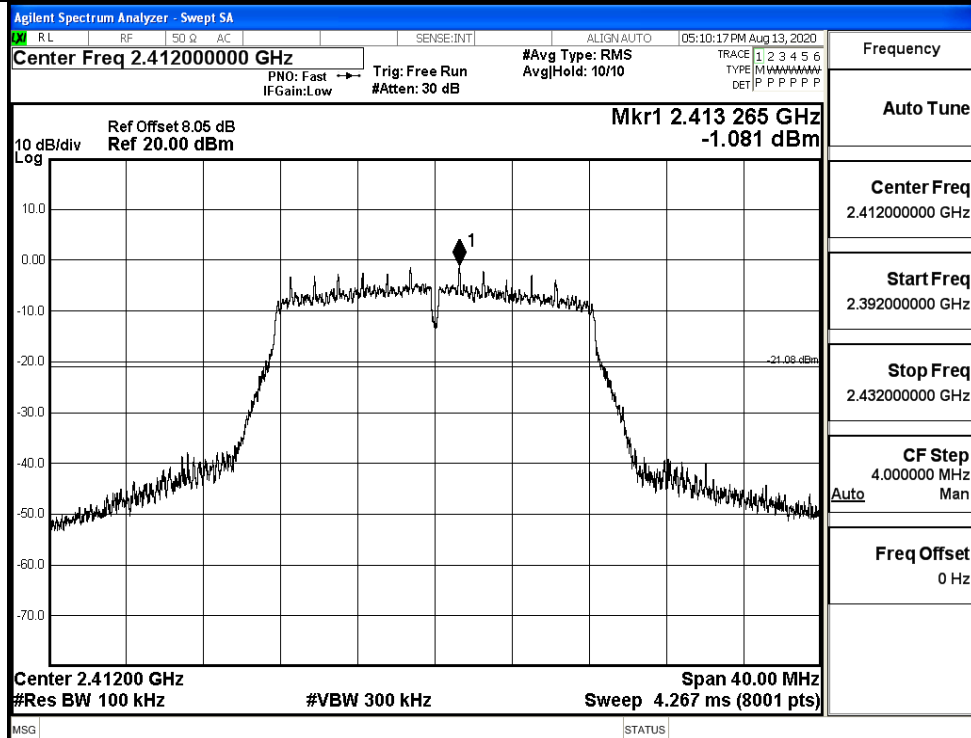


Puw/11B/HCH

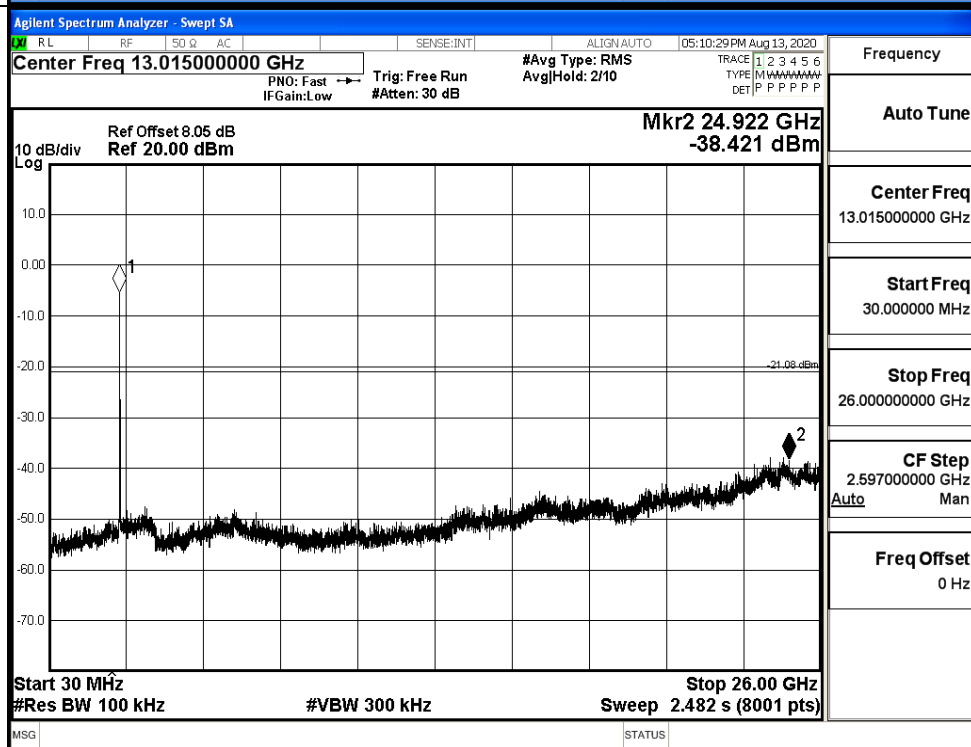


11G LCH Graphs

Pref/11G/LCH

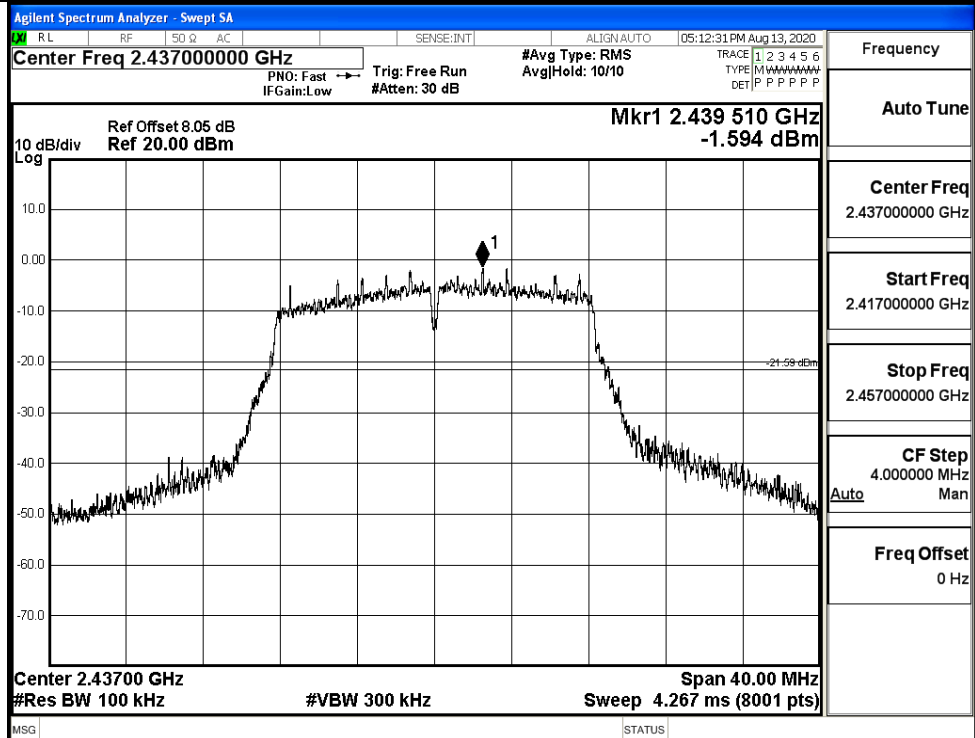


Puw/11G/LCH

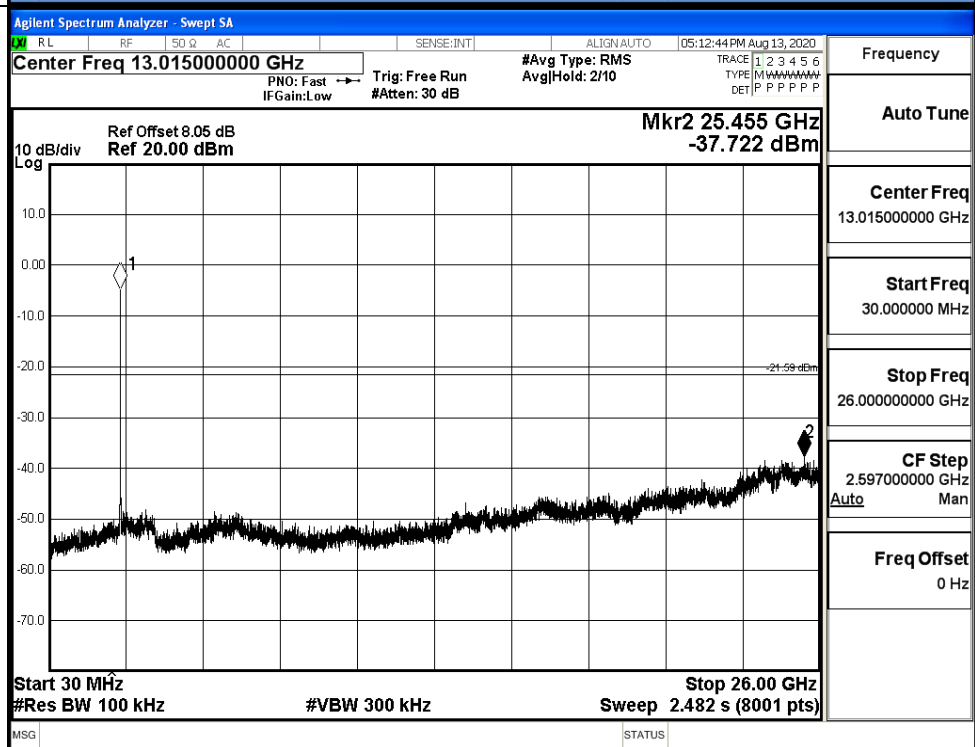


11G MCH Graphs

Pref/11G/MCH

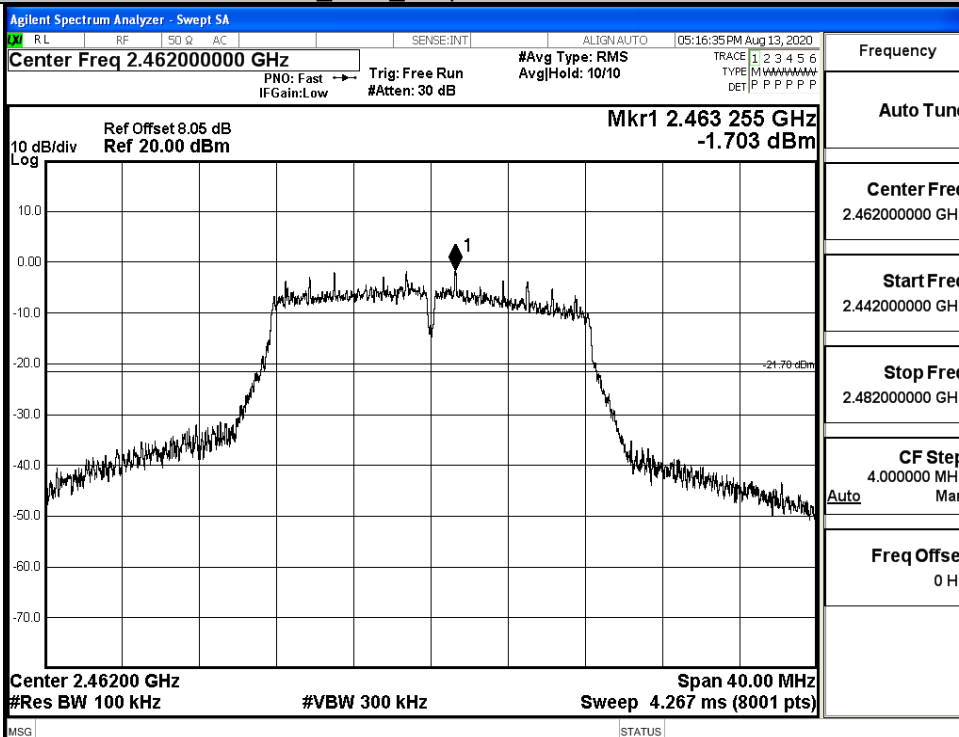


Puw/11G/MCH

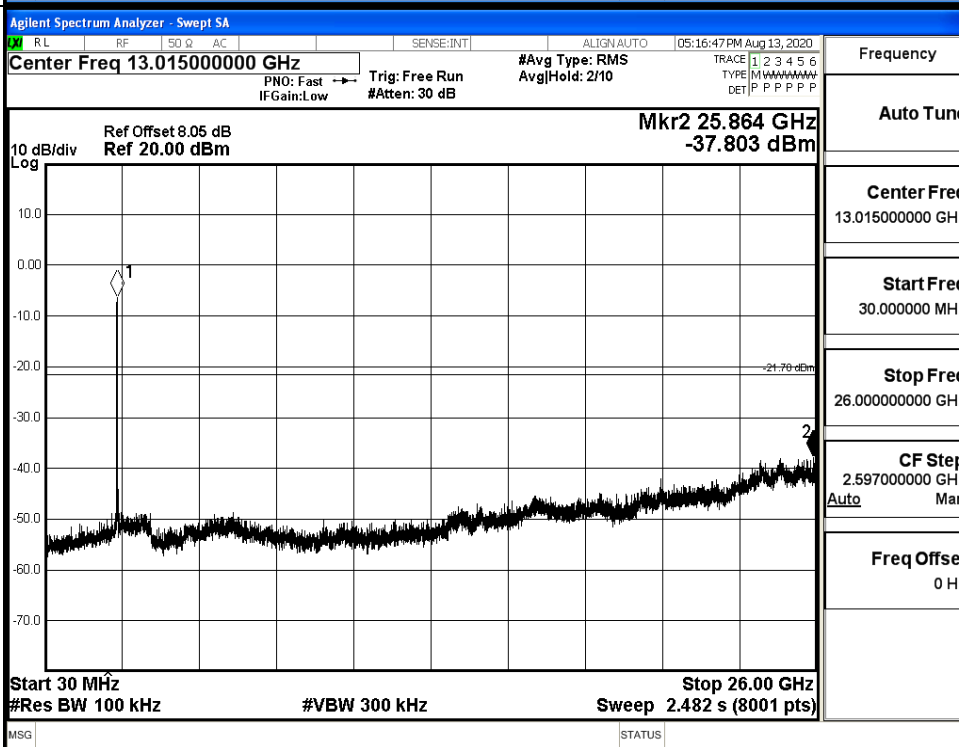


11G HCH Graphs

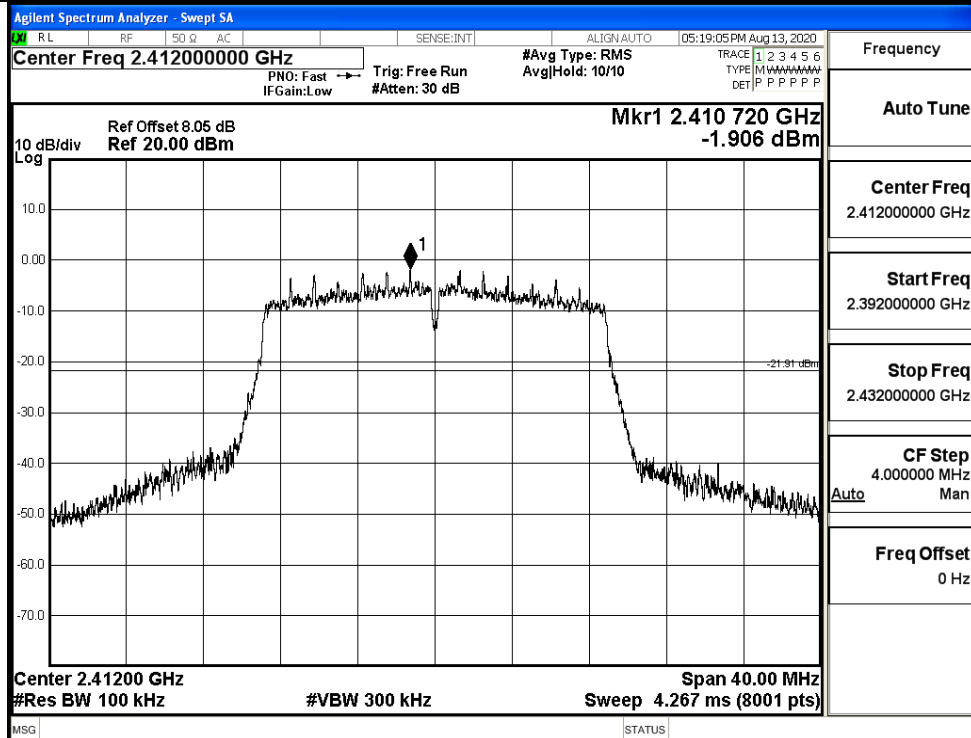
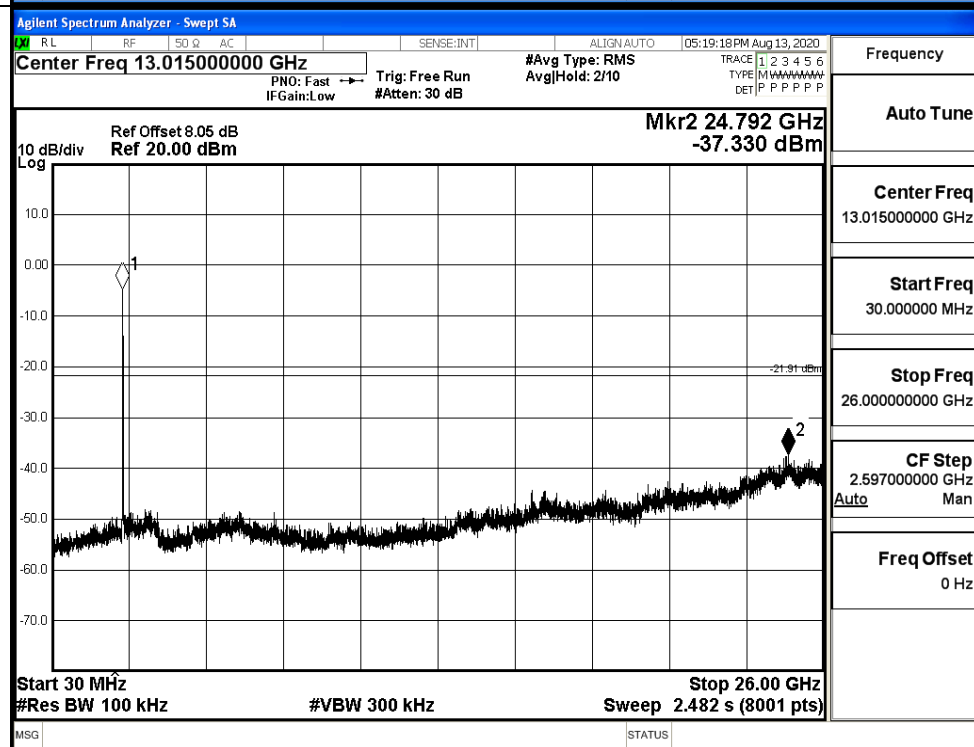
Pref/11G/HCH



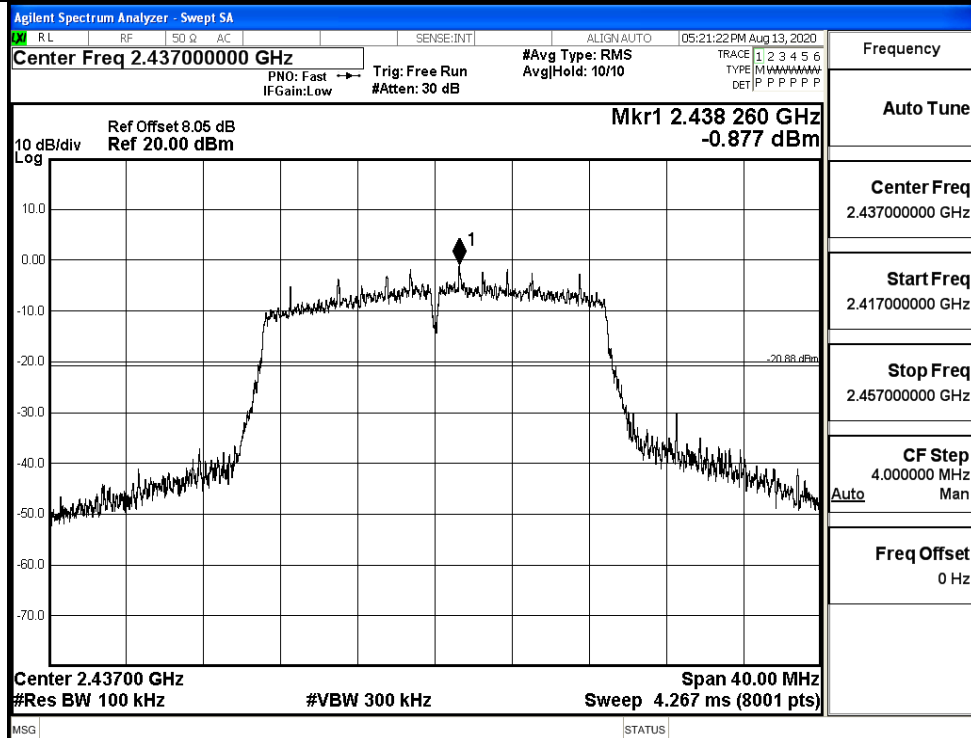
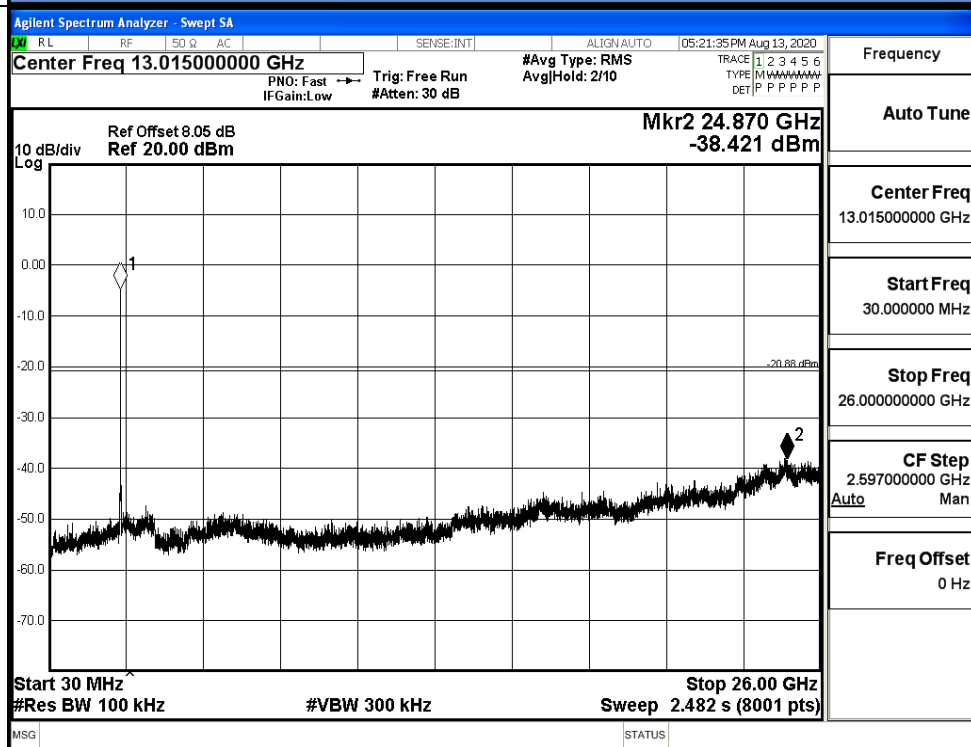
Puw/11G/HCH



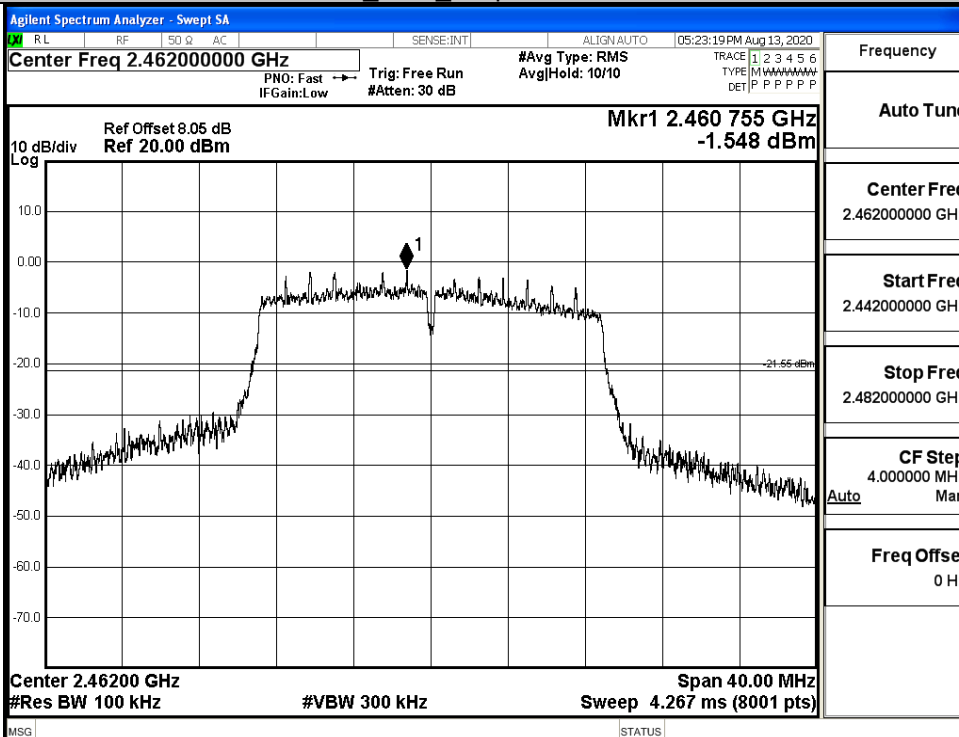
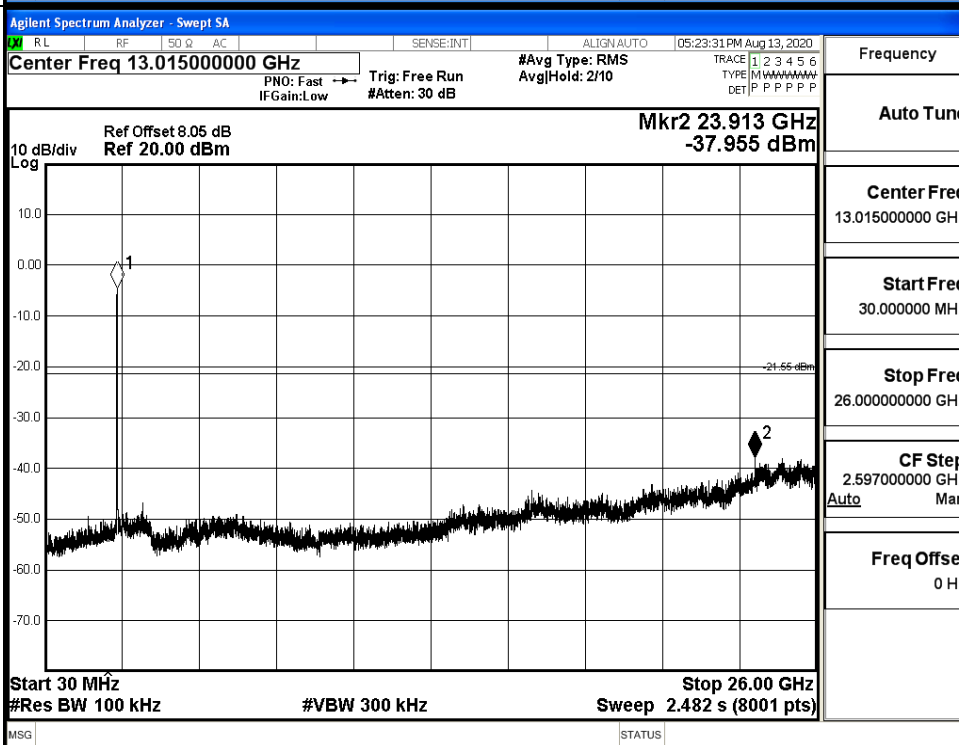
11N20SISO LCH Graphs

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

11N20SISO MCH Graphs

Pref/11N20
SISO/MCHPuW/11N20
SISO/MCH

11N20SISO HCH Graphs

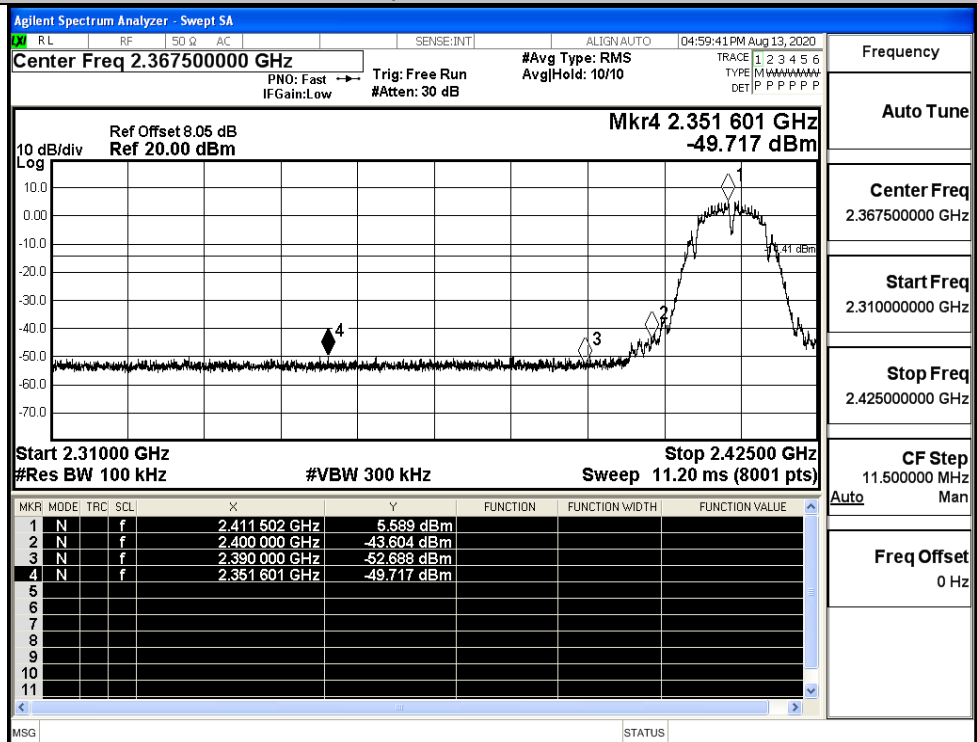
Pref/11N20
SISO/HCHPuW/11N20
SISO/HCH

A.7 Band-edge for RF Conducted Emissions

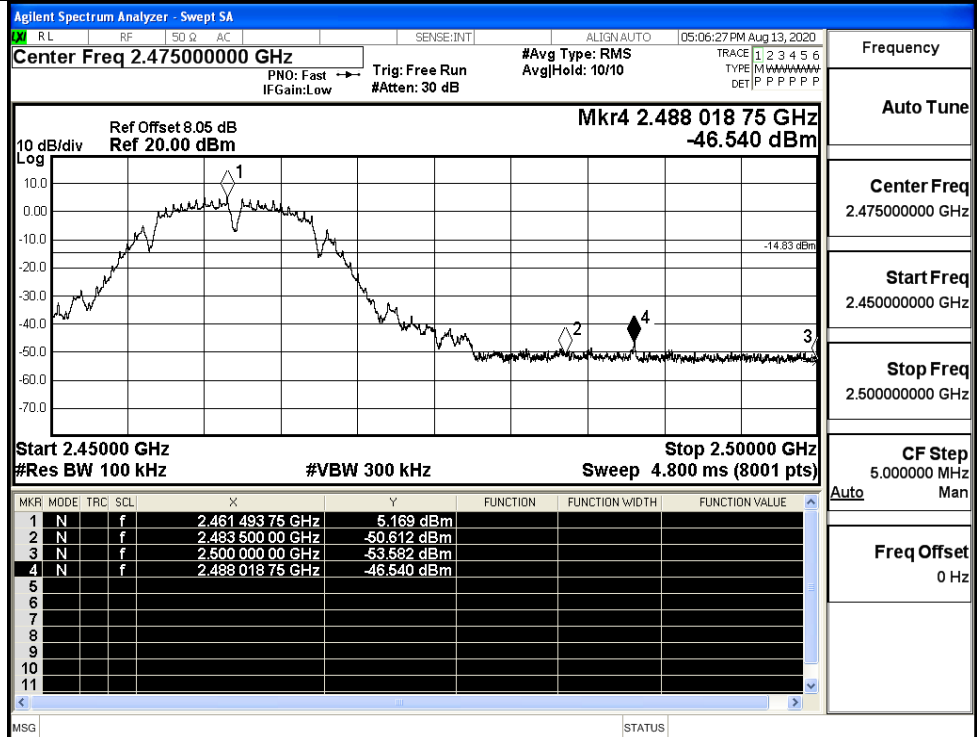
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	5.589	-49.717	-14.41	PASS
	HCH	5.169	-46.540	-14.83	PASS
11G	LCH	-1.231	-49.276	-21.23	PASS
	HCH	-1.707	-44.209	-21.71	PASS
11N20SISO	LCH	-1.273	-49.645	-21.27	PASS
	HCH	-1.148	-45.332	-21.15	PASS

Test Graphs

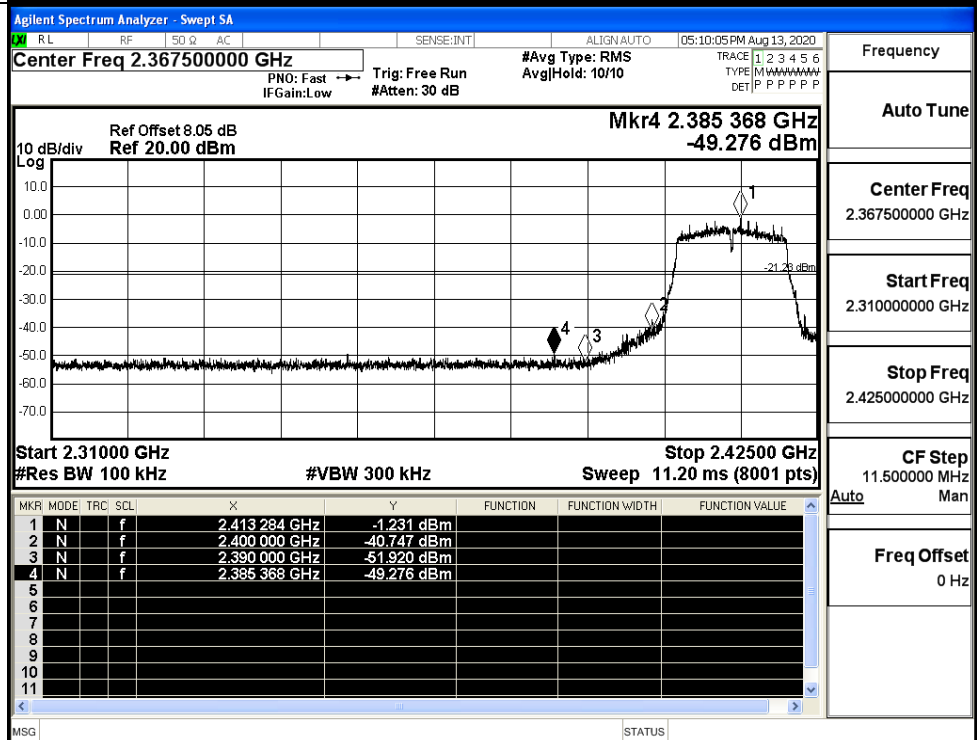
11B/LCH



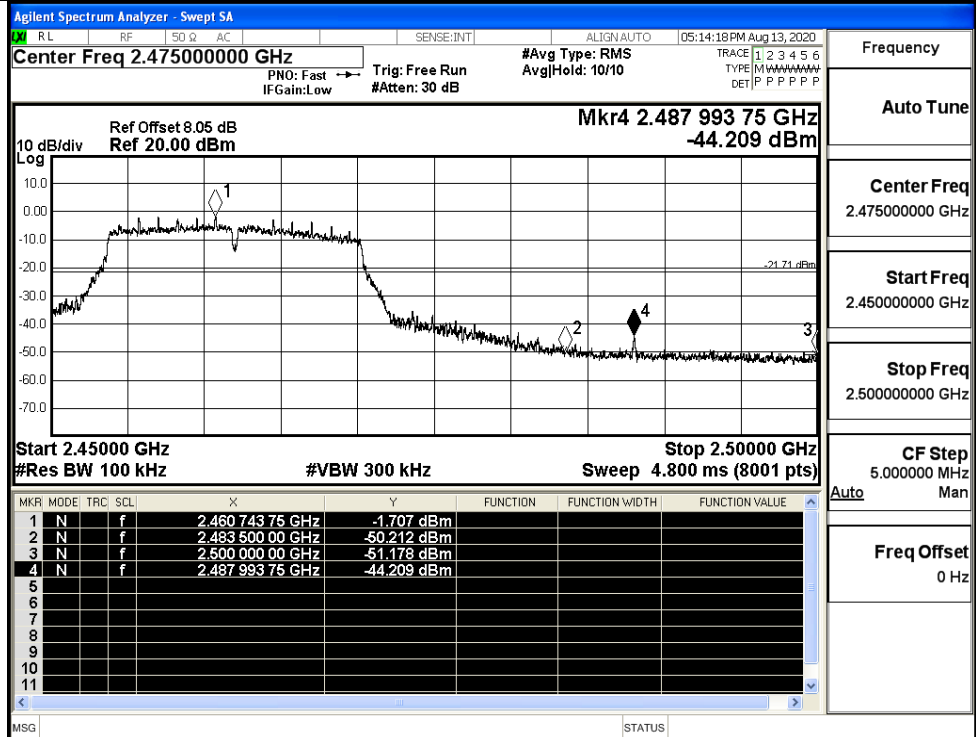
11B/HCH



11G/LCH



11G/HCH



Frequency

Auto Tune

Center Freq
2.475000000 GHz

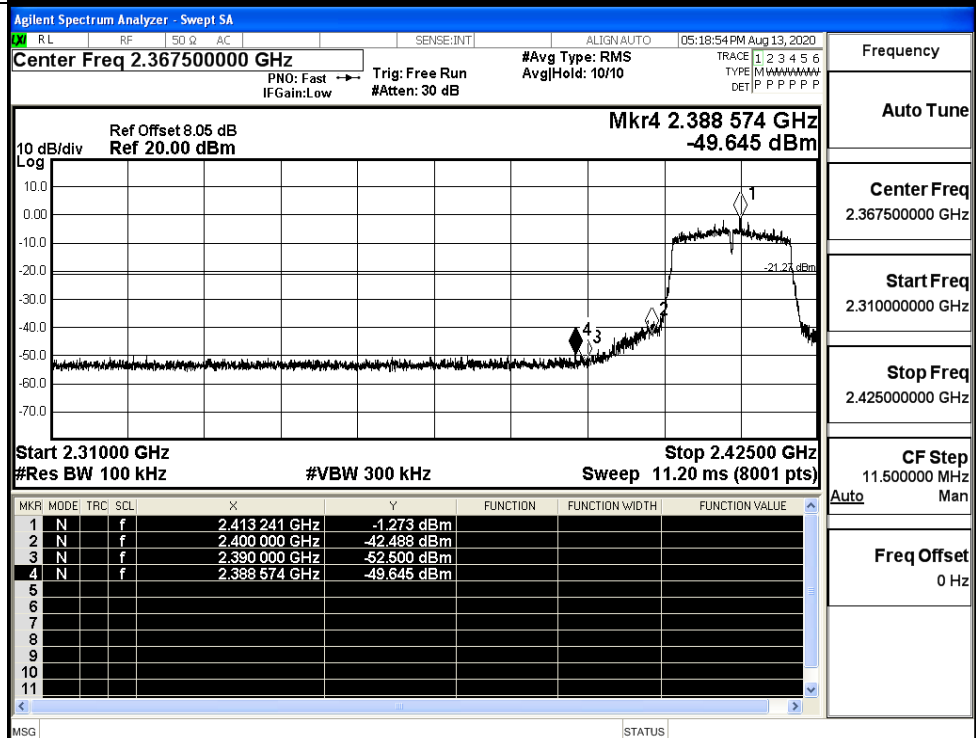
Start Freq
2.450000000 GHz

Stop Freq
2.500000000 GHz

CF Step
5.000000 MHz

Freq Offset
0 Hz

11N20SISO/LCH



Frequency

Auto Tune

Center Freq
2.367500000 GHz

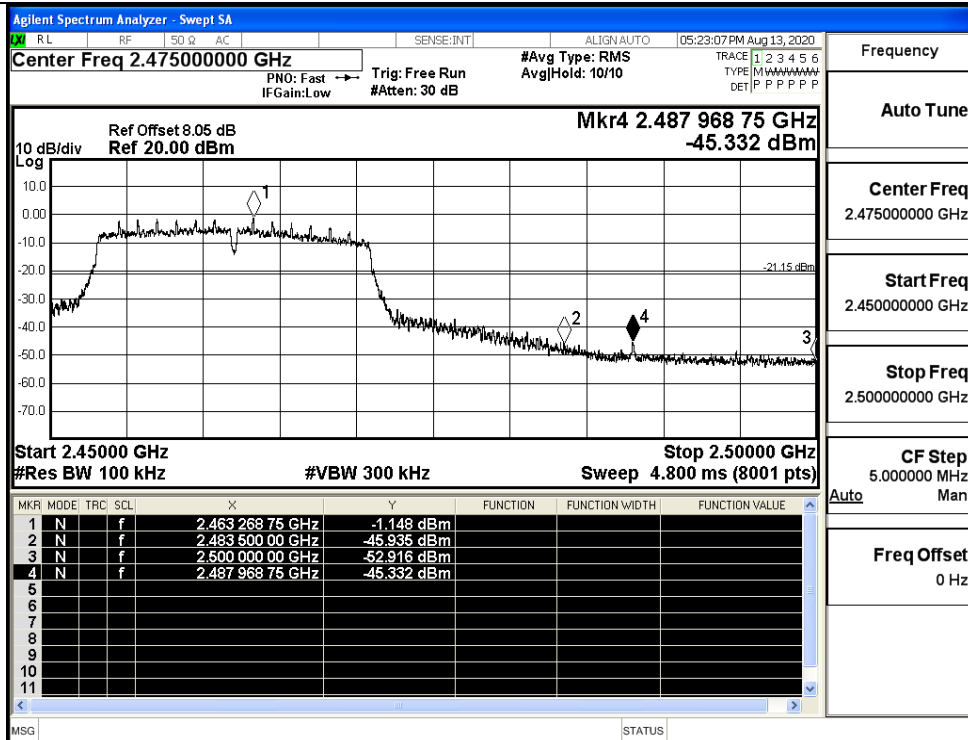
Start Freq
2.310000000 GHz

Stop Freq
2.425000000 GHz

CF Step
11.500000 MHz

Freq Offset
0 Hz

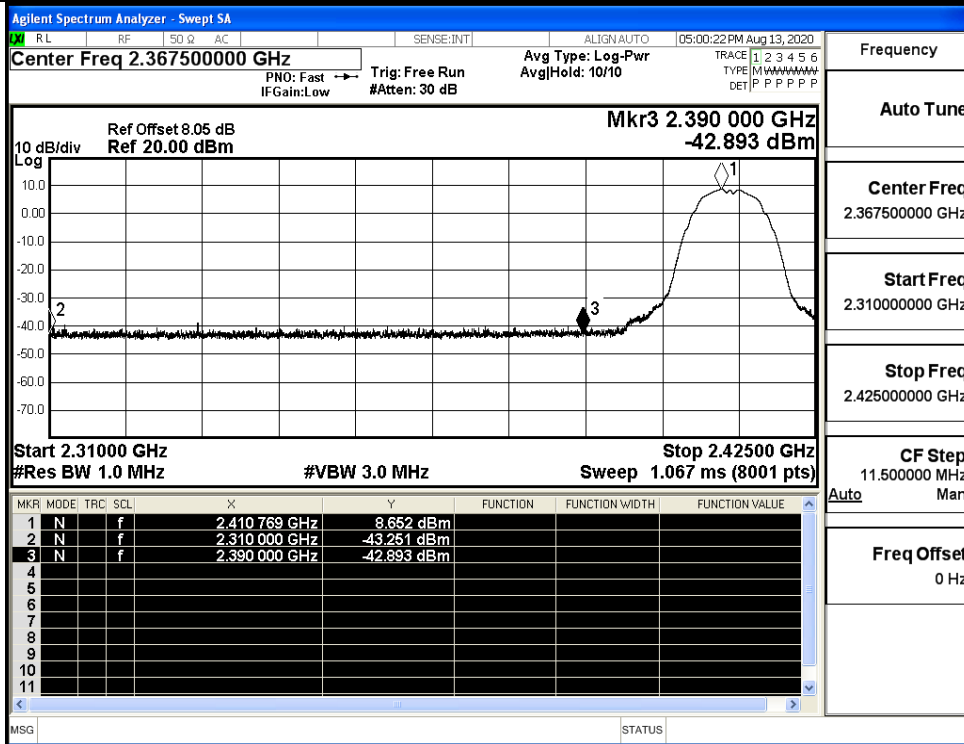
11N20SISO/HCH



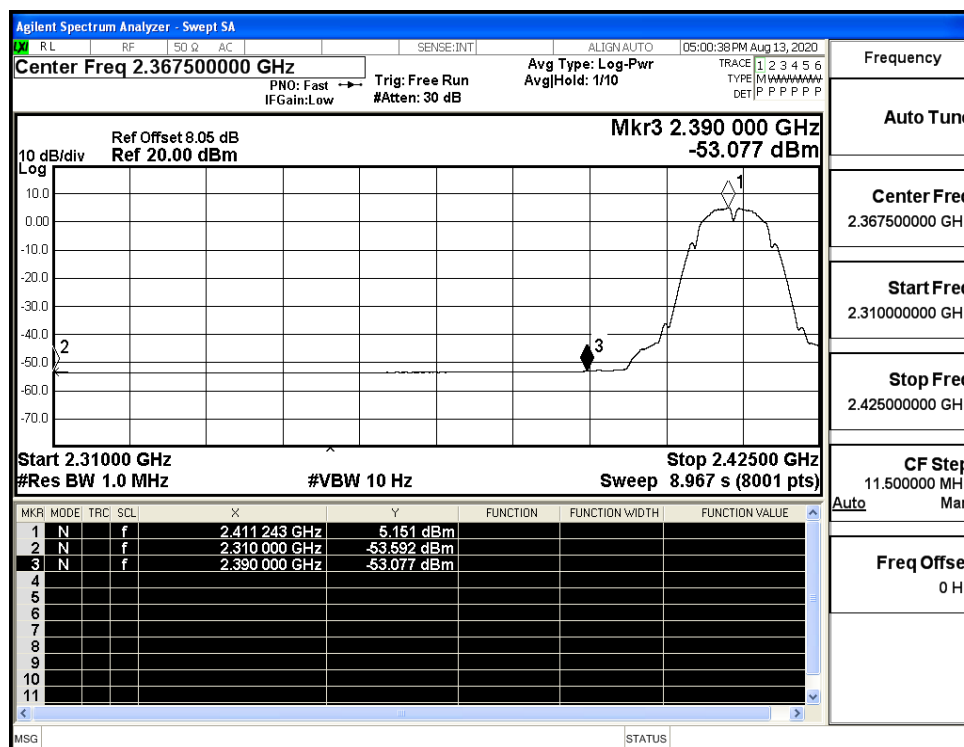
A.8 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-43.25	2.0	0	52.01	PEAK	74	PASS
	2412	Ant1	2310.0	-53.59	2.0	0	41.67	AV	54	PASS
	2412	Ant1	2390.0	-42.89	2.0	0	52.36	PEAK	74	PASS
	2412	Ant1	2390.0	-53.08	2.0	0	42.18	AV	54	PASS
	2462	Ant1	2483.5	-41.33	2.0	0	53.93	PEAK	74	PASS
	2462	Ant1	2483.5	-51.11	2.0	0	44.15	AV	54	PASS
	2462	Ant1	2500.0	-40.55	2.0	0	54.71	PEAK	74	PASS
	2462	Ant1	2500.0	-52.64	2.0	0	42.62	AV	54	PASS
11G	2412	Ant1	2310.0	-43.74	2.0	0	51.51	PEAK	74	PASS
	2412	Ant1	2310.0	-53.61	2.0	0	41.64	AV	54	PASS
	2412	Ant1	2390.0	-42.32	2.0	0	52.94	PEAK	74	PASS
	2412	Ant1	2390.0	-52.92	2.0	0	42.34	AV	54	PASS
	2462	Ant1	2483.5	-38.24	2.0	0	57.02	PEAK	74	PASS
	2462	Ant1	2483.5	-50.61	2.0	0	44.65	AV	54	PASS
	2462	Ant1	2500.0	-42.38	2.0	0	52.87	PEAK	74	PASS
	2462	Ant1	2500.0	-52.61	2.0	0	42.65	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-42.51	2.0	0	52.75	PEAK	74	PASS
	2412	Ant1	2310.0	-53.59	2.0	0	41.67	AV	54	PASS
	2412	Ant1	2390.0	-43.12	2.0	0	52.14	PEAK	74	PASS
	2412	Ant1	2390.0	-52.81	2.0	0	42.45	AV	54	PASS
	2462	Ant1	2483.5	-32.21	2.0	0	63.05	PEAK	74	PASS
	2462	Ant1	2483.5	-49.42	2.0	0	45.83	AV	54	PASS
	2462	Ant1	2500.0	-42.17	2.0	0	53.09	PEAK	74	PASS
	2462	Ant1	2500.0	-52.63	2.0	0	42.63	AV	54	PASS

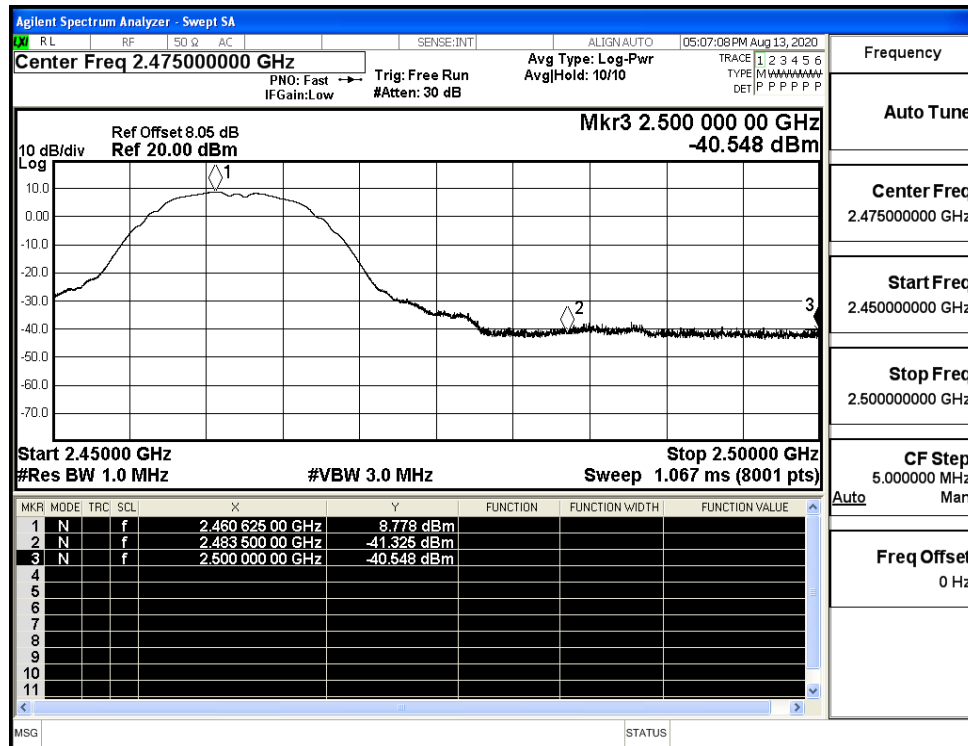
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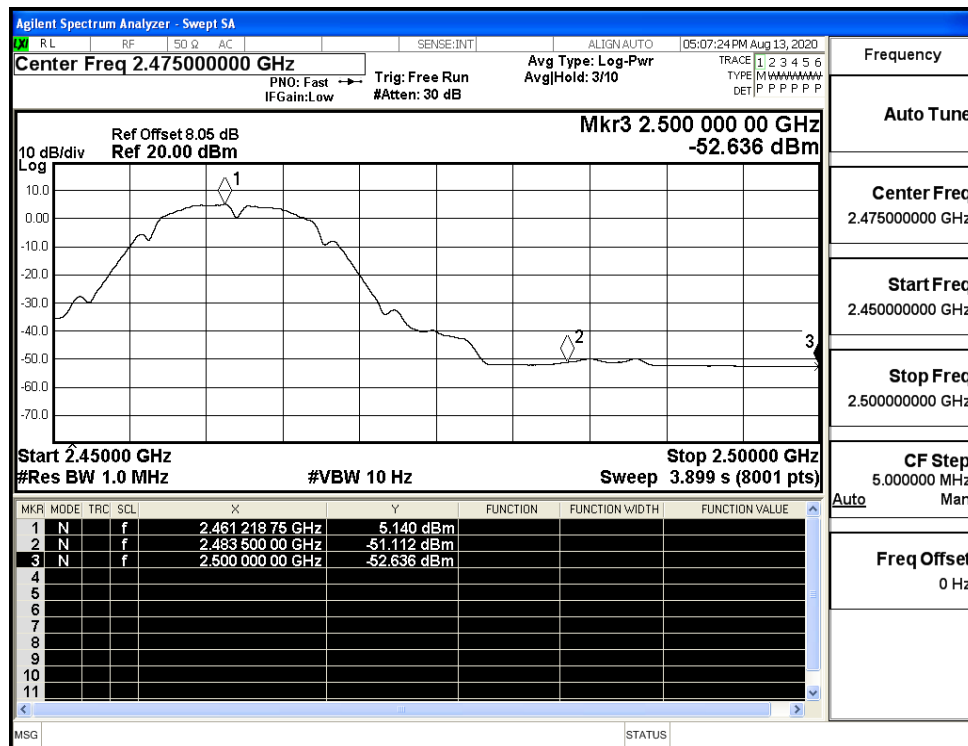
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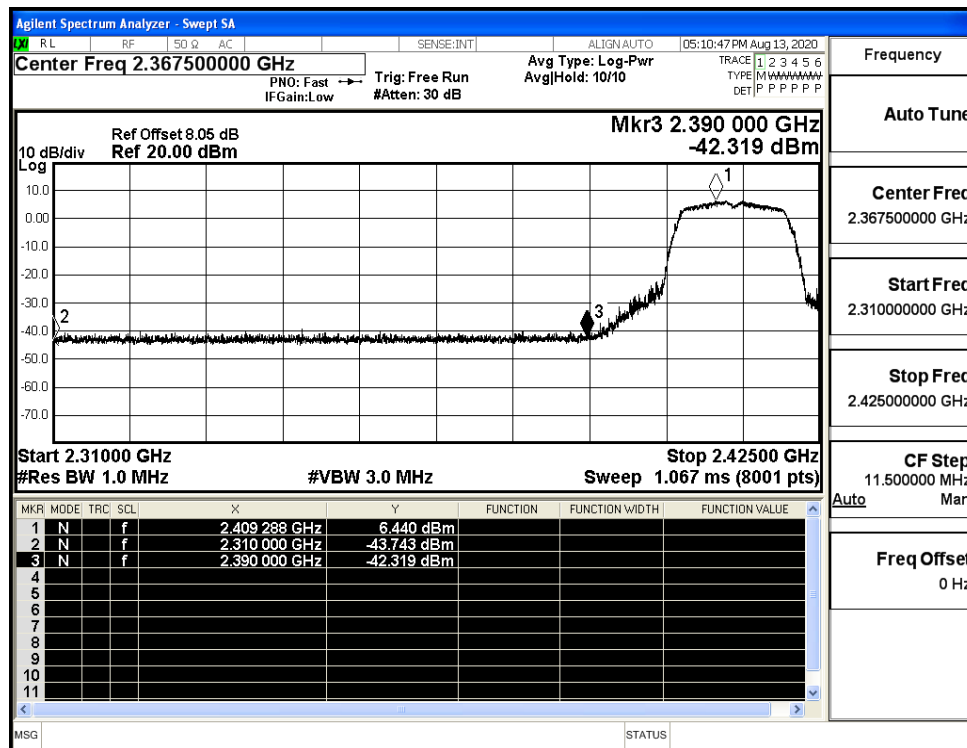
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



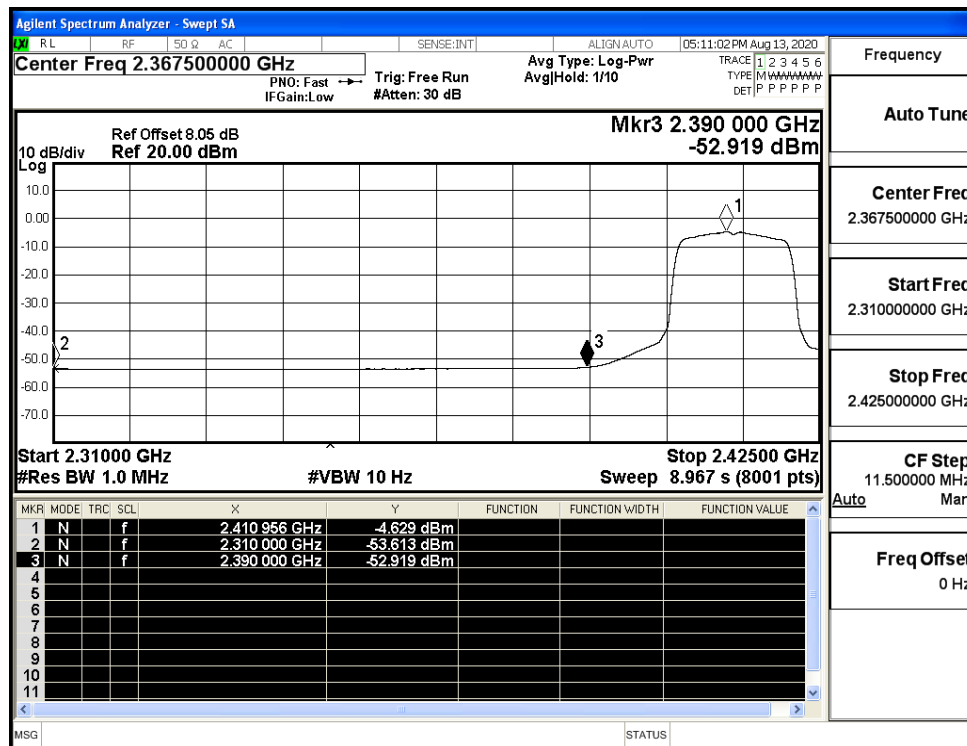
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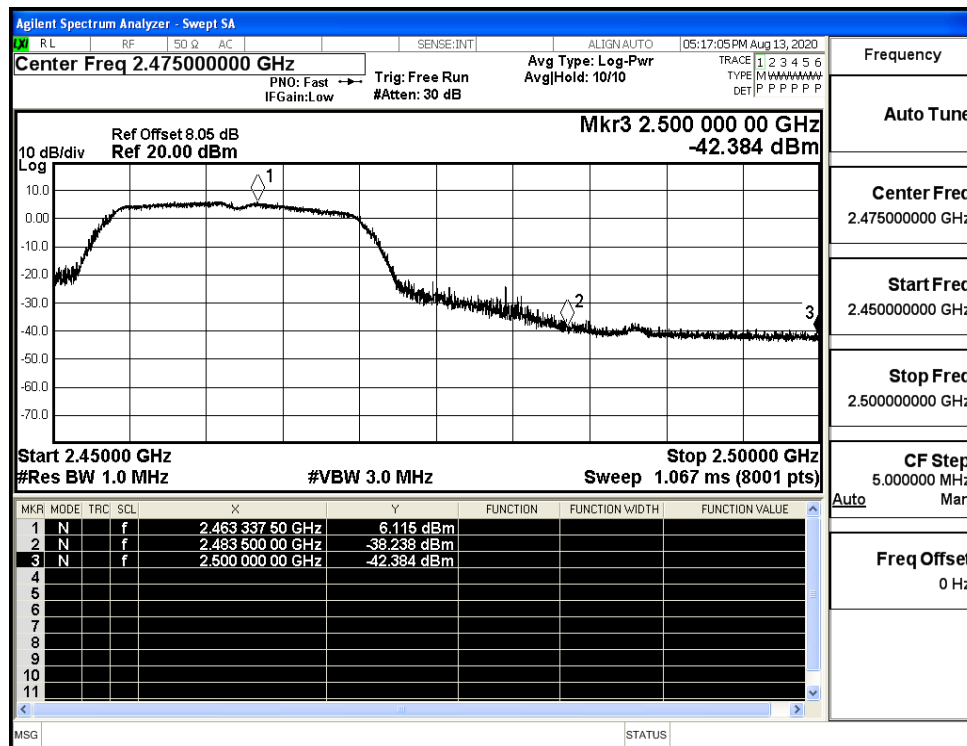
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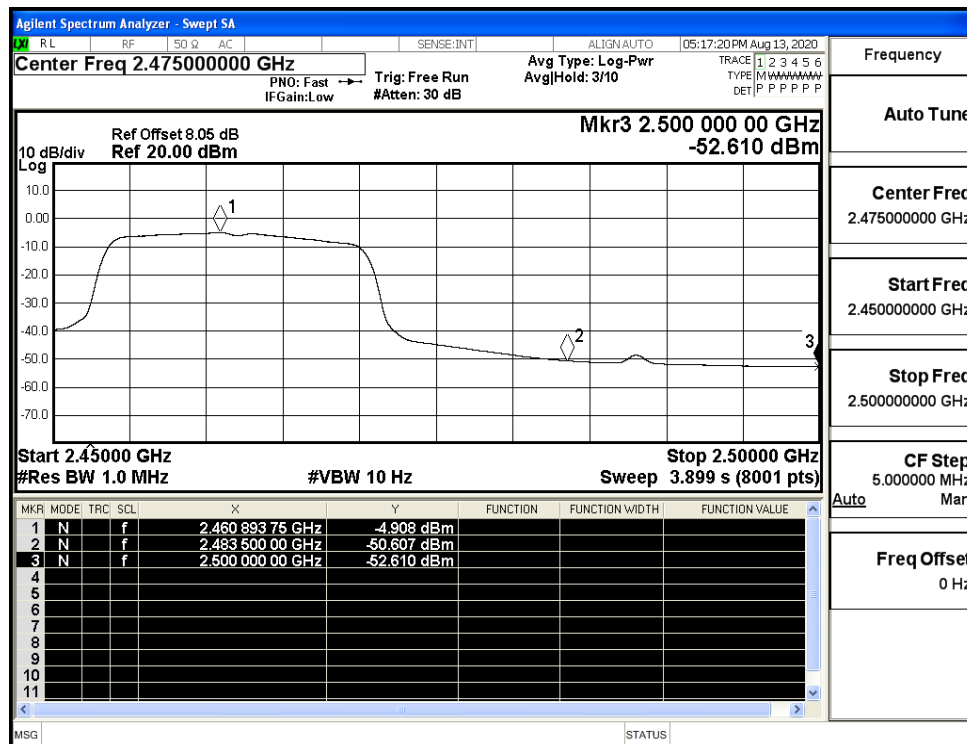
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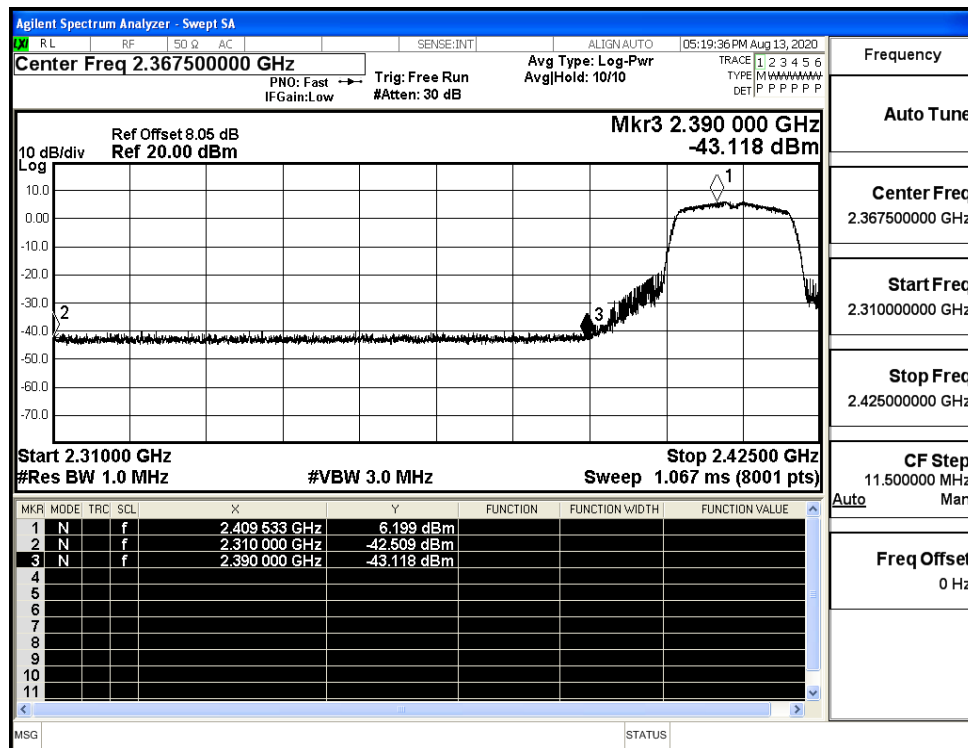
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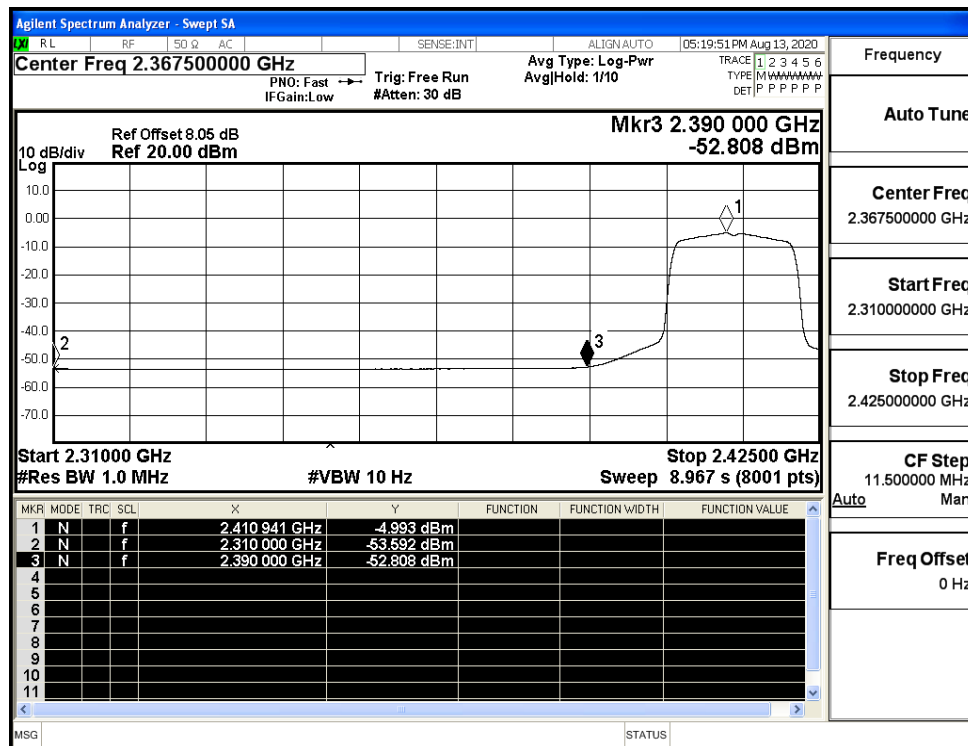
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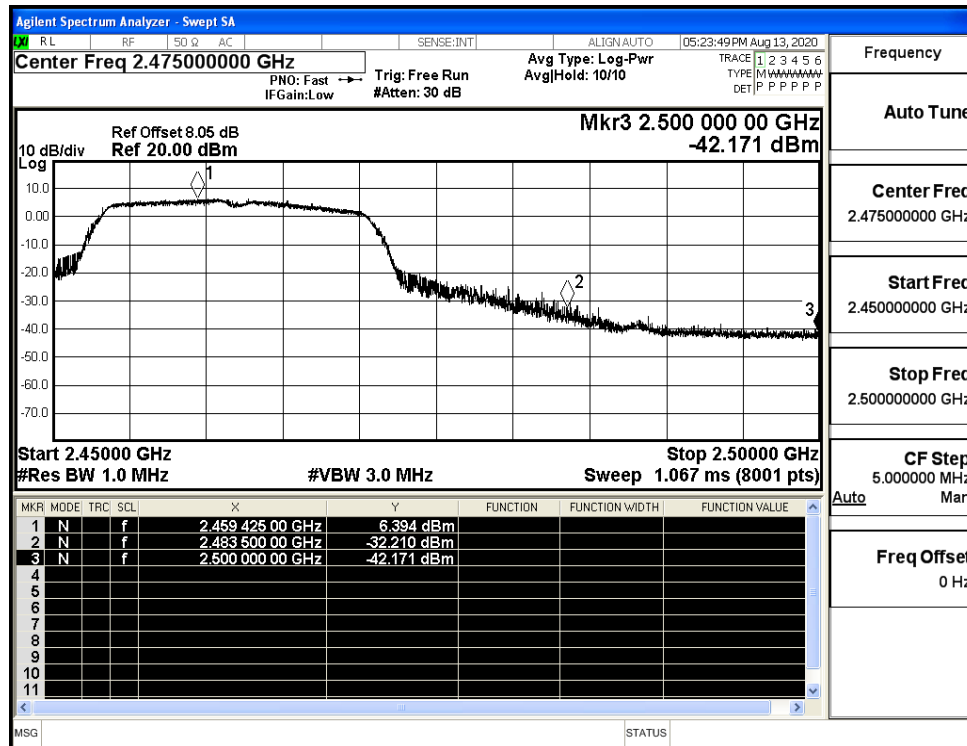
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Restrict-band band-edge measurements_11N20SISO_2412_Ant1_AV



Restrict-band band-edge measurements_11N20SISO_2462_Ant1_PEAK



Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV

