

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Intelligent Visual Ear Pick

Trade Mark: E-enjoy

Test Model: E-enjoy P20

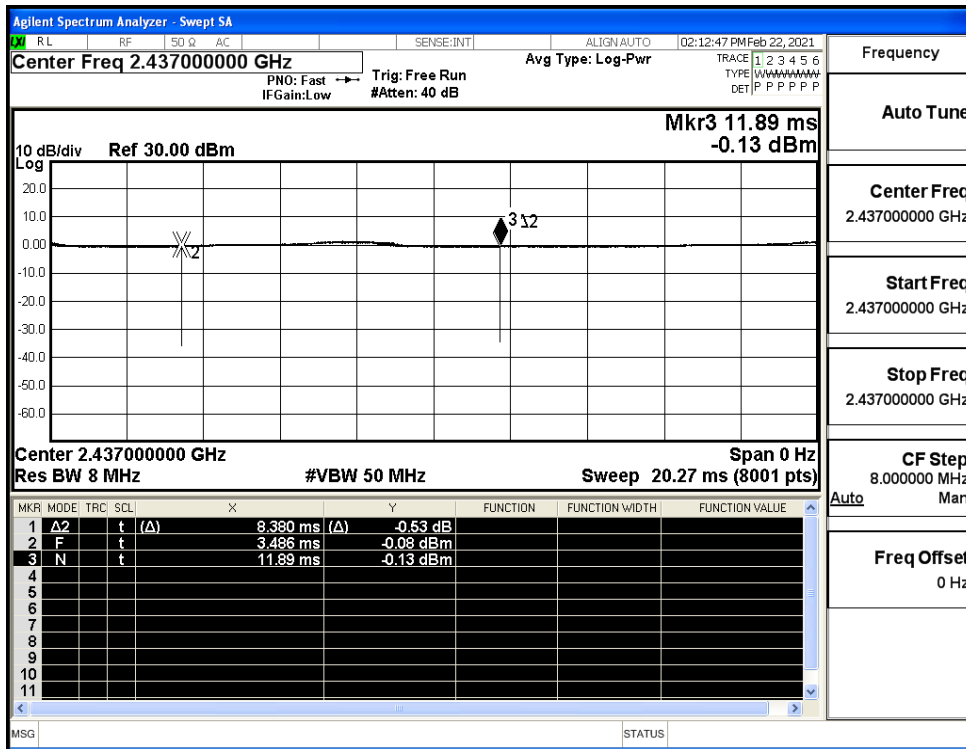
Environmental Conditions

Temperature:	22.6 ° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

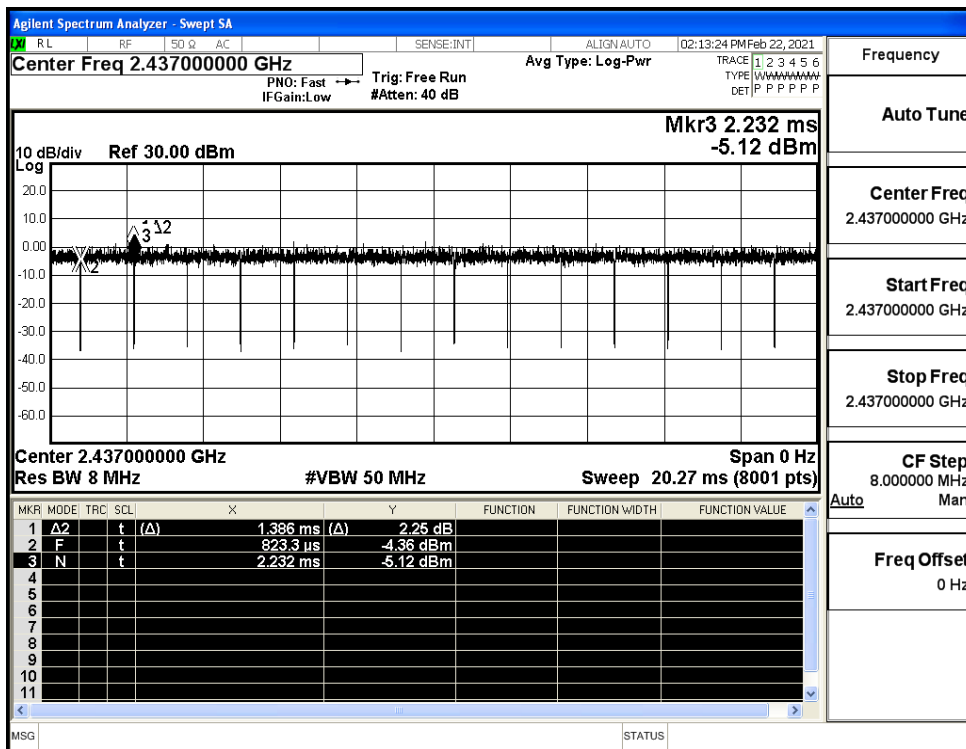
A.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	1/T Minimum VBW(KHz)	Verdict
11B	2437	Ant1	99.73	0.12	PASS
11G	2437	Ant1	98.38	0.72	PASS
11N20SISO	2437	Ant1	98.27	0.77	PASS
11N40SISO	2437	Ant1	97.69	1.55	PASS

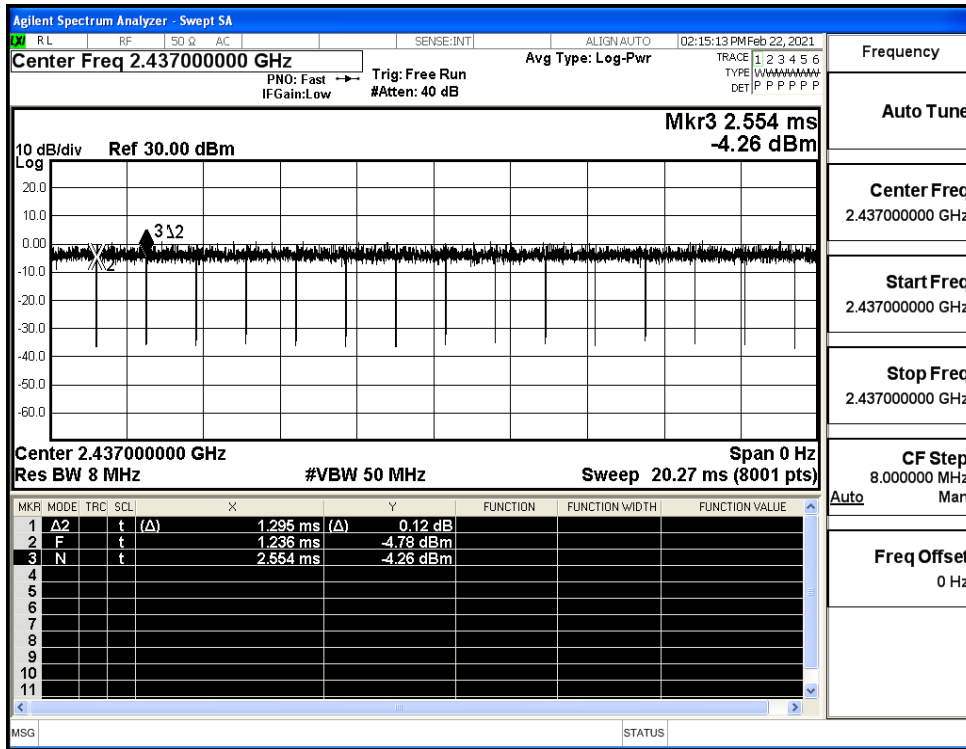
Duty Cycle_11B_2437_Ant1



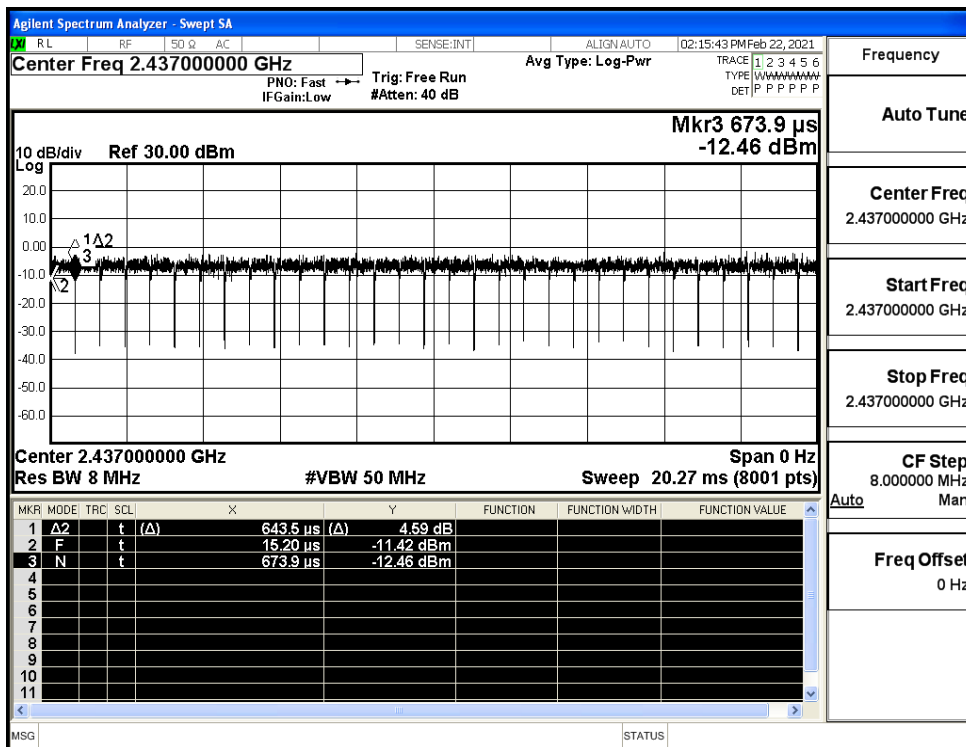
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1

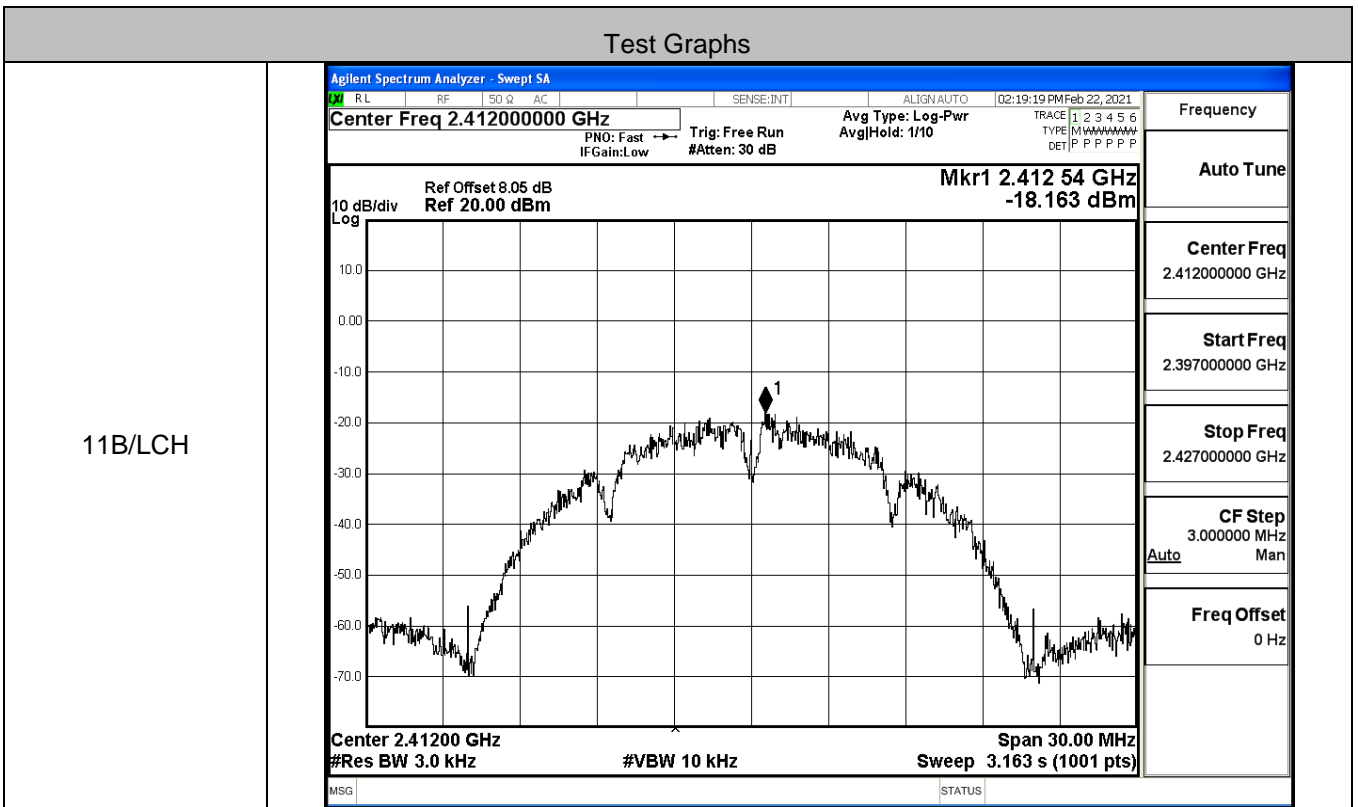


A.2 Maximum Conducted Output Power

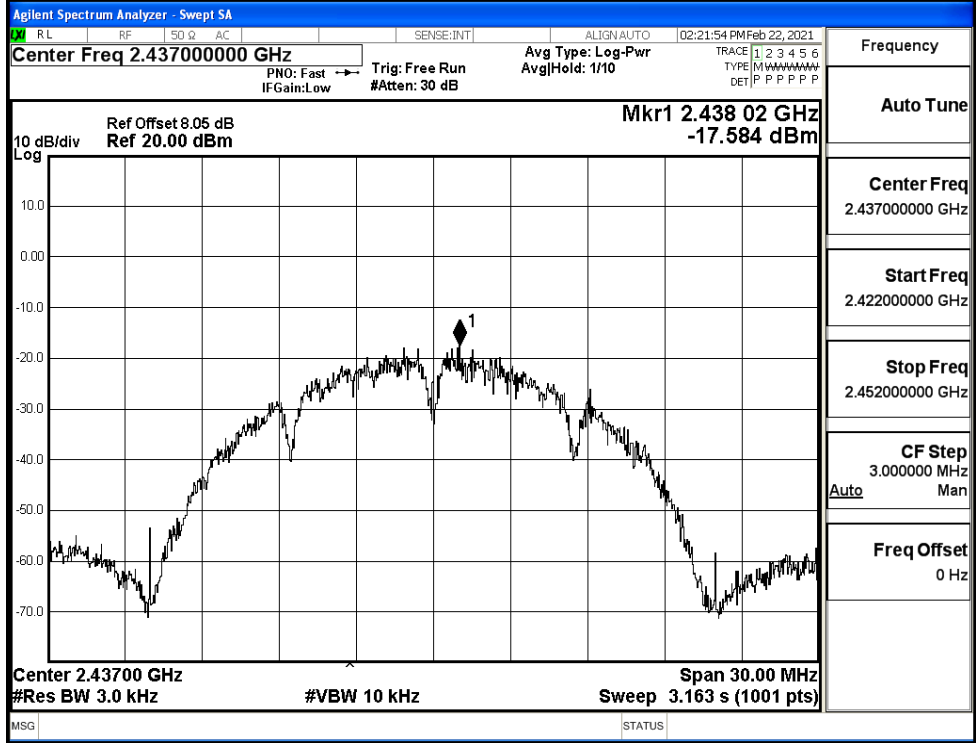
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	8.61	30	PASS
	MCH	9.02	30	PASS
	HCH	9.31	30	PASS
11G	LCH	7.71	30	PASS
	MCH	9.17	30	PASS
	HCH	9.43	30	PASS
11N20SISO	LCH	7.27	30	PASS
	MCH	8.73	30	PASS
	HCH	9.31	30	PASS
11N40SISO	LCH	8.75	30	PASS
	MCH	9.47	30	PASS
	HCH	9.49	30	PASS

A.3 Maximum Power Spectral Density

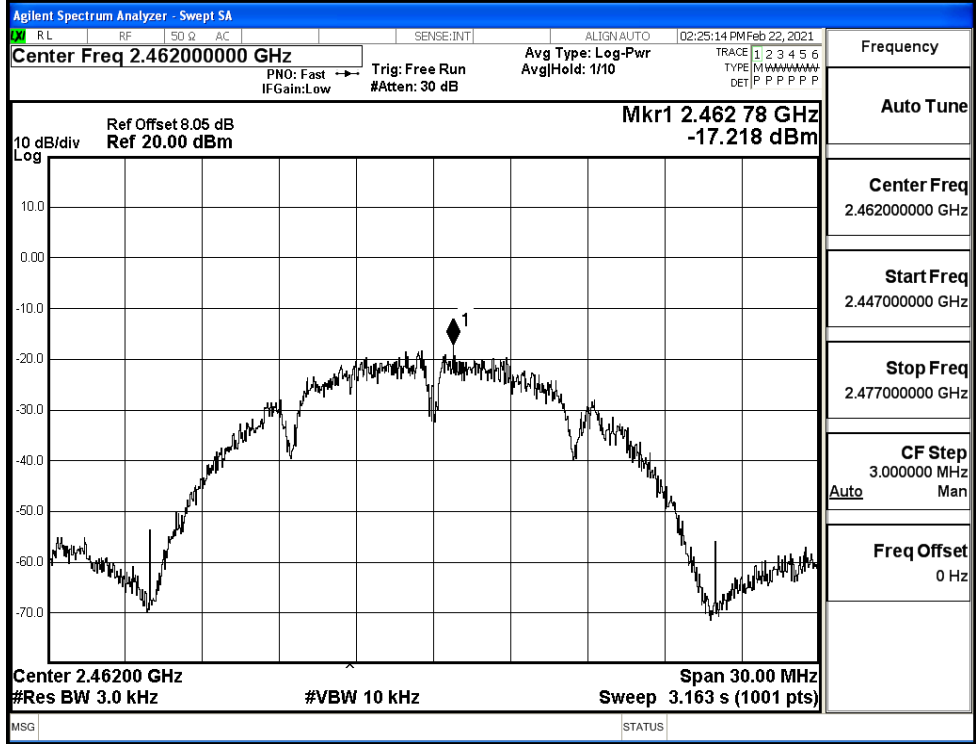
Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-18.163	8	PASS
	MCH	-17.584	8	PASS
	HCH	-17.218	8	PASS
11G	LCH	-26.678	8	PASS
	MCH	-24.121	8	PASS
	HCH	-23.671	8	PASS
11N20SISO	LCH	-26.622	8	PASS
	MCH	-24.501	8	PASS
	HCH	-23.075	8	PASS
11N40SISO	LCH	-27.011	8	PASS
	MCH	-26.432	8	PASS
	HCH	-25.573	8	PASS



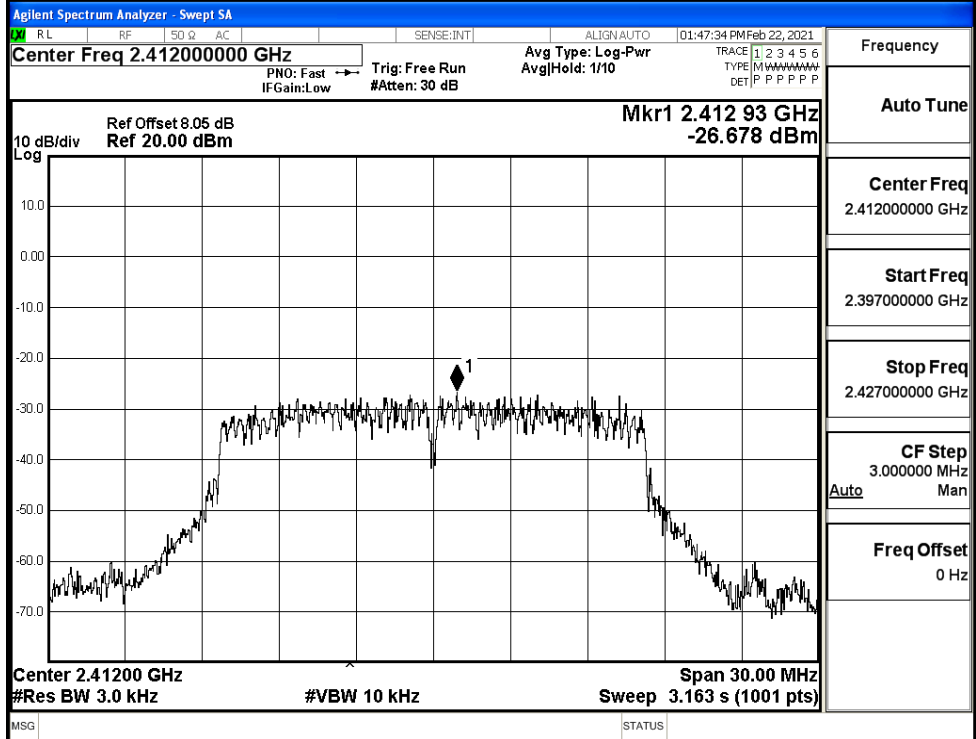
11B/MCH



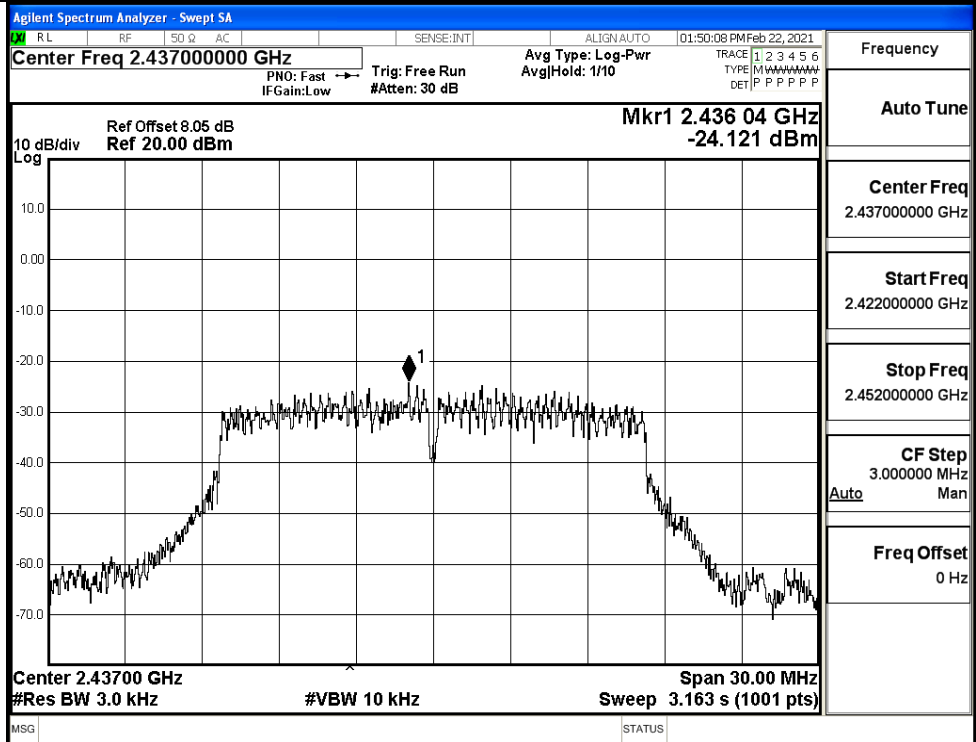
11B/HCH



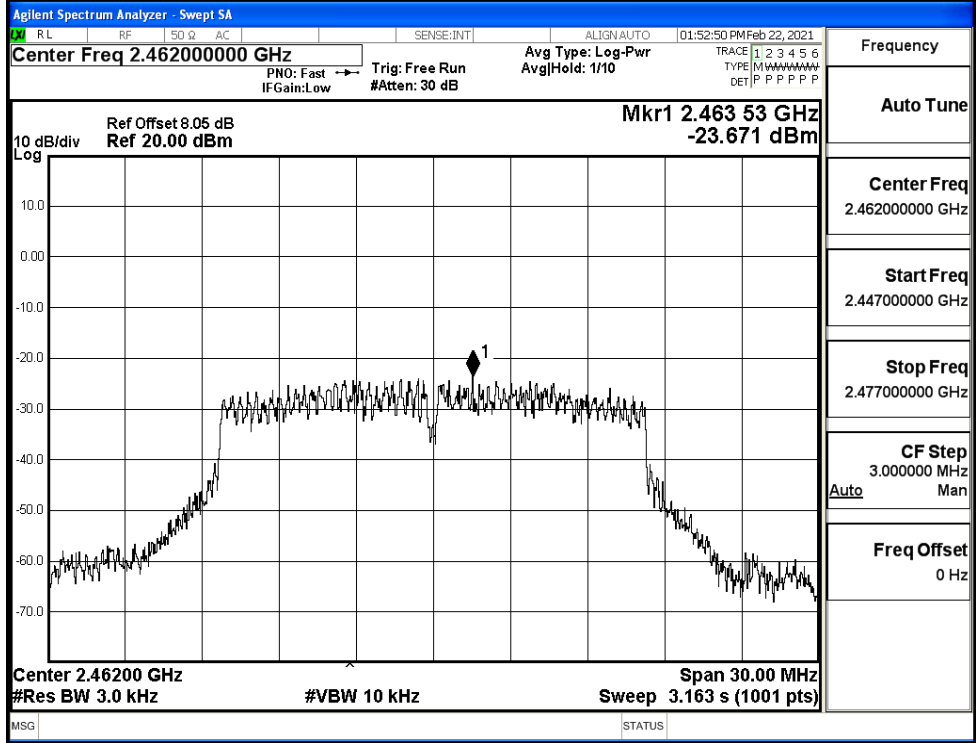
11G/LCH



11G/MCH

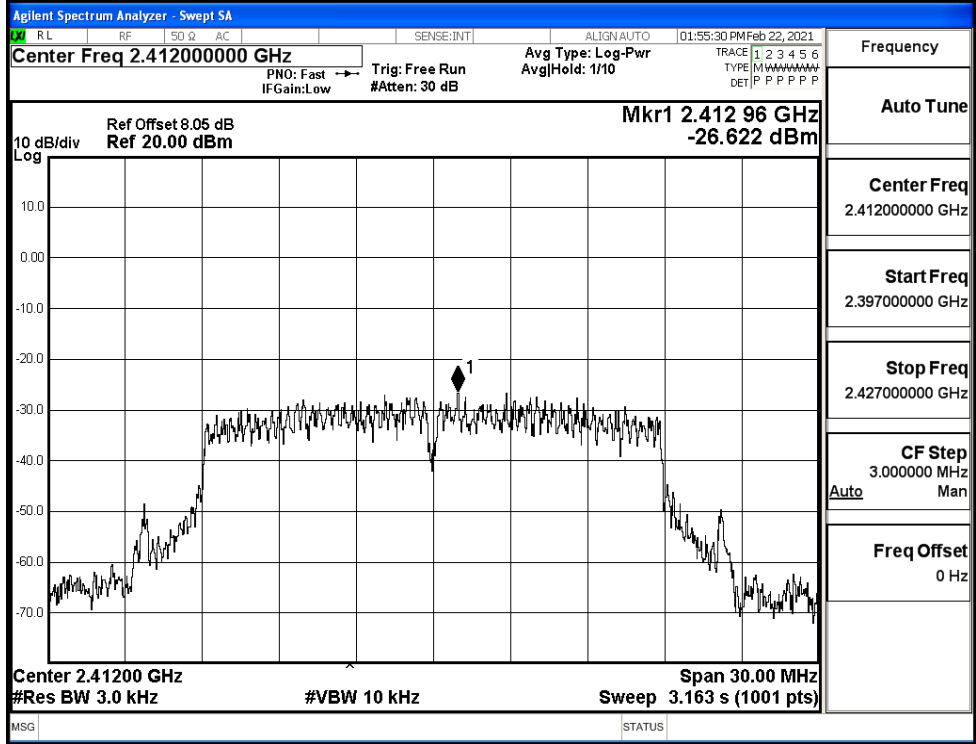


11G/HCH



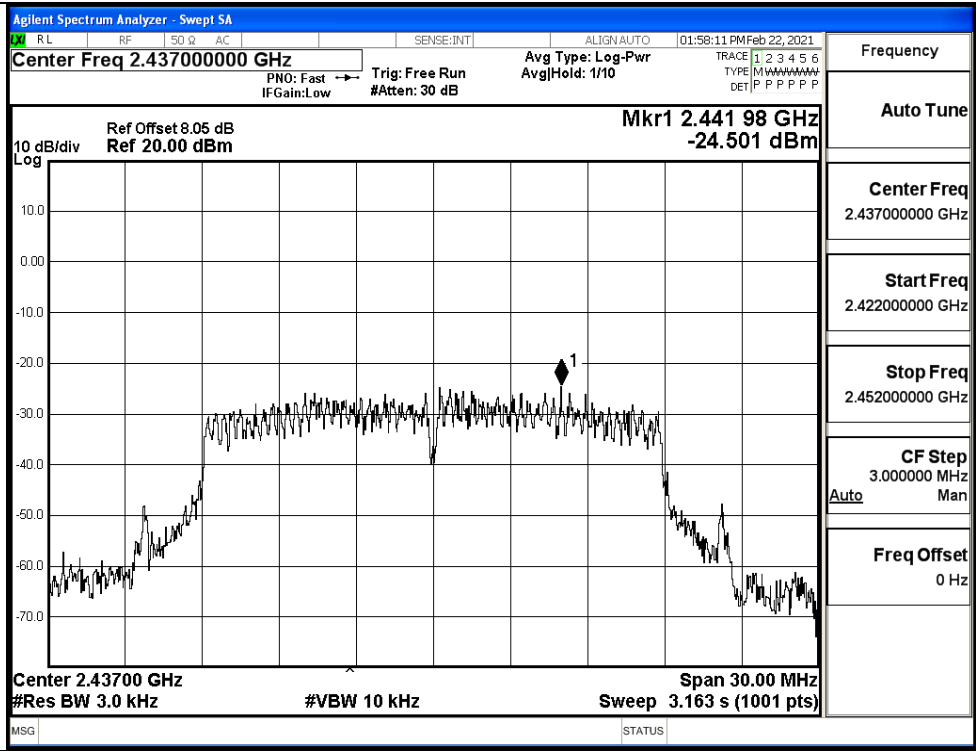
Frequency
Auto Tune
Center Freq 2.46200000 GHz
Start Freq 2.447000000 GHz
Stop Freq 2.477000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11N20SISO/LCH

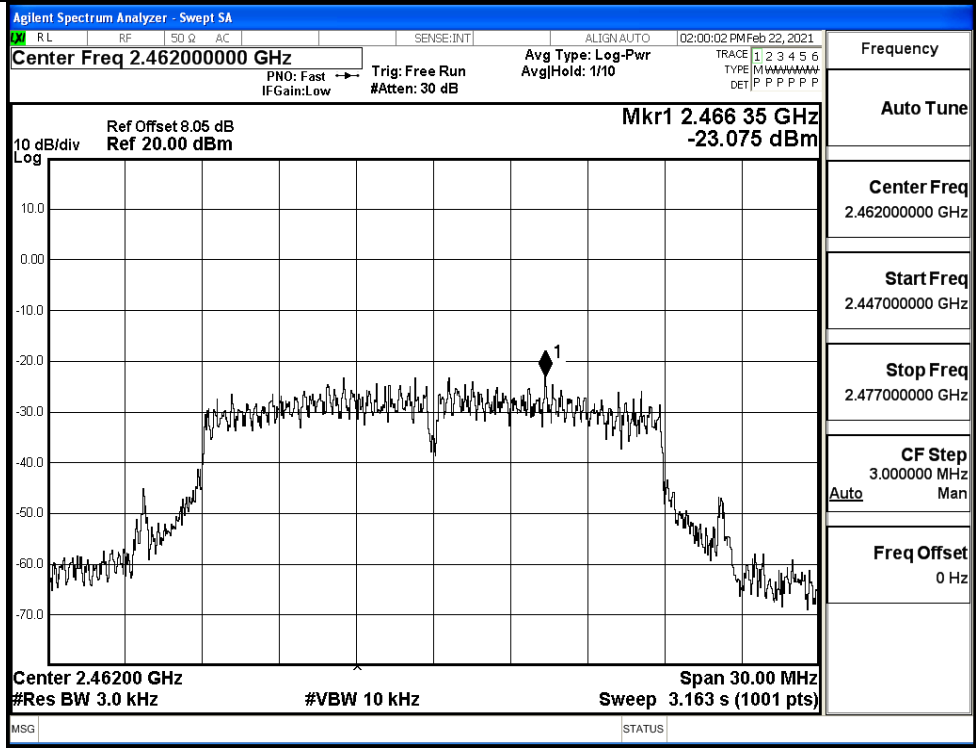


Frequency
Auto Tune
Center Freq 2.41200000 GHz
Start Freq 2.397000000 GHz
Stop Freq 2.427000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

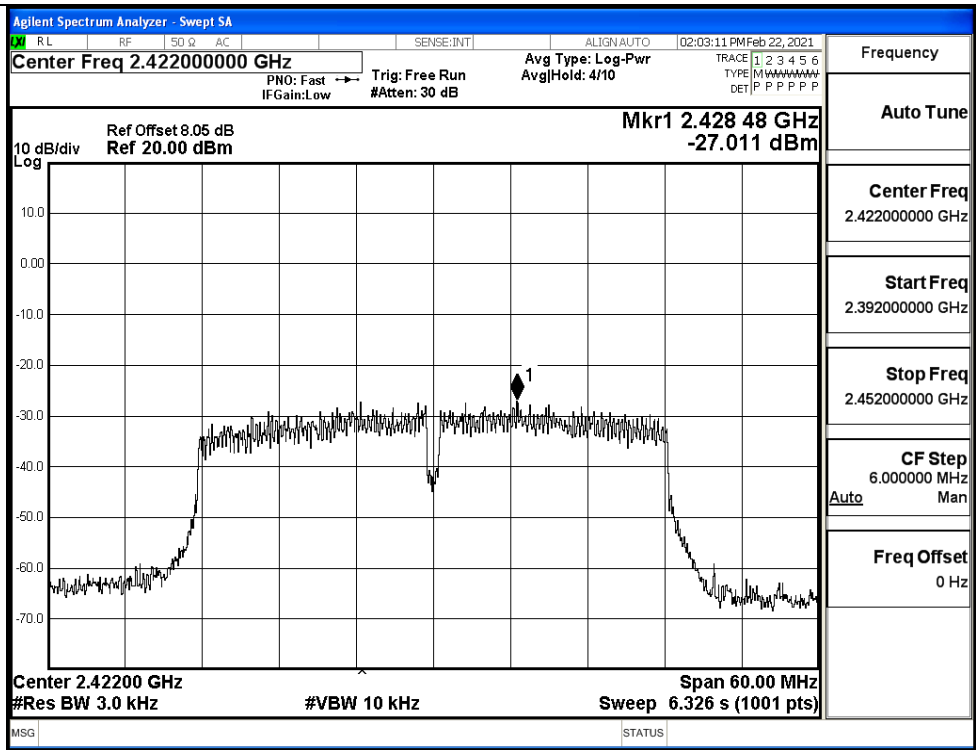
11N20SISO/MCH



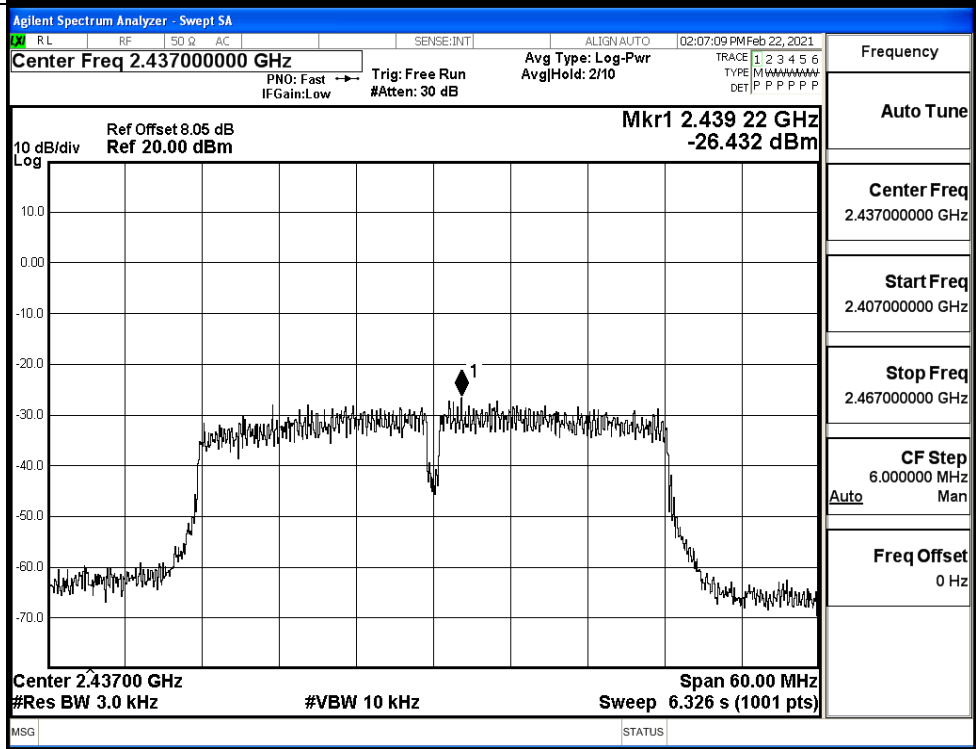
11N20SISO/HCH



11N40SISO/LCH

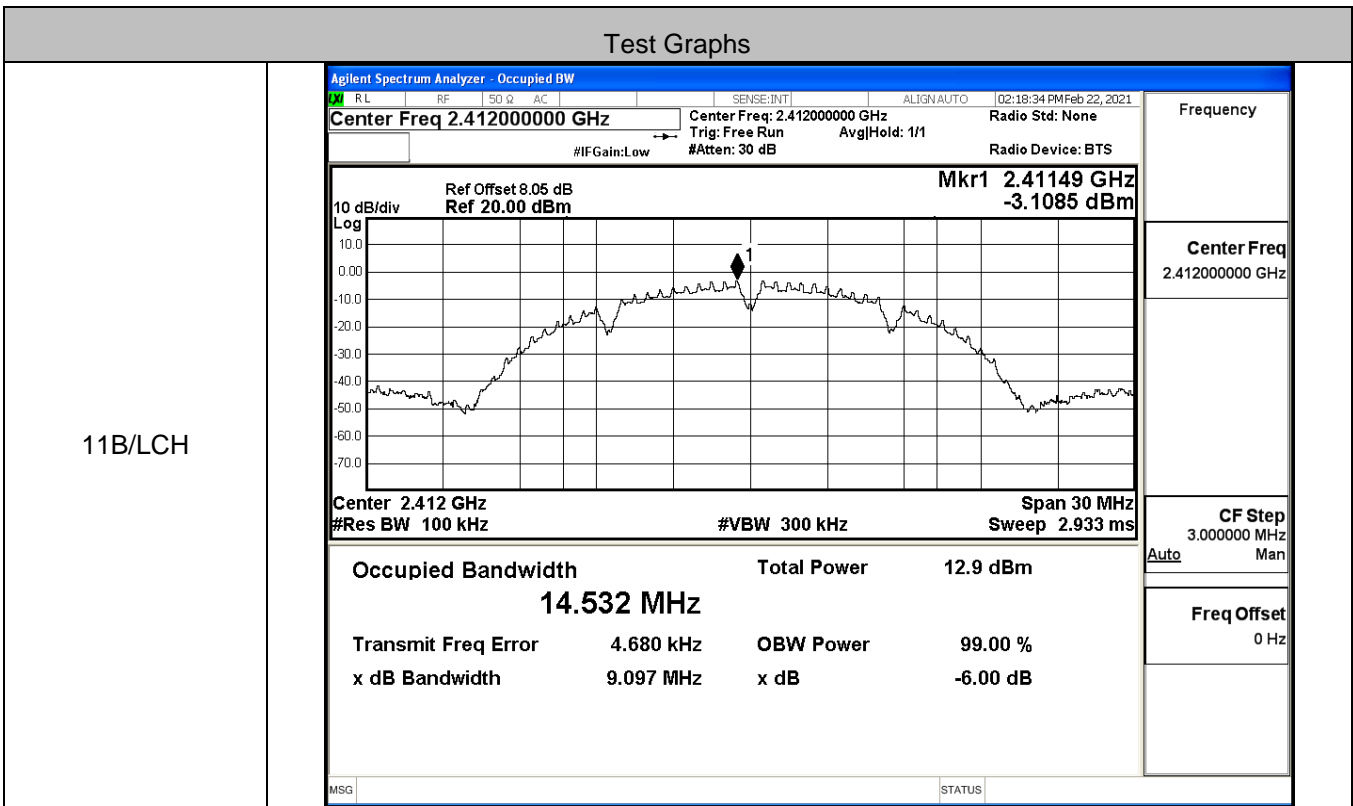


11N40SISO/MCH



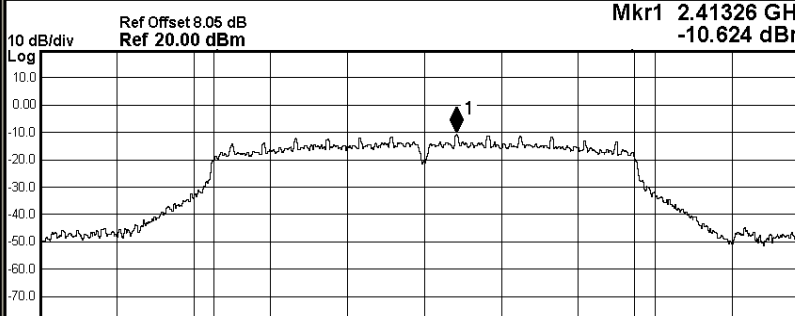
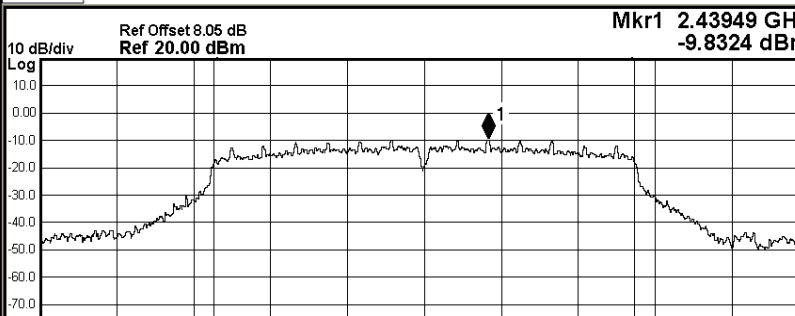
A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.097	≥0.5	PASS
	MCH	9.079	≥0.5	PASS
	HCH	9.091	≥0.5	PASS
11G	LCH	15.35	≥0.5	PASS
	MCH	15.49	≥0.5	PASS
	HCH	15.11	≥0.5	PASS
11N20SISO	LCH	15.14	≥0.5	PASS
	MCH	15.12	≥0.5	PASS
	HCH	15.47	≥0.5	PASS
11N40SISO	LCH	35.36	≥0.5	PASS
	MCH	35.21	≥0.5	PASS
	HCH	35.32	≥0.5	PASS

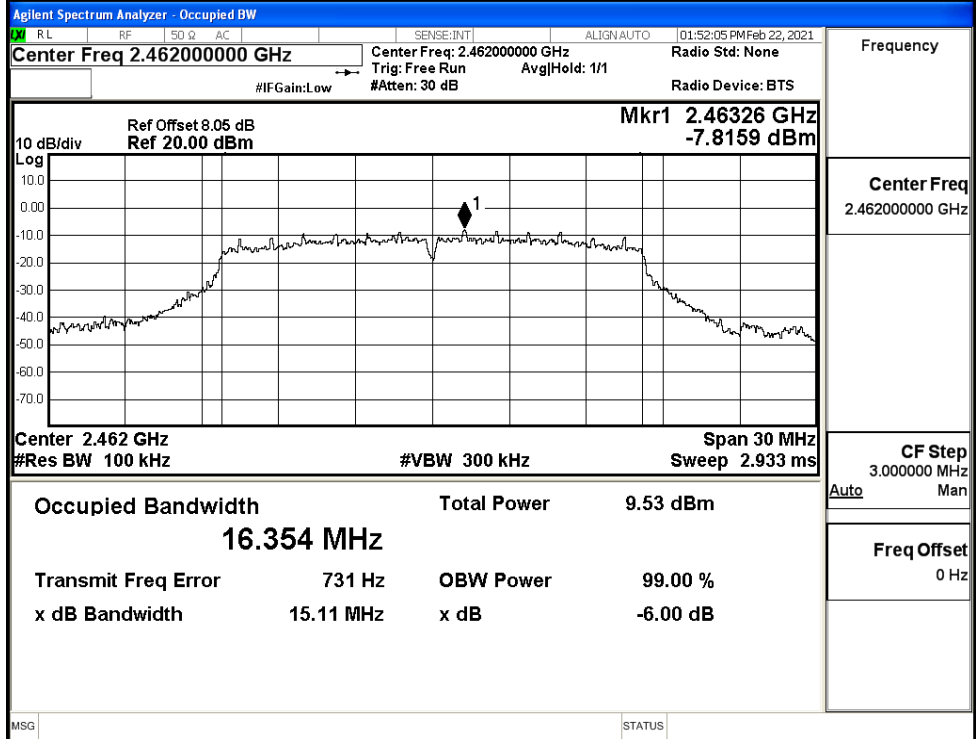


11B/MCH	Agilent Spectrum Analyzer - Occupied BW RL RF SQ AC SENSE:INT ALIGN AUTO 02:21:09 PM Feb 22, 2021 Center Freq 2.43700000 GHz Center Freq: 2.43700000 GHz Radio Std: None Trig: Free Run AvgHold: 1/1 #IFGain:Low #Atten: 30 dB Radio Device: BTS		Frequency
	Ref Offset 8.05 dB Mkr1 2.43751 GHz Ref 20.00 dBm -2.5255 dBm 10 dB/div Log 		Center Freq 2.43700000 GHz
	Center 2.437 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms		CF Step 3.000000 MHz Auto Man
	Occupied Bandwidth Total Power 13.4 dBm 14.447 MHz Transmit Freq Error -48.089 kHz OBW Power 99.00 % x dB Bandwidth 9.079 MHz x dB -6.00 dB		Freq Offset 0 Hz

11B/HCH	Agilent Spectrum Analyzer - Occupied BW RL RF SQ AC SENSE:INT ALIGN AUTO 02:24:29 PM Feb 22, 2021 Center Freq 2.46200000 GHz Center Freq: 2.46200000 GHz Radio Std: None Trig: Free Run AvgHold: 1/1 #IFGain:Low #Atten: 30 dB Radio Device: BTS		Frequency
	Ref Offset 8.05 dB Mkr1 2.46251 GHz Ref 20.00 dBm -2.8109 dBm 10 dB/div Log 		Center Freq 2.46200000 GHz
	Center 2.462 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms		CF Step 3.000000 MHz Auto Man
	Occupied Bandwidth Total Power 13.3 dBm 14.433 MHz Transmit Freq Error -59.943 kHz OBW Power 99.00 % x dB Bandwidth 9.091 MHz x dB -6.00 dB		Freq Offset 0 Hz

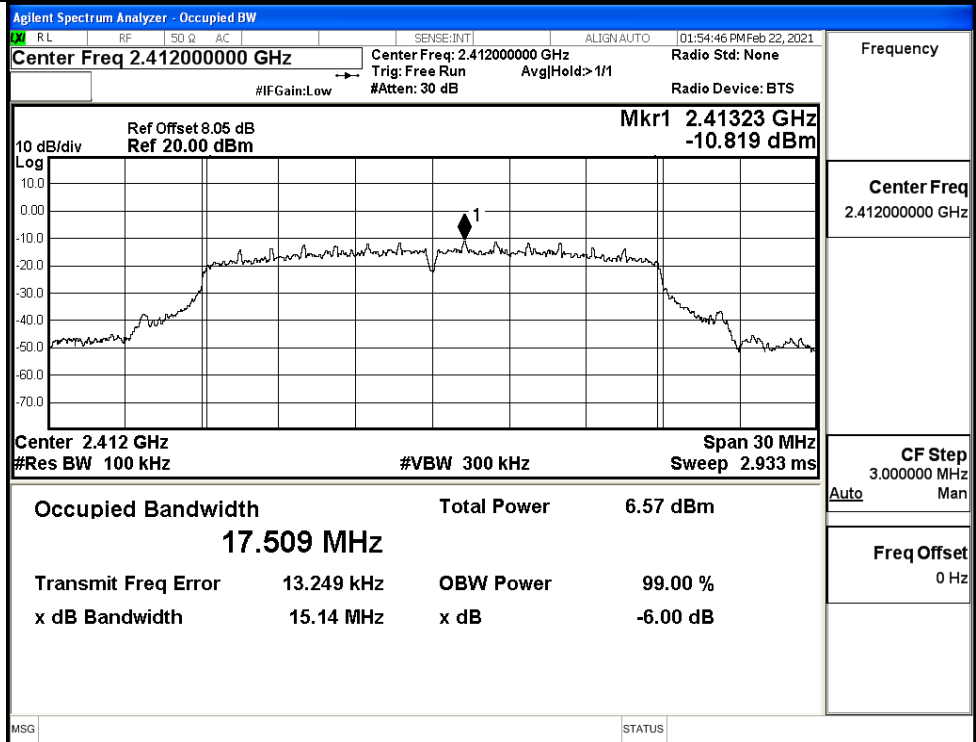
<p>11G/LCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>RL RF SQ AC SENSE:INT ALIGN AUTO 01:46:49 PM Feb 22, 2021</p> <p>Center Freq 2.41200000 GHz Center Freq: 2.412000000 GHz Radio Std: None Trig: Free Run AvgHold: 1/1 #IFGain:Low #Atten: 30 dB Radio Device: BTS</p> <p>10 dB/div Ref Offset 8.05 dB Mkr1 2.41326 GHz Ref 20.00 dBm -10.624 dBm</p>  <p>Center 2.412 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms</p> <p>Occupied Bandwidth Total Power 6.73 dBm 16.352 MHz</p> <p>Transmit Freq Error 7.781 kHz OBW Power 99.00 % x dB Bandwidth 15.35 MHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.41200000 GHz</p> <p>CF Step 3.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>
<p>11G/MCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>RL RF SQ AC SENSE:INT ALIGN AUTO 01:49:23 PM Feb 22, 2021</p> <p>Center Freq 2.43700000 GHz Center Freq: 2.437000000 GHz Radio Std: None Trig: Free Run AvgHold: 1/1 #IFGain:Low #Atten: 30 dB Radio Device: BTS</p> <p>10 dB/div Ref Offset 8.05 dB Mkr1 2.43949 GHz Ref 20.00 dBm -9.8324 dBm</p>  <p>Center 2.437 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms</p> <p>Occupied Bandwidth Total Power 8.10 dBm 16.357 MHz</p> <p>Transmit Freq Error 3.613 kHz OBW Power 99.00 % x dB Bandwidth 15.49 MHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.43700000 GHz</p> <p>CF Step 3.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

11G/HCH



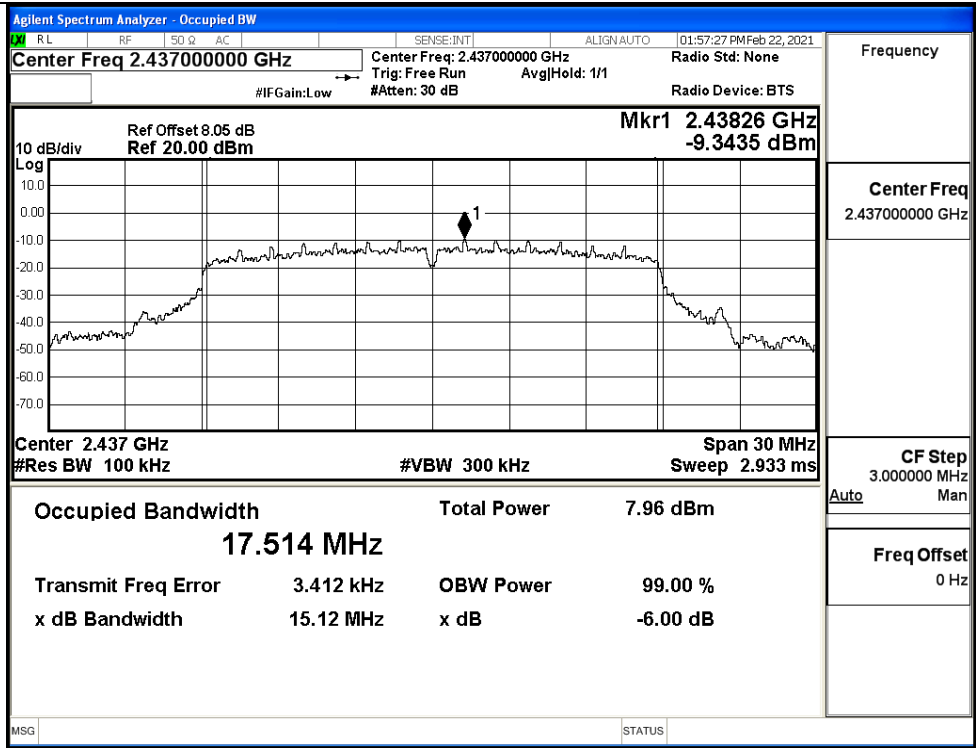
Frequency	2.46200000 GHz
Center Freq	2.46200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N20SISO/LCH



Frequency	2.41200000 GHz
Center Freq	2.41200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

11N20SISO/MCH

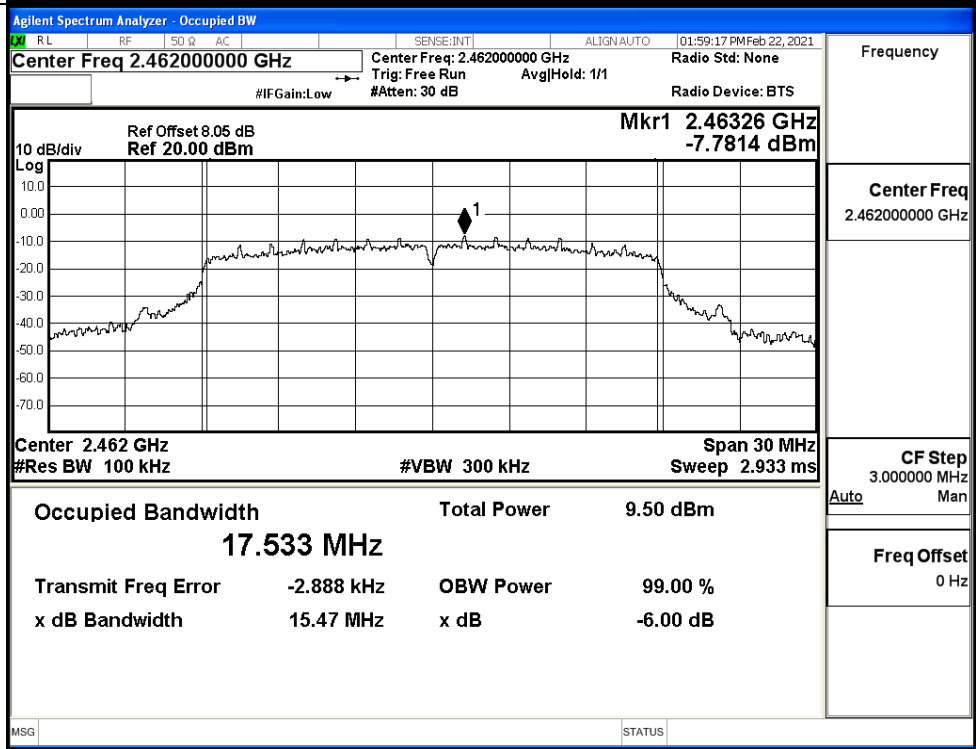


Frequency
2.43700000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

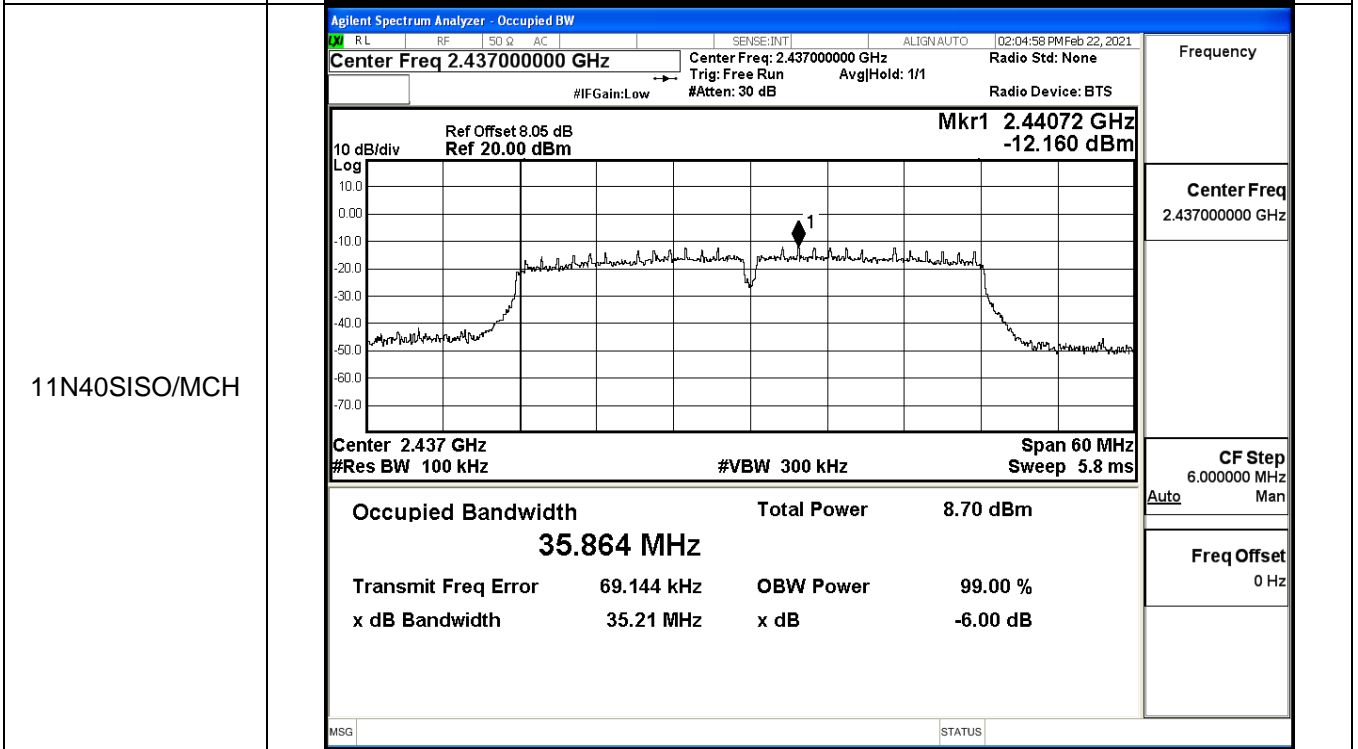
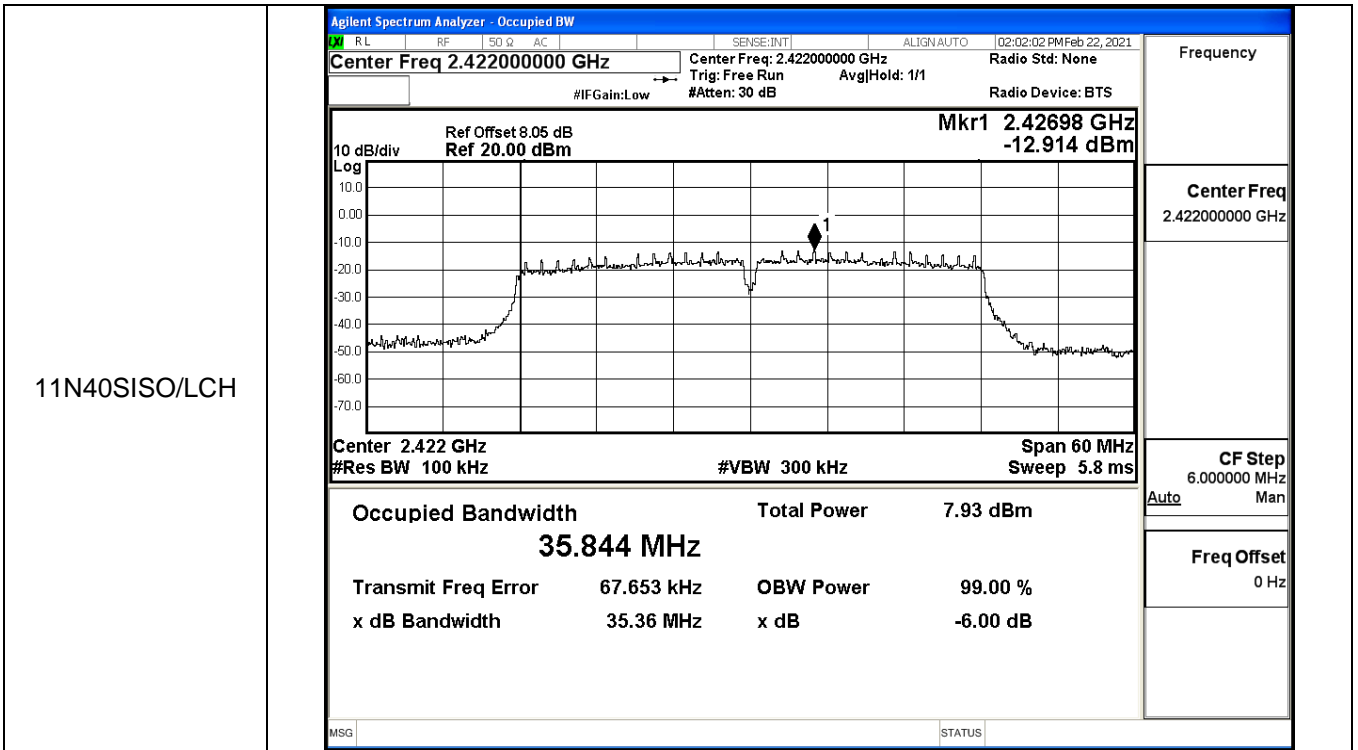
11N20SISO/HCH

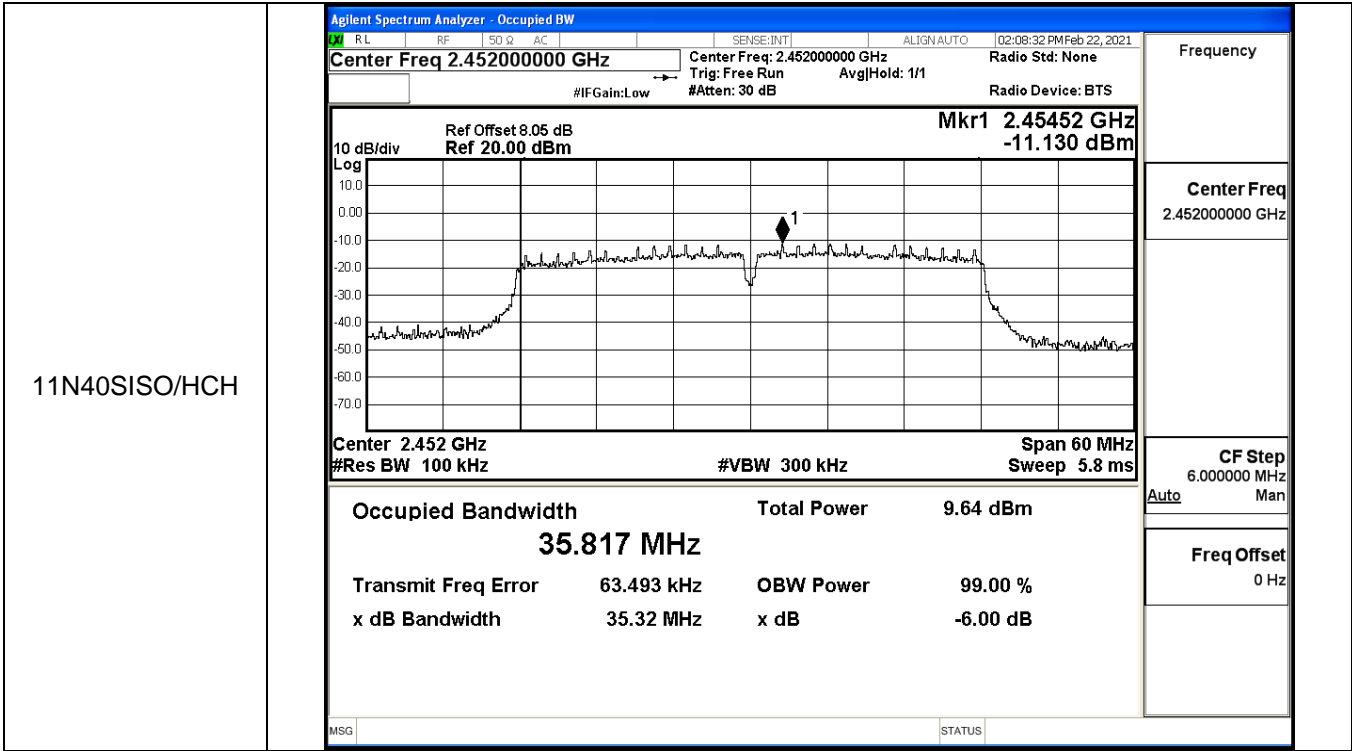


Frequency
2.46200000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

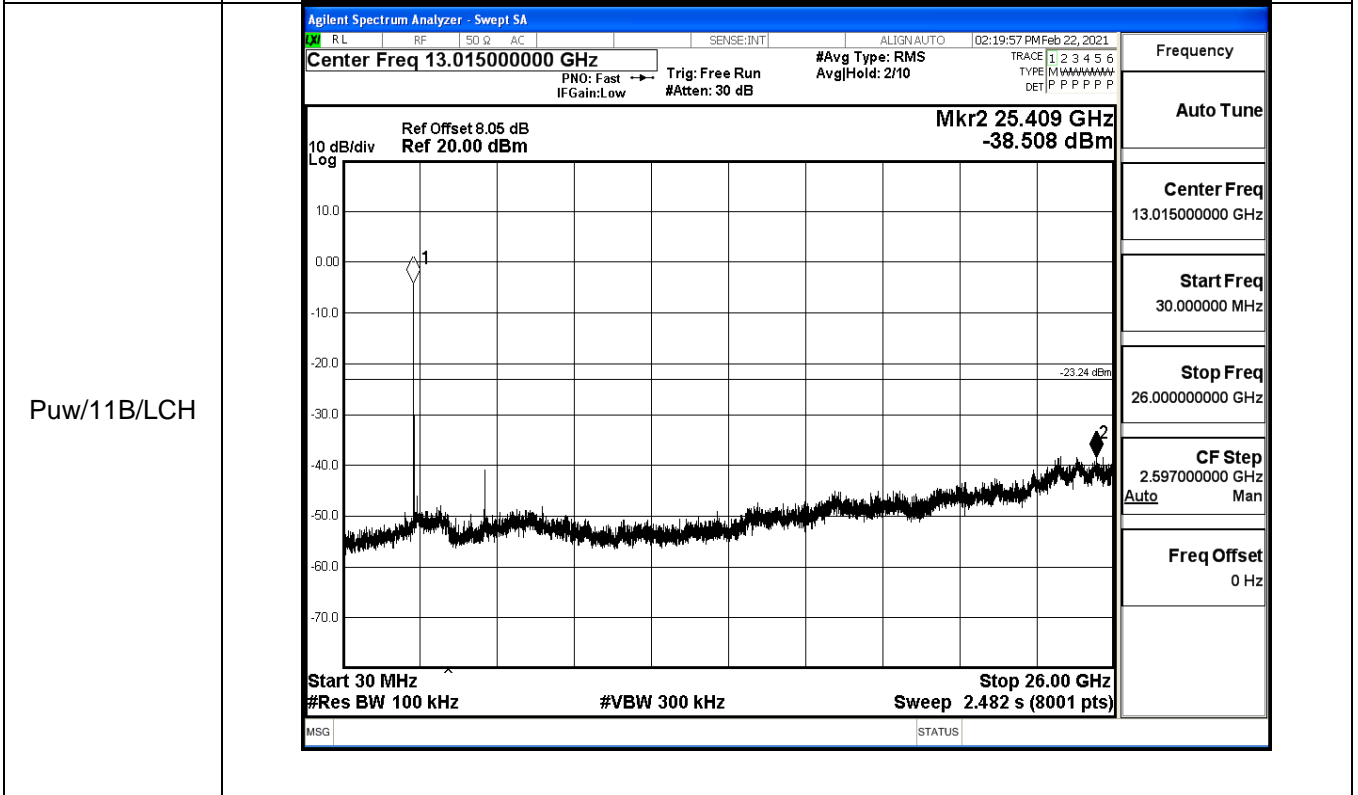
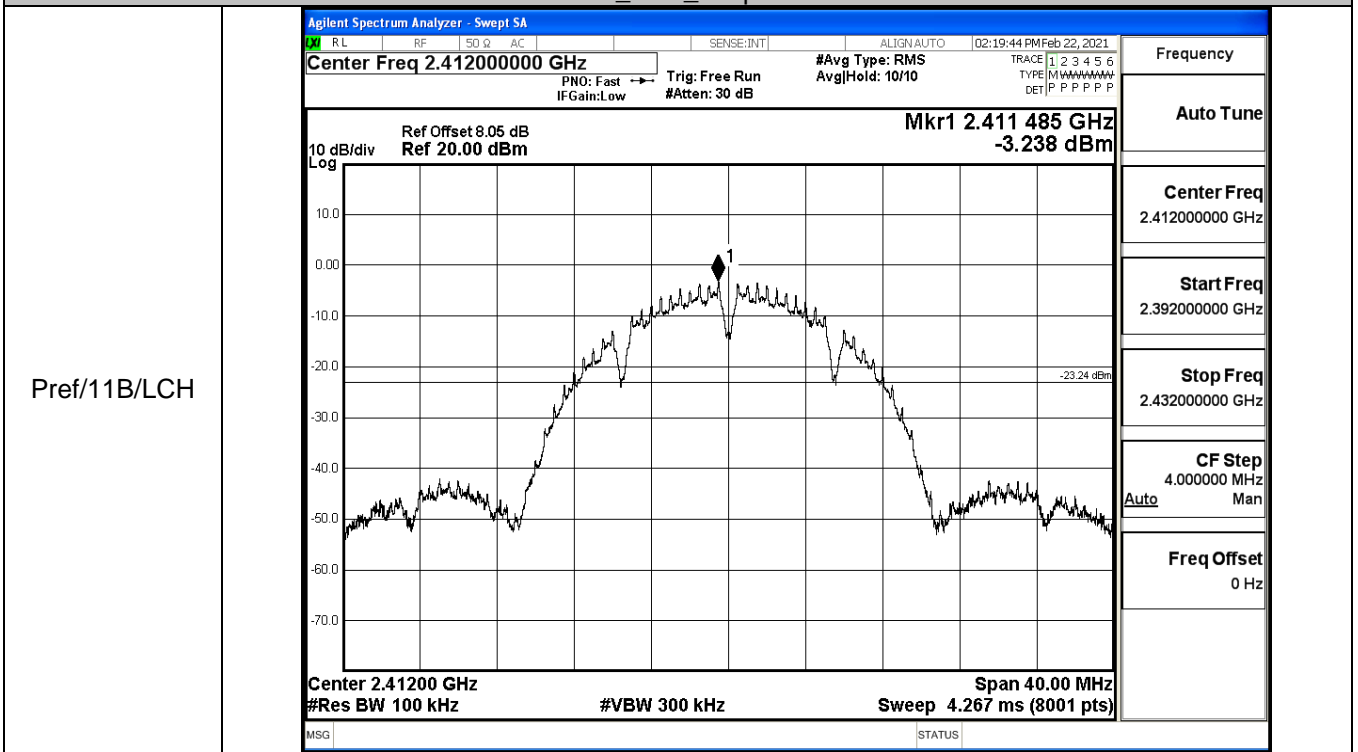




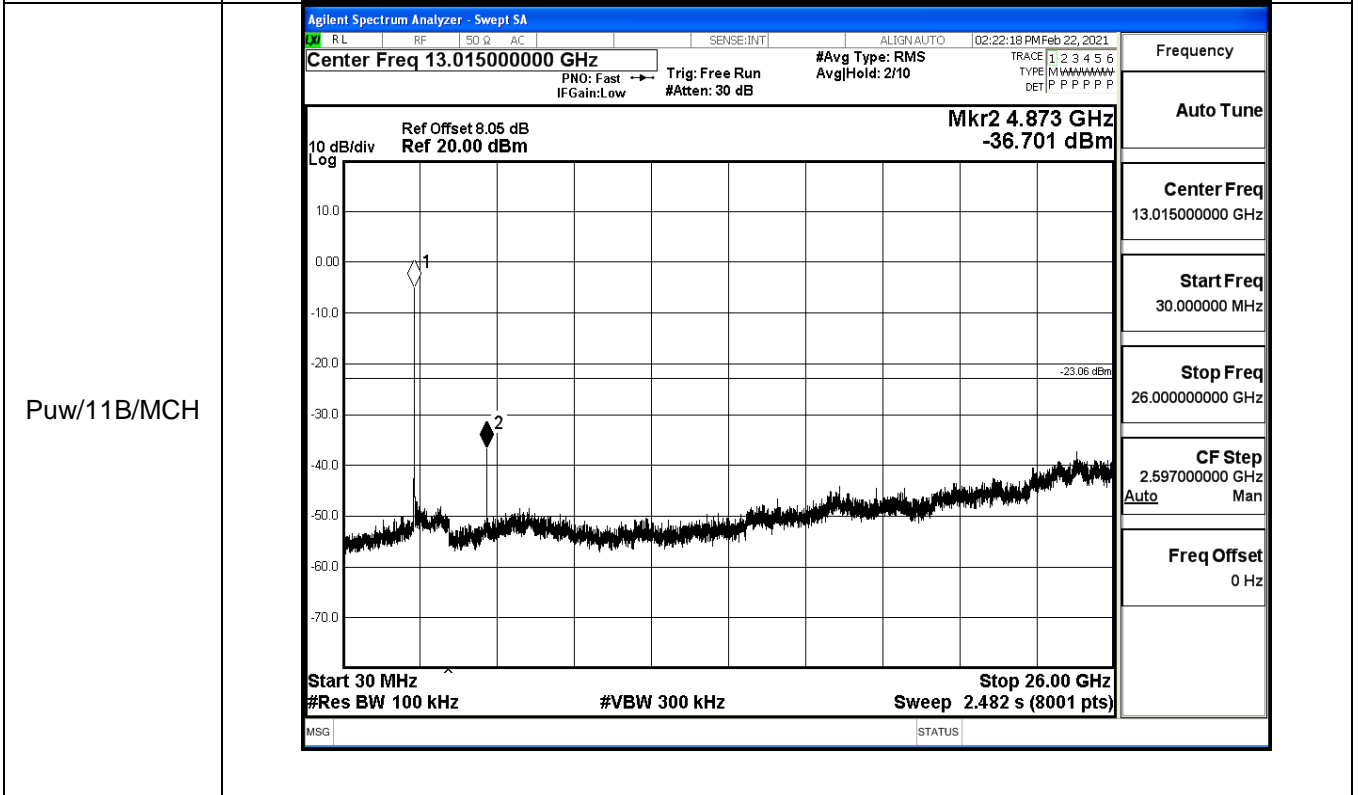
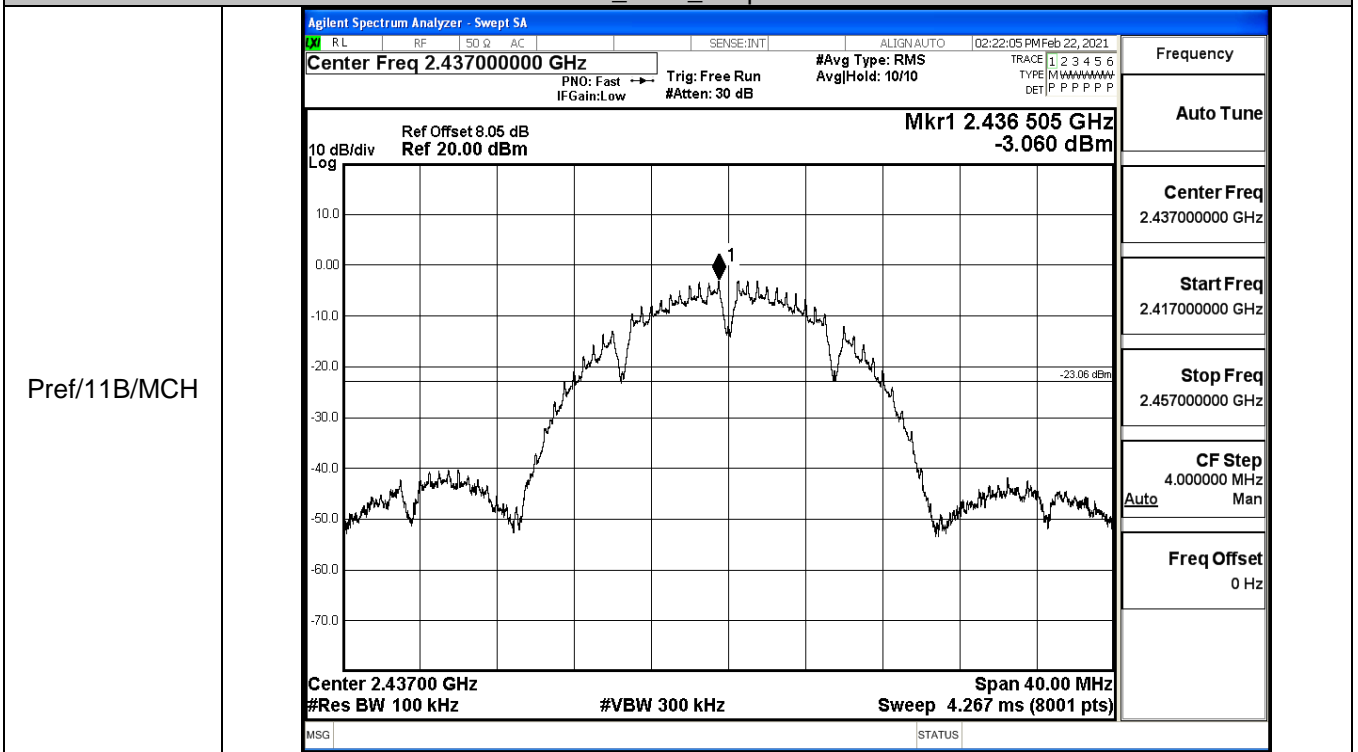
A.5 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-3.238	-38.508	-23.238	PASS
	MCH	-3.06	-36.701	-23.060	PASS
	HCH	-3.021	-37.179	-23.021	PASS
11G	LCH	-11.478	-37.211	-31.478	PASS
	MCH	-9.323	-37.847	-29.323	PASS
	HCH	-7.867	-36.374	-27.867	PASS
11N20 SISO	LCH	-10.859	-38.075	-30.859	PASS
	MCH	-9.853	-38.605	-29.853	PASS
	HCH	-8.157	-38.321	-28.157	PASS
11N40 SISO	LCH	-12.968	-38.210	-32.968	PASS
	MCH	-12.447	-38.306	-32.447	PASS
	HCH	-11.177	-37.964	-31.177	PASS

11B_LCH_Graphs

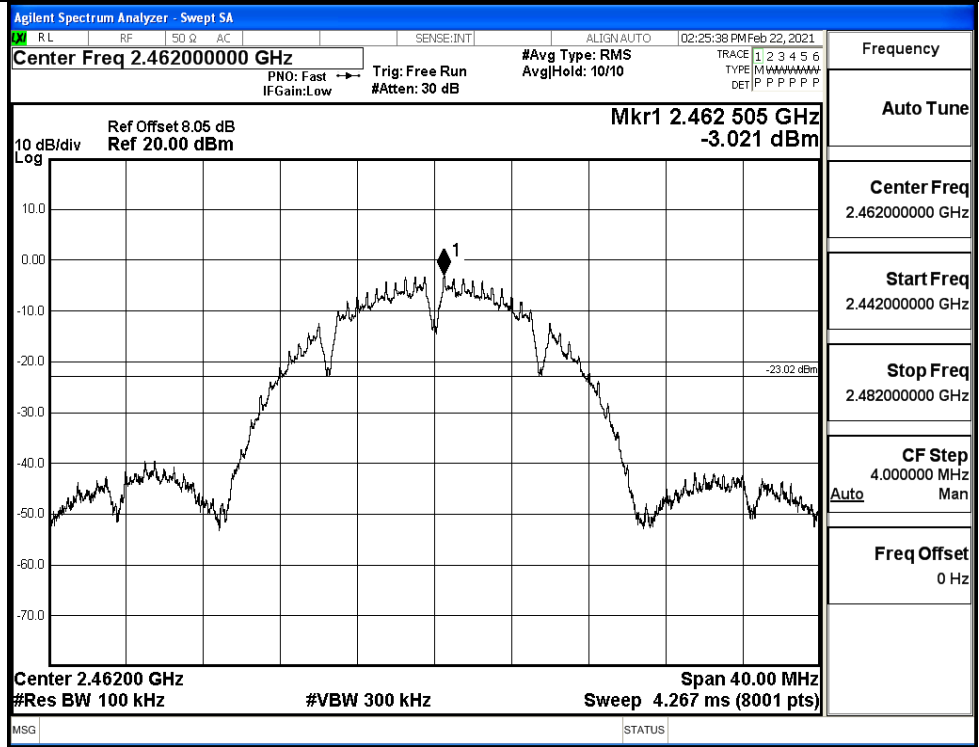


11B_MCH_Graphs

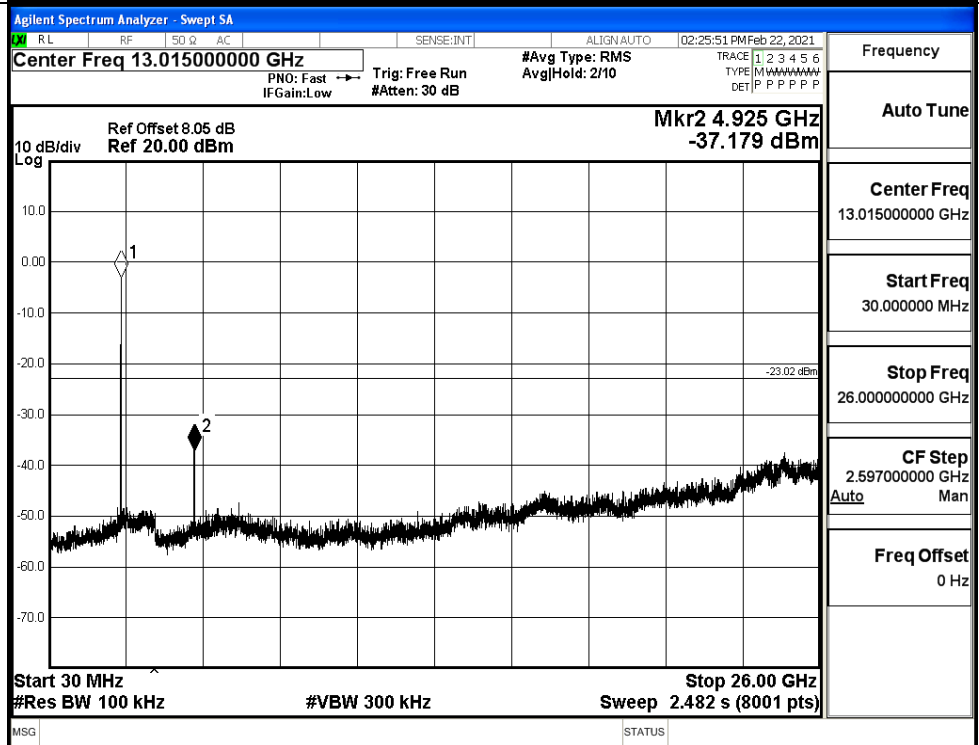


11B_HCH_Graphs

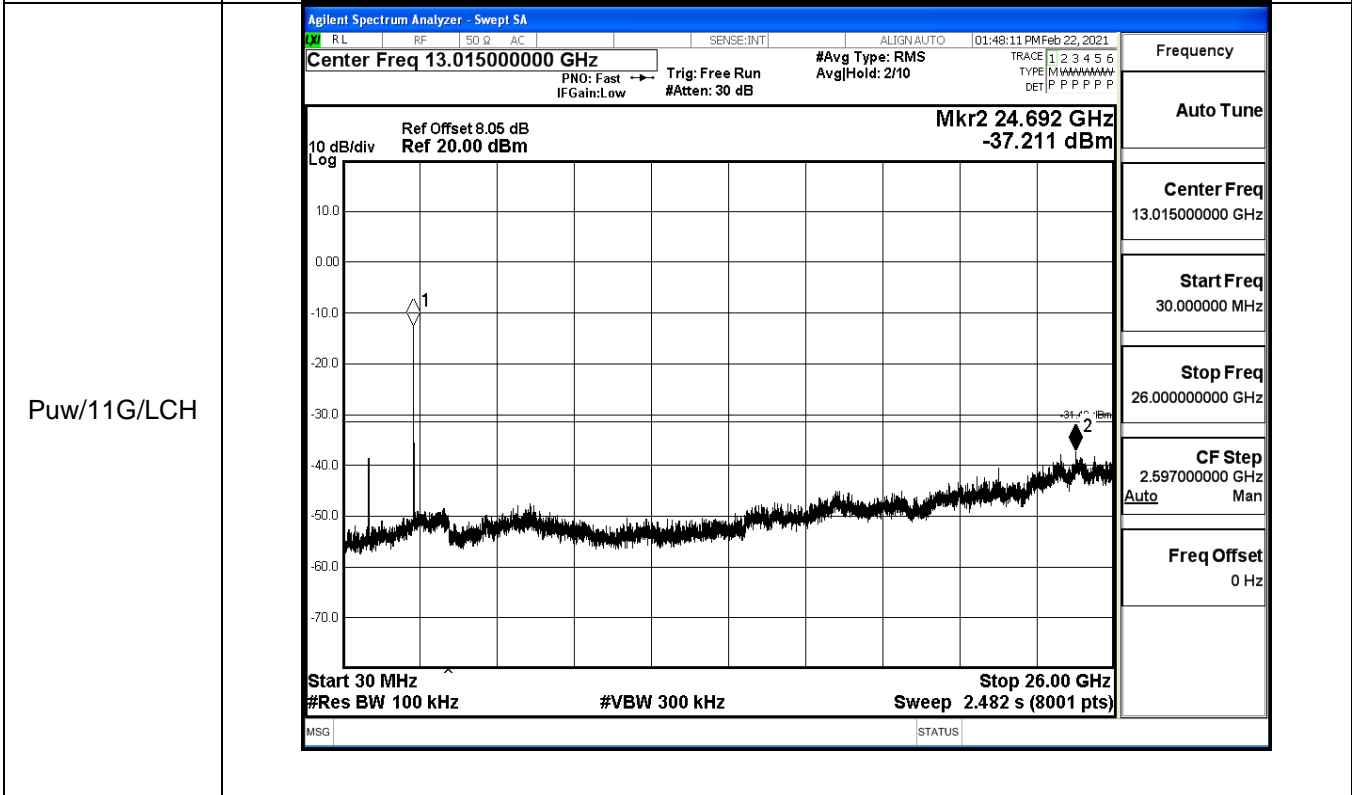
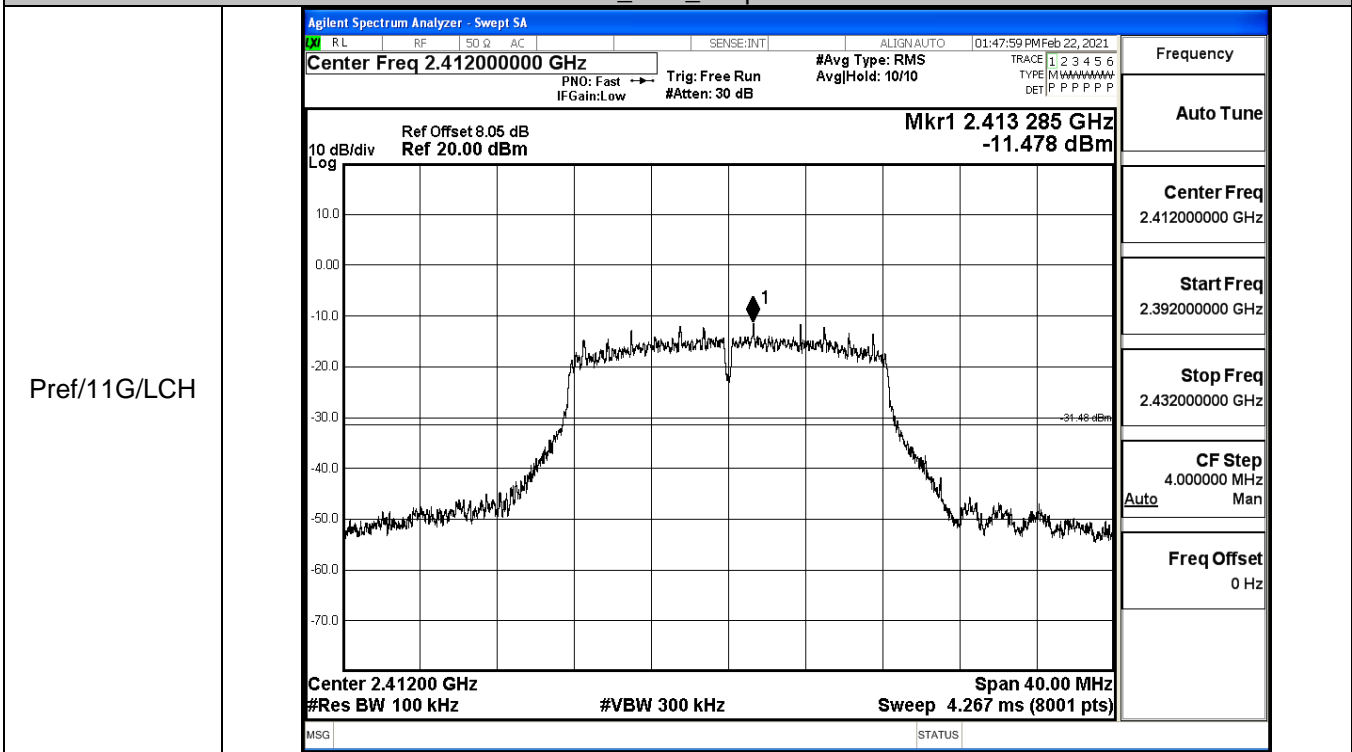
Pref/11B/HCH



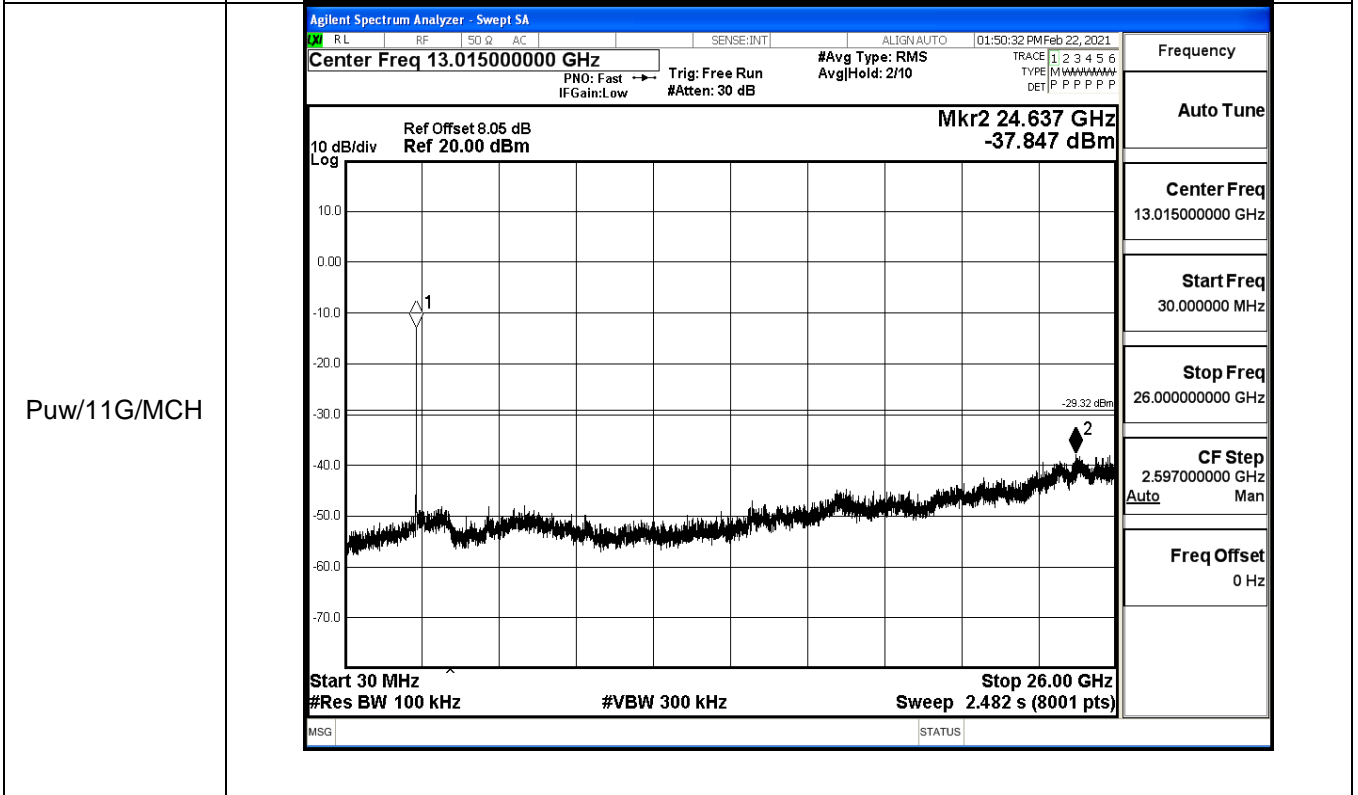
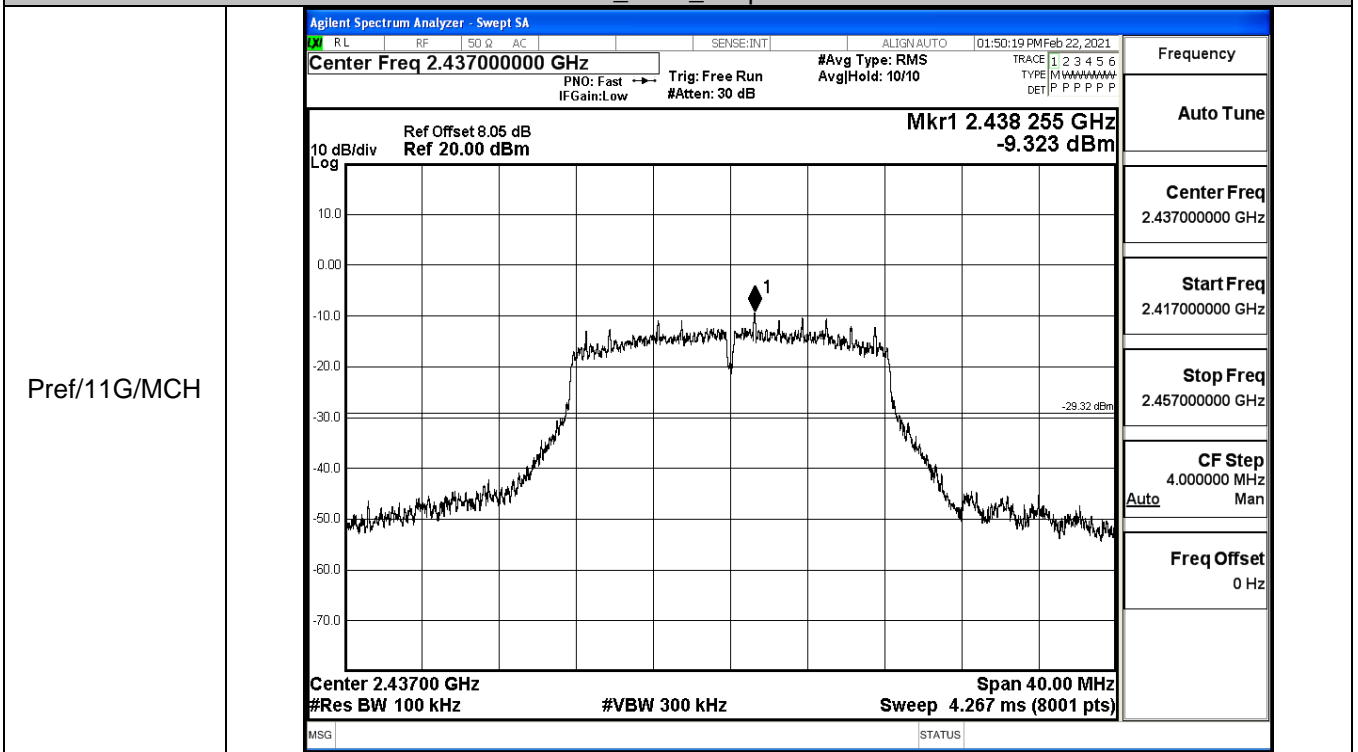
Puw/11B/HCH



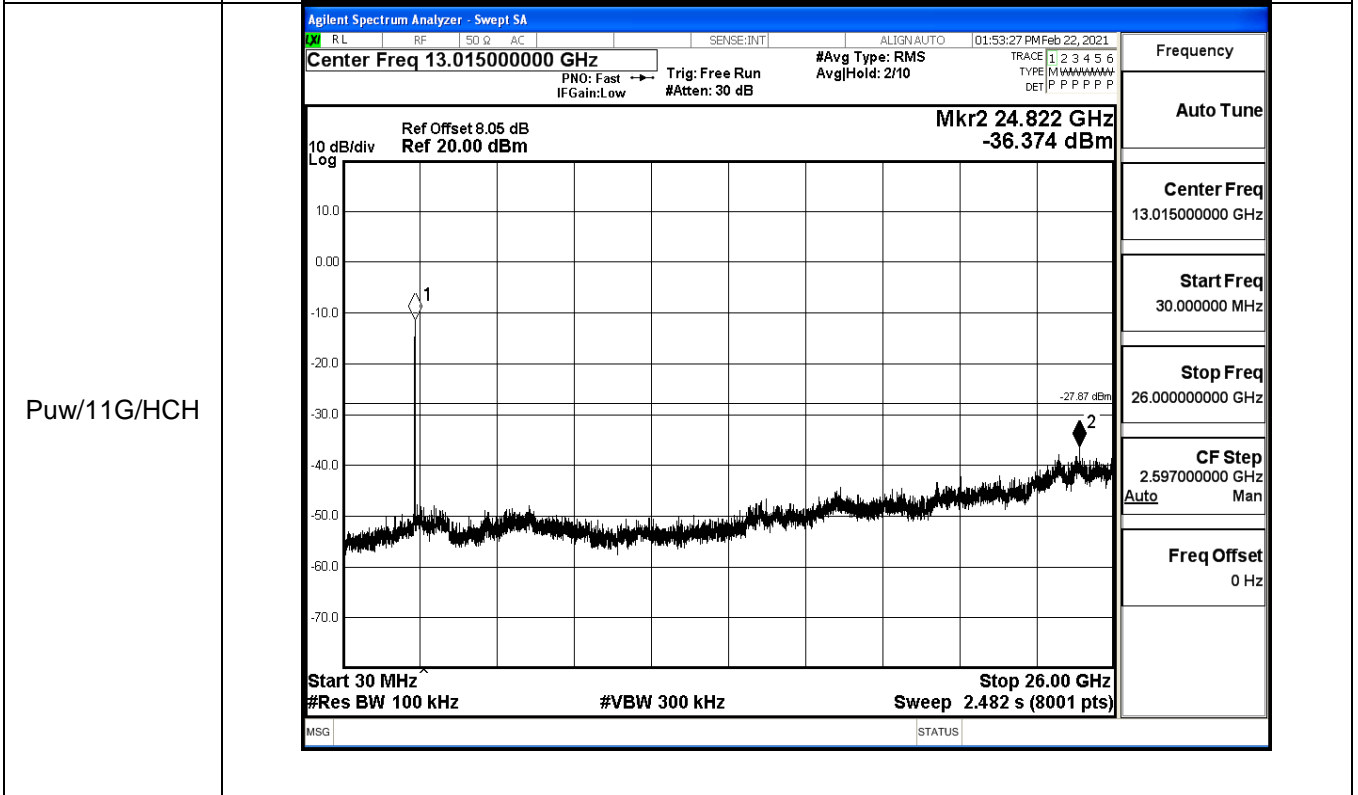
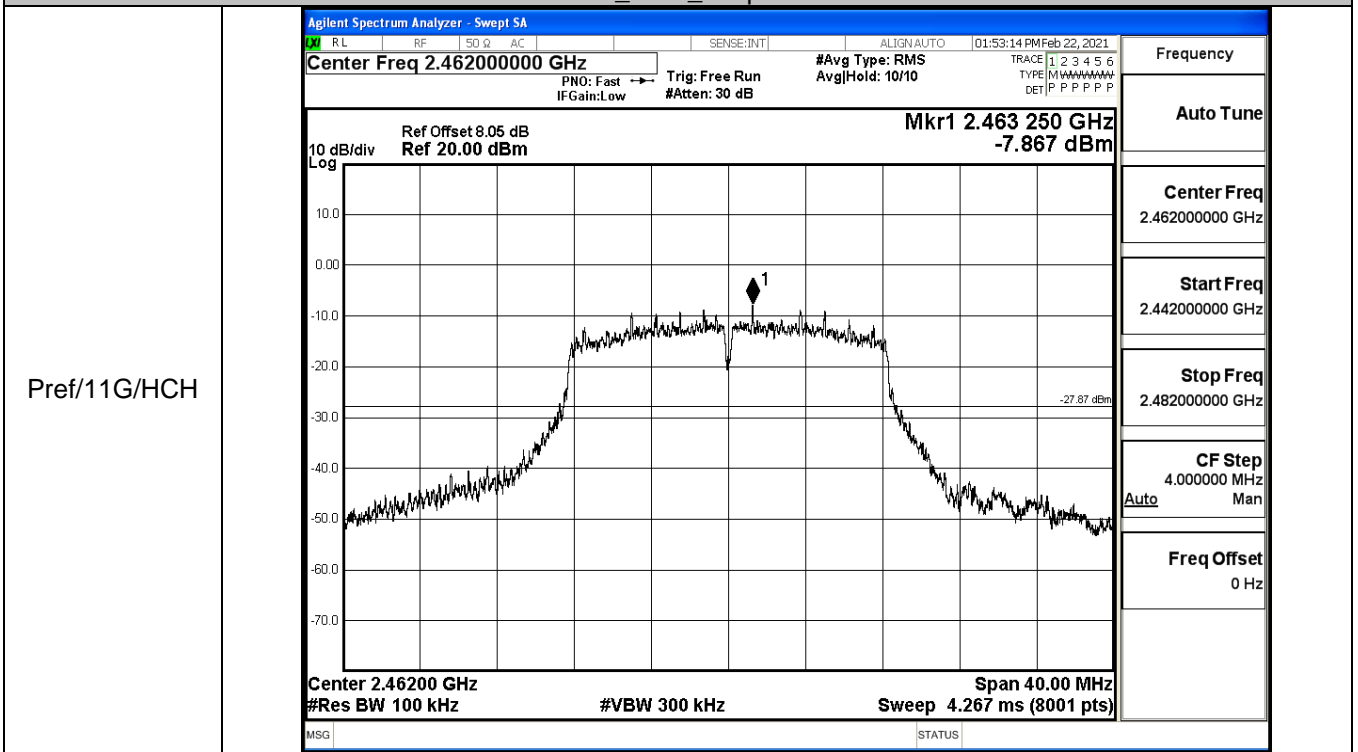
11G_LCH_Graphs



11G_MCH_Graphs

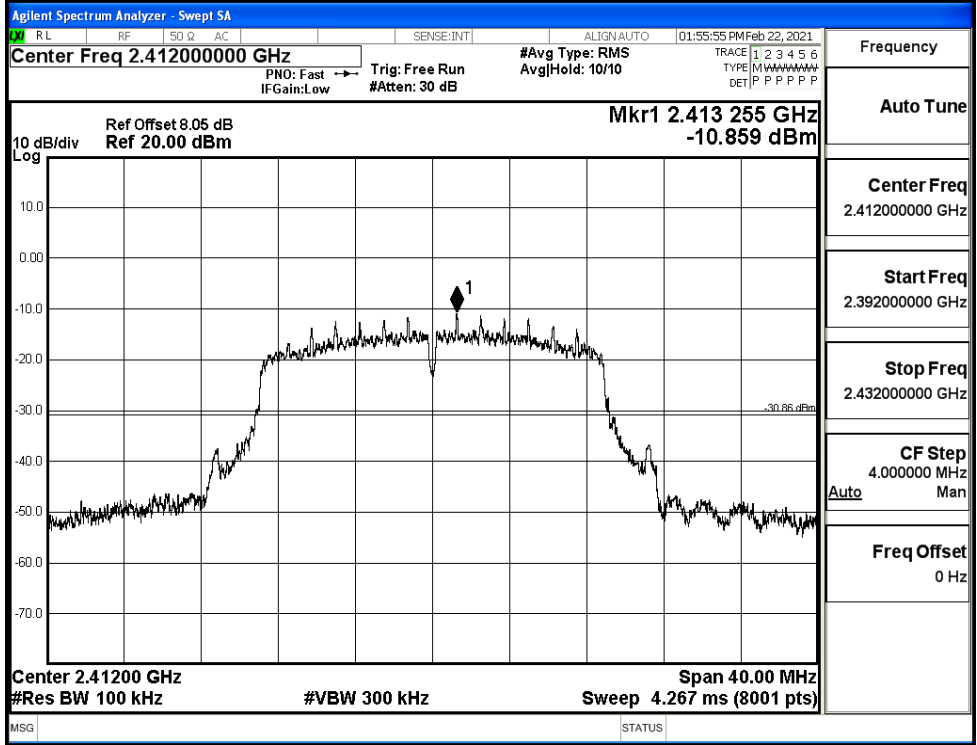


11G_HCH_Graphs

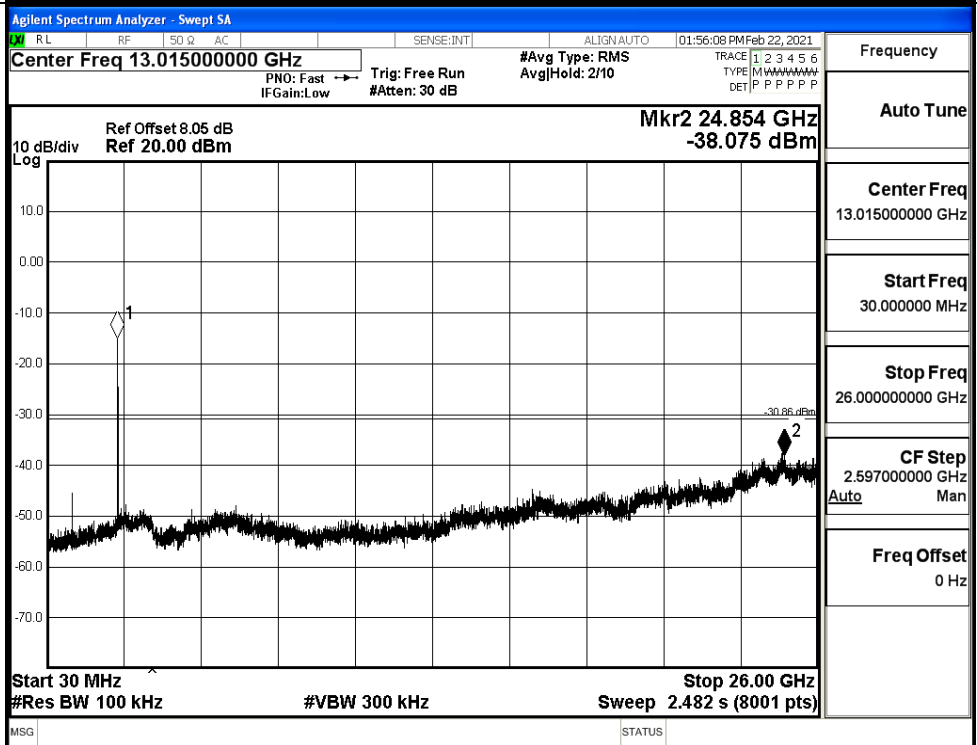


11N20SISO_LCH_Graphs

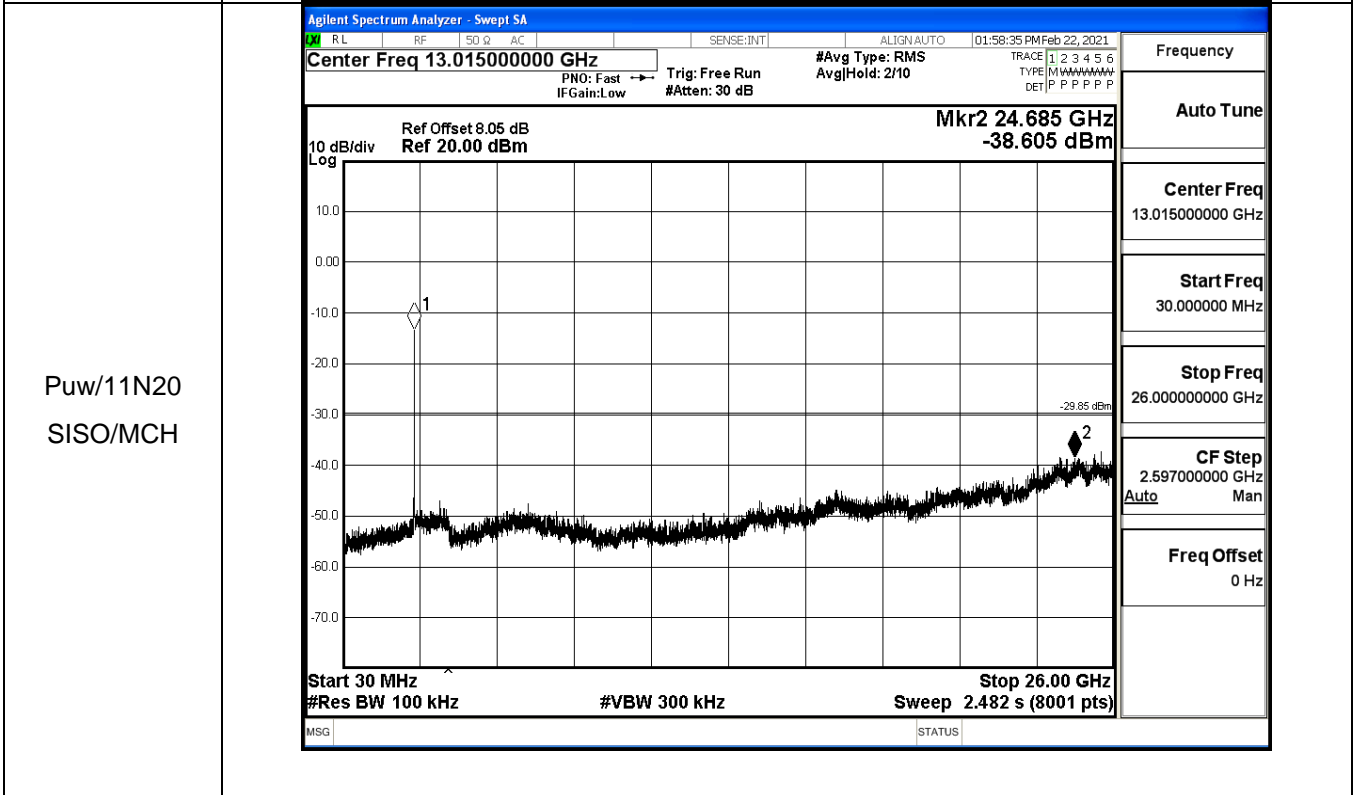
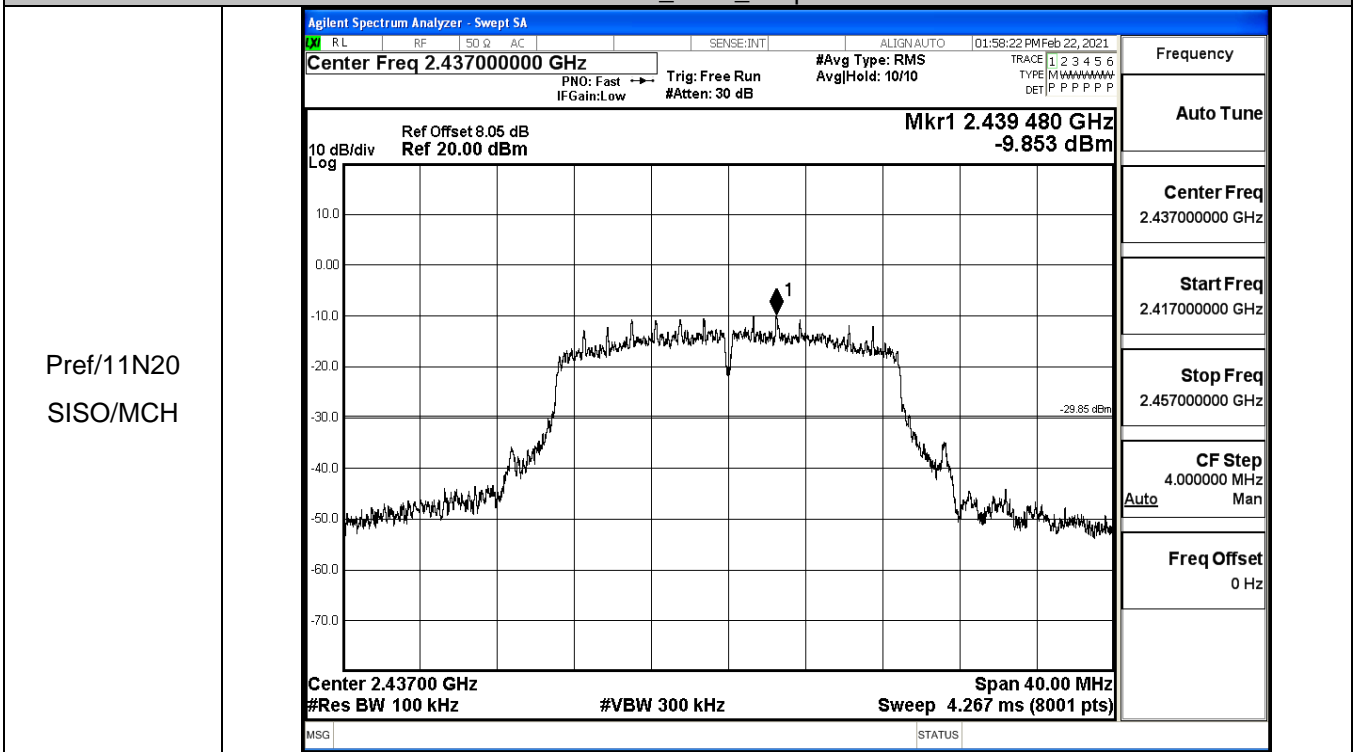
Pref/11N20SIS
O/LCH



Puw/11N20
SISO/LCH

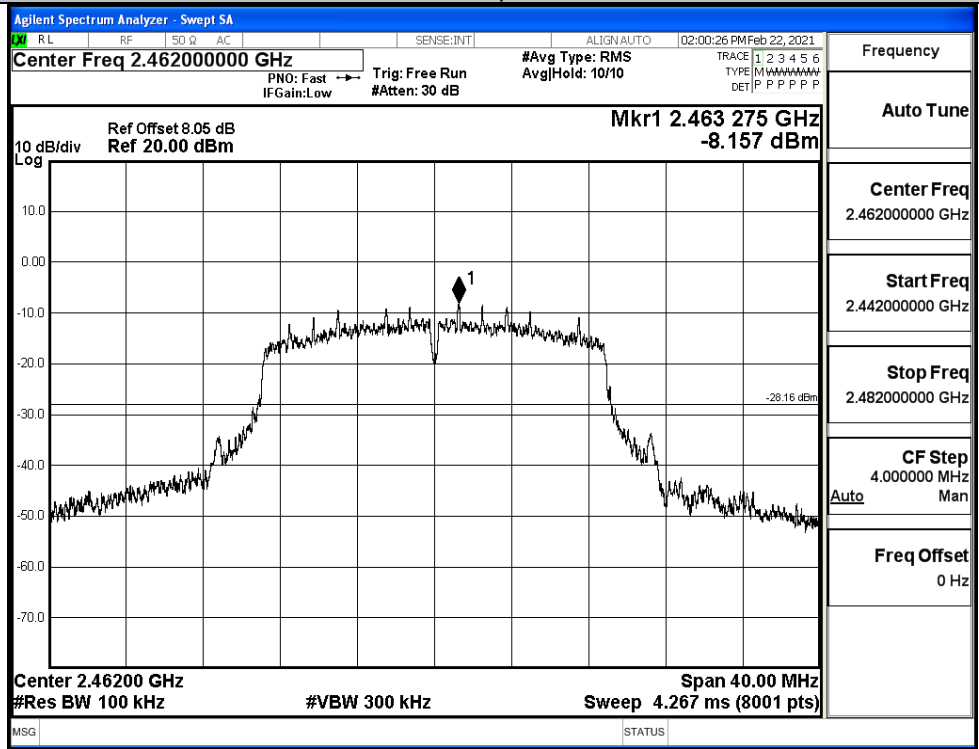


11N20SISO_MCH_Graphs

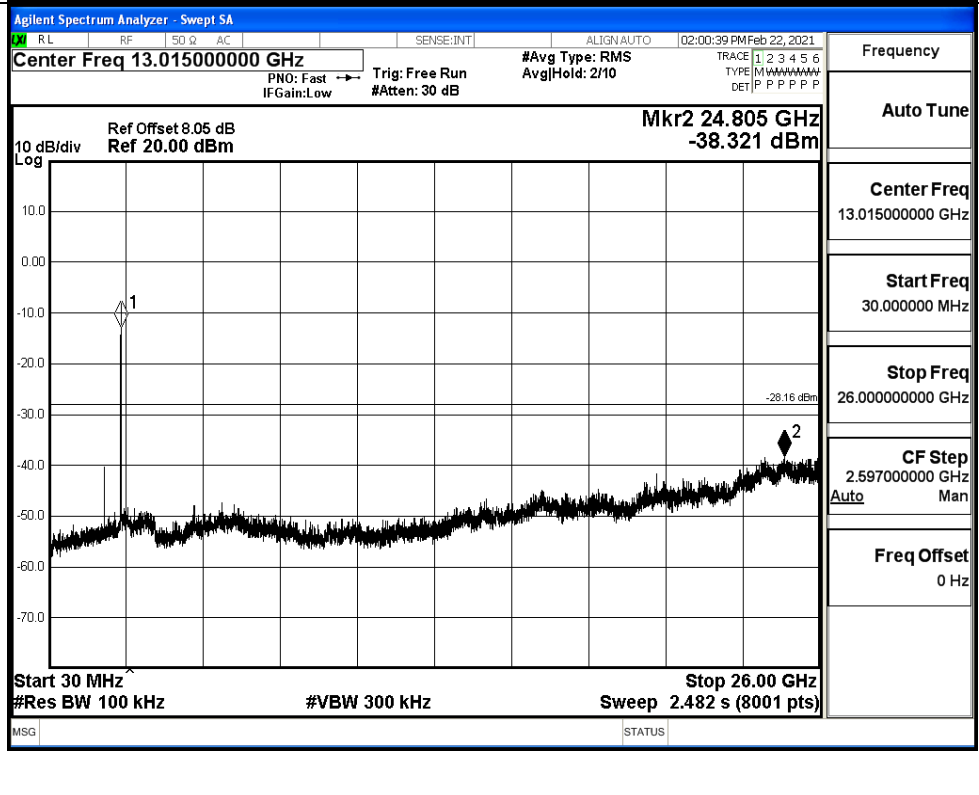


11N20SISO_HCH_Graphs

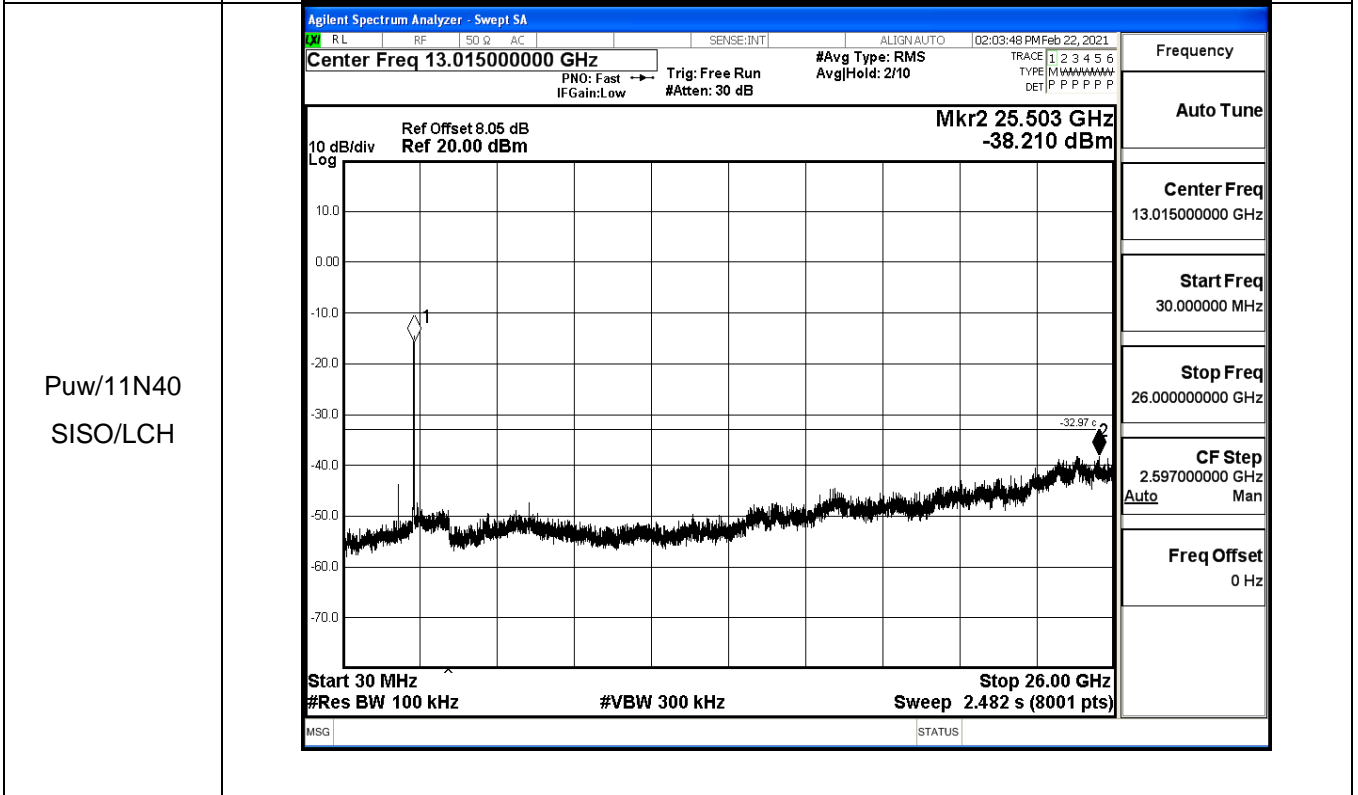
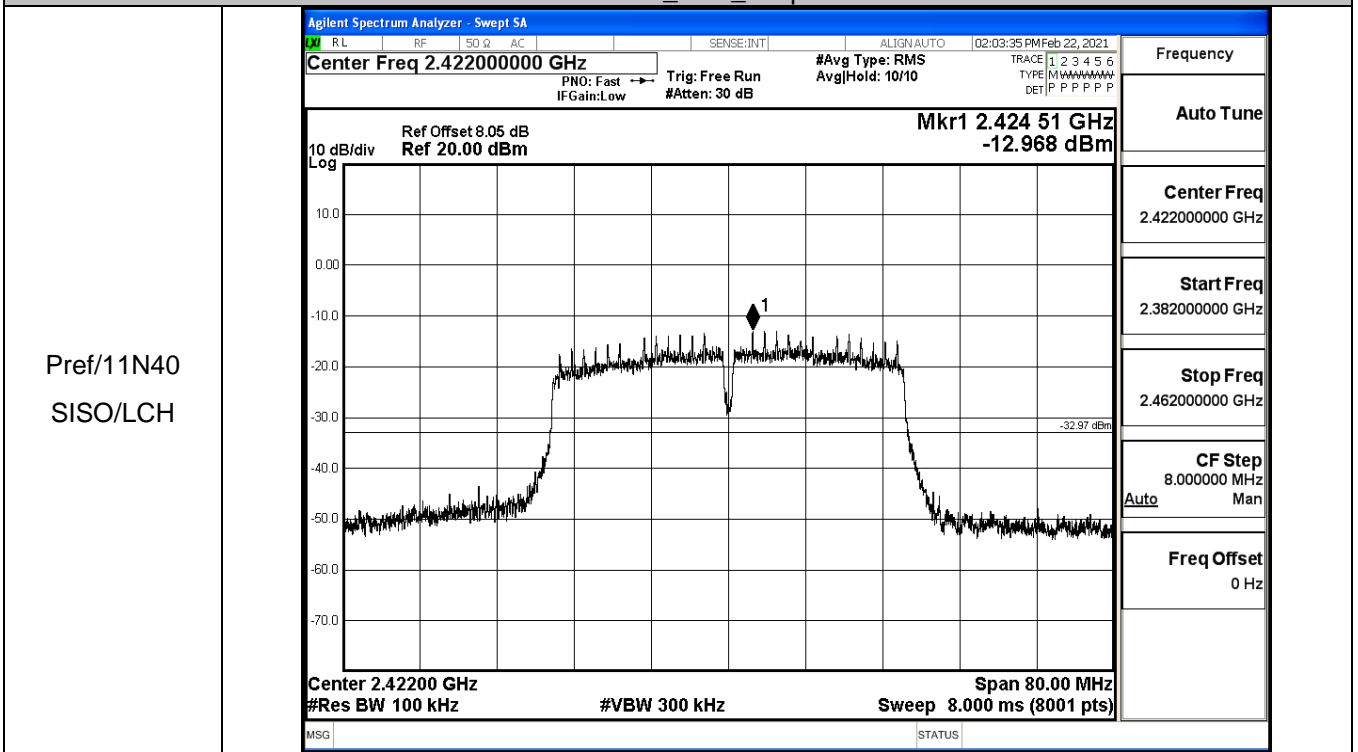
Pref/11N20
SISO/HCH



Puw/11N20
SISO/HCH

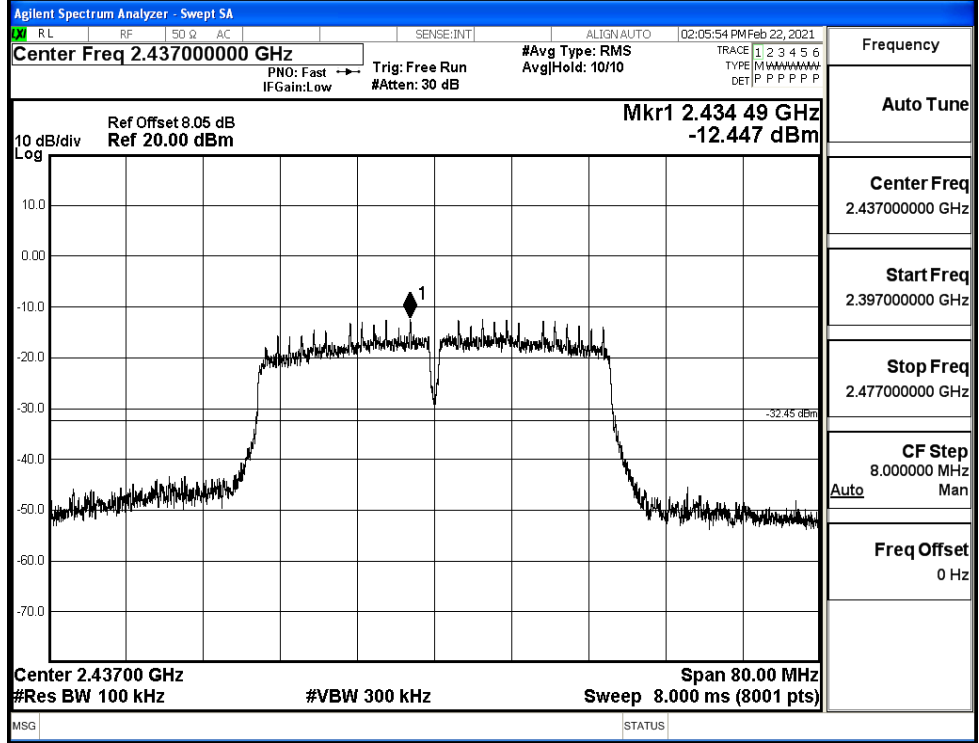


11N40SISO_LCH_Graphs

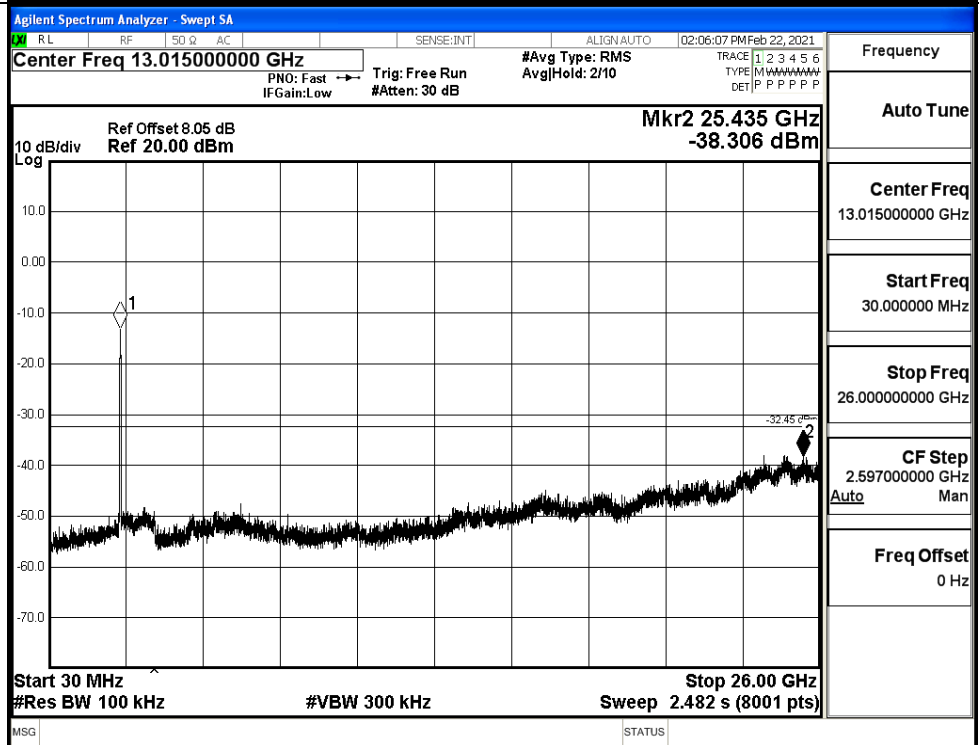


11N40SISO_MCH_Graphs

Pref/11N40
SISO/MCH

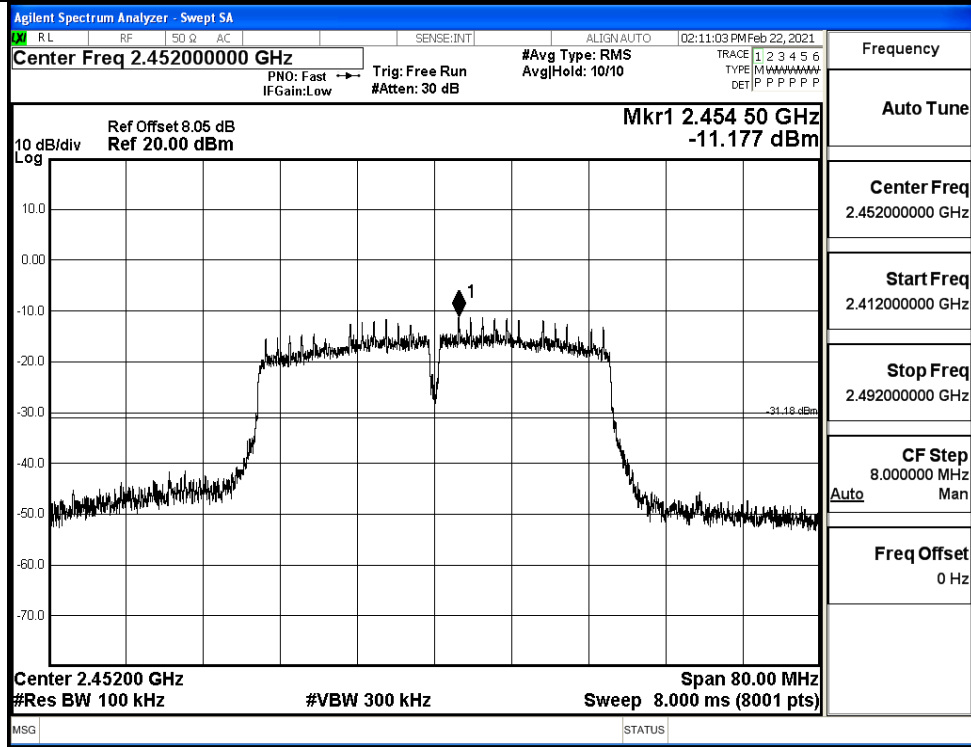


Puw/11N40
SISO/MCH

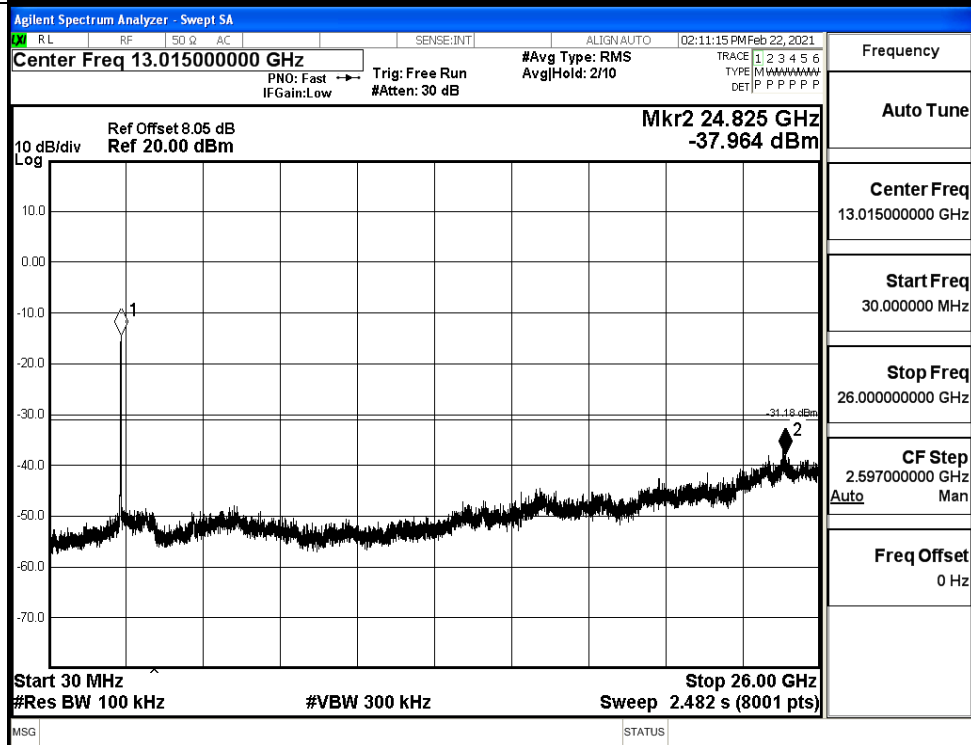


11N40SISO_HCH_Graphs

Pref/11N40
SISO/HCH

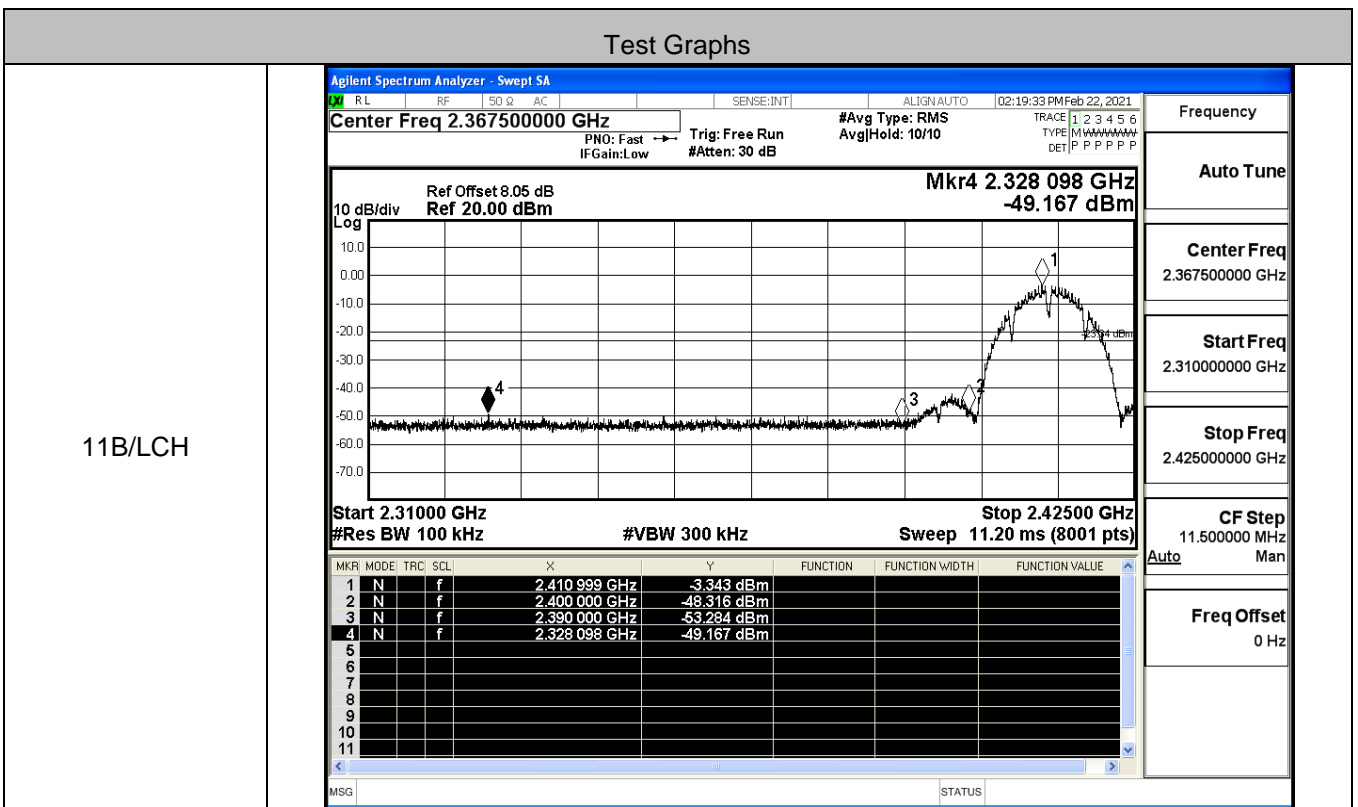


Puw/11N40
SISO/HCH

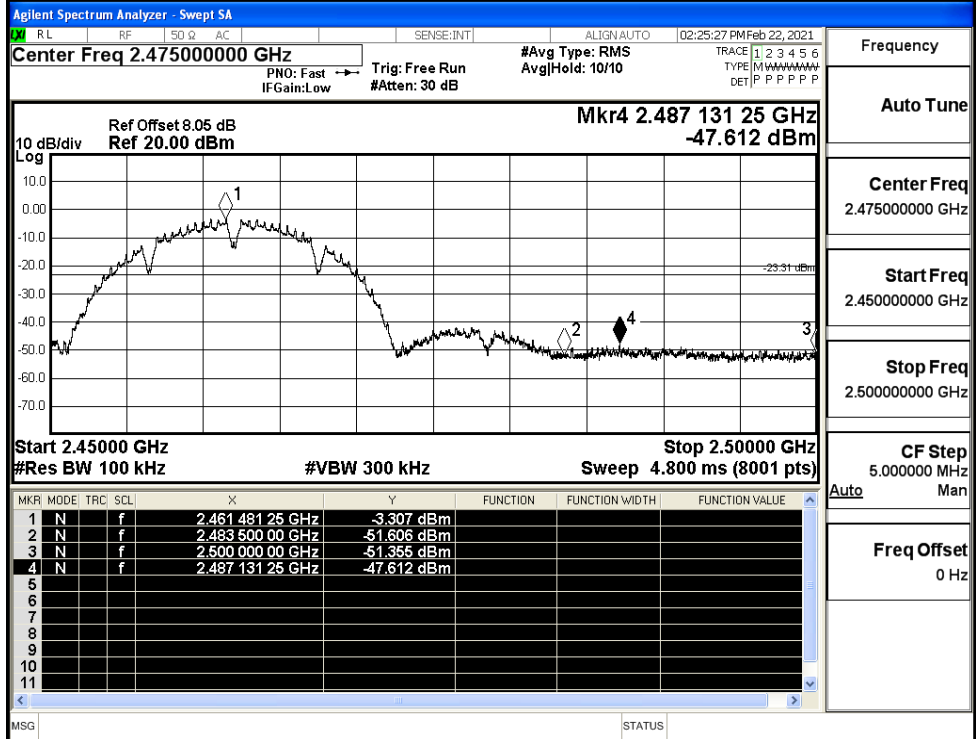


A.6 Band-edge for RF Conducted Emissions

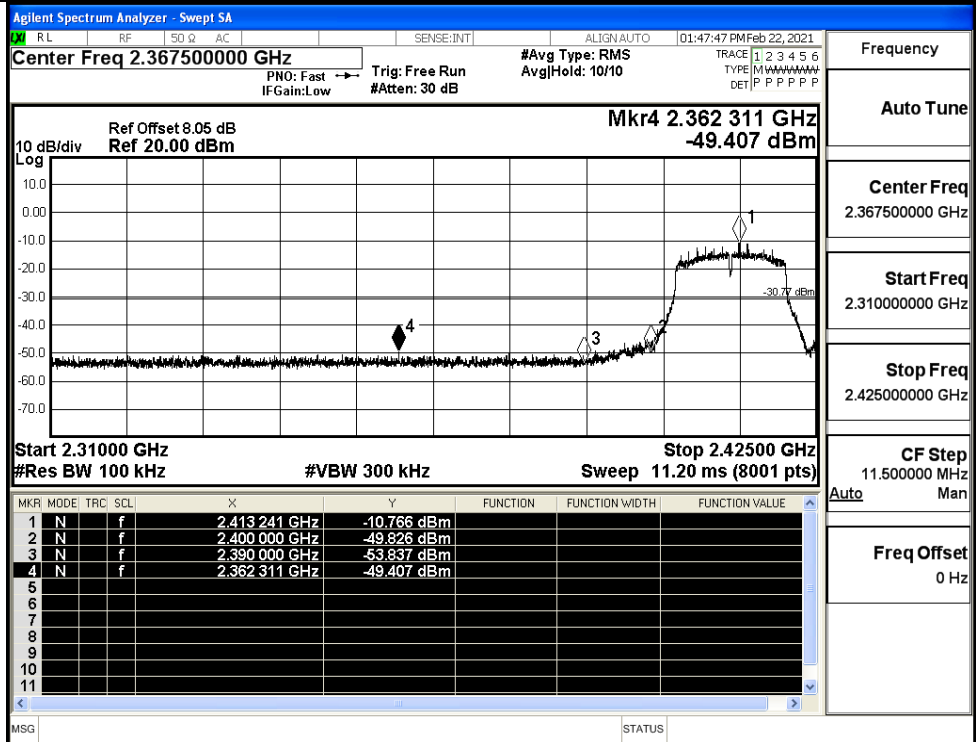
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-3.343	-49.167	-23.34	PASS
	HCH	-3.307	-47.612	-23.31	PASS
11G	LCH	-10.766	-49.407	-30.77	PASS
	HCH	-8.579	-49.388	-28.58	PASS
11N20SISO	LCH	-11.007	-49.127	-31.01	PASS
	HCH	-7.826	-48.810	-27.83	PASS
11N40SISO	LCH	-13.037	-44.891	-33.04	PASS
	HCH	-11.348	-46.496	-31.35	PASS



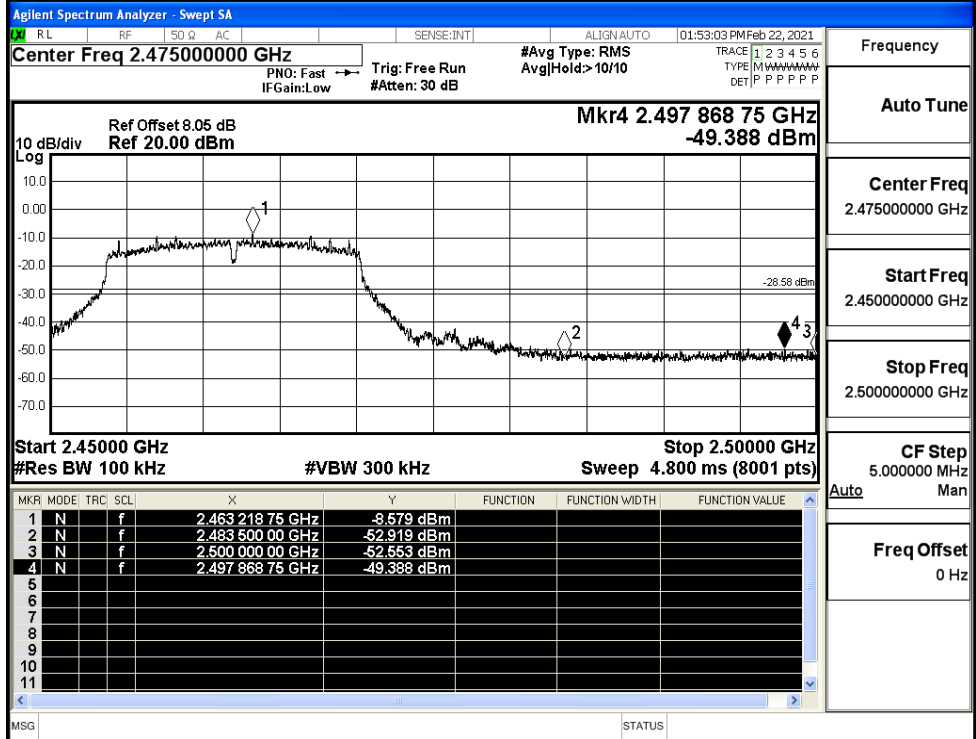
11B/HCH



11G/LCH

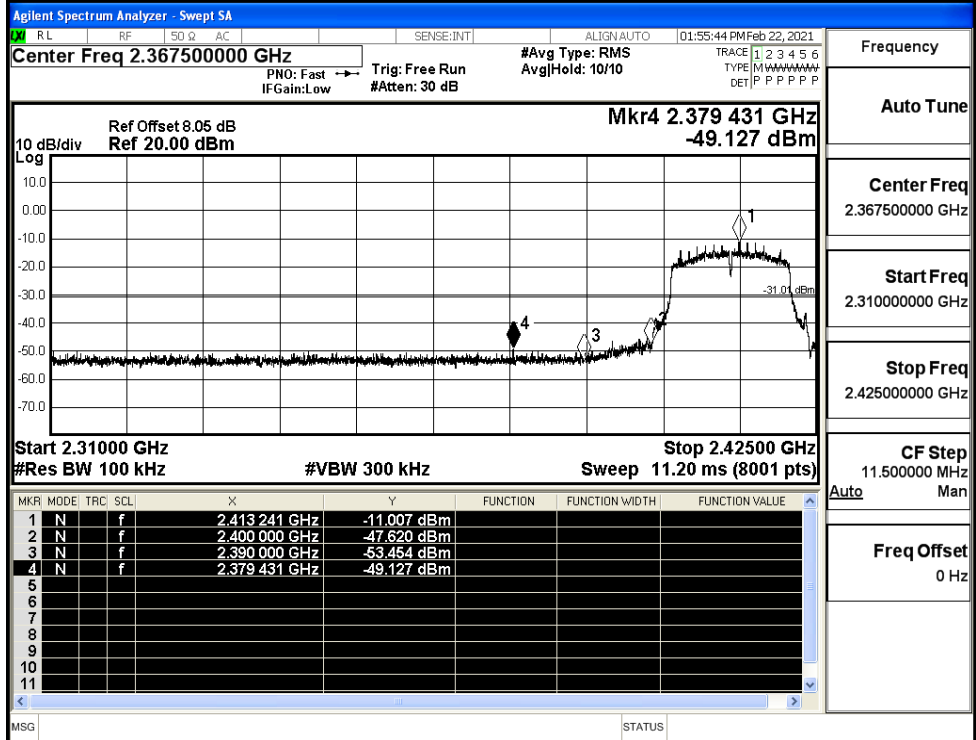


11G/HCH



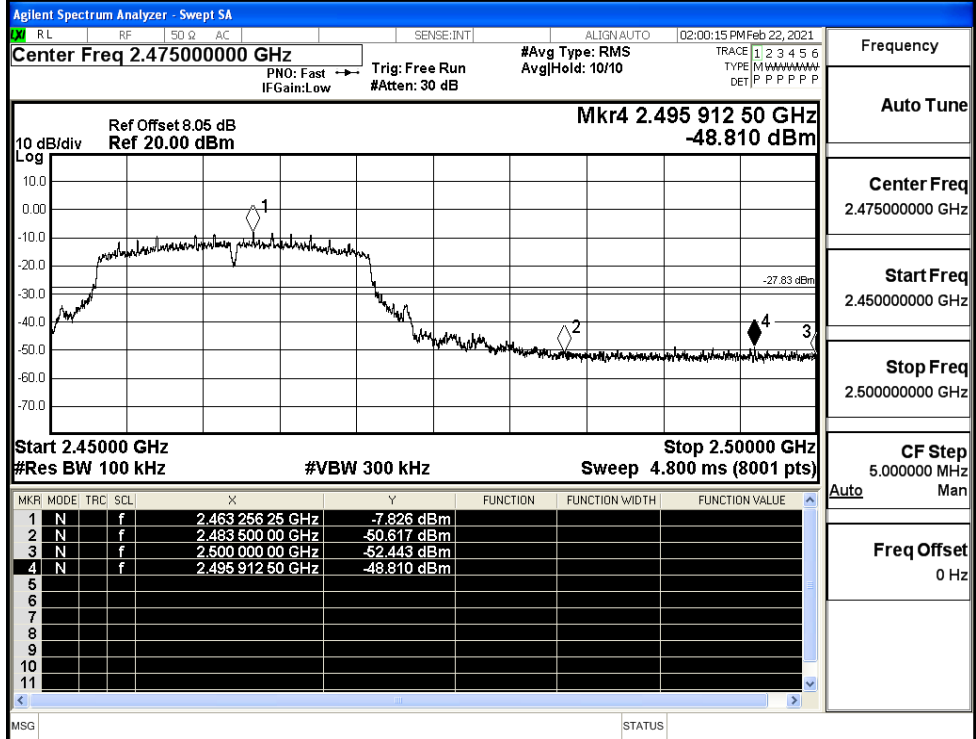
Frequency	Auto Tune
Center Freq	2.47500000 GHz
Start Freq	2.45000000 GHz
Stop Freq	2.50000000 GHz
CF Step	5.000000 MHz
Freq Offset	0 Hz

11N20SISO/LCH



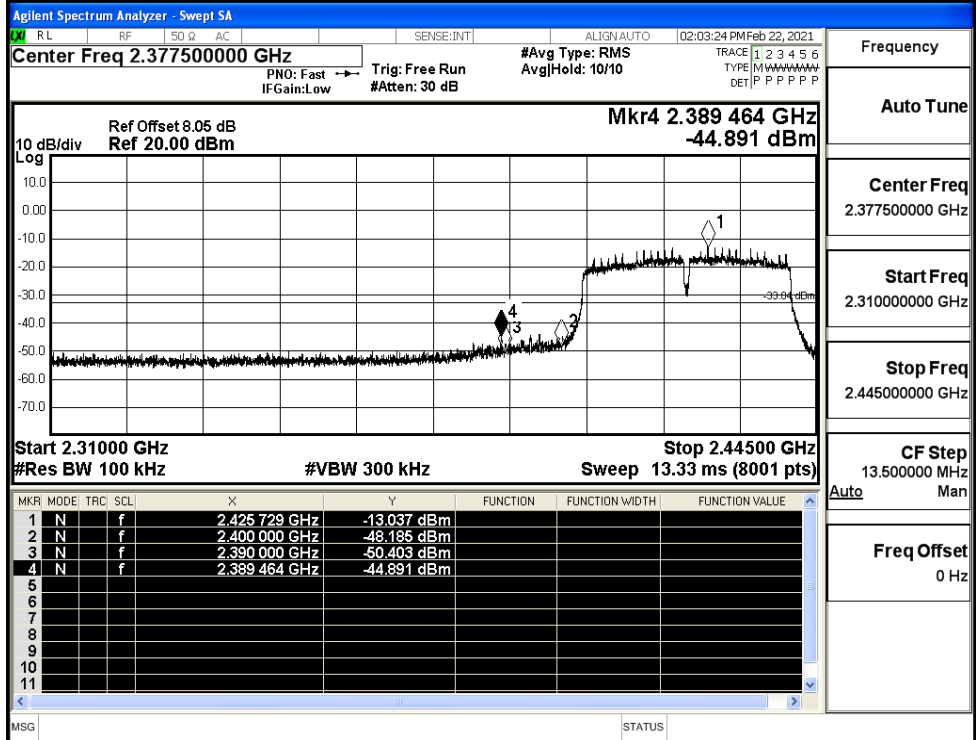
Frequency	Auto Tune
Center Freq	2.36750000 GHz
Start Freq	2.31000000 GHz
Stop Freq	2.42500000 GHz
CF Step	11.500000 MHz
Freq Offset	0 Hz

11N20SISO/HCH



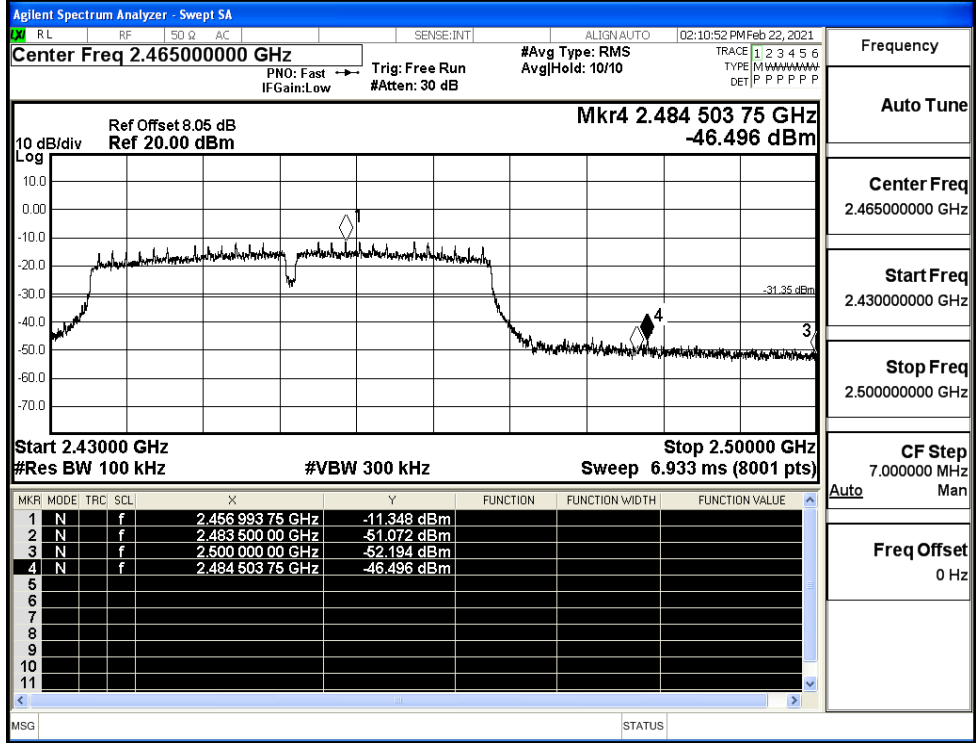
Frequency	2.475000000 GHz
Auto Tune	
Center Freq	2.475000000 GHz
Start Freq	2.450000000 GHz
Stop Freq	2.500000000 GHz
CF Step	5.000000 MHz
Freq Offset	0 Hz

11N40SISO/LCH



Frequency	2.377500000 GHz
Auto Tune	
Center Freq	2.377500000 GHz
Start Freq	2.310000000 GHz
Stop Freq	2.445000000 GHz
CF Step	13.500000 MHz
Freq Offset	0 Hz

11N40SISO/HCH

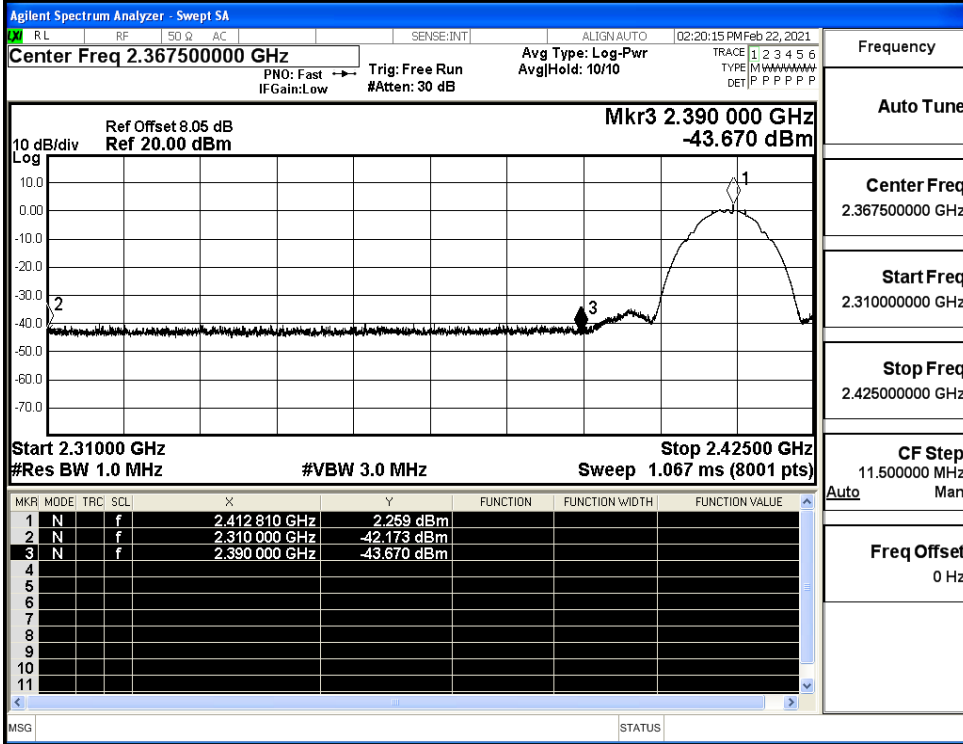


A.7 Restrict-band band-edge measurements

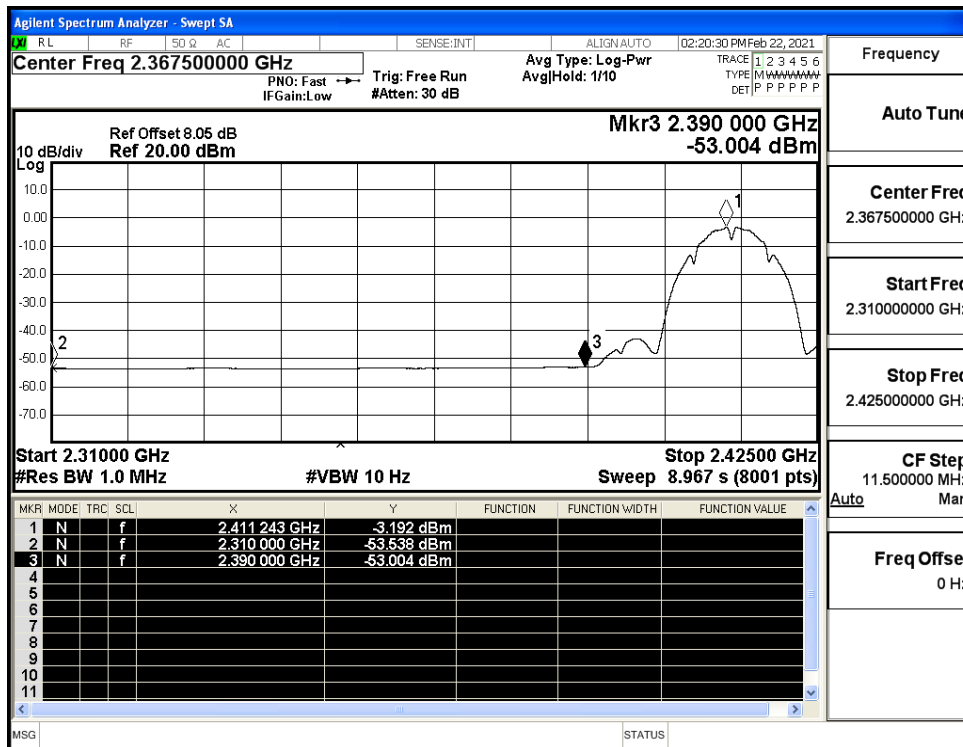
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBu V/m]	Verdict
11B	2412	Ant1	2310.0	-42.17	2.0	0	55.09	PEAK	74	PASS
	2412	Ant1	2310.0	-53.54	2.0	0	43.72	AV	54	PASS
	2412	Ant1	2390.0	-43.67	2.0	0	53.59	PEAK	74	PASS
	2412	Ant1	2390.0	-53.00	2.0	0	44.26	AV	54	PASS
	2462	Ant1	2483.5	-42.36	2.0	0	54.9	PEAK	74	PASS
	2462	Ant1	2483.5	-52.06	2.0	0	45.2	AV	54	PASS
	2462	Ant1	2500.0	-41.79	2.0	0	55.47	PEAK	74	PASS
	2462	Ant1	2500.0	-52.53	2.0	0	44.73	AV	54	PASS
11G	2412	Ant1	2310.0	-42.99	2.0	0	54.27	PEAK	74	PASS
	2412	Ant1	2310.0	-53.70	2.0	0	43.56	AV	54	PASS
	2412	Ant1	2390.0	-41.99	2.0	0	55.27	PEAK	74	PASS
	2412	Ant1	2390.0	-53.01	2.0	0	44.25	AV	54	PASS
	2462	Ant1	2483.5	-40.98	2.0	0	56.28	PEAK	74	PASS
	2462	Ant1	2483.5	-52.21	2.0	0	45.05	AV	54	PASS
	2462	Ant1	2500.0	-42.32	2.0	0	54.94	PEAK	74	PASS
	2462	Ant1	2500.0	-52.49	2.0	0	44.77	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-42.90	2.0	0	54.36	PEAK	74	PASS
	2412	Ant1	2310.0	-53.67	2.0	0	43.59	AV	54	PASS
	2412	Ant1	2390.0	-40.18	2.0	0	57.08	PEAK	74	PASS
	2412	Ant1	2390.0	-52.84	2.0	0	44.42	AV	54	PASS
	2462	Ant1	2483.5	-41.66	2.0	0	55.6	PEAK	74	PASS
	2462	Ant1	2483.5	-52.07	2.0	0	45.19	AV	54	PASS
	2462	Ant1	2500.0	-42.99	2.0	0	54.27	PEAK	74	PASS
	2462	Ant1	2500.0	-52.55	2.0	0	44.71	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-43.73	2.0	0	53.53	PEAK	74	PASS
	2422	Ant1	2310.0	-53.69	2.0	0	43.57	AV	54	PASS

	2422	Ant1	2390.0	-39.46	2.0	0	57.8	PEAK	74	PASS
	2422	Ant1	2390.0	-49.84	2.0	0	47.42	AV	54	PASS
	2452	Ant1	2483.5	-39.72	2.0	0	57.54	PEAK	74	PASS
	2452	Ant1	2483.5	-50.62	2.0	0	46.64	AV	54	PASS
	2452	Ant1	2500.0	-42.62	2.0	0	54.64	PEAK	74	PASS
	2452	Ant1	2500.0	-52.05	2.0	0	45.21	AV	54	PASS

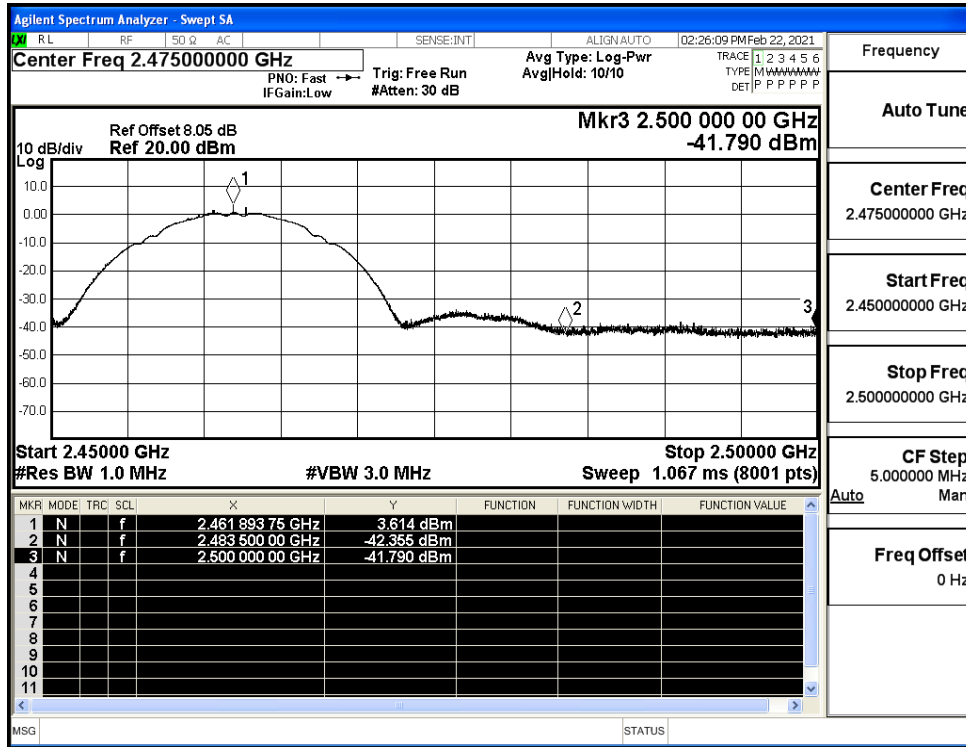
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



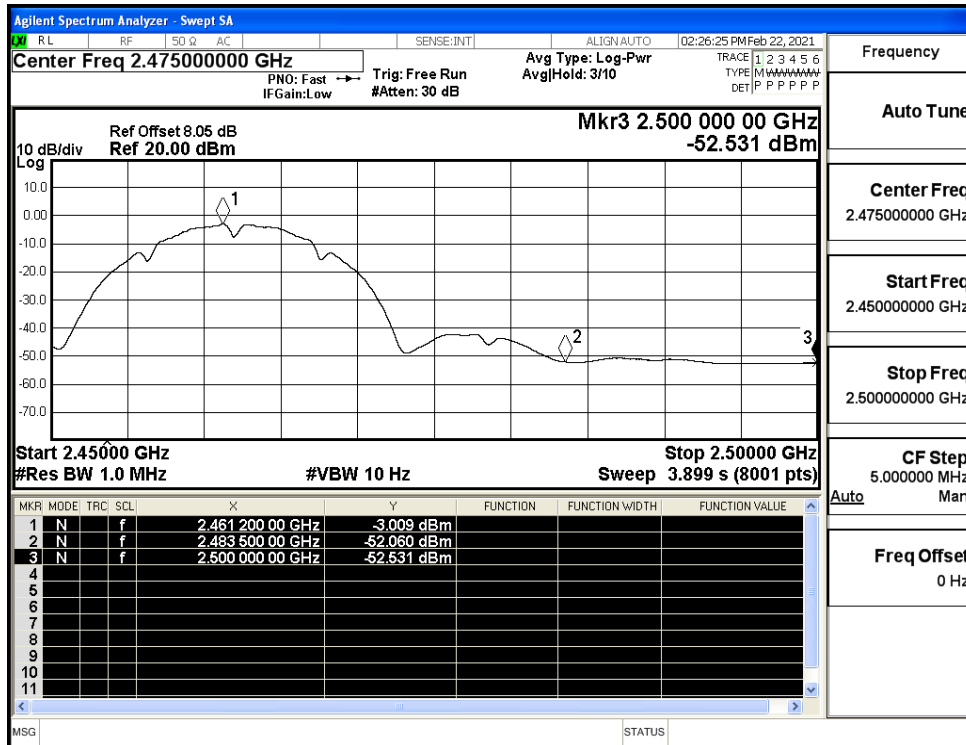
Restrict-band band-edge measurements_11B_2412_Ant1_AV



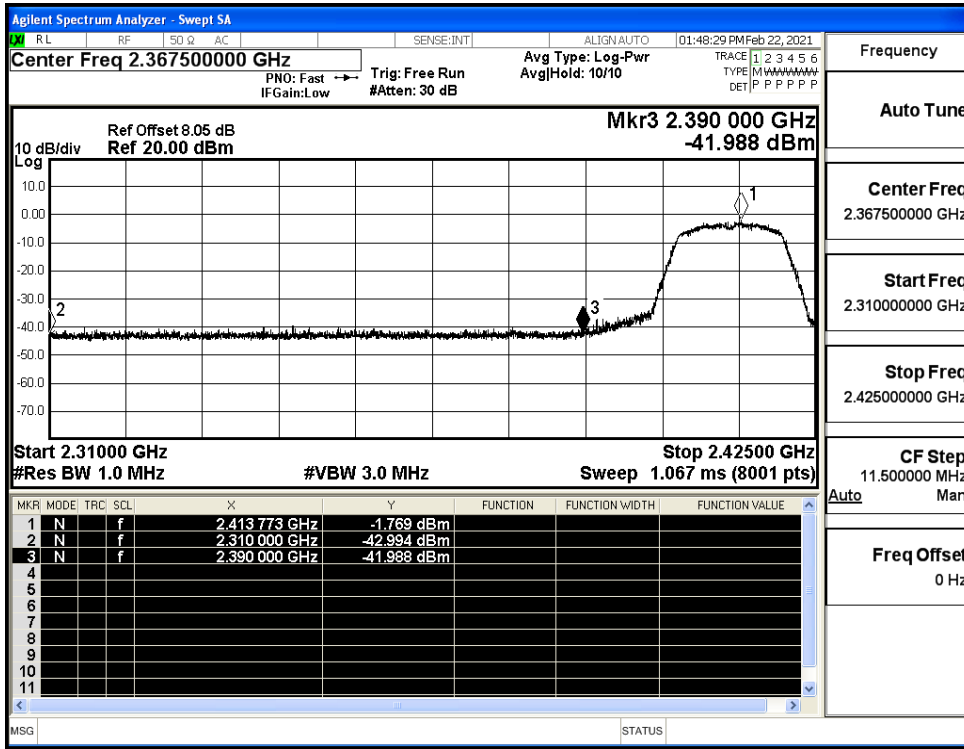
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



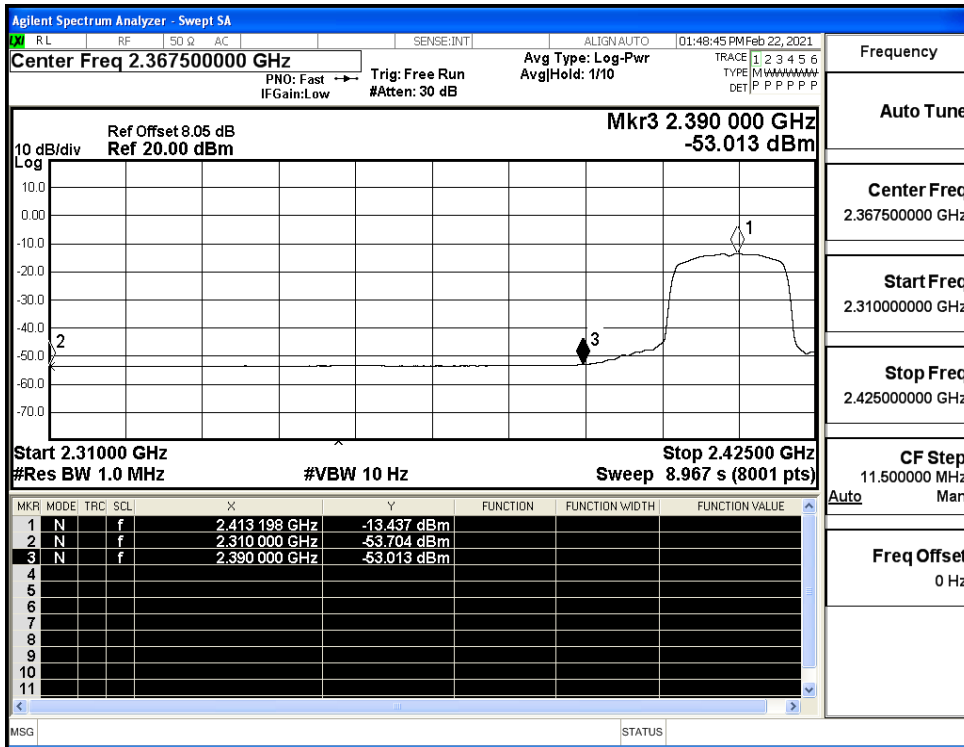
Restrict-band band-edge measurements_11B_2462_Ant1_AV



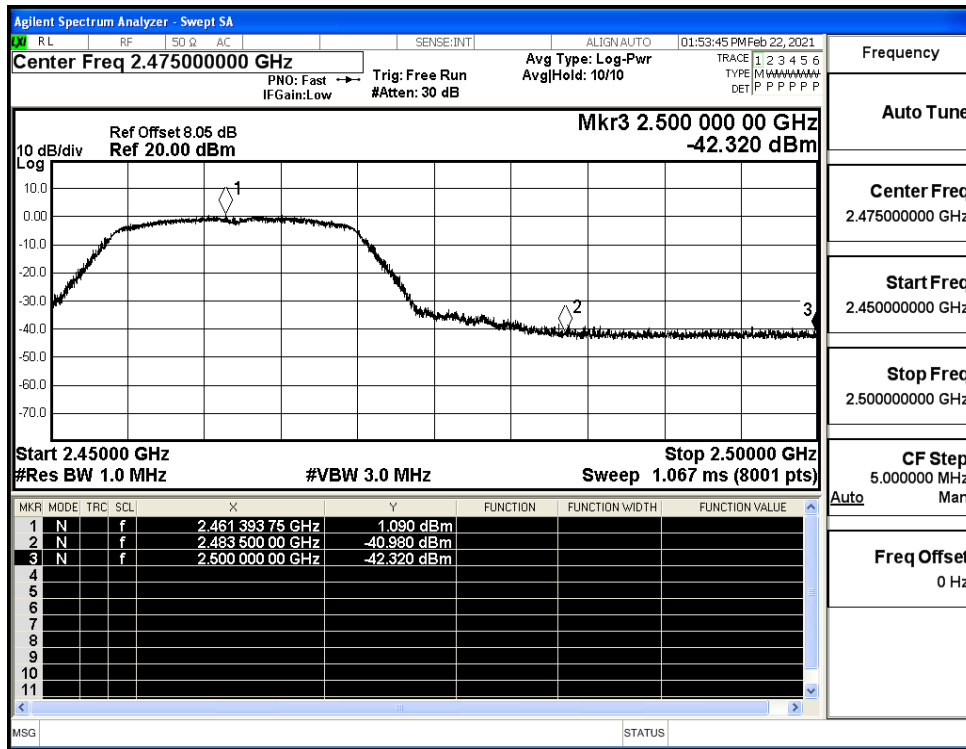
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



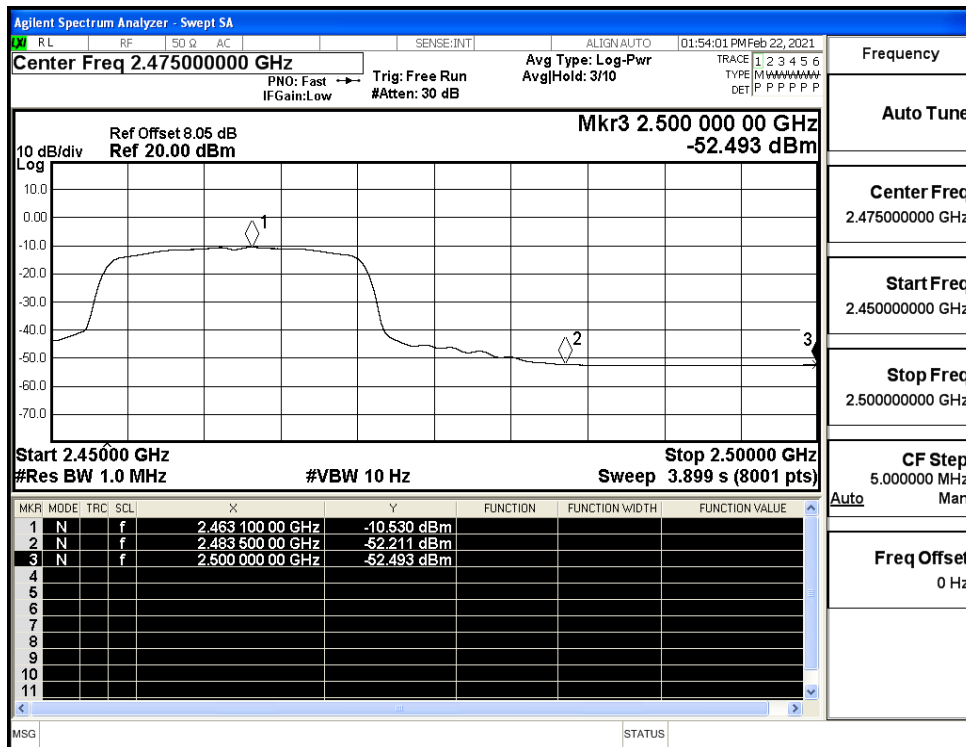
Restrict-band band-edge measurements_11G_2412_Ant1_AV



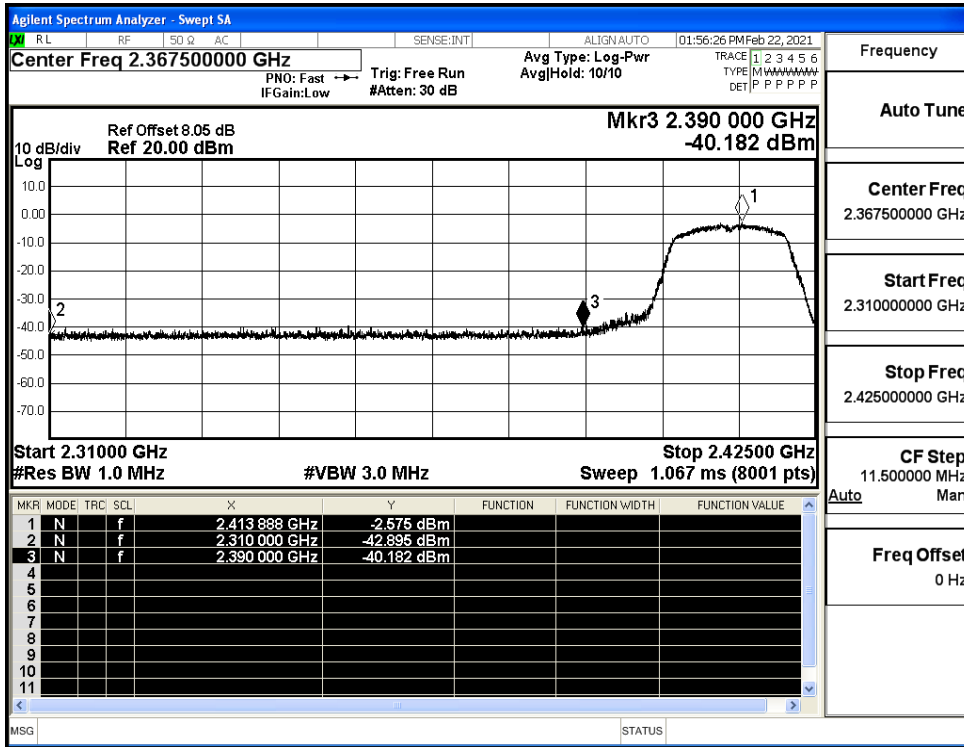
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



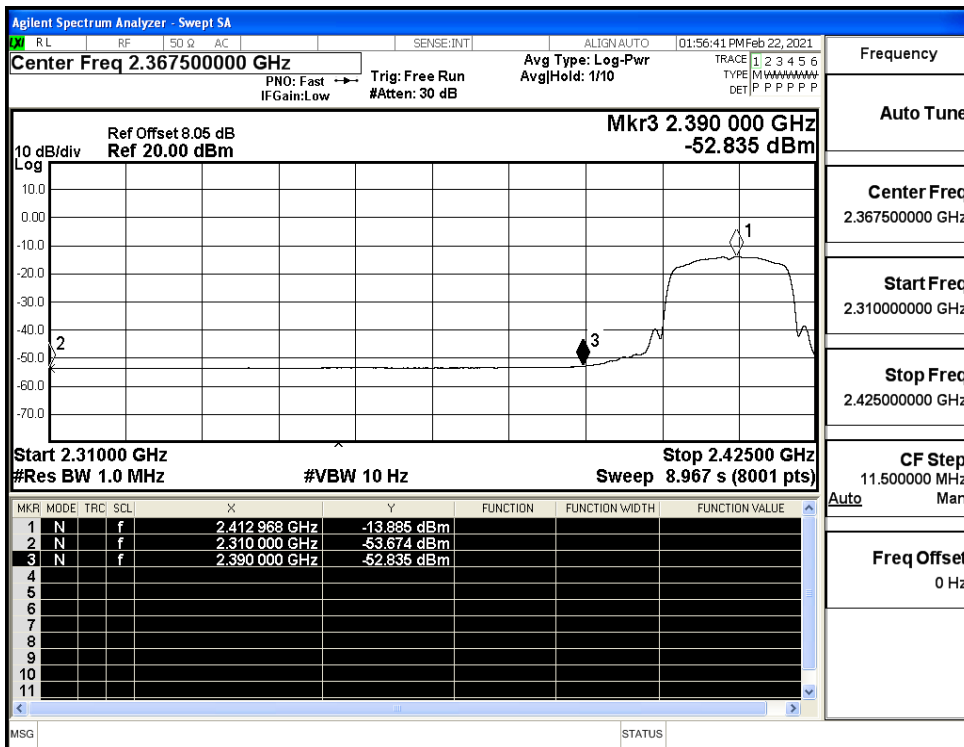
Restrict-band band-edge measurements_11G_2462_Ant1_AV



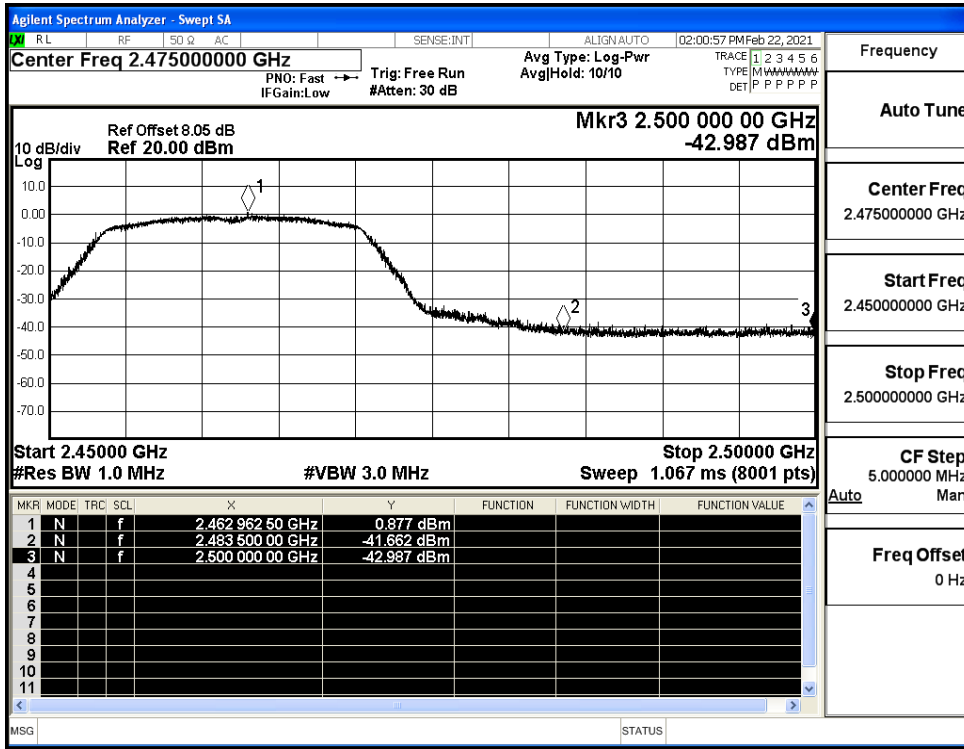
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



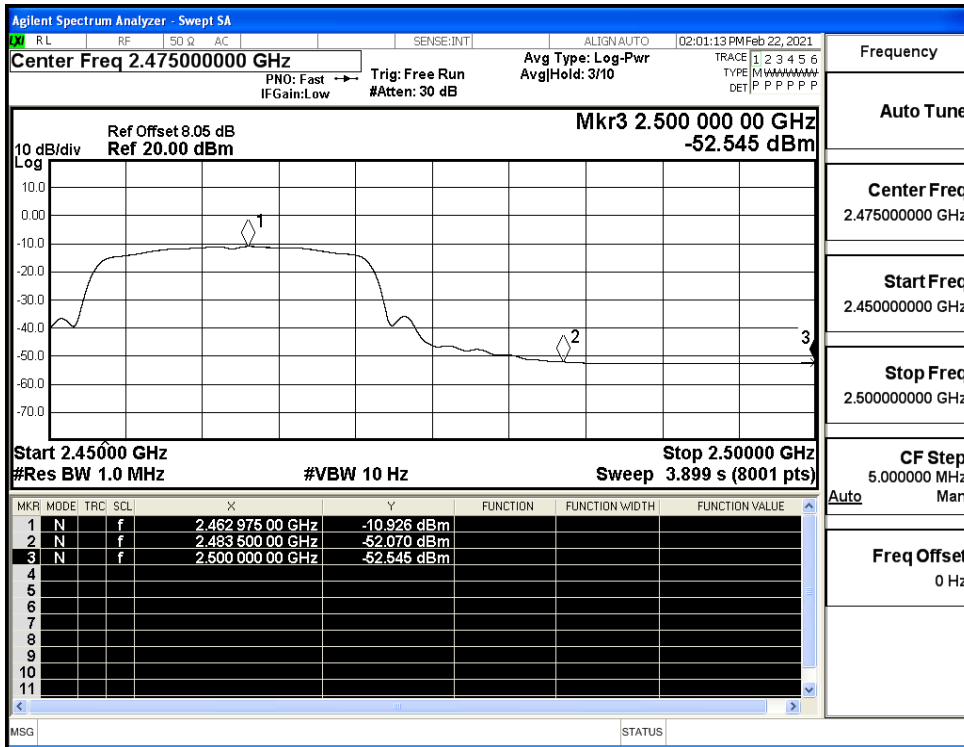
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_AV



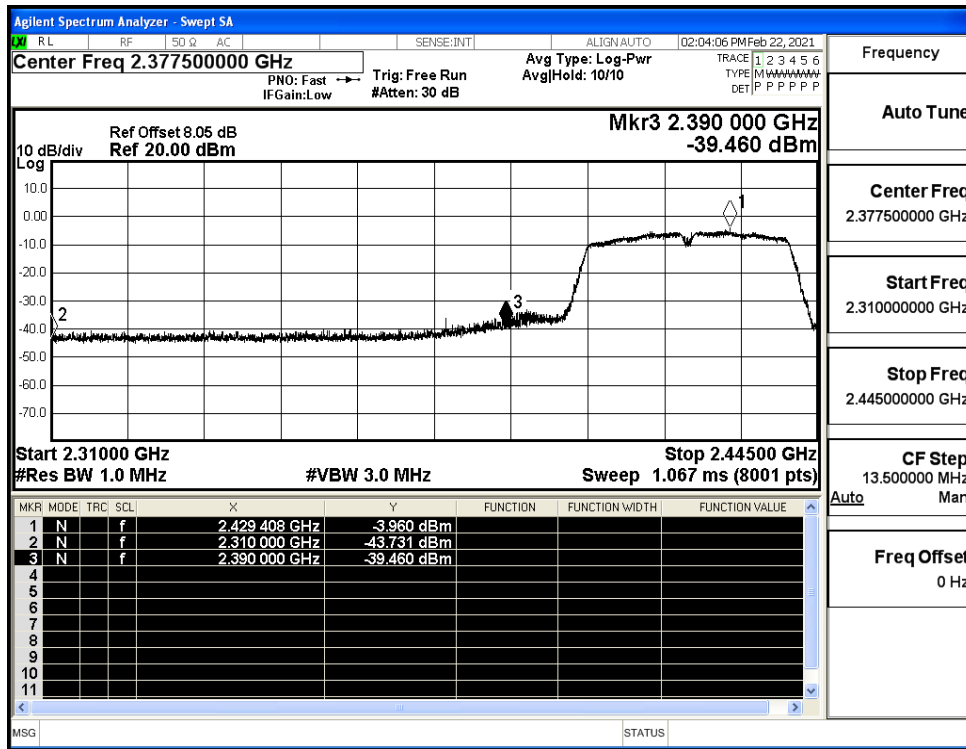
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_PEAK



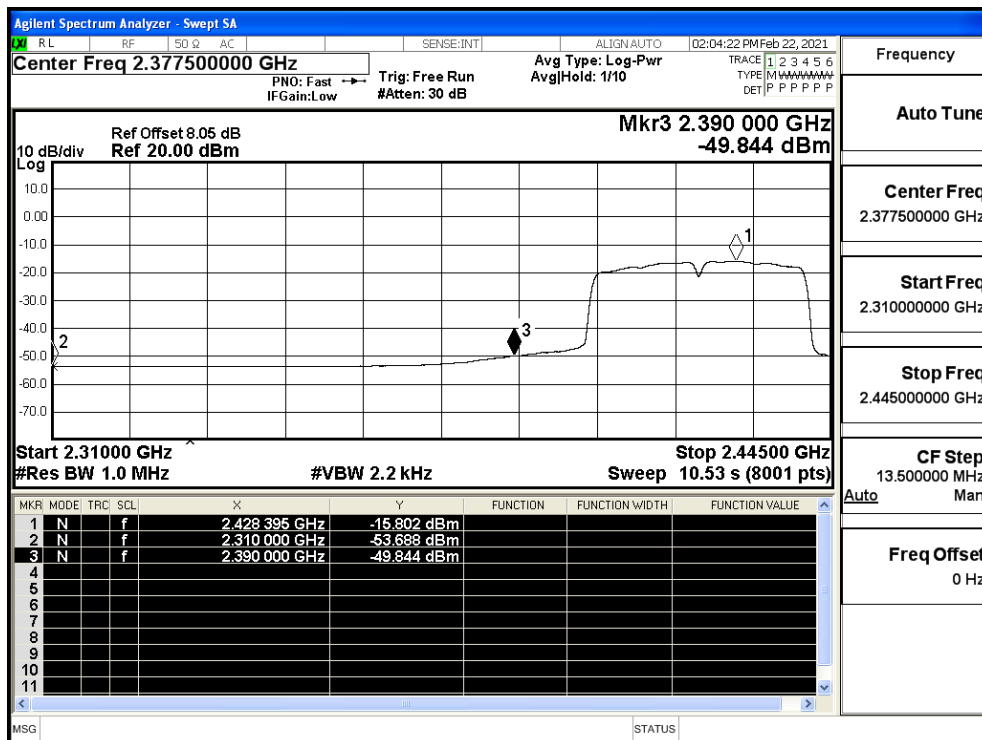
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV



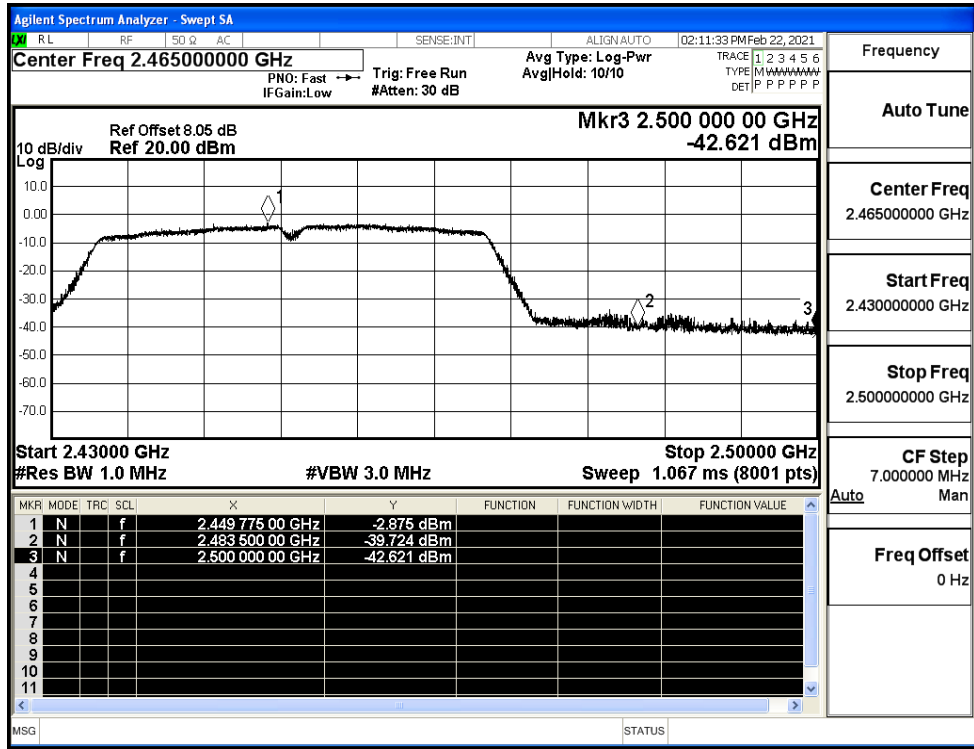
Restrict-band band-edge measurements_11N40SISO_2422_Ant1_PEAK



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

