

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: 4G LTE Wireless Router

Trade Mark: GL.iNET

Test Model: GL-XE300C6

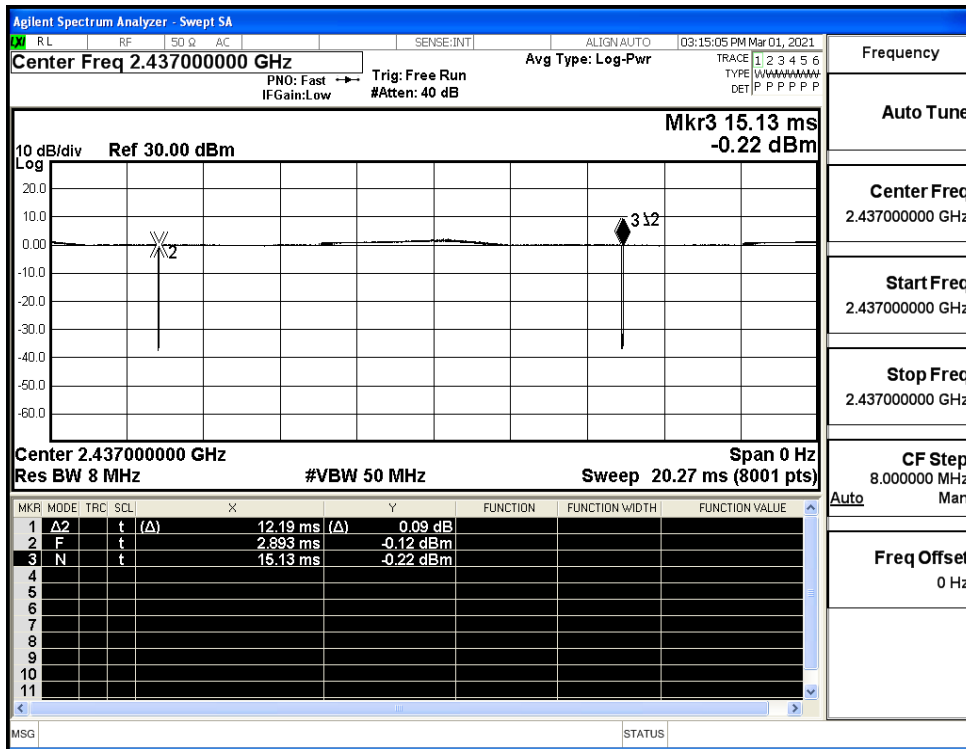
Environmental Conditions

Temperature:	24.2° C
Relative Humidity:	57.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay He
Supervised by:	Li Huan

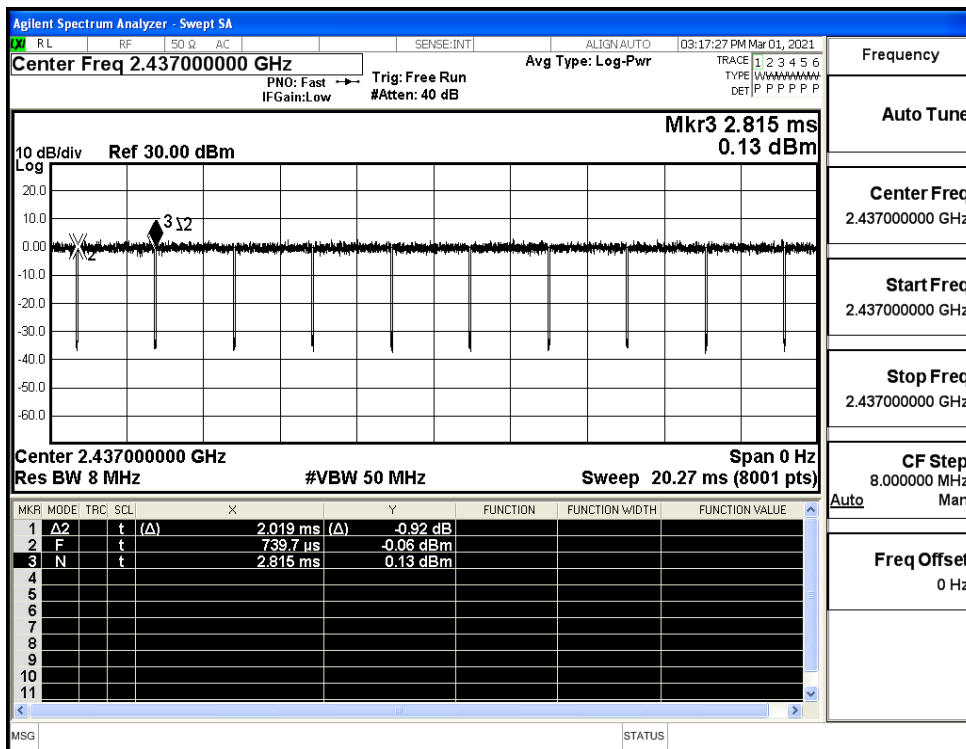
A.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	1/T Minimum VBW(KHz)
11B	2437	Ant0	99.59	/
11G	2437	Ant0	97.31	0.482
11N20SISO	2437	Ant0	97.12	0.516
11N40SISO	2437	Ant0	95.55	1.033
11B	2437	Ant1	99.59	/
11G	2437	Ant1	97.31	0.482
11N20SISO	2437	Ant1	97.12	0.515
11N40SISO	2437	Ant1	95.55	1.033

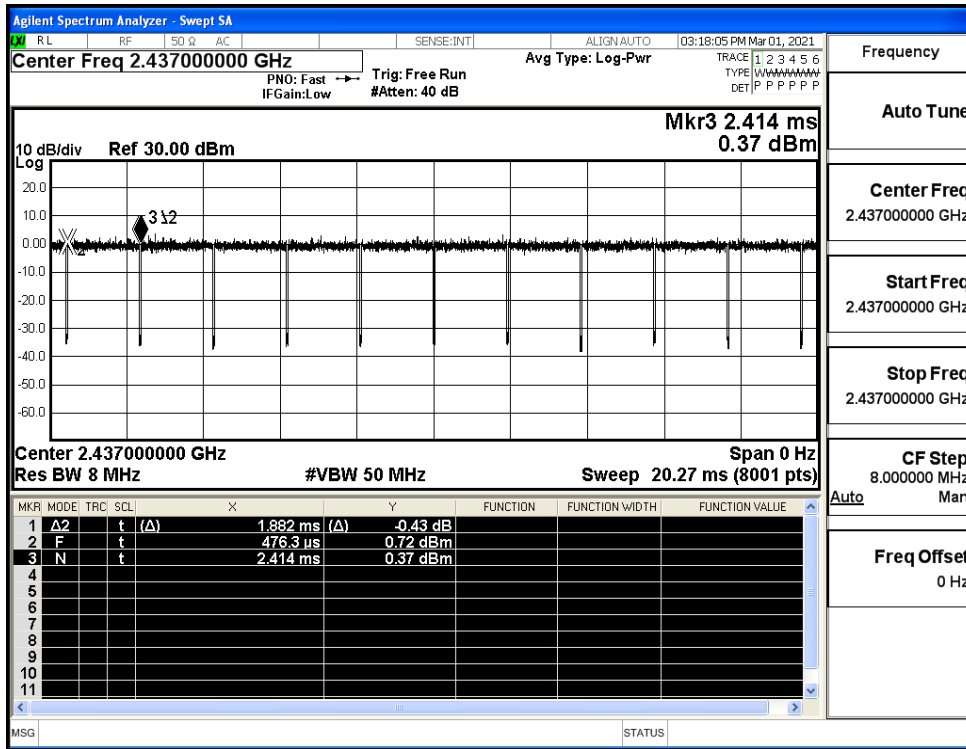
Duty Cycle_11B_2437_Ant0



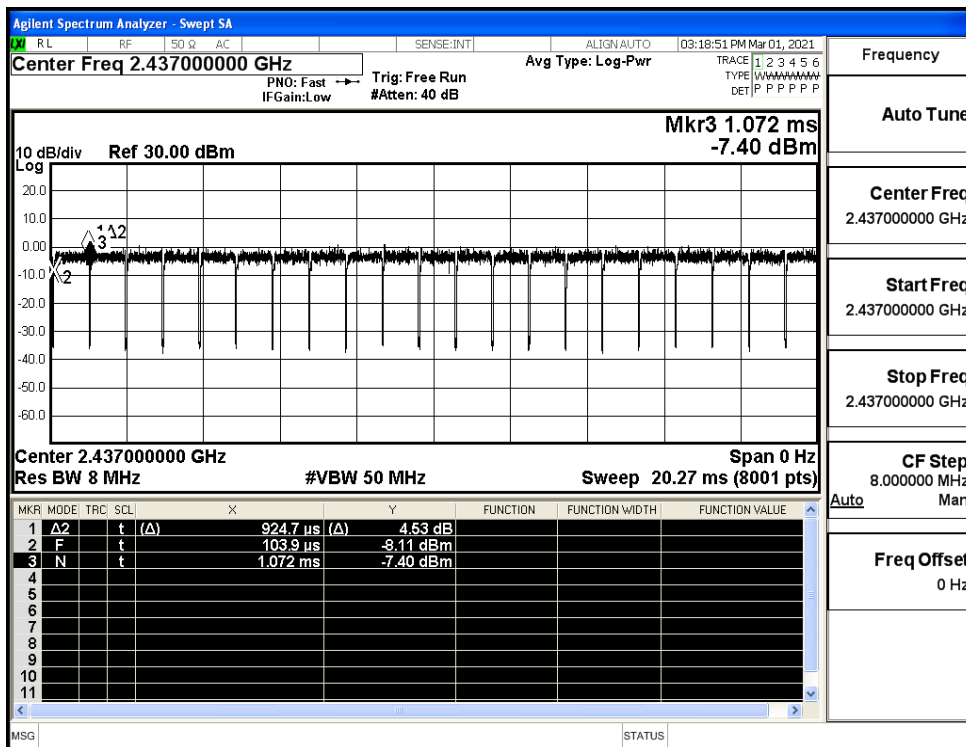
Duty Cycle_11G_2437_Ant0



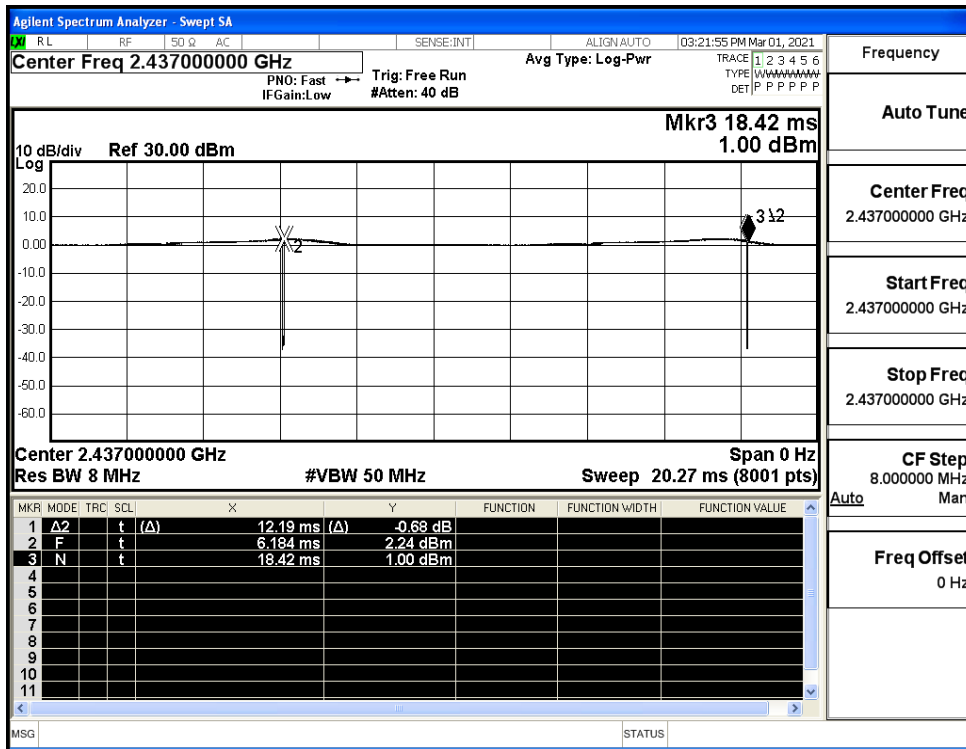
Duty Cycle_11N20SISO_2437_Ant0



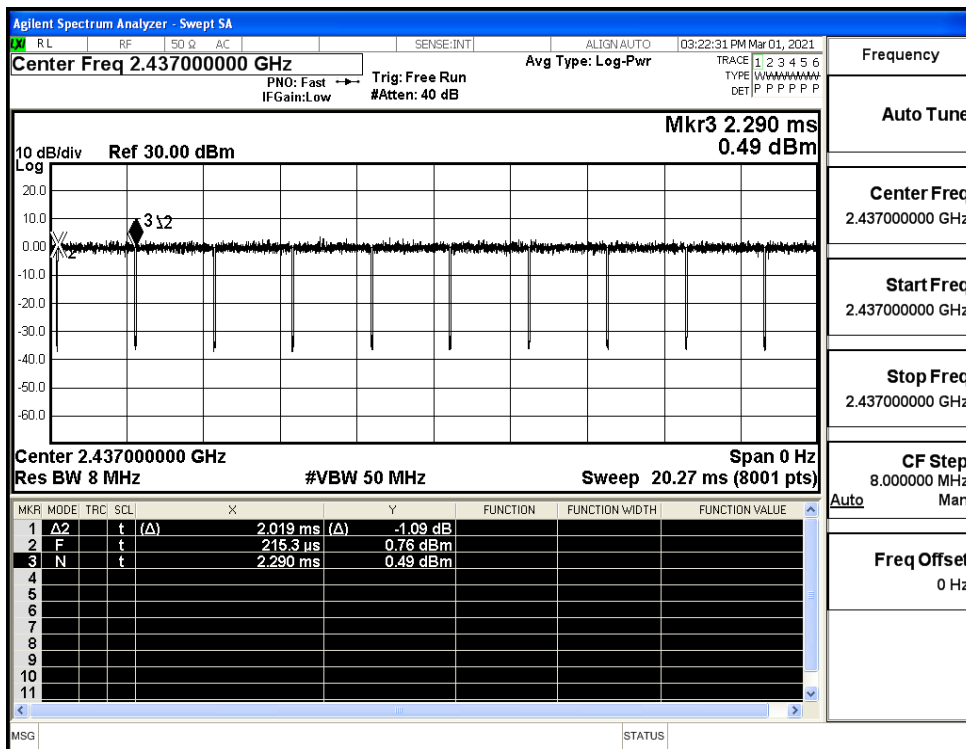
Duty Cycle_11N40SISO_2437_Ant0



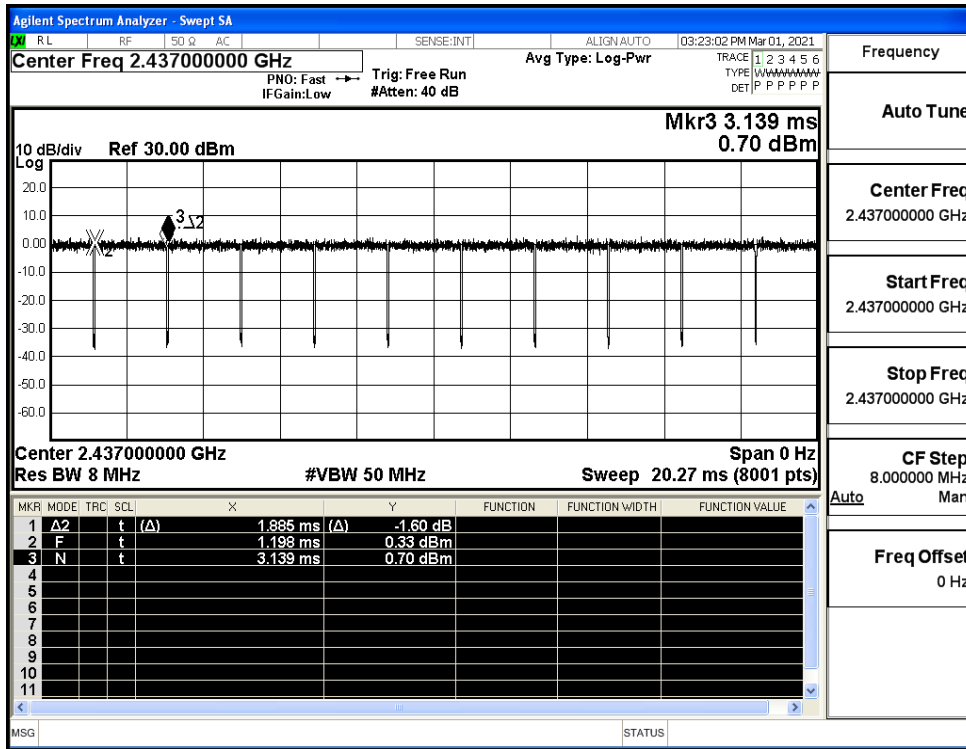
Duty Cycle_11B_2437_Ant1



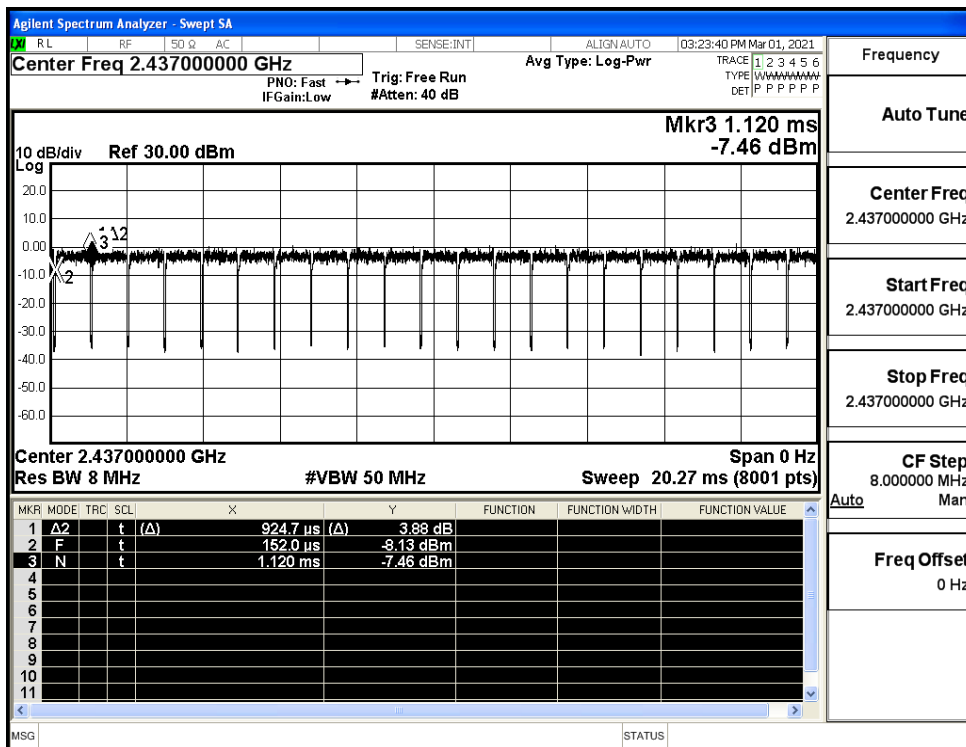
Duty Cycle_11G_2437_Ant1



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	17.73	17.95	/	30	PASS
	MCH	21.28	21.08	/	30	PASS
	HCH	17.03	17.52	/	30	PASS
11G	LCH	17.84	16.91	/	30	PASS
	MCH	21.83	21.81	/	30	PASS
	HCH	17.63	16.75	/	30	PASS
11N20	LCH	17.89	17.36	20.64	30	PASS
	MCH	20.87	21.16	24.03	30	PASS
	HCH	17.61	16.77	20.22	30	PASS
11N40	LCH	18.76	17.72	21.28	30	PASS
	MCH	21.05	21.17	24.12	30	PASS
	HCH	17.16	17.63	20.41	30	PASS

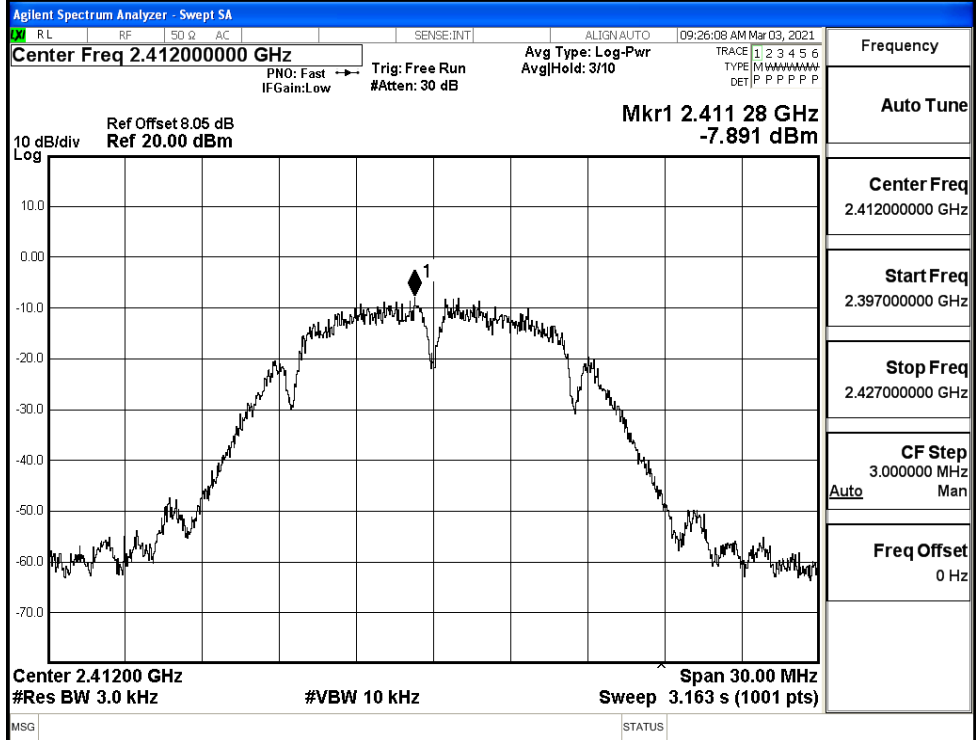
A.3 Maximum Power Spectral Density

Mode	Channel	PSD Level [dBm/3KHz]		Limit [dBm/3KHz]	Verdict
		Ant 0	Ant 1		
11B	LCH	-7.891	-8.698	8	PASS
	MCH	-5.511	-5.723	8	PASS
	HCH	-8.412	-8.806	8	PASS
11G	LCH	-16.642	-17.022	8	PASS
	MCH	-10.381	-11.562	8	PASS
	HCH	-15.464	-13.259	8	PASS
11N20	LCH	-16.172	-16.696	8	PASS
	MCH	-11.408	-12.576	8	PASS
	HCH	-16.557	-16.697	8	PASS
11N40	LCH	-17.775	-18.494	8	PASS
	MCH	-15.709	-13.259	8	PASS
	HCH	-18.695	-18.876	8	PASS

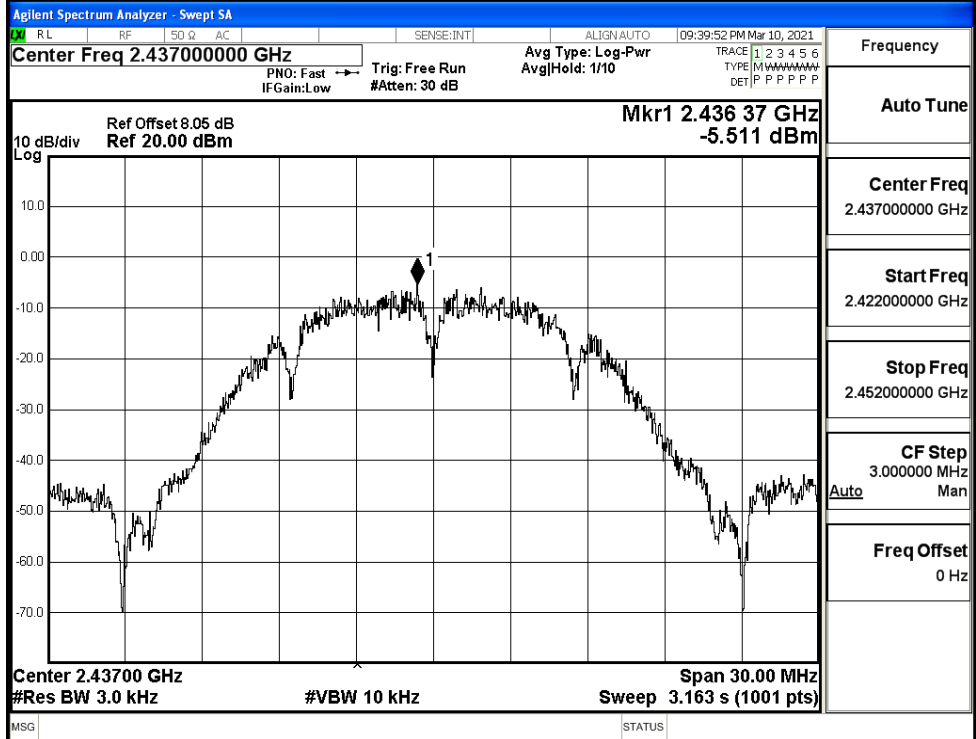
Mode	Channel	MIMO PSD [dBm/3KHz]			Limit [dBm/3KHz]	Verdict
		Ant 0	Ant 1	Sum		
11N20	LCH	-16.172	-16.696	-13.42	8	PASS
	MCH	-11.408	-12.576	-8.94	8	PASS
	HCH	-16.557	-16.697	-13.62	8	PASS
11N40	LCH	-17.775	-18.494	-15.11	8	PASS
	MCH	-15.709	-13.259	-11.30	8	PASS
	HCH	-18.695	-18.876	-15.77	8	PASS

Test Graphs_Ant0

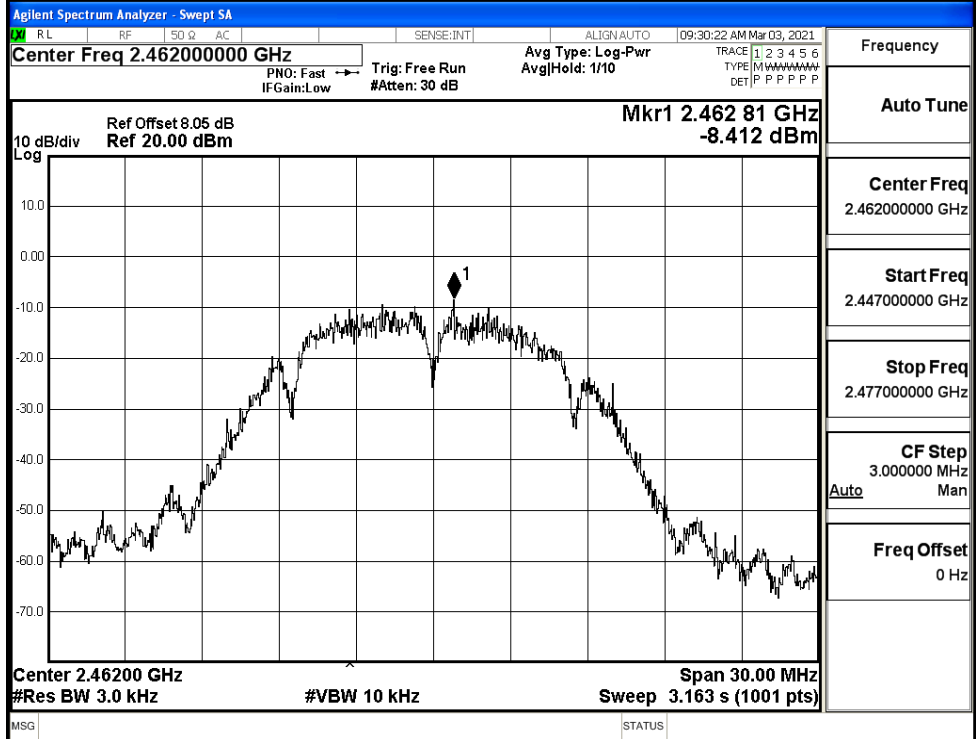
11B/LCH



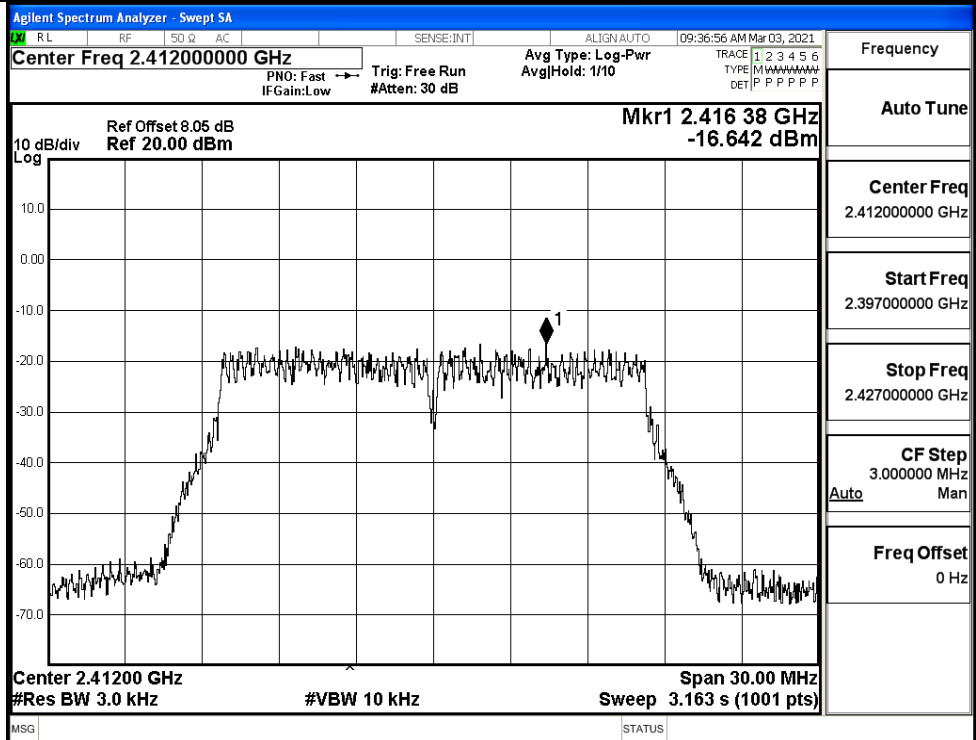
11B/MCH



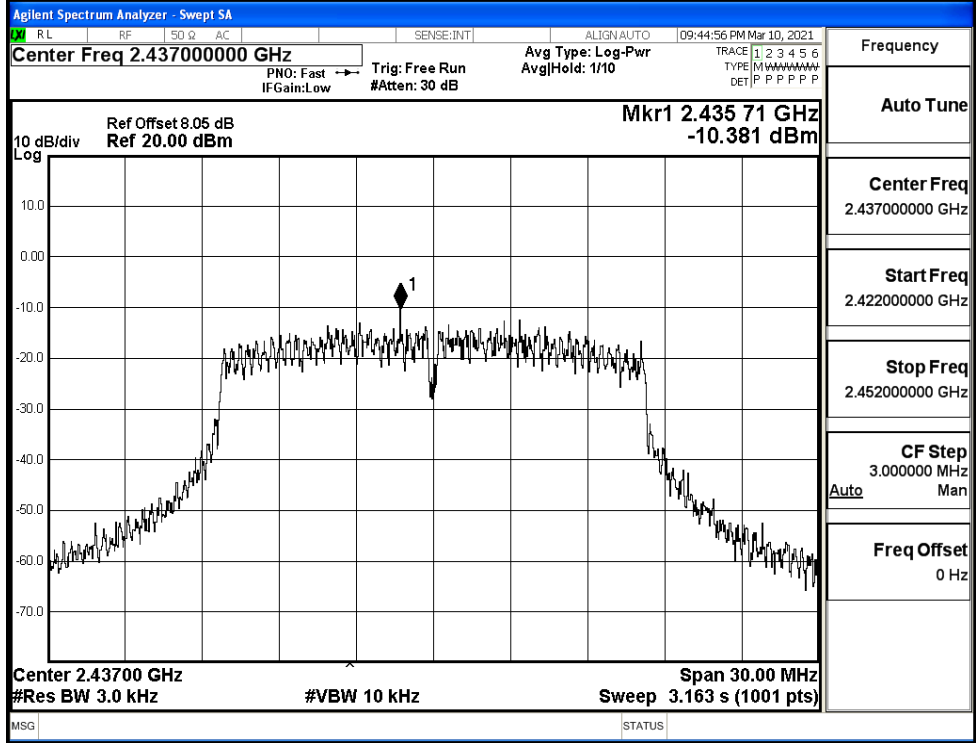
11B/HCH



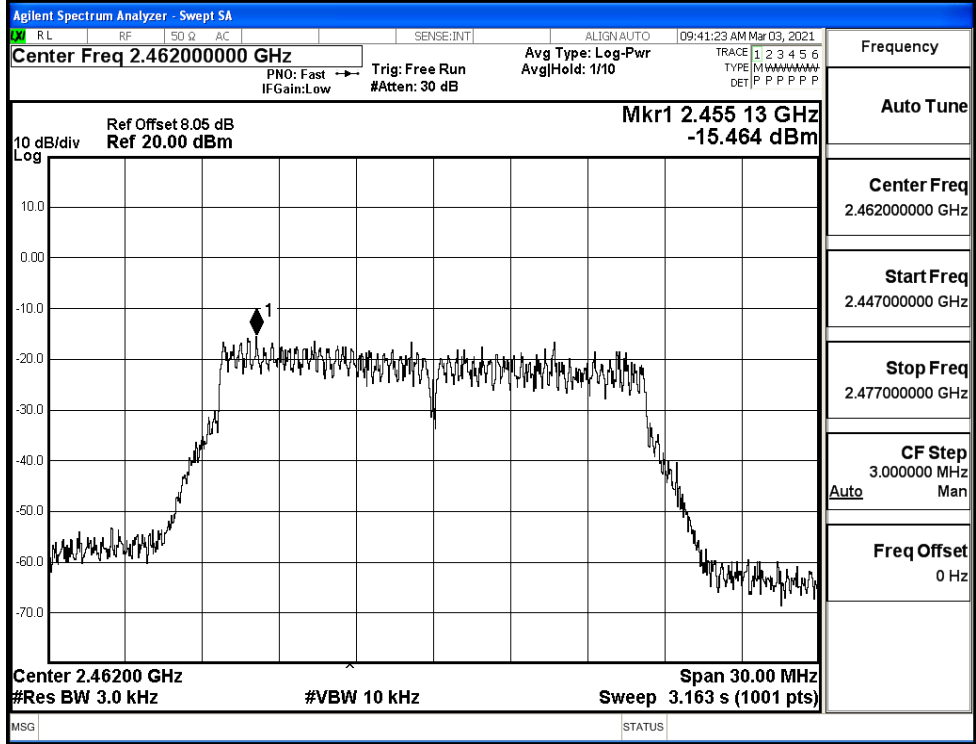
11G/LCH



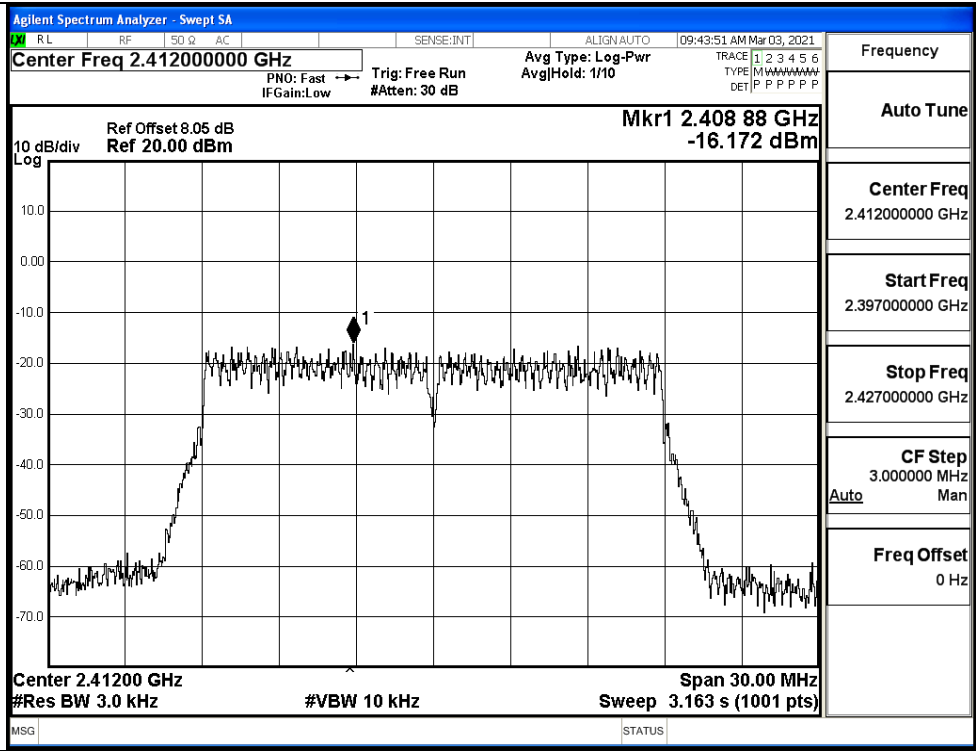
11G/MCH



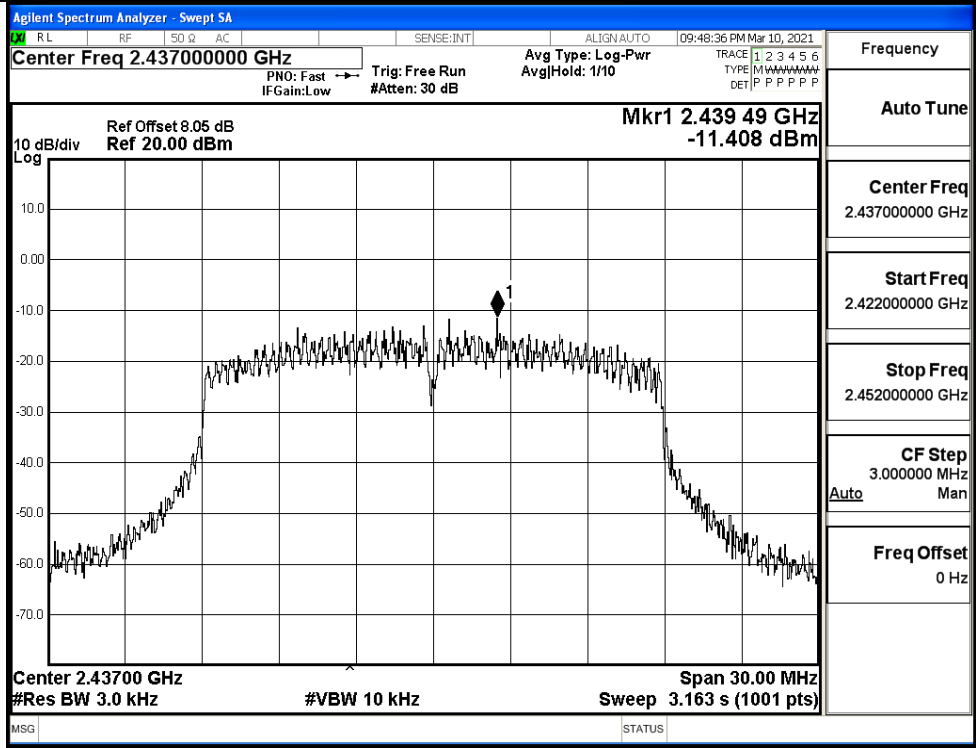
11G/HCH



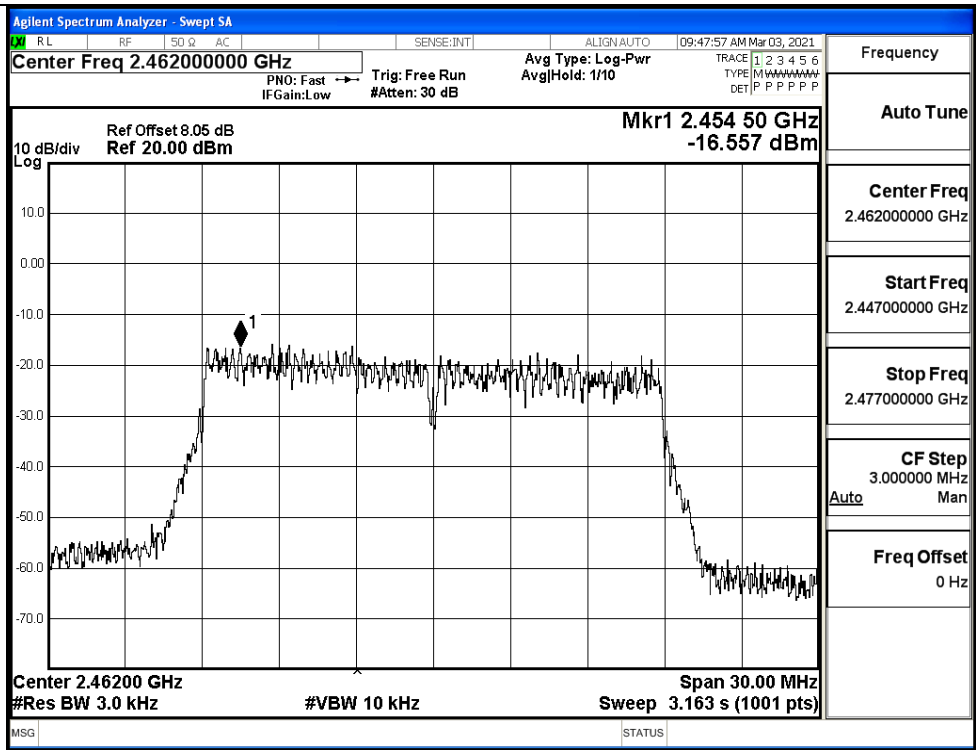
11N20SISO/LCH



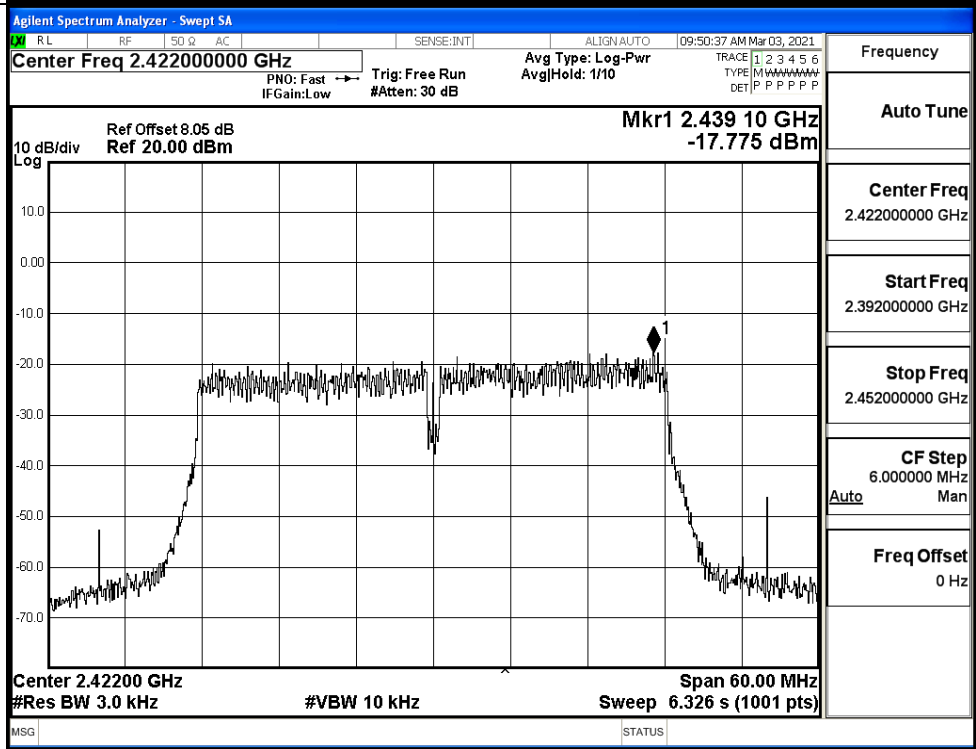
11N20SISO/MCH



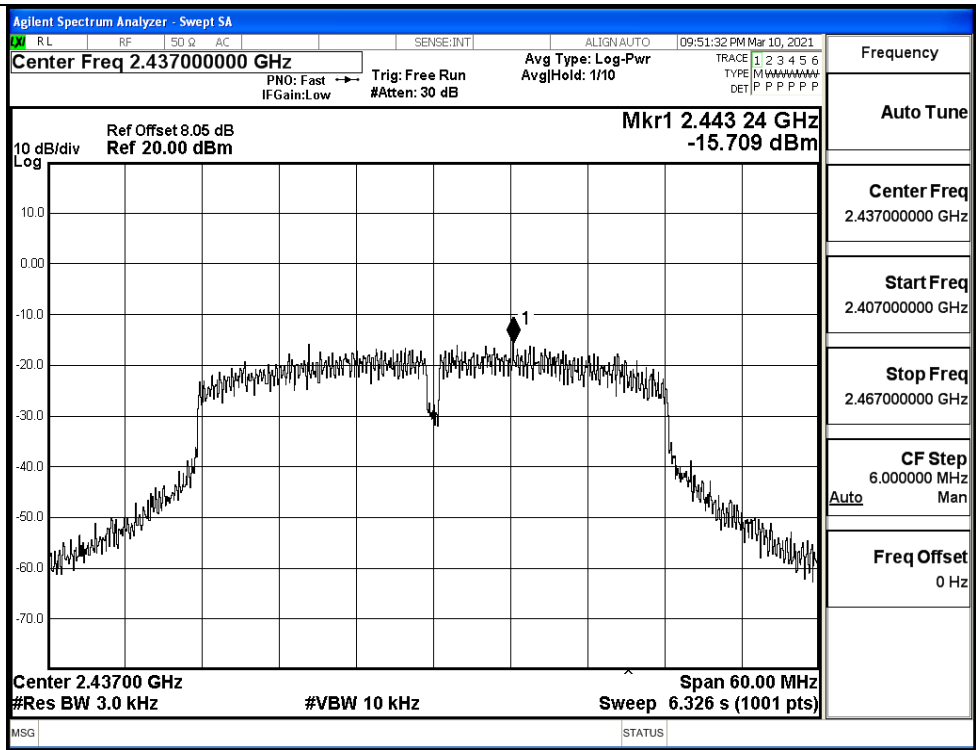
11N20SISO/HCH



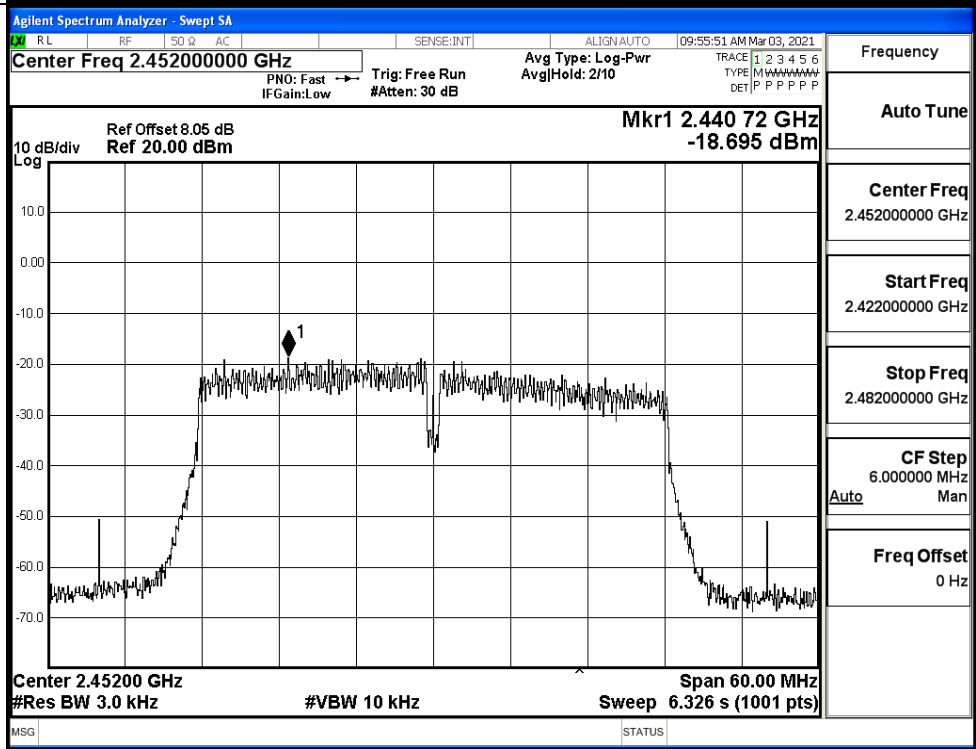
11N40SISO/LCH



11N40SISO/MCH

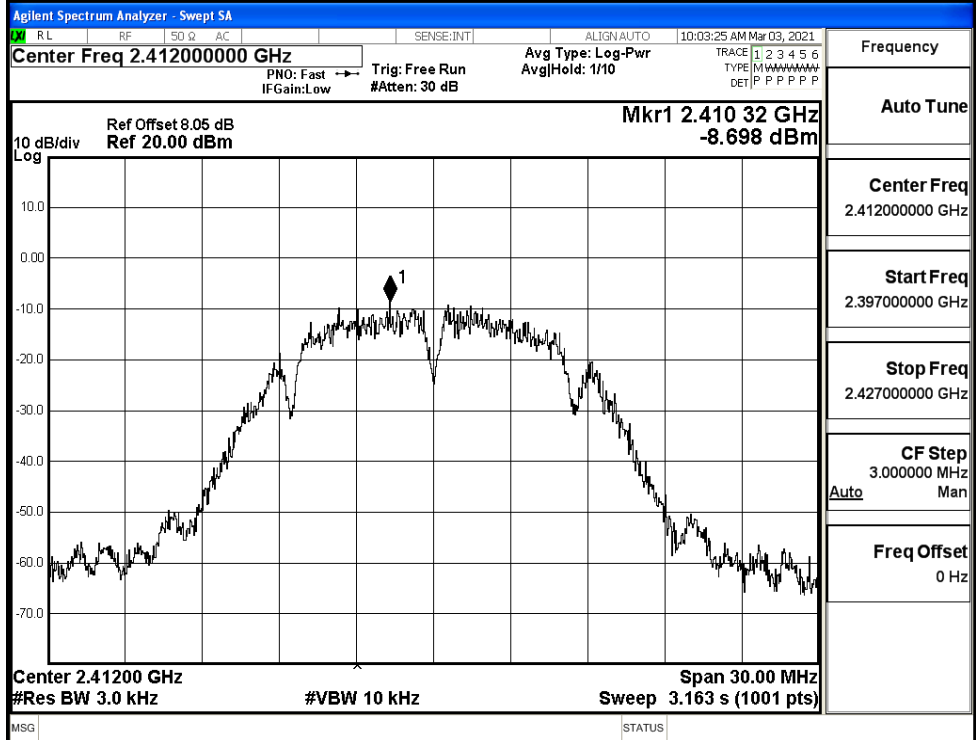


11N40SISO/HCH

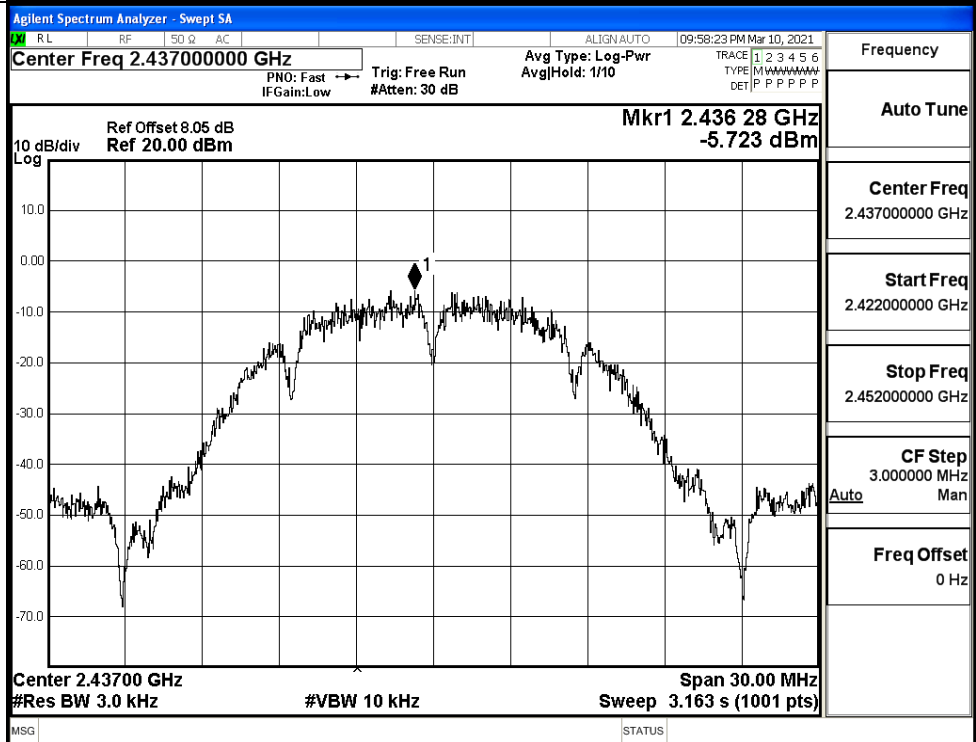


Test Graphs_Ant1

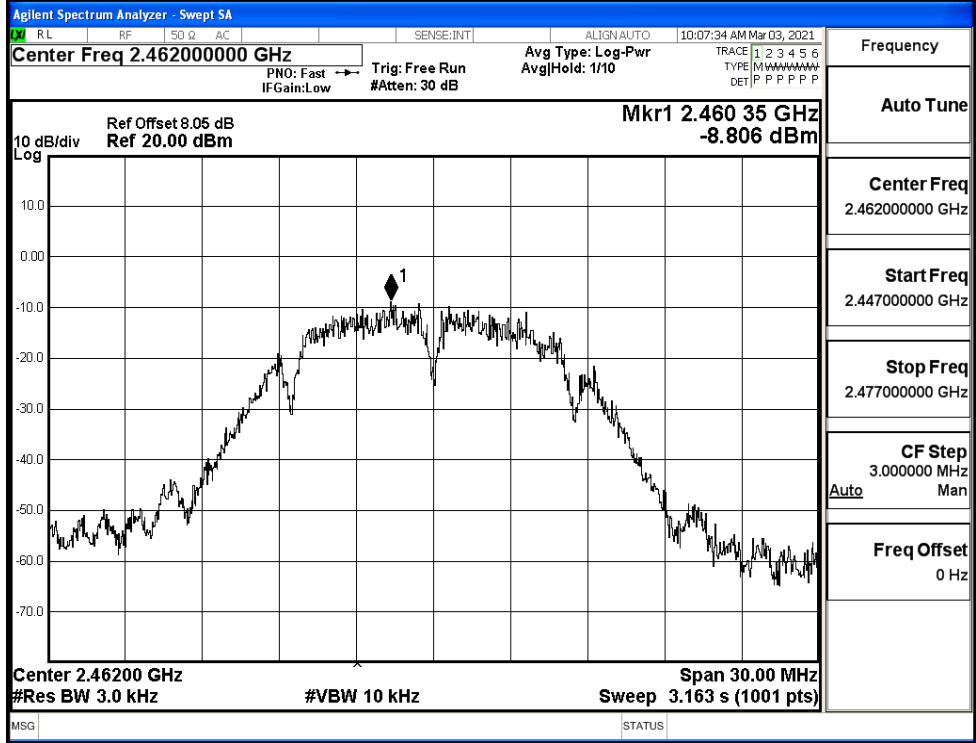
11B/LCH



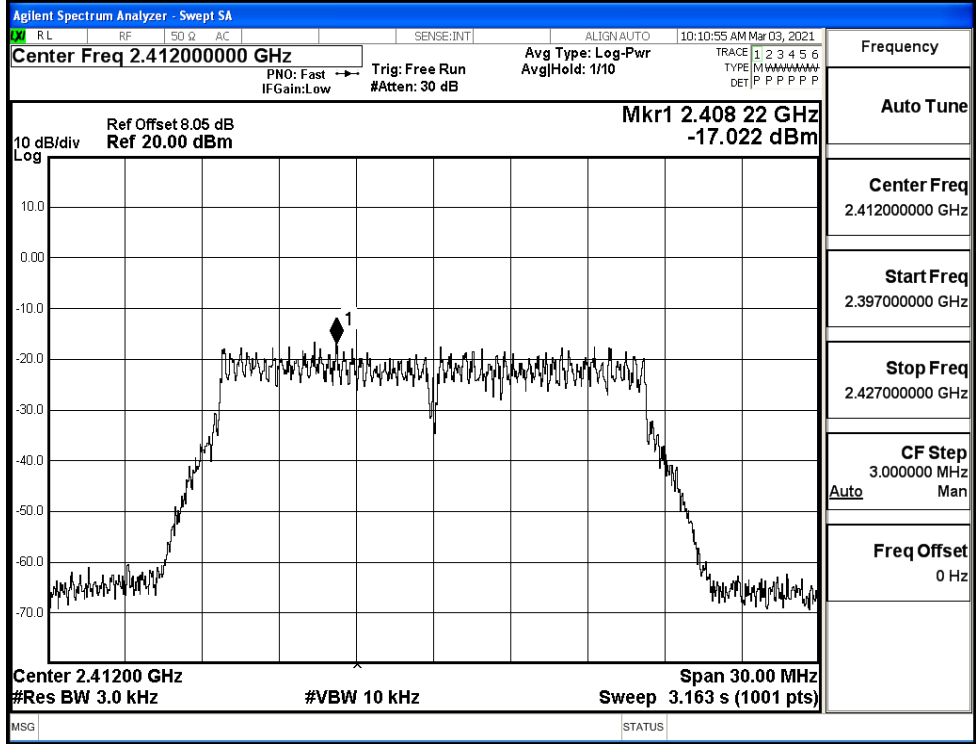
11B/MCH



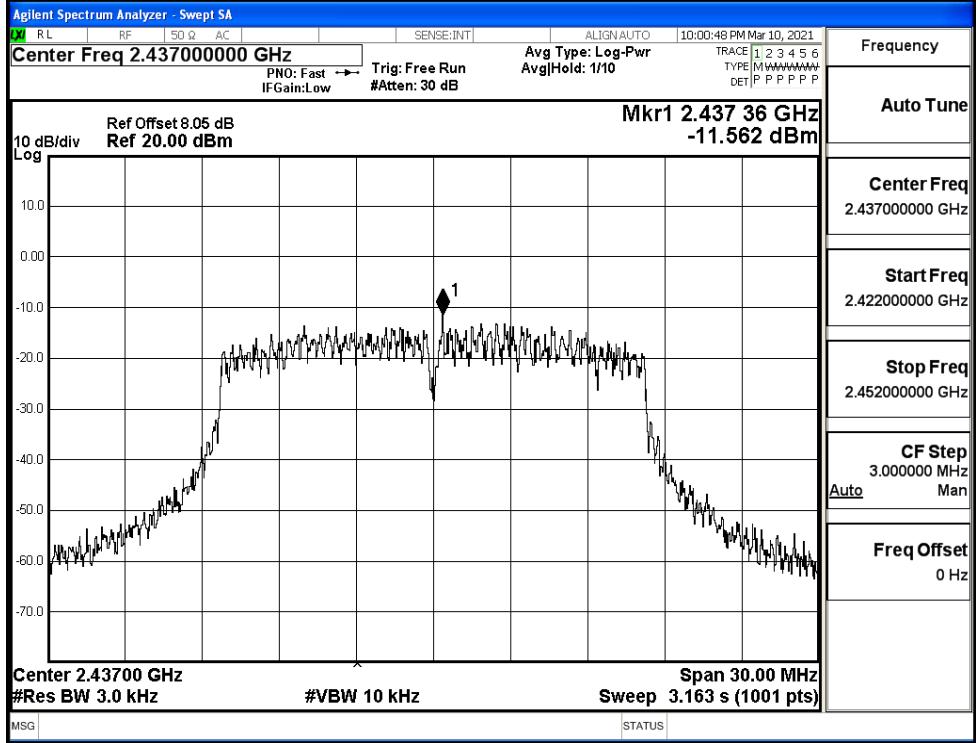
11B/HCH



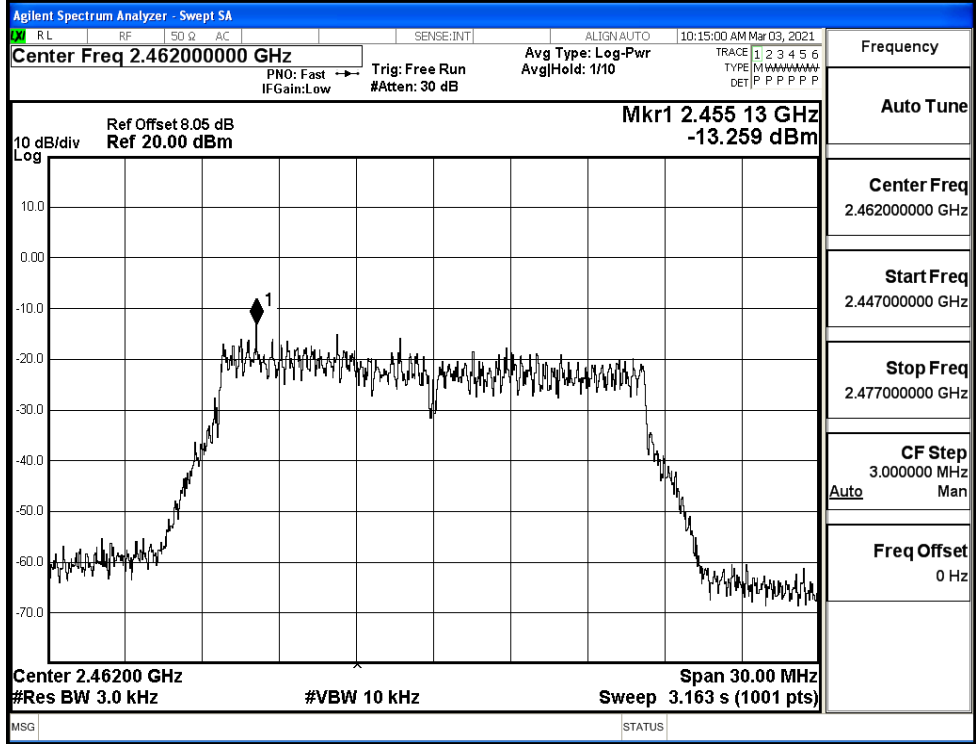
11G/LCH



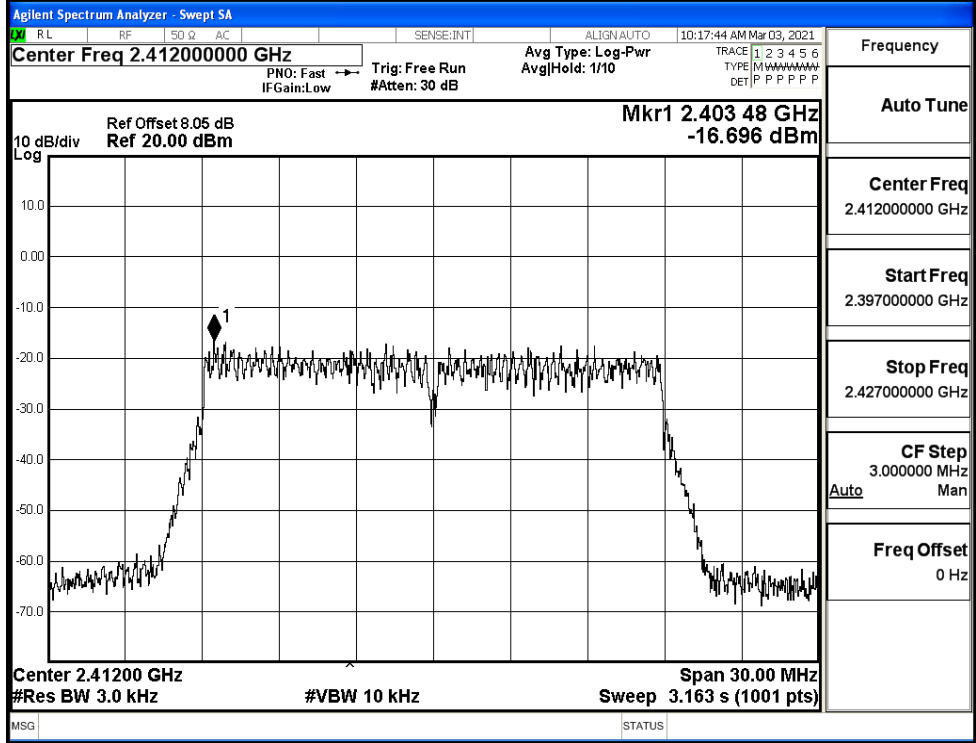
11G/MCH



11G/HCH

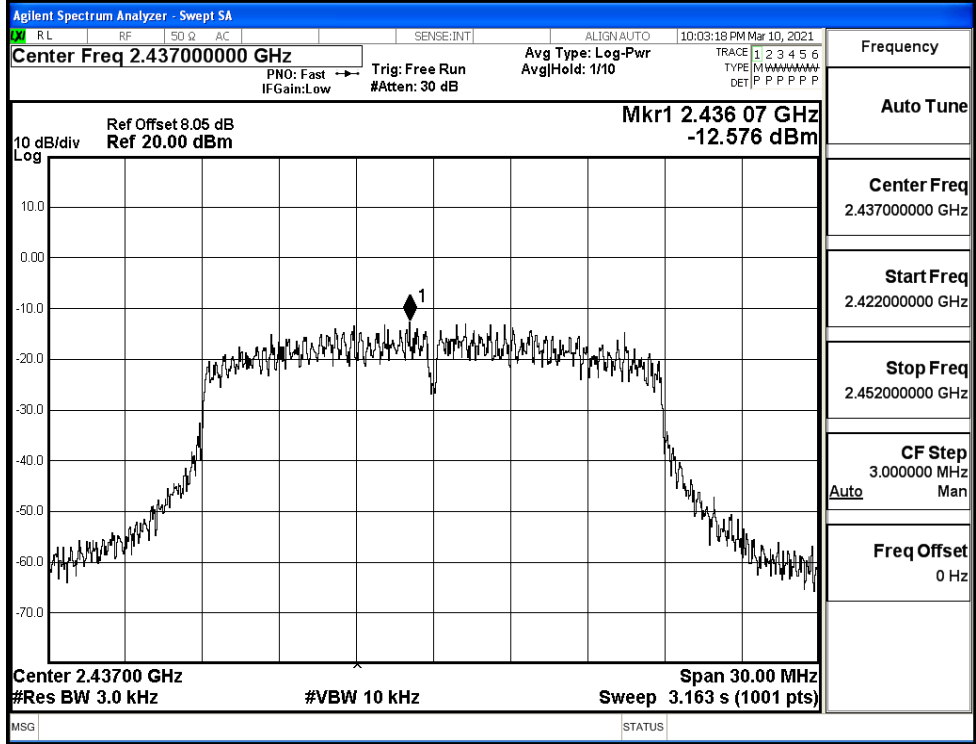


11N20SISO/LCH



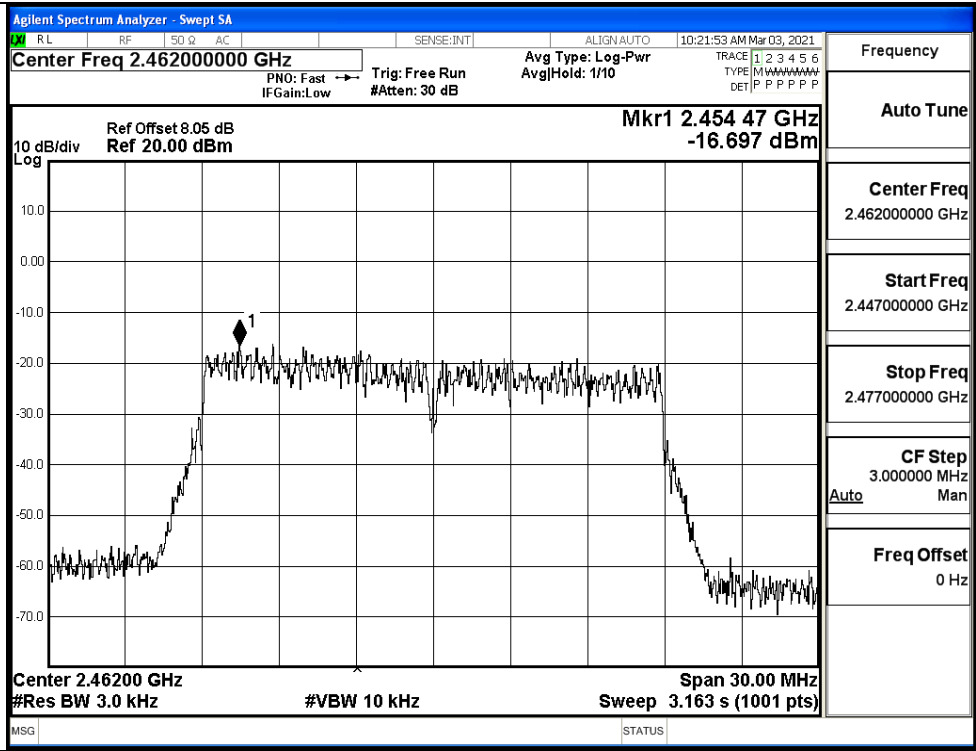
Frequency
Auto Tune
Center Freq 2.41200000 GHz
Start Freq 2.397000000 GHz
Stop Freq 2.427000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

11N20SISO/MCH

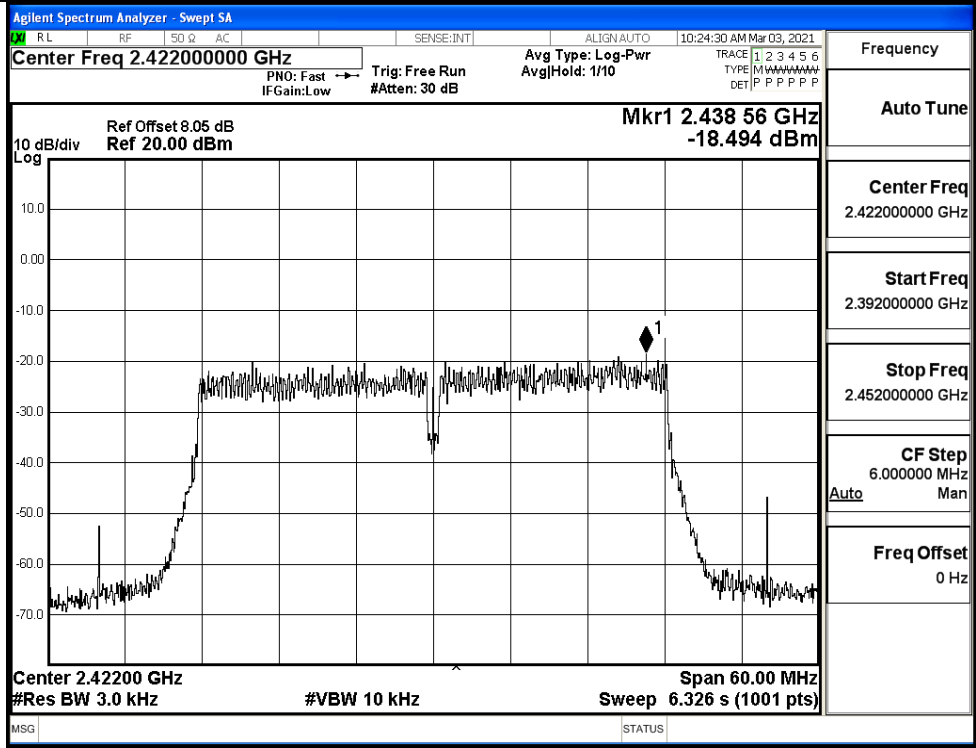


Frequency
Auto Tune
Center Freq 2.437000000 GHz
Start Freq 2.422000000 GHz
Stop Freq 2.452000000 GHz
CF Step 3.000000 MHz Auto Man
Freq Offset 0 Hz

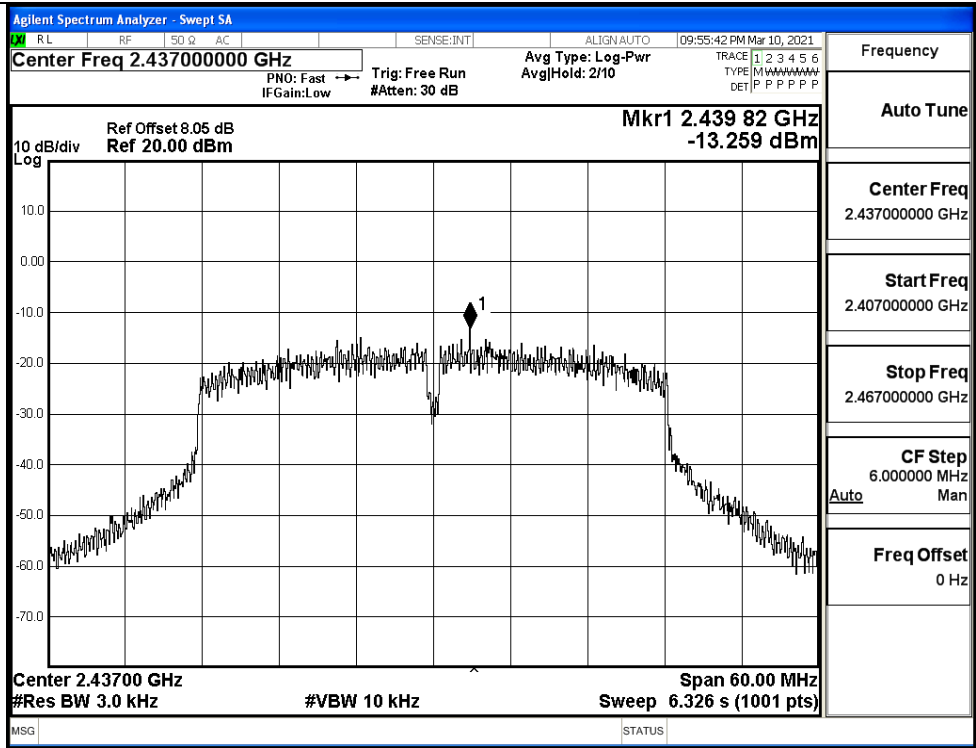
11N20SISO/HCH



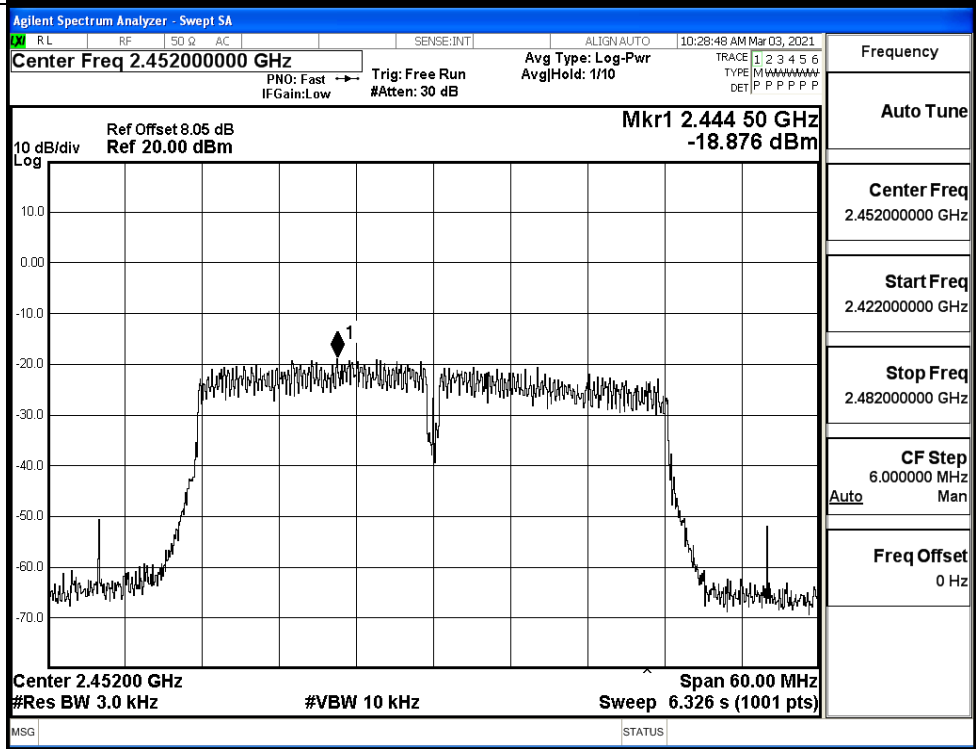
11N40SISO/LCH



11N40SISO/MCH

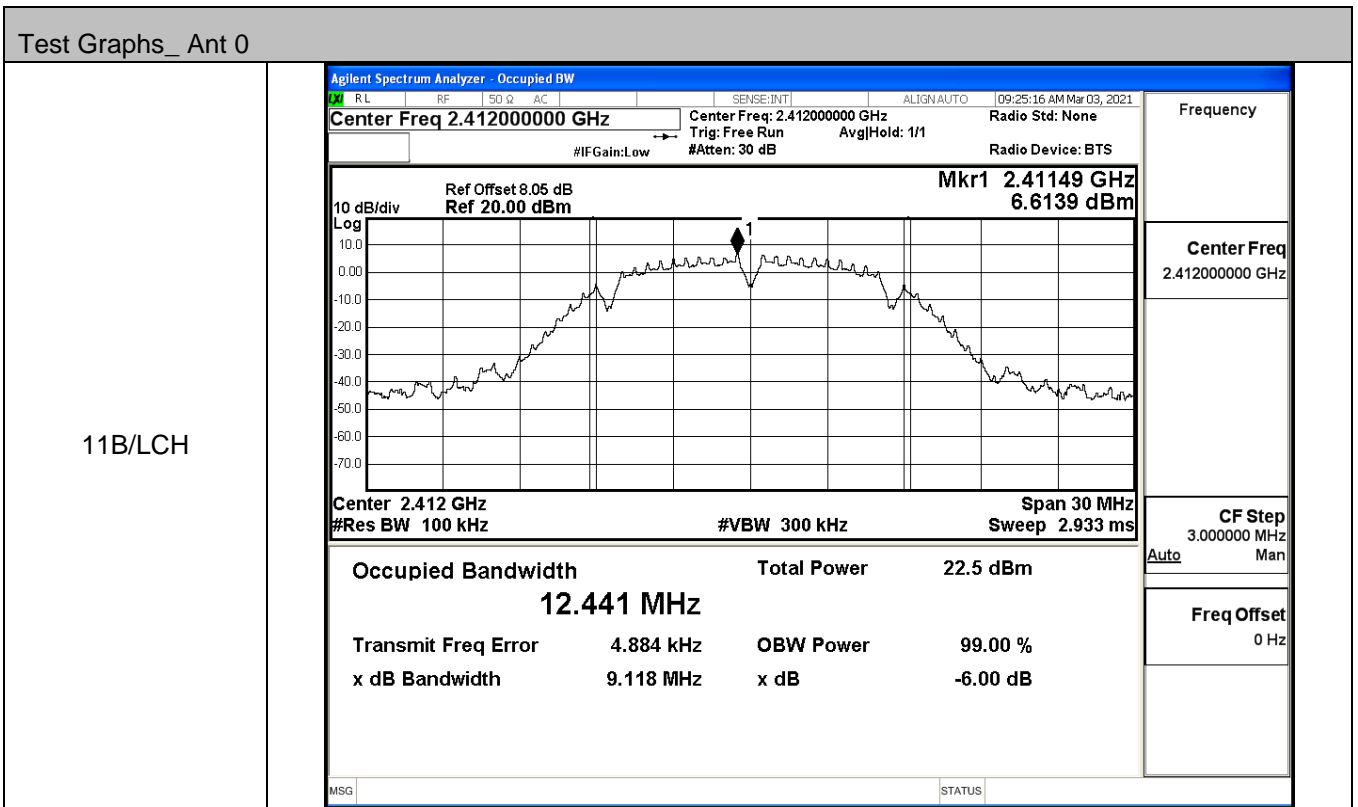


11N40SISO/HCH

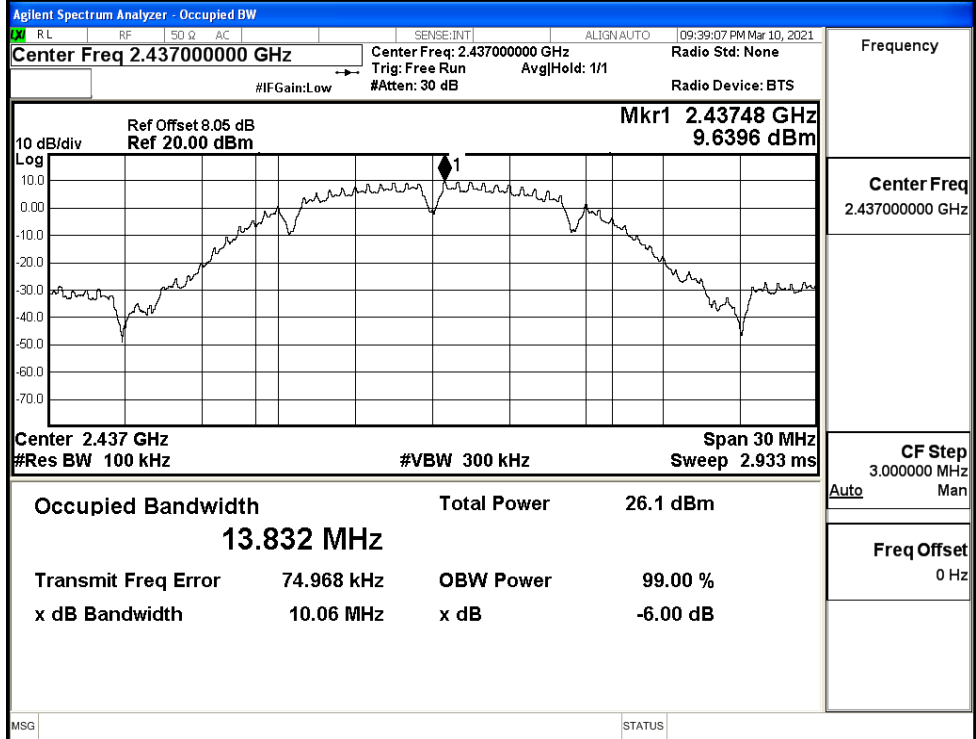


A.4 6dB Bandwidth

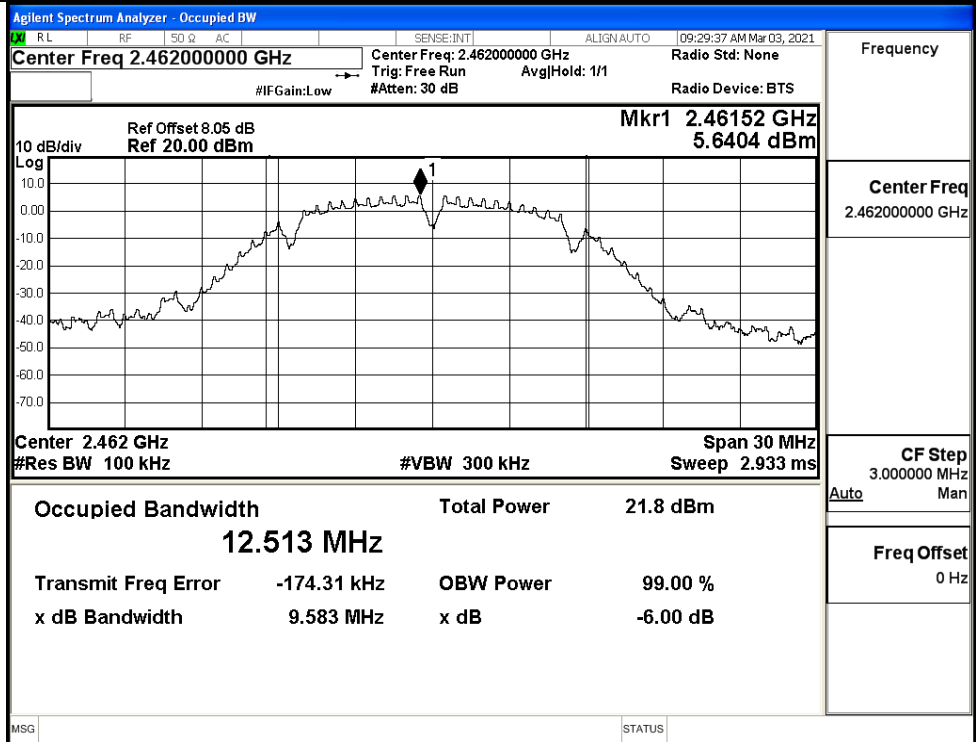
Mode	Channel	6dB Bandwidth [MHz]		Limit [MHz]	Verdict
		Ant 0	Ant 1		
11B	LCH	9.118	10.05	≥0.5	PASS
	MCH	10.06	10.04	≥0.5	PASS
	HCH	9.583	9.558	≥0.5	PASS
11G	LCH	16.42	16.41	≥0.5	PASS
	MCH	15.10	15.08	≥0.5	PASS
	HCH	15.81	16.00	≥0.5	PASS
11N20SISO	LCH	17.65	17.65	≥0.5	PASS
	MCH	15.13	15.12	≥0.5	PASS
	HCH	16.41	17.20	≥0.5	PASS
11N40SISO	LCH	35.78	35.75	≥0.5	PASS
	MCH	32.62	33.86	≥0.5	PASS
	HCH	35.45	35.35	≥0.5	PASS



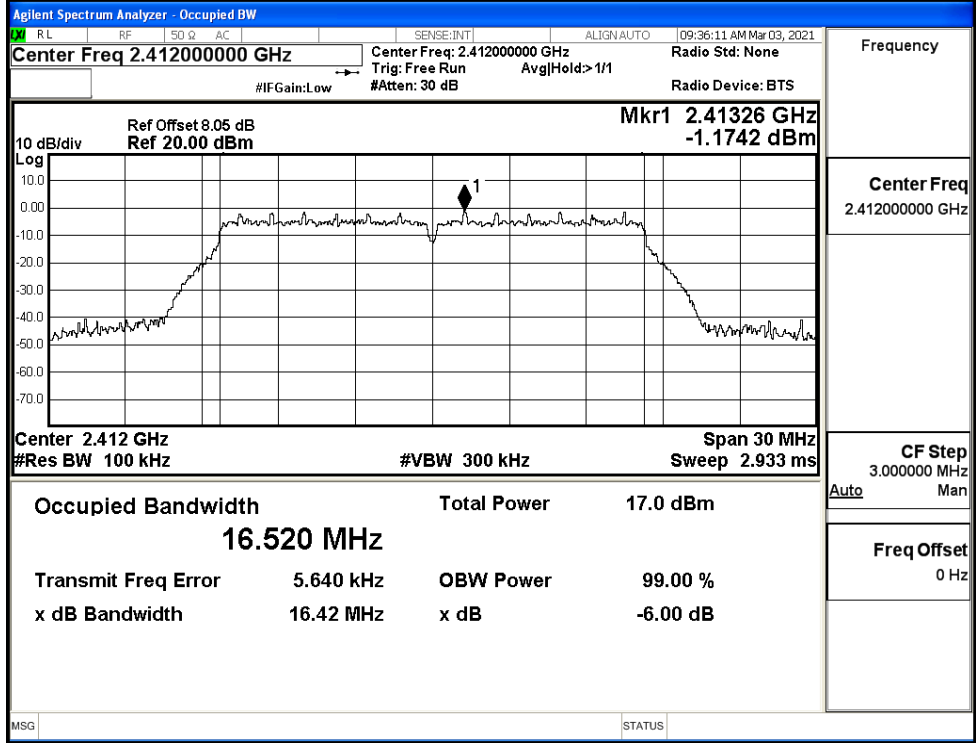
11B/MCH



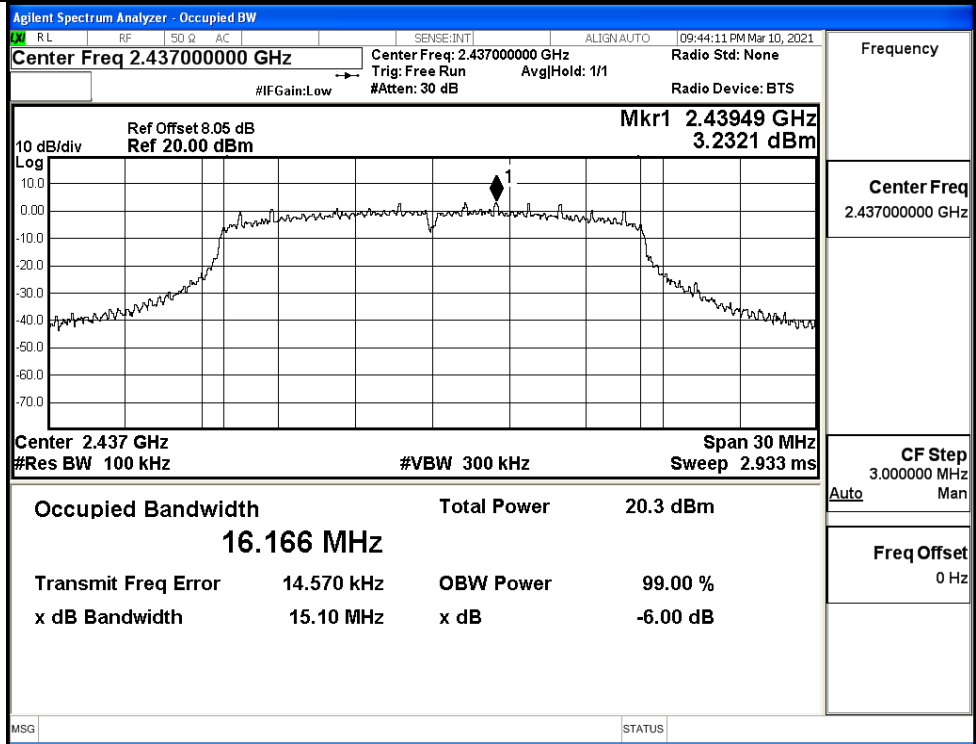
11B/HCH



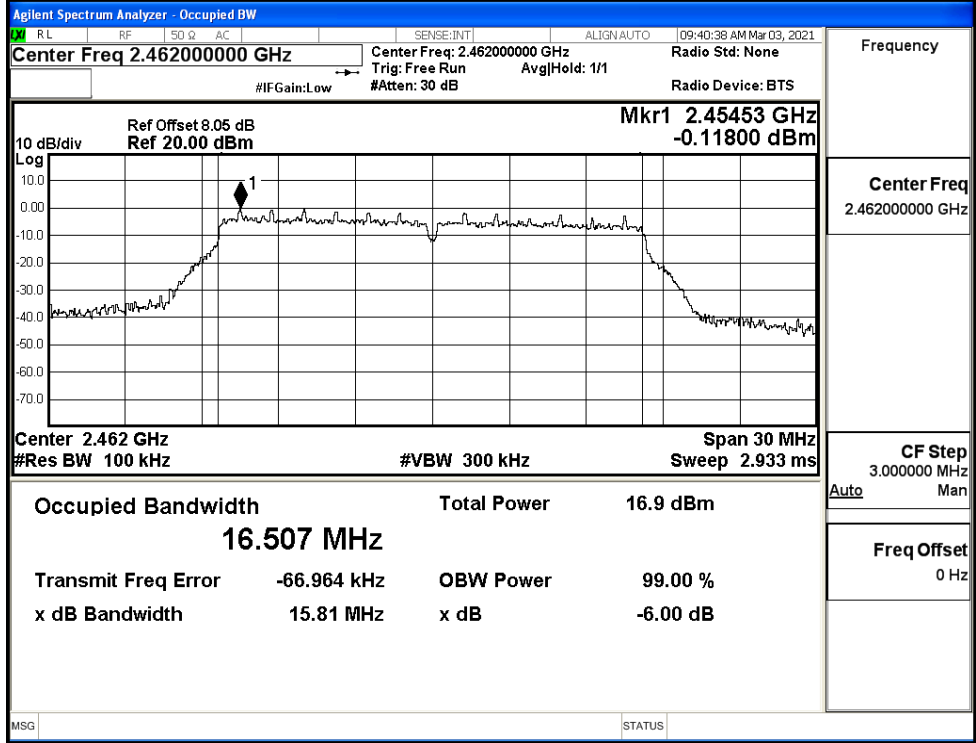
11G/LCH



11G/MCH

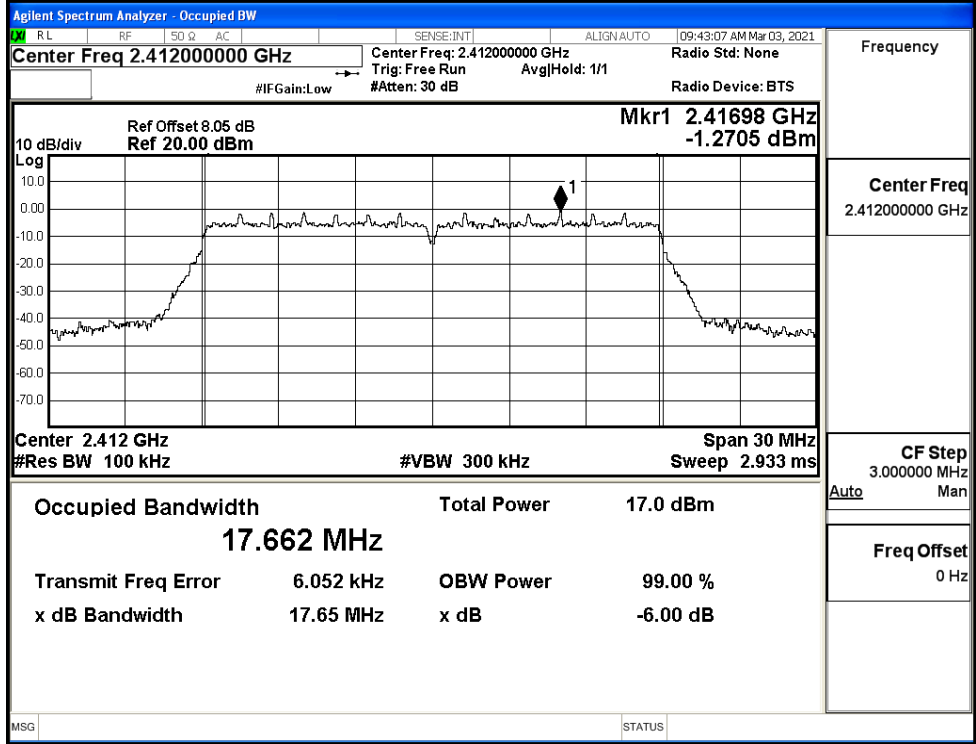


11G/HCH

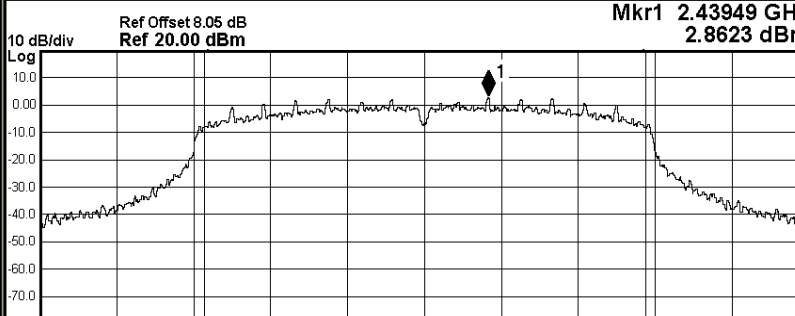
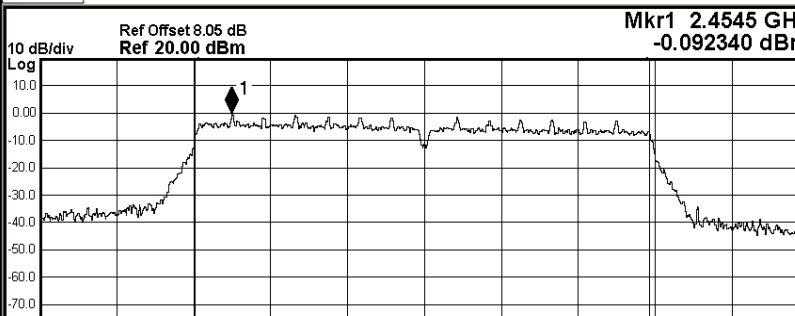


Frequency	2.46200000 GHz
Center Freq	2.46200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

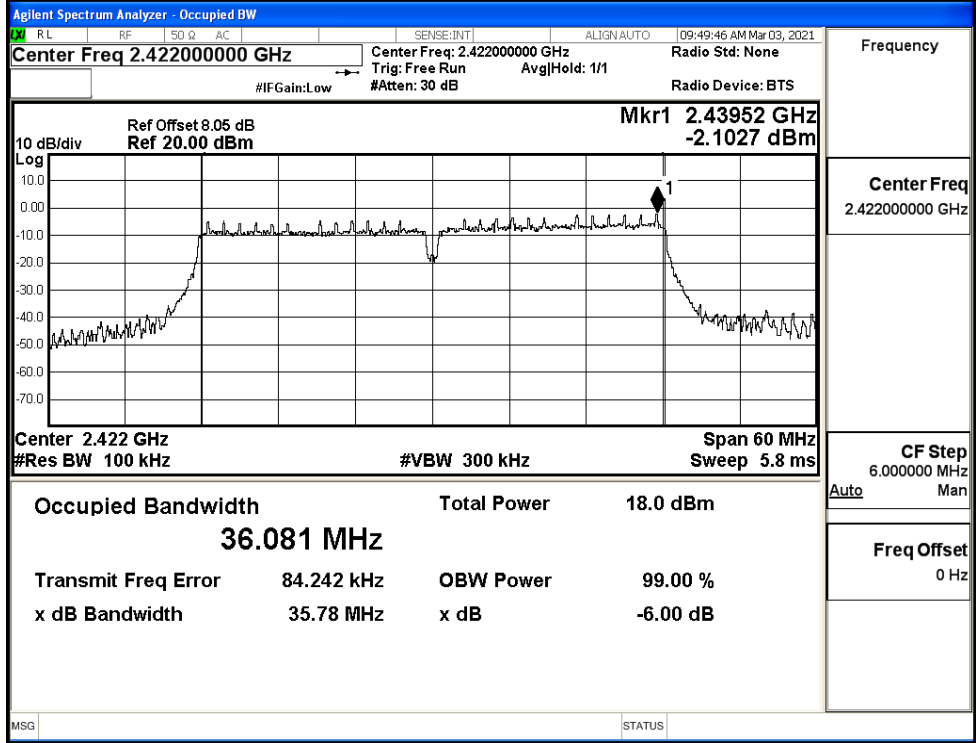
11N20SISO/LCH



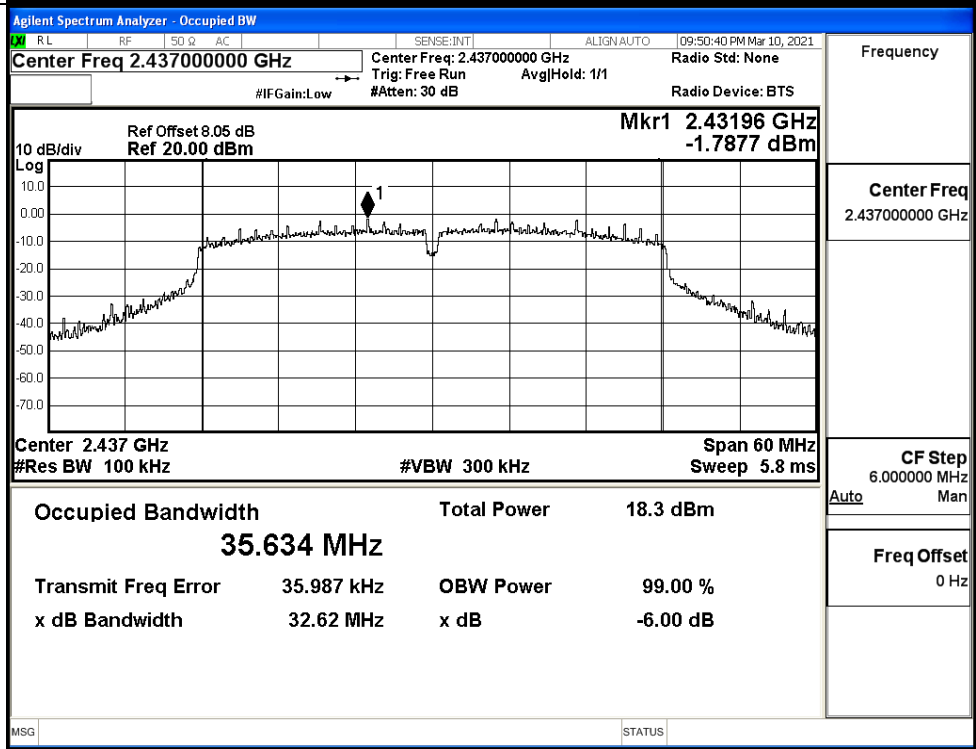
Frequency	2.41200000 GHz
Center Freq	2.41200000 GHz
CF Step	3.000000 MHz
Auto	Man
Freq Offset	0 Hz

<p>11N20SISO/MCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>RL RF SQ Ω AC SENSE:INT ALIGN AUTO 09:47:51 PM Mar 10, 2021</p> <p>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</p>  <p>10 dB/div Ref Offset 8.05 dB Mkr1 2.43949 GHz Ref 20.00 dBm 2.8623 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 20.0 dBm 17.180 MHz</p> <p>Transmit Freq Error 20.952 kHz OBW Power 99.00 % x dB Bandwidth 15.13 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>
<p>11N20SISO/HCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>RL RF SQ Ω AC SENSE:INT ALIGN AUTO 09:47:12 AM Mar 03, 2021</p> <p>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</p>  <p>10 dB/div Ref Offset 8.05 dB Mkr1 2.4545 GHz Ref 20.00 dBm -0.092340 dBm</p> <p>Center 2.462 GHz Span 30 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms</p> <p>Occupied Bandwidth Total Power 17.1 dBm 17.662 MHz</p> <p>Transmit Freq Error -56.747 kHz OBW Power 99.00 % x dB Bandwidth 16.41 MHz x dB -6.00 dB</p> <p>MSG STATUS</p>	<p>Frequency</p> <p>Center Freq 2.46200000 GHz</p> <p>CF Step 3.000000 MHz Auto Man</p> <p>Freq Offset 0 Hz</p>

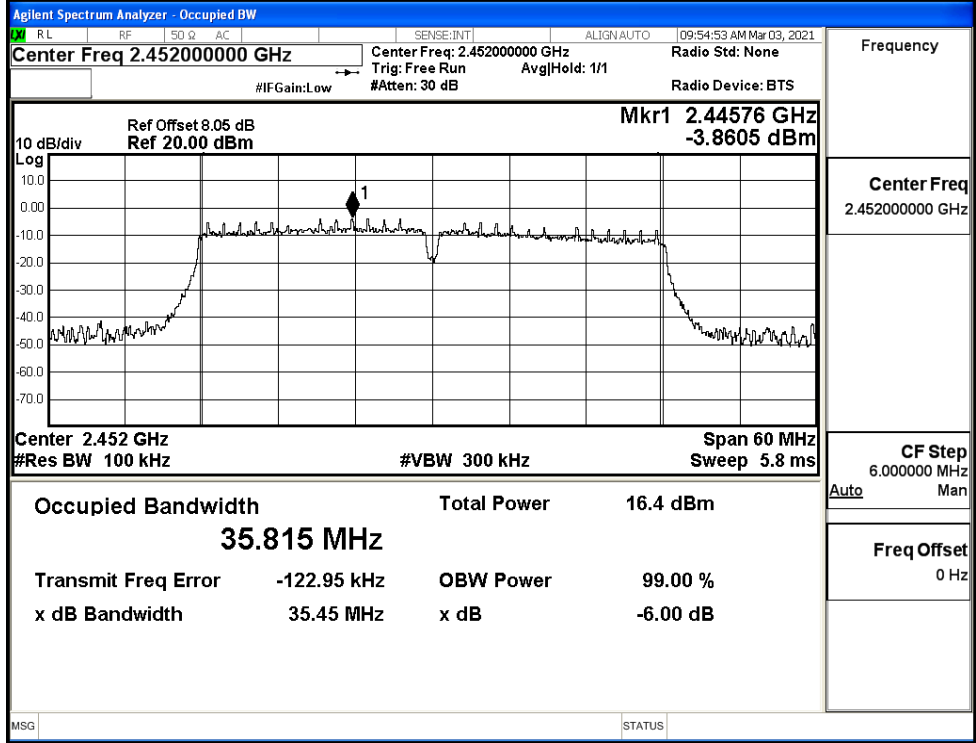
11N40SISO/LCH



11N40SISO/MCH

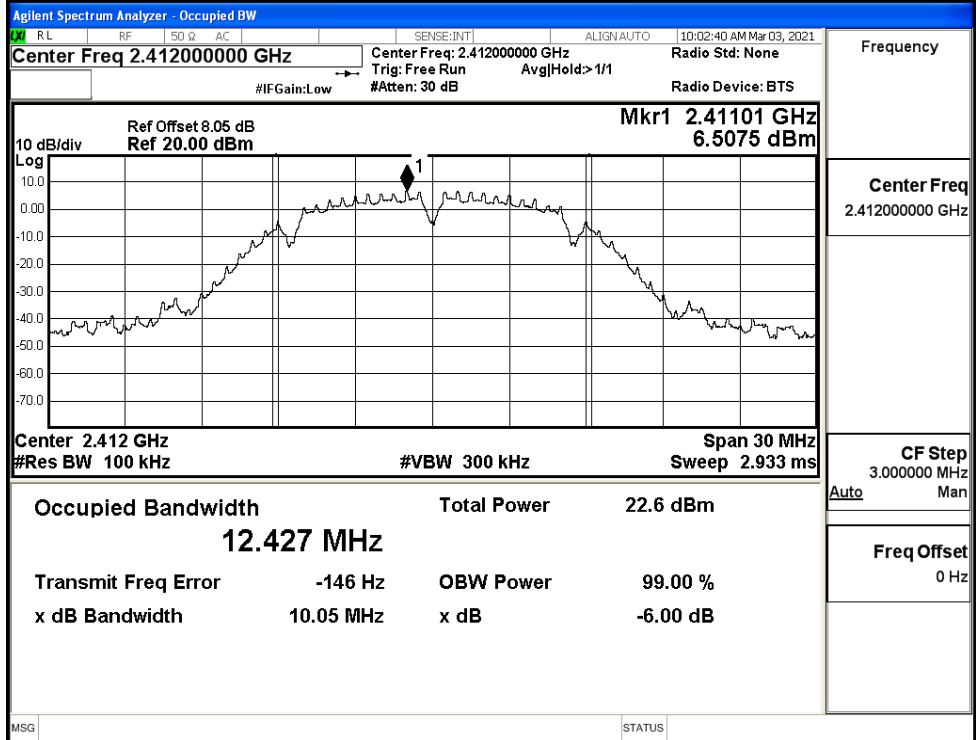


11N40SISO/HCH

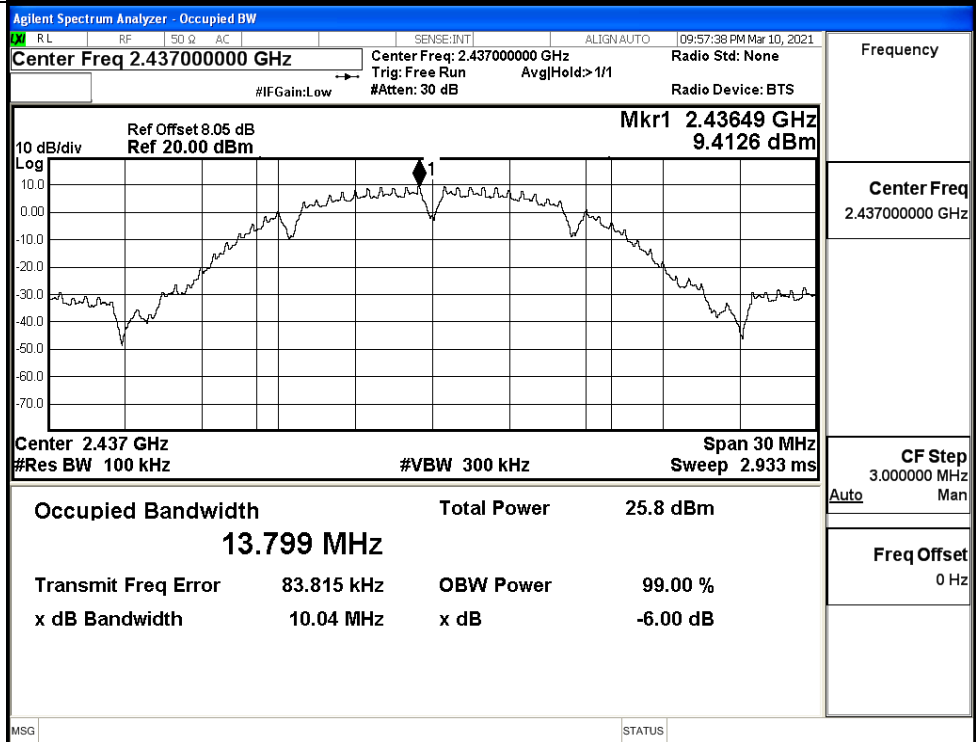


Test Graphs_ Ant 1

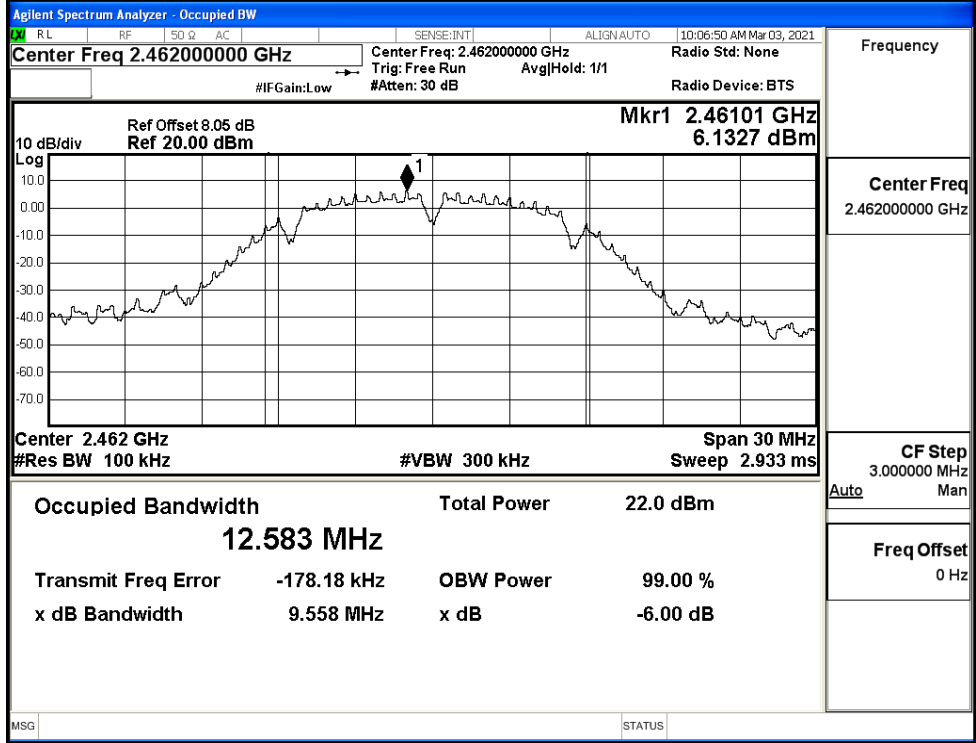
11B/LCH



11B/MCH



11B/HCH



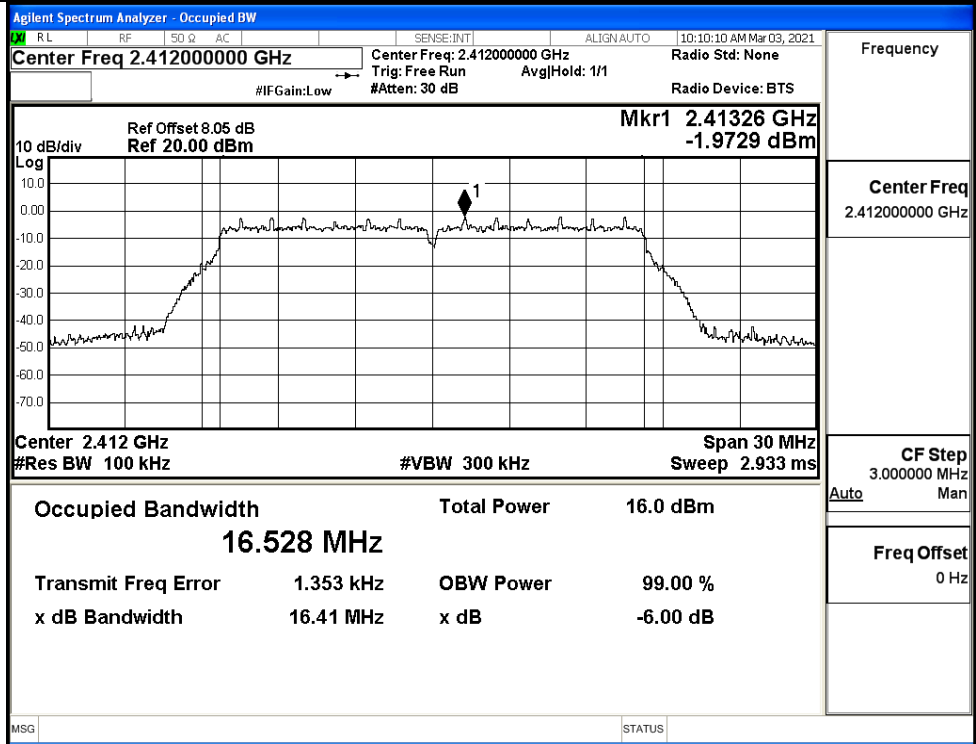
Frequency

Center Freq
2.46200000 GHz

CF Step
3.000000 MHz

Freq Offset
0 Hz

11G/LCH



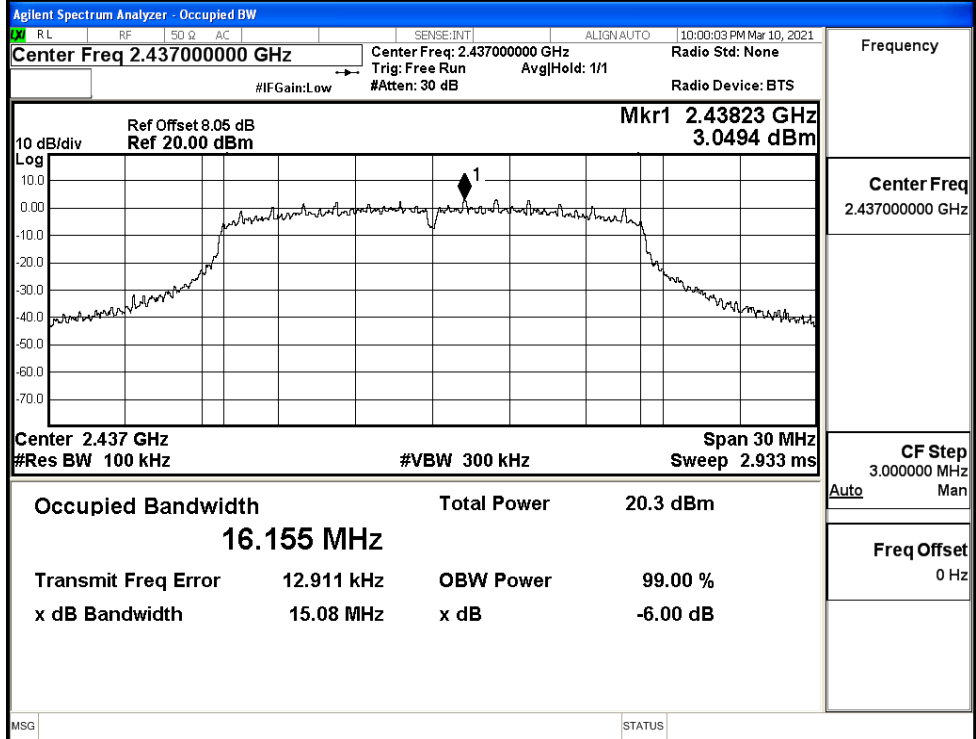
Frequency

Center Freq
2.41200000 GHz

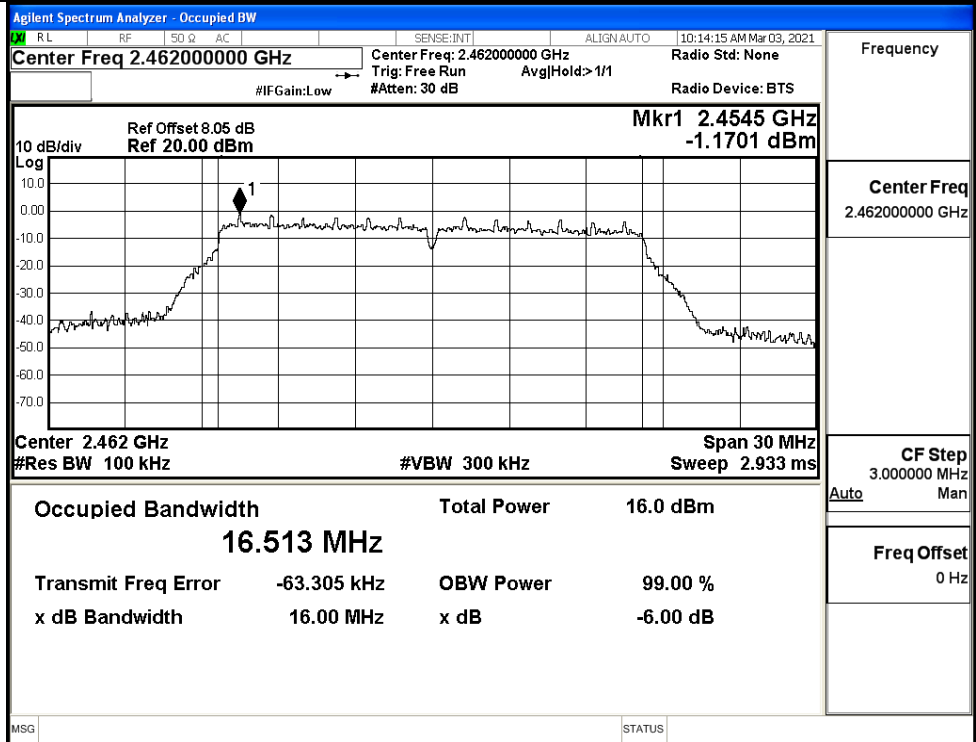
CF Step
3.000000 MHz

Freq Offset
0 Hz

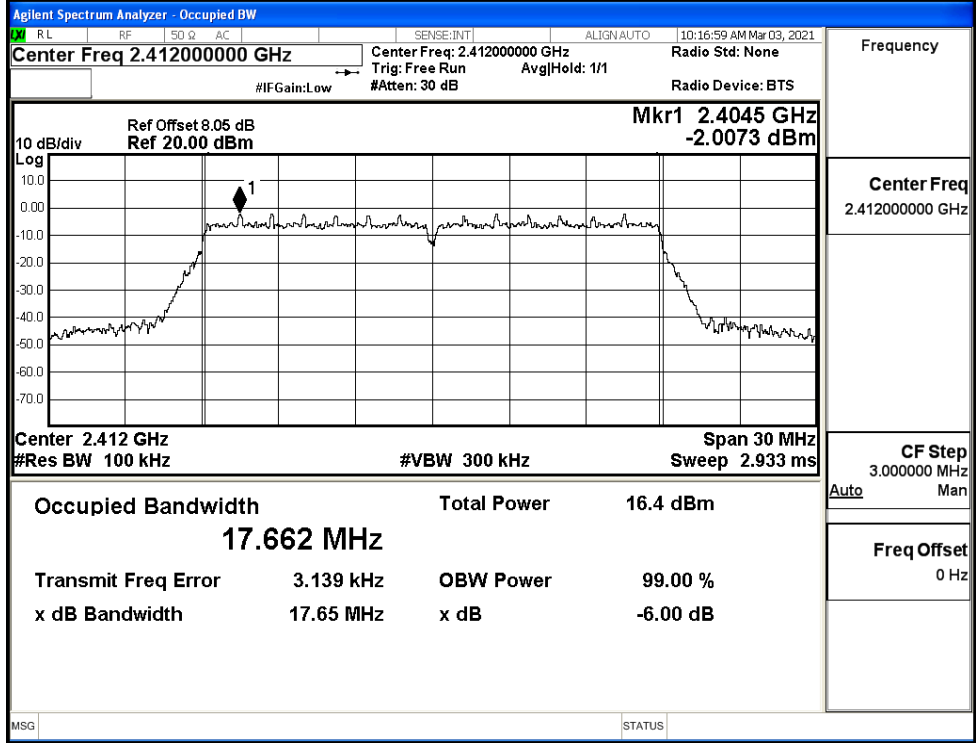
11G/MCH



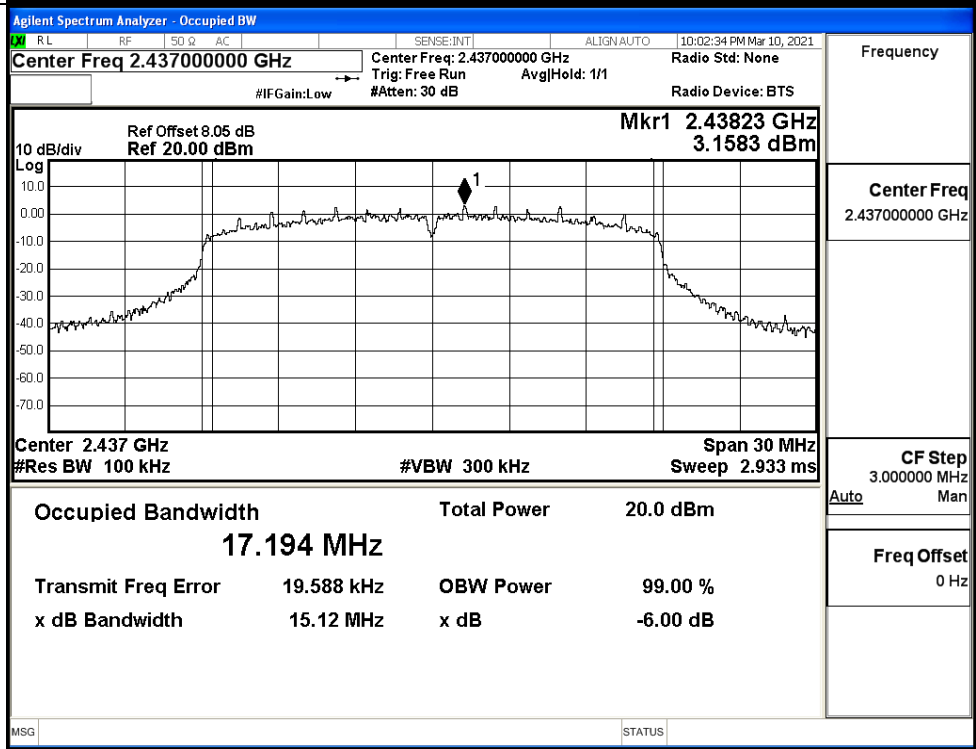
11G/HCH



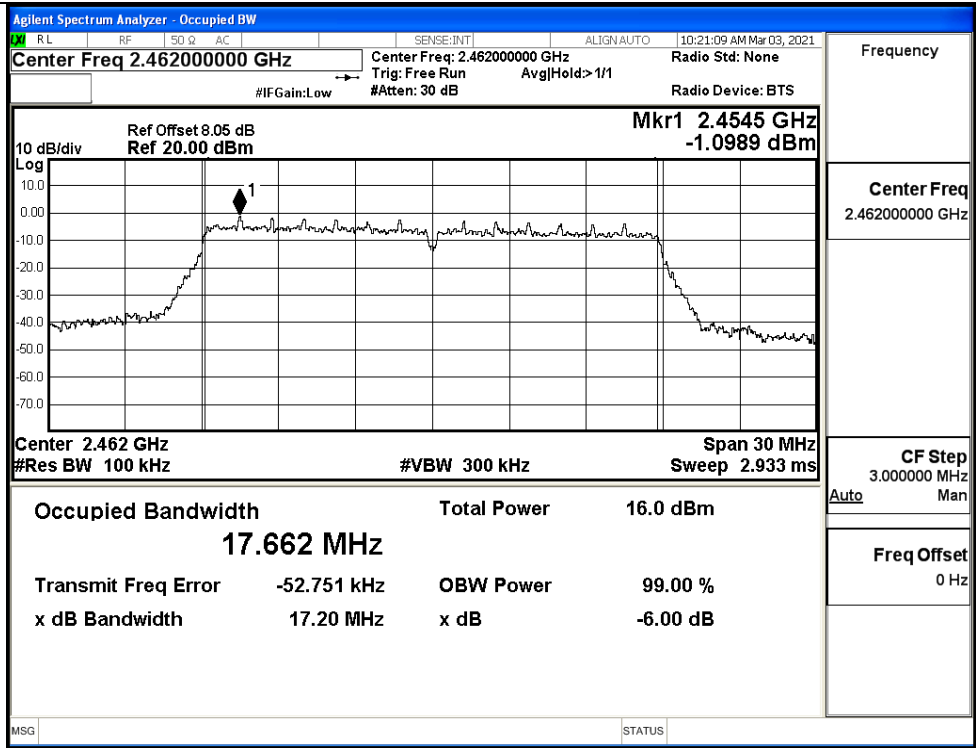
11N20SISO/LCH



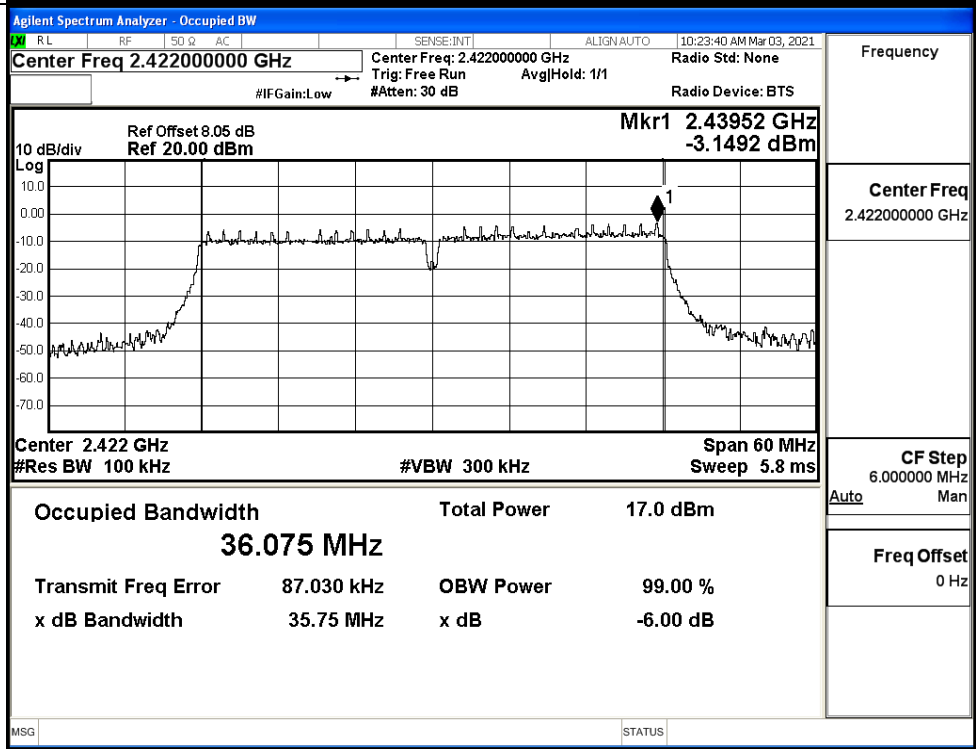
11N20SISO/MCH



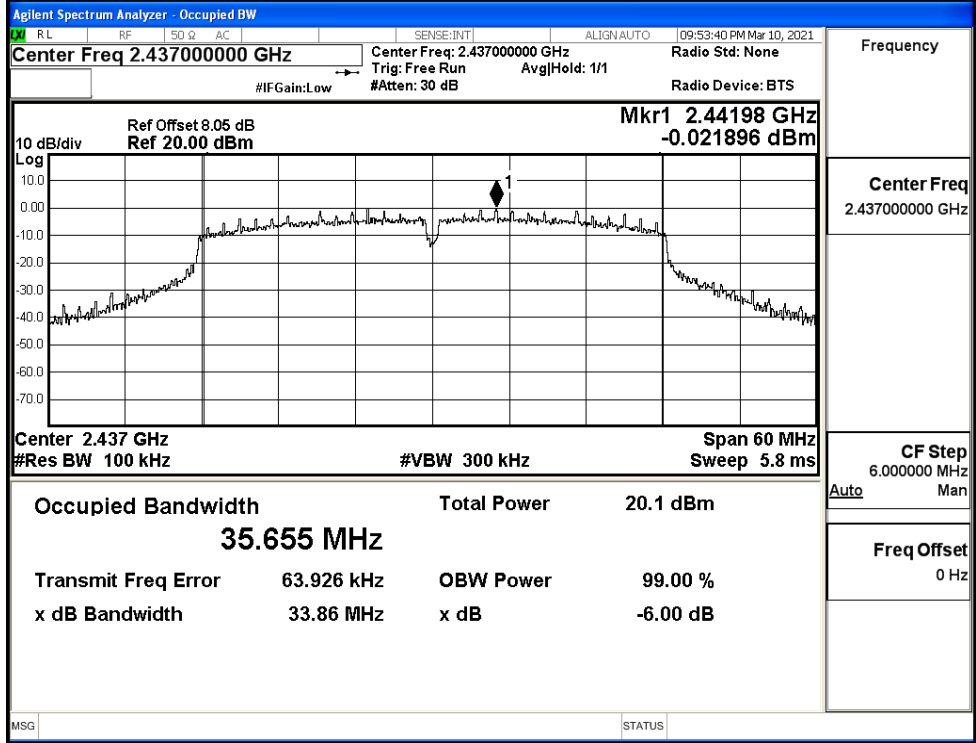
11N20SISO/HCH



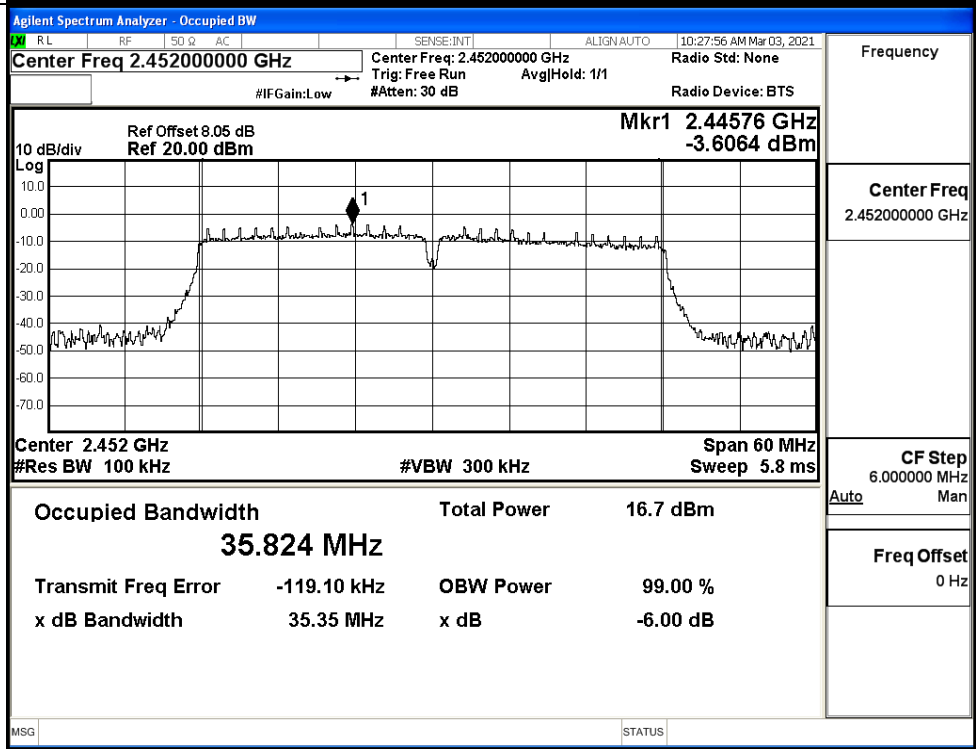
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH



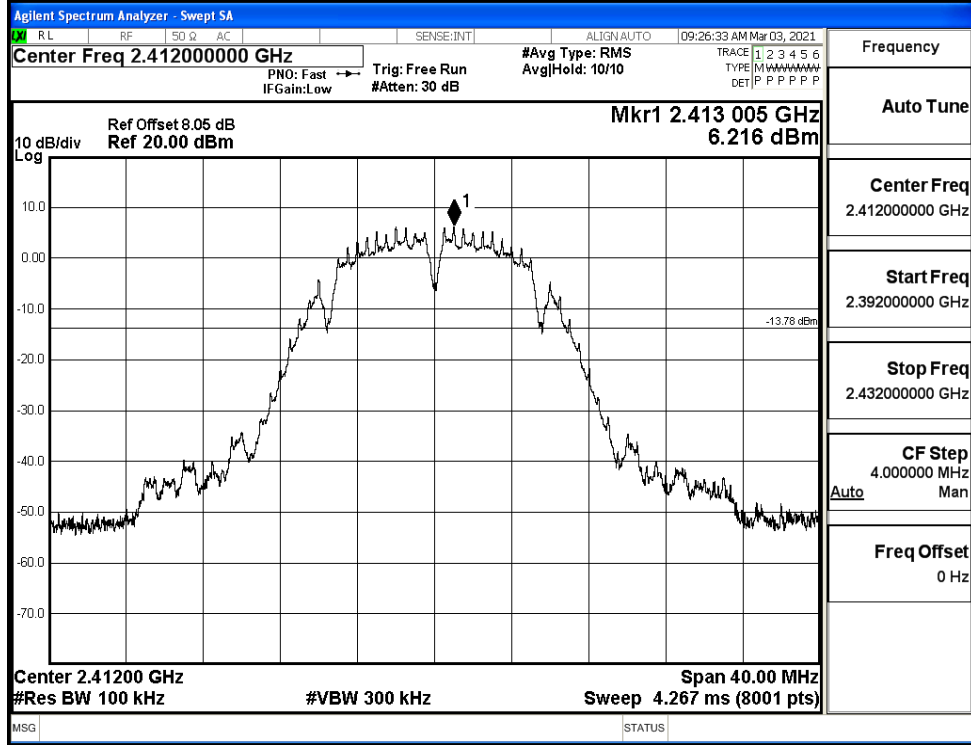
A.5 RF Conducted Spurious Emissions

ANT 0

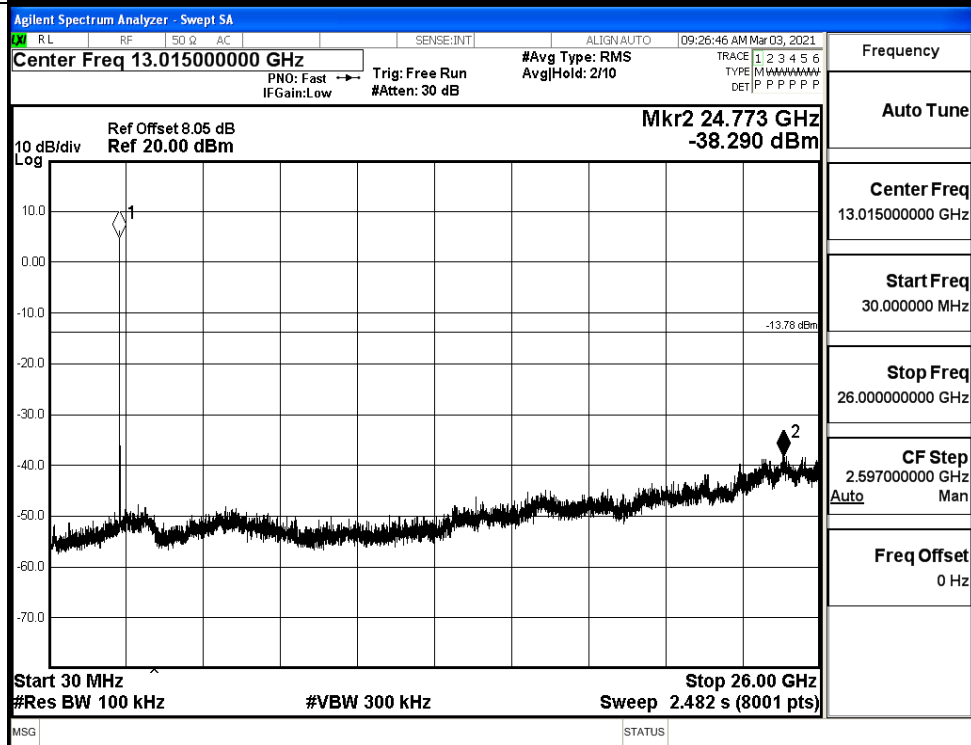
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	6.216	-38.290	-13.784	PASS
	MCH	9.37	-32.118	-10.630	PASS
	HCH	5.512	-38.049	-14.488	PASS
11G	LCH	-1.244	-38.343	-21.244	PASS
	MCH	2.333	-37.283	-17.667	PASS
	HCH	-0.3	-37.931	-20.300	PASS
11N20 SISO	LCH	-1.151	-37.382	-21.151	PASS
	MCH	2.886	-38.102	-17.114	PASS
	HCH	-0.142	-38.128	-20.142	PASS
11N40 SISO	LCH	-2.048	-37.318	-22.048	PASS
	MCH	-0.102	-37.887	-20.102	PASS
	HCH	-4.081	-38.079	-24.081	PASS

11B_LCH_Graphs

Pref/11B/LCH

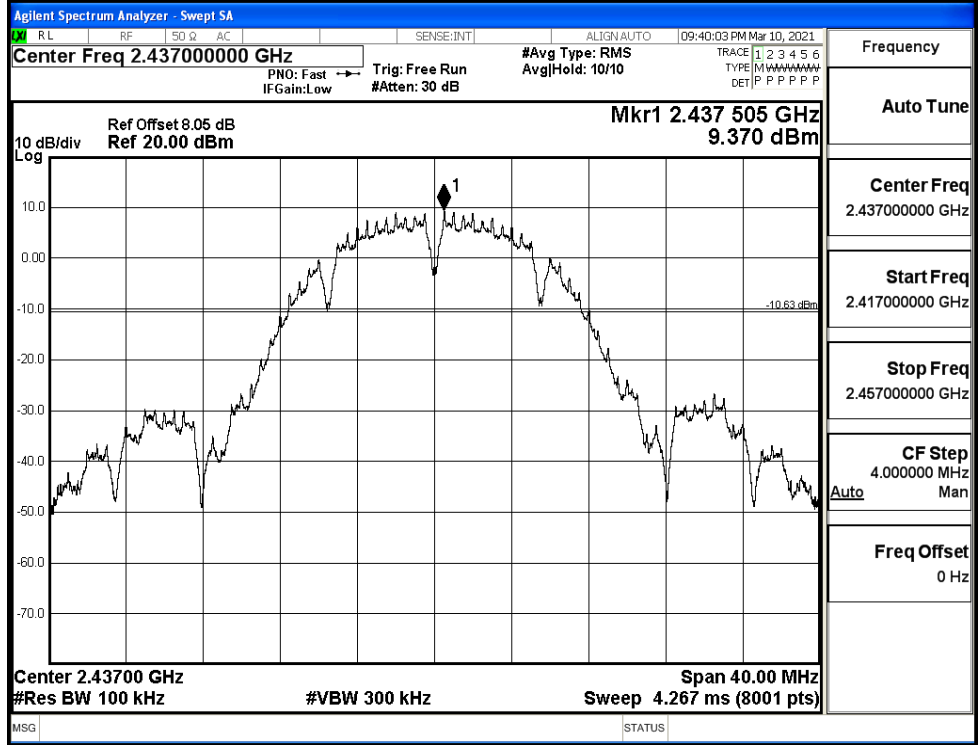


Puw/11B/LCH

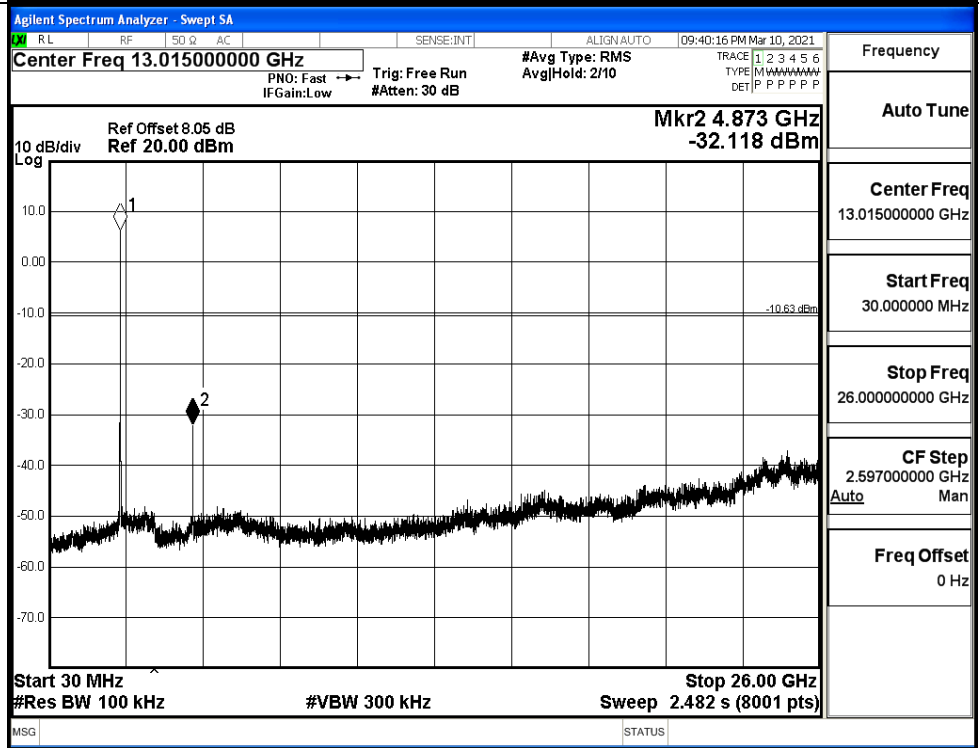


11B_MCH_Graphs

Pref/11B/MCH

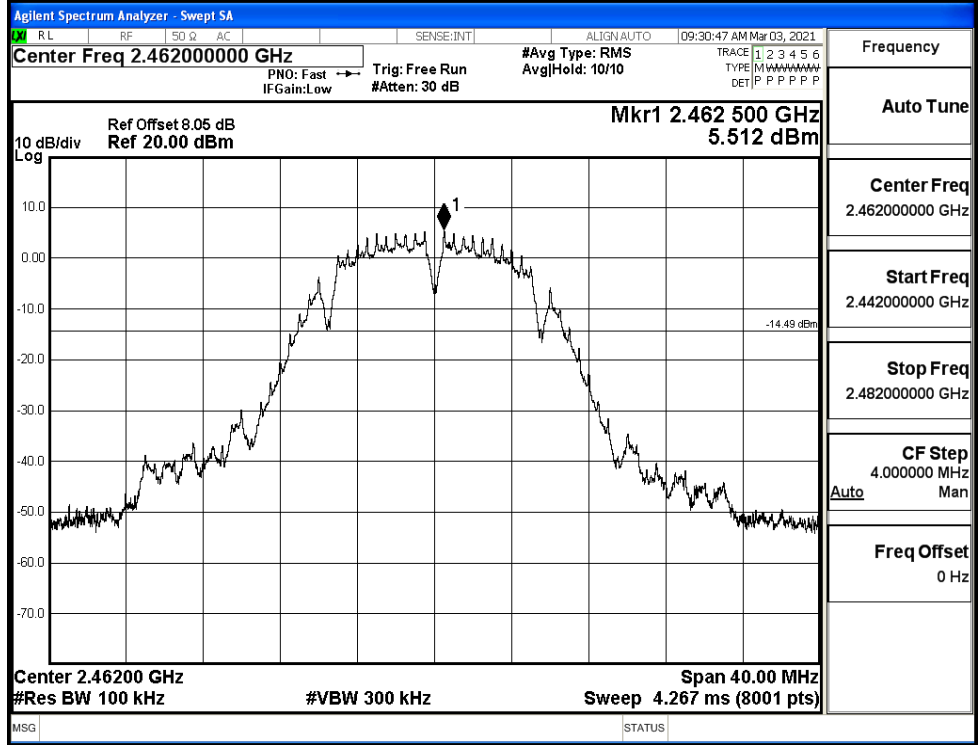


Puw/11B/MCH

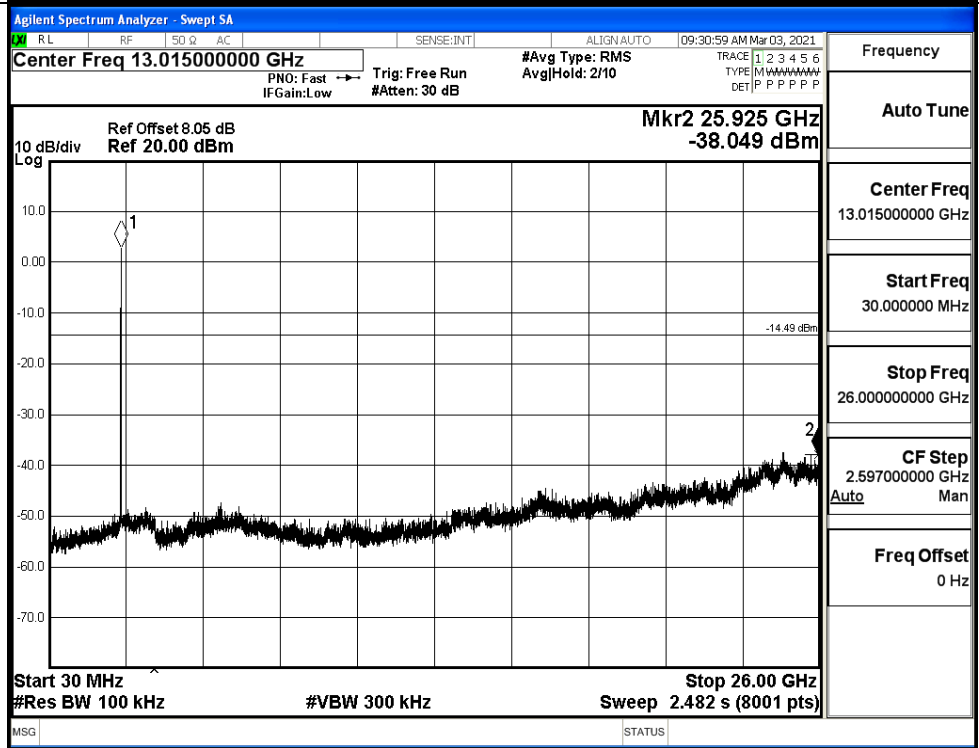


11B_HCH_Graphs

Pref/11B/HCH

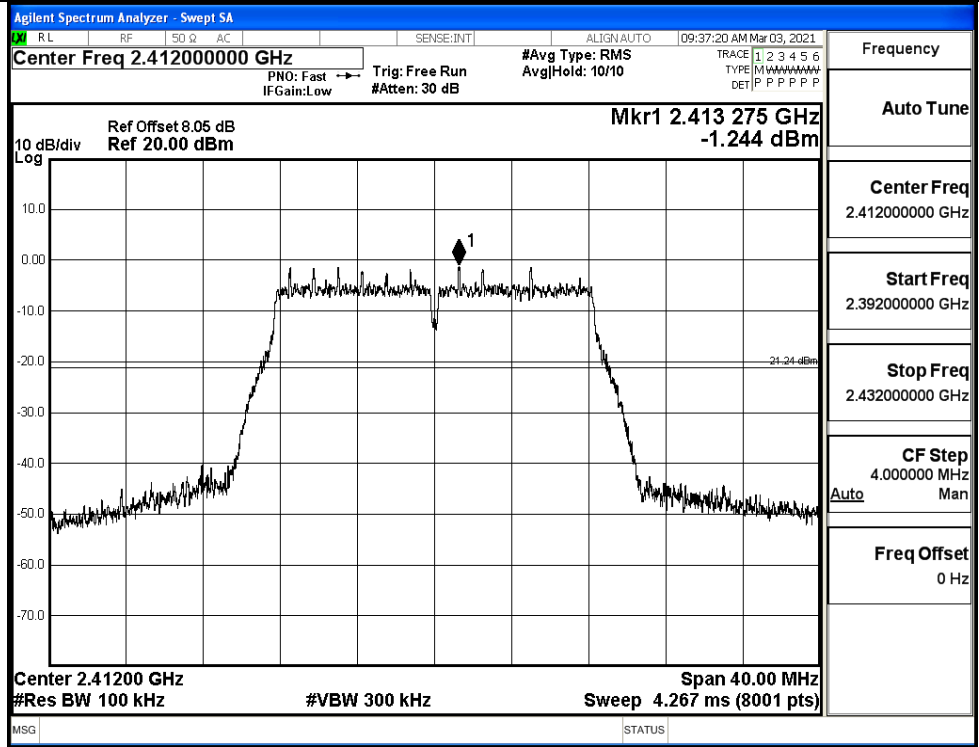


Puw/11B/HCH

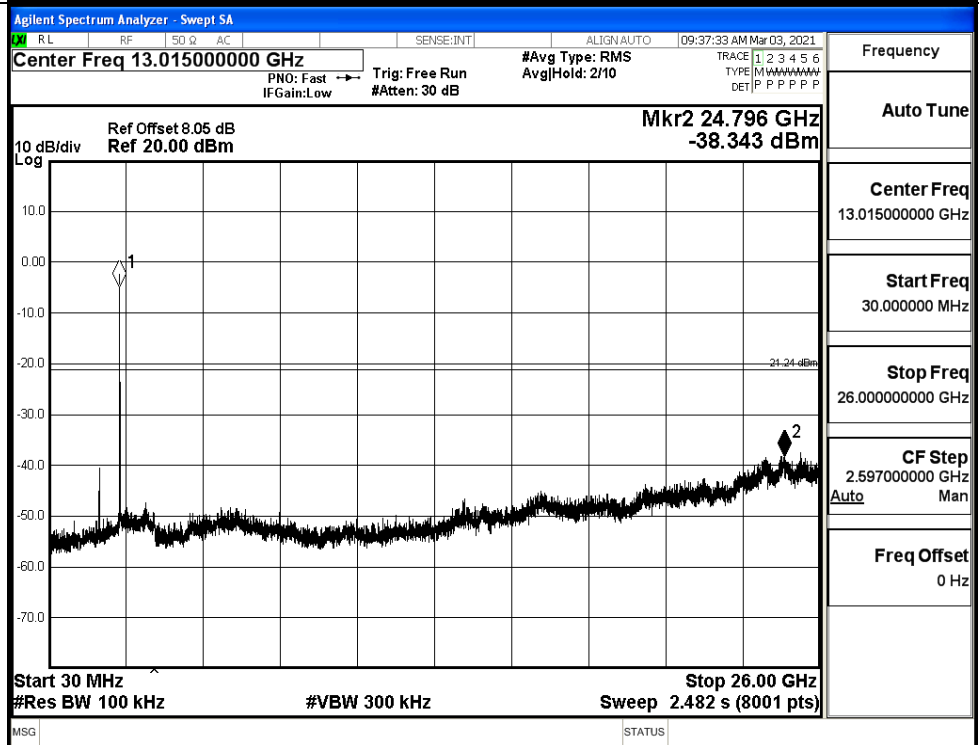


11G_LCH_Graphs

Pref/11G/LCH

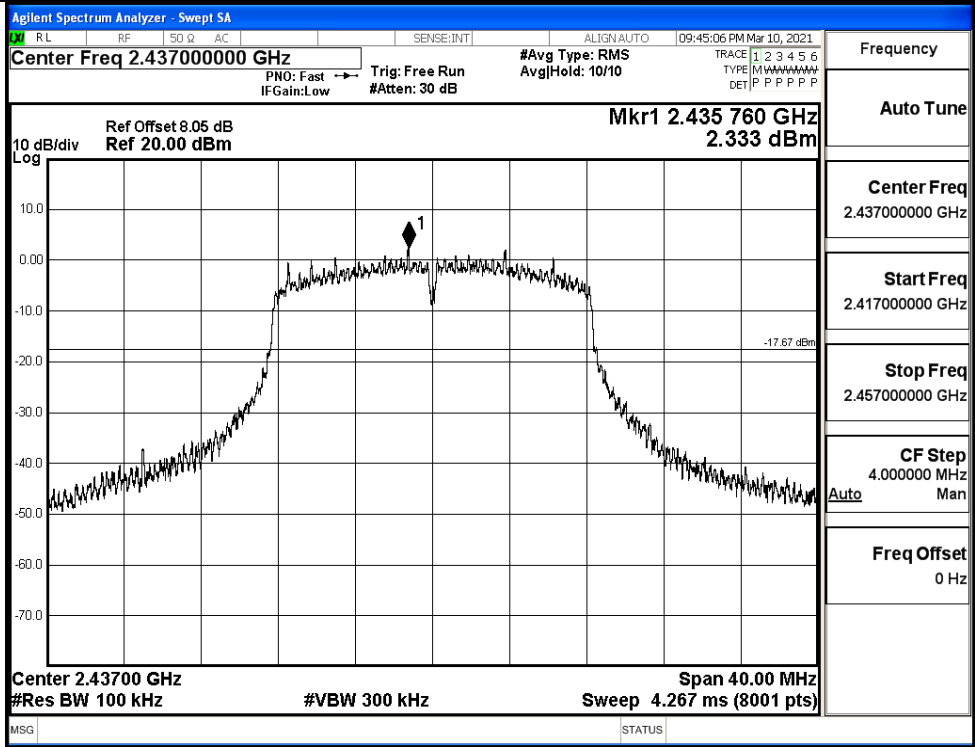


Puw/11G/LCH

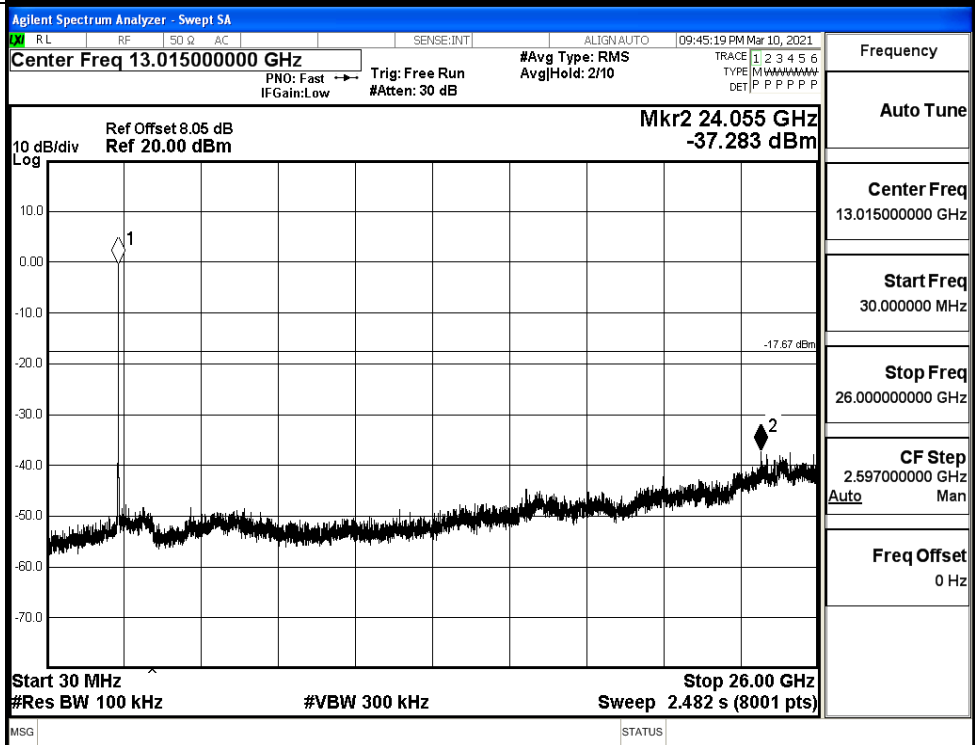


11G_MCH_Graphs

Pref/11G/MCH

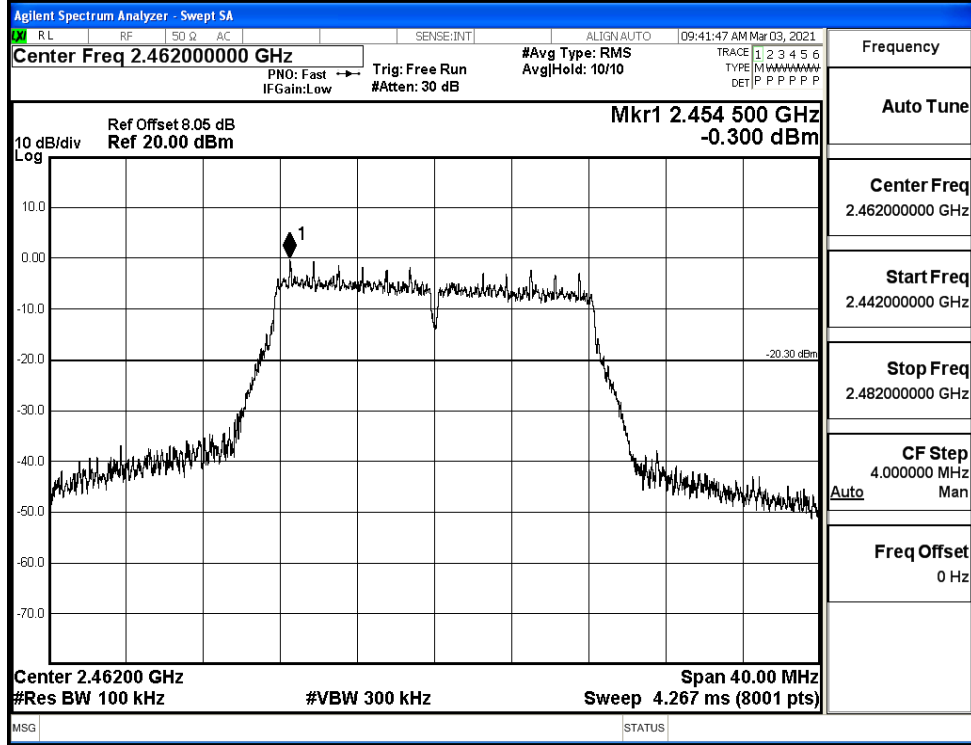


Puw/11G/MCH

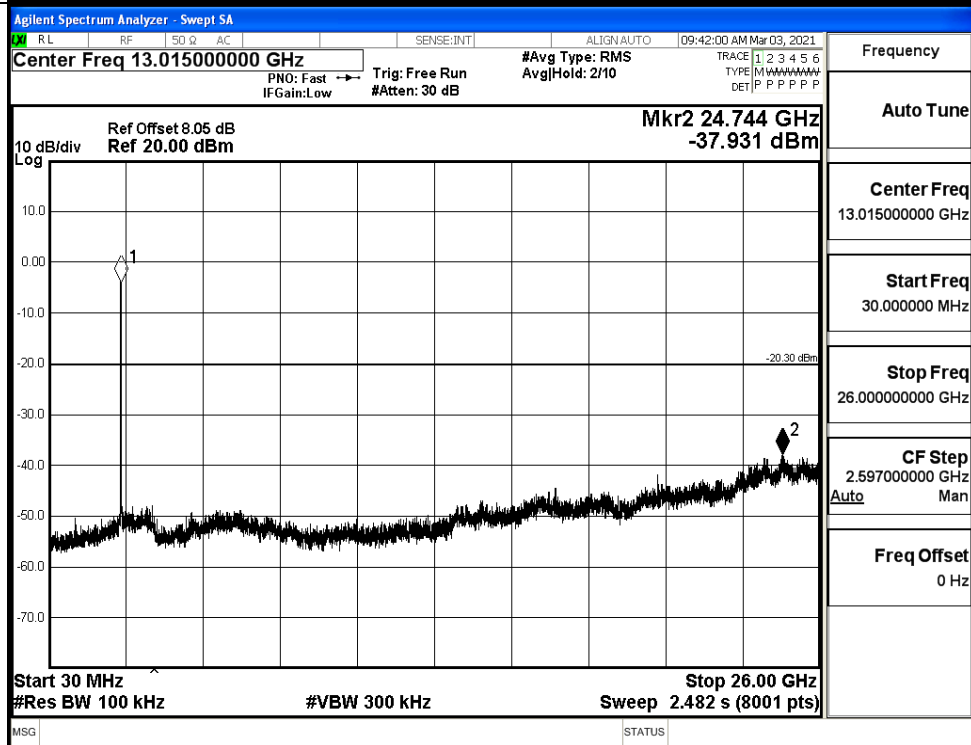


11G_HCH_Graphs

Pref/11G/HCH

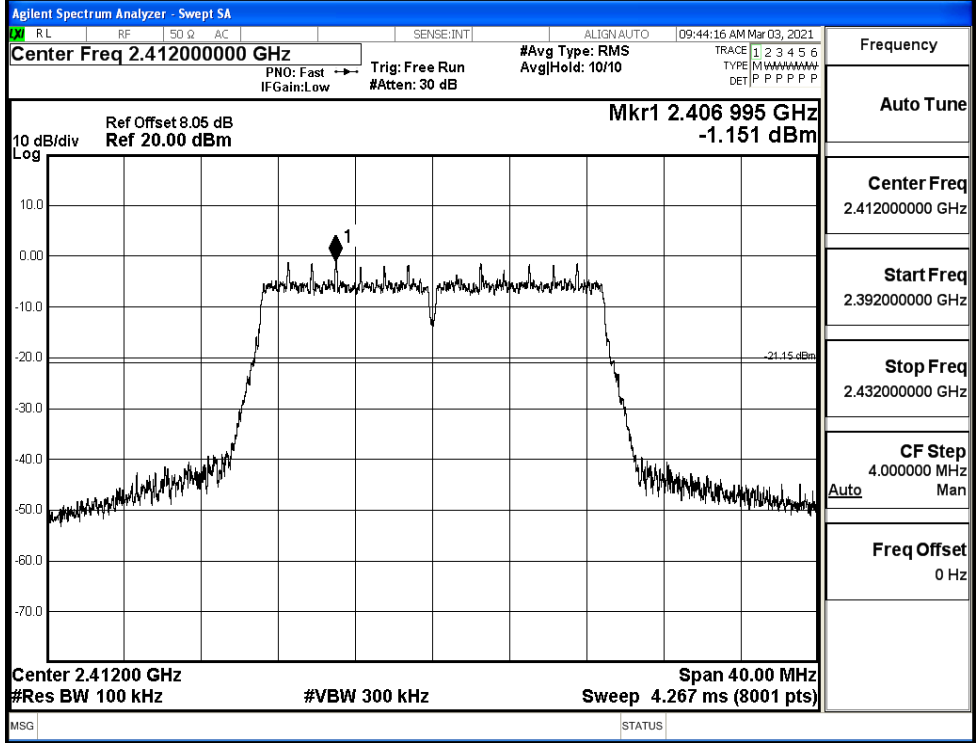


Puw/11G/HCH

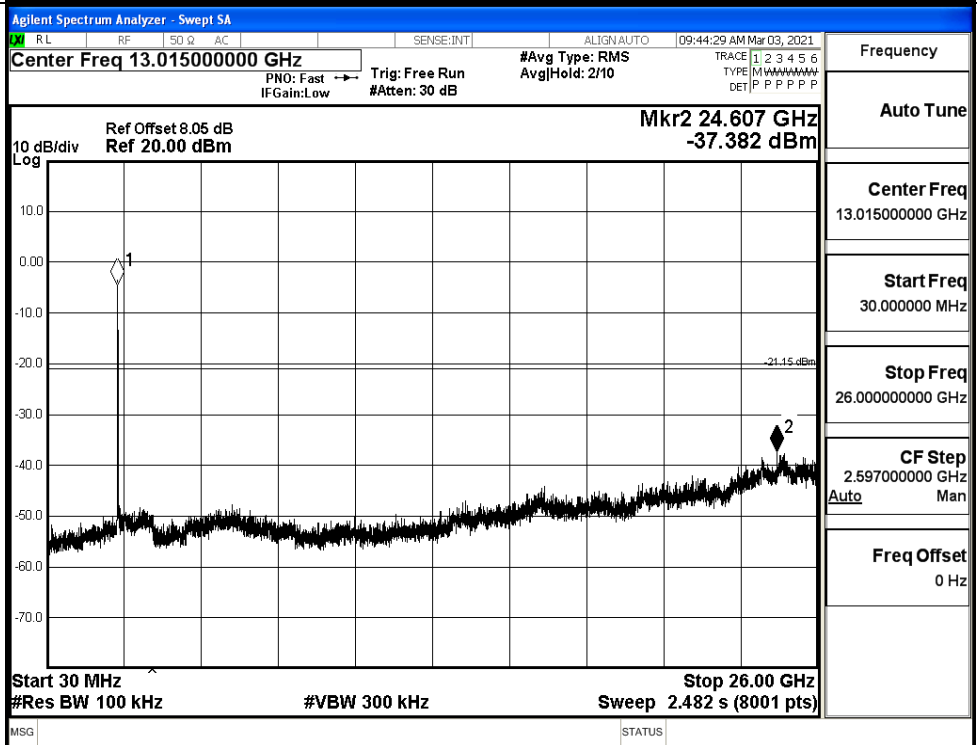


11N20SISO_LCH_Graphs

Pref/11N20SIS
O/LCH

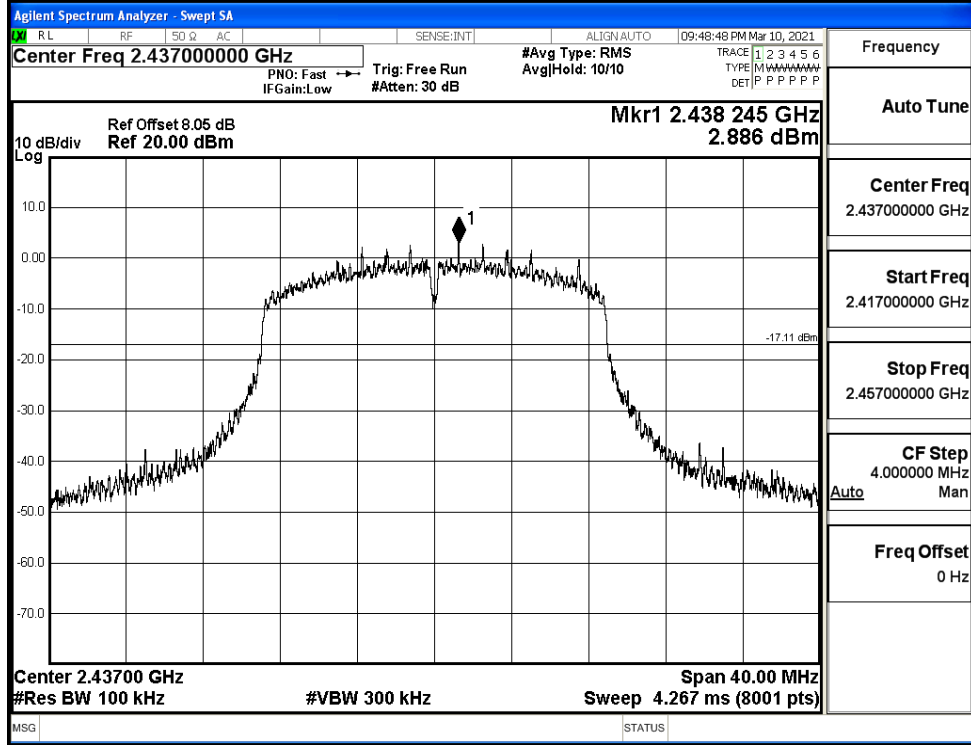


Puw/11N20
SISO/LCH

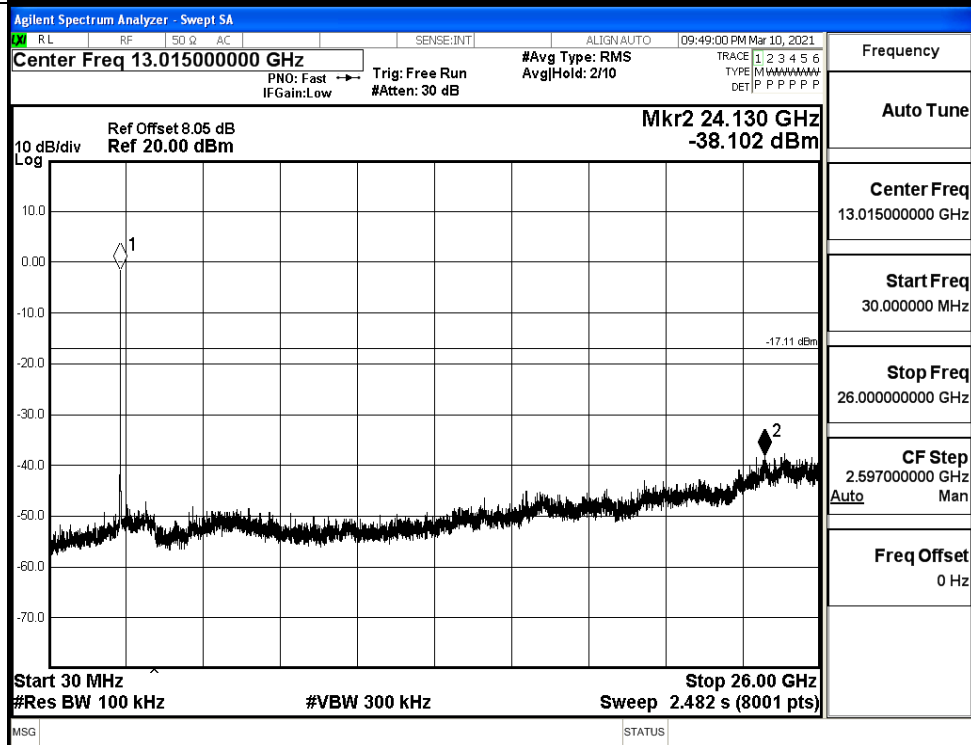


11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCH

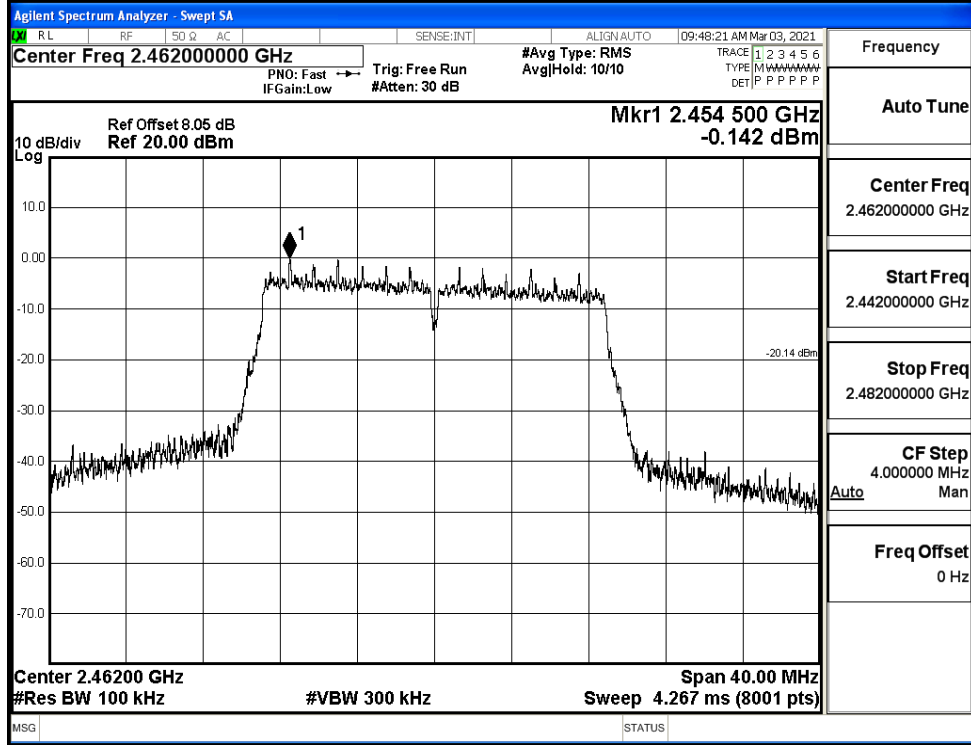


Puw/11N20
SISO/MCH

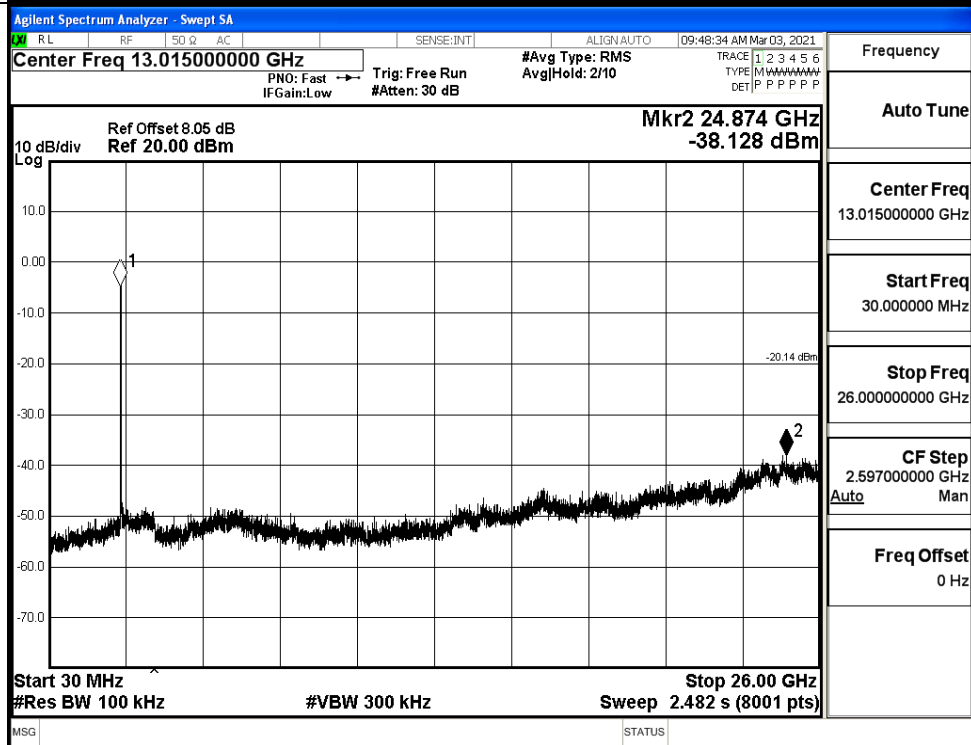


11N20SISO_HCH_Graphs

Pref/11N20
SISO/HCH

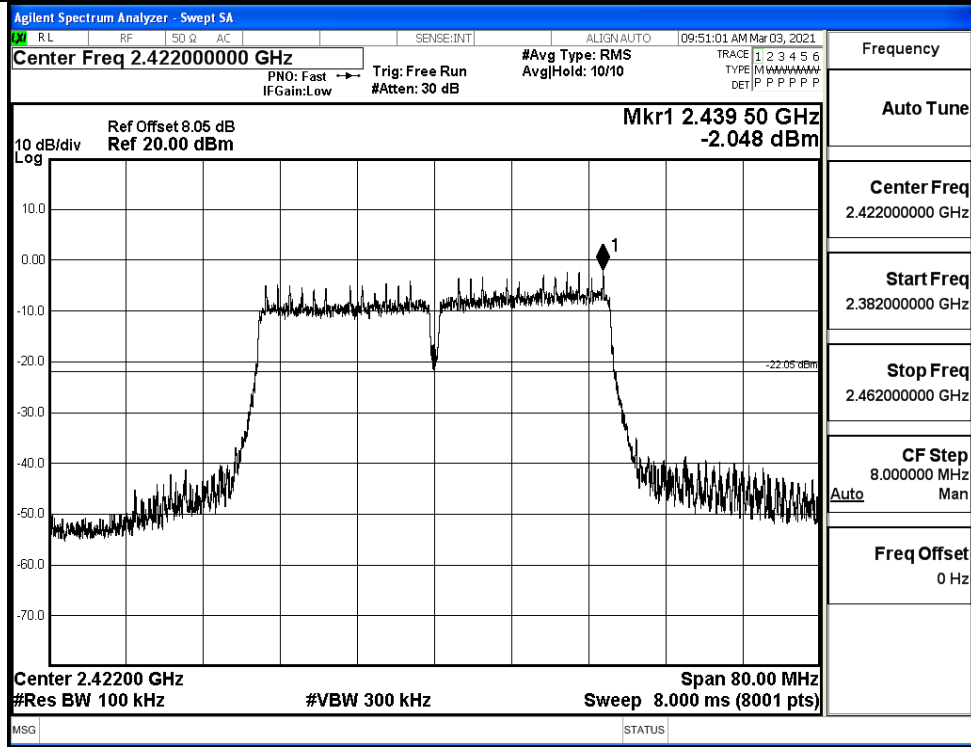


Puw/11N20
SISO/HCH

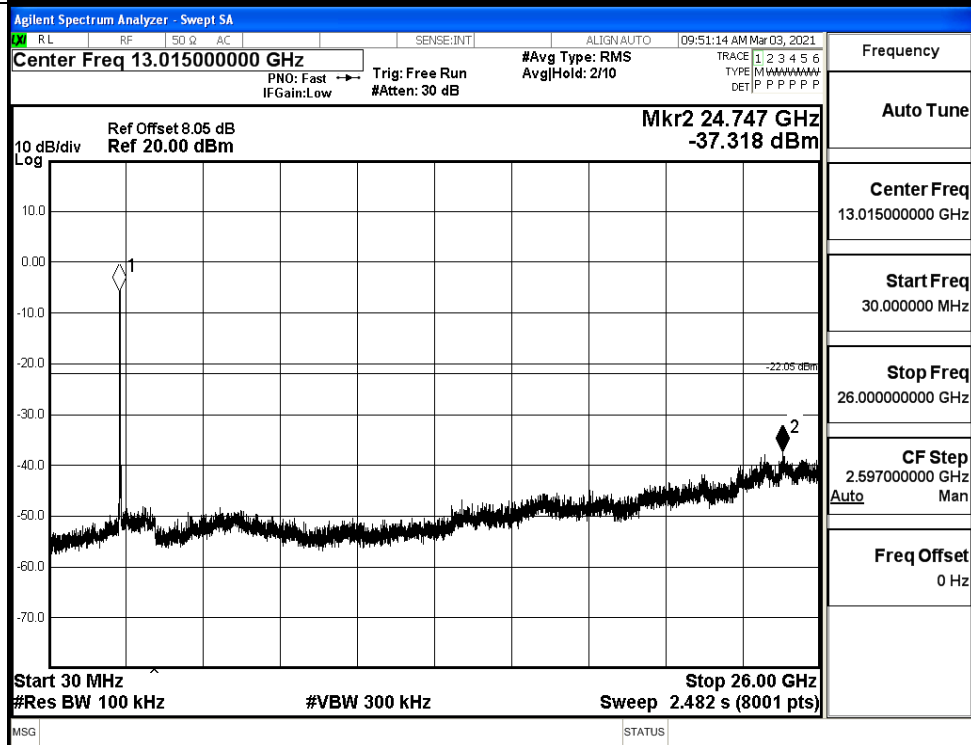


11N40SISO_LCH_Graphs

Pref/11N40
SISO/LCH

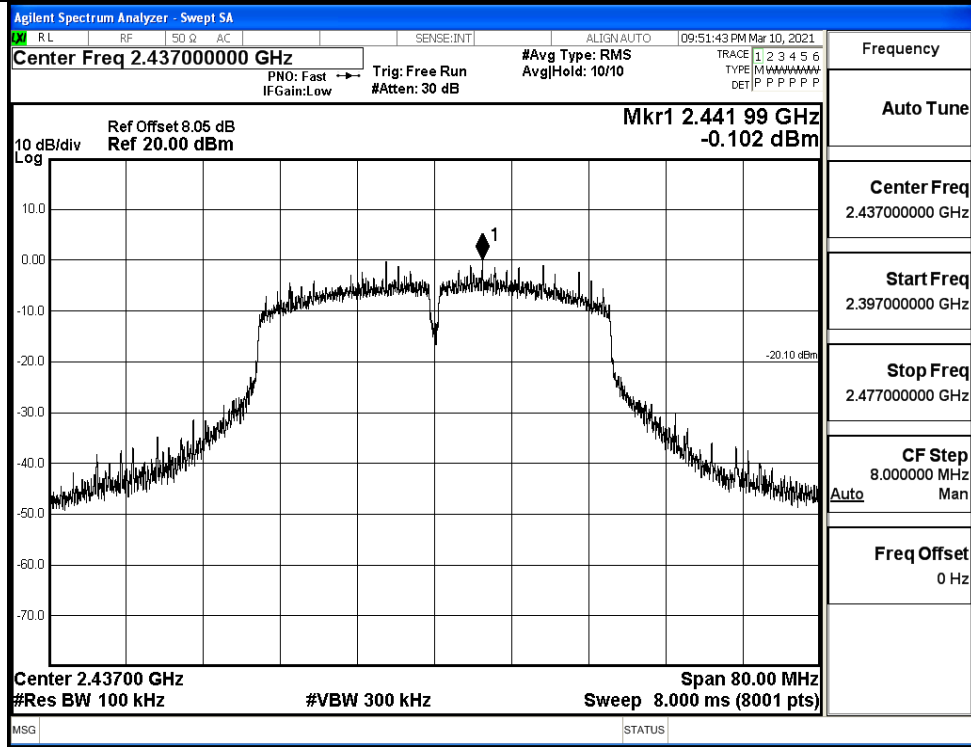


Puw/11N40
SISO/LCH

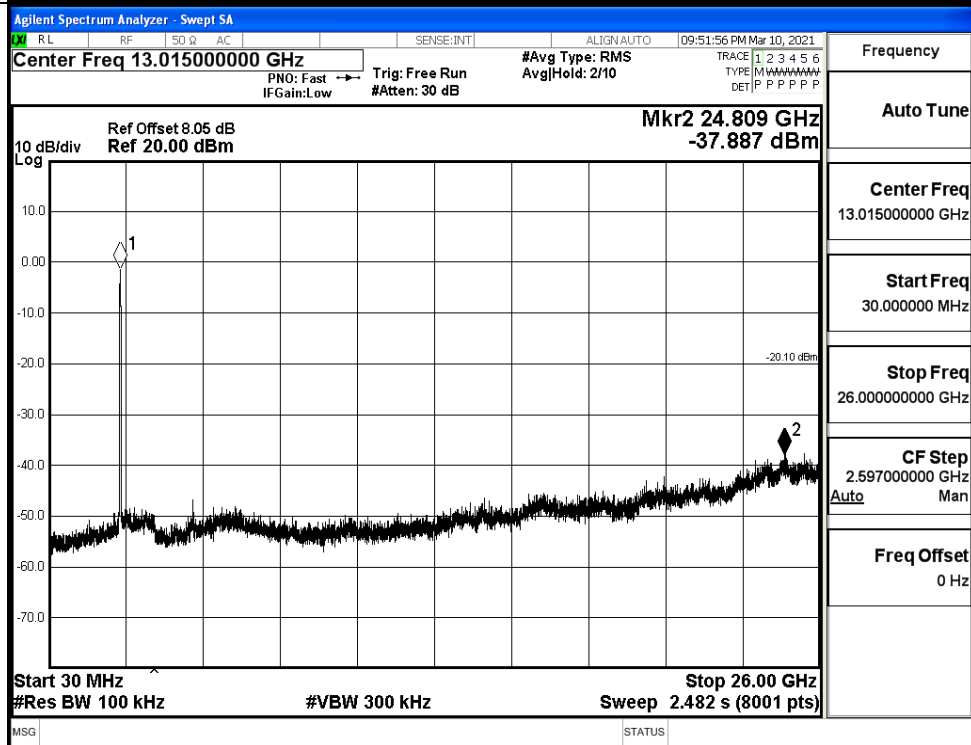


11N40SISO_MCH_Graphs

Pref/11N40
SISO/MCH

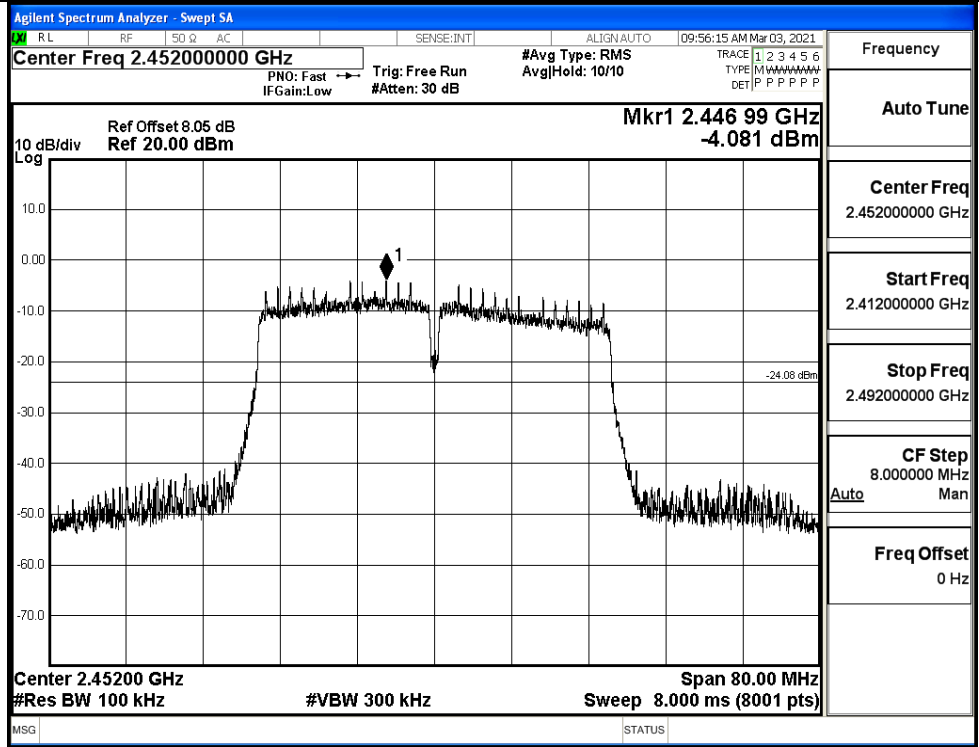


Puw/11N40
SISO/MCH

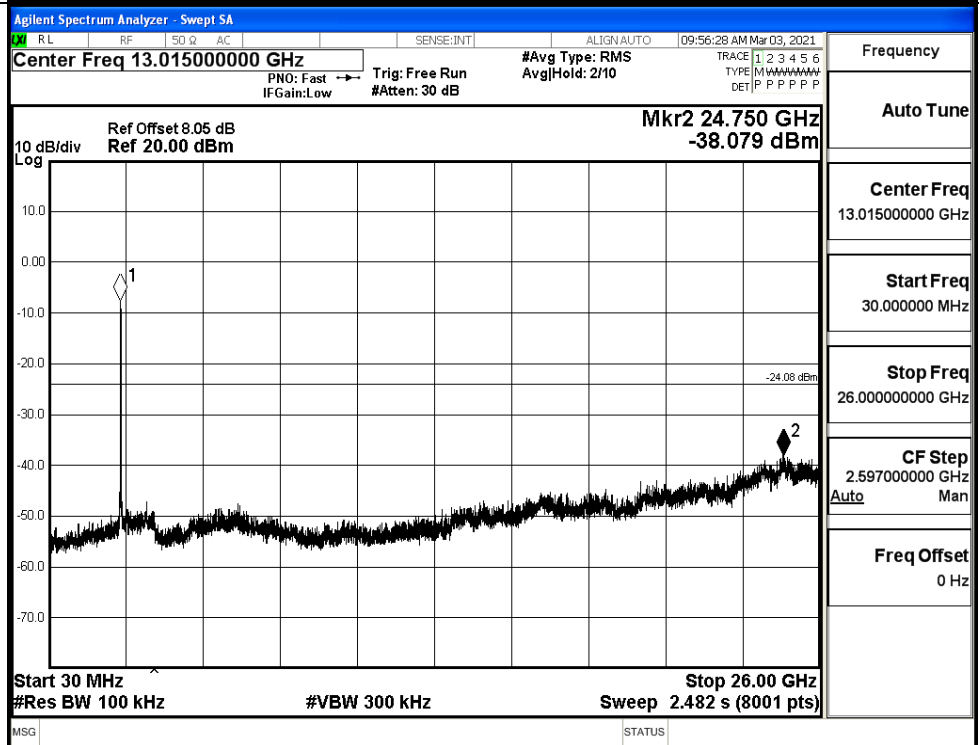


11N40SISO_HCH_Graphs

Pref/11N40
SISO/HCH



Puw/11N40
SISO/HCH

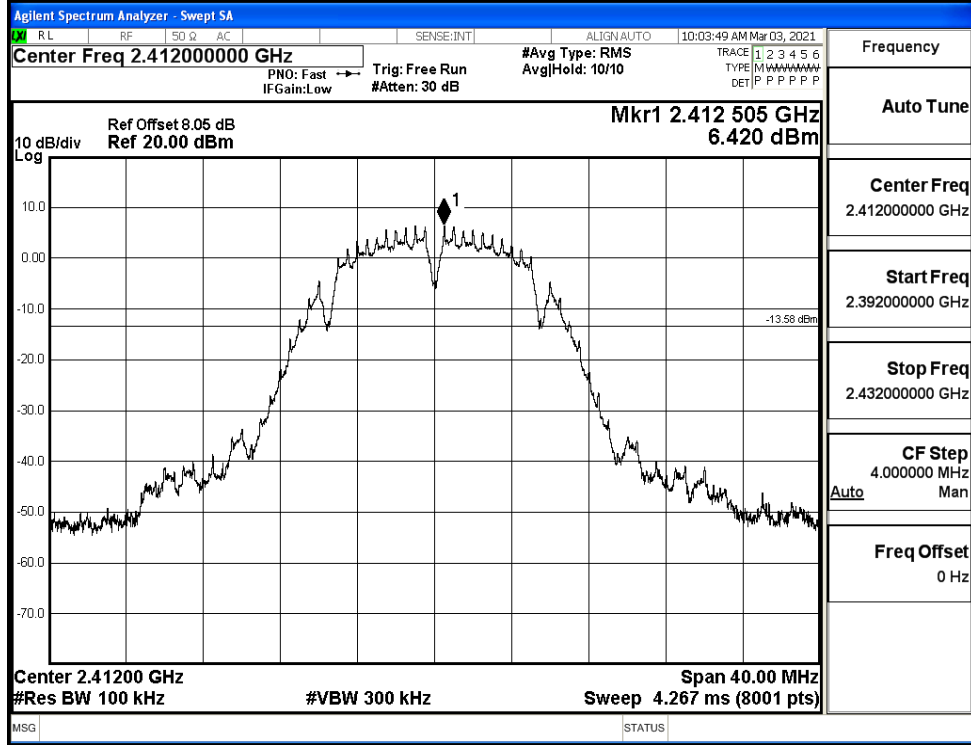


ANT 1

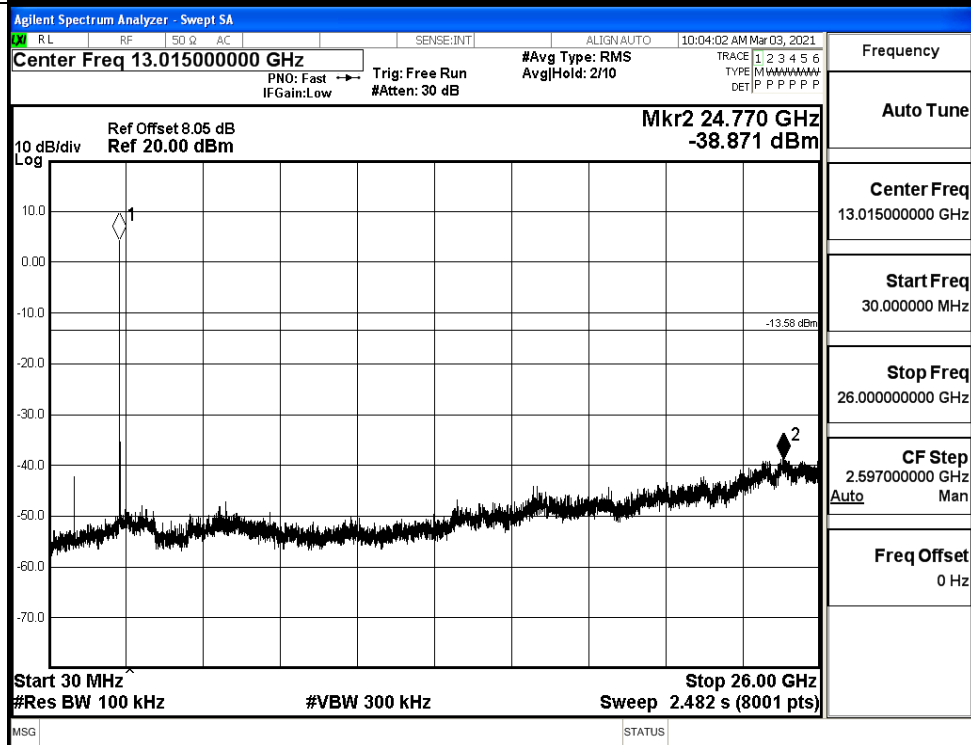
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	6.42	-38.871	-13.580	PASS
	MCH	8.778	-32.276	-11.222	PASS
	HCH	6.258	-37.188	-13.742	PASS
11G	LCH	-2.089	-38.569	-22.089	PASS
	MCH	2.785	-38.268	-17.215	PASS
	HCH	-0.991	-38.061	-20.991	PASS
11N20 SISO	LCH	-1.707	-37.615	-21.707	PASS
	MCH	3.469	-36.664	-16.531	PASS
	HCH	-1.234	-38.364	-21.234	PASS
11N40 SISO	LCH	-3.178	-37.678	-23.178	PASS
	MCH	-0.169	-38.605	-20.169	PASS
	HCH	-3.512	-38.266	-23.512	PASS

11B_LCH_Graphs

Pref/11B/LCH

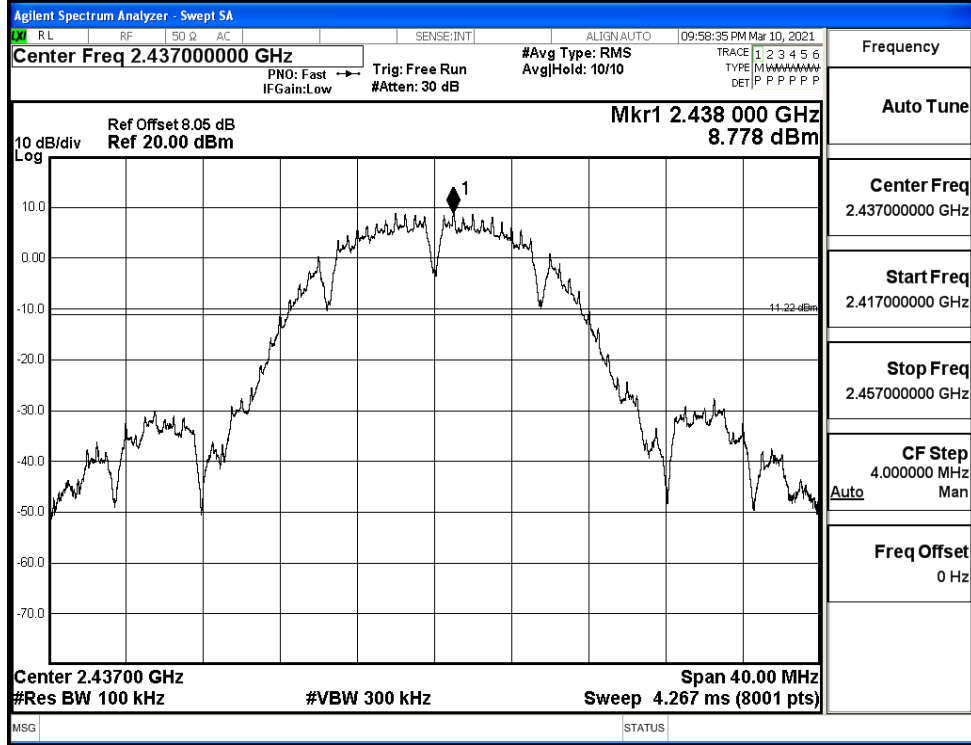


Puw/11B/LCH

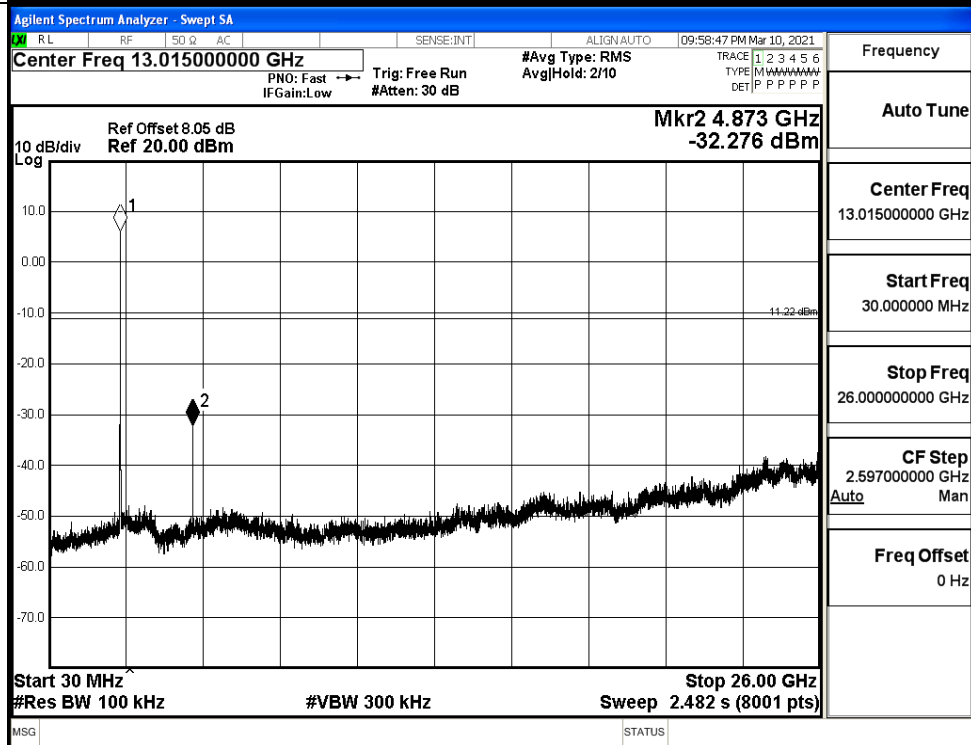


11B_MCH_Graphs

Pref/11B/MCH

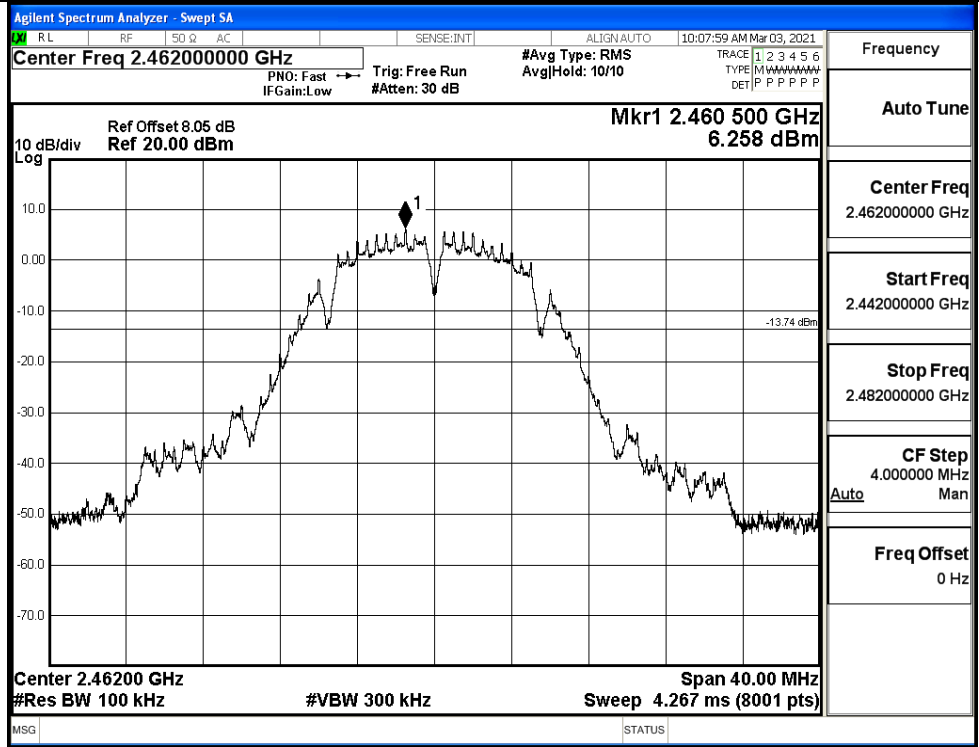


Puw/11B/MCH

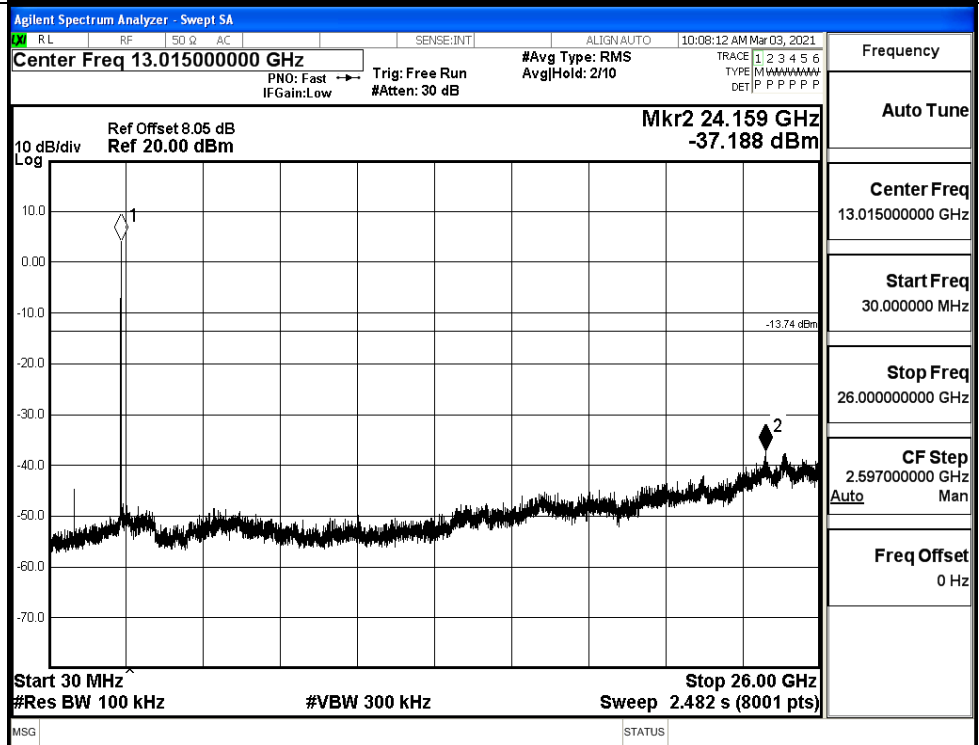


11B_HCH_Graphs

Pref/11B/HCH

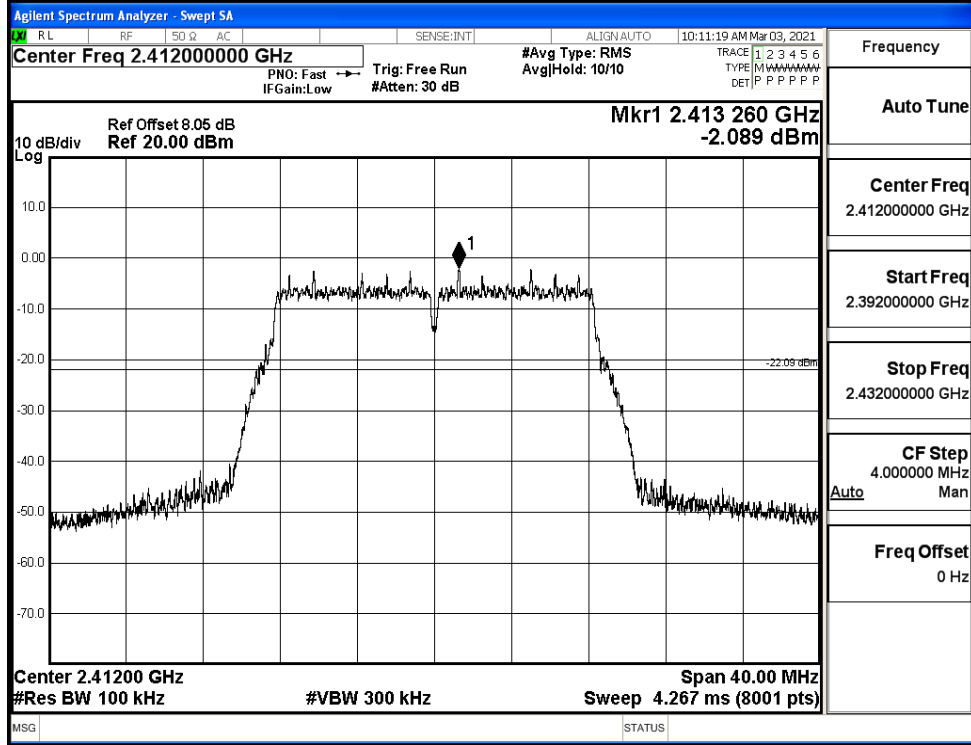


Puw/11B/HCH



11G_LCH_Graphs

Pref/11G/LCH



Puw/11G/LCH

