

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Vivi Wireless Presentation

Trade Mark: Vivi

Test Model: VWP-200-16

Environmental Conditions

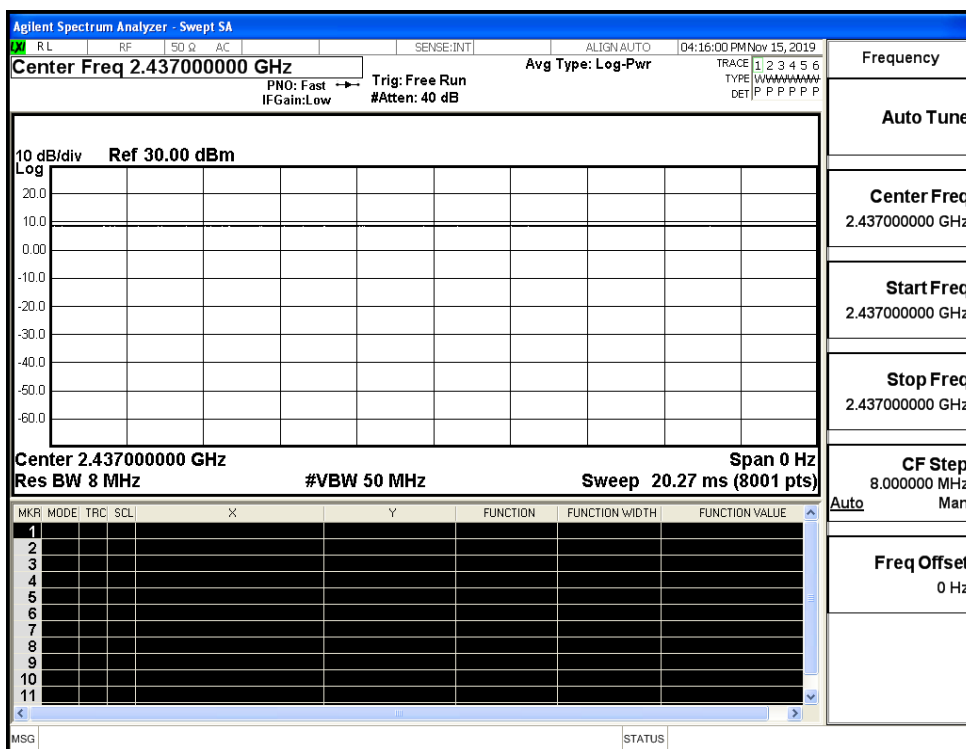
Temperature:	23.9°C
Relative Humidity:	53.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Wang Chuang

C.1 Duty Cycle

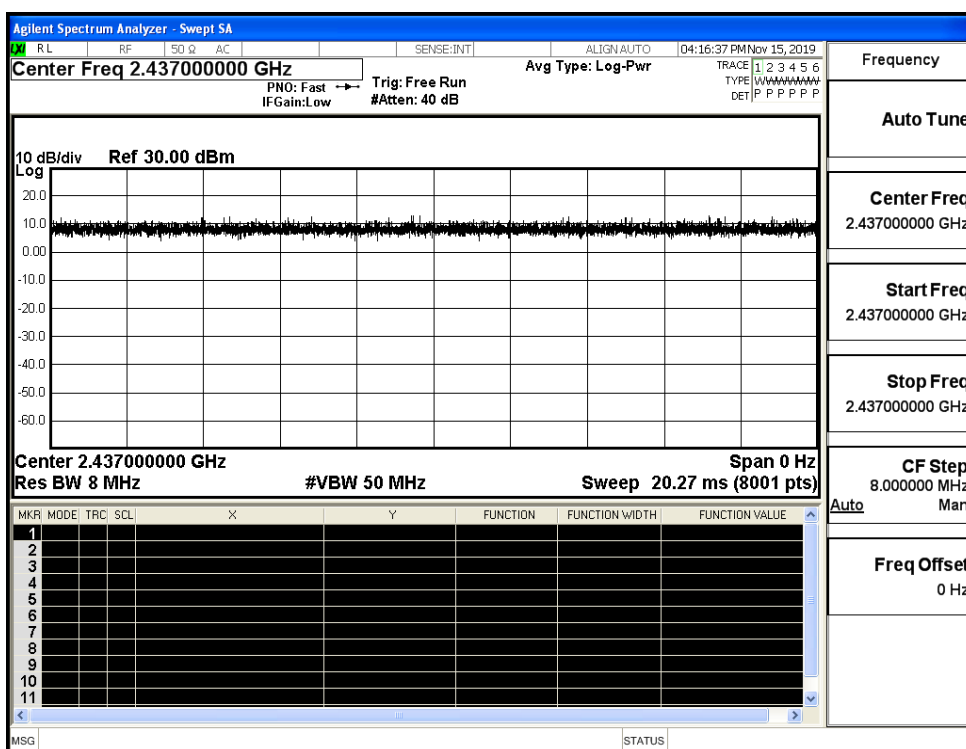
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant_0	100	PASS
11G	2437	Ant_0	100	PASS
11N20	2437	Ant_0	100	PASS
11N40	2437	Ant_0	100	PASS

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant_1	100	PASS
11G	2437	Ant_1	100	PASS
11N20	2437	Ant_1	100	PASS
11N40	2437	Ant_1	100	PASS

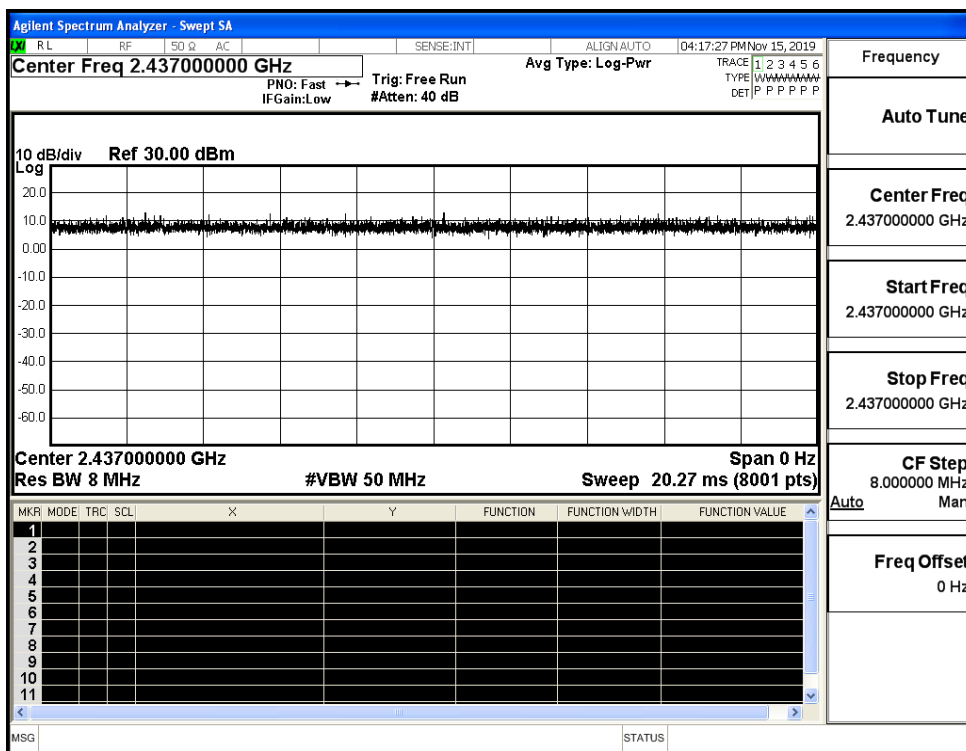
Duty Cycle_11B_2437_Ant_0



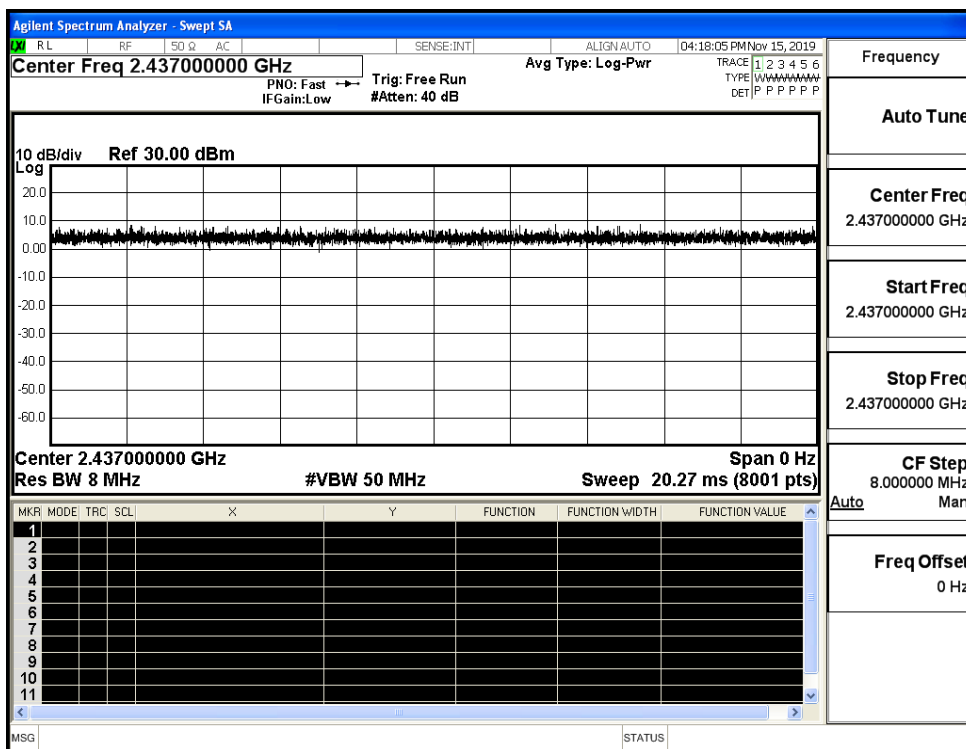
Duty Cycle_11G_2437_Ant_0



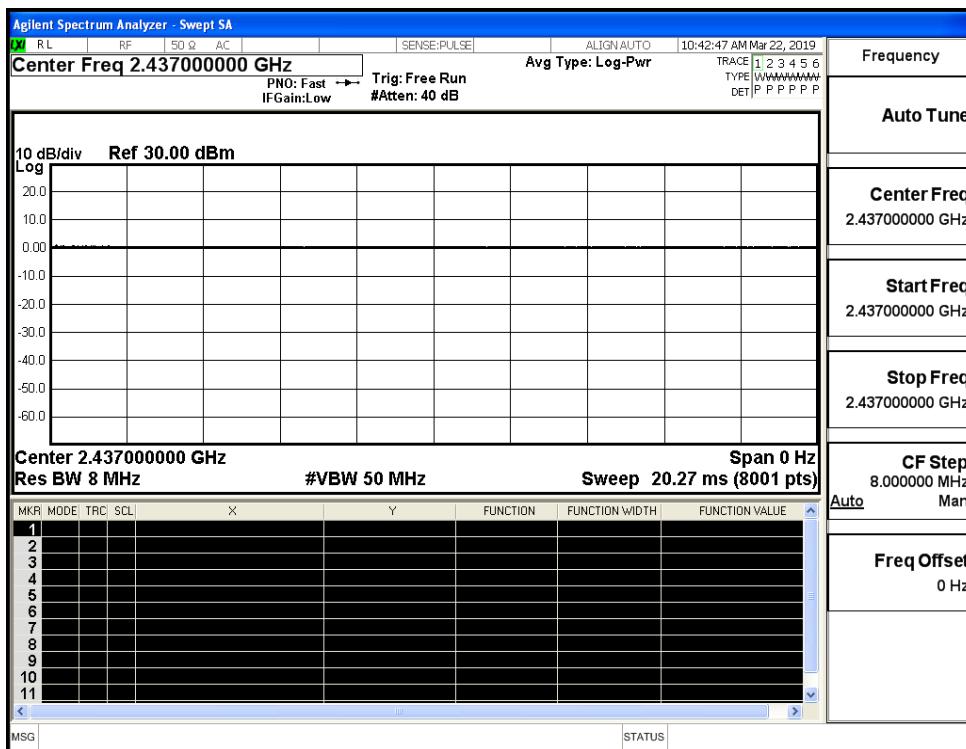
Duty Cycle_11N20_2437_Ant_0



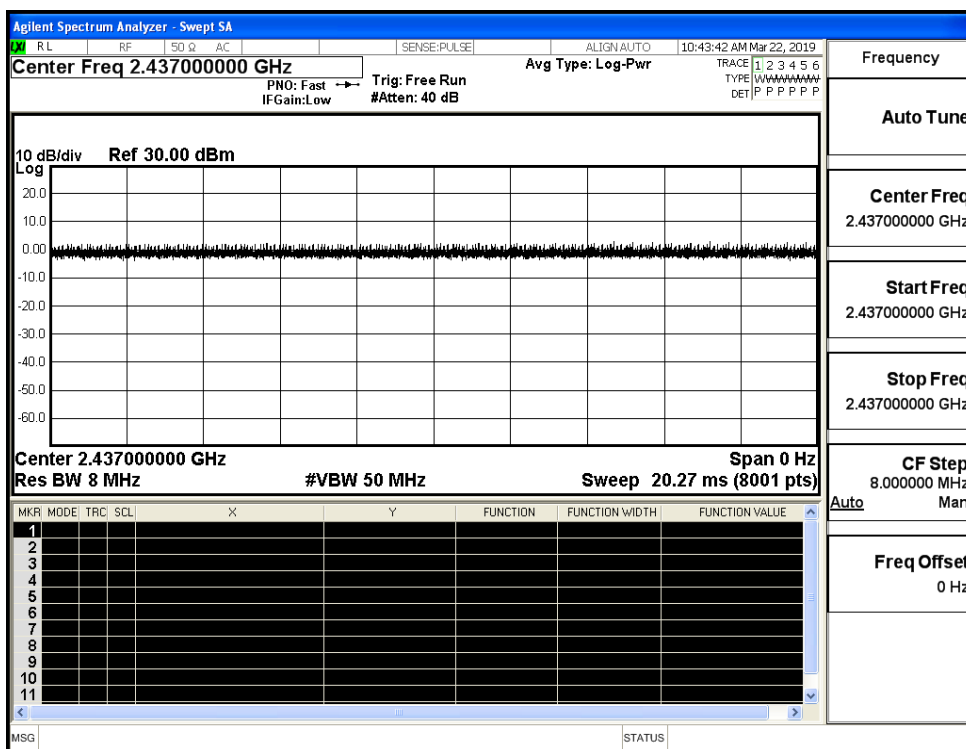
Duty Cycle_11N40_2437_Ant_0



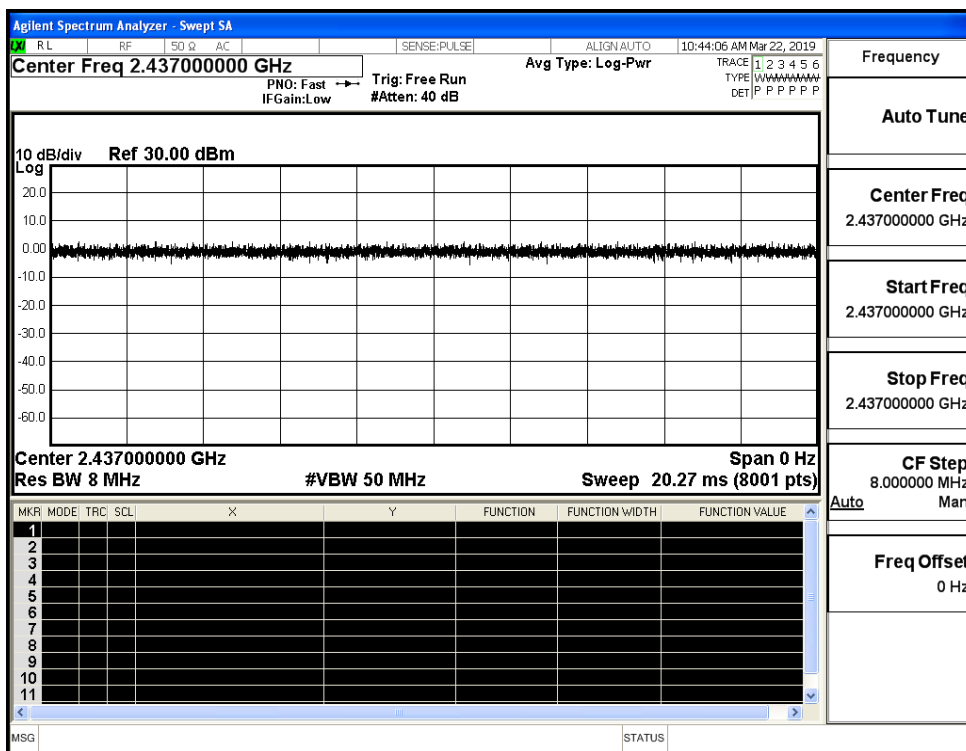
Duty Cycle_11B_2437_Ant_1



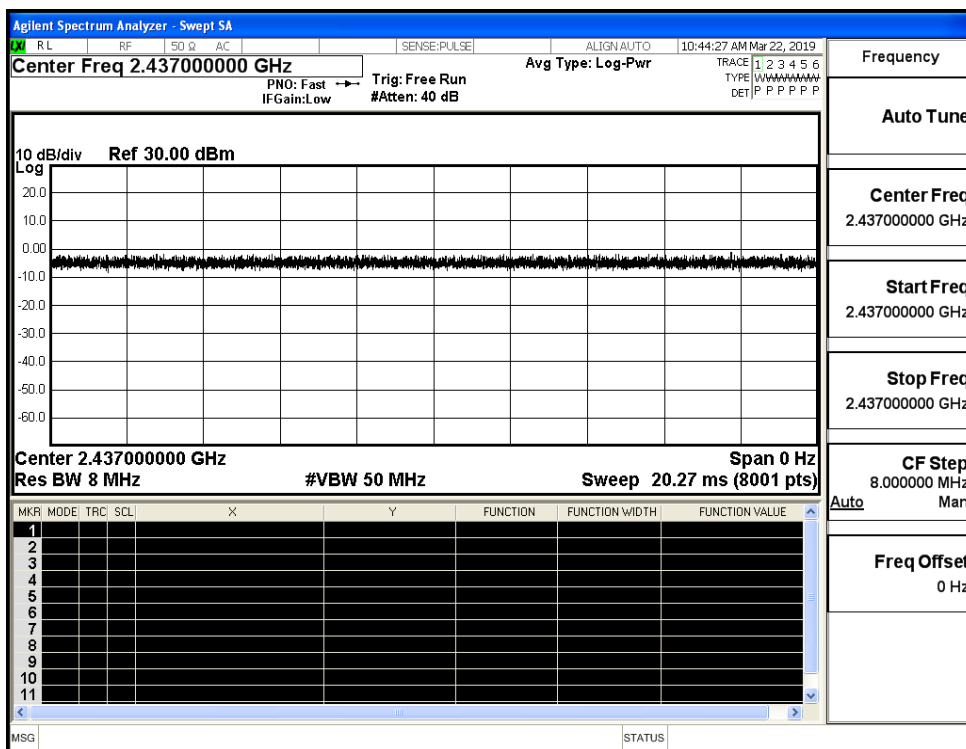
Duty Cycle_11G_2437_Ant_1



Duty Cycle_11N20_2437_Ant_1



Duty Cycle_11N40_2437_Ant_1



C.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]			Limit [dBm]	Verdict
		Ant_0	Ant_1	Sum		
11B	LCH	15	8.16	/	30	PASS
	MCH	15.12	7.74	/	30	PASS
	HCH	14.25	7.57	/	30	PASS
11G	LCH	15.08	9.42	/	30	PASS
	MCH	15.11	10.73	/	30	PASS
	HCH	14.3	10.51	/	30	PASS
11N20	LCH	13.86	9.39	15.19	29.99	PASS
	MCH	14.04	10.85	15.74	29.99	PASS
	HCH	13.32	10.82	15.26	29.99	PASS
11N40	LCH	14.21	11.31	16.01	29.99	PASS
	MCH	14.09	10.78	15.75	29.99	PASS
	HCH	13.38	10.5	15.18	29.99	PASS

C.3 Maximum Power Spectral Density**Ant_0**

Mode	Channel	Meas.Level [dBm/30KHz]	Convert Factor	Result [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-0.056	-10	-10.056	8	PASS
	MCH	-0.034	-10	-10.034	8	PASS
	HCH	-0.779	-10	-10.779	8	PASS
11G	LCH	-7.278	-10	-17.278	8	PASS
	MCH	-8.972	-10	-18.972	8	PASS
	HCH	-8.222	-10	-18.222	8	PASS
11N20	LCH	-8.938	-10	-18.938	8	PASS
	MCH	-9.517	-10	-19.517	8	PASS
	HCH	-9.357	-10	-19.357	8	PASS
11N40	LCH	-10.737	-10	-20.737	8	PASS
	MCH	-13.436	-10	-23.436	8	PASS
	HCH	-10.497	-10	-20.497	8	PASS

***Note: The Convert Factor = $10 \cdot \log(3\text{KHz}/30\text{KHz}) = -10$

Ant_1

Mode	Channel	Meas.Level [dBm/30KHz]	Convert Factor	Result [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-3.369	-10	-13.369	8	PASS
	MCH	-3.979	-10	-13.979	8	PASS
	HCH	-7.912	-10	-17.912	8	PASS
11G	LCH	-13.257	-10	-23.257	8	PASS
	MCH	-12.073	-10	-22.073	8	PASS
	HCH	-12.331	-10	-22.331	8	PASS
11N20	LCH	-12.963	-10	-22.963	8	PASS
	MCH	-12.419	-10	-22.419	8	PASS
	HCH	-10.772	-10	-20.772	8	PASS
11N40	LCH	-14.239	-10	-24.239	8	PASS
	MCH	-15.004	-10	-25.004	8	PASS
	HCH	-14.622	-10	-24.622	8	PASS

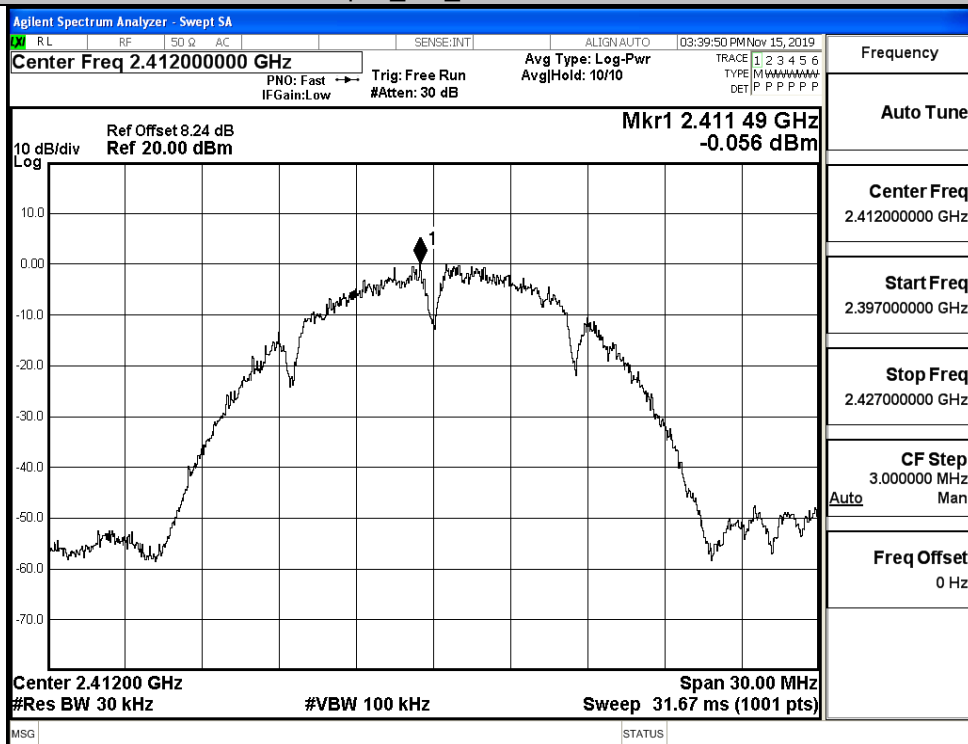
***Note: The Convert Factor = $10 \cdot \log(3\text{KHz}/30\text{KHz}) = -10$

Combined Ant_0 and Ant_1

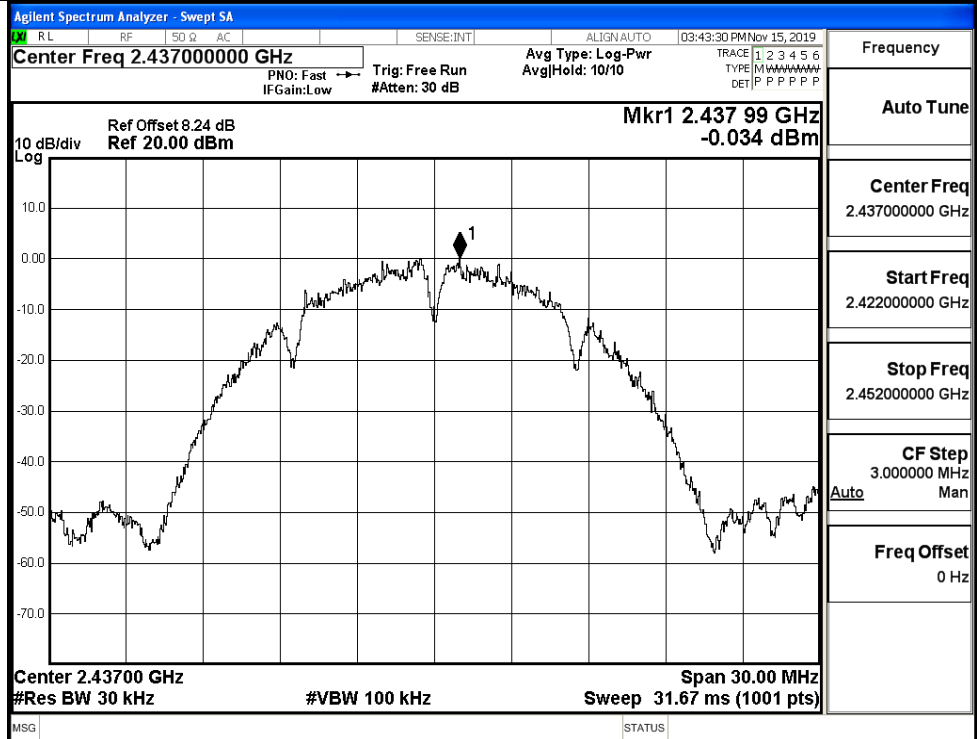
Mode	Channel	Result [dBm/3KHz]			Limit [dBm/3KHz]	Verdict
		Ant_0	Ant_1	Sum		
11N20	LCH	-18.938	-22.963	-17.490	7.99	PASS
	MCH	-19.517	-22.419	-17.720	7.99	PASS
	HCH	-19.357	-20.772	-16.997	7.99	PASS
11N40	LCH	-20.737	-24.239	-19.134	7.99	PASS
	MCH	-23.436	-25.004	-21.139	7.99	PASS
	HCH	-20.497	-24.622	-19.077	7.99	PASS

Test Graphs_Ant_0

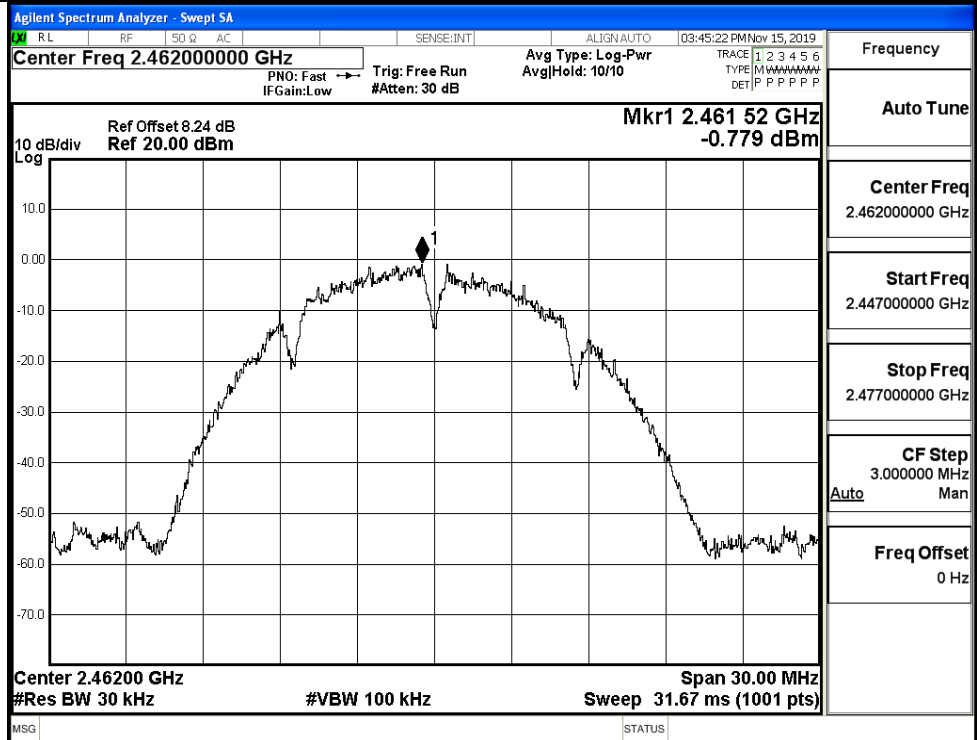
11B/LCH



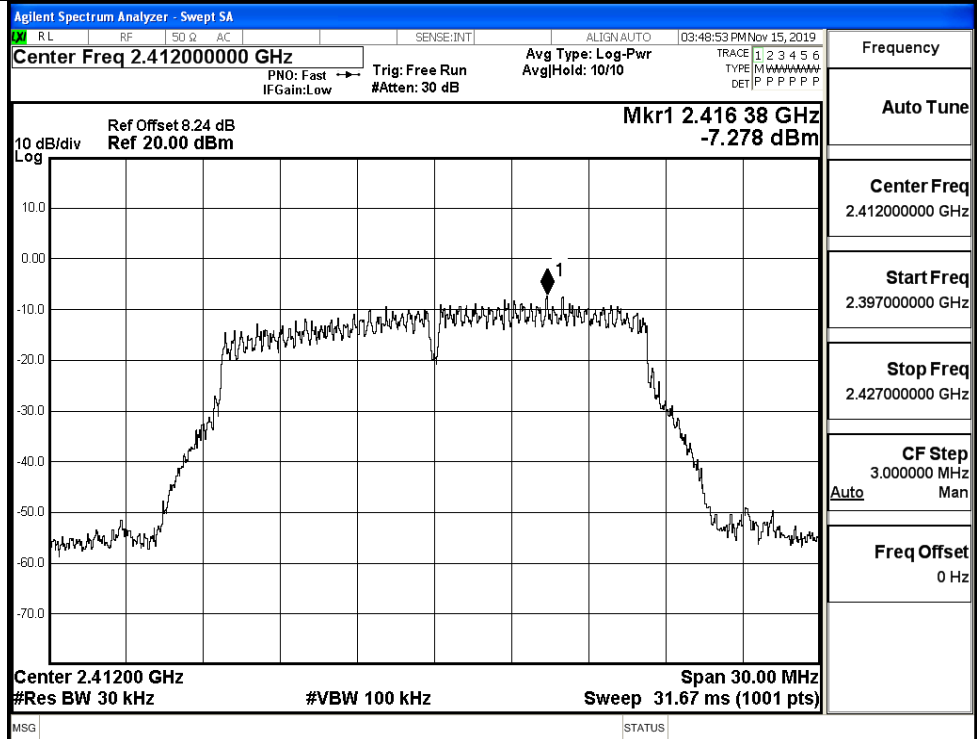
11B/MCH



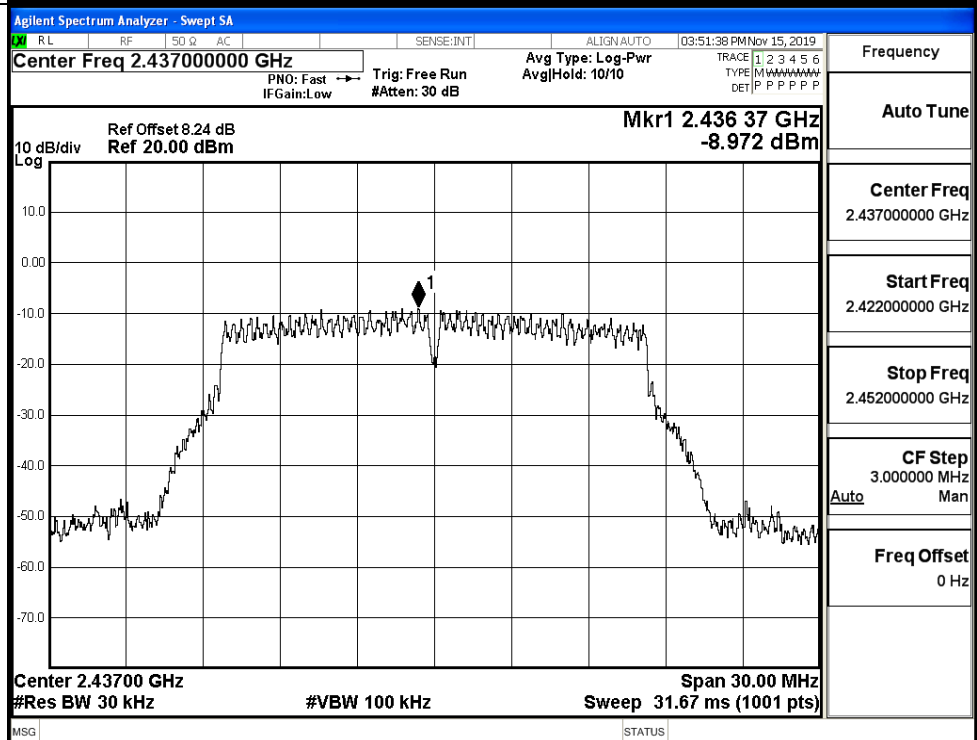
11B/HCH



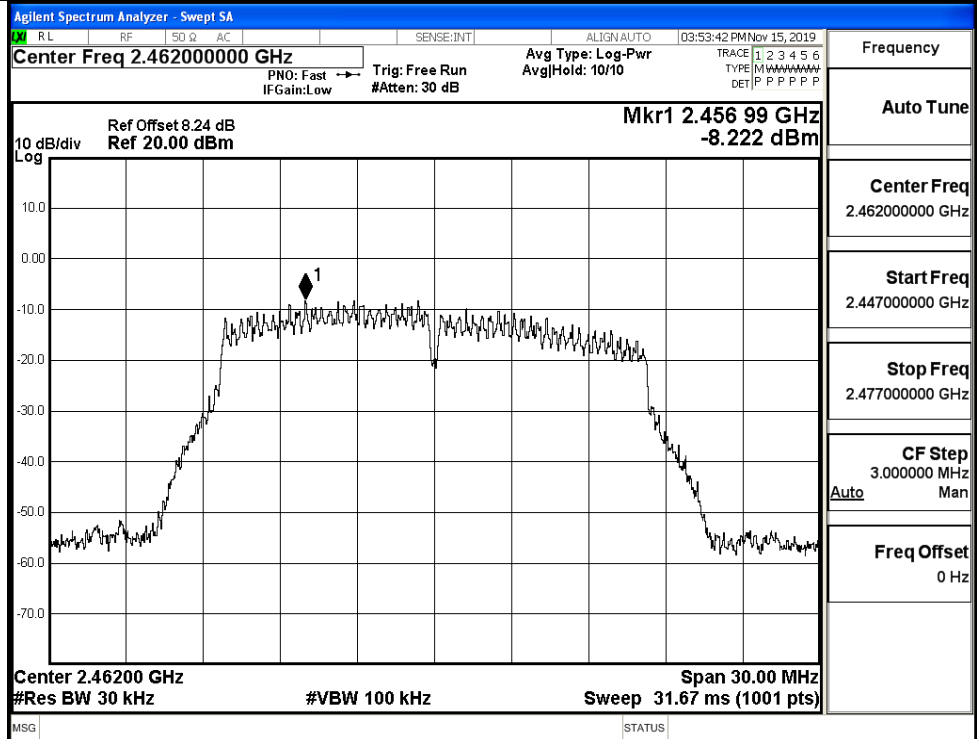
11G/LCH



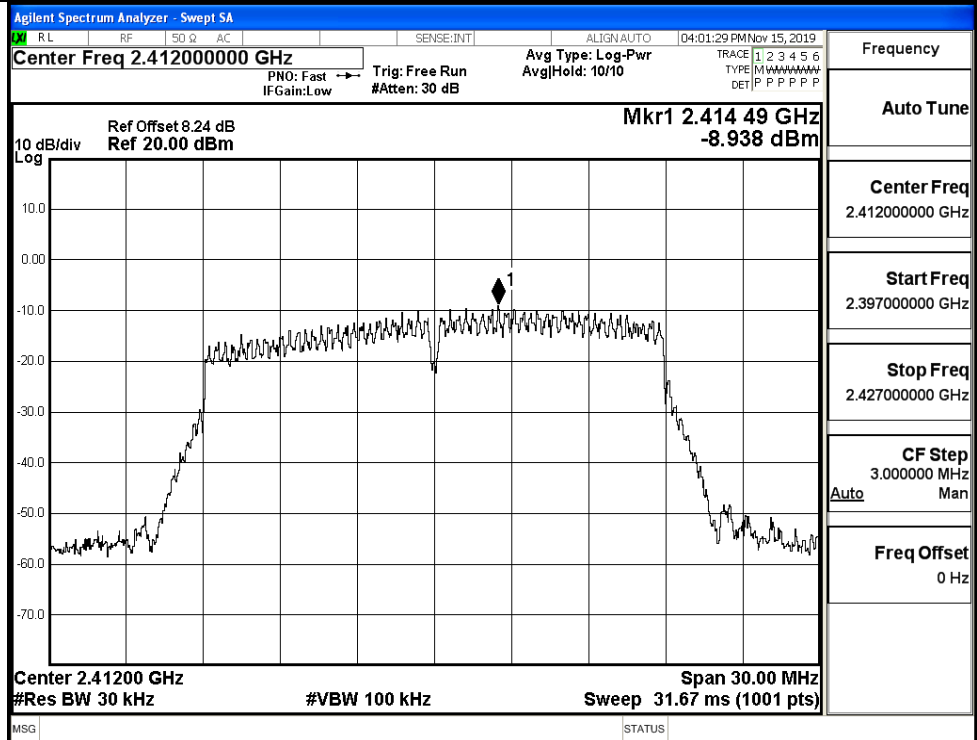
11G/MCH



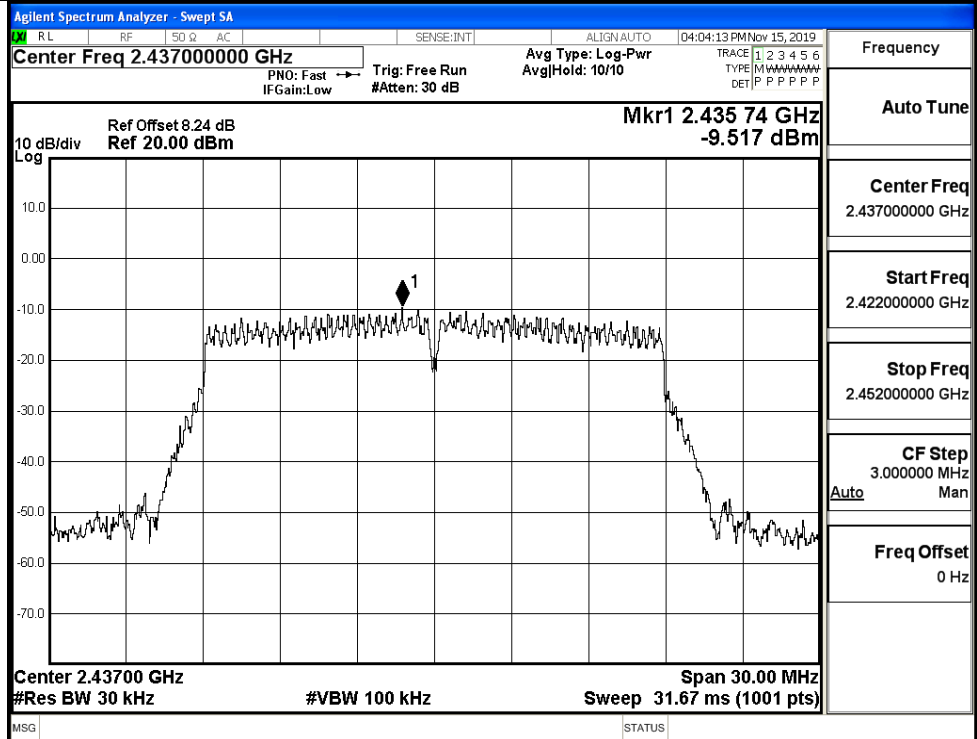
11G/HCH



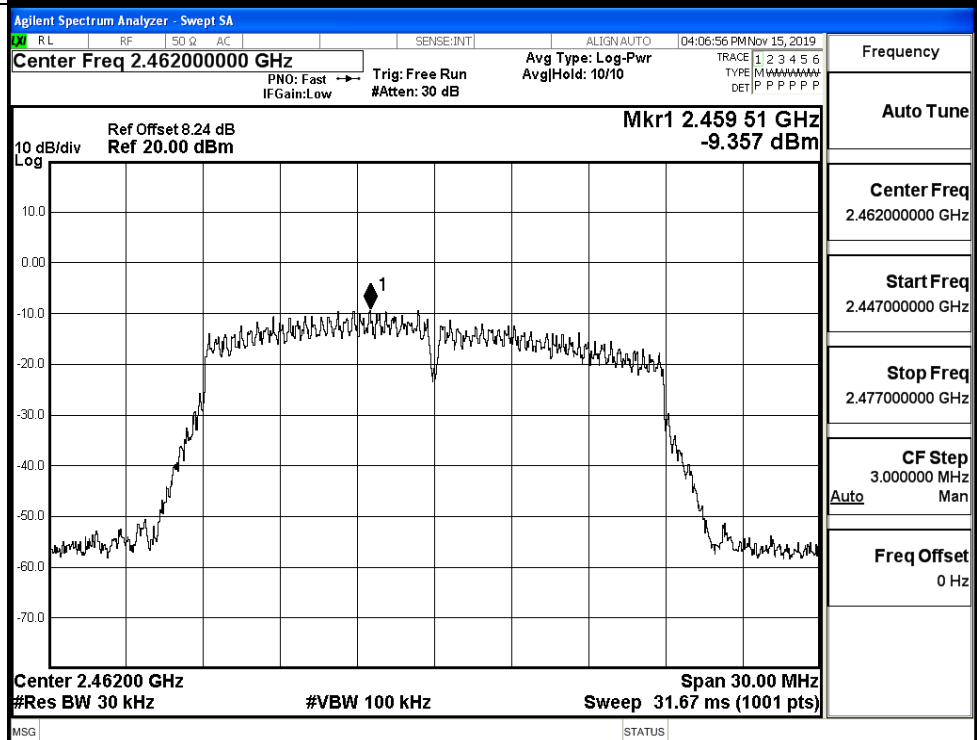
11N20/LCH



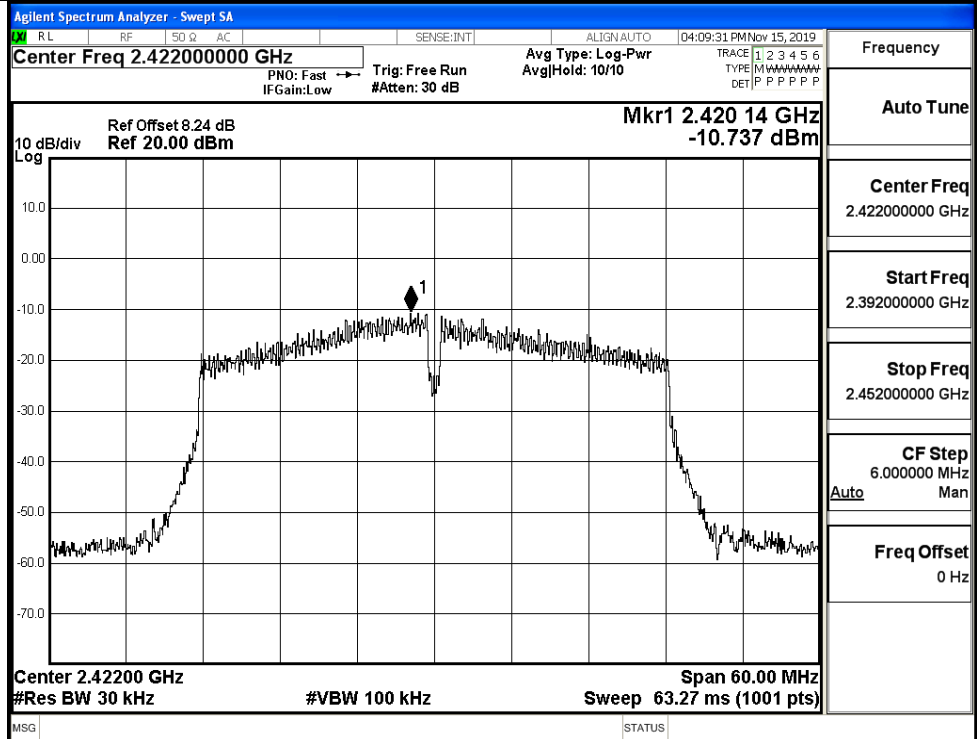
11N20/MCH



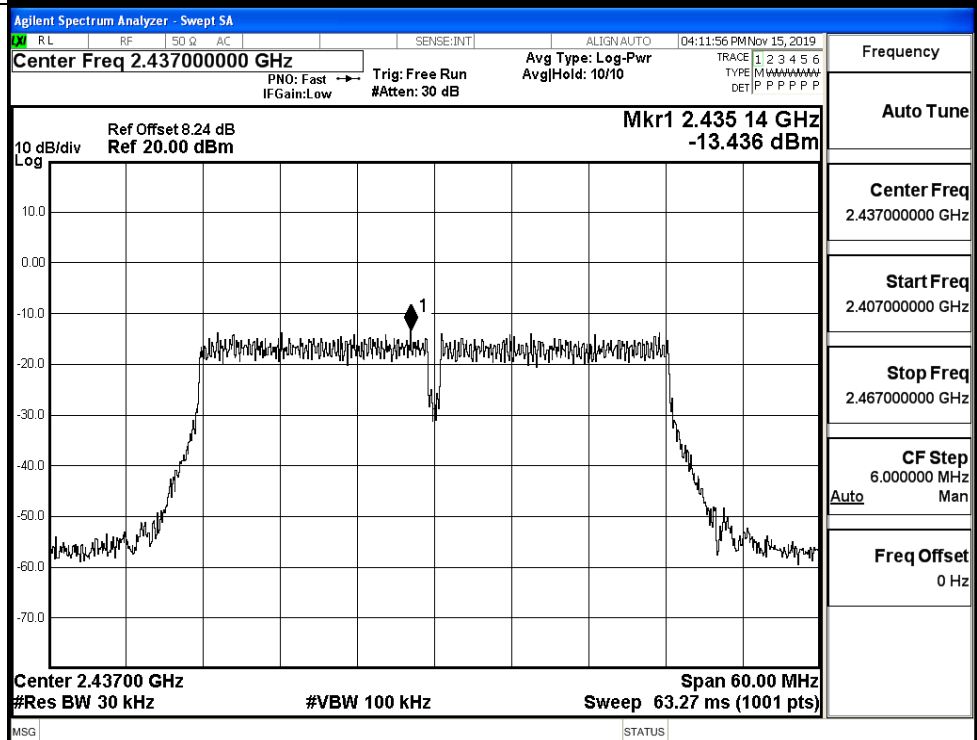
11N20/HCH



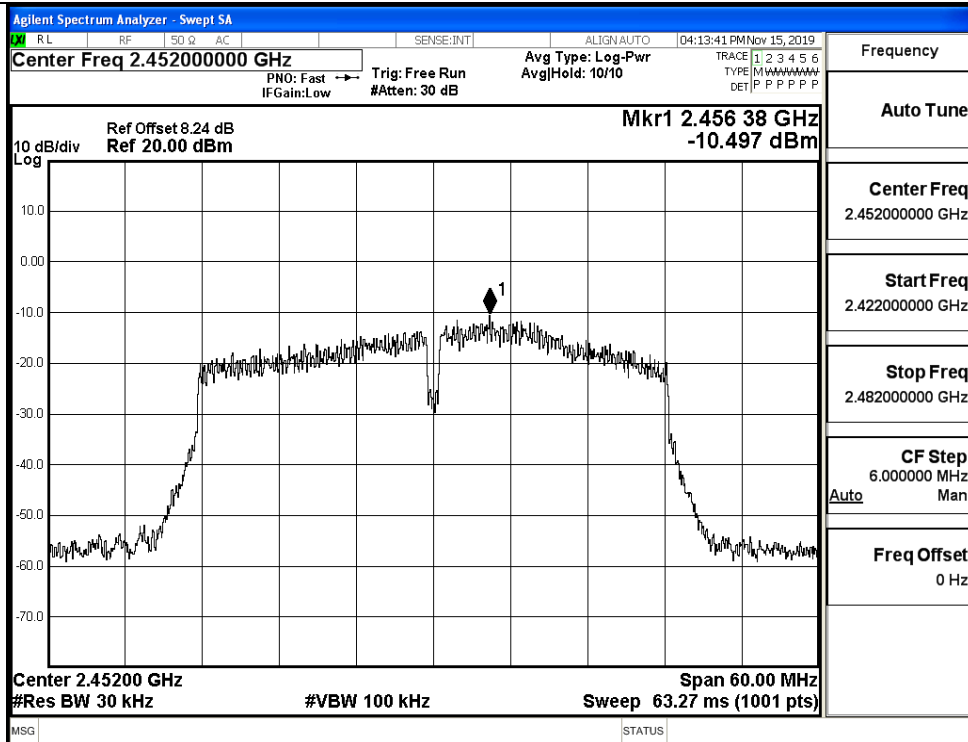
11N40/LCH



11N40/MCH

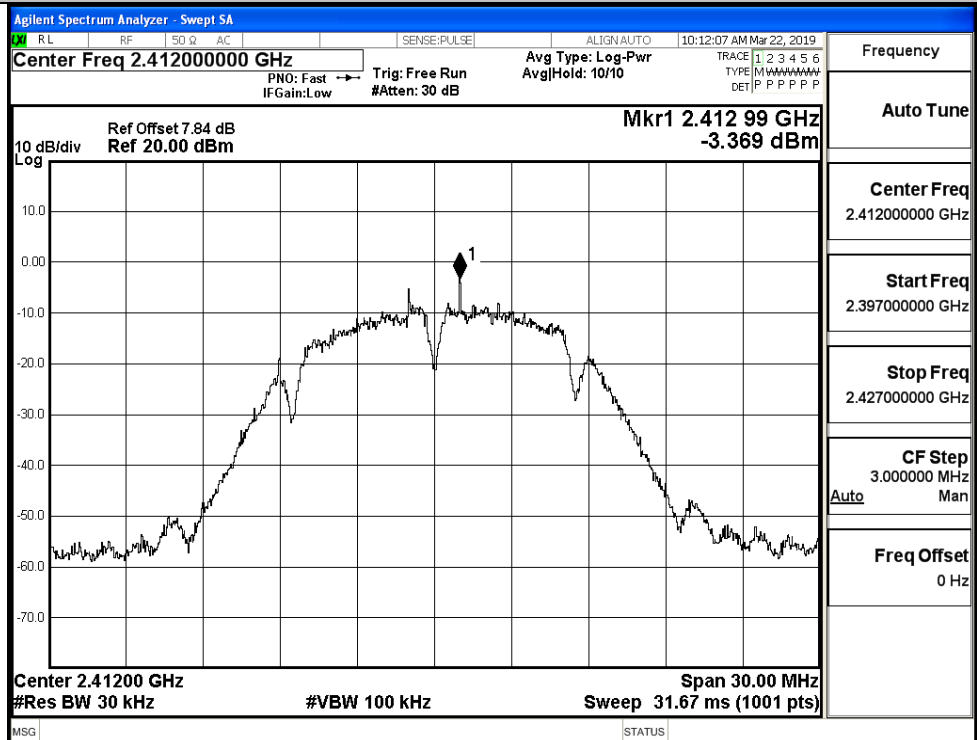


11N40/HCH

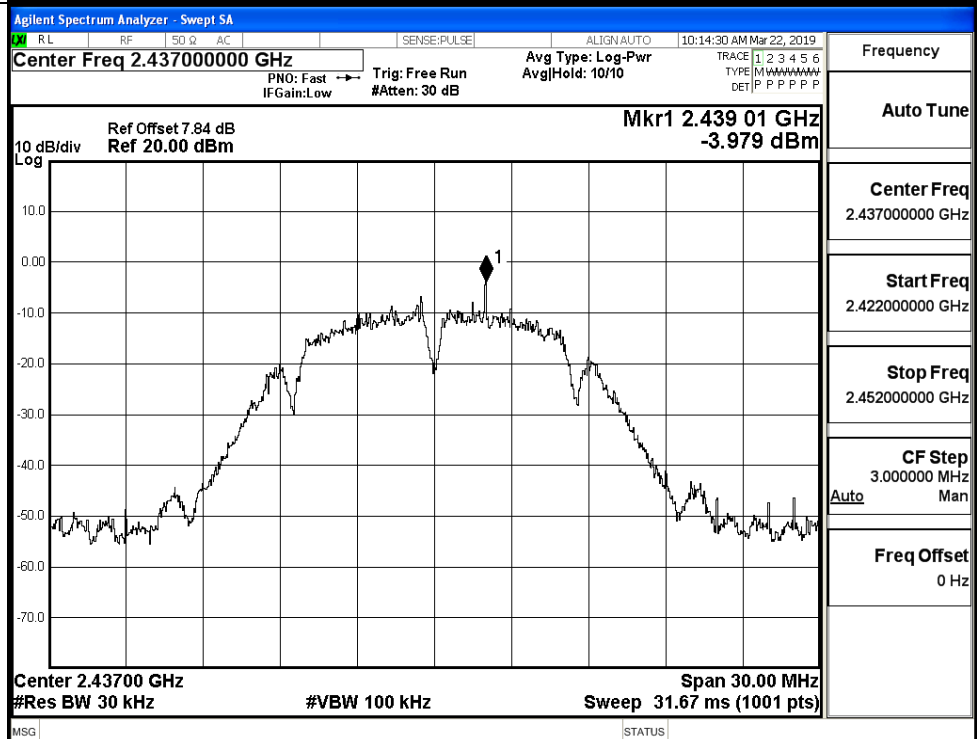


Test Graphs_Ant_1

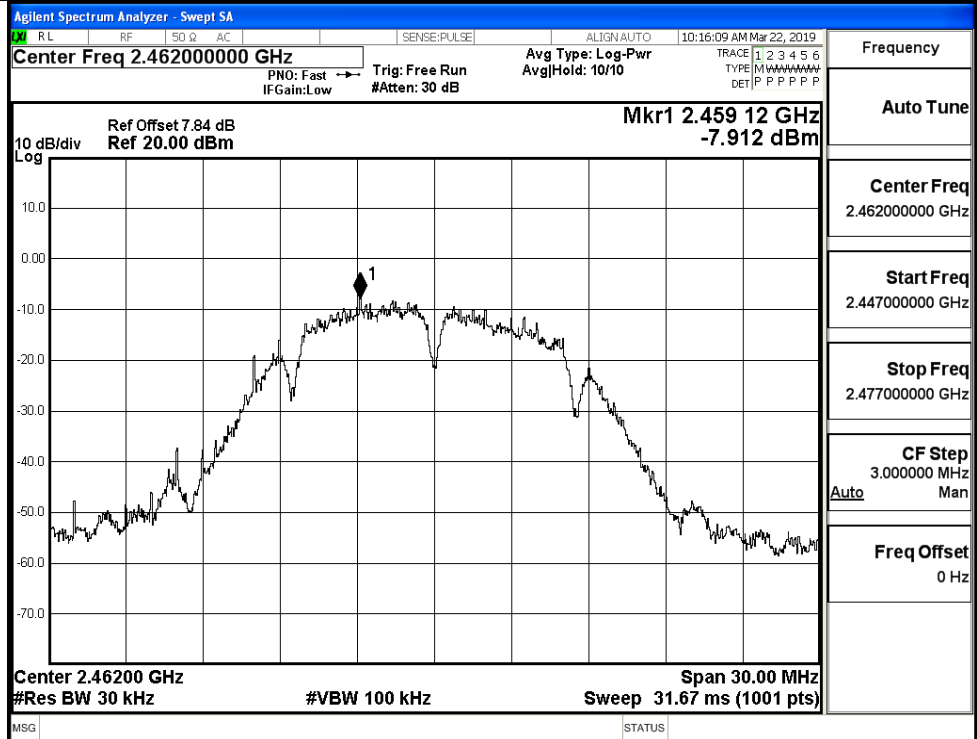
11B/LCH



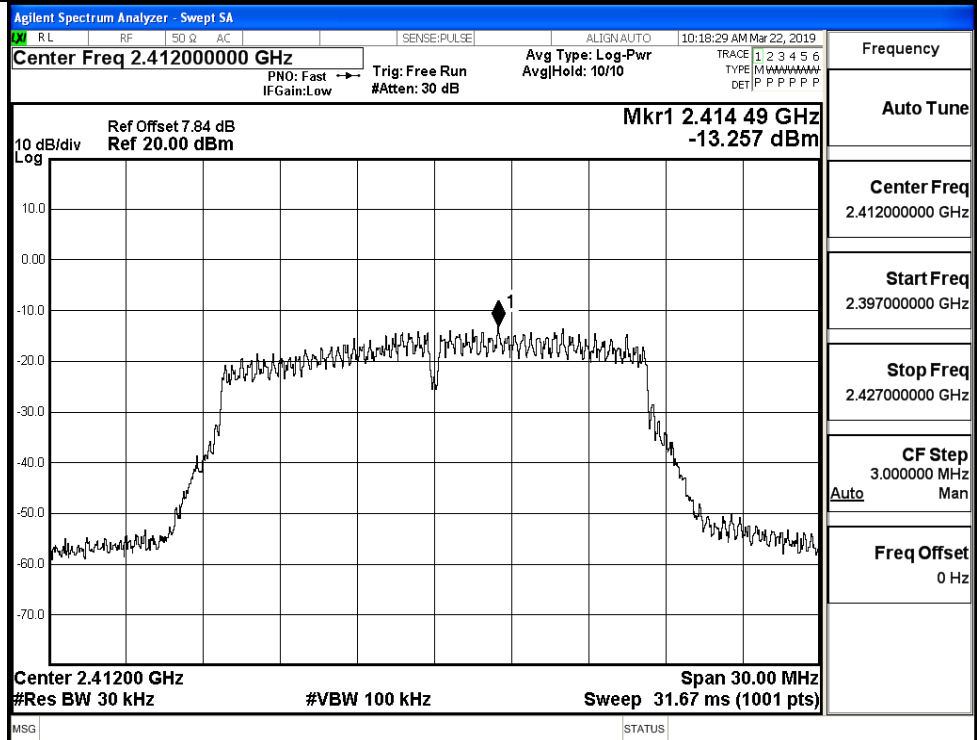
11B/MCH



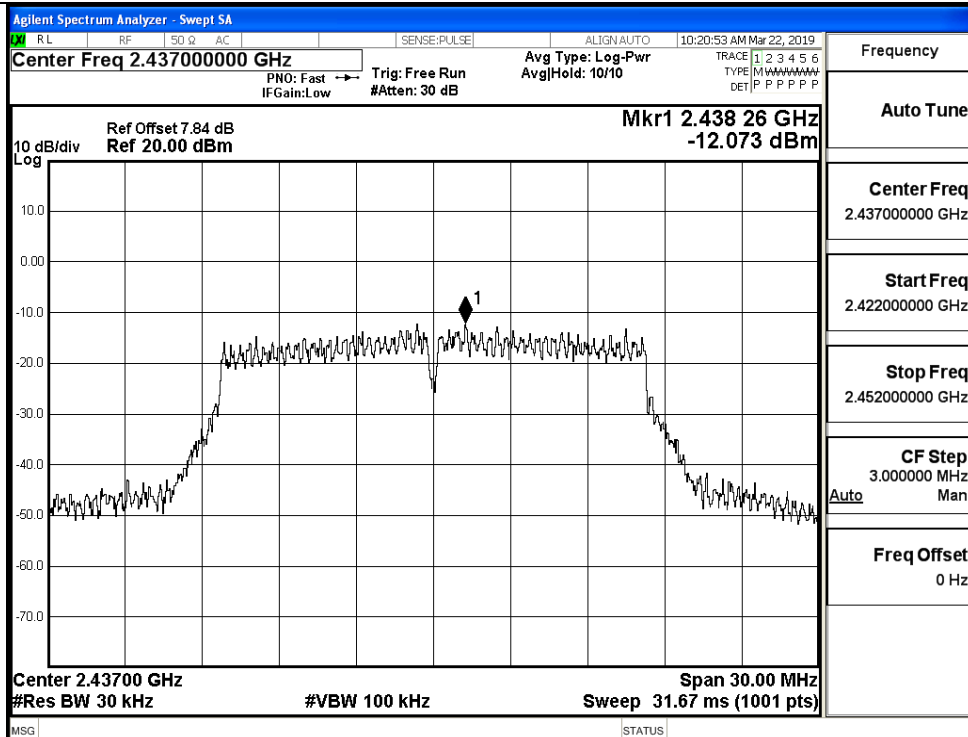
11B/HCH



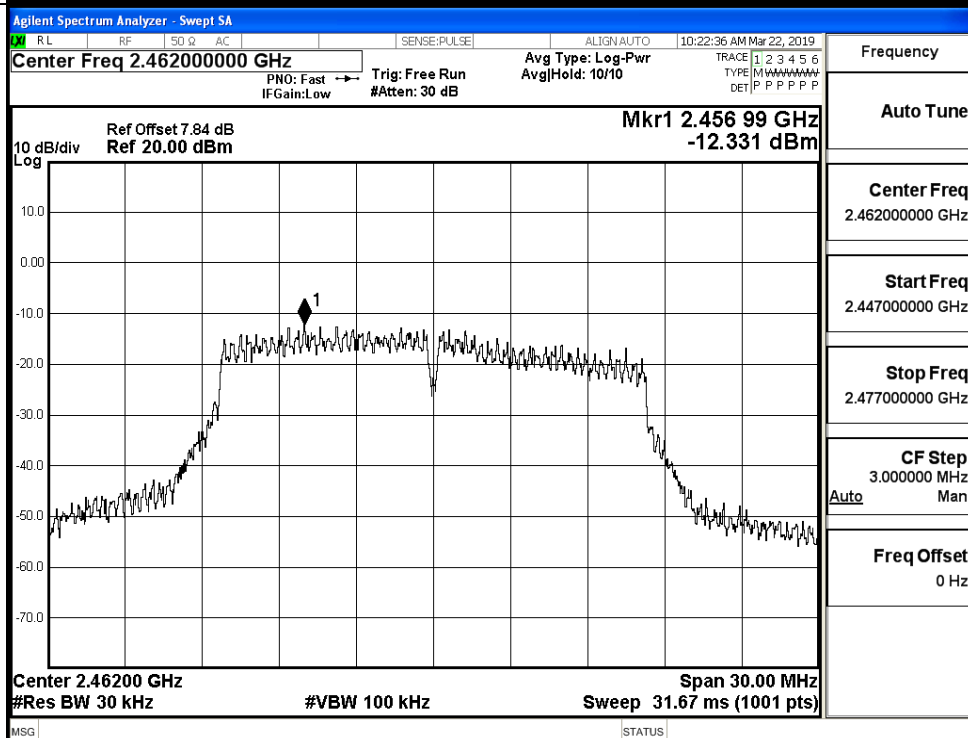
11G/LCH



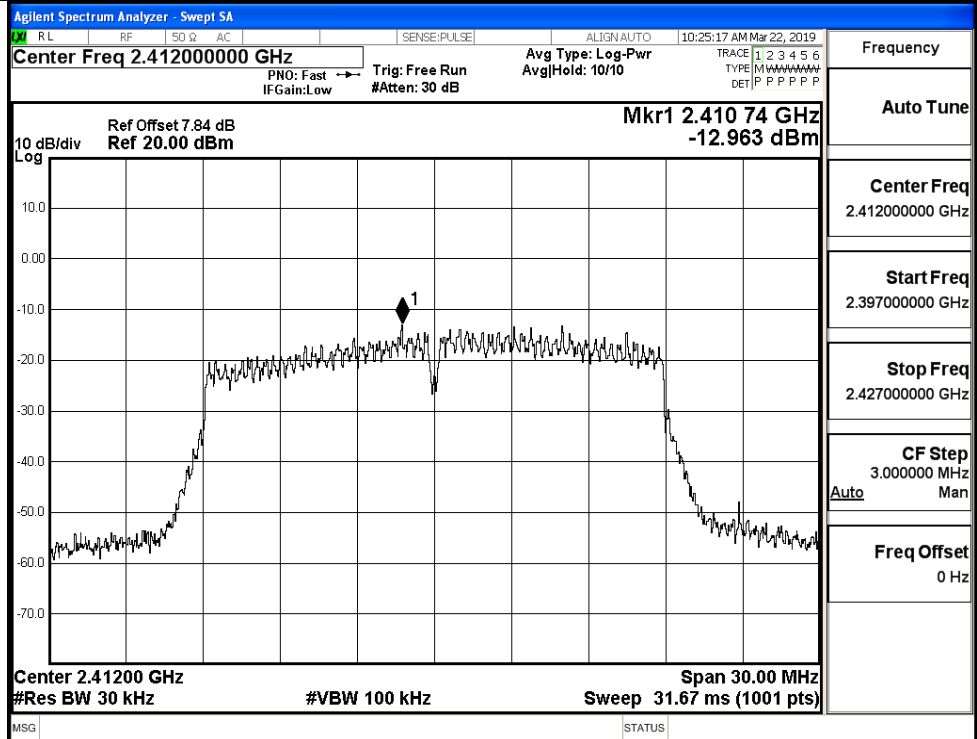
11G/MCH



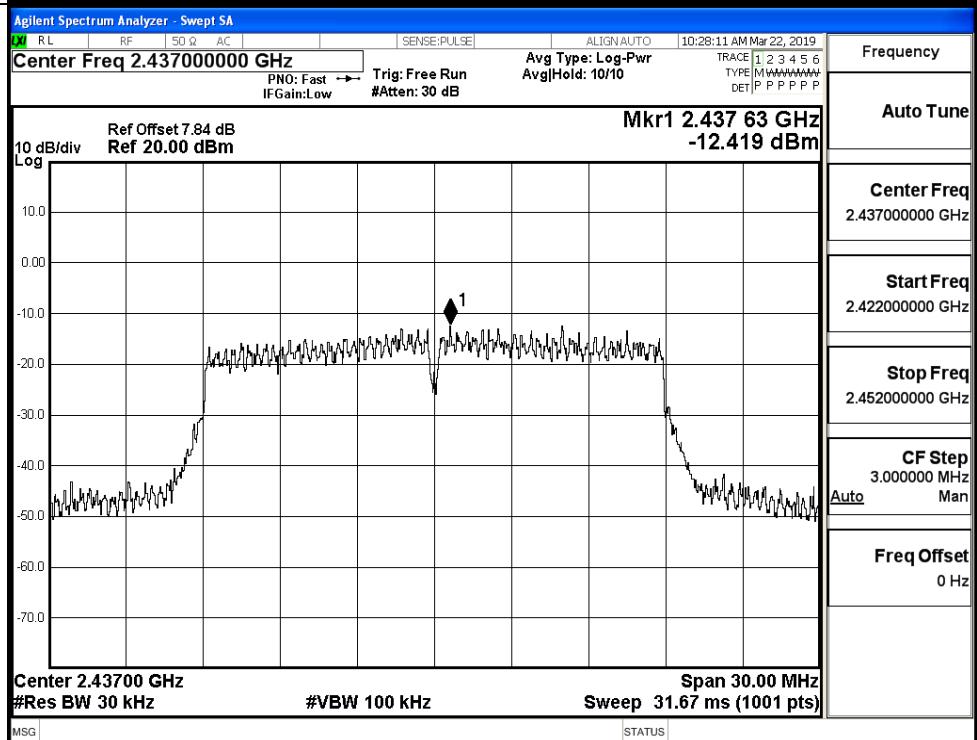
11G/HCH



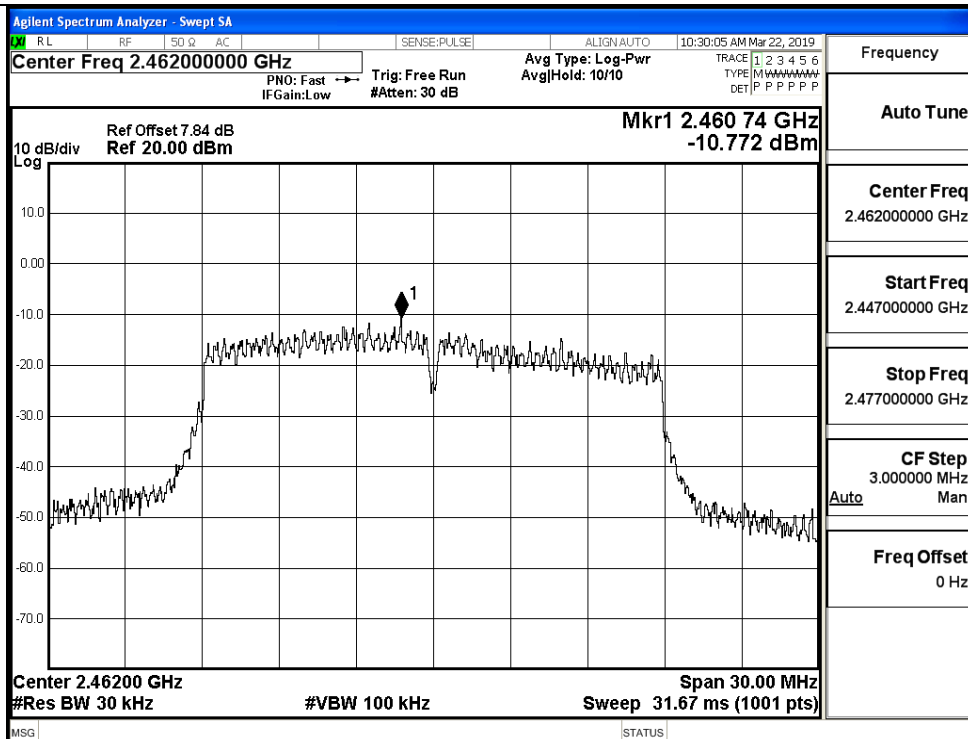
11N20/LCH



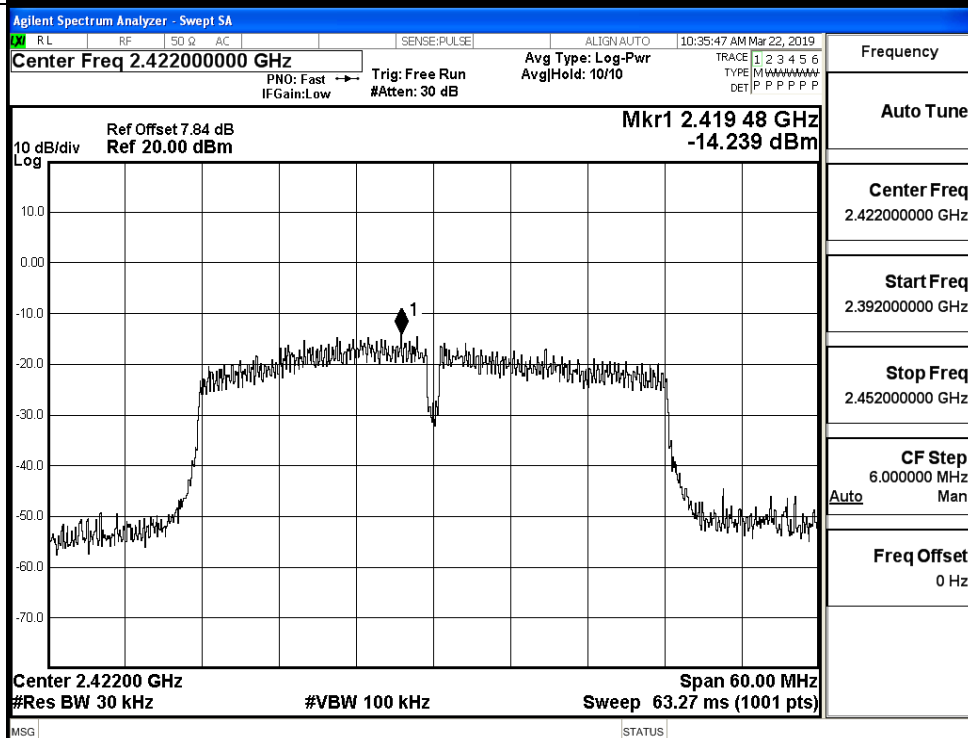
11N20/MCH



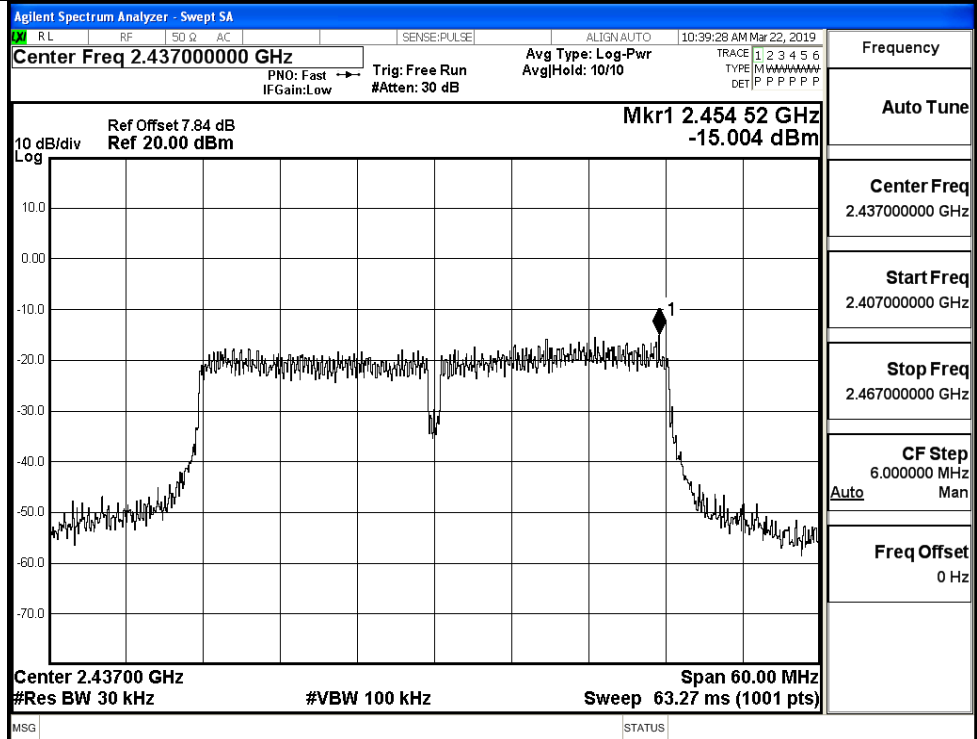
11N20/HCH



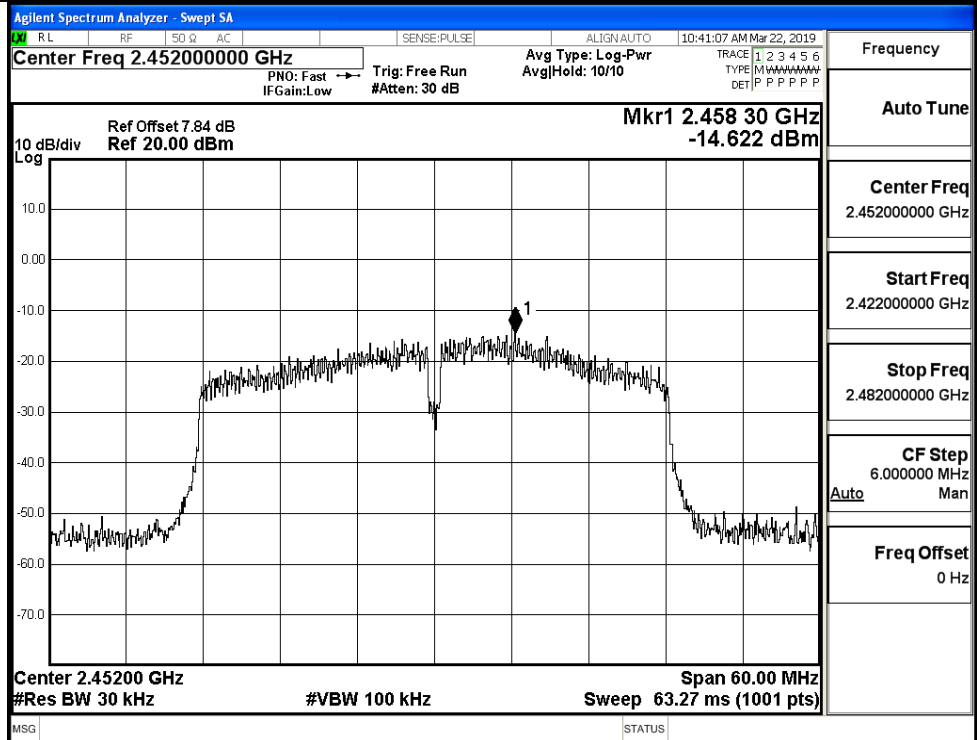
11N40/LCH



11N40/MCH



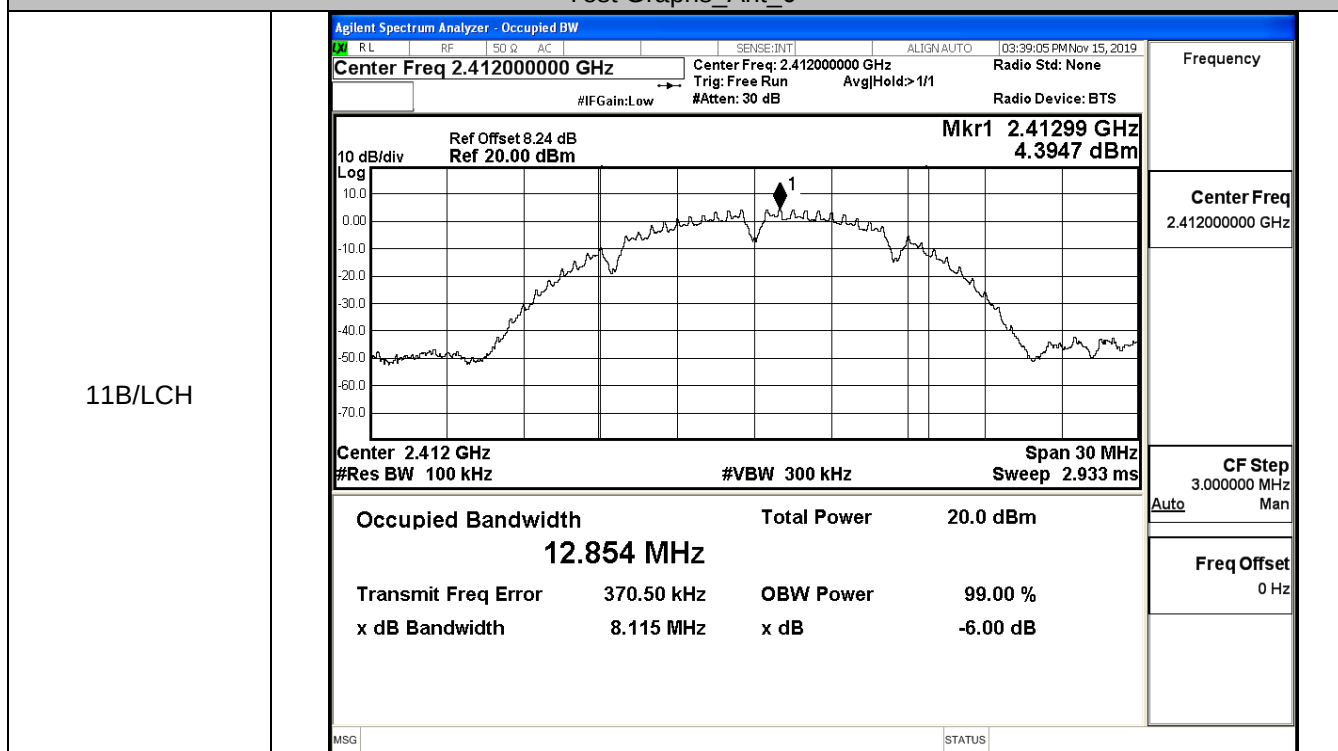
11N40/HCH



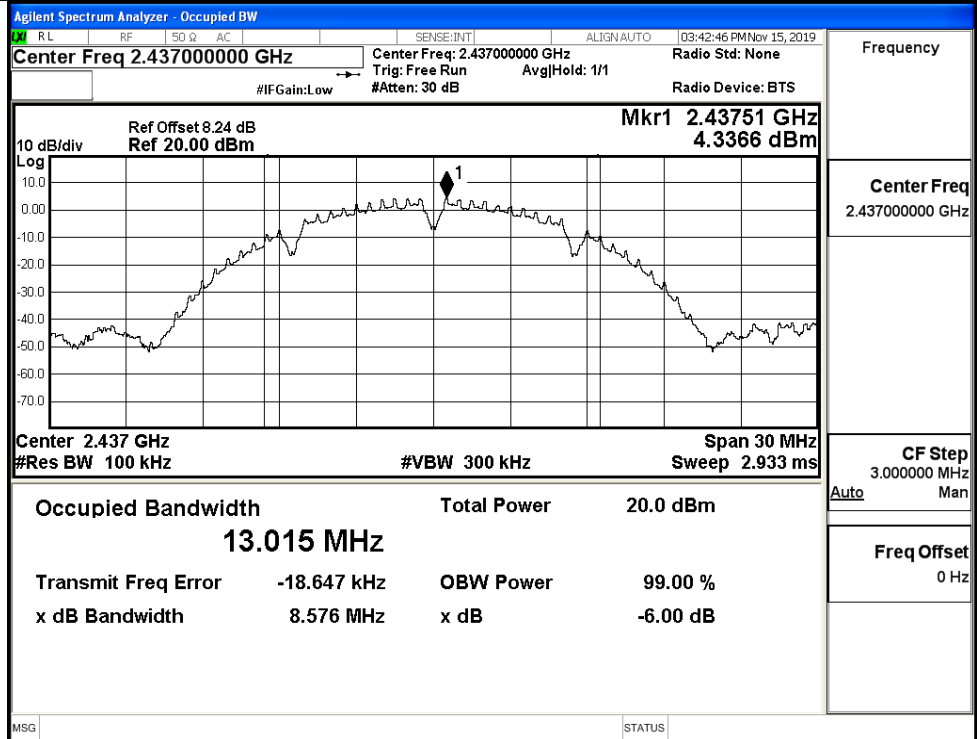
C.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]		Limit [MHz]	Verdict
		Ant_0	Ant_1		
11B	LCH	8.115	9.553	≥ 0.5	PASS
	MCH	8.576	10.06	≥ 0.5	PASS
	HCH	8.099	9.098	≥ 0.5	PASS
11G	LCH	15.44	15.35	≥ 0.5	PASS
	MCH	16.46	15.72	≥ 0.5	PASS
	HCH	14.73	15.46	≥ 0.5	PASS
11N20	LCH	15.74	15.41	≥ 0.5	PASS
	MCH	17.68	16.38	≥ 0.5	PASS
	HCH	15.29	16.05	≥ 0.5	PASS
11N40	LCH	25.52	33.89	≥ 0.5	PASS
	MCH	36.59	35.92	≥ 0.5	PASS
	HCH	24.47	27.59	≥ 0.5	PASS

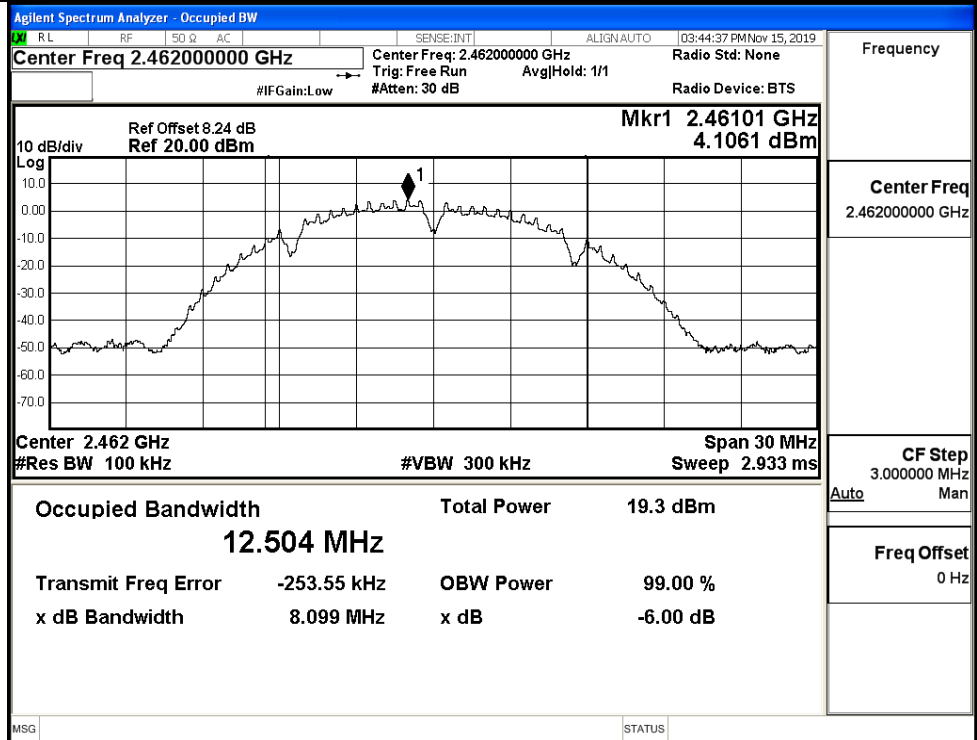
Test Graphs_Ant_0



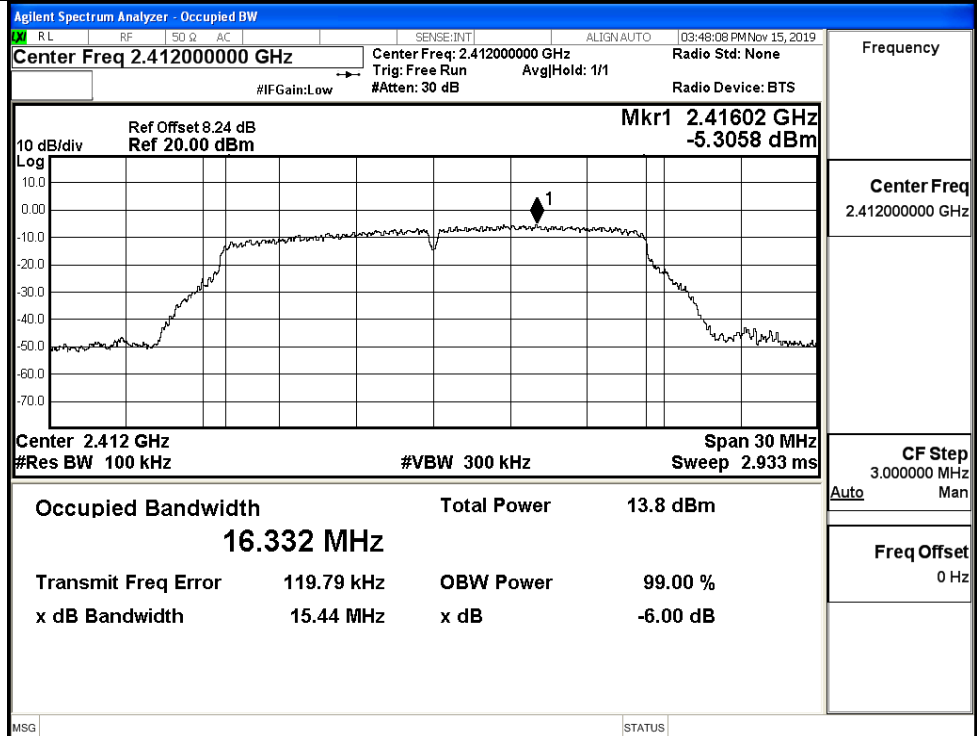
11B/MCH



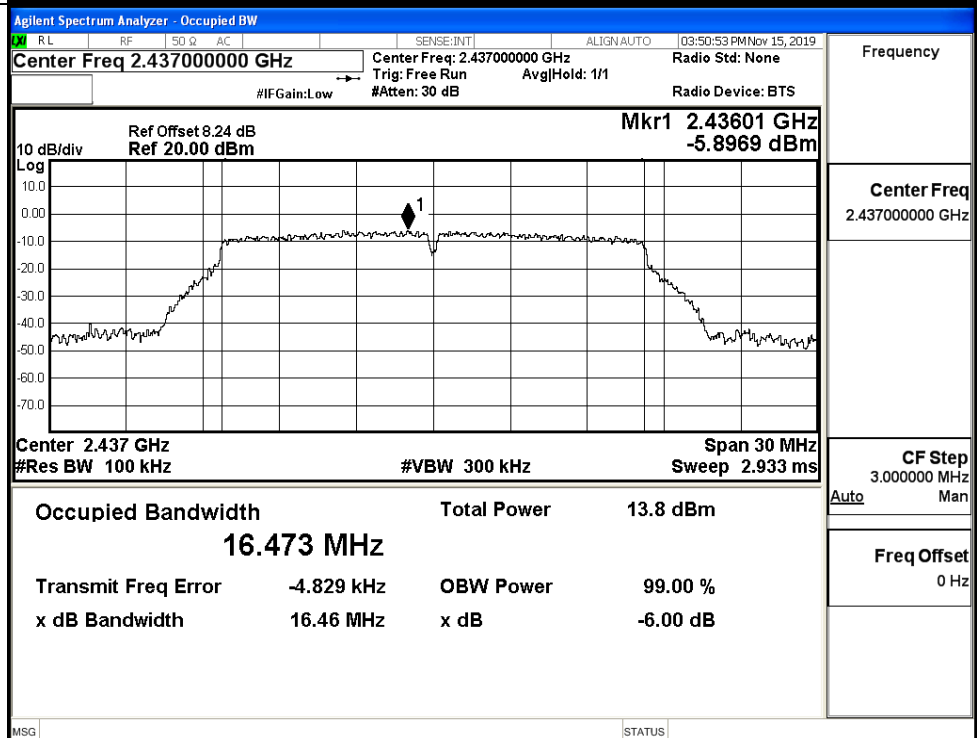
11B/HCH



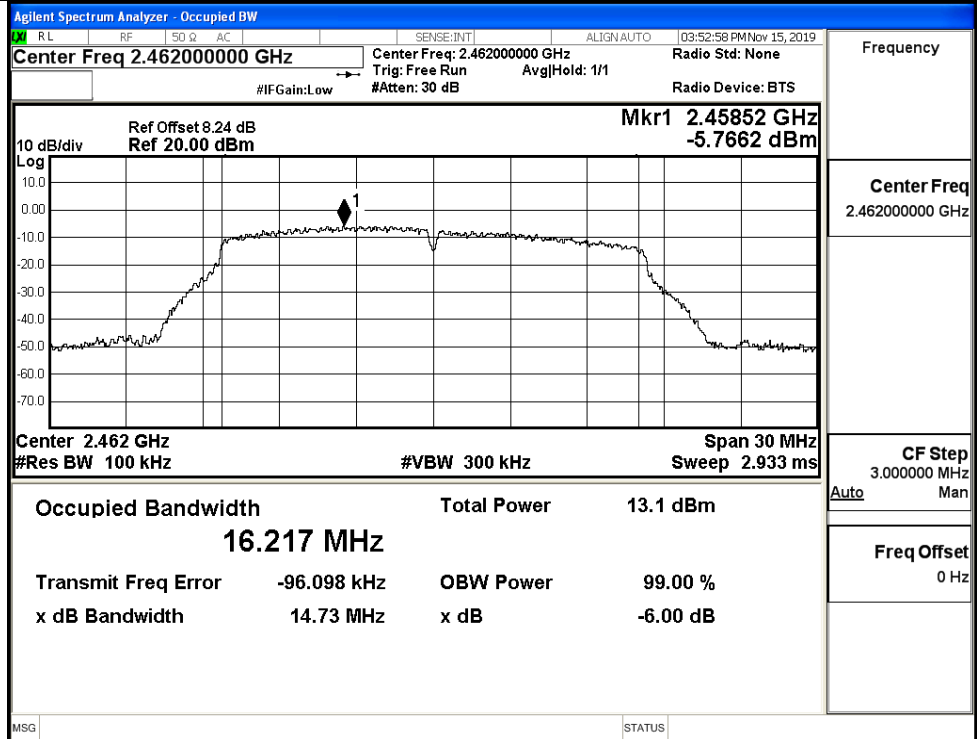
11G/LCH



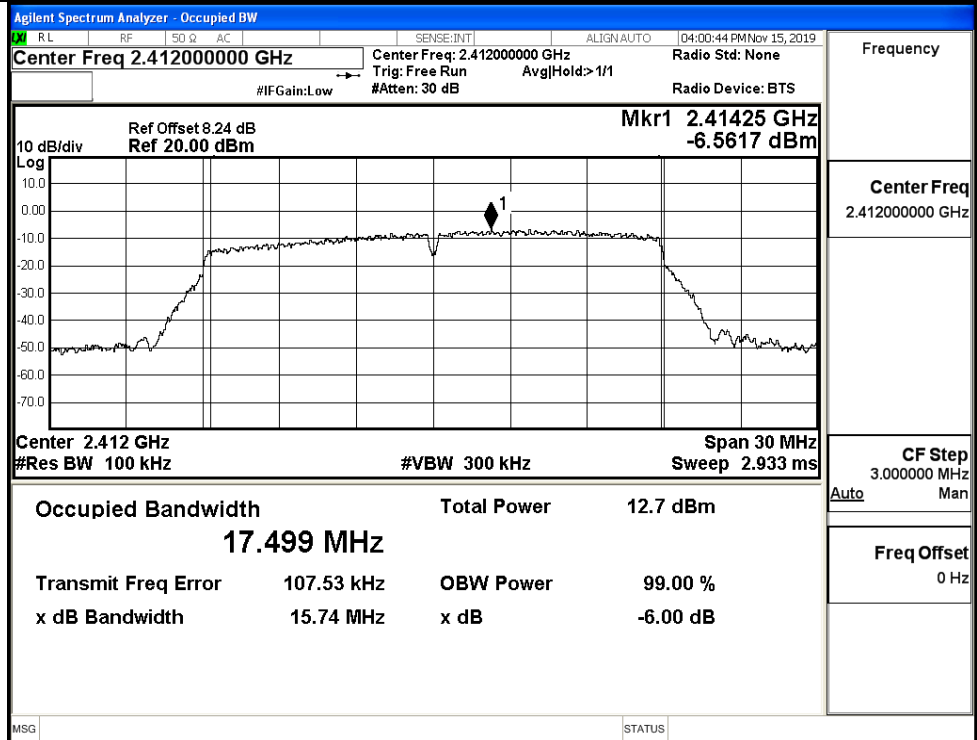
11G/MCH



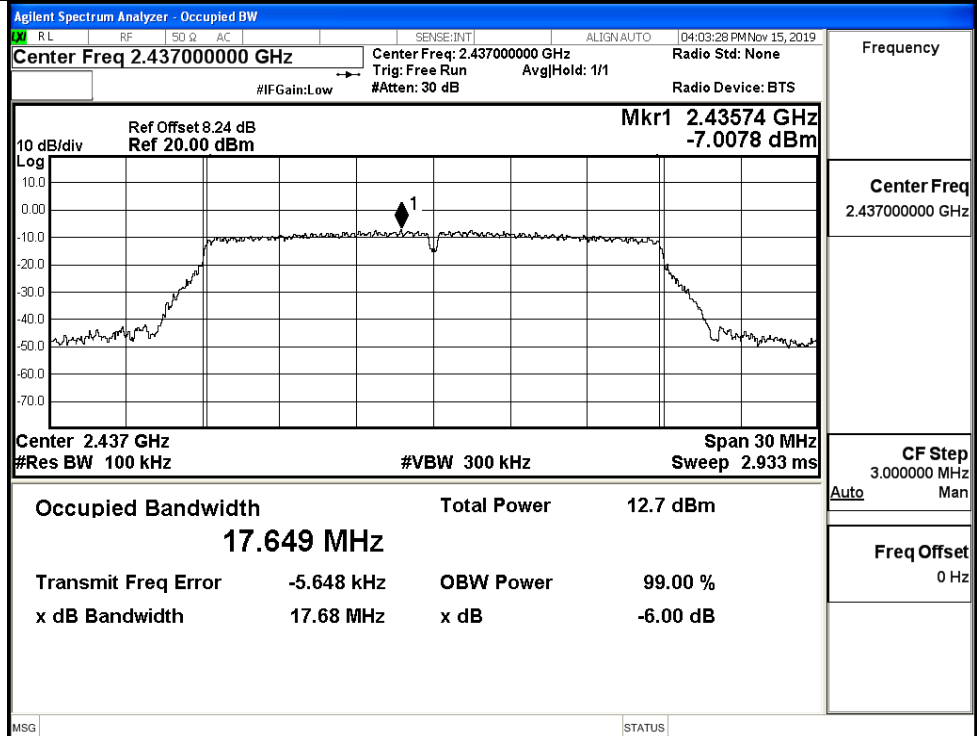
11G/HCH



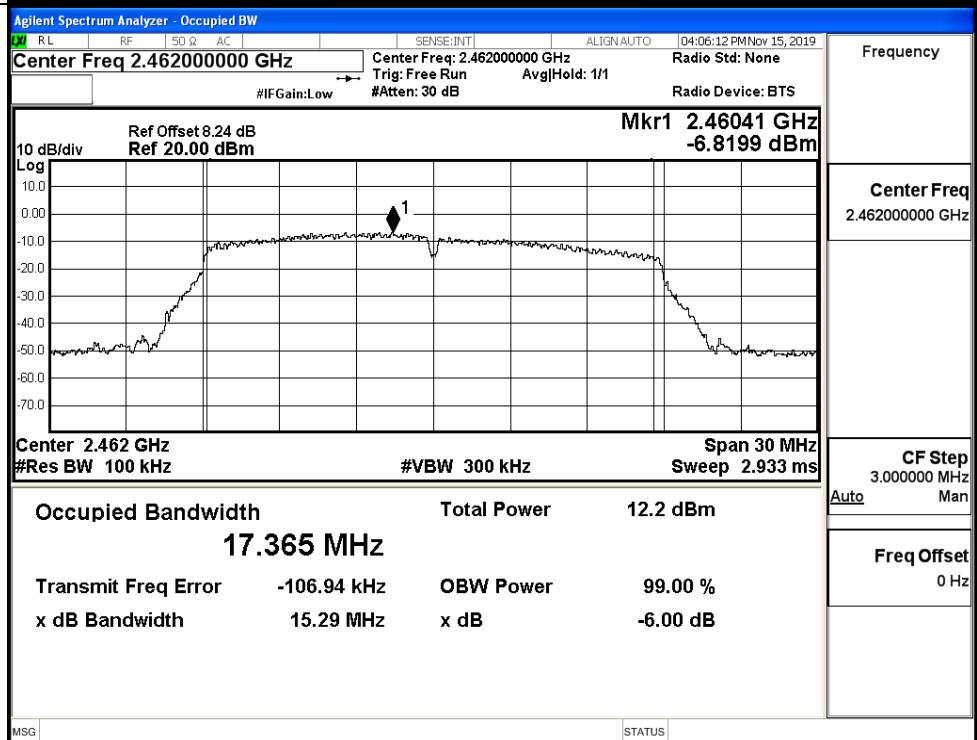
11N20/LCH



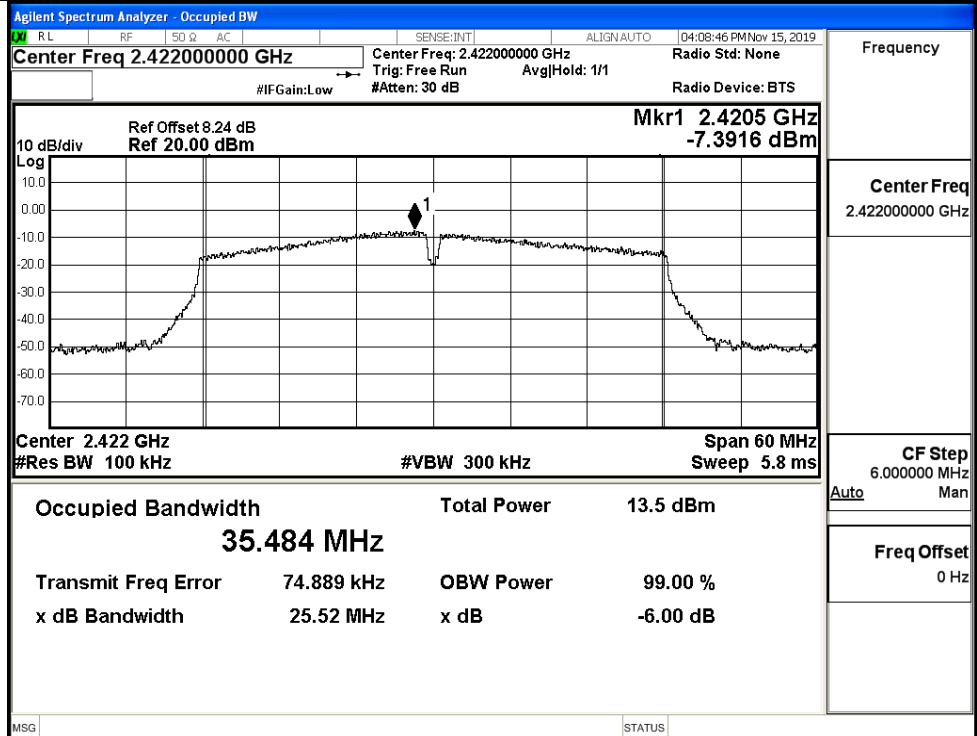
11N20/MCH



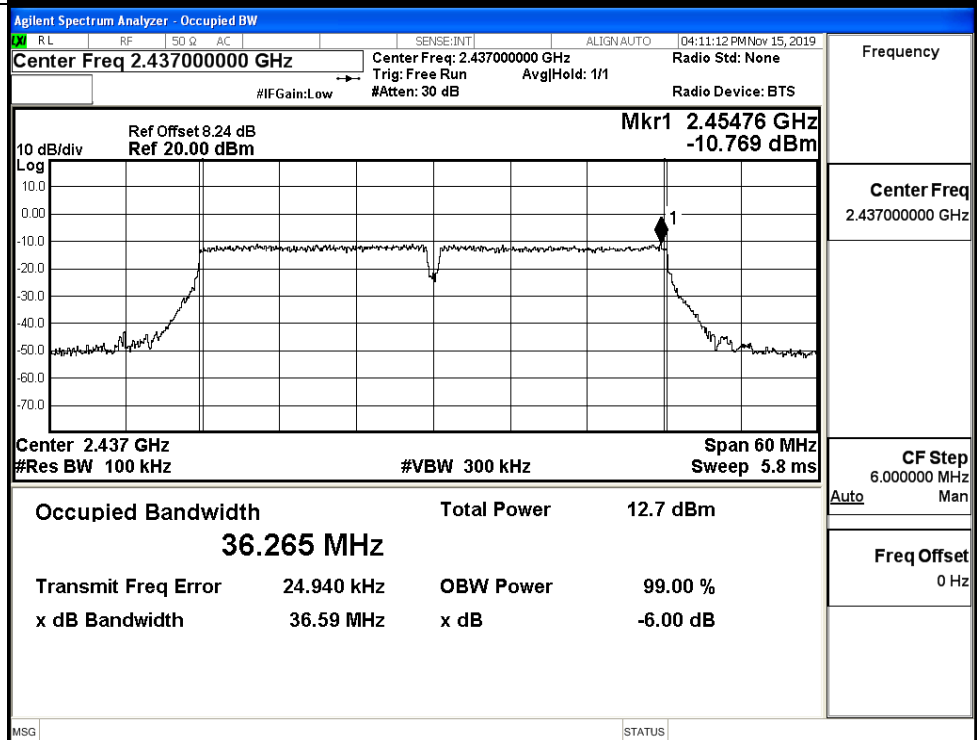
11N20/HCH



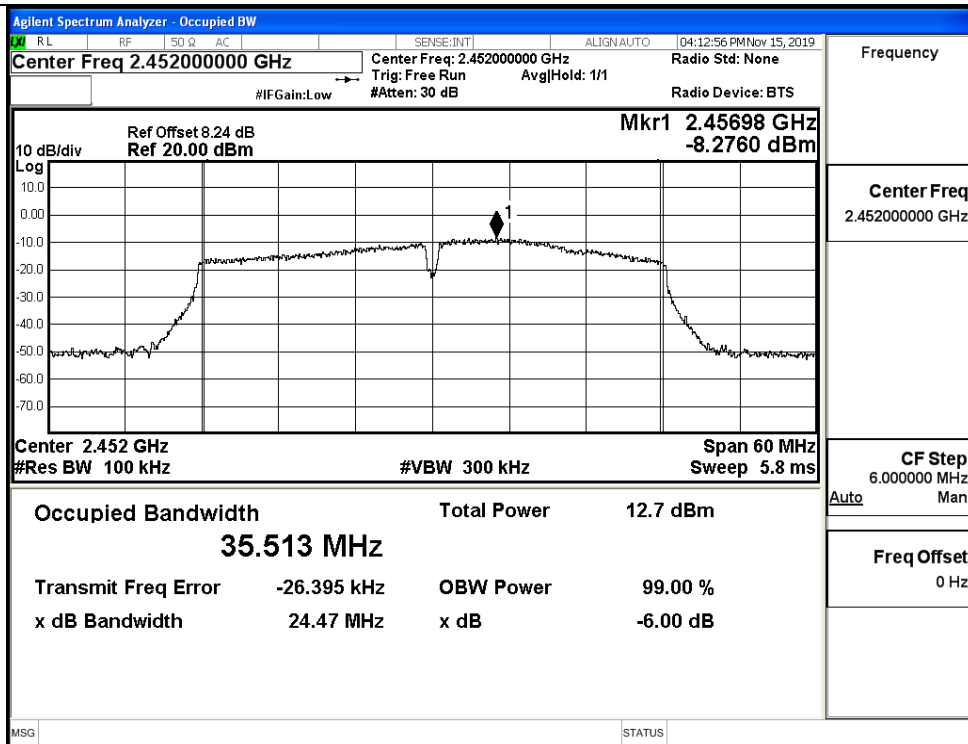
11N40/LCH



11N40/MCH



11N40/HCH



Frequency

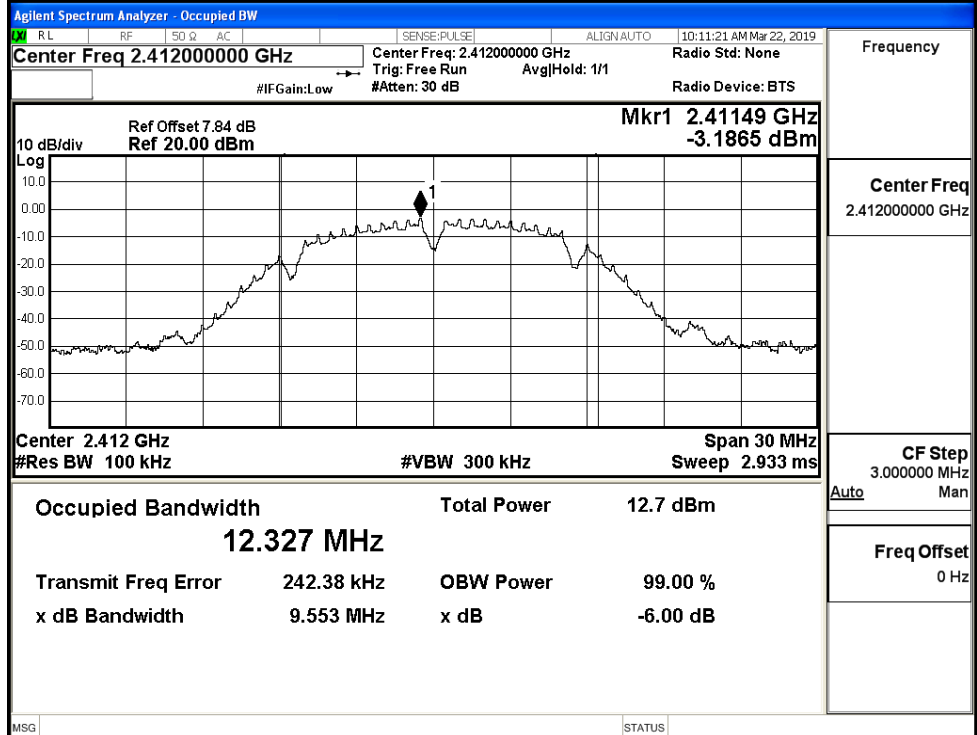
Center Freq
2.452000000 GHz

CF Step
6.000000 MHz
Auto Man

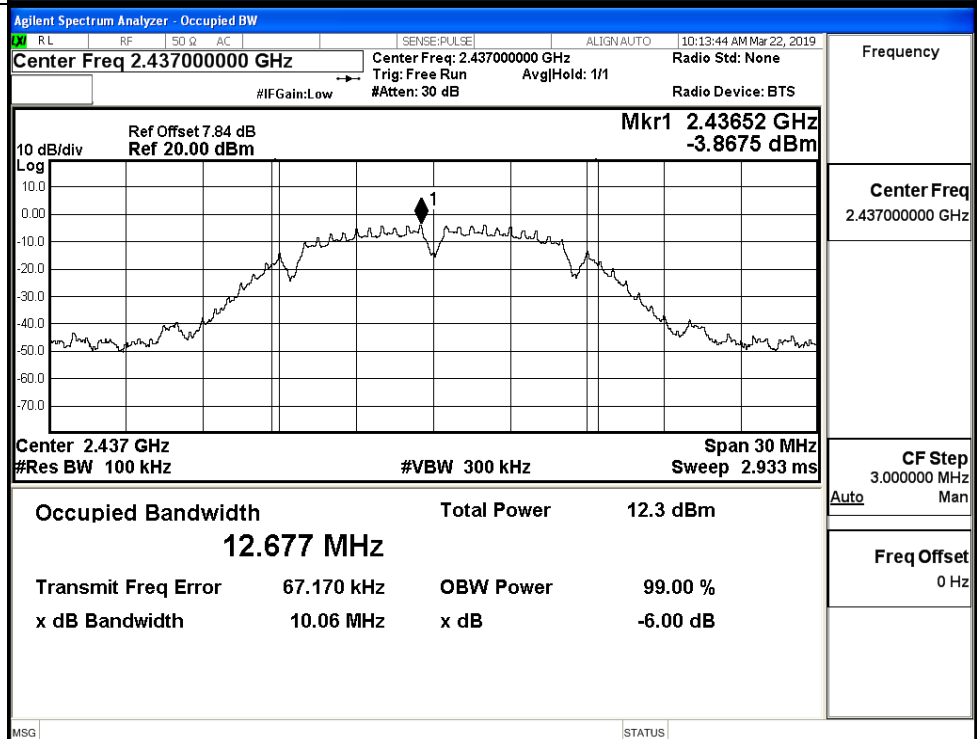
Freq Offset
0 Hz

Test Graphs_Ant_1

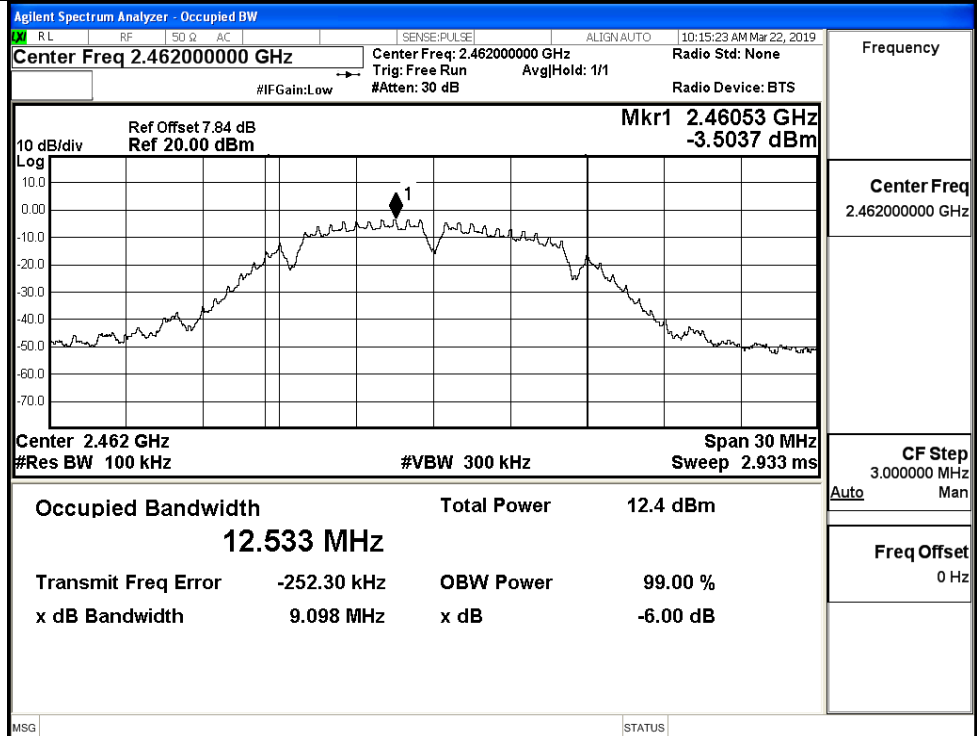
11B/LCH



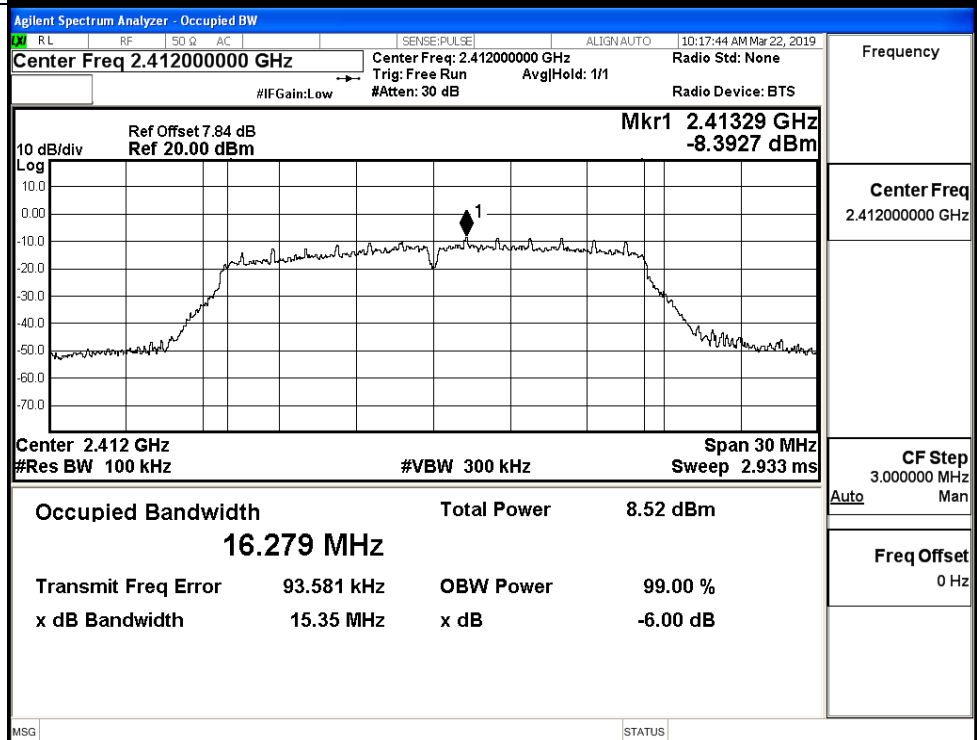
11B/MCH



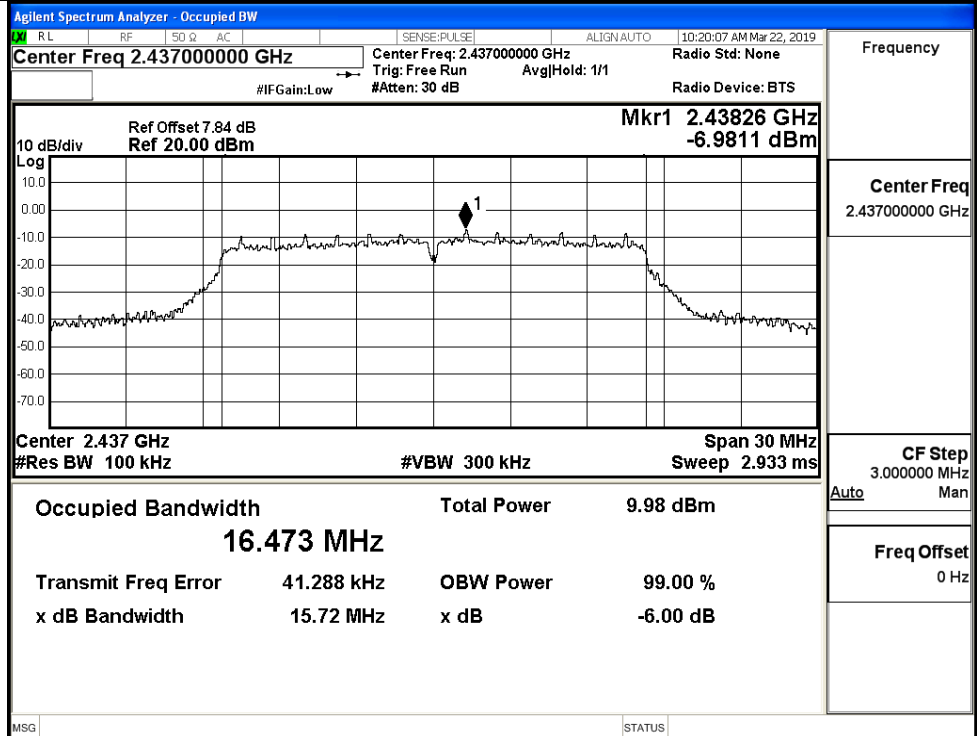
11B/HCH



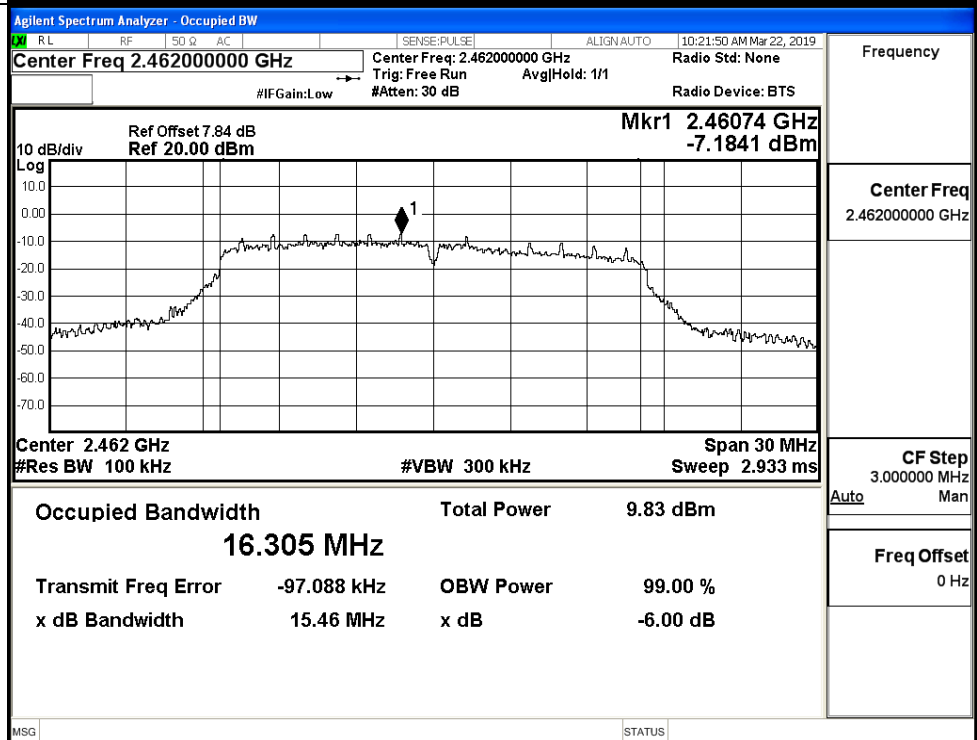
11G/LCH



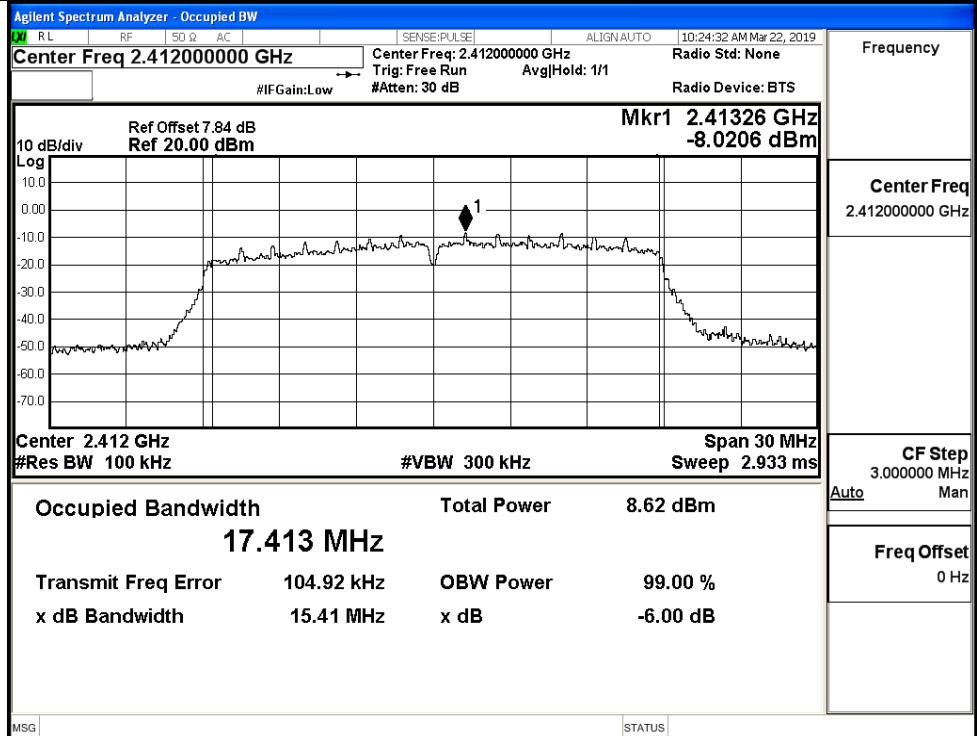
11G/MCH



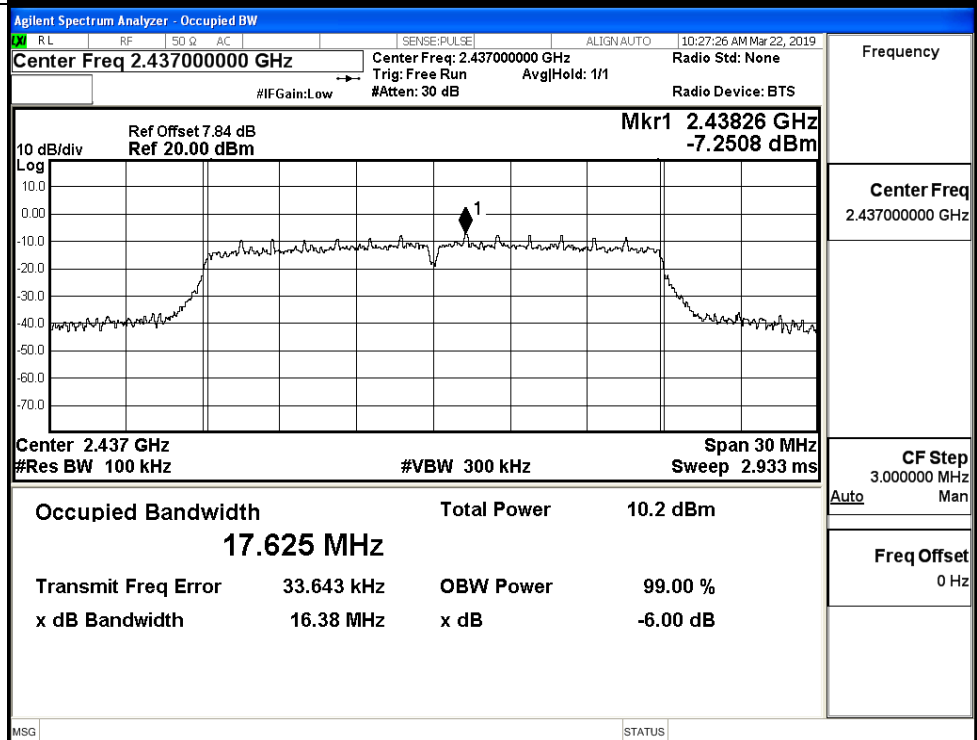
11G/HCH



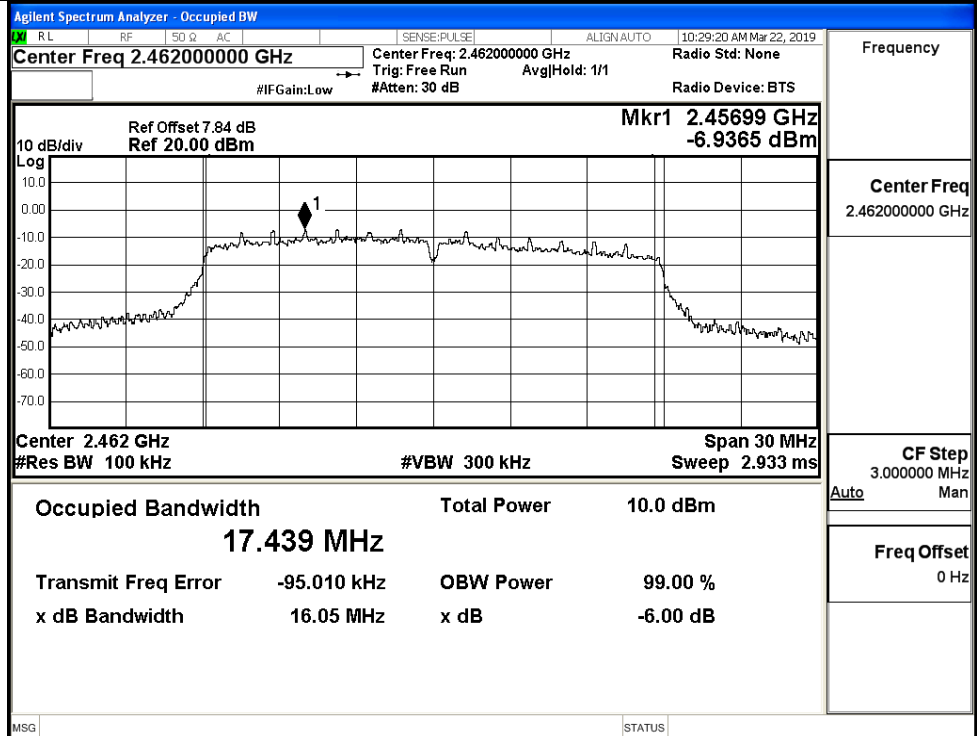
11N20/LCH



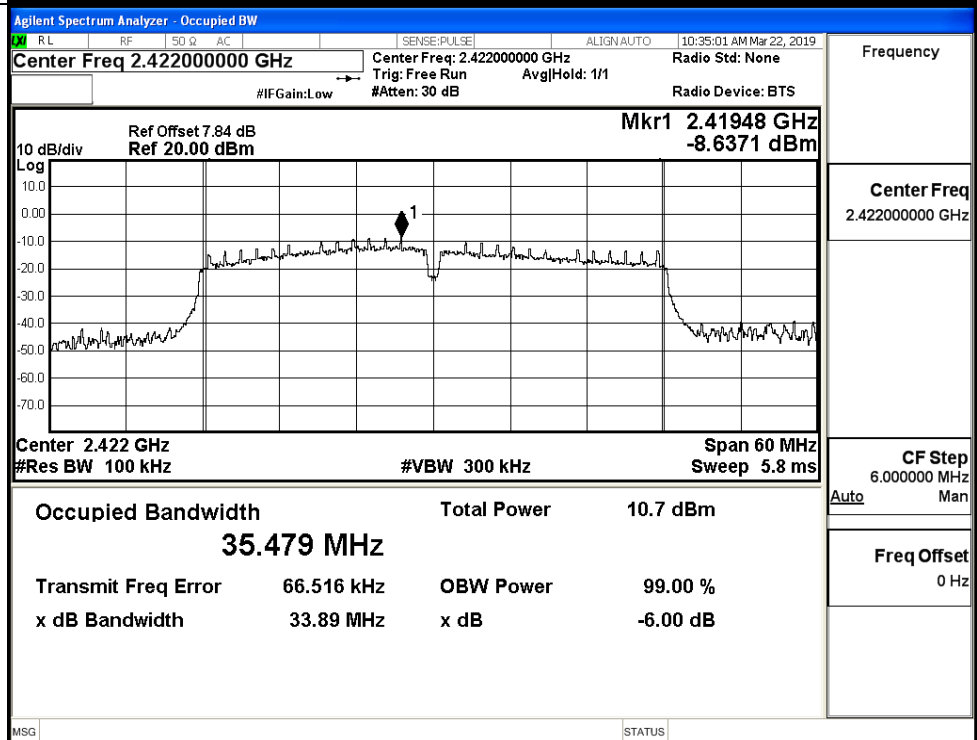
11N20/MCH



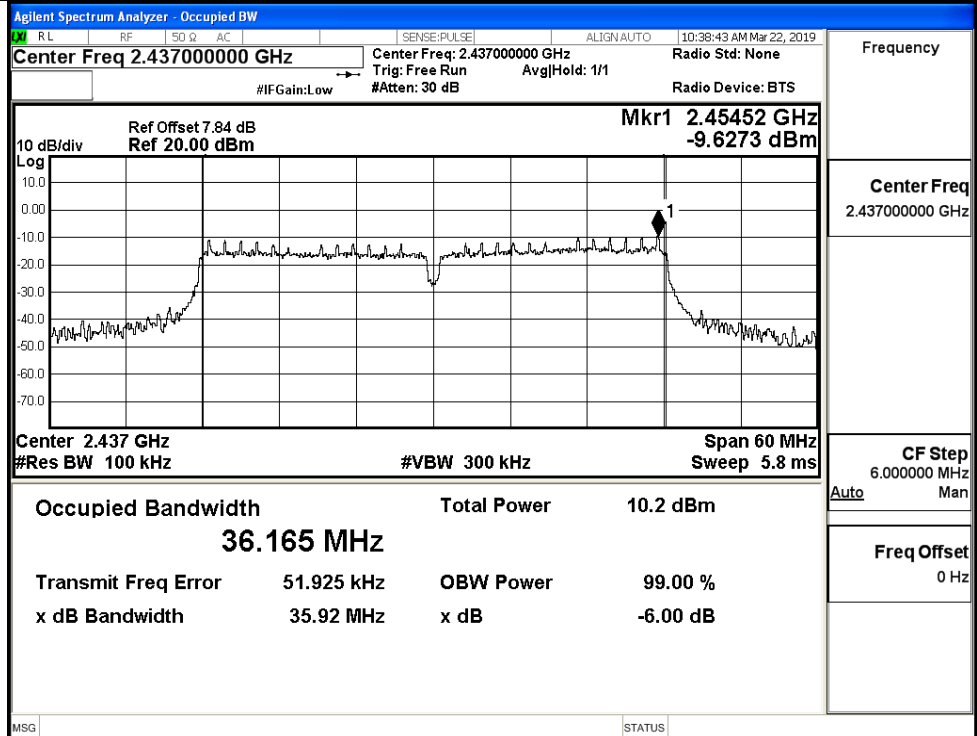
11N20/HCH



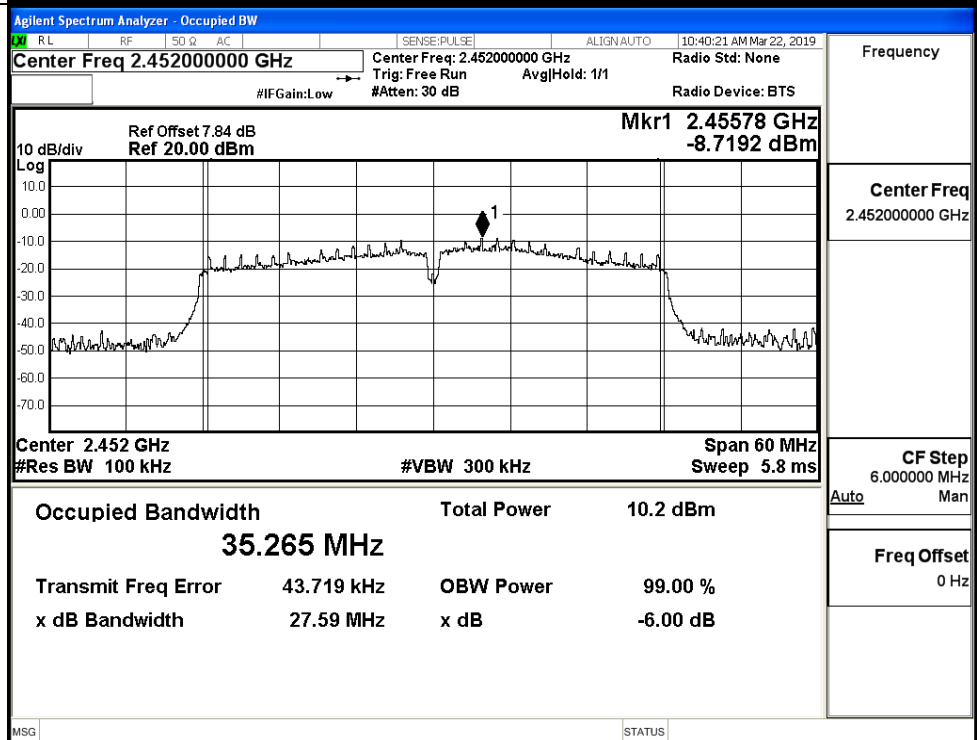
11N40/LCH



11N40/MCH



11N40/HCH

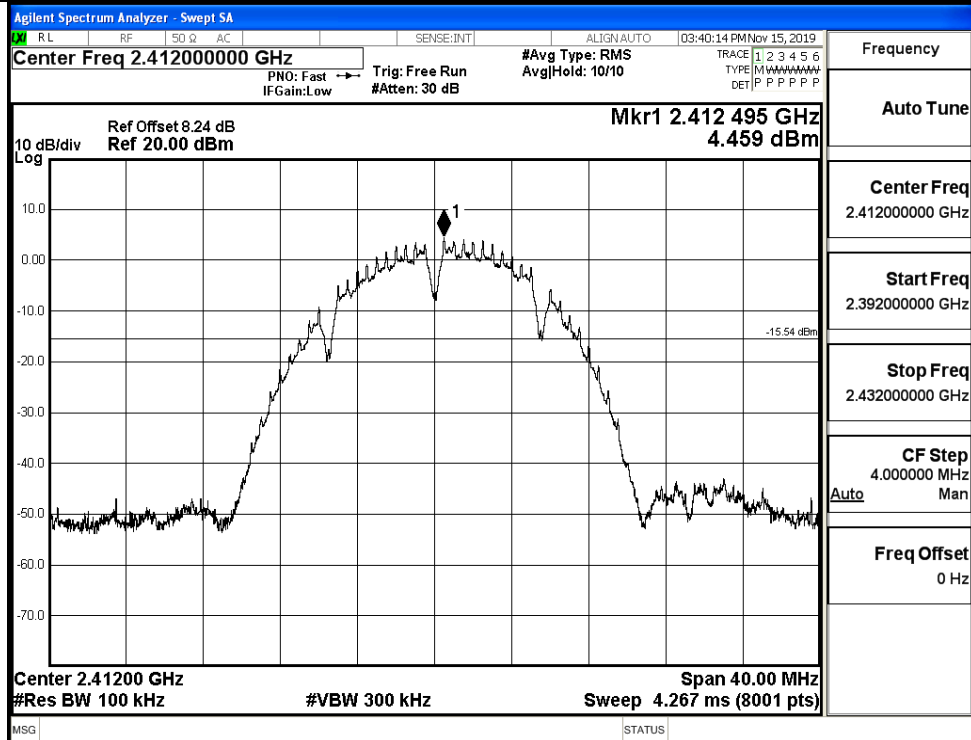


C.5 RF Conducted Spurious Emissions**Ant_0**

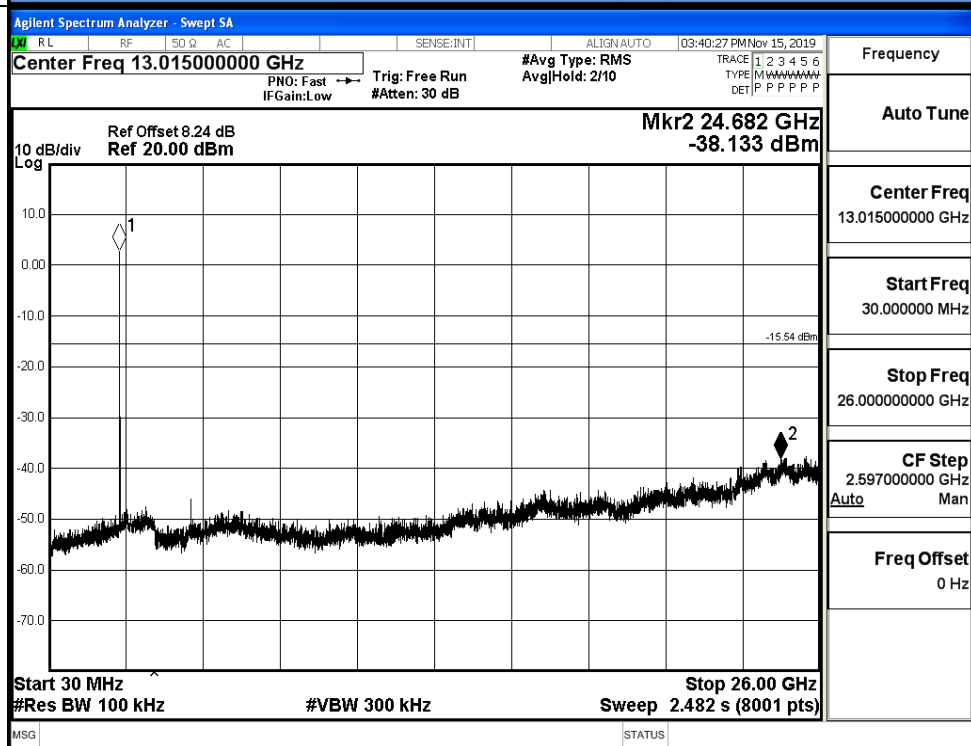
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.459	-38.133	-15.541	PASS
	MCH	4.049	-37.000	-15.951	PASS
	HCH	3.946	-36.695	-16.054	PASS
11G	LCH	-5.107	-37.670	-25.107	PASS
	MCH	-6.069	-36.879	-26.069	PASS
	HCH	-6.099	-37.322	-26.099	PASS
11N20	LCH	-6.35	-37.705	-26.350	PASS
	MCH	-7.383	-37.712	-27.383	PASS
	HCH	-6.84	-37.134	-26.840	PASS
11N40	LCH	-7.851	-37.042	-27.851	PASS
	MCH	-11.185	-37.910	-31.185	PASS
	HCH	-8.125	-36.744	-28.125	PASS

11B LCH Graphs Ant 0

Pref/11B/LCH

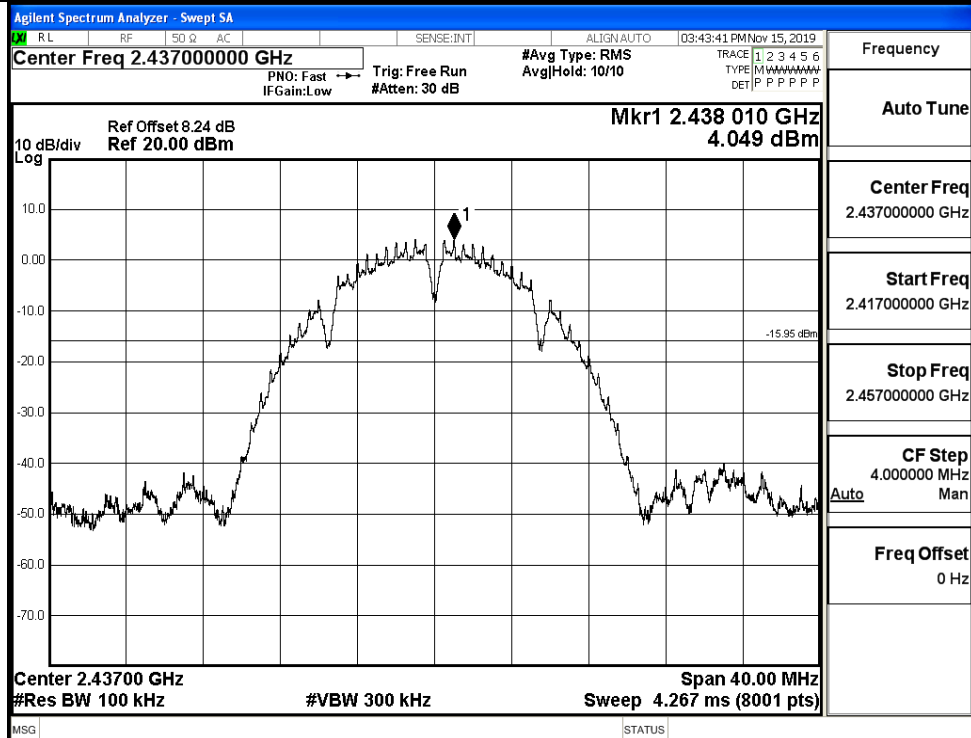


Puw/11B/LCH

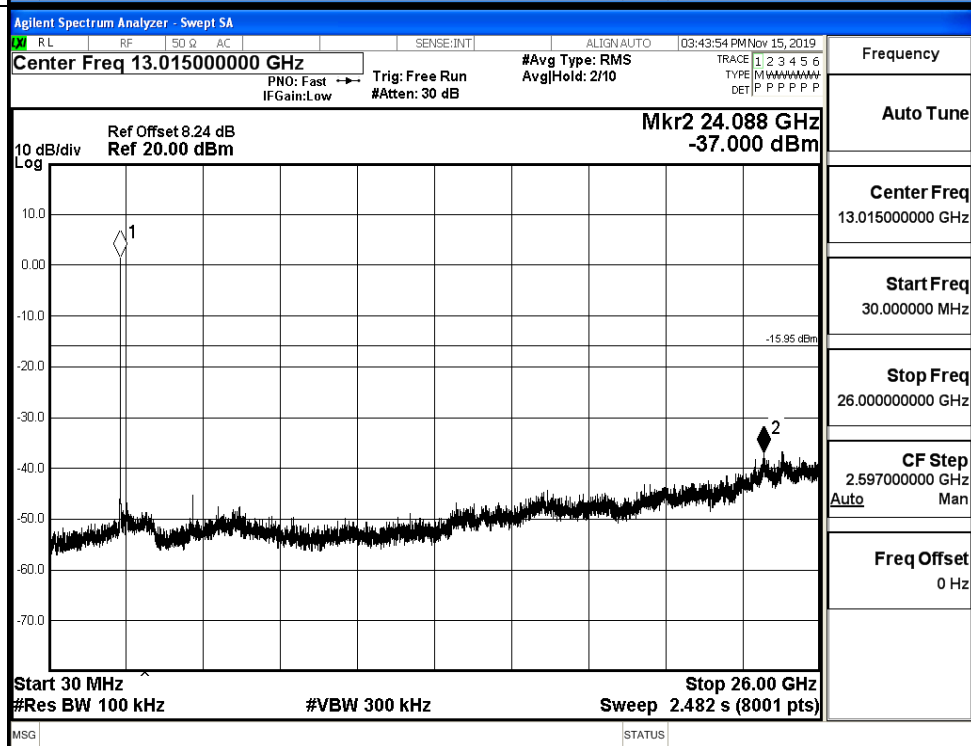


11B MCH Graphs Ant 0

Pref/11B/MCH

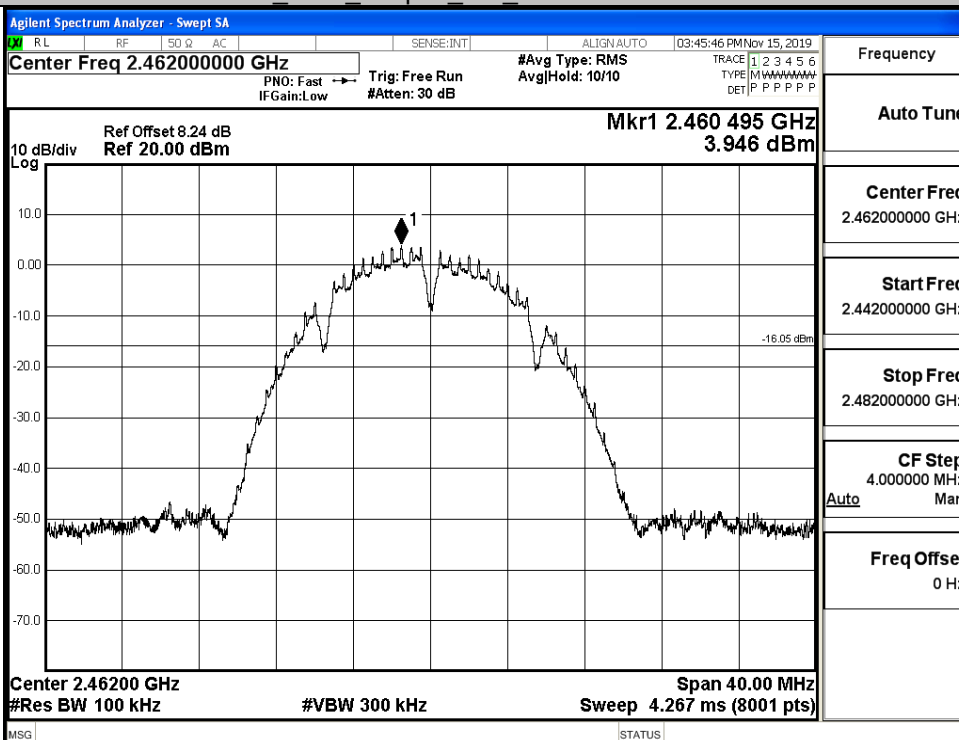


Puw/11B/MCH

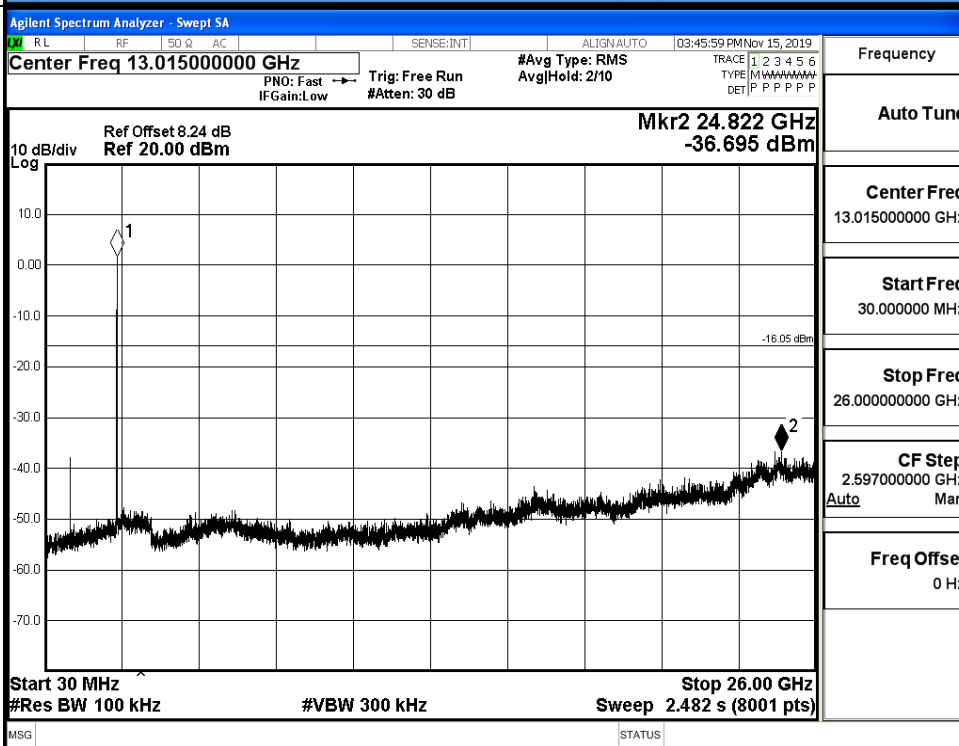


11B HCH Graphs Ant 0

Pref/11B/HCH

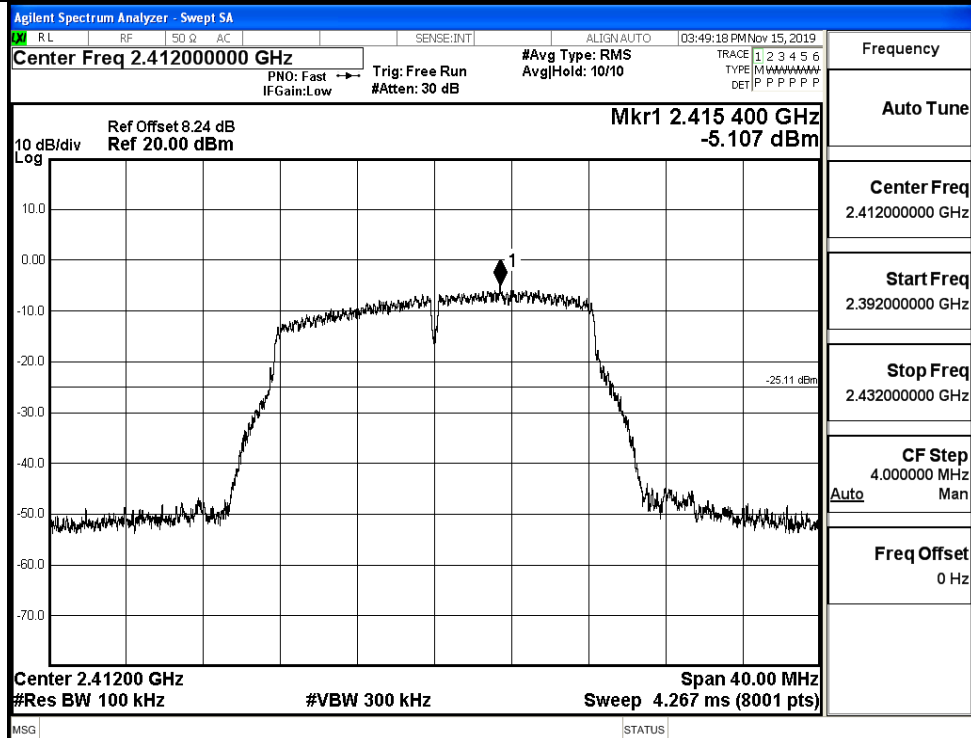


Puw/11B/HCH

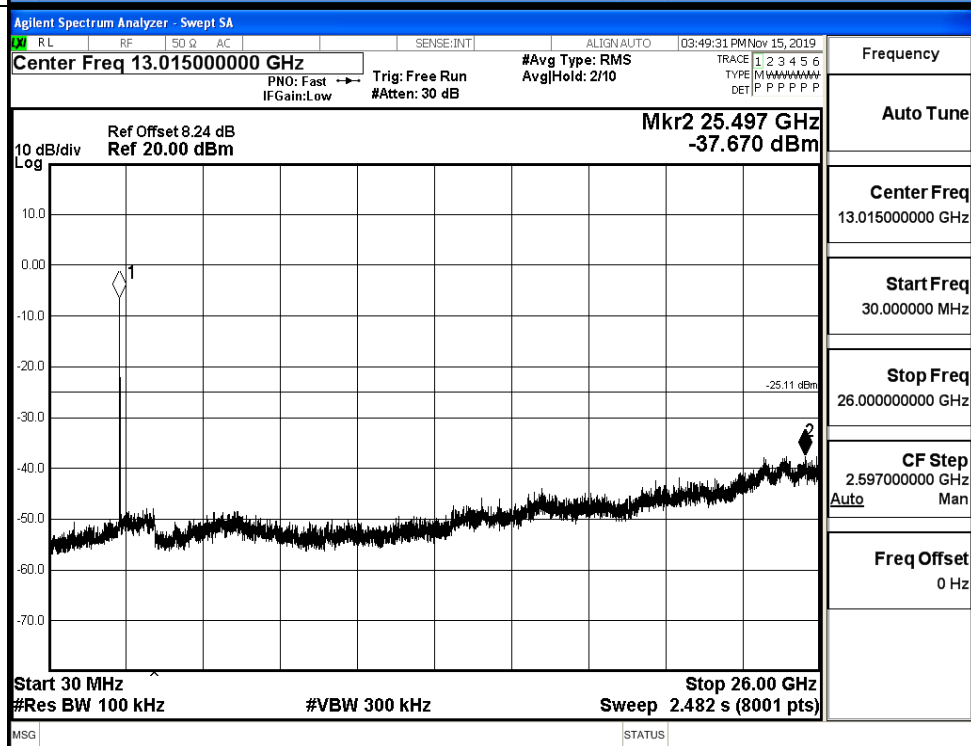


11G LCH Graphs Ant 0

Pref/11G/LCH

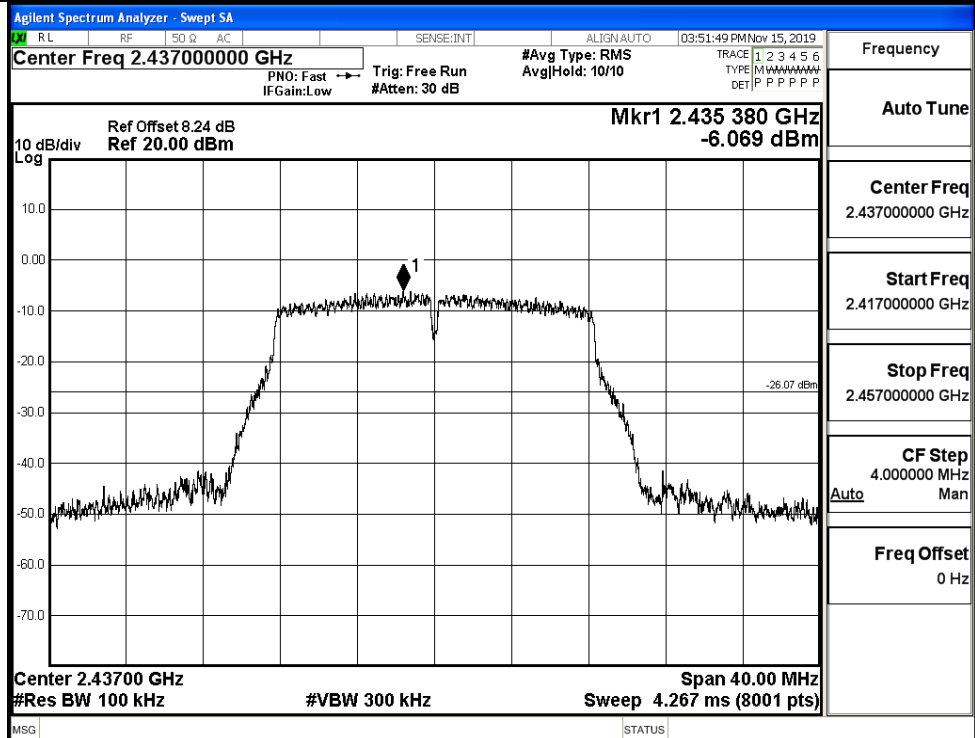


Puw/11G/LCH

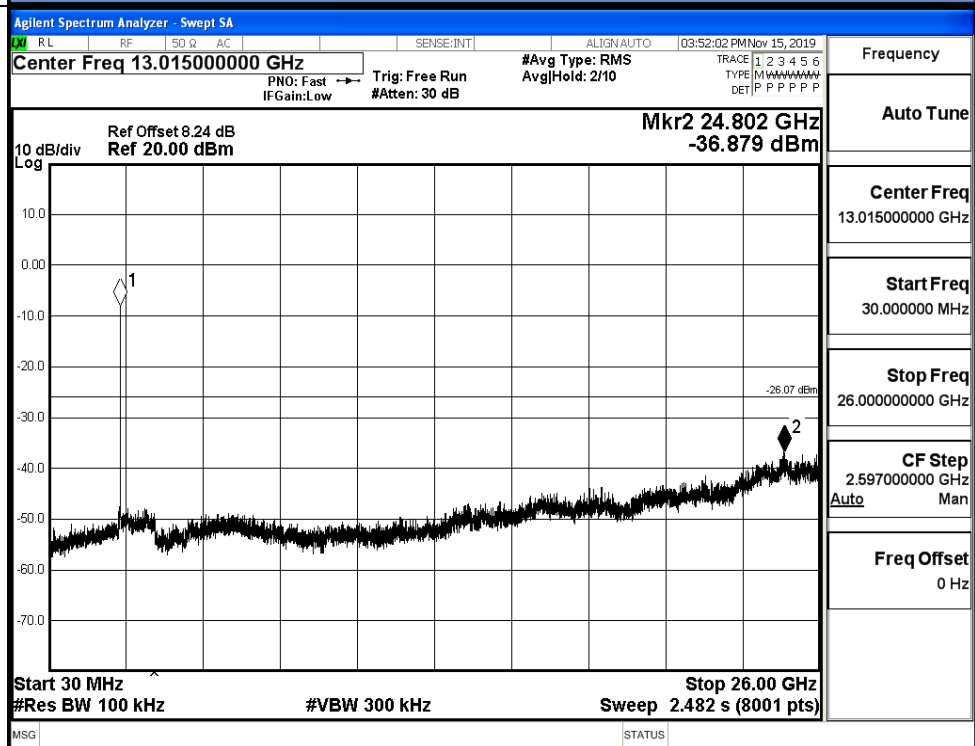


11G MCH Graphs Ant 0

Pref/11G/MCH

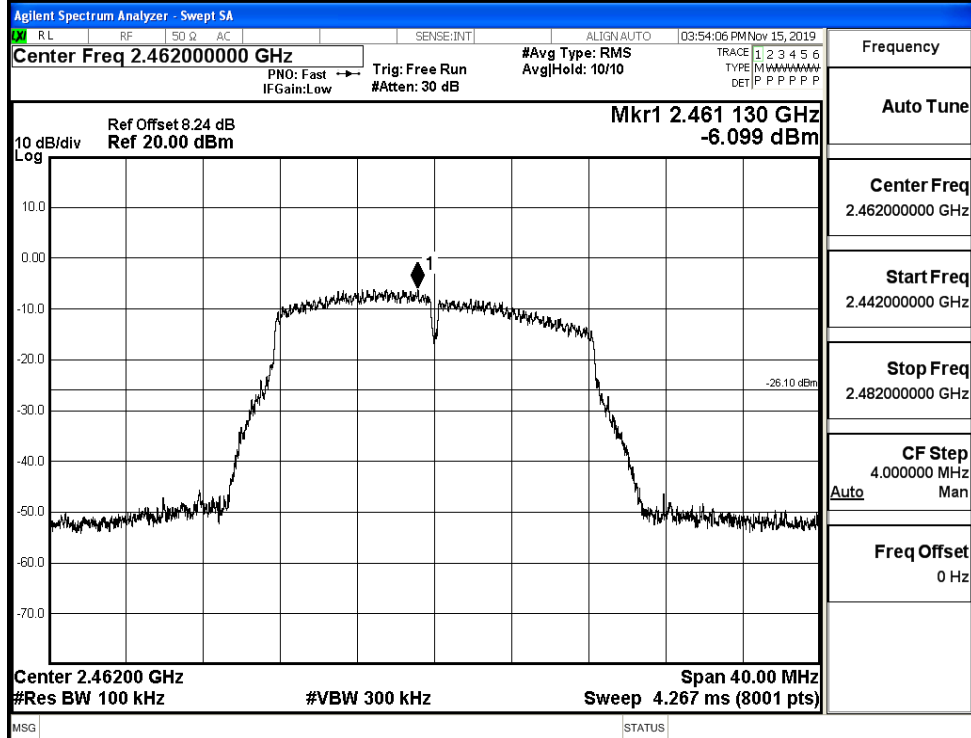


Puw/11G/MCH

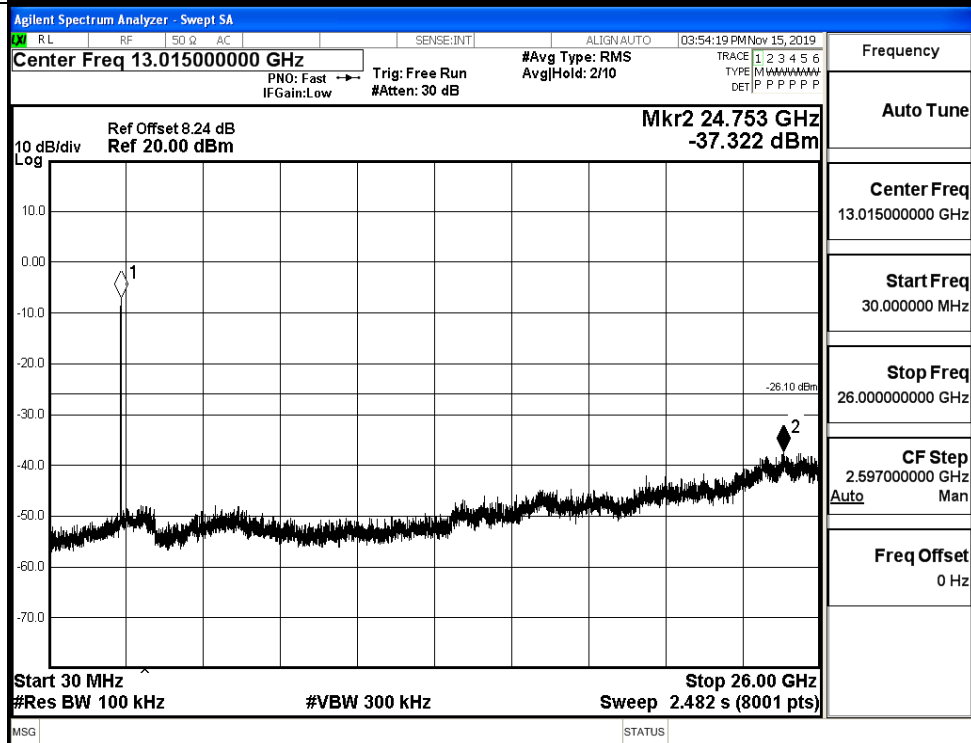


11G HCH Graphs Ant 0

Pref/11G/HCH

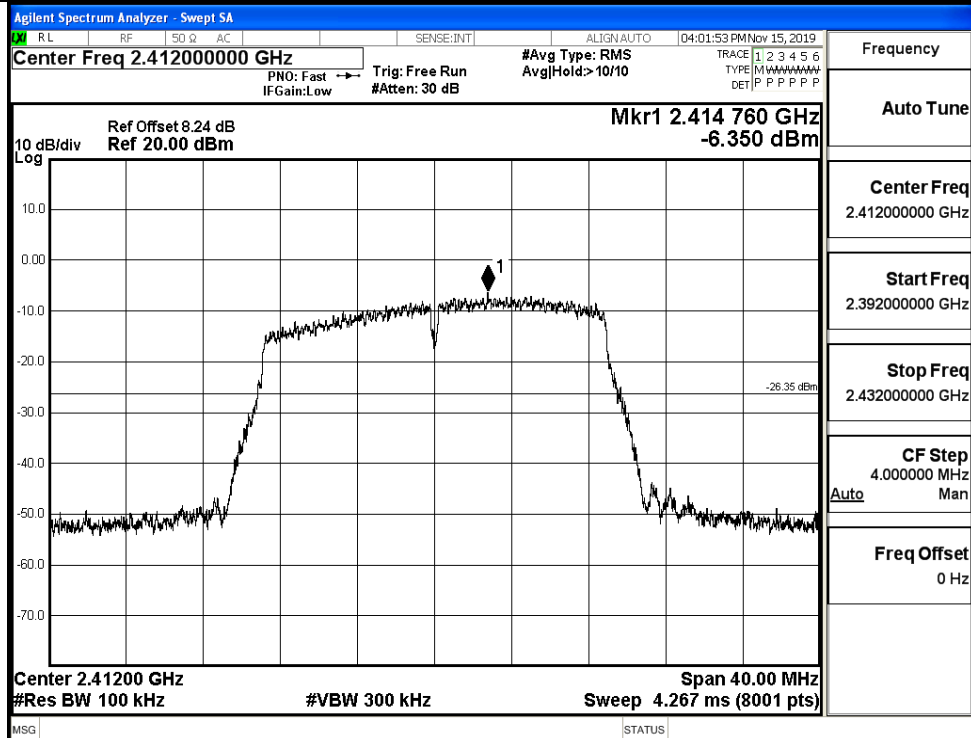


Puw/11G/HCH

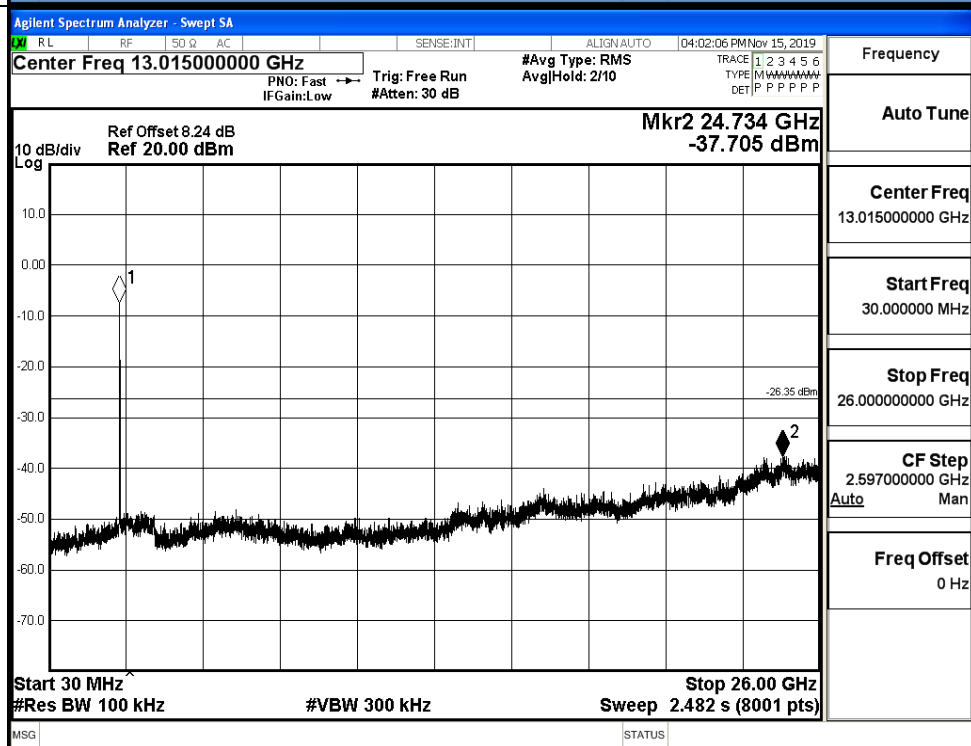


11N20 LCH Graphs Ant 0

Pref/11N20/
LCH

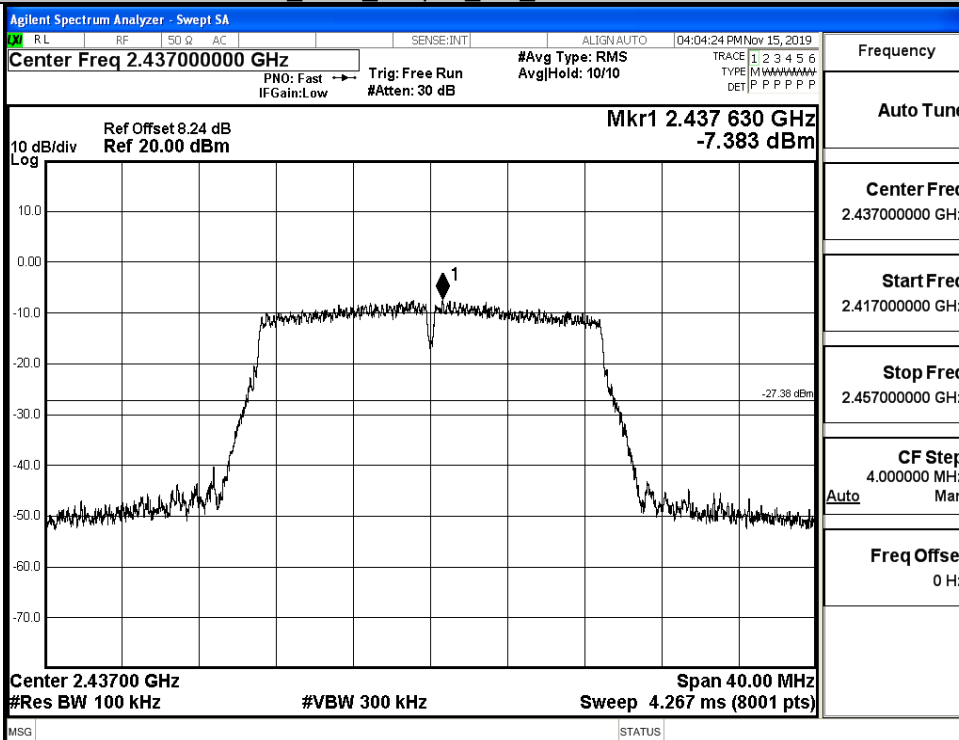


Puw/11N20/
LCH

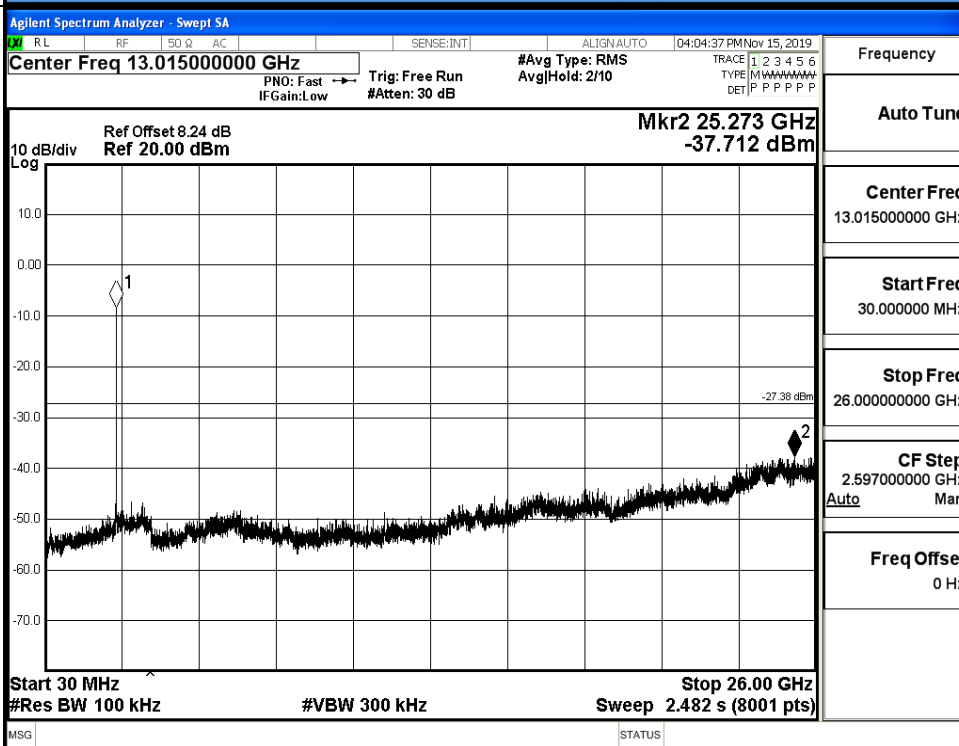


11N20 MCH Graphs Ant 0

Pref/11N20/
MCH

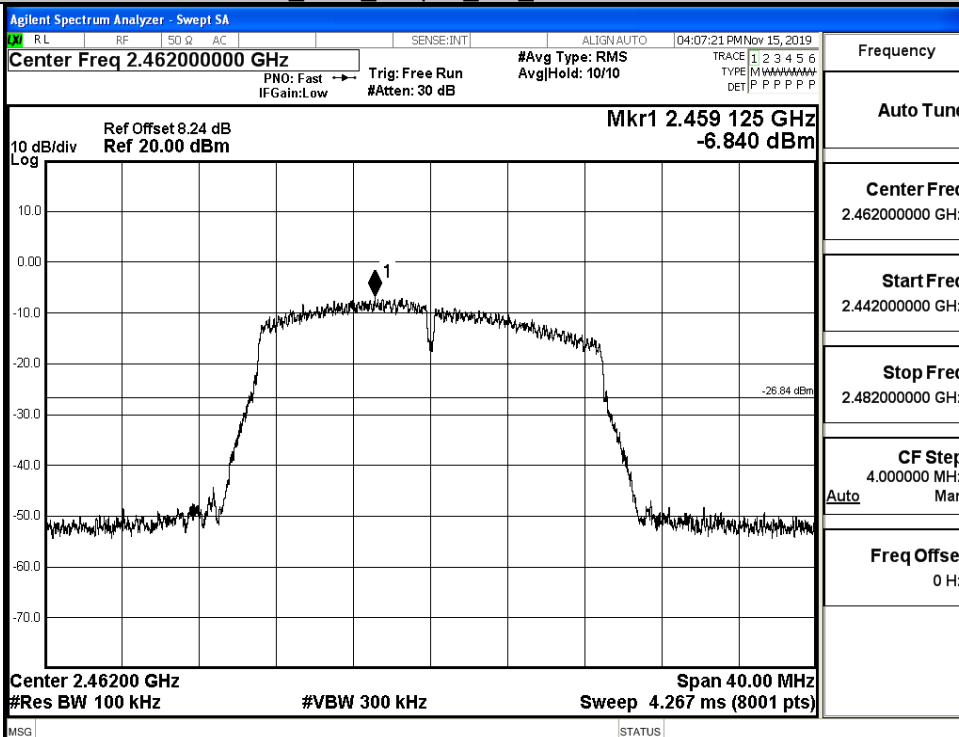


Puw/11N20/
MCH

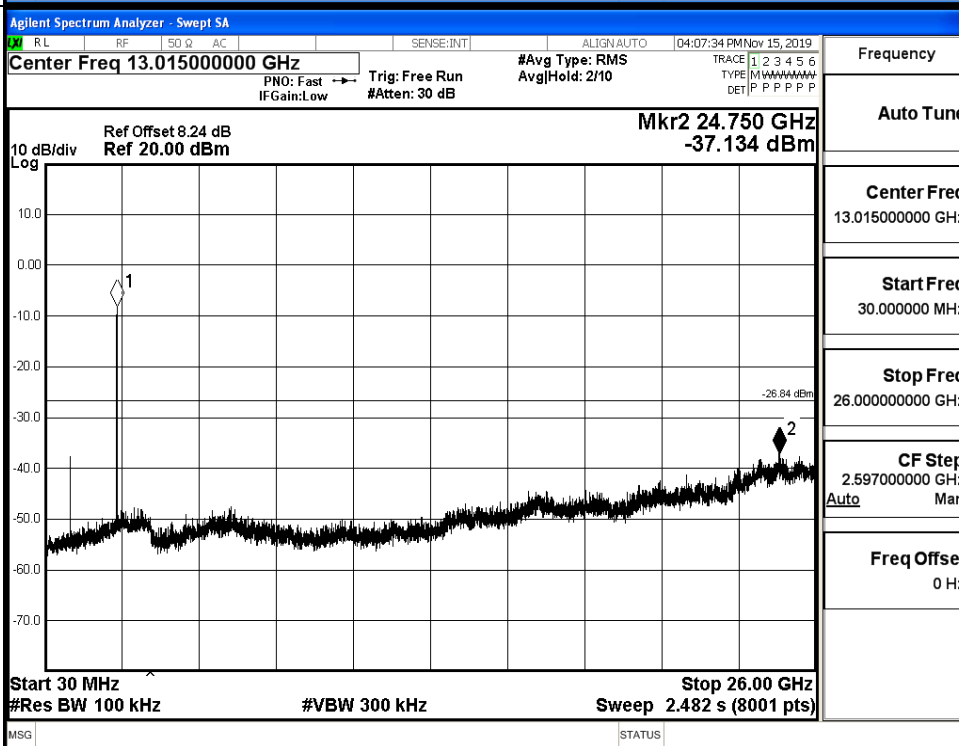


11N20 HCH Graphs Ant 0

Pref/11N20/
HCH

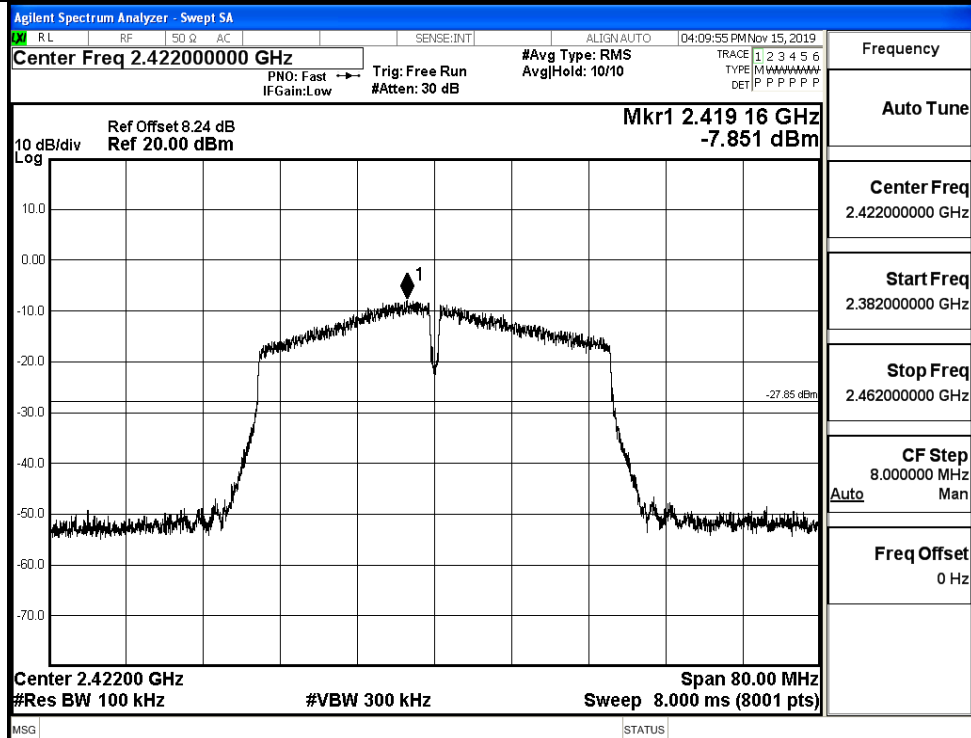


Puw/11N20/
HCH

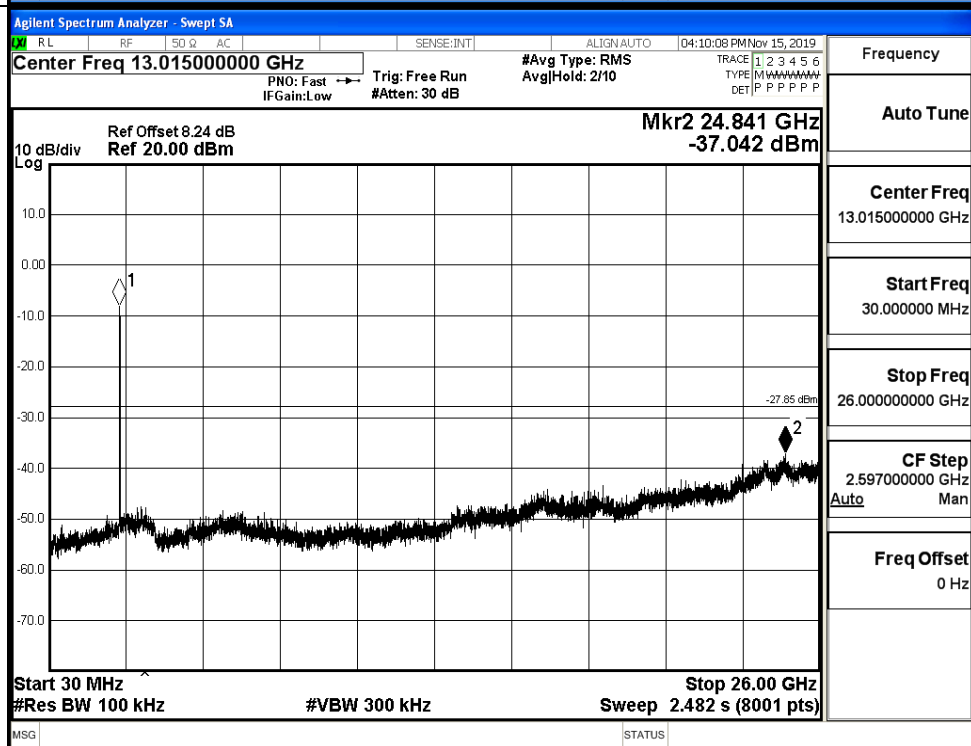


11N40 LCH Graphs Ant 0

Pref/11N40/
LCH

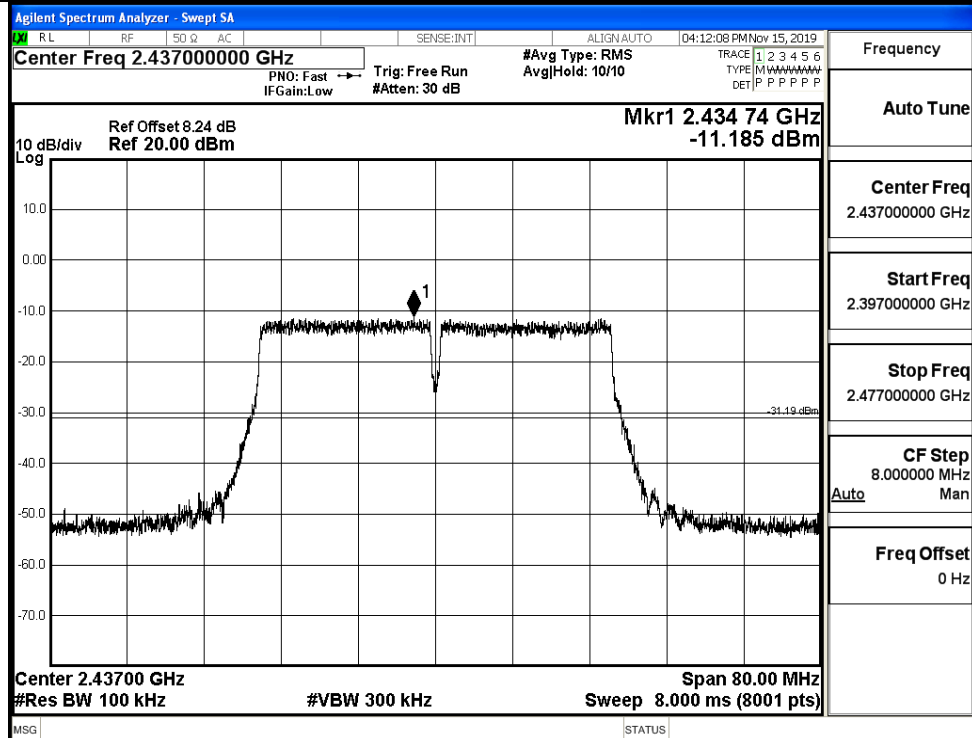


Puw/11N40/
LCH

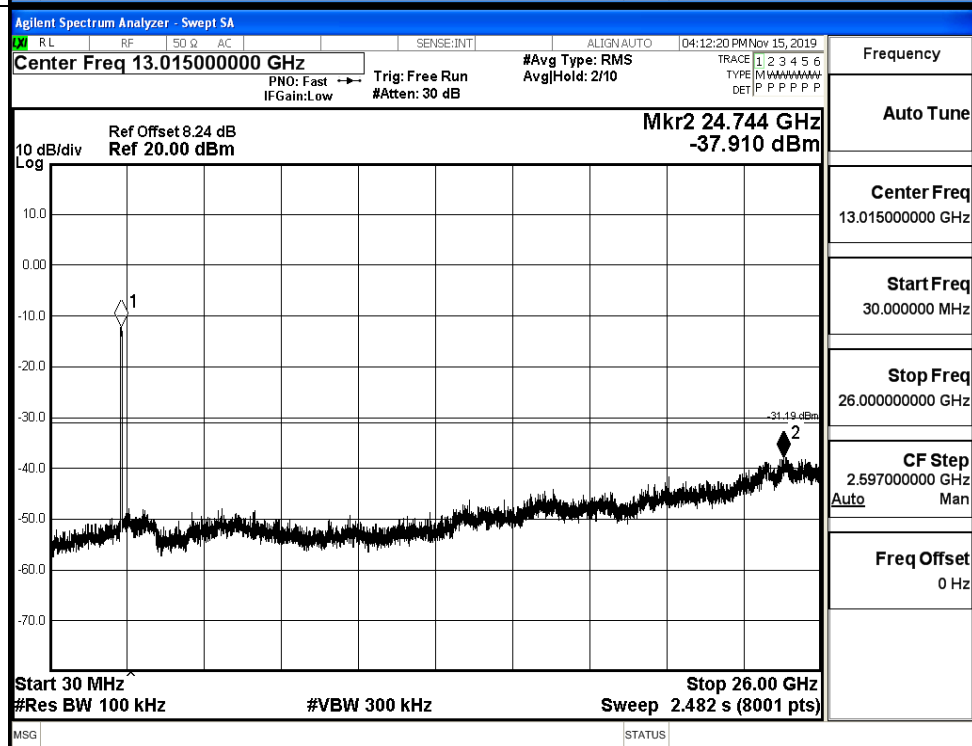


11N40 MCH Graphs Ant 0

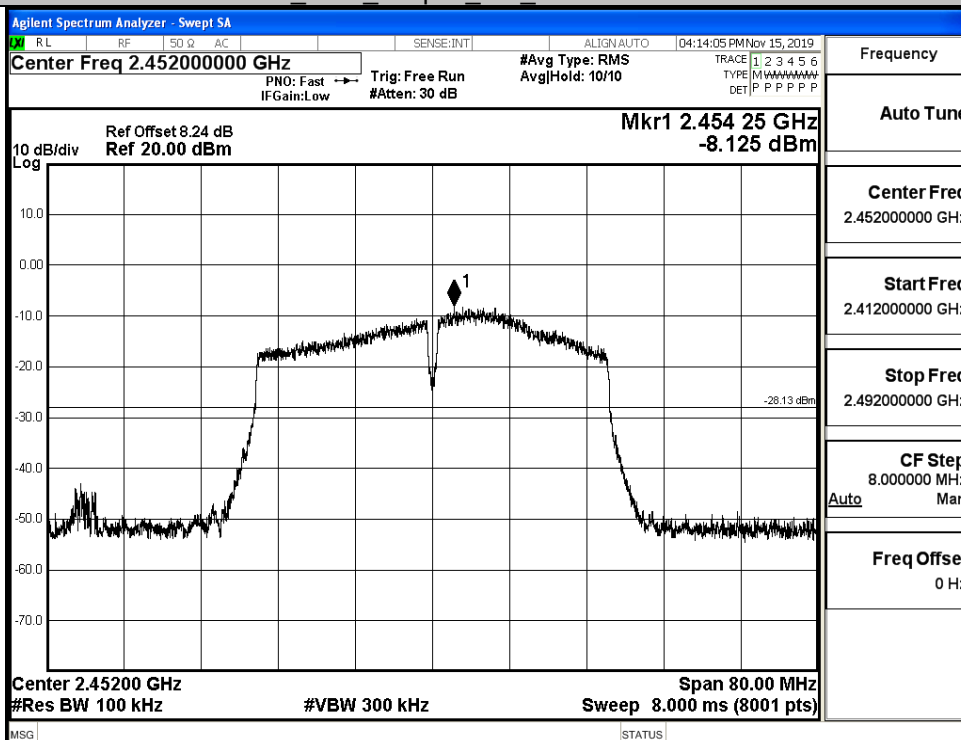
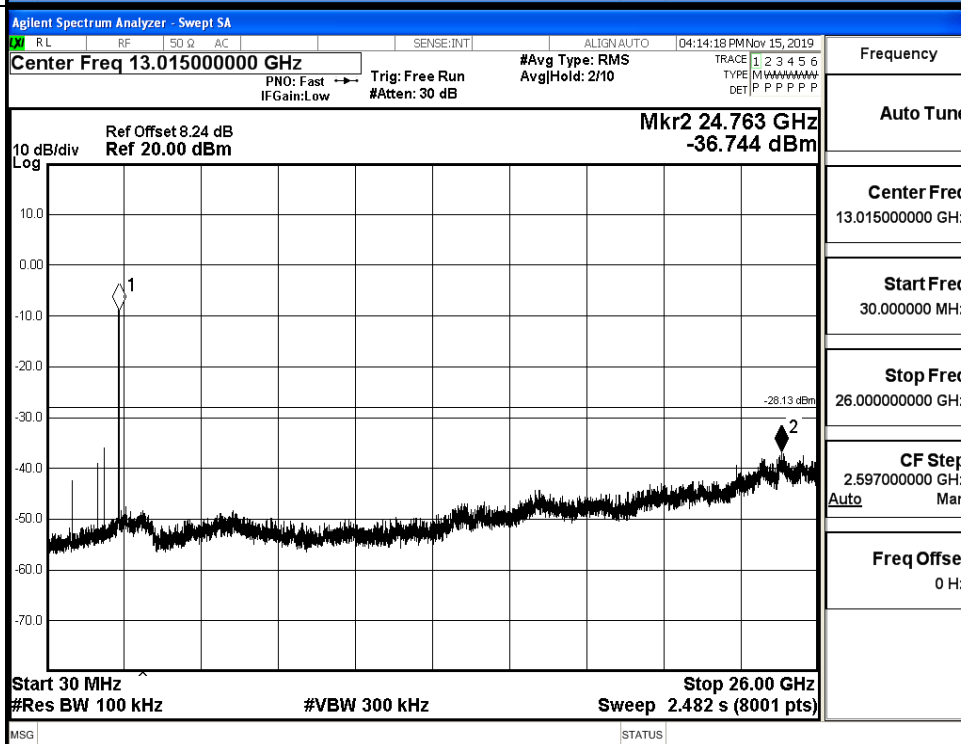
Pref/11N40/
MCH



Puw/11N40/
MCH



11N40 HCH Graphs Ant 0

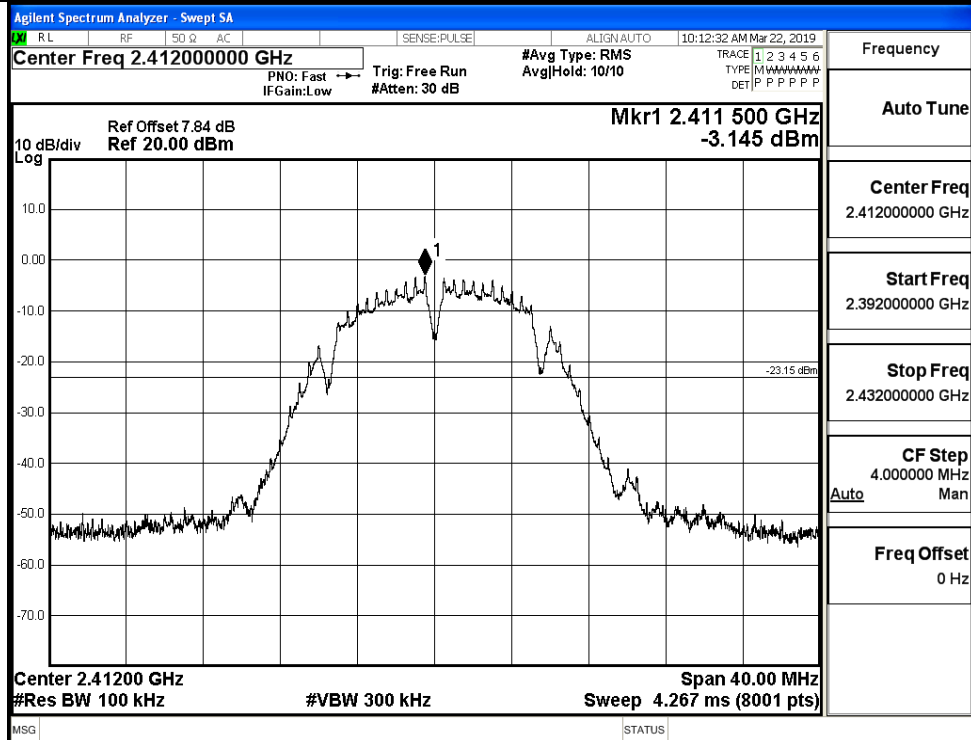
Pref/11N40/
HCHPuw/11N40/
HCH

Ant 1

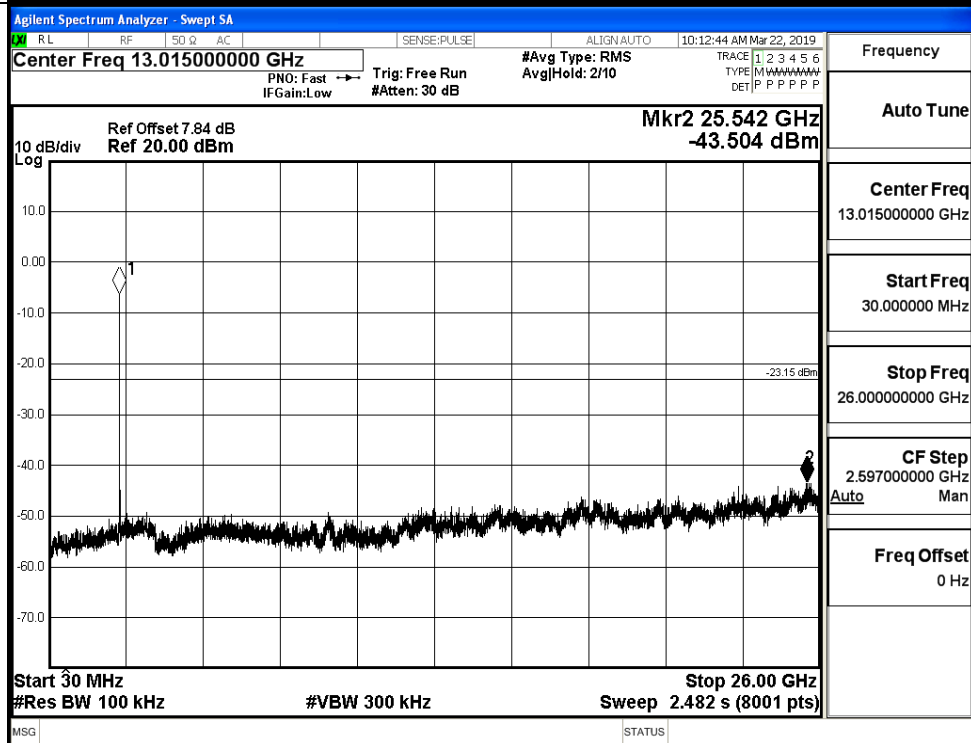
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-3.145	-43.504	-23.145	PASS
	MCH	-3.735	-43.678	-23.735	PASS
	HCH	-3.688	-43.700	-23.688	PASS
11G	LCH	-7.798	-43.509	-27.798	PASS
	MCH	-7.233	-44.035	-27.233	PASS
	HCH	-7.179	-43.245	-27.179	PASS
11N20	LCH	-8.533	-42.898	-28.533	PASS
	MCH	-6.998	-43.213	-26.998	PASS
	HCH	-6.748	-43.177	-26.748	PASS
11N40	LCH	-8.871	-43.757	-28.871	PASS
	MCH	-9.649	-44.250	-29.649	PASS
	HCH	-8.823	-44.136	-28.823	PASS

11B LCH Graphs Ant 1

Pref/11B/LCH

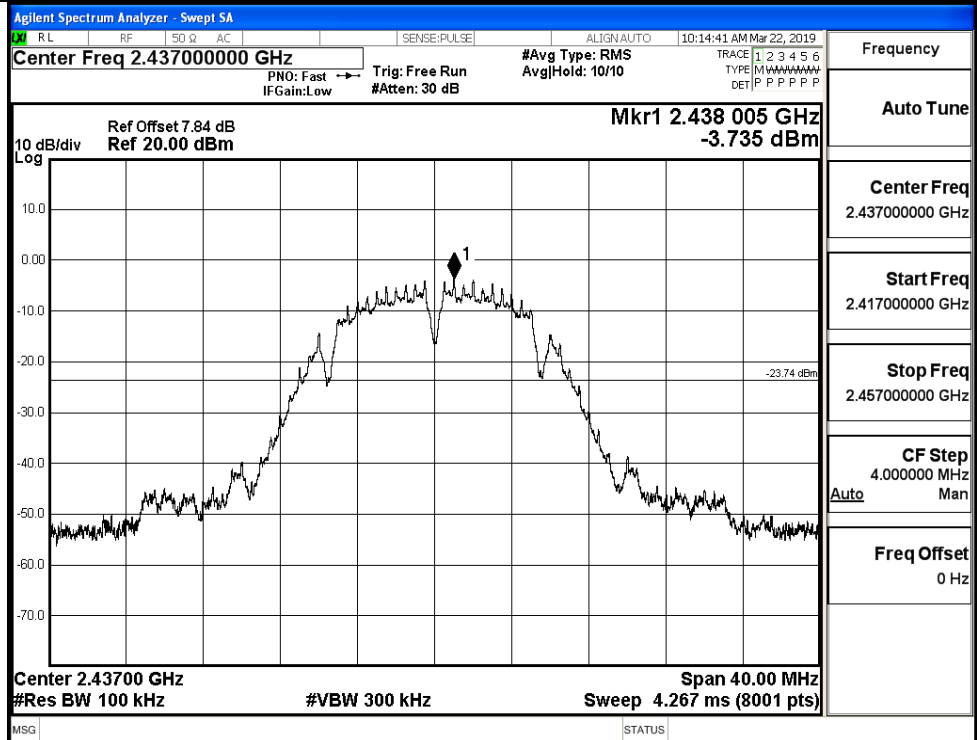


Puw/11B/LCH

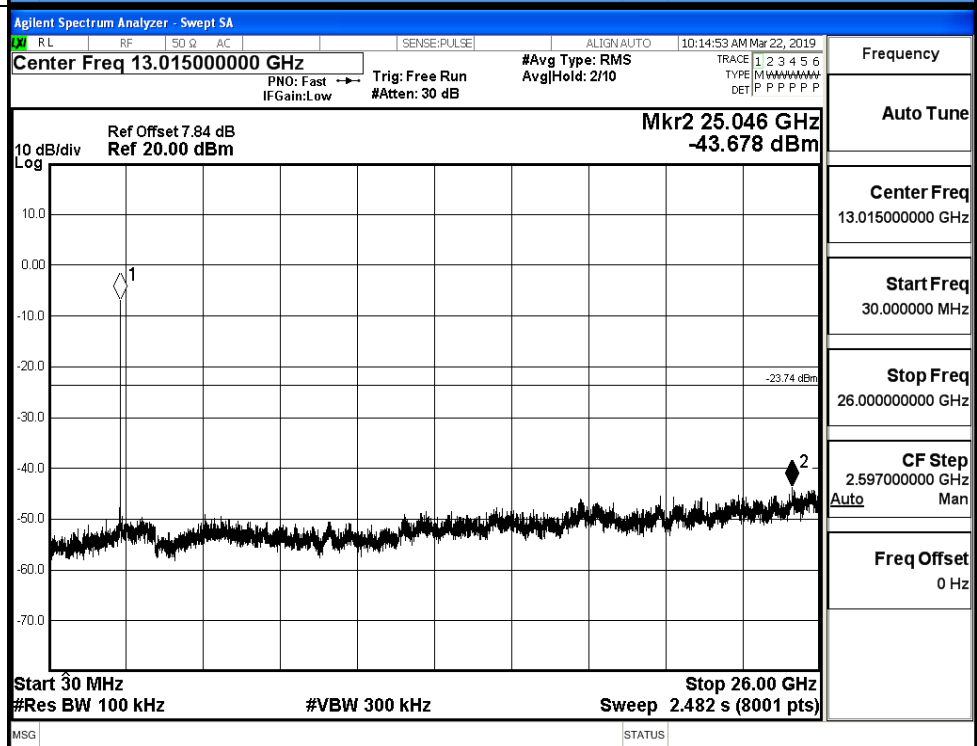


11B MCH Graphs Ant 1

Pref/11B/MCH

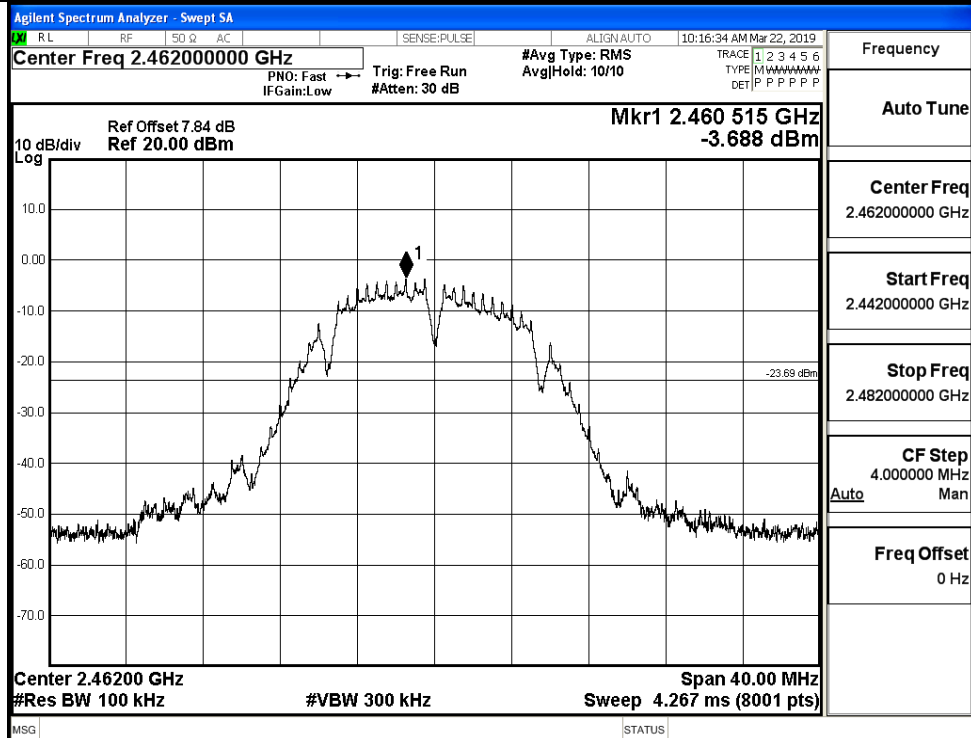


Puw/11B/MCH



11B HCH Graphs Ant 1

Pref/11B/HCH



Puw/11B/HCH

