

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: 4G LTE Wireless Gateway

Trade Mark: **GL·iNet**
Test Model: GL-X750V2C4

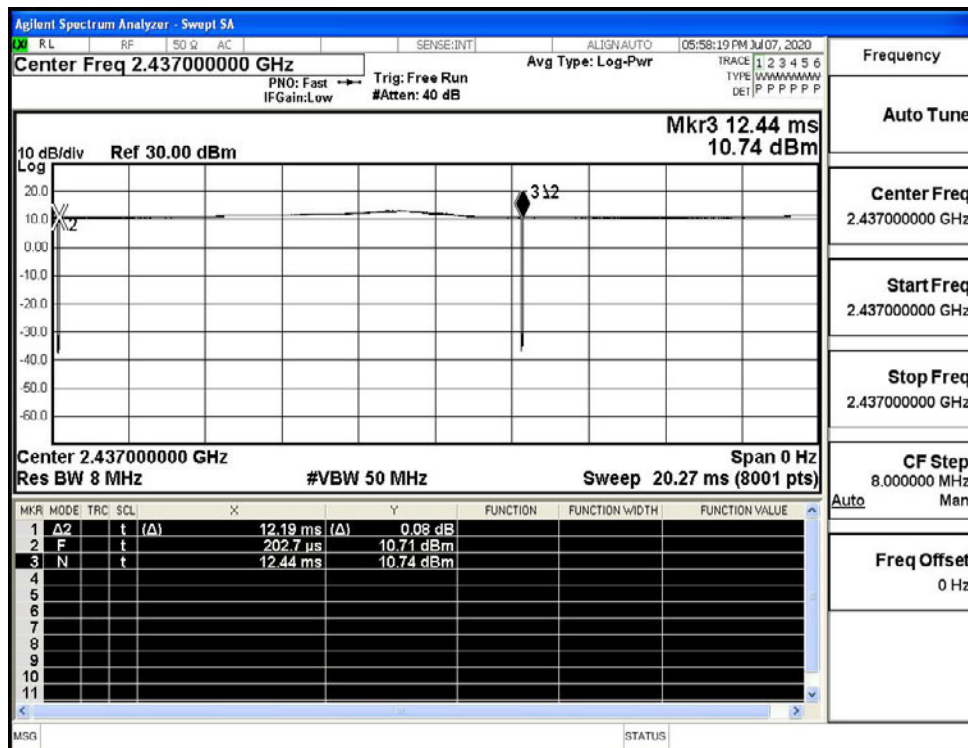
Environmental Conditions

Temperature:	23.1 ° C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Qu Xin
Supervised by:	Li Huan

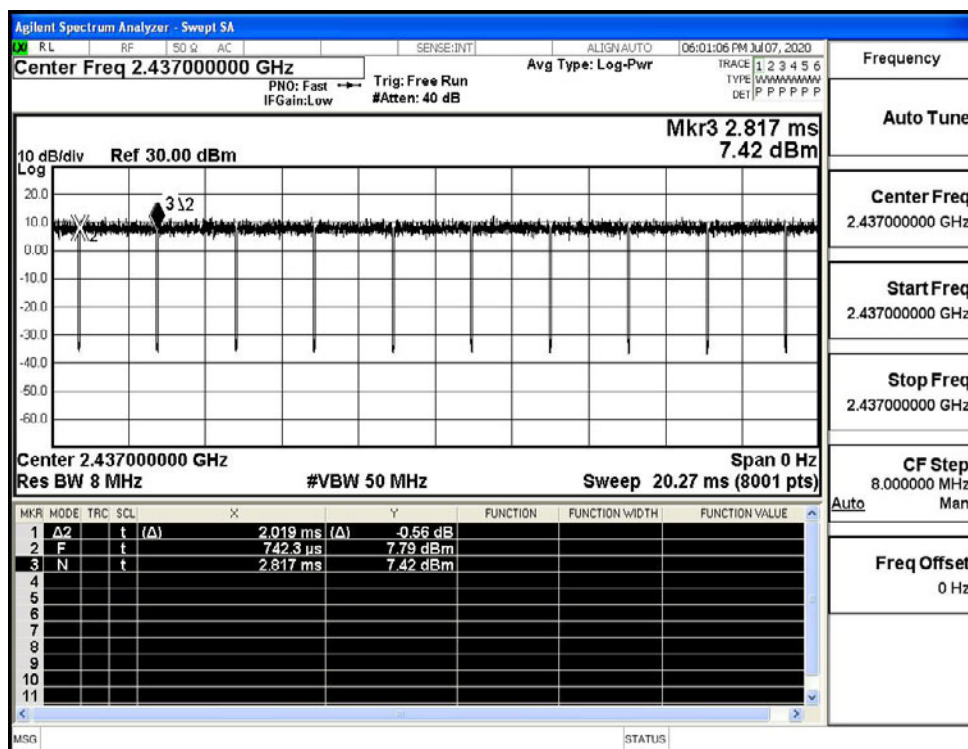
Test Mode	Test Channel	Ant	Duty Cycle[%]	1/T Minimum VBW(KHz)	Verdict
11B	2437	Ant_1	99.61	0.82	PASS
11G	2437	Ant_1	97.31	0.50	PASS
11N20	2437	Ant_1	97.12	0.53	PASS
11N40	2437	Ant_1	95.54	1.08	PASS

Test Mode	Test Channel	Ant	Duty Cycle[%]		Verdict
11B	2437	Ant_2	100	0.01	PASS
11G	2437	Ant_2	97.31	0.50	PASS
11N20	2437	Ant_2	97.13	0.53	PASS
11N40	2437	Ant_2	95.54	1.08	PASS

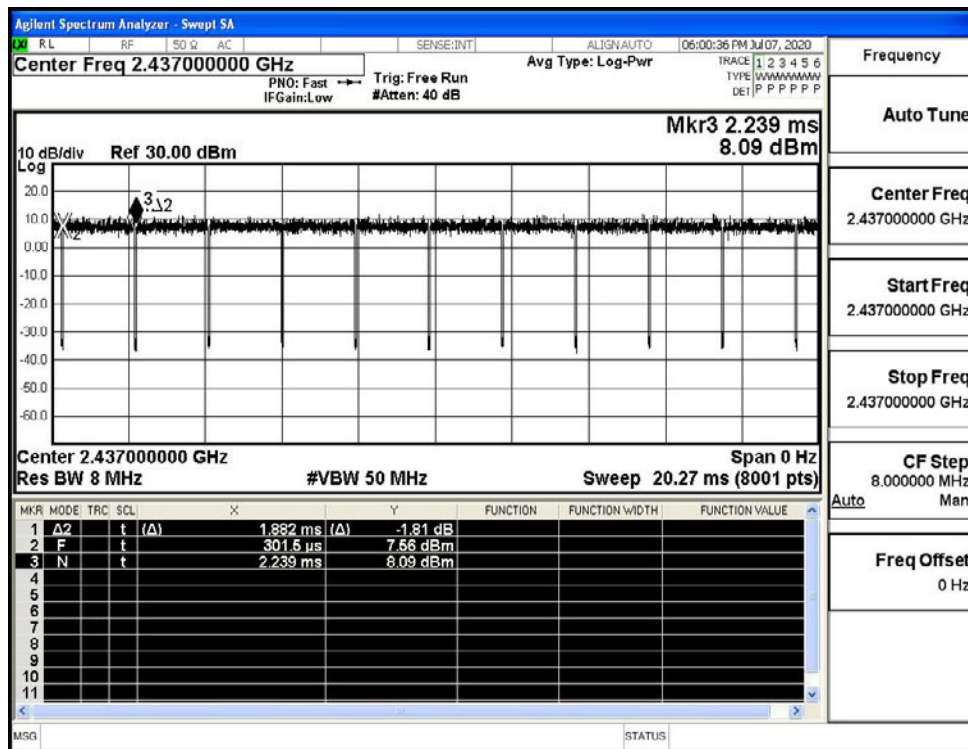
Duty Cycle_11B_2437_Ant_1



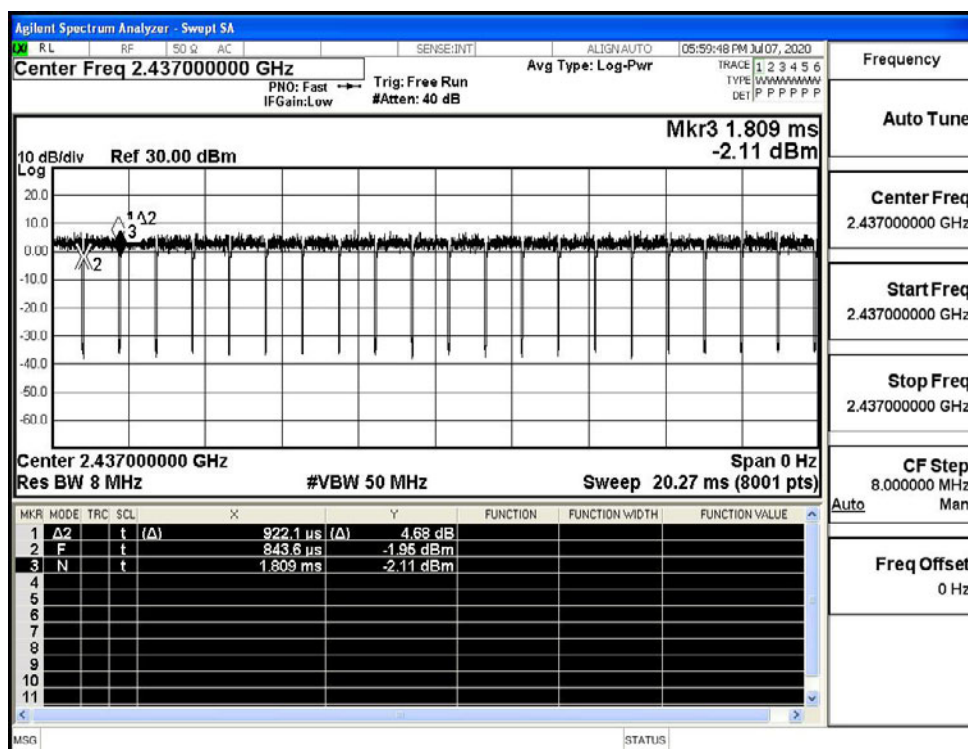
Duty Cycle_11G_2437_Ant_1



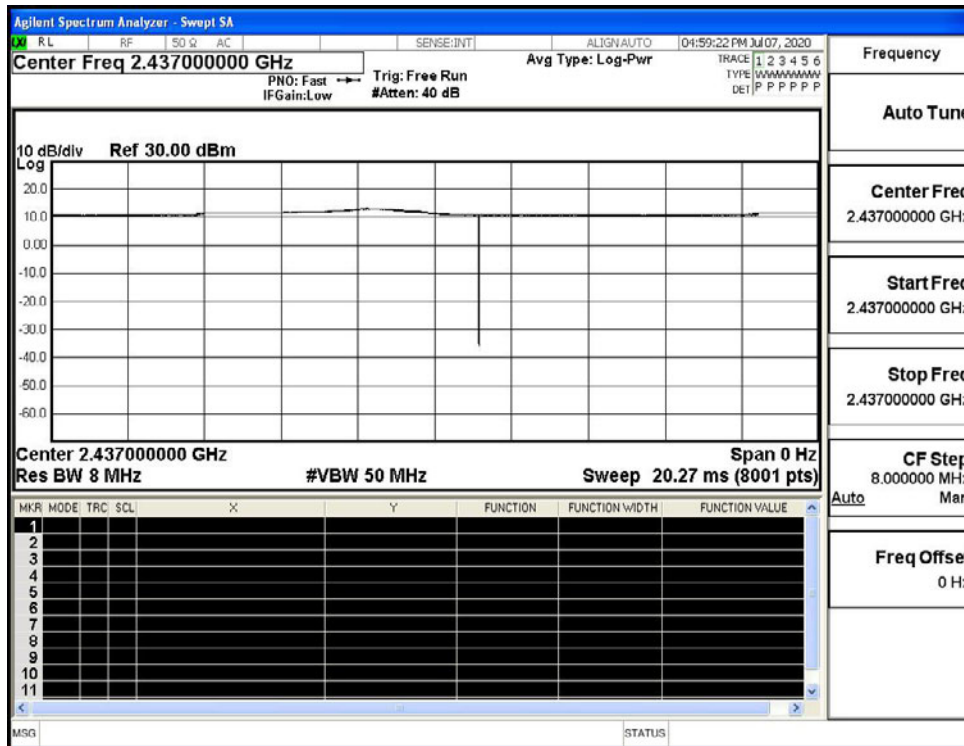
Duty Cycle_11N20SISO_2437_Ant_1



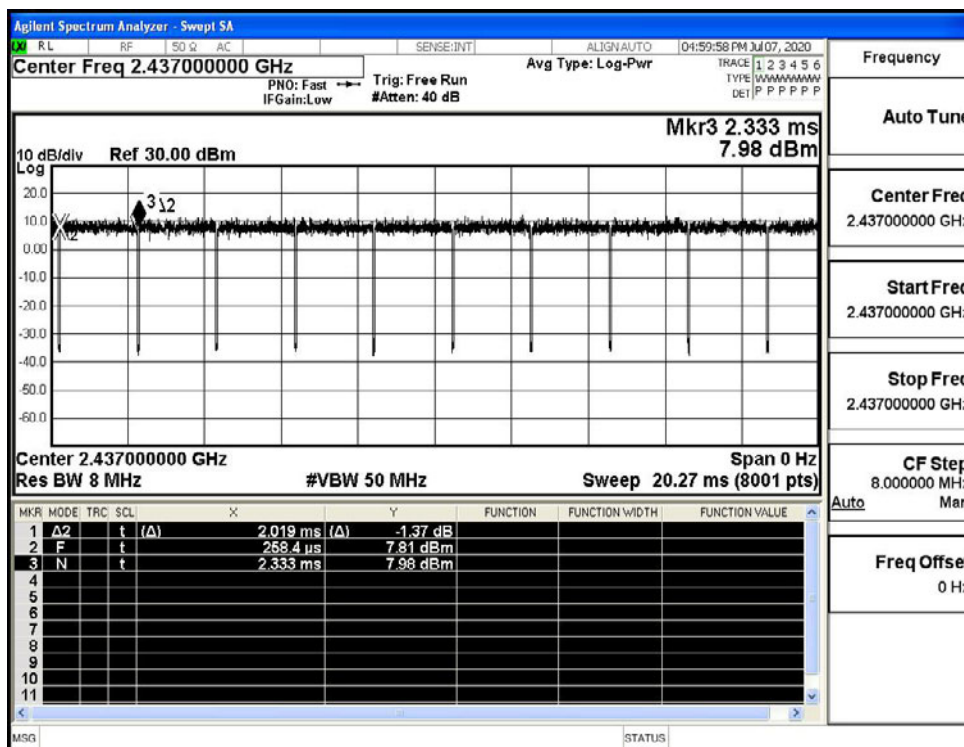
Duty Cycle_11N40SISO_2437_Ant_1



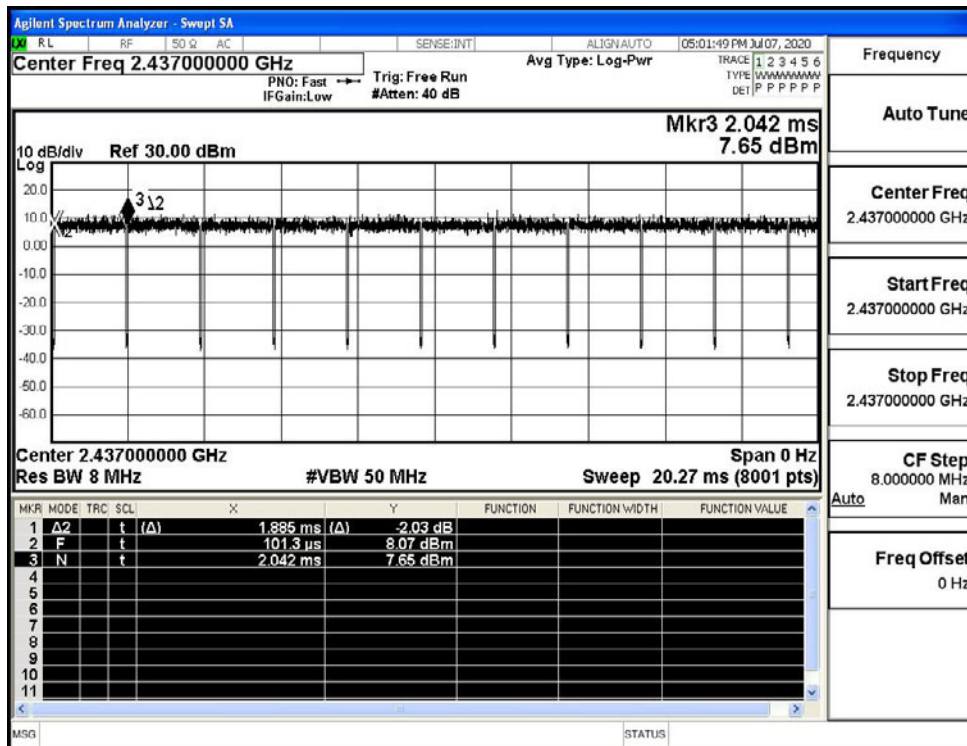
Duty Cycle_11B_2437_Ant_2



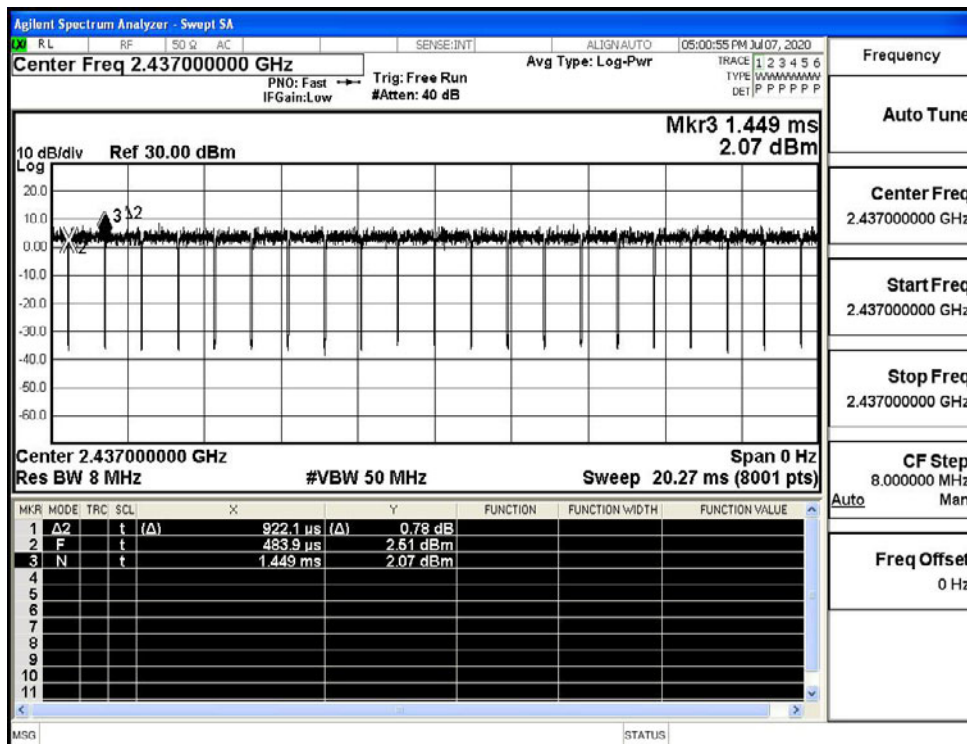
Duty Cycle_11G_2437_Ant_2



Duty Cycle_11N20SISO_2437_Ant_2



Duty Cycle_11N40SISO_2437_Ant_2



A.2 Maximum Conducted Output Power

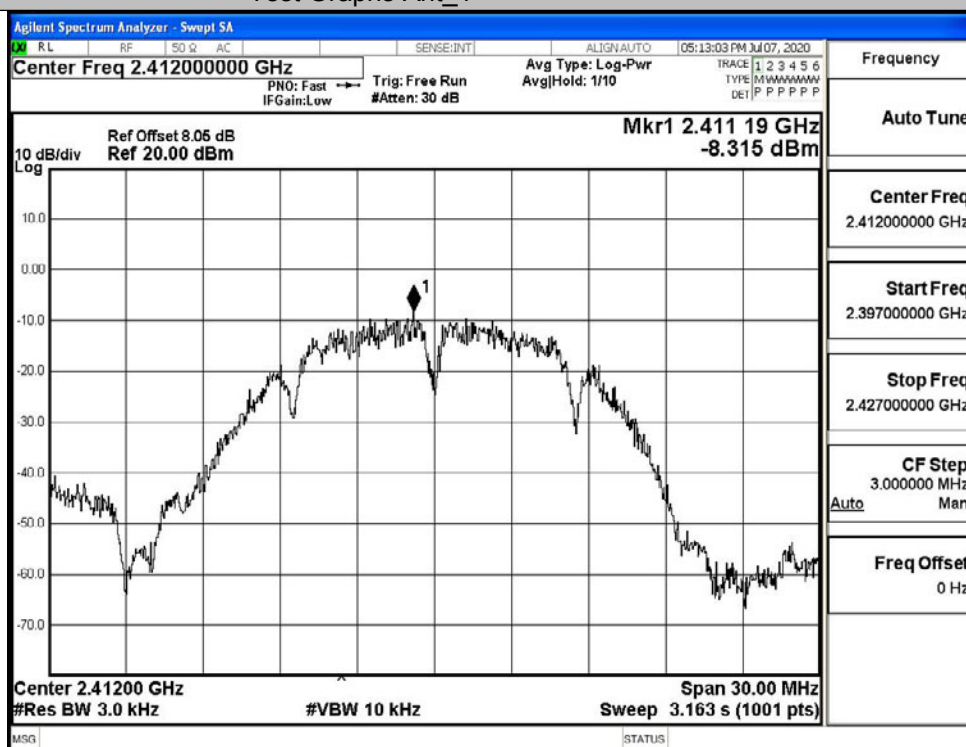
Mode	Channel	Meas.Level [dBm]			Limit [dBm]	Verdict
		Ant_1	Ant_2	Sum		
11B	LCH	18.13	18	/	30	PASS
	MCH	18.71	18.54	/	30	PASS
	HCH	18.95	18.58	/	30	PASS
11G	LCH	19.99	19.97	/	30	PASS
	MCH	20.84	20.75	/	30	PASS
	HCH	21.04	20.78	/	30	PASS
11N20SISO	LCH	19.65	19.59	22.63	30	PASS
	MCH	20.46	20.41	23.45	30	PASS
	HCH	20.65	20.58	23.63	30	PASS
11N40SISO	LCH	19.36	19.29	22.34	30	PASS
	MCH	19.76	19.66	22.72	30	PASS
	HCH	20.53	20.5	23.53	30	PASS

A.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]			Limit [dBm/3KHz]	Verdict
		Ant_1	Ant_2	Sum		
11B	LCH	-8.315	-7.796	/	8	PASS
	MCH	-8.423	-7.217	/	8	PASS
	HCH	-8.413	-8.559	/	8	PASS
11G	LCH	-12.200	-14.506	/	8	PASS
	MCH	-12.112	-12.887	/	8	PASS
	HCH	-13.283	-12.859	/	8	PASS
11N20SISO	LCH	-14.059	-13.593	-10.81	8	PASS
	MCH	-13.690	-13.801	-10.73	8	PASS
	HCH	-13.167	-13.023	-10.08	8	PASS
11N40SISO	LCH	-18.410	-18.040	-15.21	8	PASS
	MCH	-17.775	-15.520	-13.49	8	PASS
	HCH	-15.870	-16.825	-13.31	8	PASS

Test Graphs Ant_1

11B/LCH



11B/MCH

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.43700000 GHz

Ref Offset 8.05 dB
Ref 20.00 dBm

Mkr1 2.438 35 GHz
-8.423 dBm

10 dB/div
Log

Center 2.43700 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Sweep 3.163 s (1001 pts)

11B/HCH

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.46200000 GHz

Ref Offset 8.05 dB
Ref 20.00 dBm

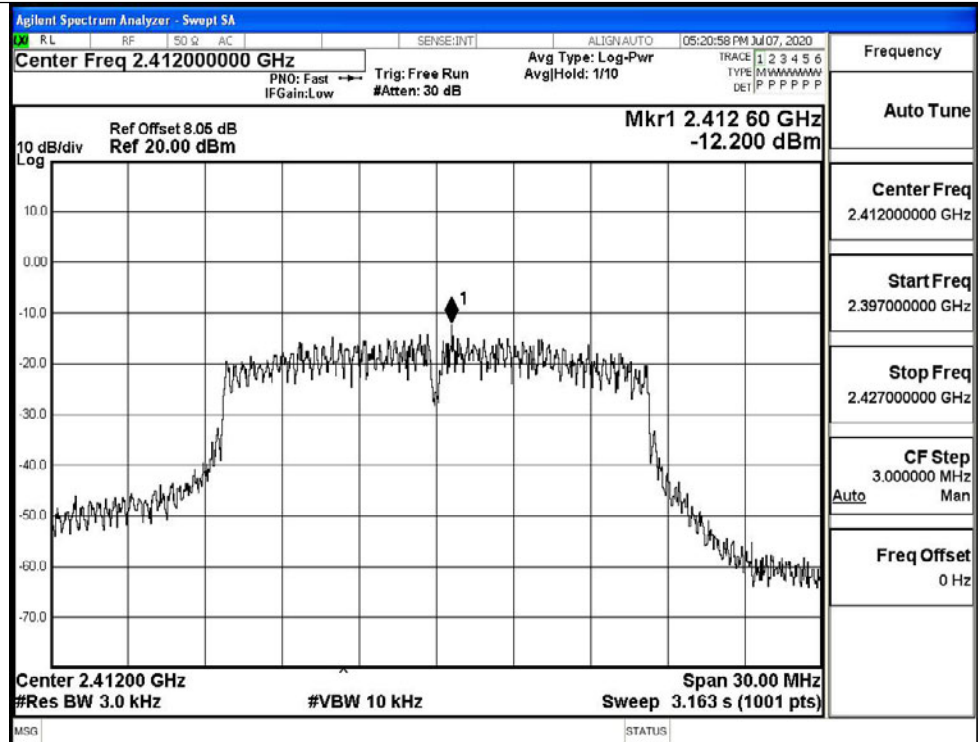
Mkr1 2.462 51 GHz
-8.413 dBm

10 dB/div
Log

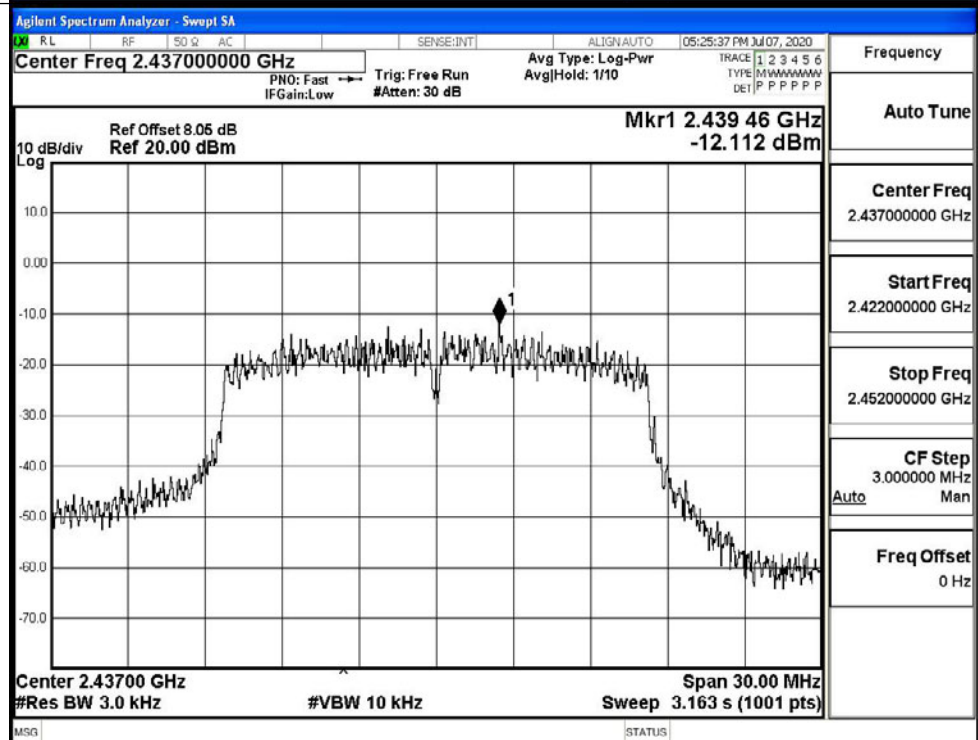
Center 2.46200 GHz
#Res BW 3.0 kHz
#VBW 10 kHz
Sweep 3.163 s (1001 pts)

Figure 11B shows two spectral plots. The top plot, labeled 11B/MCH, displays the spectrum for the MCH channel with a center frequency of 2.437 GHz. The bottom plot, labeled 11B/HCH, displays the spectrum for the HCH channel with a center frequency of 2.462 GHz. Both plots show a similar spectral shape with a main peak and side lobes. The y-axis represents power in dBm, ranging from -70.0 to 10.0. The x-axis represents frequency in GHz, ranging from 2.435 to 2.439 for the MCH plot and 2.460 to 2.464 for the HCH plot. The plots are generated using a swept SA mode with a resolution bandwidth of 3.0 kHz and a video bandwidth of 10 kHz. The reference level is set to 20.00 dBm with an offset of 8.05 dB. The marker Mkr1 is placed at the main peak of each spectrum, indicating a power level of approximately -8.4 dBm.

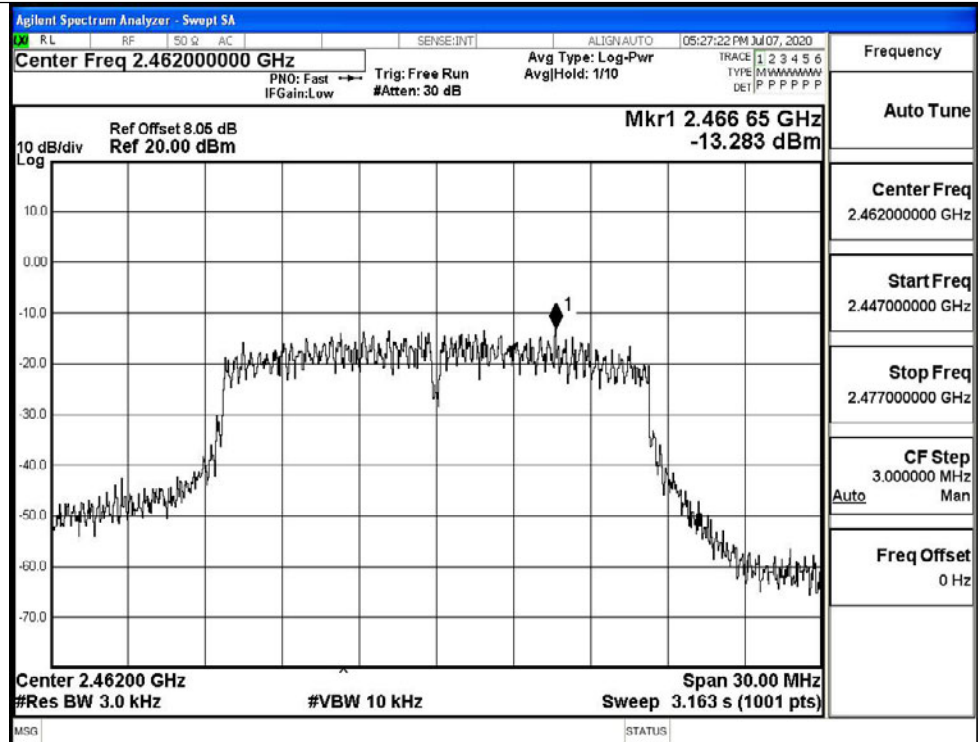
11G/LCH



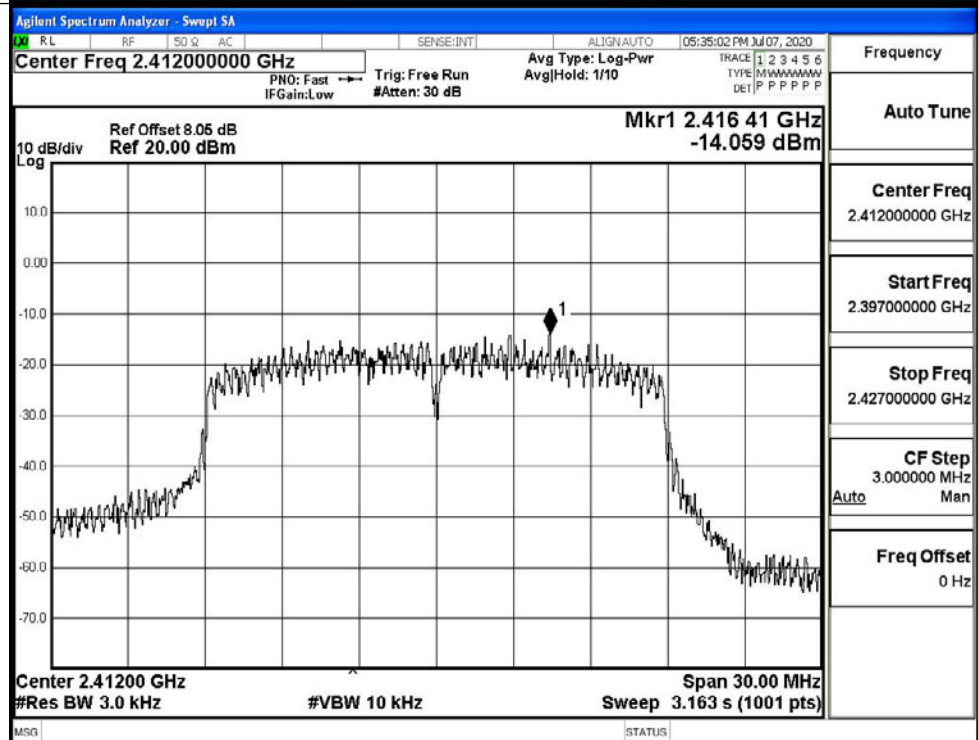
11G/MCH



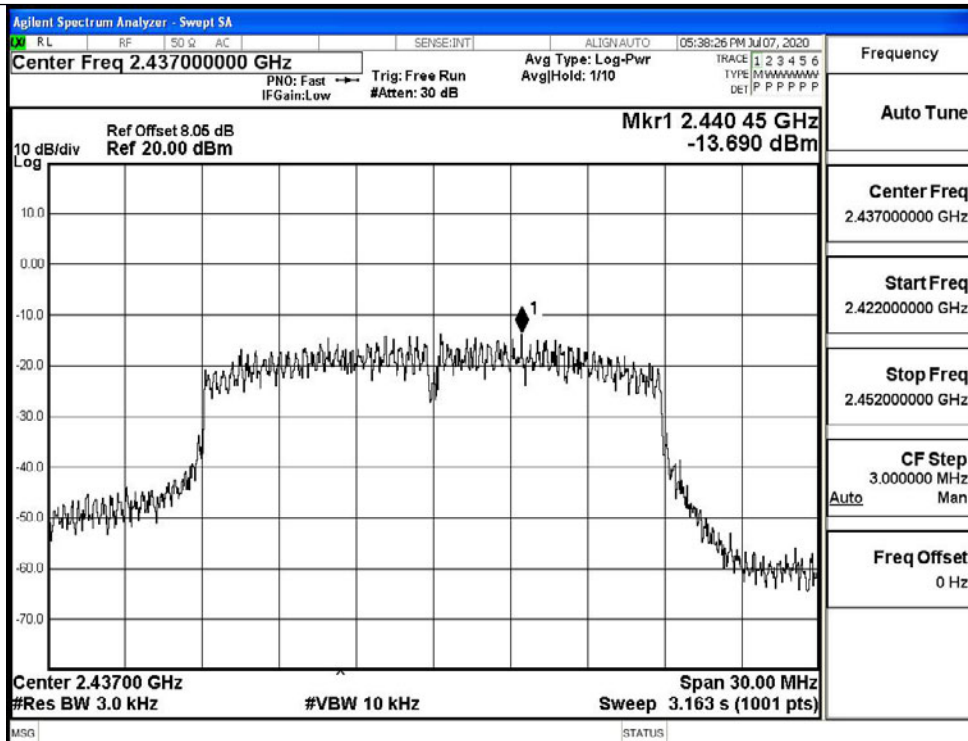
11G/HCH



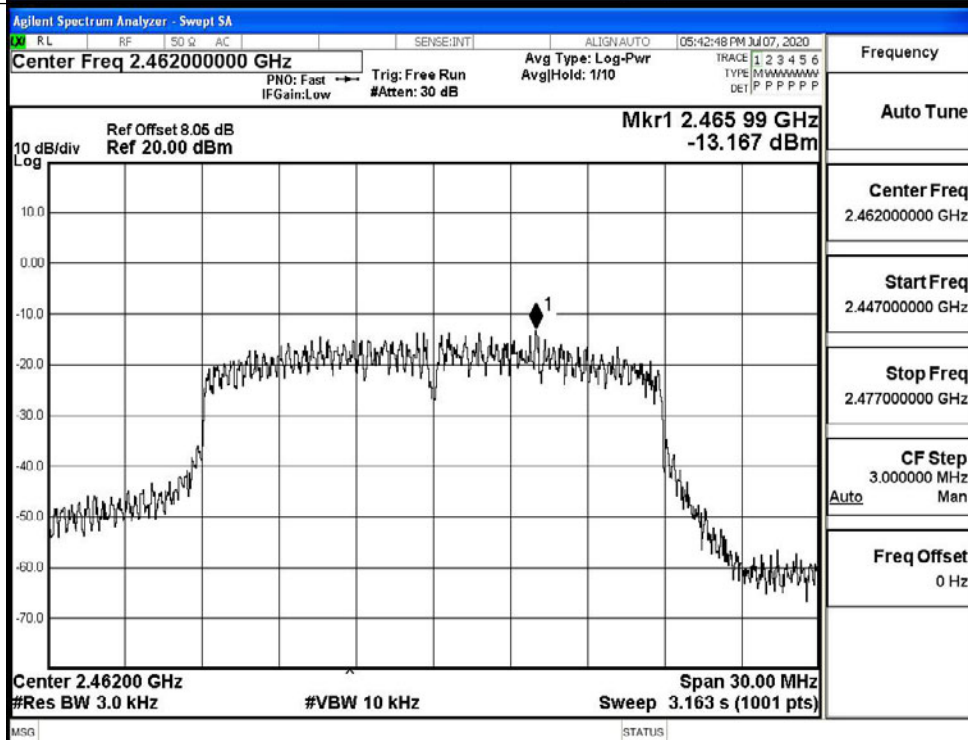
11N20SISO/LCH



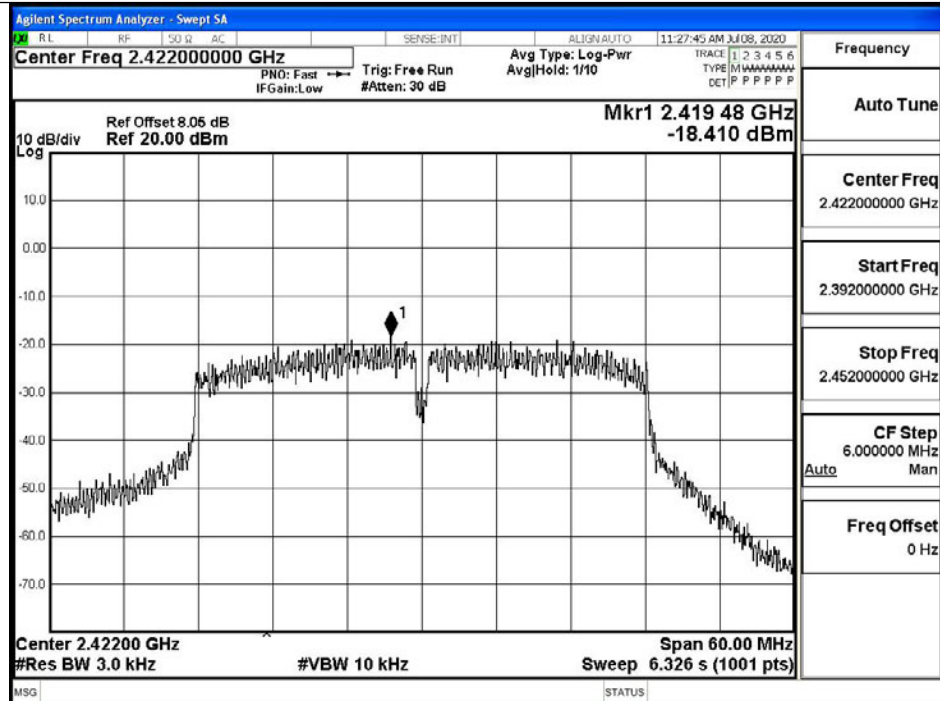
11N20SISO/MCH



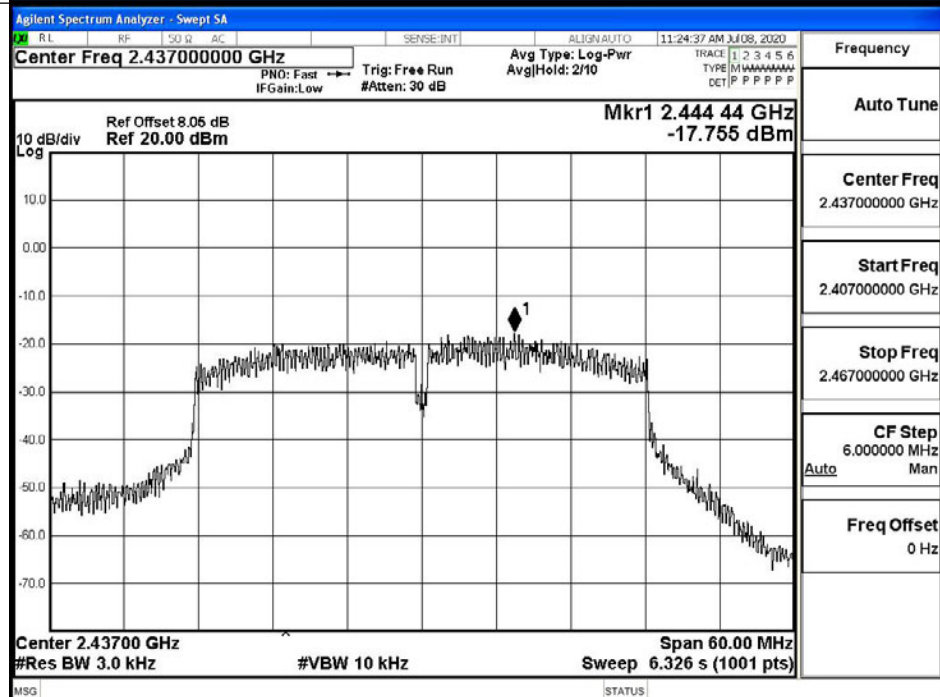
11N20SISO/HCH



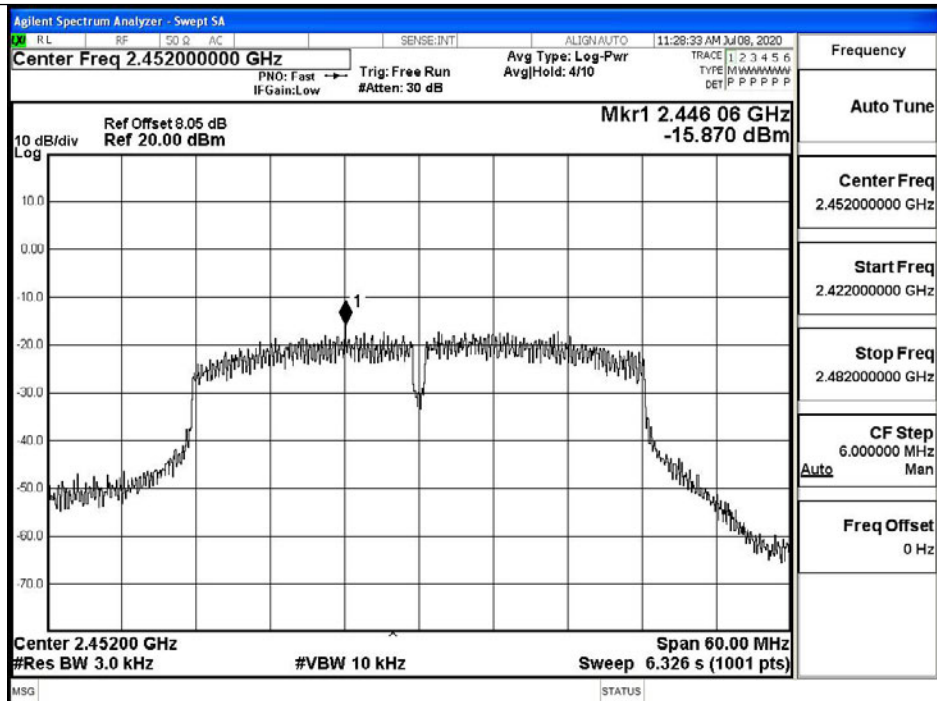
11N40SISO/LCH



11N40SISO/MCH

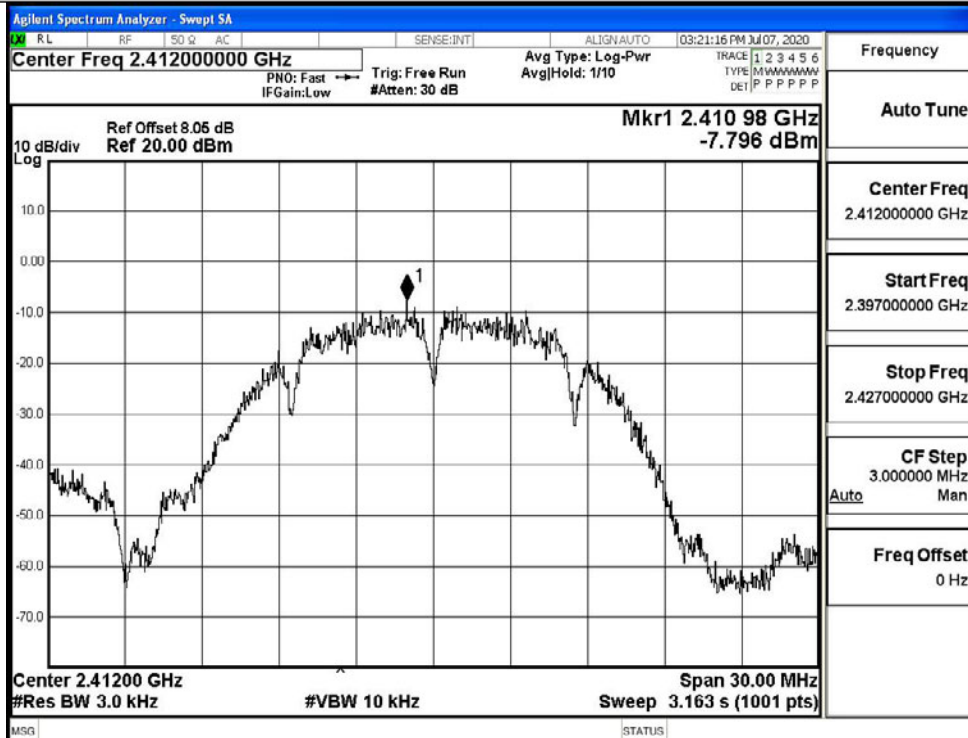


11N40SISO/HCH

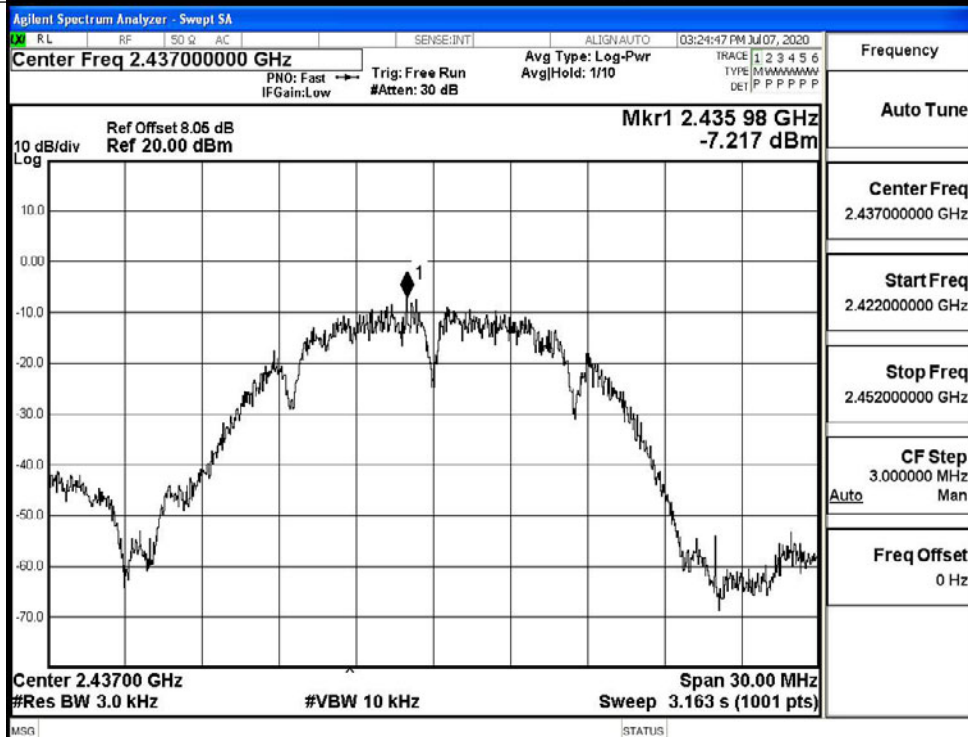


Test Graphs Ant_2

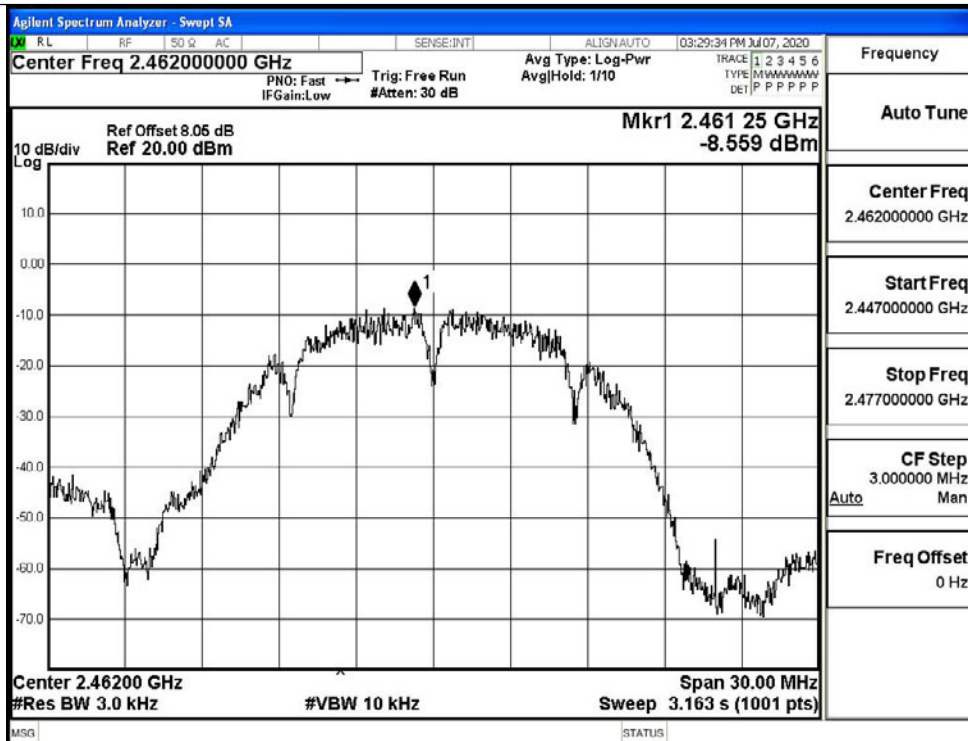
11B/LCH



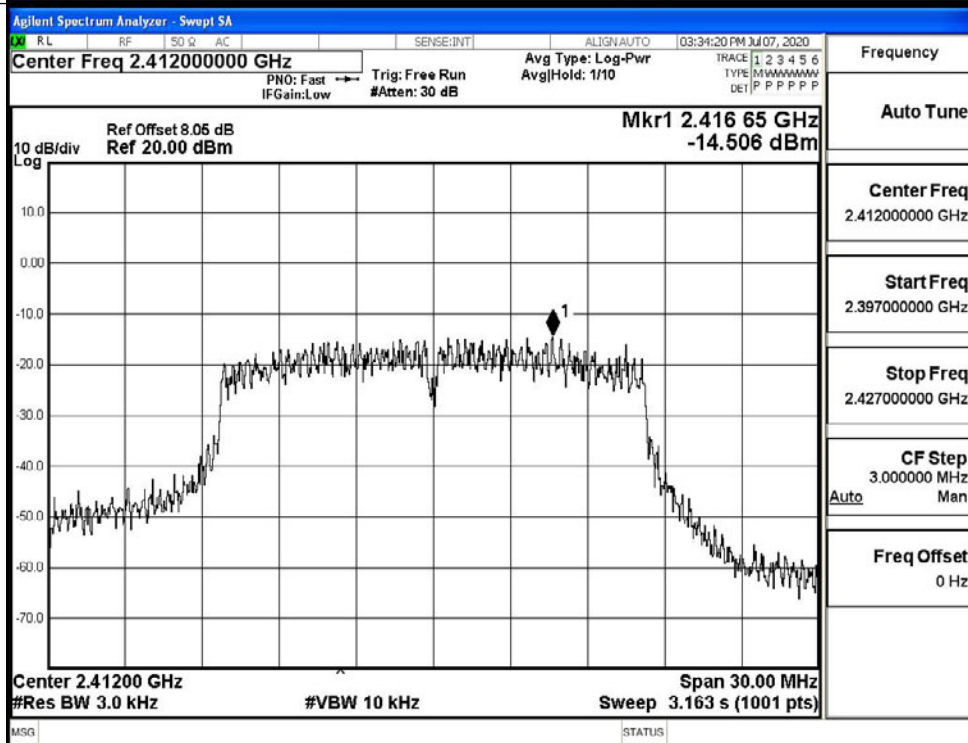
11B/MCH



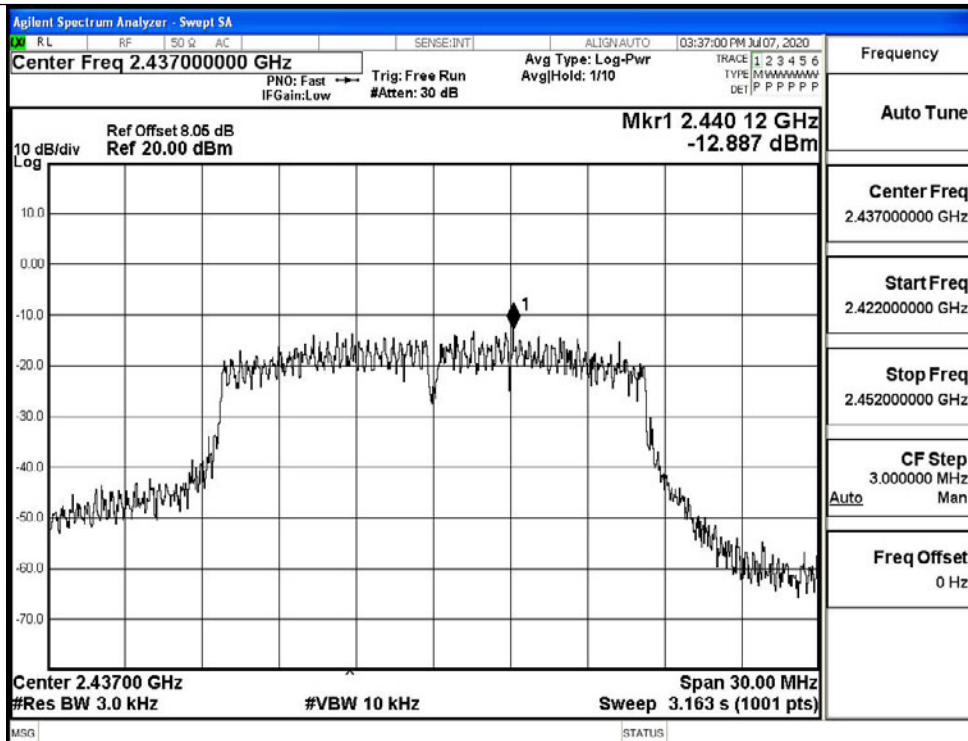
11B/HCH



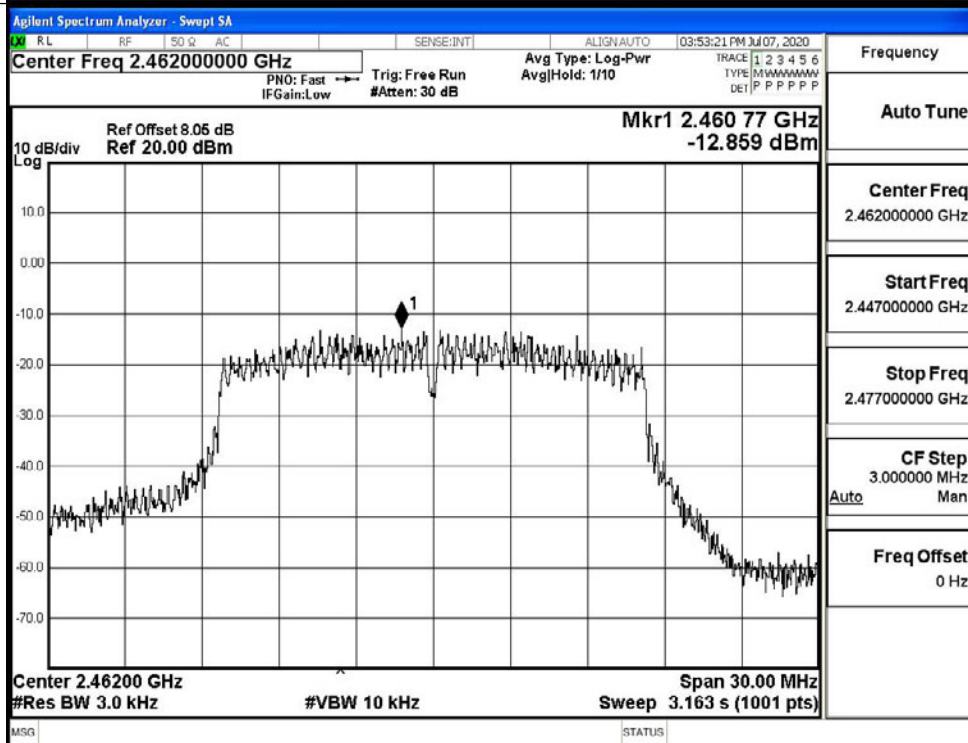
11G/LCH



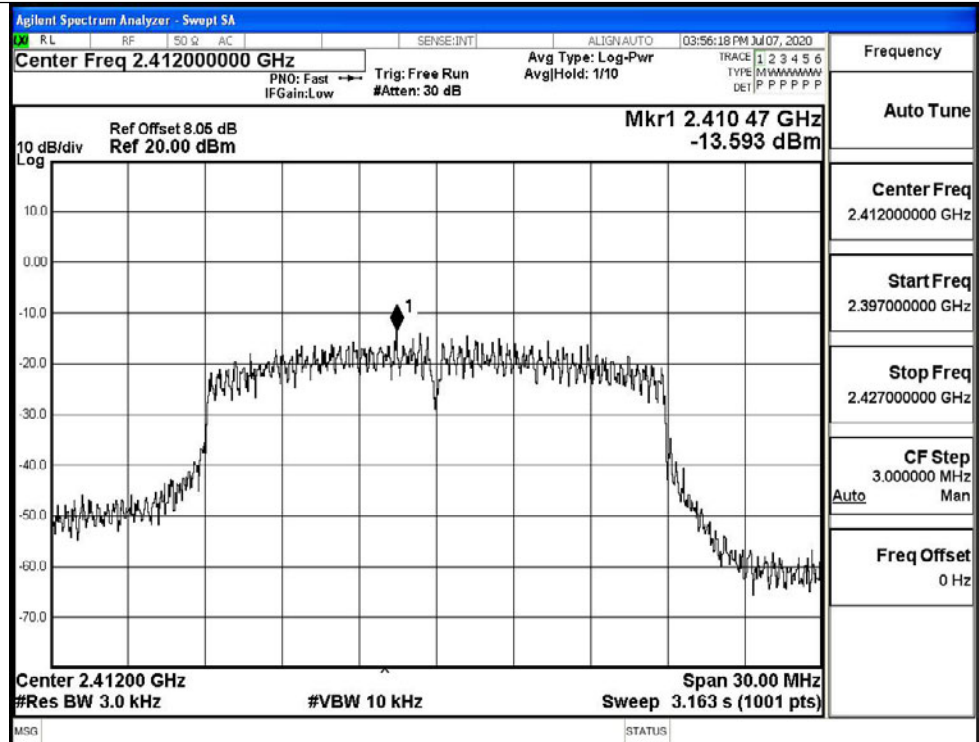
11G/MCH



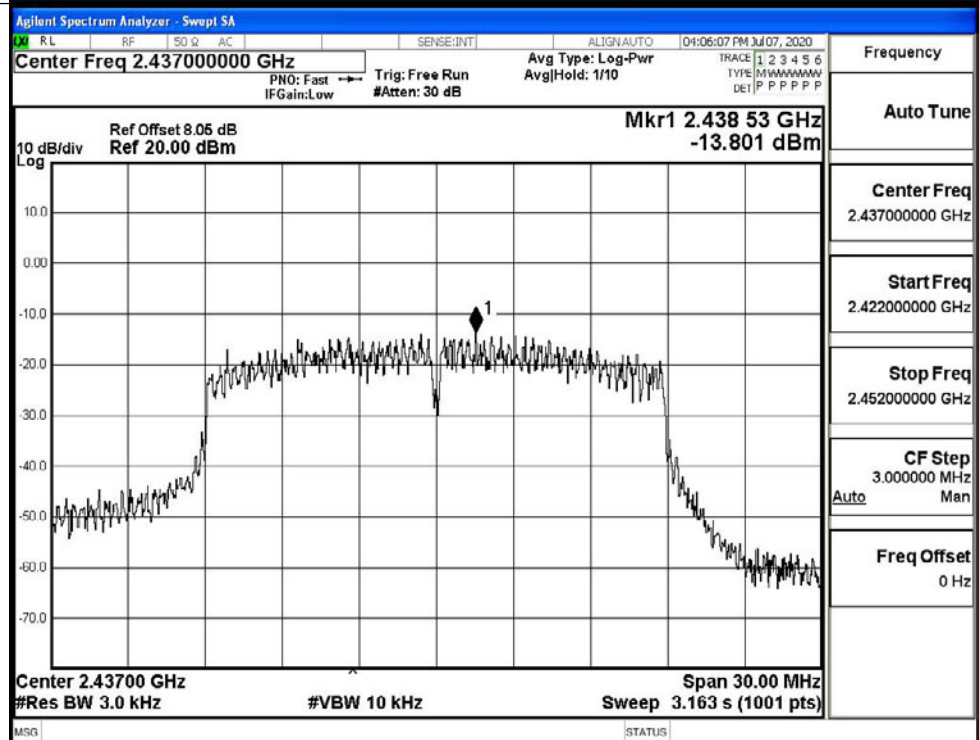
11G/HCH



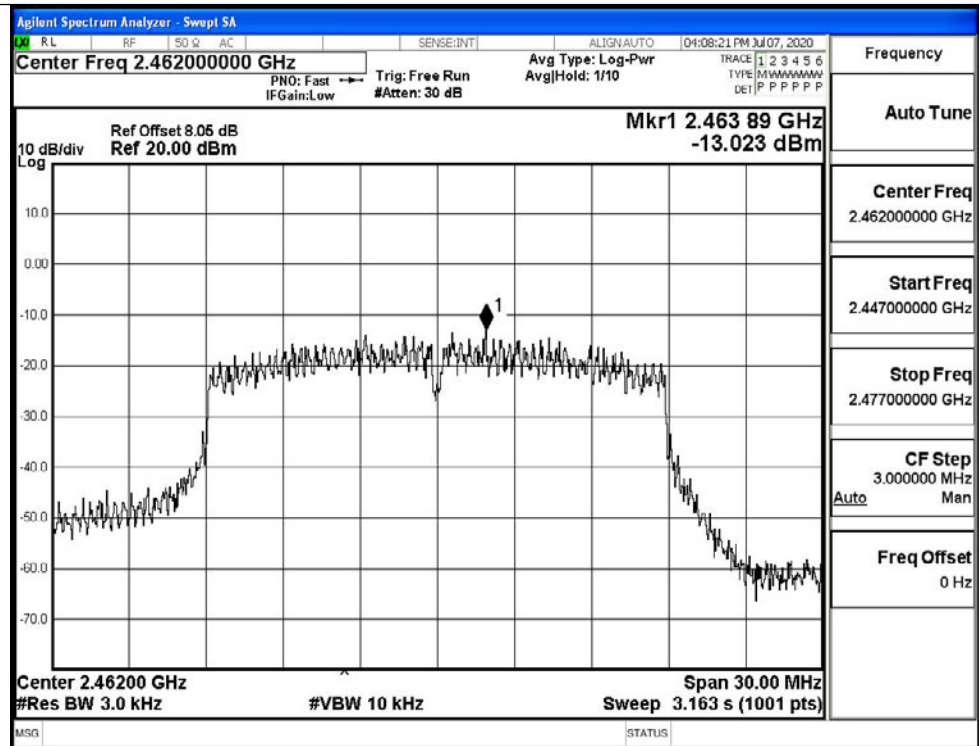
11N20SISO/LCH



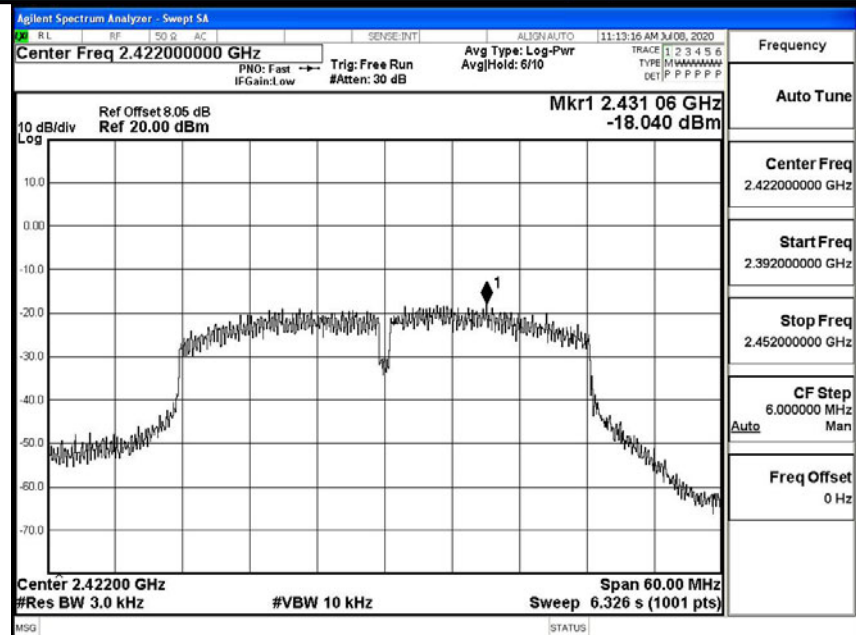
11N20SISO/MCH



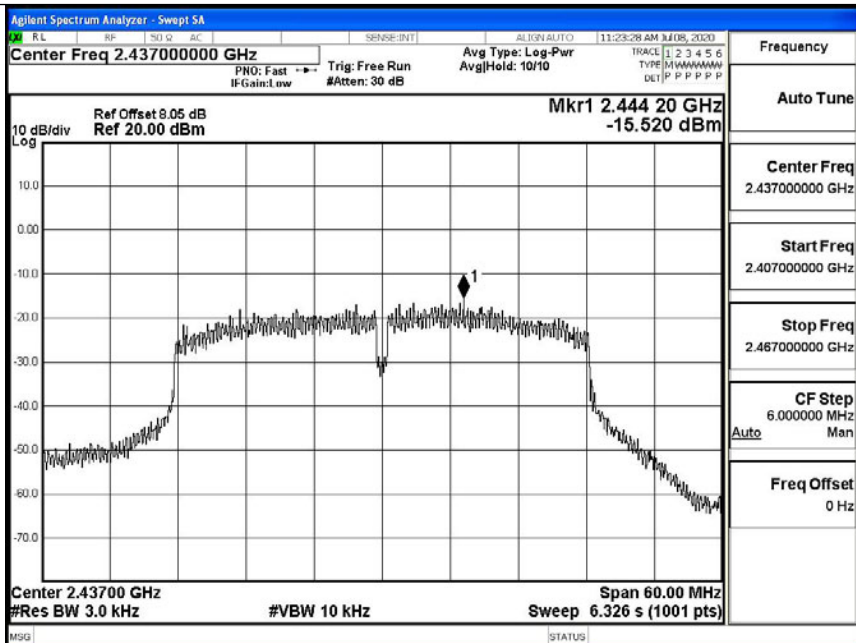
11N20SISO/HCH



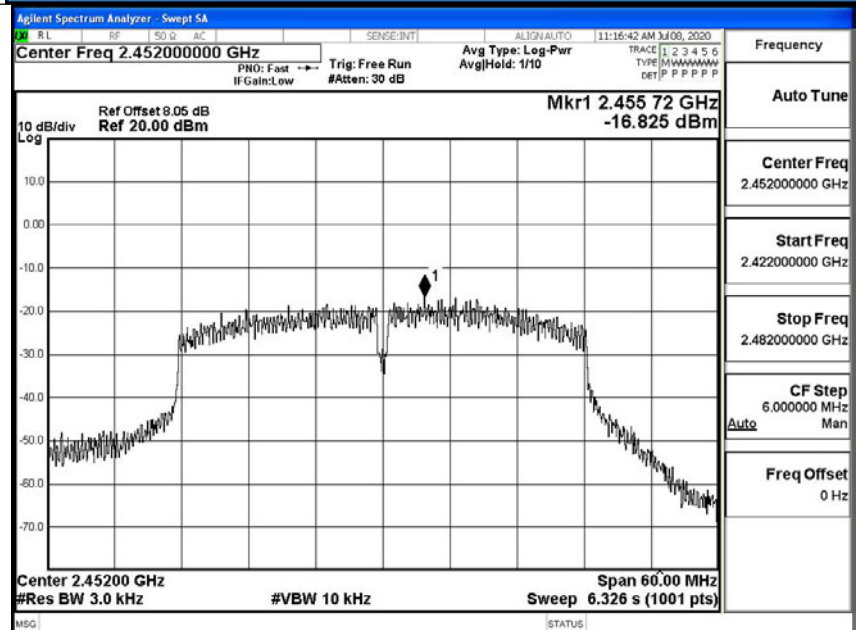
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

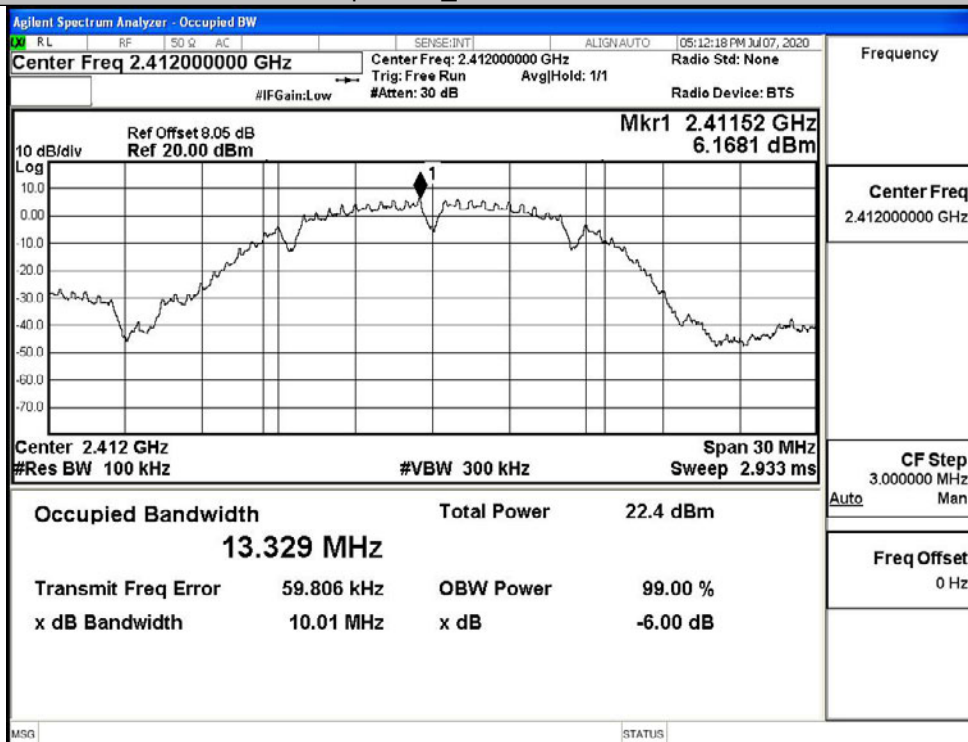


A.4 6dB Bandwidth

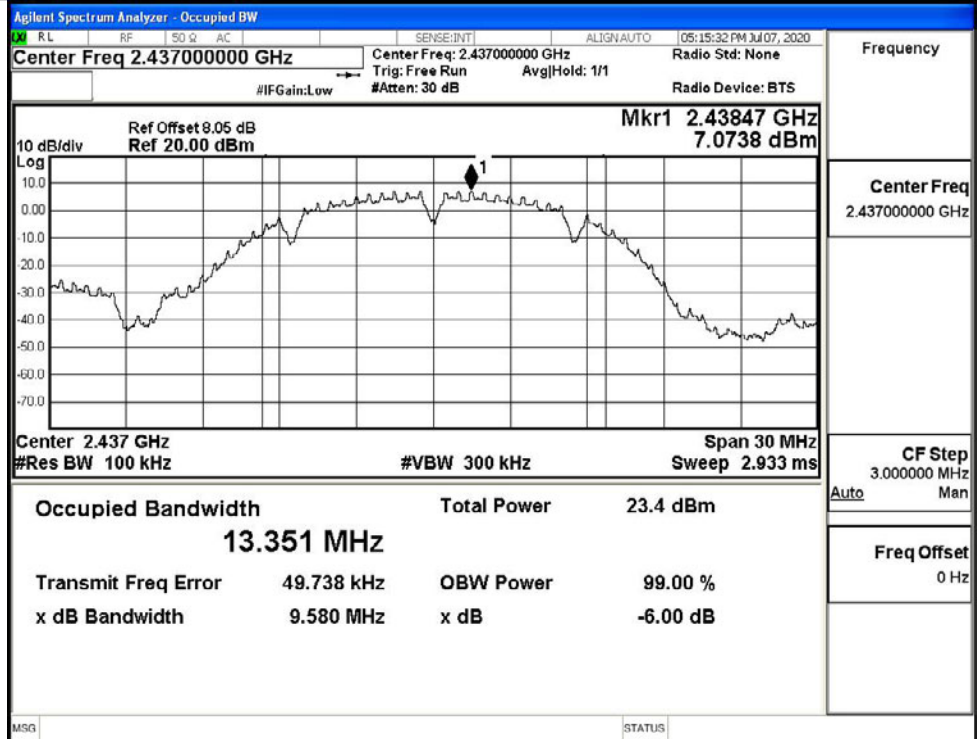
Mode	Channel	6dB Bandwidth [MHz]		Limit [MHz]	Verdict
		Ant_1	Ant_2		
11B	LCH	10.01	10.06	≥ 0.5	PASS
	MCH	9.580	10.06	≥ 0.5	PASS
	HCH	9.591	9.582	≥ 0.5	PASS
11G	LCH	15.08	15.11	≥ 0.5	PASS
	MCH	15.13	15.12	≥ 0.5	PASS
	HCH	15.08	13.90	≥ 0.5	PASS
11N20SISO	LCH	15.11	15.08	≥ 0.5	PASS
	MCH	15.05	15.10	≥ 0.5	PASS
	HCH	15.10	15.14	≥ 0.5	PASS
11N40SISO	LCH	33.88	33.89	≥ 0.5	PASS
	MCH	33.87	33.89	≥ 0.5	PASS
	HCH	33.88	33.89	≥ 0.5	PASS

Test Graphs Ant_1

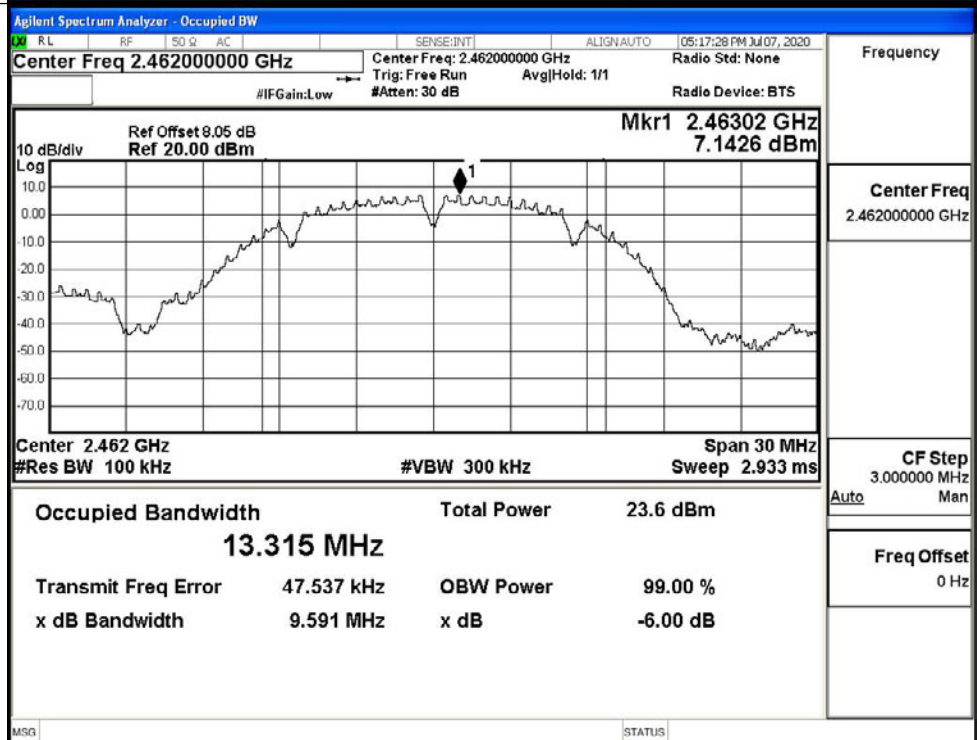
11B/LCH



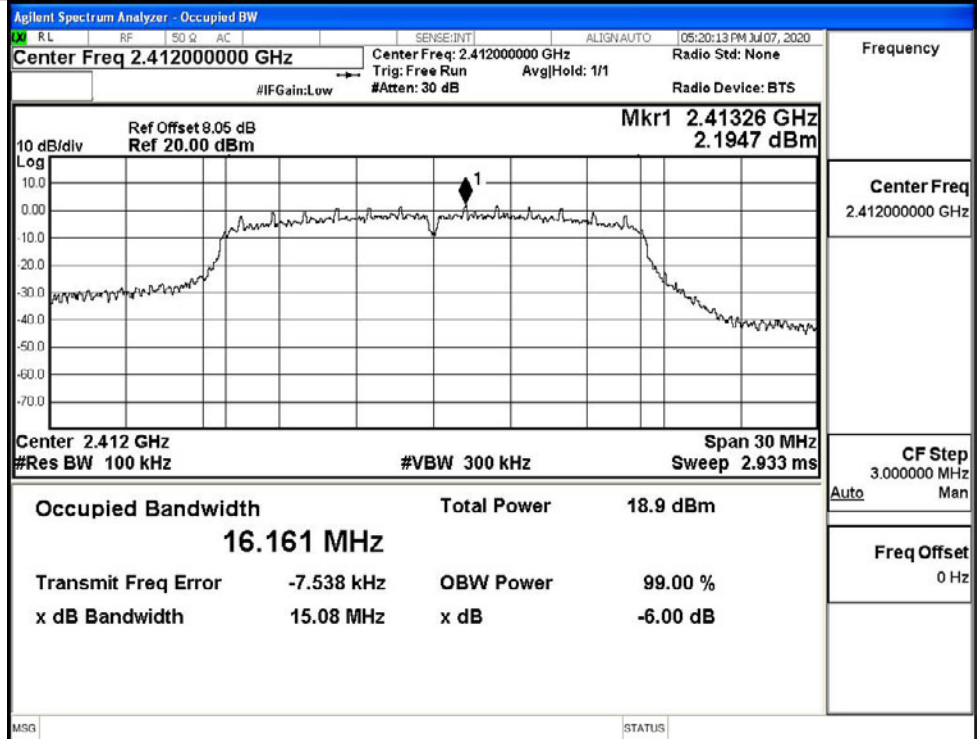
11B/MCH



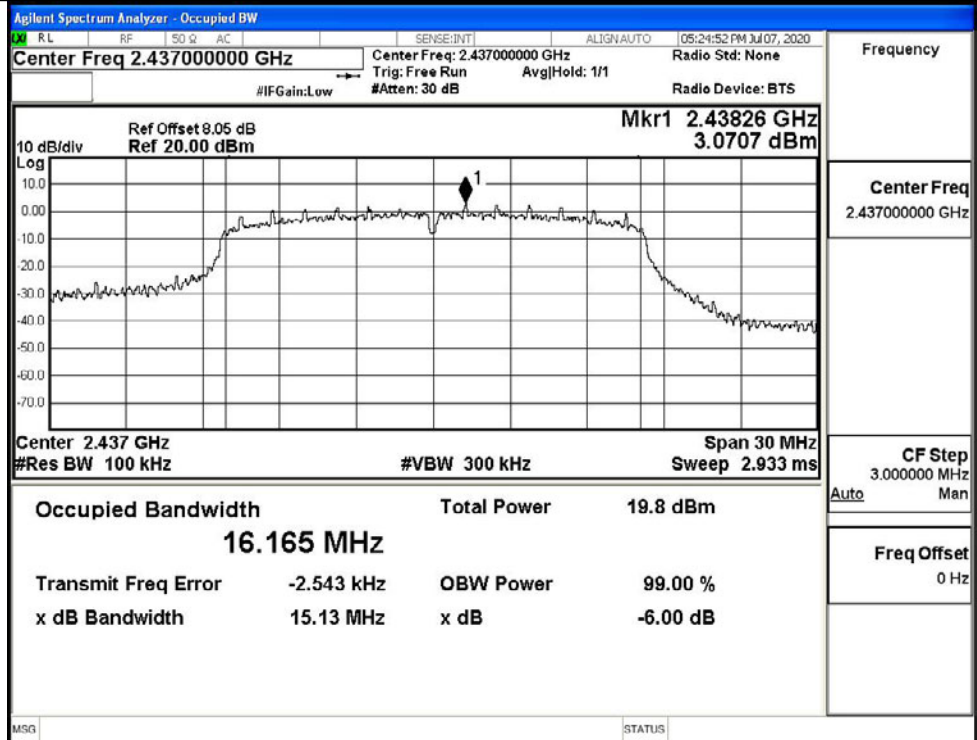
11B/HCH



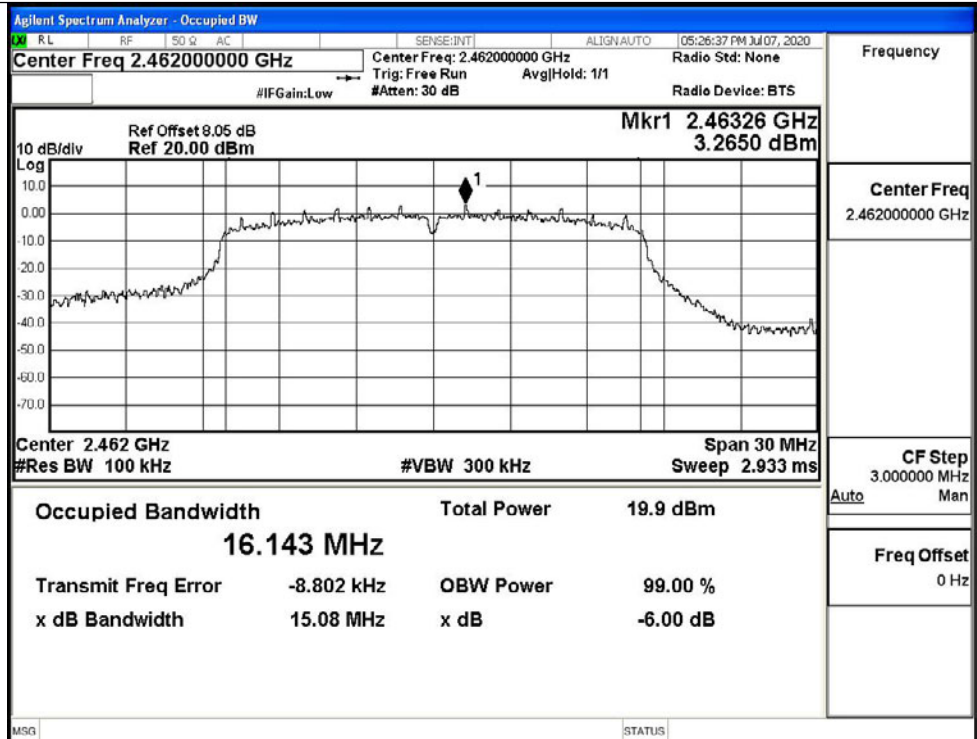
11G/LCH



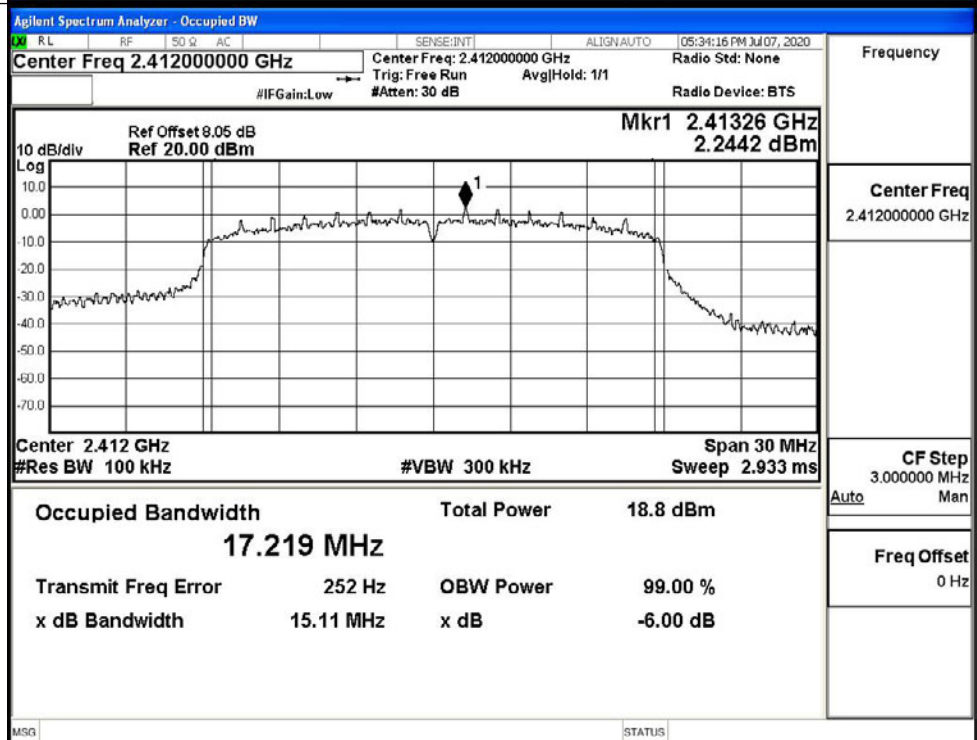
11G/MCH



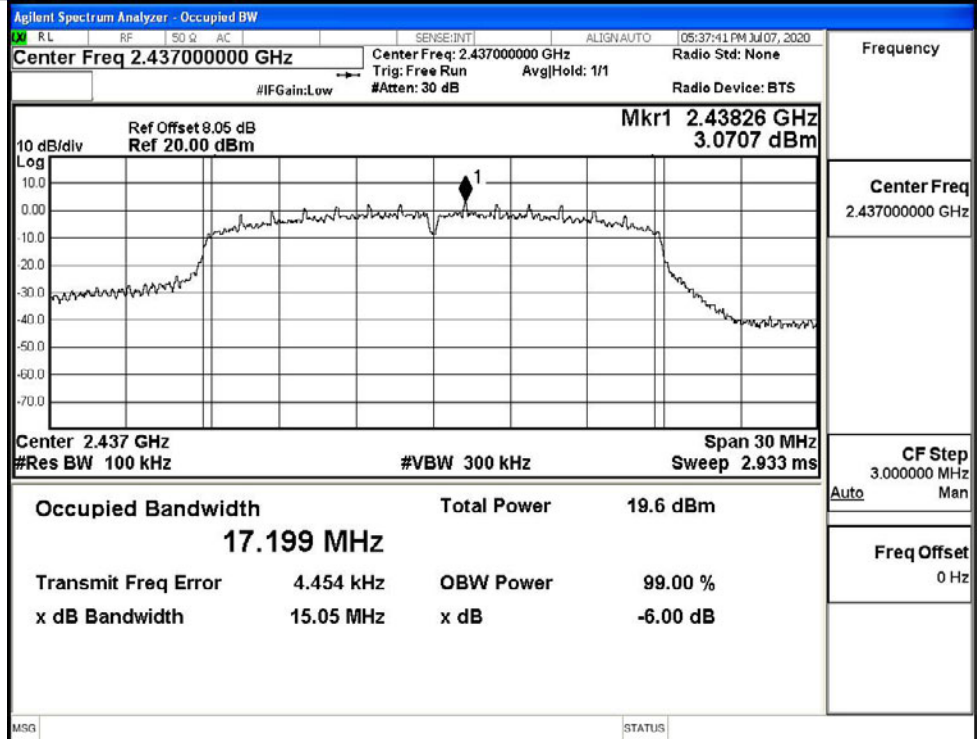
11G/HCH



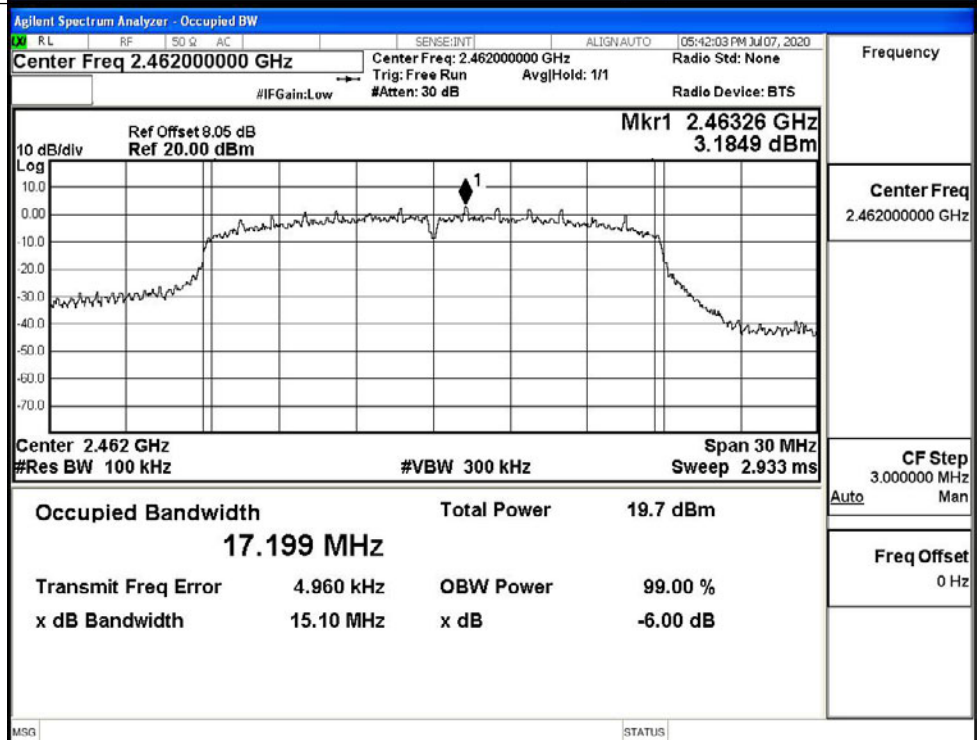
11N20SISO/LCH



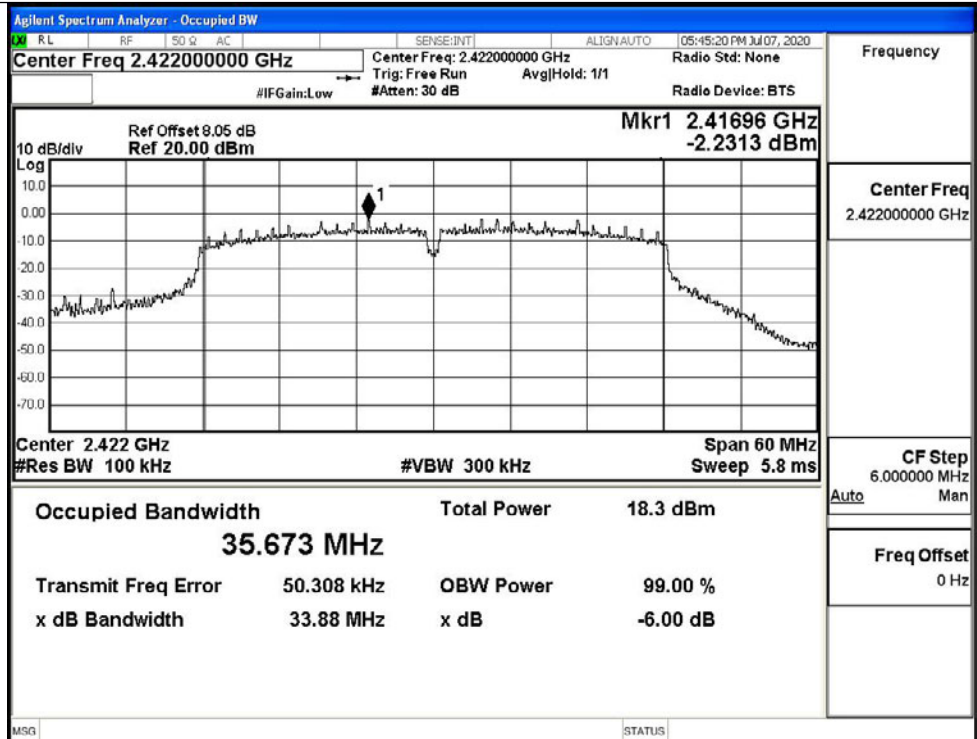
11N20SISO/MCH



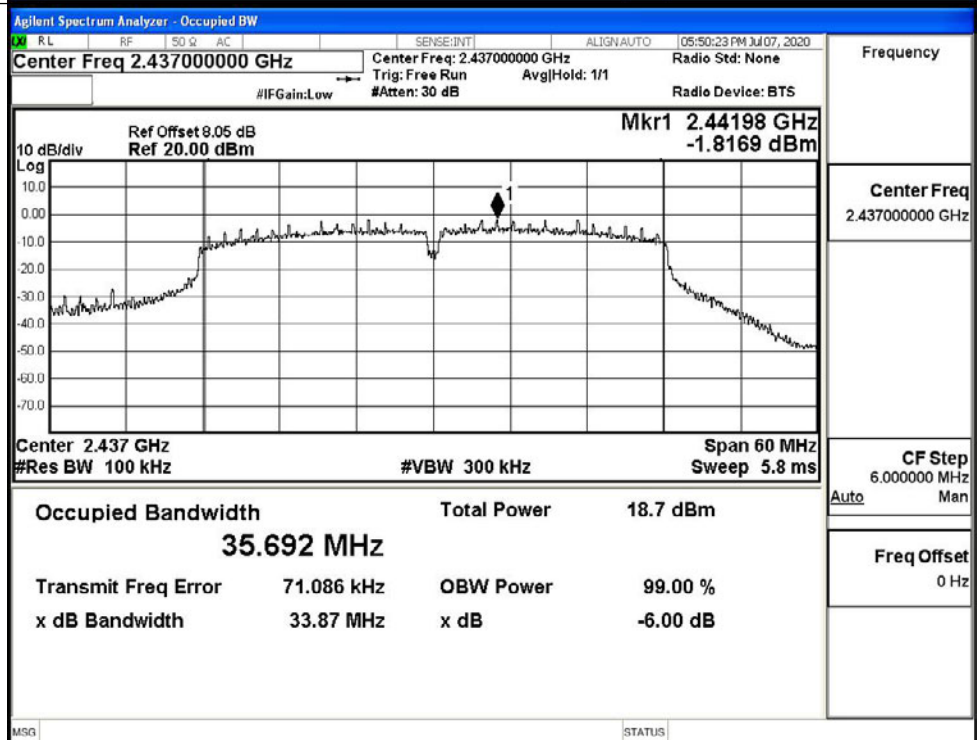
11N20SISO/HCH



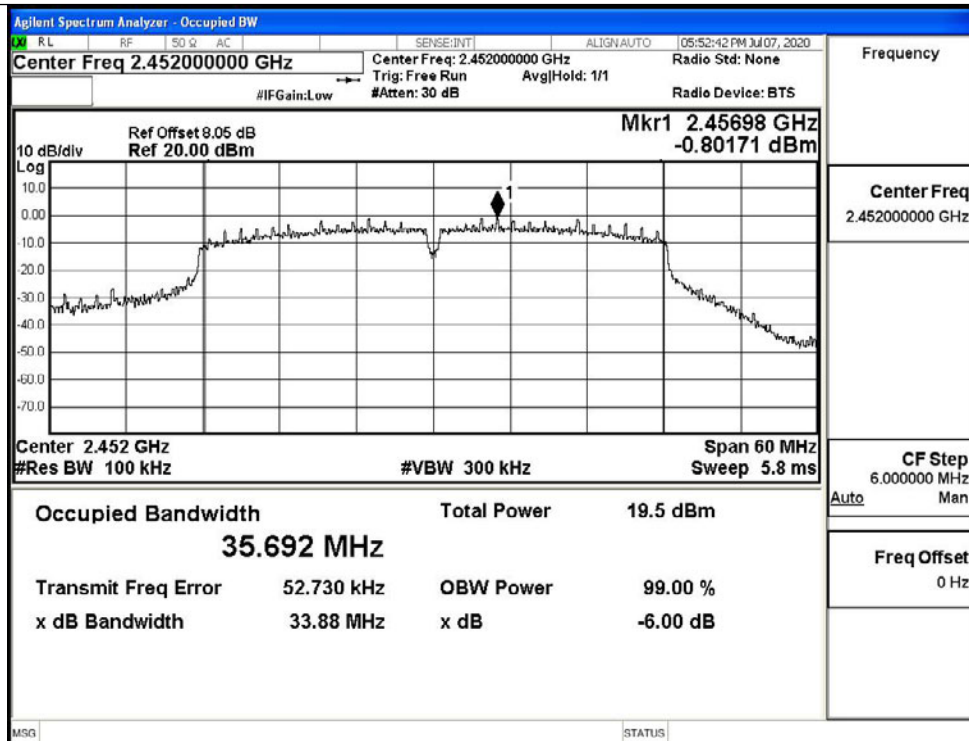
11N40SISO/LCH



11N40SISO/MCH

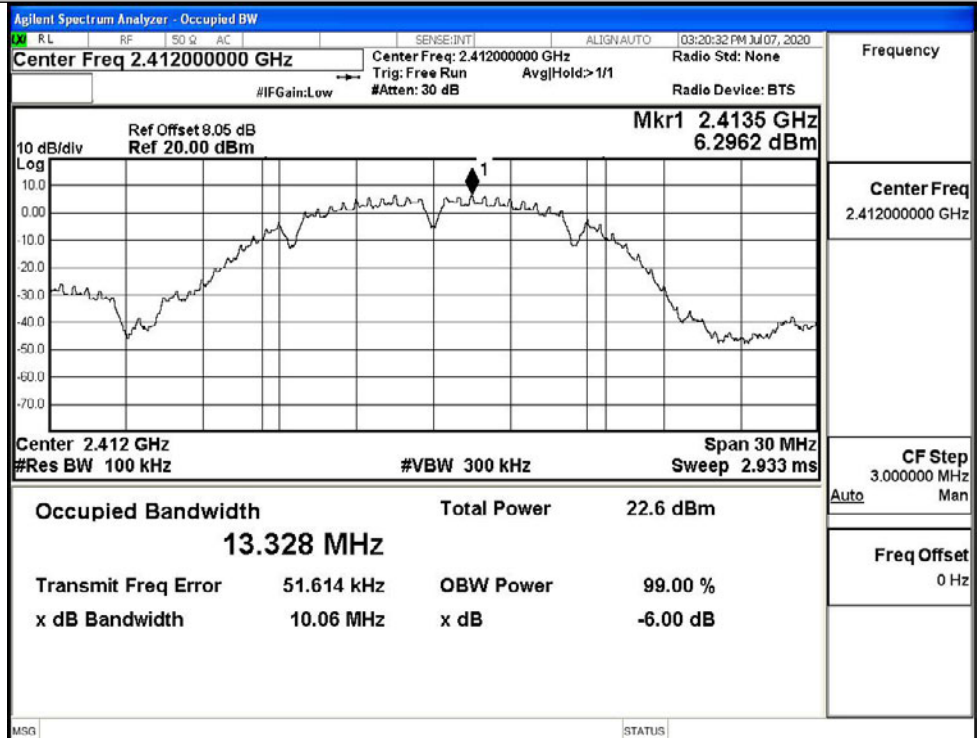


11N40SISO/HCH



Test Graphs Ant_2

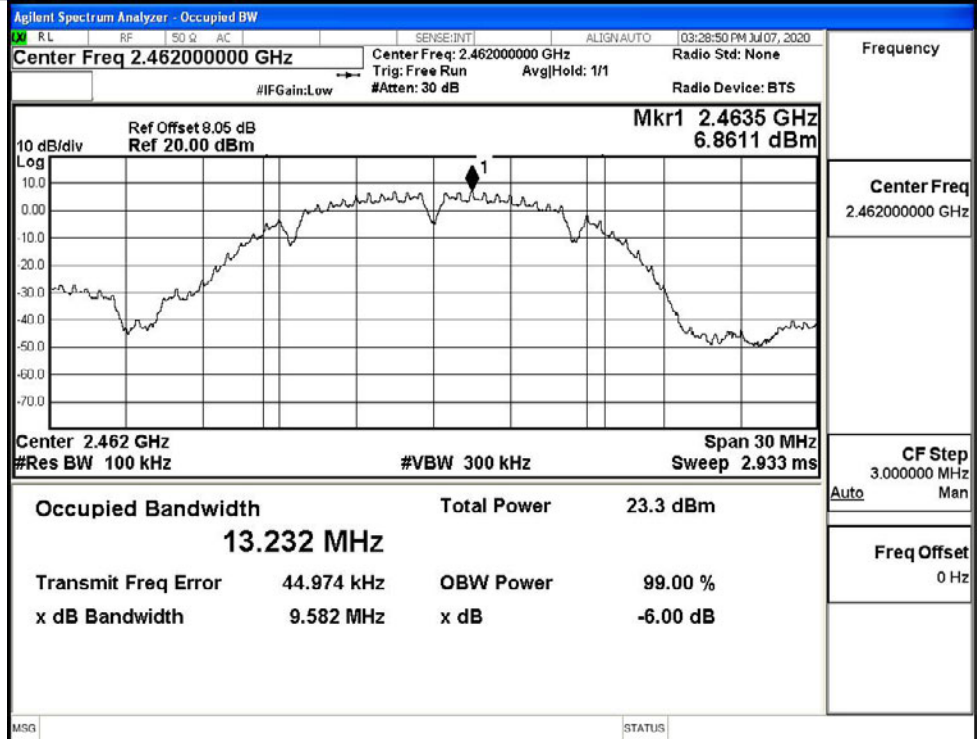
11B/LCH



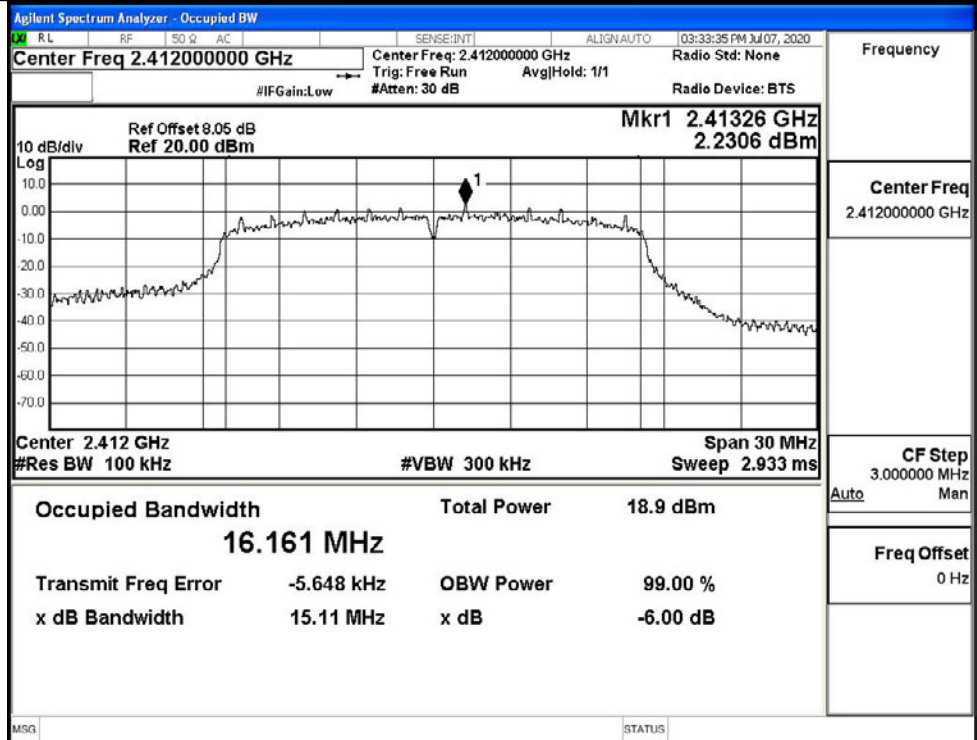
11B/MCH



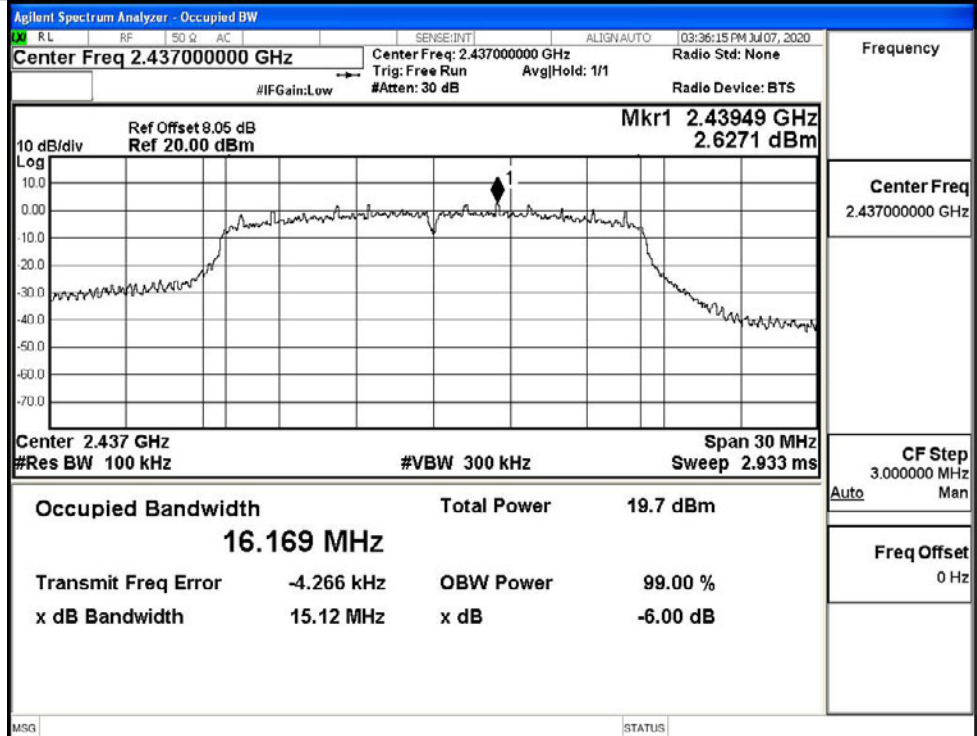
11B/HCH



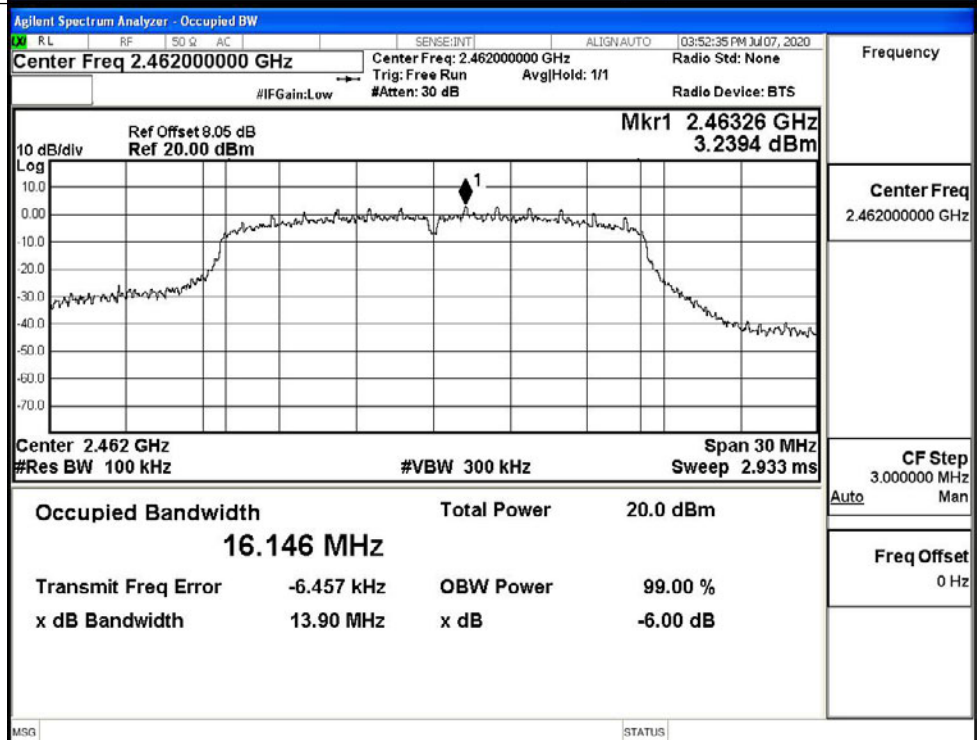
11G/LCH



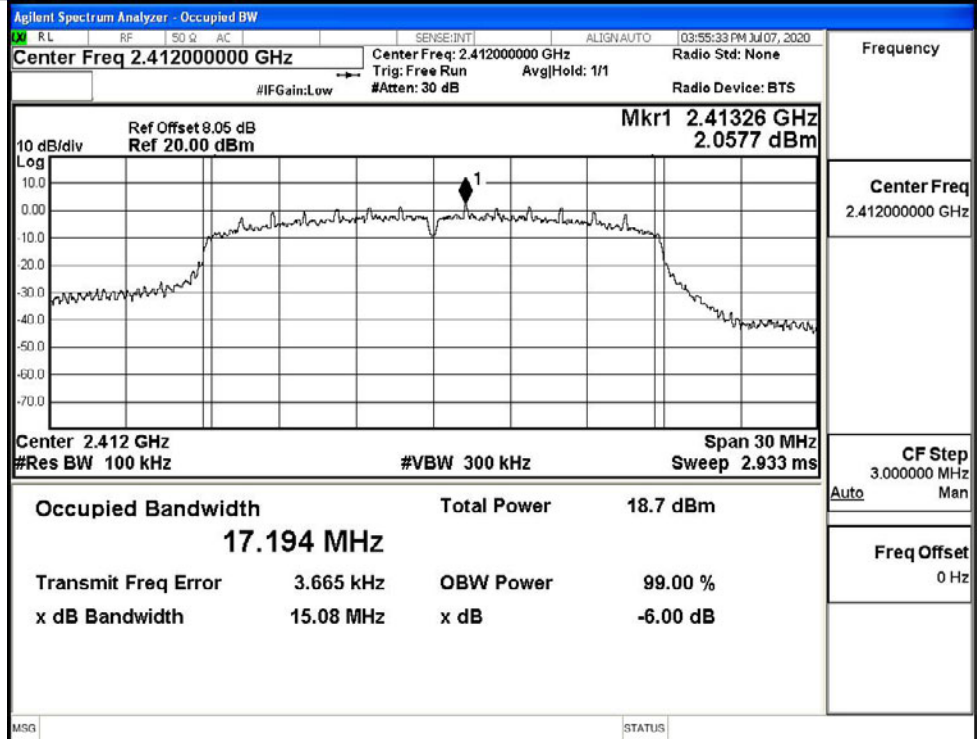
11G/MCH



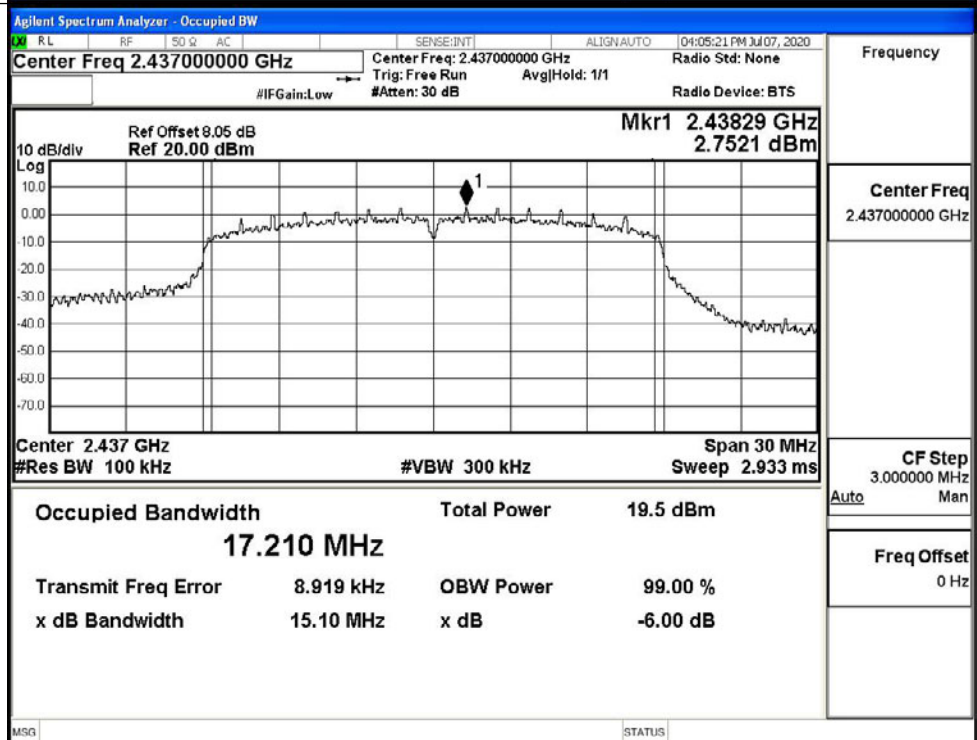
11G/HCH



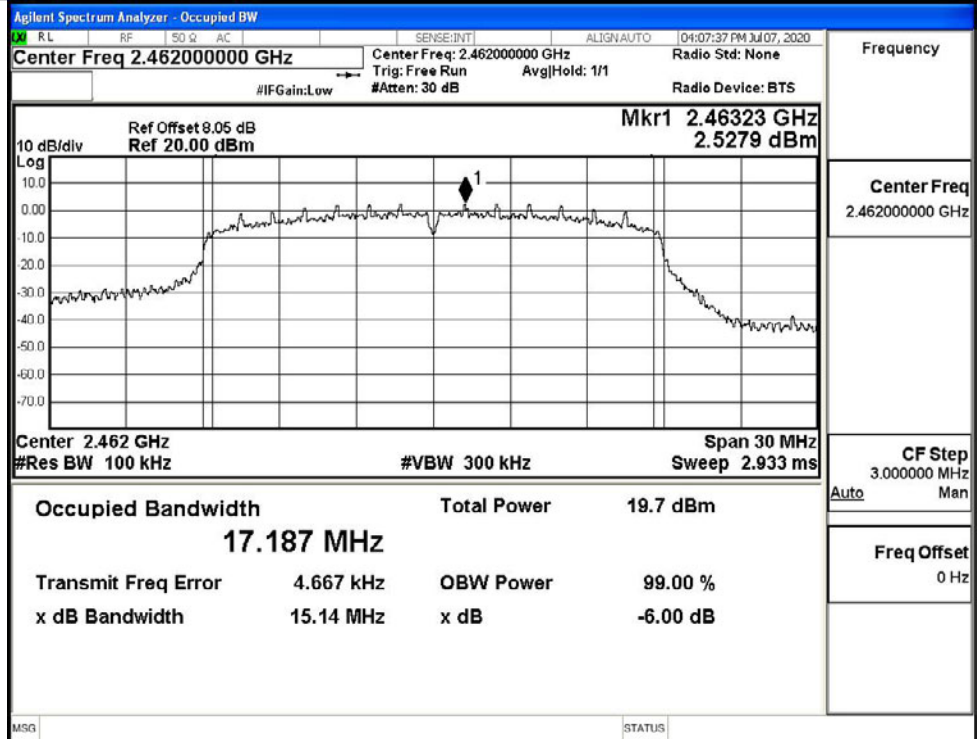
11N20SISO/LCH



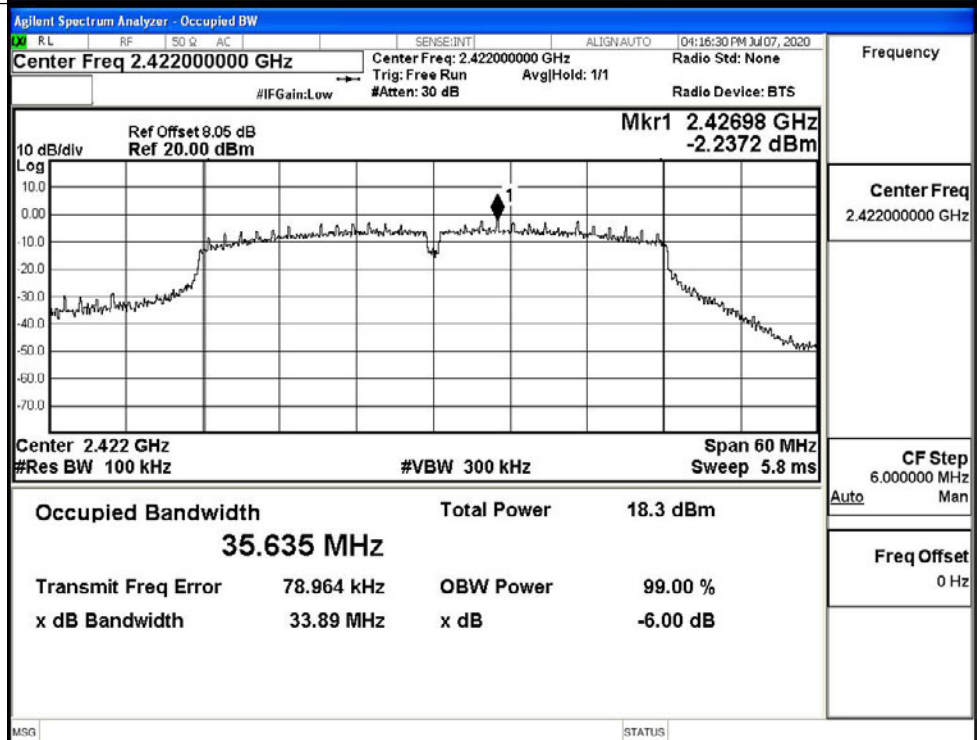
11N20SISO/MCH



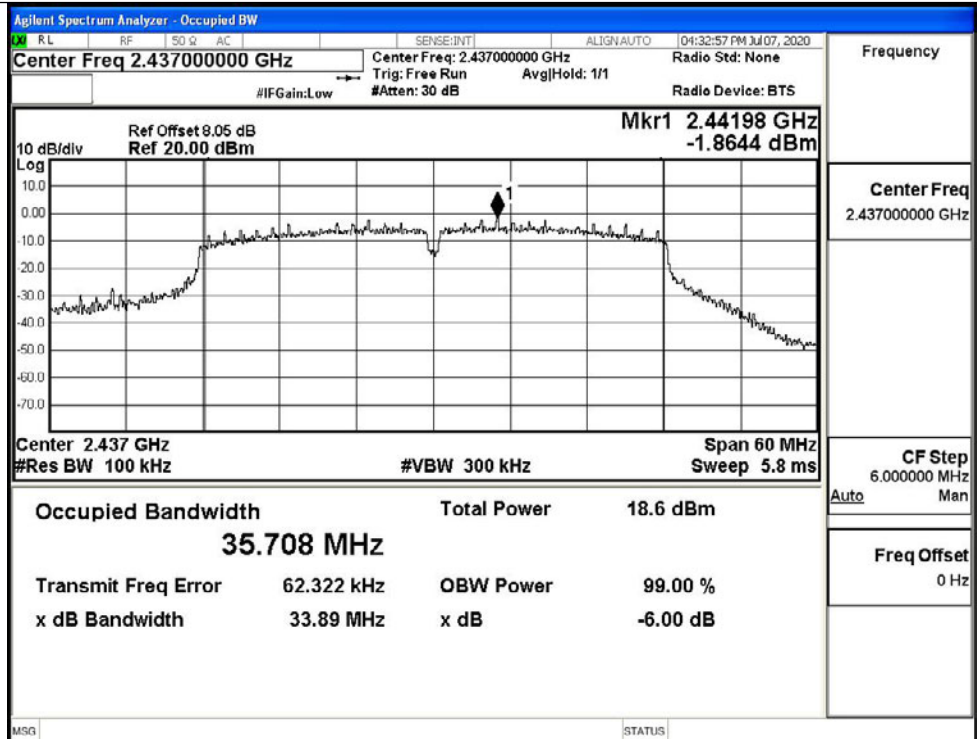
11N20SISO/HCH



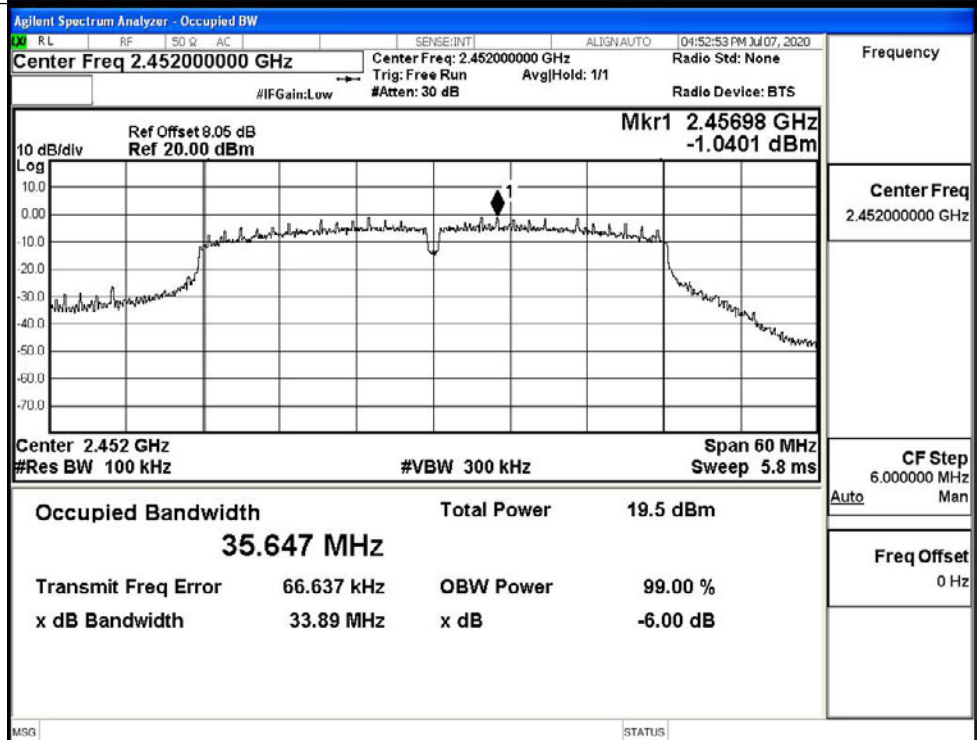
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

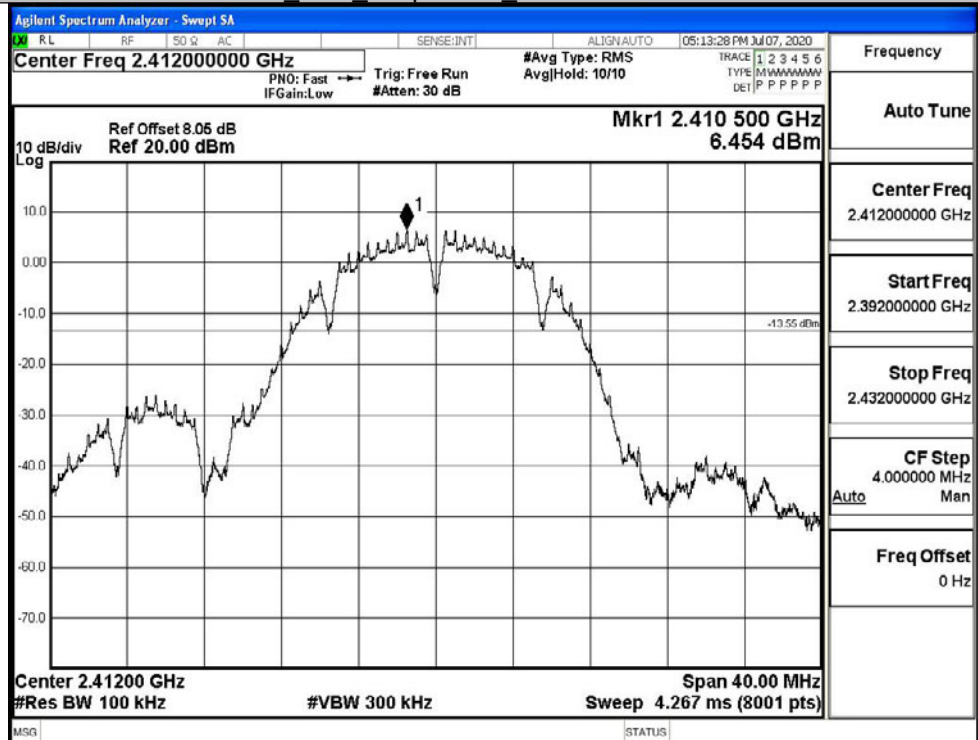


A.5 RF Conducted Spurious Emissions**Ant_1**

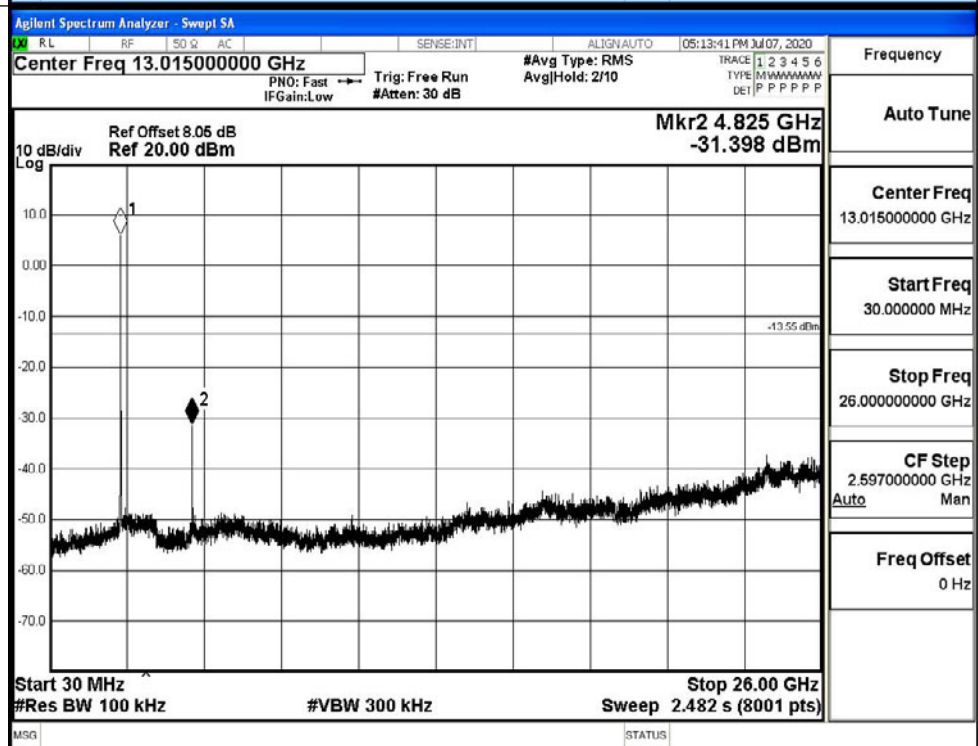
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	6.454	-31.398	-13.546	PASS
	MCH	7.345	-34.876	-12.655	PASS
	HCH	7.167	-38.003	-12.833	PASS
11G	LCH	2.178	-36.815	-17.822	PASS
	MCH	2.996	-37.891	-17.004	PASS
	HCH	3.197	-36.741	-16.803	PASS
11N20 SISO	LCH	2.156	-38.407	-17.844	PASS
	MCH	2.991	-37.997	-17.009	PASS
	HCH	2.536	-37.335	-17.464	PASS
11N40 SISO	LCH	-2.566	-38.387	-22.566	PASS
	MCH	-1.63	-37.119	-21.630	PASS
	HCH	-1.056	-37.393	-21.056	PASS

11B_LCH Graphs Ant 1

Pref/11B/LCH

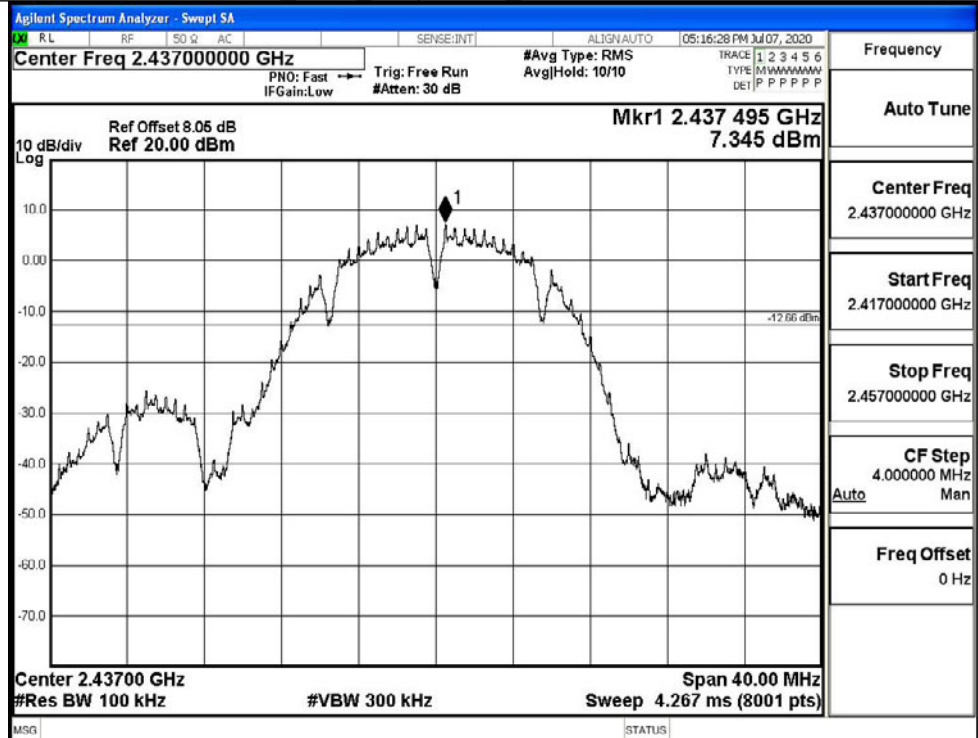


Puw/11B/LCH



11B MCH Graphs Ant 1

Pref/11B/MCH



Puw/11B/MCH

