



Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Humidifier

Trade Mark: N/A

Test Model: IH555

Environmental Conditions

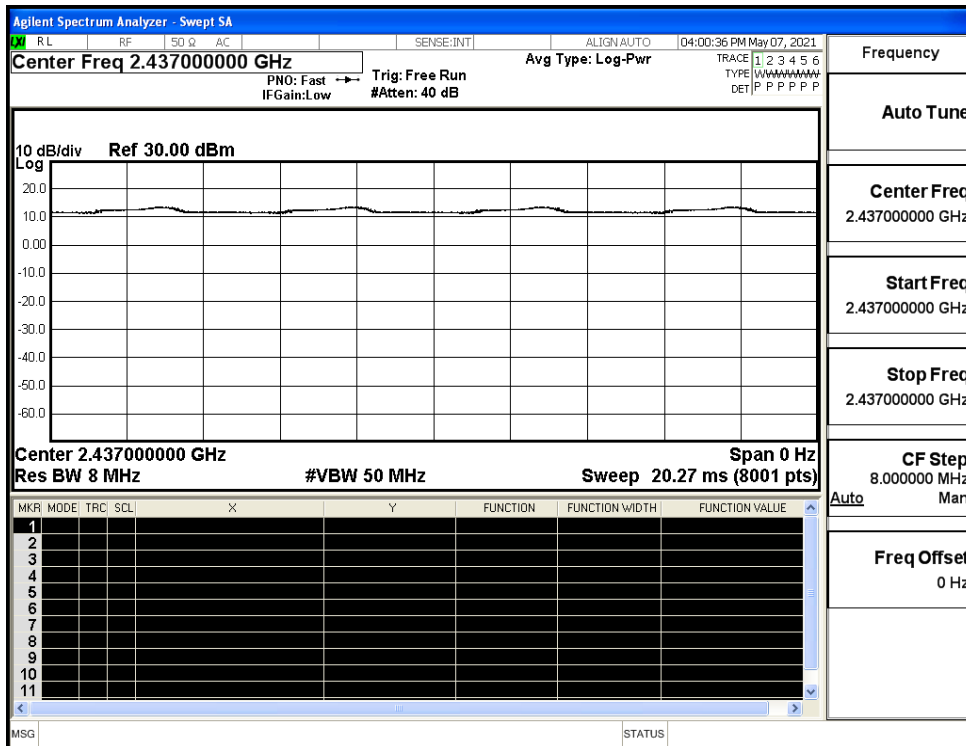
Temperature:	22.5 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

A.1 Duty Cycle

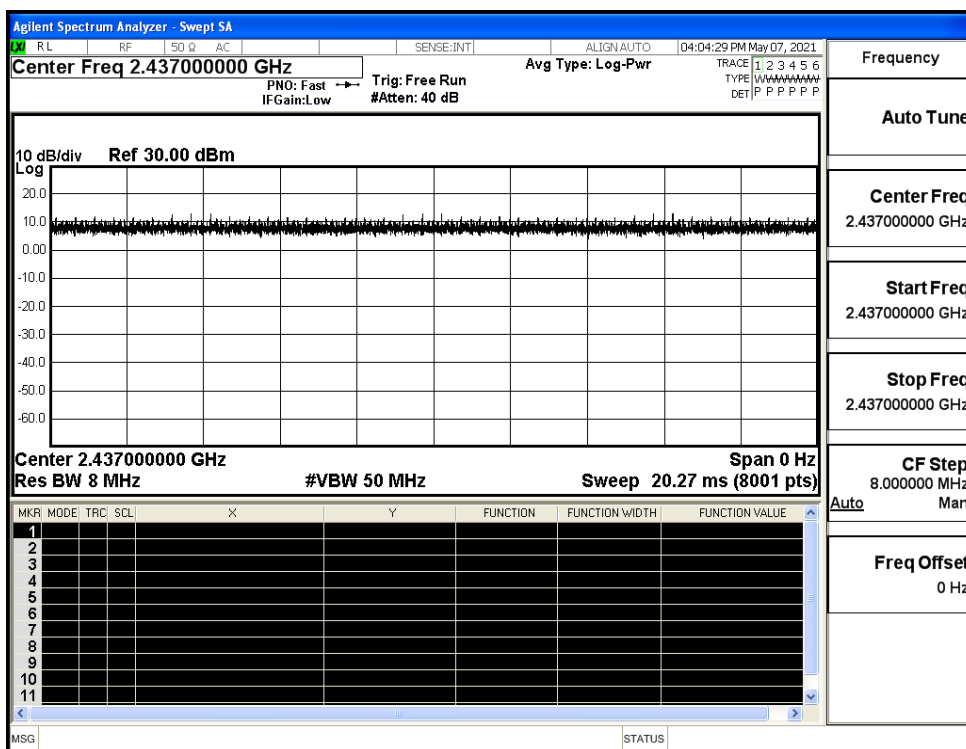
Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS



Duty Cycle_11B_2437_Ant1

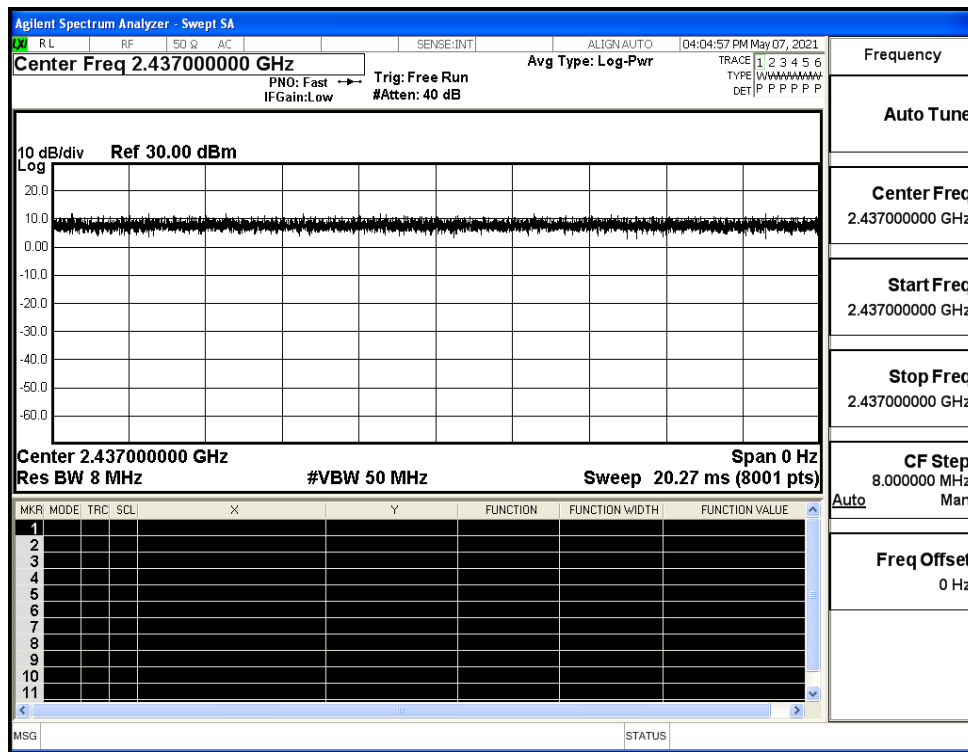


Duty Cycle_11G_2437_Ant1





Duty Cycle_11N20SISO_2437_Ant1





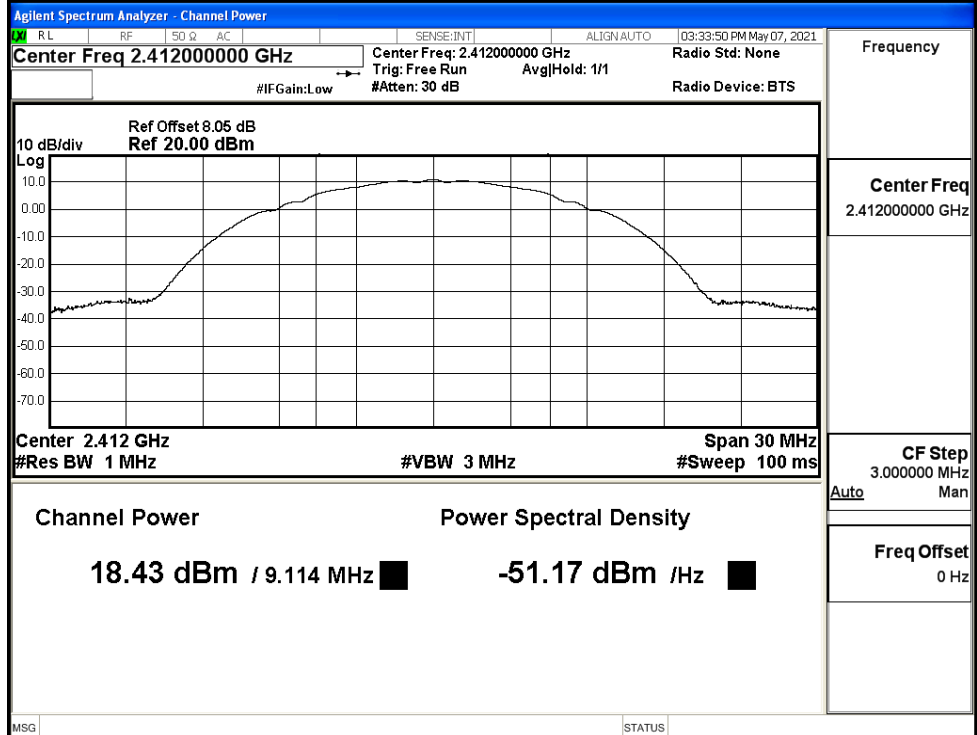
A.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	18.43	30	PASS
	MCH	18.93	30	PASS
	HCH	18.87	30	PASS
11G	LCH	19.98	30	PASS
	MCH	20.58	30	PASS
	HCH	20.55	30	PASS
11N20SISO	LCH	20.11	30	PASS
	MCH	20.64	30	PASS
	HCH	20.63	30	PASS

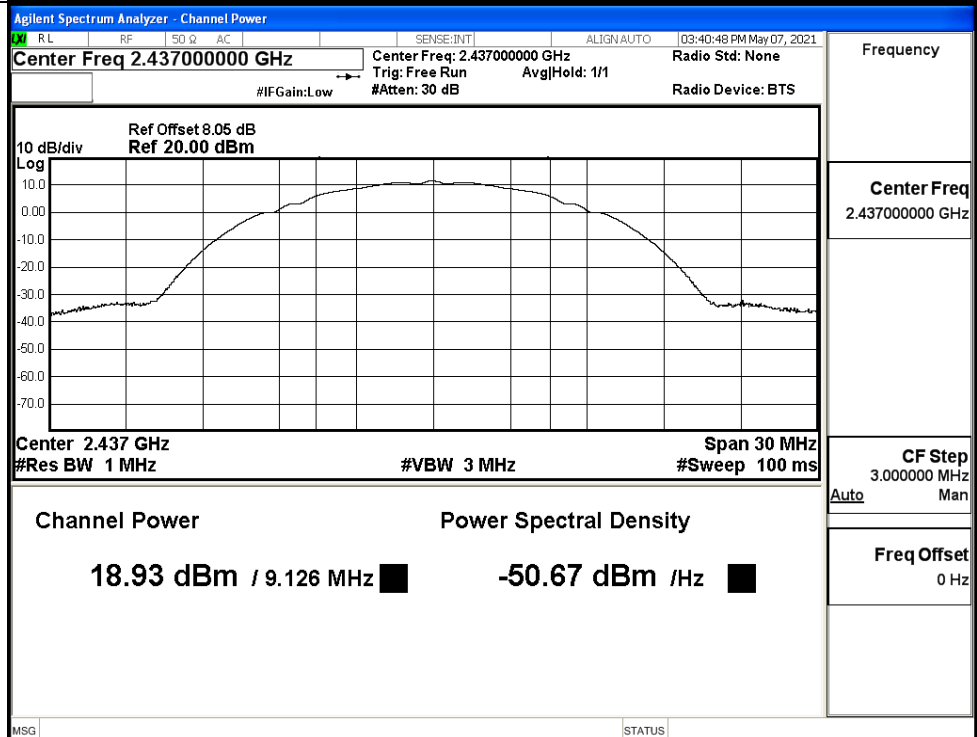


Test Graphs

11B/LCH

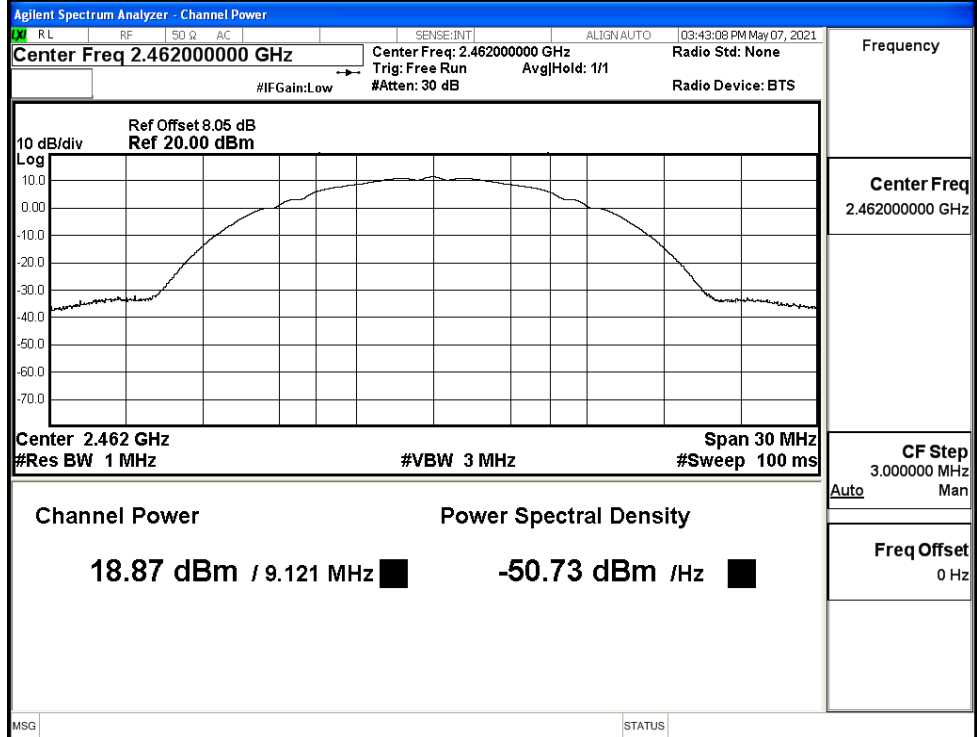


11B/MCH

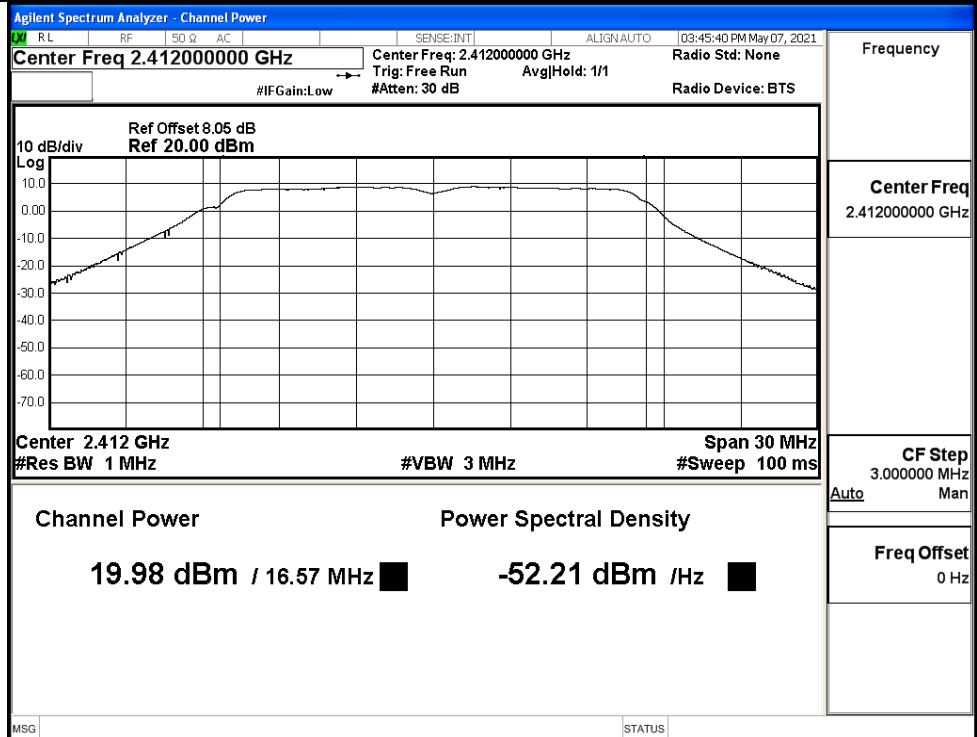




11B/HCH

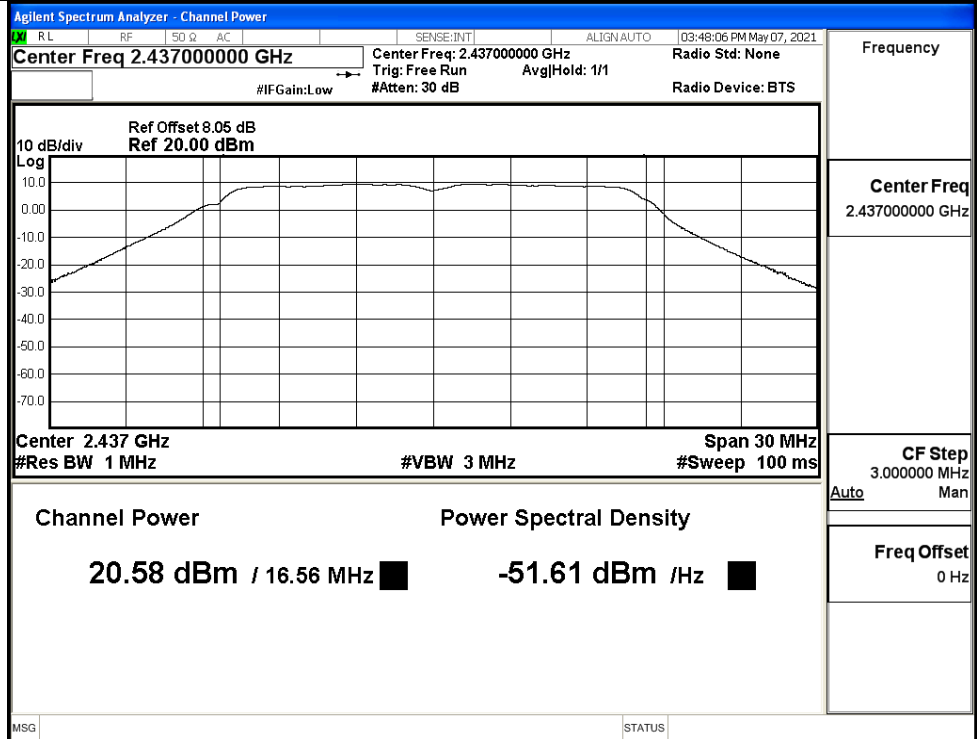


11G/LCH

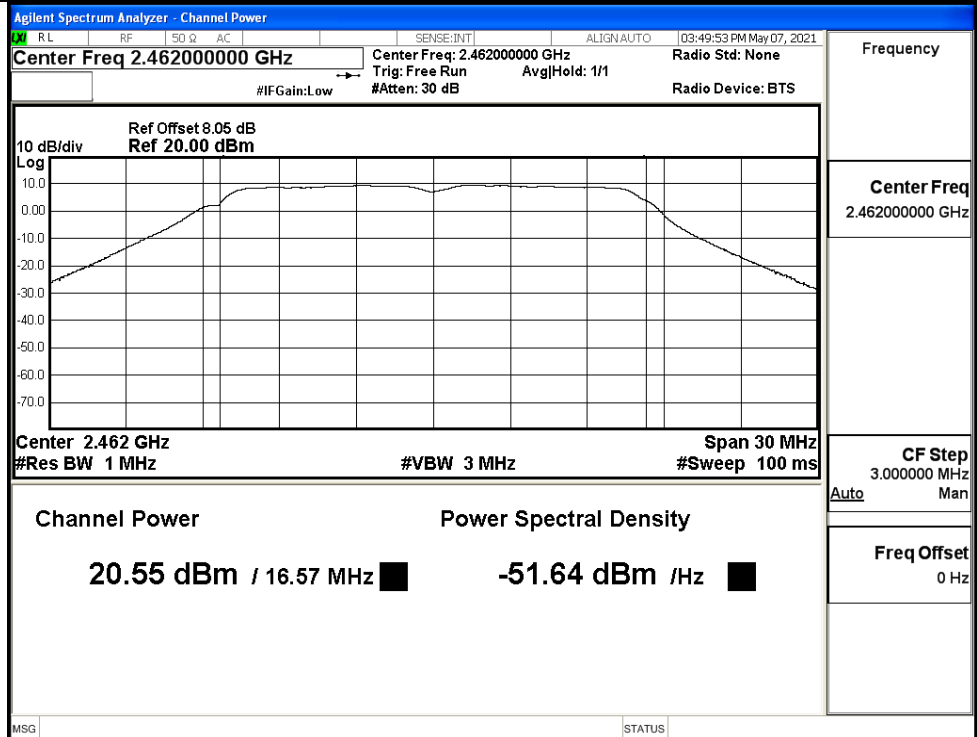




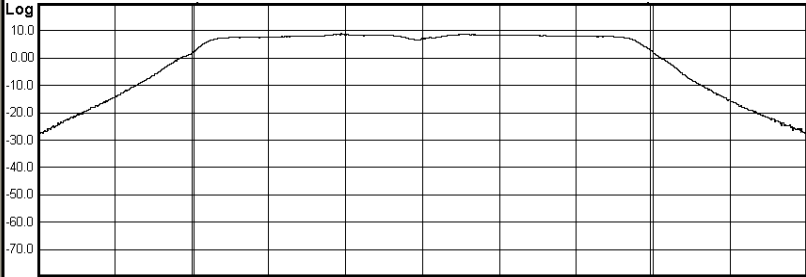
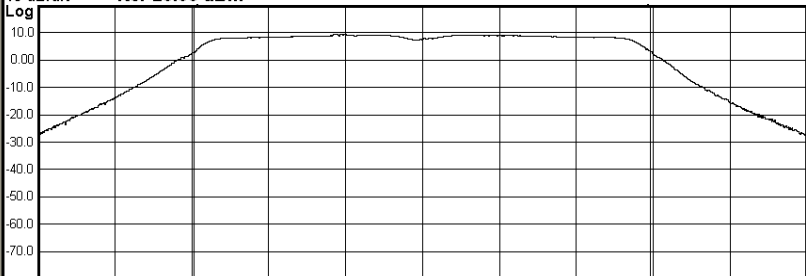
11G/MCH

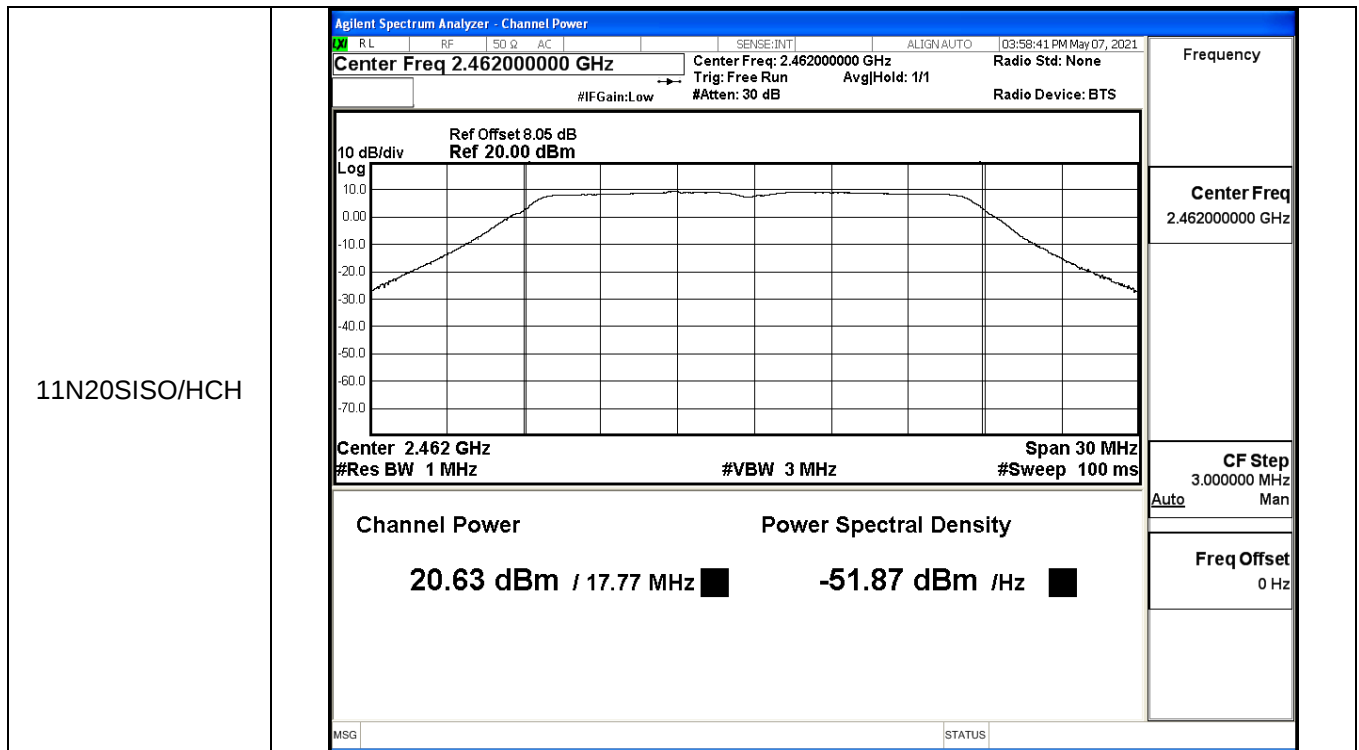


11G/HCH





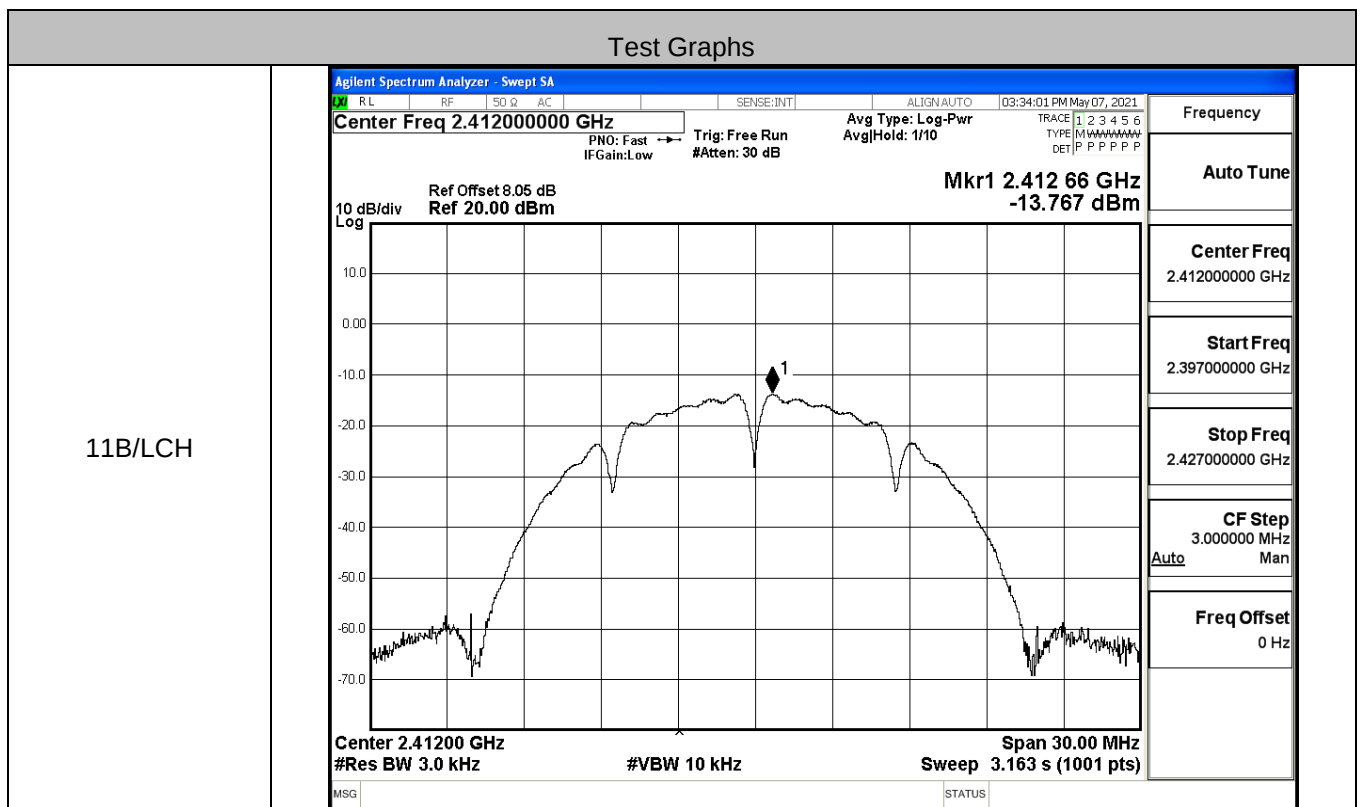
11N20SISO/LCH	Agilent Spectrum Analyzer - Channel Power RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 03:52:27 PM May 07, 2021 Center Freq 2.412000000 GHz Center Freq: 2.412000000 GHz Trig: Free Run #IFGain: Low #Atten: 30 dB Radio Std: None Avg Hold: 1/1 Radio Device: BTS 10 dB/div Ref Offset 8.05 dB Ref 20.00 dBm Log  Center 2.412 GHz #Res BW 1 MHz #VBW 3 MHz Span 30 MHz #Sweep 100 ms Channel Power Power Spectral Density 20.11 dBm / 17.77 MHz -52.39 dBm /Hz MSG STATUS Frequency Center Freq 2.412000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz
11N20SISO/MCH	Agilent Spectrum Analyzer - Channel Power RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 03:55:09 PM May 07, 2021 Center Freq 2.437000000 GHz Center Freq: 2.437000000 GHz Trig: Free Run #IFGain: Low #Atten: 30 dB Radio Std: None Avg Hold: 1/1 Radio Device: BTS 10 dB/div Ref Offset 8.05 dB Ref 20.00 dBm Log  Center 2.437 GHz #Res BW 1 MHz #VBW 3 MHz Span 30 MHz #Sweep 100 ms Channel Power Power Spectral Density 20.64 dBm / 17.73 MHz -51.85 dBm /Hz MSG STATUS Frequency Center Freq 2.437000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz





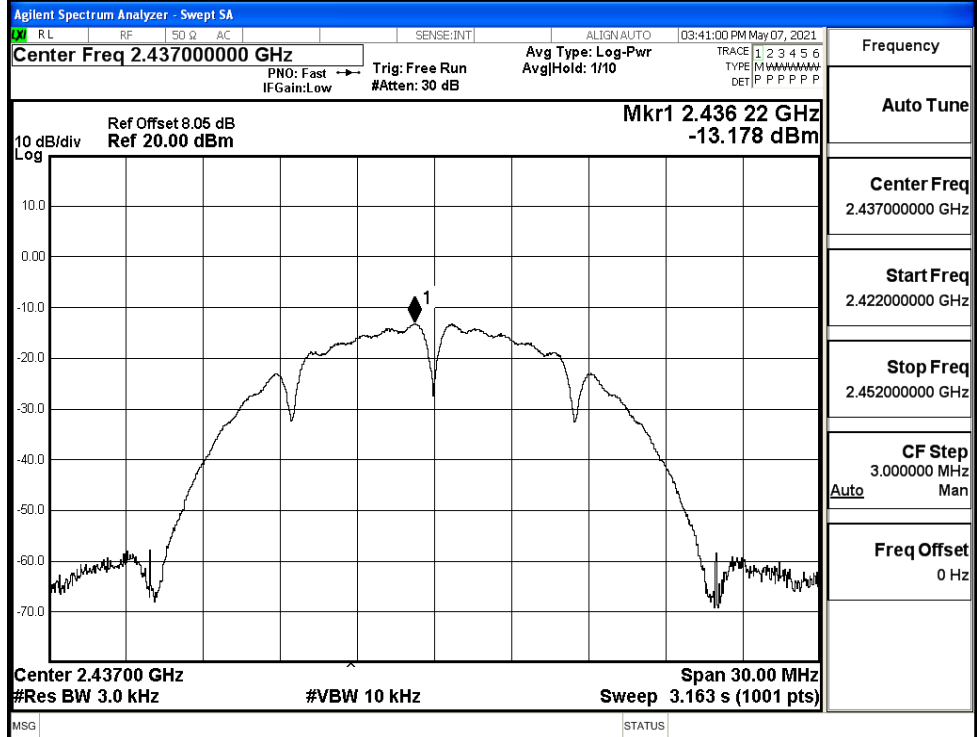
A.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-13.767	8	PASS
	MCH	-13.178	8	PASS
	HCH	-13.351	8	PASS
11G	LCH	-16.600	8	PASS
	MCH	-15.566	8	PASS
	HCH	-15.617	8	PASS
11N20SISO	LCH	-16.012	8	PASS
	MCH	-15.693	8	PASS
	HCH	-15.214	8	PASS

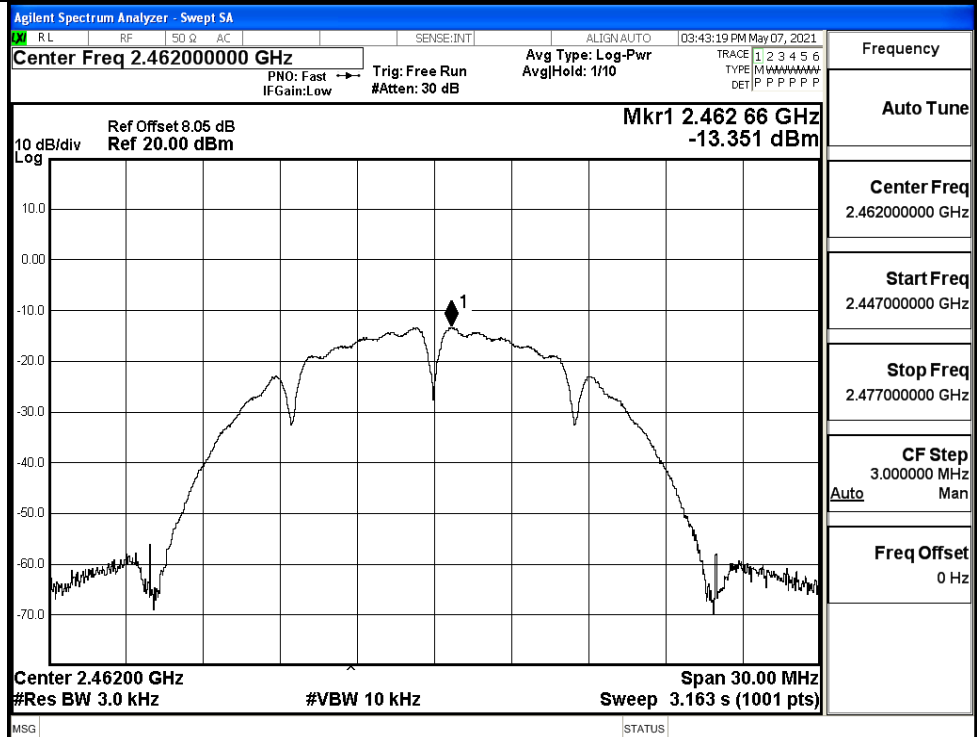




11B/MCH

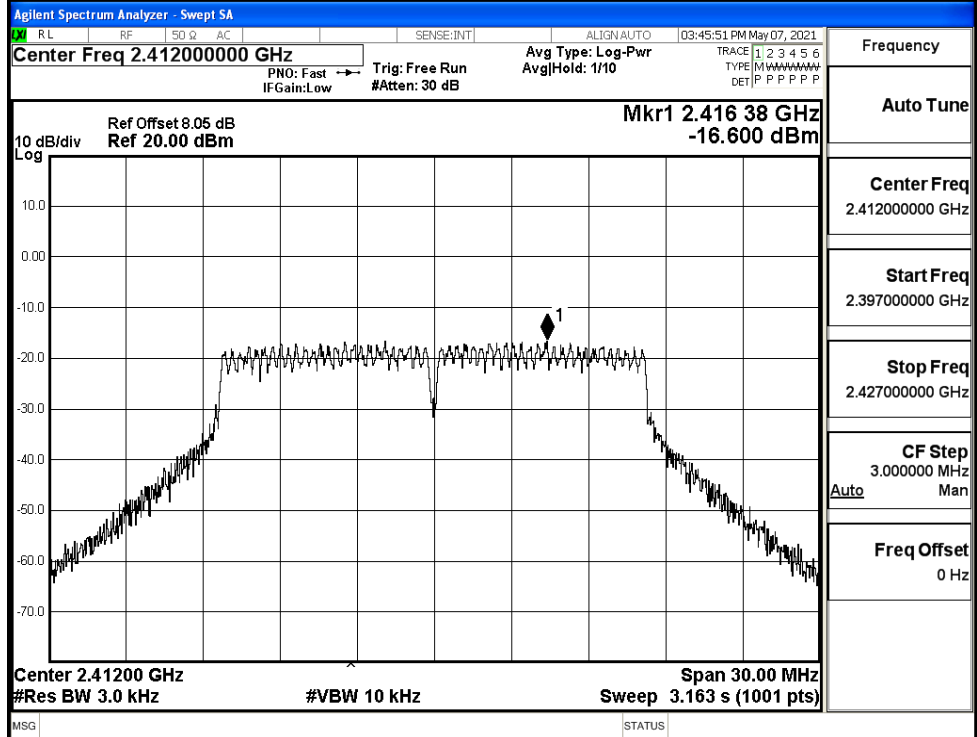


11B/HCH

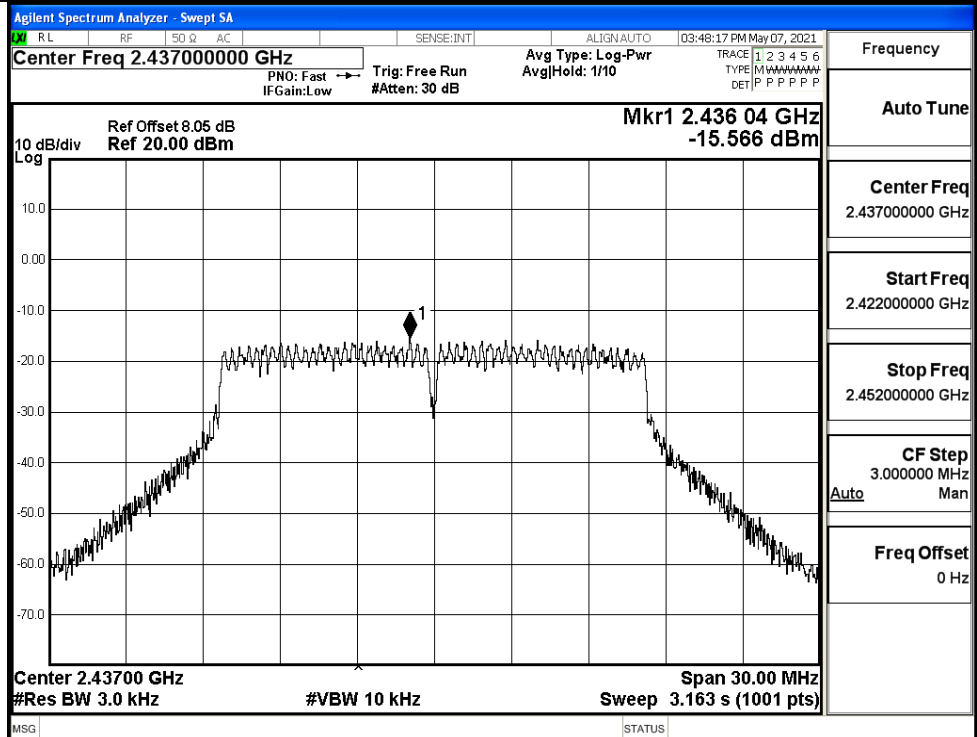




11G/LCH

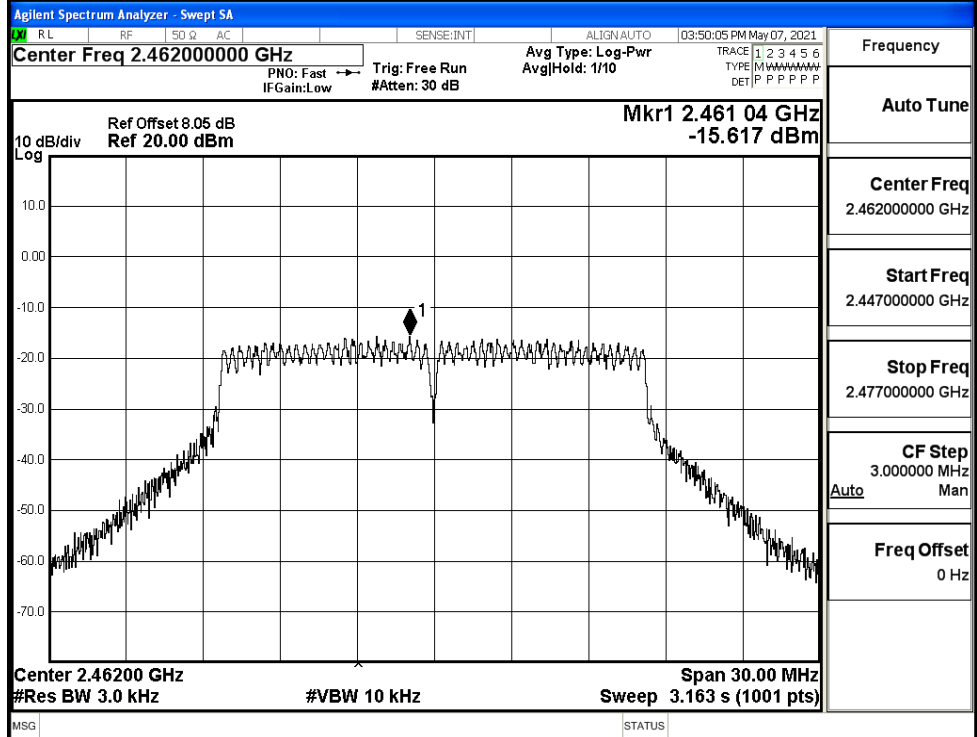


11G/MCH

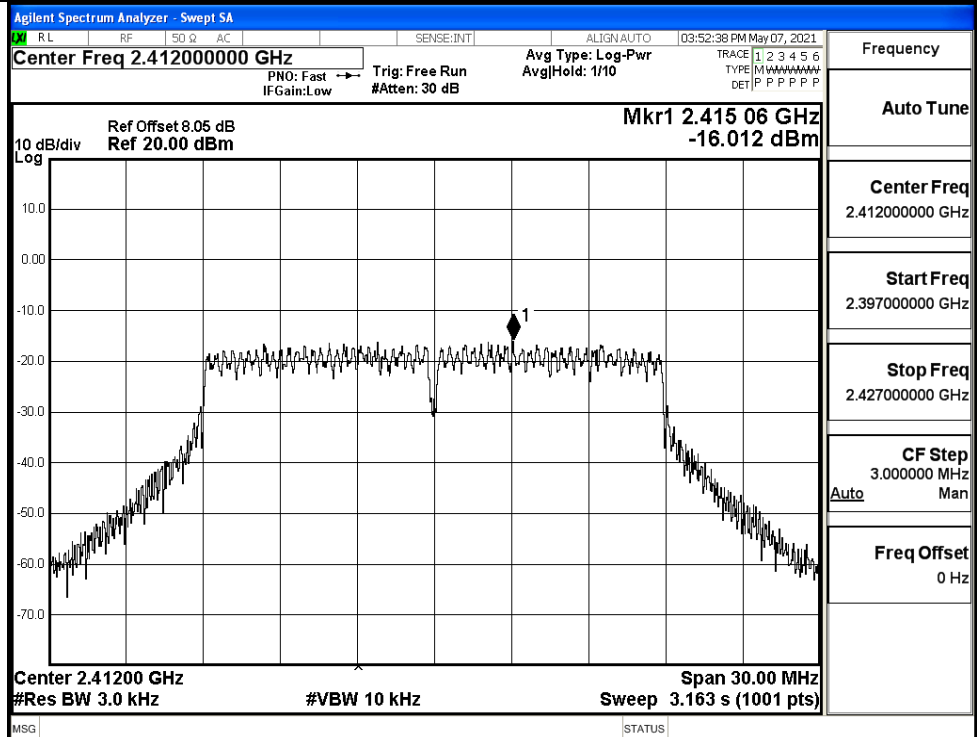




11G/HCH

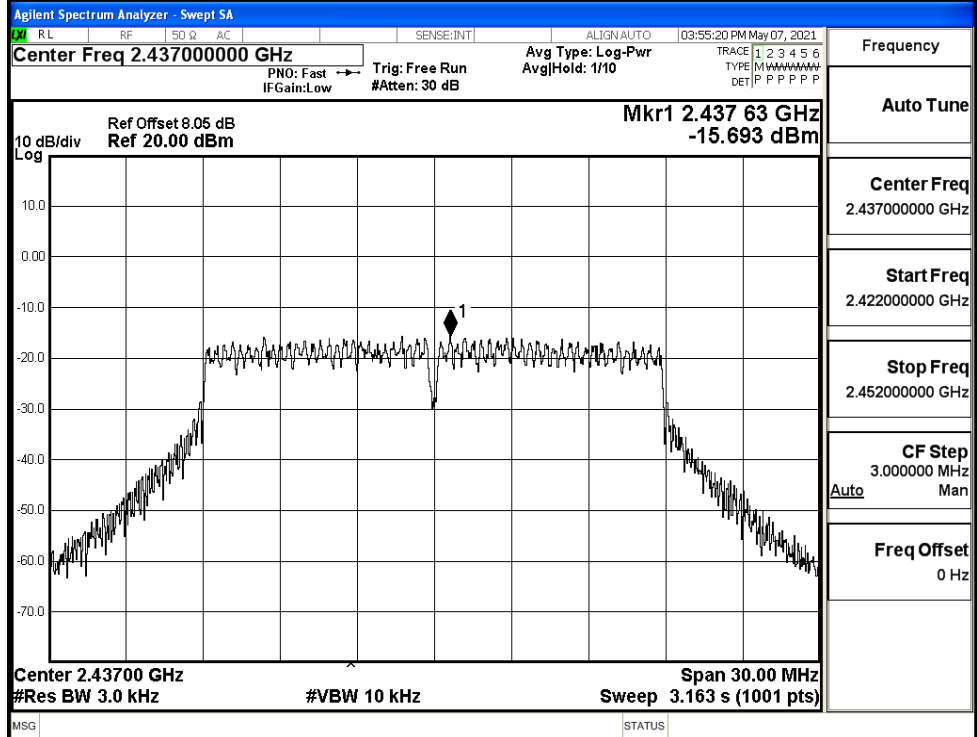


11N20SISO/LCH

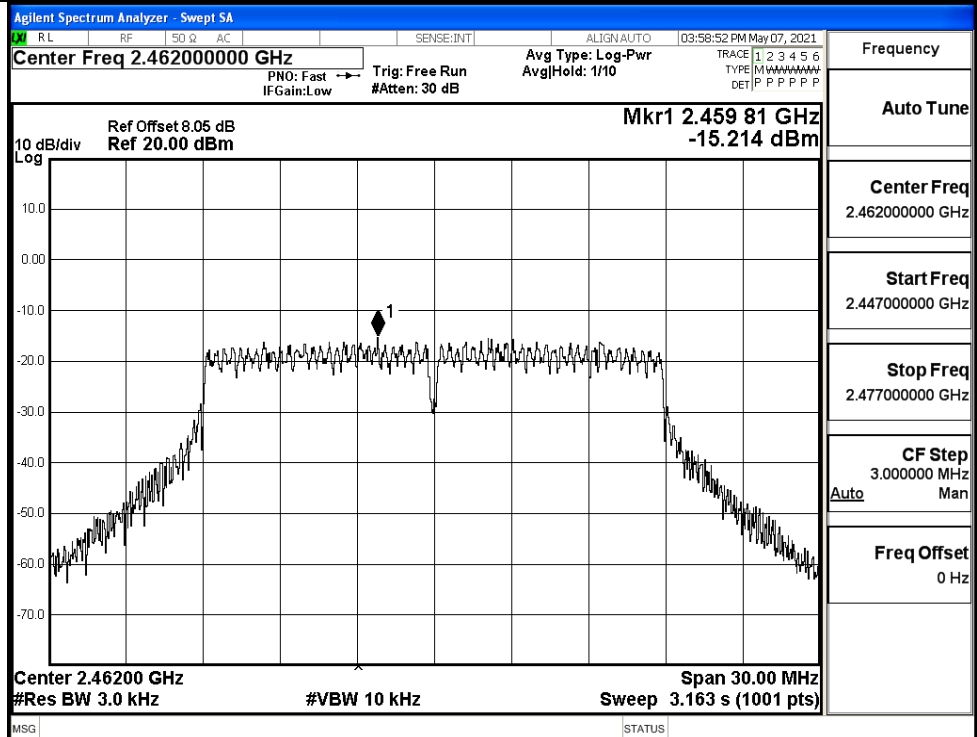




11N20SISO/MCH



11N20SISO/HCH



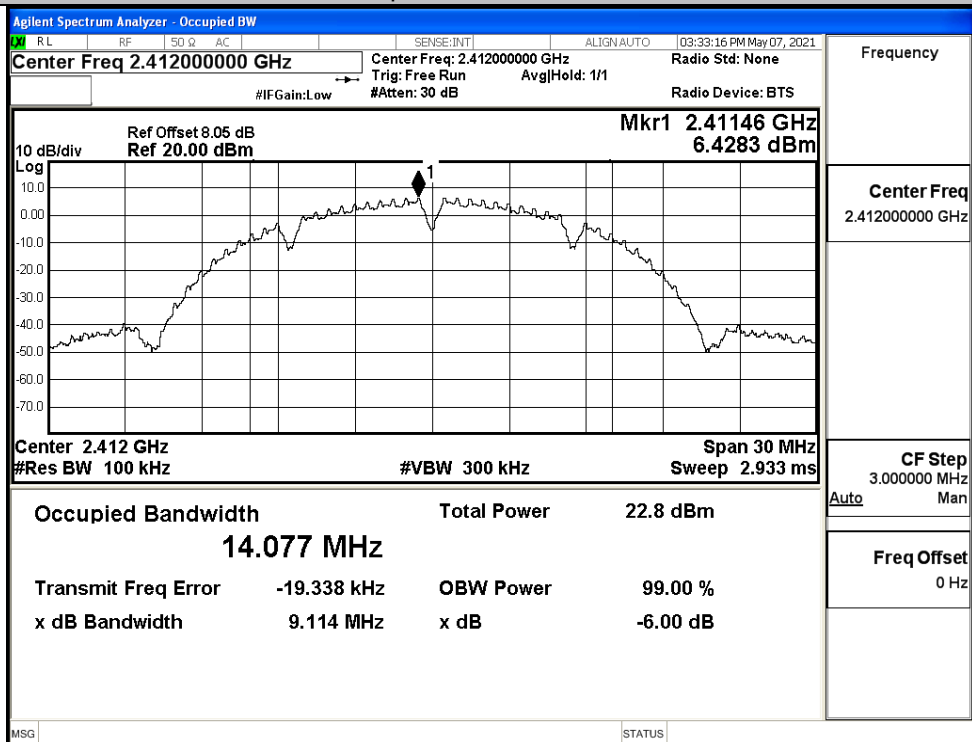


A.4 6dB Bandwidth

Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.114	≥ 0.5	PASS
	MCH	9.126	≥ 0.5	PASS
	HCH	9.121	≥ 0.5	PASS
11G	LCH	16.57	≥ 0.5	PASS
	MCH	16.56	≥ 0.5	PASS
	HCH	16.57	≥ 0.5	PASS
11N20SISO	LCH	17.77	≥ 0.5	PASS
	MCH	17.73	≥ 0.5	PASS
	HCH	17.77	≥ 0.5	PASS

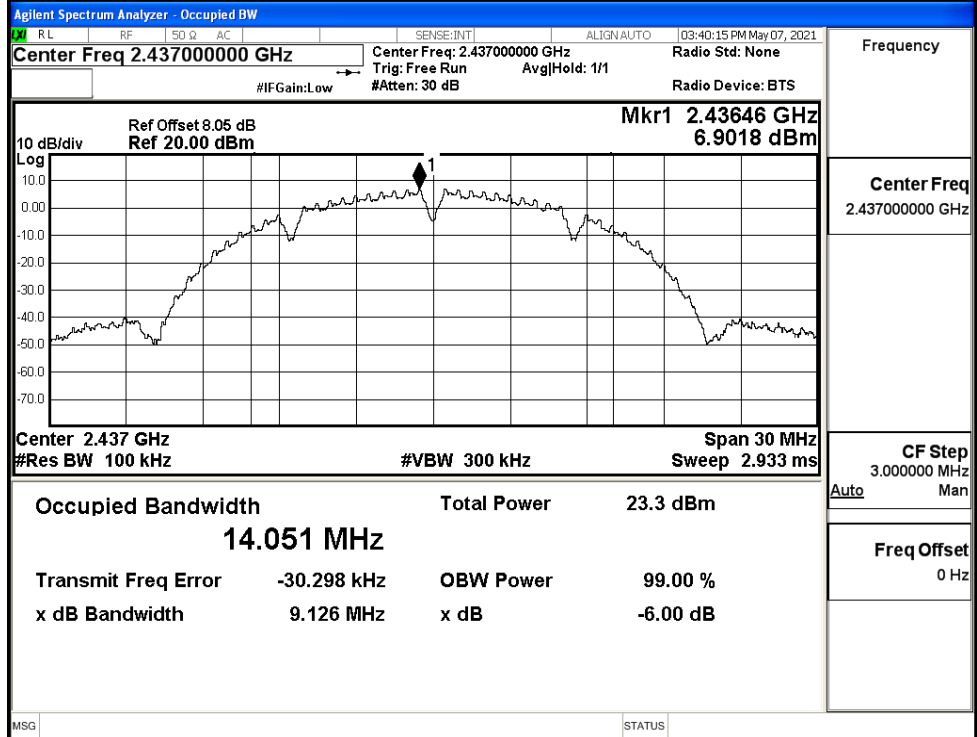
Test Graphs

11B/LCH

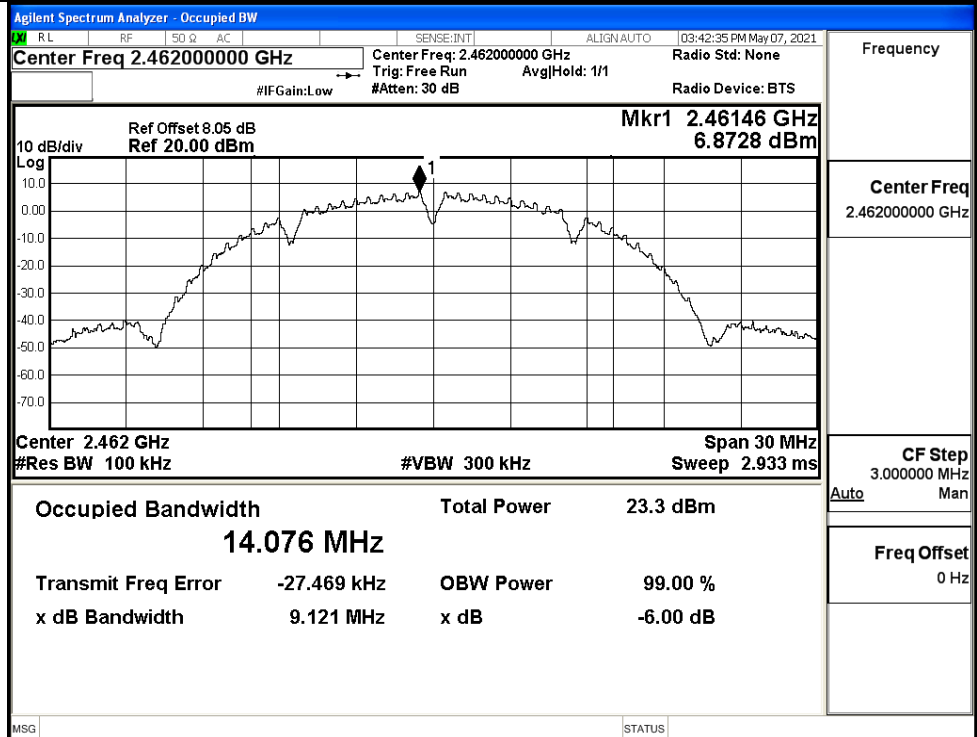




11B/MCH

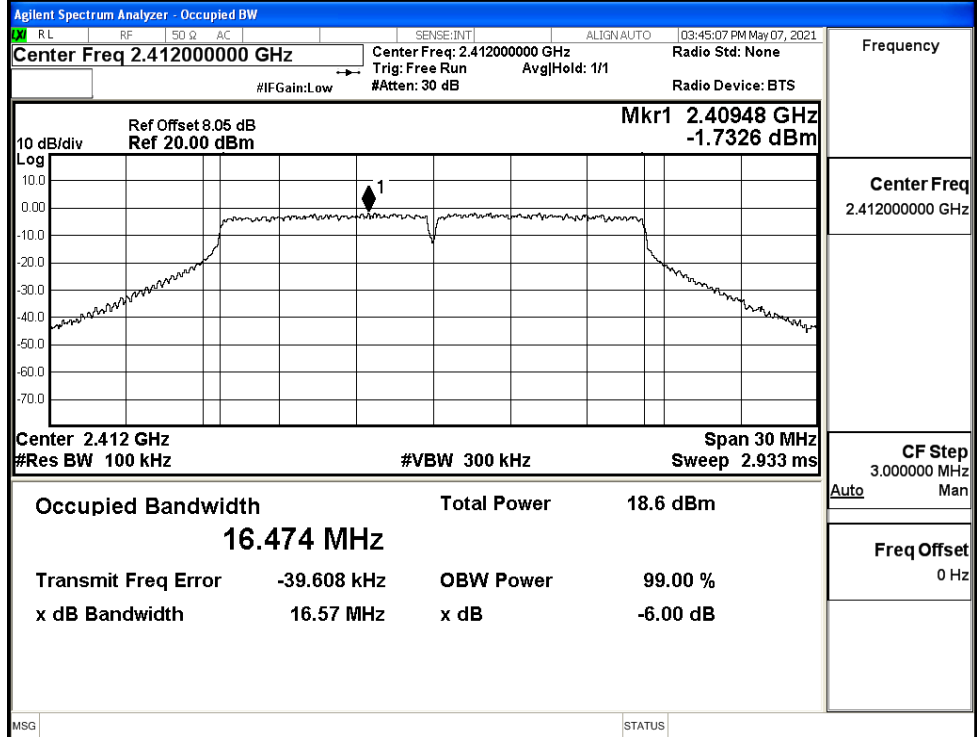


11B/HCH

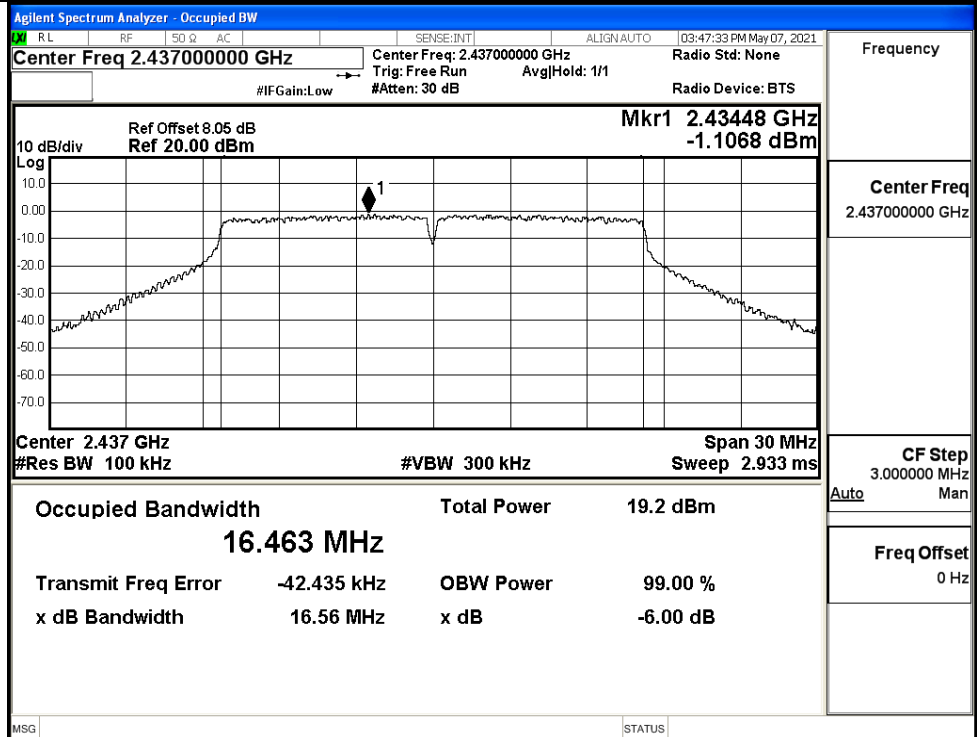




11G/LCH

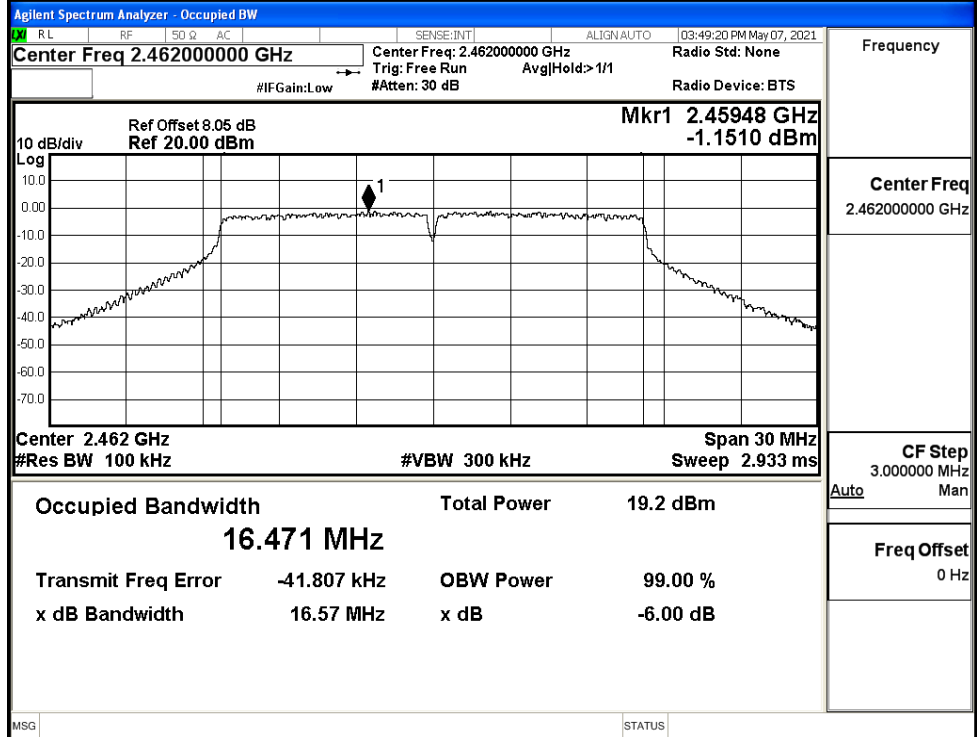


11G/MCH

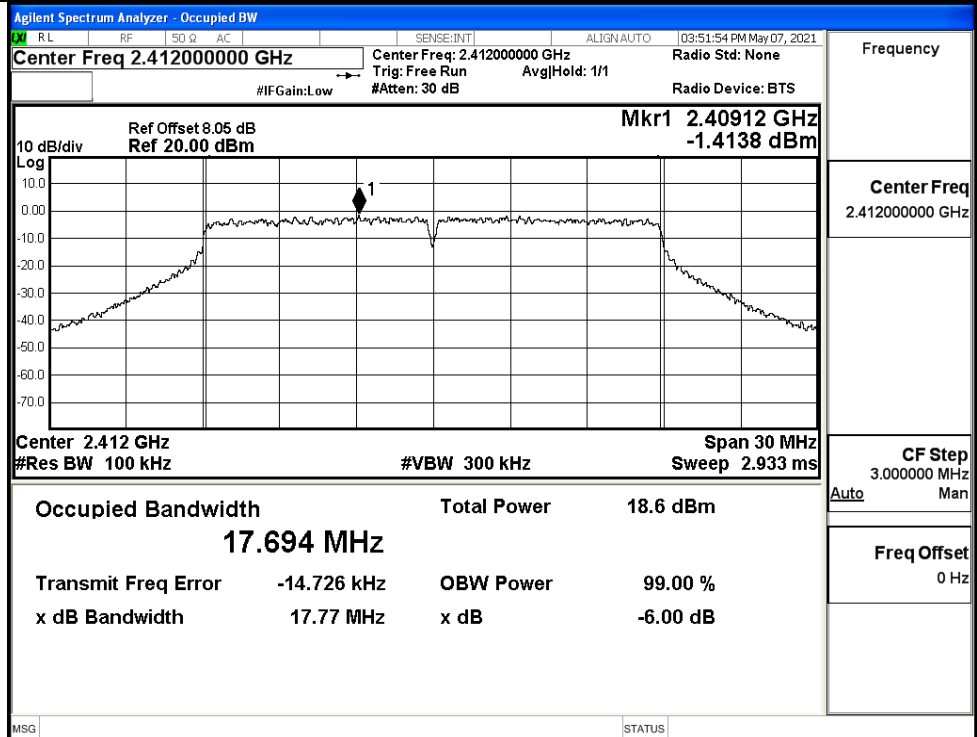




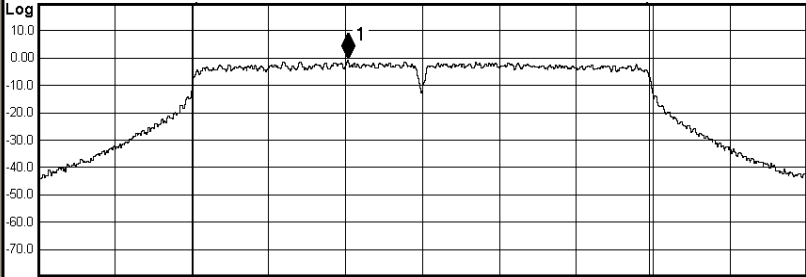
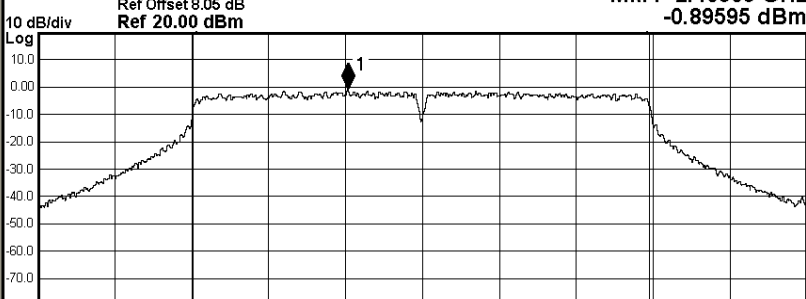
11G/HCH



11N20SISO/LCH



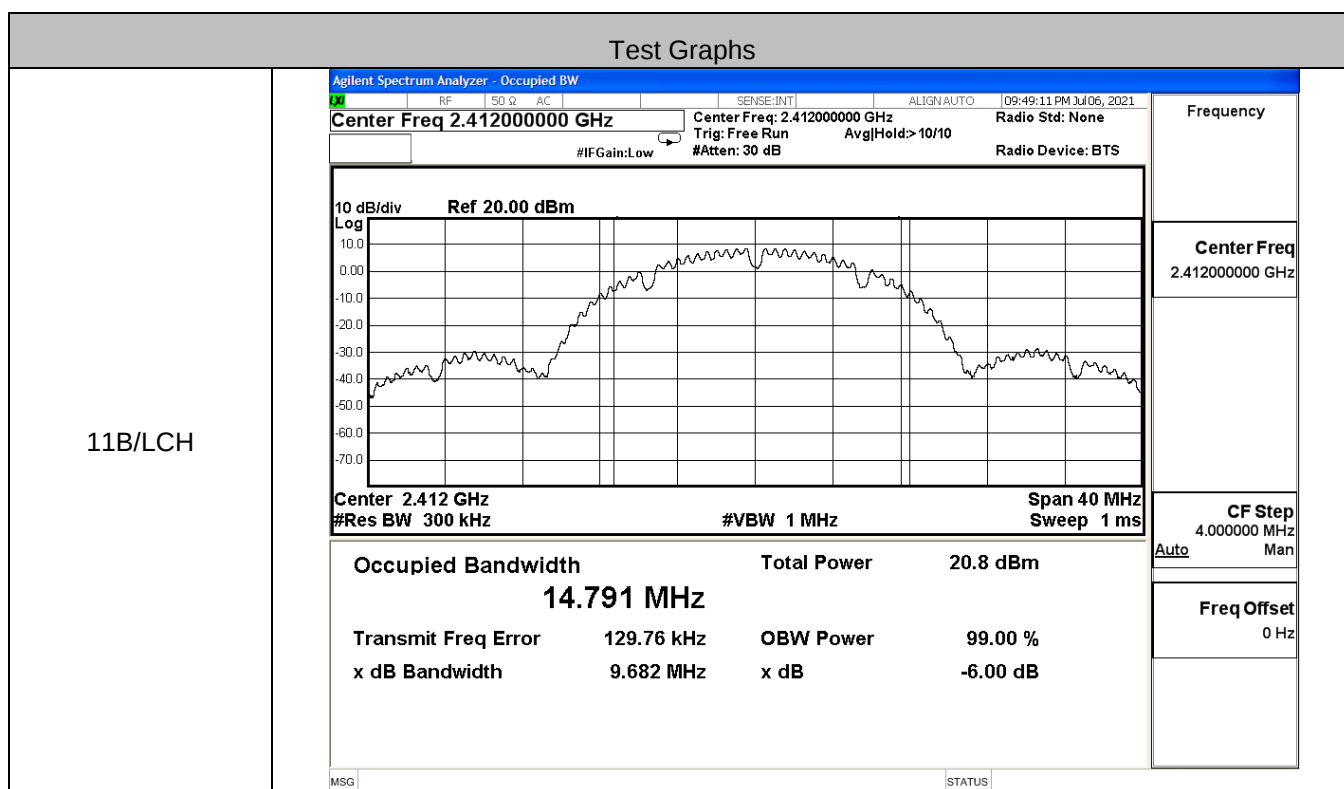


11N20SISO/MCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 03:54:35 PM May 07, 2021 Center Freq 2.437000000 GHz Center Freq: 2.437000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None #IF Gain: Low #Atten: 30 dB Radio Device: BTS 10 dB/div Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.43409 GHz -0.72111 dBm Log  Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth Total Power 19.1 dBm 17.684 MHz Transmit Freq Error -19.729 kHz OBW Power 99.00 % x dB Bandwidth 17.73 MHz x dB -6.00 dB MSG STATUS Frequency Center Freq 2.437000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz
11N20SISO/HCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 03:58:08 PM May 07, 2021 Center Freq 2.462000000 GHz Center Freq: 2.462000000 GHz Trig: Free Run Avg/Hold: 1/1 Radio Std: None #IF Gain: Low #Atten: 30 dB Radio Device: BTS 10 dB/div Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.45909 GHz -0.89595 dBm Log  Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth Total Power 19.1 dBm 17.691 MHz Transmit Freq Error -21.451 kHz OBW Power 99.00 % x dB Bandwidth 17.77 MHz x dB -6.00 dB MSG STATUS Frequency Center Freq 2.462000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz



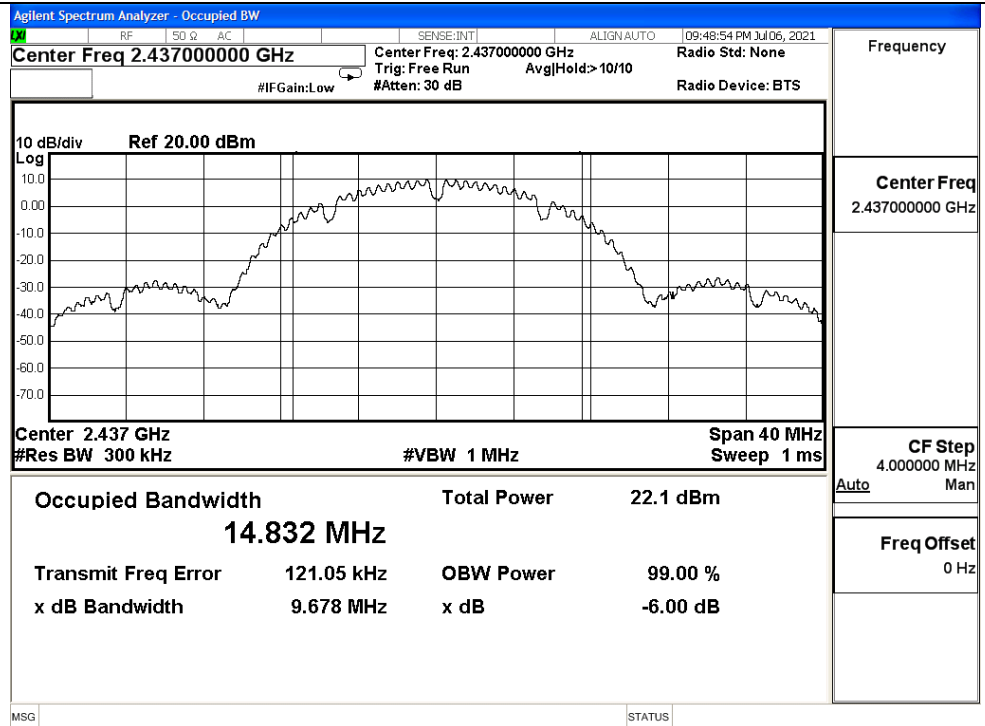
A.5 Occupied Bandwidth

Mode	Channel	Occupied Bandwidth [MHz]
11B	LCH	14.791
	MCH	14.832
	HCH	14.862
11G	LCH	16.024
	MCH	16.007
	HCH	16.028
11N20SISO	LCH	16.869
	MCH	16.871
	HCH	16.868

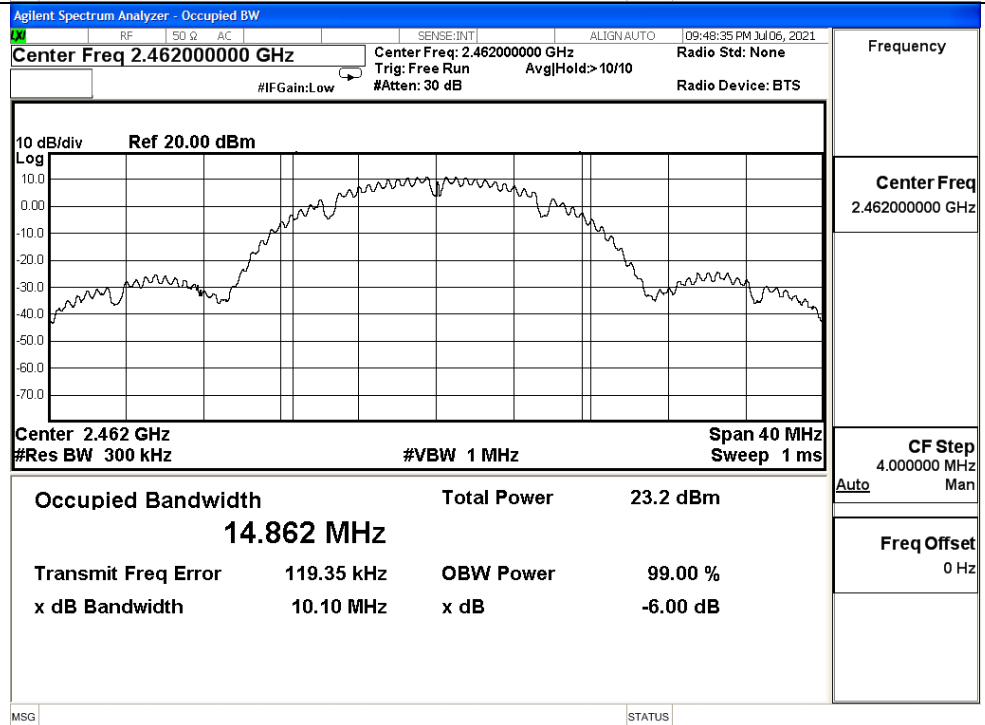




11B/MCH

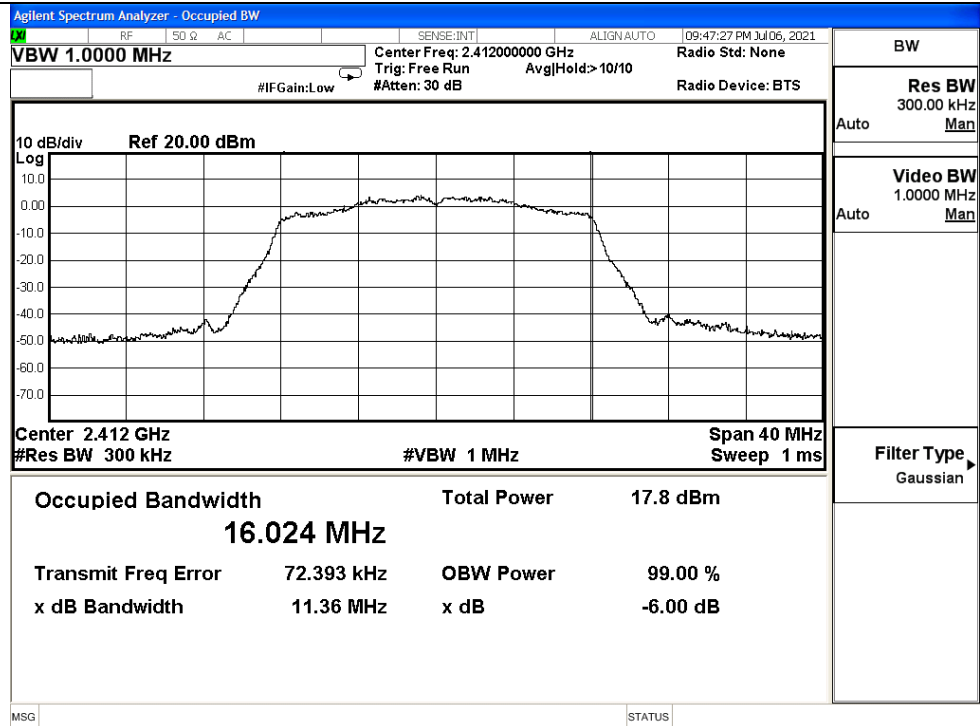


11B/HCH

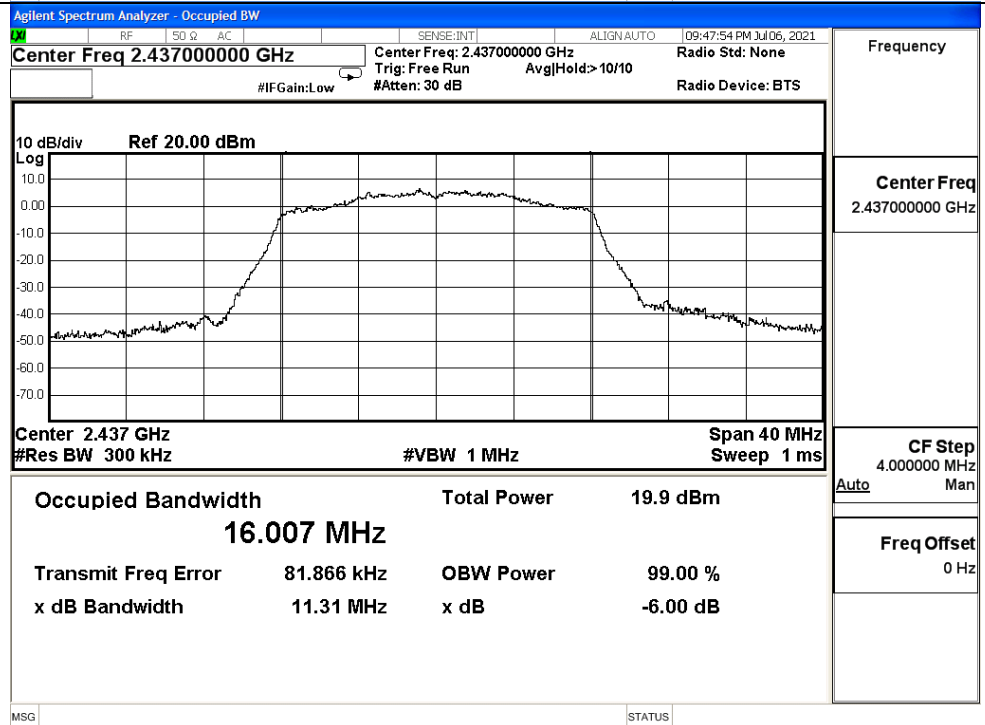




11G/LCH

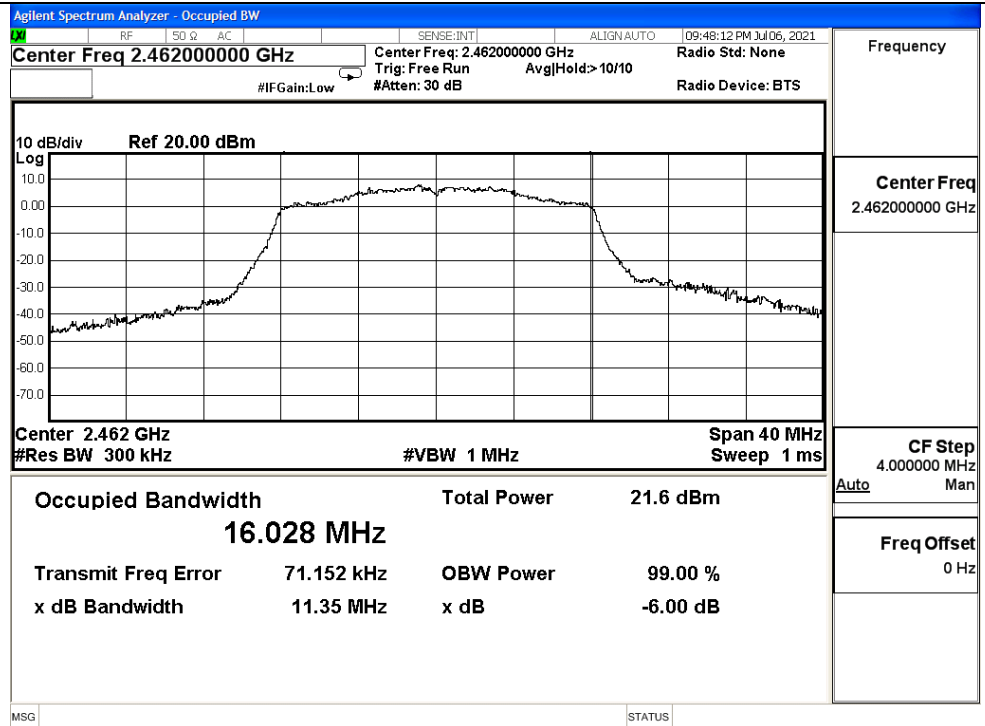


11G/MCH

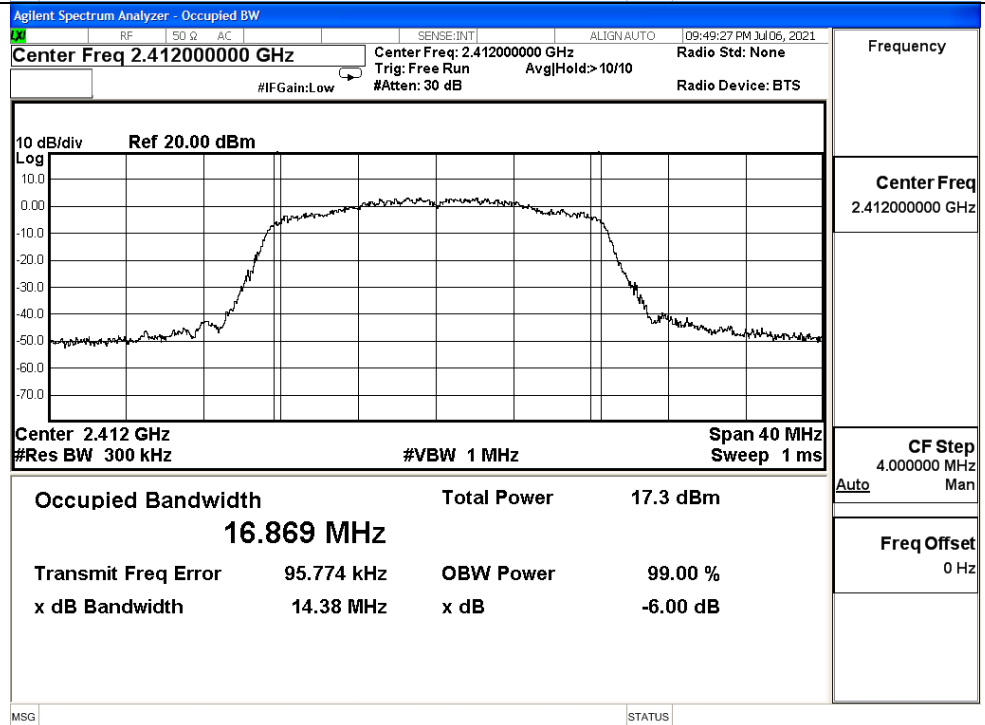




11G/HCH

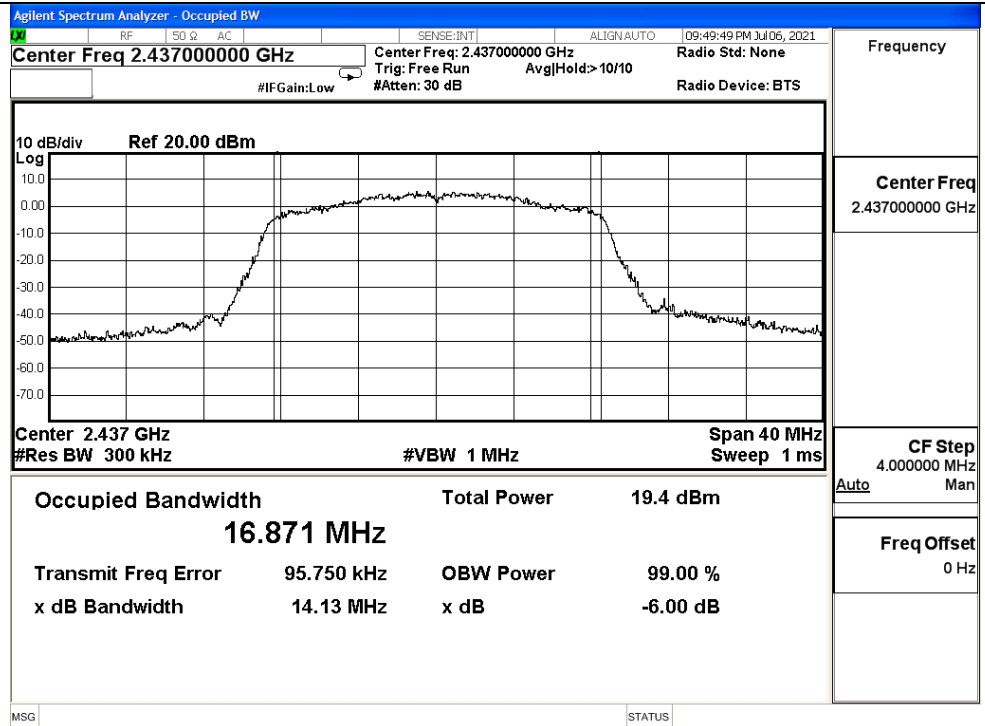


11N20SISO/LCH

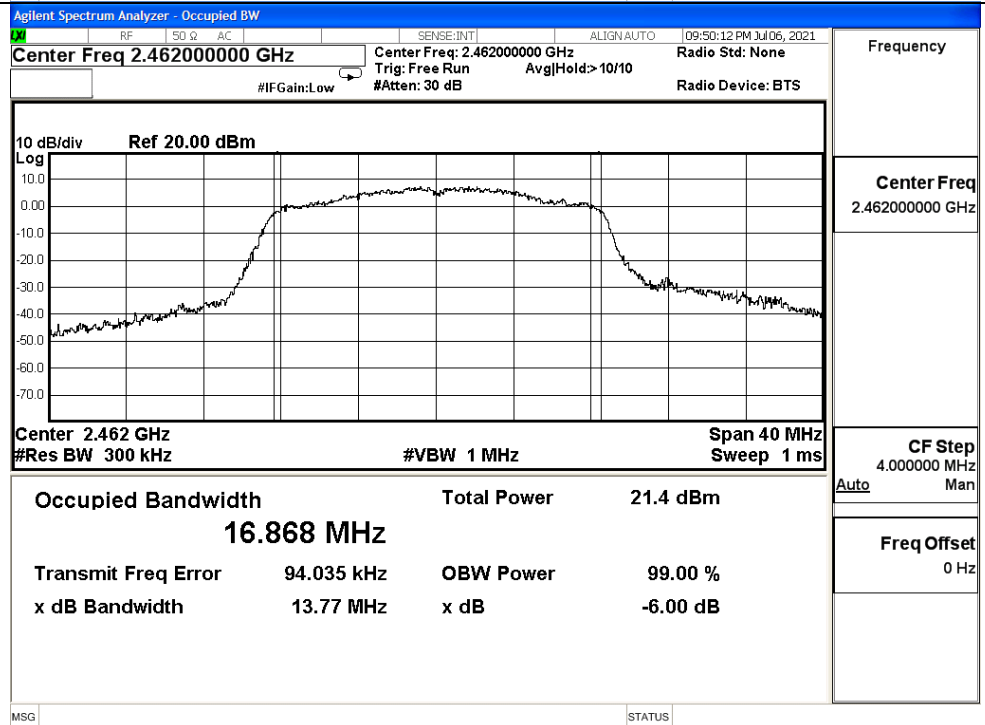




11N20SISO/MCH



11N20SISO/HCH





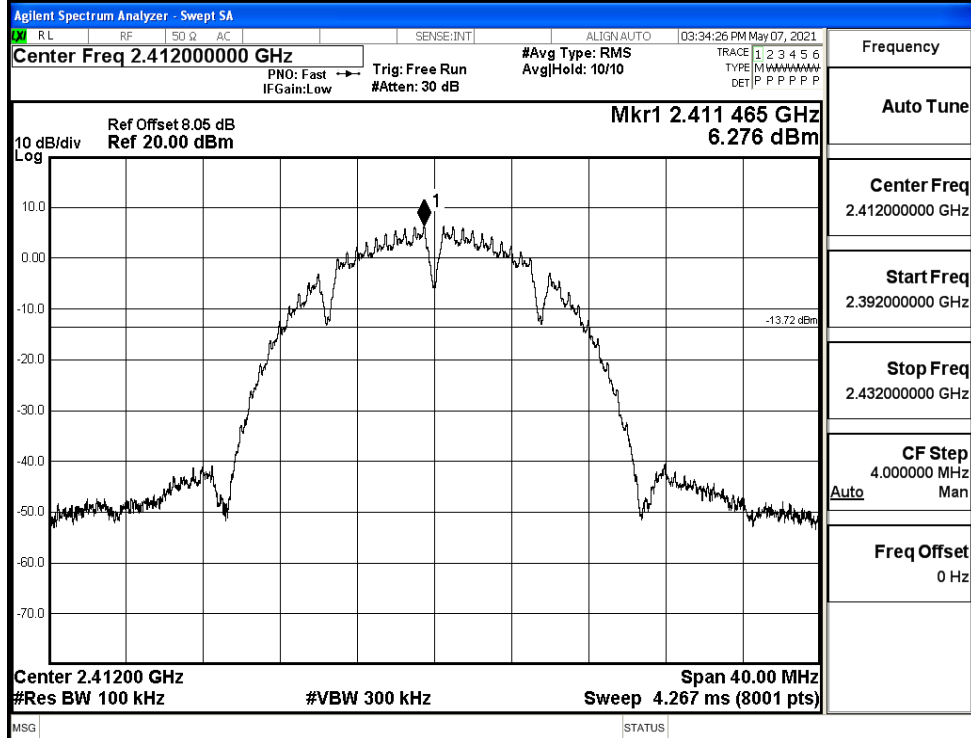
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	6.276	-37.421	-13.724	PASS
	MCH	6.829	-37.877	-13.171	PASS
	HCH	6.746	-37.815	-13.254	PASS
11G	LCH	-1.912	-37.332	-21.912	PASS
	MCH	-1.35	-38.504	-21.350	PASS
	HCH	-1.444	-38.207	-21.444	PASS
11N20 SISO	LCH	-1.504	-38.116	-21.504	PASS
	MCH	-0.896	-37.019	-20.896	PASS
	HCH	-0.91	-36.397	-20.910	PASS

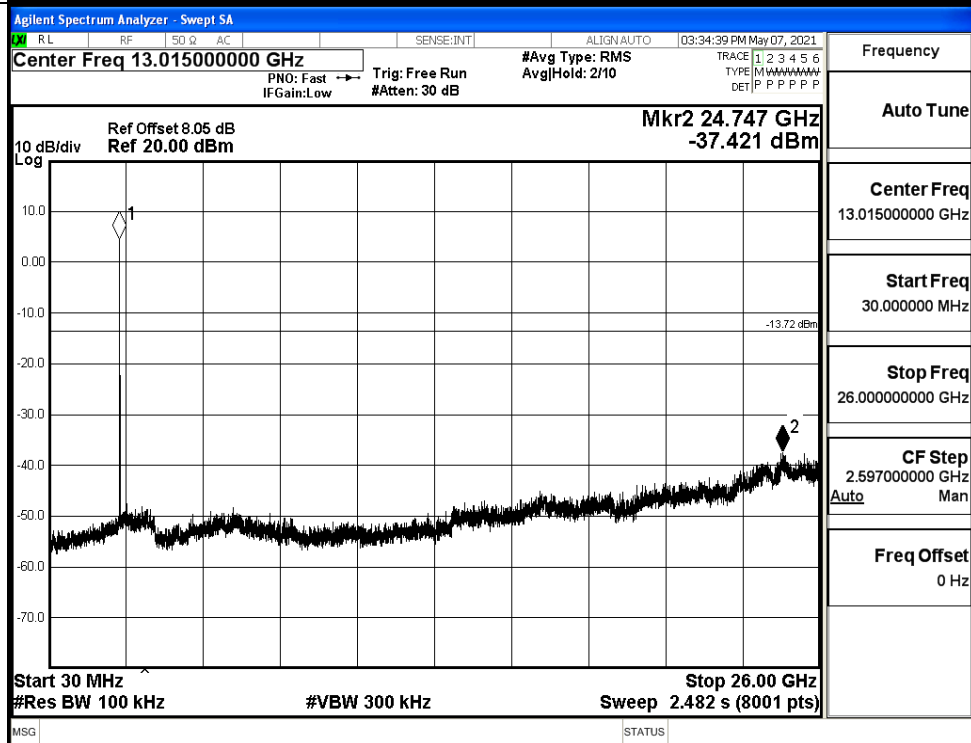


11B LCH Graphs

Pref/11B/LCH



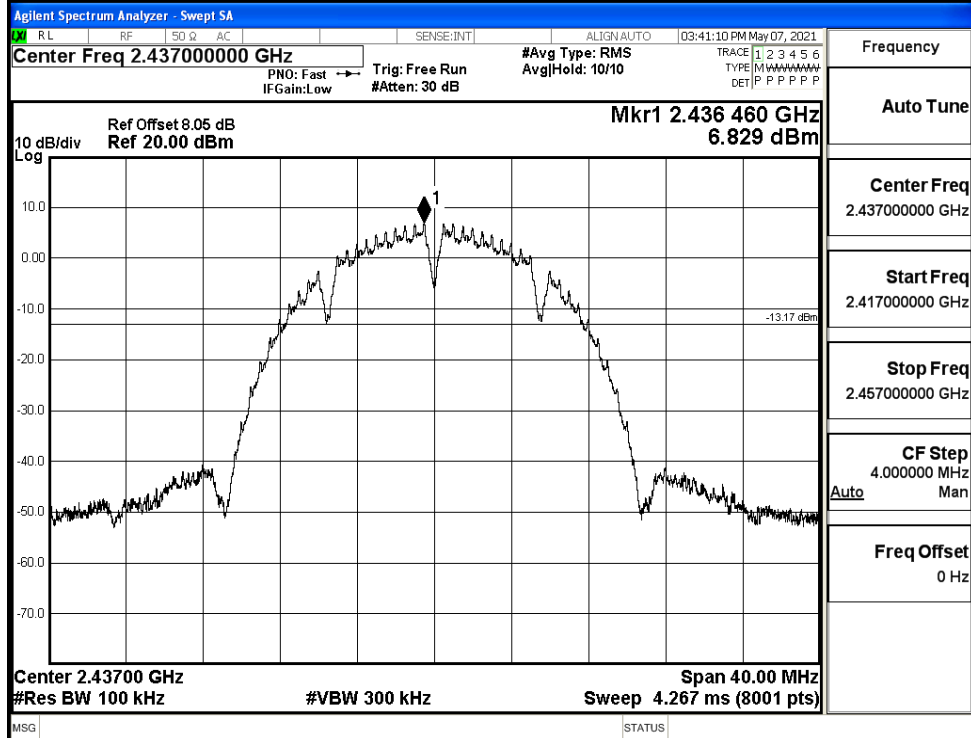
Puw/11B/LCH



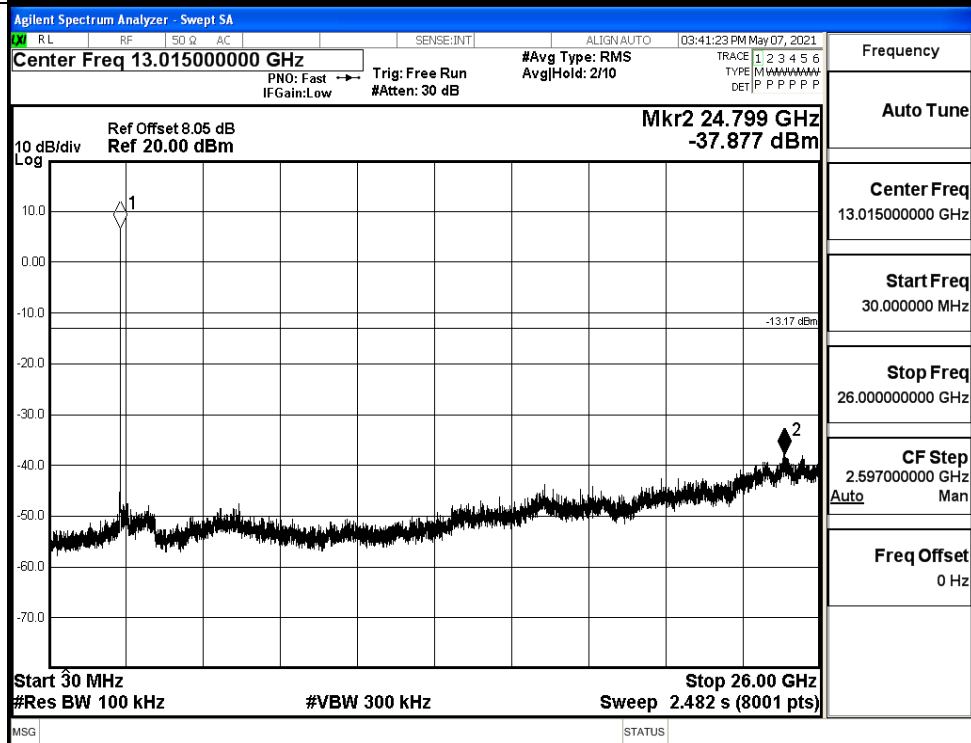


11B MCH Graphs

Pref/11B/MCH



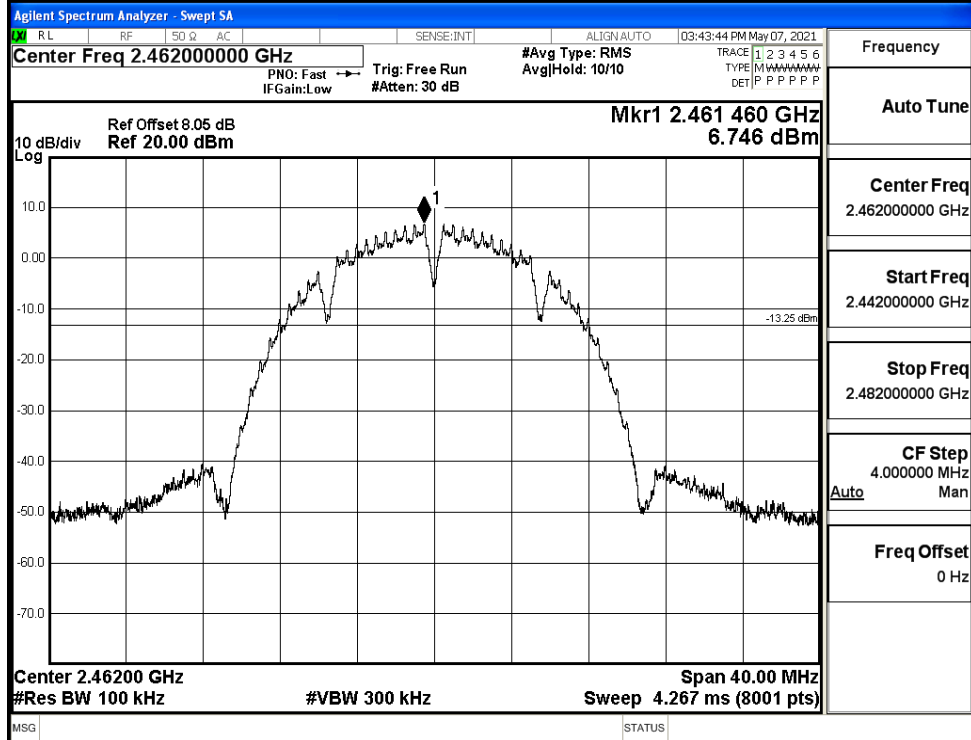
Puw/11B/MCH



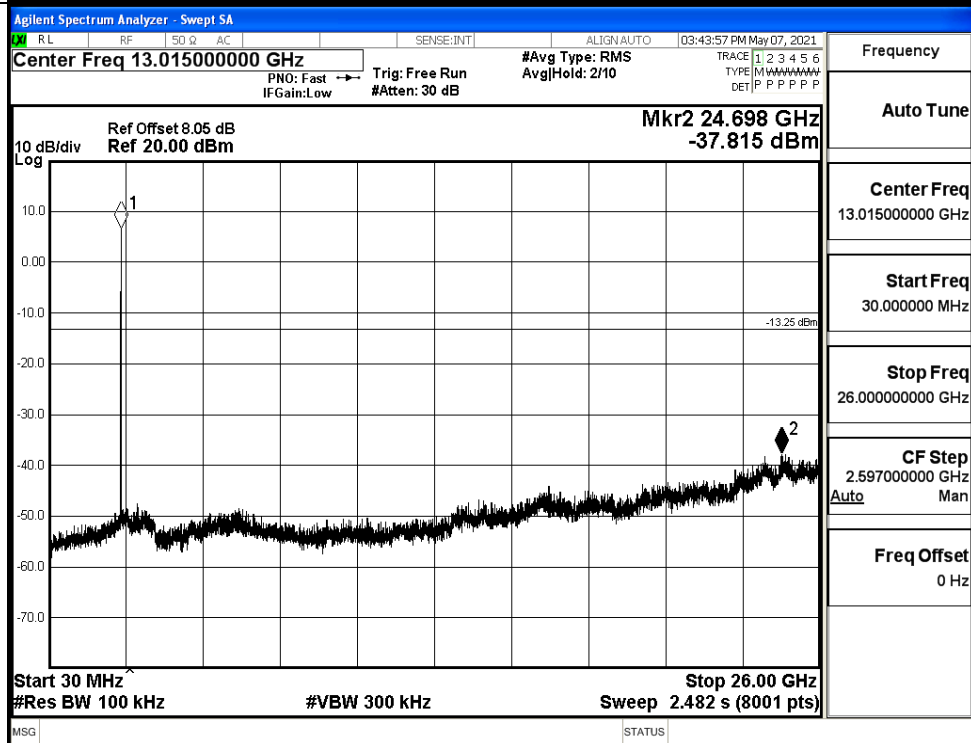


11B HCH Graphs

Pref/11B/HCH



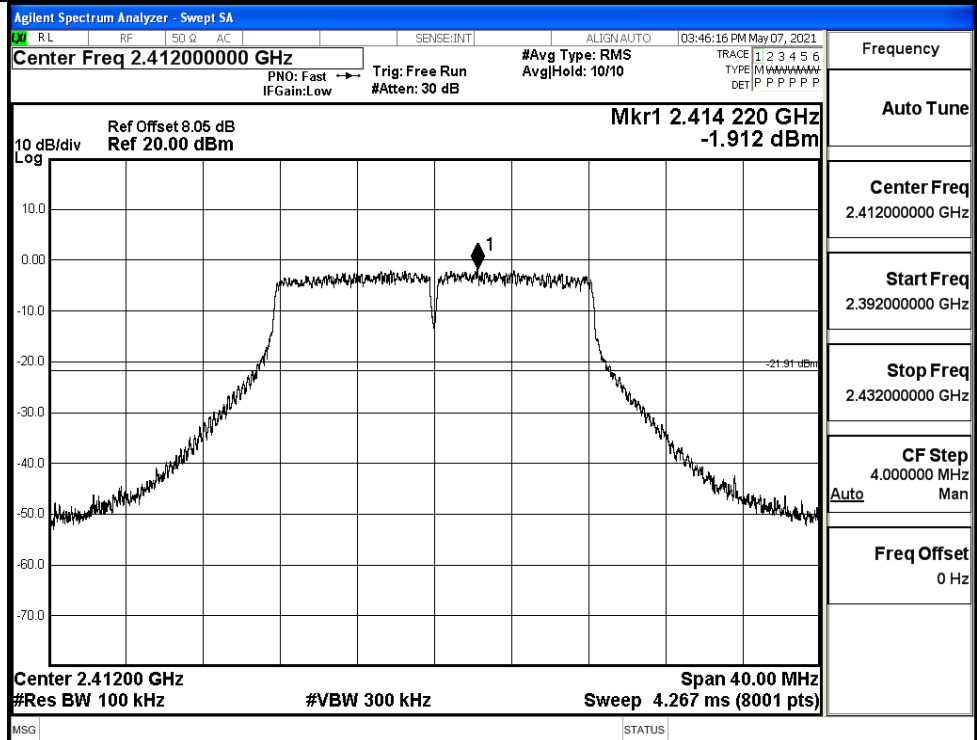
Puw/11B/HCH



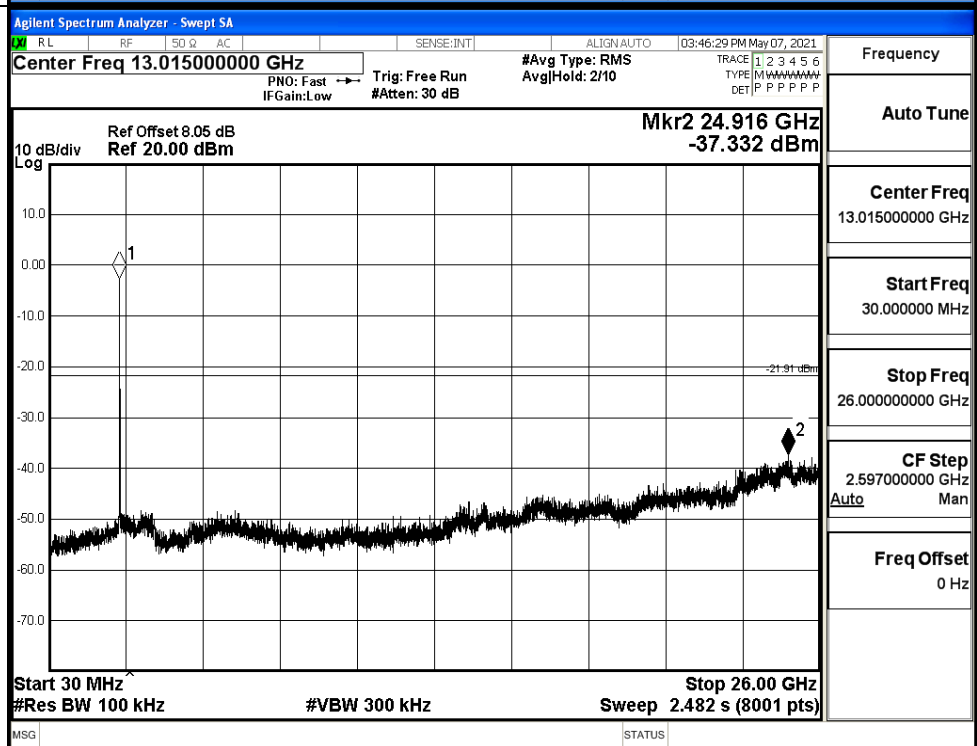


11G LCH Graphs

Pref/11G/LCH



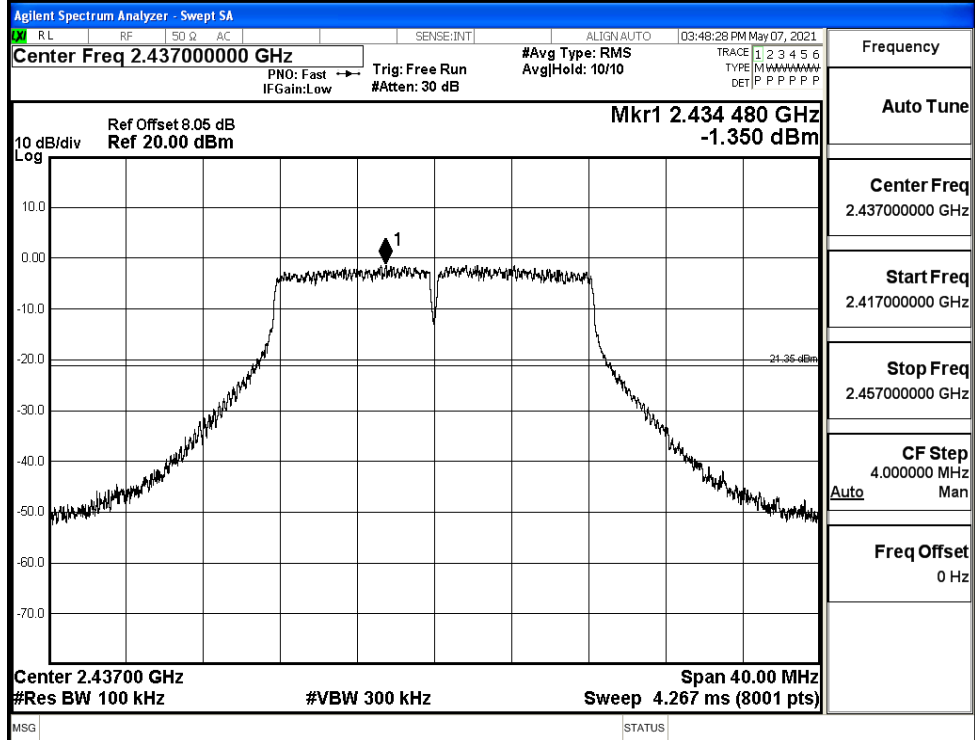
Puw/11G/LCH



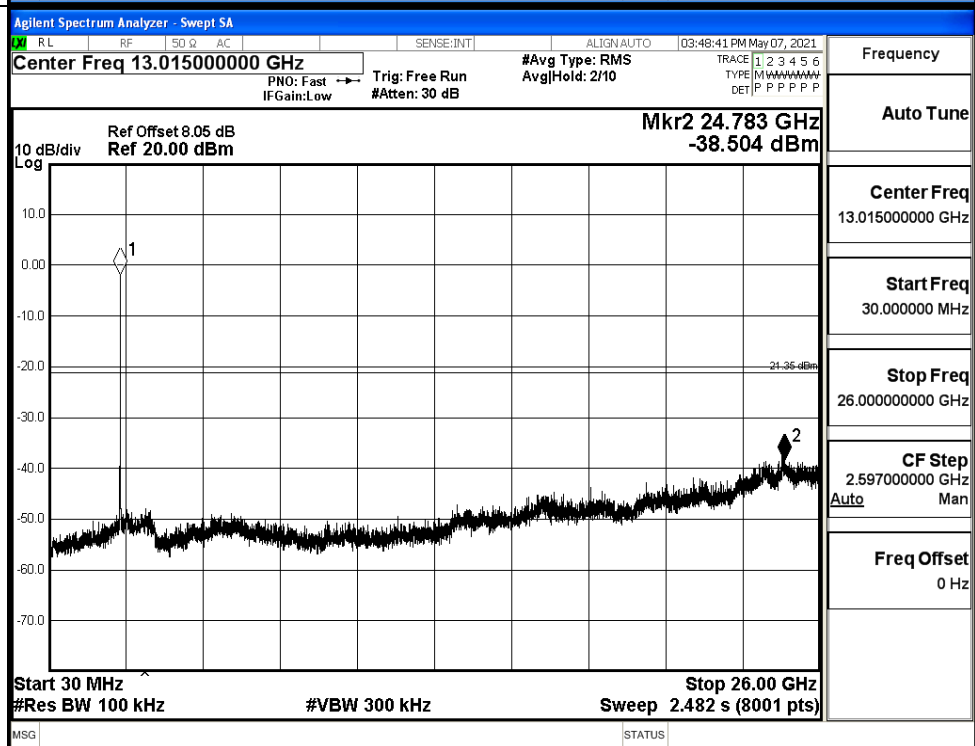


11G MCH Graphs

Pref/11G/MCH



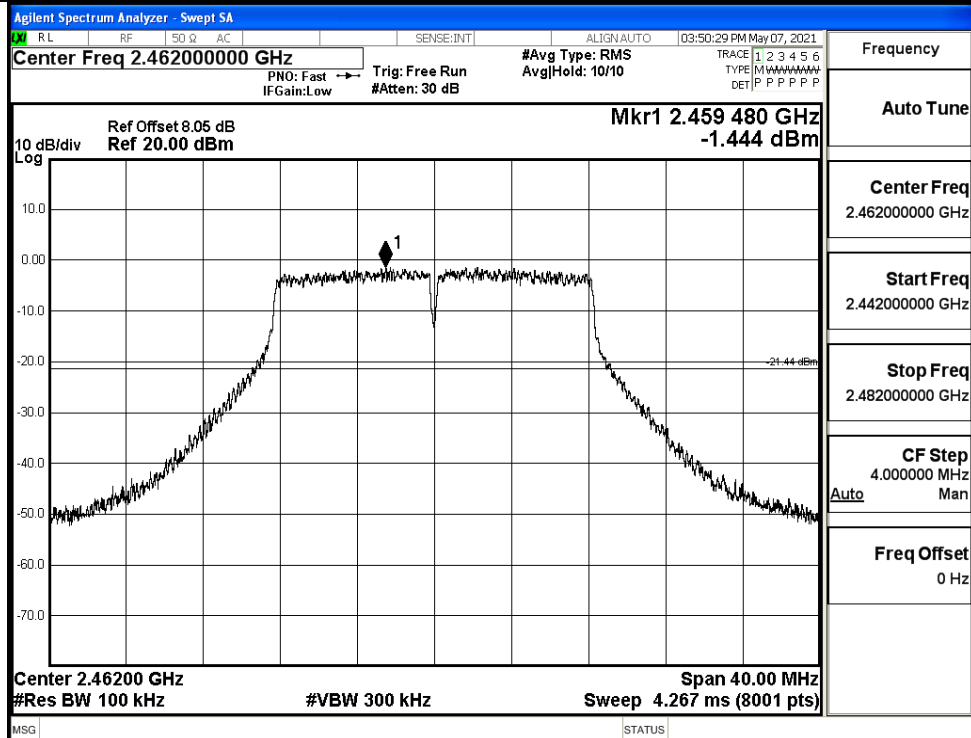
Puw/11G/MCH



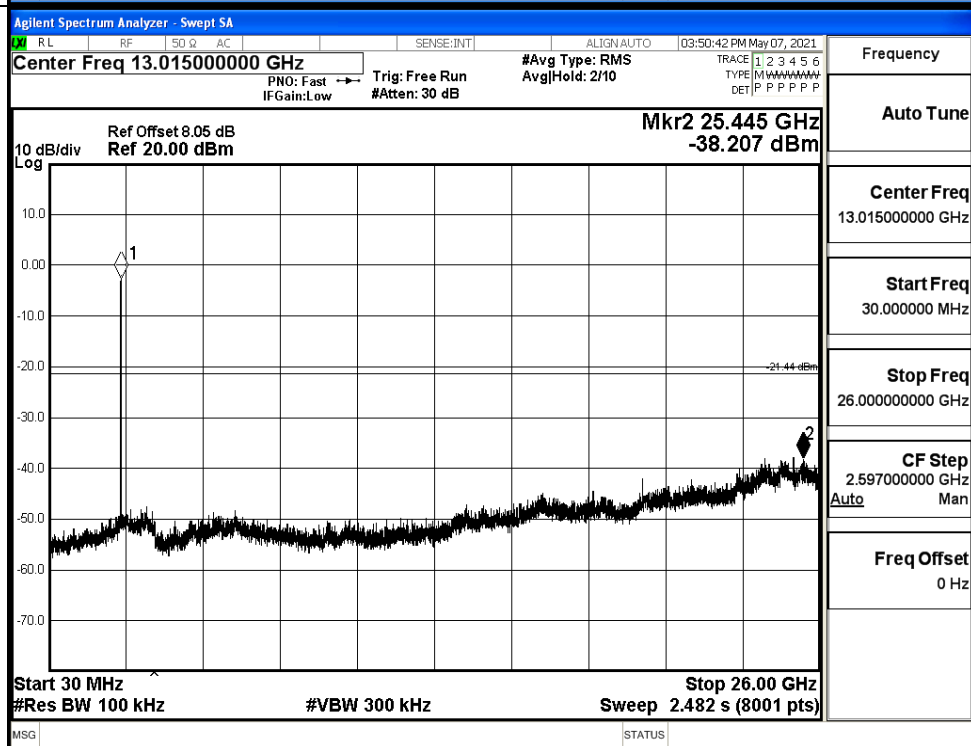


11G HCH Graphs

Pref/11G/HCH

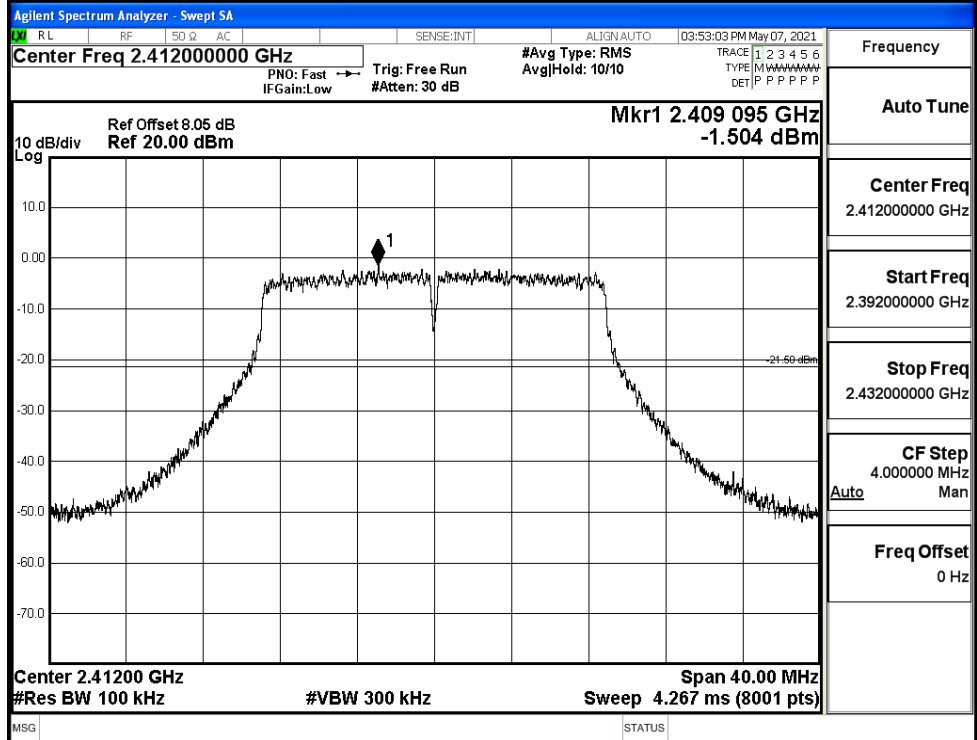
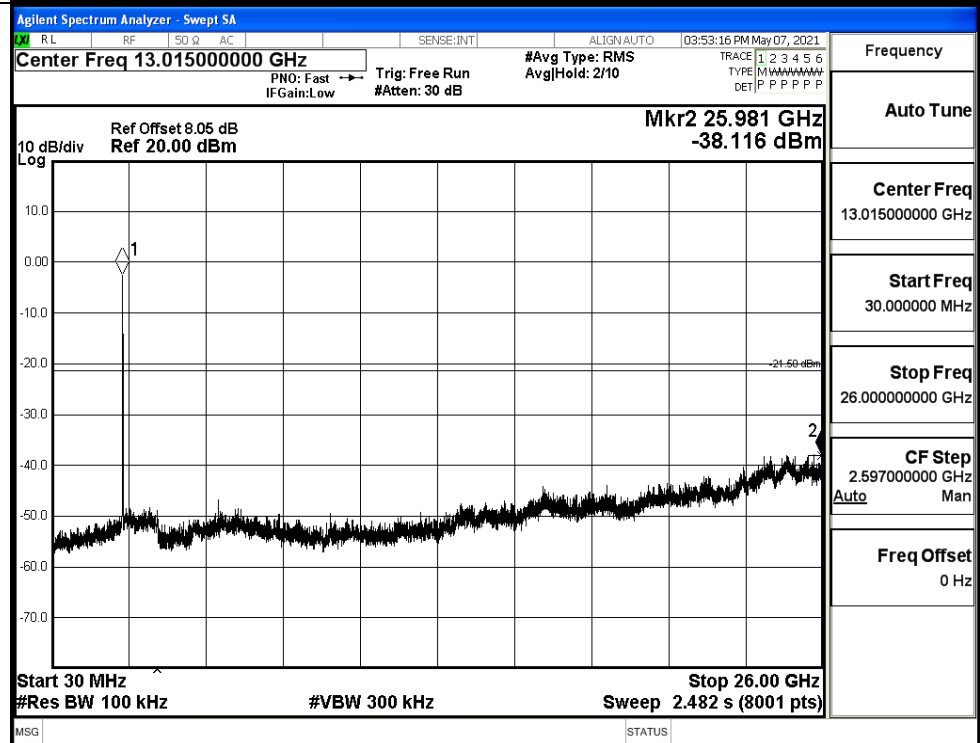


Puw/11G/HCH



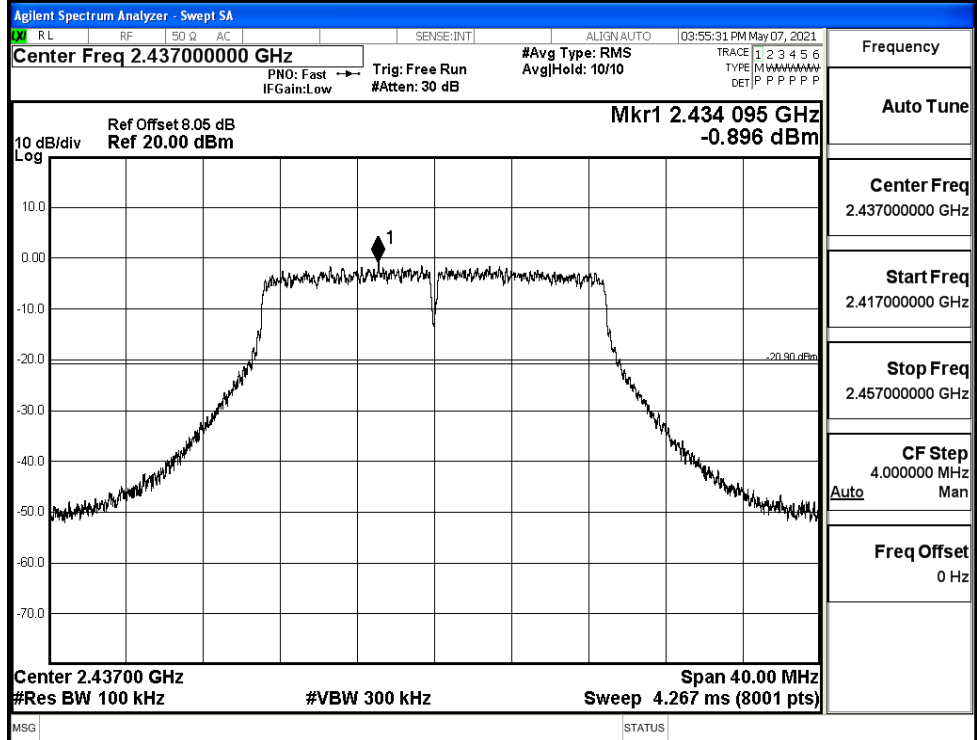
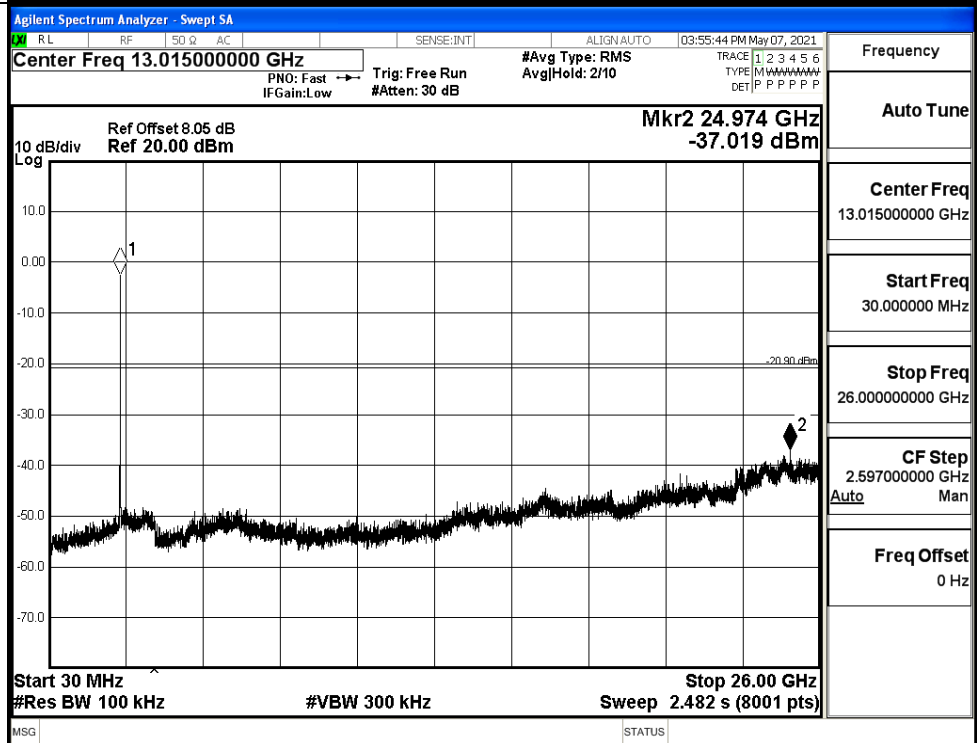


11N20SISO LCH Graphs

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

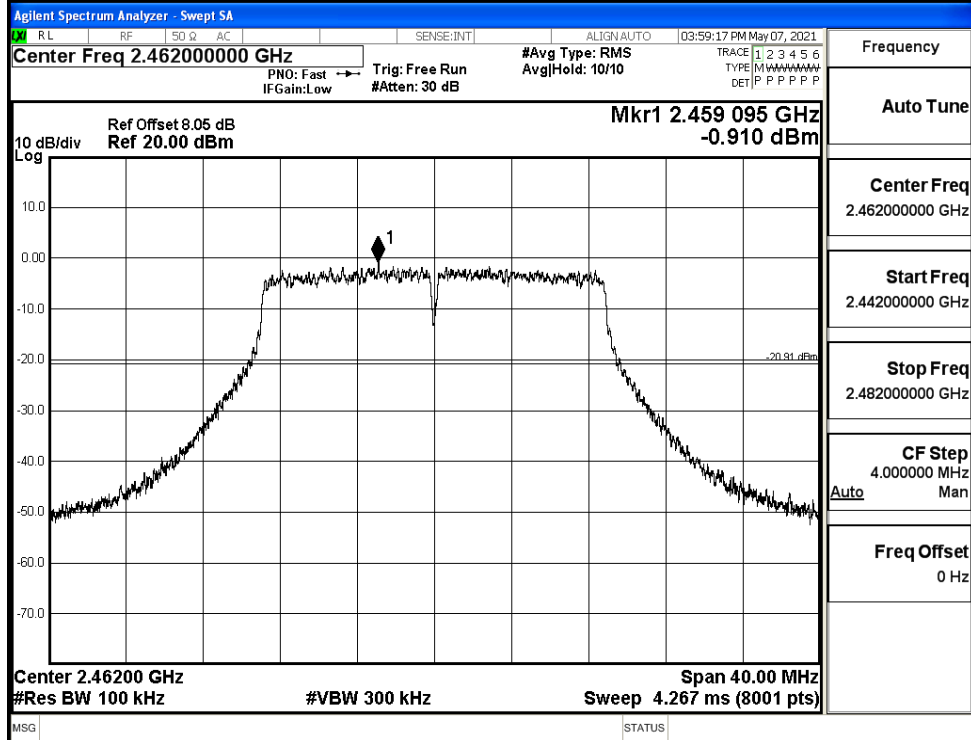
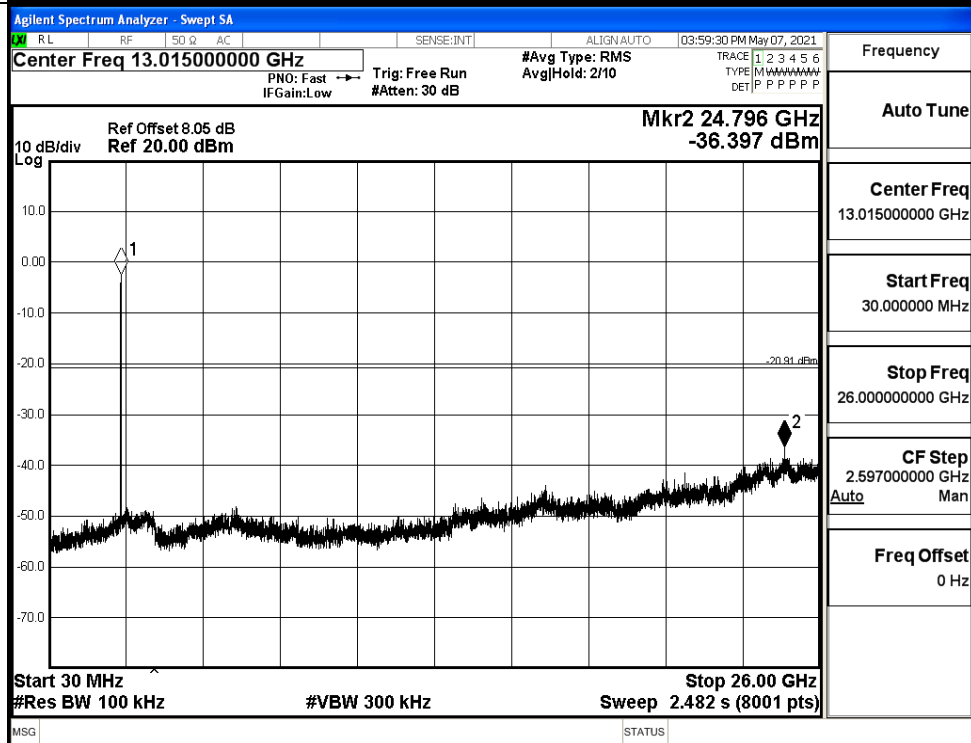


11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCHPuw/11N20
SISO/MCH



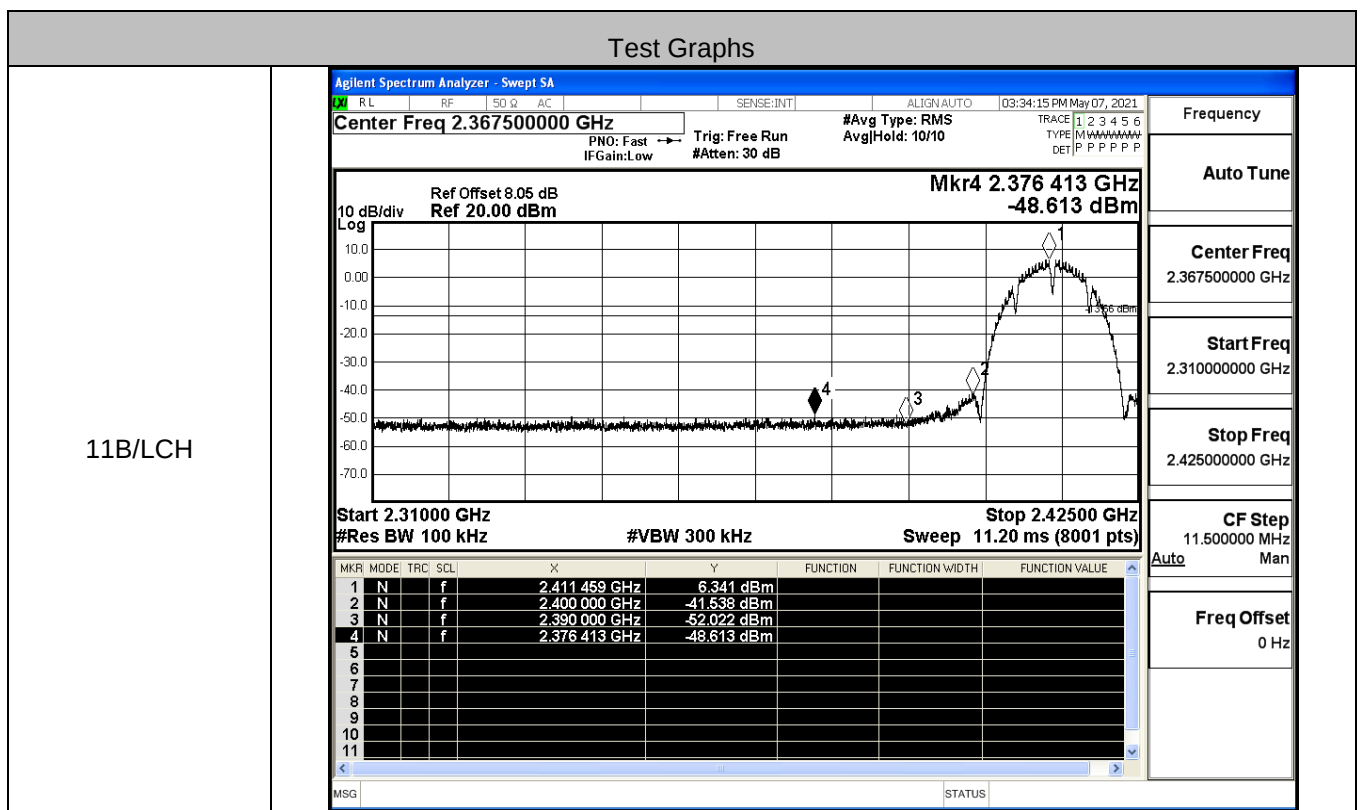
11N20SISO HCH Graphs

Pref/11N20
SISO/HCHPuw/11N20
SISO/HCH



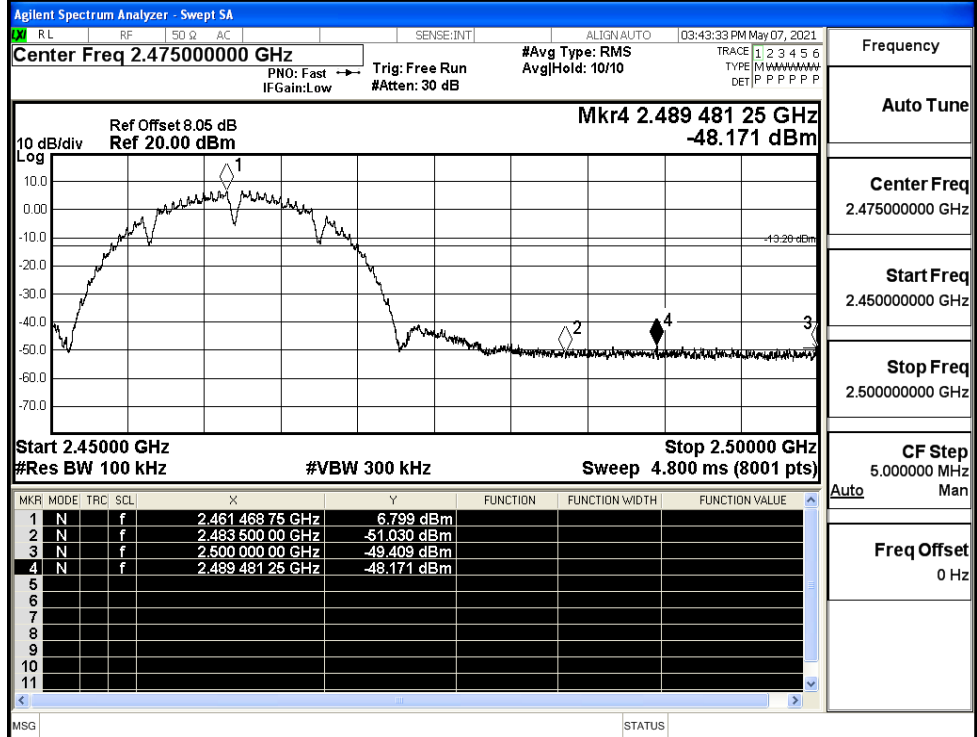
A.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	6.341	-48.613	-13.66	PASS
	HCH	6.799	-48.171	-13.2	PASS
11G	LCH	-1.875	-48.556	-21.88	PASS
	HCH	-1.265	-47.541	-21.27	PASS
11N20SISO	LCH	-1.475	-48.701	-21.48	PASS
	HCH	-0.807	-48.695	-20.81	PASS

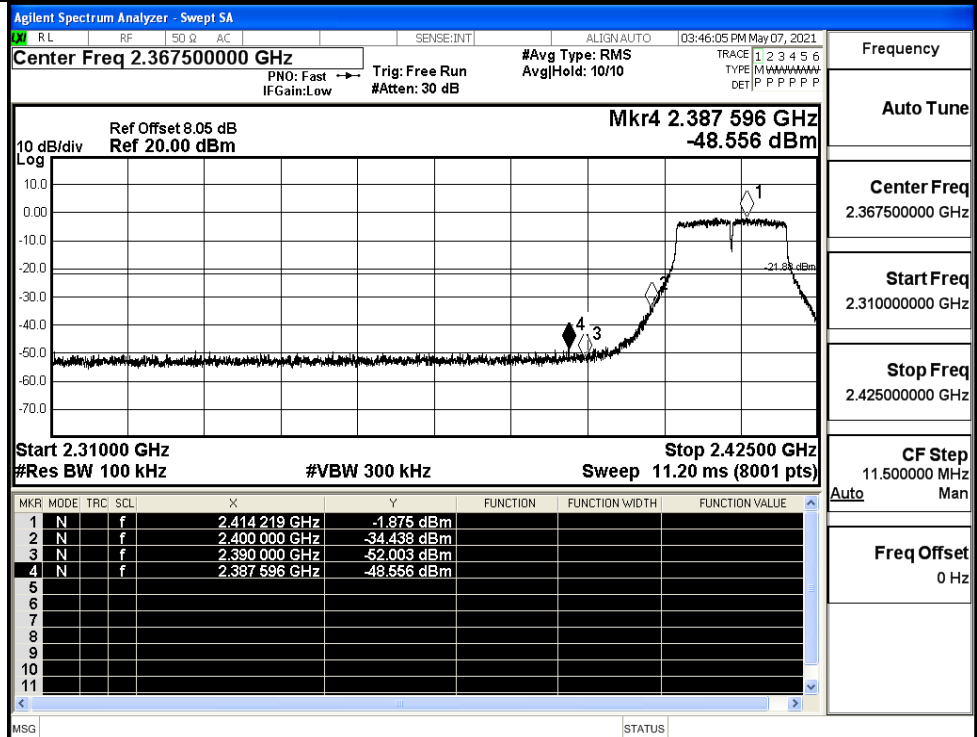




11B/HCH

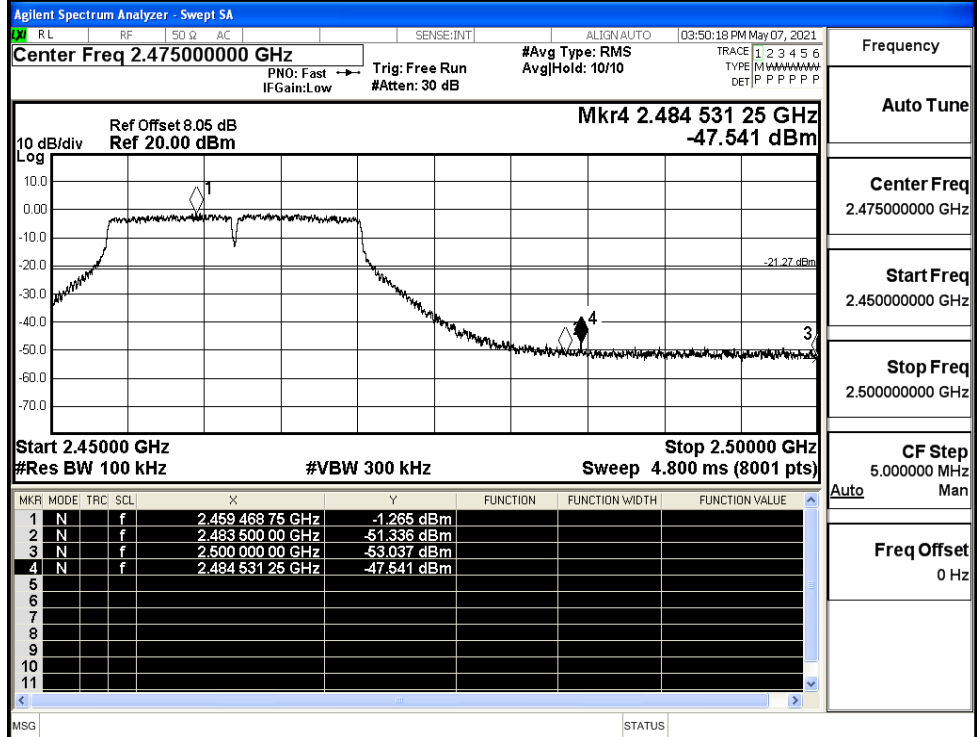


11G/LCH

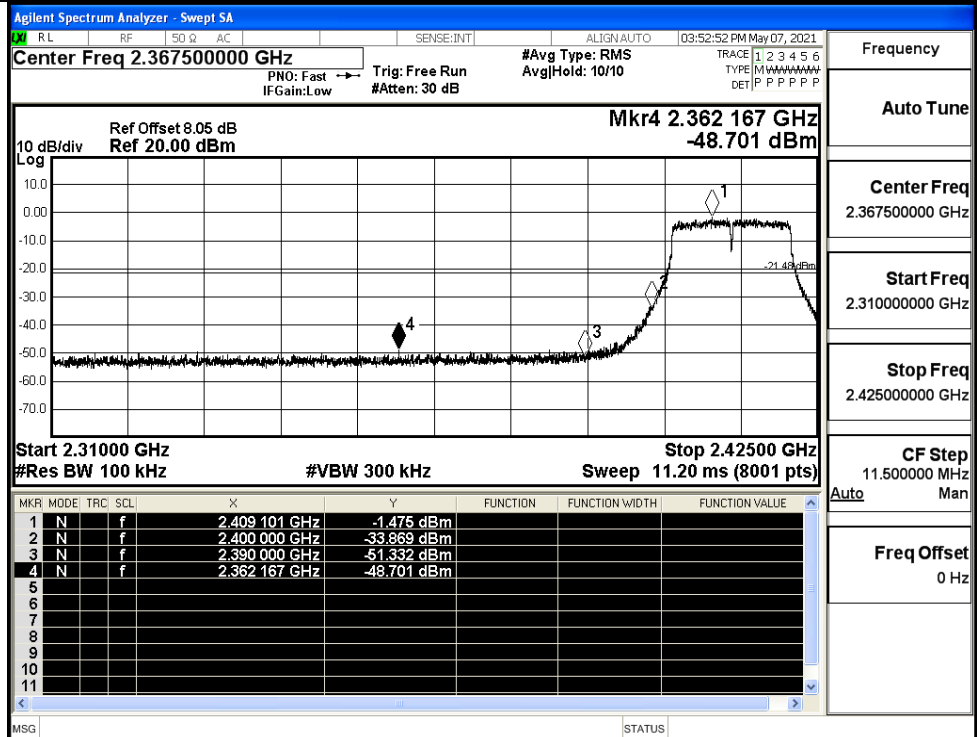




11G/HCH

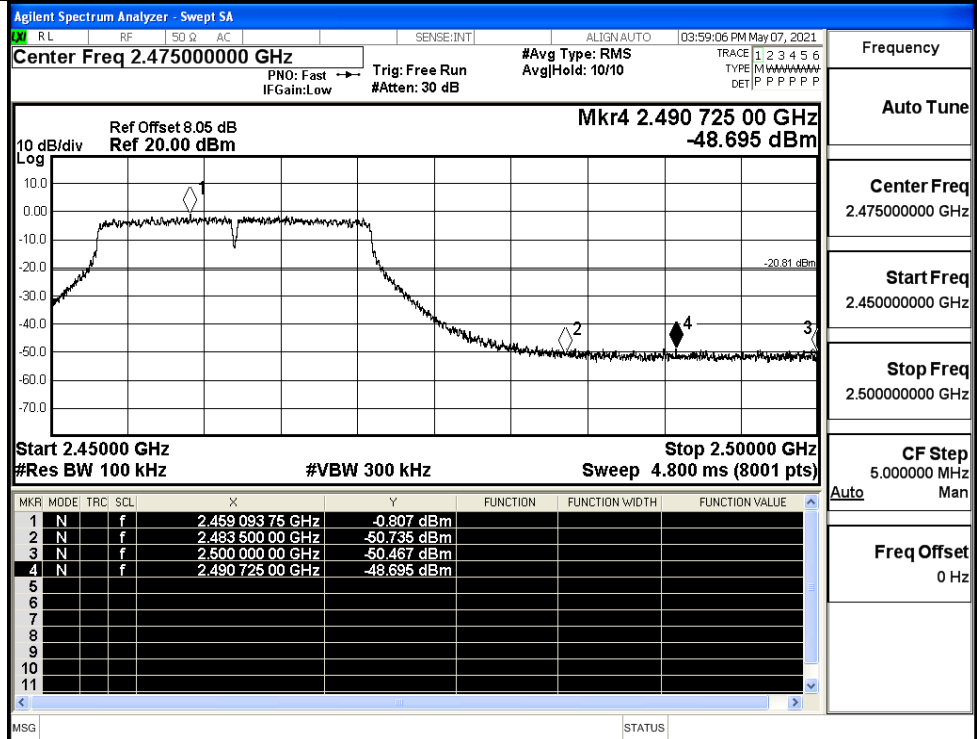


11N20SISO/LCH





11N20SISO/HCH

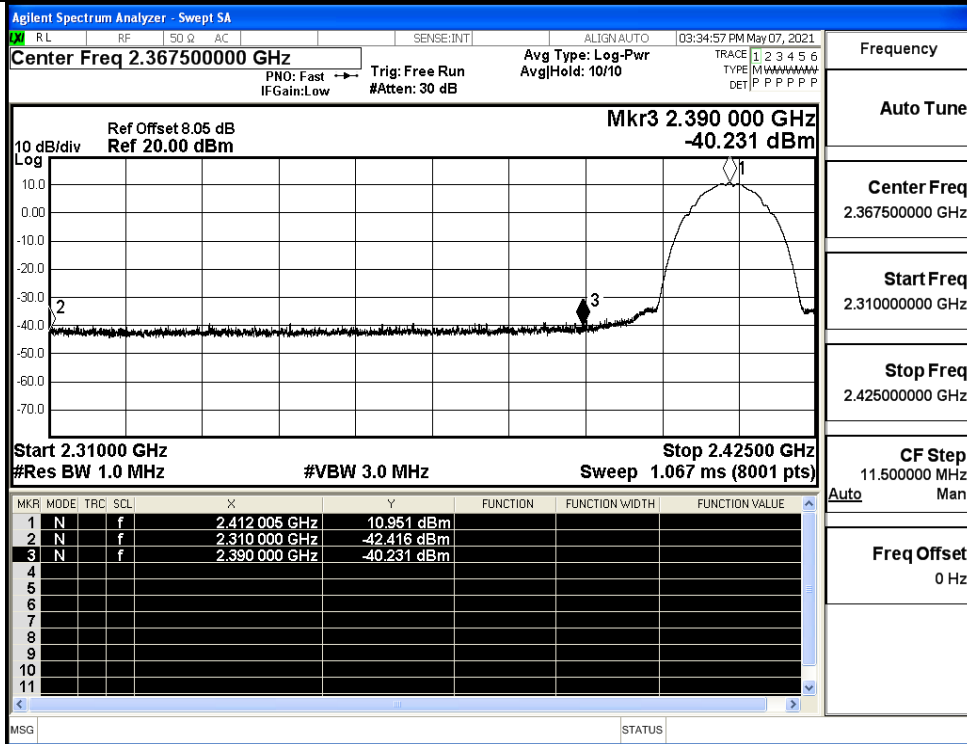


**A.8 Restrict-band band-edge measurements**

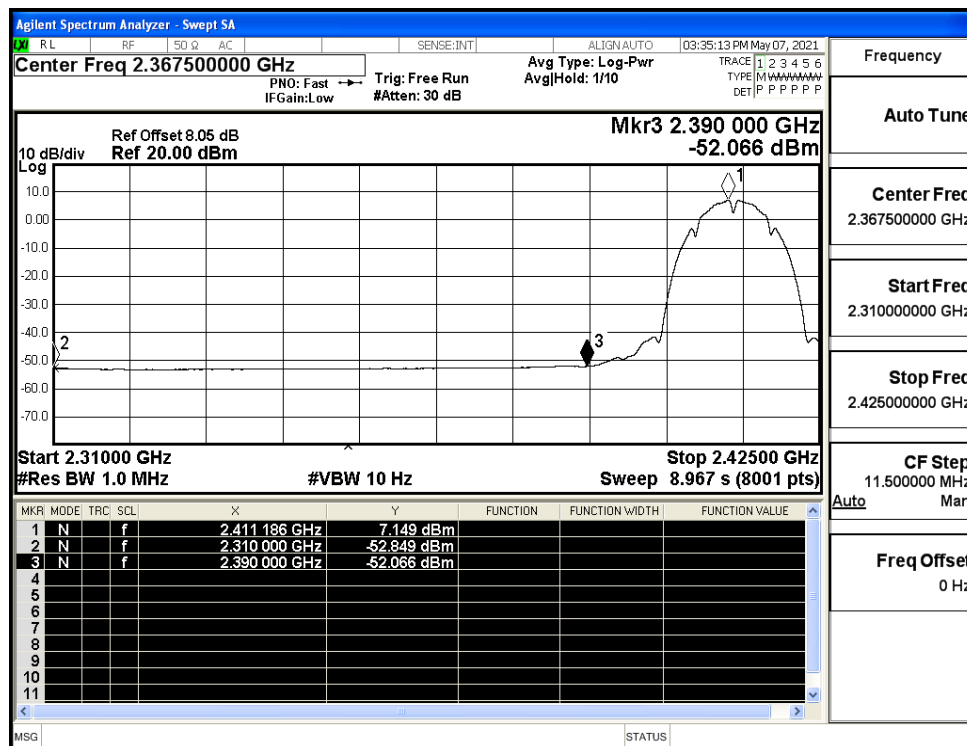
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-42.42	2.0	0	54.84	PEAK	74	PASS
	2412	Ant1	2310.0	-52.85	2.0	0	44.41	AV	54	PASS
	2412	Ant1	2390.0	-40.23	2.0	0	57.03	PEAK	74	PASS
	2412	Ant1	2390.0	-52.07	2.0	0	45.19	AV	54	PASS
	2462	Ant1	2483.5	-41.21	2.0	0	56.05	PEAK	74	PASS
	2462	Ant1	2483.5	-51.61	2.0	0	45.65	AV	54	PASS
	2462	Ant1	2500.0	-41.43	2.0	0	55.83	PEAK	74	PASS
	2462	Ant1	2500.0	-51.86	2.0	0	45.4	AV	54	PASS
11G	2412	Ant1	2310.0	-42.26	2.0	0	55	PEAK	74	PASS
	2412	Ant1	2310.0	-53.24	2.0	0	44.02	AV	54	PASS
	2412	Ant1	2390.0	-39.23	2.0	0	58.03	PEAK	74	PASS
	2412	Ant1	2390.0	-51.66	2.0	0	45.6	AV	54	PASS
	2462	Ant1	2483.5	-40.99	2.0	0	56.27	PEAK	74	PASS
	2462	Ant1	2483.5	-51.04	2.0	0	46.22	AV	54	PASS
	2462	Ant1	2500.0	-41.88	2.0	0	55.38	PEAK	74	PASS
	2462	Ant1	2500.0	-51.93	2.0	0	45.33	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-42.50	2.0	0	54.76	PEAK	74	PASS
	2412	Ant1	2310.0	-53.23	2.0	0	44.03	AV	54	PASS
	2412	Ant1	2390.0	-40.77	2.0	0	56.49	PEAK	74	PASS
	2412	Ant1	2390.0	-51.49	2.0	0	45.77	AV	54	PASS
	2462	Ant1	2483.5	-39.00	2.0	0	58.26	PEAK	74	PASS
	2462	Ant1	2483.5	-50.82	2.0	0	46.44	AV	54	PASS
	2462	Ant1	2500.0	-41.88	2.0	0	55.38	PEAK	74	PASS
	2462	Ant1	2500.0	-51.92	2.0	0	45.34	AV	54	PASS



Restrict-band band-edge measurements_11B_2412_Ant1_PEAK

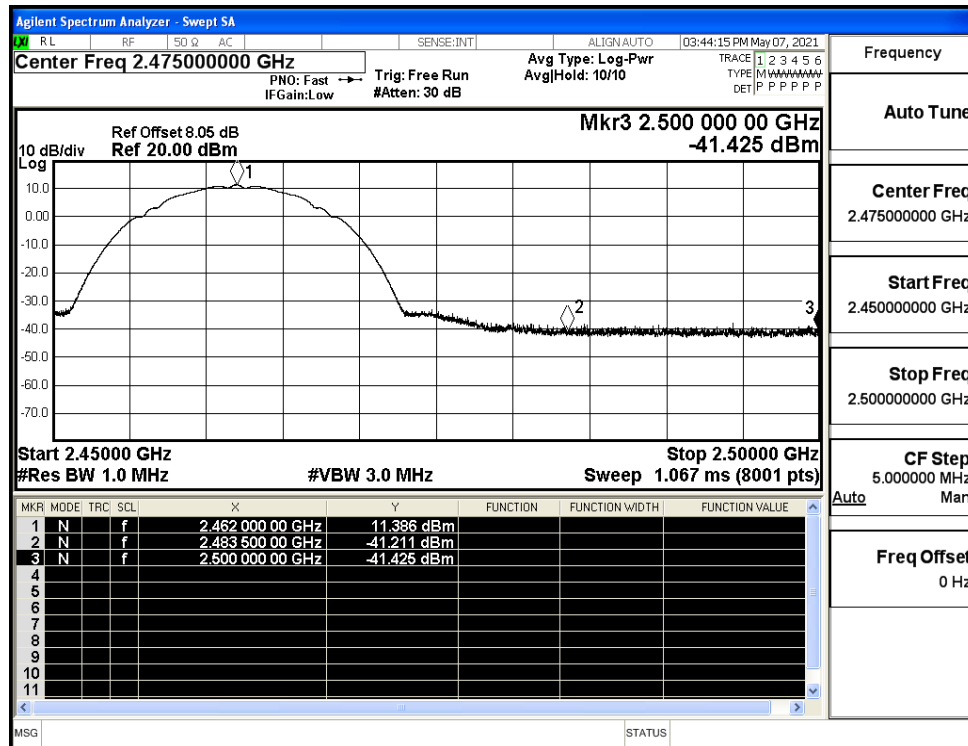


Restrict-band band-edge measurements_11B_2412_Ant1_AV

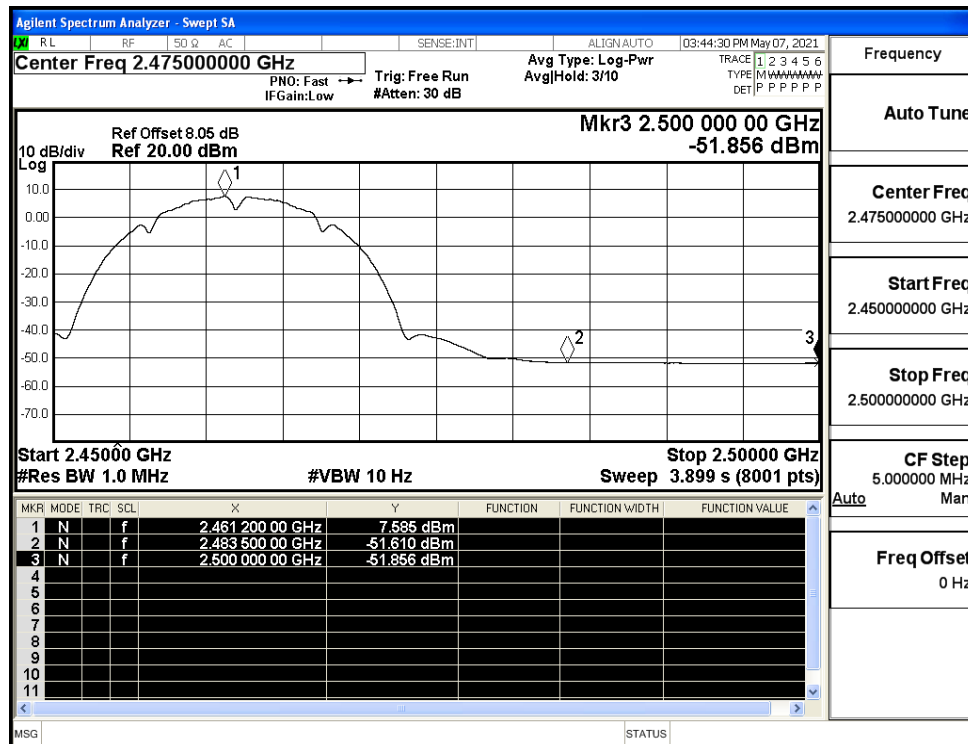




Restrict-band band-edge measurements_11B_2462_Ant1_PEAK

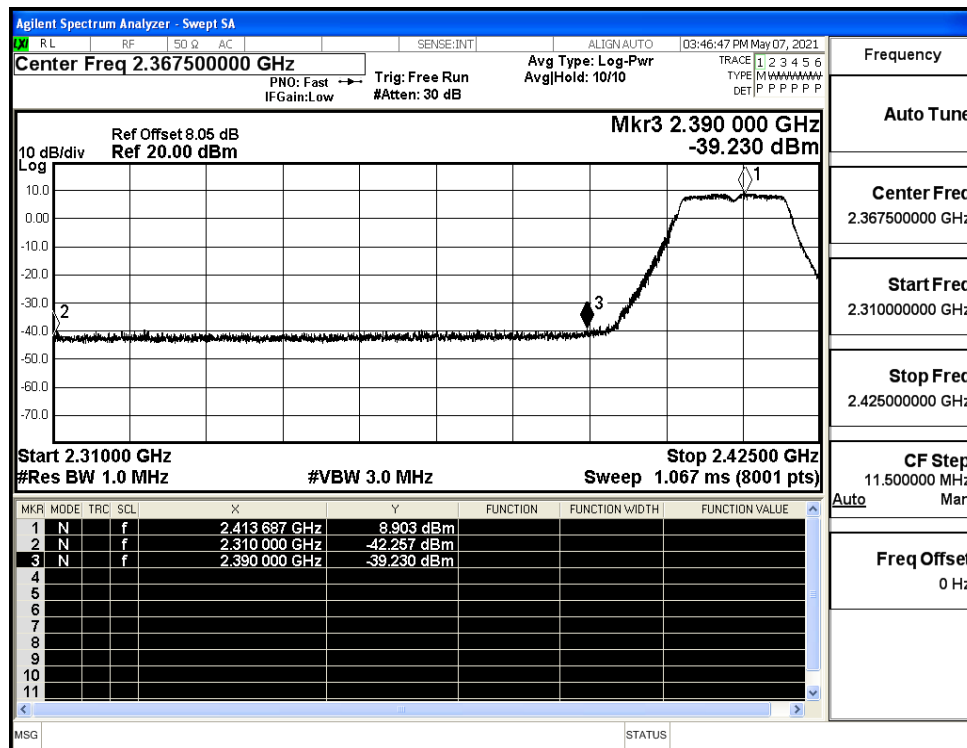


Restrict-band band-edge measurements_11B_2462_Ant1_AV

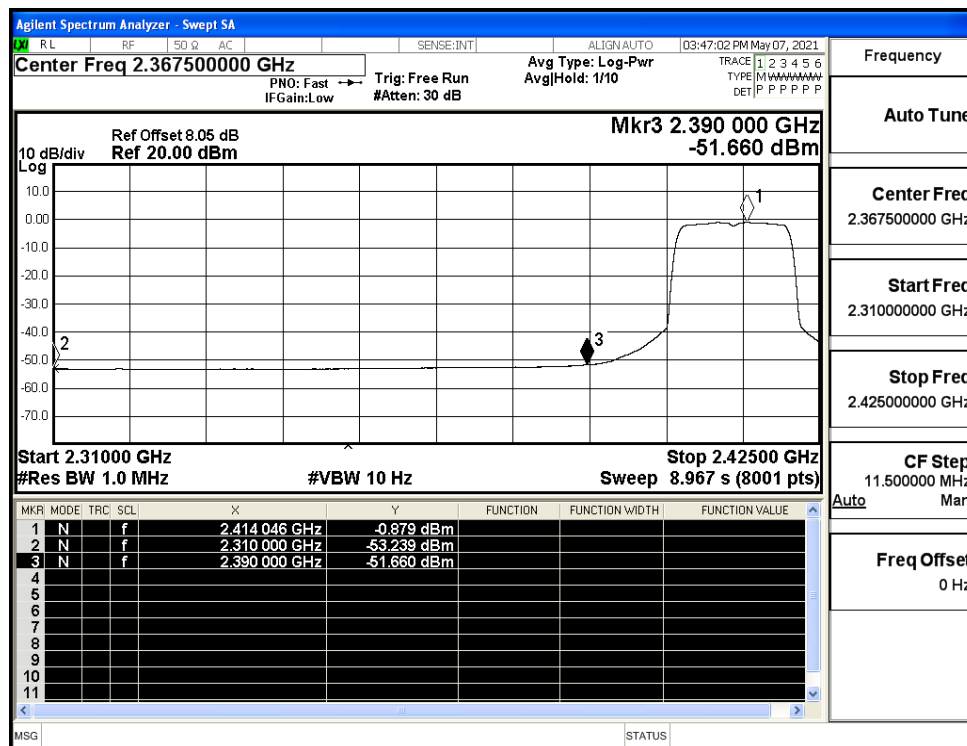




Restrict-band band-edge measurements_11G_2412_Ant1_PEAK

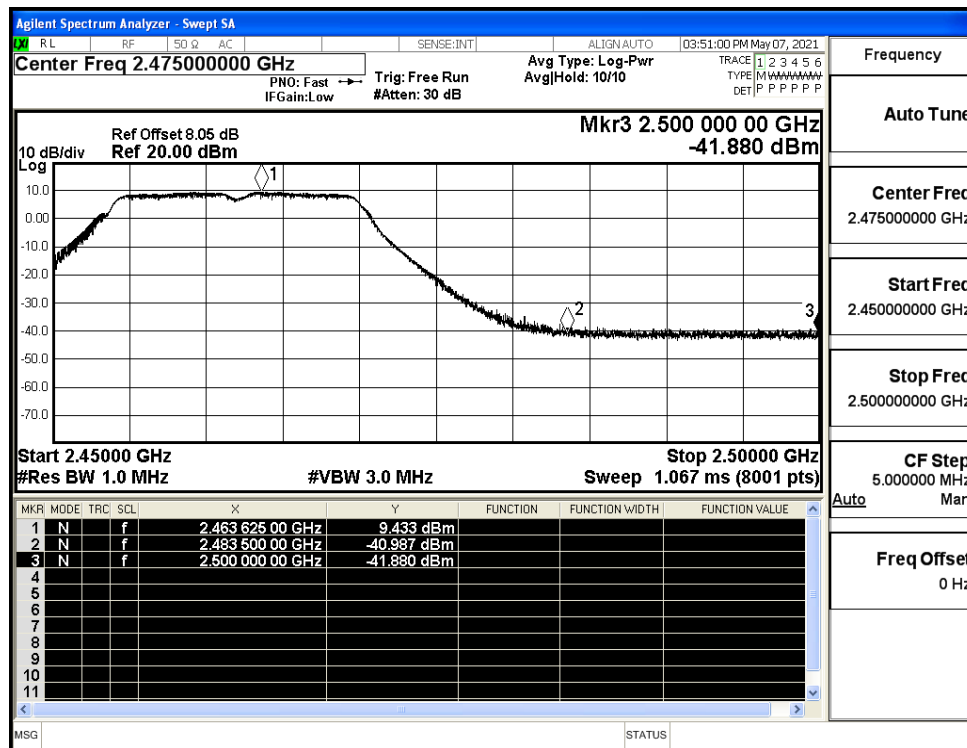


Restrict-band band-edge measurements_11G_2412_Ant1_AV

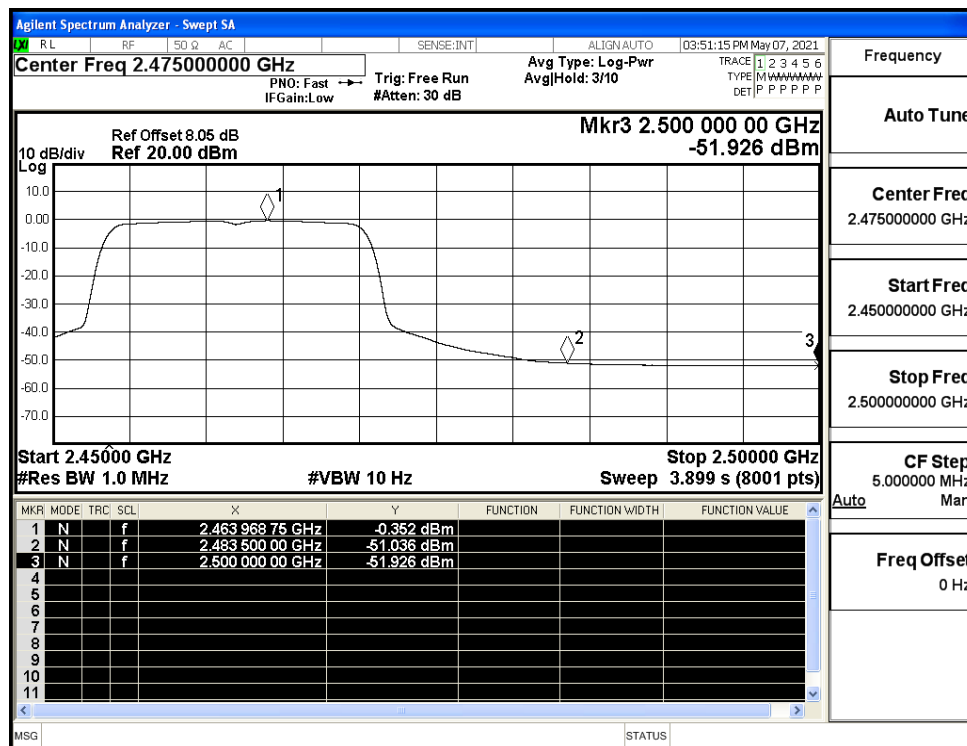




Restrict-band band-edge measurements_11G_2462_Ant1_PEAK

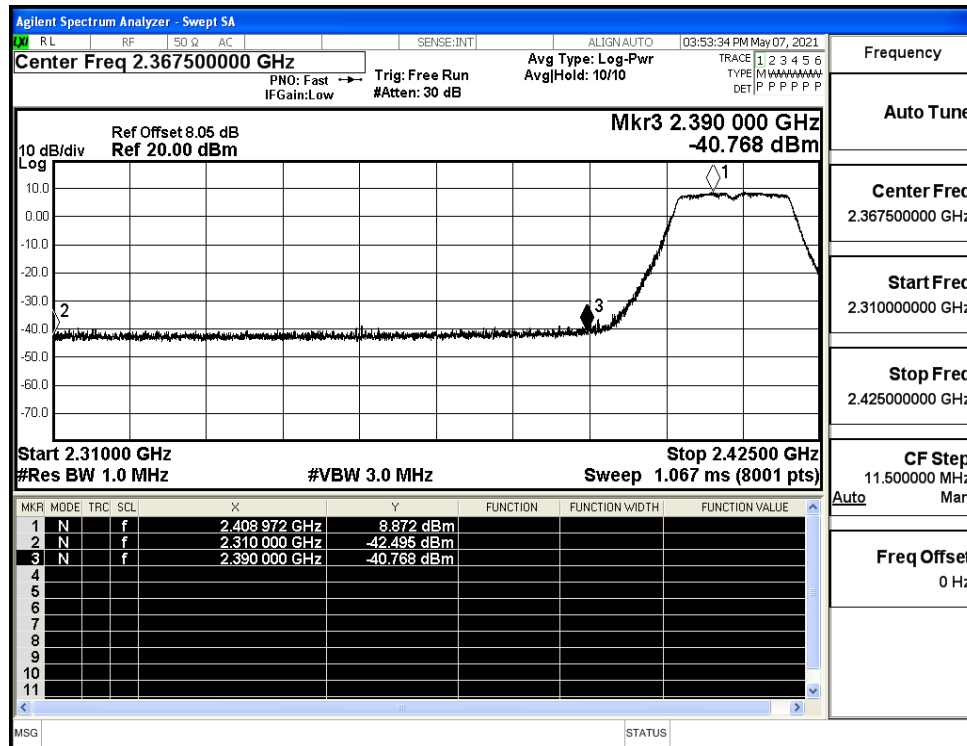


Restrict-band band-edge measurements_11G_2462_Ant1_AV

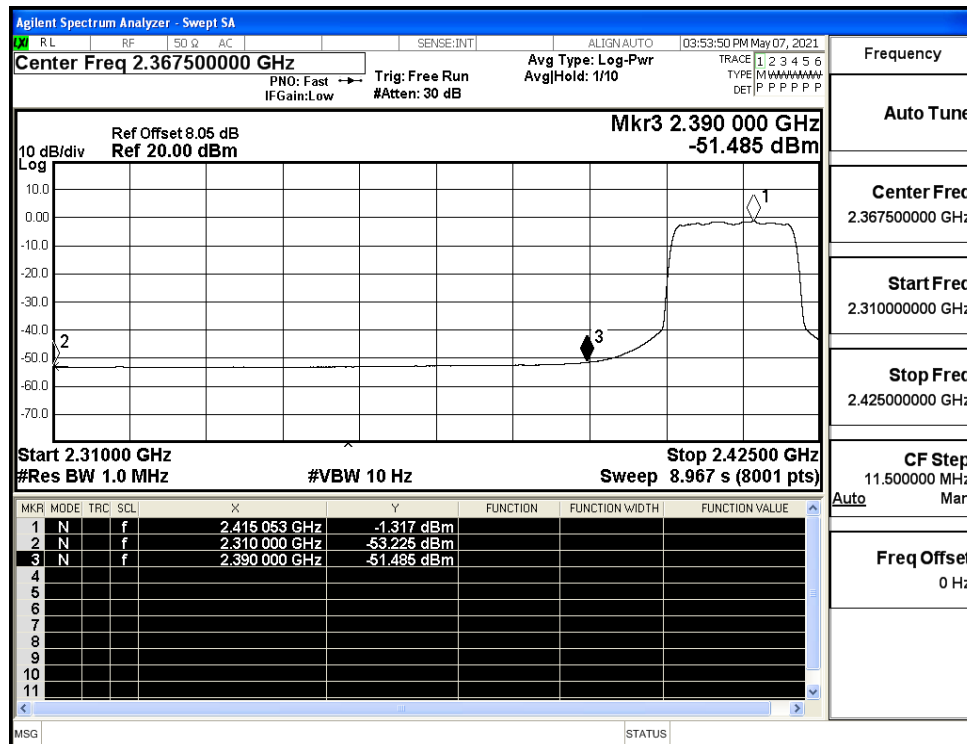




Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK

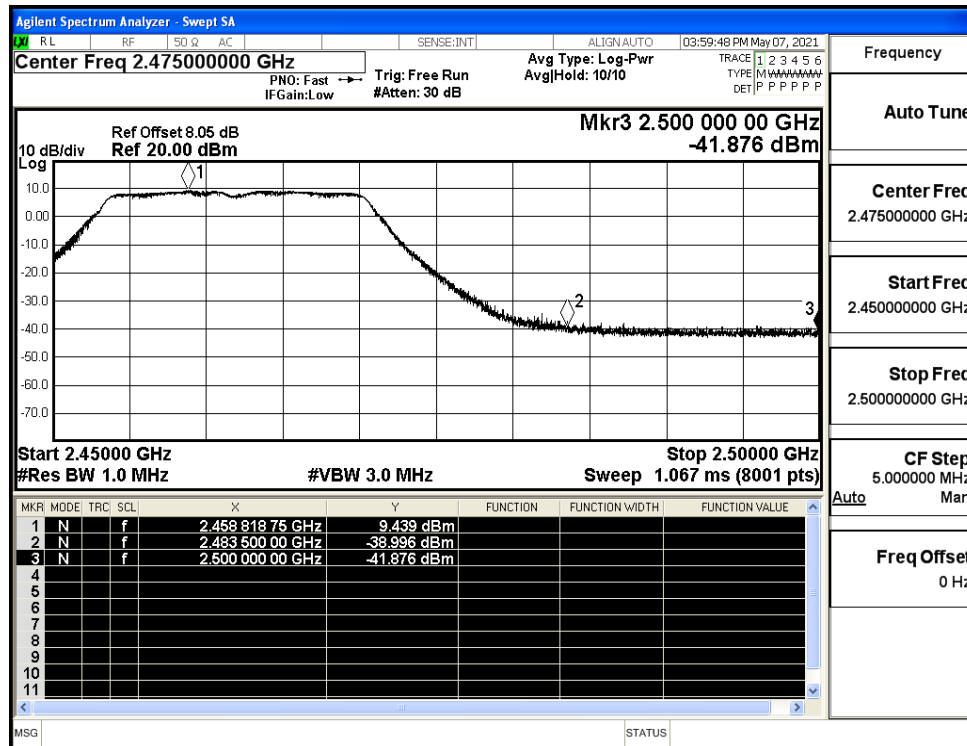


Restrict-band band-edge measurements_11N20SISO_2412_Ant1_AV





Restrict-band band-edge measurements_11N20SISO_2462_Ant1_PEAK



Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV

