

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: PDMonitor

Trade Mark: PDMonitor

Test Model: PDMonitor

Environmental Conditions

Temperature:	25.9 ° C
Relative Humidity:	54.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Ben Jin
Supervised by:	Li Huan

C.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100.00	PASS
11G	2437	Ant1	100.00	PASS
11N20SISO	2437	Ant1	100.00	PASS
11N40SISO	2437	Ant1	100.00	PASS

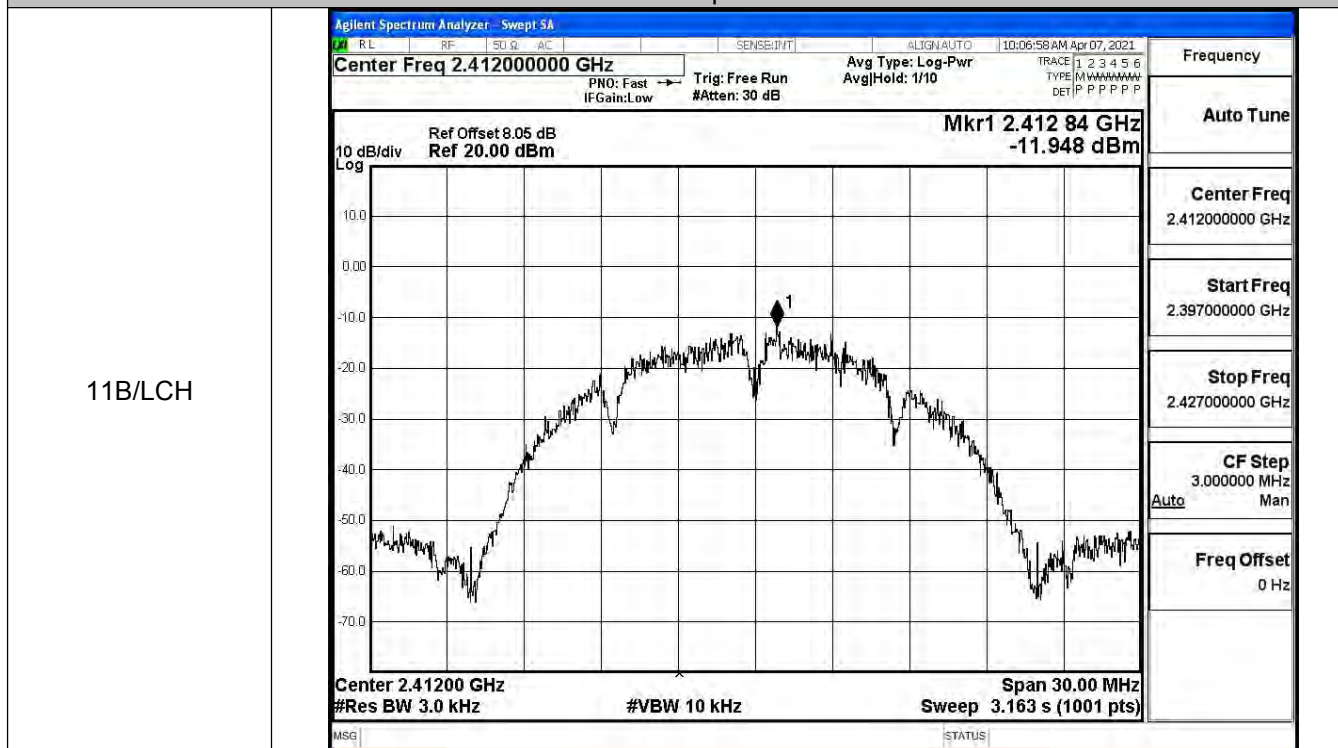
C.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	14.83	30	PASS
	MCH	15.75	30	PASS
	HCH	14.59	30	PASS
11G	LCH	11.94	30	PASS
	MCH	12.53	30	PASS
	HCH	11.64	30	PASS
11N20SISO	LCH	10.27	30	PASS
	MCH	10.80	30	PASS
	HCH	10.00	30	PASS
11N40SISO	LCH	10.65	30	PASS
	MCH	10.65	30	PASS
	HCH	10.30	30	PASS

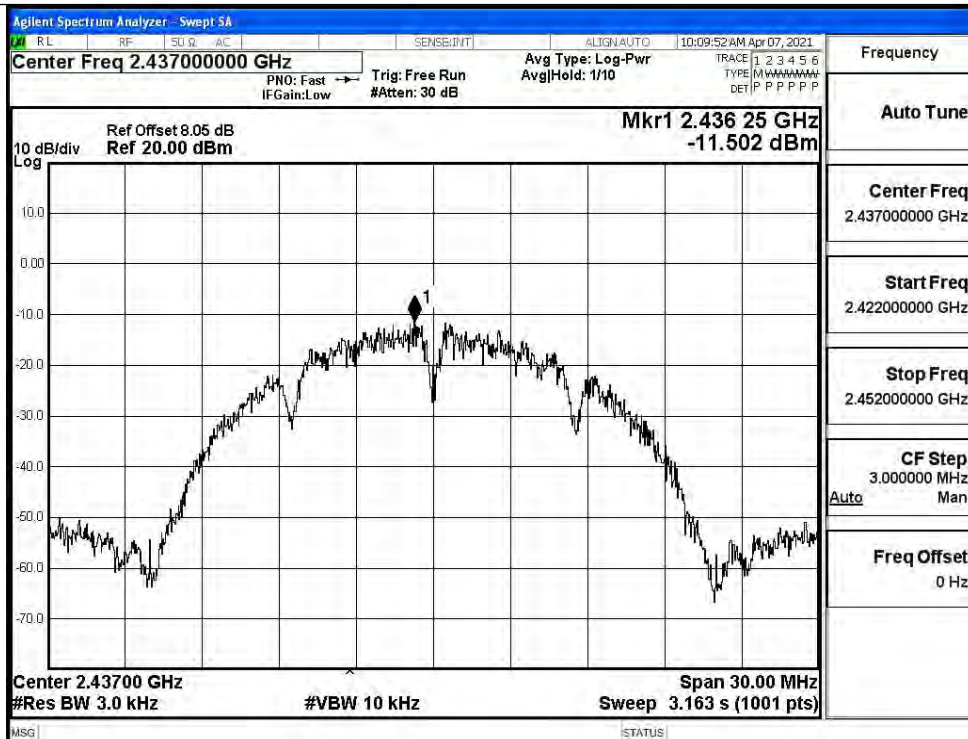
C.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-11.948	8	PASS
	MCH	-11.502	8	PASS
	HCH	-12.337	8	PASS
11G	LCH	-19.495	8	PASS
	MCH	-18.014	8	PASS
	HCH	-19.746	8	PASS
11N20SISO	LCH	-20.367	8	PASS
	MCH	-19.630	8	PASS
	HCH	-19.770	8	PASS
11N40SISO	LCH	-21.653	8	PASS
	MCH	-21.277	8	PASS
	HCH	-22.231	8	PASS

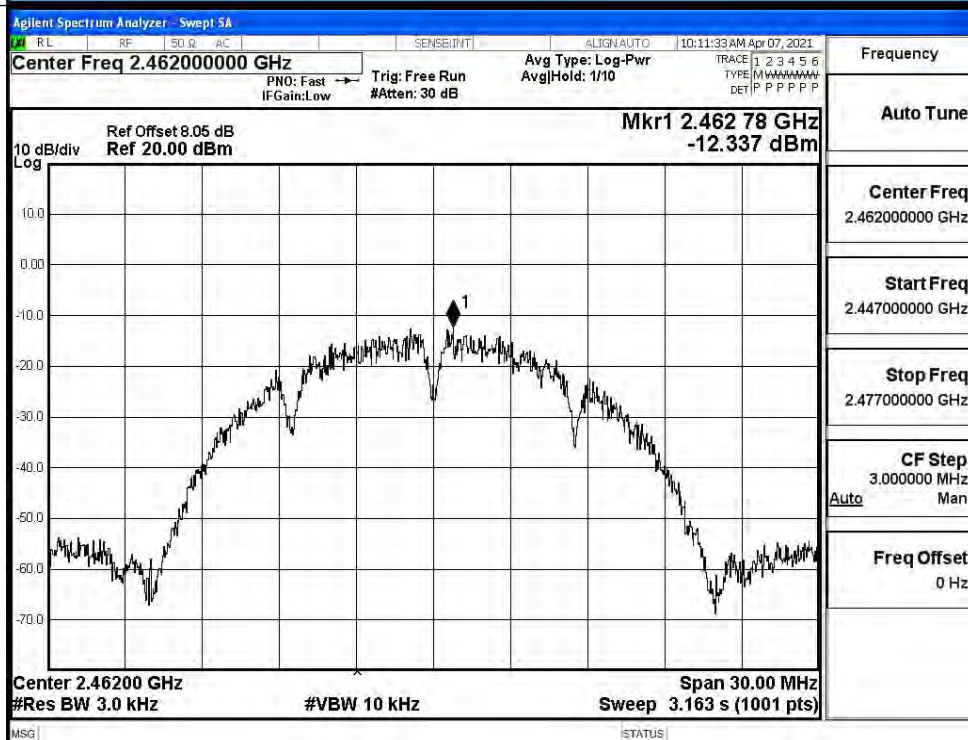
Test Graphs



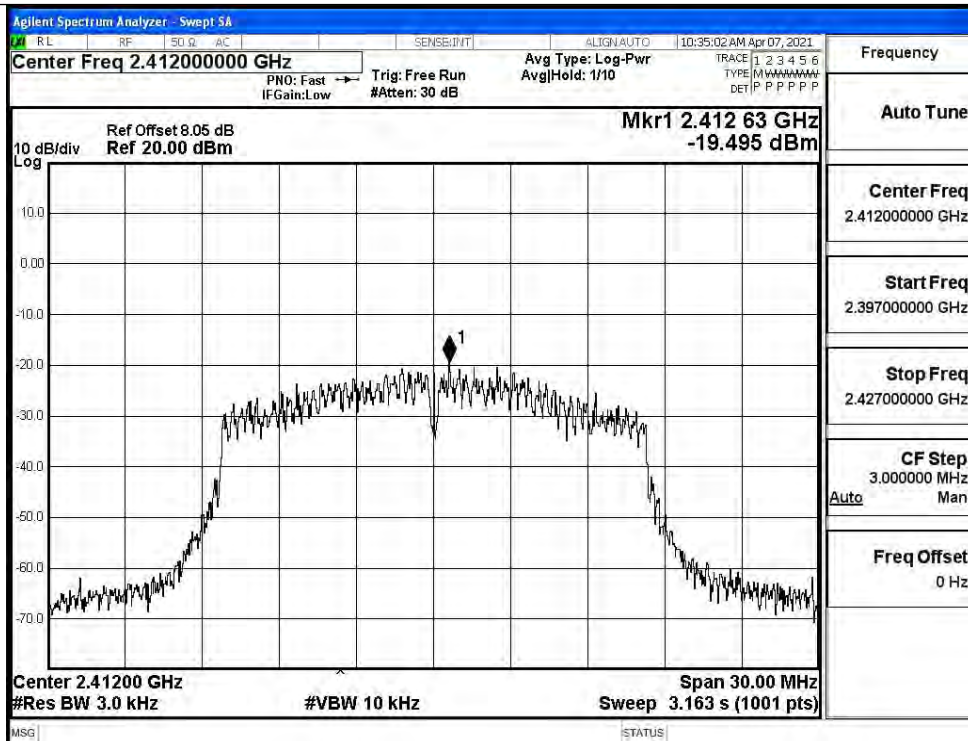
11B/MCH



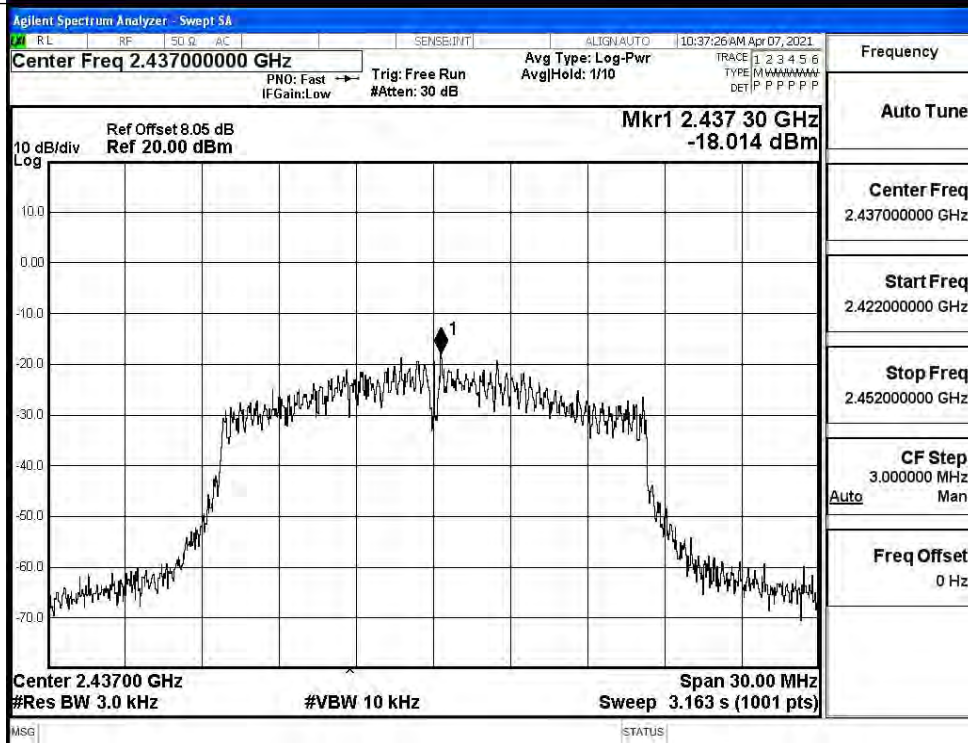
11B/HCH



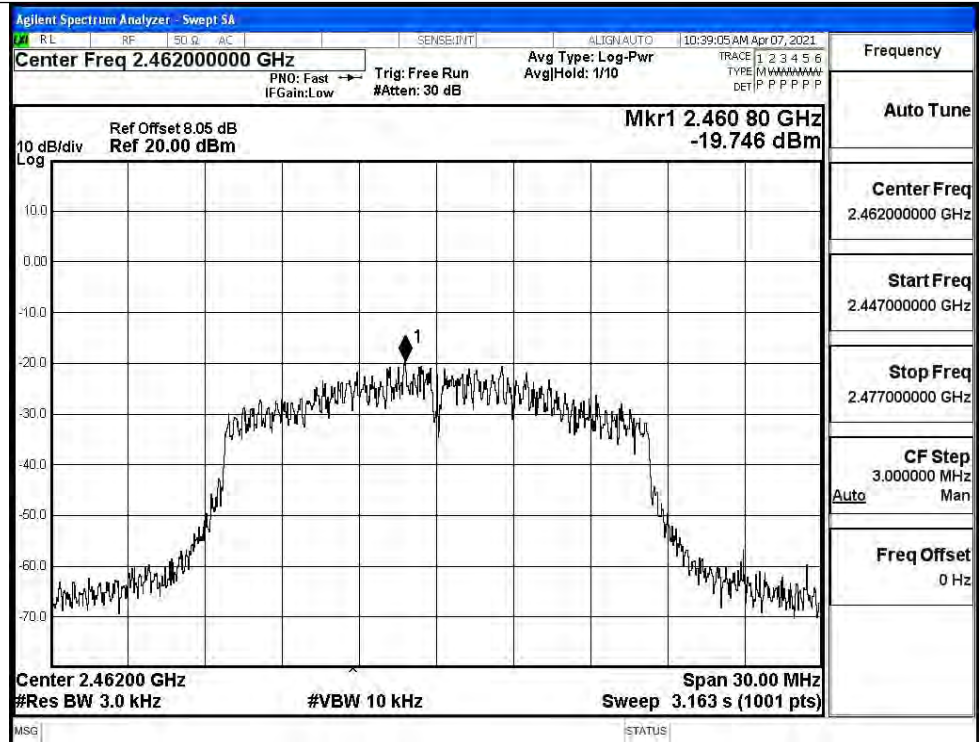
11G/LCH



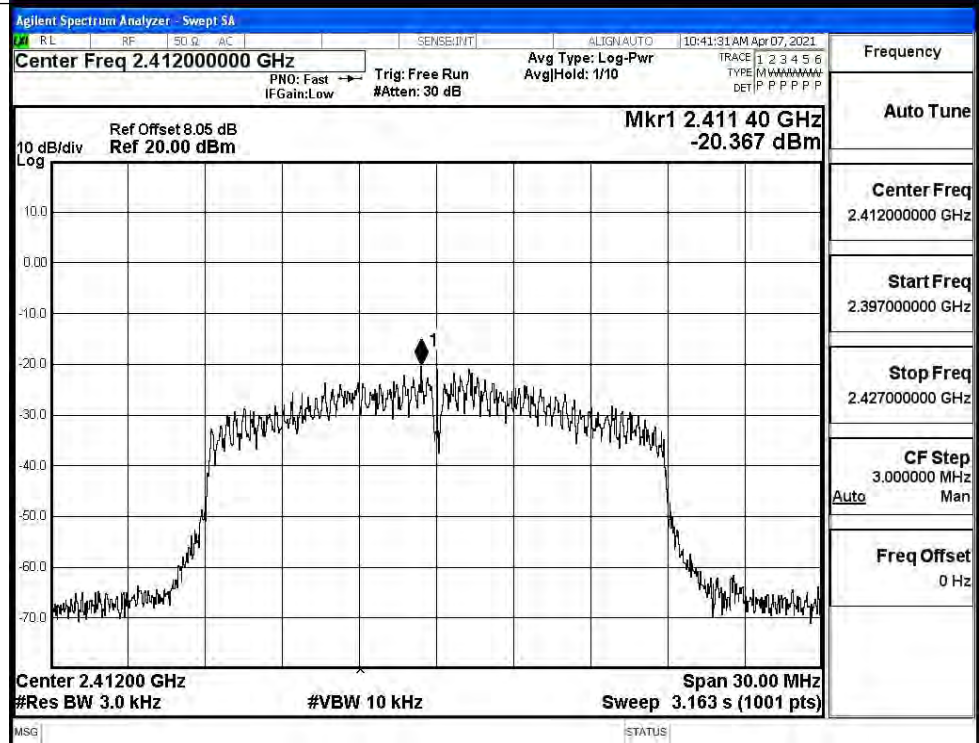
11G/MCH



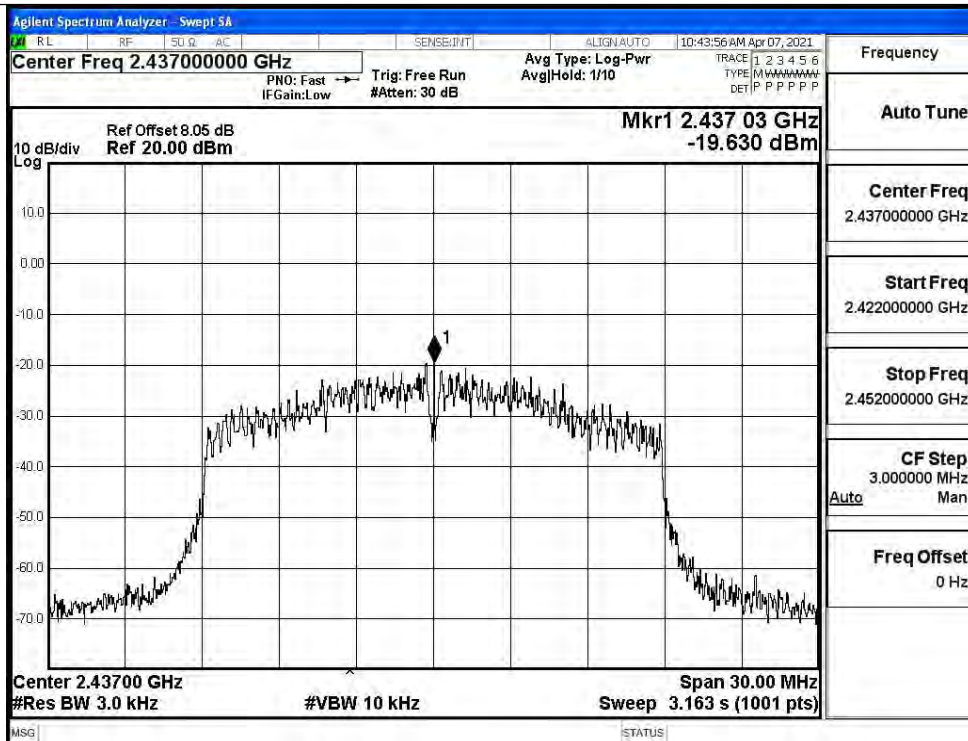
11G/HCH



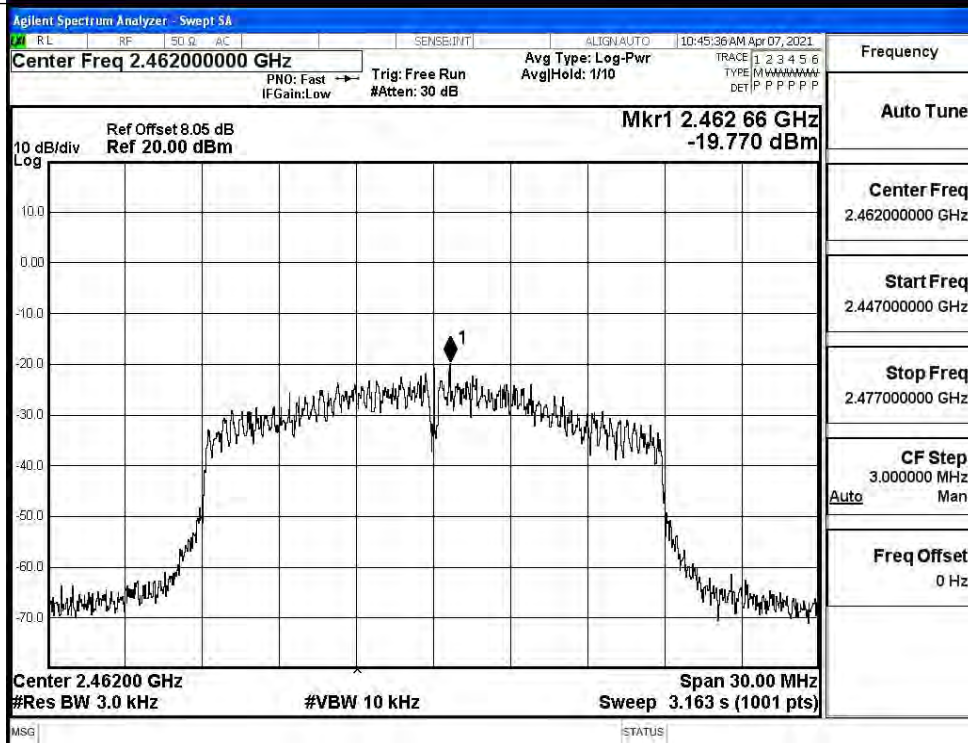
11N20SISO/LCH



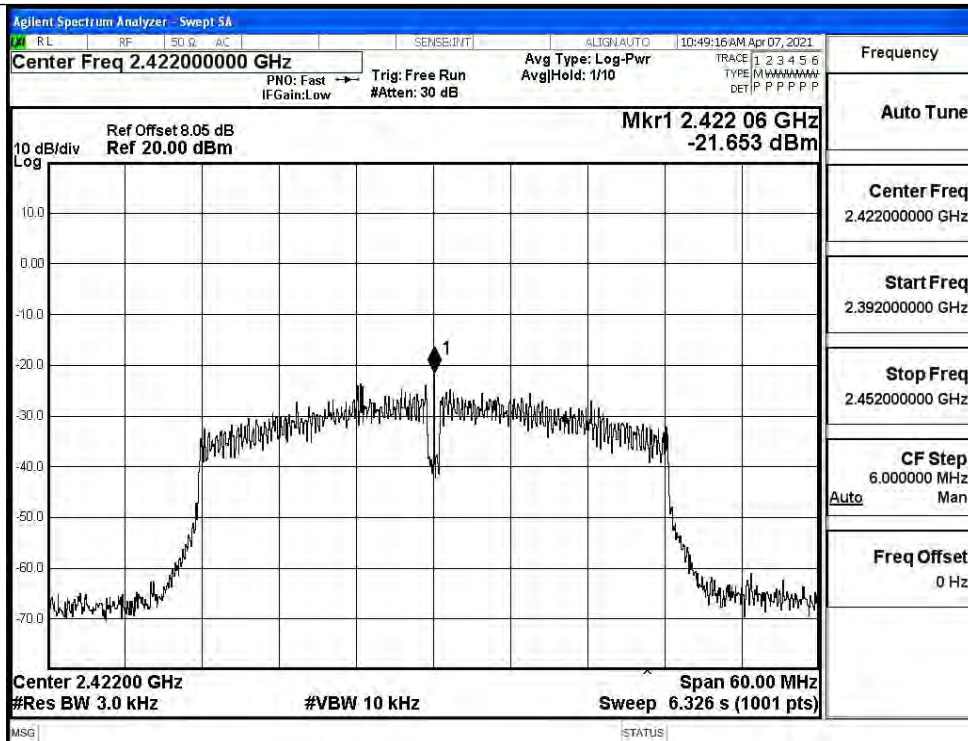
11N20SISO/MCH



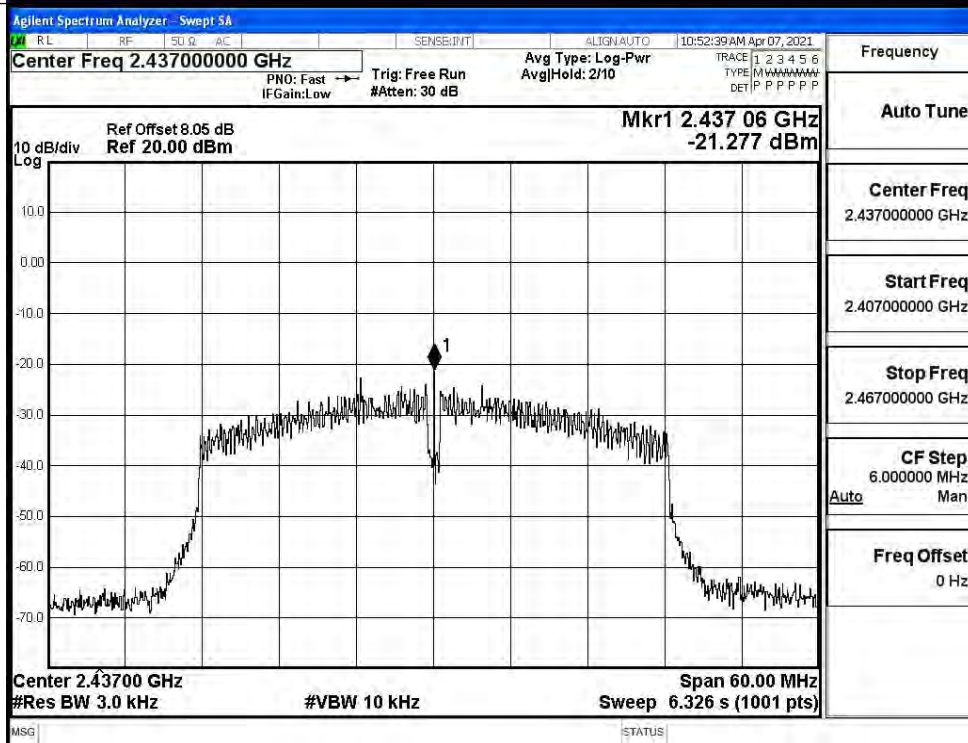
11N20SISO/HCH



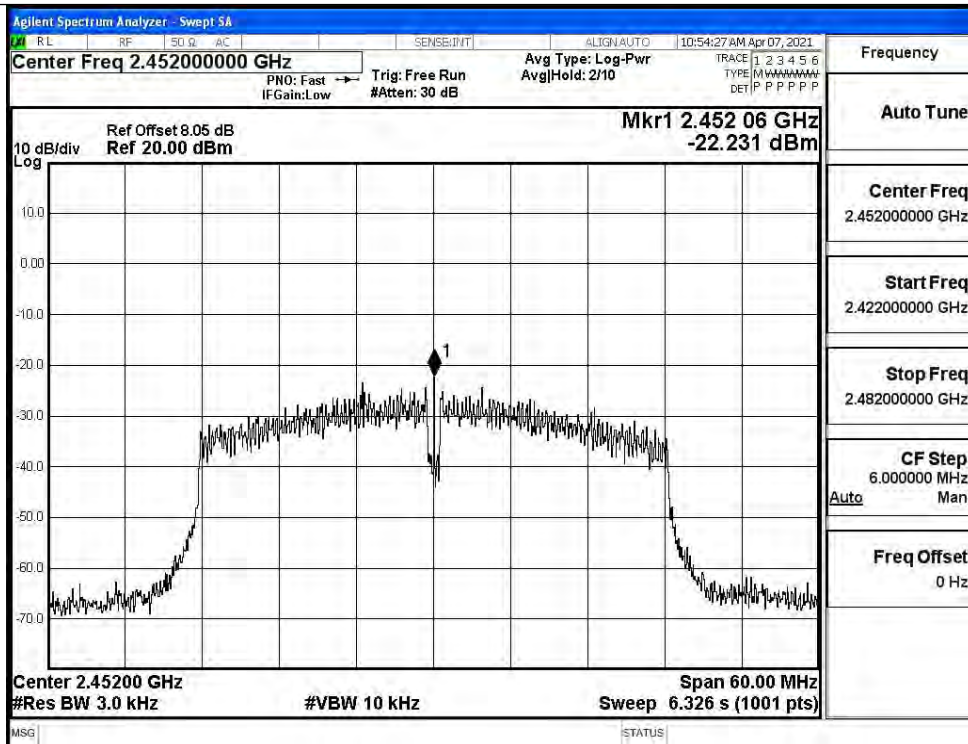
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

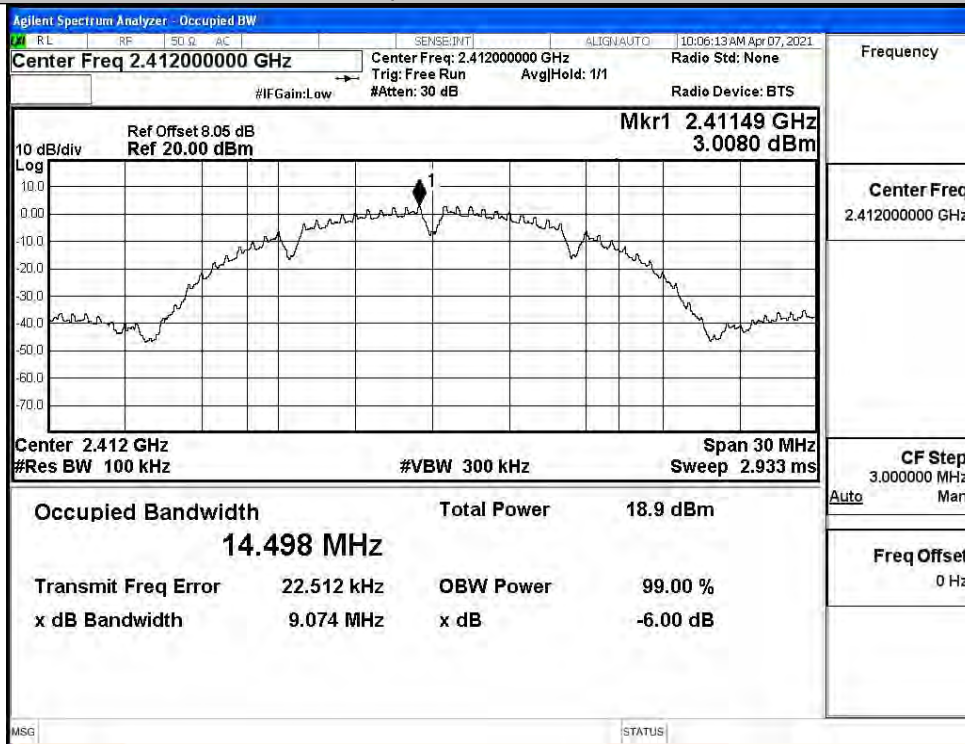


C.4 6dB Bandwidth

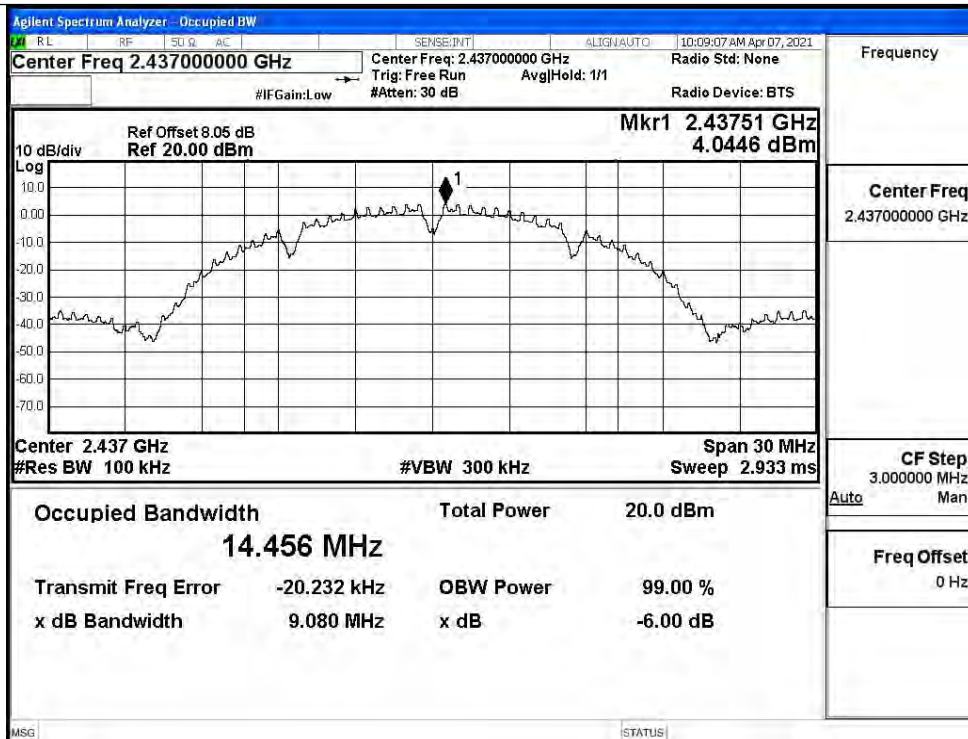
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.074	≥ 0.5	PASS
	MCH	9.080	≥ 0.5	PASS
	HCH	9.055	≥ 0.5	PASS
11G	LCH	10.10	≥ 0.5	PASS
	MCH	10.10	≥ 0.5	PASS
	HCH	10.12	≥ 0.5	PASS
11N20SISO	LCH	10.11	≥ 0.5	PASS
	MCH	10.10	≥ 0.5	PASS
	HCH	10.08	≥ 0.5	PASS
11N40SISO	LCH	28.84	≥ 0.5	PASS
	MCH	28.83	≥ 0.5	PASS
	HCH	30.02	≥ 0.5	PASS

Test Graphs

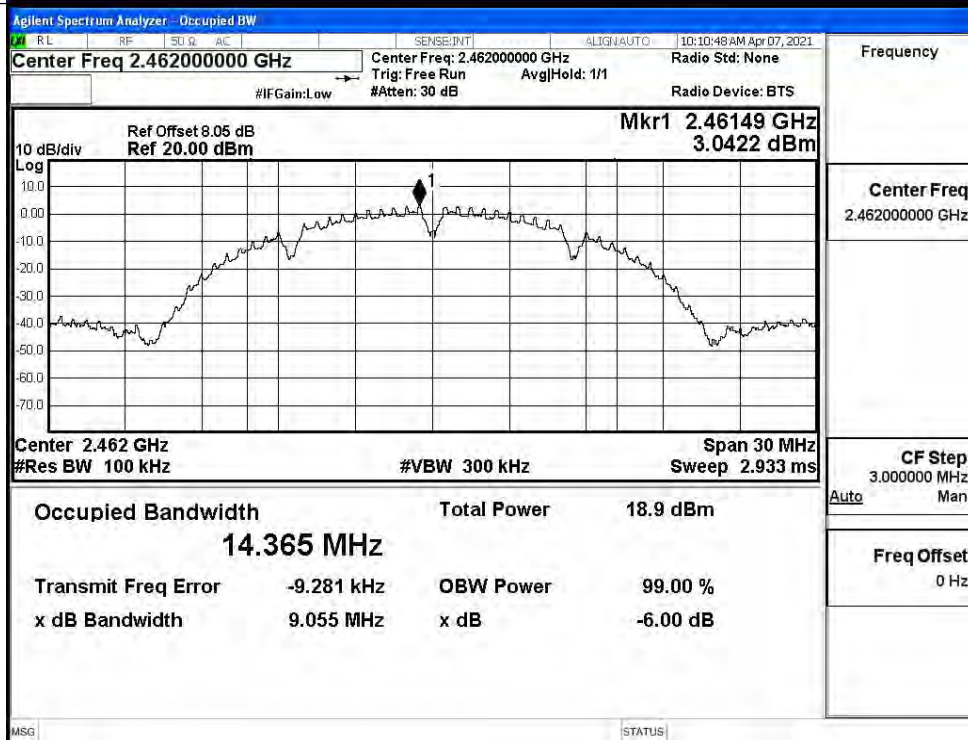
11B/LCH



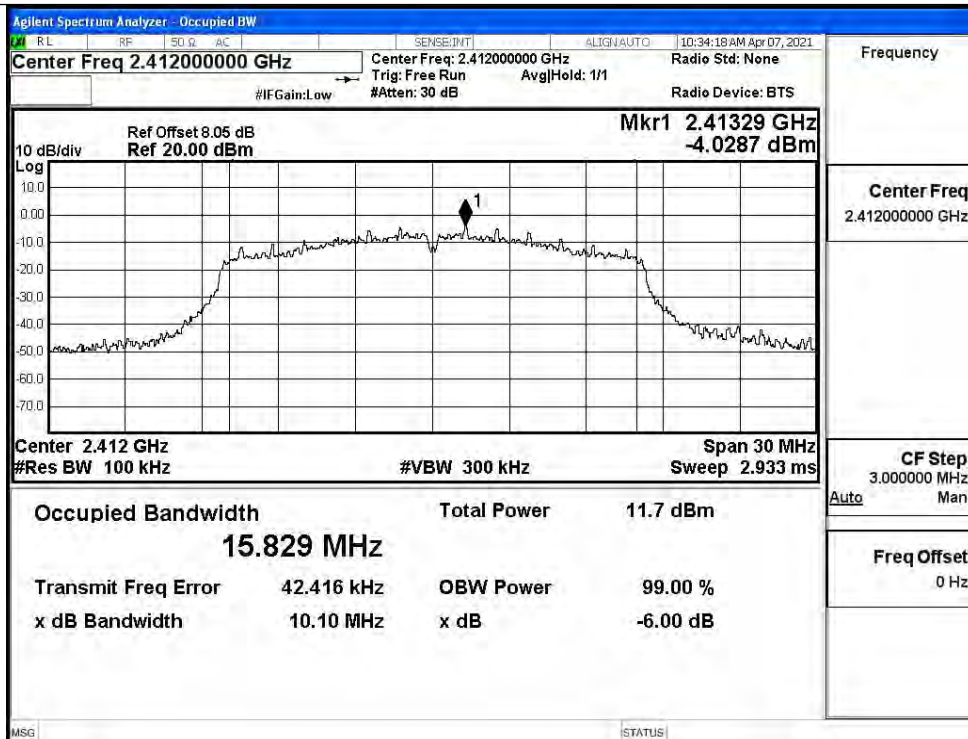
11B/MCH



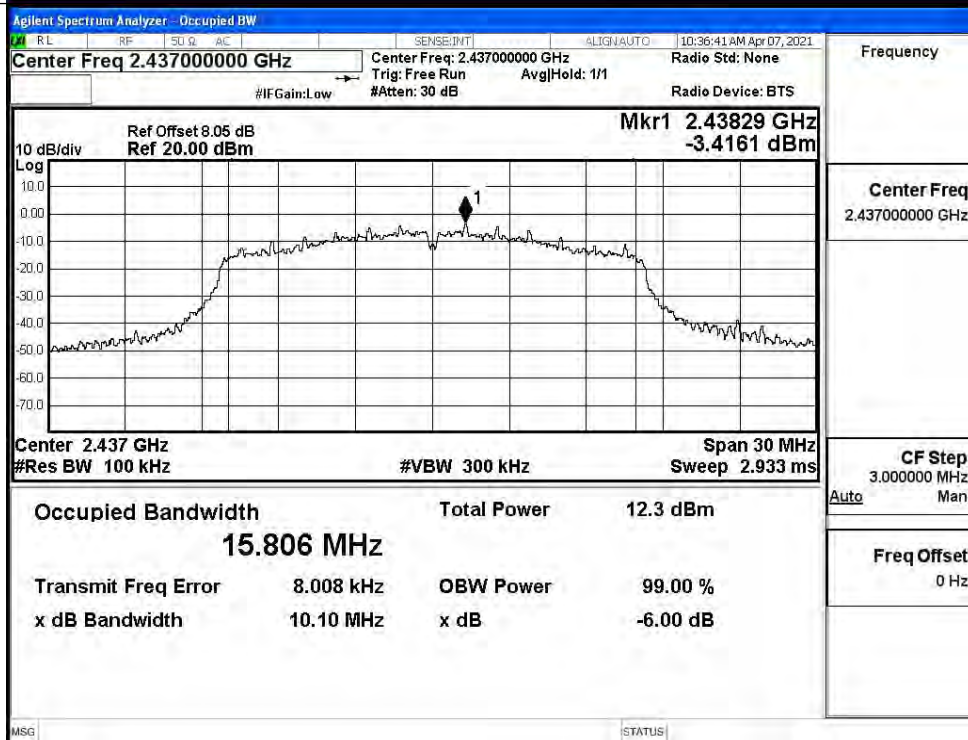
11B/HCH



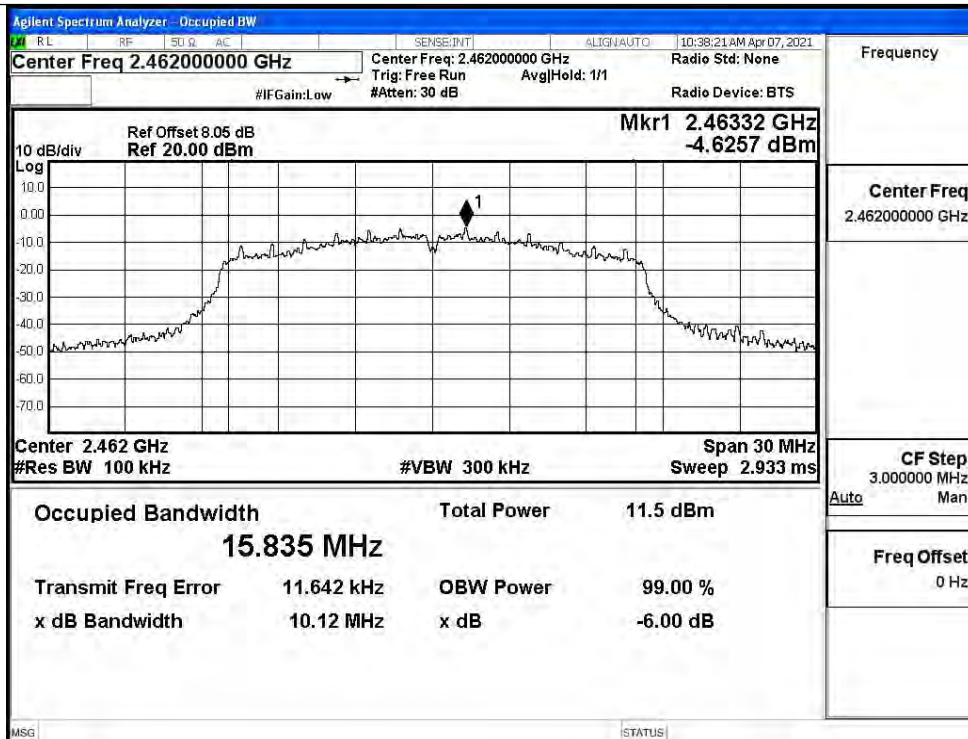
11G/LCH



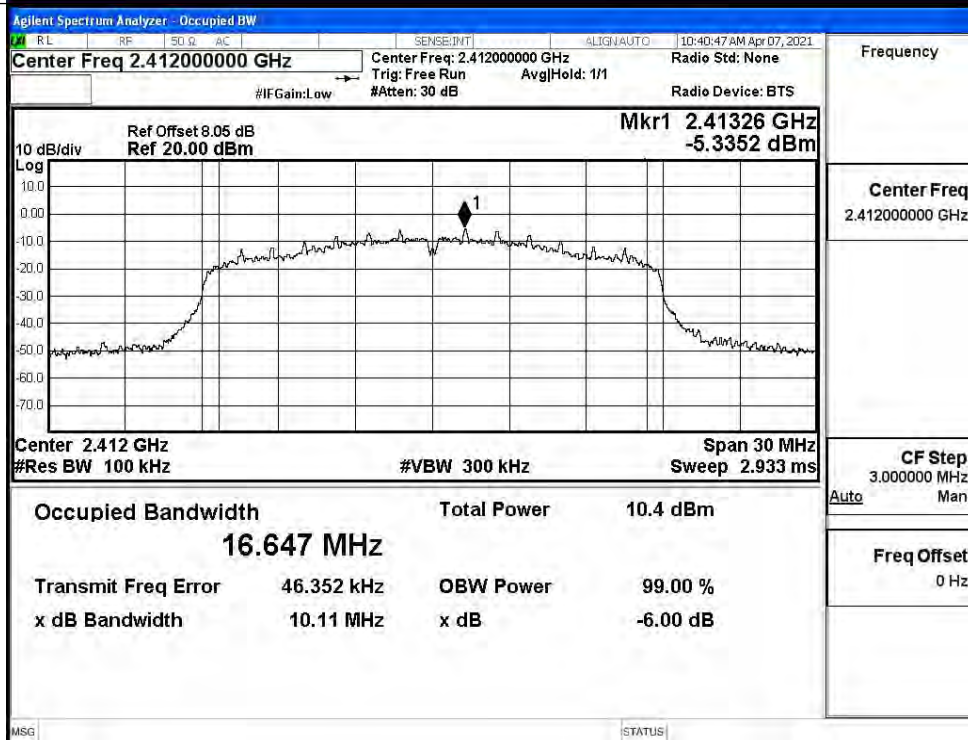
11G/MCH

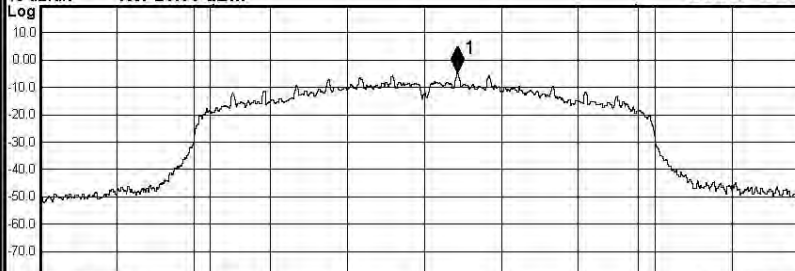
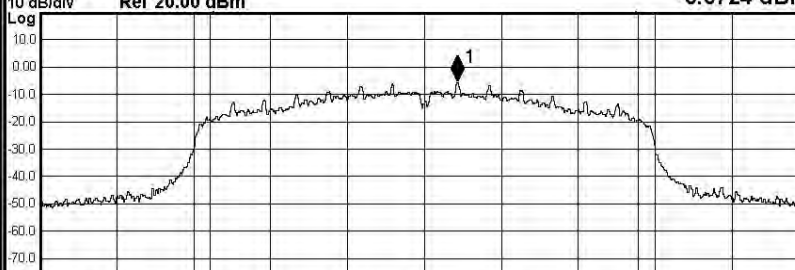


11G/HCH

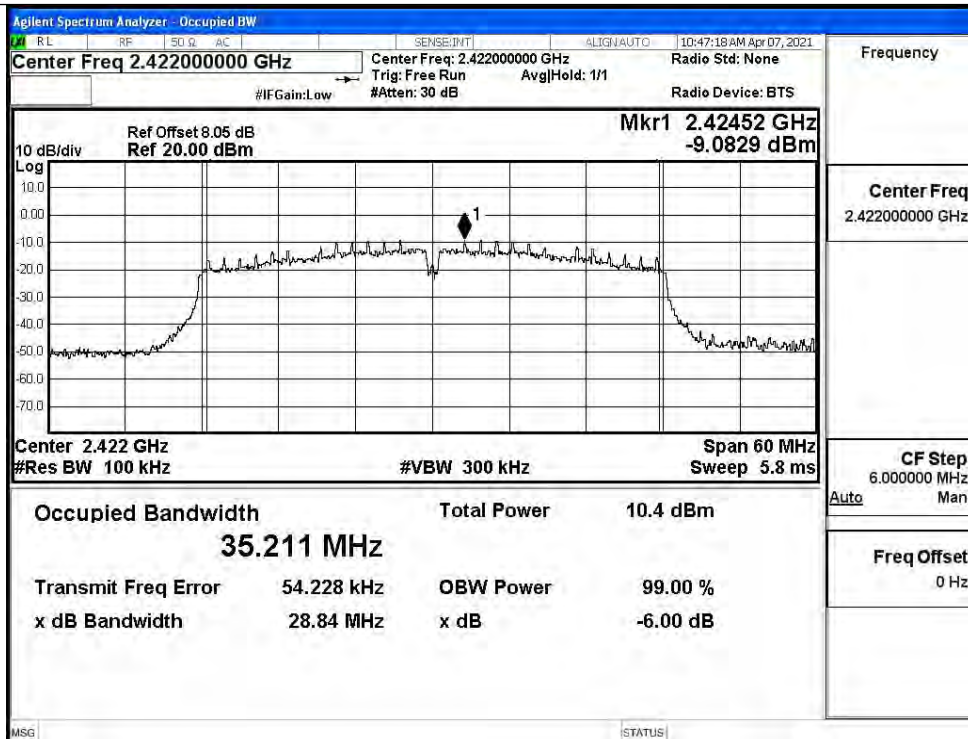


11N20SISO/LCH



11N20SISO/MCH	Agilent Spectrum Analyzer - Occupied BW RL RF SQ AC SENSE: [INT] ALIGN: [AUTO] 10:43:11 AM Apr 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 2.43829 GHz -4.7257 dBm  Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 16.635 MHz Total Power 10.8 dBm Transmit Freq Error 4.684 kHz OBW Power 99.00 % x dB Bandwidth 10.10 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 SQ AC SENSE: [INT] ALIGN: [AUTO] 10:44:51 AM Apr 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 2.46329 GHz -5.5724 dBm  Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 16.659 MHz Total Power 10.0 dBm Transmit Freq Error -10.702 kHz OBW Power 99.00 % x dB Bandwidth 10.08 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

11N40SISO/LCH



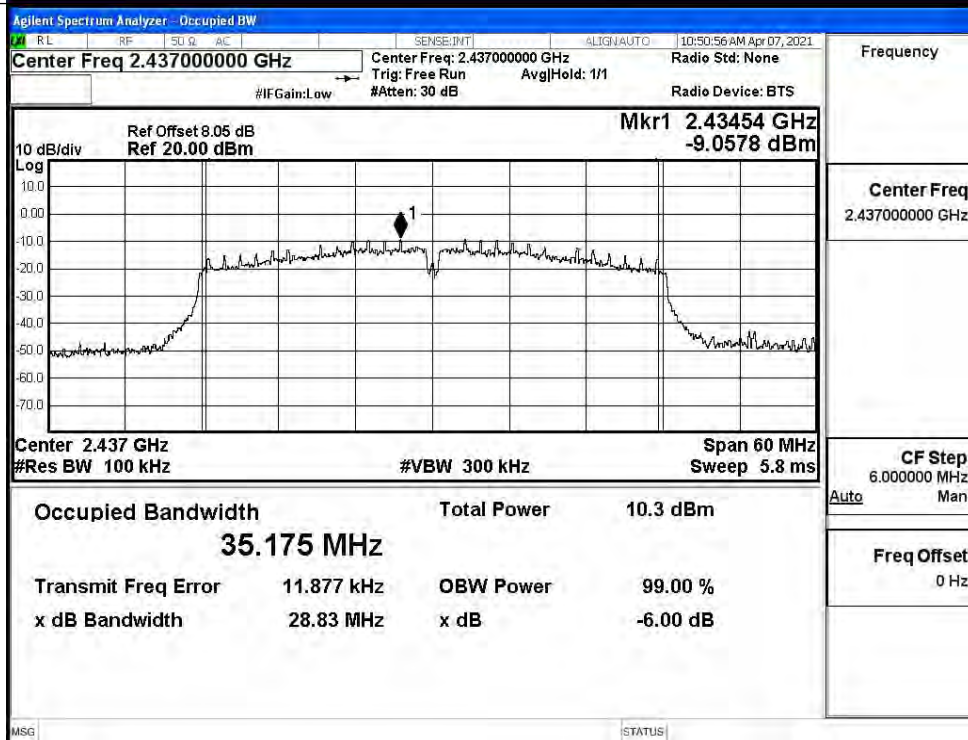
Frequency

Center Freq
2.422000000 GHz

CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

11N40SISO/MCH



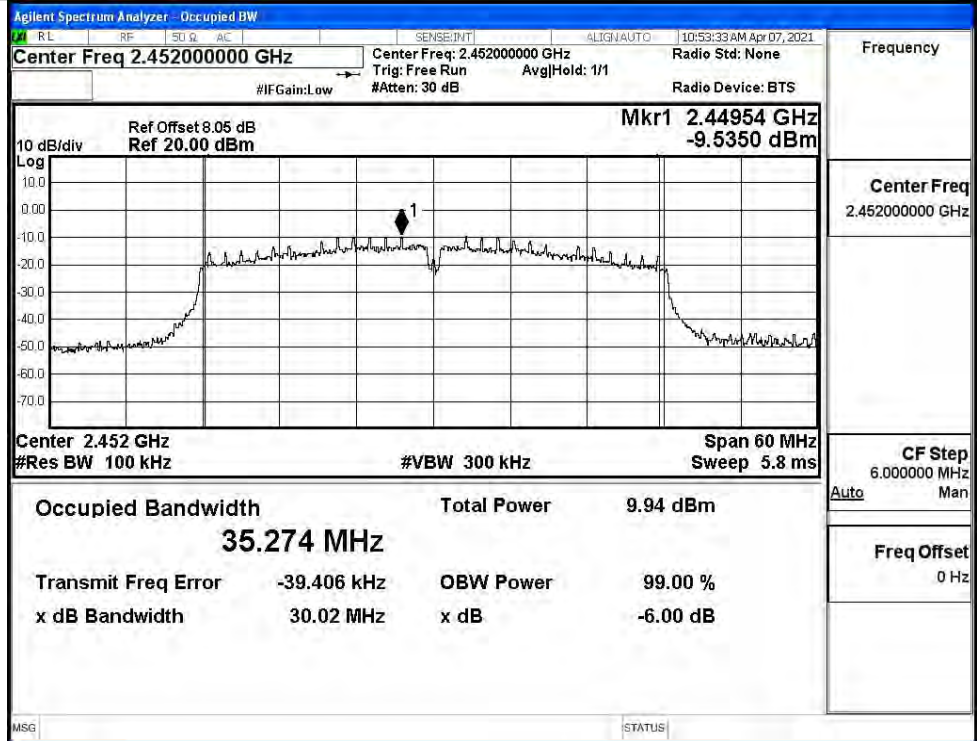
Frequency

Center Freq
2.437000000 GHz

CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

11N40SISO/HCH

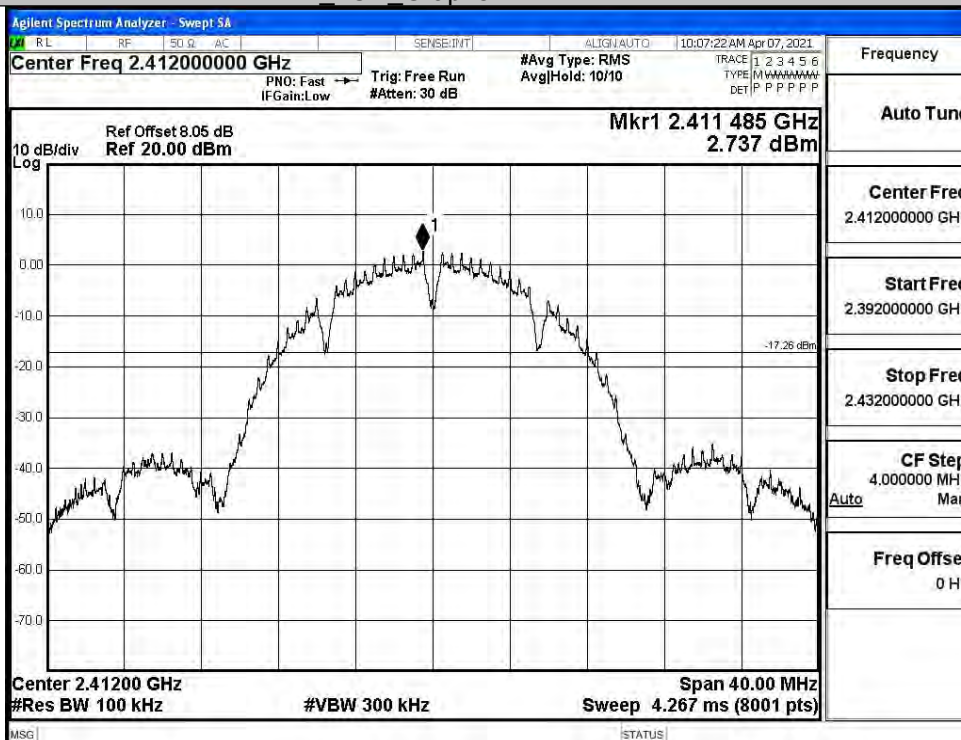


C.5 RF Conducted Spurious Emissions

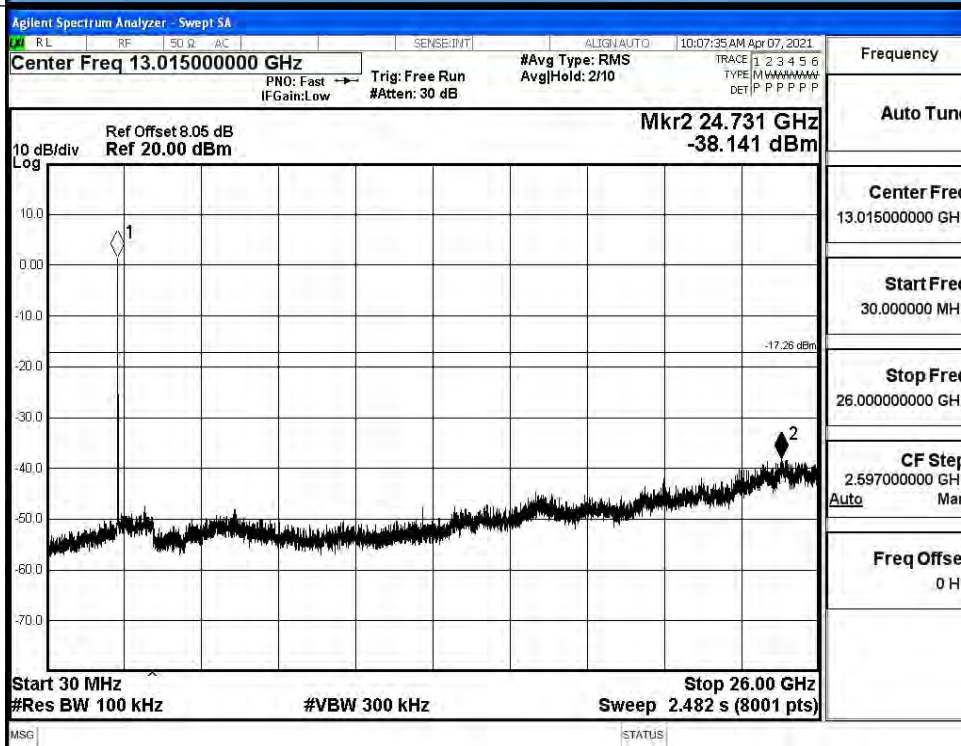
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.737	-38.141	-17.263	PASS
	MCH	3.76	-38.482	-16.240	PASS
	HCH	2.483	-38.049	-17.517	PASS
11G	LCH	-4.237	-38.746	-24.237	PASS
	MCH	-3.721	-37.659	-23.721	PASS
	HCH	-4.584	-37.419	-24.584	PASS
11N20 SISO	LCH	-6.228	-37.441	-26.228	PASS
	MCH	-6.107	-38.244	-26.107	PASS
	HCH	-6.24	-37.811	-26.240	PASS
11N40 SISO	LCH	-9.35	-38.168	-29.350	PASS
	MCH	-9.353	-38.023	-29.353	PASS
	HCH	-9.828	-37.798	-29.828	PASS

11B LCH Graphs

Pref/11B/LCH

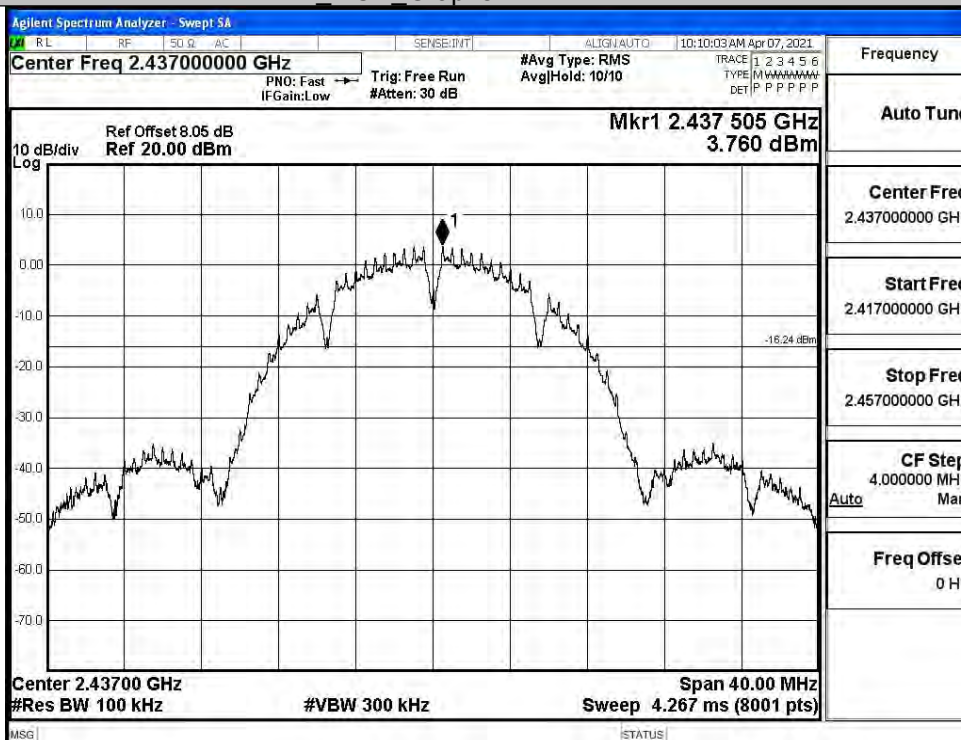


Puw/11B/LCH

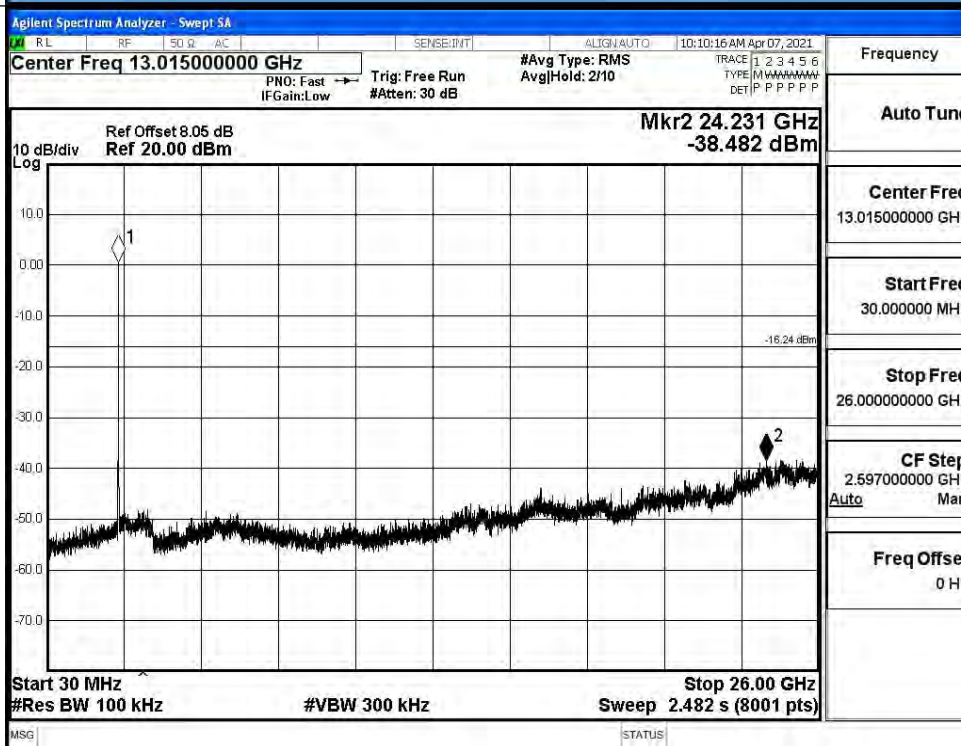


11B MCH Graphs

Pref/11B/MCH

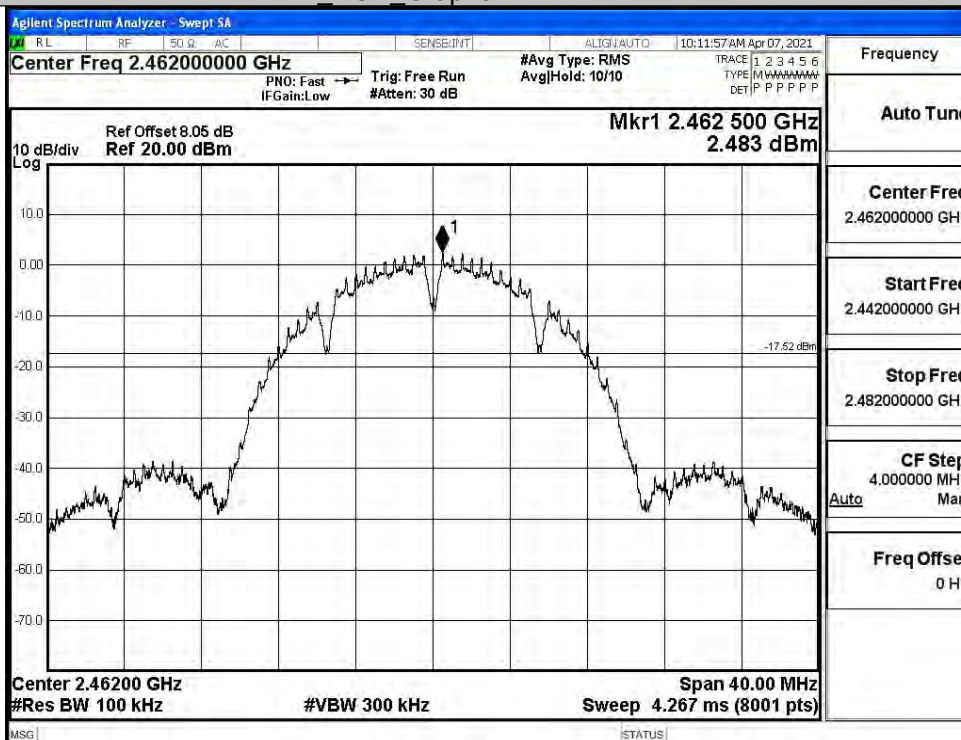


Puw/11B/MCH

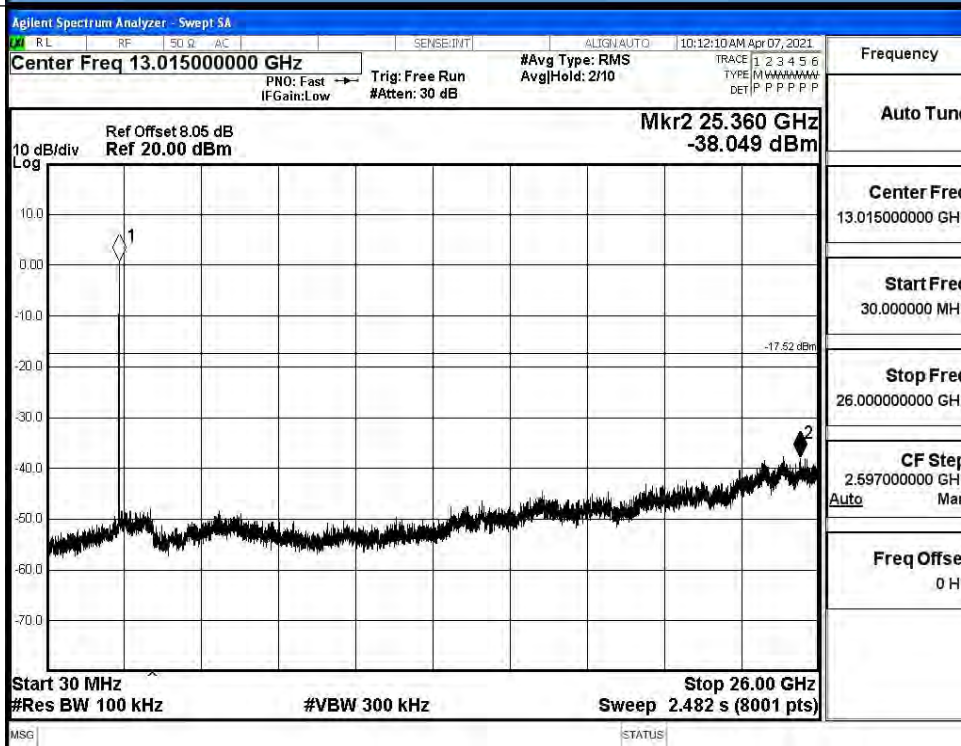


11B HCH Graphs

Pref/11B/HCH

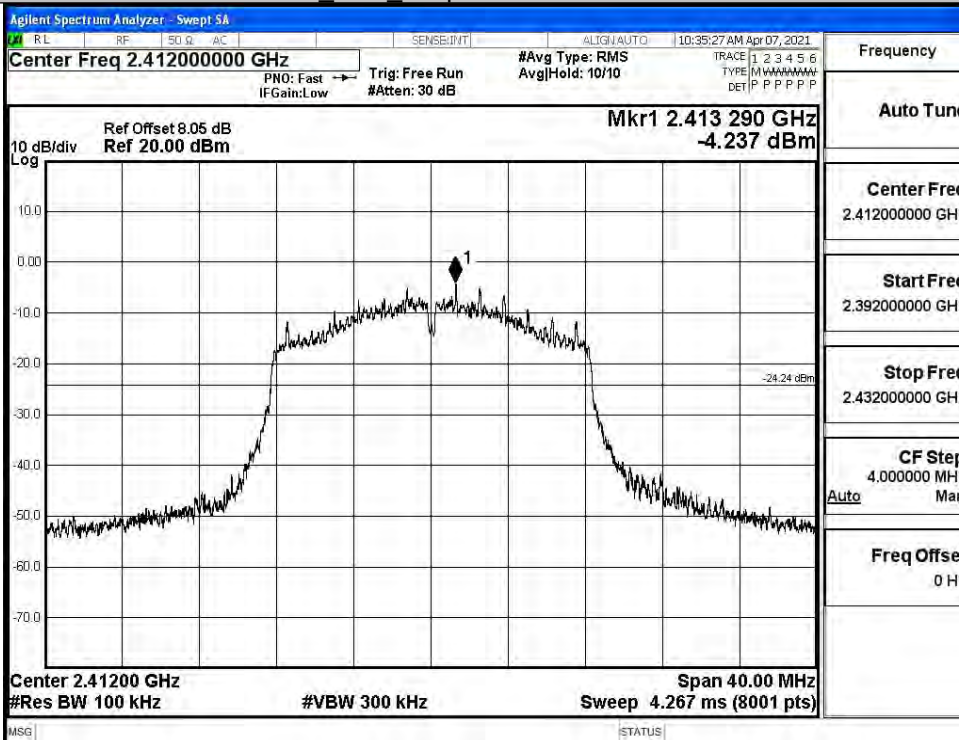


Puw/11B/HCH

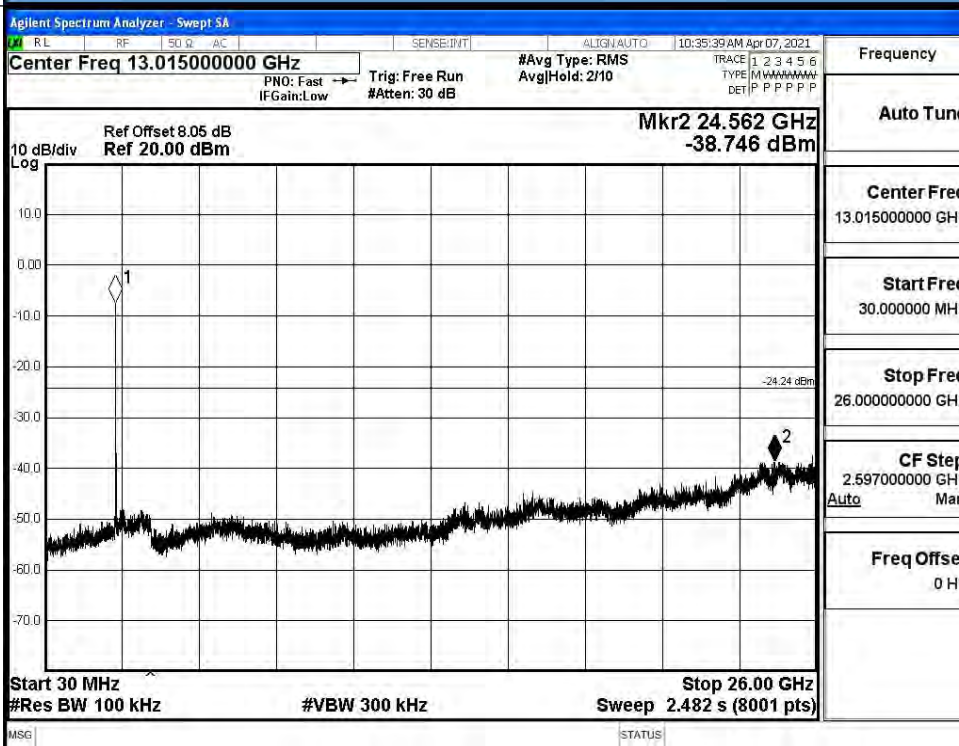


11G LCH Graphs

Pref/11G/LCH

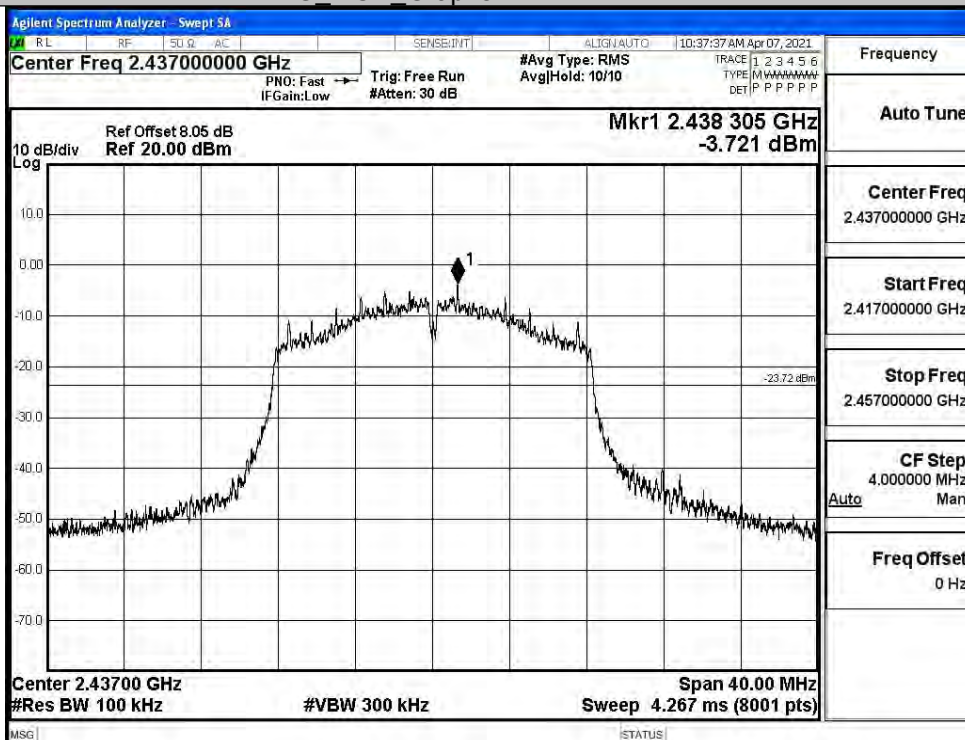


Puw/11G/LCH

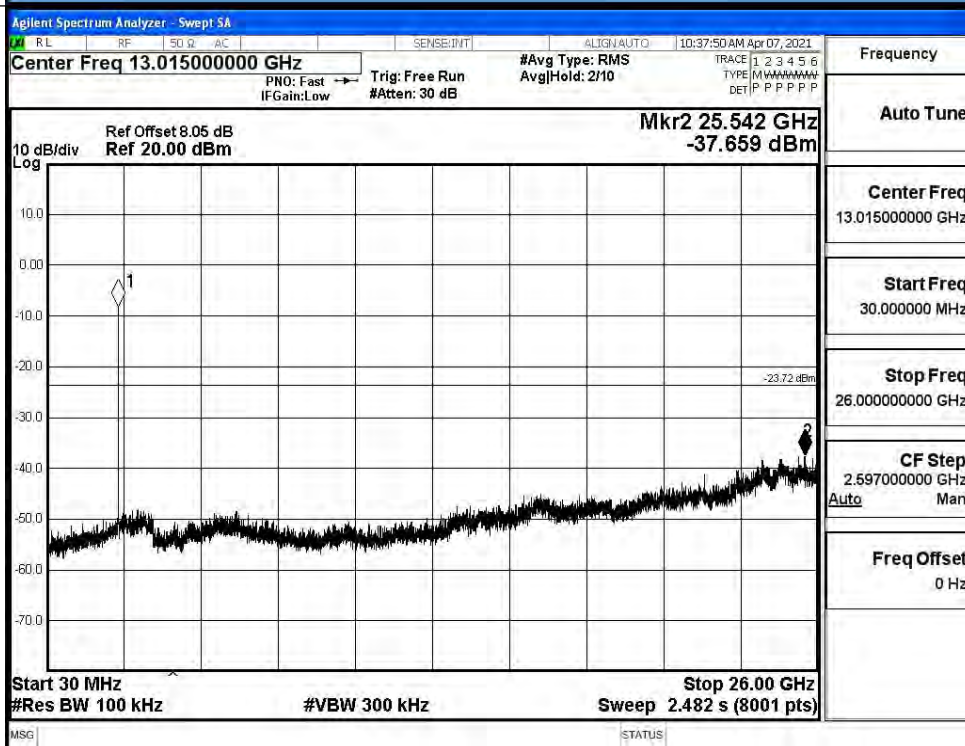


11G MCH Graphs

Pref/11G/MCH

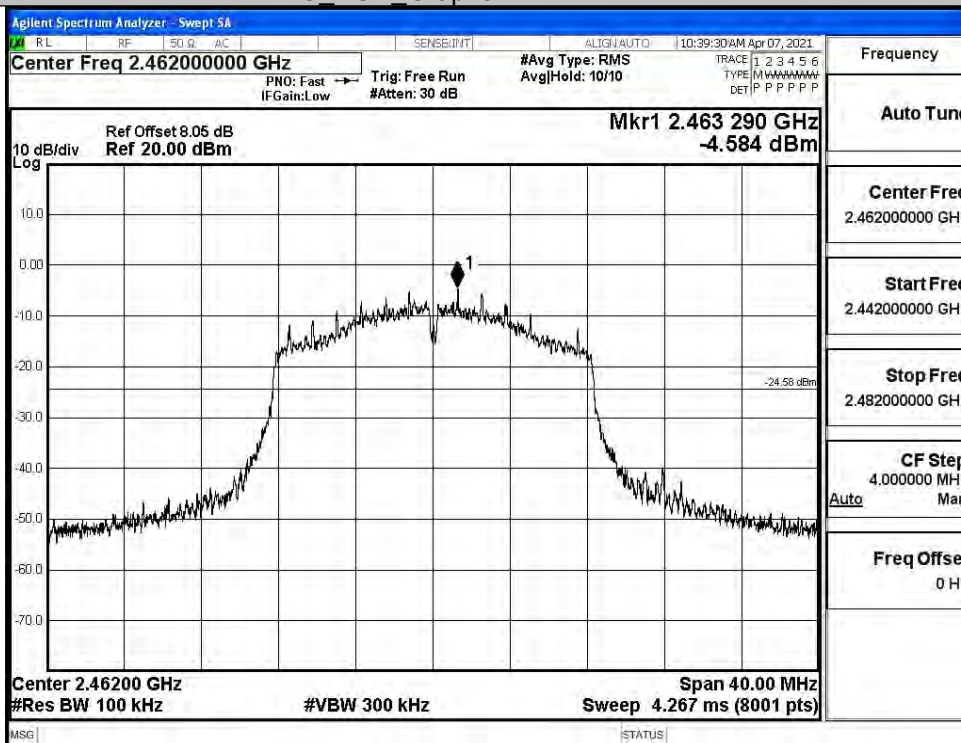


Puw/11G/MCH

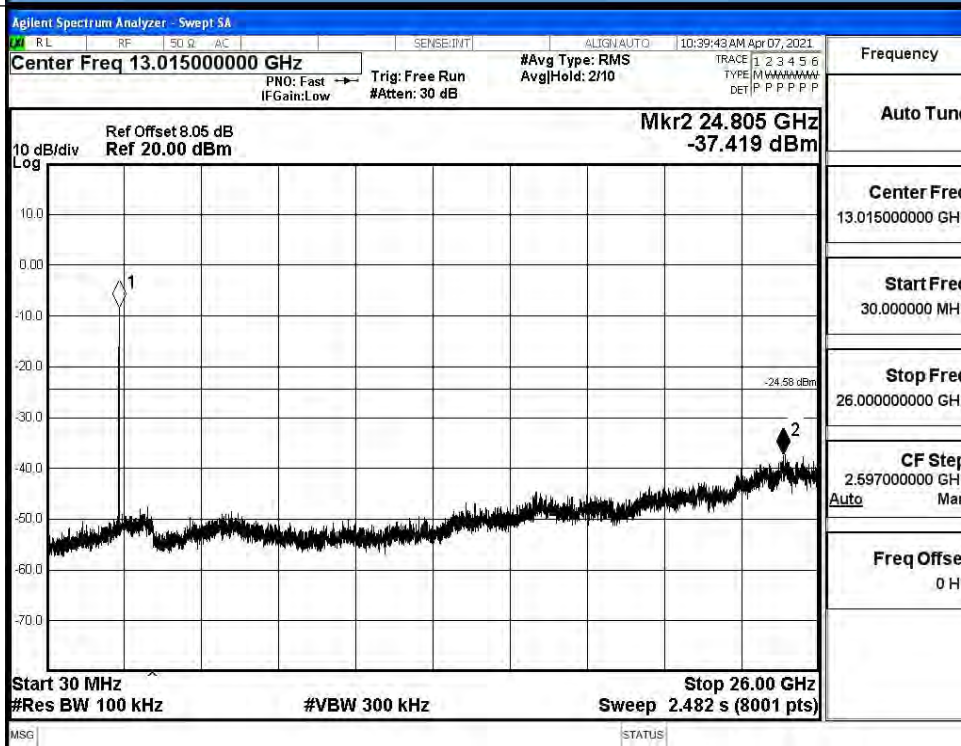


11G HCH Graphs

Pref/11G/HCH

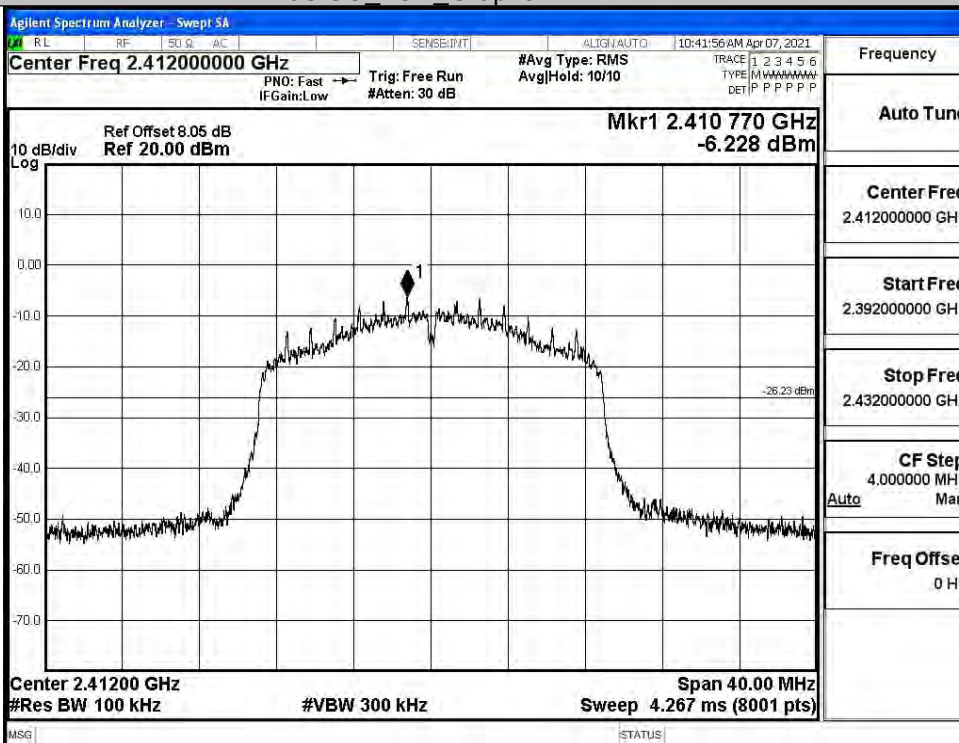


Puw/11G/HCH

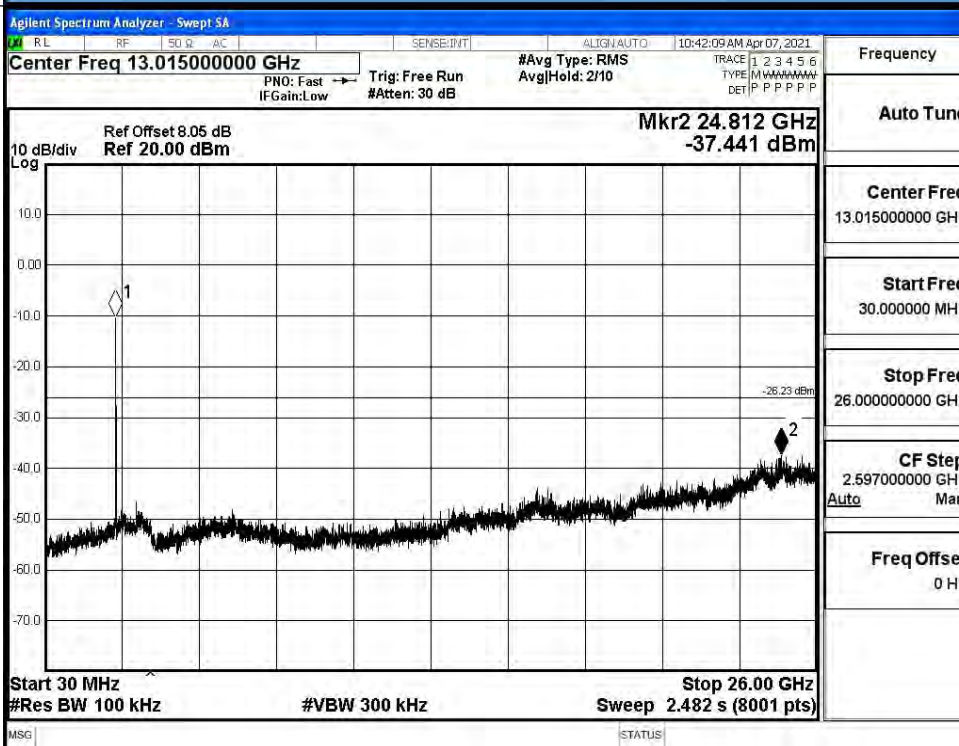


11N20SISO LCH Graphs

Pref/11N20SIS
O/LCH

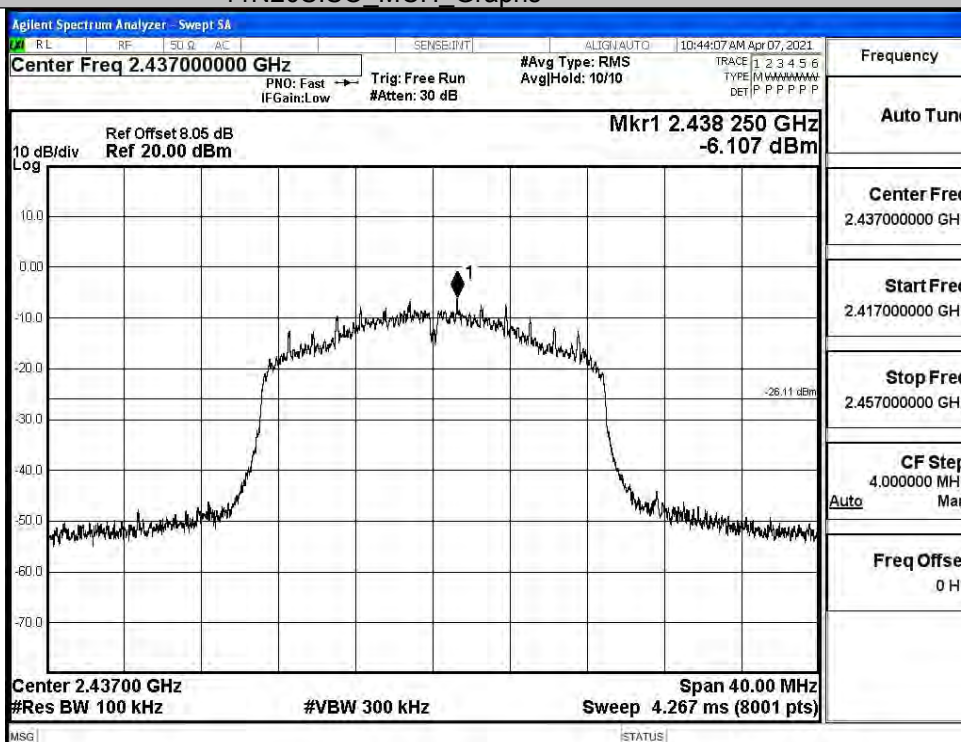


Puw/11N20
SISO/LCH

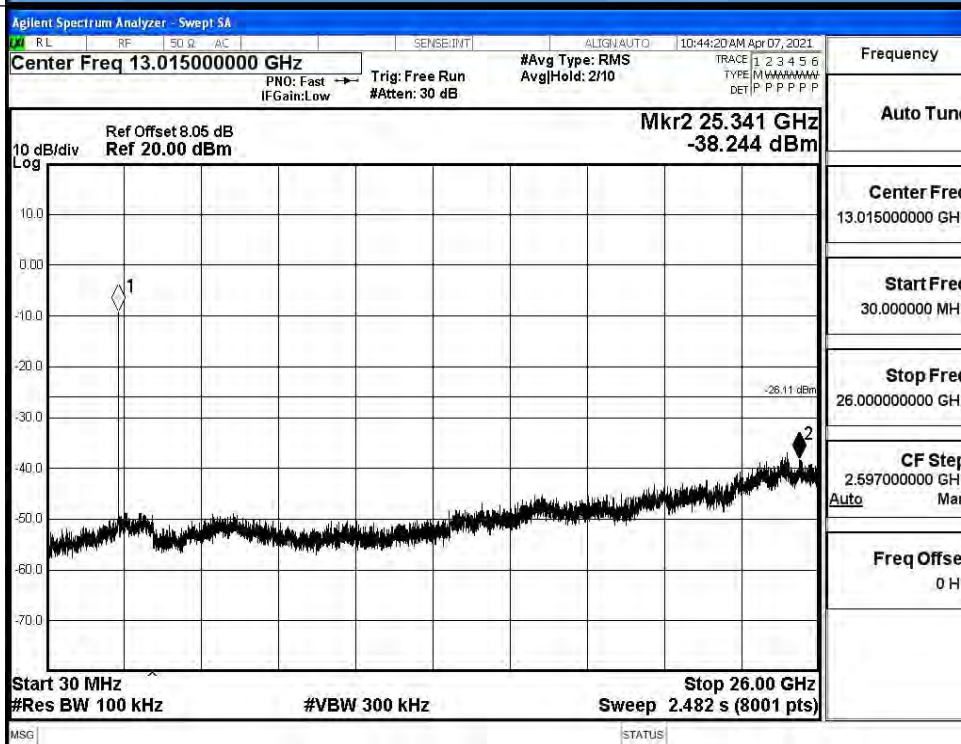


11N20SISO MCH_Graphs

Pref/11N20
SISO/MCH

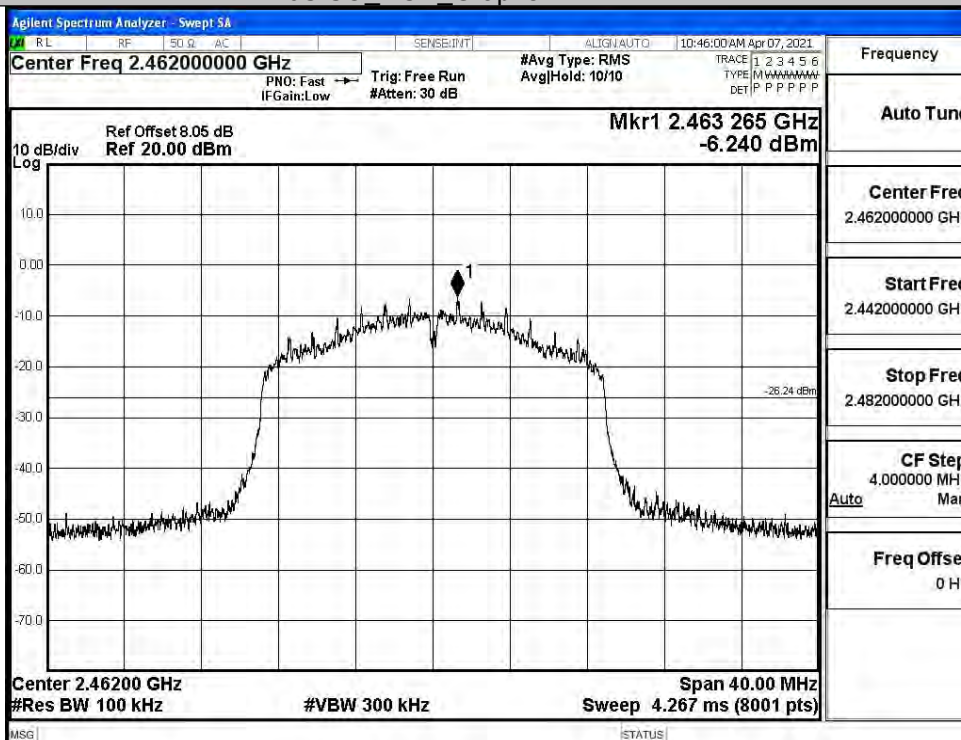


Puw/11N20
SISO/MCH

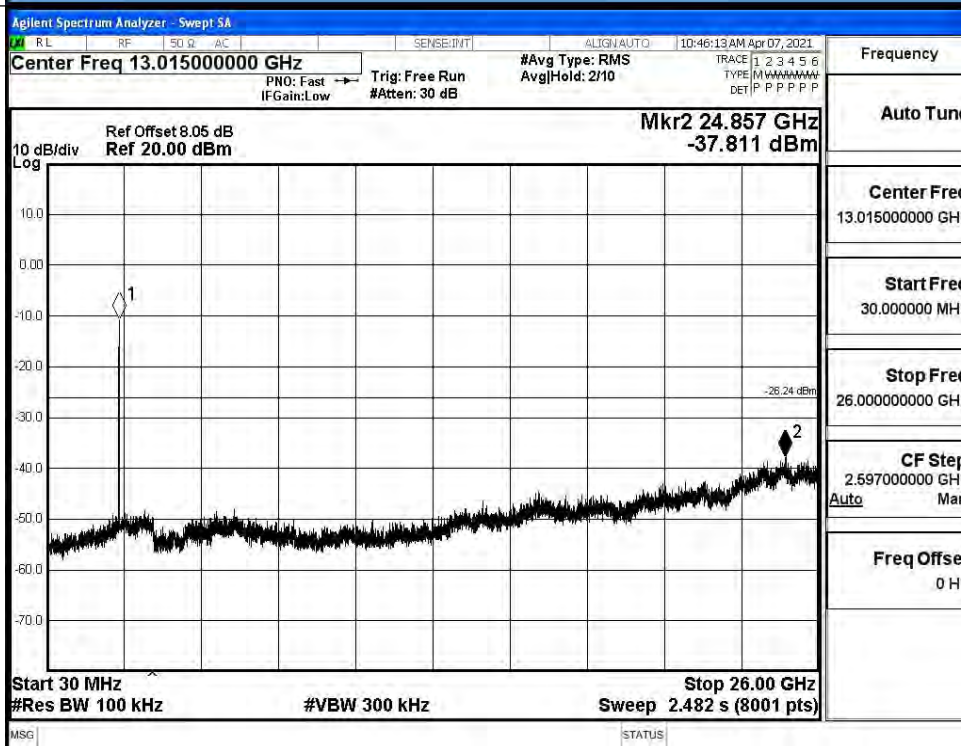


11N20SISO HCH Graphs

Pref/11N20
SISO/HCH

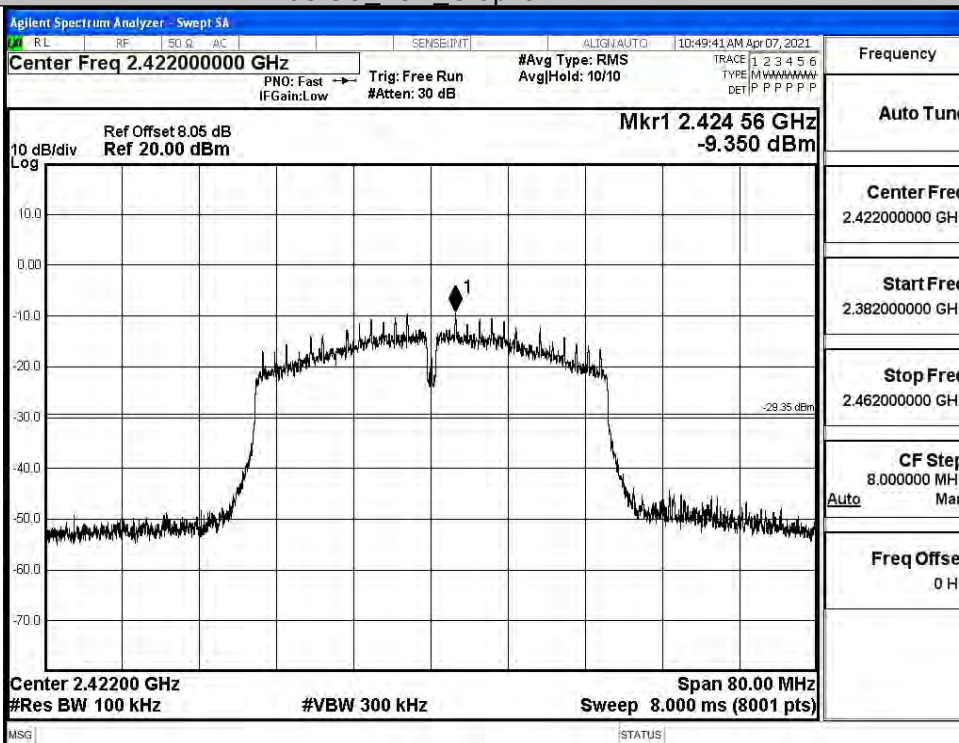


Puw/11N20
SISO/HCH

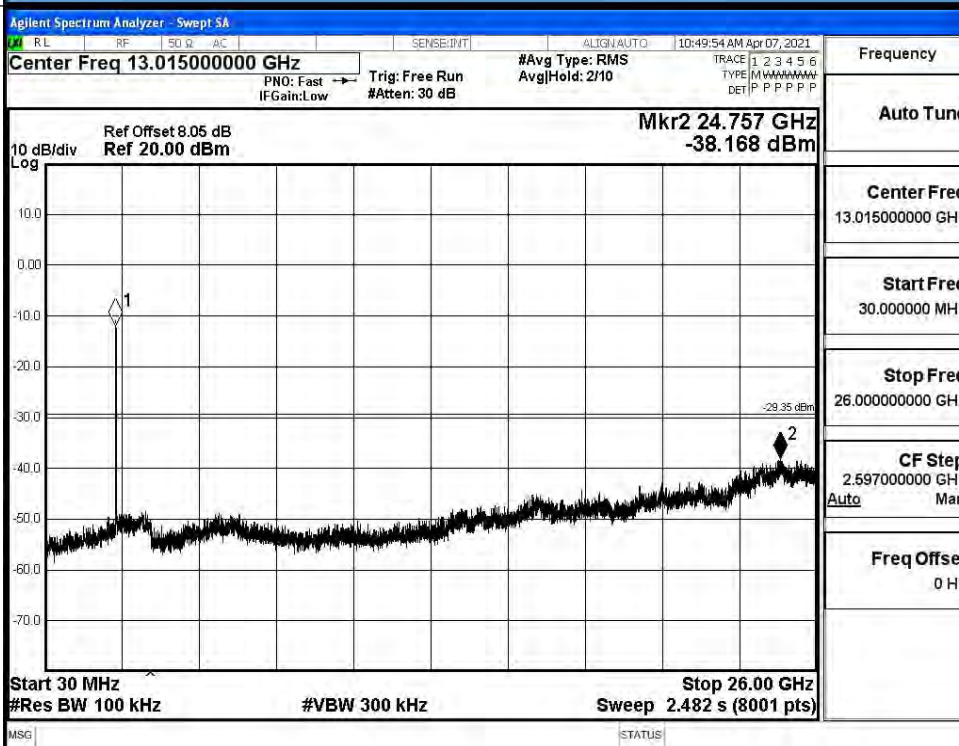


11N40SISO LCH Graphs

Pref/11N40
SISO/LCH

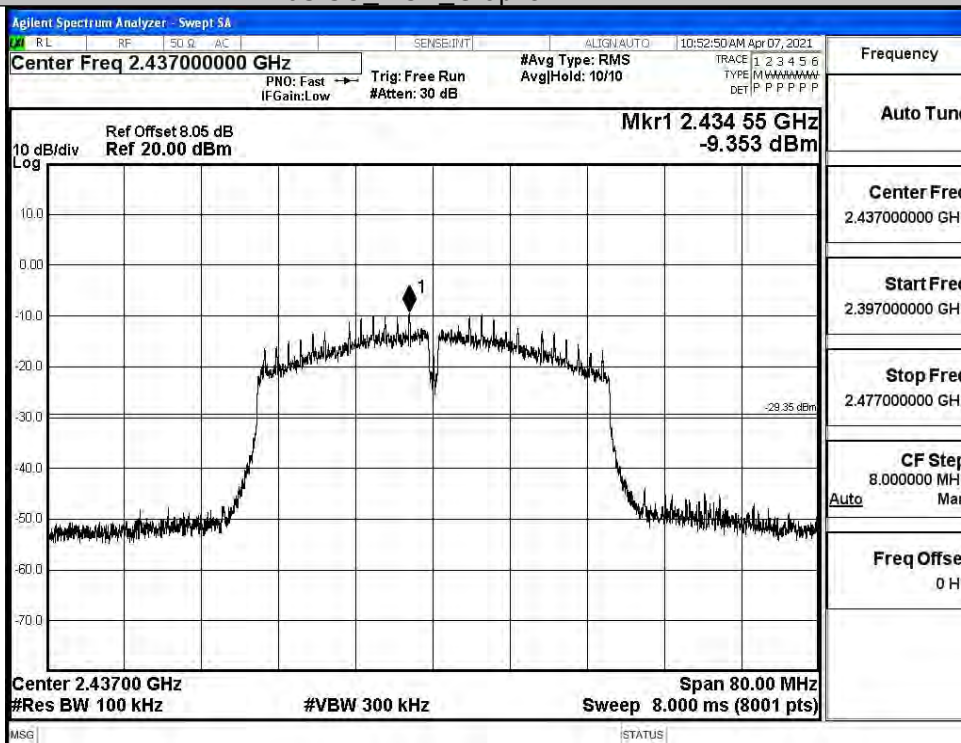


Puw/11N40
SISO/LCH

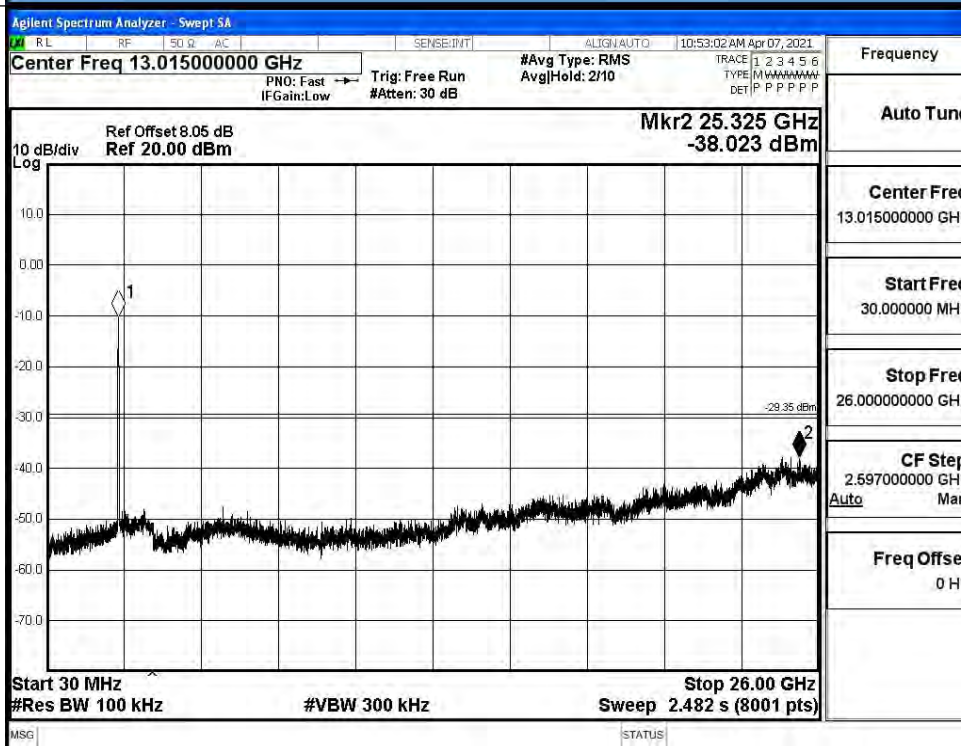


11N40SISO MCH_Graphs

Pref/11N40
SISO/MCH

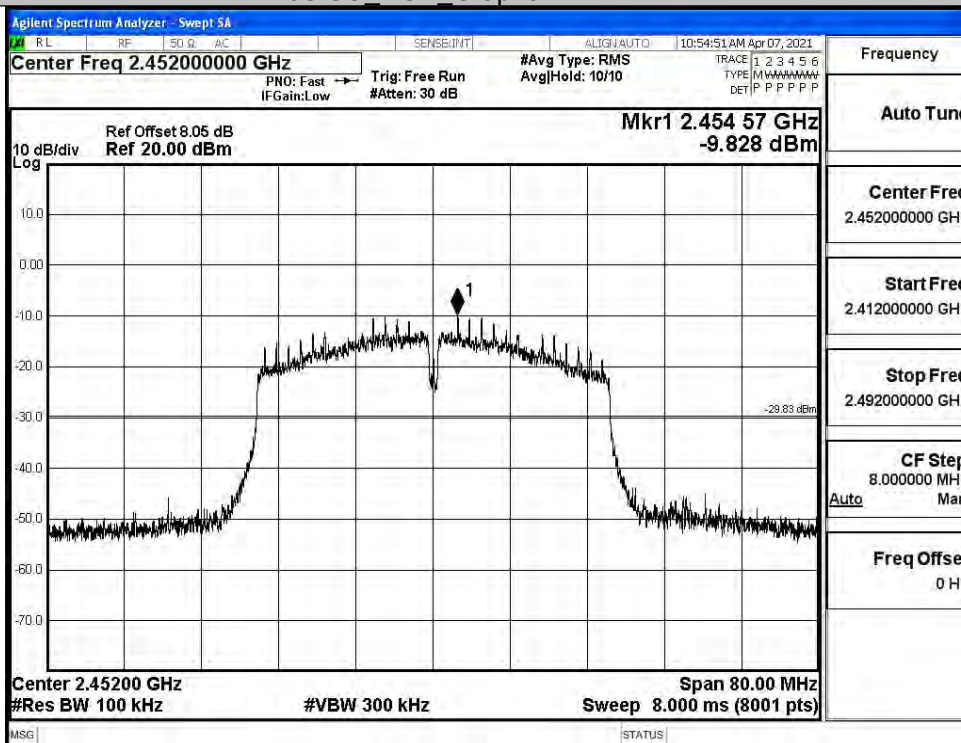


Puw/11N40
SISO/MCH



11N40SISO HCH Graphs

Pref/11N40
SISO/HCH



Puw/11N40
SISO/HCH

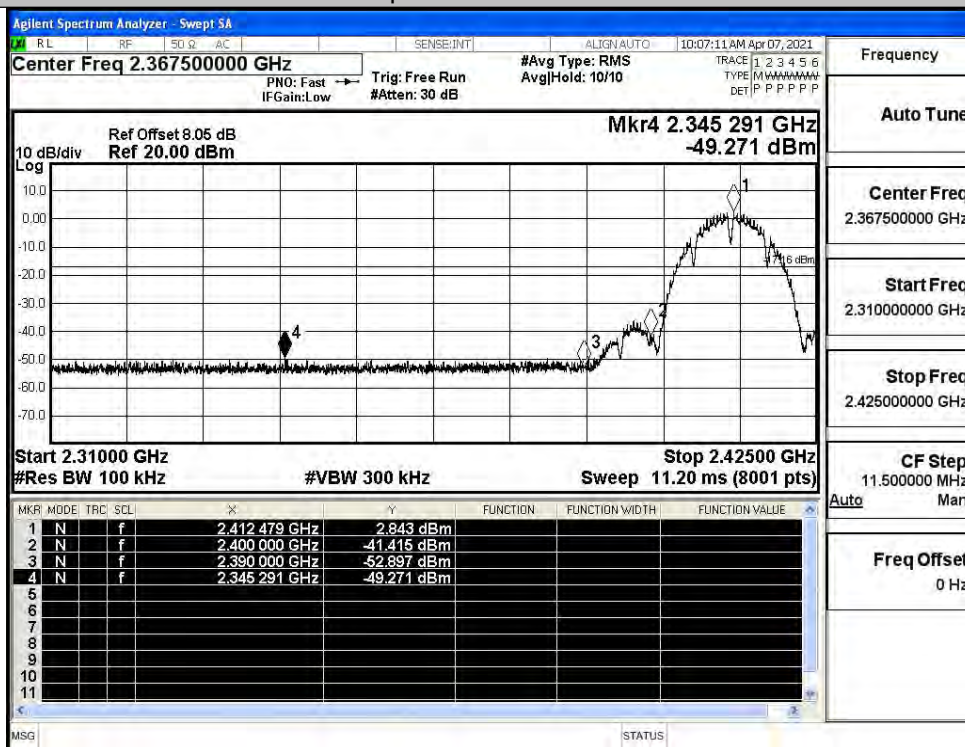


C.6 Band-edge for RF Conducted Emissions

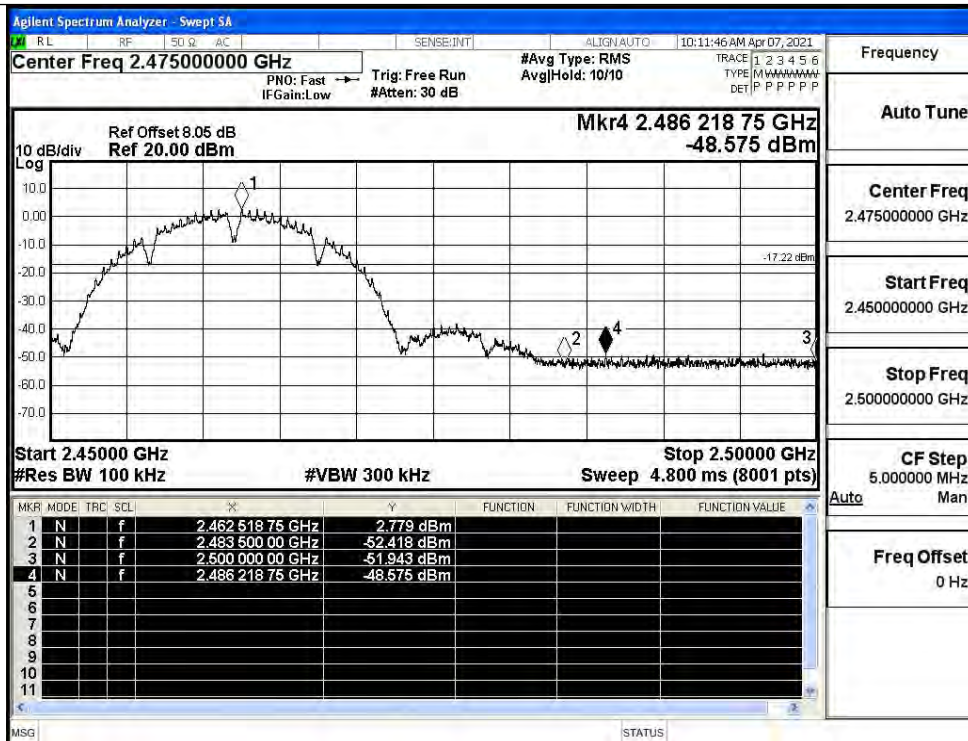
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.843	-49.271	-17.16	PASS
	HCH	2.779	-48.575	-17.22	PASS
11G	LCH	-5.178	-48.536	-25.18	PASS
	HCH	-4.678	-49.230	-24.68	PASS
11N20SISO	LCH	-6.275	-49.788	-26.28	PASS
	HCH	-5.711	-49.903	-25.71	PASS
11N40SISO	LCH	-9.642	-49.641	-29.64	PASS
	HCH	-9.773	-48.339	-29.77	PASS

Test Graphs

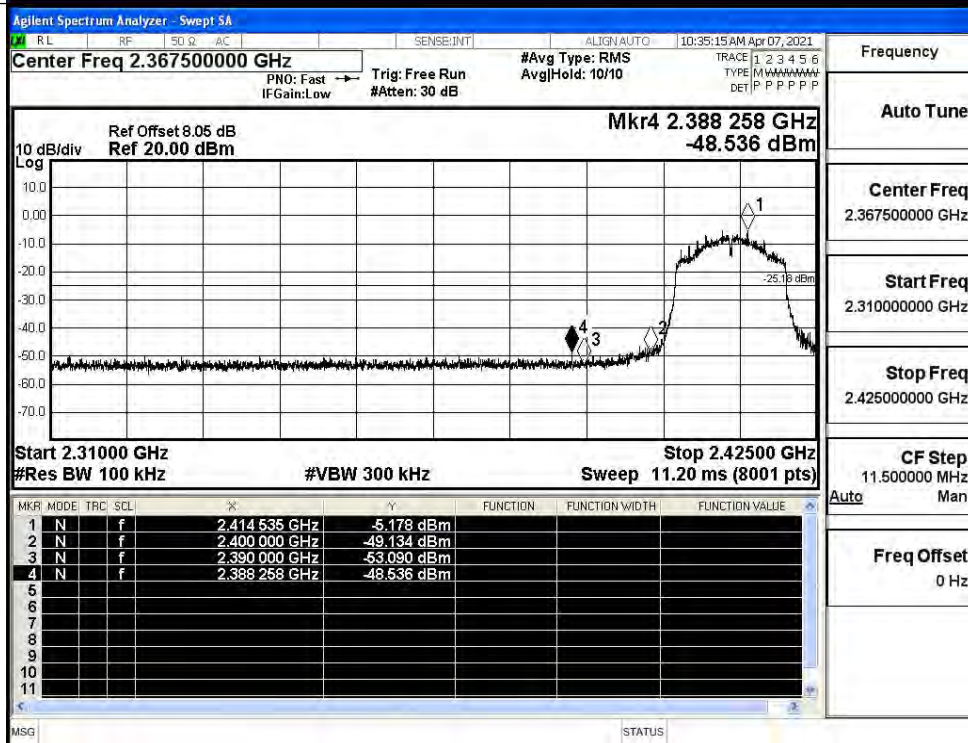
11B/LCH



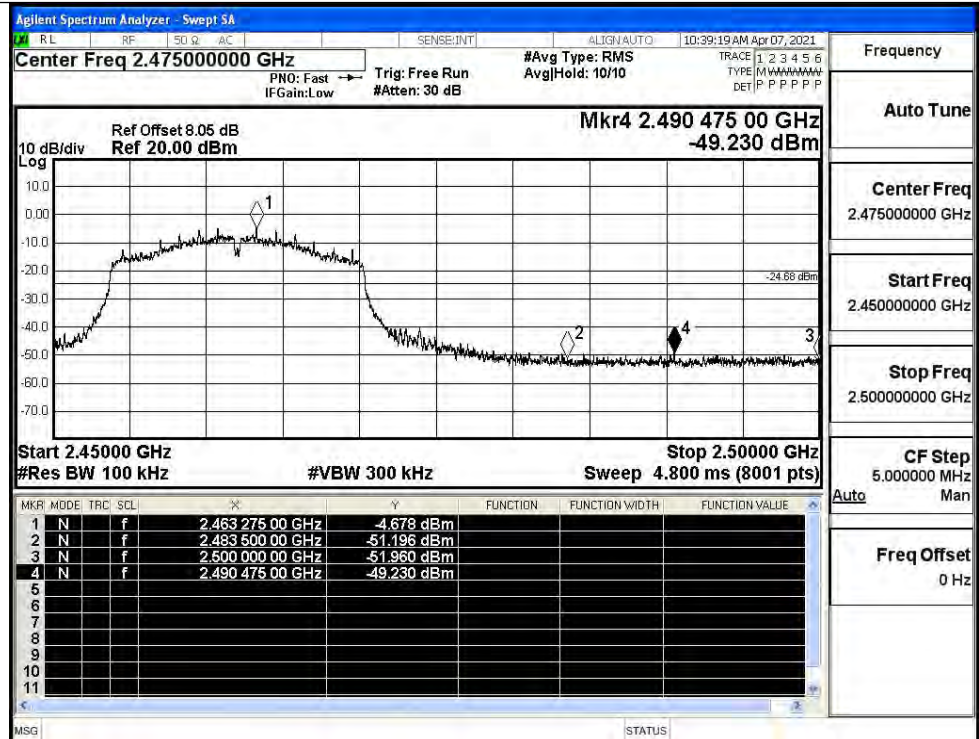
11B/HCH



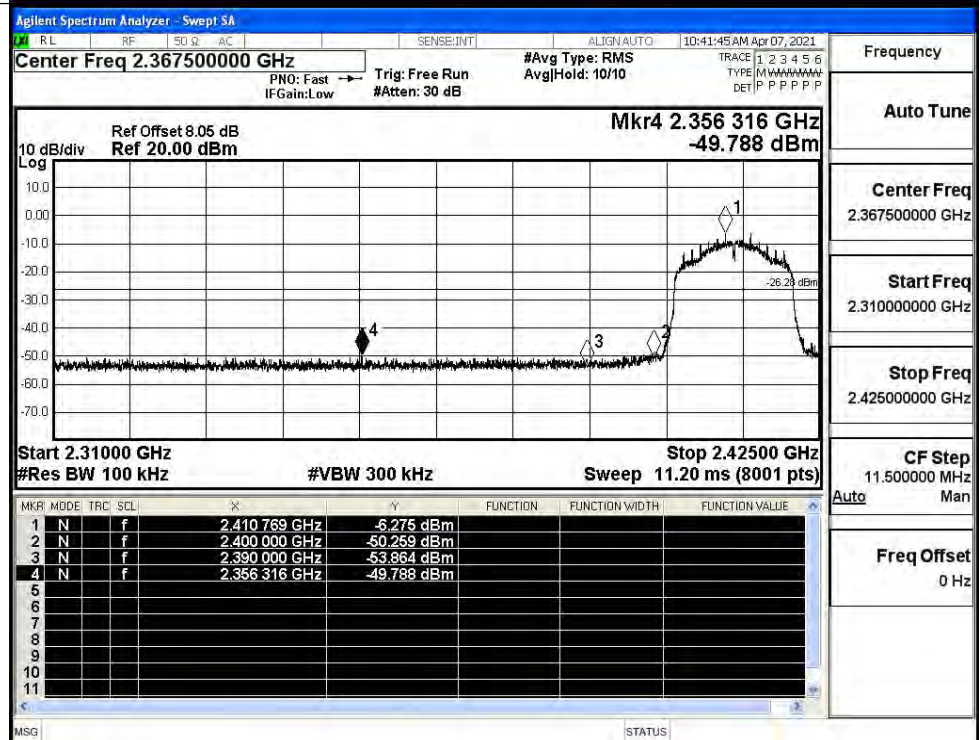
11G/LCH



11G/HCH

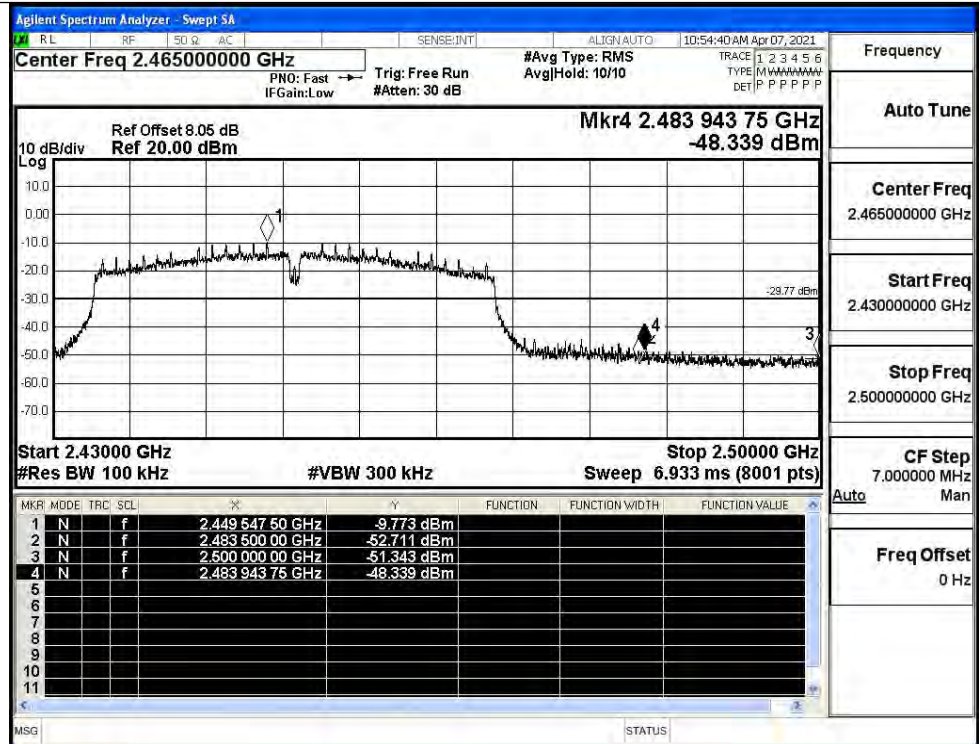


11N20SISO/LCH



11N20SISO/HCH	Agilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC SENSE:INT ALIGN:AUTO 10:45:49 AM Apr 07, 2021 Center Freq 2.475000000 GHz PNO: Fast IFGain:Low Trig: Free Run #Atten: 30 dB #Avg Type: RMS AvgHld: 10/10 TRACE 1 2 3 4 5 6 TYPE [M] [W] [M]
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11N40SISO/HCH

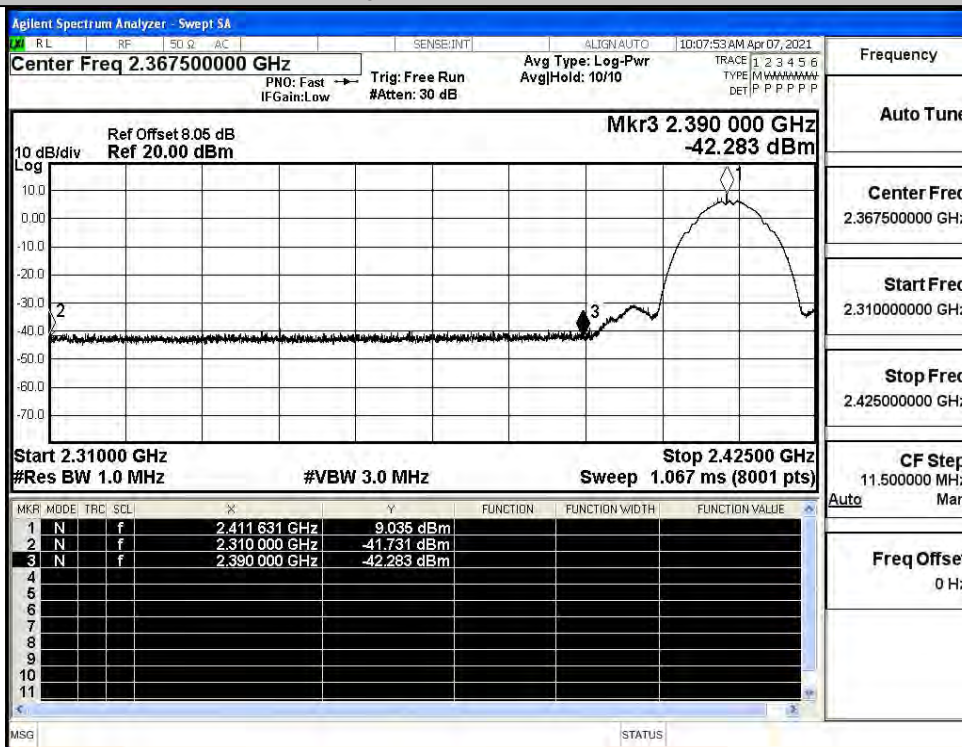


C.7 Restrict-band band-edge measurements

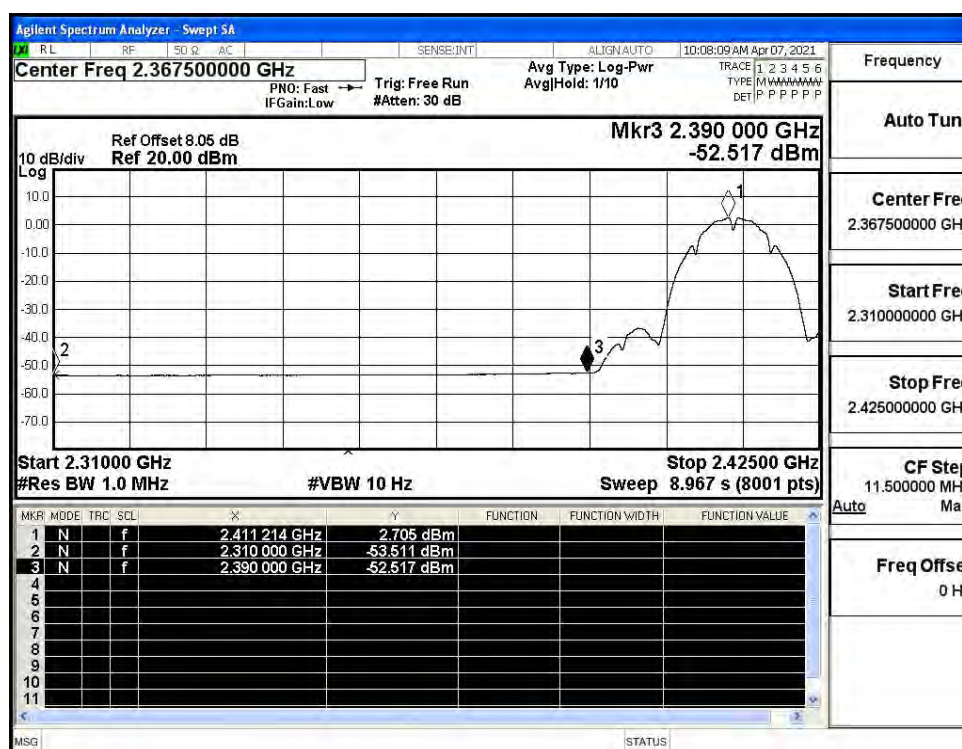
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-41.73	2.0	0	55.50	PEAK	74	PASS
	2412	Ant1	2310.0	-53.51	2.0	0	43.72	AV	54	PASS
	2412	Ant1	2390.0	-42.28	2.0	0	54.95	PEAK	74	PASS
	2412	Ant1	2390.0	-52.52	2.0	0	44.71	AV	54	PASS
	2462	Ant1	2483.5	-42.13	2.0	0	55.10	PEAK	74	PASS
	2462	Ant1	2483.5	-52.50	2.0	0	44.73	AV	54	PASS
	2462	Ant1	2500.0	-42.01	2.0	0	55.22	PEAK	74	PASS
	2462	Ant1	2500.0	-52.43	2.0	0	44.80	AV	54	PASS
11G	2412	Ant1	2310.0	-42.46	2.0	0	54.77	PEAK	74	PASS
	2412	Ant1	2310.0	-53.54	2.0	0	43.69	AV	54	PASS
	2412	Ant1	2390.0	-42.47	2.0	0	54.76	PEAK	74	PASS
	2412	Ant1	2390.0	-52.86	2.0	0	44.37	AV	54	PASS
	2462	Ant1	2483.5	-42.72	2.0	0	54.51	PEAK	74	PASS
	2462	Ant1	2483.5	-52.57	2.0	0	44.66	AV	54	PASS
	2462	Ant1	2500.0	-41.48	2.0	0	55.75	PEAK	74	PASS
	2462	Ant1	2500.0	-52.60	2.0	0	44.63	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-44.29	2.0	0	52.94	PEAK	74	PASS
	2412	Ant1	2310.0	-53.58	2.0	0	43.65	AV	54	PASS
	2412	Ant1	2390.0	-41.90	2.0	0	55.33	PEAK	74	PASS
	2412	Ant1	2390.0	-53.07	2.0	0	44.16	AV	54	PASS
	2462	Ant1	2483.5	-42.71	2.0	0	54.52	PEAK	74	PASS
	2462	Ant1	2483.5	-52.71	2.0	0	44.52	AV	54	PASS
	2462	Ant1	2500.0	-42.65	2.0	0	54.58	PEAK	74	PASS
	2462	Ant1	2500.0	-52.63	2.0	0	44.60	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-42.83	2.0	0	54.40	PEAK	74	PASS
	2422	Ant1	2310.0	-53.57	2.0	0	43.66	AV	54	PASS

	2422	Ant1	2390.0	-39.99	2.0	0	57.24	PEAK	74	PASS
	2422	Ant1	2390.0	-52.45	2.0	0	44.78	AV	54	PASS
	2452	Ant1	2483.5	-41.21	2.0	0	56.02	PEAK	74	PASS
	2452	Ant1	2483.5	-51.17	2.0	0	46.06	AV	54	PASS
	2452	Ant1	2500.0	-41.73	2.0	0	55.50	PEAK	74	PASS
	2452	Ant1	2500.0	-52.55	2.0	0	44.68	AV	54	PASS

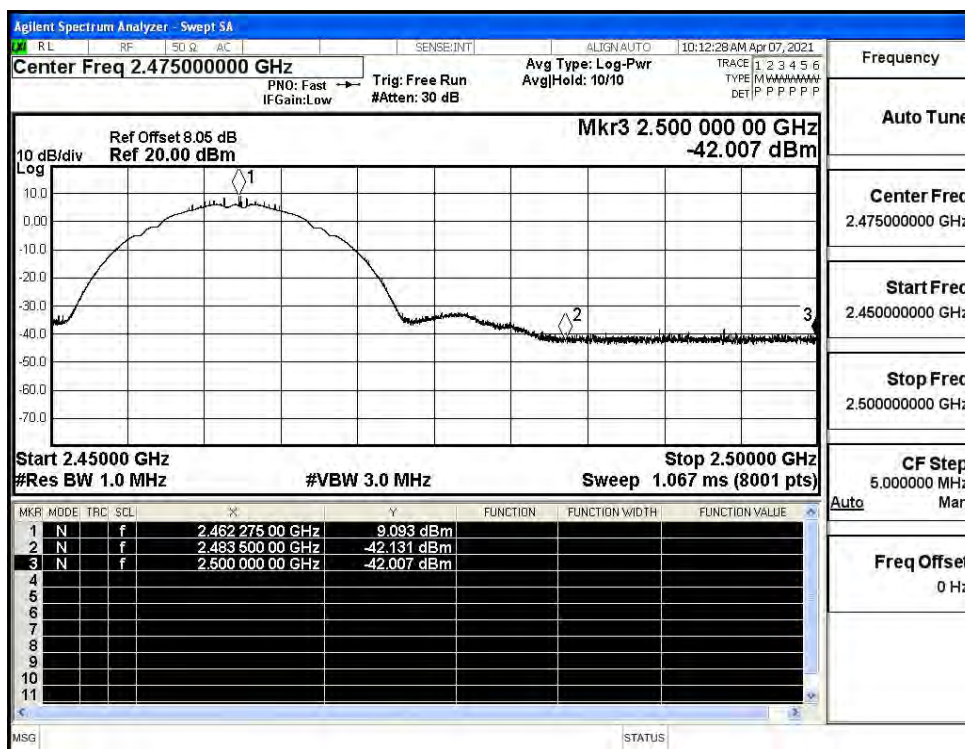
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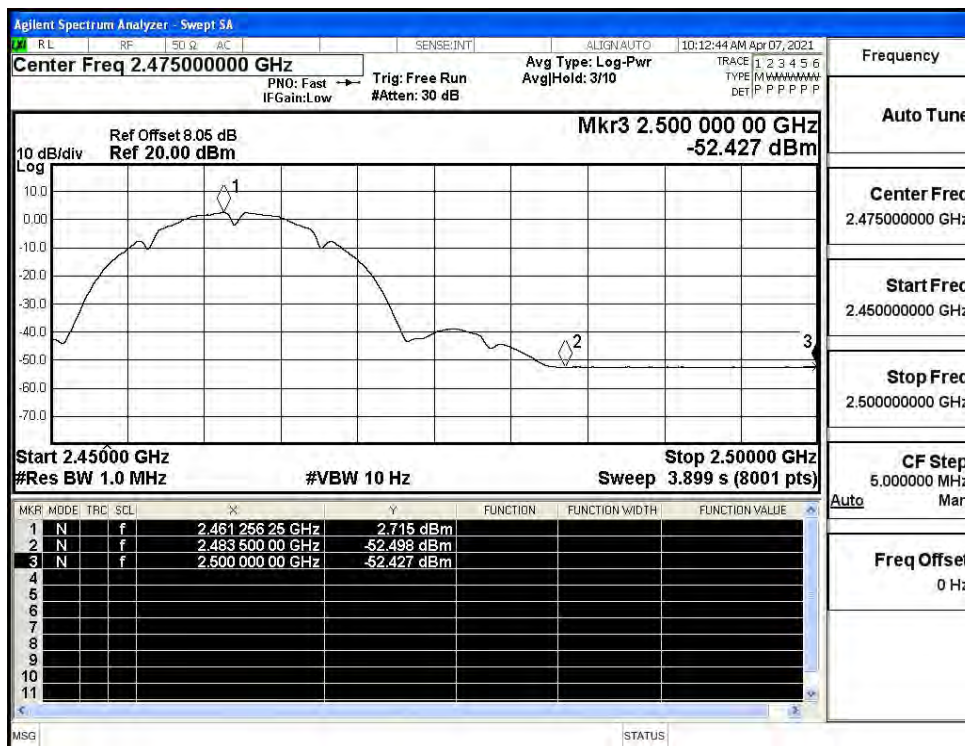
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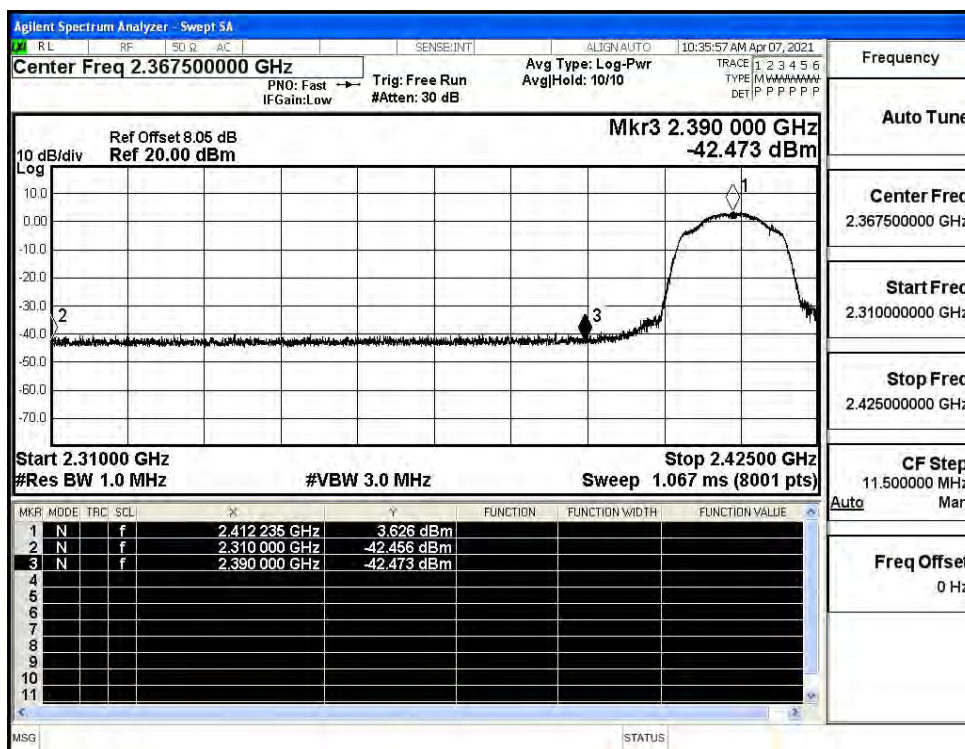
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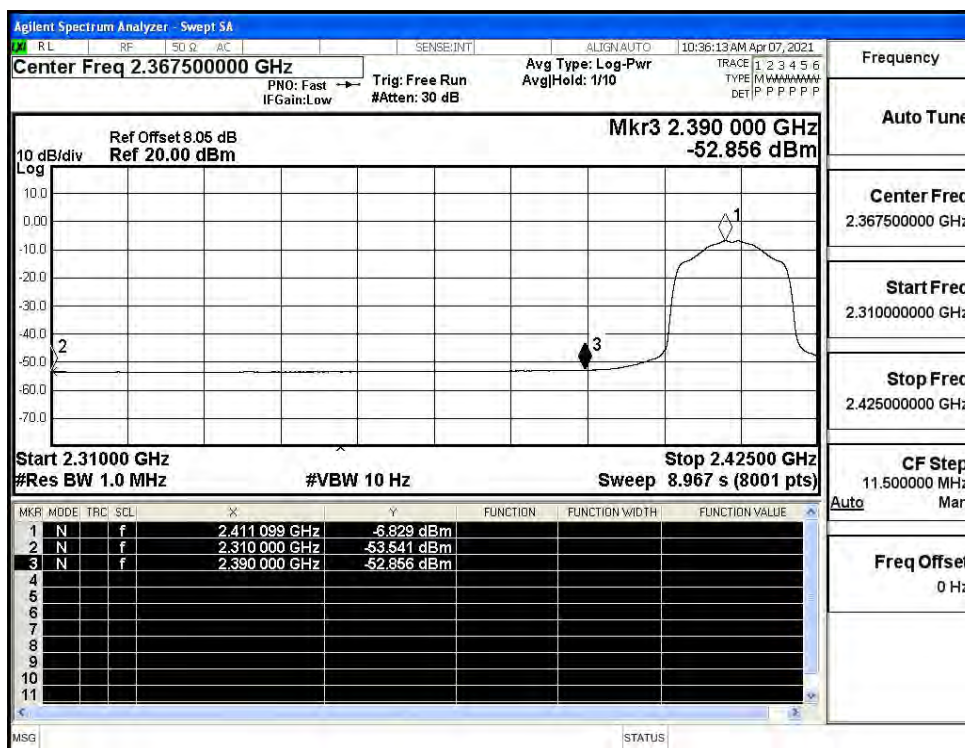
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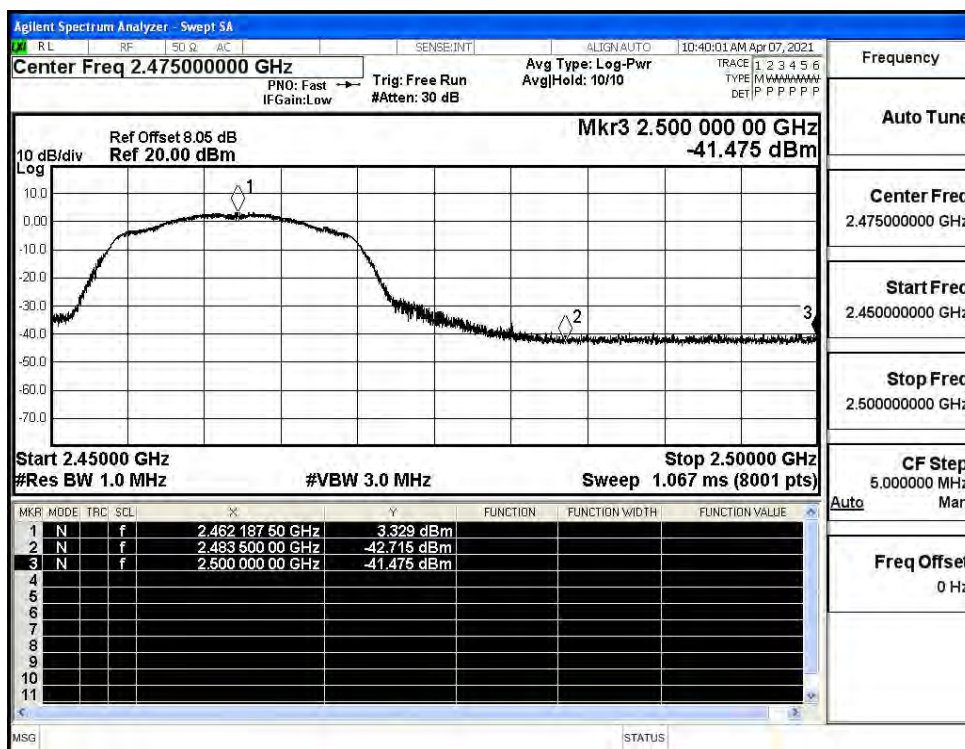
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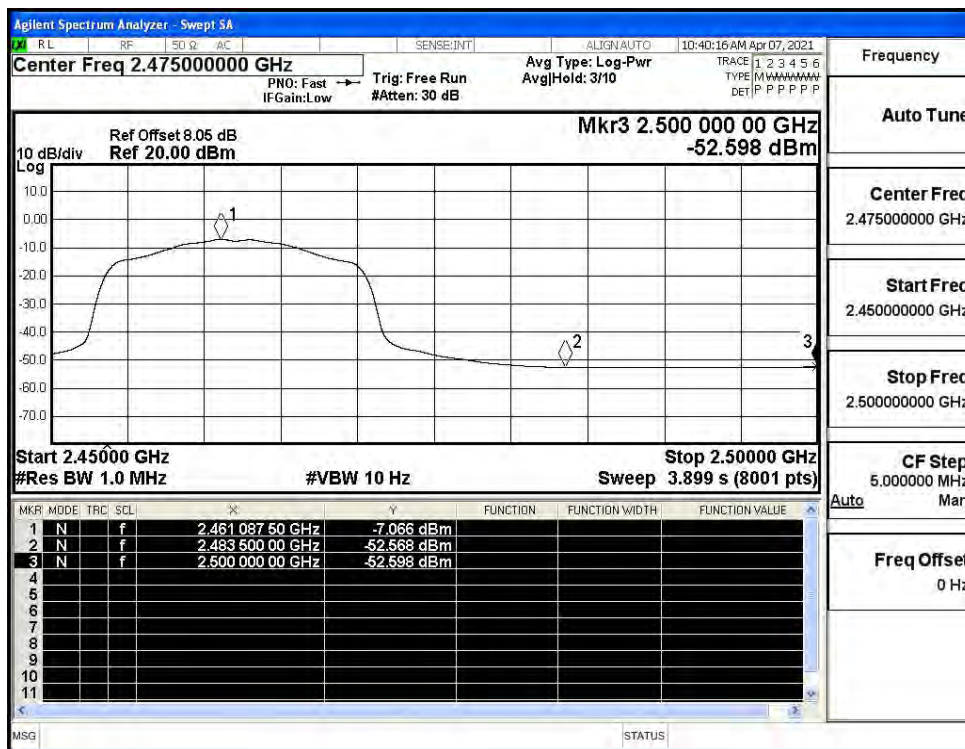
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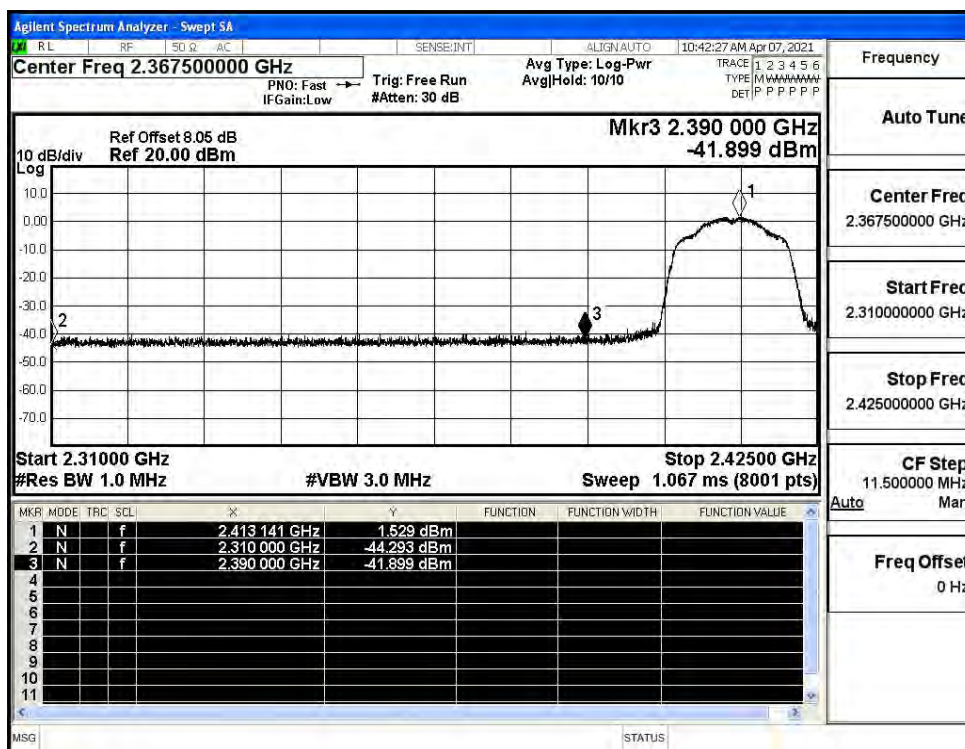
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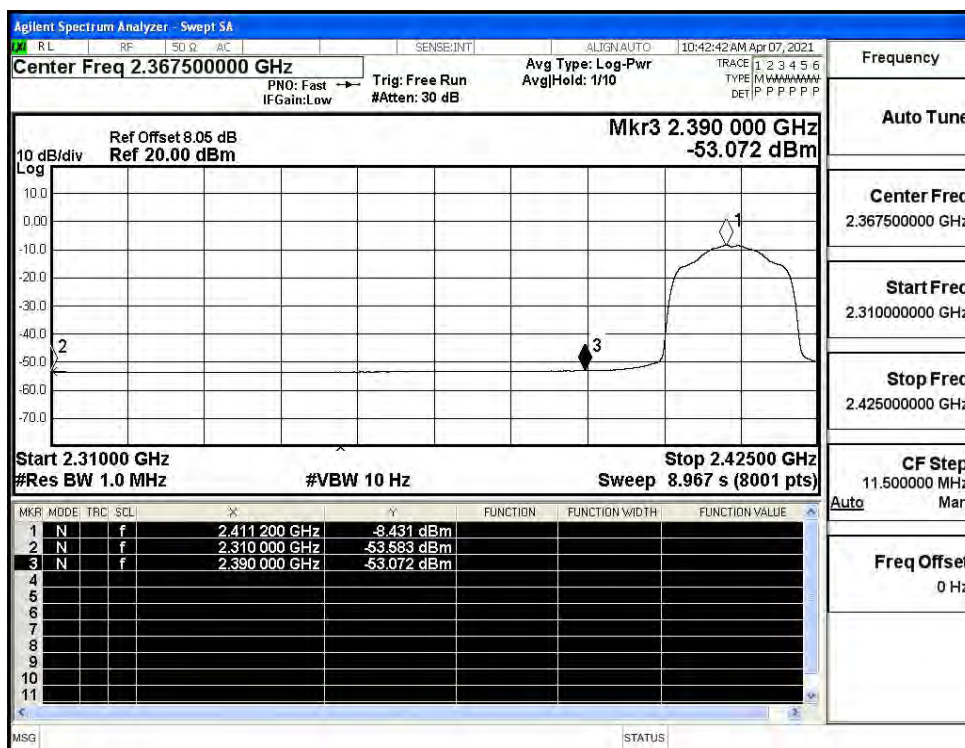
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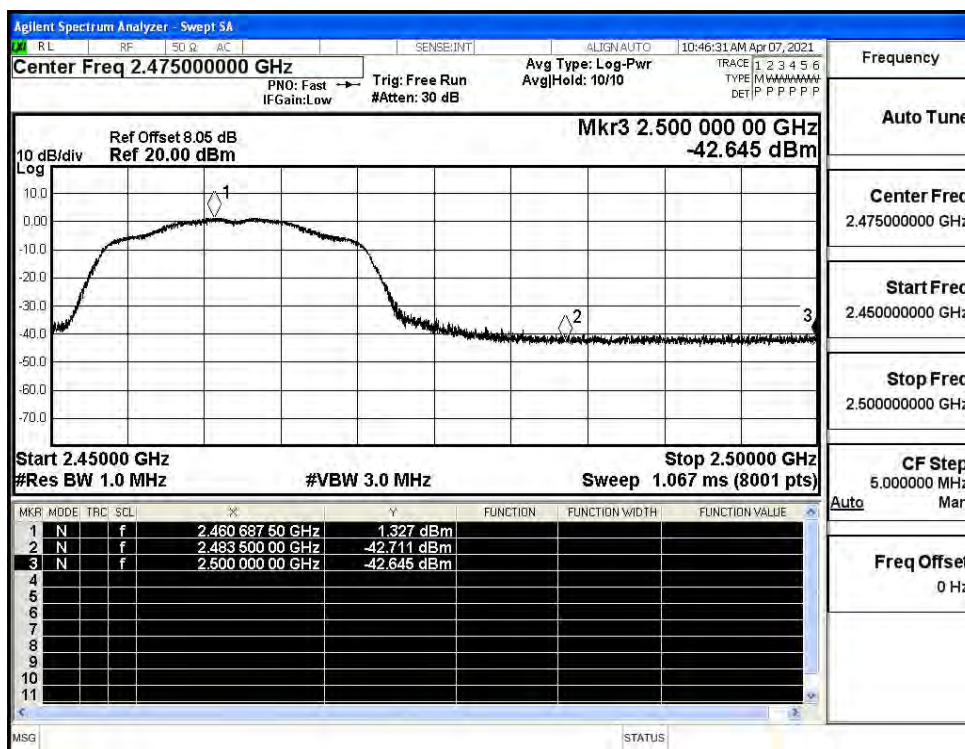
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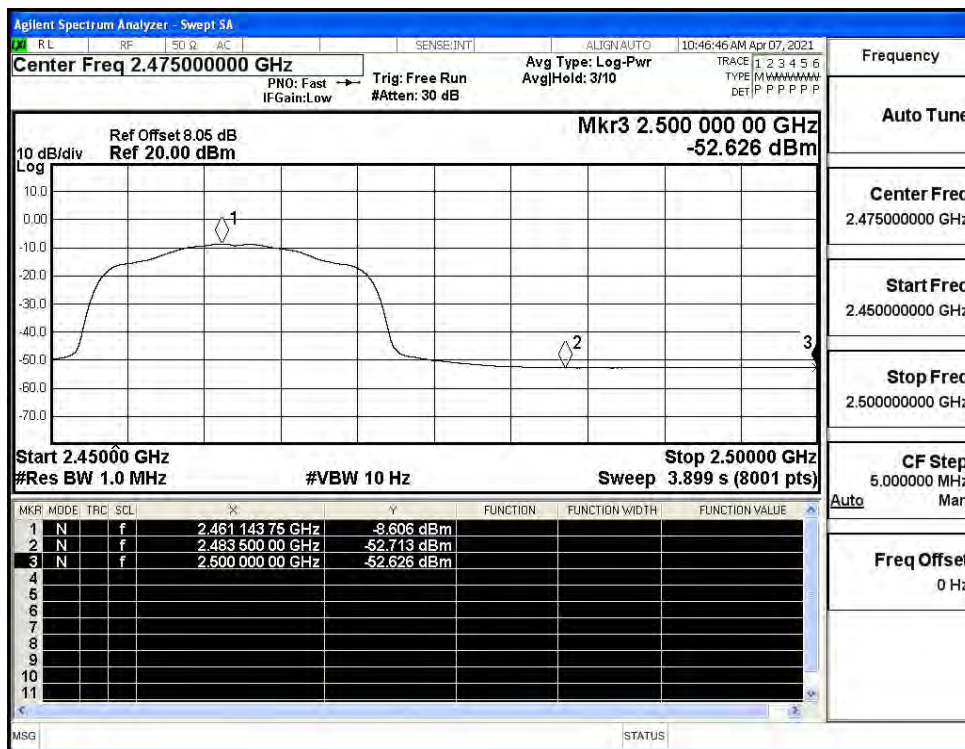
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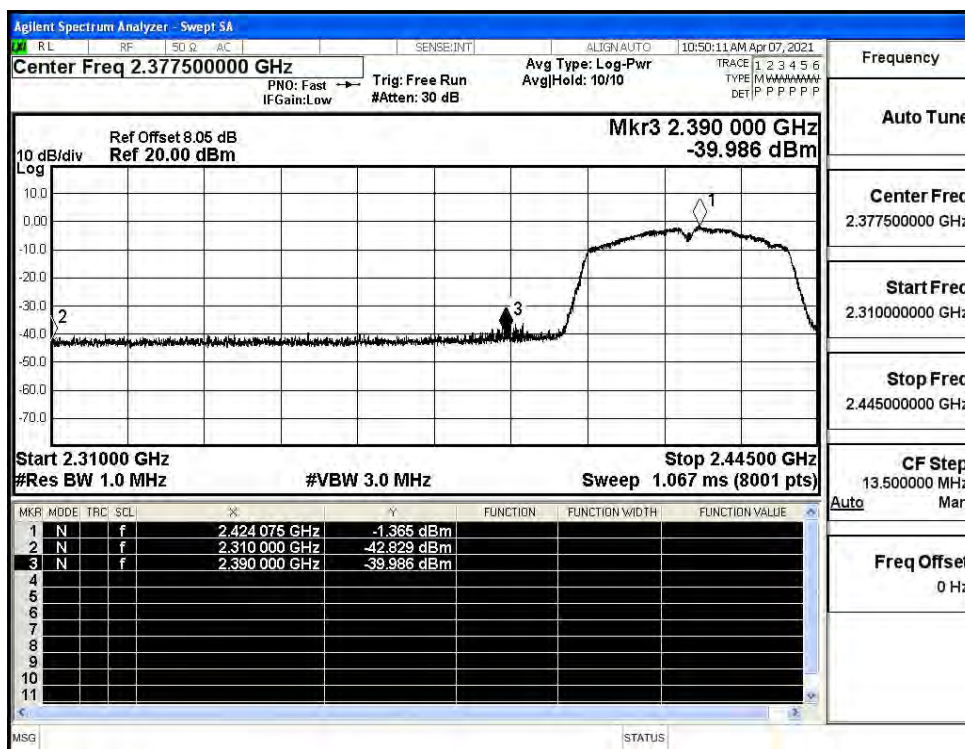
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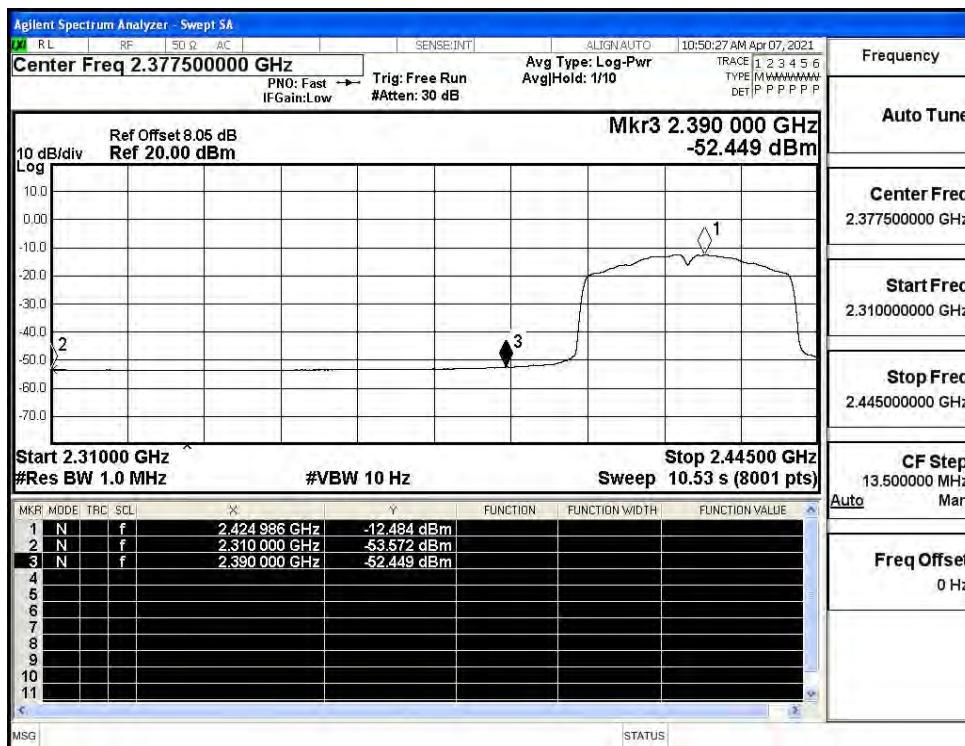
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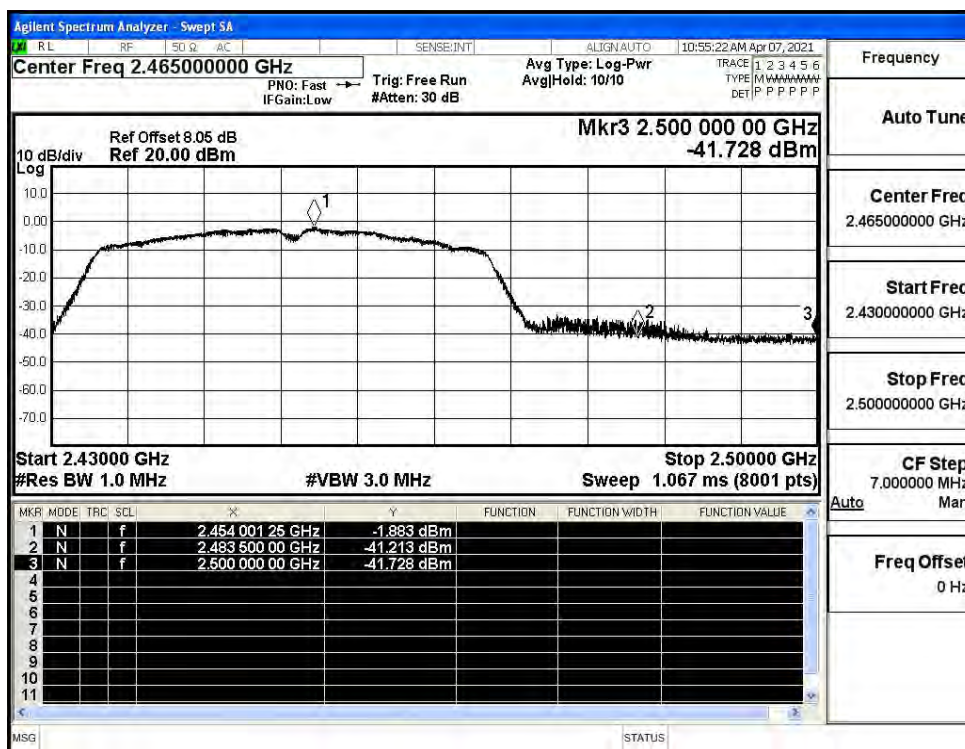
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Restrict-band band-edge measurements_11N40SISO_2422_Ant1_AV



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_PEAK



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_AV

