

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Safe Cam HD

Trade Mark:



Test Model: SAMC01W-V3

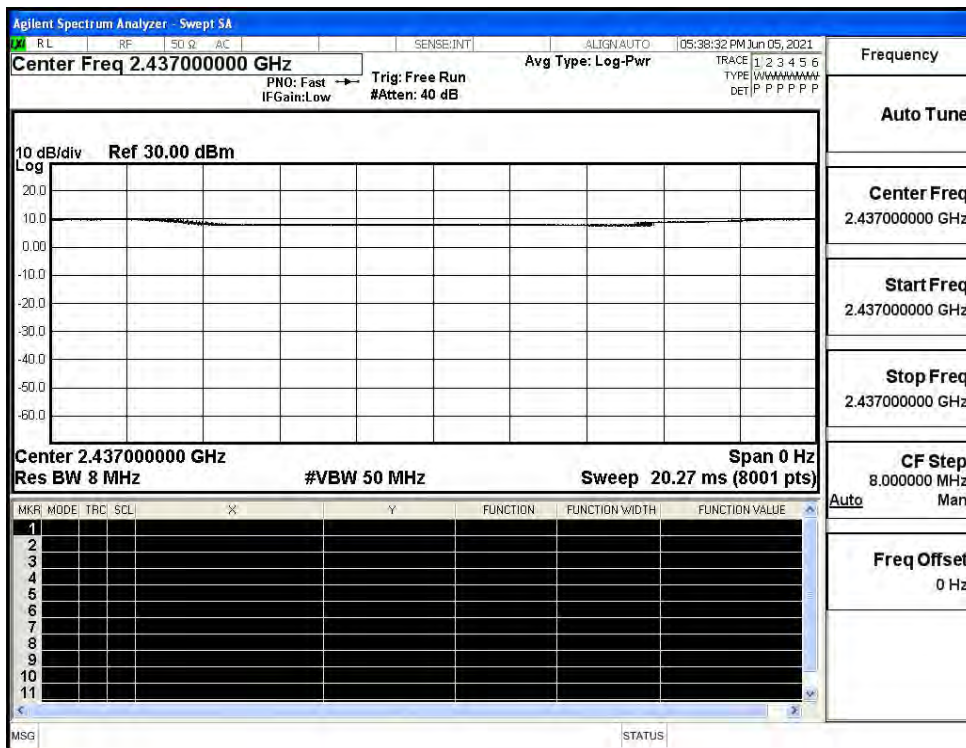
Environmental Conditions

Temperature:	25.3 ° C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

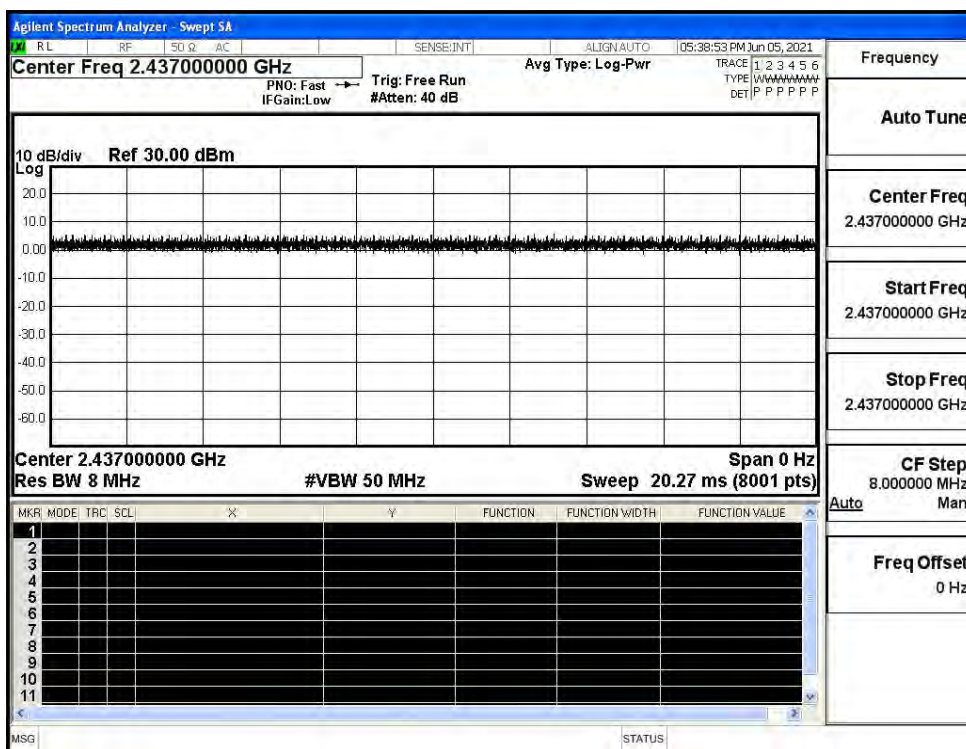
A.1 Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS
11N40SISO	2437	Ant1	100	PASS

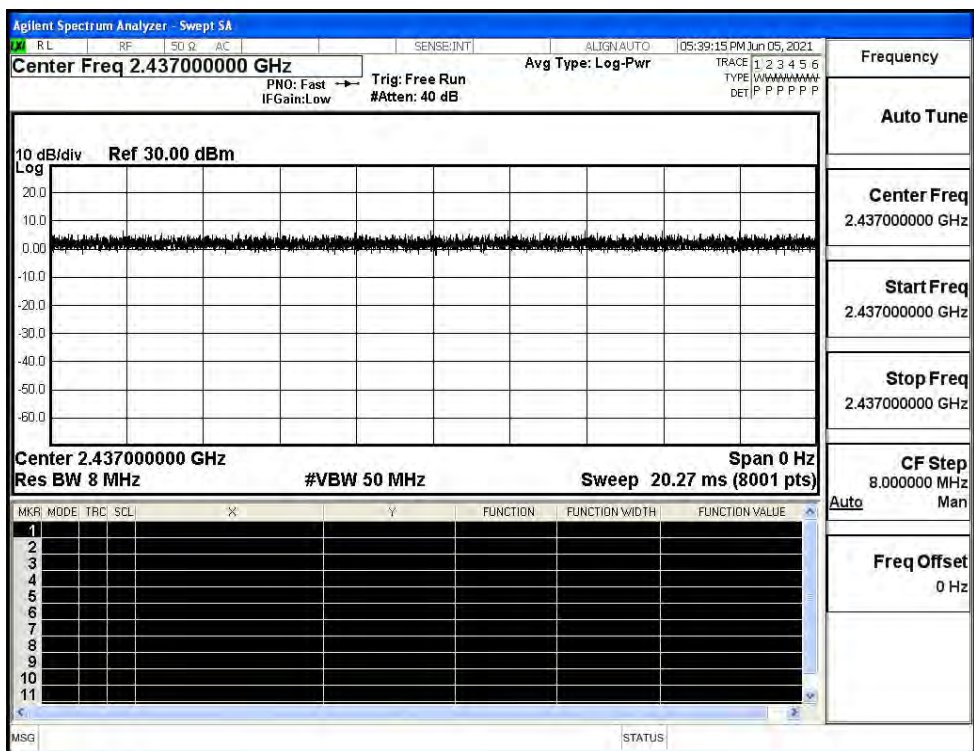
Duty Cycle_11B_2437_Ant1



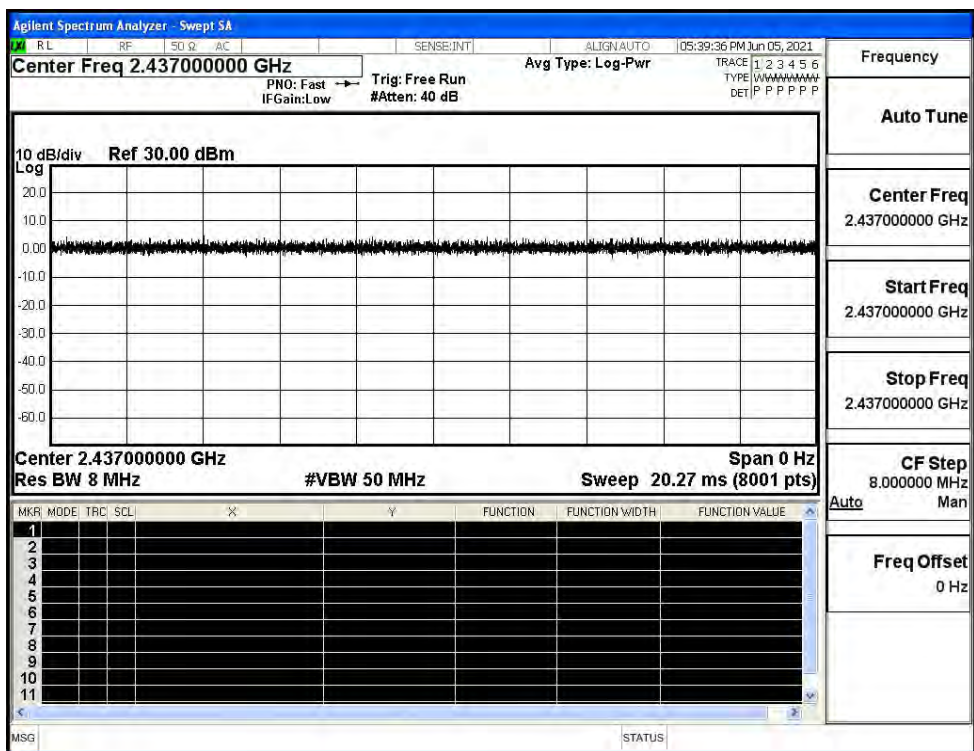
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



A.2 Maximum Conducted Output Power

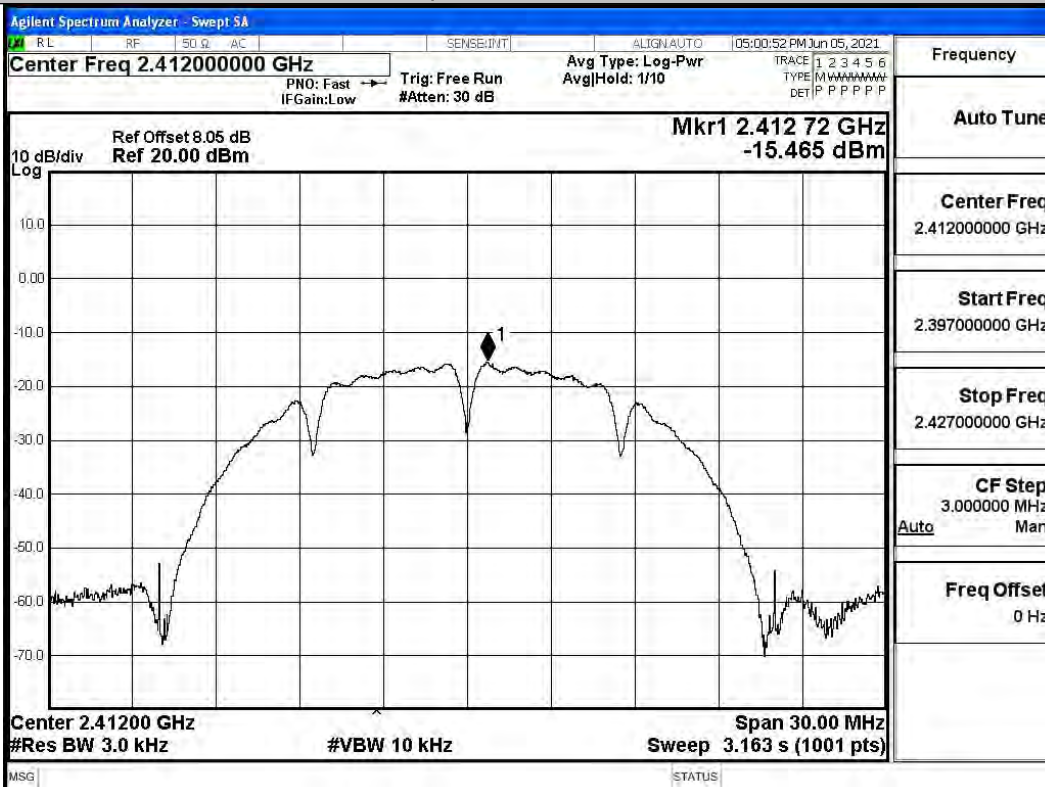
Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	17.16	30	PASS
	MCH	17.21	30	PASS
	HCH	16.99	30	PASS
11G	LCH	17.04	30	PASS
	MCH	17.78	30	PASS
	HCH	16.94	30	PASS
11N20SISO	LCH	17.17	30	PASS
	MCH	17.44	30	PASS
	HCH	17.64	30	PASS
11N40SISO	LCH	17.67	30	PASS
	MCH	17.57	30	PASS
	HCH	17.53	30	PASS

A.3 Maximum Power Spectral Density

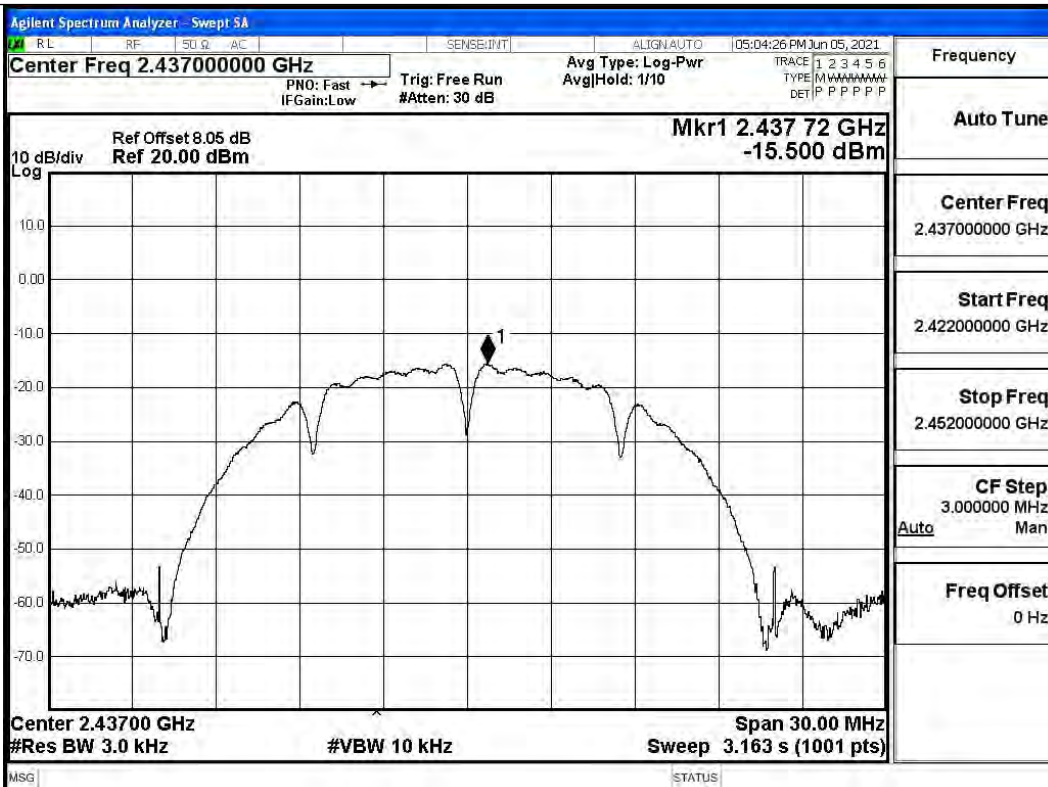
Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-15.465	8	PASS
	MCH	-15.500	8	PASS
	HCH	-15.738	8	PASS
11G	LCH	-19.353	8	PASS
	MCH	-18.909	8	PASS
	HCH	-19.300	8	PASS
11N20SISO	LCH	-17.800	8	PASS
	MCH	-18.495	8	PASS
	HCH	-18.114	8	PASS
11N40SISO	LCH	-19.839	8	PASS
	MCH	-16.502	8	PASS
	HCH	-18.725	8	PASS

Test Graphs

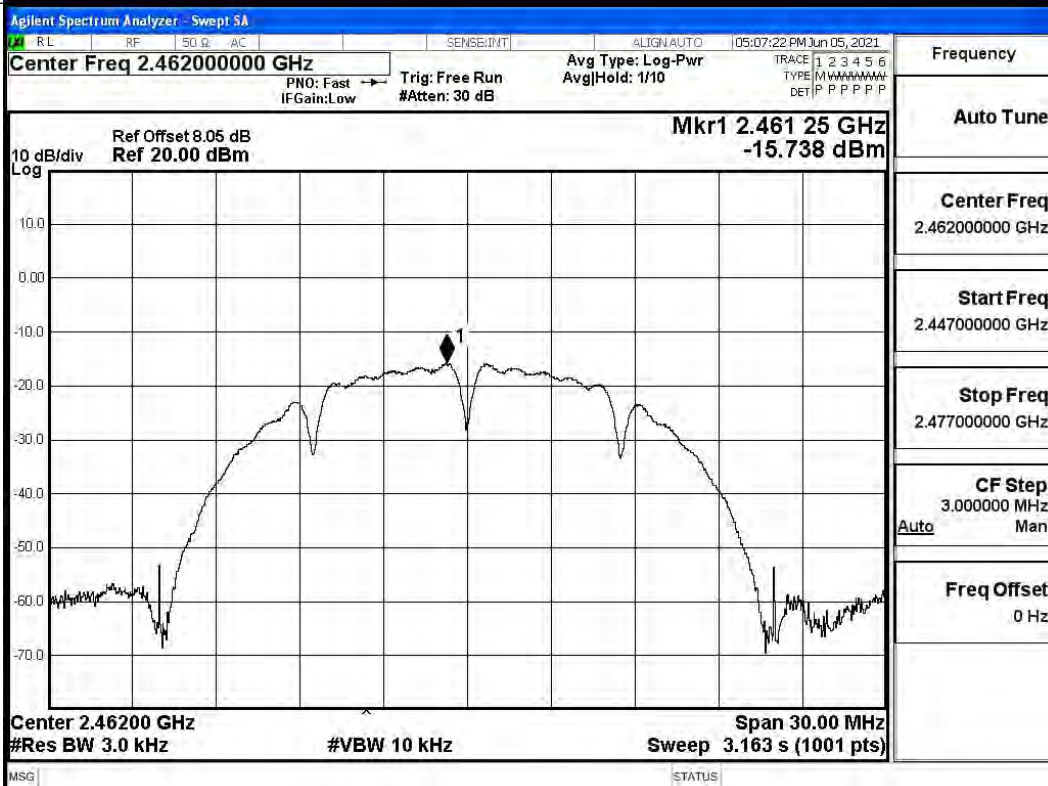
11B/LCH



11B/MCH



11B/HCH



Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE: P/T ALIGN: AUTO 05:11:03 PM Jun 05, 2021

Center Freq 2.41200000 GHz

PNO: Fast → Trig: Free Run Avg Type: Log-Pwr
IF Gain: Low #Atten: 30 dB AvgHld: 1/10

TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET P P P P P P

Frequency

Auto Tune

Center Freq
2.41200000 GHz

Start Freq
2.39700000 GHz

Stop Freq
2.42700000 GHz

CF Step
3.000000 MHz
Man

Freq Offset
0 Hz

10 dB/div
Log

Ref Offset 8.05 dB
Ref 20.00 dBm

Mkr1 2.406 03 GHz
-19.353 dBm

Center 2.41200 GHz
#Res BW 3.0 kHz

#VBW 10 kHz

Span 30.00 MHz
Sweep 3.163 s (1001 pts)

MSG STATUS

Agilent Spectrum Analyzer - Swept SA

RL RF 50 Ω AC SENSE UNIT ALIGN AUTO 05:14:16 PM Jun 05, 2021

Center Freq 2.43700000 GHz PNO: Fast Trig: Free Run Avg Type: Log-Pwr IF Gain: Low #Atten: 30 dB TYPE M DET P P P P P

Frequency Auto Tune

Mkr1 2.430 73 GHz -18.909 dBm

10 dB/div Ref Offset 8.05 dB Log Ref 20.00 dBm

Center Freq 2.43700000 GHz

Start Freq 2.422000000 GHz

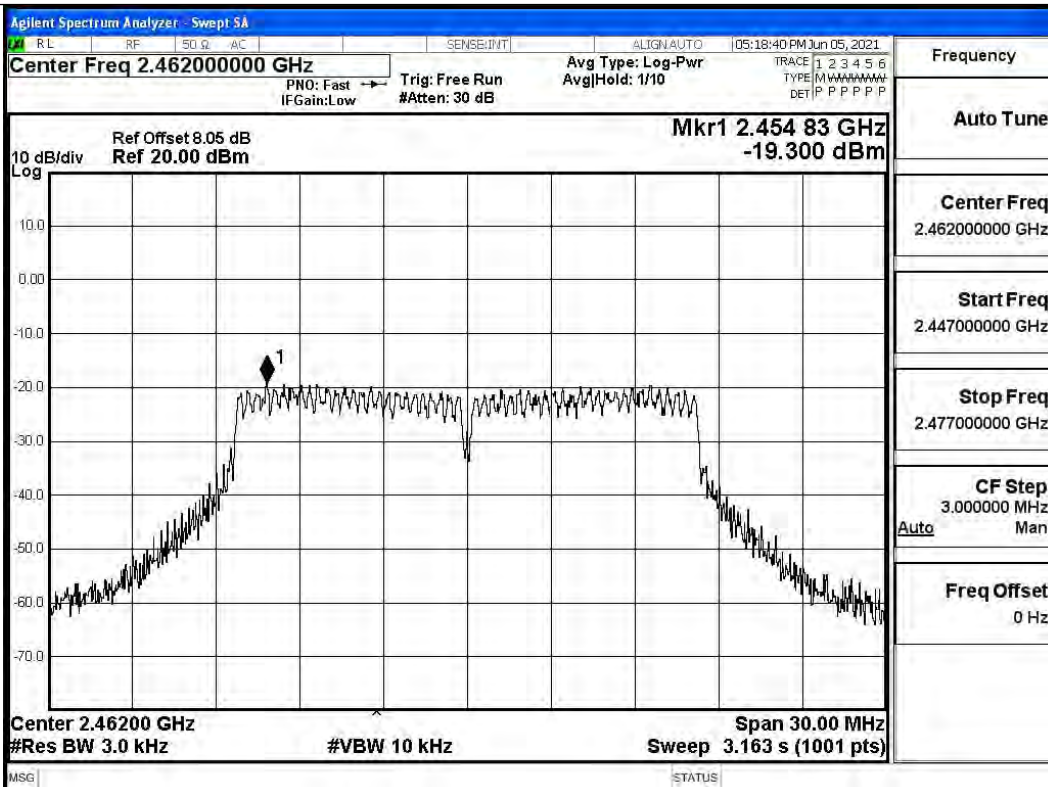
Stop Freq 2.452000000 GHz

CF Step 3.000000 MHz Auto Man

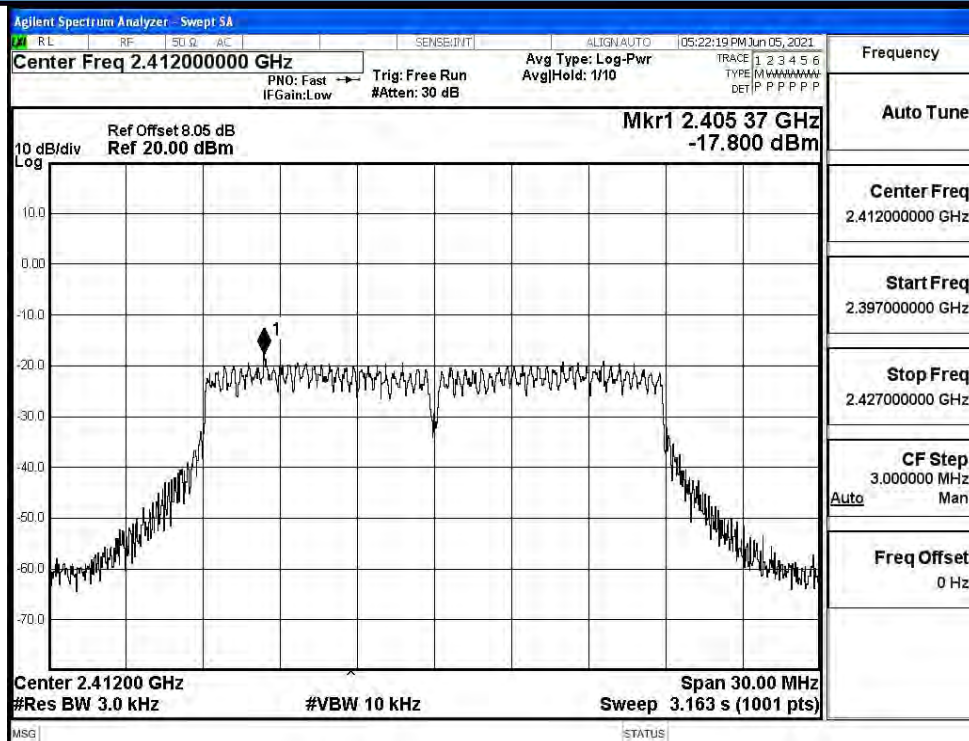
Freq Offset 0 Hz

Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 30.00 MHz Sweep 3.163 s (1001 pts)

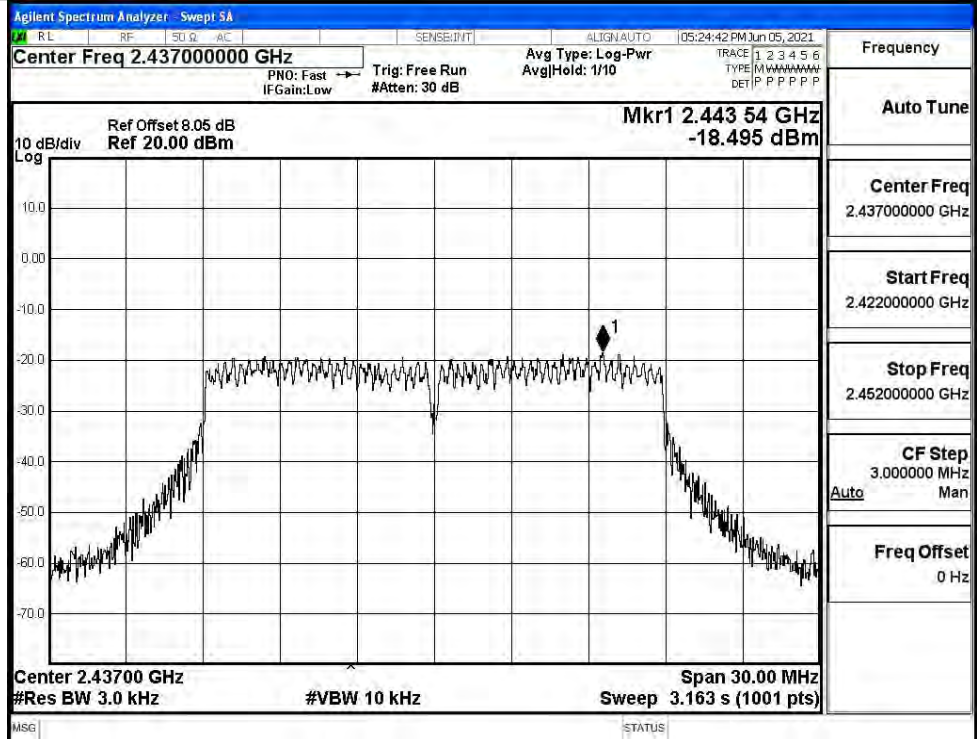
11G/HCH



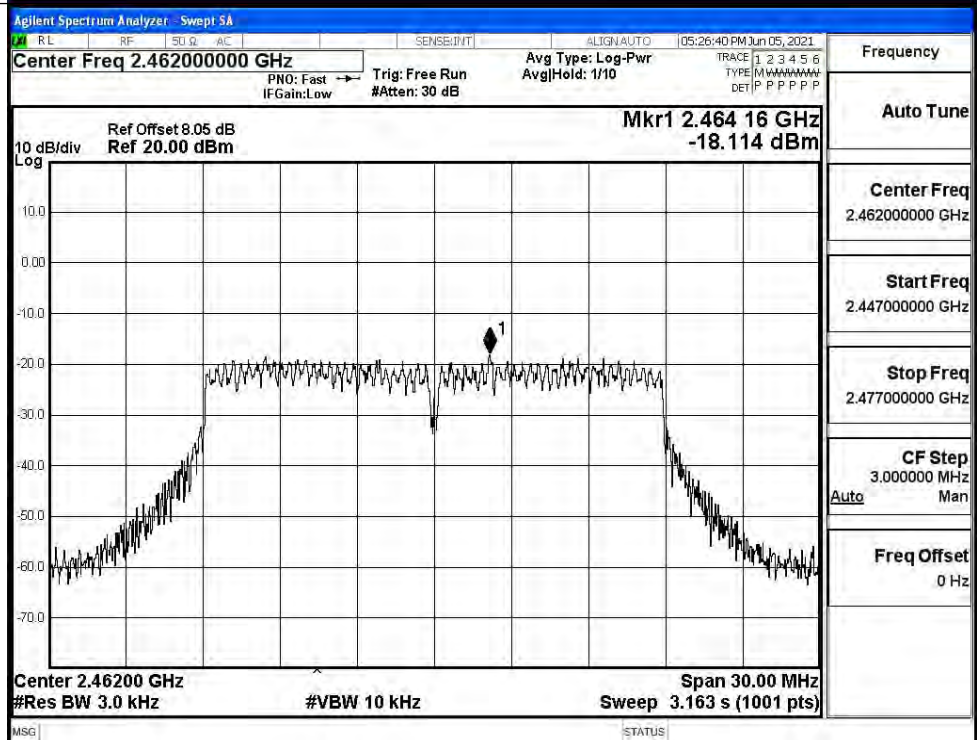
11N20SISO/LCH



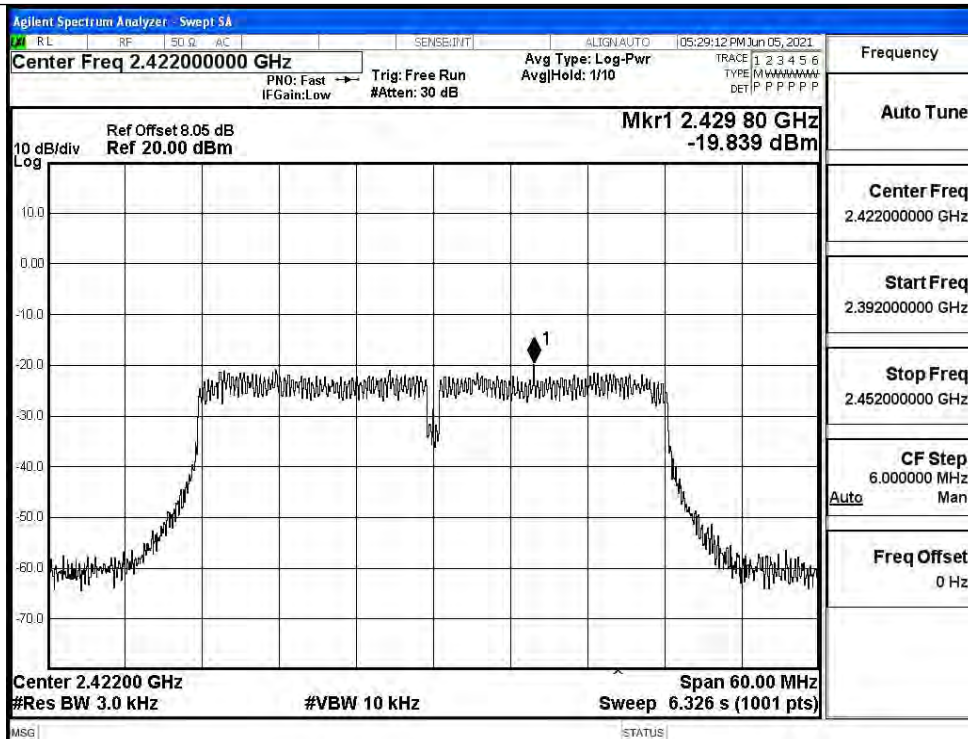
11N20SISO/MCH



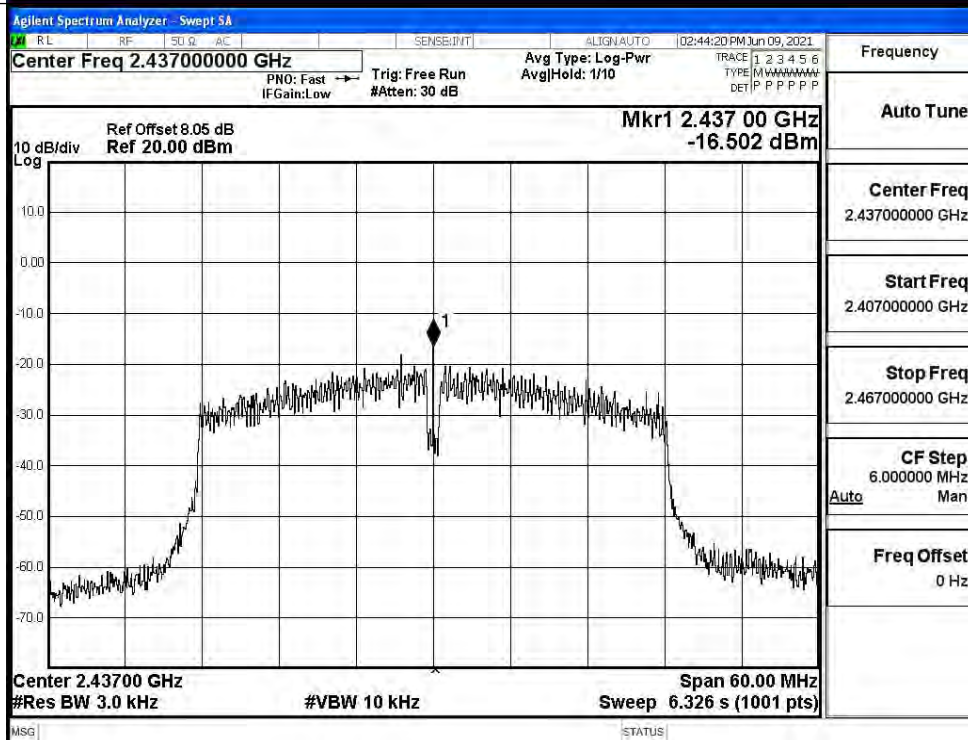
11N20SISO/HCH



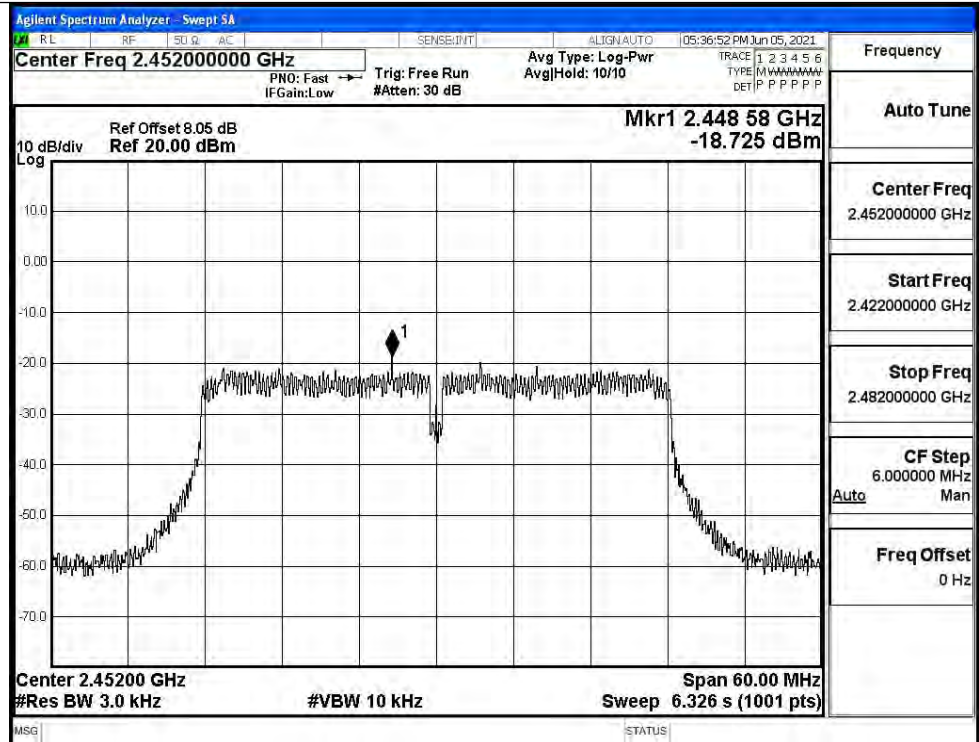
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

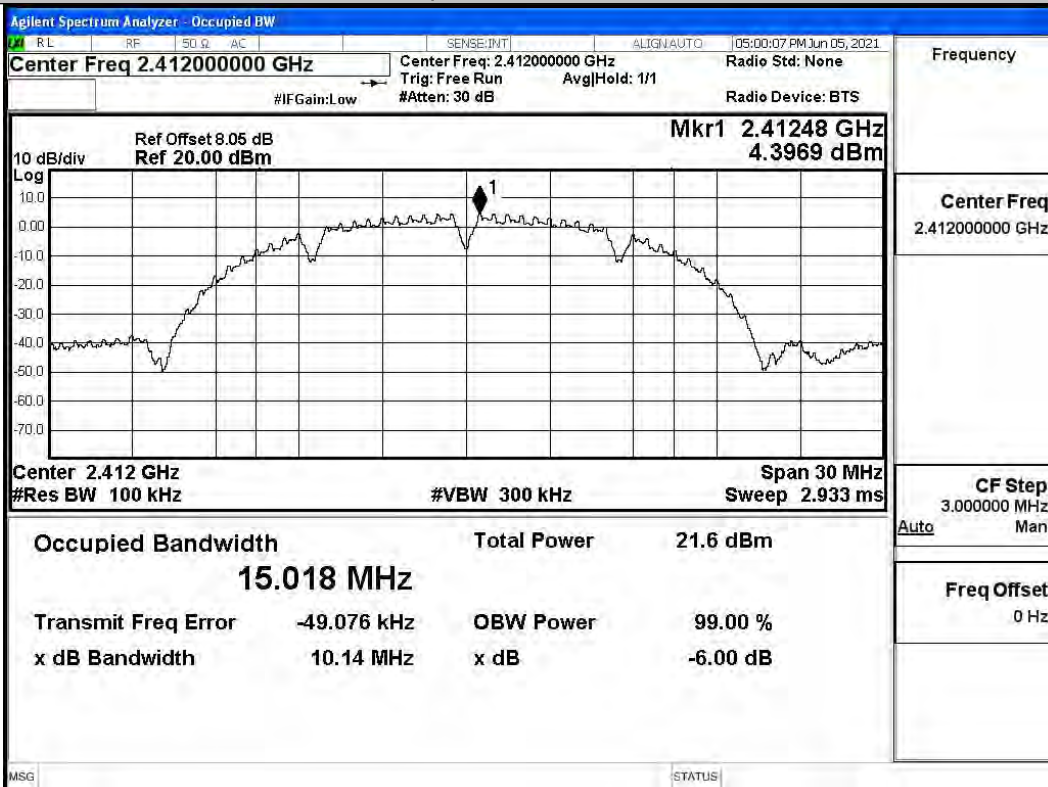


A.4 6dB Bandwidth

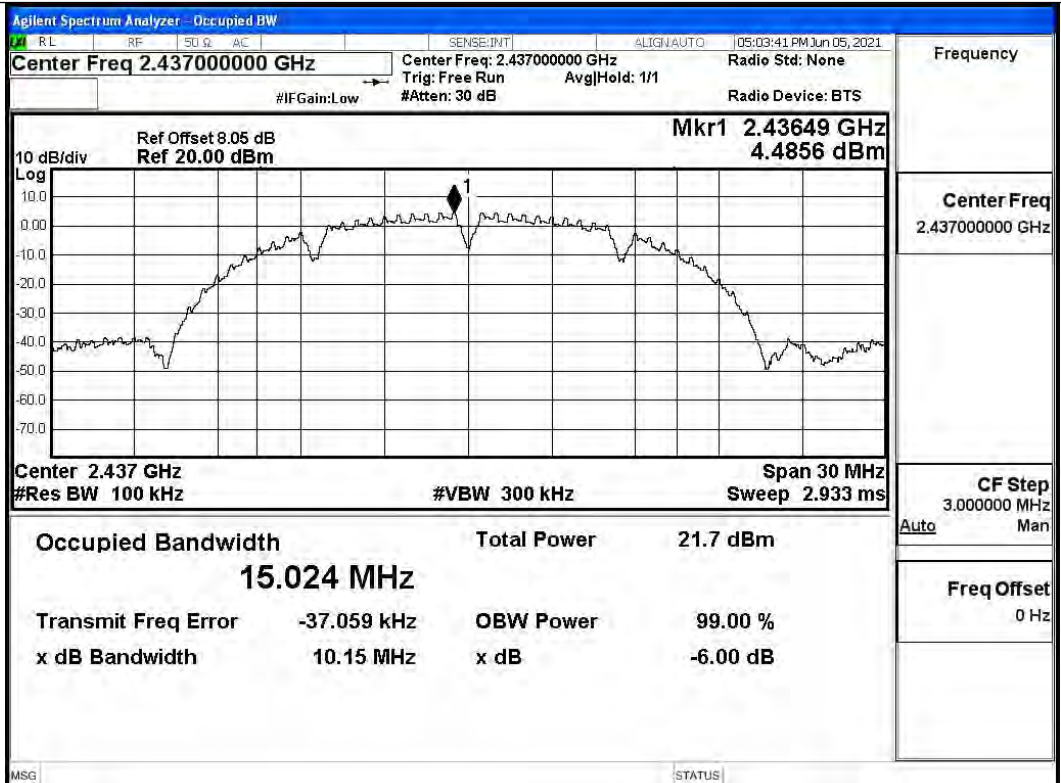
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.14	≥ 0.5	PASS
	MCH	10.15	≥ 0.5	PASS
	HCH	10.14	≥ 0.5	PASS
11G	LCH	16.58	≥ 0.5	PASS
	MCH	16.57	≥ 0.5	PASS
	HCH	16.51	≥ 0.5	PASS
11N20SISO	LCH	17.72	≥ 0.5	PASS
	MCH	17.71	≥ 0.5	PASS
	HCH	17.70	≥ 0.5	PASS
11N40SISO	LCH	36.51	≥ 0.5	PASS
	MCH	36.52	≥ 0.5	PASS
	HCH	36.53	≥ 0.5	PASS

Test Graphs

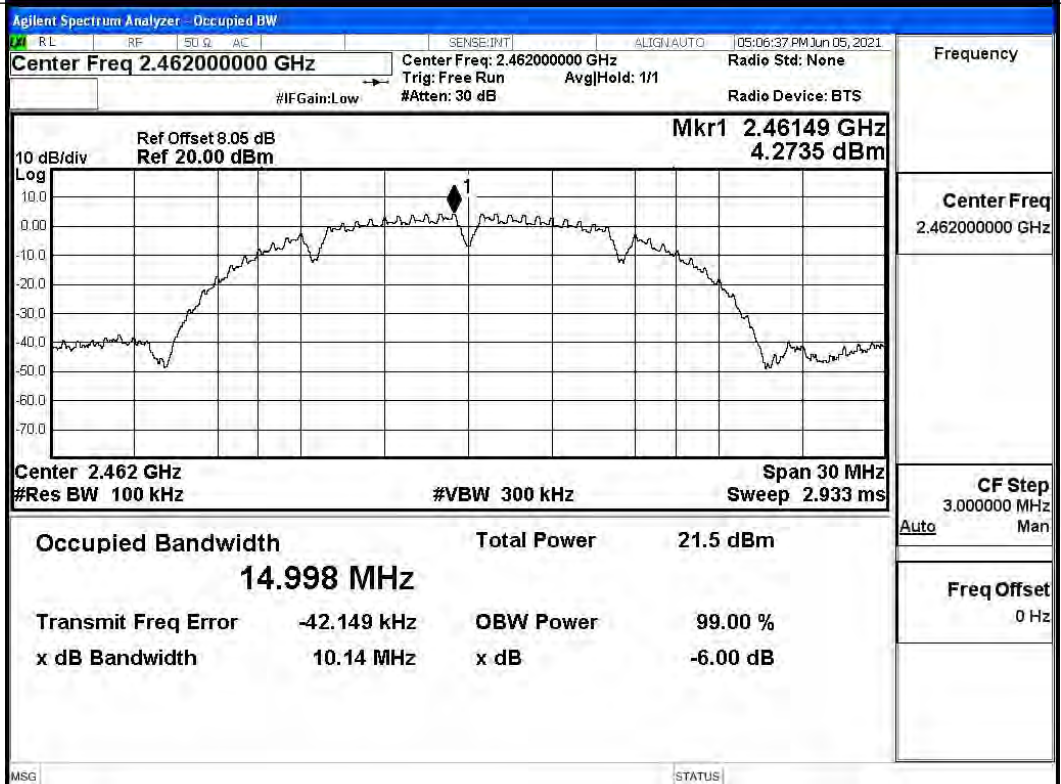
11B/LCH



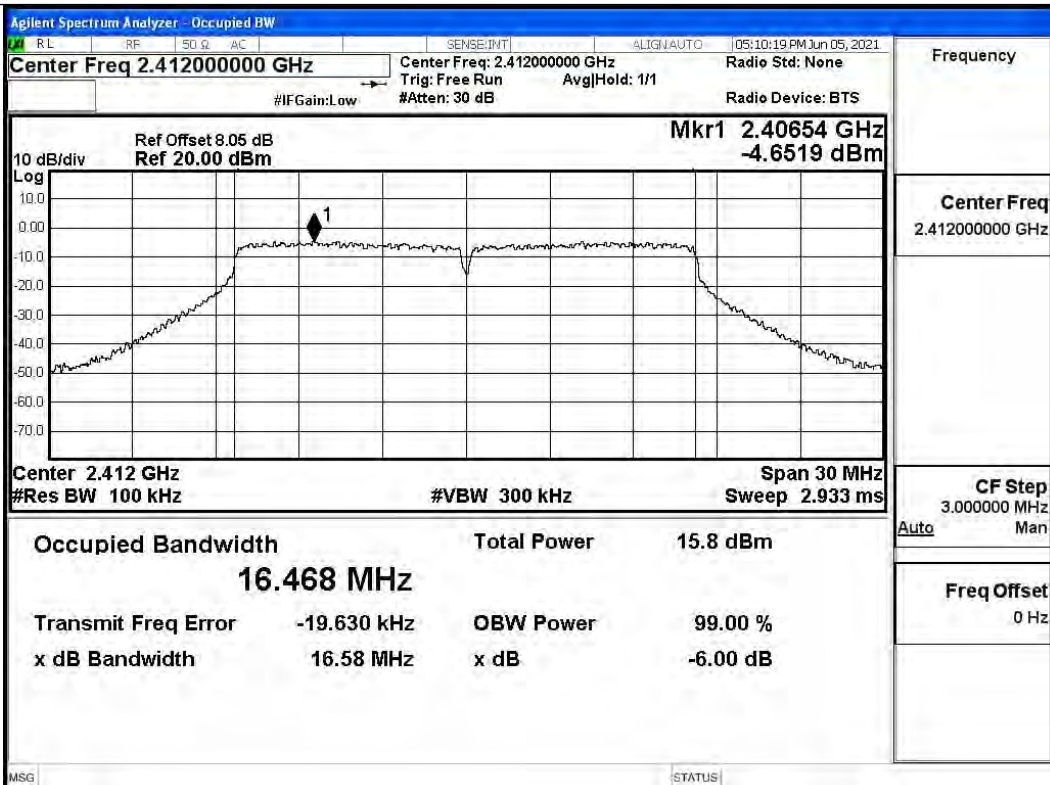
11B/MCH



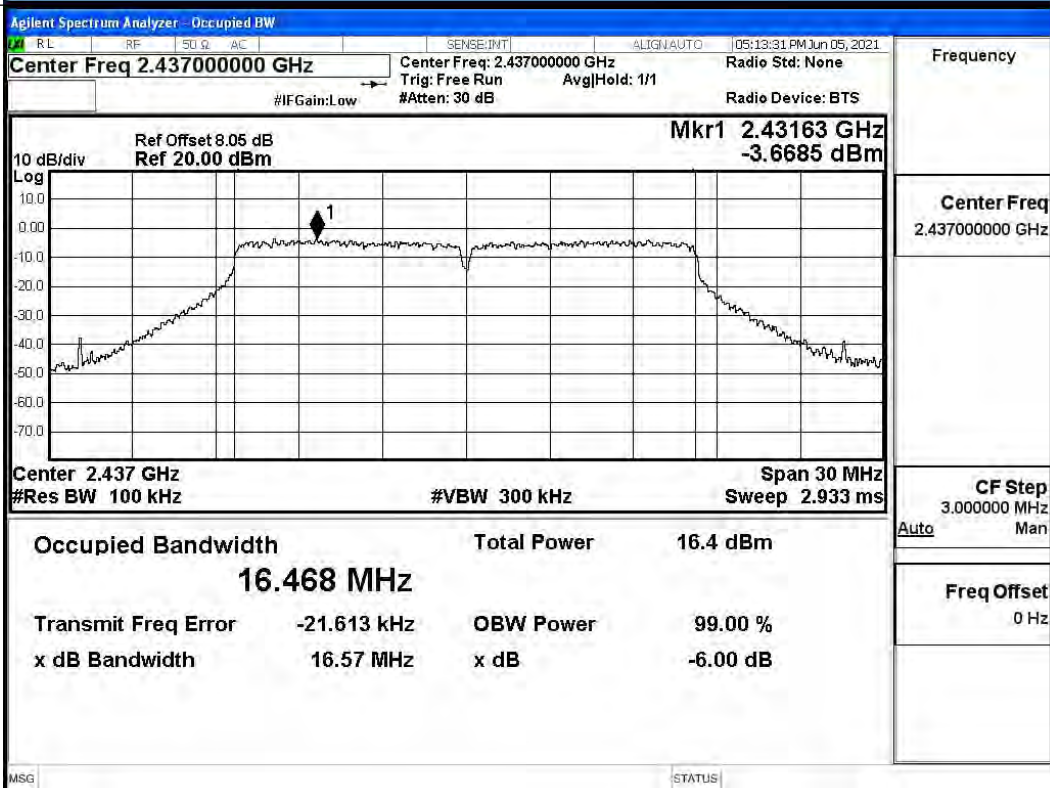
11B/HCH



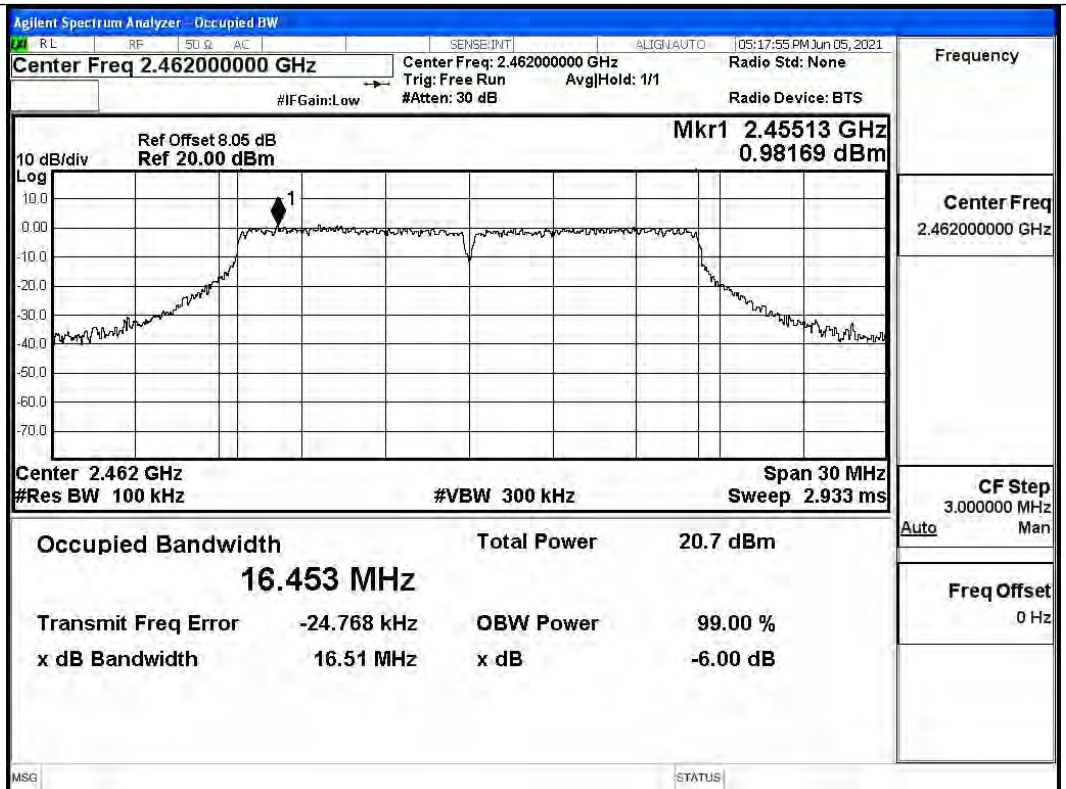
11G/LCH



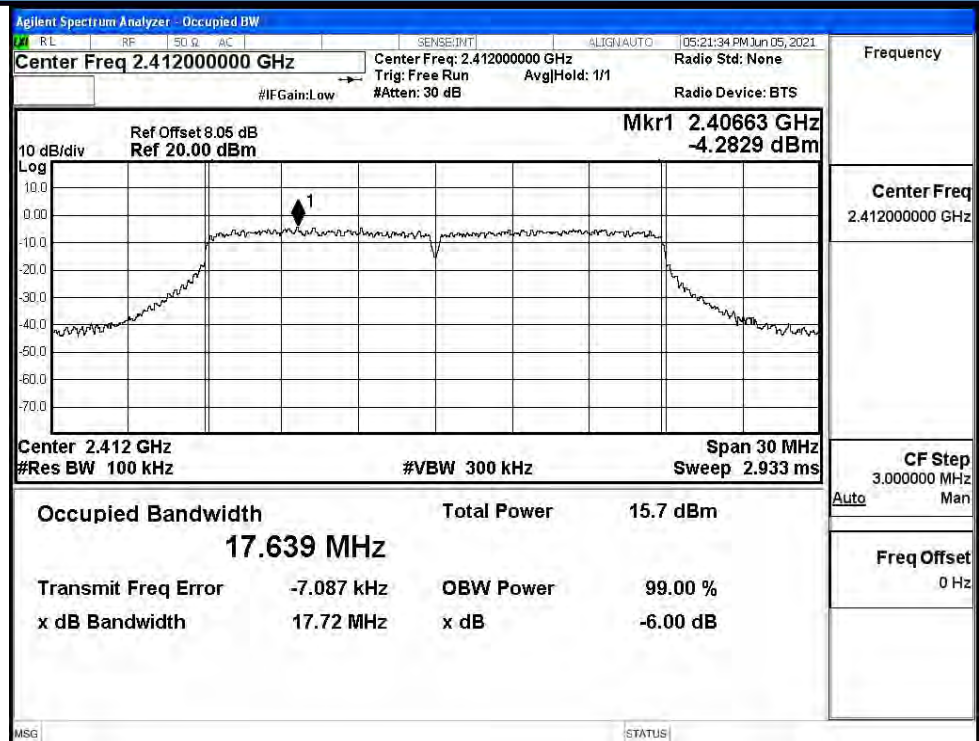
11G/MCH



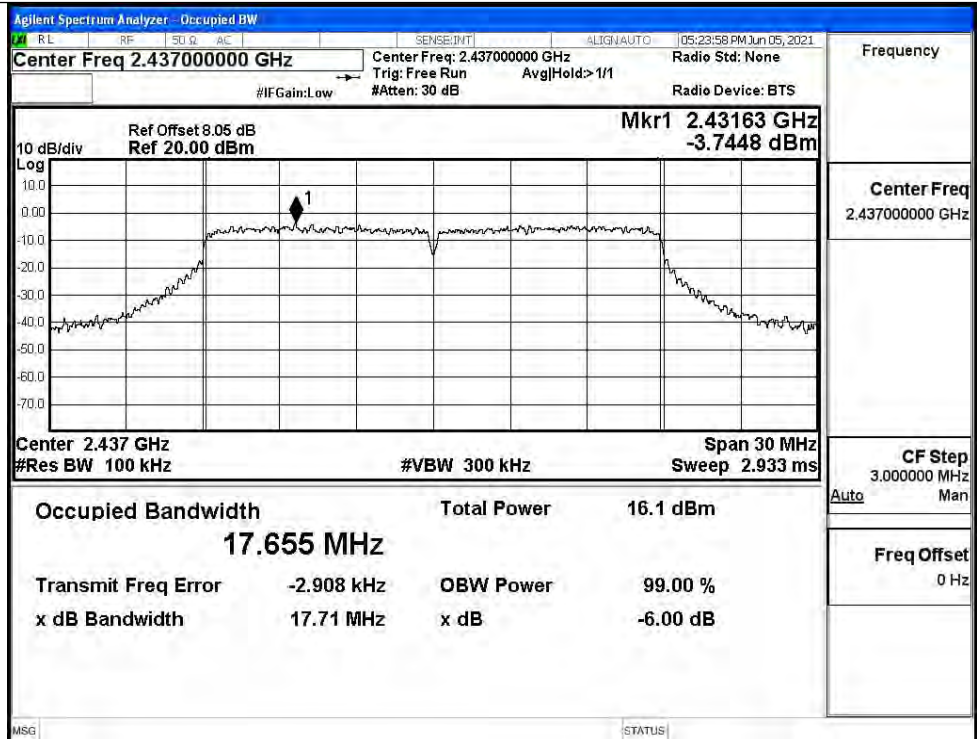
11G/HCH



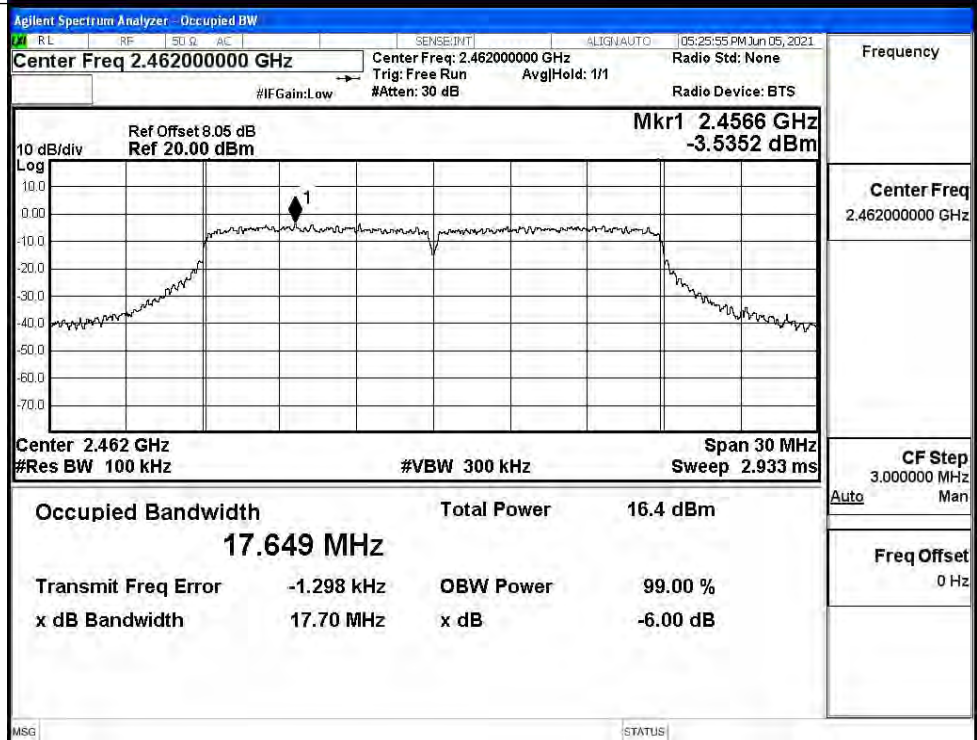
11N20SISO/LCH



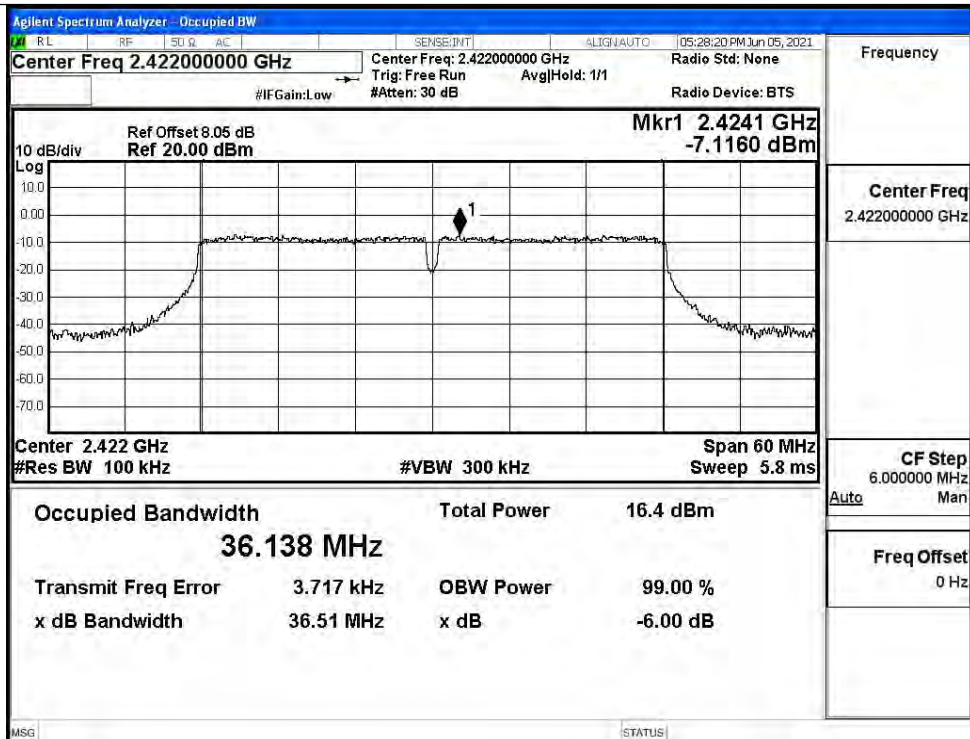
11N20SISO/MCH



11N20SISO/HCH



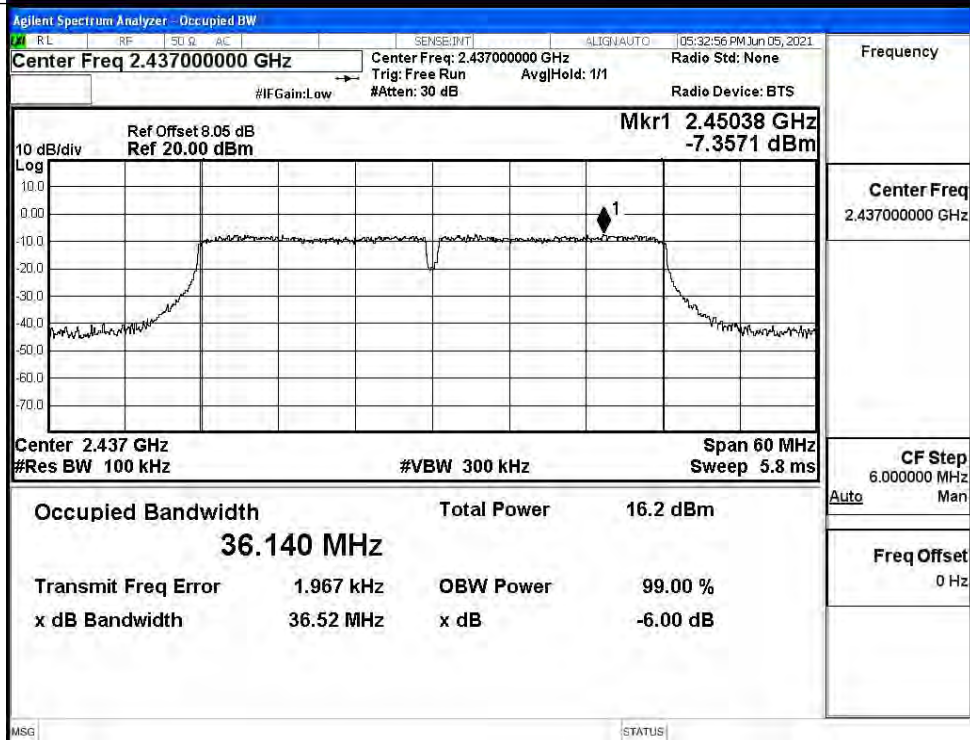
11N40SISO/LCH



Frequency

Center Freq
2.422000000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

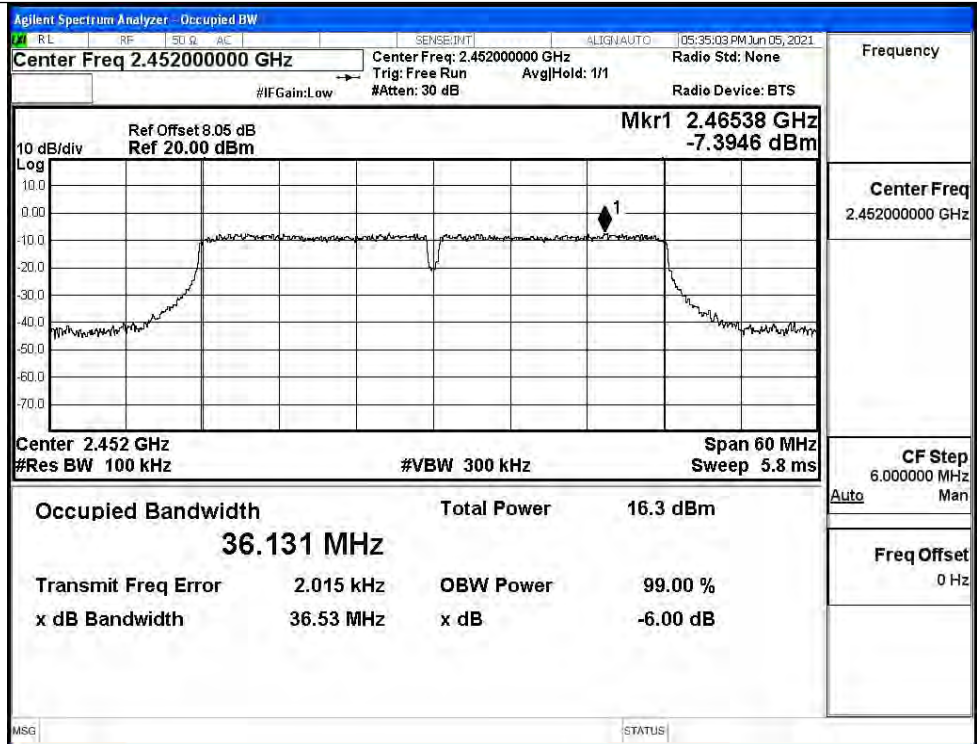
11N40SISO/MCH



Frequency

Center Freq
2.437000000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

11N40SISO/HCH

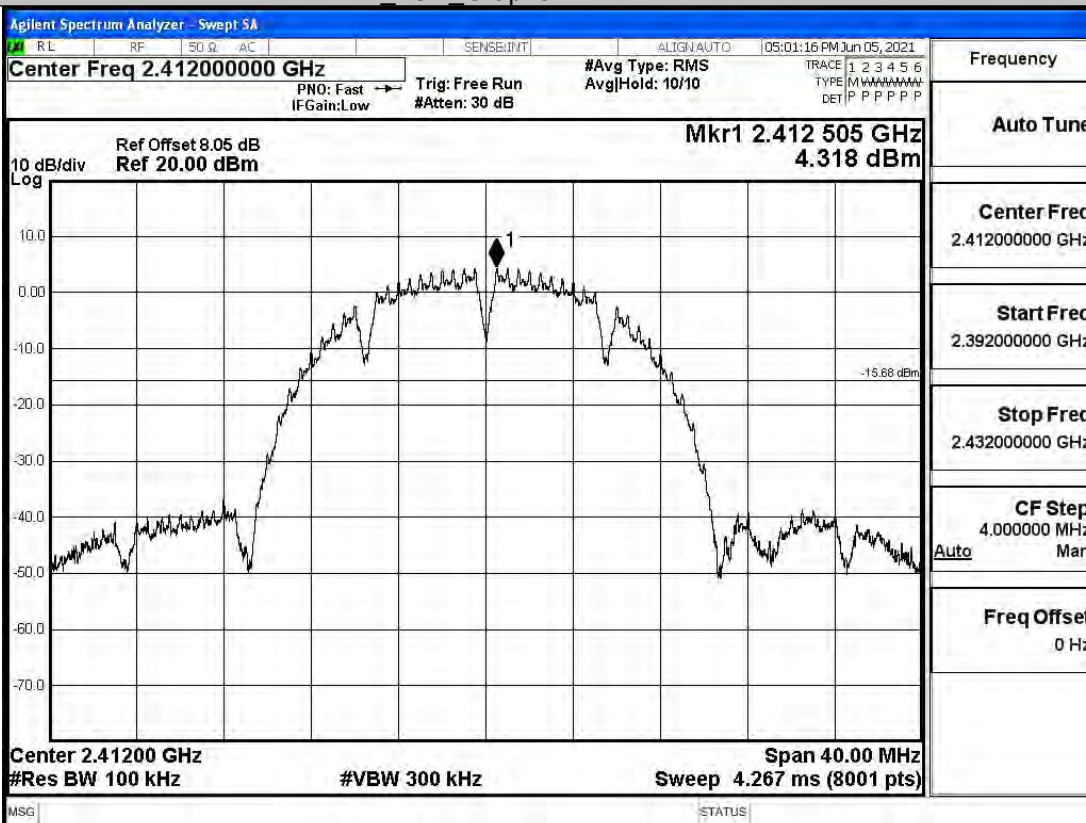


A.5 RF Conducted Spurious Emissions

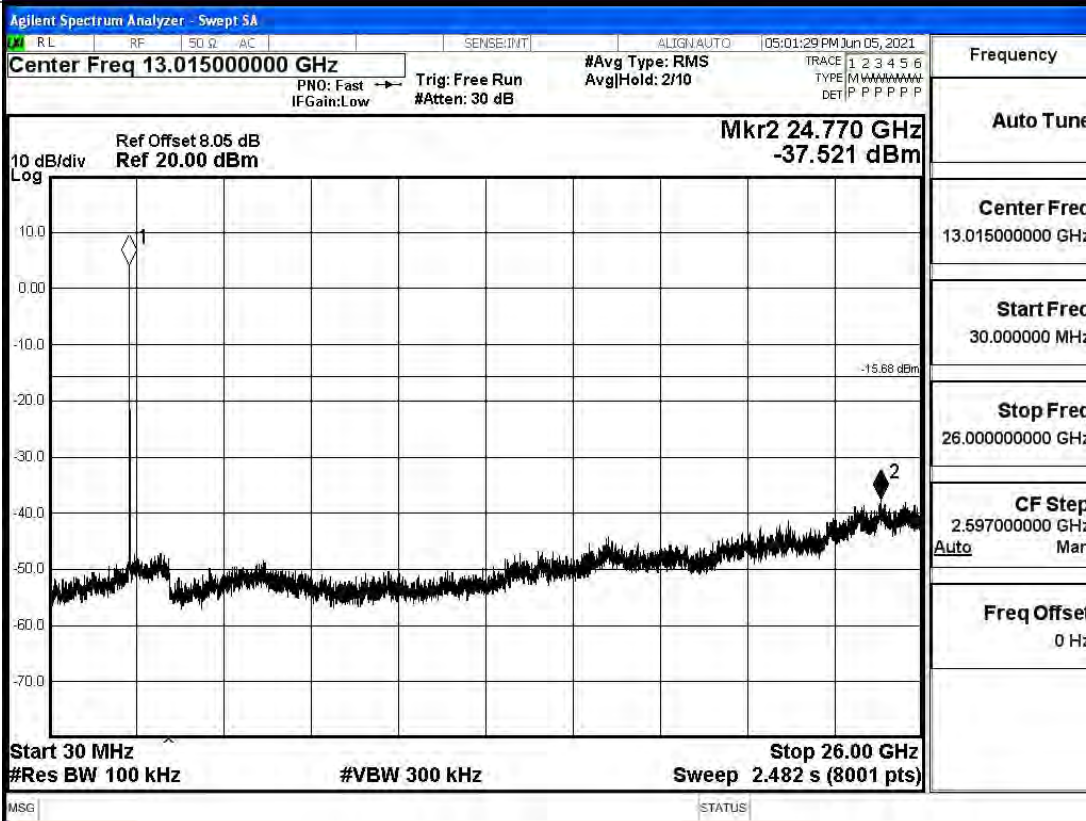
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.318	-37.521	-15.682	PASS
	MCH	4.347	-37.790	-15.653	PASS
	HCH	4.098	-37.876	-15.902	PASS
11G	LCH	-5.053	-38.198	-25.053	PASS
	MCH	-9.797	-36.946	-29.797	PASS
	HCH	-4.81	-36.801	-24.810	PASS
11N20 SISO	LCH	1.677	-38.474	-18.323	PASS
	MCH	-4.335	-38.435	-24.335	PASS
	HCH	-4.221	-37.495	-24.221	PASS
11N40 SISO	LCH	-7.505	-37.529	-27.505	PASS
	MCH	-7.45	-38.521	-27.450	PASS
	HCH	-7.586	-37.947	-27.586	PASS

11B LCH Graphs

Pref/11B/LCH

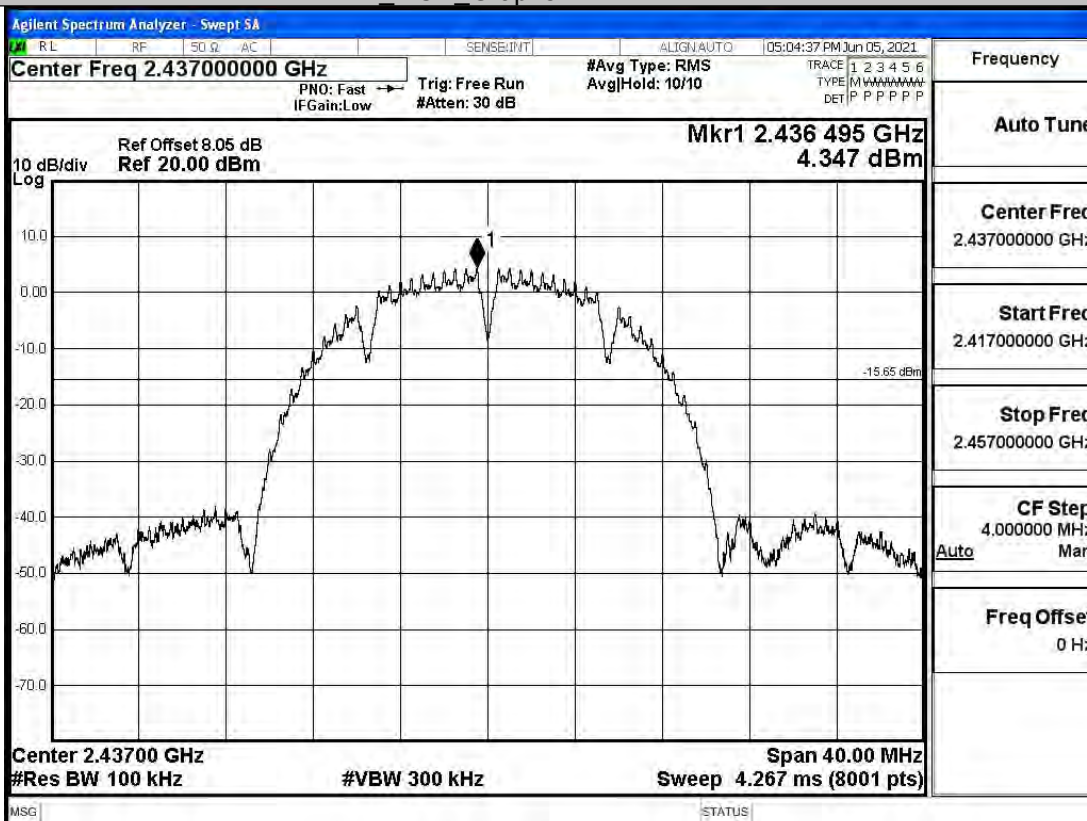


Puw/11B/LCH

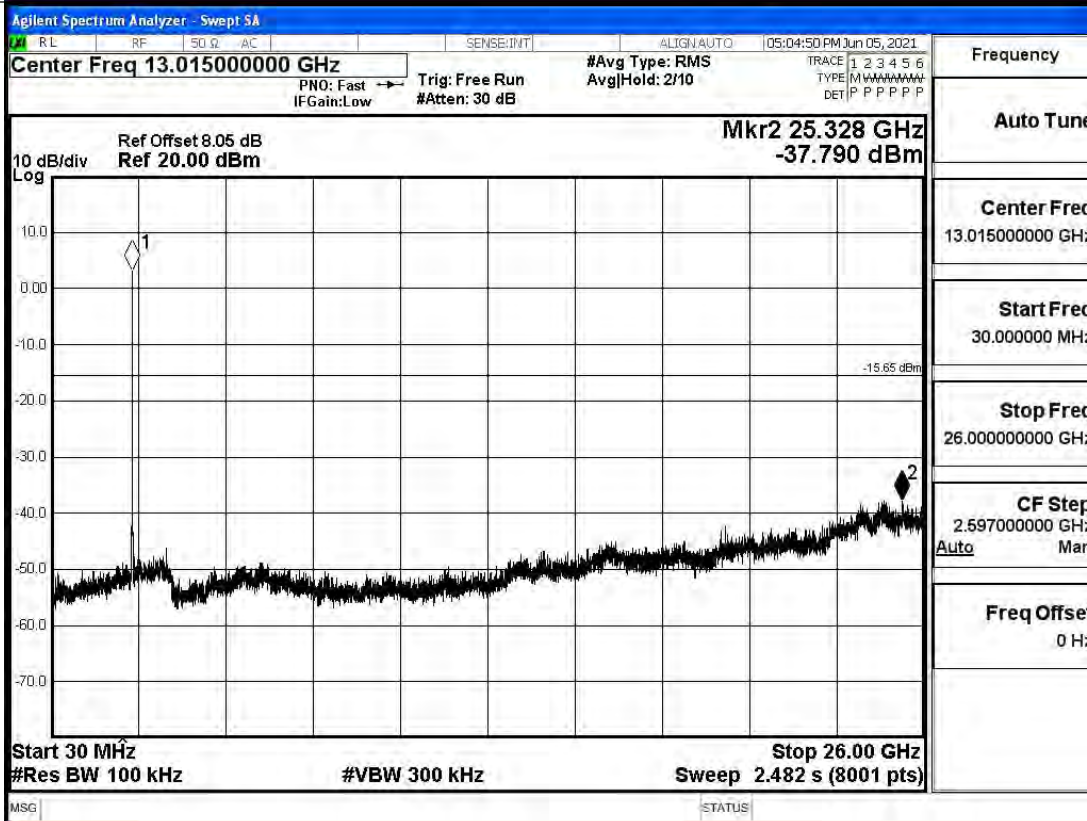


11B MCH_Graphs

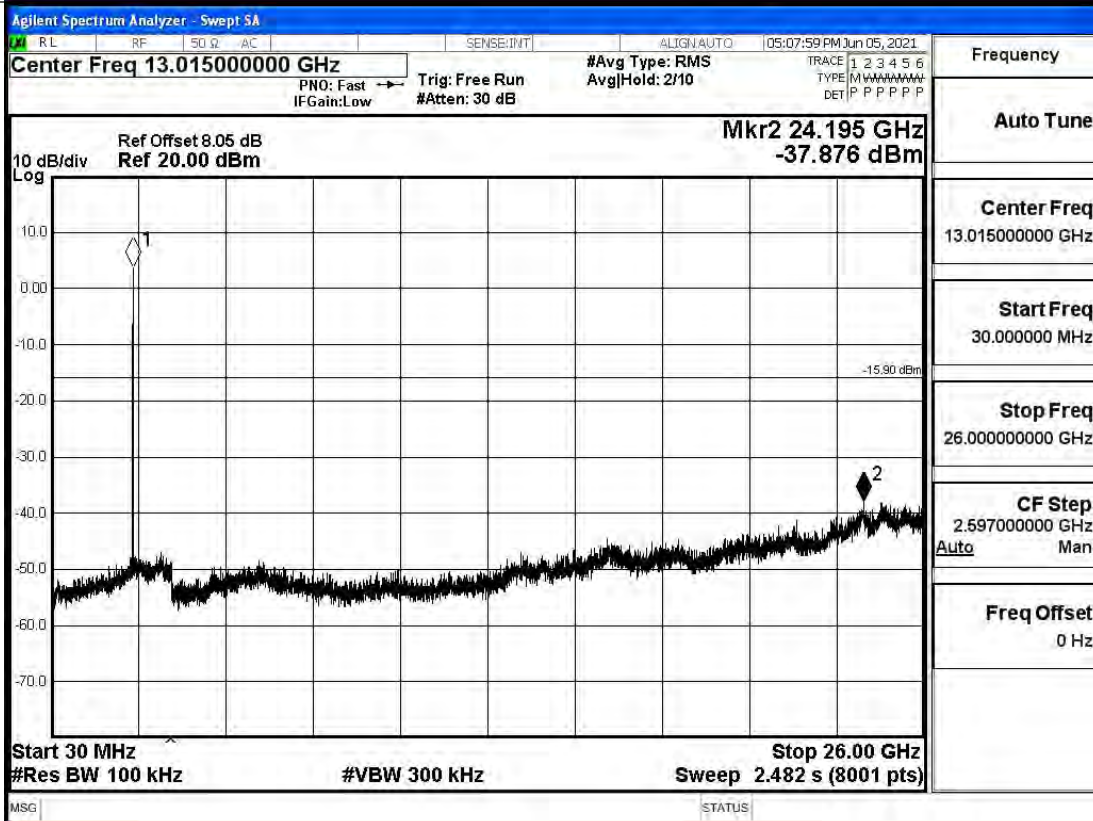
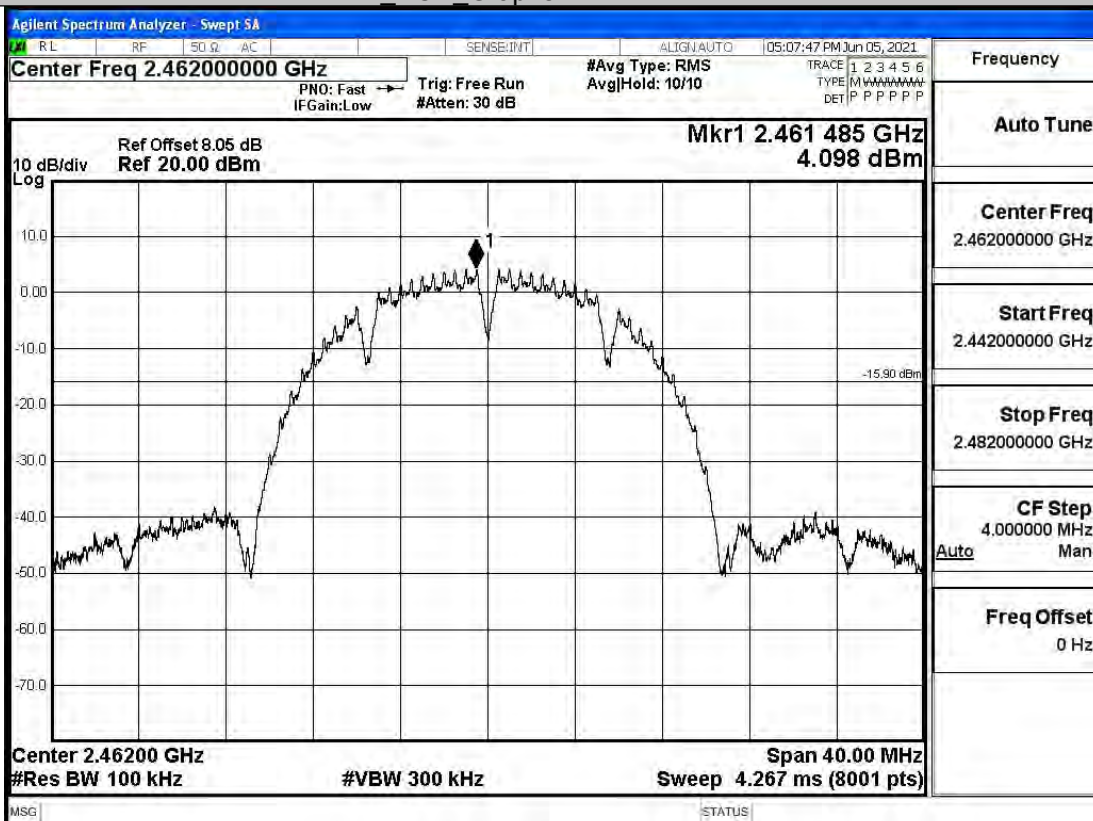
Pref/11B/MCH



Puw/11B/MCH

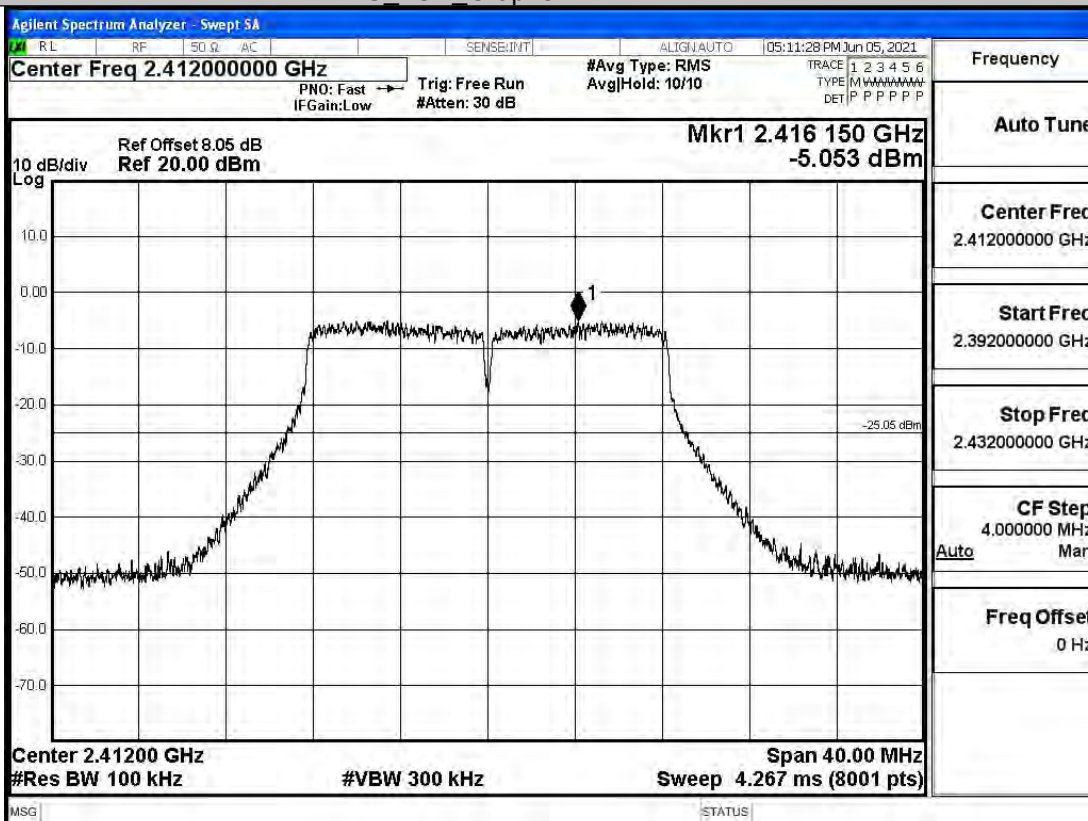


11B_HCH_Graphs

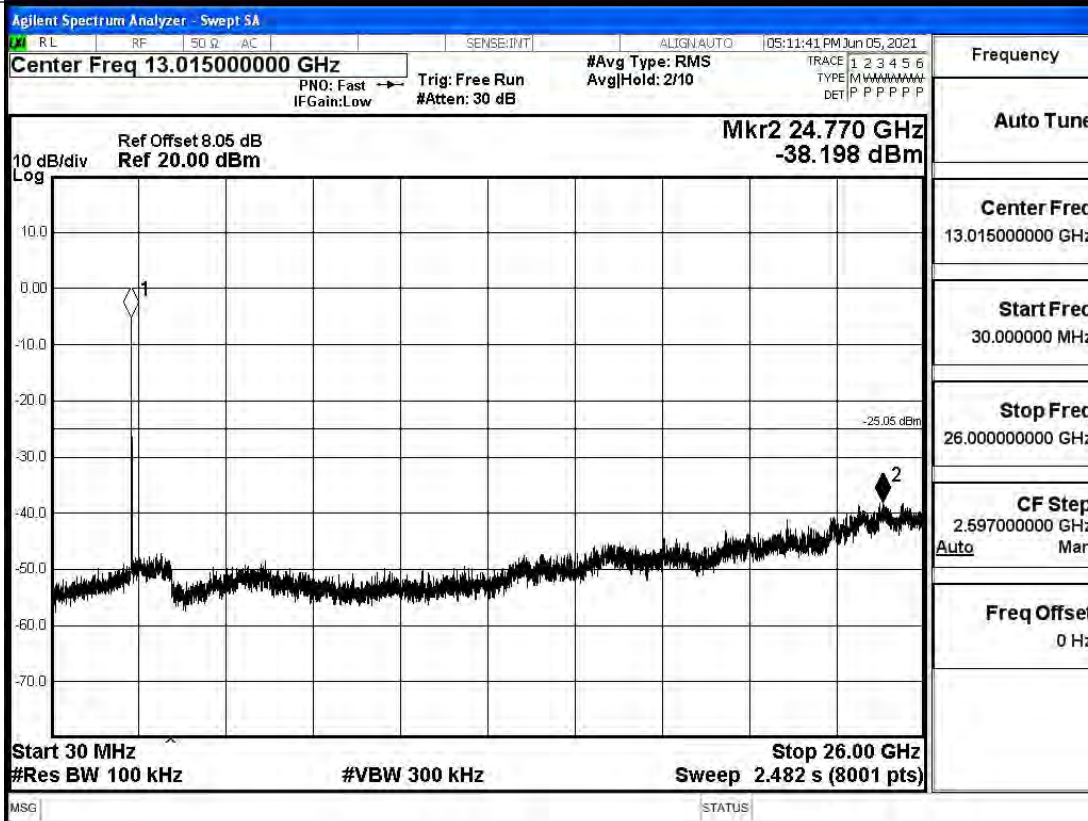


11G LCH Graphs

Pref/11G/LCH

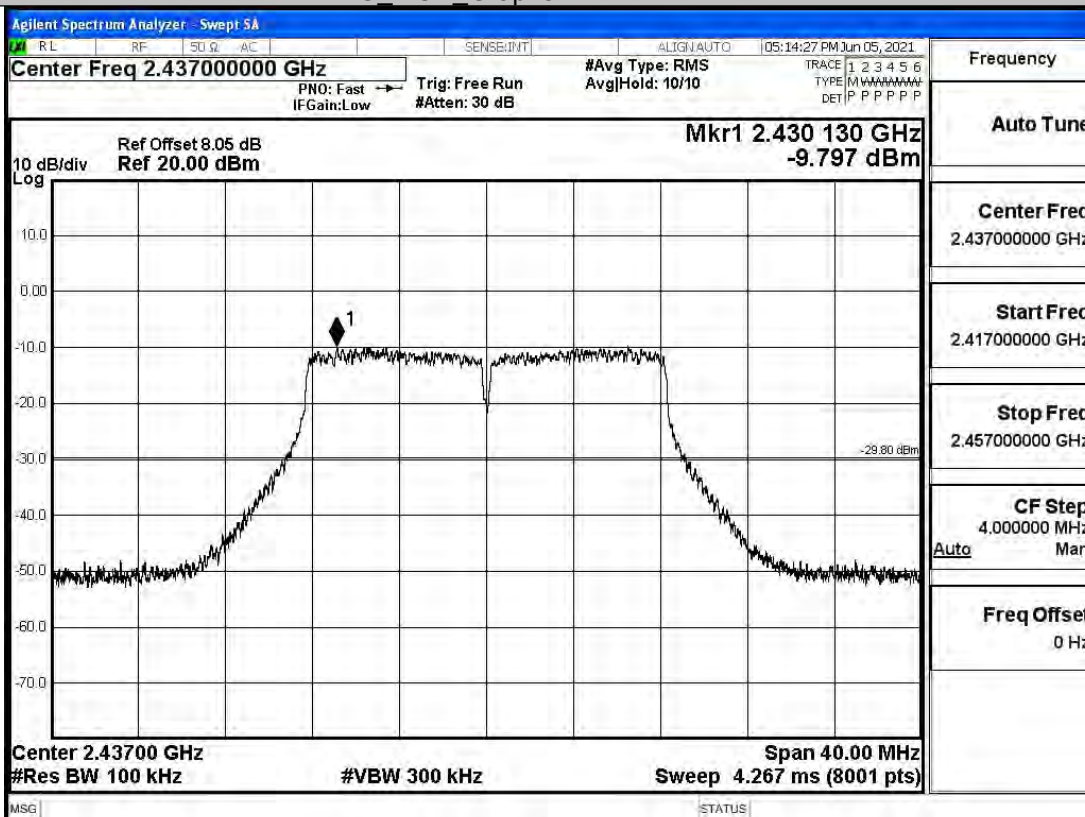


Puw/11G/LCH

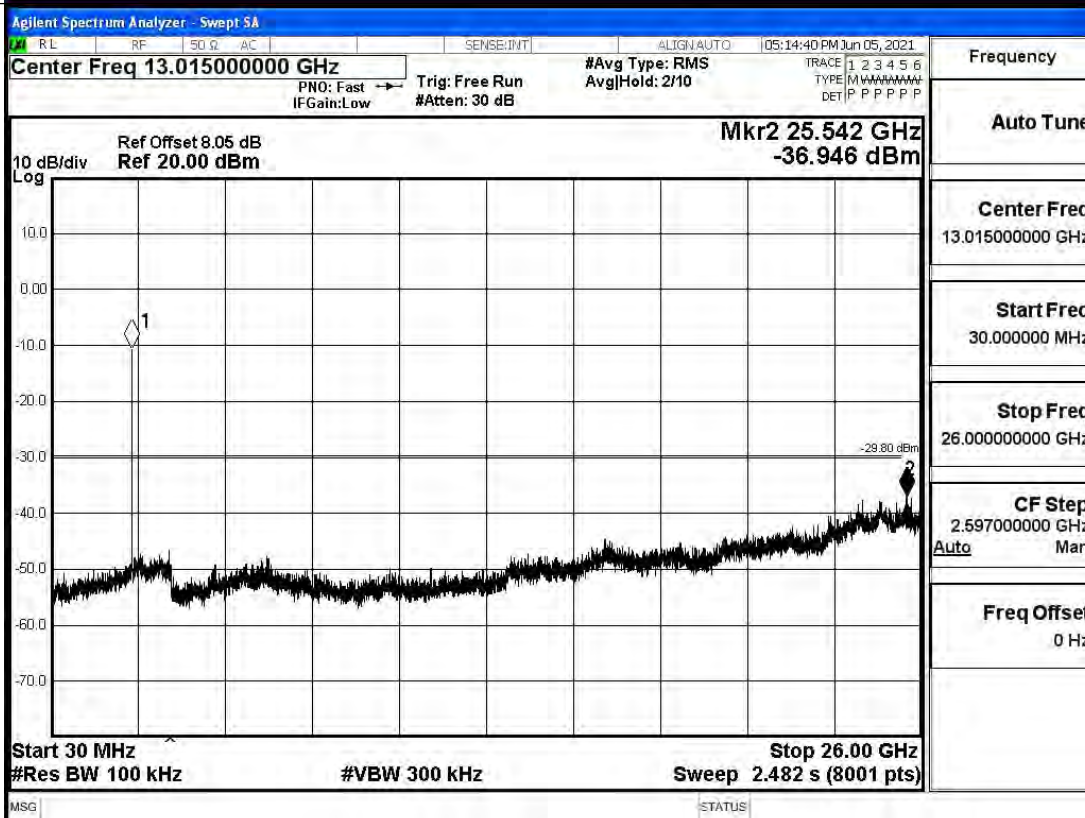


11G MCH Graphs

Pref/11G/MCH

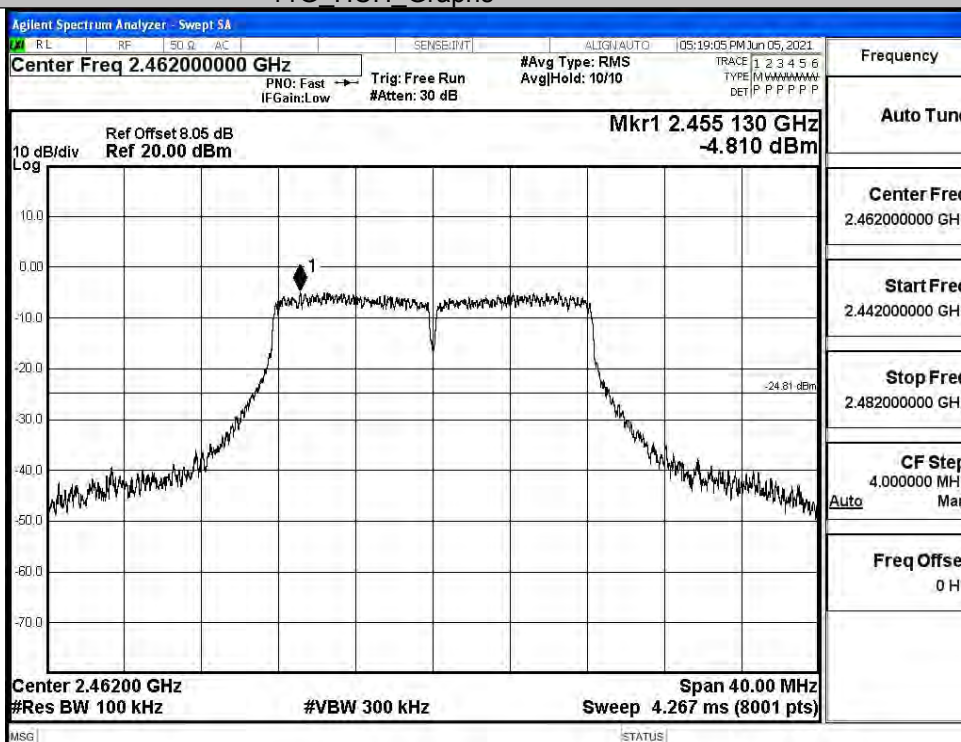


Puw/11G/MCH

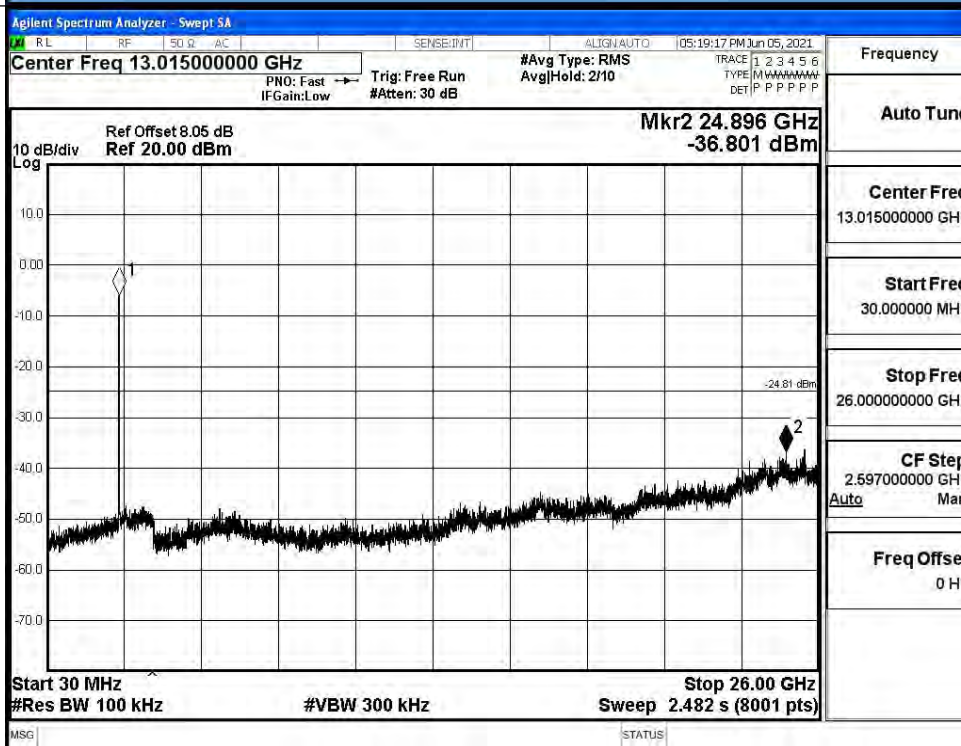


11G HCH Graphs

Pref/11G/HCH

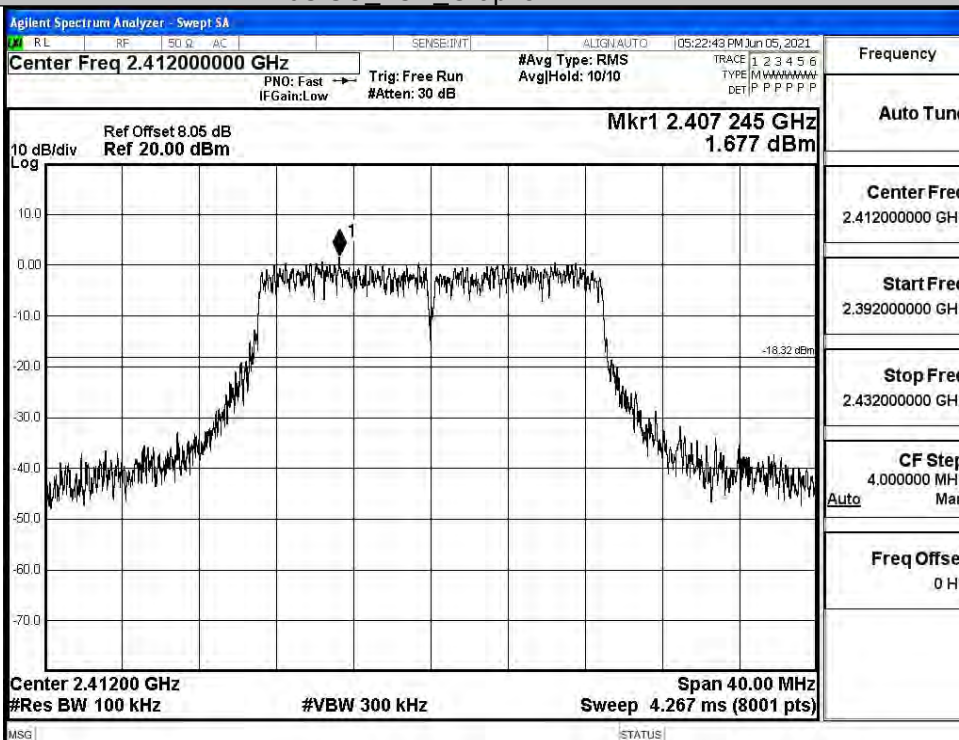


Puw/11G/HCH

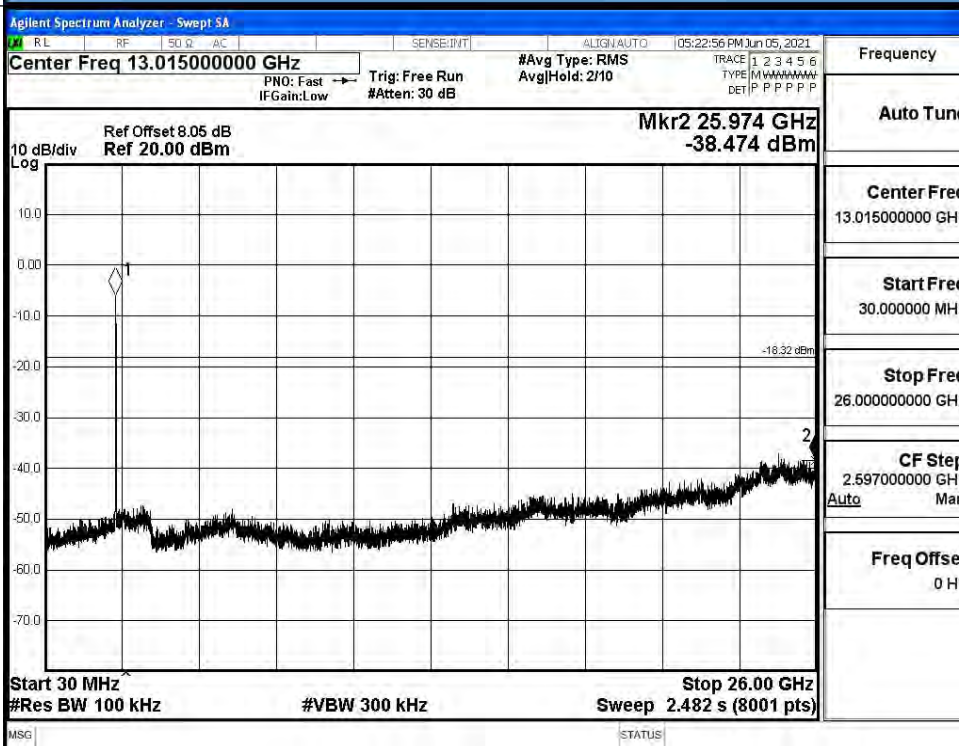


11N20ISO LCH Graphs

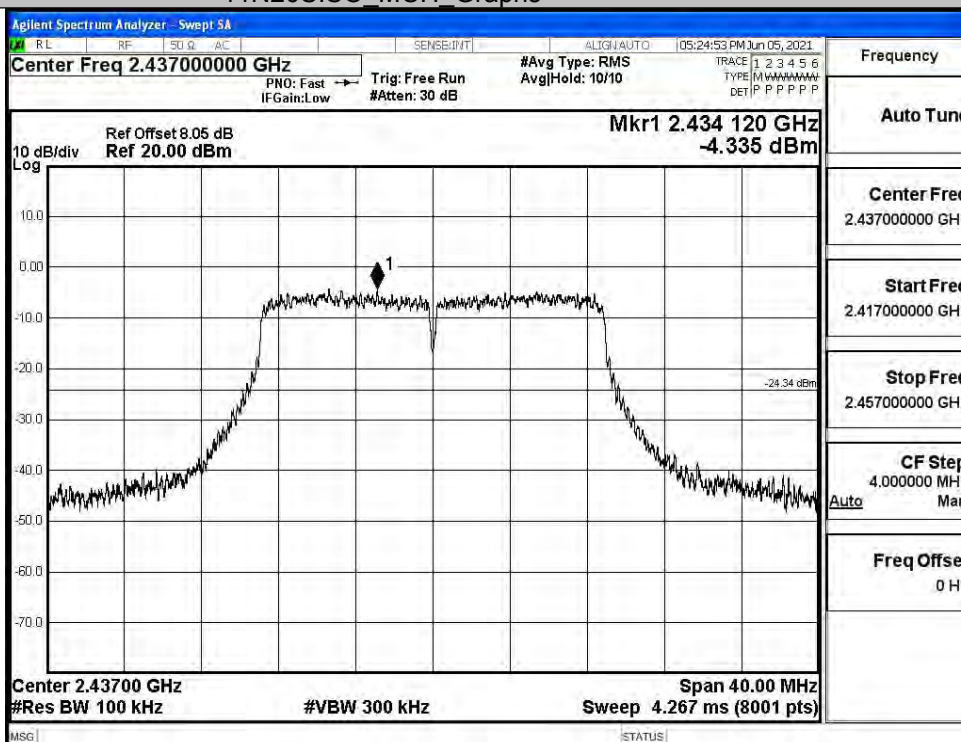
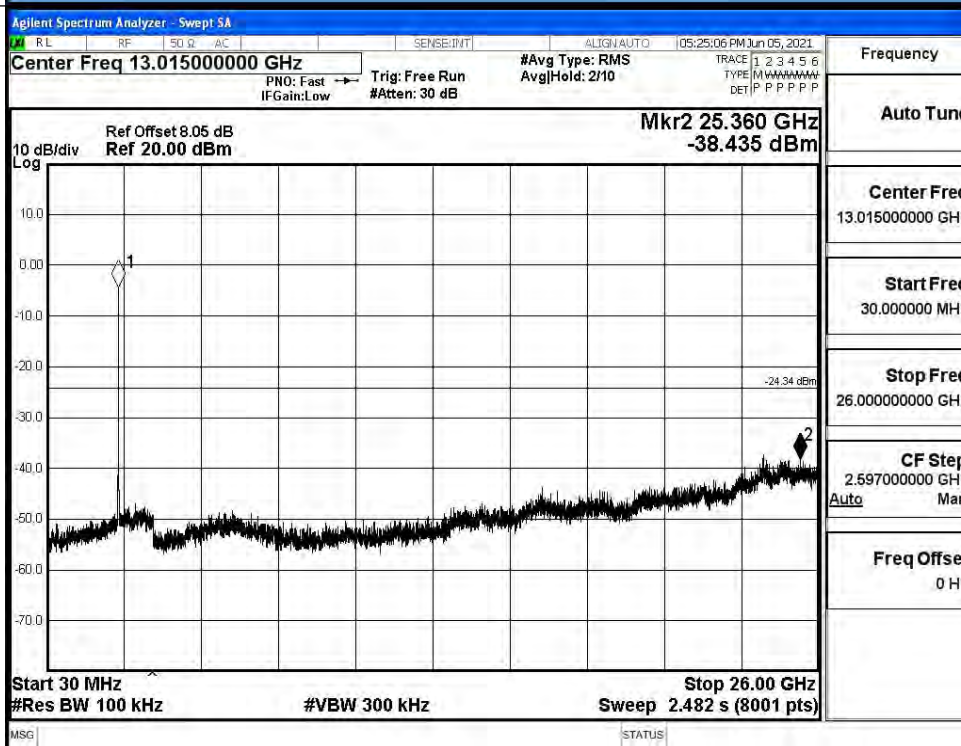
Pref/11N20SIS
O/LCH



Puw/11N20
SISO/LCH

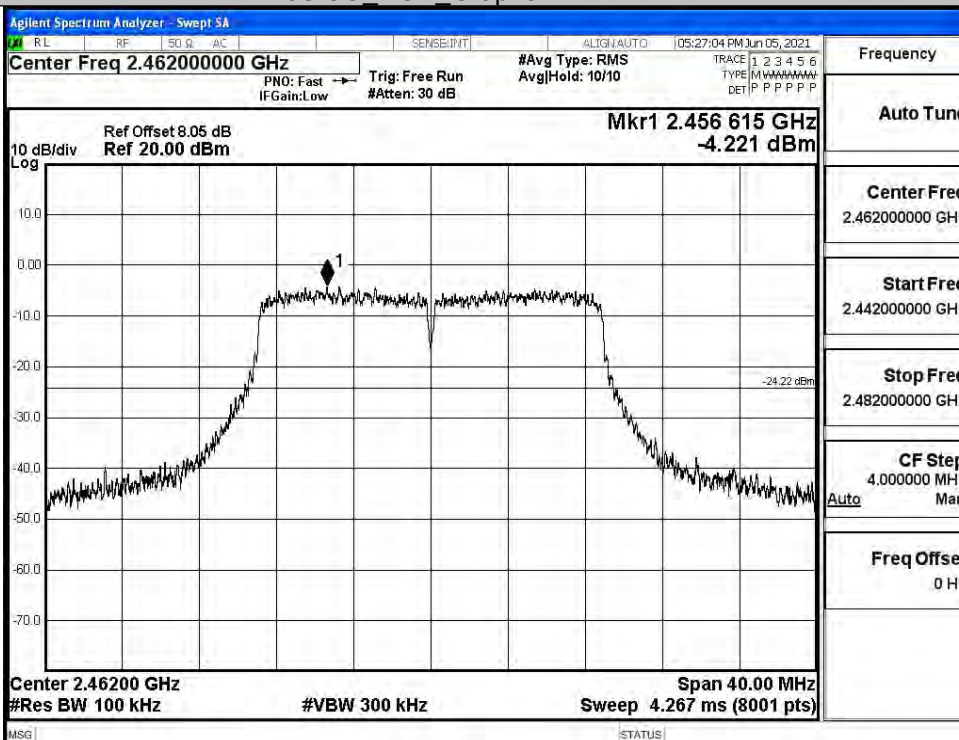


11N20SISO MCH_Graphs

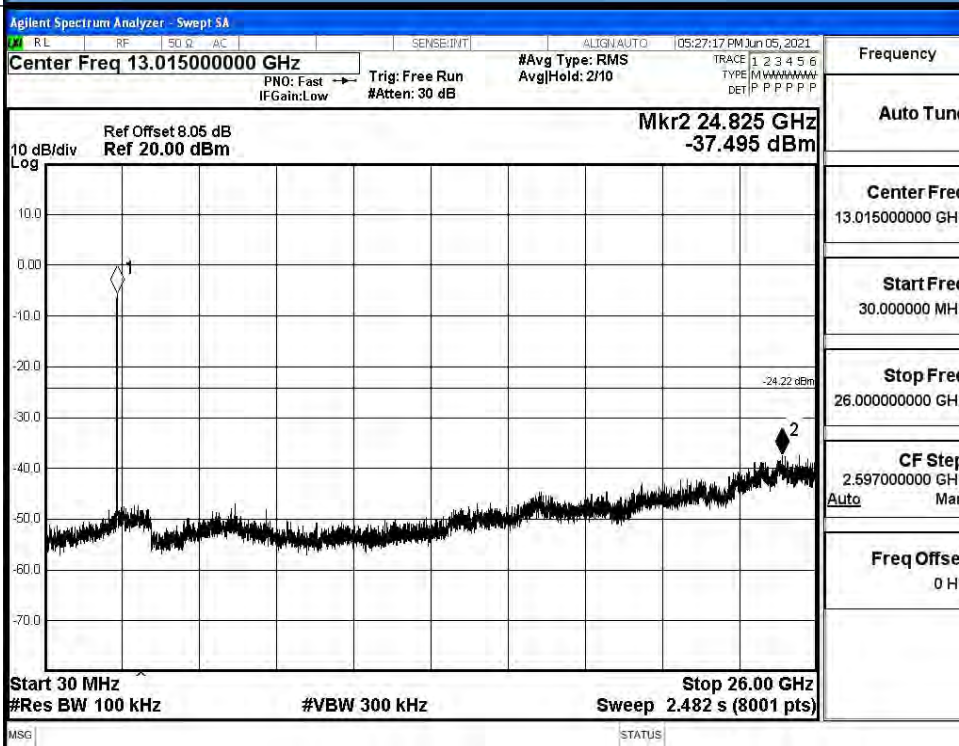
Pref/11N20
SISO/MCHPuw/11N20
SISO/MCH

11N20SISO HCH Graphs

Pref/11N20
SISO/HCH

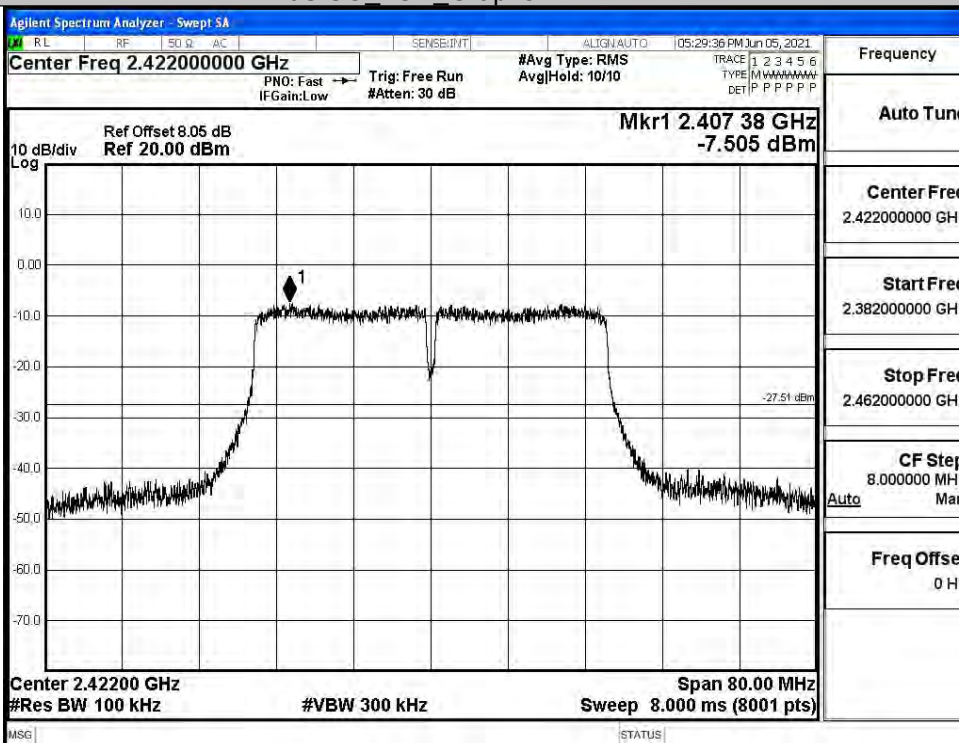


Puw/11N20
SISO/HCH

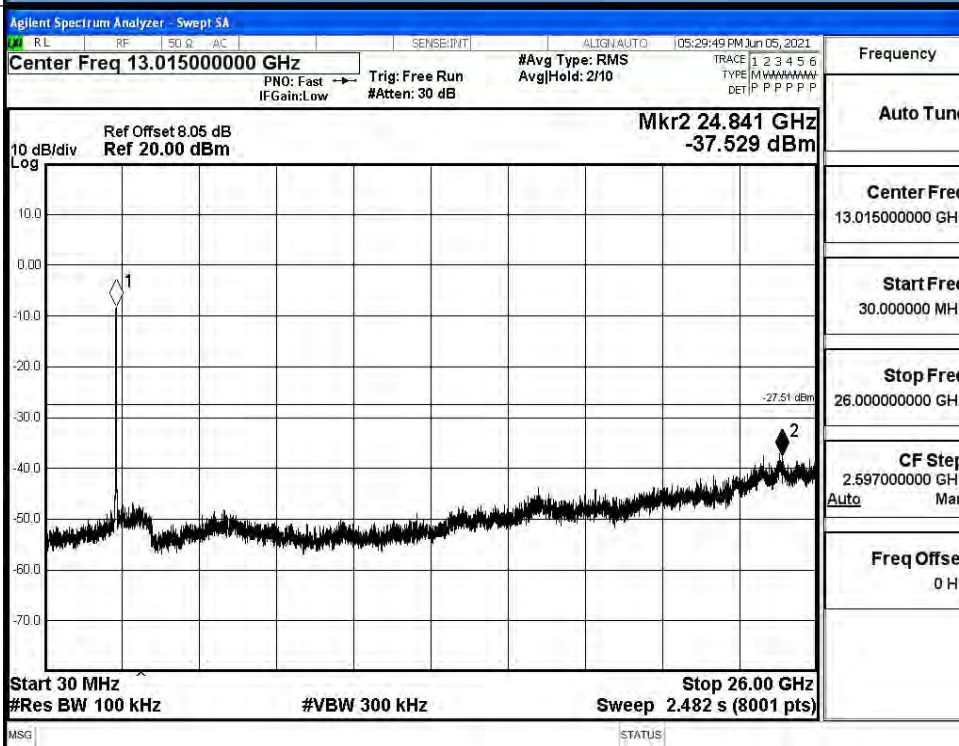


11N40SISO LCH Graphs

Pref/11N40
SISO/LCH

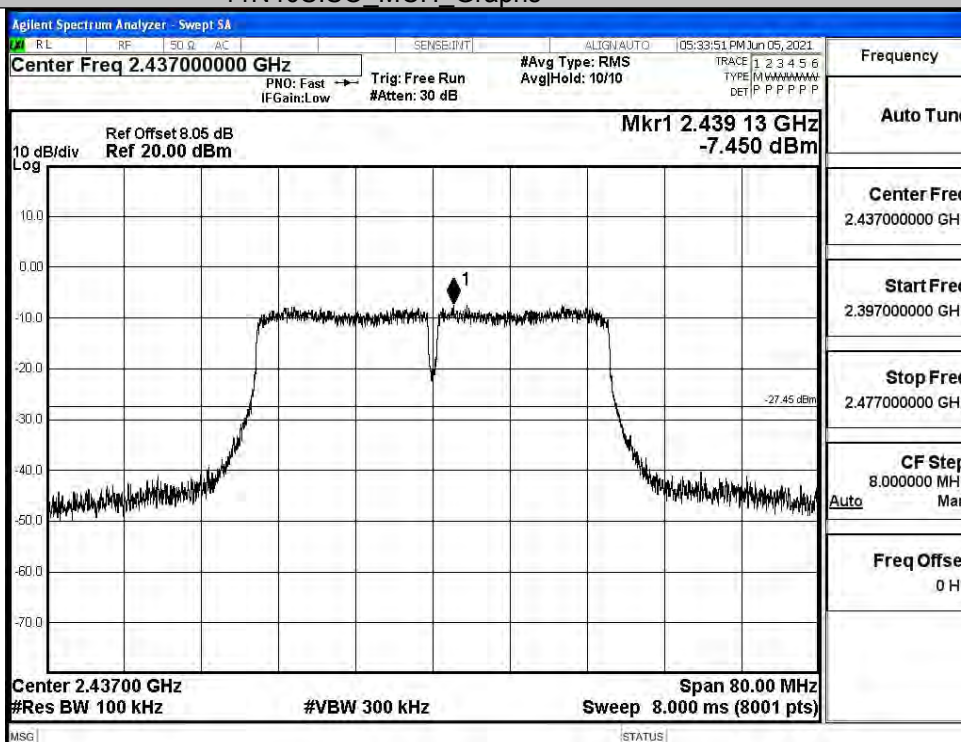


Puw/11N40
SISO/LCH

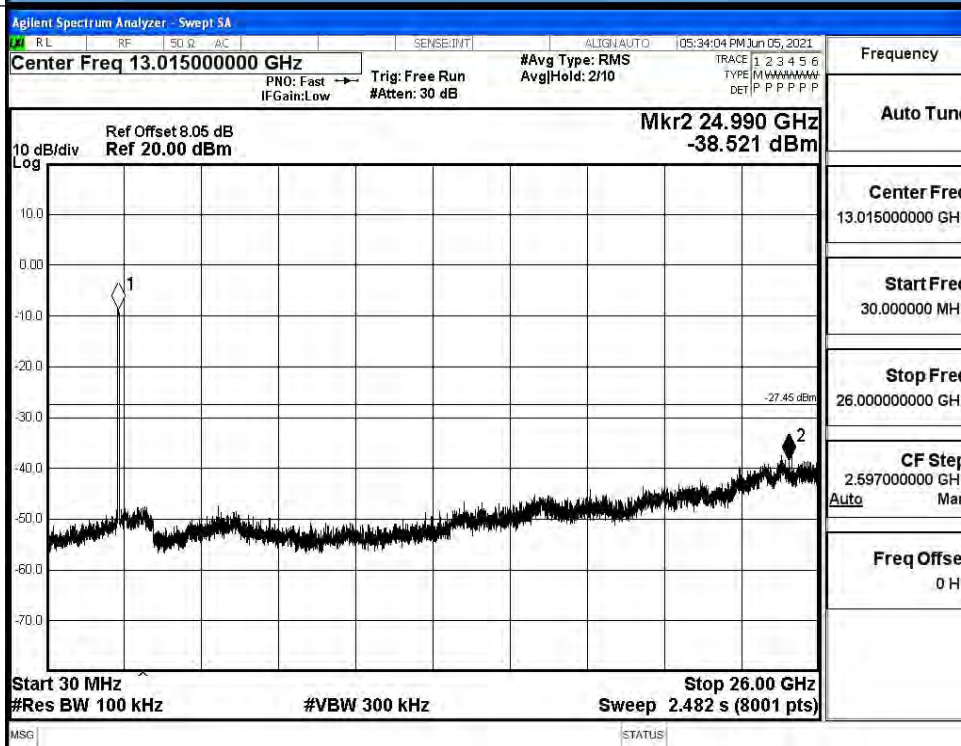


11N40SISO MCH_Graphs

Pref/11N40
SISO/MCH

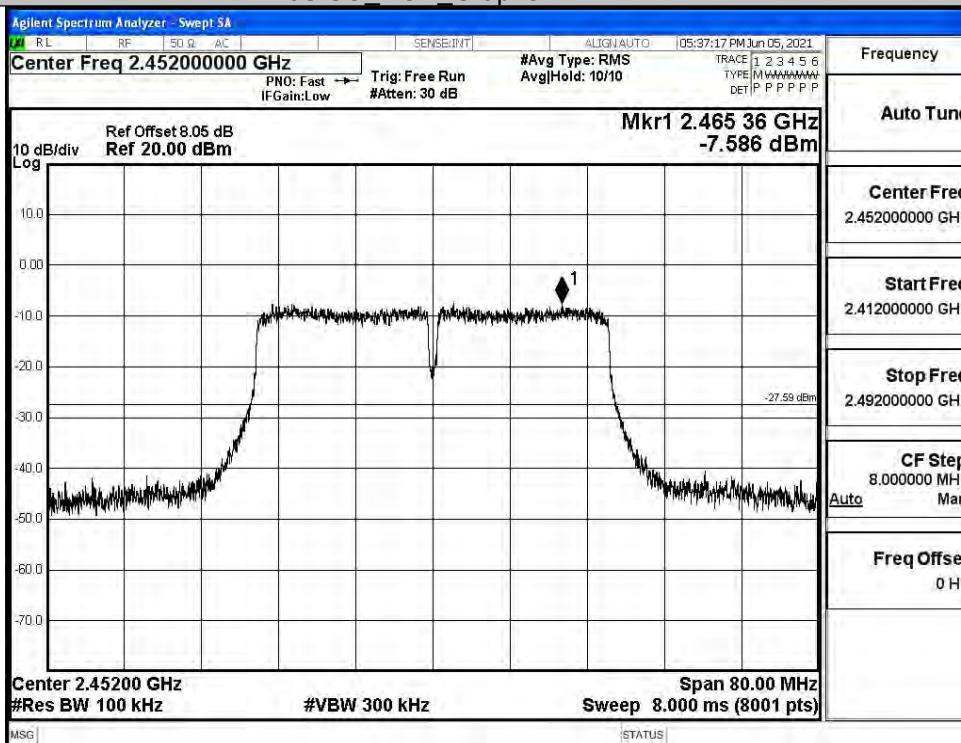


Puw/11N40
SISO/MCH

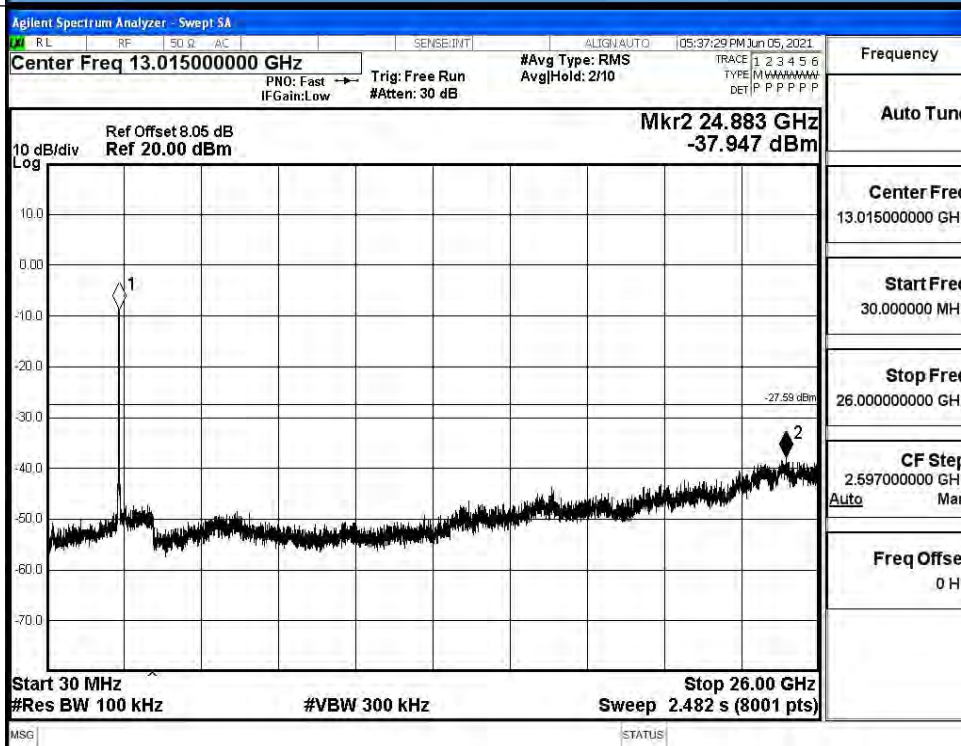


11N40SISO HCH Graphs

Pref/11N40
SISO/HCH



Puw/11N40
SISO/HCH

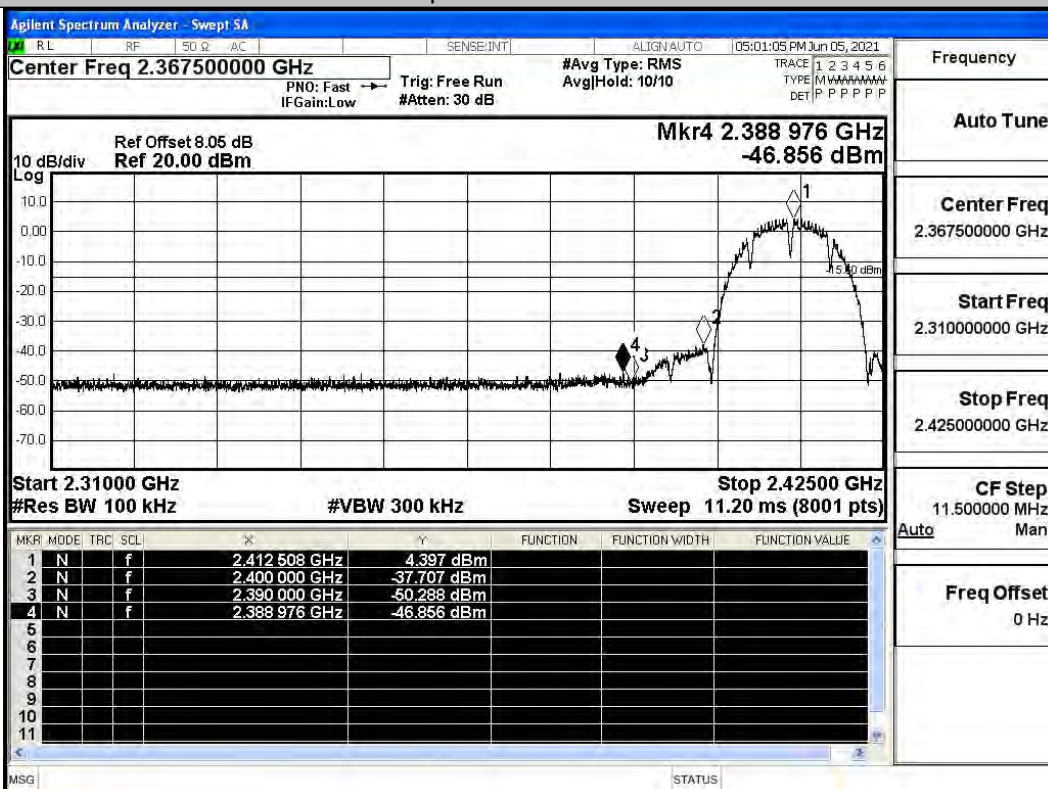


A.6 Band-edge for RF Conducted Emissions

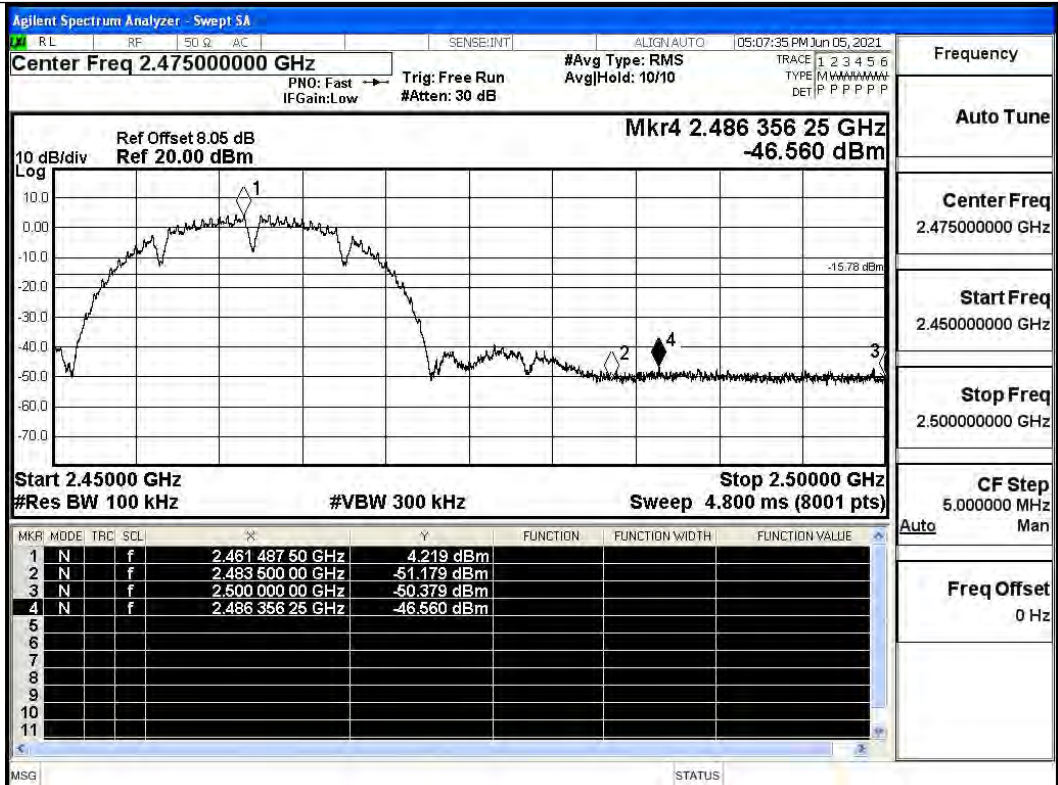
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.397	-46.856	-15.6	PASS
	HCH	4.219	-46.560	-15.78	PASS
11G	LCH	-4.783	-46.806	-24.78	PASS
	HCH	-4.655	-47.425	-24.66	PASS
11N20SISO	LCH	-4.307	-46.575	-24.31	PASS
	HCH	-3.680	-44.381	-23.68	PASS
11N40SISO	LCH	-7.323	-42.910	-27.32	PASS
	HCH	-7.579	-40.210	-27.58	PASS

Test Graphs

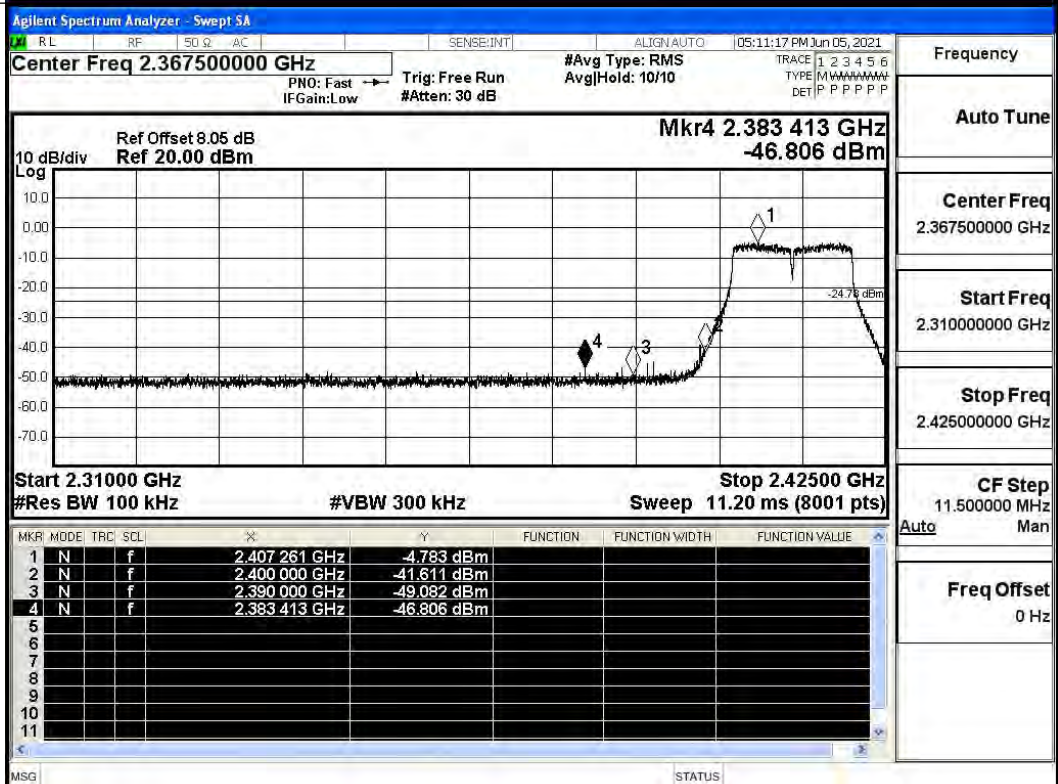
11B/LCH



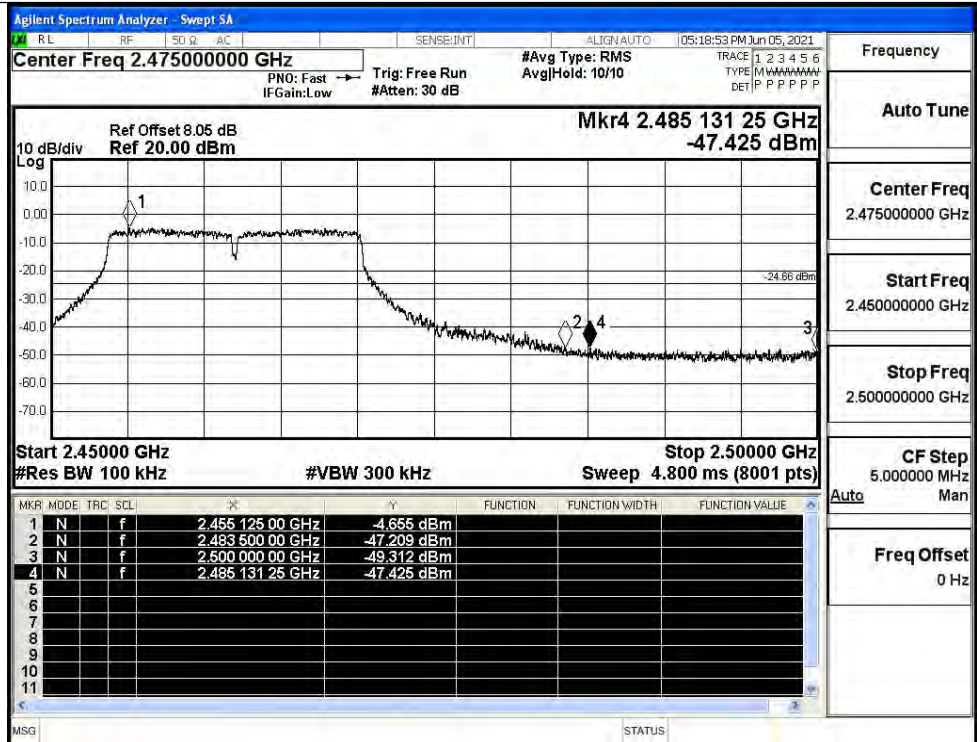
11B/HCH



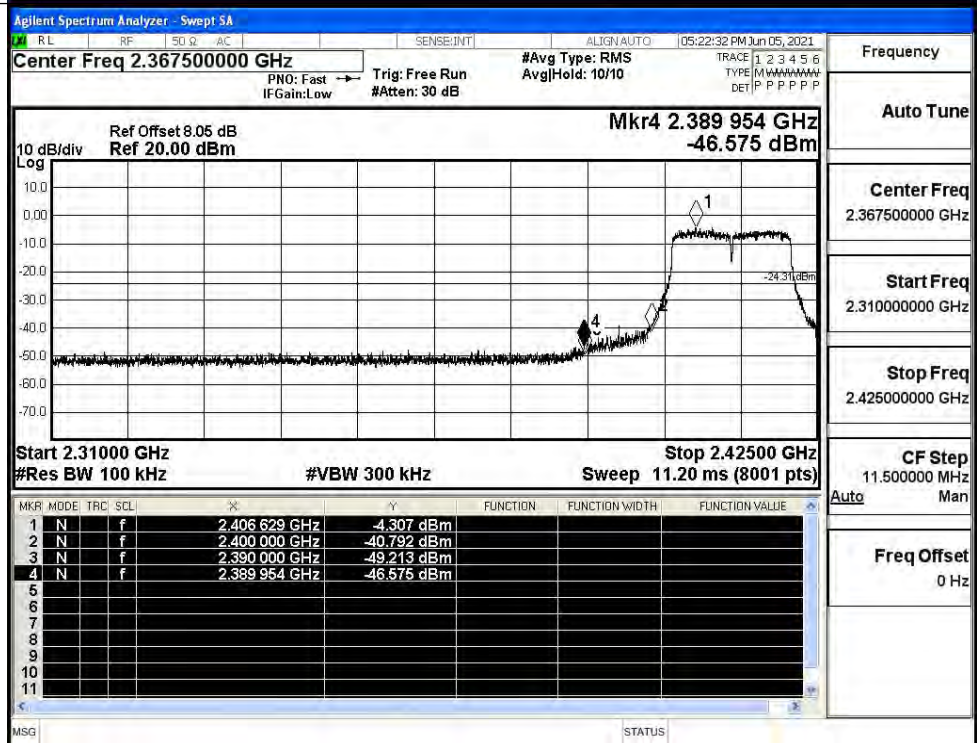
11G/LCH



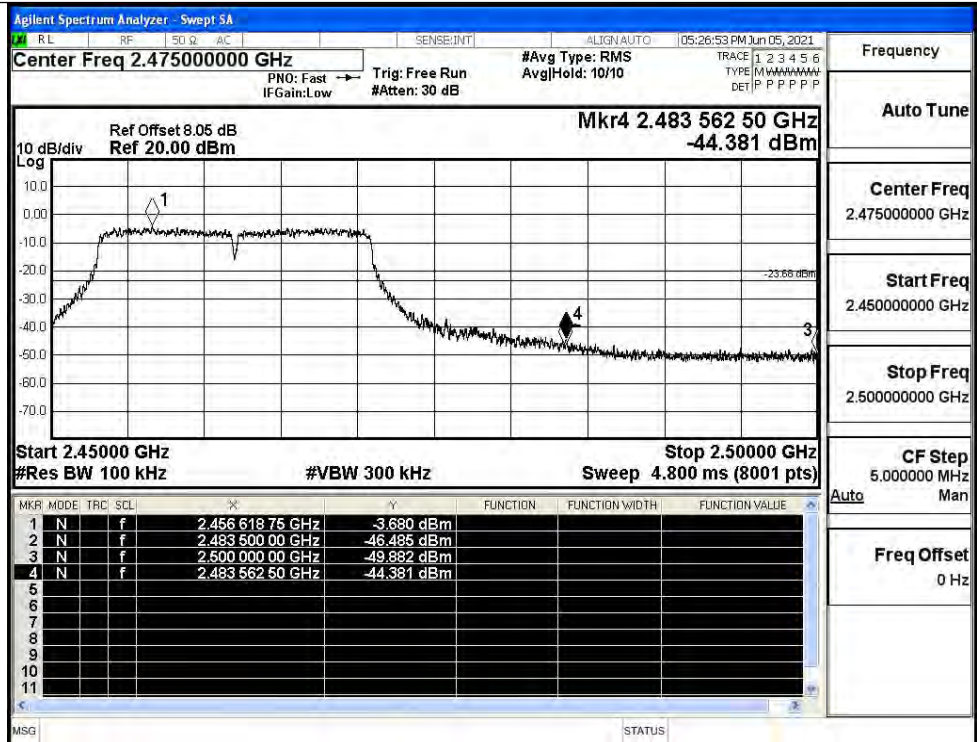
11G/HCH



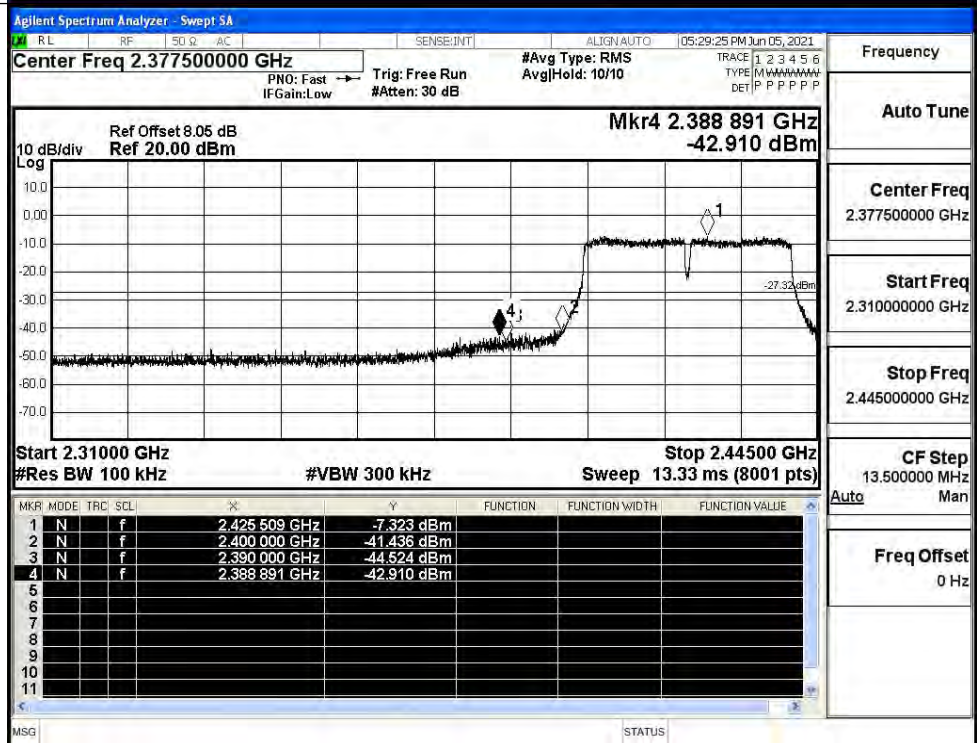
11N20SISO/LCH



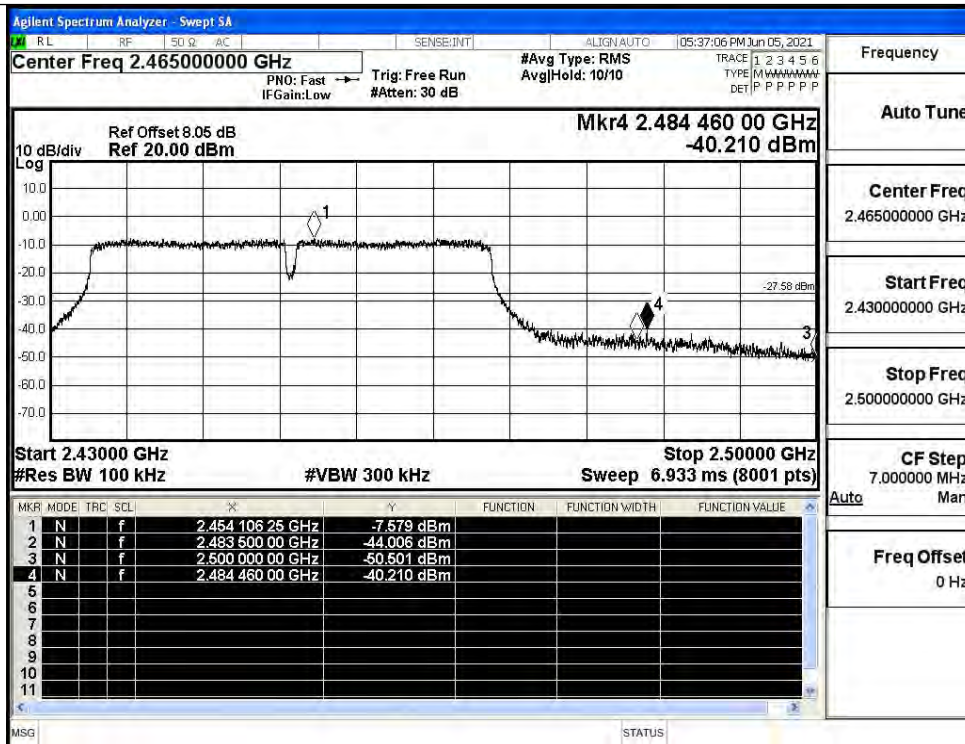
11N20SISO/HCH



11N40SISO/LCH



11N40SISO/HCH

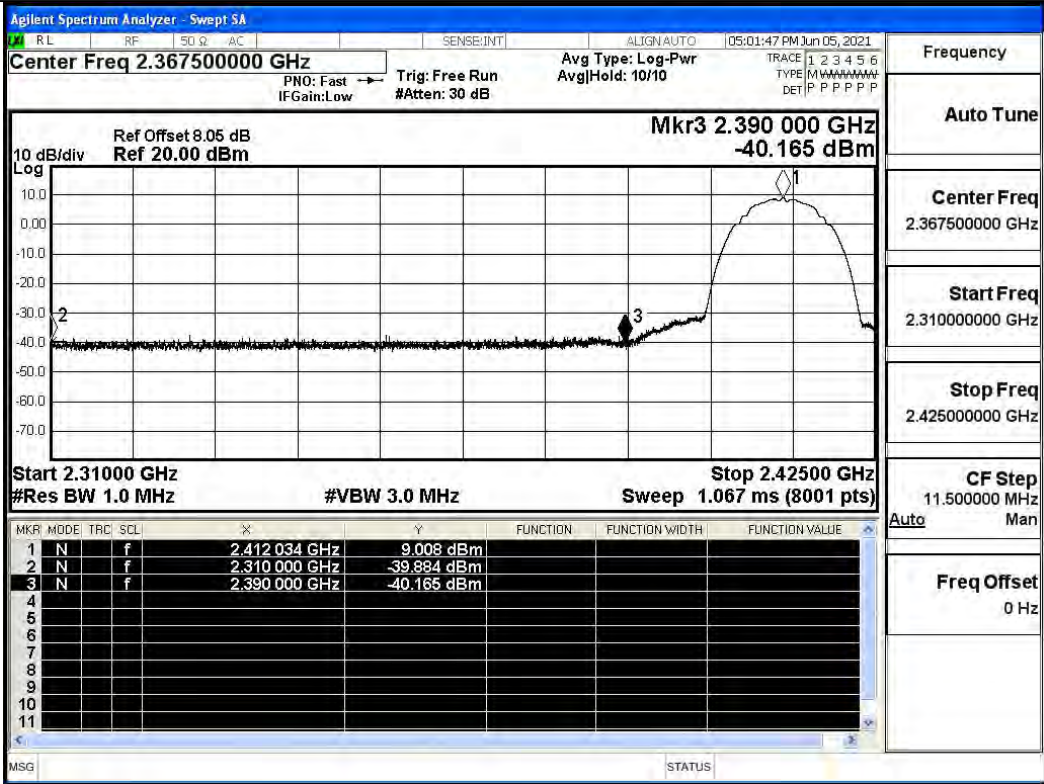


C.7 Restrict-band band-edge measurements

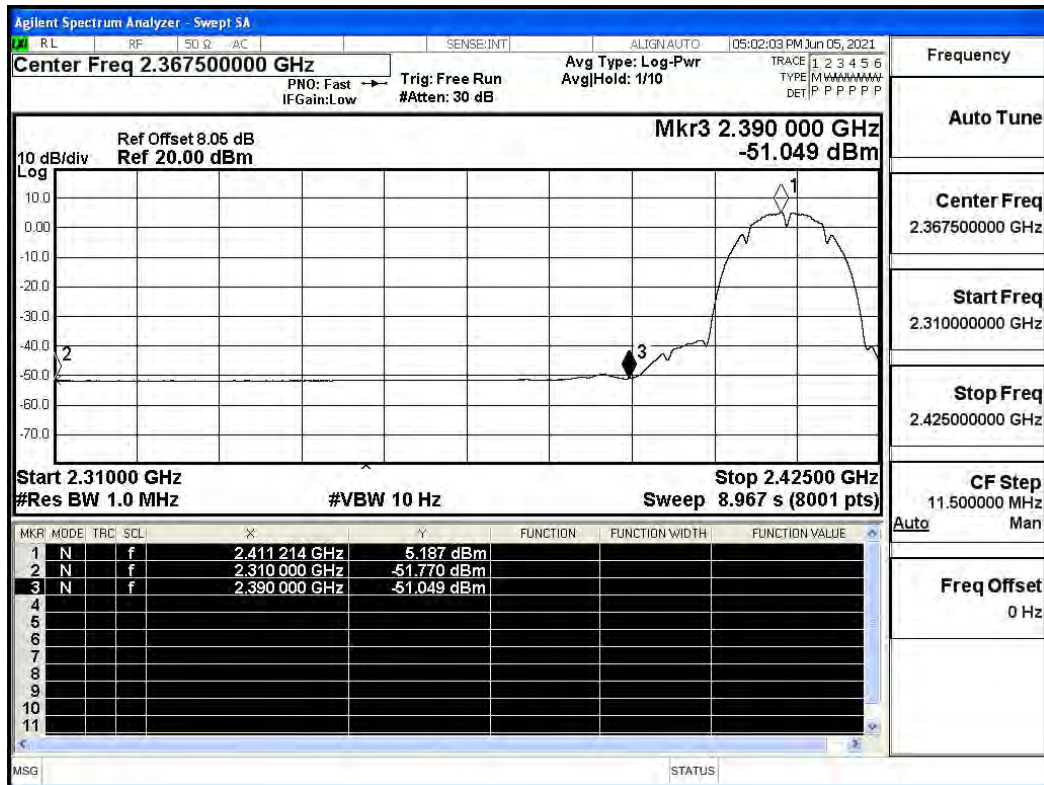
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-39.88	2.0	0	57.35	PEAK	74	PASS
	2412	Ant1	2310.0	-51.77	2.0	0	45.46	AV	54	PASS
	2412	Ant1	2390.0	-40.17	2.0	0	57.06	PEAK	74	PASS
	2412	Ant1	2390.0	-51.05	2.0	0	46.18	AV	54	PASS
	2462	Ant1	2483.5	-39.51	2.0	0	57.72	PEAK	74	PASS
	2462	Ant1	2483.5	-50.41	2.0	0	46.82	AV	54	PASS
	2462	Ant1	2500.0	-39.66	2.0	0	57.57	PEAK	74	PASS
	2462	Ant1	2500.0	-50.67	2.0	0	46.56	AV	54	PASS
11G	2412	Ant1	2310.0	-42.37	2.0	0	54.86	PEAK	74	PASS
	2412	Ant1	2310.0	-52.00	2.0	0	45.23	AV	54	PASS
	2412	Ant1	2390.0	-40.15	2.0	0	57.08	PEAK	74	PASS
	2412	Ant1	2390.0	-51.59	2.0	0	45.64	AV	54	PASS
	2462	Ant1	2483.5	-36.32	2.0	0	60.91	PEAK	74	PASS
	2462	Ant1	2483.5	-48.81	2.0	0	48.42	AV	54	PASS
	2462	Ant1	2500.0	-39.86	2.0	0	57.37	PEAK	74	PASS
	2462	Ant1	2500.0	-50.89	2.0	0	46.34	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-41.37	2.0	0	55.86	PEAK	74	PASS
	2412	Ant1	2310.0	-51.82	2.0	0	45.41	AV	54	PASS
	2412	Ant1	2390.0	-34.92	2.0	0	62.31	PEAK	74	PASS
	2412	Ant1	2390.0	-49.14	2.0	0	48.09	AV	54	PASS
	2462	Ant1	2483.5	-33.90	2.0	0	63.33	PEAK	74	PASS
	2462	Ant1	2483.5	-47.91	2.0	0	49.32	AV	54	PASS
	2462	Ant1	2500.0	-40.92	2.0	0	56.31	PEAK	74	PASS
	2462	Ant1	2500.0	-50.83	2.0	0	46.40	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-41.20	2.0	0	56.03	PEAK	74	PASS
	2422	Ant1	2310.0	-51.80	2.0	0	45.43	AV	54	PASS

	2422	Ant1	2390.0	-34.03	2.0	0	63.20	PEAK	74	PASS
	2422	Ant1	2390.0	-46.70	2.0	0	50.53	AV	54	PASS
	2452	Ant1	2483.5	-32.18	2.0	0	65.05	PEAK	74	PASS
	2452	Ant1	2483.5	-45.28	2.0	0	51.95	AV	54	PASS
	2452	Ant1	2500.0	-39.25	2.0	0	57.98	PEAK	74	PASS
	2452	Ant1	2500.0	-49.80	2.0	0	47.43	AV	54	PASS

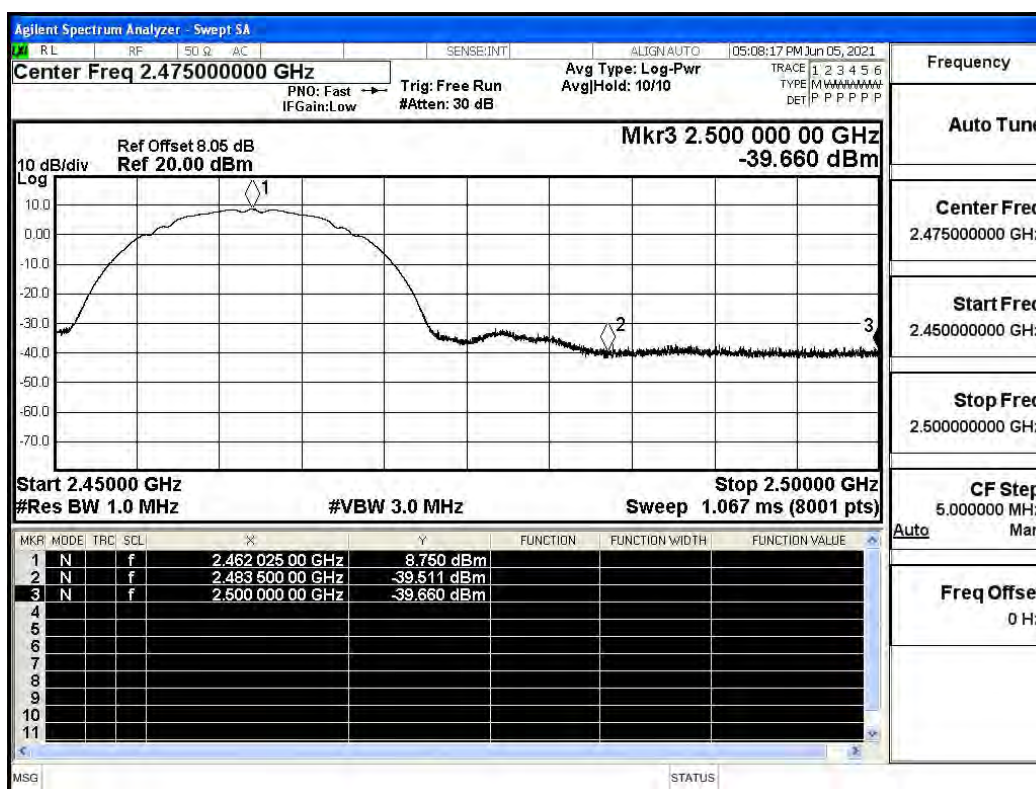
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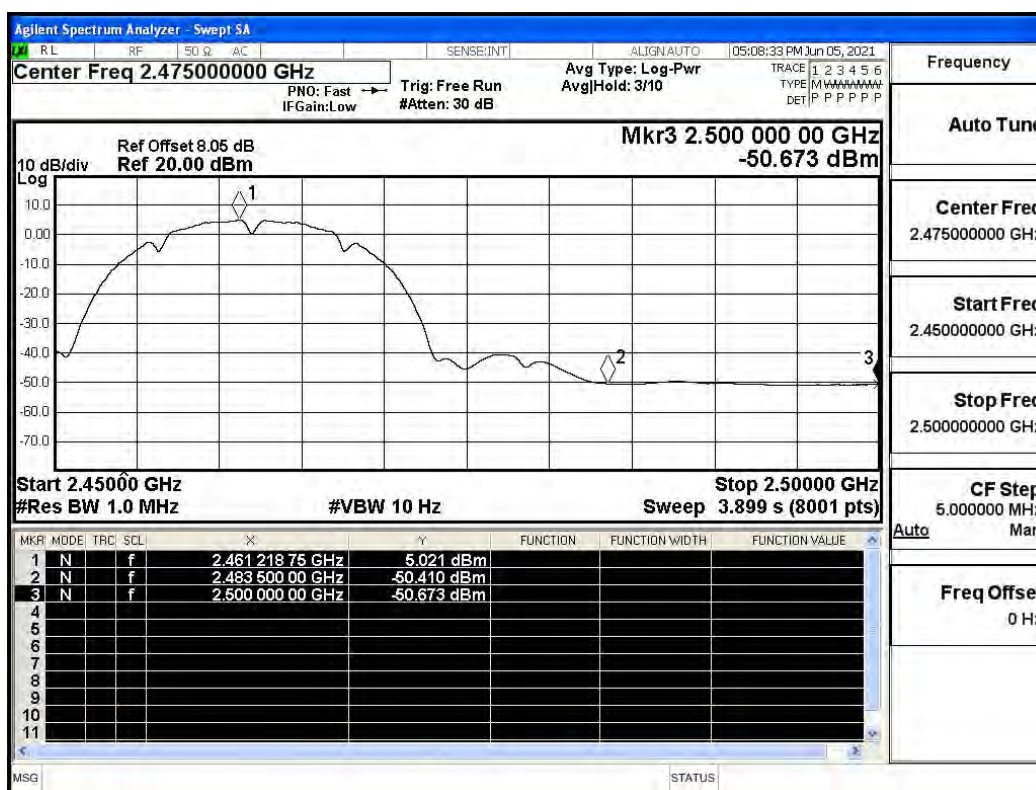
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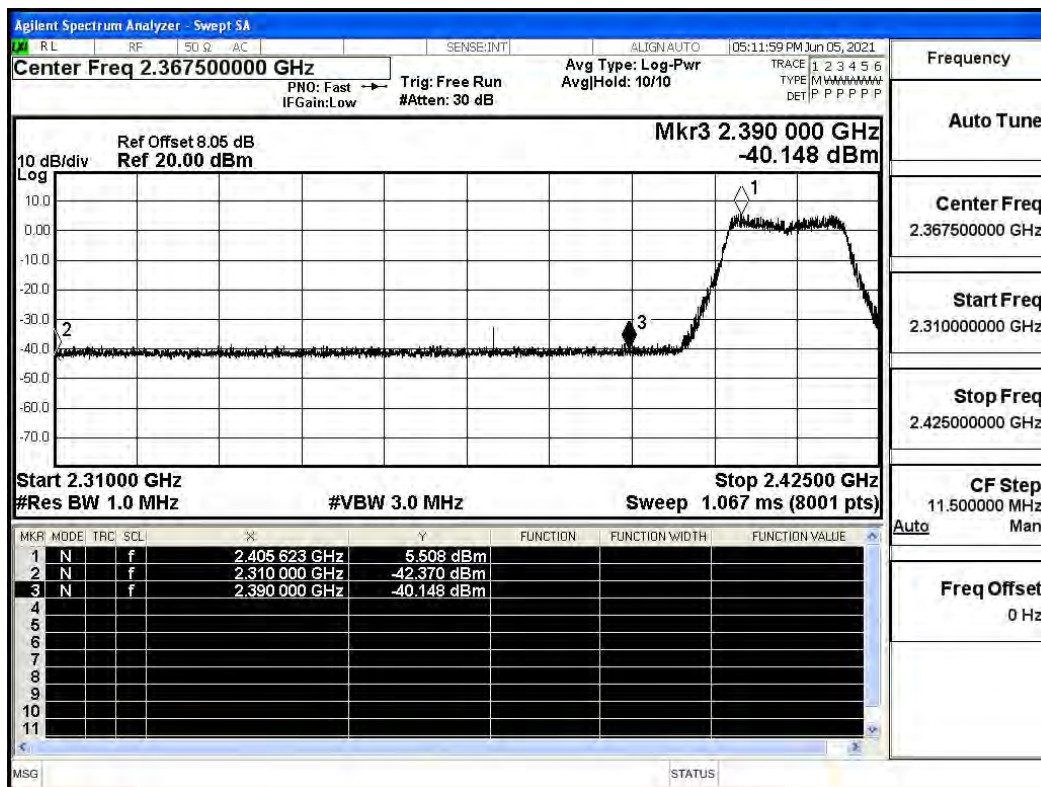
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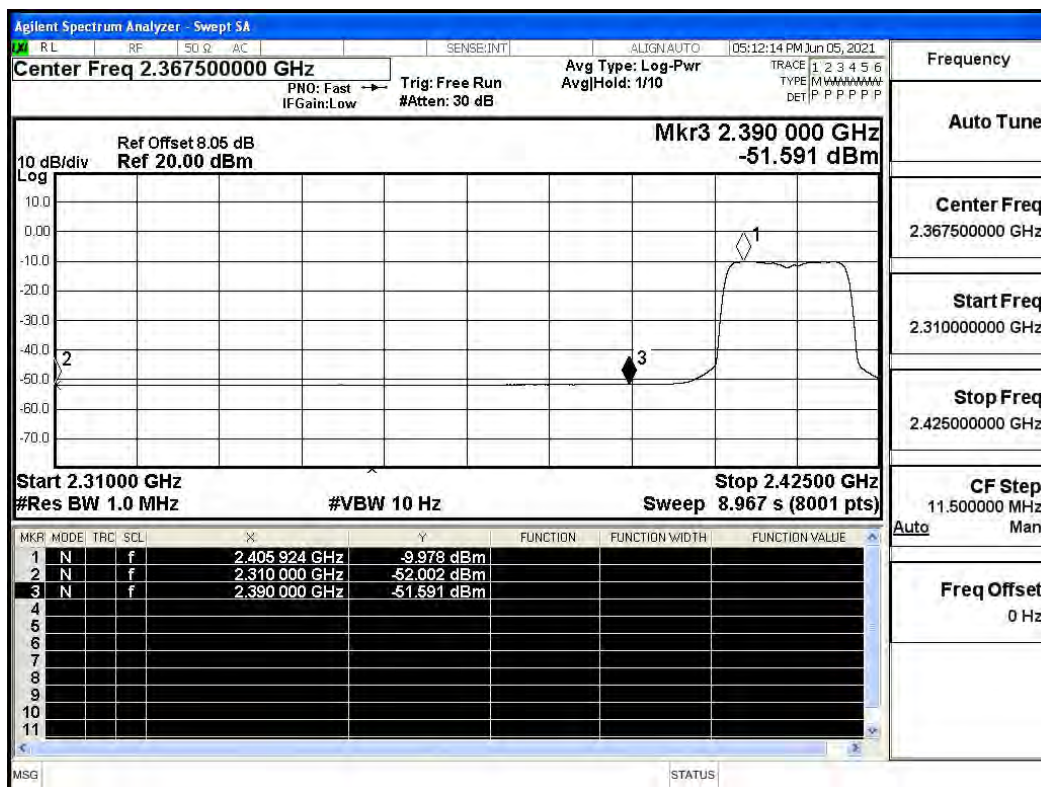
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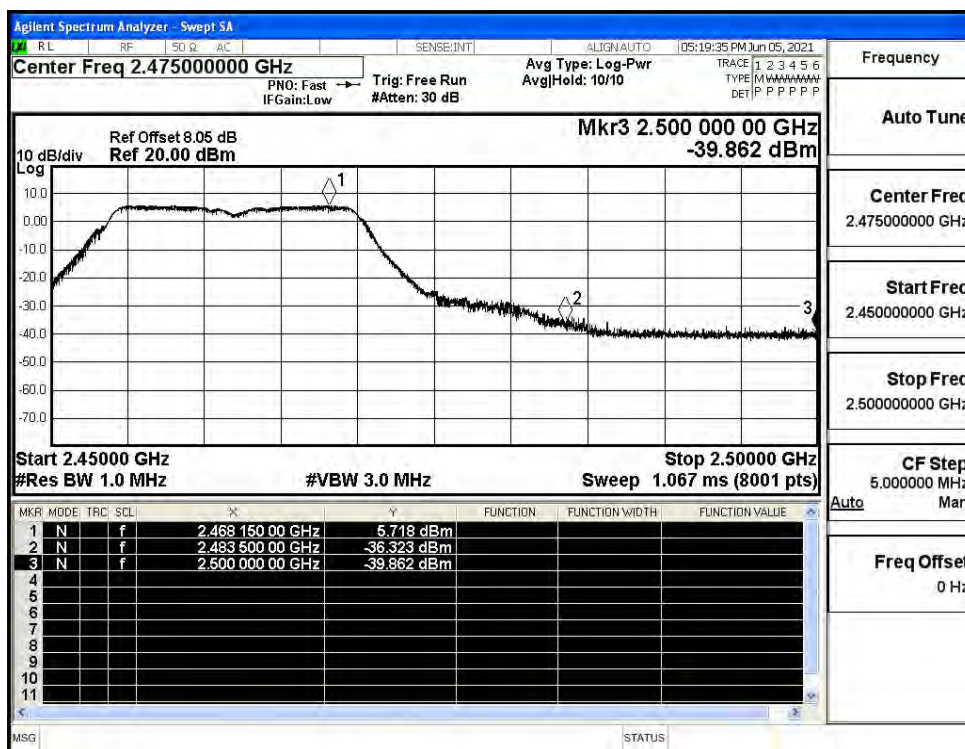
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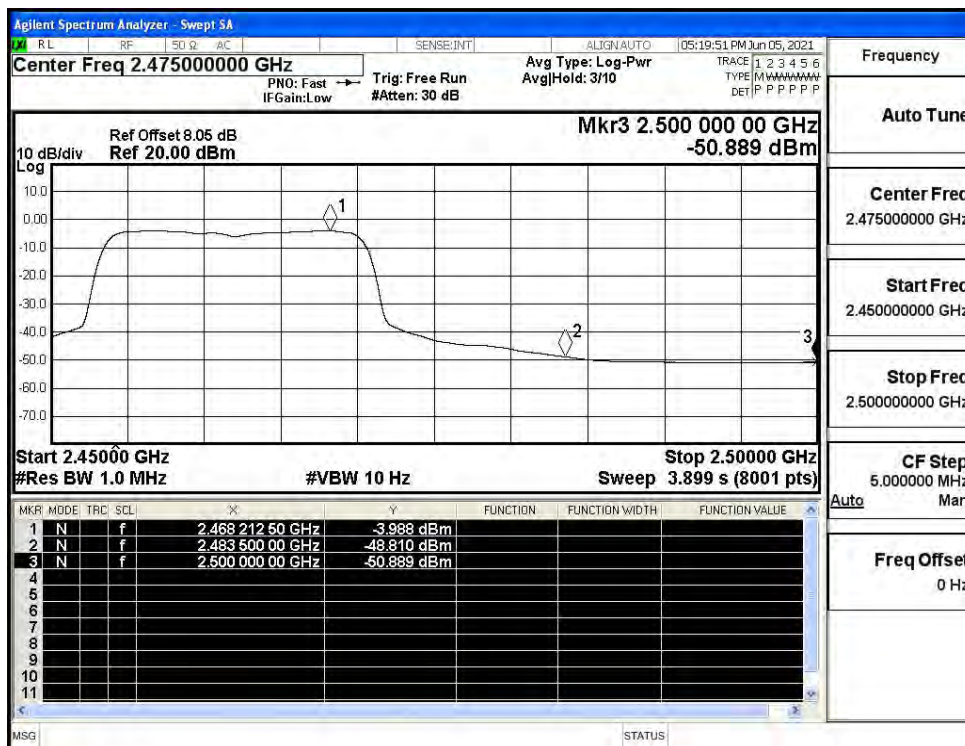
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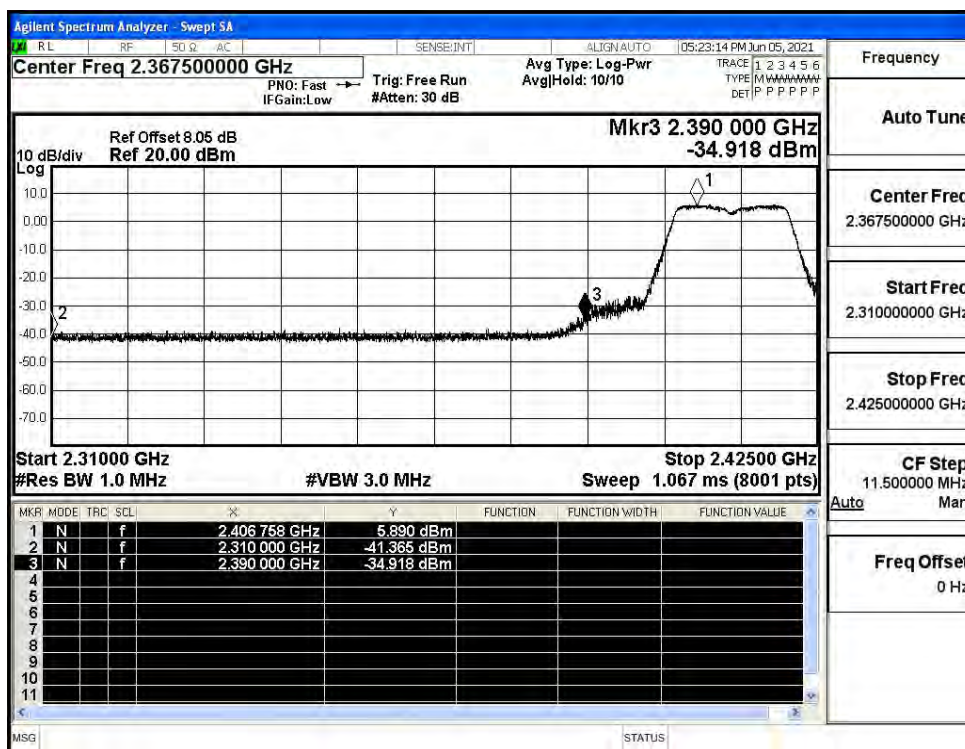
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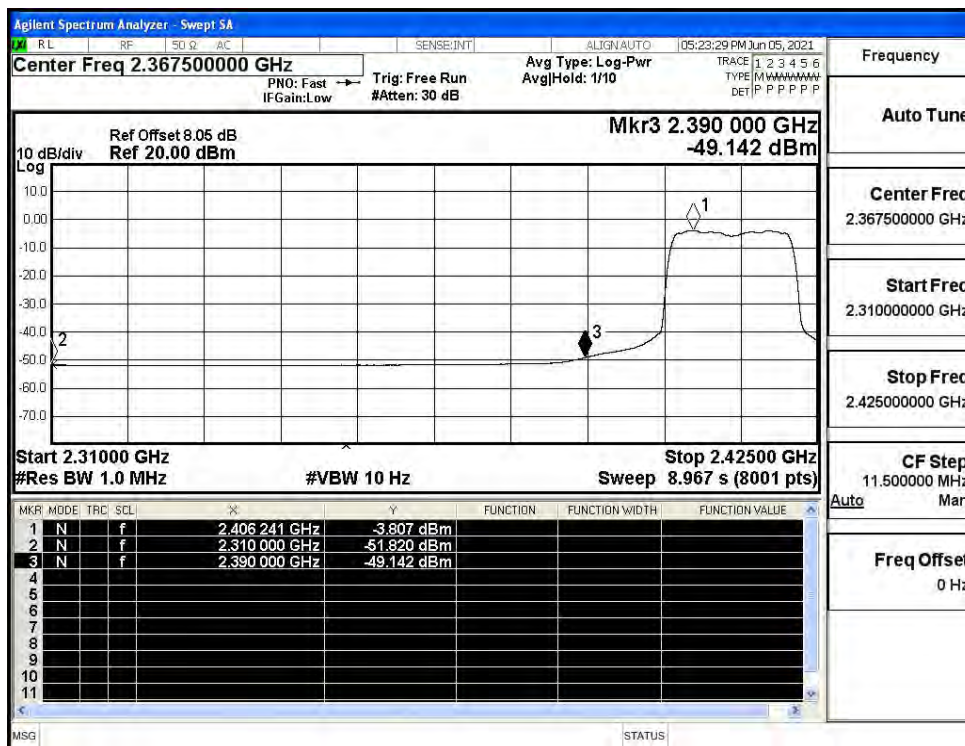
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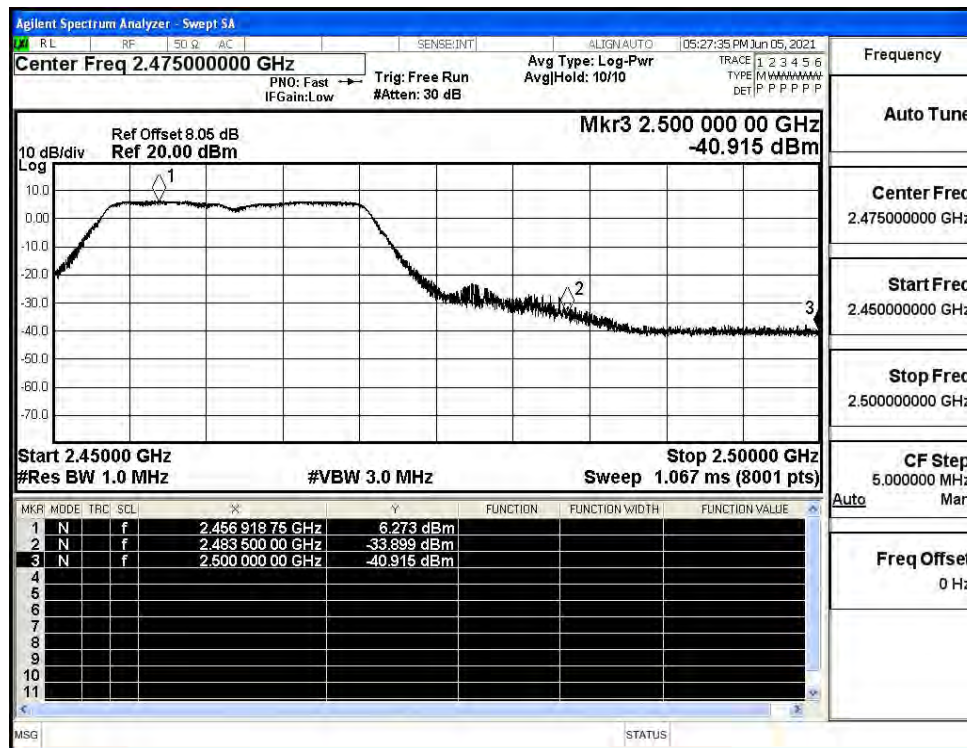
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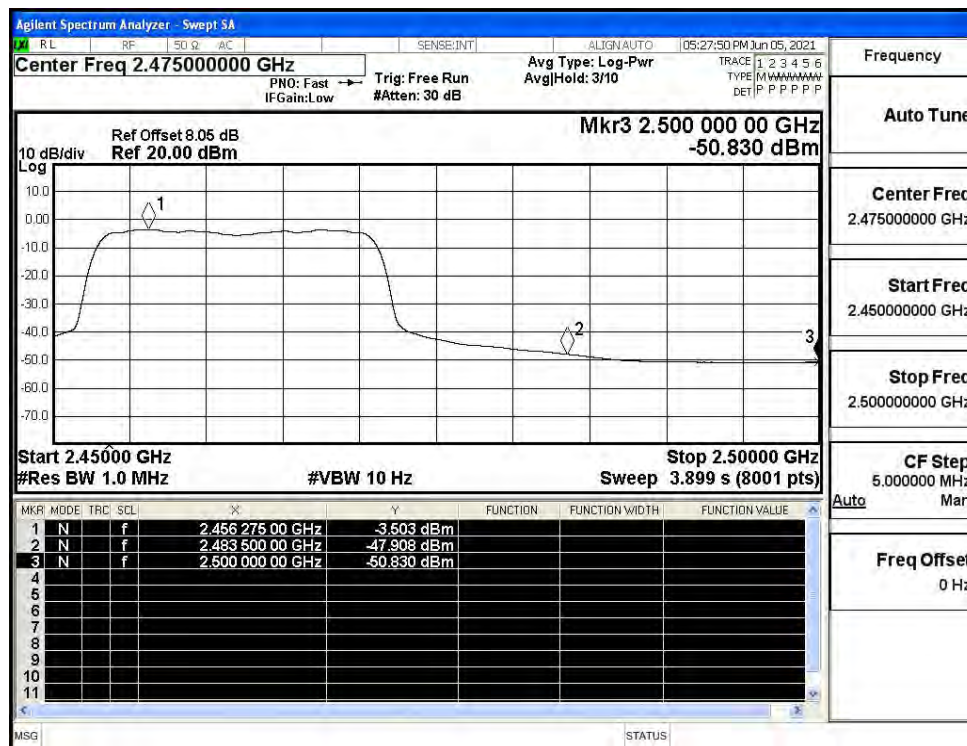
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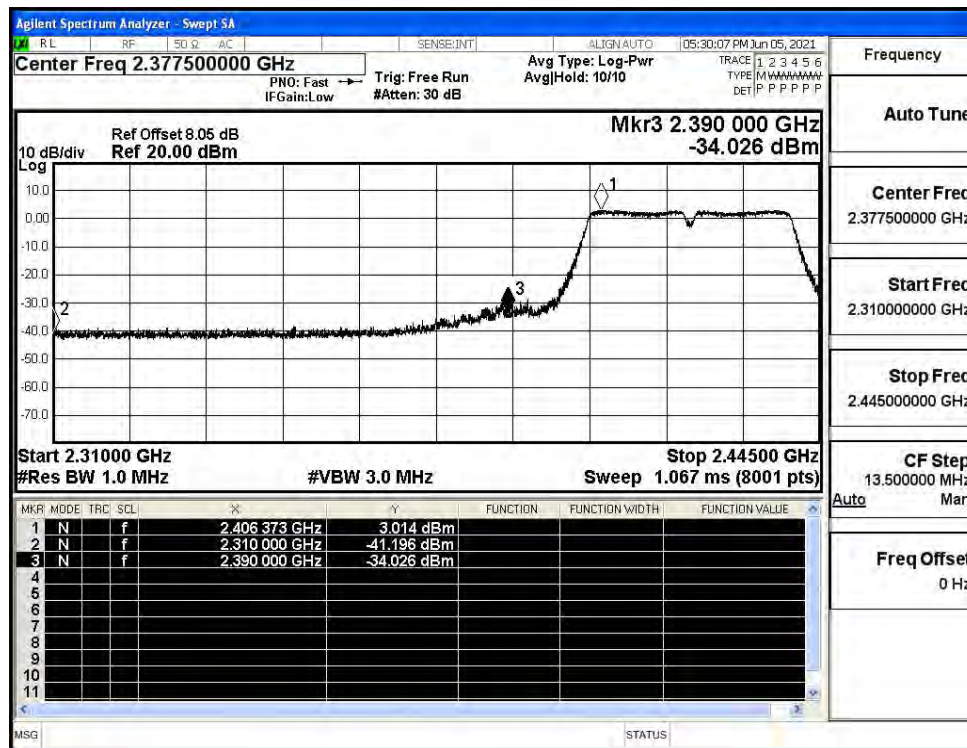
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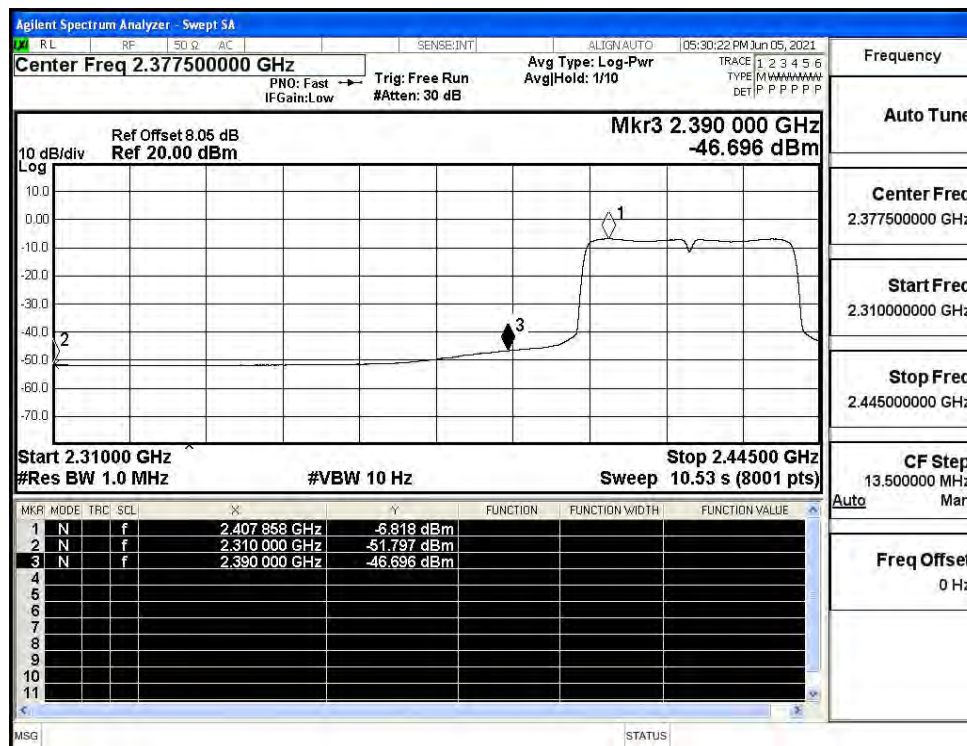
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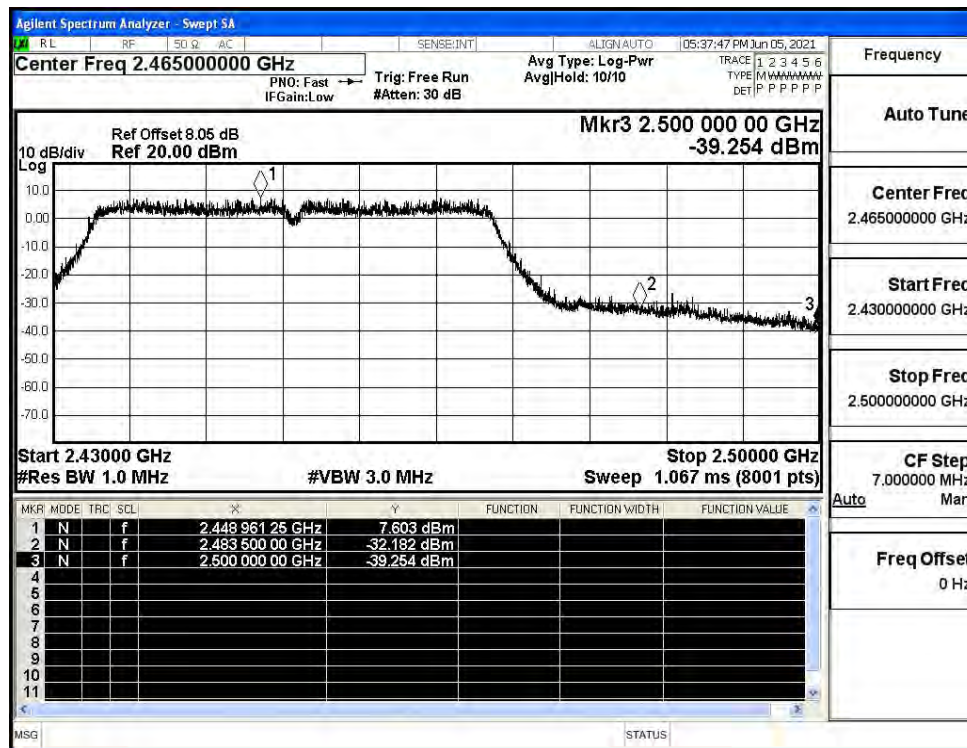
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Restrict-band band-edge measurements_11N40SISO_2422_Ant1_AV



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_PEAK



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_AV

