

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Optical projector

Trade Mark: CINEMOOD

Test Model: CNMD0020

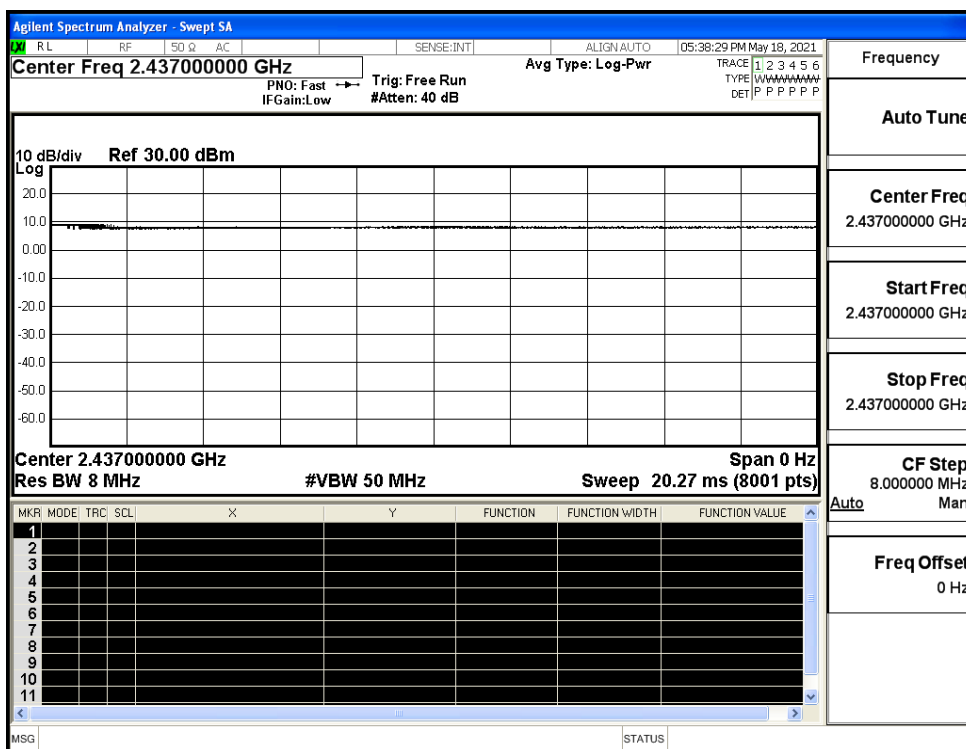
Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan

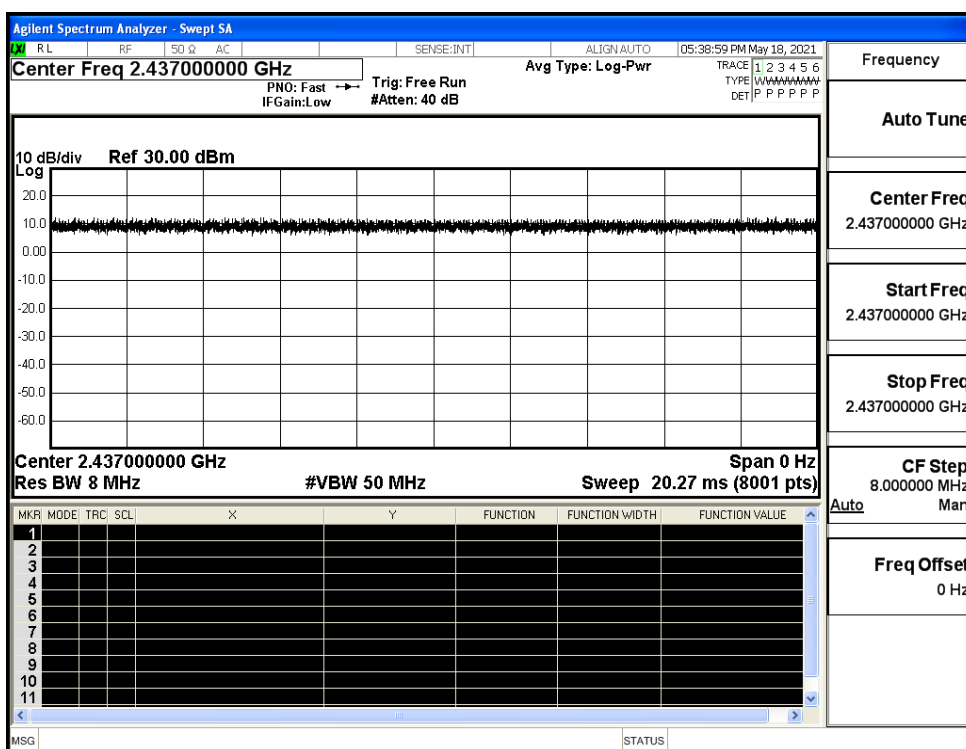
C.1 Duty Cycle

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

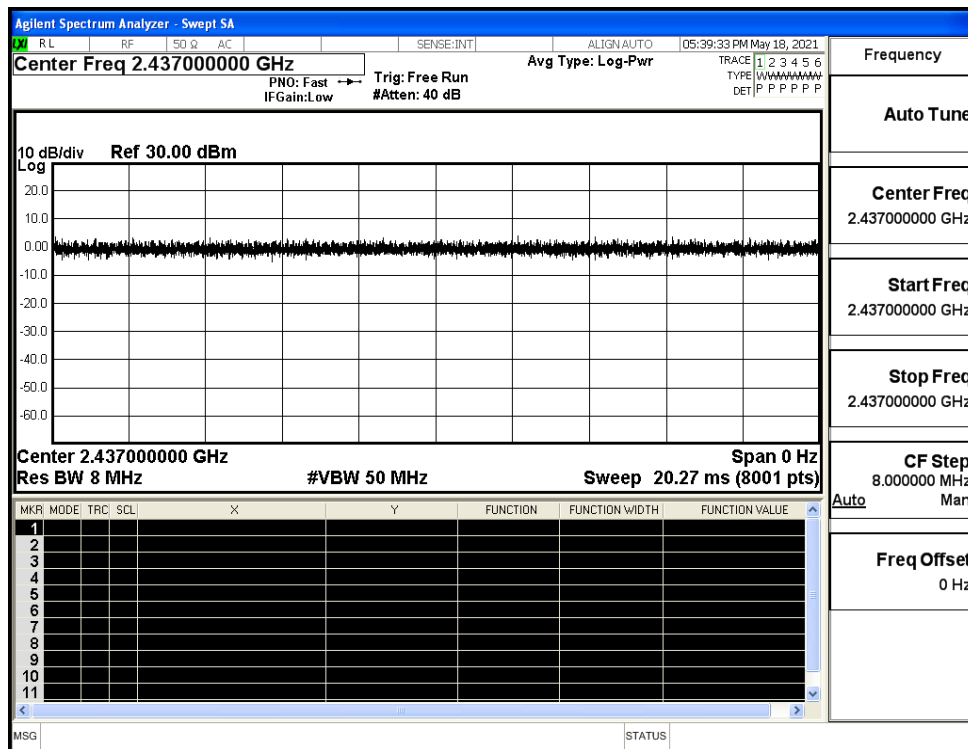
Duty Cycle_11B_2437_Ant1



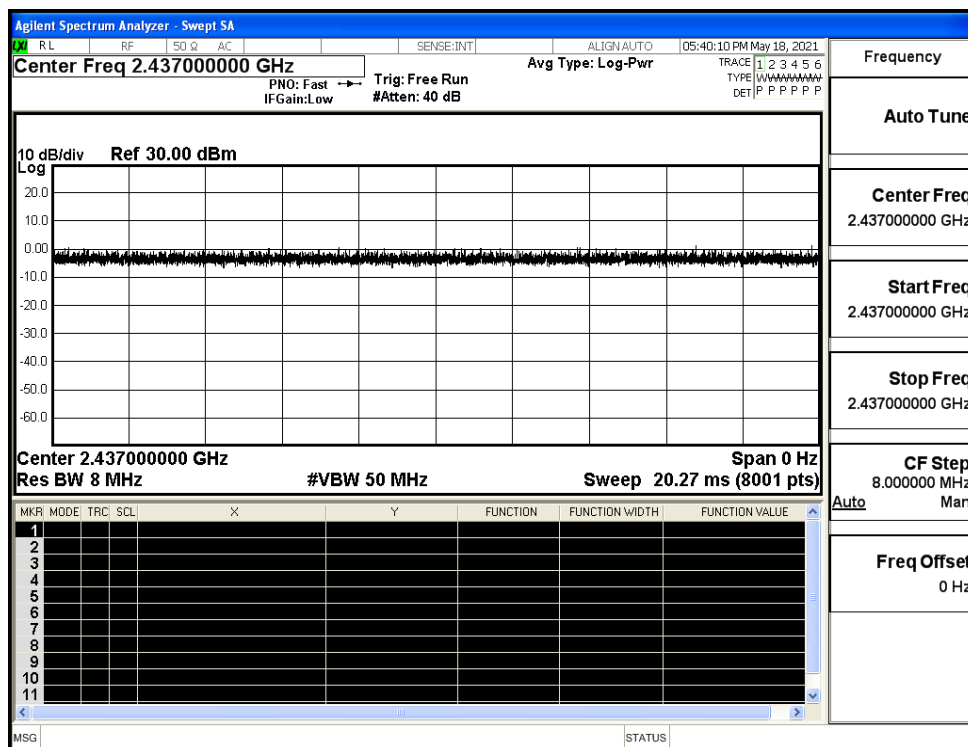
Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1



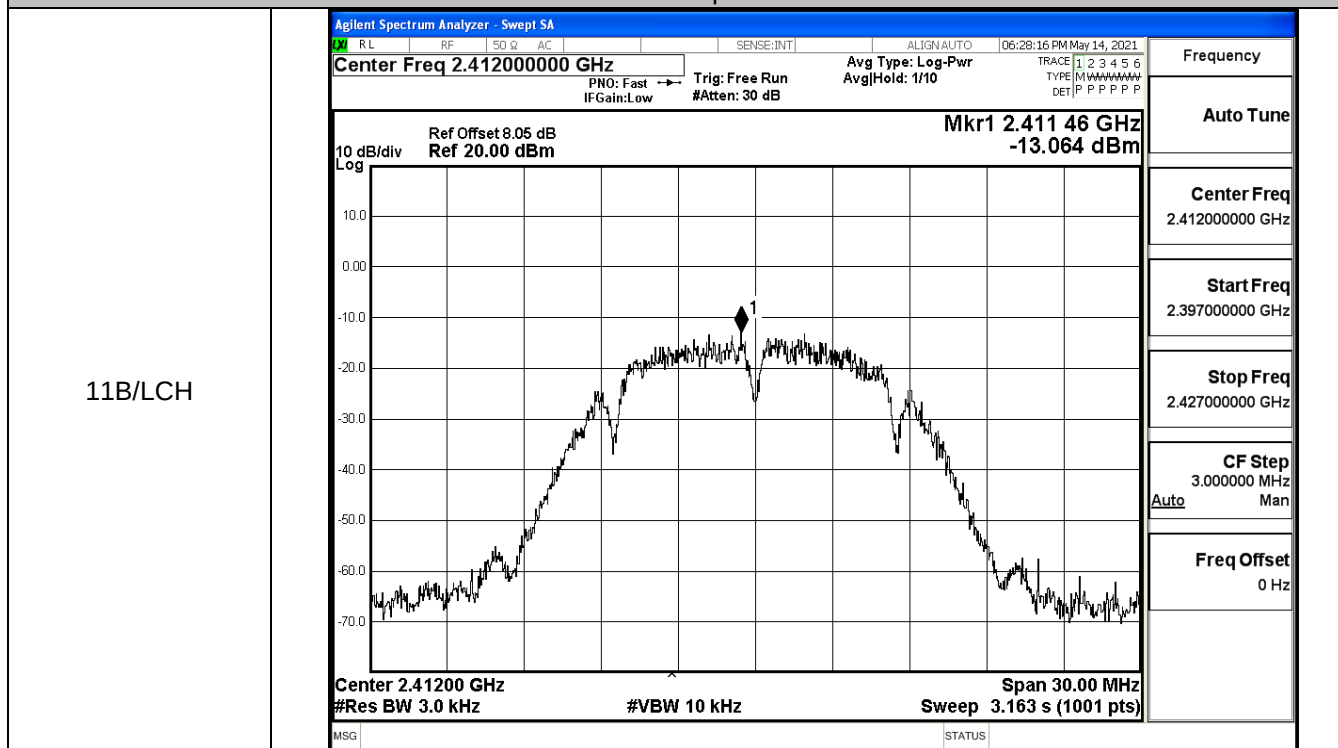
C.2 Maximum Conducted Output Power

Mode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
11B	LCH	13.96	30	PASS
	MCH	14.27	30	PASS
	HCH	13.62	30	PASS
11G	LCH	12.50	30	PASS
	MCH	12.76	30	PASS
	HCH	11.94	30	PASS
11N20SISO	LCH	11.54	30	PASS
	MCH	11.85	30	PASS
	HCH	10.91	30	PASS
11N40SISO	LCH	10.79	30	PASS
	MCH	10.94	30	PASS
	HCH	10.64	30	PASS

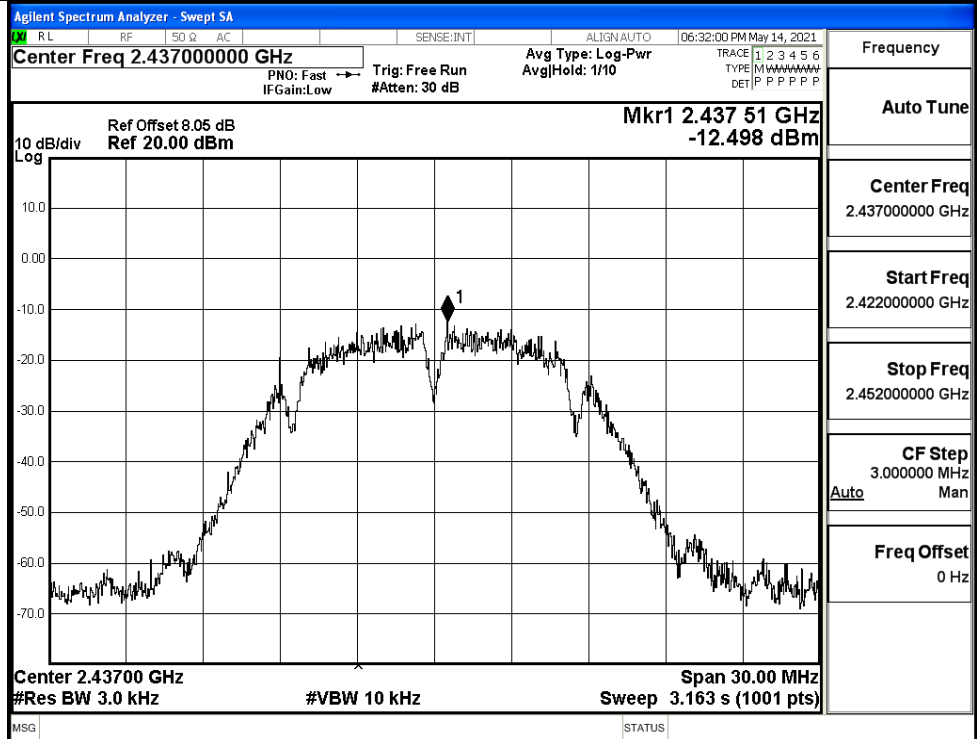
C.3 Maximum Power Spectral Density

Mode	Channel	Meas.Level [dBm/3KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-13.064	8	PASS
	MCH	-12.498	8	PASS
	HCH	-13.067	8	PASS
11G	LCH	-21.814	8	PASS
	MCH	-21.309	8	PASS
	HCH	-21.622	8	PASS
11N20SISO	LCH	-22.860	8	PASS
	MCH	-21.303	8	PASS
	HCH	-22.347	8	PASS
11N40SISO	LCH	-26.486	8	PASS
	MCH	-26.449	8	PASS
	HCH	-25.372	8	PASS

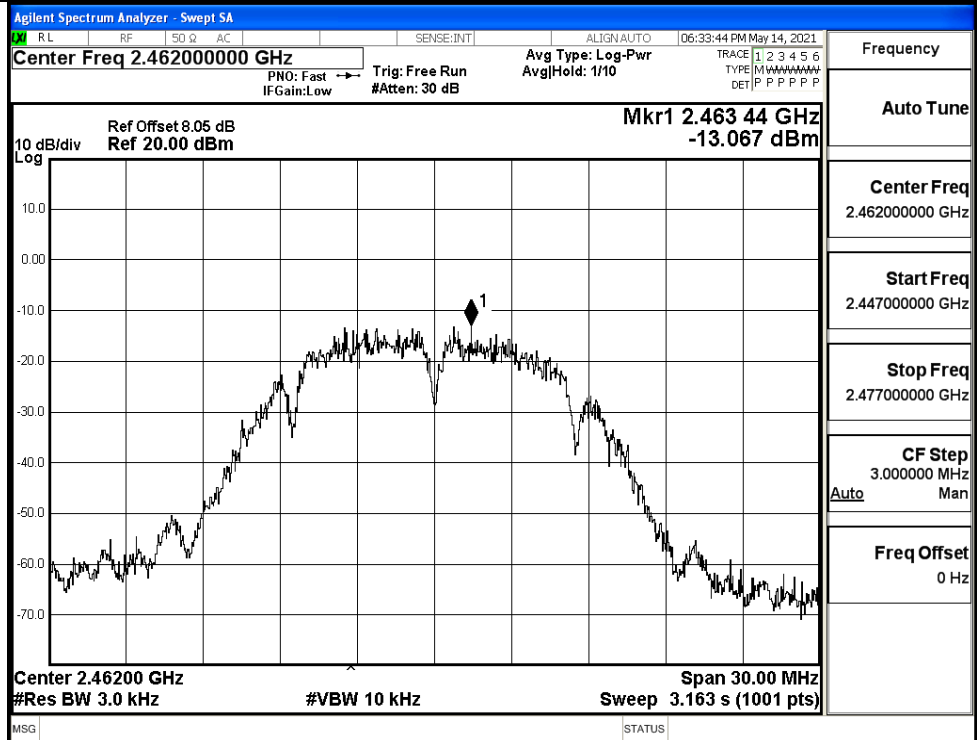
Test Graphs



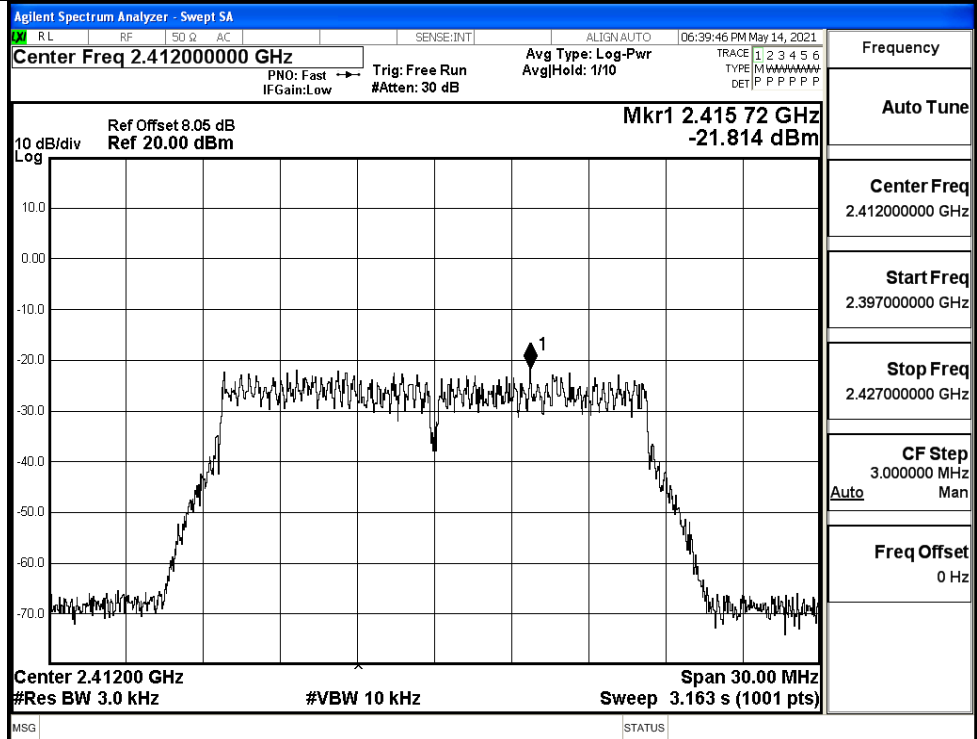
11B/MCH



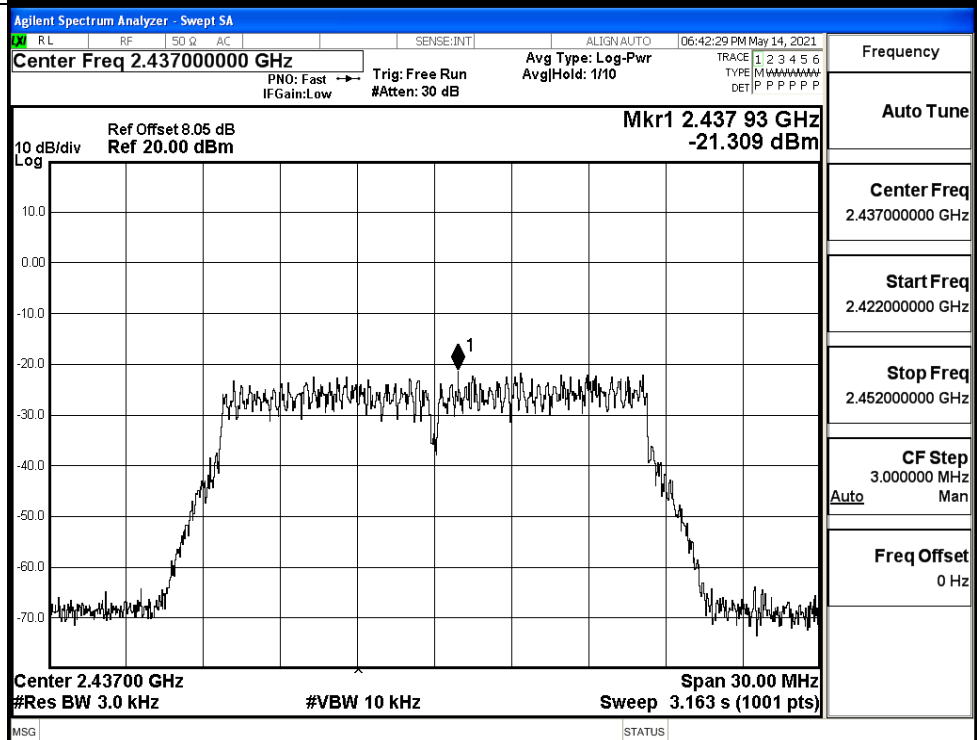
11B/HCH



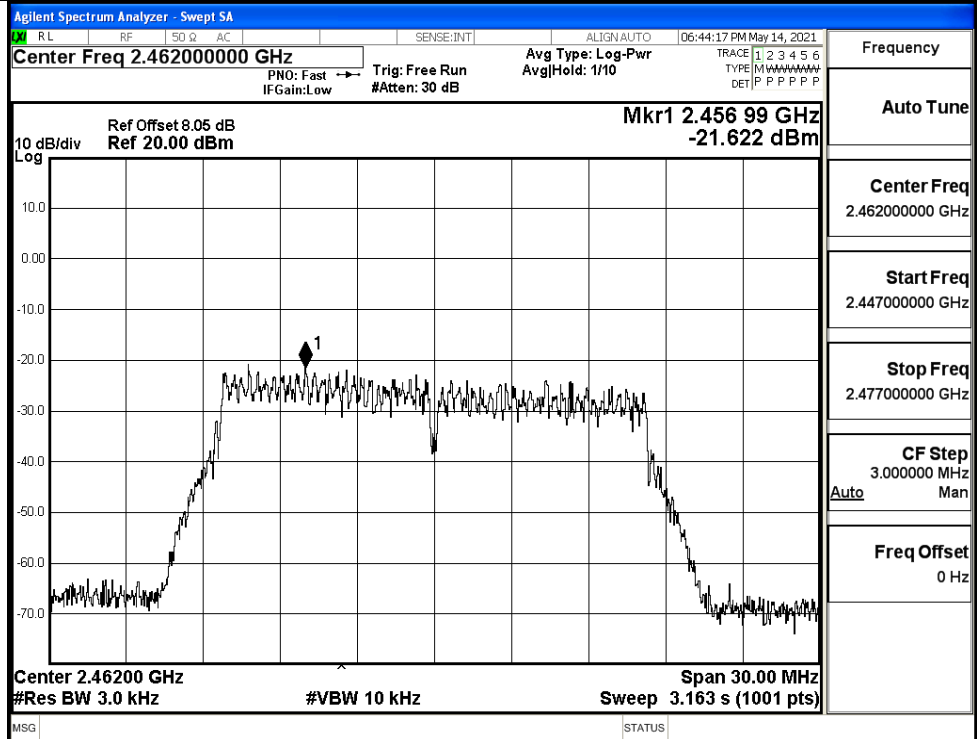
11G/LCH



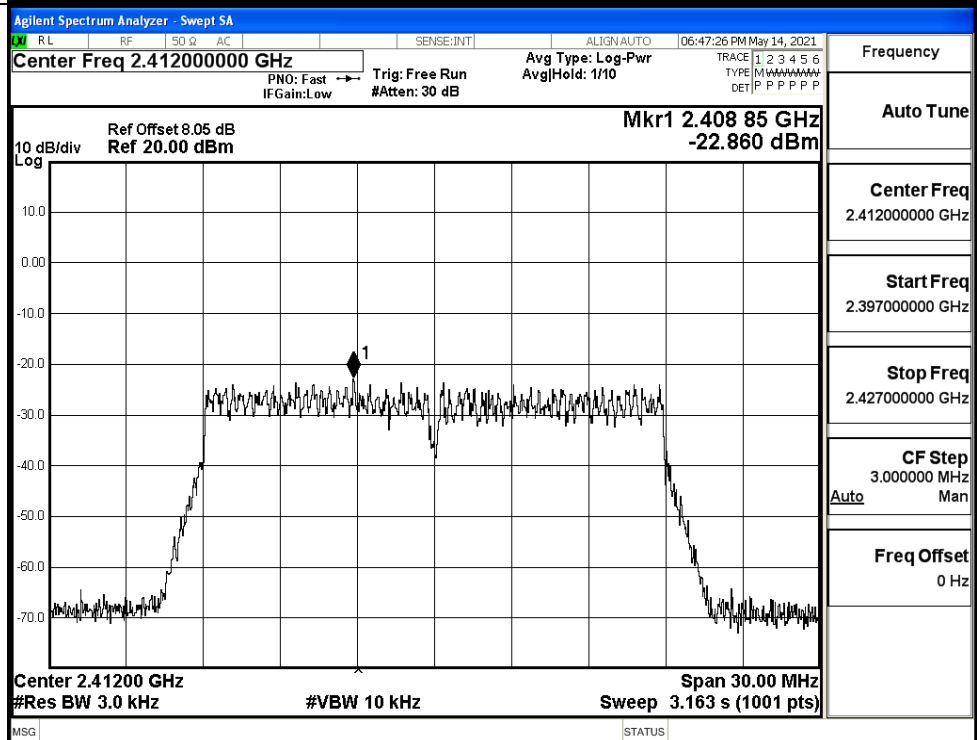
11G/MCH

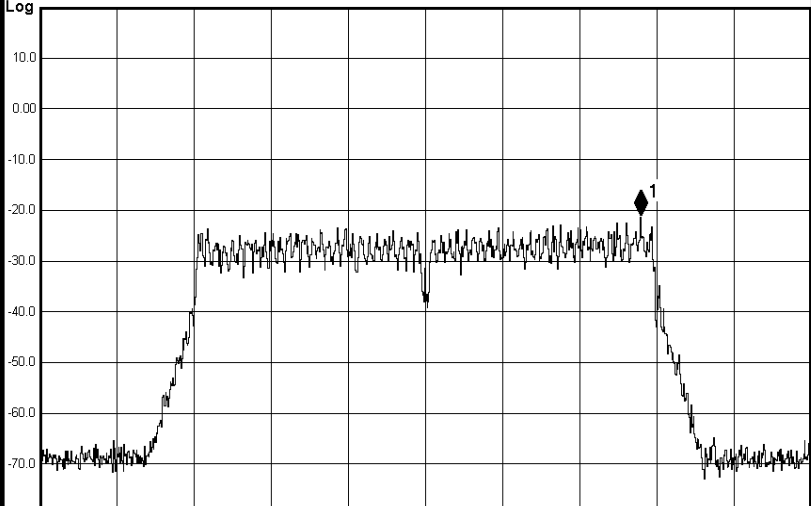
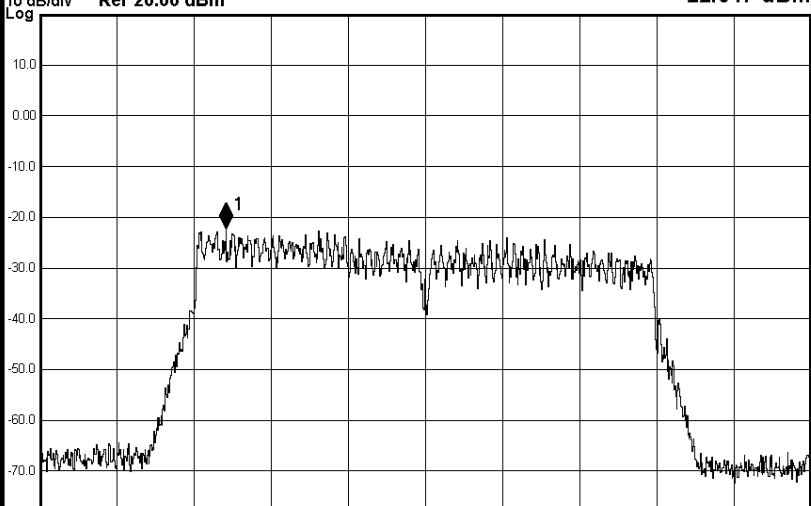


11G/HCH



11N20SISO/LCH



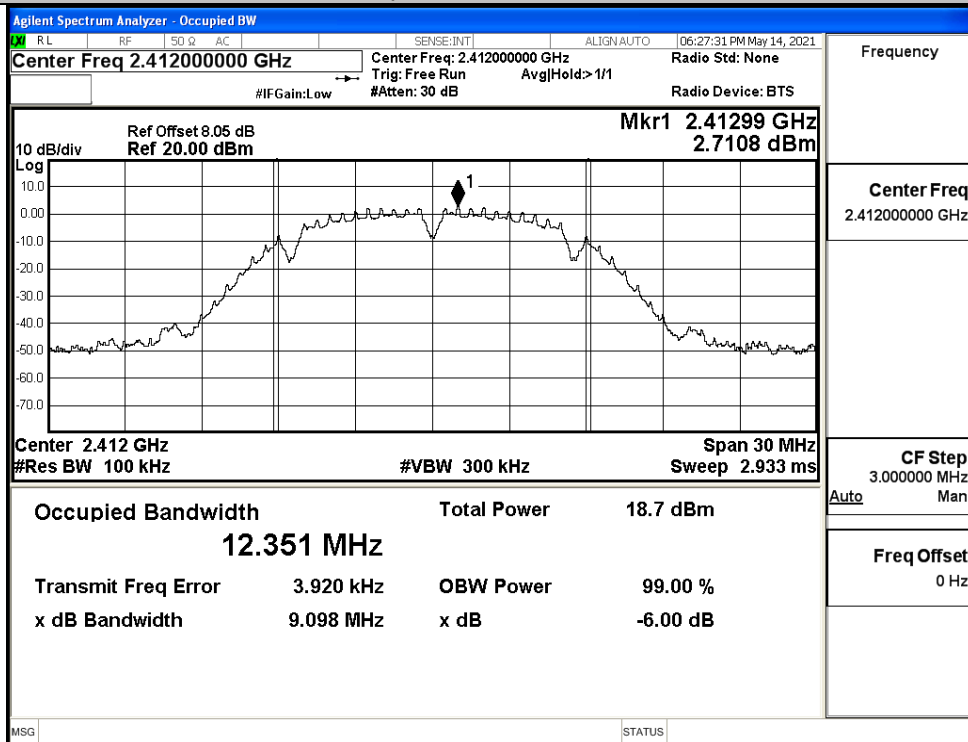
11N20SISO/MCH	Agilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 06:50:09 PM May 14, 2021 Center Freq 2.437000000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr AvgHold: 1/10 Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.445 37 GHz -21.303 dBm 10 dB/div Log  Center 2.43700 GHz Span 30.00 MHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 3.163 s (1001 pts) MSG STATUS Frequency Auto Tune Center Freq 2.437000000 GHz Start Freq 2.422000000 GHz Stop Freq 2.452000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz
11N20SISO/HCH	Agilent Spectrum Analyzer - Swept SA RL RF 50 Ω AC SENSE:INT ALIGN: AUTO 06:52:09 PM May 14, 2021 Center Freq 2.462000000 GHz PNO: Fast IF Gain: Low Trig: Free Run #Atten: 30 dB Avg Type: Log-Pwr AvgHold: 1/10 Ref Offset 8.05 dB Ref 20.00 dBm Mkr1 2.454 26 GHz -22.347 dBm 10 dB/div Log  Center 2.46200 GHz Span 30.00 MHz #Res BW 3.0 kHz #VBW 10 kHz Sweep 3.163 s (1001 pts) MSG STATUS Frequency Auto Tune Center Freq 2.462000000 GHz Start Freq 2.447000000 GHz Stop Freq 2.477000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz

C.4 6dB Bandwidth

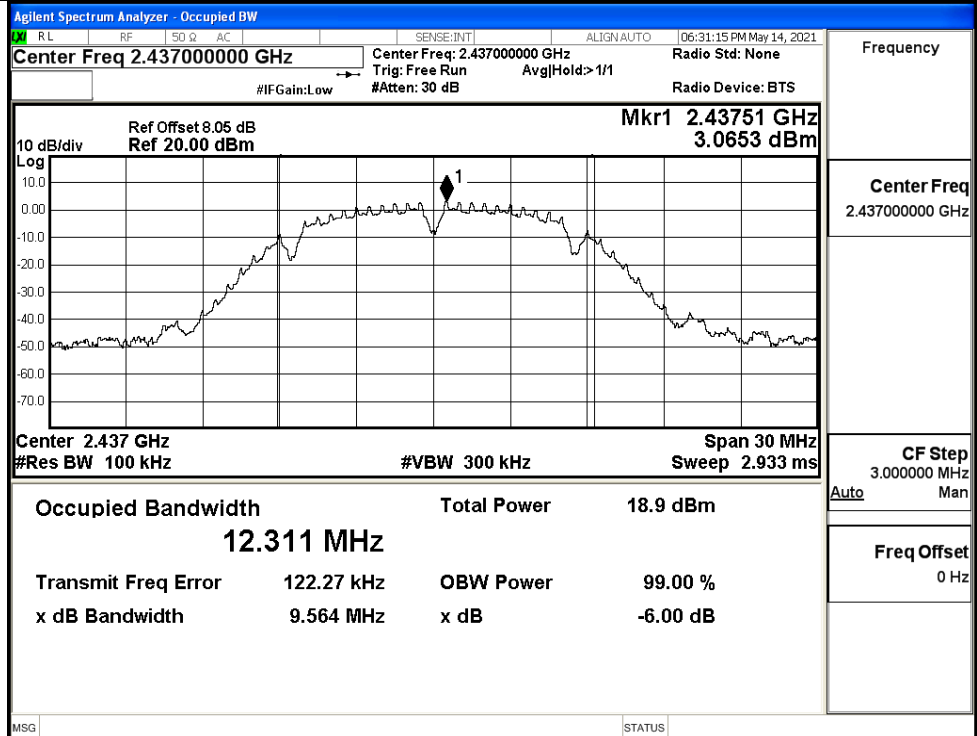
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	9.098	≥ 0.5	PASS
	MCH	9.564	≥ 0.5	PASS
	HCH	9.581	≥ 0.5	PASS
11G	LCH	16.41	≥ 0.5	PASS
	MCH	16.16	≥ 0.5	PASS
	HCH	15.78	≥ 0.5	PASS
11N20SISO	LCH	17.63	≥ 0.5	PASS
	MCH	17.36	≥ 0.5	PASS
	HCH	16.41	≥ 0.5	PASS
11N40SISO	LCH	35.76	≥ 0.5	PASS
	MCH	35.49	≥ 0.5	PASS
	HCH	35.47	≥ 0.5	PASS

Test Graphs

11B/LCH



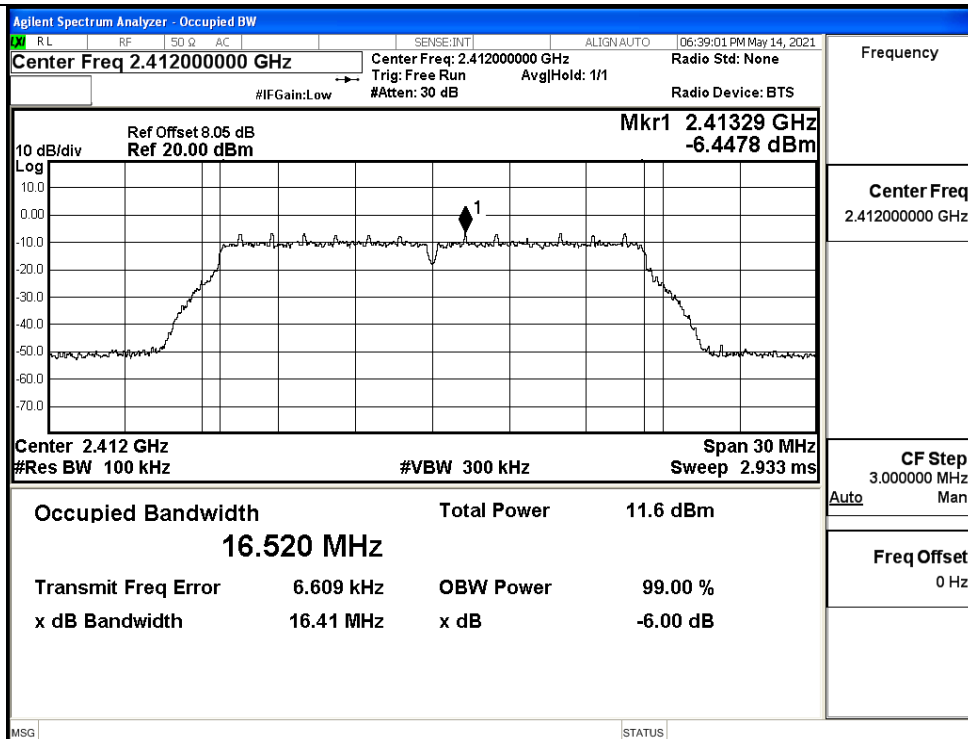
11B/MCH



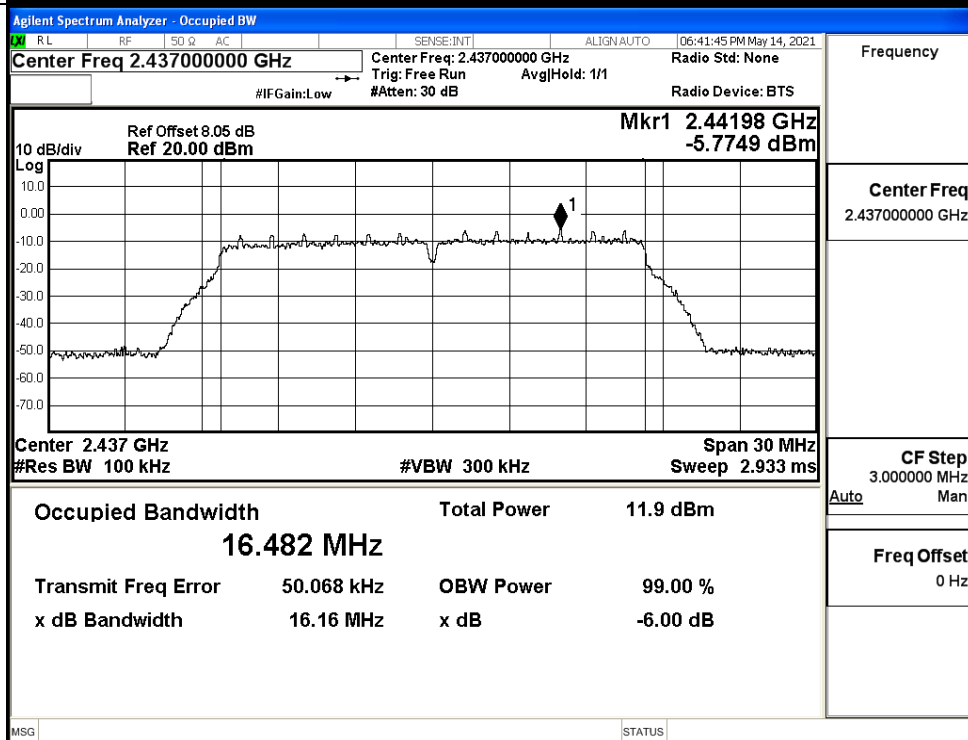
11B/HCH



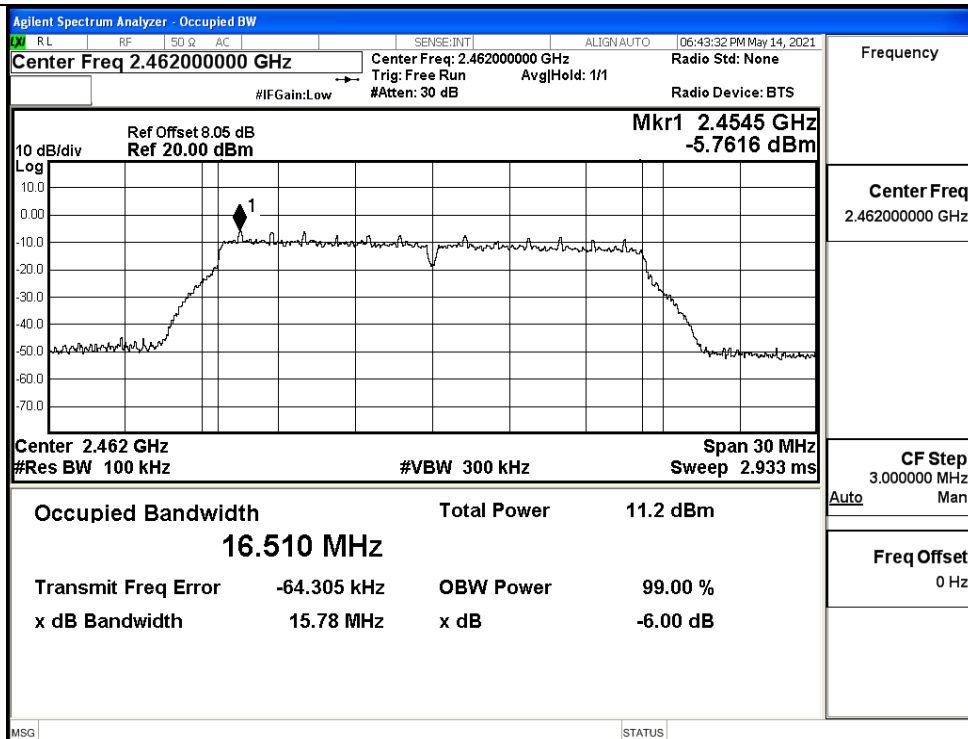
11G/LCH



11G/MCH



11G/HCH



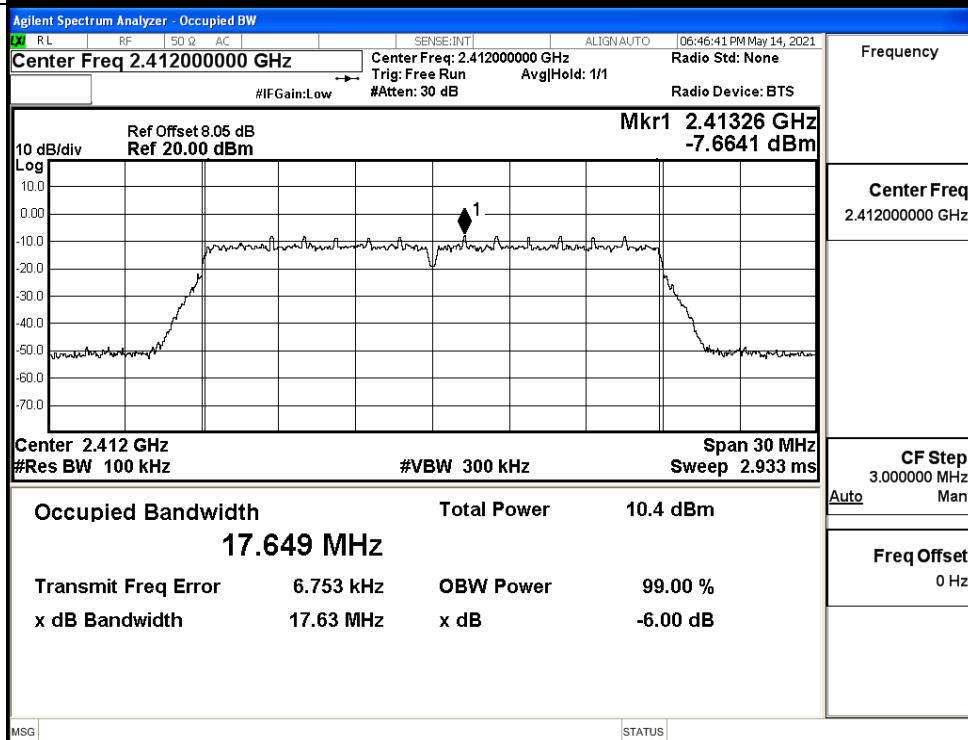
Frequency

Center Freq
2.462000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/LCH

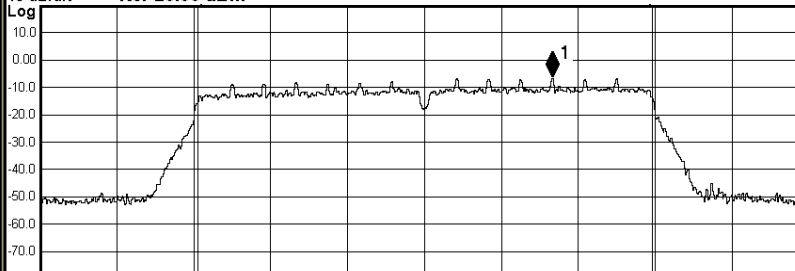
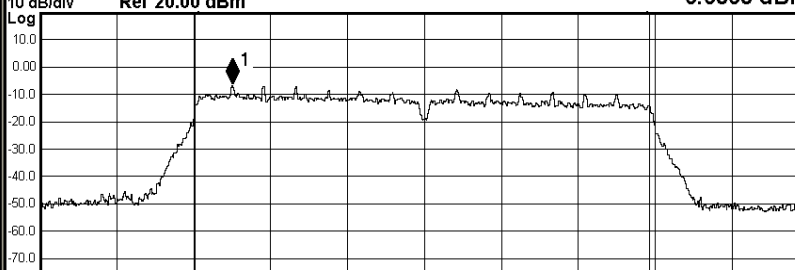


Frequency

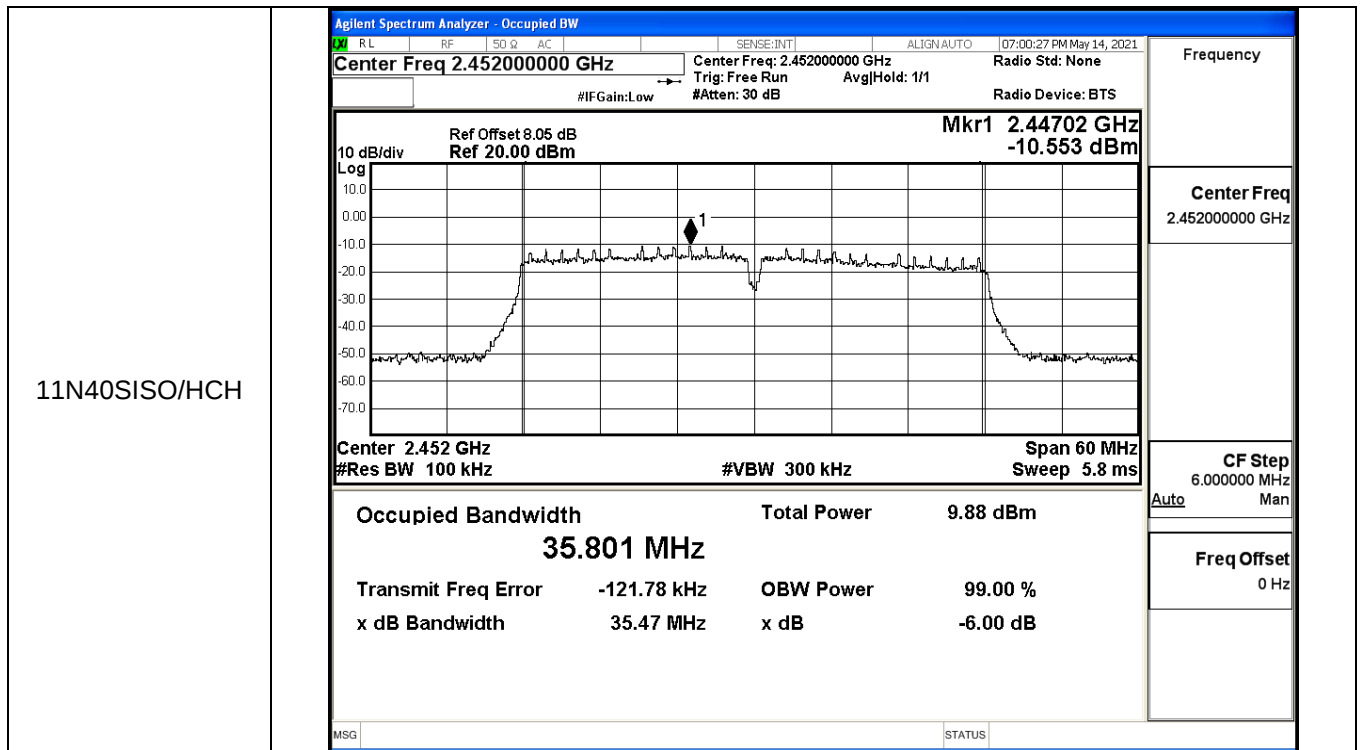
Center Freq
2.412000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

11N20SISO/MCH	Agilent Spectrum Analyzer - Occupied BW RL RF 50 Ω AC SENSE:INT ALIGN AUTO 06:49:24 PM May 14, 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 2.44198 GHz -6.7253 dBm  Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.637 MHz Total Power 11.1 dBm Transmit Freq Error 49.487 kHz OBW Power 99.00 % x dB Bandwidth 17.36 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 06:51:24 PM May 14, 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 2.45453 GHz -6.6868 dBm  Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.657 MHz Total Power 10.3 dBm Transmit Freq Error -55.370 kHz OBW Power 99.00 % x dB Bandwidth 16.41 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

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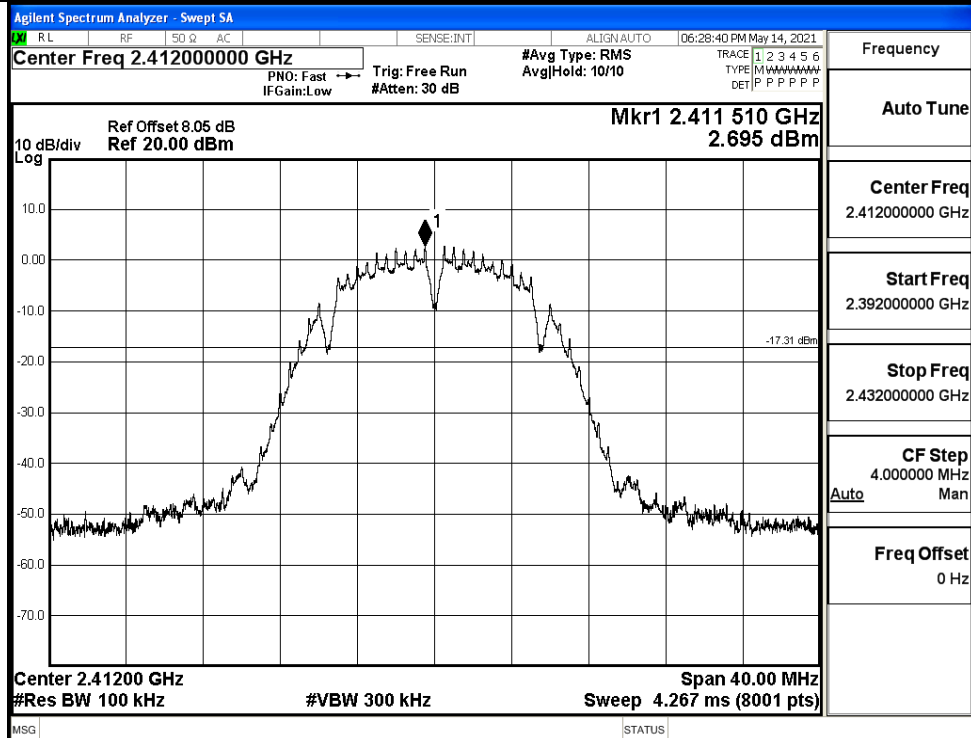


C.5 RF Conducted Spurious Emissions

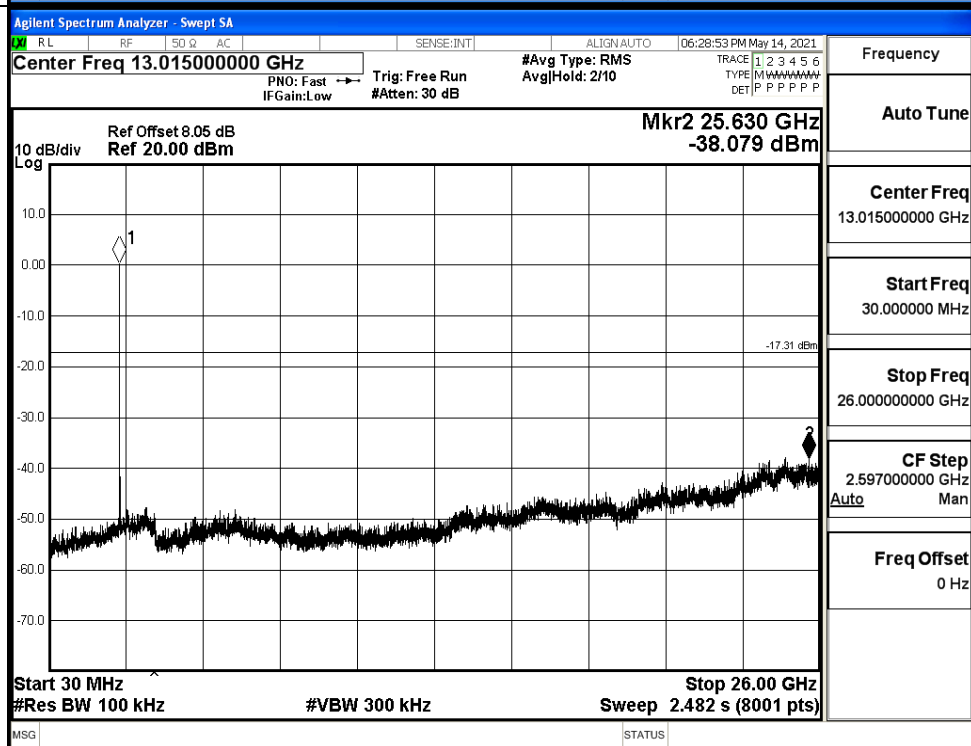
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.695	-38.079	-17.305	PASS
	MCH	3.093	-37.806	-16.907	PASS
	HCH	2.385	-37.903	-17.615	PASS
11G	LCH	-6.773	-38.535	-26.773	PASS
	MCH	-5.903	-37.470	-25.903	PASS
	HCH	-6.205	-38.068	-26.205	PASS
11N20 SISO	LCH	-7.827	-37.974	-27.827	PASS
	MCH	-6.88	-37.710	-26.880	PASS
	HCH	-7.172	-37.682	-27.172	PASS
11N40 SISO	LCH	-10.499	-36.593	-30.499	PASS
	MCH	-10.764	-37.192	-30.764	PASS
	HCH	-10.643	-38.568	-30.643	PASS

11B LCH Graphs

Pref/11B/LCH

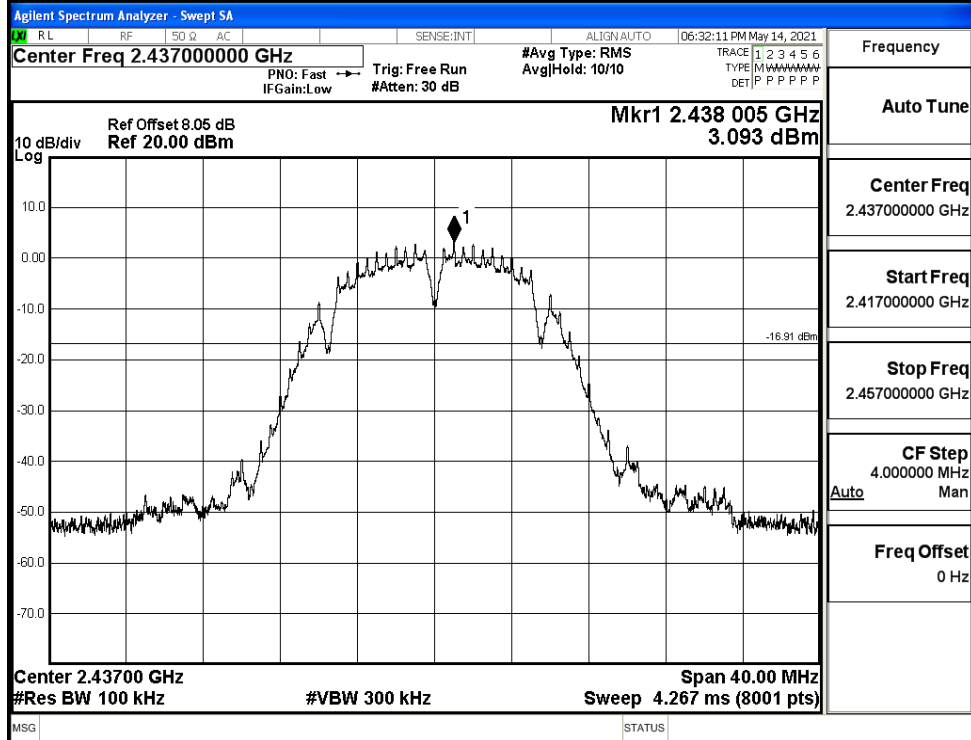


Puw/11B/LCH

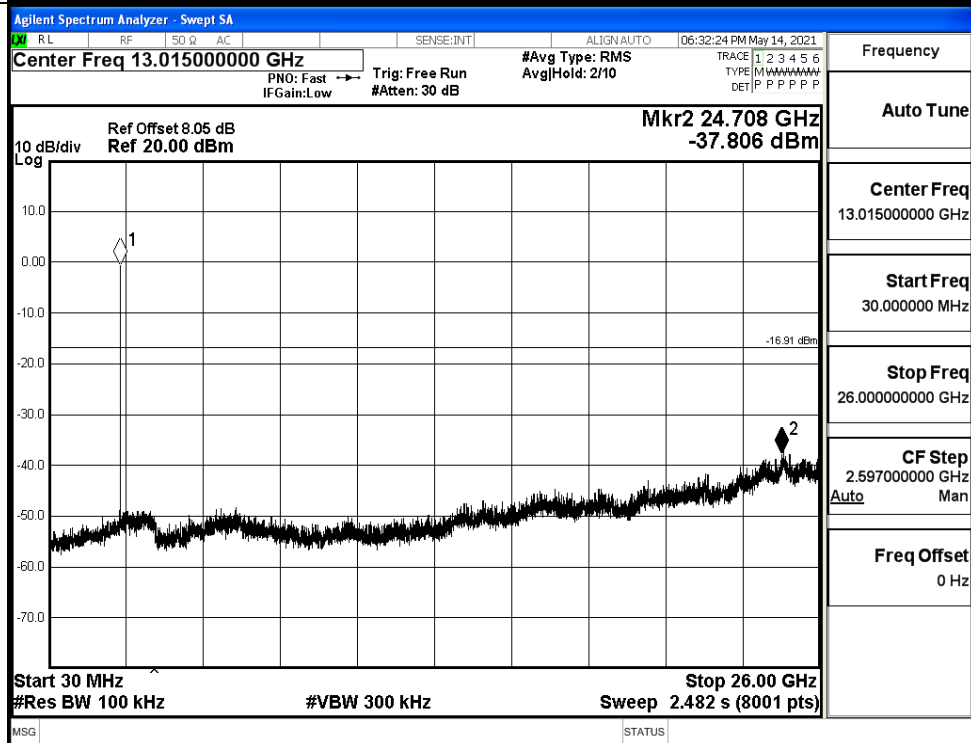


11B MCH Graphs

Pref/11B/MCH

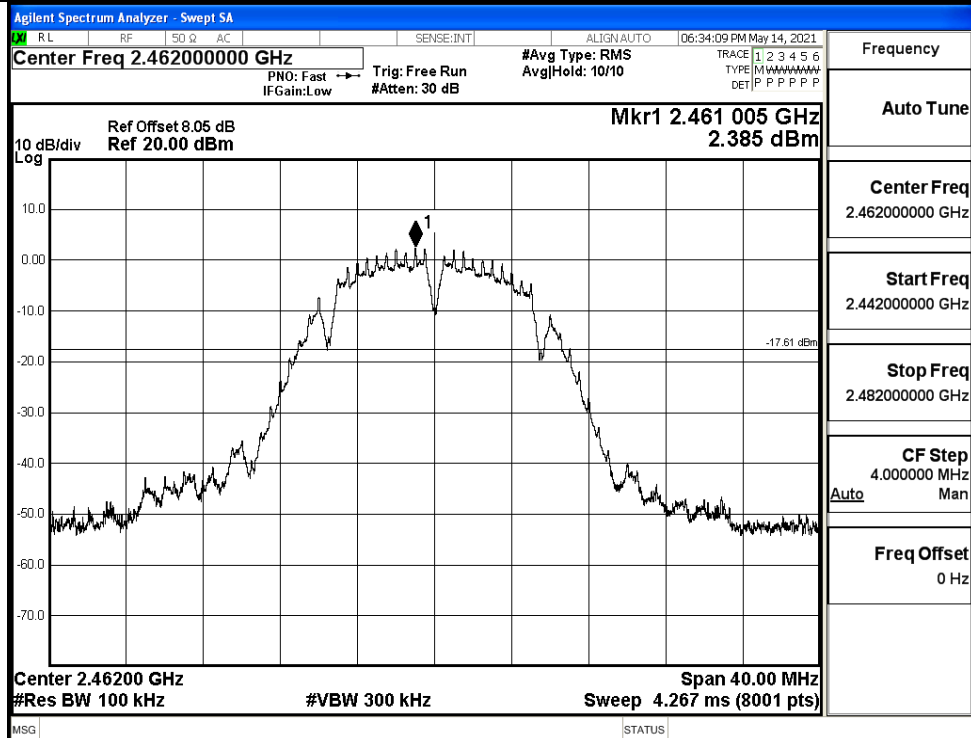


Puw/11B/MCH

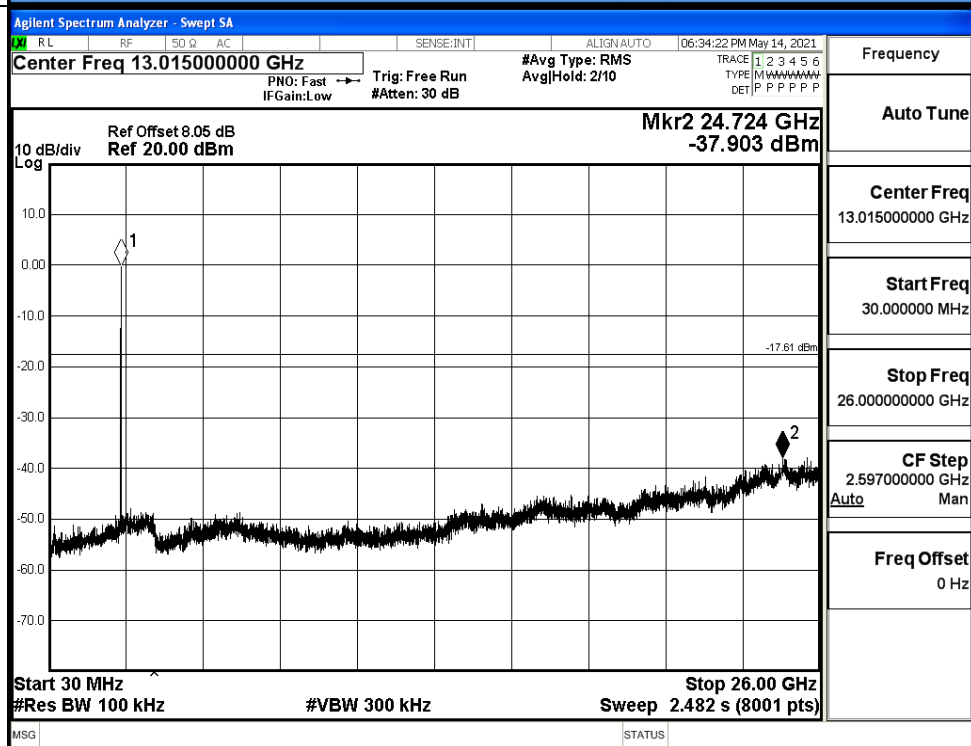


11B HCH Graphs

Pref/11B/HCH

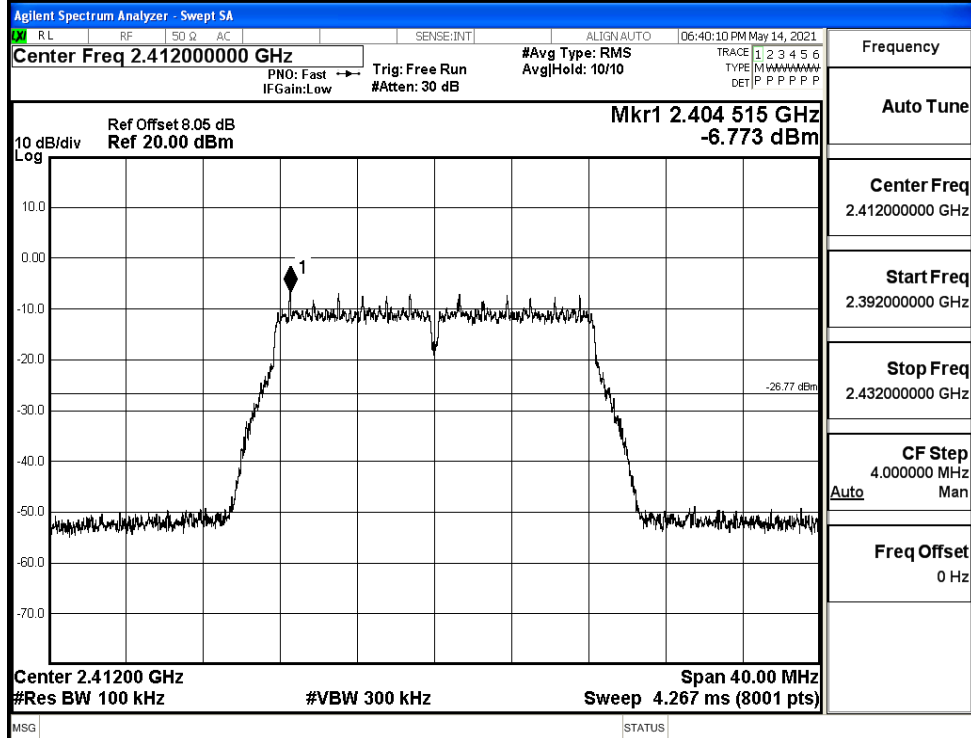


Puw/11B/HCH

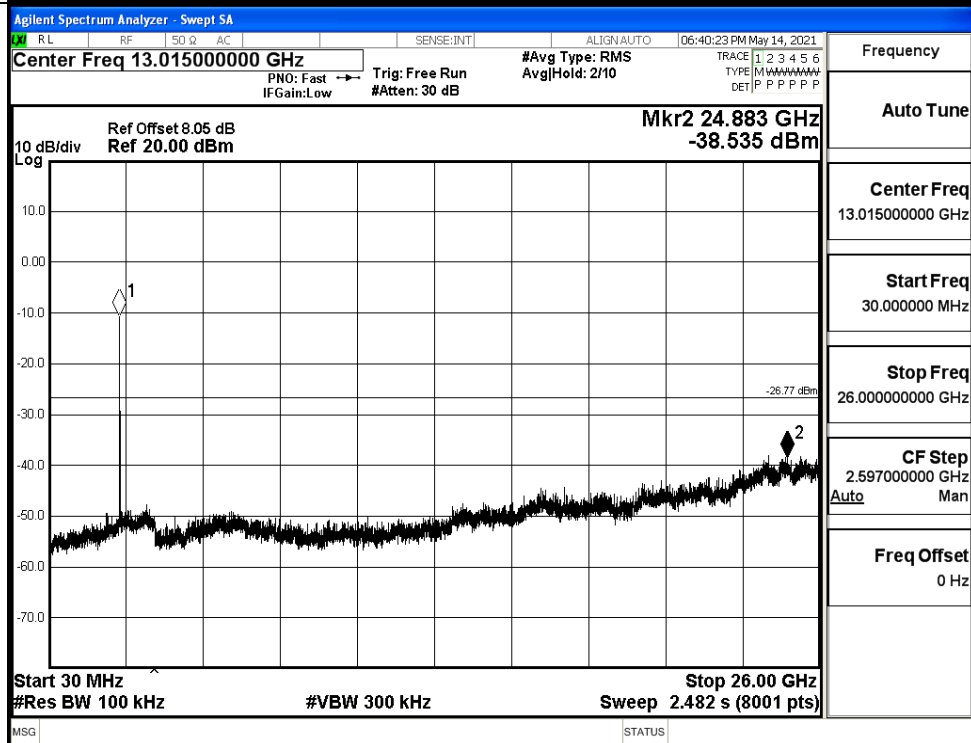


11G LCH Graphs

Pref/11G/LCH

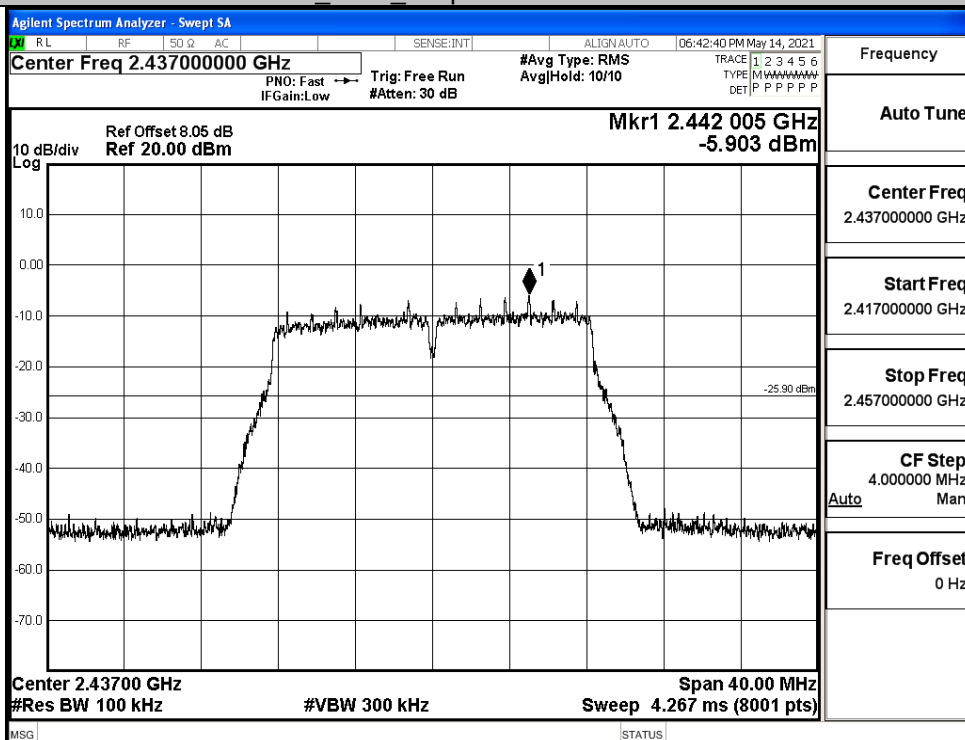


Puw/11G/LCH

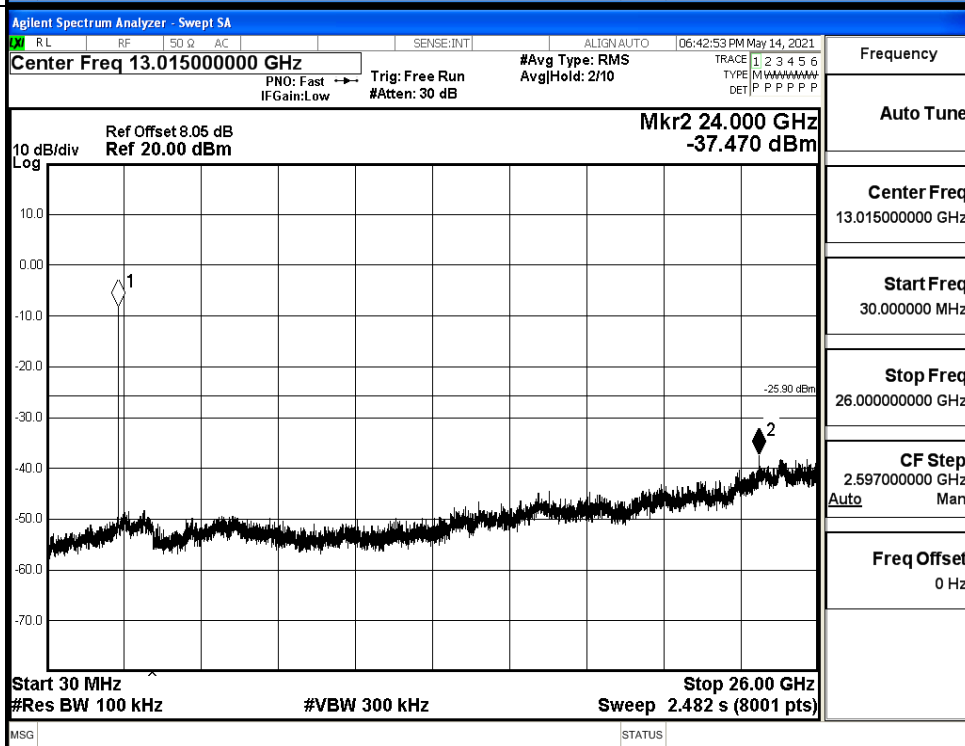


11G MCH Graphs

Pref/11G/MCH

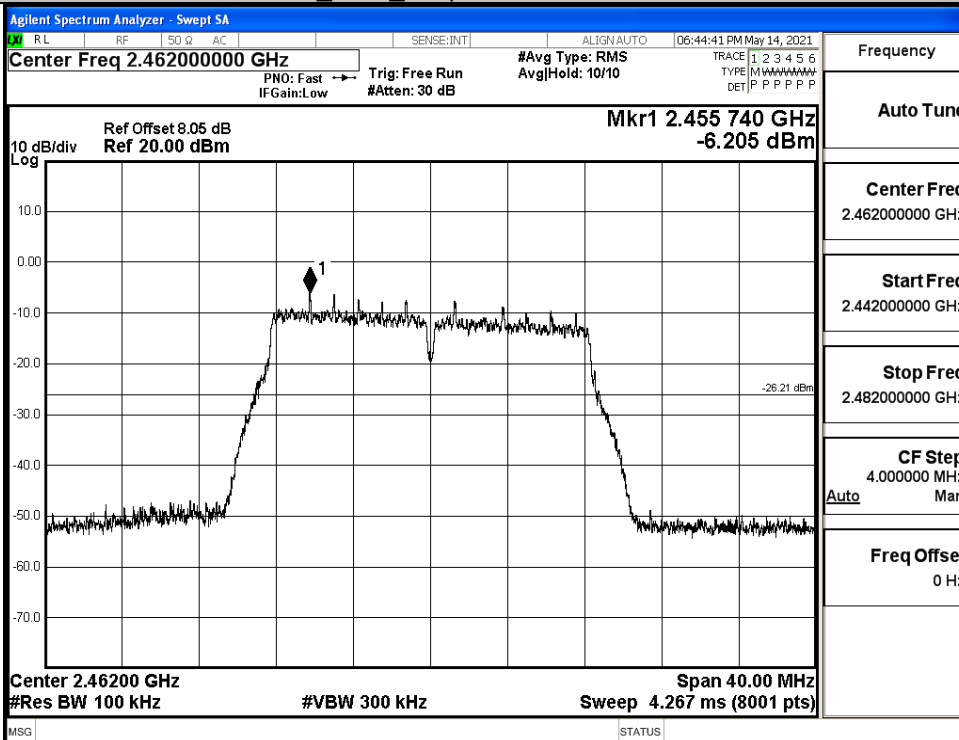


Puw/11G/MCH

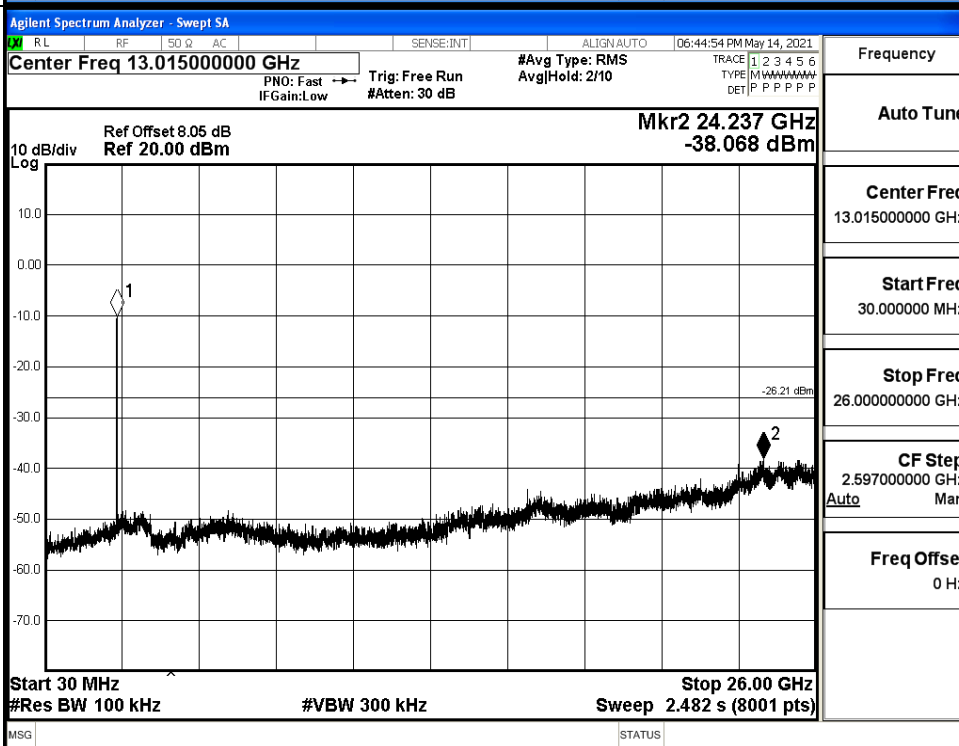


11G HCH Graphs

Pref/11G/HCH

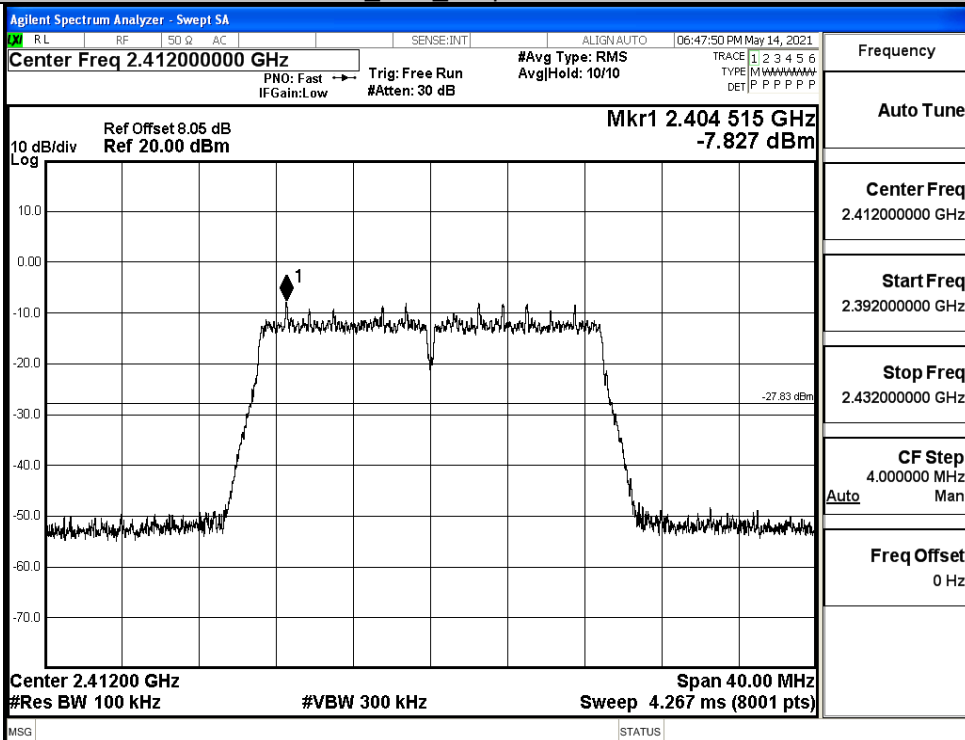


Puw/11G/HCH

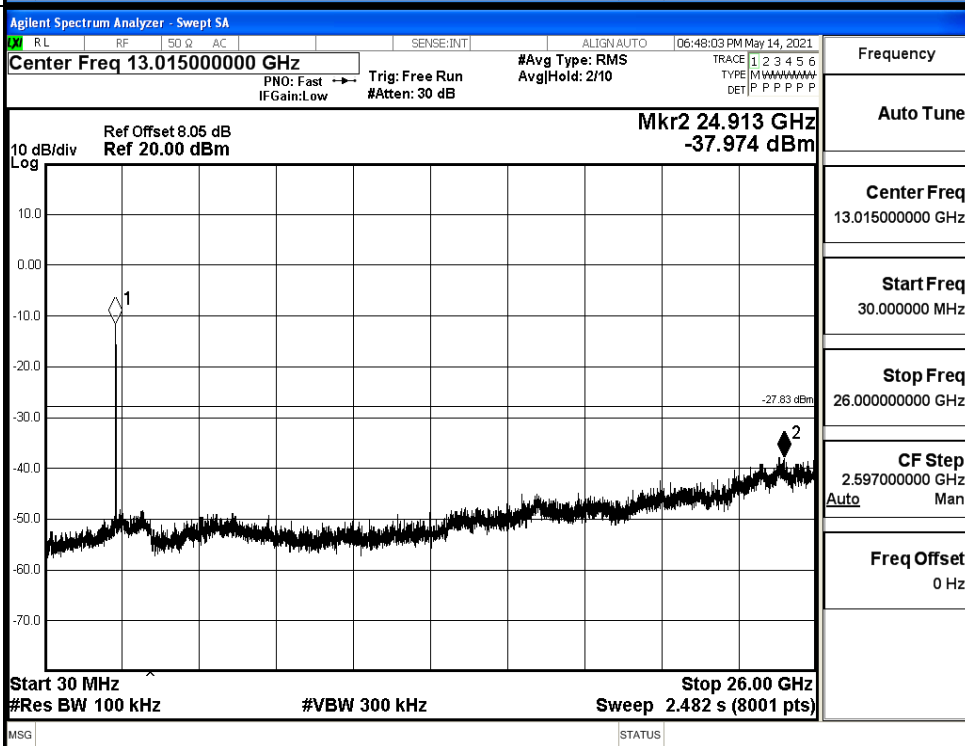


11N20SISO LCH Graphs

Pref/11N20SIS
O/LCH

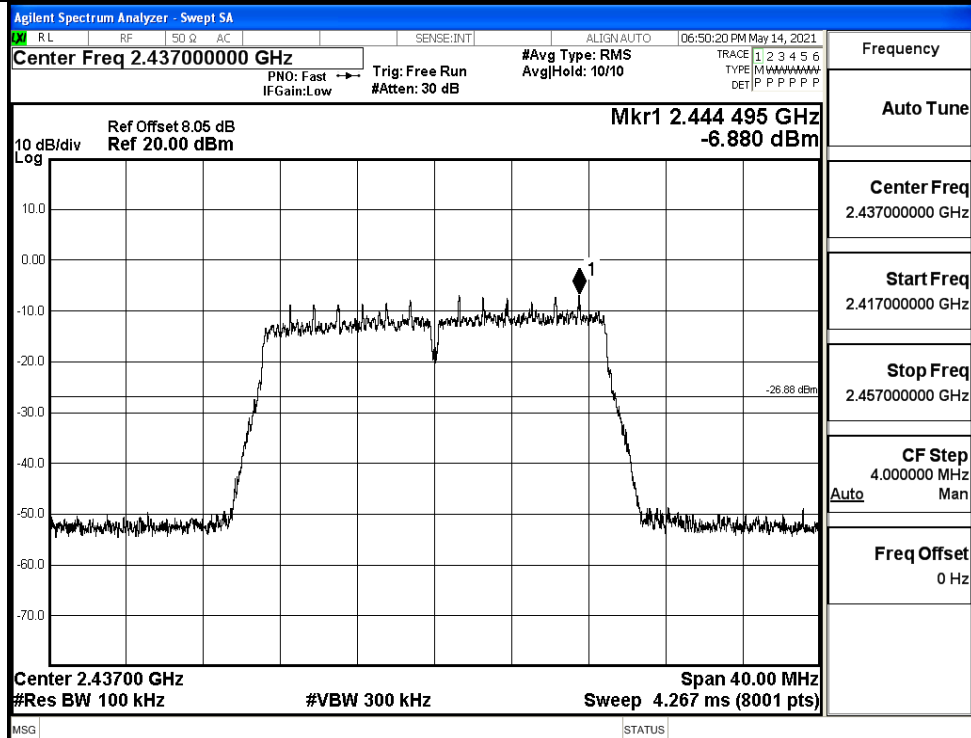


Puw/11N20
SISO/LCH

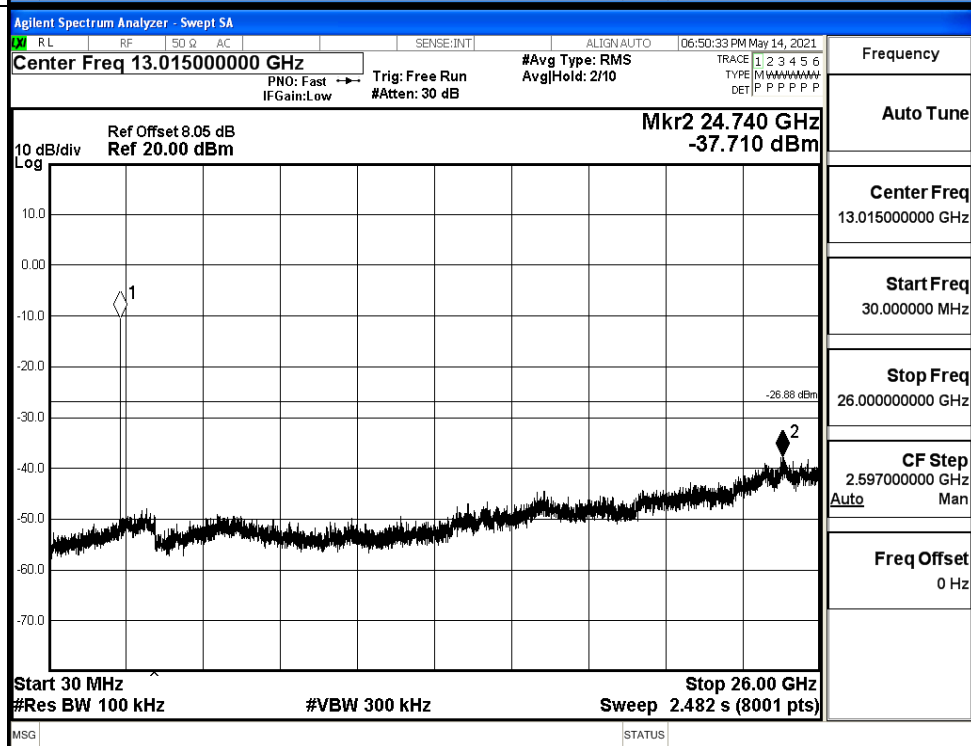


11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCH

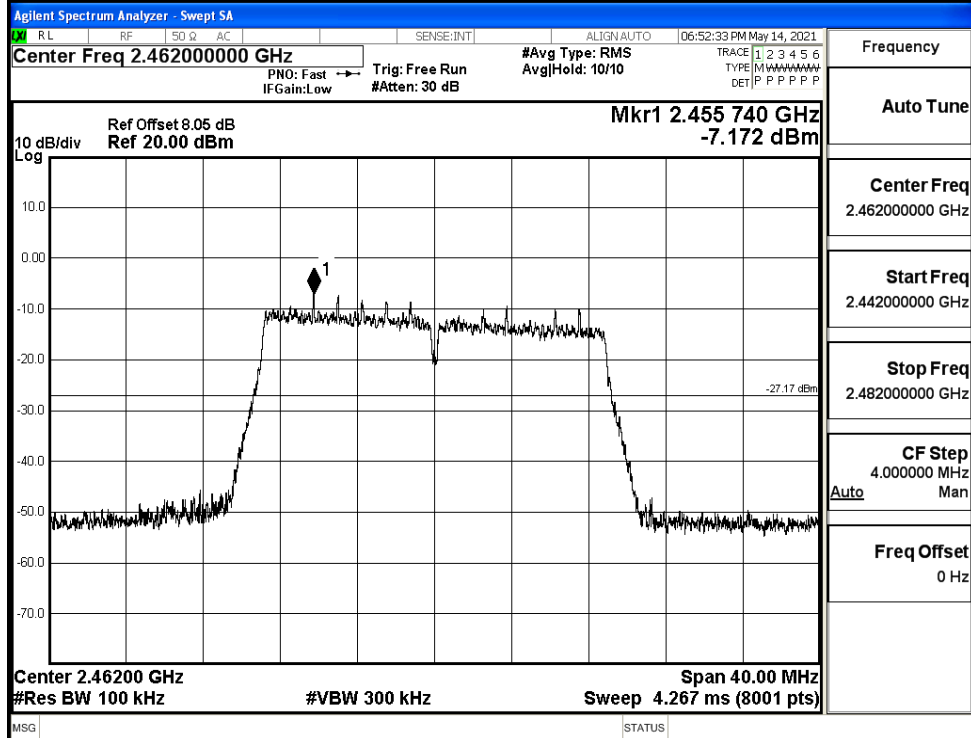


Puw/11N20
SISO/MCH

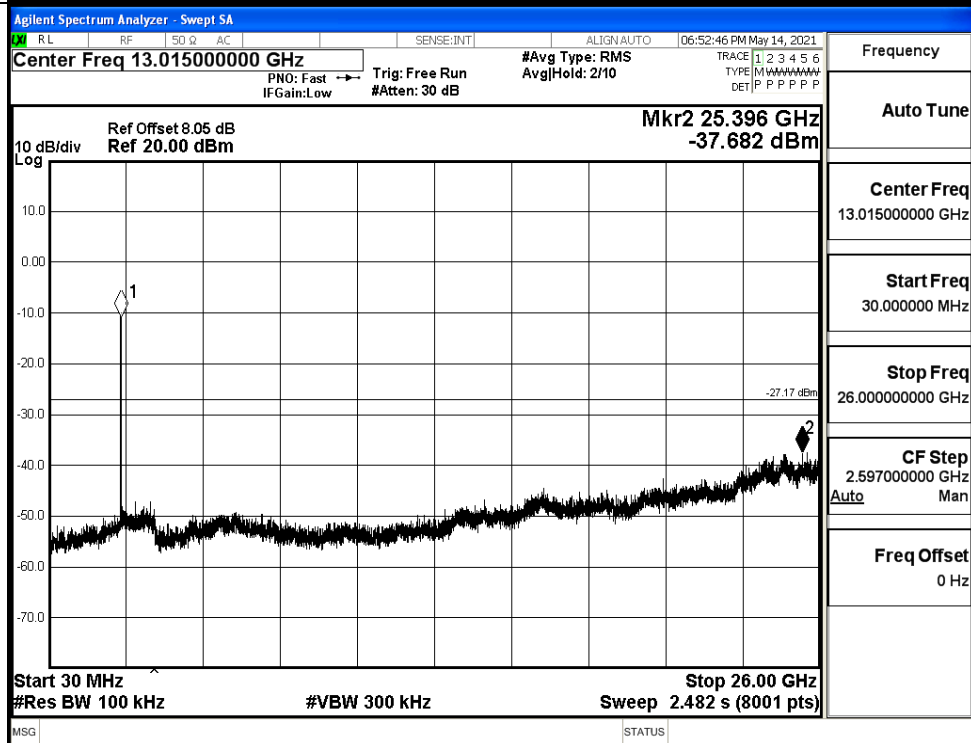


11N20SISO HCH Graphs

Pref/11N20
SISO/HCH

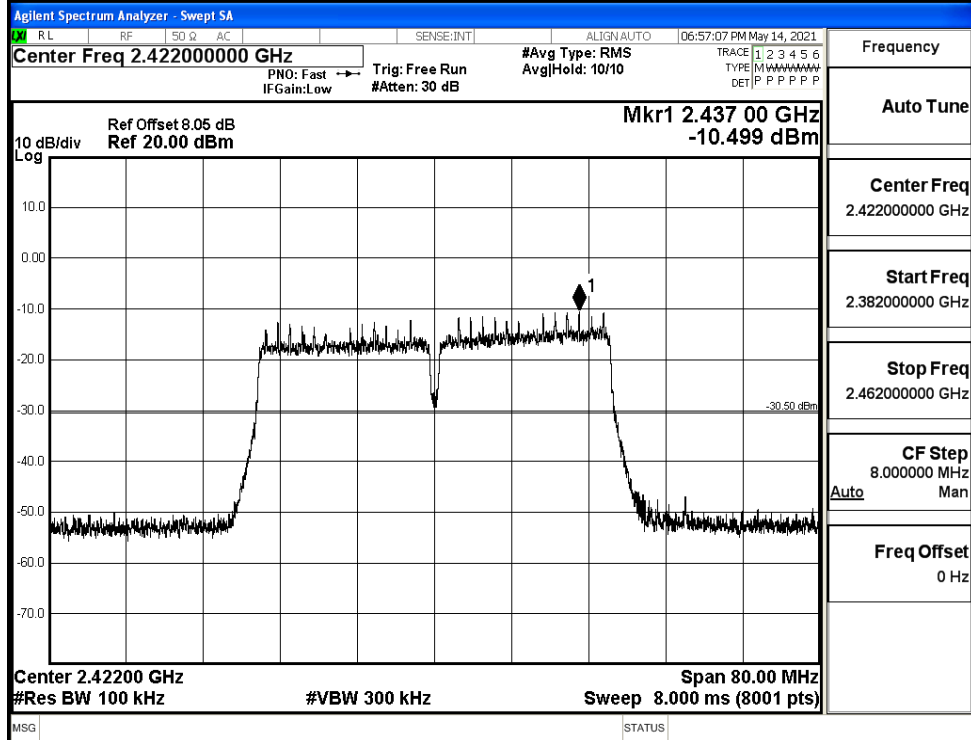


Puw/11N20
SISO/HCH

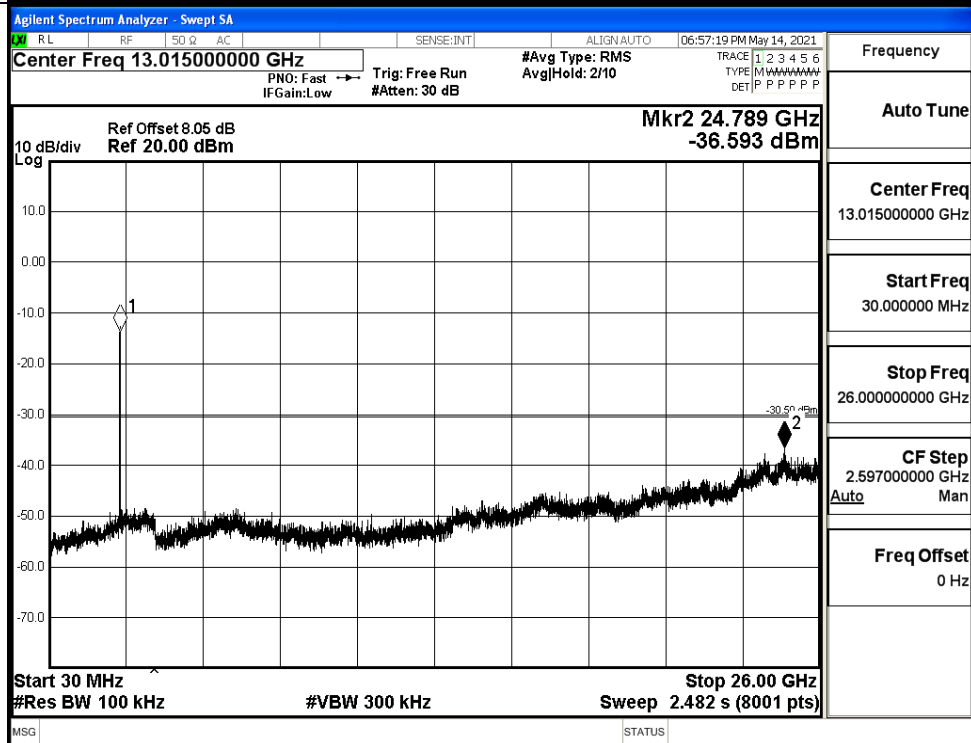


11N40SISO LCH Graphs

Pref/11N40
SISO/LCH

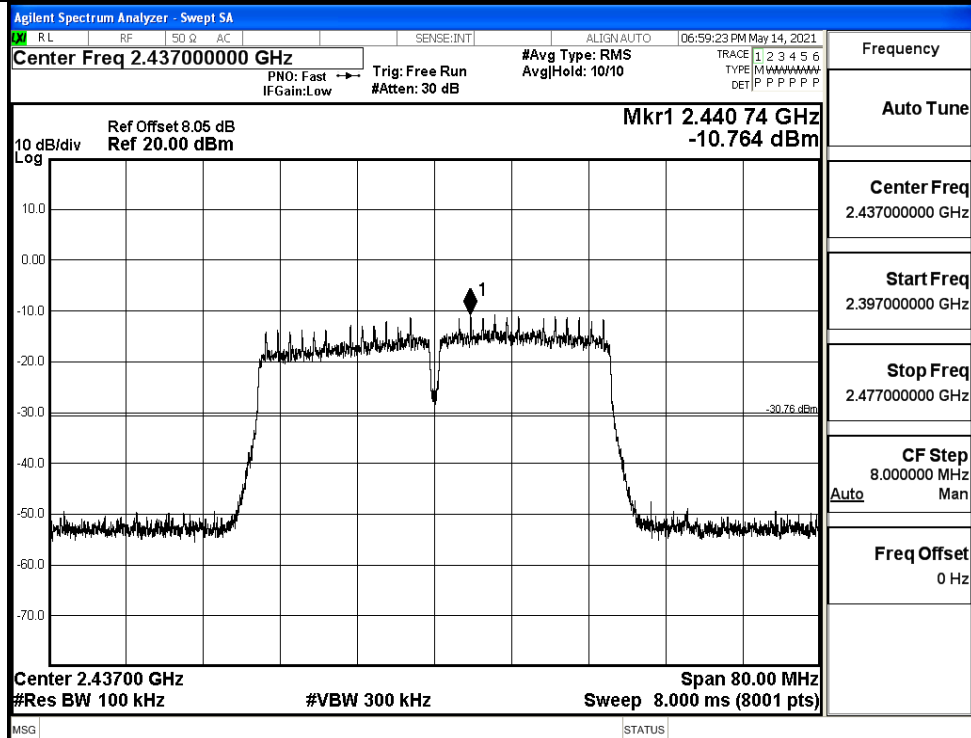


Puw/11N40
SISO/LCH

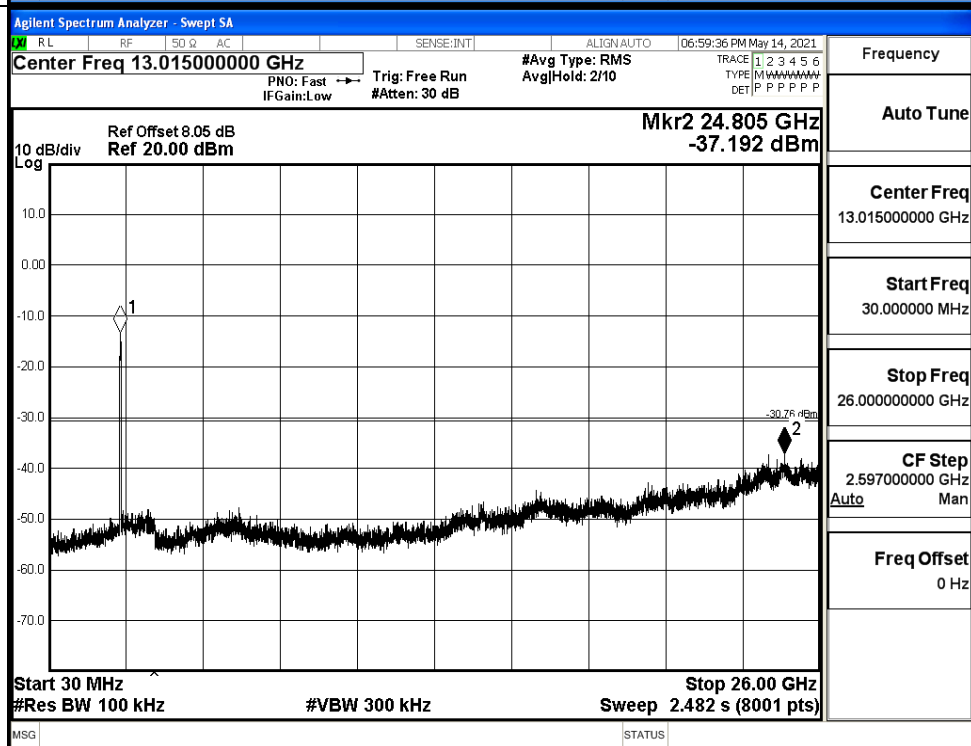


11N40SISO_MCH_Graphs

Pref/11N40
SISO/MCH

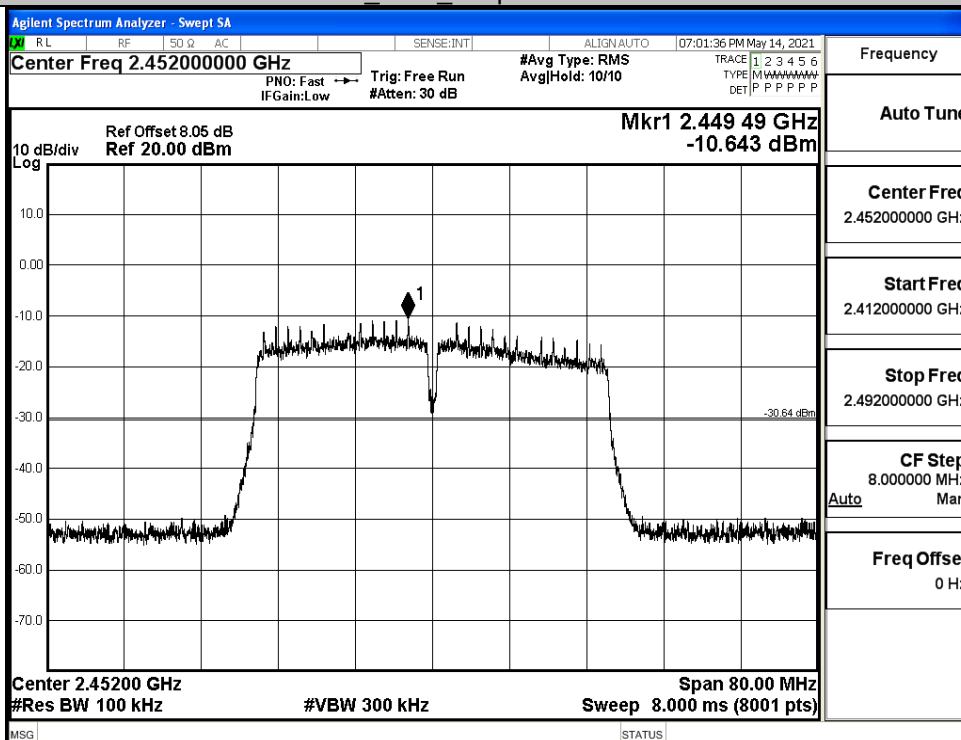


Puw/11N40
SISO/MCH

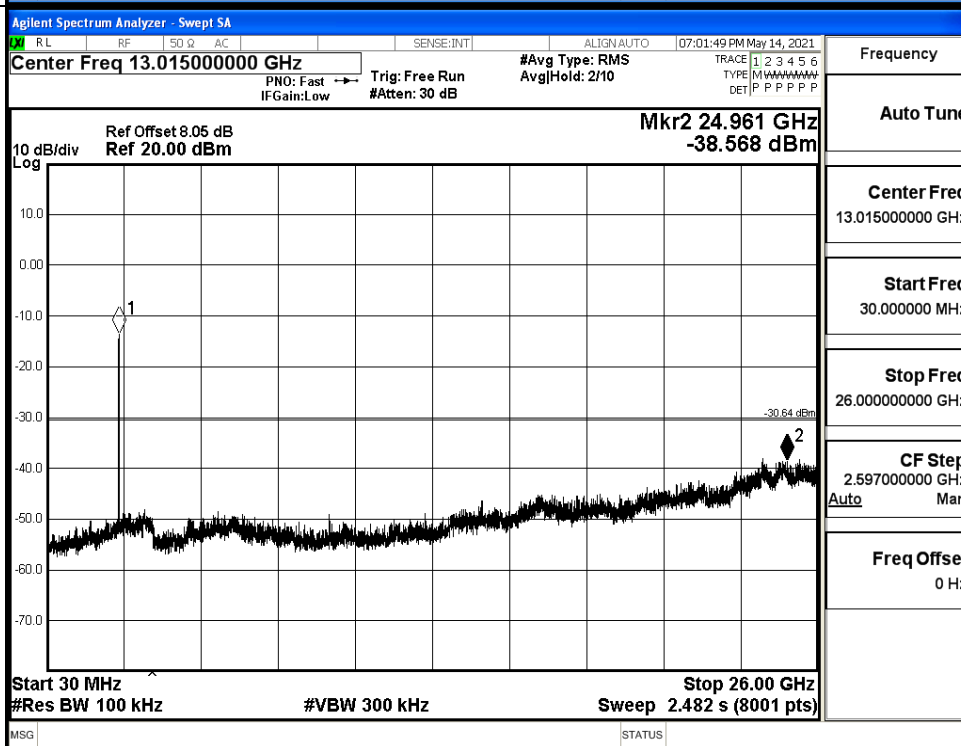


11N40SISO HCH Graphs

Pref/11N40
SISO/HCH

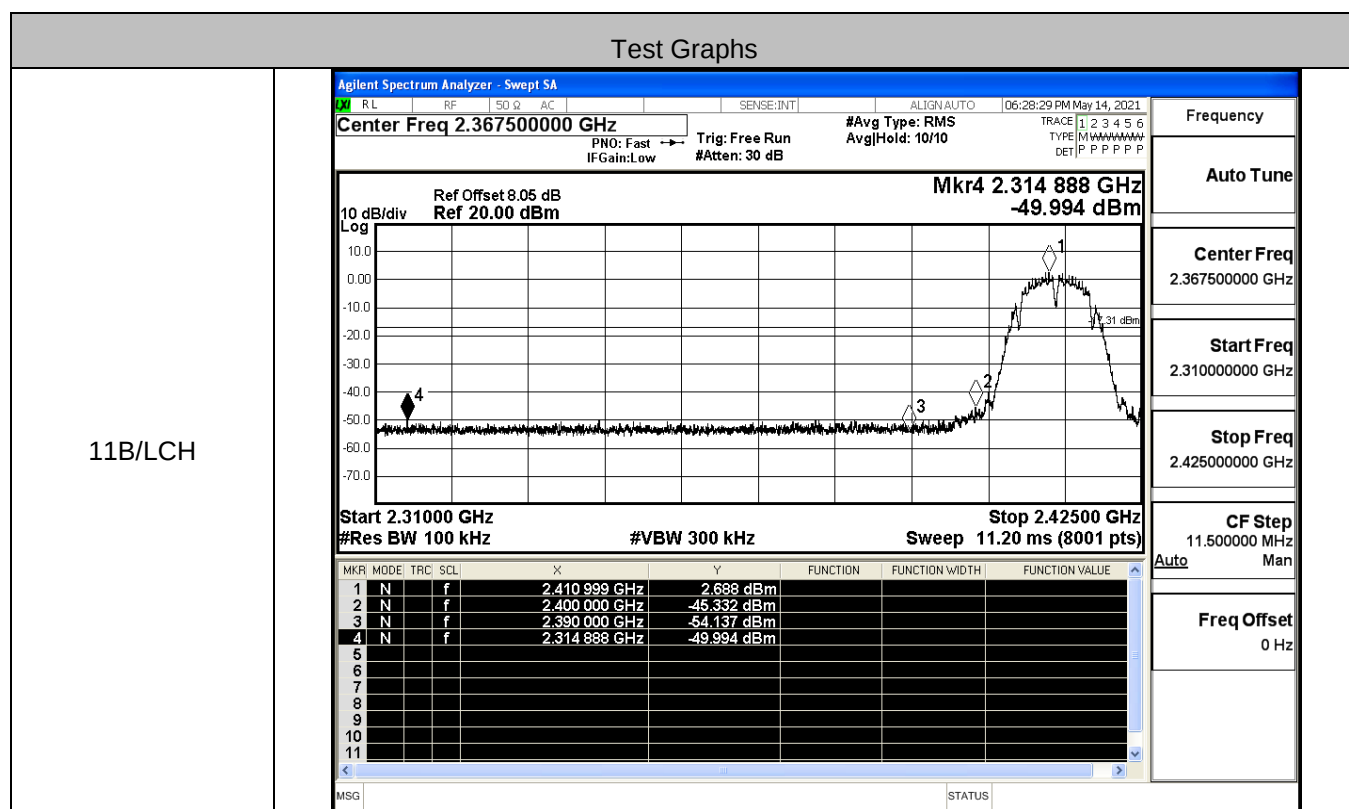


Puw/11N40
SISO/HCH

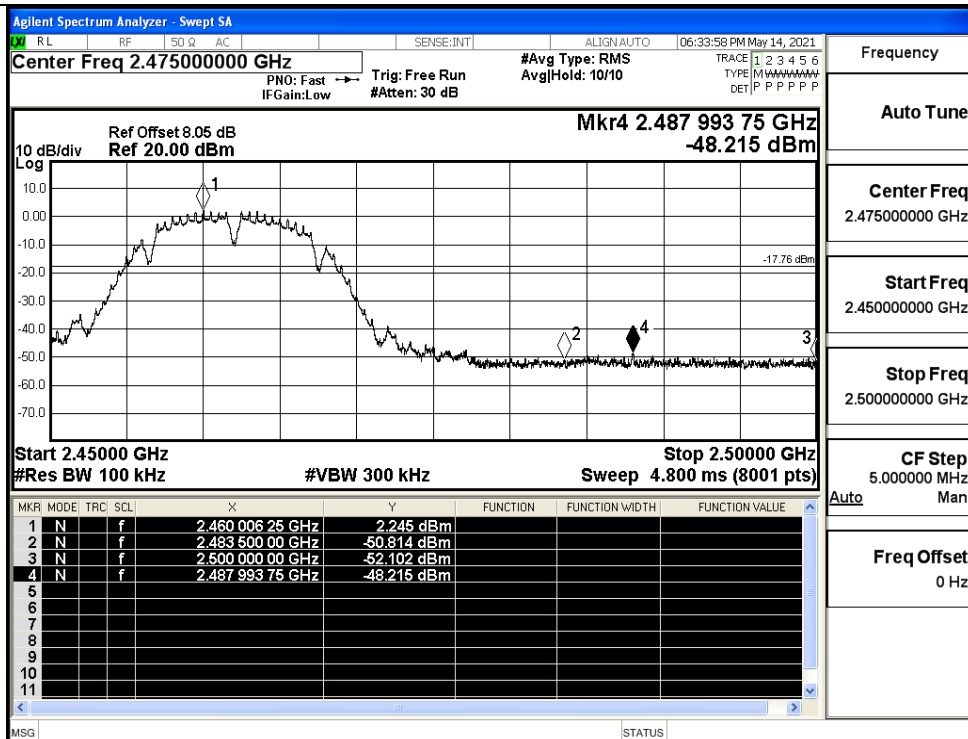


C.6 Band-edge for RF Conducted Emissions

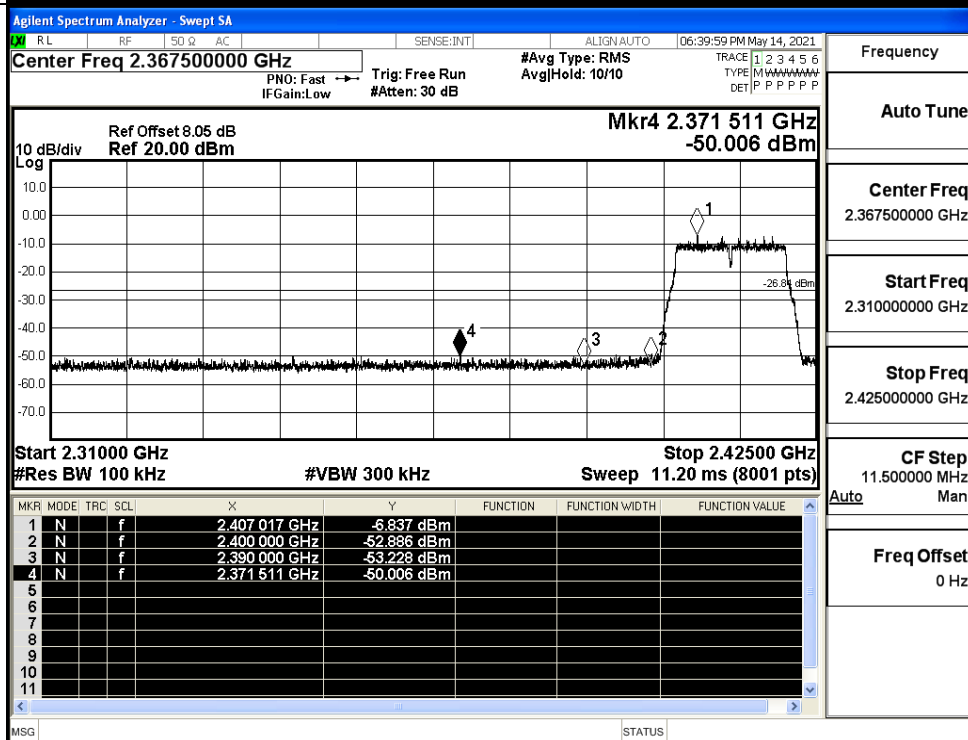
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	2.688	-49.994	-17.31	PASS
	HCH	2.245	-48.215	-17.76	PASS
11G	LCH	-6.837	-50.006	-26.84	PASS
	HCH	-5.940	-48.831	-25.94	PASS
11N20SISO	LCH	-7.816	-49.824	-27.82	PASS
	HCH	-7.845	-47.166	-27.85	PASS
11N40SISO	LCH	-10.413	-50.147	-30.41	PASS
	HCH	-10.458	-49.370	-30.46	PASS



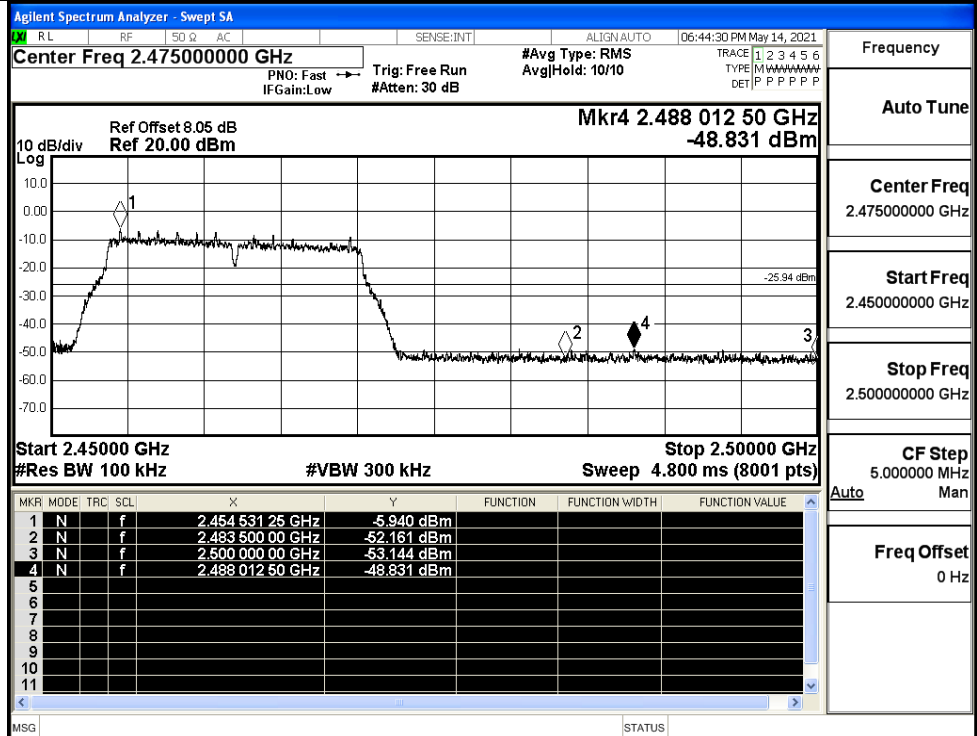
11B/HCH



11G/LCH



11G/HCH

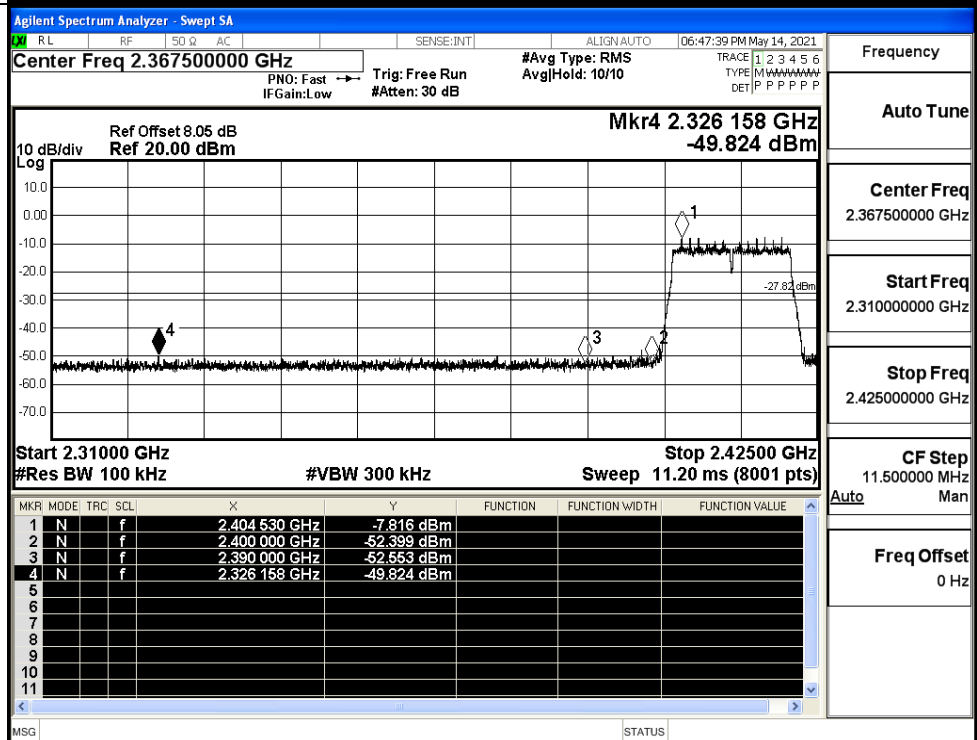


Frequency

Auto Tune

Center Freq
2.475000000 GHzStart Freq
2.450000000 GHzStop Freq
2.500000000 GHzCF Step
5.000000 MHz
Auto ManFreq Offset
0 Hz

11N20SISO/LCH

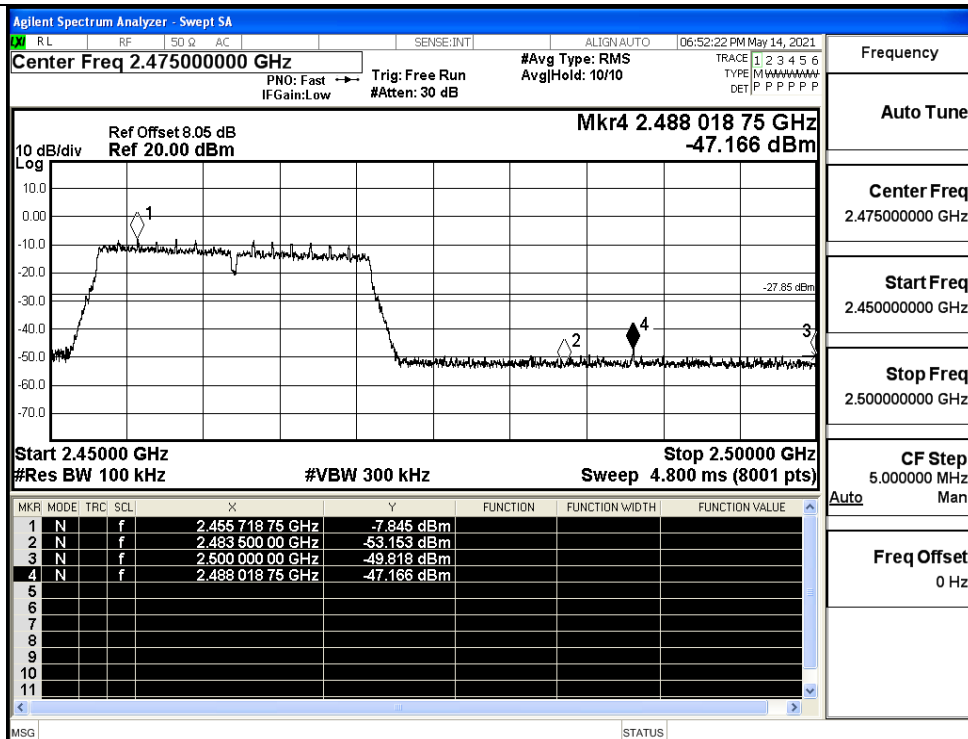


Frequency

Auto Tune

Center Freq
2.367500000 GHzStart Freq
2.310000000 GHzStop Freq
2.425000000 GHzCF Step
11.500000 MHz
Auto ManFreq Offset
0 Hz

11N20SISO/HCH

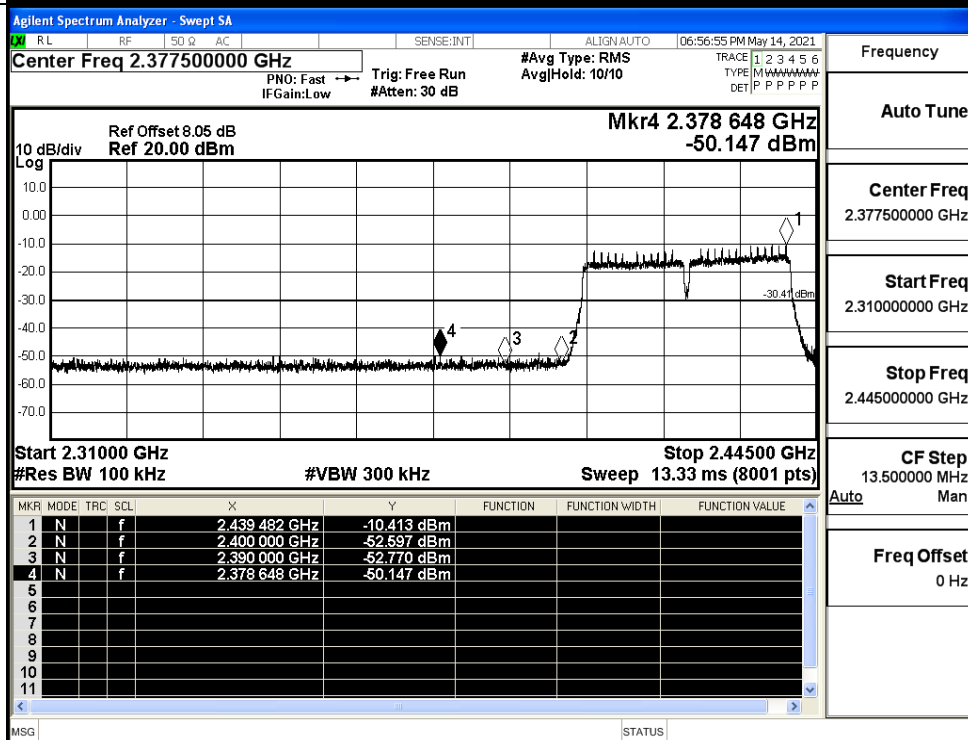


Frequency

Auto Tune

Center Freq
2.475000000 GHzStart Freq
2.450000000 GHzStop Freq
2.500000000 GHzCF Step
5.000000 MHz
Auto ManFreq Offset
0 Hz

11N40SISO/LCH

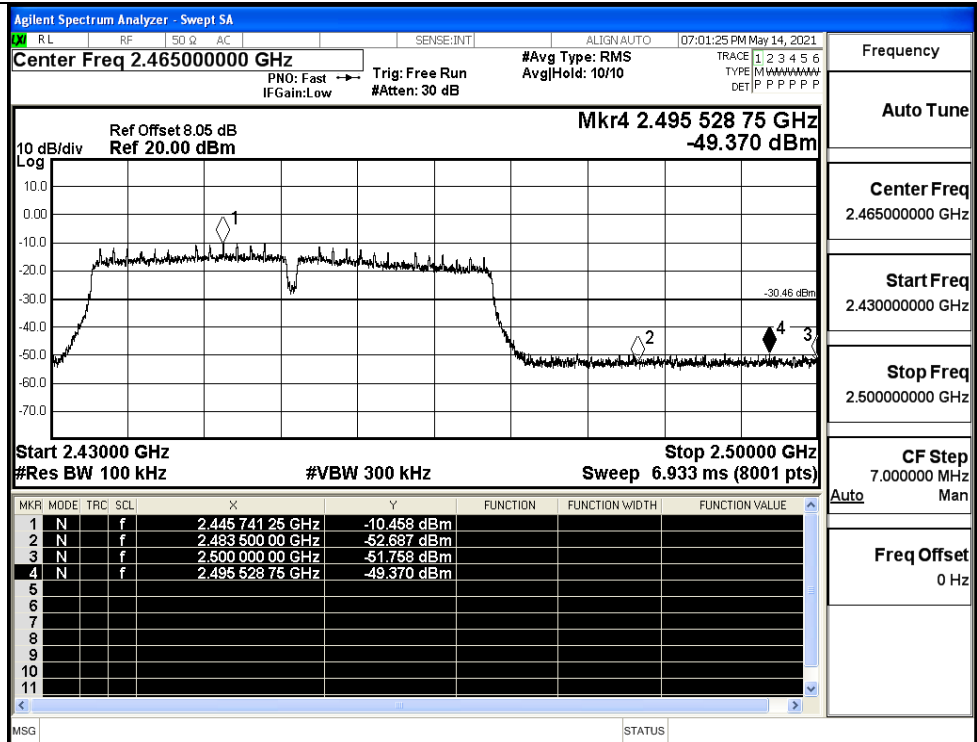


Frequency

Auto Tune

Center Freq
2.377500000 GHzStart Freq
2.310000000 GHzStop Freq
2.445000000 GHzCF Step
13.500000 MHz
Auto ManFreq Offset
0 Hz

11N40SISO/HCH



Frequency

Auto Tune

Center Freq
2.465000000 GHz

Start Freq
2.430000000 GHz

Stop Freq
2.500000000 GHz

CF Step
7.000000 MHz
Auto Man

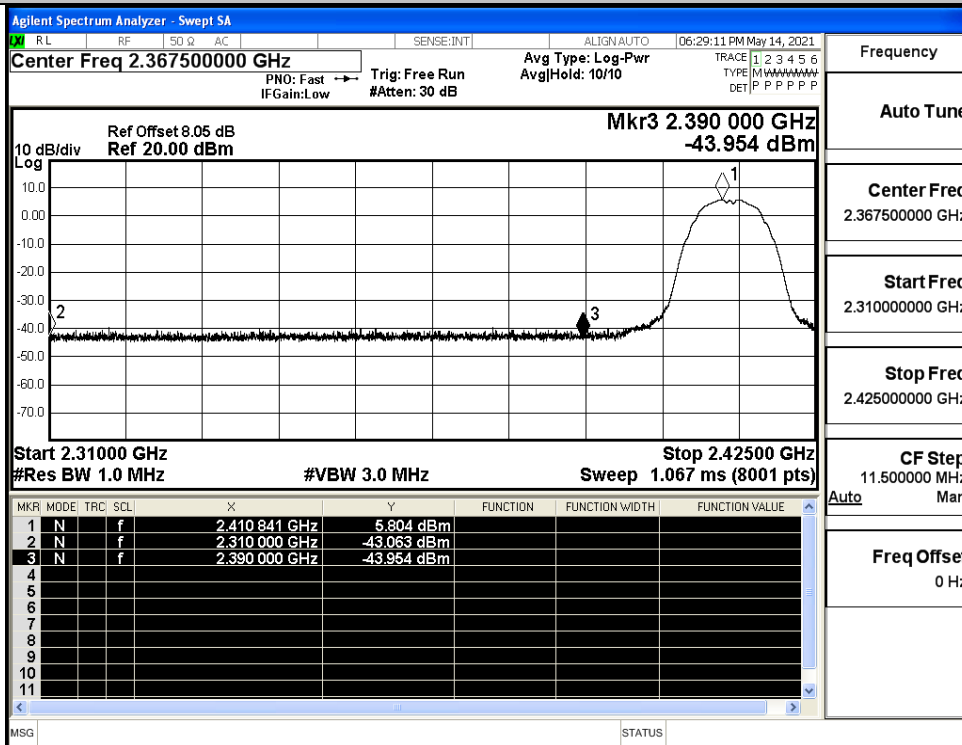
Freq Offset
0 Hz

C.7 Restrict-band band-edge measurements

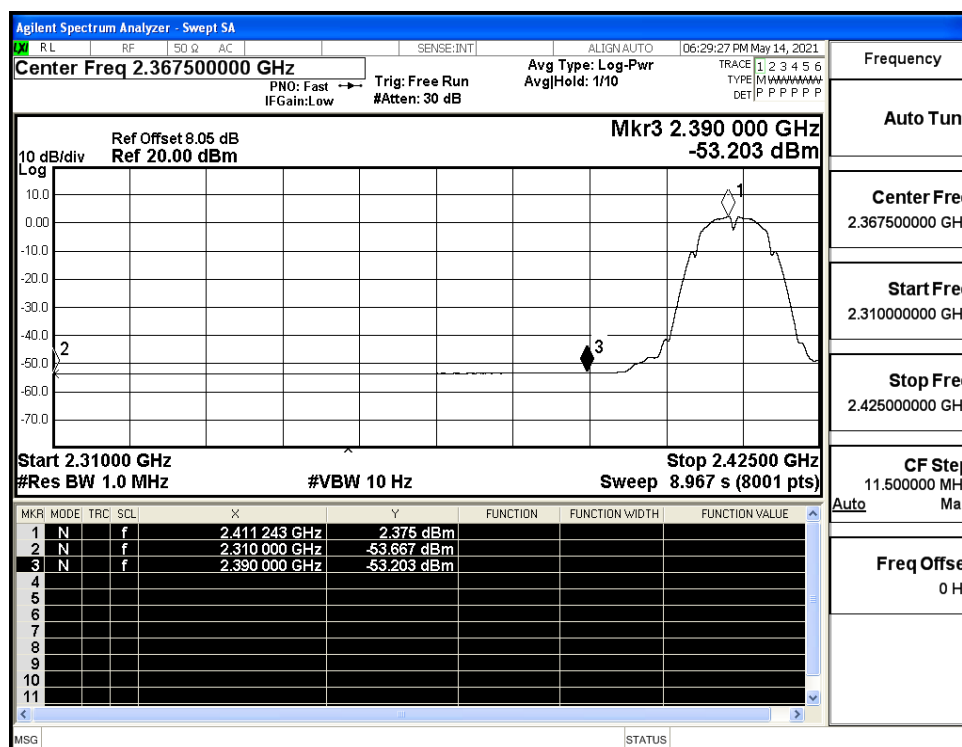
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-43.06	2.0	0	54.17	PEAK	74	PASS
	2412	Ant1	2310.0	-53.67	2.0	0	43.56	AV	54	PASS
	2412	Ant1	2390.0	-43.95	2.0	0	53.28	PEAK	74	PASS
	2412	Ant1	2390.0	-53.20	2.0	0	44.03	AV	54	PASS
	2462	Ant1	2483.5	-41.92	2.0	0	55.31	PEAK	74	PASS
	2462	Ant1	2483.5	-52.44	2.0	0	44.79	AV	54	PASS
	2462	Ant1	2500.0	-43.63	2.0	0	53.60	PEAK	74	PASS
	2462	Ant1	2500.0	-52.64	2.0	0	44.59	AV	54	PASS
11G	2412	Ant1	2310.0	-42.49	2.0	0	54.74	PEAK	74	PASS
	2412	Ant1	2310.0	-53.70	2.0	0	43.53	AV	54	PASS
	2412	Ant1	2390.0	-41.45	2.0	0	55.78	PEAK	74	PASS
	2412	Ant1	2390.0	-53.25	2.0	0	43.98	AV	54	PASS
	2462	Ant1	2483.5	-42.28	2.0	0	54.95	PEAK	74	PASS
	2462	Ant1	2483.5	-52.58	2.0	0	44.65	AV	54	PASS
	2462	Ant1	2500.0	-43.18	2.0	0	54.05	PEAK	74	PASS
	2462	Ant1	2500.0	-52.72	2.0	0	44.51	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-43.24	2.0	0	53.99	PEAK	74	PASS
	2412	Ant1	2310.0	-53.70	2.0	0	43.53	AV	54	PASS
	2412	Ant1	2390.0	-42.54	2.0	0	54.69	PEAK	74	PASS
	2412	Ant1	2390.0	-53.28	2.0	0	43.95	AV	54	PASS
	2462	Ant1	2483.5	-42.31	2.0	0	54.92	PEAK	74	PASS
	2462	Ant1	2483.5	-52.53	2.0	0	44.70	AV	54	PASS
	2462	Ant1	2500.0	-42.44	2.0	0	54.79	PEAK	74	PASS
	2462	Ant1	2500.0	-52.67	2.0	0	44.56	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-44.06	2.0	0	53.17	PEAK	74	PASS
	2422	Ant1	2310.0	-53.60	2.0	0	43.63	AV	54	PASS

	2422	Ant1	2390.0	-43.41	2.0	0	53.82	PEAK	74	PASS
	2422	Ant1	2390.0	-53.28	2.0	0	43.95	AV	54	PASS
	2452	Ant1	2483.5	-42.20	2.0	0	55.03	PEAK	74	PASS
	2452	Ant1	2483.5	-52.68	2.0	0	44.55	AV	54	PASS
	2452	Ant1	2500.0	-41.92	2.0	0	55.31	PEAK	74	PASS
	2452	Ant1	2500.0	-52.65	2.0	0	44.58	AV	54	PASS

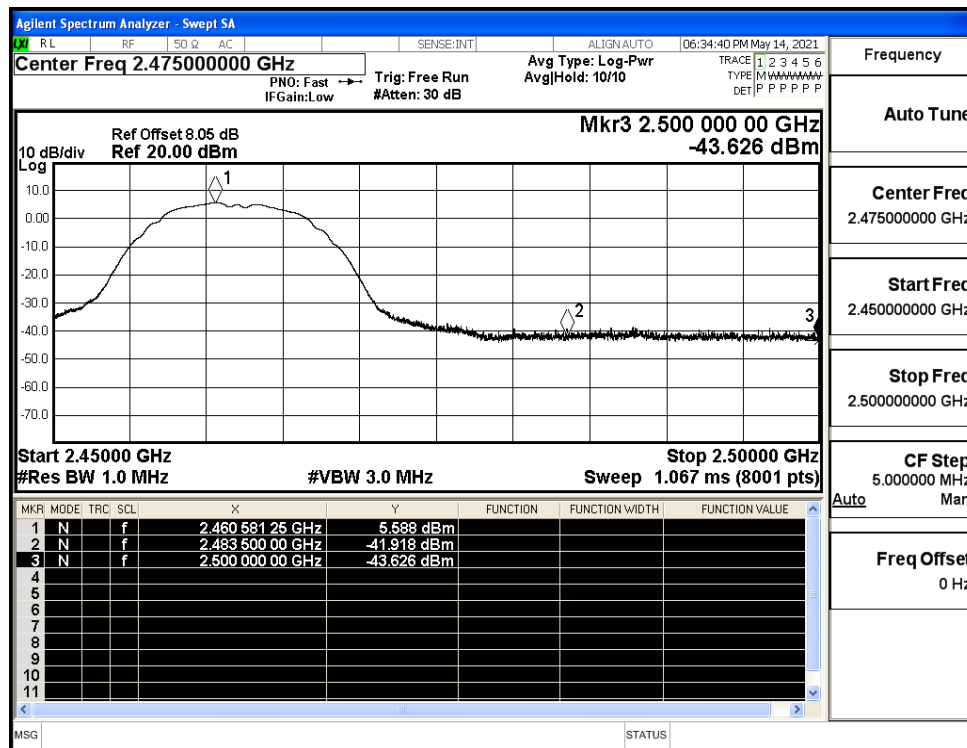
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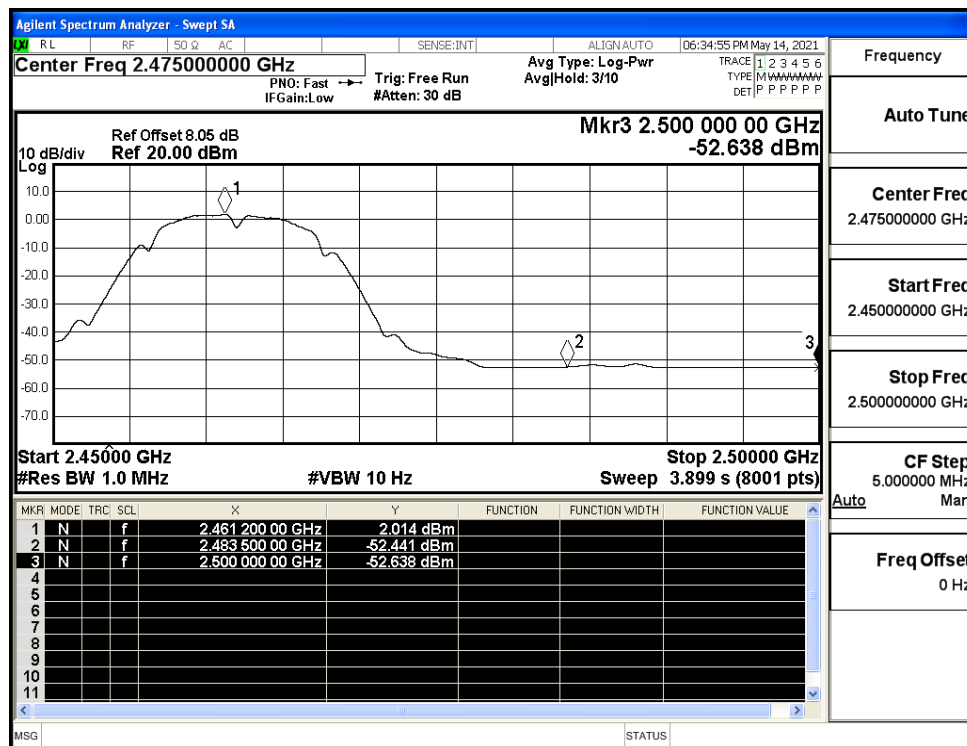
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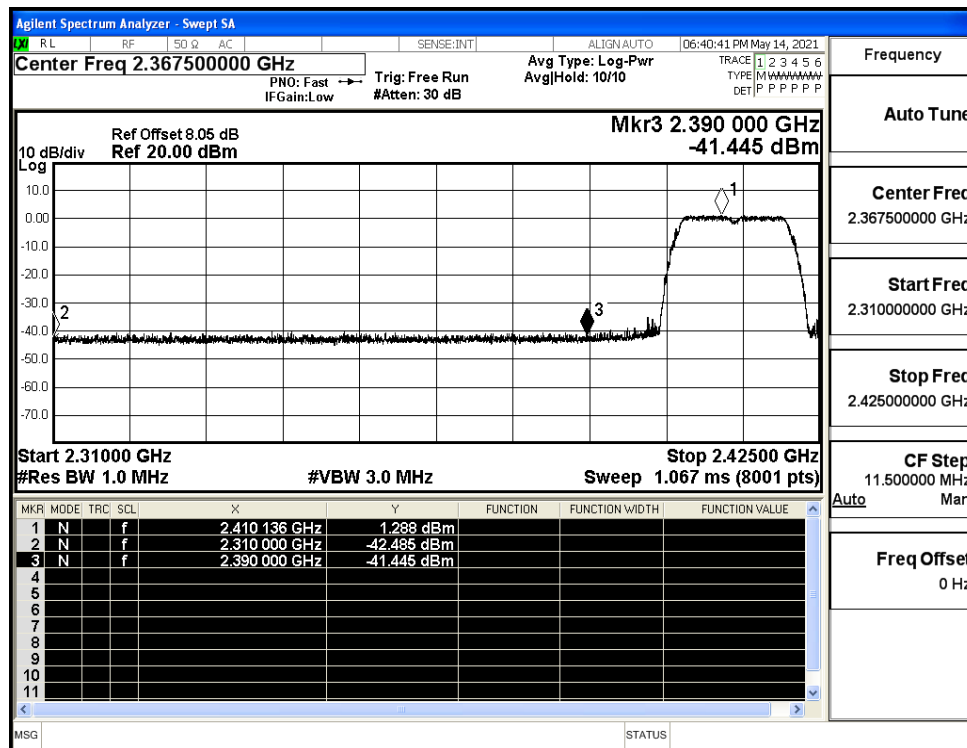
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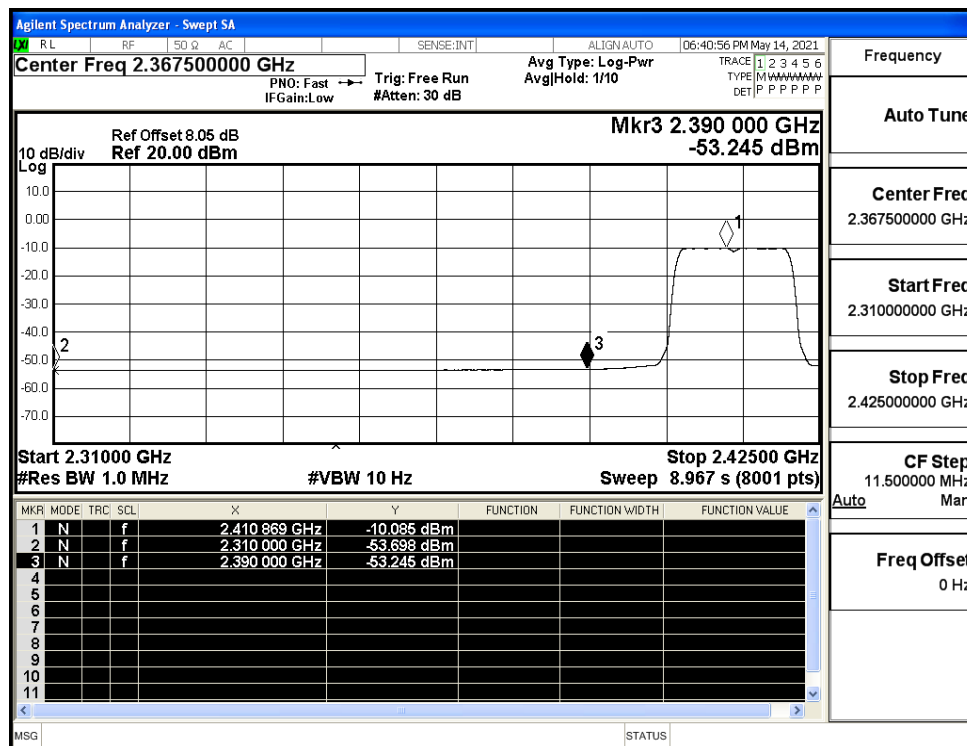
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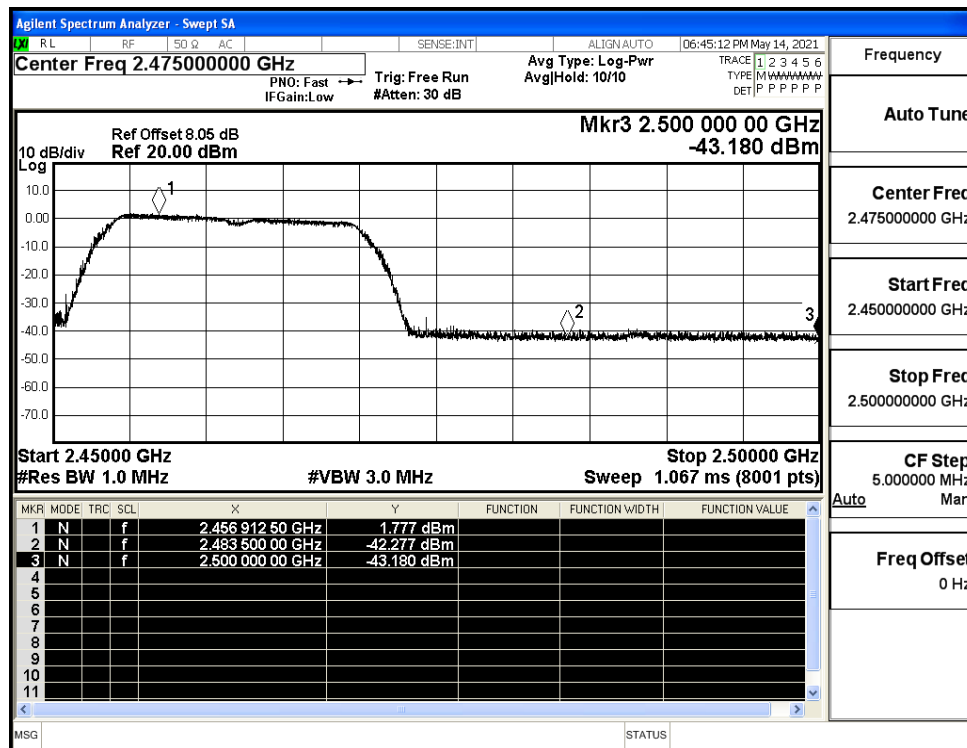
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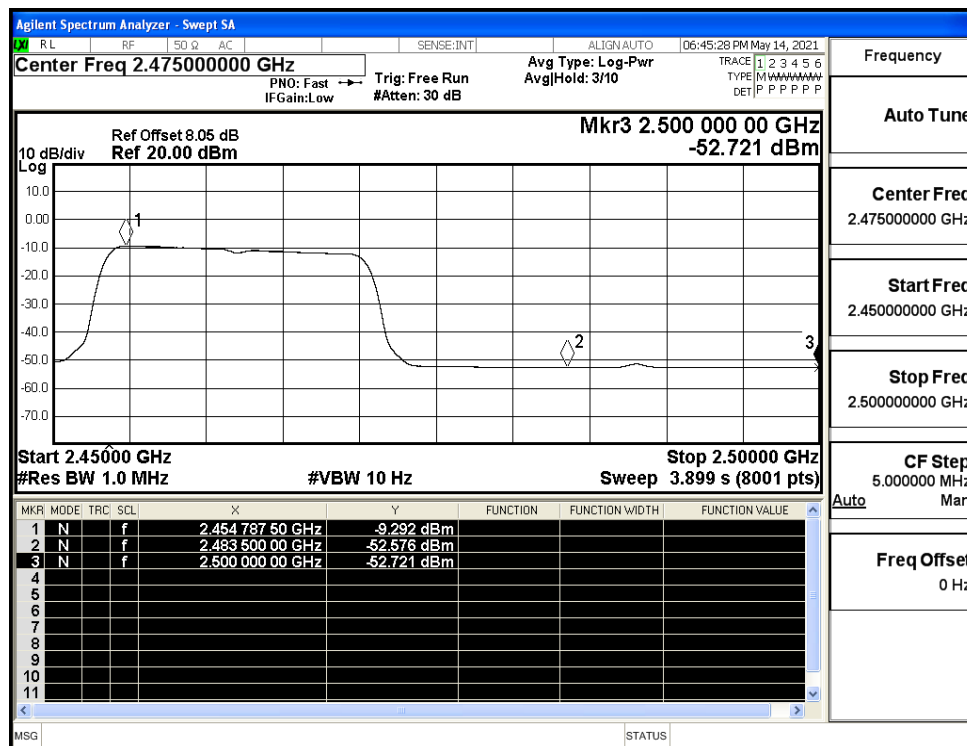
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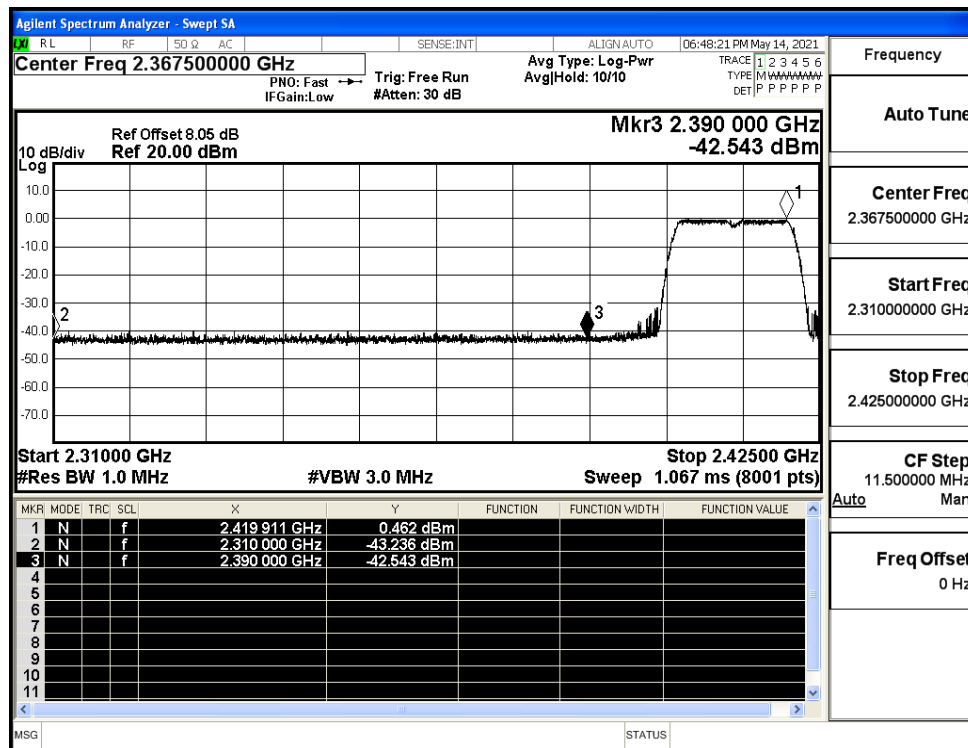
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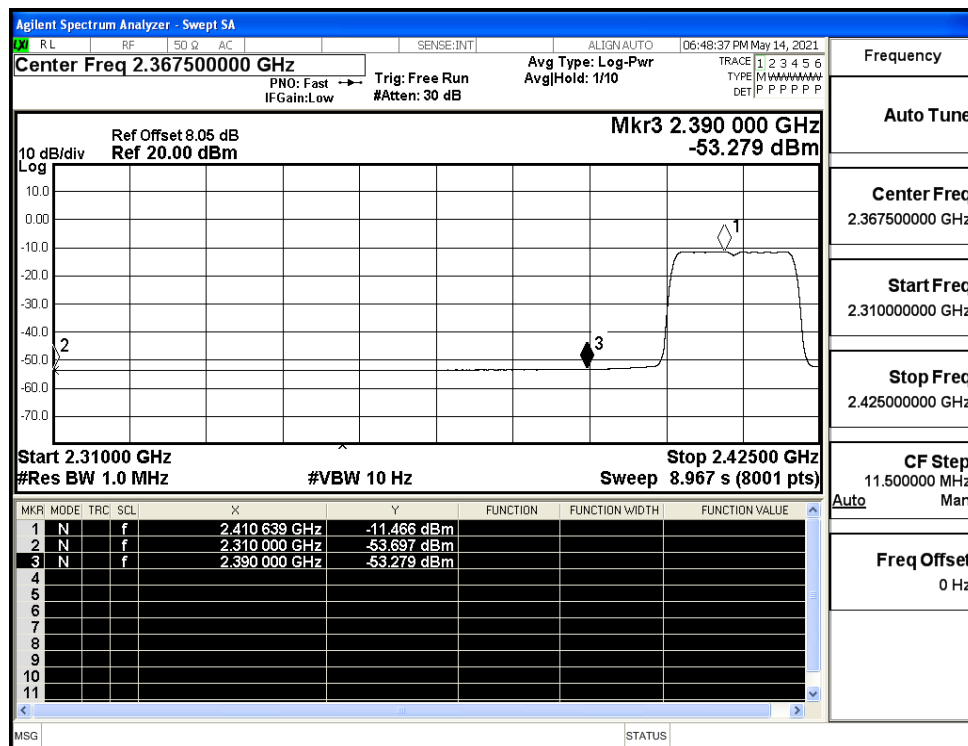
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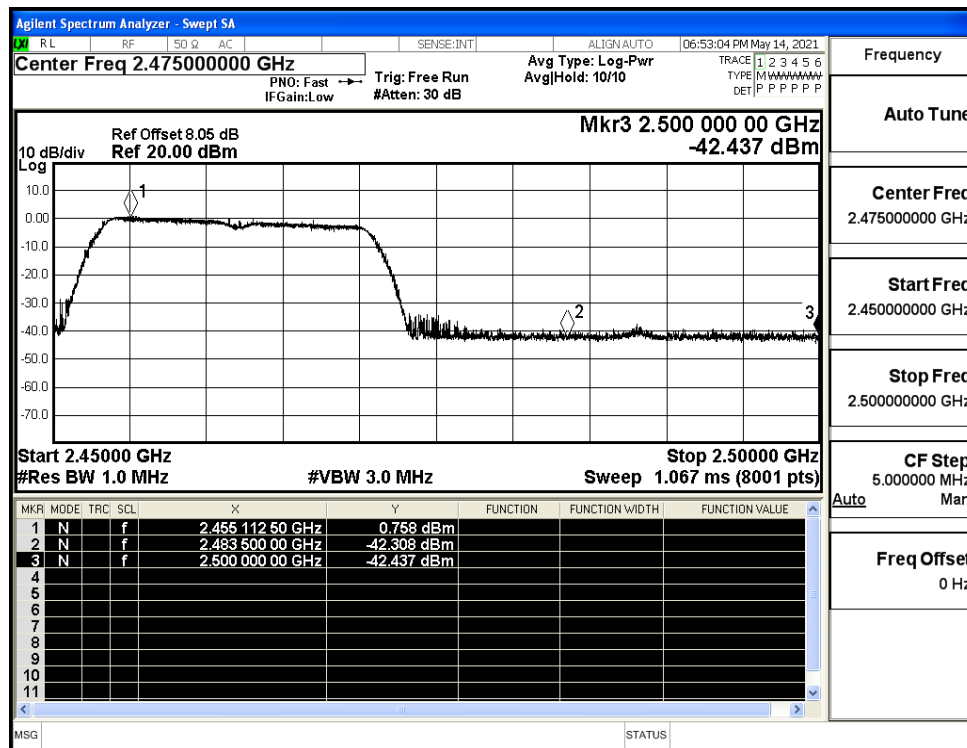
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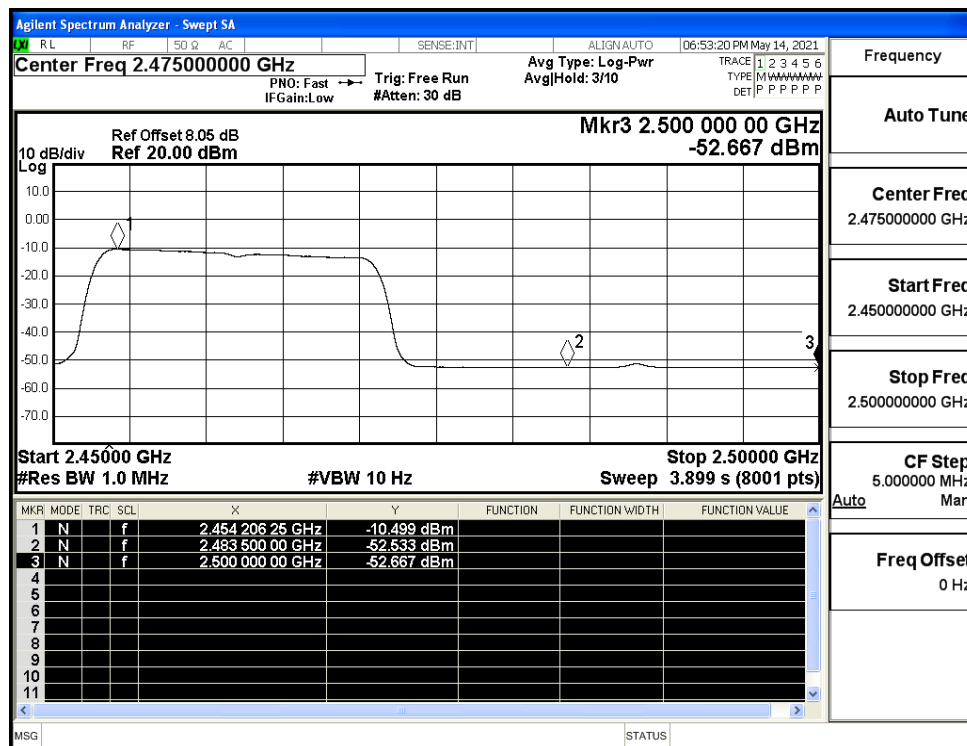
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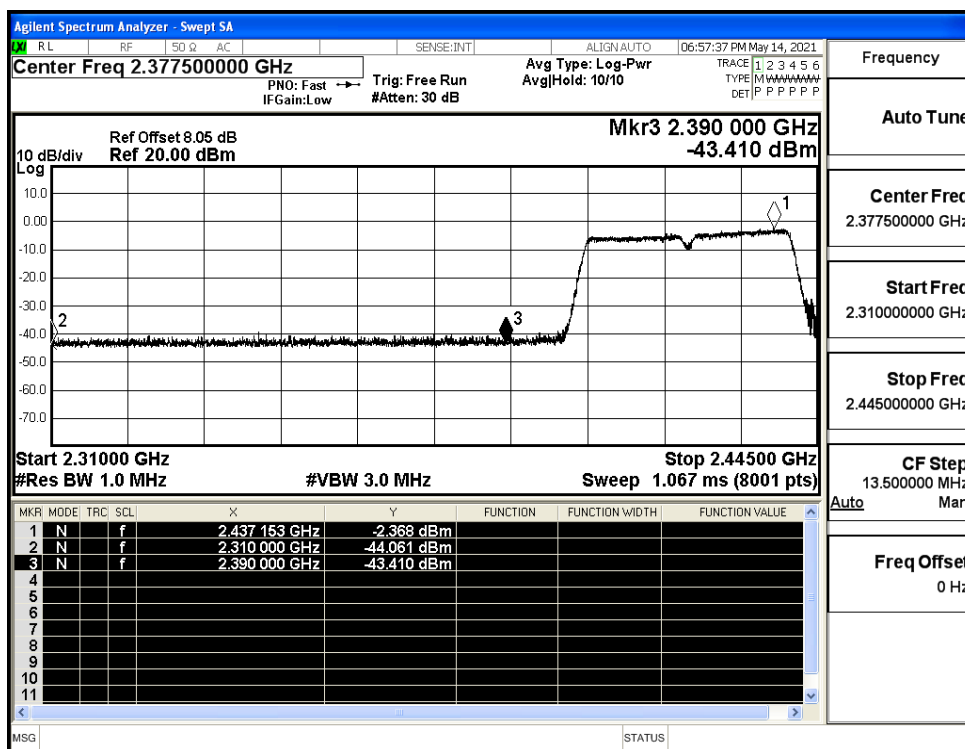
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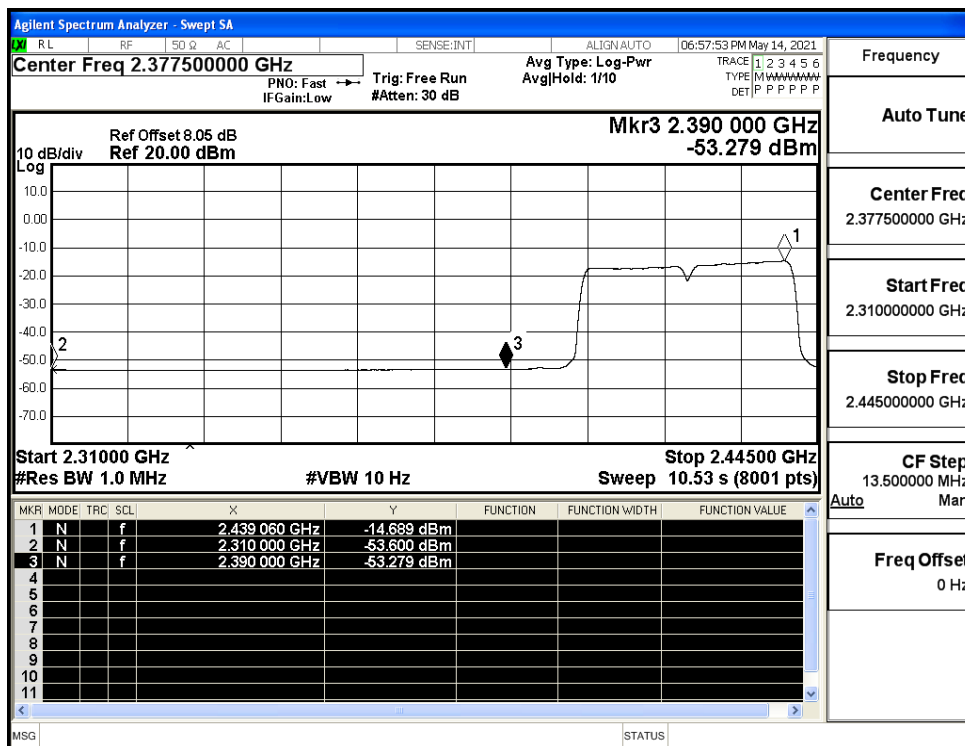
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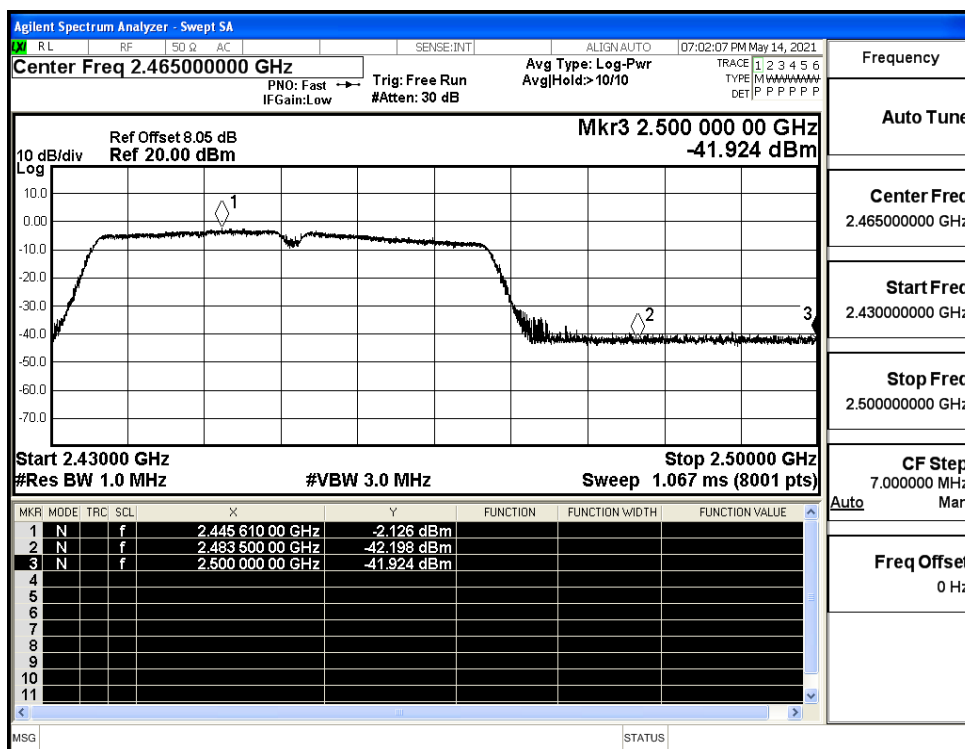
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Restrict-band band-edge measurements_11N40SISO_2422_Ant1_AV



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_PEAK



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_AV

