

Appendix C

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Notebook

Trade Mark: EMATIC

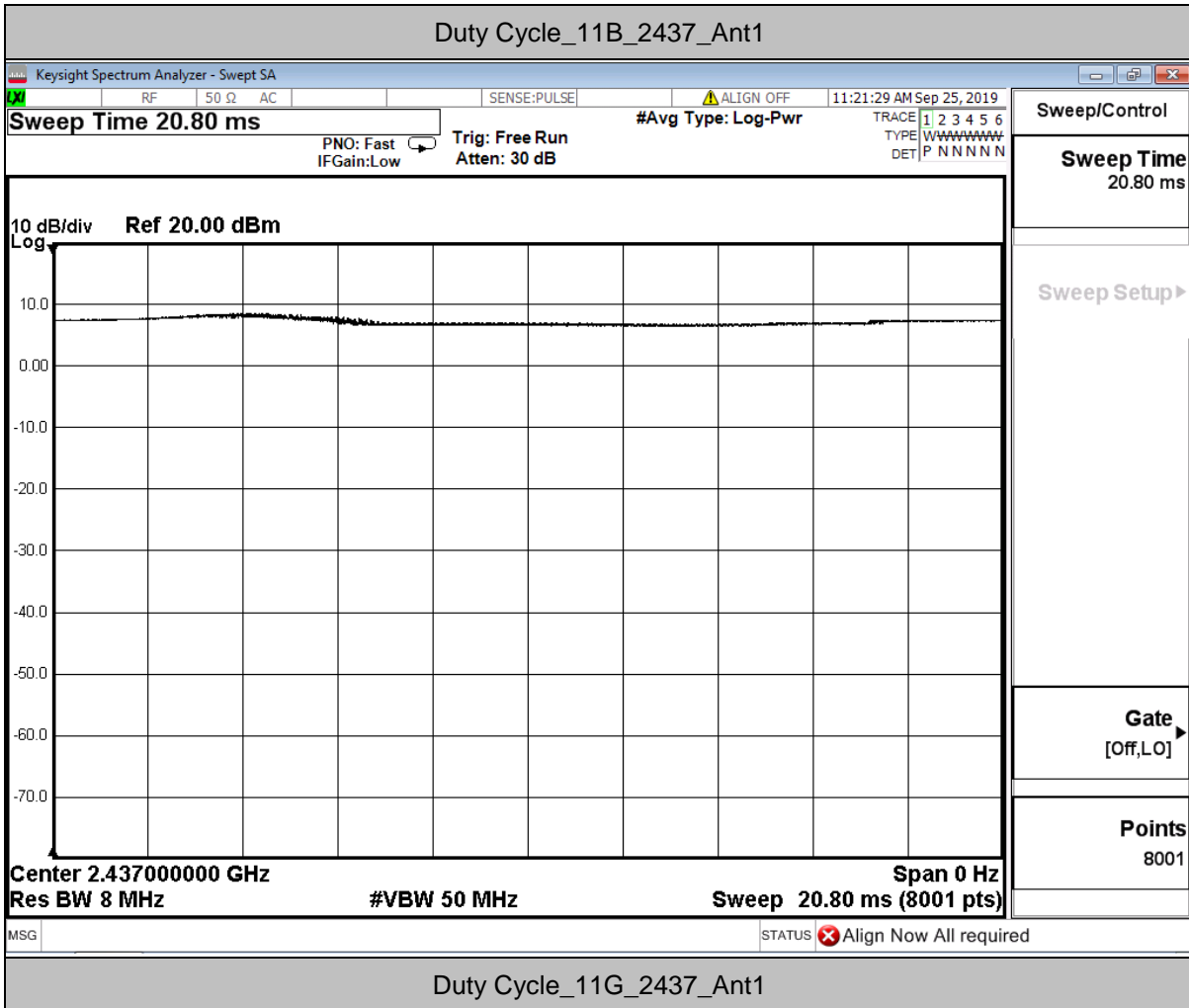
Test Model: EWT148

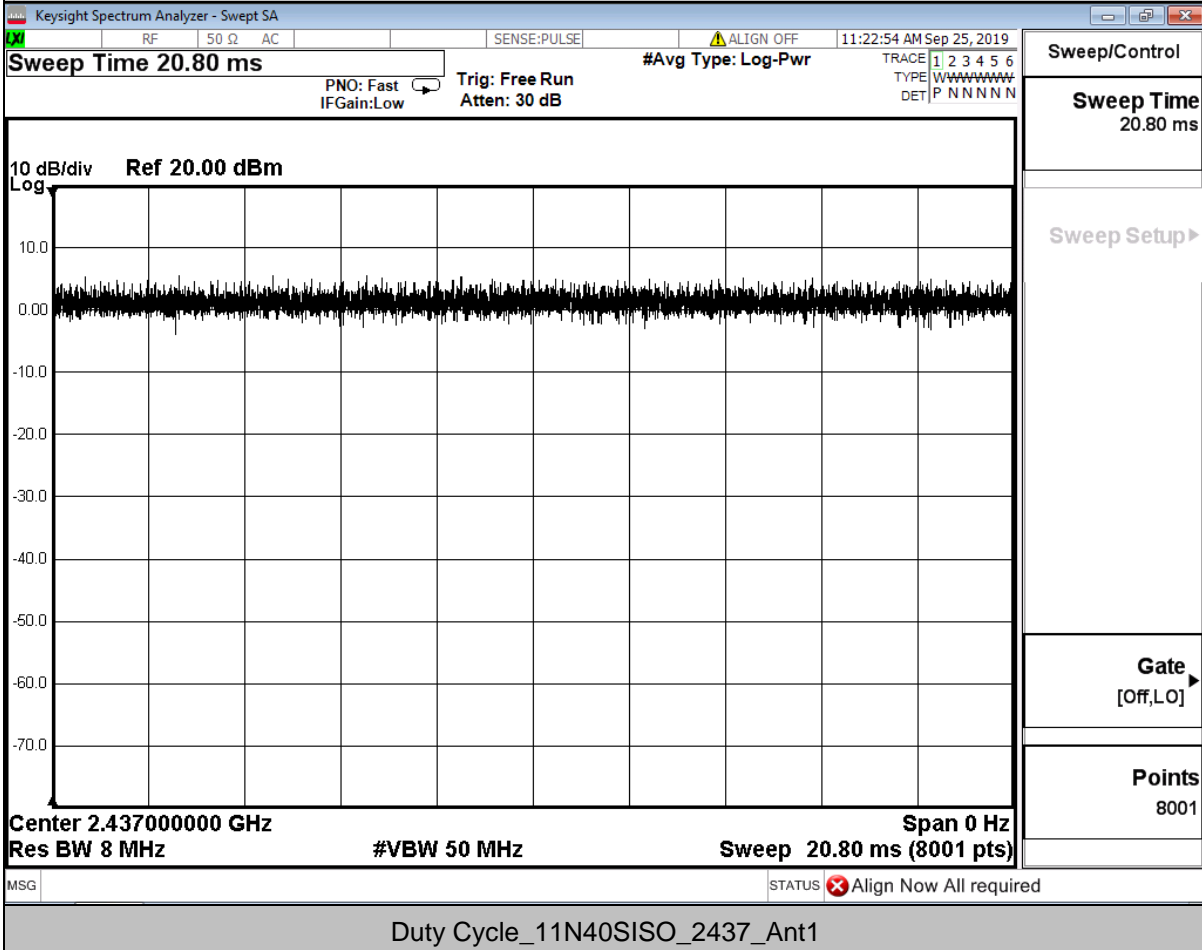
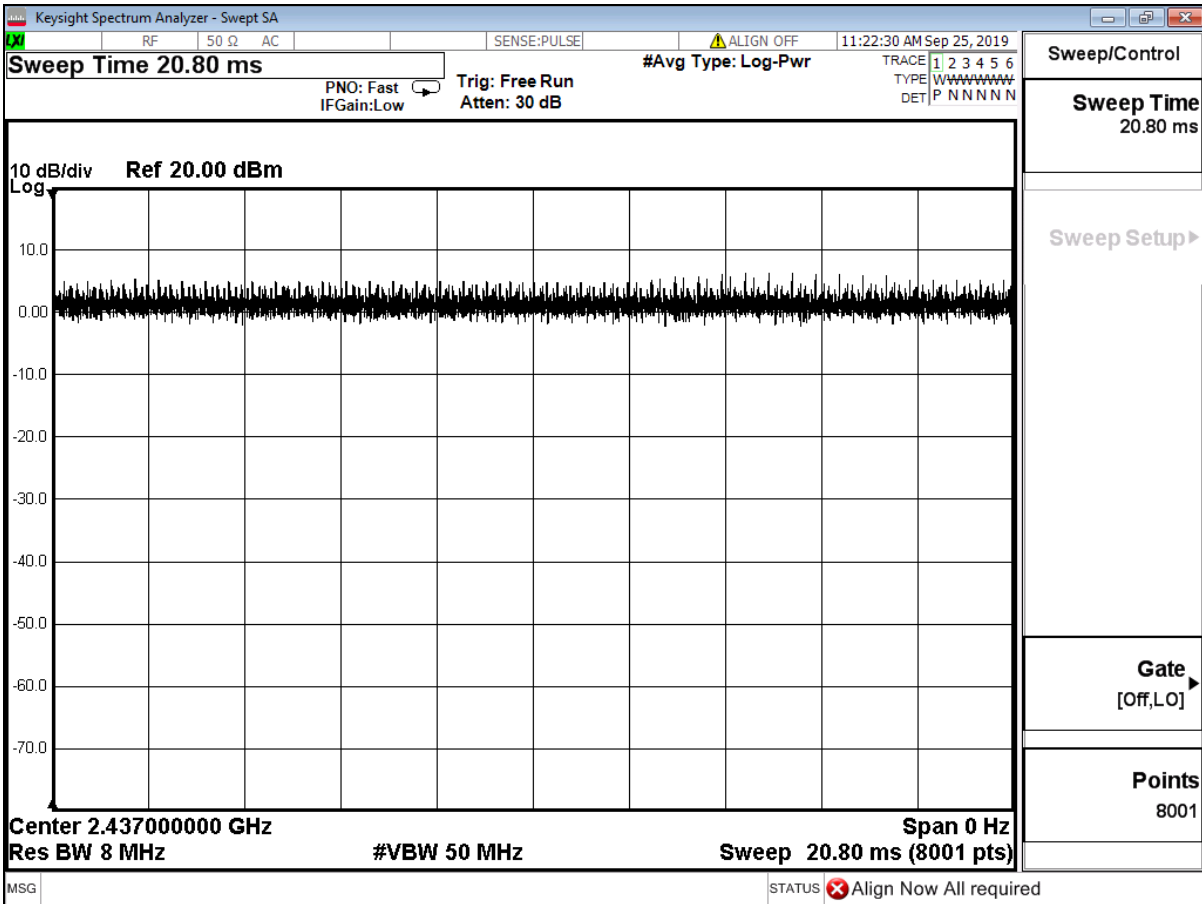
Environmental Conditions

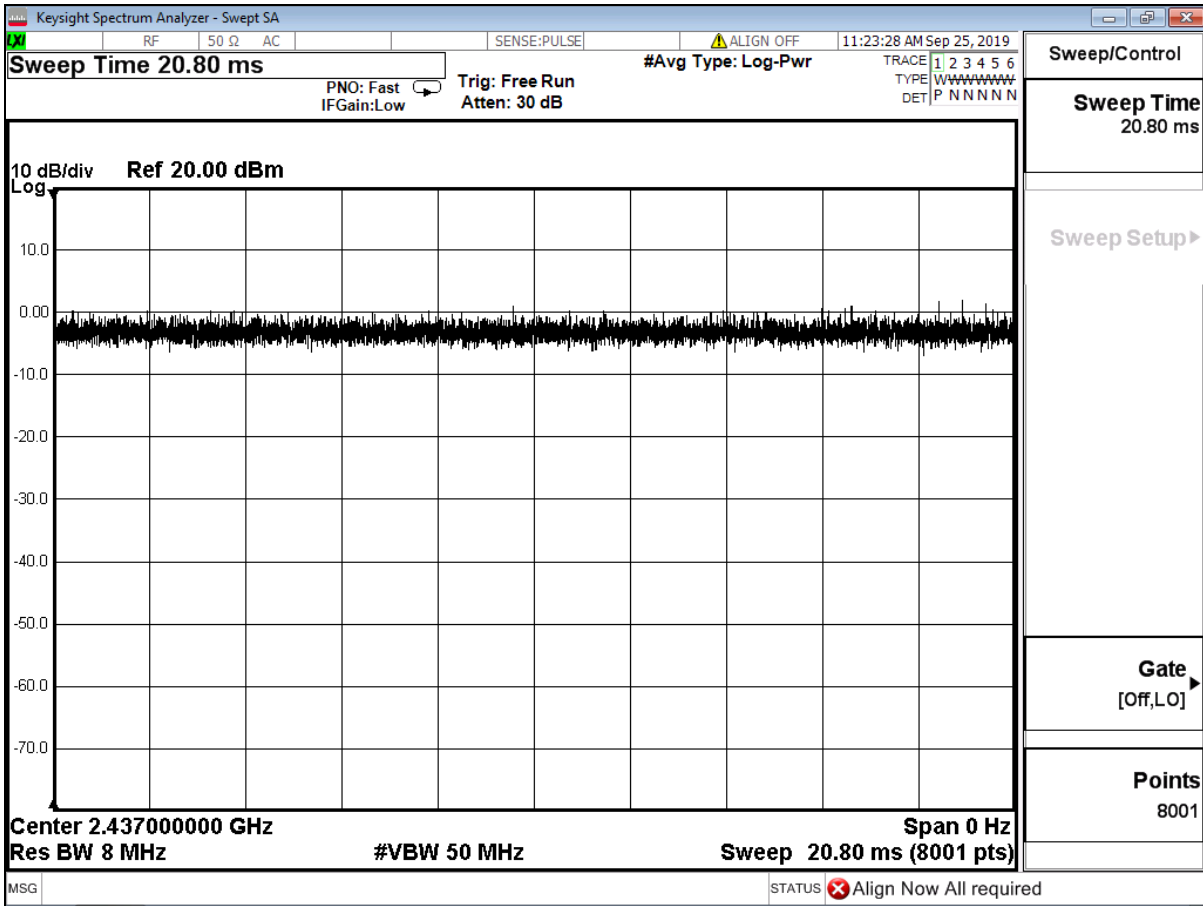
Temperature:	23.6 ° C
Relative Humidity:	57%
ATM Pressure:	100.0 kPa
Test Engineer:	CHUANG WANG
Supervised by:	JAYDEN ZHUO

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





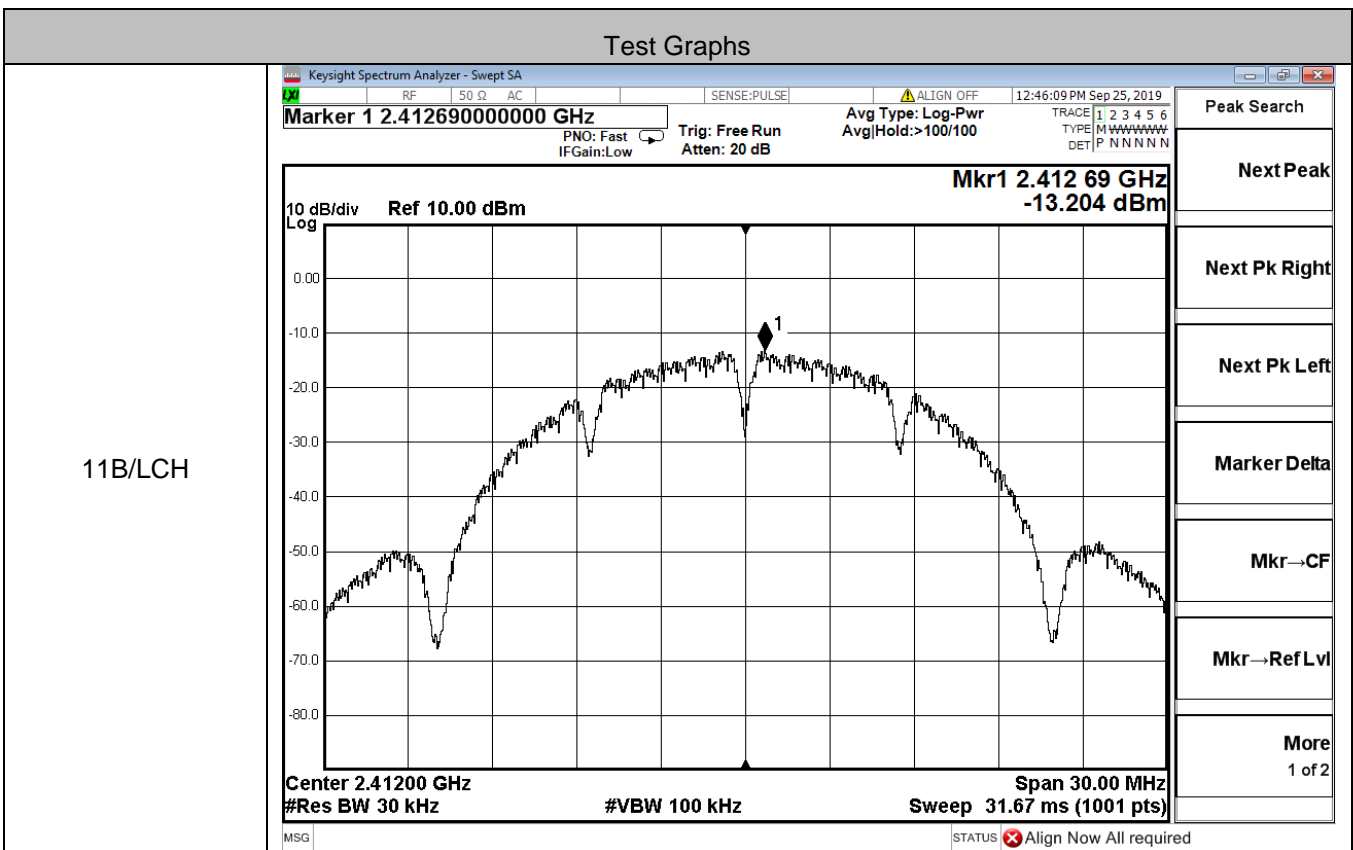


C.2 Maximum Conducted Output Power

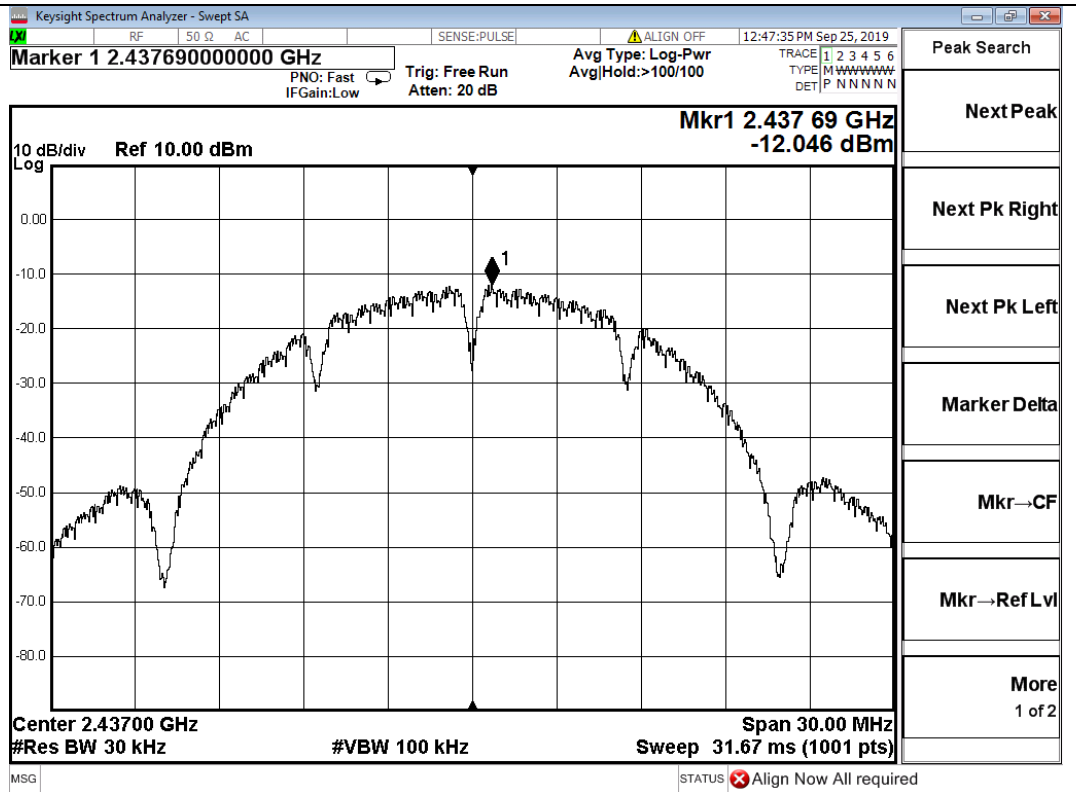
Mode	Channel	Meas. Peak Level [dBm]	Limit [dBm]	Verdict
11B	LCH	6.438	30	PASS
	MCH	7.634	30	PASS
	HCH	8.332	30	PASS
11G	LCH	4.409	30	PASS
	MCH	5.512	30	PASS
	HCH	6.342	30	PASS
11N20SISO	LCH	4.220	30	PASS
	MCH	4.878	30	PASS
	HCH	5.928	30	PASS
11N40SISO	LCH	1.055	30	PASS
	MCH	2.254	30	PASS
	HCH	2.439	30	PASS

C.3 Maximum Power Spectral Density

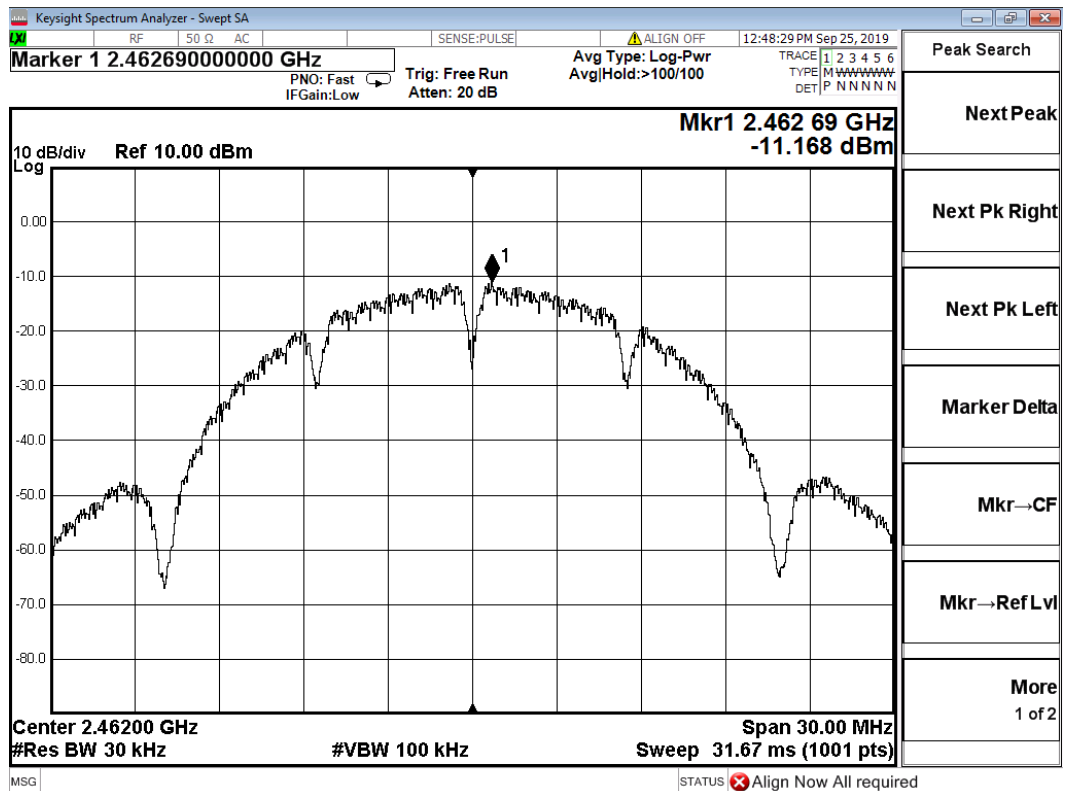
Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-13.204	8	PASS
	MCH	-12.046	8	PASS
	HCH	-11.168	8	PASS
11G	LCH	-20.416	8	PASS
	MCH	-19.208	8	PASS
	HCH	-18.081	8	PASS
11N20SISO	LCH	-19.849	8	PASS
	MCH	-18.713	8	PASS
	HCH	-17.789	8	PASS
11N40SISO	LCH	-24.037	8	PASS
	MCH	-23.012	8	PASS
	HCH	-22.883	8	PASS



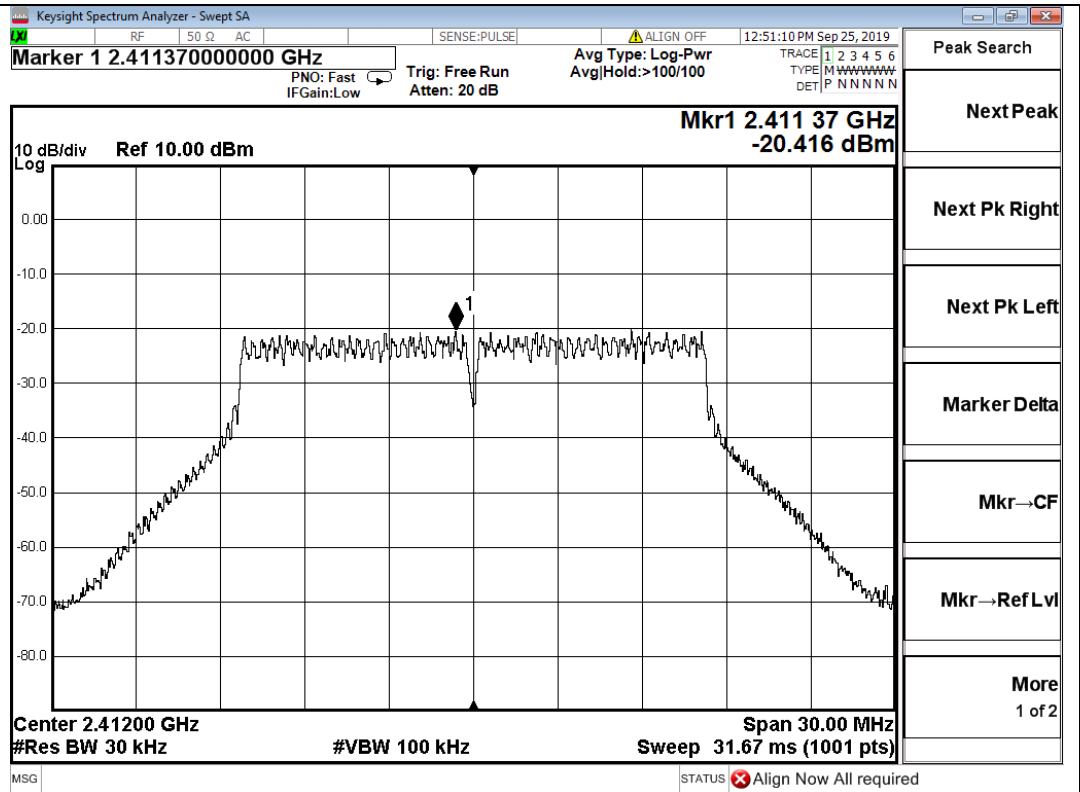
11B/MCH



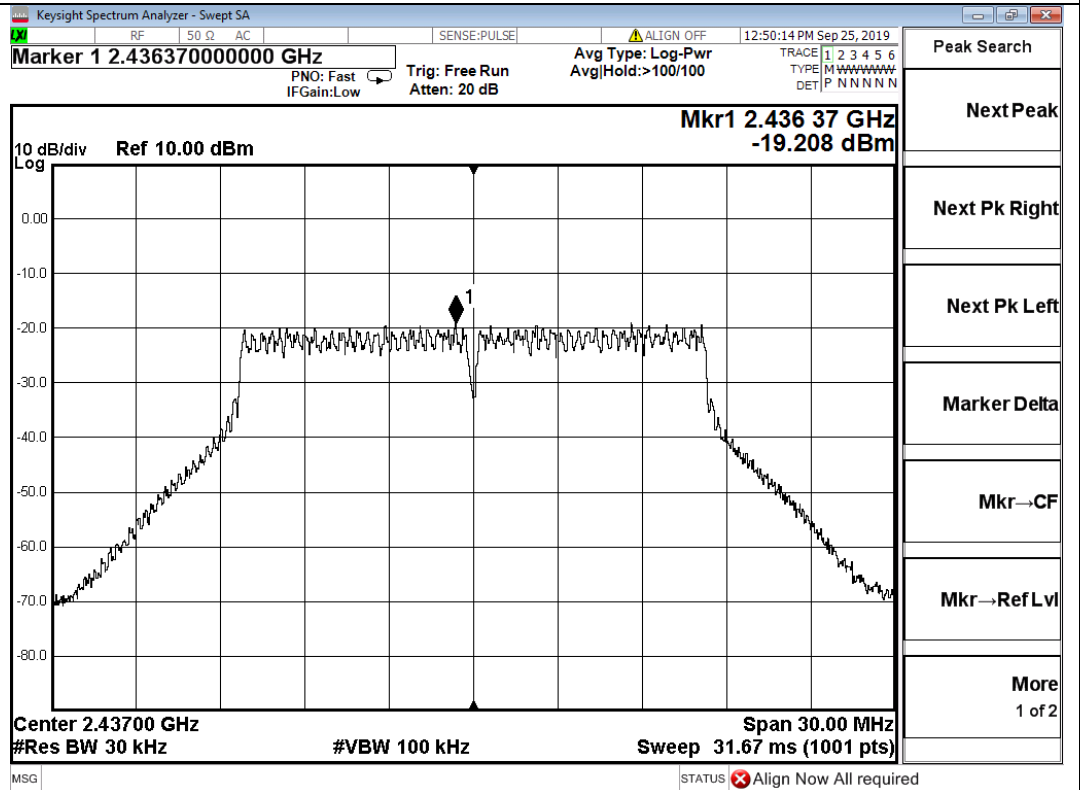
11B/HCH



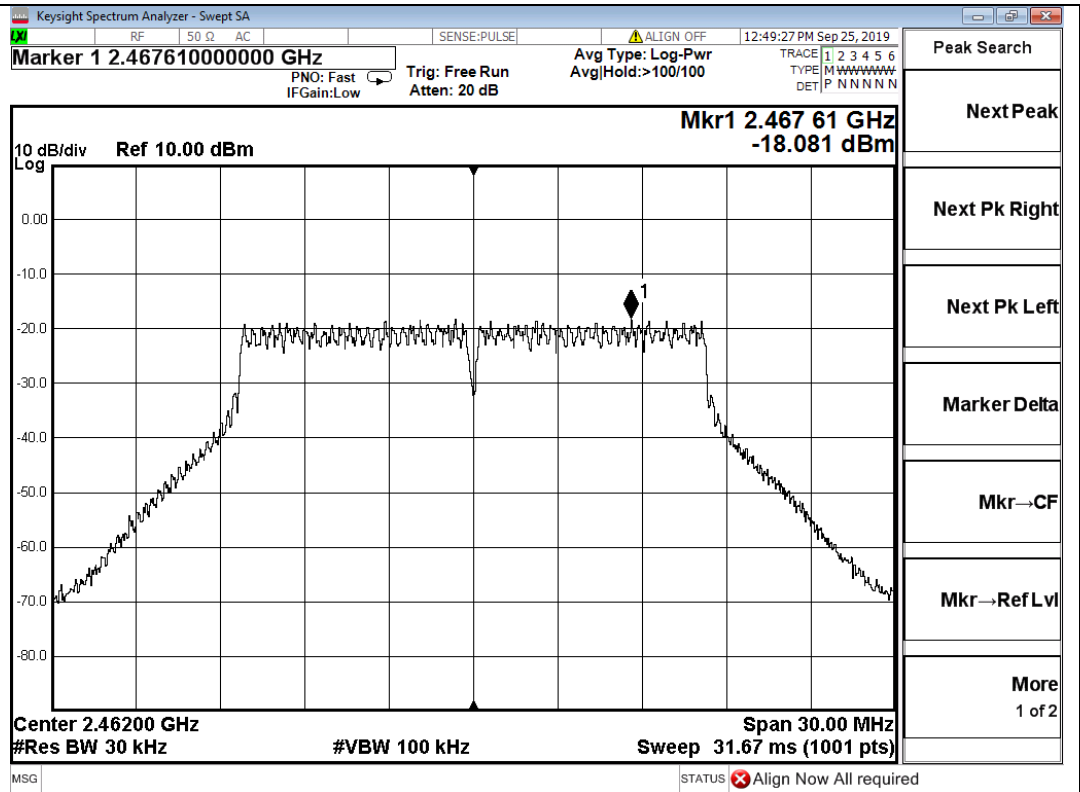
11G/LCH



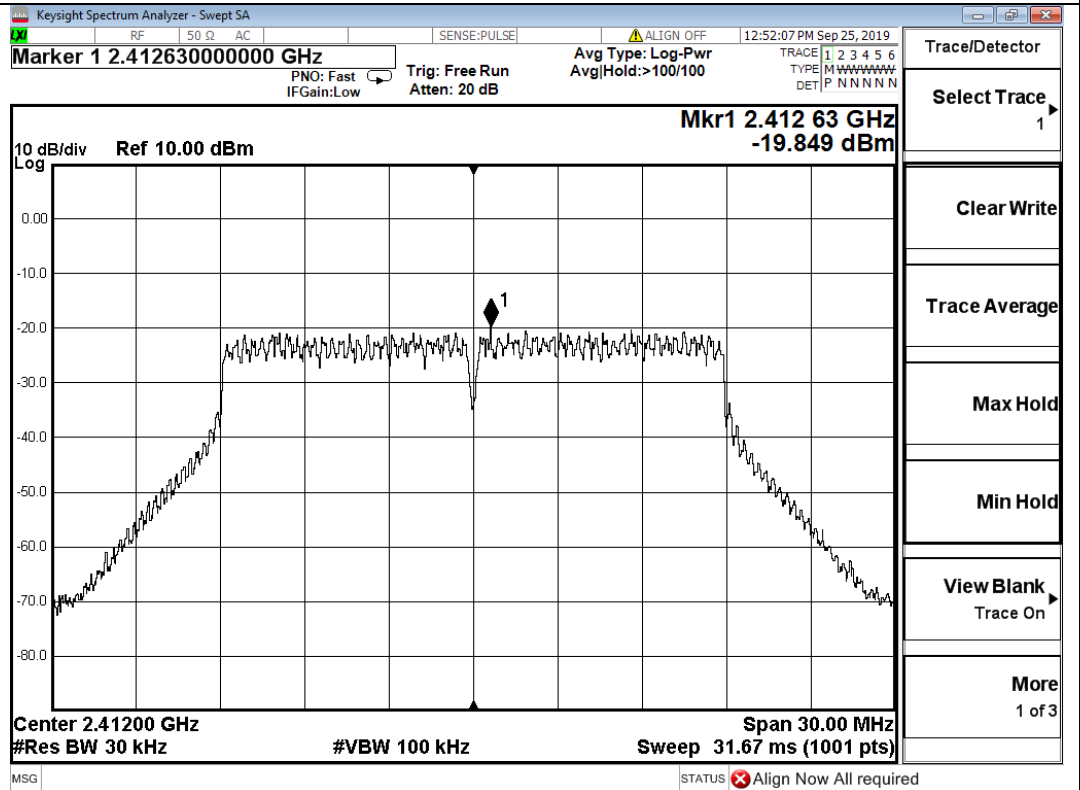
11G/MCH



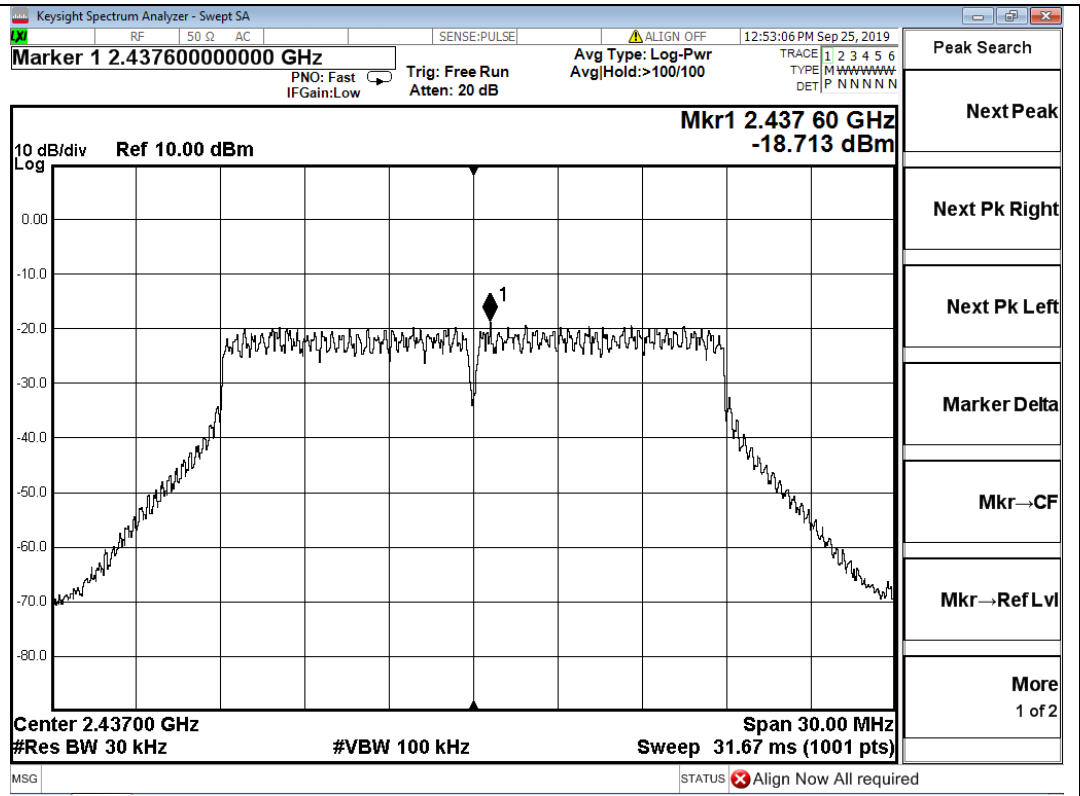
11G/HCH



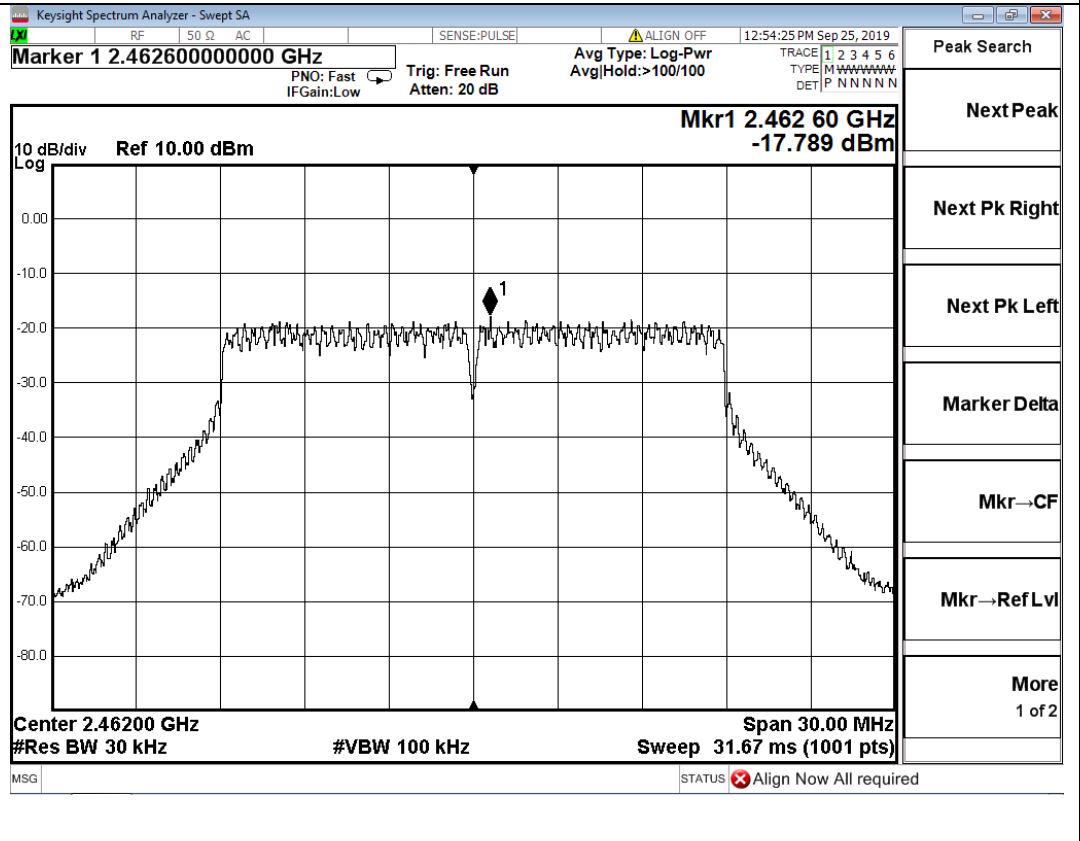
11N20SISO/LCH



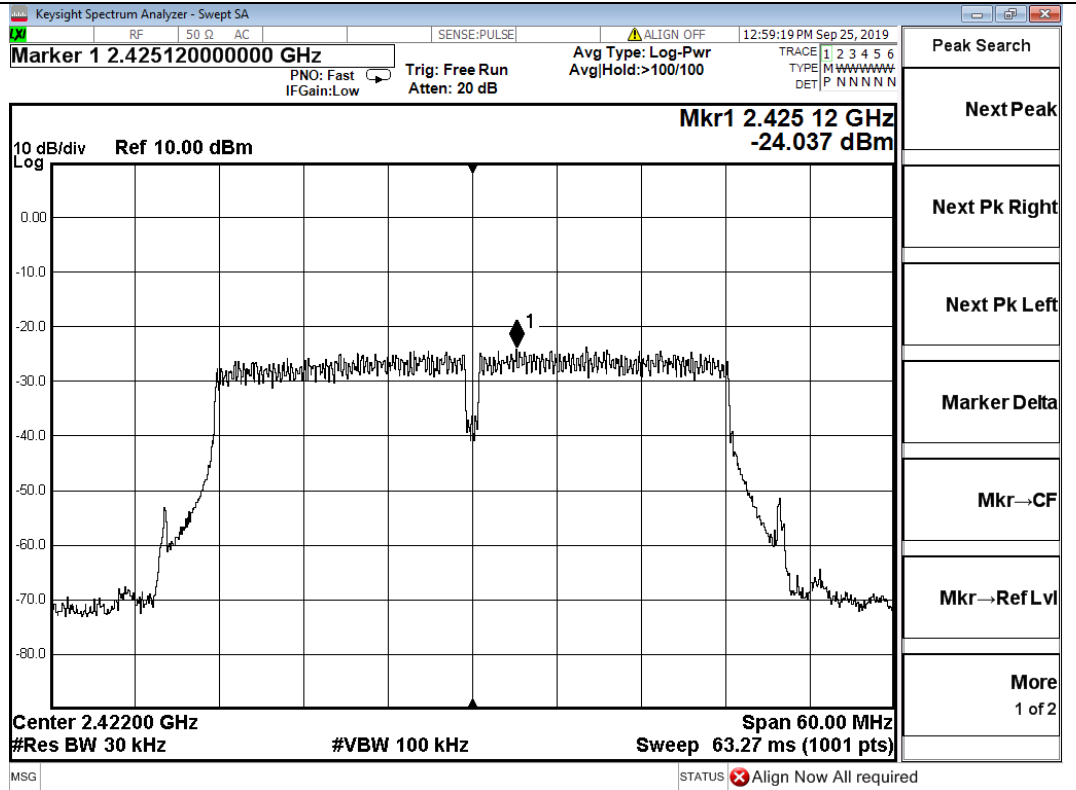
11N20SISO/MCH



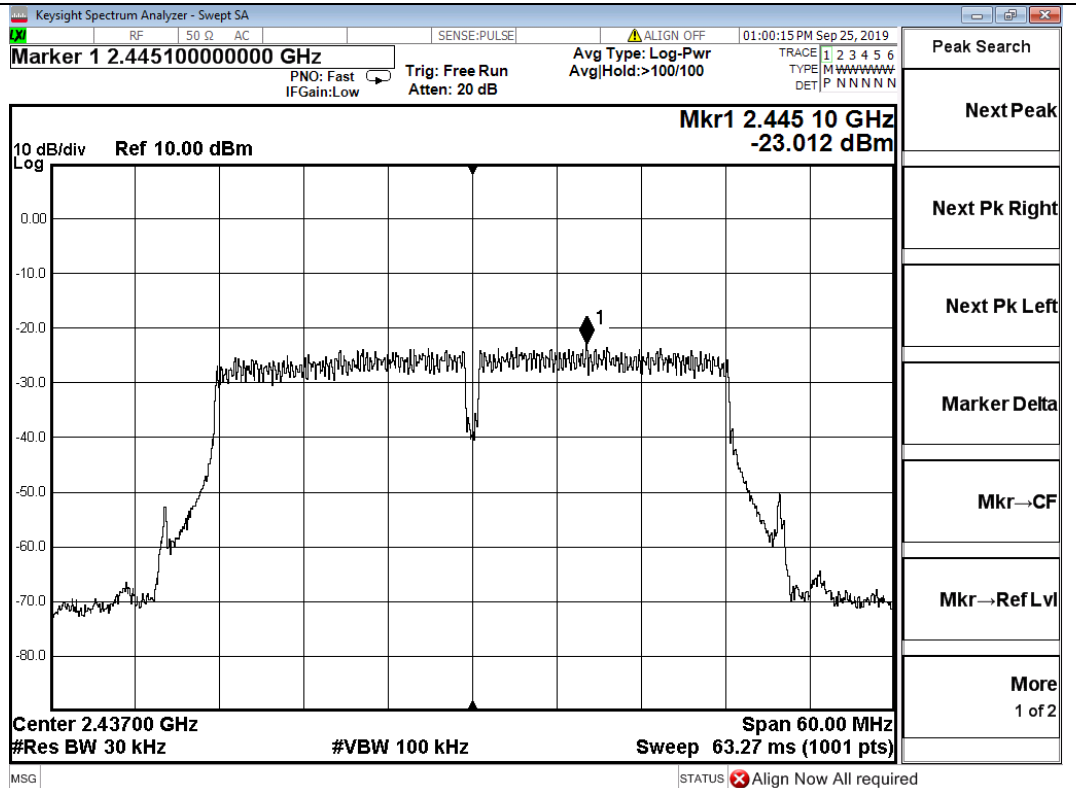
11N20SISO/HCH



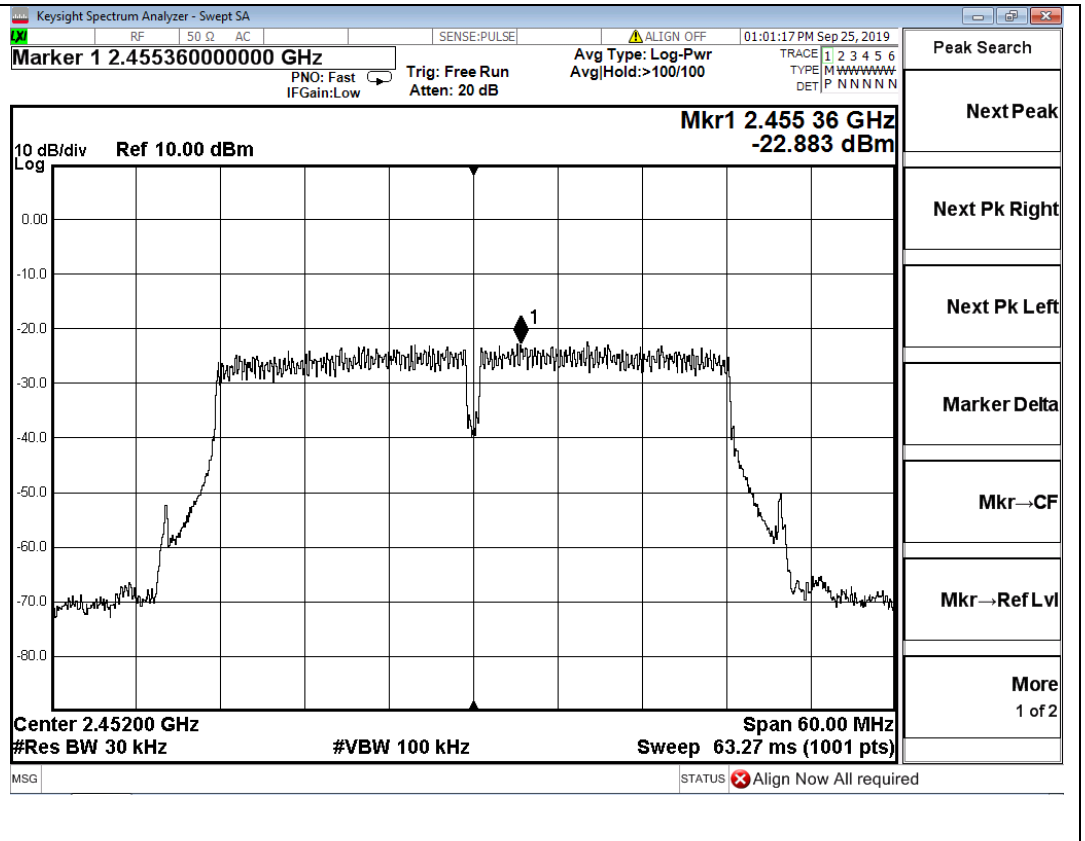
11N40SISO/LCH



11N40SISO/MCH

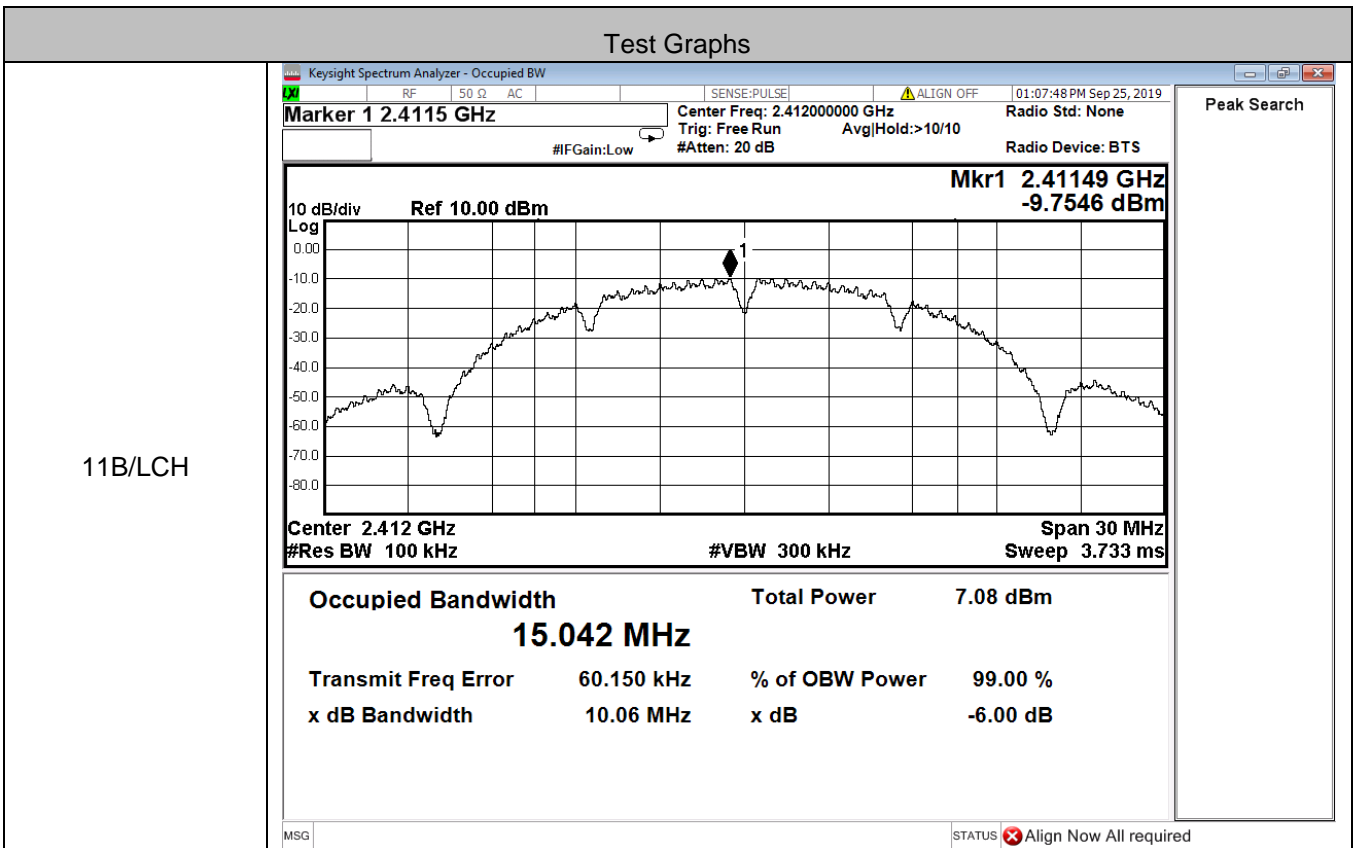


11N40SISO/HCH

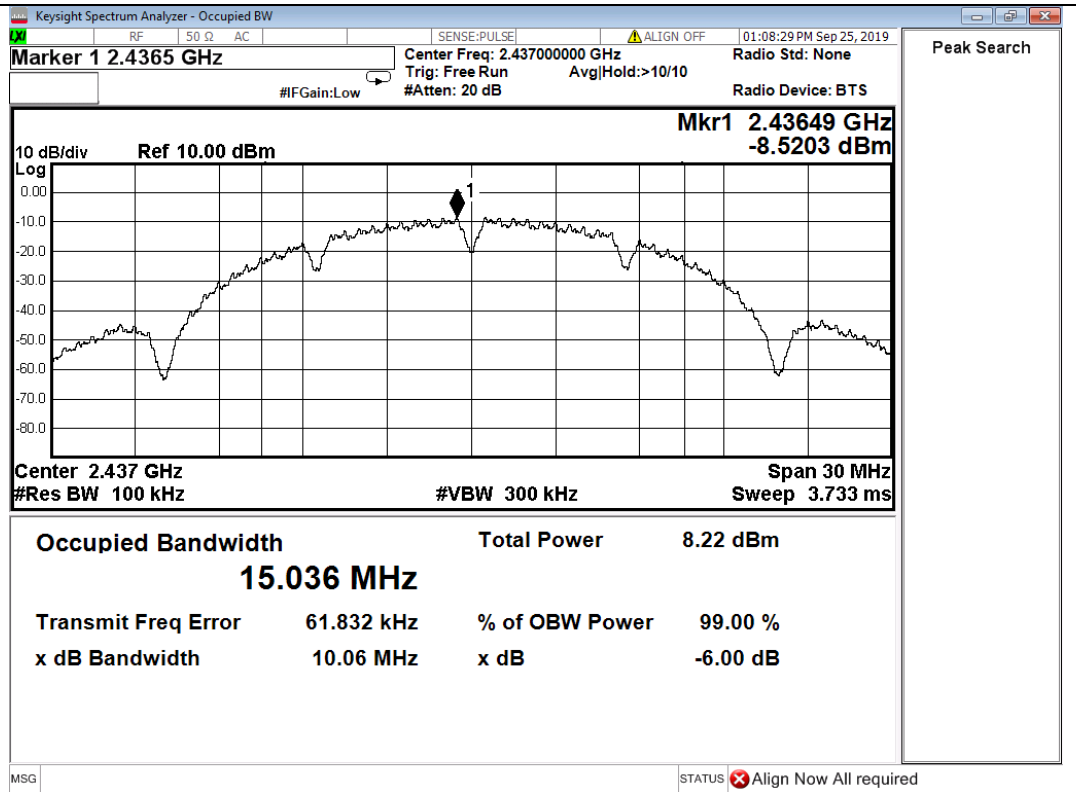


C.4 6dB Bandwidth

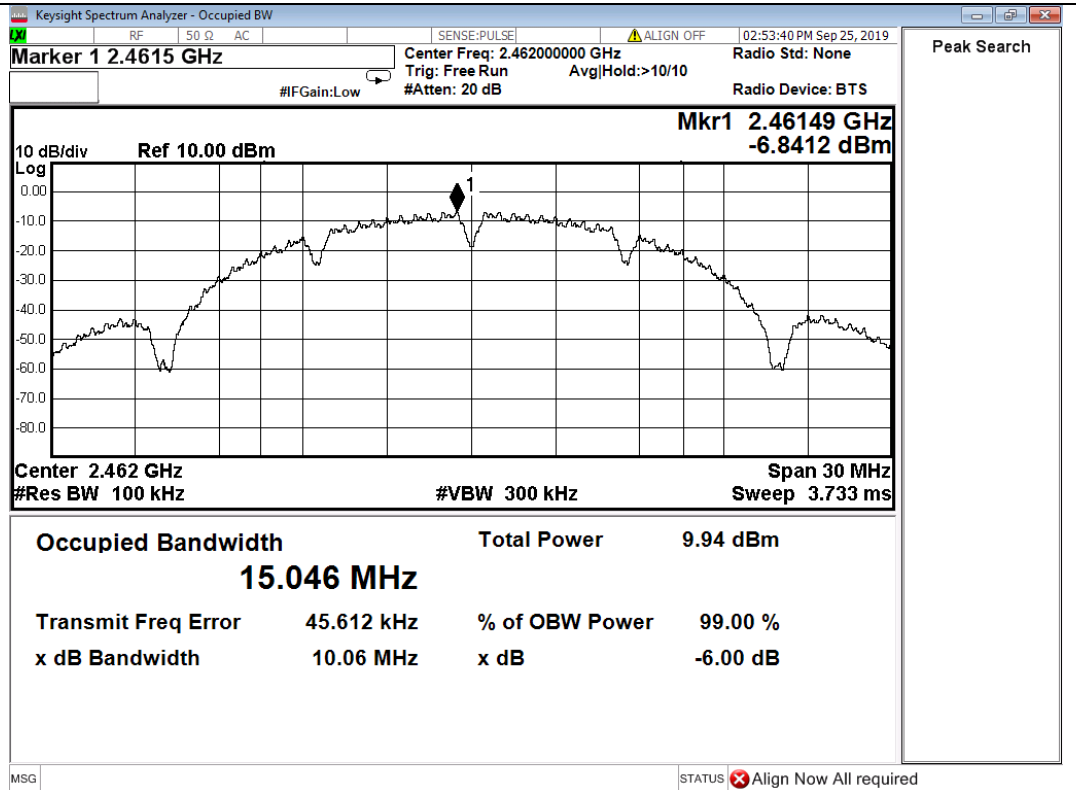
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	10.06	≥0.5	PASS
	MCH	10.06	≥0.5	PASS
	HCH	10.06	≥0.5	PASS
11G	LCH	16.57	≥0.5	PASS
	MCH	16.57	≥0.5	PASS
	HCH	16.57	≥0.5	PASS
11N20SISO	LCH	17.80	≥0.5	PASS
	MCH	17.80	≥0.5	PASS
	HCH	17.80	≥0.5	PASS
11N40SISO	LCH	36.46	≥0.5	PASS
	MCH	36.46	≥0.5	PASS
	HCH	36.45	≥0.5	PASS



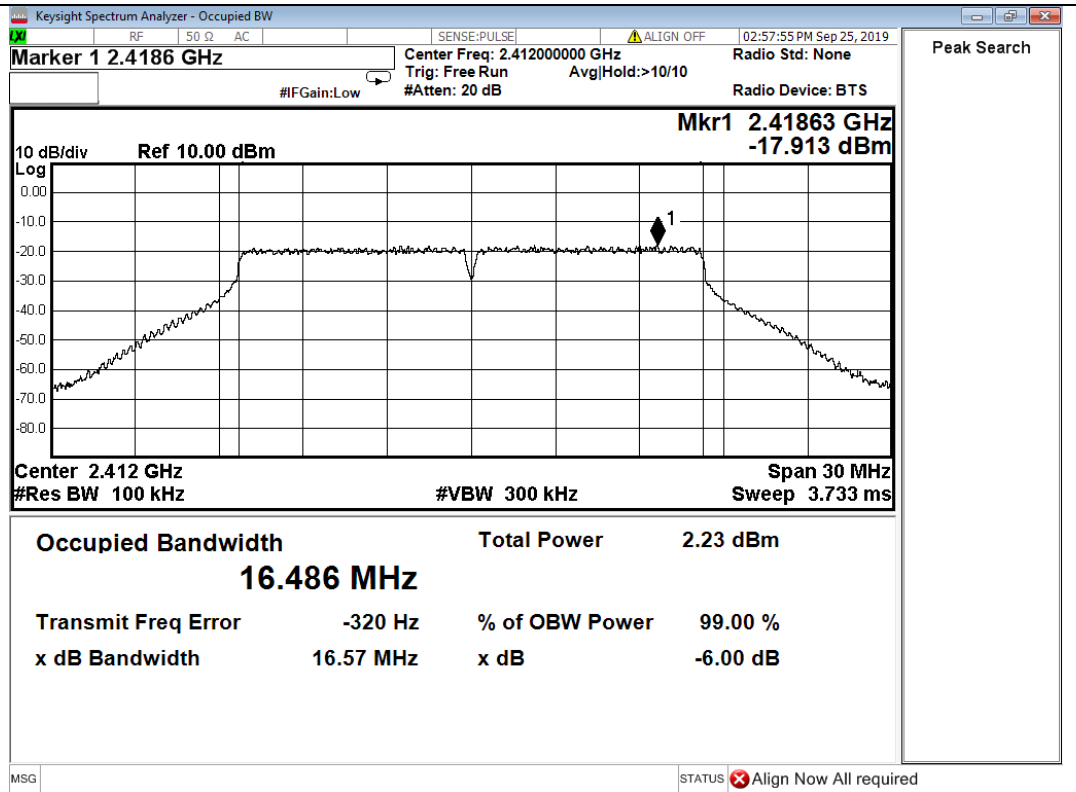
11B/MCH



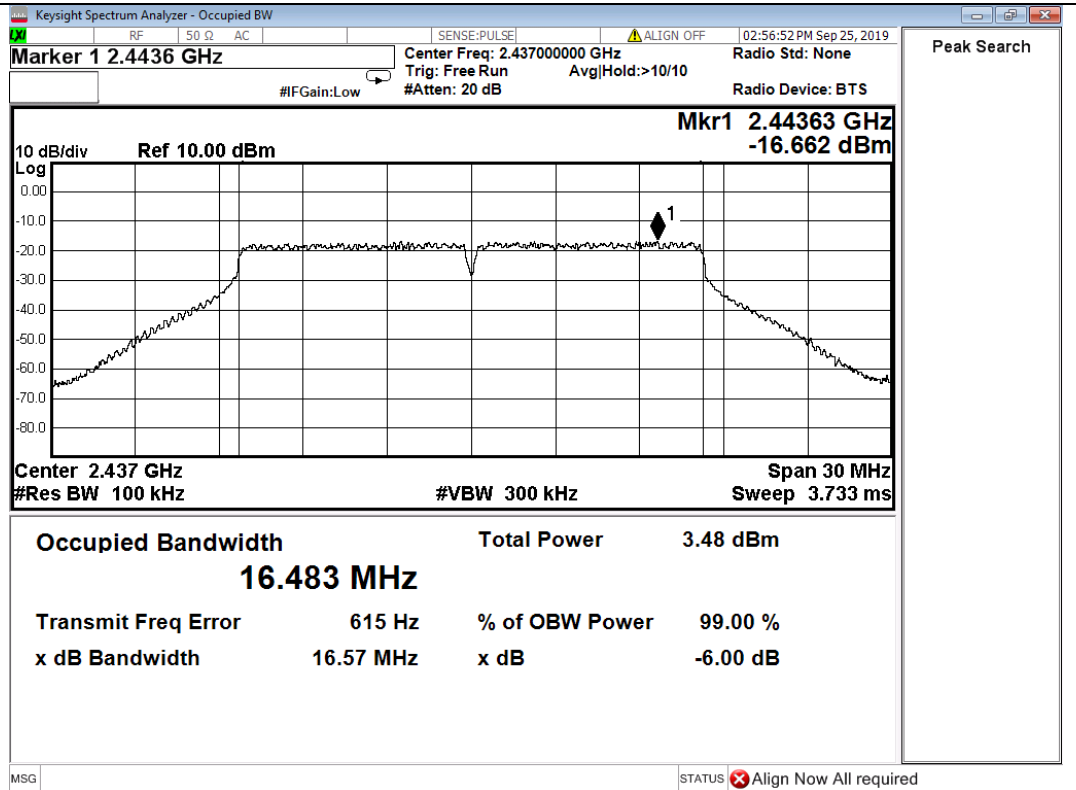
11B/HCH



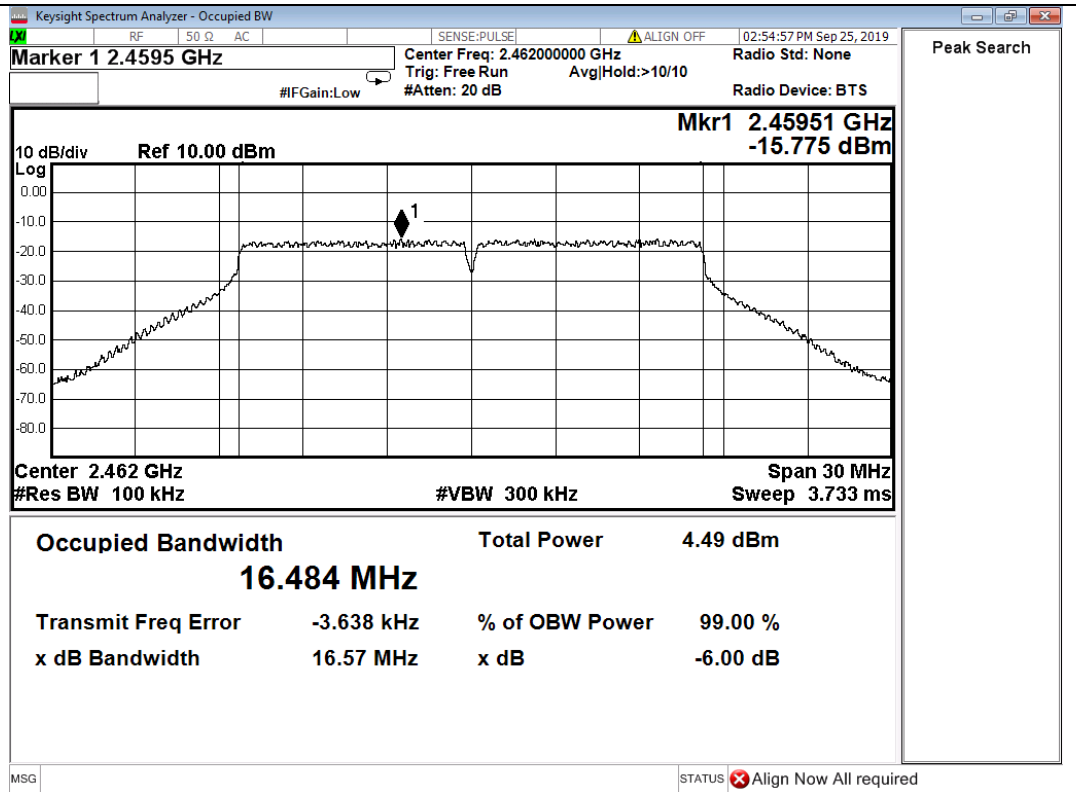
11G/LCH



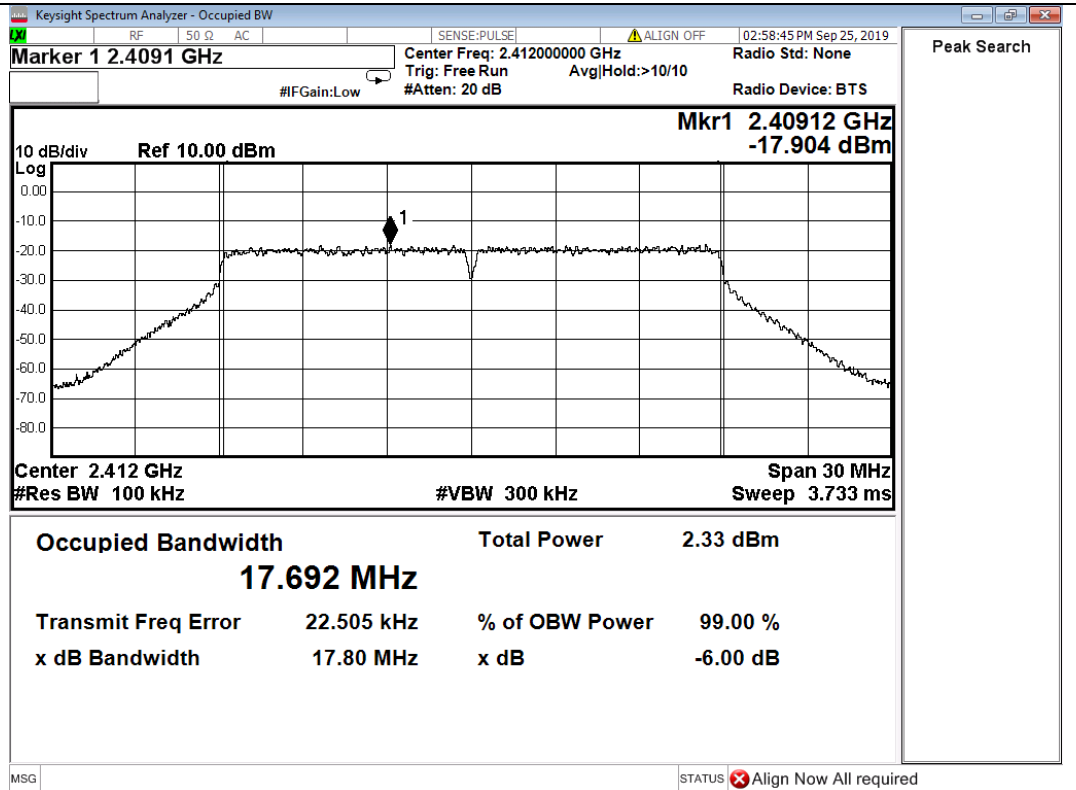
11G/MCH



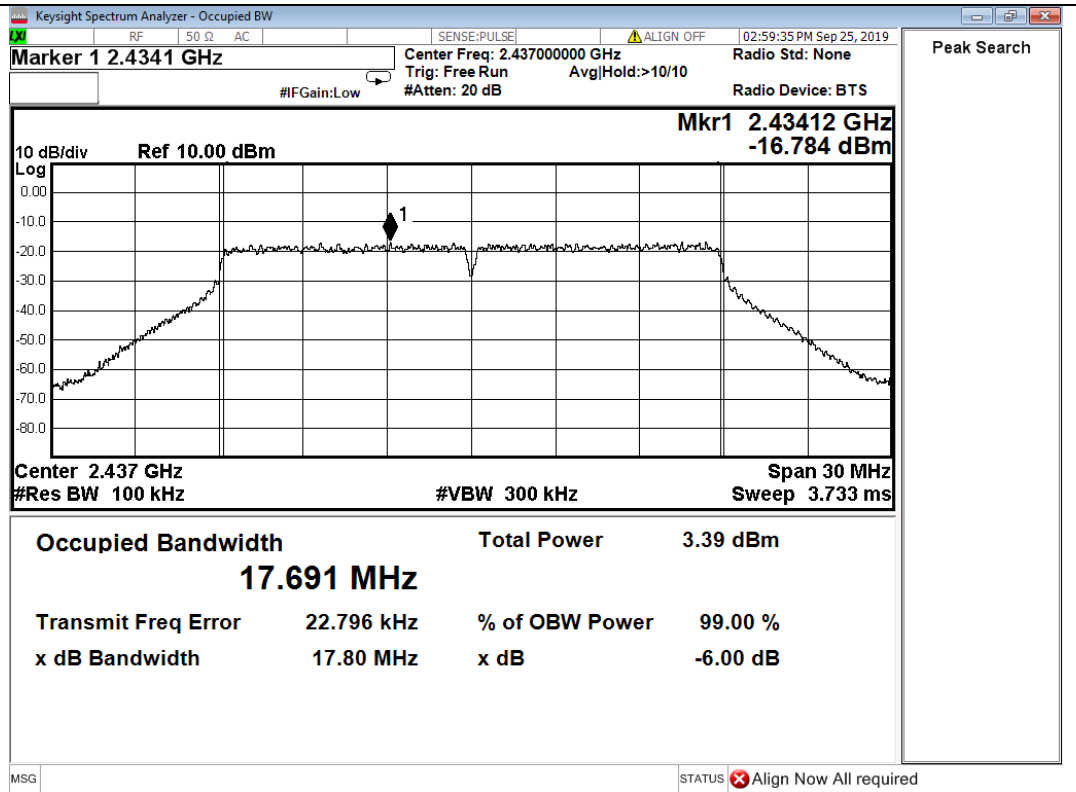
11G/HCH



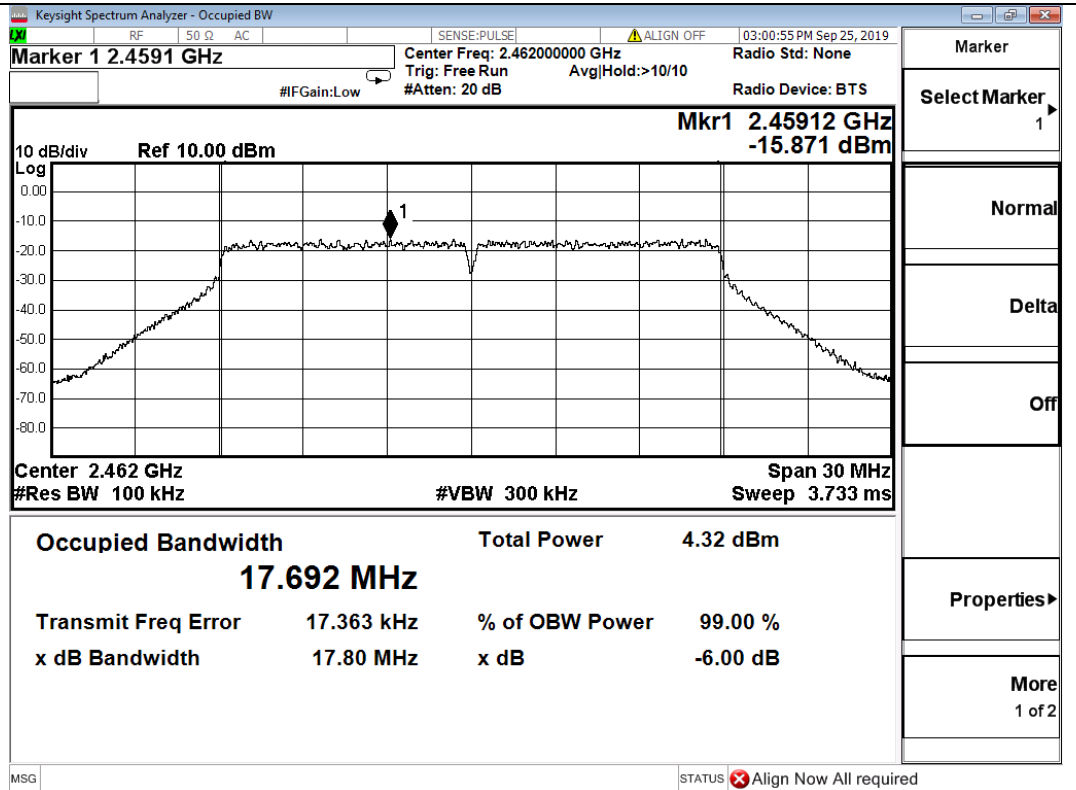
11N20SISO/LCH



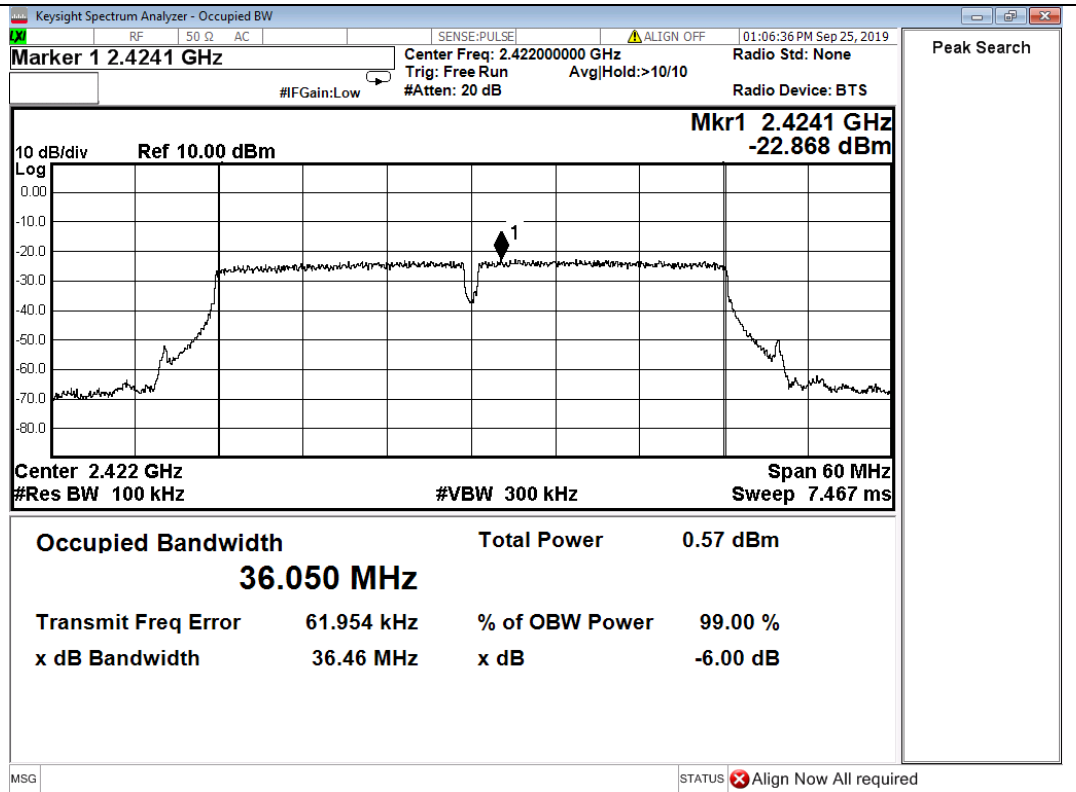
11N20SISO/MCH



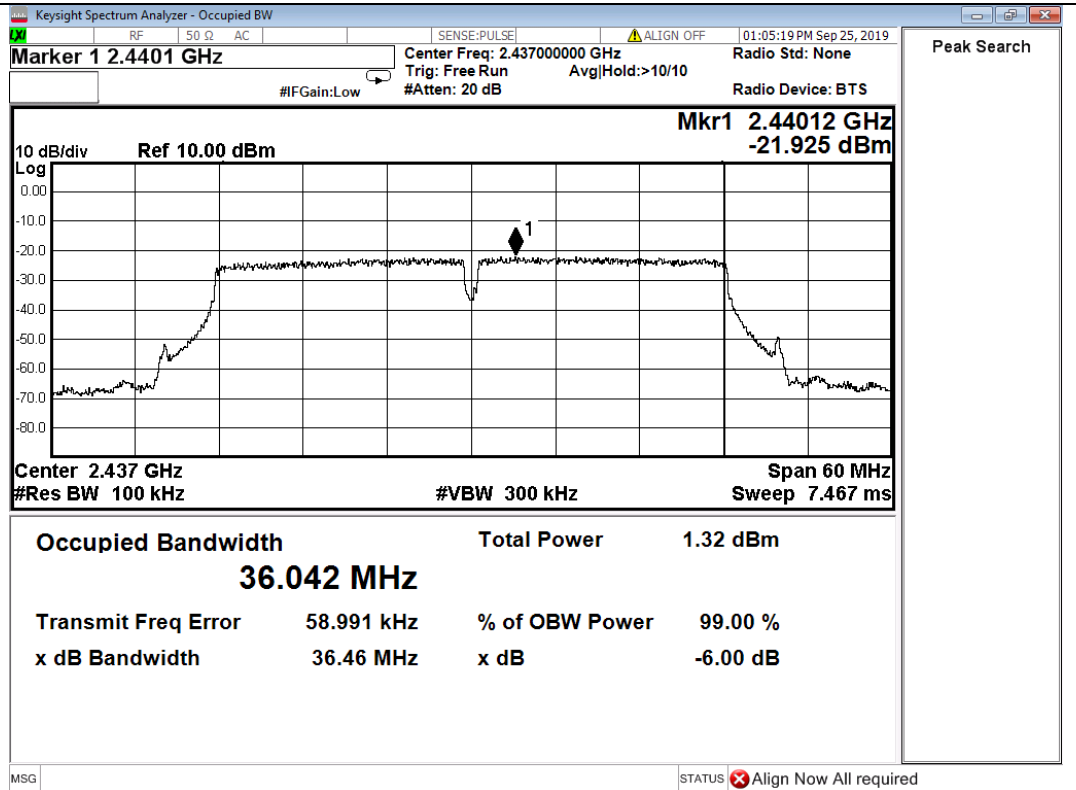
11N20SISO/HCH



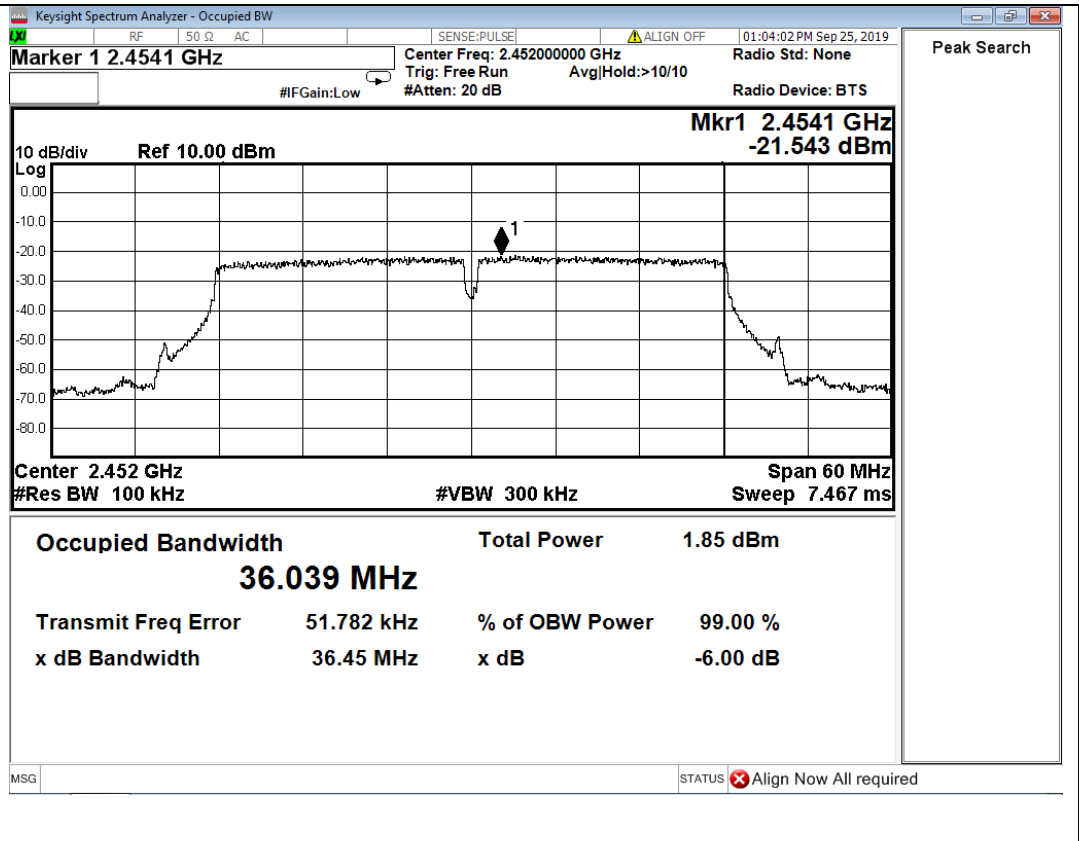
11N40SISO/LCH



11N40SISO/MCH



11N40SISO/HCH

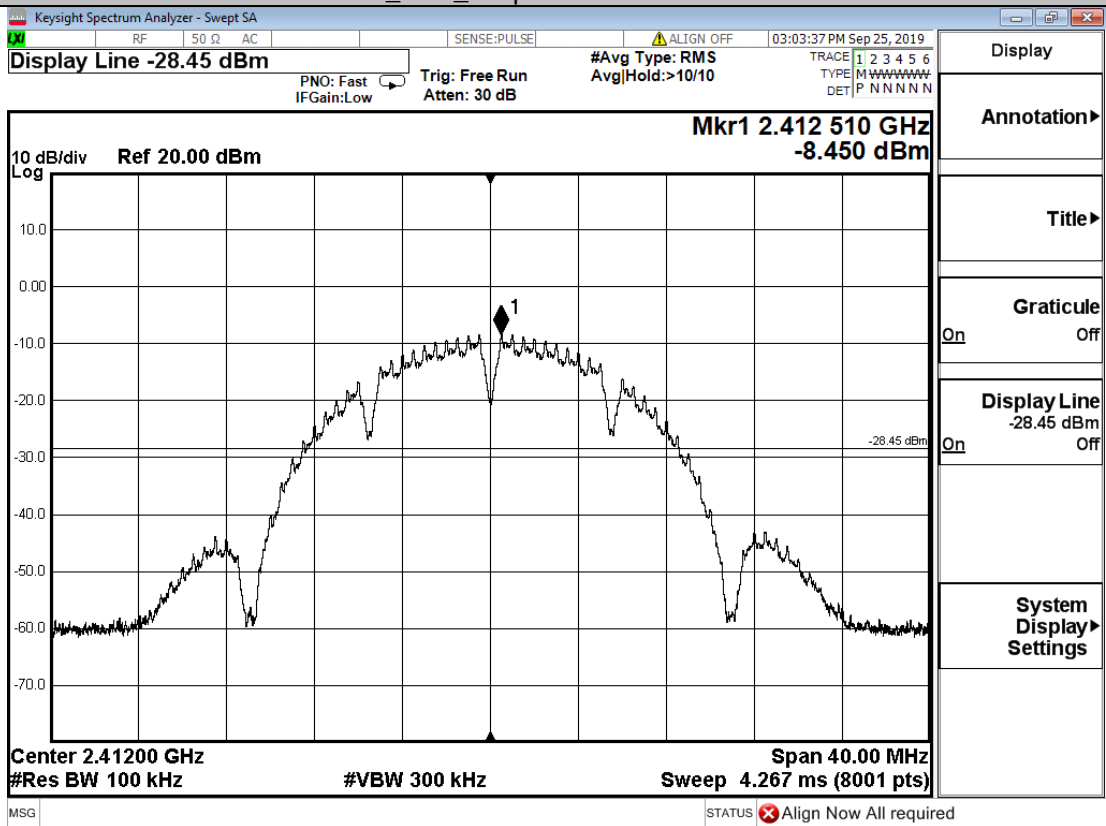


B.5 RF Conducted Spurious Emissions

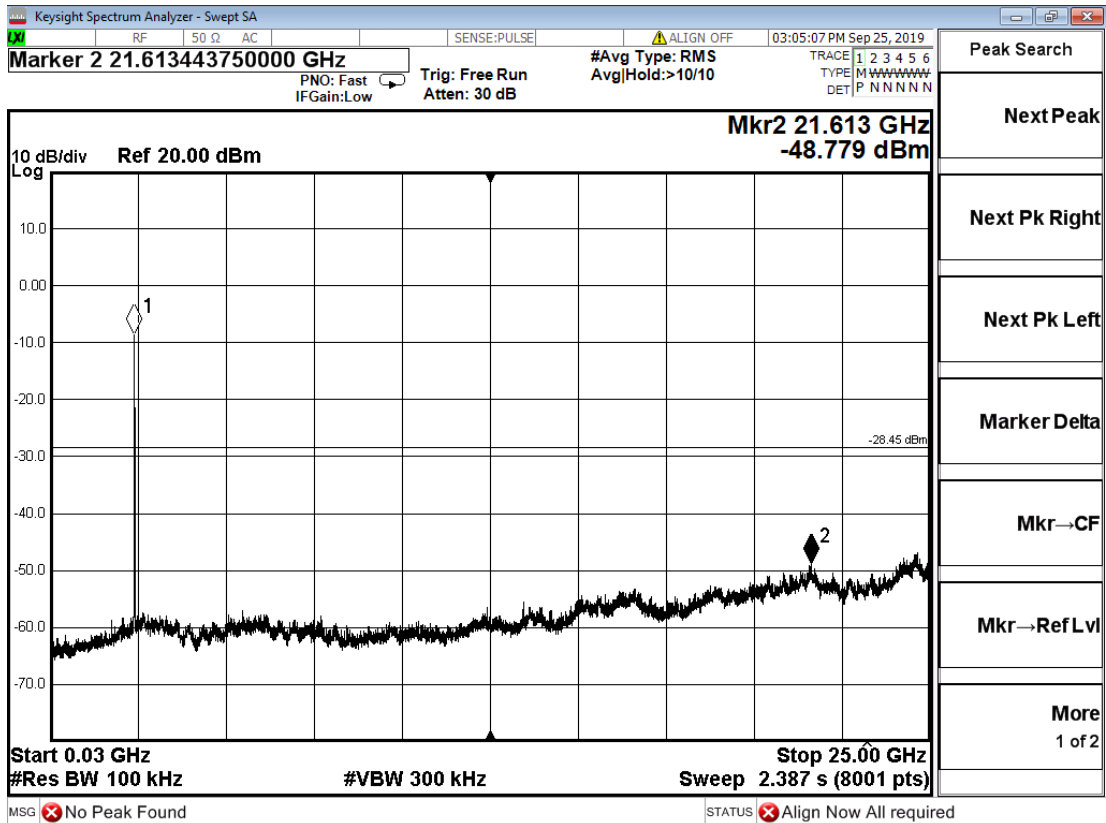
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-8.450	-48.779	-28.45	PASS
	MCH	-7.239	-49.399	-27.24	PASS
	HCH	-6.356	-48.853	-26.36	PASS
11G	LCH	-17.749	-49.502	-37.75	PASS
	MCH	-16.590	-47.935	-36.59	PASS
	HCH	-15.598	-46.799	-35.60	PASS
11N20 SISO	LCH	-17.594	-49.080	-37.59	PASS
	MCH	-16.403	-46.417	-36.40	PASS
	HCH	-15.453	-47.414	-35.45	PASS
11N40 SISO	LCH	-21.261	-49.636	-41.26	PASS
	MCH	-20.609	-49.312	-40.61	PASS
	HCH	-20.091	-48.737	-40.09	PASS

11B_LCH_Graphs

Pref/11B/LCH

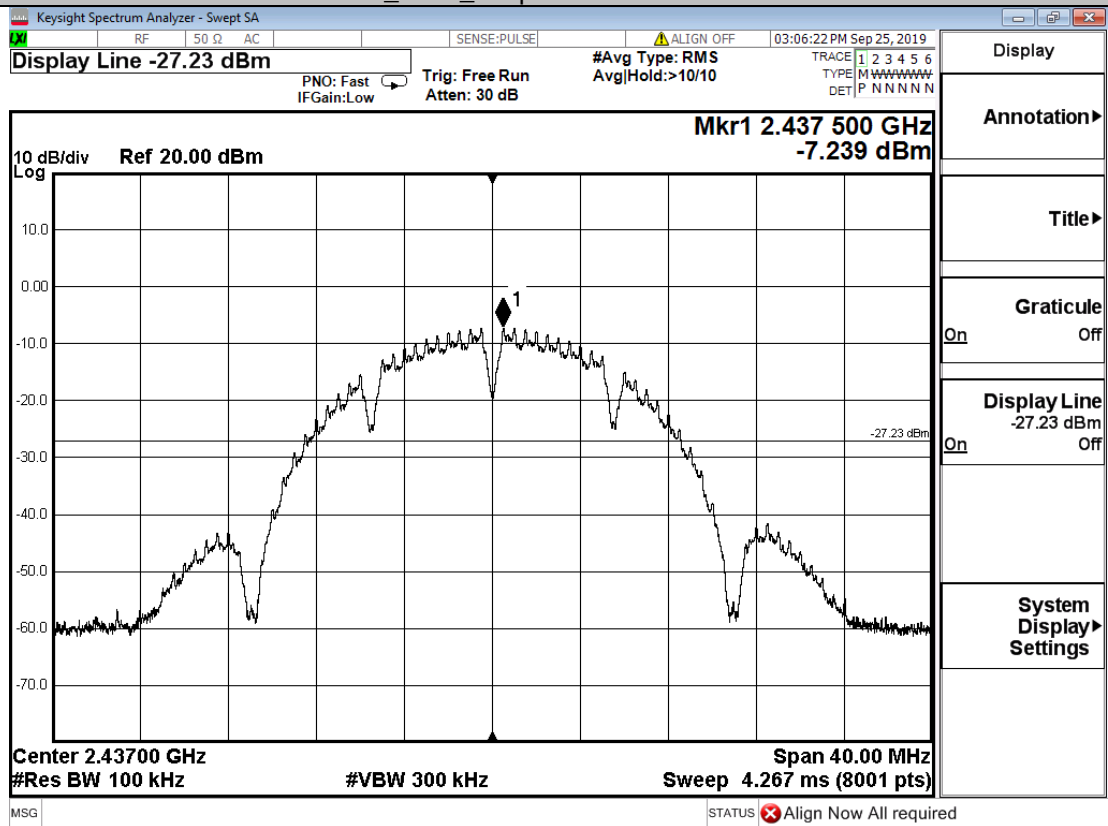


Puw/11B/LCH

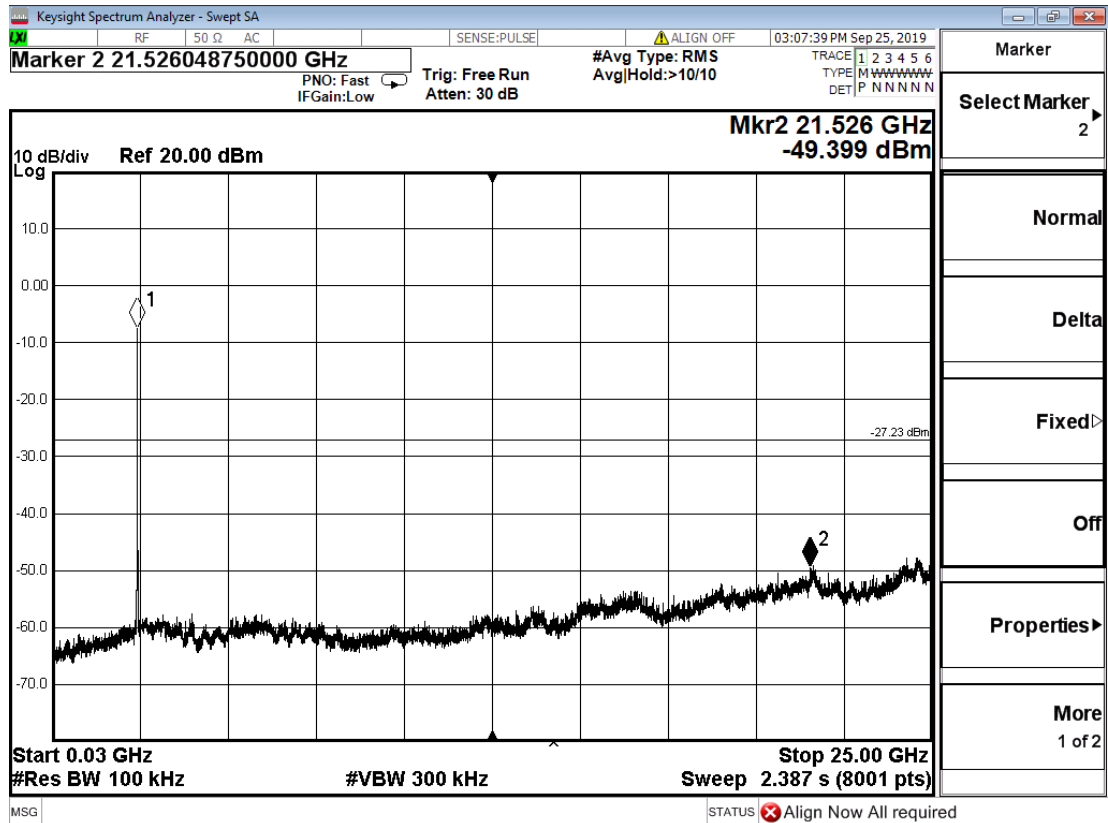


11B_MCH_Graphs

Pref/11B/MCH

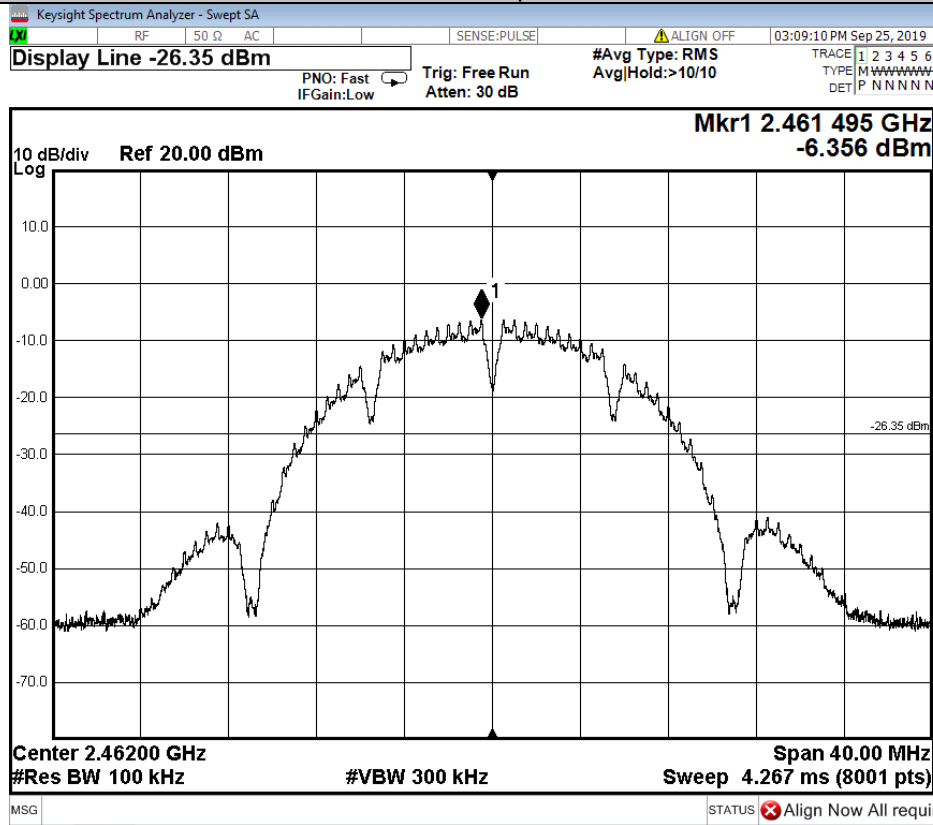


Puw/11B/MCH



11B_HCH_Graphs

Pref/11B/HCH



Display

Annotation

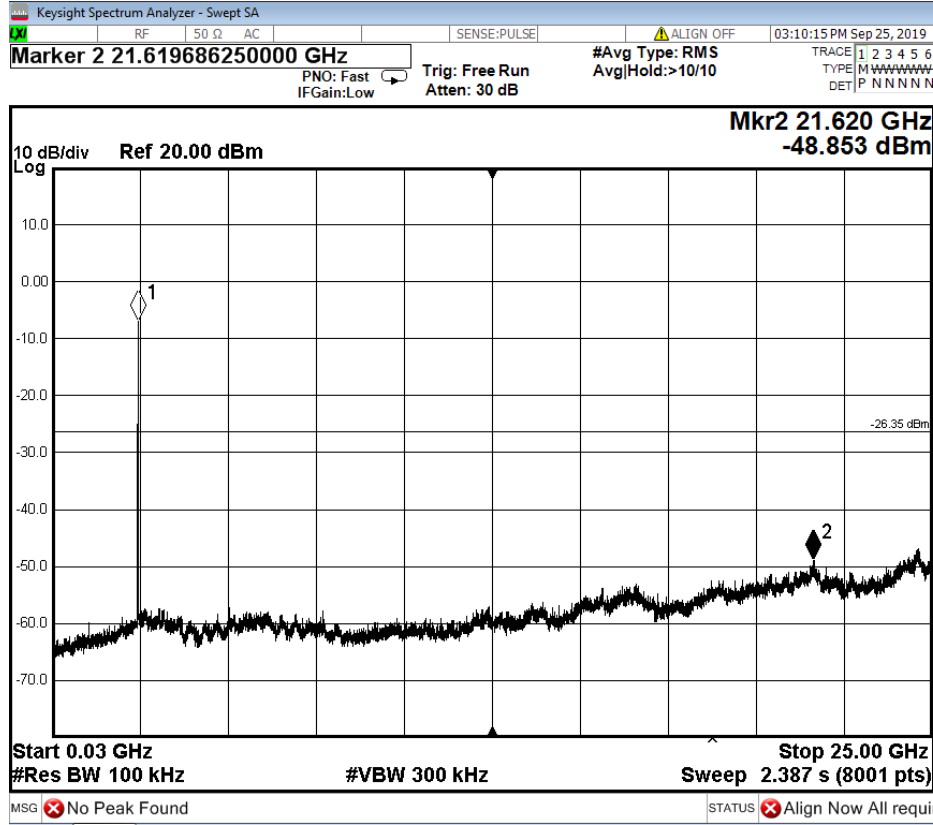
Title

Graticule On Off

Display Line -26.35 dBm On Off

System Display Settings

Puw/11B/HCH



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

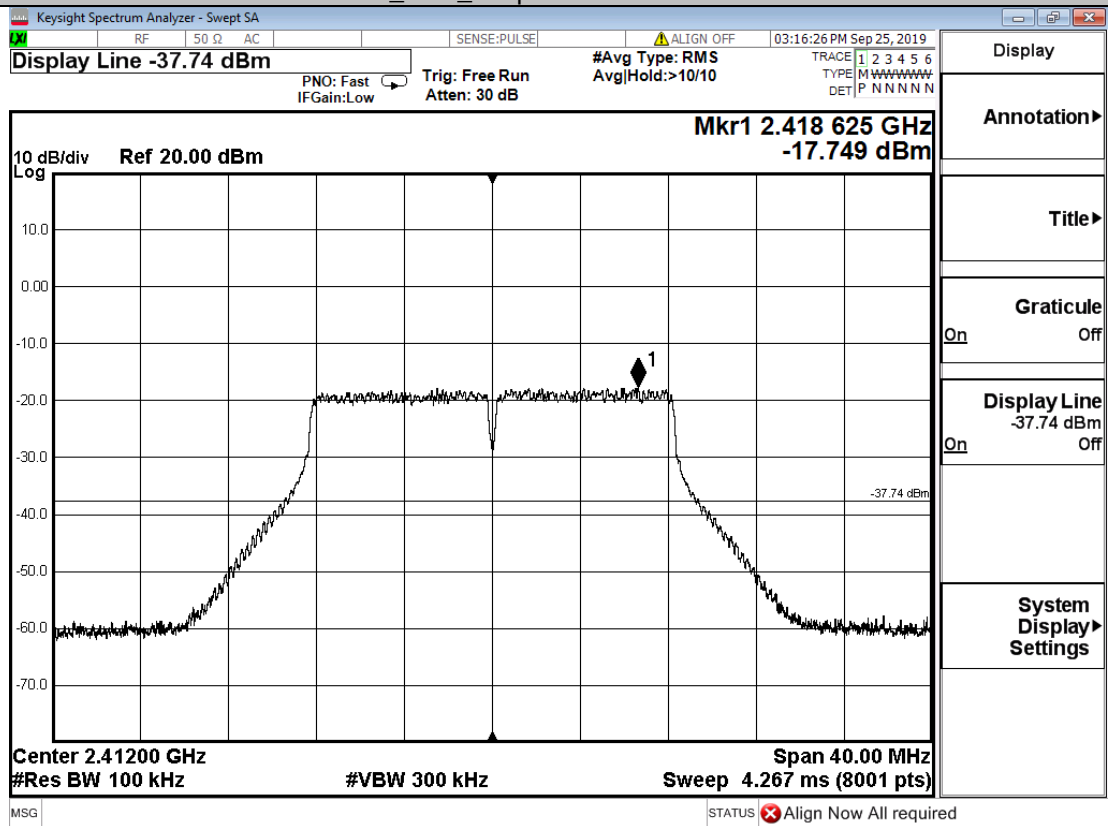
Mkr→CF

Mkr→Ref Lvl

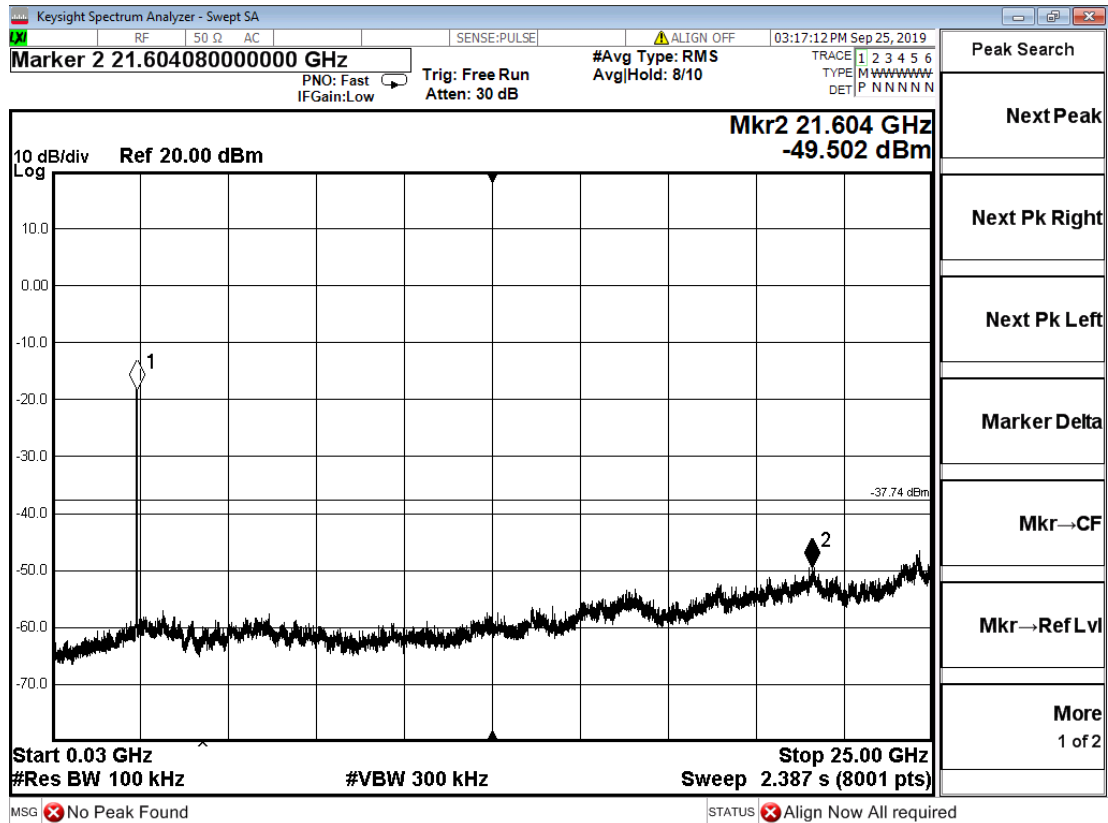
More 1 of 2

11G_LCH_Graphs

Pref/11G/LCH

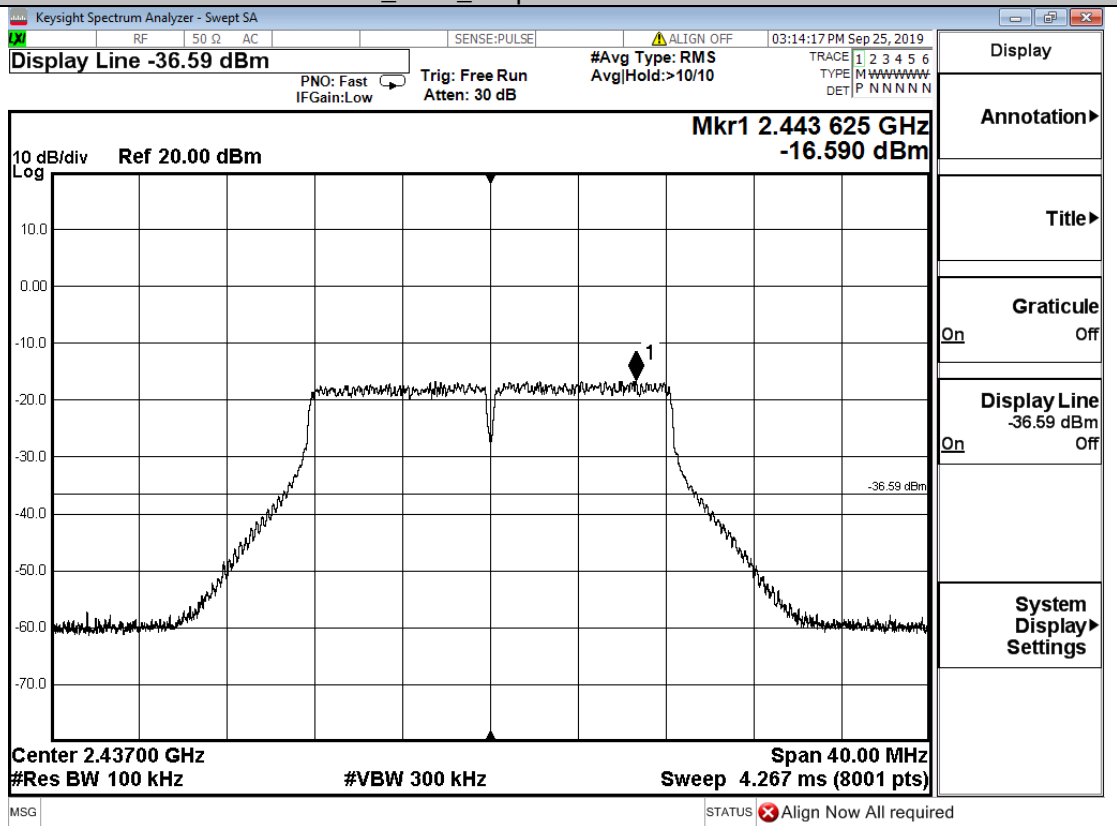


Puw/11G/LCH

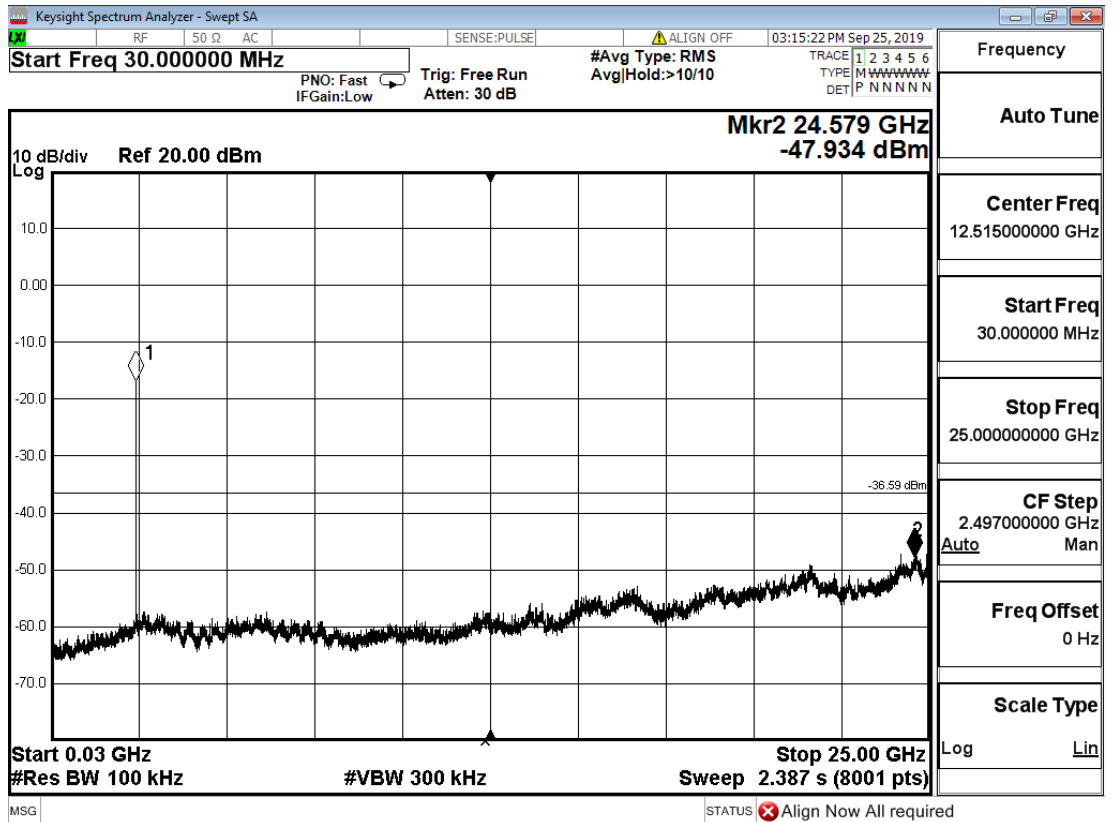


11G_MCH_Graphs

Pref/11G/MCH

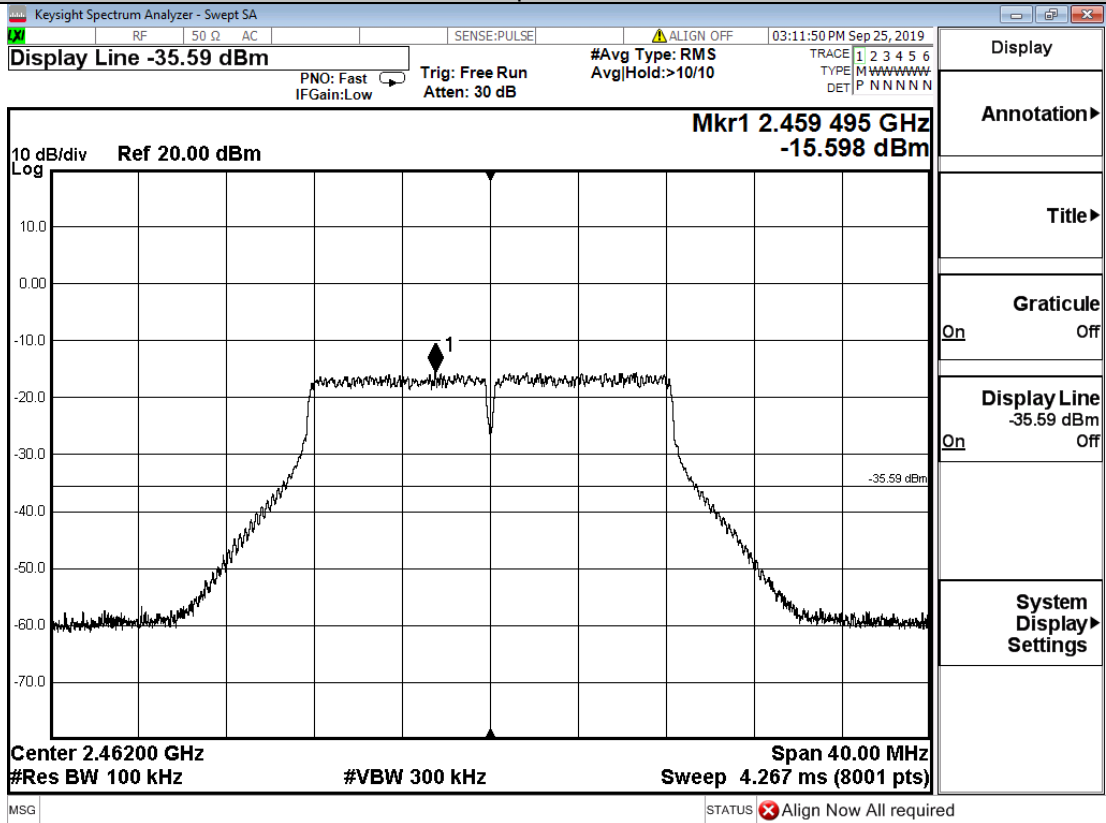


Puw/11G/MCH

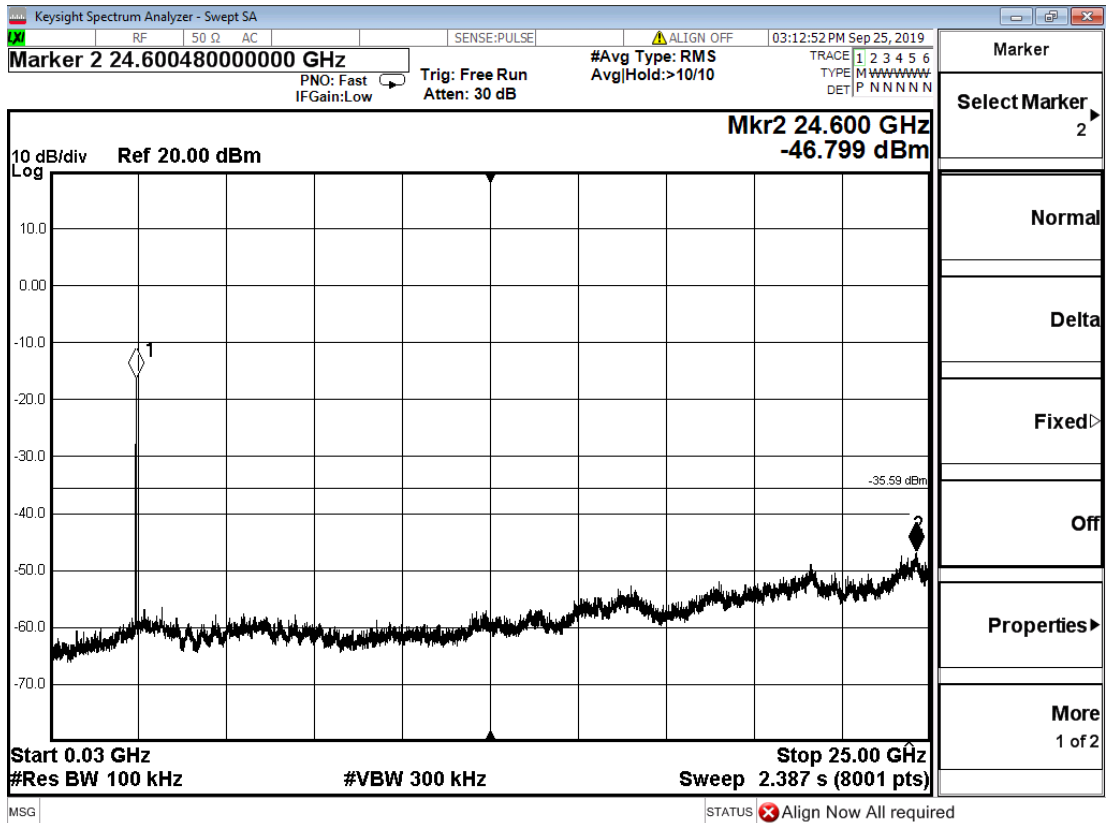


11G_HCH_Graphs

Pref/11G/HCH

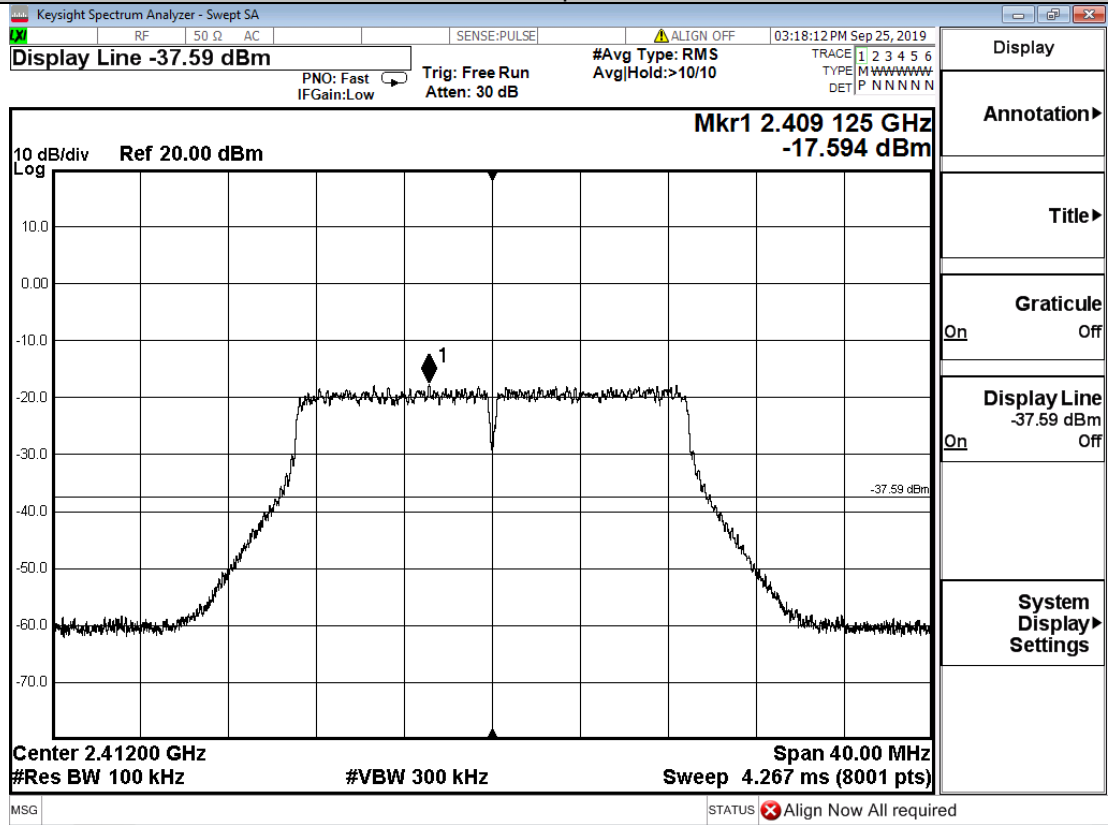


Puw/11G/HCH

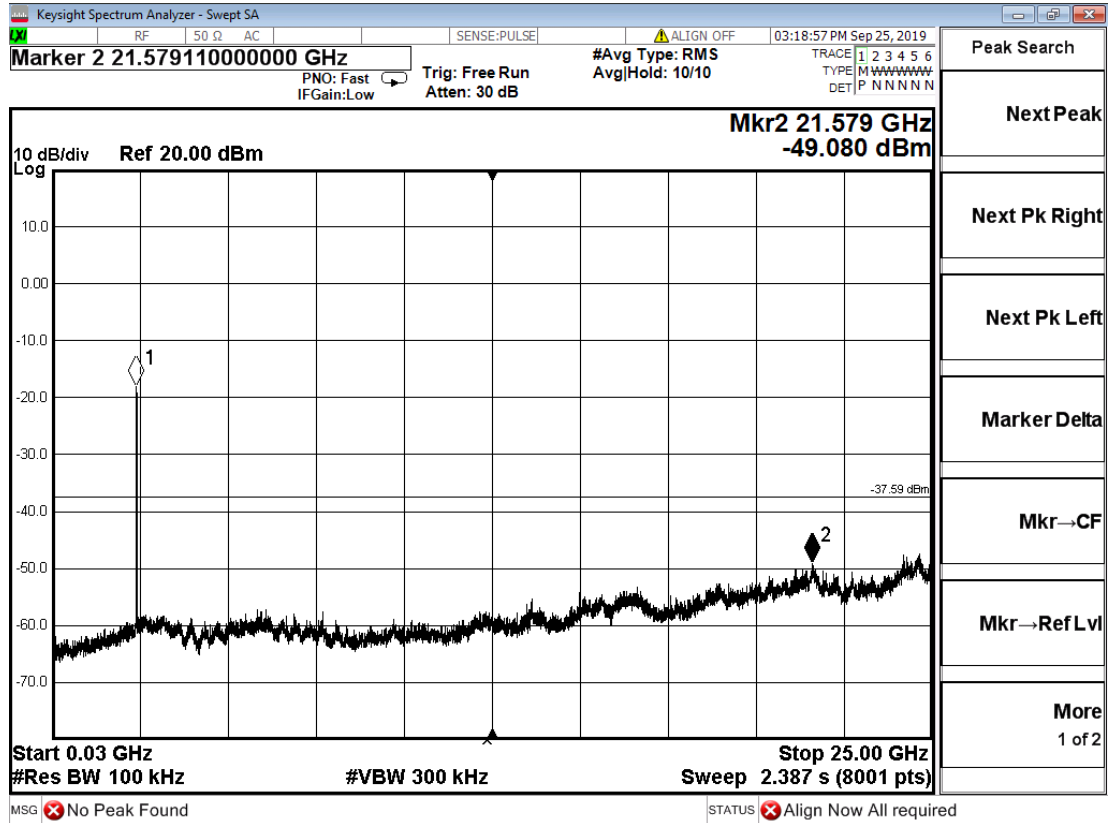


11N20SISO_LCH_Graphs

Pref/11N20SIS
O/LCH

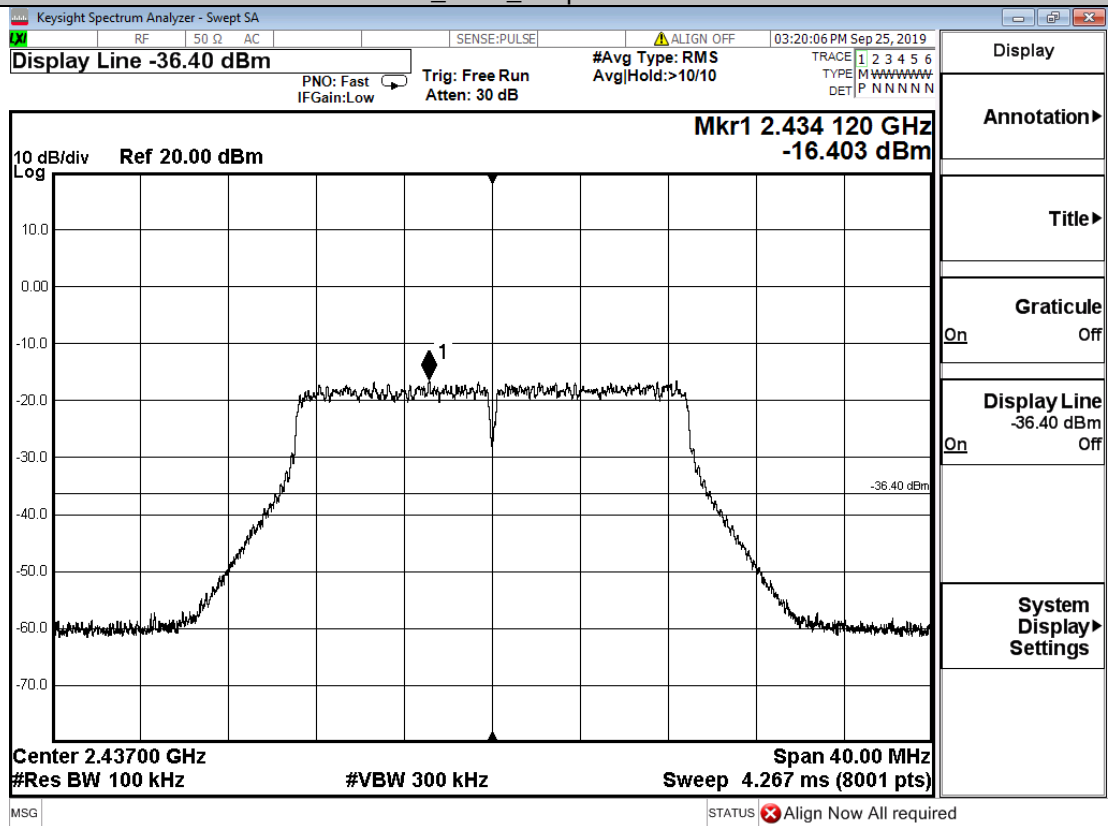


Puw/11N20
SISO/LCH



11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCH



Display

Annotation ▶

Title ▶

Graticule

On Off

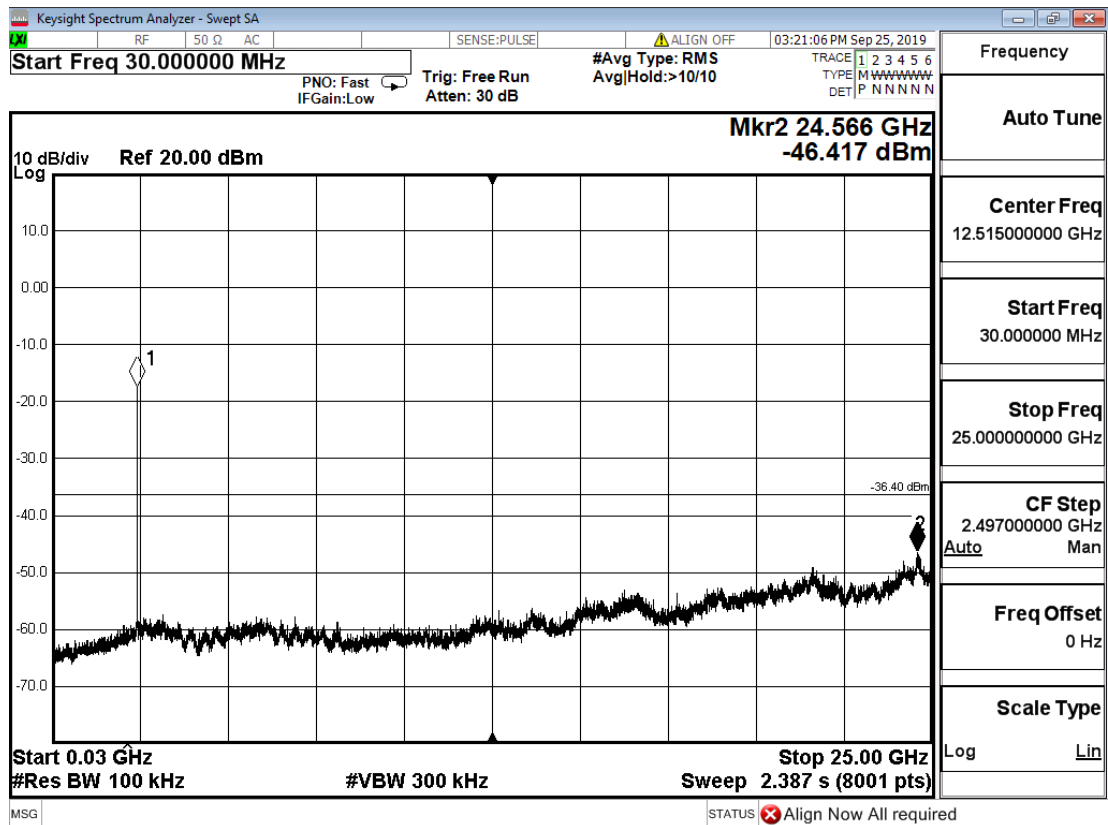
Display Line

On Off

System Display ▶

Settings

Puw/11N20
SISO/MCH



Frequency

Auto Tune

Center Freq

12.515000000 GHz

Start Freq

30.000000 MHz

Stop Freq

25.000000000 GHz

CF Step

2.497000000 GHz

Auto Man

Freq Offset

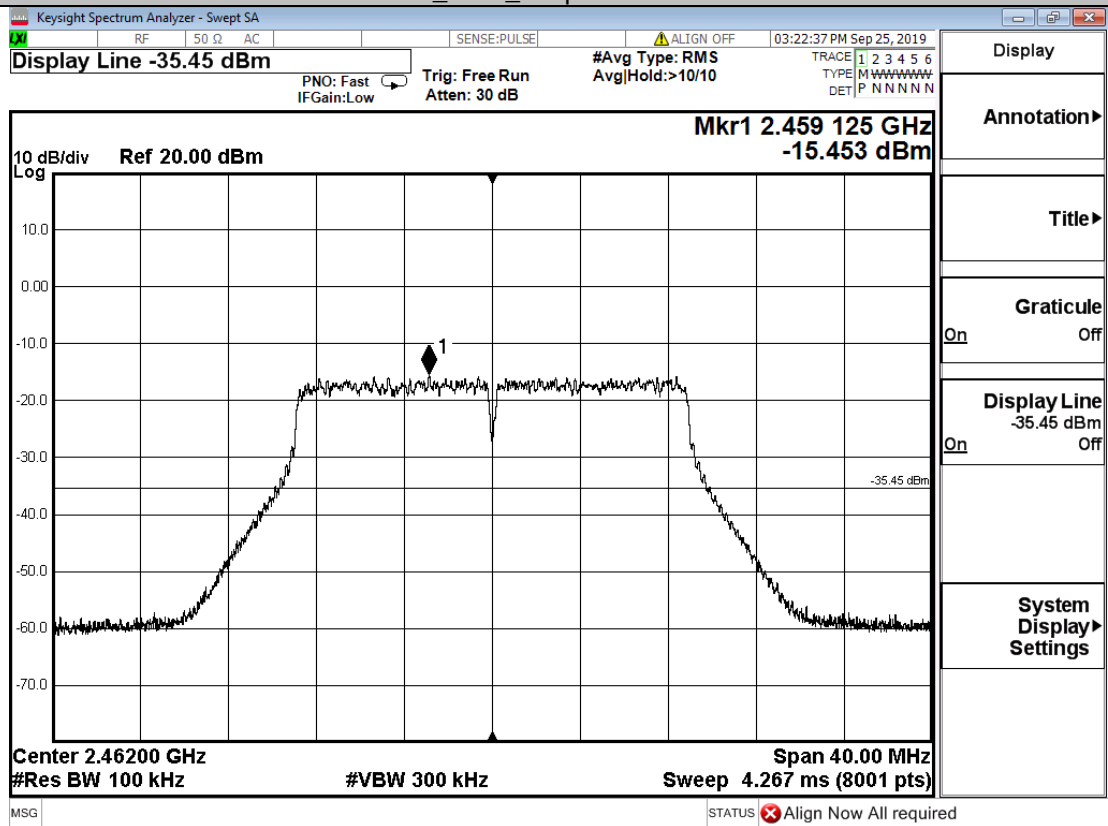
0 Hz

Scale Type

Log Lin

11N20SISO_HCH_Graphs

Pref/11N20
SISO/HCH



Display

Annotation ▶

Title ▶

Graticule

On Off

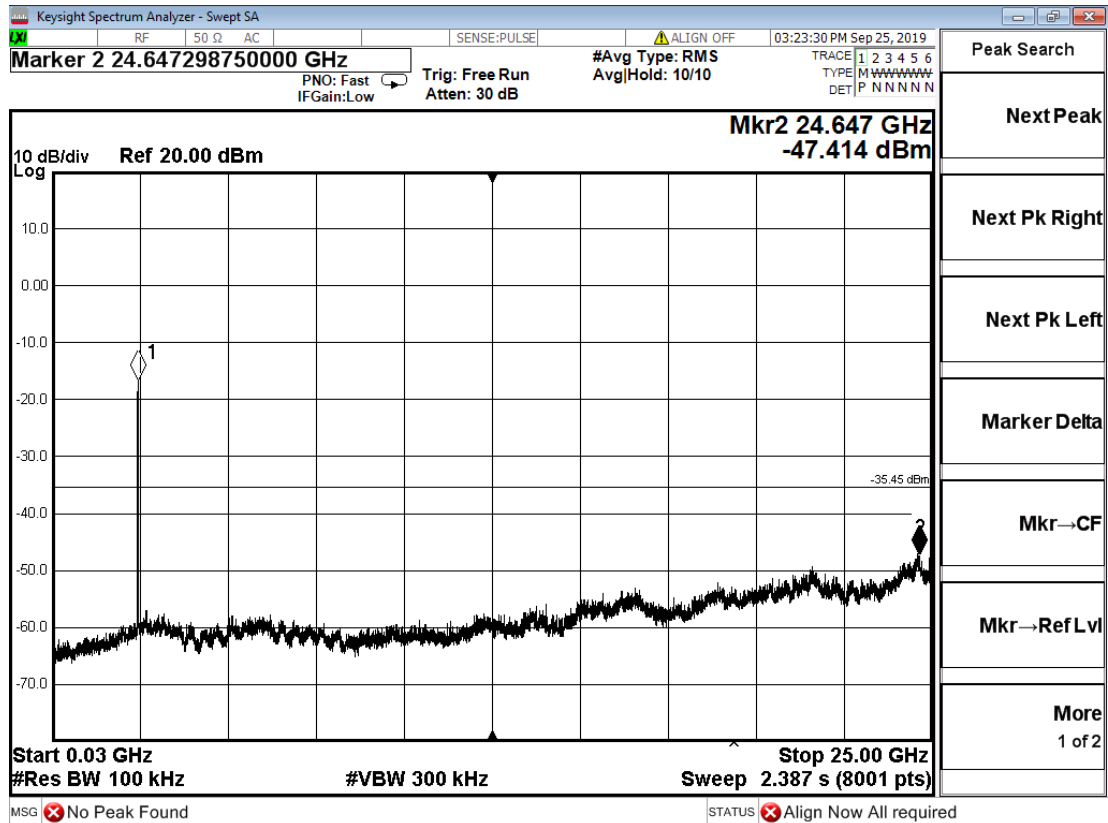
Display Line

On -35.45 dBm Off

System Display ▶

Settings

Puw/11N20
SISO/HCH



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

Mkr→CF

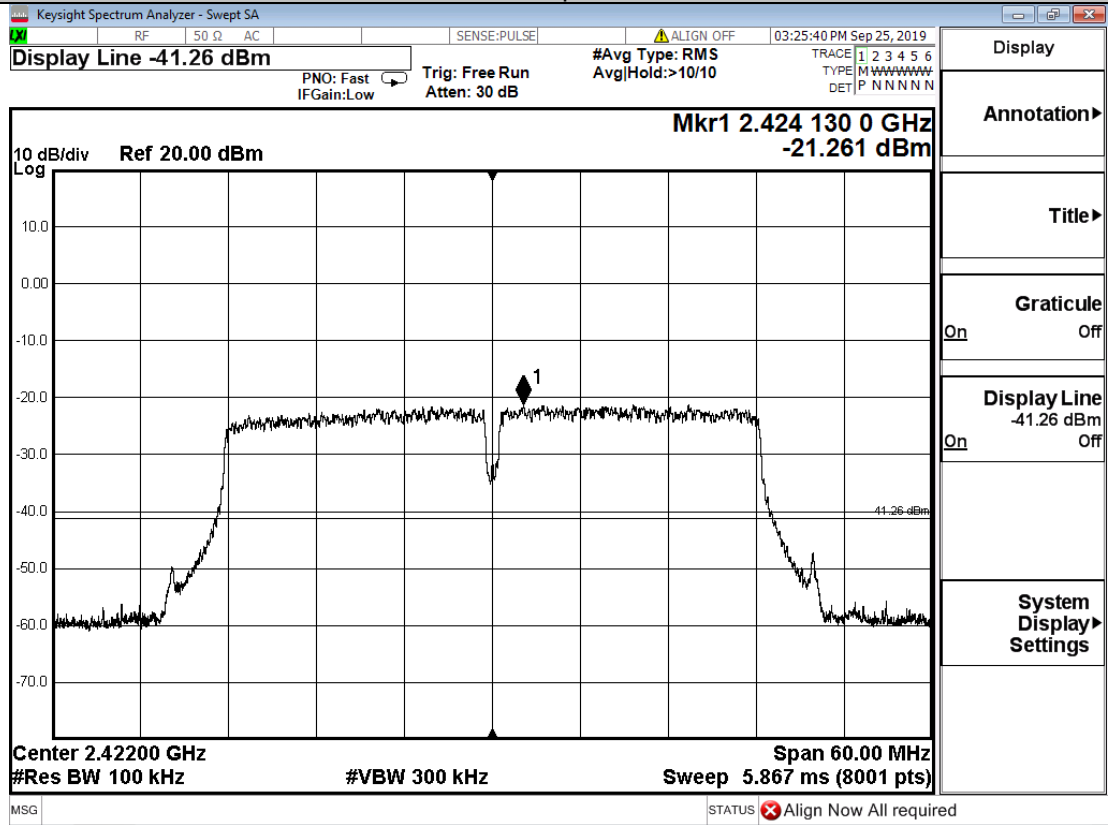
Mkr→Ref Lvl

More

1 of 2

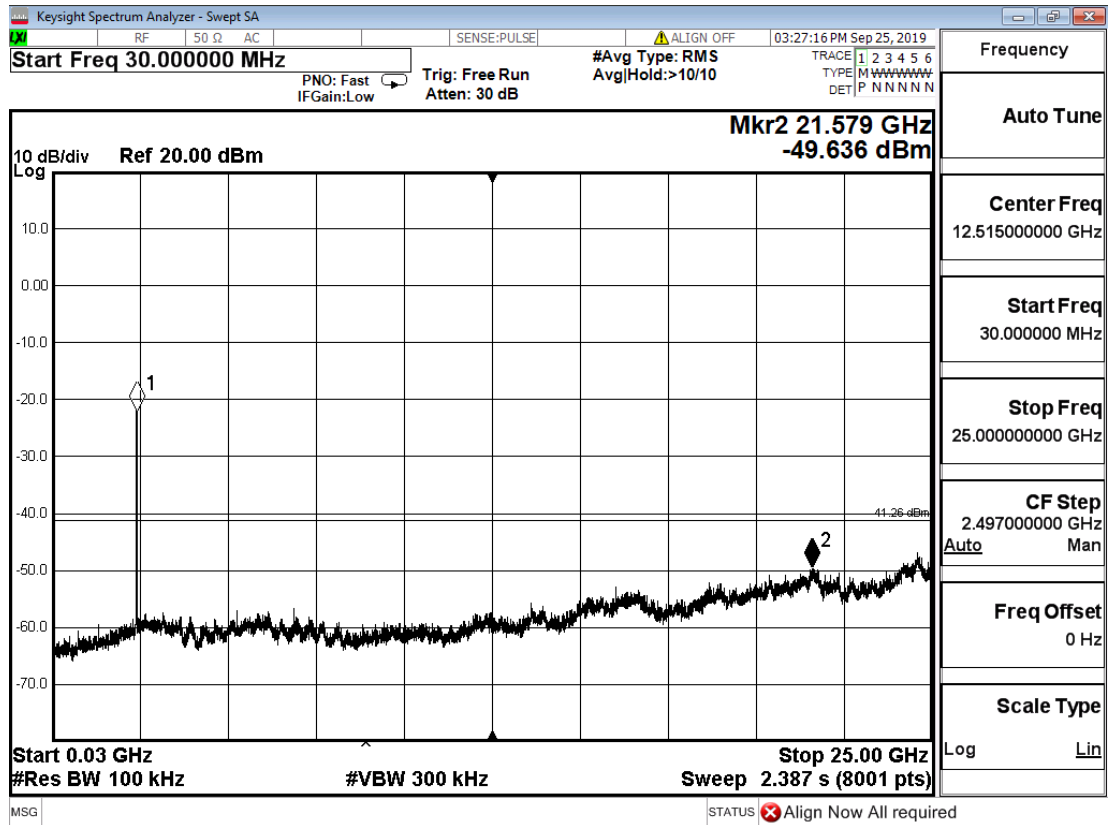
11N40SISO_LCH_Graphs

Pref/11N40SIS
O/LCH



- Display
- Annotation
- Title
- Graticule On Off
- Display Line -41.26 dBm On Off
- System Display Settings

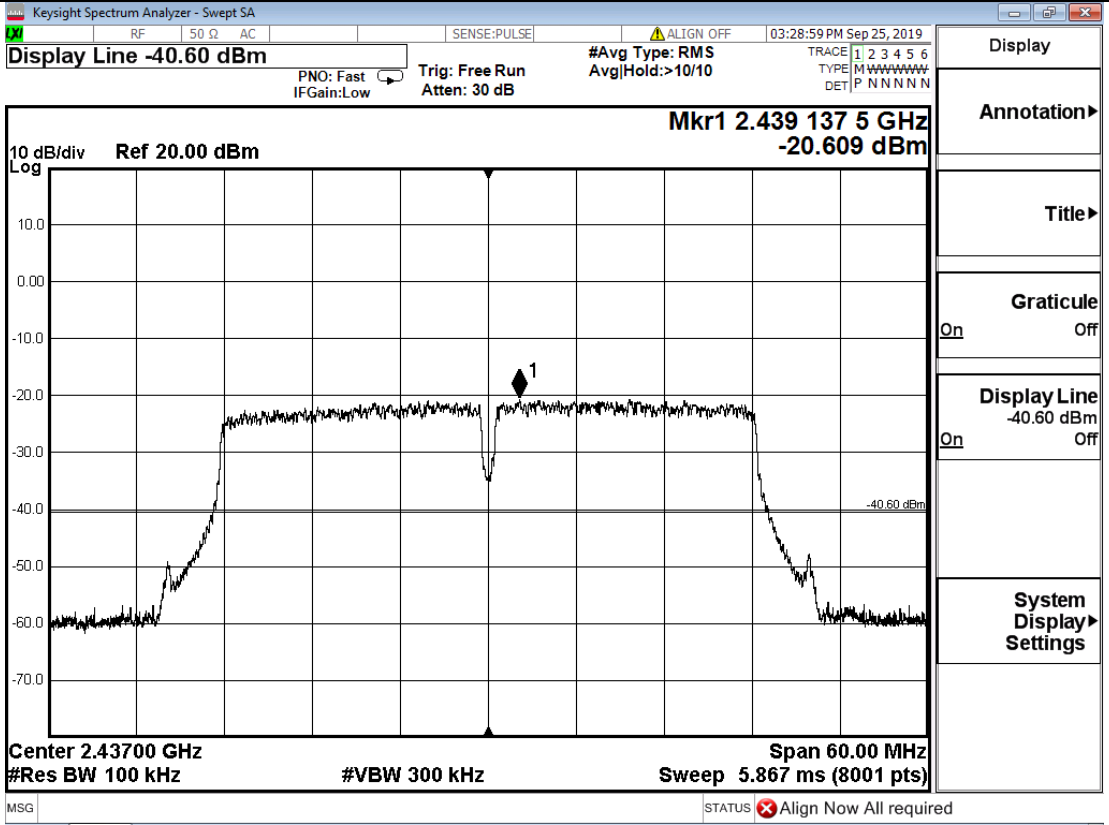
Puw/11N40
SISO/LCH



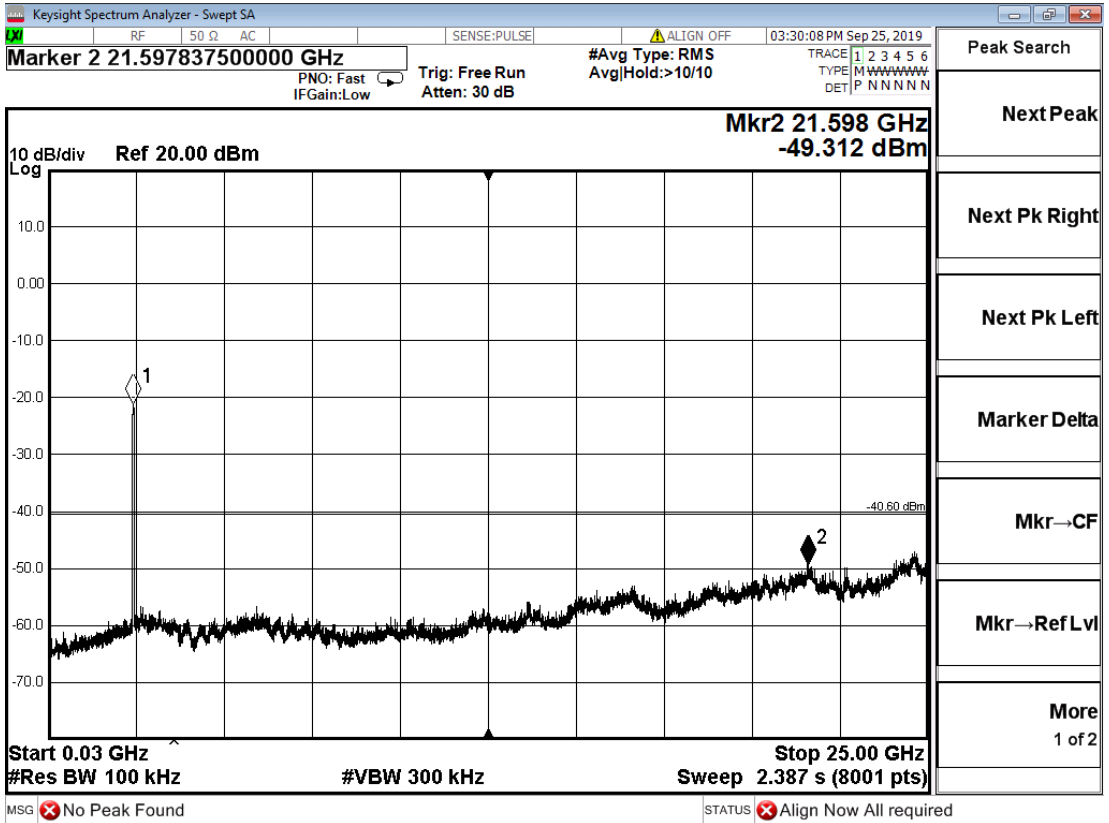
- Frequency
- Auto Tune
- Center Freq 12.515000000 GHz
- Start Freq 30.000000 MHz
- Stop Freq 25.000000000 GHz
- CF Step 2.497000000 GHz Auto Man
- Freq Offset 0 Hz
- Scale Type Log Lin

11N40SISO_MCH_Graphs

Pref/11N40
SISO/MCH

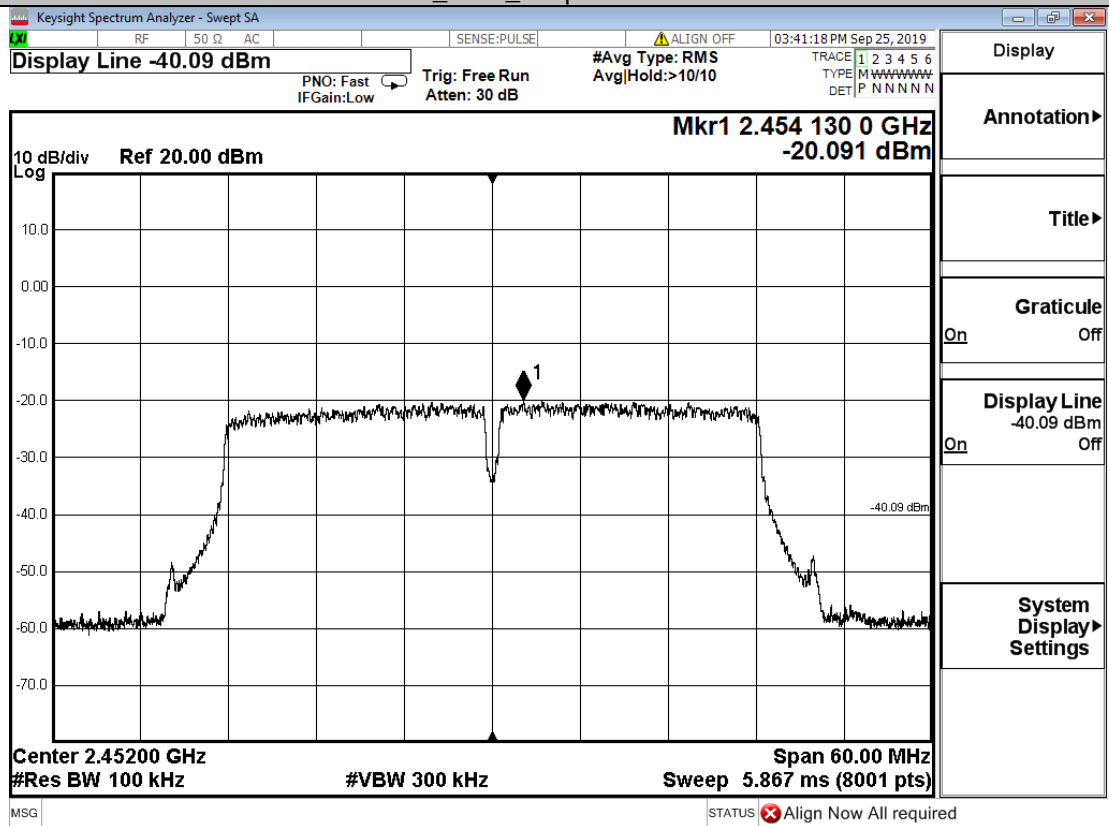


Puw/11N40
SISO/MCH

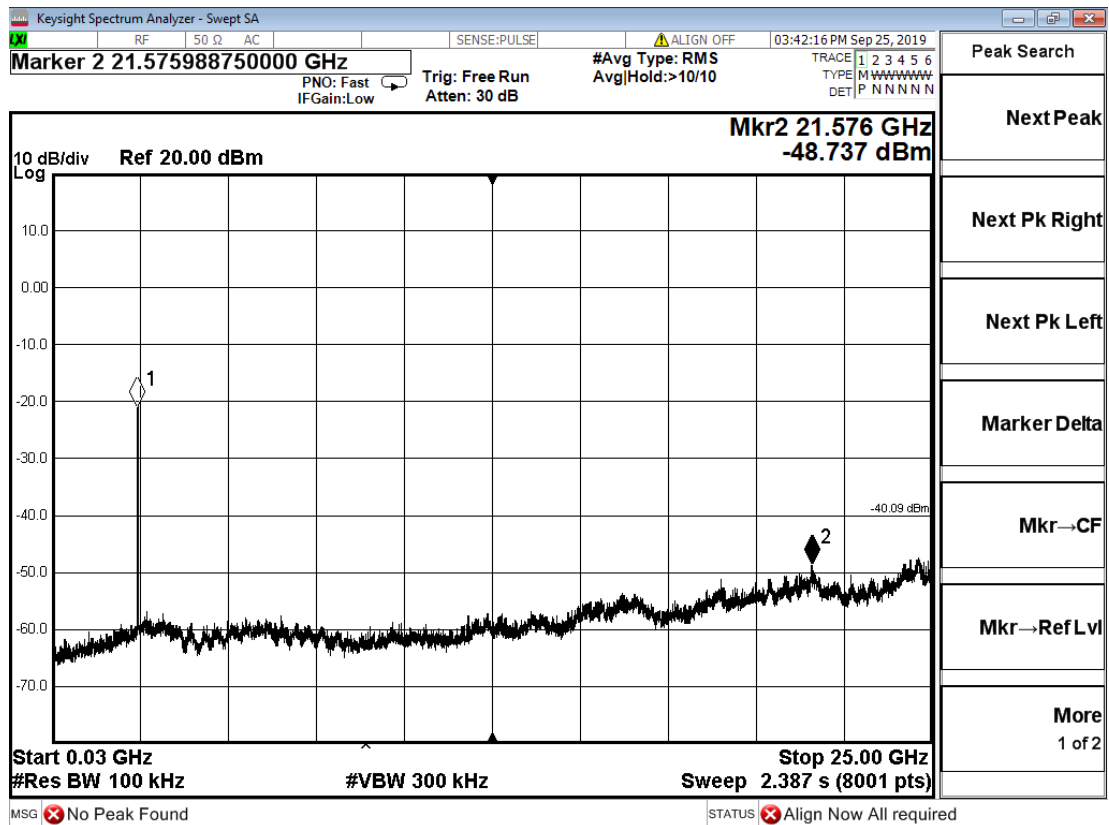


11N40SISO_HCH_Graphs

Pref/11N40
SISO/HCH



Puw/11N40
SISO/HCH

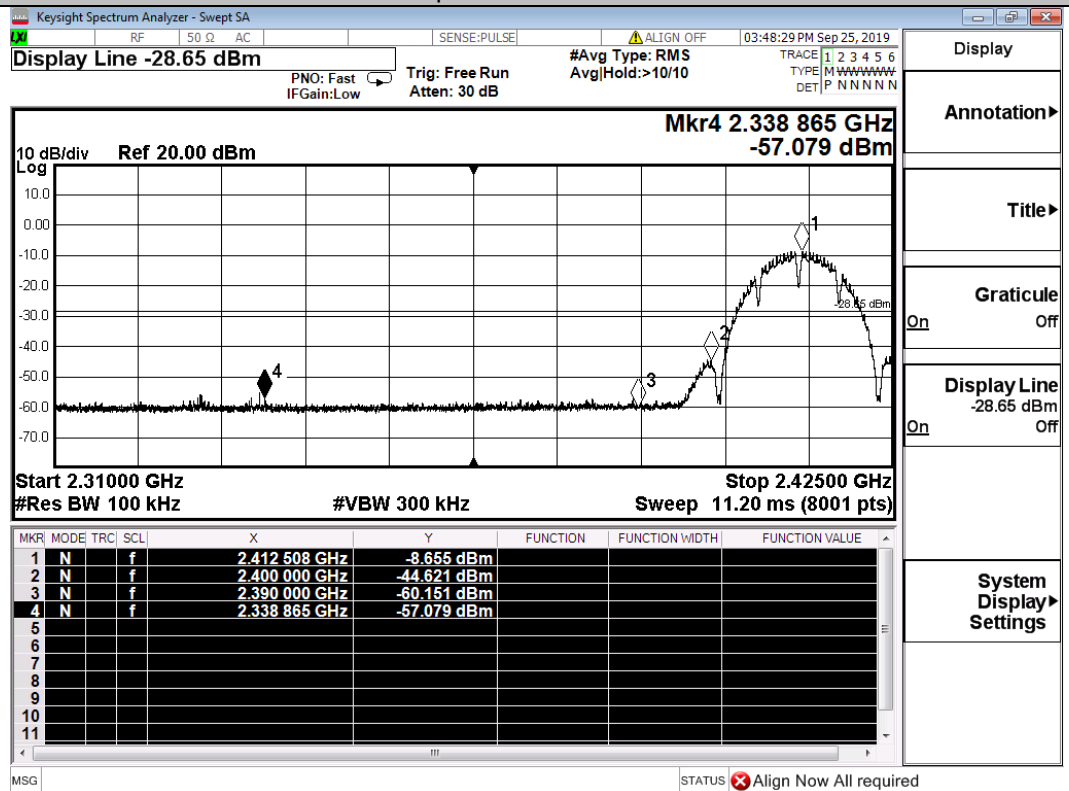


B.6 Band-edge for RF Conducted Emissions

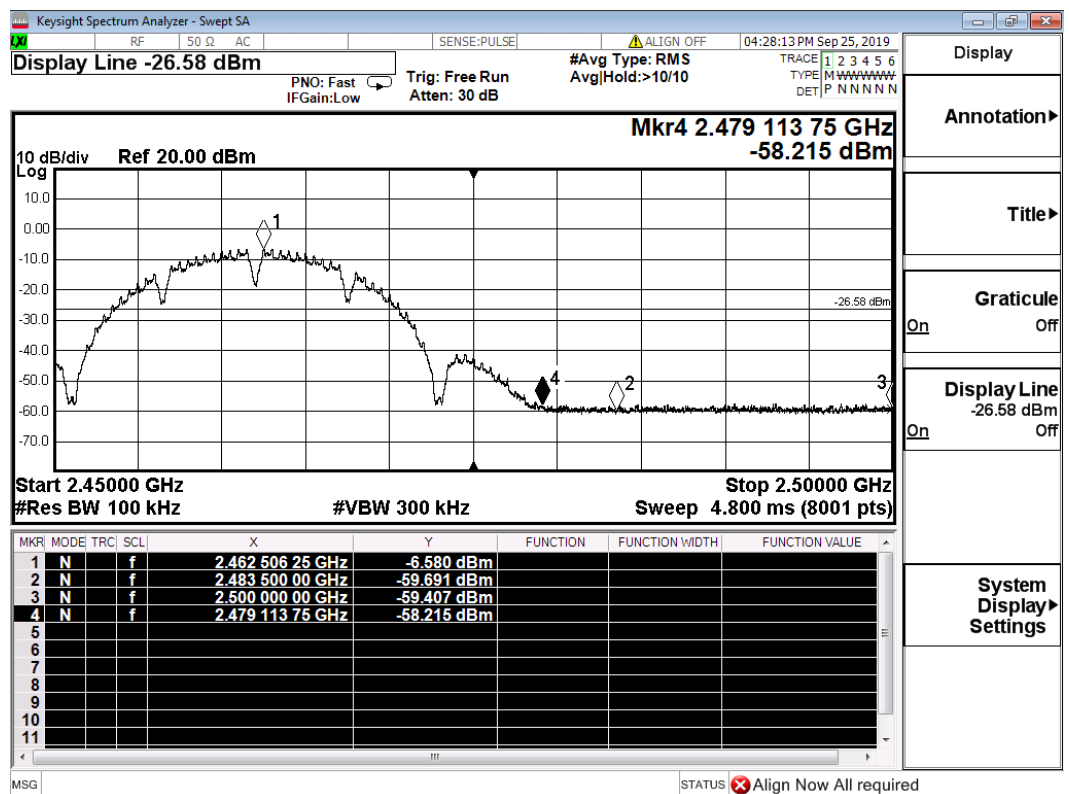
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	-8.655	-44.621	-28.66	PASS
	HCH	-6.580	-58.215	-26.58	PASS
11G	LCH	-17.692	-51.657	-37.69	PASS
	HCH	-15.809	-58.787	-35.81	PASS
11N20SISO	LCH	-17.665	-49.987	-37.67	PASS
	HCH	-15.579	-58.398	-35.58	PASS
11N40SISO	LCH	-21.289	-53.479	-41.29	PASS
	HCH	-20.098	-55.525	-40.10	PASS

Test Graphs

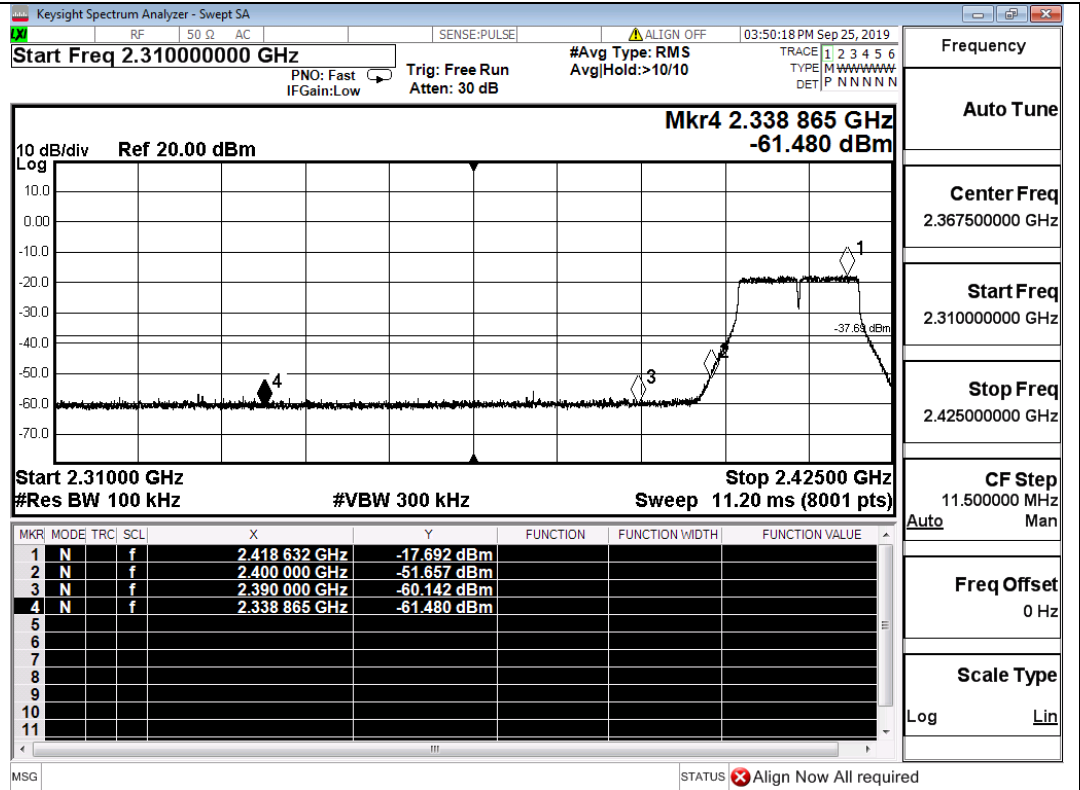
11B/LCH



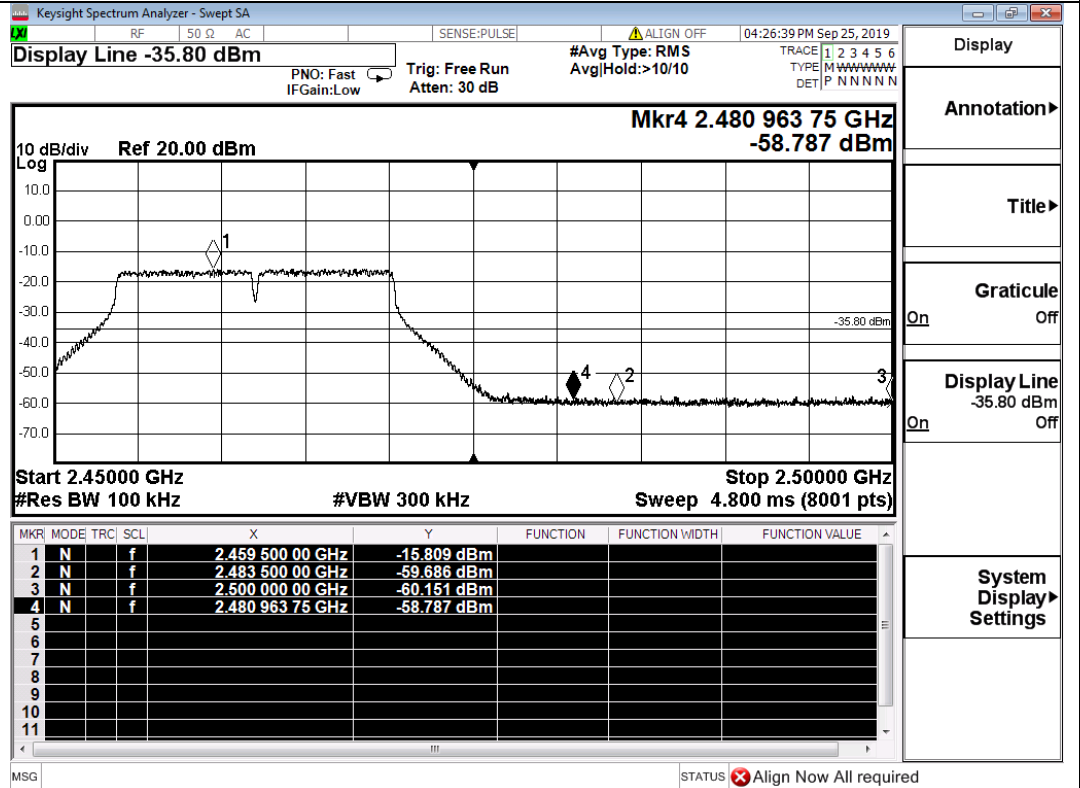
11B/HCH



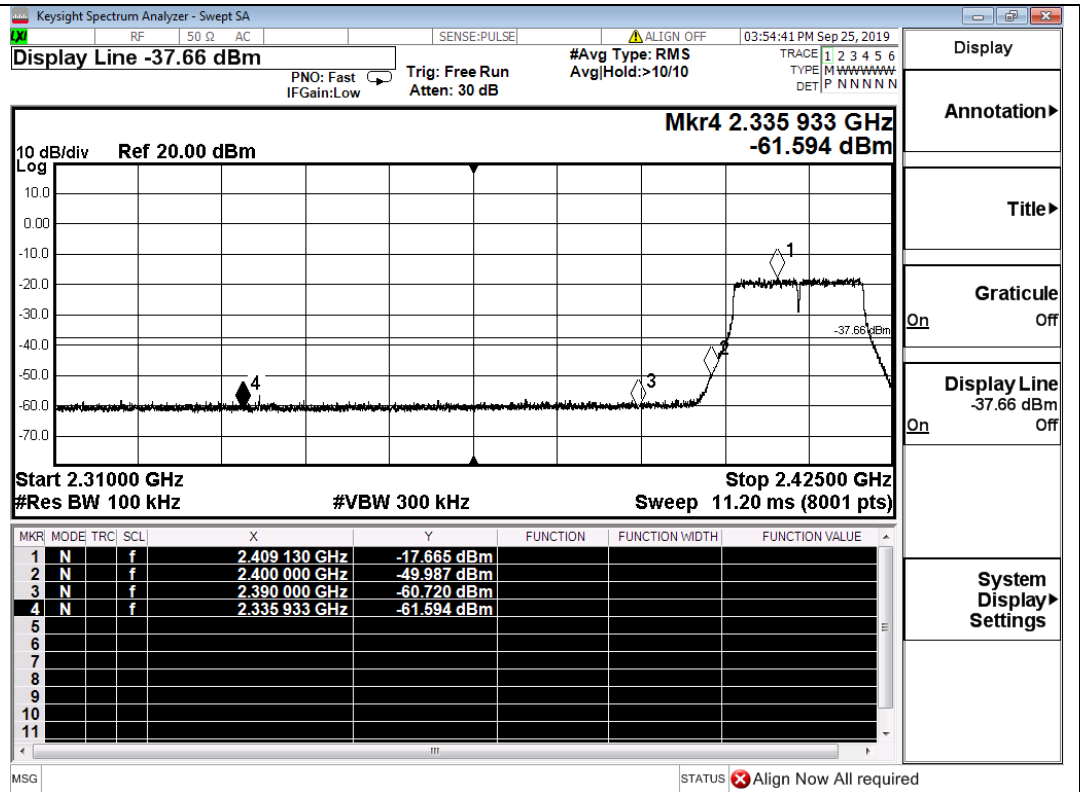
11G/LCH



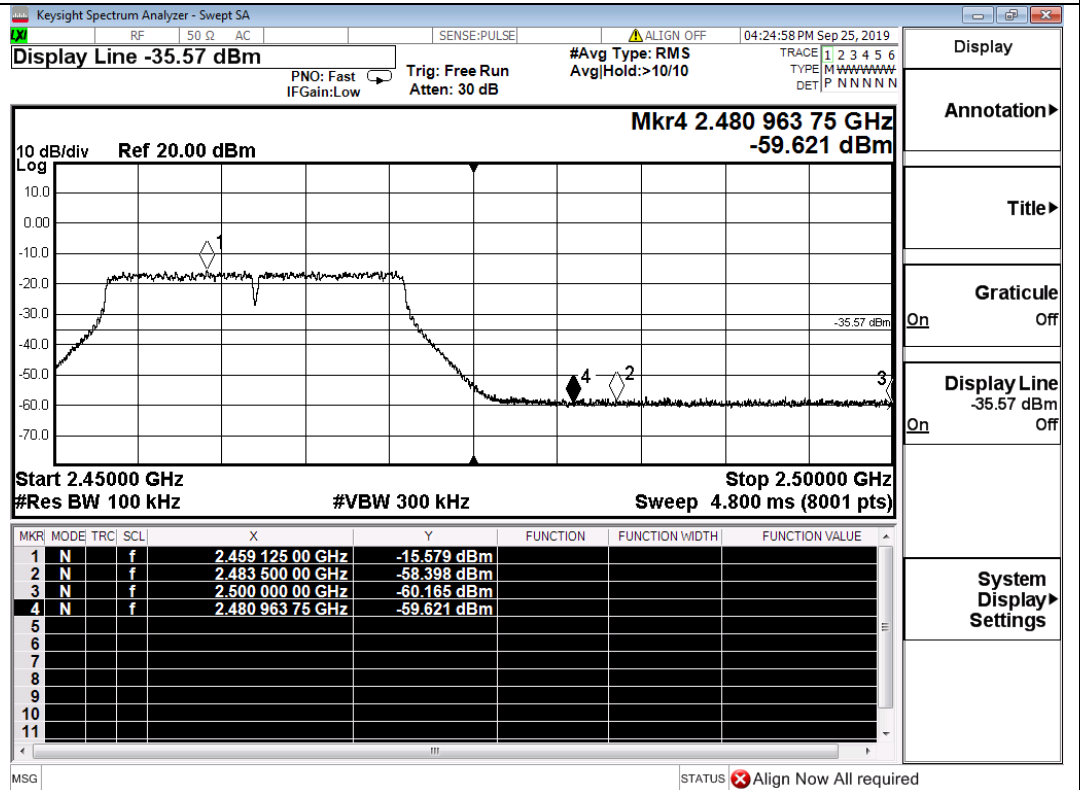
11G/HCH



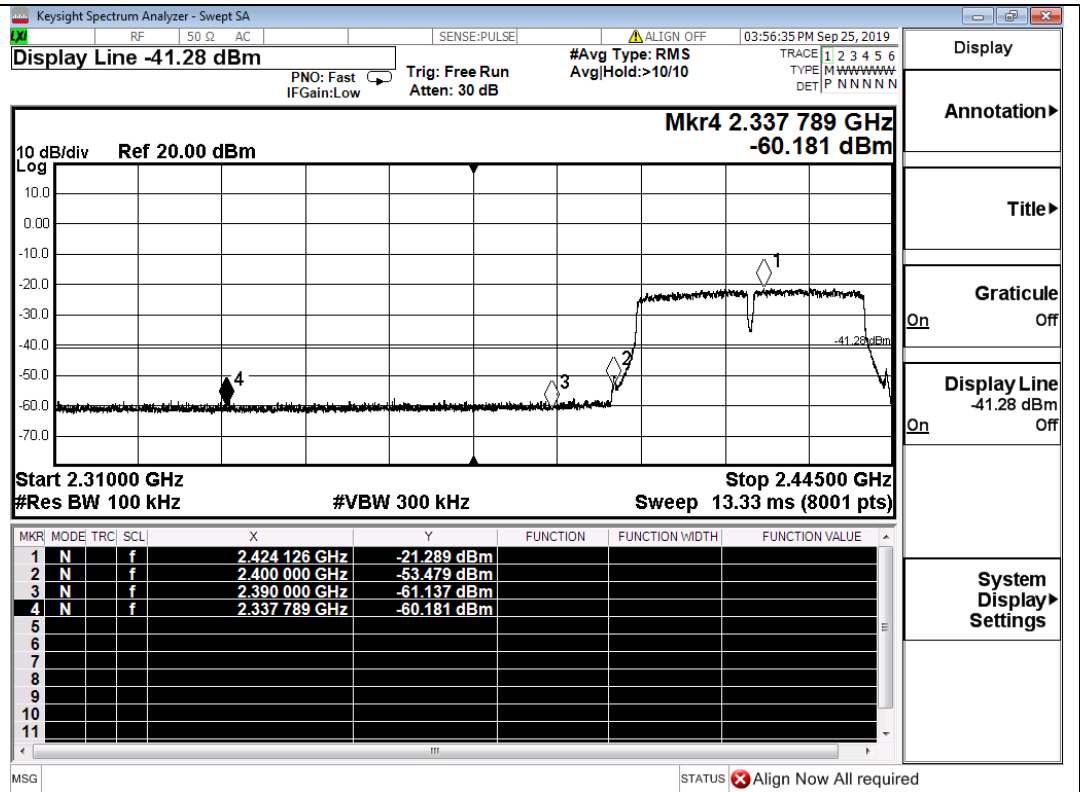
11N20SISO/LCH



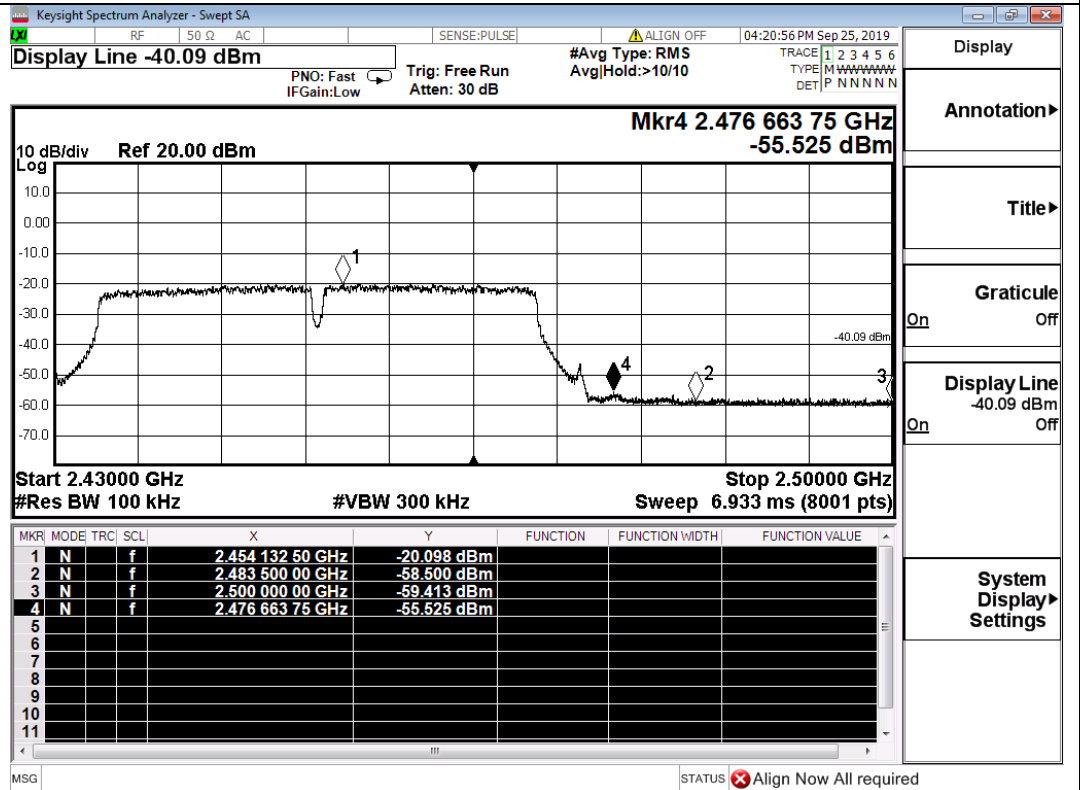
11N20SISO/HCH



11N40SISO/LCH



11N40SISO/HCH

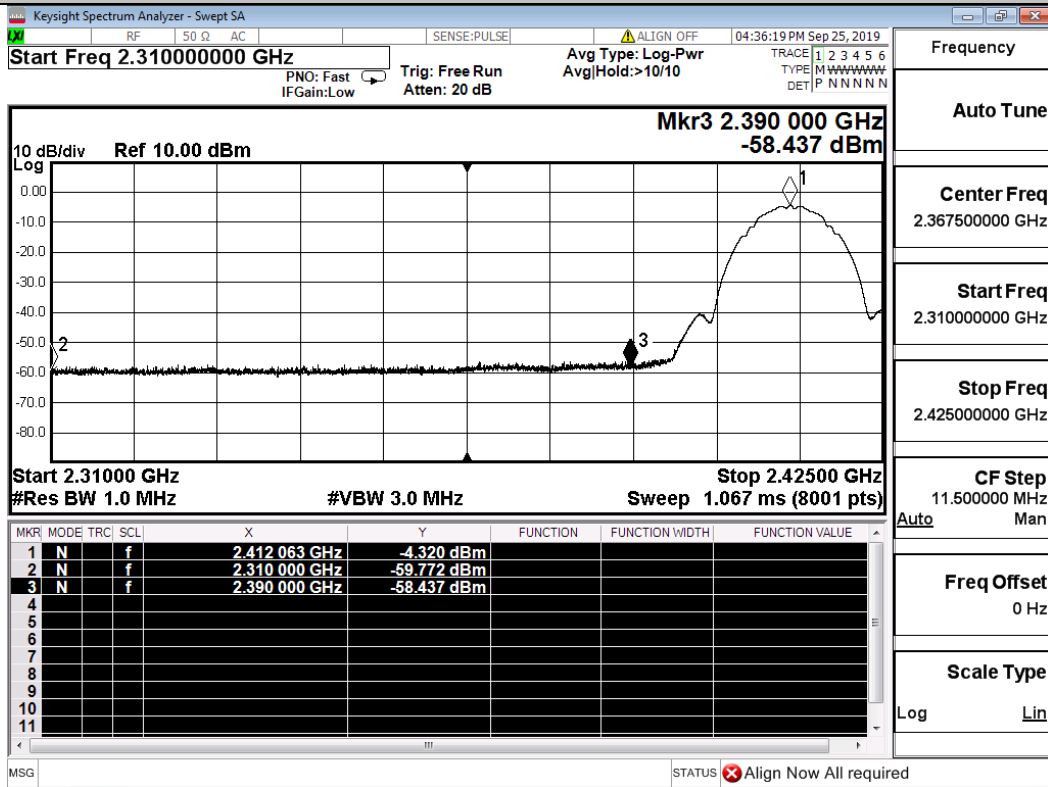


B.7 Restrict-band band-edge measurements

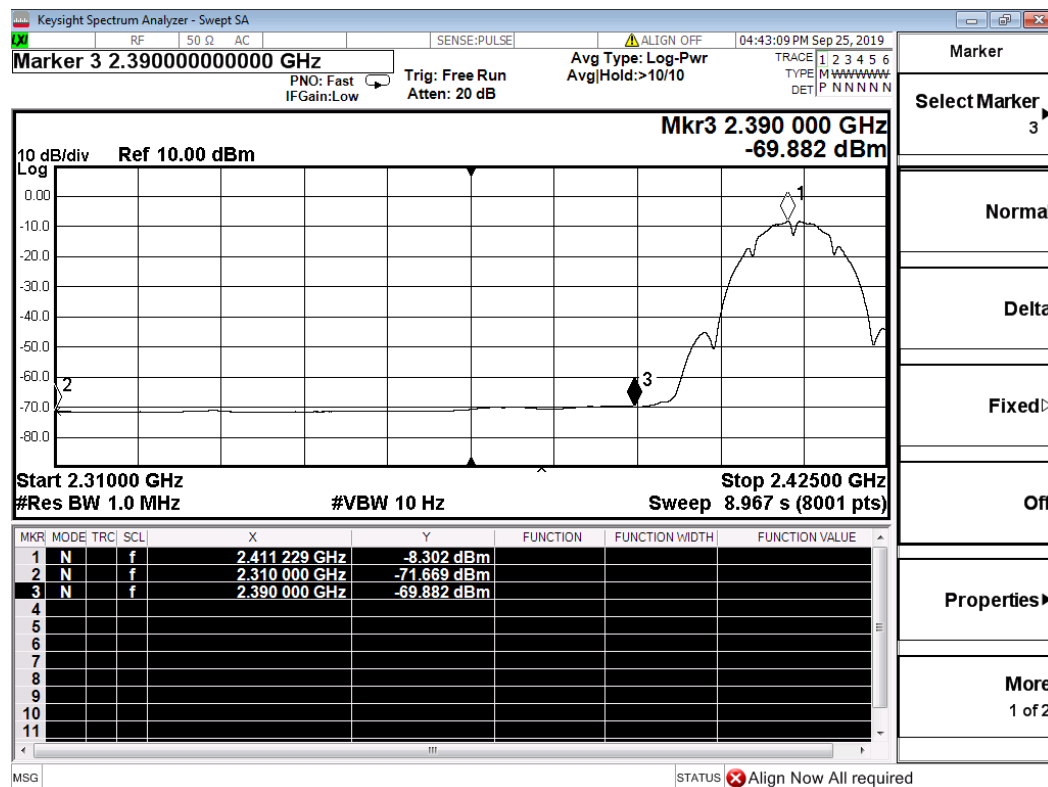
Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBu V/m]	Verdict
11B	2412	Ant1	2310.0	-59.772	2.0	0	37.46	PEAK	74	PASS
	2412	Ant1	2310.0	-71.669	2.0	0	25.56	AV	54	PASS
	2412	Ant1	2390.0	-58.437	2.0	0	38.79	PEAK	74	PASS
	2412	Ant1	2390.0	-69.882	2.0	0	27.35	AV	54	PASS
	2462	Ant1	2483.5	-56.646	2.0	0	40.58	PEAK	74	PASS
	2462	Ant1	2483.5	-68.156	2.0	0	29.07	AV	54	PASS
	2462	Ant1	2500.0	-57.001	2.0	0	40.23	PEAK	74	PASS
	2462	Ant1	2500.0	-67.487	2.0	0	29.74	AV	54	PASS
11G	2412	Ant1	2310.0	-60.771	2.0	0	36.46	PEAK	74	PASS
	2412	Ant1	2310.0	-72.088	2.0	0	25.14	AV	54	PASS
	2412	Ant1	2390.0	-58.206	2.0	0	39.02	PEAK	74	PASS
	2412	Ant1	2390.0	-70.027	2.0	0	27.20	AV	54	PASS
	2462	Ant1	2483.5	-56.597	2.0	0	40.63	PEAK	74	PASS
	2462	Ant1	2483.5	-68.216	2.0	0	29.01	AV	54	PASS
	2462	Ant1	2500.0	-58.458	2.0	0	38.77	PEAK	74	PASS
	2462	Ant1	2500.0	-69.032	2.0	0	28.20	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-60.414	2.0	0	36.82	PEAK	74	PASS
	2412	Ant1	2310.0	-72.157	2.0	0	25.07	AV	54	PASS
	2412	Ant1	2390.0	-57.684	2.0	0	39.55	PEAK	74	PASS
	2412	Ant1	2390.0	-70.031	2.0	0	27.20	AV	54	PASS
	2462	Ant1	2483.5	-55.835	2.0	0	41.40	PEAK	74	PASS
	2462	Ant1	2483.5	-68.138	2.0	0	29.09	AV	54	PASS
	2462	Ant1	2500.0	-57.758	2.0	0	39.47	PEAK	74	PASS
	2462	Ant1	2500.0	-69.071	2.0	0	28.16	AV	54	PASS
11N40 SISO	2422	Ant1	2310.0	-61.086	2.0	0	36.14	PEAK	74	PASS
	2422	Ant1	2310.0	-72.224	2.0	0	25.01	AV	54	PASS

	2422	Ant1	2390.0	-57.549	2.0	0	39.68	PEAK	74	PASS
	2422	Ant1	2390.0	-69.815	2.0	0	27.42	AV	54	PASS
	2452	Ant1	2483.5	-55.864	2.0	0	41.37	PEAK	74	PASS
	2452	Ant1	2483.5	-67.988	2.0	0	29.24	AV	54	PASS
	2452	Ant1	2500.0	-57.087	2.0	0	40.14	PEAK	74	PASS
	2452	Ant1	2500.0	-69.546	2.0	0	27.68	AV	54	PASS

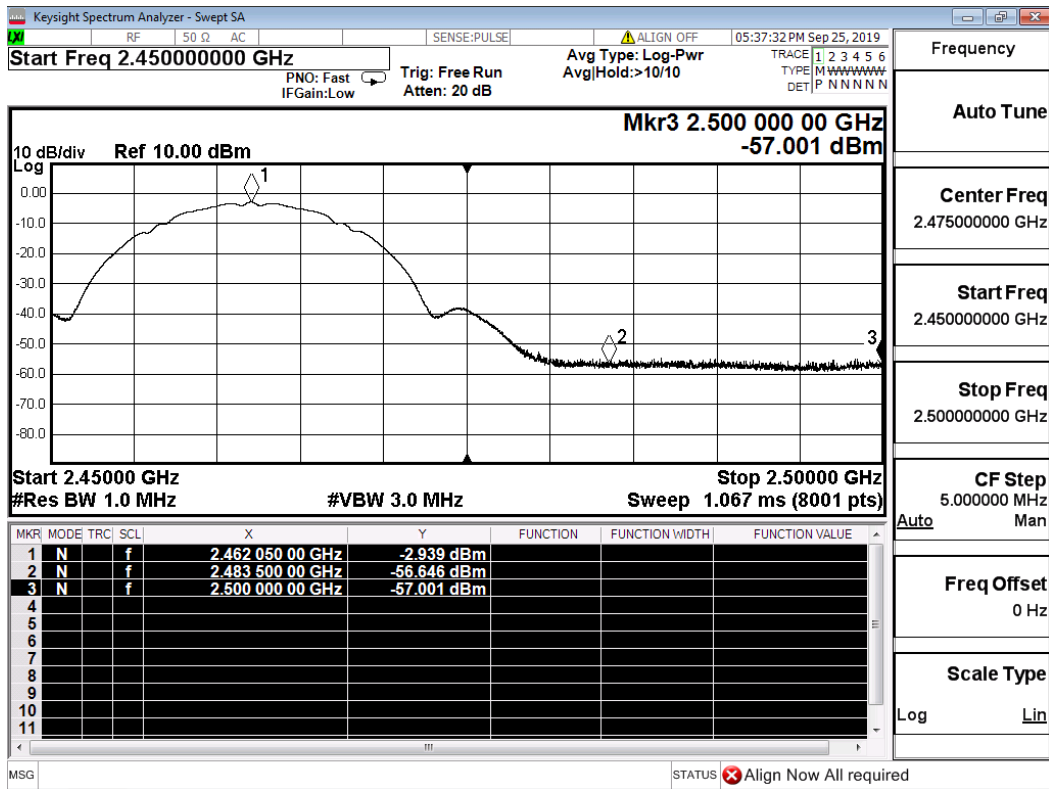
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



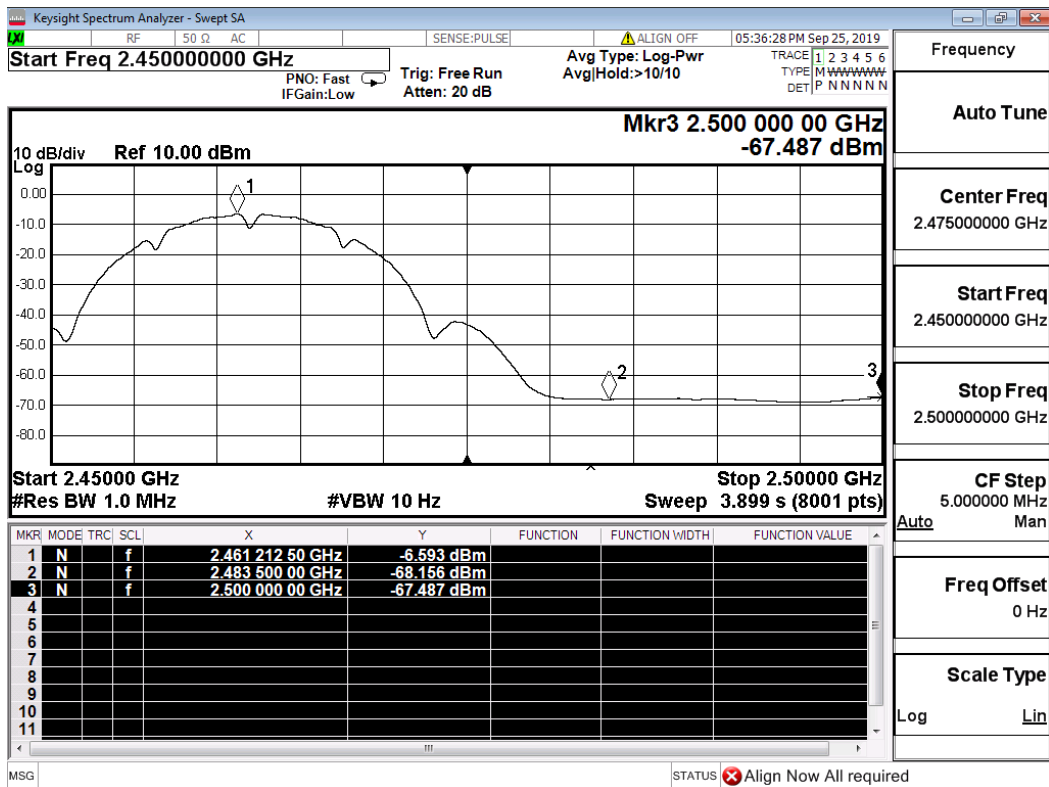
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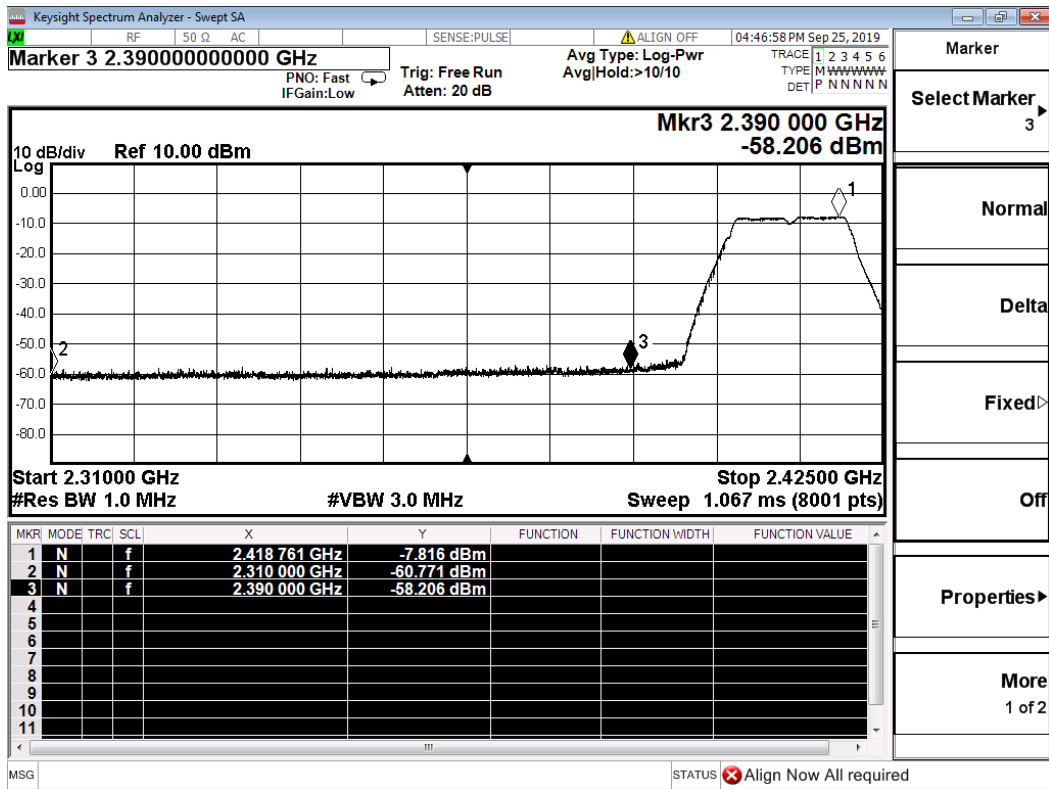
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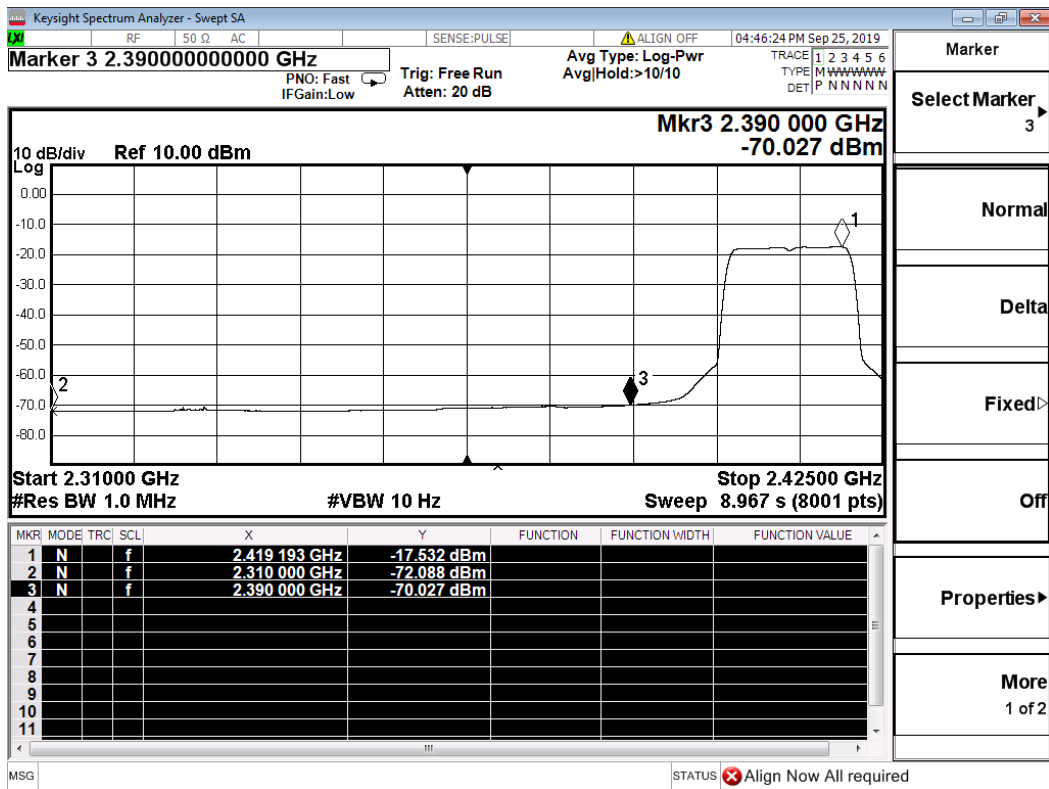
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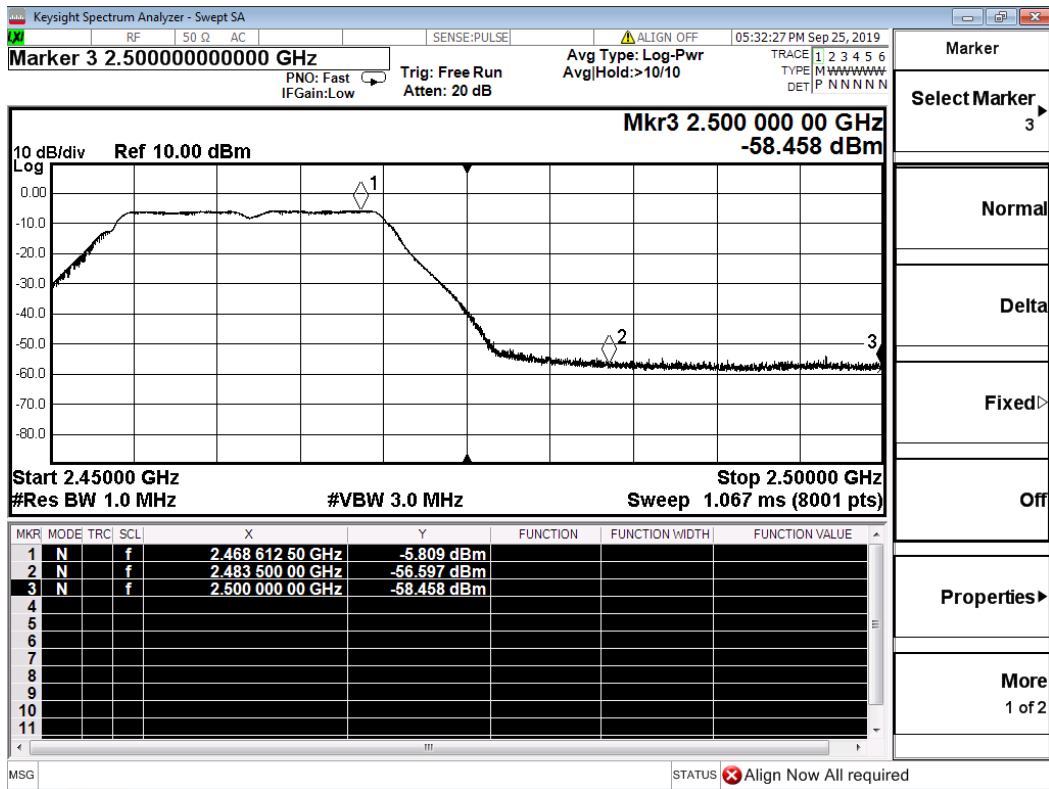
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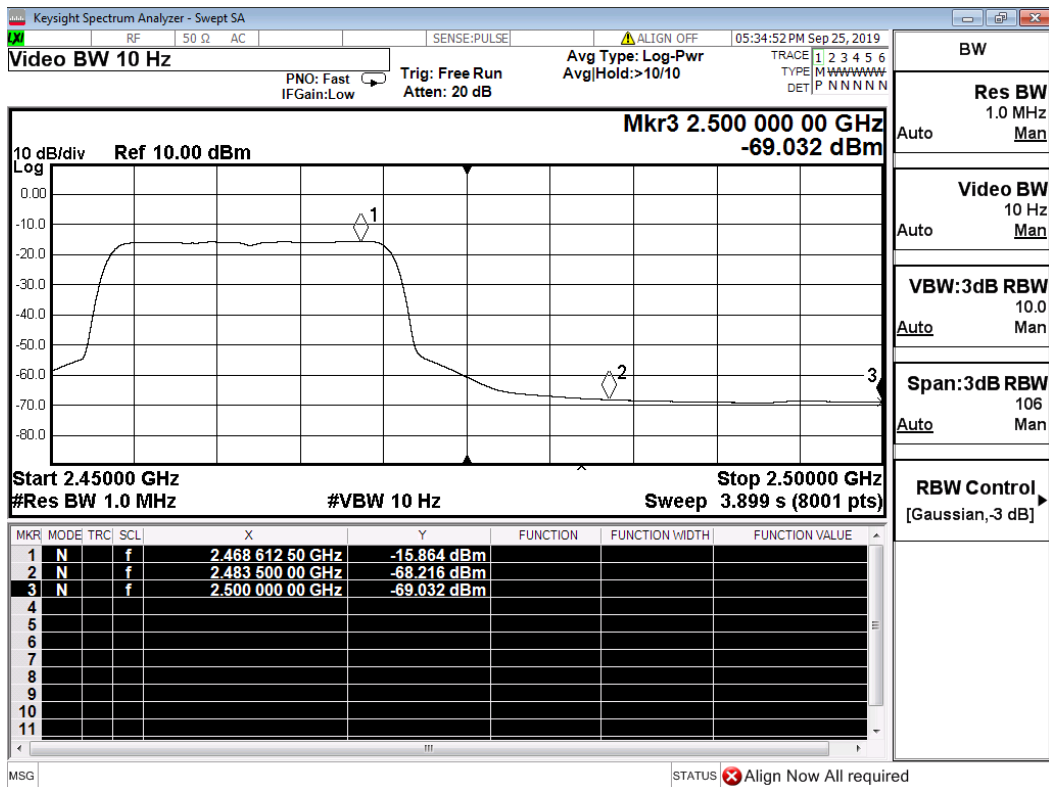
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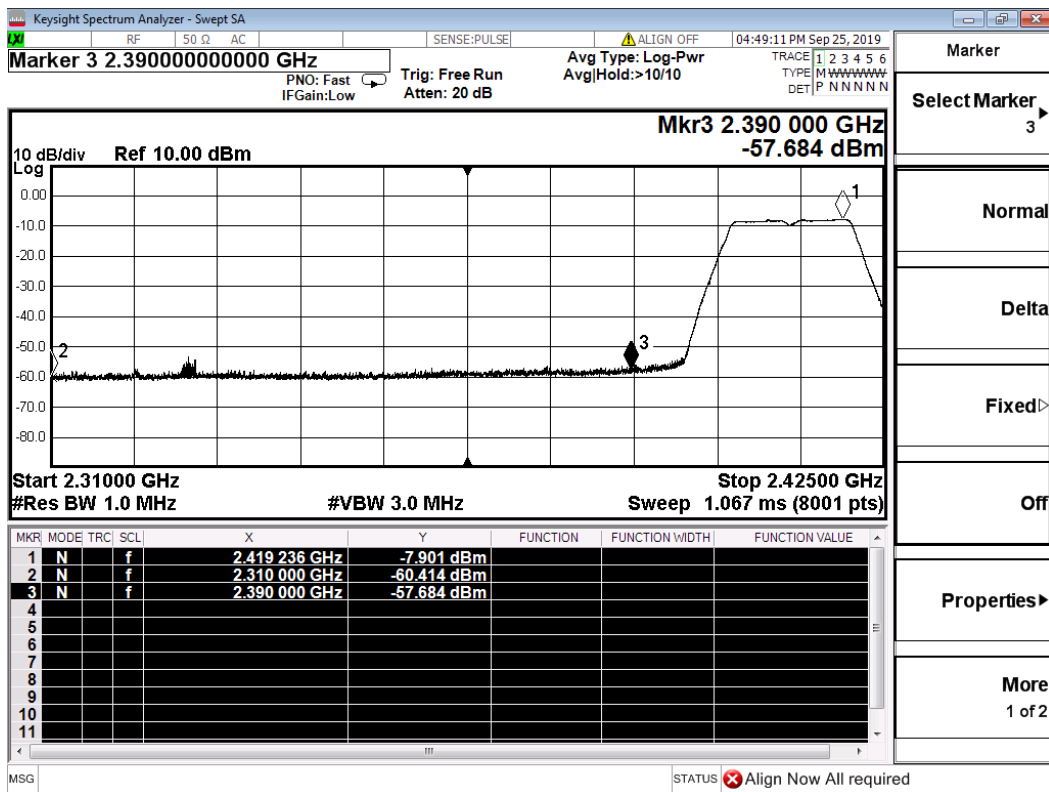
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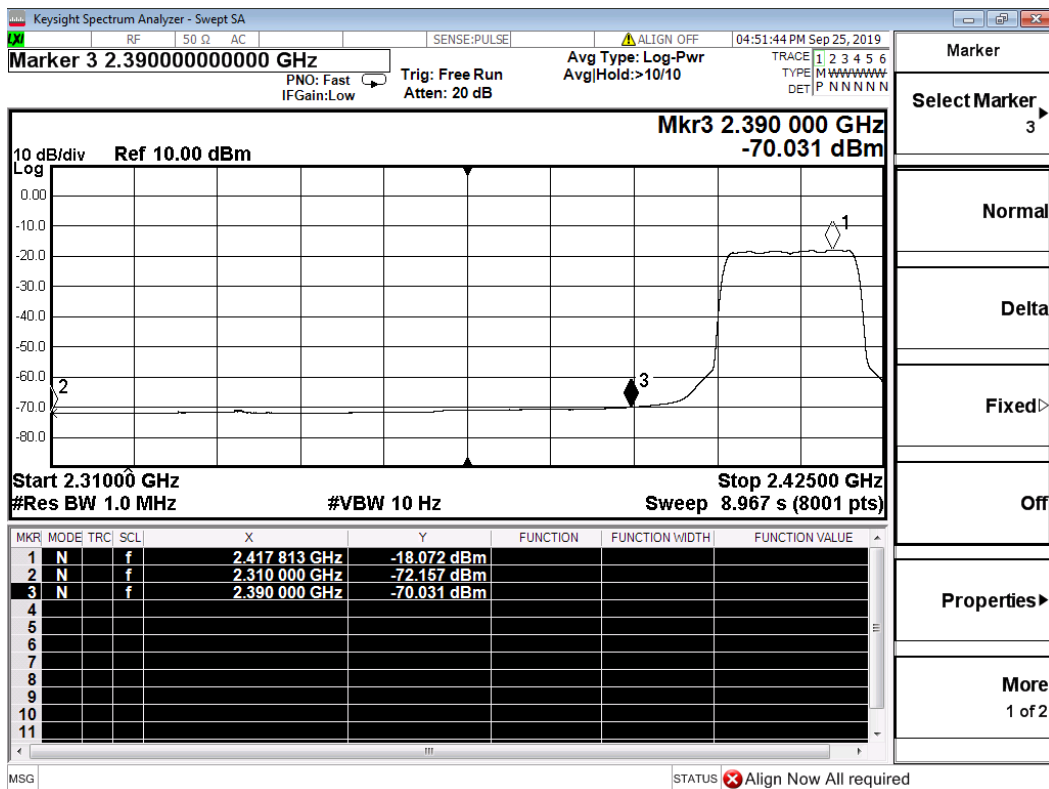
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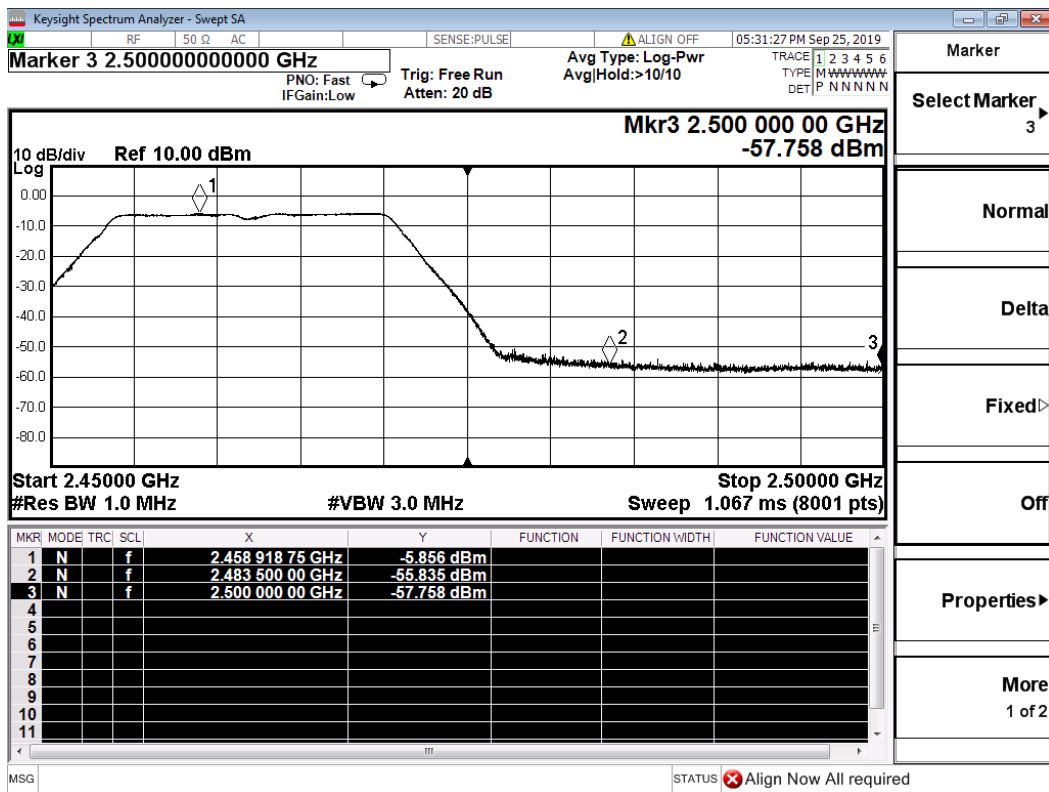
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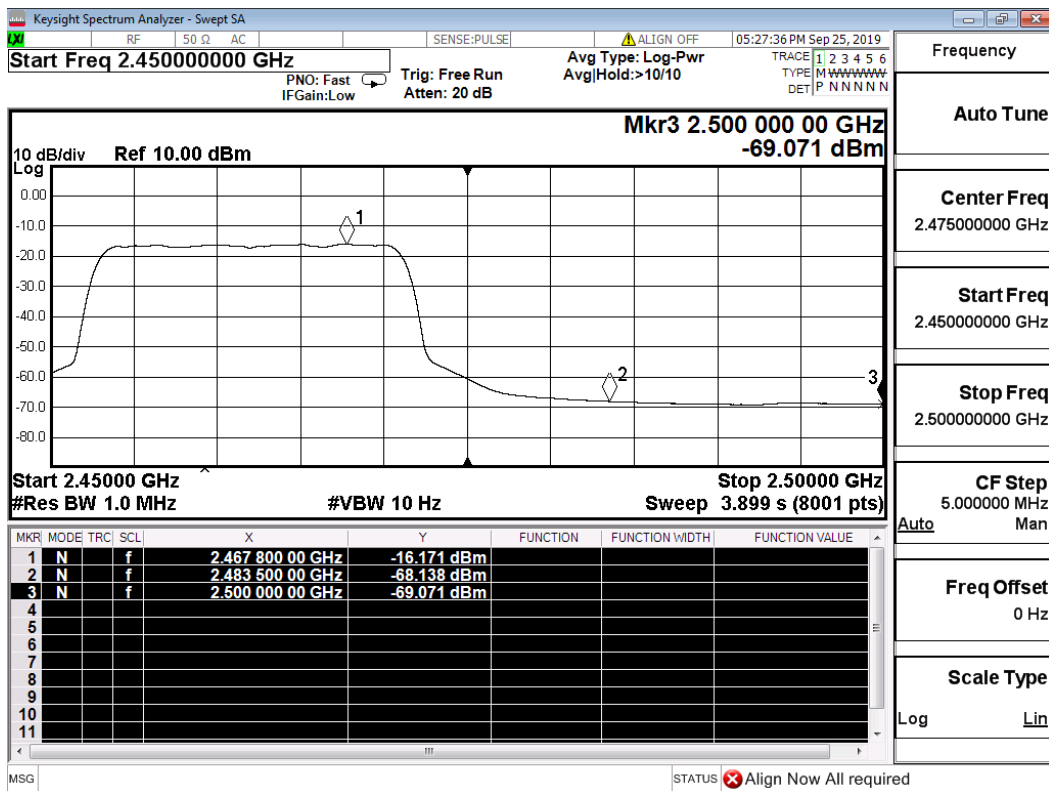
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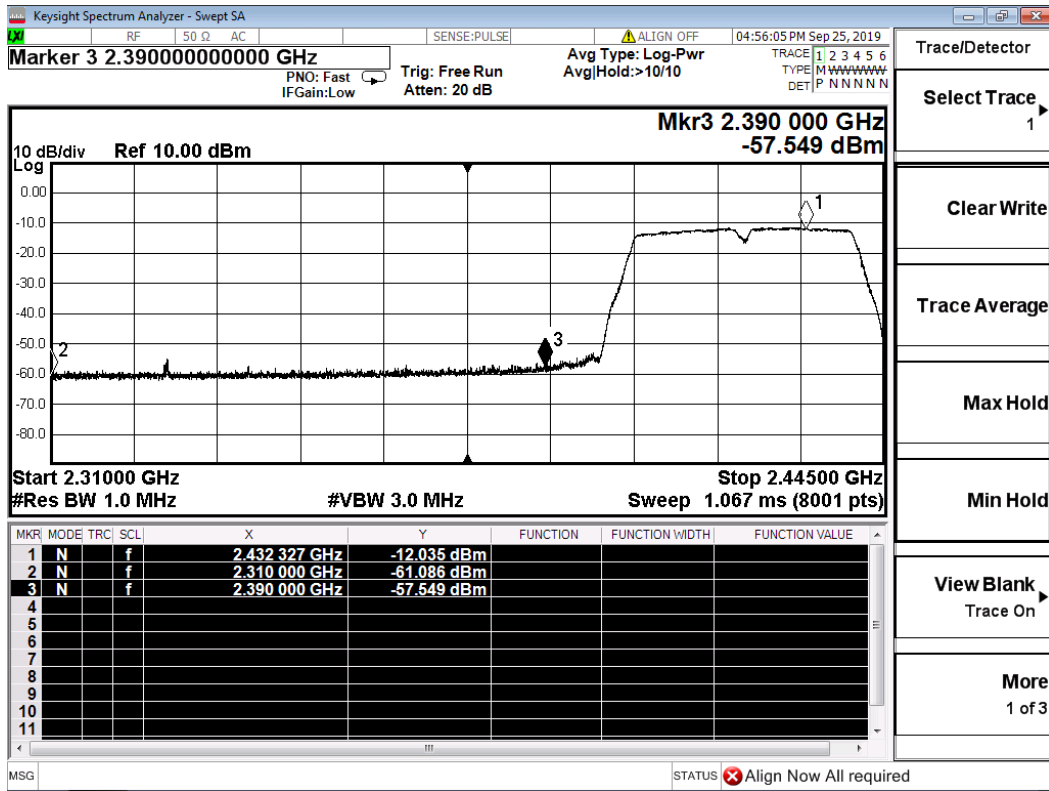
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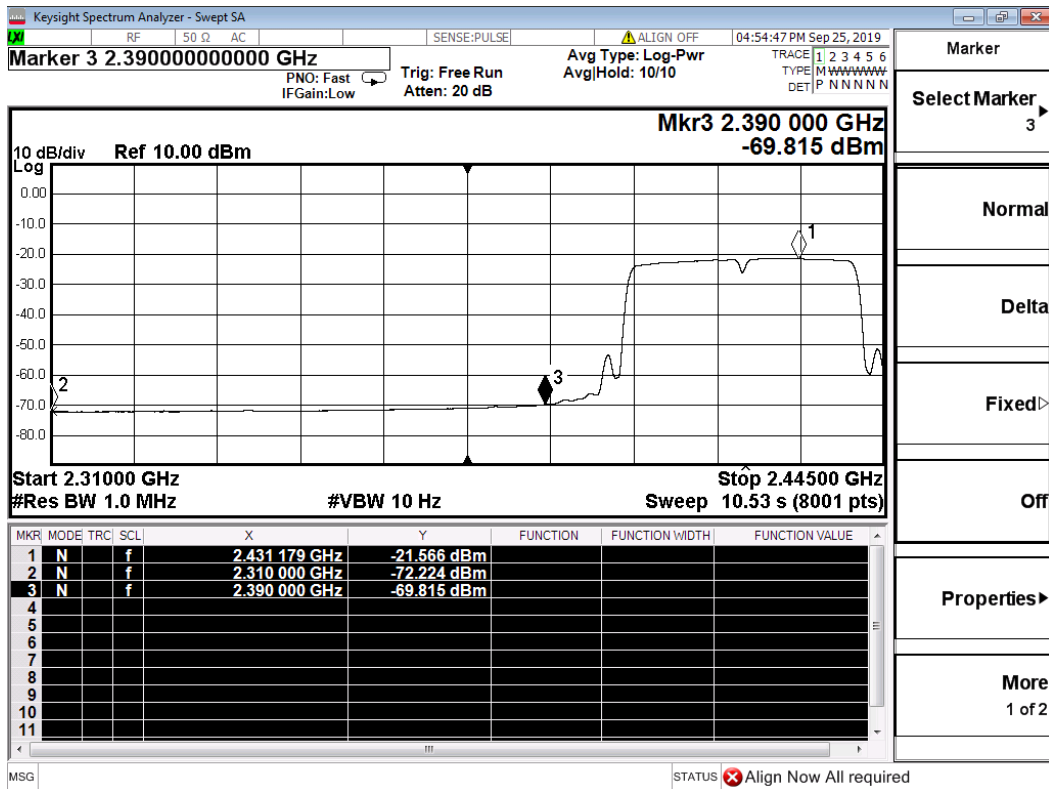
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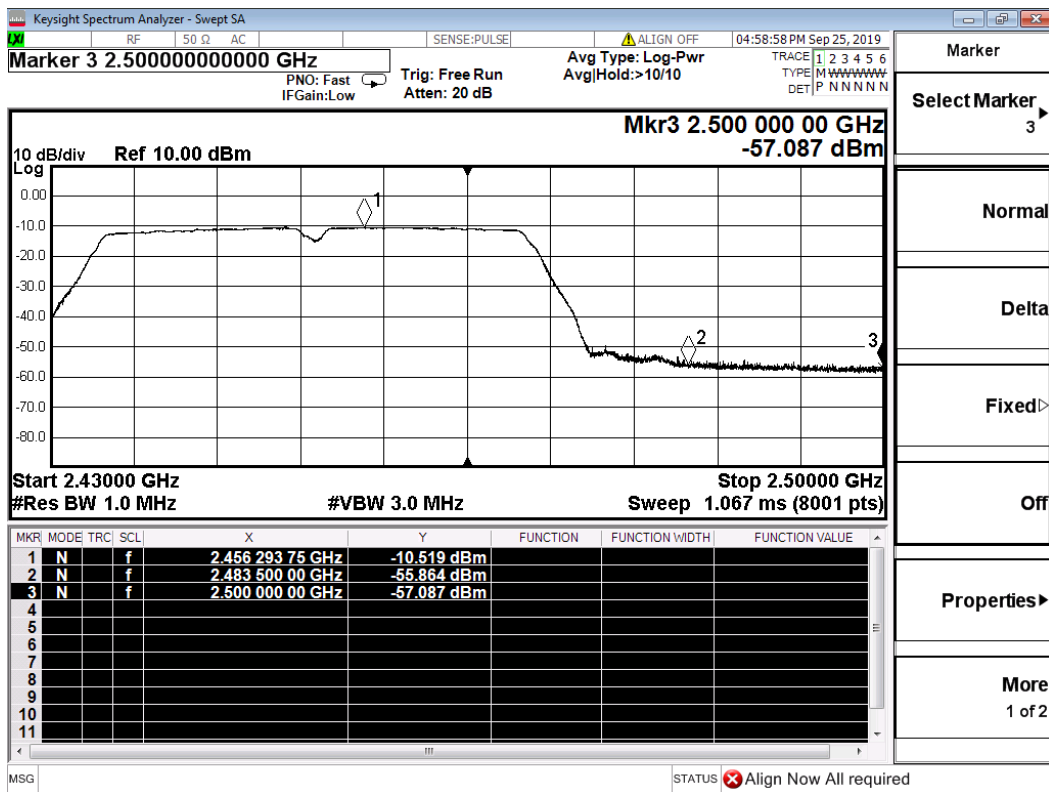
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Restrict-band band-edge measurements_11N40SISO_2422_Ant1_AV



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_PEAK



Restrict-band band-edge measurements_11N40SISO_2452_Ant1_AV

