

Appendix A

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: Outdoor light fixture

Trade Mark: Artika

Test Model: OUT-STW

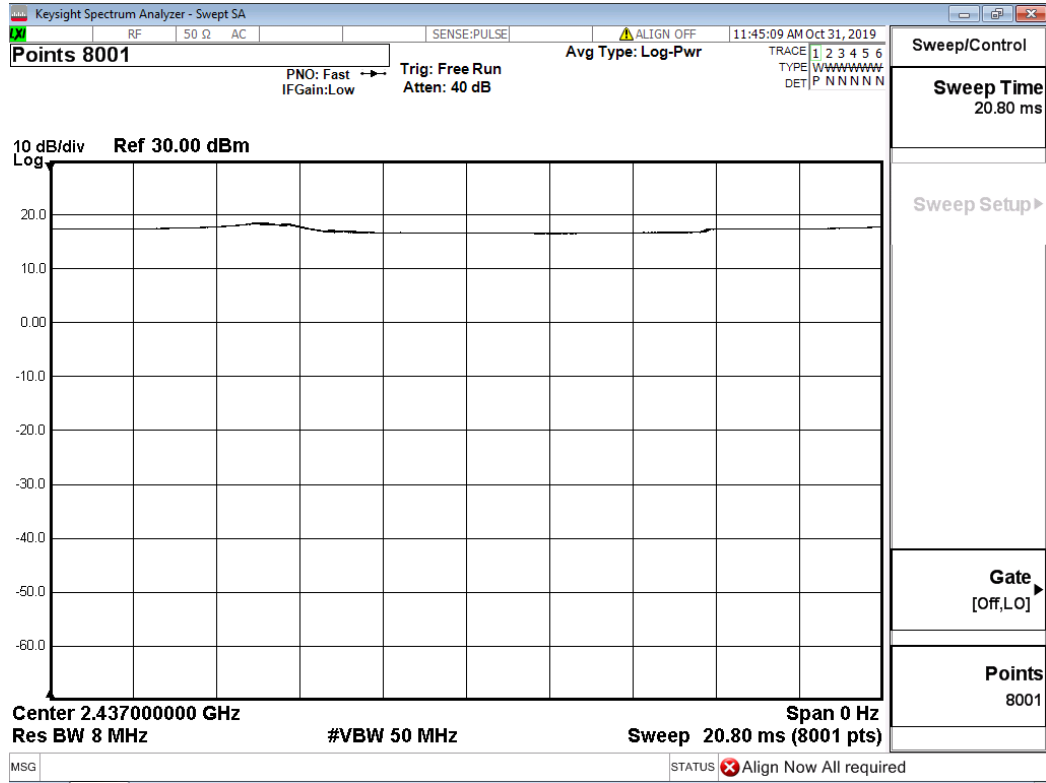
Environmental Conditions

Temperature:	23.6 ° C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	CHUANG WANG
Supervised by:	JAYDEN ZHUO

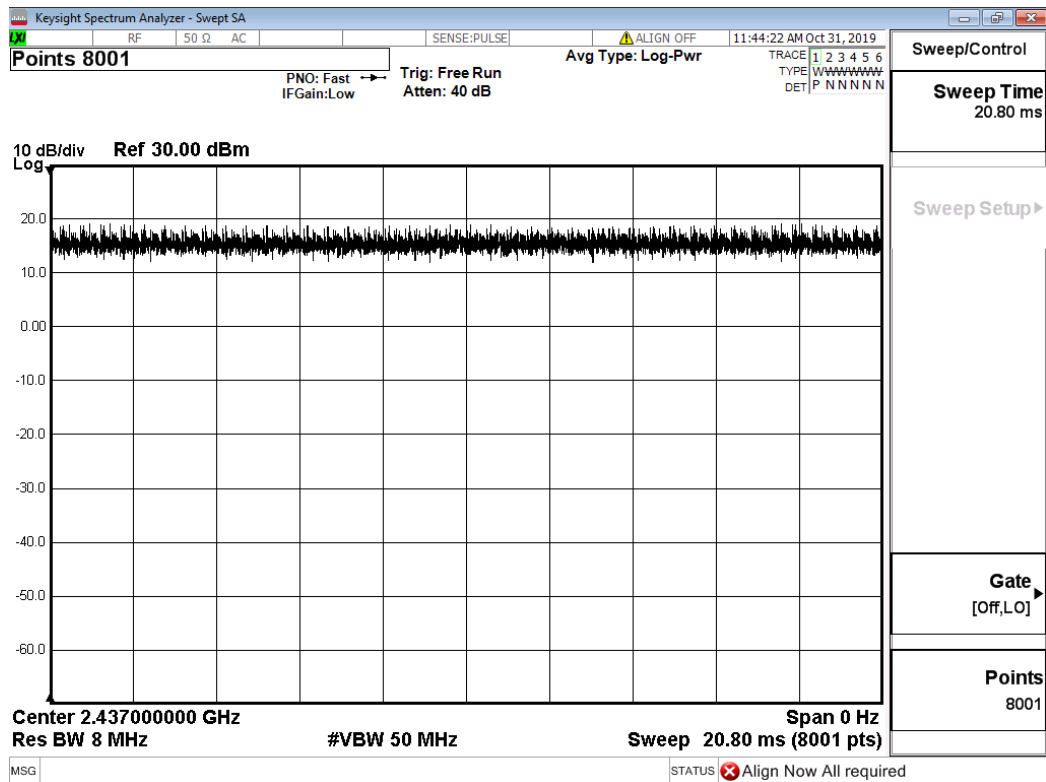
A.1 Duty Cycle

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

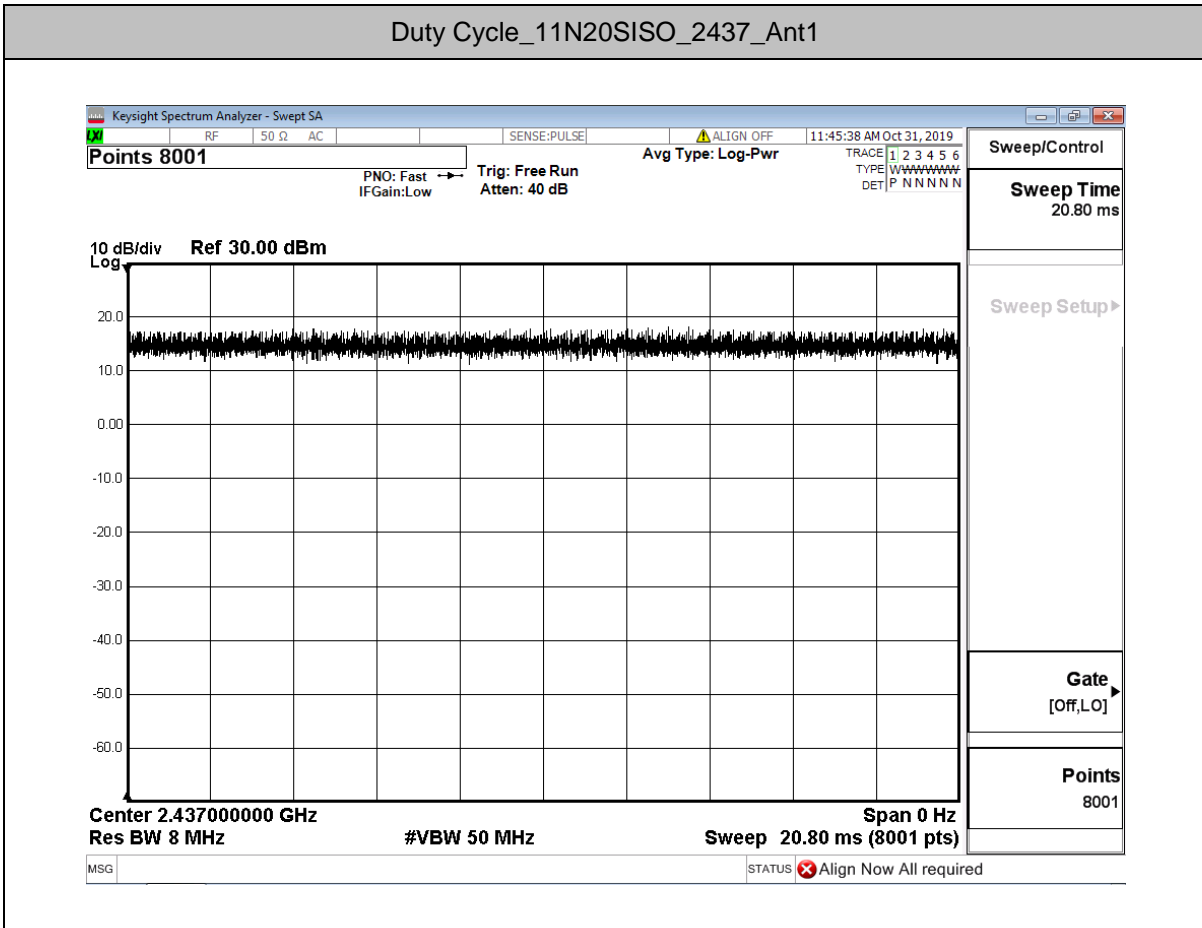
Duty Cycle_11B_2437_Ant1



Duty Cycle_11G_2437_Ant1



Duty Cycle_11N20SISO_2437_Ant1

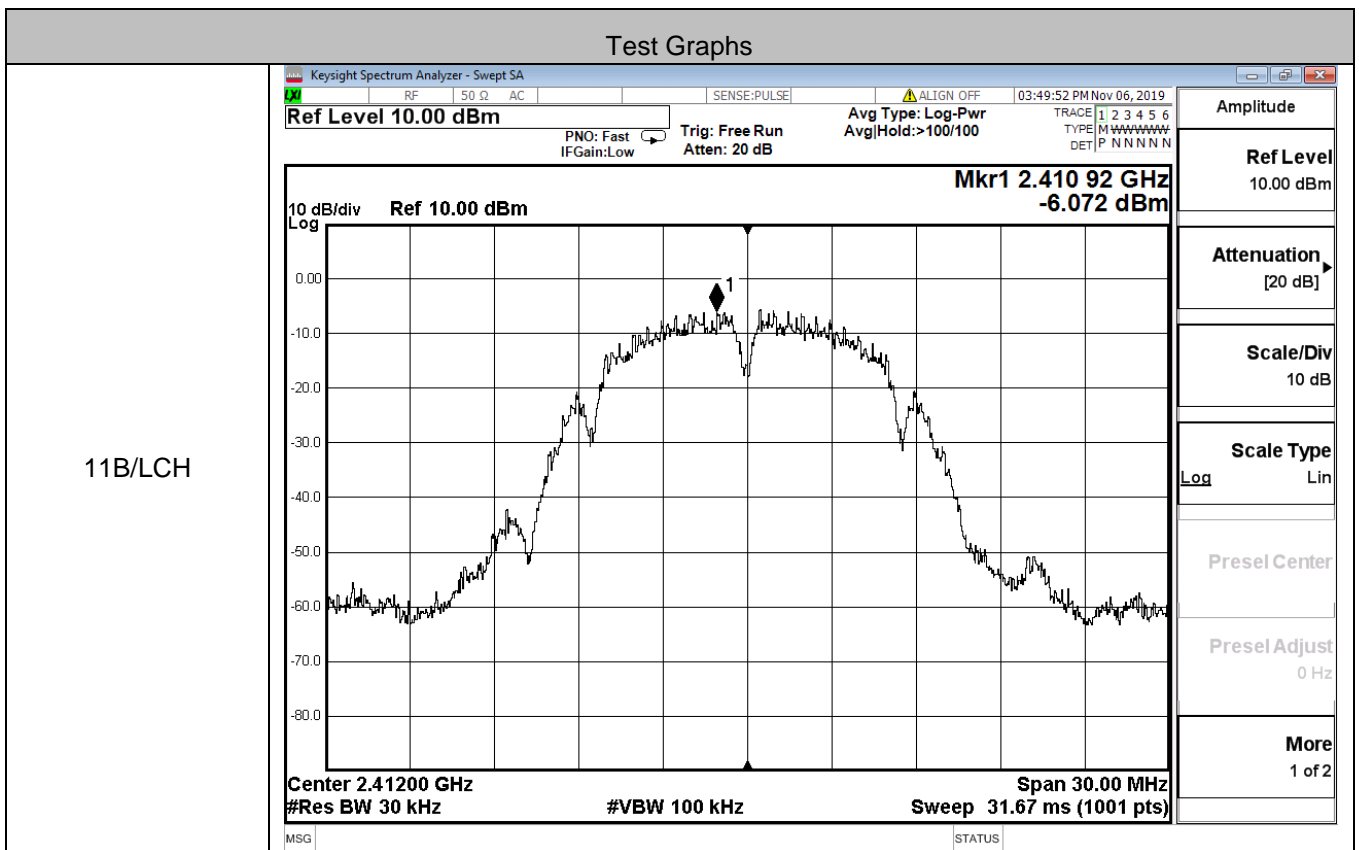


A.2 Maximum Conducted Output Power

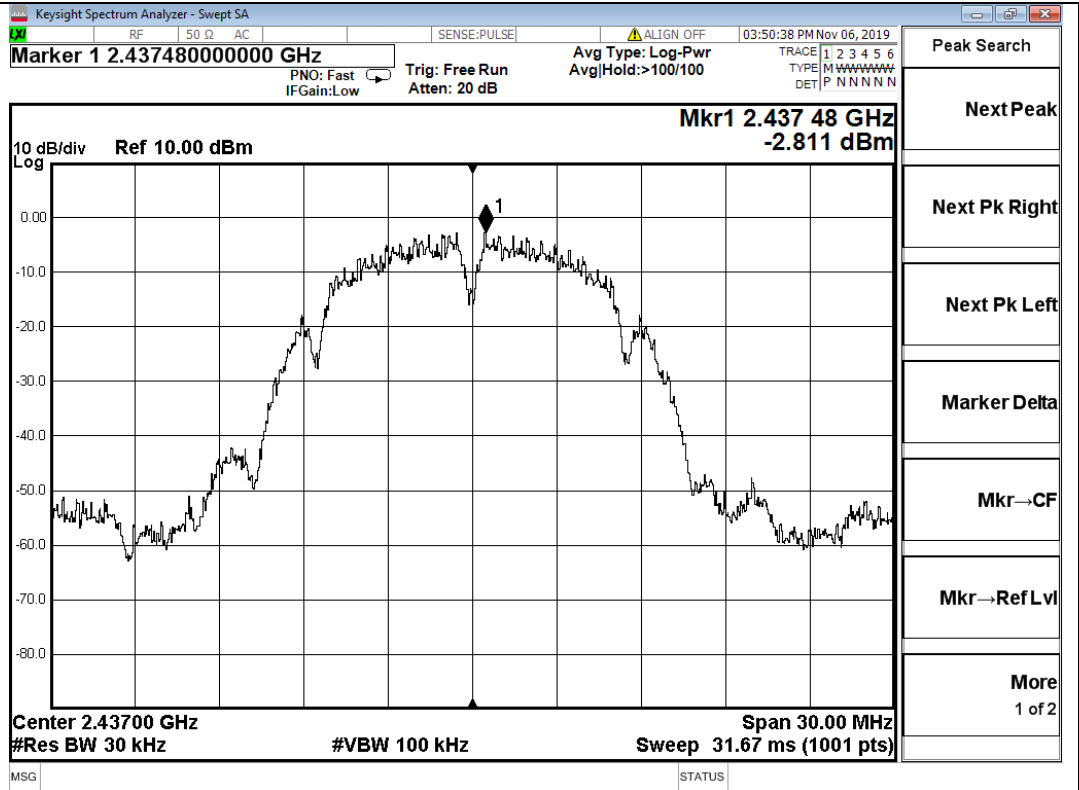
Mode	Channel	Meas. Peak Level [dBm]	Limit [dBm]	Verdict
11B	LCH	13.272	30	PASS
	MCH	15.947	30	PASS
	HCH	16.046	30	PASS
11G	LCH	15.218	30	PASS
	MCH	17.113	30	PASS
	HCH	17.325	30	PASS
11N20SISO	LCH	15.640	30	PASS
	MCH	16.999	30	PASS
	HCH	16.181	30	PASS

A.3 Maximum Power Spectral Density

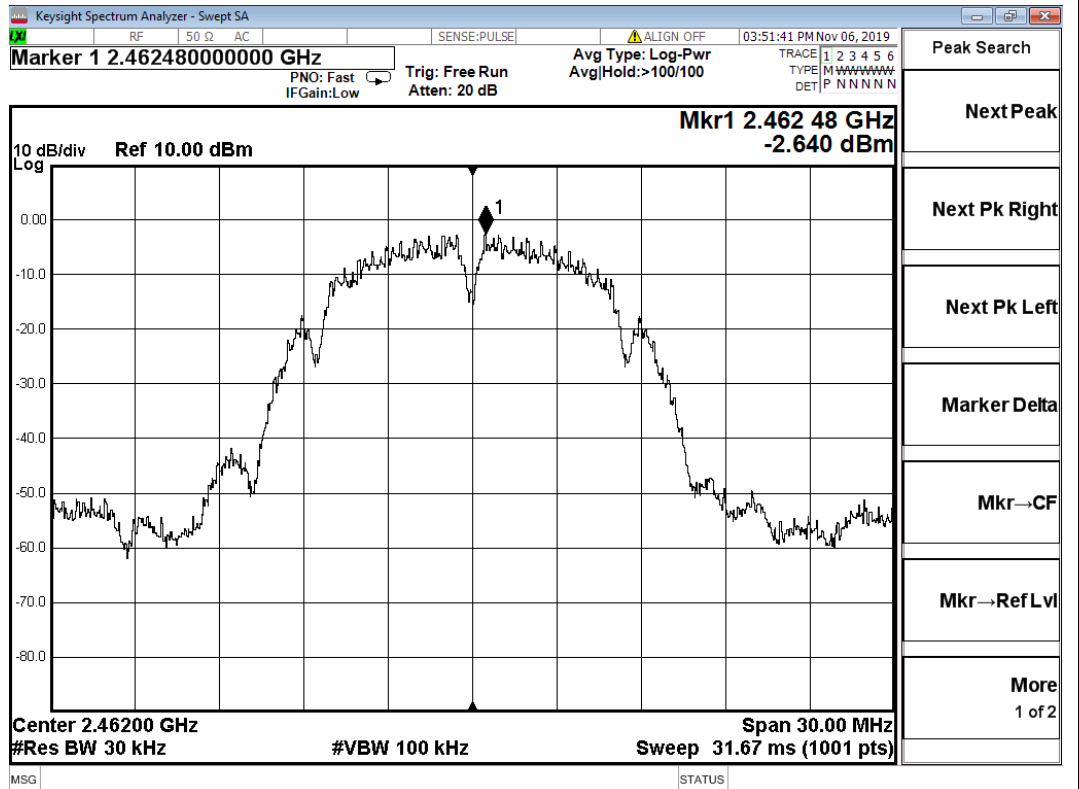
Mode	Channel	Meas.Level [dBm/30KHz]	Limit [dBm/3KHz]	Verdict
11B	LCH	-6.072	8	PASS
	MCH	-2.811	8	PASS
	HCH	-2.640	8	PASS
11G	LCH	-8.016	8	PASS
	MCH	-5.251	8	PASS
	HCH	-5.056	8	PASS
11N20SISO	LCH	-8.147	8	PASS
	MCH	-5.305	8	PASS
	HCH	-5.138	8	PASS



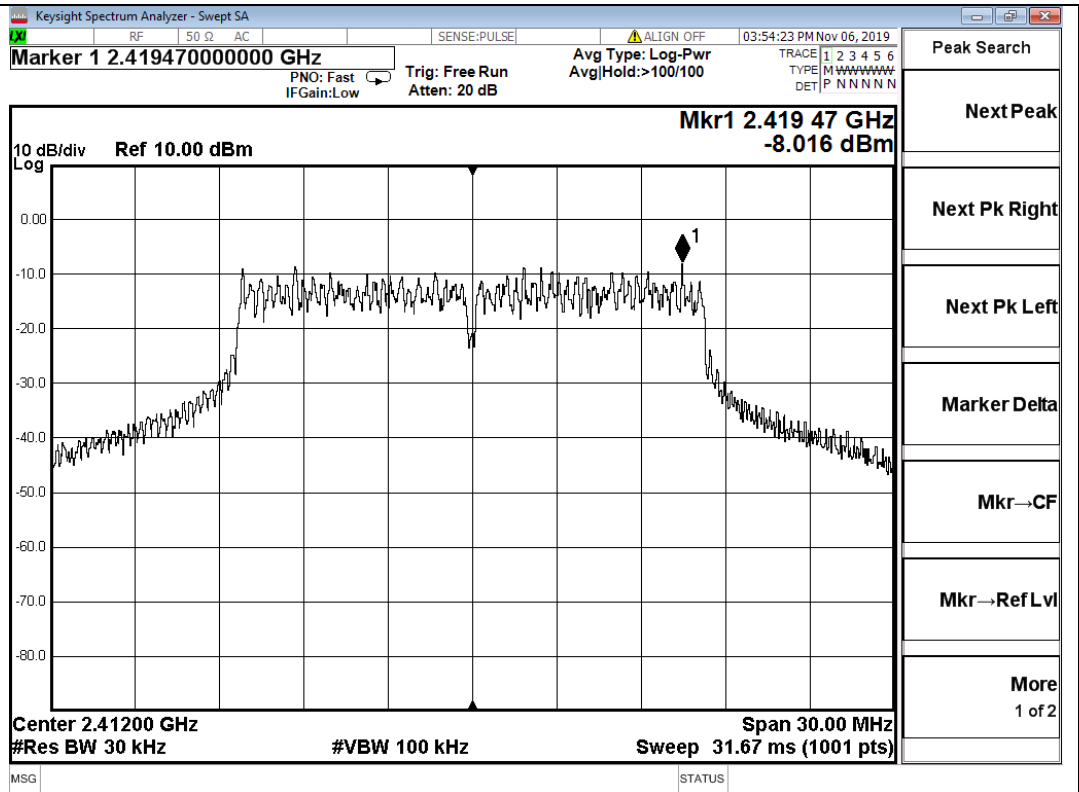
11B/MCH



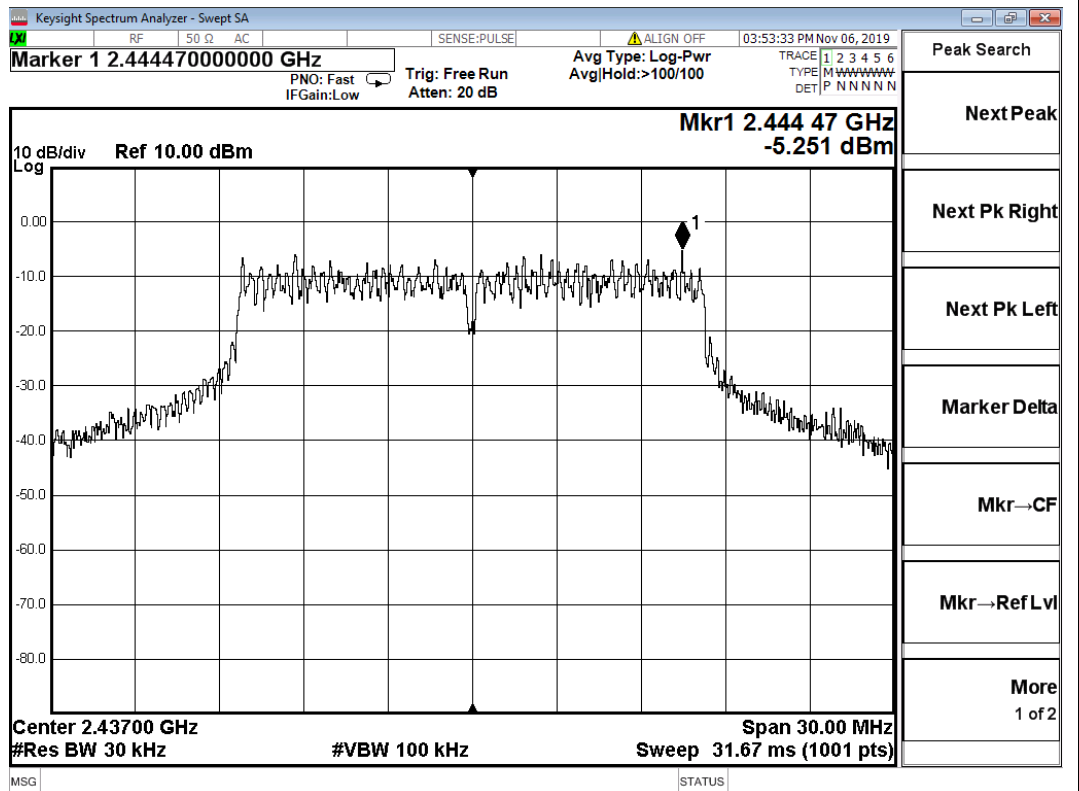
11B/HCH



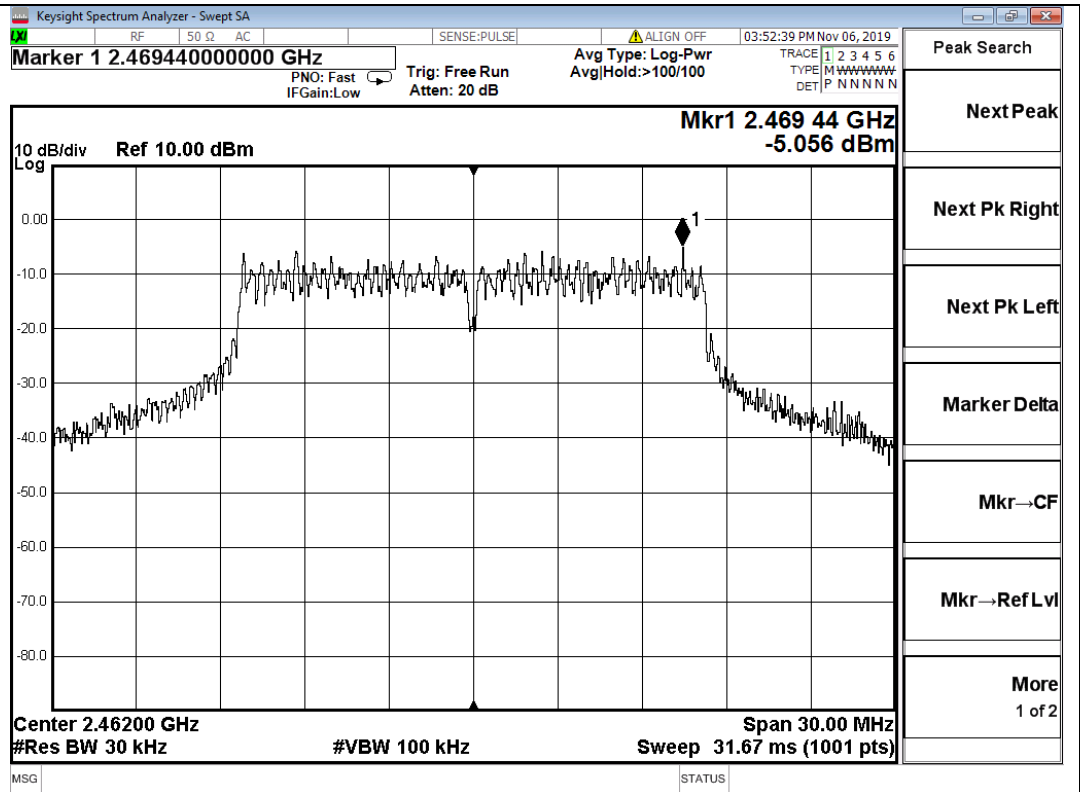
11G/LCH



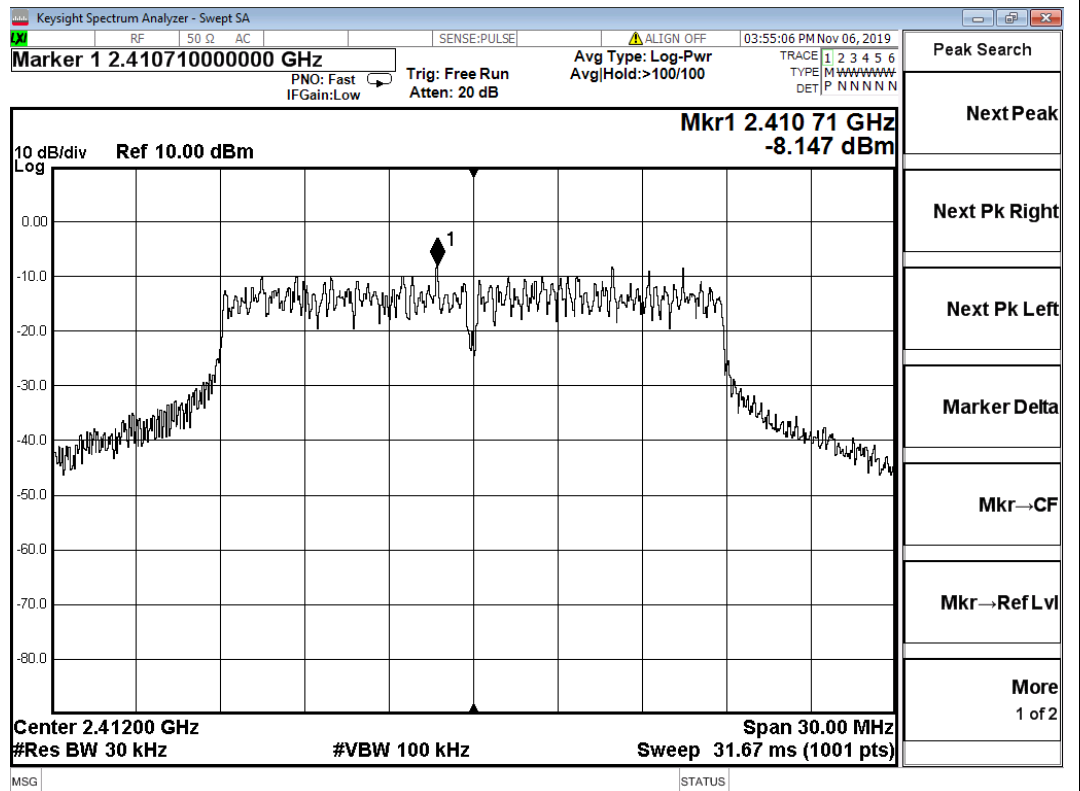
11G/MCH



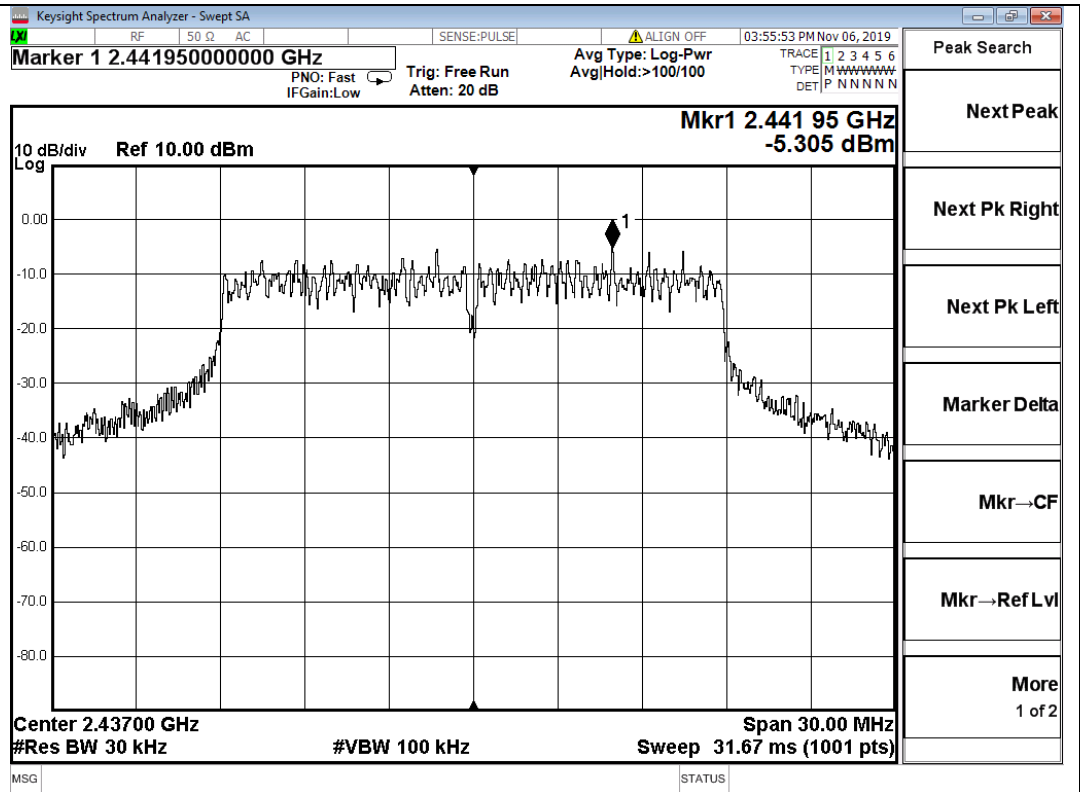
11G/HCH



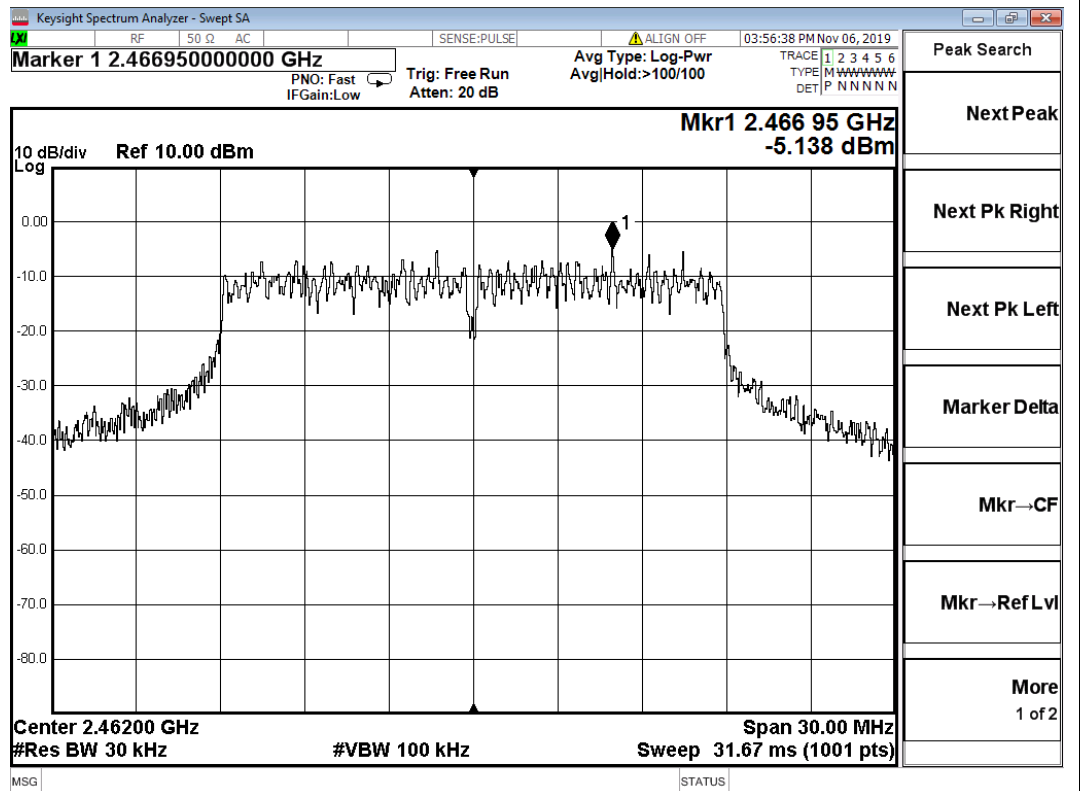
11N20SISO/LCH



11N20SISO/MCH

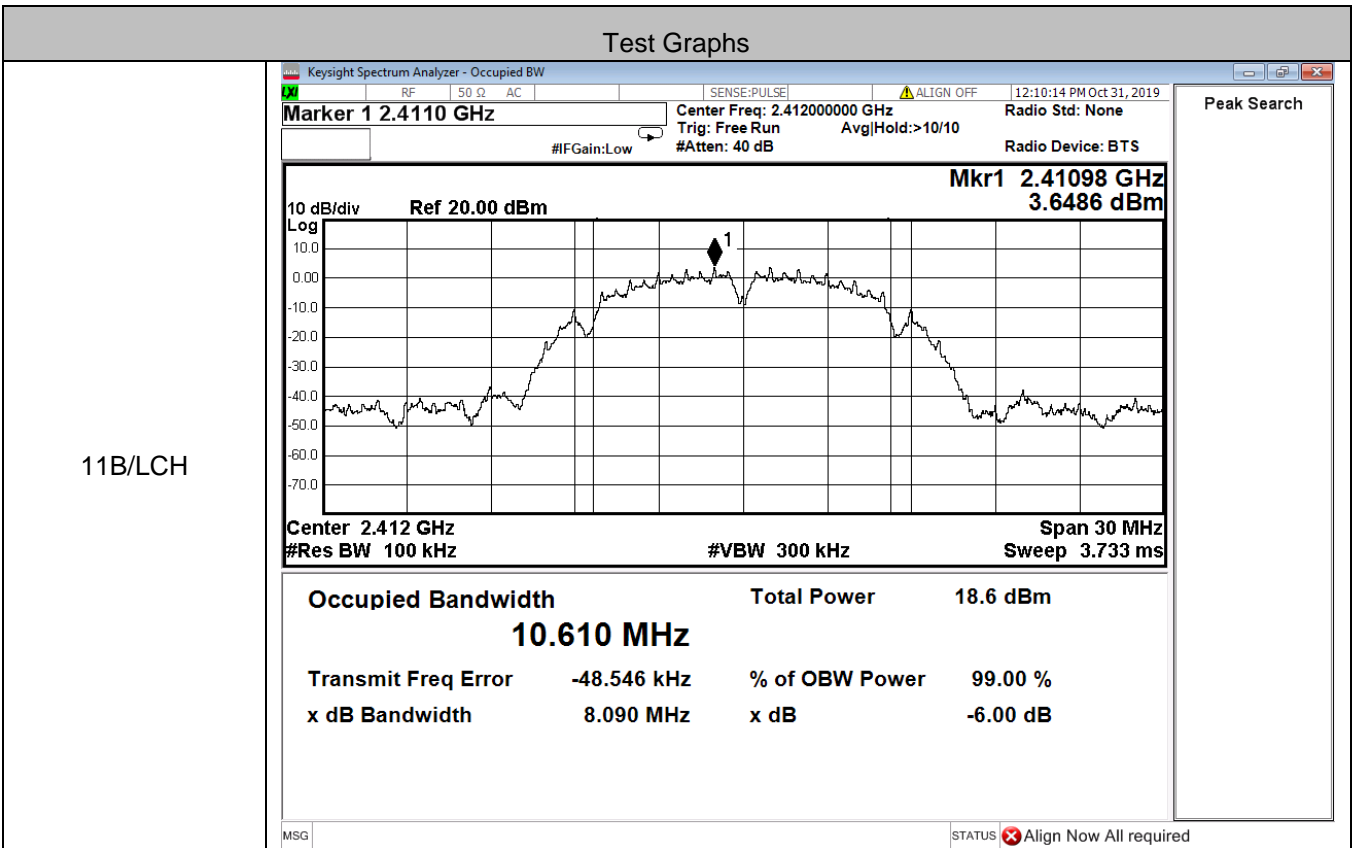


11N20SISO/HCH

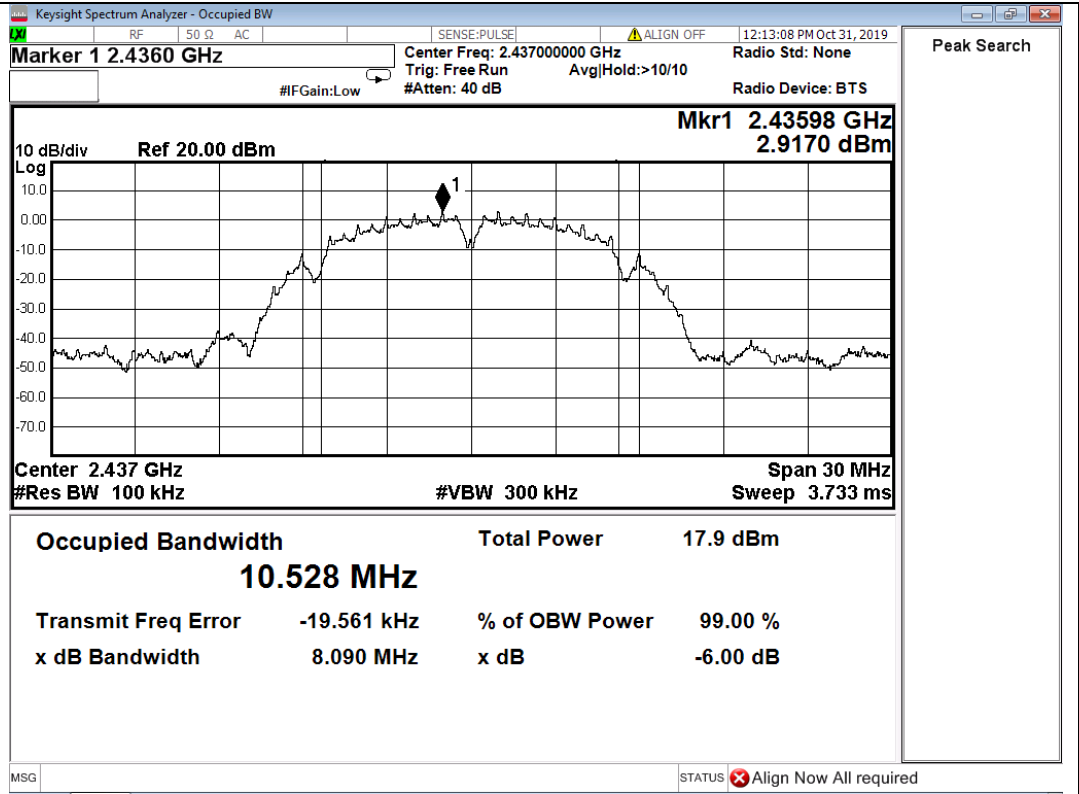


A.4 6dB Bandwidth

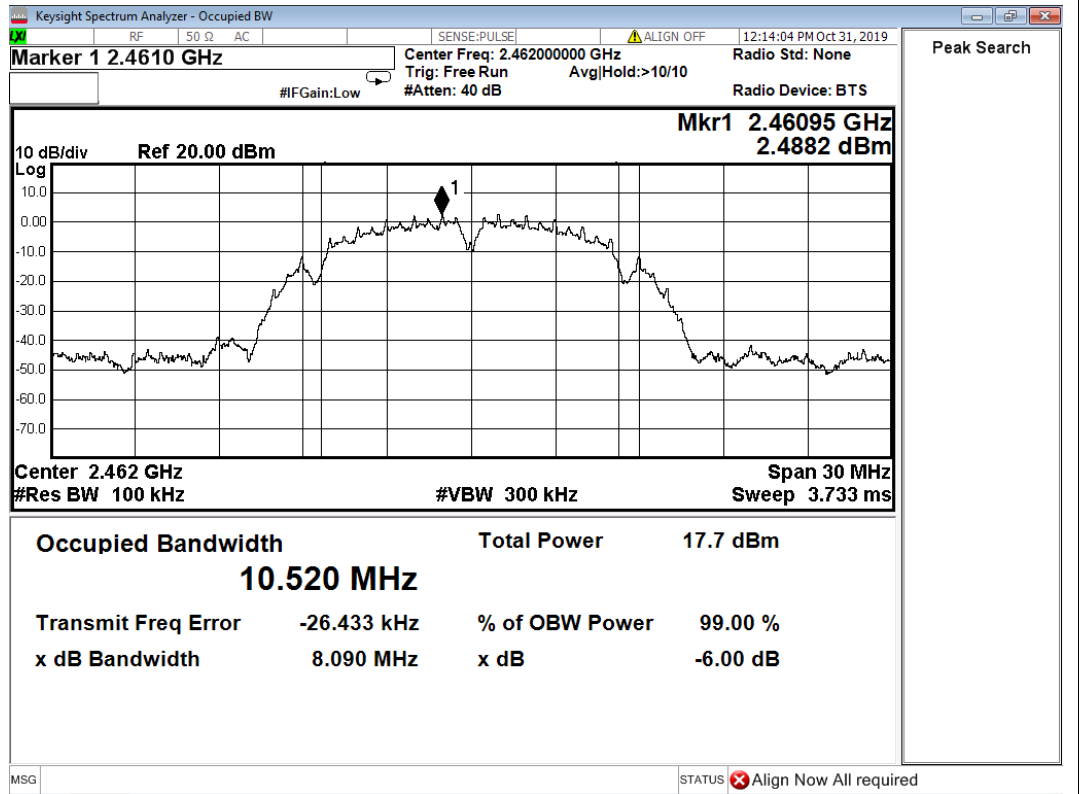
Mode	Channel	6dB Bandwidth [MHz]	Limit [MHz]	Verdict
11B	LCH	8.090	≥0.5	PASS
	MCH	8.090	≥0.5	PASS
	HCH	8.090	≥0.5	PASS
11G	LCH	16.35	≥0.5	PASS
	MCH	16.35	≥0.5	PASS
	HCH	16.34	≥0.5	PASS
11N20SISO	LCH	17.58	≥0.5	PASS
	MCH	17.56	≥0.5	PASS
	HCH	17.57	≥0.5	PASS



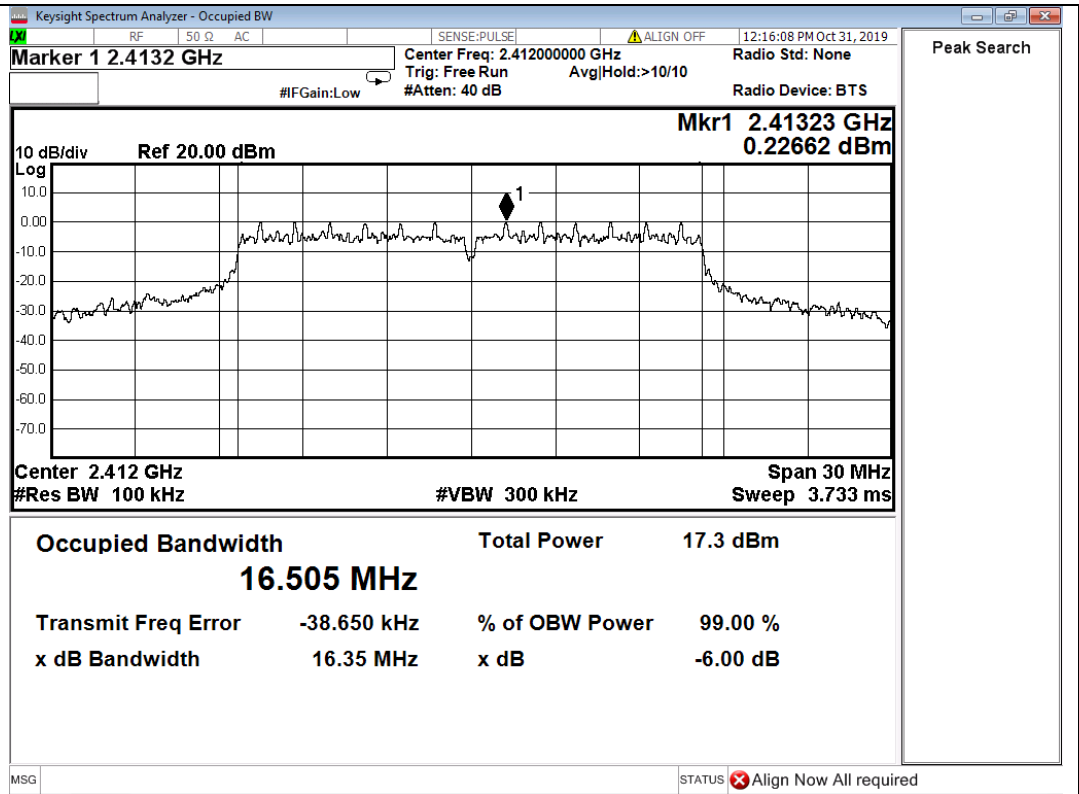
11B/MCH



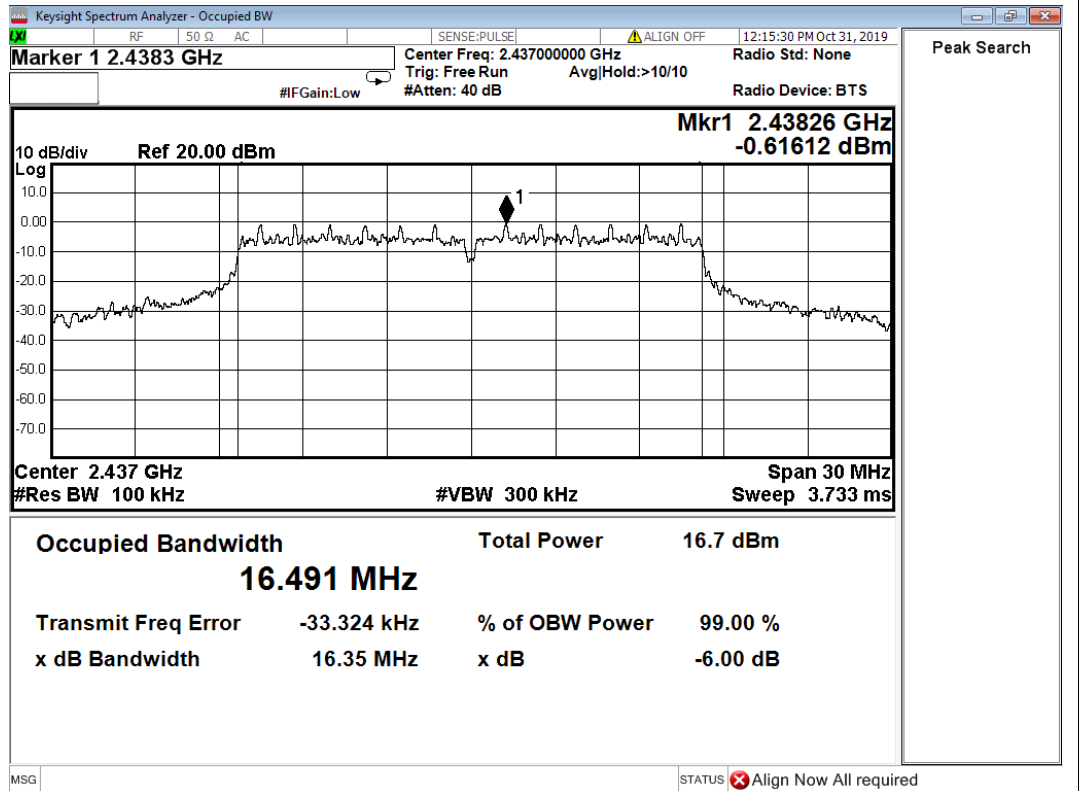
11B/HCH



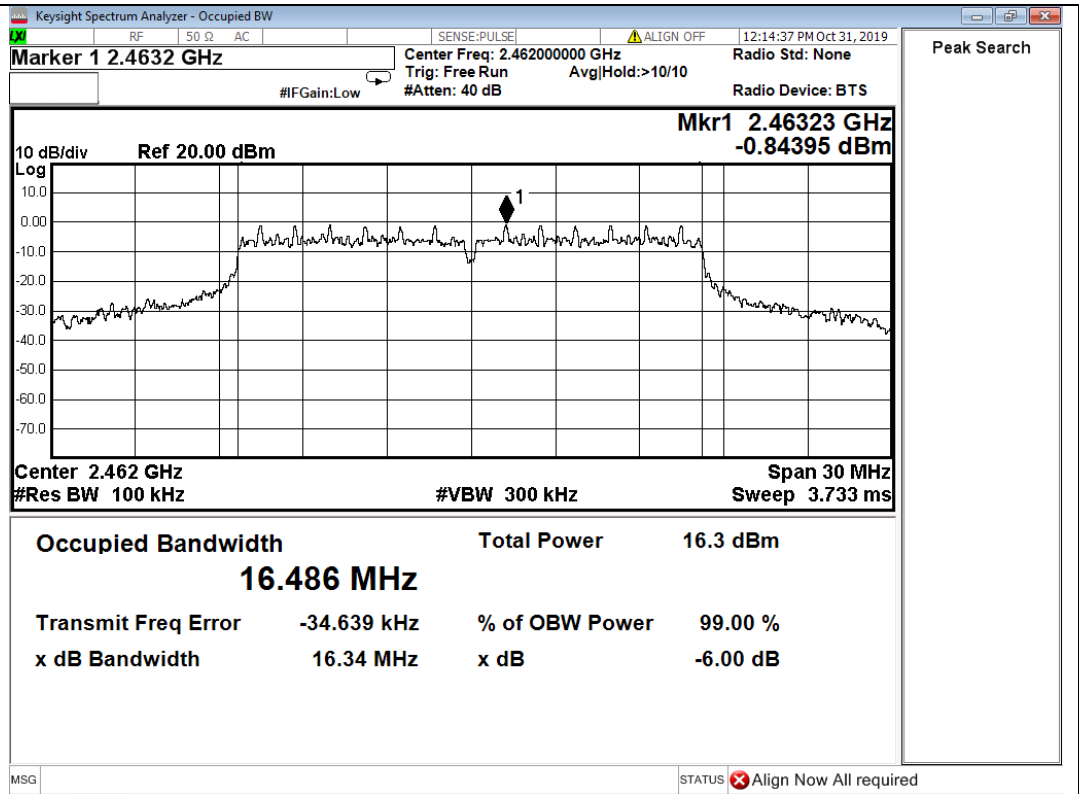
11G/LCH



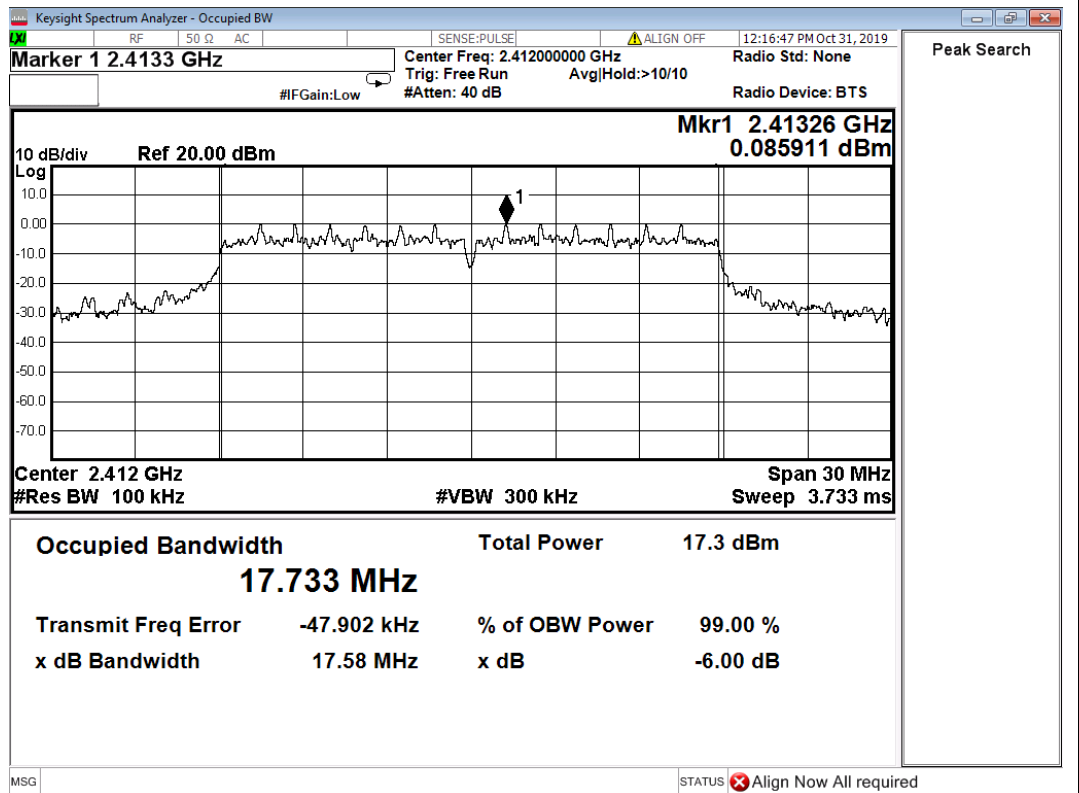
11G/MCH



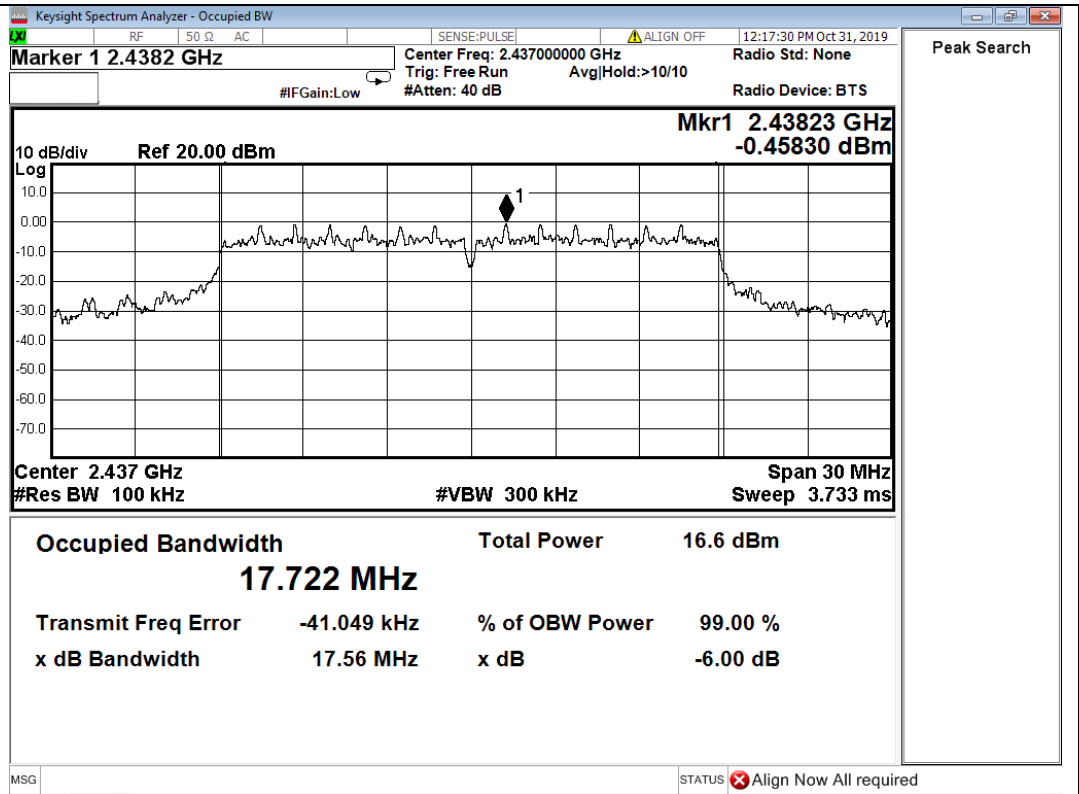
11G/HCH



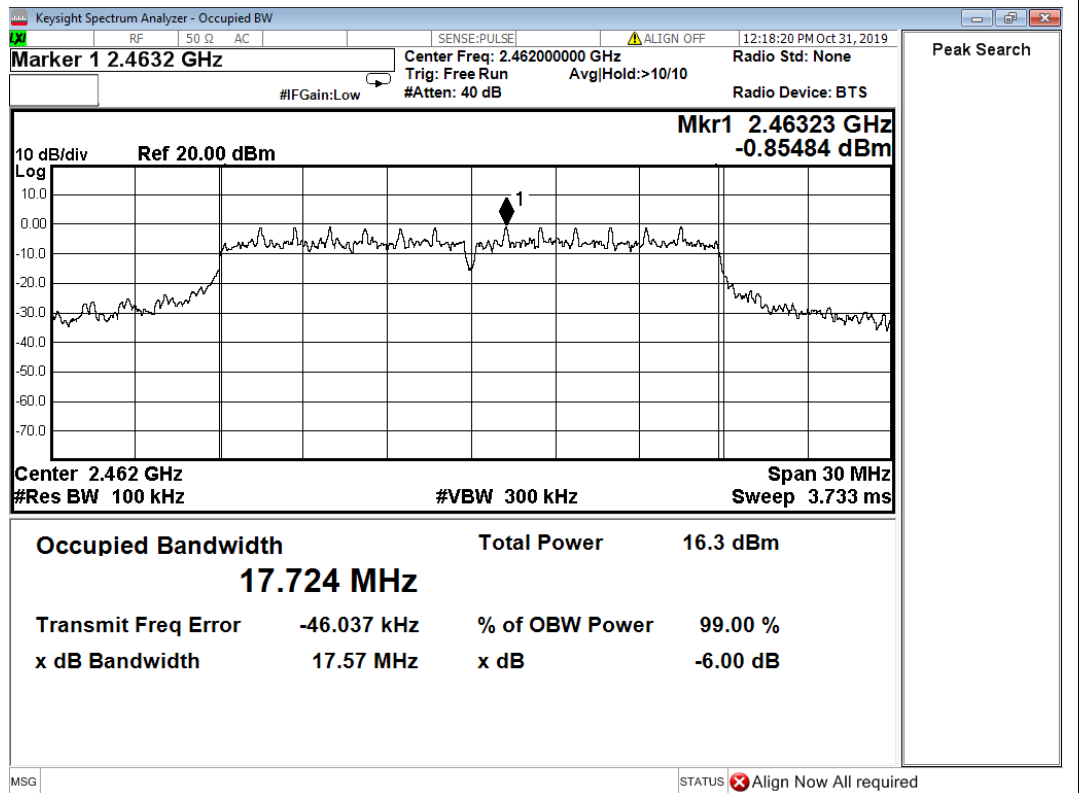
11N20SISO/LCH



11N20SISO/MCH

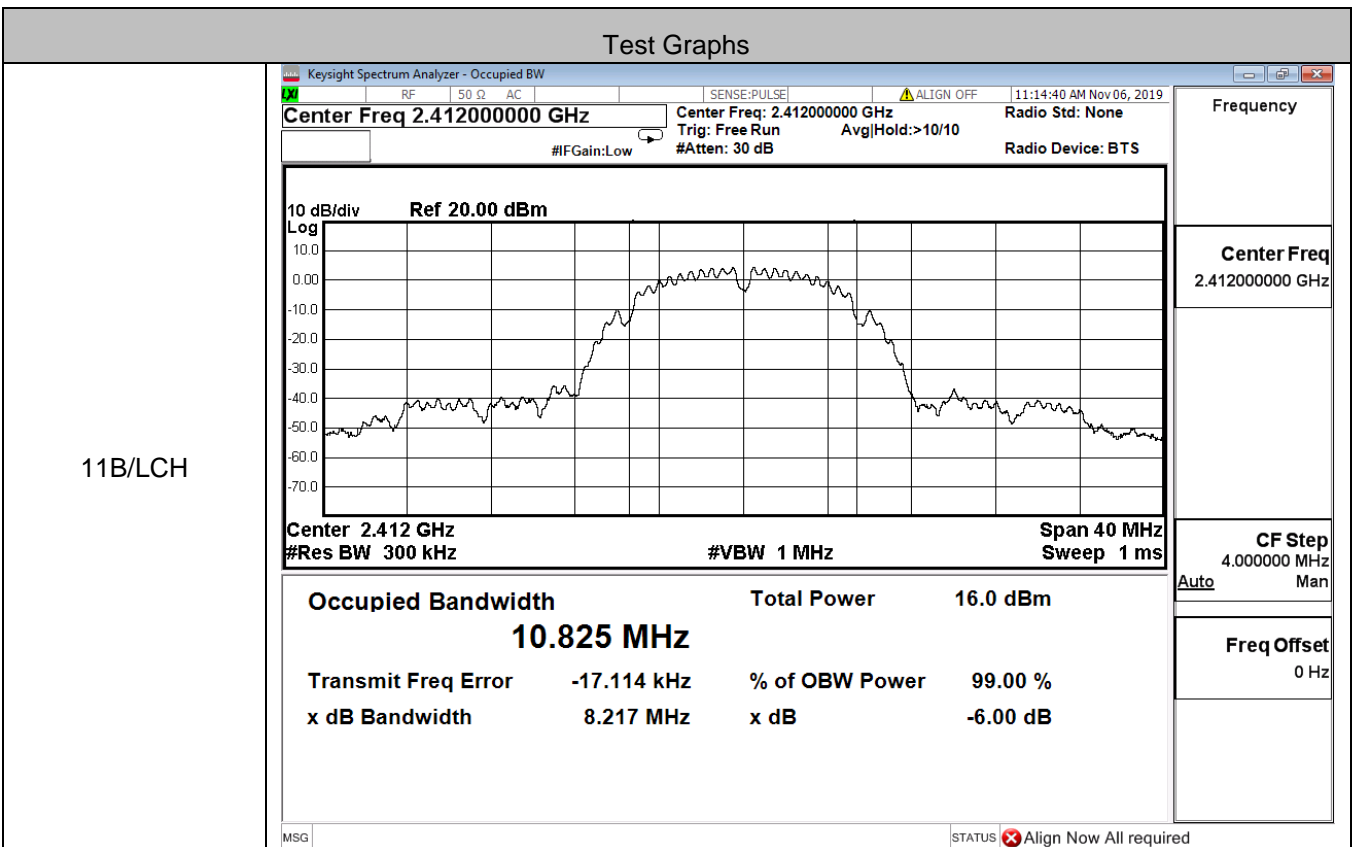


11N20SISO/HCH

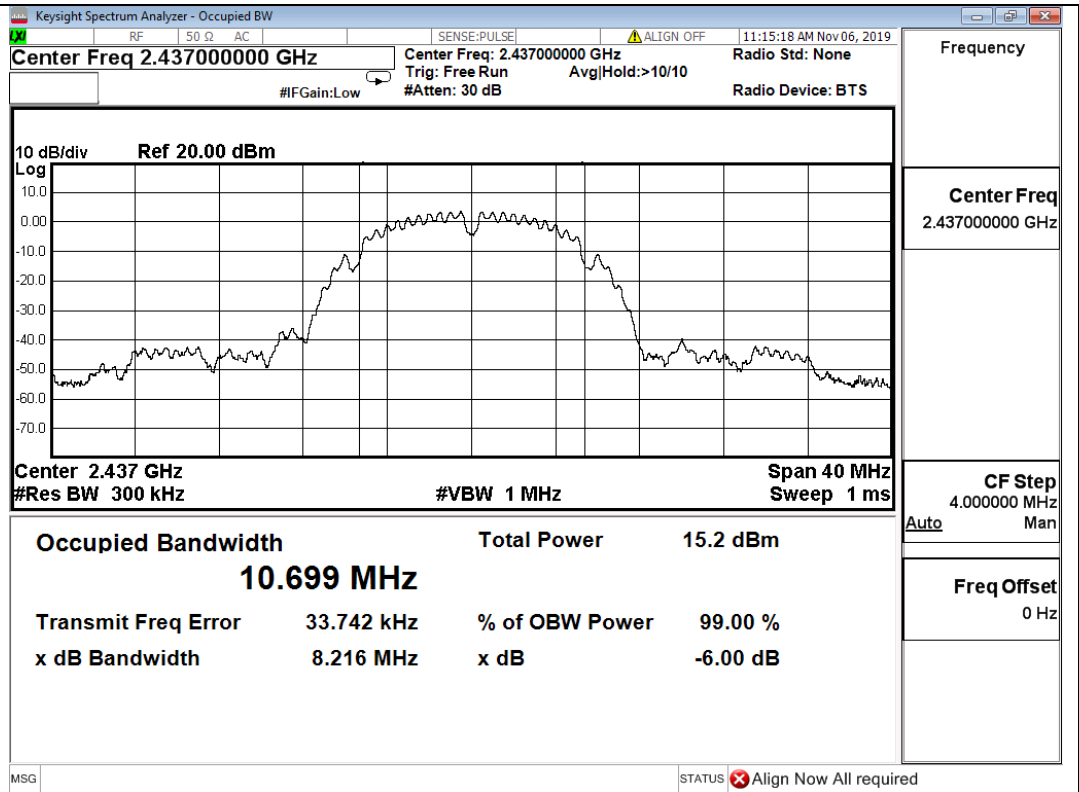


A.5 Occupied Bandwidth

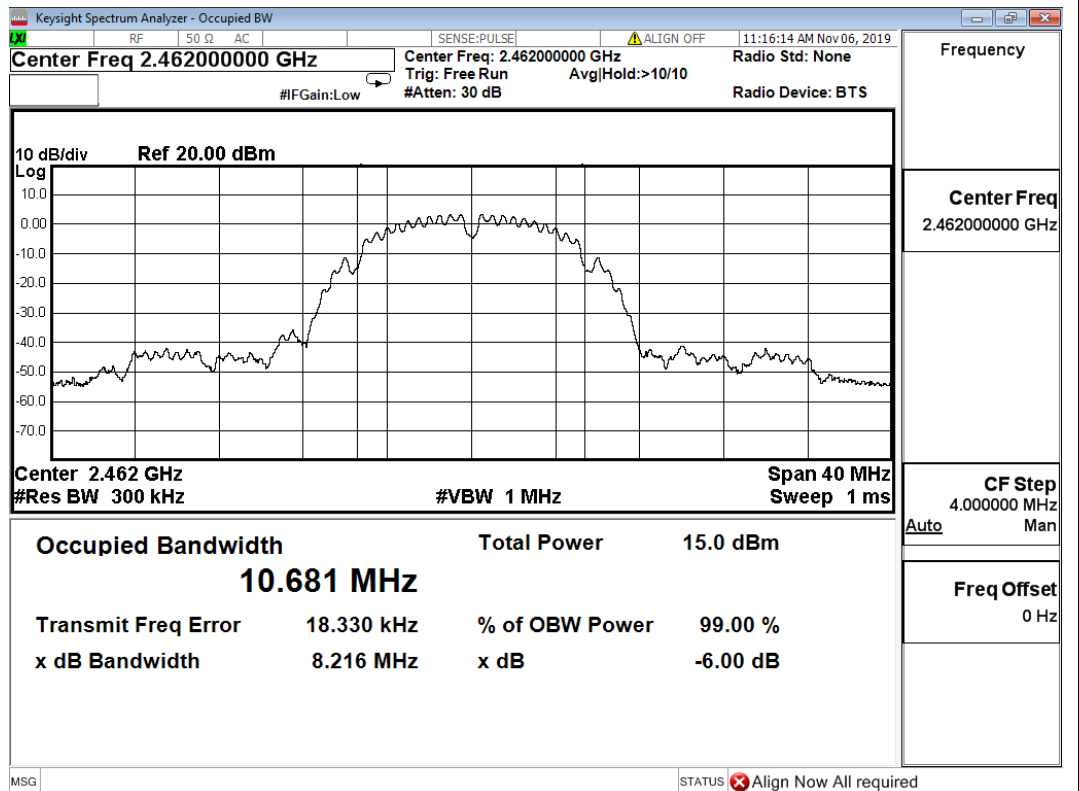
Mode	Channel	Occupied Bandwidth[MHz]	Limit [MHz]	Verdict
11B	LCH	10.825	No Limited	PASS
	MCH	10.699	No Limited	PASS
	HCH	10.681	No Limited	PASS
11G	LCH	17.753	No Limited	PASS
	MCH	17.280	No Limited	PASS
	HCH	17.241	No Limited	PASS
11N20SISO	LCH	18.852	No Limited	PASS
	MCH	18.549	No Limited	PASS
	HCH	18.461	No Limited	PASS



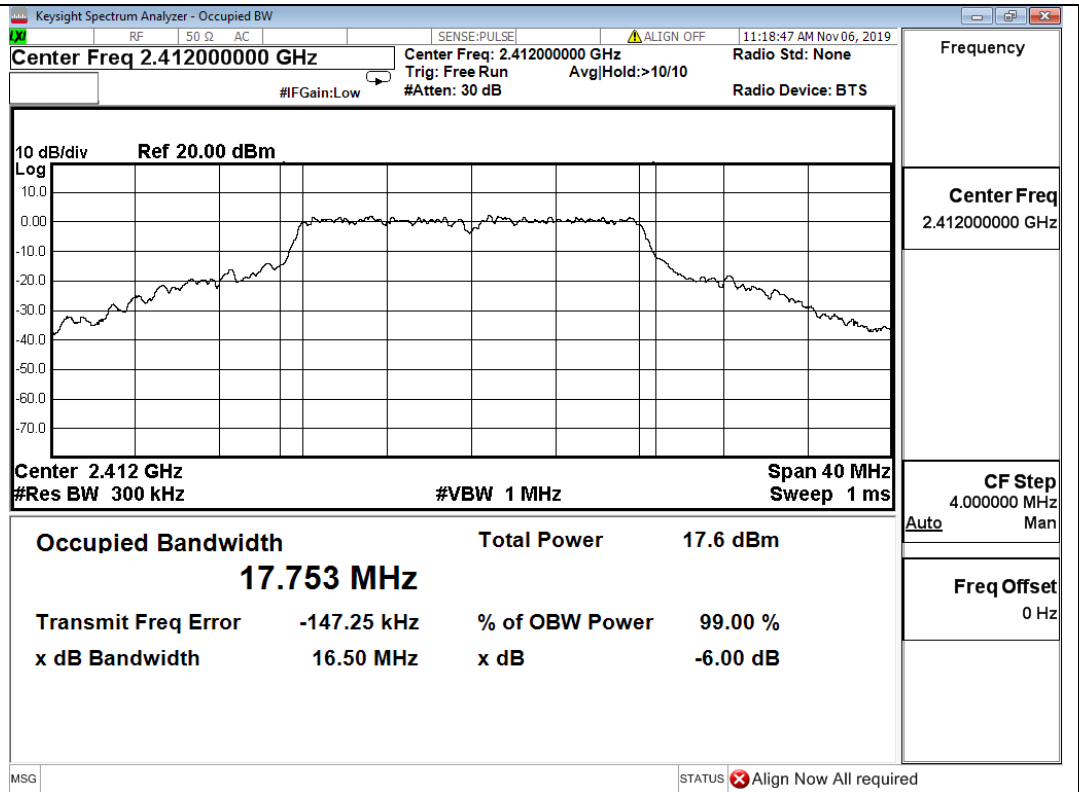
11B/MCH



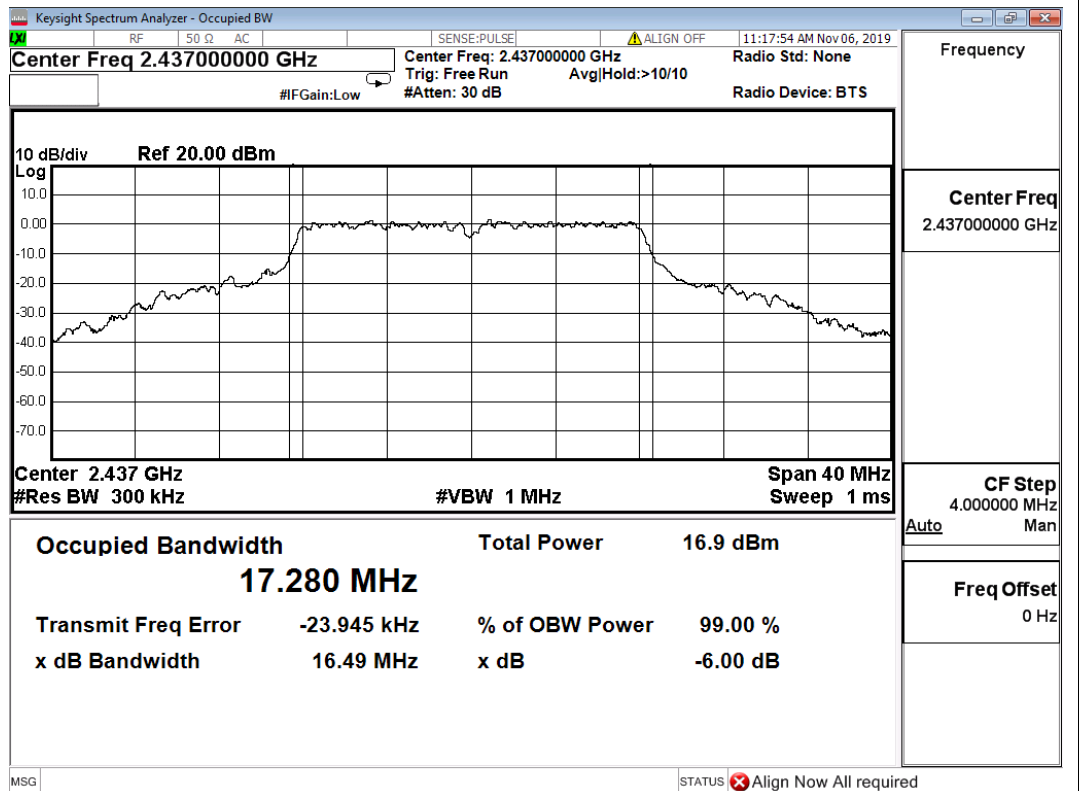
11B/HCH



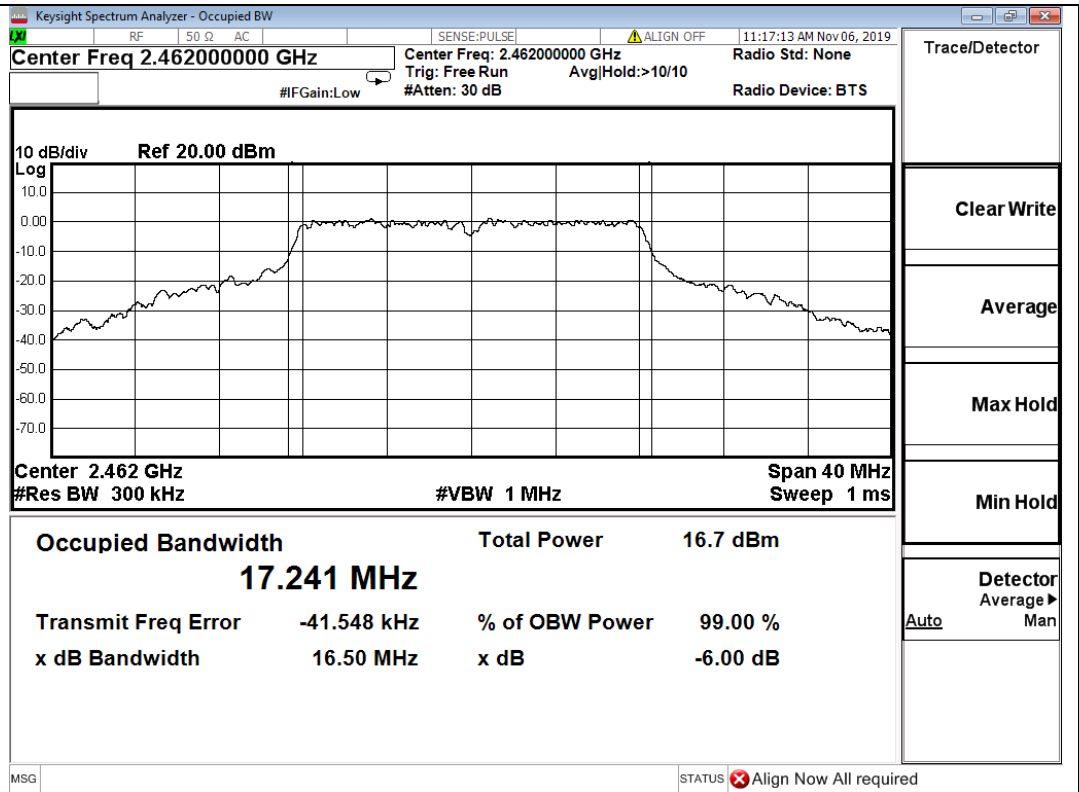
11G/LCH



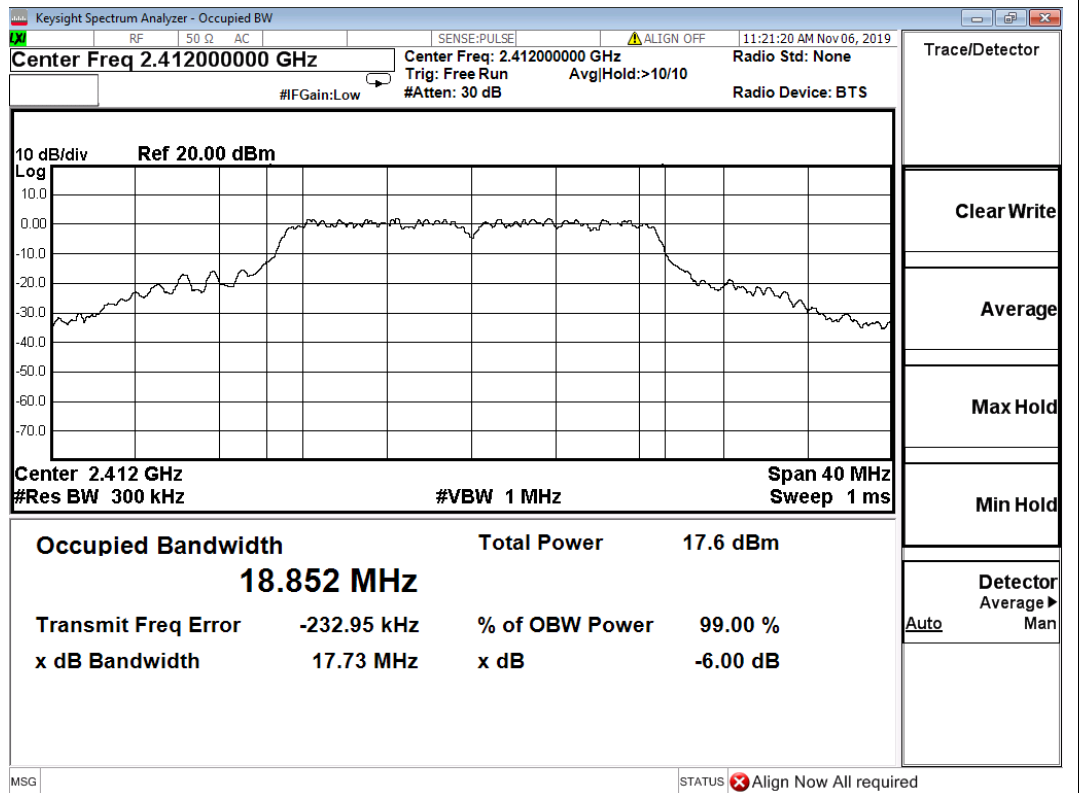
11G/MCH



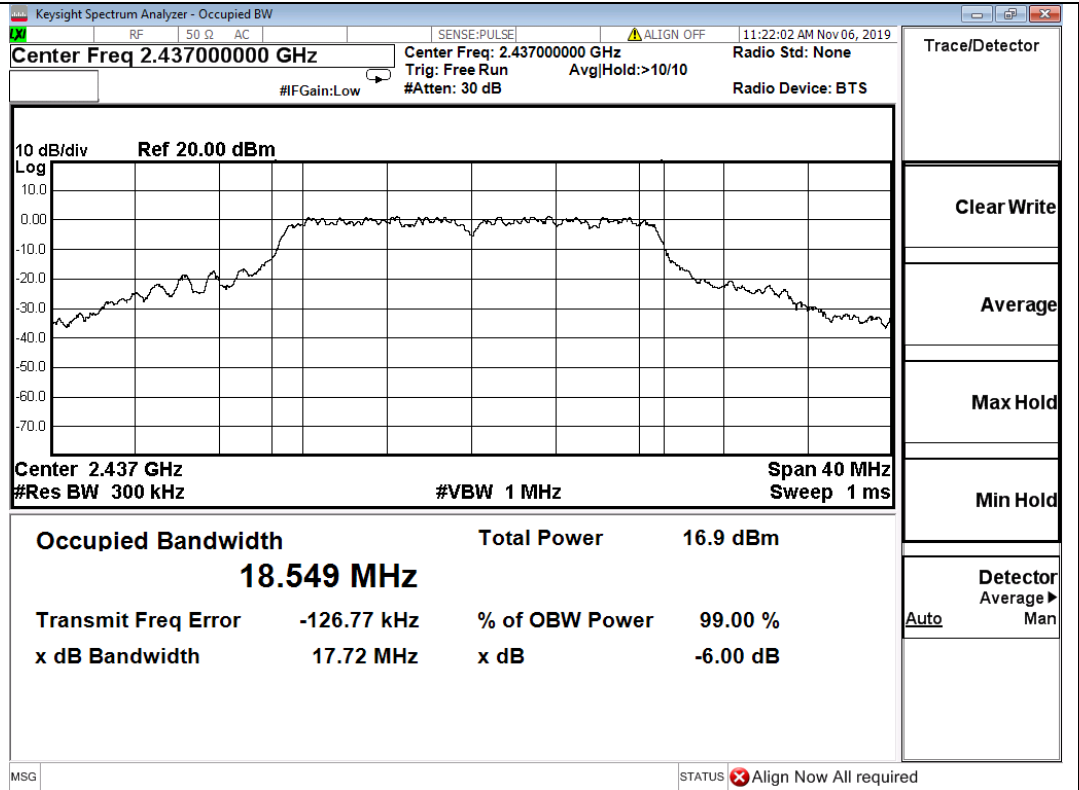
11G/HCH



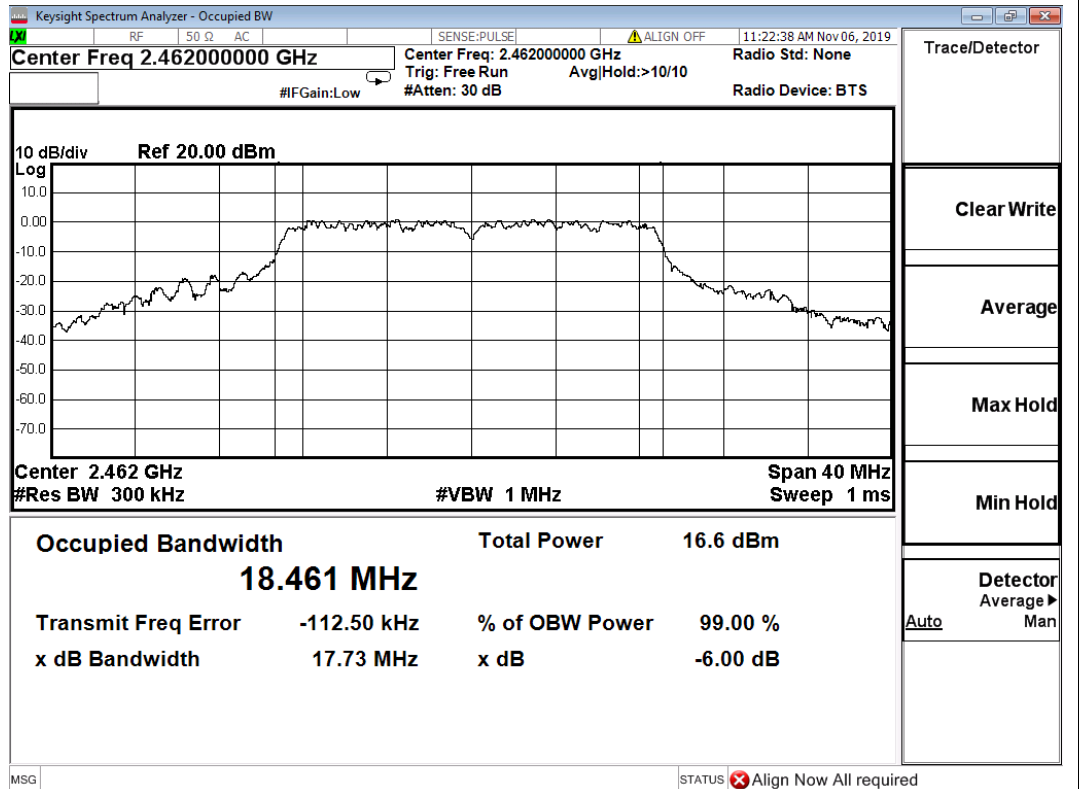
11N20SISO/LCH



11N20SISO/MCH



11N20SISO/HCH

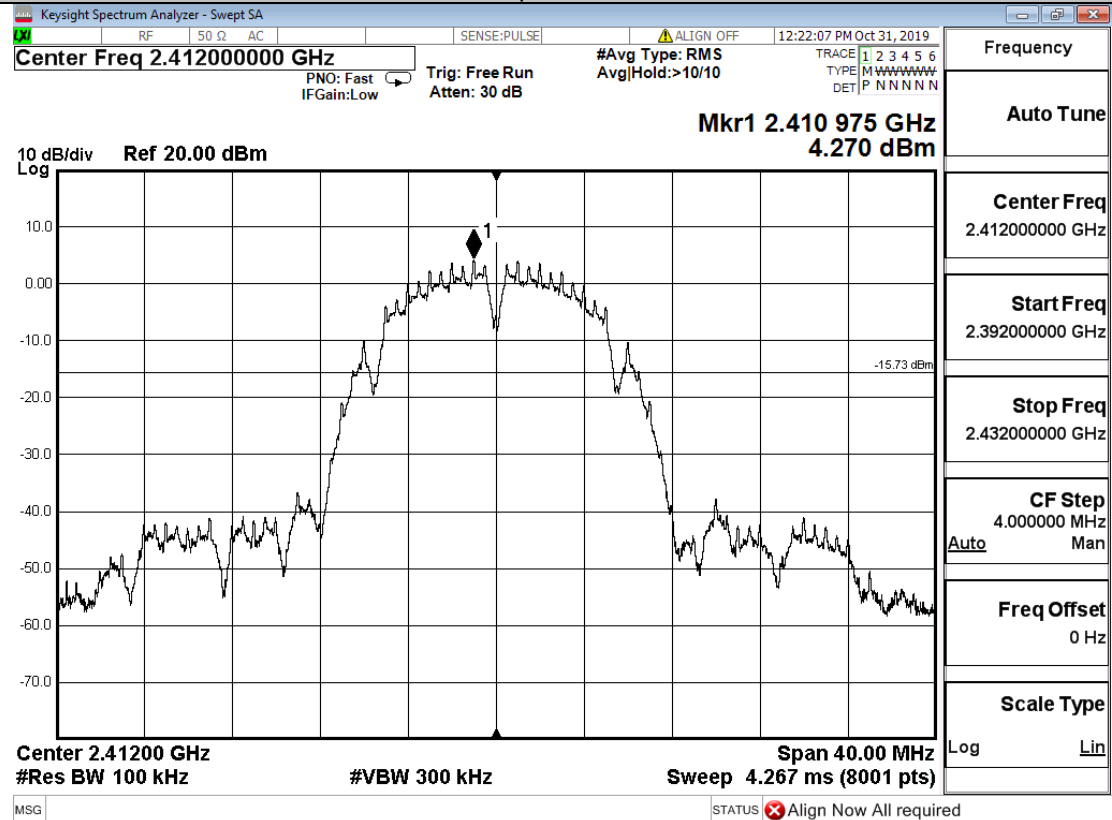


A.6 RF Conducted Spurious Emissions

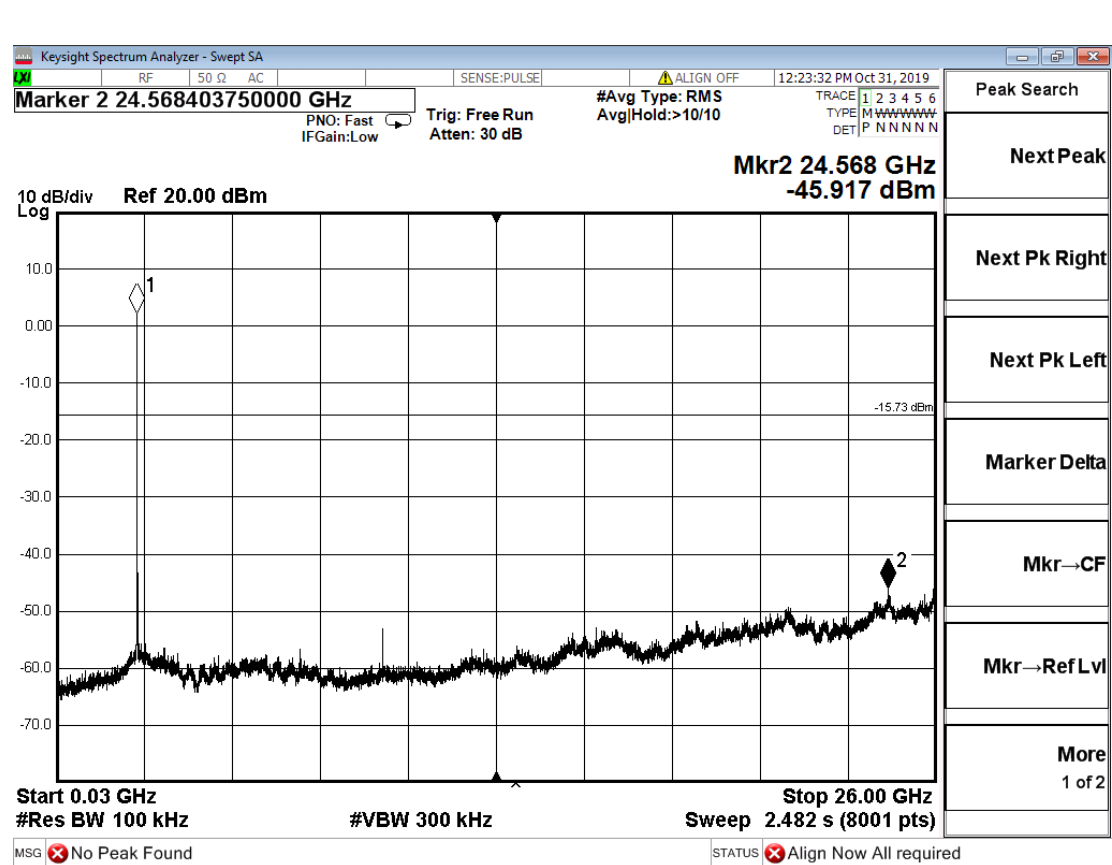
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.270	-45.917	-15.73	PASS
	MCH	3.401	-50.708	-16.60	PASS
	HCH	3.322	-49.225	-16.68	PASS
11G	LCH	1.089	-48.958	-18.91	PASS
	MCH	0.348	-48.811	-19.65	PASS
	HCH	0.191	-48.814	-19.81	PASS
11N20 SISO	LCH	1.196	-47.079	-18.80	PASS
	MCH	0.462	-46.111	-19.54	PASS
	HCH	0.218	-48.602	-19.78	PASS

11B_LCH_Graphs

Pref/11B/LCH

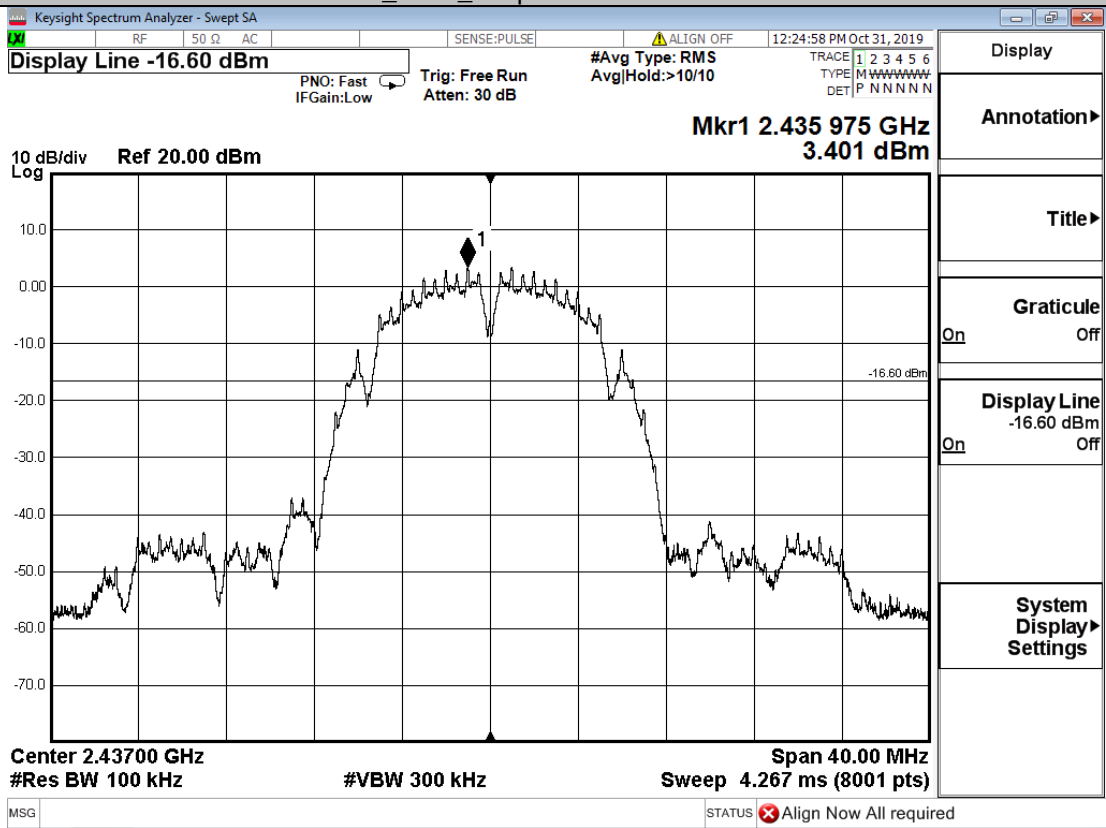


Puw/11B/LCH



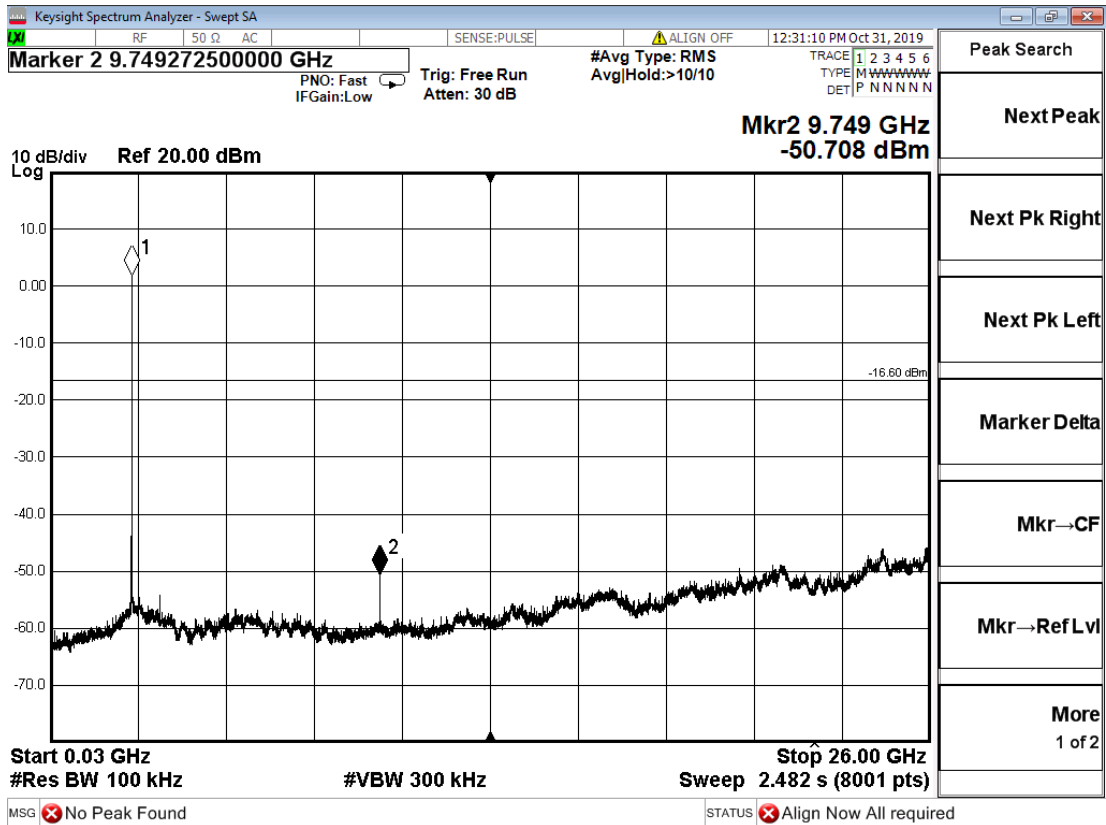
11B_MCH_Graphs

Pref/11B/MCH



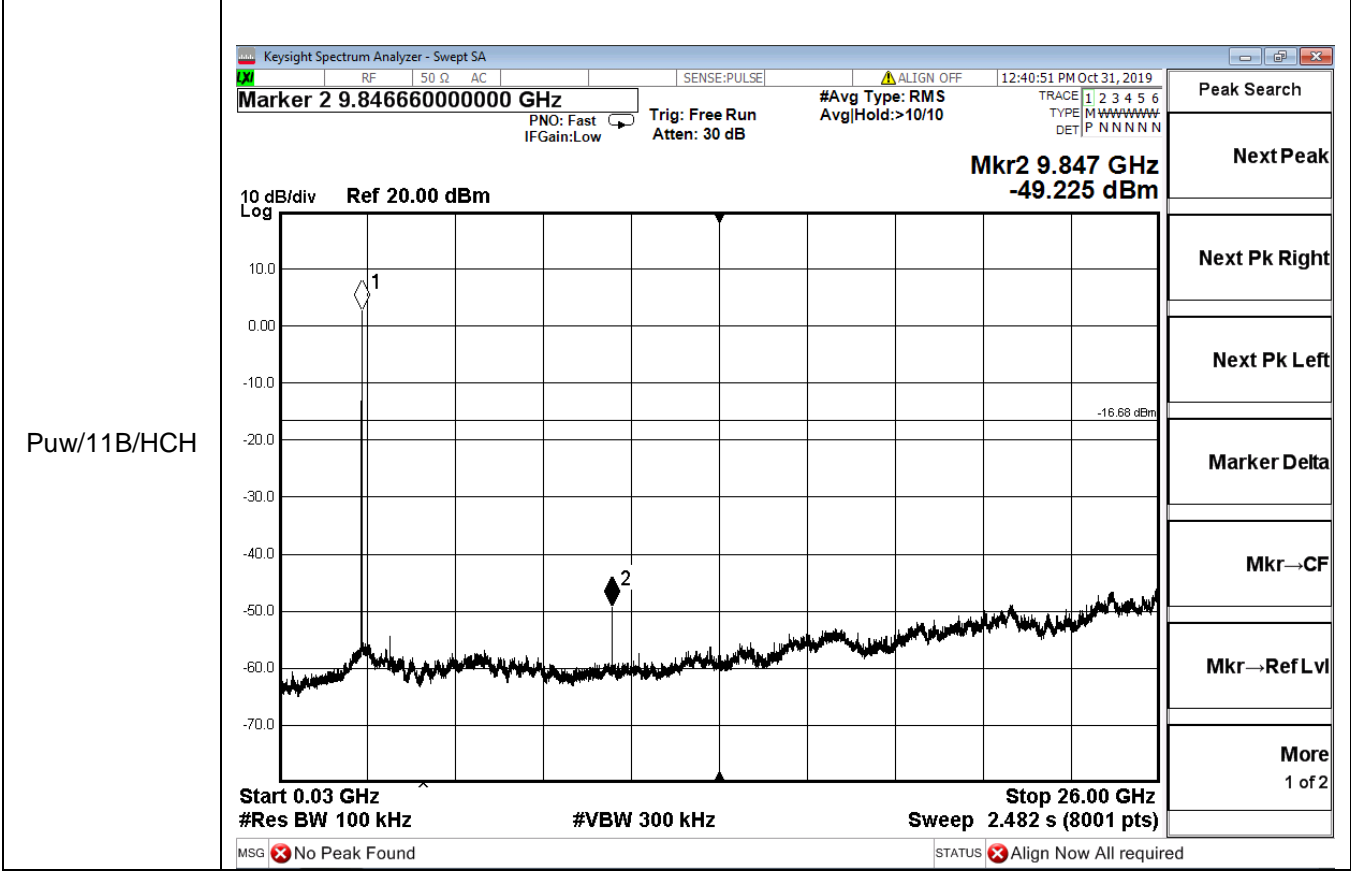
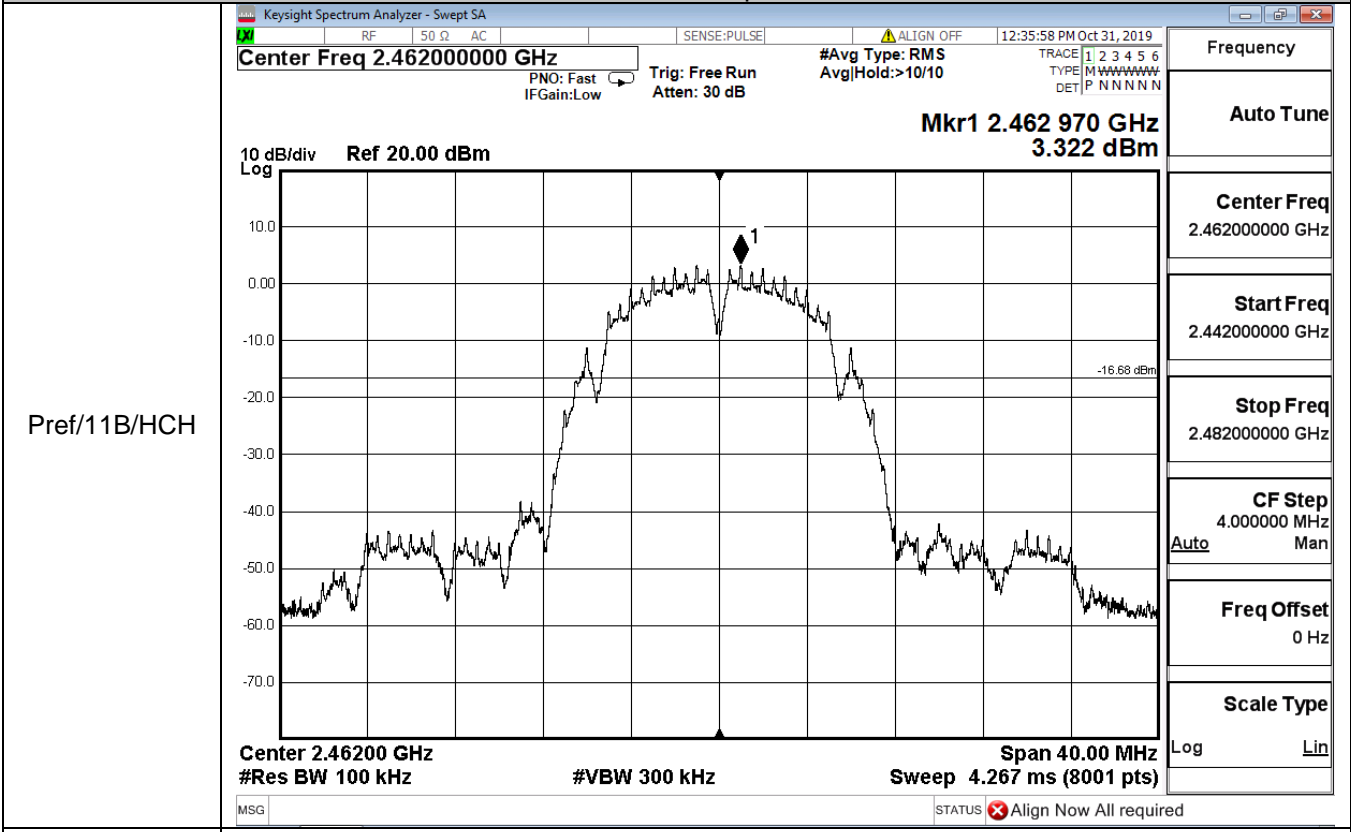
- Display
- Annotation▶
- Title▶
- Graticule On Off
- Display Line -16.60 dBm On Off
- System Display▶ Settings

Puw/11B/MCH



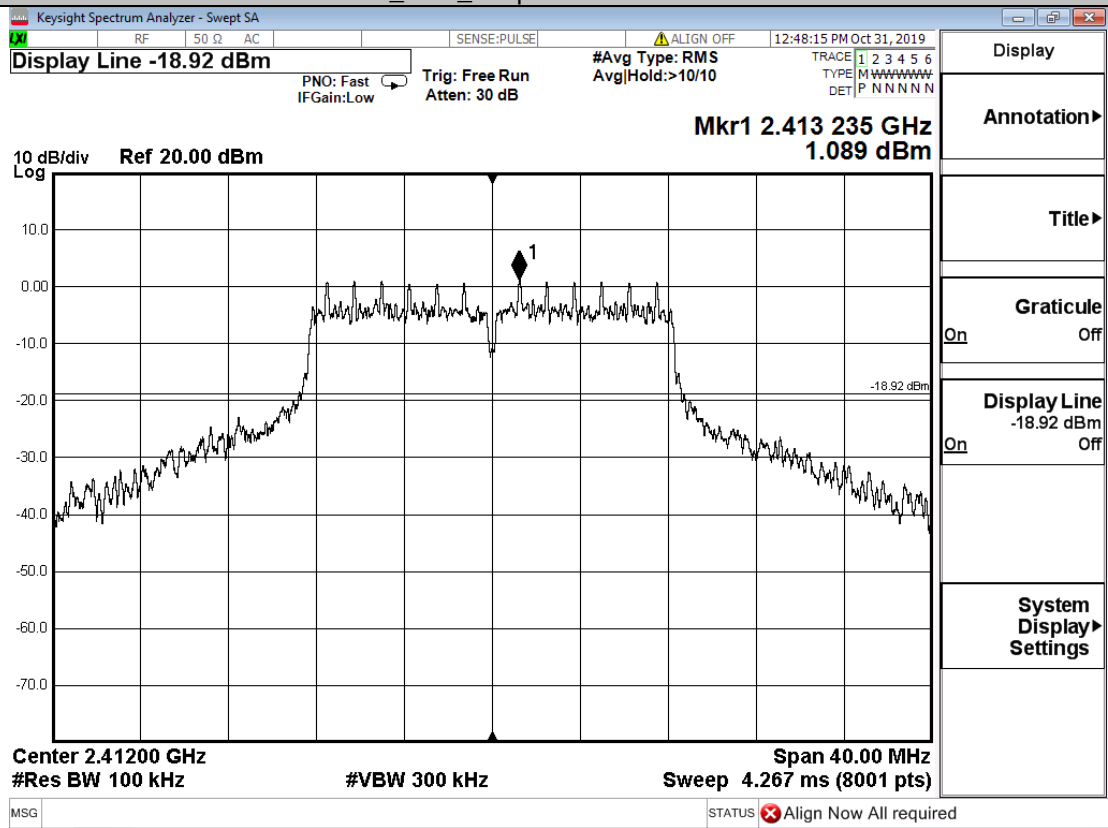
- Peak Search
- Next Peak
- Next Pk Right
- Next Pk Left
- Marker Delta
- Mkr→CF
- Mkr→Ref Lvl
- More 1 of 2

11B_HCH_Graphs

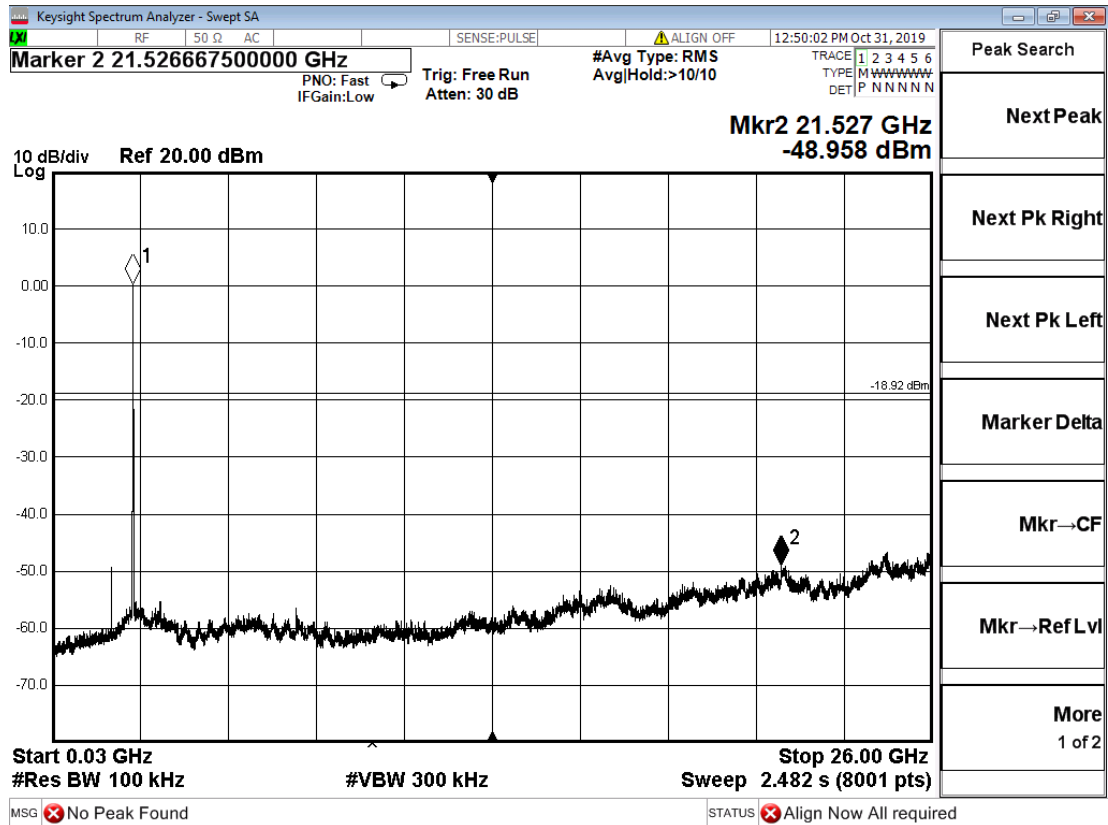


11G_LCH_Graphs

Pref/11G/LCH

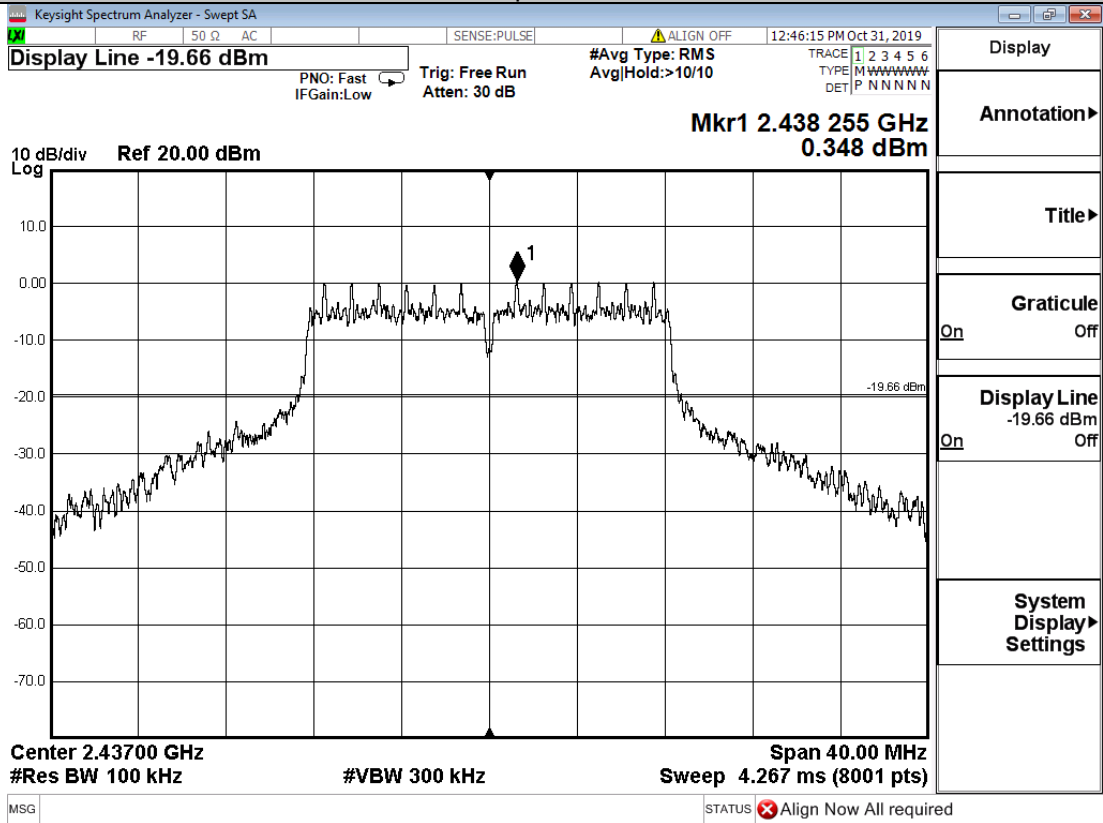


Puw/11G/LCH

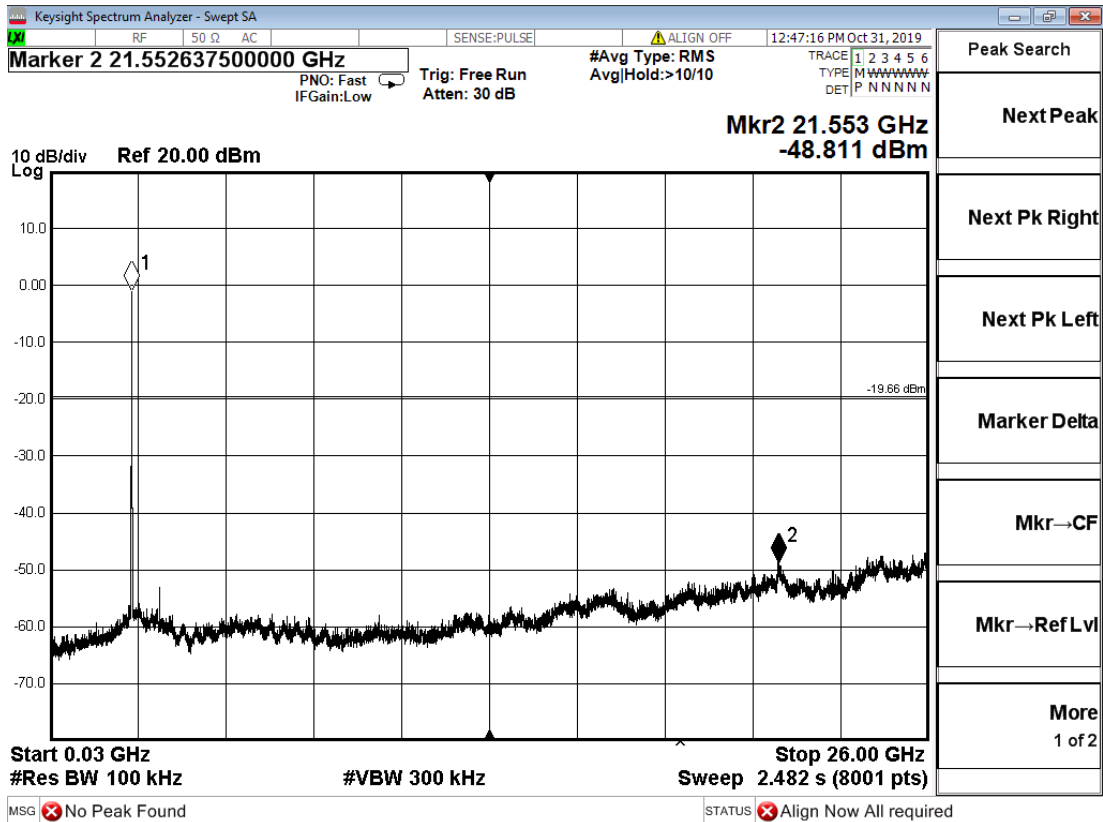


11G_MCH_Graphs

Pref/11G/MCH

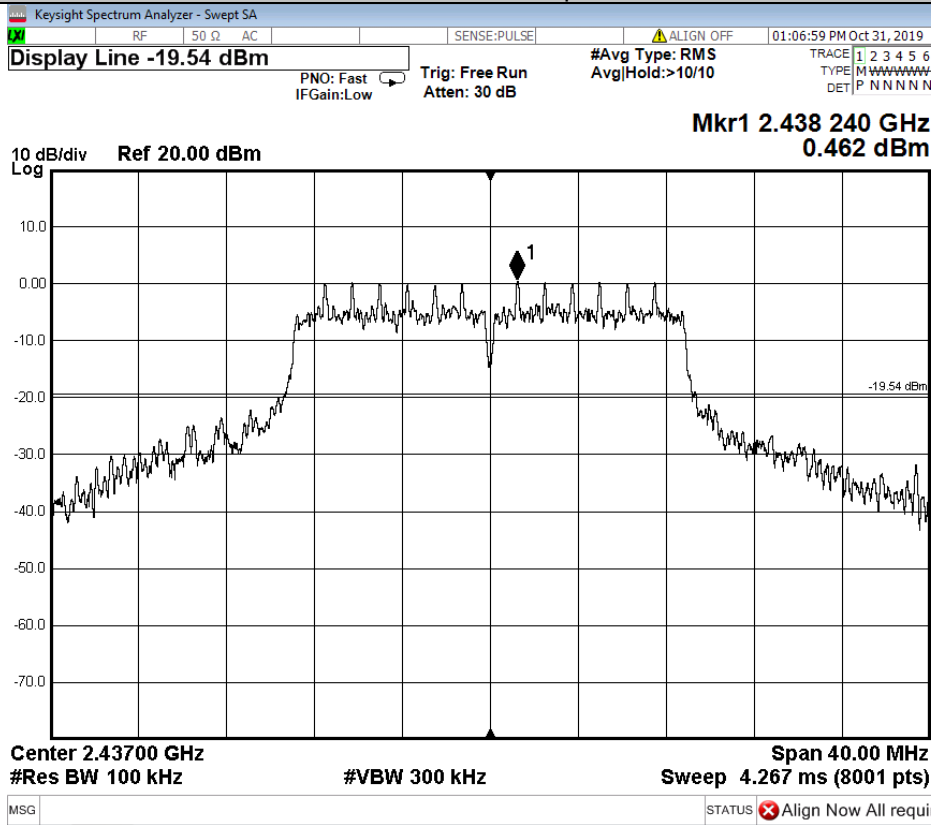


Puw/11G/MCH



11N20SISO_MCH_Graphs

Pref/11N20
SISO/MCH



Display

Annotation ▶

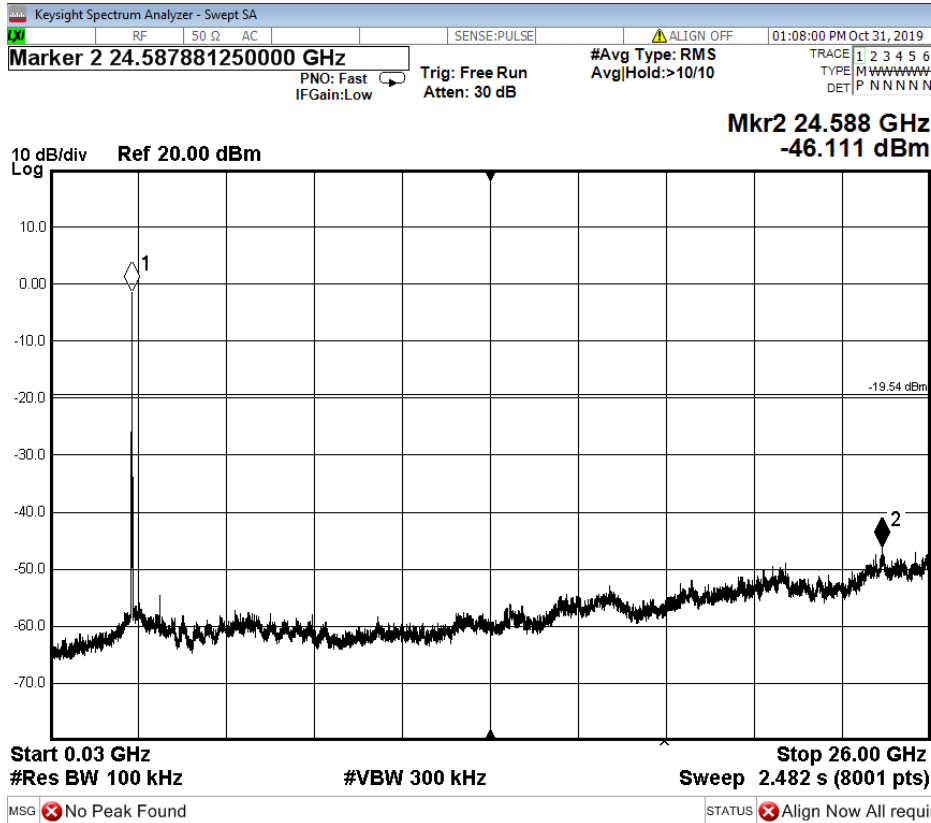
Title ▶

Graticule On Off

Display Line -19.54 dBm On Off

System Display Settings ▶

Puw/11N20
SISO/MCH



Peak Search

Next Peak

Next Pk Right

Next Pk Left

Marker Delta

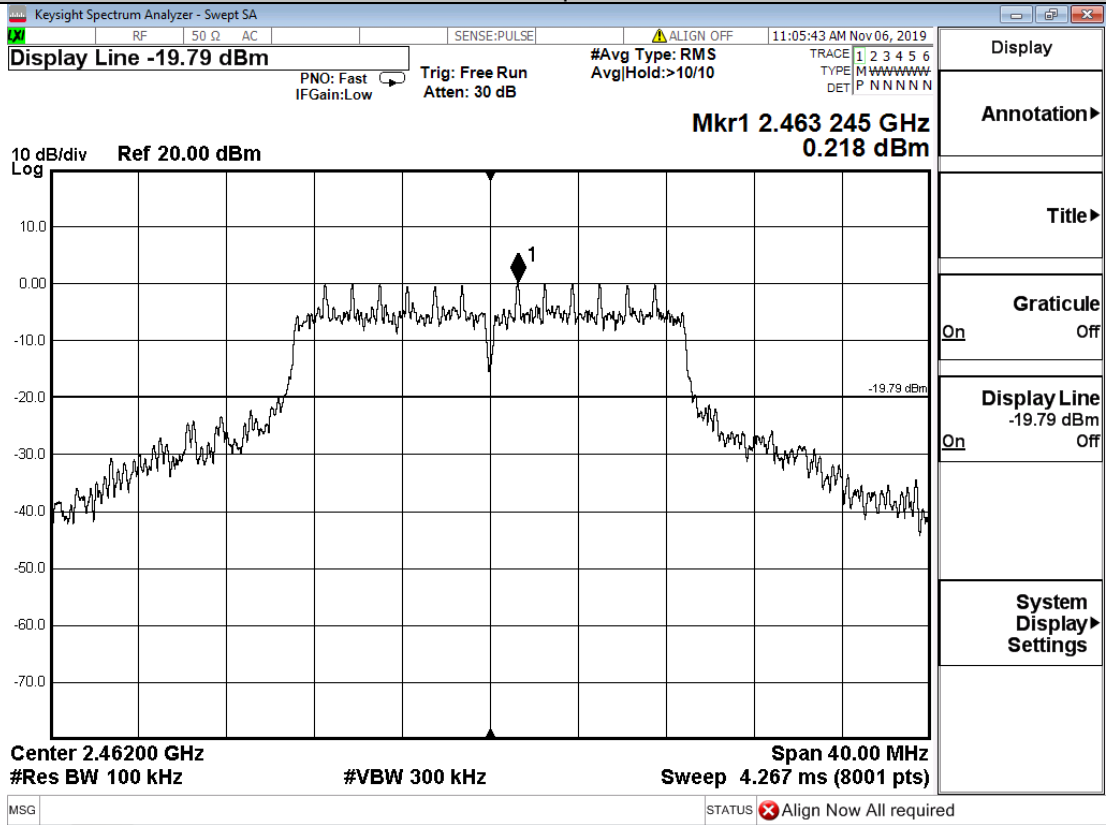
Mkr→CF

Mkr→Ref Lvl

More 1 of 2

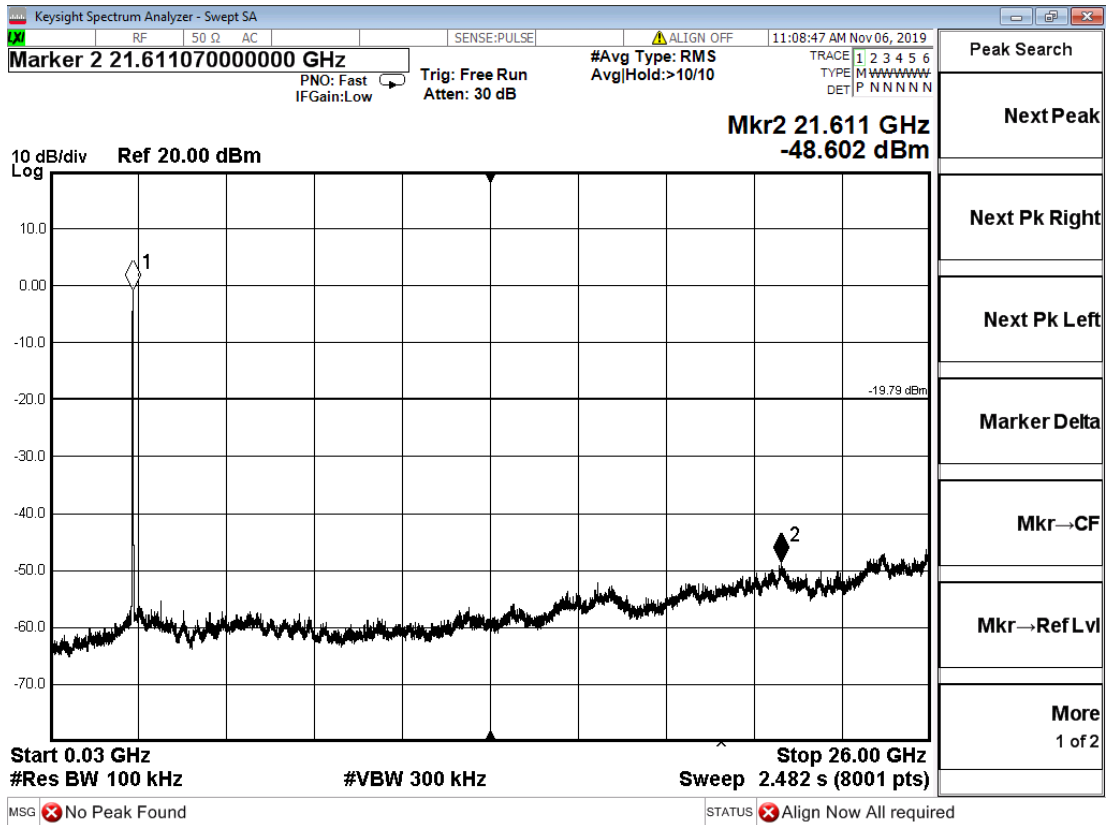
11N20SISO_HCH_Graphs

Pref/11N20
SISO/HCH



- Display
- Annotation
- Title
- Graticule On Off
- Display Line -19.79 dBm On Off
- System Display Settings

Puw/11N20
SISO/HCH



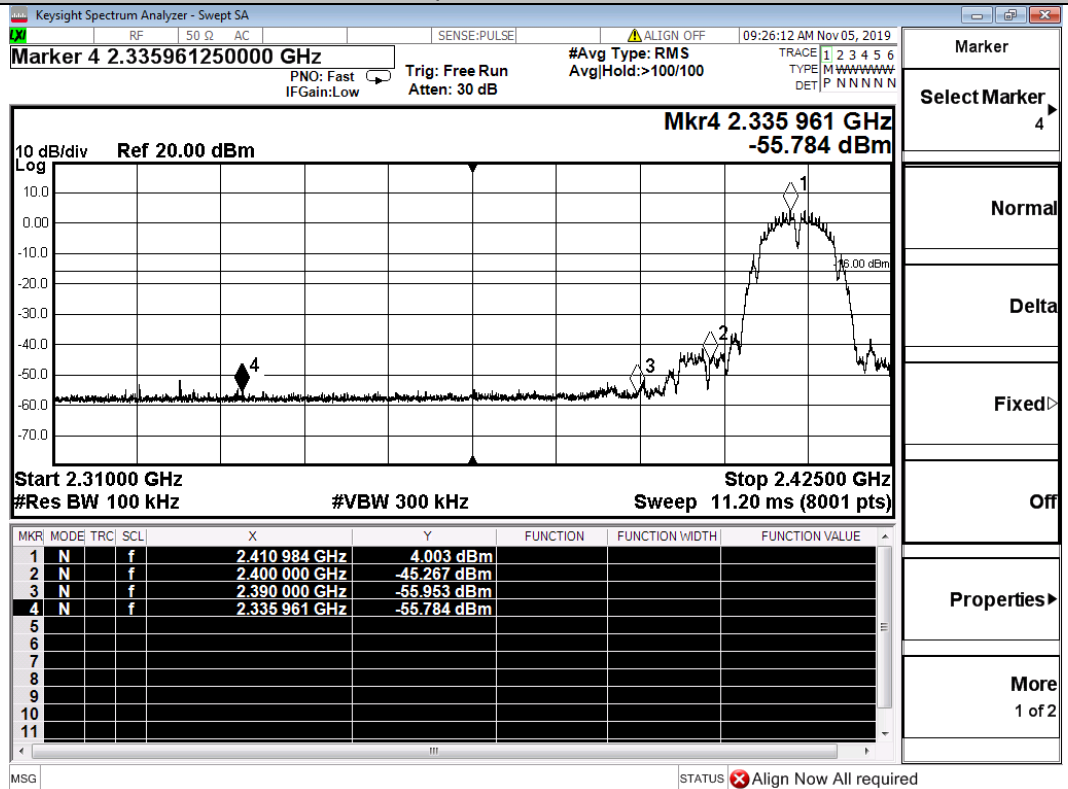
- Peak Search
- Next Peak
- Next Pk Right
- Next Pk Left
- Marker Delta
- Mkr→CF
- Mkr→Ref Lvl
- More 1 of 2

A.7 Band-edge for RF Conducted Emissions

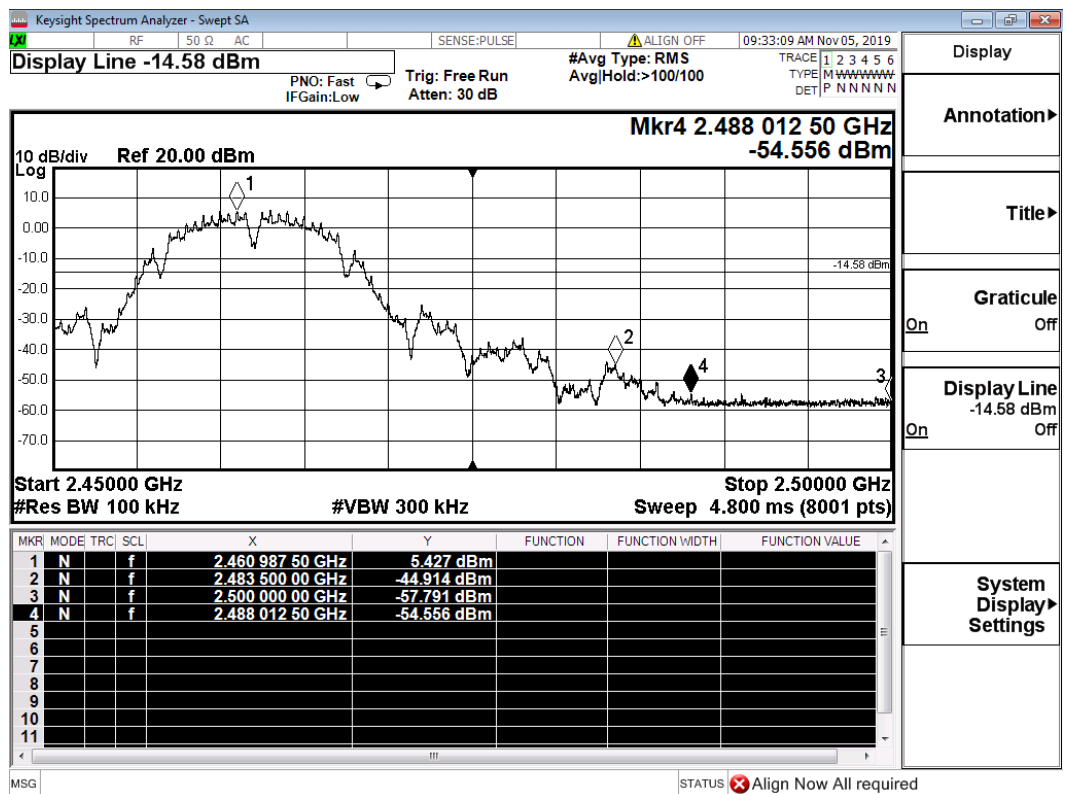
Mode	Channel	Carrier Power[dBm]	Max.Spurious Level [dBm]	Limit [dBm]	Verdict
11B	LCH	4.003	-45.267	-16.00	PASS
	HCH	5.427	-44.914	-14.57	PASS
11G	LCH	1.031	-26.625	-18.97	PASS
	HCH	3.303	-32.637	-16.70	PASS
11N20SISO	LCH	0.858	-25.512	-19.14	PASS
	HCH	3.440	-29.087	-16.56	PASS

Test Graphs

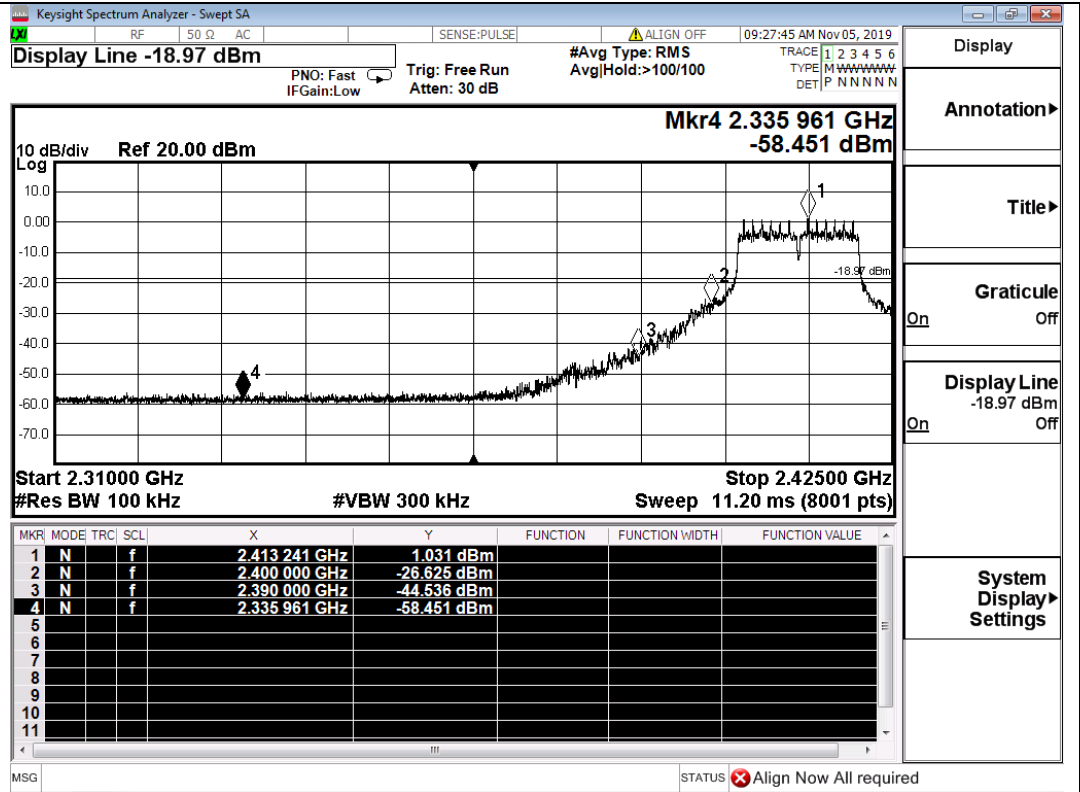
11B/LCH



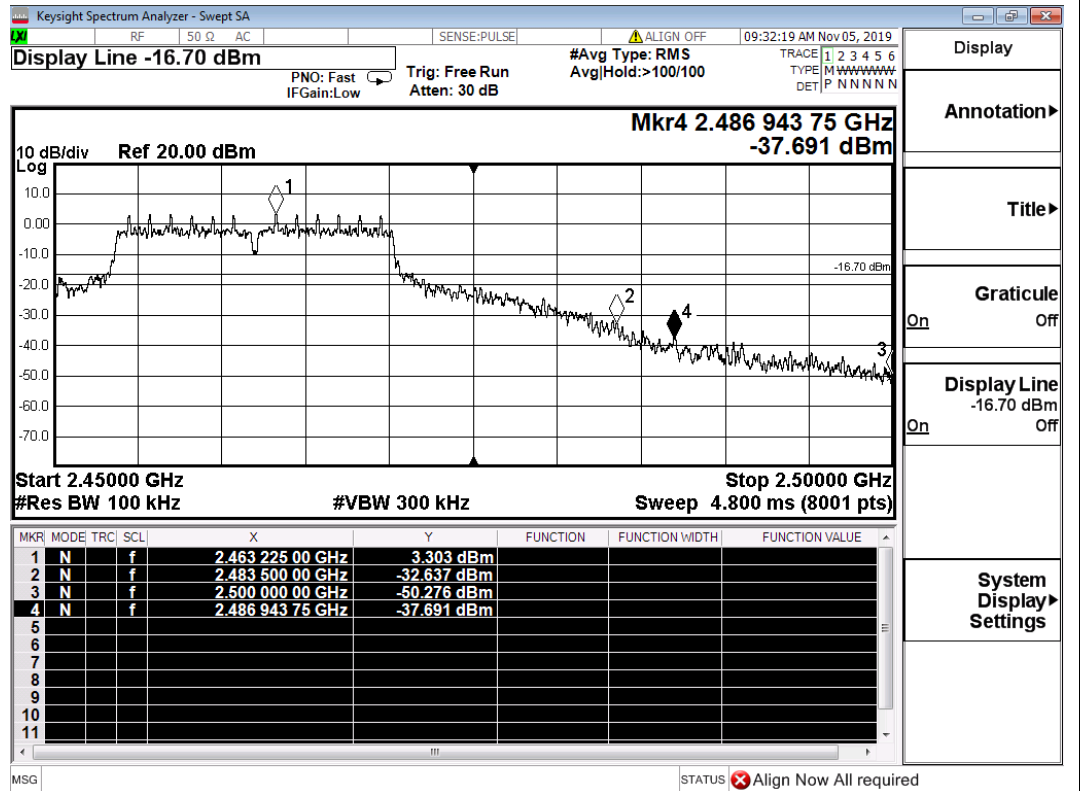
11B/HCH



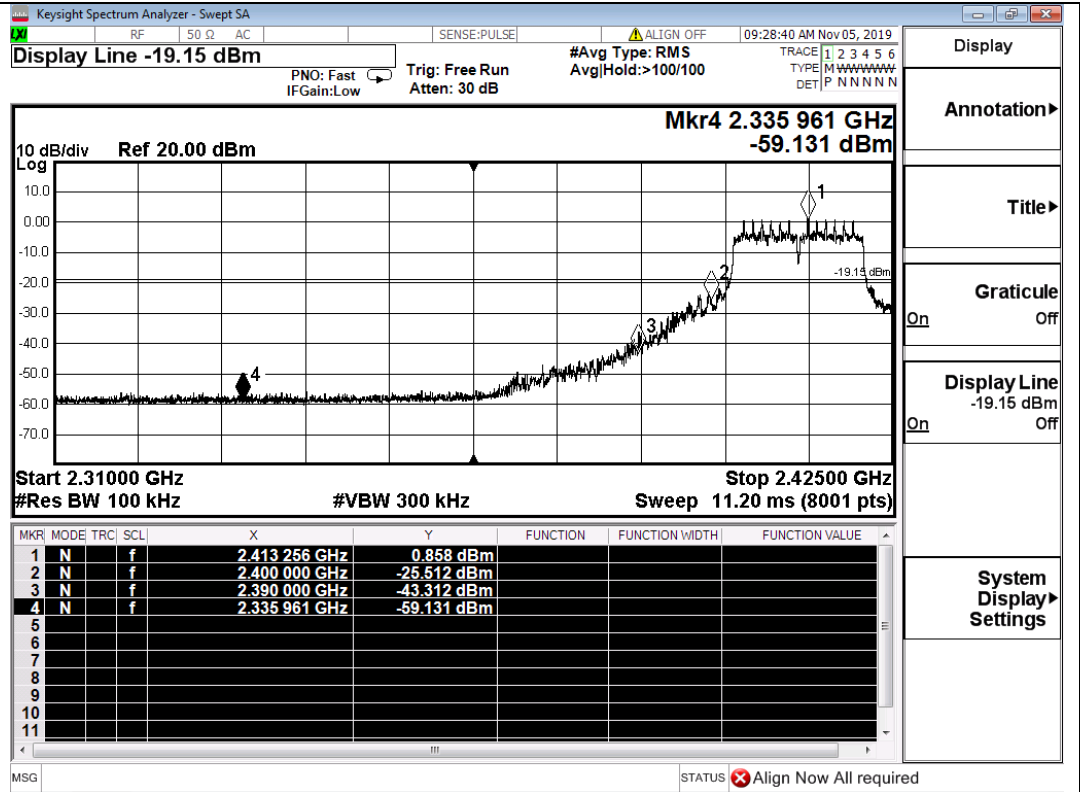
11G/LCH



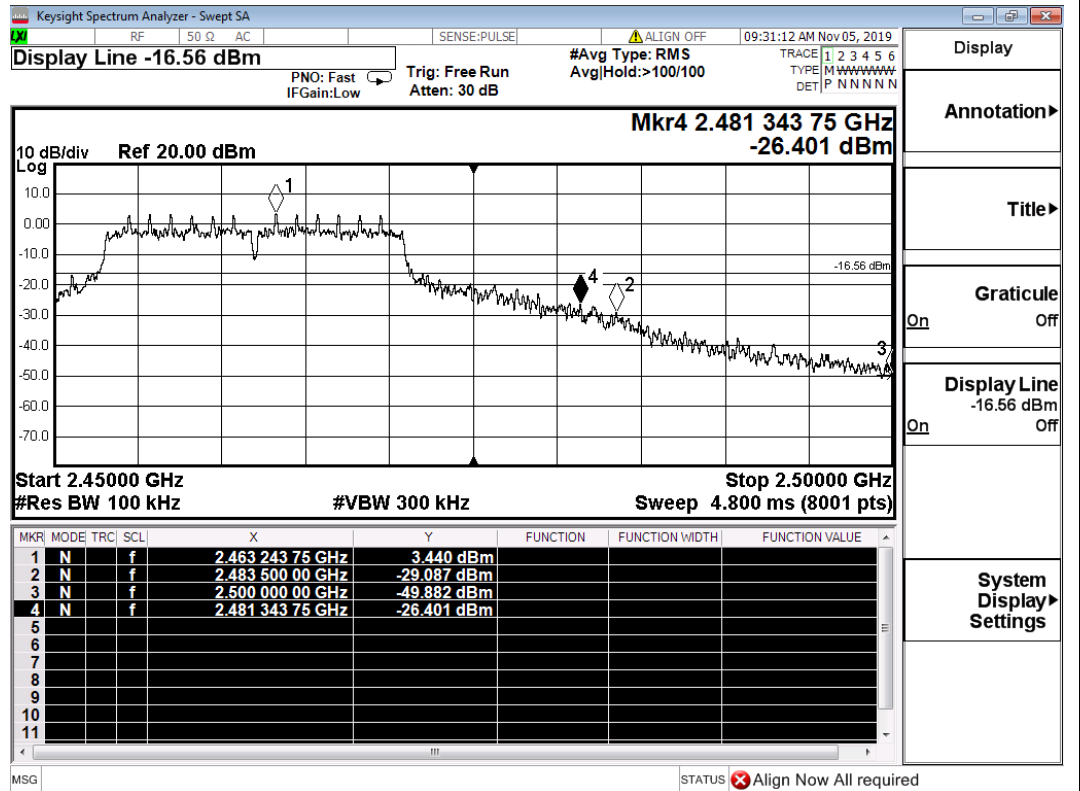
11G/HCH



11N20SISO/LCH



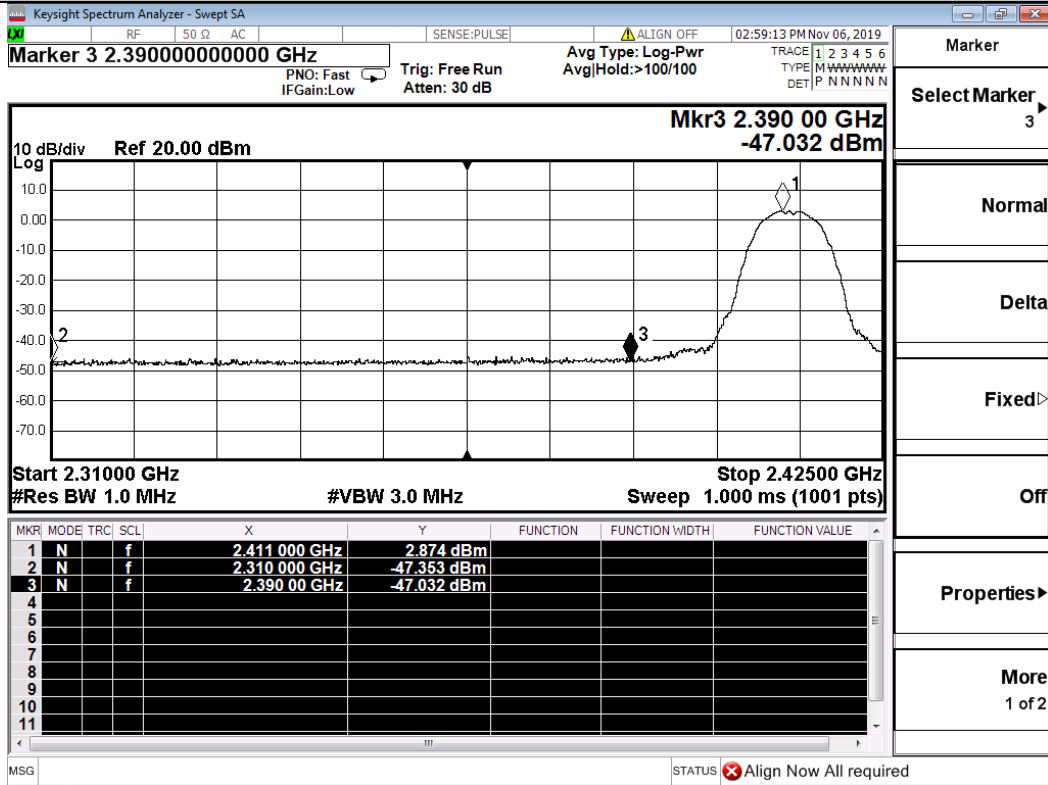
11N20SISO/HCH



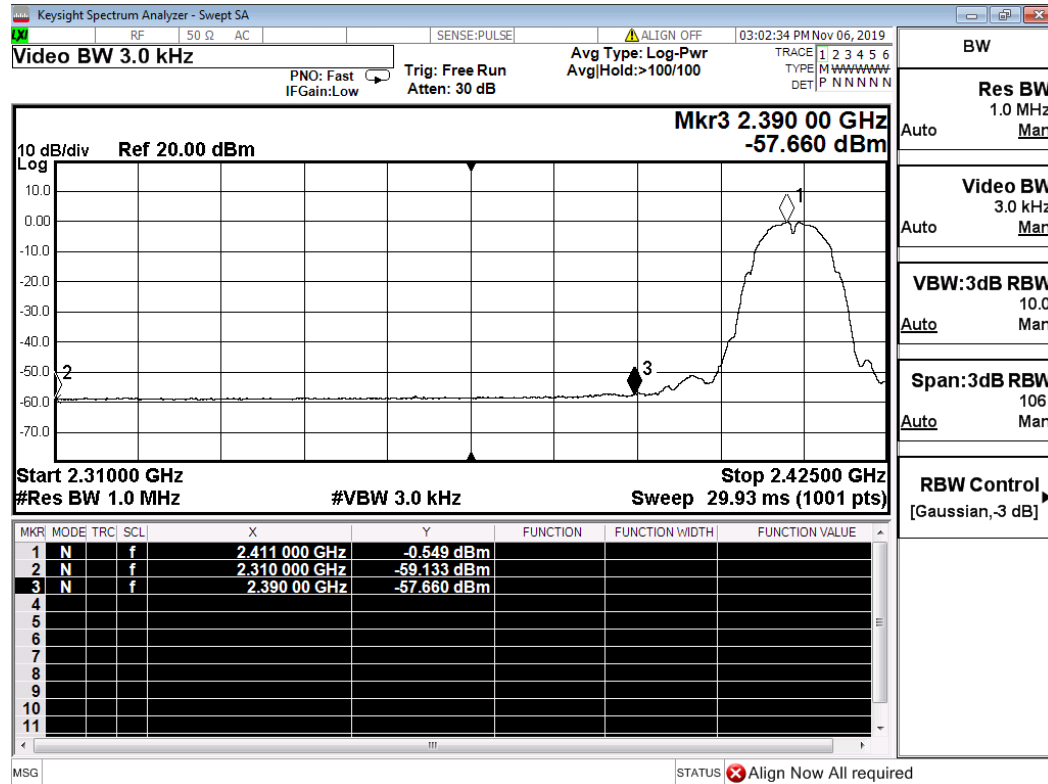
A.8 Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBu V/m]	Verdict
11B	2412	Ant1	2310.0	-47.353	2.5	0	50.38	PEAK	74	PASS
	2412	Ant1	2310.0	-59.133	2.5	0	38.60	AV	54	PASS
	2412	Ant1	2390.0	-47.032	2.5	0	50.70	PEAK	74	PASS
	2412	Ant1	2390.0	-57.660	2.5	0	40.07	AV	54	PASS
	2462	Ant1	2483.5	-46.689	2.5	0	51.04	PEAK	74	PASS
	2462	Ant1	2483.5	-57.698	2.5	0	40.03	AV	54	PASS
	2462	Ant1	2500.0	-47.329	2.5	0	50.40	PEAK	74	PASS
	2462	Ant1	2500.0	-58.157	2.5	0	39.57	AV	54	PASS
11G	2412	Ant1	2310.0	-47.784	2.5	0	49.95	PEAK	74	PASS
	2412	Ant1	2310.0	-59.004	2.5	0	38.73	AV	54	PASS
	2412	Ant1	2390.0	-39.290	2.5	0	58.44	PEAK	74	PASS
	2412	Ant1	2390.0	-52.673	2.5	0	45.06	AV	54	PASS
	2462	Ant1	2483.5	-30.181	2.5	0	67.55	PEAK	74	PASS
	2462	Ant1	2483.5	-47.289	2.5	0	50.44	AV	54	PASS
	2462	Ant1	2500.0	-46.017	2.5	0	51.71	PEAK	74	PASS
	2462	Ant1	2500.0	-57.513	2.5	0	40.22	AV	54	PASS
11N20 SISO	2412	Ant1	2310.0	-47.395	2.5	0	50.34	PEAK	74	PASS
	2412	Ant1	2310.0	-59.090	2.5	0	38.64	AV	54	PASS
	2412	Ant1	2390.0	-37.946	2.5	0	59.78	PEAK	74	PASS
	2412	Ant1	2390.0	-51.712	2.5	0	46.02	AV	54	PASS
	2462	Ant1	2483.5	-27.469	2.5	0	70.26	PEAK	74	PASS
	2462	Ant1	2483.5	-46.004	2.5	0	51.73	AV	54	PASS
	2462	Ant1	2500.0	-40.163	2.5	0	57.57	PEAK	74	PASS
	2462	Ant1	2500.0	-56.660	2.5	0	41.07	AV	54	PASS

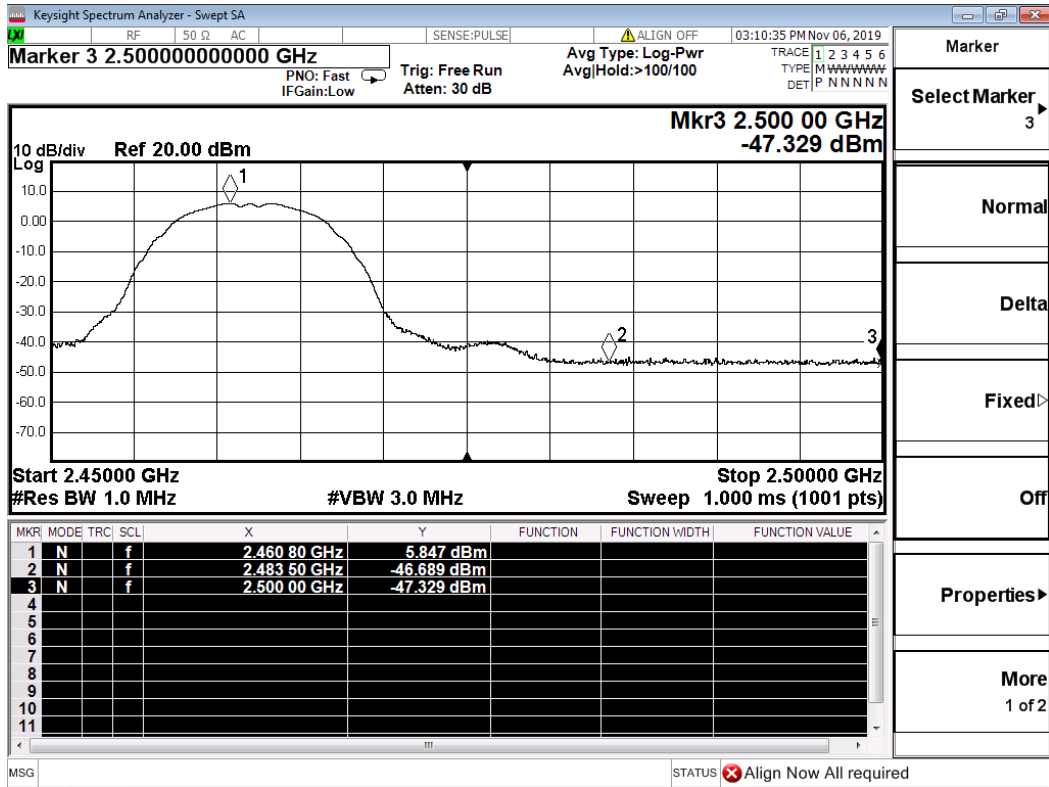
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



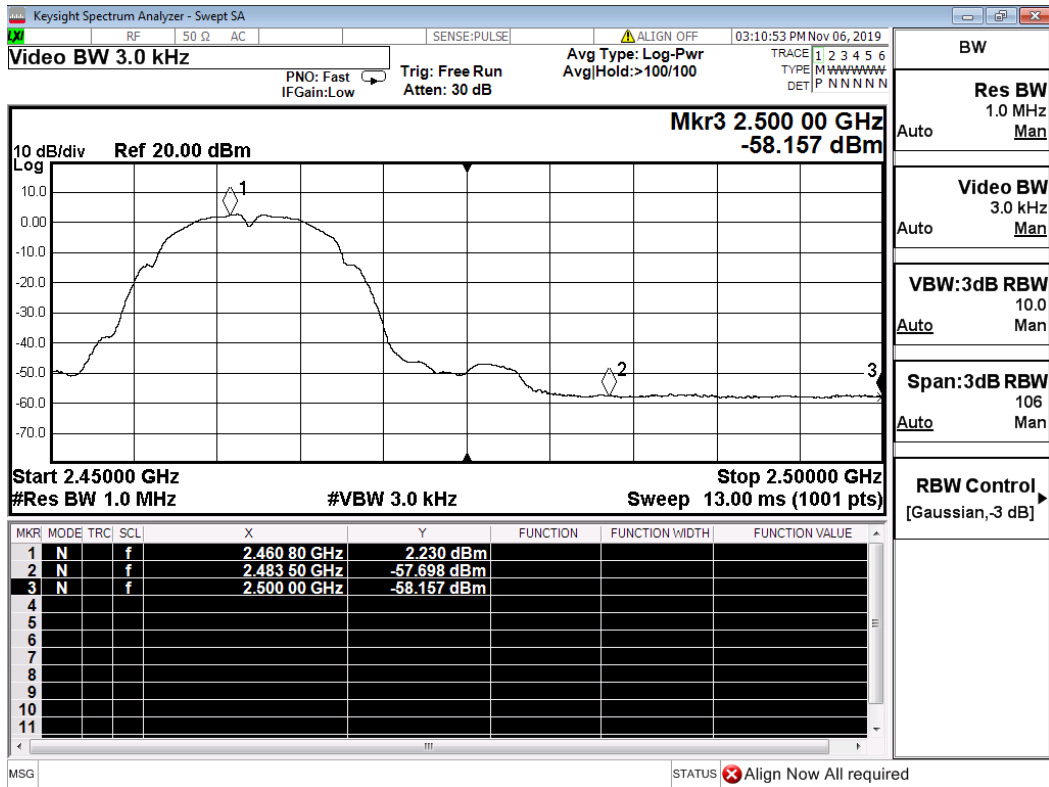
Restrict-band band-edge measurements_11B_2412_Ant1_AV



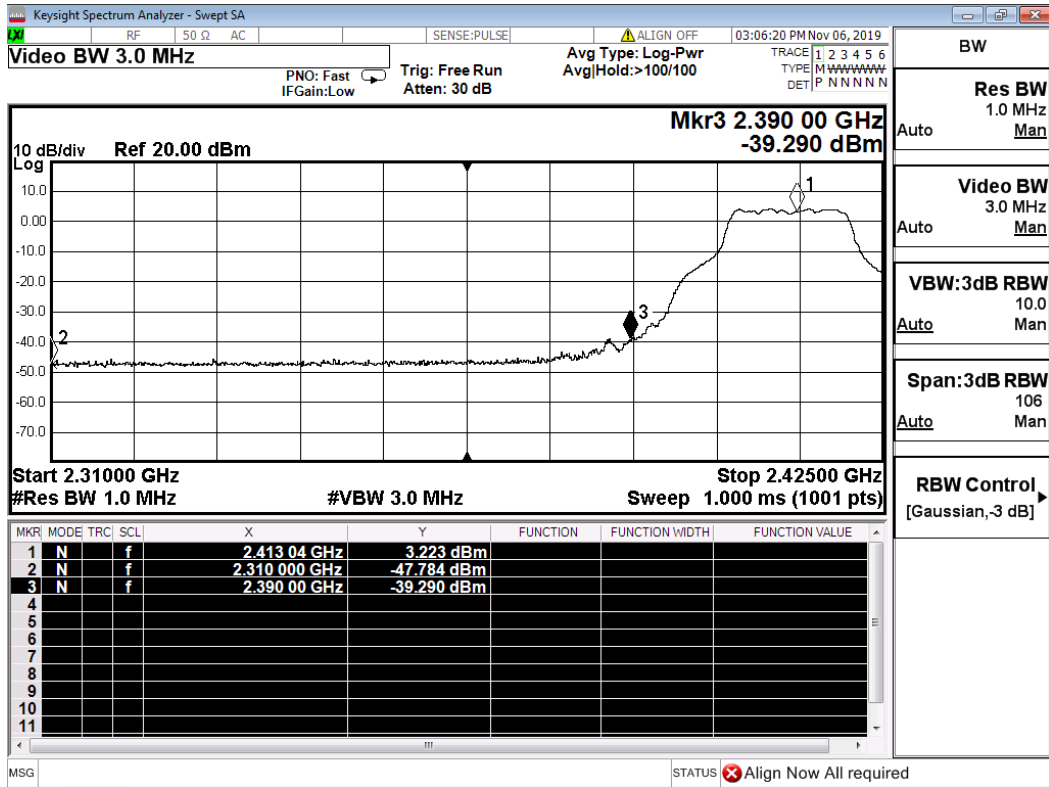
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



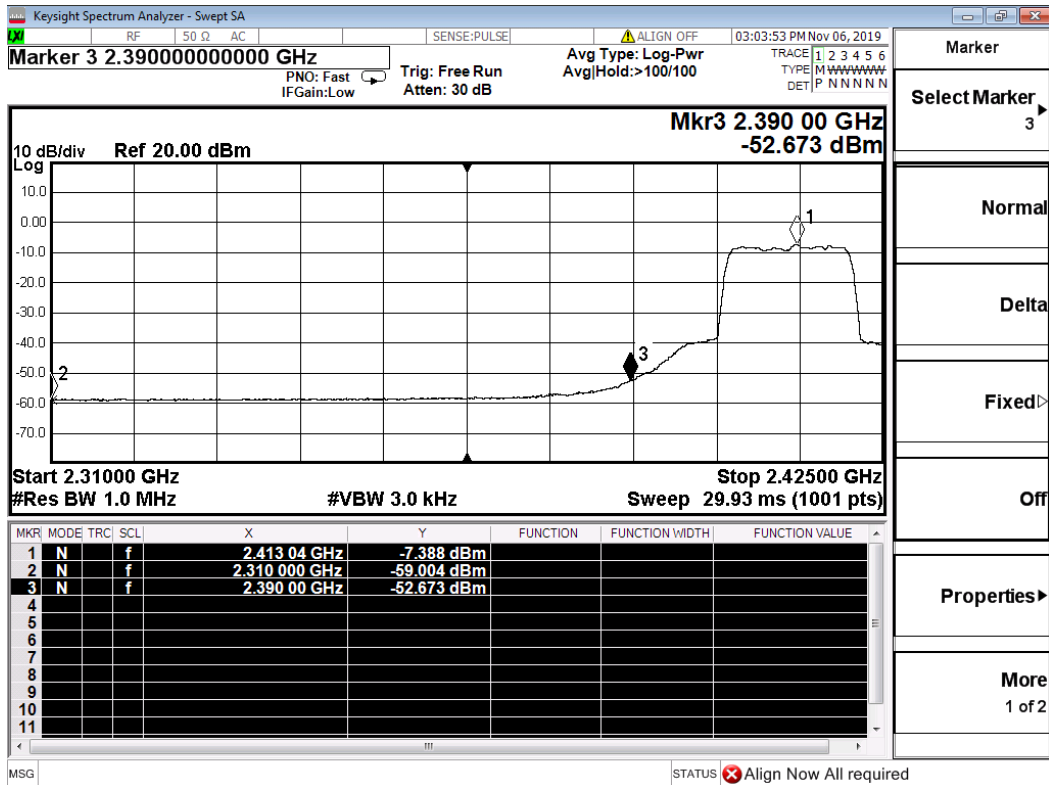
Restrict-band band-edge measurements_11B_2462_Ant1_AV



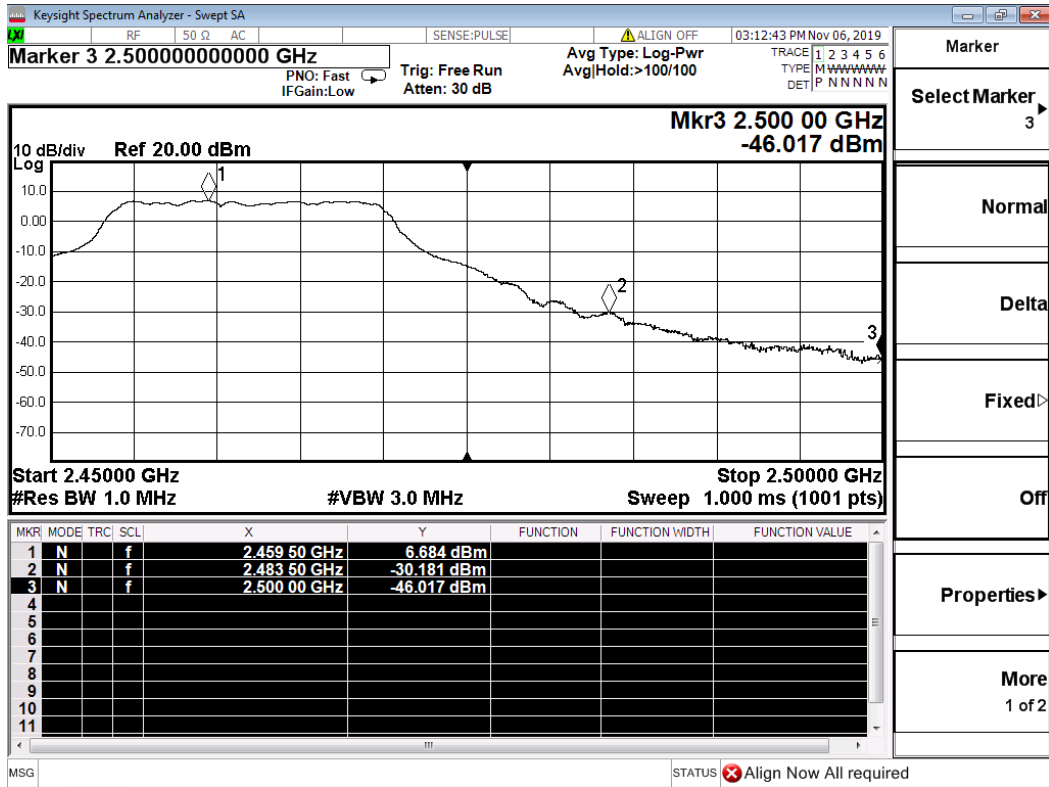
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



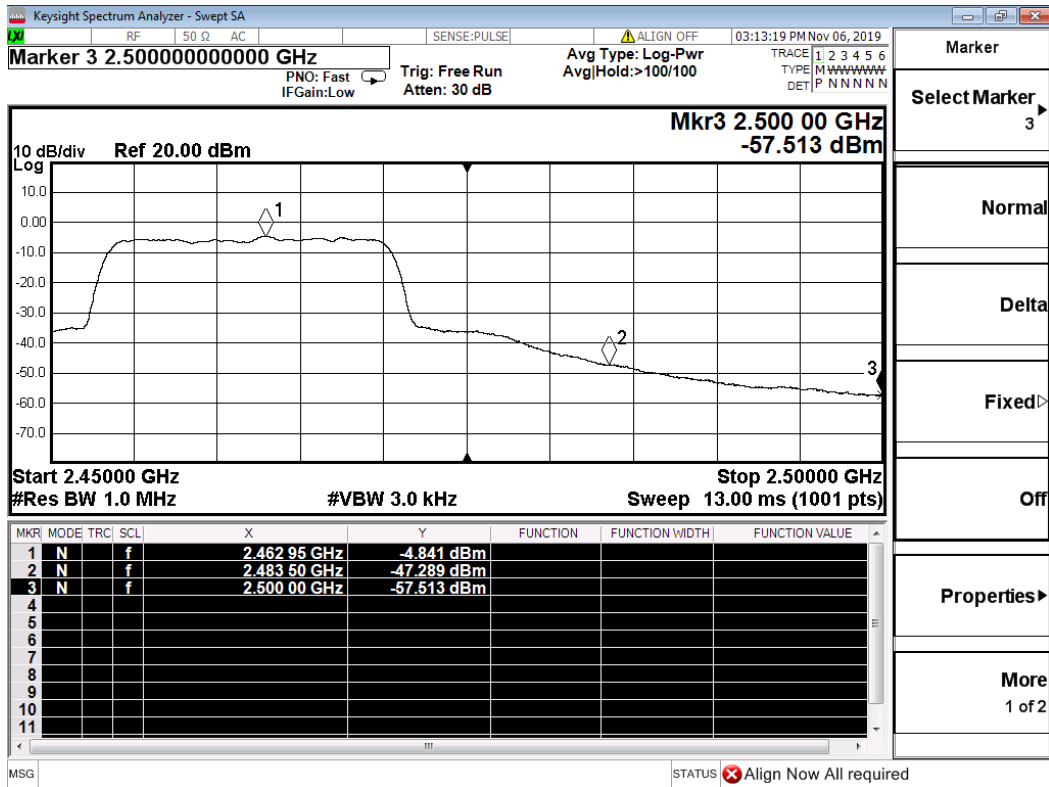
Restrict-band band-edge measurements_11G_2412_Ant1_AV



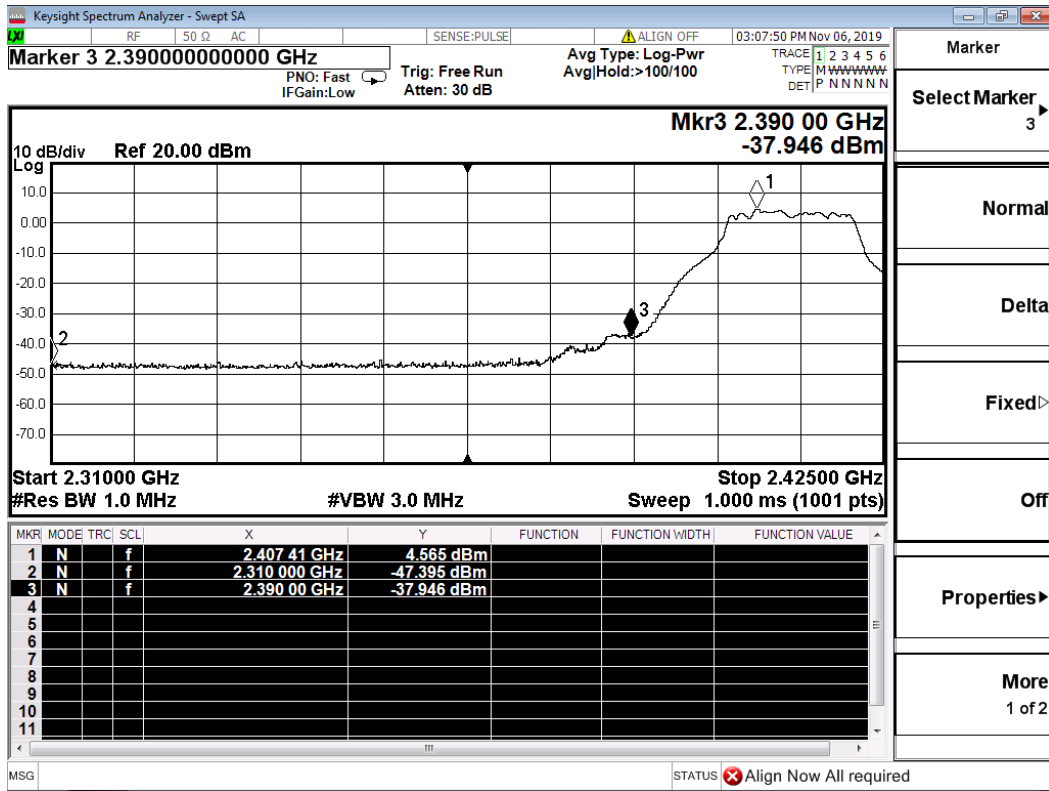
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



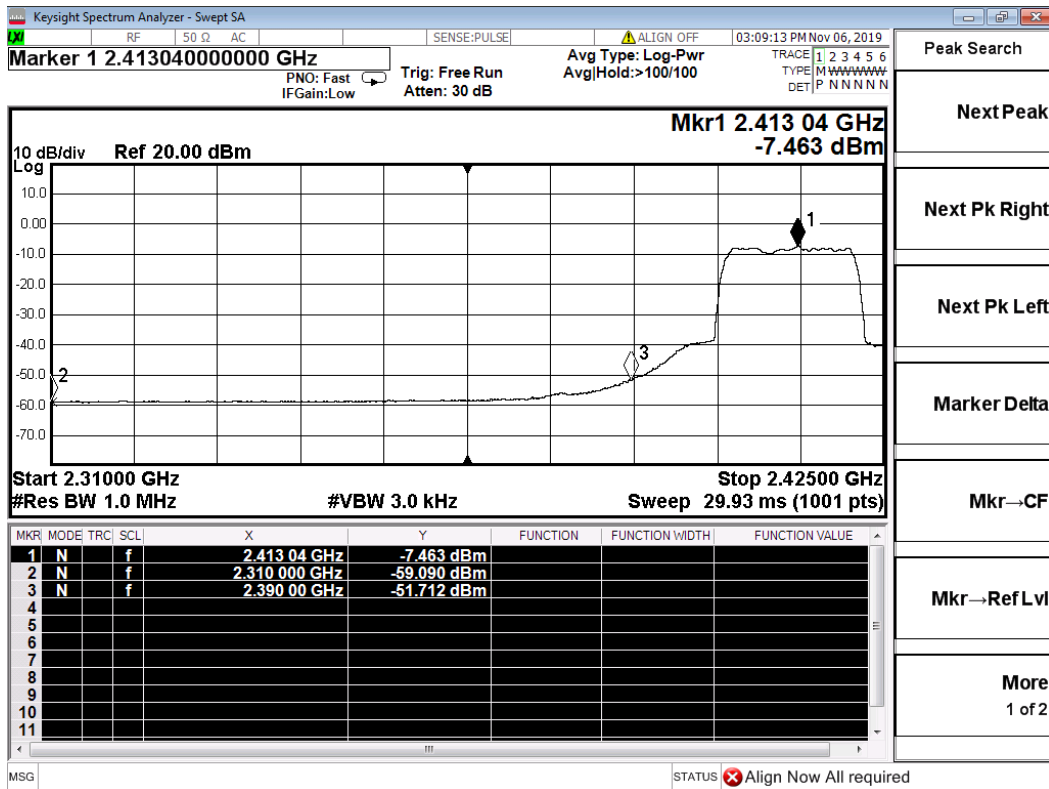
Restrict-band band-edge measurements_11G_2462_Ant1_AV



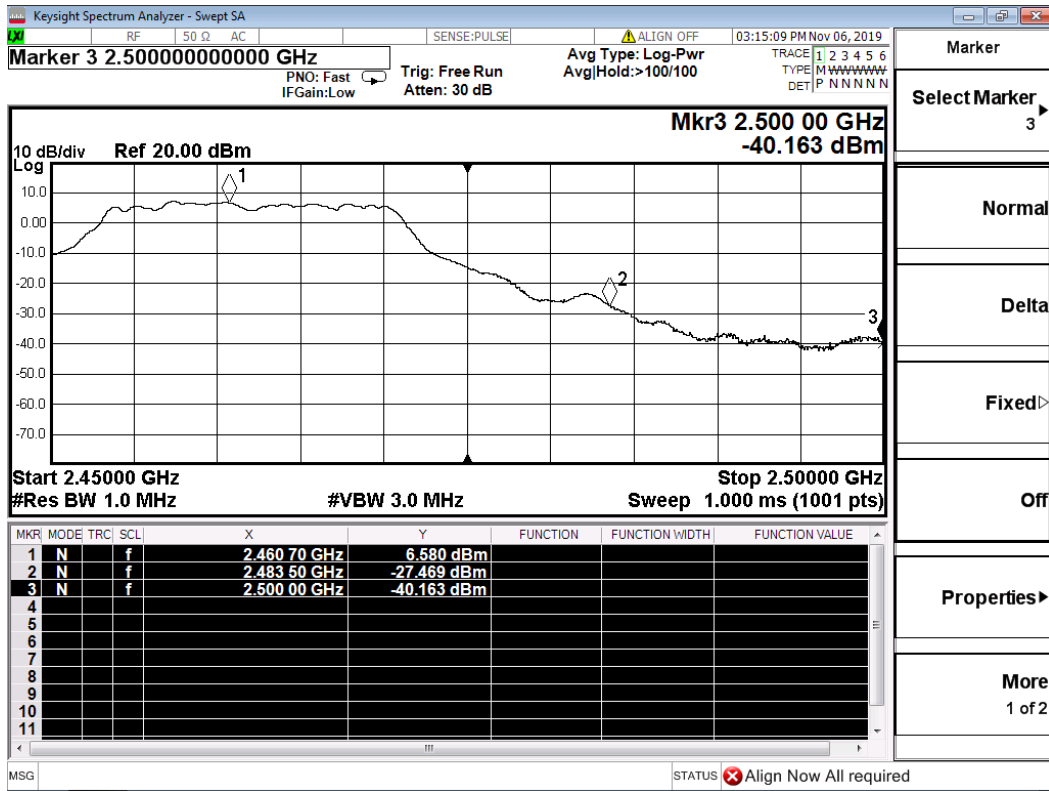
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



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

