

Appendix A

RF Test Data (Conducted Measurement)

Product Name: BLAST!

Trade Mark: N/A

Test Model: WD3301

Environmental Conditions

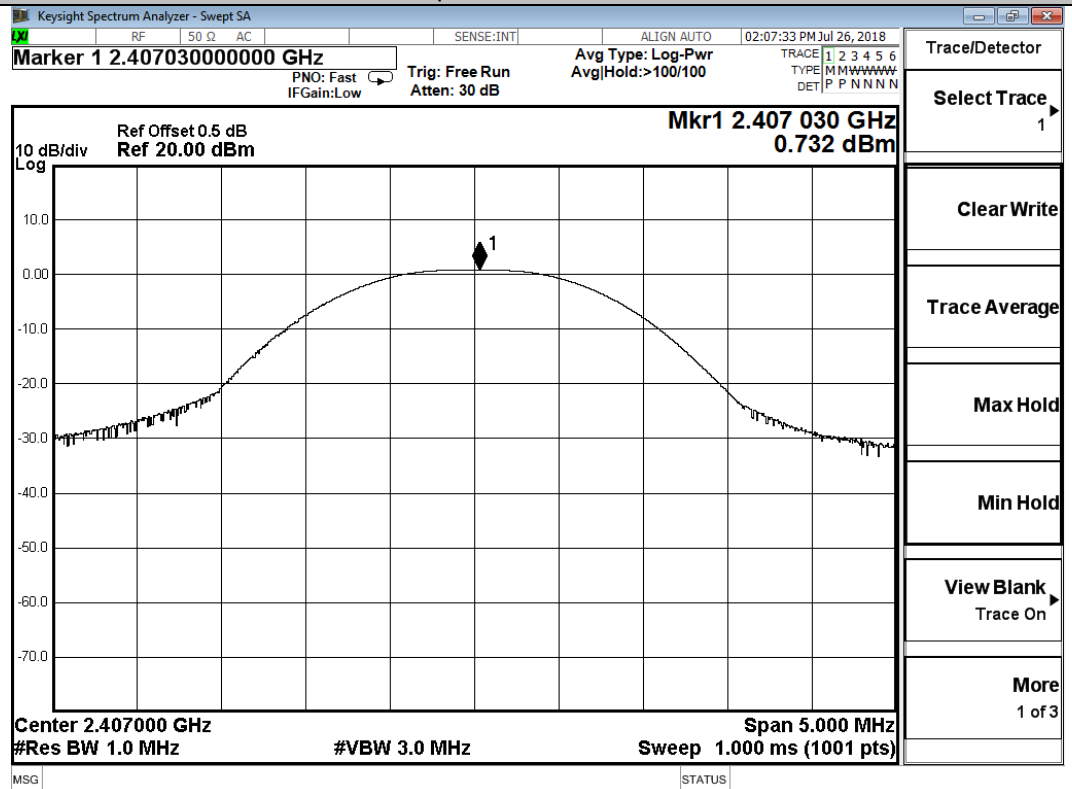
Temperature:	22.6 ° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Wilson Hong
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

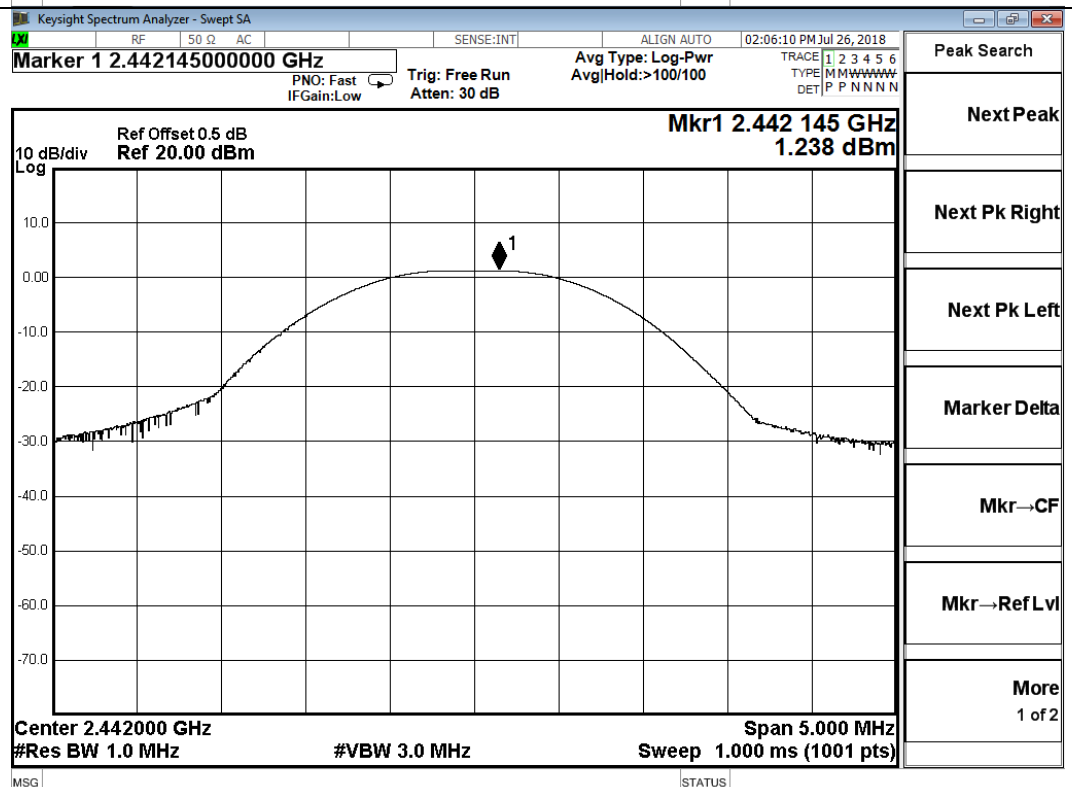
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.732	30	PASS
	MCH	1.238	30	PASS
	HCH	2.037	30	PASS

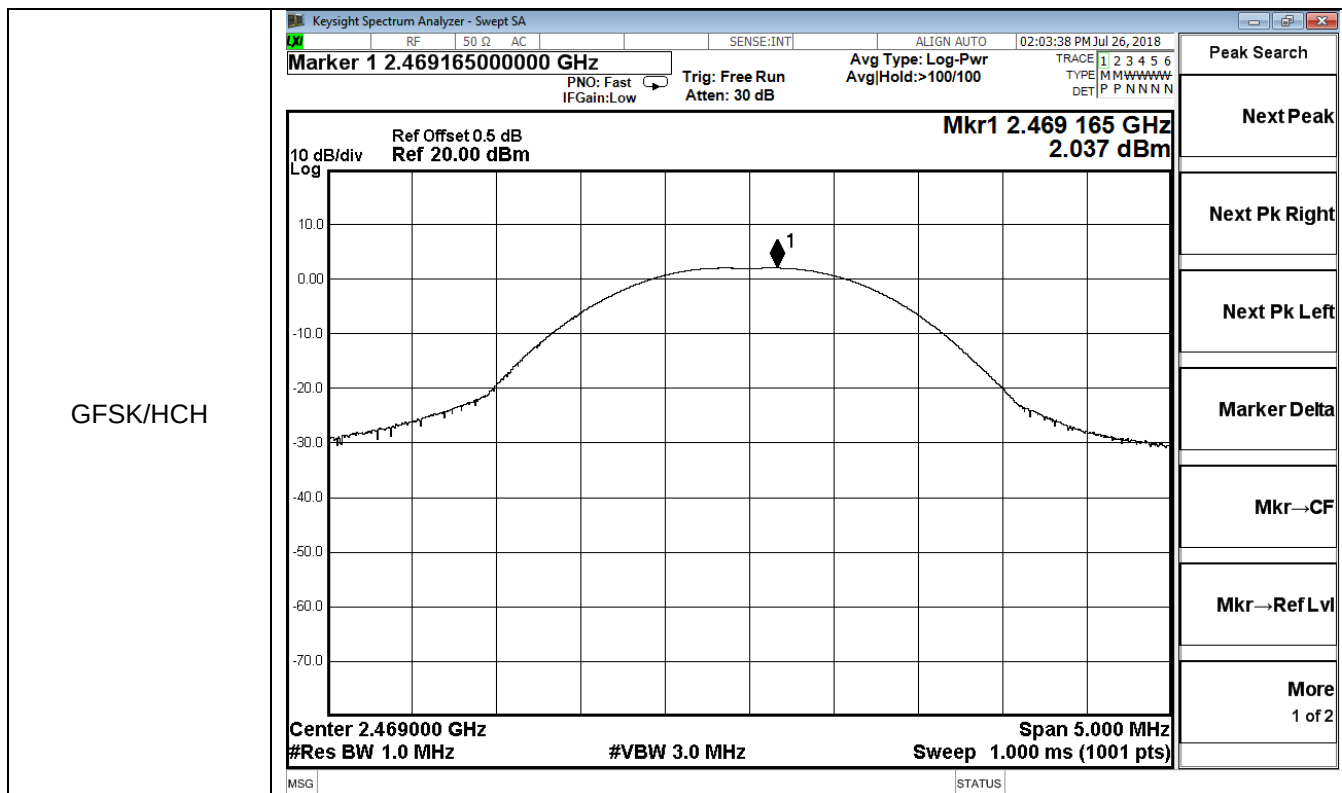
Test Graphs

GFSK/LCH



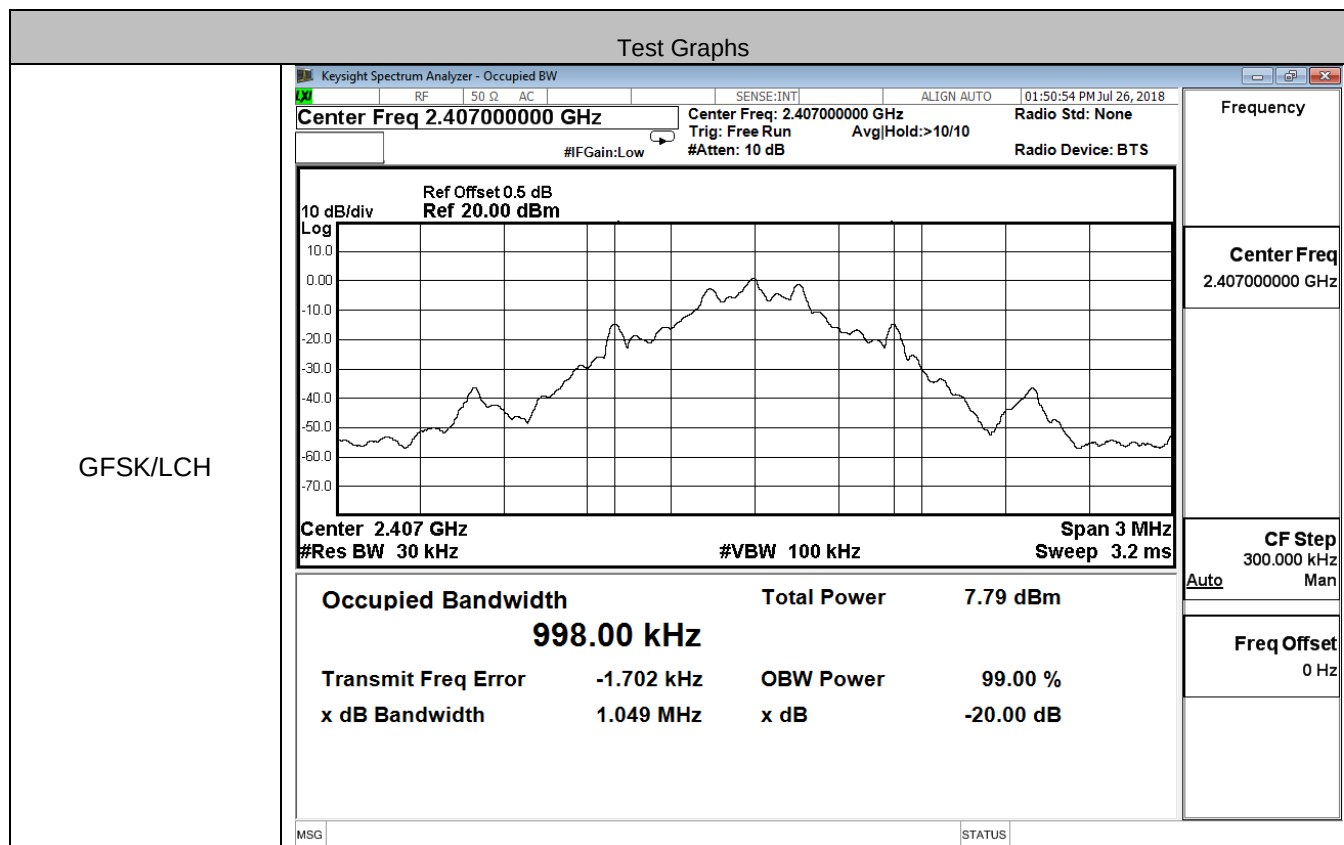
GFSK/MCH



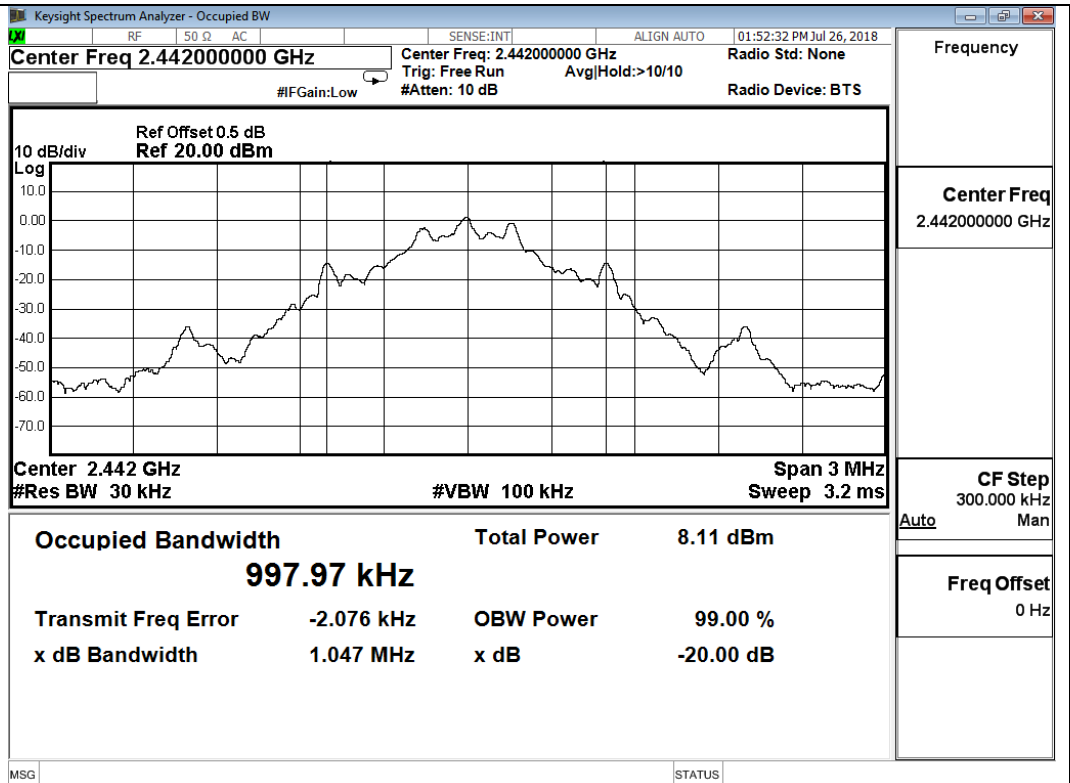


A.2 99% and 20dB Bandwidth

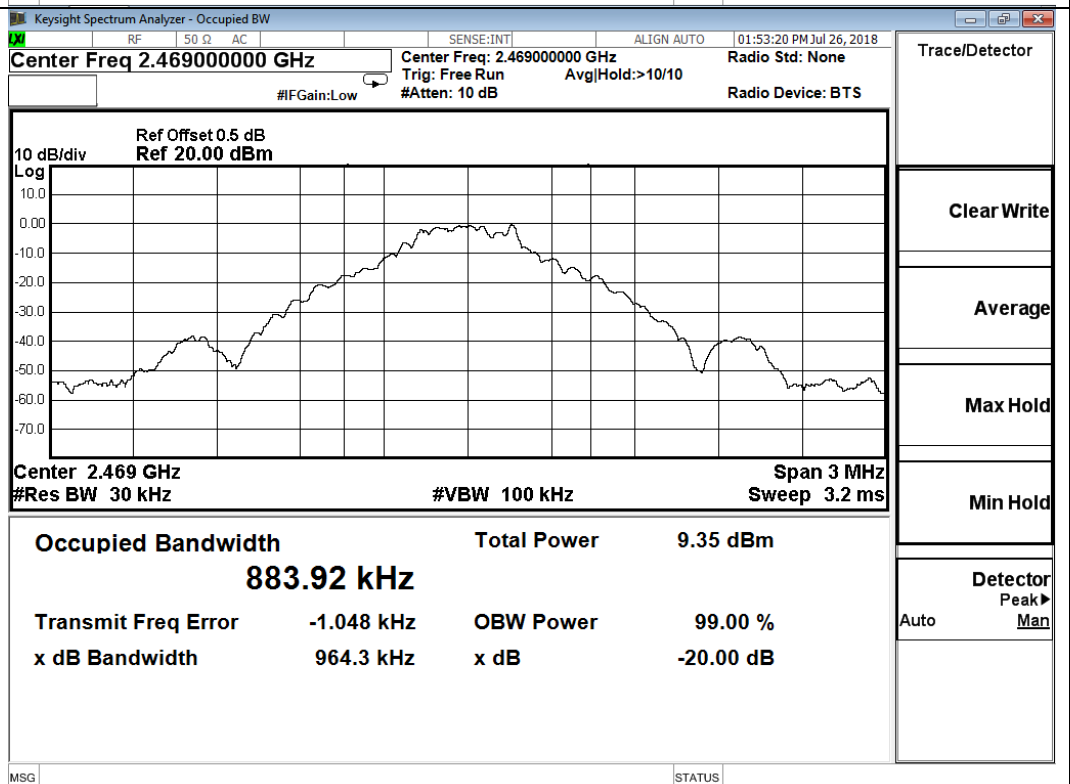
Mode	Channel.	20dB Bandwidth [MHz]	99% Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.049	0.99800	Not Specified	PASS
	MCH	1.047	0.99797	Not Specified	PASS
	HCH	0.9643	0.88392	Not Specified	PASS



GFSK/MCH

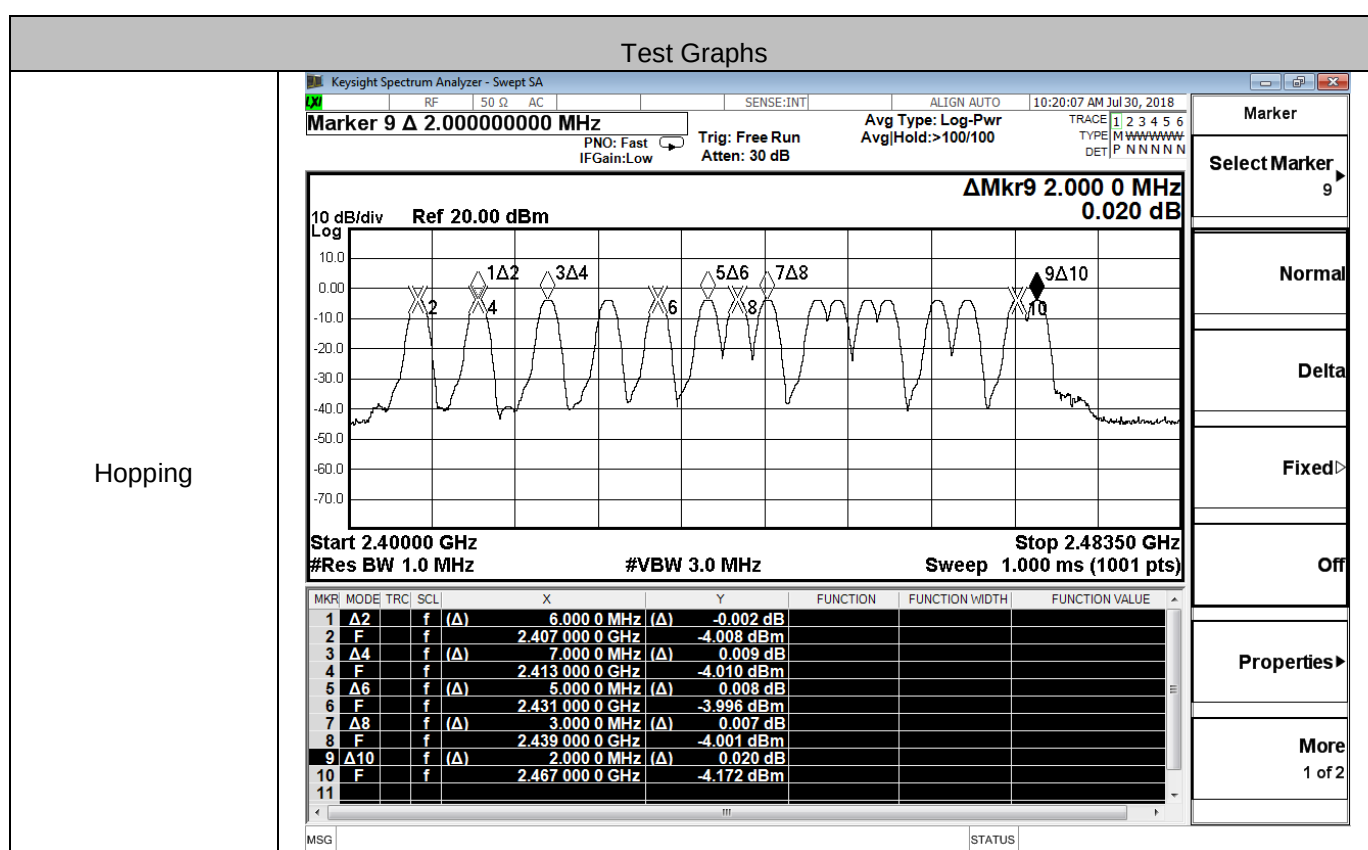


GFSK/HCH



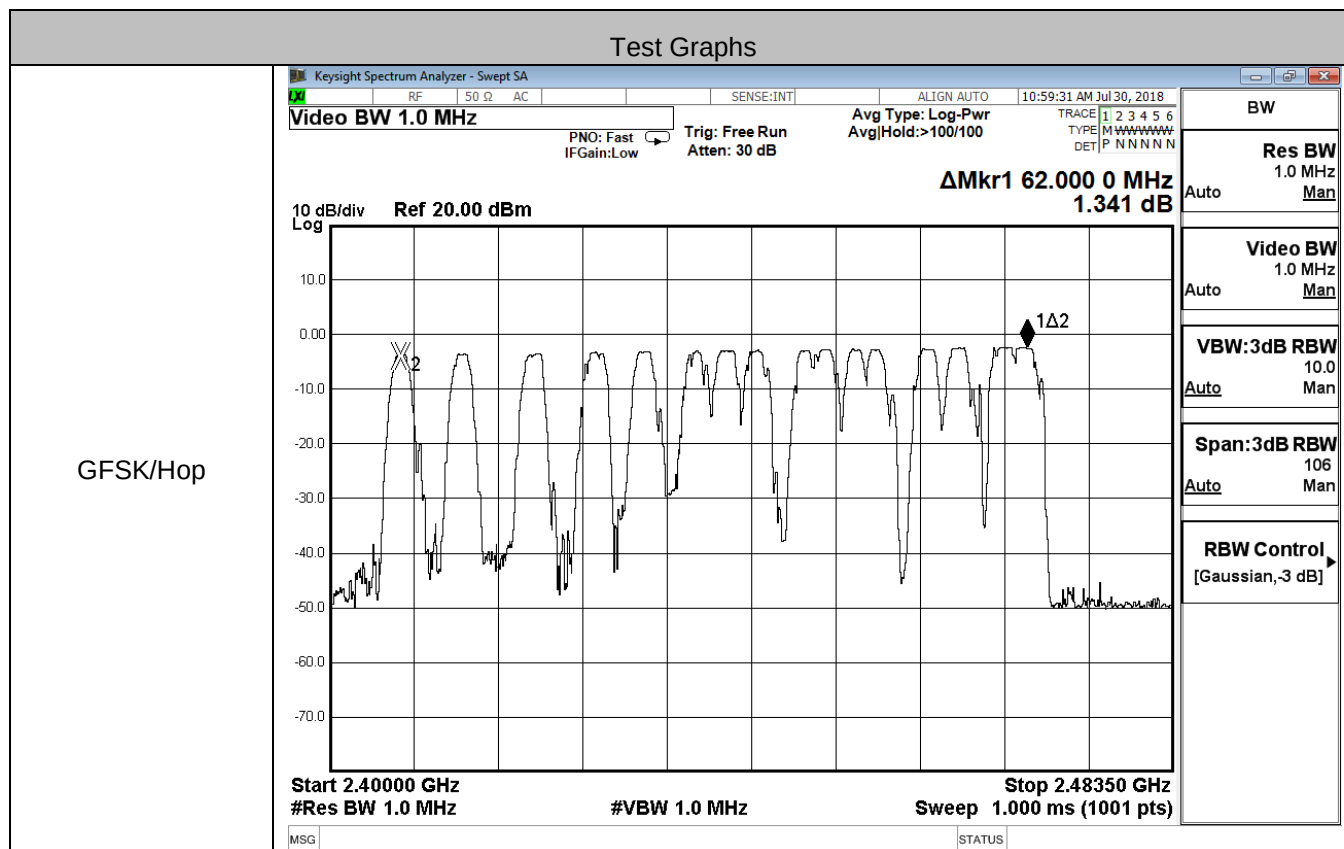
A.3 Carrier Frequency Separation

Mode	Channel Bandwidth [MHz]	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	7	7	1.049	PASS
	6	6	1.049	PASS
	5	5	1.049	PASS
	3	3	1.049	PASS
	2	2	1.049	PASS



A.4 Hopping Channel Number

Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	16	≥ 15	PASS

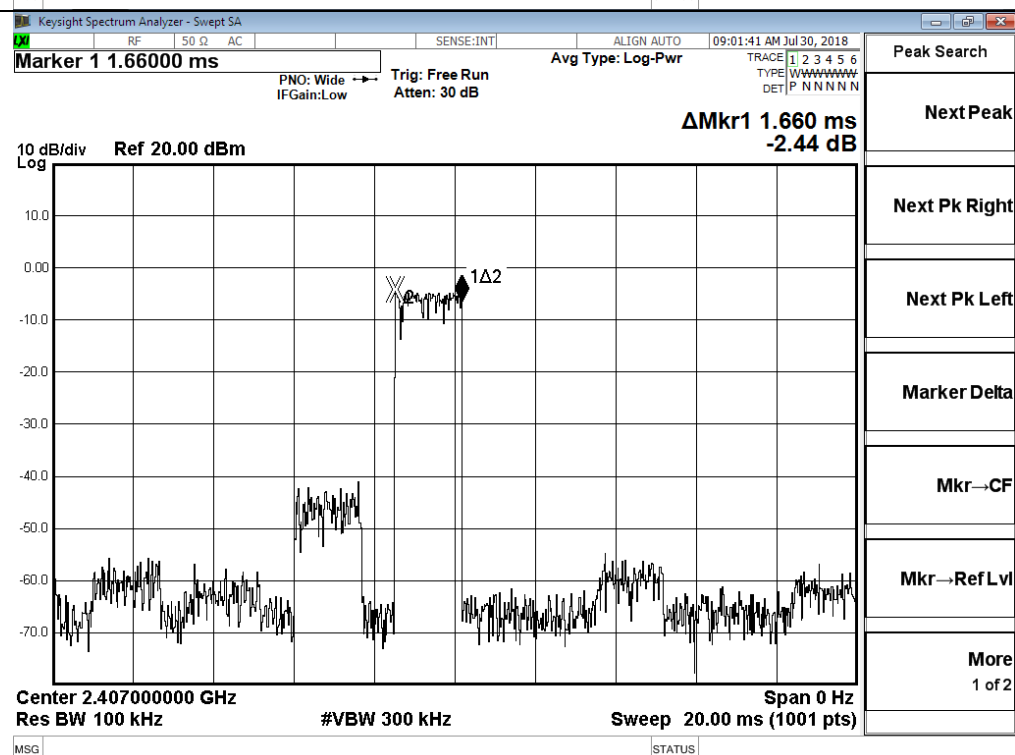
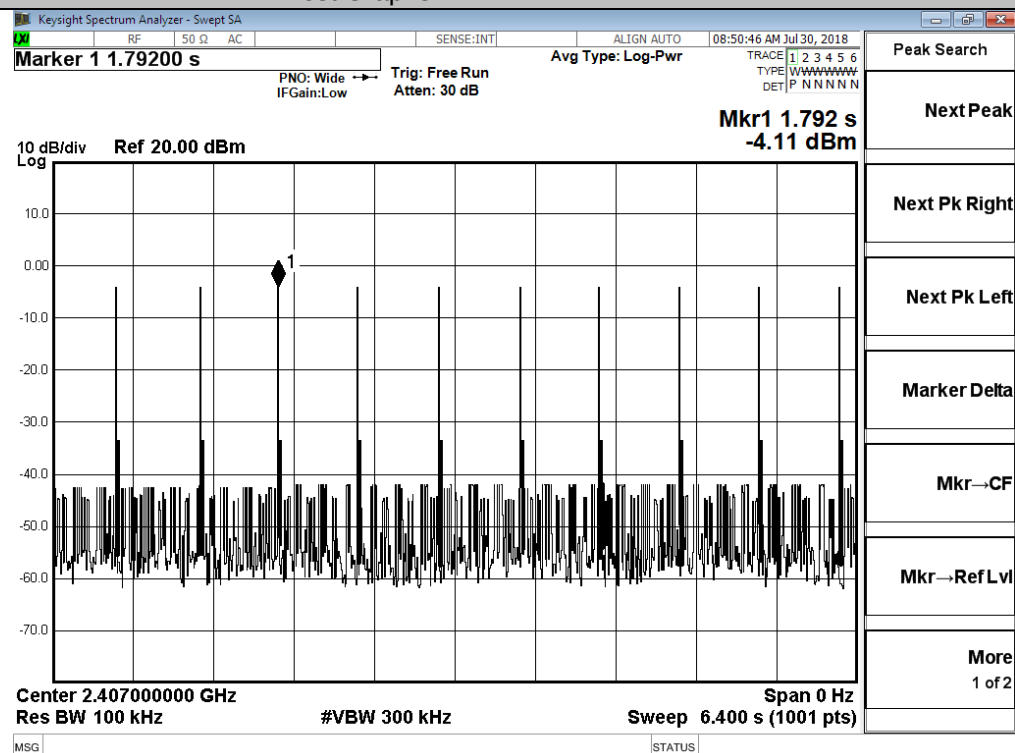


A.5 Dwell Time

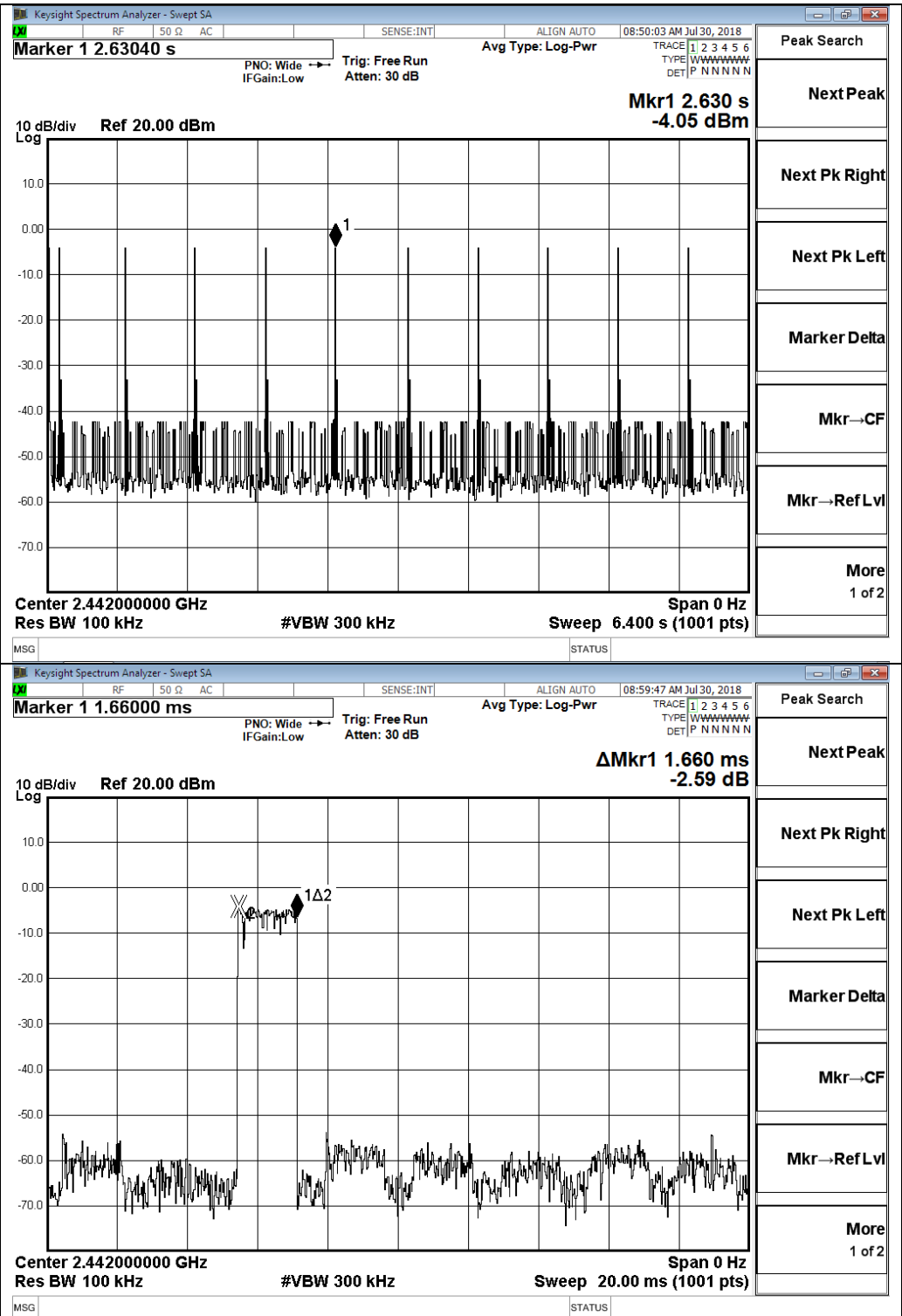
Mode	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	LCH	1.660	10	0.0166	0.4	PASS
	MCH	1.660	10	0.0166	0.4	PASS
	HCH	1.660	10	0.0166	0.4	PASS

Test Graphs

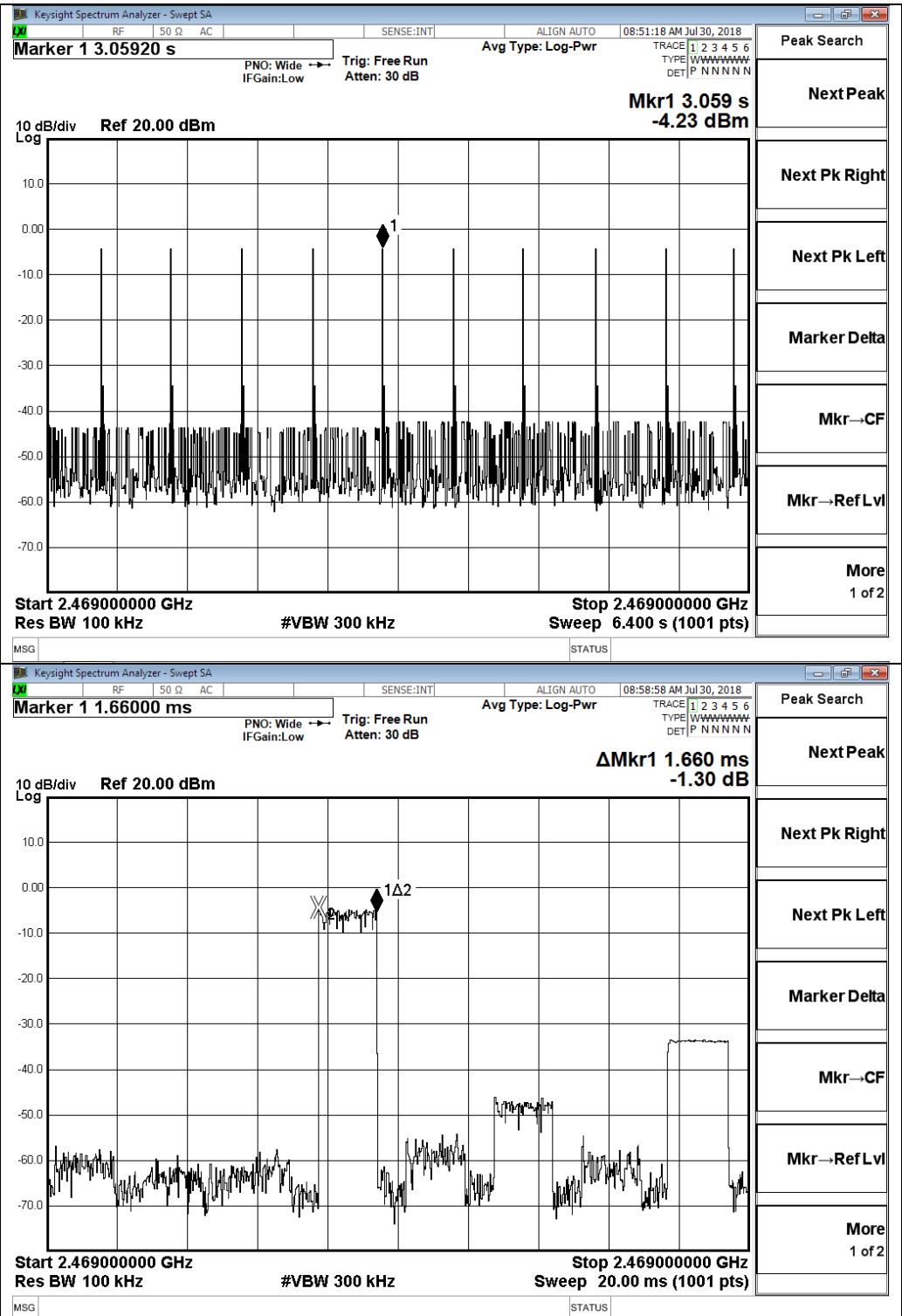
GFSK / LCH



GFSK / MCH



GFSK / HCH

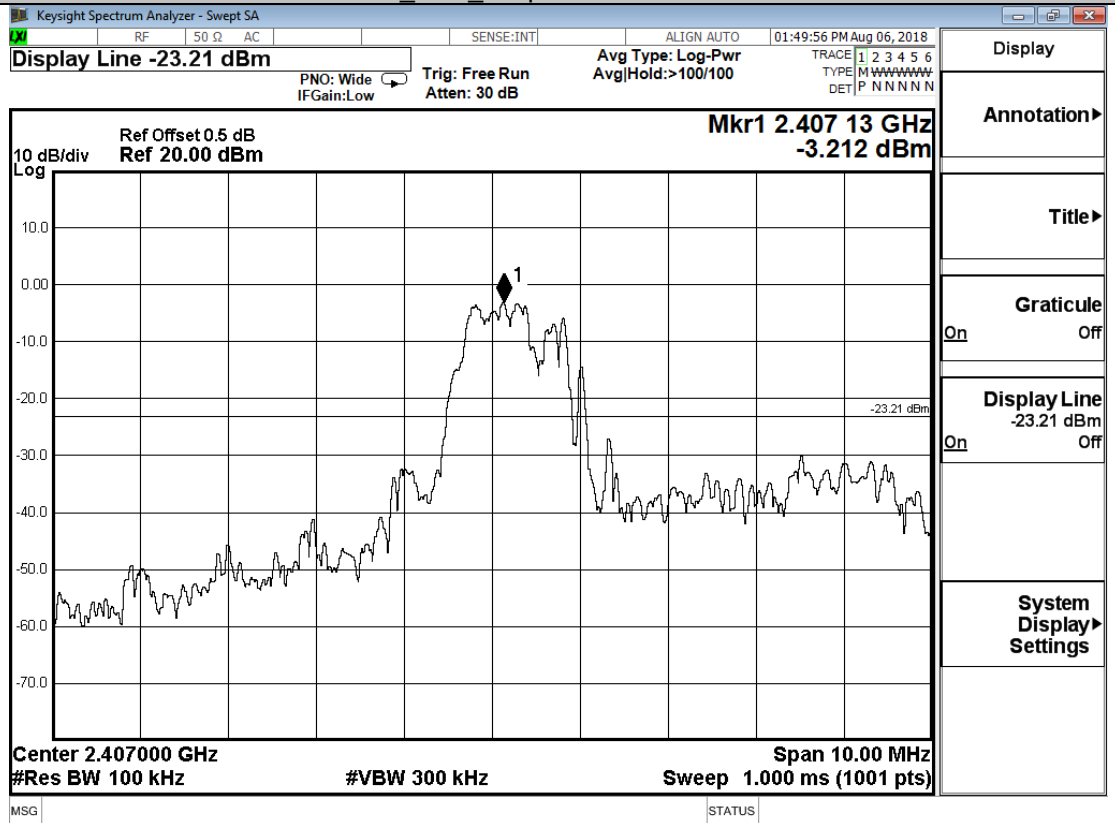


A.6 RF Conducted Spurious Emissions

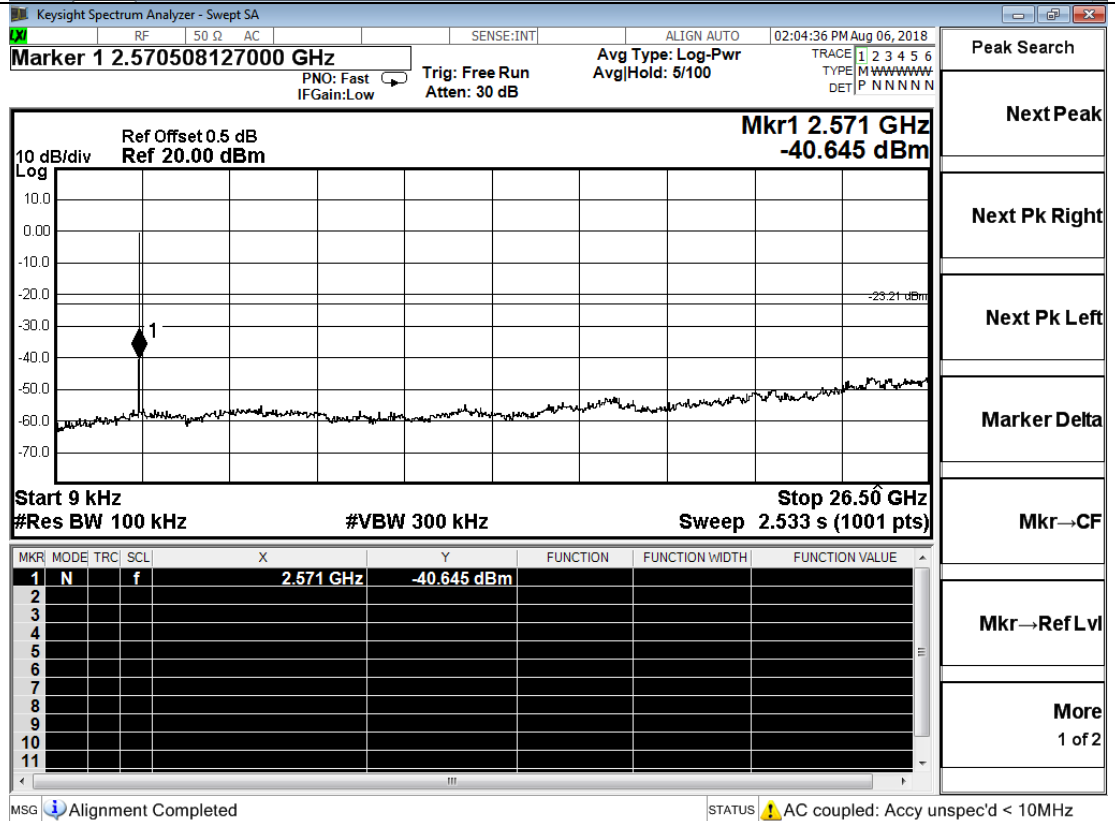
Mode	Channel	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-40.645	-23.21	PASS
	MCH	-46.178	-23.20	PASS
	HCH	-45.479	-23.29	PASS

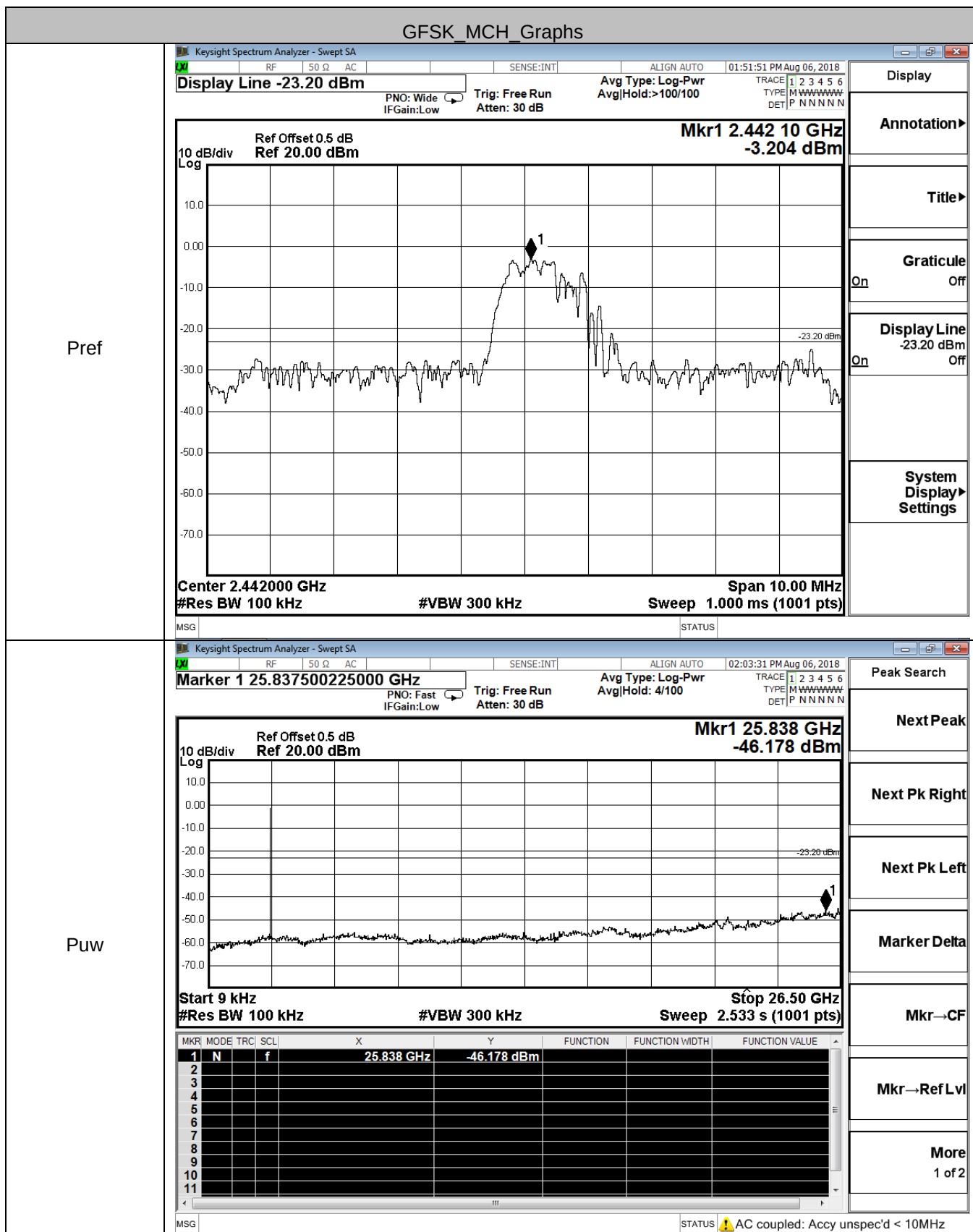
GFSK_LCH_Graphs

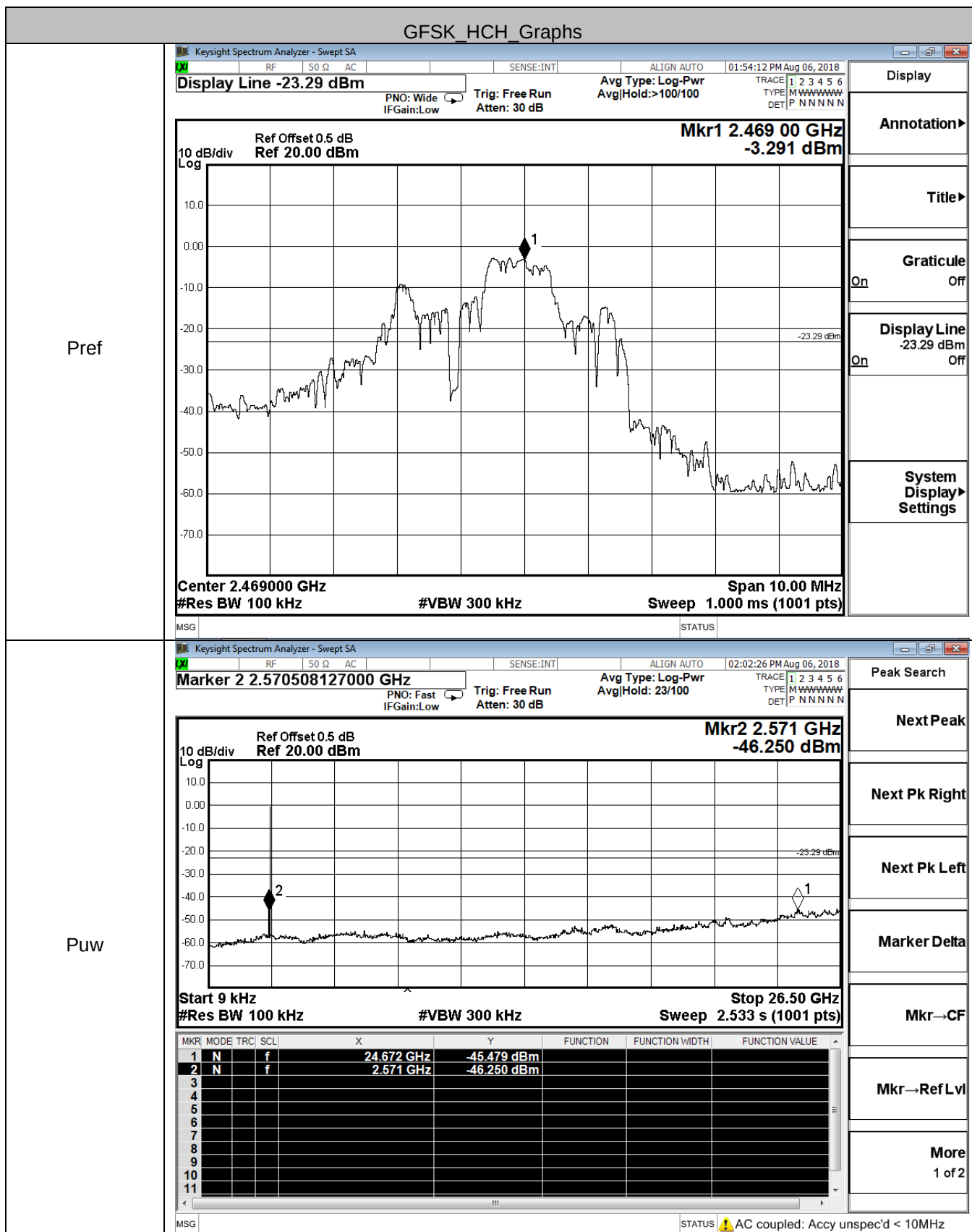
Pref



Puw





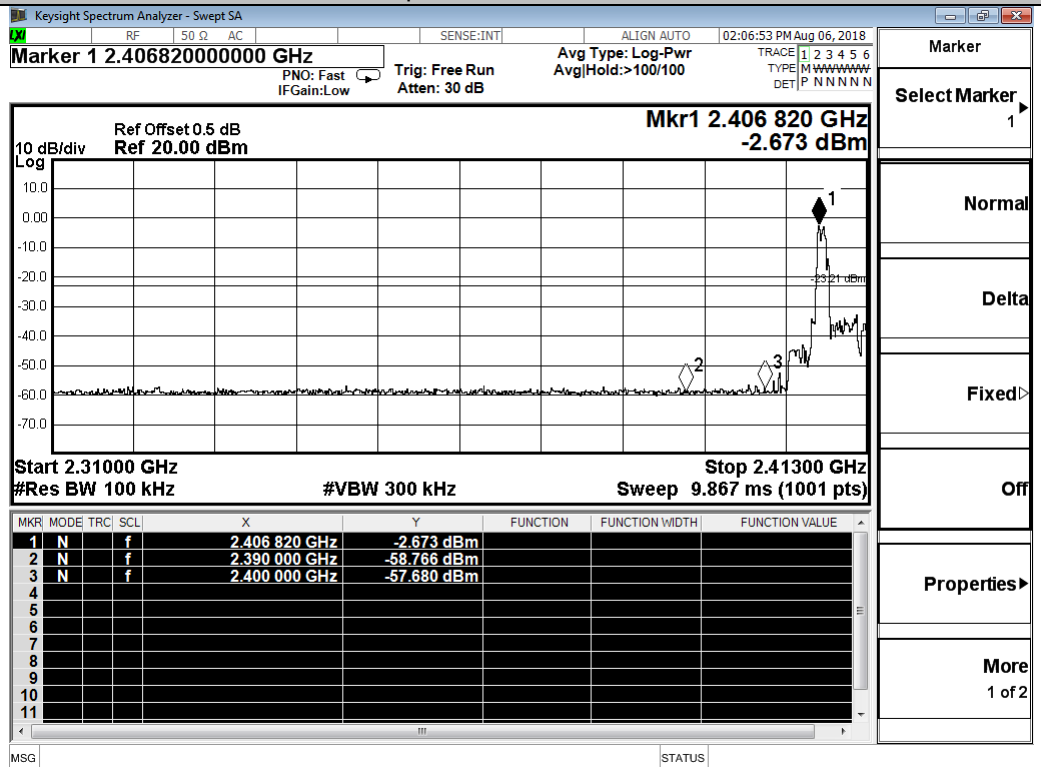


A.7 Band-edge for RF Conducted Emissions

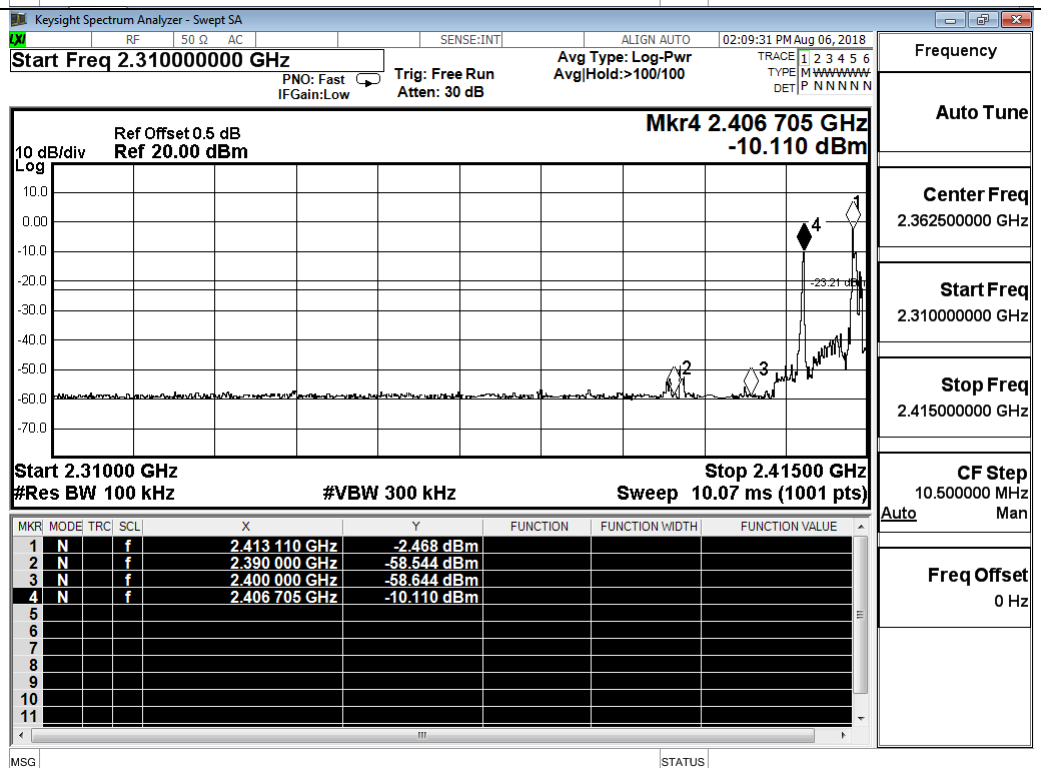
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-2.673	Off	-57.680	-23.21	PASS
			-2.468	On	-58.544	-23.21	PASS
	HCH	2480	-2.950	Off	-59.090	-23.29	PASS
			-2.695	On	-57.924	-23.29	PASS

Test Graphs

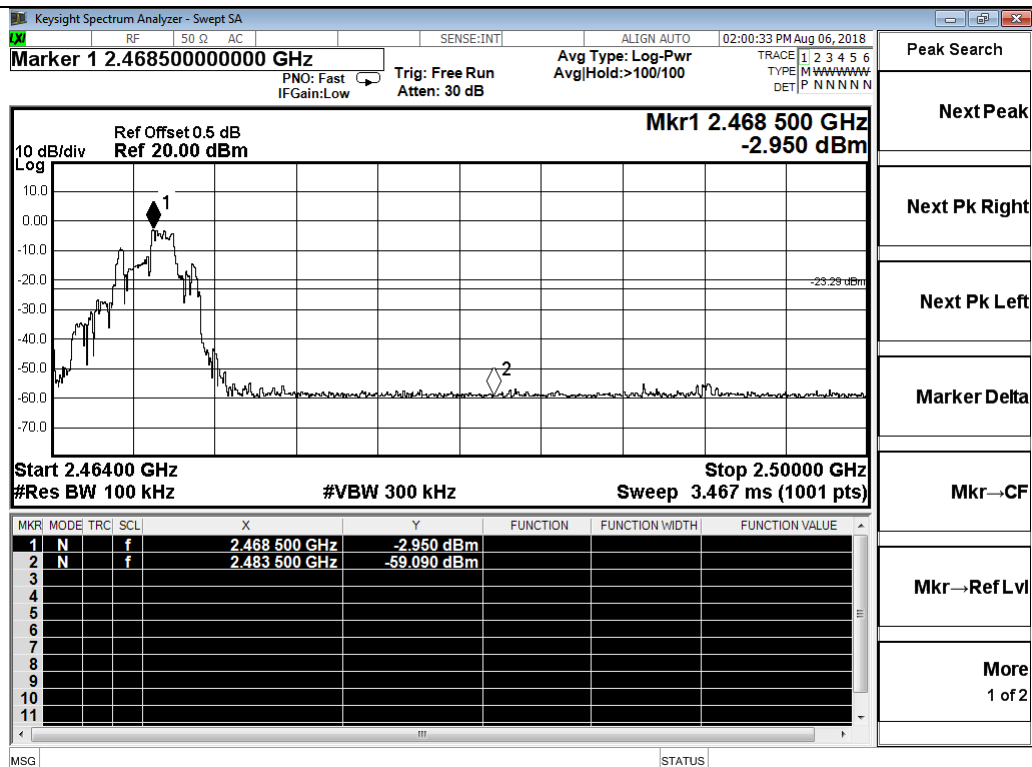
GFSK/LCH/No Hop



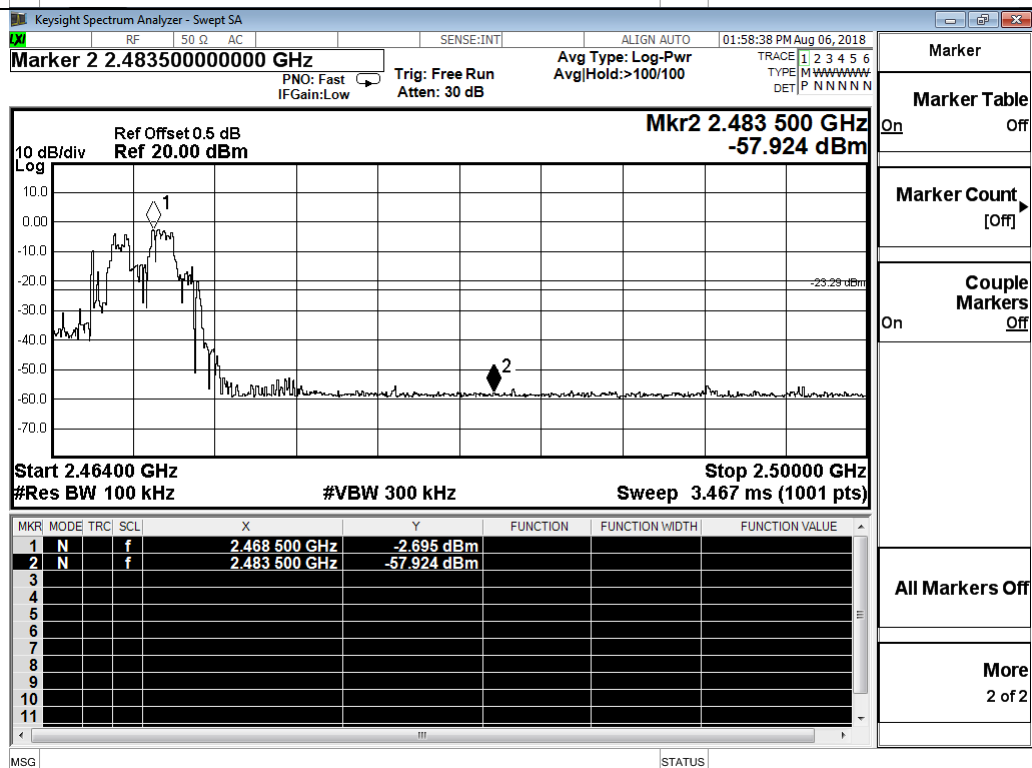
GFSK/LCH/Hop



GFSK/HCH/No Hop



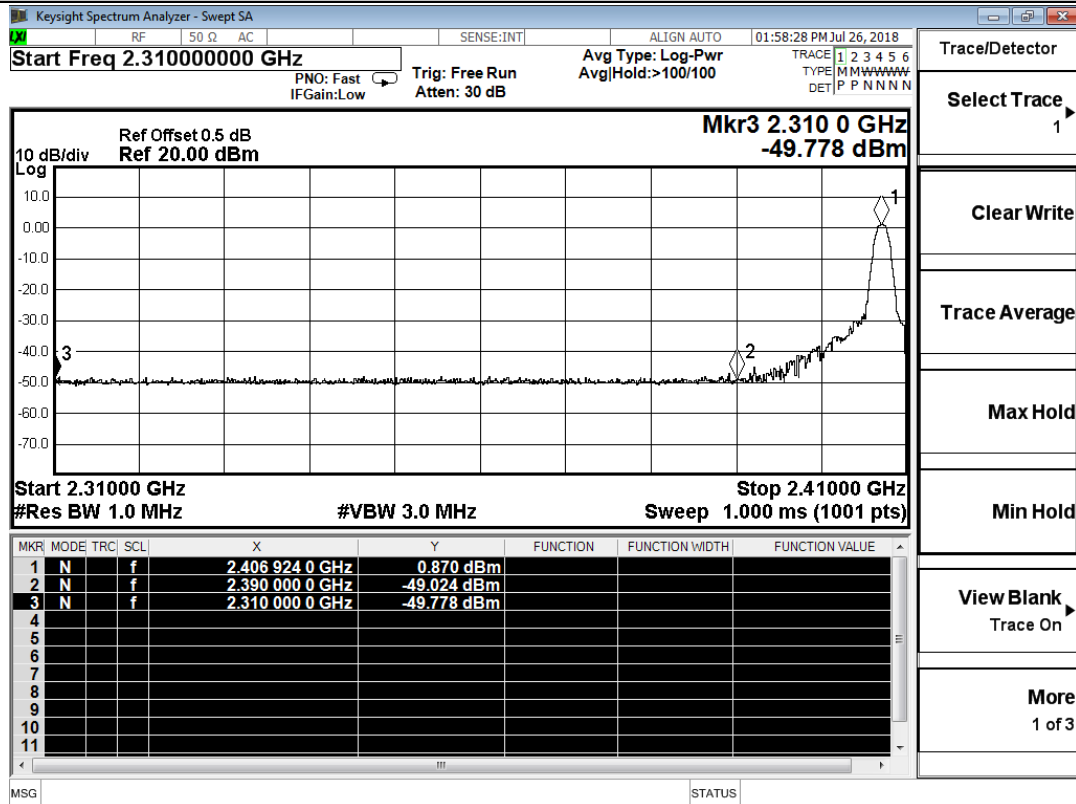
GFSK/HCH/Hop



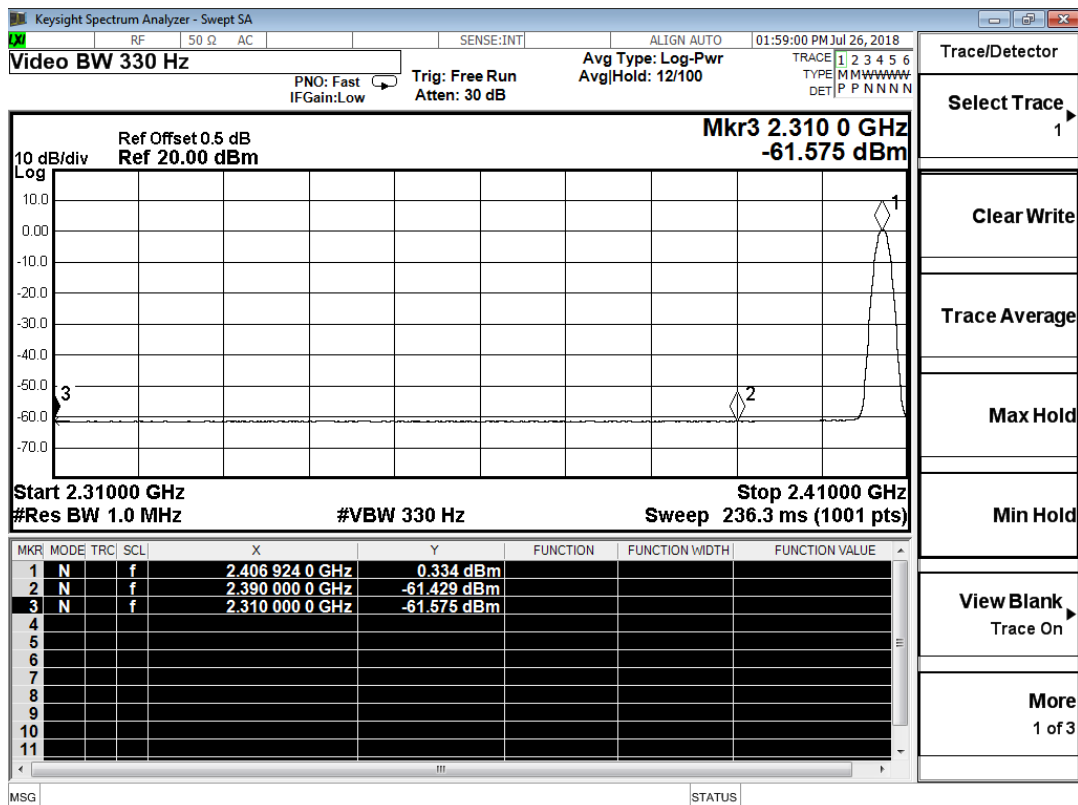
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-49.778	2.00	0	47.450	PEAK	74	PASS
	Off	2310.0	-61.429	2.00	0	35.799	AV	54	PASS
	Off	2390.0	-49.778	2.00	0	47.450	PEAK	74	PASS
	Off	2390.0	-61.575	2.00	0	35.653	AV	54	PASS
	Off	2483.5	-49.531	2.00	0	47.697	PEAK	74	PASS
	Off	2483.5	-61.352	2.00	0	35.876	AV	54	PASS
	Off	2500.0	-49.236	2.00	0	47.992	PEAK	74	PASS
	Off	2500.0	-61.358	2.00	0	35.870	AV	54	PASS

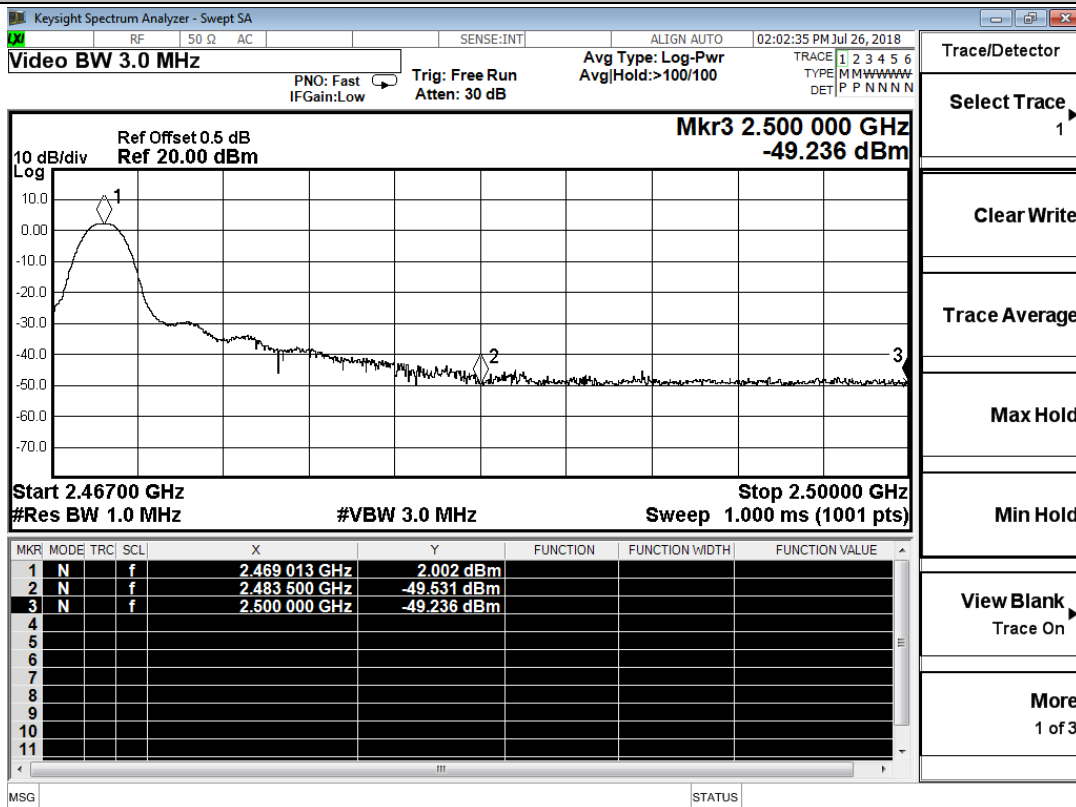
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)



Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)

