

Appendix A

RF Test Data for SRD (Conducted Measurement)

Product Name: MCT245

Trade Mark: Kar-Tech

Test Model: MCT245

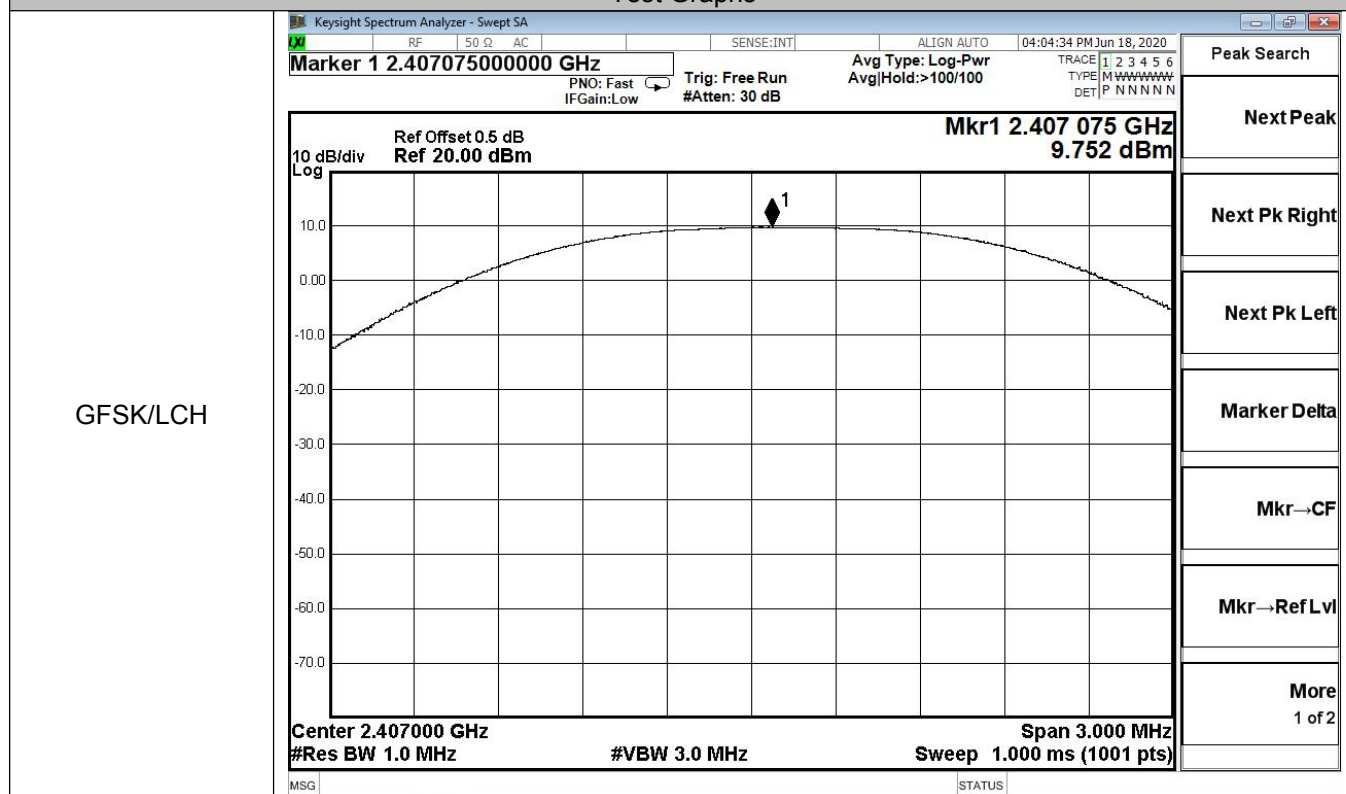
Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Tom.Liu

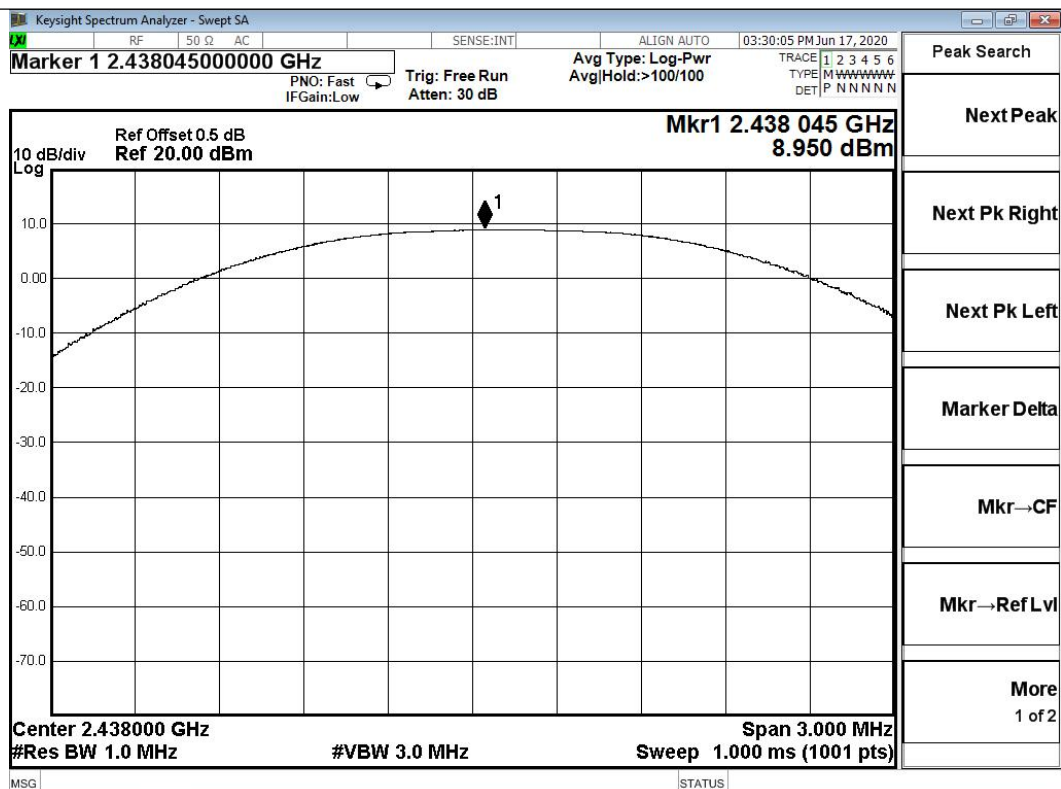
A.1 Maximum Conducted Peak Output Power

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	9.752	21	PASS
	MCH	8.950	21	PASS
	HCH	5.798	21	PASS

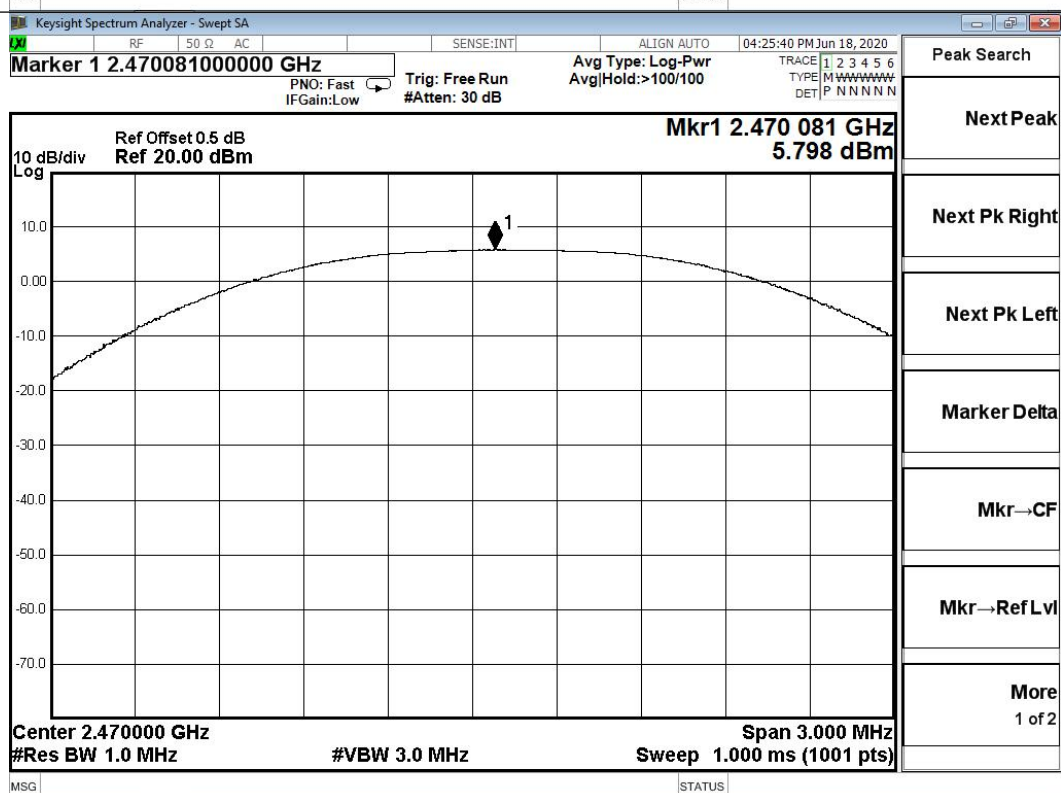
Test Graphs



GFSK/MCH

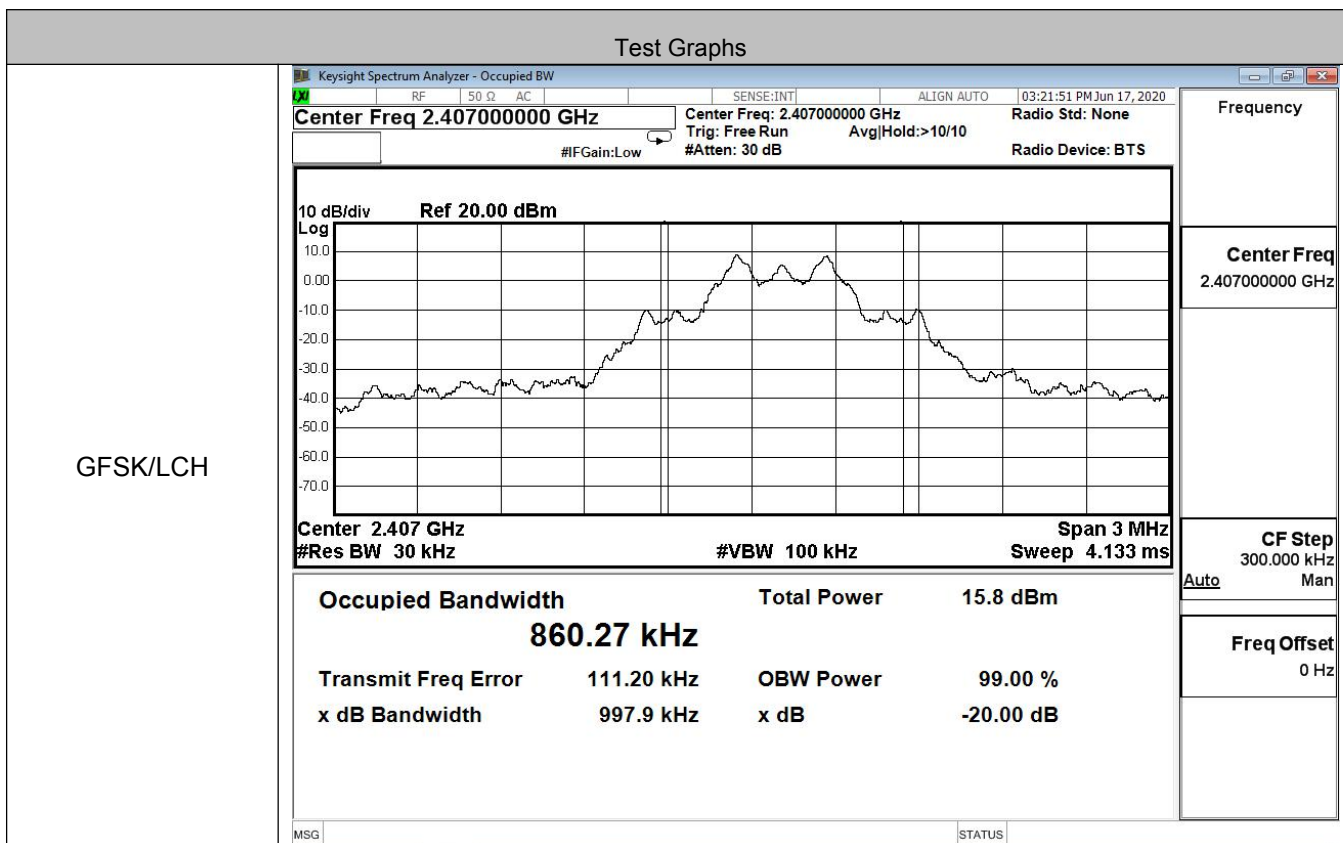


GFSK/HCH

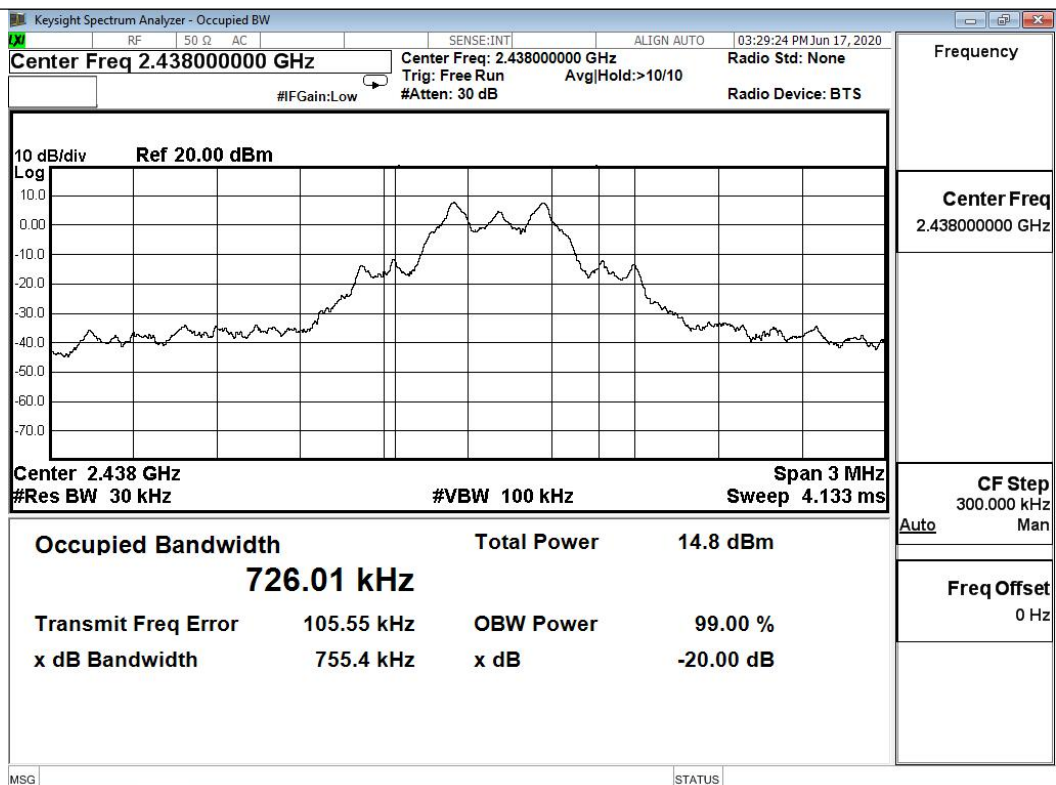


A.2 20dB Bandwidth

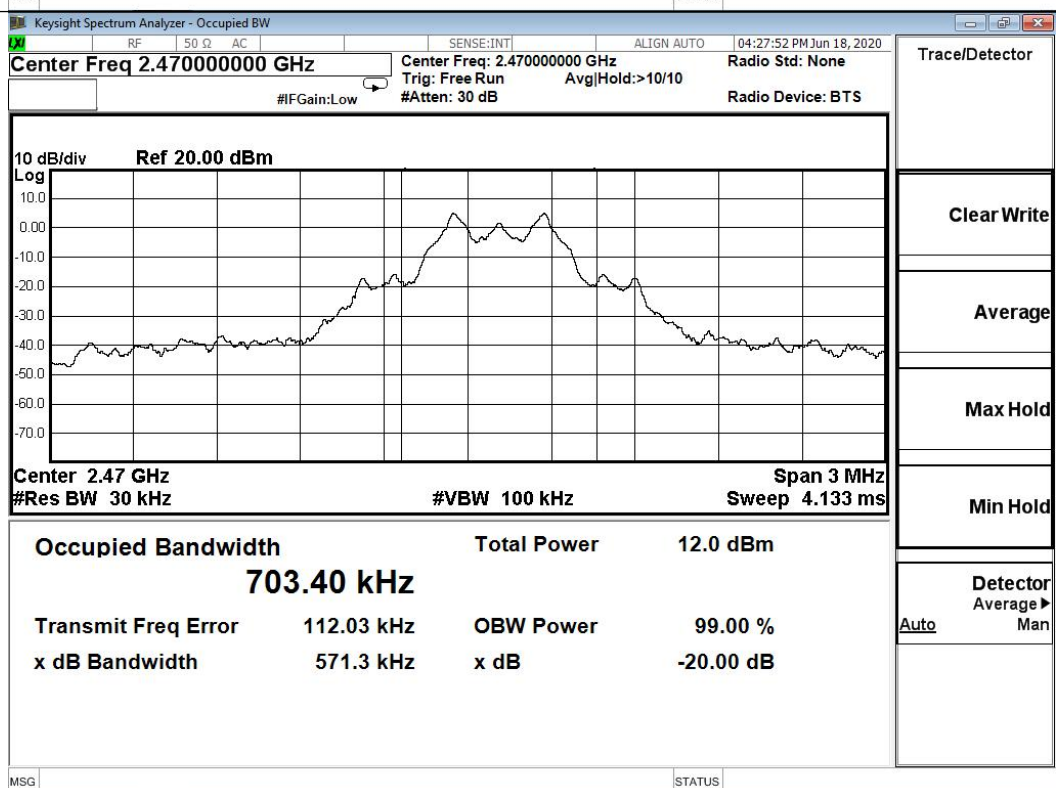
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.998	Not Specified	PASS
	MCH	0.755	Not Specified	PASS
	HCH	0.571	Not Specified	PASS



GFSK/MCH

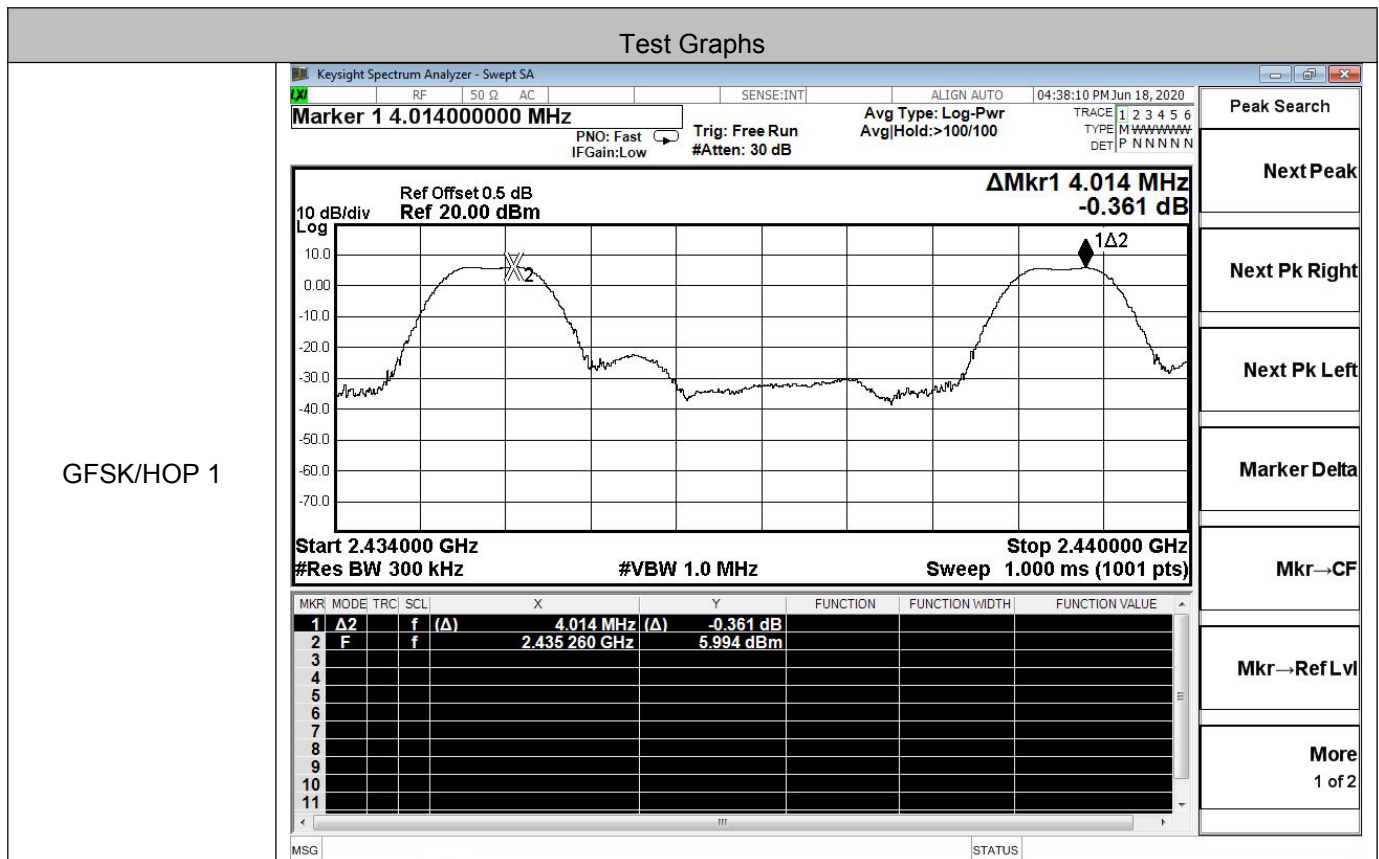


GFSK/HCH

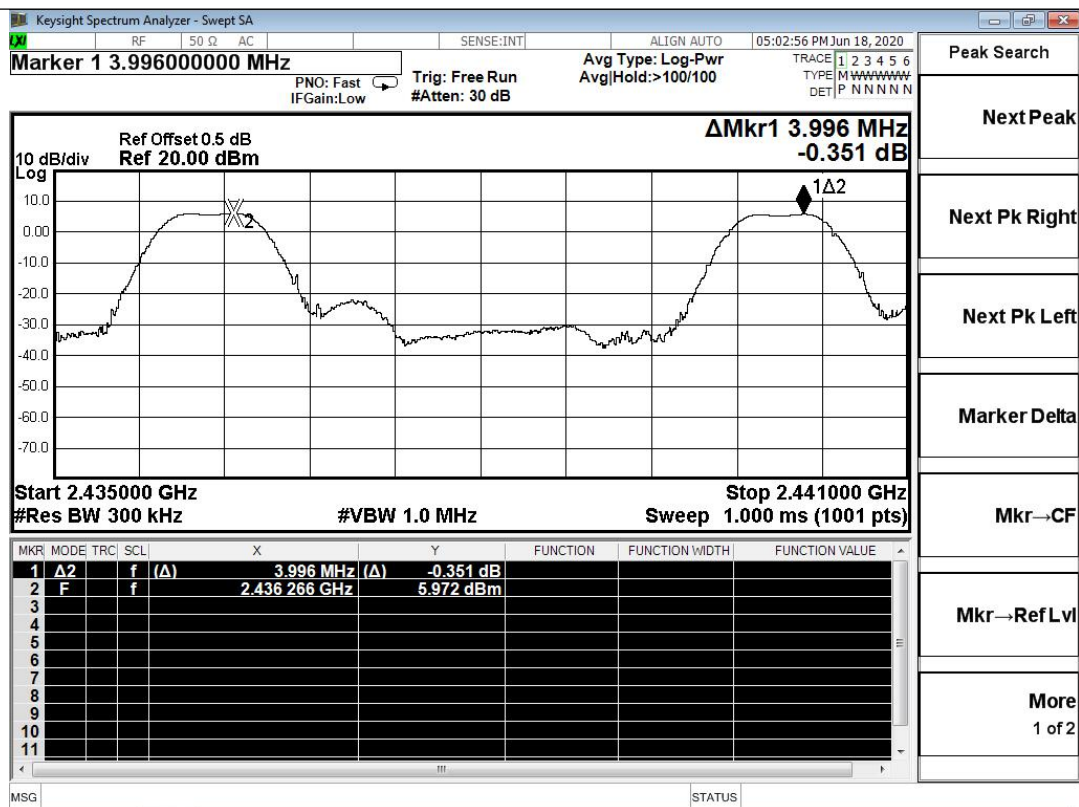


A.3 Carrier Frequency Separation

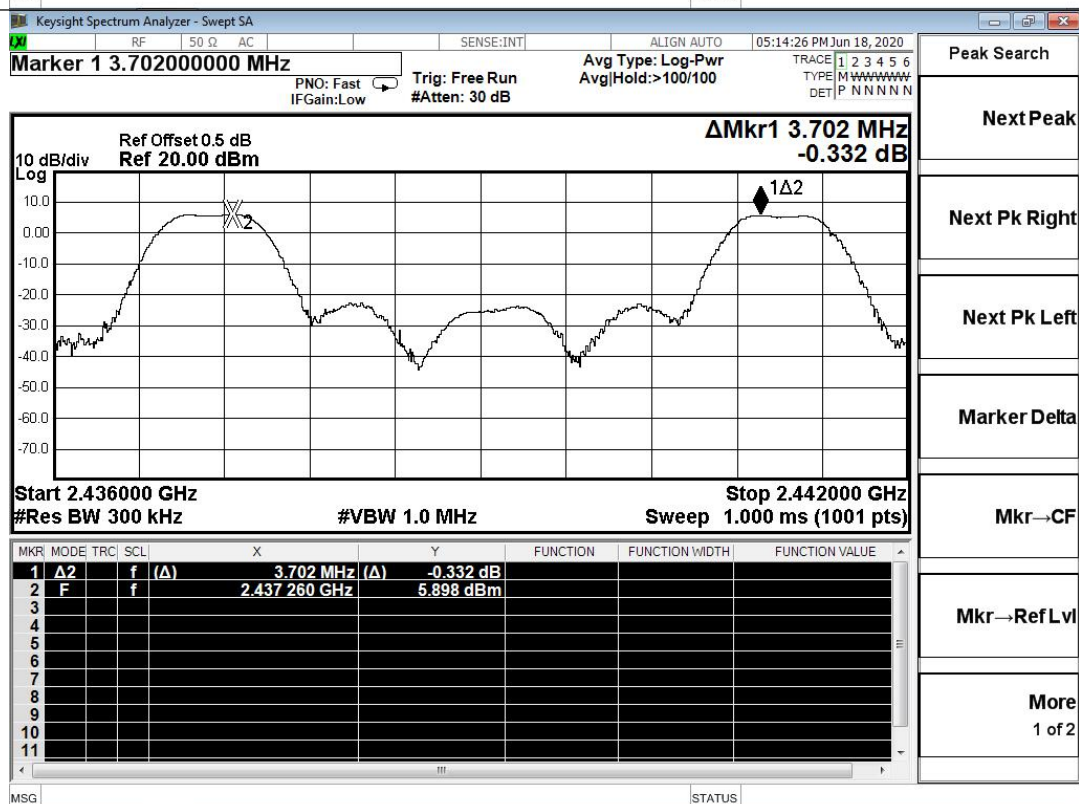
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	HOP 1	4.014	0.665	PASS
	HOP 2	3.996	0.665	PASS
	HOP 3	3.702	0.665	PASS
	HOP 4	3.744	0.665	PASS



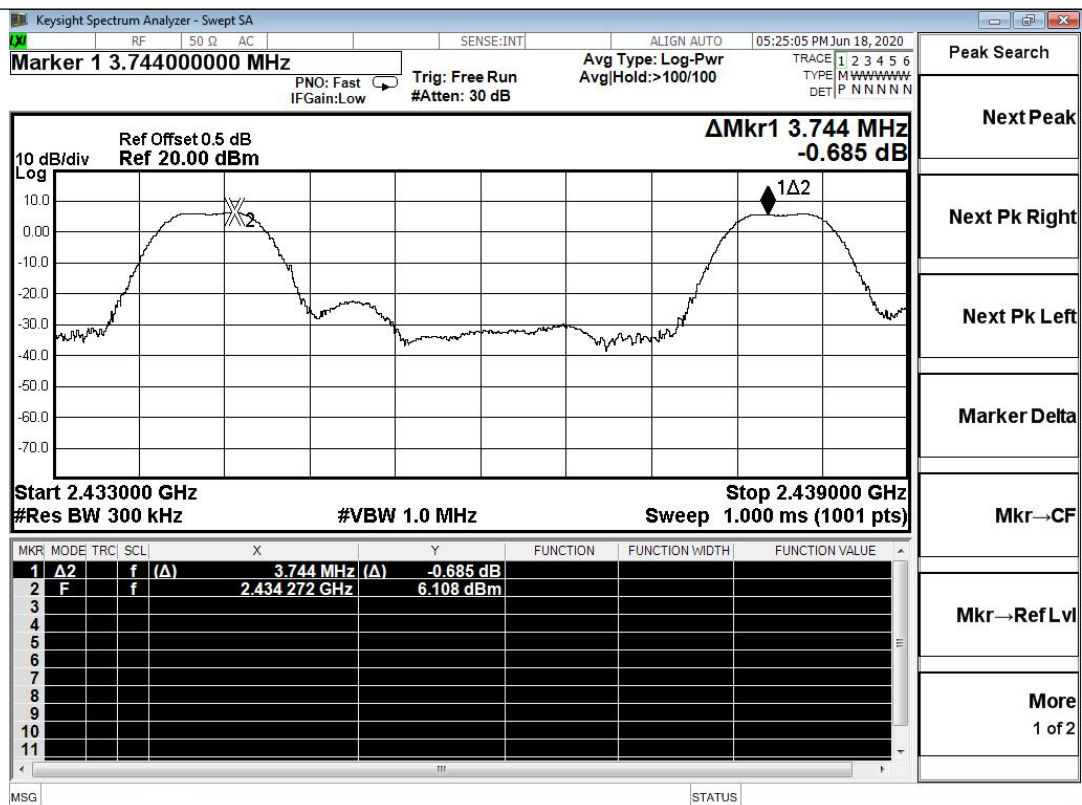
GFSK/HOP 2



GFSK/HOP 3



GFSK/HOP 4

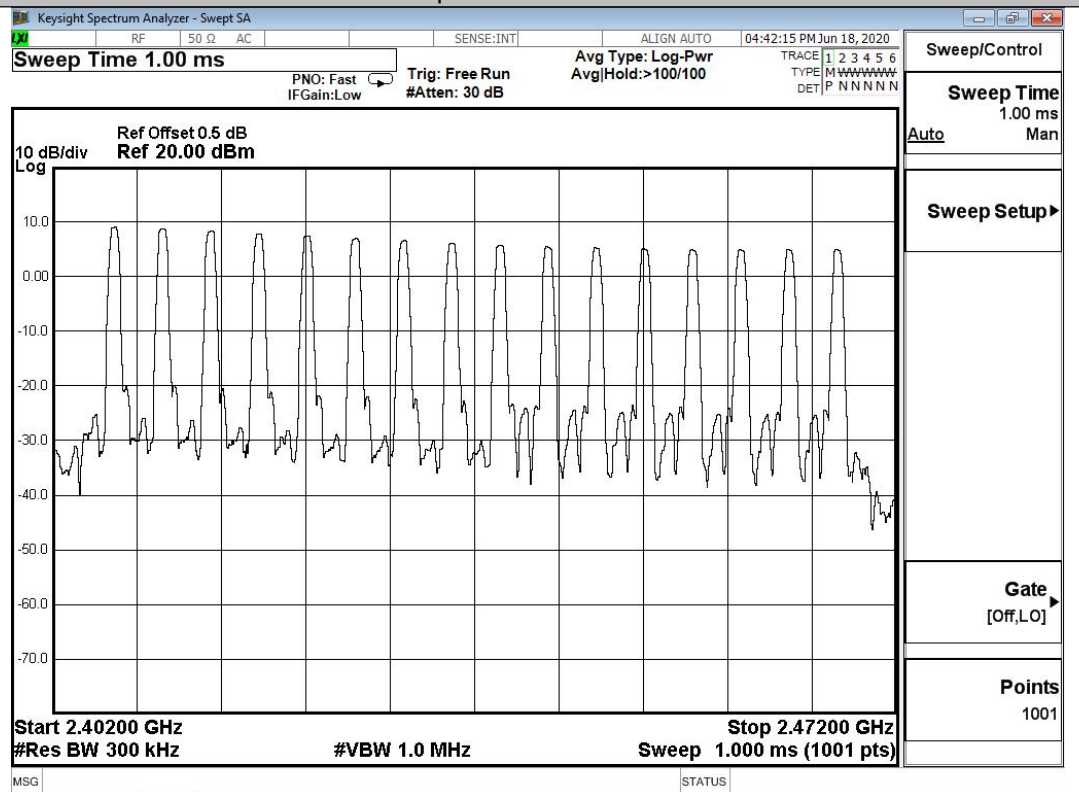


A.4 Hopping Channel Number

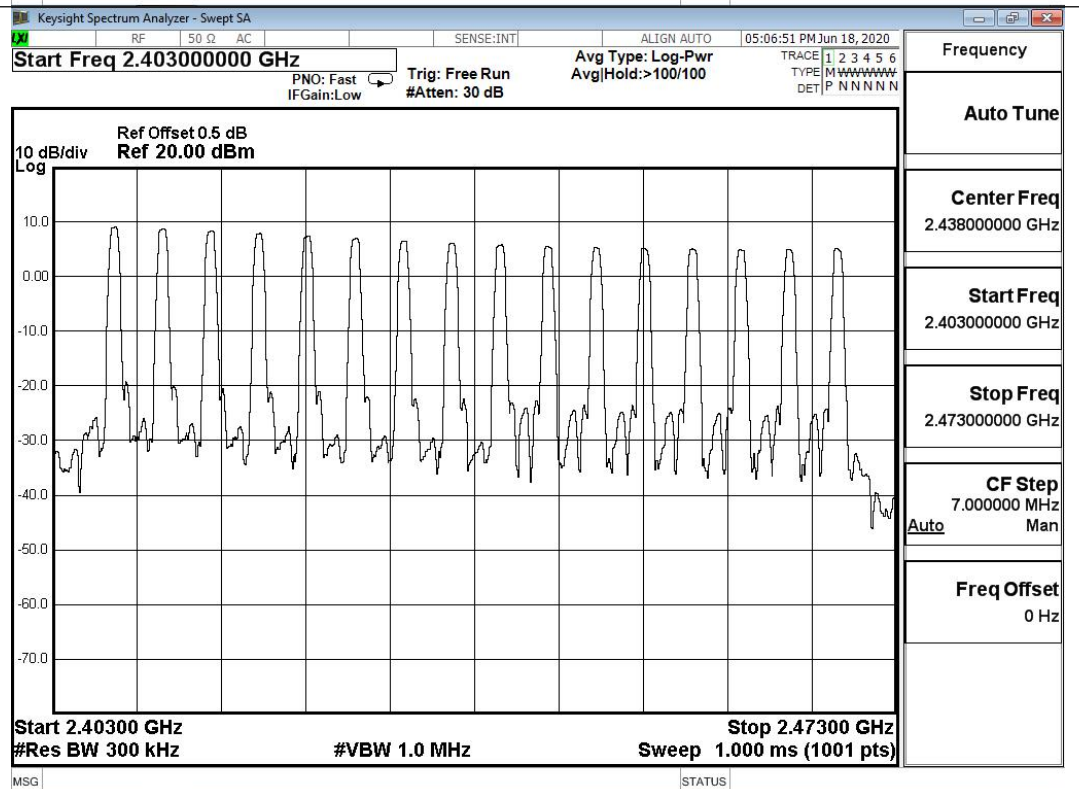
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop 1	16	>=15	PASS
GFSK	Hop 2	16	>=15	PASS
GFSK	Hop 3	16	>=15	PASS
GFSK	Hop 4	16	>=15	PASS

Test Graphs

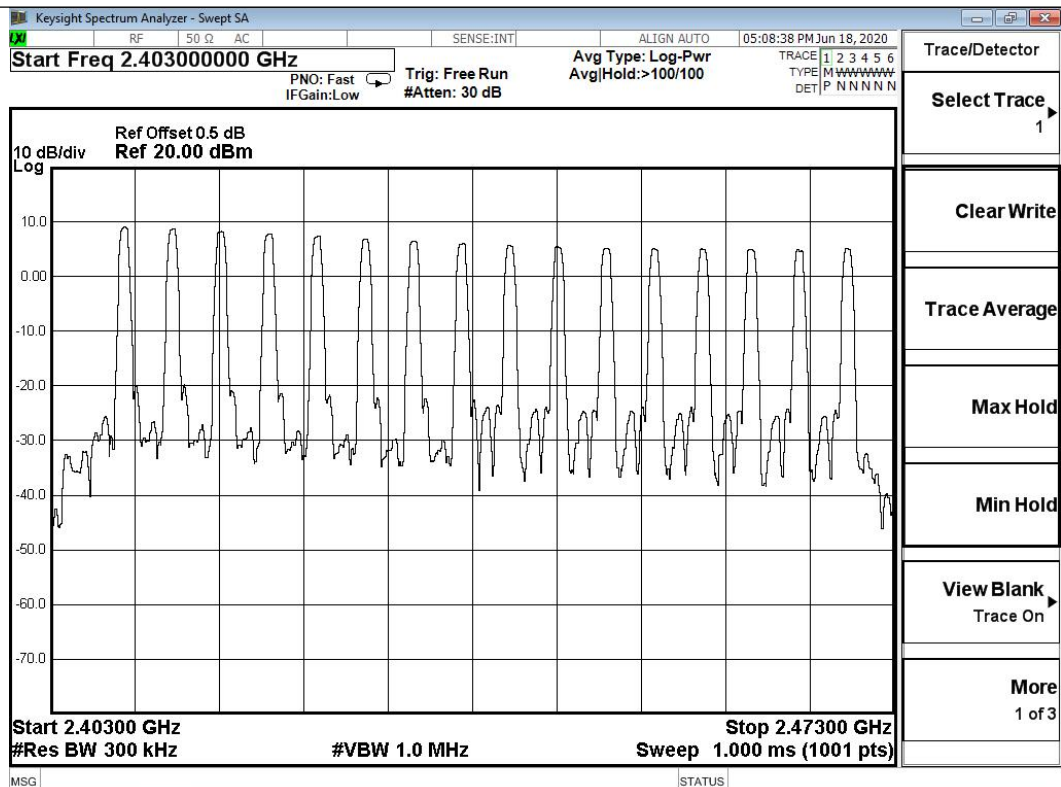
GFSK/HOP 1



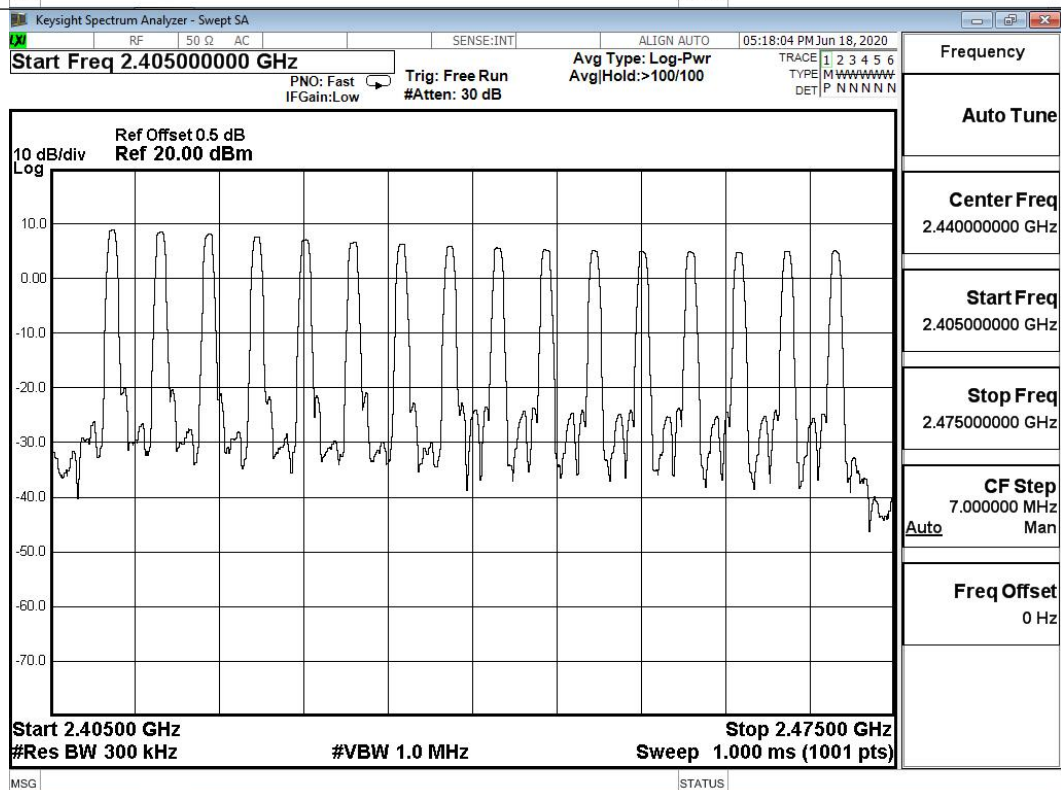
GFSK/HOP 2



GFSK/HOP 3

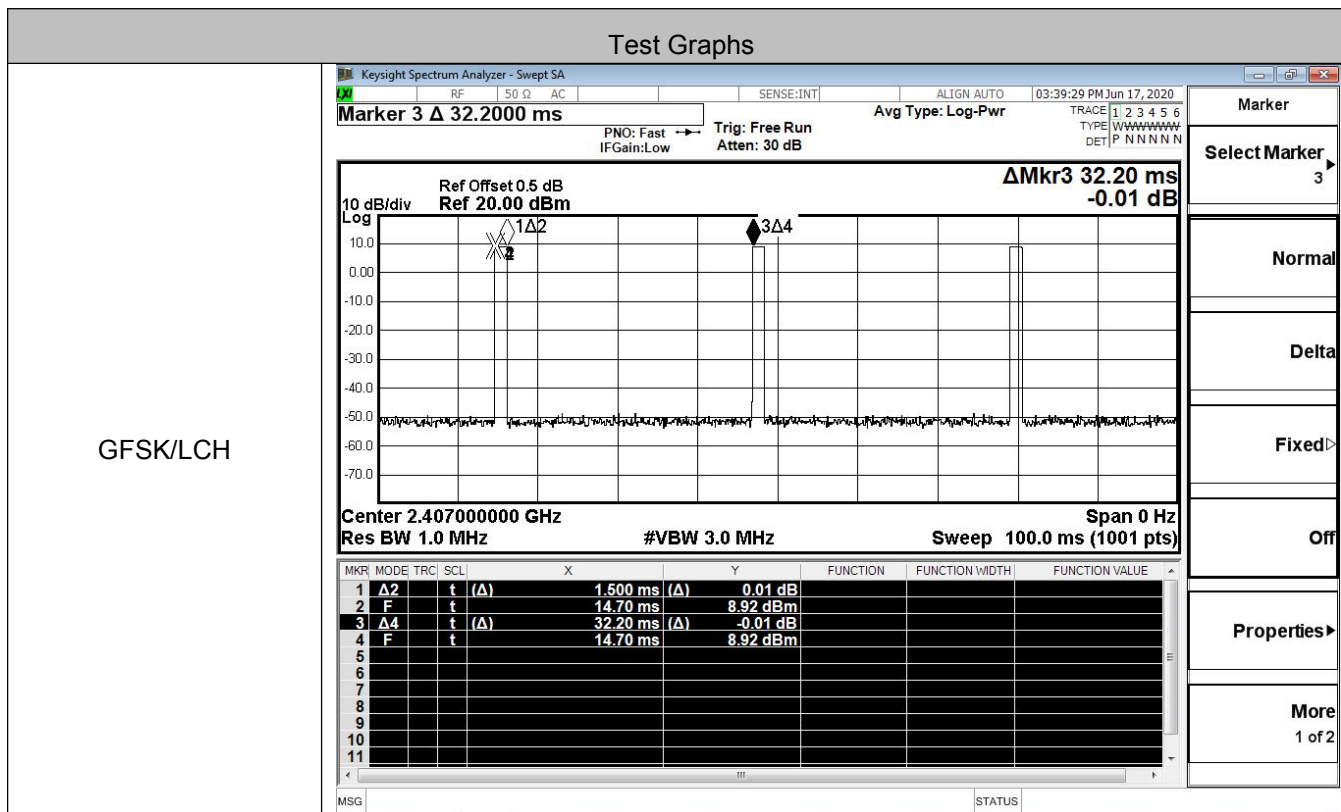


GFSK/HOP 4

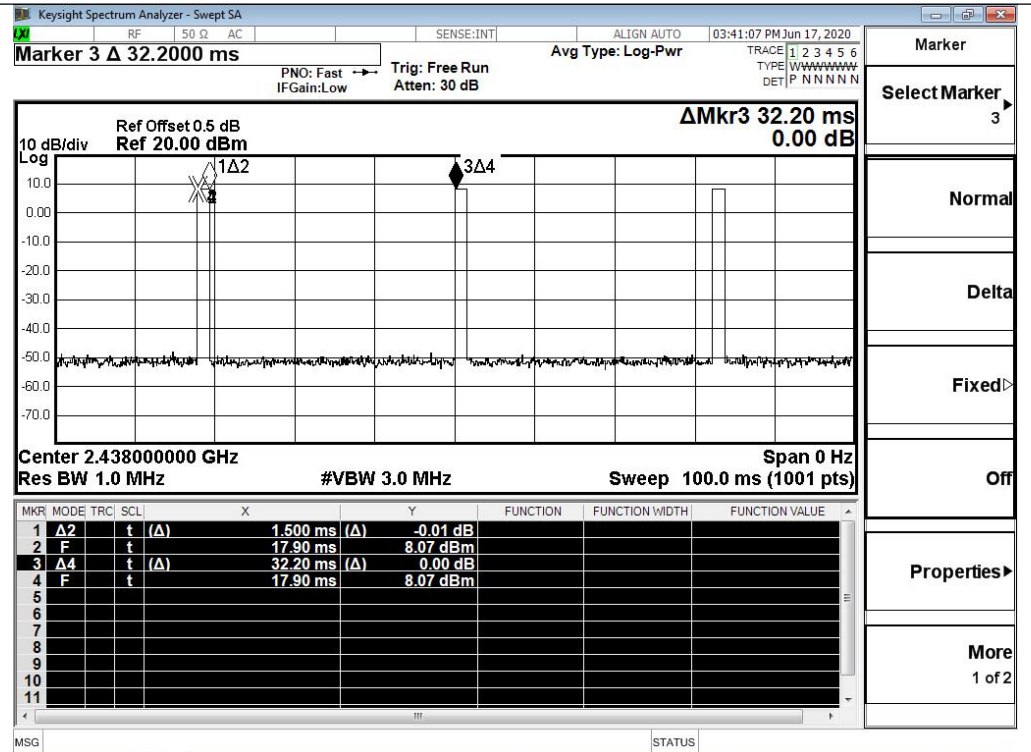


A.5 Dwell Time

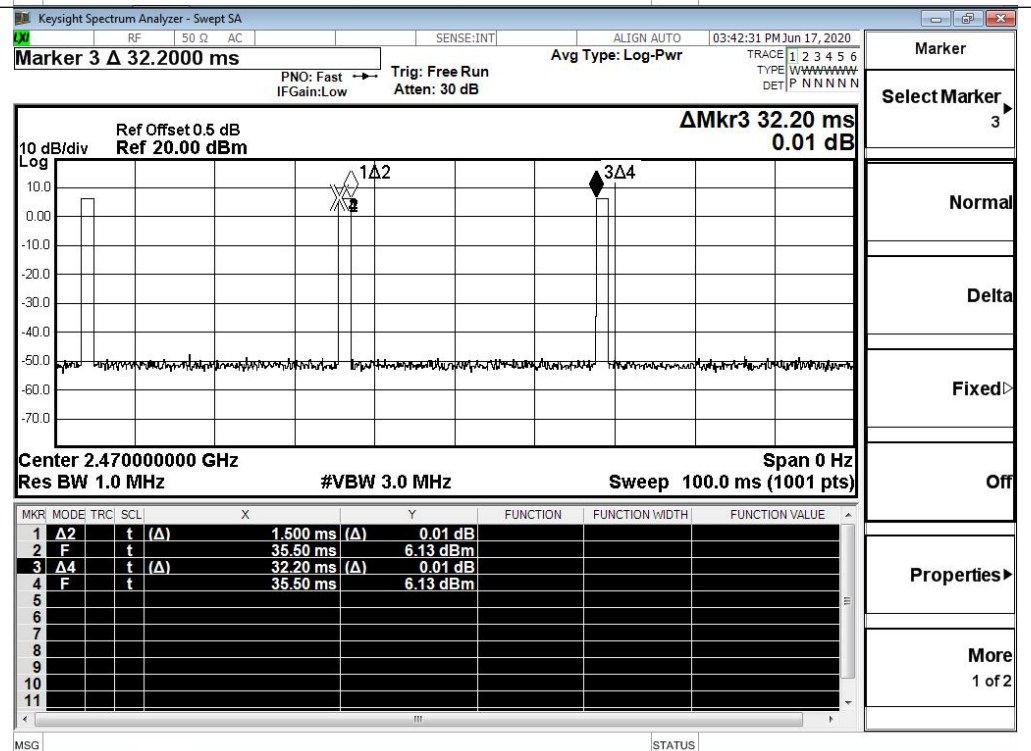
Mode	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	LCH	1.50	13	0.0195	0.4	PASS
	MCH	1.50	13	0.0195	0.4	PASS
	HCH	1.50	13	0.0195	0.4	PASS



GFSK/MCH

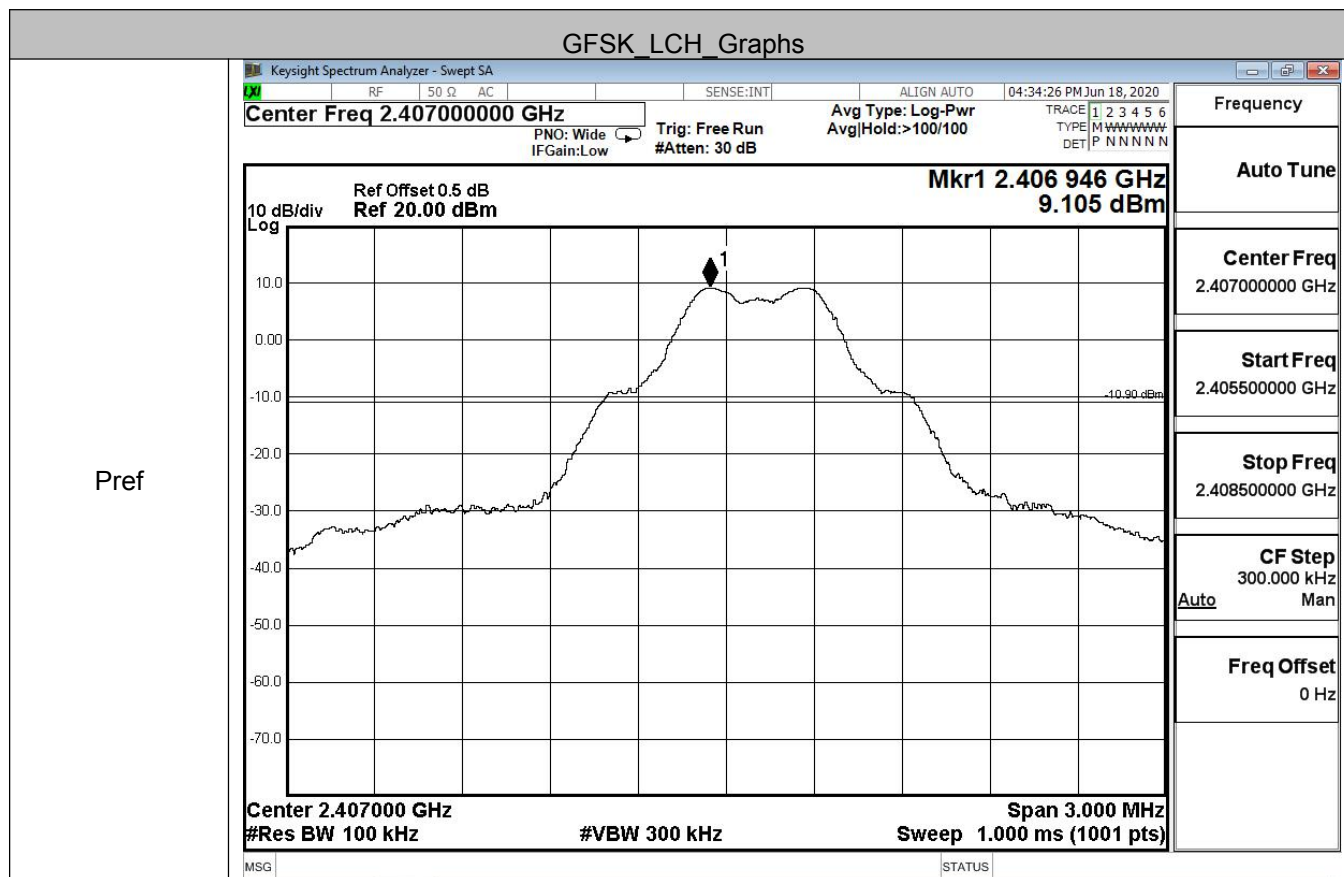


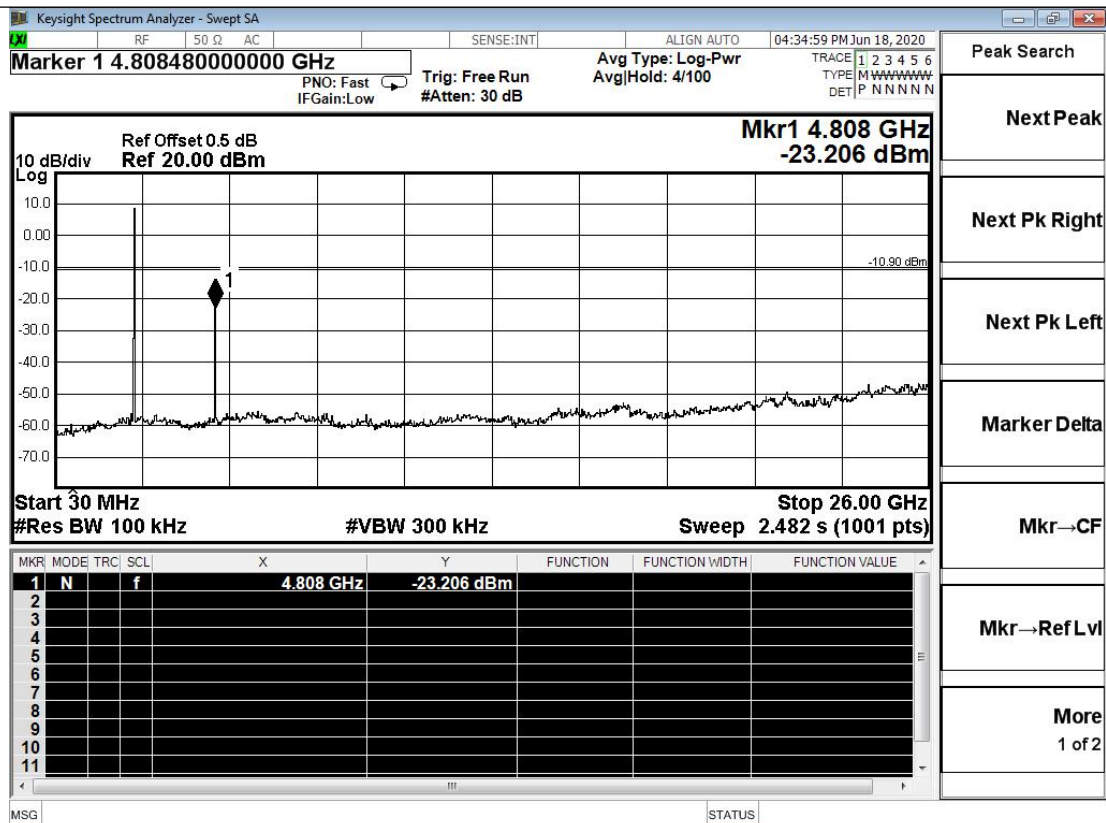
GFSK/HCH



A.6 RF Conducted Spurious Emissions

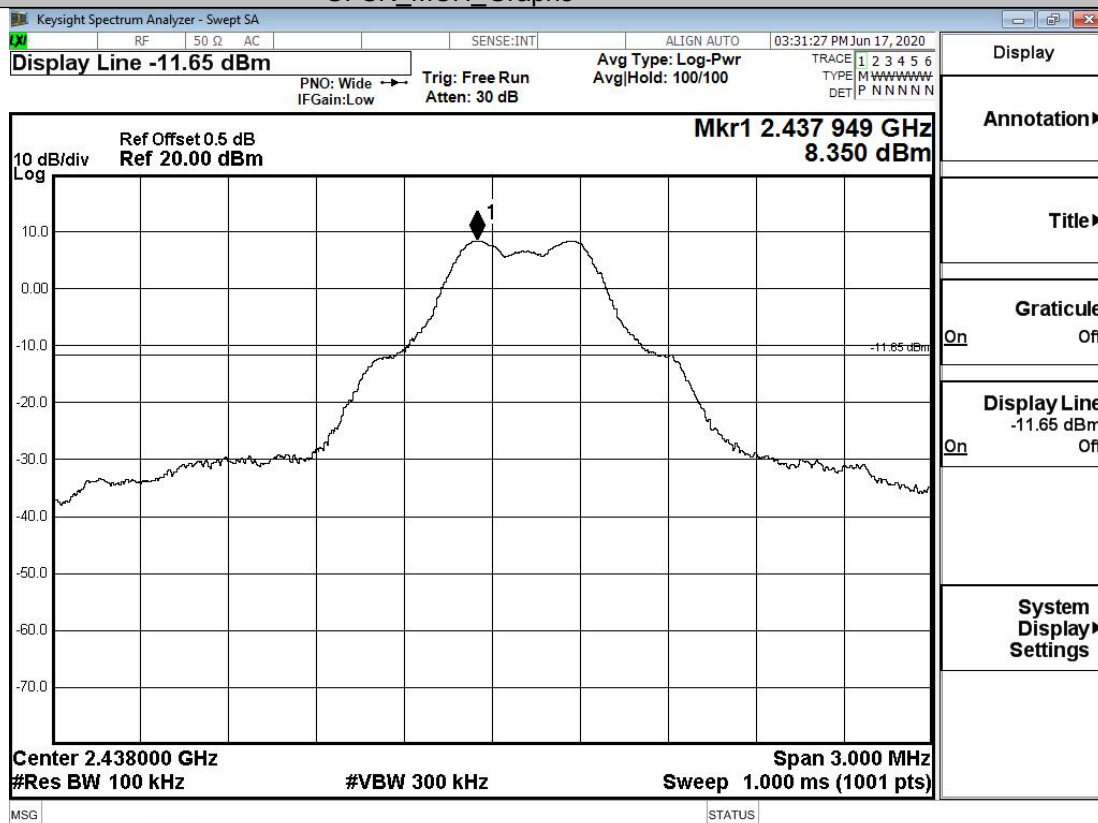
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	9.105	-23.206	-10.90	PASS
	MCH	8.35	-27.163	-11.65	PASS
	HCH	6.225	-32.208	-13.78	PASS



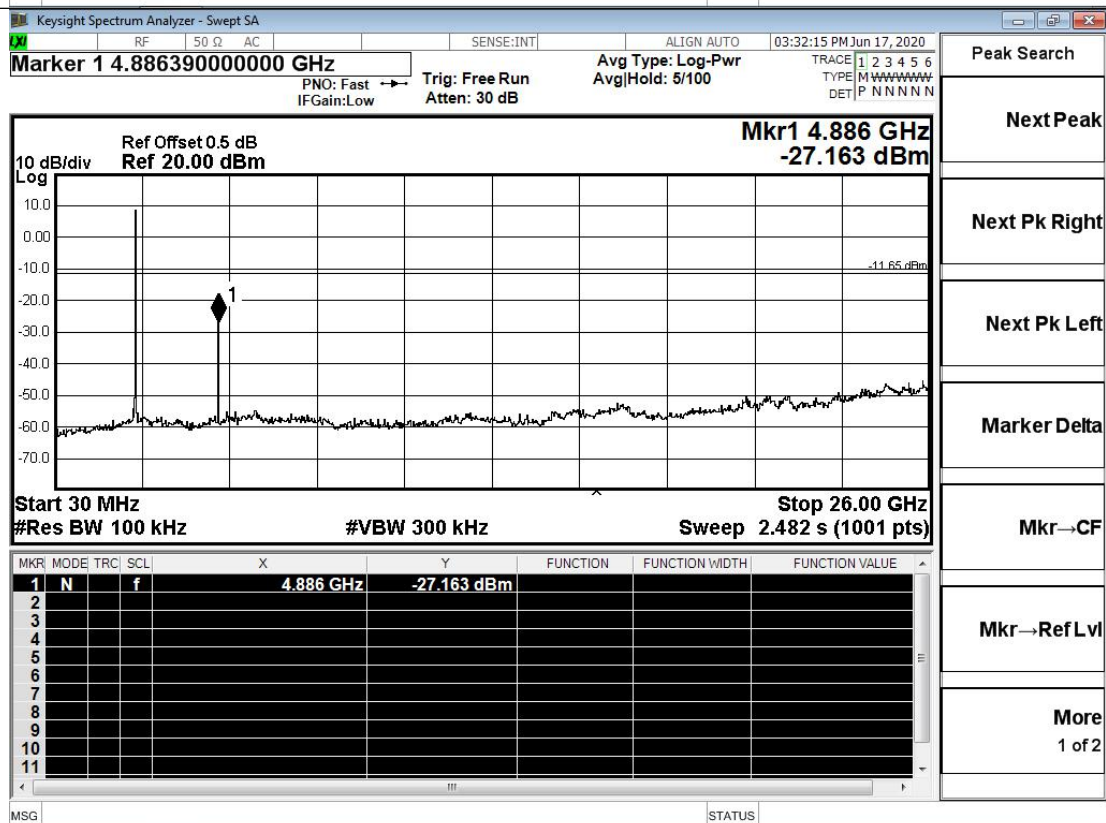
P_u

GFSK_MCH_Graphs

Pref

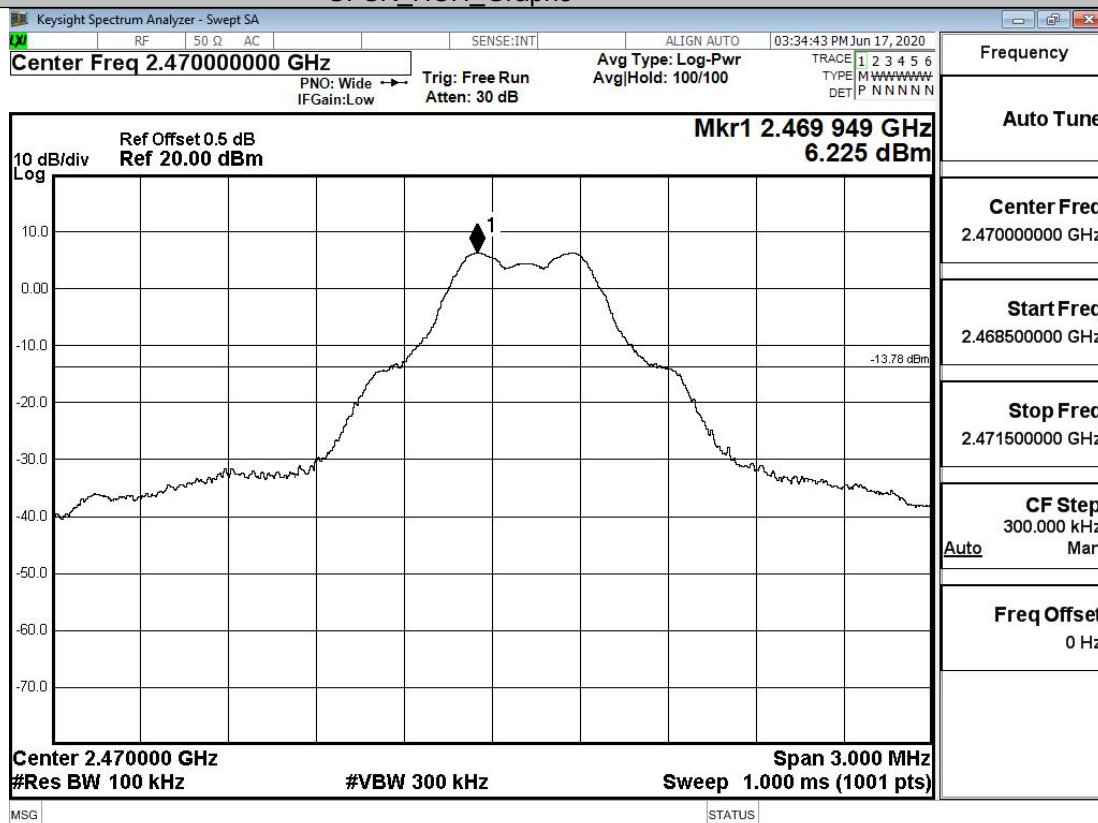


Puw

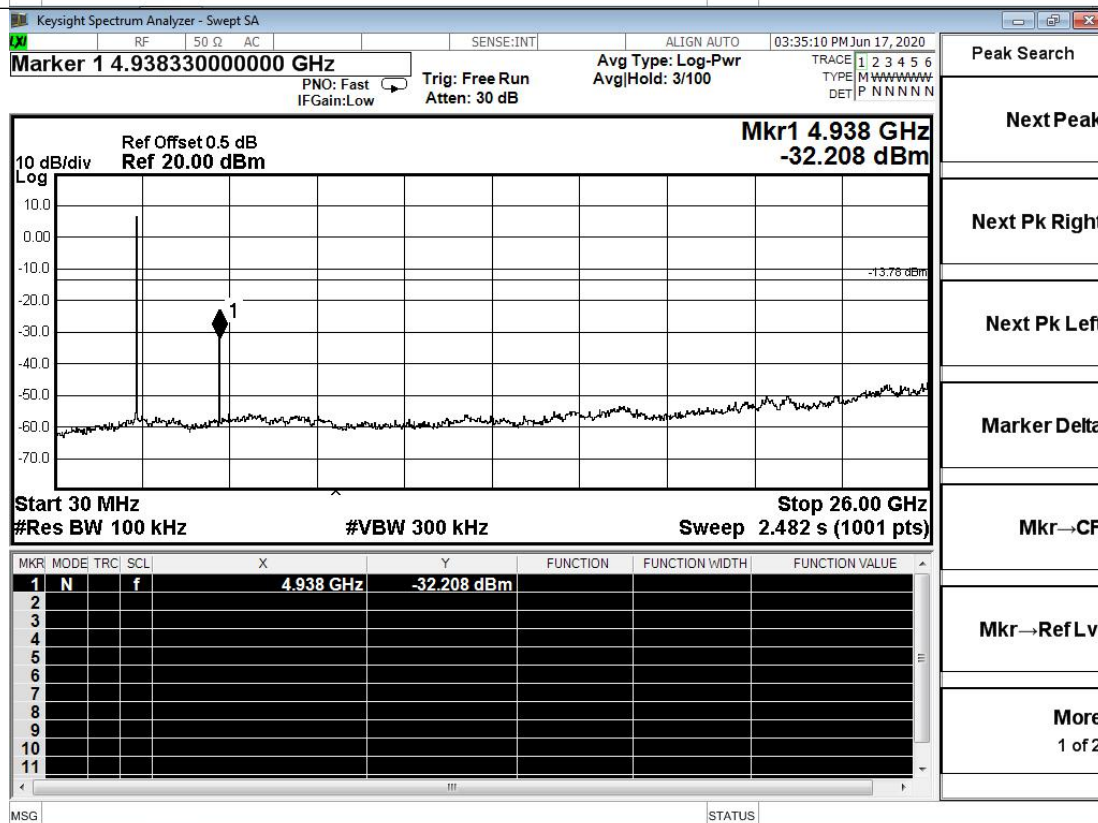


GFSK_HCH_Graphs

Pref



Puw

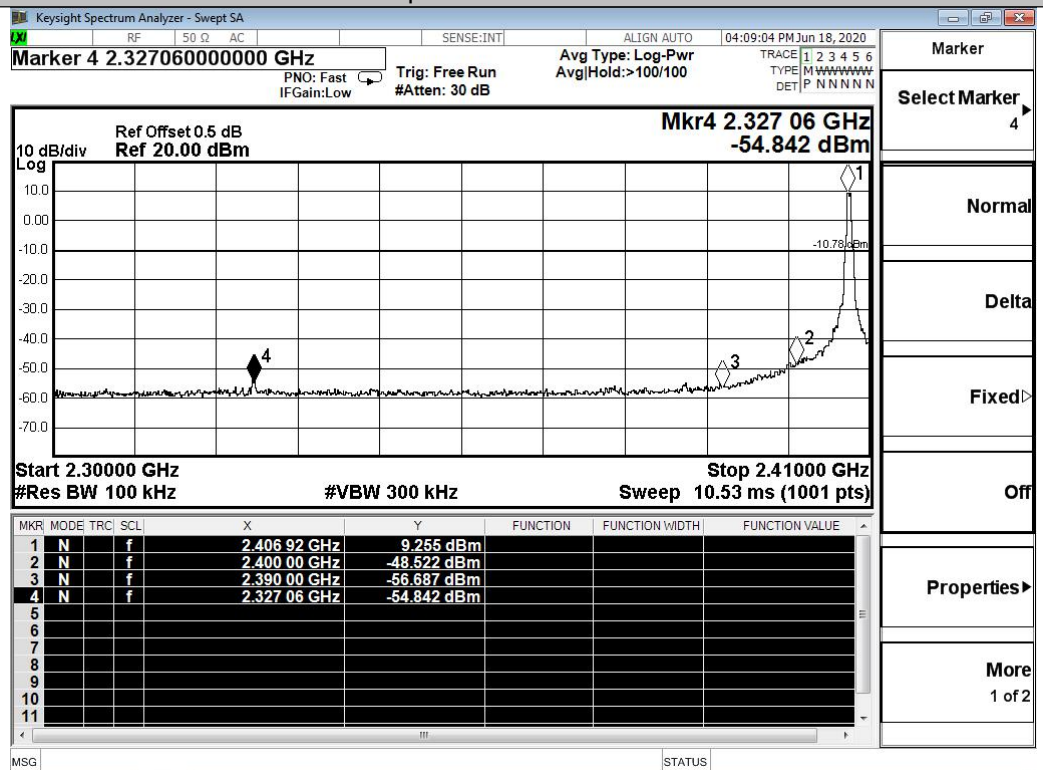


A.7 Band-edge for RF Conducted Emissions

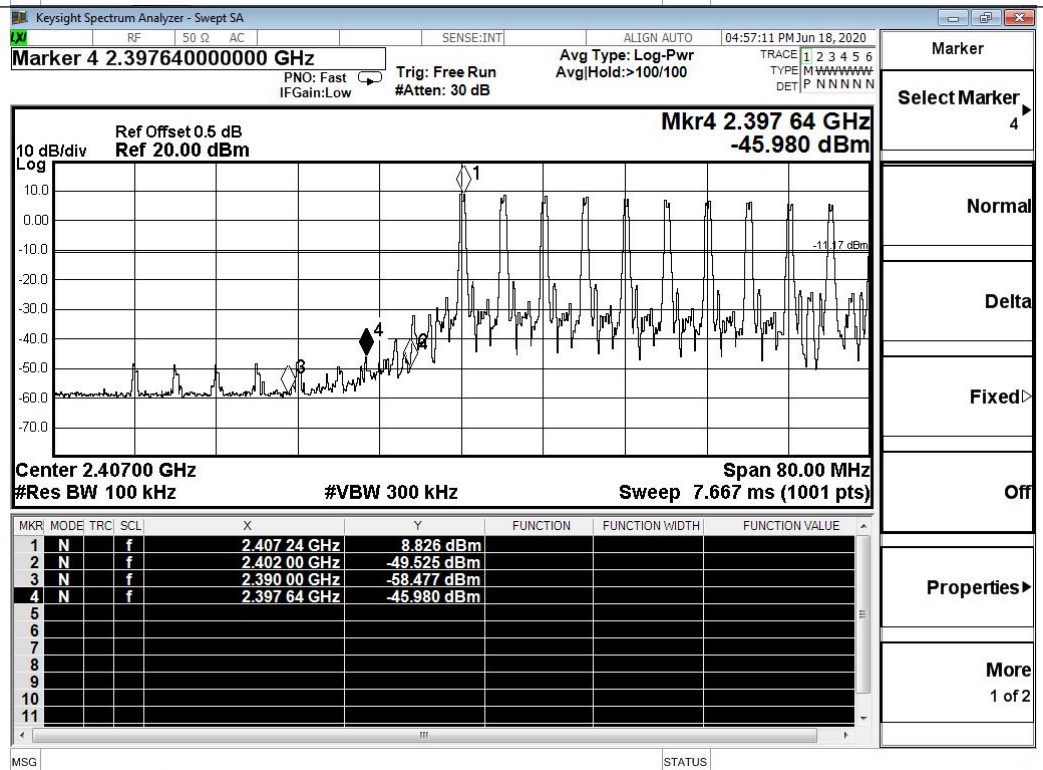
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2407	9.255	Off	-48.522	-10.78	PASS
			8.826	Hop 1	-45.980	-11.17	PASS
			8.932	Hop 2	-48.658	-11.17	PASS
			8.515	Hop 3	-48.630	-11.49	PASS
			8.678	Hop 4	-47.479	-11.28	PASS
	HCH	2470	5.394	Off	-48.987	-14.61	PASS
			6.473	Hop 1	-56.414	-14.07	PASS
			6.461	Hop 2	-55.465	-14.44	PASS
			6.634	Hop 3	-56.640	-13.37	PASS
			6.596	Hop 4	-57.129	-13.40	PASS

Test Graphs

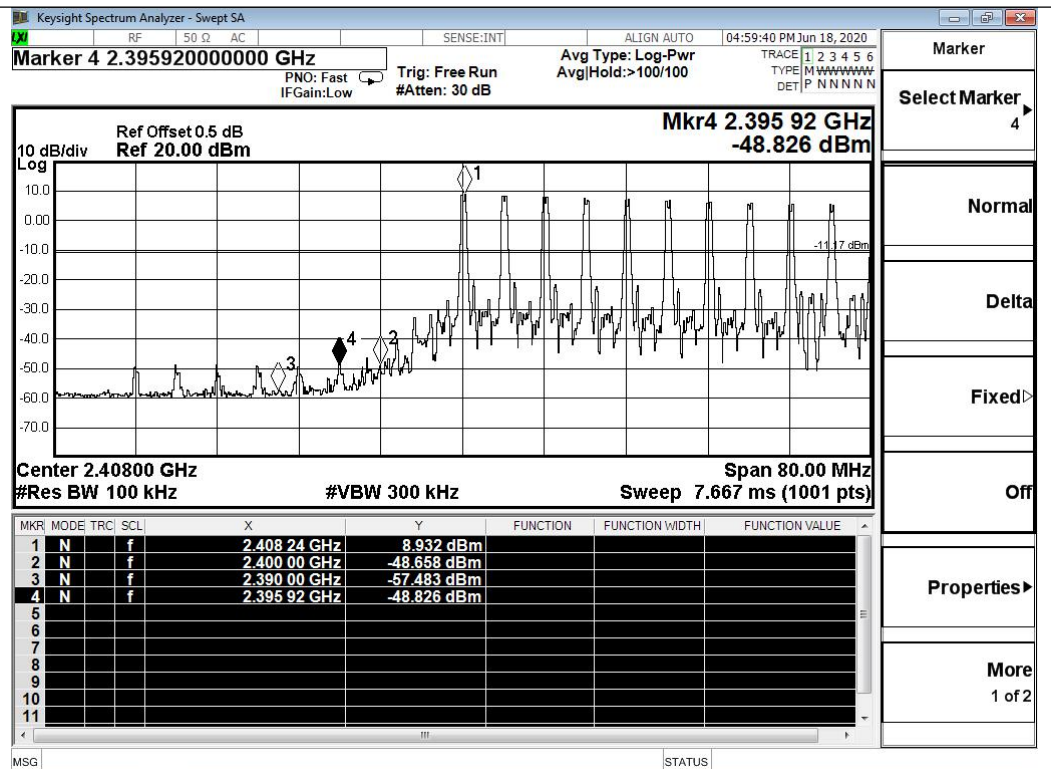
GFSK/LCH/No Hop



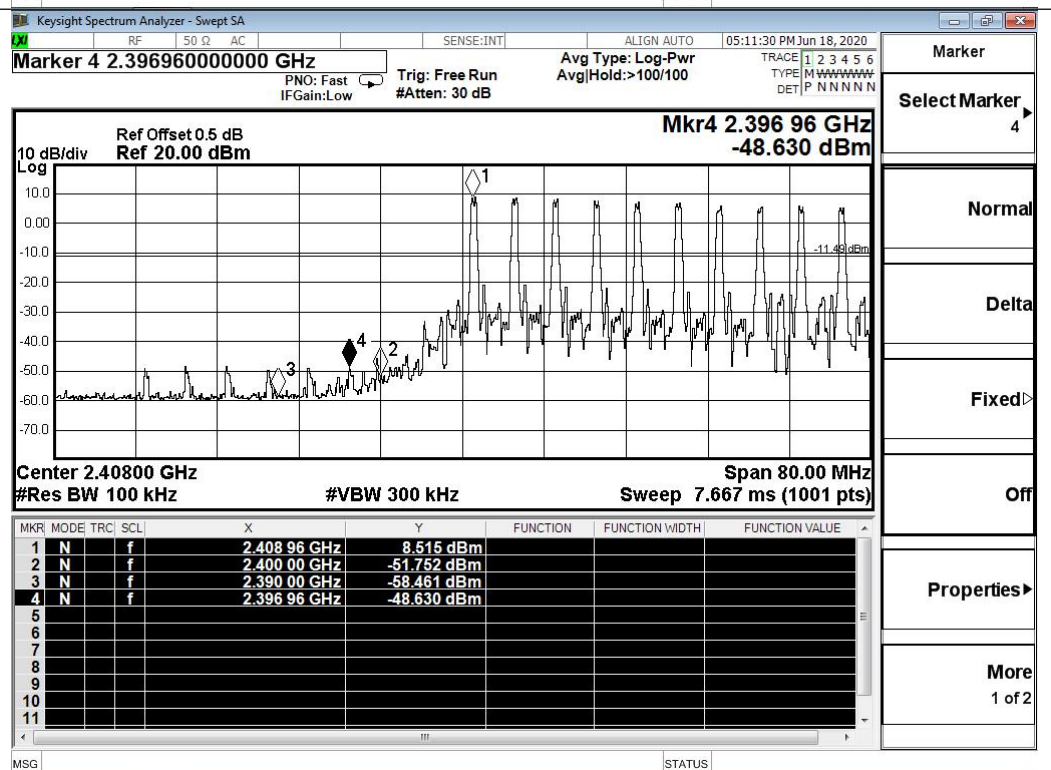
GFSK/LCH/Hop 1



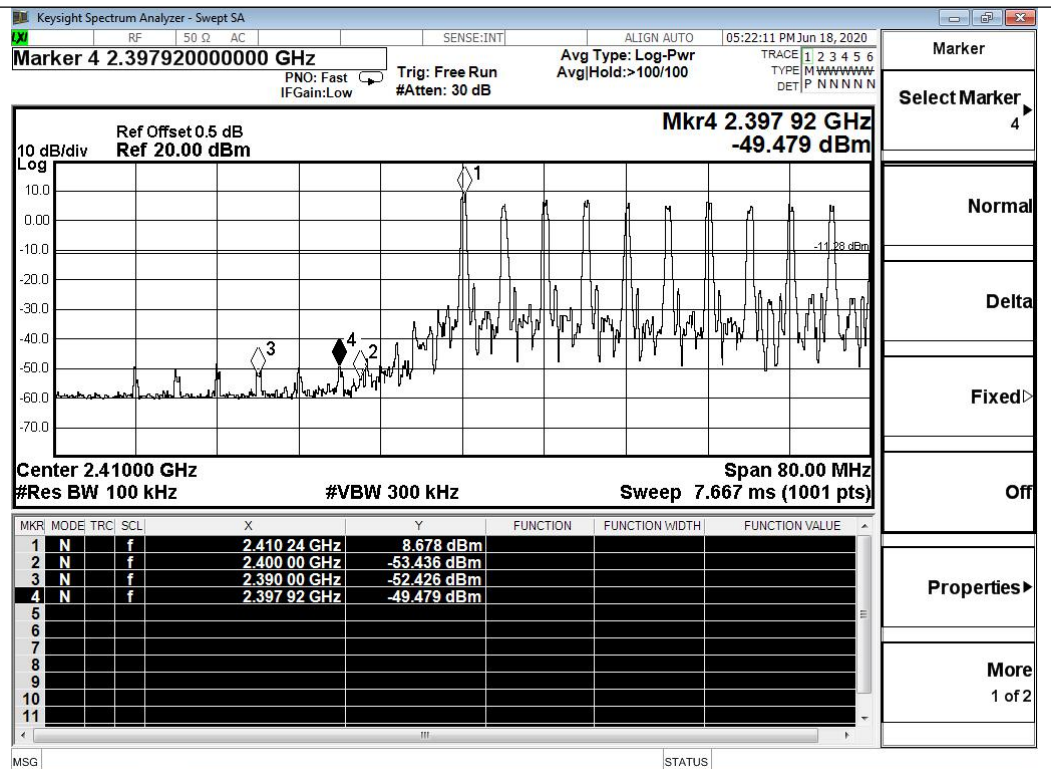
GFSK/LCH/Hop 2



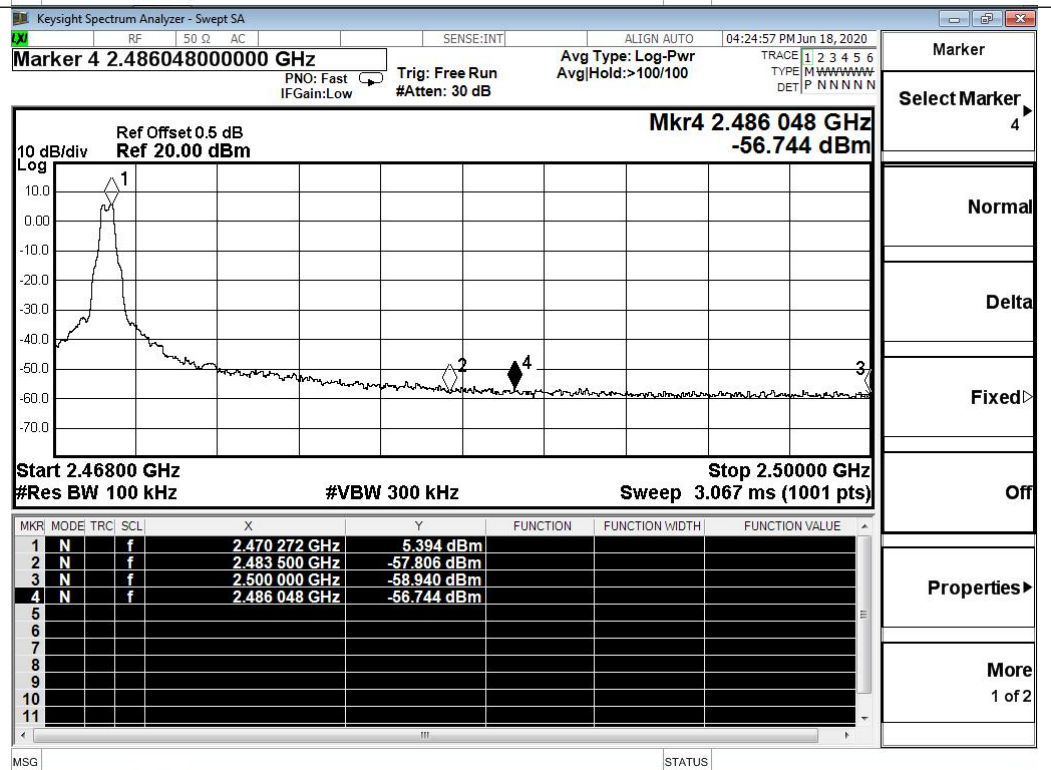
GFSK/LCH/Hop 3



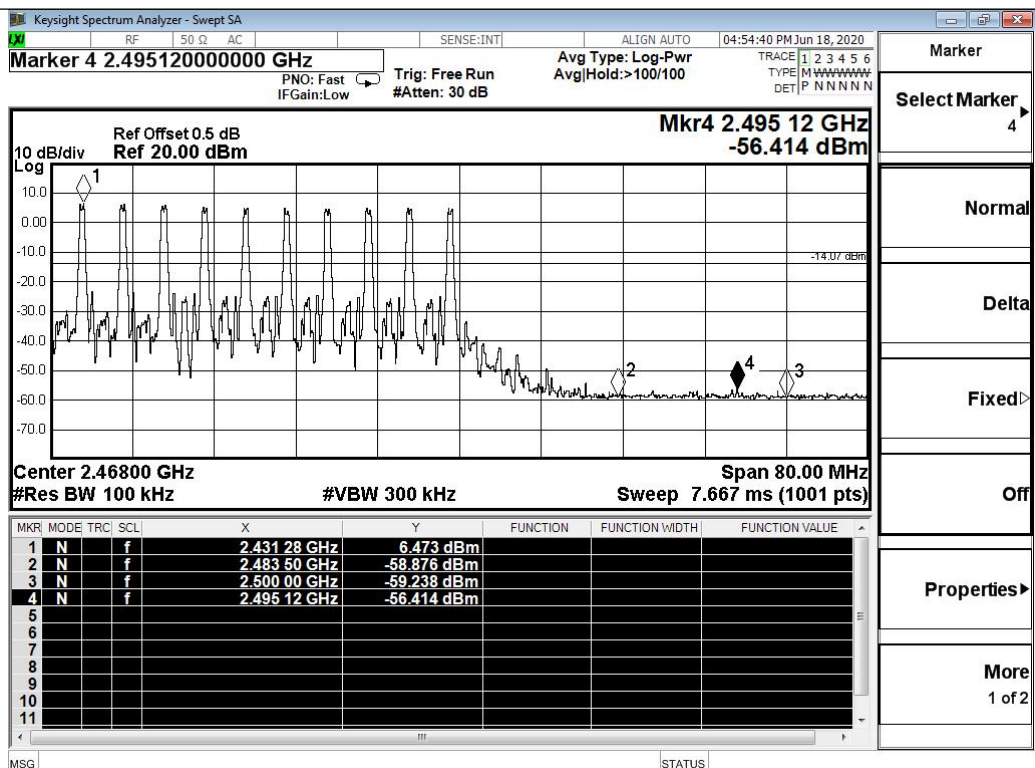
GFSK/LCH/Hop 4



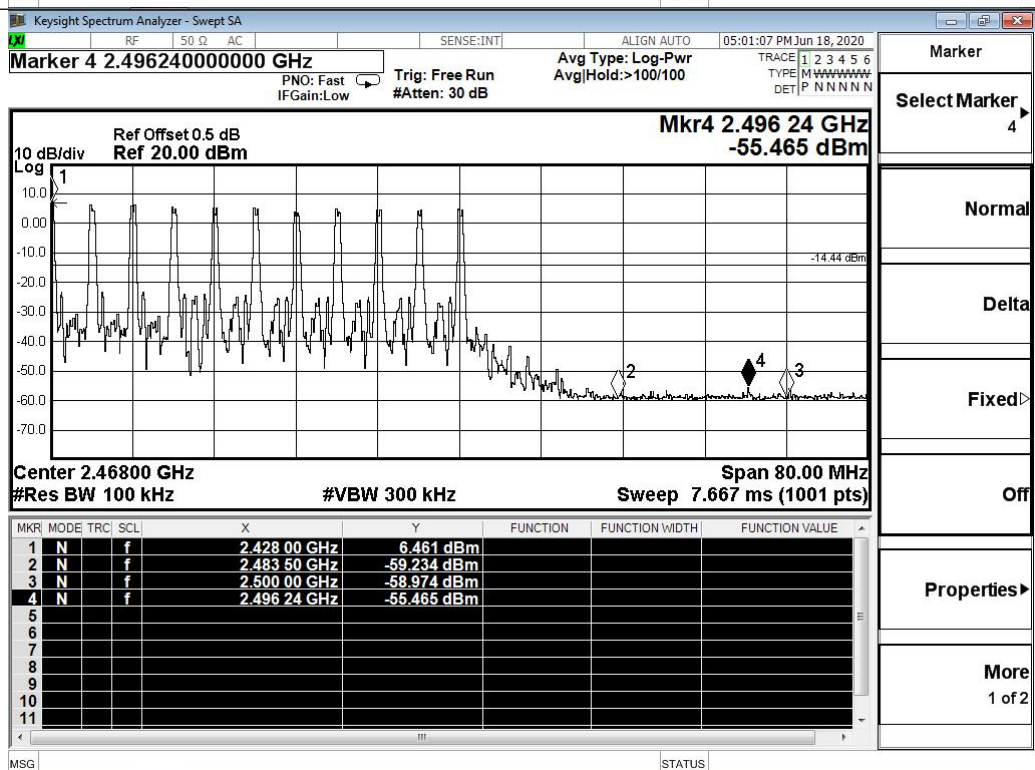
GFSK/HCH/No Hop



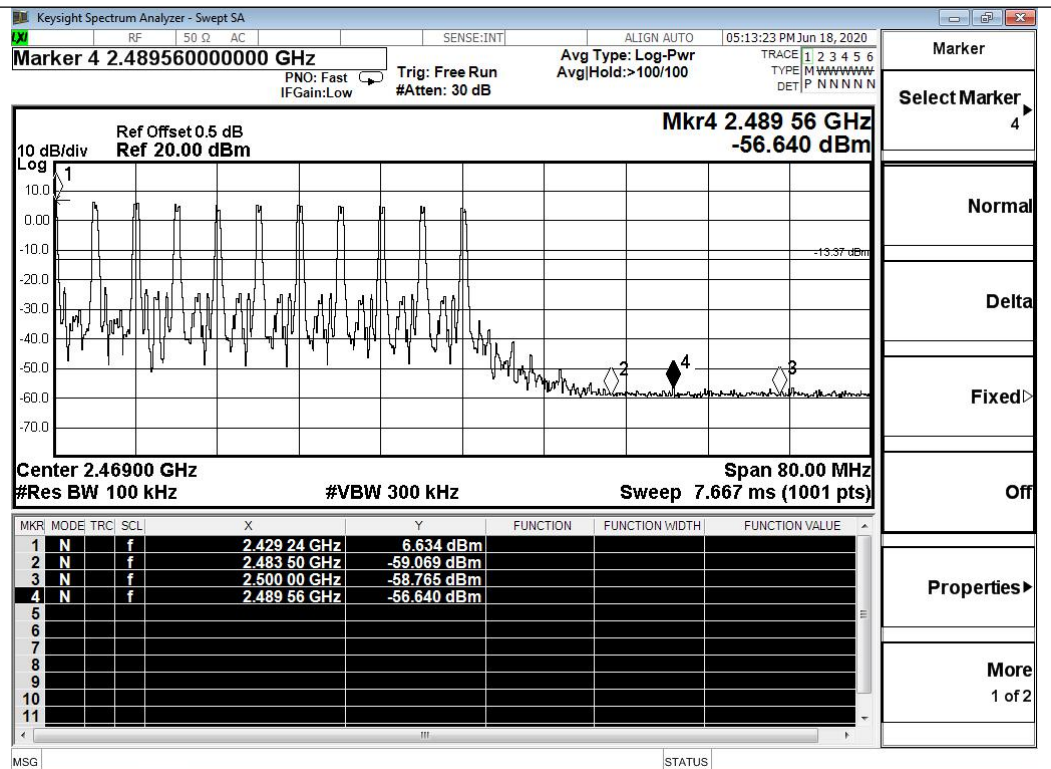
GFSK/HCH/Hop 1



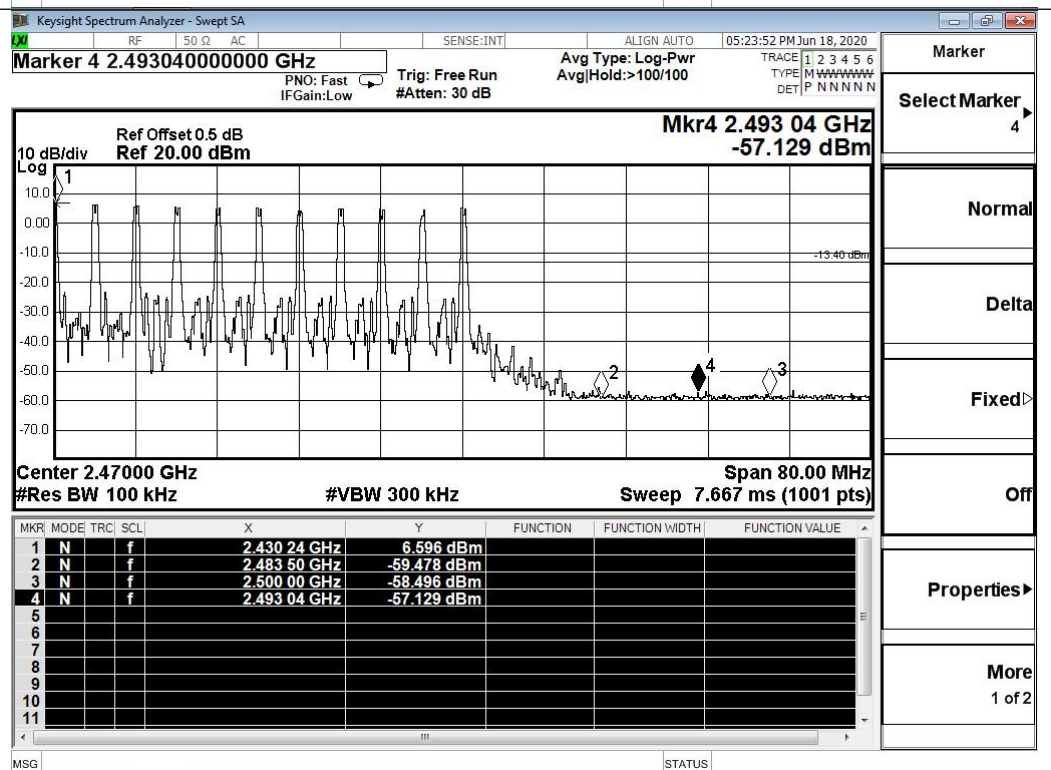
GFSK/HCH/Hop 2



GFSK/HCH/Hop 3

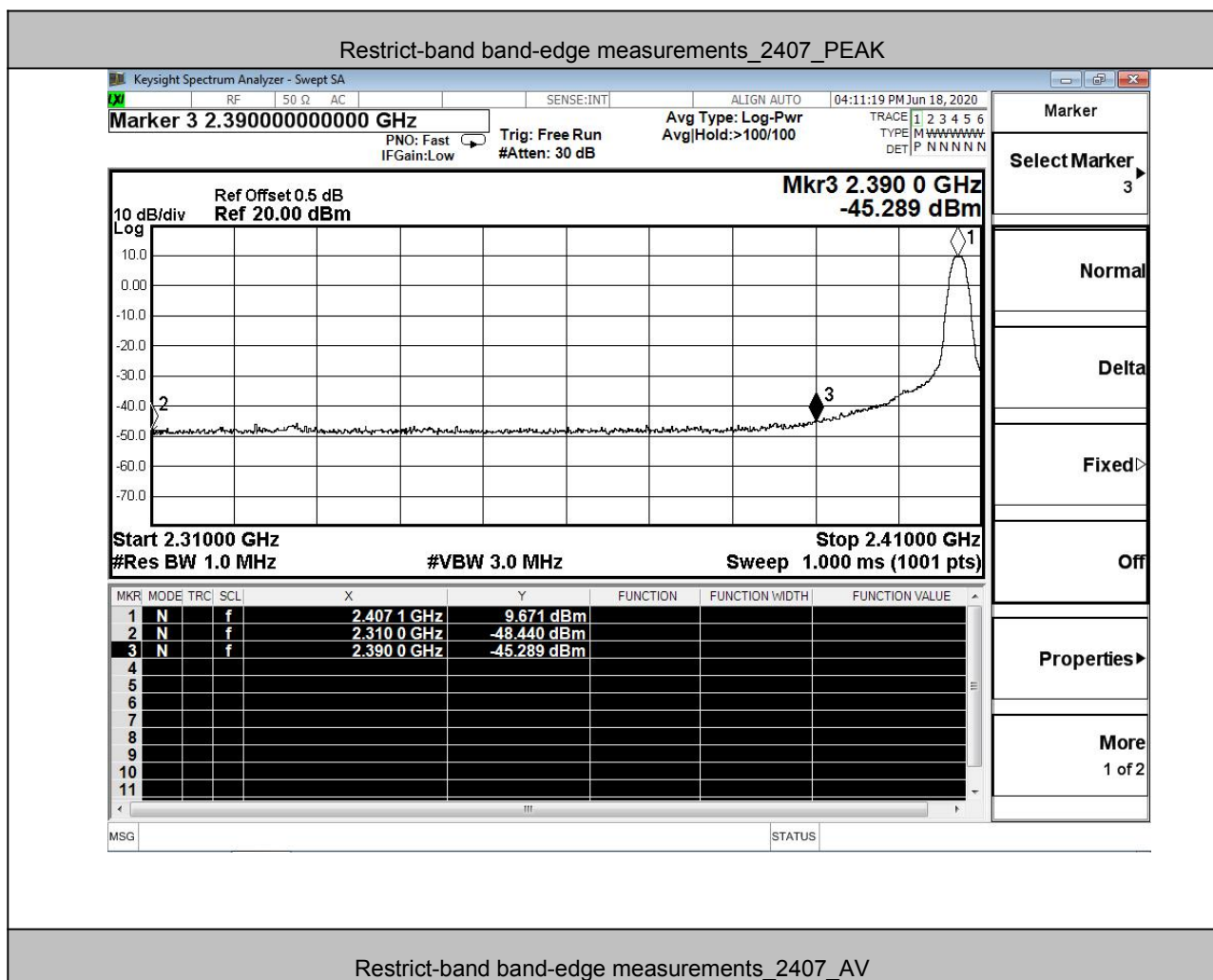


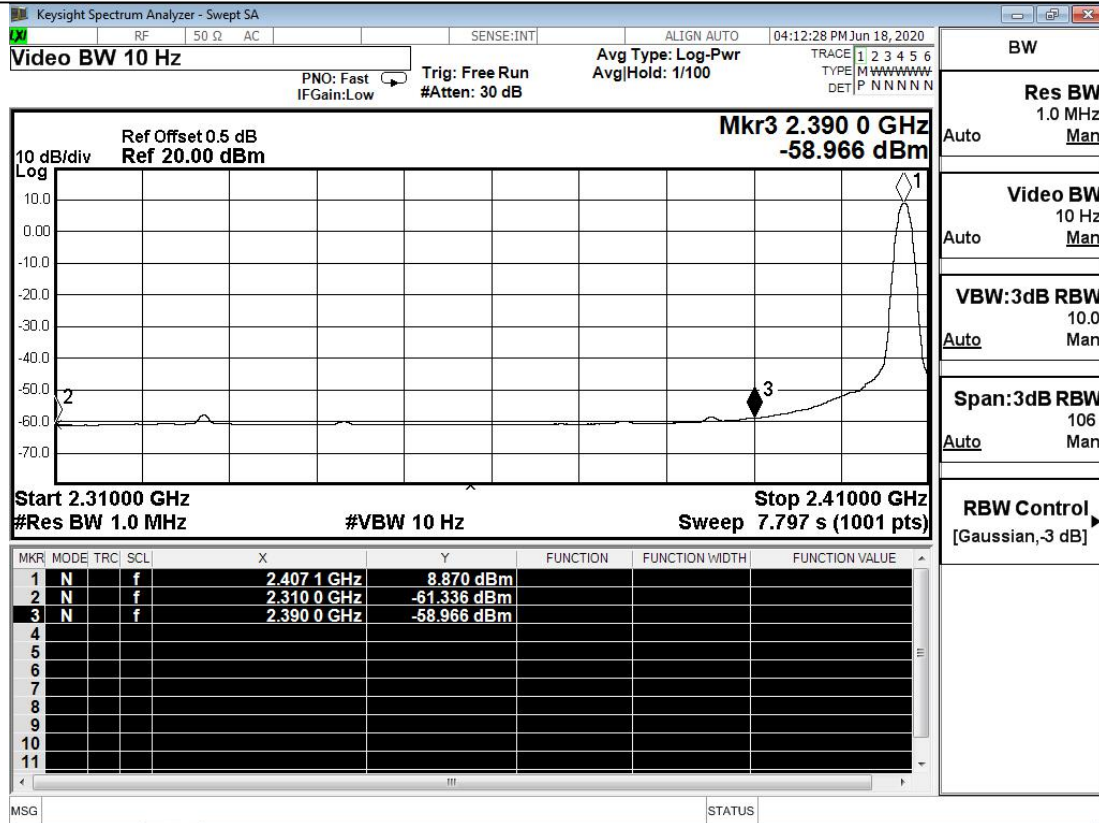
GFSK/HCH/Hop 4



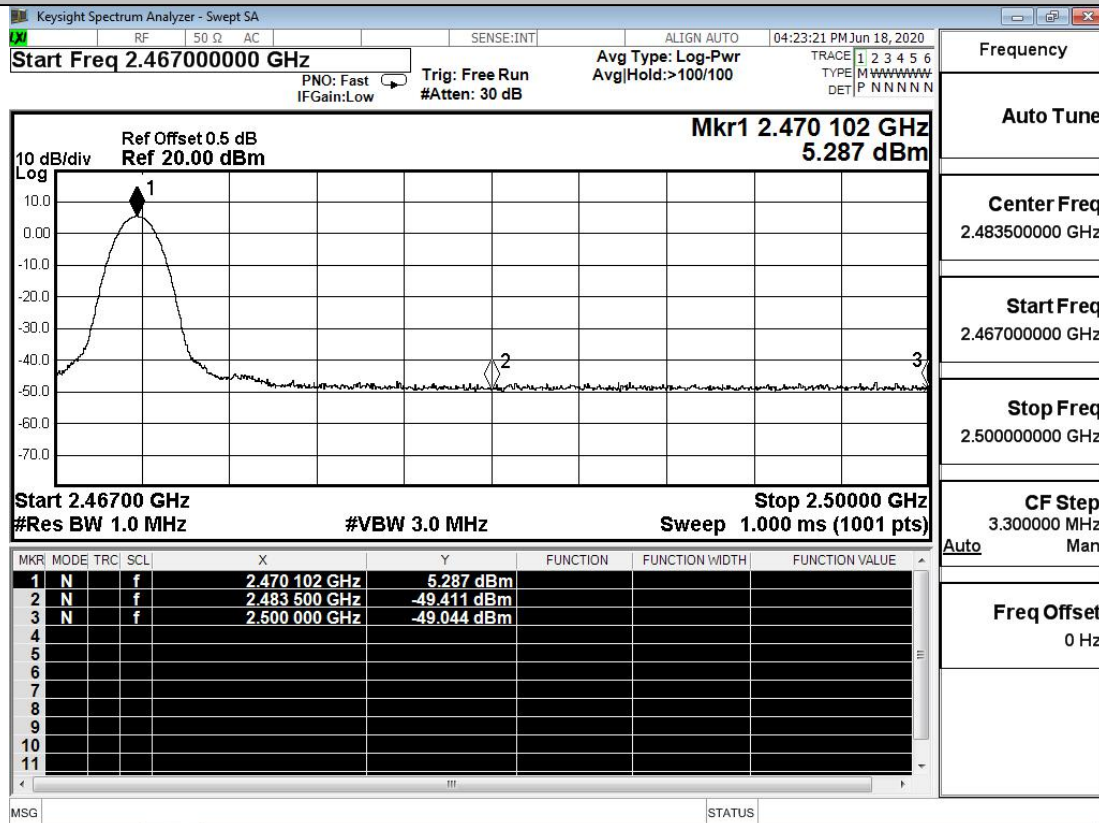
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-48.440	4.0	0	50.79	PEAK	74	PASS
	Off	2310.0	-61.336	4.0	0	37.89	AV	54	PASS
	Off	2390.0	-45.289	4.0	0	53.94	PEAK	74	PASS
	Off	2390.0	-58.966	4.0	0	40.26	AV	54	PASS
	Off	2483.5	-49.411	4.0	0	49.82	PEAK	74	PASS
	Off	2483.5	-61.087	4.0	0	38.14	AV	54	PASS
	Off	2500.0	-49.044	4.0	0	50.19	PEAK	74	PASS
	Off	2500.0	-61.199	4.0	0	38.03	AV	54	PASS





Restrict-band band-edge measurements_2470_PEAK



Restrict-band band-edge measurements_2470_AV

