

Appendix A

RF Test Data for SRD (Conducted Measurement)

Product Name: MCT247

Trade Mark: Kar-Tech

Test Model: MCT247

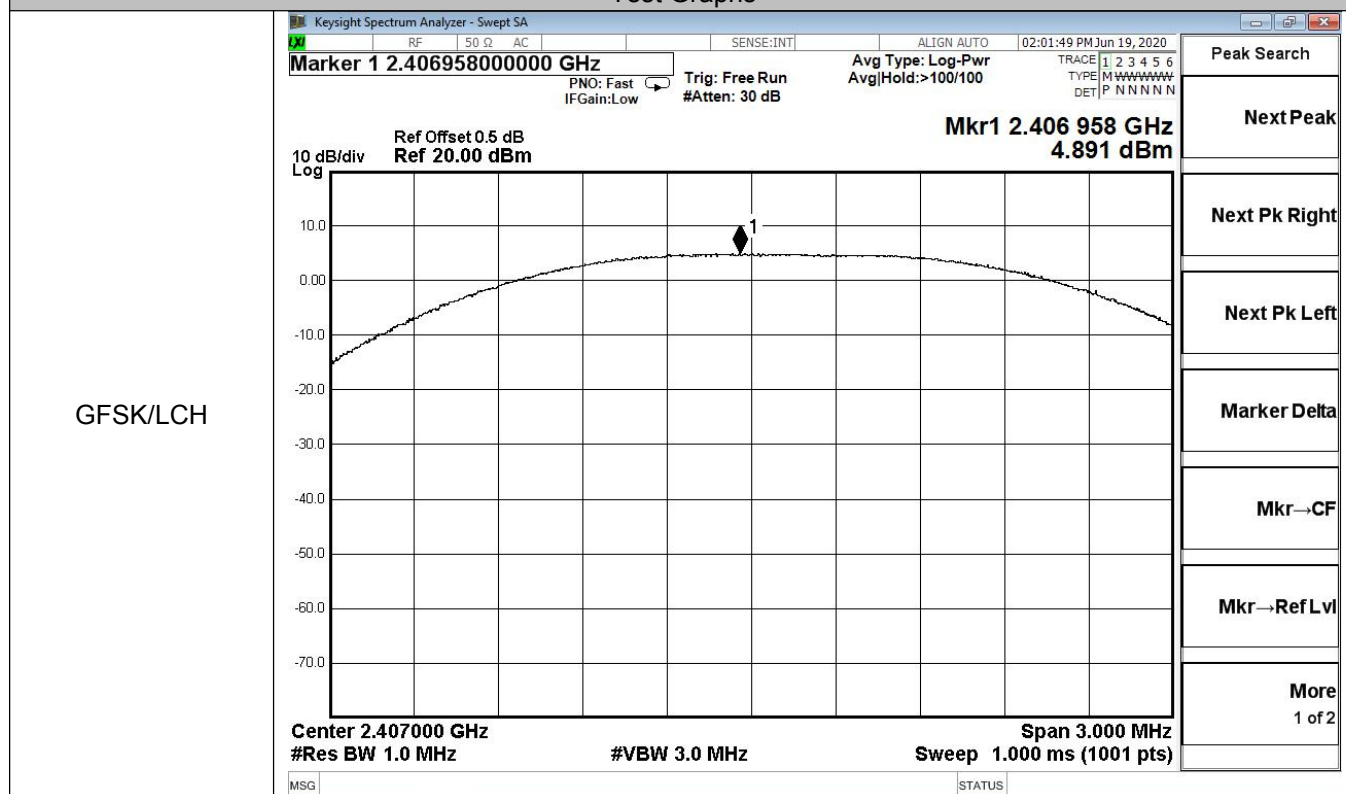
Environmental Conditions

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

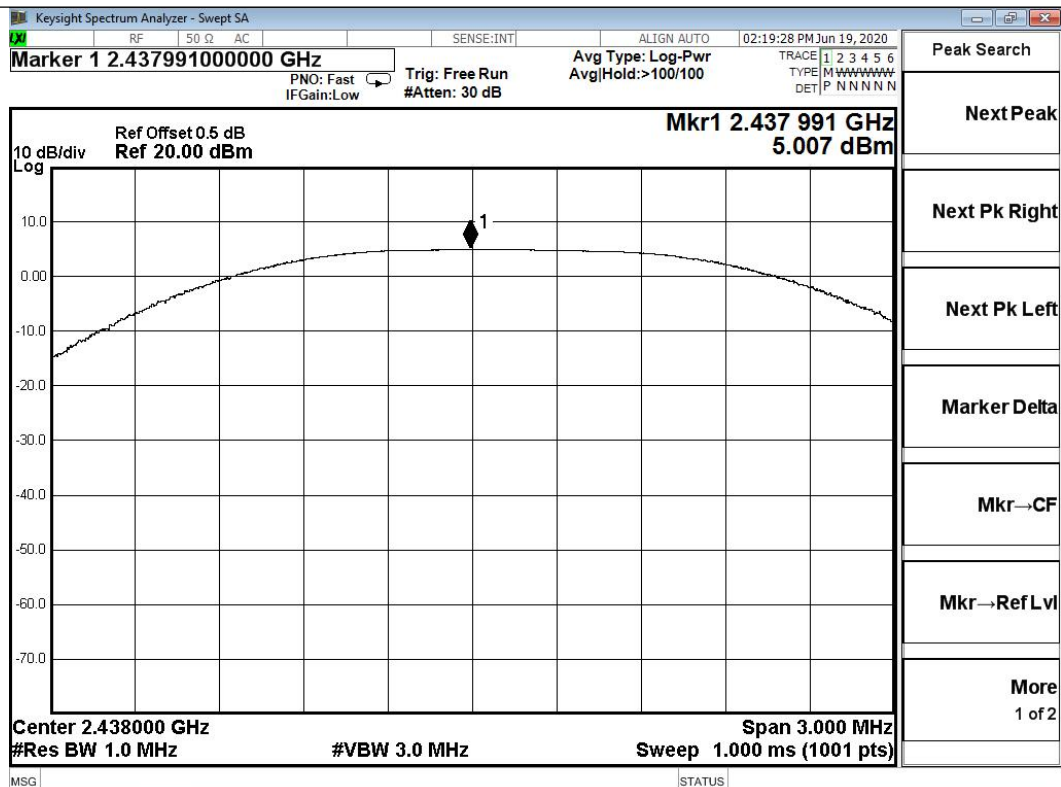
A.1 Maximum Conducted Peak Output Power

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	4.891	21	PASS
	MCH	5.007	21	PASS
	HCH	4.033	21	PASS

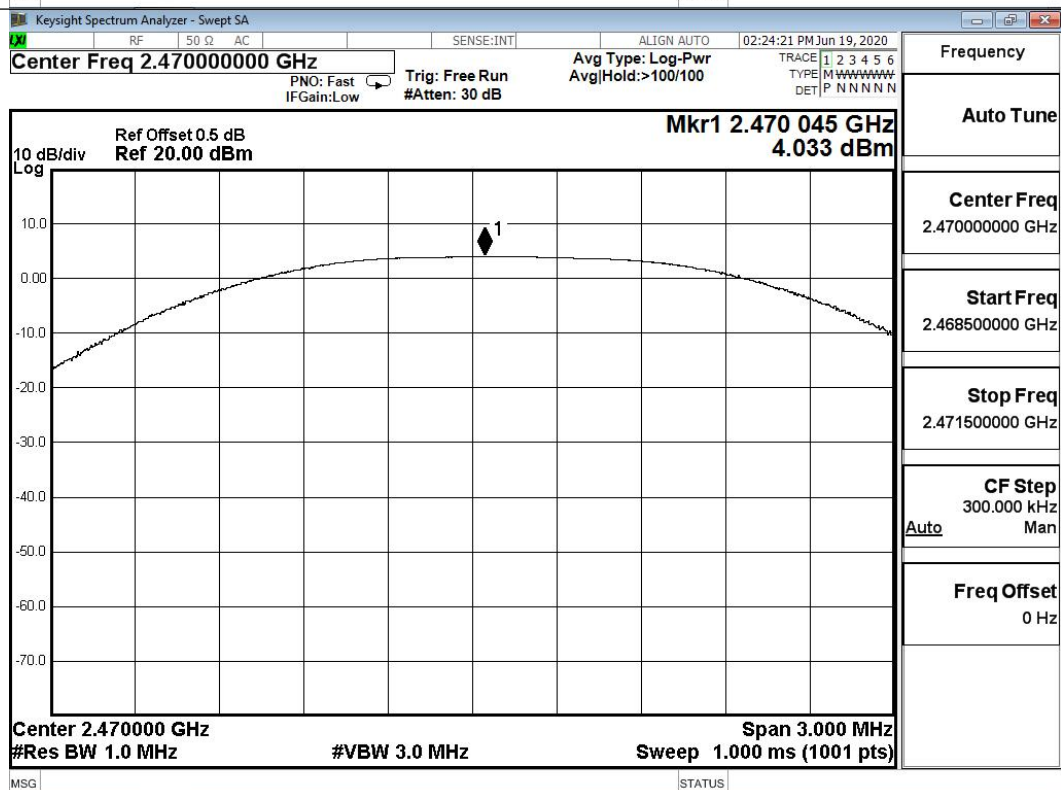
Test Graphs



GFSK/MCH

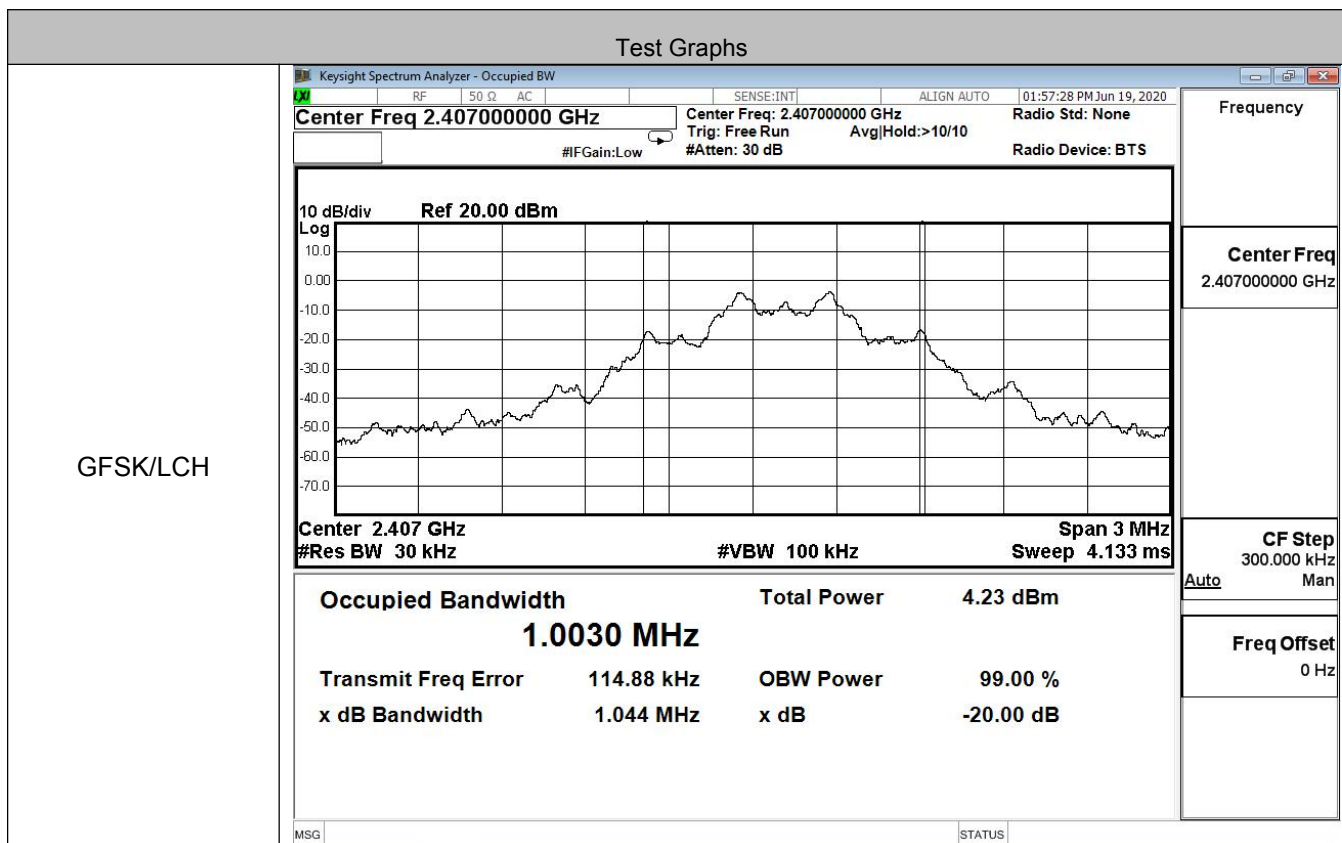


GFSK/HCH

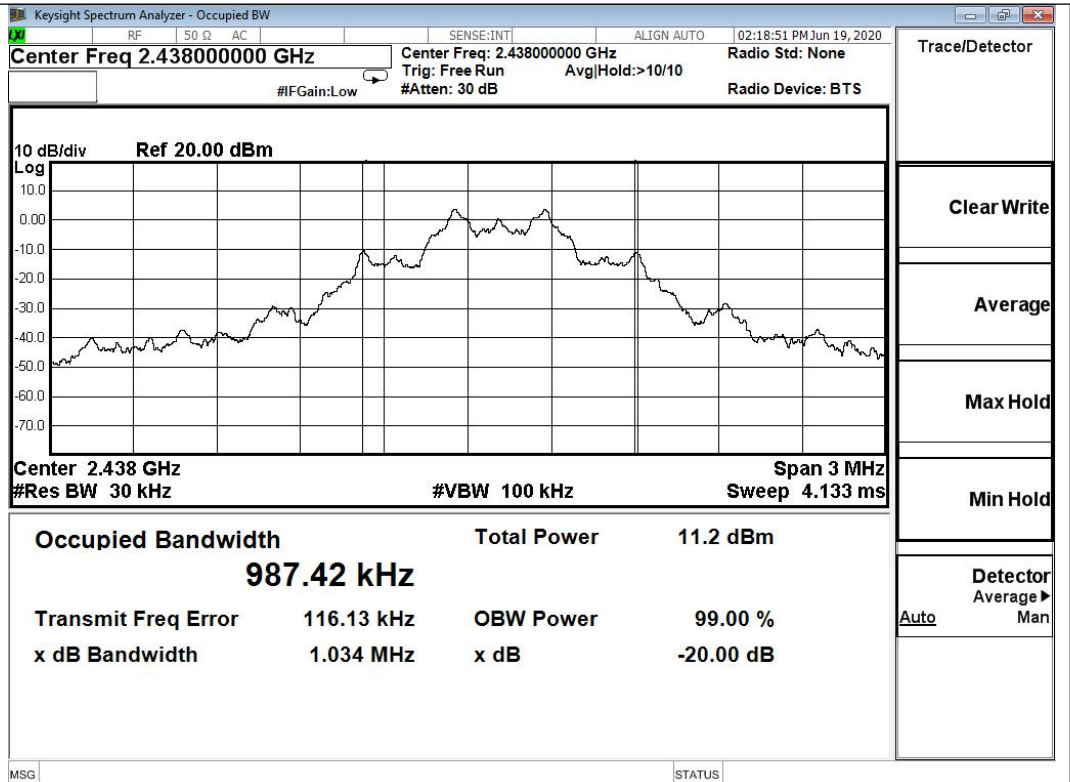


A.2 20dB Bandwidth

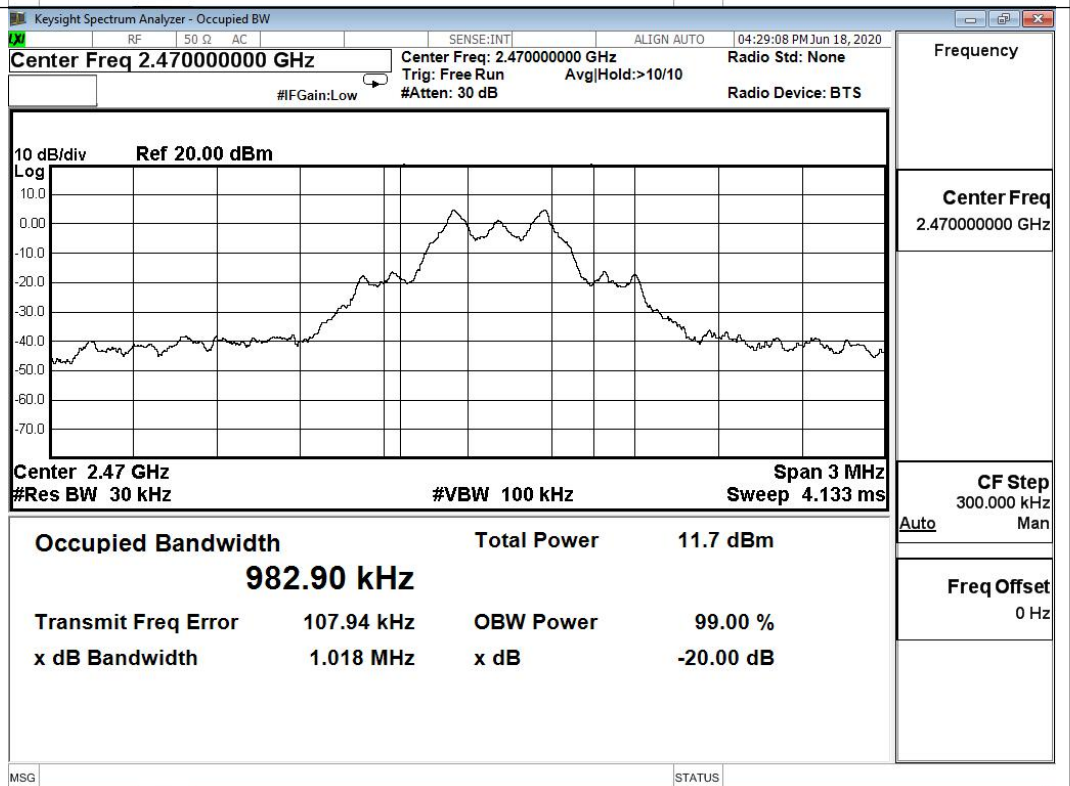
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.044	Not Specified	PASS
	MCH	1.034	Not Specified	PASS
	HCH	1.018	Not Specified	PASS



GFSK/MCH

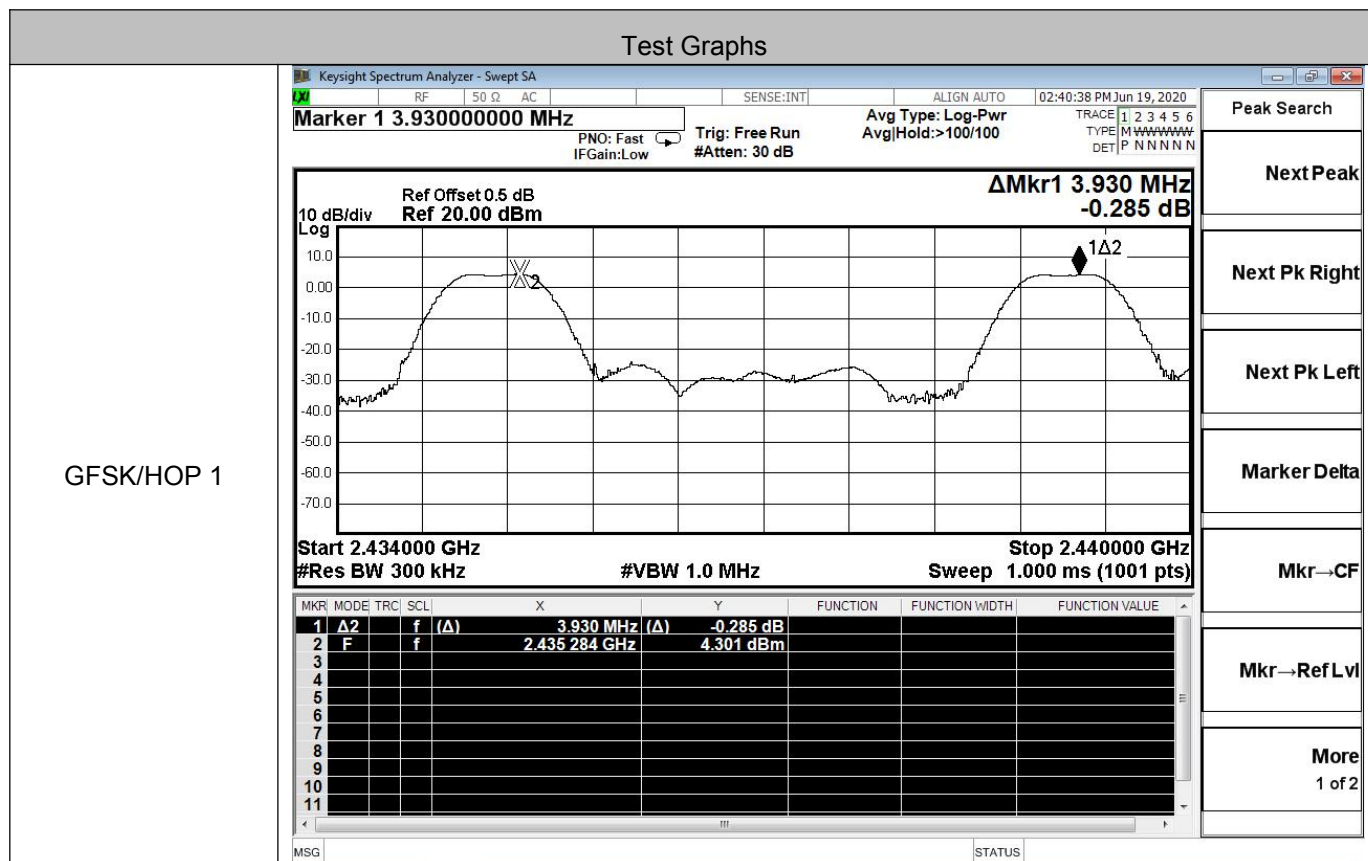


GFSK/HCH

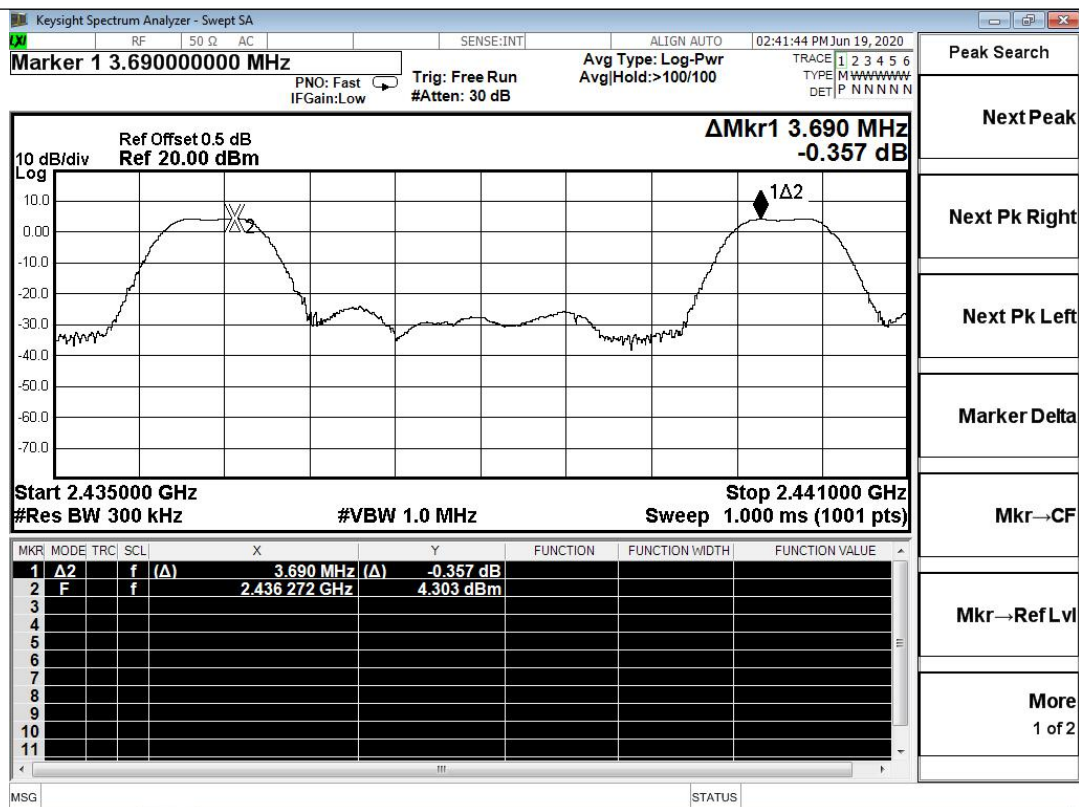


A.3 Carrier Frequency Separation

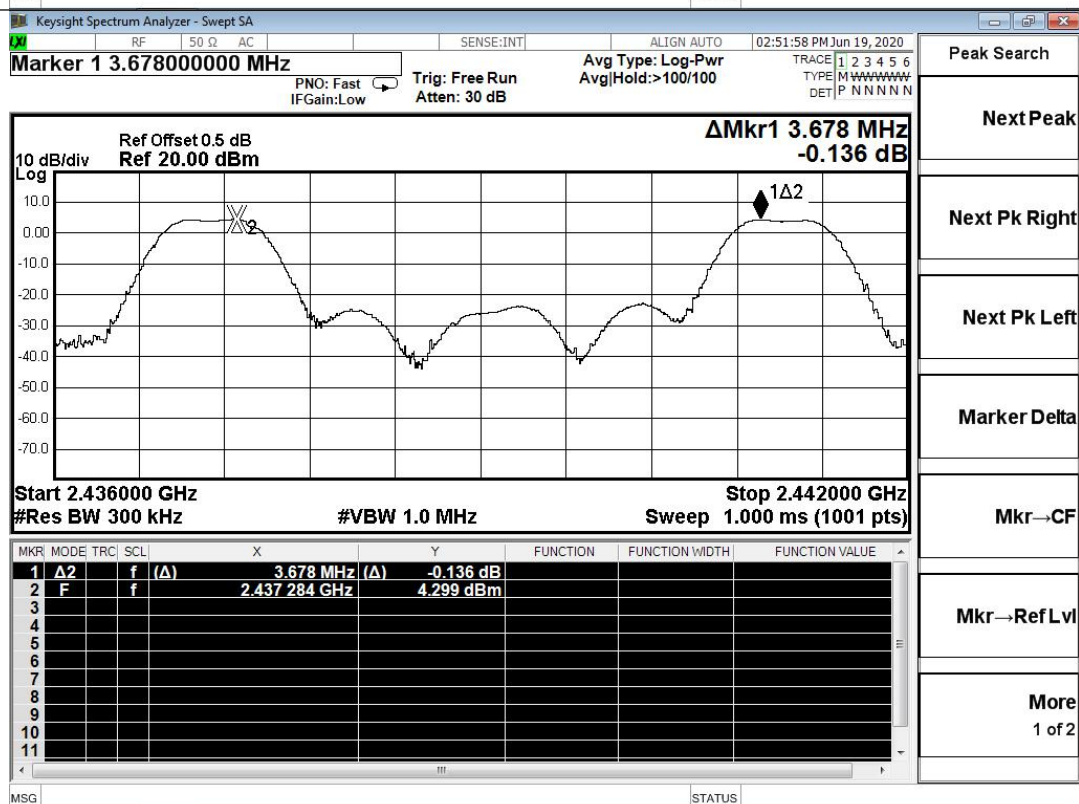
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	HOP 1	3.930	0.696	PASS
	HOP 2	3.690	0.696	PASS
	HOP 3	3.678	0.696	PASS
	HOP 4	3.744	0.696	PASS



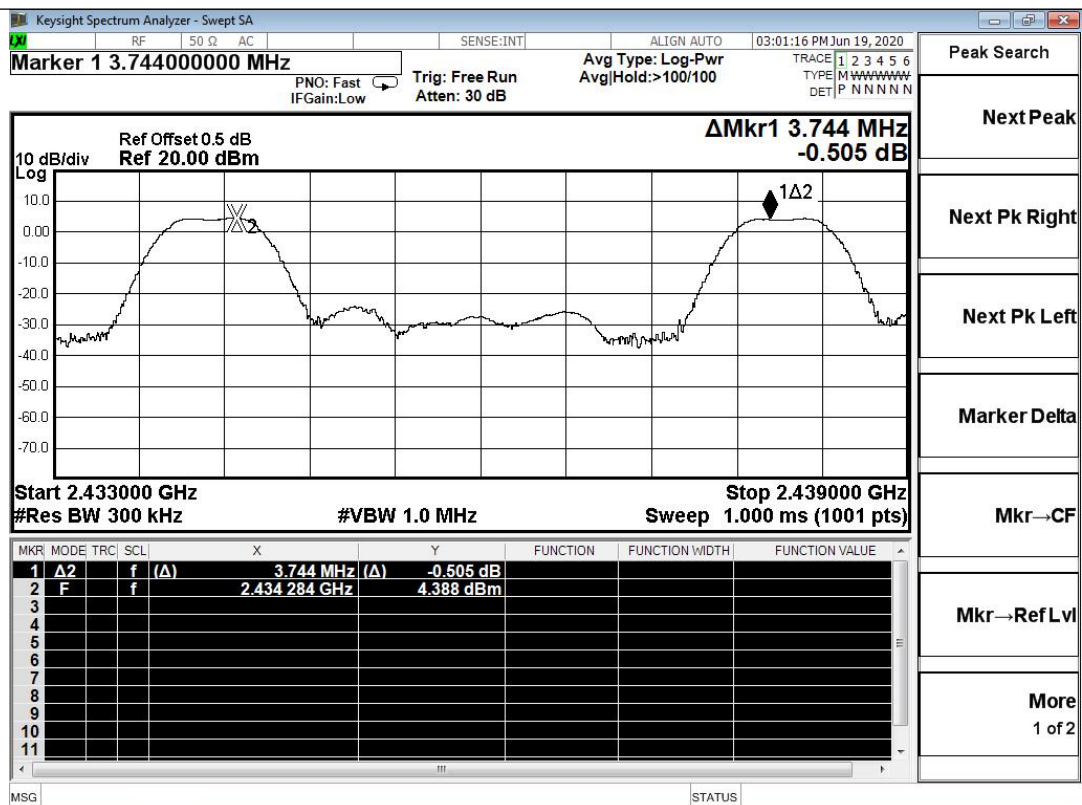
GFSK/HOP 2



GFSK/HOP 3



GFSK/HOP 4

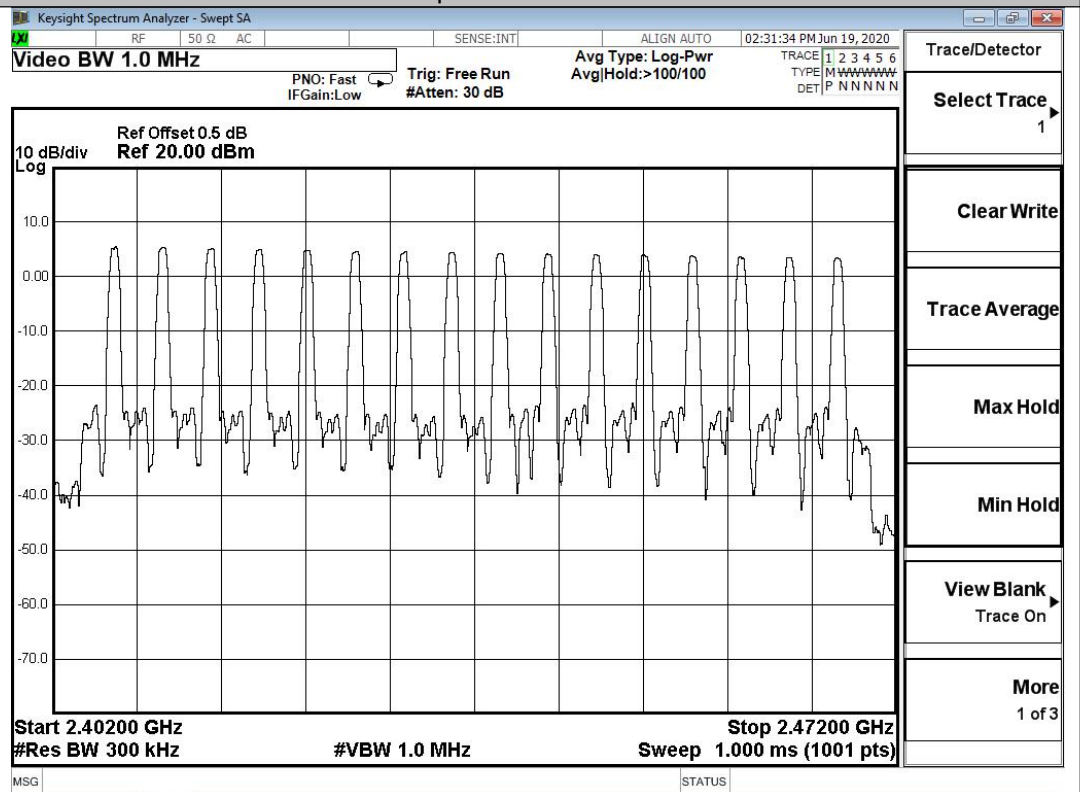


A.4 Hopping Channel Number

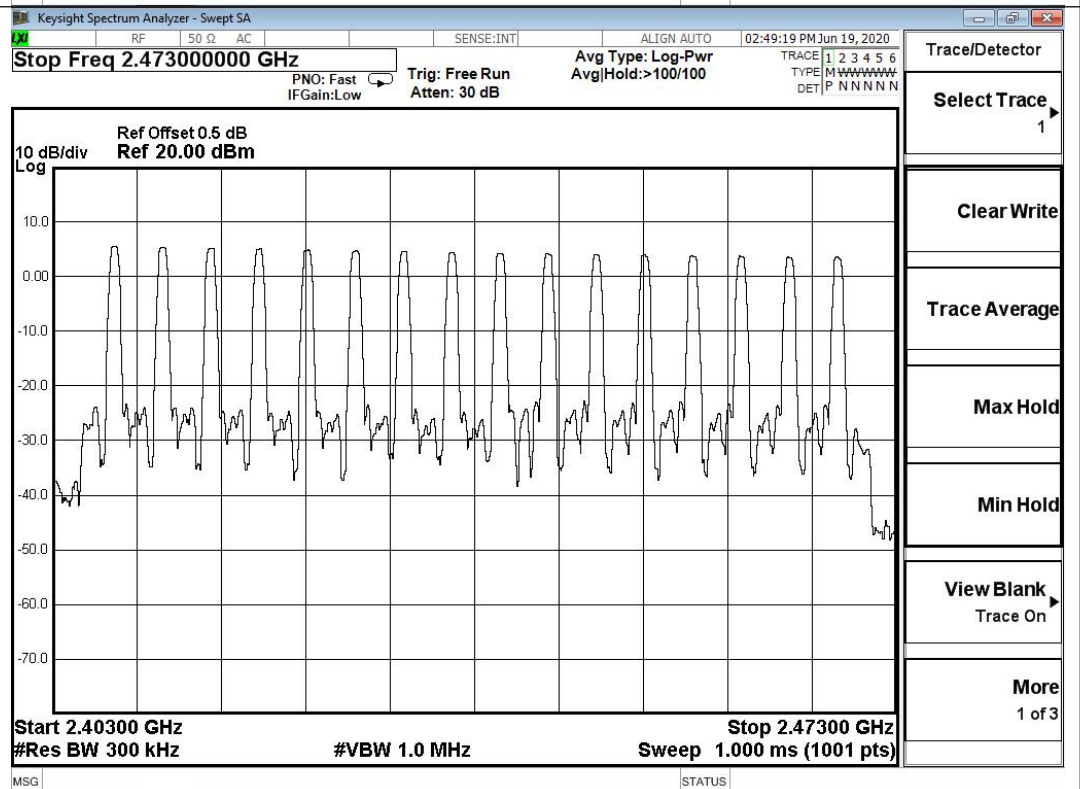
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop 1	16	>=15	PASS
GFSK	Hop 2	16	>=15	PASS
GFSK	Hop 3	16	>=15	PASS
GFSK	Hop 4	16	>=15	PASS

Test Graphs

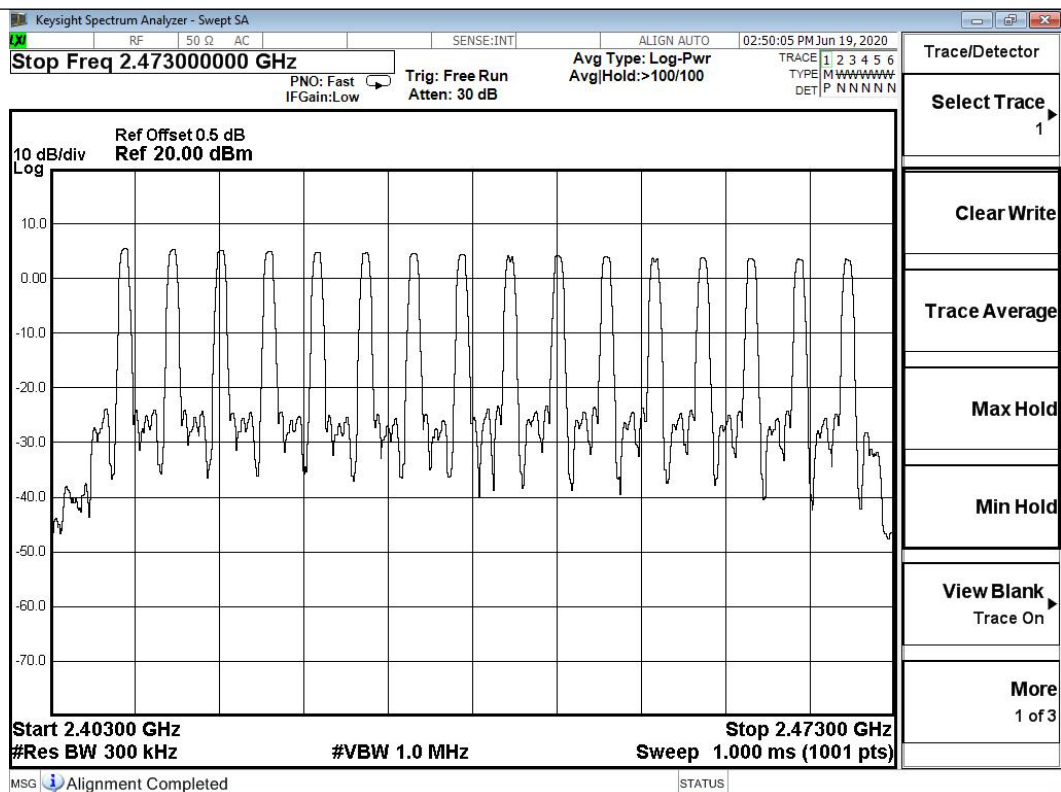
GFSK/HOP 1



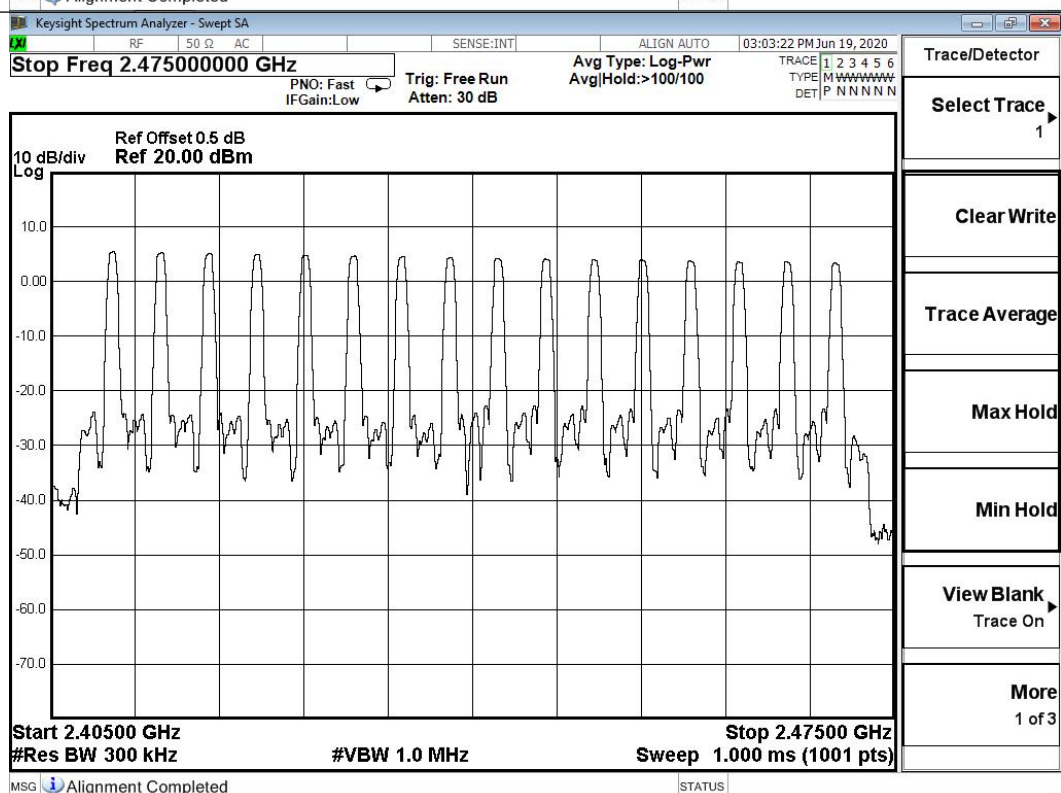
GFSK/HOP 2



GFSK/HOP 3



GFSK/HOP 4

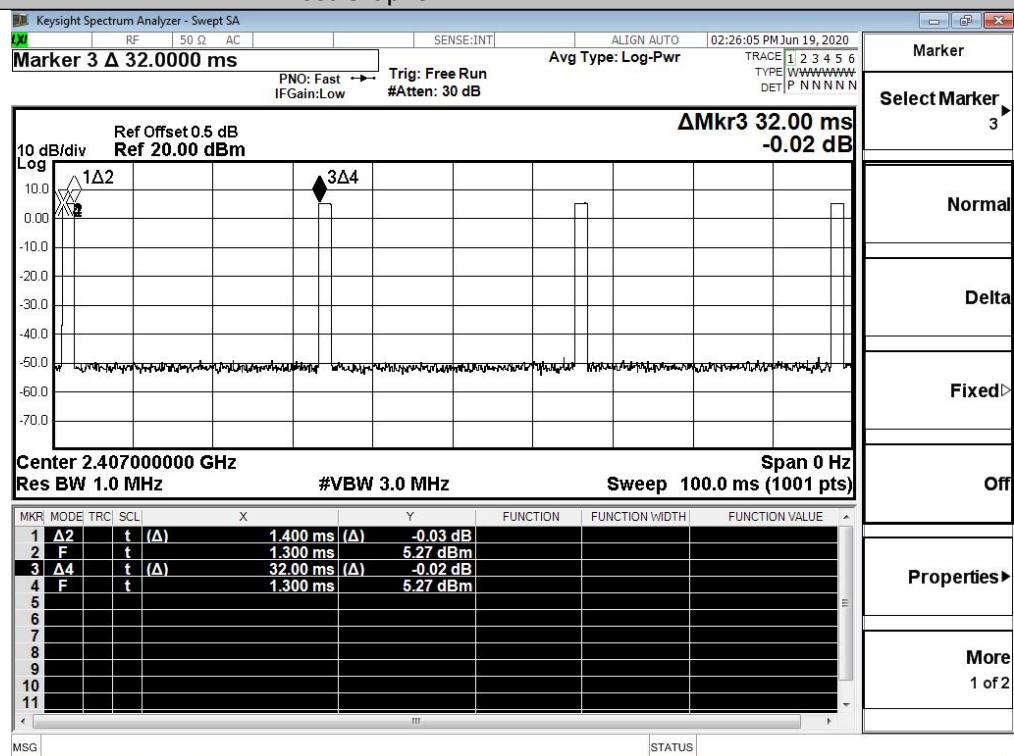


A.5 Dwell Time

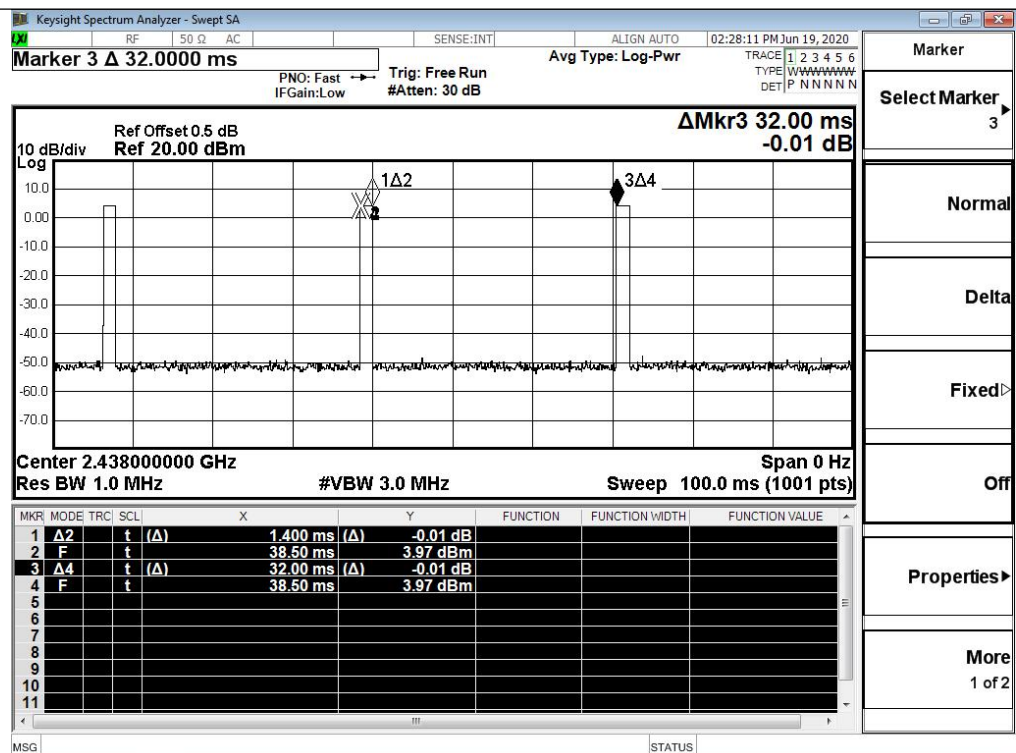
Mode	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	LCH	1.40	13	0.0182	0.4	PASS
	MCH	1.40	13	0.0182	0.4	PASS
	HCH	1.40	13	0.0182	0.4	PASS

Test Graphs

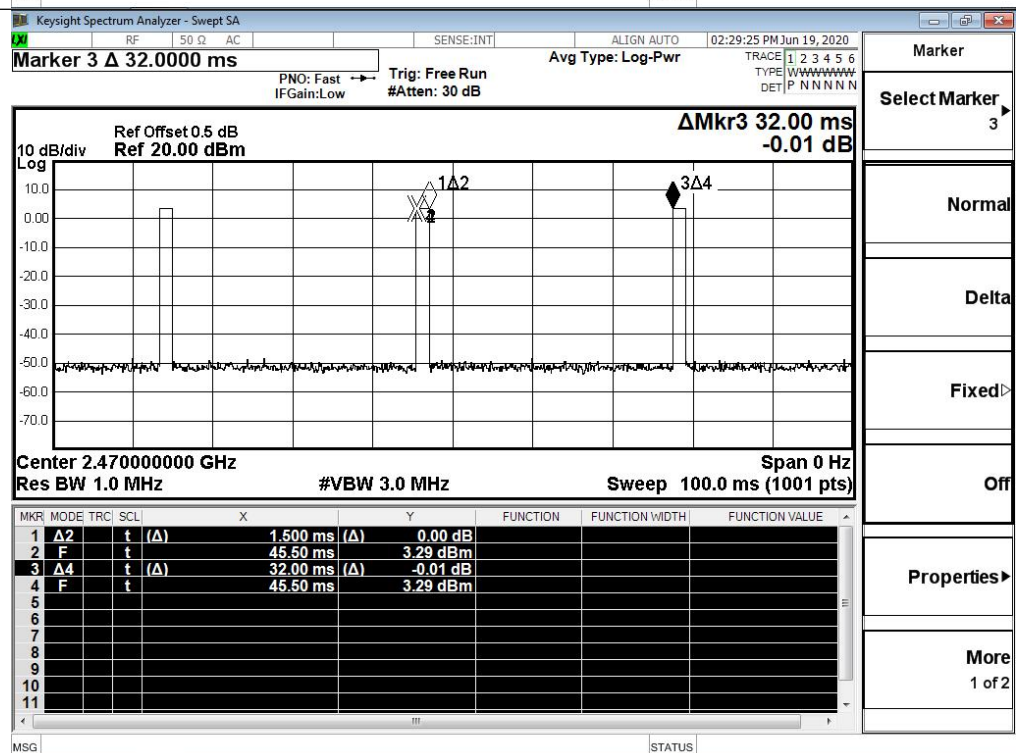
GFSK/LCH



GFSK/MCH

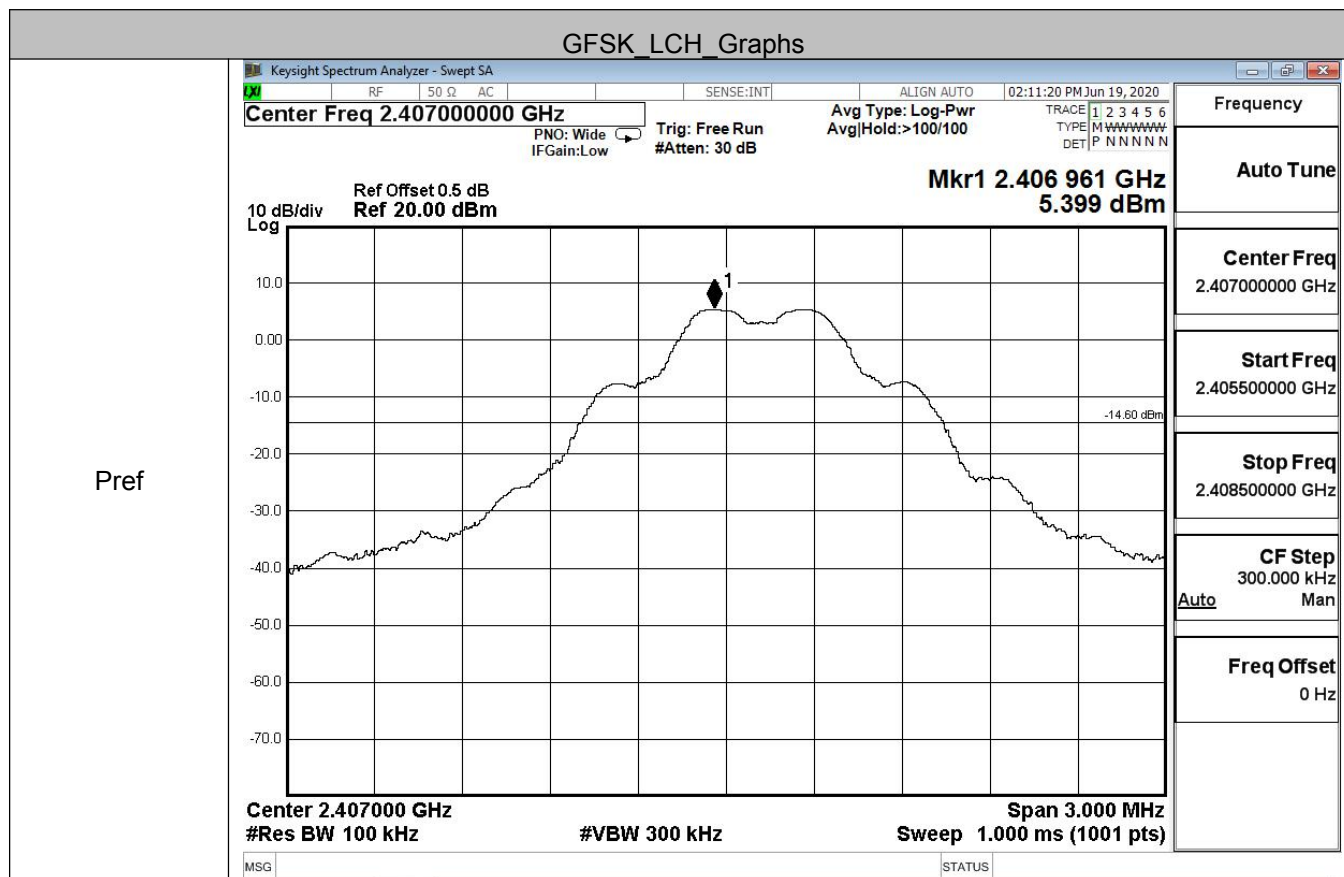


GFSK/HCH

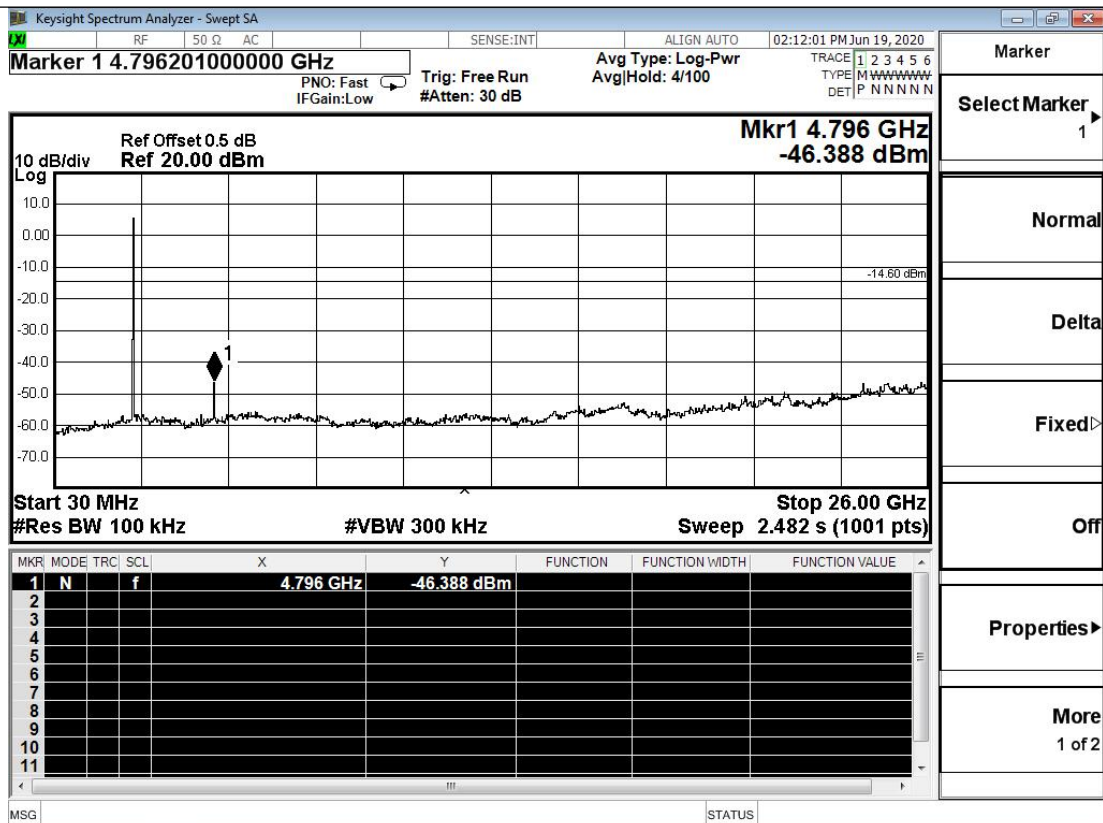


A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	5.399	-46.388	-14.60	PASS
	MCH	4.159	-48.707	-15.87	PASS
	HCH	3.340	-48.927	-16.66	PASS

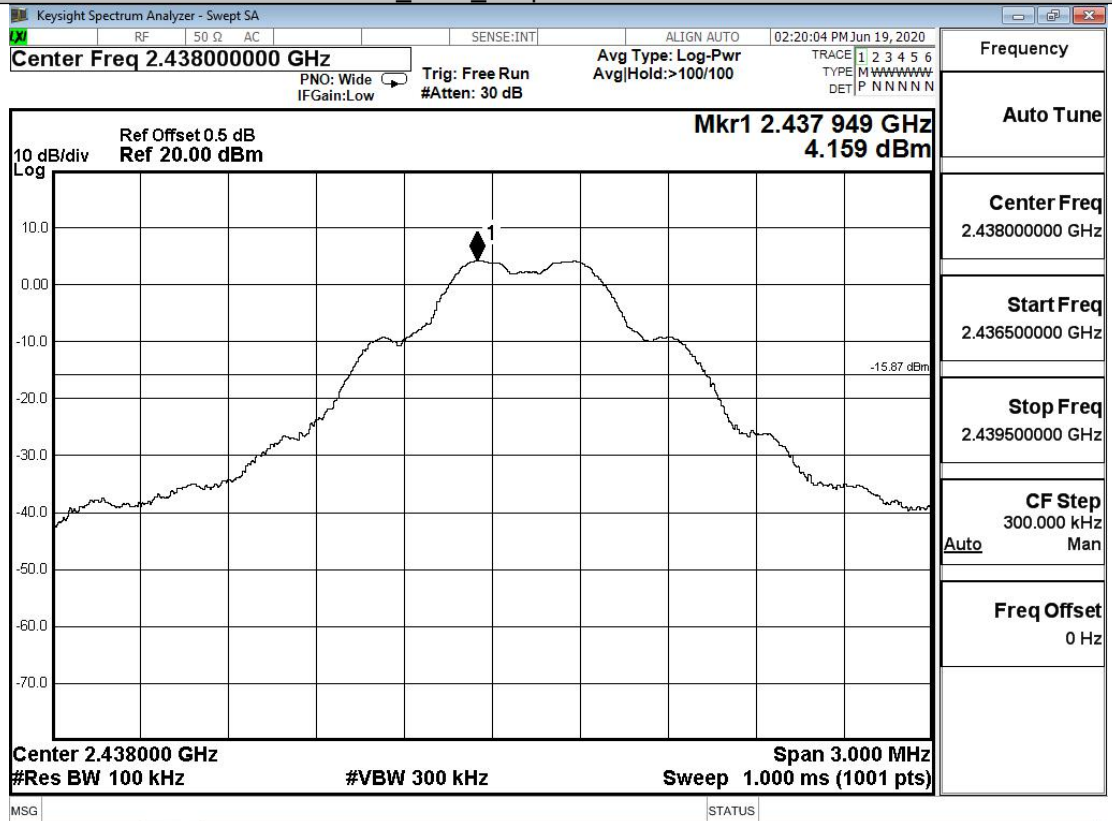


P_uw

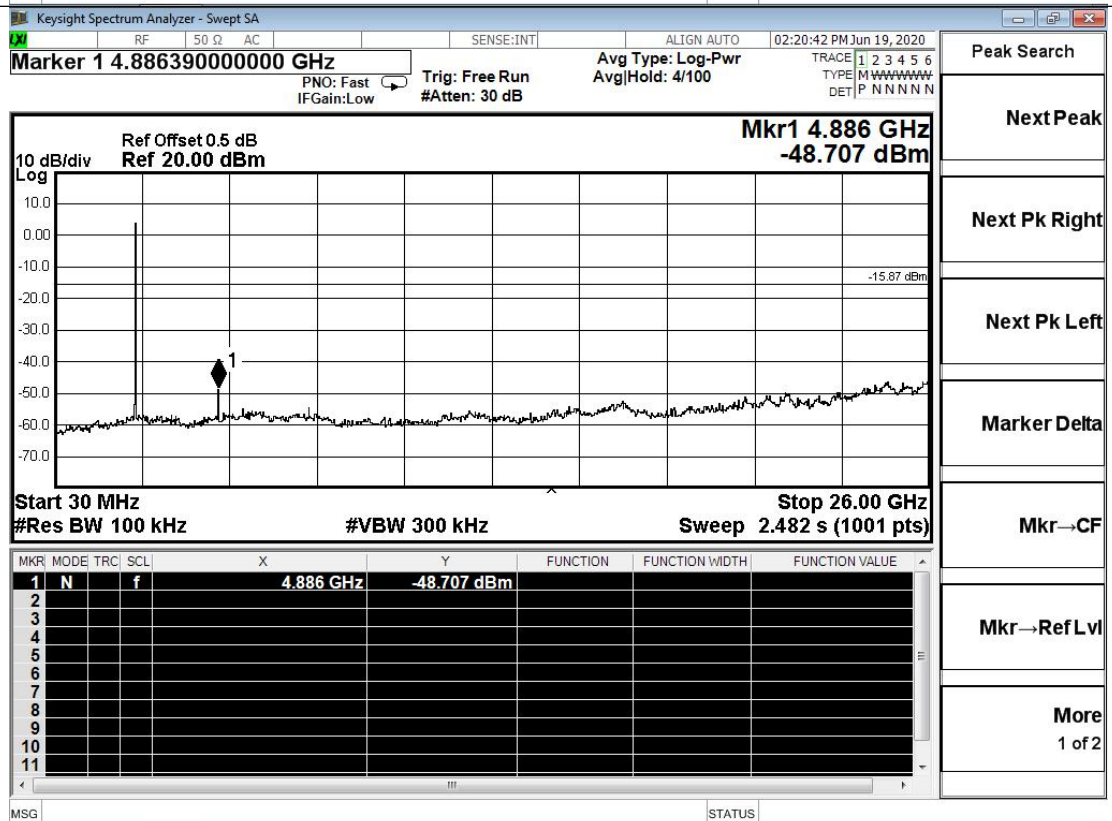


GFSK_MCH_Graphs

Pref

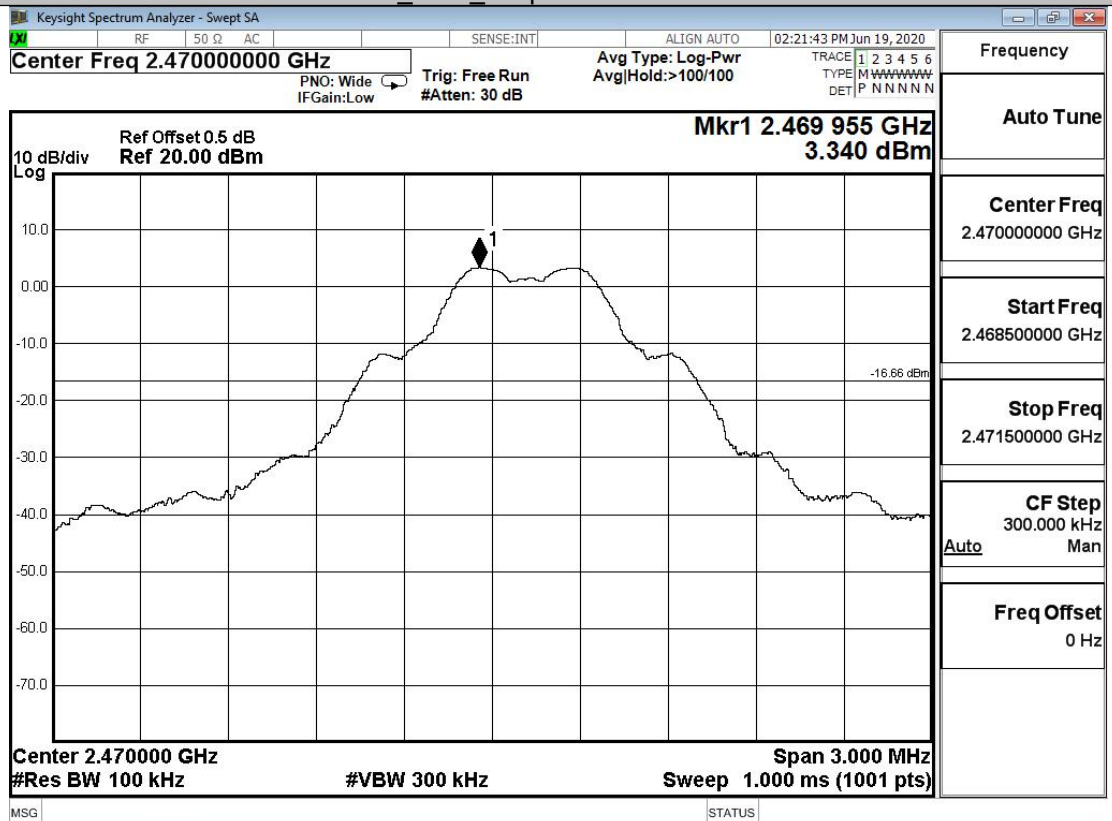


Puw

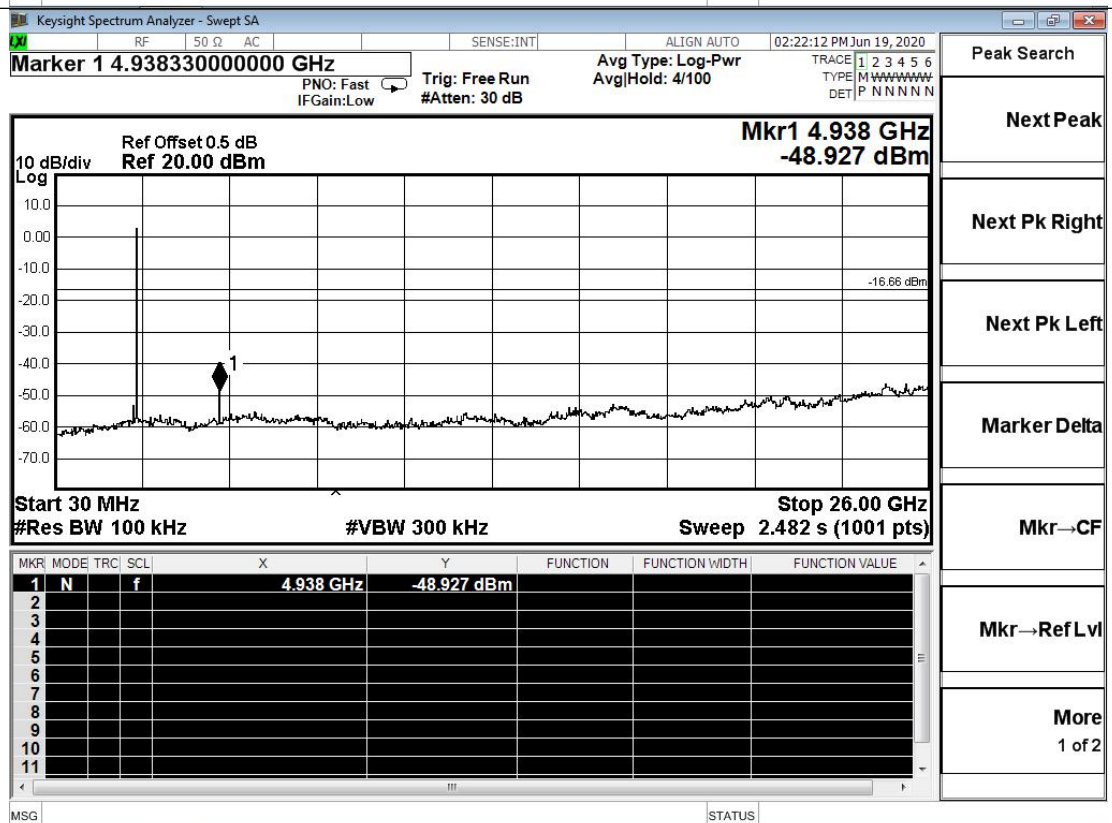


GFSK_HCH_Graphs

Pref



Puw

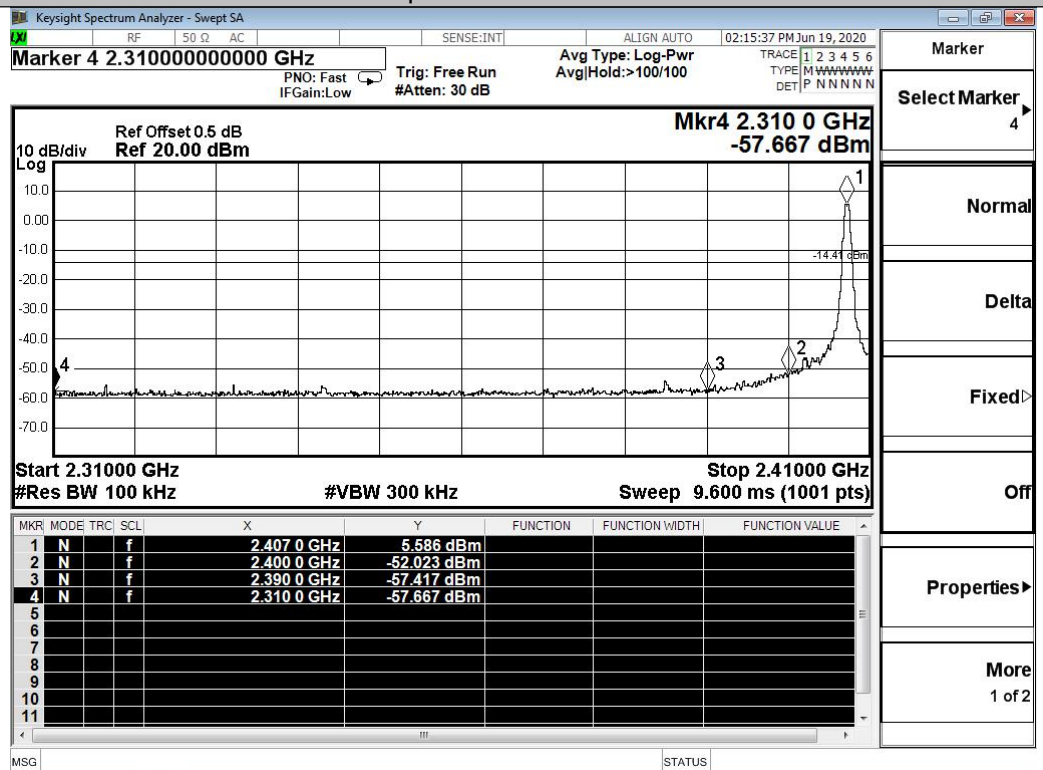


A.7 Band-edge for RF Conducted Emissions

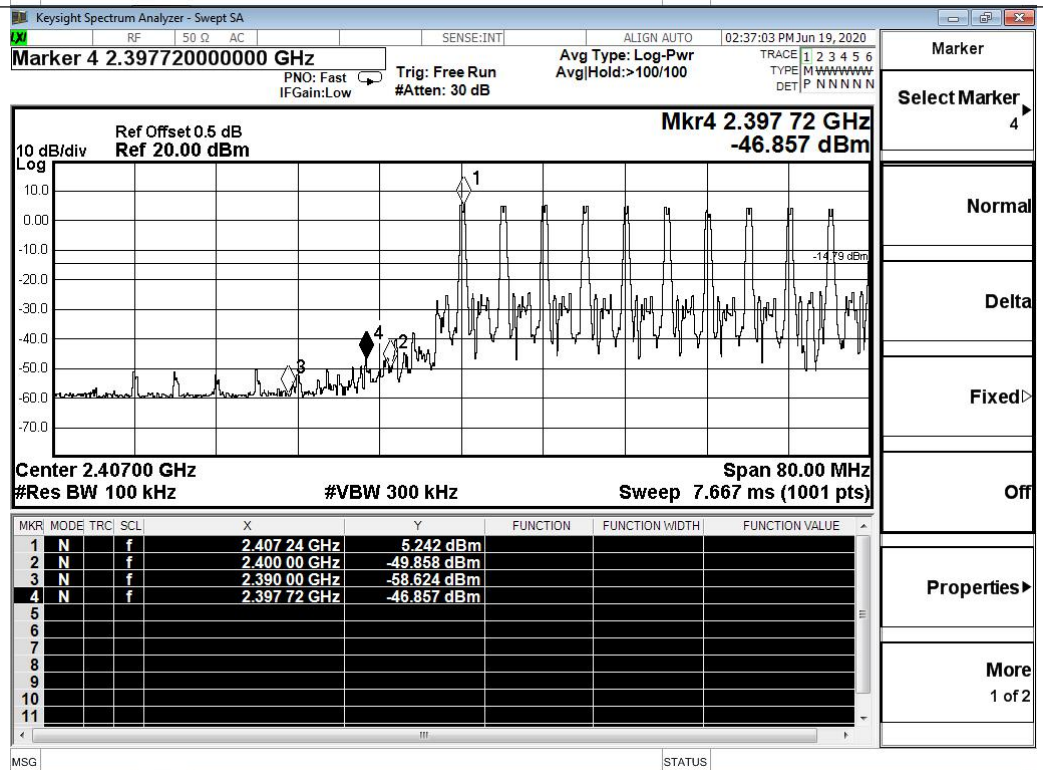
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2407	5.586	Off	-52.023	-14.41	PASS
			5.242	Hop 1	-46.587	-14.79	PASS
			5.305	Hop 2	-46.707	-14.70	PASS
			5.192	Hop 3	-51.774	-14.81	PASS
			5.346	Hop 4	-51.261	-14.65	PASS
	HCH	2470	3.756	Off	-56.990	-16.24	PASS
			4.561	Hop 1	-56.978	-15.72	PASS
			4.349	Hop 2	-56.875	-15.65	PASS
			4.268	Hop 3	-55.810	-15.73	PASS
			4.475	Hop 4	-57.480	-15.53	PASS

Test Graphs

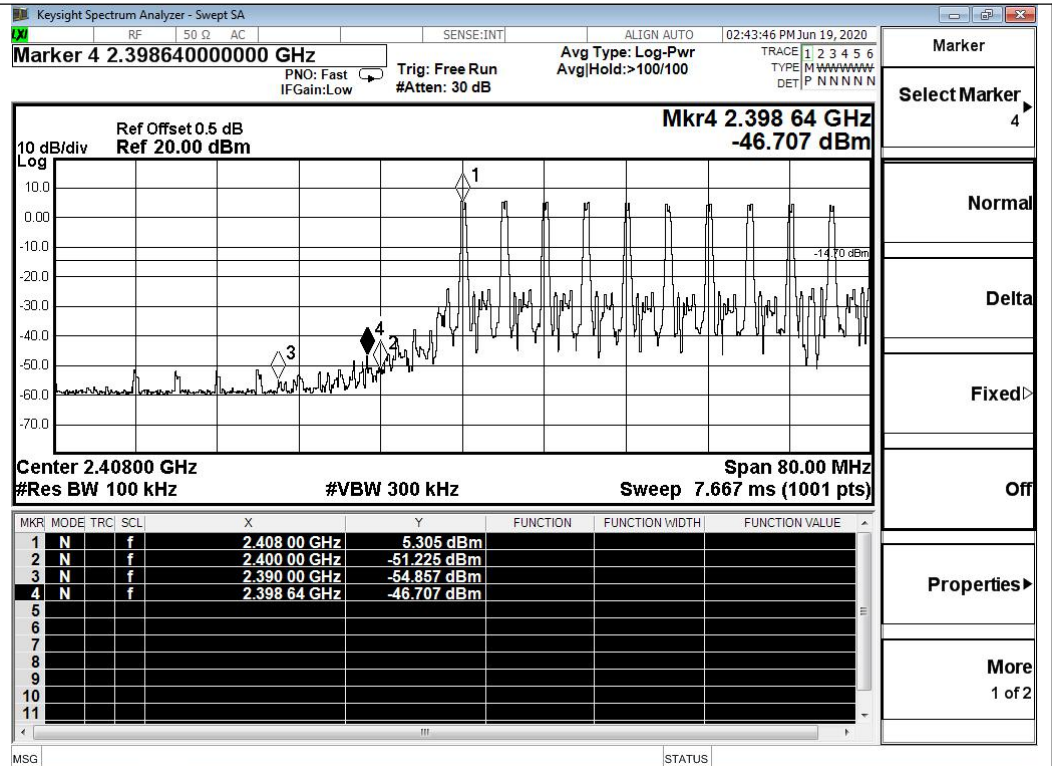
GFSK/LCH/No Hop



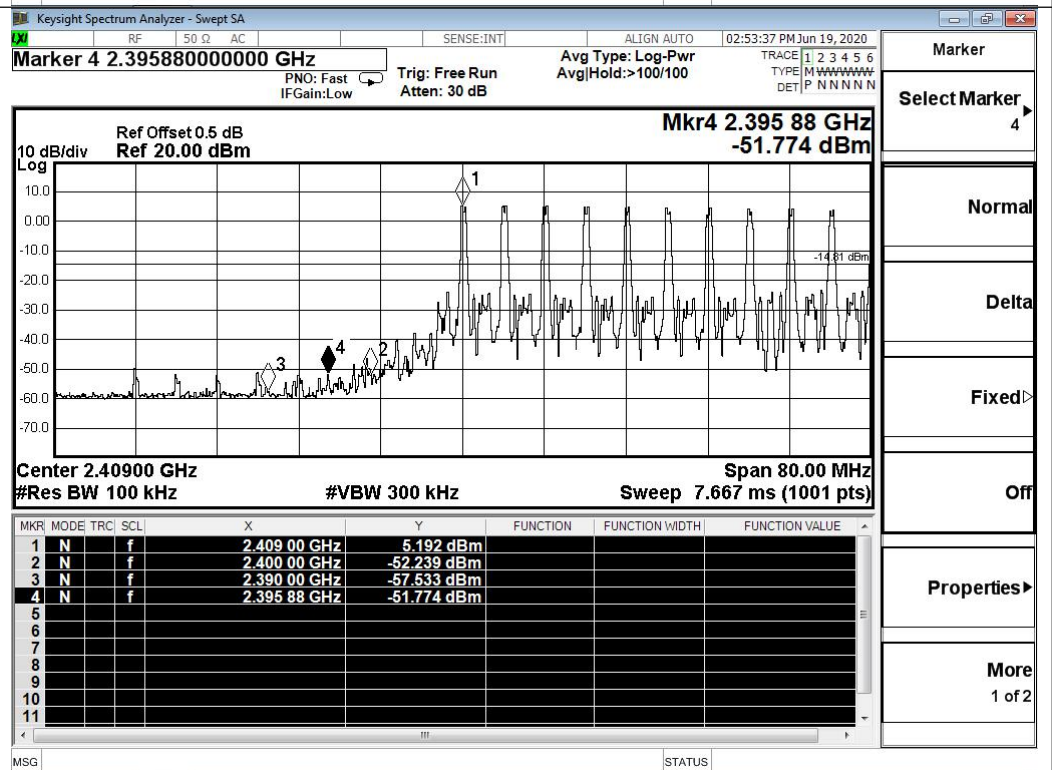
GFSK/LCH/Hop 1



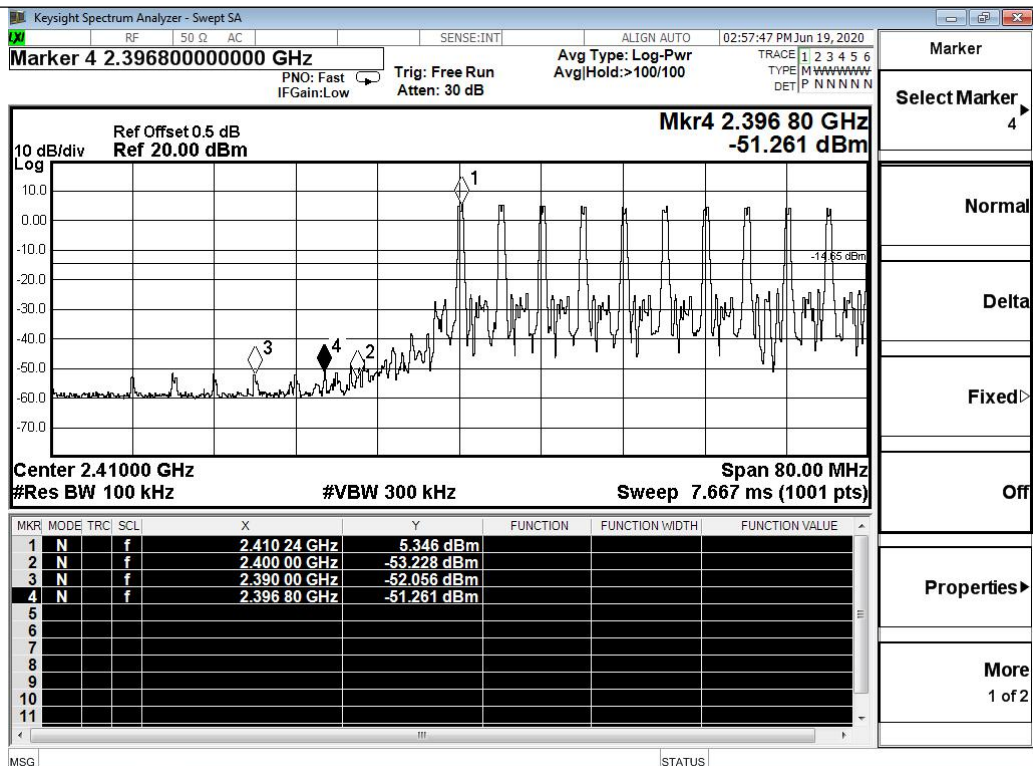
GFSK/LCH/Hop 2



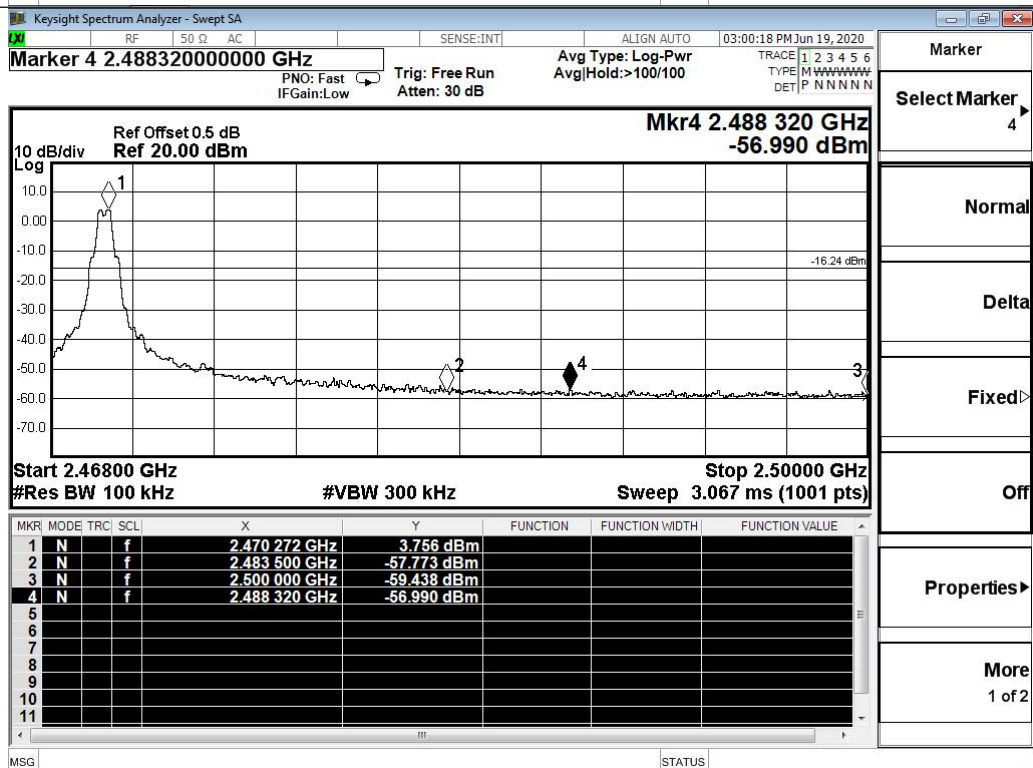
GFSK/LCH/Hop 3



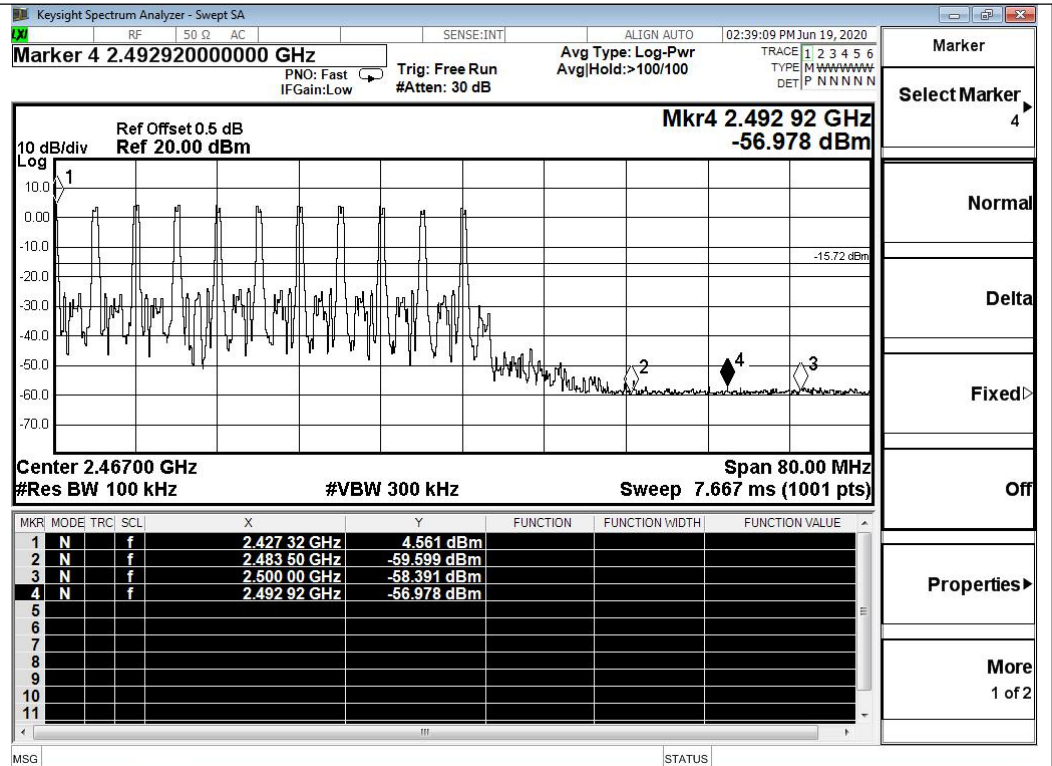
GFSK/LCH/Hop 4



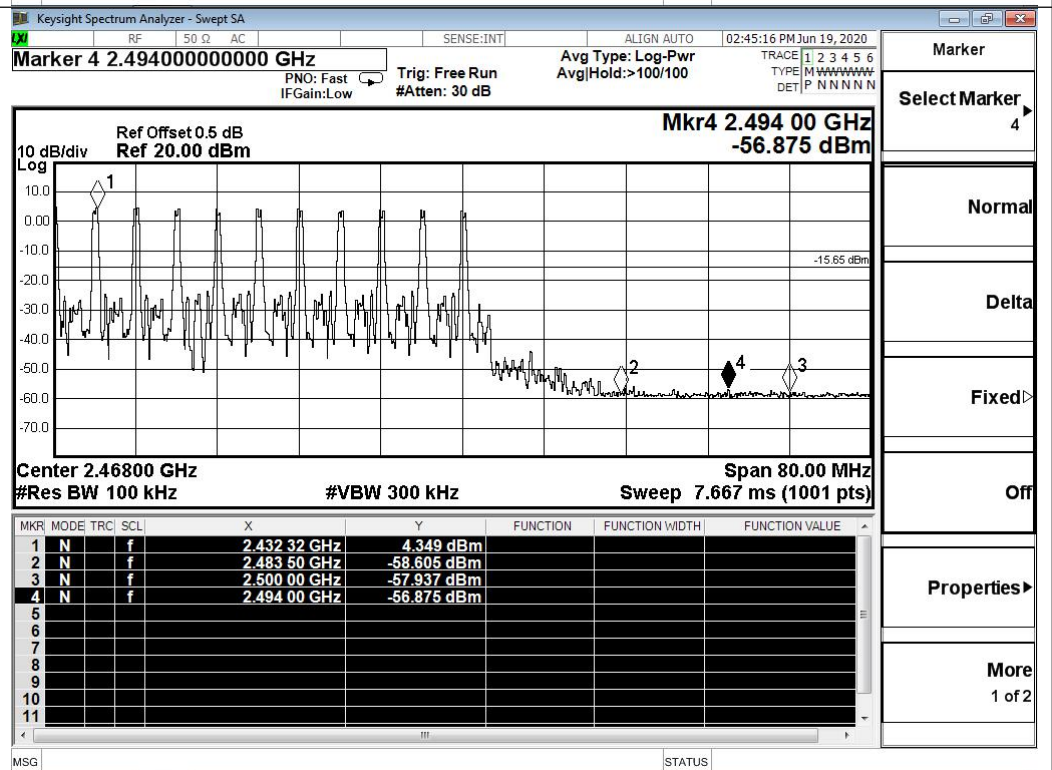
GFSK/HCH/No Hop



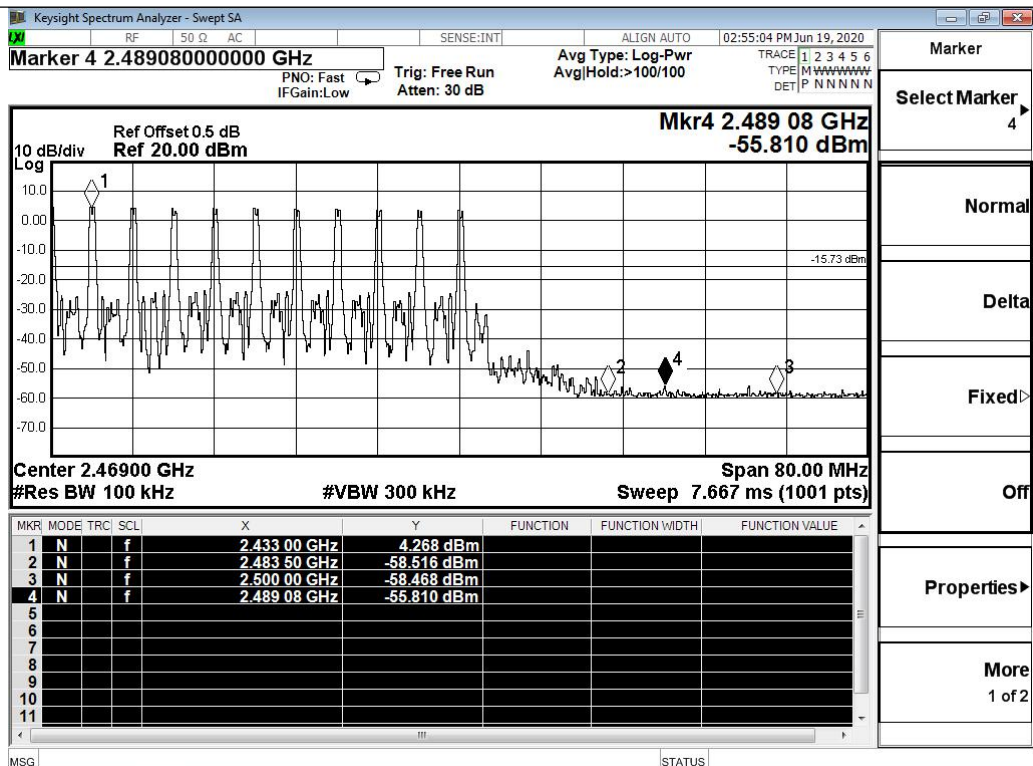
GFSK/HCH/Hop 1



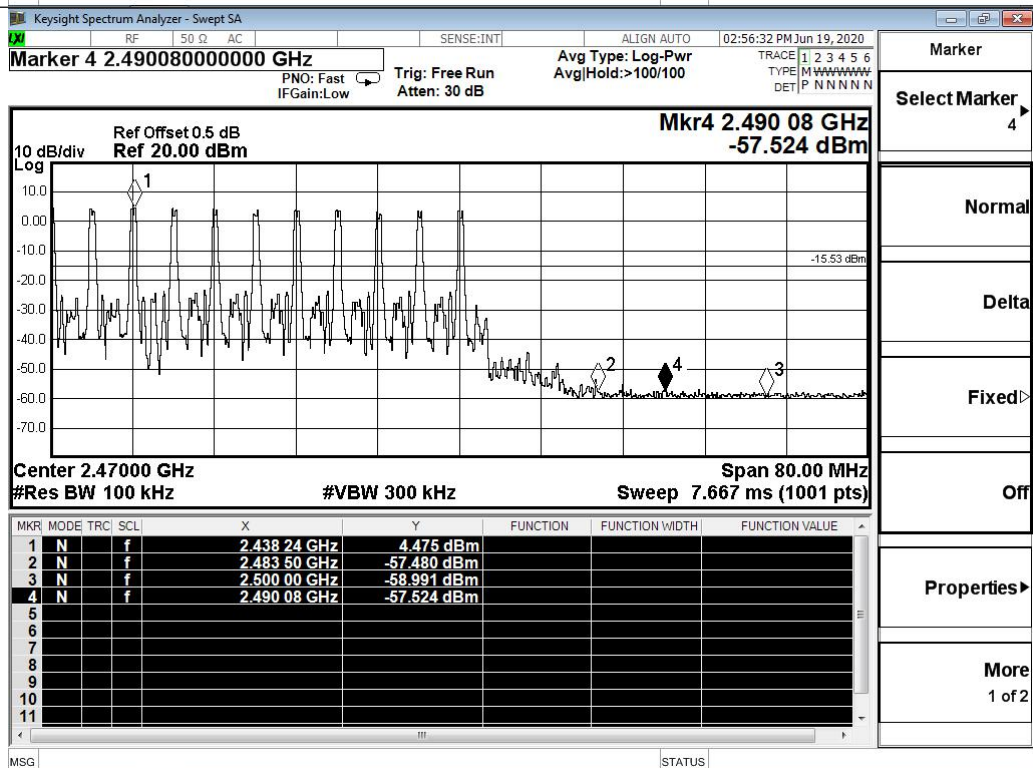
GFSK/HCH/Hop 2



GFSK/HCH/Hop 3



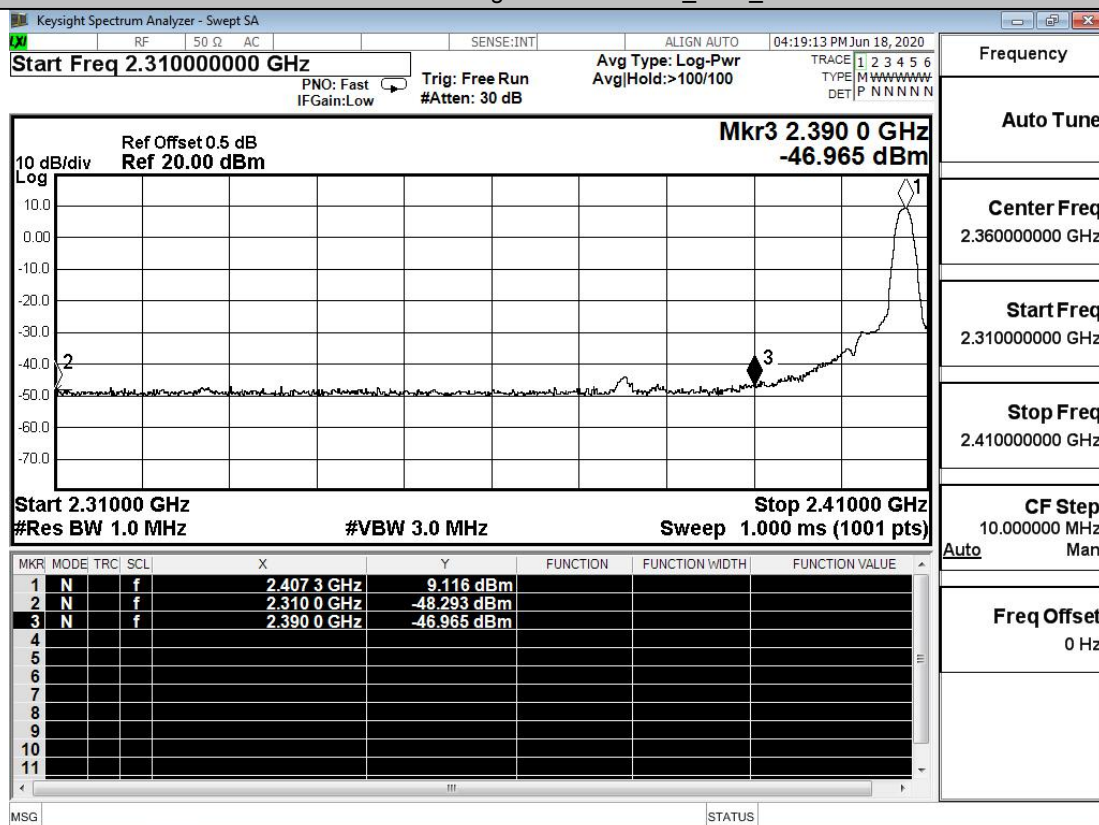
GFSK/HCH/Hop 4



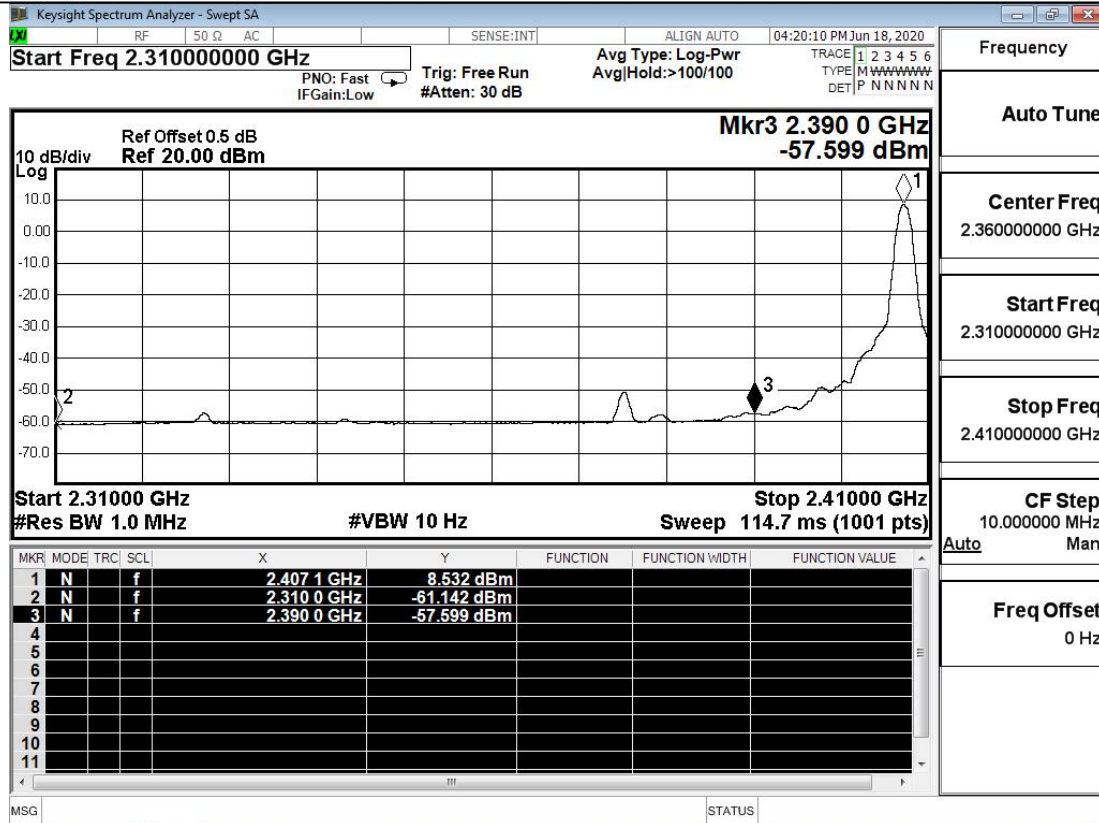
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	48.94	2.0	0	50.79	PEAK	74	PASS
	Off	2310.0	36.09	2.0	0	37.89	AV	54	PASS
	Off	2390.0	50.27	2.0	0	53.94	PEAK	74	PASS
	Off	2390.0	39.63	2.0	0	40.26	AV	54	PASS
	Off	2483.5	49.20	2.0	0	49.82	PEAK	74	PASS
	Off	2483.5	39.12	2.0	0	38.14	AV	54	PASS
	Off	2500.0	47.97	2.0	0	50.19	PEAK	74	PASS
	Off	2500.0	36.52	2.0	0	38.03	AV	54	PASS

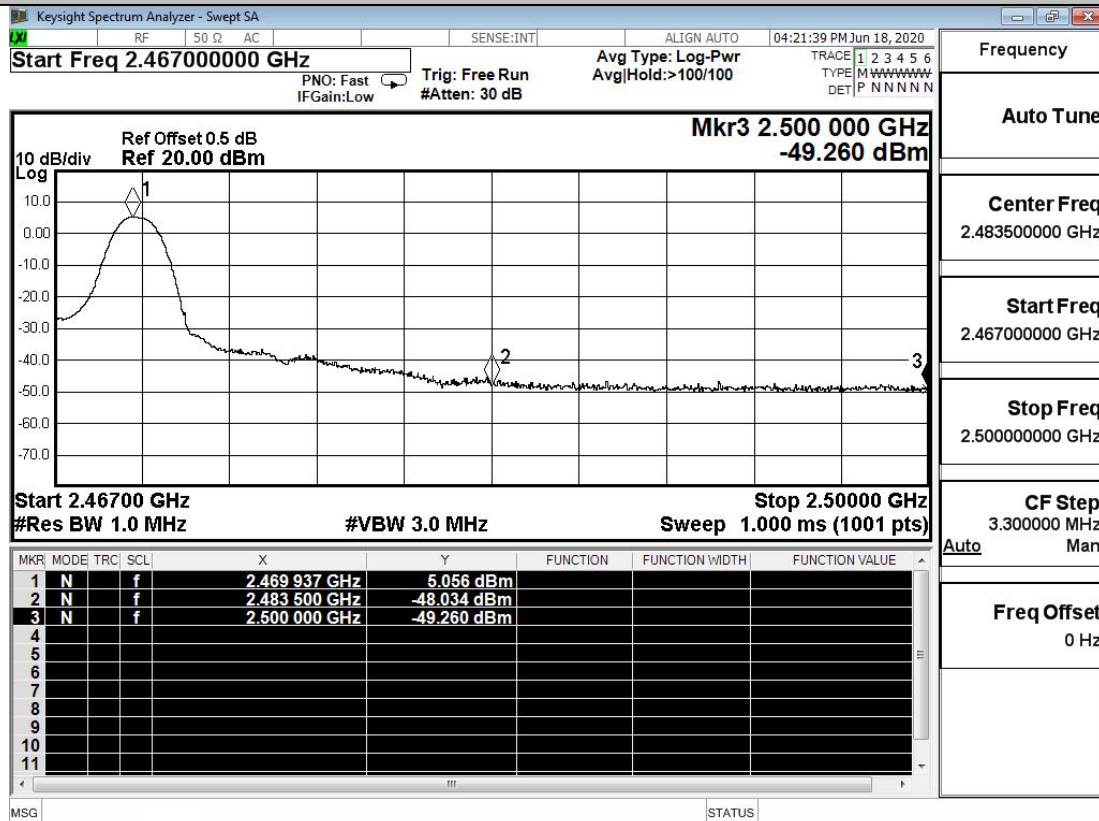
Restrict-band band-edge measurements_2407_PEAK



Restrict-band band-edge measurements_2407_AV



Restrict-band band-edge measurements_2470_PEAK



Restrict-band band-edge measurements_2470_AV

