

Appendix A

RF Test Data for BT V4.2(BDR/EDR) (Conducted Measurement)

Product Name: LED bluetooth controller

Trade Mark: N/A

Test Model: 15M24W114B

Environmental Conditions

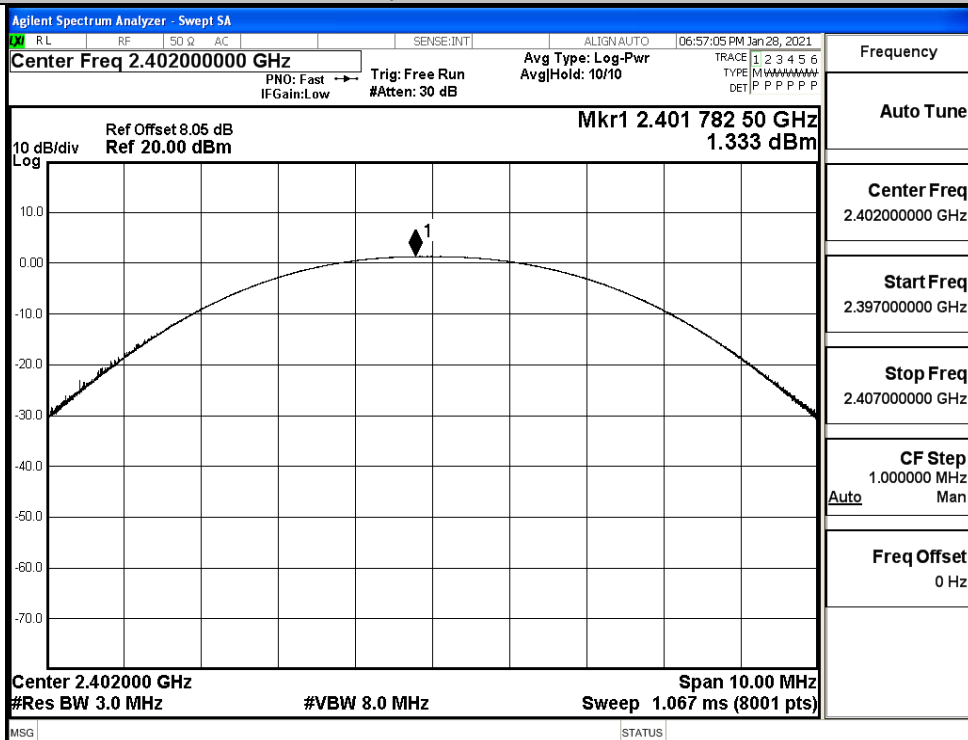
Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Ben Jin
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

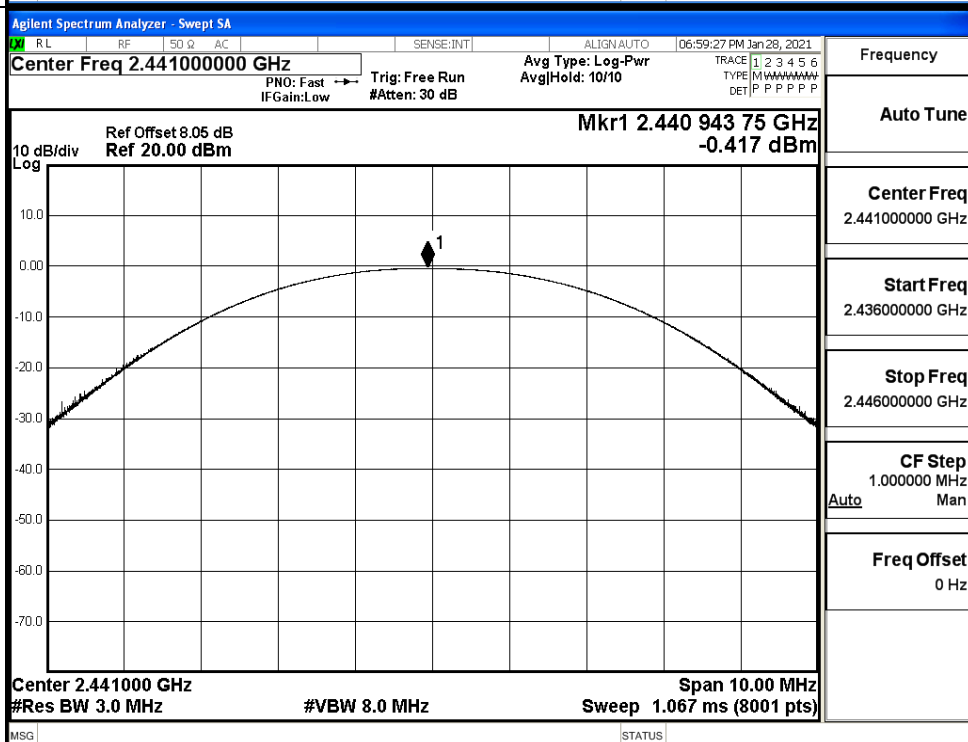
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	1.333	21	PASS
	MCH	-0.417	21	PASS
	HCH	-2.336	21	PASS

Test Graphs

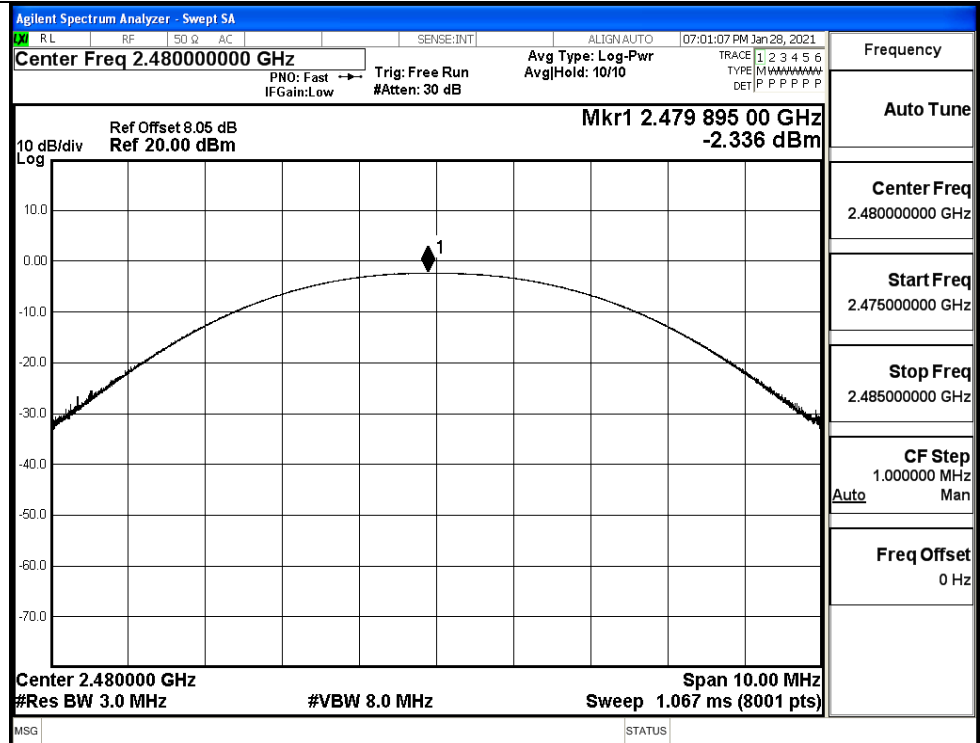
GFSK/LCH



GFSK/MCH



GFSK/HCH

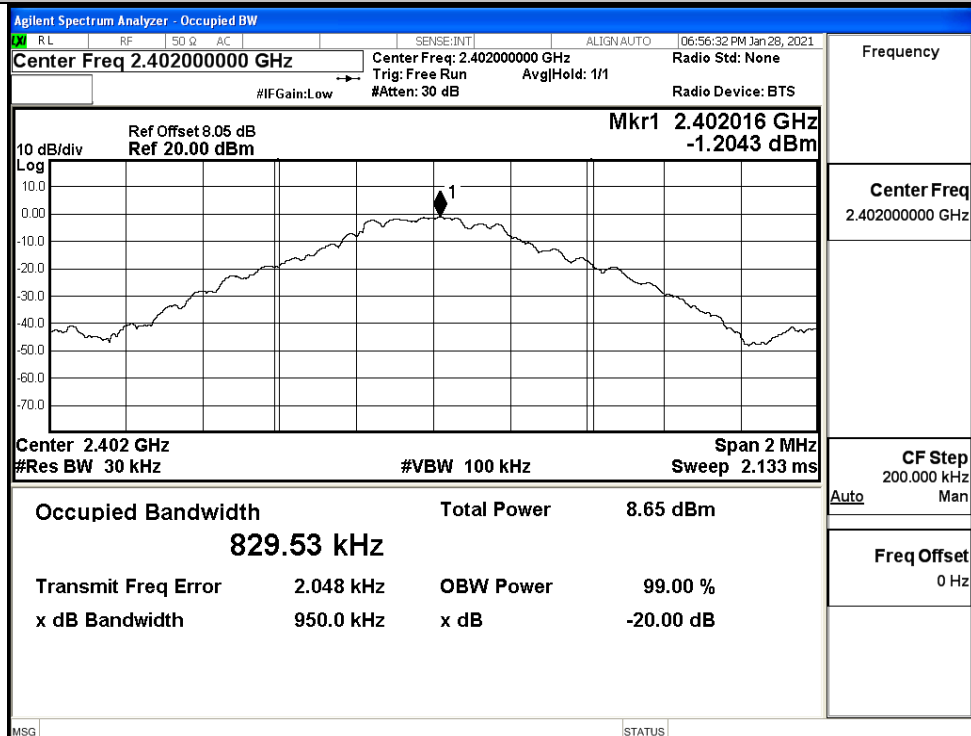


A.2 20dB Bandwidth

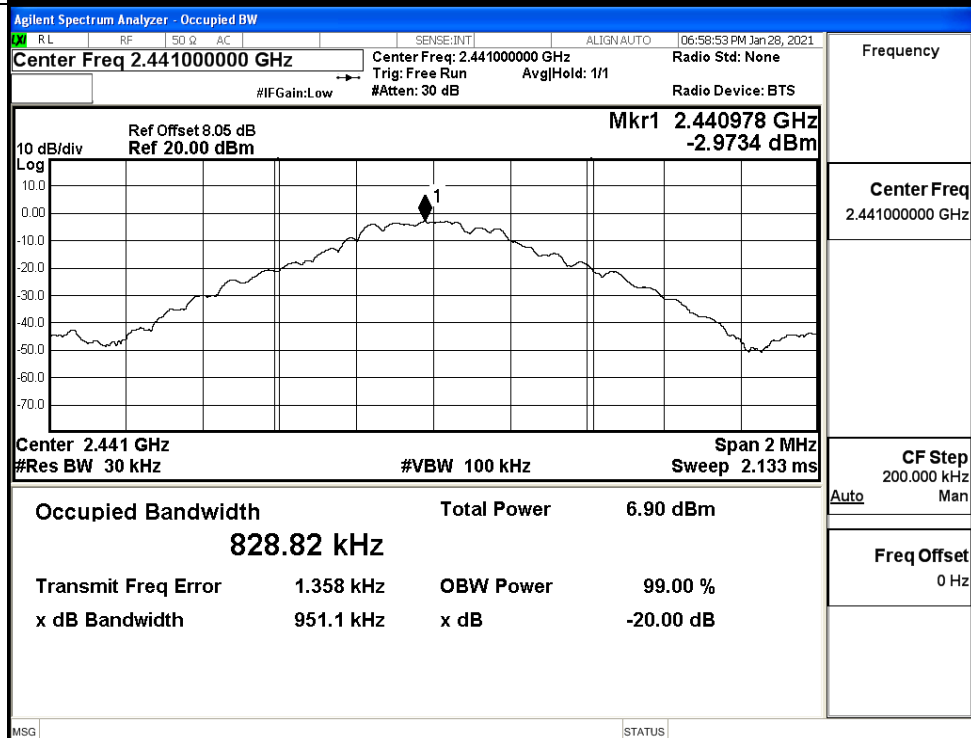
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9500	Not Specified	PASS
	MCH	0.9511	Not Specified	PASS
	HCH	0.9514	Not Specified	PASS

Test Graphs

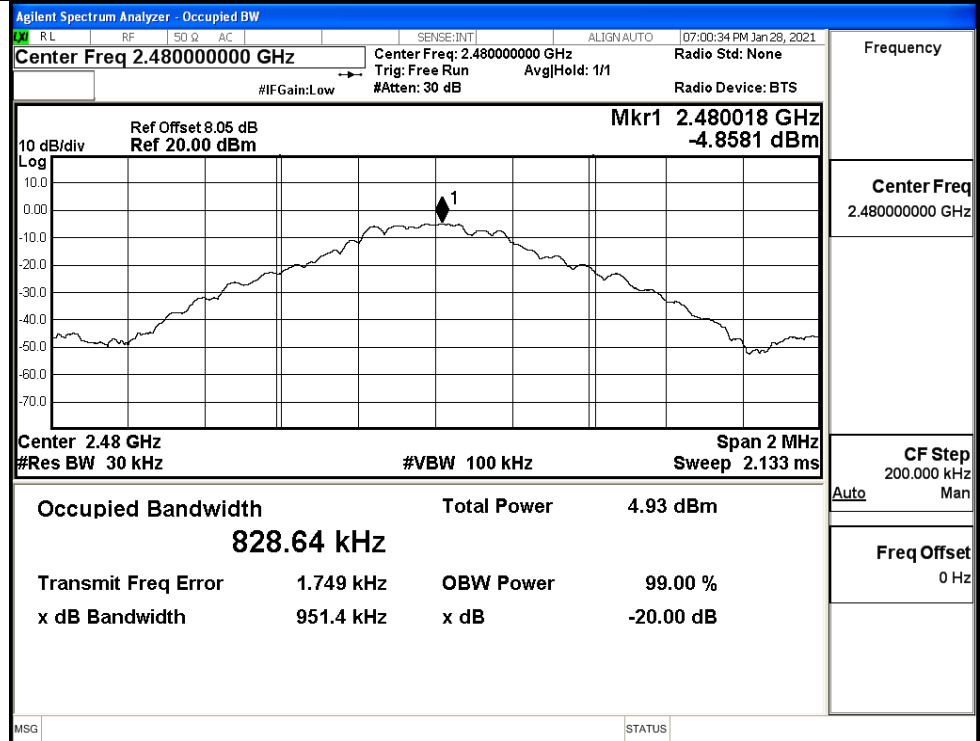
GFSK/LCH



GFSK/MCH



GFSK/HCH

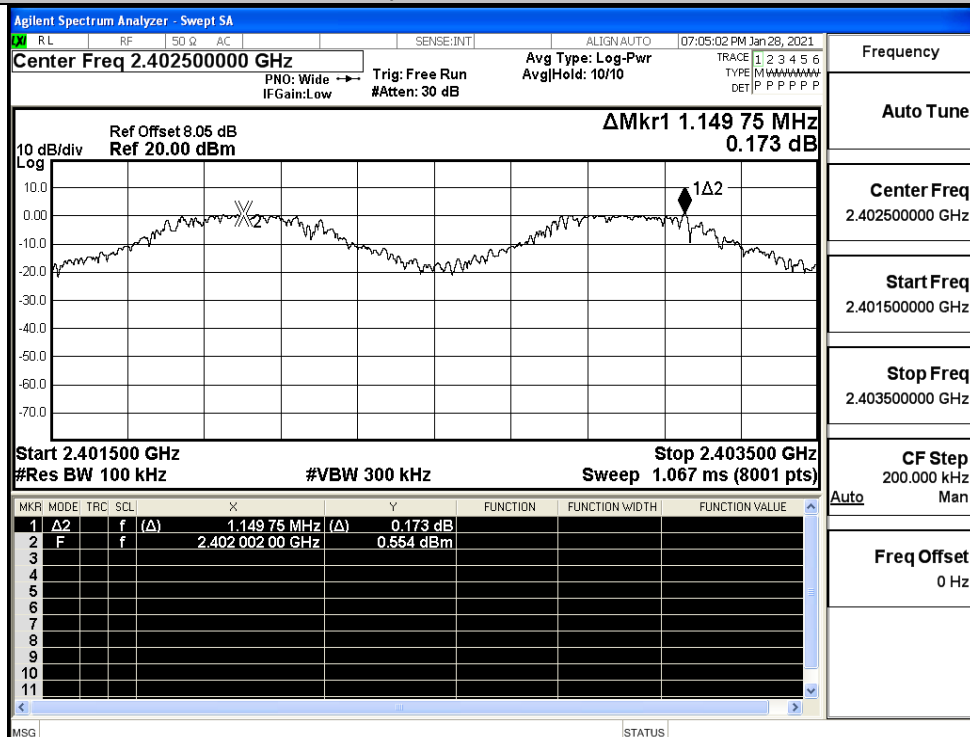


A.3 Carrier Frequency Separation

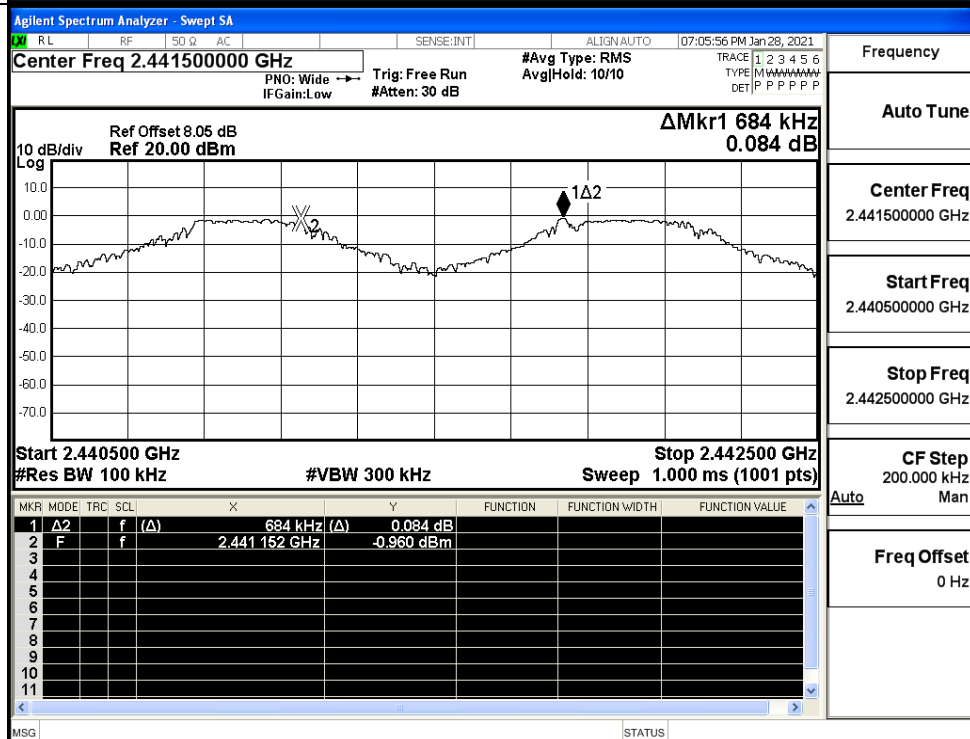
Mode	Channel	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.150	0.634	PASS
	MCH	0.684	0.634	PASS
	HCH	1.086	0.634	PASS

Test Graphs

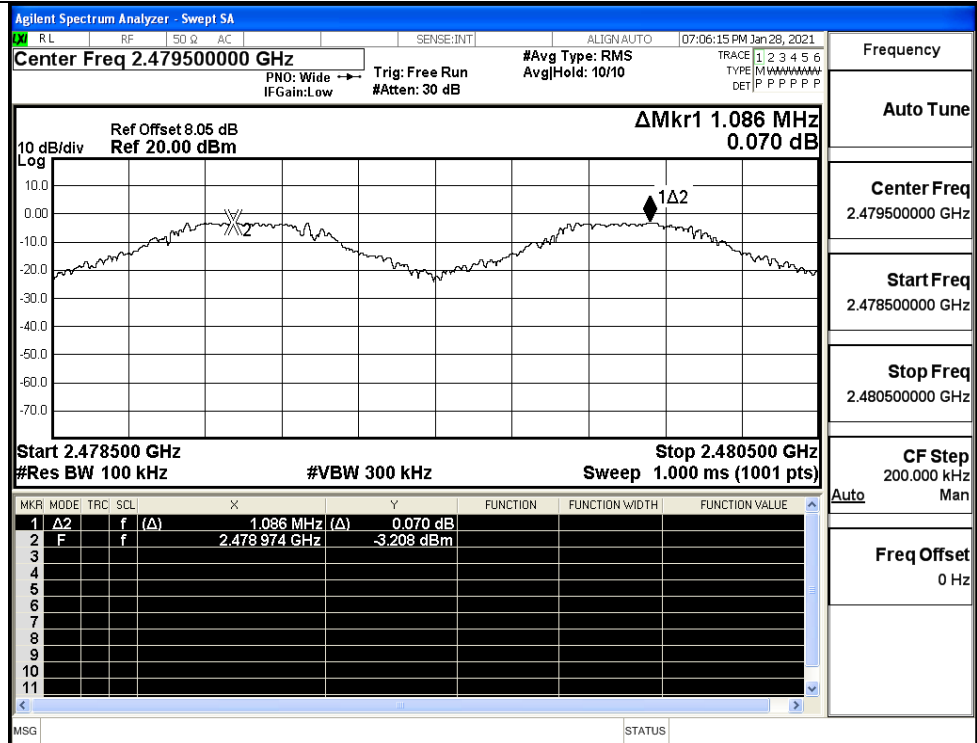
GFSK/LCH



GFSK/MCH



GFSK/HCH

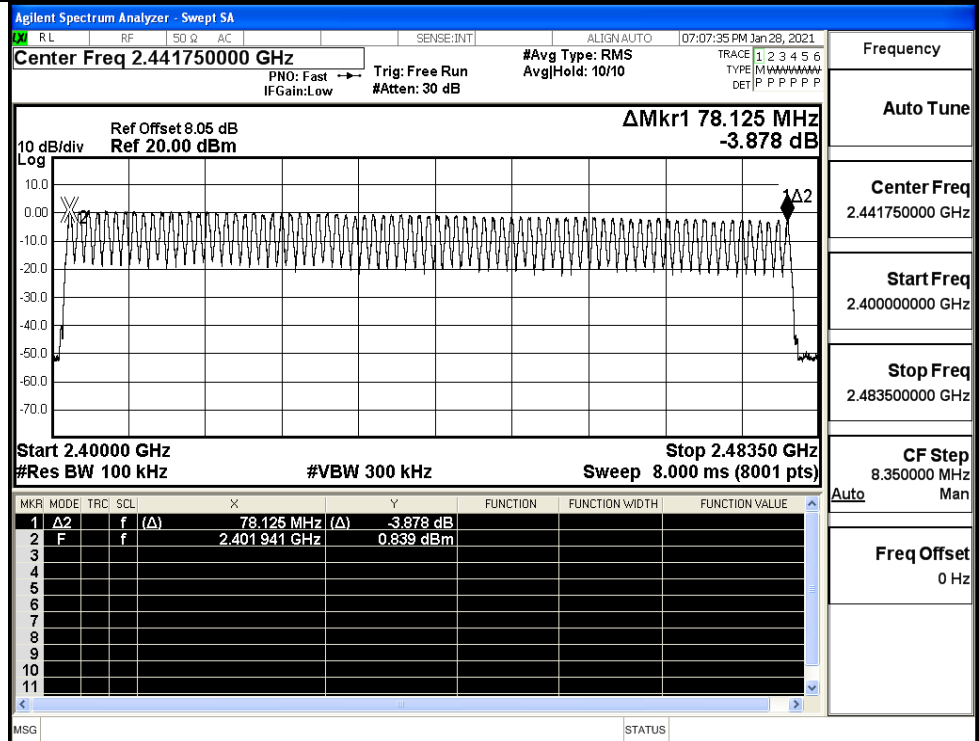


A.4 Hopping Channel Number

Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS

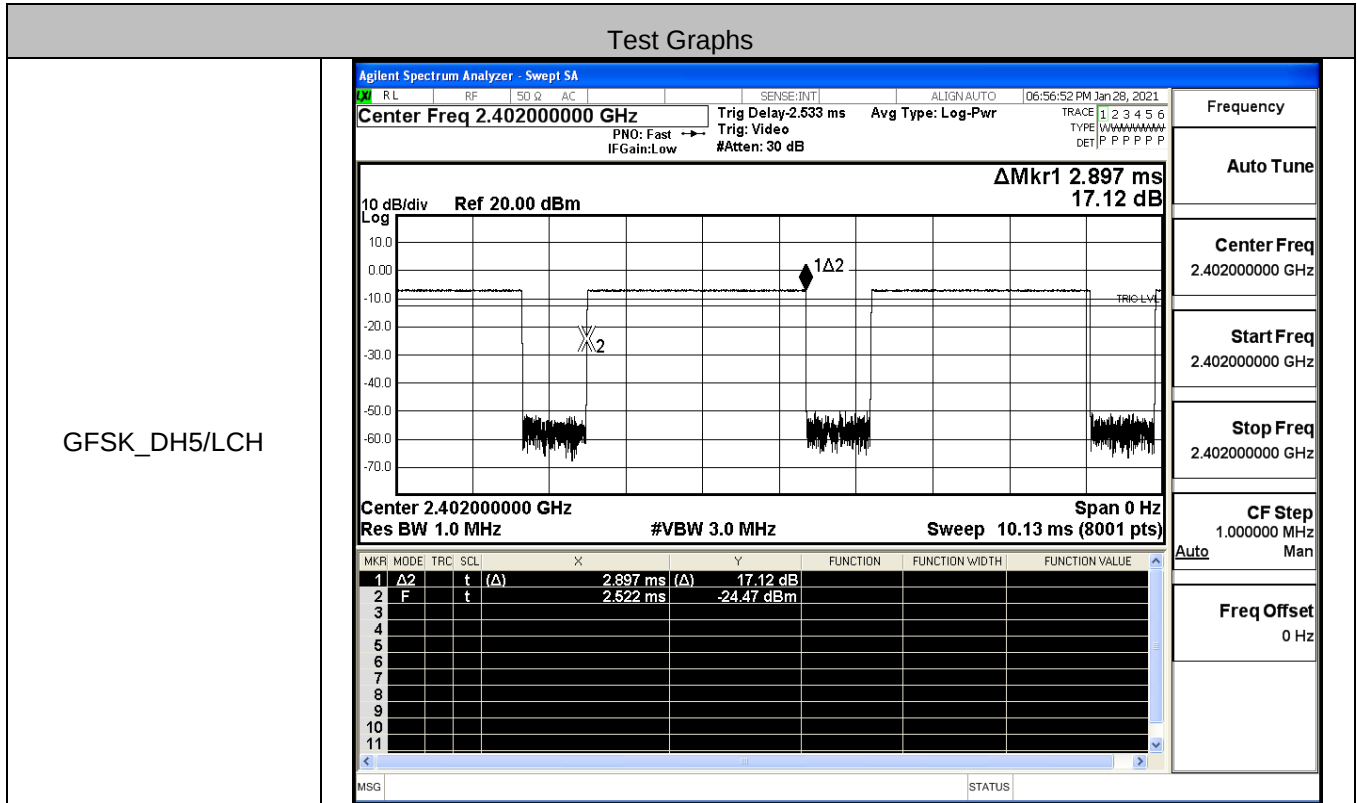
Test Graphs

GFSK/Hop

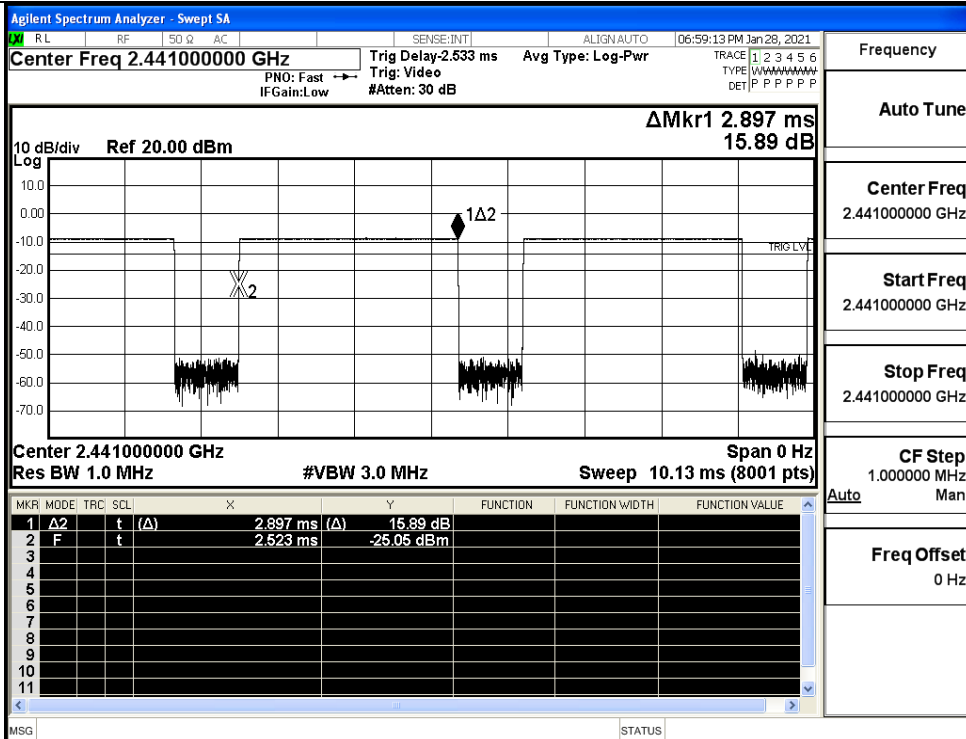


A.5 Dwell Time

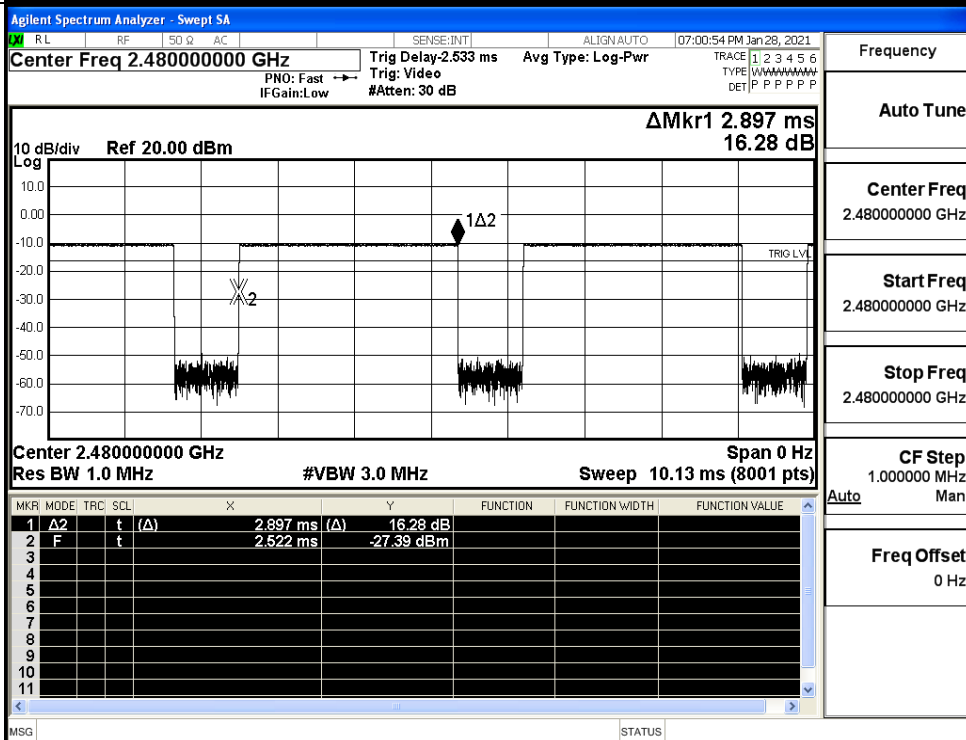
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.9	106.7	0.309	0.4	PASS
	DH5	MCH	2.9	106.7	0.309	0.4	PASS
	DH5	HCH	2.9	106.7	0.309	0.4	PASS



GFSK_DH5/MCH



GFSK_DH5/HCH

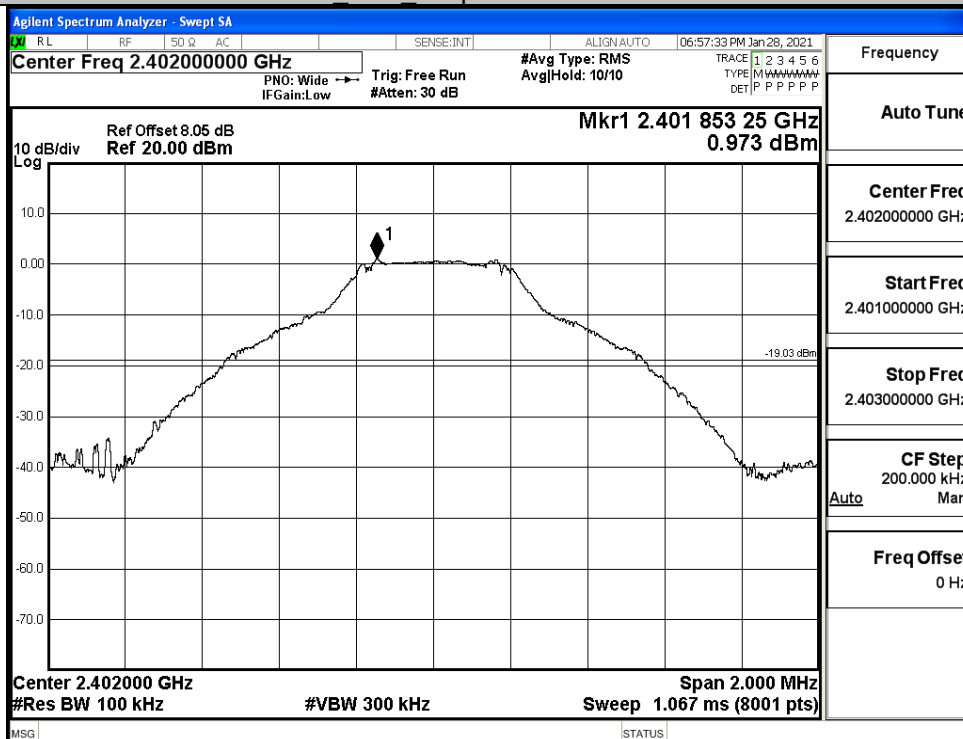


A.6 RF Conducted Spurious Emissions

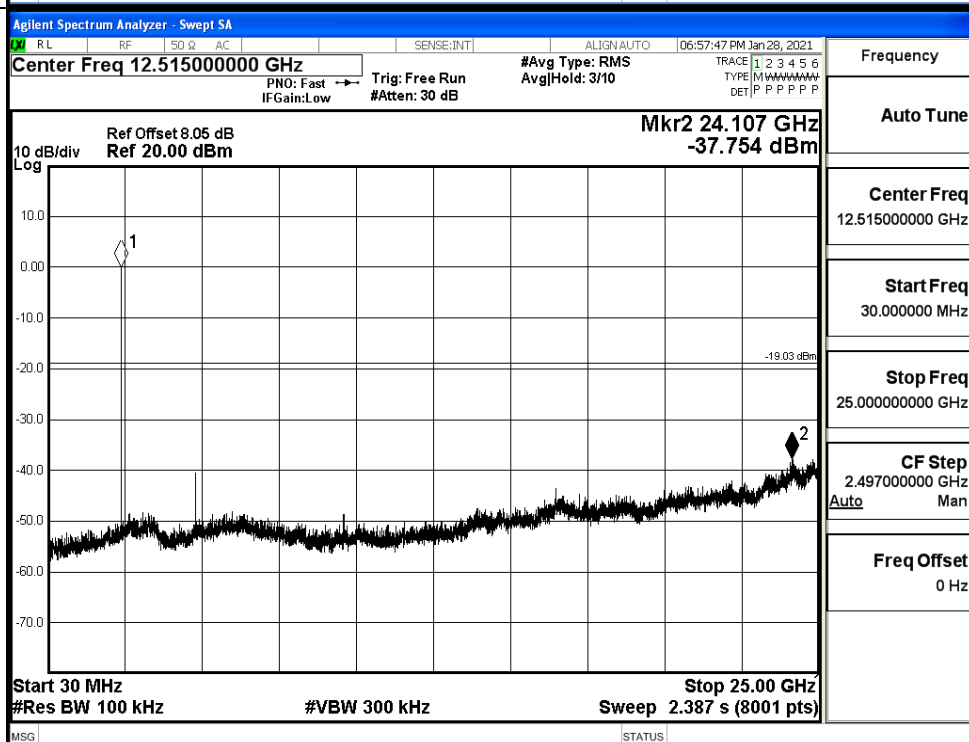
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.973	-37.754	-19.027	PASS
	MCH	-0.949	-38.499	-20.949	PASS
	HCH	-2.722	-38.166	-22.722	PASS

GFSK LCH Graphs

Pref



Puw

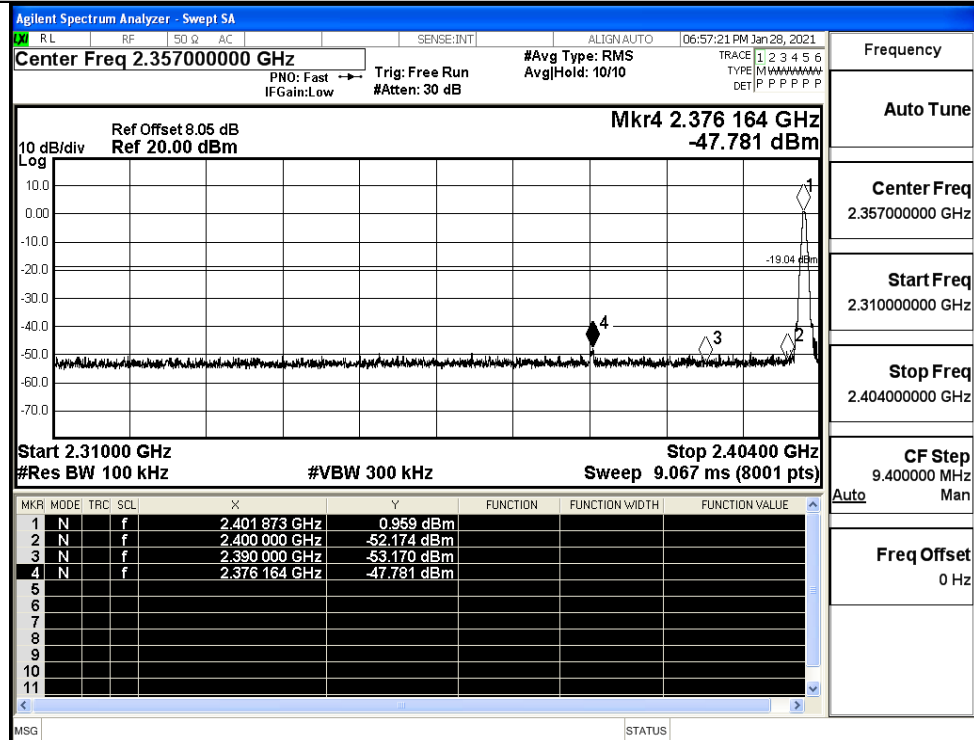


A.7 Band-edge for RF Conducted Emissions

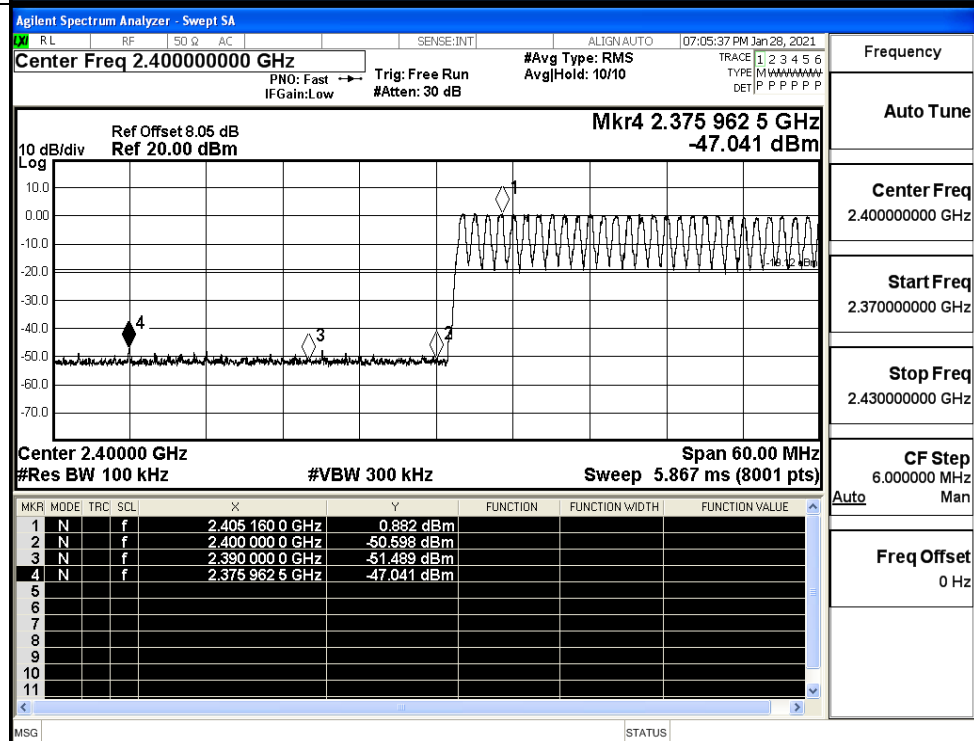
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	0.959	Off	-47.781	-19.04	PASS
			0.882	On	-47.041	-19.12	PASS
	HCH	2480	-2.667	Off	-49.408	-22.67	PASS
			-1.386	On	-47.982	-21.39	PASS

Test Graphs

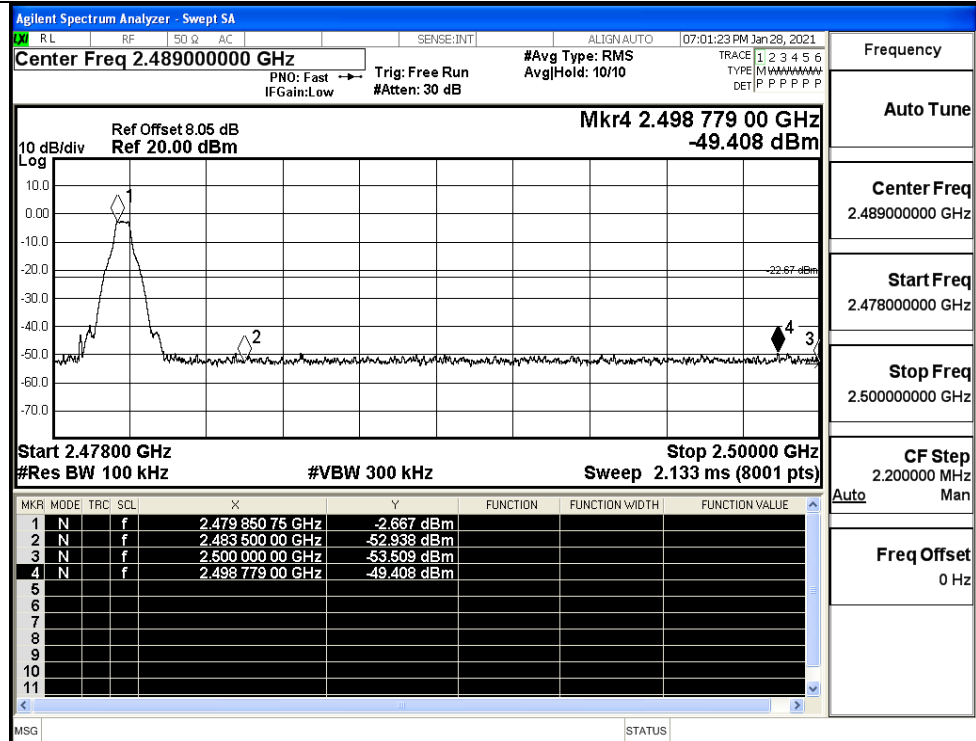
GFSK/LCH/No Hop



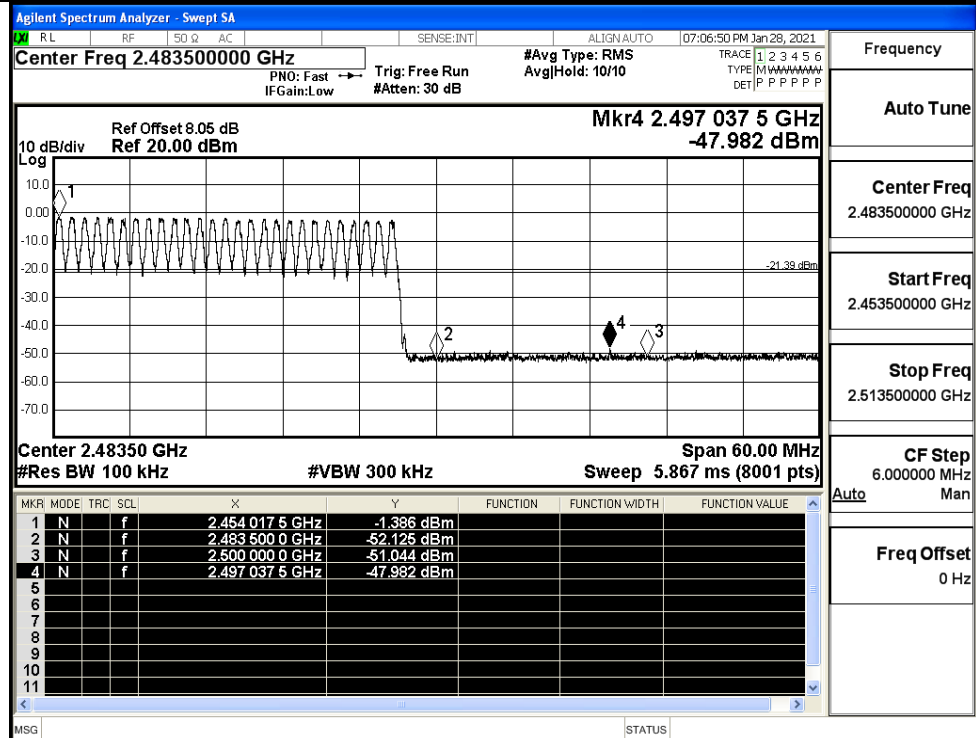
GFSK/LCH/Hop



GFSK/HCH/No Hop



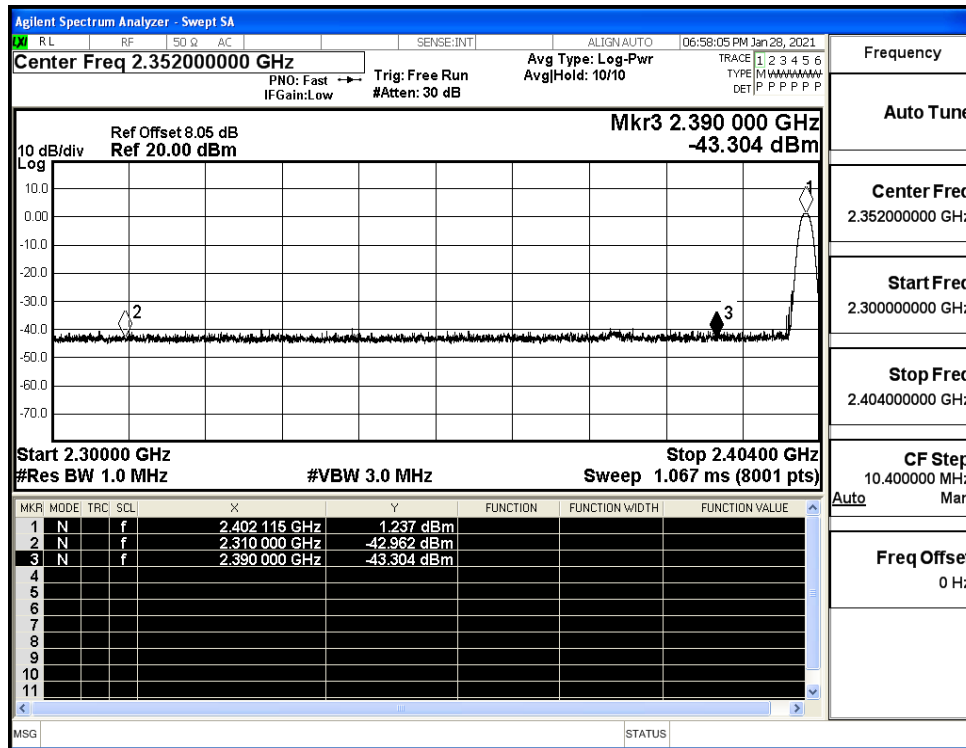
GFSK/HCH/Hop



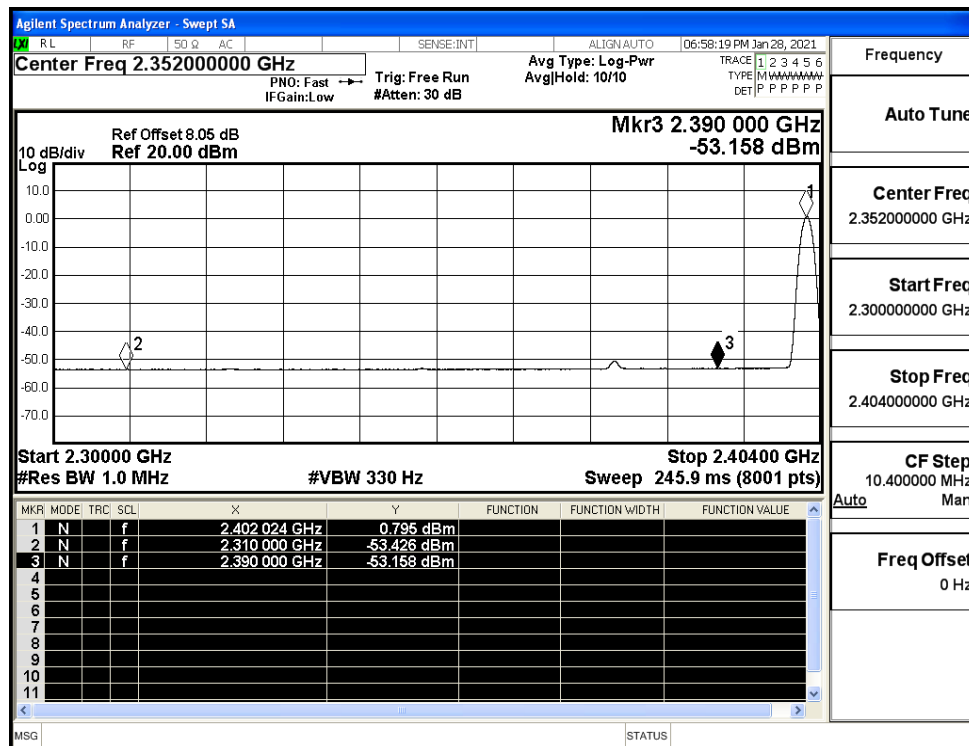
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.96	2.0	0	54.30	PEAK	74	PASS
	Off	2310.0	-53.43	2.0	0	43.83	AV	54	PASS
	Off	2390.0	-43.30	2.0	0	53.95	PEAK	74	PASS
	Off	2390.0	-53.16	2.0	0	44.10	AV	54	PASS
	Off	2483.5	-42.12	2.0	0	55.13	PEAK	74	PASS
	Off	2483.5	-52.59	2.0	0	44.67	AV	54	PASS
	Off	2500.0	-42.13	2.0	0	55.13	PEAK	74	PASS
	Off	2500.0	-52.52	2.0	0	44.74	AV	54	PASS

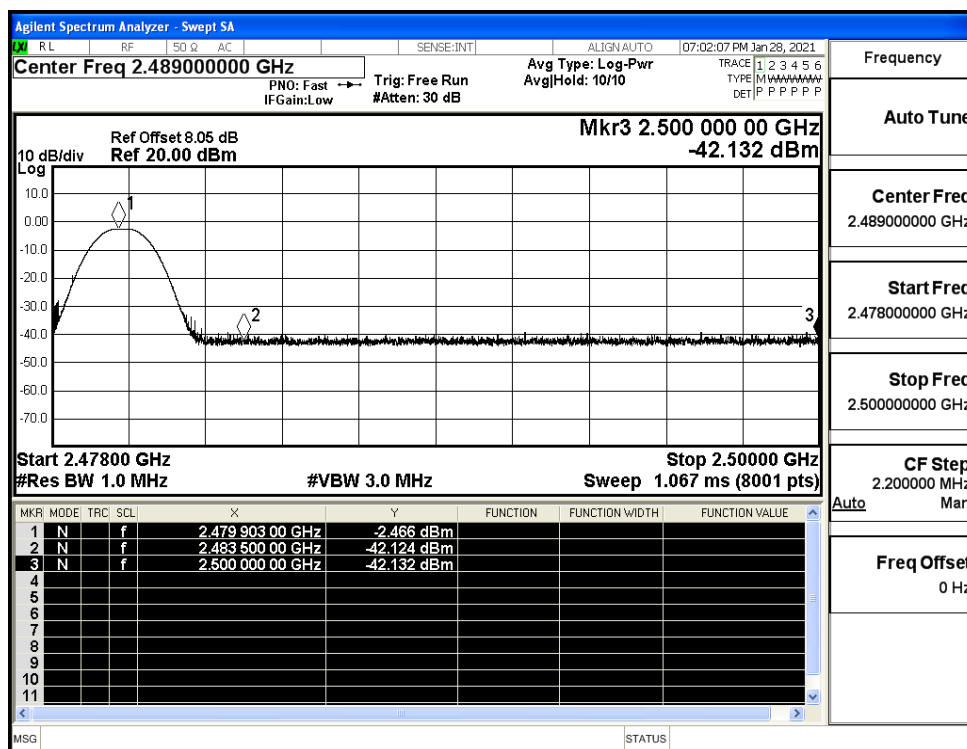
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



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)

