

Appendix A

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

Product Name: GAME SOUND BAR

Trade Mark: N/A

Test Model: HD-025MINI

Environmental Conditions

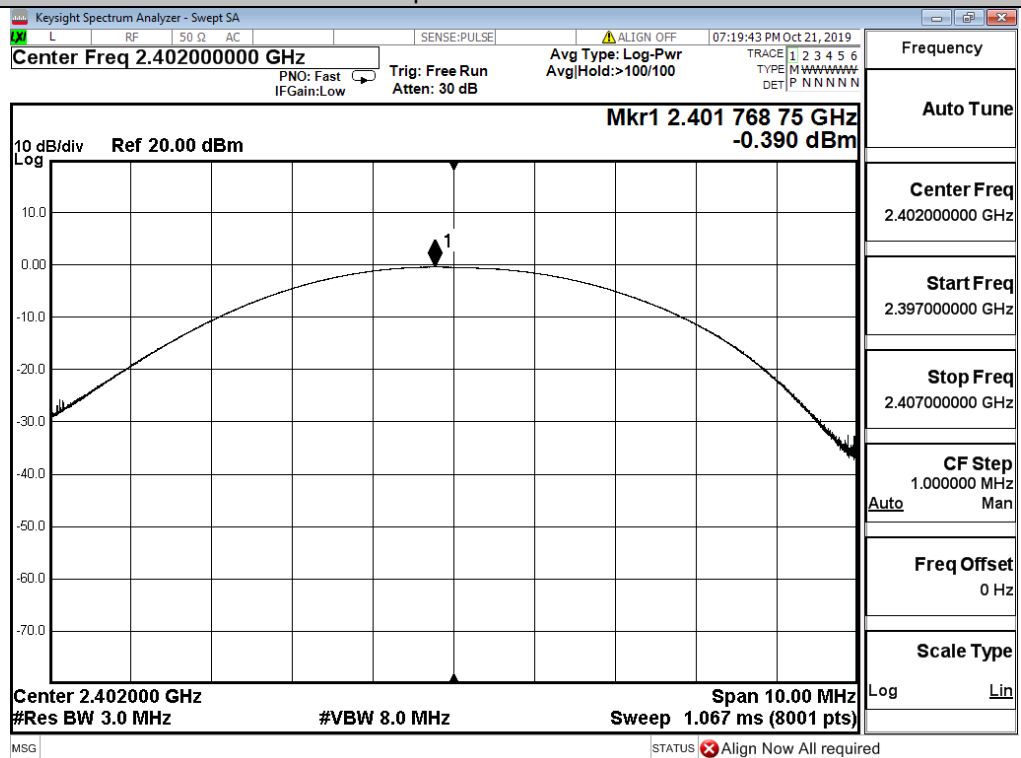
Temperature:	23.5 °C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

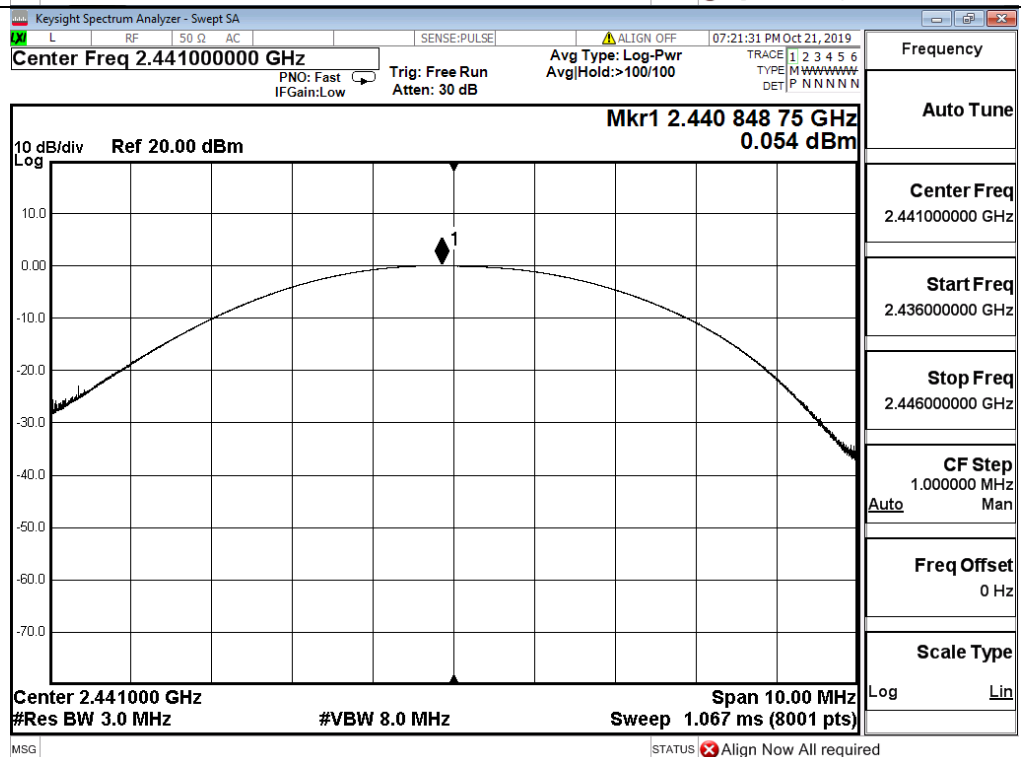
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.390	21	PASS
	MCH	0.054	21	PASS
	HCH	0.588	21	PASS
$\pi/4$ DQPSK	LCH	0.333	21	PASS
	MCH	0.736	21	PASS
	HCH	1.328	21	PASS

Test Graphs

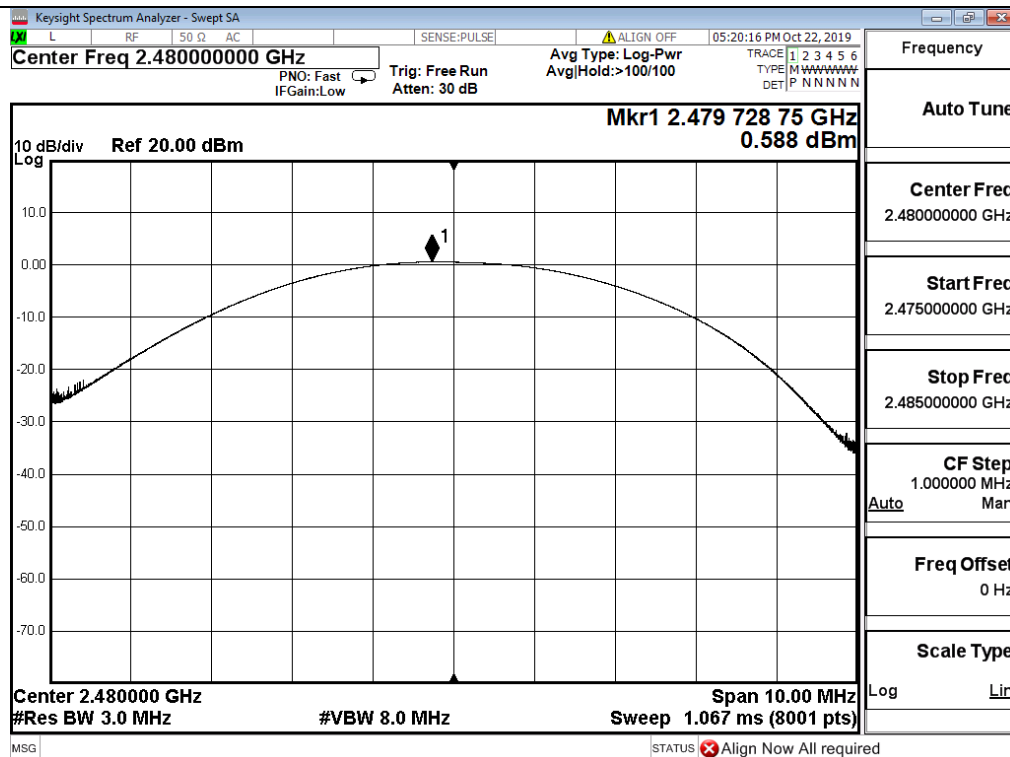
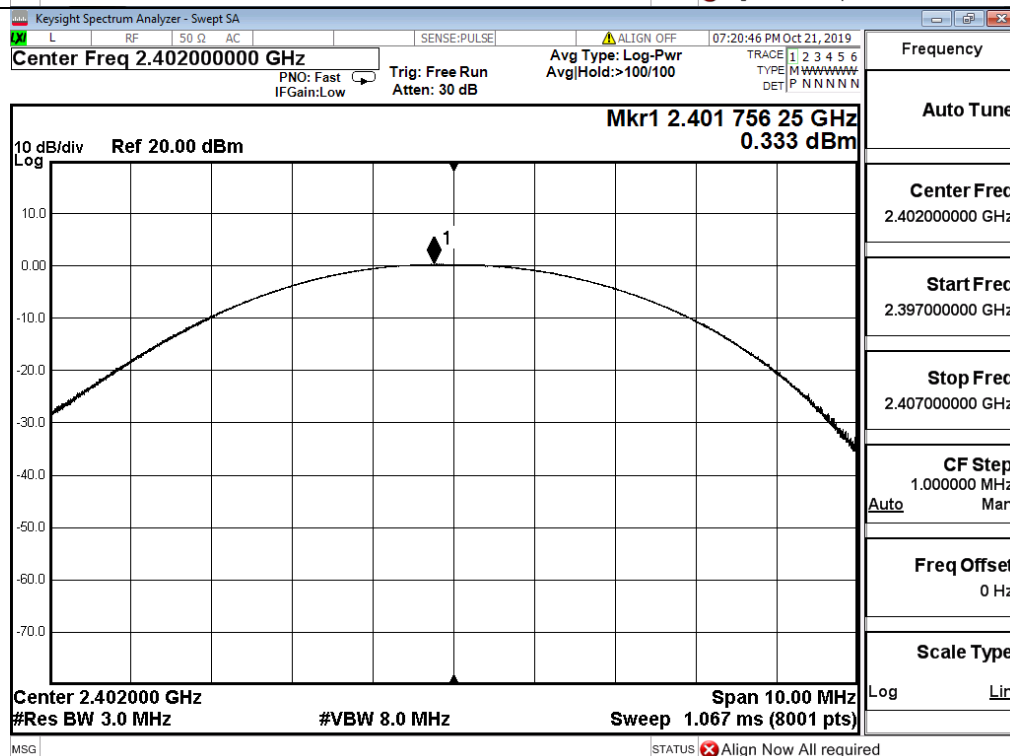
GFSK/LCH

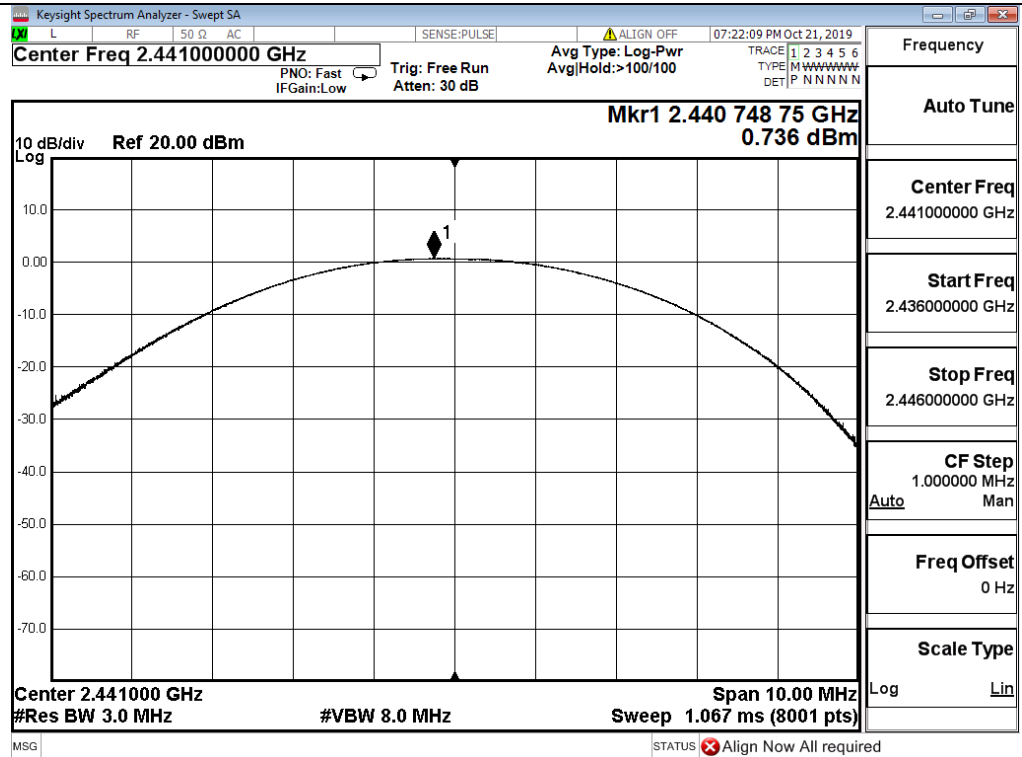
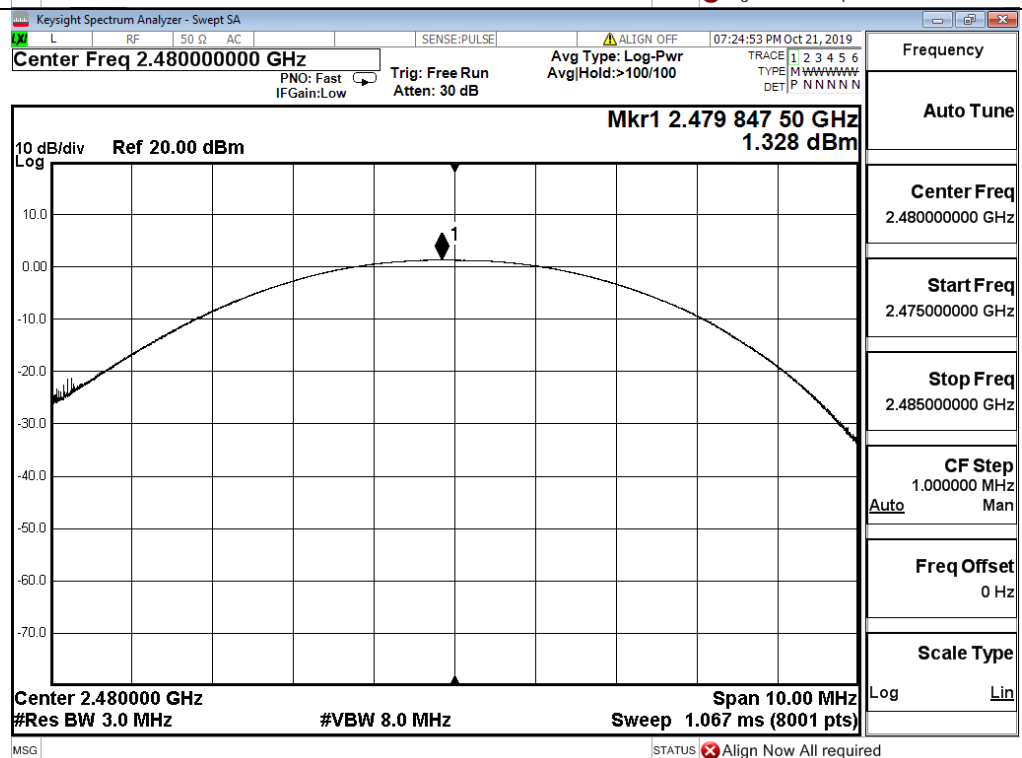


GFSK/MCH



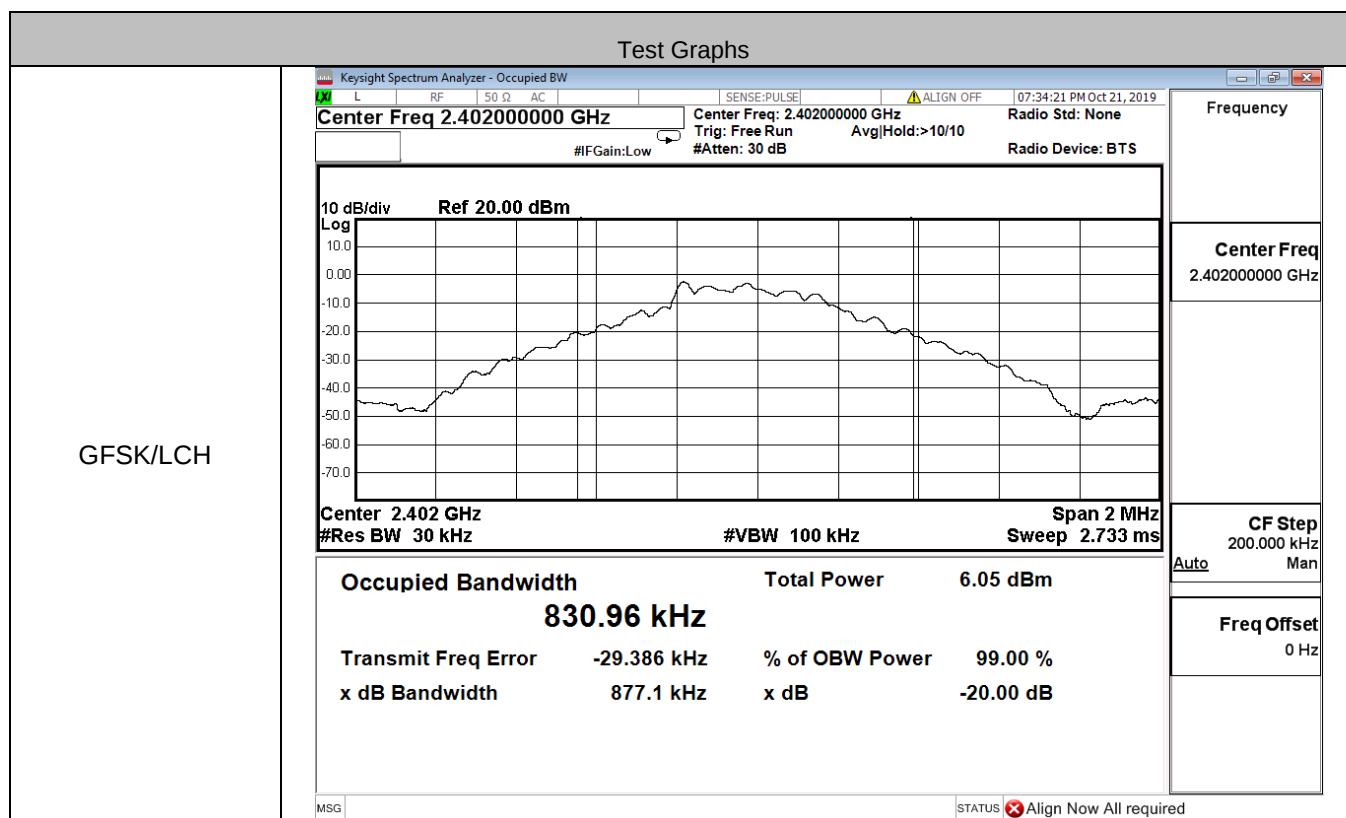
GFSK/HCH

 π /4DQPSK/LCH

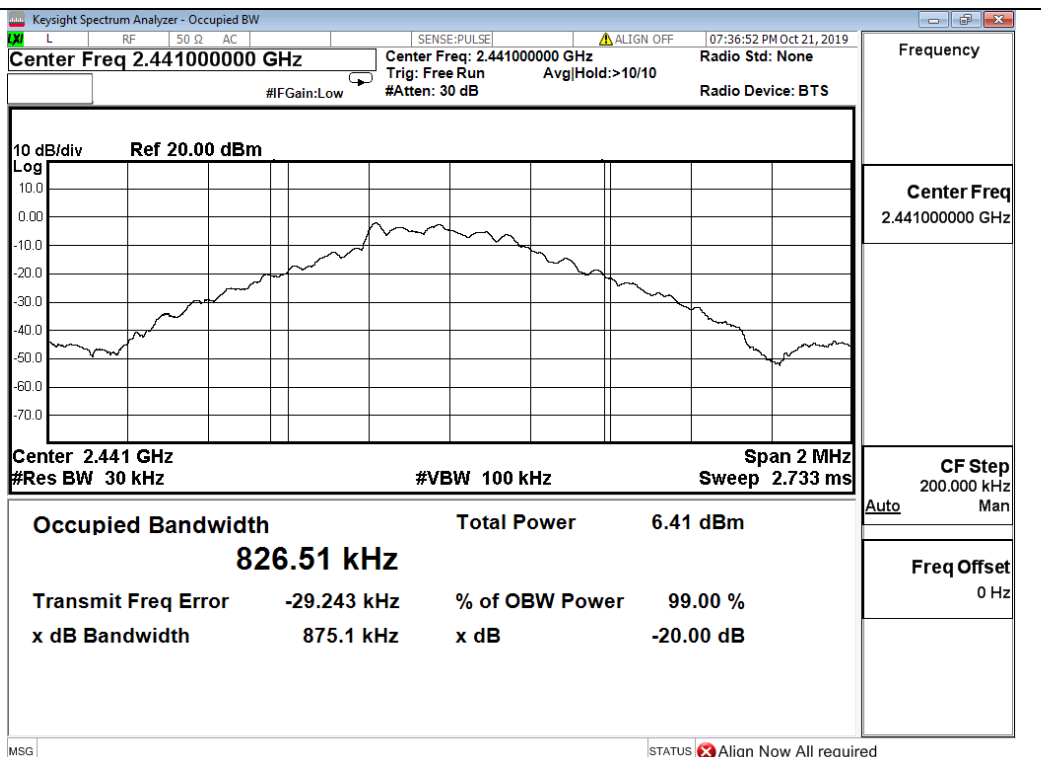
$\pi/4$ DQPSK/MCH $\pi/4$ DQPSK/HCH

A.2 99% and 20dB Bandwidth

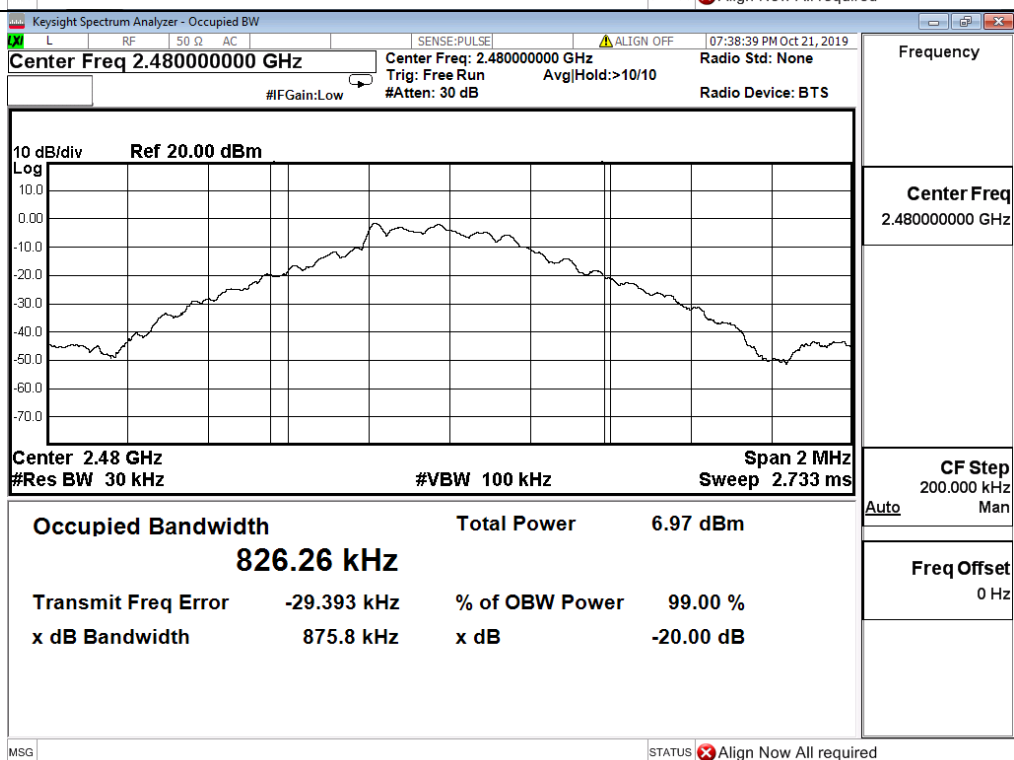
Mode	Channel.	99% Bandwidth [MHz]	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.83096	0.8771	Not Specified	PASS
	MCH	0.82651	0.8751	Not Specified	PASS
	HCH	0.82626	0.8758	Not Specified	PASS
π /4DQPSK	LCH	1.1675	1.231	Not Specified	PASS
	MCH	1.1679	1.254	Not Specified	PASS
	HCH	1.1681	1.231	Not Specified	PASS

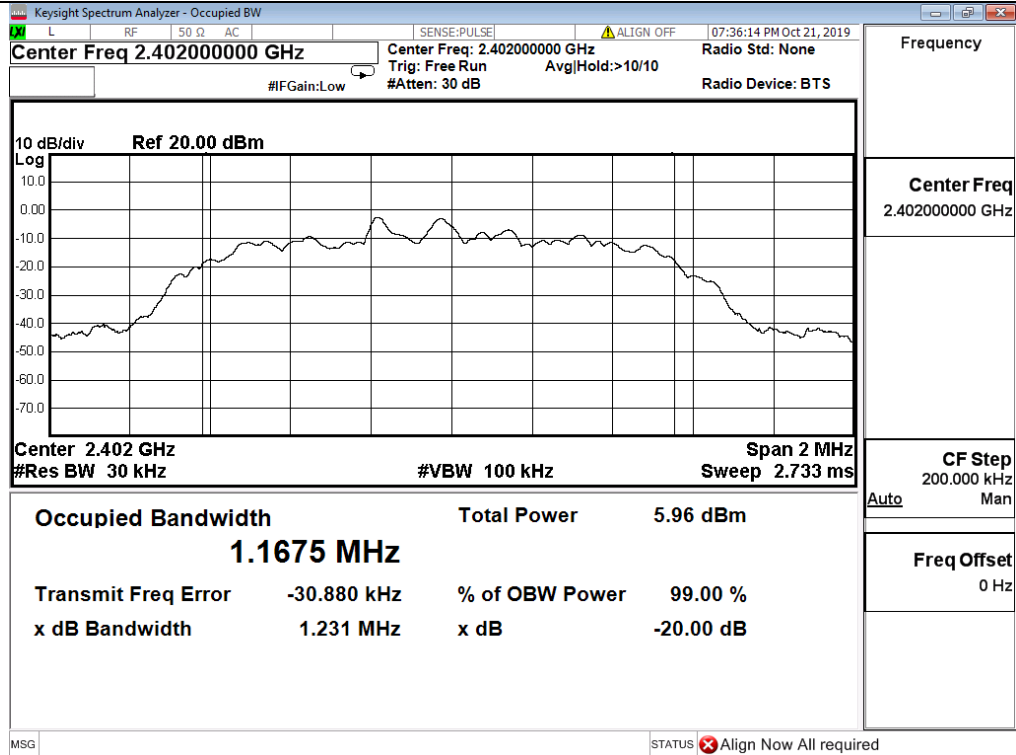
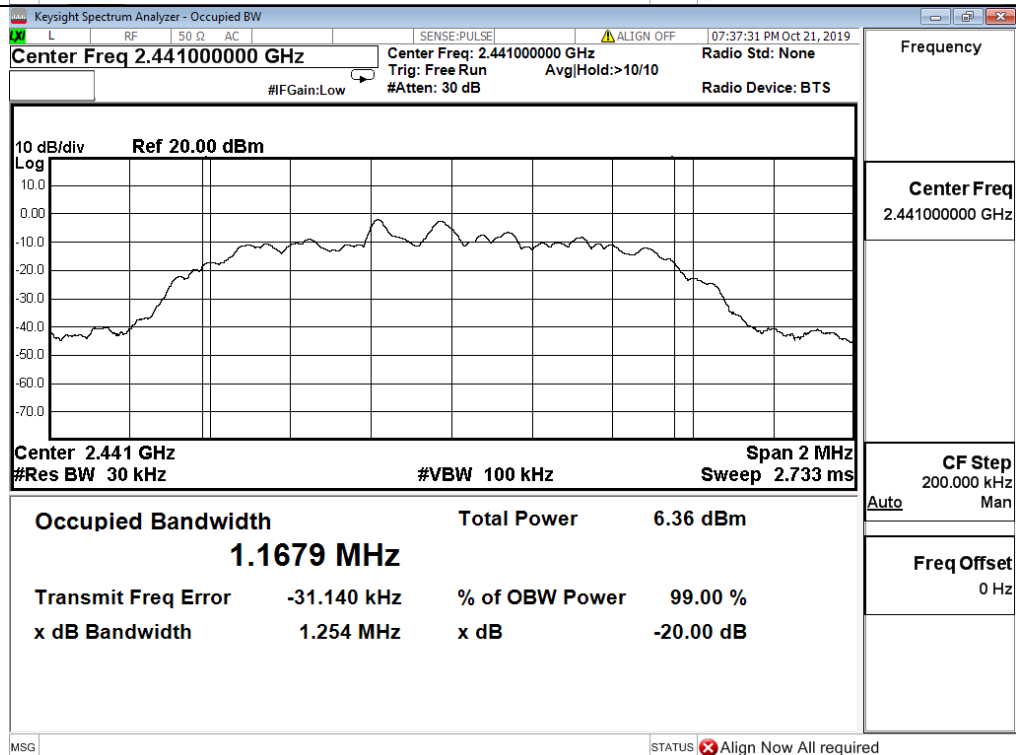


GFSK/MCH

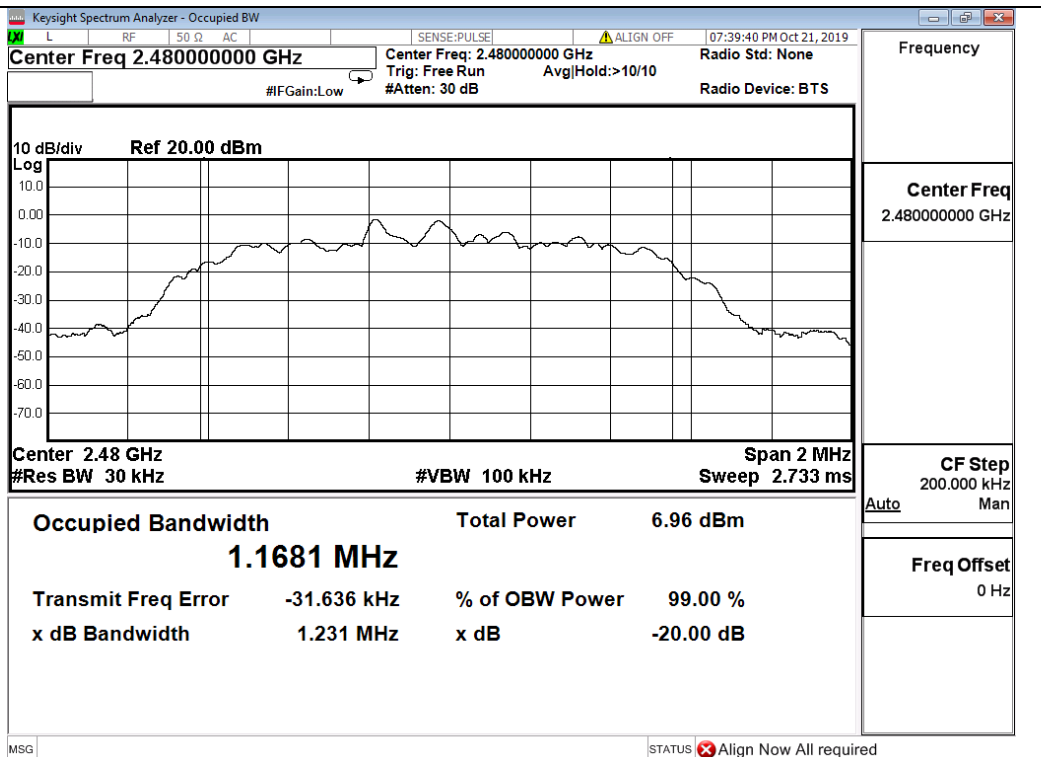


GFSK/HCH



$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

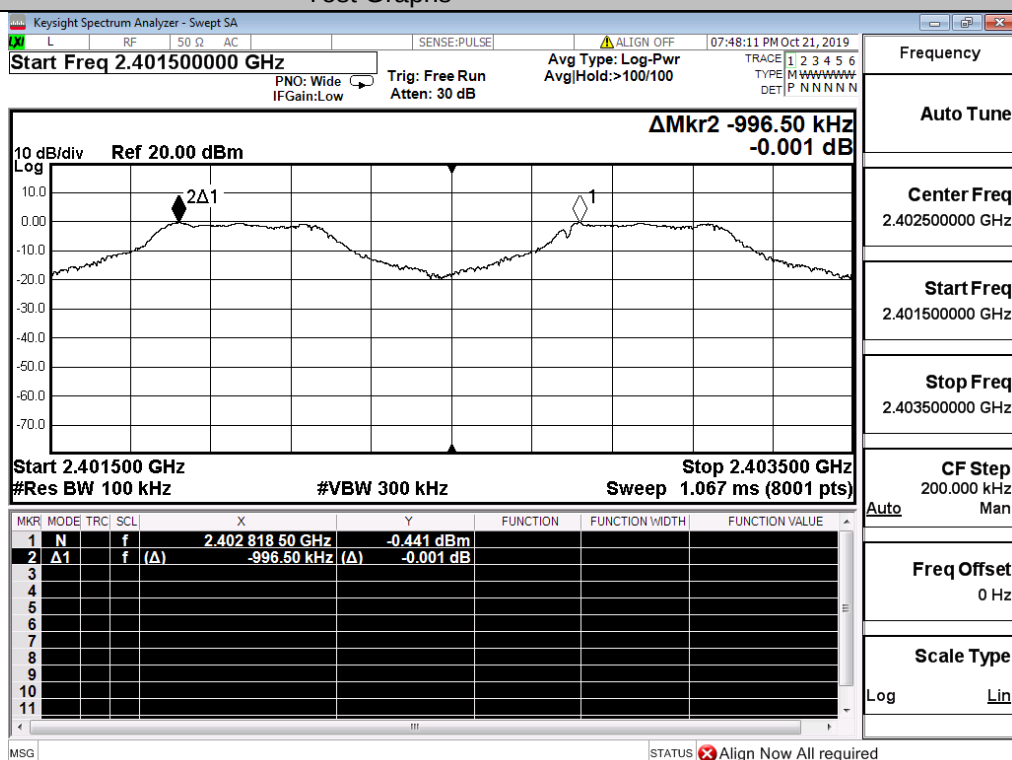


A.3 Carrier Frequency Separation

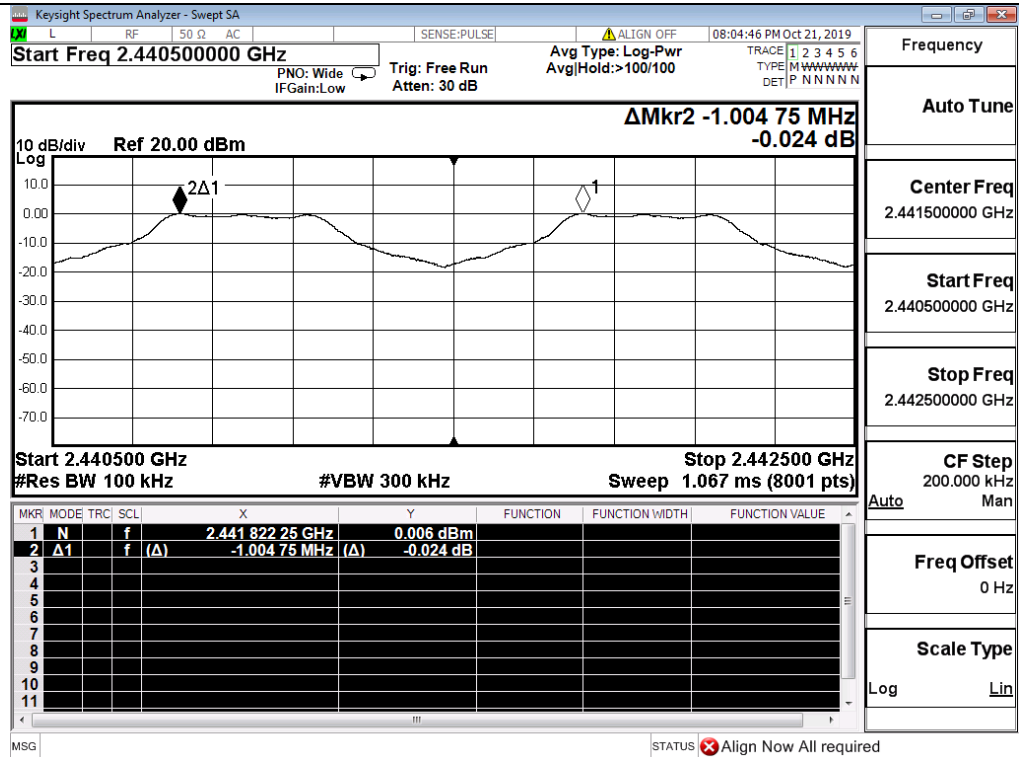
Mode	Channel	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.99650	0.66	PASS
	MCH	1.00475	0.67	PASS
	HCH	0.99575	0.66	PASS
π /4DQPSK	LCH	0.99975	0.67	PASS
	MCH	1.00075	0.67	PASS
	HCH	0.99725	0.66	PASS

Test Graphs

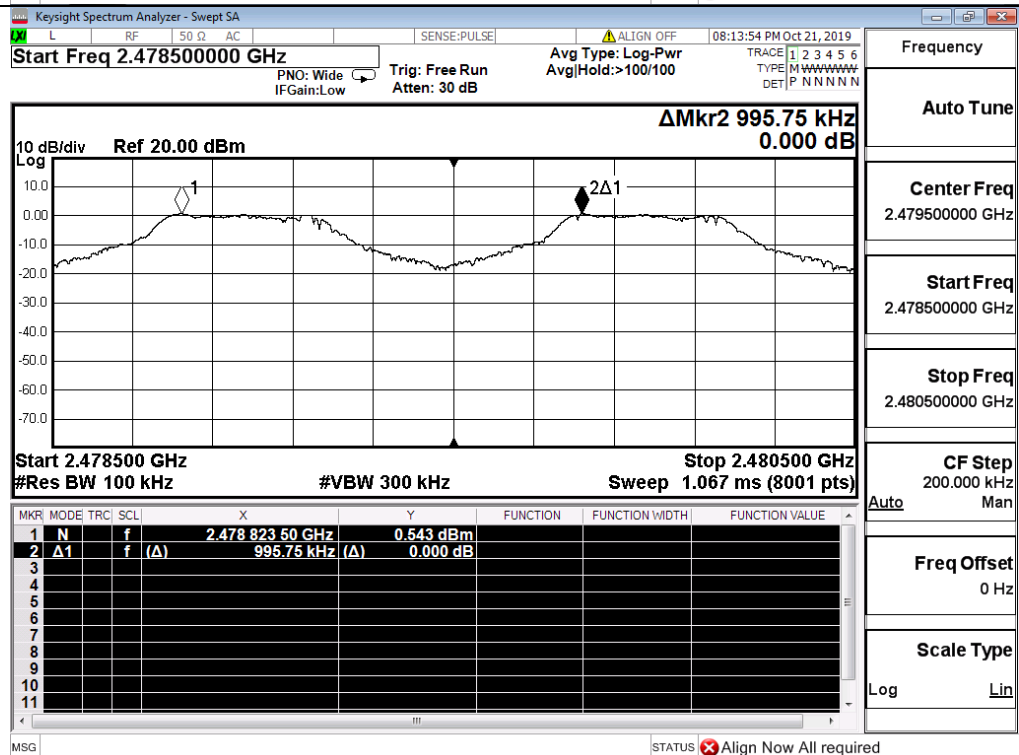
GFSK/LCH

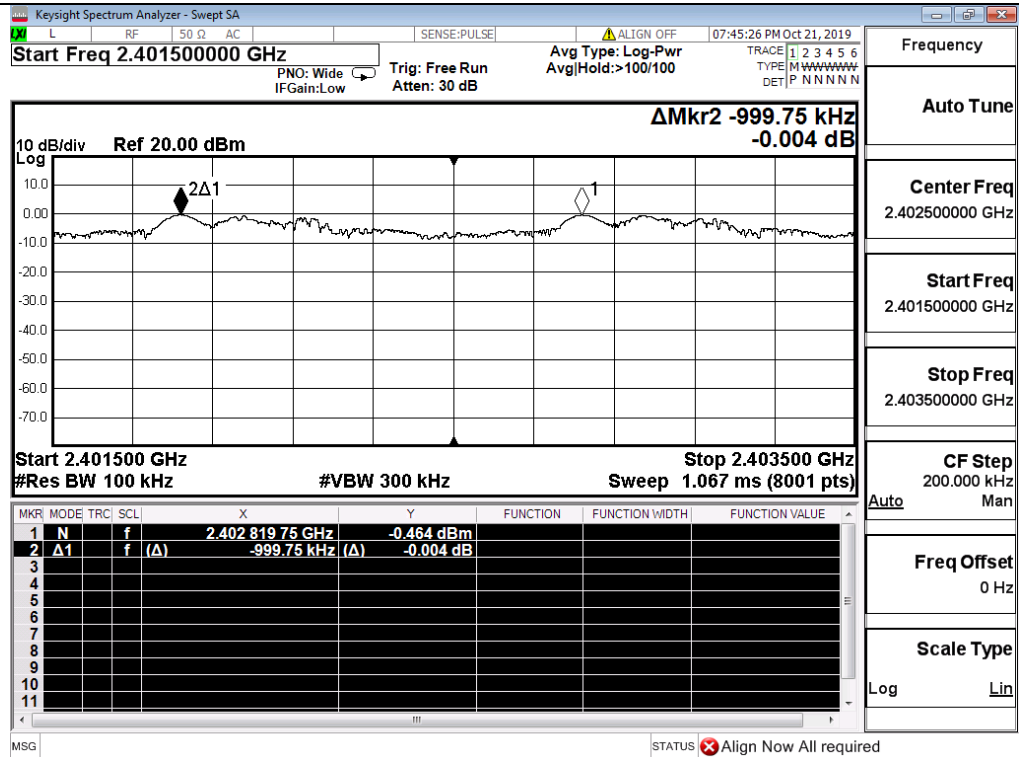
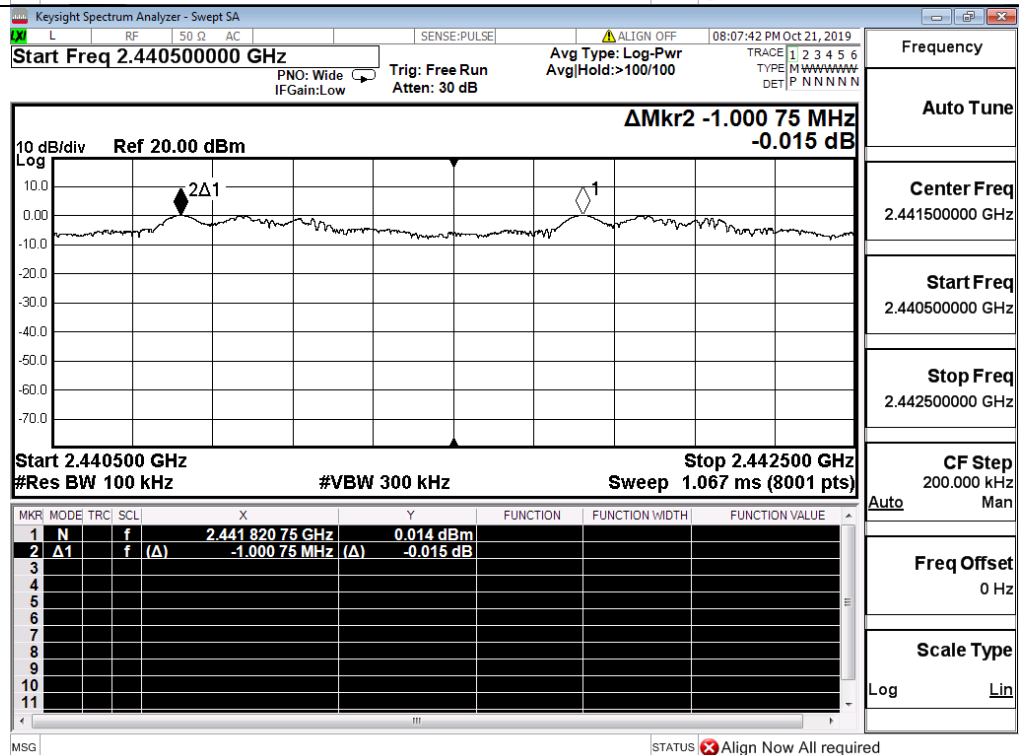


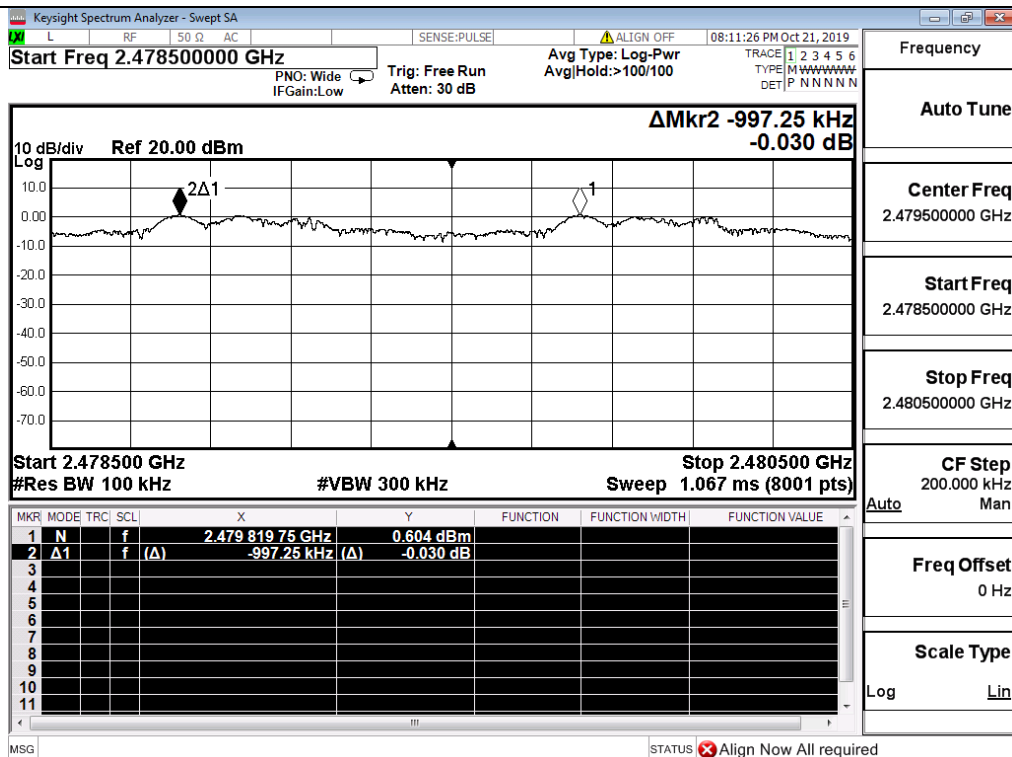
GFSK/MCH



GFSK/HCH



$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

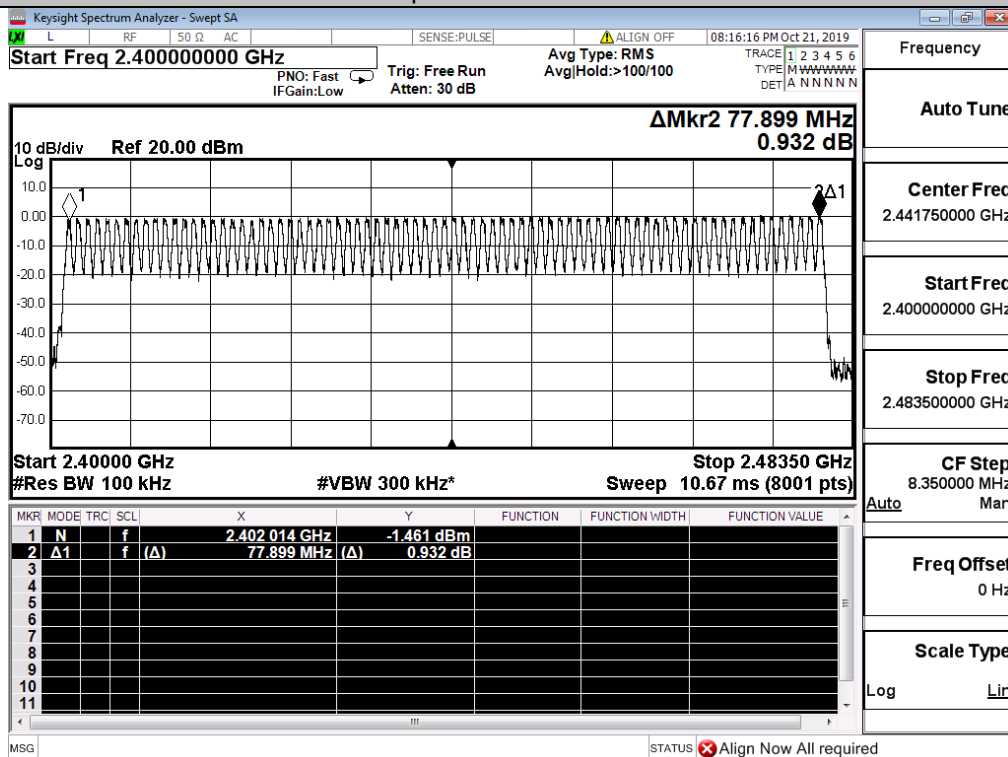
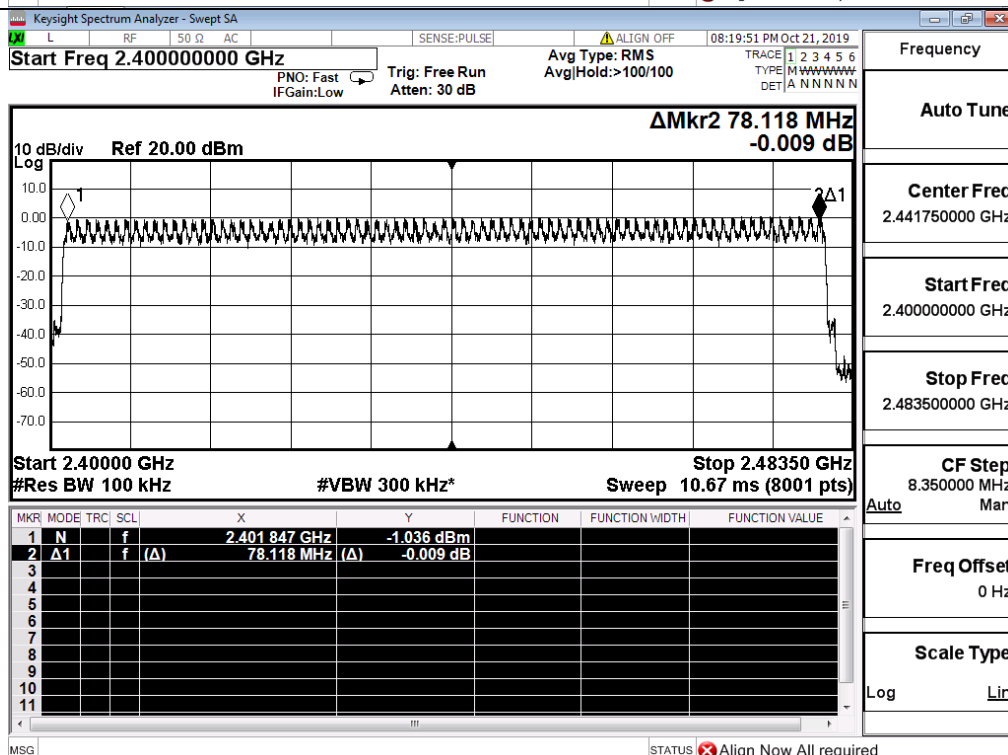
$\pi/4$ DQPSK/HCH

A.4 Hopping Channel Number

Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS

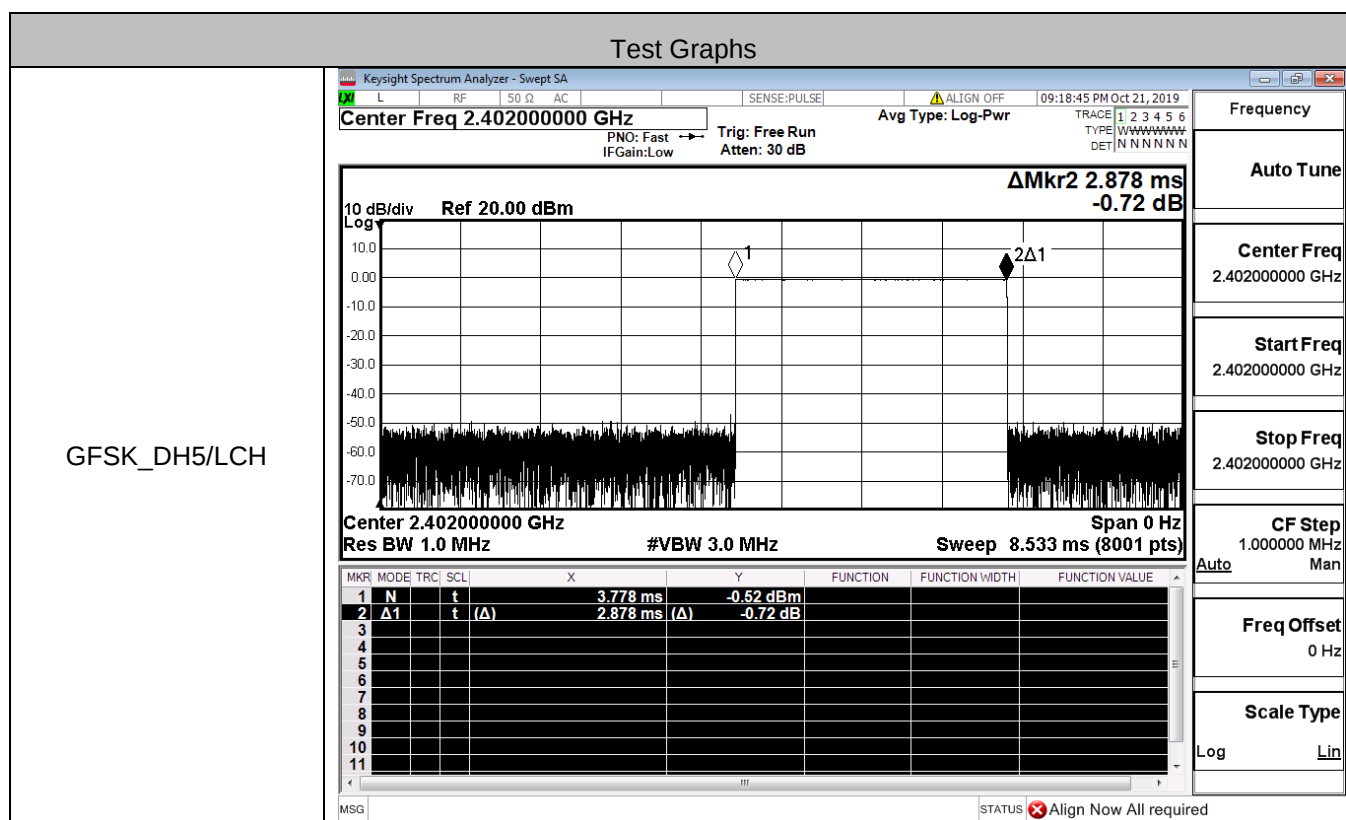
Test Graphs

GFSK/Hop

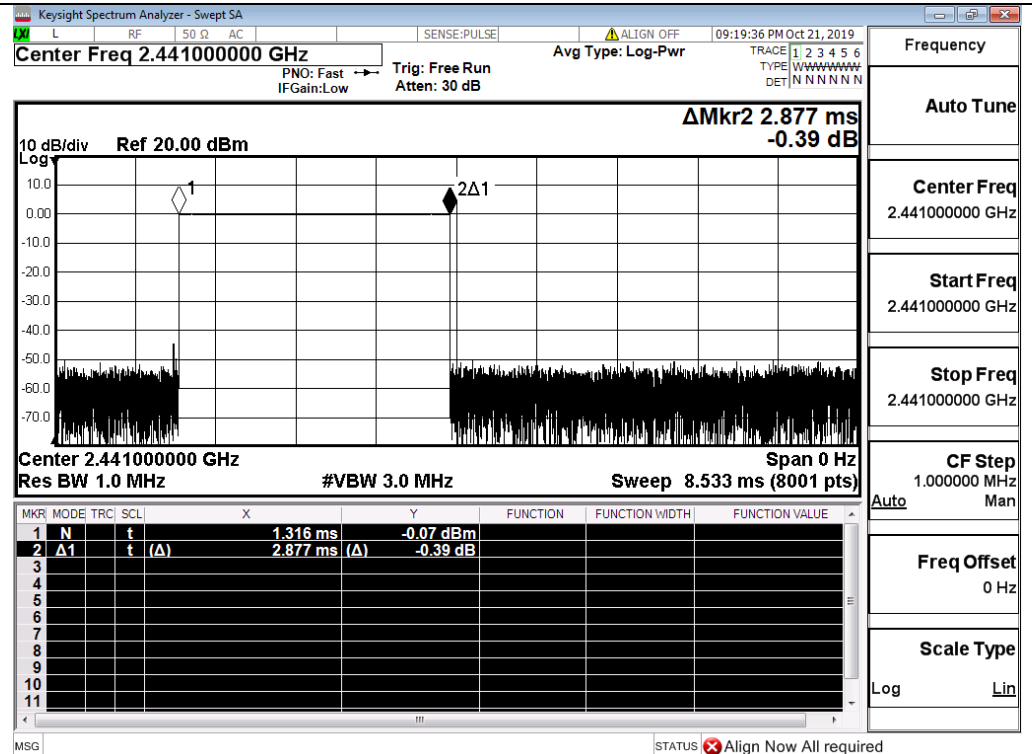
 $\pi/4$ DQPSK/Hop

A.5 Dwell Time

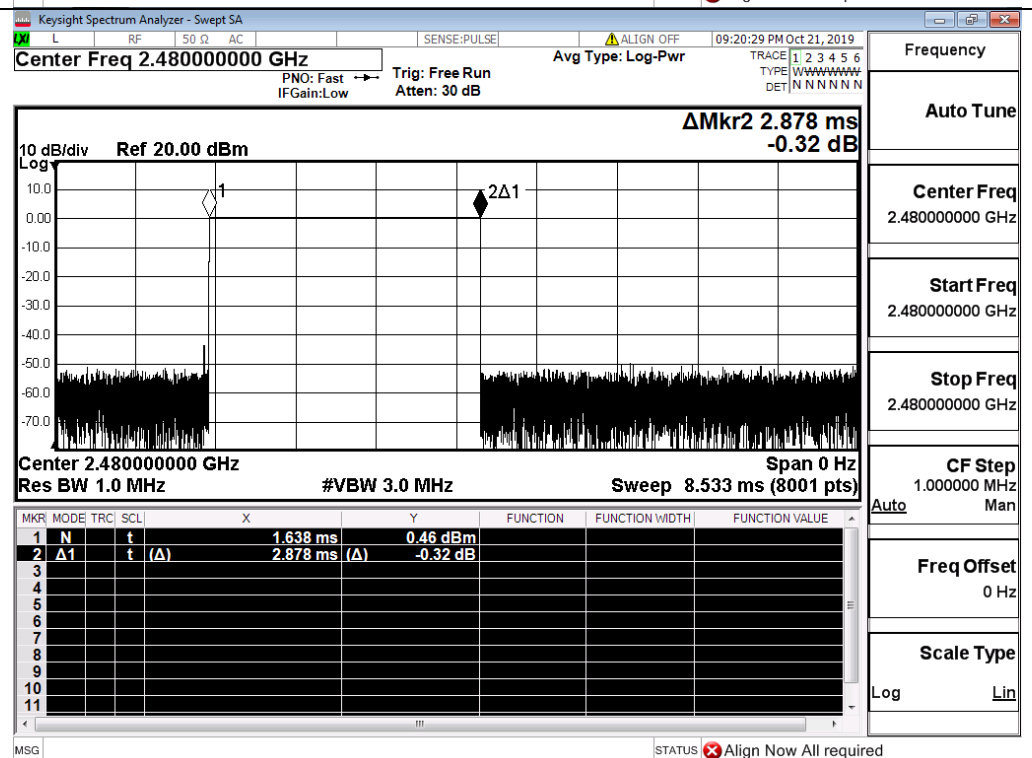
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.878	106.7	0.31	0.4	PASS
	DH5	MCH	2.877	106.7	0.31	0.4	PASS
	DH5	HCH	2.878	106.7	0.31	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.882	106.7	0.31	0.4	PASS
	2DH5	MCH	2.883	106.7	0.31	0.4	PASS
	2DH5	HCH	2.883	106.7	0.31	0.4	PASS



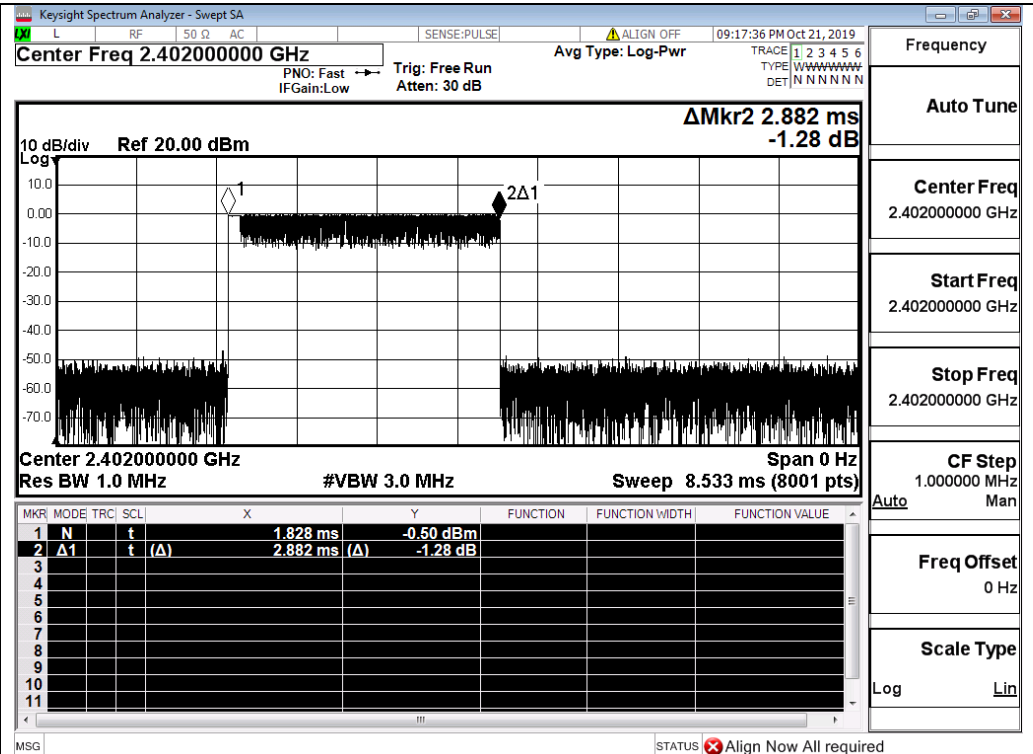
GFSK_DH5/MCH



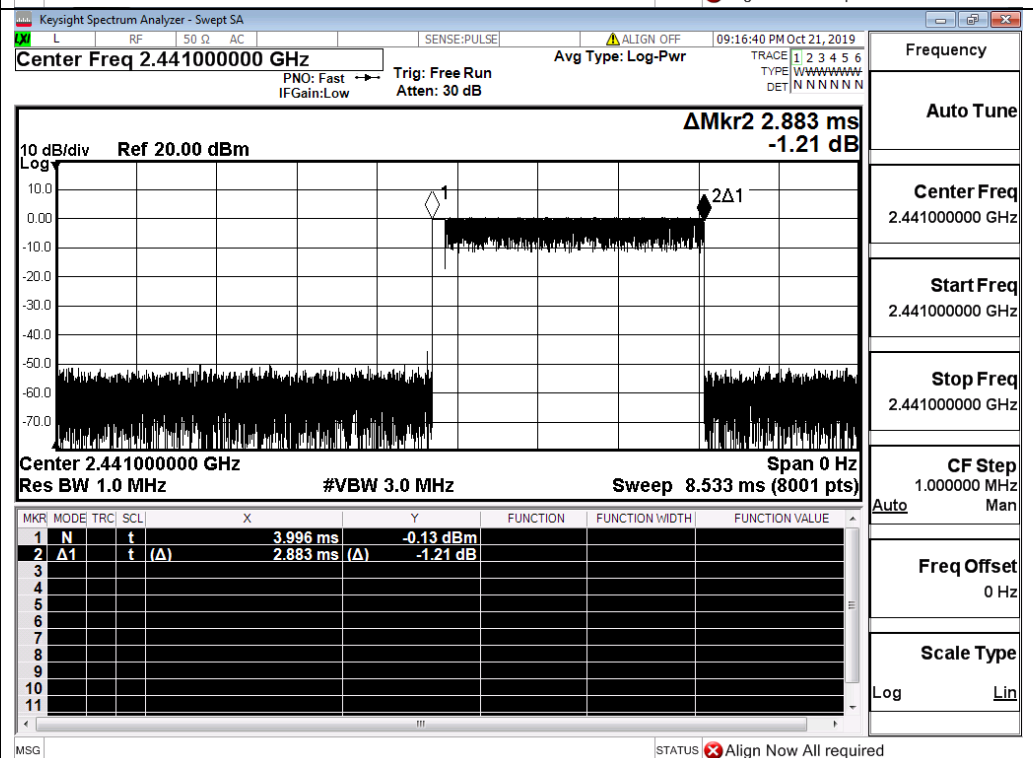
GFSK_DH5/HCH



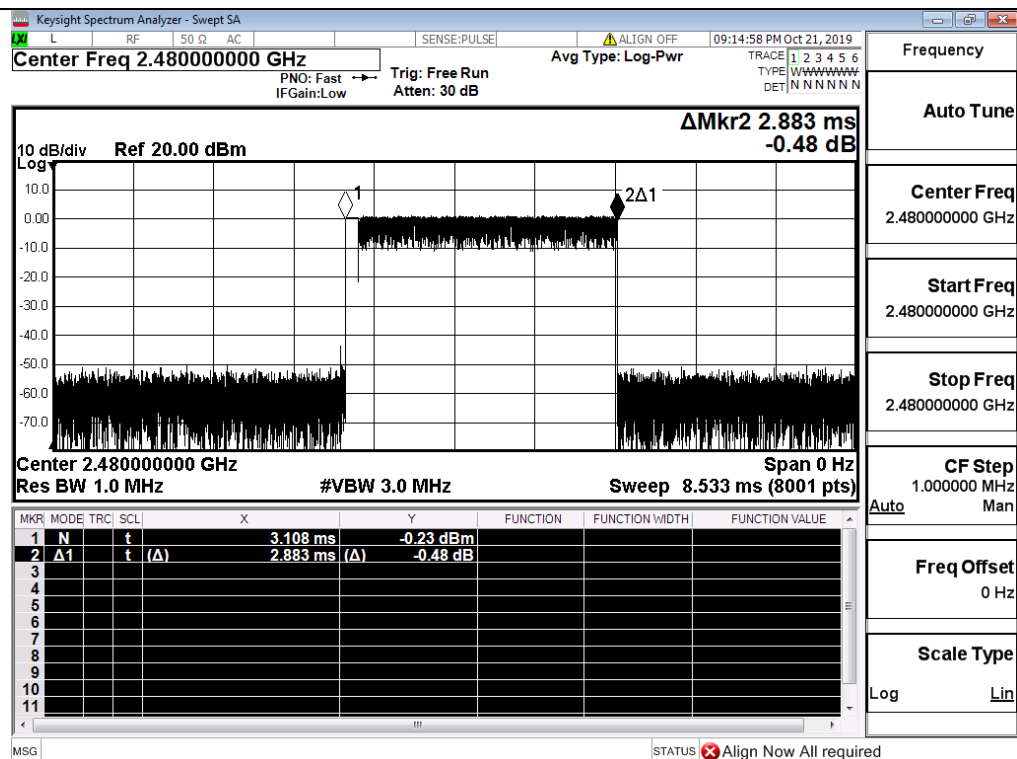
$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH



$\pi/4$ DQPSK
_2DH5/HCH

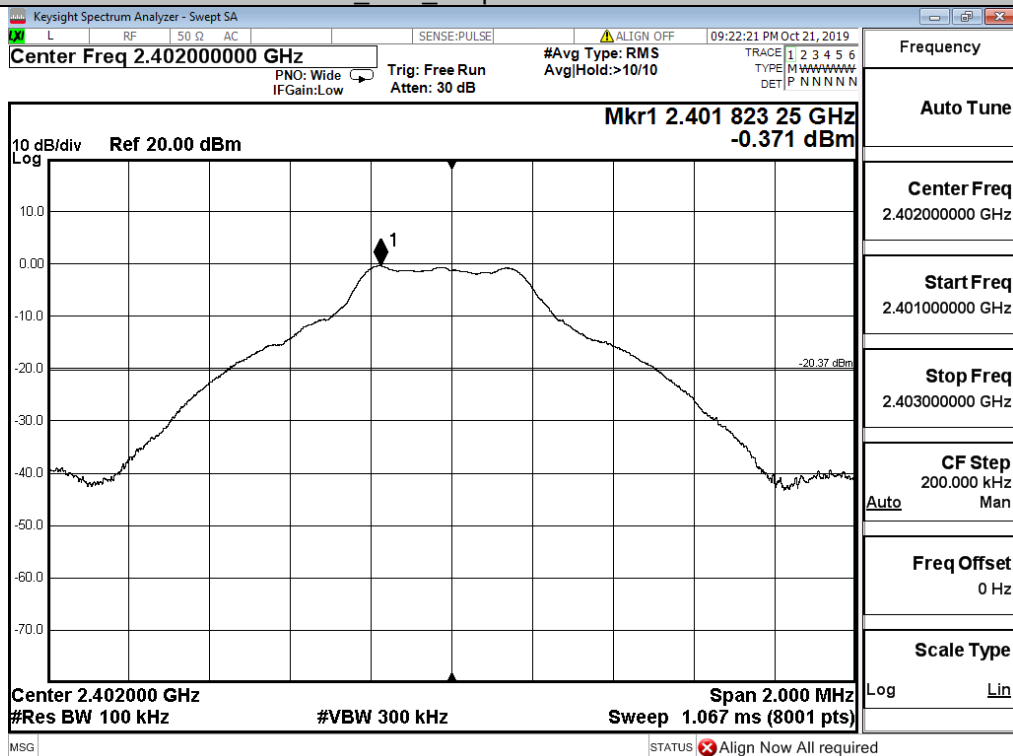


A.6 RF Conducted Spurious Emissions

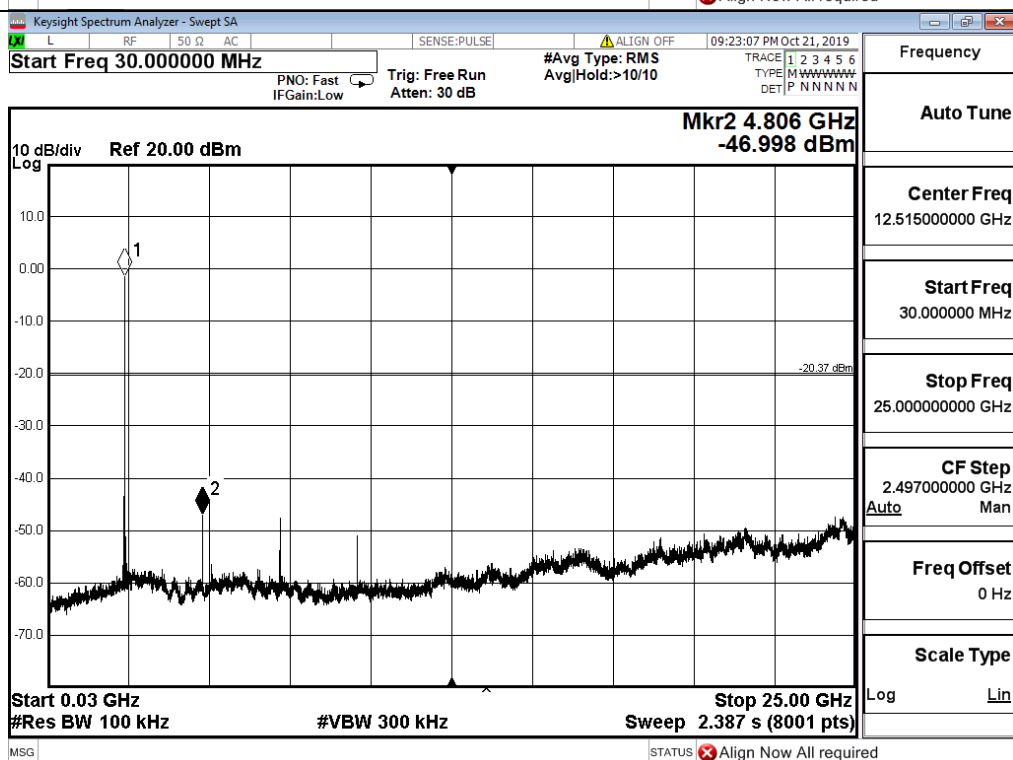
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.371	-46.998	-20.37	PASS
	MCH	0.072	-46.164	-19.93	PASS
	HCH	0.656	-44.436	-19.34	PASS
$\pi/4$ DQPSK	LCH	-0.379	-48.303	-20.38	PASS
	MCH	0.000	-46.775	-20.00	PASS
	HCH	0.678	-45.666	-19.32	PASS

GFSK_LCH_Graphs

Pref

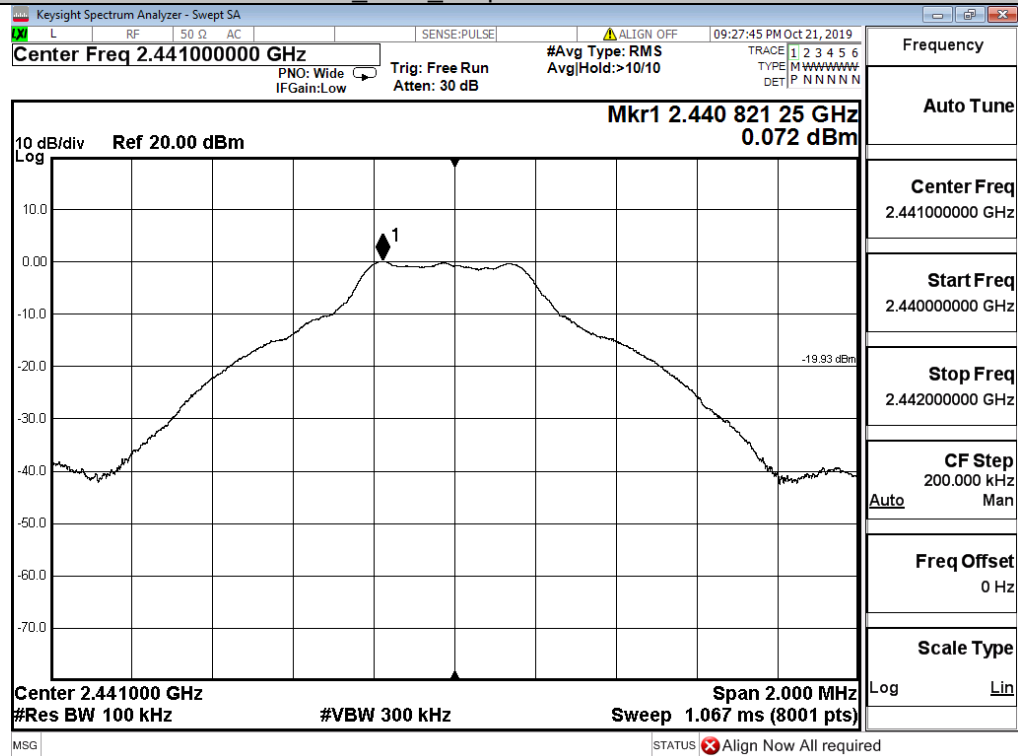


Puw

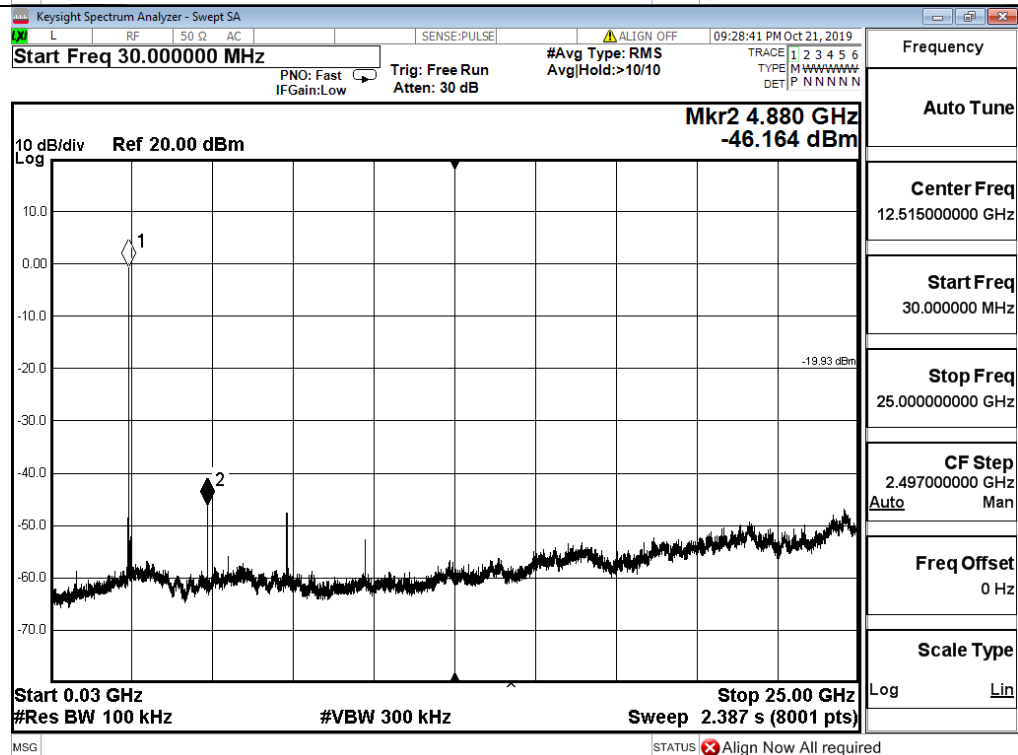


GFSK_MCH_Graphs

Pref

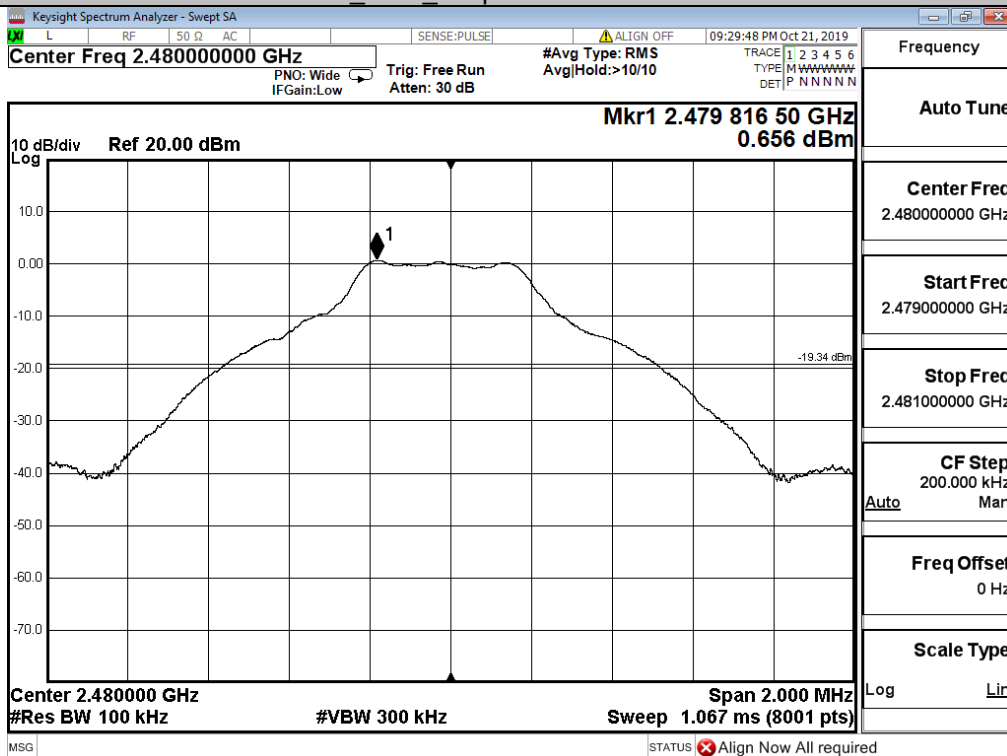


Puw

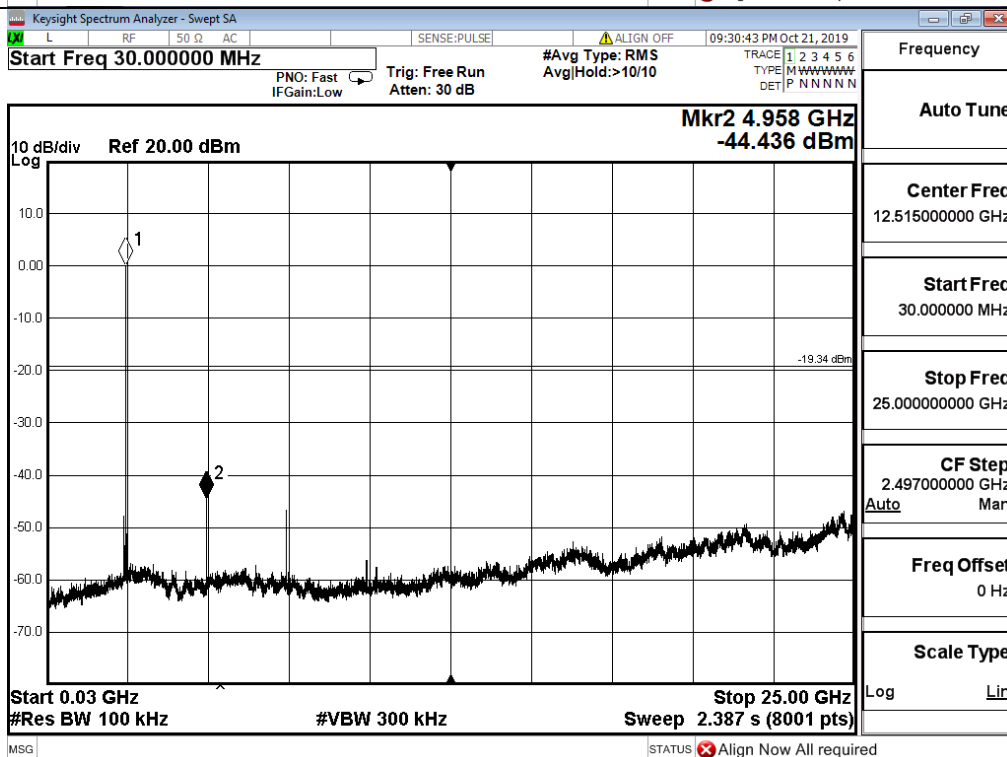


GFSK_HCH_Graphs

Pref

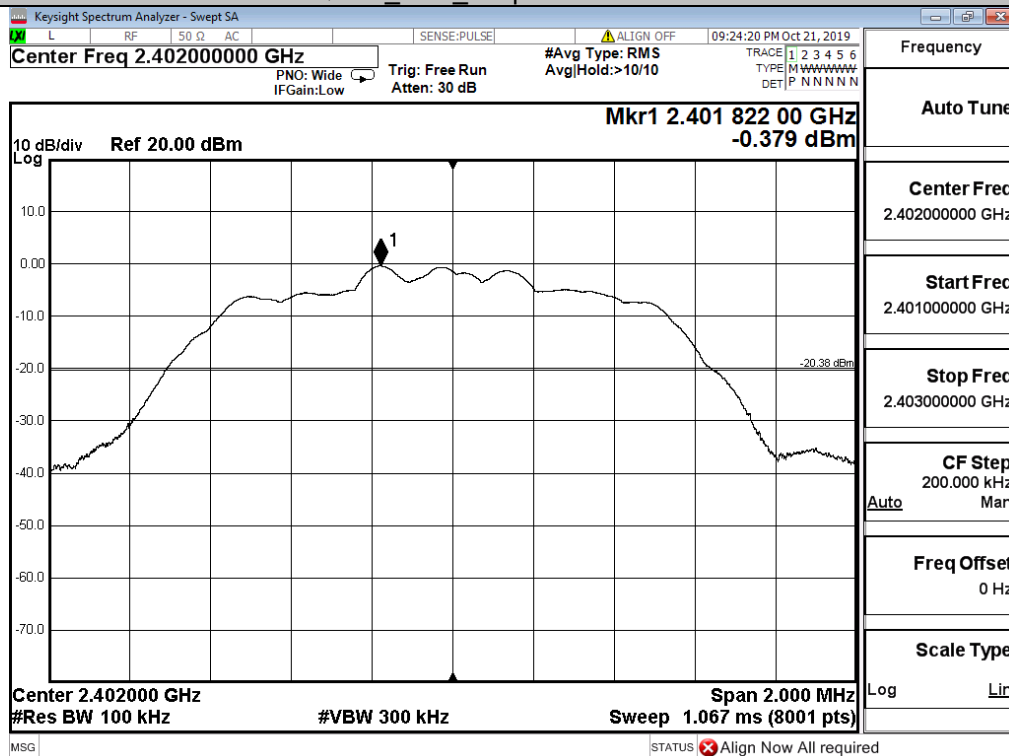


Puw

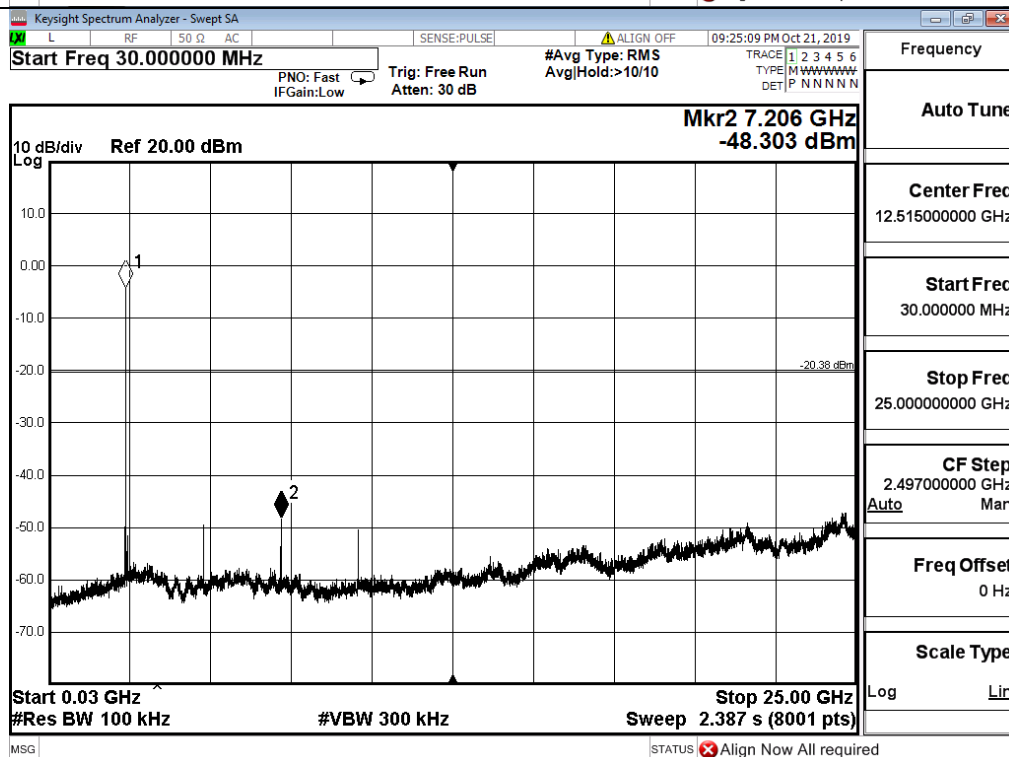


$\pi/4$ DQPSK_LCH_Graphs

Pref

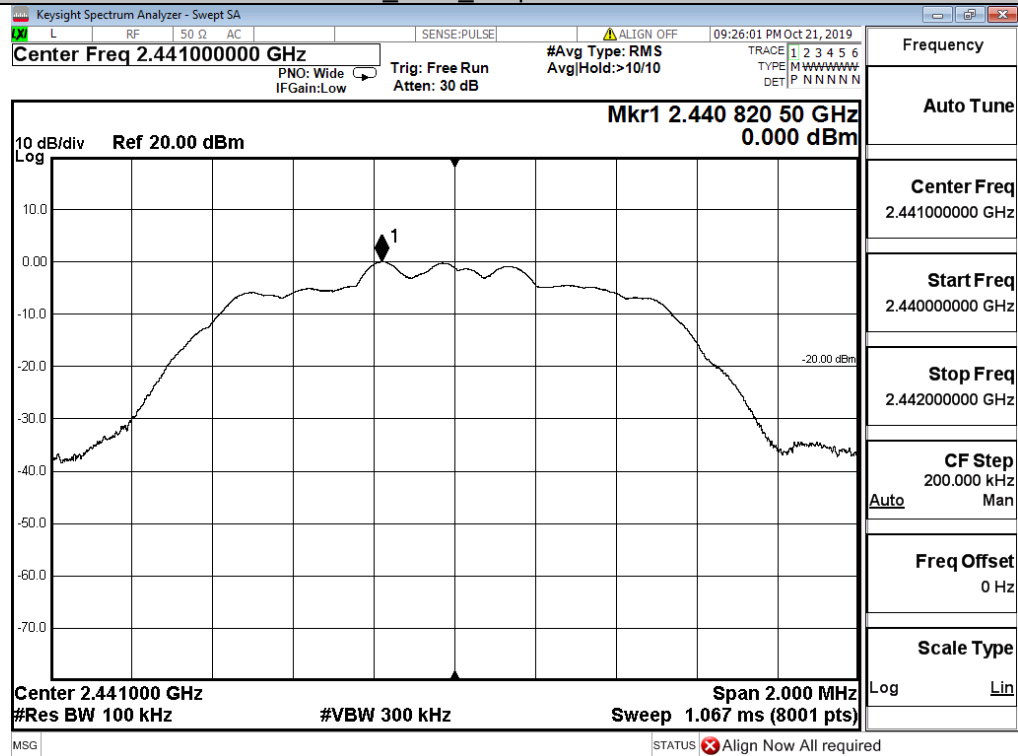


Puw

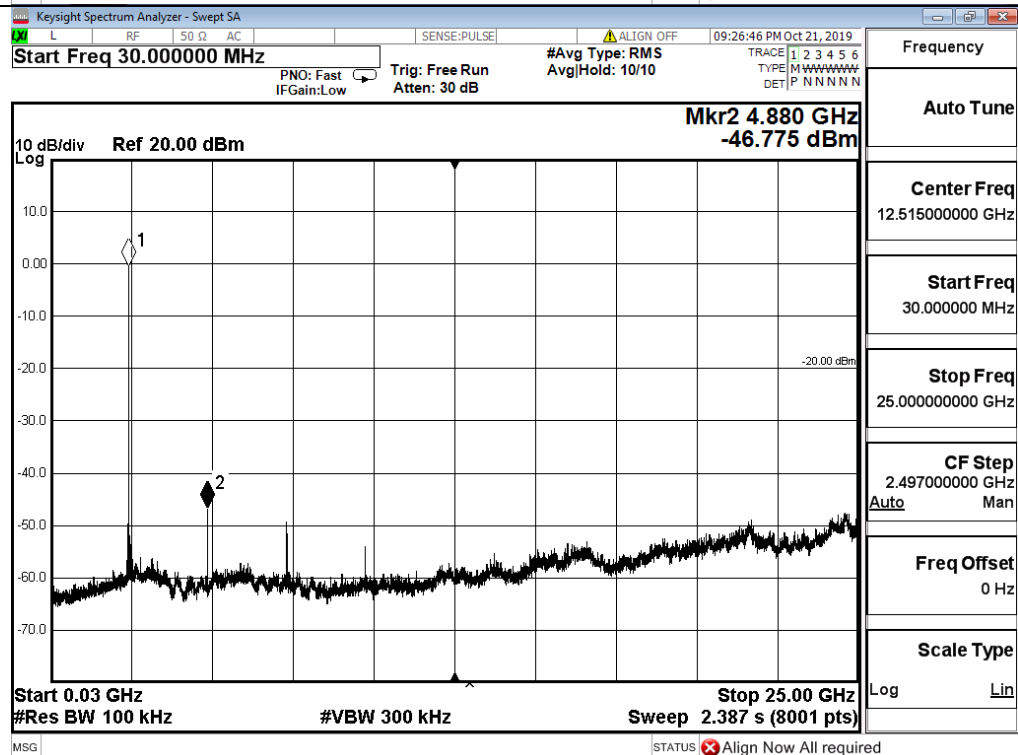


$\pi/4$ DQPSK_MCH_Graphs

Pref

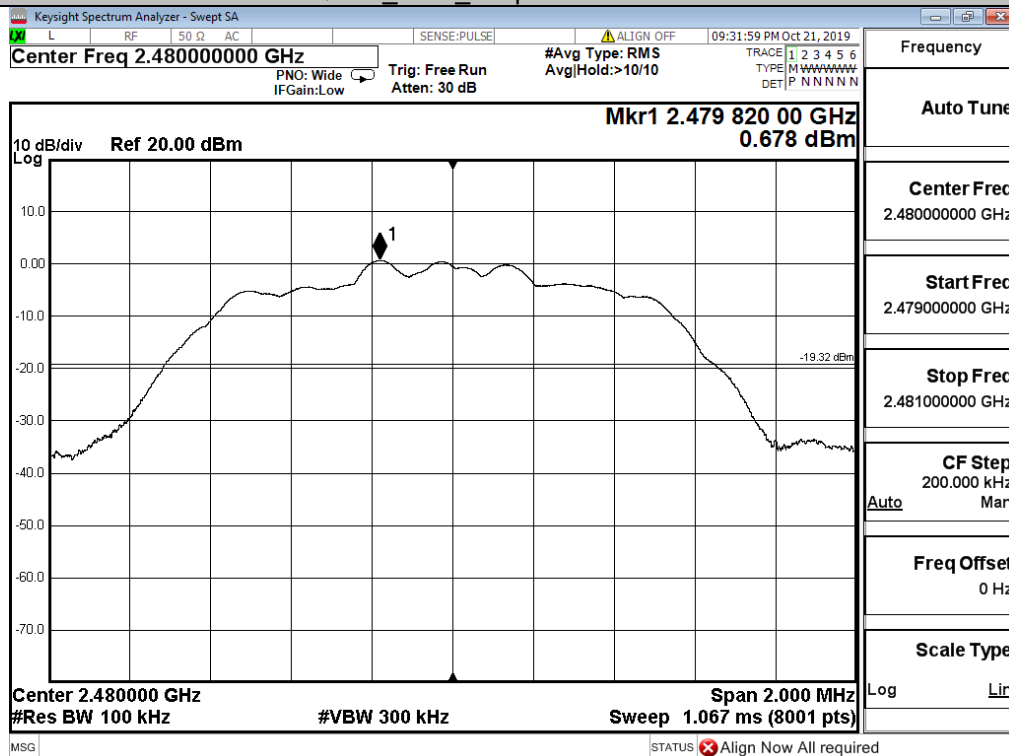


Puw

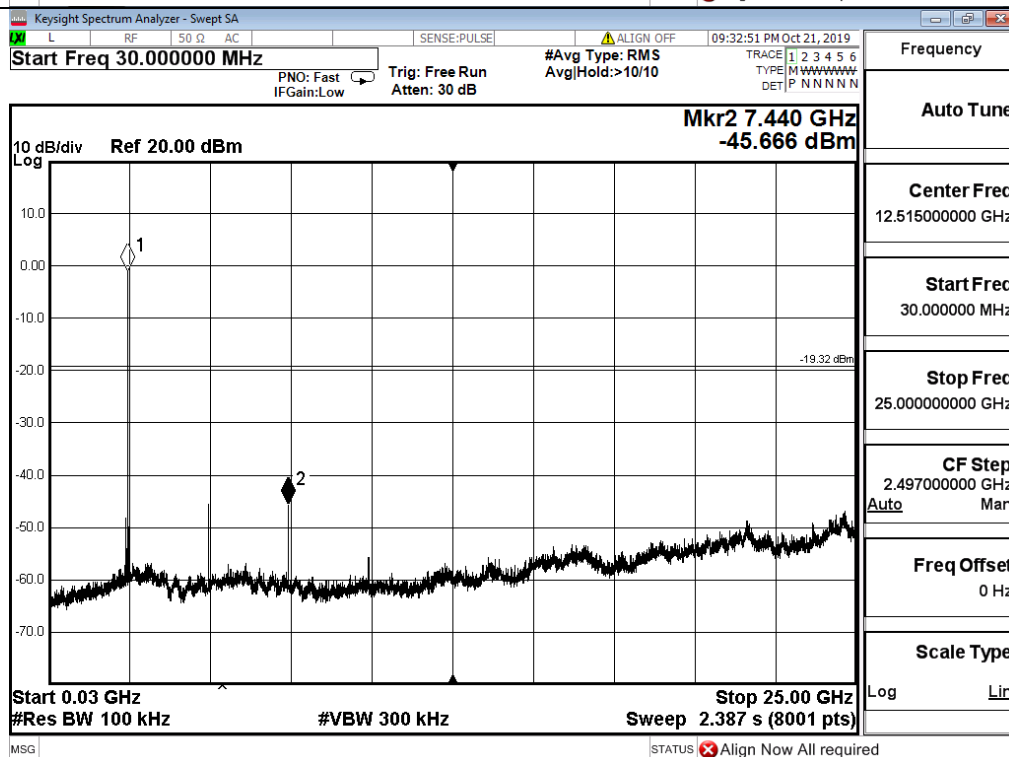


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

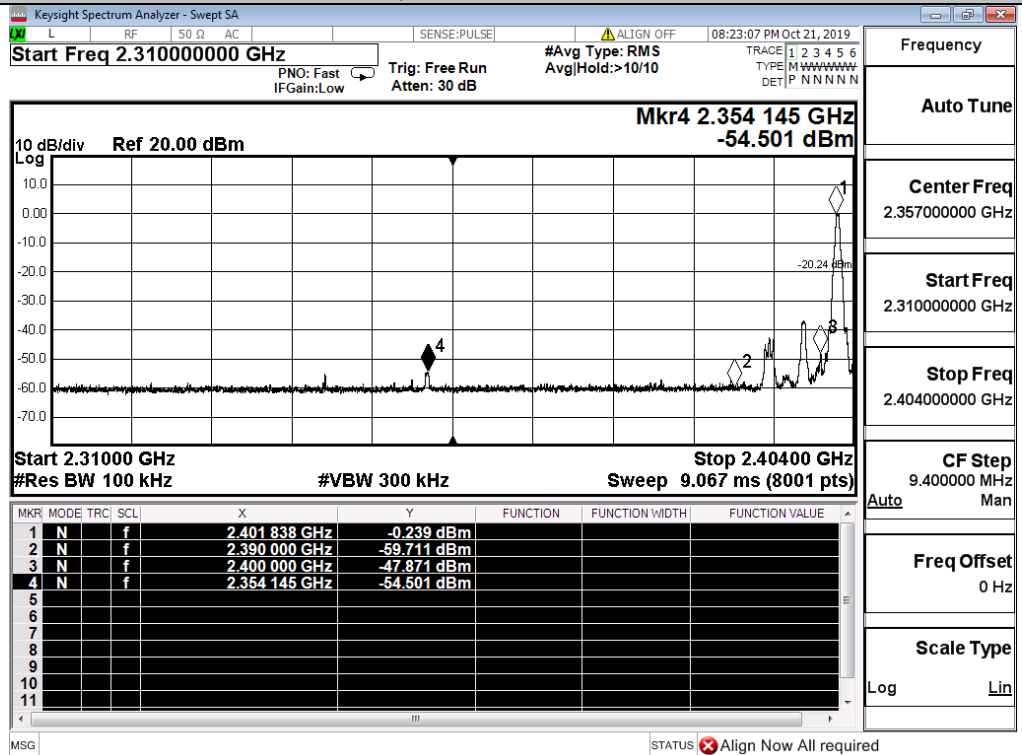


A.7 Band-edge for RF Conducted Emissions

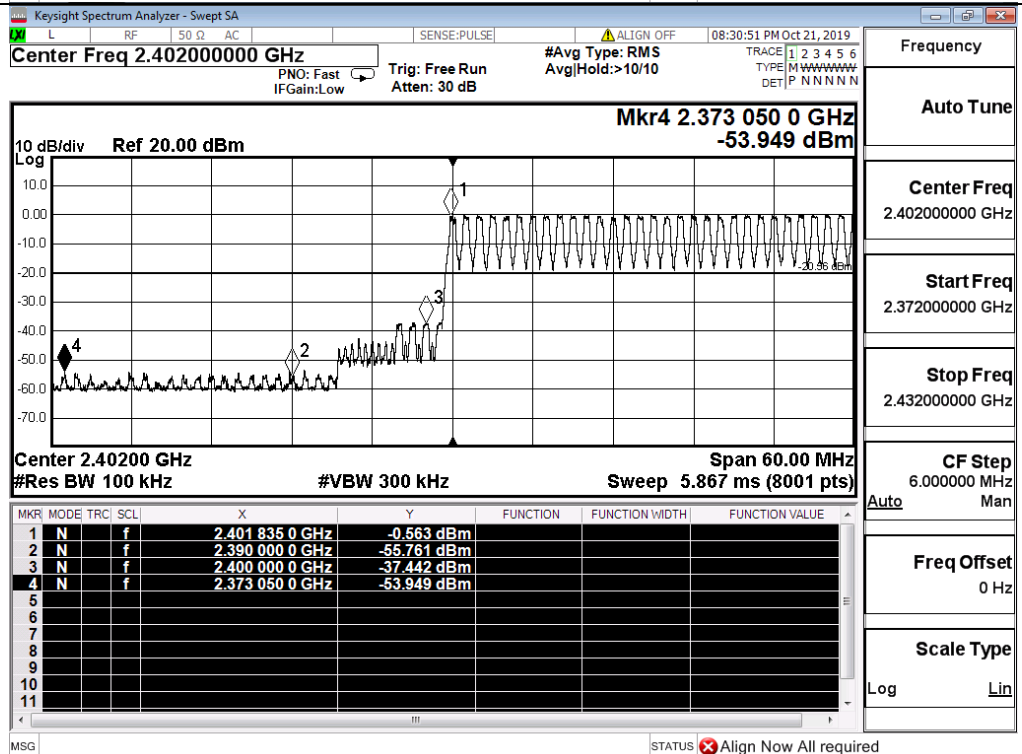
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-0.239	Off	-54.501	-20.24	PASS
			-0.563	On	-53.949	-20.56	PASS
	HCH	2480	0.700	Off	-56.031	-19.30	PASS
			0.561	On	-51.155	-19.44	PASS
$\pi/4$ DQPSK	LCH	2402	0.315	Off	-55.465	-20.32	PASS
			-1.087	On	-53.753	-21.09	PASS
	HCH	2480	0.739	Off	-55.414	-19.26	PASS
			0.142	On	-49.470	-19.86	PASS

Test Graphs

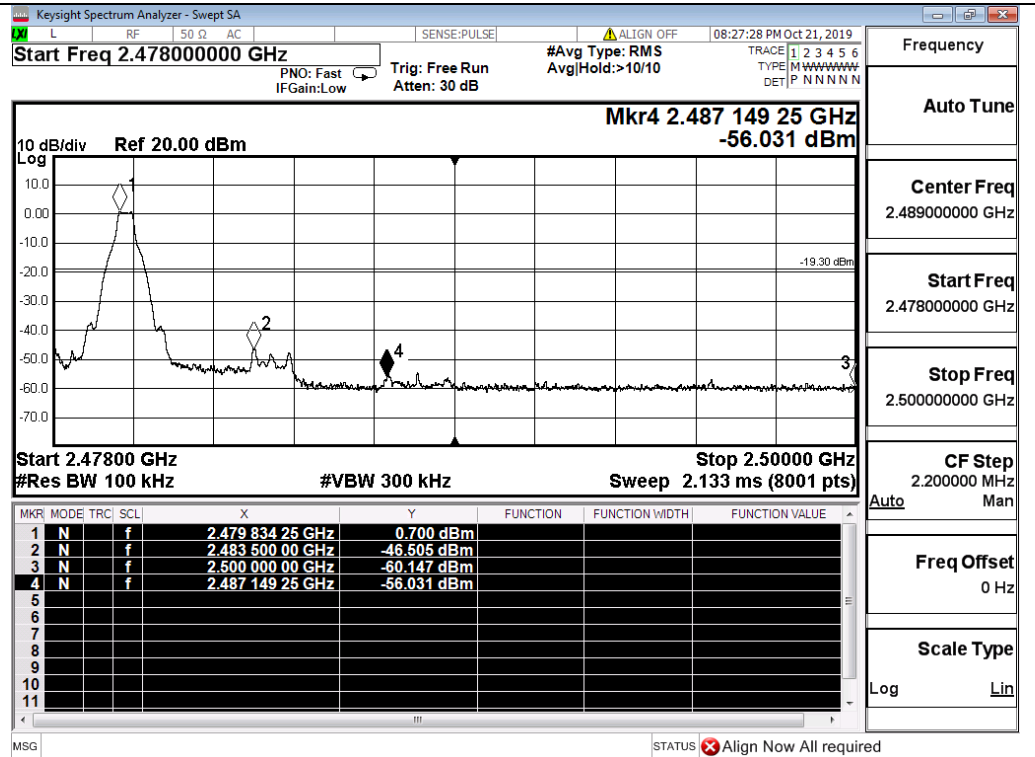
GFSK/LCH/No Hop



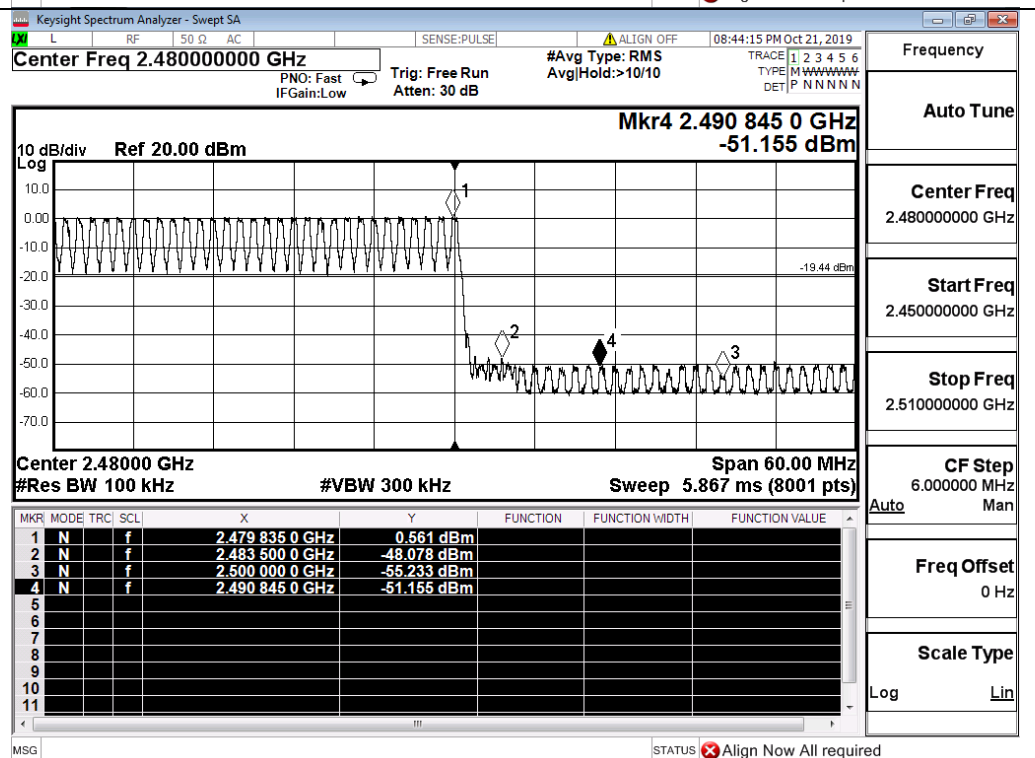
GFSK/LCH/Hop



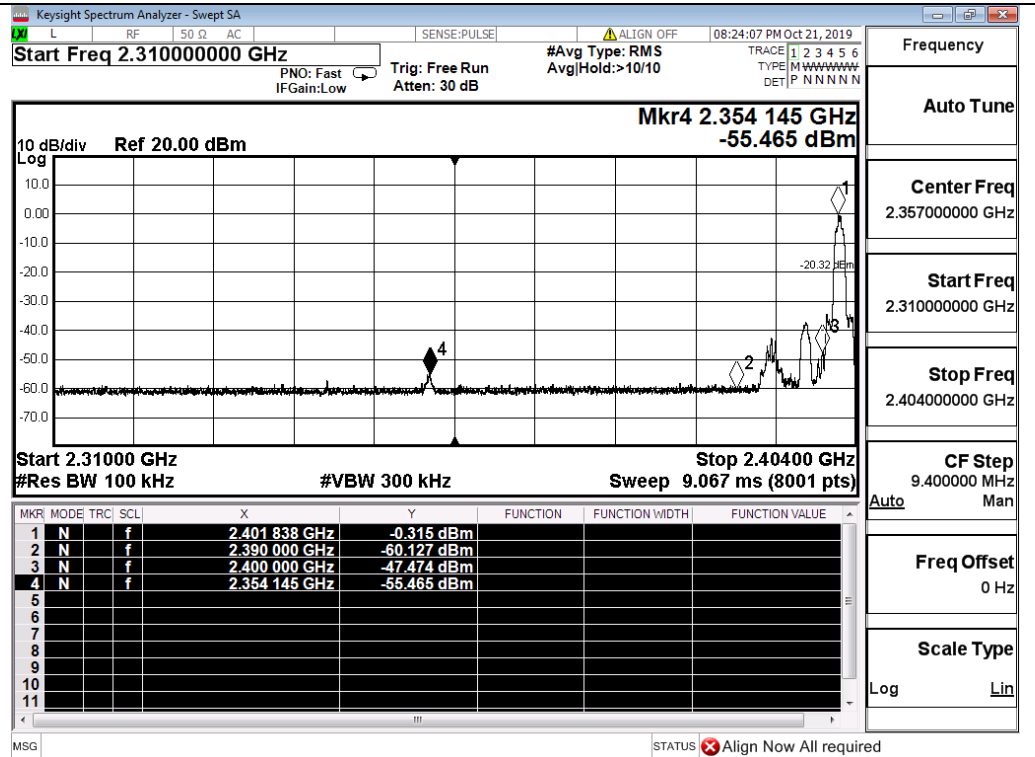
GFSK/HCH/No Hop



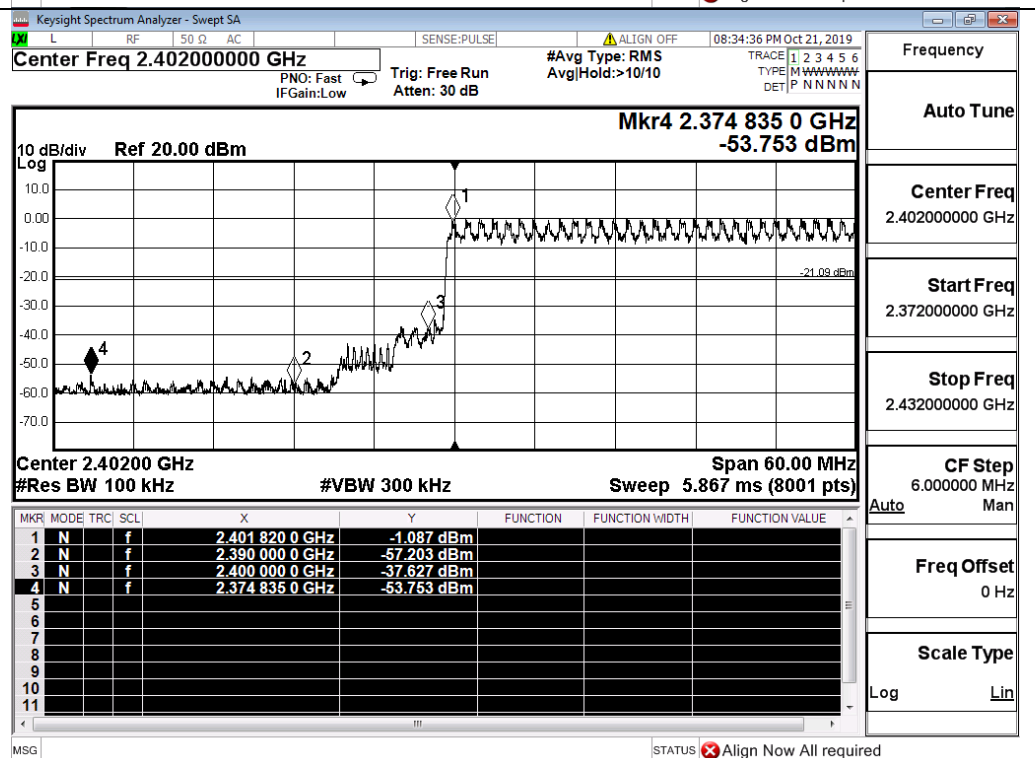
GFSK/HCH/Hop



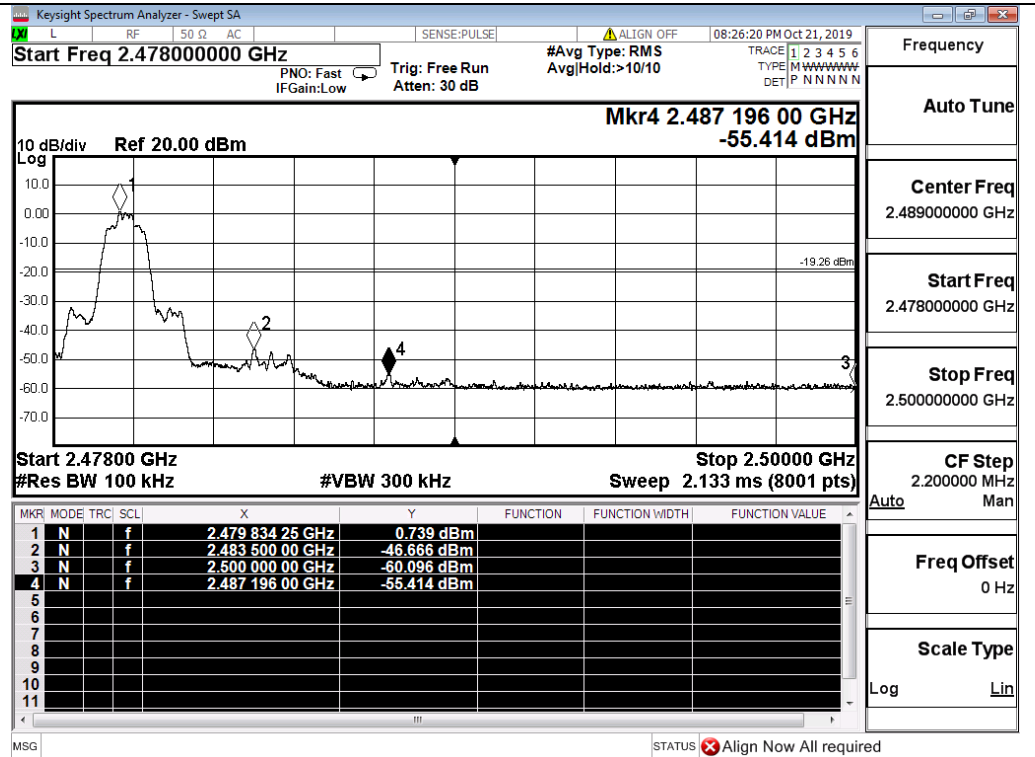
$\pi/4$ DQPSK/LCH/No
Hop



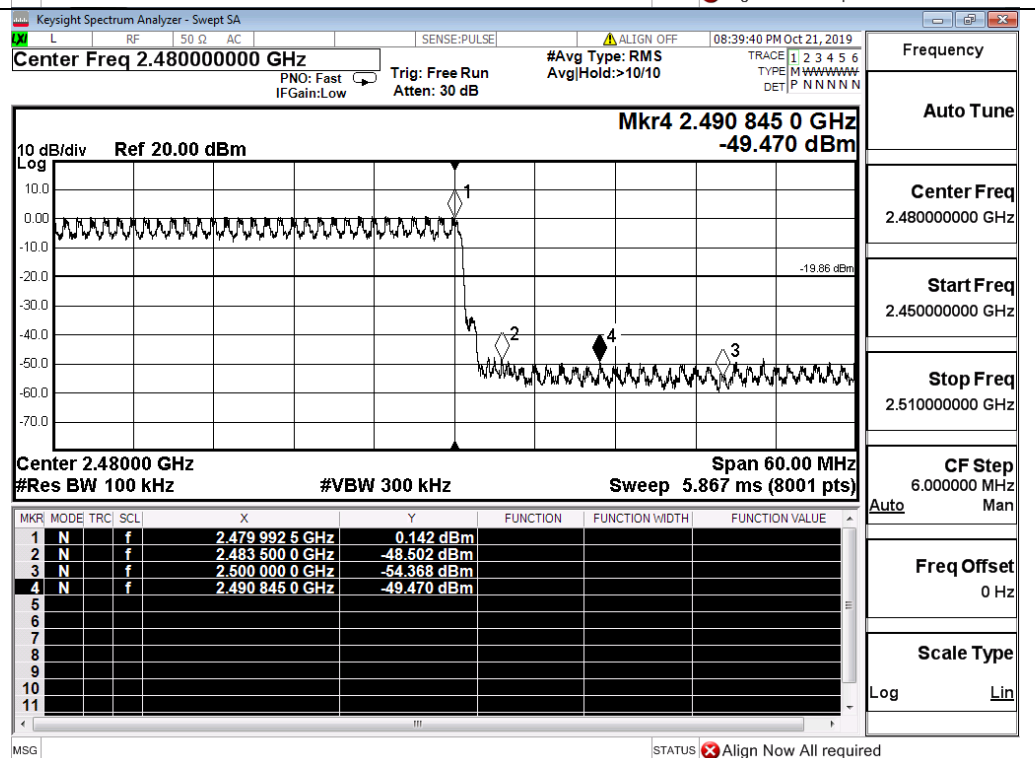
$\pi/4$ DQPSK/LCH/Hop



$\pi/4$ DQPSK/HCH/No
Hop



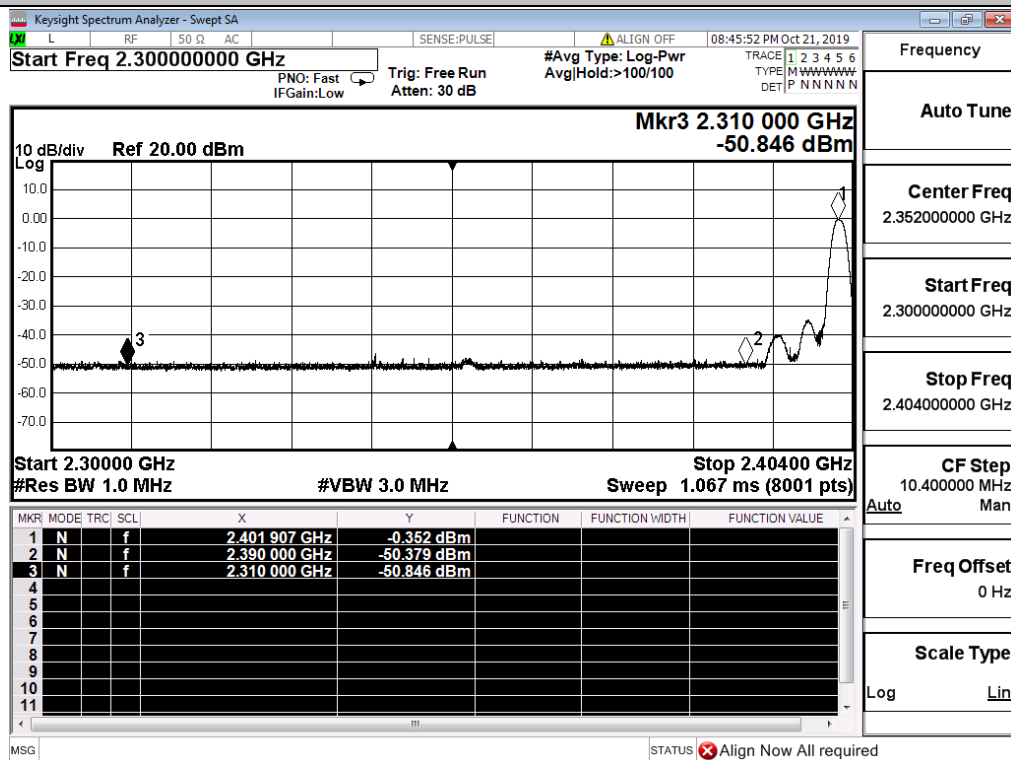
$\pi/4$ DQPSK/HCH/Hop



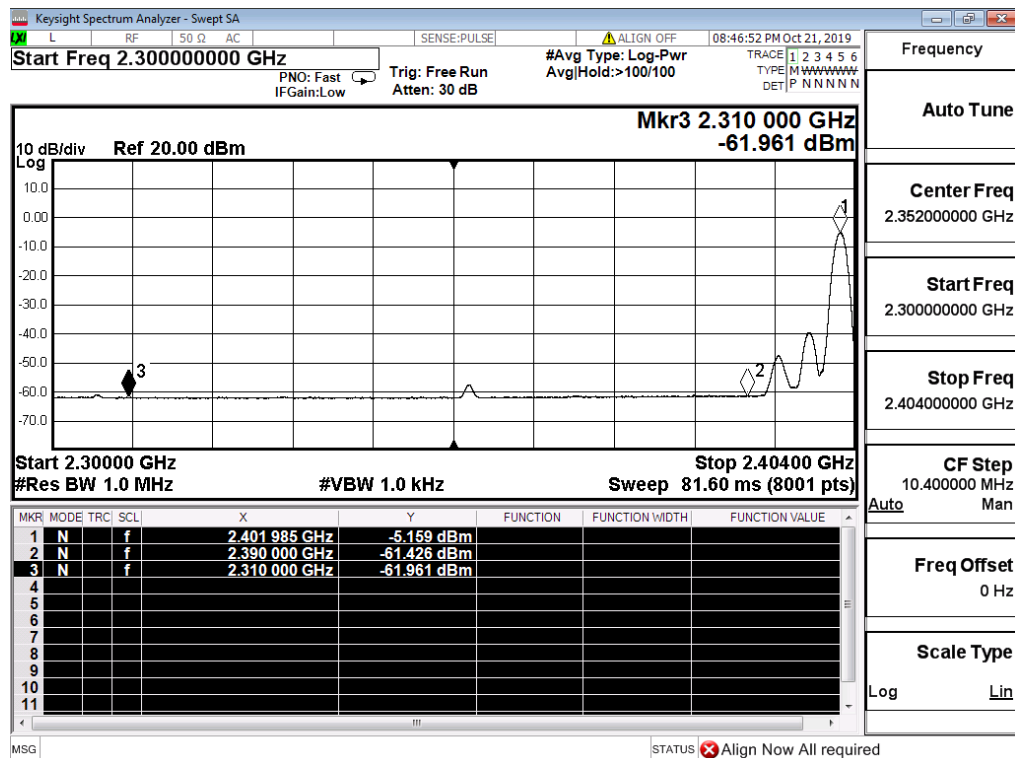
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-50.846	2	0	46.41	PEAK	74	PASS
	Off	2310.0	-61.426	2	0	35.83	AV	54	PASS
	Off	2390.0	-50.379	2	0	46.88	PEAK	74	PASS
	Off	2390.0	-61.961	2	0	35.30	AV	54	PASS
	Off	2483.5	-41.837	2	0	55.42	PEAK	74	PASS
	Off	2483.5	-51.752	2	0	45.51	AV	54	PASS
	Off	2500.0	-50.114	2	0	47.15	PEAK	74	PASS
	Off	2500.0	-61.037	2	0	36.22	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-50.483	2	0	46.78	PEAK	74	PASS
	Off	2310.0	-61.500	2	0	35.76	AV	54	PASS
	Off	2390.0	-51.776	2	0	45.48	PEAK	74	PASS
	Off	2390.0	-61.879	2	0	35.38	AV	54	PASS
	Off	2483.5	-45.415	2	0	51.85	PEAK	74	PASS
	Off	2483.5	-53.839	2	0	43.42	AV	54	PASS
	Off	2500.0	-50.153	2	0	47.11	PEAK	74	PASS
	Off	2500.0	-60.879	2	0	36.38	AV	54	PASS

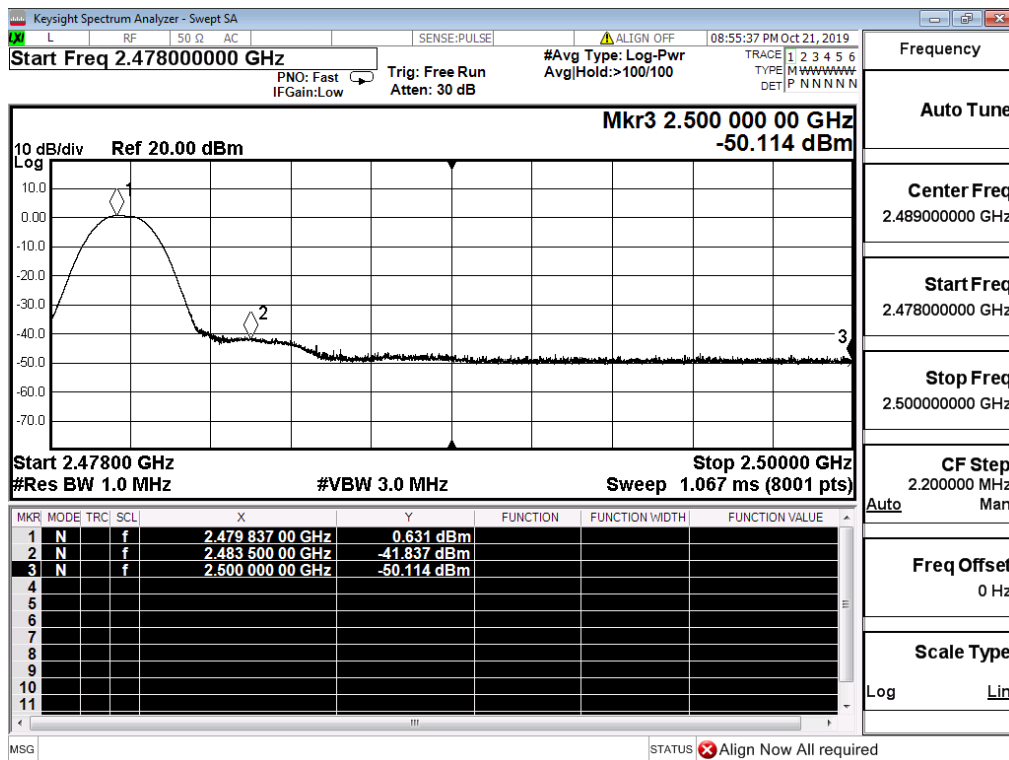
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



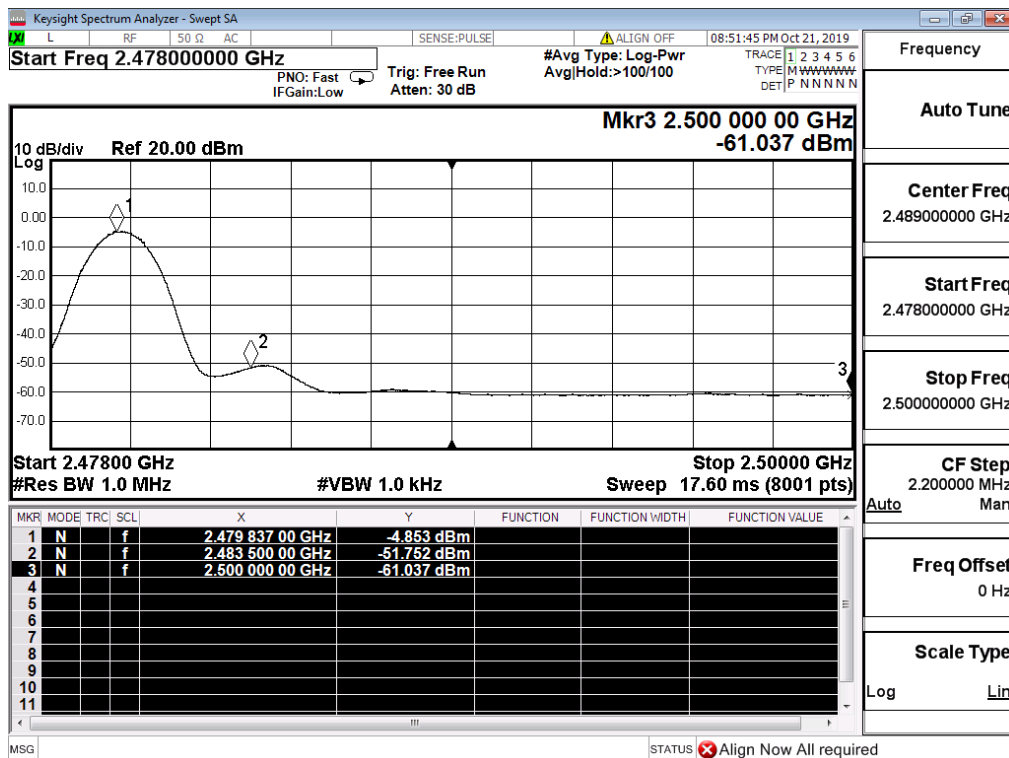
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)



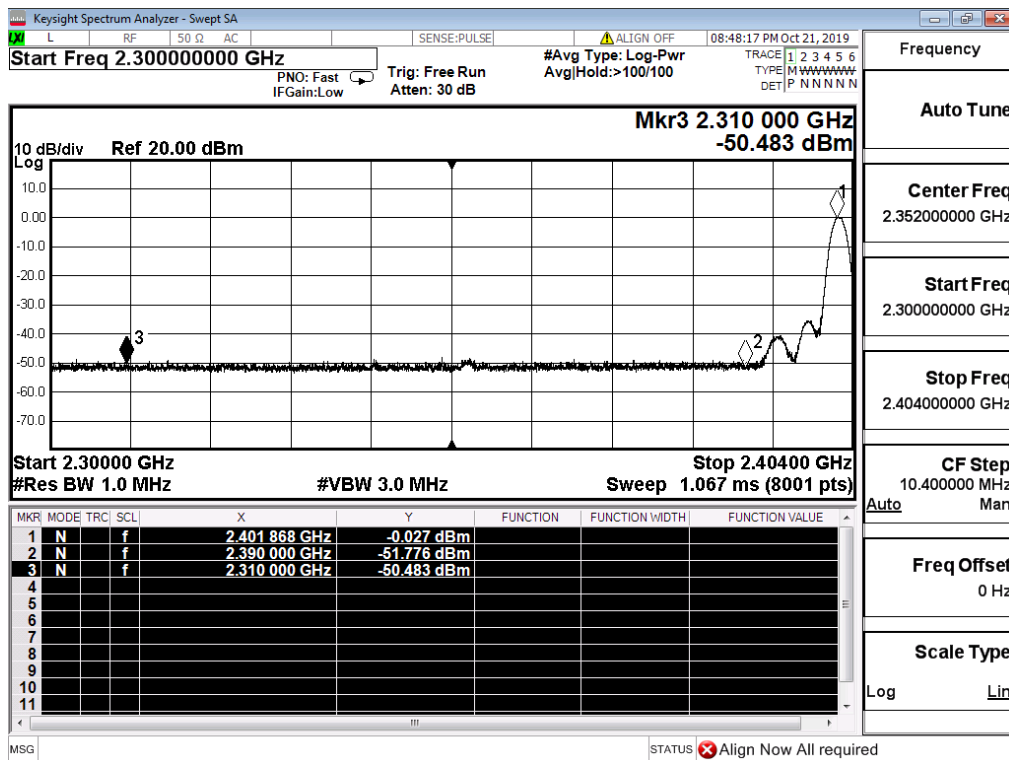
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



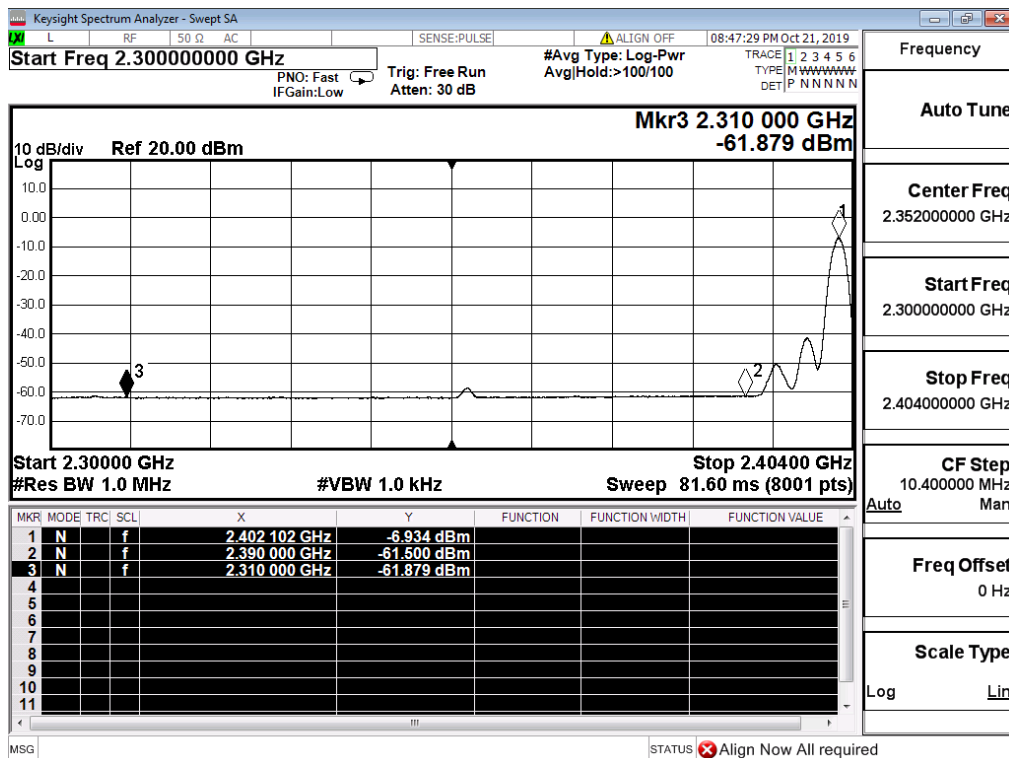
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)

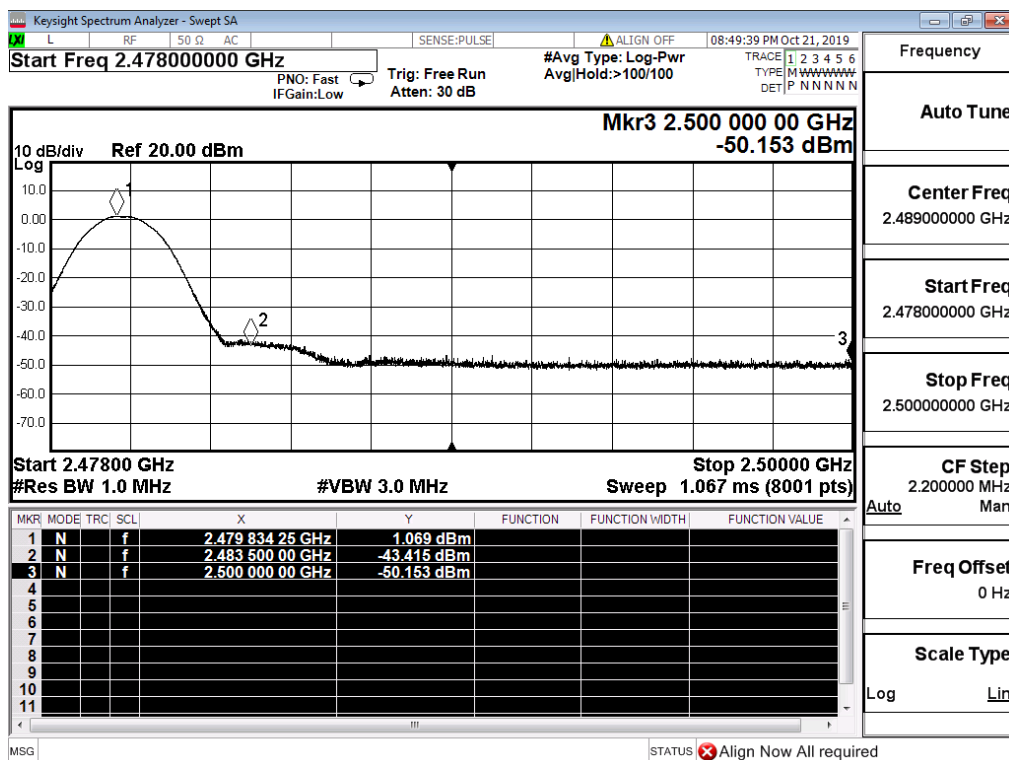


Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (High Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (High Channel)