

Appendix A

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

Product Name: Tablet

Trade Mark: HYUNDAI

Test Model: HyTab-Pro 10WAB1

Environmental Conditions

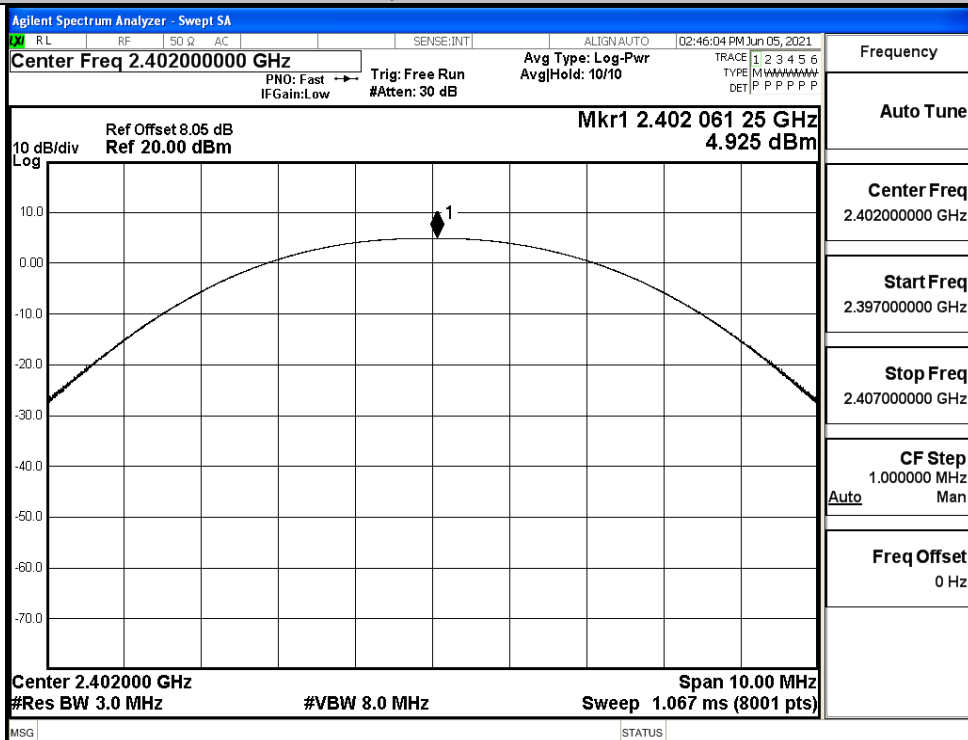
Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

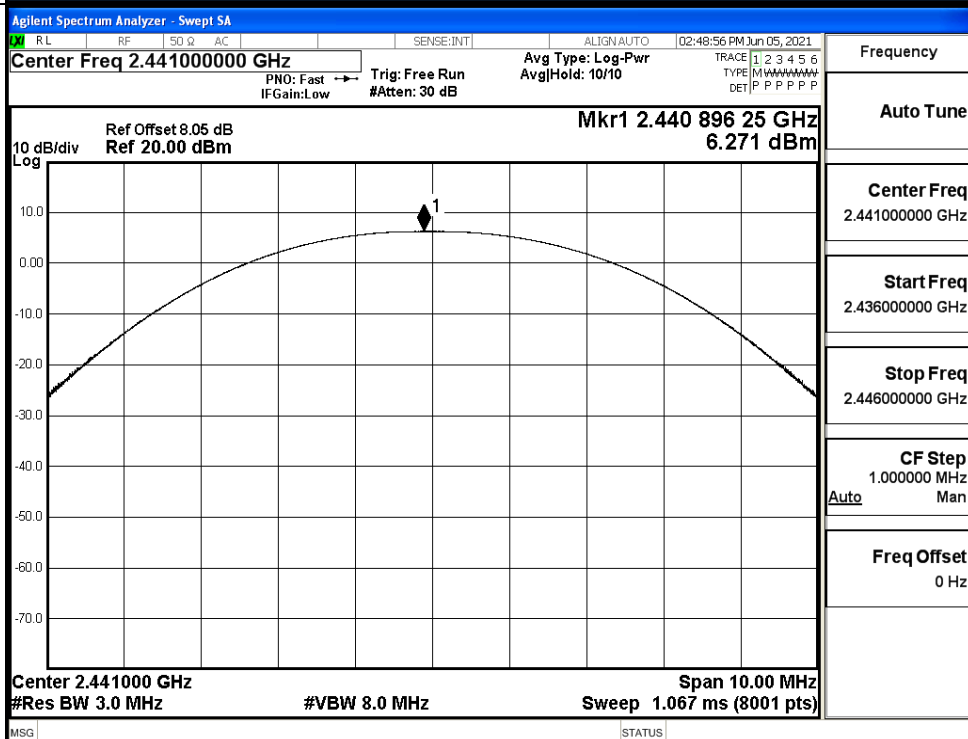
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	4.925	21	PASS
	MCH	6.271	21	PASS
	HCH	4.571	21	PASS
$\pi/4$ DQPSK	LCH	4.097	21	PASS
	MCH	3.688	21	PASS
	HCH	3.761	21	PASS
8DPSK	LCH	4.289	21	PASS
	MCH	5.526	21	PASS
	HCH	3.897	21	PASS

Test Graphs

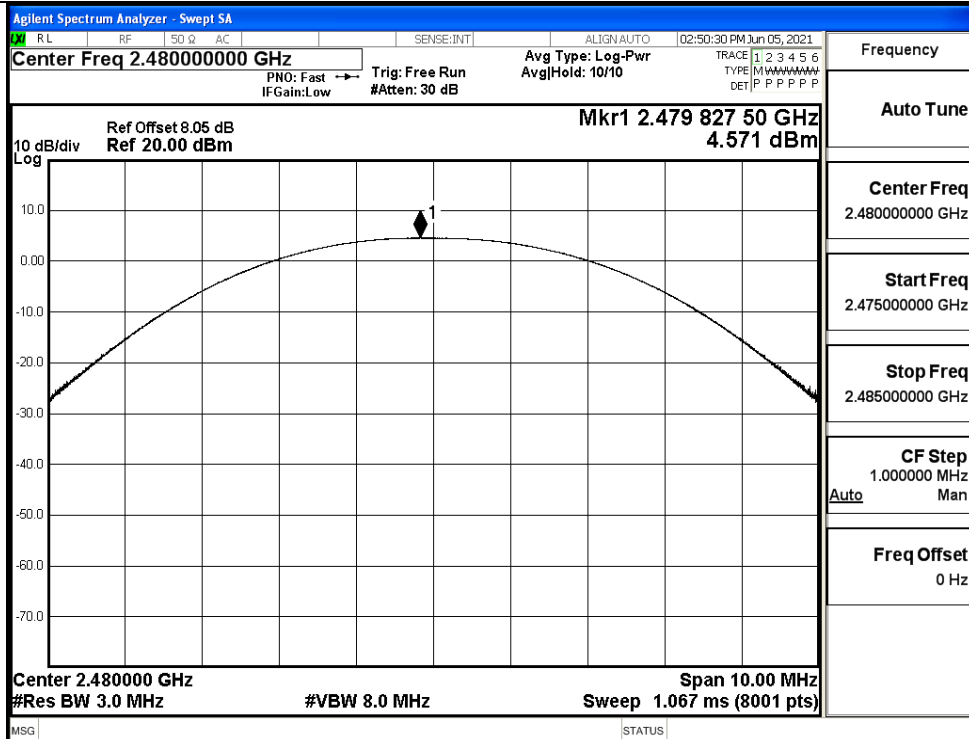
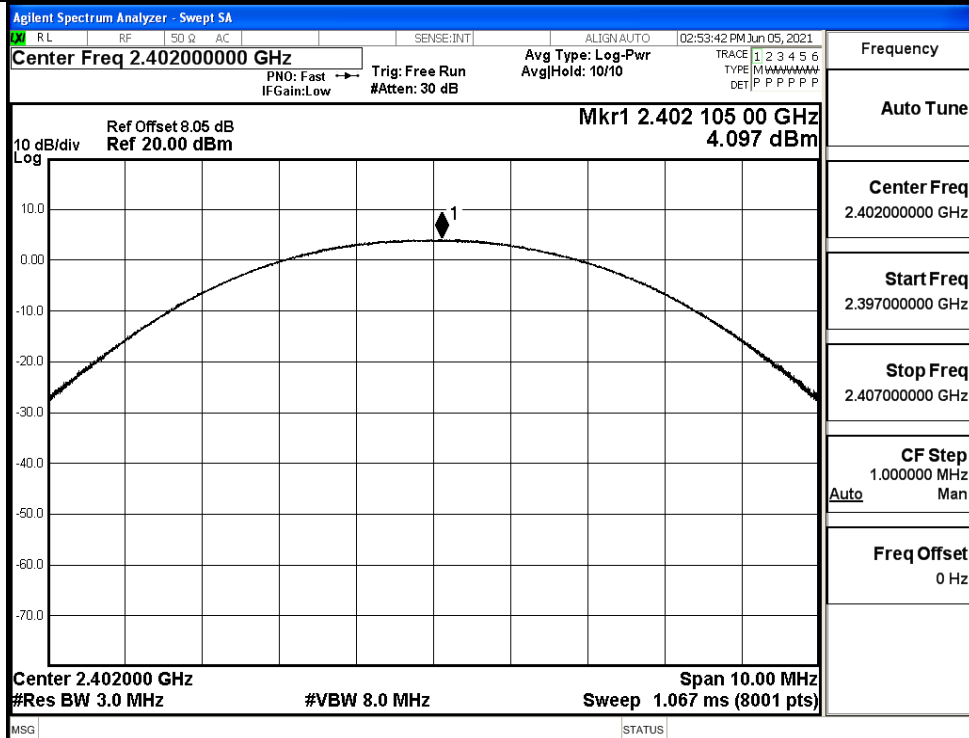
GFSK/LCH

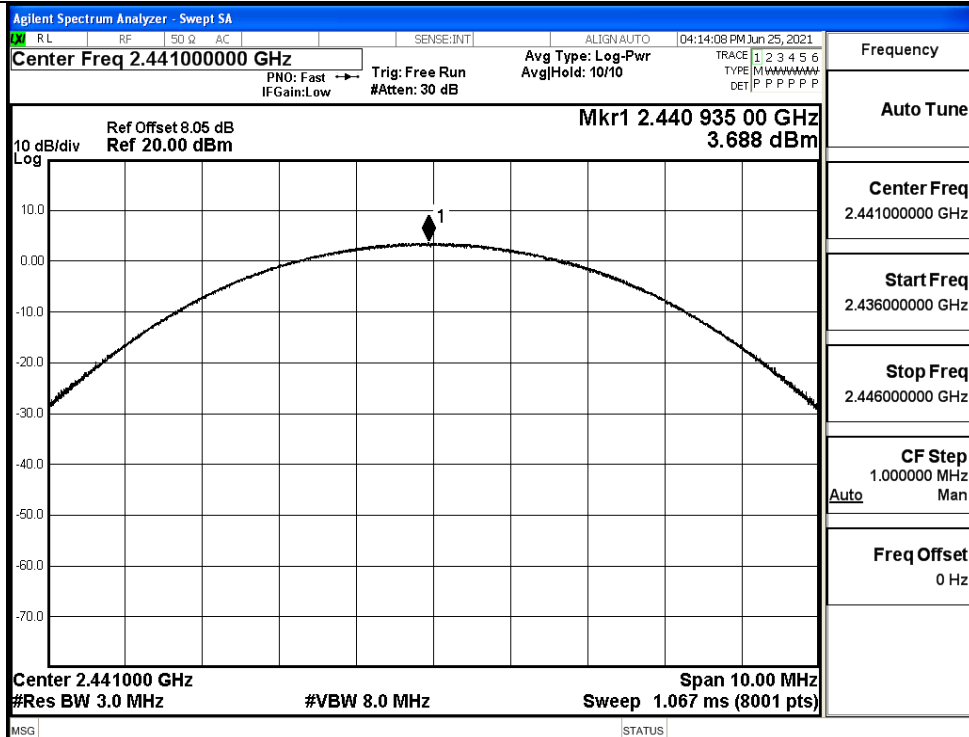
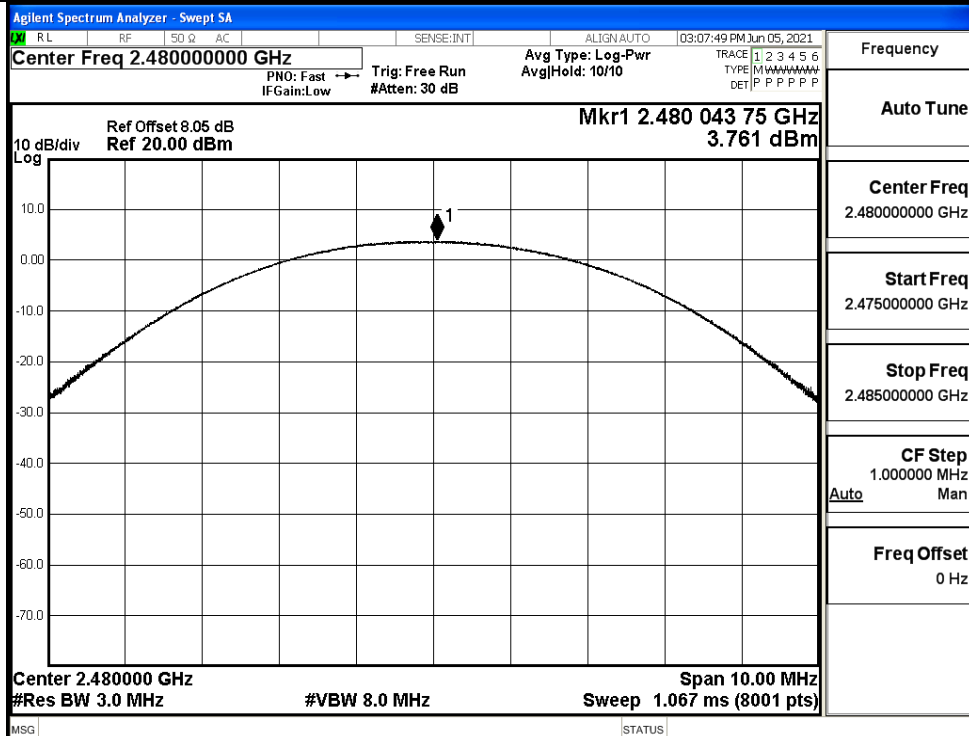


GFSK/MCH

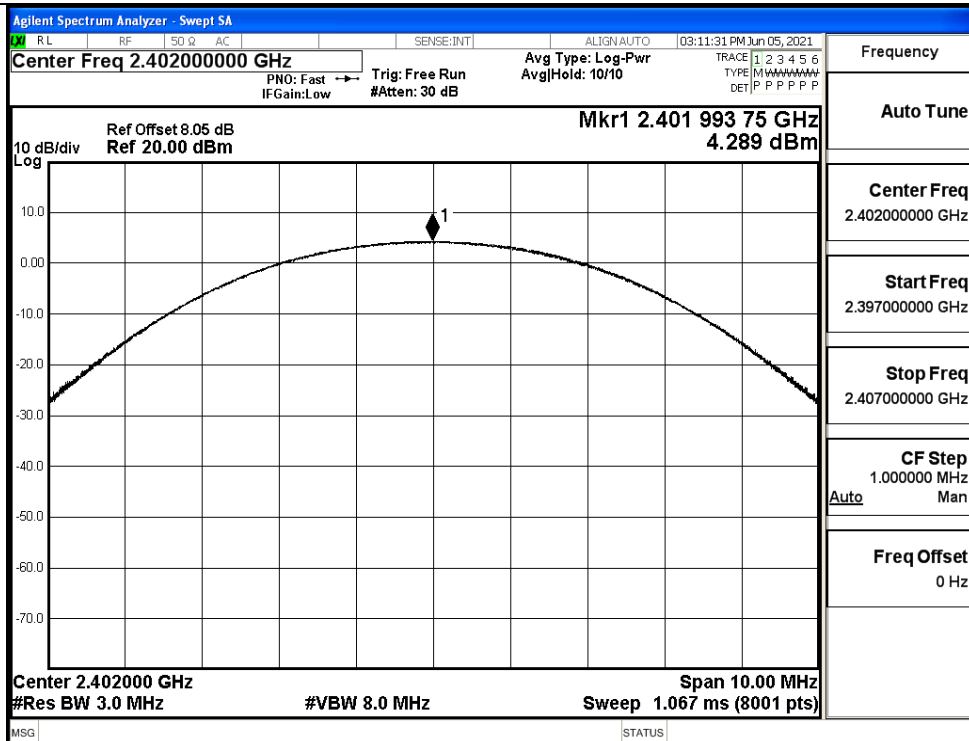


GFSK/HCH

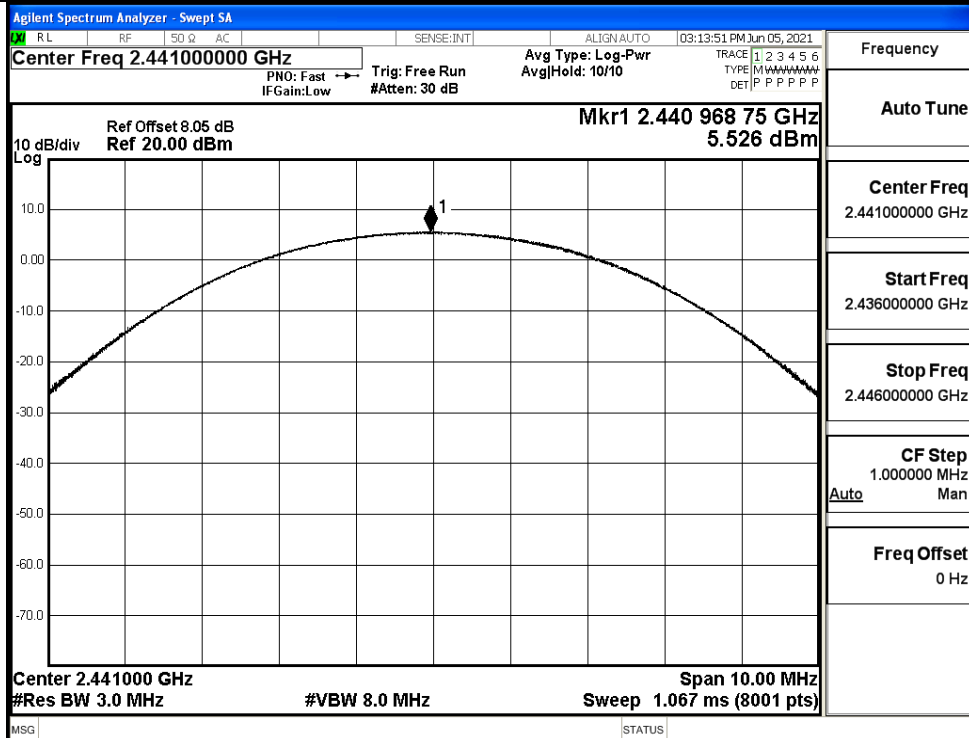
 $\pi/4$ DQPSK/LCH

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

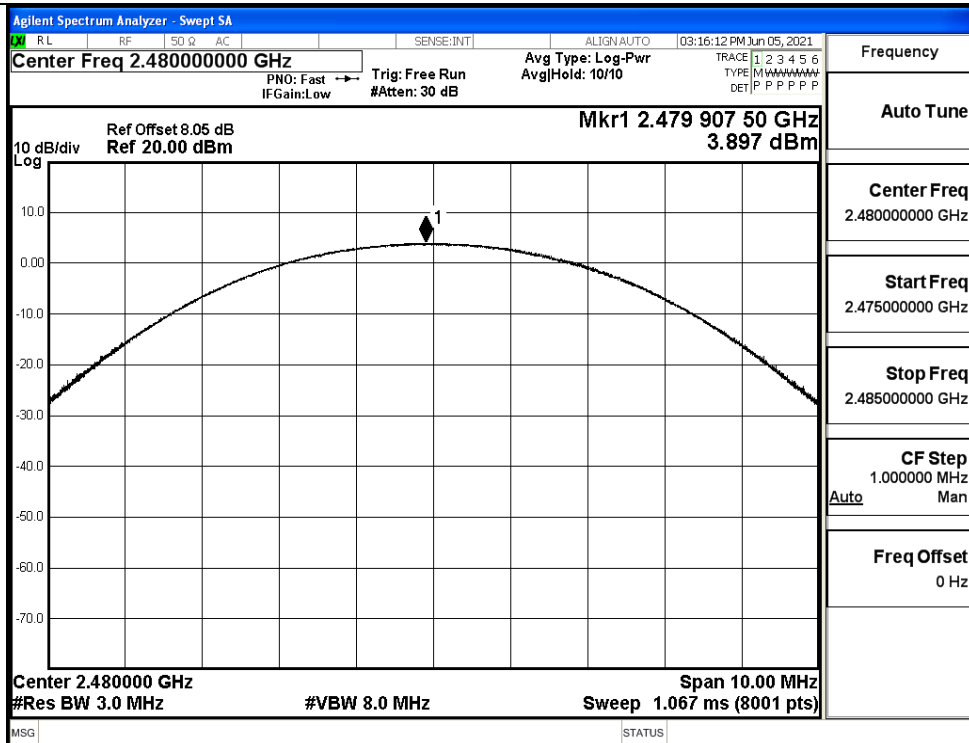
8DPSK/LCH



8DPSK/MCH



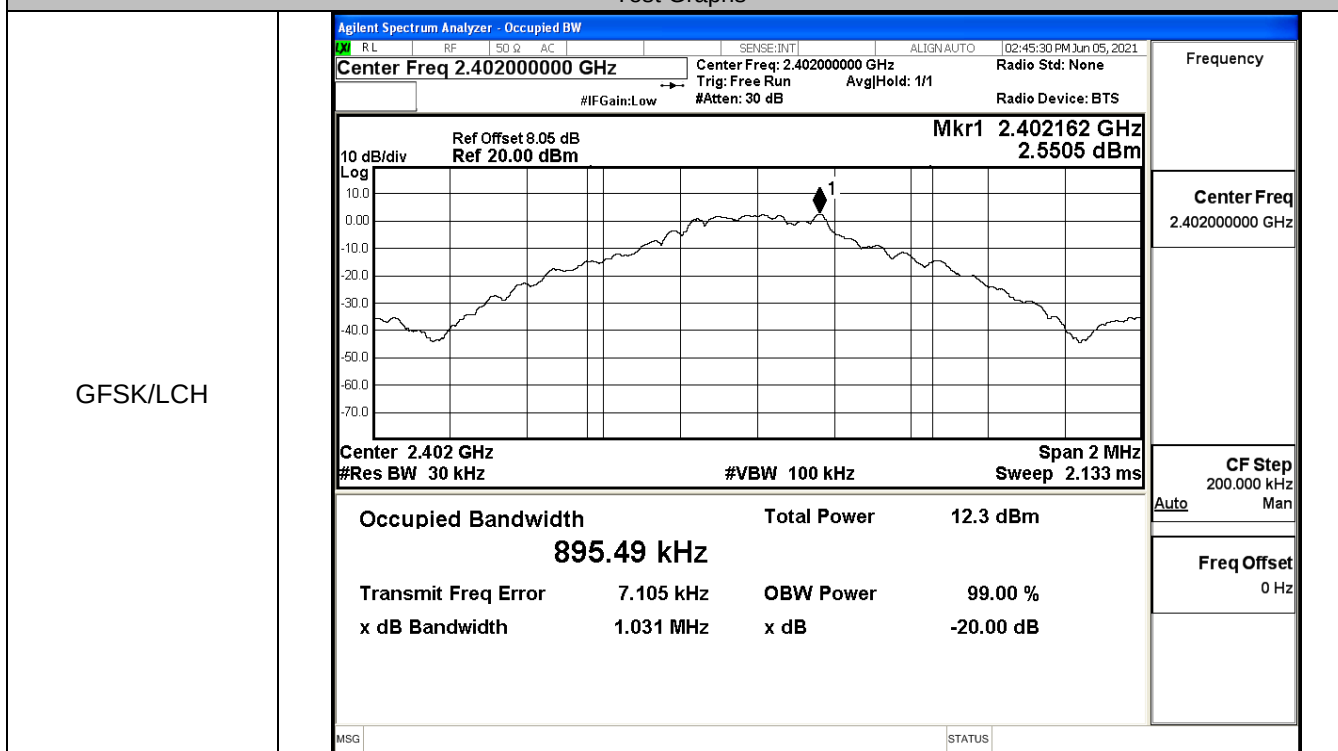
8DPSK/HCH



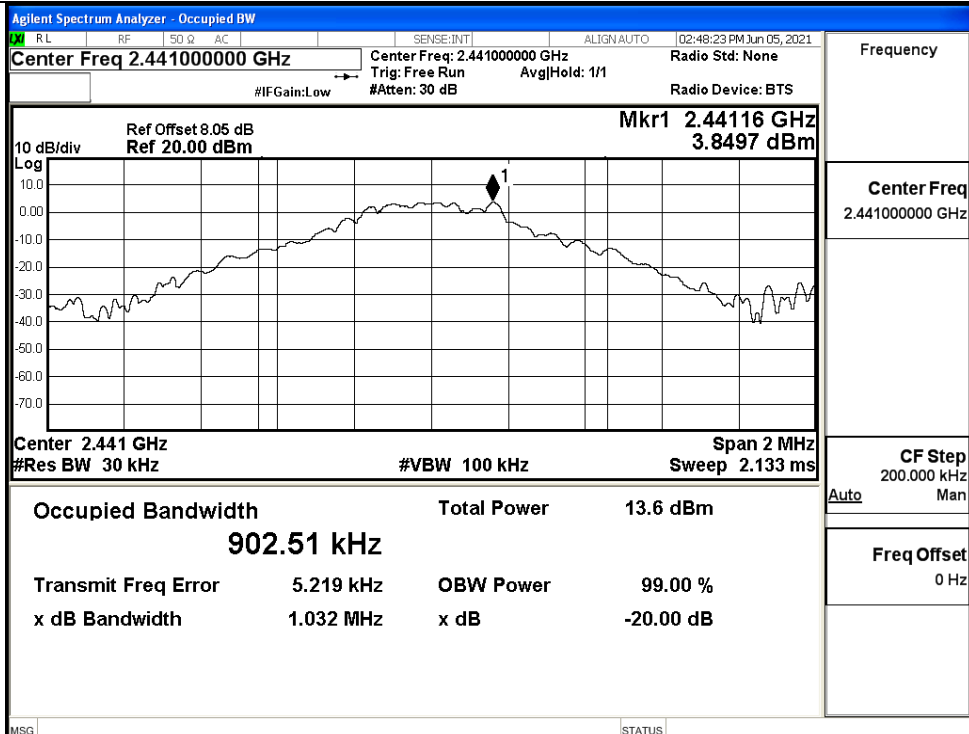
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.031	Not Specified	PASS
	MCH	1.032	Not Specified	PASS
	HCH	1.034	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.289	Not Specified	PASS
	MCH	1.287	Not Specified	PASS
	HCH	1.288	Not Specified	PASS
8DPSK	LCH	1.294	Not Specified	PASS
	MCH	1.292	Not Specified	PASS
	HCH	1.295	Not Specified	PASS

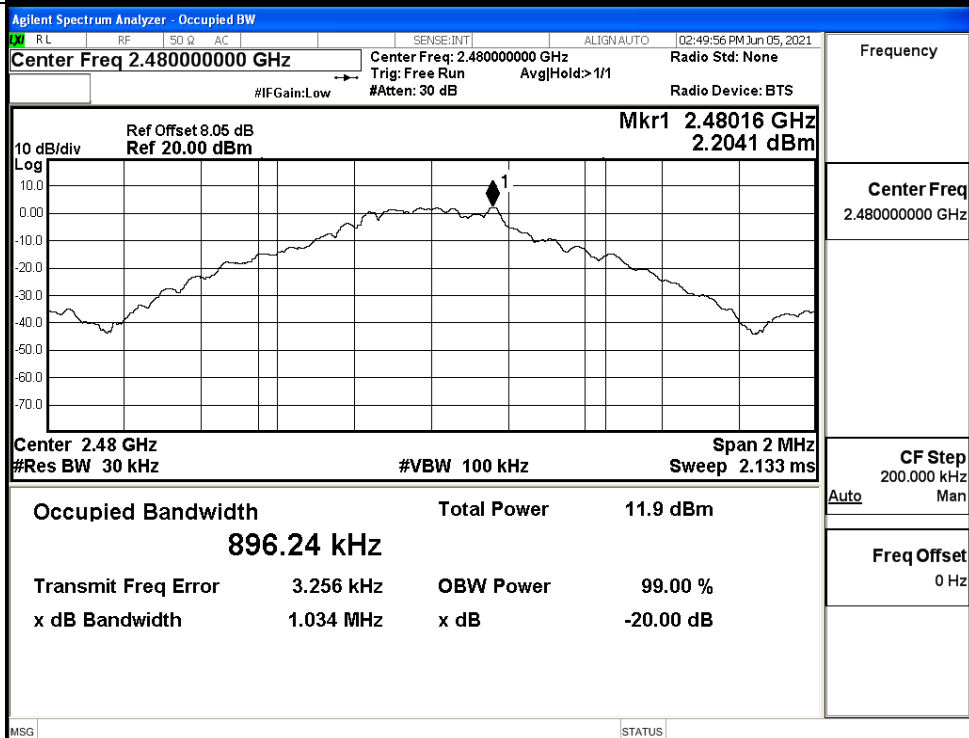
Test Graphs

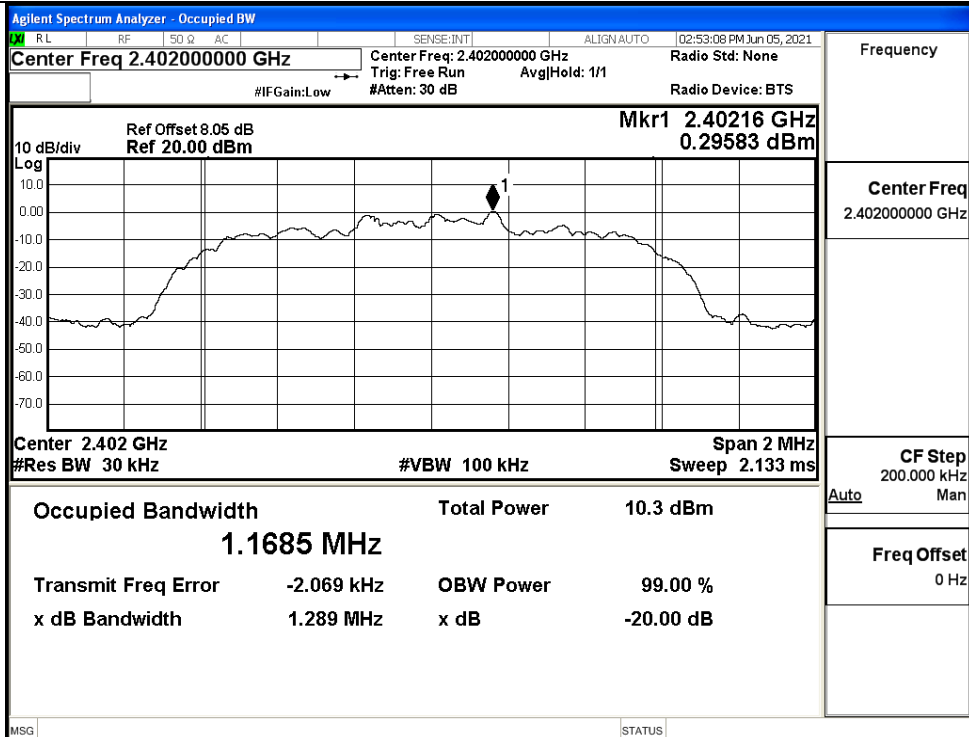
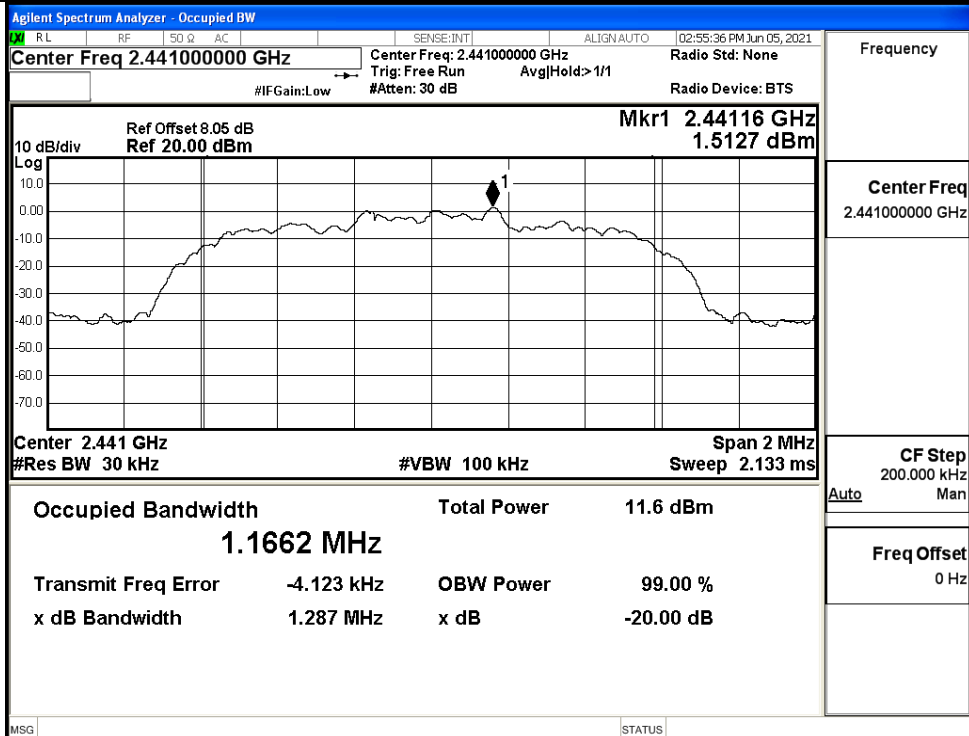


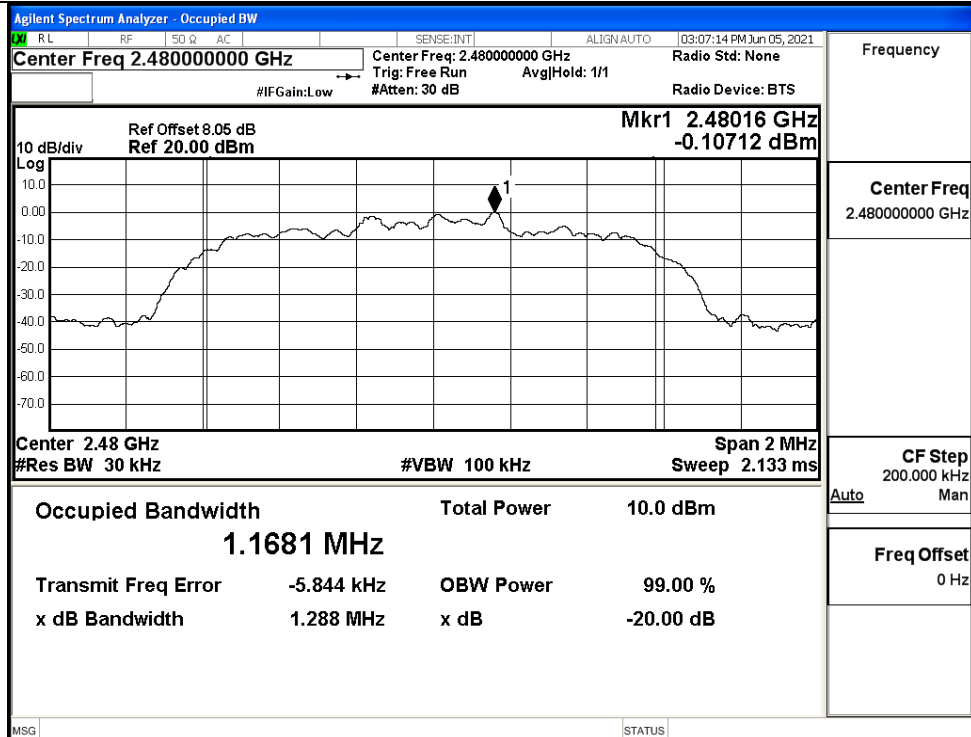
GFSK/MCH



GFSK/HCH



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

$\pi/4$ DQPSK/HCH

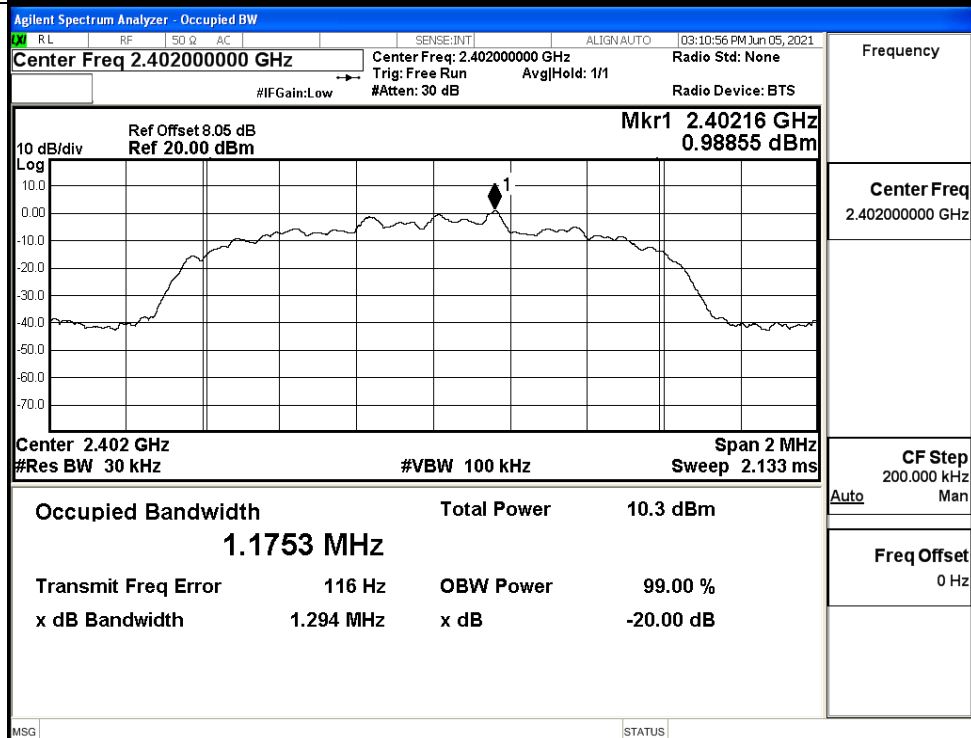
Frequency

Center Freq
2.48000000 GHzCF Step
200.000 kHz
Man

Auto

Freq Offset
0 Hz

8DPSK/LCH



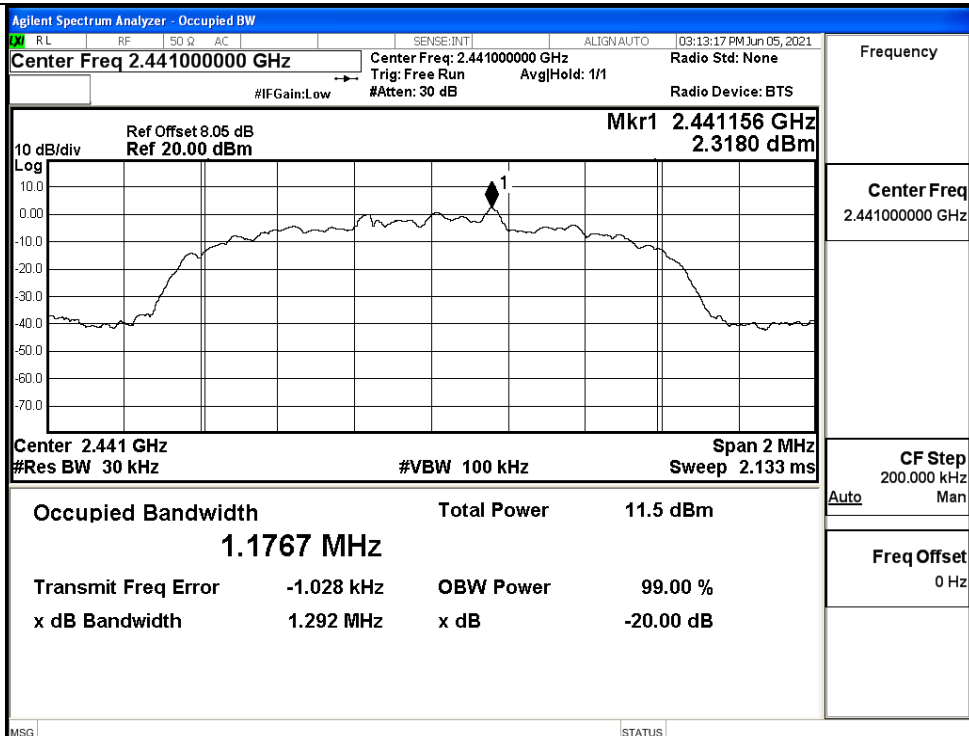
Frequency

Center Freq
2.40200000 GHzCF Step
200.000 kHz
Man

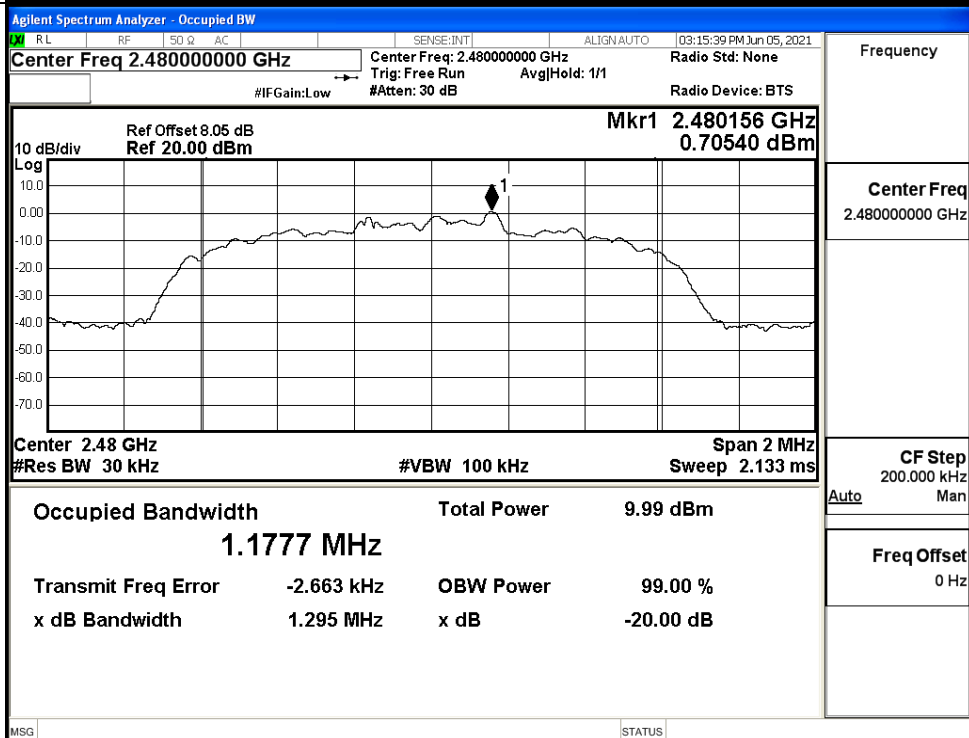
Auto

Freq Offset
0 Hz

8DPSK/MCH



8DPSK/HCH

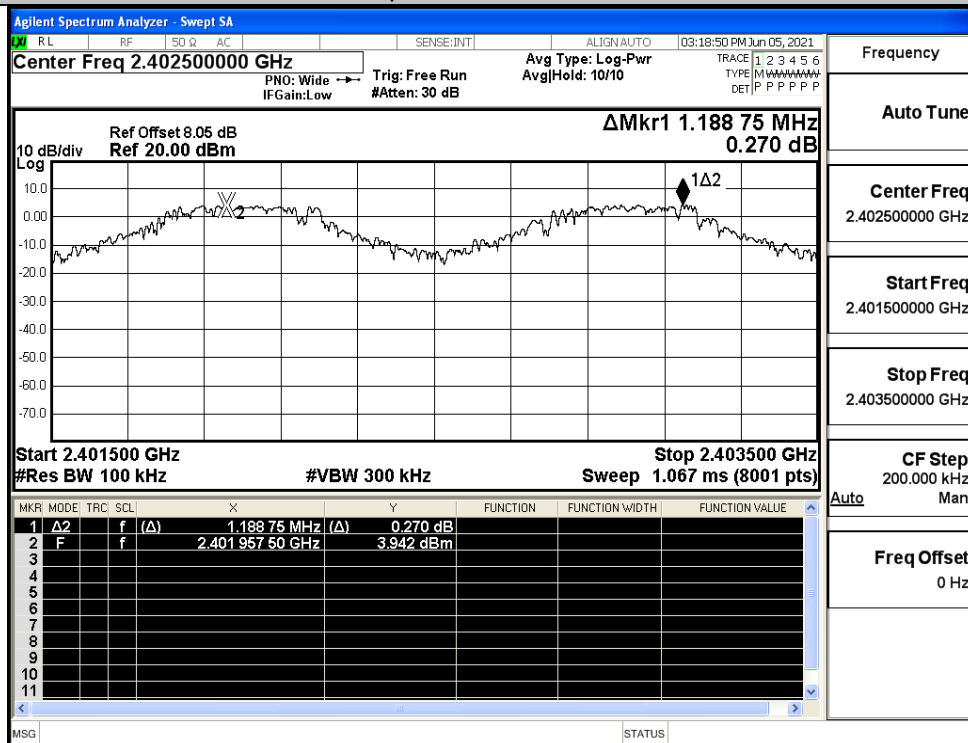


A.3 Carrier Frequency Separation

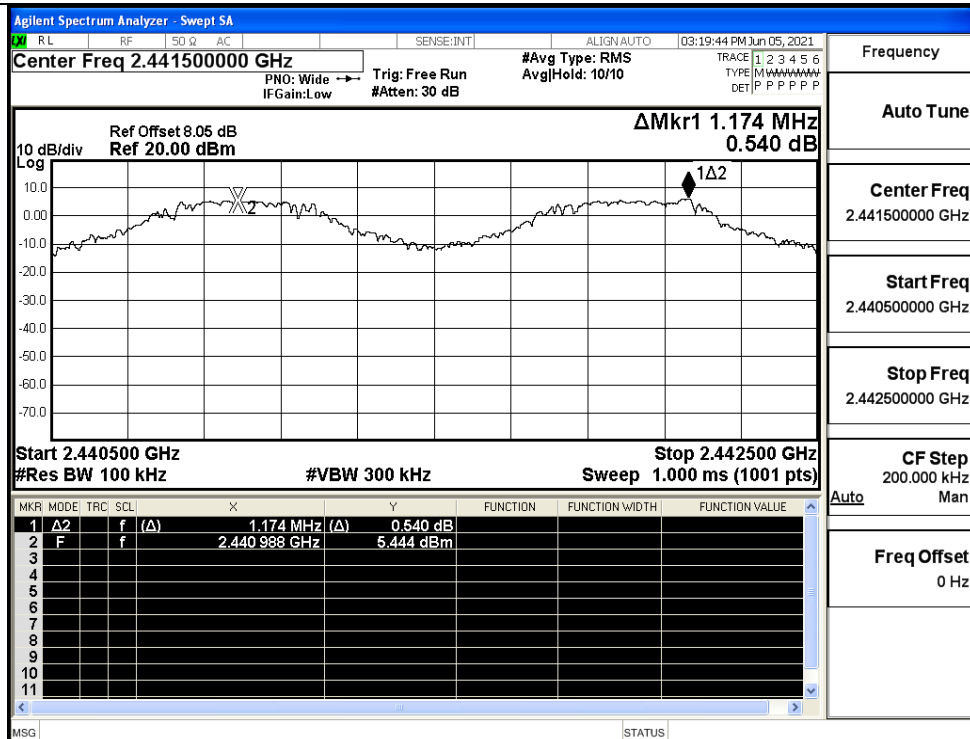
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.189	0.689	PASS
	MCH	1.174	0.689	PASS
	HCH	0.702	0.689	PASS
$\pi/4$ DQPSK	LCH	1.058	0.859	PASS
	MCH	1.024	0.859	PASS
	HCH	1.108	0.859	PASS
8DPSK	LCH	1.230	0.863	PASS
	MCH	0.934	0.863	PASS
	HCH	1.186	0.863	PASS

Test Graphs

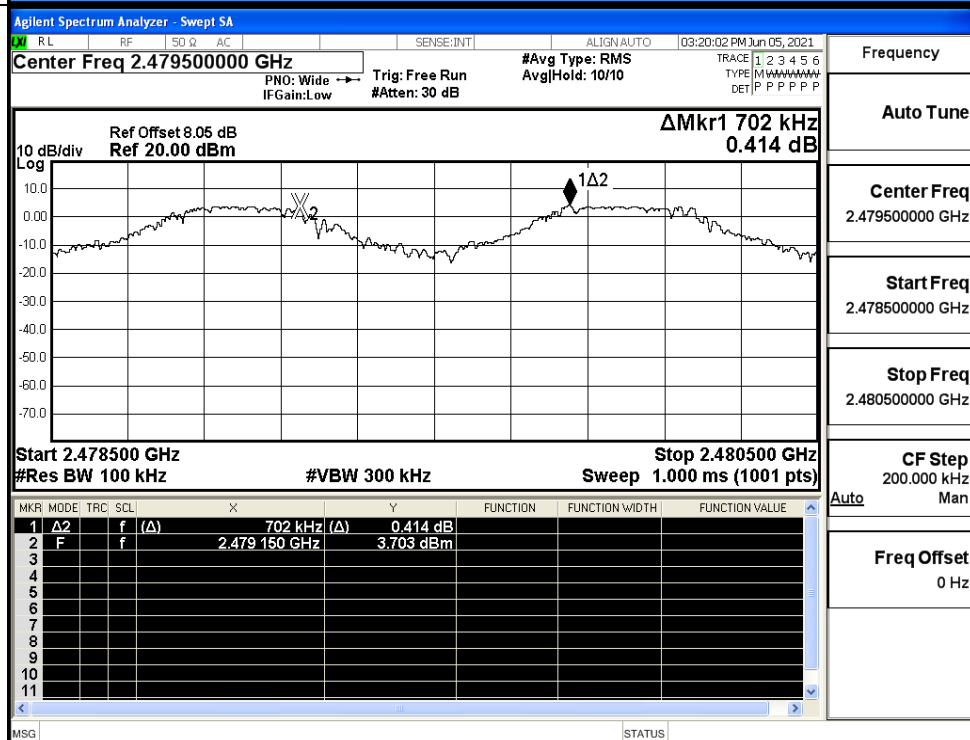
GFSK/LCH

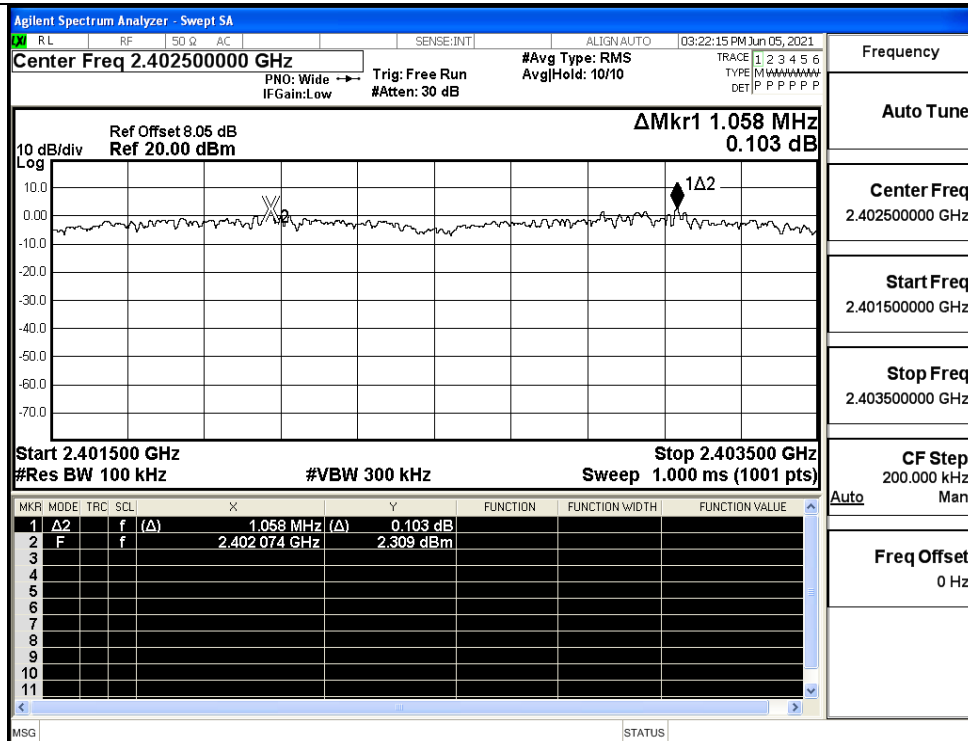
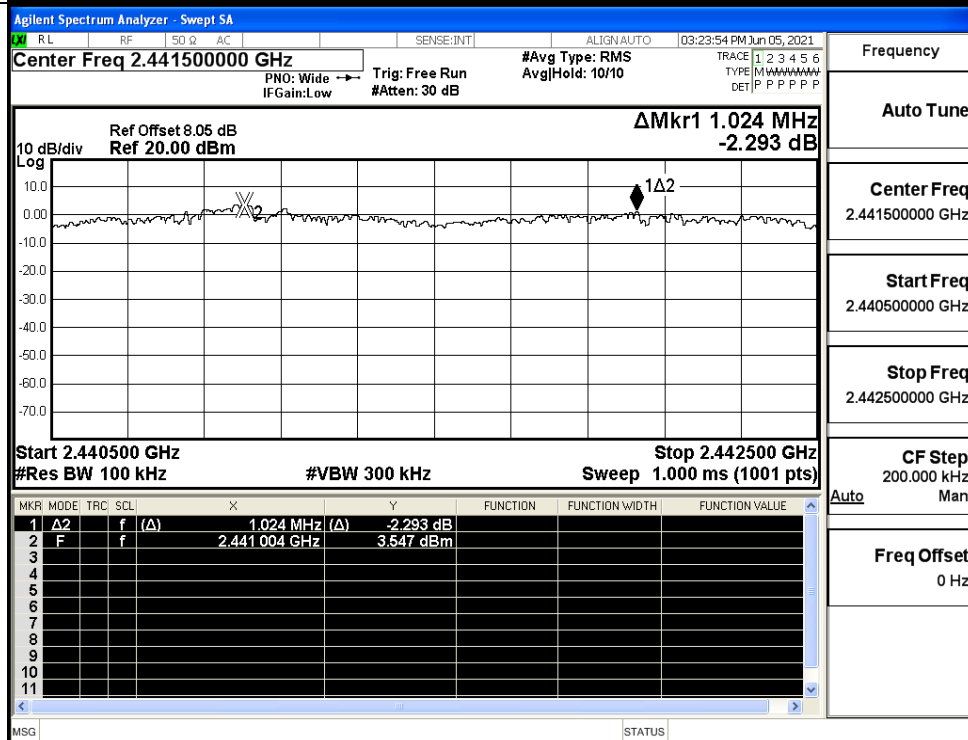


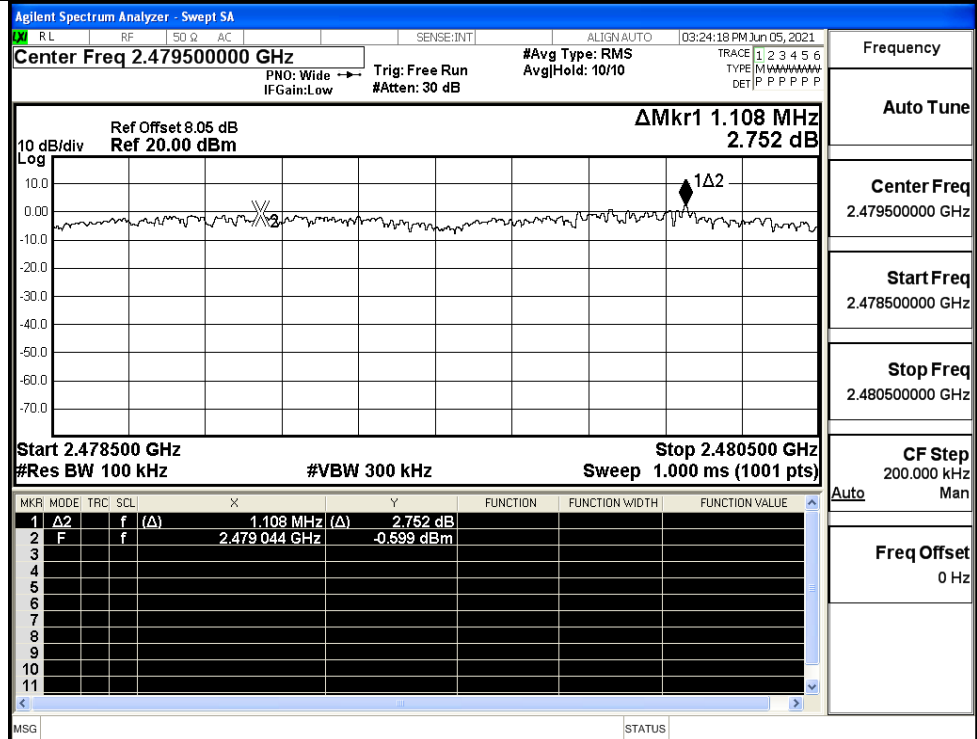
GFSK/MCH



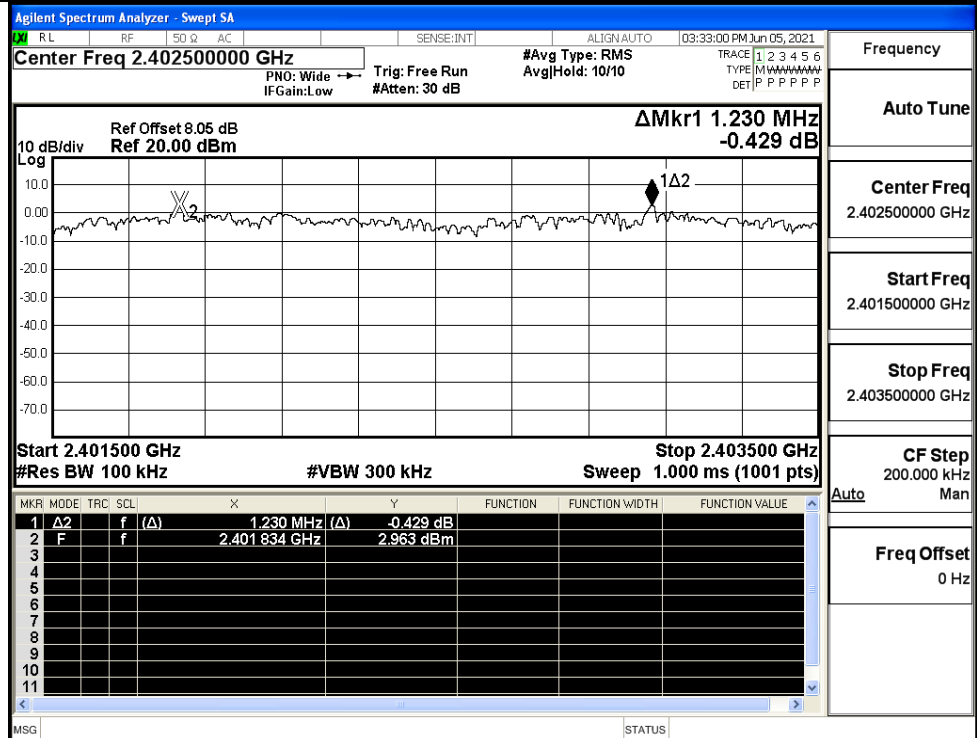
GFSK/HCH



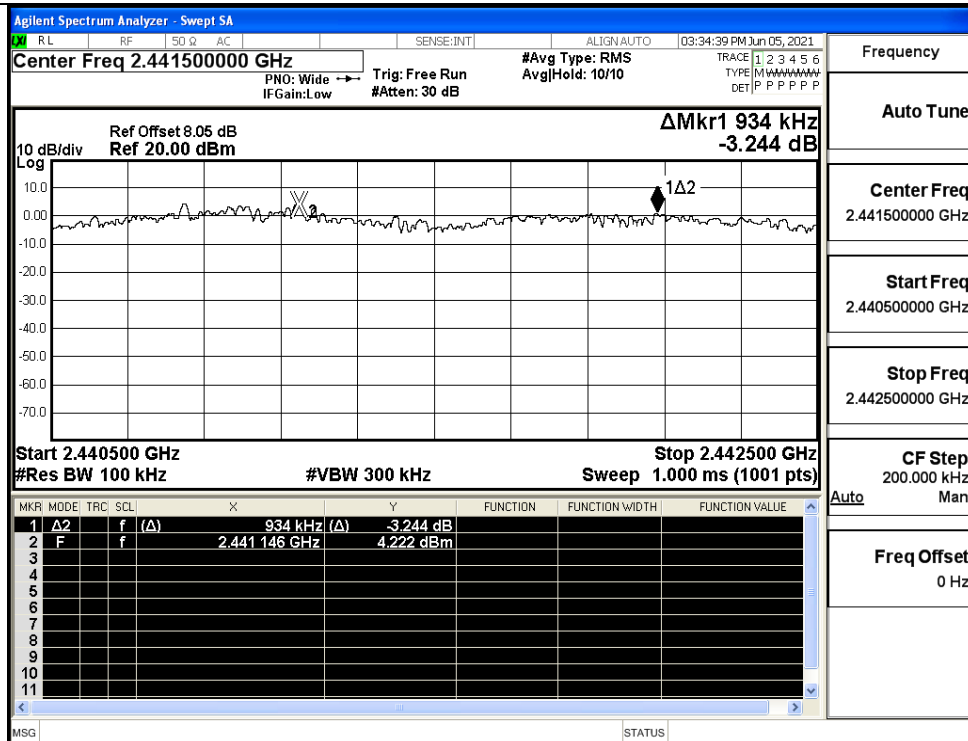
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

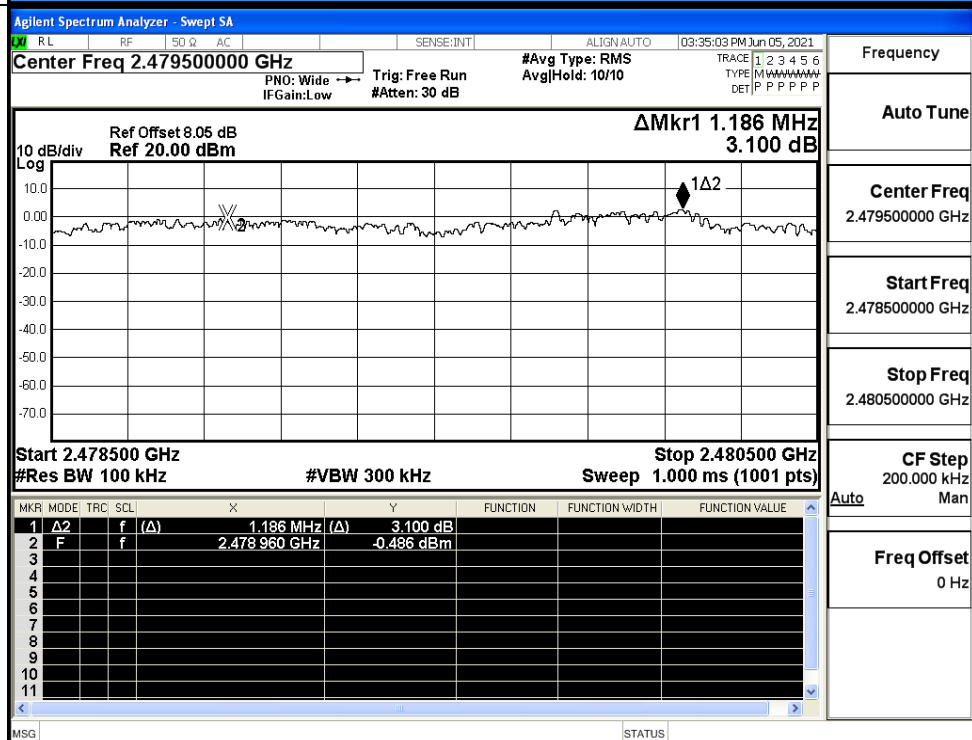
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

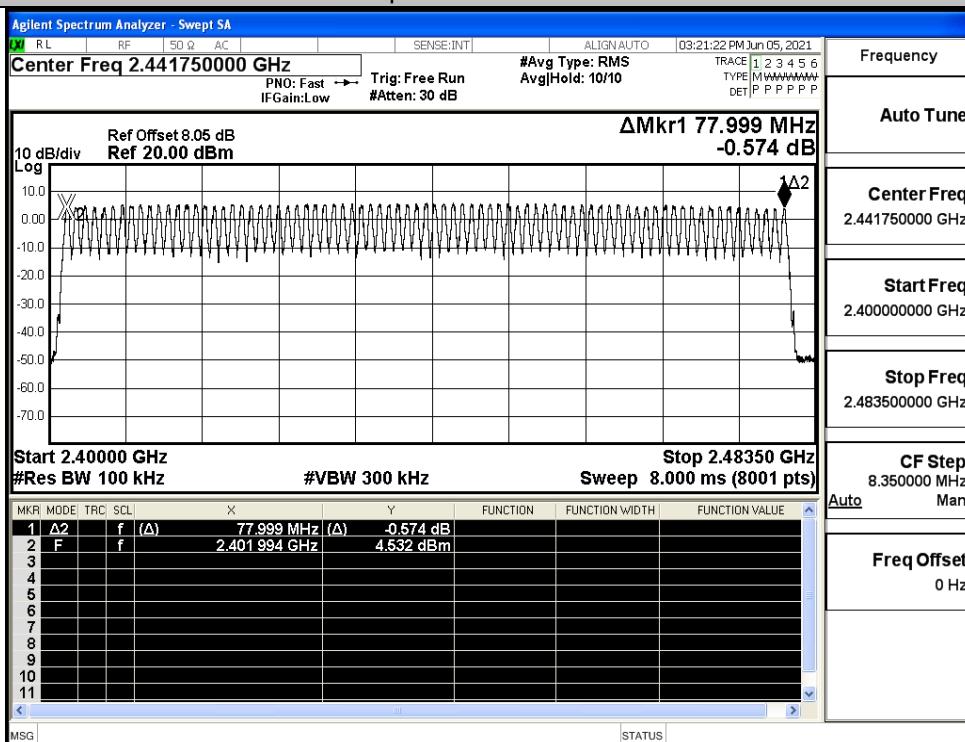


A.4 Hopping Channel Number

Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS
8DPSK	Hop	79	≥ 15	PASS

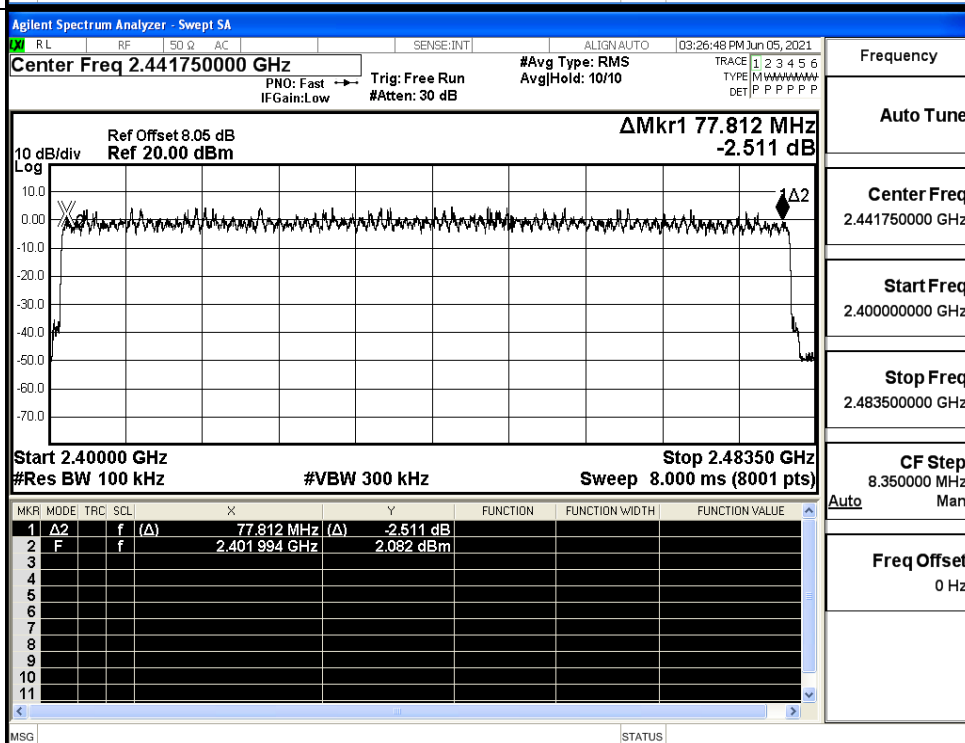
Test Graphs

GFSK/Hop



Frequency

Auto Tune

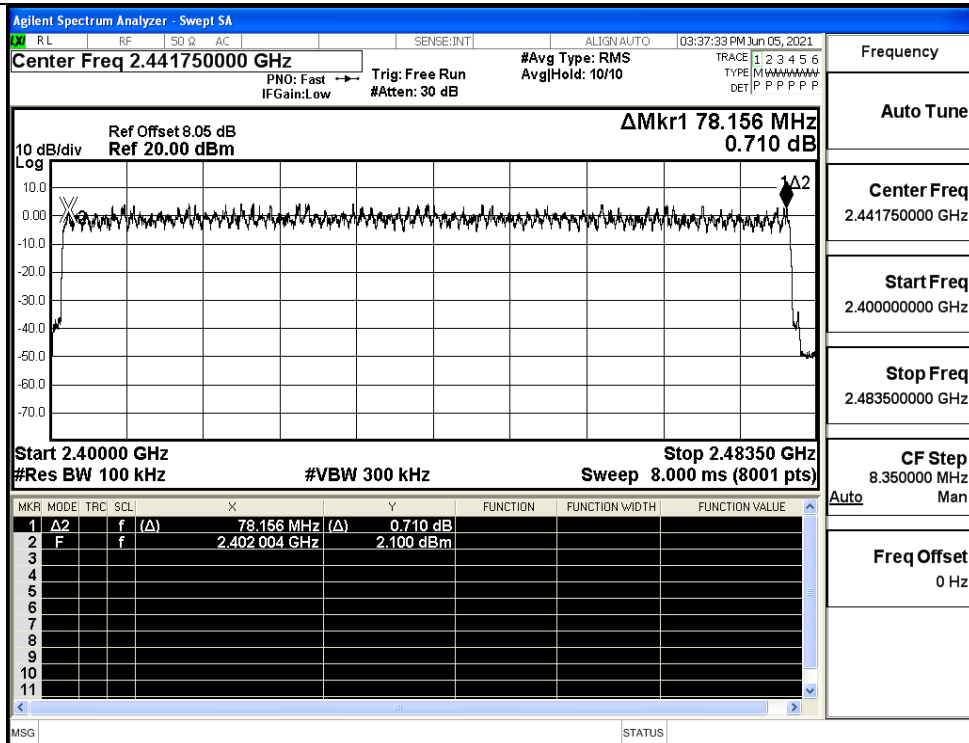
Center Freq
2.441750000 GHzStart Freq
2.400000000 GHzStop Freq
2.483500000 GHzCF Step
8.350000 MHz
ManFreq Offset
0 Hz $\pi/4$ DQPSK/Hop

Frequency

Auto Tune

Center Freq
2.441750000 GHzStart Freq
2.400000000 GHzStop Freq
2.483500000 GHzCF Step
8.350000 MHz
ManFreq Offset
0 Hz

8DPSK/Hop

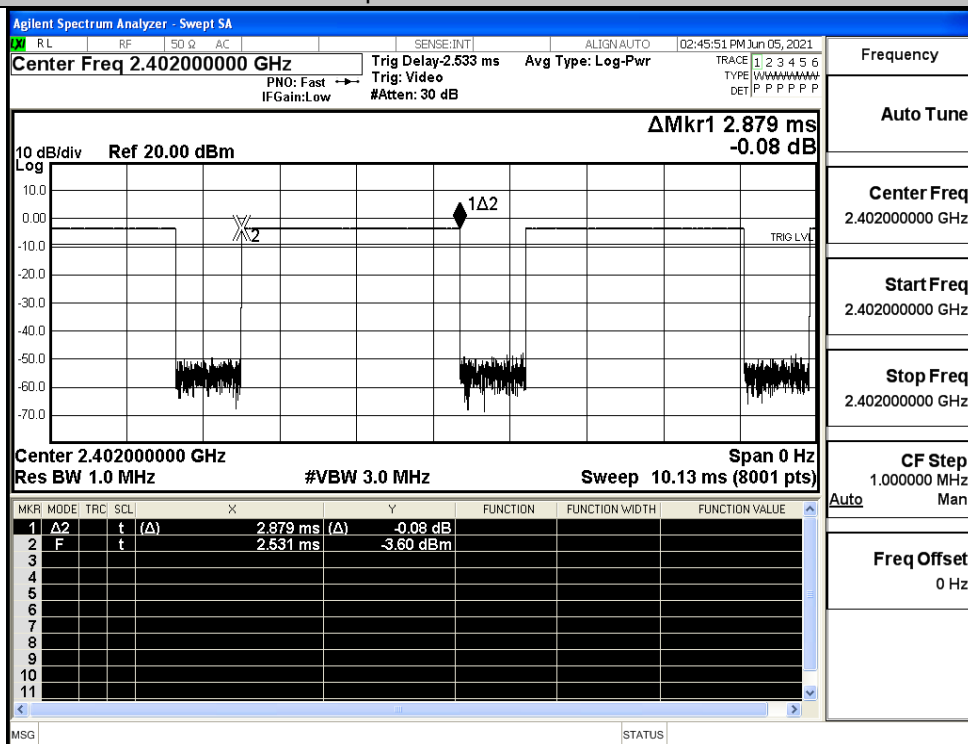


A.5 Dwell Time

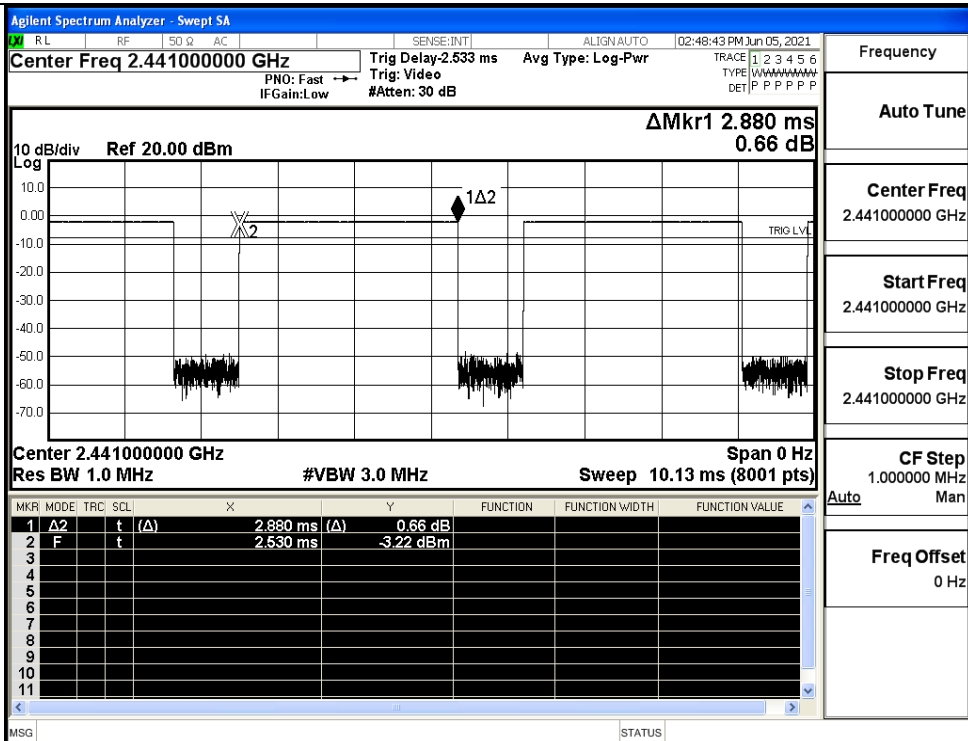
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88	106.7	0.307	0.4	PASS
8DPSK	3DH5	LCH	2.88	106.7	0.308	0.4	PASS
	3DH5	MCH	2.88	106.7	0.308	0.4	PASS
	3DH5	HCH	2.88	106.7	0.308	0.4	PASS

Test Graphs

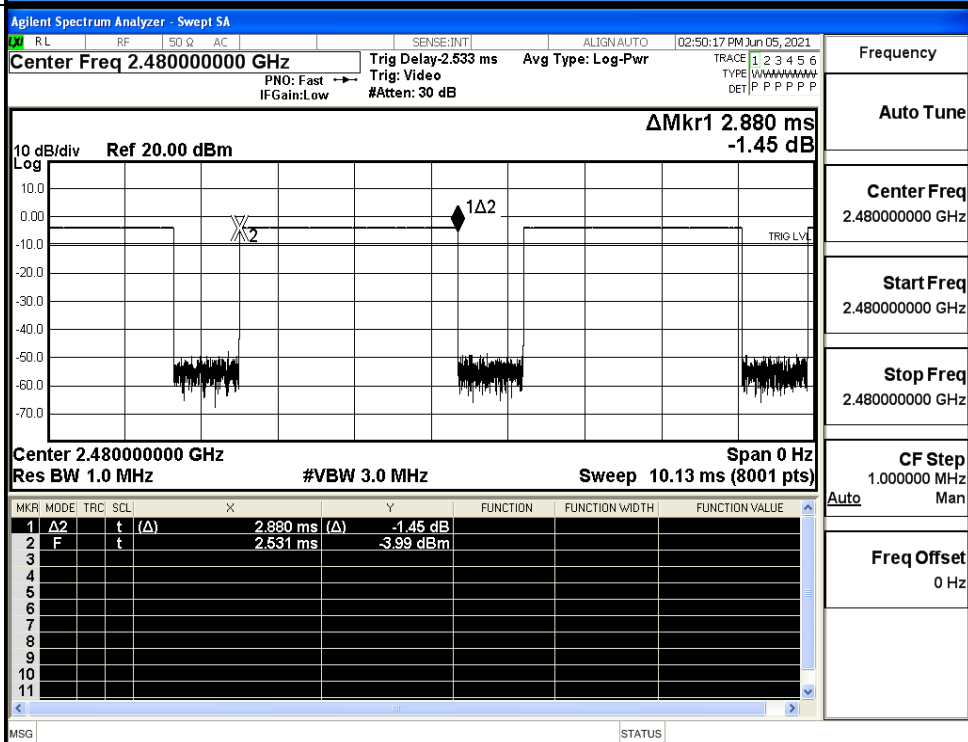
GFSK_DH5/LCH



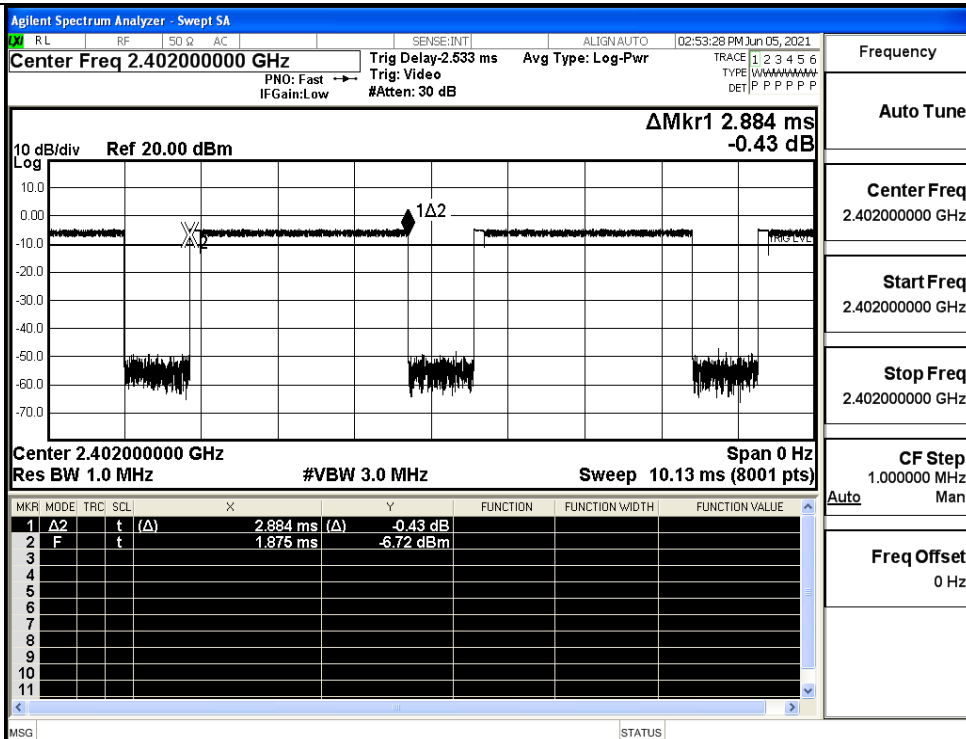
GFSK_DH5/MCH



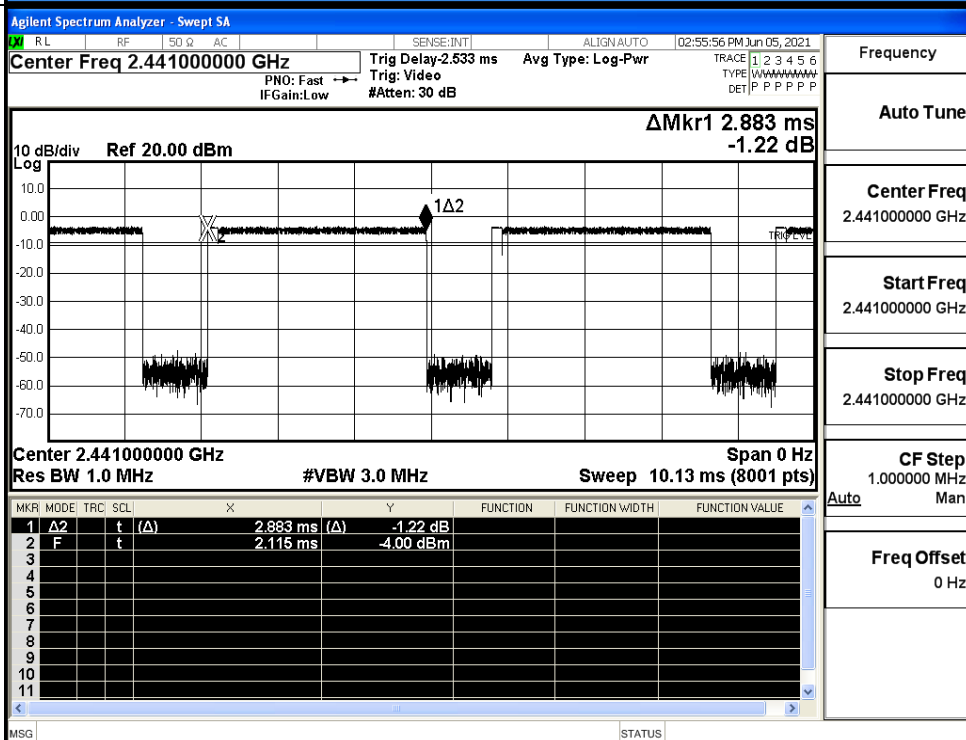
GFSK_DH5/HCH



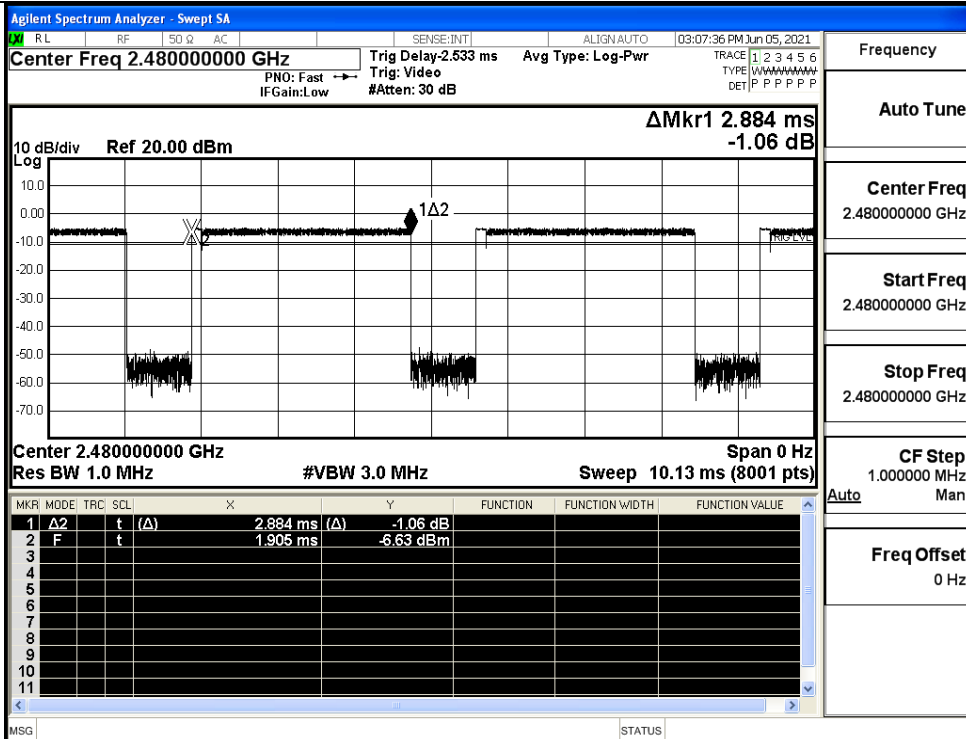
$\pi/4$ DQPSK
_2DH5/LCH



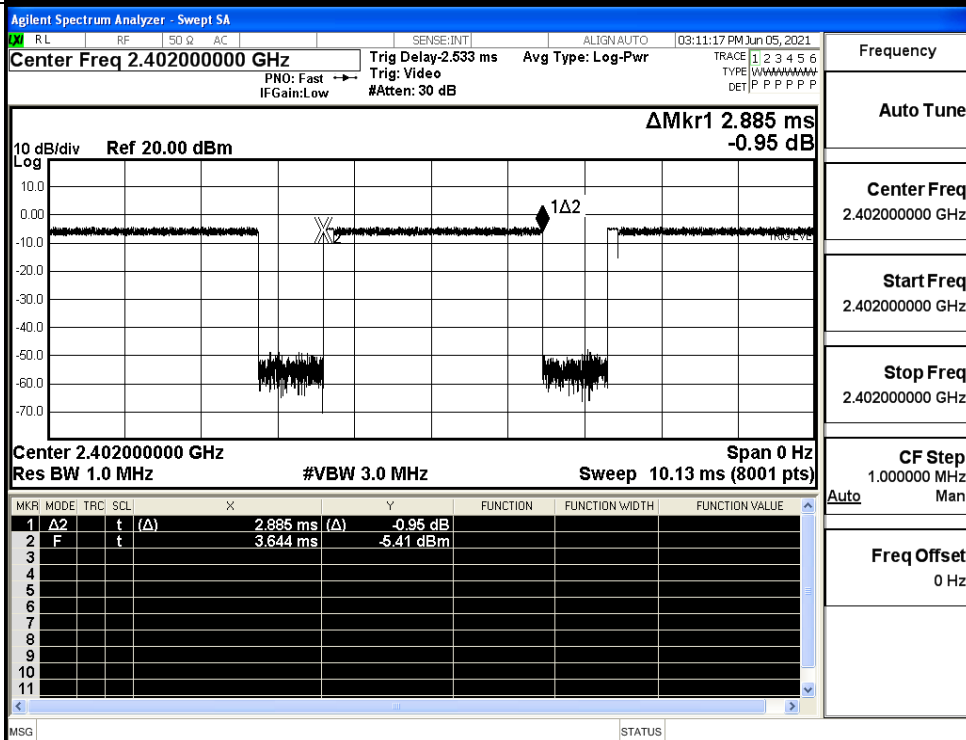
$\pi/4$ DQPSK
_2DH5/MCH



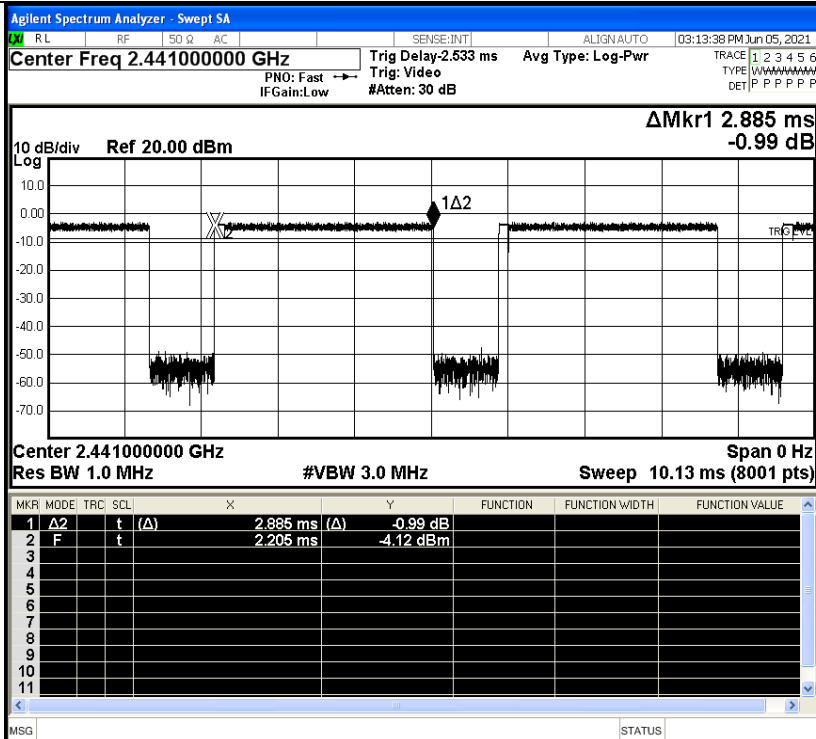
$\pi/4$ DQPSK
_2DH5/HCH



8DPSK _3DH5/LCH



8DPSK_3DH5/MCH

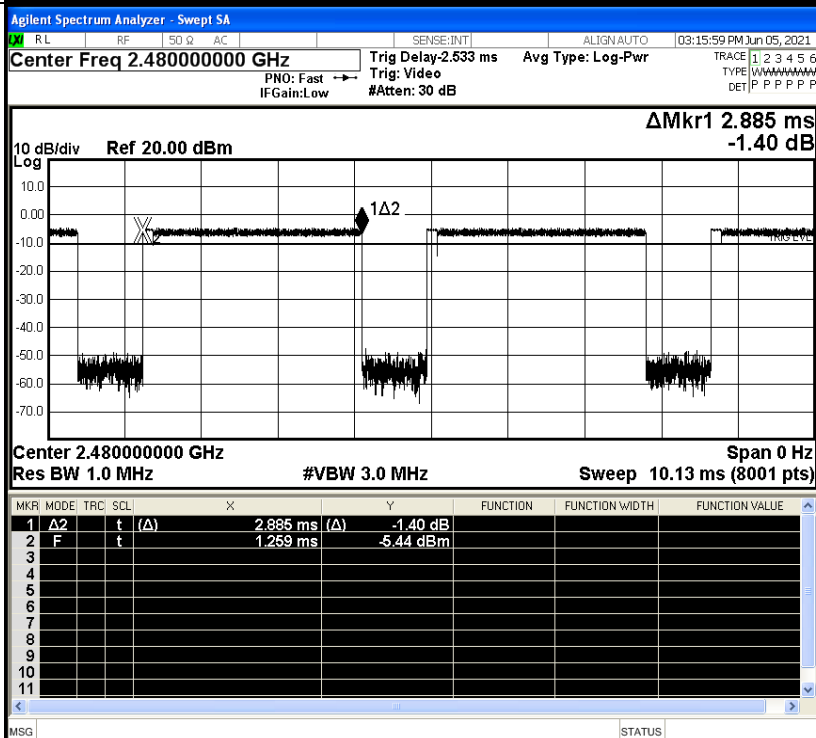


Frequency

Auto Tune

Center Freq
2.441000000 GHzStart Freq
2.441000000 GHzStop Freq
2.441000000 GHzCF Step
1.000000 MHz
Auto ManFreq Offset
0 Hz

8DPSK_3DH5/HCH

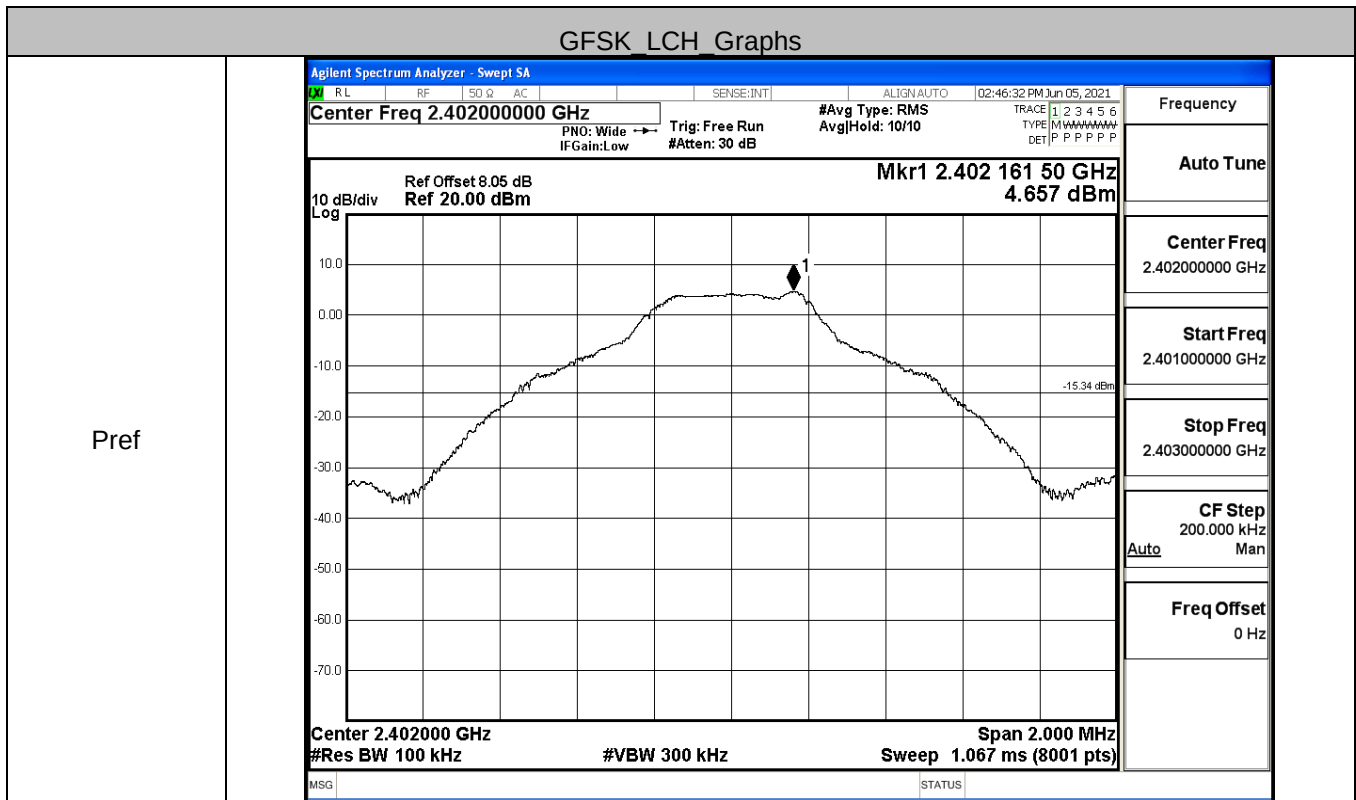


Frequency

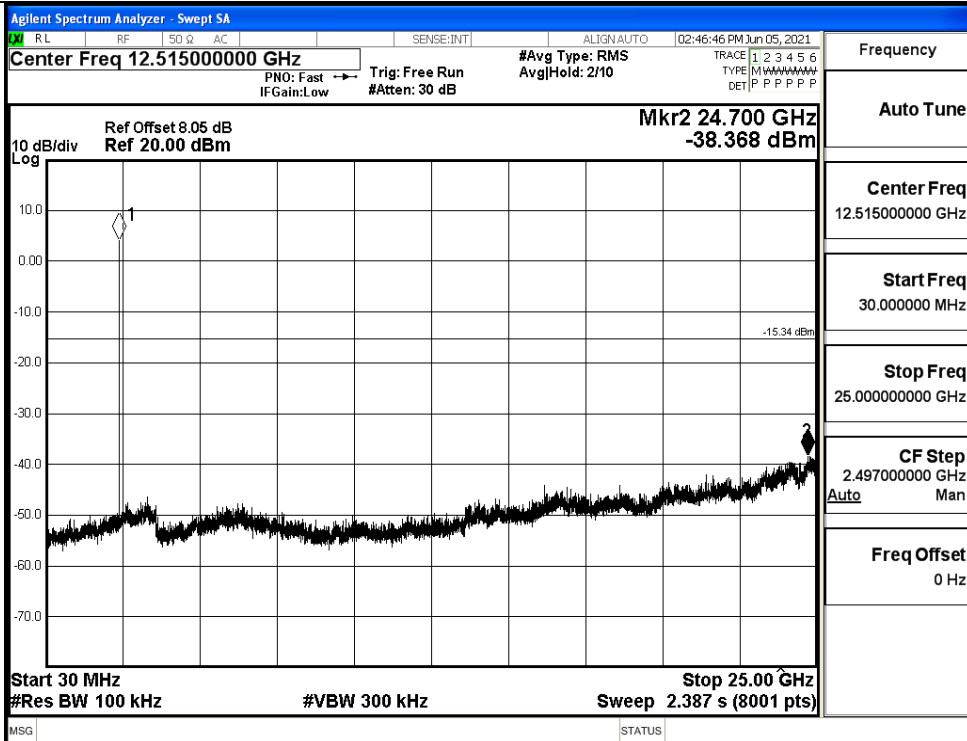
Auto Tune

Center Freq
2.480000000 GHzStart Freq
2.480000000 GHzStop Freq
2.480000000 GHzCF Step
1.000000 MHz
Auto ManFreq Offset
0 Hz

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	4.657	-38.368	-15.343	PASS
	MCH	5.503	-37.850	-14.497	PASS
	HCH	4.281	-38.018	-15.719	PASS
π /4DQPSK	LCH	2.867	-37.542	-17.133	PASS
	MCH	4.233	-38.070	-15.767	PASS
	HCH	2.64	-36.894	-17.360	PASS
8DPSK	LCH	2.891	-38.281	-17.109	PASS
	MCH	3.954	-38.351	-16.046	PASS
	HCH	2.136	-38.400	-17.864	PASS

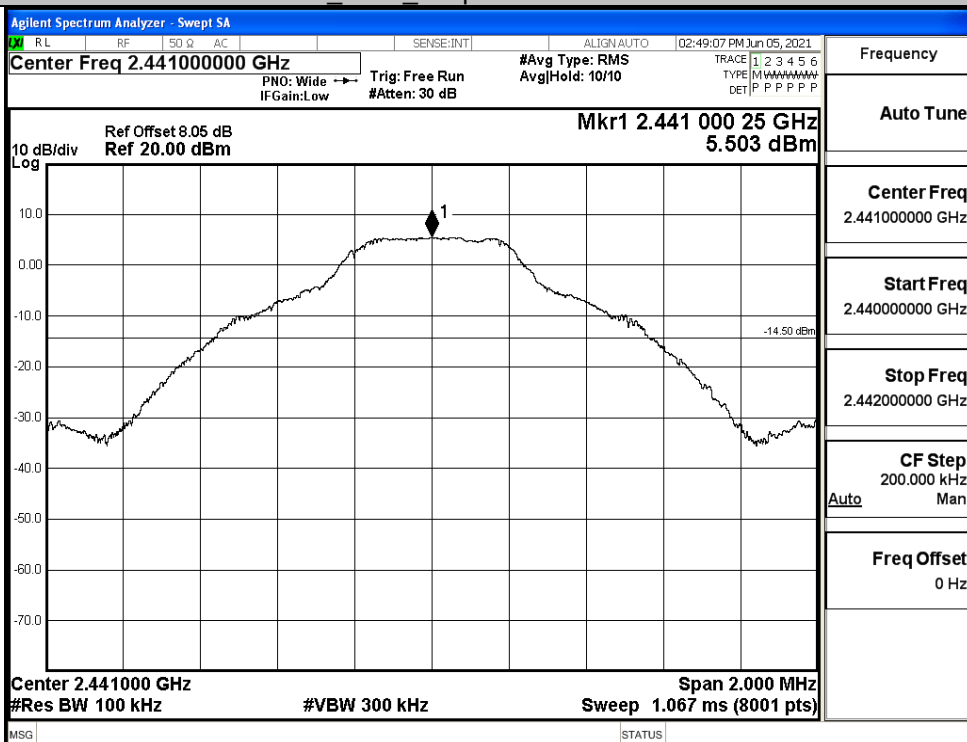


Puw

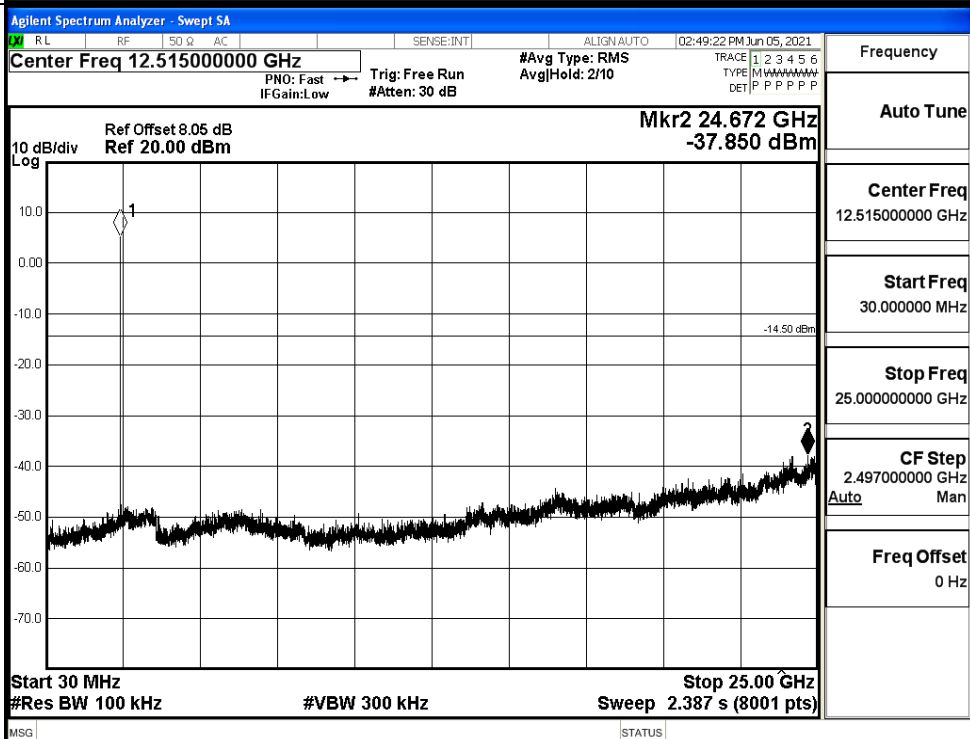


GFSK_MCH_Graphs

Pref

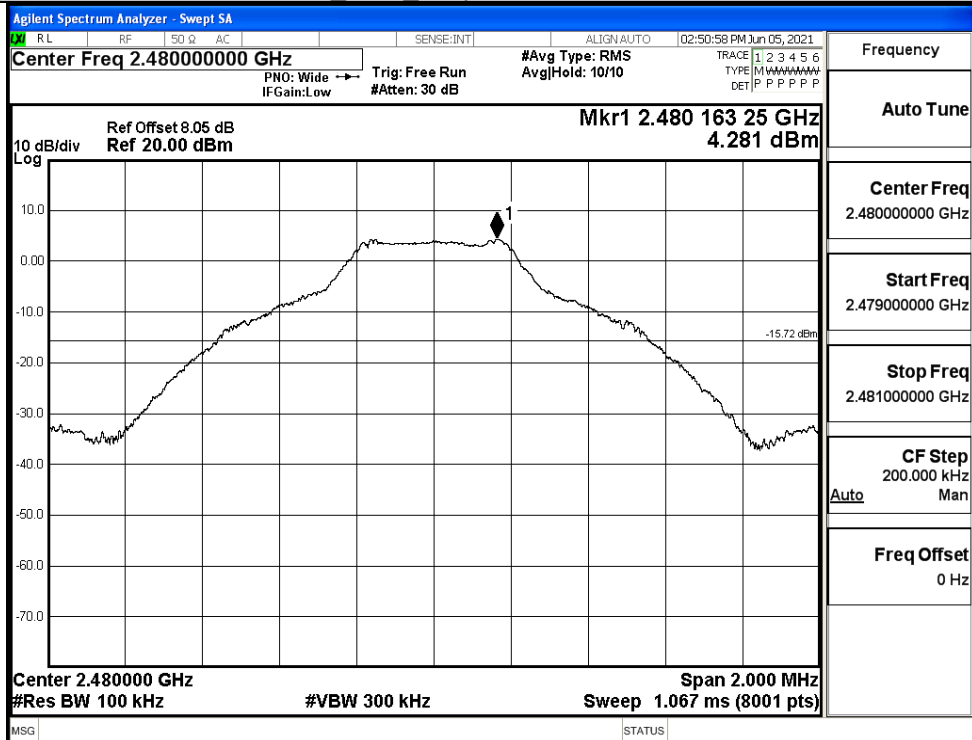


Puw

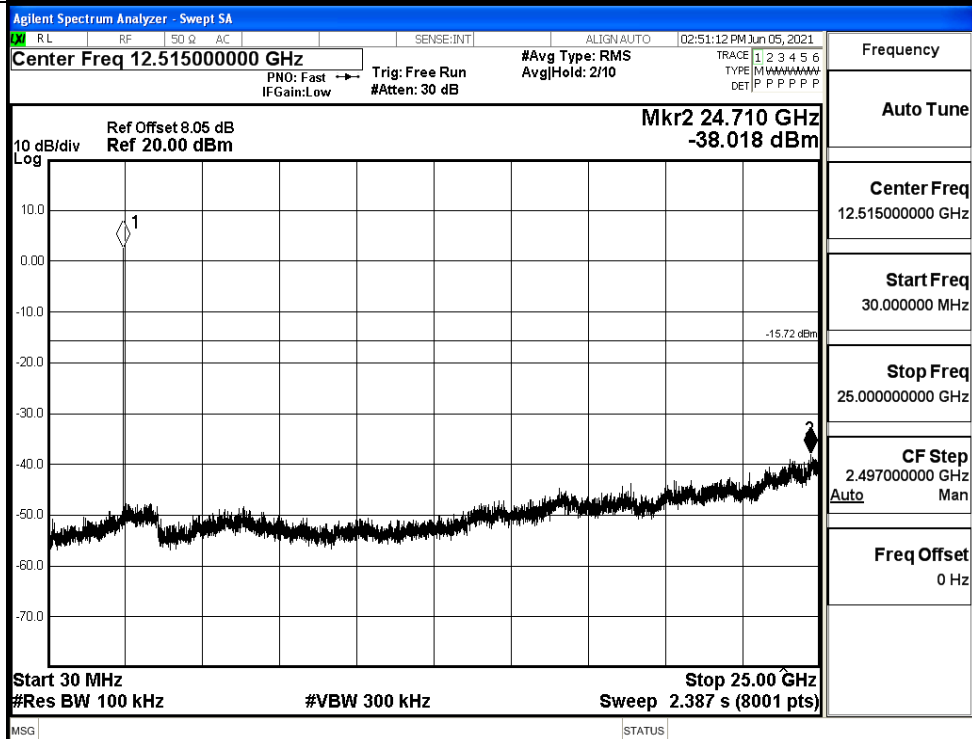


GFSK HCH Graphs

Pref

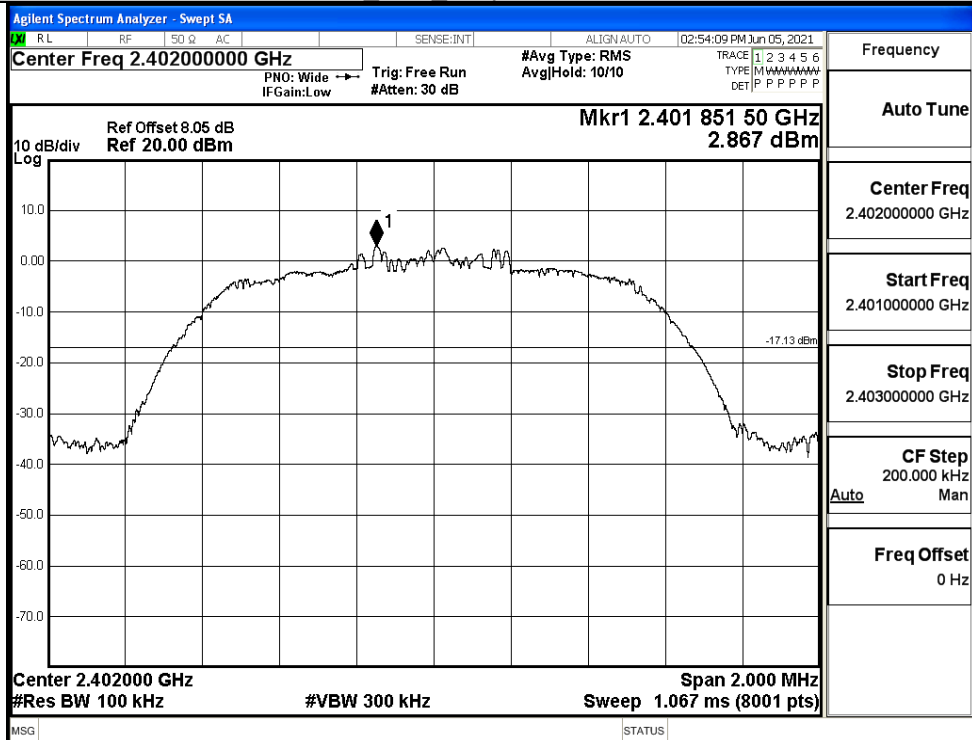


Puw

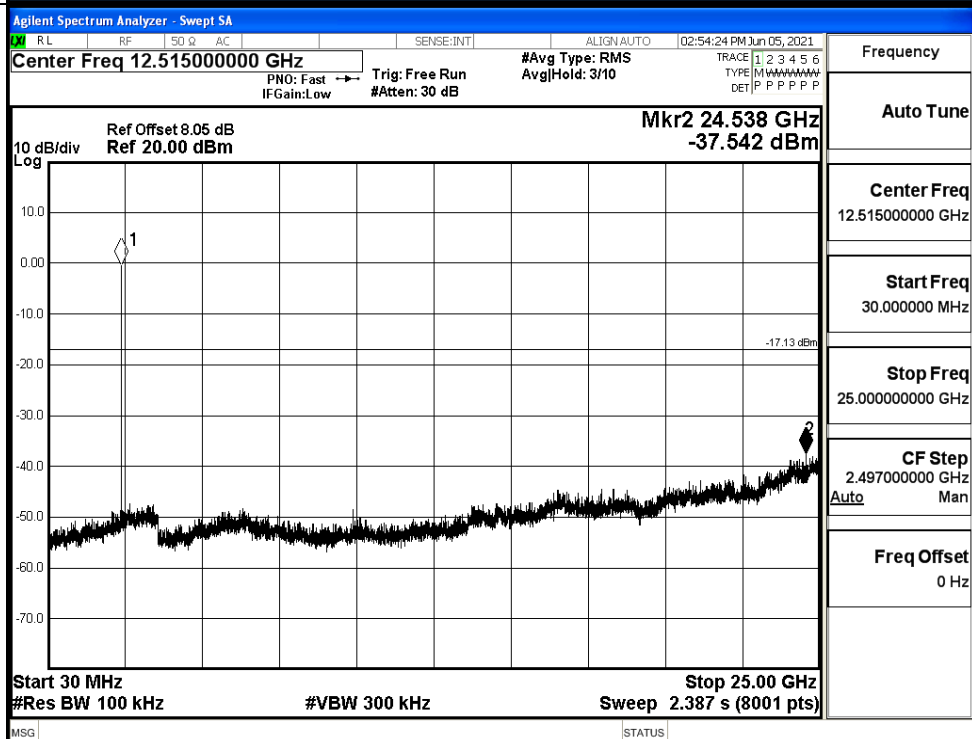


$\pi/4$ DQPSK_LCH_Graphs

Pref

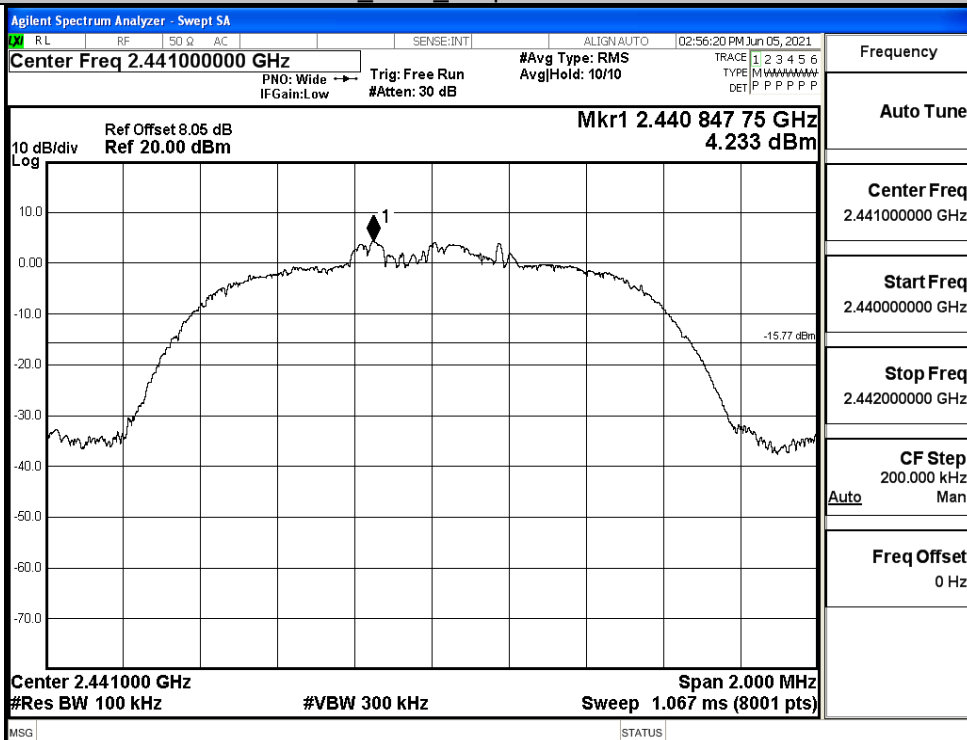


Puw

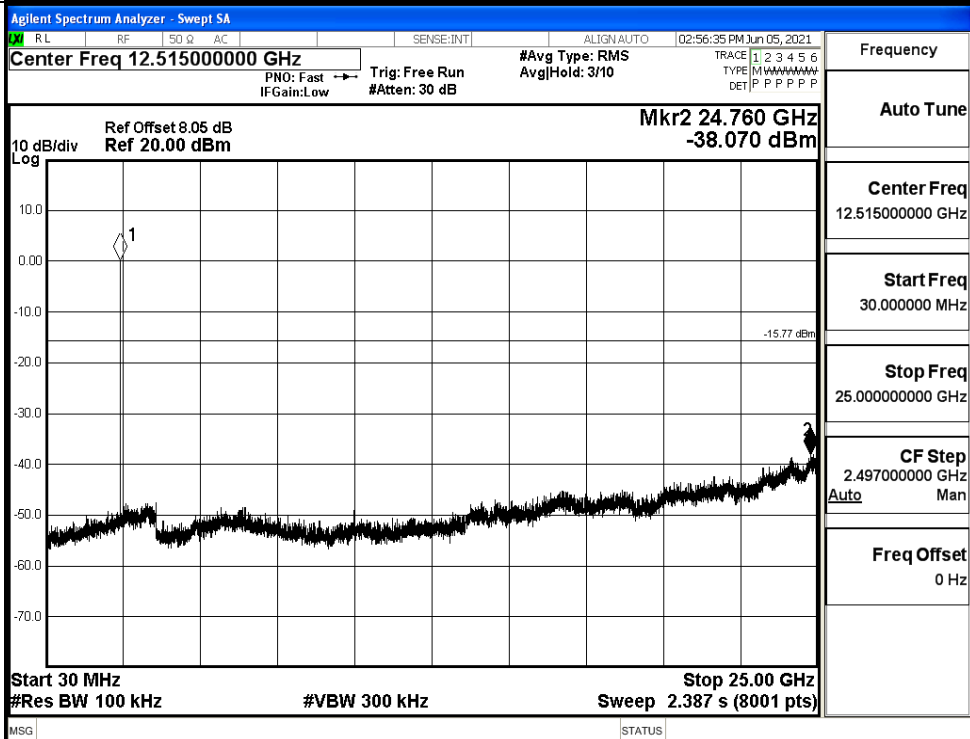


π /4DQPSK_MCH_Graphs

Pref

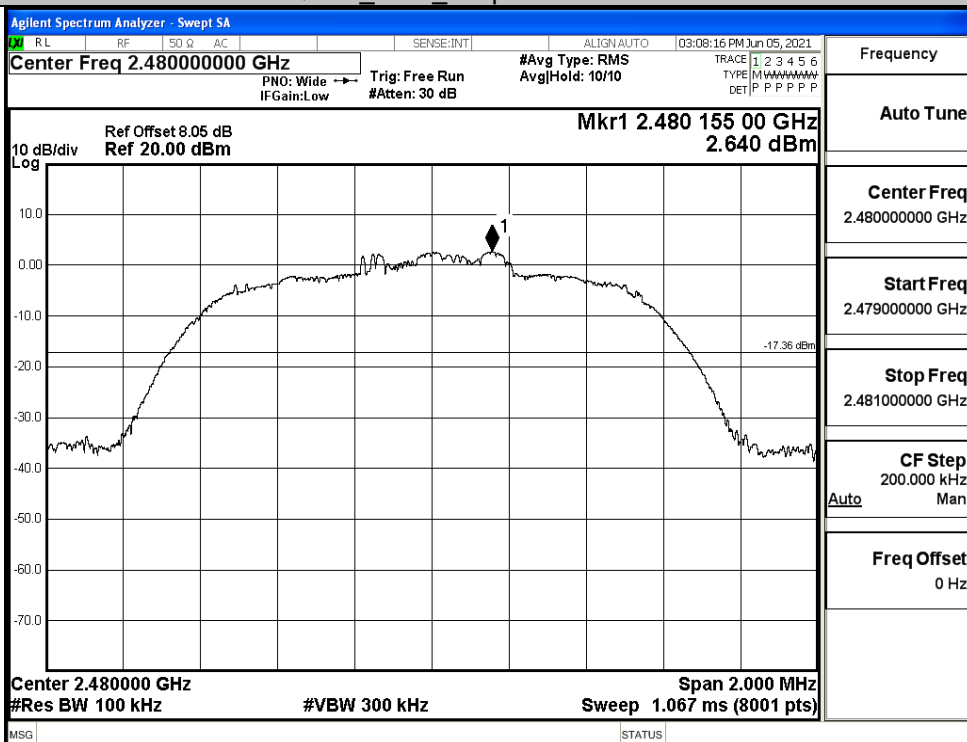


Puw

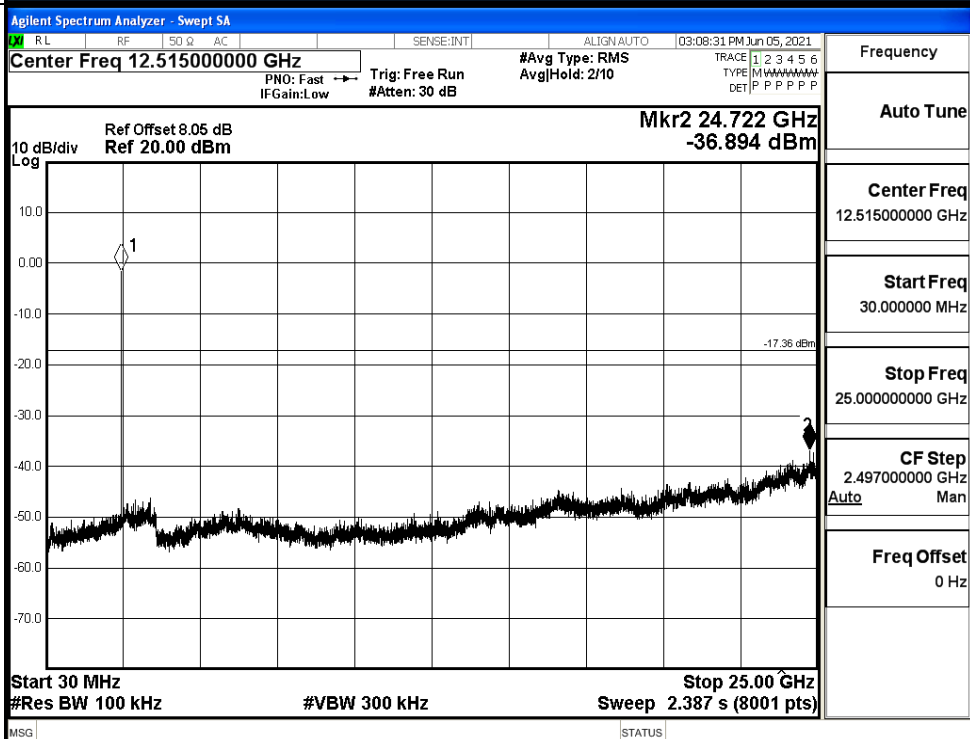


π /4DQPSK_HCH_Graphs

Pref

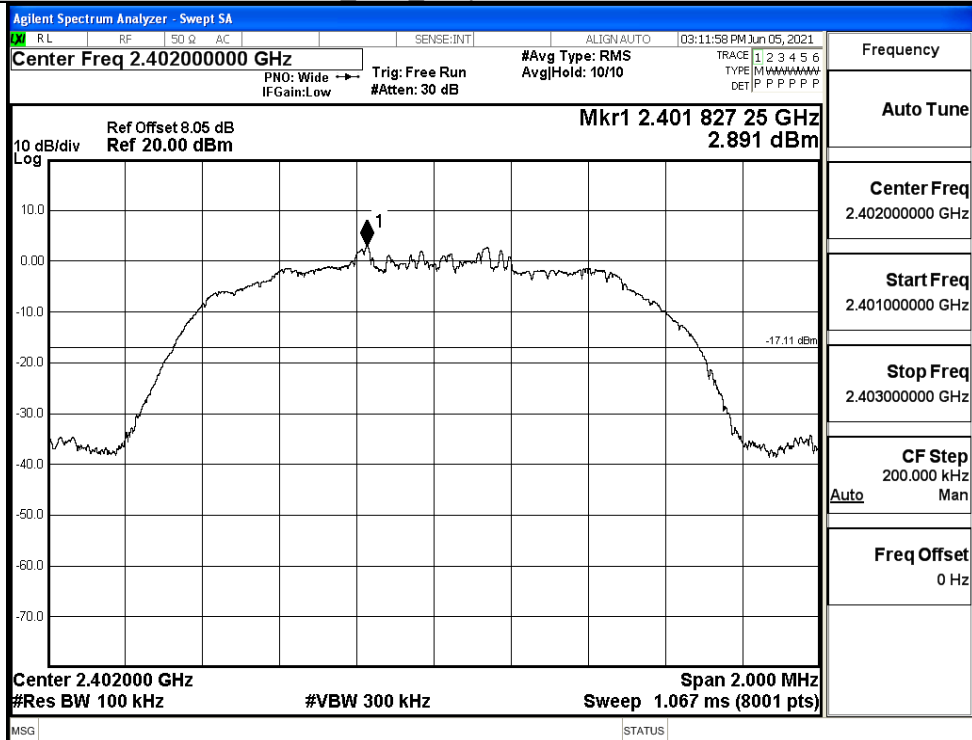


Puw

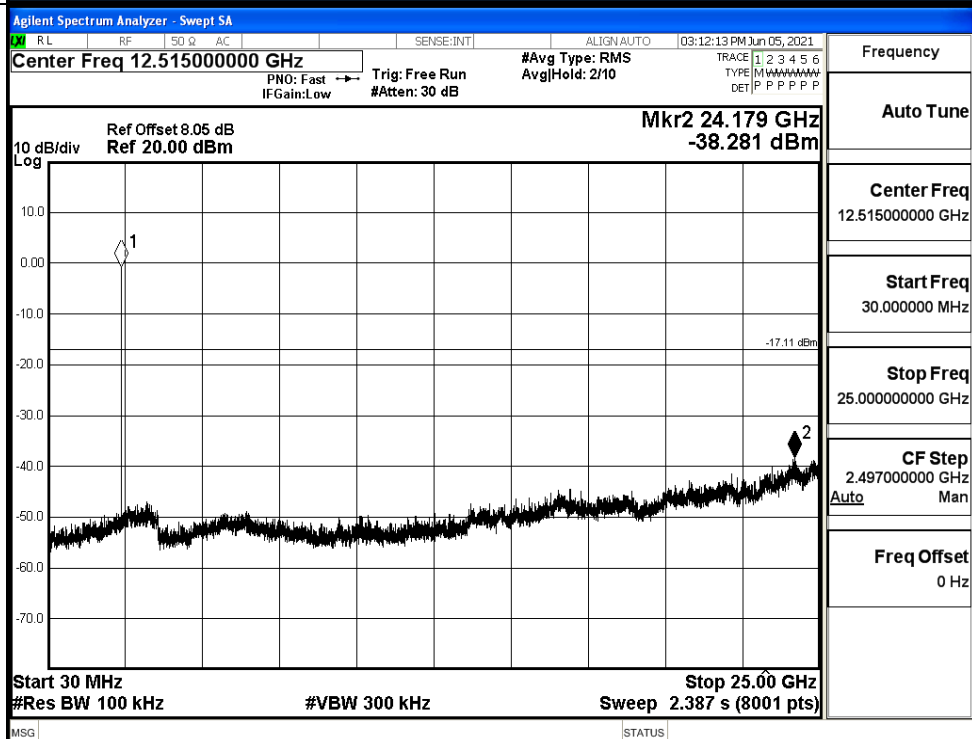


8DPSK_LCH_Graphs

Pref

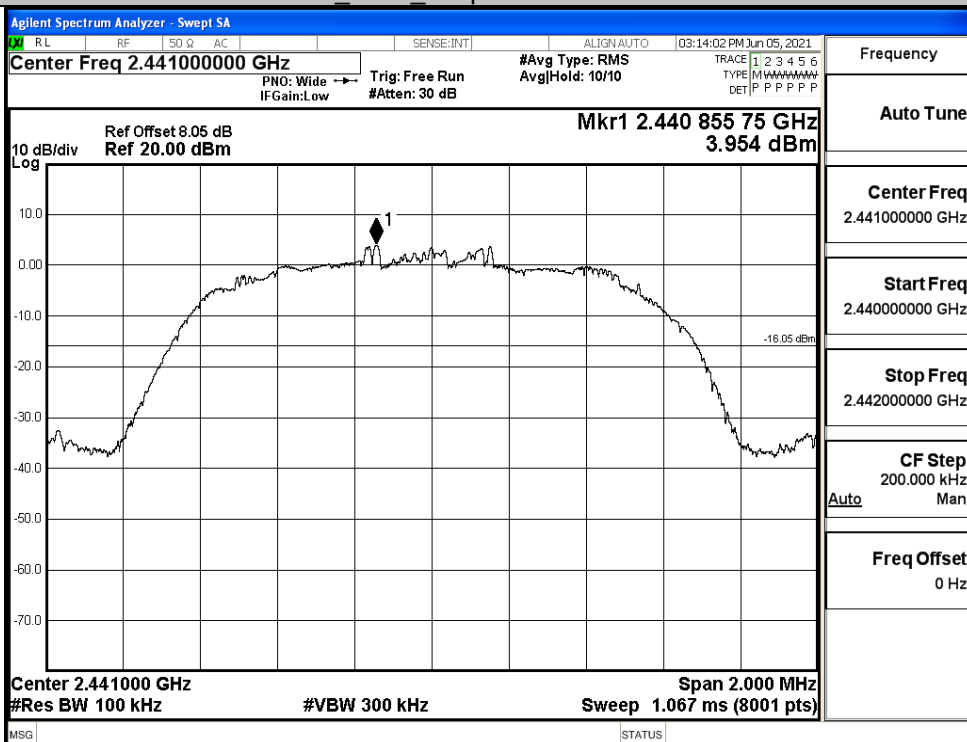


Puw

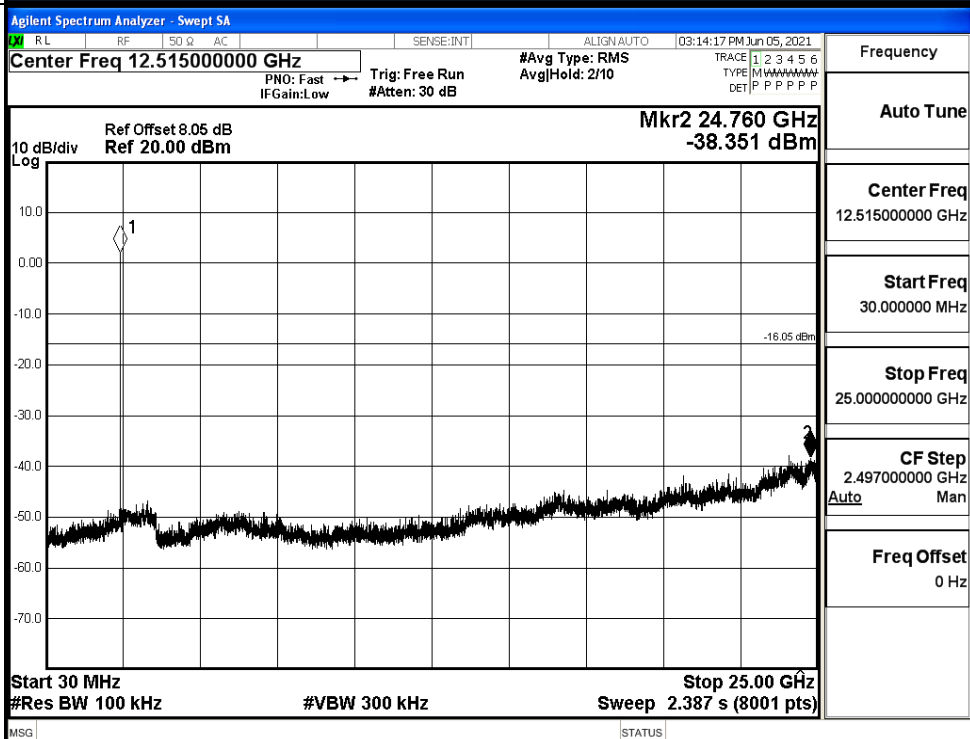


8DPSK_MCH_Graphs

Pref

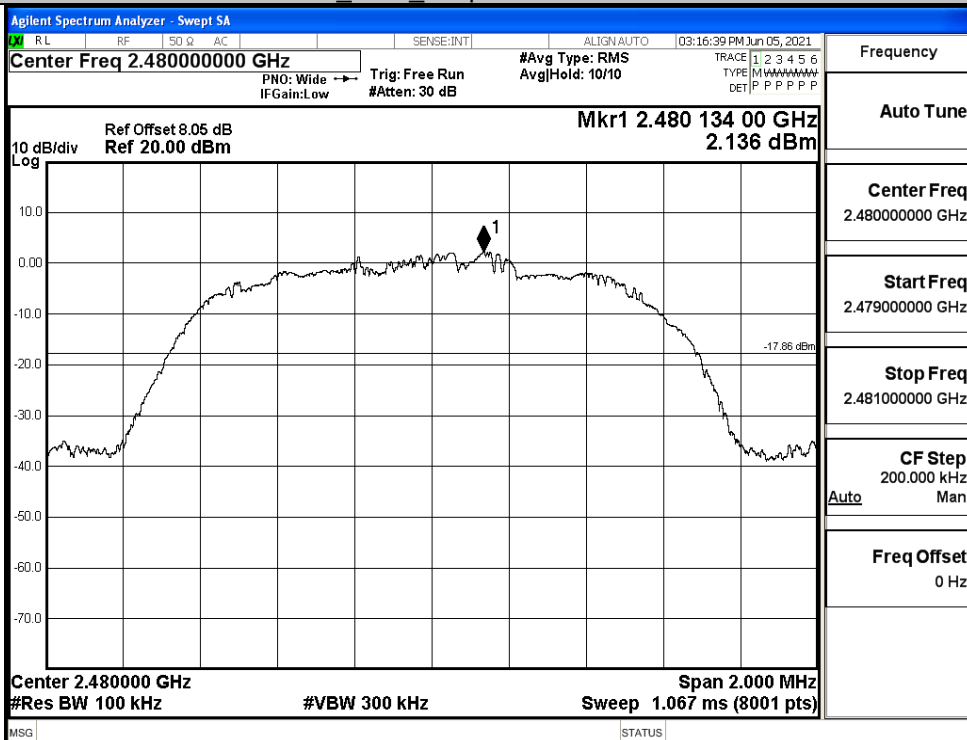


Puw

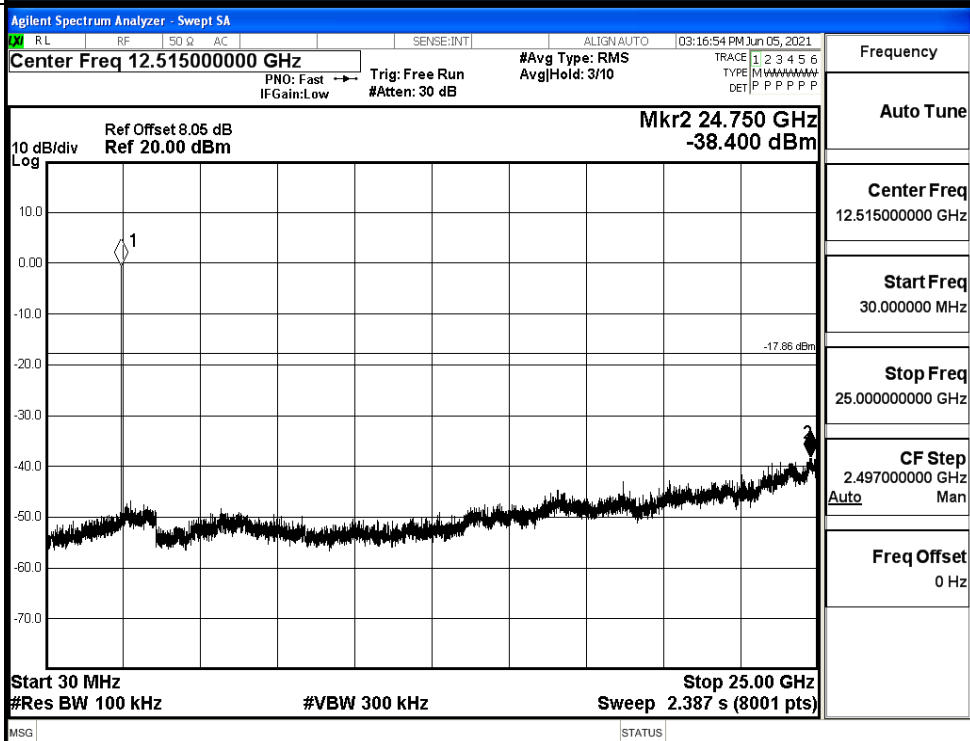


8DPSK_HCH_Graphs

Pref



Puw

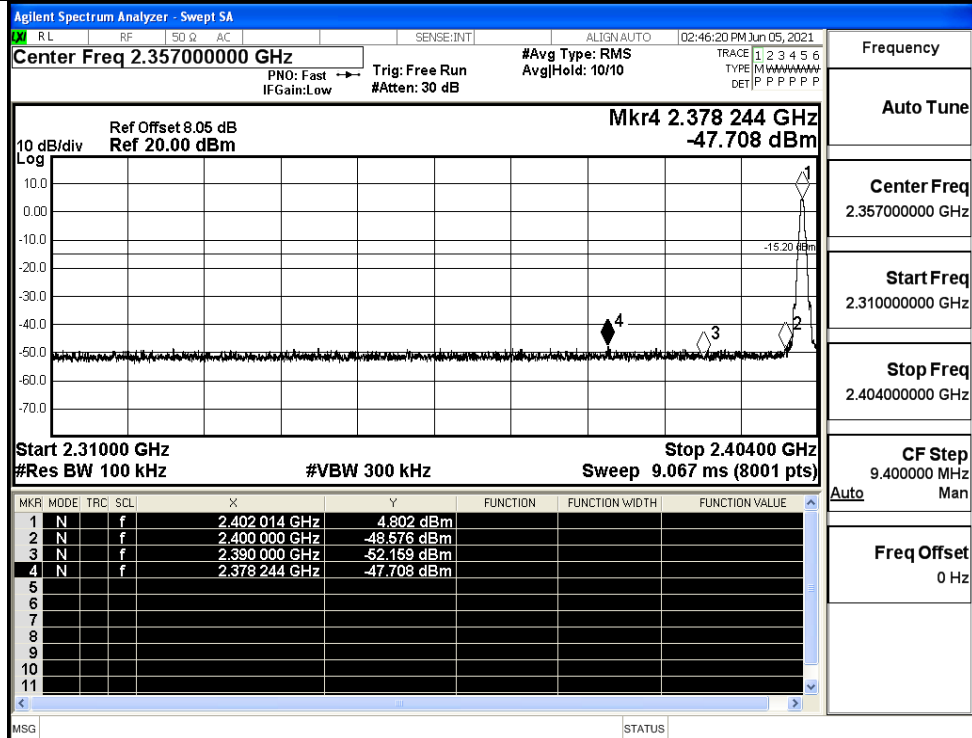


A.7 Band-edge for RF Conducted Emissions

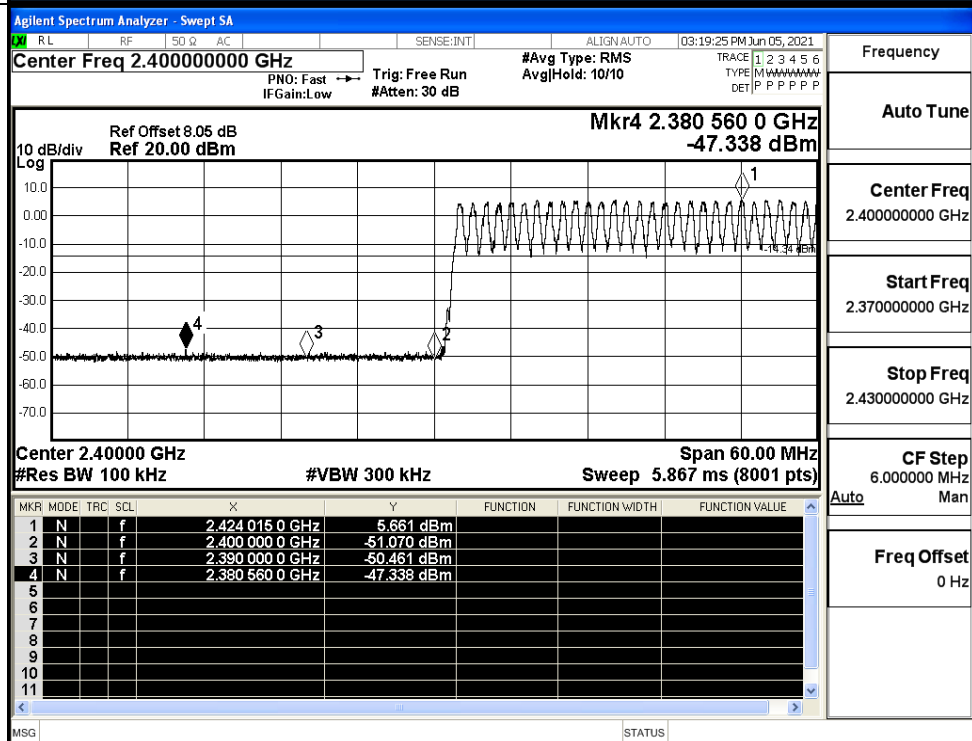
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	4.802	Off	-47.708	-15.2	PASS
			5.661	On	-47.338	-14.34	PASS
	HCH	2480	4.392	Off	-47.244	-15.61	PASS
			5.552	On	-47.600	-14.45	PASS
$\pi/4$ DQPSK	LCH	2402	-0.005	Off	-48.647	-20.01	PASS
			4.293	On	-47.493	-15.71	PASS
	HCH	2480	2.926	Off	-47.345	-17.07	PASS
			4.286	On	-46.853	-15.71	PASS
8DPSK	LCH	2402	2.712	Off	-47.917	-17.29	PASS
			4.293	On	-47.303	-15.71	PASS
	HCH	2480	2.835	Off	-47.081	-17.17	PASS
			4.147	On	-46.719	-15.85	PASS

Test Graphs

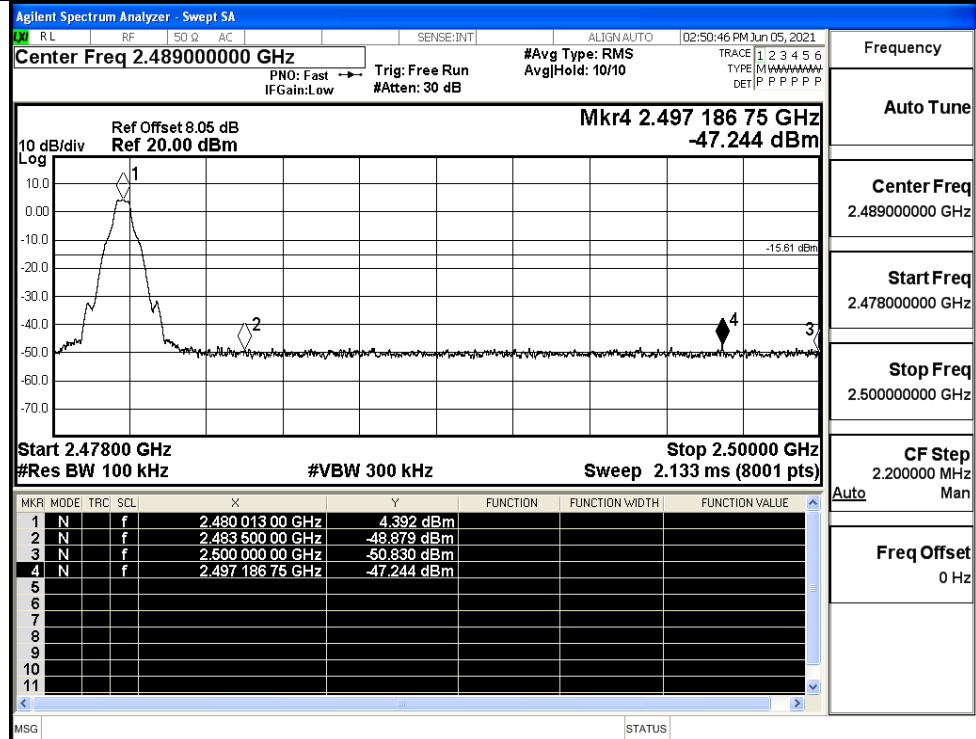
GFSK/LCH/No Hop



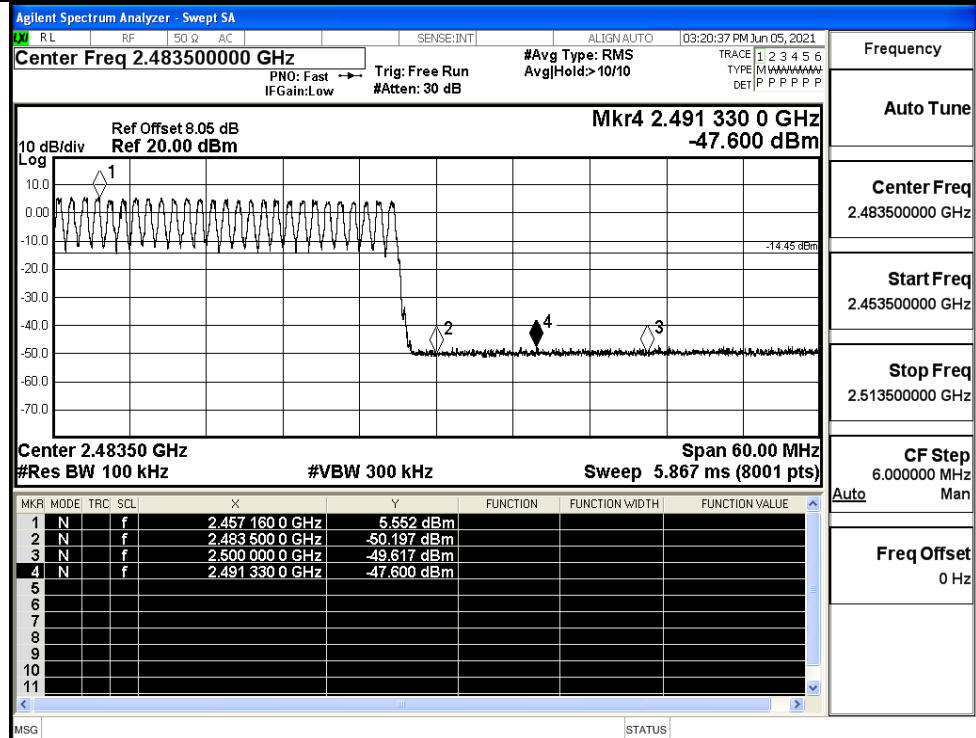
GFSK/LCH/Hop



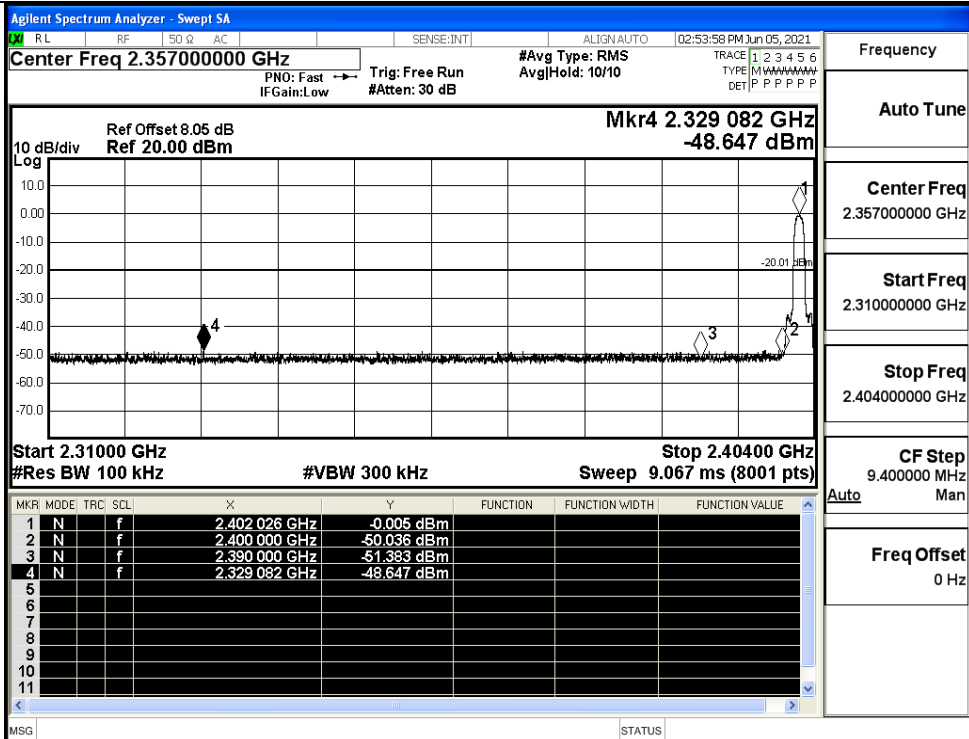
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

Start Freq
2.310000000 GHz

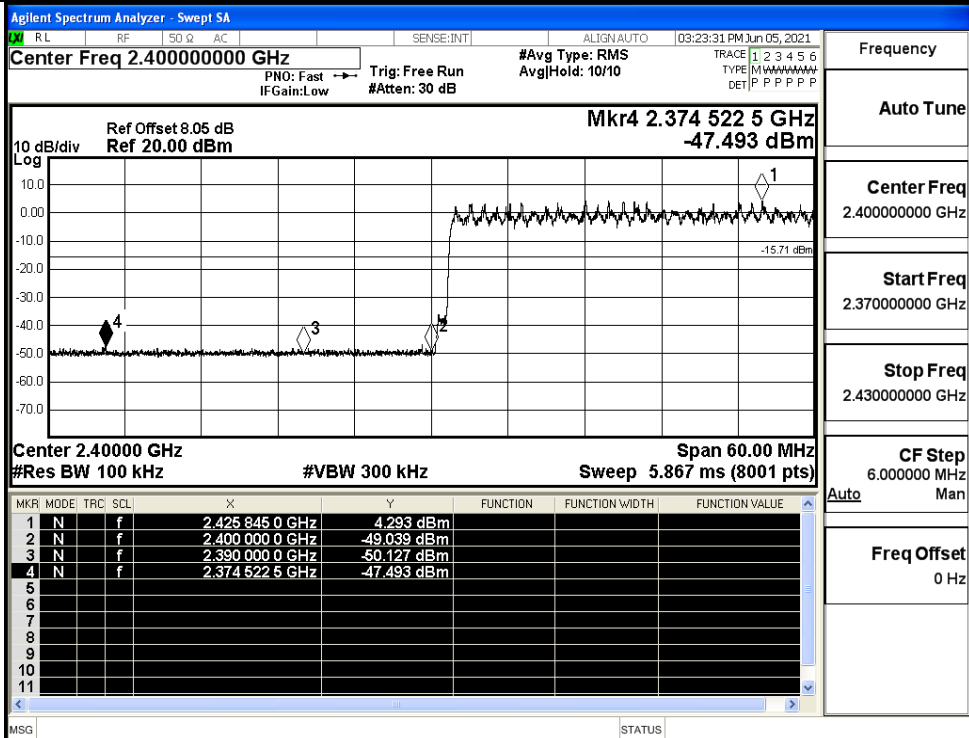
Stop Freq
2.404000000 GHz

CF Step
9.400000 MHz

Auto Man

Freq Offset
0 Hz

$\pi/4$ DQPSK/LCH/Hop



Frequency

Auto Tune

Center Freq
2.400000000 GHz

Start Freq
2.370000000 GHz

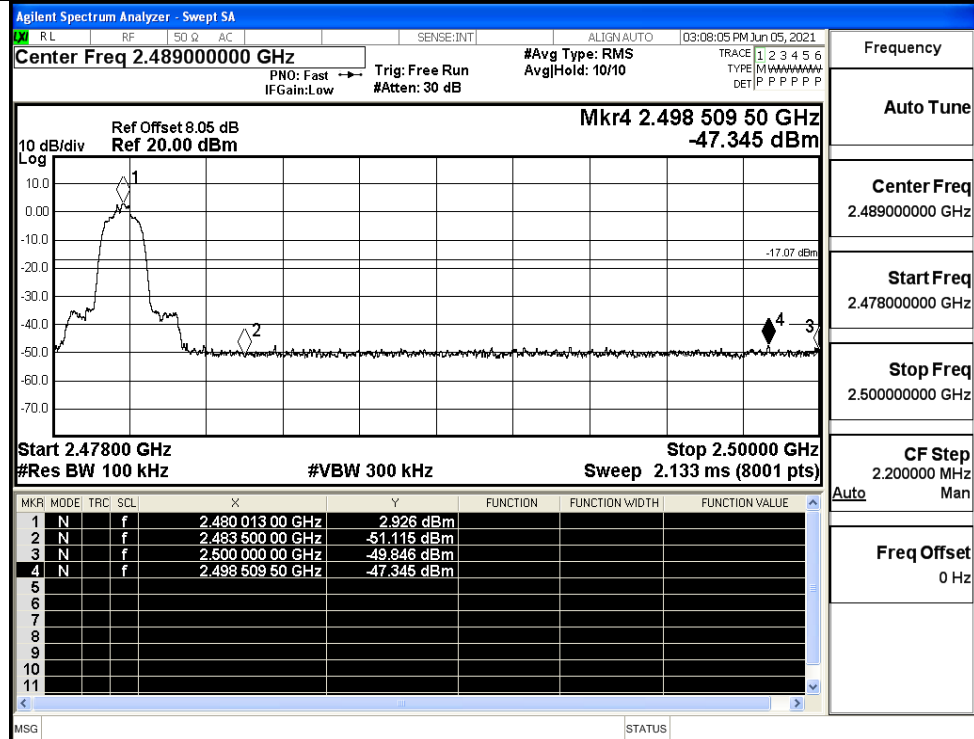
Stop Freq
2.430000000 GHz

CF Step
6.000000 MHz

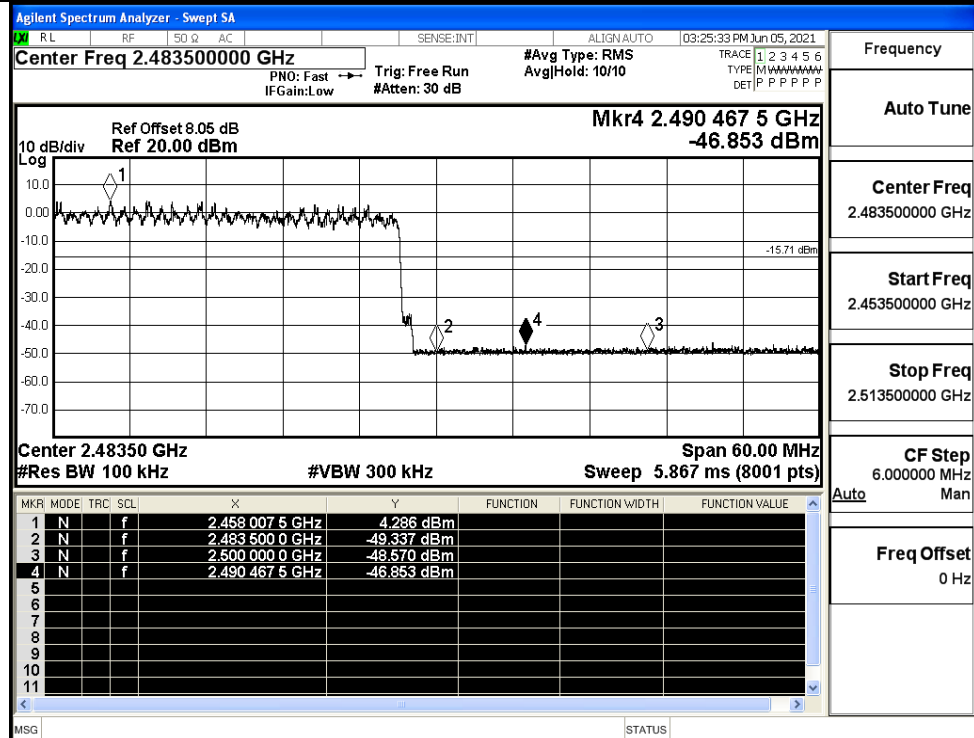
Auto Man

Freq Offset
0 Hz

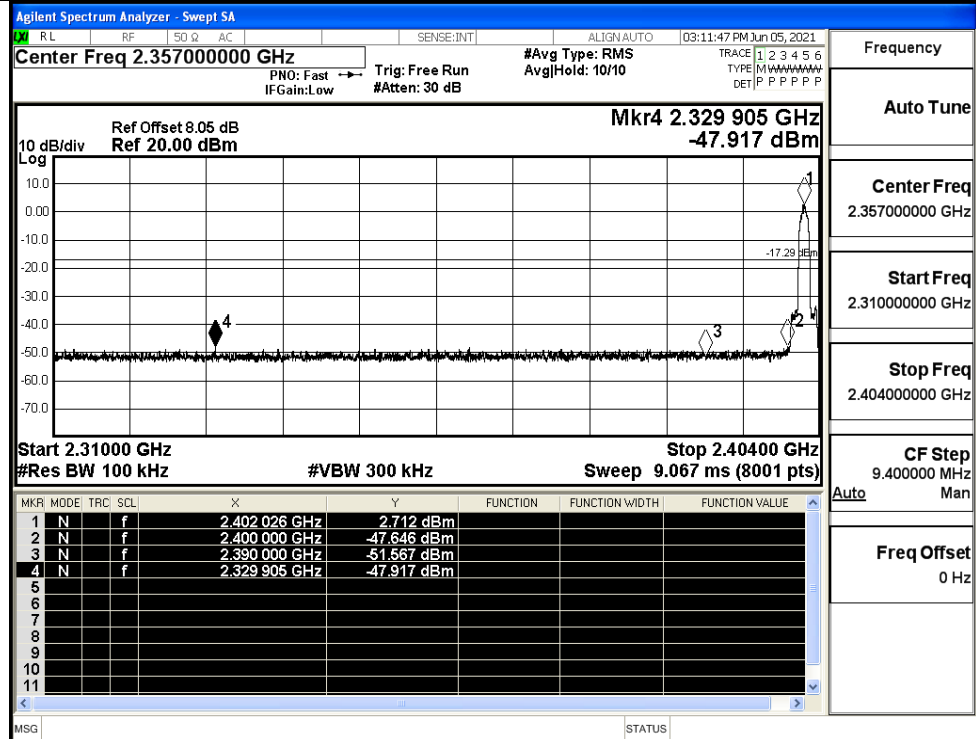
$\pi/4$ DQPSK/HCH/No
Hop



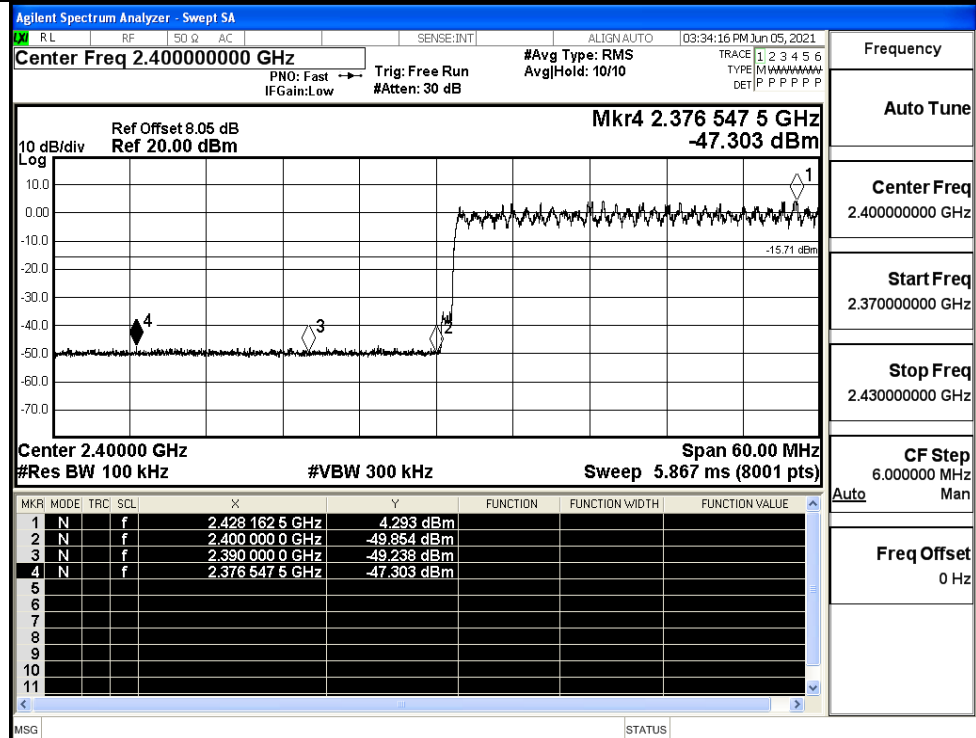
$\pi/4$ DQPSK/HCH/Hop



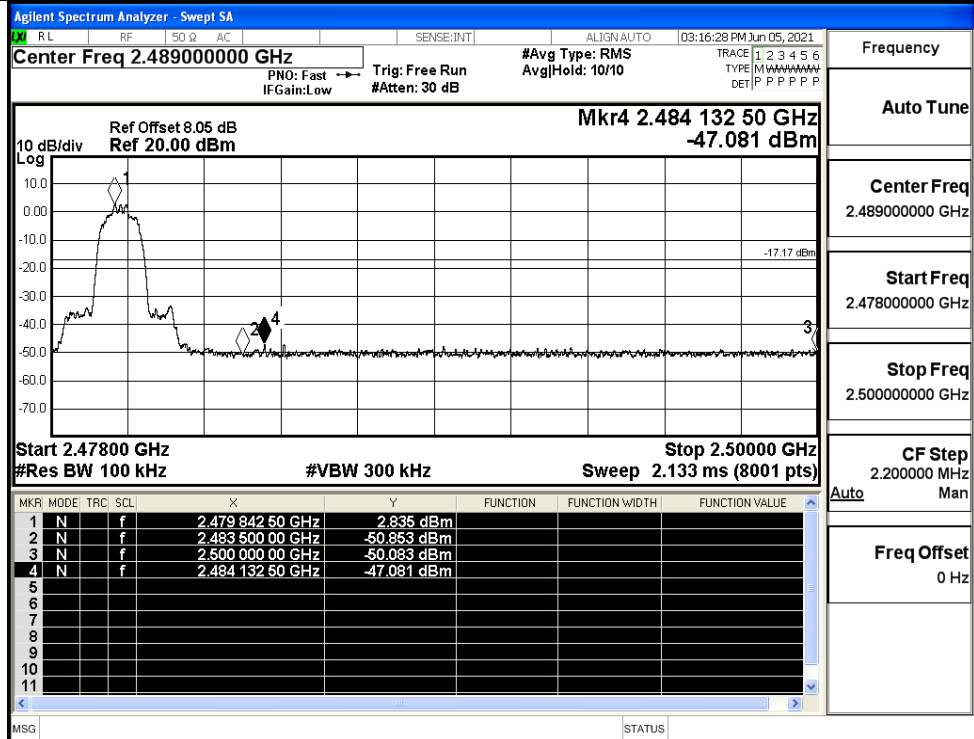
8DPSK/LCH/No Hop



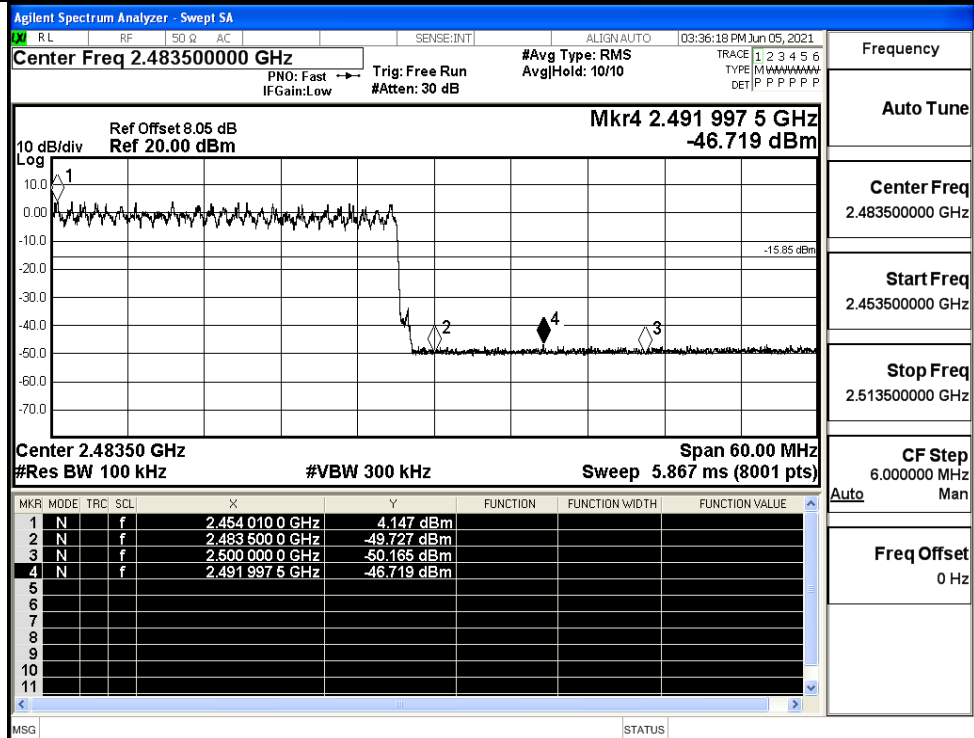
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



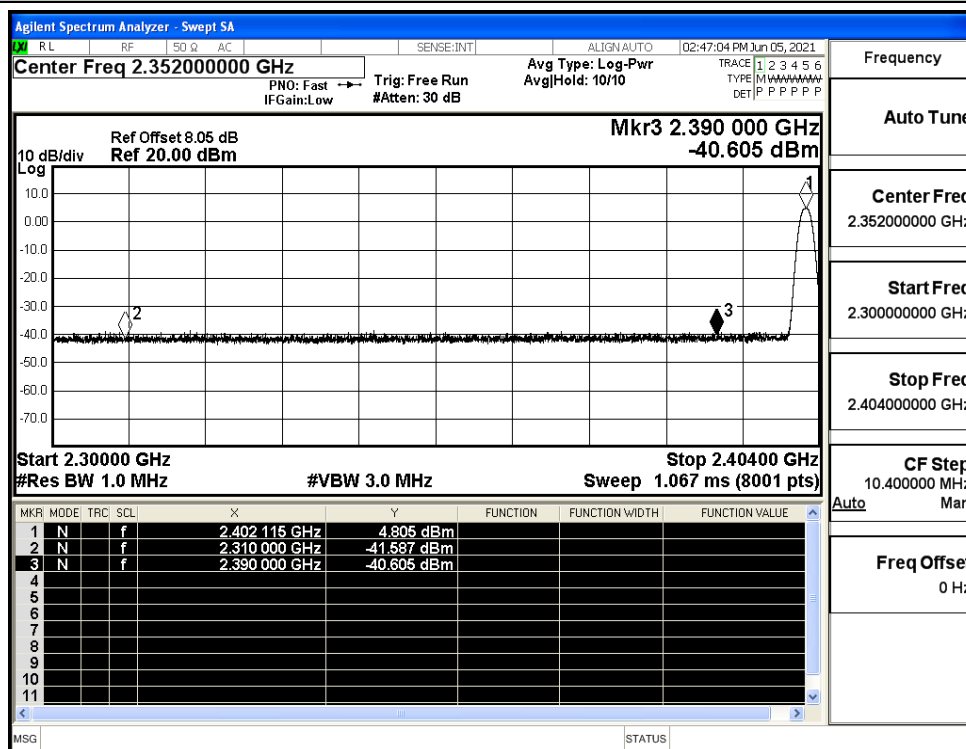
8DPSK/HCH/Hop



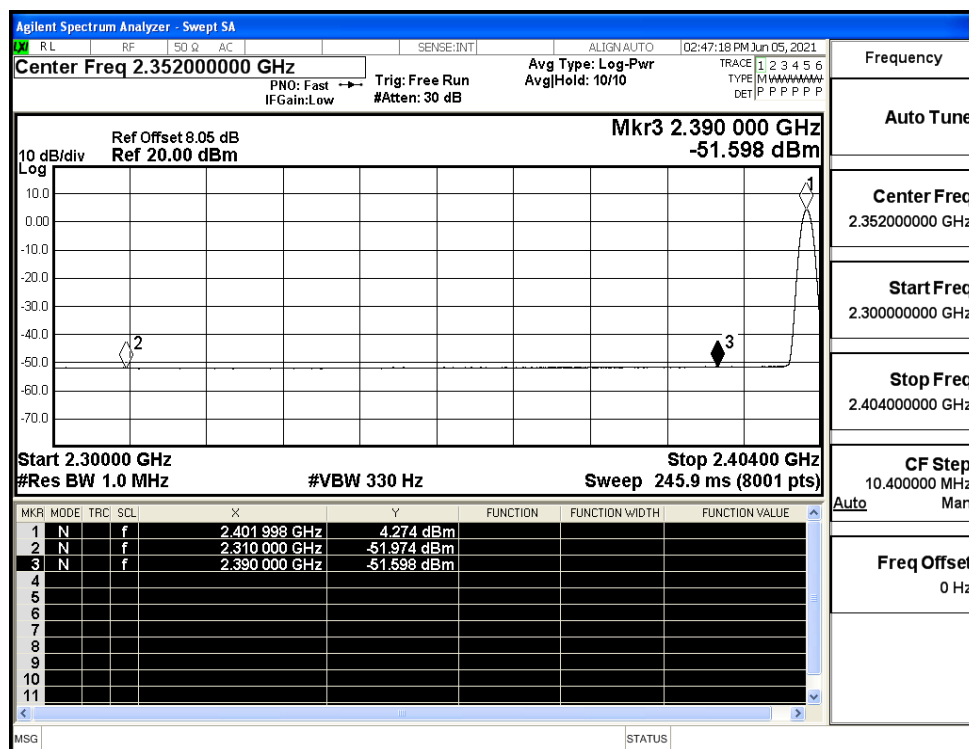
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-41.59	2.0	0	55.64	PEAK	74	PASS
	Off	2310.0	-51.97	2.0	0	45.26	AV	54	PASS
	Off	2390.0	-40.61	2.0	0	56.62	PEAK	74	PASS
	Off	2390.0	-51.60	2.0	0	45.63	AV	54	PASS
	Off	2483.5	-41.34	2.0	0	55.89	PEAK	74	PASS
	Off	2483.5	-51.08	2.0	0	46.15	AV	54	PASS
	Off	2500.0	-40.66	2.0	0	56.57	PEAK	74	PASS
	Off	2500.0	-50.90	2.0	0	46.33	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-40.08	2.0	0	57.15	PEAK	74	PASS
	Off	2310.0	-51.97	2.0	0	45.26	AV	54	PASS
	Off	2390.0	-42.45	2.0	0	54.78	PEAK	74	PASS
	Off	2390.0	-51.53	2.0	0	45.70	AV	54	PASS
	Off	2483.5	-41.60	2.0	0	55.63	PEAK	74	PASS
	Off	2483.5	-50.99	2.0	0	46.24	AV	54	PASS
	Off	2500.0	-40.30	2.0	0	56.93	PEAK	74	PASS
	Off	2500.0	-50.81	2.0	0	46.42	AV	54	PASS
8DPSK	Off	2310.0	-42.37	2.0	0	54.86	PEAK	74	PASS
	Off	2310.0	-51.85	2.0	0	45.38	AV	54	PASS
	Off	2390.0	-40.56	2.0	0	56.67	PEAK	74	PASS
	Off	2390.0	-51.50	2.0	0	45.73	AV	54	PASS
	Off	2483.5	-41.36	2.0	0	55.87	PEAK	74	PASS
	Off	2483.5	-50.83	2.0	0	46.40	AV	54	PASS
	Off	2500.0	-39.90	2.0	0	57.33	PEAK	74	PASS
	Off	2500.0	-50.82	2.0	0	46.41	AV	54	PASS

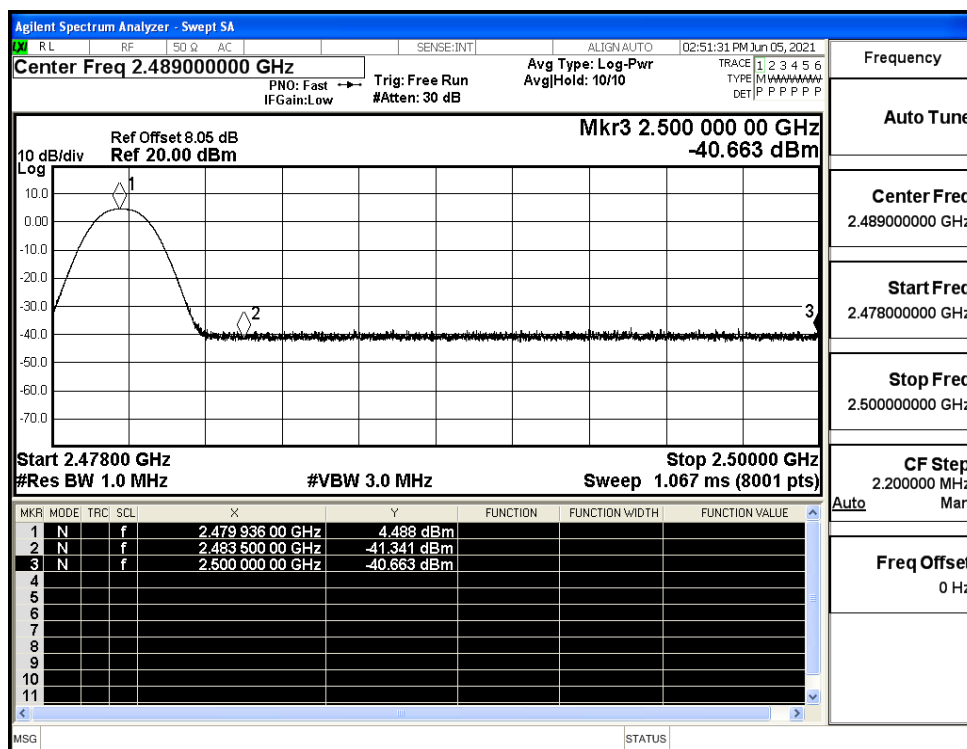
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



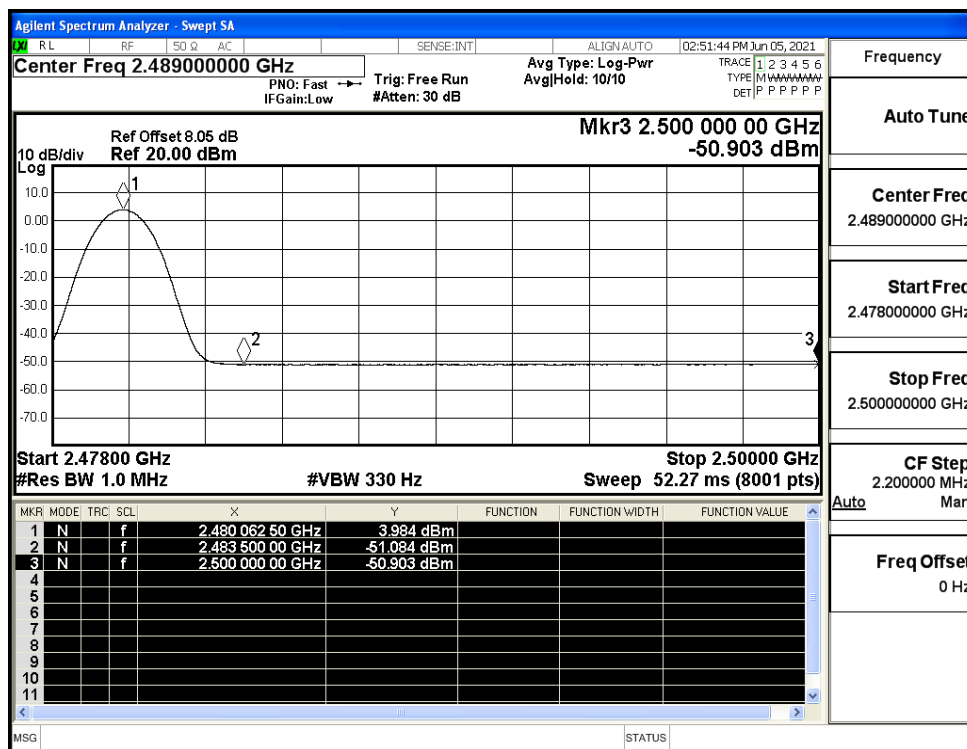
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

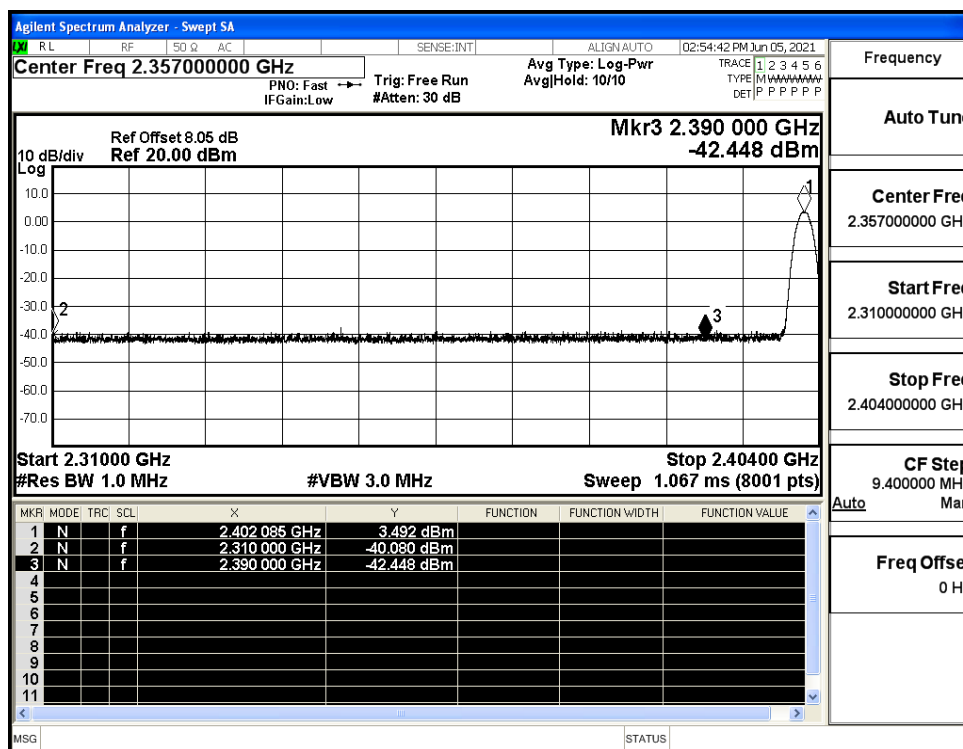
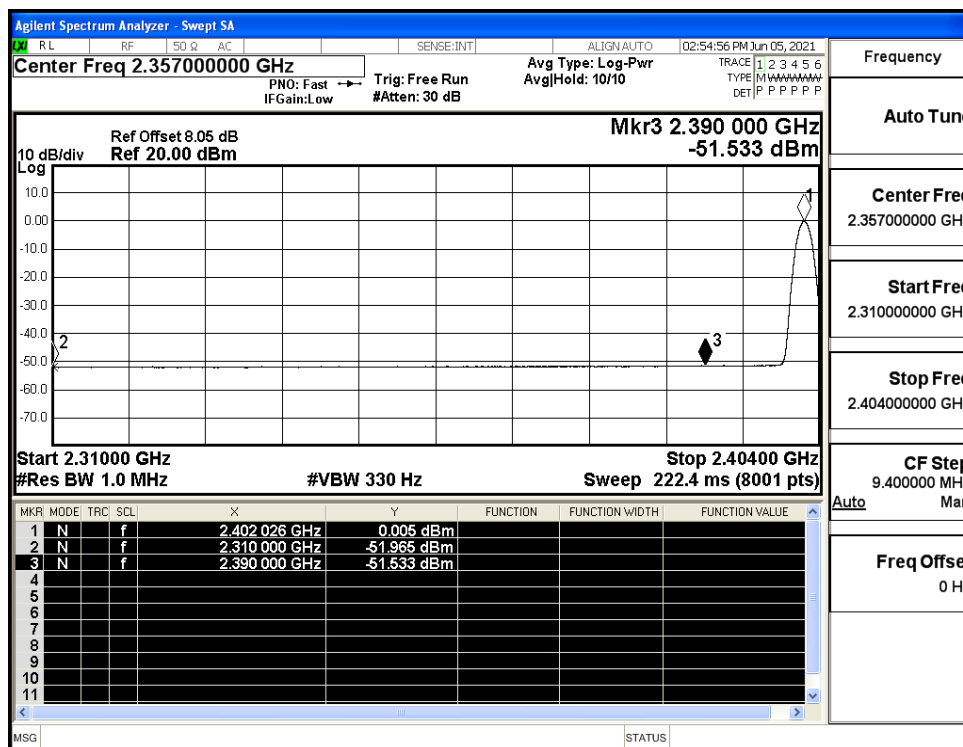


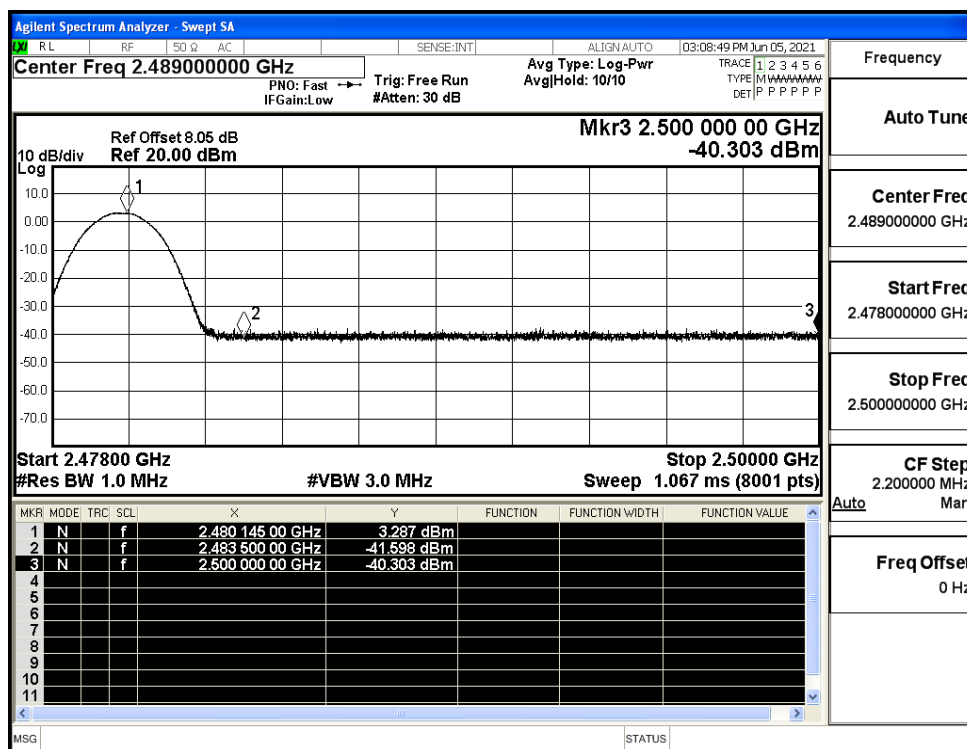
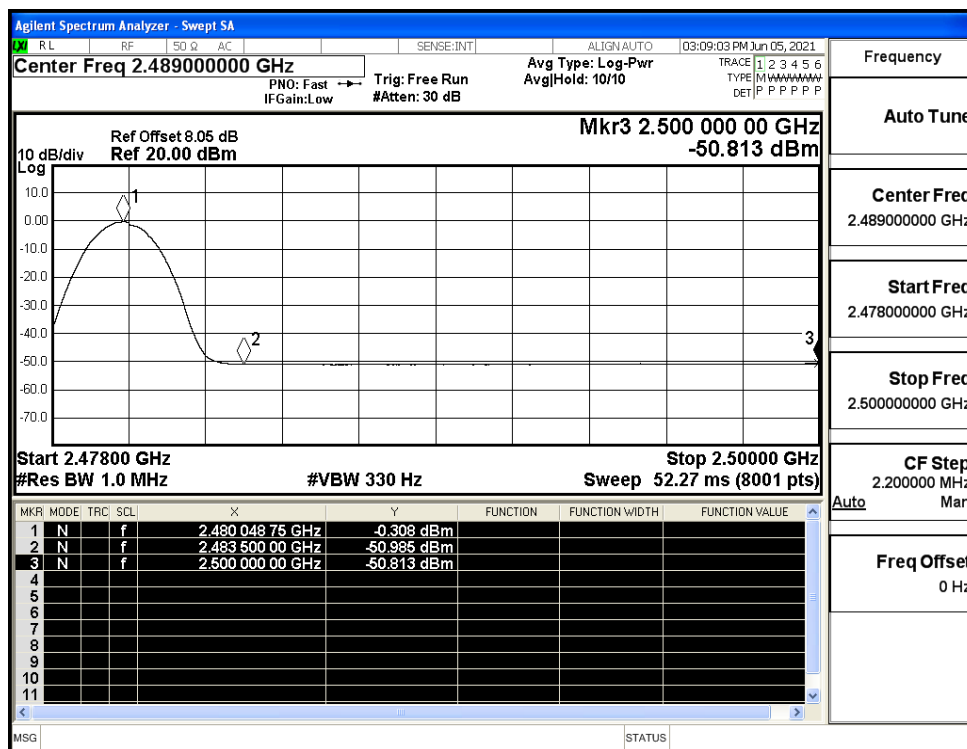
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



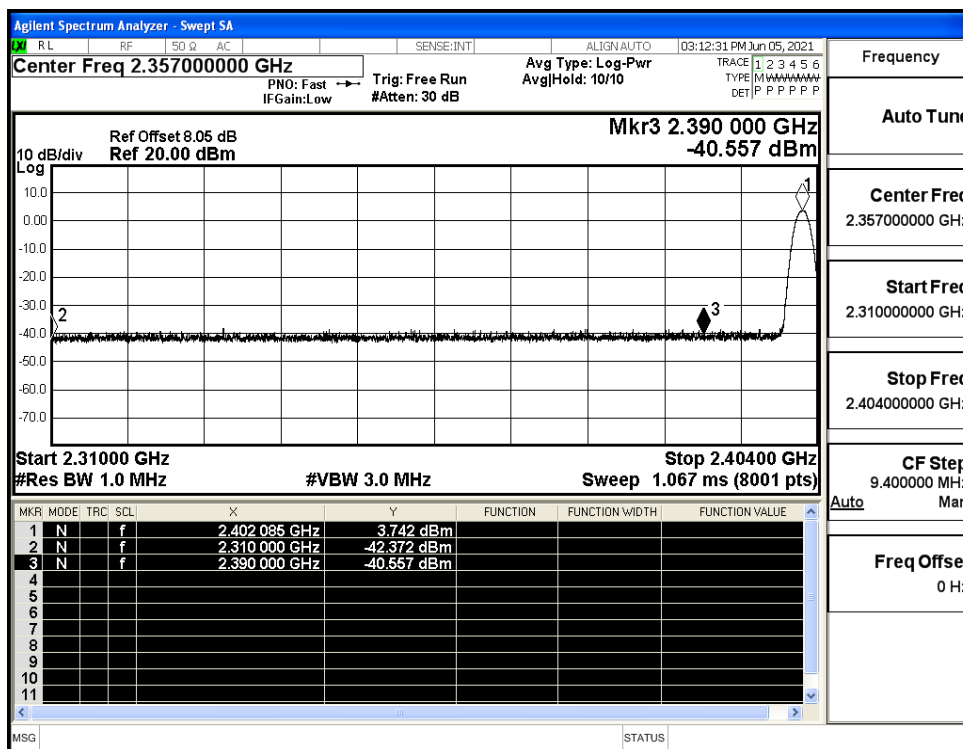
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



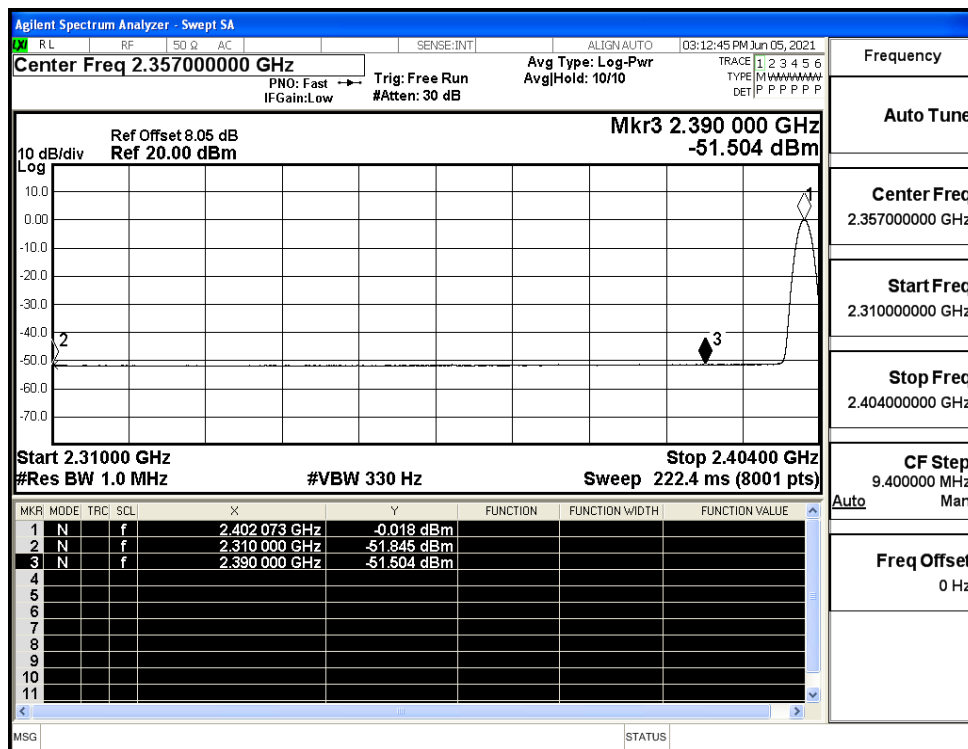
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

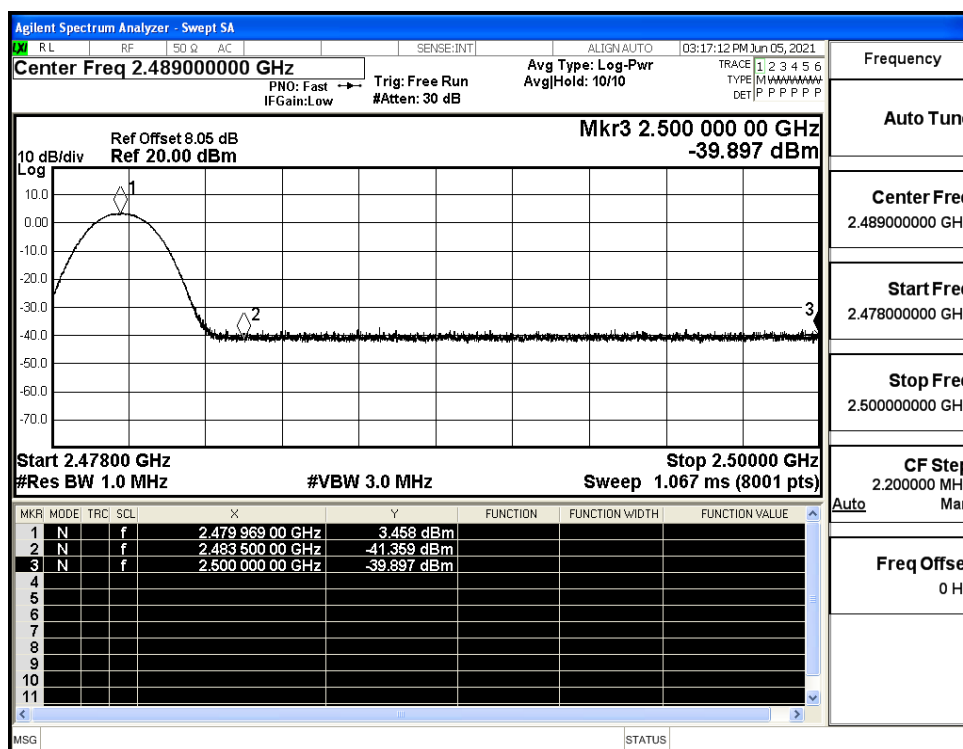
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



Restrict-band band-edge measurements_Hopping Off_8DPSK_Average (Low Channel)



Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (High Channel)



Restrict-band band-edge measurements_Hopping Off_8DPSK_Average (High Channel)

