

Appendix A
RF Test Data for BT V4.2(BDR/EDR) (Conducted Measurement)
Product Name: Streaming box
Trade Mark: N/A
Test Model: HA2810

Environmental Conditions

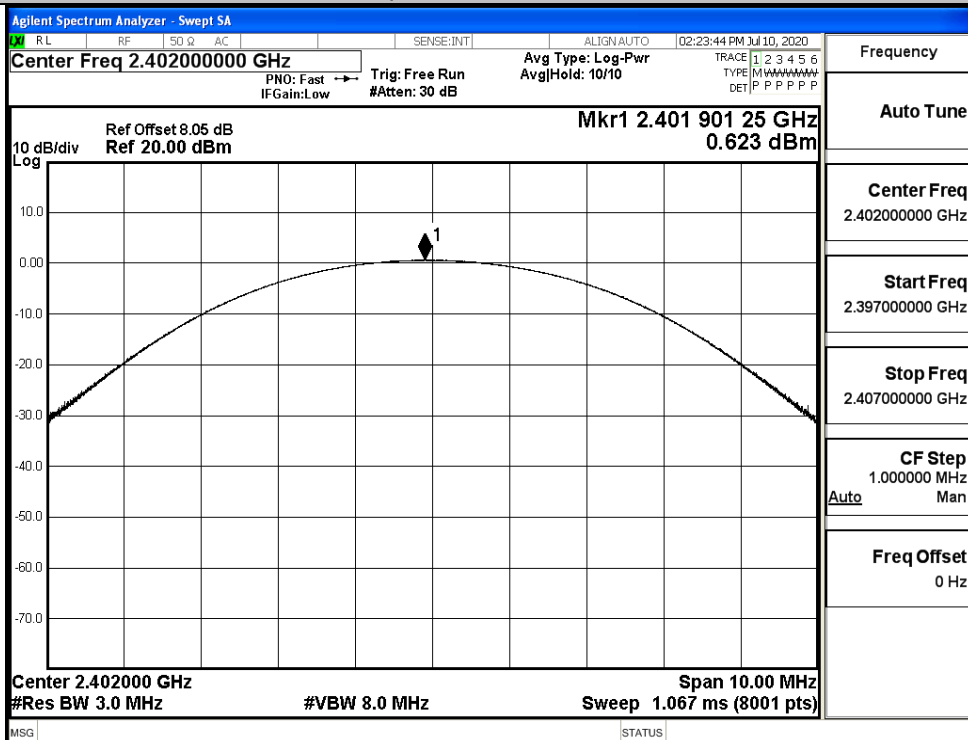
Temperature:	24.3° C
Relative Humidity:	54.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

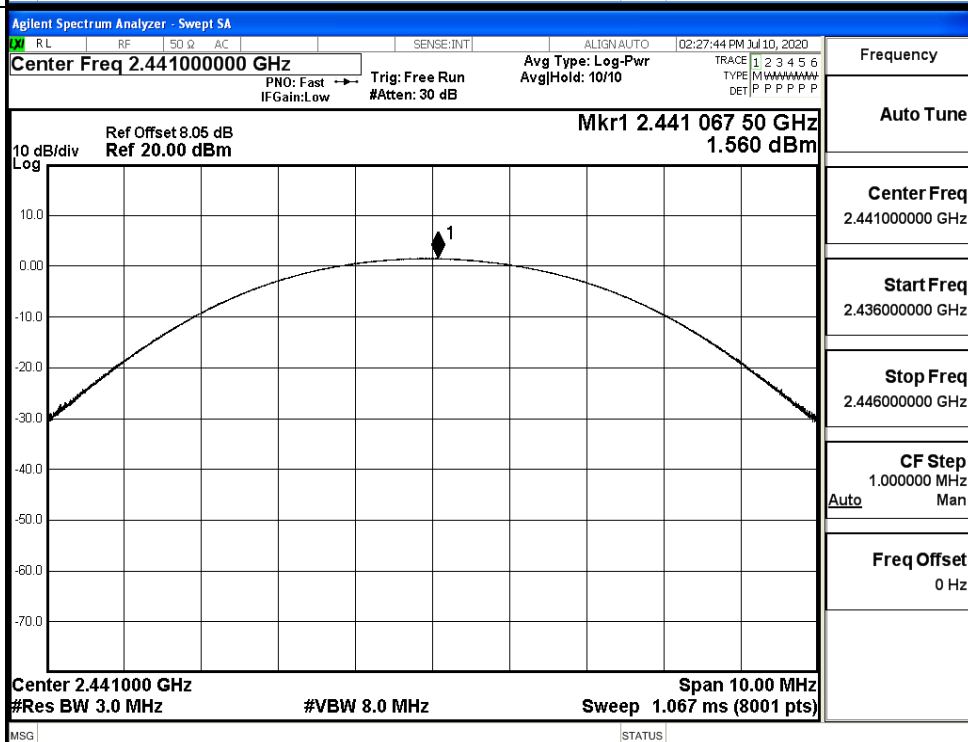
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.623	21	PASS
	MCH	1.560	21	PASS
	HCH	0.315	21	PASS
$\pi/4$ DQPSK	LCH	0.781	21	PASS
	MCH	2.033	21	PASS
	HCH	0.721	21	PASS
8DPSK	LCH	0.792	21	PASS
	MCH	2.008	21	PASS
	HCH	0.705	21	PASS

Test Graphs

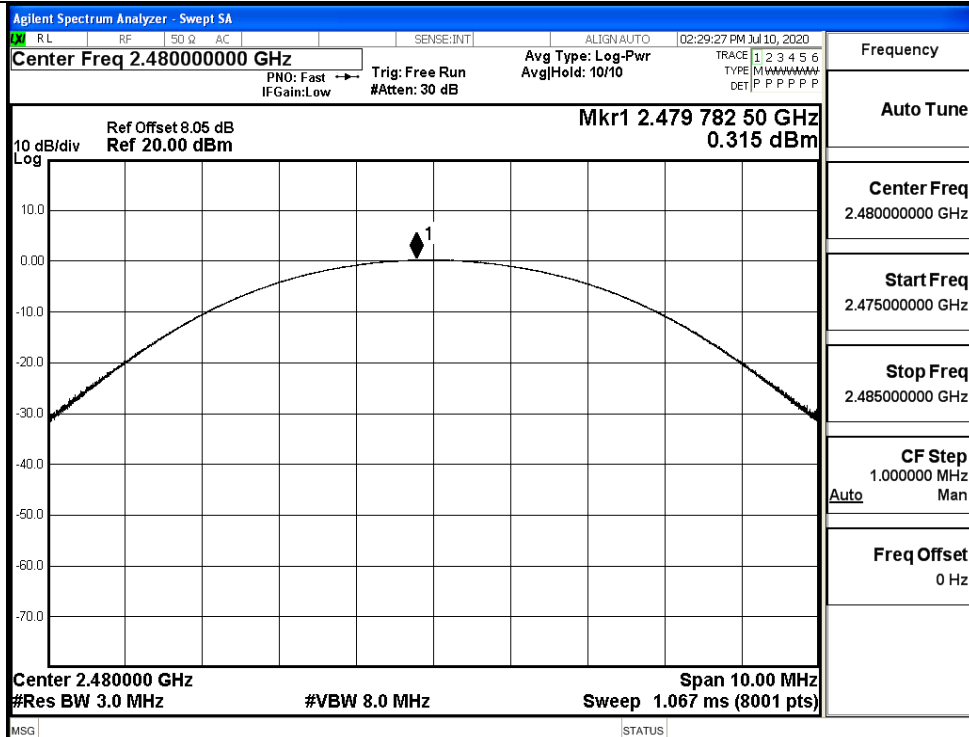
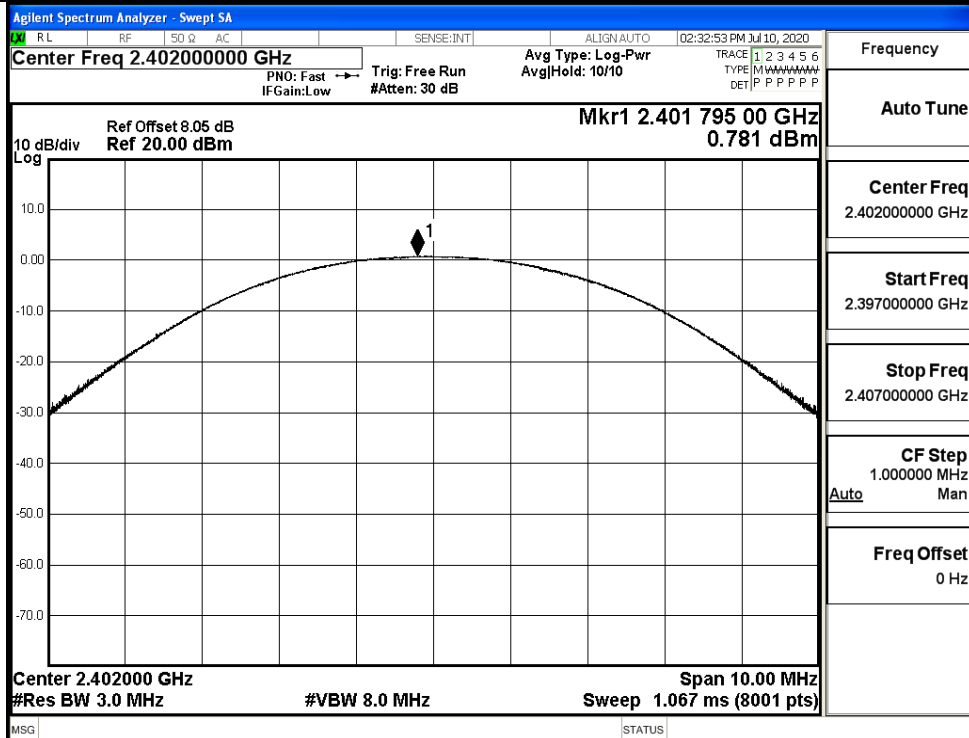
GFSK/LCH

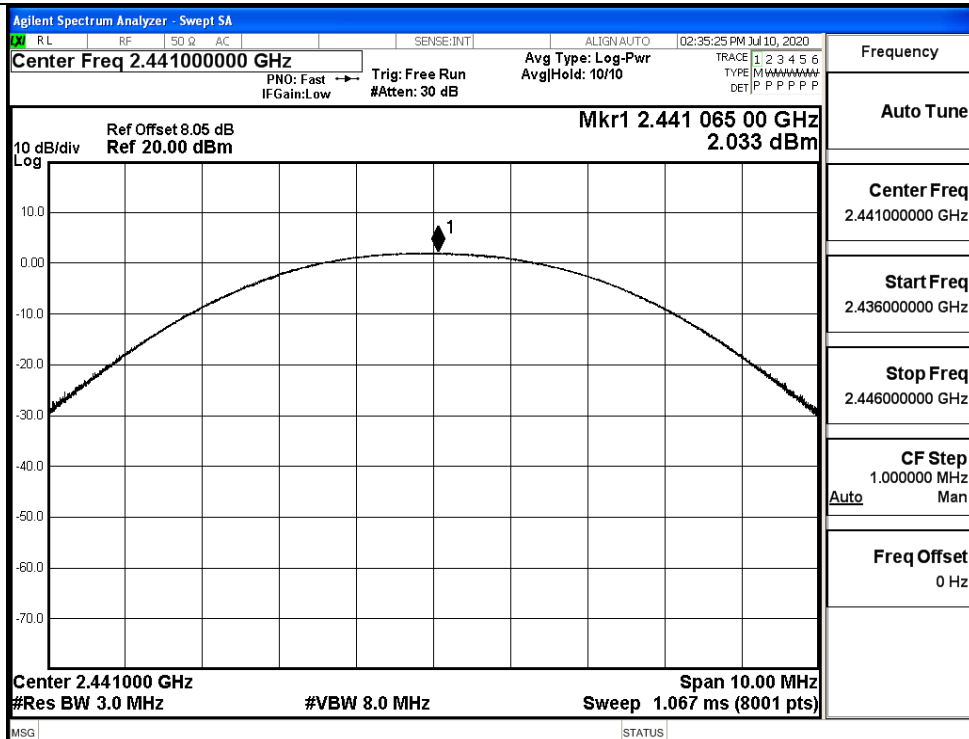
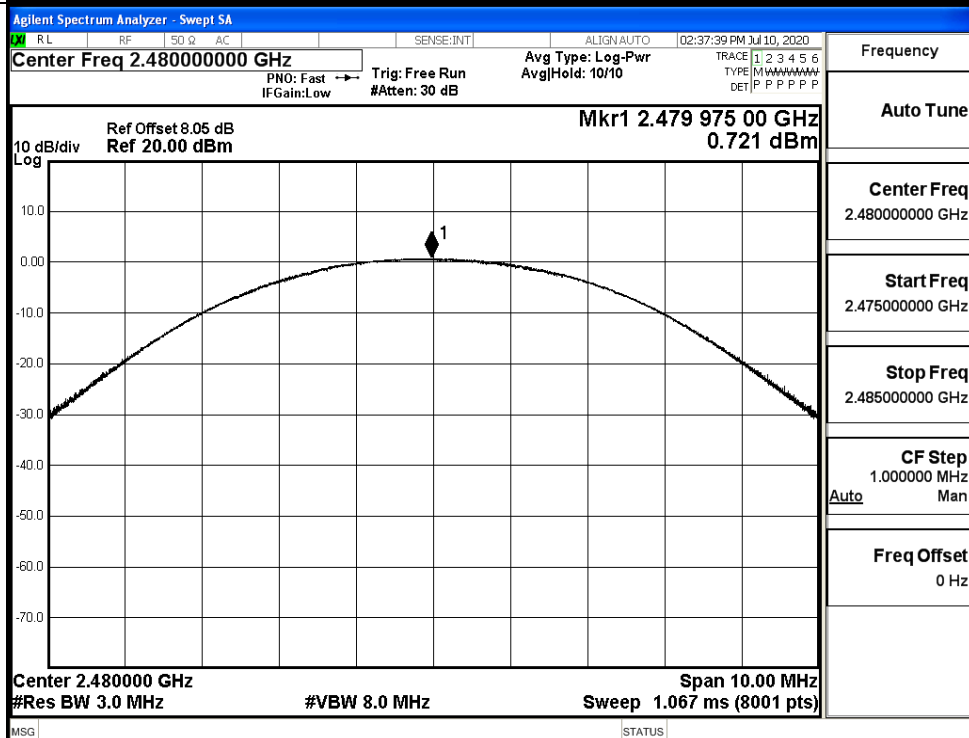


GFSK/MCH

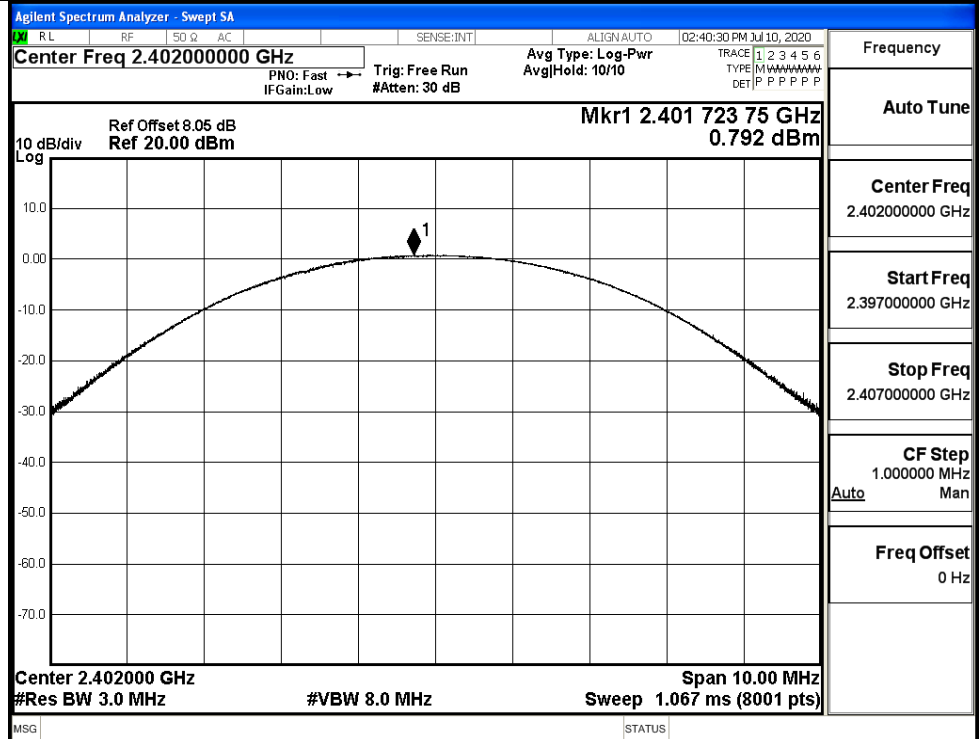


GFSK/HCH

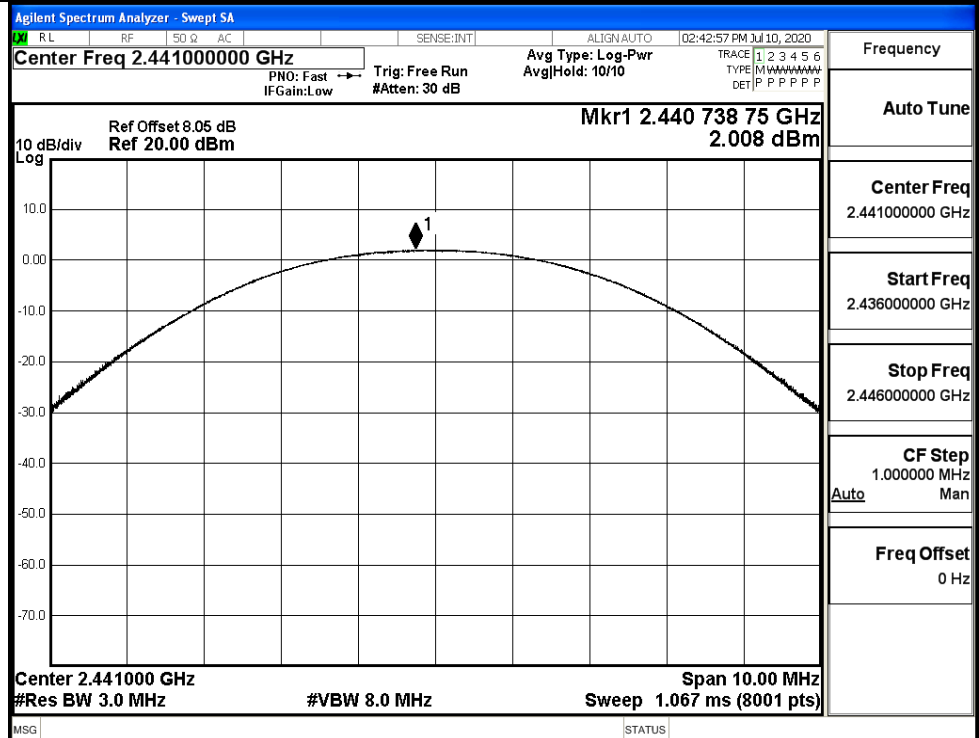
 π /4DQPSK/LCH

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

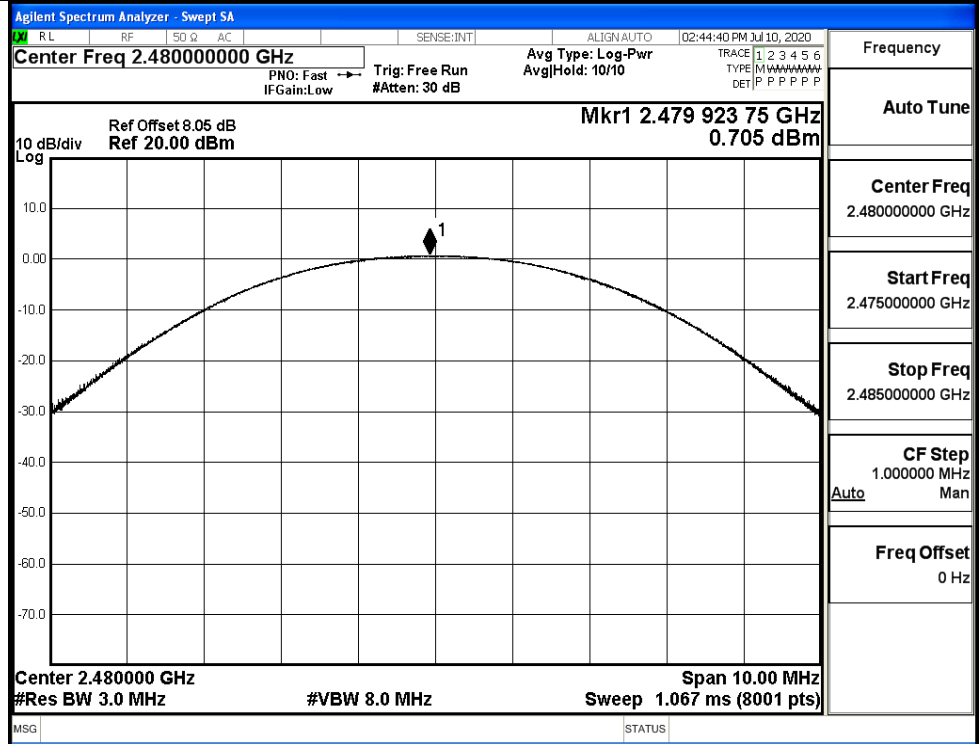
8DPSK/LCH



8DPSK/MCH



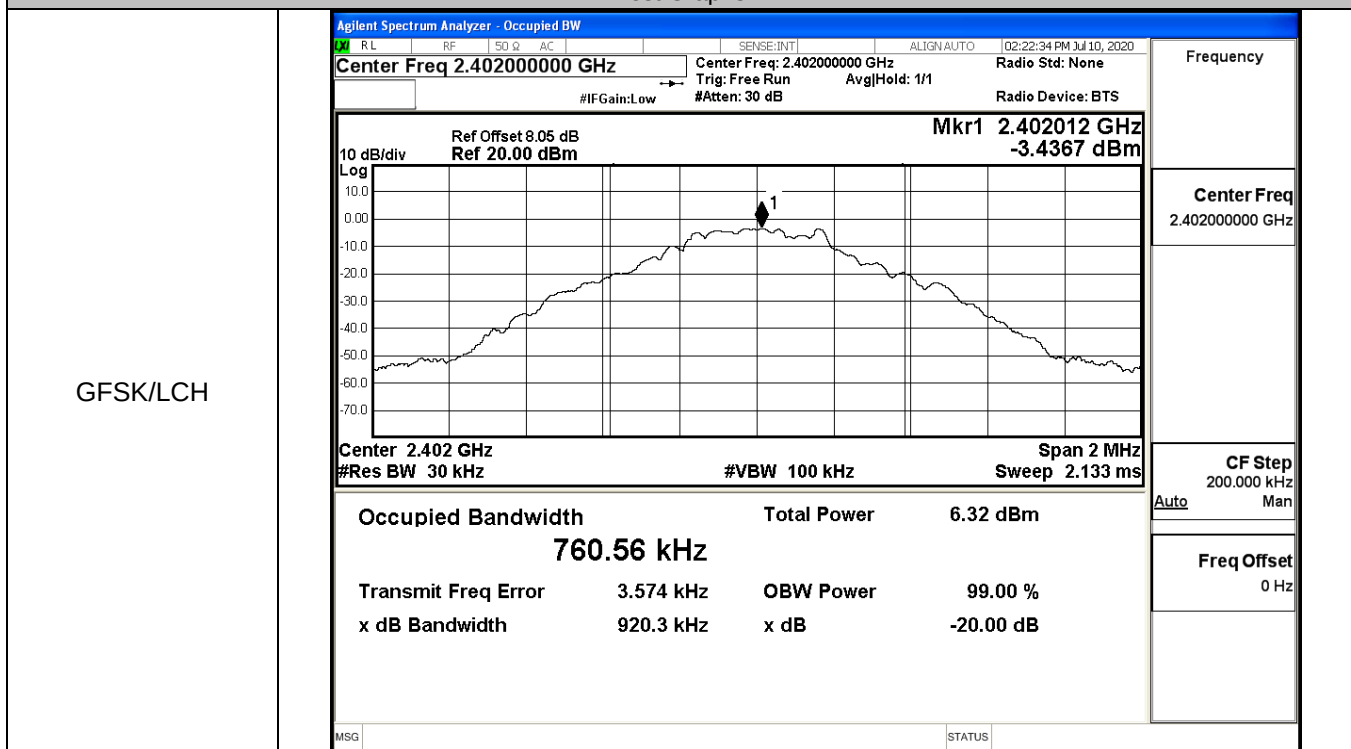
8DPSK/HCH



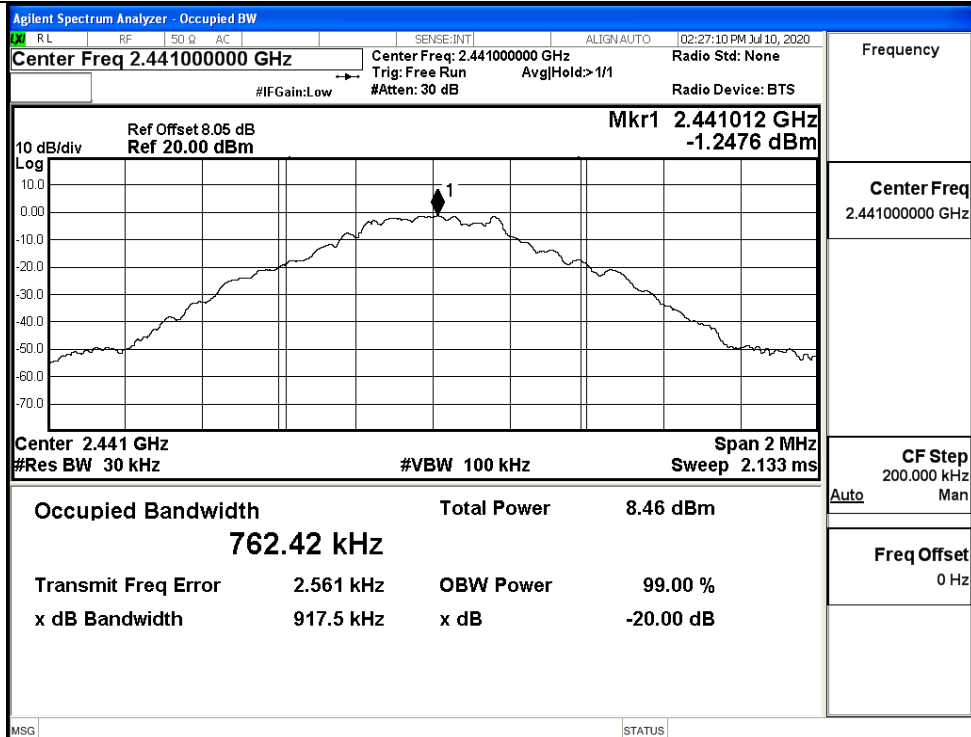
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9203	Not Specified	PASS
	MCH	0.9175	Not Specified	PASS
	HCH	0.9261	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.275	Not Specified	PASS
	MCH	1.274	Not Specified	PASS
	HCH	1.275	Not Specified	PASS
8DPSK	LCH	1.277	Not Specified	PASS
	MCH	1.277	Not Specified	PASS
	HCH	1.277	Not Specified	PASS

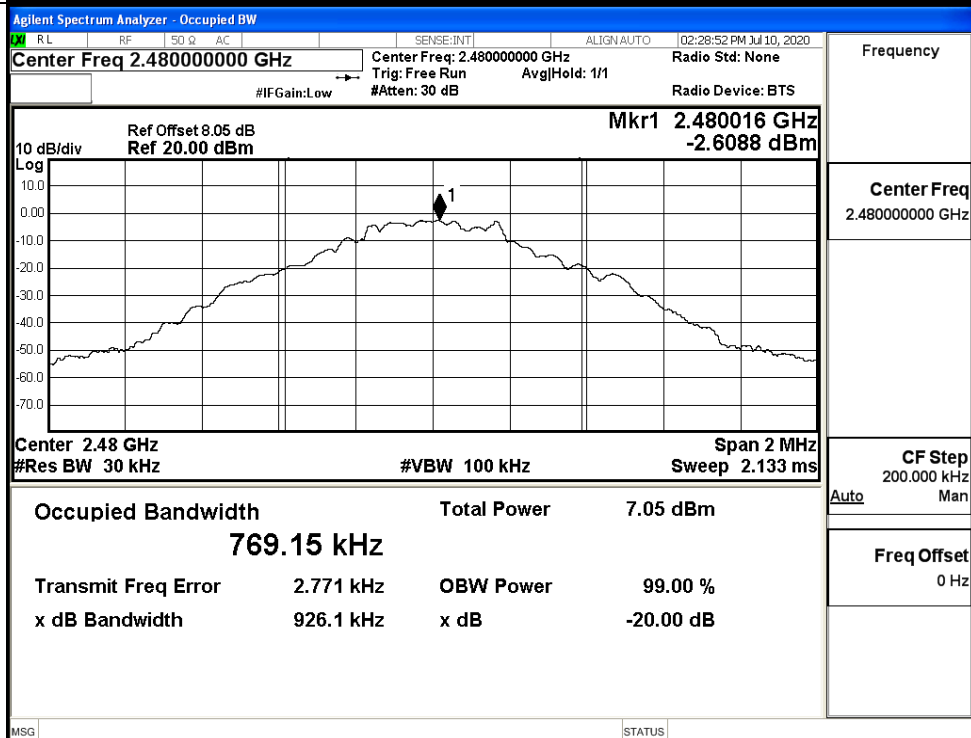
Test Graphs

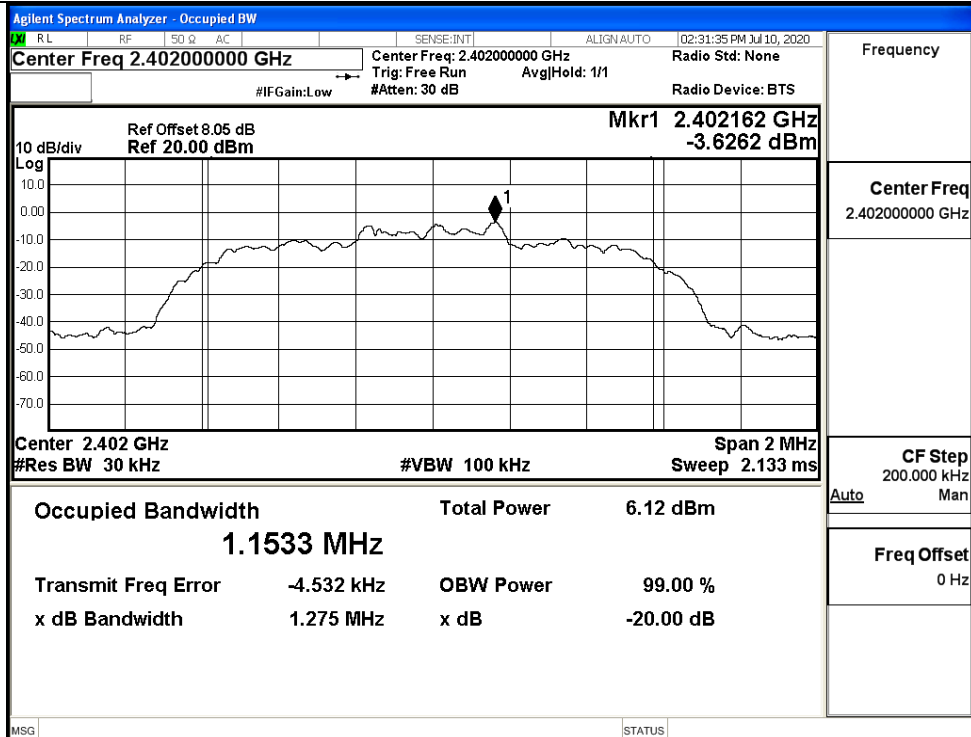
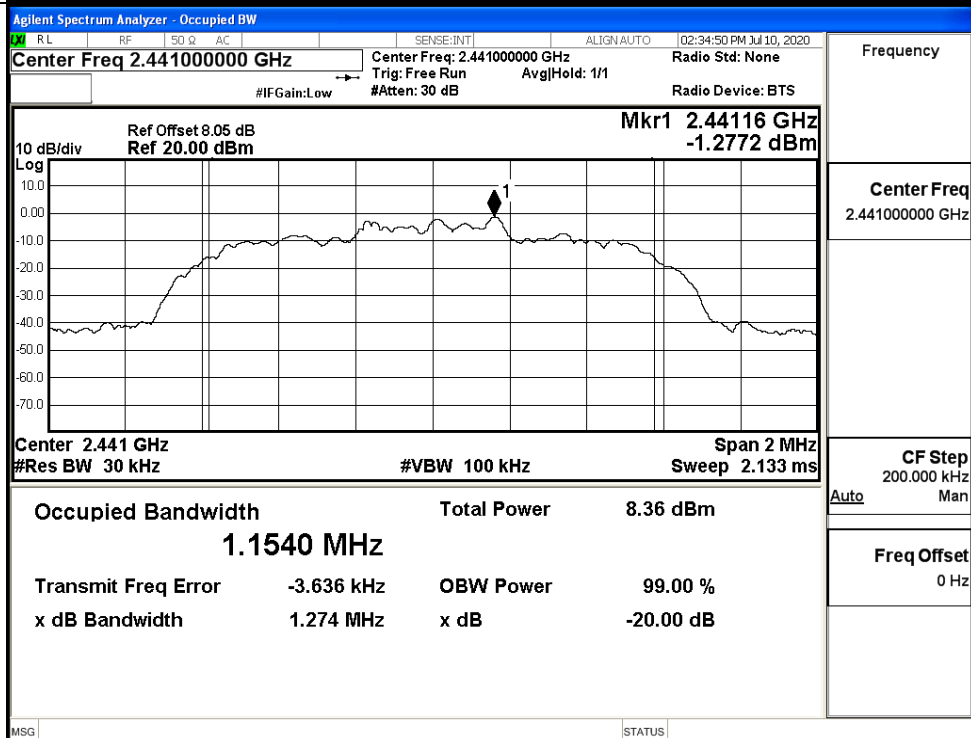


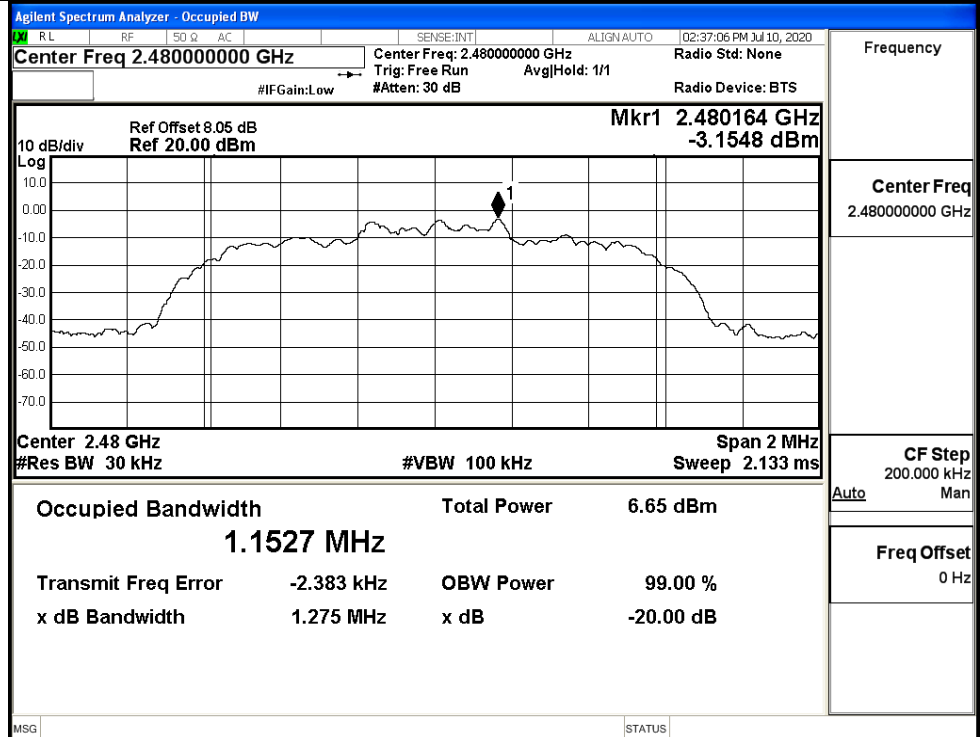
GFSK/MCH



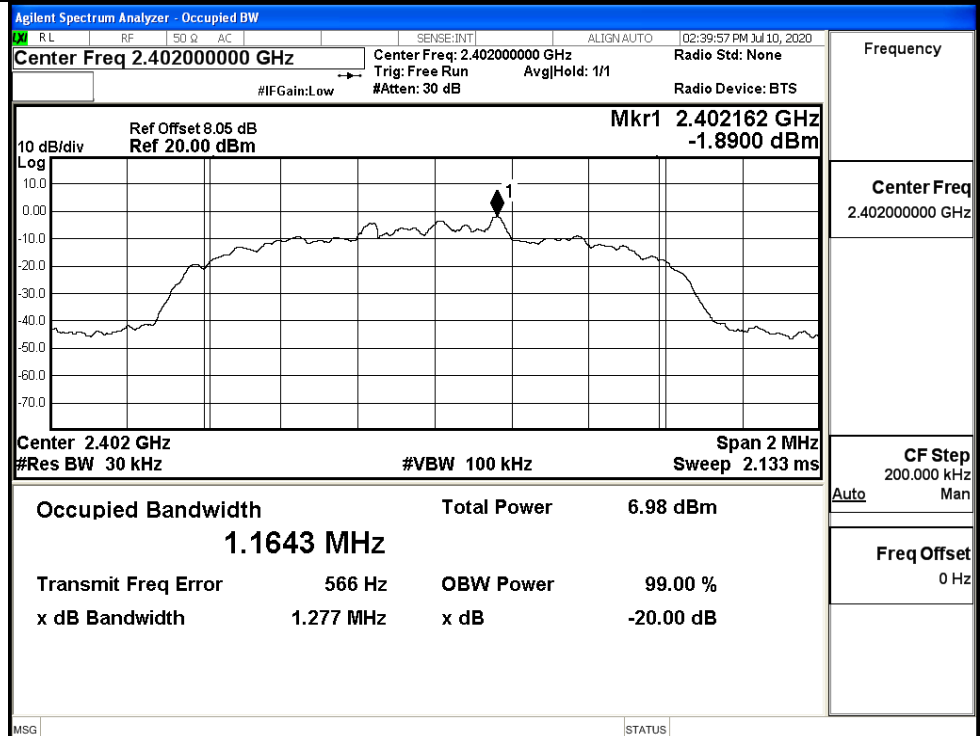
GFSK/HCH



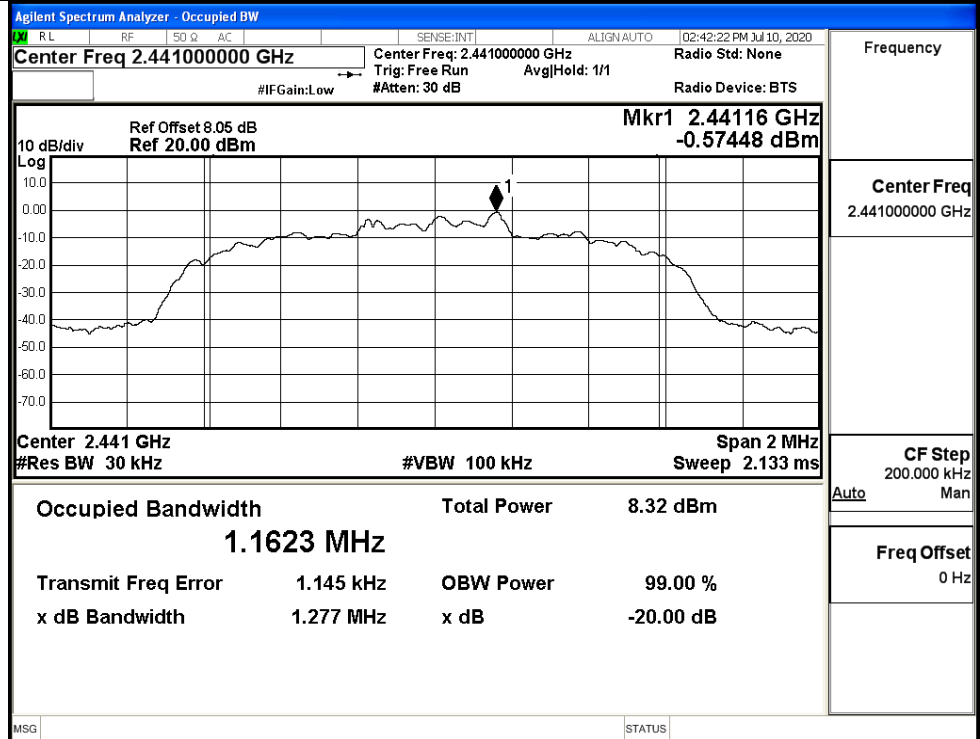
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

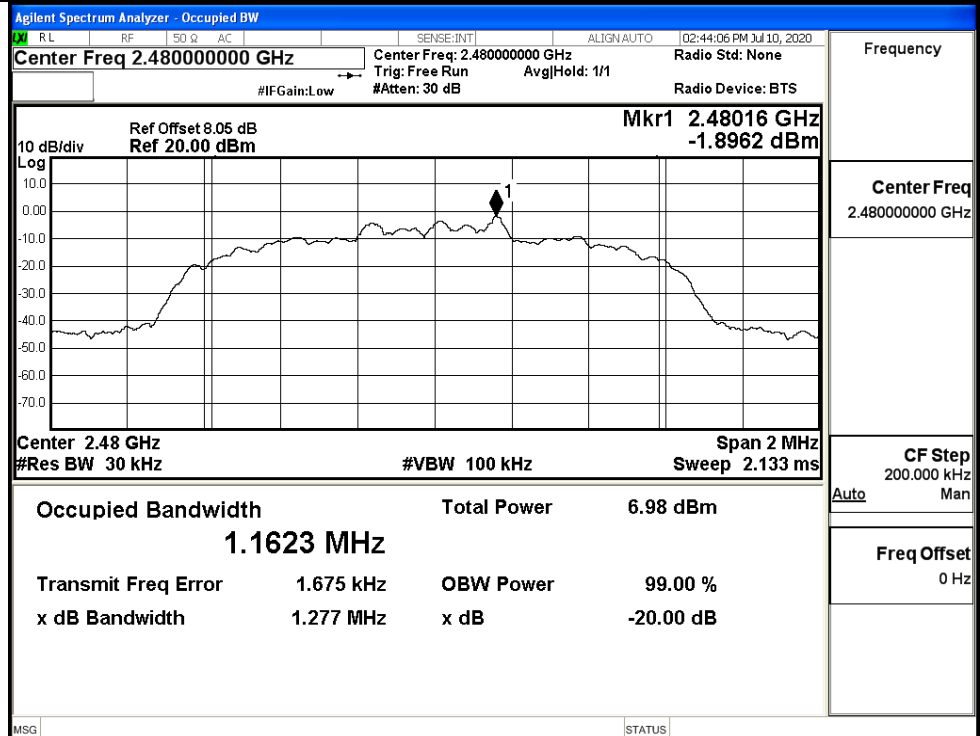
8DPSK/LCH



8DPSK/MCH



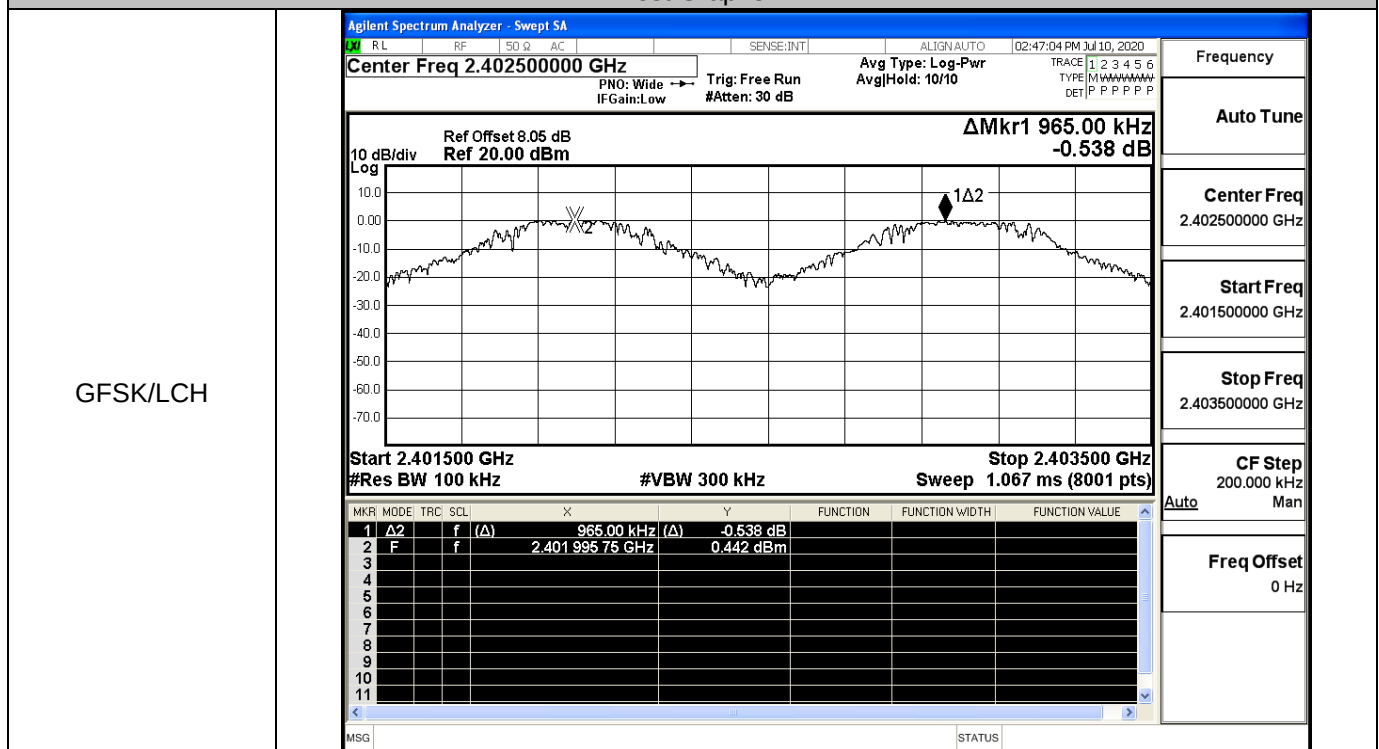
8DPSK/HCH



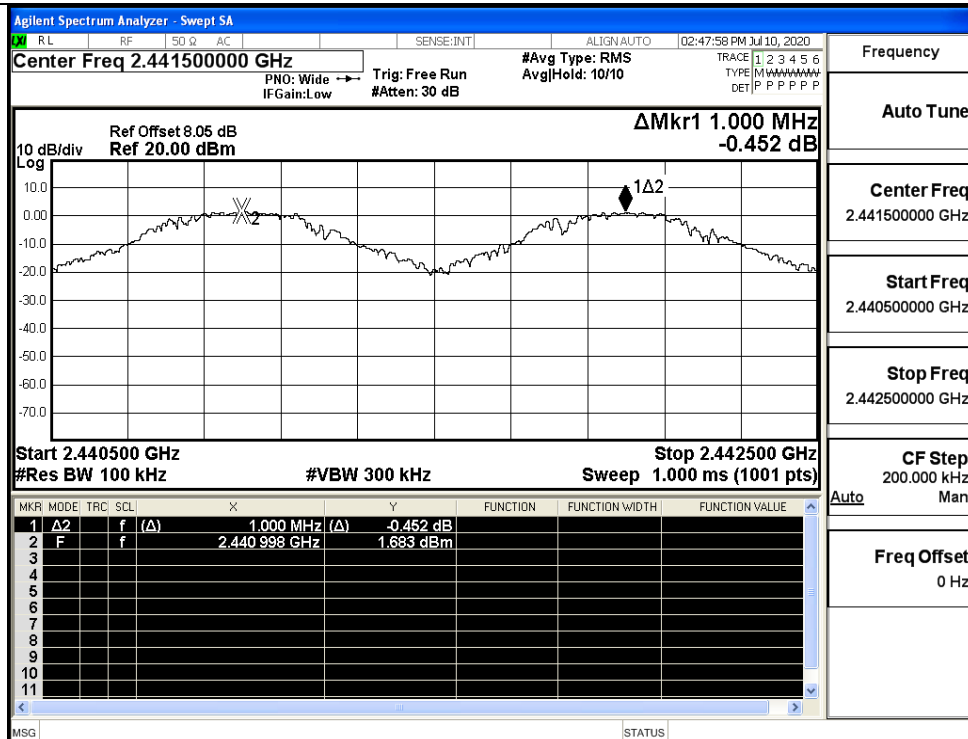
A.3 Carrier Frequency Separation

Mode	Channel	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.965	0.617	PASS
	MCH	1.000	0.617	PASS
	HCH	0.976	0.617	PASS
$\pi/4$ DQPSK	LCH	0.864	0.850	PASS
	MCH	1.212	0.850	PASS
	HCH	0.892	0.850	PASS
8DPSK	LCH	1.194	0.851	PASS
	MCH	1.220	0.851	PASS
	HCH	1.236	0.851	PASS

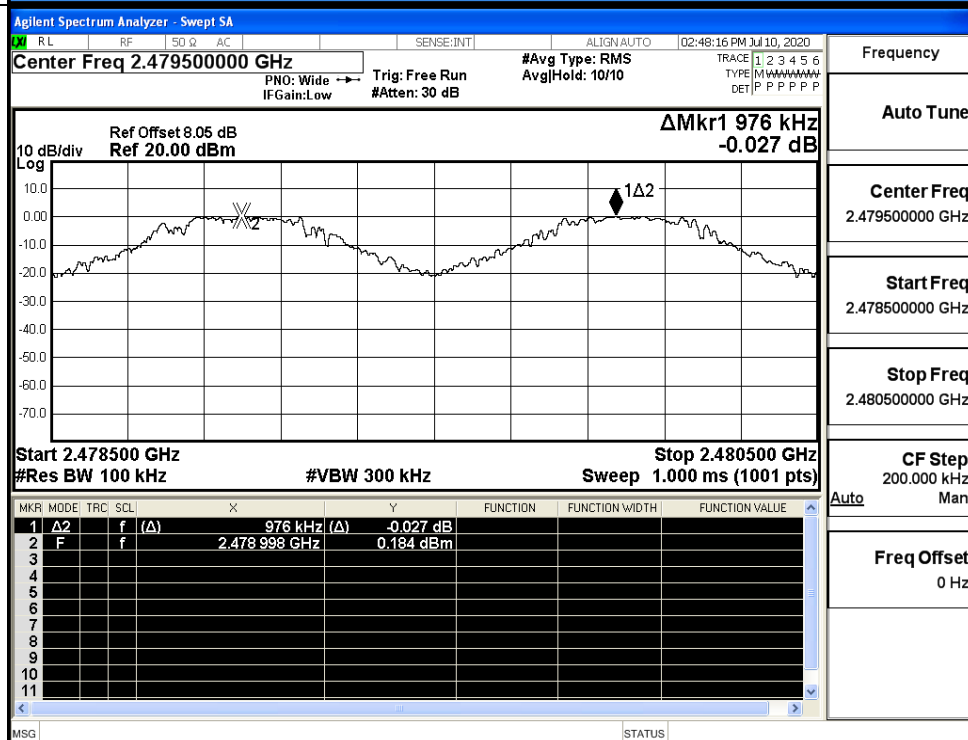
Test Graphs

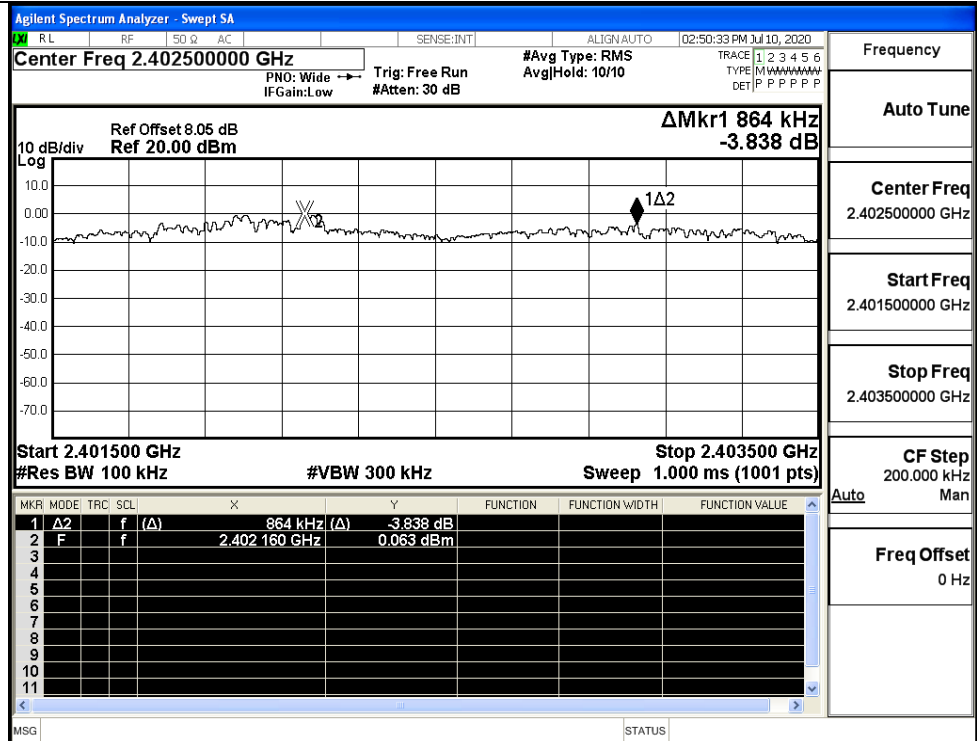
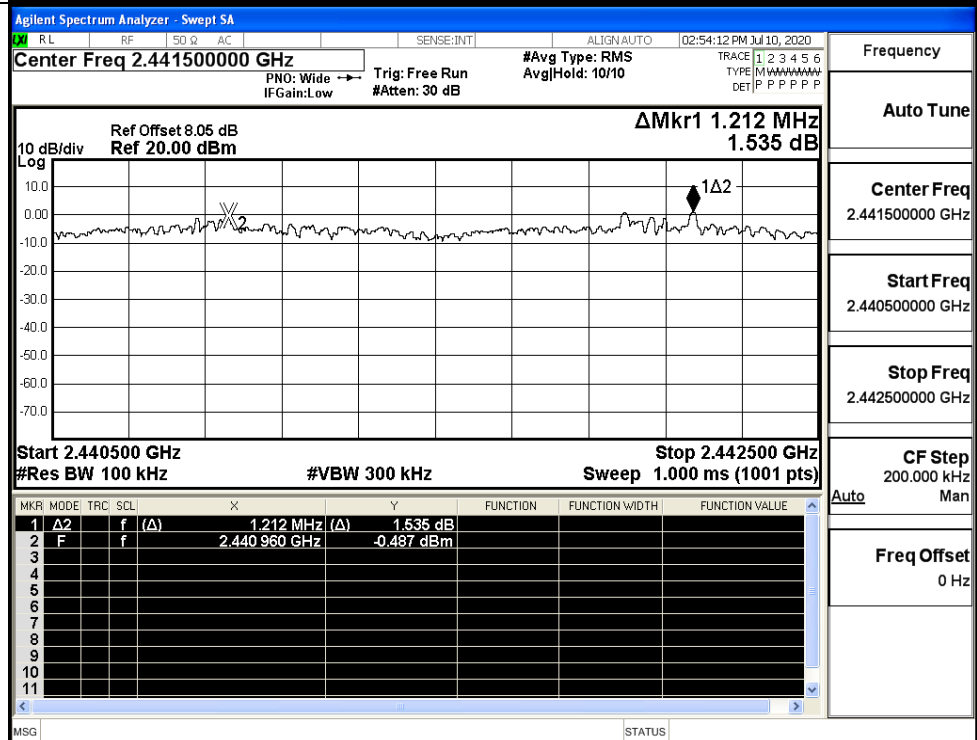


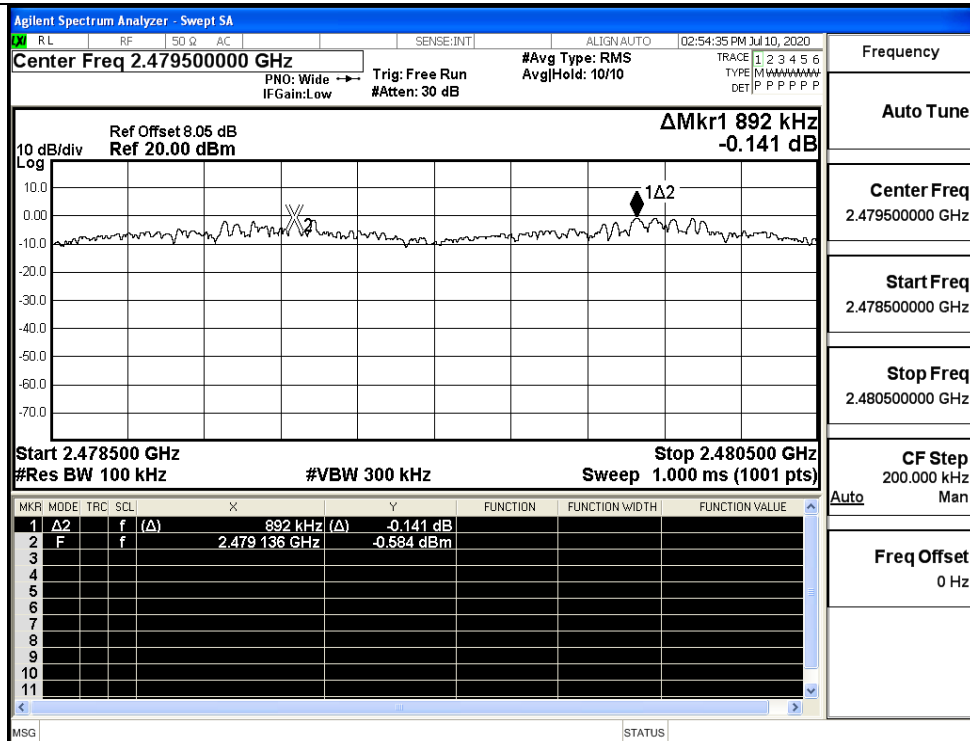
GFSK/MCH



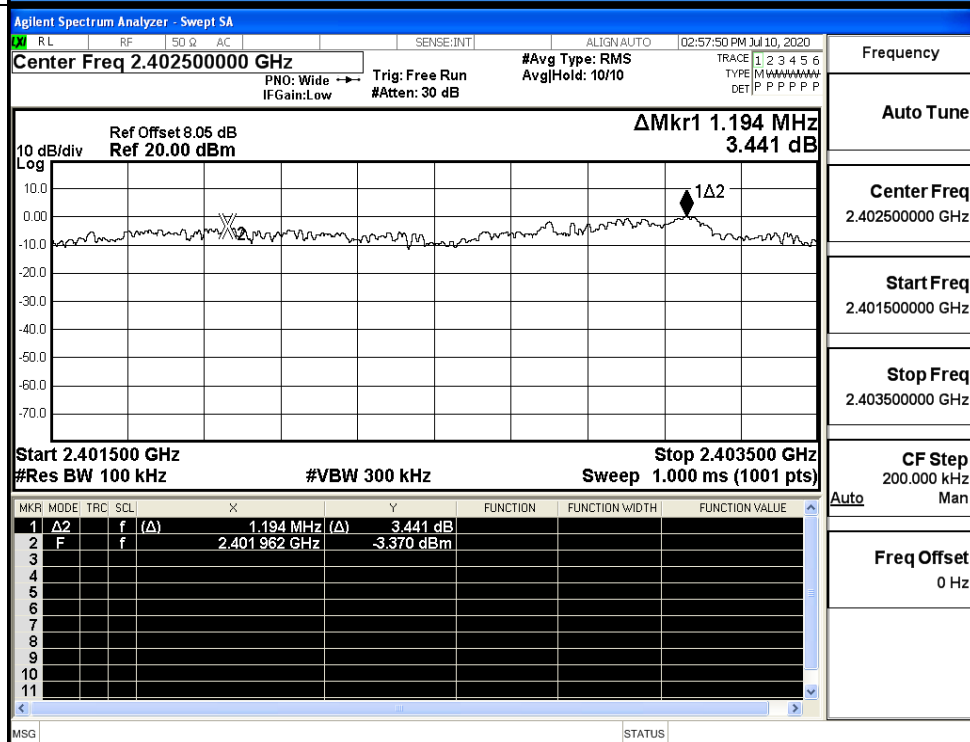
GFSK/HCH



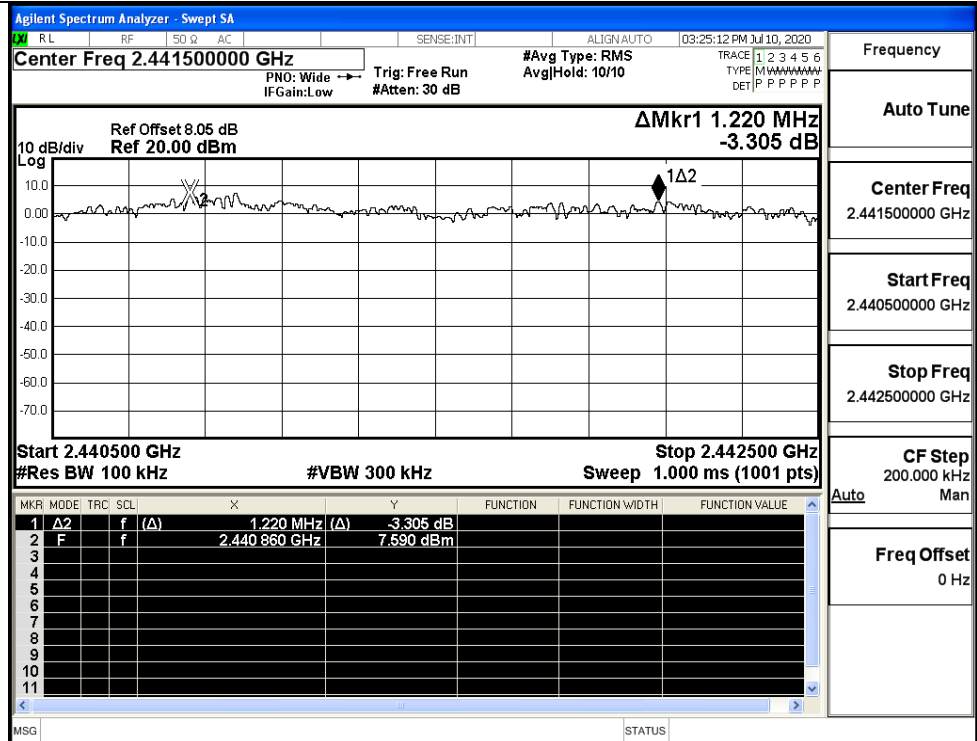
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

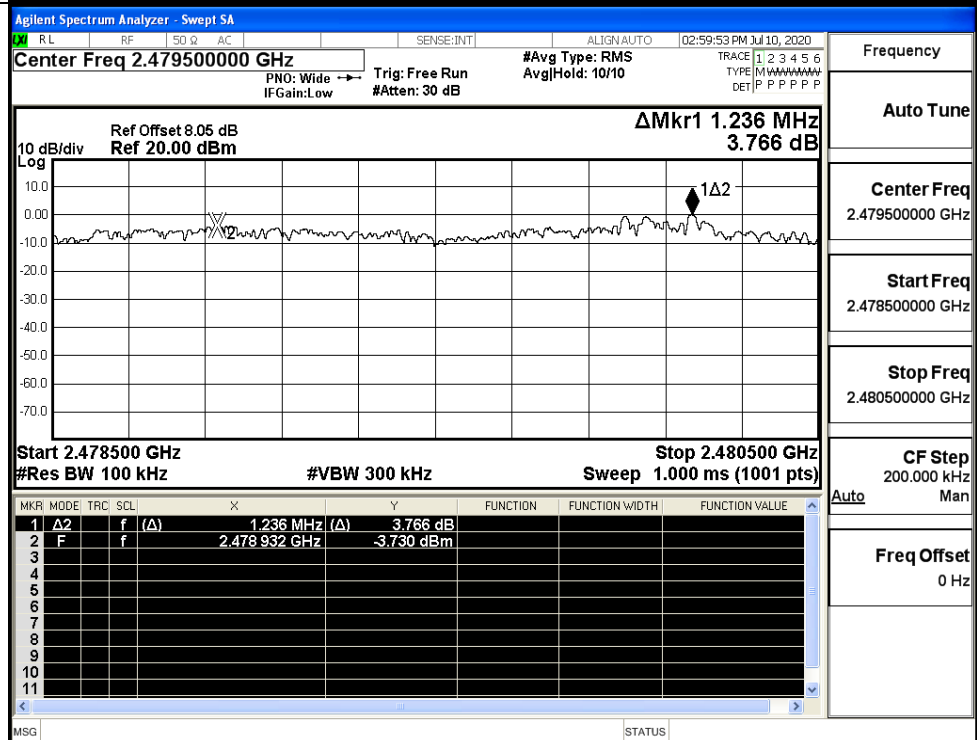
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

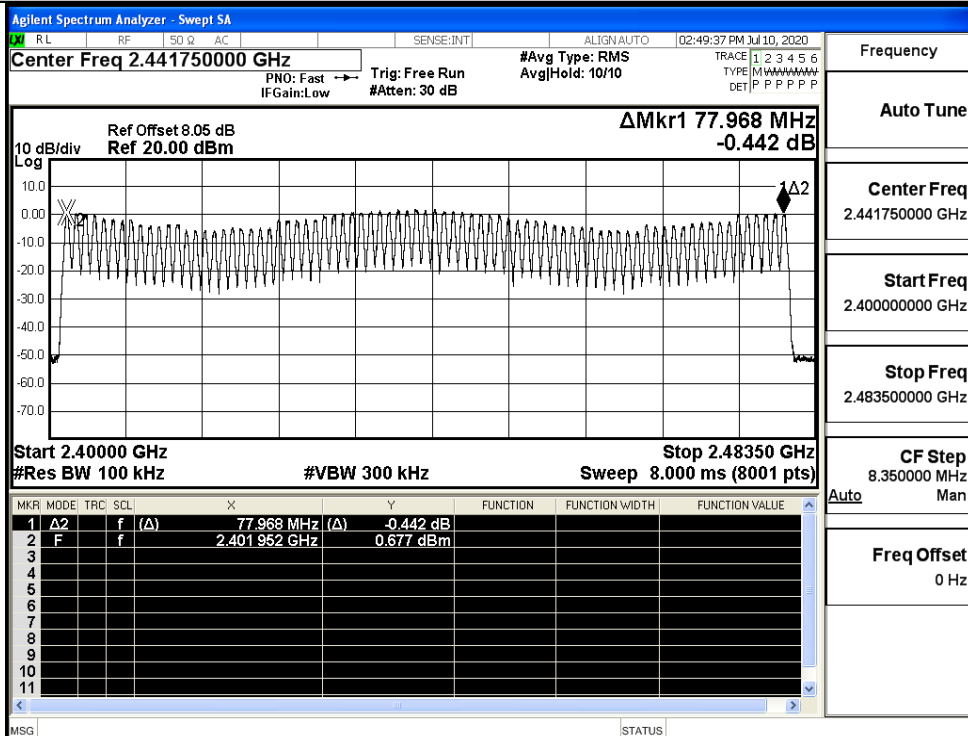


A.4 Hopping Channel Number

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

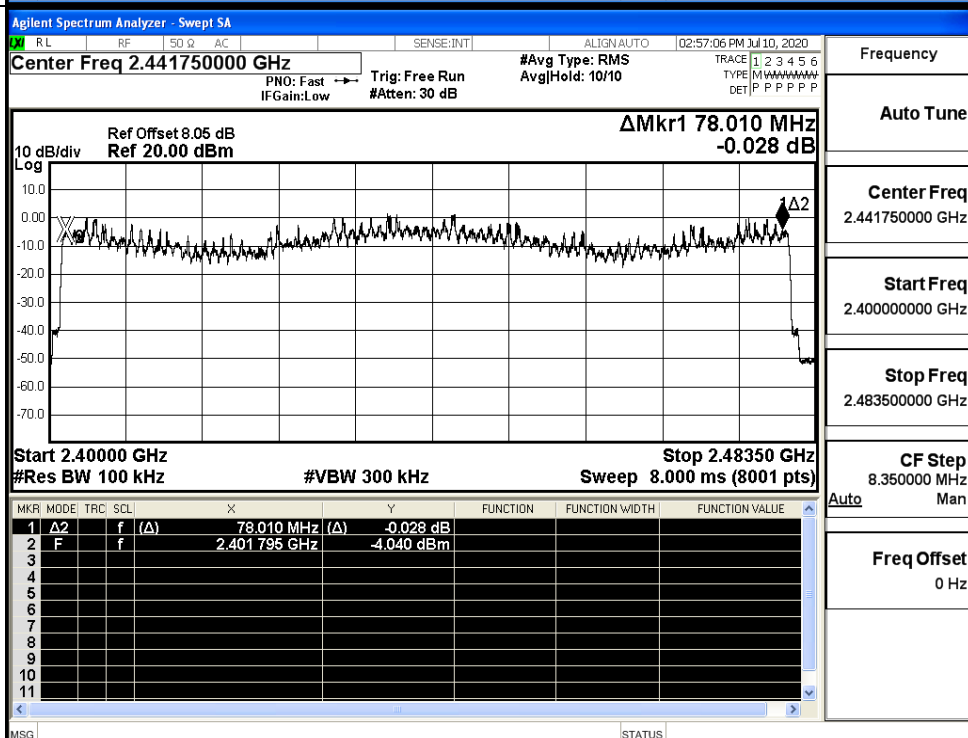
Test Graphs

GFSK/Hop



Frequency

Auto Tune

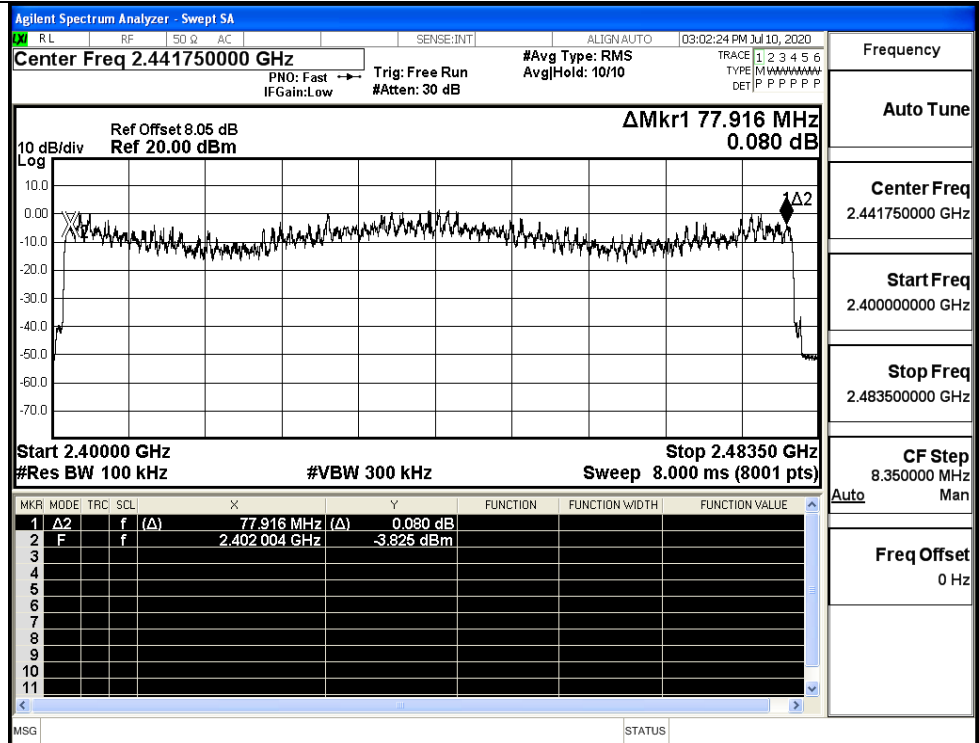
Center Freq
2.441750000 GHzStart Freq
2.400000000 GHzStop Freq
2.483500000 GHzCF Step
8.350000 MHz
Auto ManFreq Offset
0 Hz $\pi/4$ DQPSK/Hop

Frequency

Auto Tune

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

8DPSK/Hop

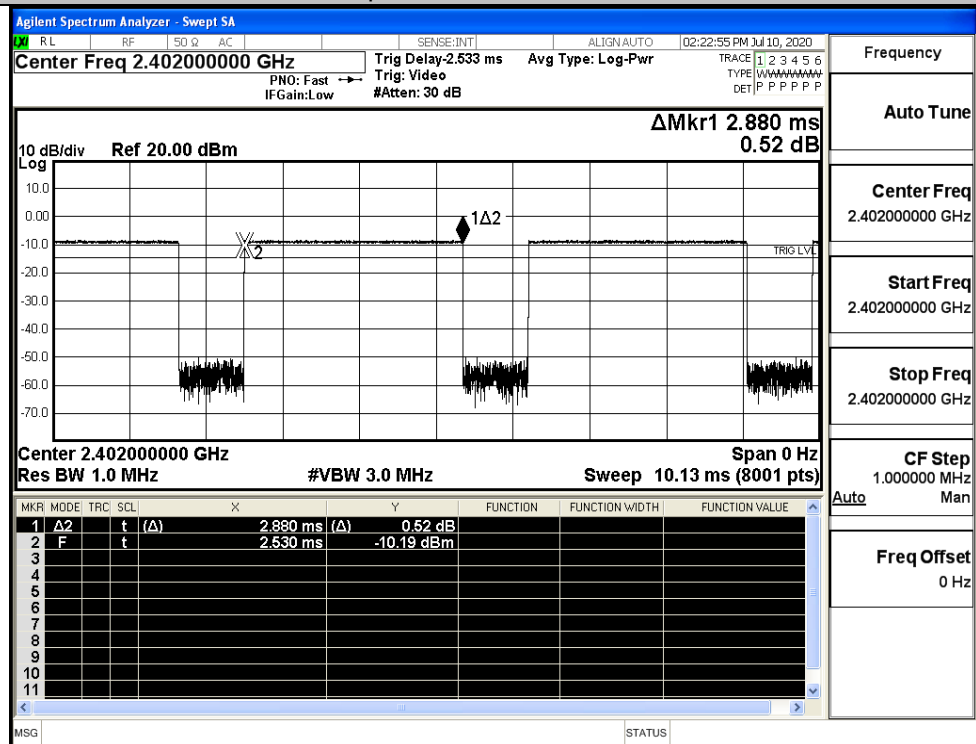


A.5 Dwell Time

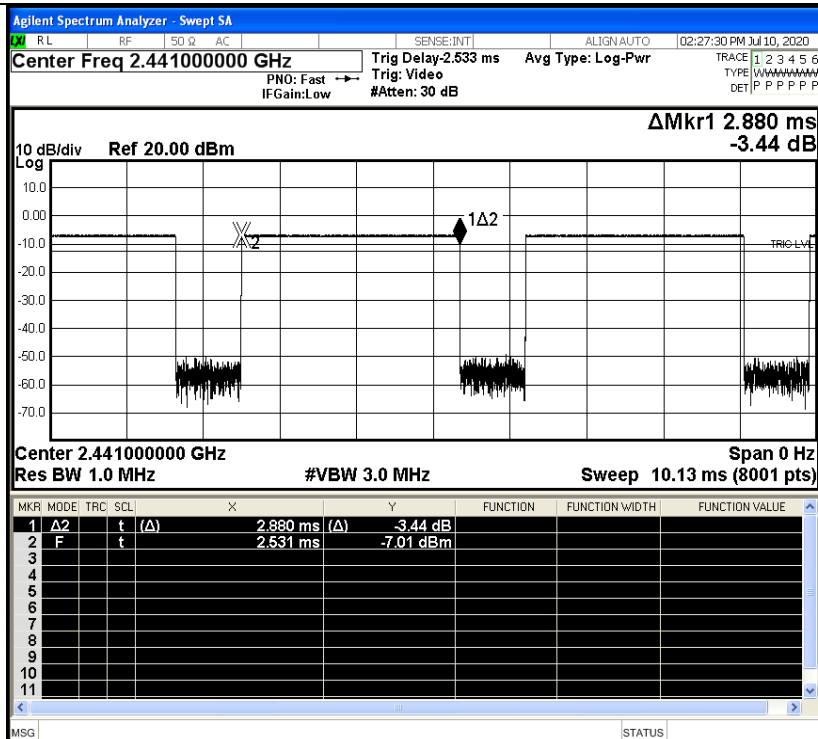
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

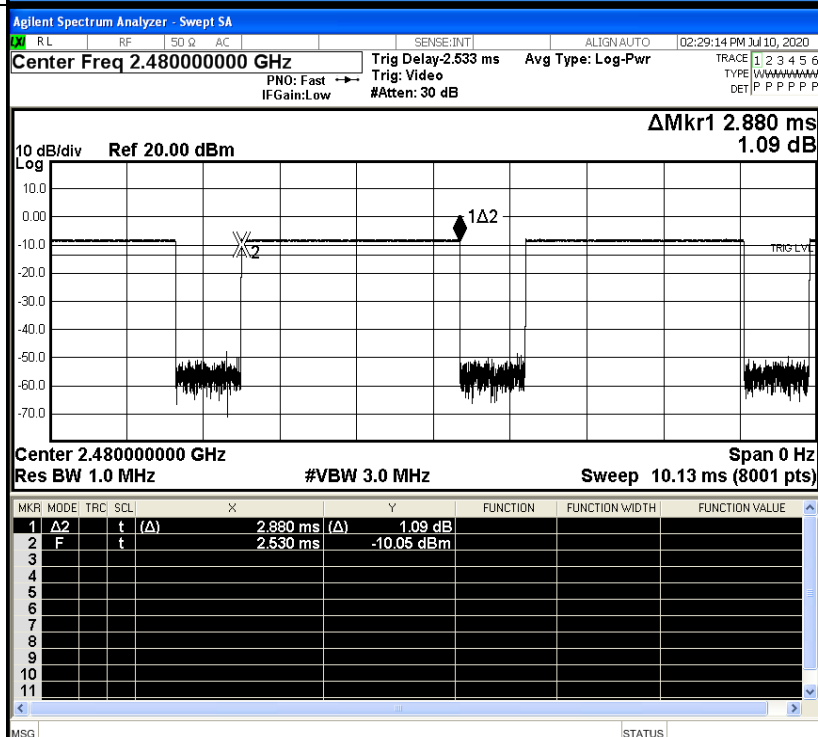


Frequency

Auto Tune

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

GFSK_DH5/HCH

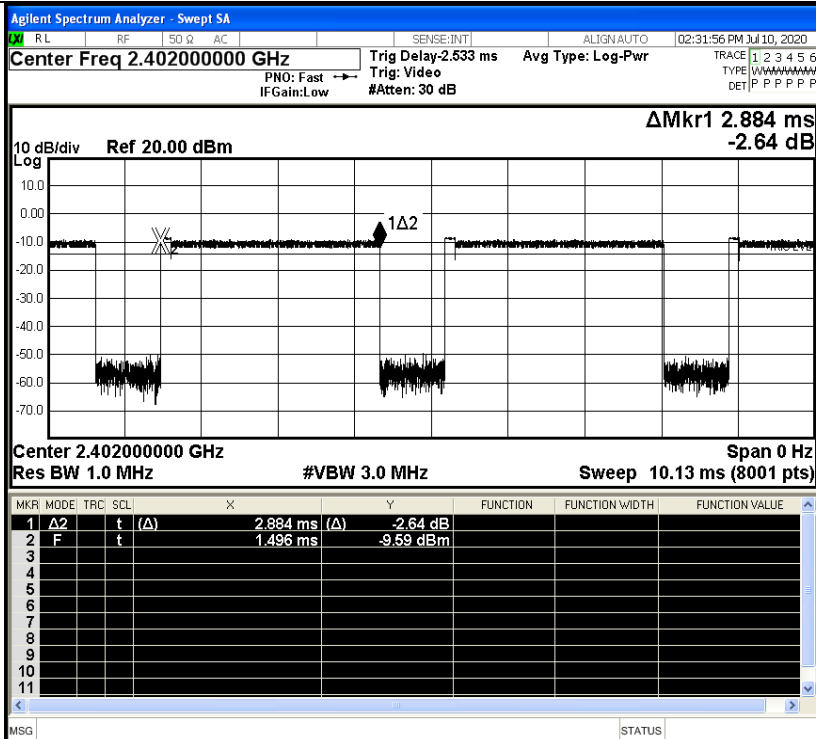


Frequency

Auto Tune

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

$\pi/4$ DQPSK
_2DH5/LCH

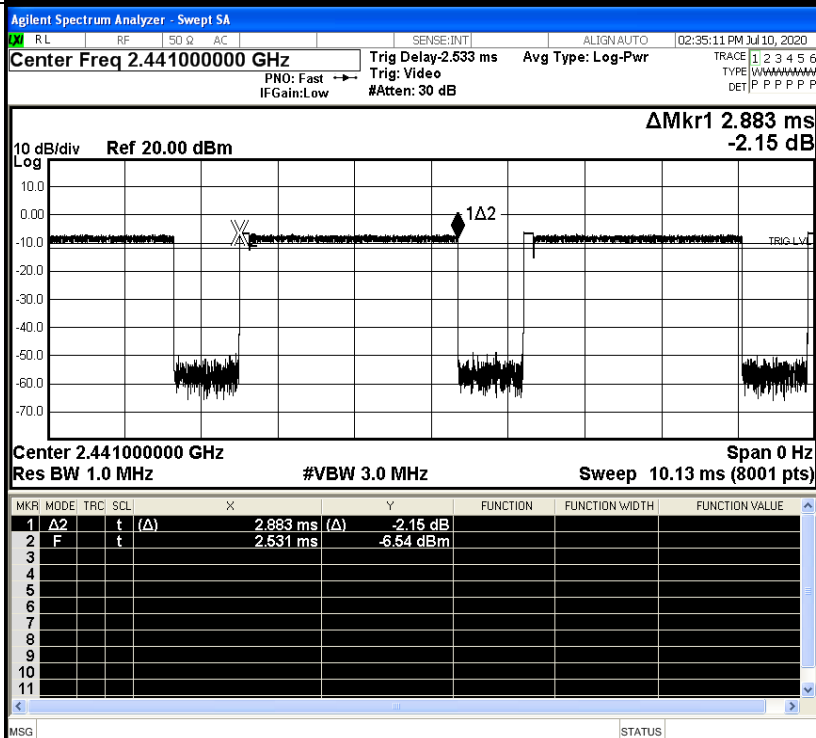


Frequency

Auto Tune

Center Freq
2.402000000 GHzStart Freq
2.402000000 GHzStop Freq
2.402000000 GHzCF Step
1.000000 MHz
Auto ManFreq Offset
0 Hz

$\pi/4$ DQPSK
_2DH5/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

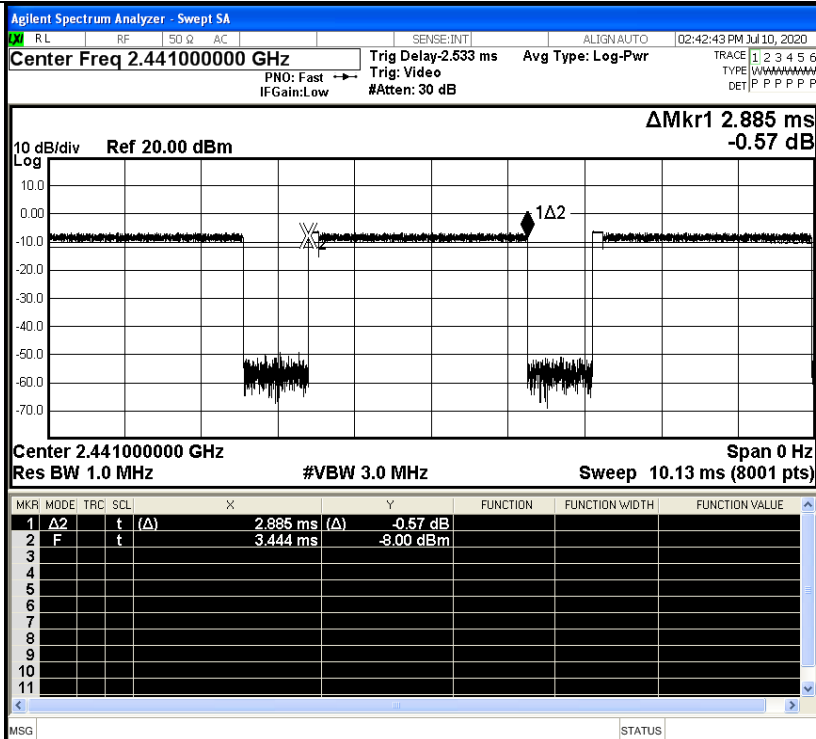
[illegible]

Frequency
Auto Tune
Center Freq 2.480000000 GHz
Start Freq 2.480000000 GHz
Stop Freq 2.480000000 GHz
CF Step 1.000000 MHz <u>Auto</u> Man
Freq Offset 0 Hz

[illegible]

Frequency
Auto Tune
Center Freq 2.402000000 GHz
Start Freq 2.402000000 GHz
Stop Freq 2.402000000 GHz
CF Step 1.000000 MHz <u>Auto</u> Man
Freq Offset 0 Hz

8DPSK_3DH5/MCH

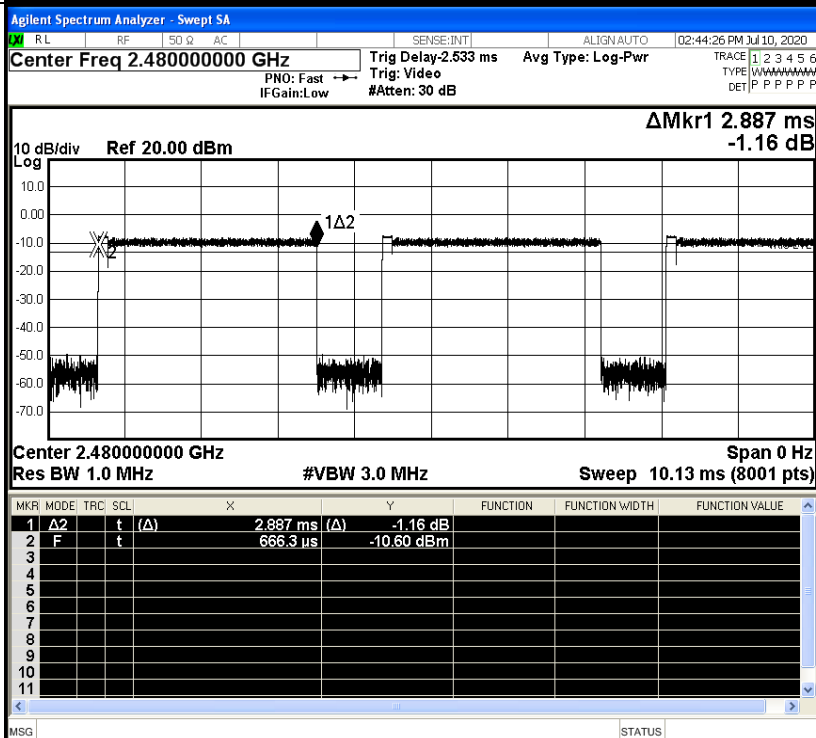


Frequency

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

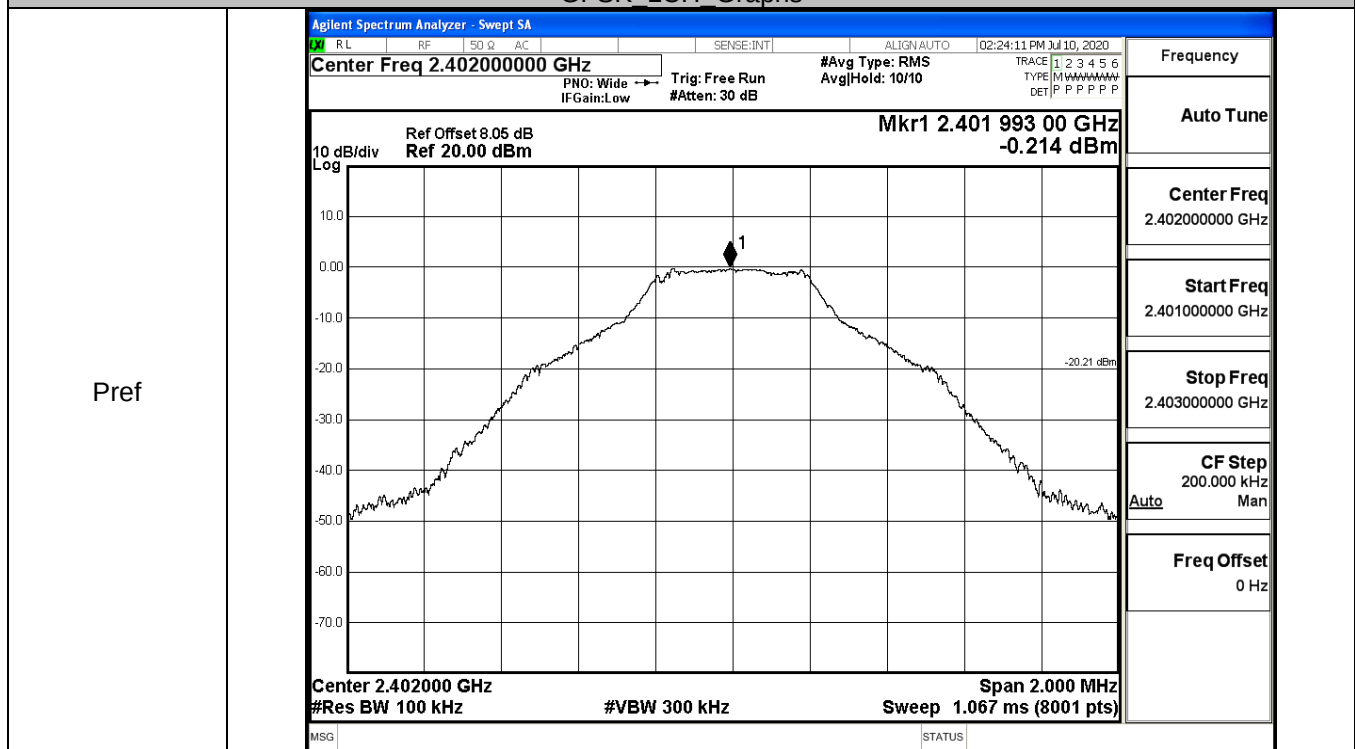
Auto Tune

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

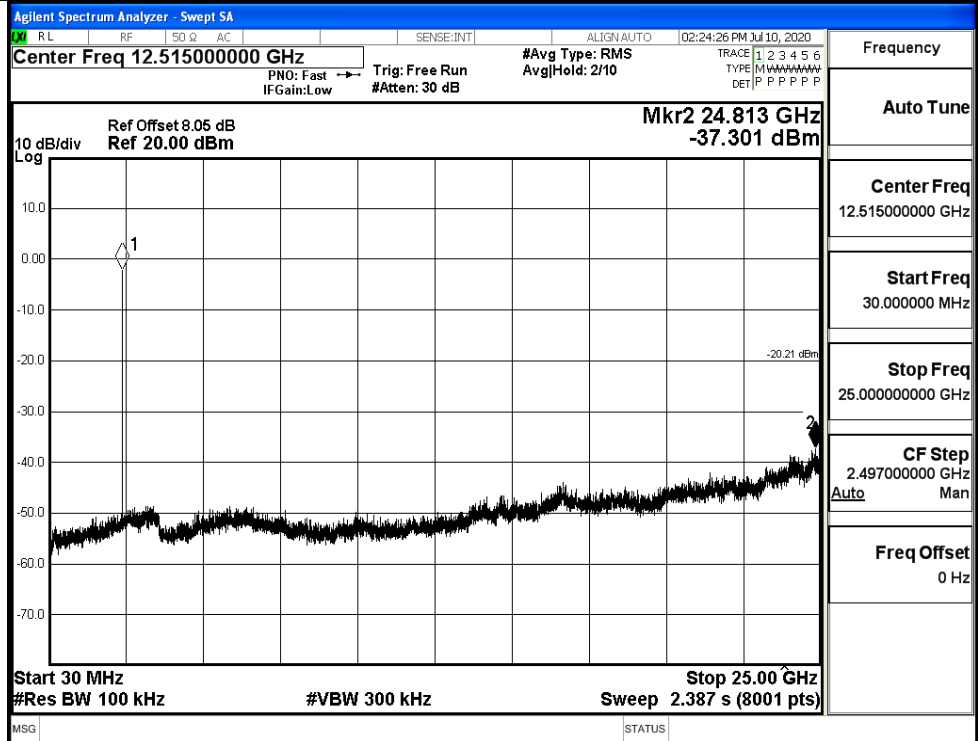
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.214	-37.301	-20.214	PASS
	MCH	0.753	-38.247	-19.247	PASS
	HCH	-0.506	-36.517	-20.506	PASS
$\pi/4$ DQPSK	LCH	0.289	-37.240	-19.711	PASS
	MCH	1.546	-37.923	-18.454	PASS
	HCH	0.168	-37.987	-19.832	PASS
8DPSK	LCH	0.227	-37.650	-19.773	PASS
	MCH	1.498	-37.804	-18.502	PASS
	HCH	0.091	-37.362	-19.909	PASS

GFSK LCH Graphs

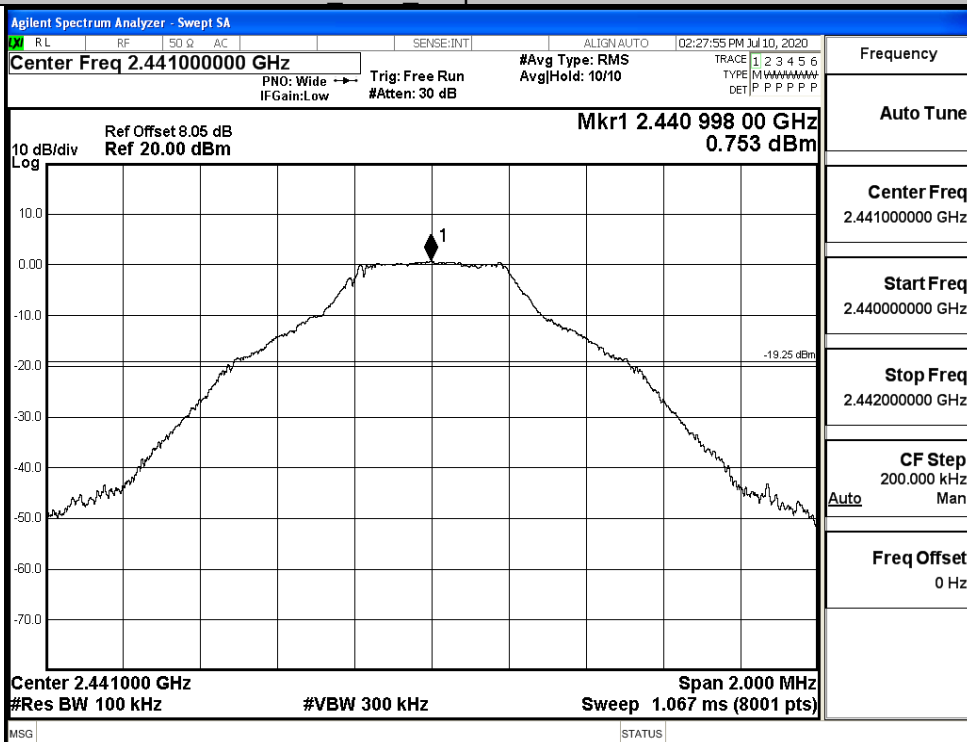


Puw

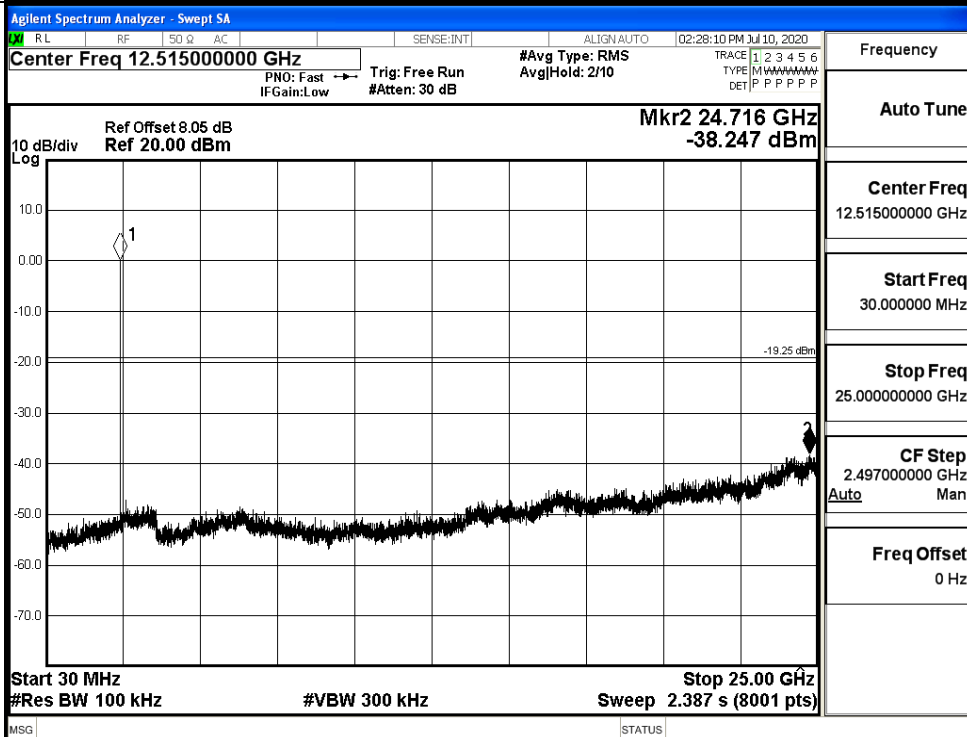


GFSK MCH Graphs

Pref

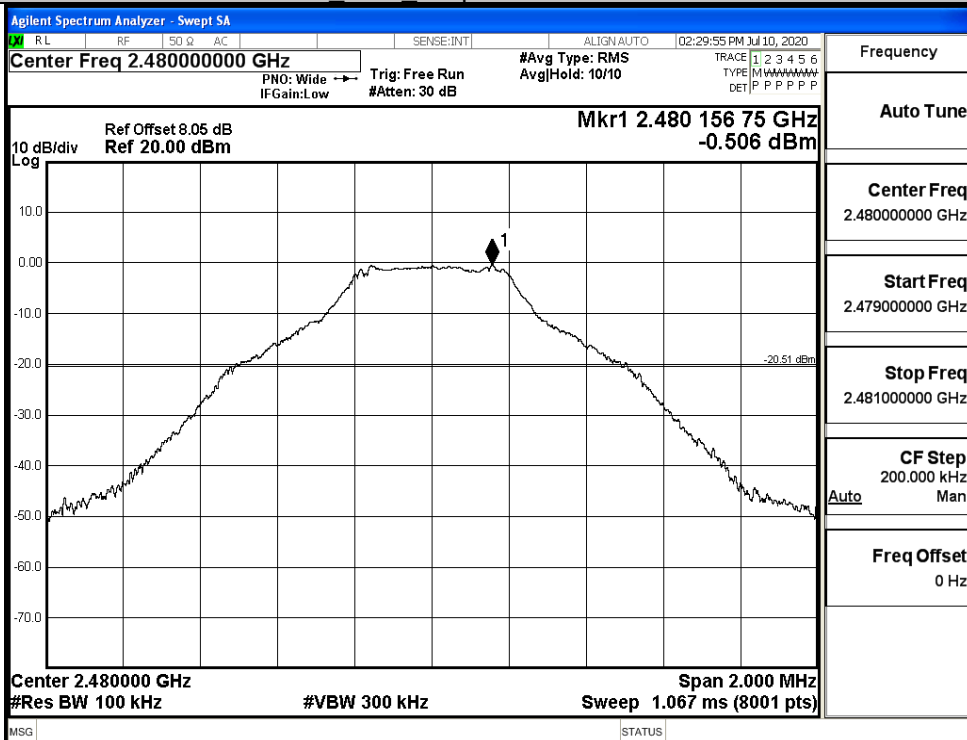


Puw

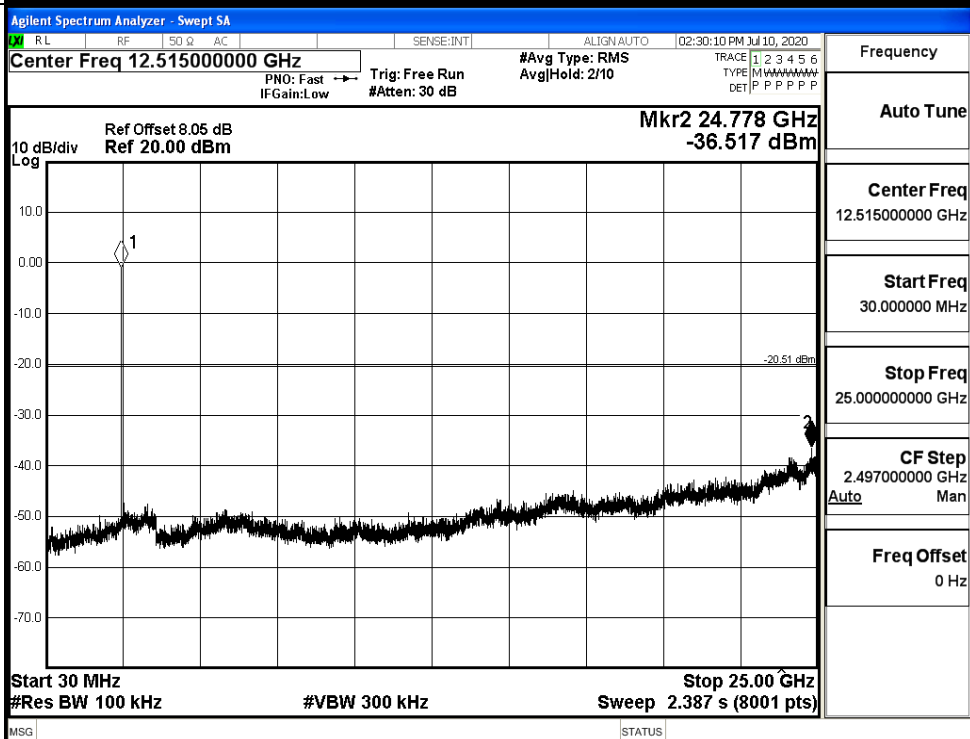


GFSK HCH Graphs

Pref

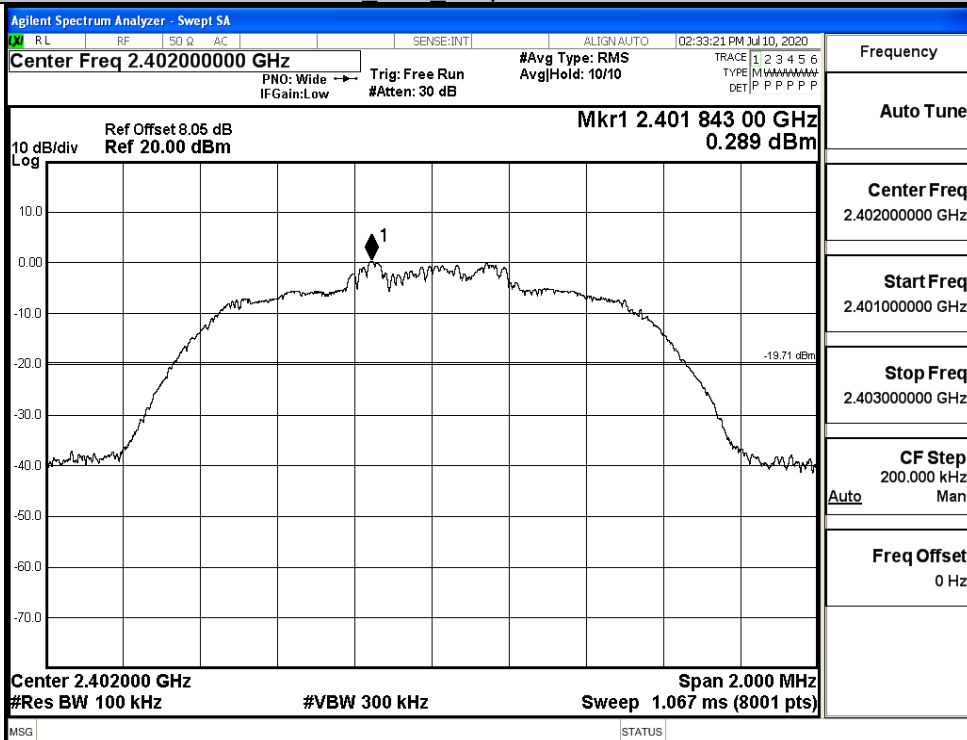


Puw

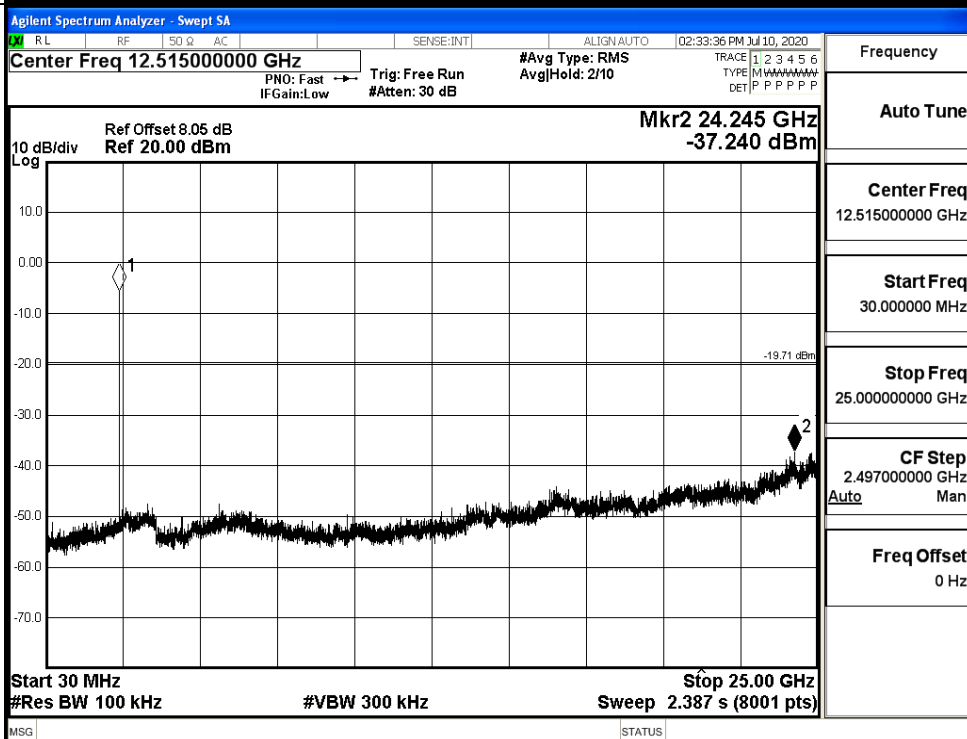


π /4DQPSK LCH Graphs

Pref

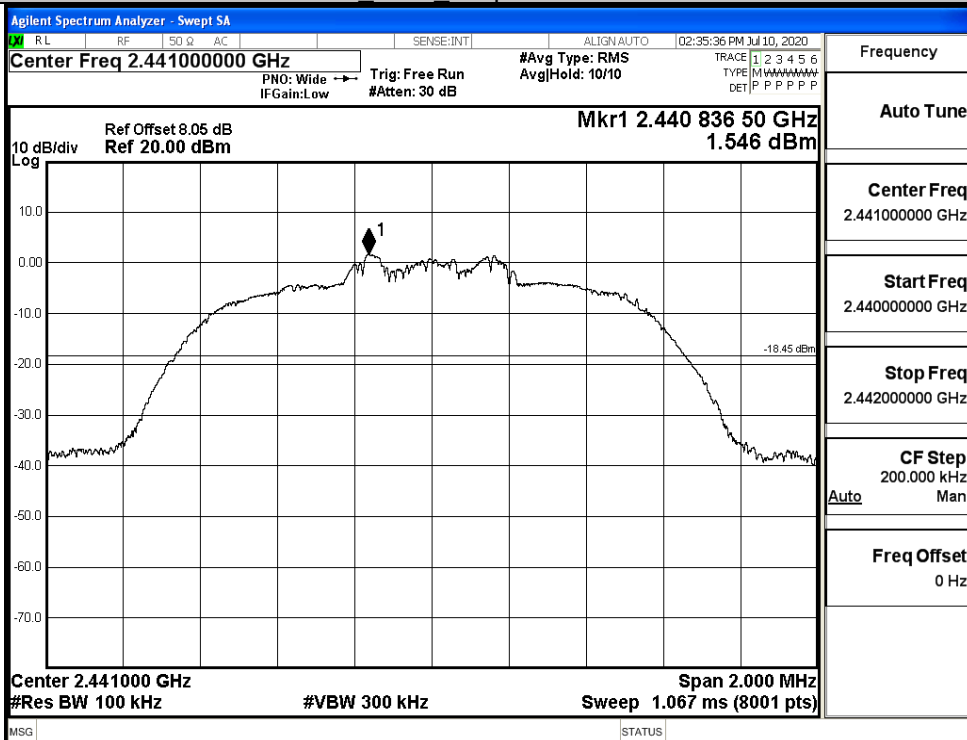


Puw

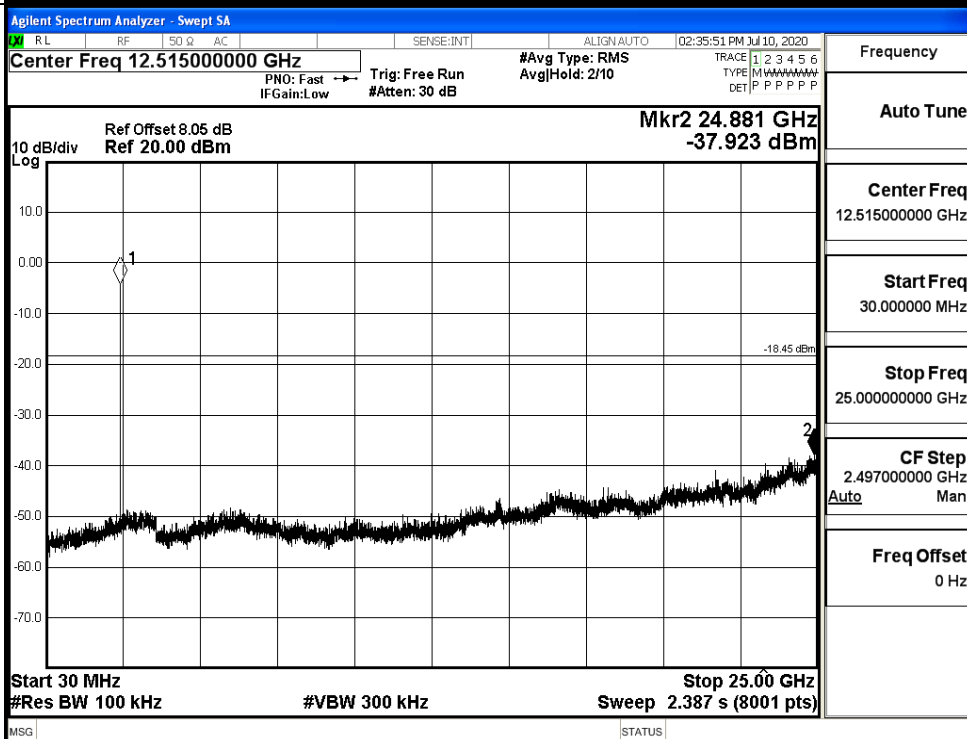


π /4DQPSK MCH Graphs

Pref

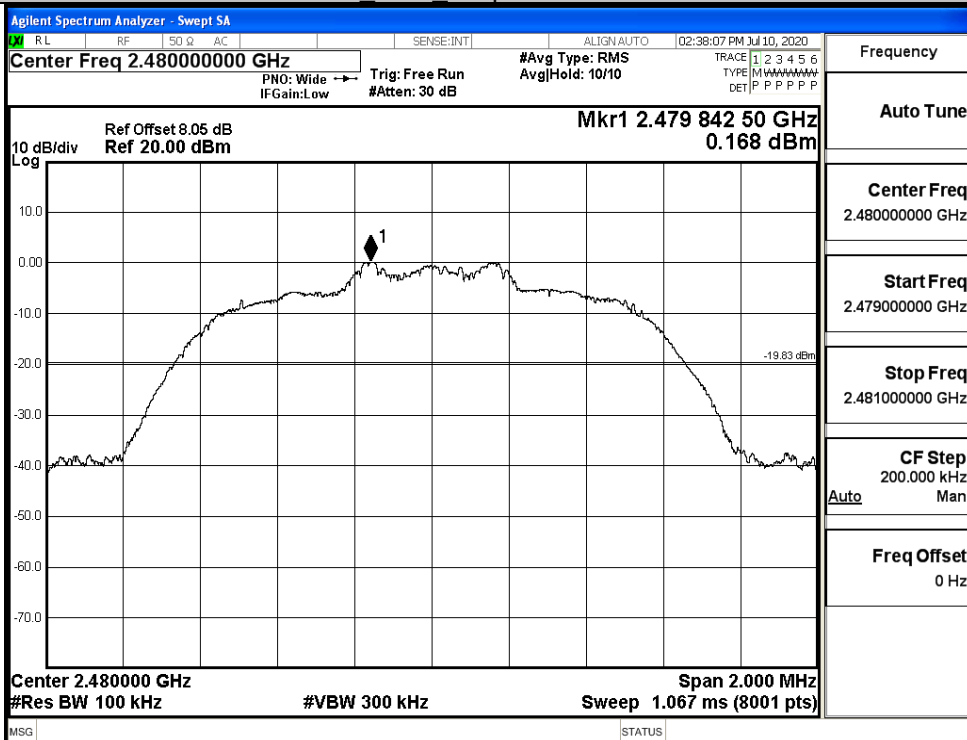


Puw

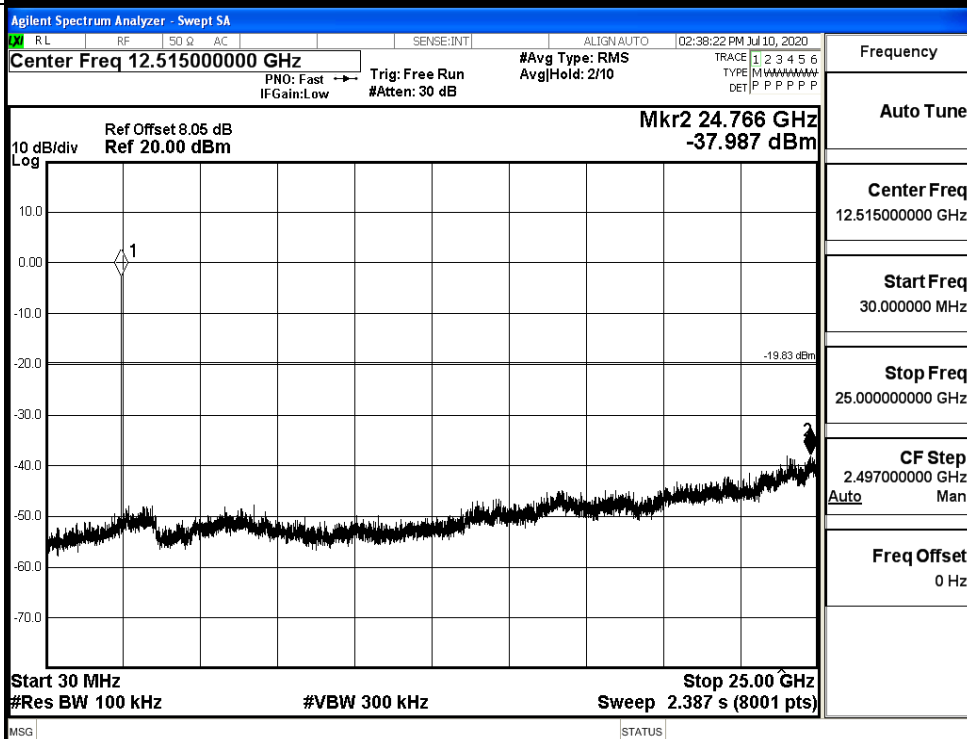


$\pi/4$ DQPSK HCH Graphs

Pref

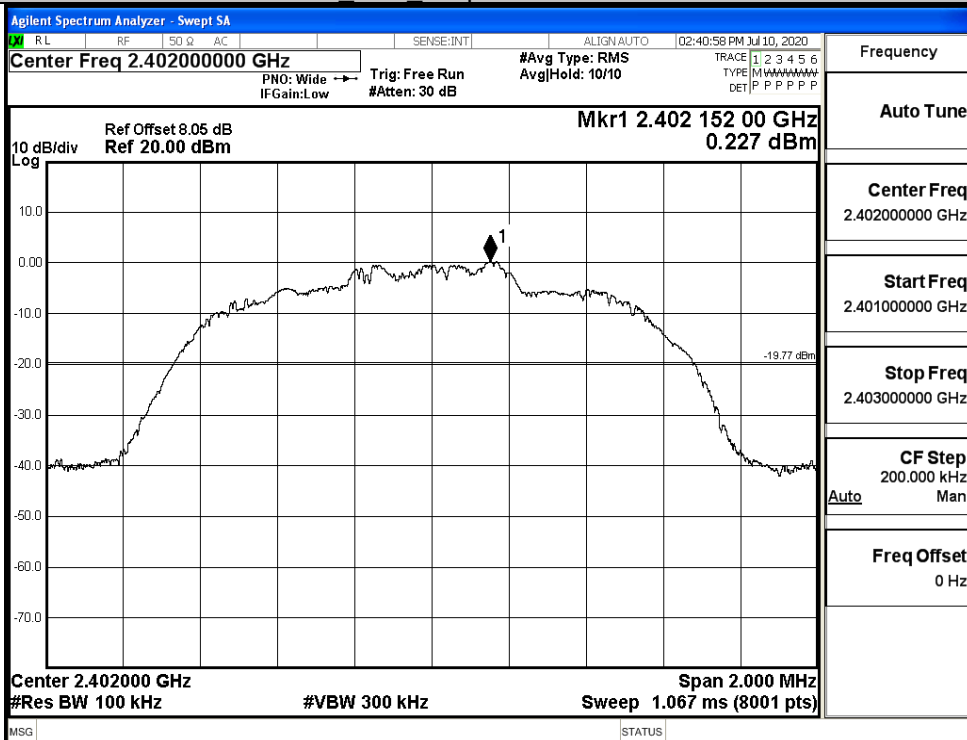


Puw

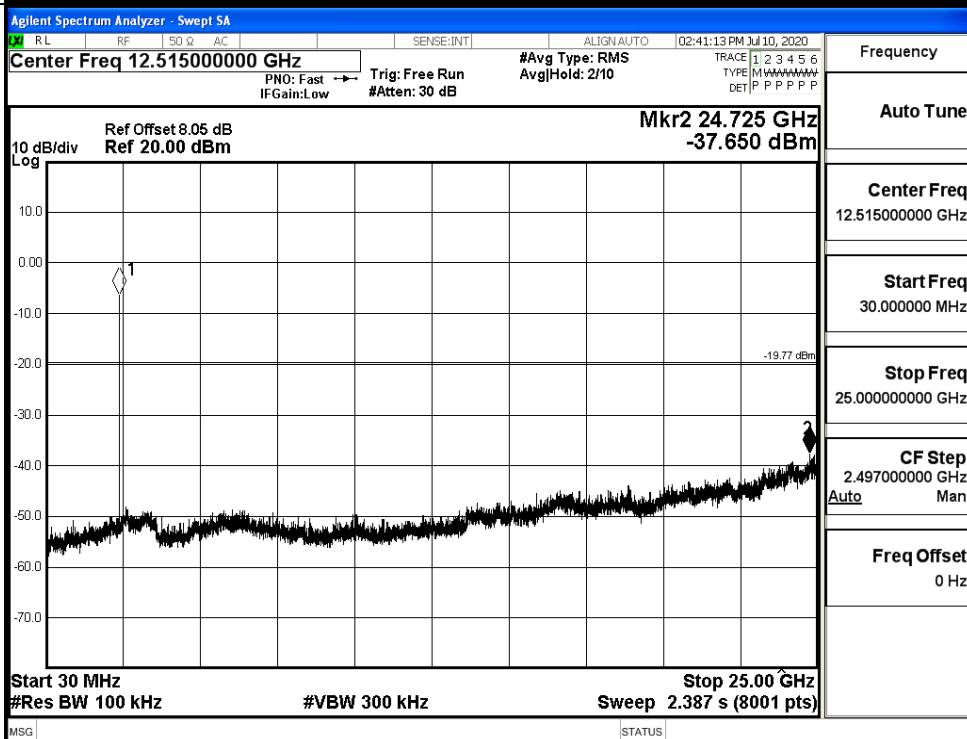


8DPSK LCH Graphs

Pref

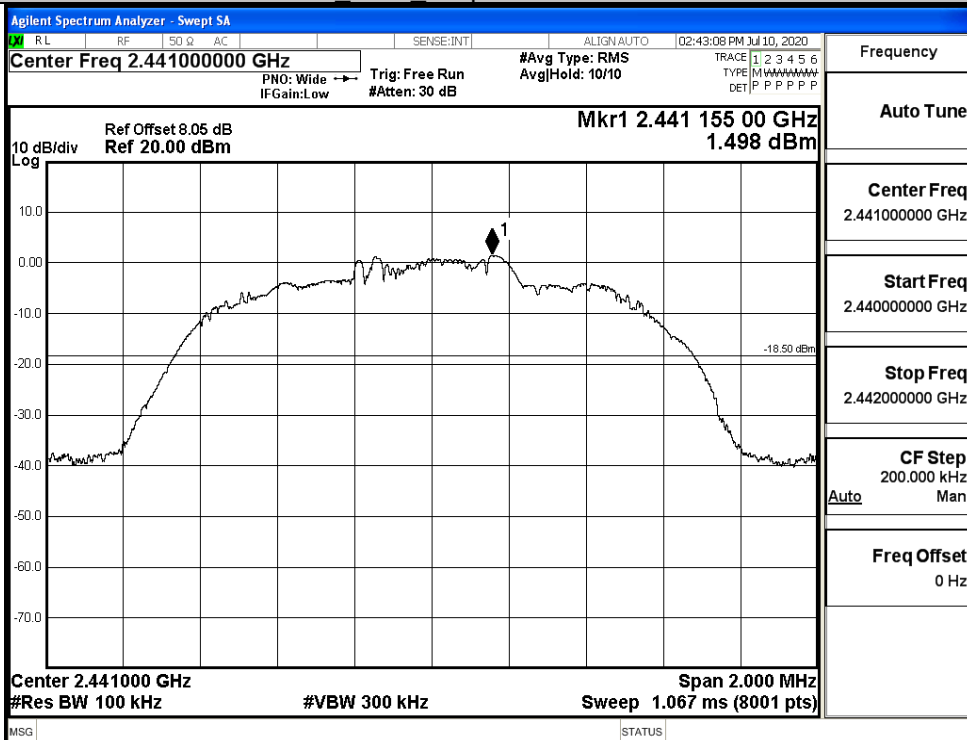


Puw

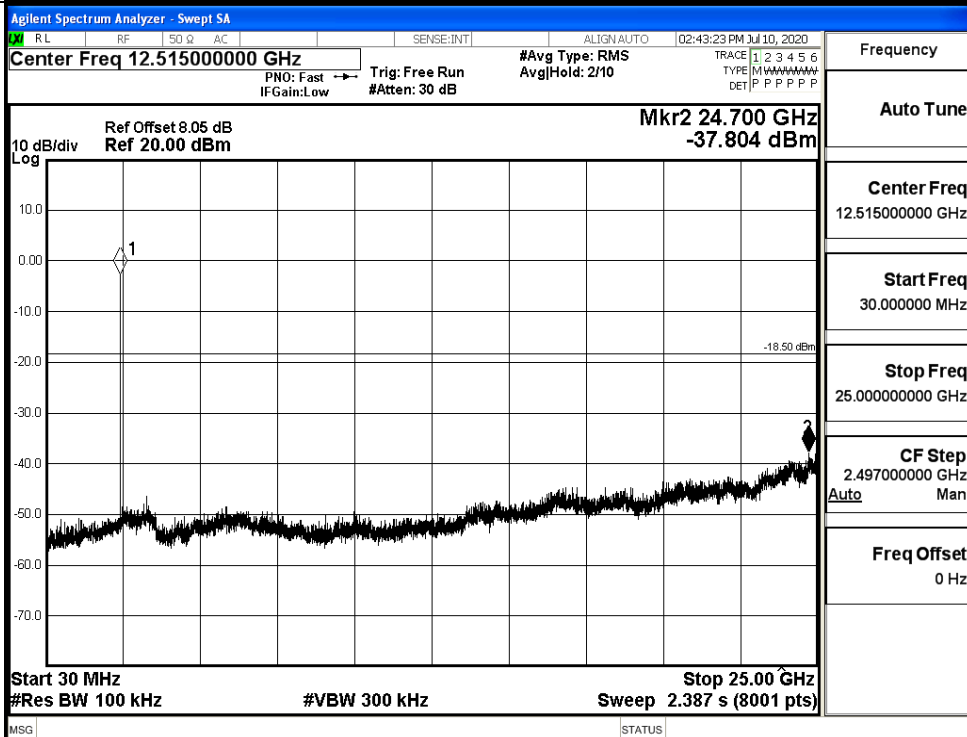


8DPSK MCH Graphs

Pref

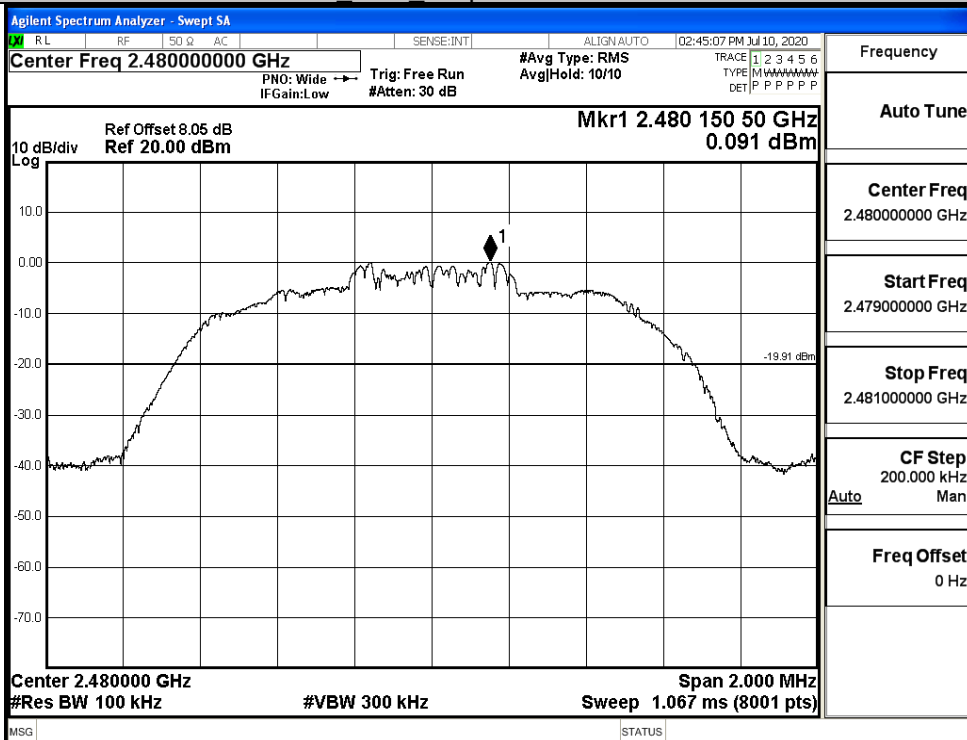


Puw

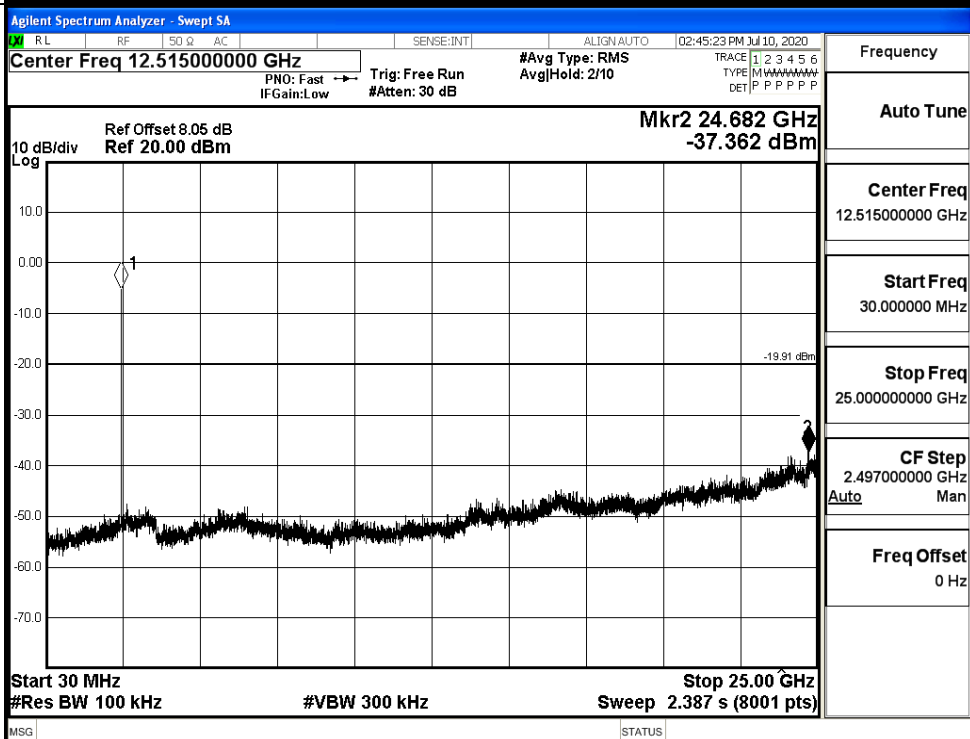


8DPSK_HCH Graphs

Pref



Puw

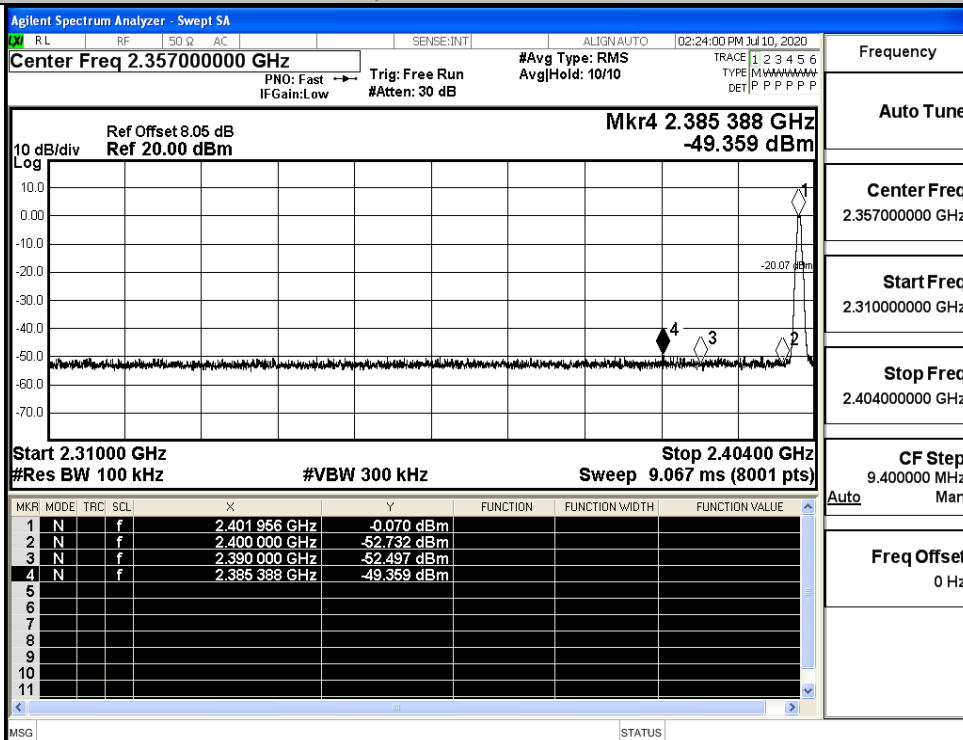


A.7 Band-edge for RF Conducted Emissions

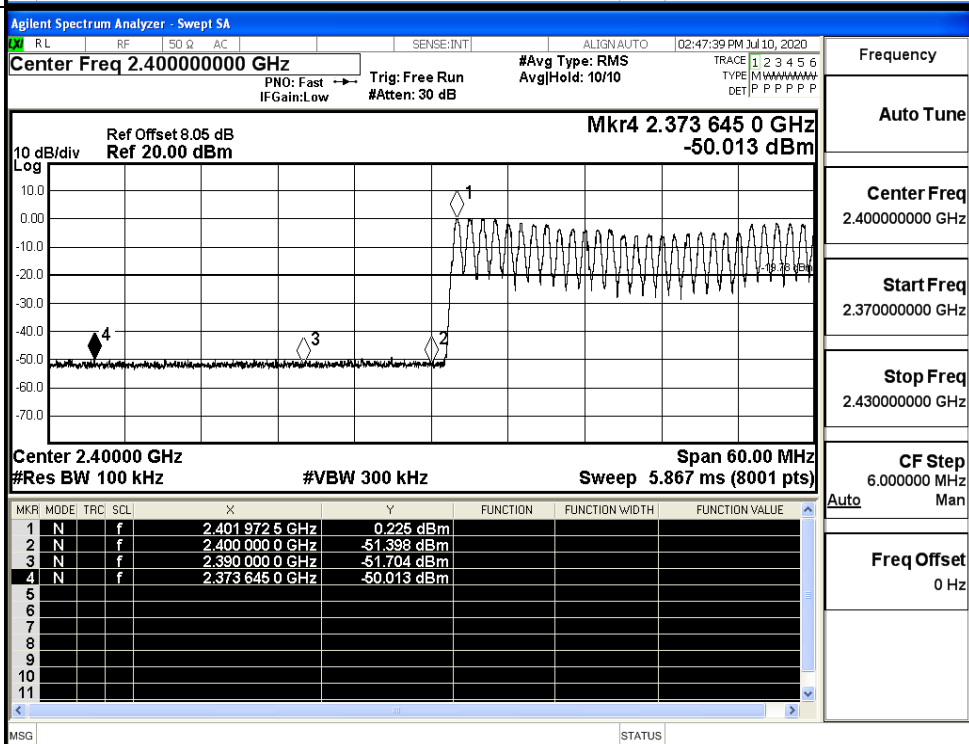
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-0.070	Off	-49.359	-20.07	PASS
			0.225	On	-50.013	-19.78	PASS
	HCH	2480	-0.186	Off	-47.682	-20.19	PASS
			0.451	On	-48.863	-19.55	PASS
$\pi/4$ DQPSK	LCH	2402	0.307	Off	-49.231	-19.69	PASS
			-1.869	On	-49.030	-21.87	PASS
	HCH	2480	0.168	Off	-49.396	-19.83	PASS
			-0.300	On	-48.601	-20.3	PASS
8DPSK	LCH	2402	0.290	Off	-48.451	-19.71	PASS
			-0.715	On	-47.758	-20.72	PASS
	HCH	2480	-0.190	Off	-49.424	-20.19	PASS
			-0.359	On	-48.203	-20.36	PASS

Test Graphs

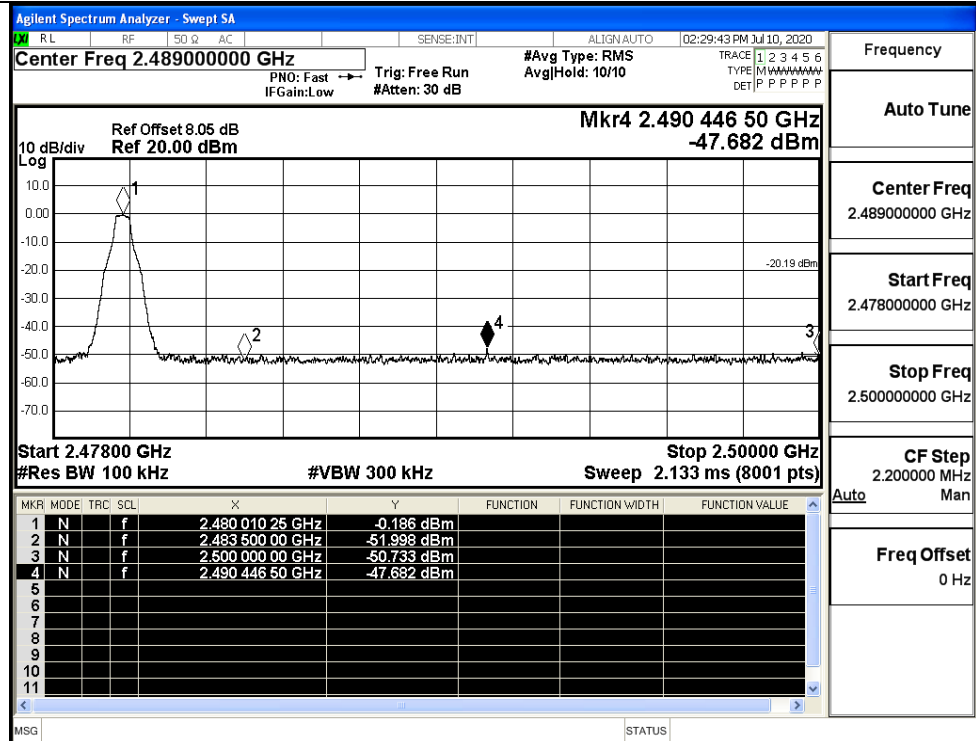
GFSK/LCH/No Hop



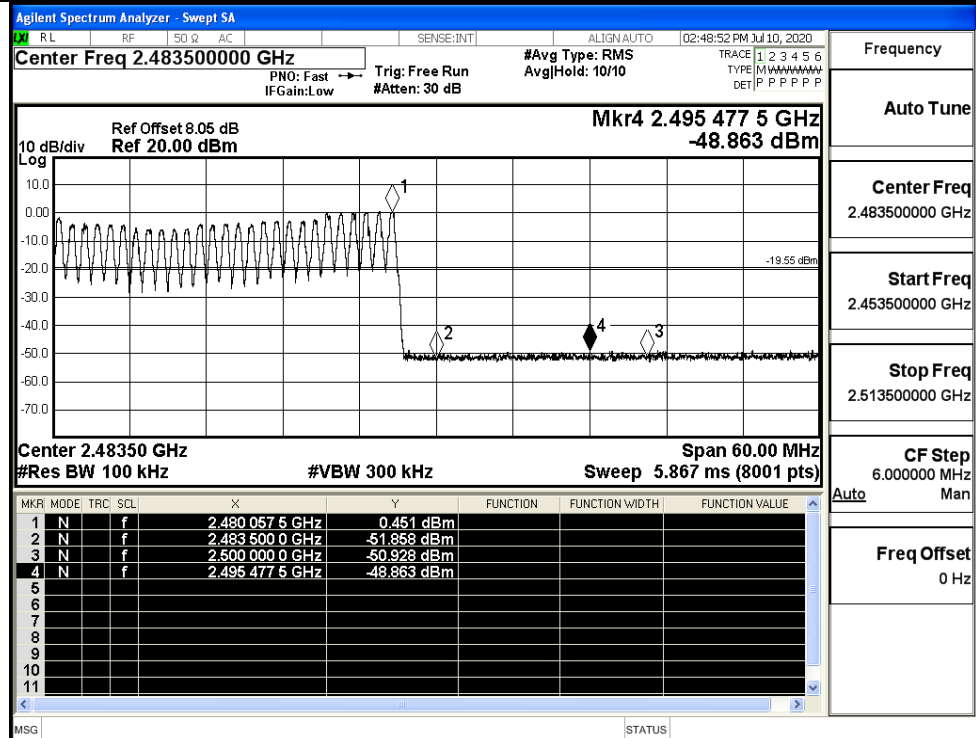
GFSK/LCH/Hop



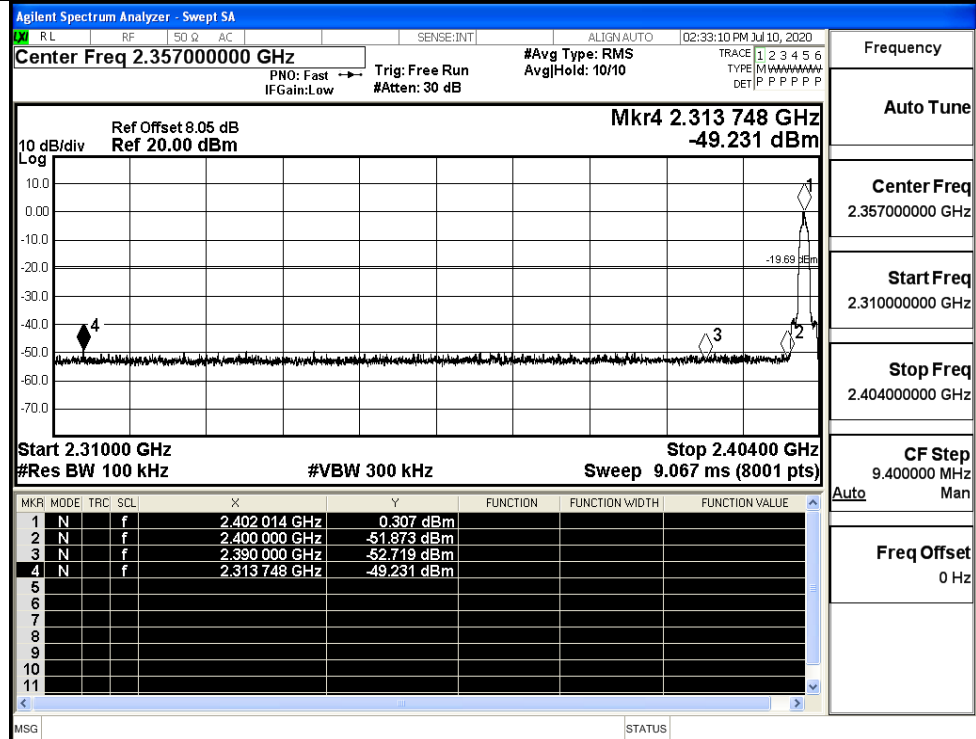
GFSK/HCH/No Hop



GFSK/HCH/Hop



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

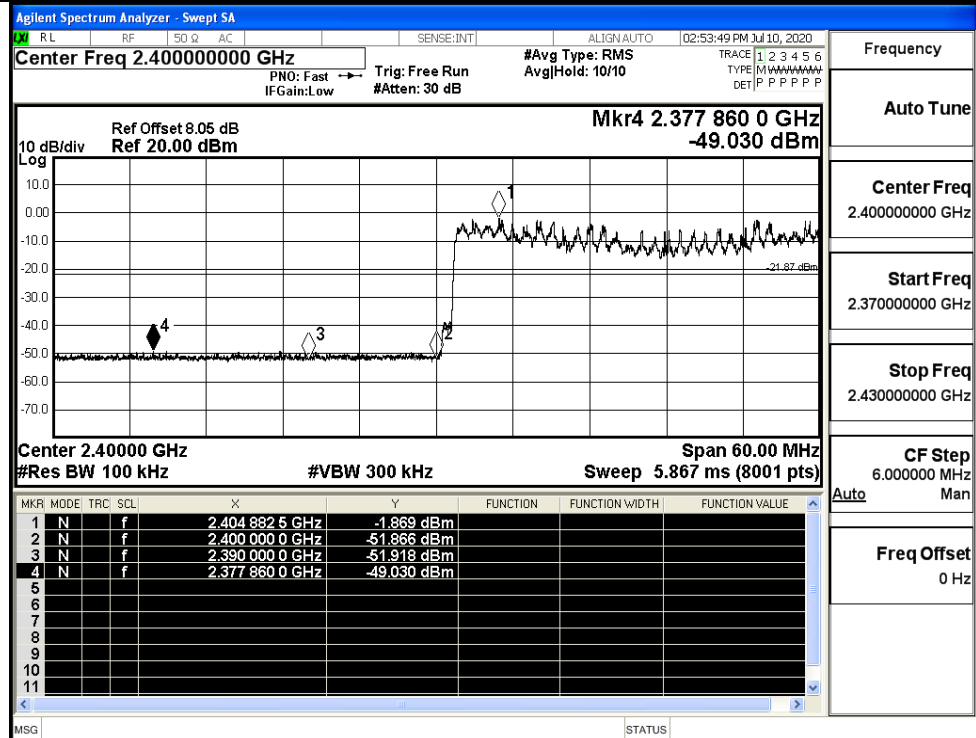


Frequency

Auto Tune

Center Freq
2.357000000 GHzStart Freq
2.310000000 GHzStop Freq
2.404000000 GHzCF Step
9.400000 MHz
Auto ManFreq Offset
0 Hz

$\pi/4$ DQPSK/LCH/Hop

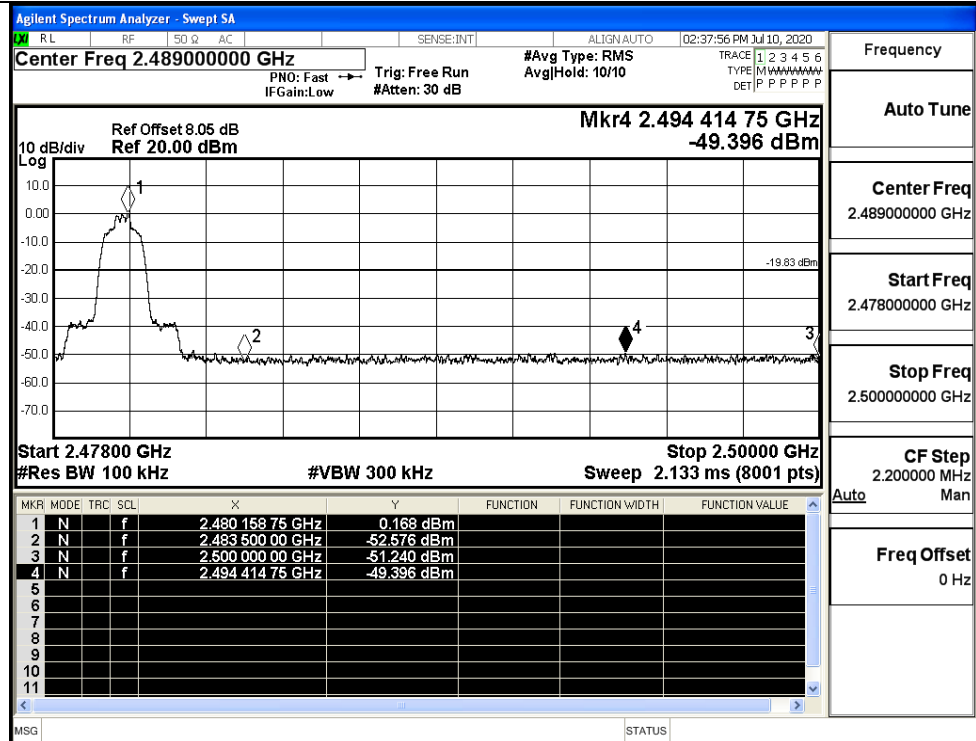


Frequency

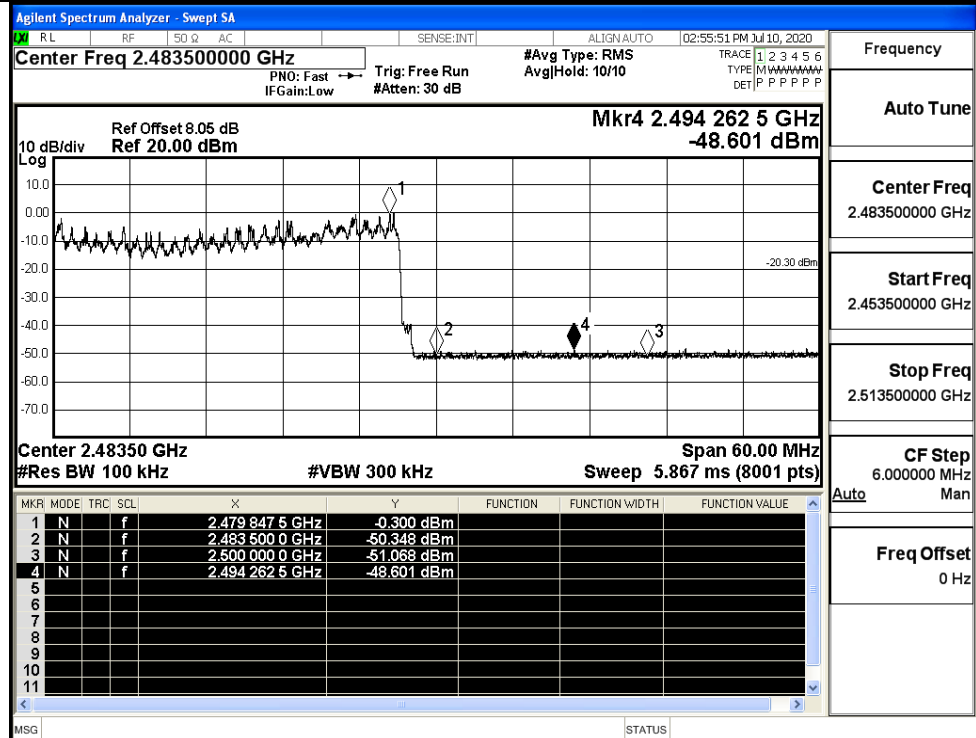
Auto Tune

Center Freq
2.400000000 GHzStart Freq
2.370000000 GHzStop Freq
2.430000000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

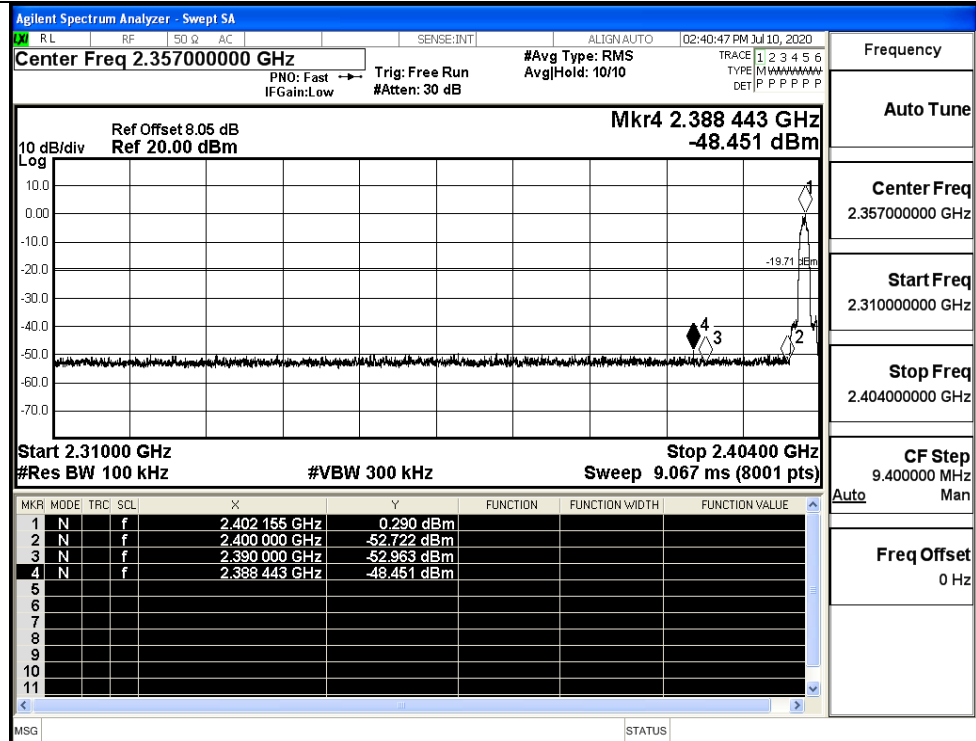
$\pi/4$ DQPSK/HCH/No
Hop



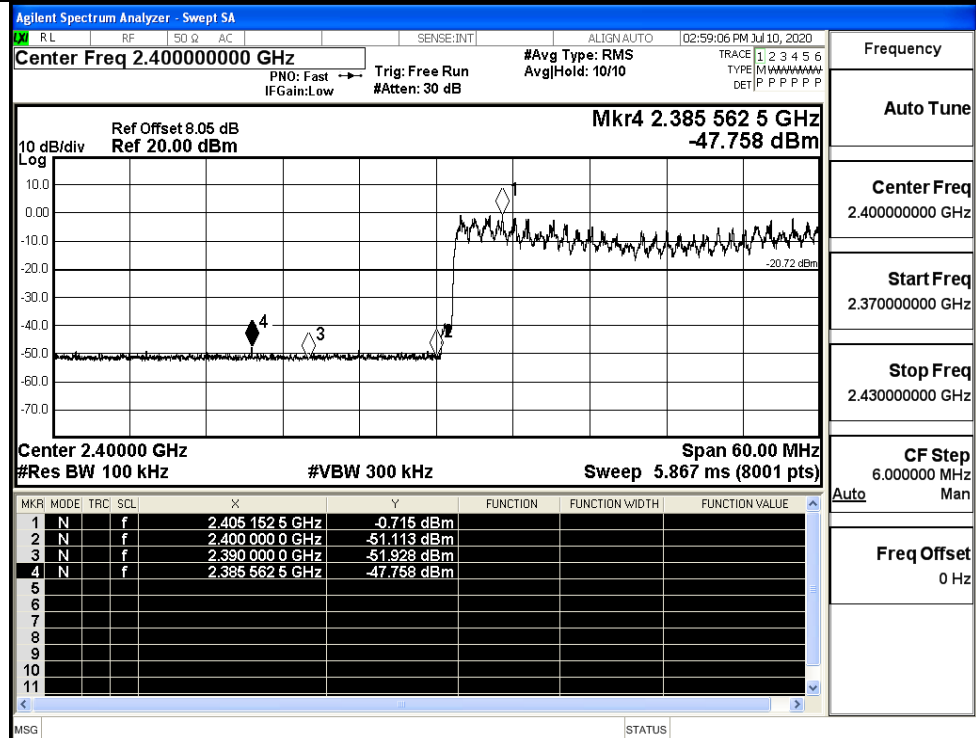
$\pi/4$ DQPSK/HCH/Hop



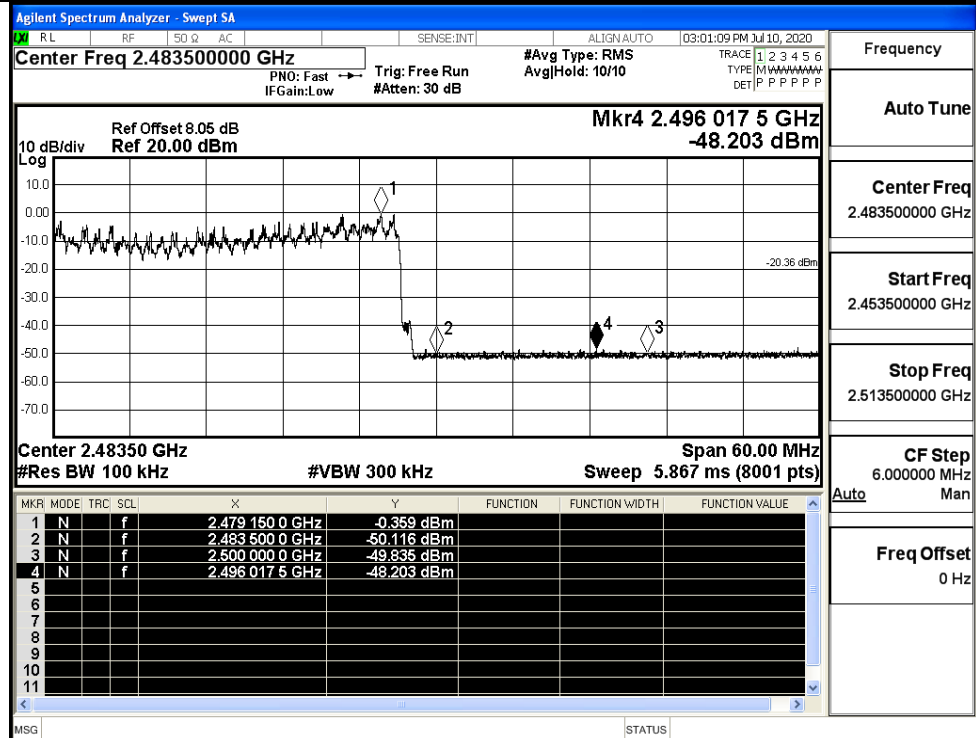
8DPSK/LCH/No Hop



8DPSK/LCH/Hop



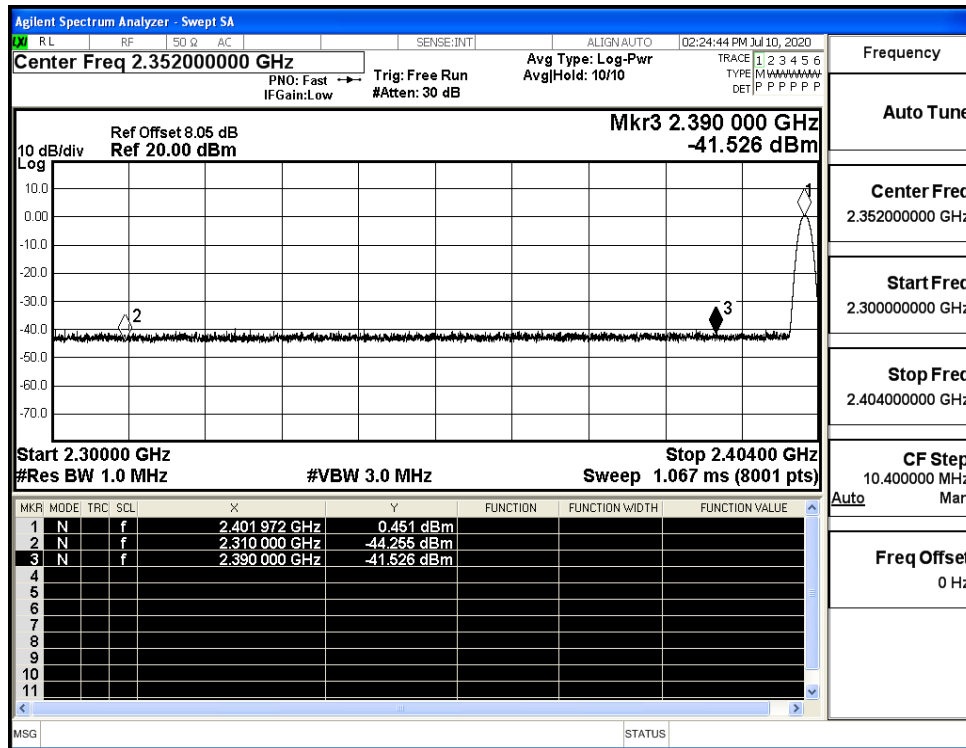
8DPSK/HCH/Hop



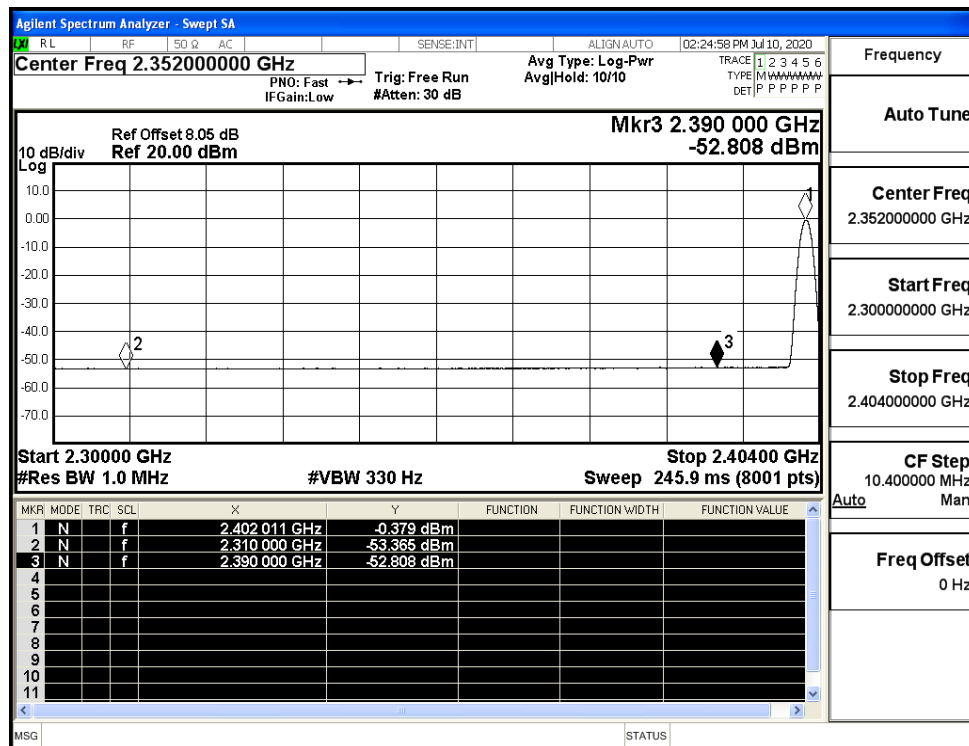
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.26	2.0	0	52.97	PEAK	74	PASS
	Off	2310.0	-53.37	2.0	0	43.86	AV	54	PASS
	Off	2390.0	-41.53	2.0	0	55.70	PEAK	74	PASS
	Off	2390.0	-52.81	2.0	0	44.42	AV	54	PASS
	Off	2483.5	-41.58	2.0	0	55.65	PEAK	74	PASS
	Off	2483.5	-52.45	2.0	0	44.78	AV	54	PASS
	Off	2500.0	-41.78	2.0	0	55.45	PEAK	74	PASS
	Off	2500.0	-52.33	2.0	0	44.90	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-41.24	2.0	0	55.99	PEAK	74	PASS
	Off	2310.0	-53.17	2.0	0	44.06	AV	54	PASS
	Off	2390.0	-43.15	2.0	0	54.08	PEAK	74	PASS
	Off	2390.0	-52.82	2.0	0	44.41	AV	54	PASS
	Off	2483.5	-40.77	2.0	0	56.46	PEAK	74	PASS
	Off	2483.5	-52.44	2.0	0	44.79	AV	54	PASS
	Off	2500.0	-41.56	2.0	0	55.67	PEAK	74	PASS
	Off	2500.0	-52.25	2.0	0	44.98	AV	54	PASS
8DPSK	Off	2310.0	-43.16	2.0	0	54.07	PEAK	74	PASS
	Off	2310.0	-53.16	2.0	0	44.07	AV	54	PASS
	Off	2390.0	-43.81	2.0	0	53.42	PEAK	74	PASS
	Off	2390.0	-52.85	2.0	0	44.38	AV	54	PASS
	Off	2483.5	-42.96	2.0	0	54.27	PEAK	74	PASS
	Off	2483.5	-52.49	2.0	0	44.74	AV	54	PASS
	Off	2500.0	-41.74	2.0	0	55.49	PEAK	74	PASS
	Off	2500.0	-52.25	2.0	0	44.98	AV	54	PASS

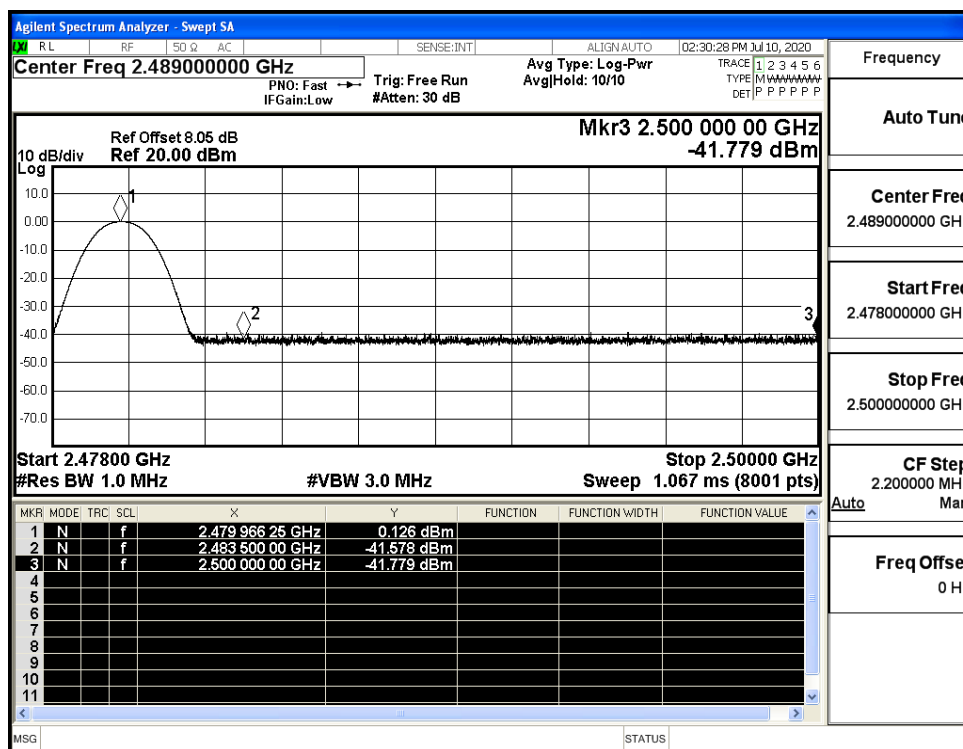
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



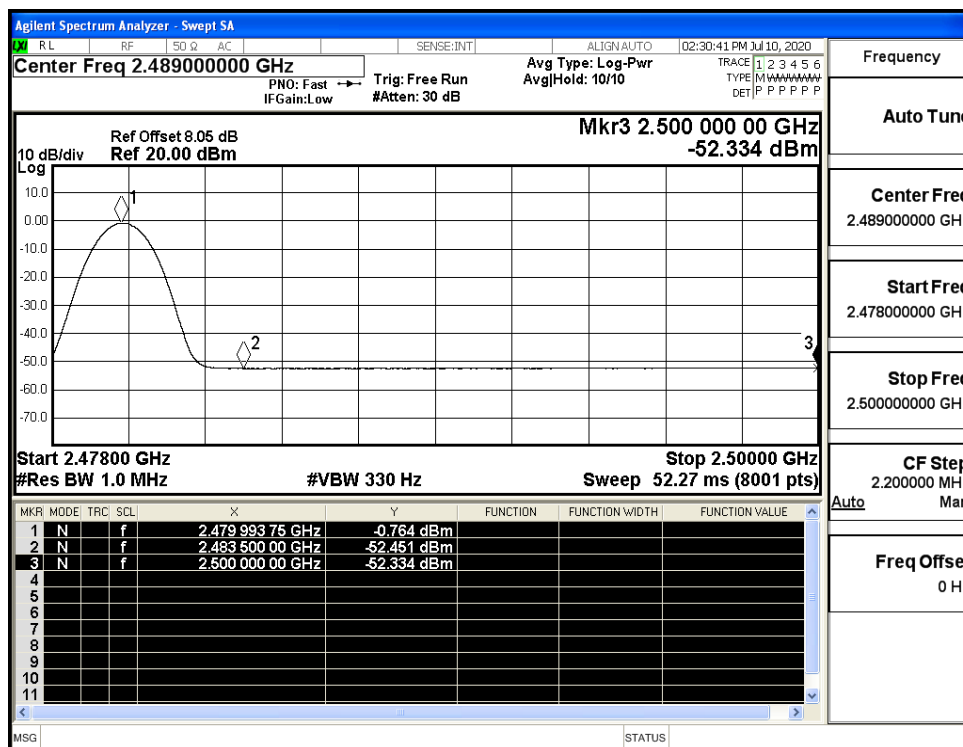
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

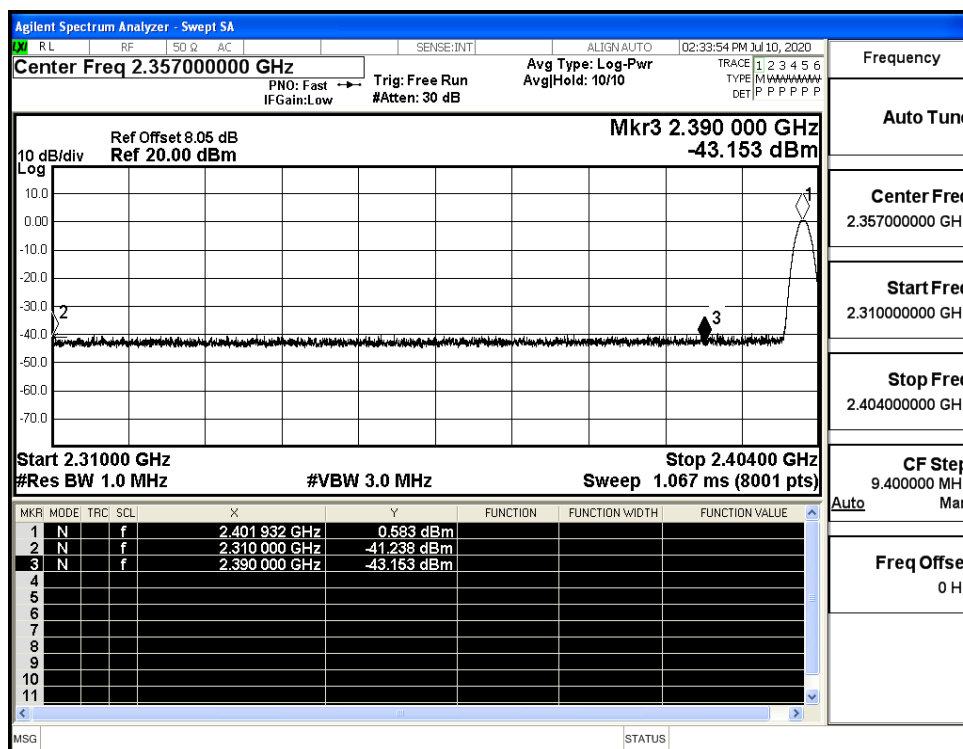
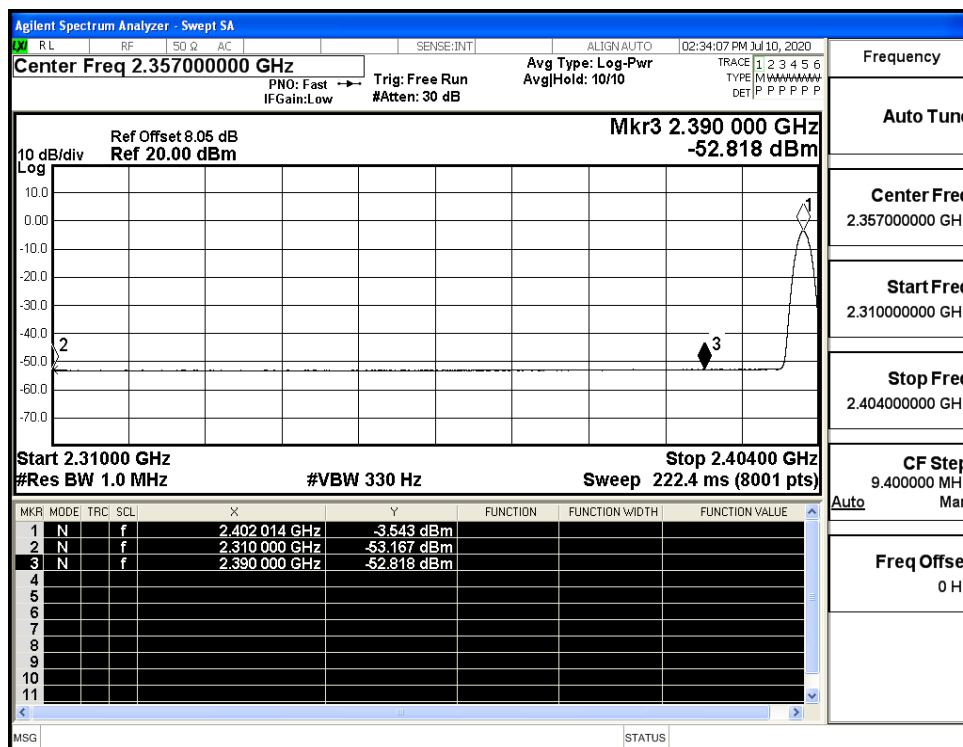


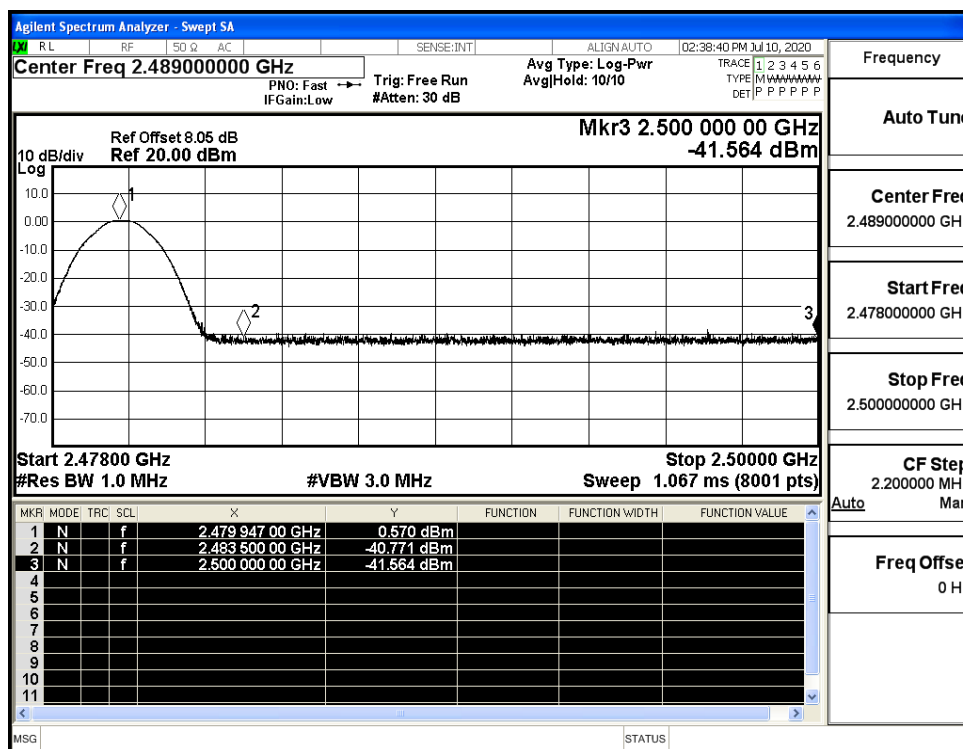
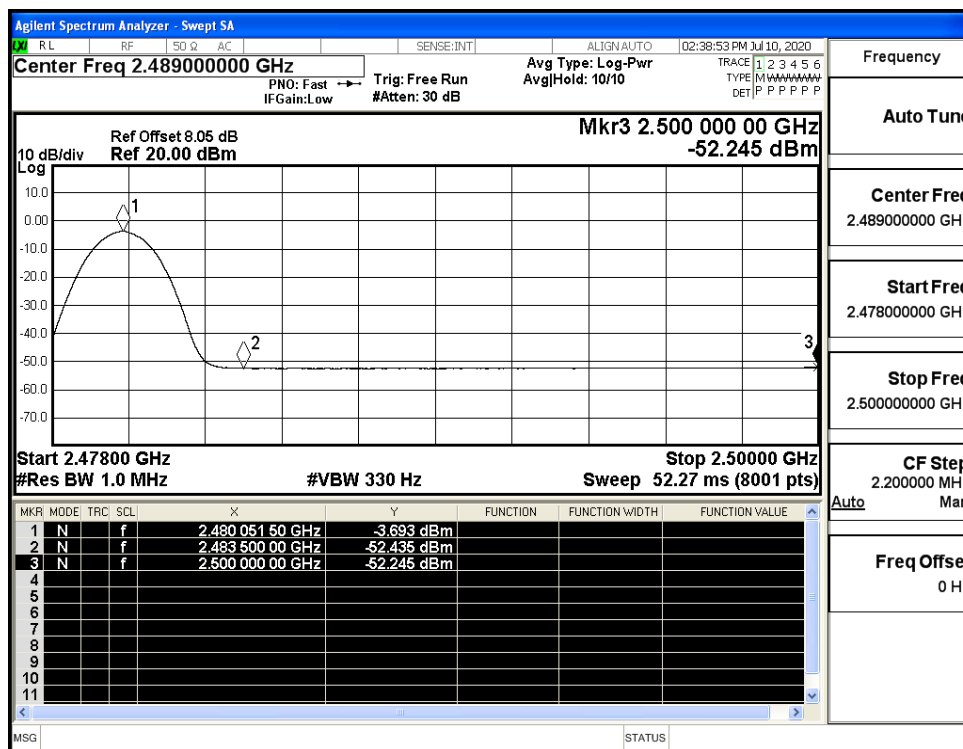
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



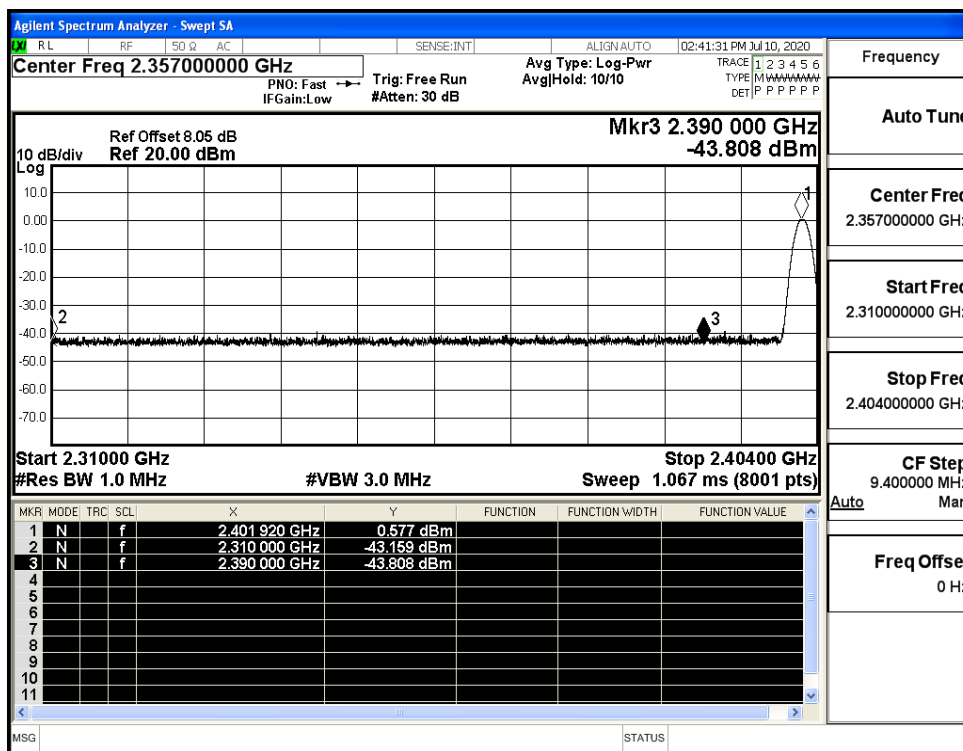
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



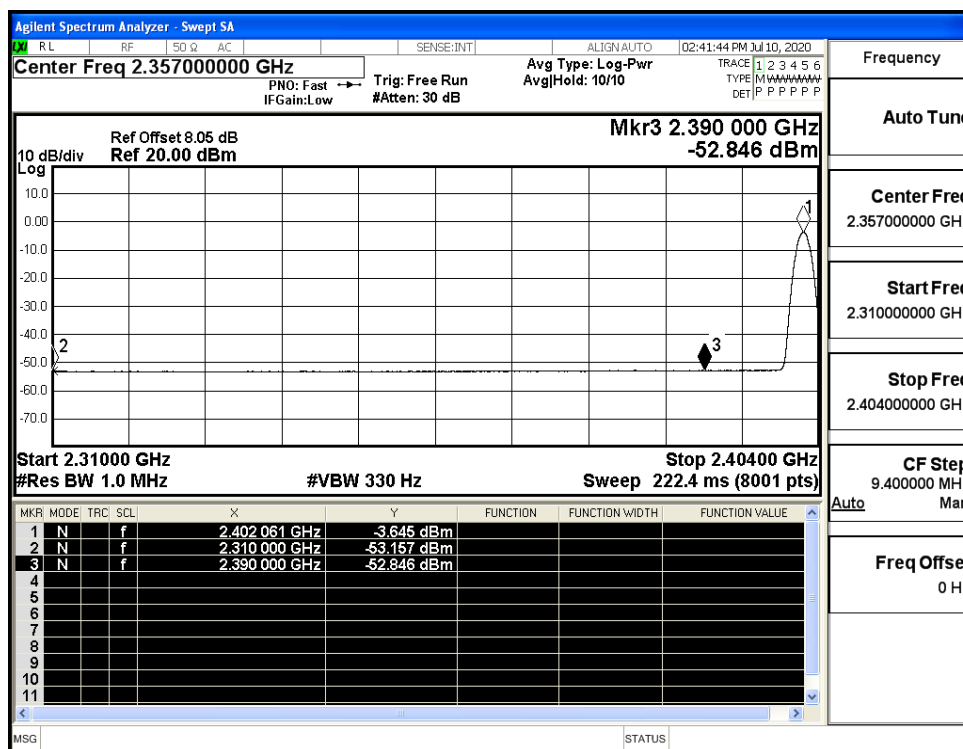
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

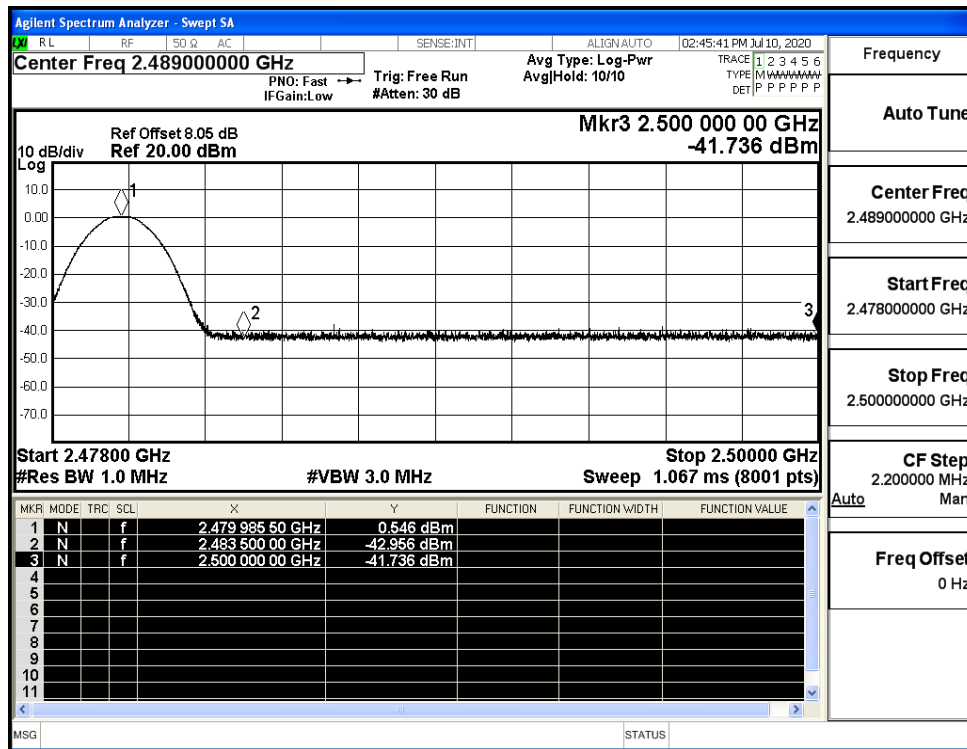
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

