

Appendix A

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

Product Name: 2G feature phone

Trade Mark: GOL

Test Model: S1 Napoli

Environmental Conditions

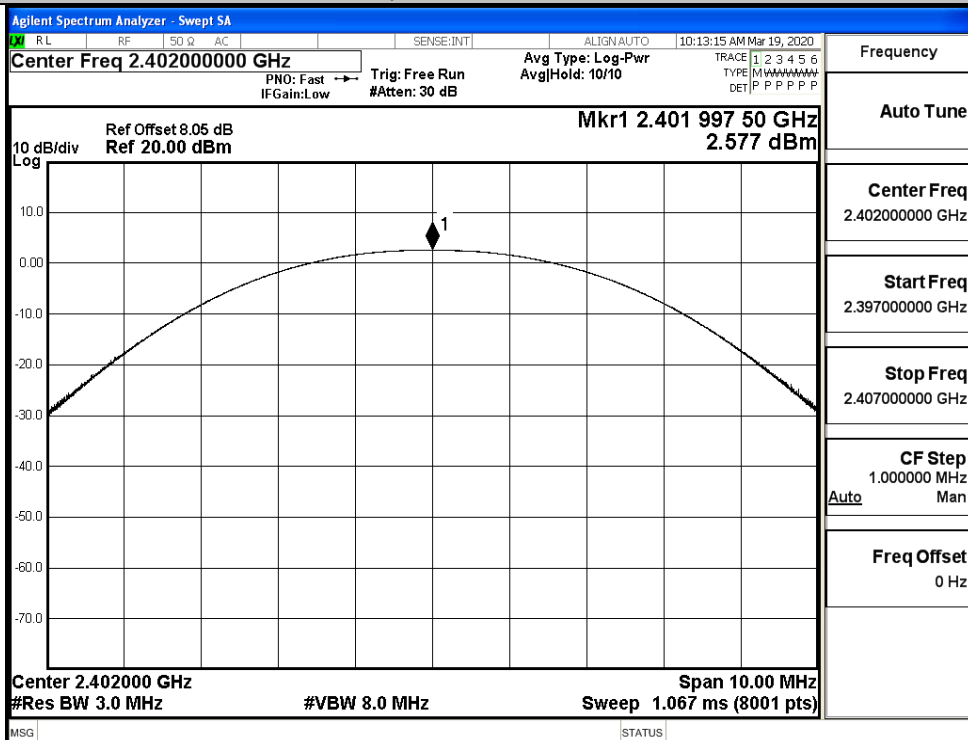
Temperature:	24.8 ° C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

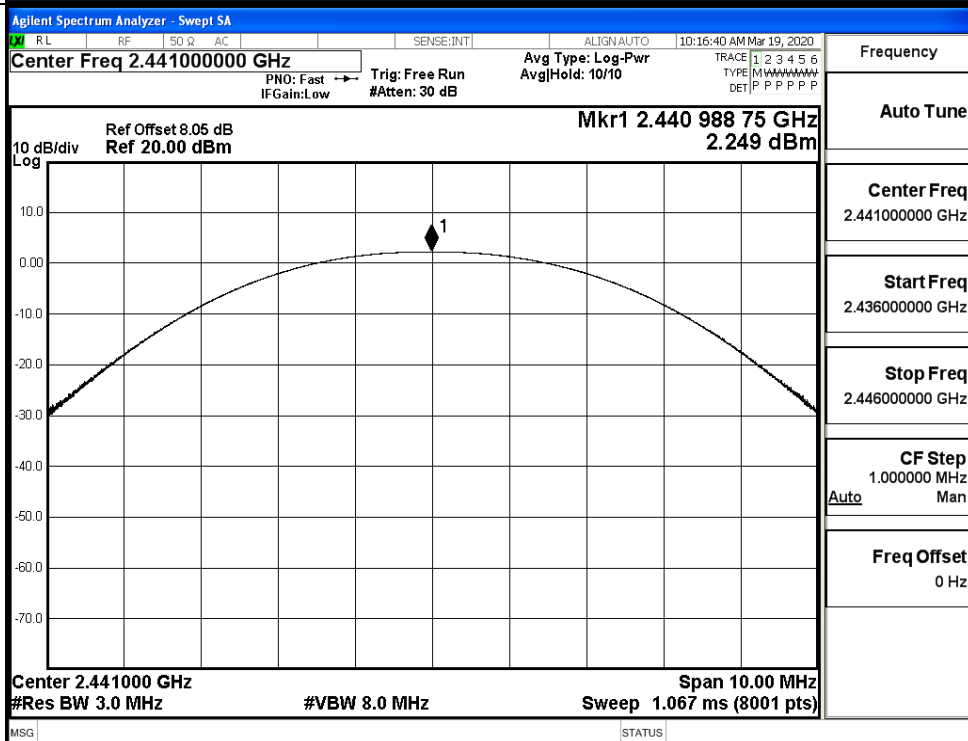
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.577	21	PASS
	MCH	2.249	21	PASS
	HCH	1.400	21	PASS
$\pi/4$ DQPSK	LCH	1.766	21	PASS
	MCH	1.630	21	PASS
	HCH	0.809	21	PASS
8DPSK	LCH	2.012	21	PASS
	MCH	1.808	21	PASS
	HCH	0.929	21	PASS

Test Graphs

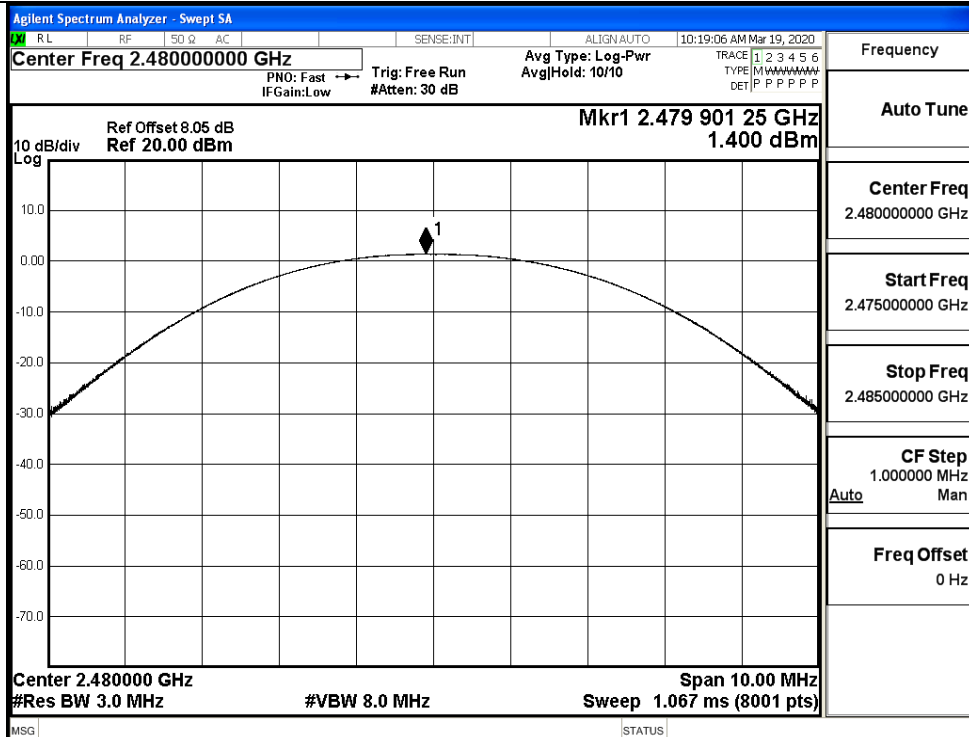
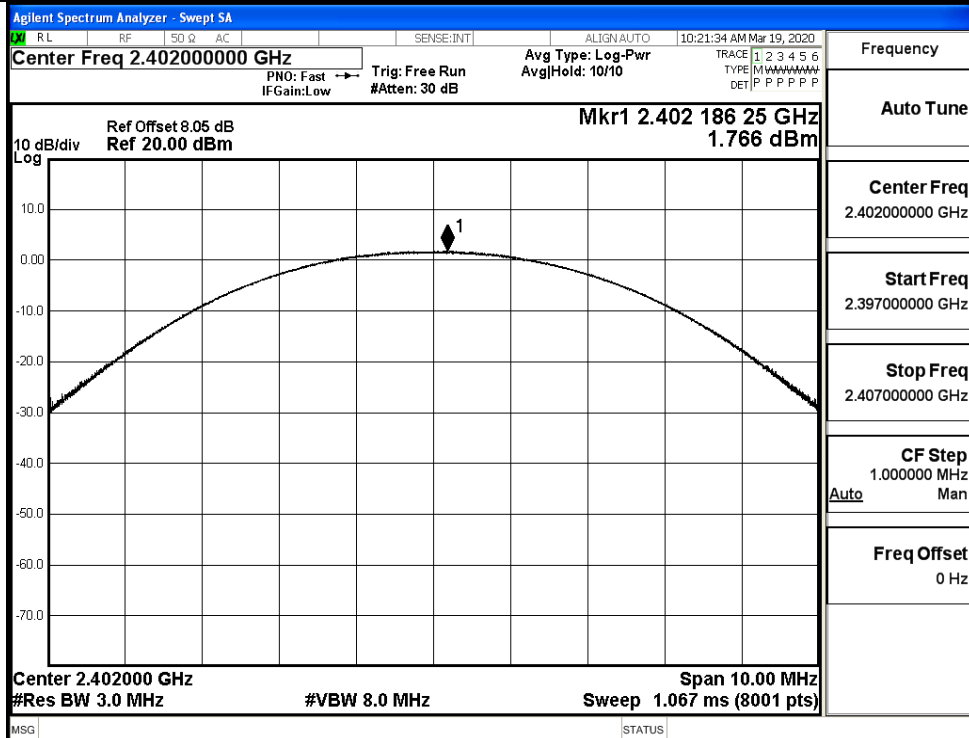
GFSK/LCH

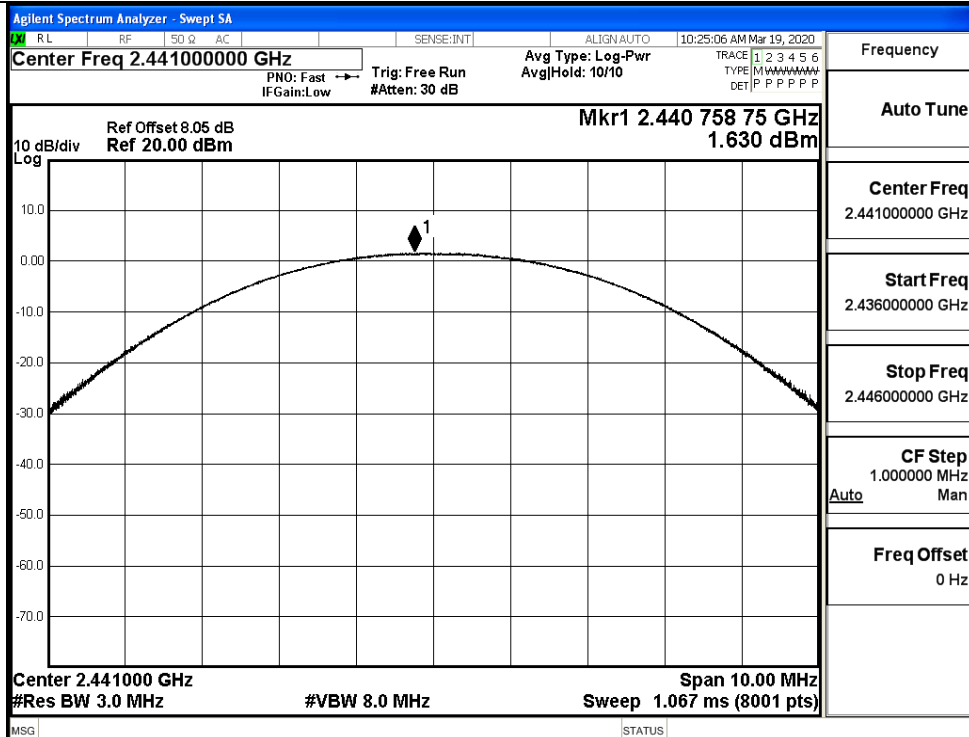
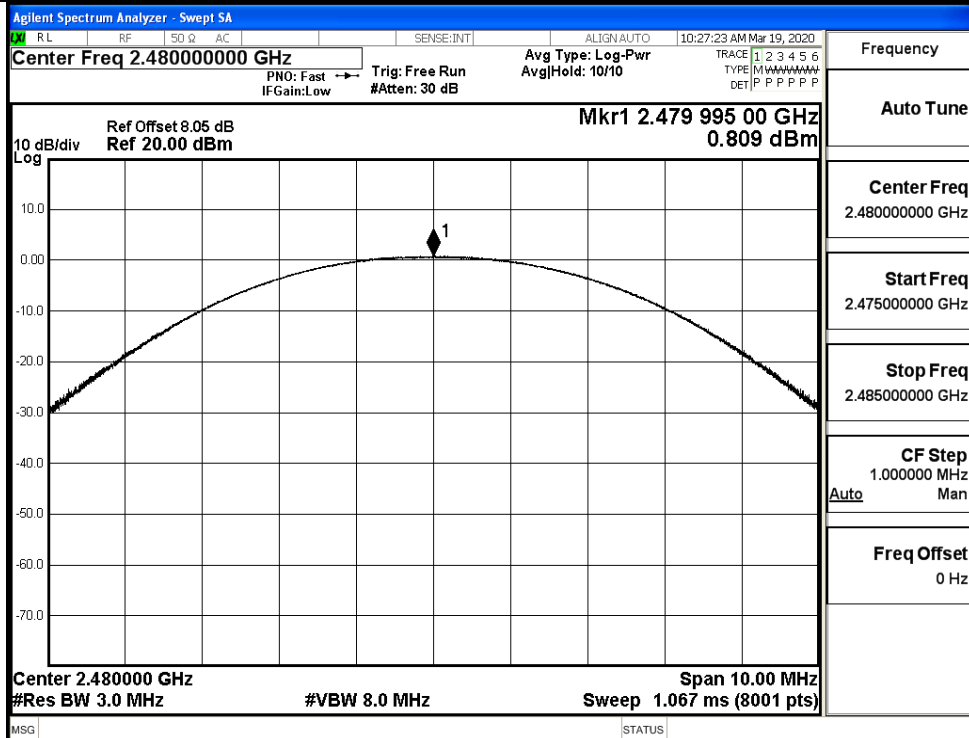


GFSK/MCH

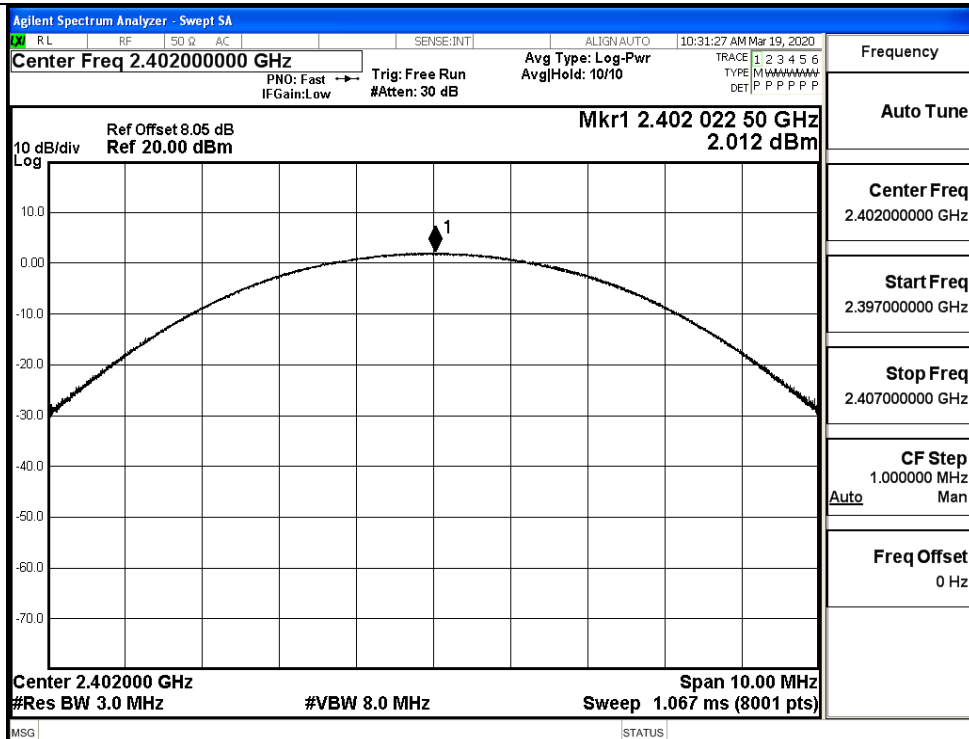


GFSK/HCH

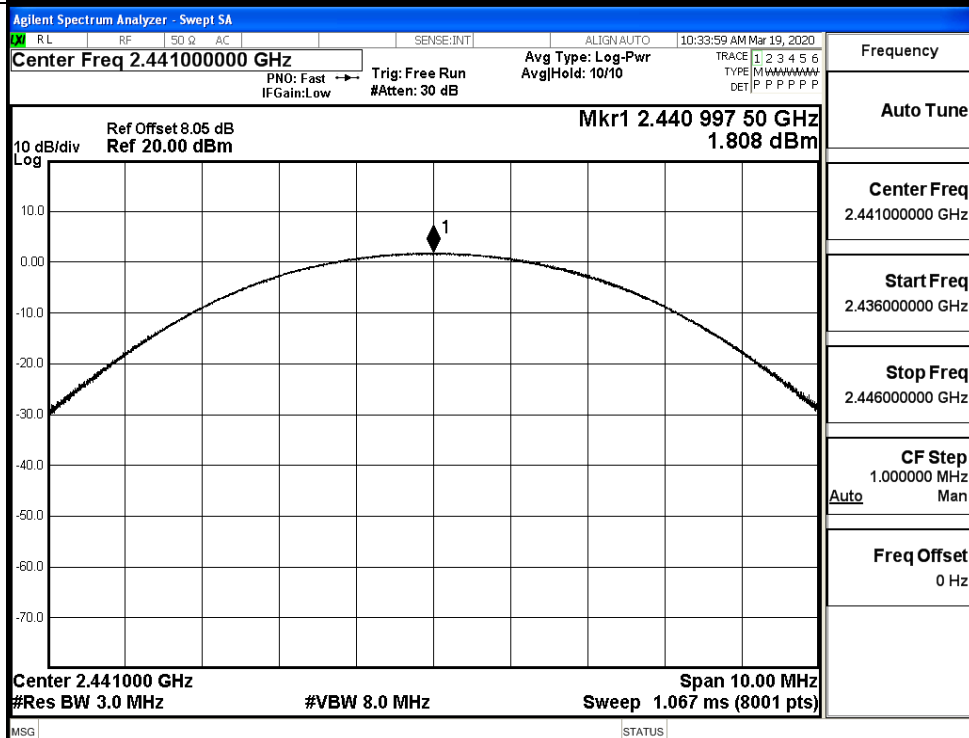
 π /4DQPSK/LCH

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

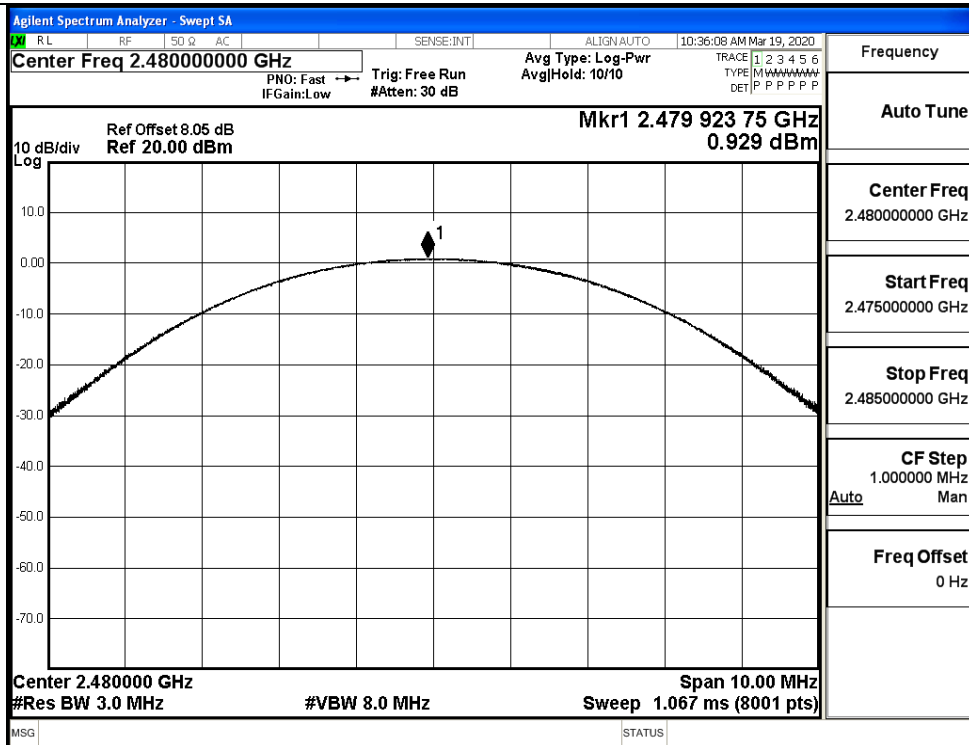
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

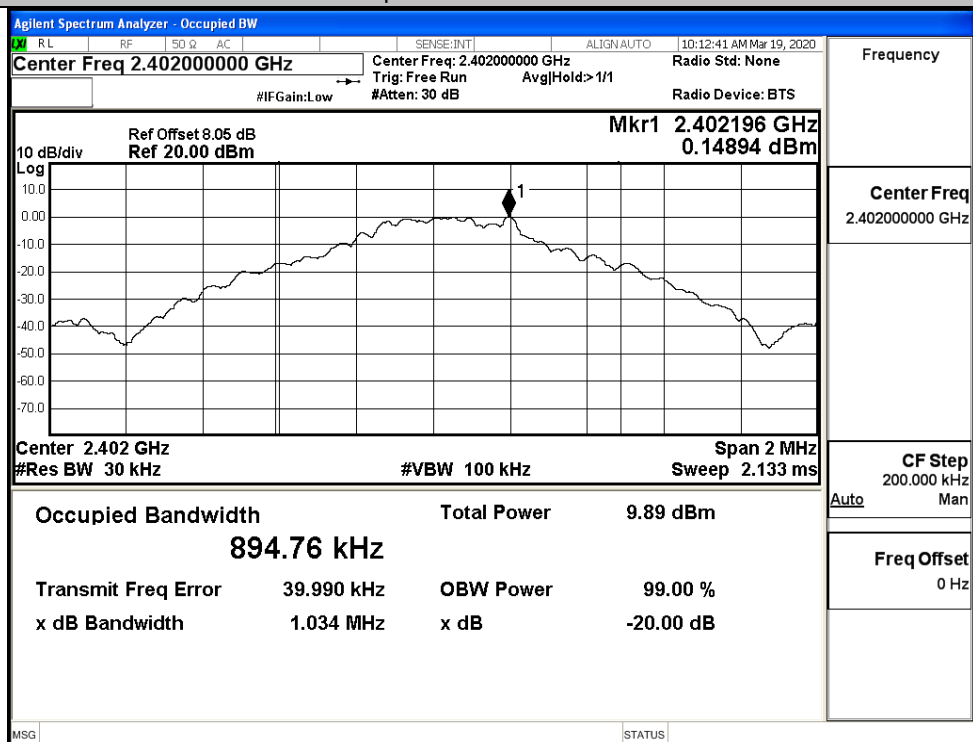


A.2 20dB Bandwidth

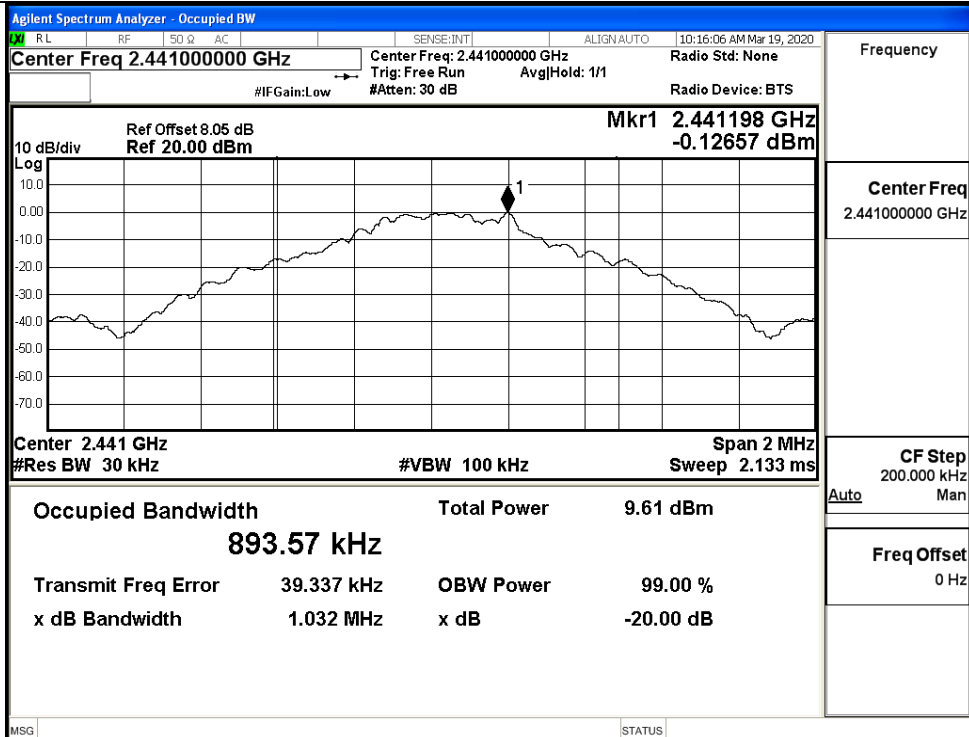
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.034	Not Specified	PASS
	MCH	1.032	Not Specified	PASS
	HCH	1.030	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.287	Not Specified	PASS
	MCH	1.291	Not Specified	PASS
	HCH	1.292	Not Specified	PASS
8DPSK	LCH	1.299	Not Specified	PASS
	MCH	1.293	Not Specified	PASS
	HCH	1.297	Not Specified	PASS

Test Graphs

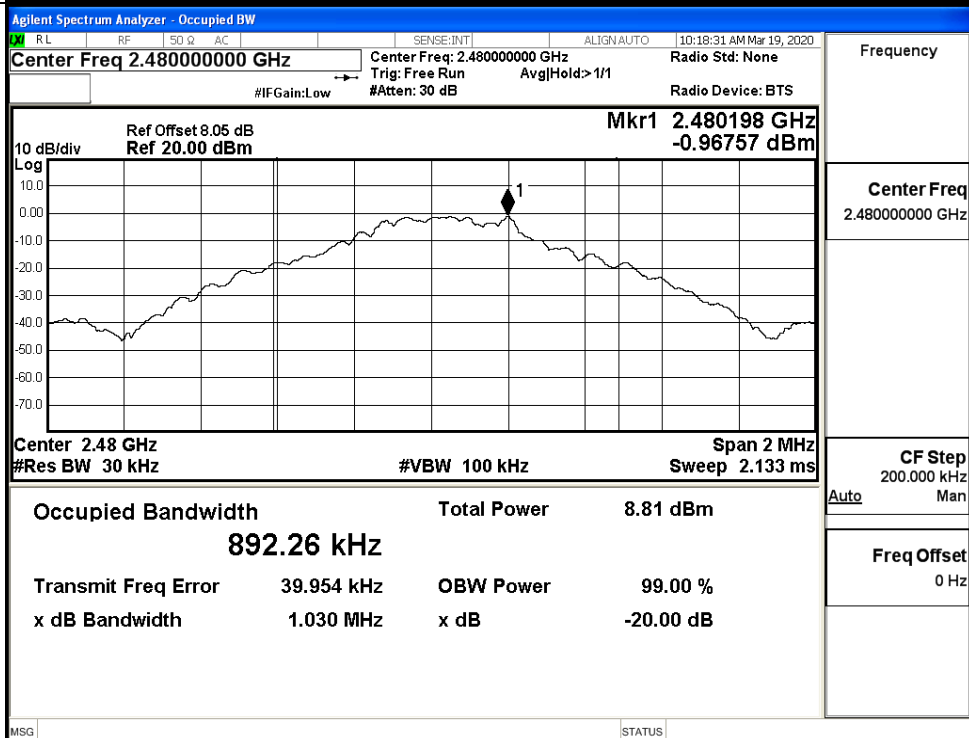
GFSK/LCH

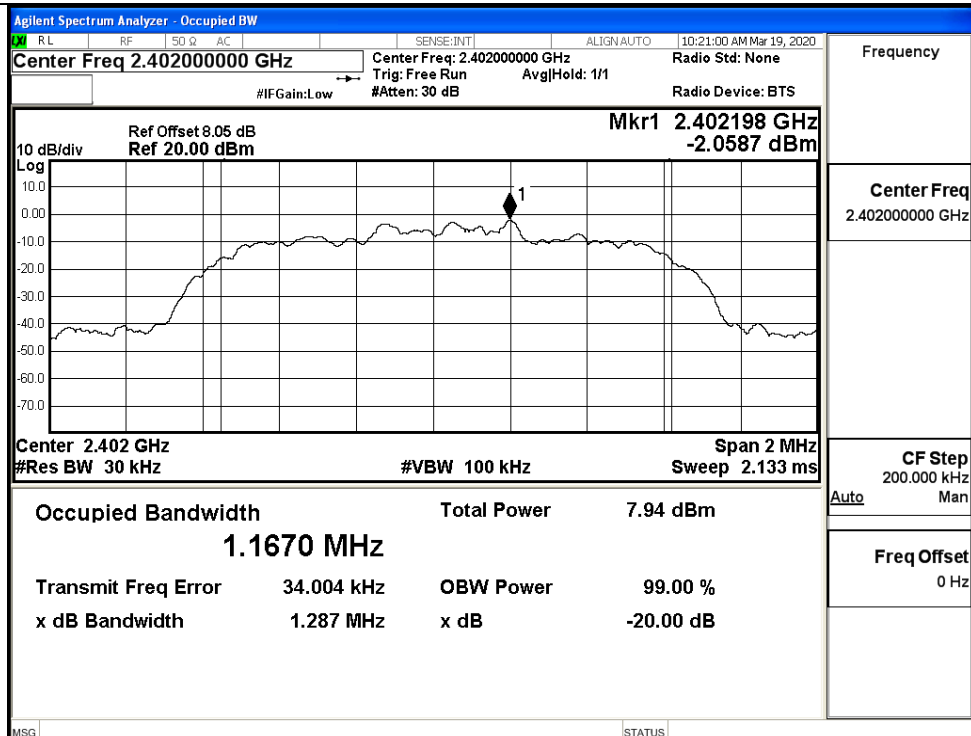


GFSK/MCH



GFSK/HCH

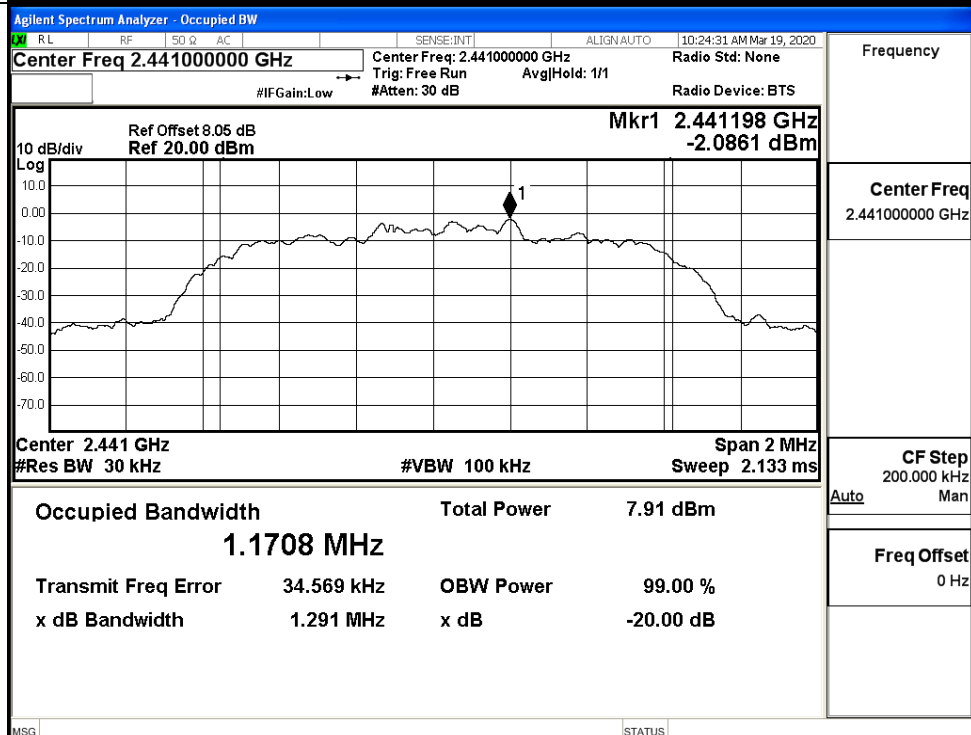


$\pi/4$ DQPSK/LCH

Frequency

Center Freq
2.40200000 GHzCF Step
200.000 kHz
Man

Auto

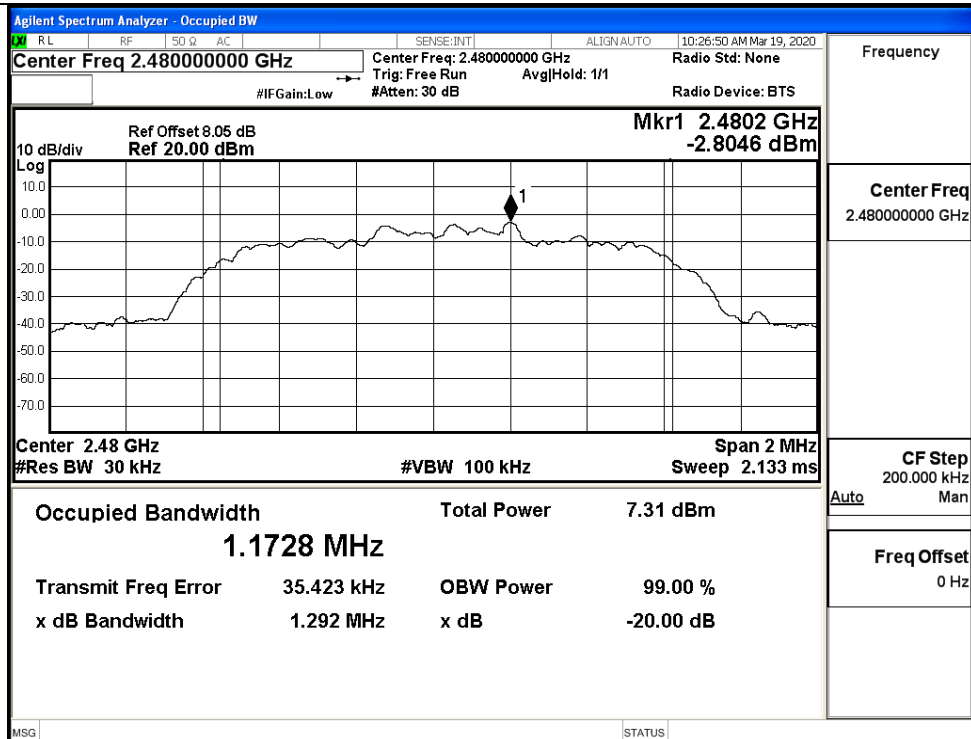
Freq Offset
0 Hz $\pi/4$ DQPSK/MCH

Frequency

Center Freq
2.44100000 GHzCF Step
200.000 kHz
Man

Auto

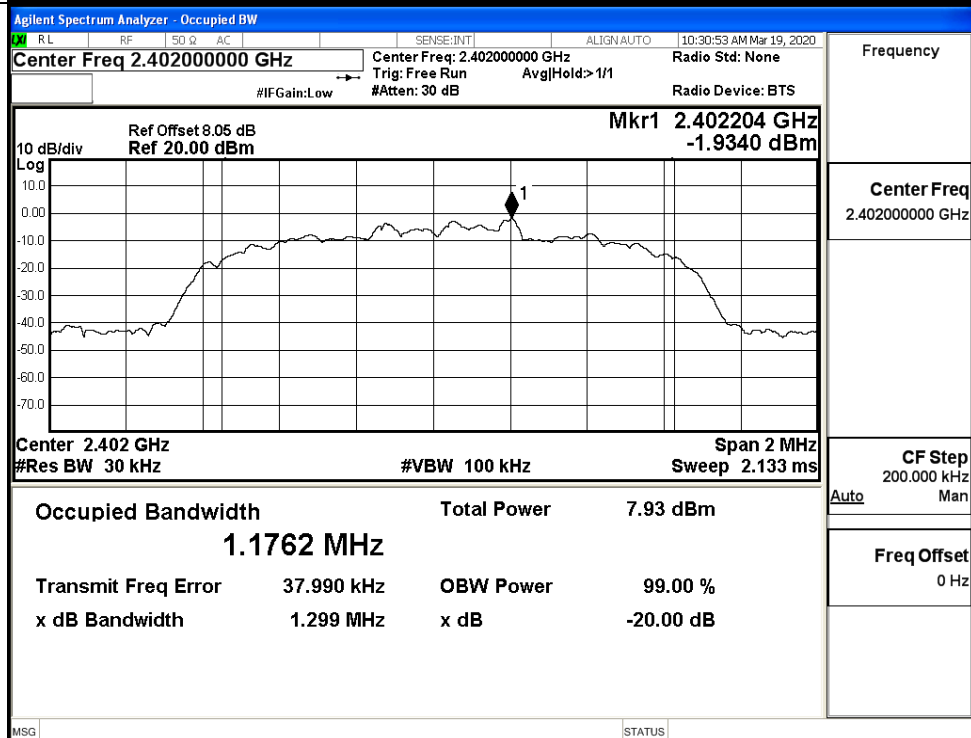
Freq Offset
0 Hz

$\pi/4$ DQPSK/HCH

Frequency

Center Freq
2.480000000 GHzCF Step
200.000 kHz
Auto ManFreq Offset
0 Hz

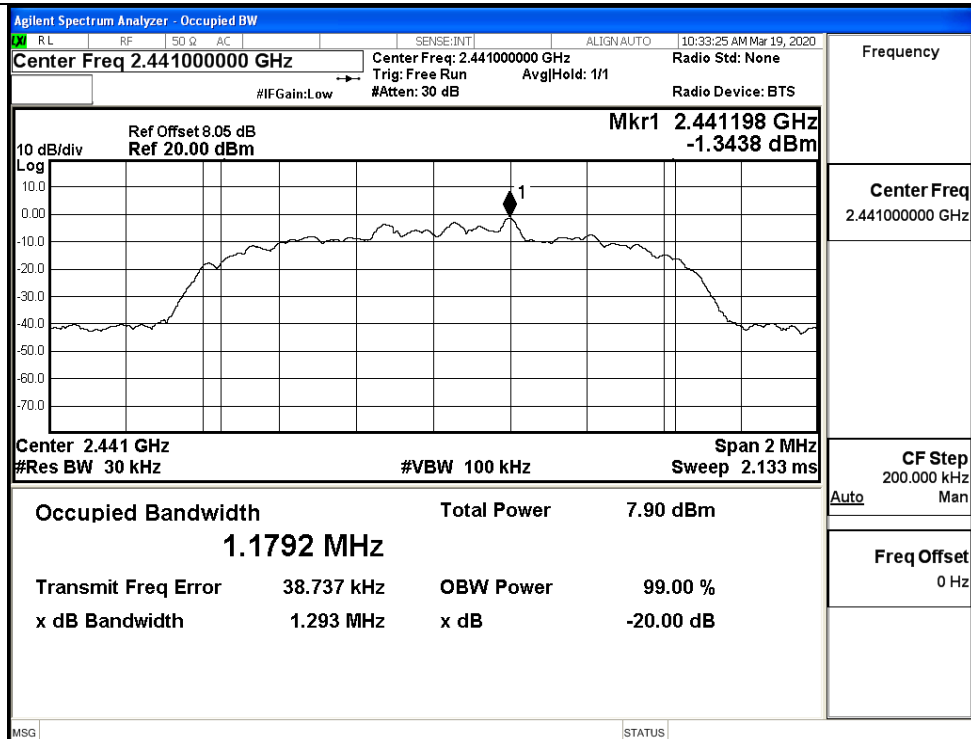
8DPSK/LCH



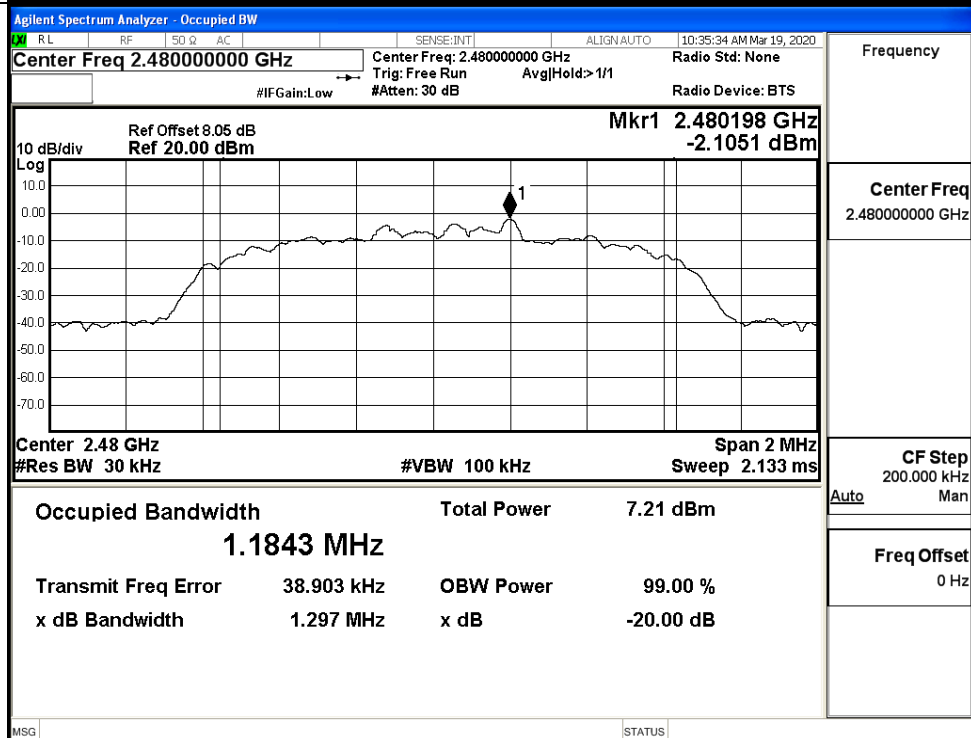
Frequency

Center Freq
2.402000000 GHzCF Step
200.000 kHz
Auto ManFreq Offset
0 Hz

8DPSK/MCH



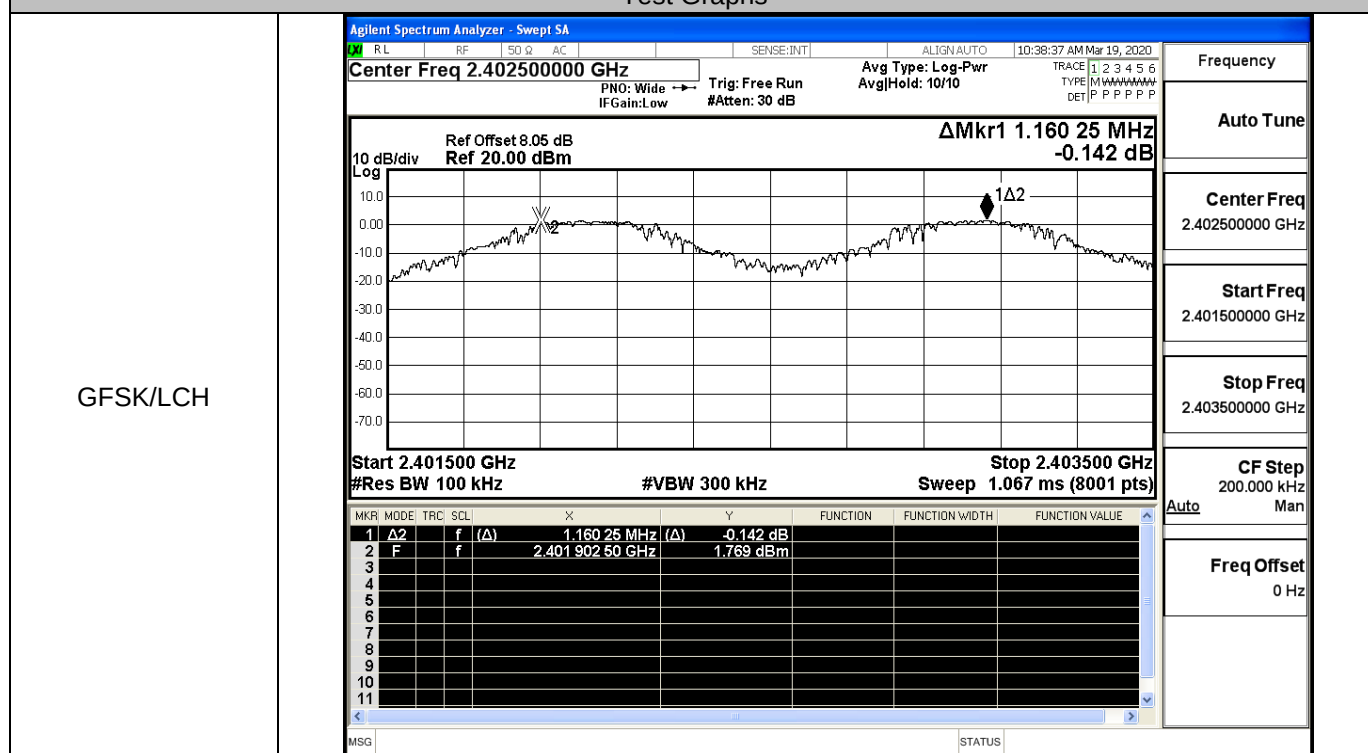
8DPSK/HCH



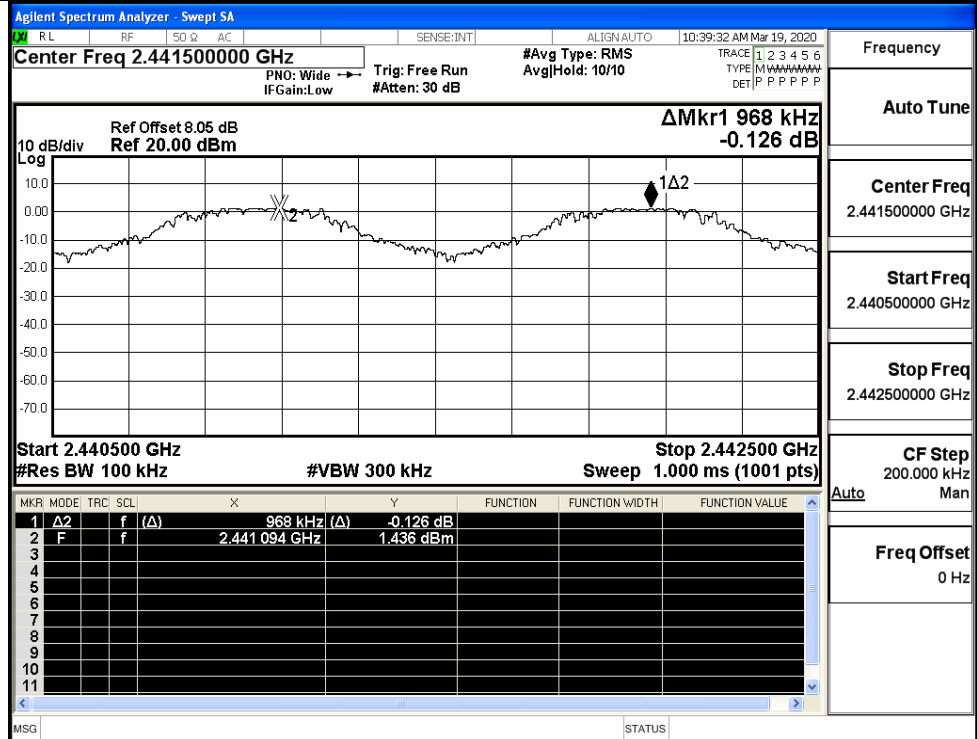
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.160	0.689	PASS
	MCH	0.968	0.689	PASS
	HCH	1.200	0.689	PASS
$\pi/4$ DQPSK	LCH	1.290	0.861	PASS
	MCH	0.932	0.861	PASS
	HCH	1.042	0.861	PASS
8DPSK	LCH	1.080	0.866	PASS
	MCH	0.900	0.866	PASS
	HCH	0.964	0.866	PASS

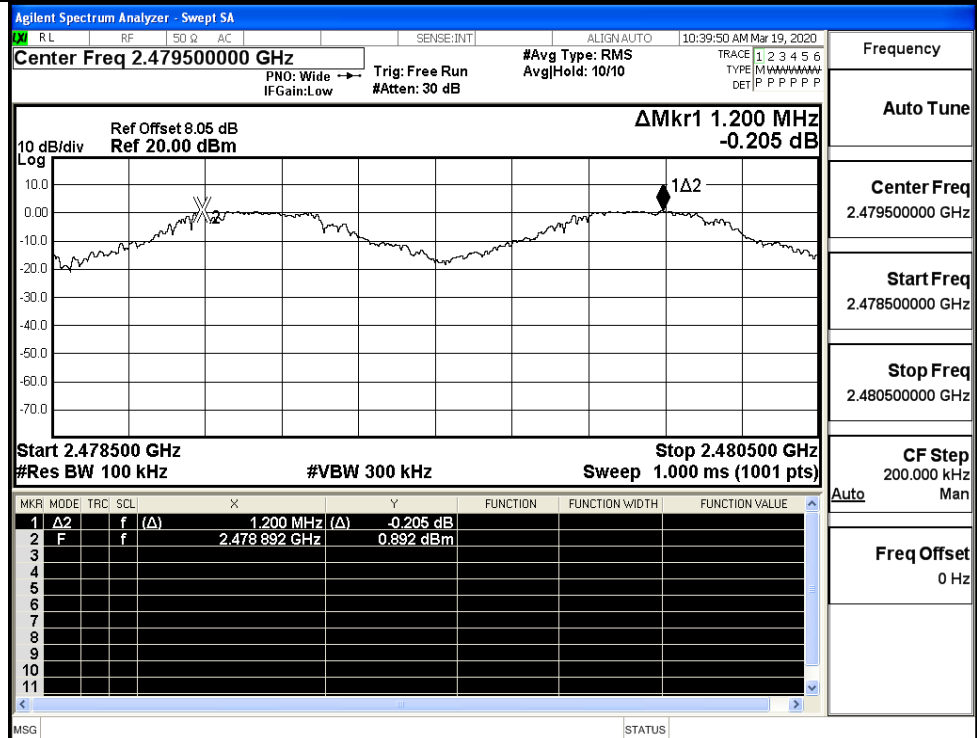
Test Graphs

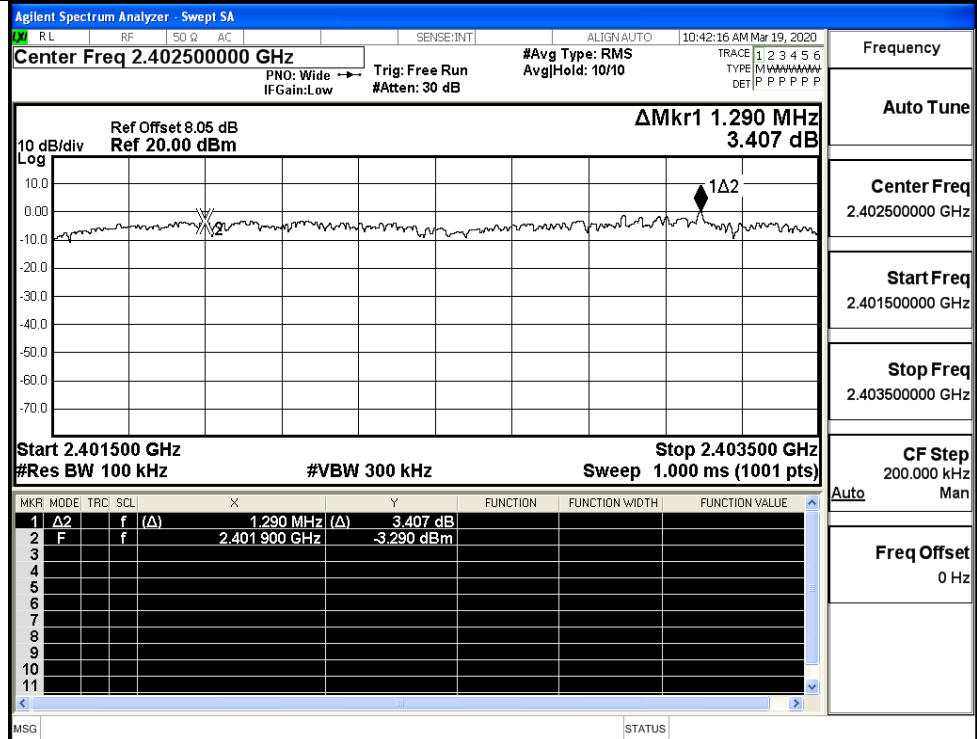
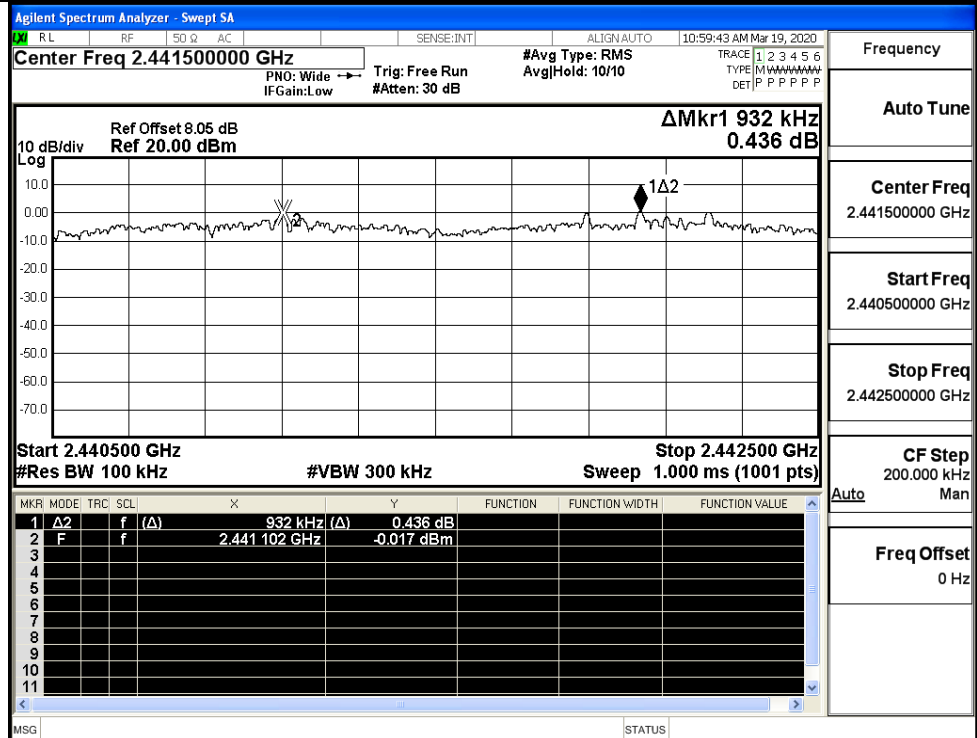


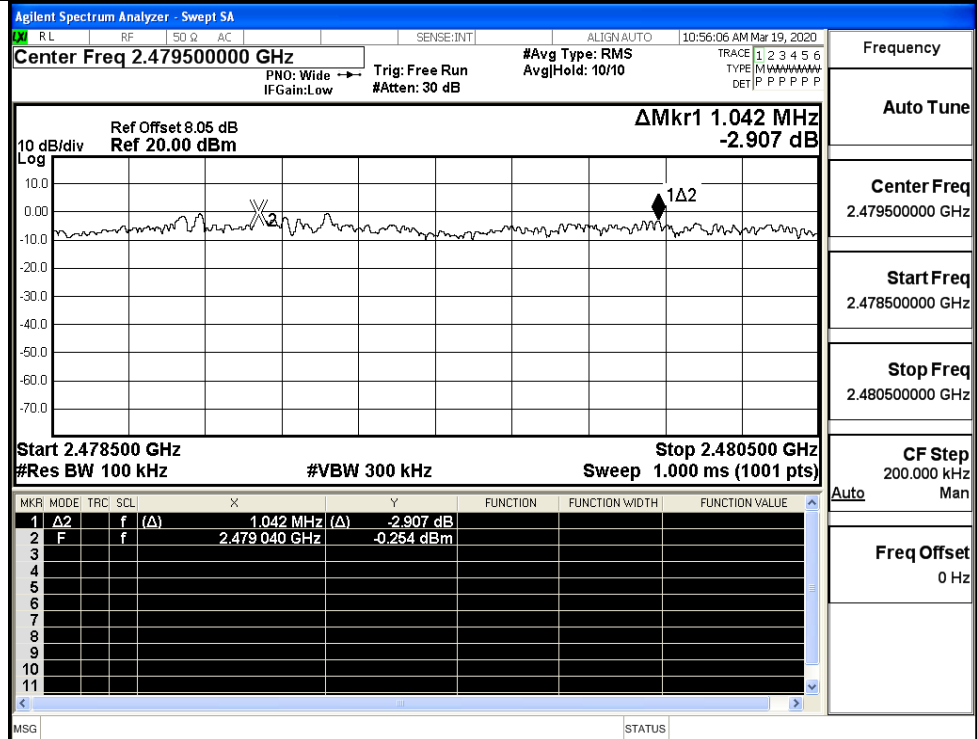
GFSK/MCH



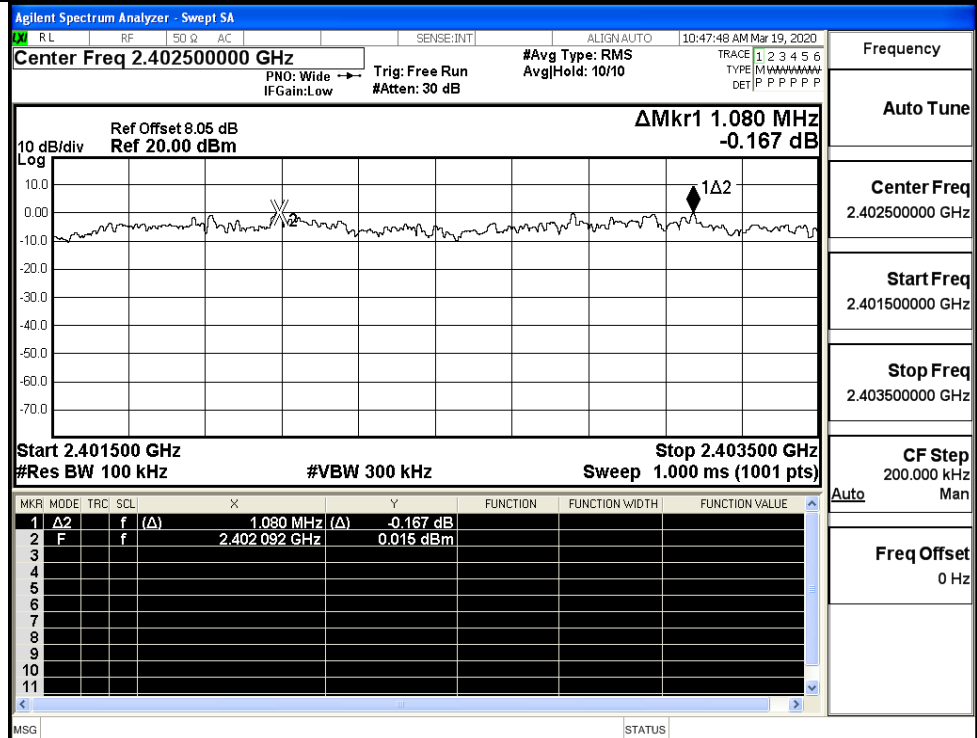
GFSK/HCH



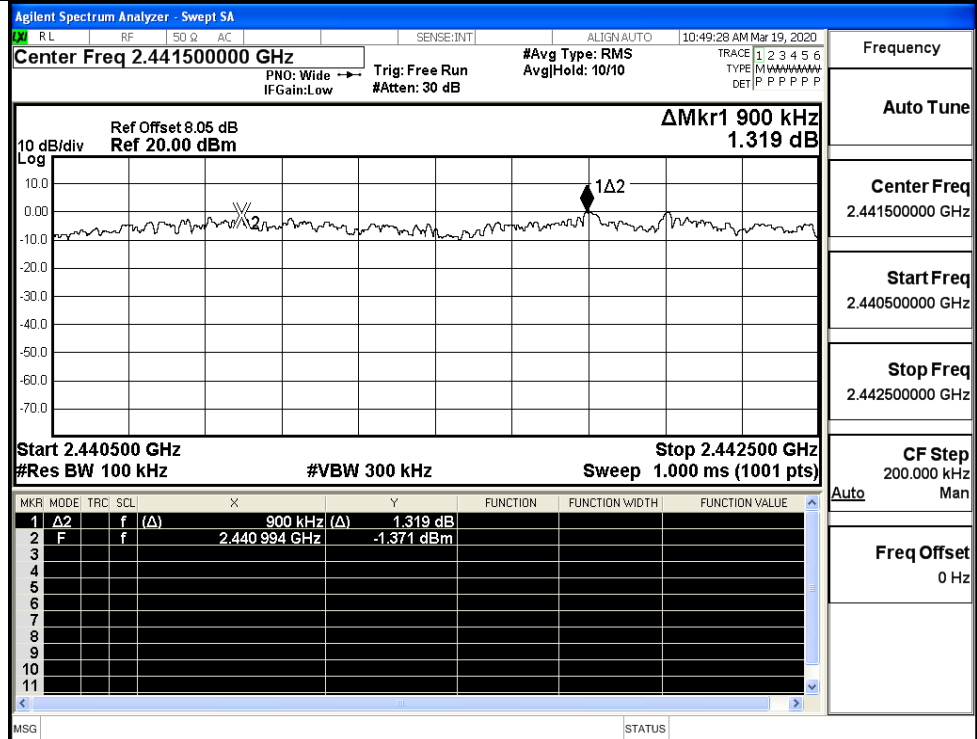
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

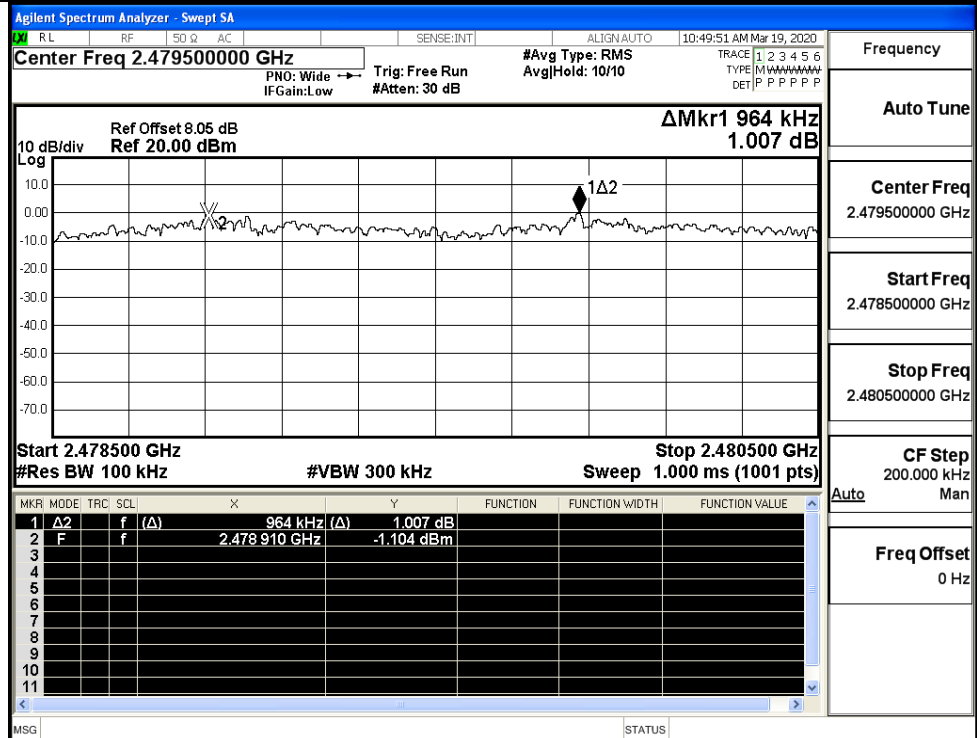
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

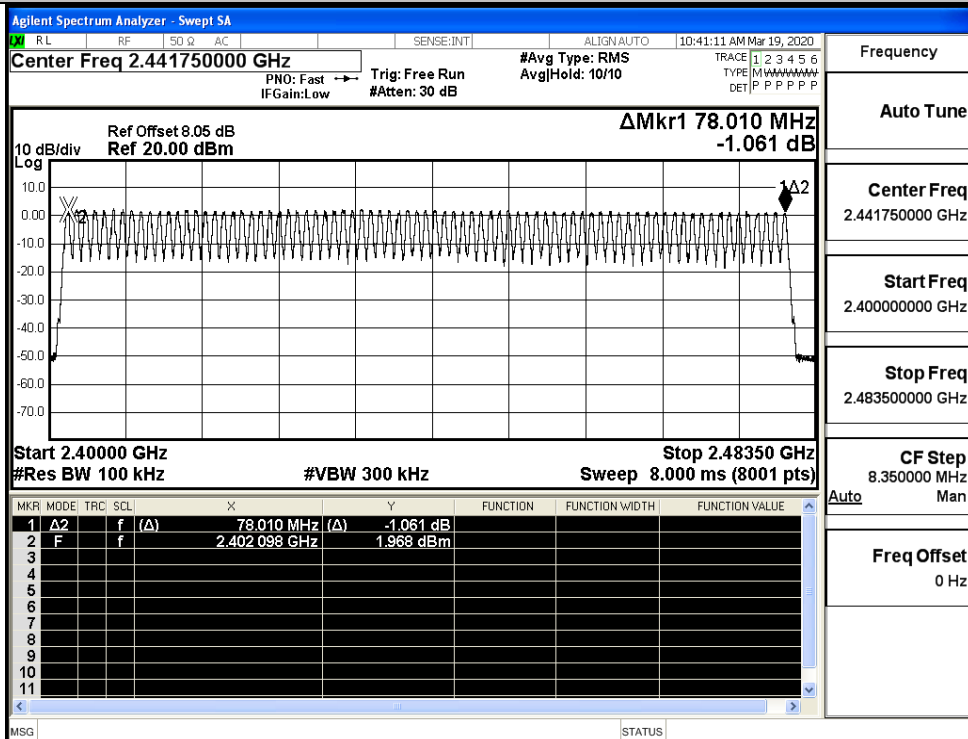
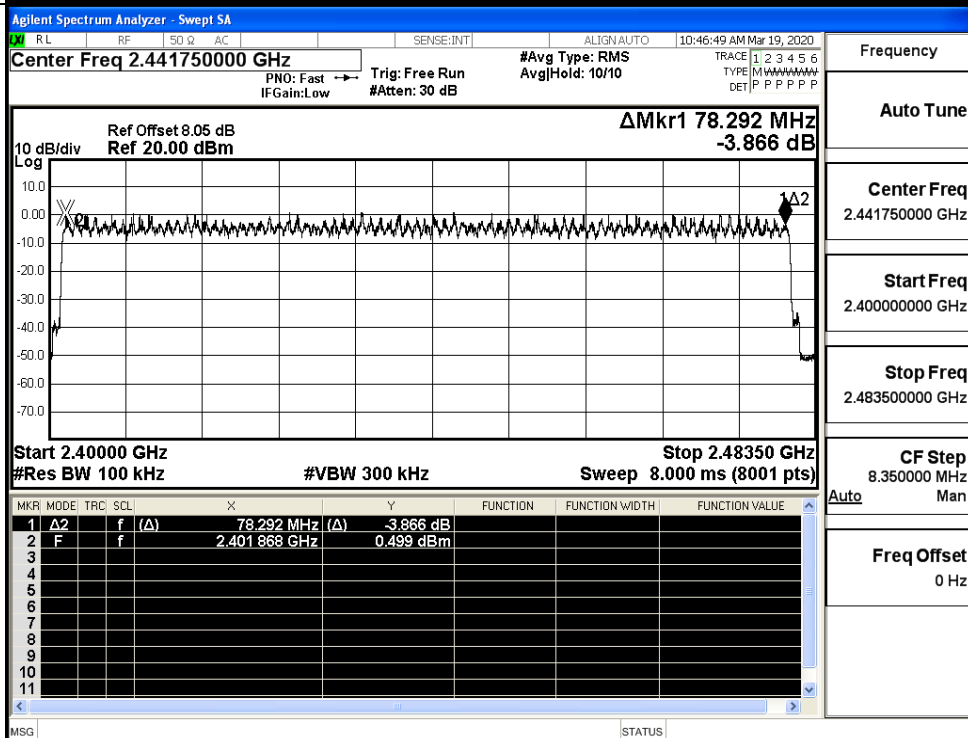


A.4 Hopping Channel Number

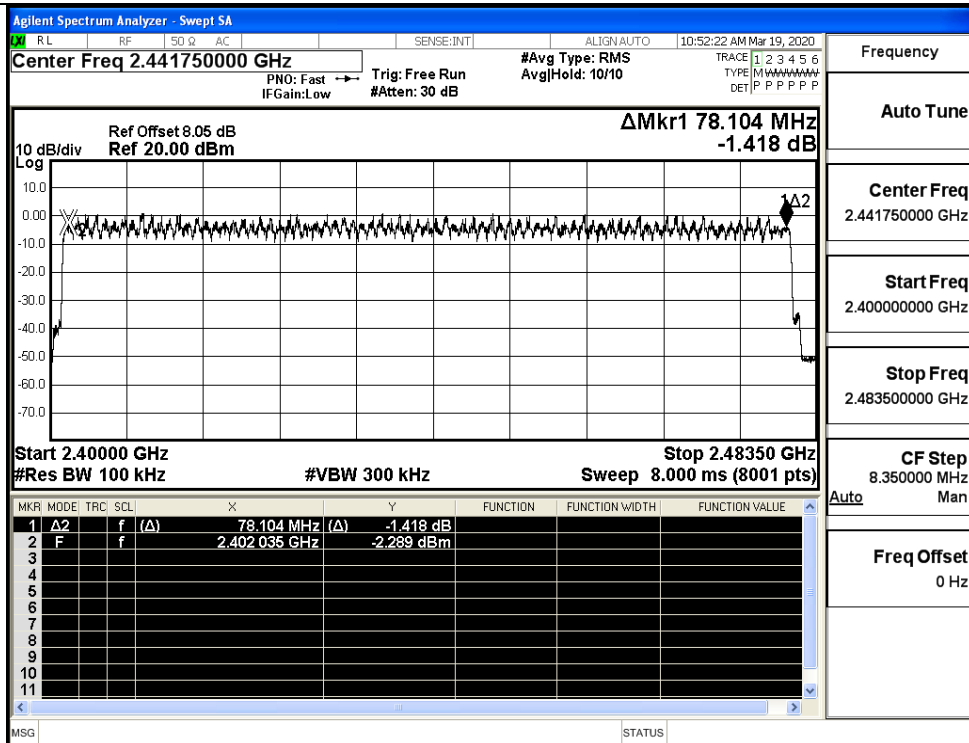
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

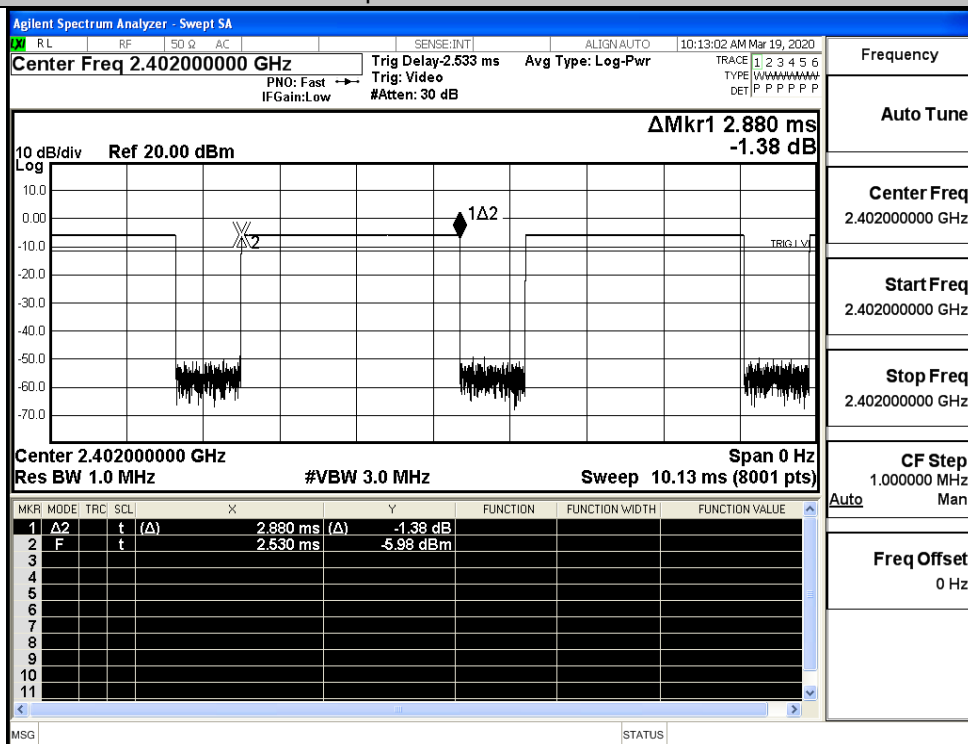


A.5 Dwell Time

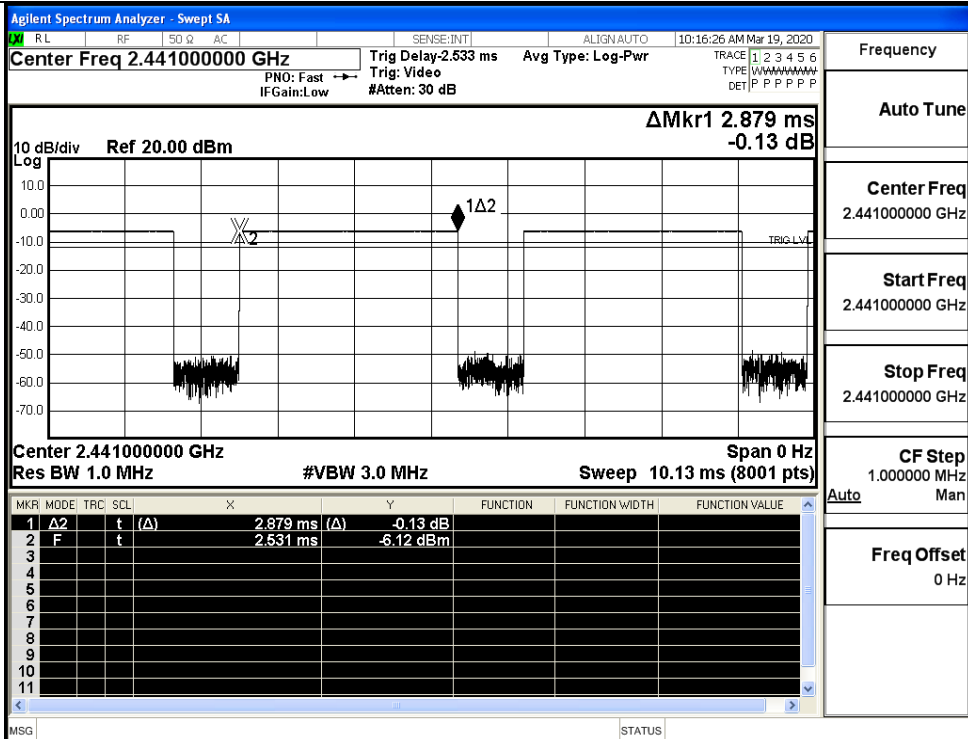
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

Test Graphs

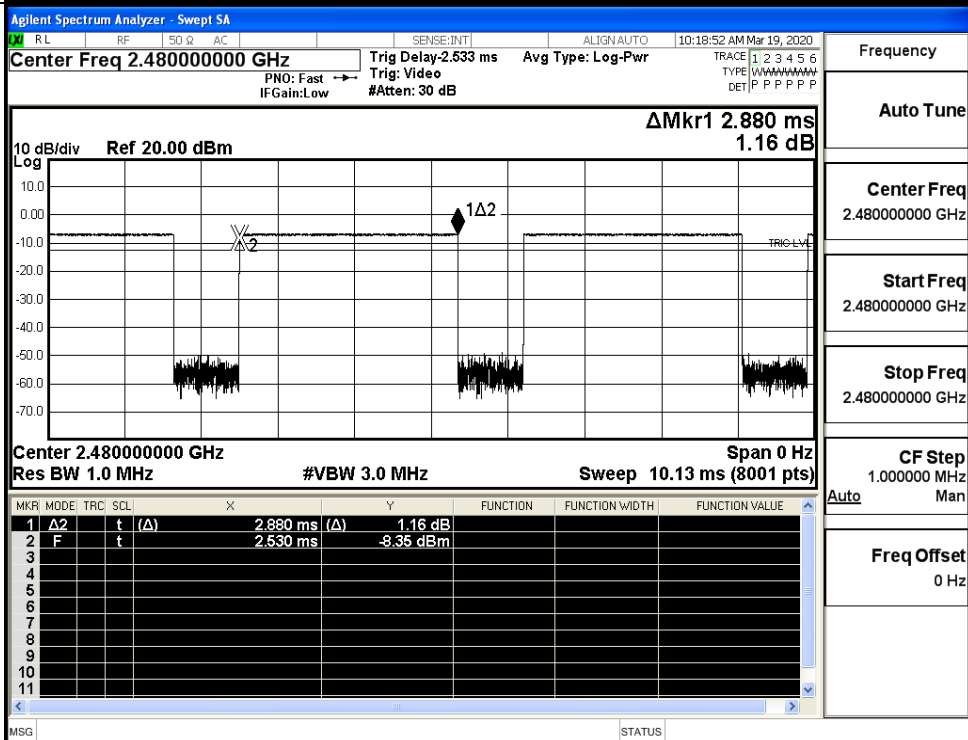
GFSK_DH5/LCH



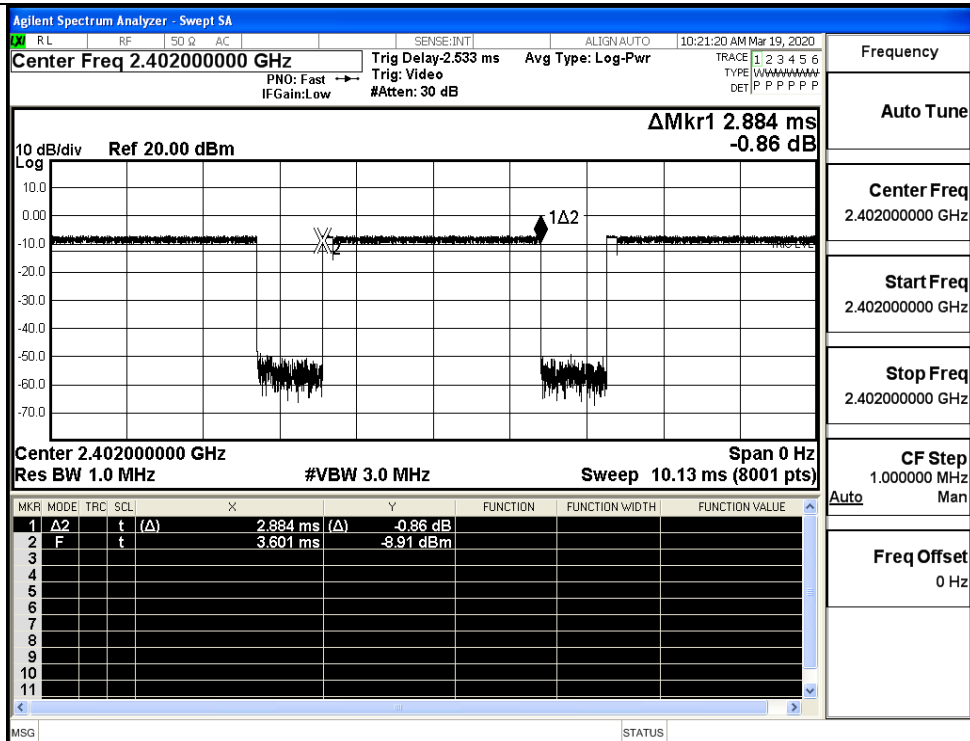
GFSK_DH5/MCH



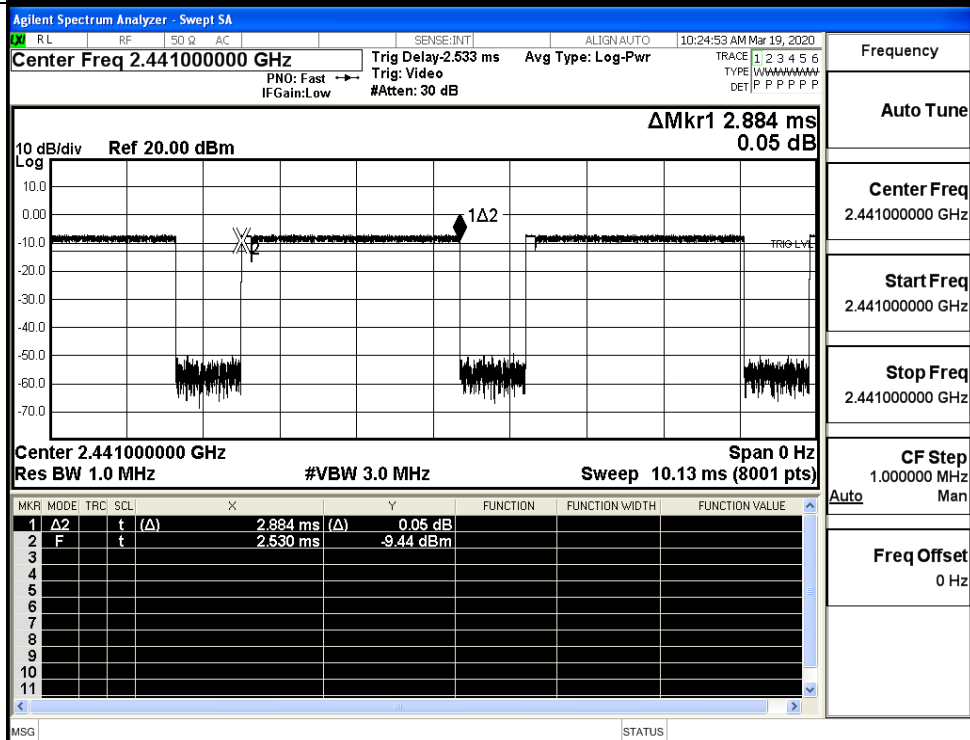
GFSK_DH5/HCH



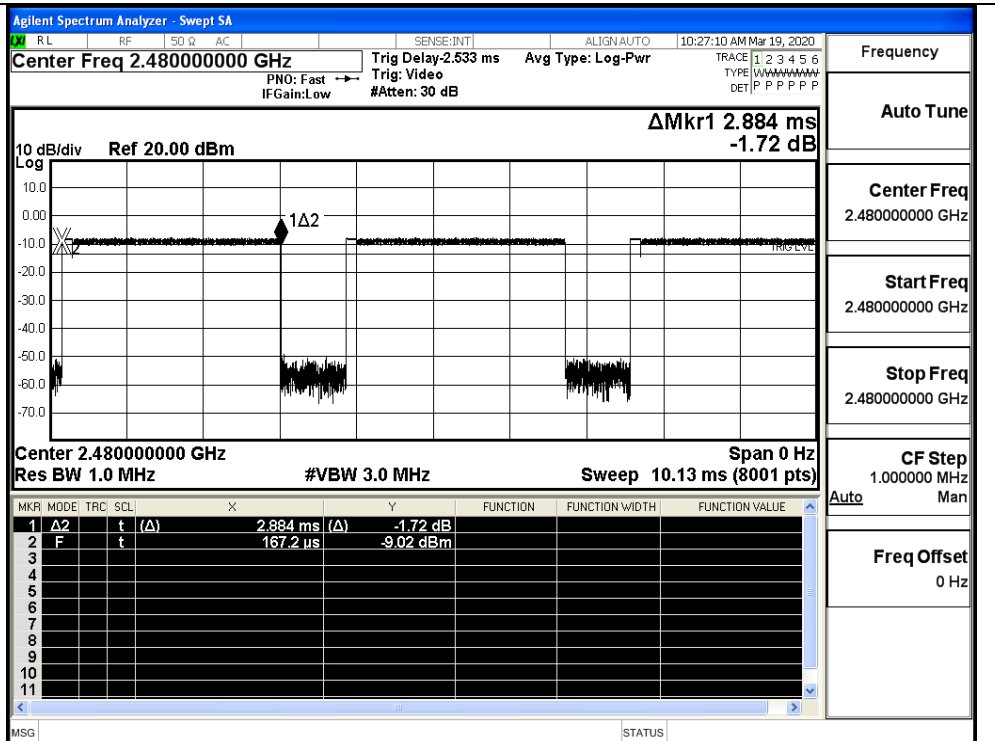
$\pi/4$ DQPSK
_2DH5/LCH



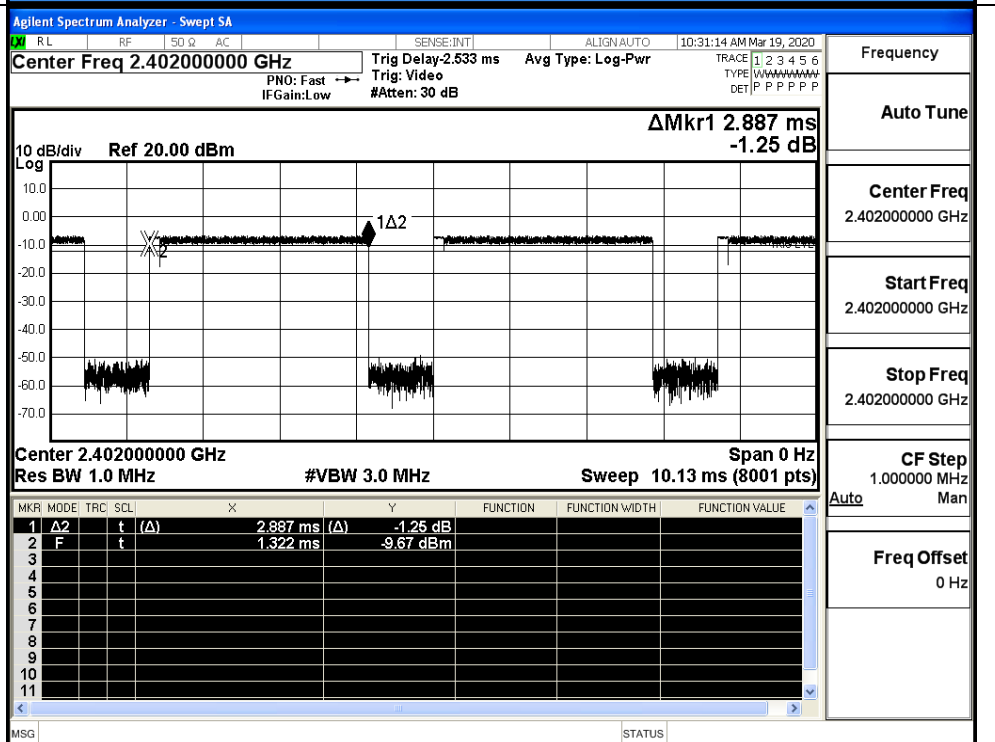
$\pi/4$ DQPSK
_2DH5/MCH



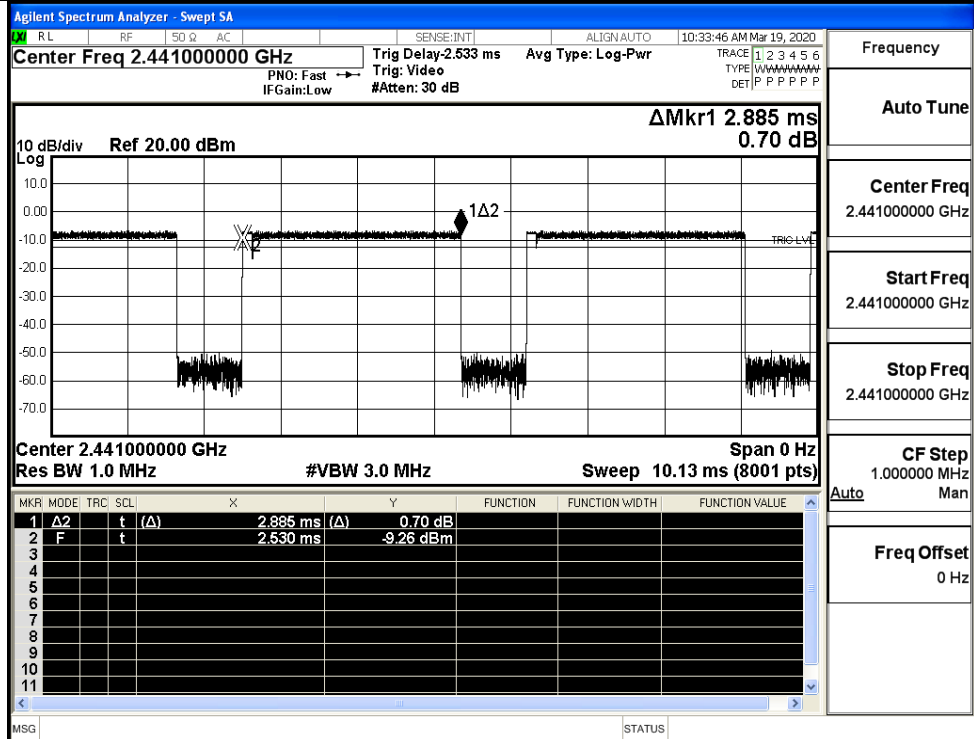
$\pi/4$ DQPSK
_2DH5/HCH



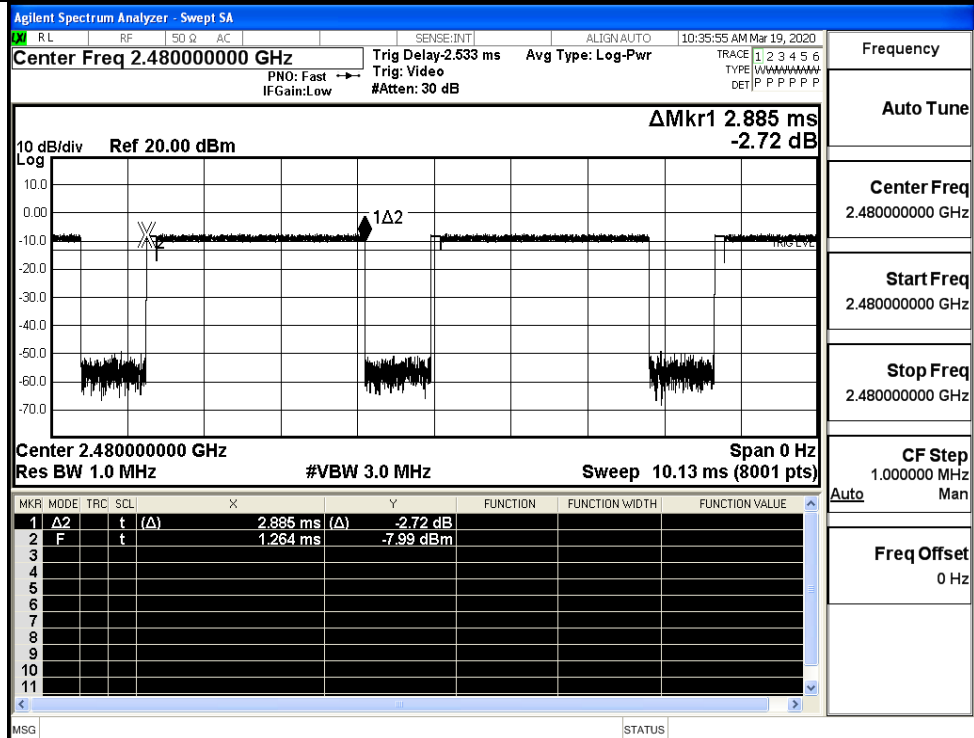
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



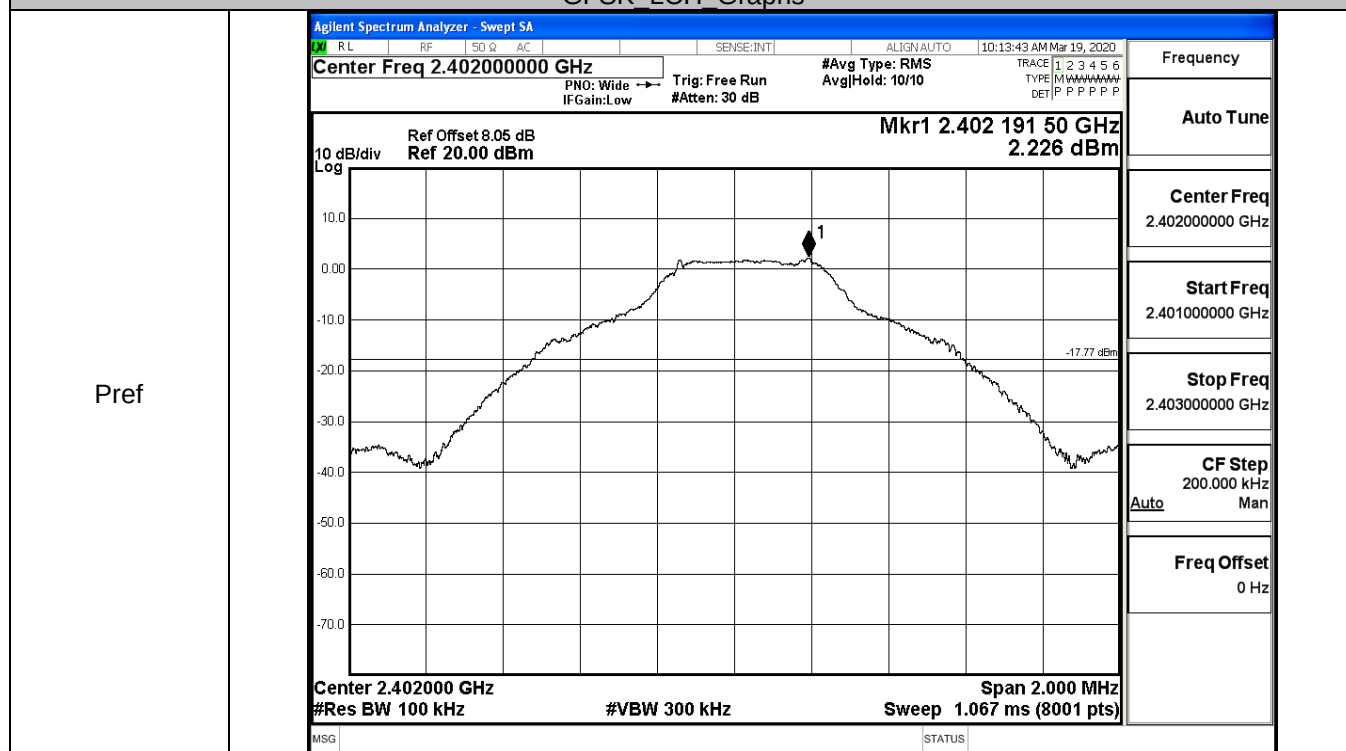
8DPSK_3DH5/HCH



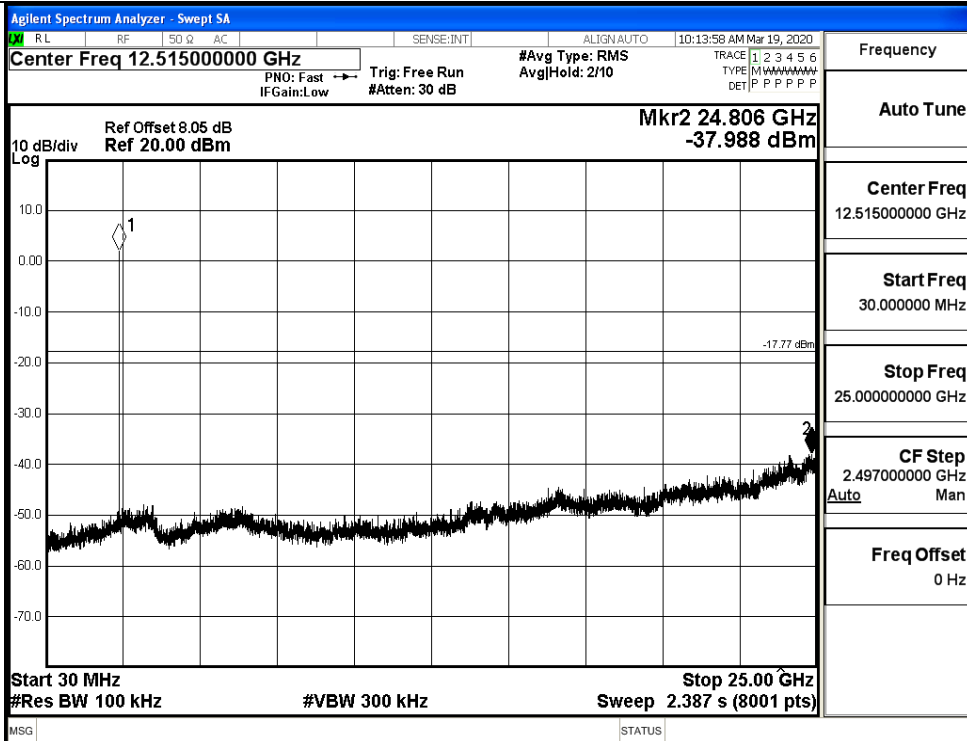
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.226	-37.988	-17.774	PASS
	MCH	1.783	-37.060	-18.217	PASS
	HCH	0.886	-38.488	-19.114	PASS
$\pi/4$ DQPSK	LCH	0.614	-36.915	-19.386	PASS
	MCH	0.593	-37.572	-19.407	PASS
	HCH	-0.093	-37.606	-20.093	PASS
8DPSK	LCH	0.778	-37.796	-19.222	PASS
	MCH	0.644	-37.893	-19.356	PASS
	HCH	-0.087	-37.911	-20.087	PASS

GFSK LCH Graphs

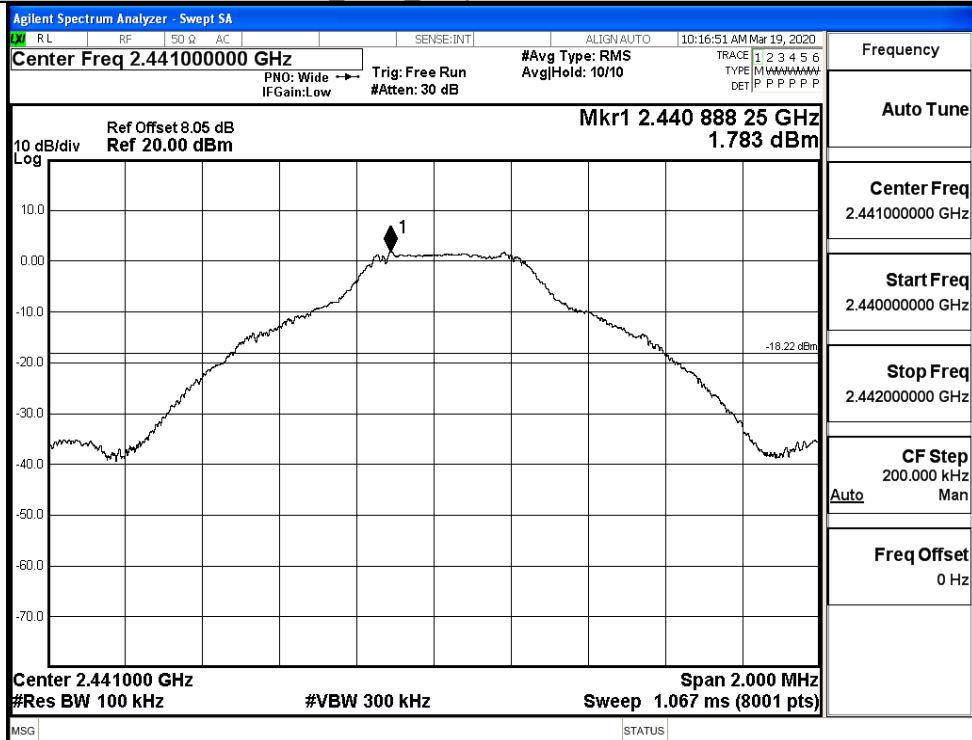


Puw

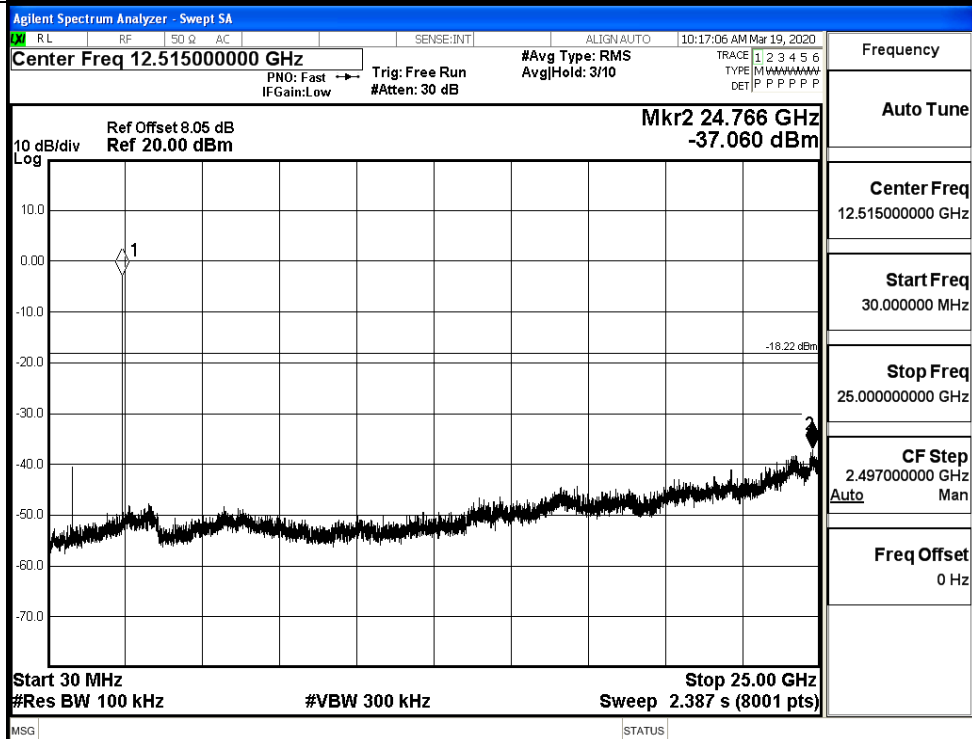


GFSK_MCH_Graphs

Pref

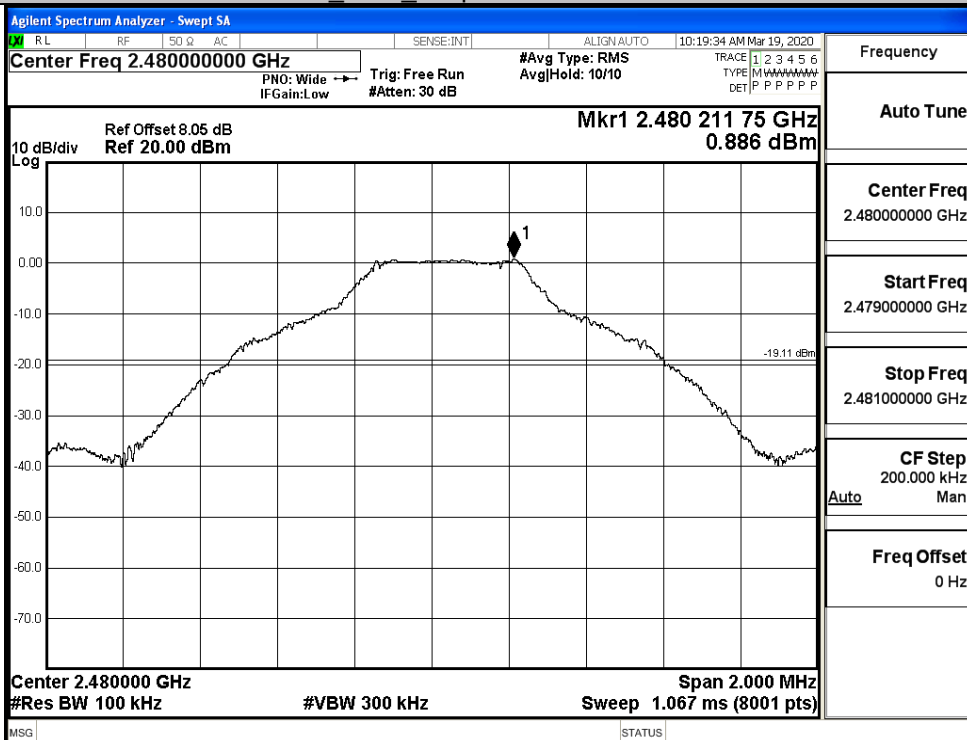


Puw

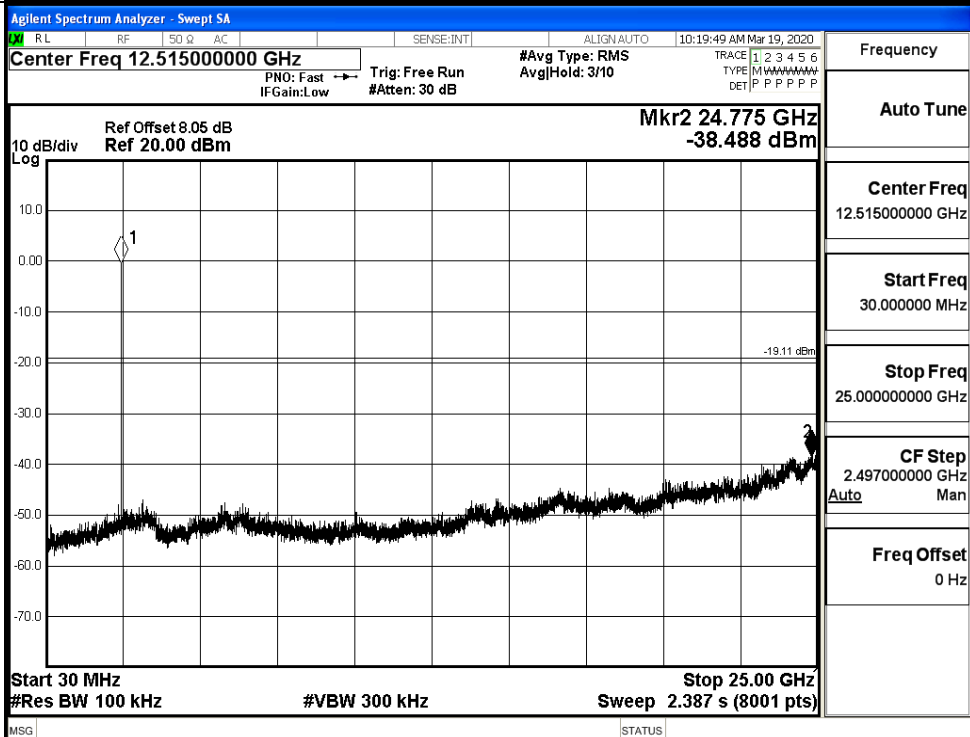


GFSK HCH Graphs

Pref

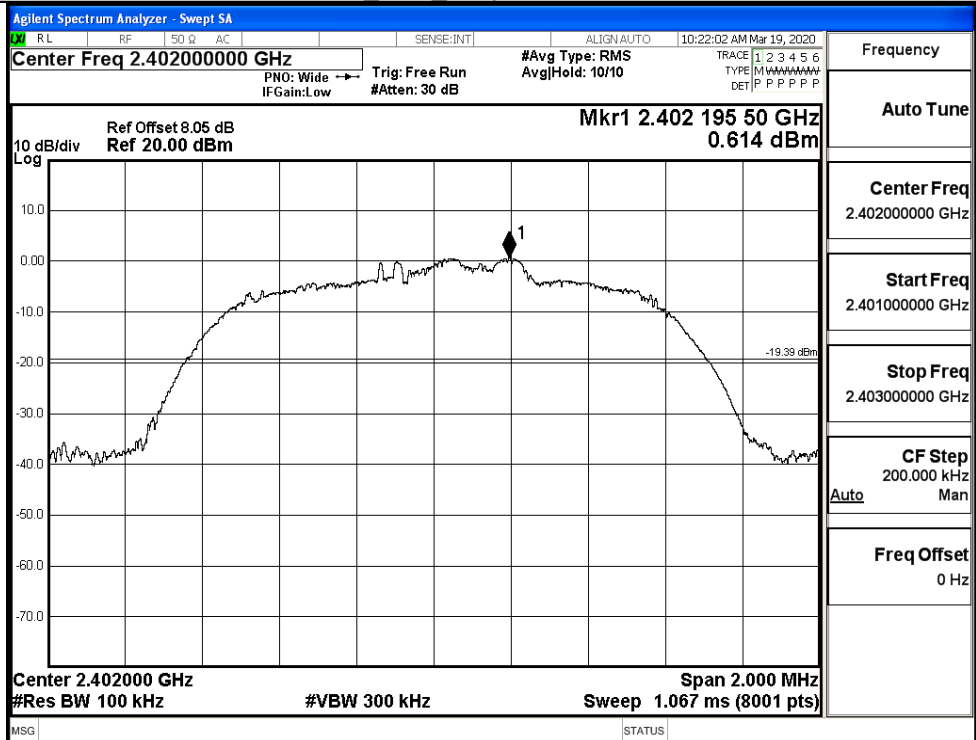


Puw

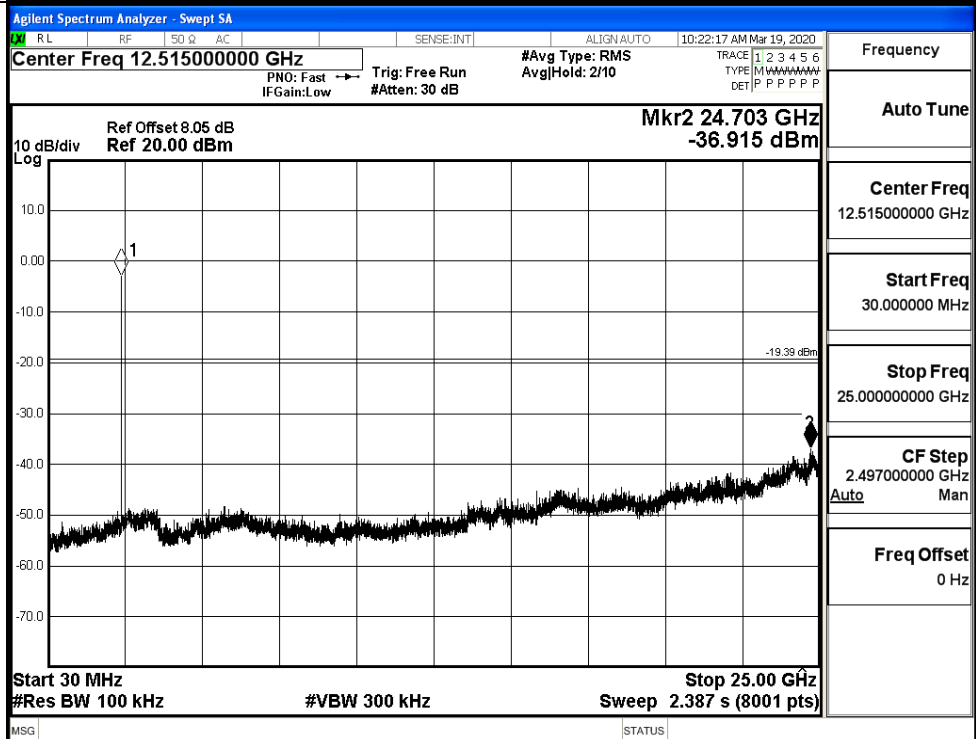


$\pi/4$ DQPSK_LCH_Graphs

Pref

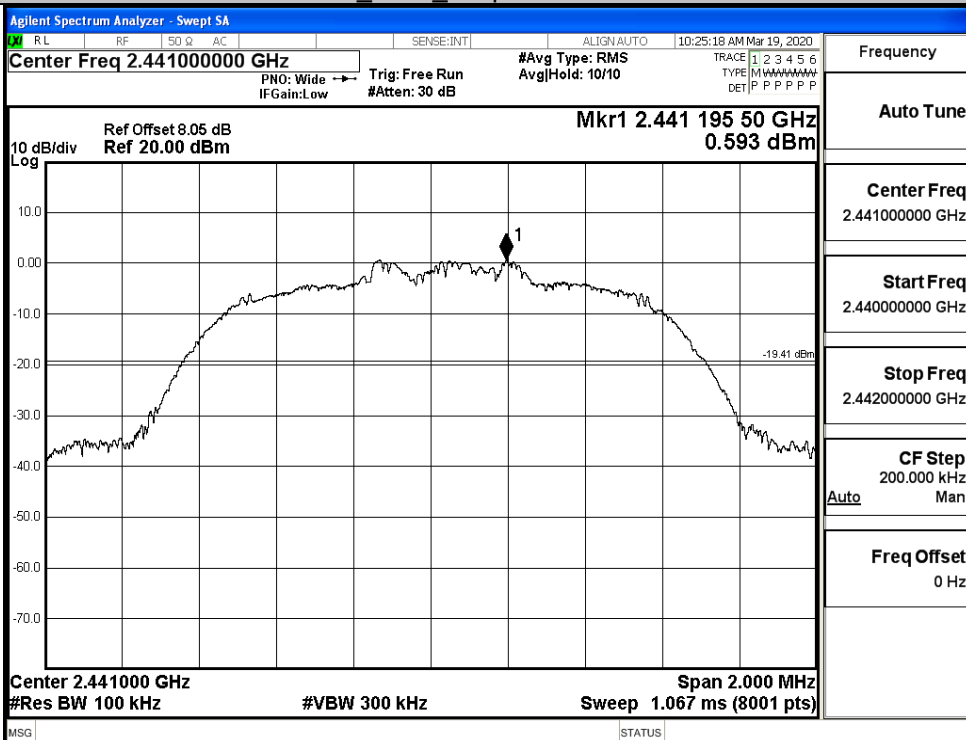


Puw

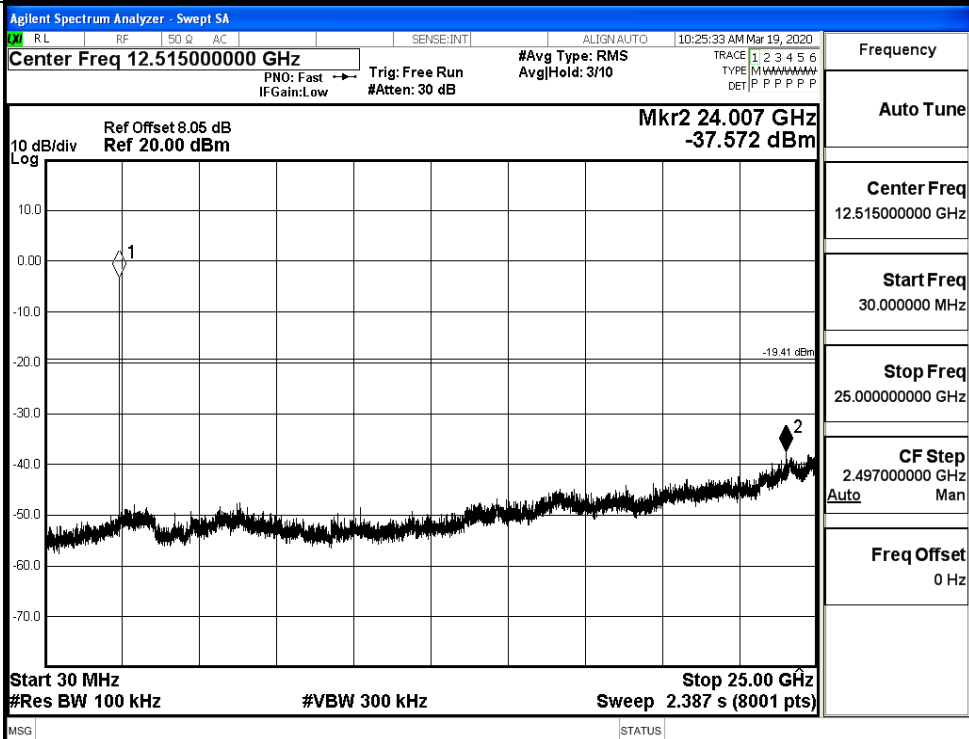


$\pi/4$ DQPSK_MCH_Graphs

Pref

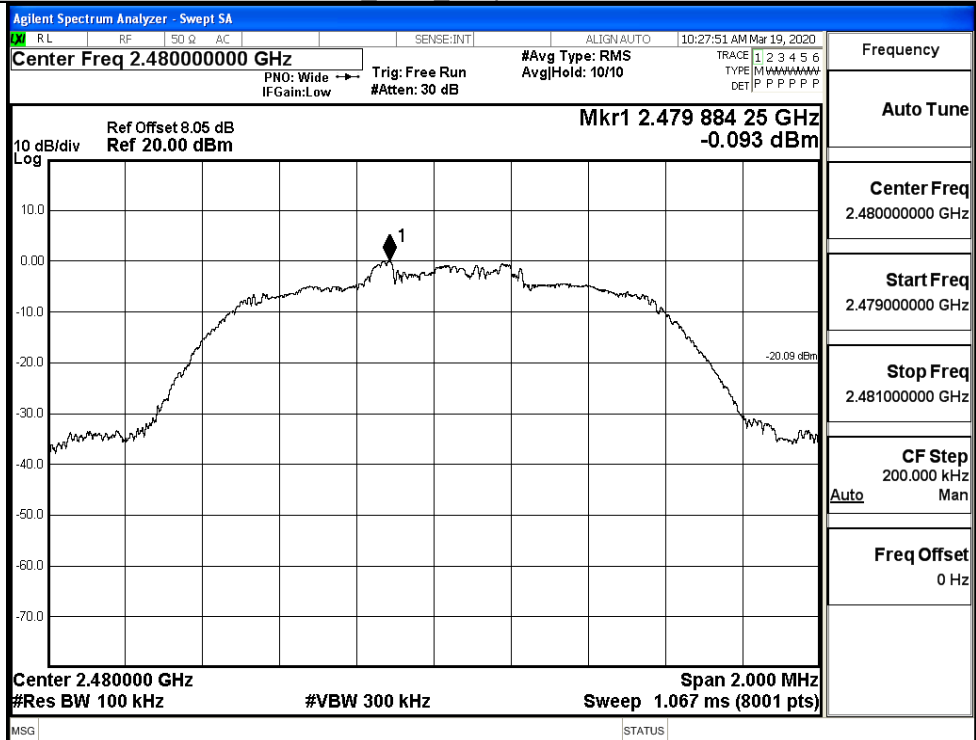


Puw

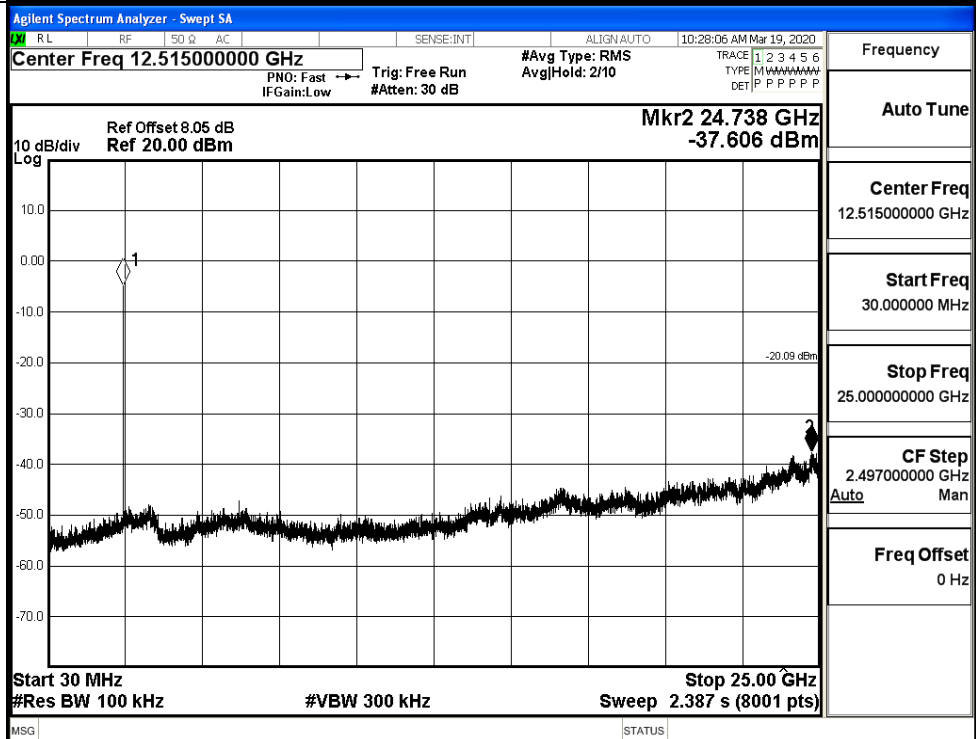


$\pi/4$ DQPSK_HCH_Graphs

Pref

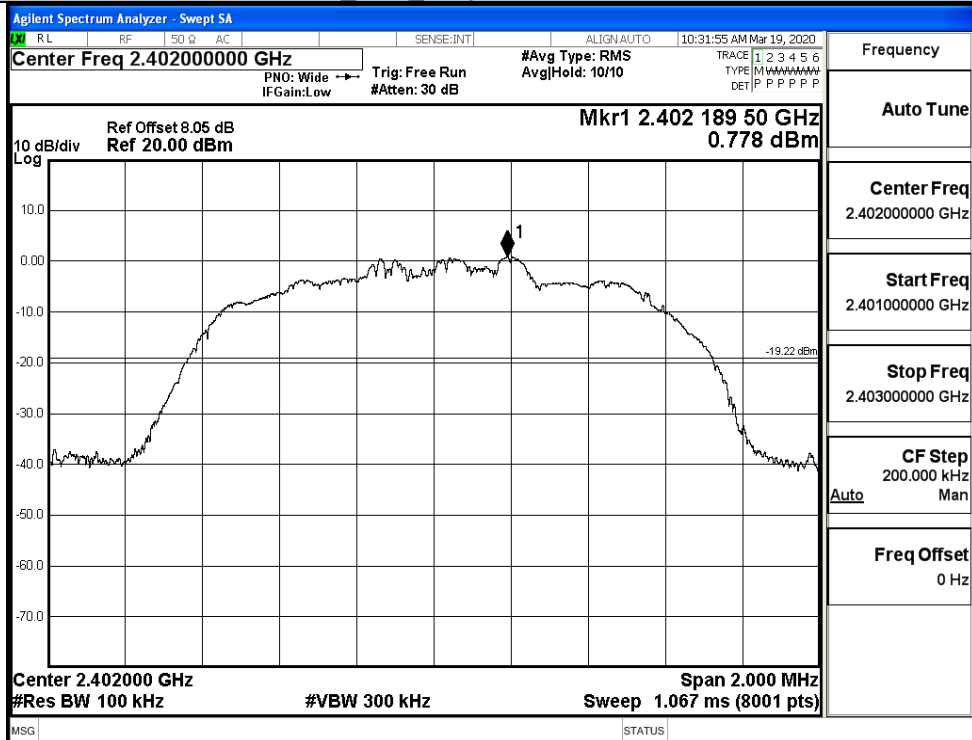


Puw

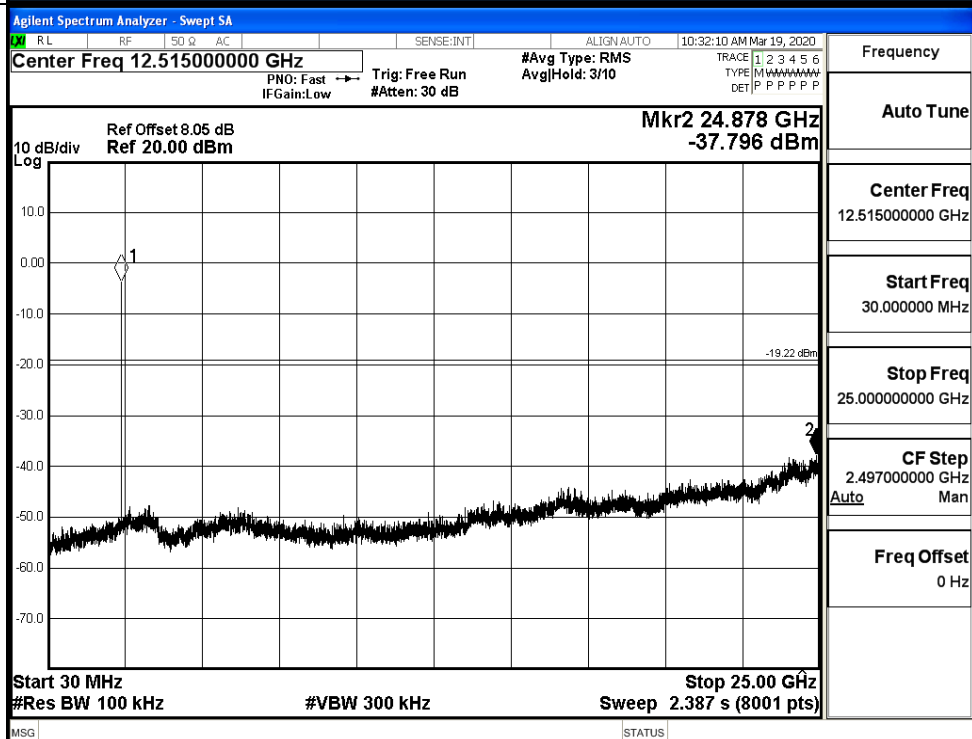


8DPSK_LCH_Graphs

Pref

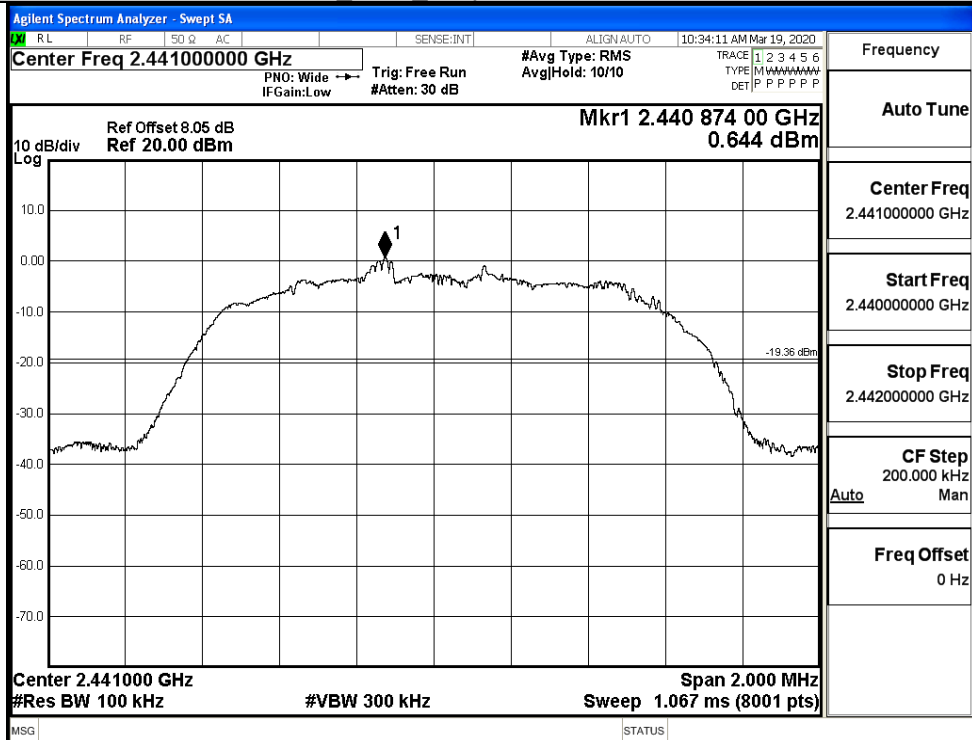


Puw

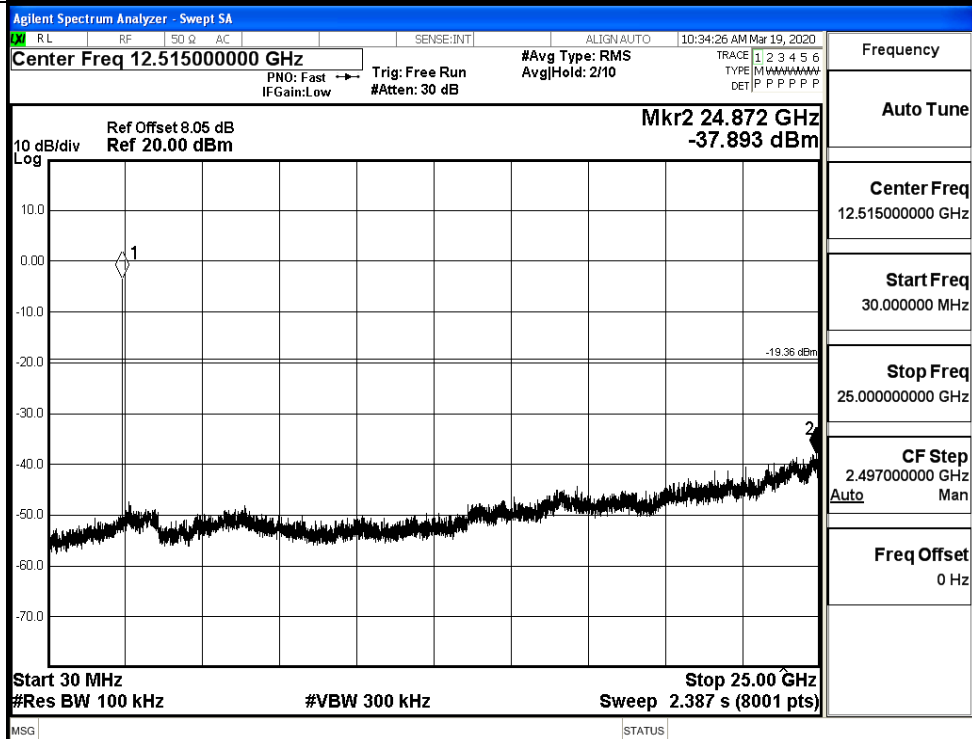


8DPSK_MCH_Graphs

Pref

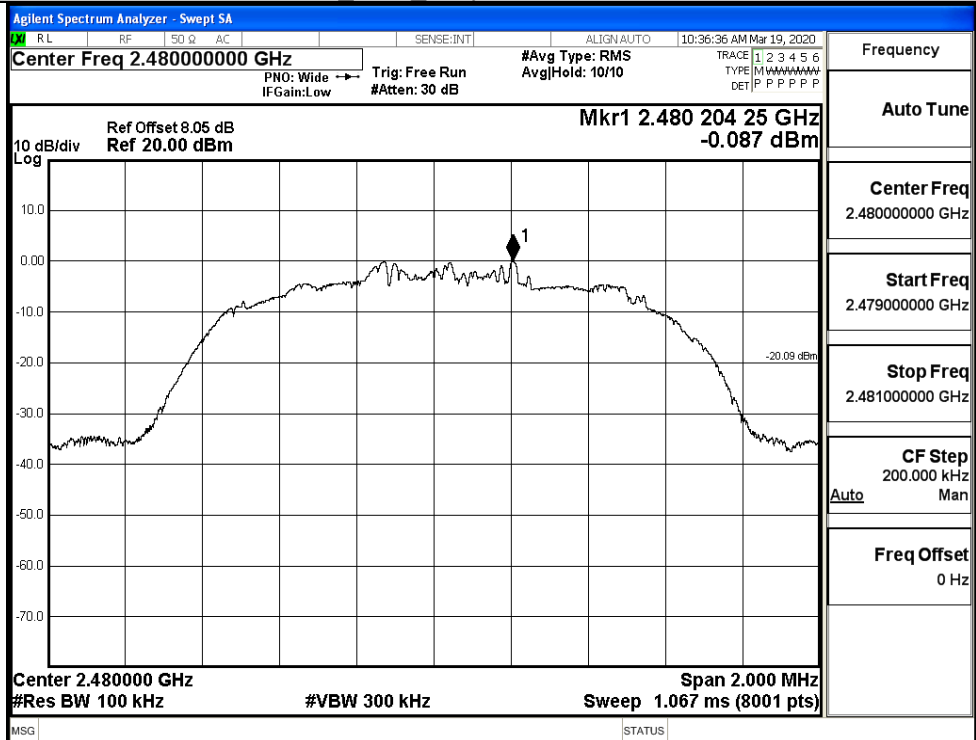


Puw

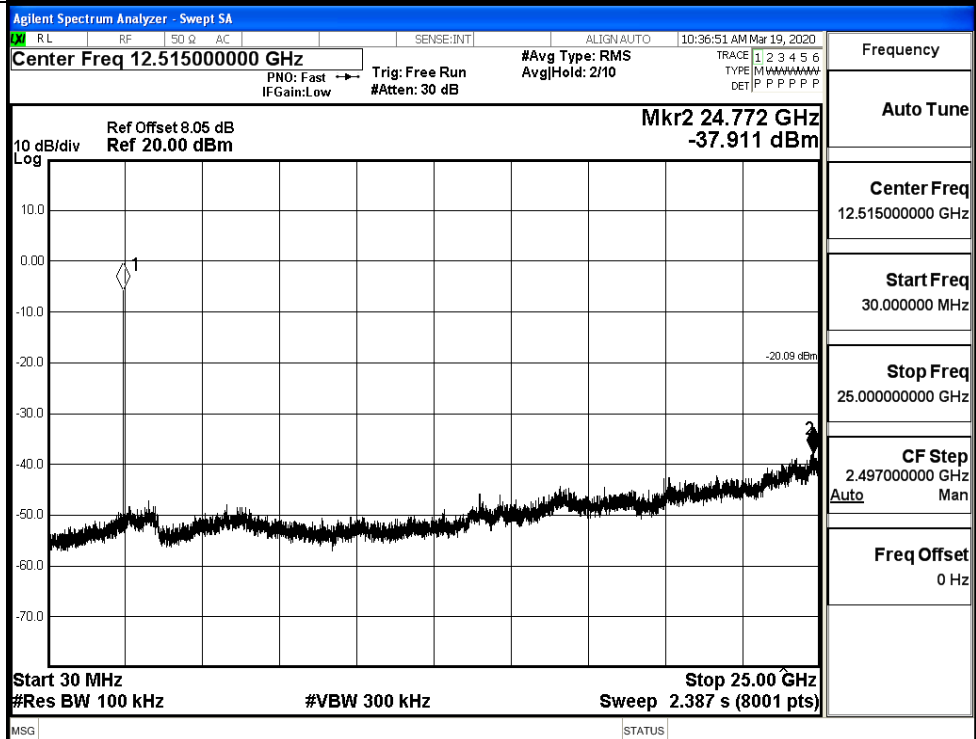


8DPSK_HCH_Graphs

Pref



Puw

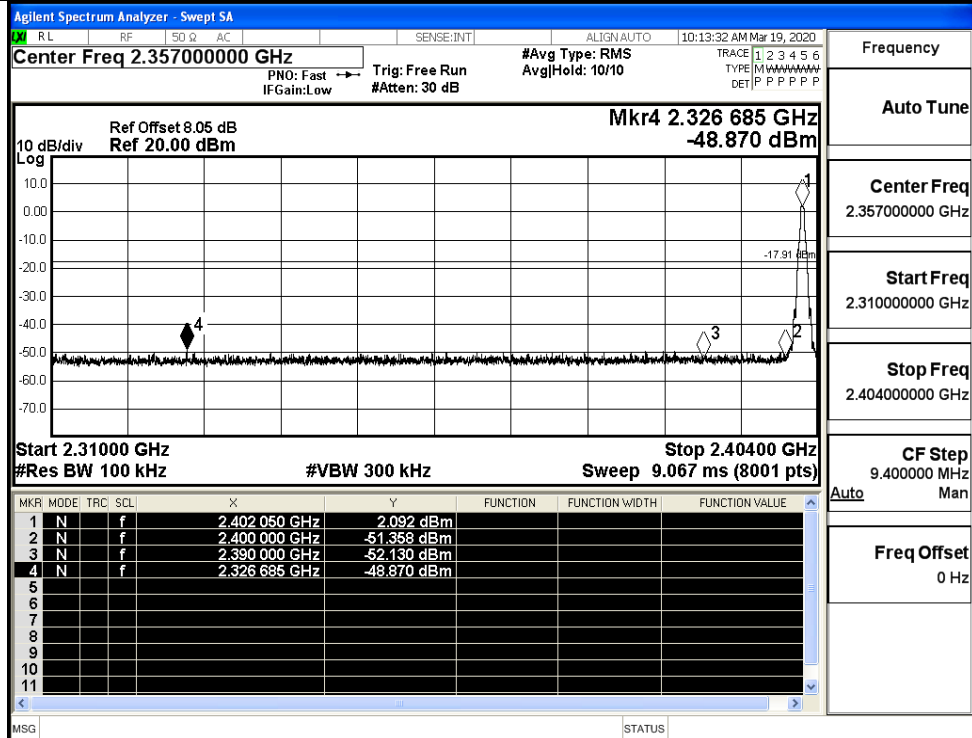


A.7 Band-edge for RF Conducted Emissions

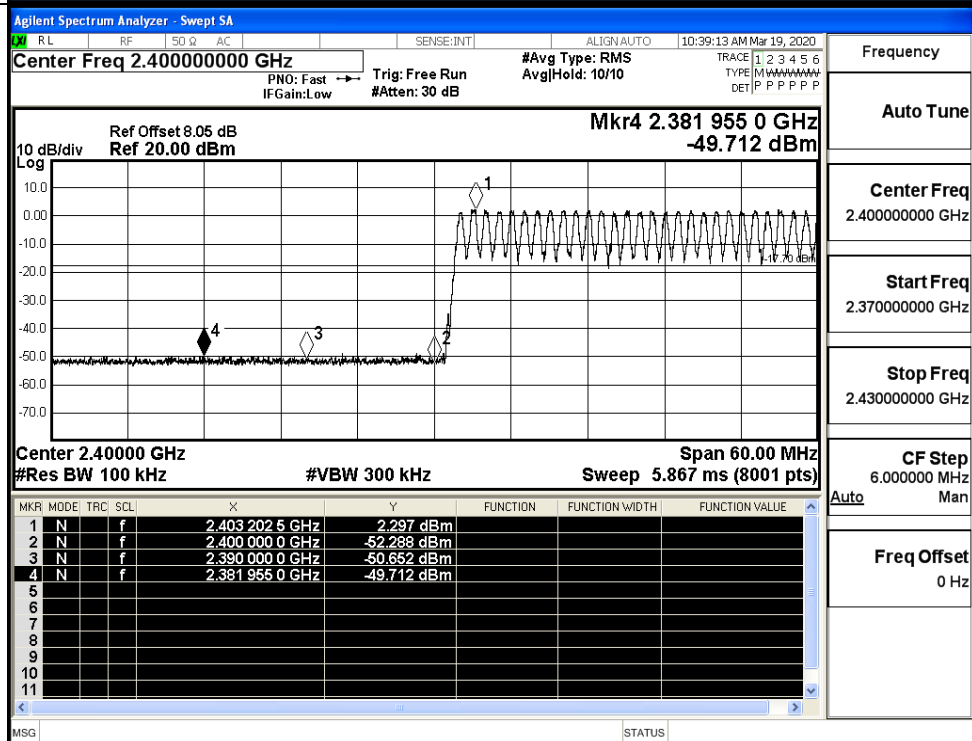
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	2.092	Off	-48.870	-17.91	PASS
			2.297	On	-49.712	-17.7	PASS
	HCH	2480	1.091	Off	-49.163	-18.91	PASS
			1.573	On	-48.356	-18.43	PASS
$\pi/4$ DQPSK	LCH	2402	-0.521	Off	-49.284	-20.52	PASS
			0.946	On	-48.825	-19.05	PASS
	HCH	2480	0.132	Off	-48.694	-19.87	PASS
			0.182	On	-48.375	-19.82	PASS
8DPSK	LCH	2402	0.793	Off	-49.461	-19.21	PASS
			0.773	On	-48.338	-19.23	PASS
	HCH	2480	0.126	Off	-48.841	-19.87	PASS
			0.332	On	-48.363	-19.67	PASS

Test Graphs

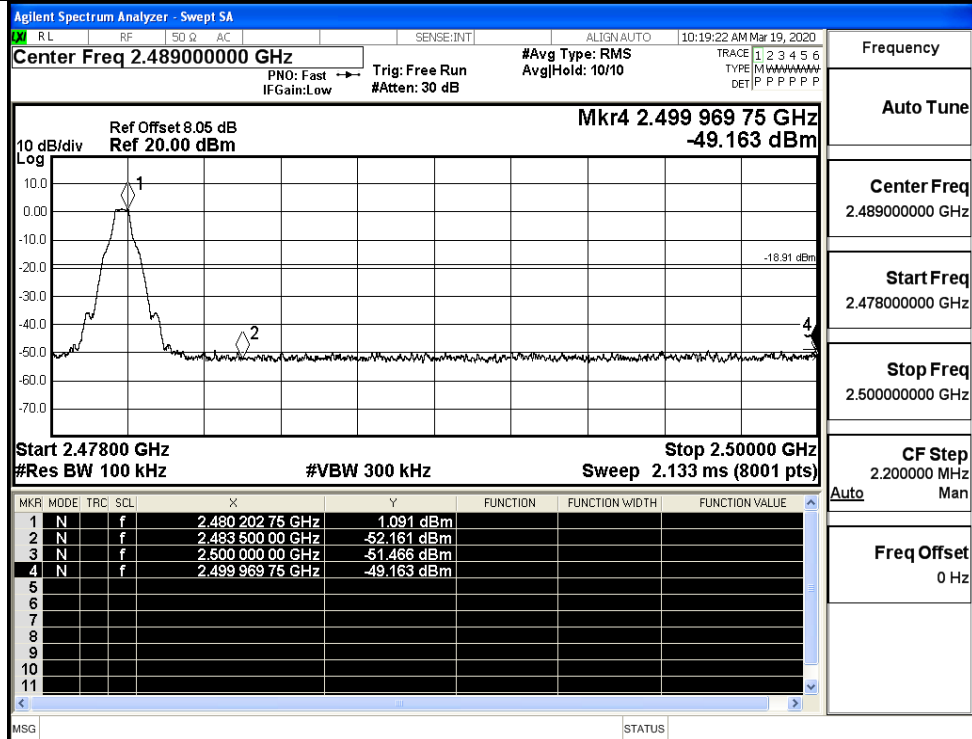
GFSK/LCH/No Hop



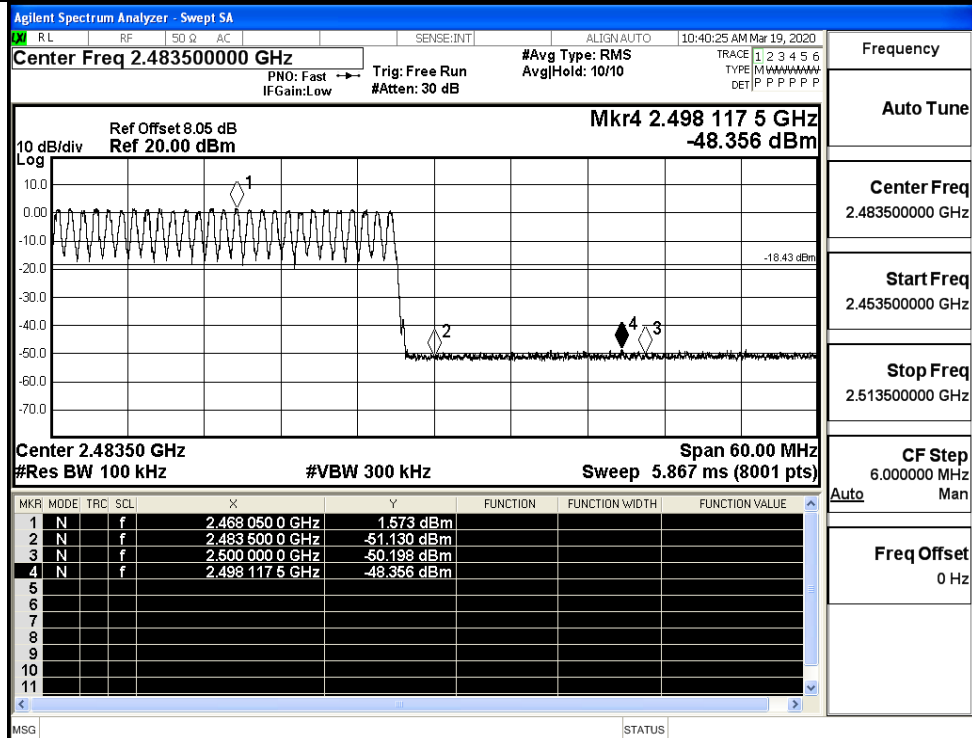
GFSK/LCH/Hop



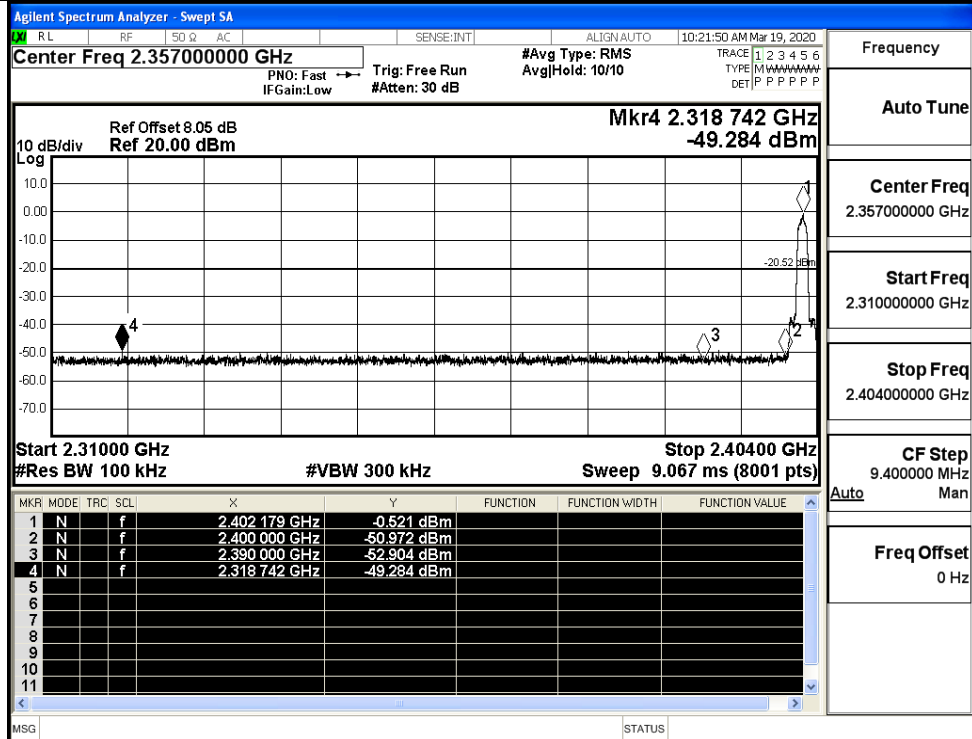
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

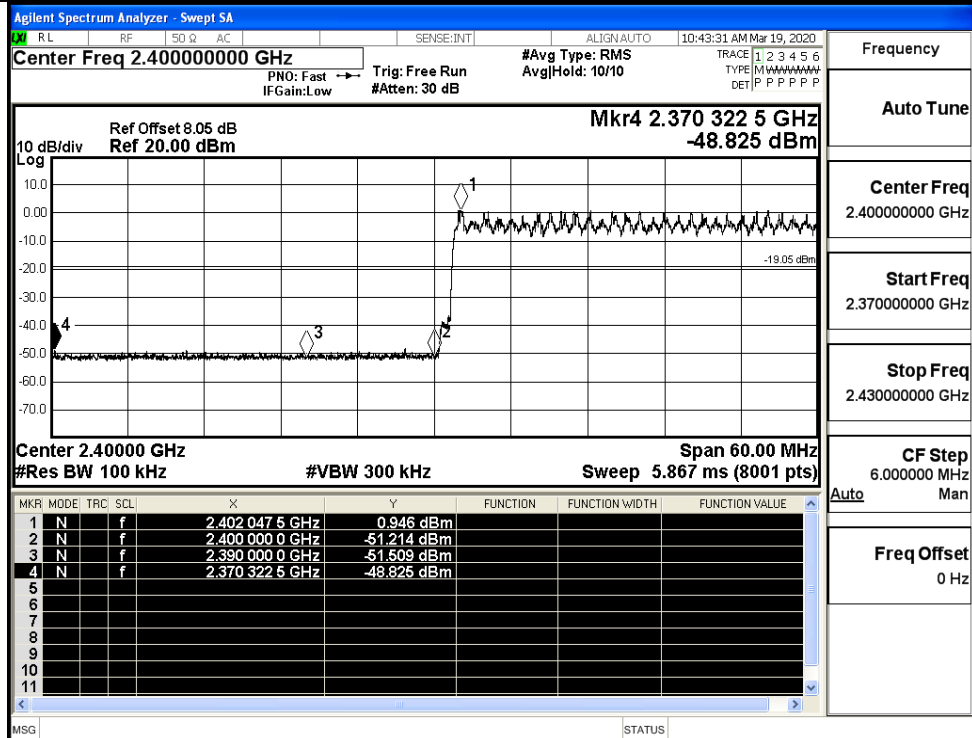
Start Freq
2.310000000 GHz

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

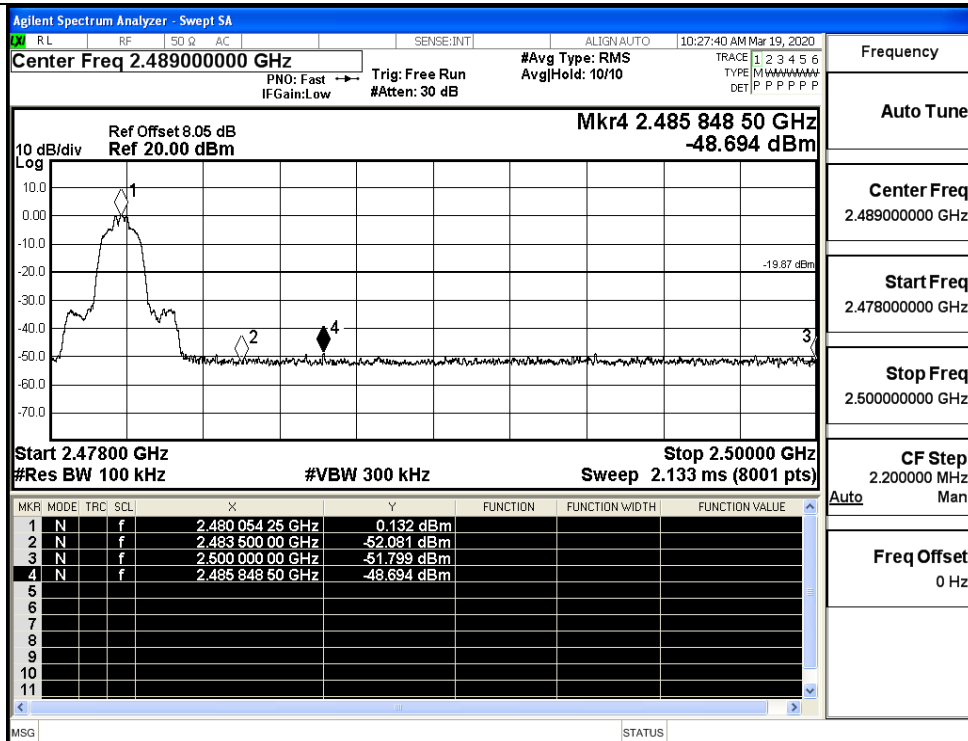
Start Freq
2.370000000 GHz

Stop Freq
2.430000000 GHz

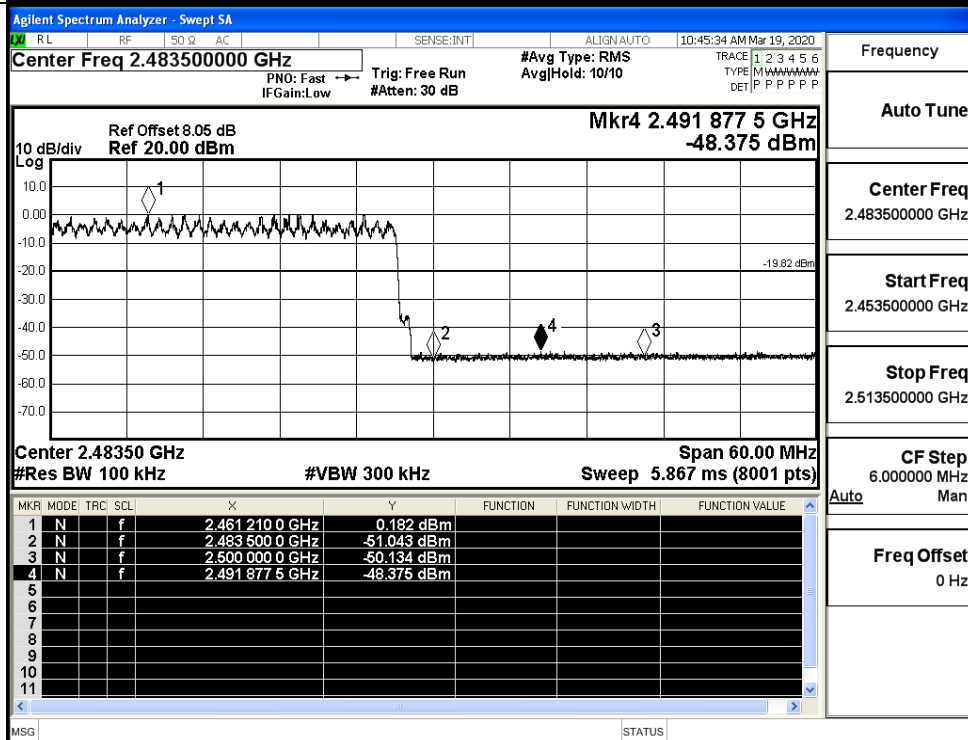
CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

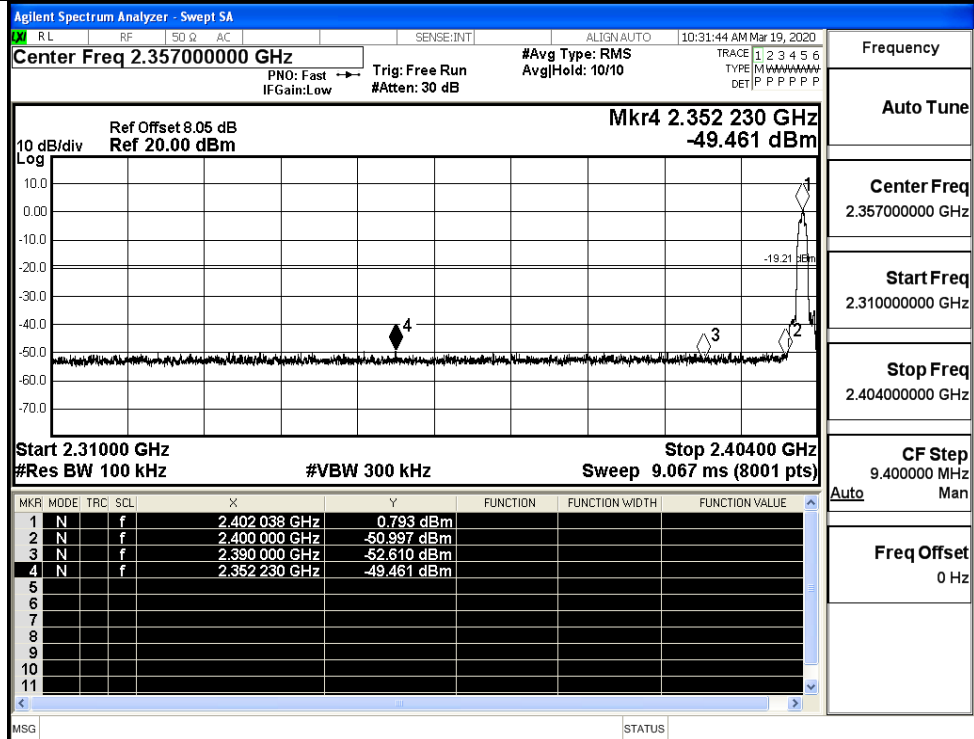
$\pi/4$ DQPSK/HCH/No
Hop



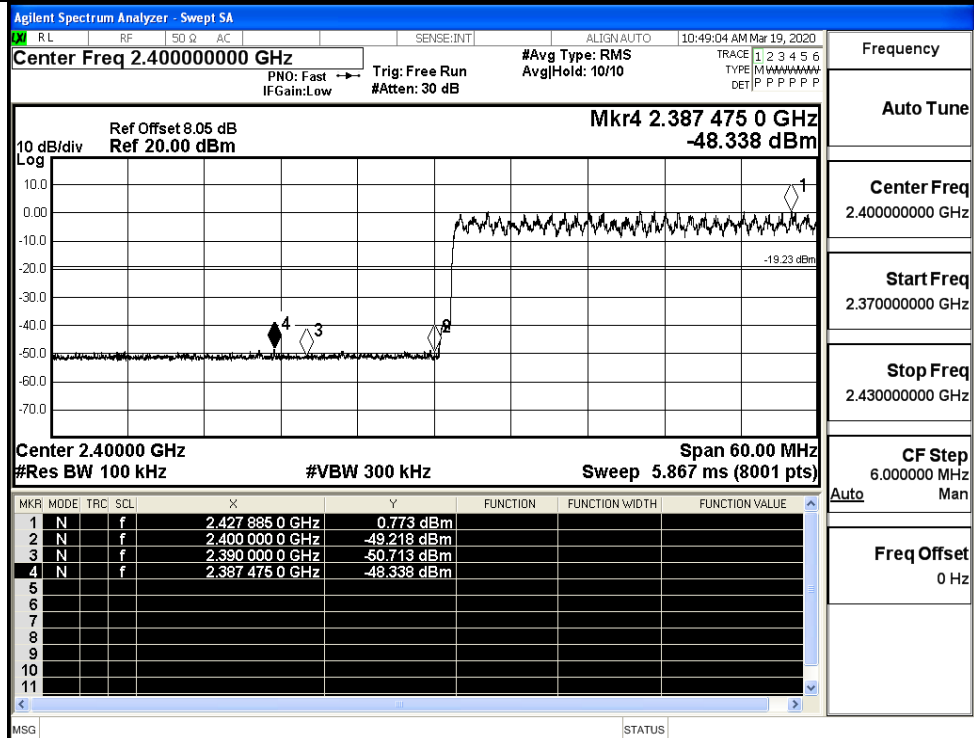
$\pi/4$ DQPSK/HCH/Hop



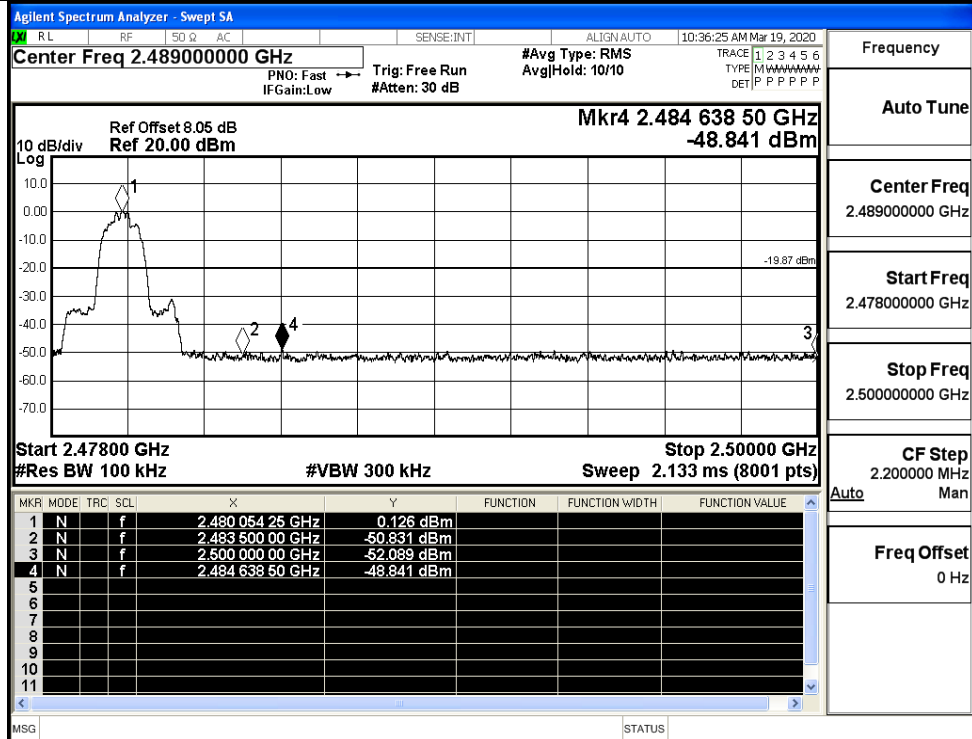
8DPSK/LCH/No Hop



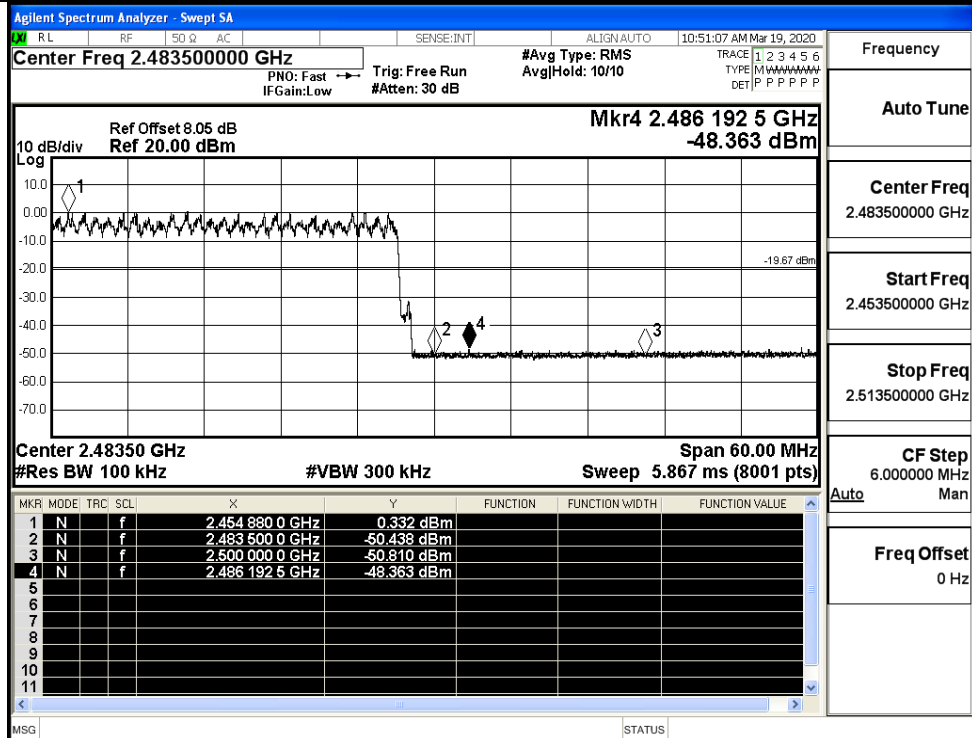
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



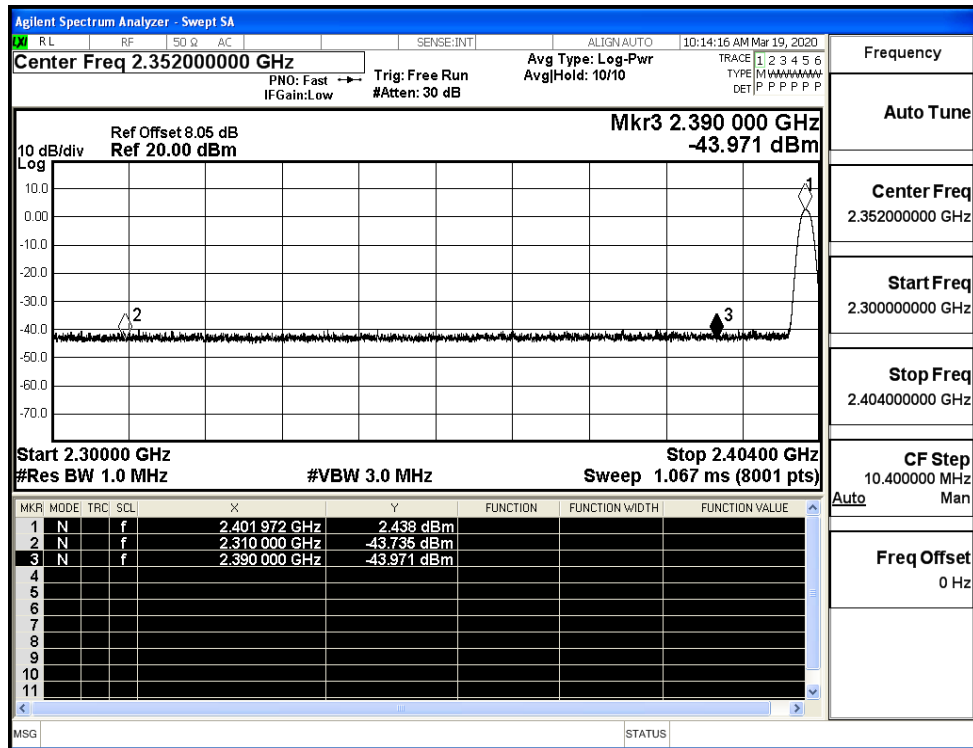
8DPSK/HCH/Hop



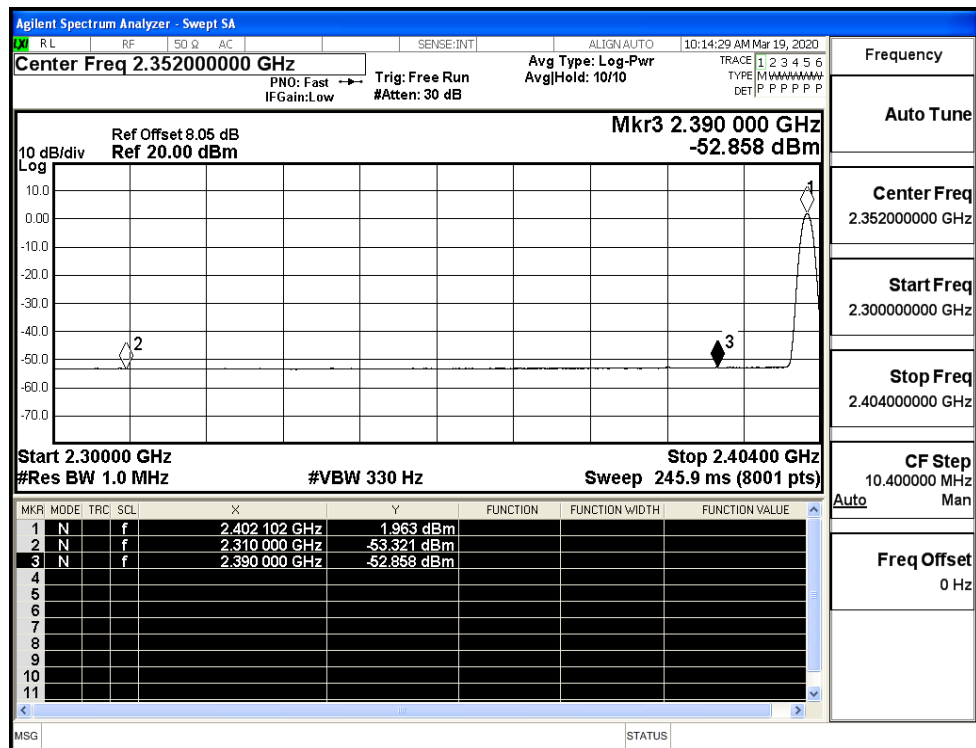
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.74	2.0	0	53.52	PEAK	74	PASS
	Off	2310.0	-53.32	2.0	0	43.94	AV	54	PASS
	Off	2390.0	-43.97	2.0	0	53.29	PEAK	74	PASS
	Off	2390.0	-52.86	2.0	0	44.4	AV	54	PASS
	Off	2483.5	-42.46	2.0	0	54.79	PEAK	74	PASS
	Off	2483.5	-52.32	2.0	0	44.93	AV	54	PASS
	Off	2500.0	-42.30	2.0	0	54.96	PEAK	74	PASS
	Off	2500.0	-52.18	2.0	0	45.08	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-42.90	2.0	0	54.36	PEAK	74	PASS
	Off	2310.0	-53.15	2.0	0	44.11	AV	54	PASS
	Off	2390.0	-42.91	2.0	0	54.34	PEAK	74	PASS
	Off	2390.0	-52.86	2.0	0	44.4	AV	54	PASS
	Off	2483.5	-41.91	2.0	0	55.35	PEAK	74	PASS
	Off	2483.5	-52.23	2.0	0	45.03	AV	54	PASS
	Off	2500.0	-42.43	2.0	0	54.82	PEAK	74	PASS
	Off	2500.0	-52.20	2.0	0	45.06	AV	54	PASS
8DPSK	Off	2310.0	-42.88	2.0	0	54.38	PEAK	74	PASS
	Off	2310.0	-53.17	2.0	0	44.09	AV	54	PASS
	Off	2390.0	-41.68	2.0	0	55.58	PEAK	74	PASS
	Off	2390.0	-52.75	2.0	0	44.51	AV	54	PASS
	Off	2483.5	-41.92	2.0	0	55.34	PEAK	74	PASS
	Off	2483.5	-52.32	2.0	0	44.93	AV	54	PASS
	Off	2500.0	-42.86	2.0	0	54.4	PEAK	74	PASS
	Off	2500.0	-52.28	2.0	0	44.97	AV	54	PASS

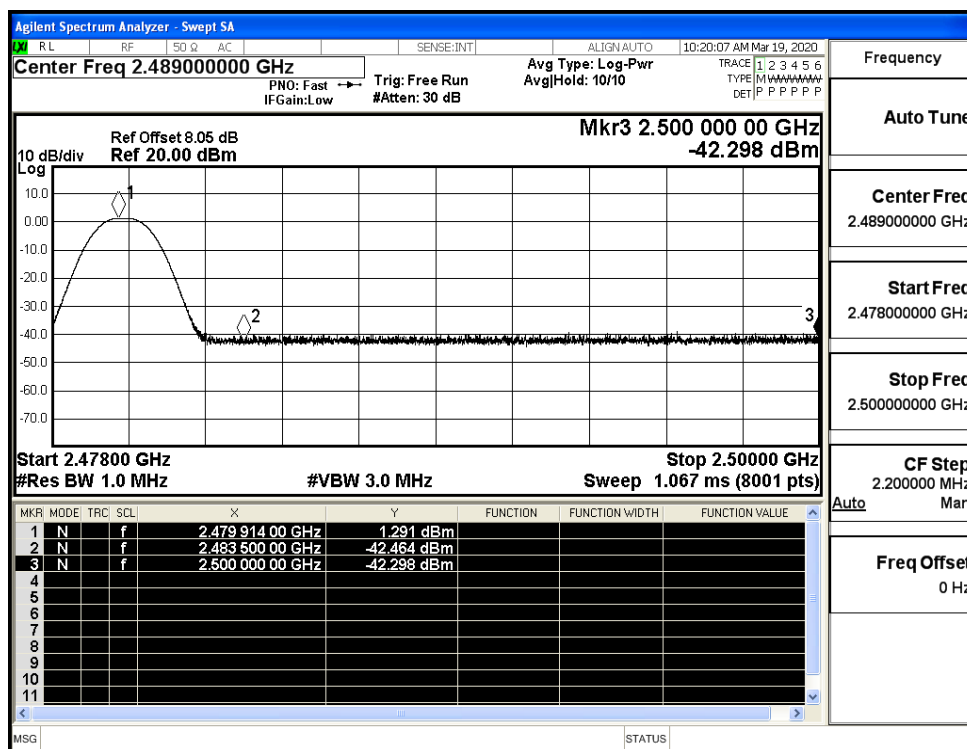
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



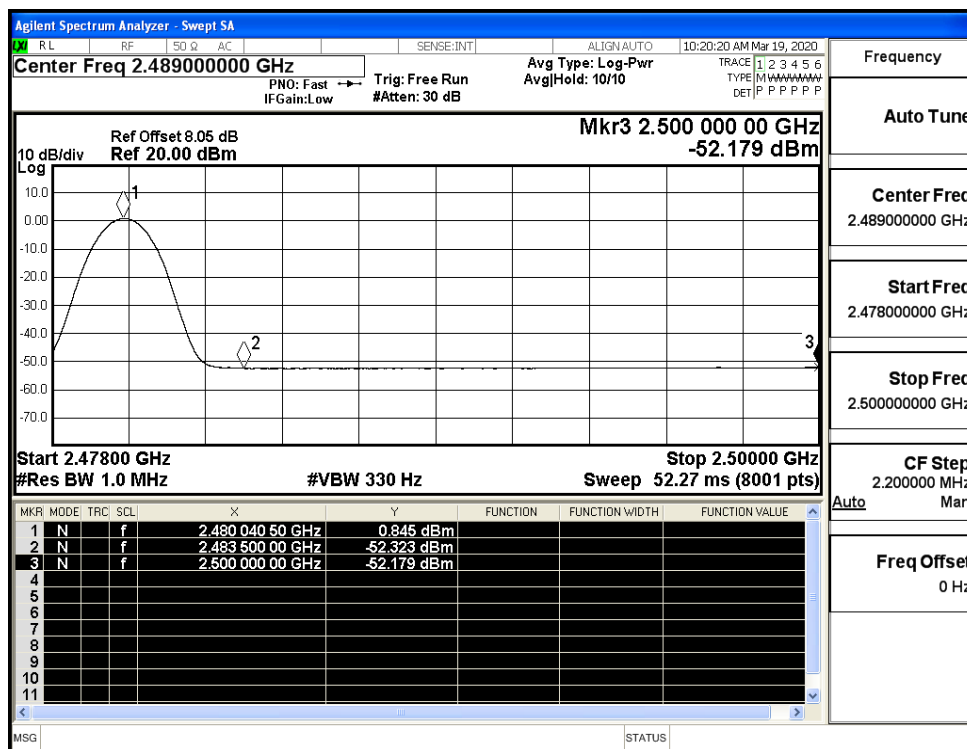
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

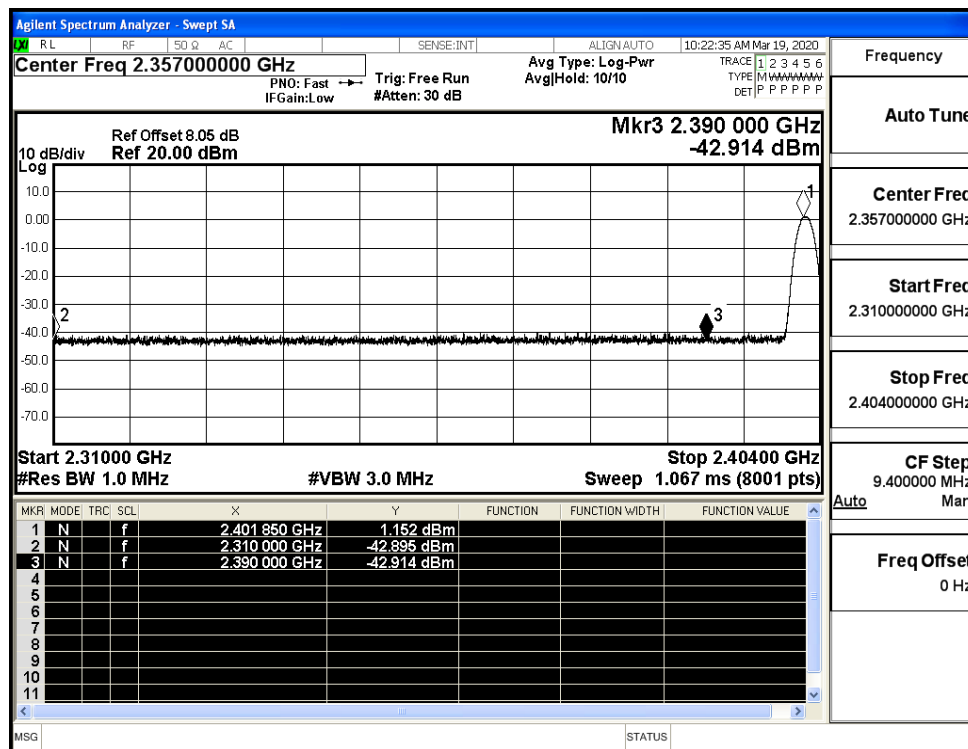
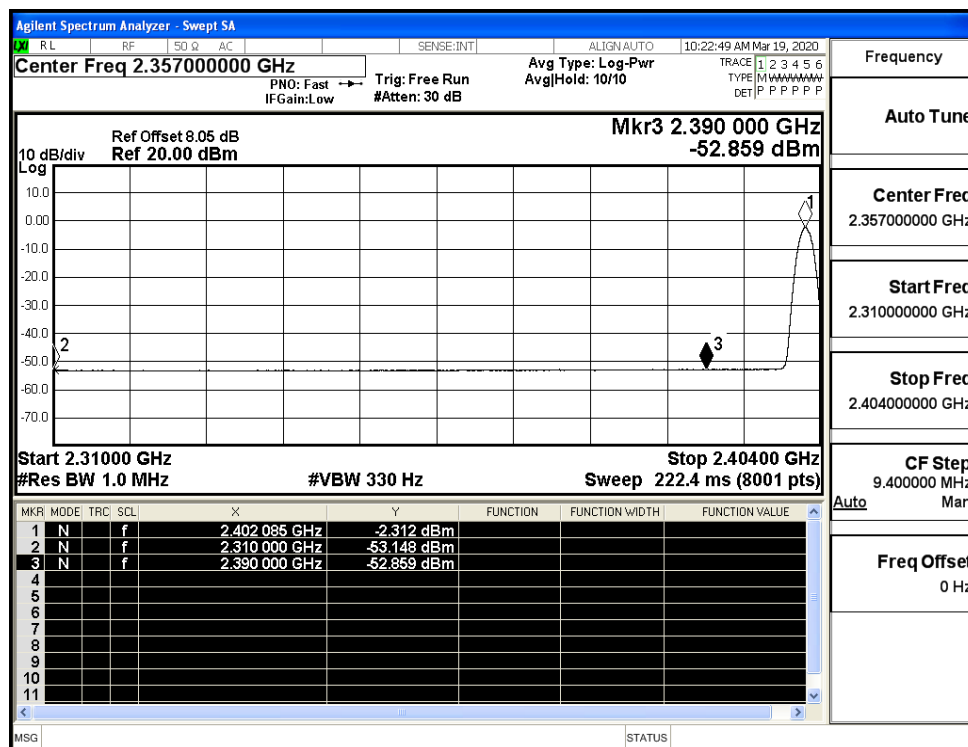


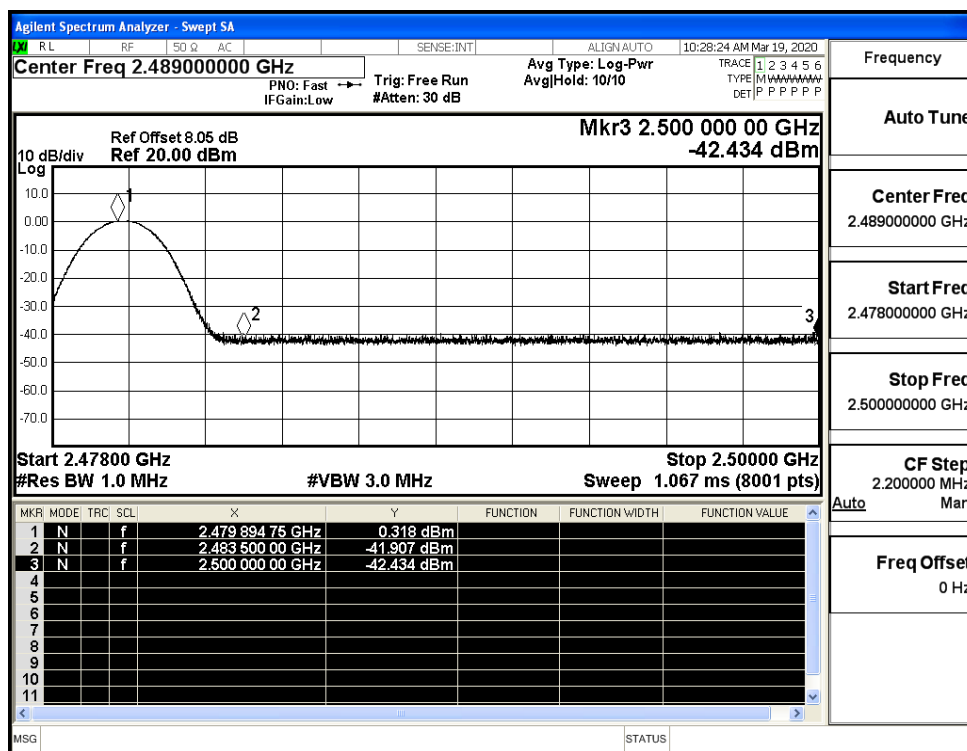
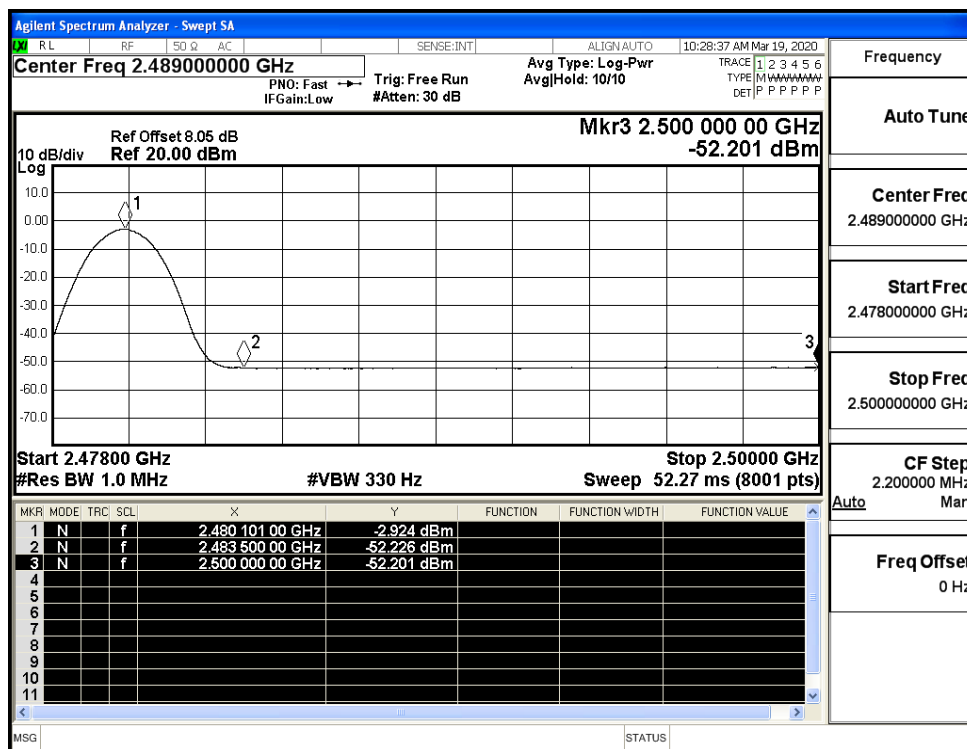
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



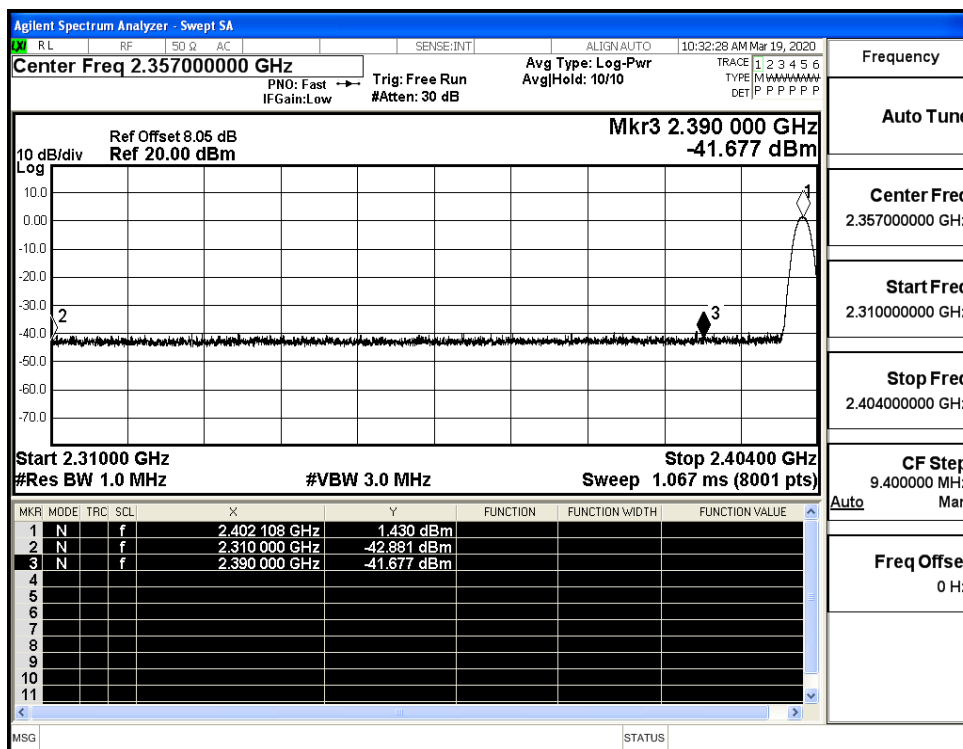
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



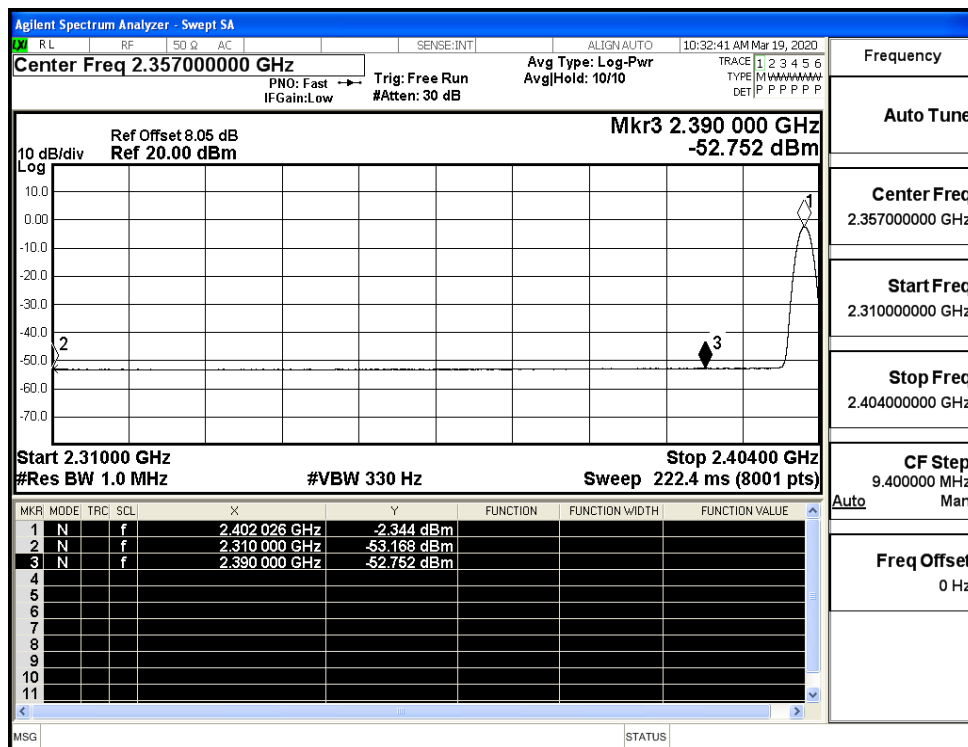
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

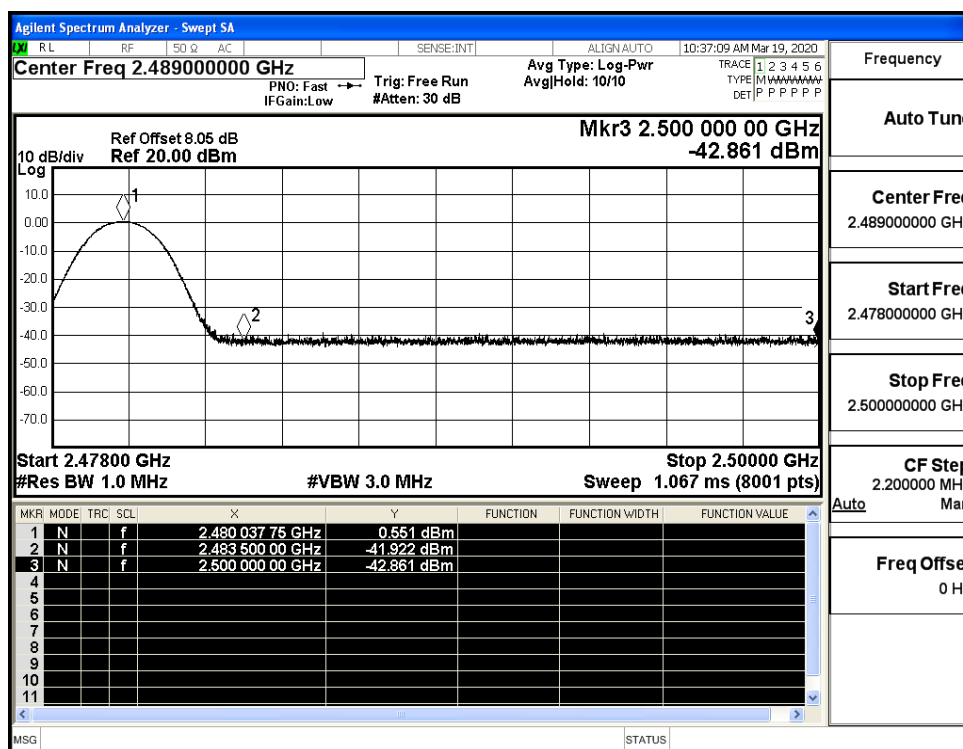
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

