

Appendix A

RF Test Data for BT V4.0(BDR/EDR) (Conducted Measurement)

Product Name: All-in-one Tablet

Trade Mark: STRATATACHE/SCALA

Test Model: ST156

Environmental Conditions

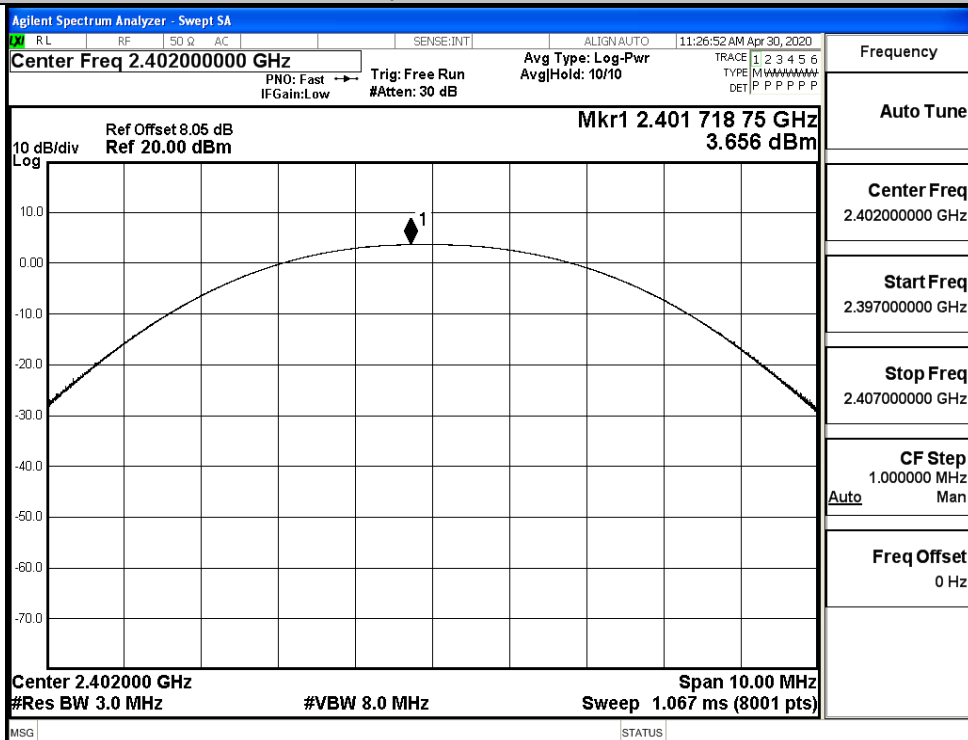
Temperature:	23.4 ° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	David.Luo
Supervised by:	Tom.Liu

A.1 Maximum Conducted Peak Output Power

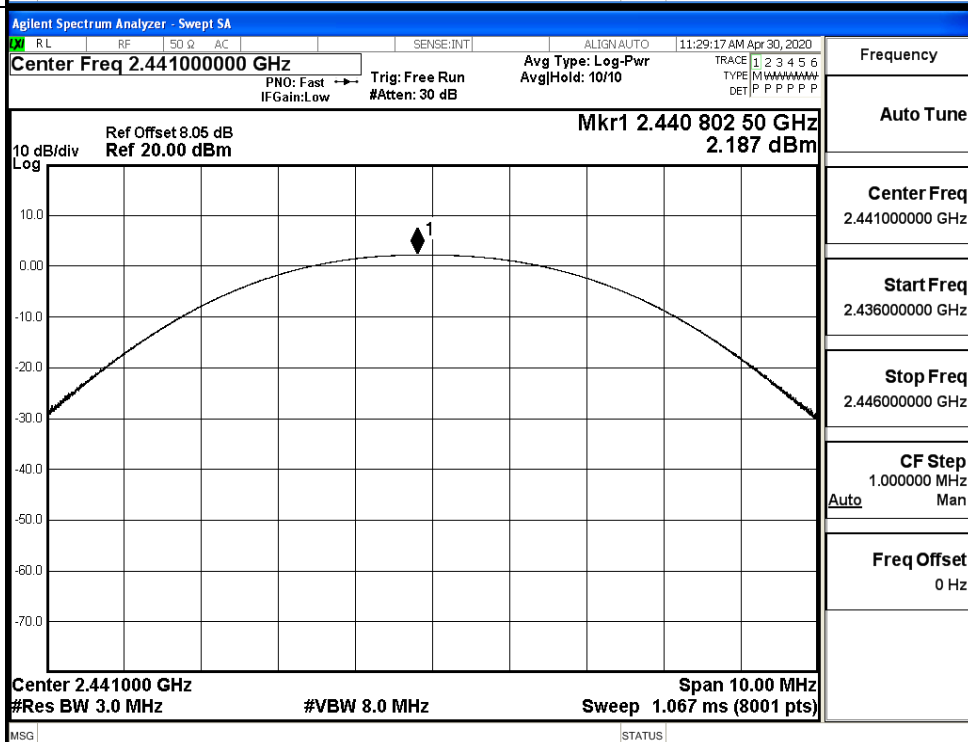
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.656	21	PASS
	MCH	2.187	21	PASS
	HCH	1.702	21	PASS
$\pi/4$ DQPSK	LCH	1.372	21	PASS
	MCH	-0.037	21	PASS
	HCH	-1.076	21	PASS
8DPSK	LCH	1.692	21	PASS
	MCH	0.242	21	PASS
	HCH	-0.731	21	PASS

Test Graphs

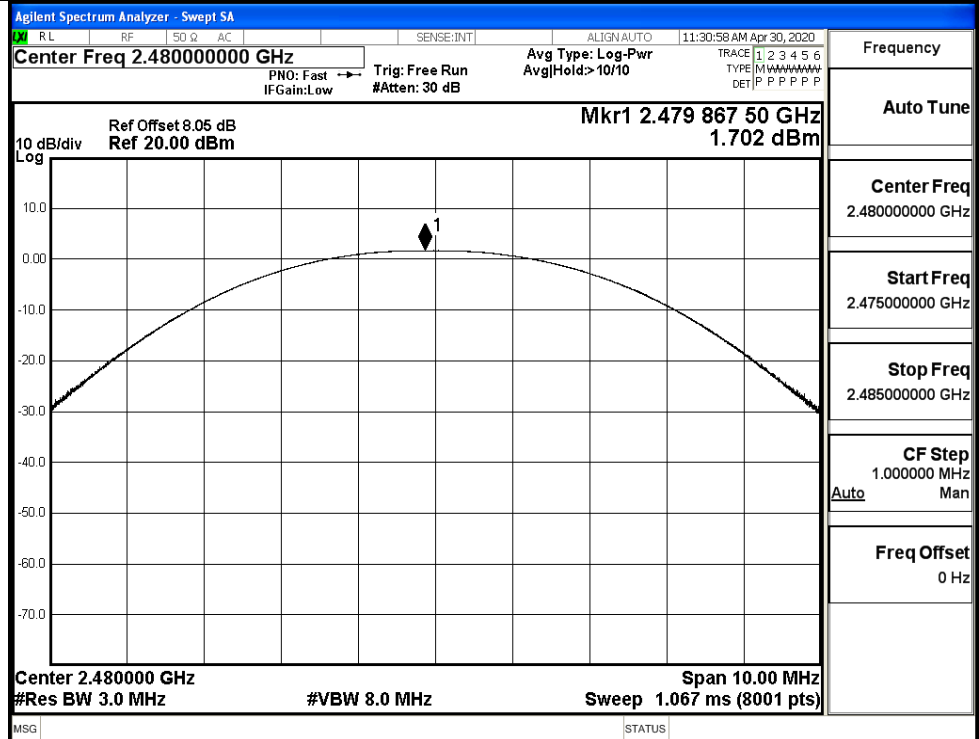
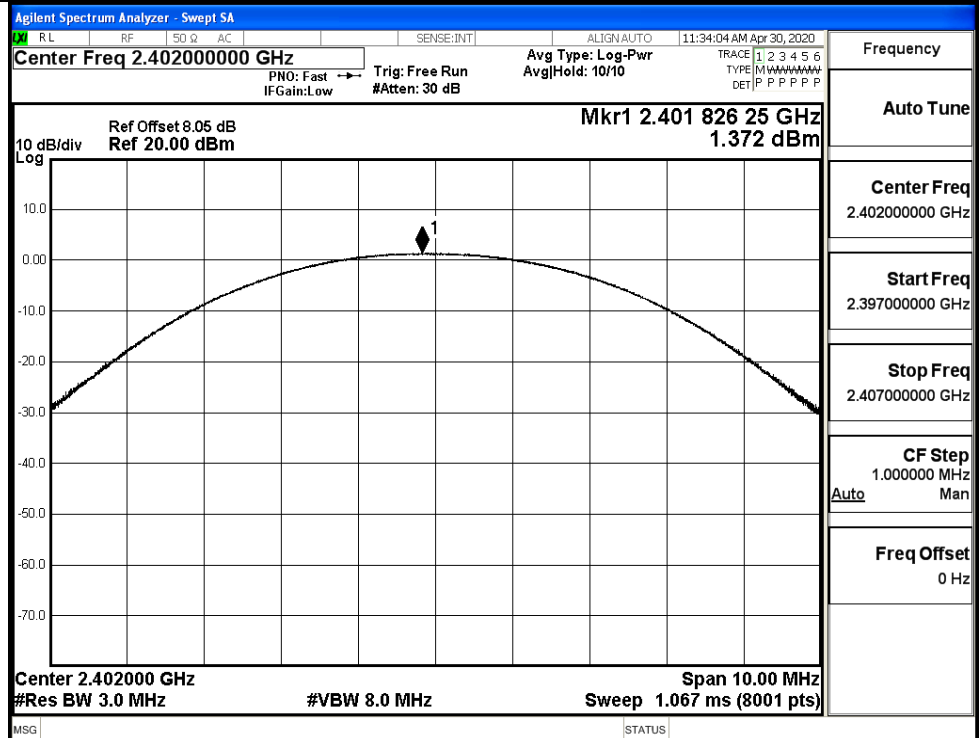
GFSK/LCH

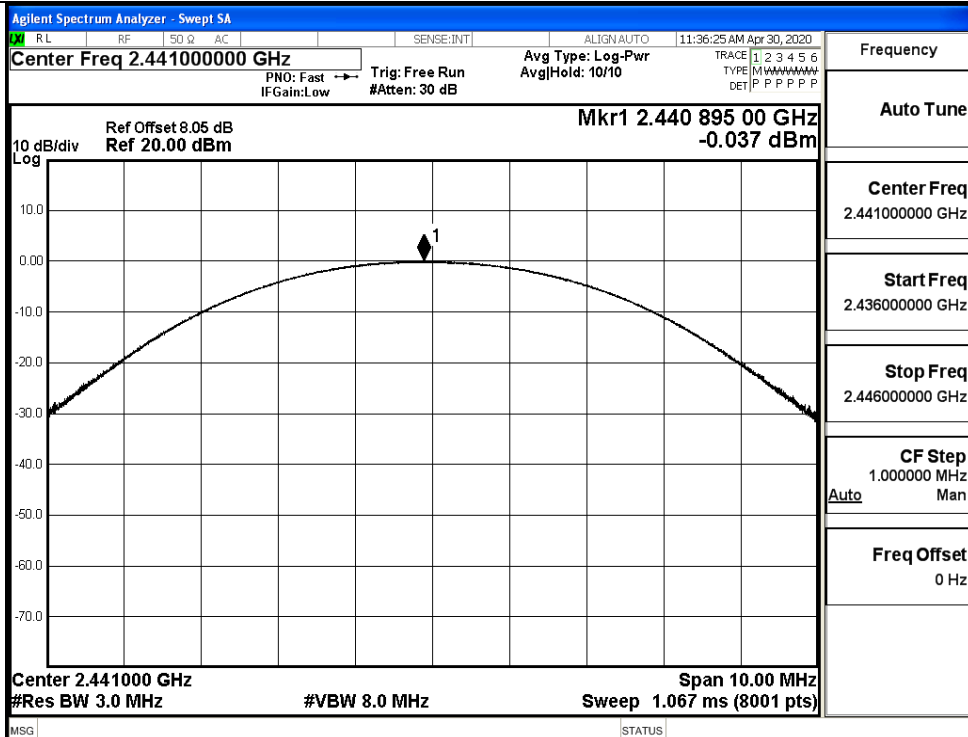
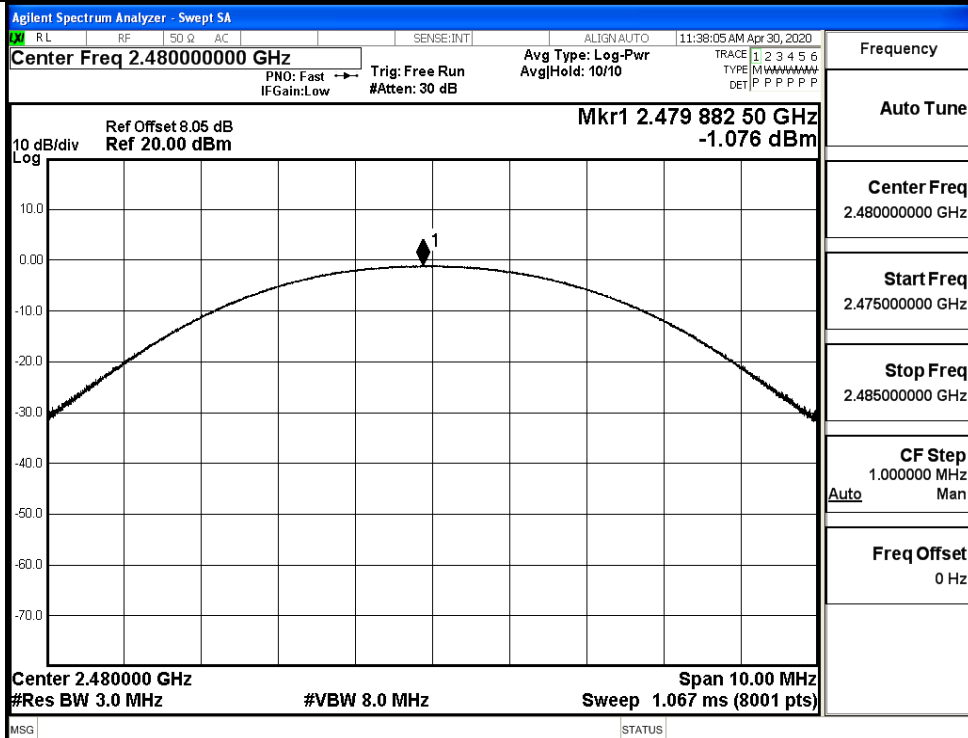


GFSK/MCH

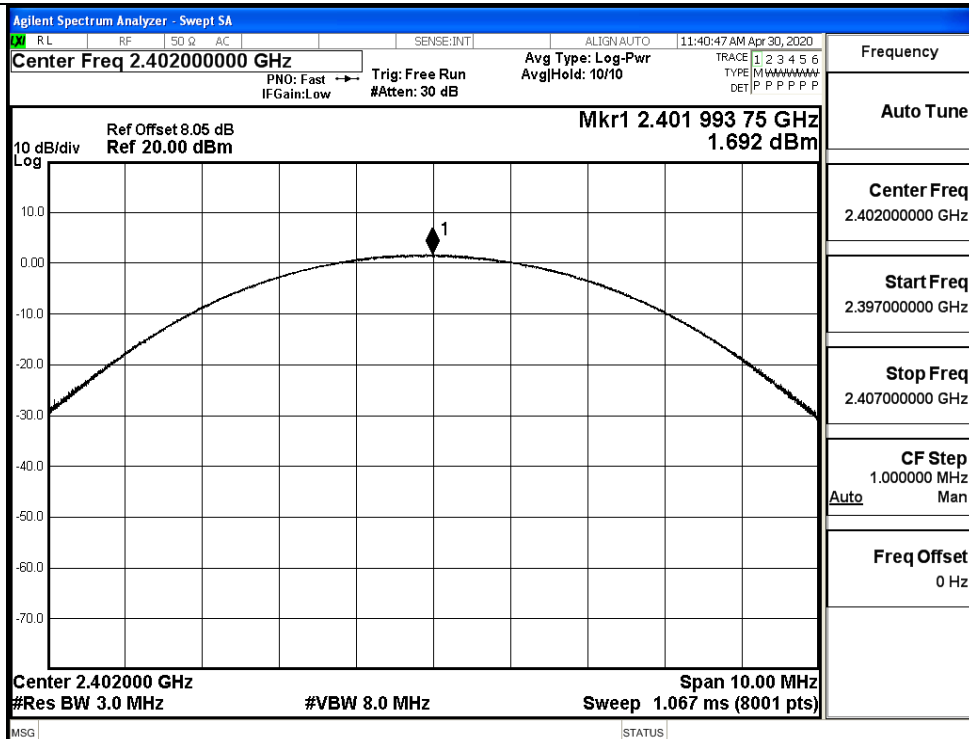


GFSK/HCH

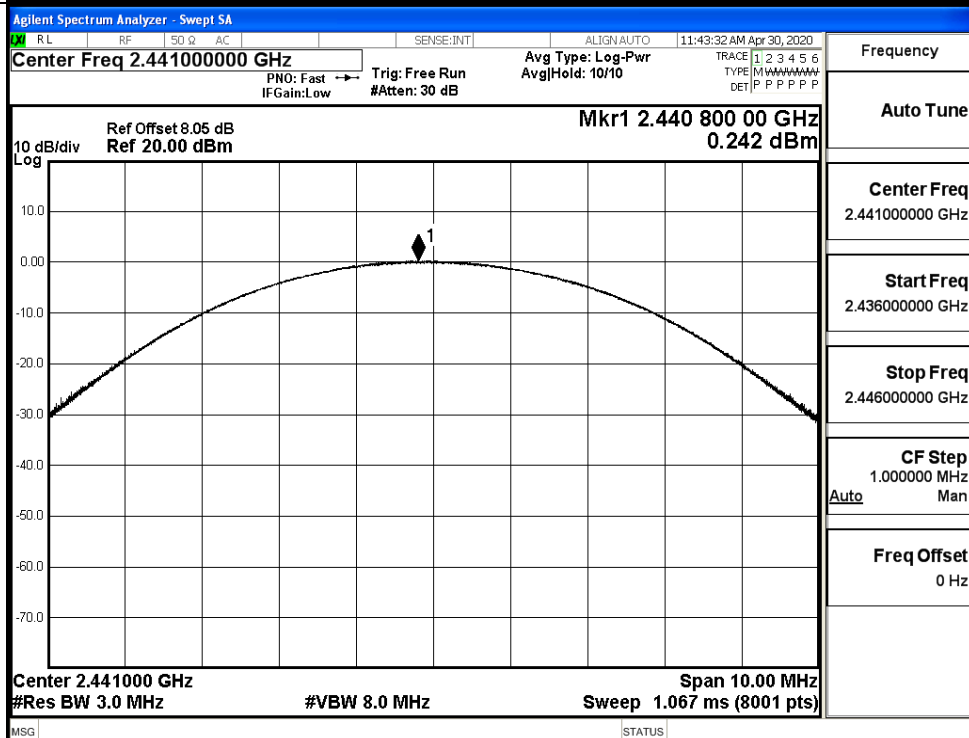
 $\pi/4$ DQPSK/LCH

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

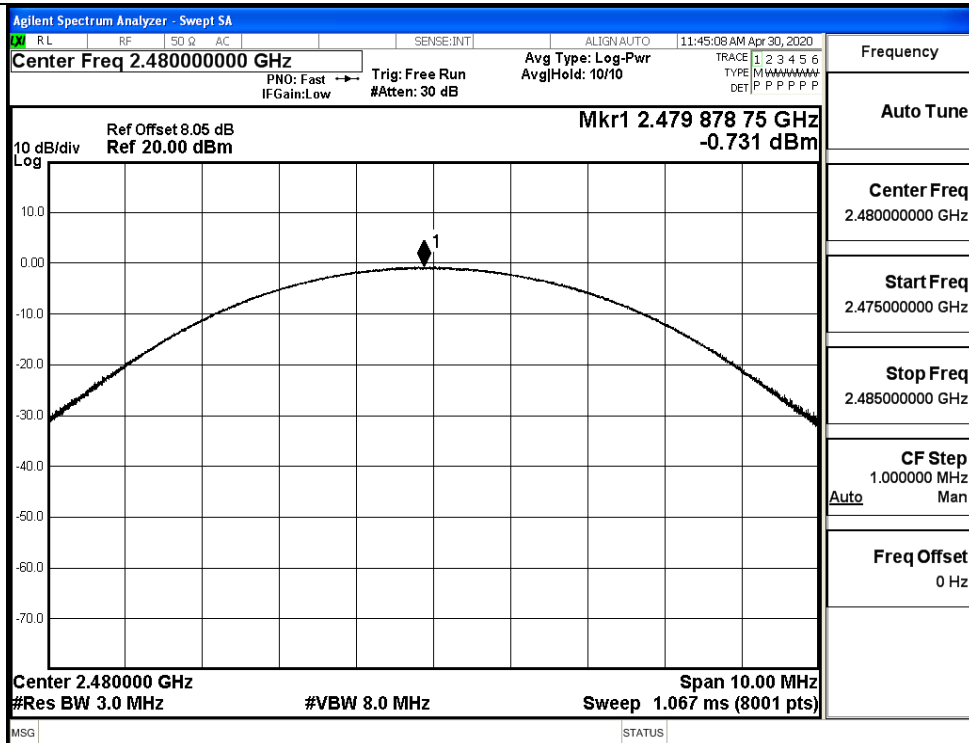
8DPSK/LCH



8DPSK/MCH



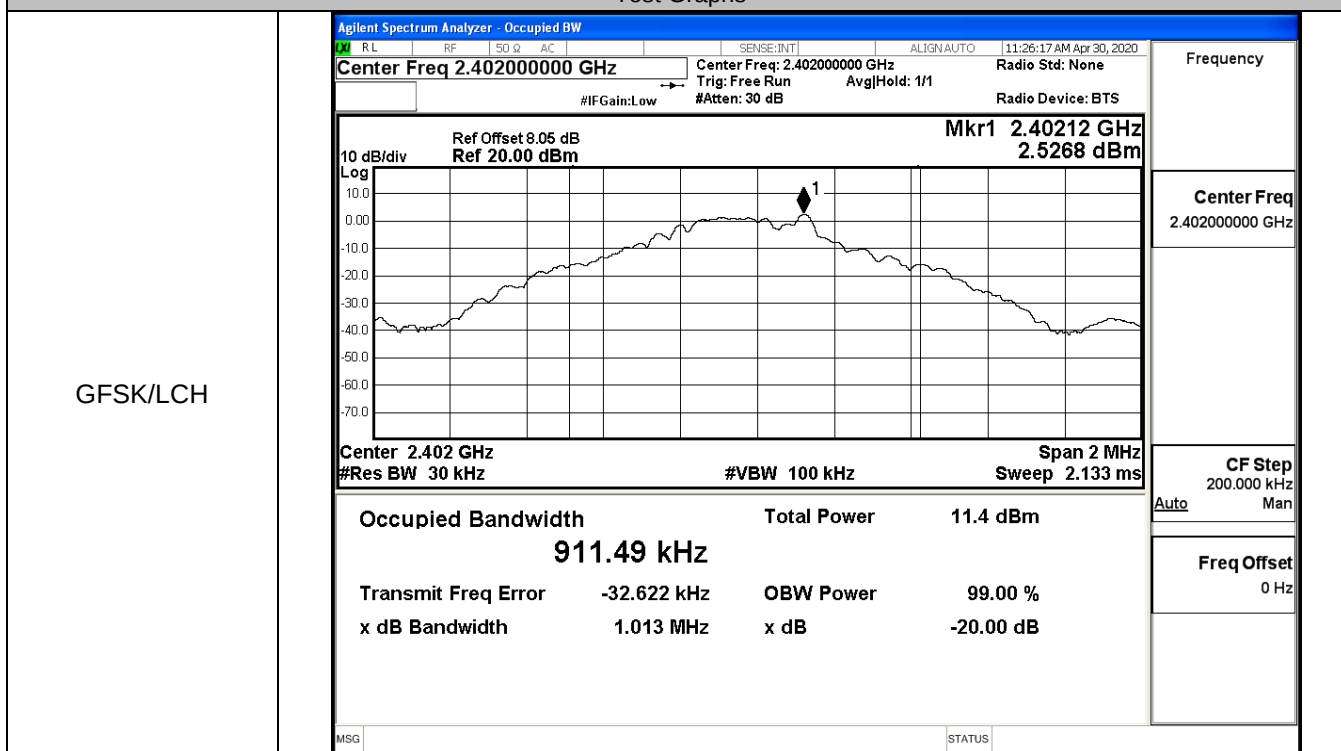
8DPSK/HCH



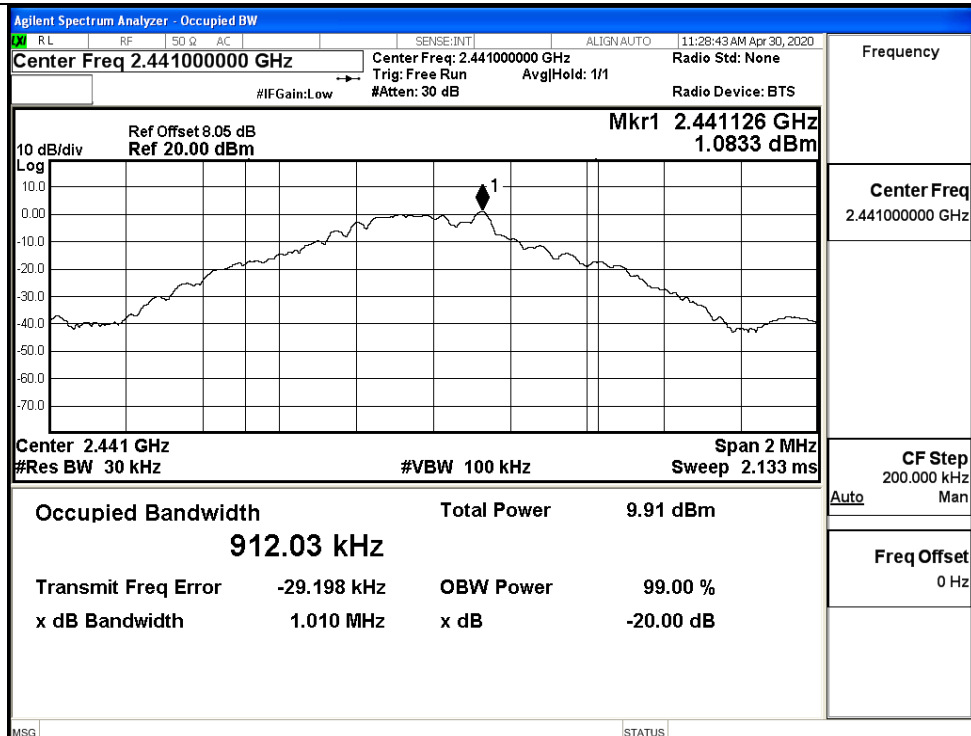
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.013	Not Specified	PASS
	MCH	1.010	Not Specified	PASS
	HCH	1.006	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.358	Not Specified	PASS
	MCH	1.359	Not Specified	PASS
	HCH	1.359	Not Specified	PASS
8DPSK	LCH	1.317	Not Specified	PASS
	MCH	1.317	Not Specified	PASS
	HCH	1.317	Not Specified	PASS

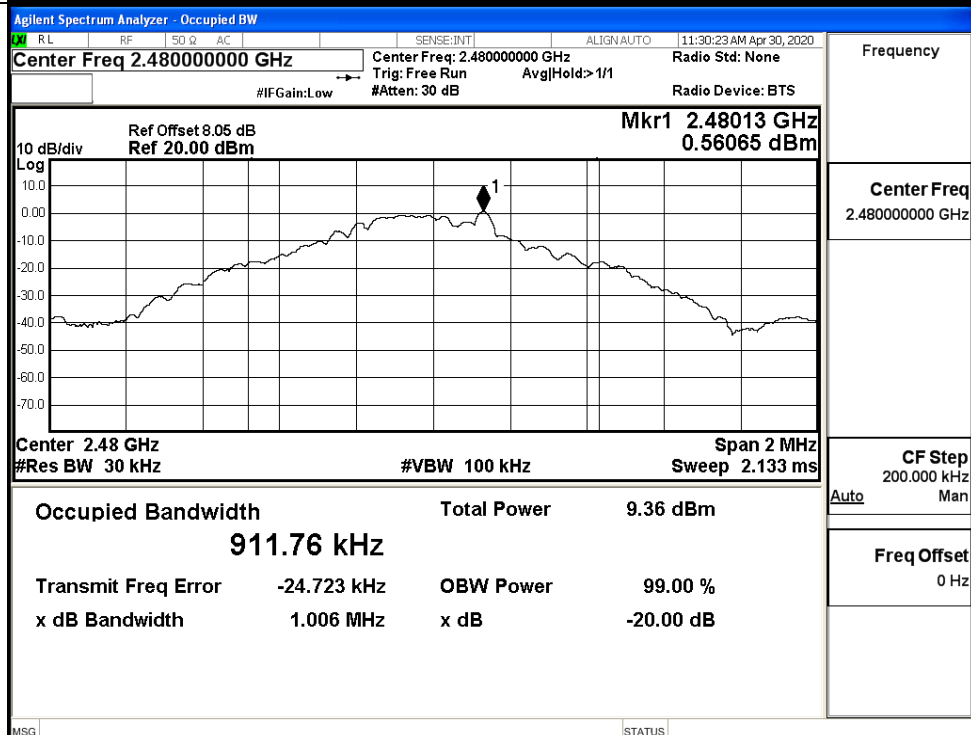
Test Graphs

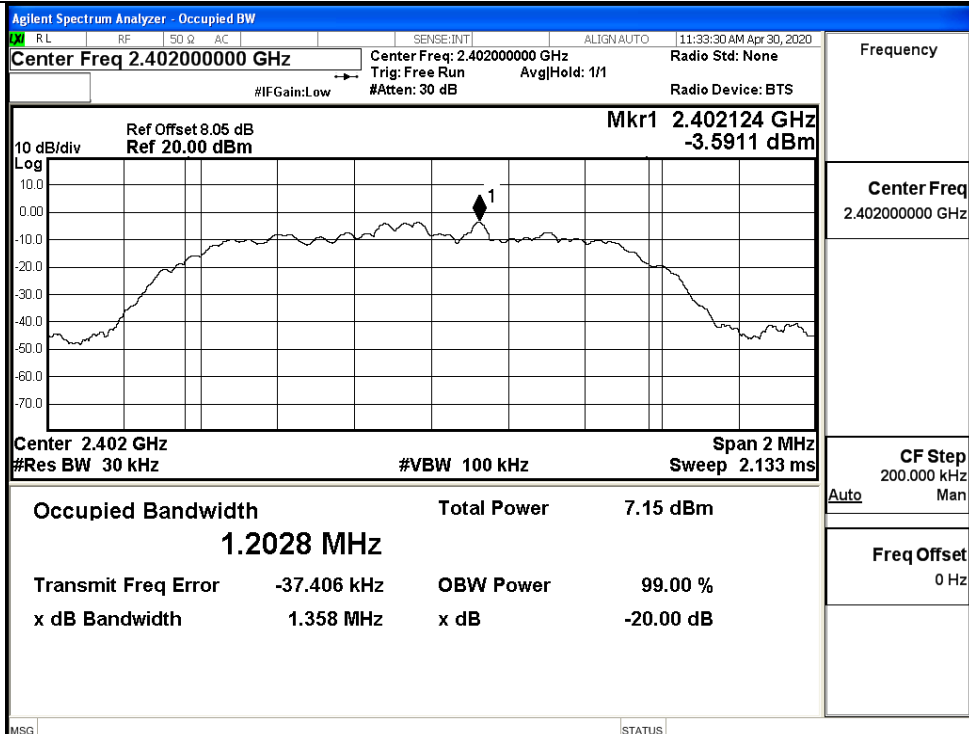
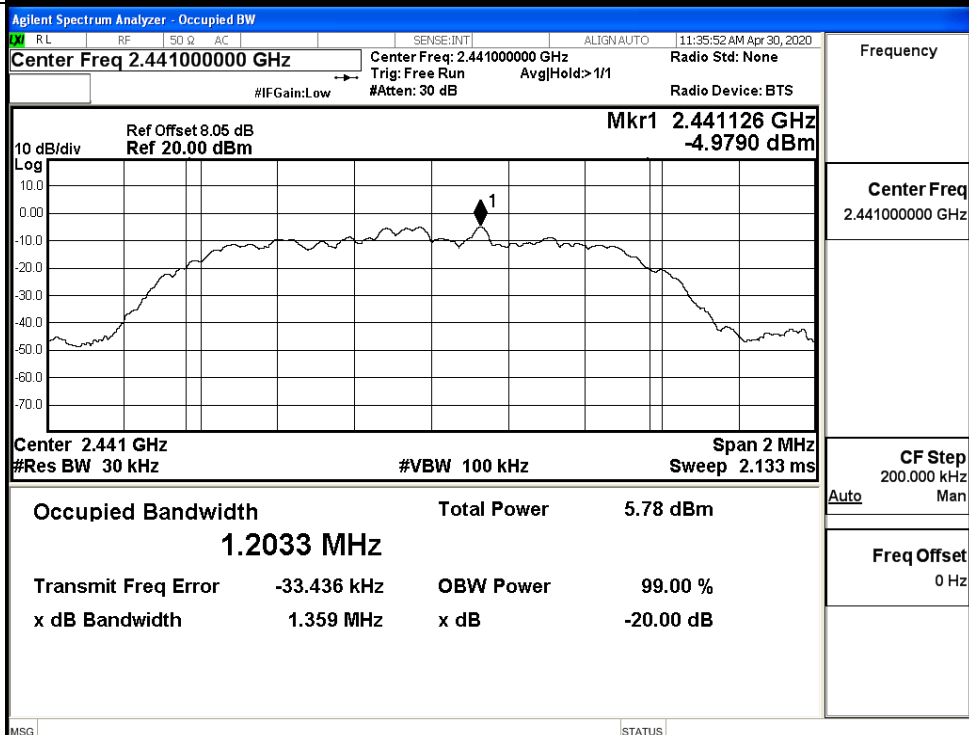


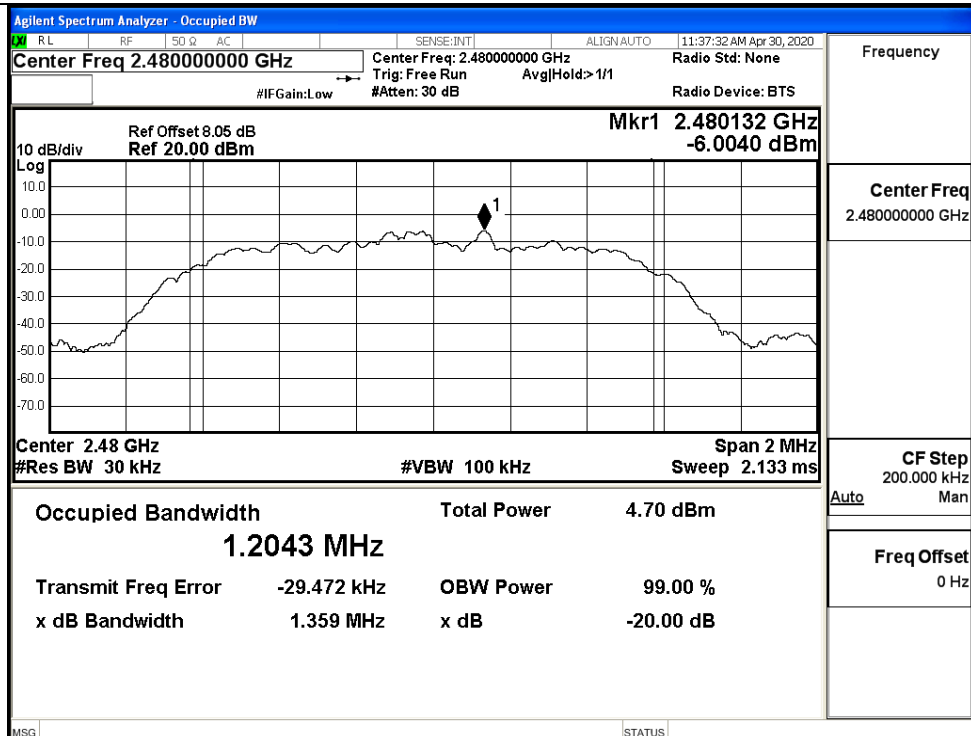
GFSK/MCH



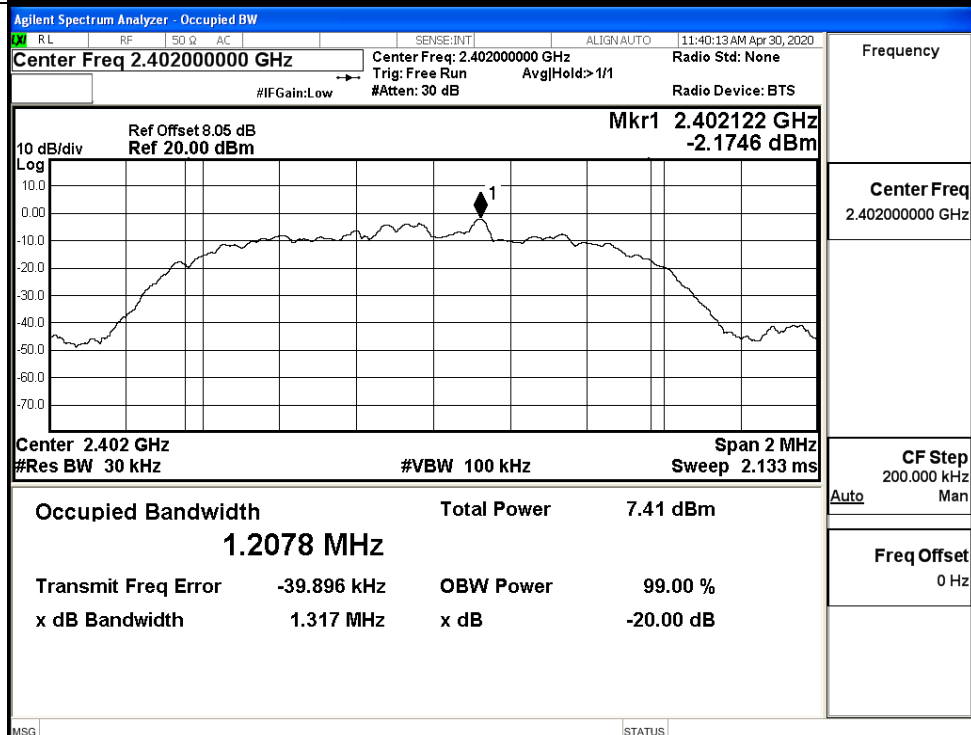
GFSK/HCH



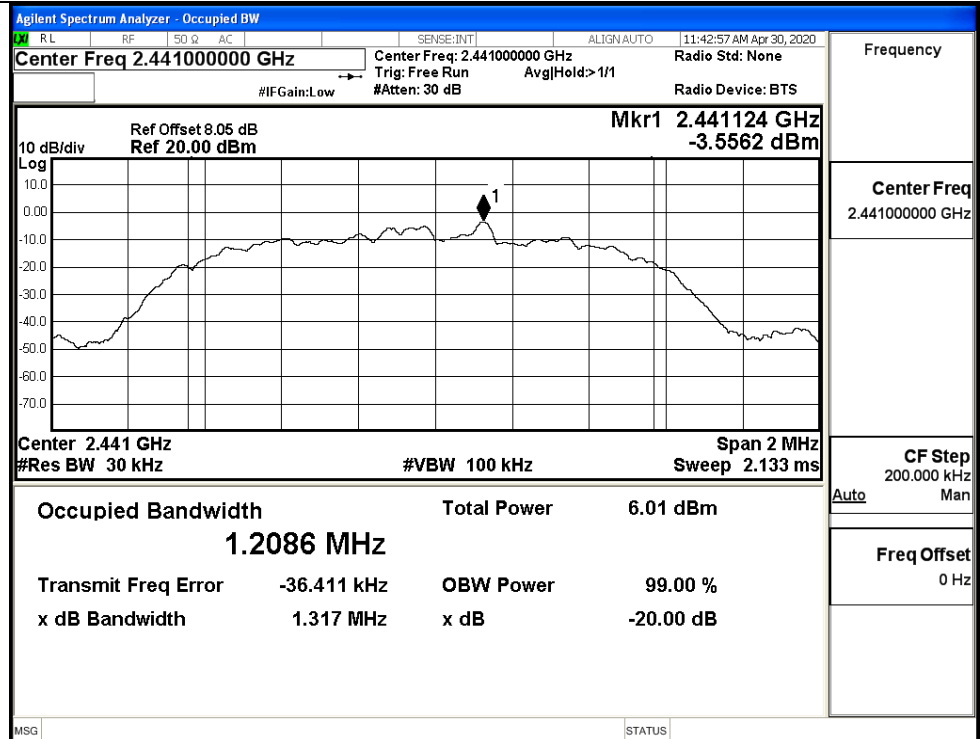
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

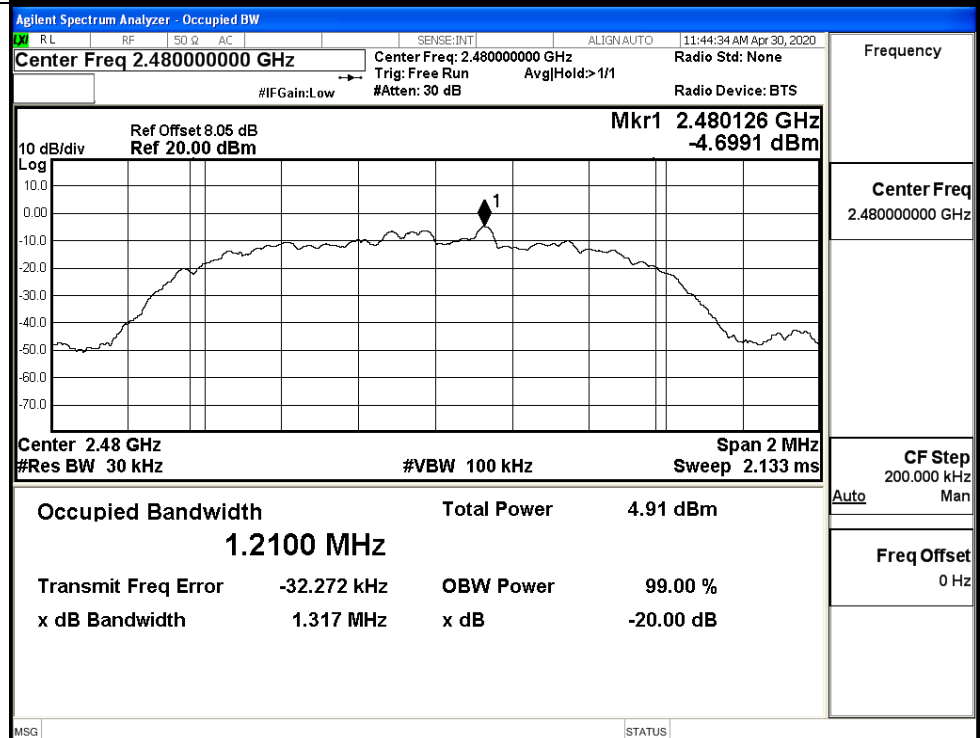
8DPSK/LCH



8DPSK/MCH



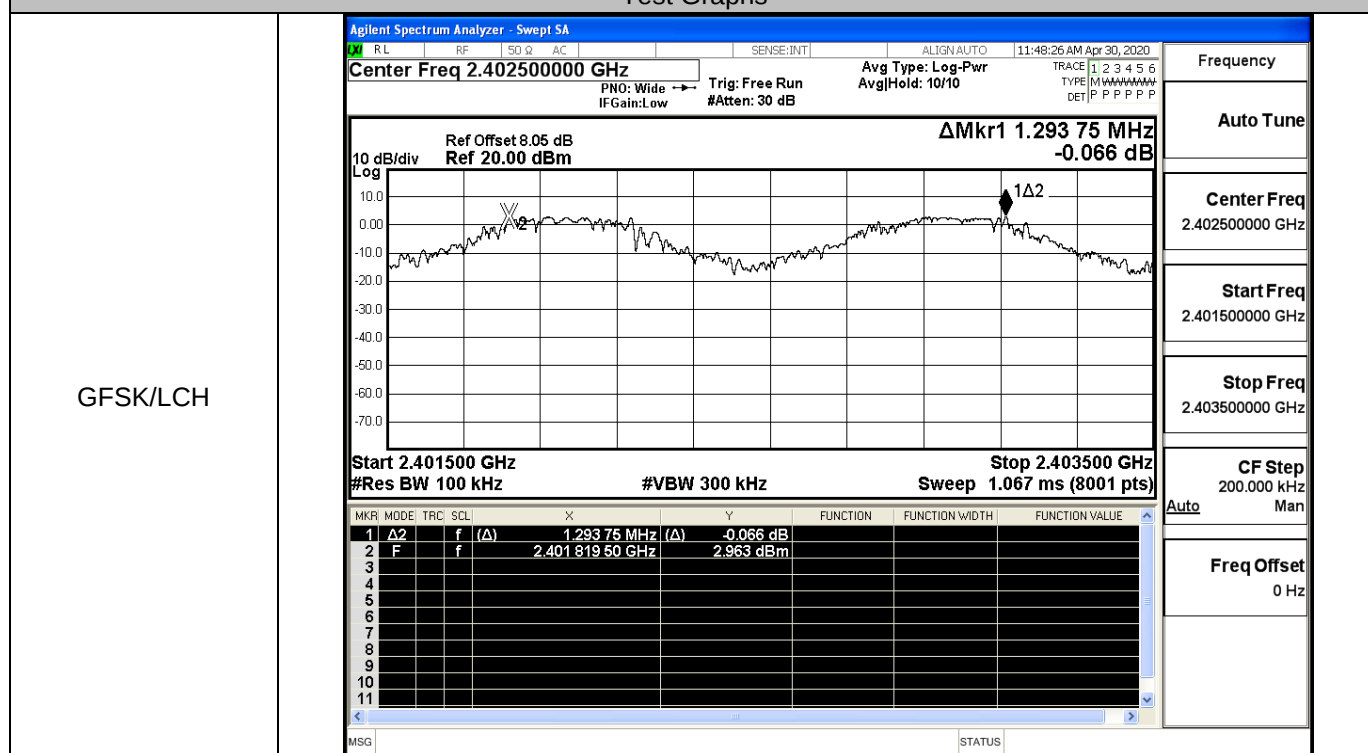
8DPSK/HCH



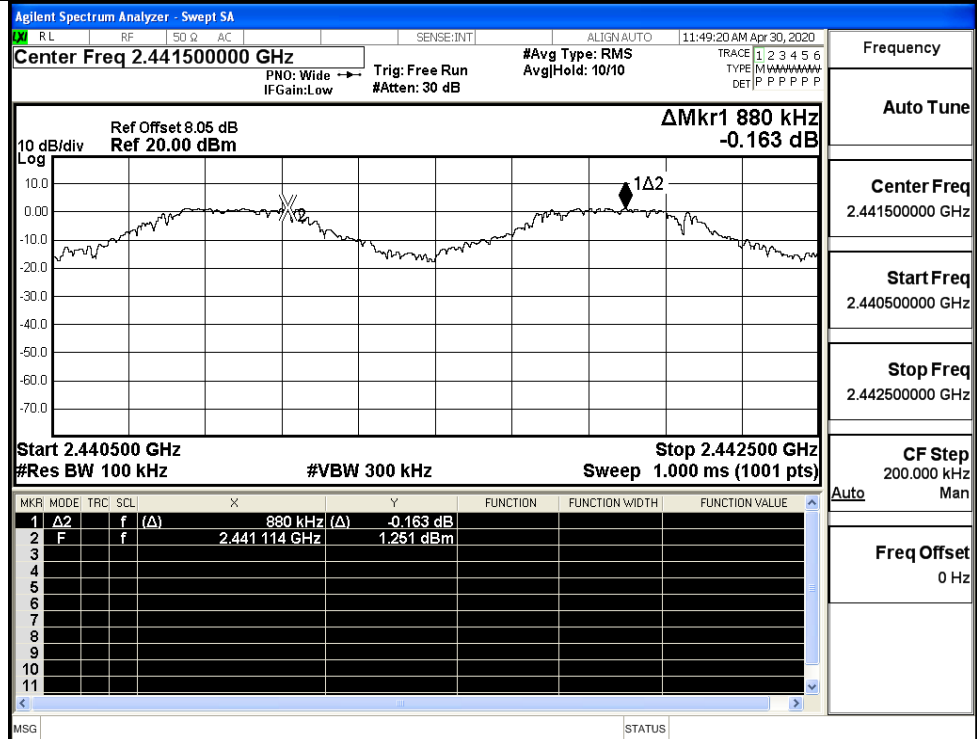
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.294	0.675	PASS
	MCH	0.880	0.675	PASS
	HCH	0.934	0.675	PASS
$\pi/4$ DQPSK	LCH	1.004	0.906	PASS
	MCH	0.986	0.906	PASS
	HCH	0.988	0.906	PASS
8DPSK	LCH	0.970	0.878	PASS
	MCH	1.034	0.878	PASS
	HCH	1.070	0.878	PASS

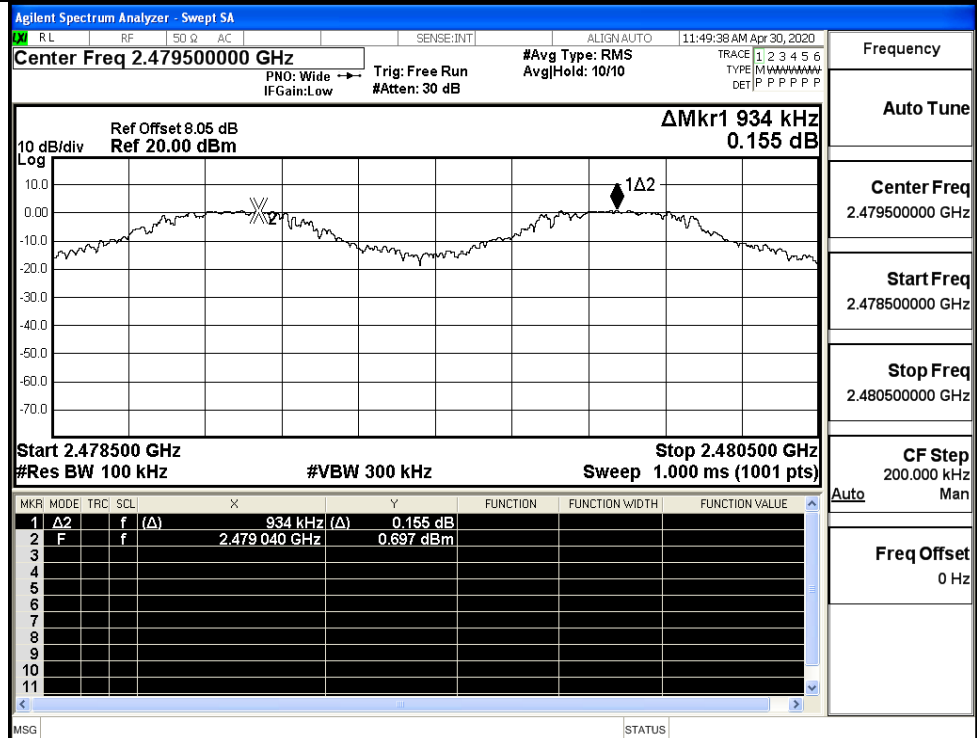
Test Graphs

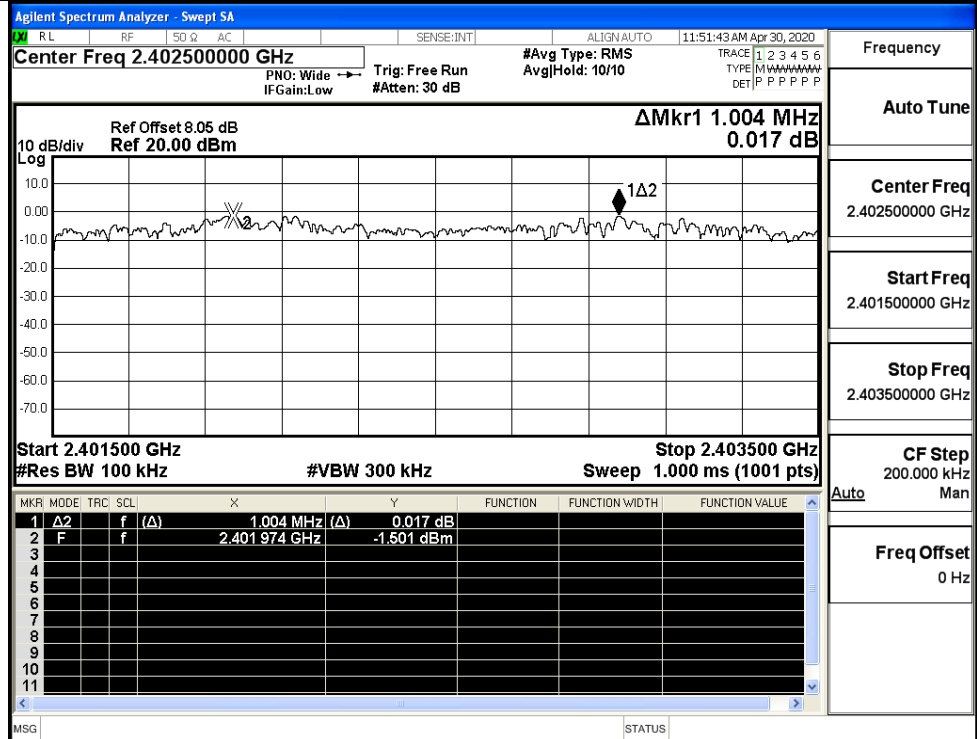
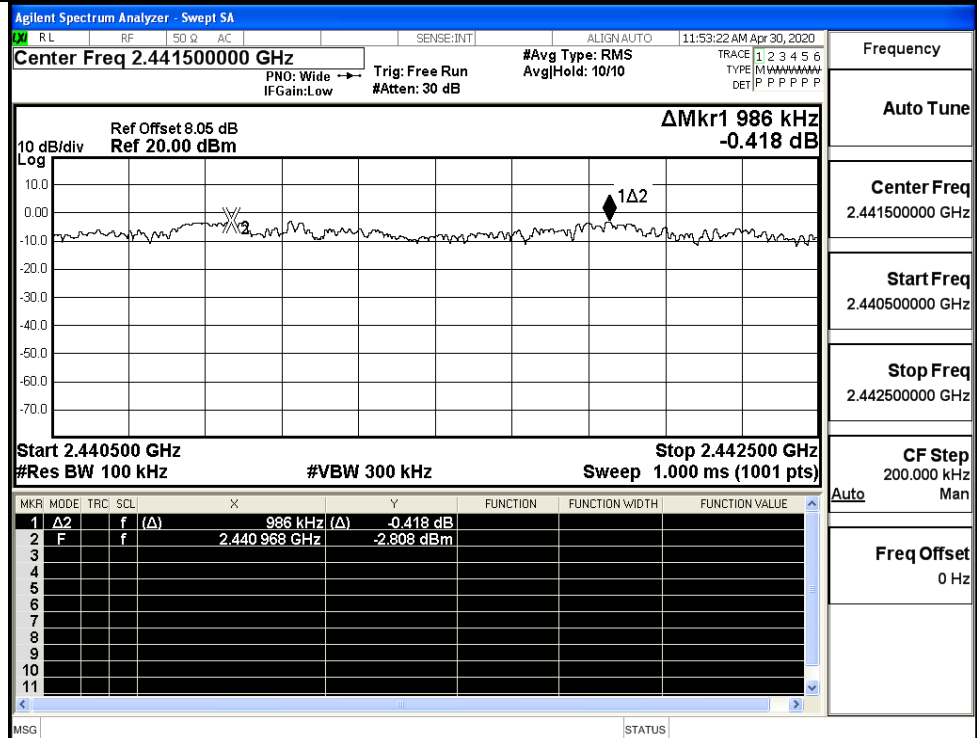


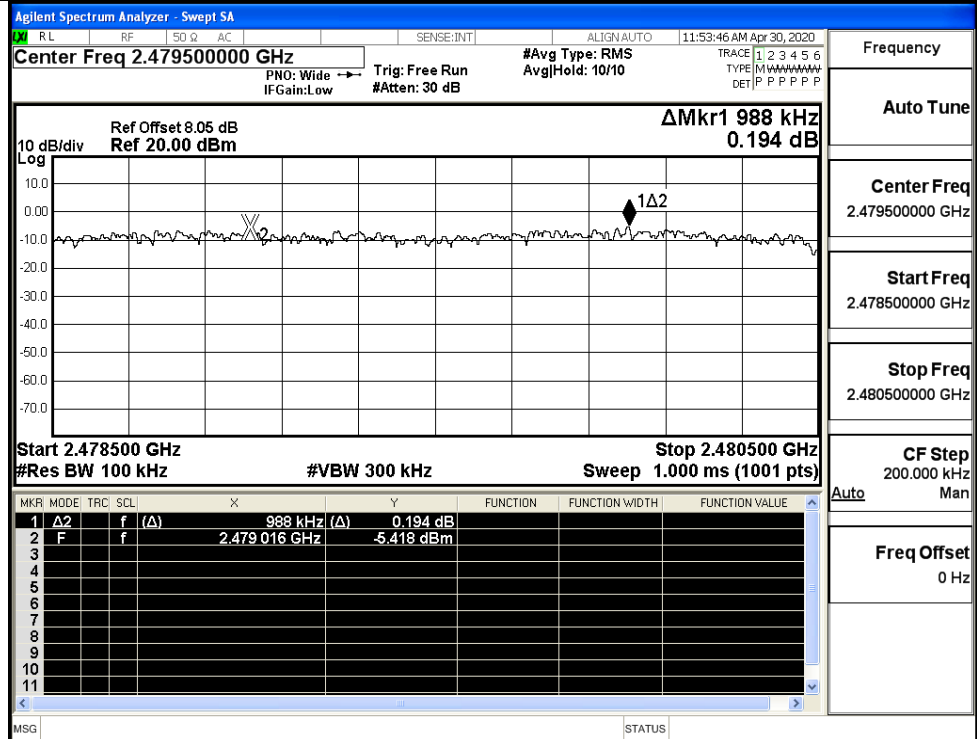
GFSK/MCH



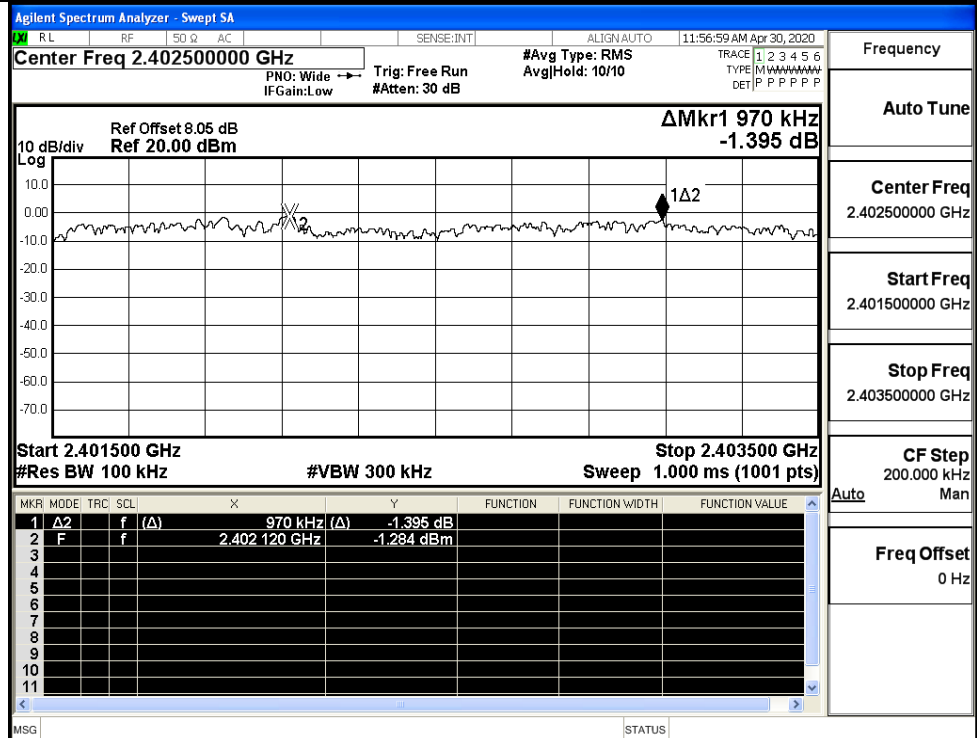
GFSK/HCH

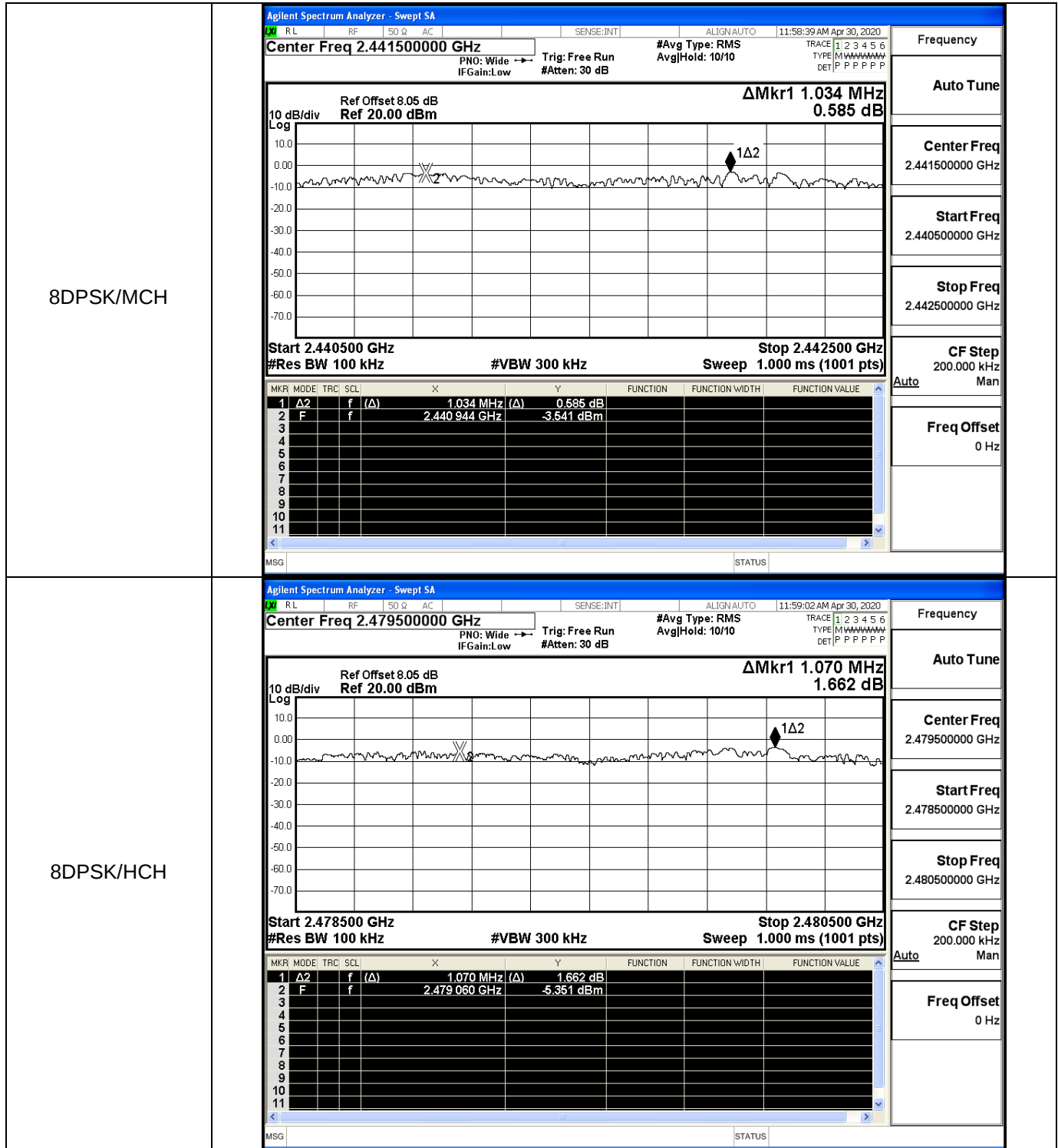


$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

8DPSK/LCH



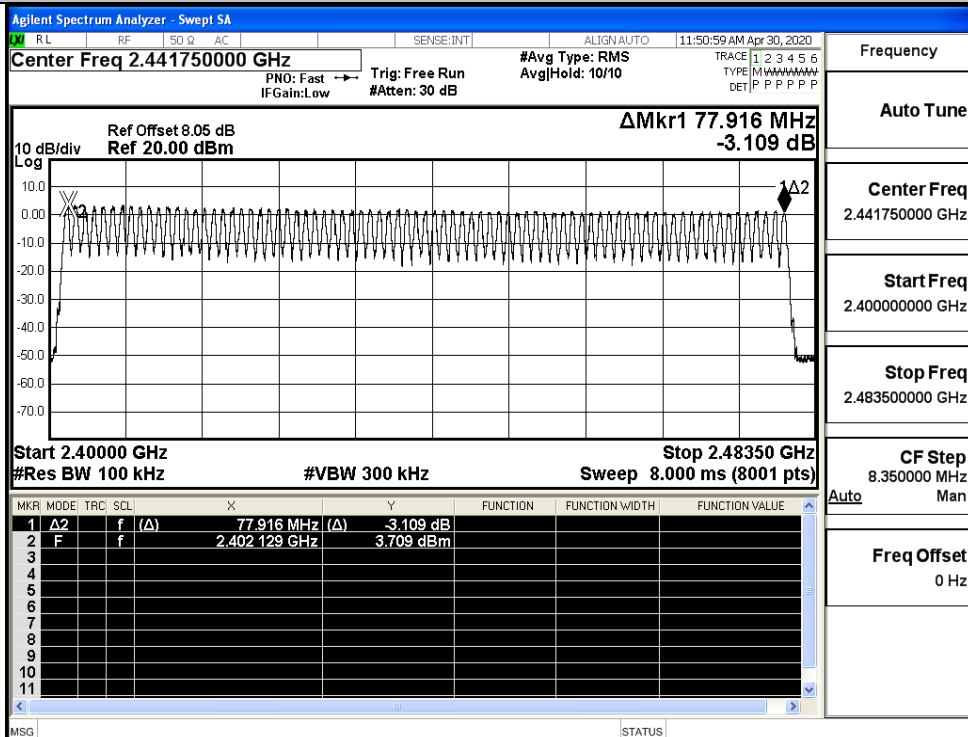
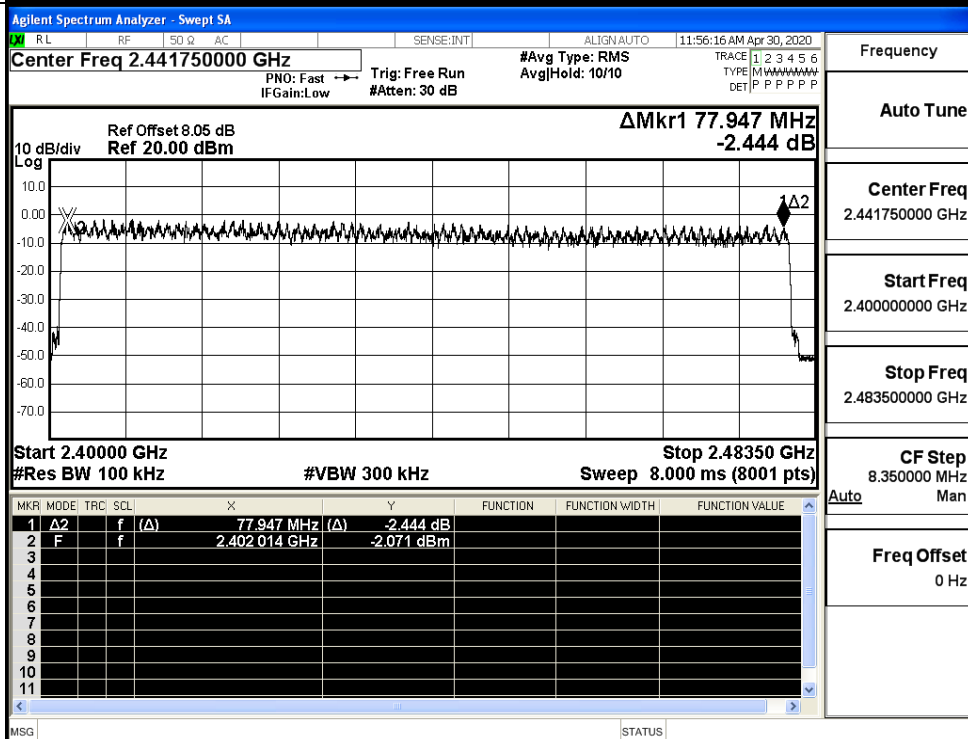


A.4 Hopping Channel Number

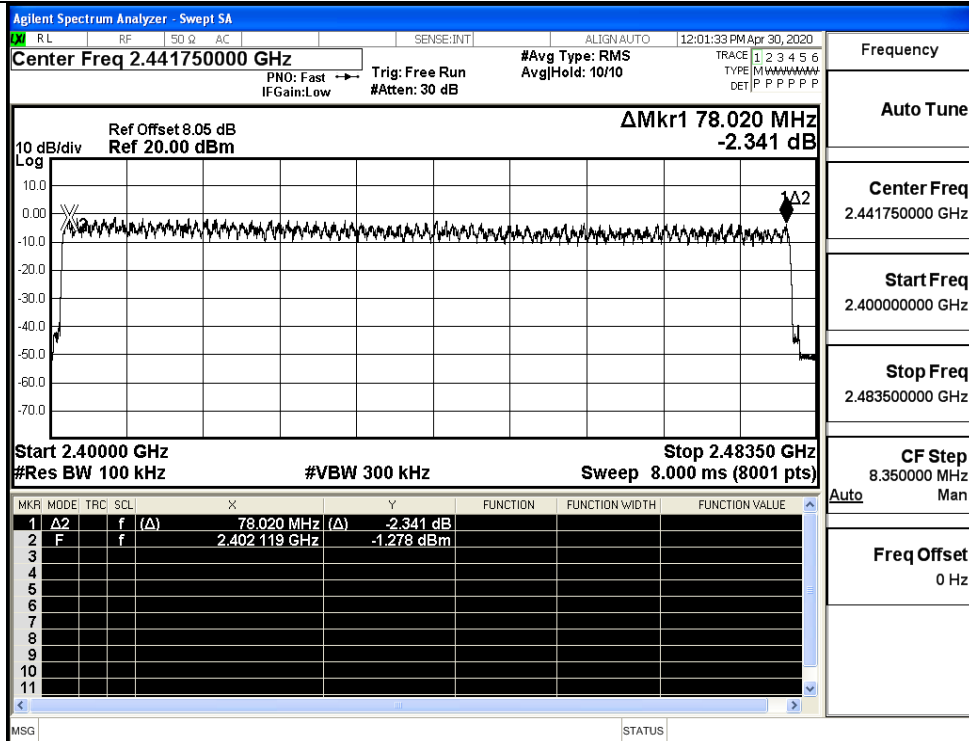
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

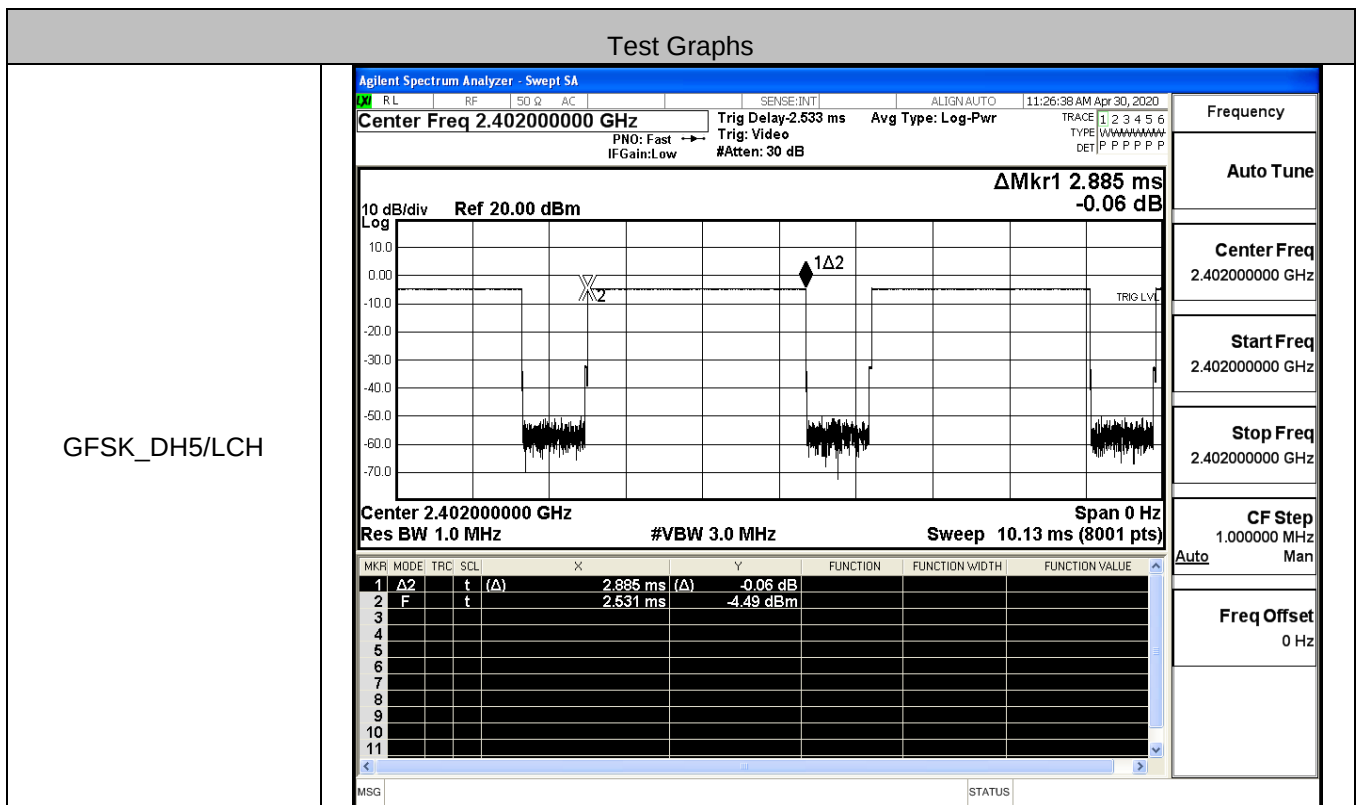
GFSK/Hop

 $\pi/4$ DQPSK/Hop

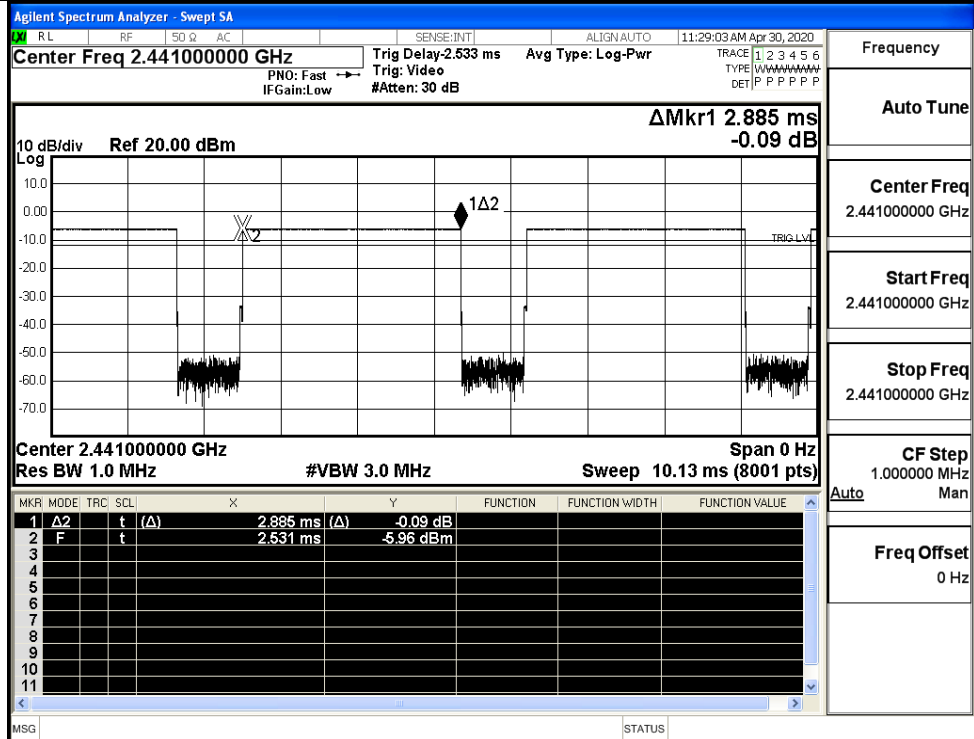
8DPSK/Hop



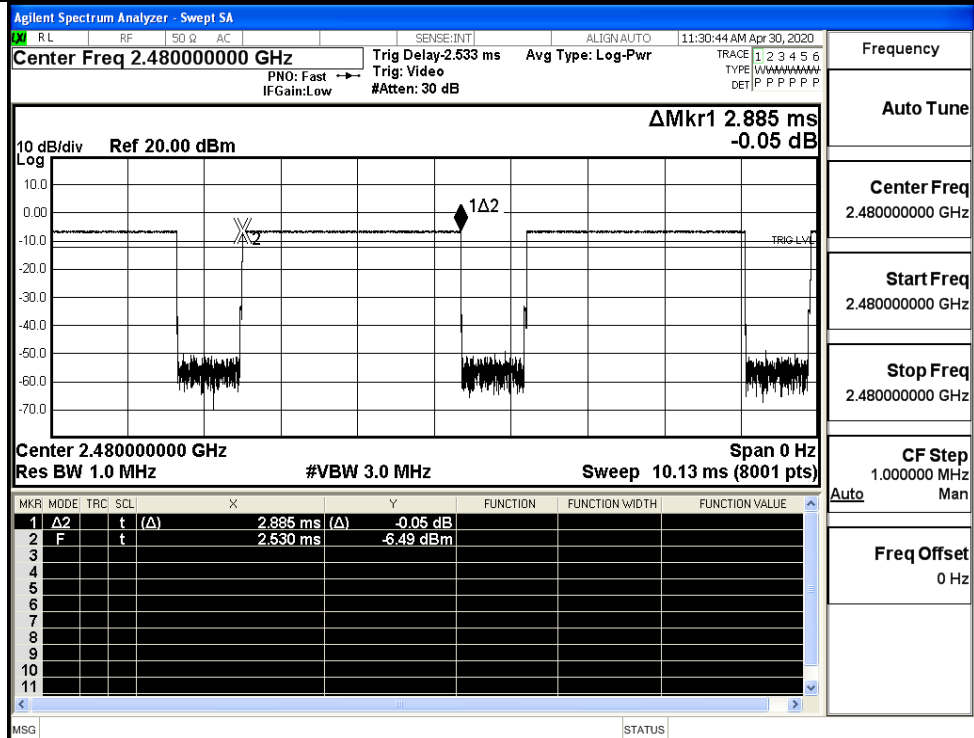
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.89	106.7	0.308	0.4	PASS
	DH5	MCH	2.89	106.7	0.308	0.4	PASS
	DH5	HCH	2.89	106.7	0.308	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.89	106.7	0.308	0.4	PASS
	2DH5	MCH	2.89	106.7	0.308	0.4	PASS
	2DH5	HCH	2.89	106.7	0.308	0.4	PASS
8DPSK	3DH5	LCH	2.89	106.7	0.308	0.4	PASS
	3DH5	MCH	2.89	106.7	0.308	0.4	PASS
	3DH5	HCH	2.89	106.7	0.308	0.4	PASS



GFSK_DH5/MCH

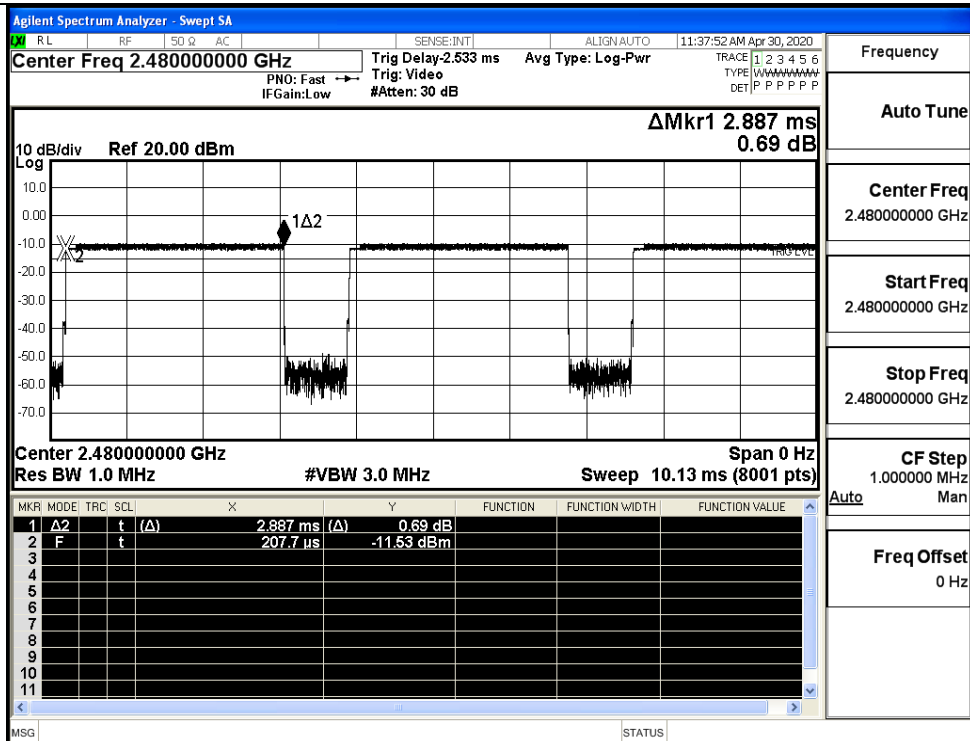


GFSK_DH5/HCH

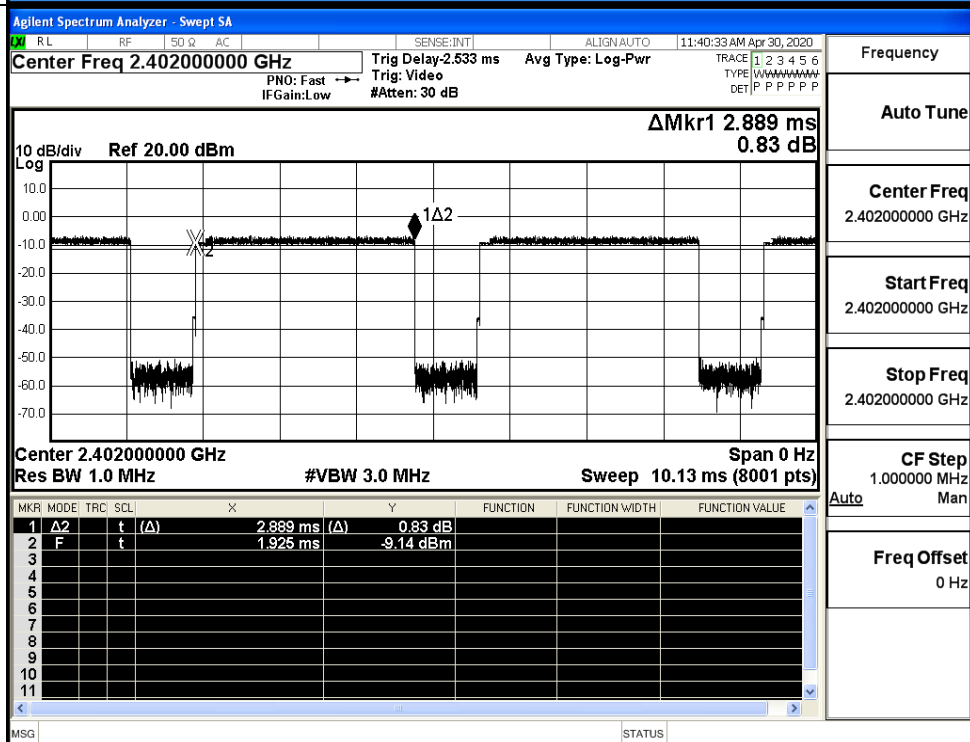


[illegible][illegible]

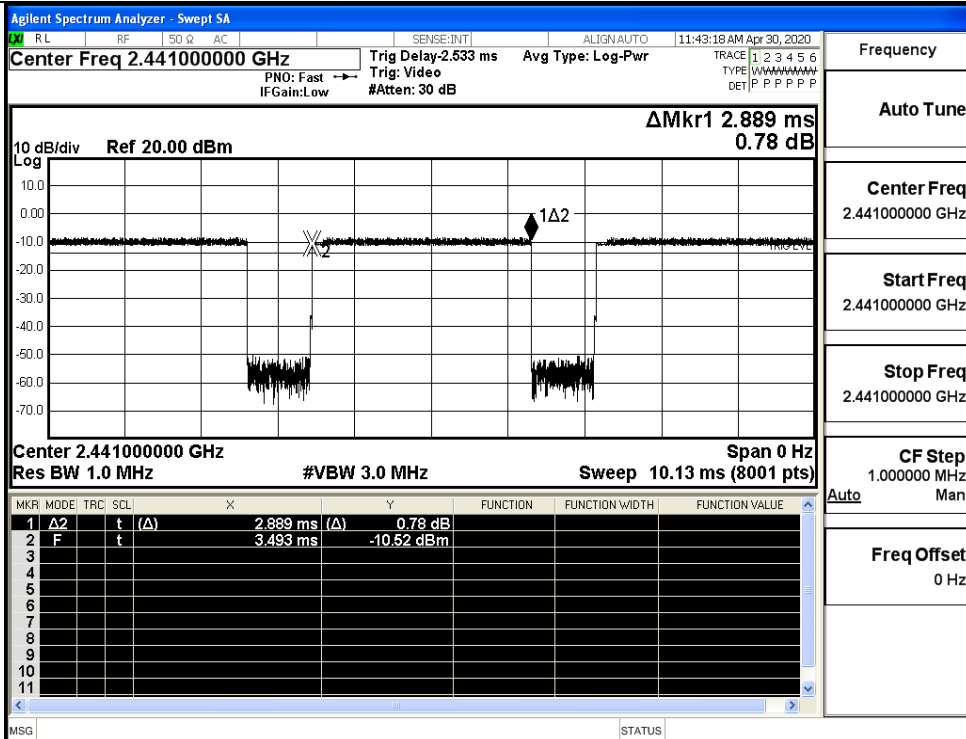
$\pi/4$ DQPSK
_2DH5/HCH



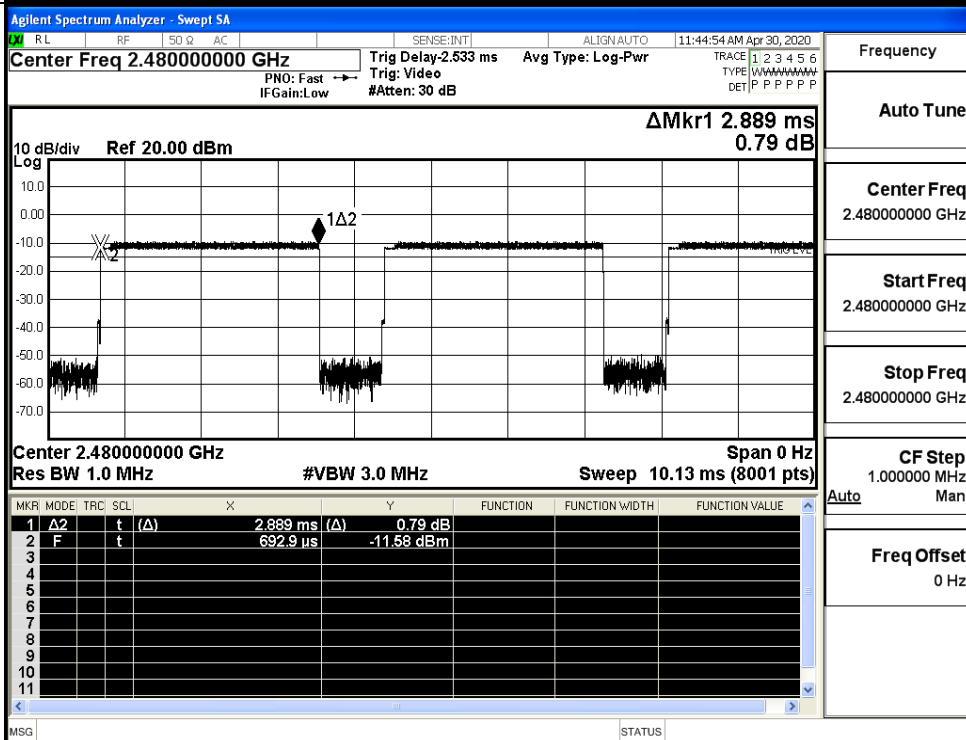
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

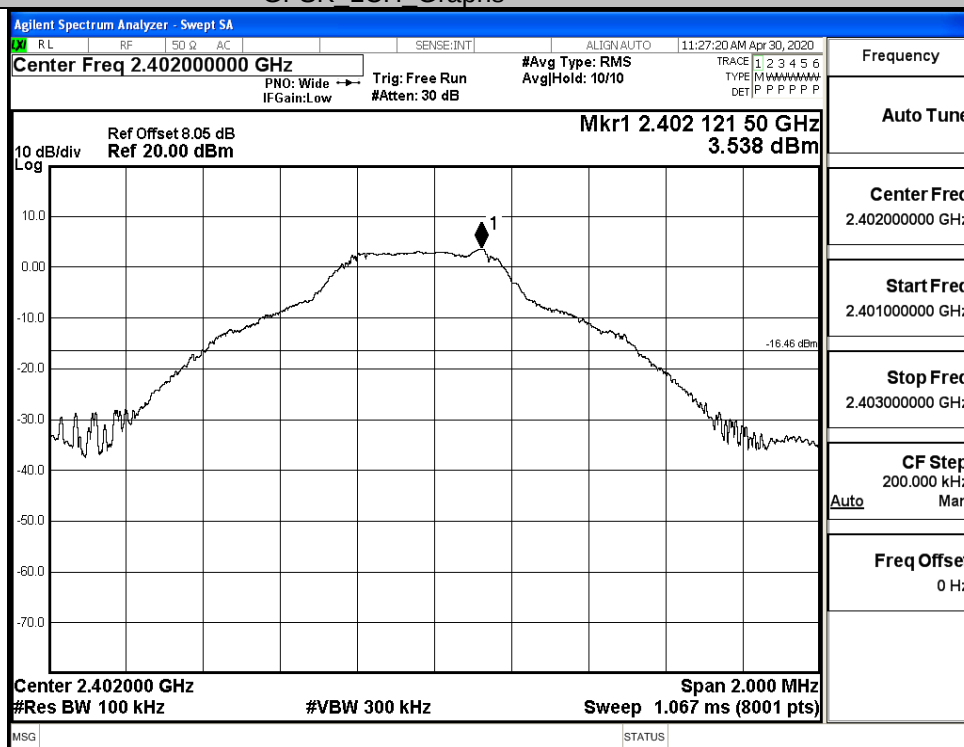


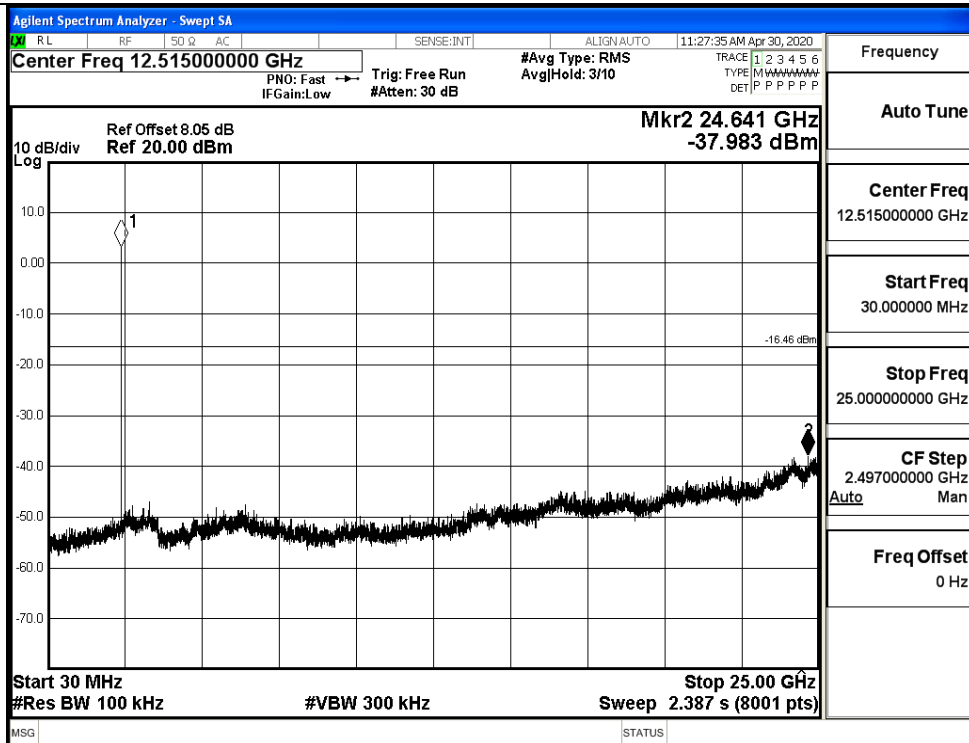
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.538	-37.983	-16.462	PASS
	MCH	2.051	-37.823	-17.949	PASS
	HCH	1.552	-37.084	-18.448	PASS
$\pi/4$ DQPSK	LCH	-1.361	-36.864	-21.361	PASS
	MCH	-2.706	-37.432	-22.706	PASS
	HCH	-3.704	-37.313	-23.704	PASS
8DPSK	LCH	-1.206	-37.215	-21.206	PASS
	MCH	-2.578	-38.182	-22.578	PASS
	HCH	-3.62	-36.613	-23.620	PASS

GFSK LCH Graphs

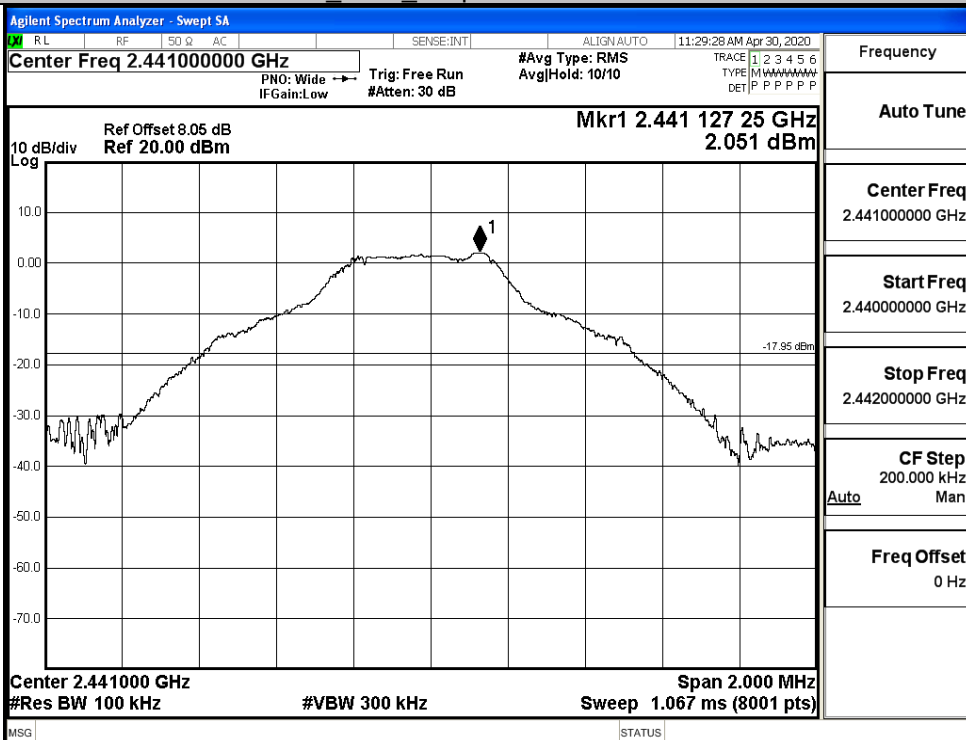
Pref



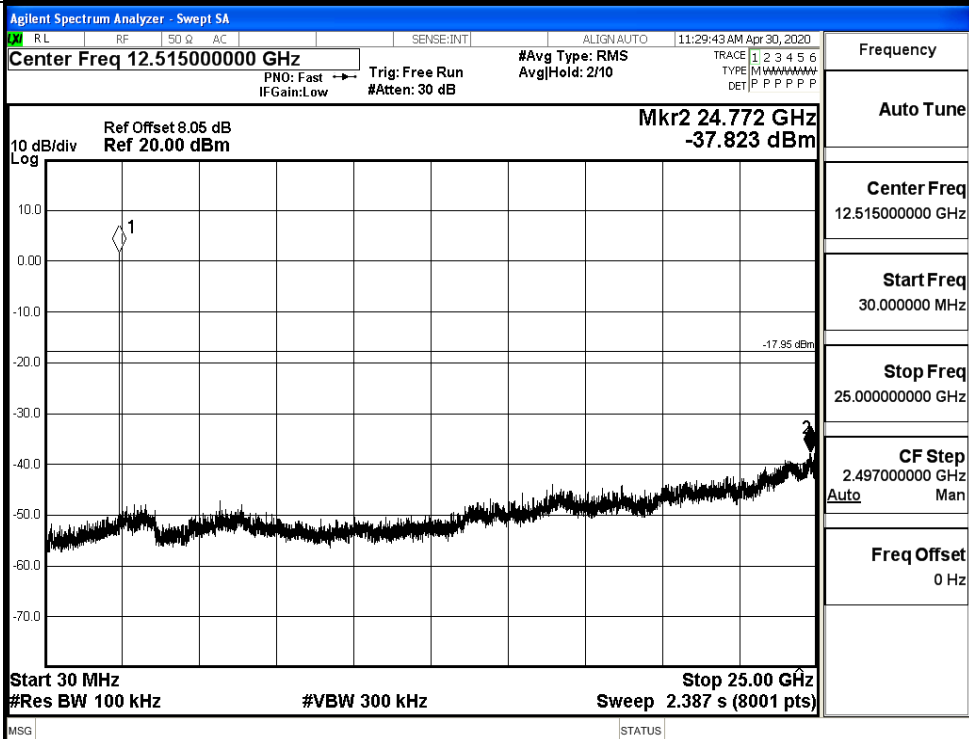


GFSK_MCH_Graphs

Pref

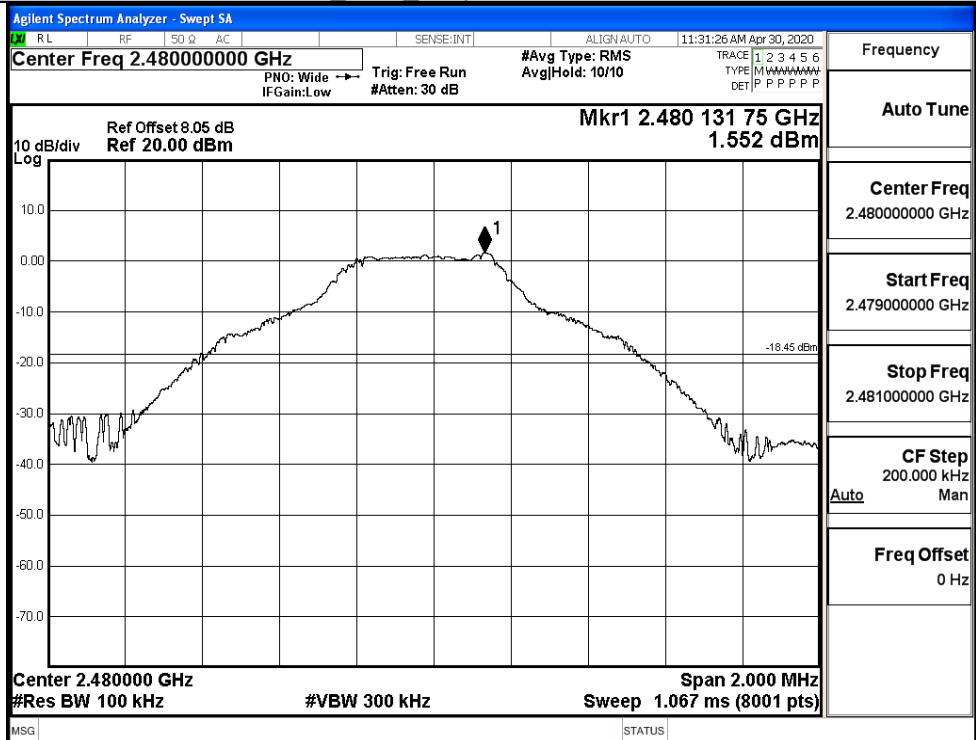


Puw

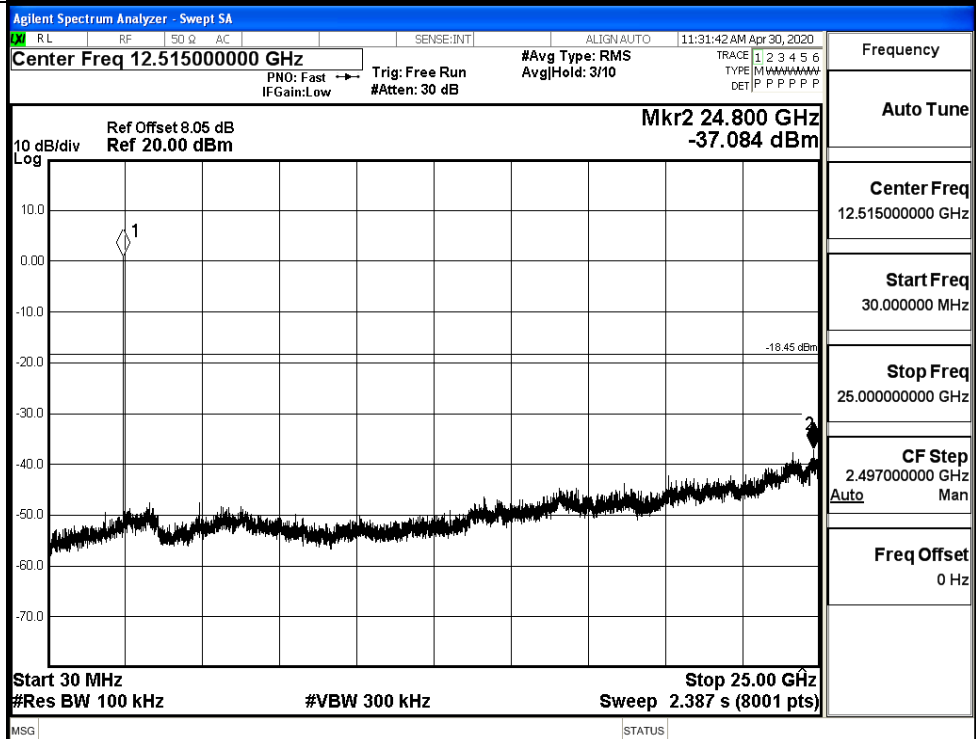


GFSK HCH Graphs

Pref

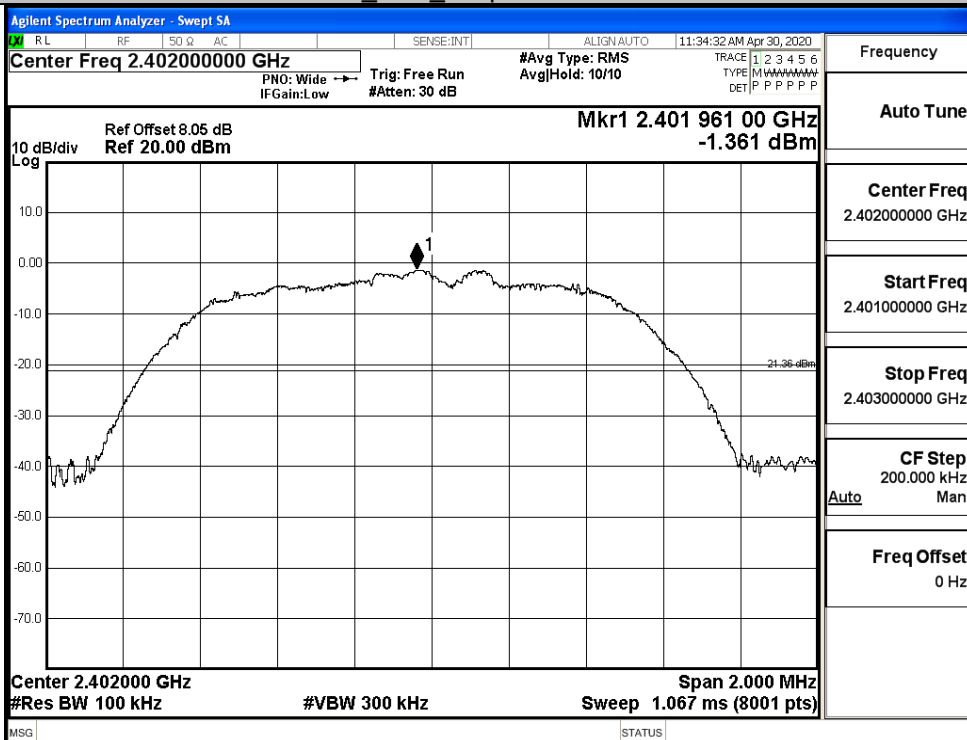


Puw

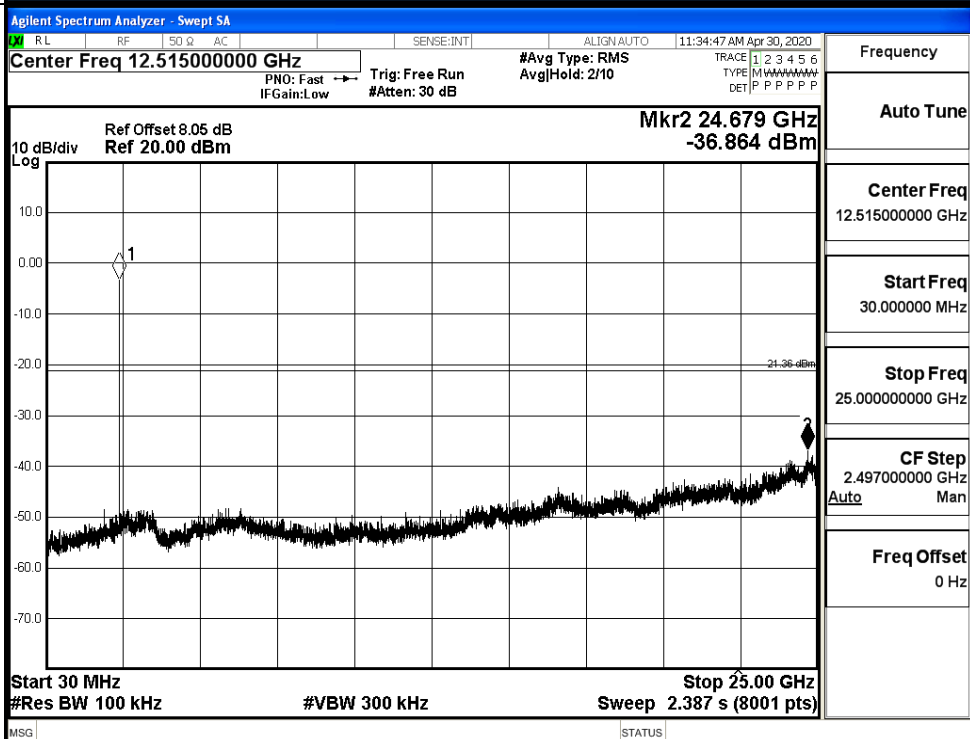


$\pi/4$ DQPSK_LCH_Graphs

Pref

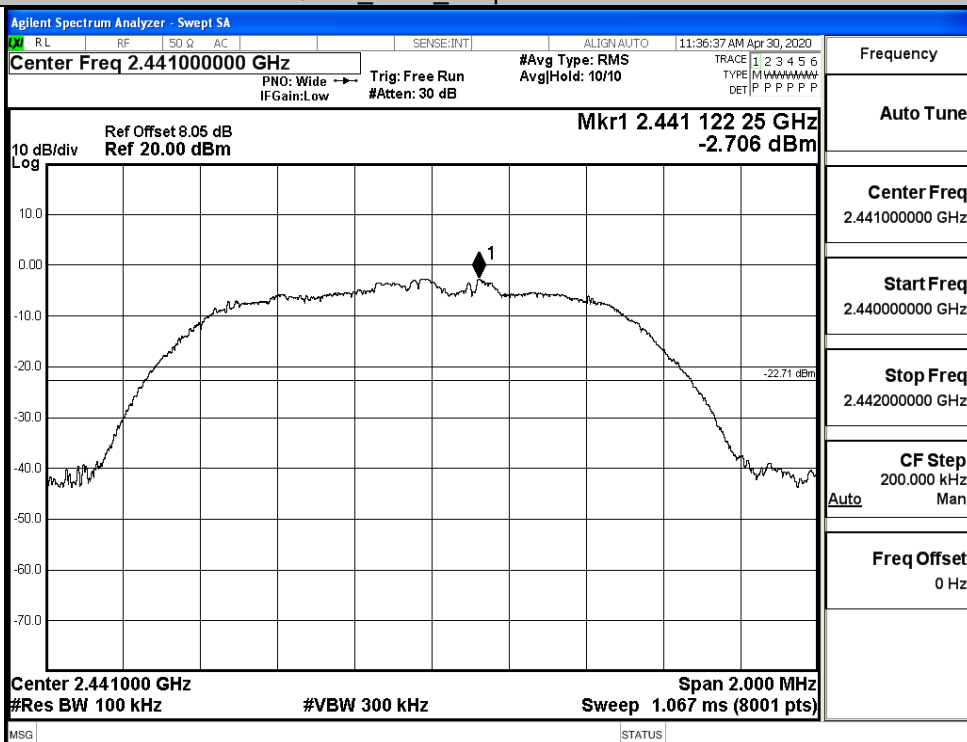


Puw

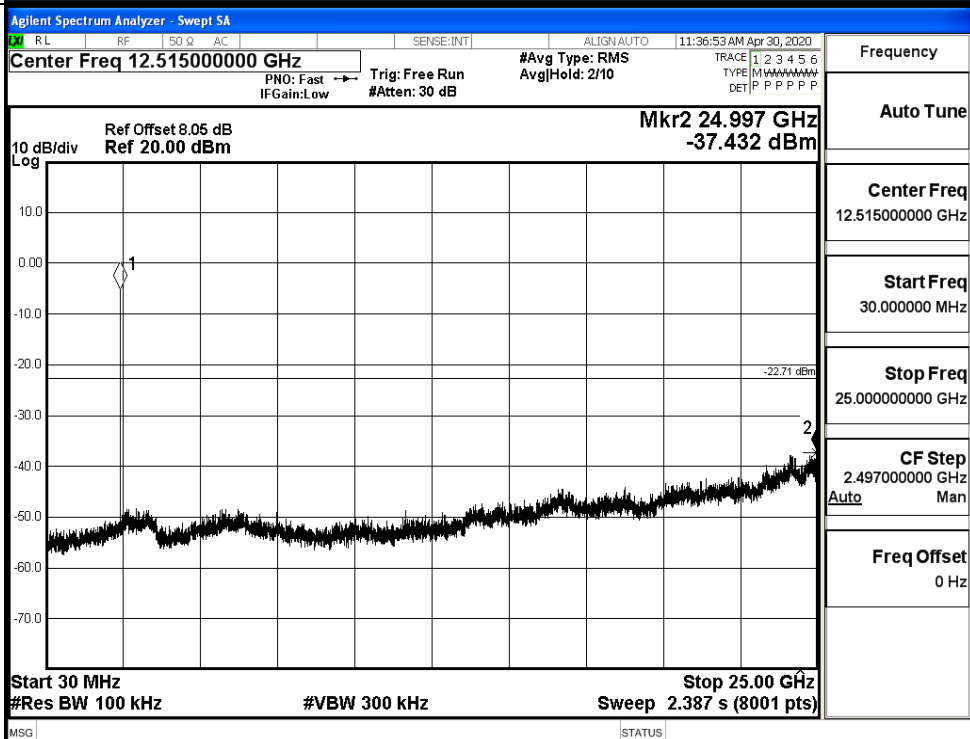


$\pi/4$ DQPSK_MCH_Graphs

Pref

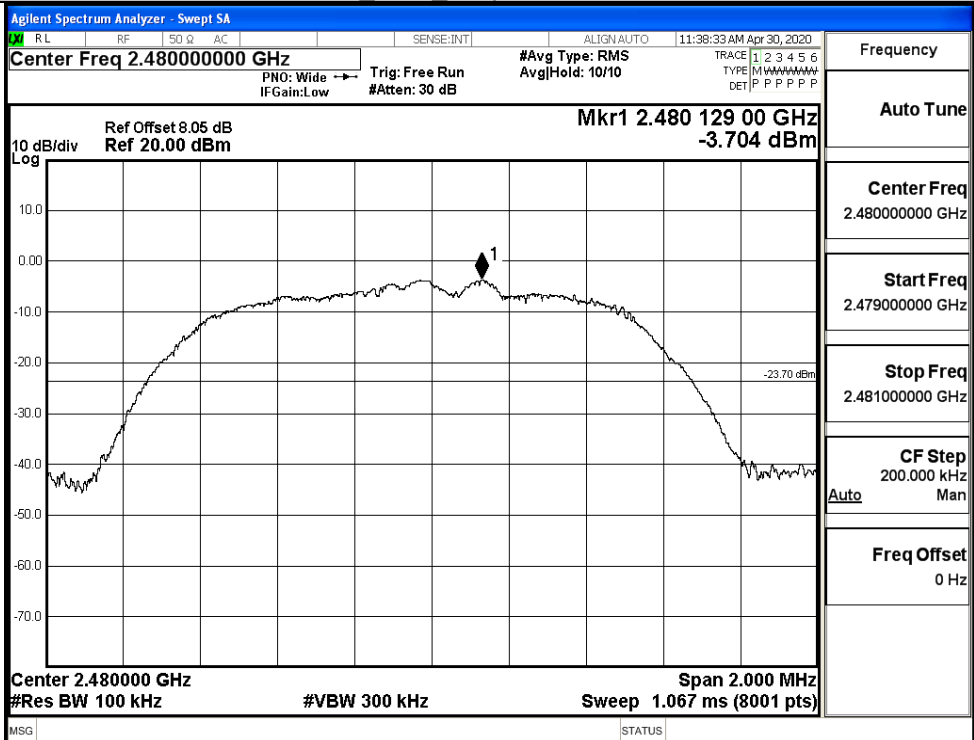


Puw

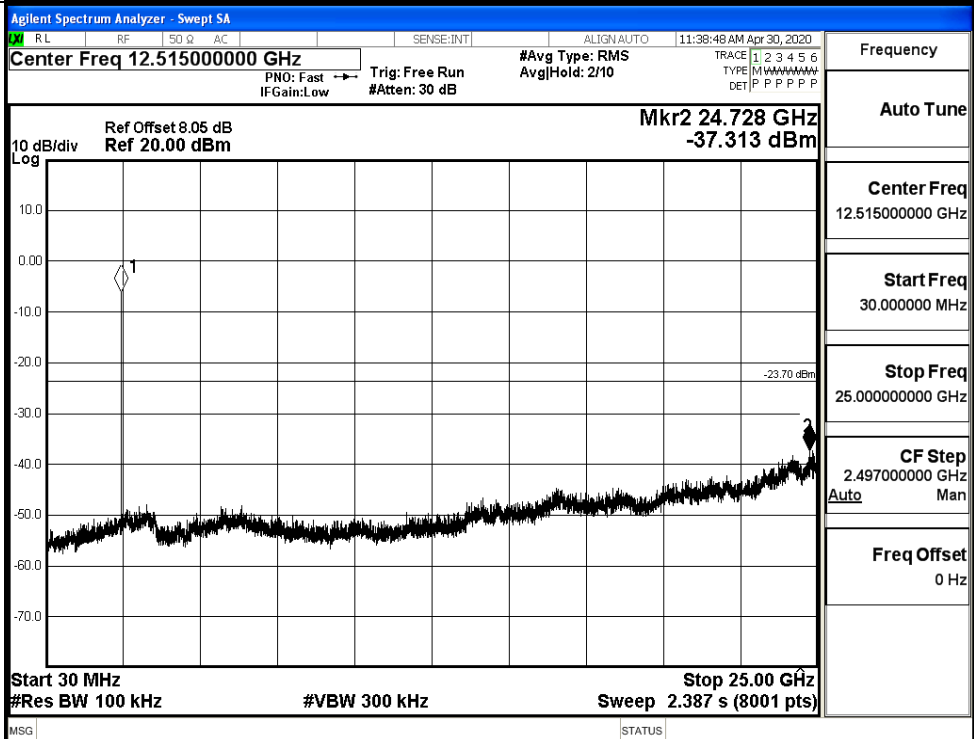


π /4DQPSK_HCH_Graphs

Pref

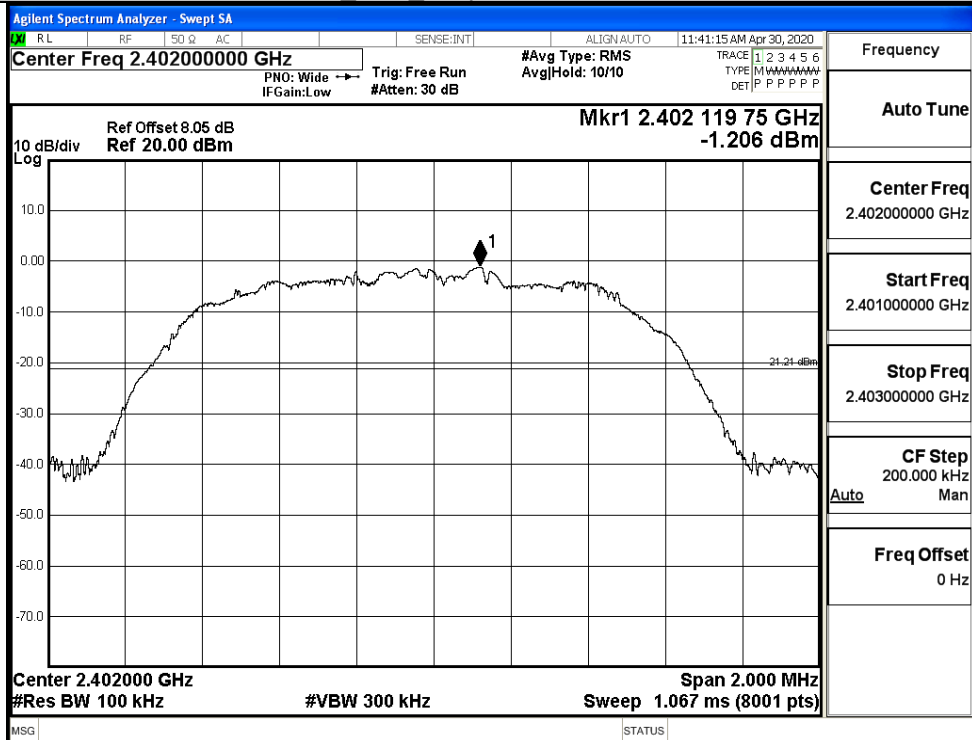


Puw



8DPSK_LCH_Graphs

Pref

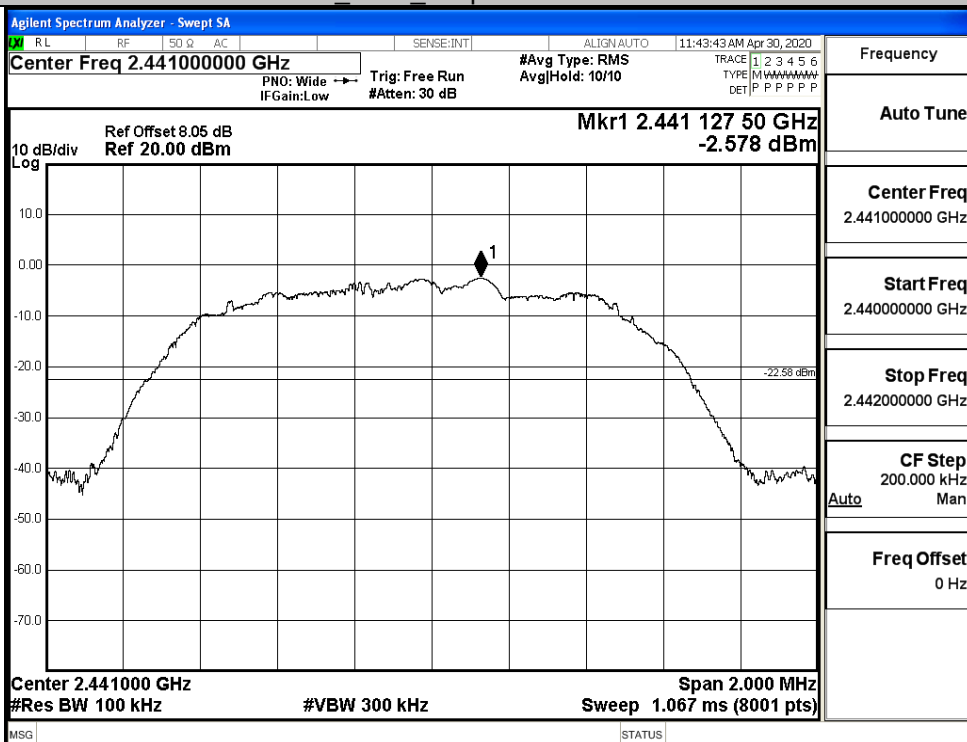


Puw

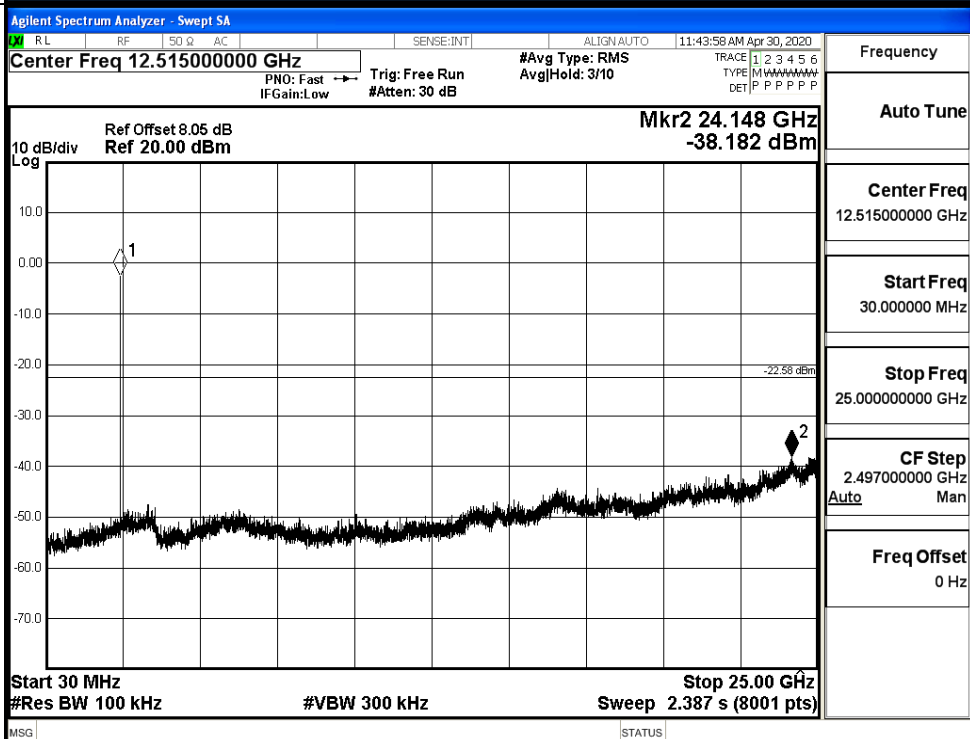


8DPSK_MCH_Graphs

Pref

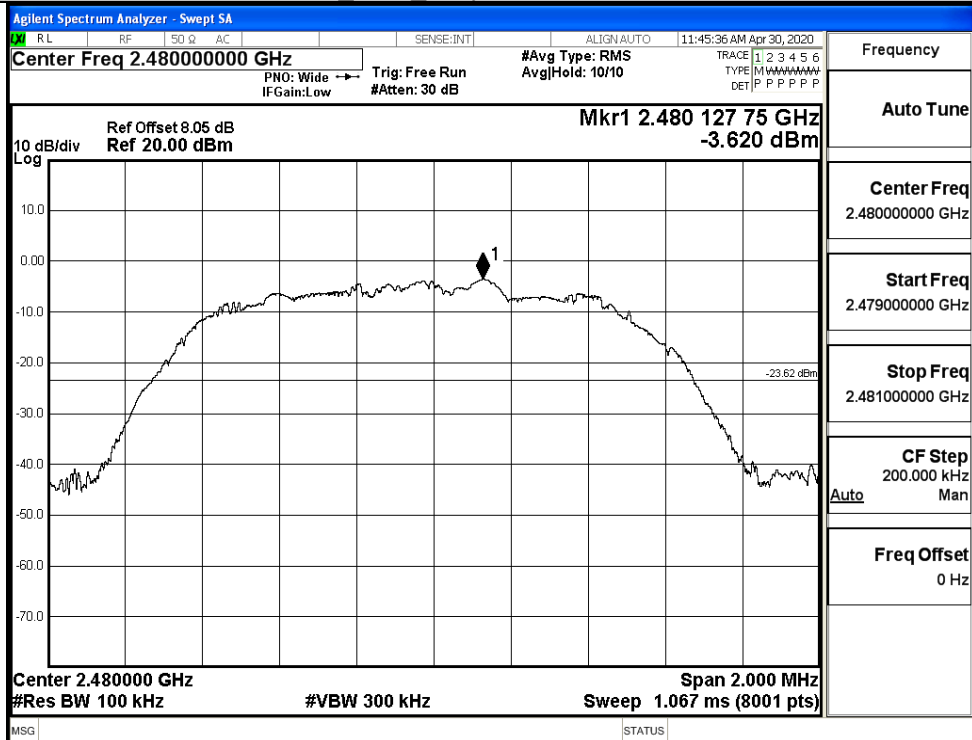


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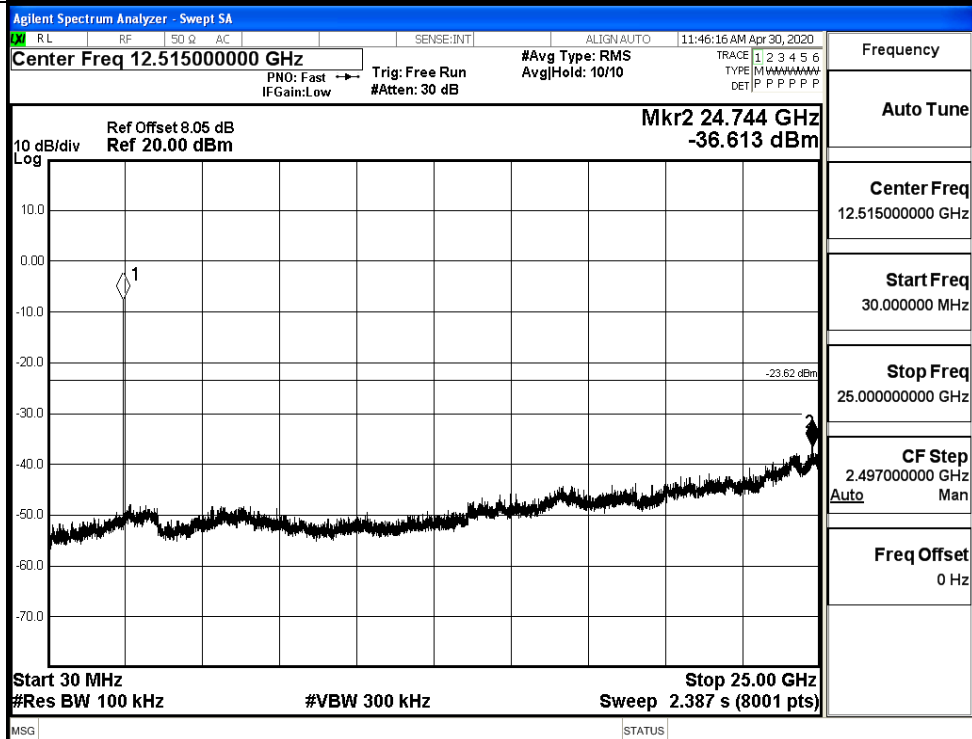


8DPSK_HCH_Graphs

Pref



Puw

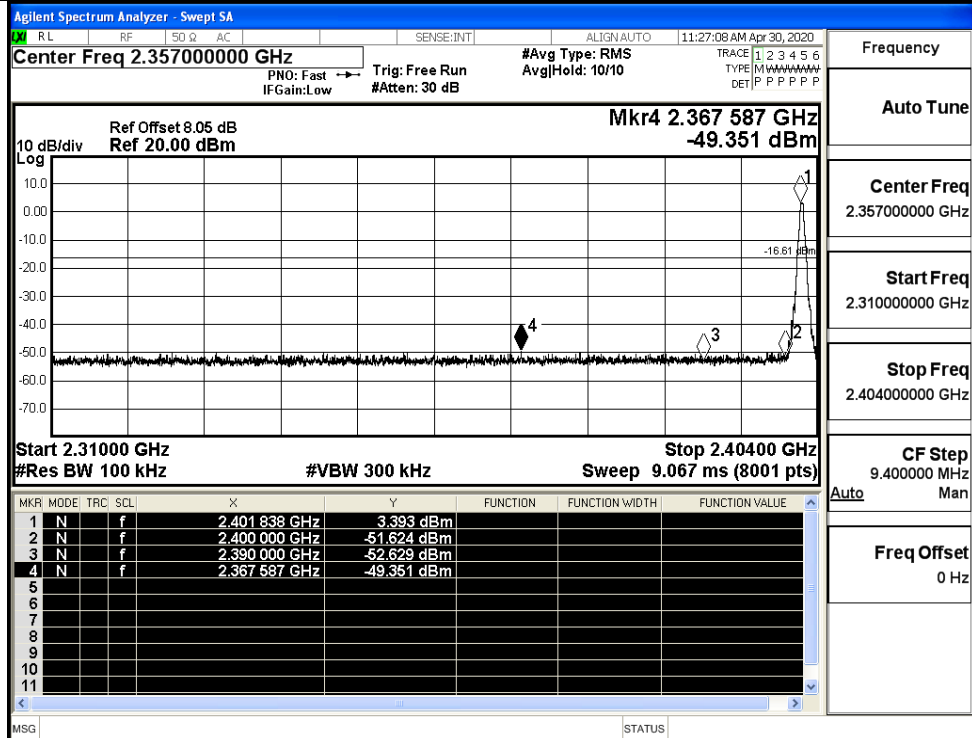


A.7 Band-edge for RF Conducted Emissions

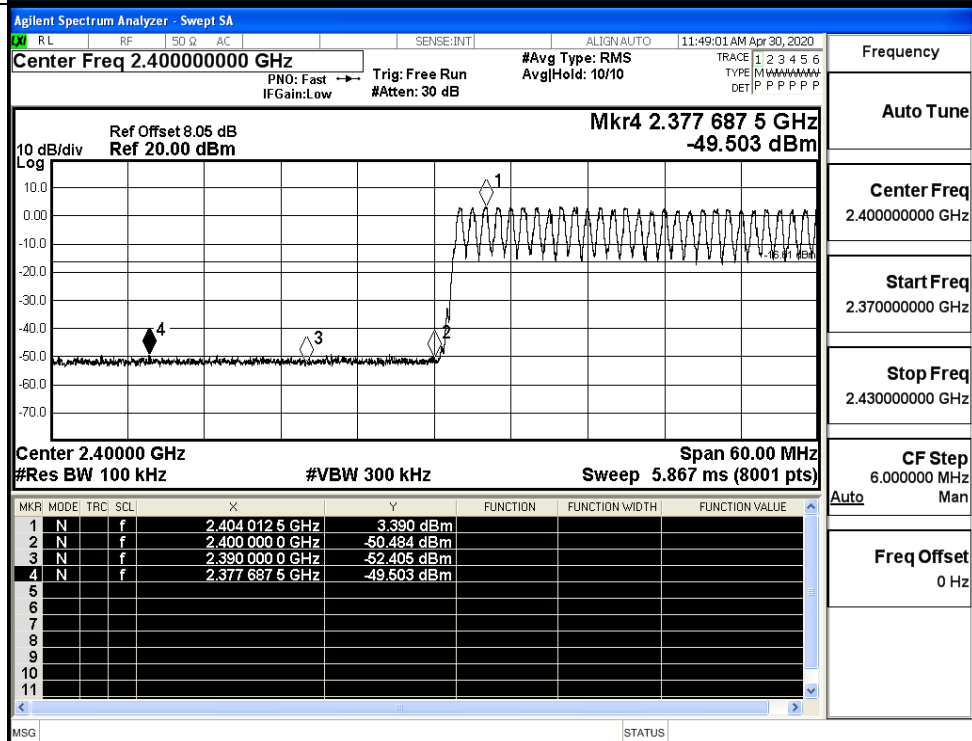
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	3.393	Off	-49.351	-16.61	PASS
			3.390	On	-49.503	-16.61	PASS
	HCH	2480	1.600	Off	-48.582	-18.4	PASS
			1.203	On	-48.773	-18.8	PASS
$\pi/4$ DQPSK	LCH	2402	-1.205	Off	-49.624	-21.21	PASS
			-1.240	On	-49.379	-21.24	PASS
	HCH	2480	-3.794	Off	-49.097	-23.79	PASS
			-3.695	On	-49.049	-23.7	PASS
8DPSK	LCH	2402	-1.248	Off	-49.113	-21.25	PASS
			-1.215	On	-49.194	-21.22	PASS
	HCH	2480	-3.459	Off	-48.787	-23.46	PASS
			-3.462	On	-48.741	-23.46	PASS

Test Graphs

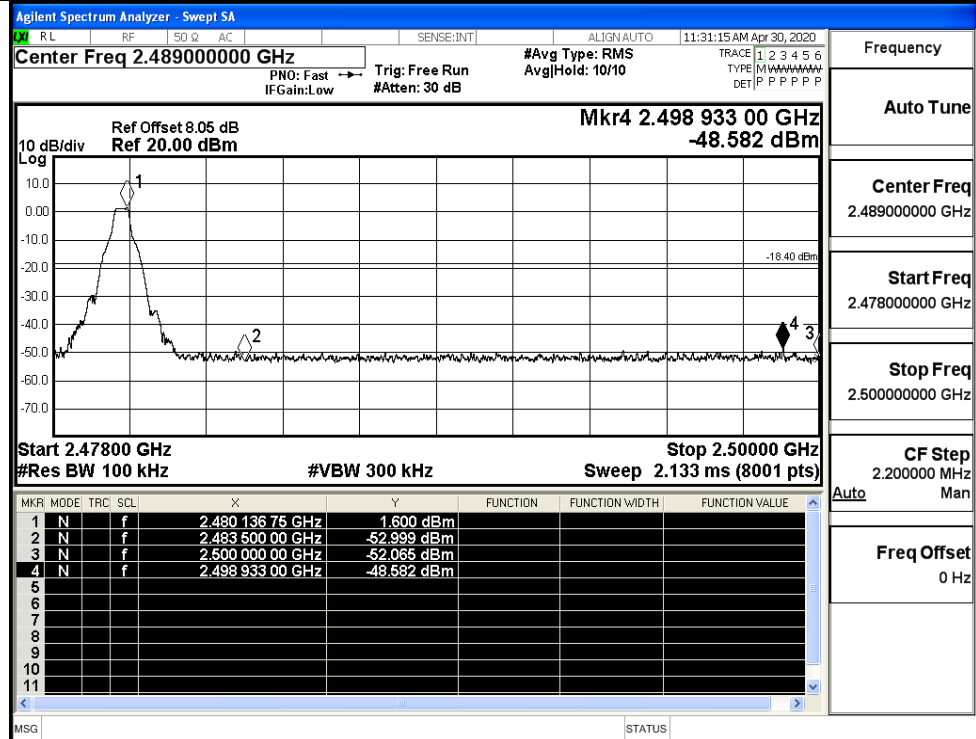
GFSK/LCH/No Hop



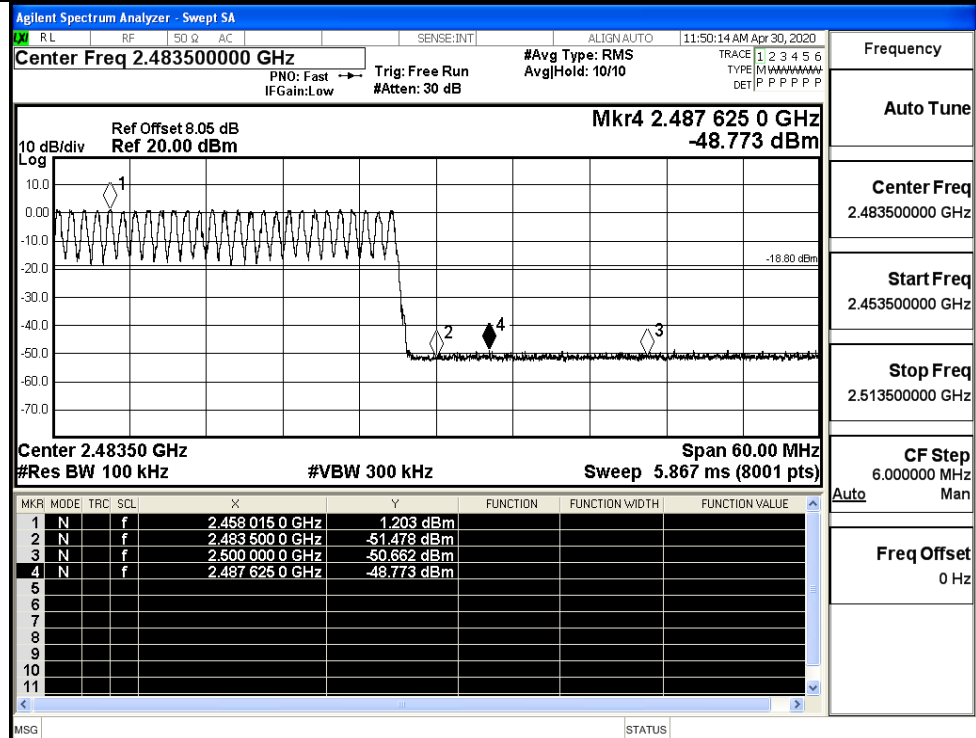
GFSK/LCH/Hop



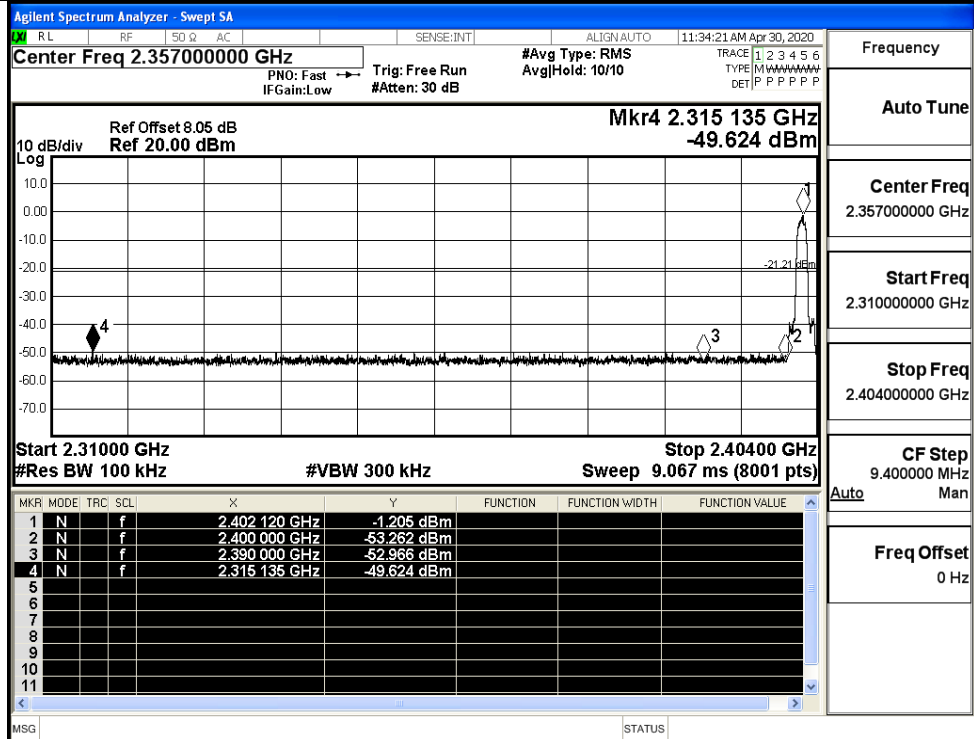
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

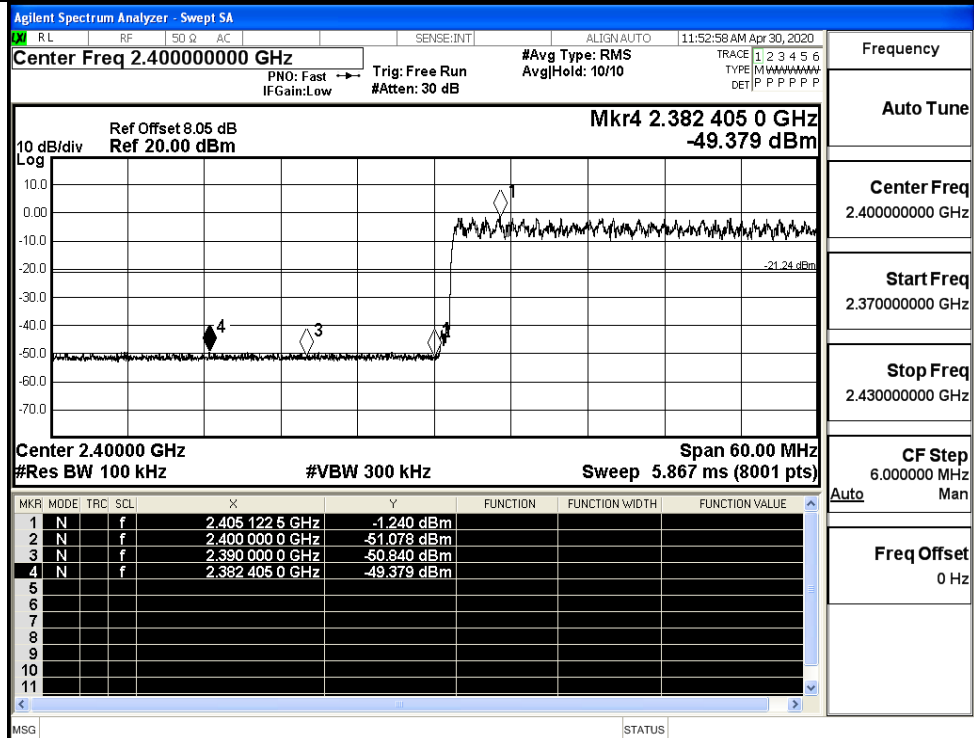
Start Freq
2.310000000 GHz

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

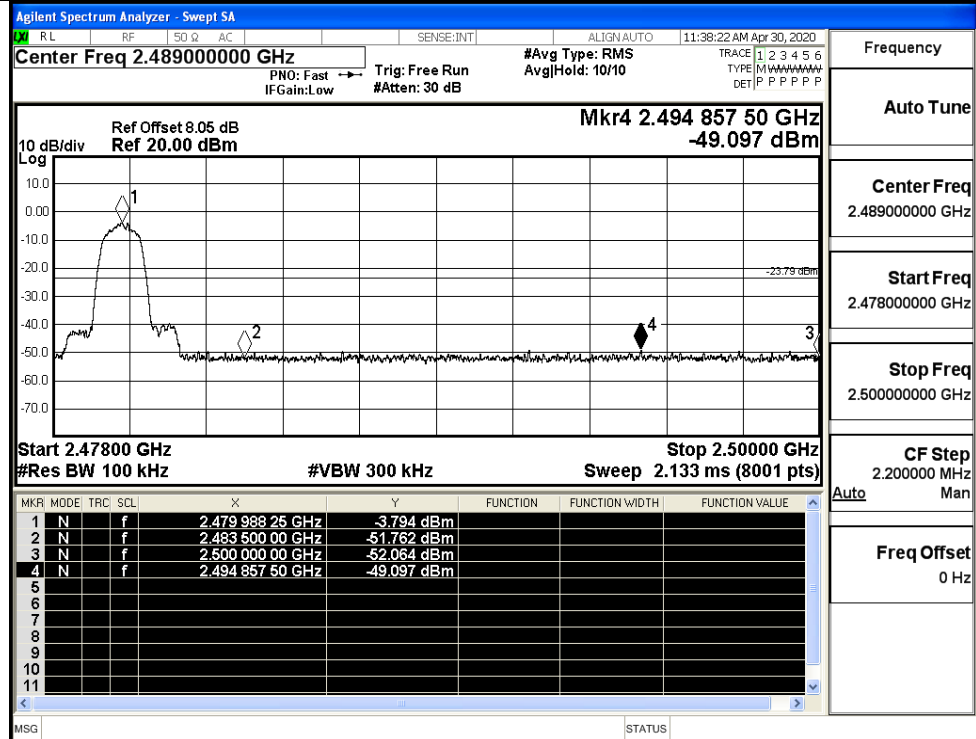
Start Freq
2.370000000 GHz

Stop Freq
2.430000000 GHz

CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

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

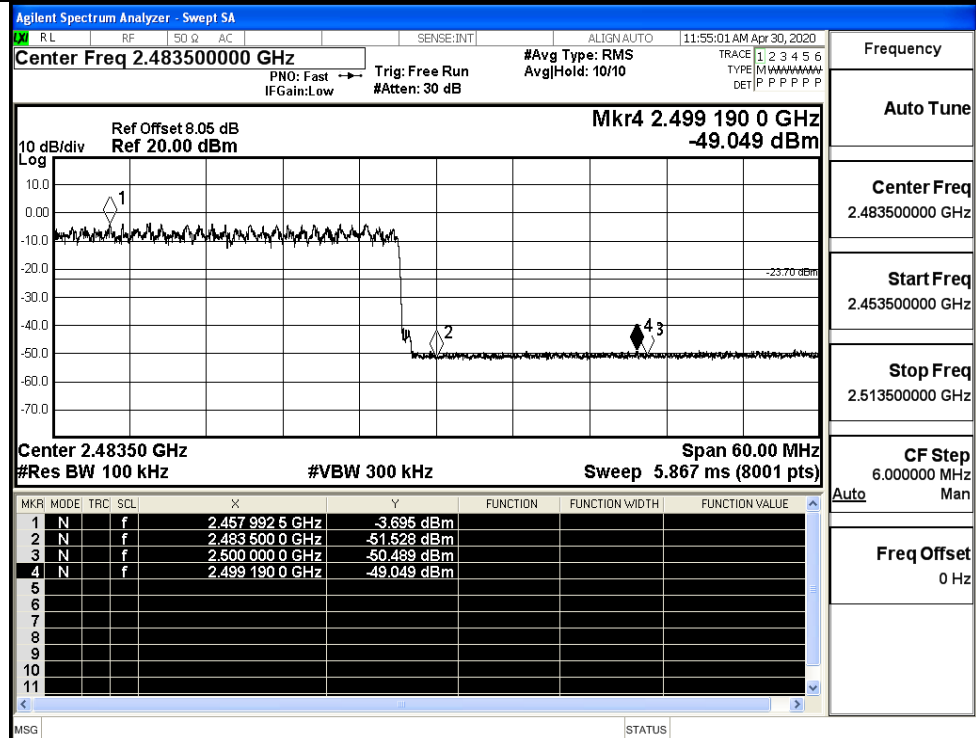


Frequency

Auto Tune

Center Freq
2.489000000 GHzStart Freq
2.478000000 GHzStop Freq
2.500000000 GHzCF Step
2.200000 MHz
Auto ManFreq Offset
0 Hz

$\pi/4$ DQPSK/HCH/Hop

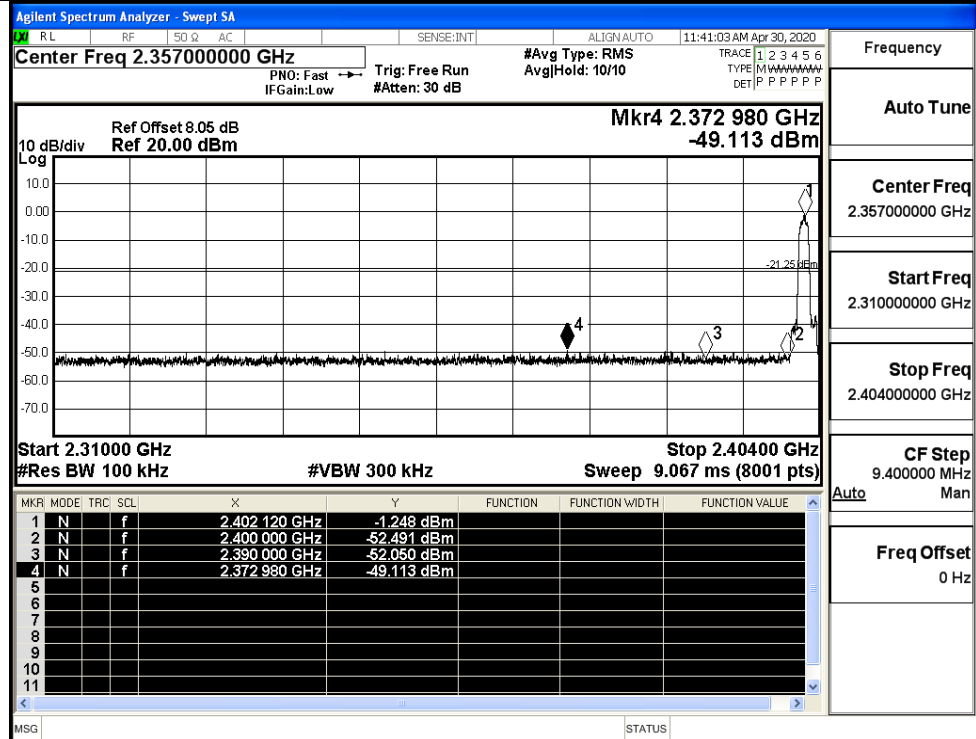


Frequency

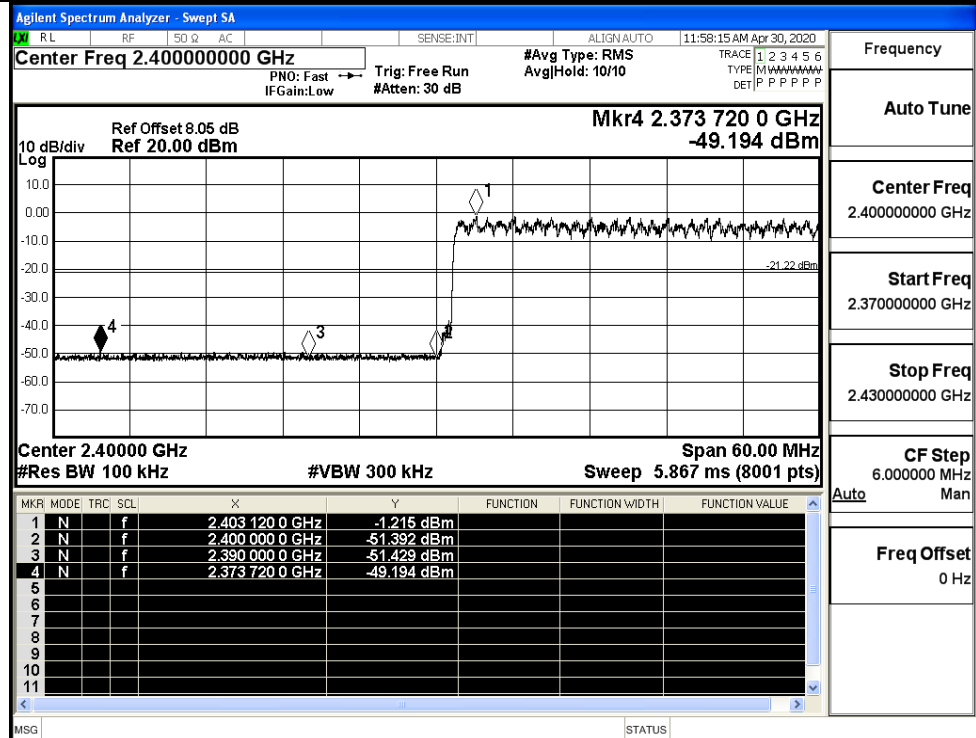
Auto Tune

Center Freq
2.483500000 GHzStart Freq
2.453500000 GHzStop Freq
2.513500000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

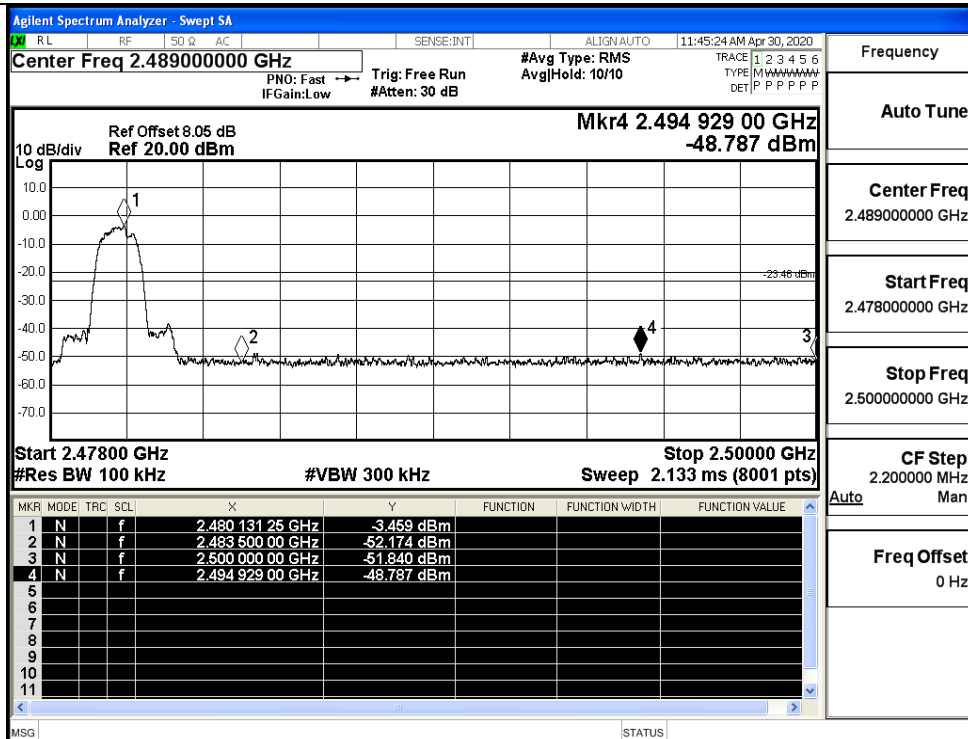
8DPSK/LCH/No Hop



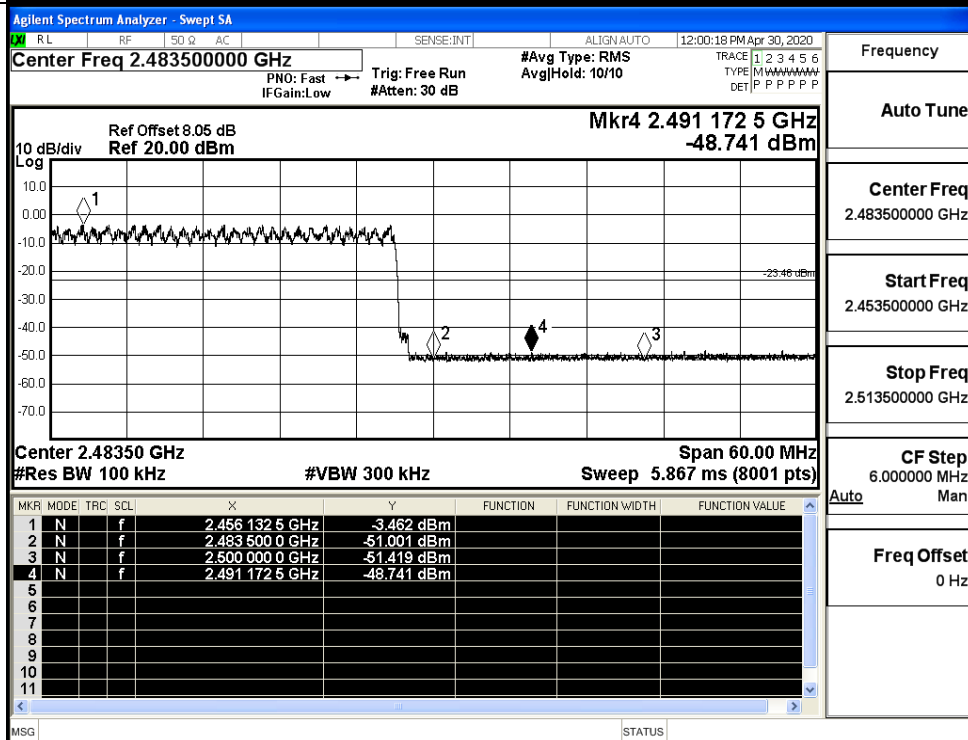
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



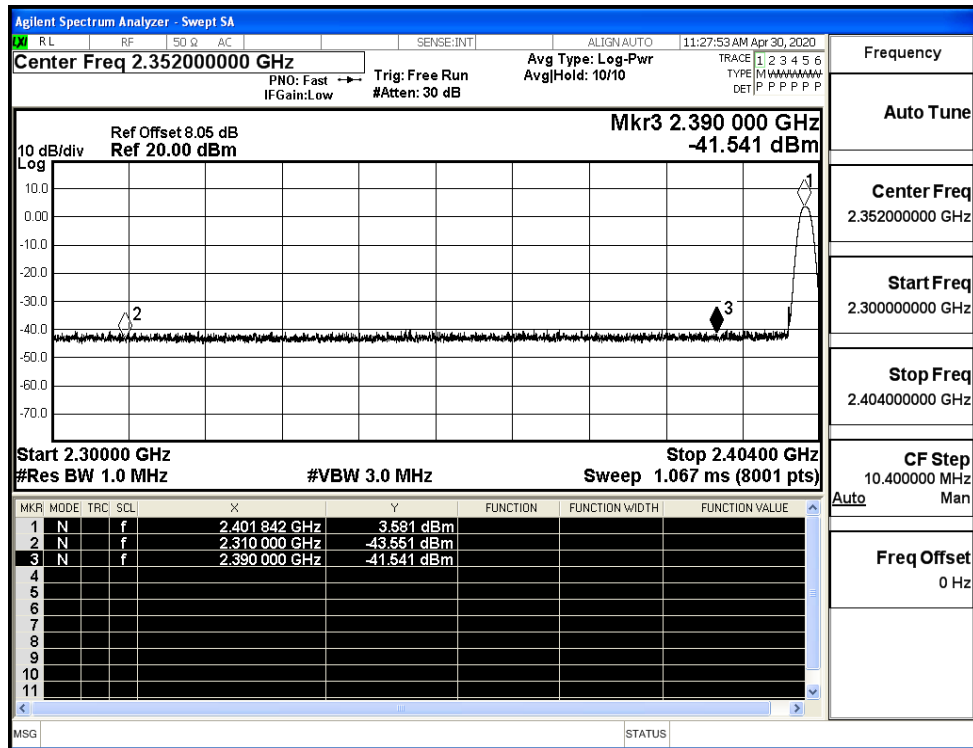
8DPSK/HCH/Hop



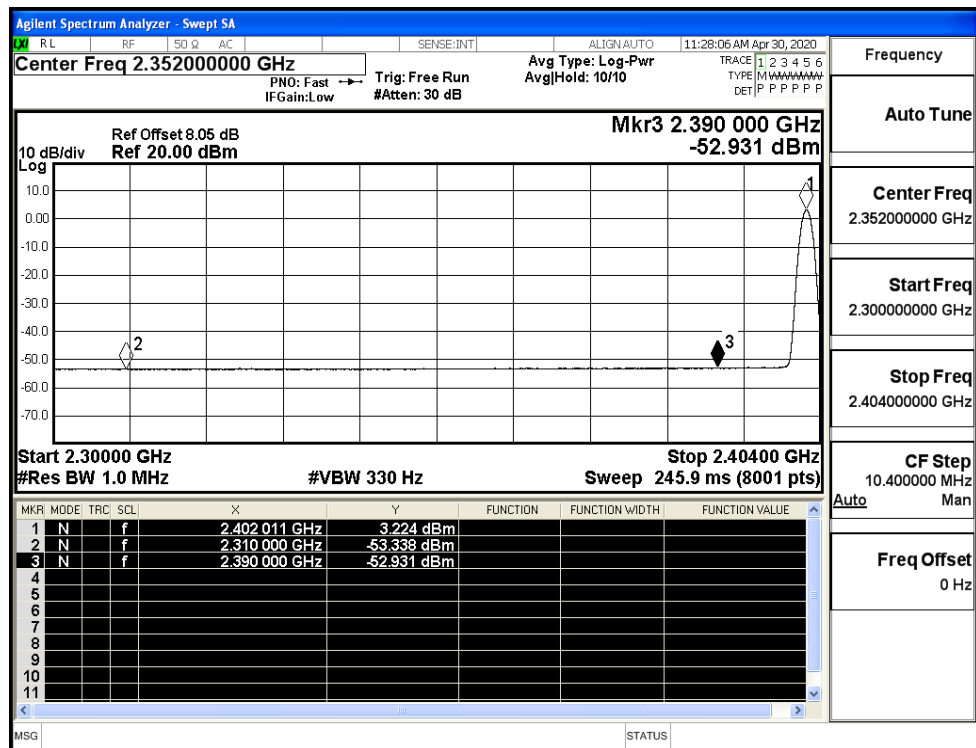
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.55	4.5	0	56.21	PEAK	74	PASS
	Off	2310.0	-53.34	4.5	0	46.42	AV	54	PASS
	Off	2390.0	-41.54	4.5	0	58.22	PEAK	74	PASS
	Off	2390.0	-52.93	4.5	0	46.83	AV	54	PASS
	Off	2483.5	-42.26	4.5	0	57.5	PEAK	74	PASS
	Off	2483.5	-52.48	4.5	0	47.28	AV	54	PASS
	Off	2500.0	-42.03	4.5	0	57.73	PEAK	74	PASS
	Off	2500.0	-52.44	4.5	0	47.32	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.78	4.5	0	55.98	PEAK	74	PASS
	Off	2310.0	-53.38	4.5	0	46.38	AV	54	PASS
	Off	2390.0	-43.36	4.5	0	56.4	PEAK	74	PASS
	Off	2390.0	-52.92	4.5	0	46.84	AV	54	PASS
	Off	2483.5	-43.38	4.5	0	56.38	PEAK	74	PASS
	Off	2483.5	-52.53	4.5	0	47.23	AV	54	PASS
	Off	2500.0	-42.65	4.5	0	57.11	PEAK	74	PASS
	Off	2500.0	-52.37	4.5	0	47.39	AV	54	PASS
8DPSK	Off	2310.0	-43.54	4.5	0	56.22	PEAK	74	PASS
	Off	2310.0	-53.47	4.5	0	46.29	AV	54	PASS
	Off	2390.0	-42.14	4.5	0	57.62	PEAK	74	PASS
	Off	2390.0	-53.05	4.5	0	46.71	AV	54	PASS
	Off	2483.5	-41.95	4.5	0	57.81	PEAK	74	PASS
	Off	2483.5	-52.43	4.5	0	47.33	AV	54	PASS
	Off	2500.0	-42.19	4.5	0	57.57	PEAK	74	PASS
	Off	2500.0	-52.39	4.5	0	47.37	AV	54	PASS

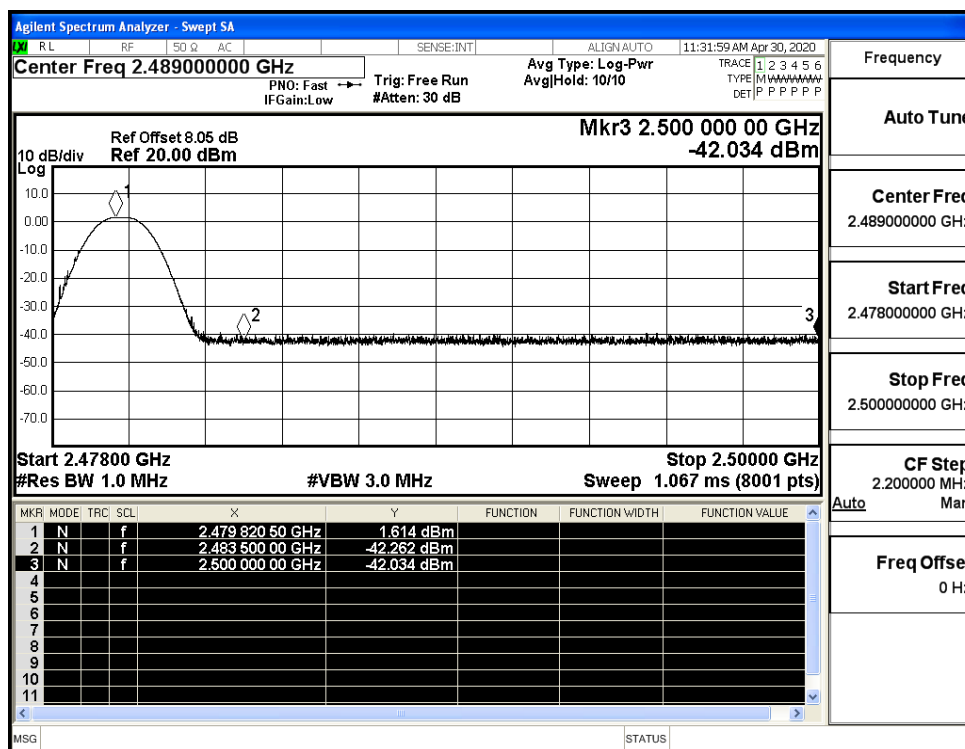
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



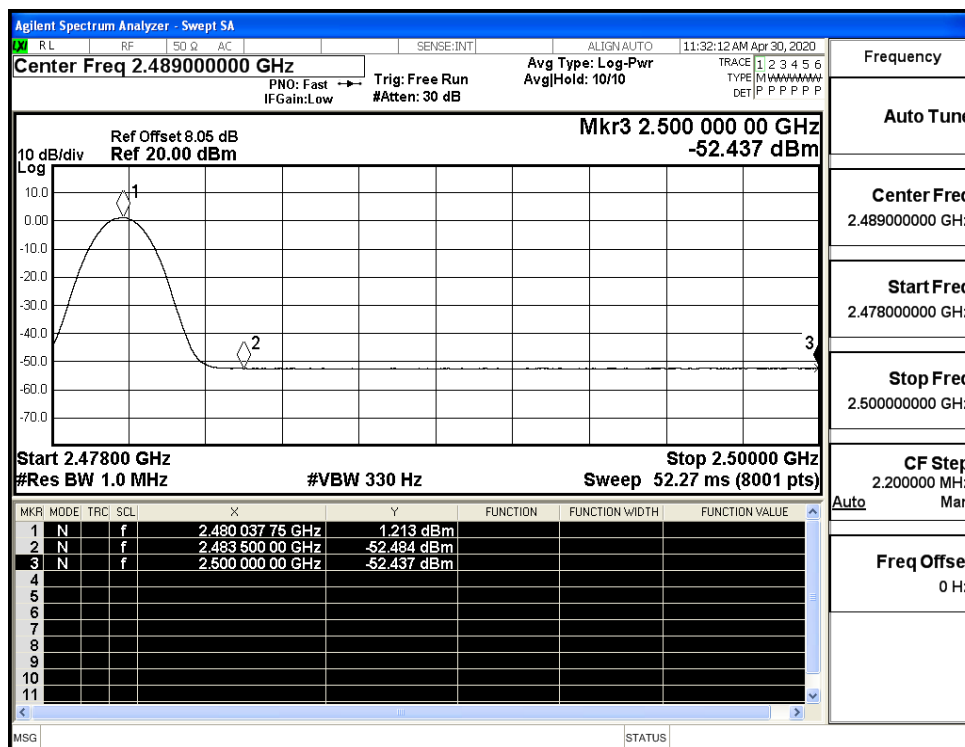
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

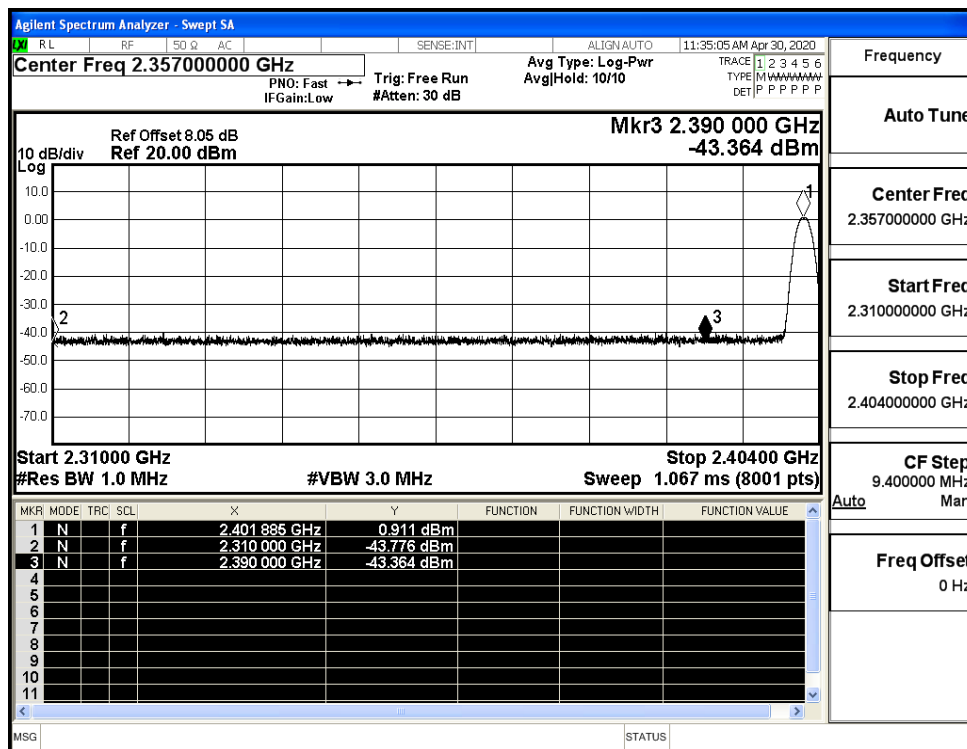
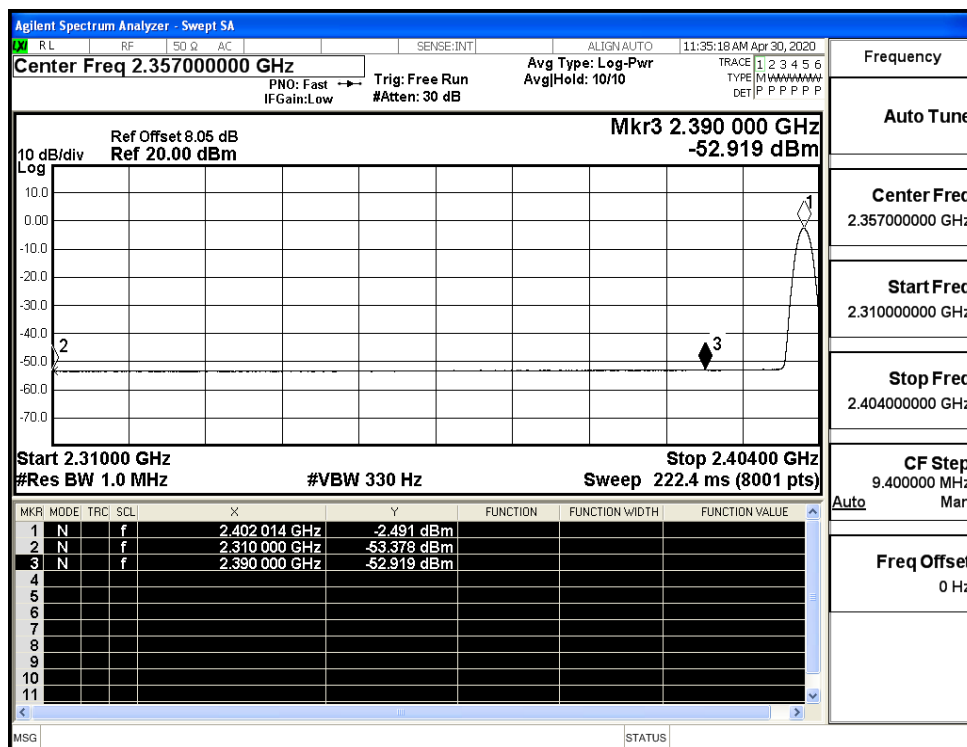


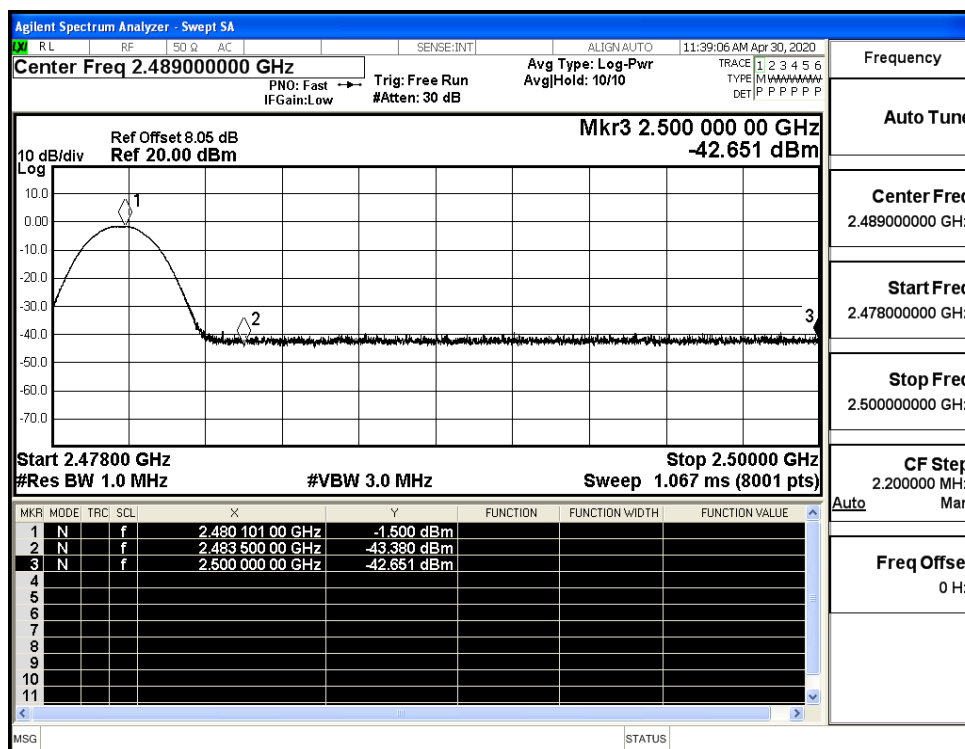
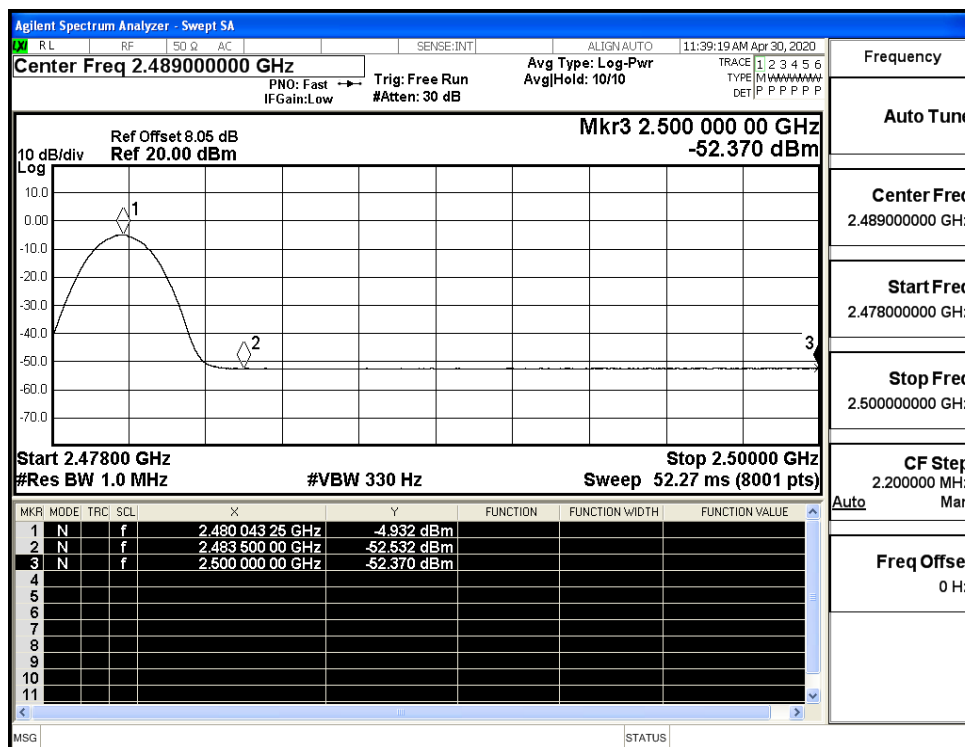
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



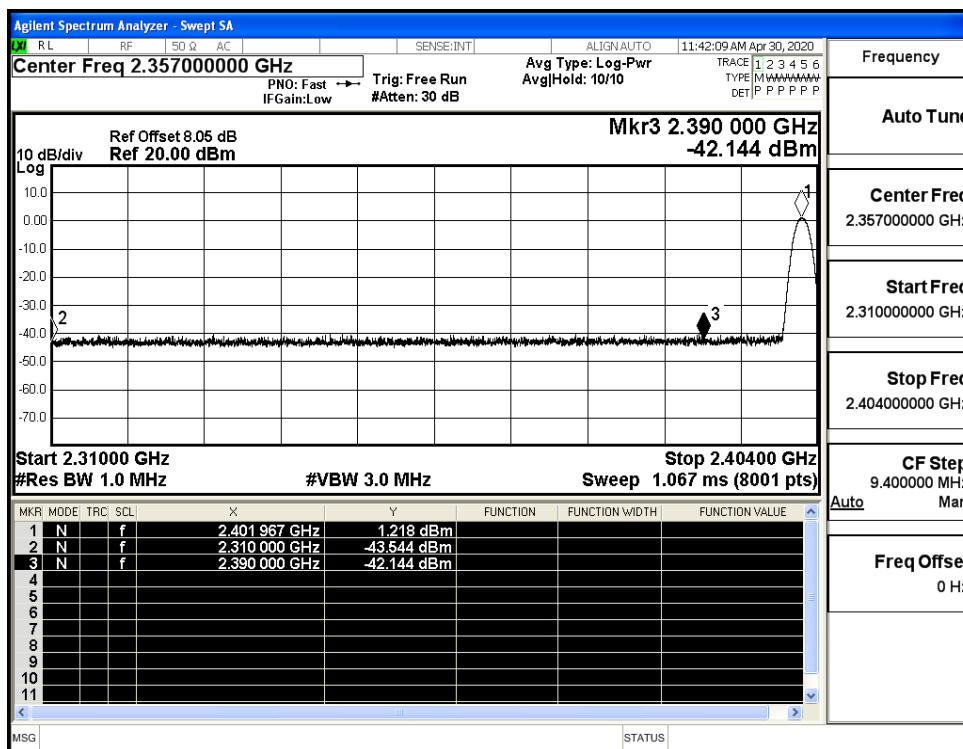
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



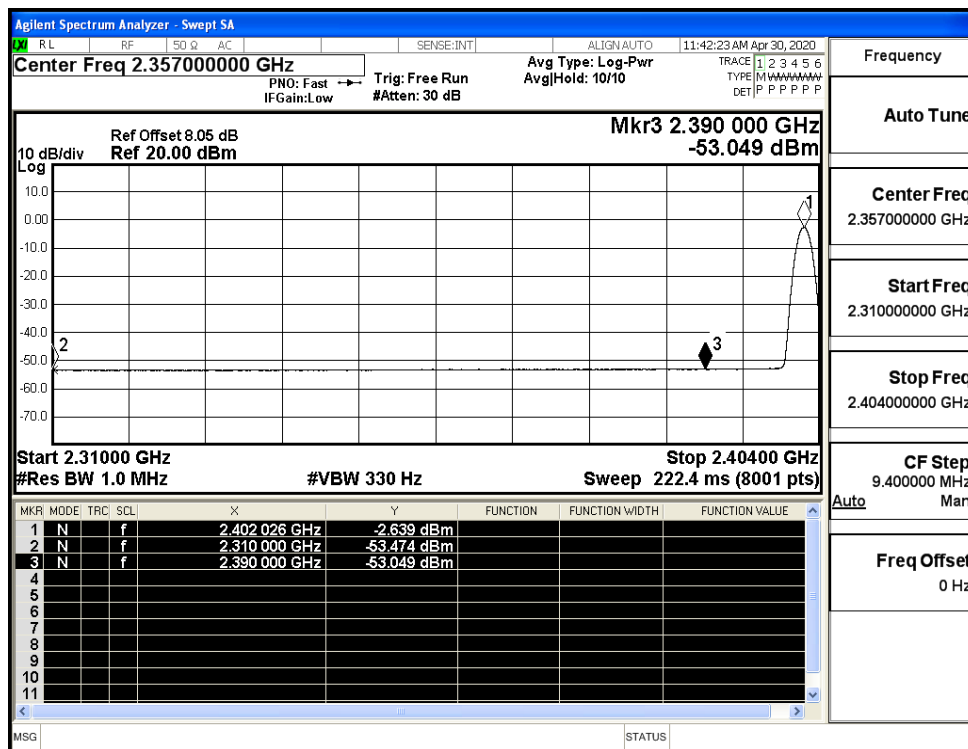
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

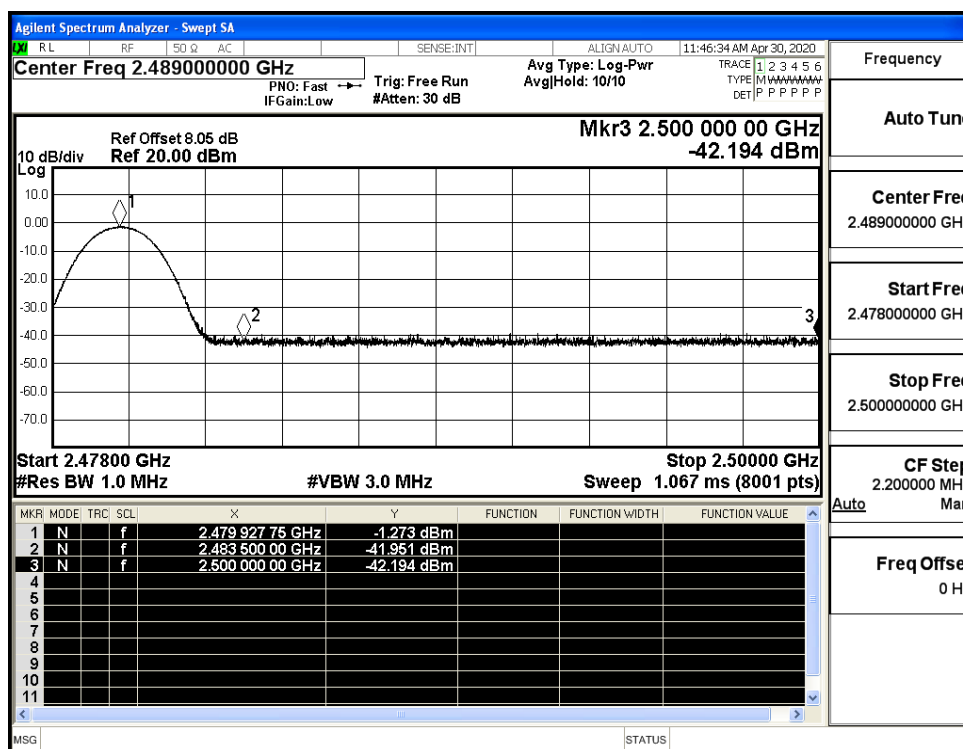
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

