

Appendix A

RF Test Data for BT V4.1 (BDR/EDR) (Conducted Measurement)

Product Name: Wi-Fi Adapter

Trade Mark: N/A

Test Model: AP0100

Environmental Conditions

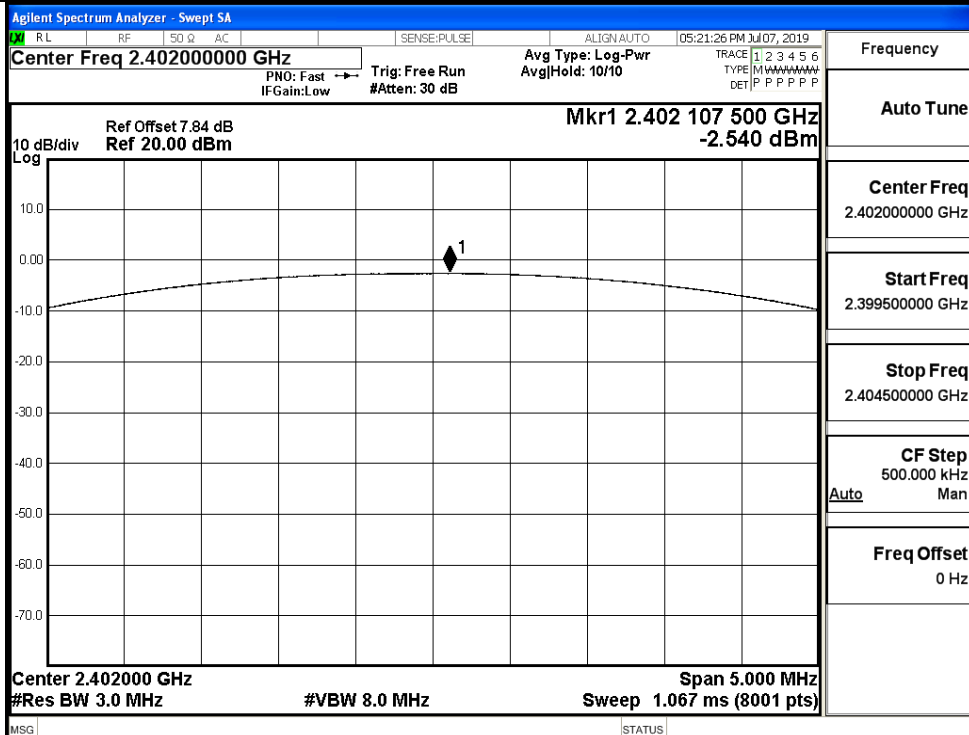
Temperature:	23.8 °C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Wang.Chuang
Supervised by:	Tom.Liu

A.1 Maximum Conducted Peak Output Power

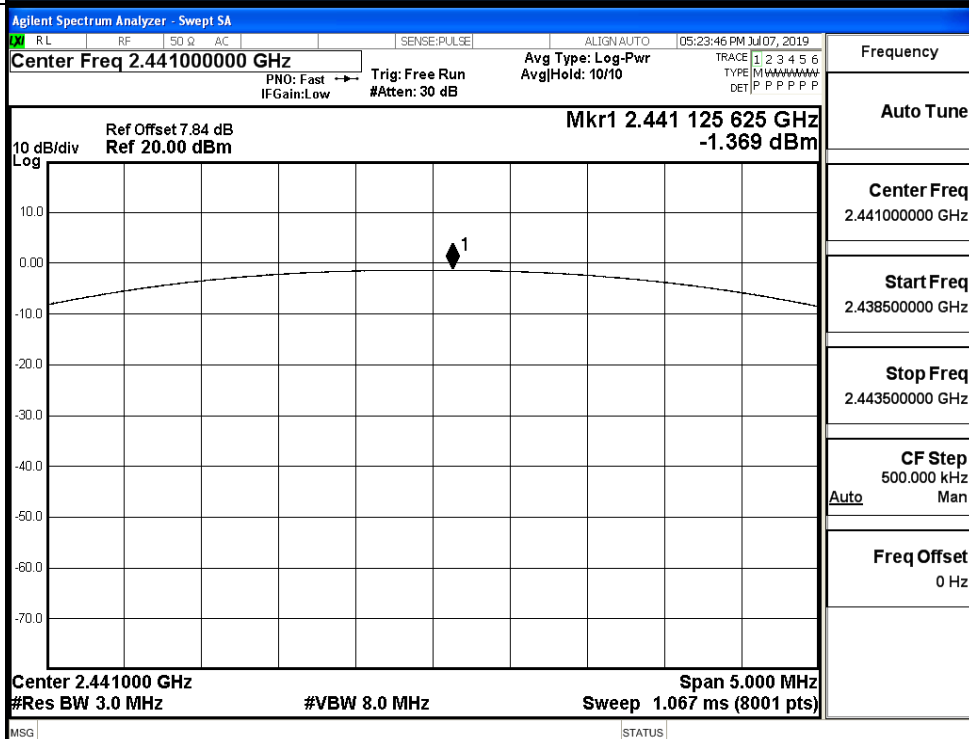
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-2.540	21	PASS
	MCH	-1.369	21	PASS
	HCH	-2.070	21	PASS
$\pi/4$ DQPSK	LCH	-3.096	21	PASS
	MCH	-1.996	21	PASS
	HCH	-2.611	21	PASS
8DPSK	LCH	-2.409	21	PASS
	MCH	-1.569	21	PASS
	HCH	-2.655	21	PASS

Test Graphs

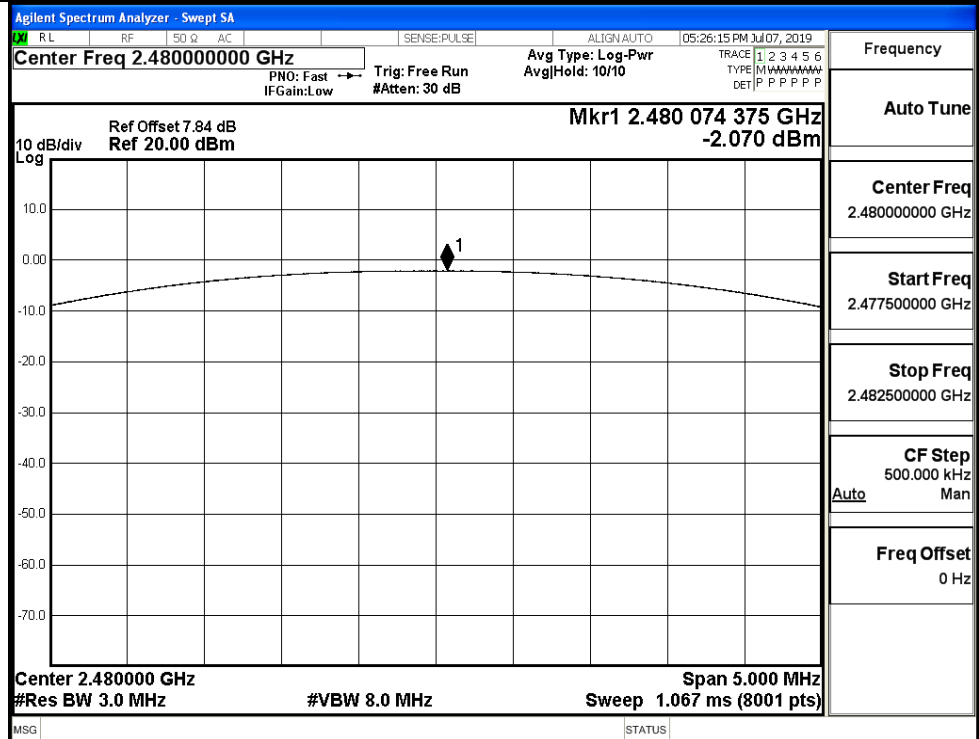
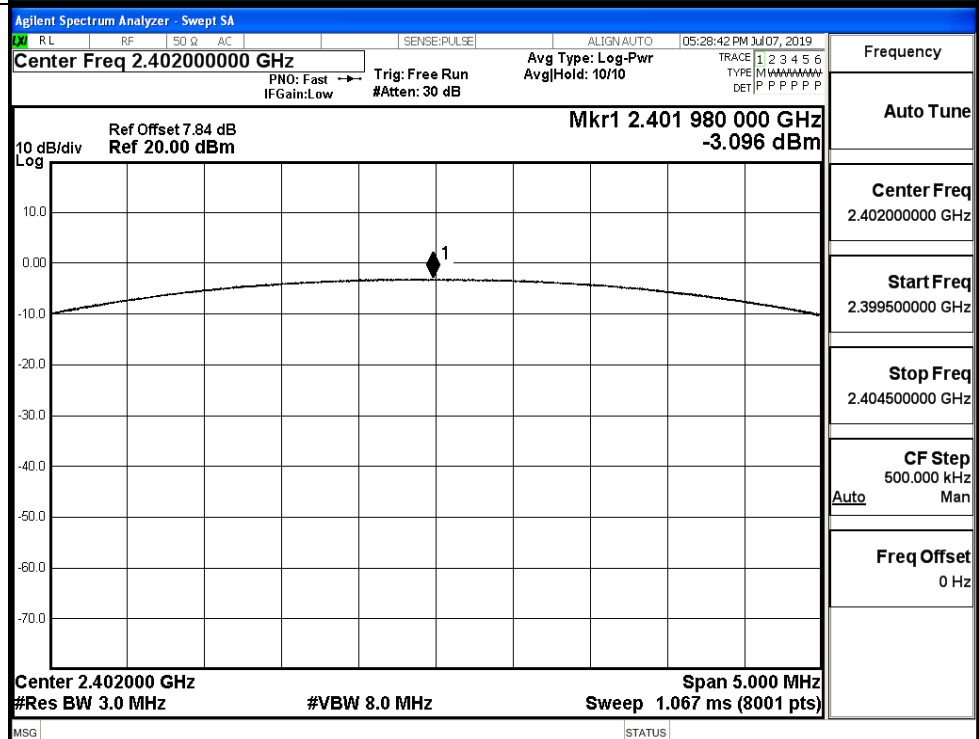
GFSK/LCH

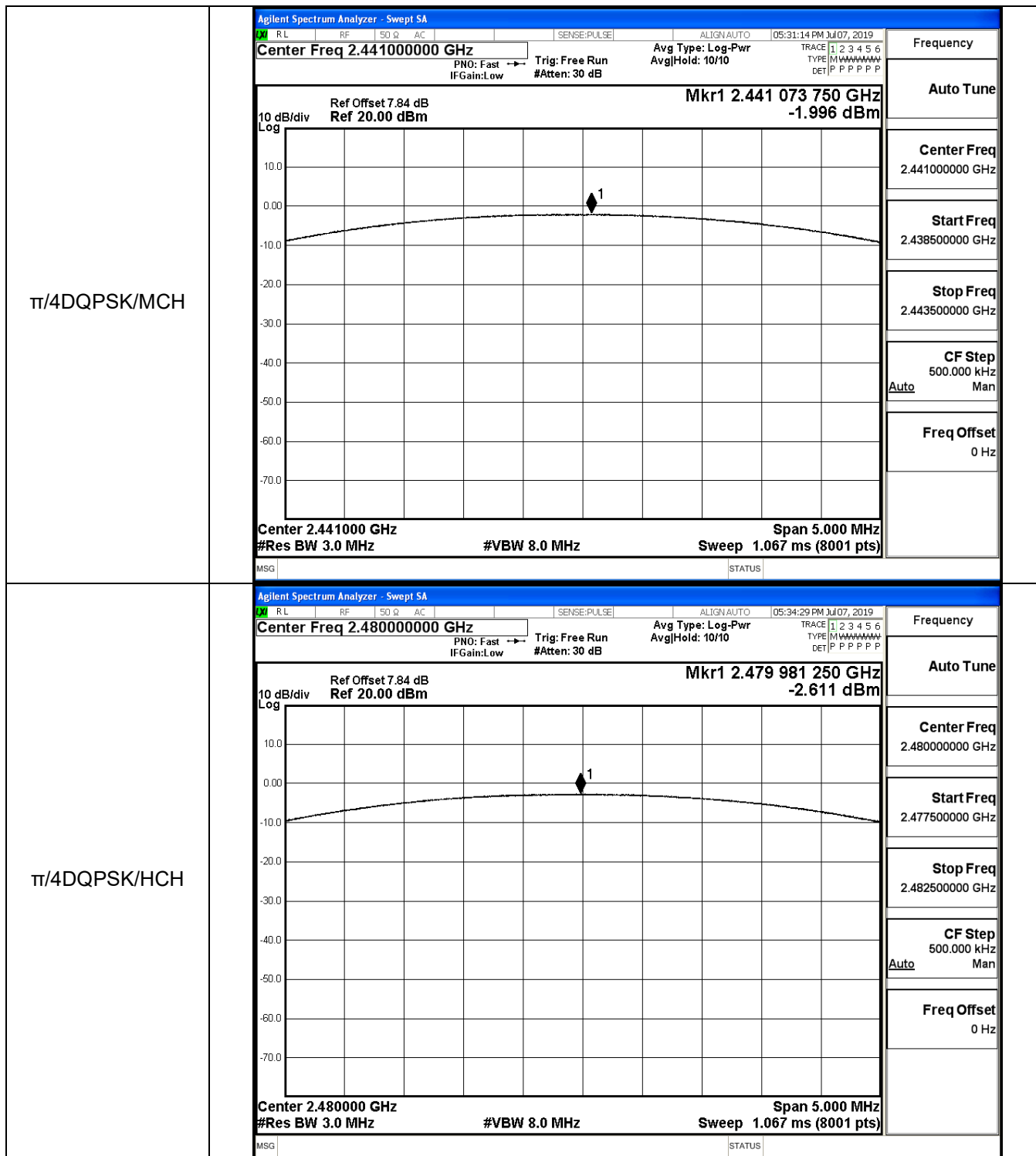


GFSK/MCH

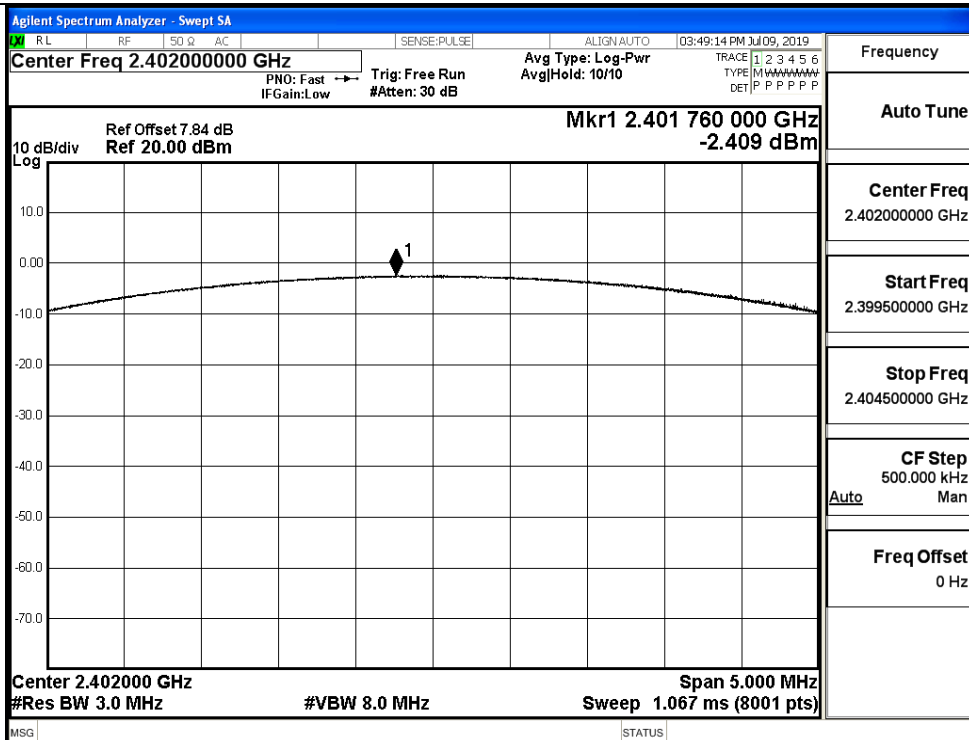


GFSK/HCH

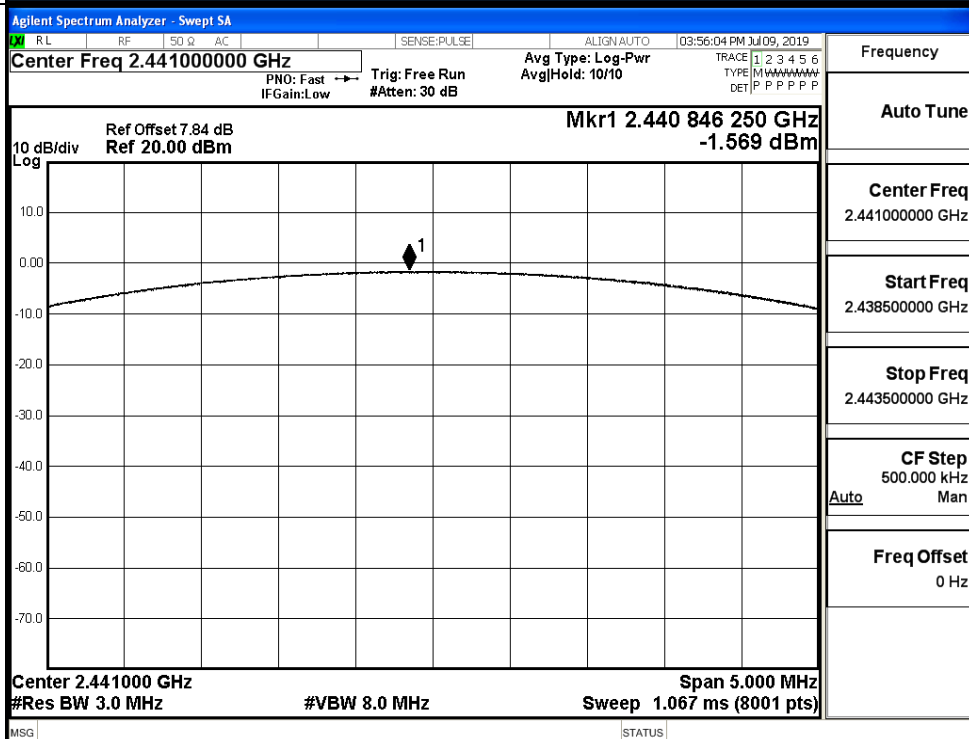
 π /4DQPSK/LCH

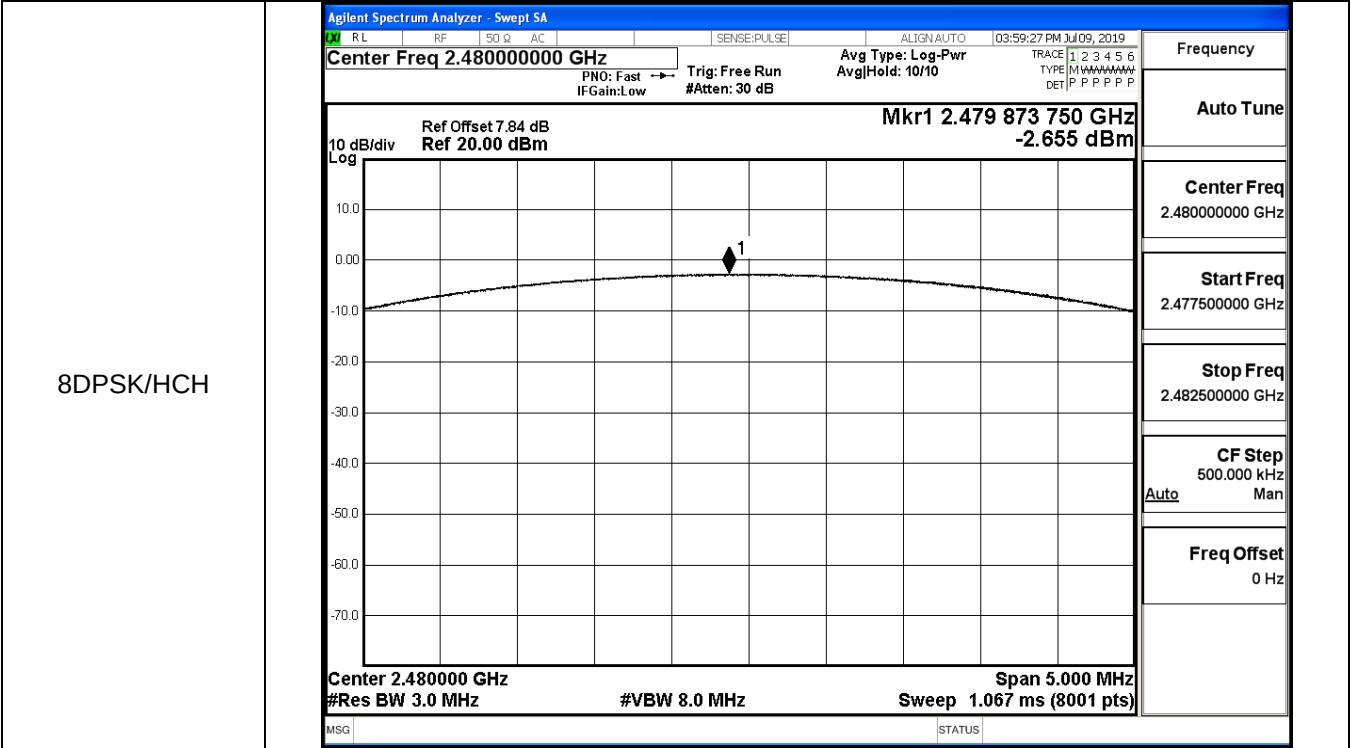


8DPSK/LCH



8DPSK/MCH



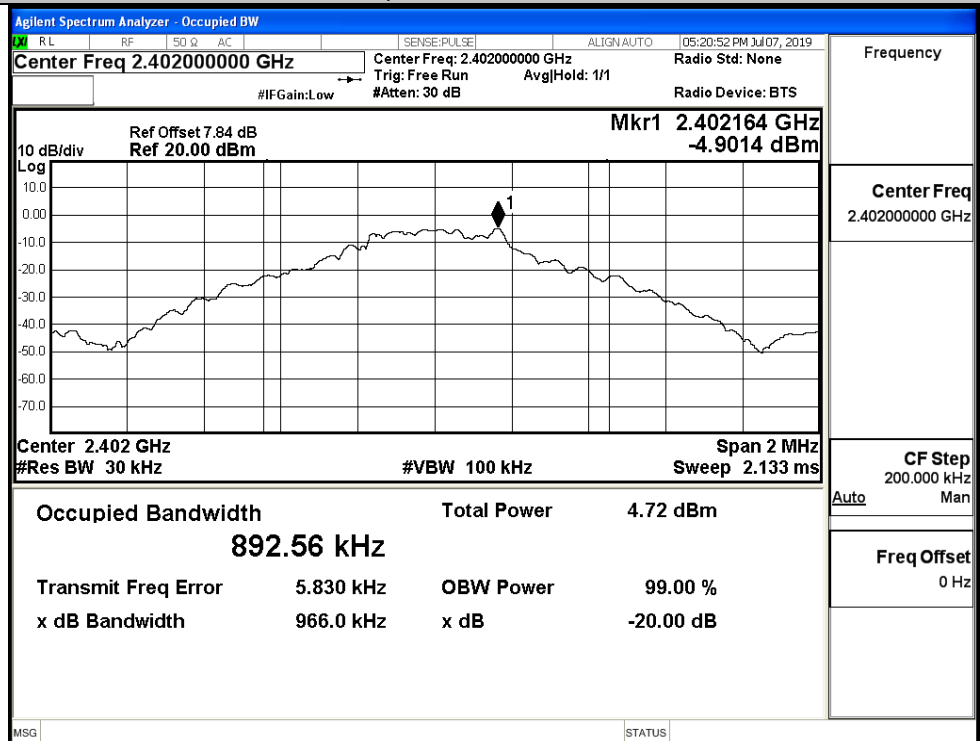


A.2 99% and 20dB Bandwidth

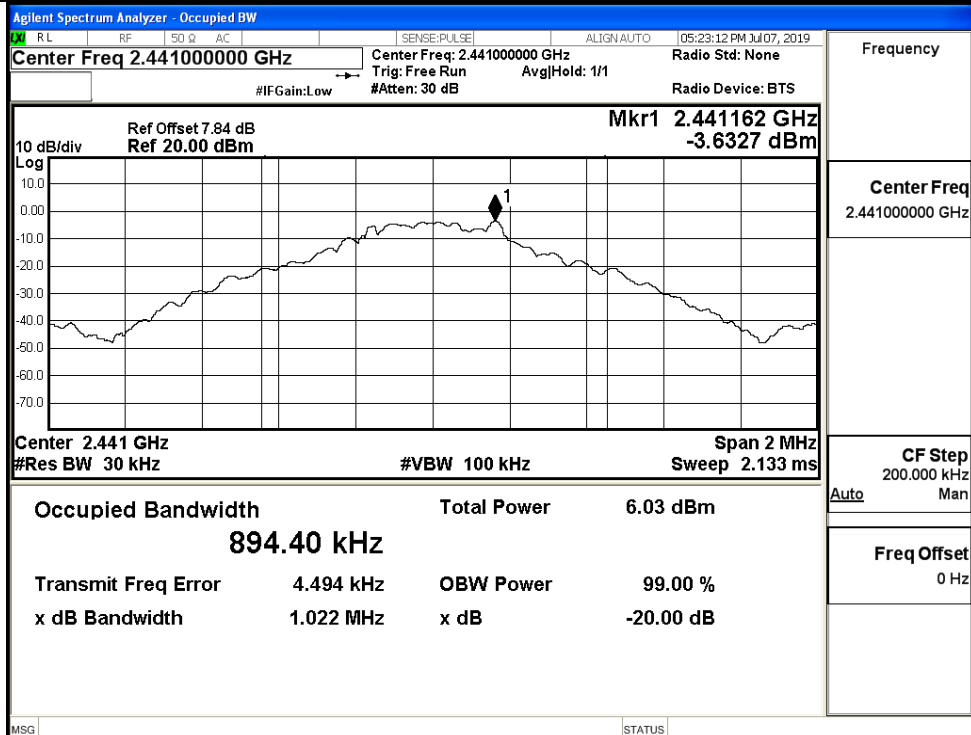
Mode	Channel.	99% Bandwidth [MHz]	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.89256	0.966	Not Specified	PASS
	MCH	0.89440	1.022	Not Specified	PASS
	HCH	0.89676	1.026	Not Specified	PASS
π /4DQPSK	LCH	1.1779	1.292	Not Specified	PASS
	MCH	1.1744	1.310	Not Specified	PASS
	HCH	1.1735	1.291	Not Specified	PASS
8DPSK	LCH	1.1962	1.309	Not Specified	PASS
	MCH	1.1862	1.297	Not Specified	PASS
	HCH	1.1843	1.296	Not Specified	PASS

Test Graphs

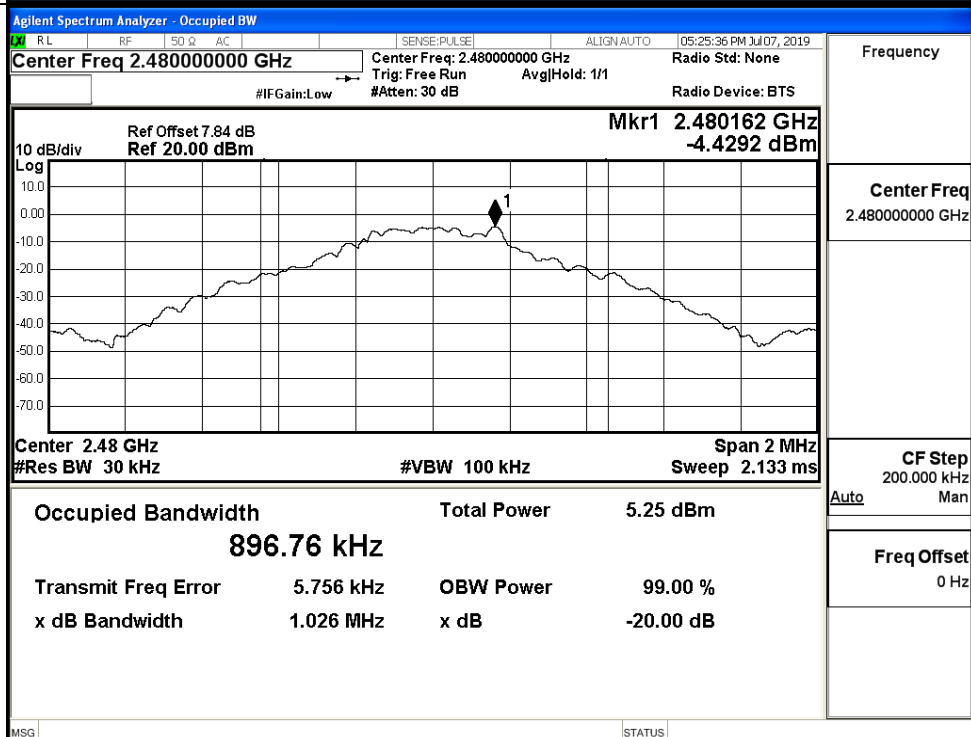
GFSK/LCH

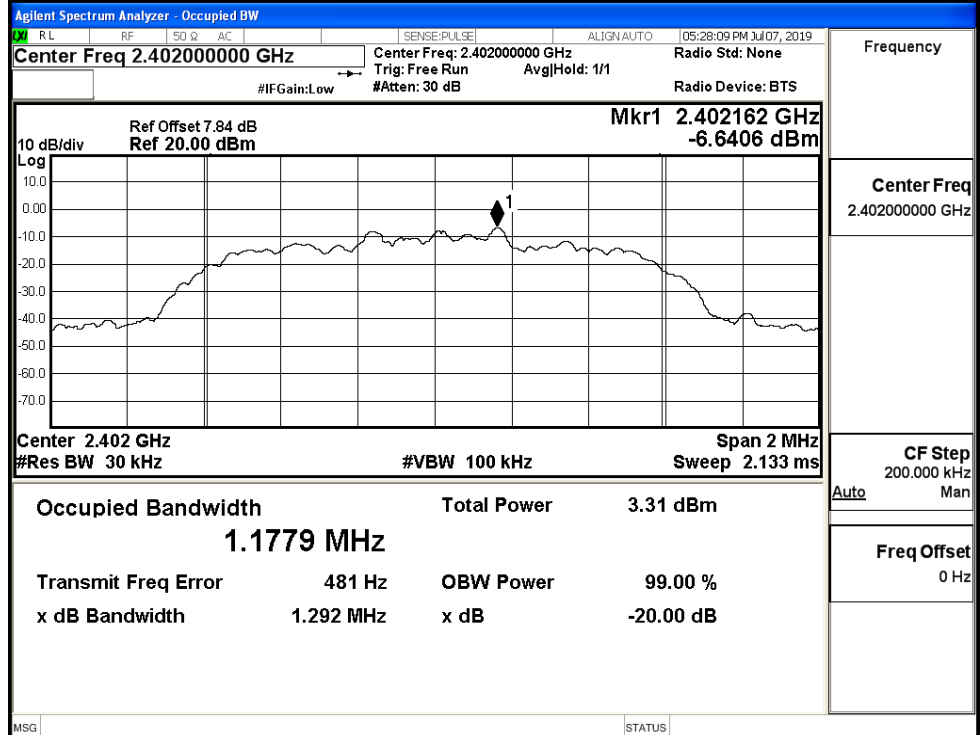
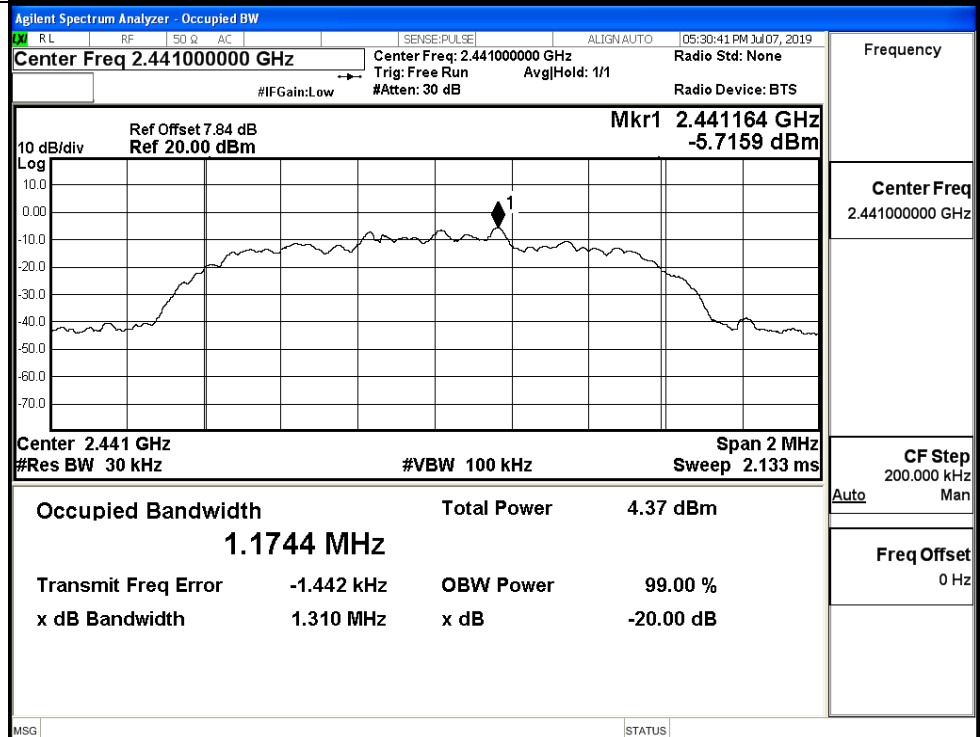


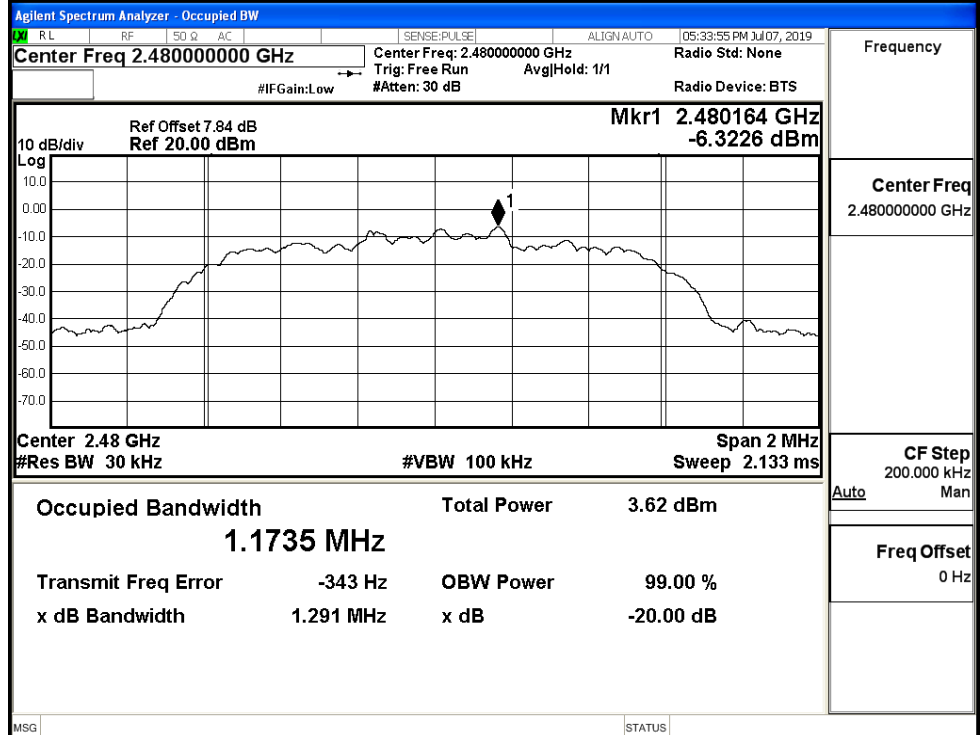
GFSK/MCH



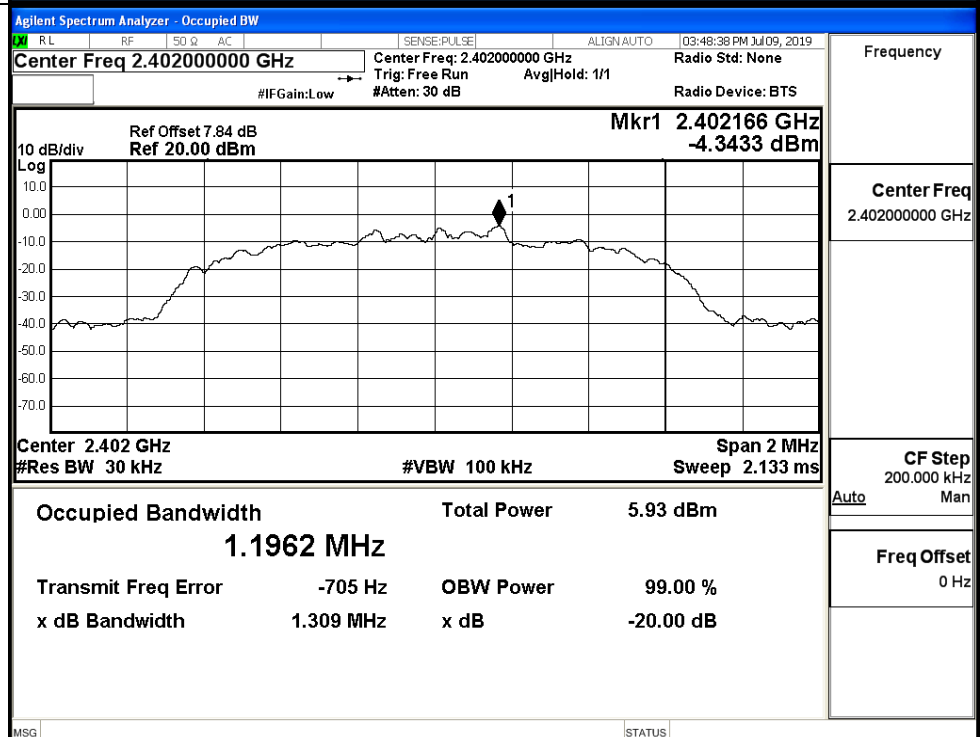
GFSK/HCH



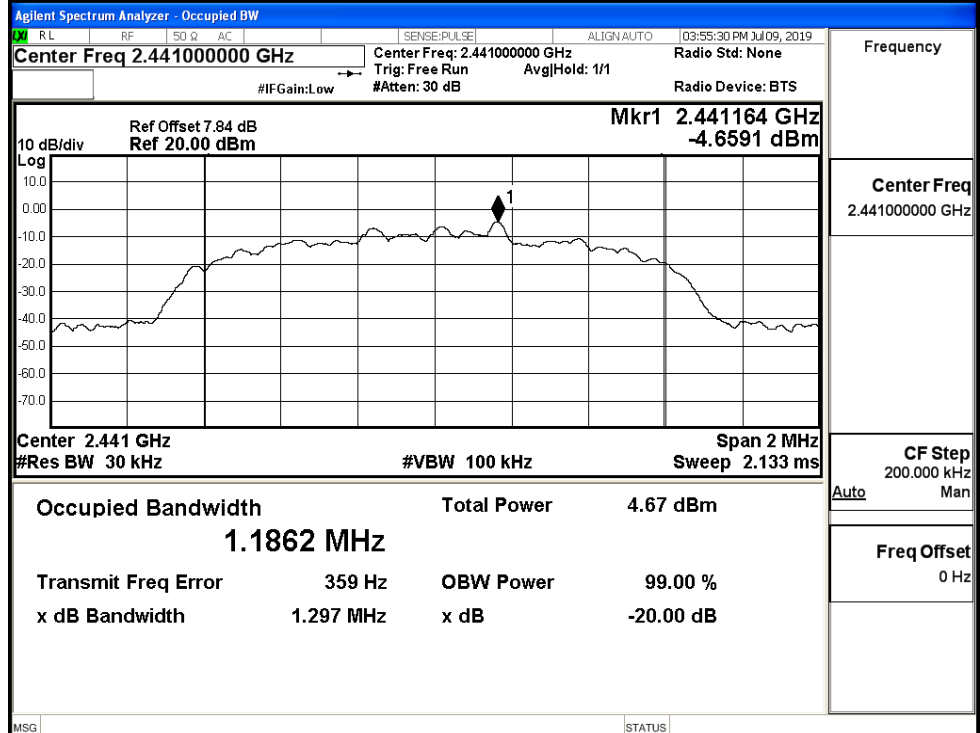
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

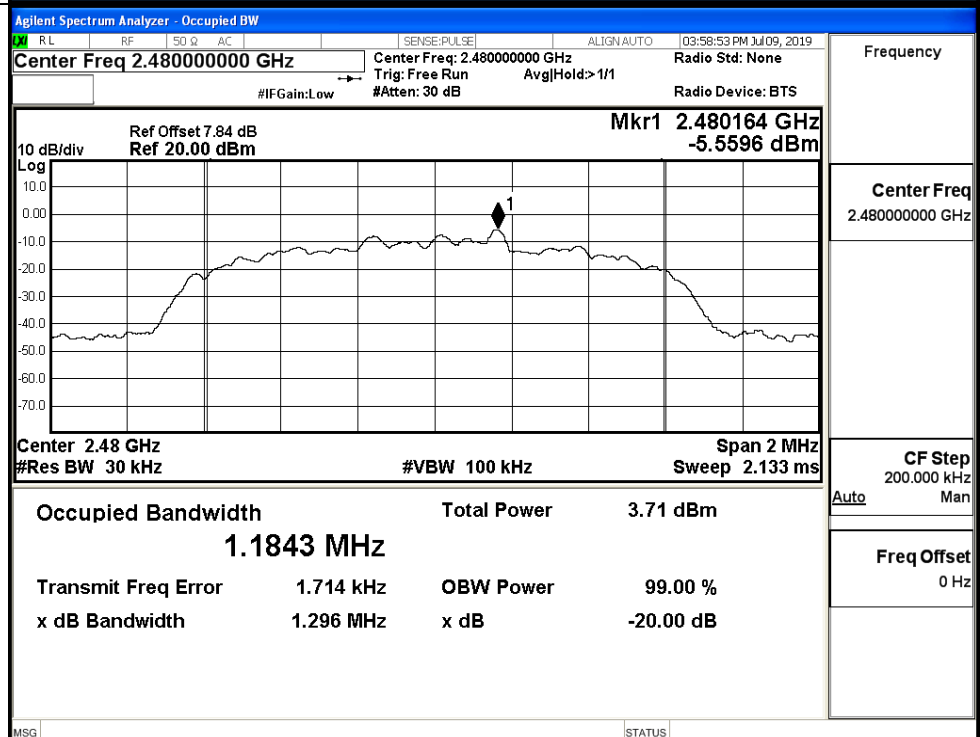
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

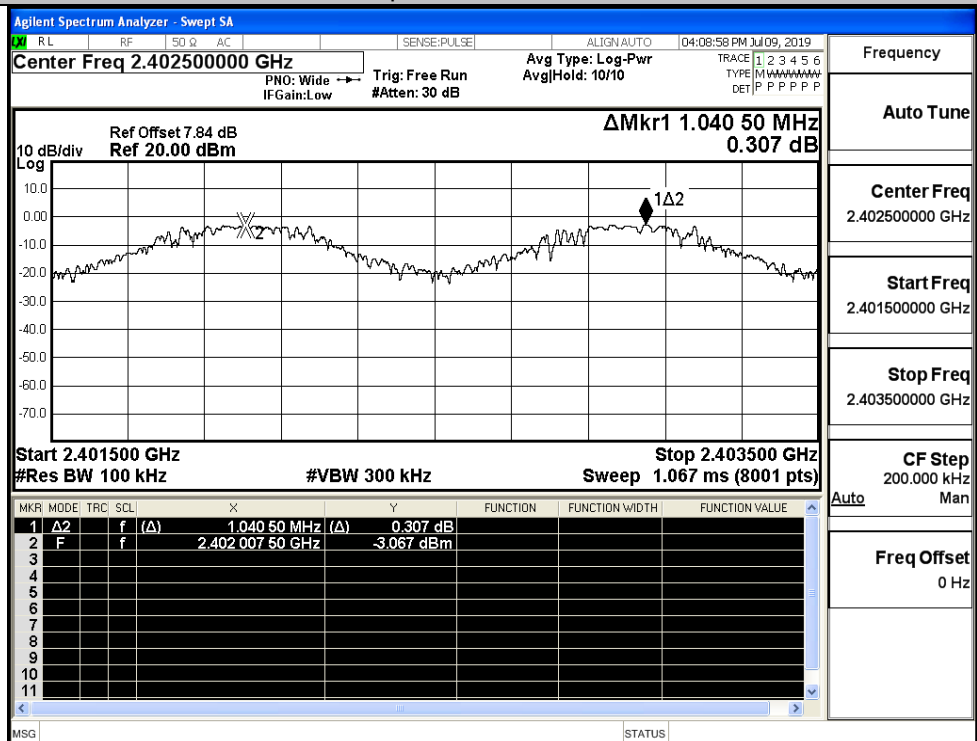


A.3 Carrier Frequency Separation

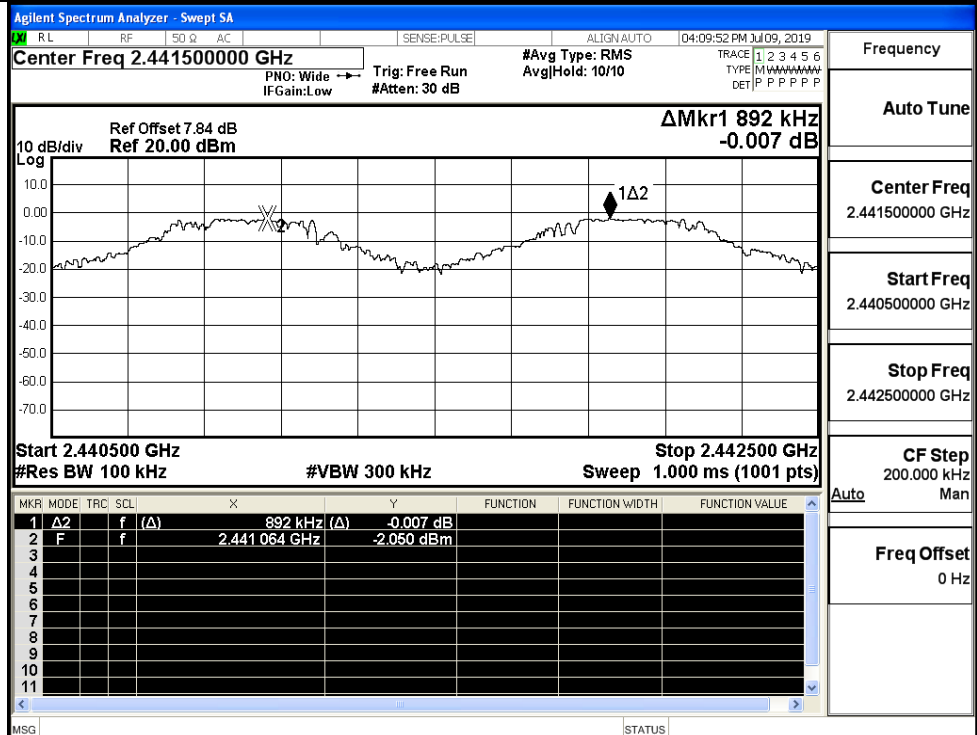
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.040	0.684	PASS
	MCH	0.892	0.684	PASS
	HCH	1.014	0.684	PASS
π /4DQPSK	LCH	1.152	0.873	PASS
	MCH	1.206	0.873	PASS
	HCH	1.002	0.873	PASS
8DPSK	LCH	1.066	0.873	PASS
	MCH	1.332	0.873	PASS
	HCH	1.322	0.873	PASS

Test Graphs

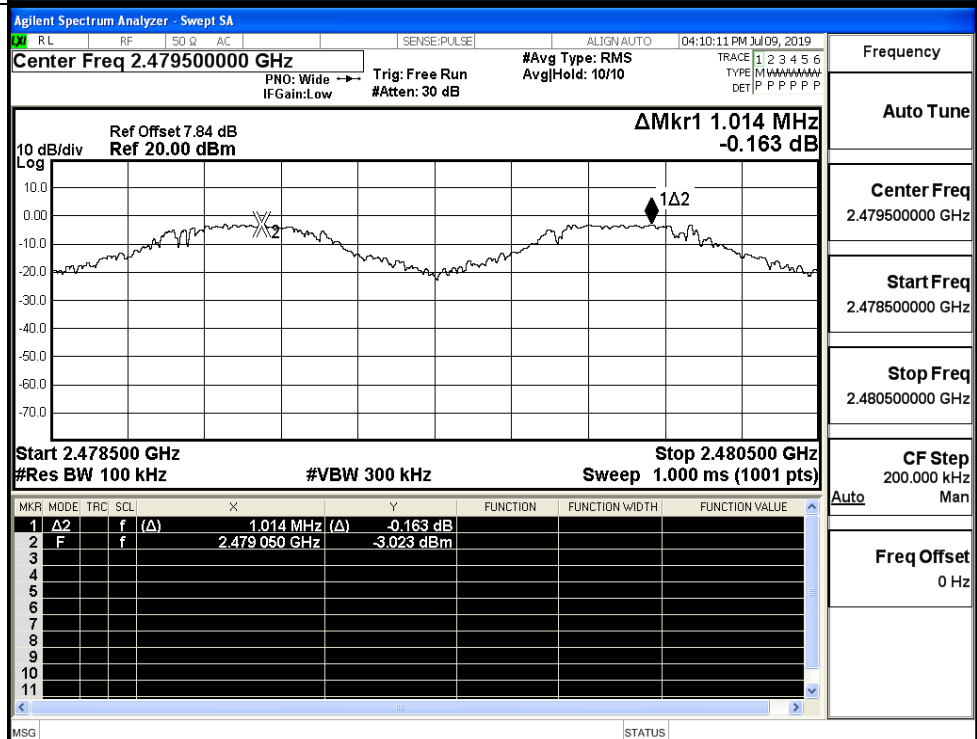
GFSK/LCH

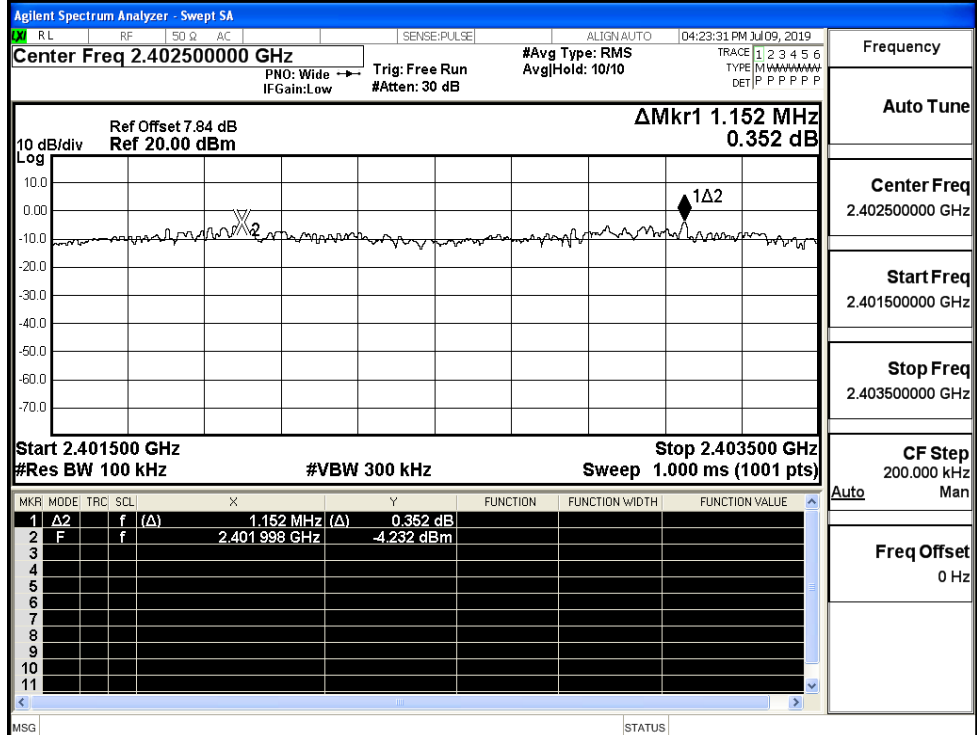
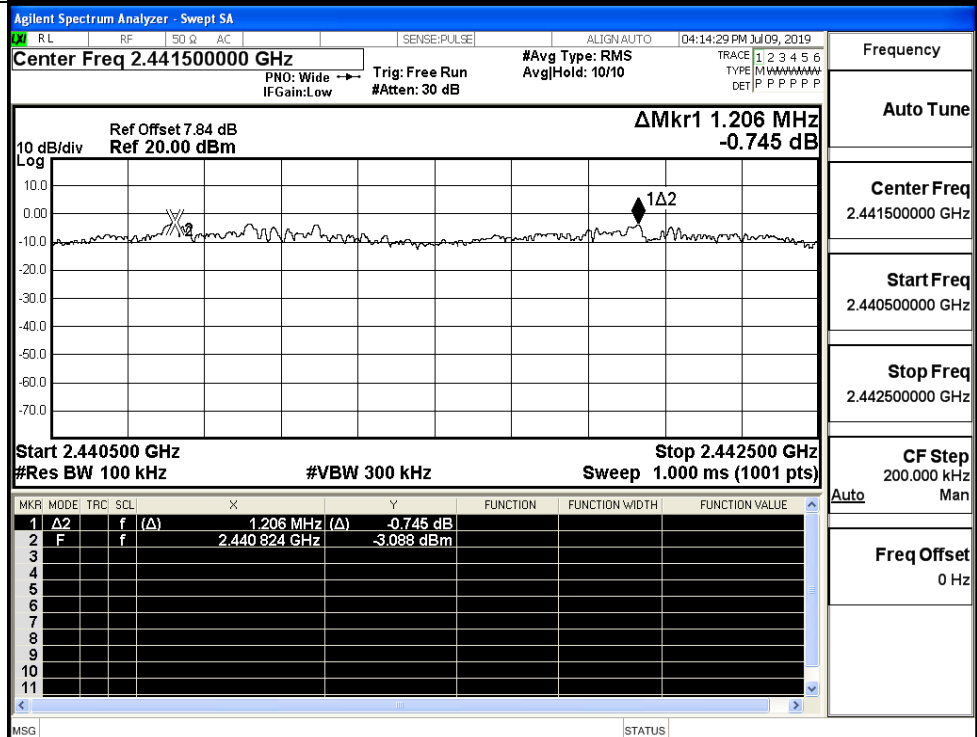


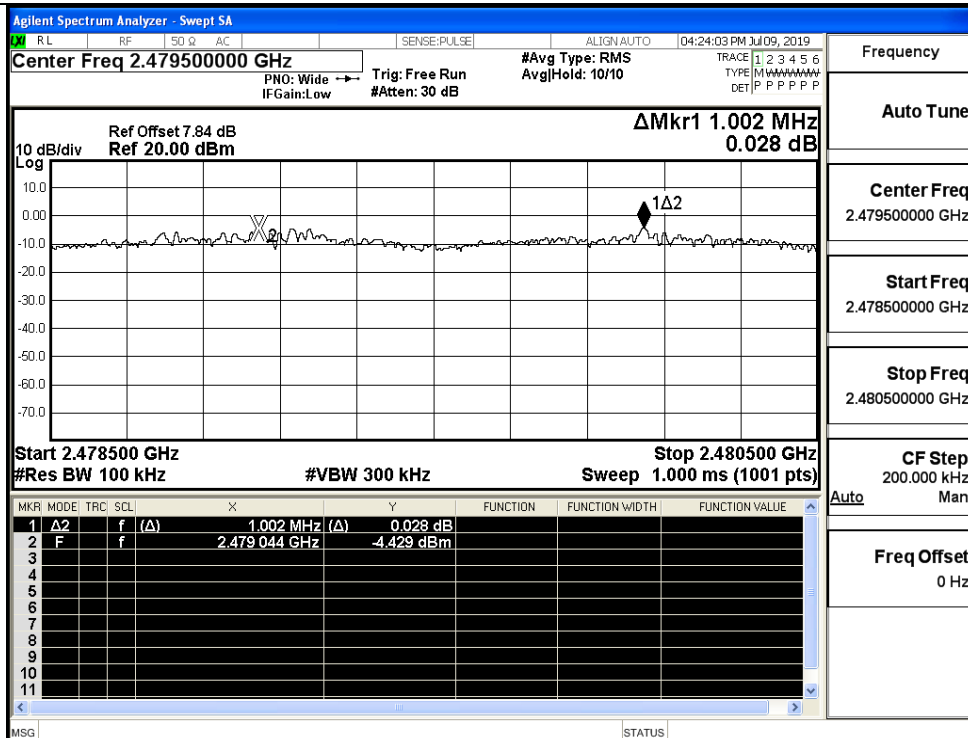
GFSK/MCH



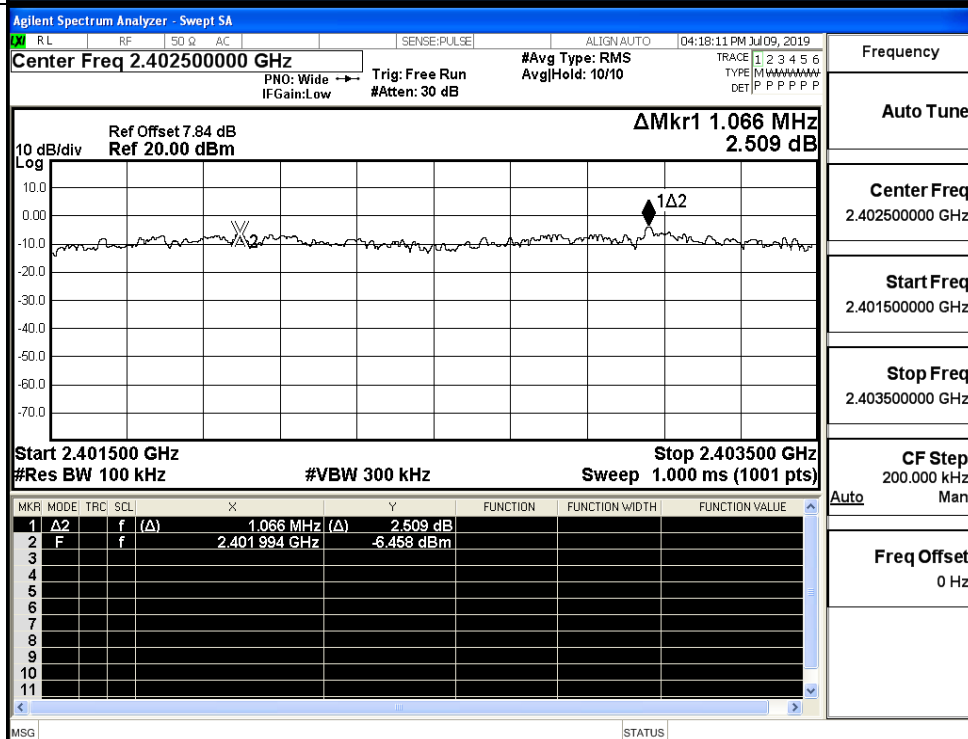
GFSK/HCH



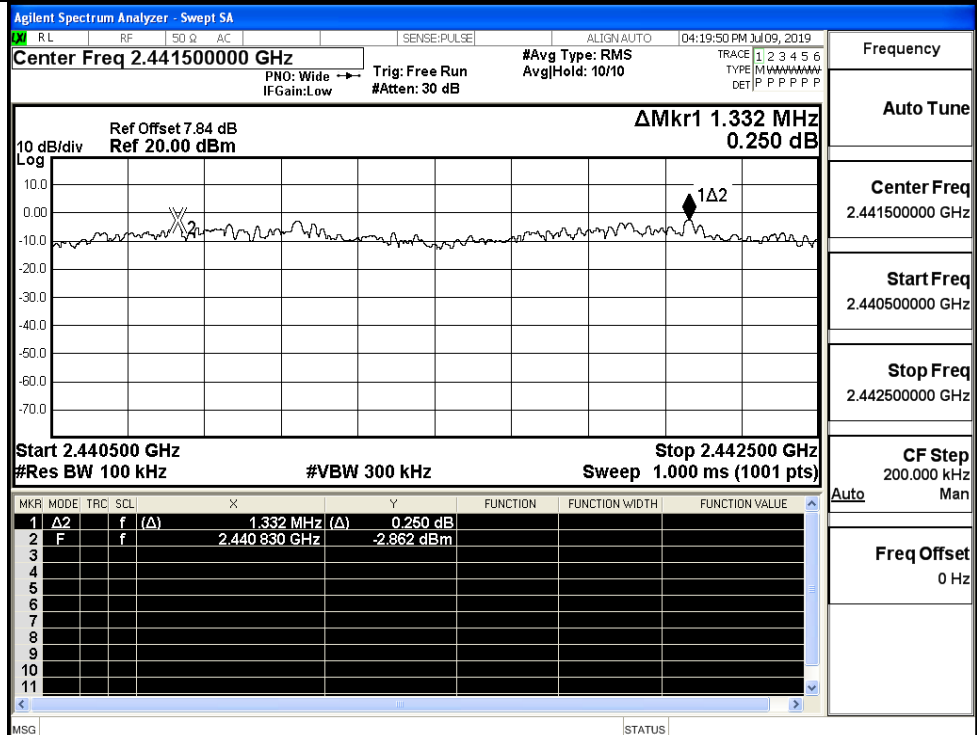
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

π /4DQPSK/HCH

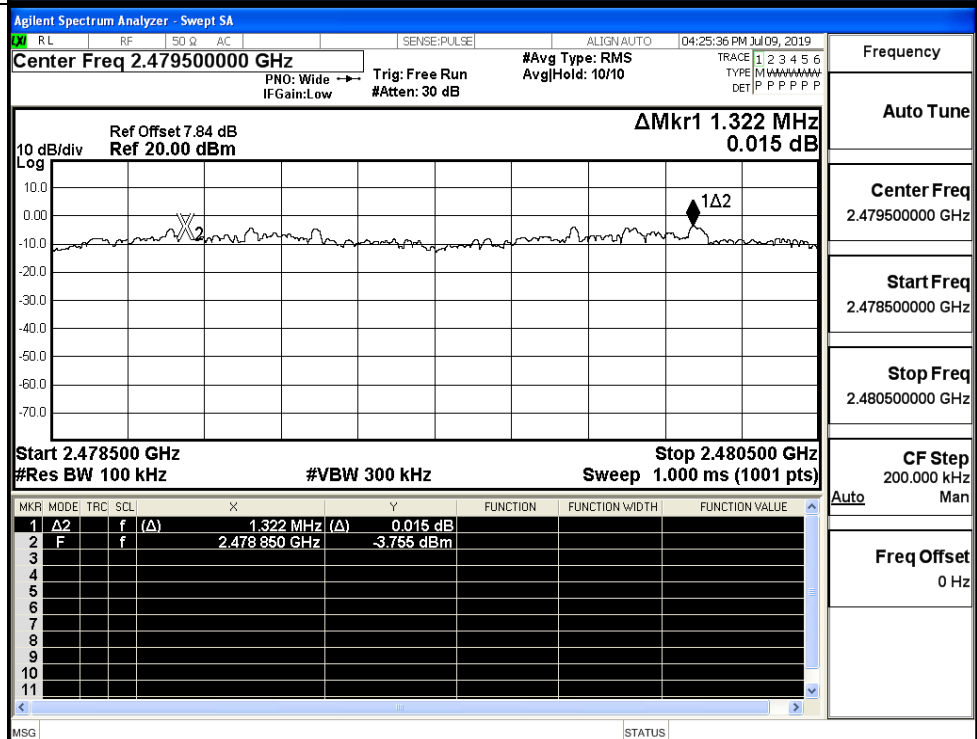
8DPSK/LCH



8DPSK/MCH

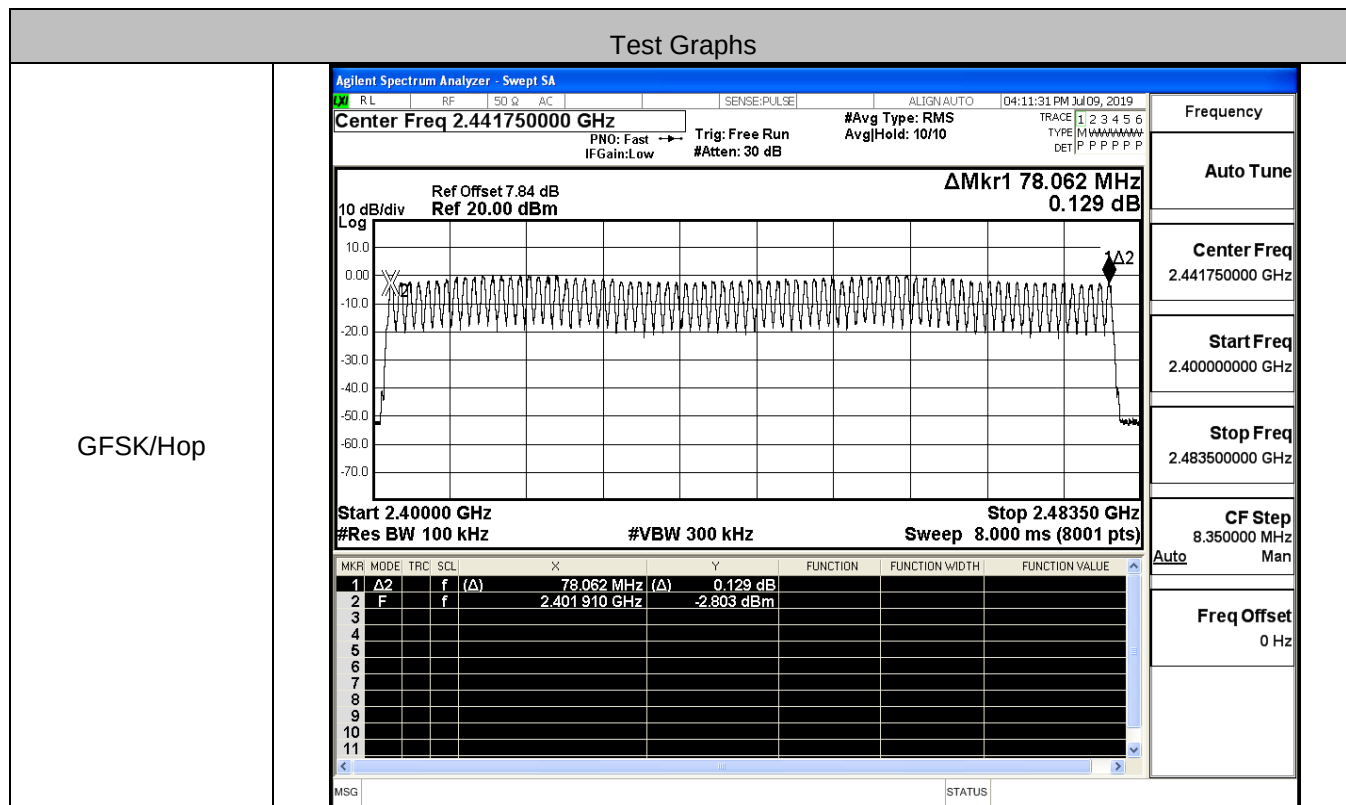


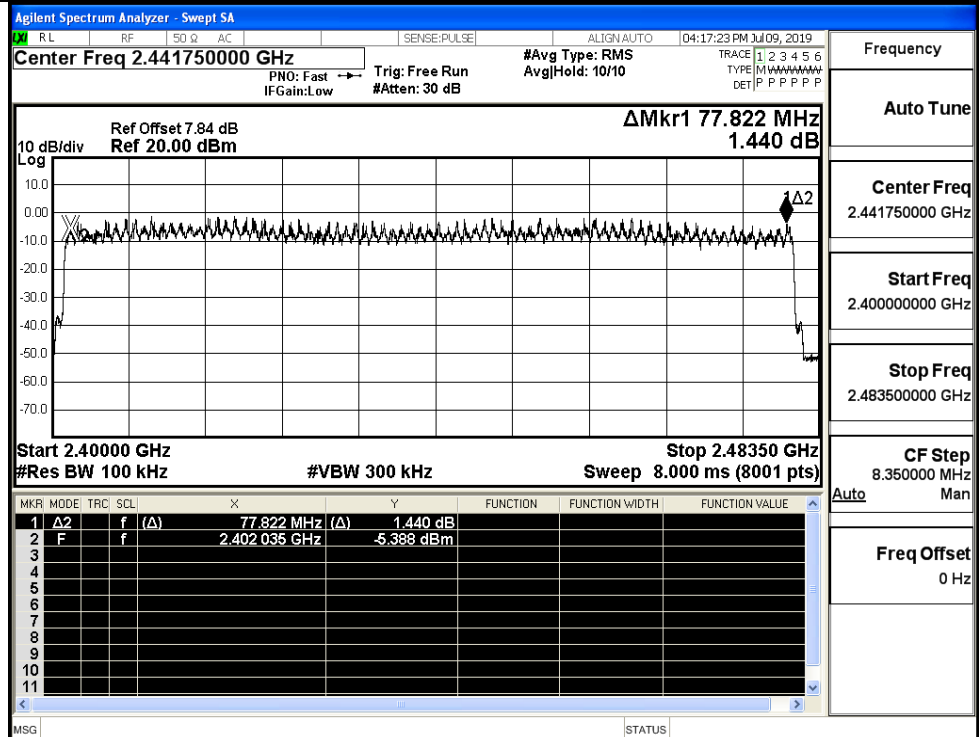
8DPSK/HCH



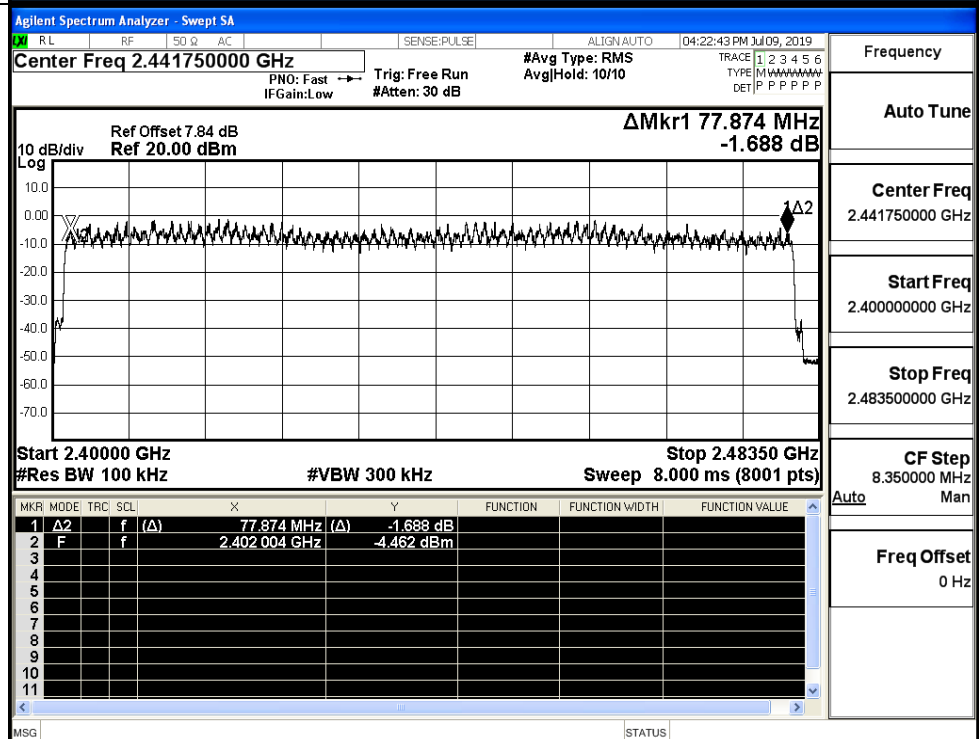
A.4 Hopping Channel Number

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



$\pi/4$ DQPSK/Hop

8DPSK/Hop

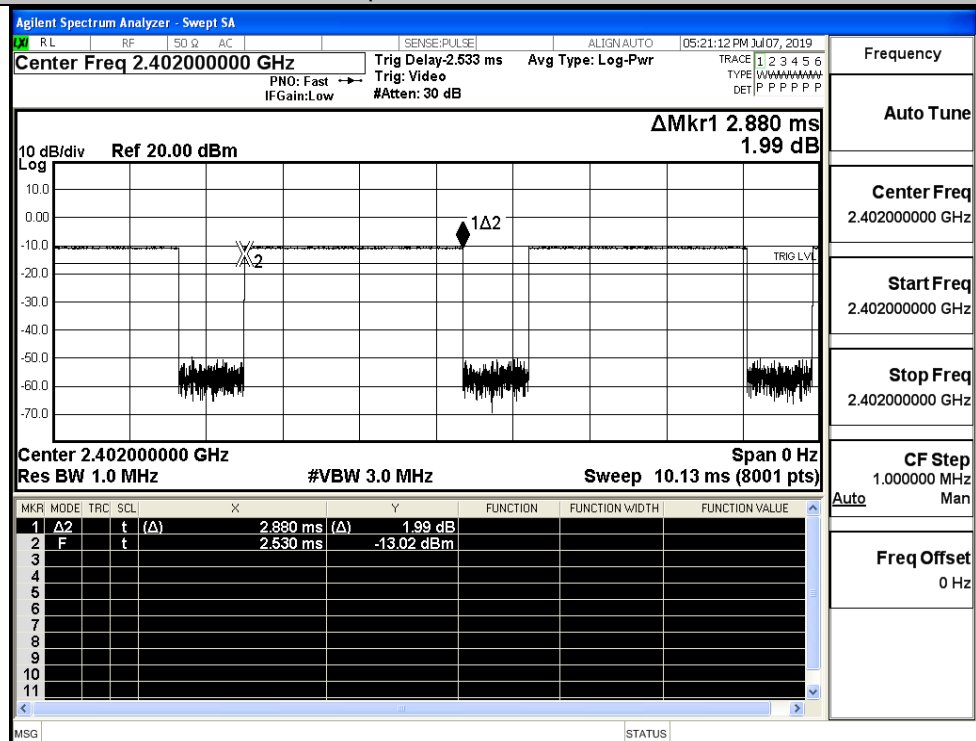


A.5 Dwell Time

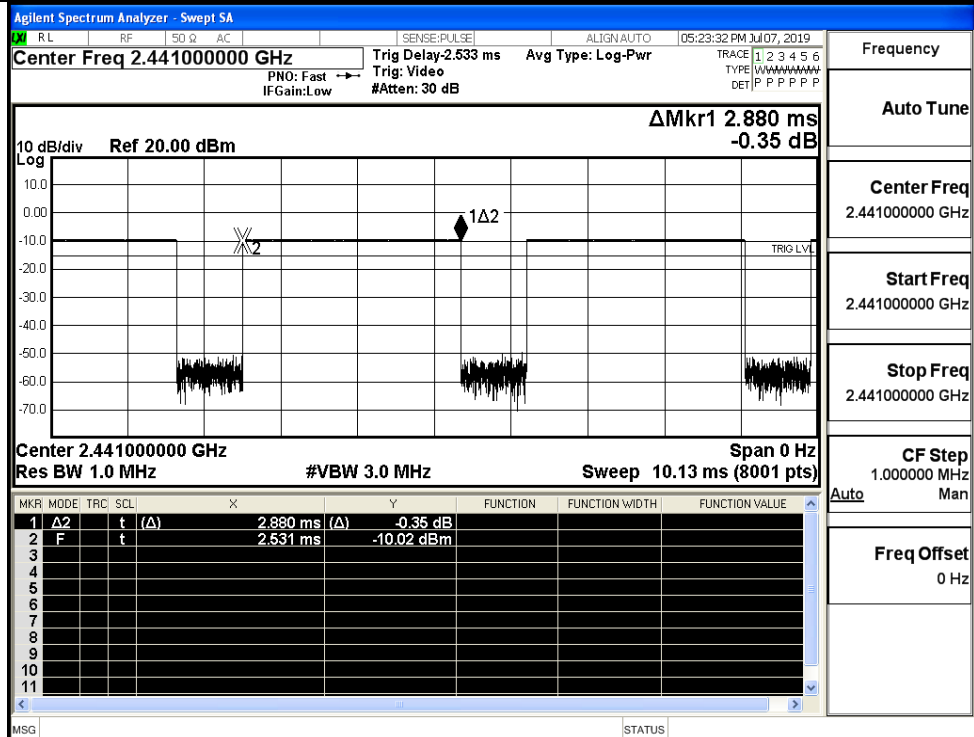
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88	106.7	0.307	0.4	PASS
8DPSK	3DH5	LCH	2.89	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

Test Graphs

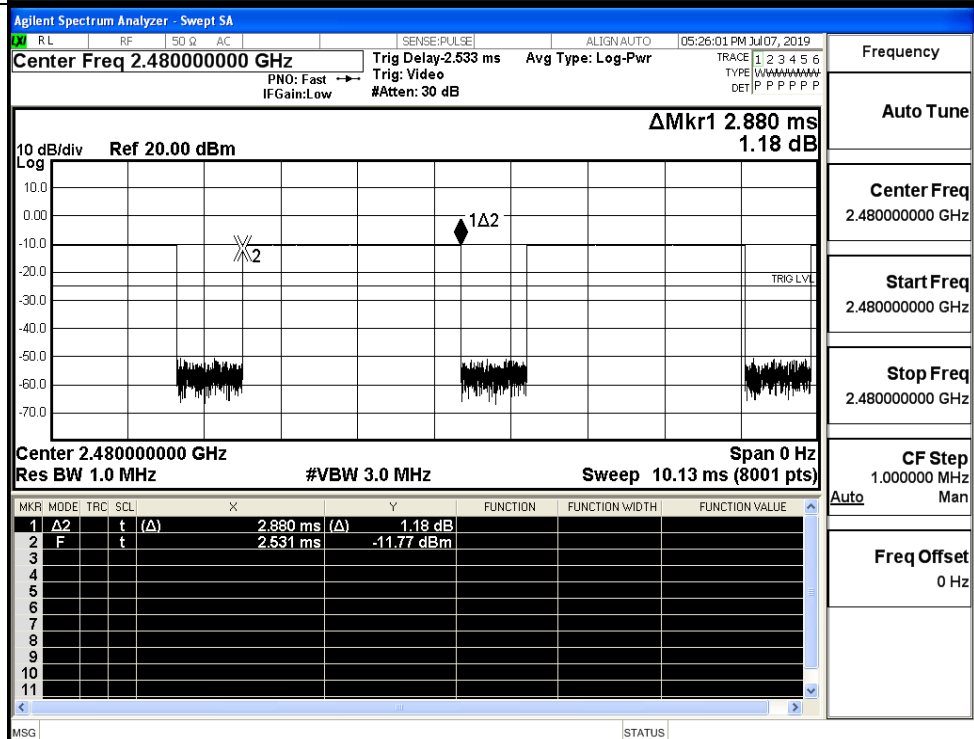
GFSK_DH5/LCH



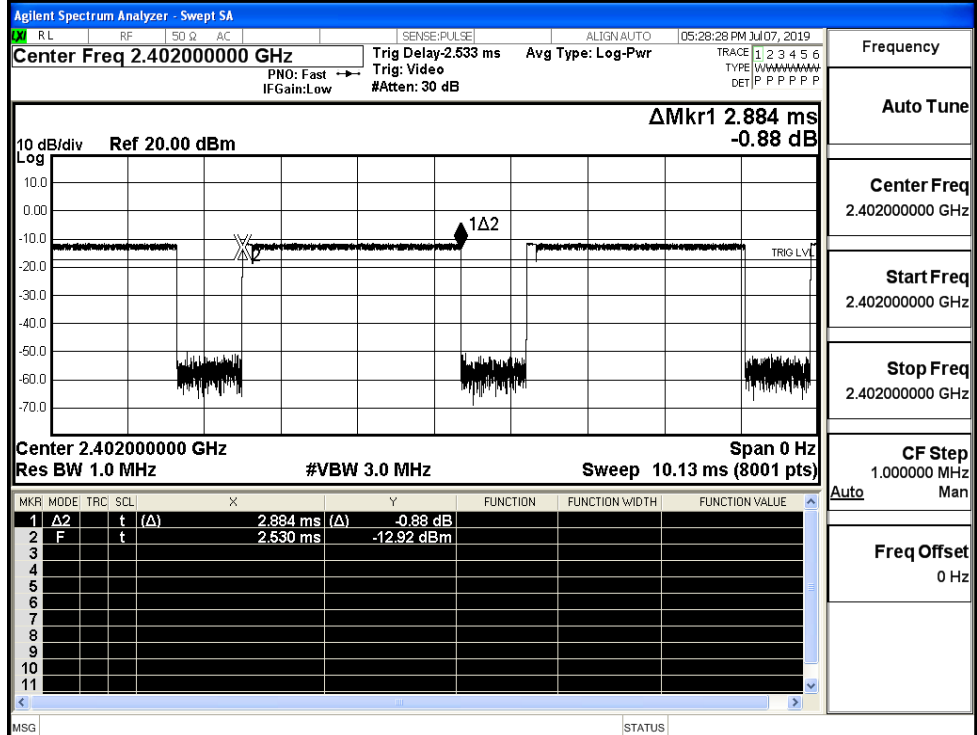
GFSK_DH5/MCH



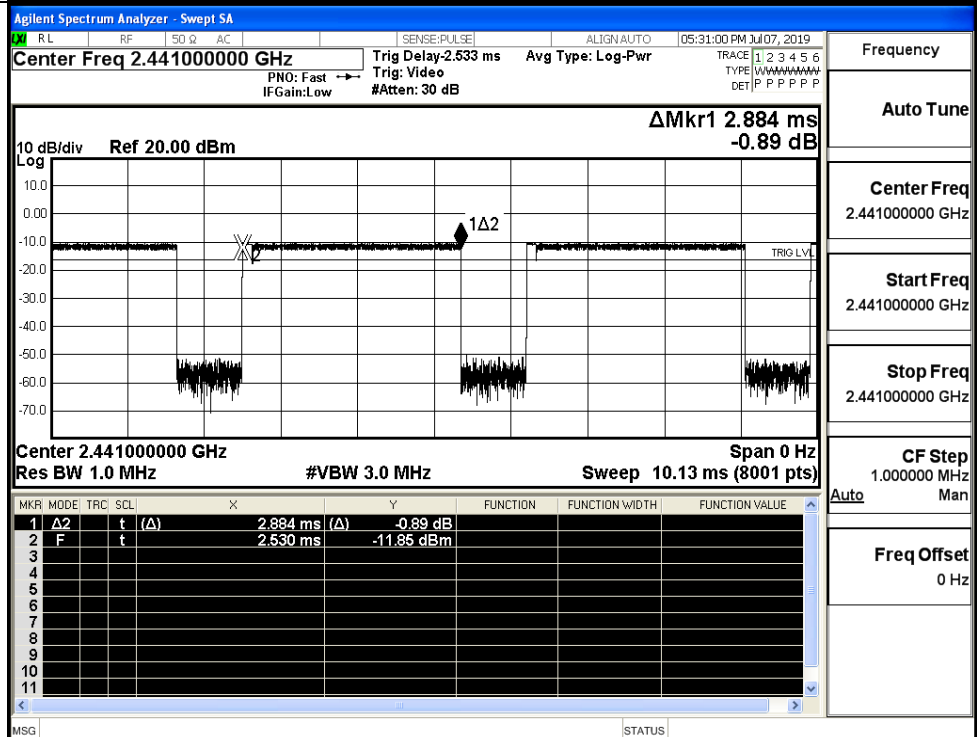
GFSK_DH5/HCH



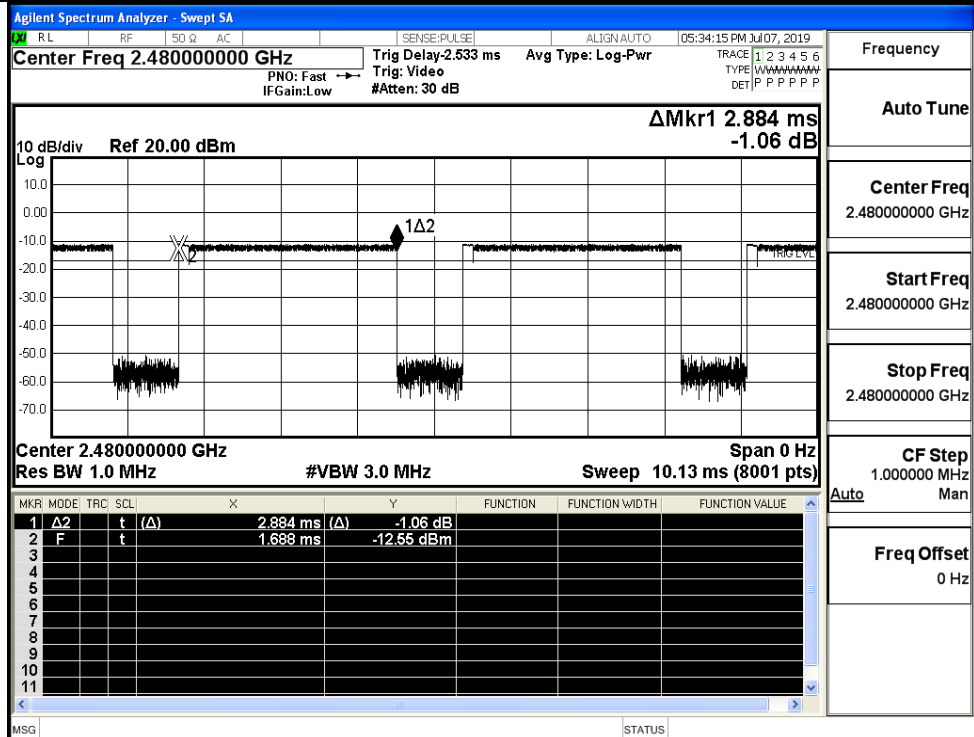
$\pi/4$ DQPSK
_2DH5/LCH



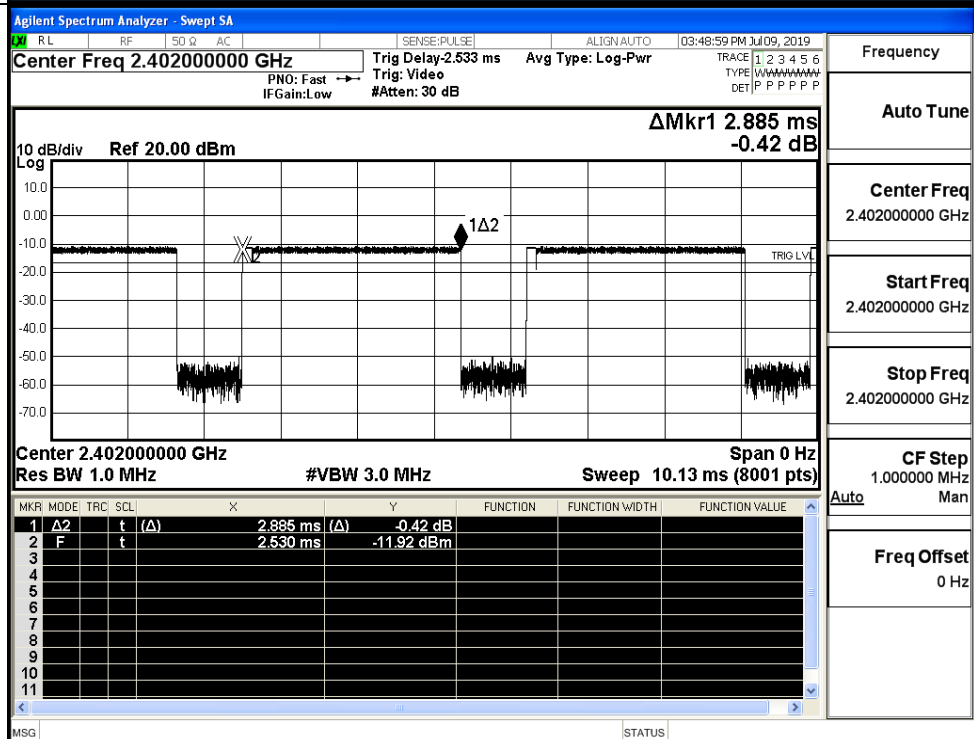
$\pi/4$ DQPSK
_2DH5/MCH



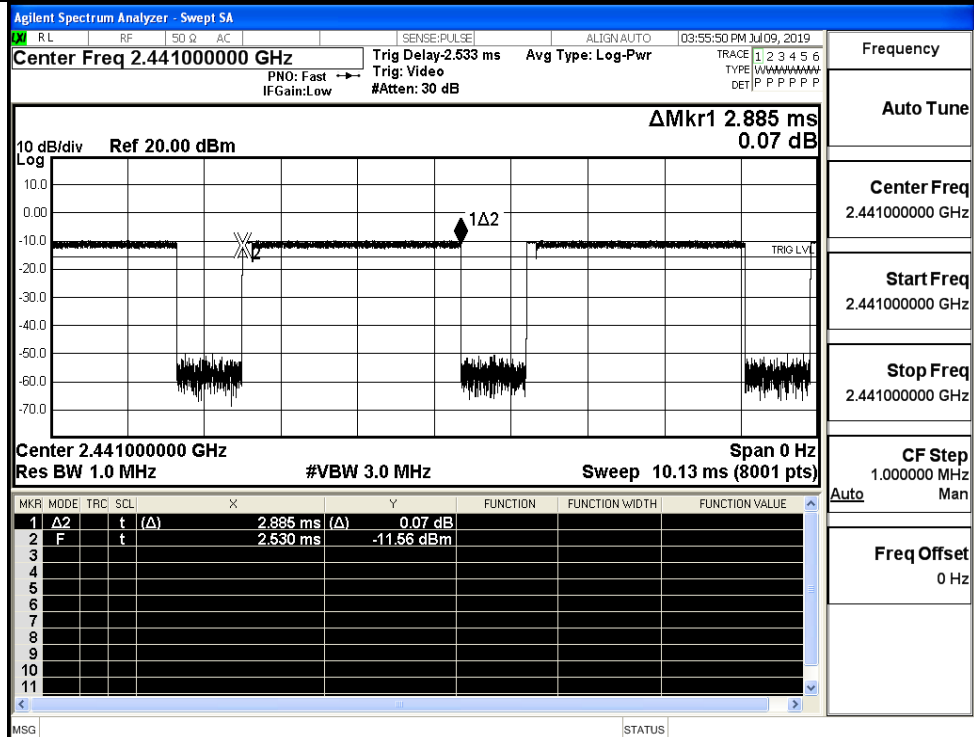
$\pi/4$ DQPSK
_2DH5/HCH



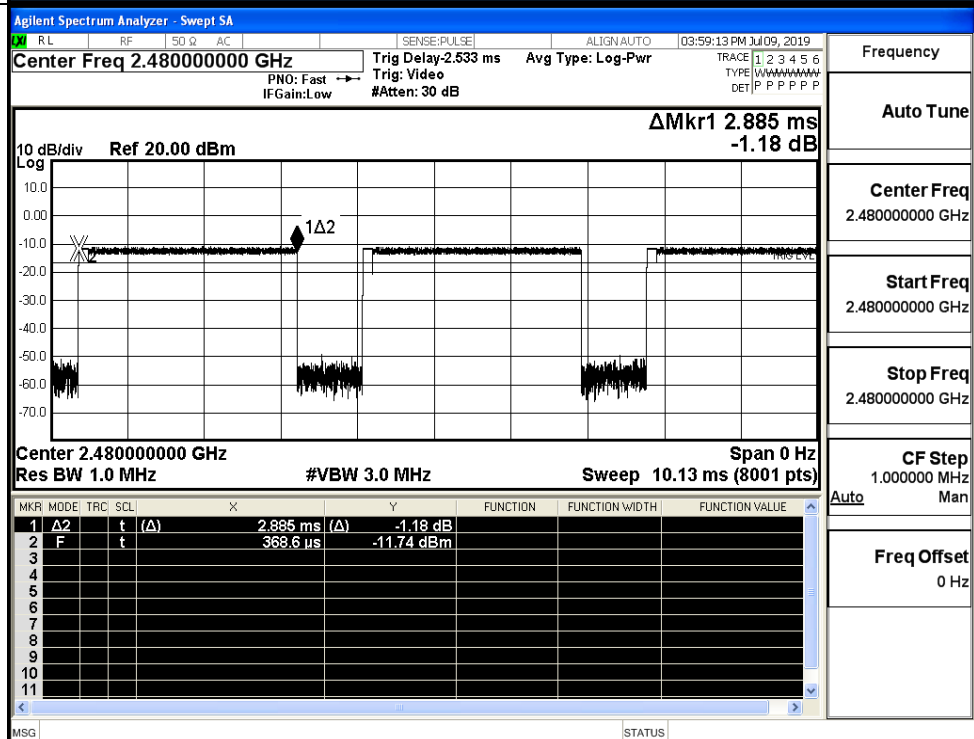
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

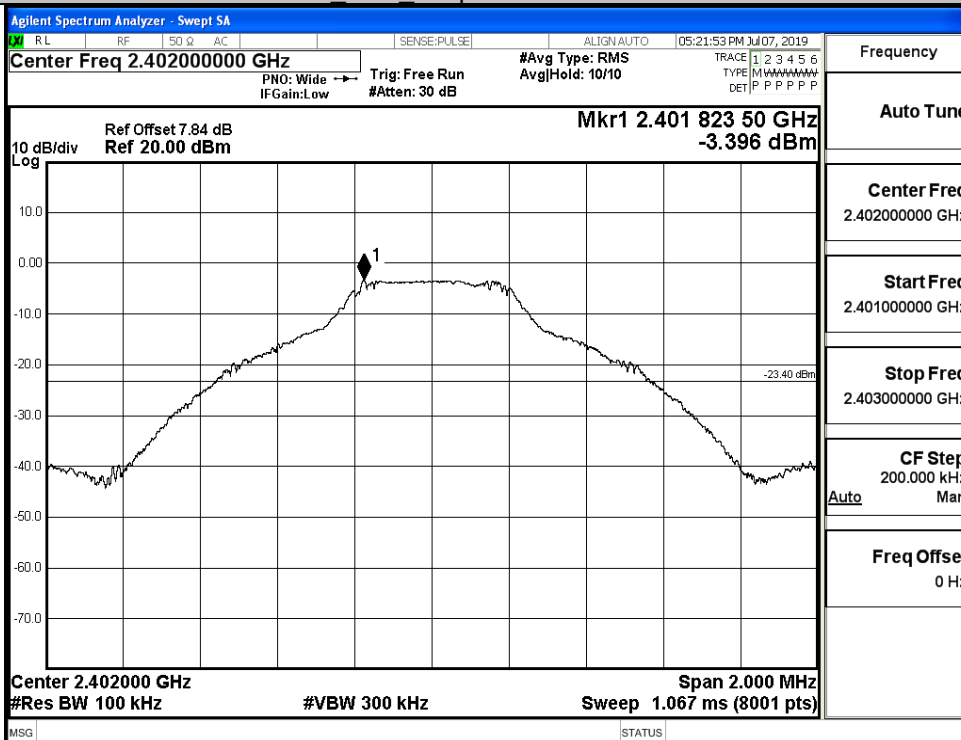


A.6 RF Conducted Spurious Emissions

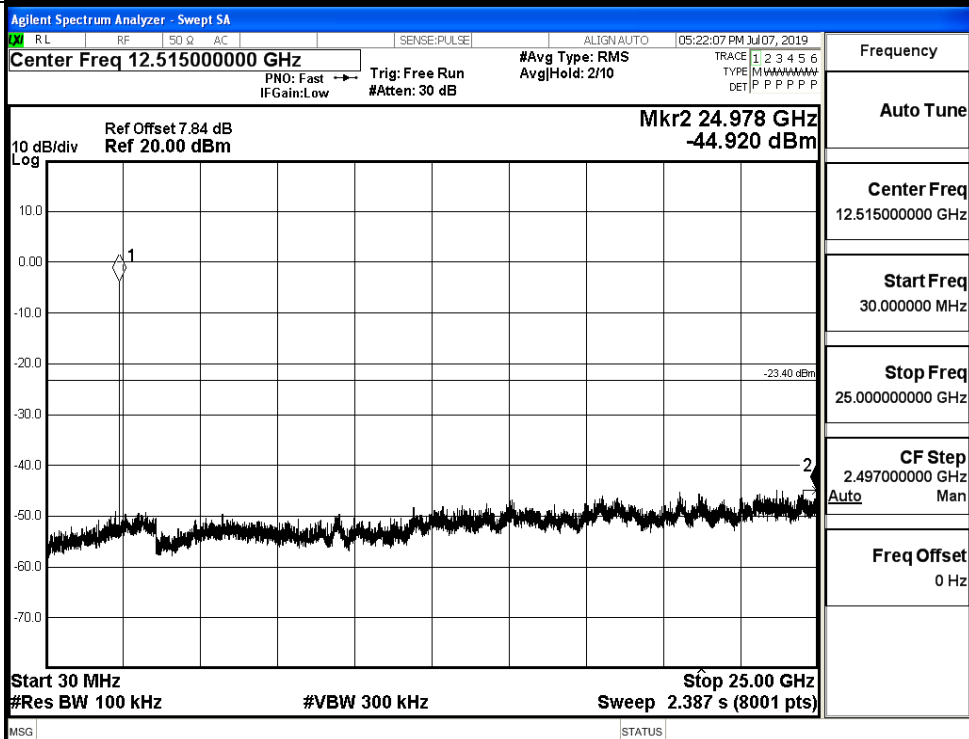
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-3.396	-44.920	-23.396	PASS
	MCH	-1.78	-44.979	-21.780	PASS
	HCH	-2.457	-44.790	-22.457	PASS
$\pi/4$ DQPSK	LCH	-4.115	-44.256	-24.115	PASS
	MCH	-2.79	-44.842	-22.790	PASS
	HCH	-3.591	-44.908	-23.591	PASS
8DPSK	LCH	-3.458	-44.971	-23.458	PASS
	MCH	-2.613	-44.112	-22.613	PASS
	HCH	-3.755	-45.700	-23.755	PASS

GFSK LCH Graphs

Pref

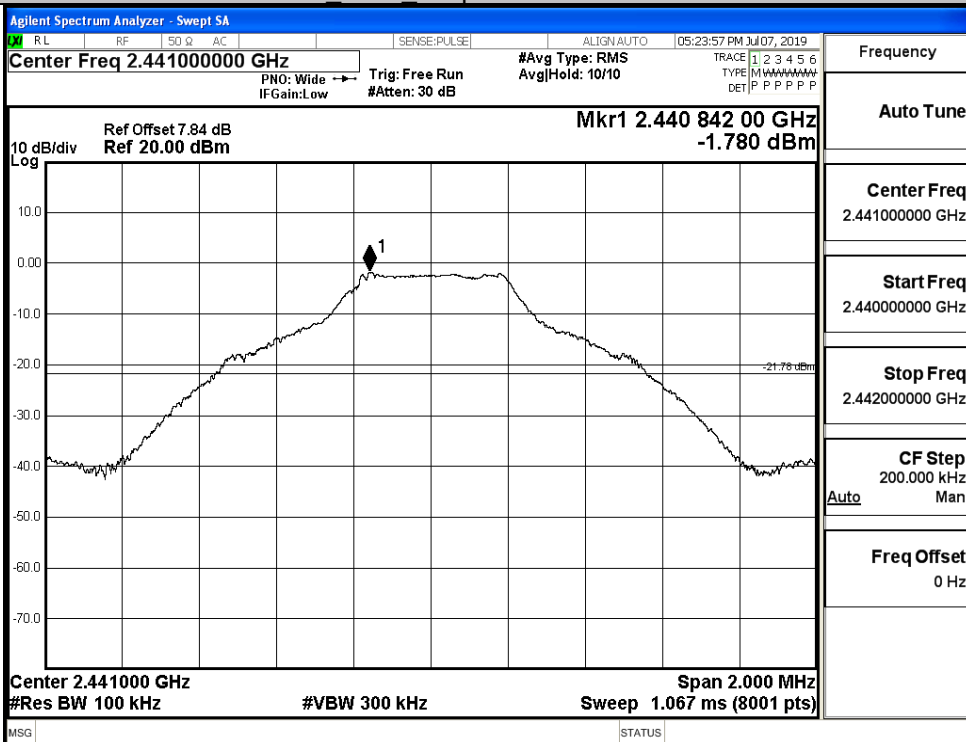


Puw

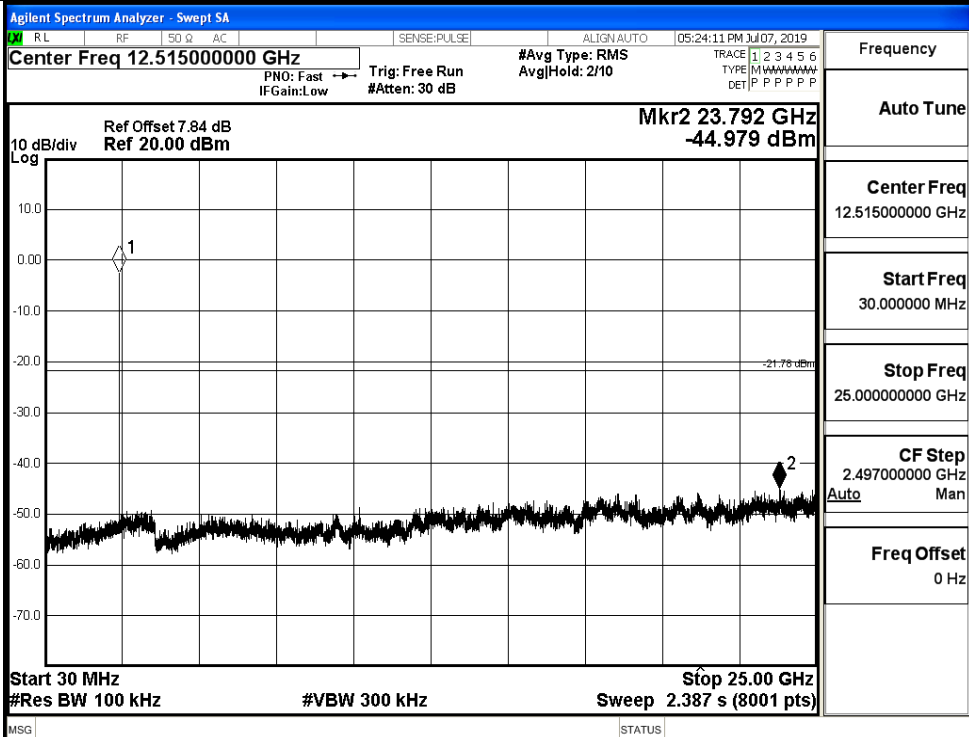


GFSK MCH Graphs

Pref

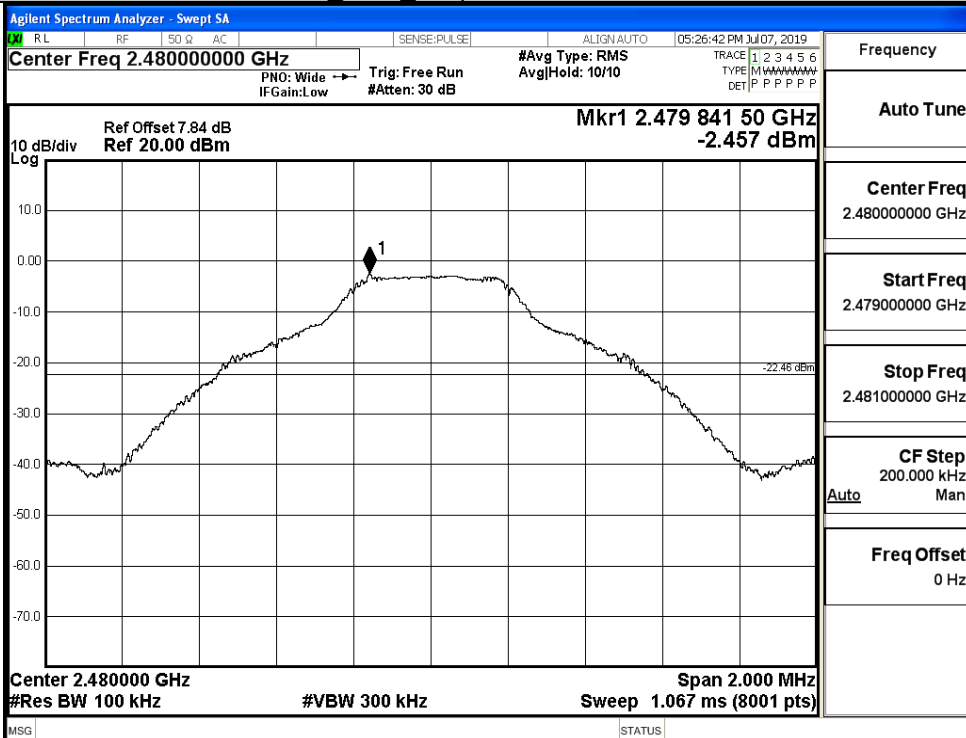


Puw

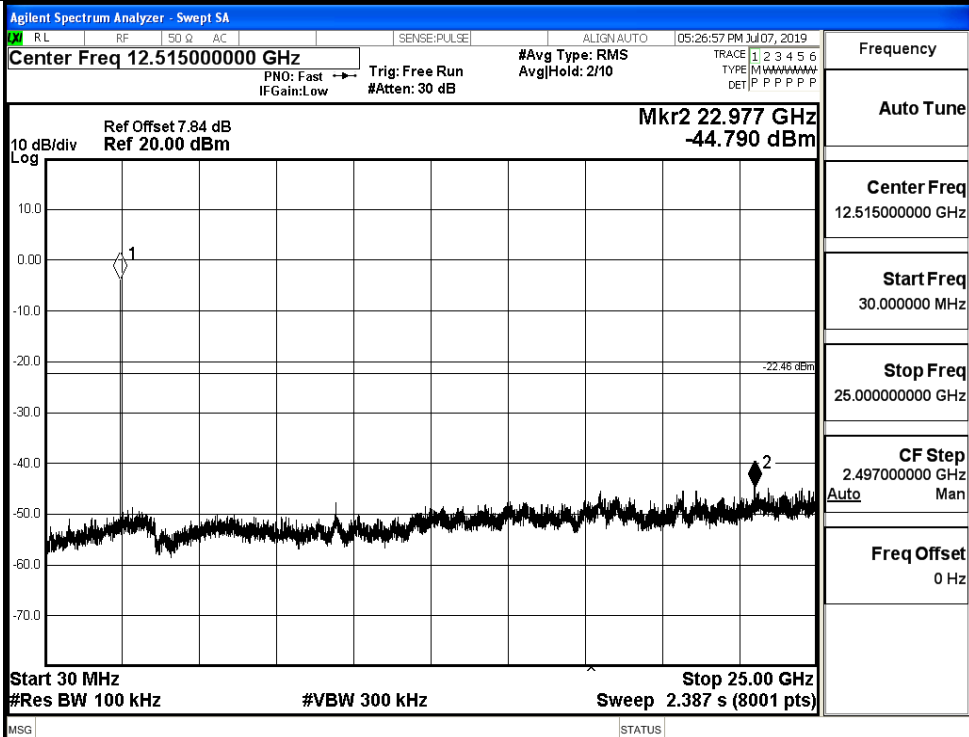


GFSK HCH Graphs

Pref

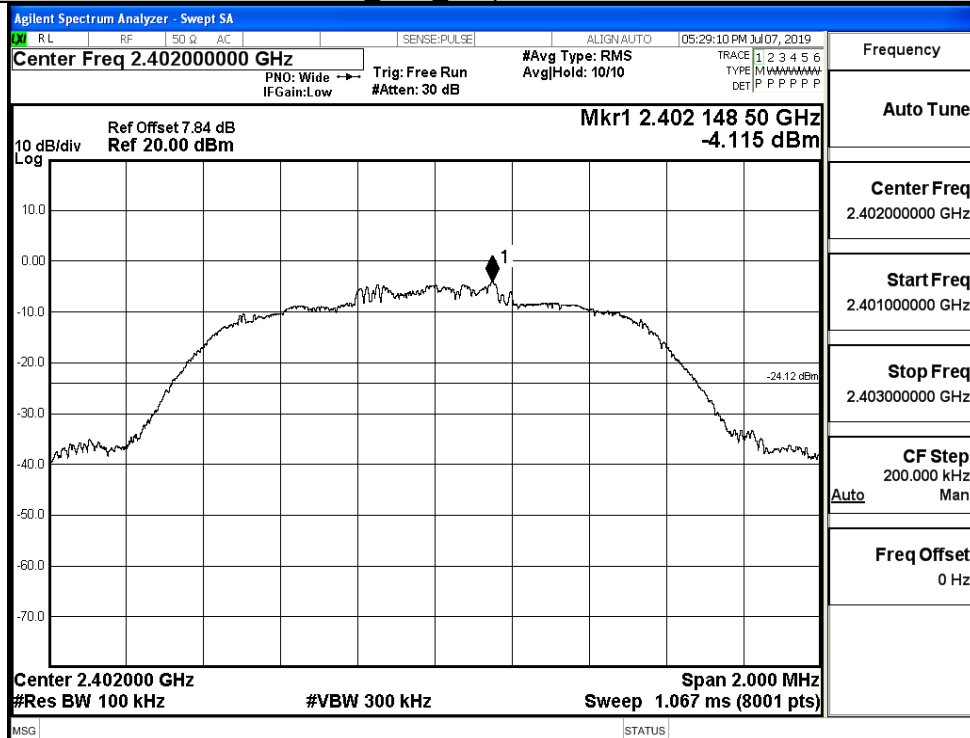


Puw

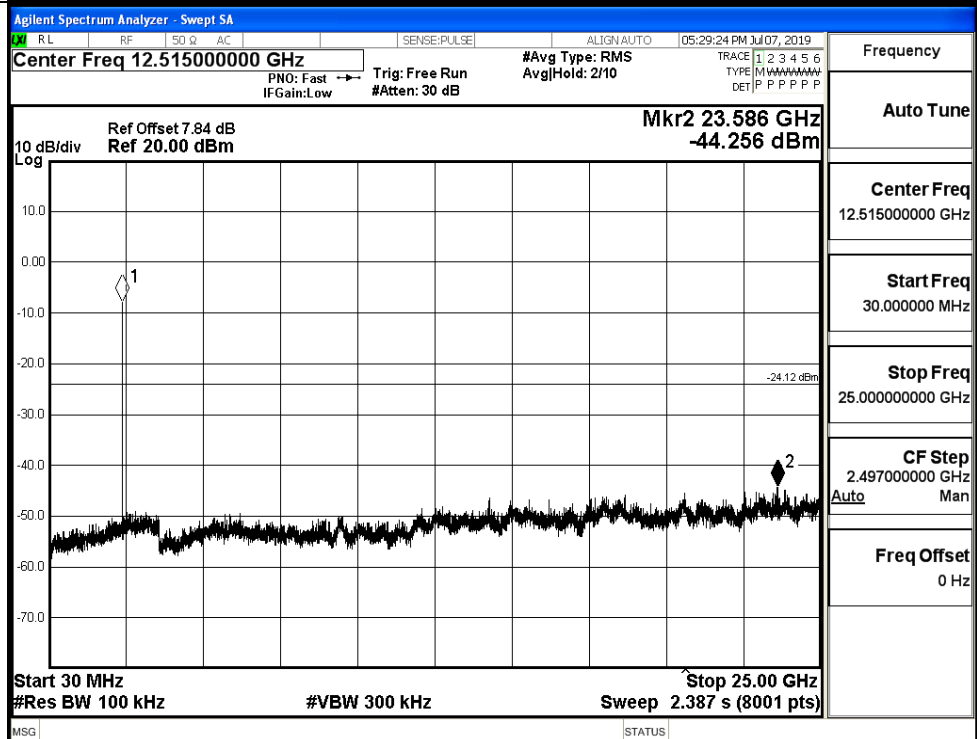


$\pi/4$ DQPSK LCH Graphs

Pref

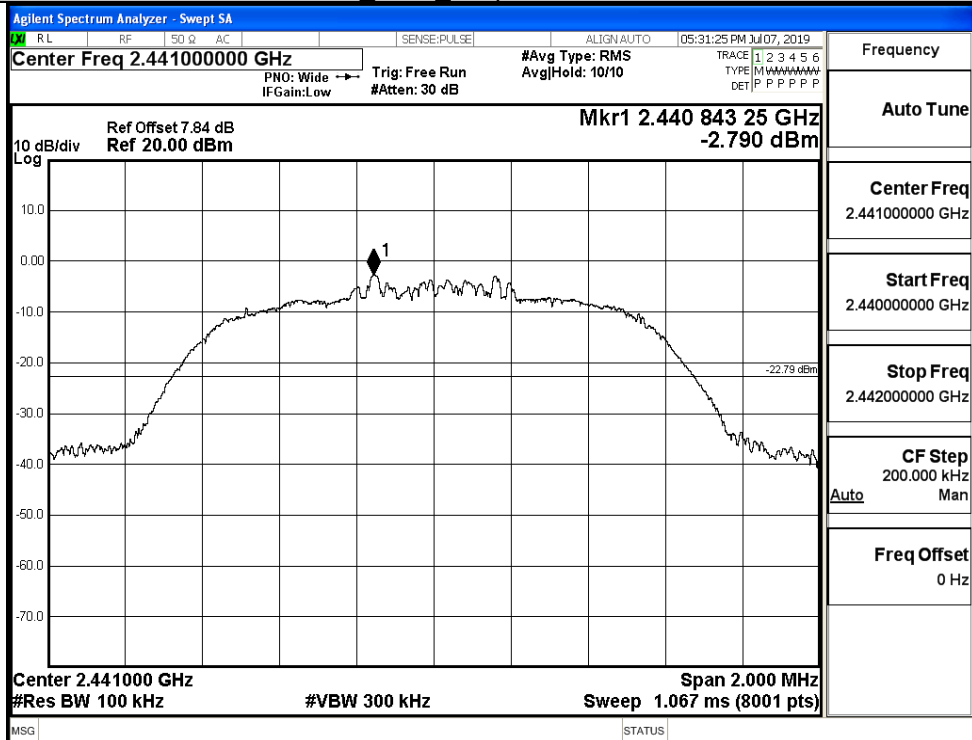


Puw

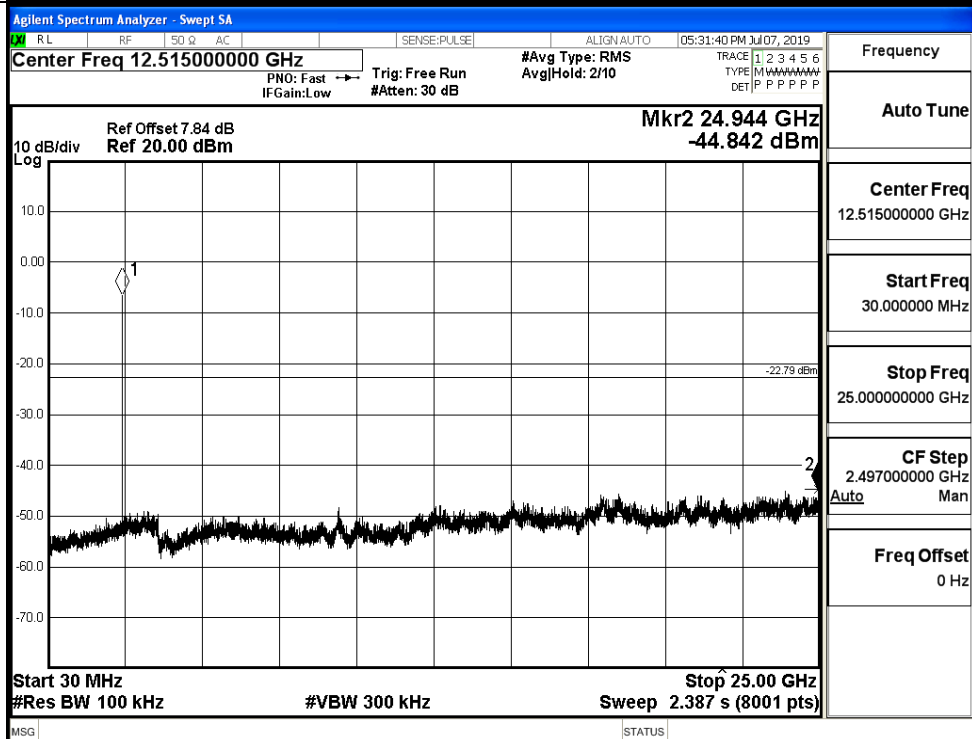


$\pi/4$ DQPSK MCH Graphs

Pref

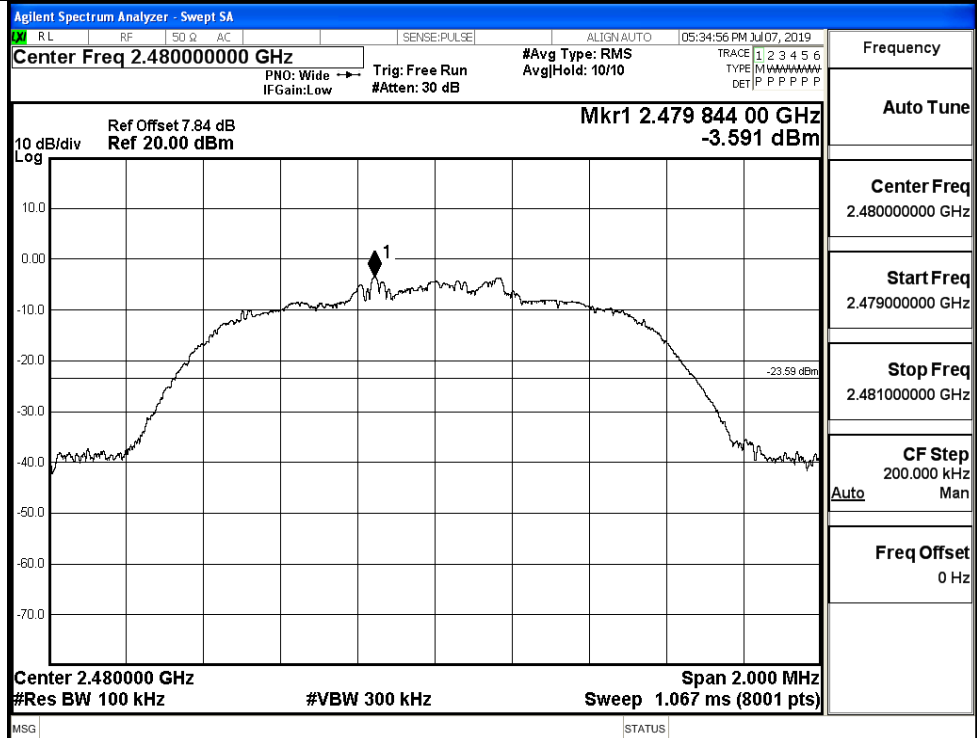


Puw

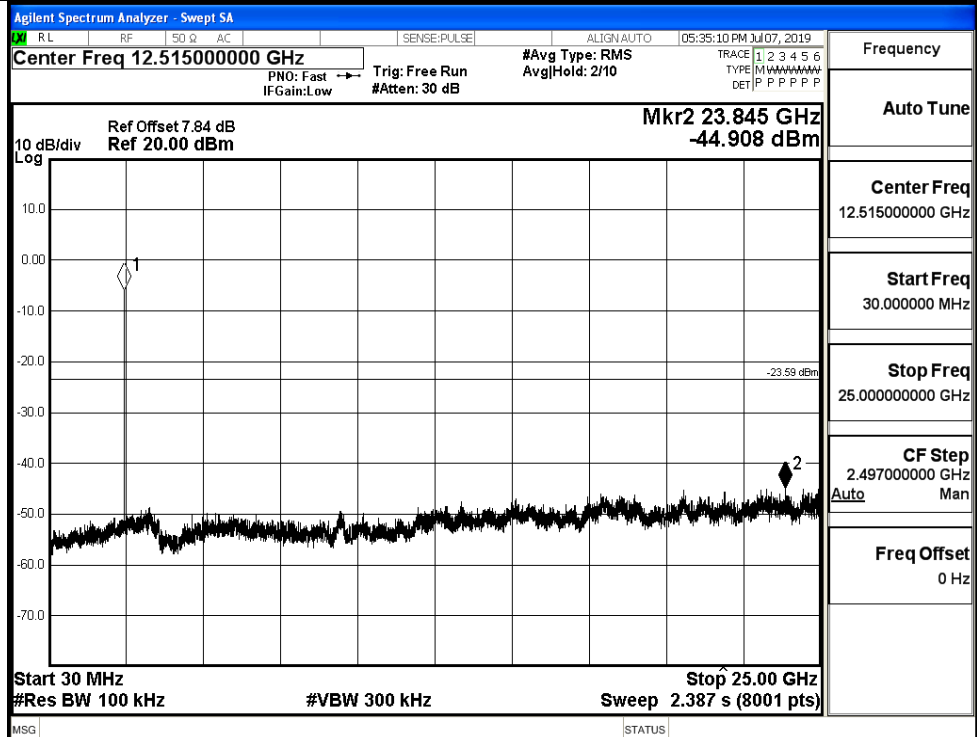


$\pi/4$ DQPSK HCH Graphs

Pref

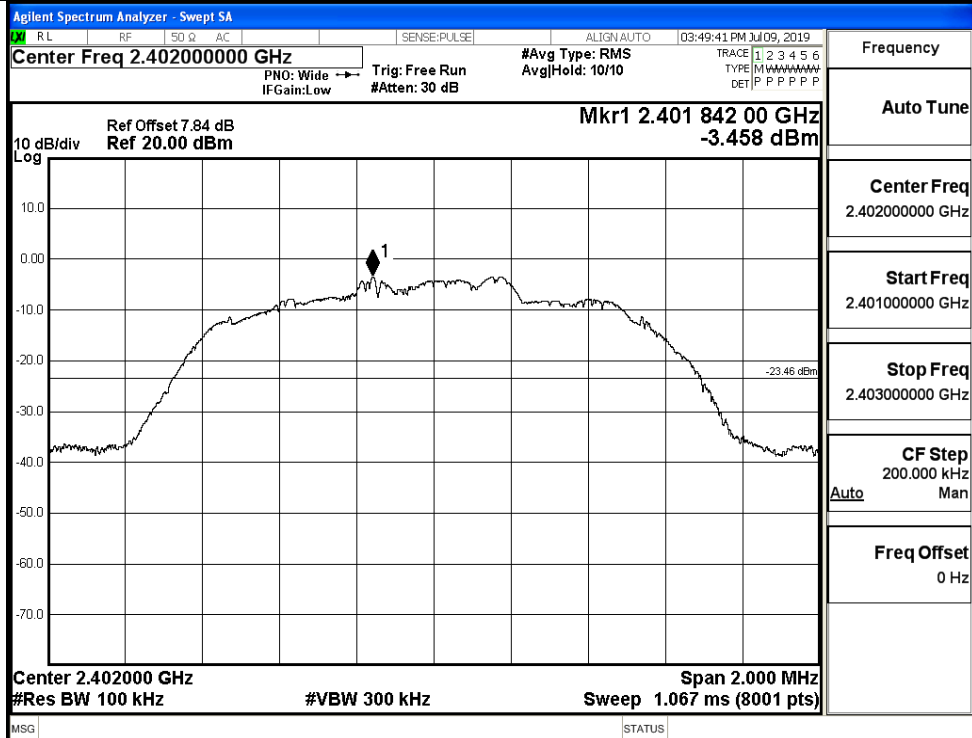


Puw

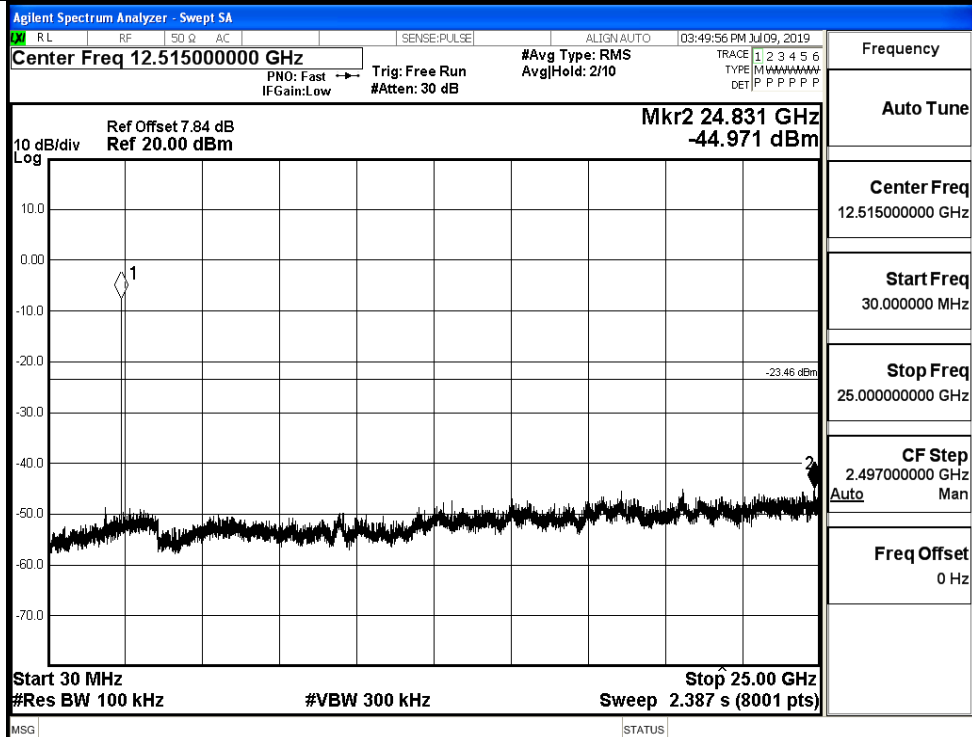


8DPSK LCH Graphs

Pref

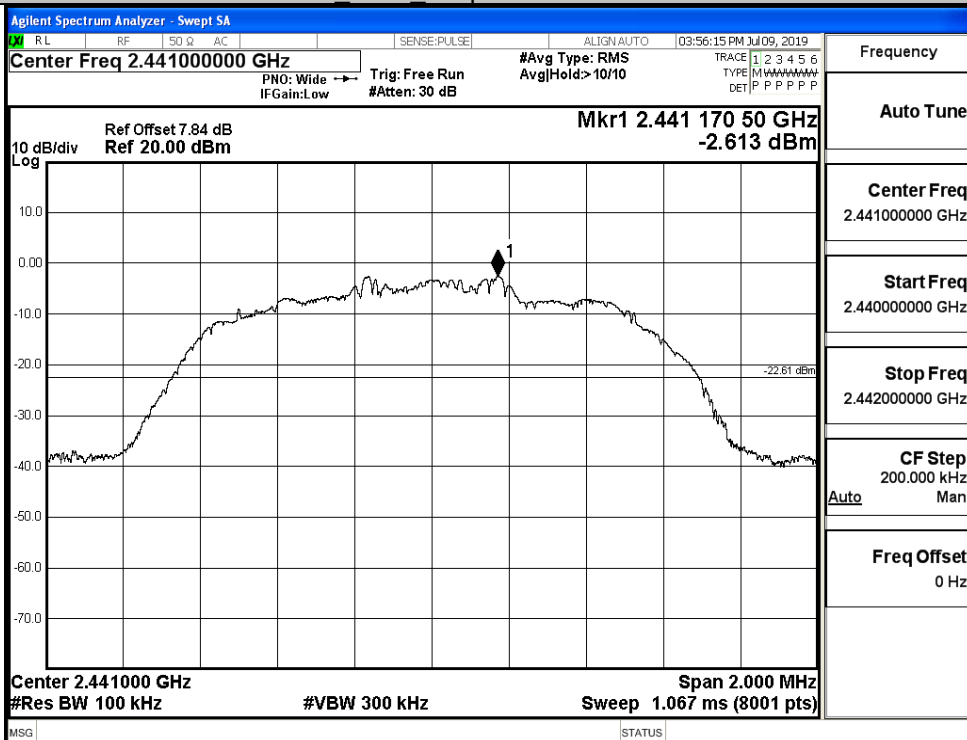


Puw

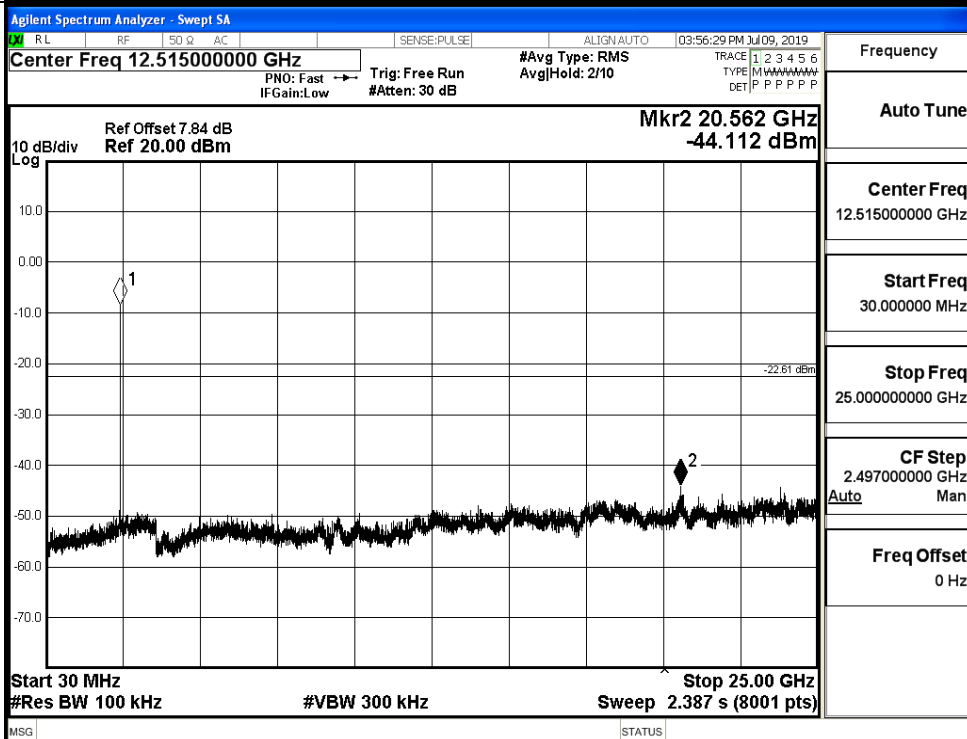


8DPSK_MCH_Graphs

Pref

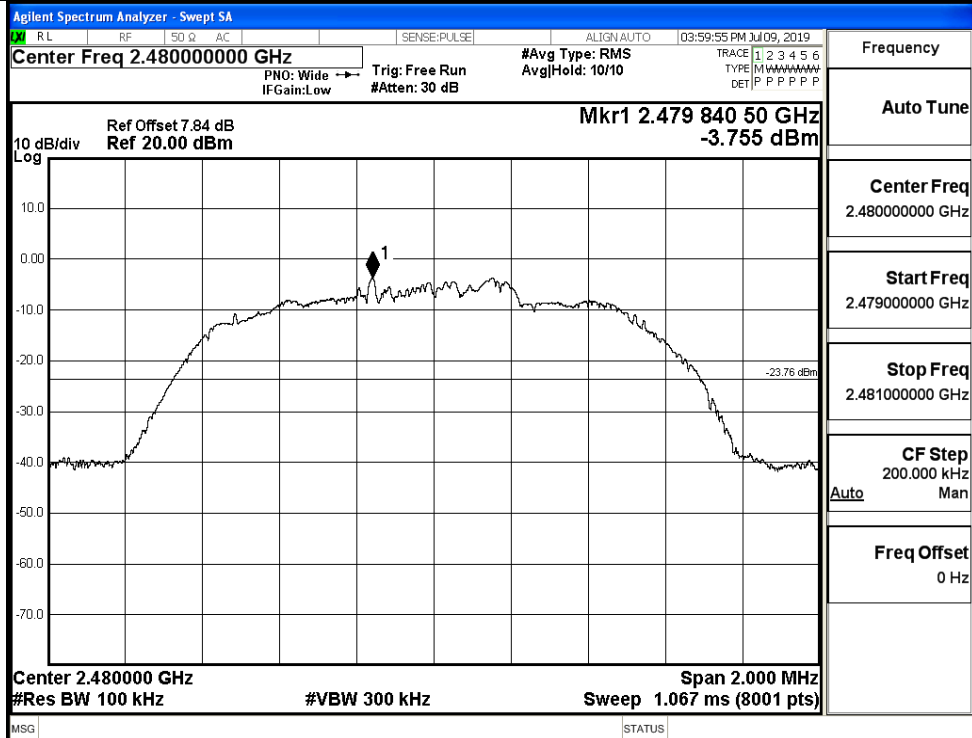


Puw

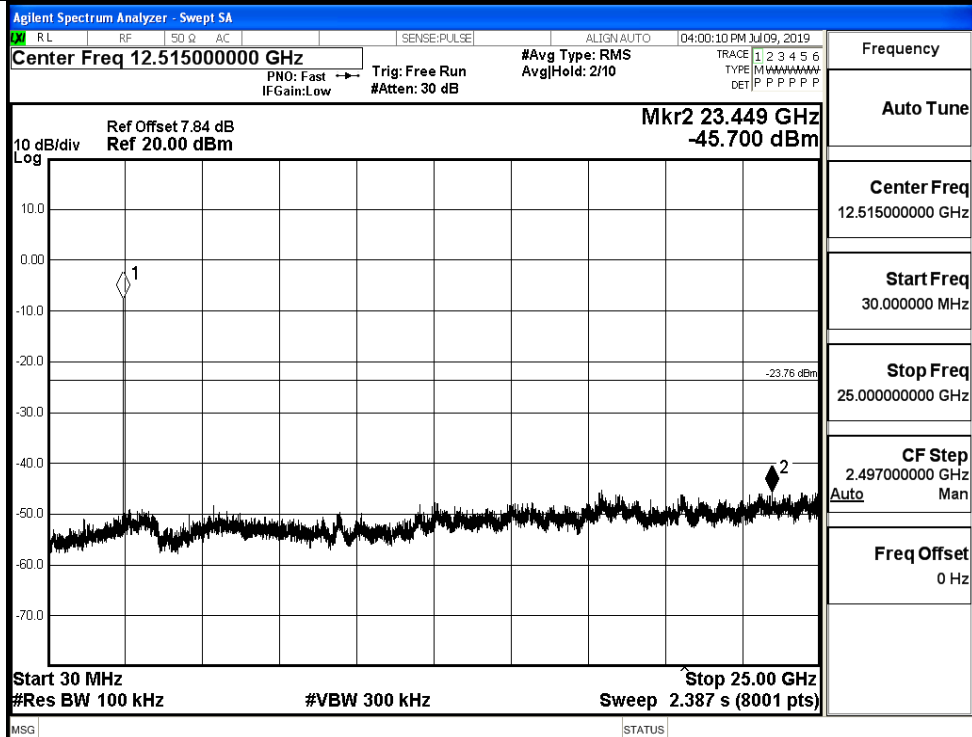


8DPSK_HCH_Graphs

Pref



Puw

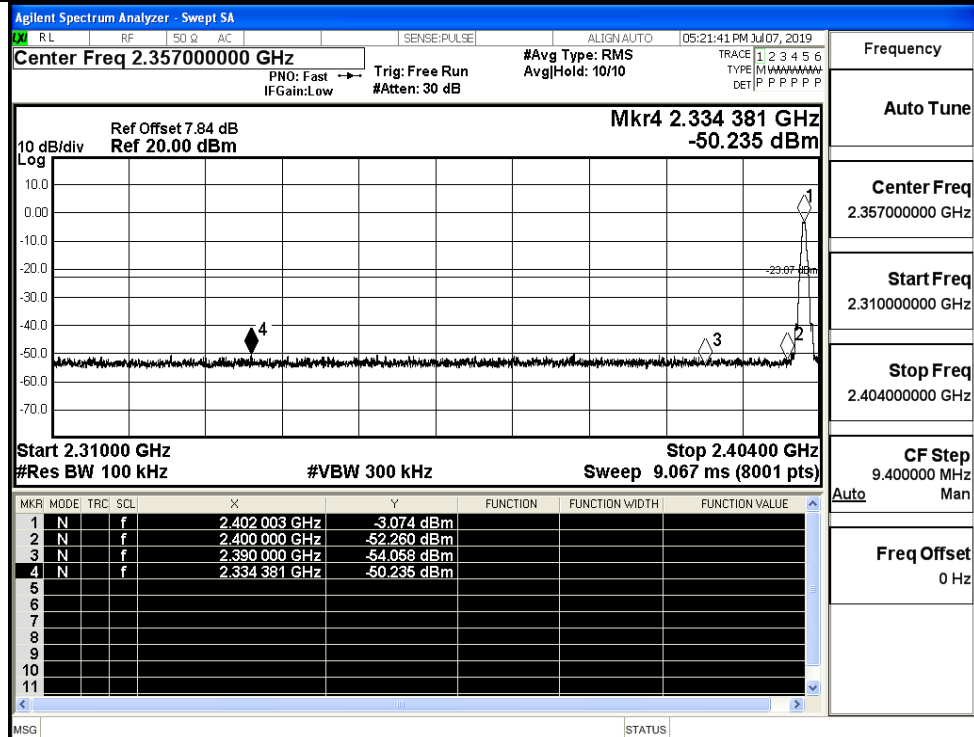


A.7 Band-edge for RF Conducted Emissions

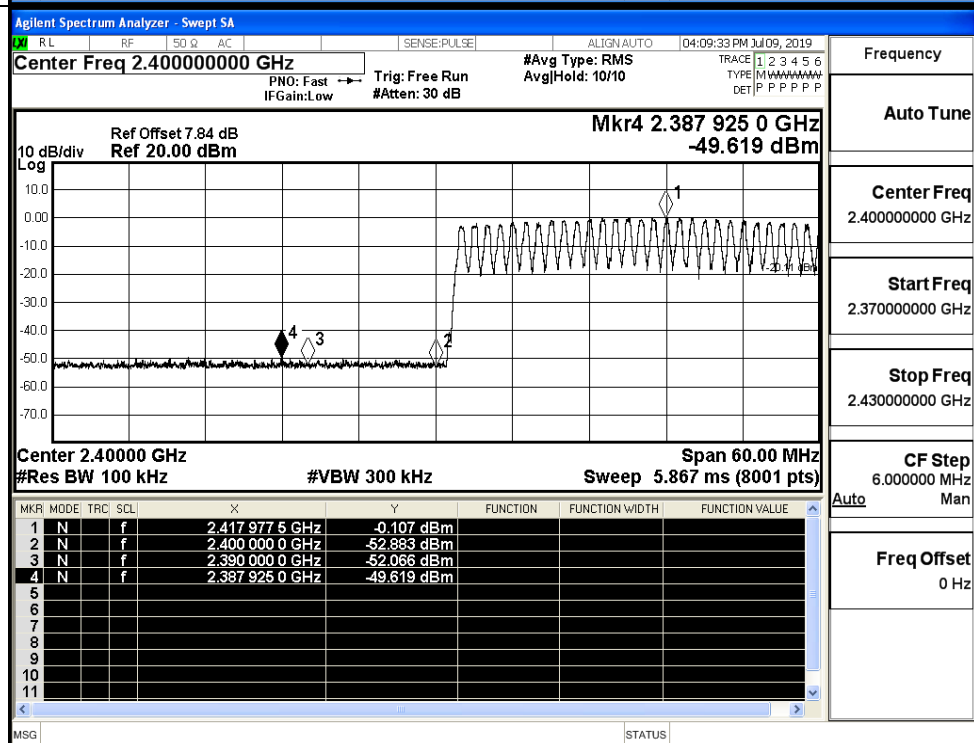
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-3.074	Off	-50.235	-23.07	PASS
			-0.107	On	-49.619	-20.11	PASS
	HCH	2480	-2.392	Off	-50.164	-22.39	PASS
			-0.330	On	-49.730	-20.33	PASS
$\pi/4$ DQPSK	LCH	2402	-4.274	Off	-50.084	-24.27	PASS
			-1.341	On	-49.377	-21.34	PASS
	HCH	2480	-3.593	Off	-49.816	-23.59	PASS
			-1.509	On	-49.438	-21.51	PASS
8DPSK	LCH	2402	-4.292	Off	-49.747	-24.29	PASS
			-1.286	On	-49.403	-21.29	PASS
	HCH	2480	-4.188	Off	-50.071	-24.19	PASS
			-2.084	On	-49.752	-22.08	PASS

Test Graphs

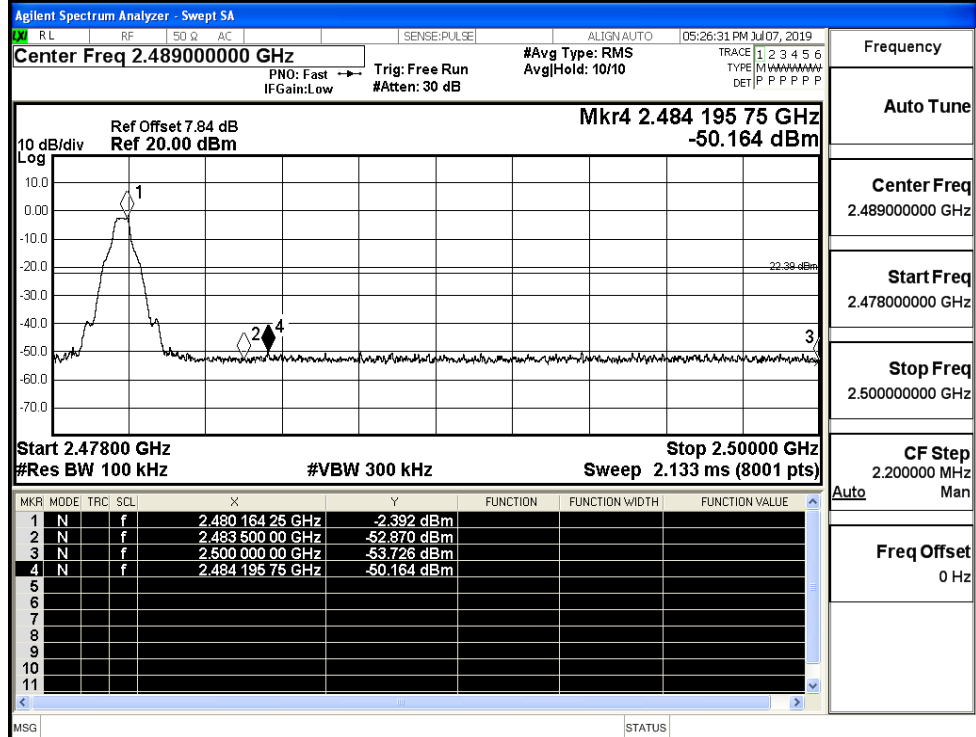
GFSK/LCH/No Hop



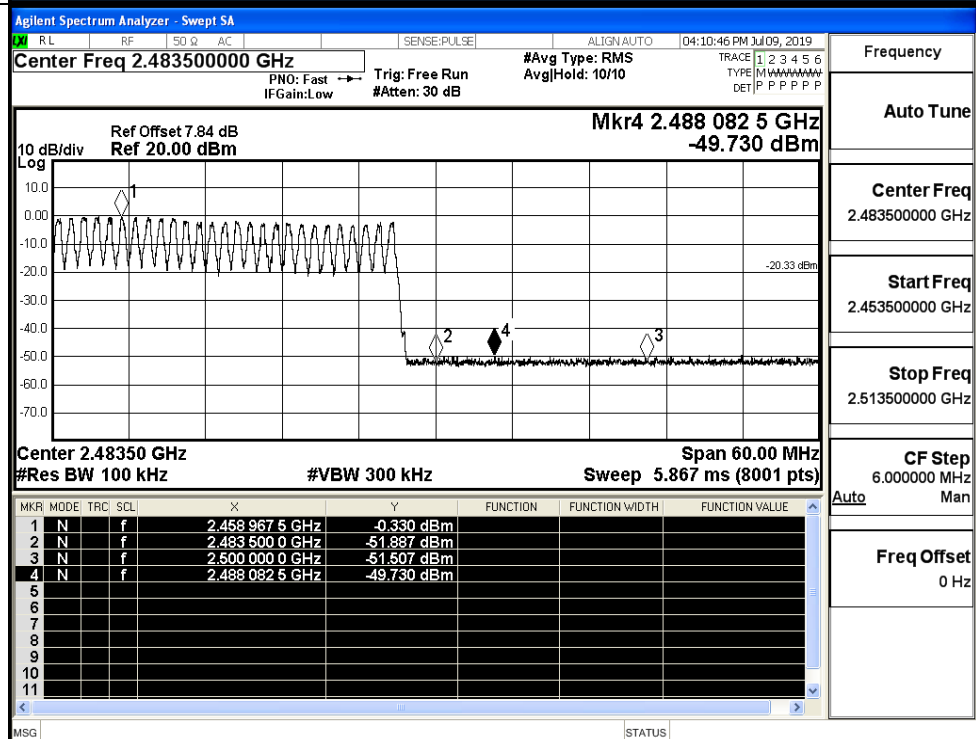
GFSK/LCH/Hop



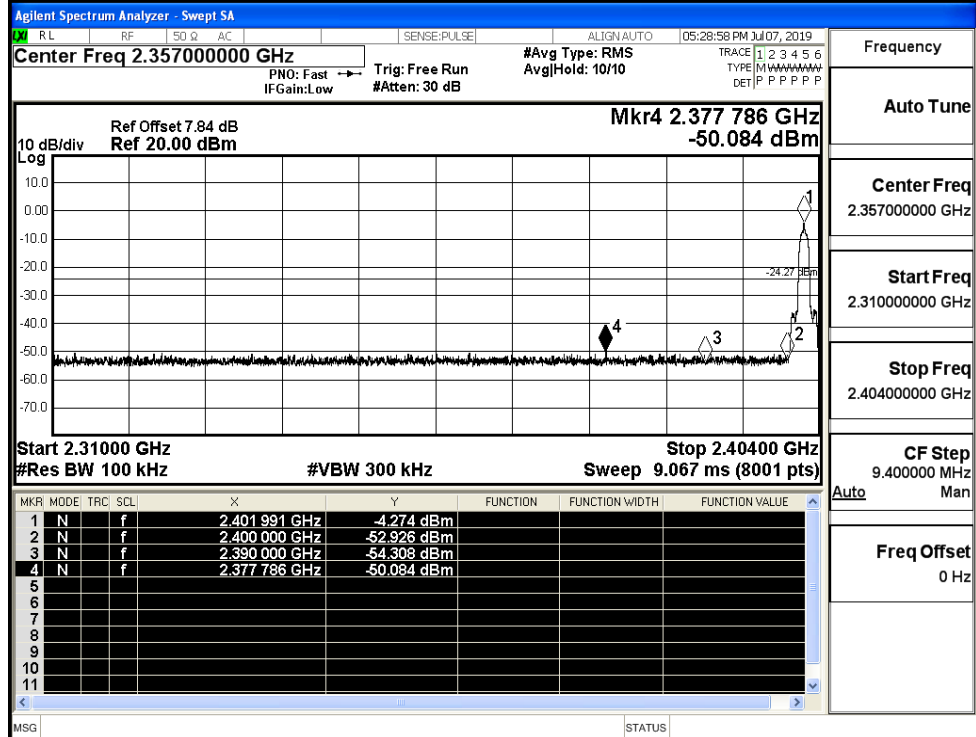
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

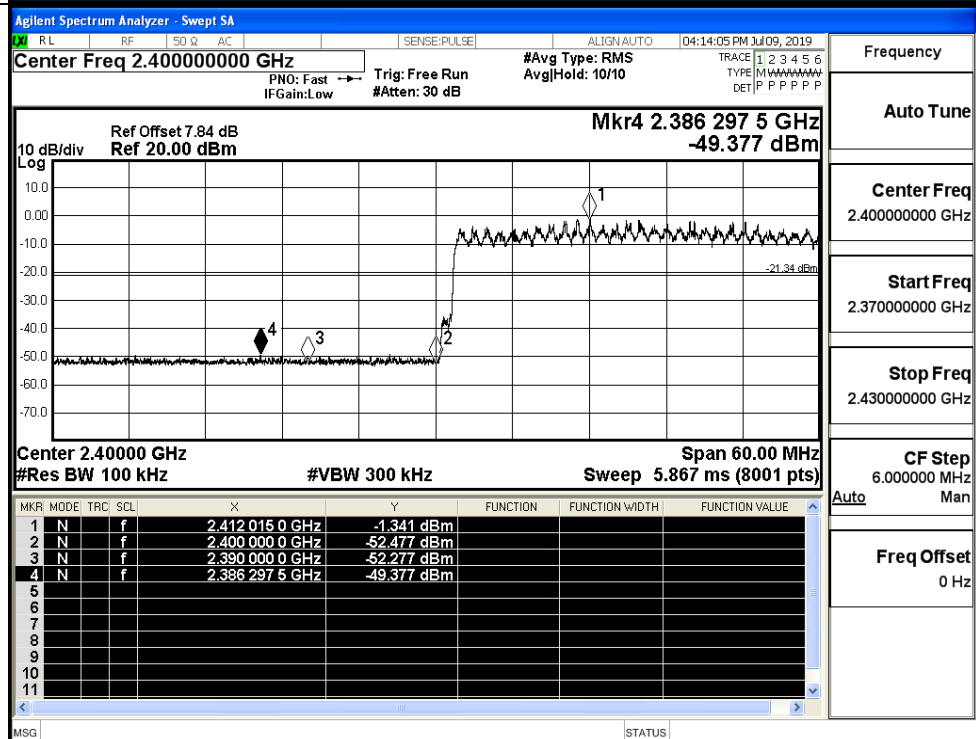
Start Freq
2.310000000 GHz

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

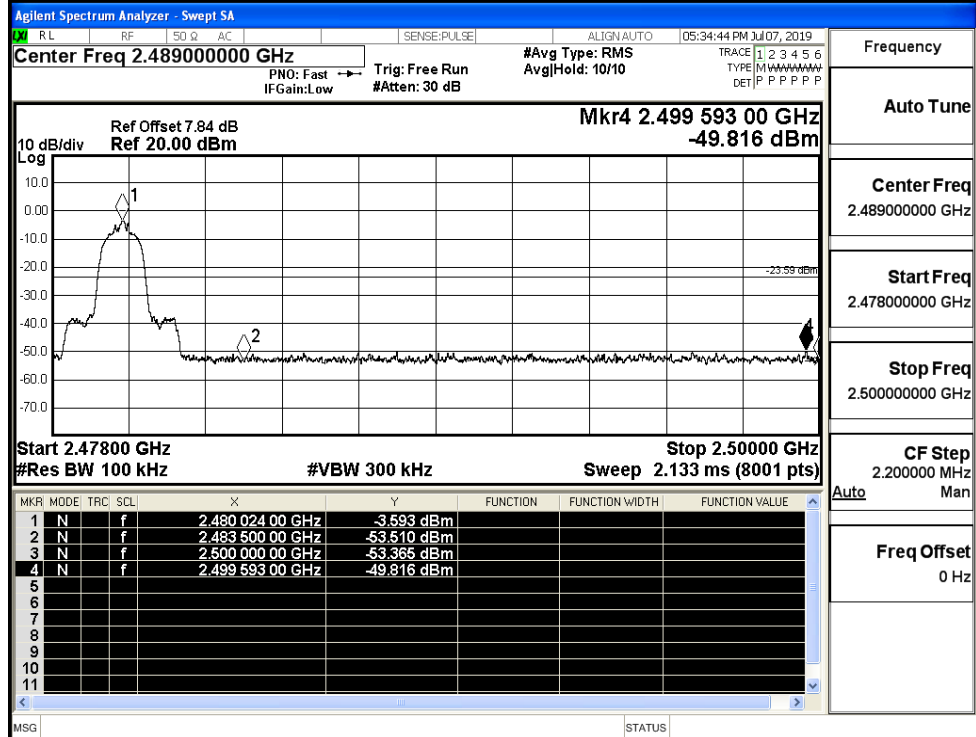
Start Freq
2.370000000 GHz

Stop Freq
2.430000000 GHz

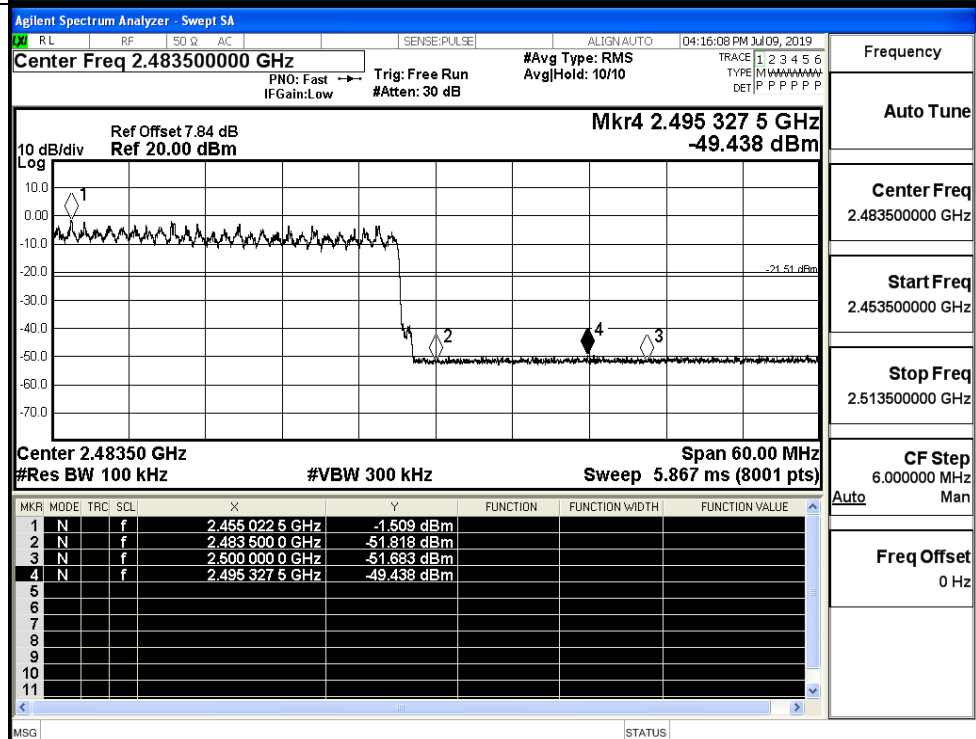
CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

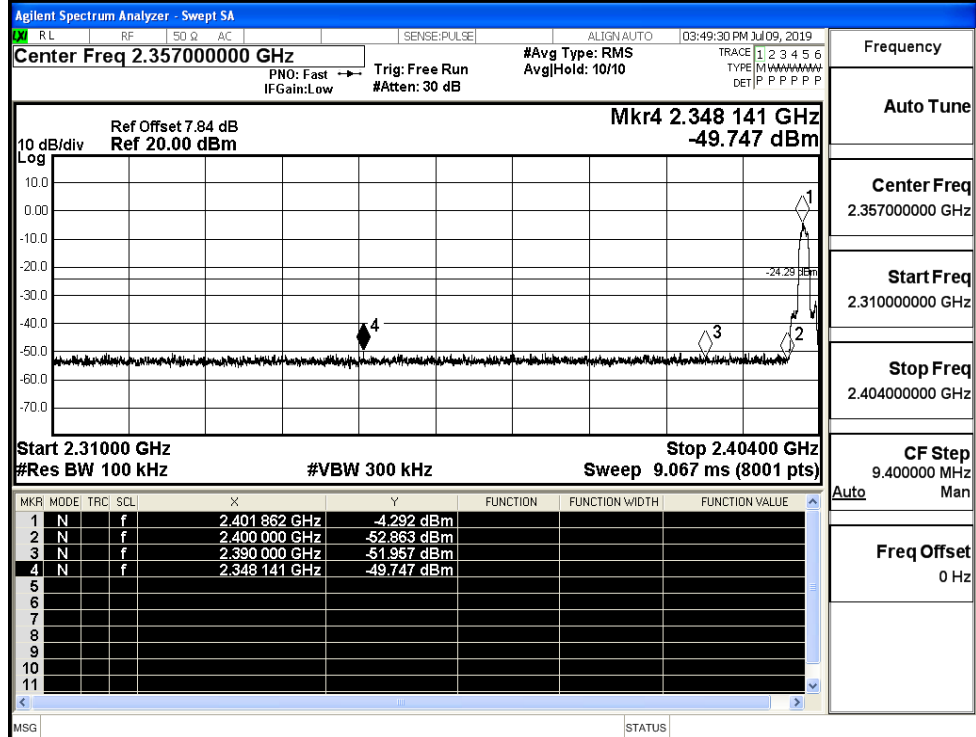
$\pi/4$ DQPSK/HCH/No
Hop



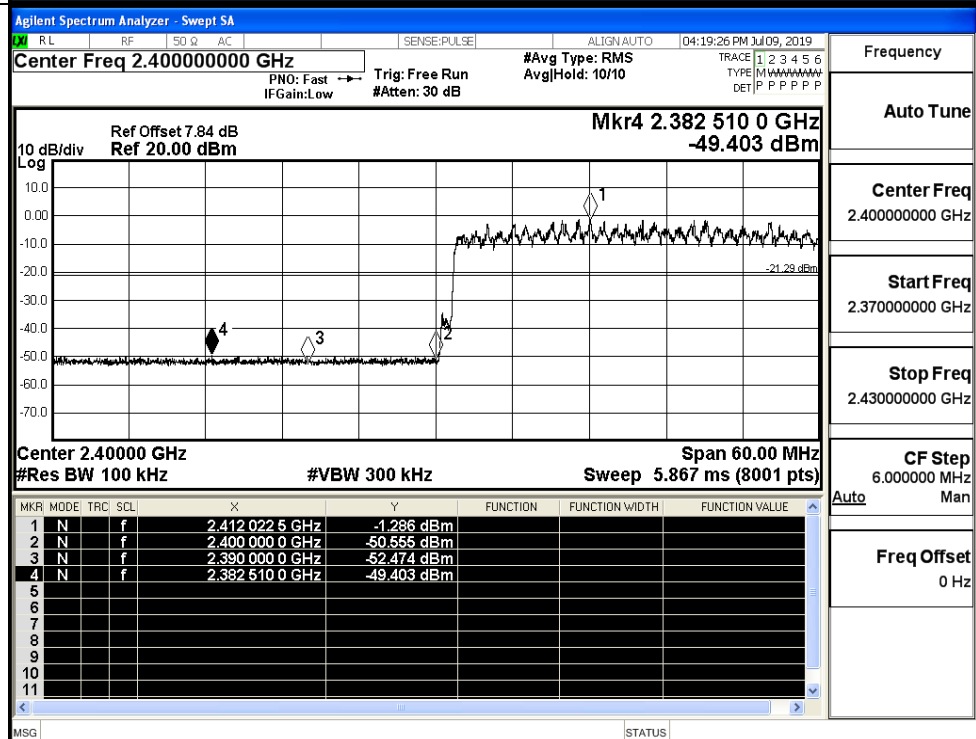
$\pi/4$ DQPSK/HCH/Hop



8DPSK/LCH/No Hop



8DPSK/LCH/Hop

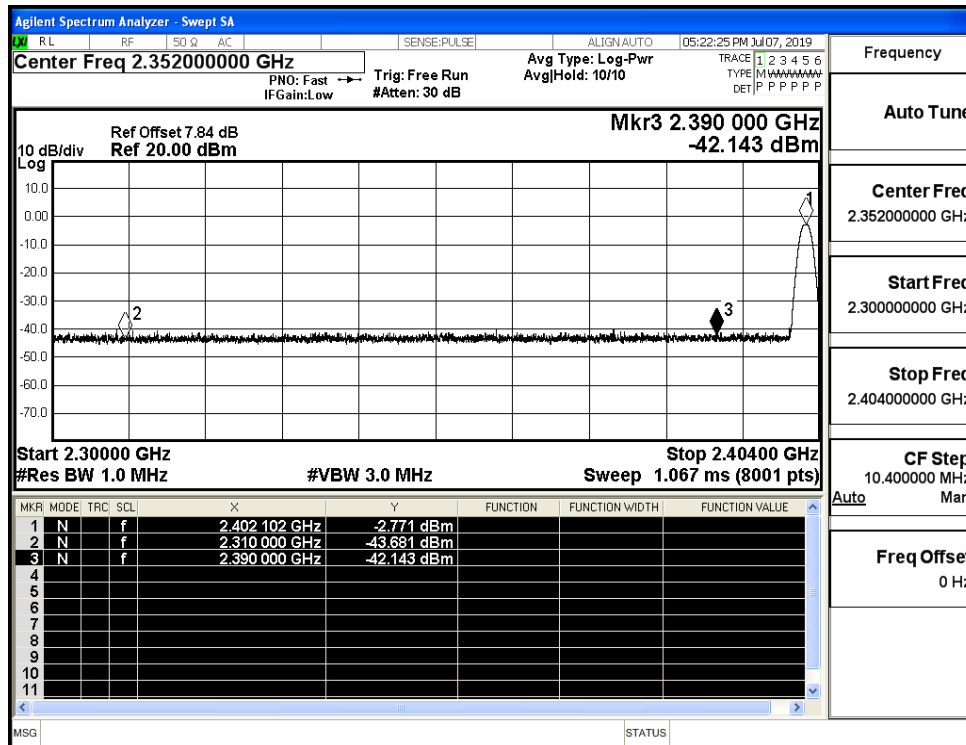


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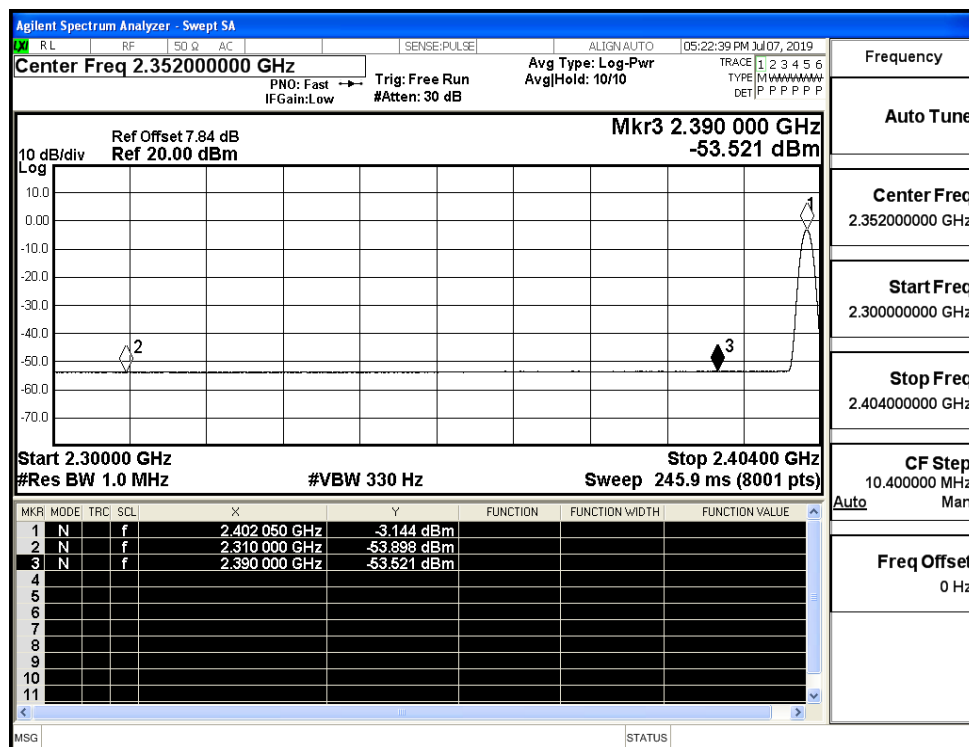
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.681	2.16	0	53.707	PEAK	74	PASS
	Off	2310.0	-53.898	2.16	0	43.490	AV	54	PASS
	Off	2390.0	-42.143	2.16	0	55.245	PEAK	74	PASS
	Off	2390.0	-53.521	2.16	0	43.867	AV	54	PASS
	Off	2483.5	-42.877	2.16	0	54.511	PEAK	74	PASS
	Off	2483.5	-53.206	2.16	0	44.182	AV	54	PASS
	Off	2500.0	-43.997	2.16	0	53.391	PEAK	74	PASS
	Off	2500.0	-53.098	2.16	0	44.290	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.137	2.16	0	54.251	PEAK	74	PASS
	Off	2310.0	-53.760	2.16	0	43.628	AV	54	PASS
	Off	2390.0	-42.752	2.16	0	54.636	PEAK	74	PASS
	Off	2390.0	-53.497	2.16	0	43.891	AV	54	PASS
	Off	2483.5	-42.660	2.16	0	54.728	PEAK	74	PASS
	Off	2483.5	-53.214	2.16	0	44.174	AV	54	PASS
	Off	2500.0	-42.993	2.16	0	54.395	PEAK	74	PASS
	Off	2500.0	-53.095	2.16	0	44.293	AV	54	PASS
8DPSK	Off	2310.0	-42.690	2.16	0	54.698	PEAK	74	PASS
	Off	2310.0	-53.772	2.16	0	43.616	AV	54	PASS
	Off	2390.0	-42.169	2.16	0	55.219	PEAK	74	PASS
	Off	2390.0	-53.595	2.16	0	43.793	AV	54	PASS
	Off	2483.5	-43.494	2.16	0	53.894	PEAK	74	PASS
	Off	2483.5	-53.262	2.16	0	44.126	AV	54	PASS
	Off	2500.0	-43.518	2.16	0	53.870	PEAK	74	PASS
	Off	2500.0	-53.141	2.16	0	44.247	AV	54	PASS

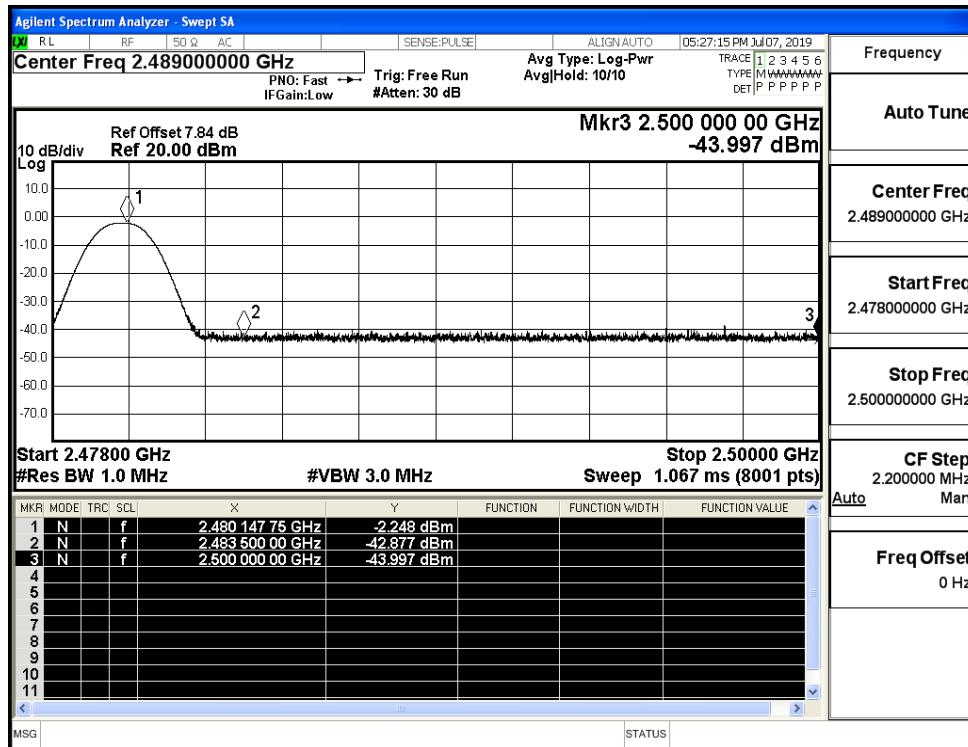
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



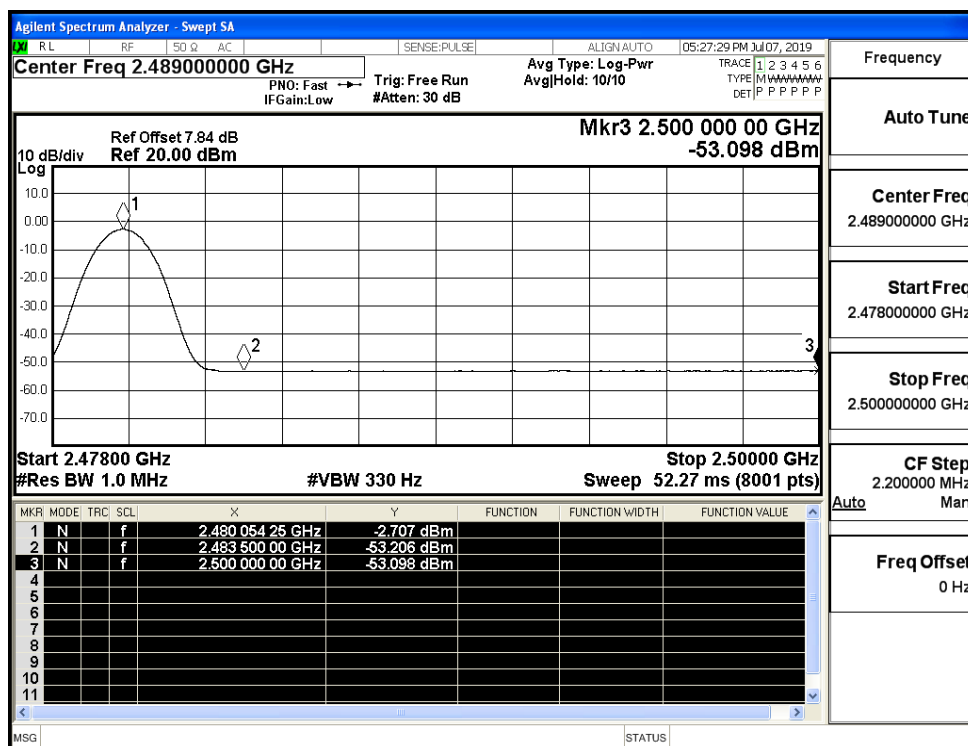
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

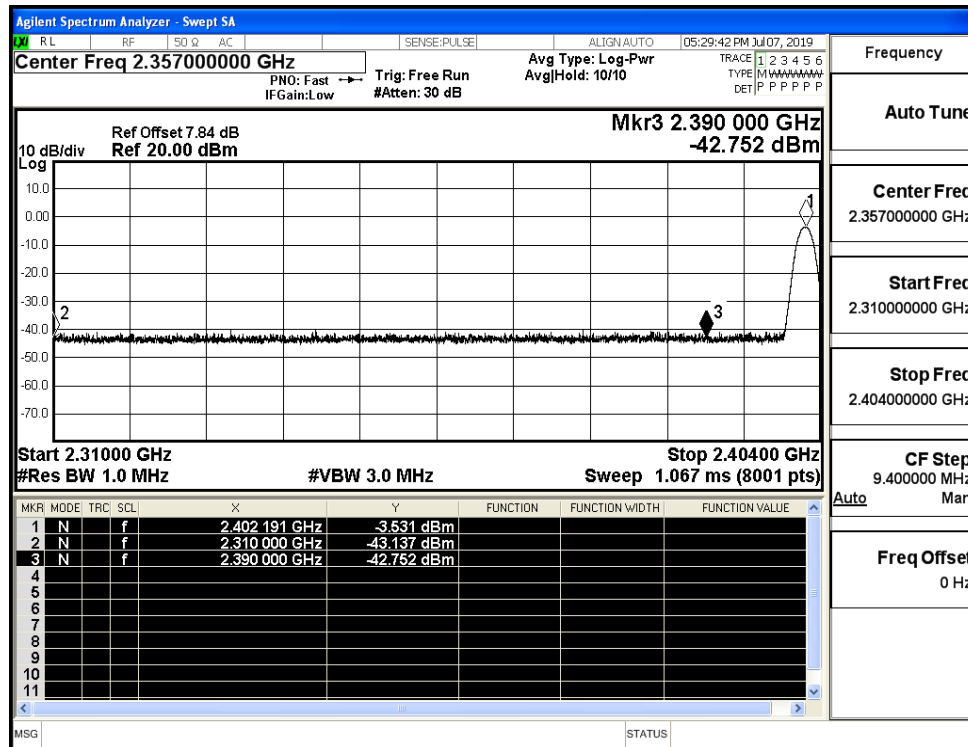
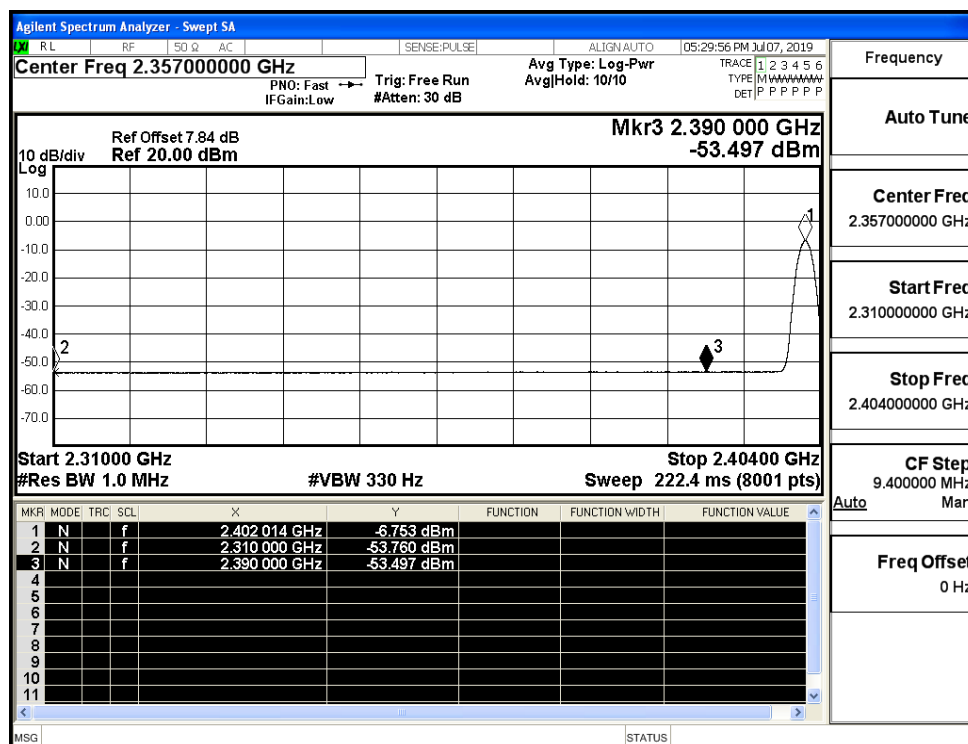


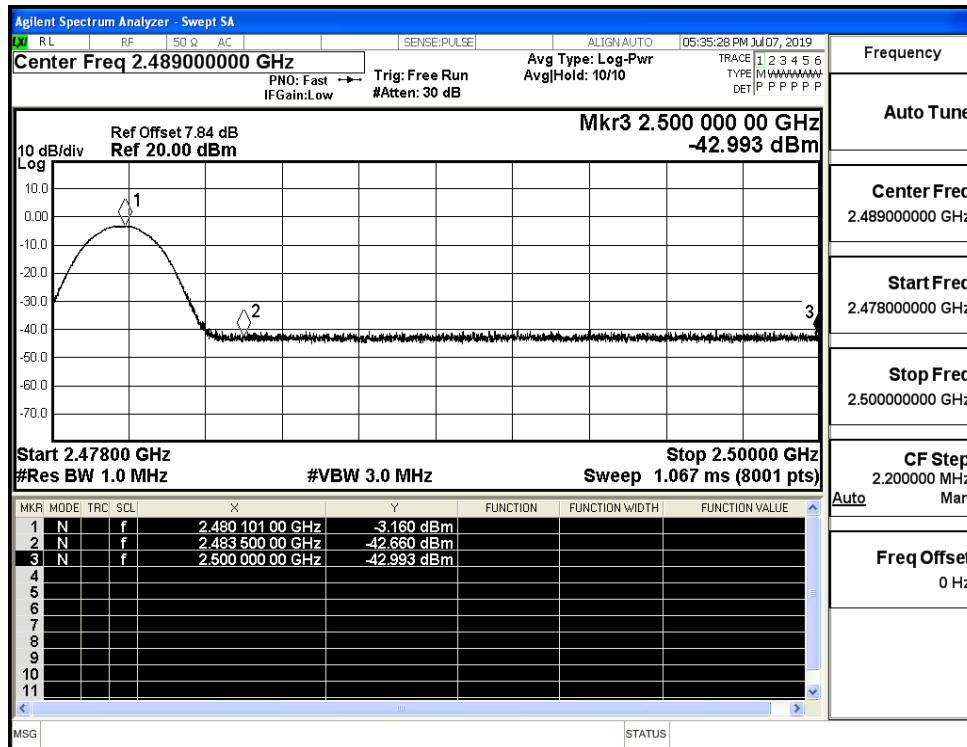
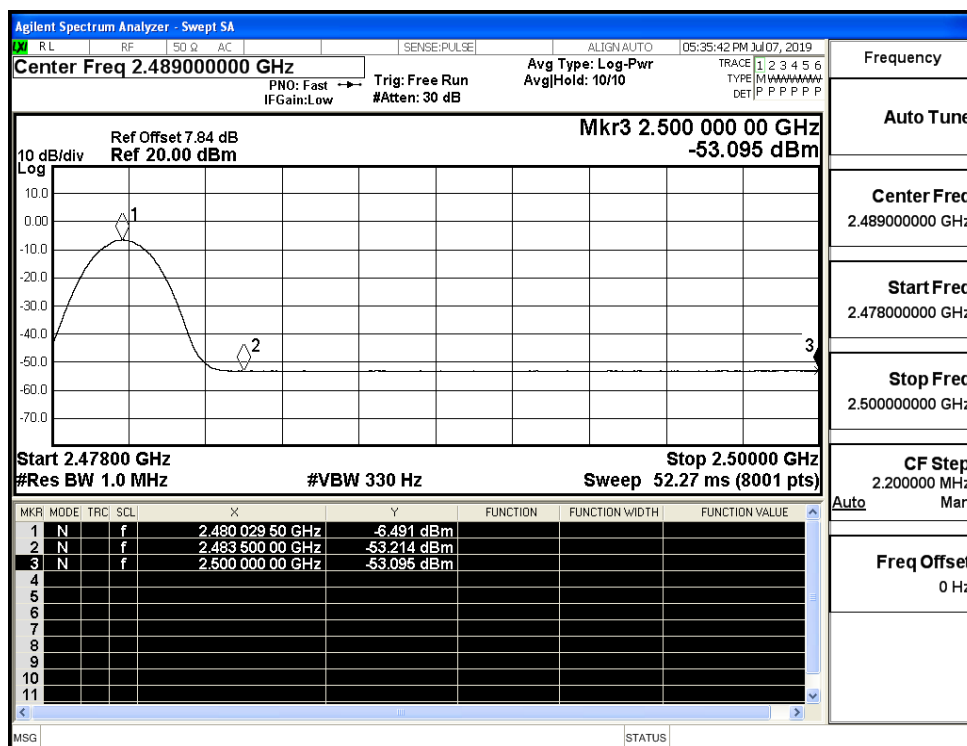
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



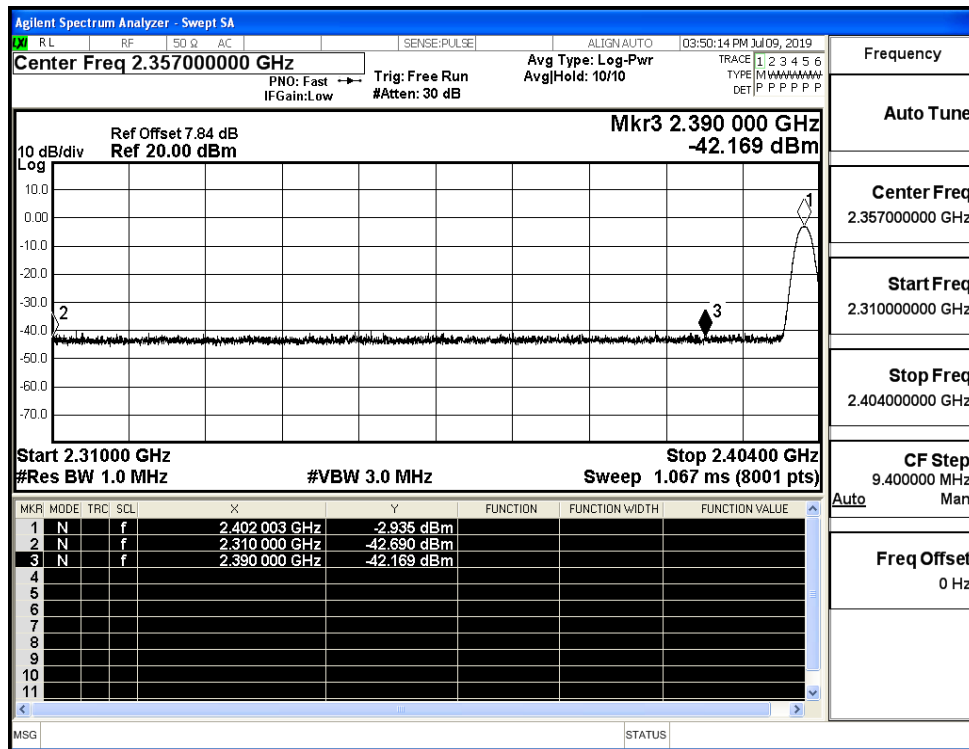
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



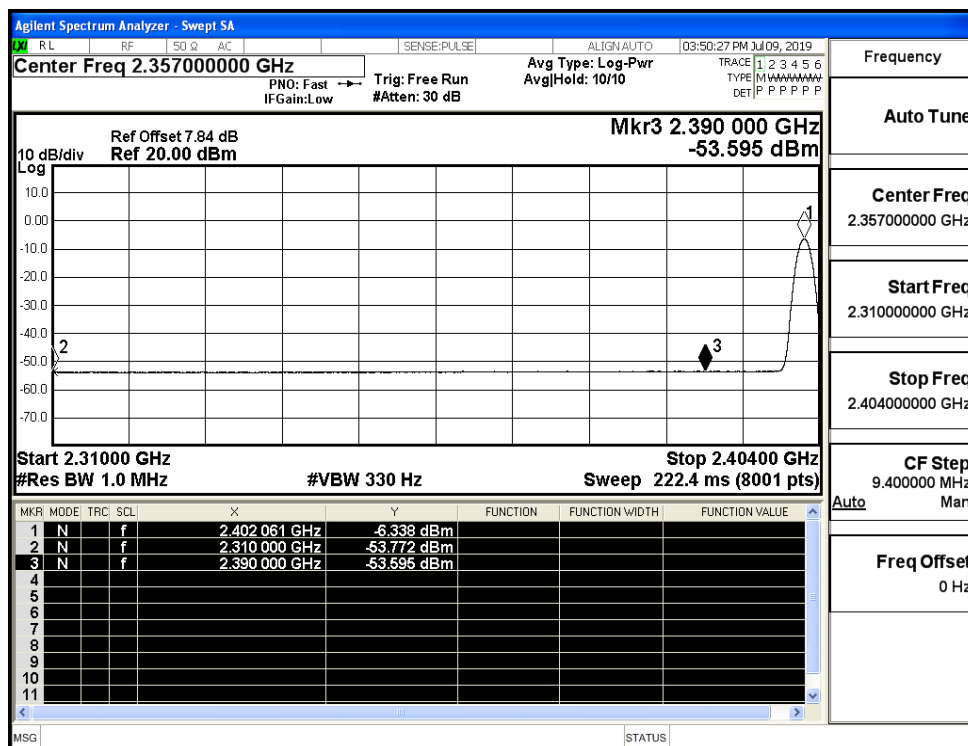
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

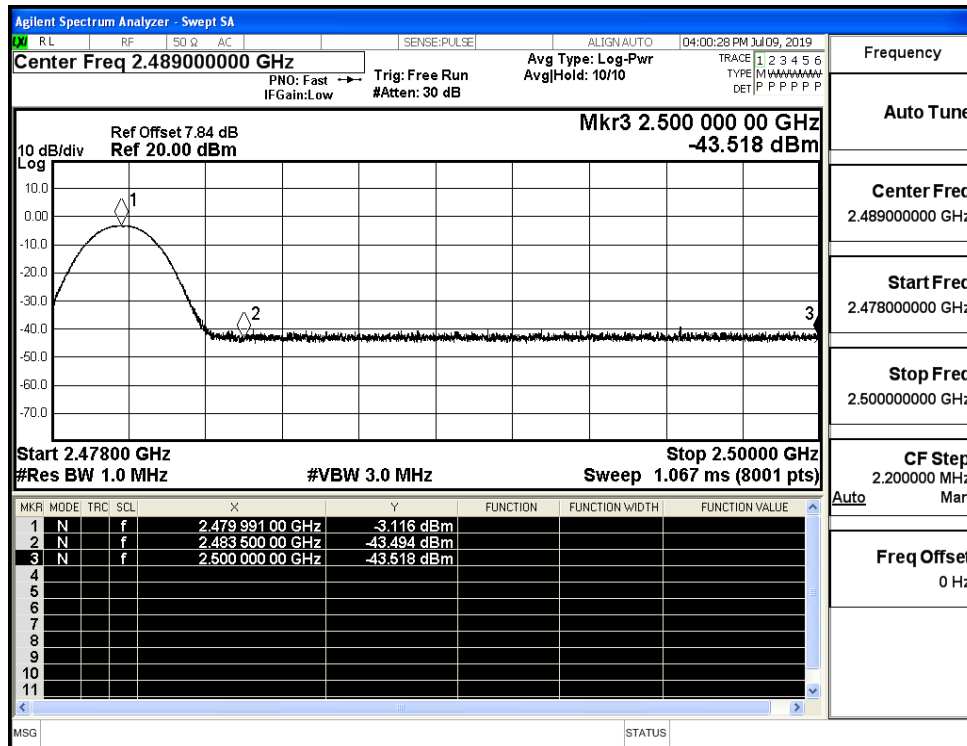
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

