

Appendix A

RF Test Data for BT 2.1+EDR (Conducted Measurement)

Product Name: **Feature phone**

Trade Mark: **KENXINDA**

Test Model: **K6200**

Environmental Conditions

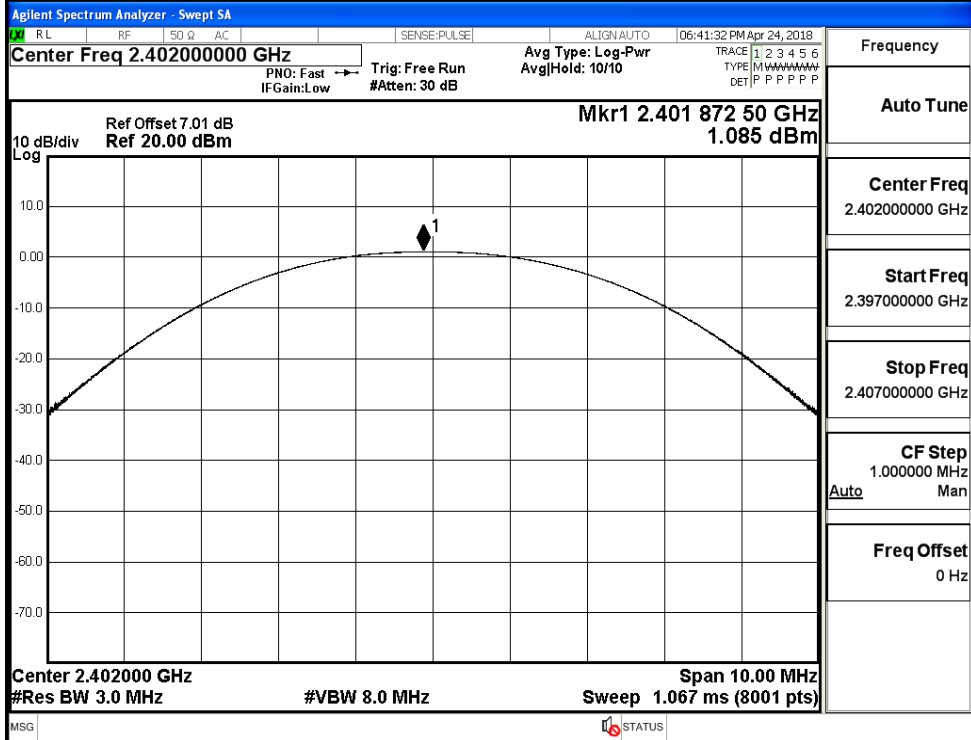
Temperature:	23.5 ° C
Relative Humidity:	51.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Jayden.Zhuo
Supervised by:	Dick.Su

A.1 Maxmum Conducted Peak Output Power

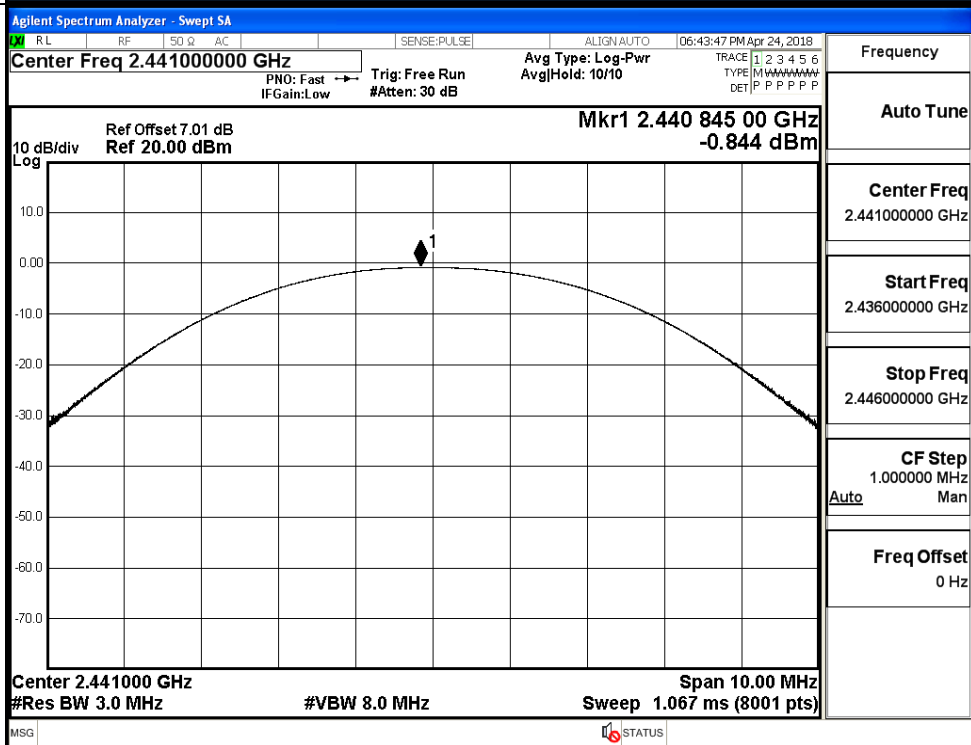
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	1.085	30	PASS
	MCH	-0.844	30	PASS
	HCH	-0.835	30	PASS
$\pi/4$ DQPSK	LCH	0.244	21	PASS
	MCH	-1.488	21	PASS
	HCH	-1.623	21	PASS
8DPSK	LCH	0.347	21	PASS
	MCH	-1.393	21	PASS
	HCH	-1.600	21	PASS

Test Graphs

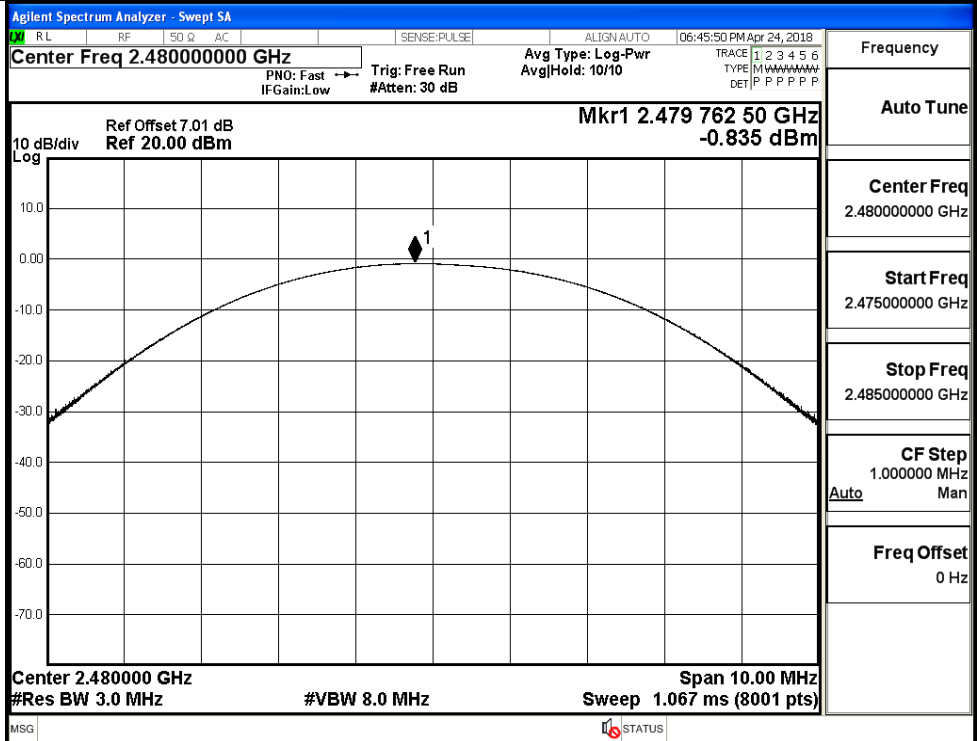
GFSK/LCH



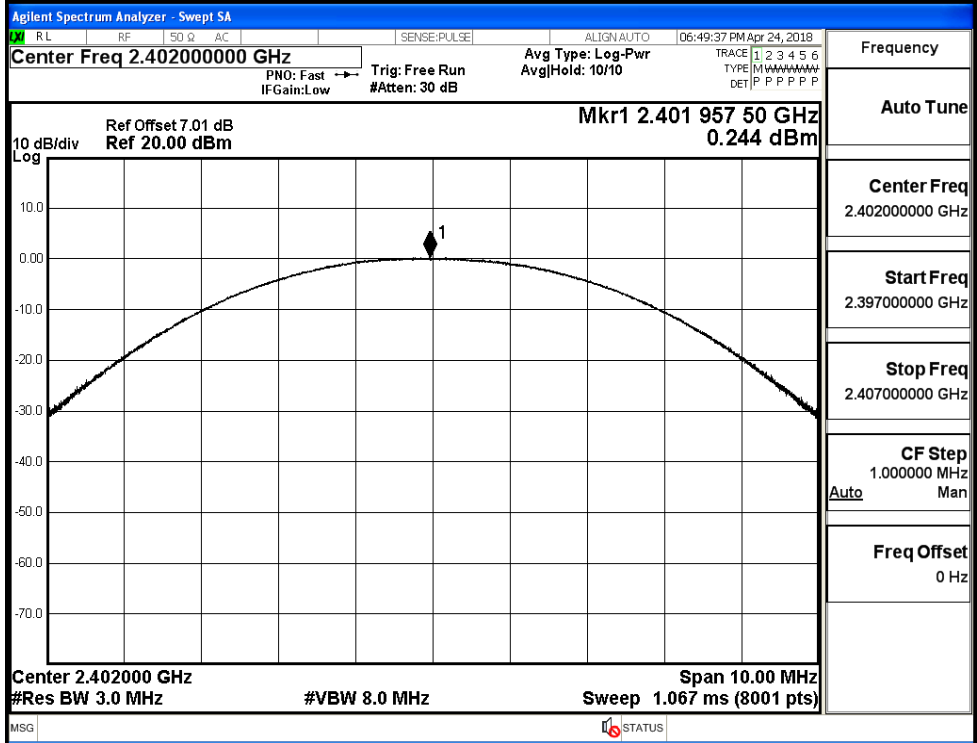
GFSK/MCH



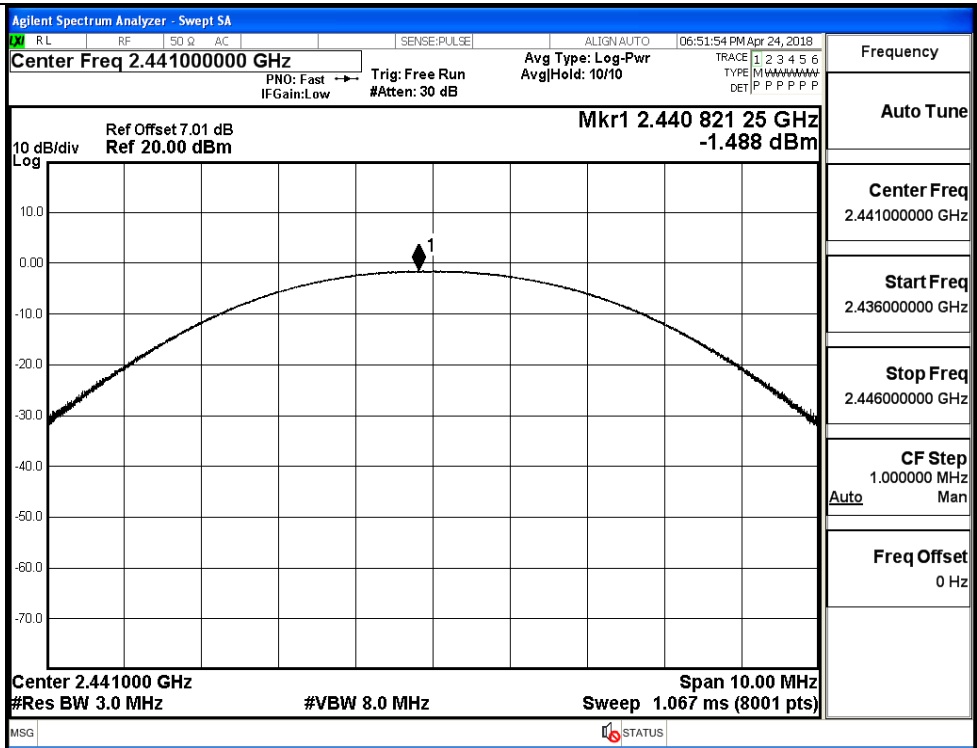
GFSK/HCH



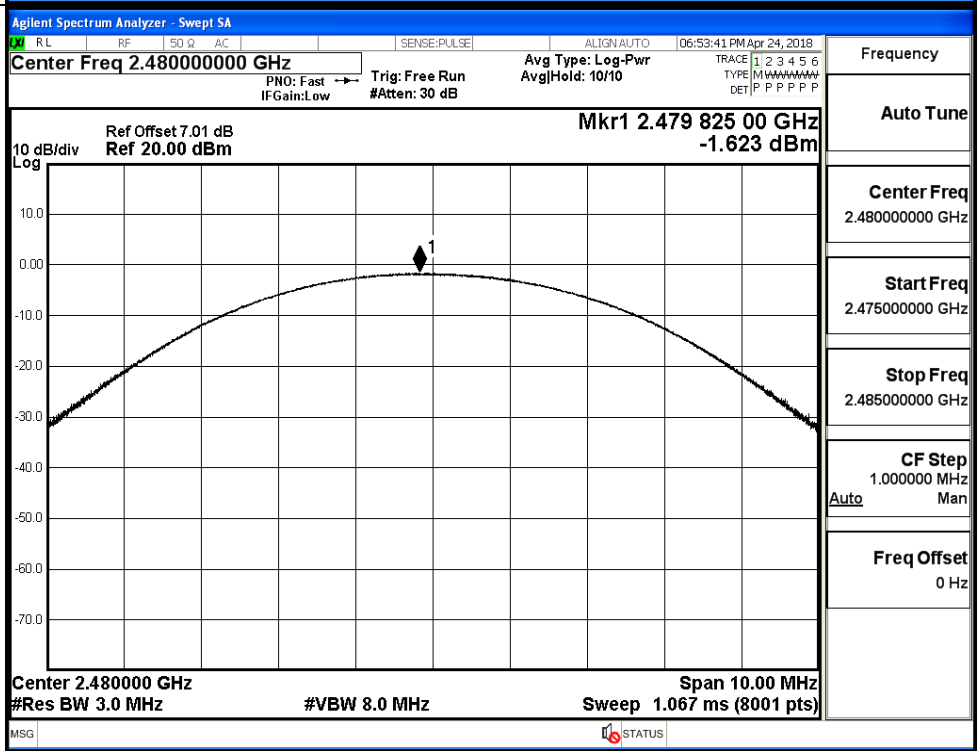
π /4DQPSK/LCH



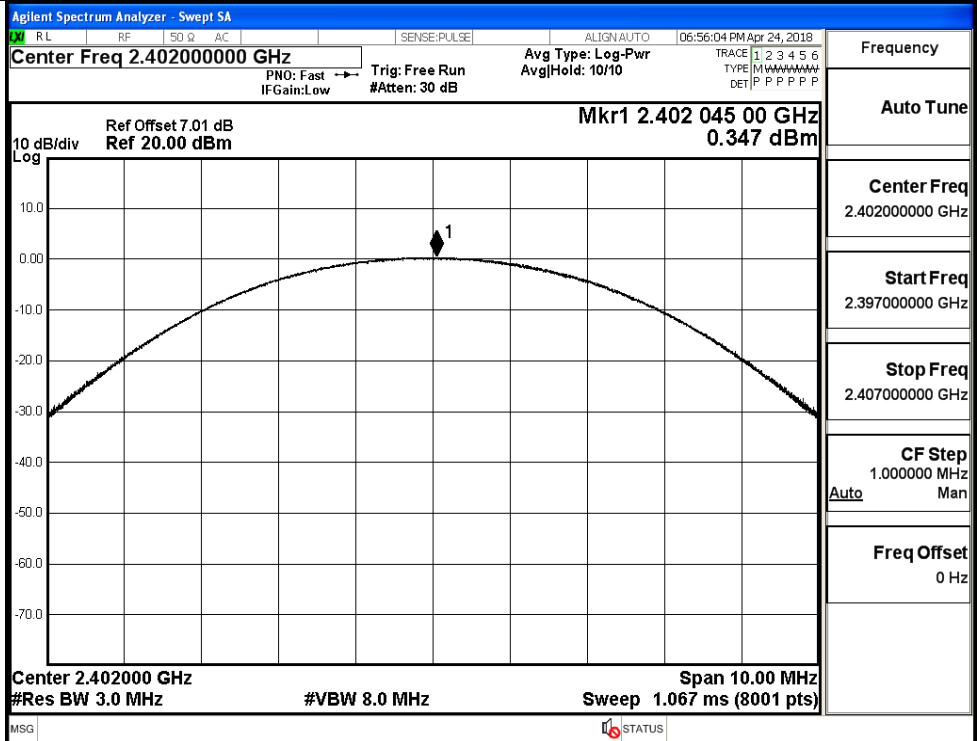
π /4DQPSK/MCH



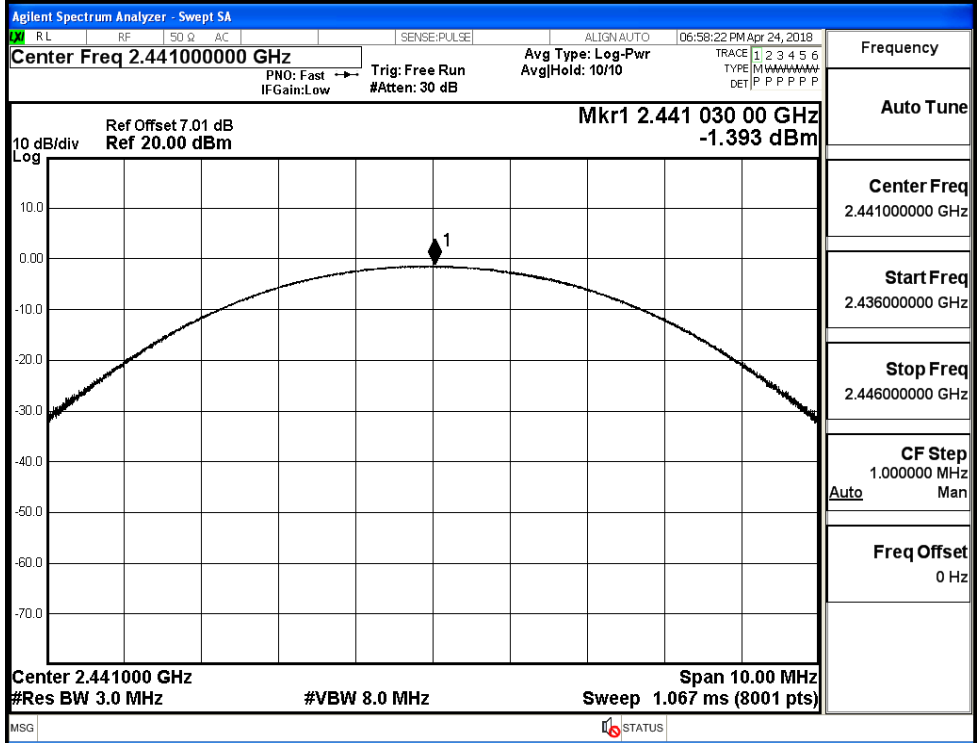
π /4DQPSK/HCH



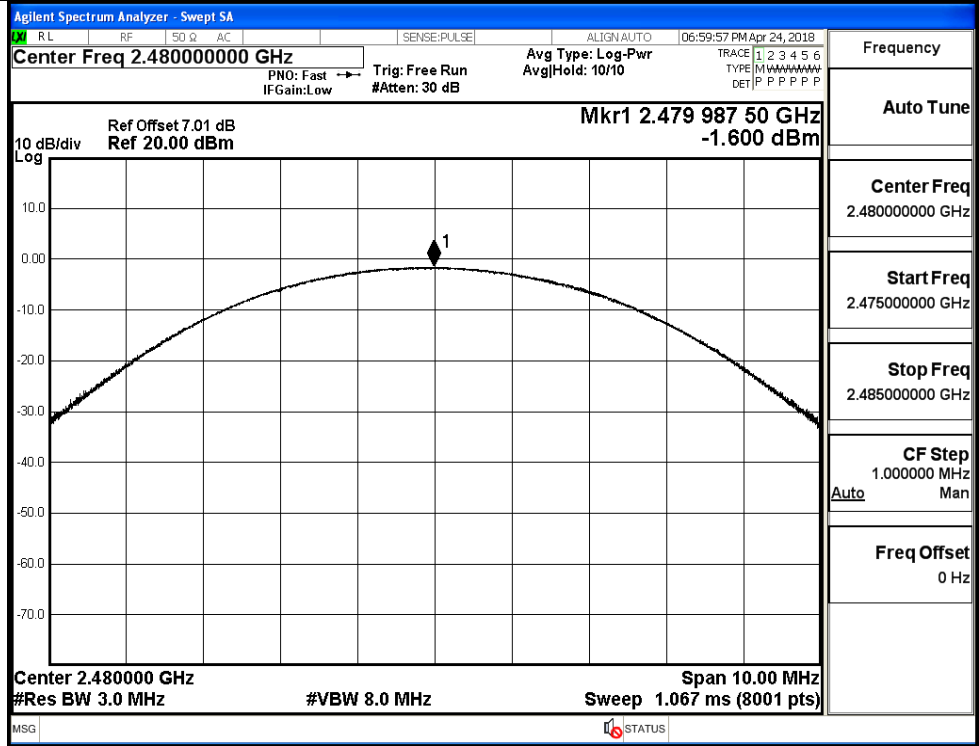
8DPSK/LCH



8DPSK/MCH

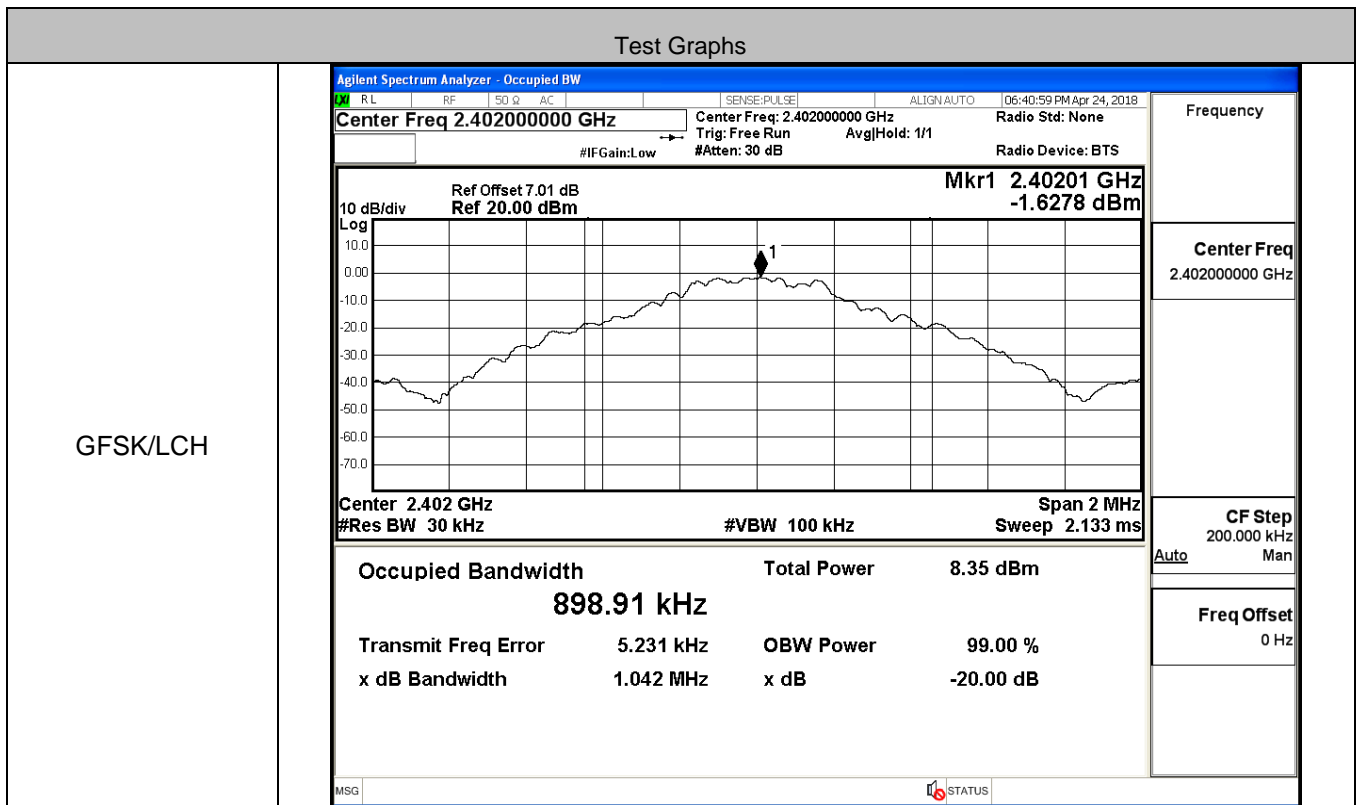


8DPSK/HCH

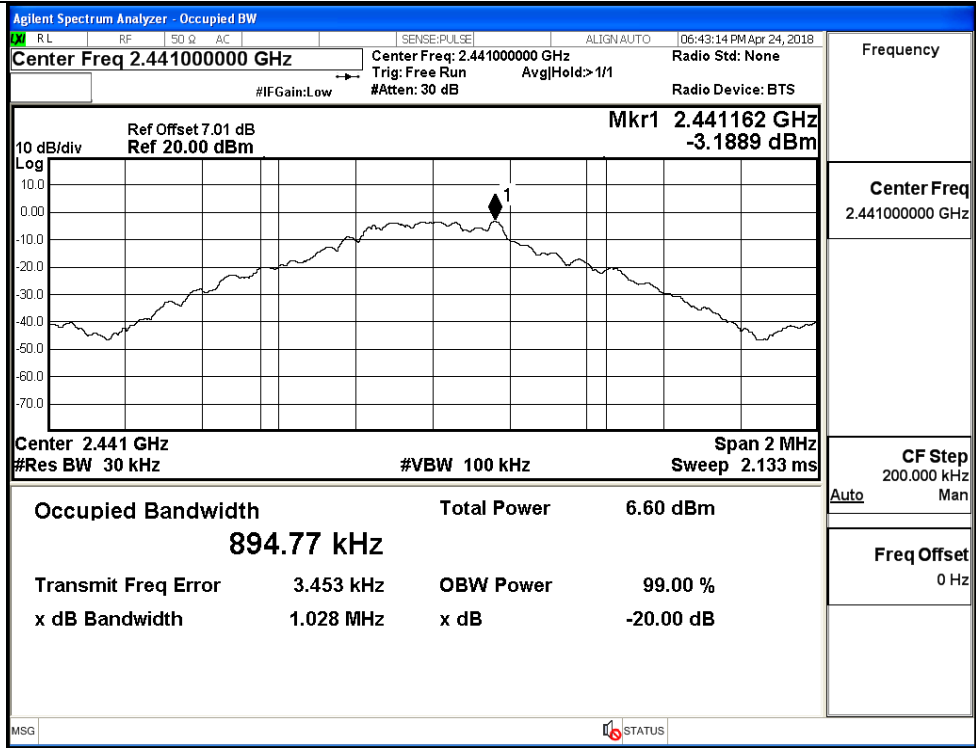


A.2 20dB Bandwidth

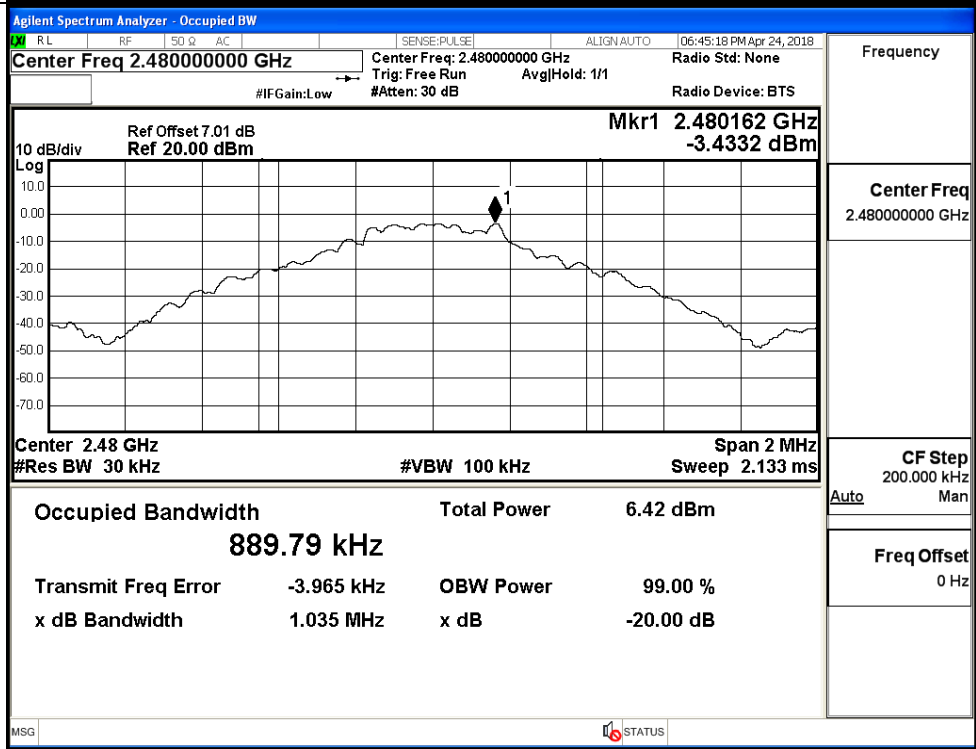
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.042	Not Specified	PASS
	MCH	1.028	Not Specified	PASS
	HCH	1.035	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.290	Not Specified	PASS
	MCH	1.313	Not Specified	PASS
	HCH	1.302	Not Specified	PASS
8DPSK	LCH	1.293	Not Specified	PASS
	MCH	1.297	Not Specified	PASS
	HCH	1.295	Not Specified	PASS



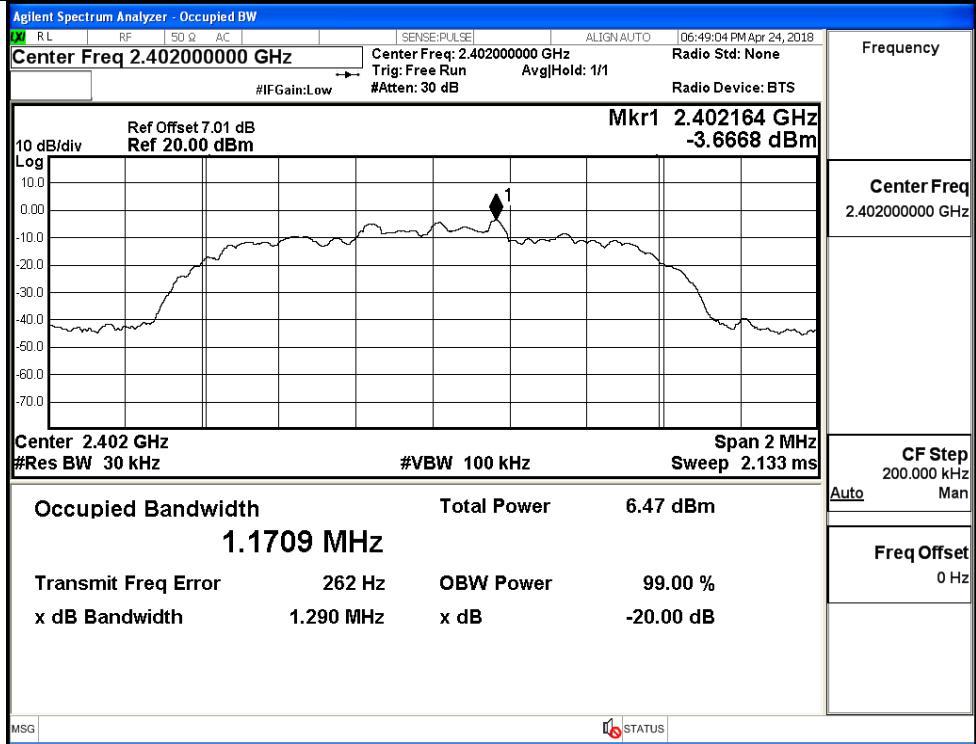
GFSK/MCH



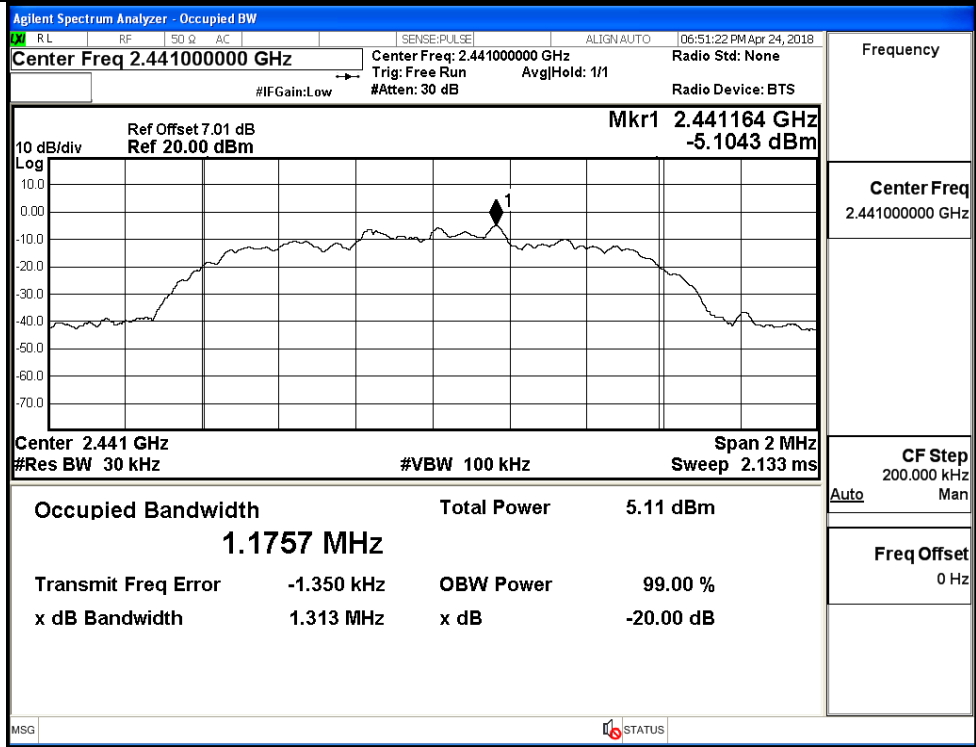
GFSK/HCH



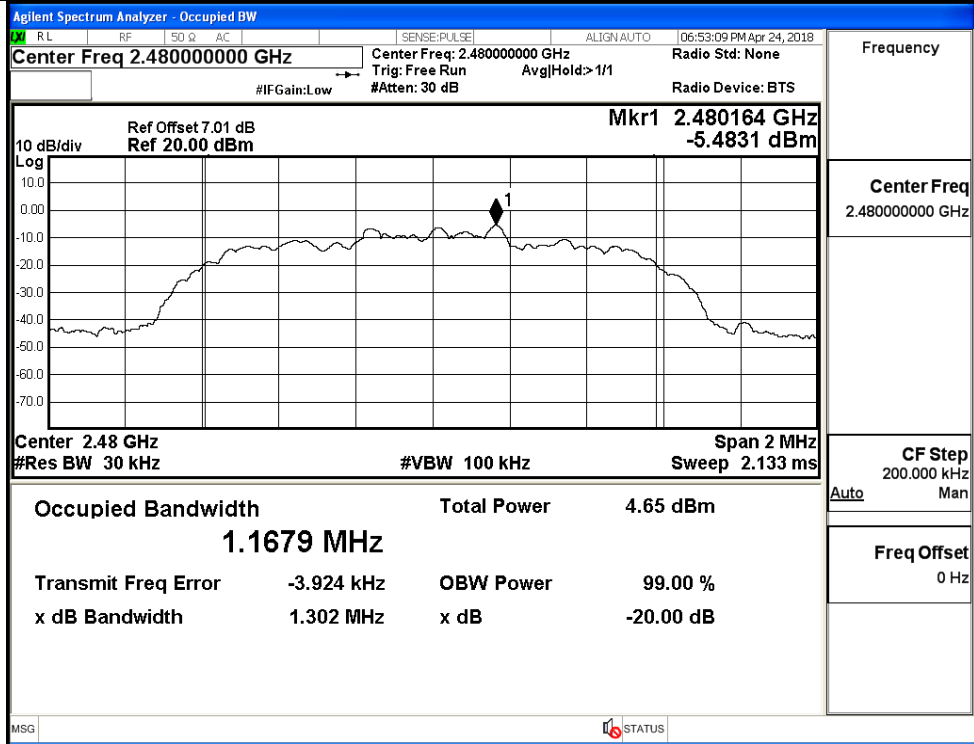
$\pi/4$ DQPSK/LCH



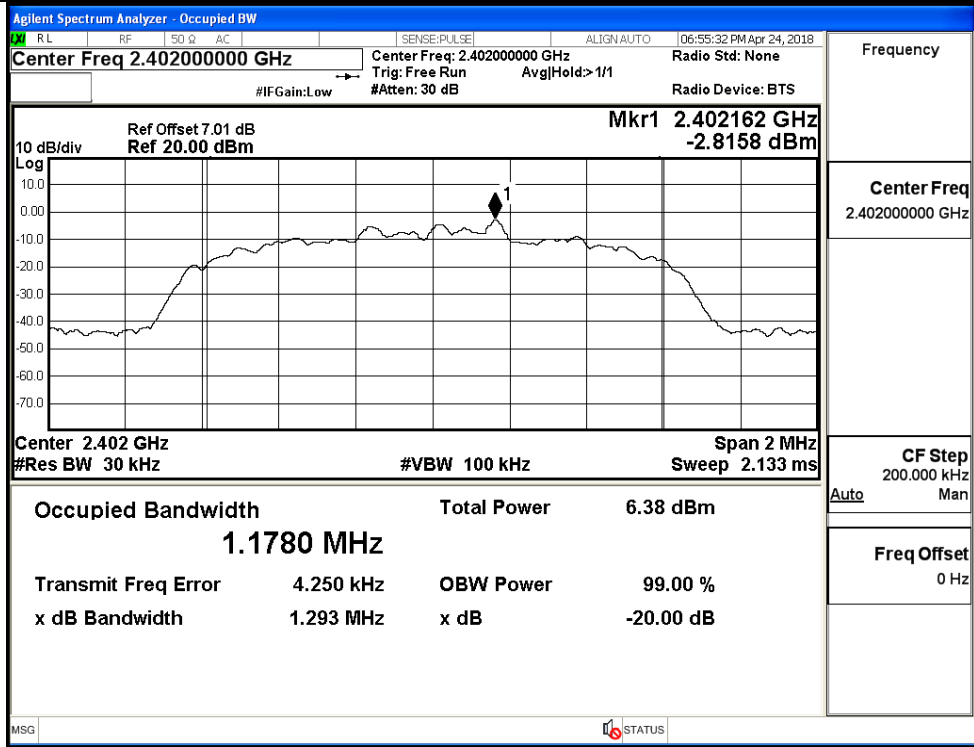
$\pi/4$ DQPSK/MCH



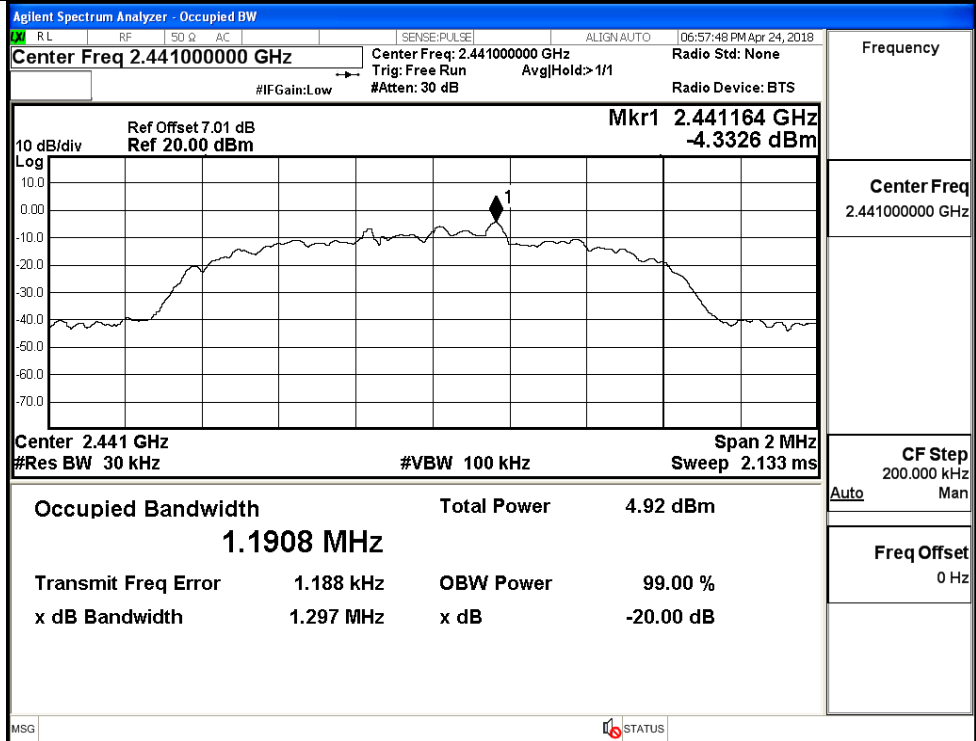
$\pi/4$ DQPSK/HCH



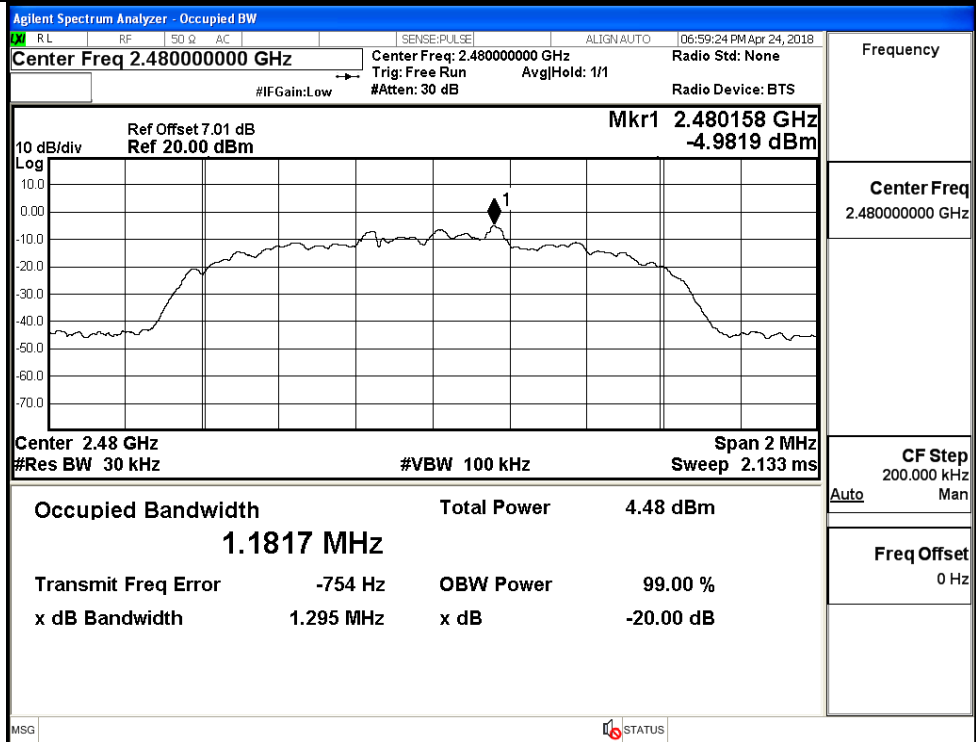
8DPSK/LCH



8DPSK/MCH

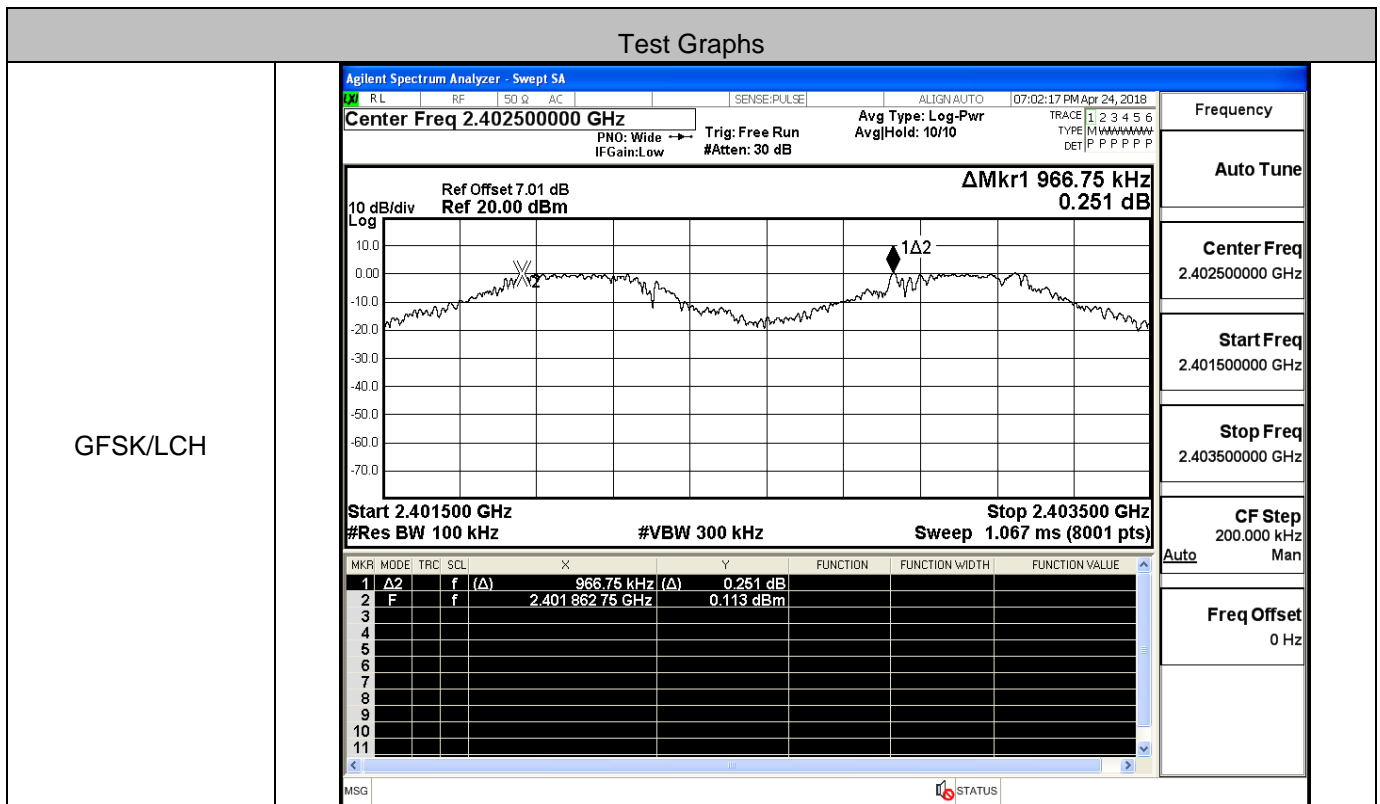


8DPSK/HCH

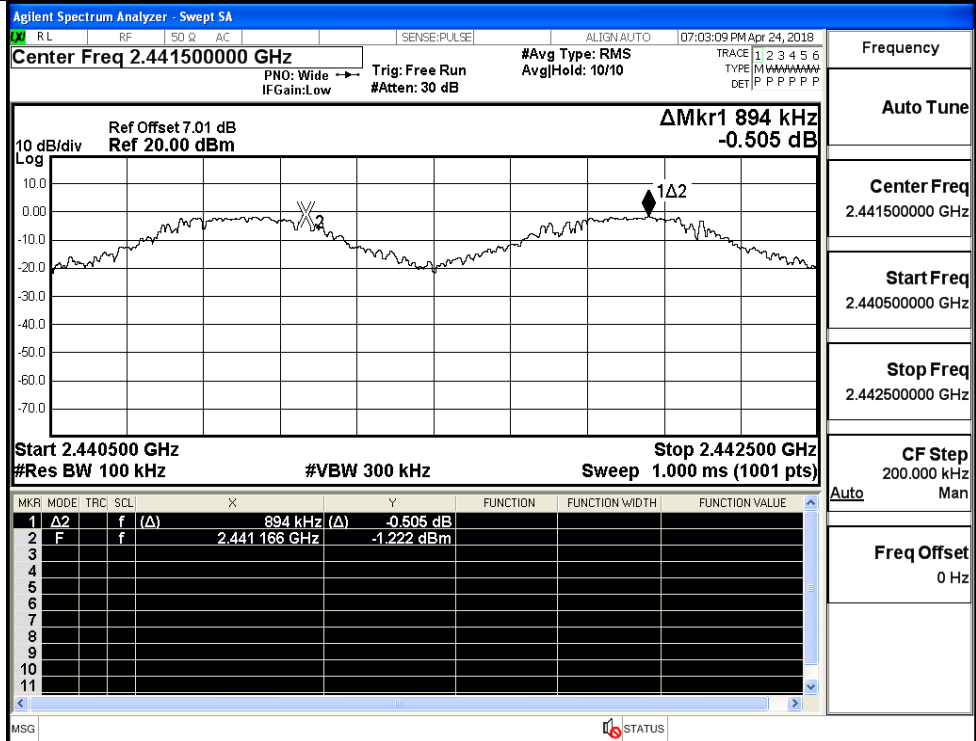


A.3 Carrier Frequency Separation

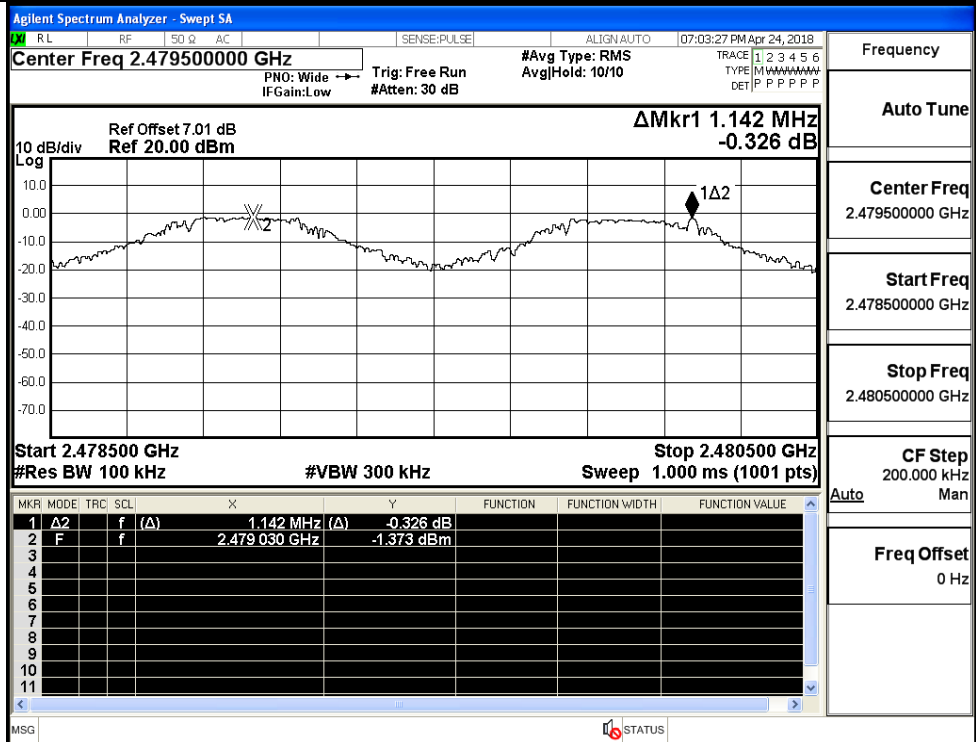
Mode	Channel	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.967	0.695	PASS
	MCH	0.894	0.695	PASS
	HCH	1.142	0.695	PASS
π/4DQPSK	LCH	0.968	0.875	PASS
	MCH	1.130	0.875	PASS
	HCH	1.316	0.875	PASS
8DPSK	LCH	0.870	0.865	PASS
	MCH	0.980	0.865	PASS
	HCH	0.950	0.865	PASS



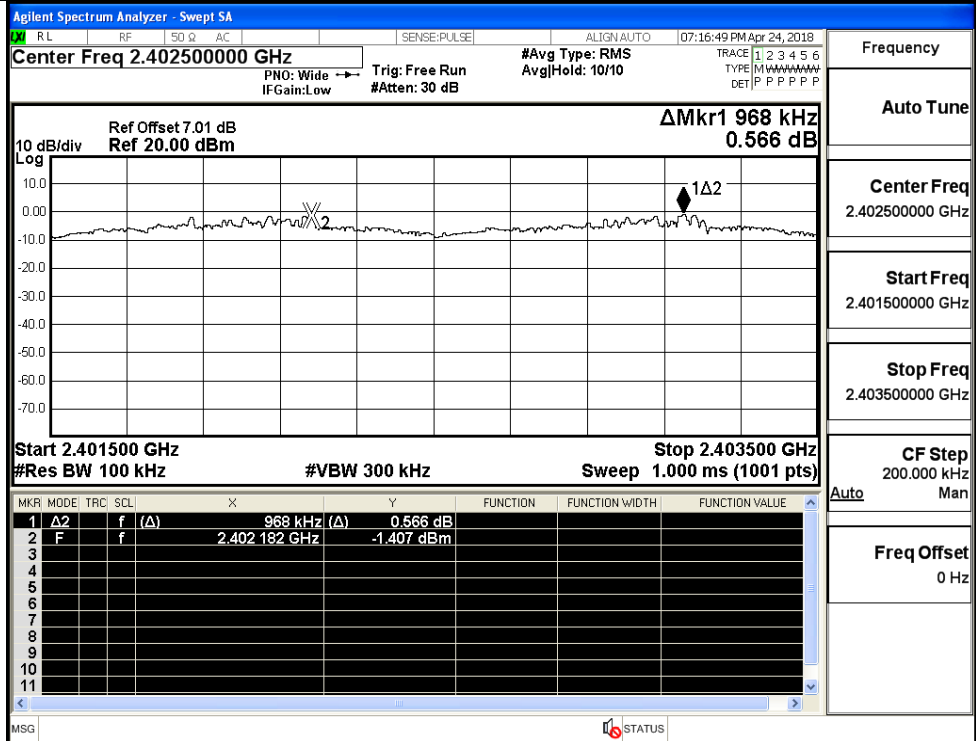
GFSK/MCH



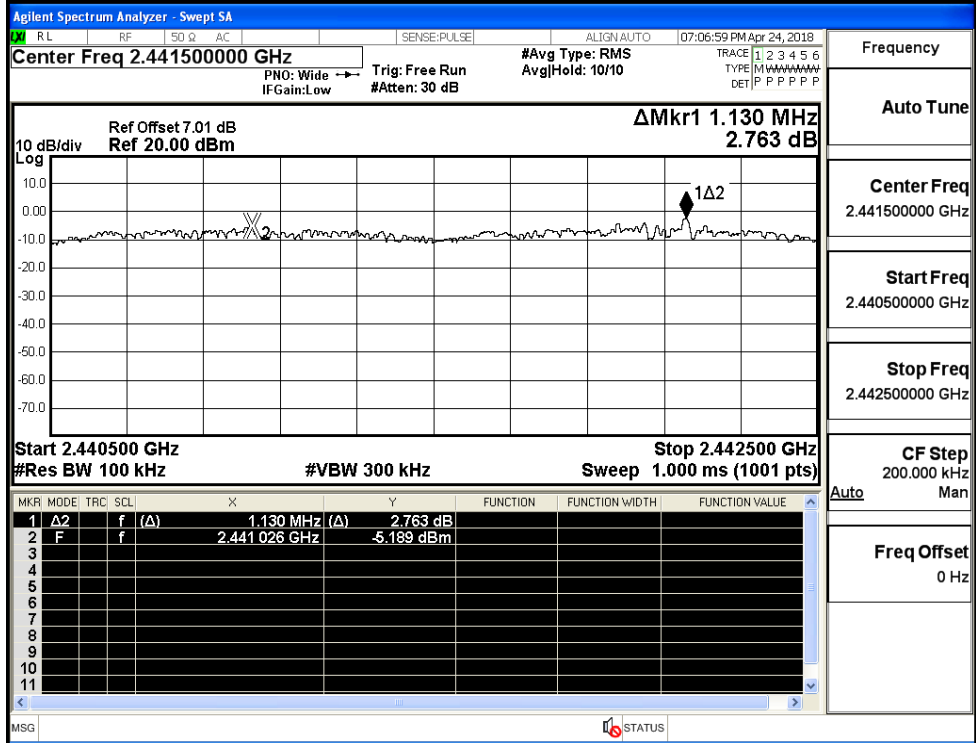
GFSK/HCH



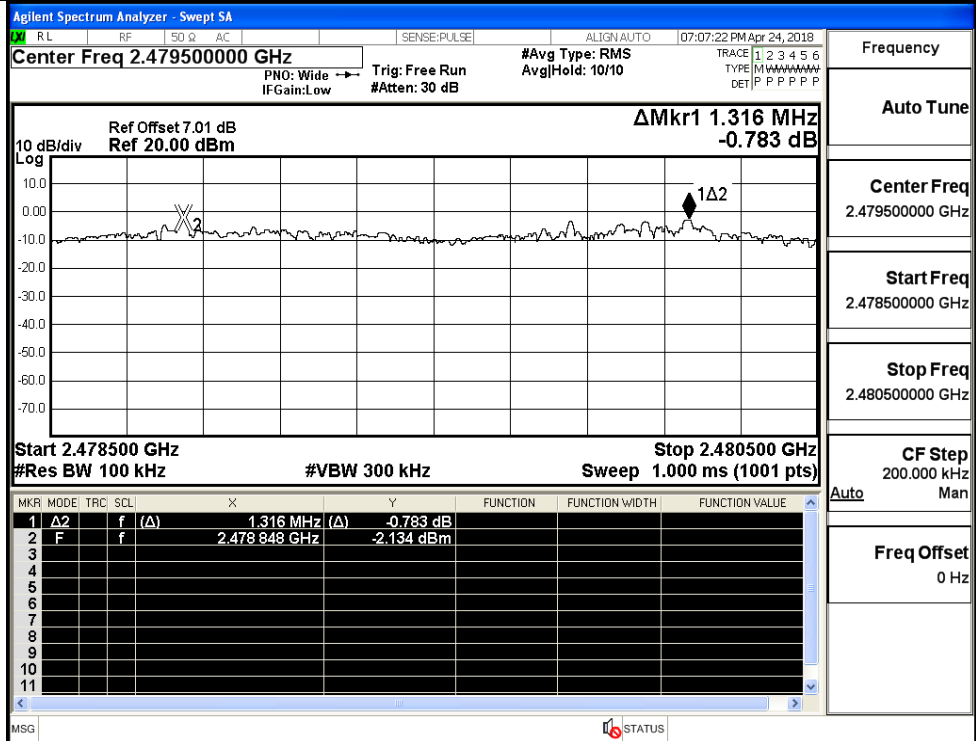
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH



π/4DQPSK/HCH



Frequency

Auto Tune

Center Freq
2.479500000 GHz

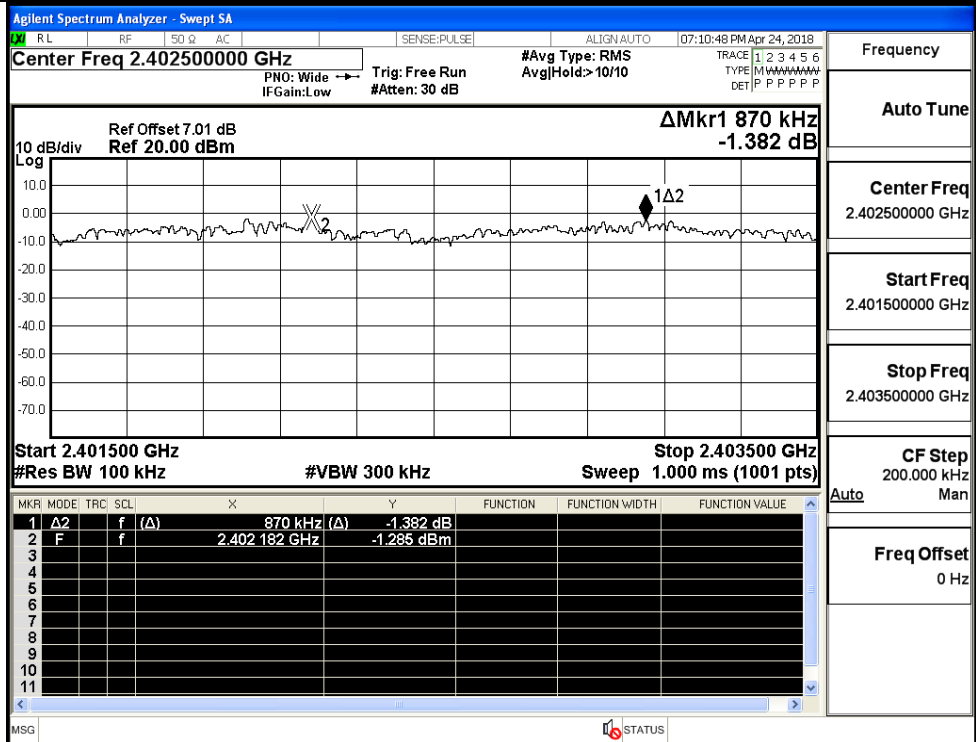
Start Freq
2.478500000 GHz

Stop Freq
2.480500000 GHz

CF Step
200.000 kHz

Freq Offset
0 Hz

8DPSK/LCH



Frequency

Auto Tune

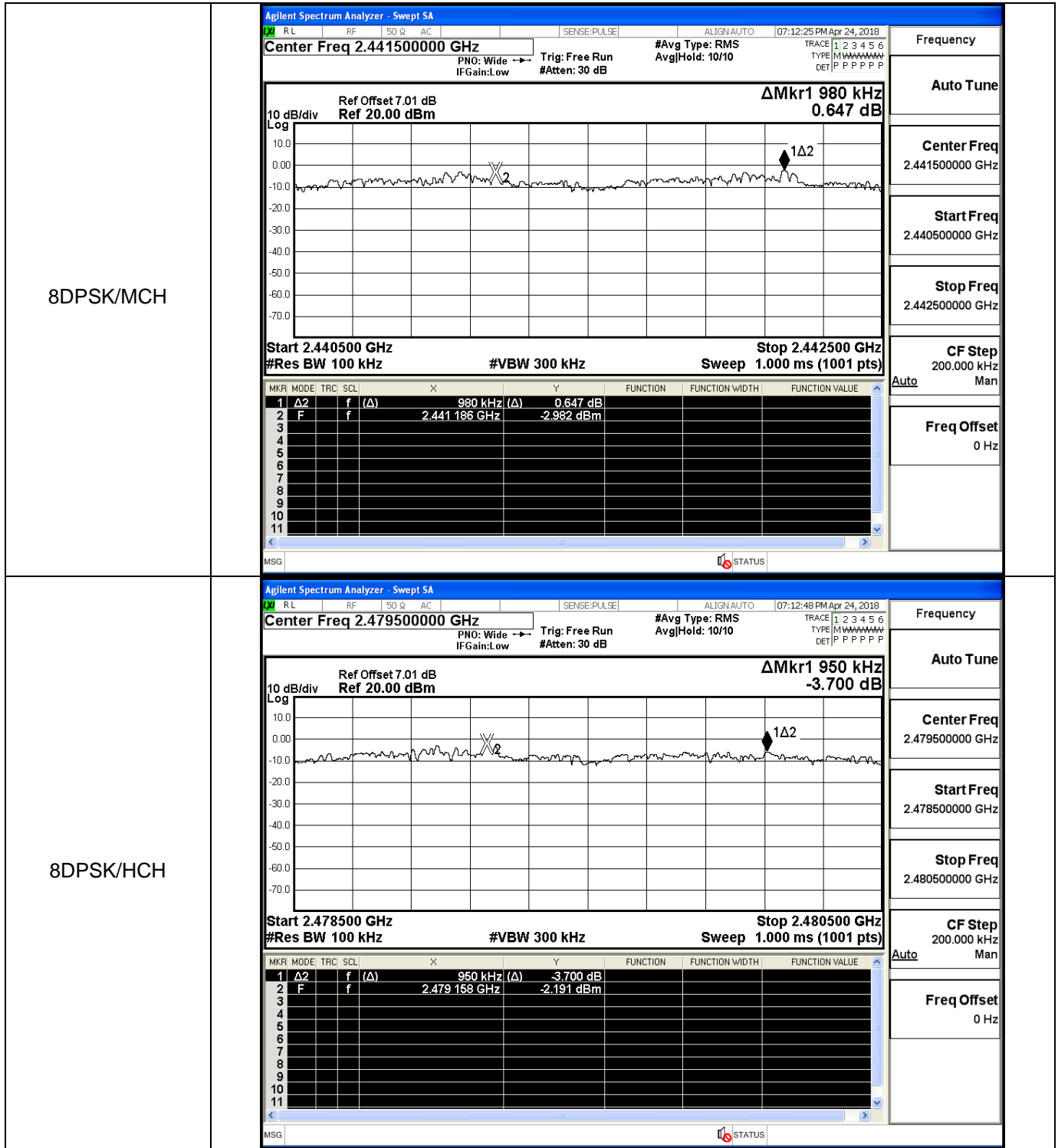
Center Freq
2.402500000 GHz

Start Freq
2.401500000 GHz

Stop Freq
2.403500000 GHz

CF Step
200.000 kHz

Freq Offset
0 Hz

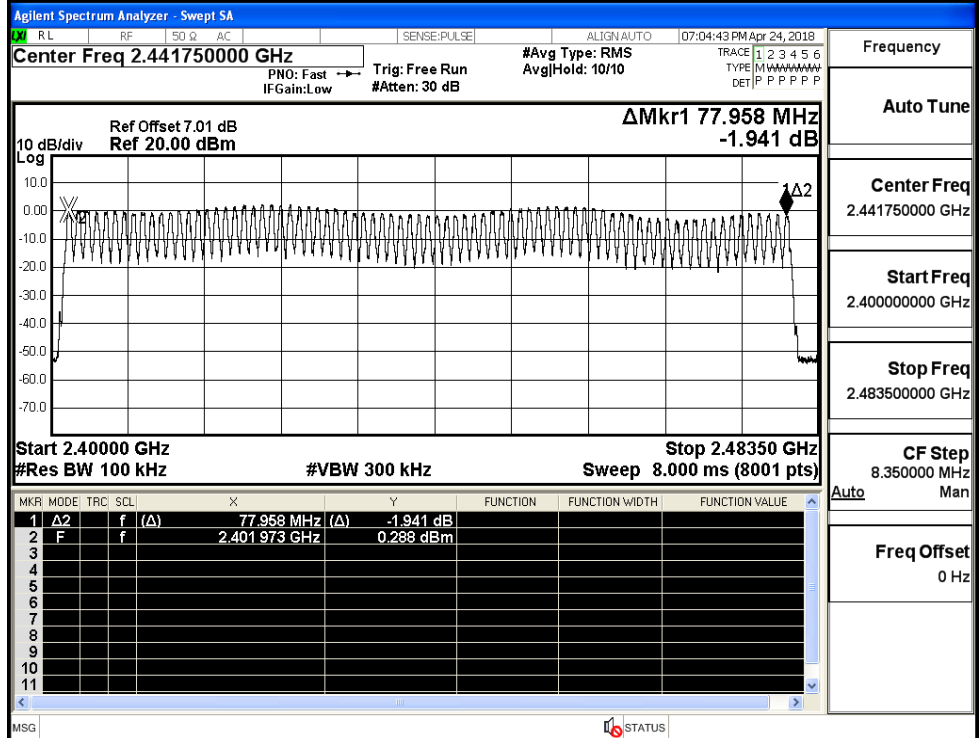


A.4 Hopping Channel Number

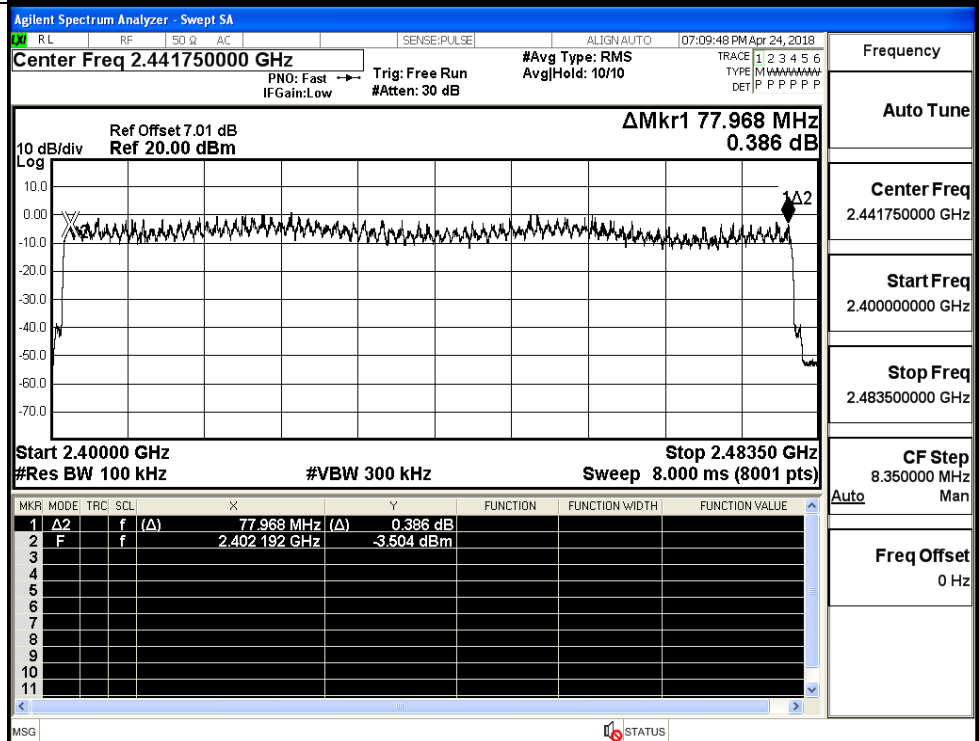
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
π/4DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

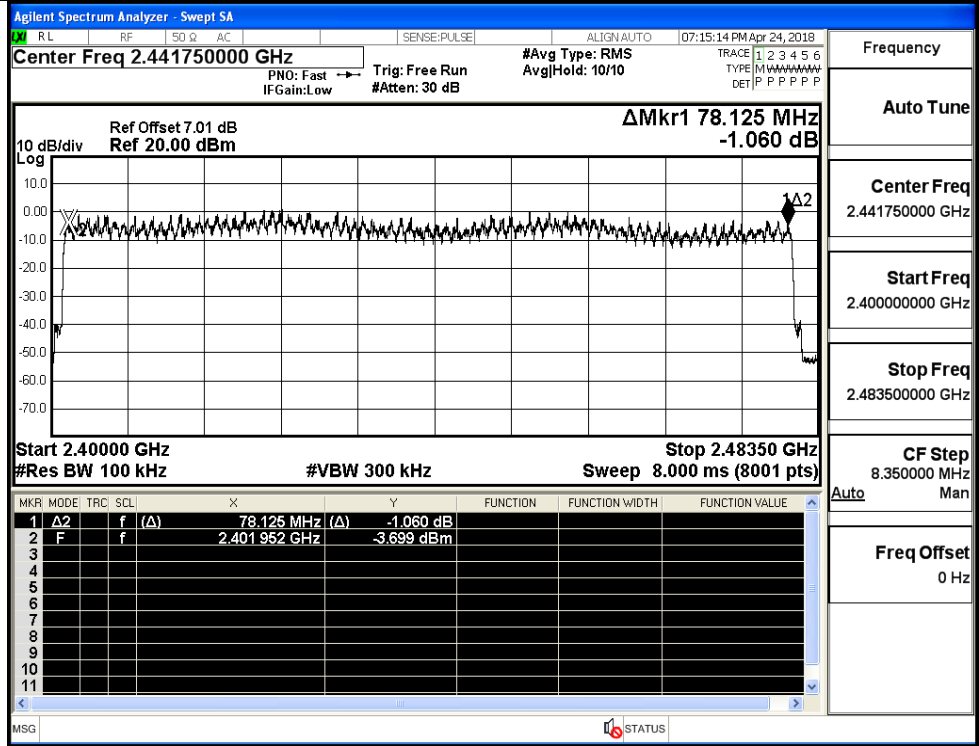
GFSK/Hop



π/4DQPSK/Hop

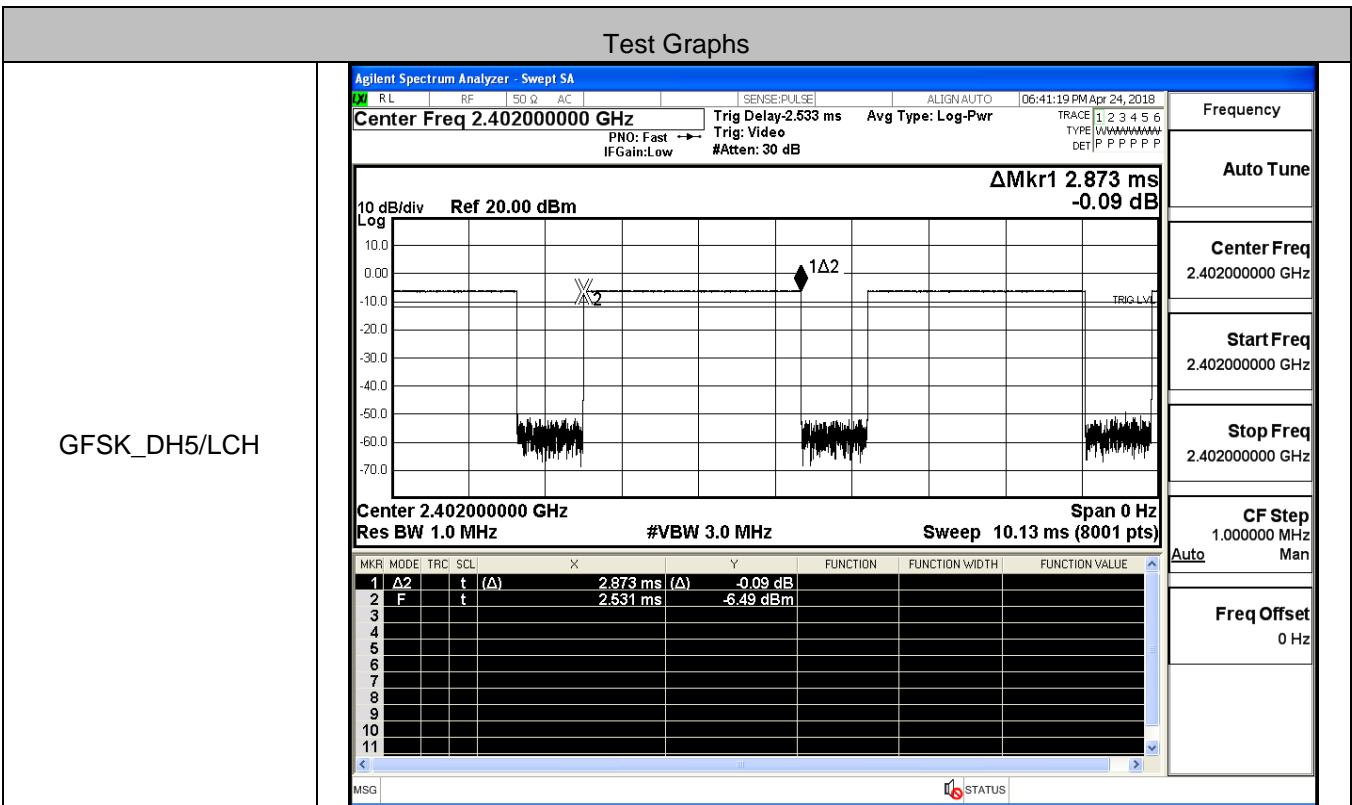


8DPSK/Hop

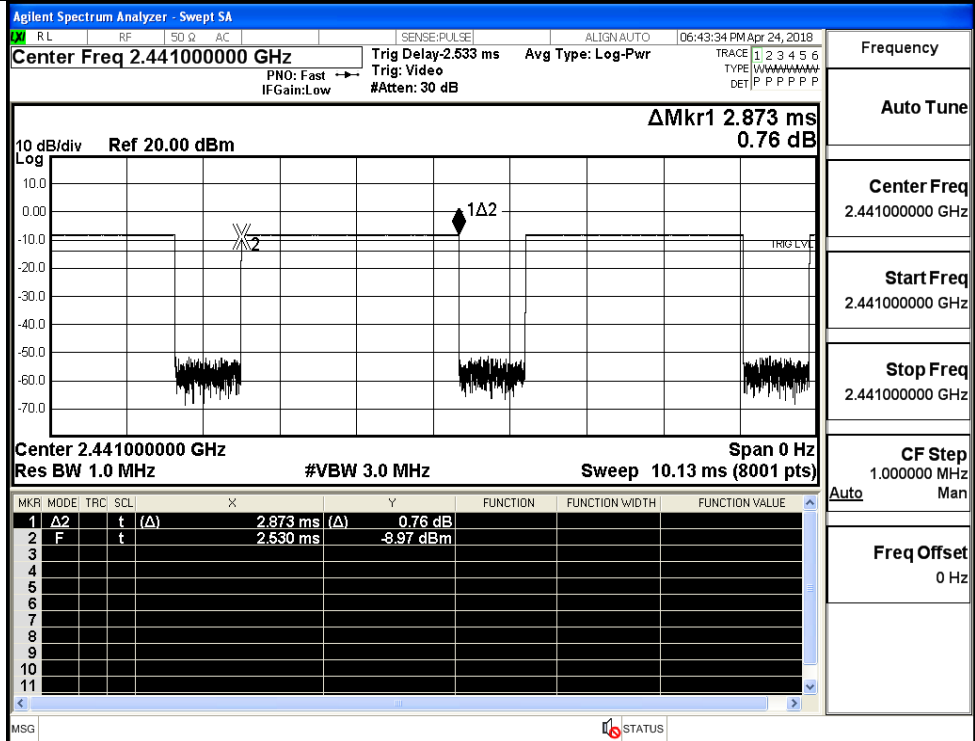


A.5 Dwell Time

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.87	106.7	0.306	0.4	PASS
	DH5	MCH	2.87	106.7	0.306	0.4	PASS
	DH5	HCH	2.87	106.7	0.306	0.4	PASS
π/4DQPSK	2DH5	LCH	2.87	106.7	0.307	0.4	PASS
	2DH5	MCH	2.87	106.7	0.307	0.4	PASS
	2DH5	HCH	2.87	106.7	0.307	0.4	PASS
8DPSK	3DH5	LCH	2.87	106.7	0.307	0.4	PASS
	3DH5	MCH	2.87	106.7	0.307	0.4	PASS
	3DH5	HCH	2.87	106.7	0.307	0.4	PASS

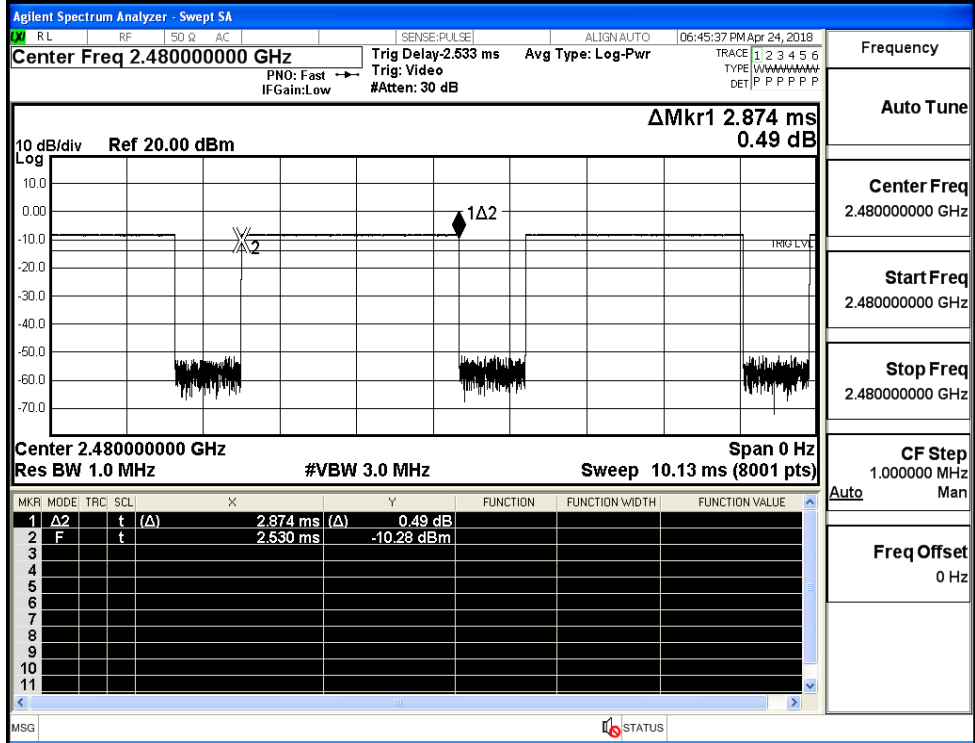


GFSK_DH5/MCH



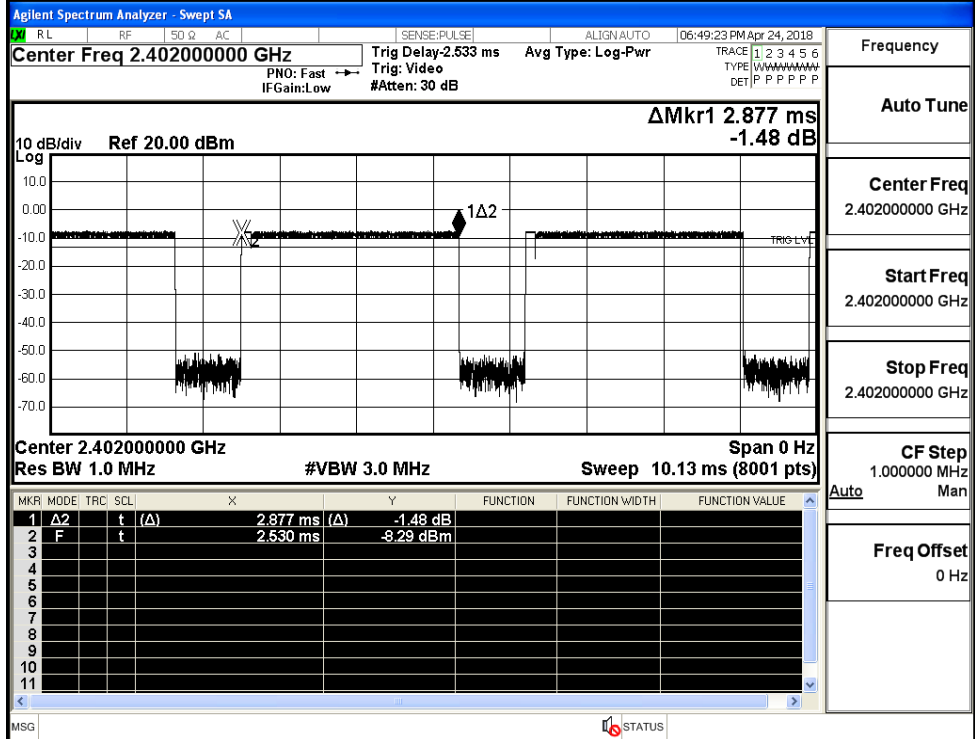
Frequency	
Auto Tune	
Center Freq	2.441000000 GHz
Start Freq	2.441000000 GHz
Stop Freq	2.441000000 GHz
CF Step	1.000000 MHz
Auto	Man
Freq Offset	0 Hz

GFSK_DH5/HCH

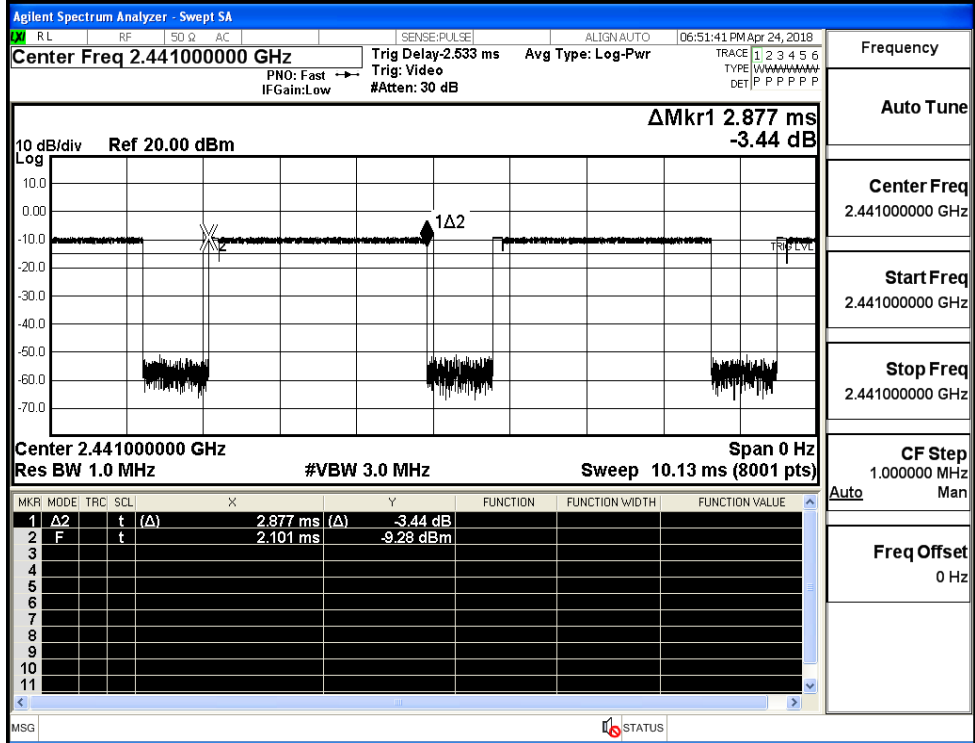


Frequency	
Auto Tune	
Center Freq	2.480000000 GHz
Start Freq	2.480000000 GHz
Stop Freq	2.480000000 GHz
CF Step	1.000000 MHz
Auto	Man
Freq Offset	0 Hz

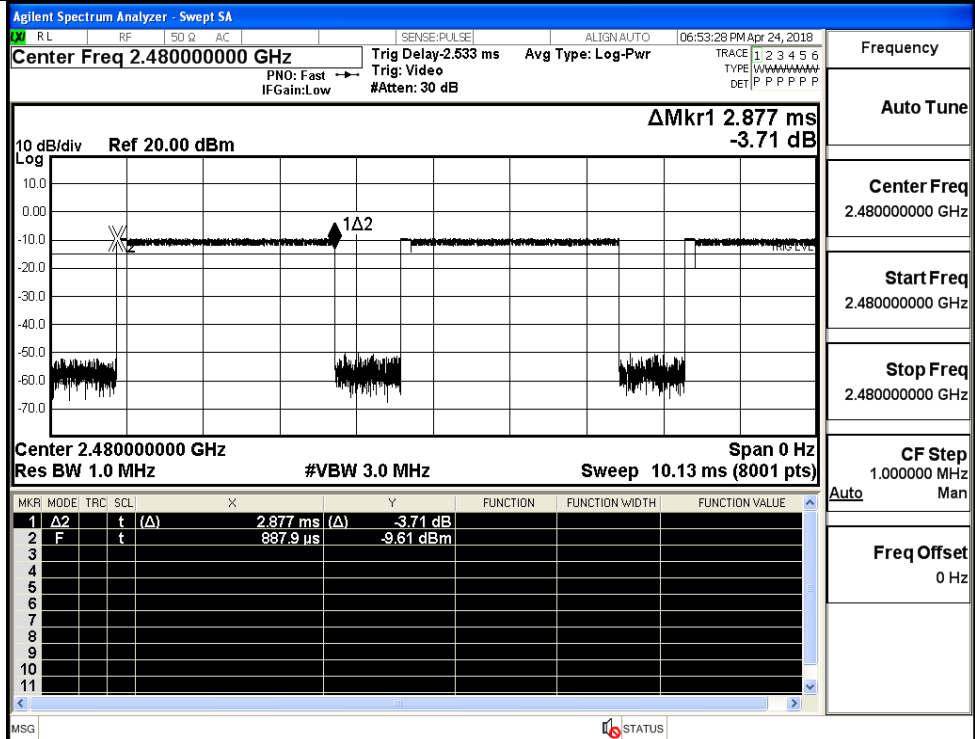
$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH

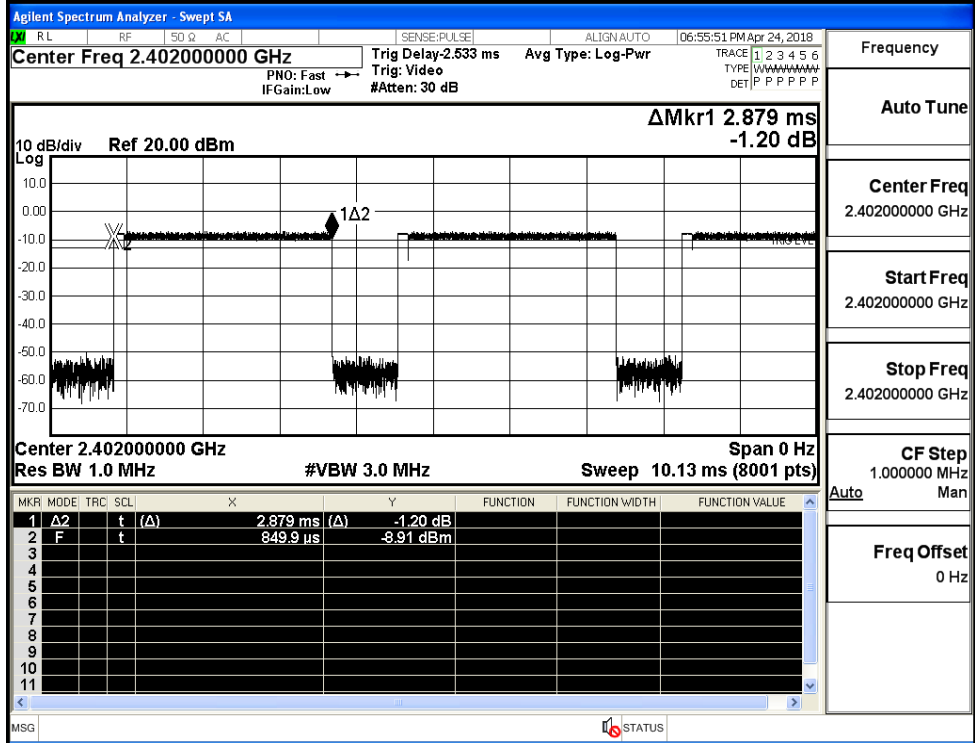


$\pi/4$ DQPSK
_2DH5/HCH



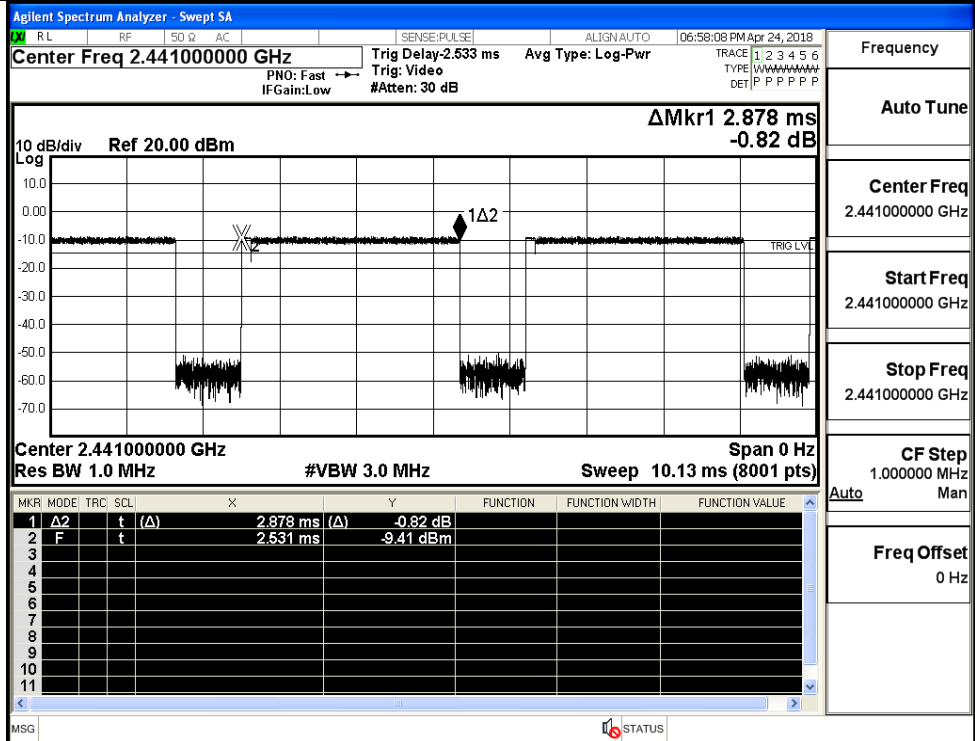
Frequency
 Auto Tune
 Center Freq 2.480000000 GHz
 Start Freq 2.480000000 GHz
 Stop Freq 2.480000000 GHz
 CF Step 1.000000 MHz
 Auto Man
 Freq Offset 0 Hz

8DPSK_3DH5/LCH

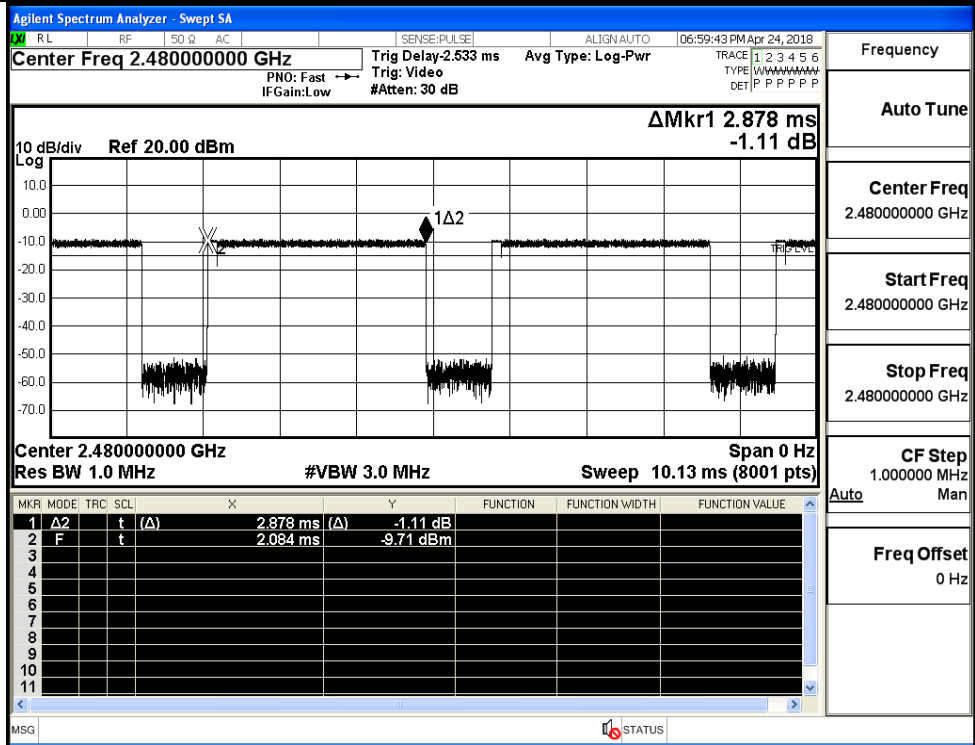


Frequency
 Auto Tune
 Center Freq 2.402000000 GHz
 Start Freq 2.402000000 GHz
 Stop Freq 2.402000000 GHz
 CF Step 1.000000 MHz
 Auto Man
 Freq Offset 0 Hz

8DPSK_3DH5/MCH



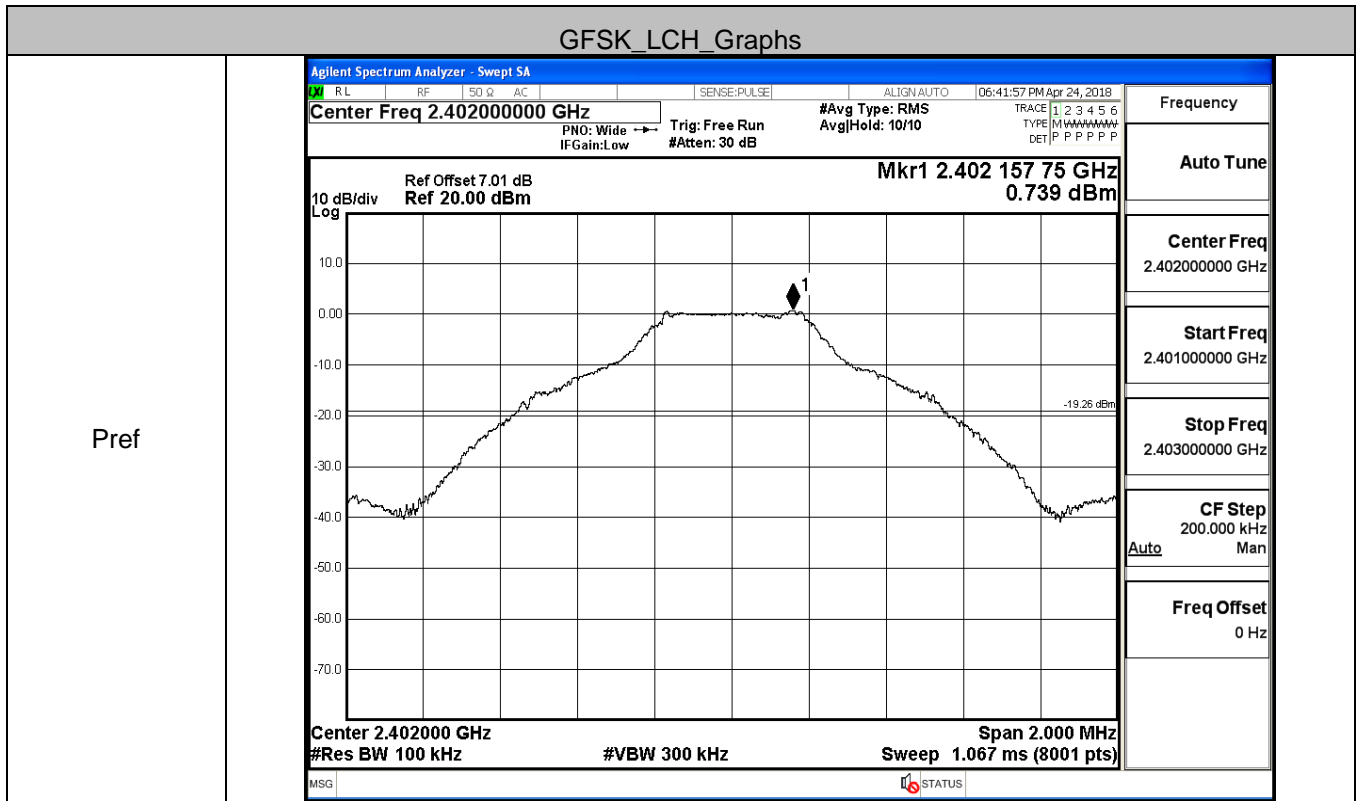
8DPSK_3DH5/HCH

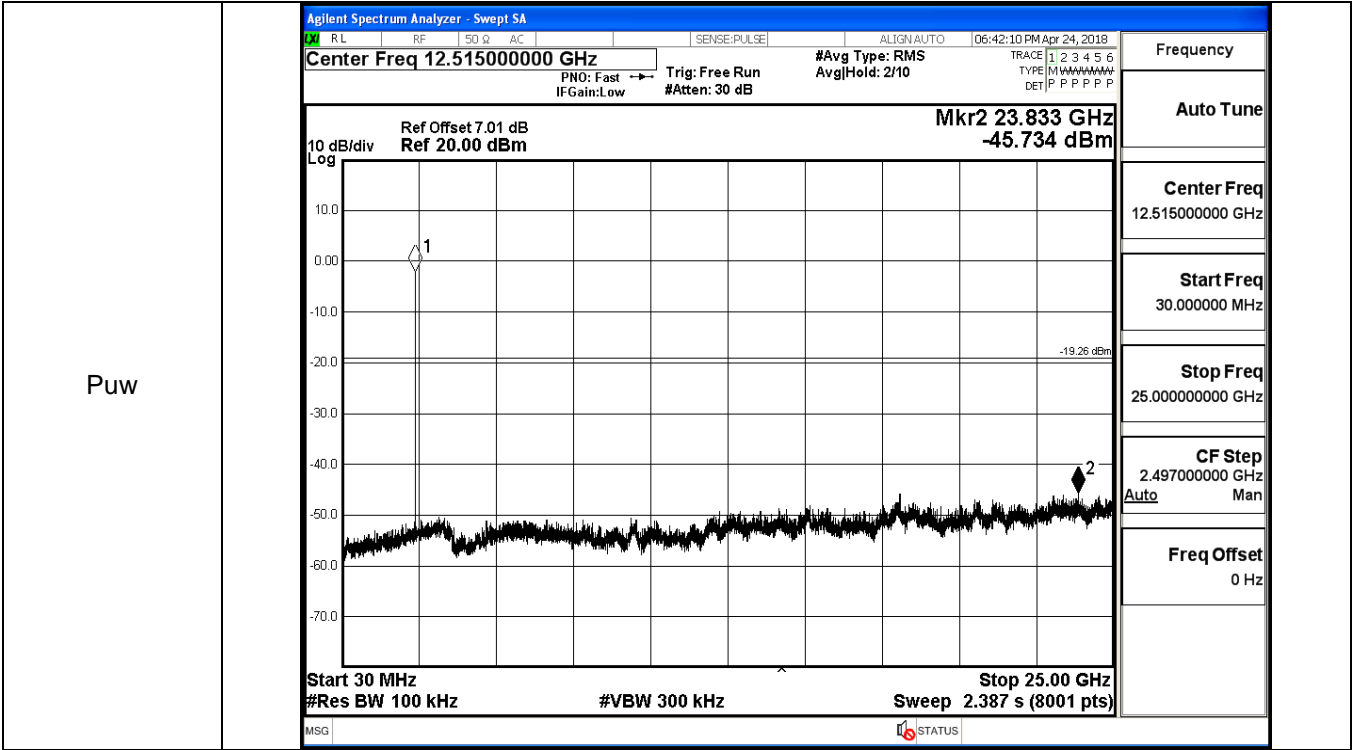


A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.739	-45.734	-19.261	PASS
	MCH	-1.134	-44.865	-21.134	PASS
	HCH	-1.669	-45.416	-21.669	PASS
π /4DQPSK	LCH	-0.866	-45.698	-20.866	PASS
	MCH	-2.377	-46.407	-22.377	PASS
	HCH	-2.603	-45.462	-22.603	PASS
8DPSK	LCH	-0.851	-45.710	-20.851	PASS
	MCH	-2.269	-45.535	-22.269	PASS
	HCH	-2.67	-45.367	-22.670	PASS

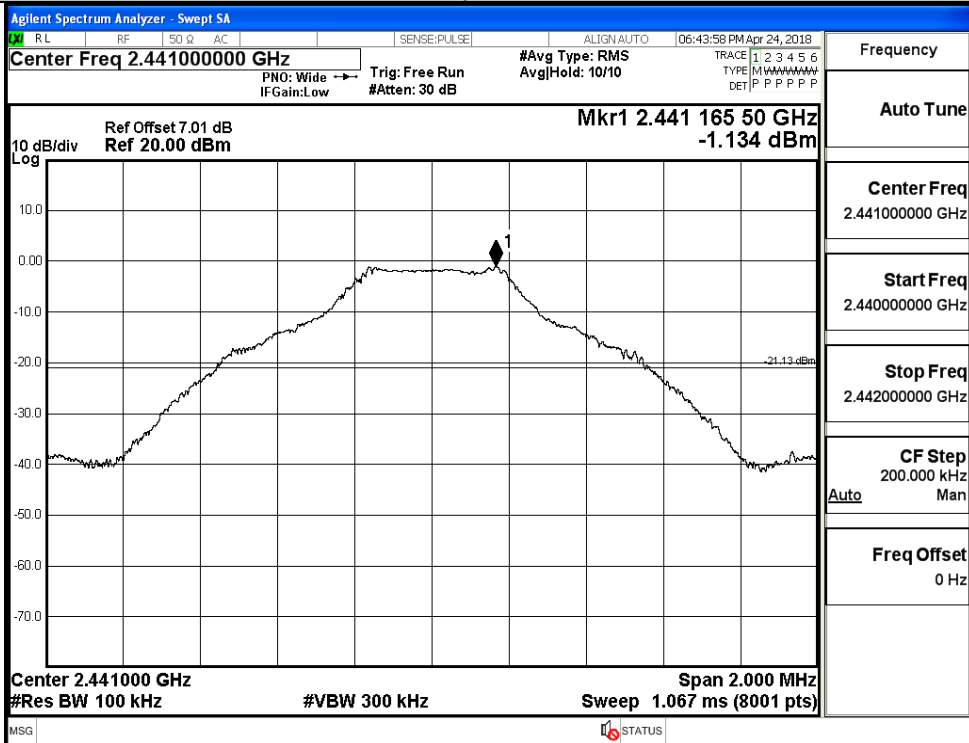
GFSK_LCH_Graphs



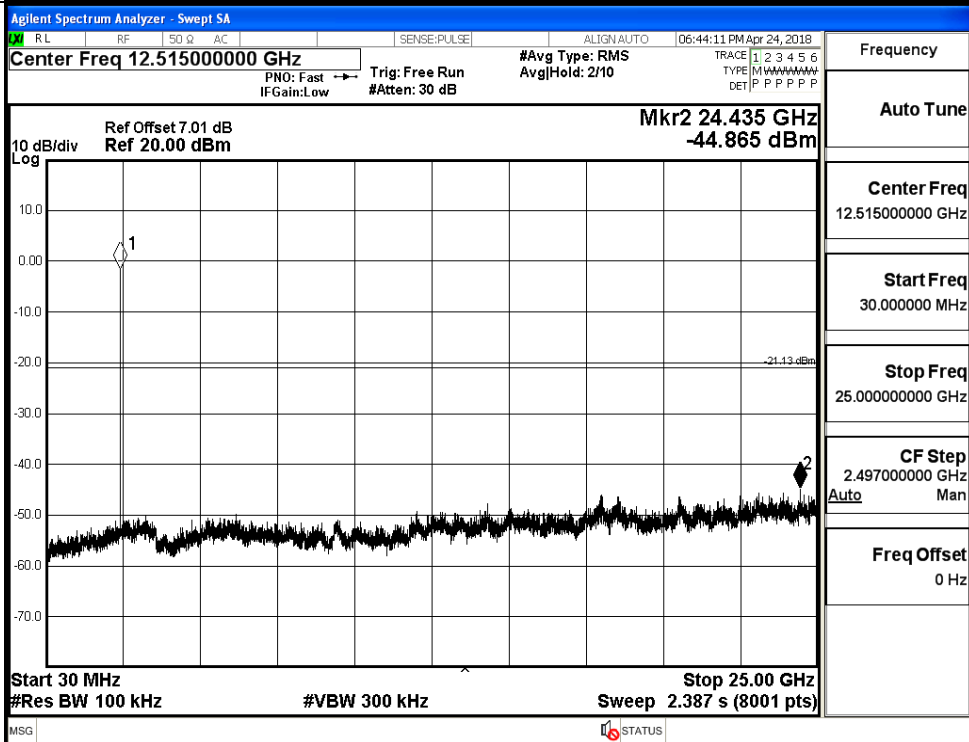


GFSK_MCH_Graphs

Pref

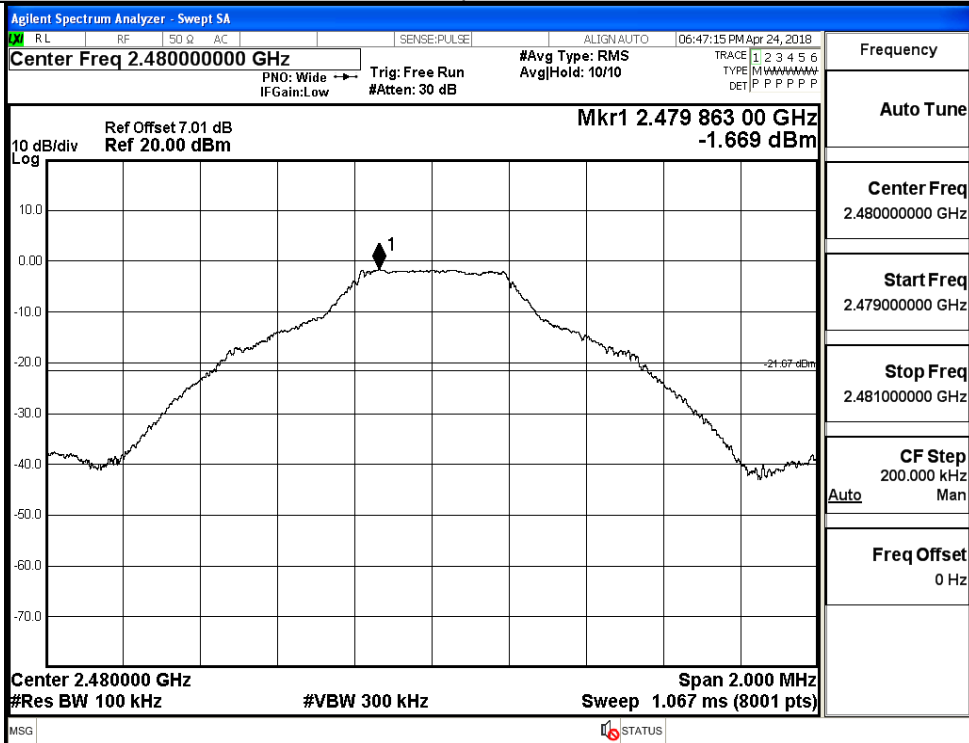


Puw

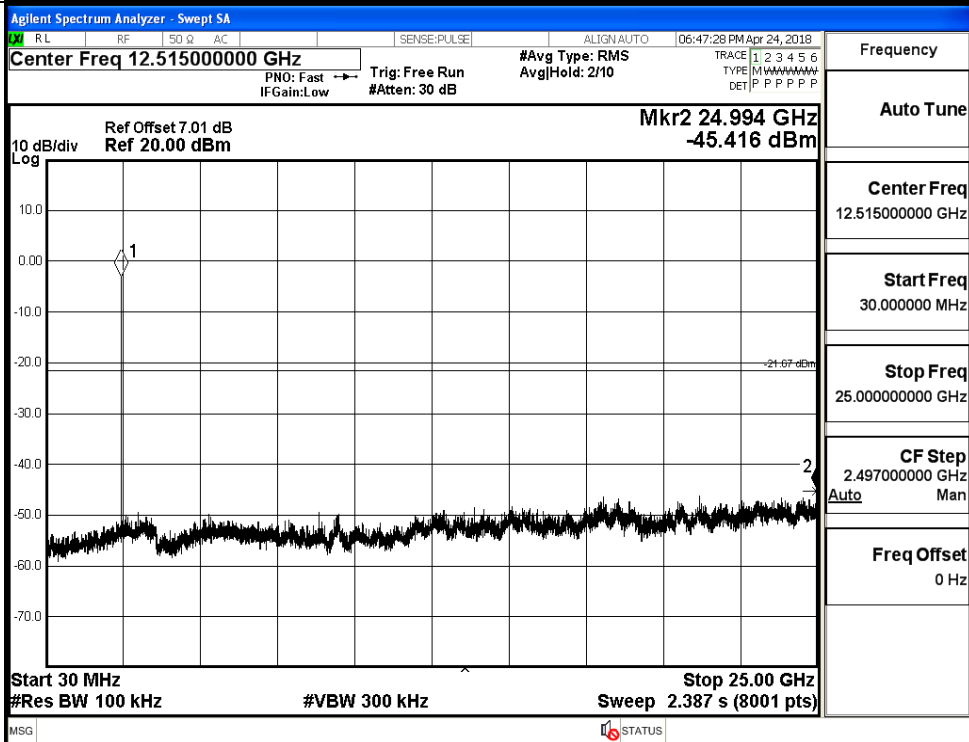


GFSK_HCH_Graphs

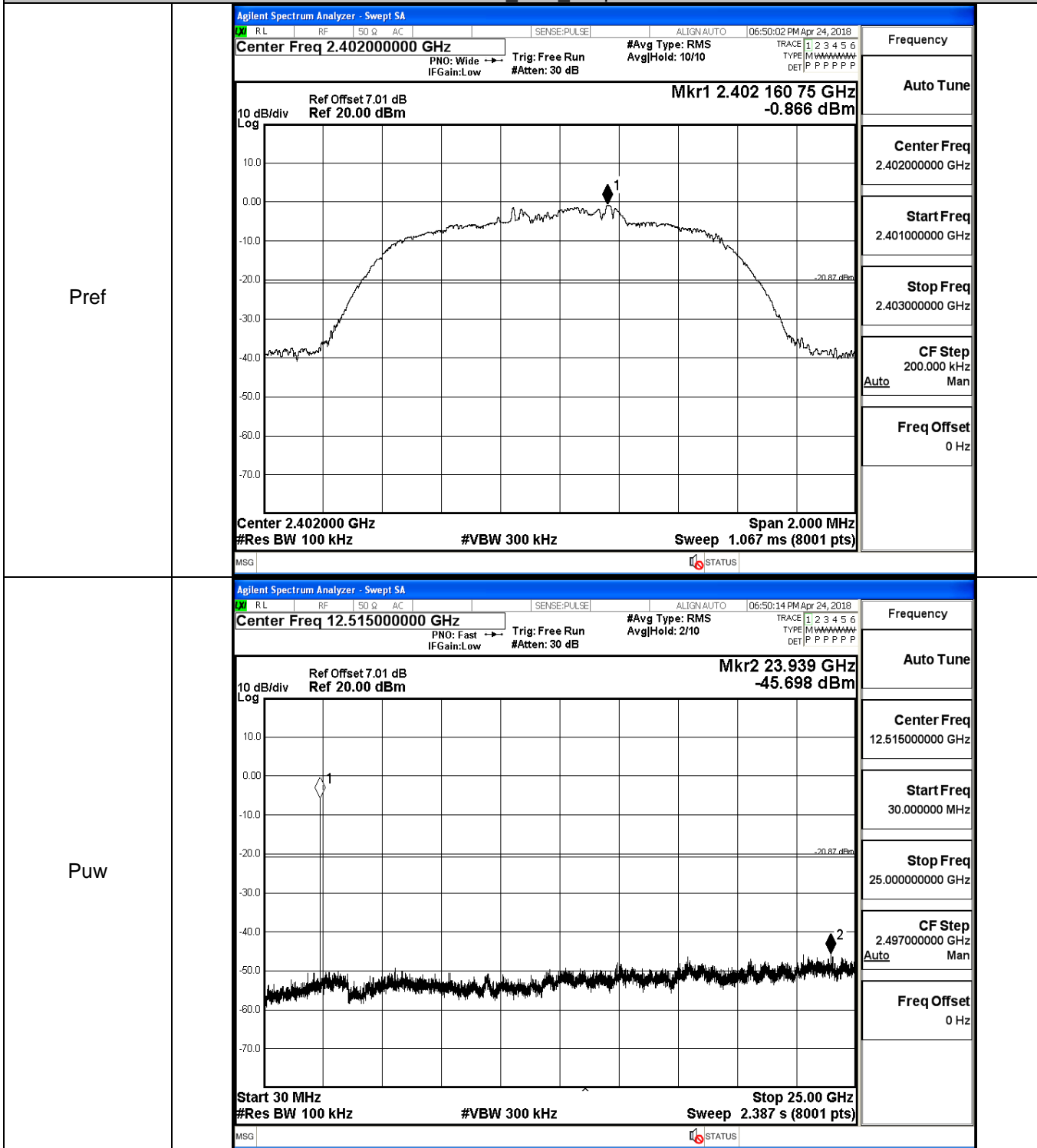
Pref



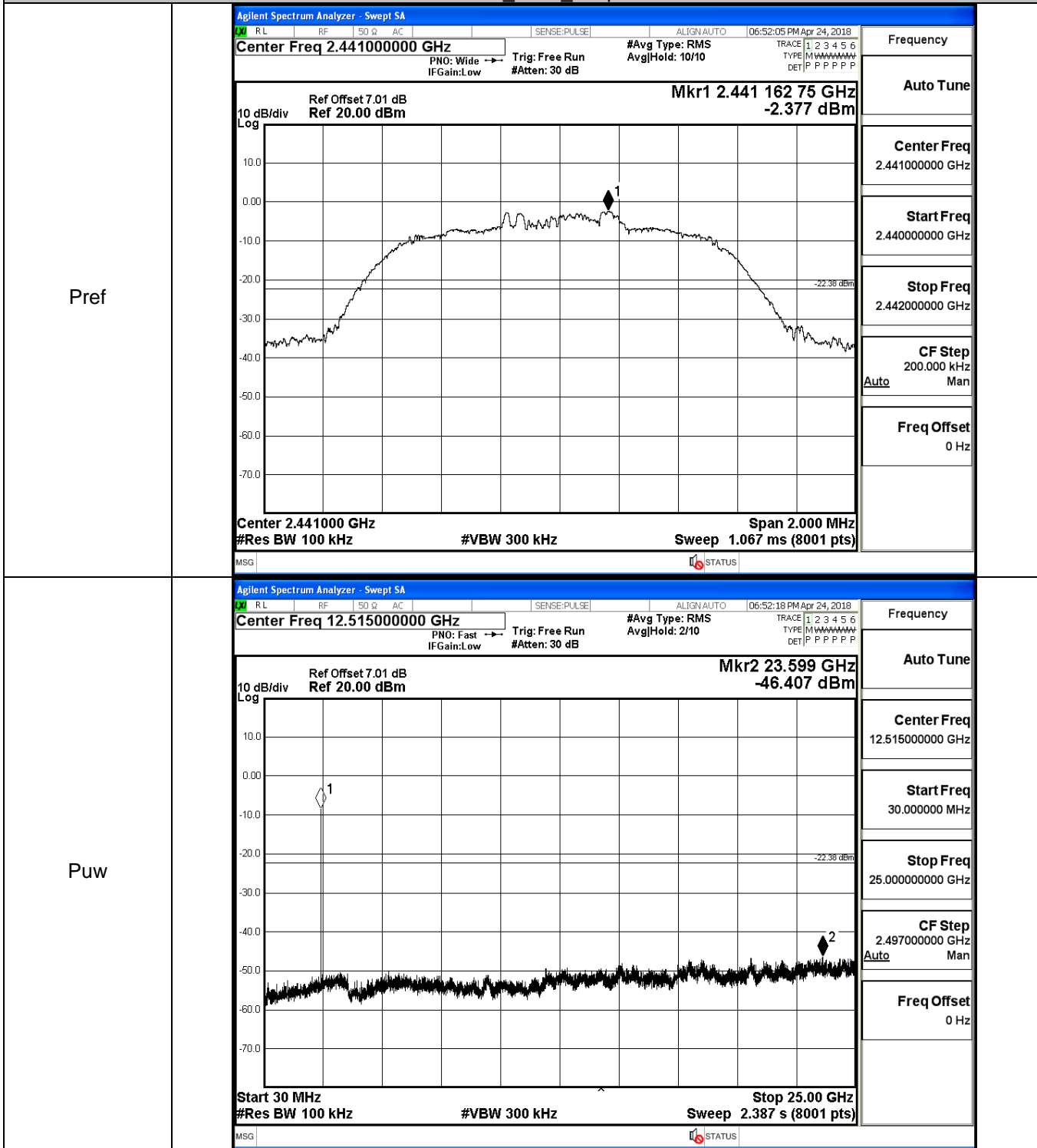
Puw



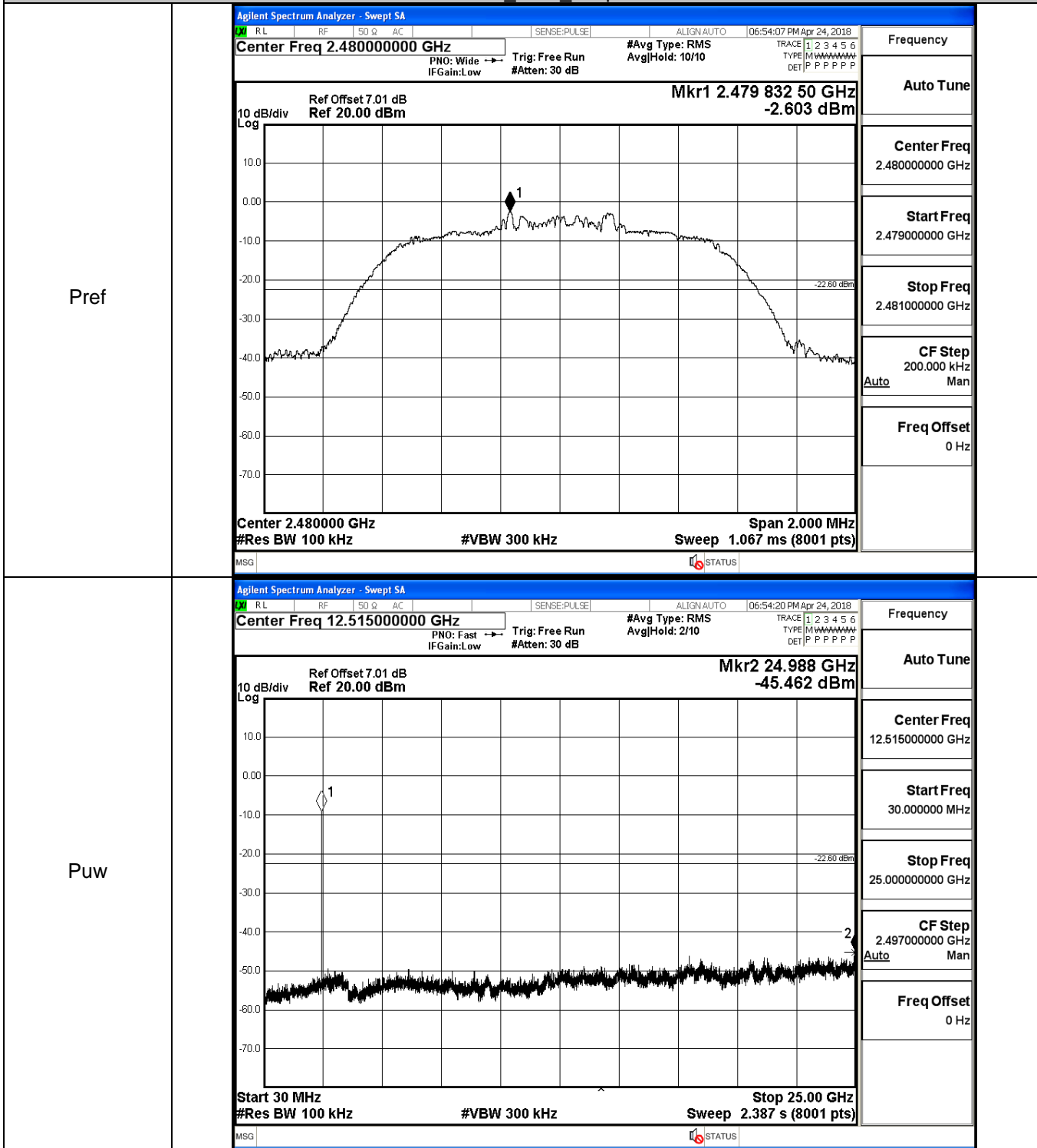
$\pi/4$ DQPSK_LCH_Graphs



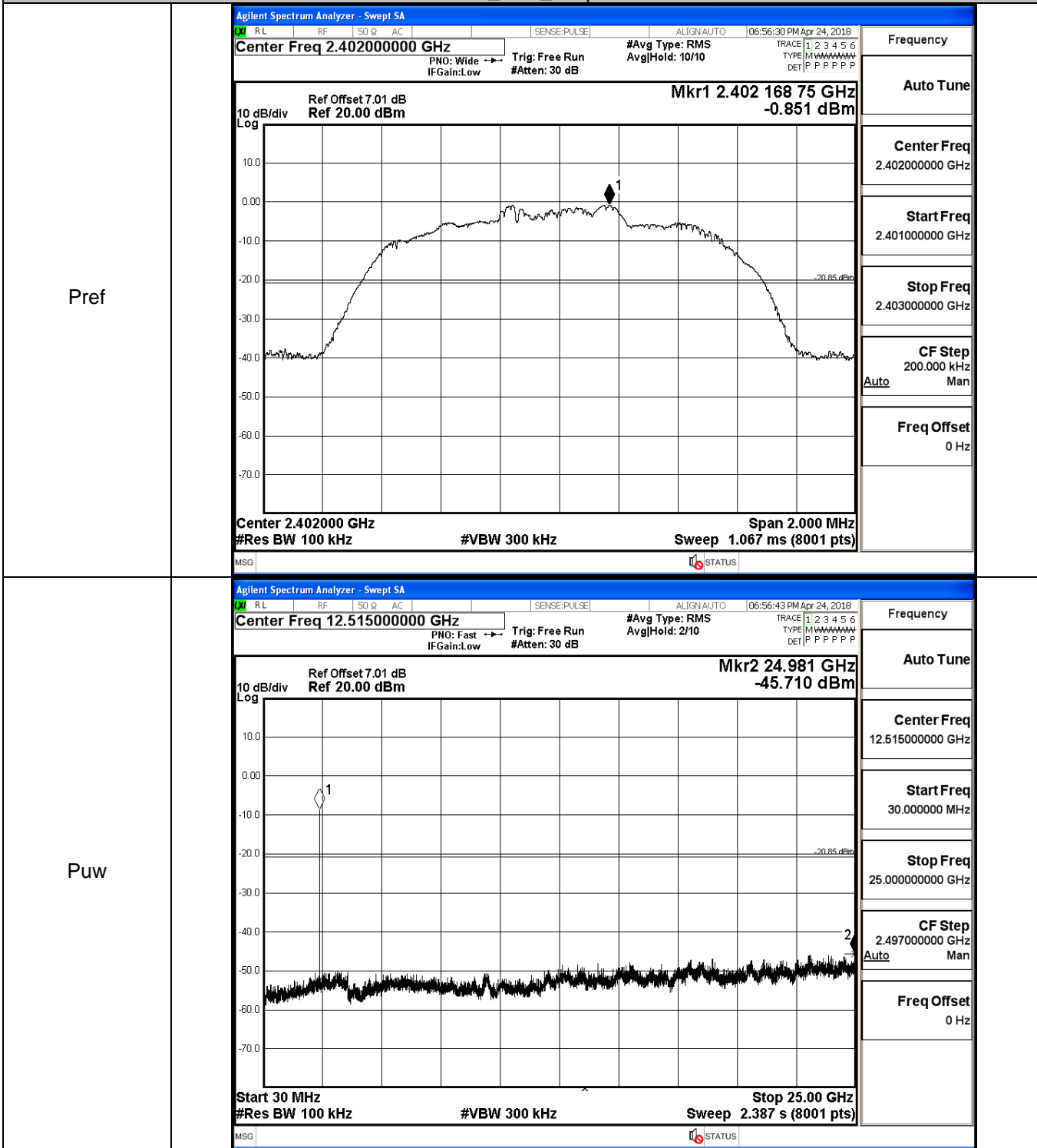
$\pi/4$ DQPSK_MCH_Graphs



$\pi/4$ DQPSK_HCH_Graphs

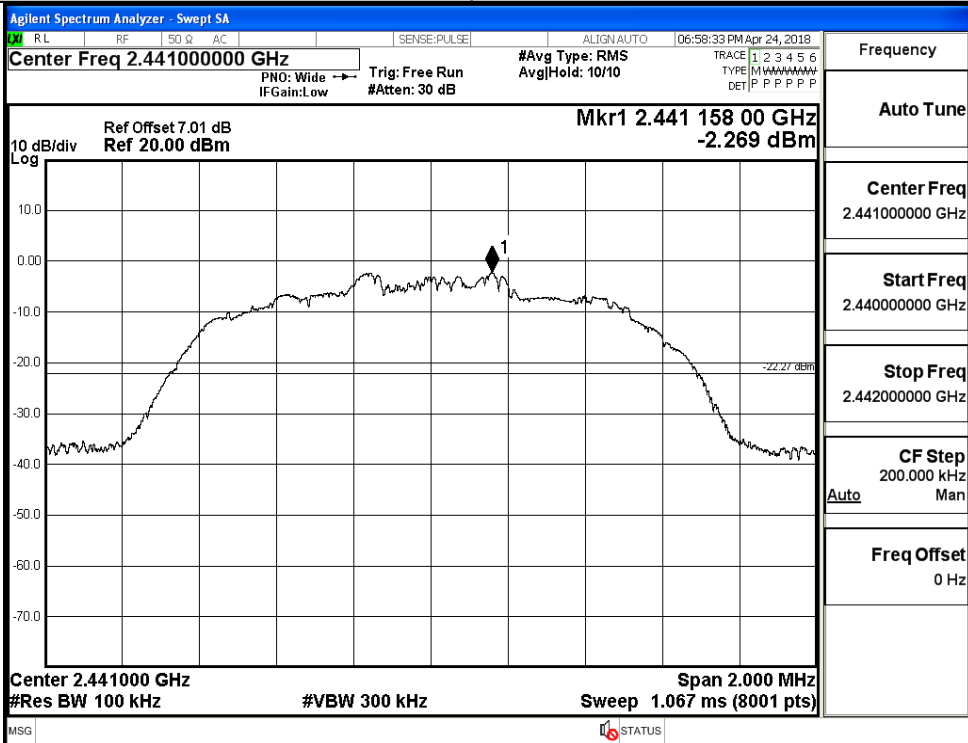


8DPSK_LCH_Graphs

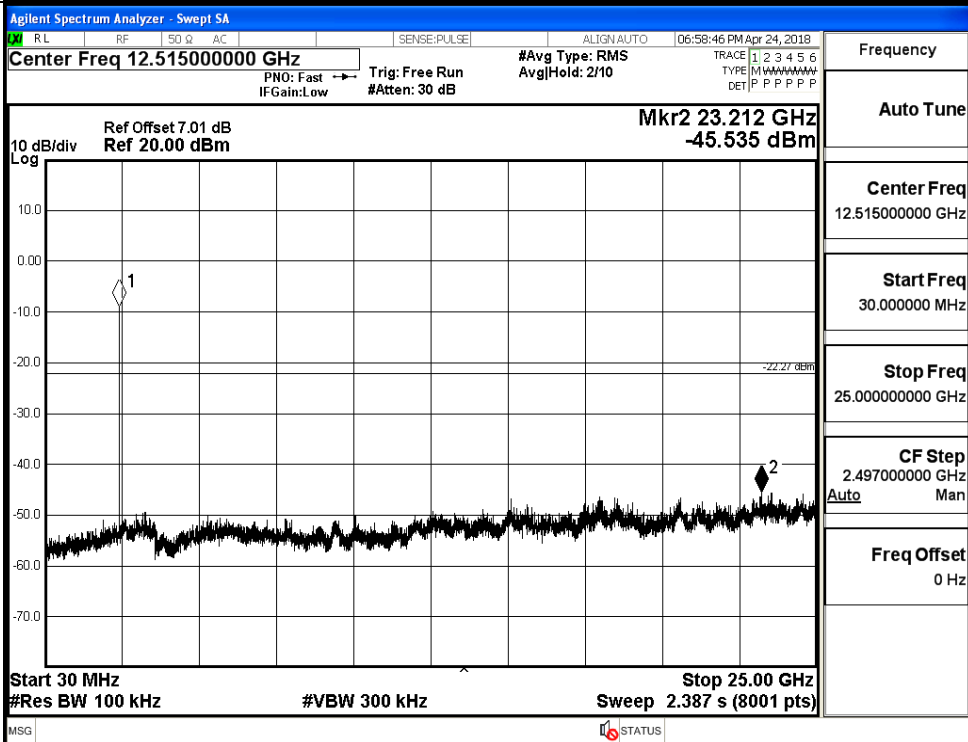


8DPSK_MCH_Graphs

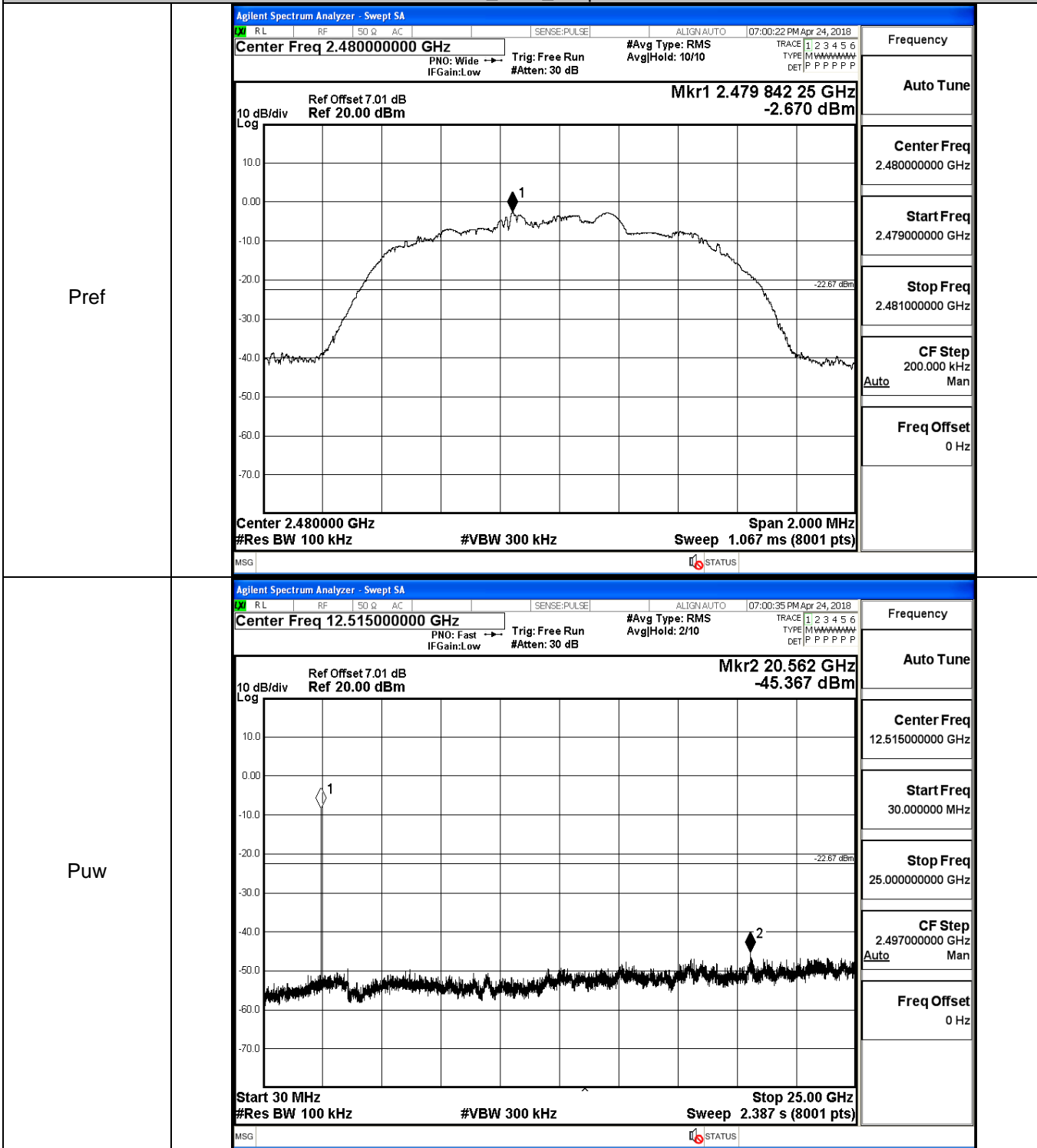
Pref



Puw



8DPSK_HCH_Graphs

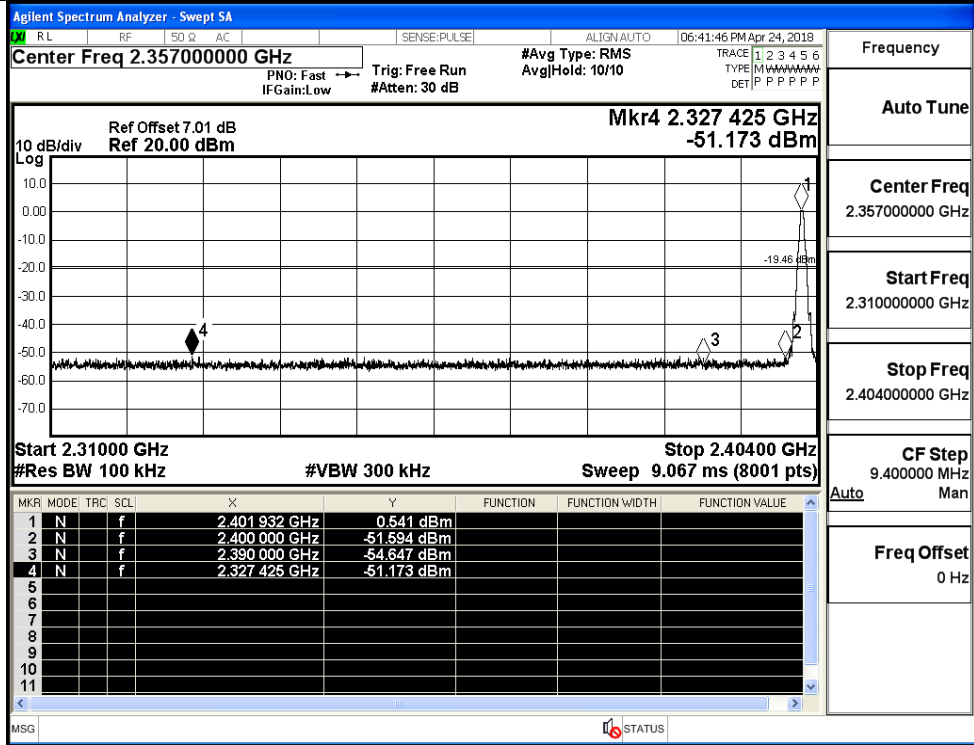


A.7 Band-edge for RF Conducted Emissions

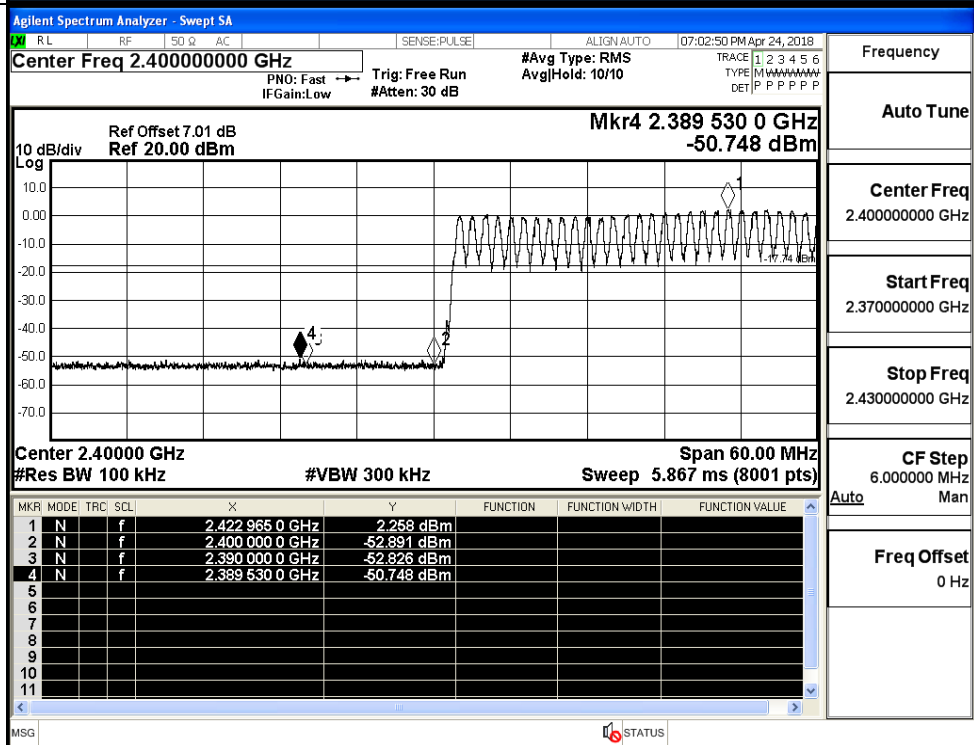
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	0.541	Off	-51.173	-19.46	PASS
			2.258	On	-50.748	-17.74	PASS
	HCH	2480	-1.038	Off	-51.807	-21.04	PASS
			1.995	On	-49.819	-18.01	PASS
$\pi/4$ DQPSK	LCH	2402	-0.661	Off	-51.033	-20.66	PASS
			0.685	On	-50.445	-19.32	PASS
	HCH	2480	-2.403	Off	-50.838	-22.4	PASS
			0.308	On	-50.831	-19.69	PASS
8DPSK	LCH	2402	-0.744	Off	-50.785	-20.74	PASS
			0.915	On	-50.117	-19.09	PASS
	HCH	2480	-2.788	Off	-51.020	-22.79	PASS
			0.069	On	-50.369	-19.93	PASS

Test Graphs

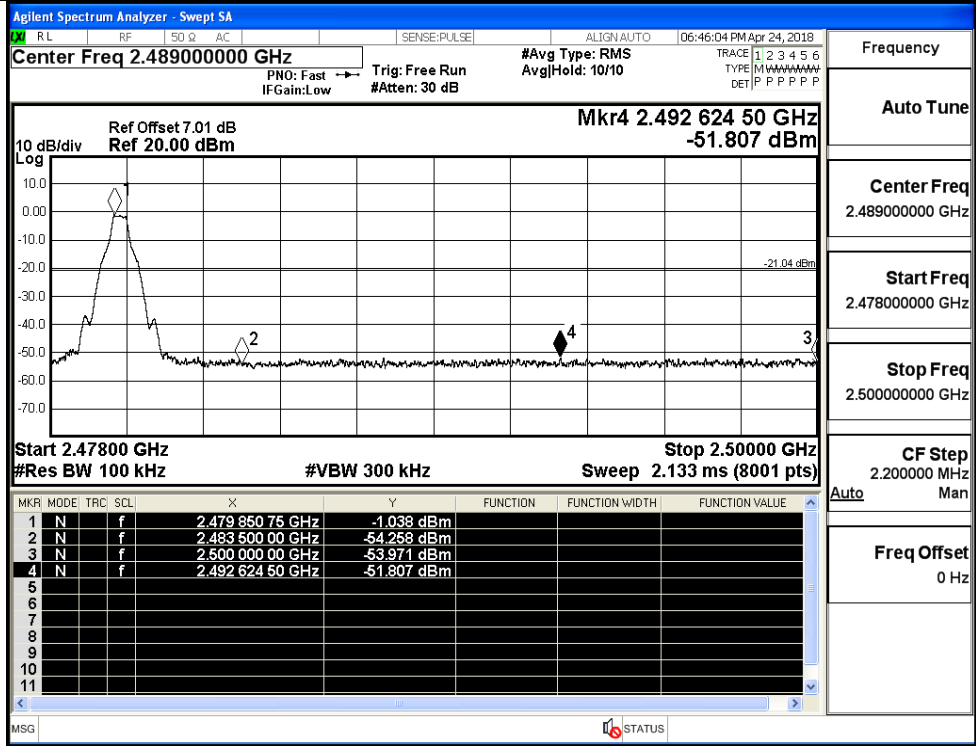
GFSK/LCH/No Hop



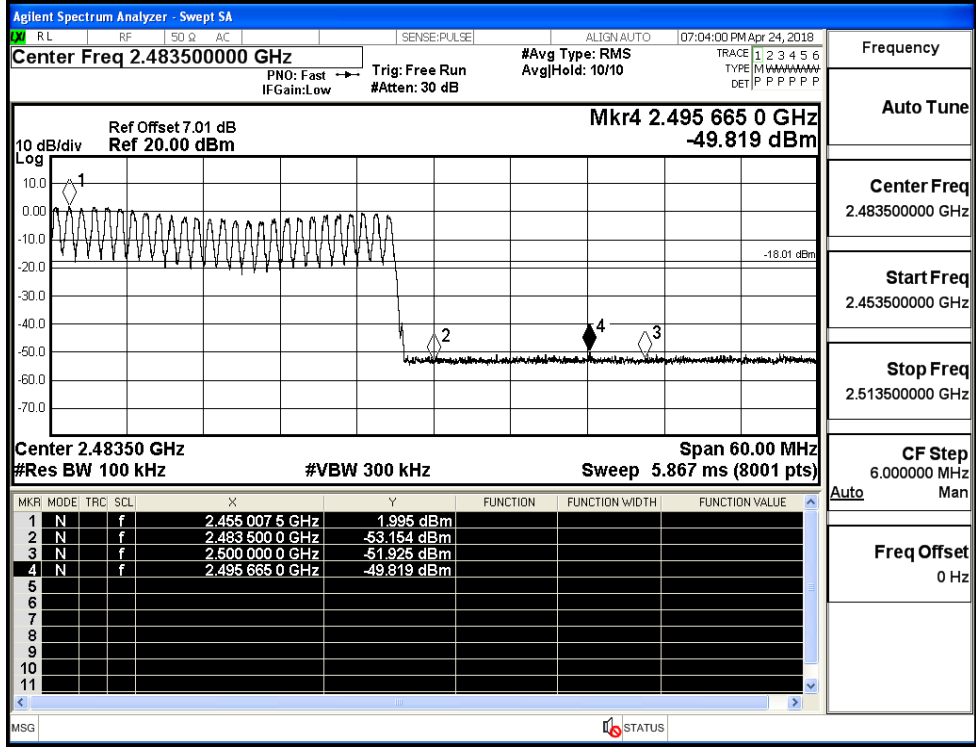
GFSK/LCH/Hop



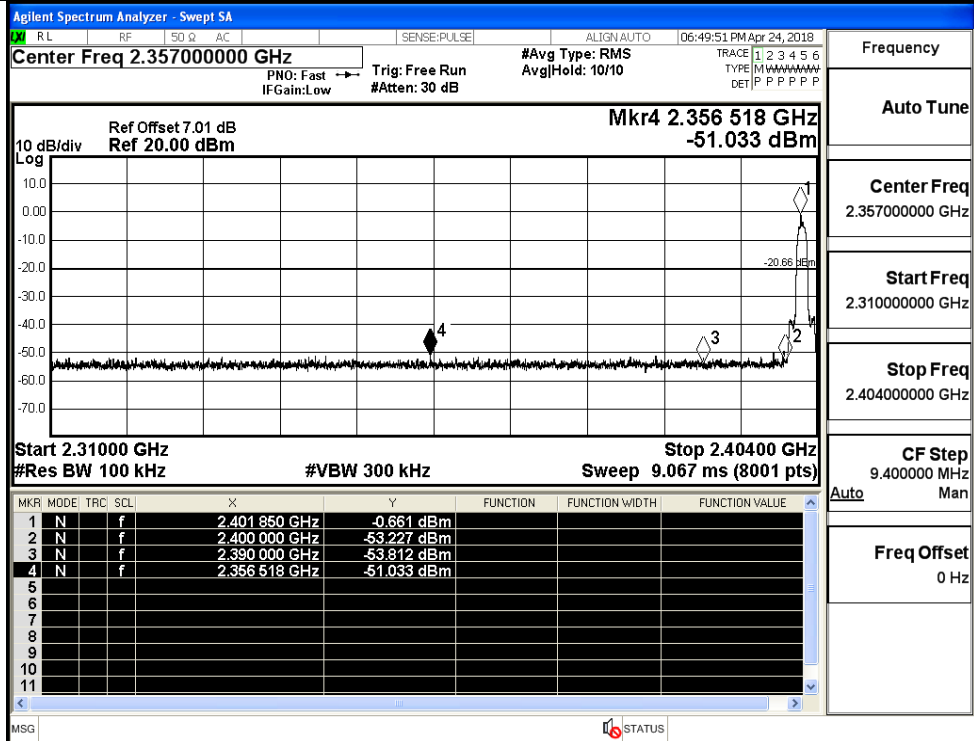
GFSK/HCH/No Hop



GFSK/HCH/Hop

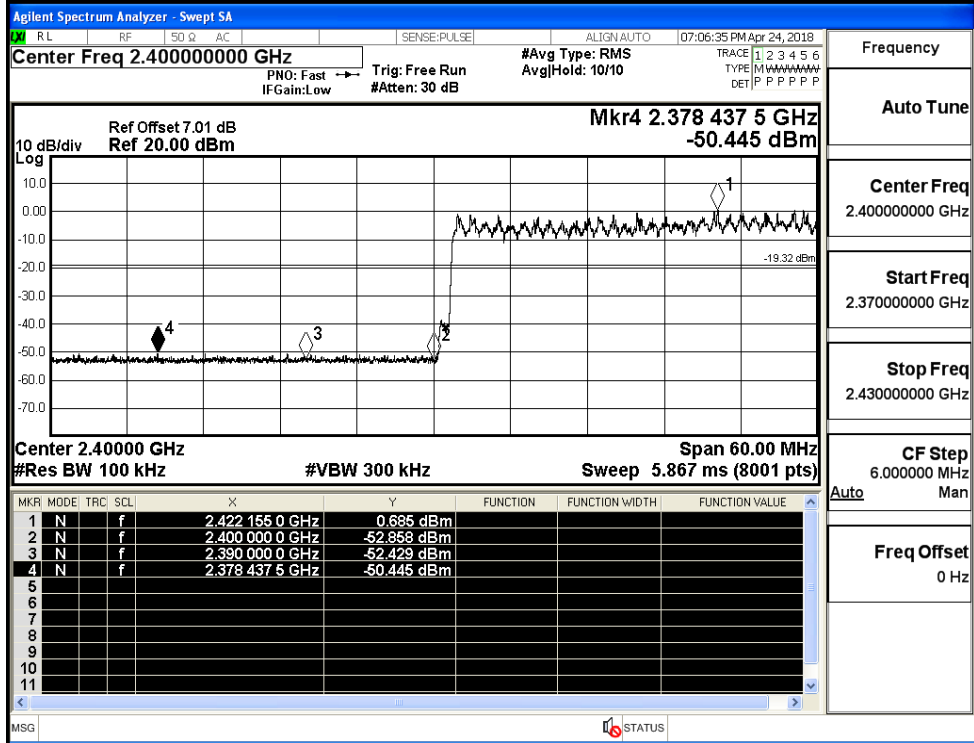


$\pi/4$ DQPSK/LCH/No
Hop



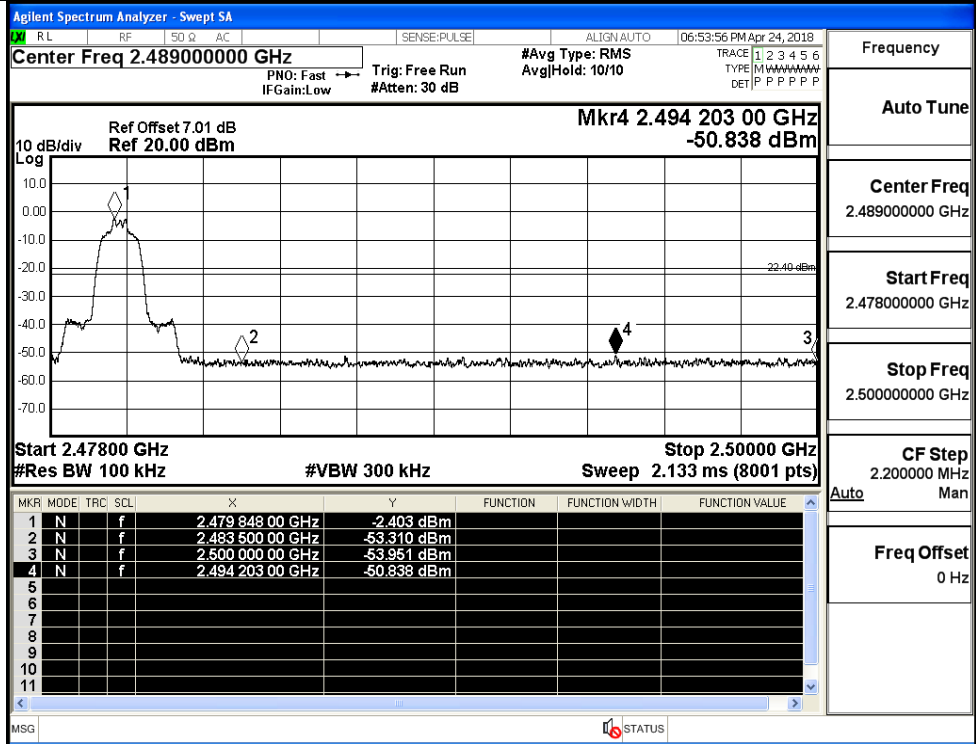
Frequency	
Auto Tune	
Center Freq	2.357000000 GHz
Start Freq	2.310000000 GHz
Stop Freq	2.404000000 GHz
CF Step	9.400000 MHz
Freq Offset	0 Hz

$\pi/4$ DQPSK/LCH/Hop

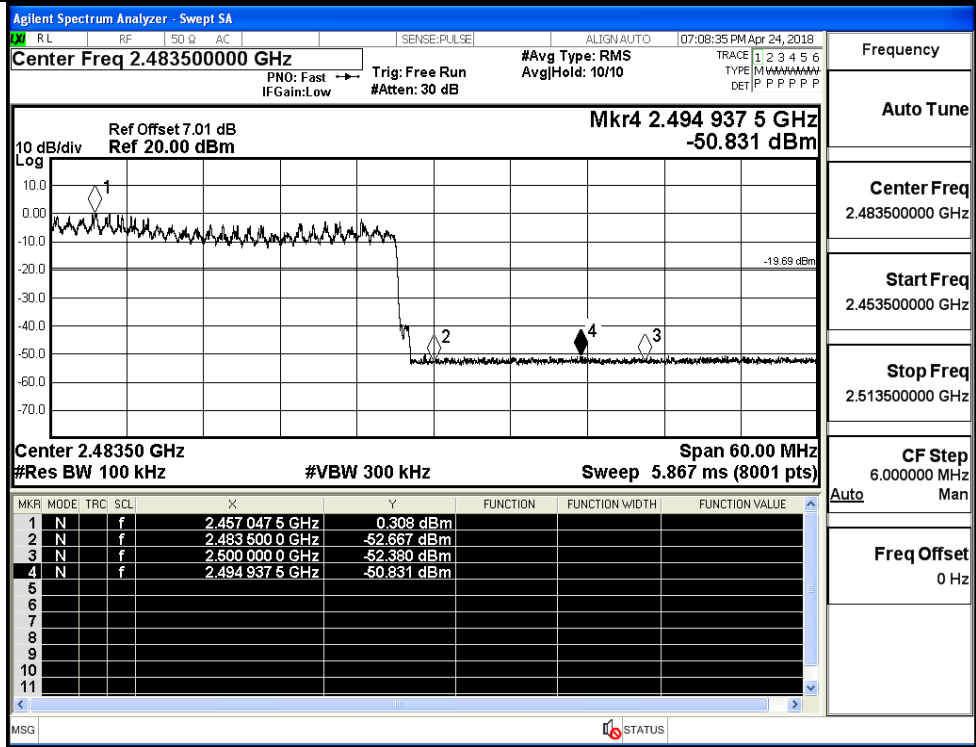


Frequency	
Auto Tune	
Center Freq	2.400000000 GHz
Start Freq	2.370000000 GHz
Stop Freq	2.430000000 GHz
CF Step	6.000000 MHz
Freq Offset	0 Hz

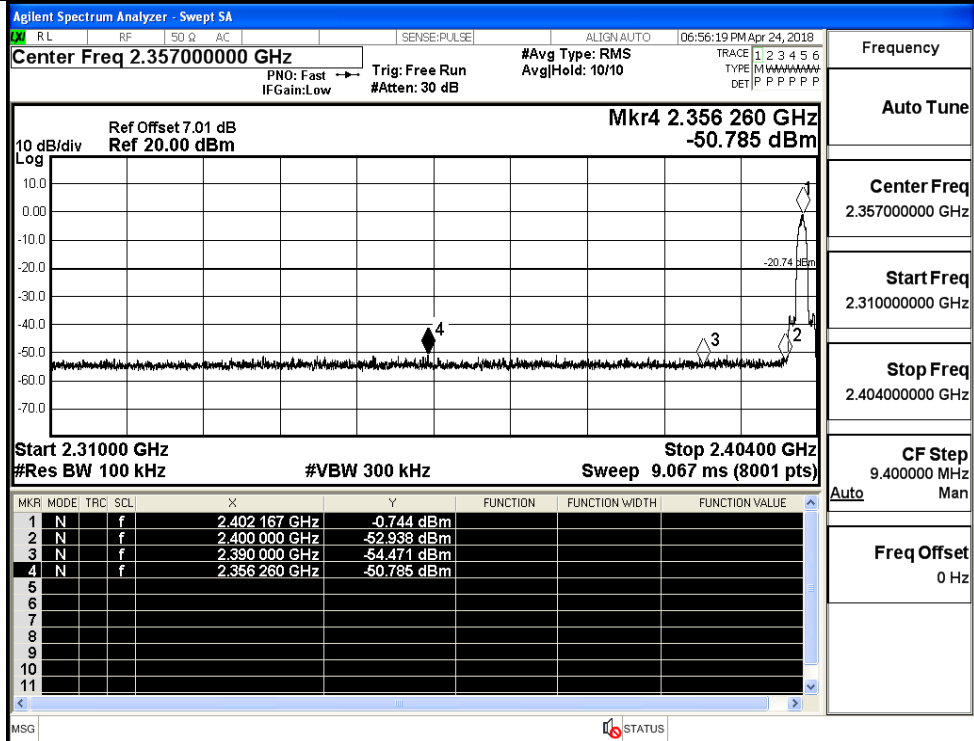
π /4DQPSK/HCH/No
Hop



π /4DQPSK/HCH/Hop

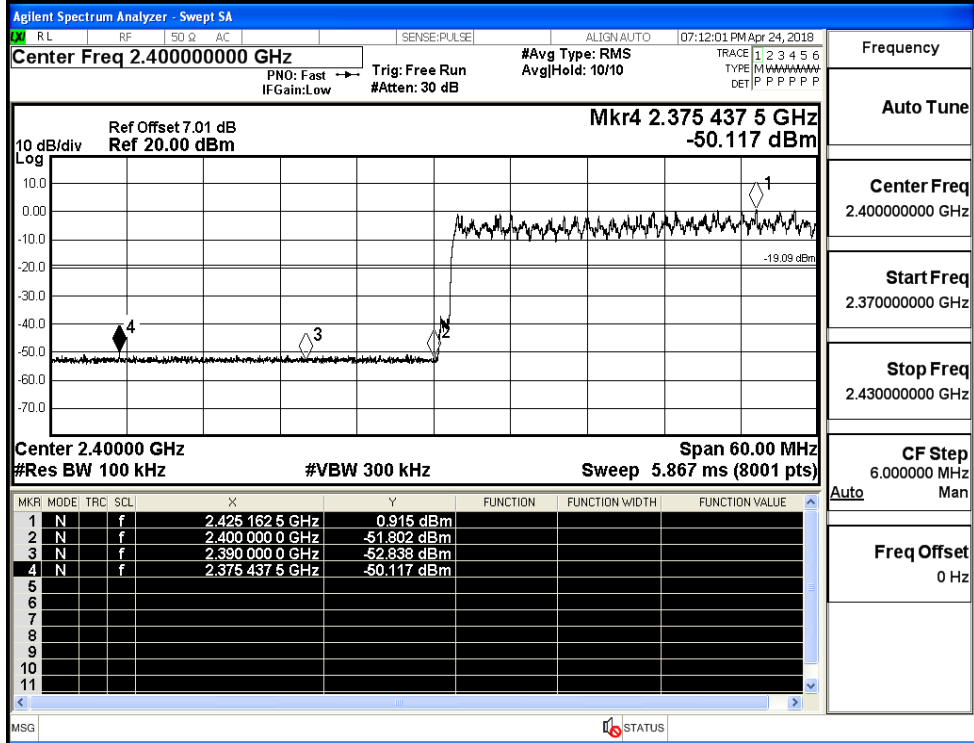


8DPSK/LCH/No Hop



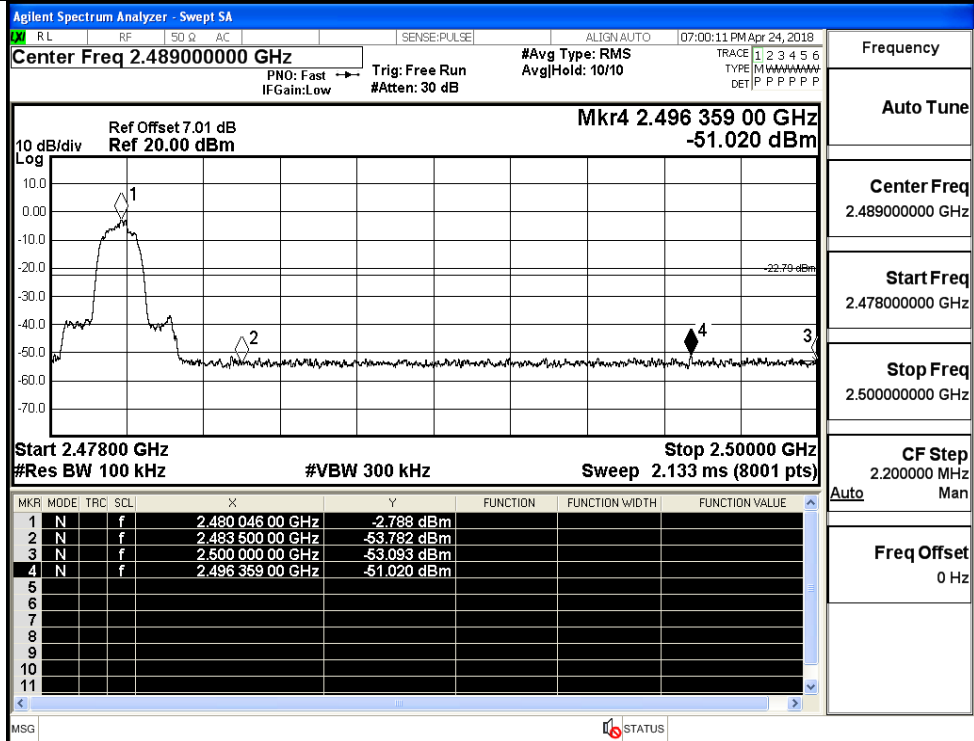
Frequency
Auto Tune
Center Freq
2.357000000 GHz
Start Freq
2.310000000 GHz
Stop Freq
2.404000000 GHz
CF Step
9.400000 MHz
Auto Man
Freq Offset
0 Hz

8DPSK/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

8DPSK/HCH/No Hop



Frequency

Auto Tune

Center Freq
2.489000000 GHz

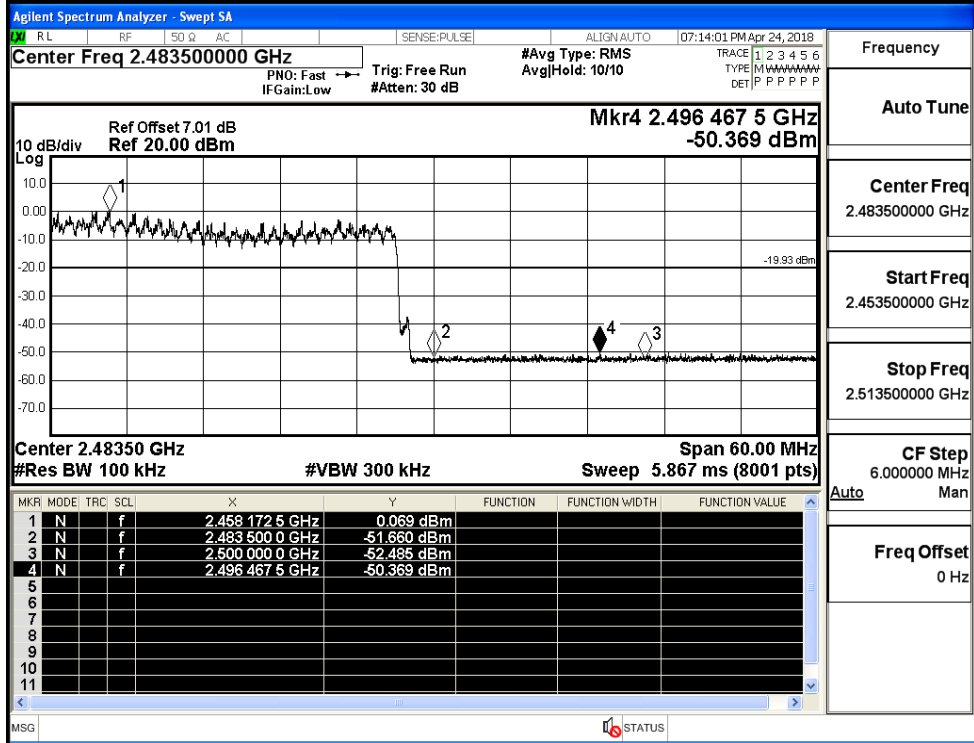
Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

CF Step
2.200000 MHz

Freq Offset
0 Hz

8DPSK/HCH/Hop



Frequency

Auto Tune

Center Freq
2.483500000 GHz

Start Freq
2.453500000 GHz

Stop Freq
2.513500000 GHz

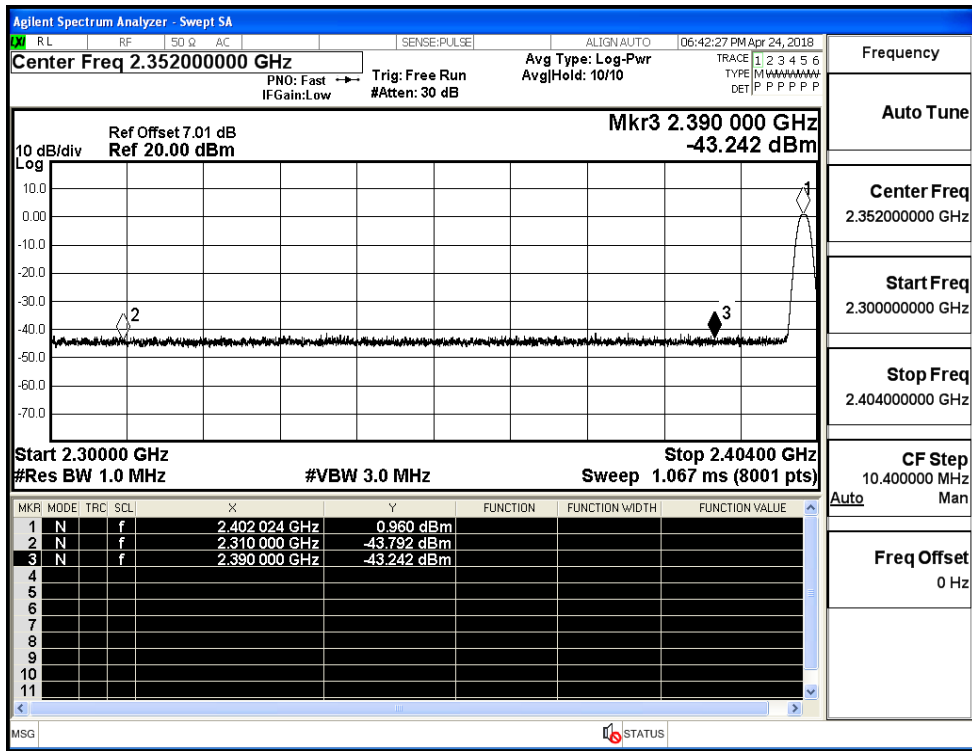
CF Step
6.000000 MHz

Freq Offset
0 Hz

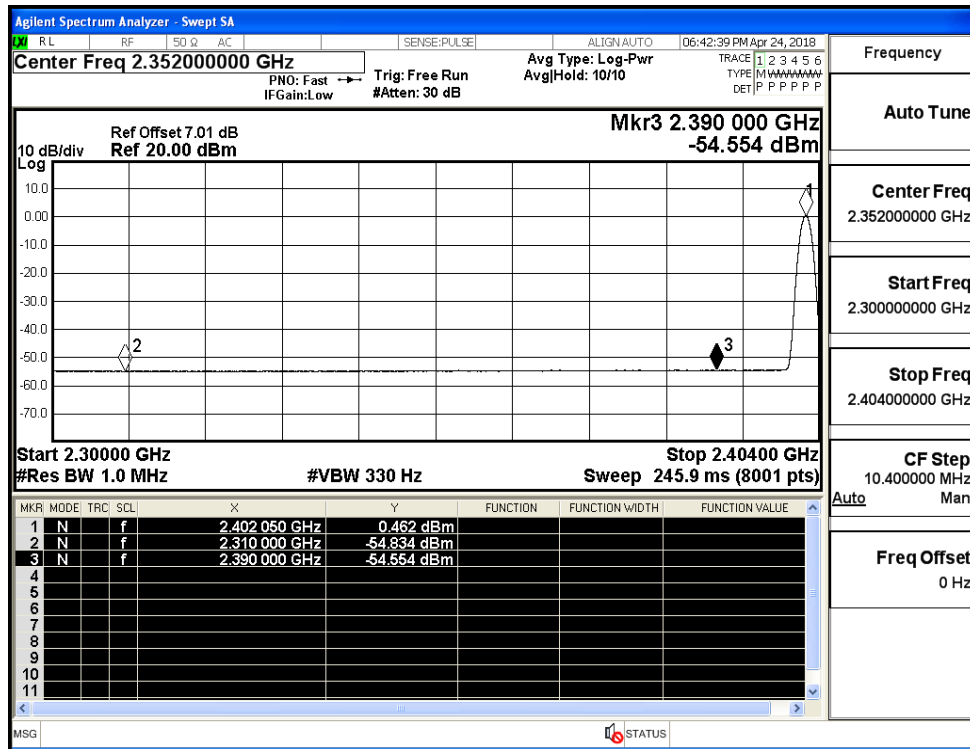
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.79	2.0	0	53.47	PEAK	74	PASS
	Off	2310.0	-54.83	2.0	0	42.42	AV	54	PASS
	Off	2390.0	-43.24	2.0	0	54.02	PEAK	74	PASS
	Off	2390.0	-54.55	2.0	0	42.70	AV	54	PASS
	Off	2483.5	-43.86	2.0	0	53.40	PEAK	74	PASS
	Off	2483.5	-54.29	2.0	0	42.97	AV	54	PASS
	Off	2500.0	-44.29	2.0	0	52.96	PEAK	74	PASS
	Off	2500.0	-54.17	2.0	0	43.09	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-44.71	2.0	0	52.55	PEAK	74	PASS
	Off	2310.0	-54.85	2.0	0	42.40	AV	54	PASS
	Off	2390.0	-44.35	2.0	0	52.91	PEAK	74	PASS
	Off	2390.0	-54.61	2.0	0	42.65	AV	54	PASS
	Off	2483.5	-43.45	2.0	0	53.81	PEAK	74	PASS
	Off	2483.5	-54.30	2.0	0	42.96	AV	54	PASS
	Off	2500.0	-44.34	2.0	0	52.92	PEAK	74	PASS
	Off	2500.0	-54.23	2.0	0	43.03	AV	54	PASS
8DPSK	Off	2310.0	-44.16	2.0	0	53.09	PEAK	74	PASS
	Off	2310.0	-54.81	2.0	0	42.45	AV	54	PASS
	Off	2390.0	-44.26	2.0	0	52.99	PEAK	74	PASS
	Off	2390.0	-54.63	2.0	0	42.63	AV	54	PASS
	Off	2483.5	-43.15	2.0	0	54.11	PEAK	74	PASS
	Off	2483.5	-54.33	2.0	0	42.93	AV	54	PASS
	Off	2500.0	-44.09	2.0	0	53.16	PEAK	74	PASS
	Off	2500.0	-54.24	2.0	0	43.02	AV	54	PASS

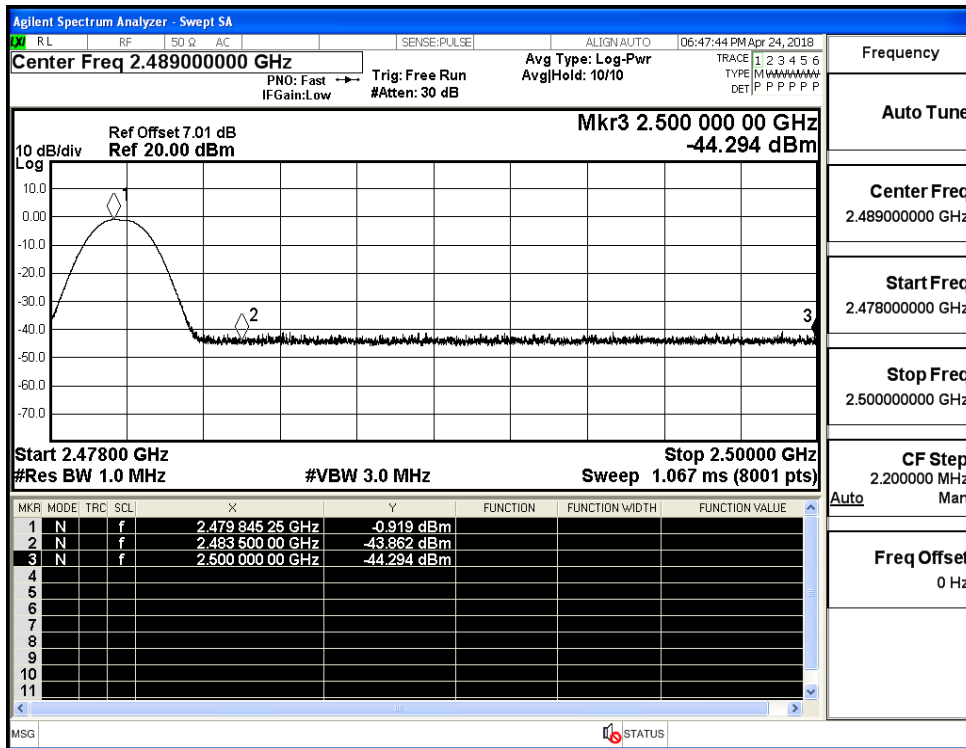
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



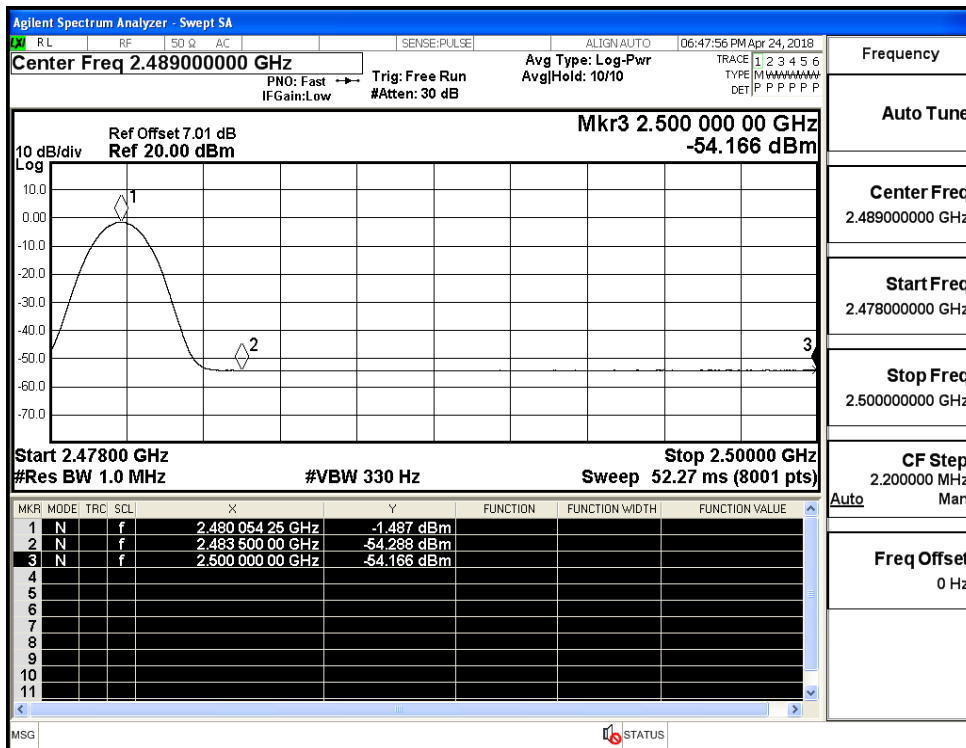
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)



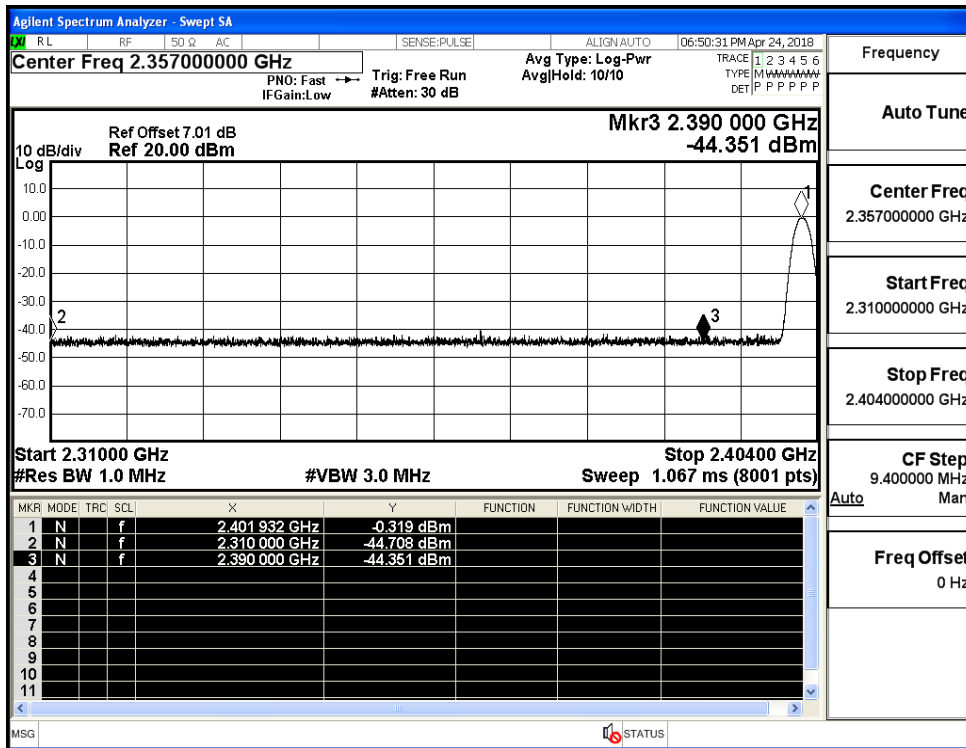
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



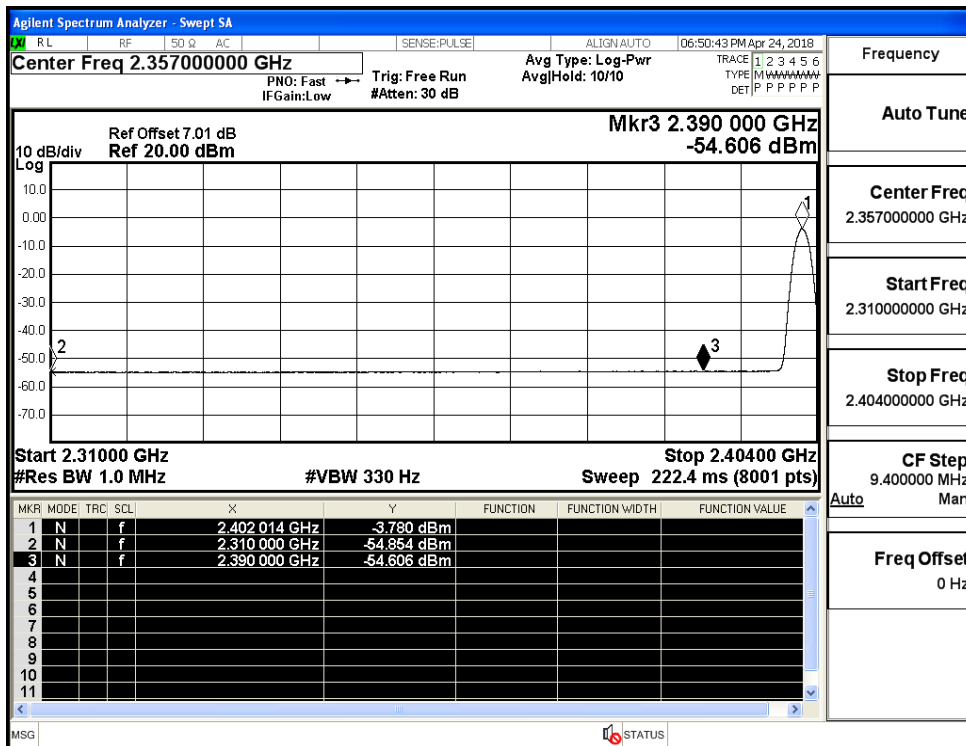
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



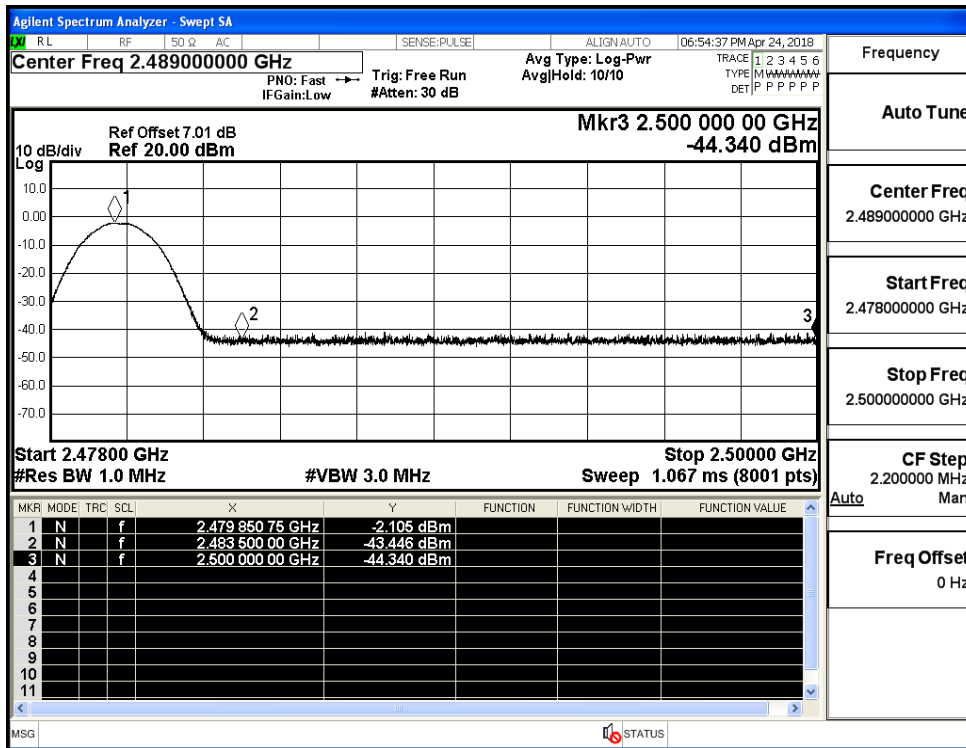
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)



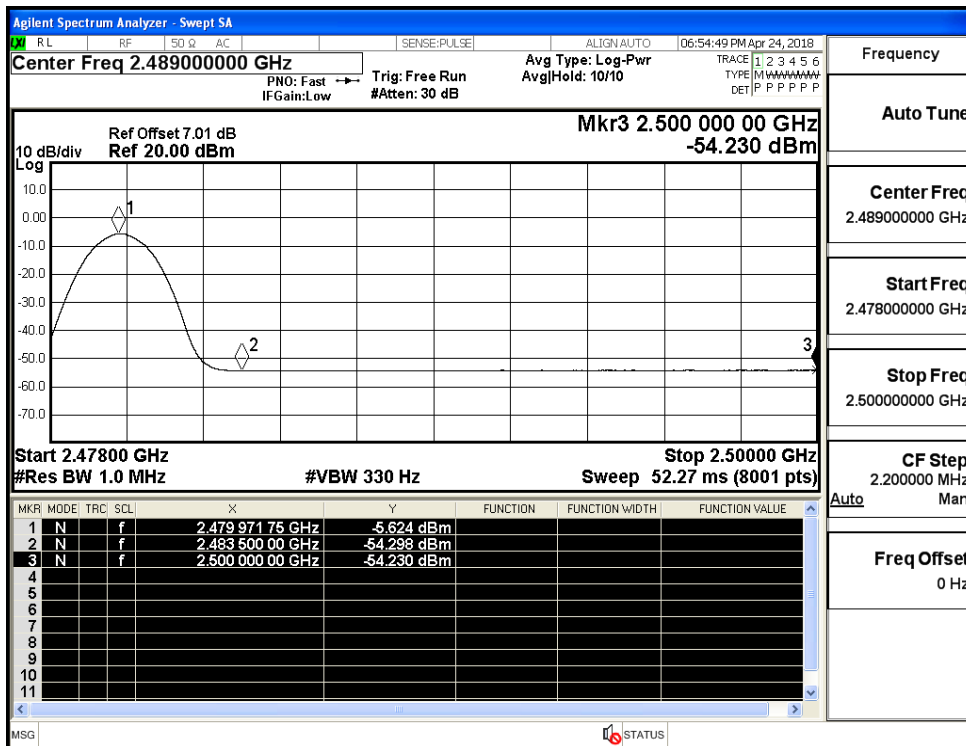
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)



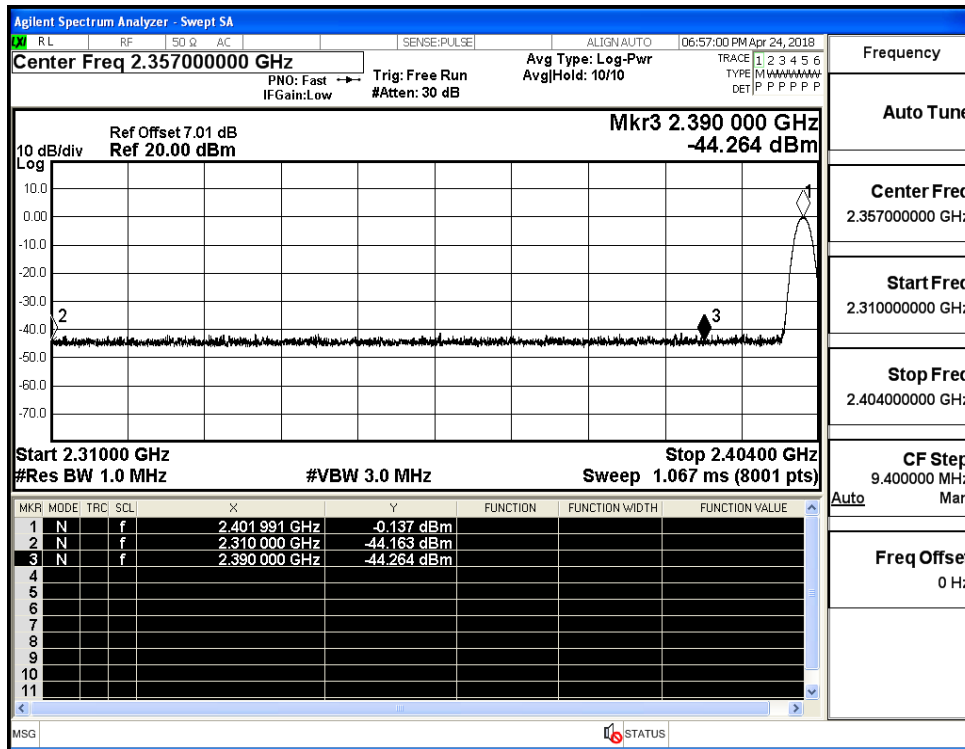
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



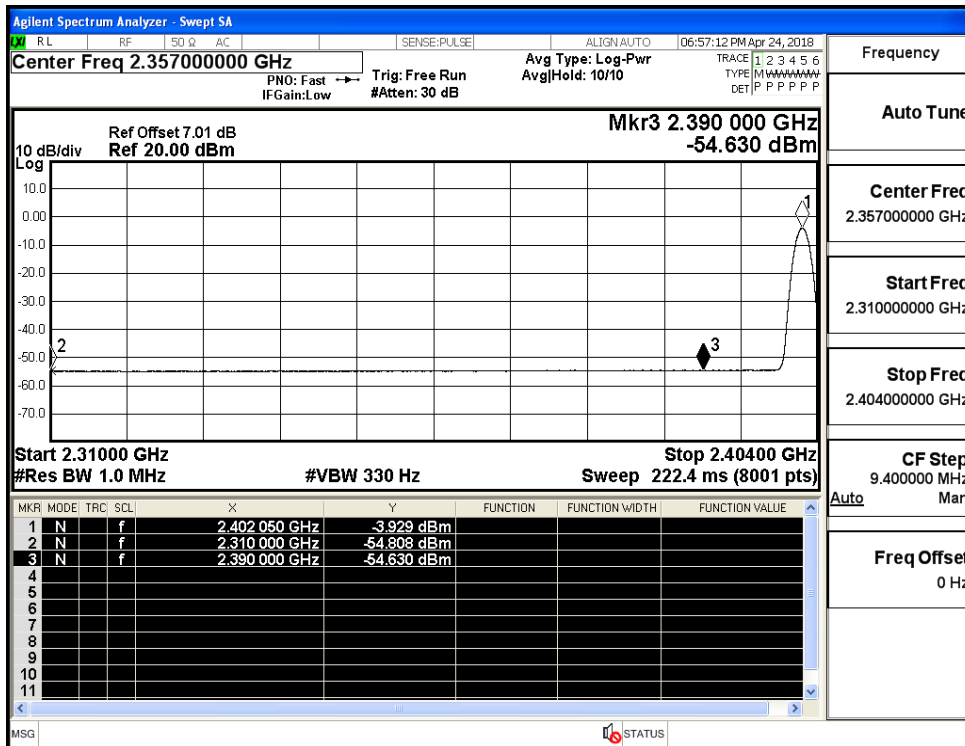
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



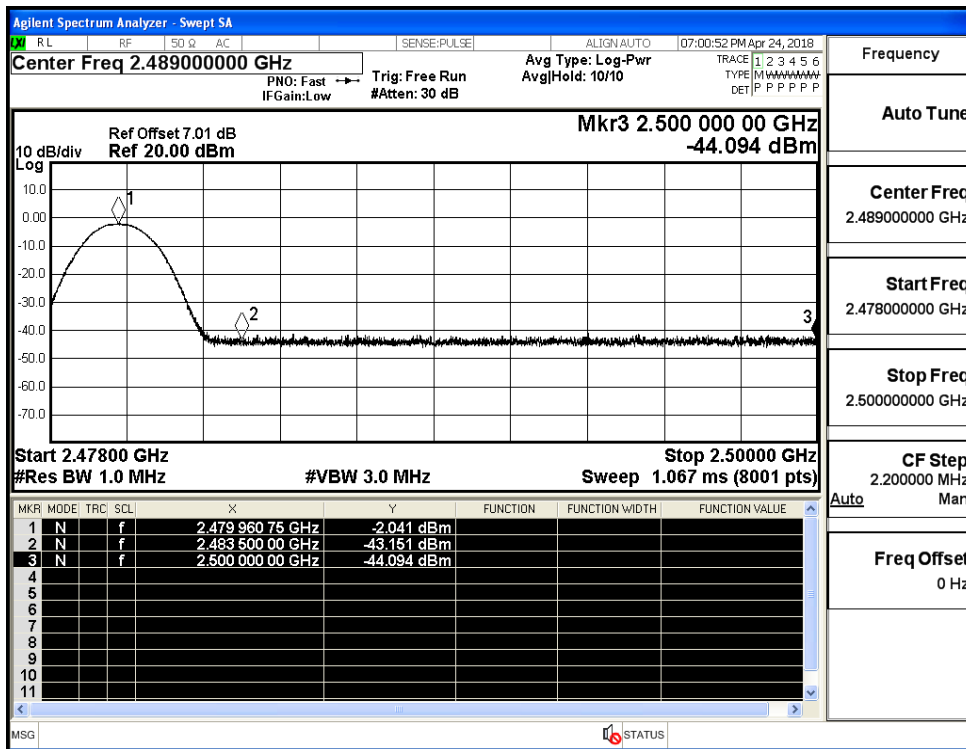
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

