

Appendix A

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

Product Name: AIO PC

Trade Mark: Fusion5

Test Model: A7

Environmental Conditions

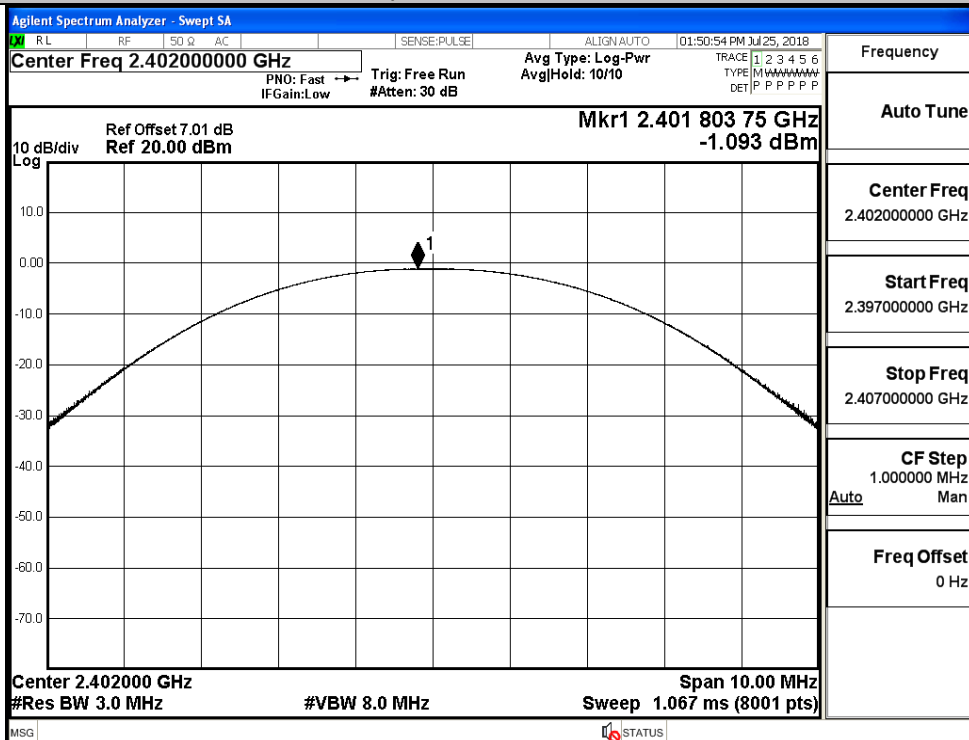
Temperature:	22.6 ° C
Relative Humidity:	53.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden Zhuo

A.1 Maximum Conducted Peak Output Power

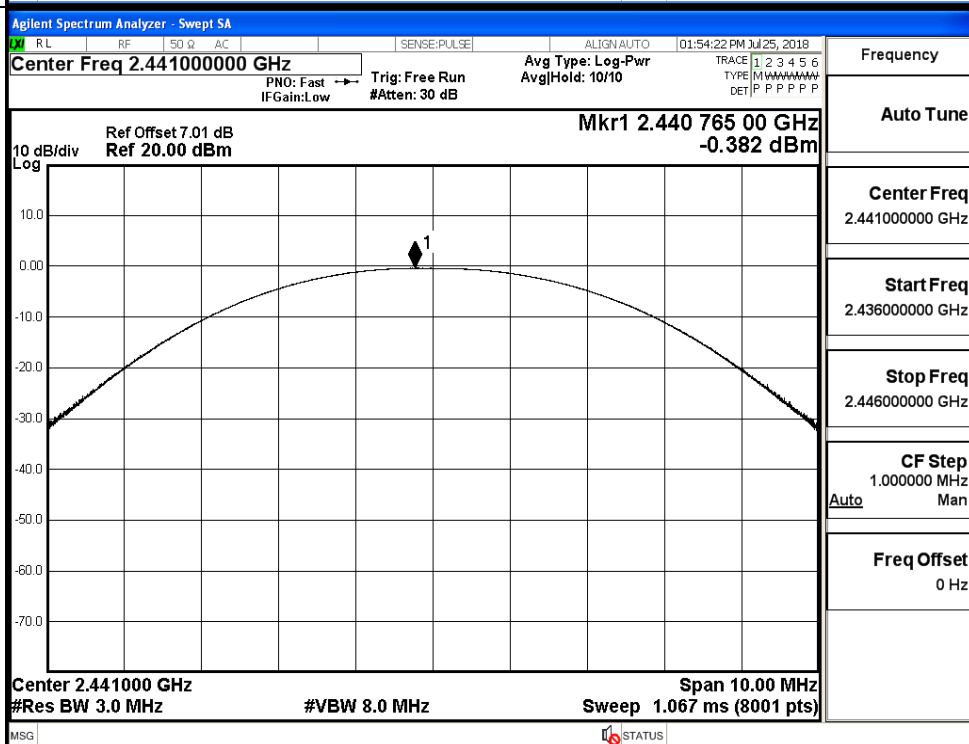
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-1.093	21	PASS
	MCH	-0.382	21	PASS
	HCH	1.963	21	PASS
$\pi/4$ DQPSK	LCH	-1.736	21	PASS
	MCH	-0.926	21	PASS
	HCH	1.197	21	PASS
8DPSK	LCH	-1.588	21	PASS
	MCH	-0.807	21	PASS
	HCH	1.335	21	PASS

Test Graphs

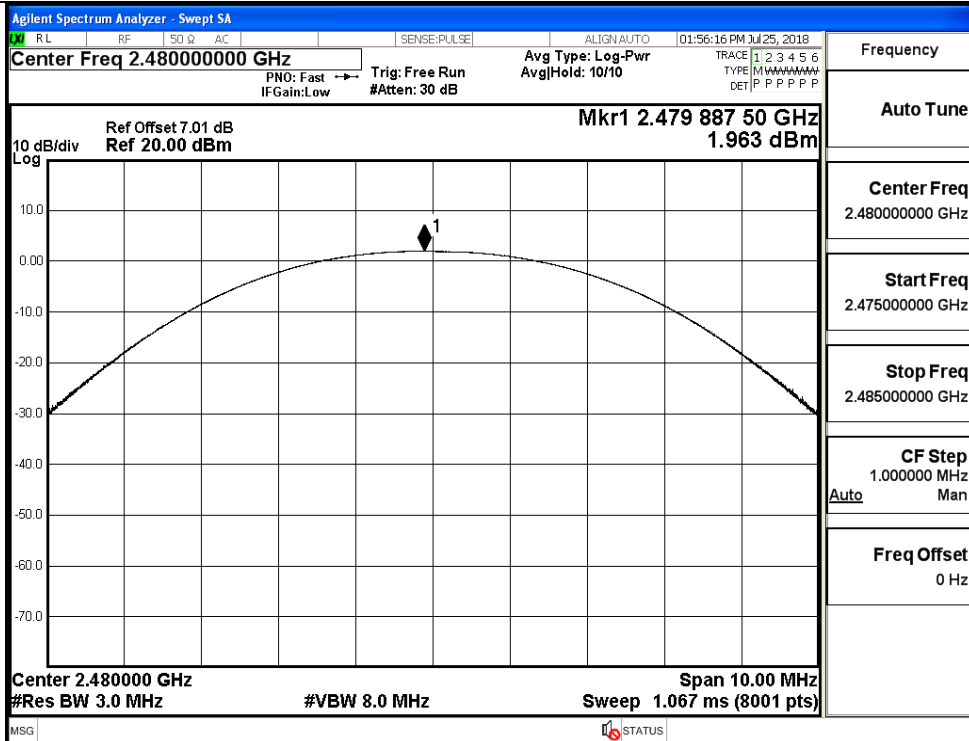
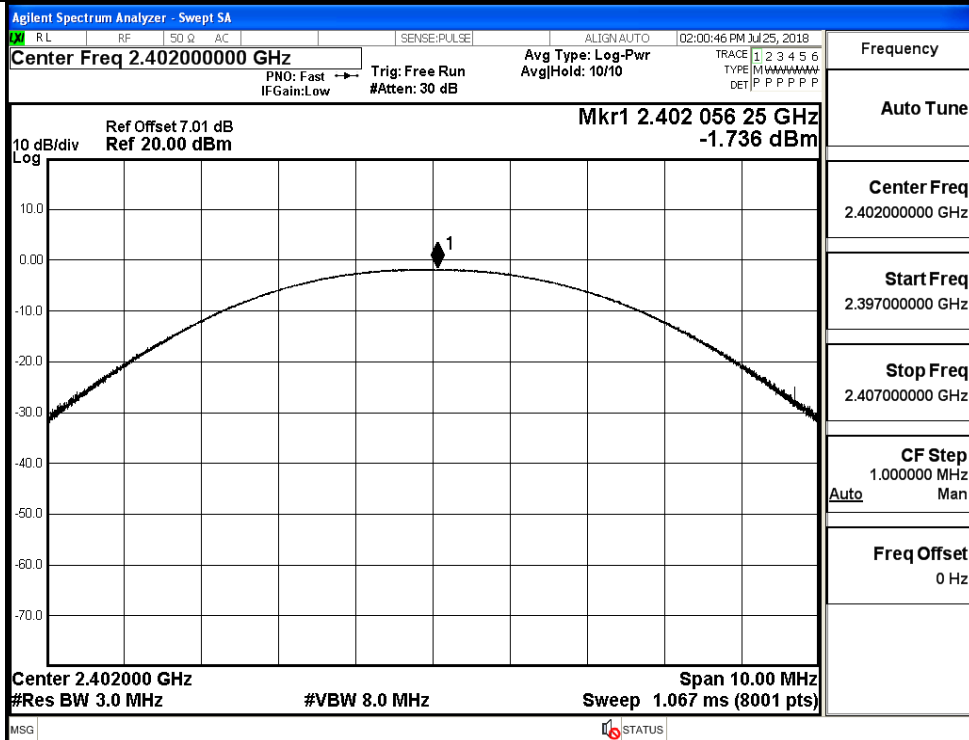
GFSK/LCH

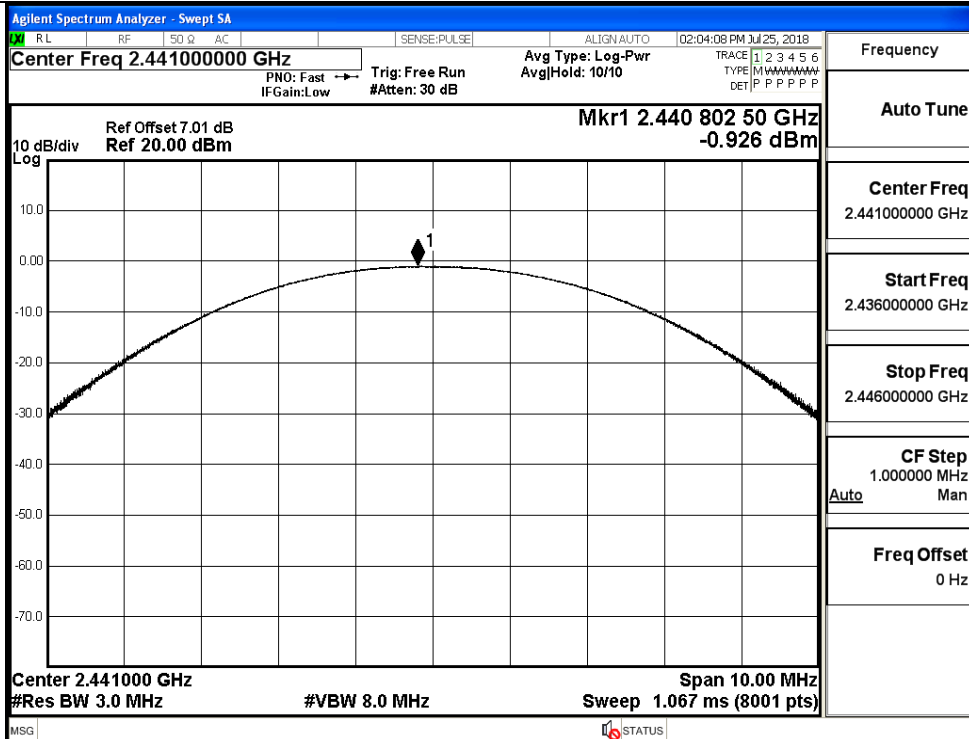
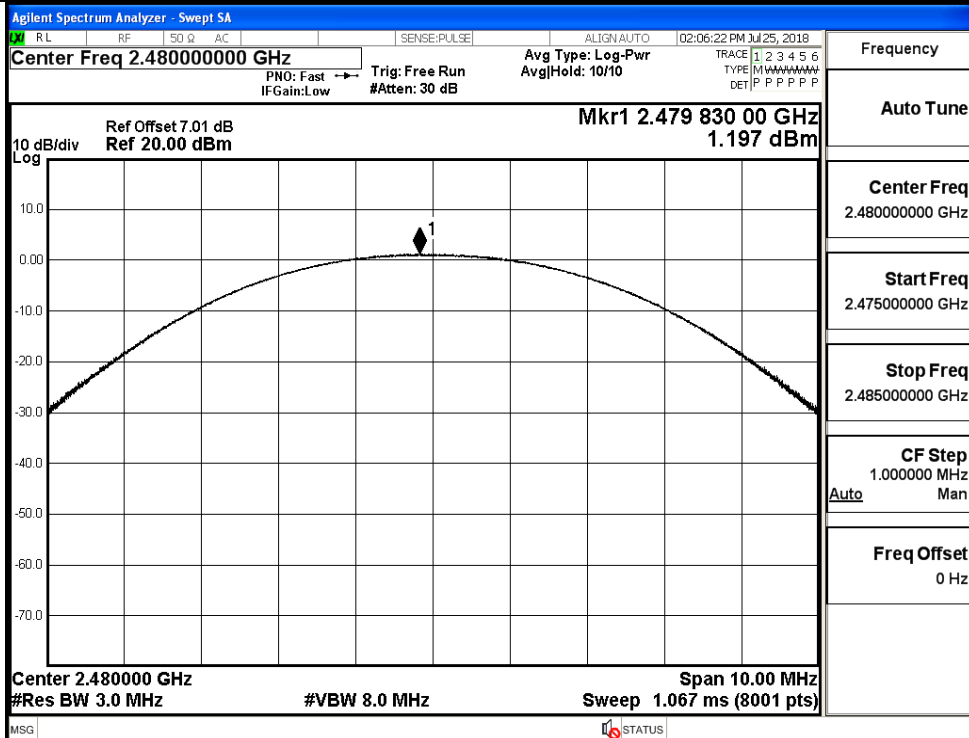


GFSK/MCH

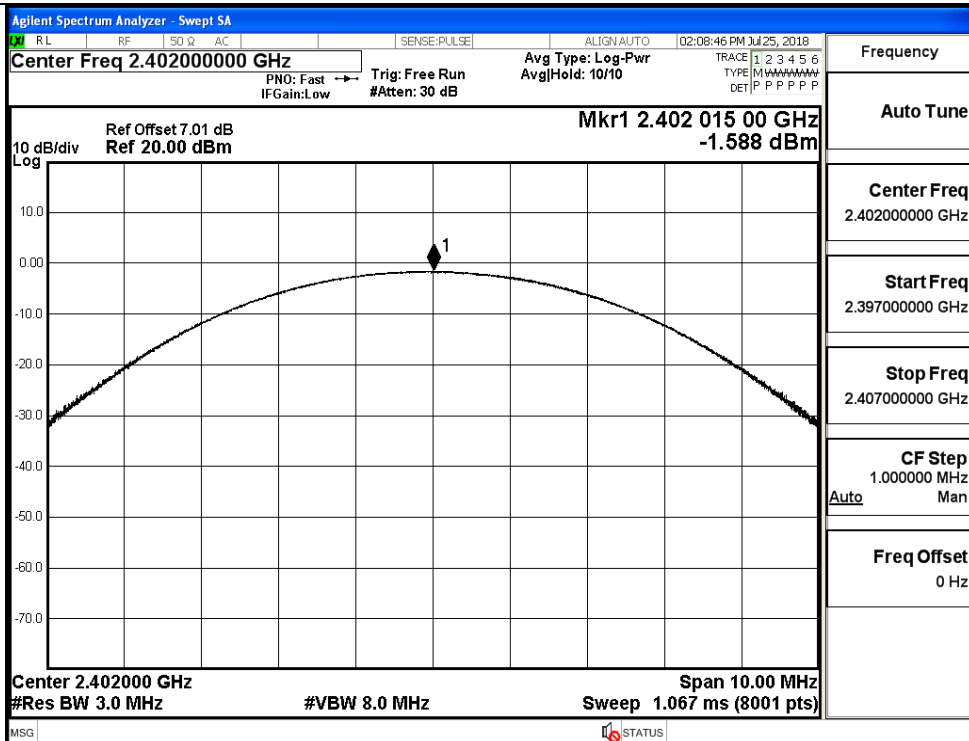


GFSK/HCH

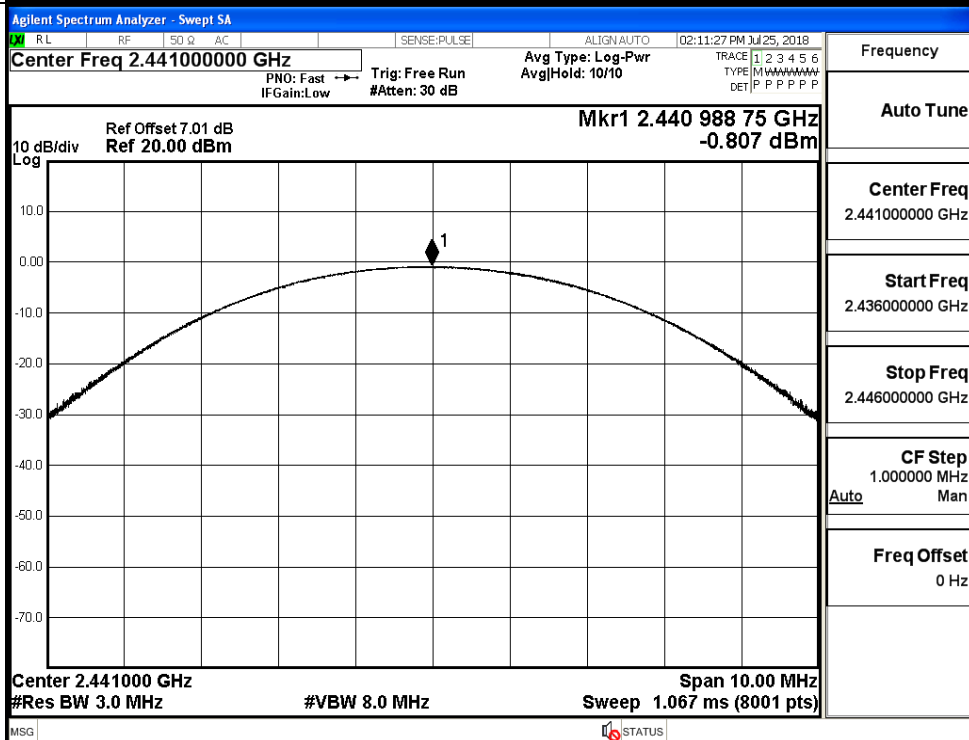
 π /4DQPSK/LCH

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

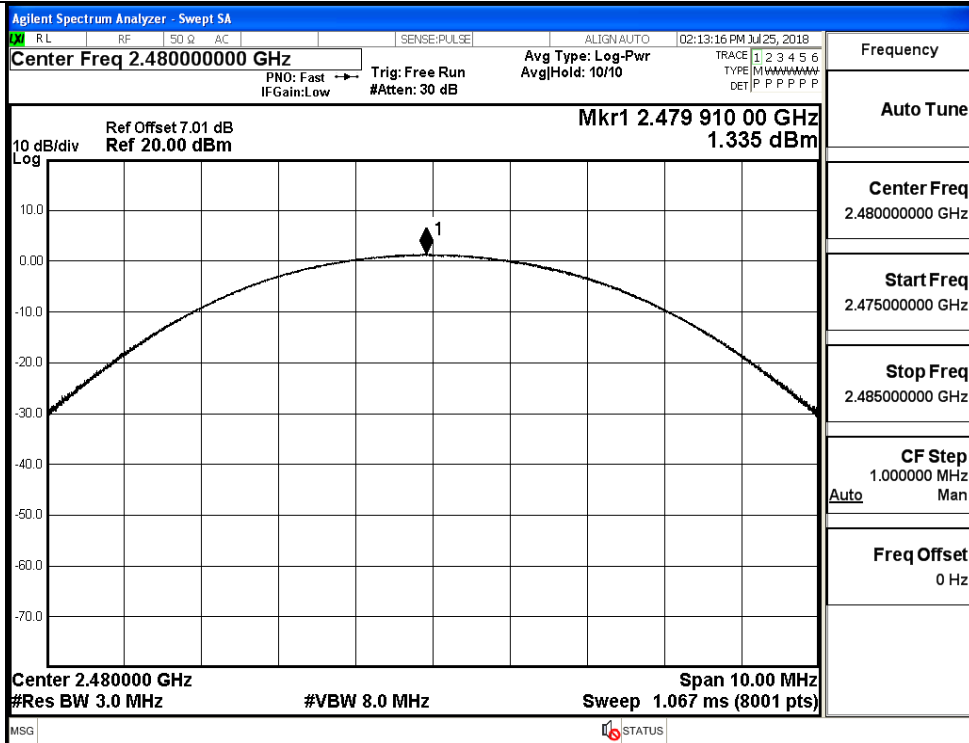
8DPSK/LCH



8DPSK/MCH



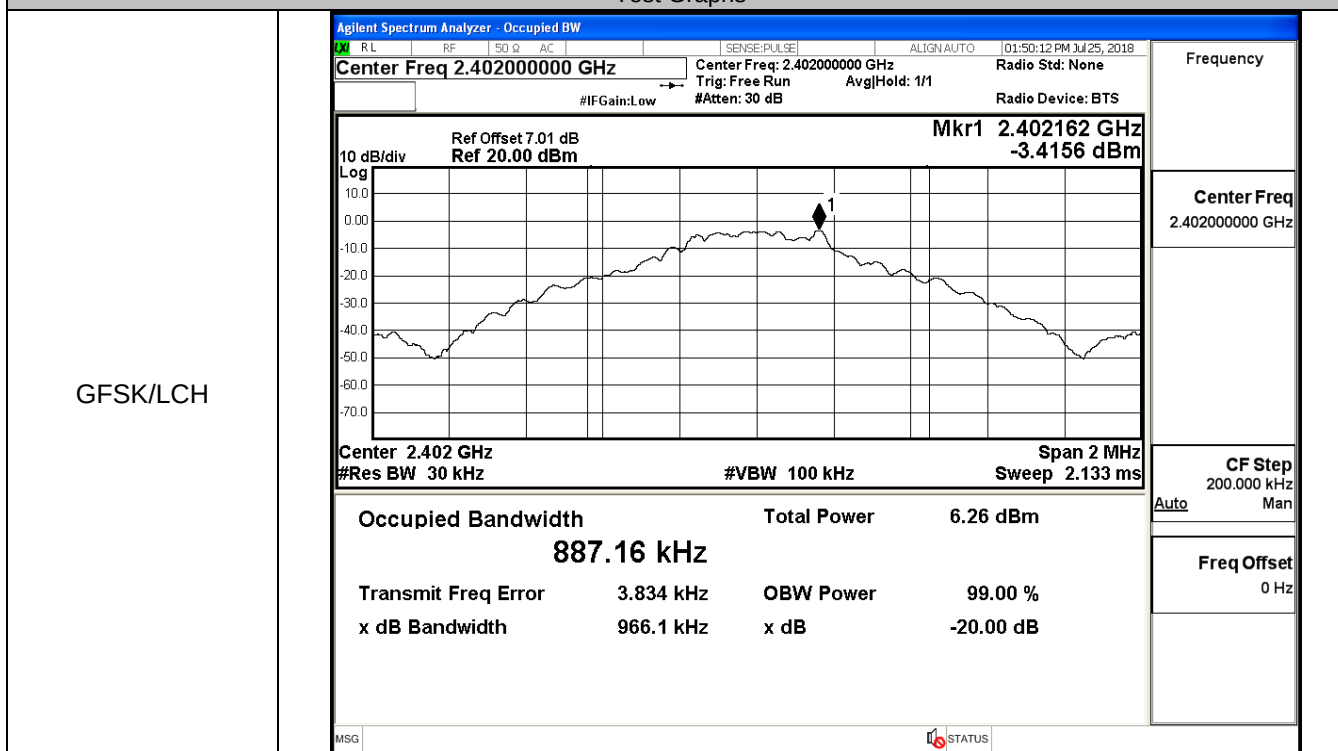
8DPSK/HCH



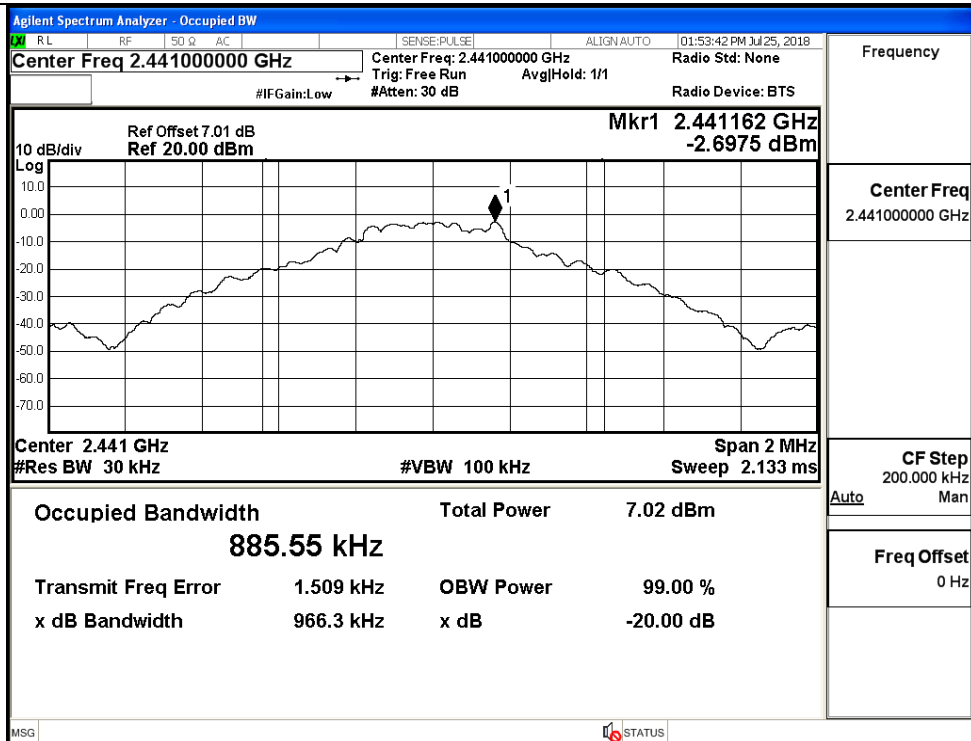
A.2 99% and 20dB Bandwidth

Mode	Channel.	99% Bandwidth [MHz]	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.88716	0.9661	Not Specified	PASS
	MCH	0.88555	0.9663	Not Specified	PASS
	HCH	0.88891	1.032	Not Specified	PASS
π /4DQPSK	LCH	1.1750	1.313	Not Specified	PASS
	MCH	1.1811	1.315	Not Specified	PASS
	HCH	1.1703	1.291	Not Specified	PASS
8DPSK	LCH	1.1904	1.297	Not Specified	PASS
	MCH	1.1933	1.298	Not Specified	PASS
	HCH	1.1785	1.292	Not Specified	PASS

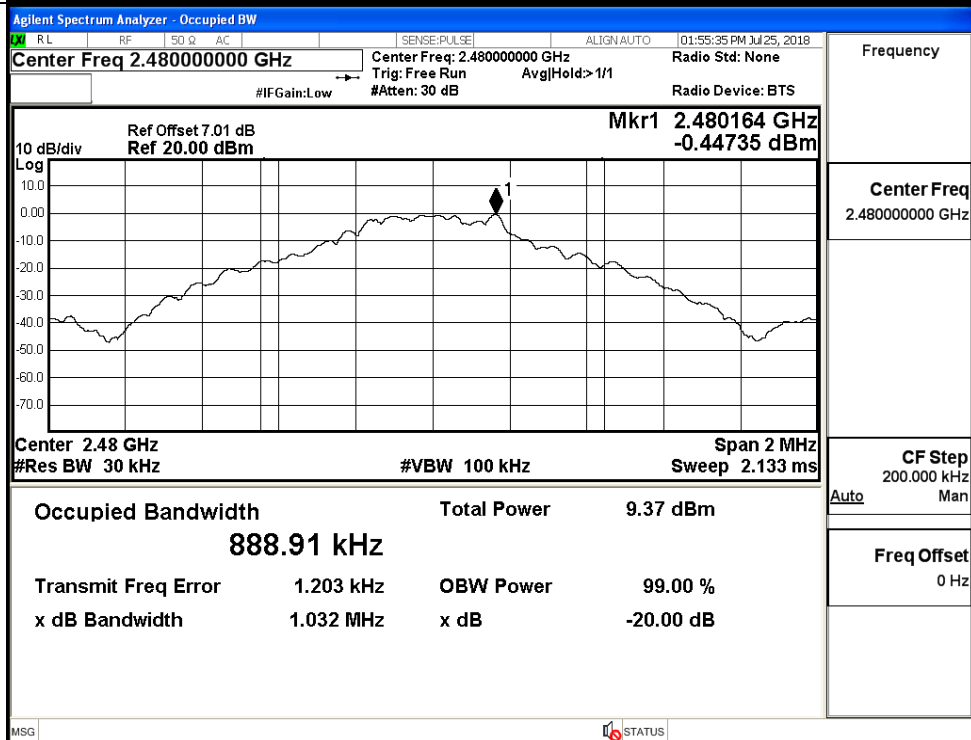
Test Graphs

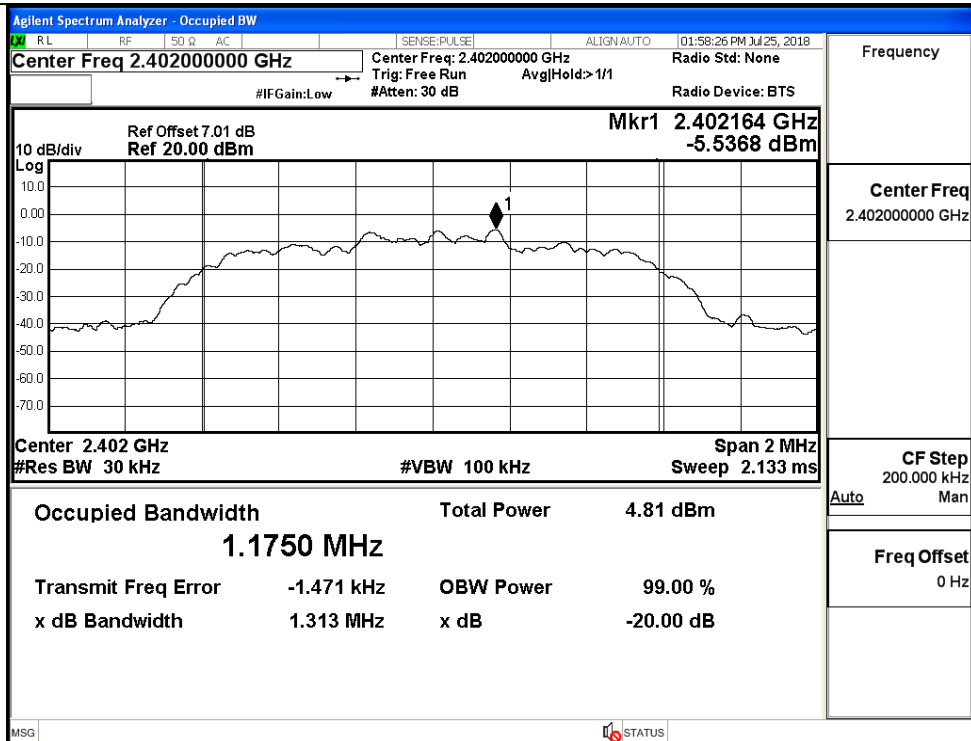
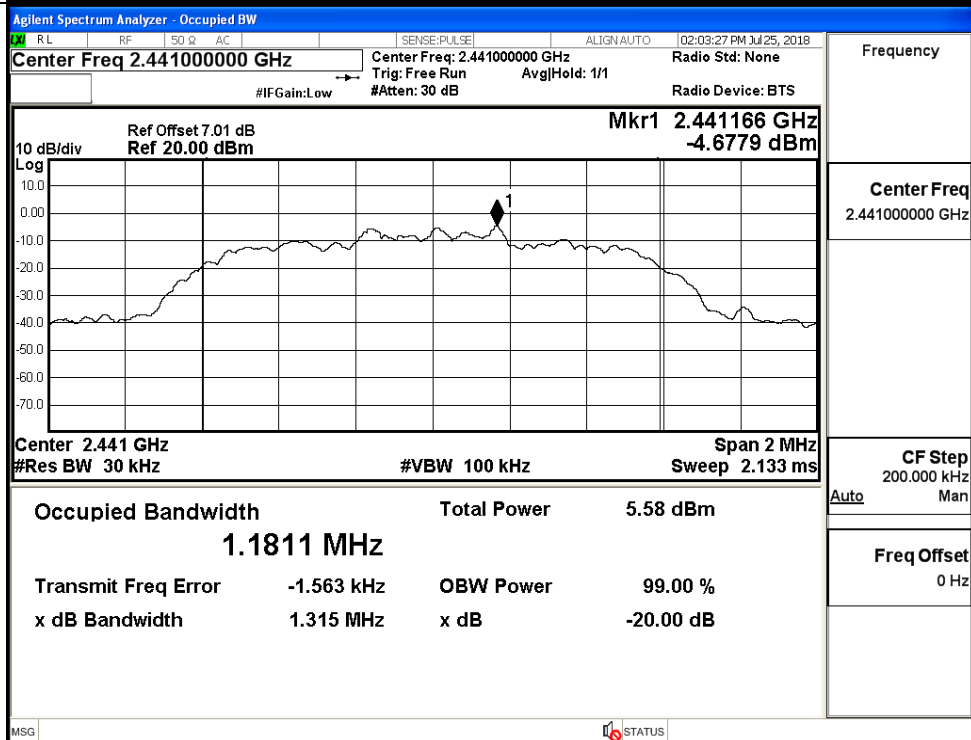


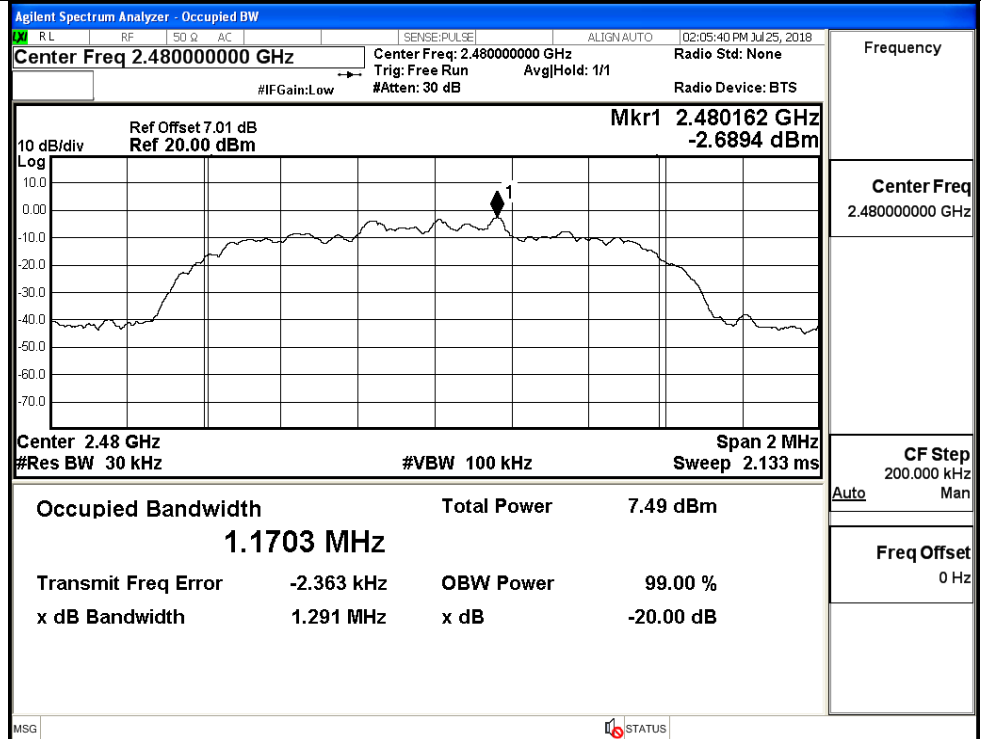
GFSK/MCH



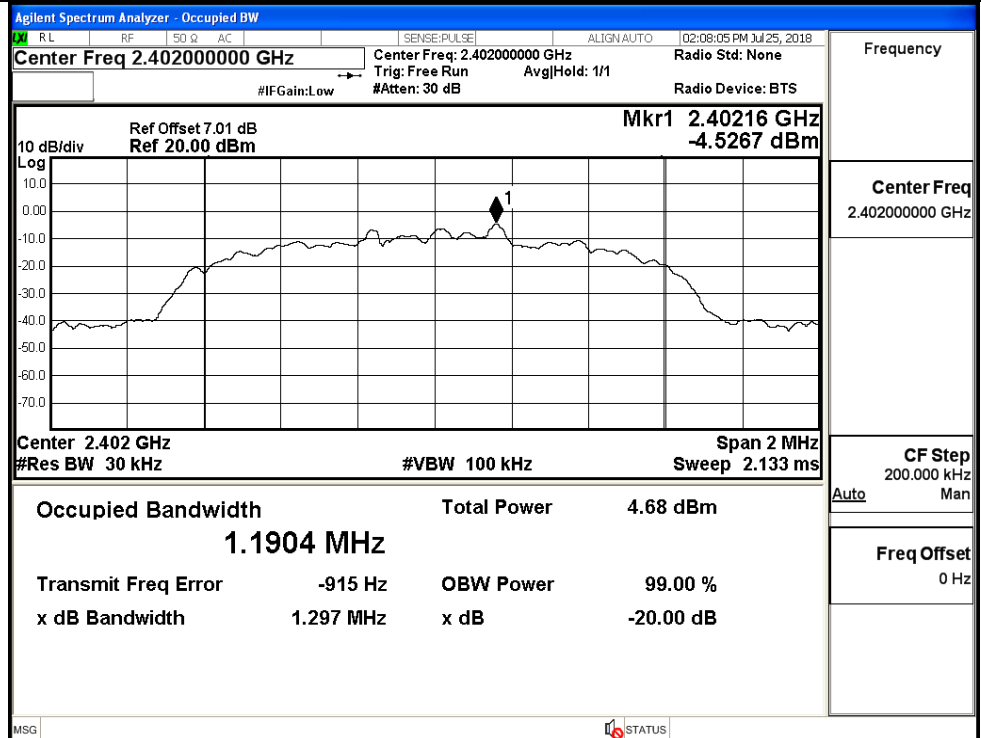
GFSK/HCH



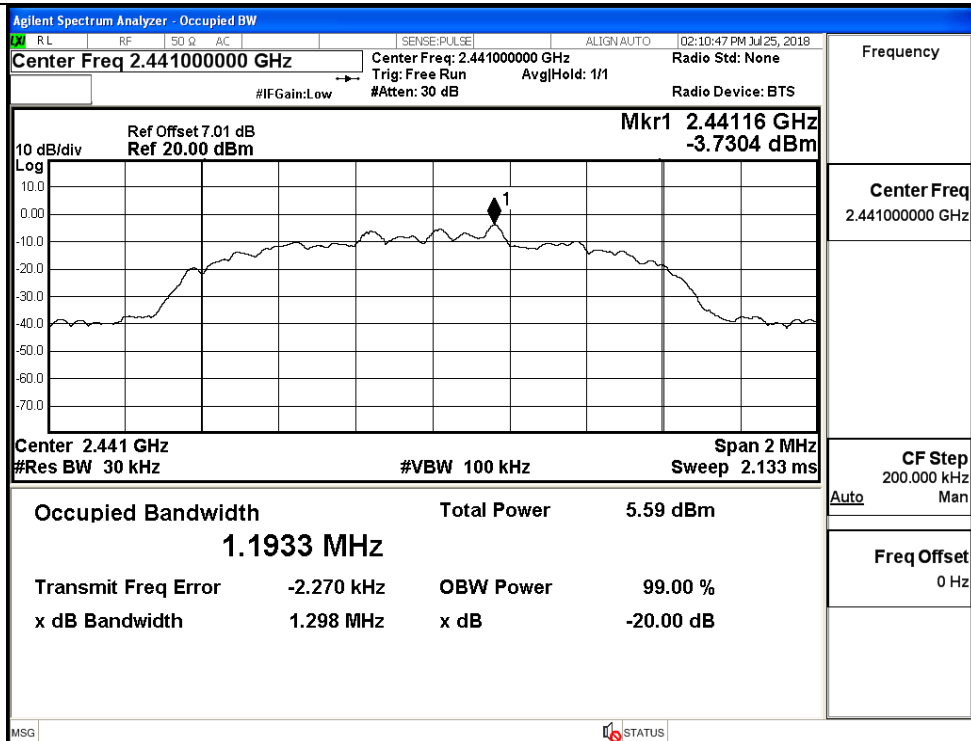
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

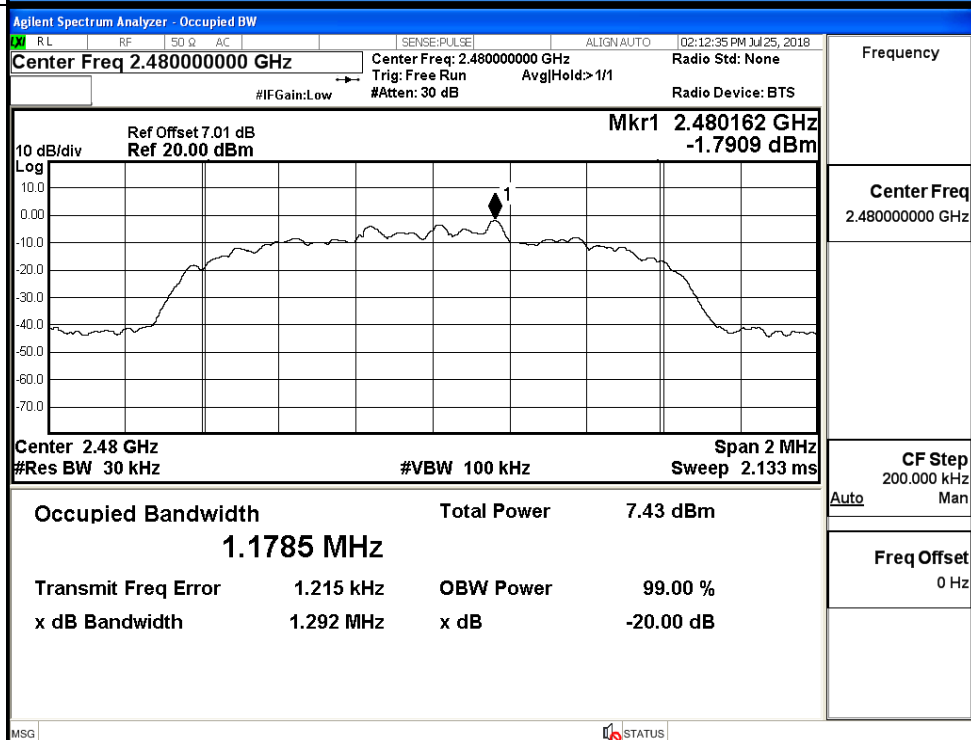
8DPSK/LCH



8DPSK/MCH



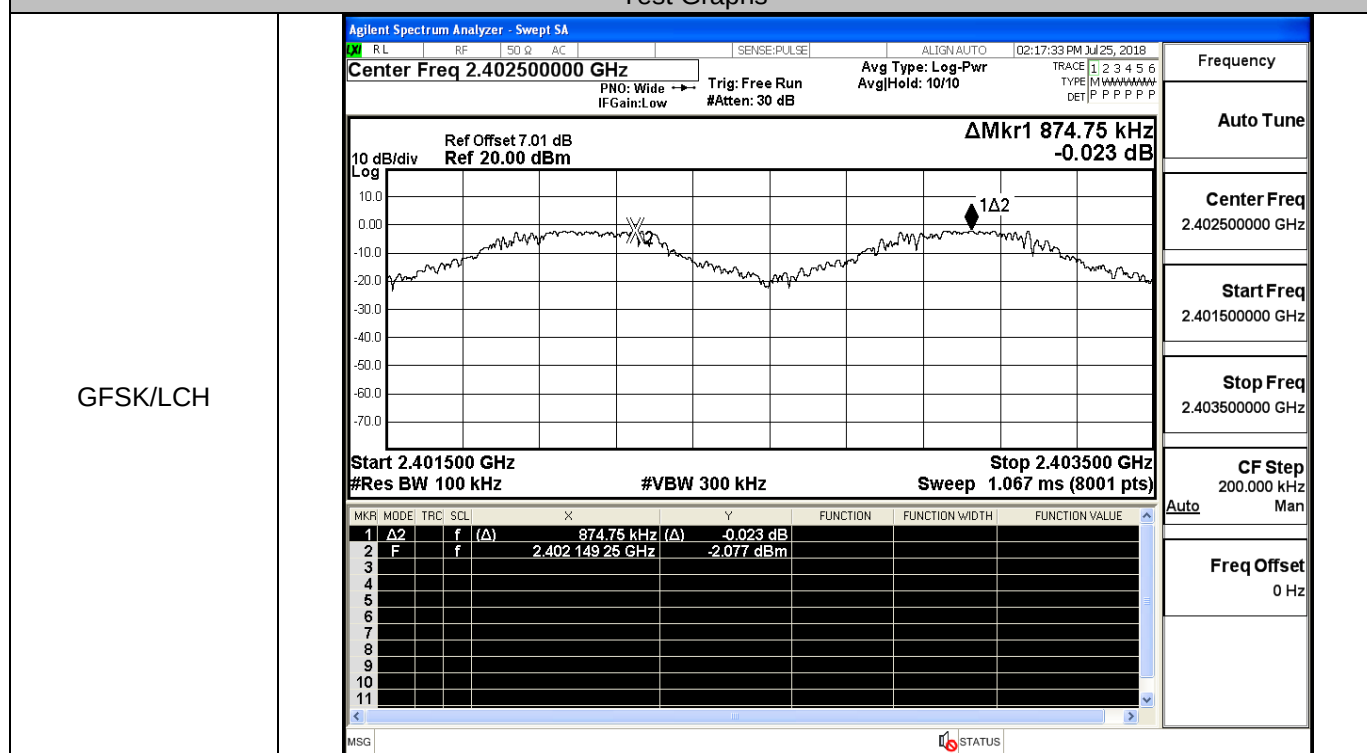
8DPSK/HCH



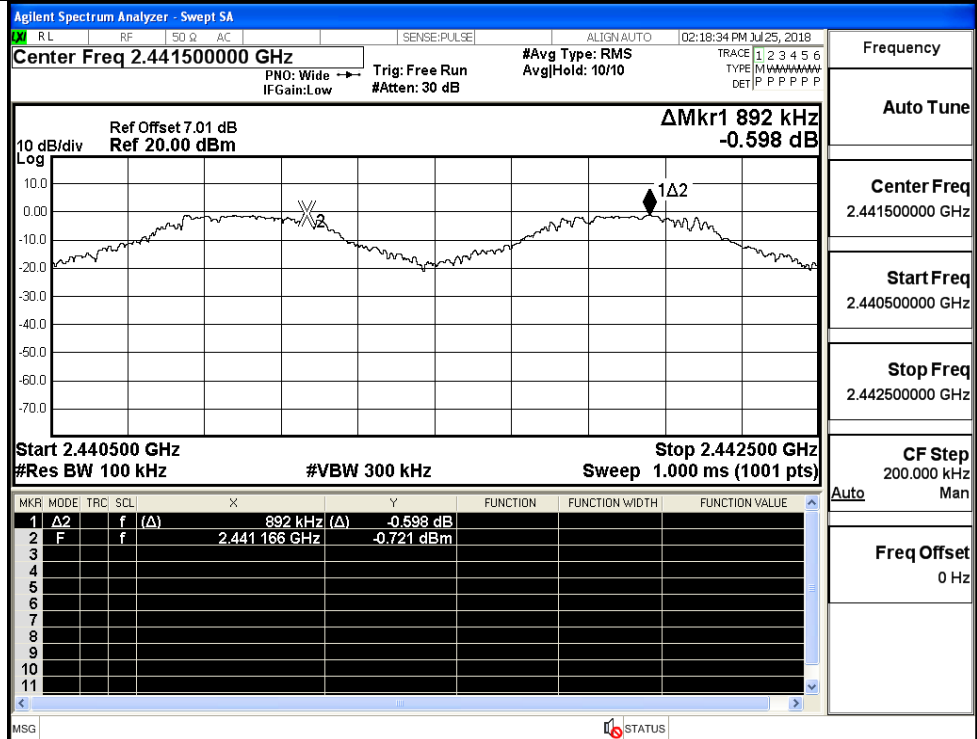
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.875	0.688	PASS
	MCH	0.892	0.688	PASS
	HCH	0.946	0.688	PASS
$\pi/4$ DQPSK	LCH	1.120	0.877	PASS
	MCH	1.194	0.877	PASS
	HCH	0.950	0.877	PASS
8DPSK	LCH	0.900	0.865	PASS
	MCH	1.174	0.865	PASS
	HCH	1.324	0.865	PASS

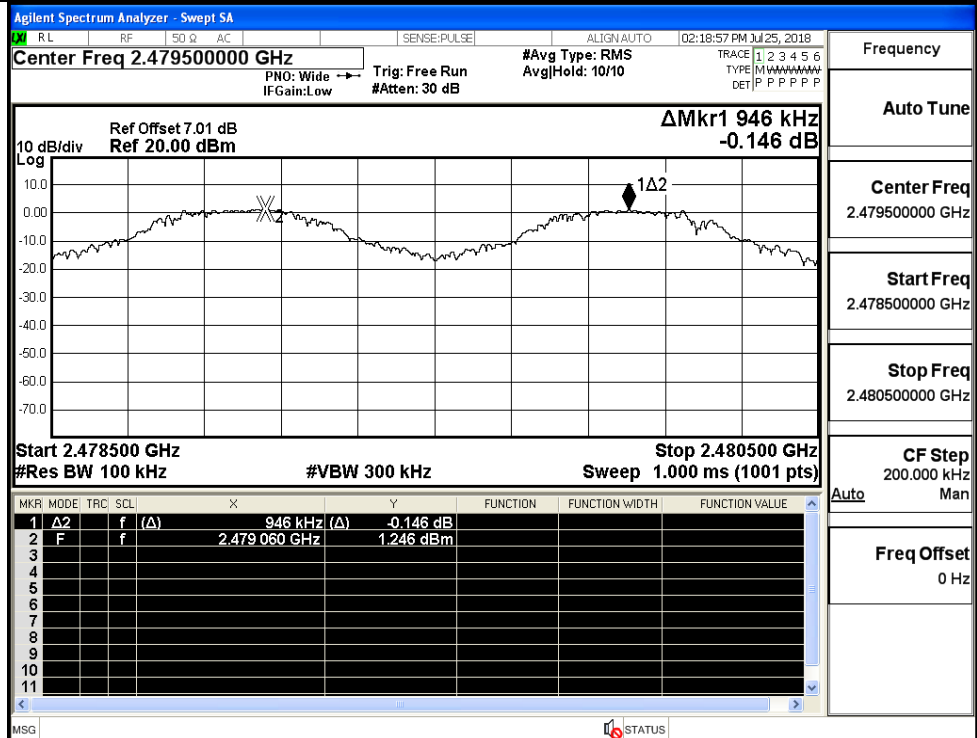
Test Graphs

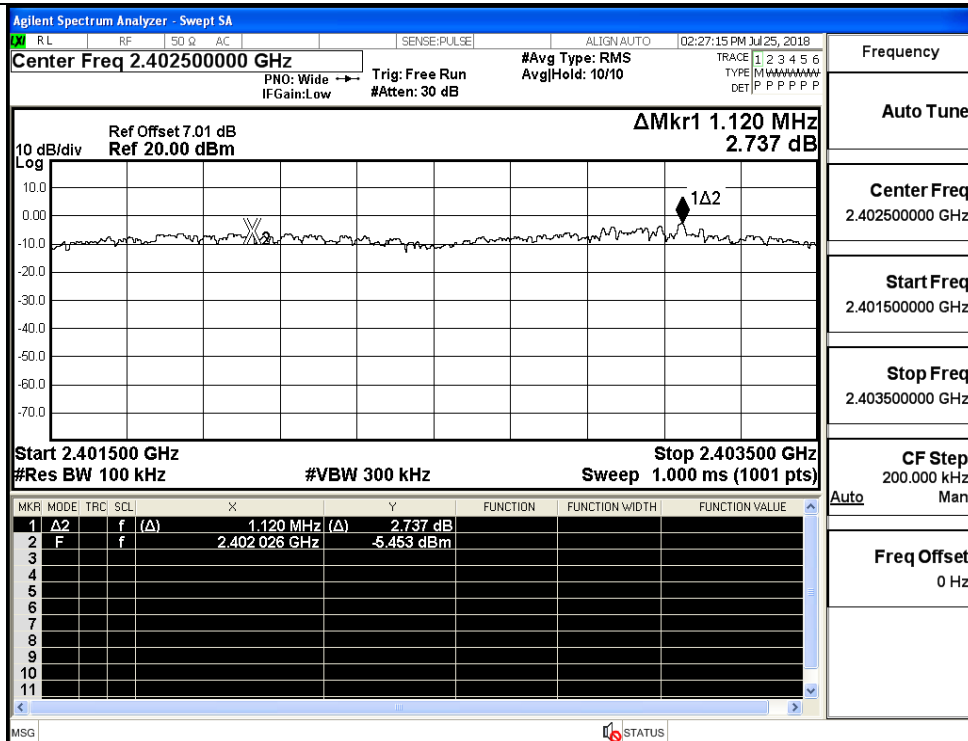
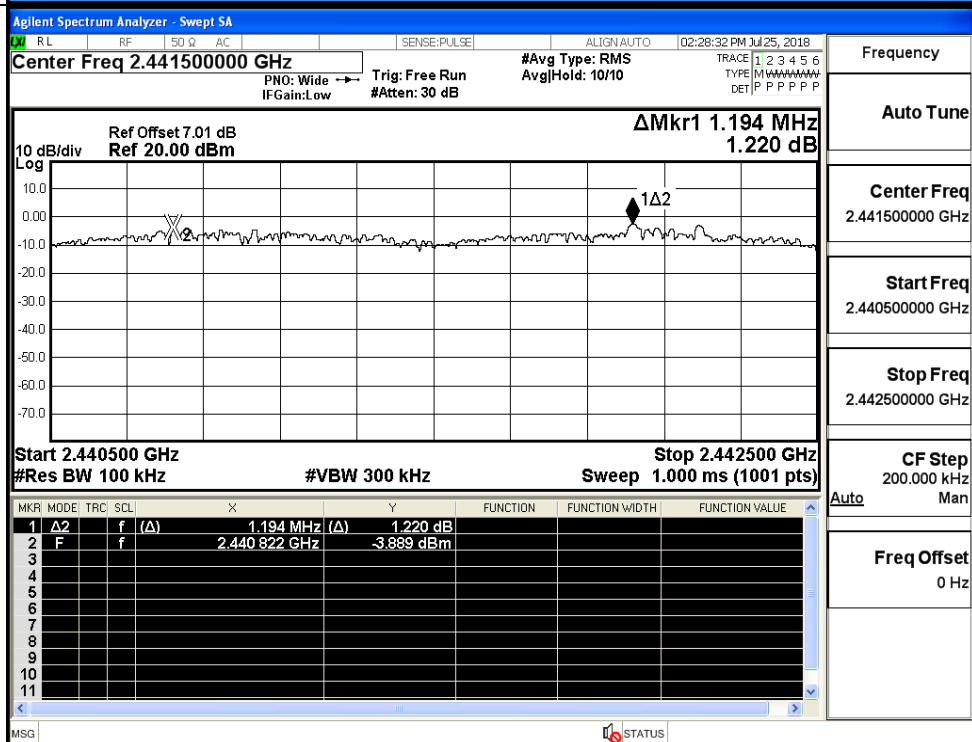


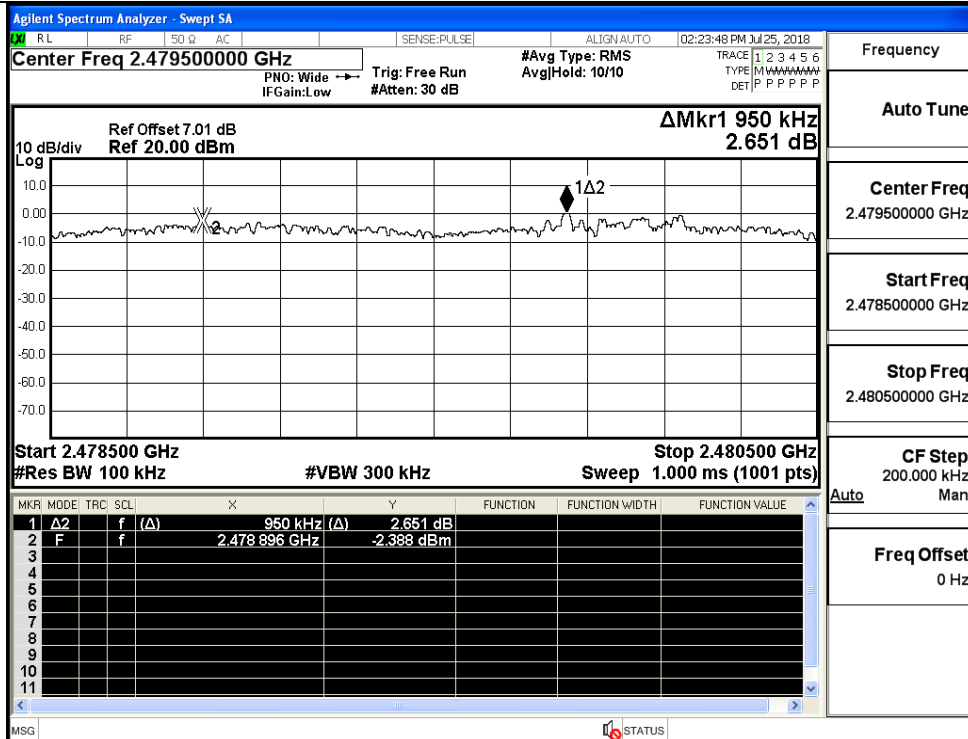
GFSK/MCH



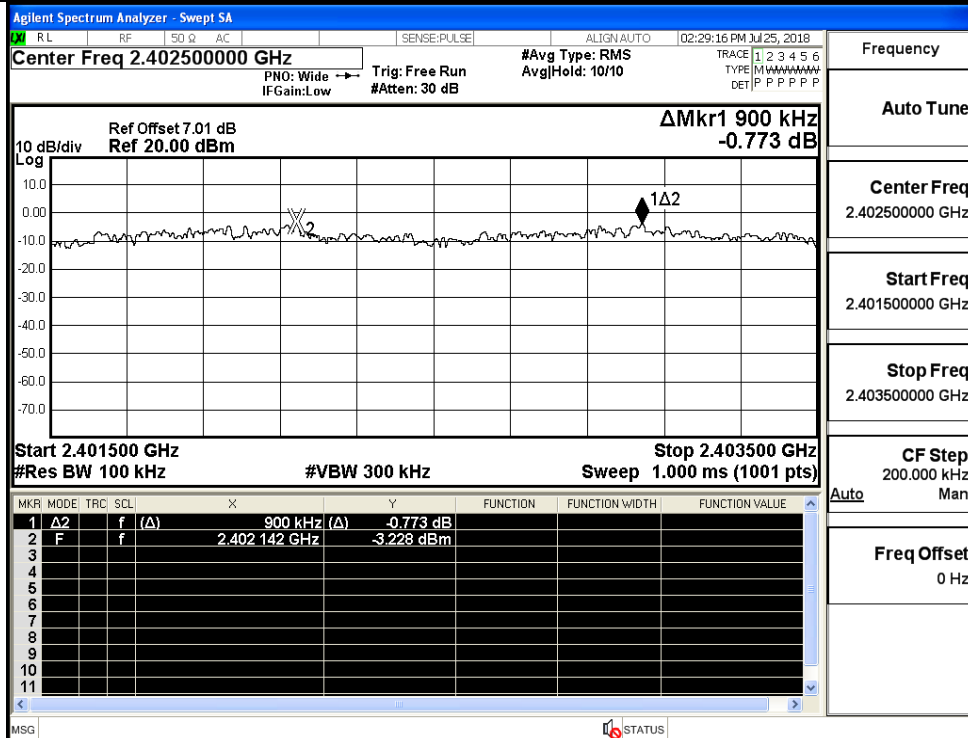
GFSK/HCH



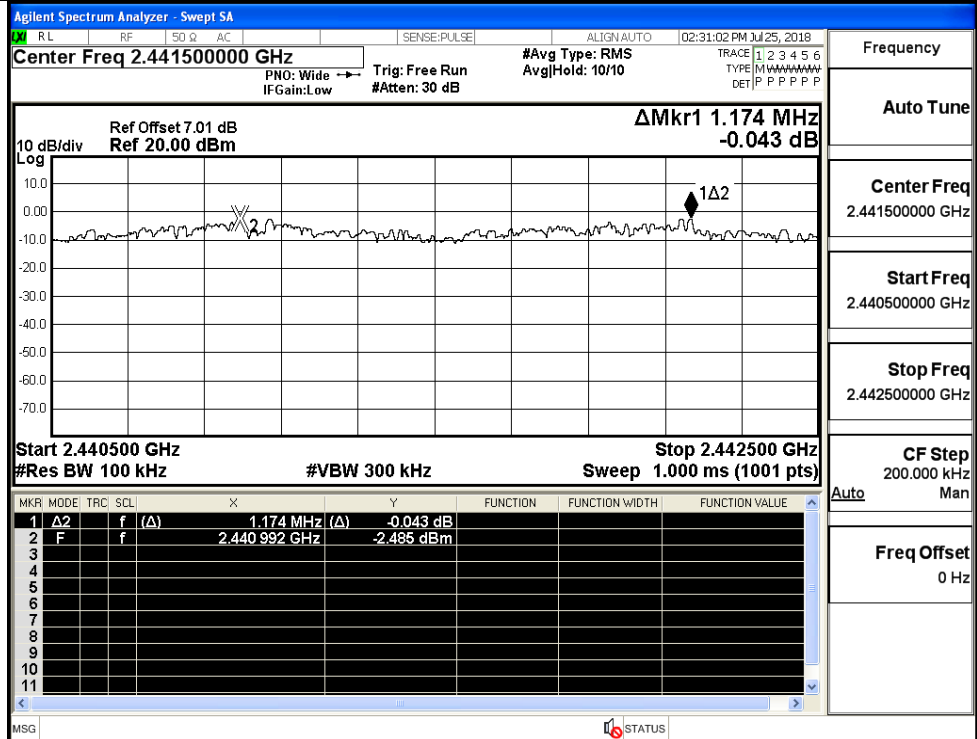
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

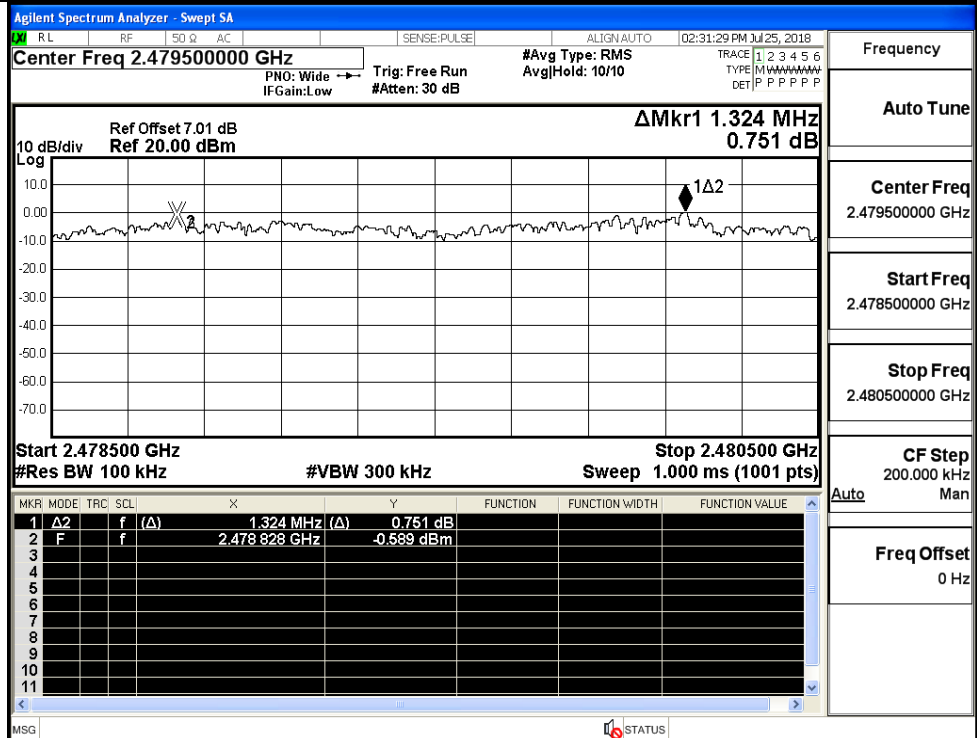
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

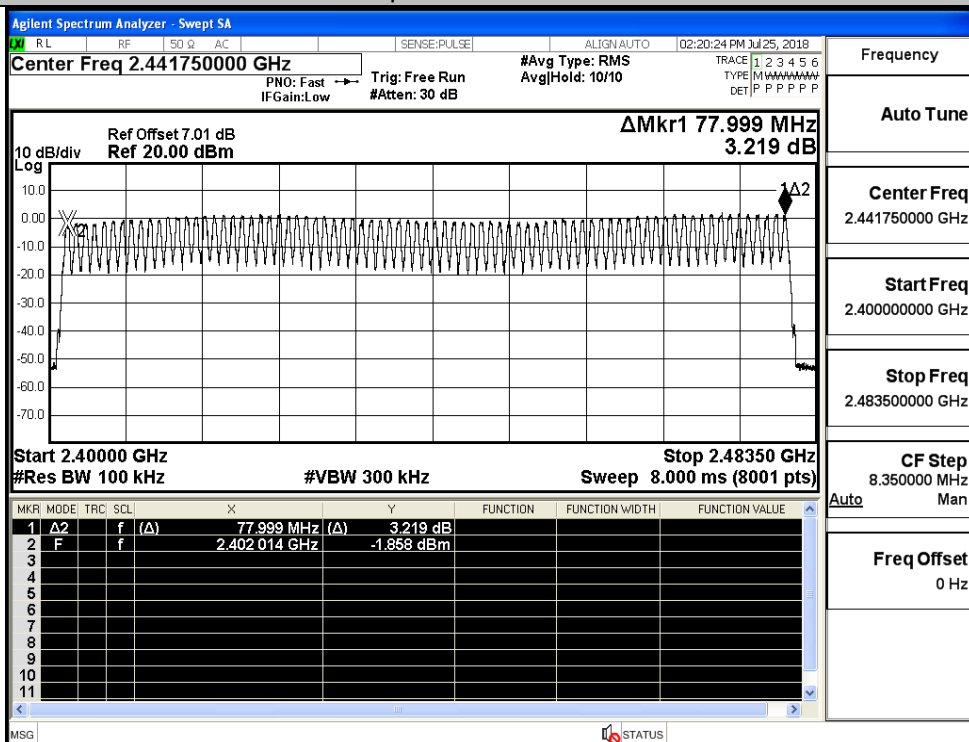
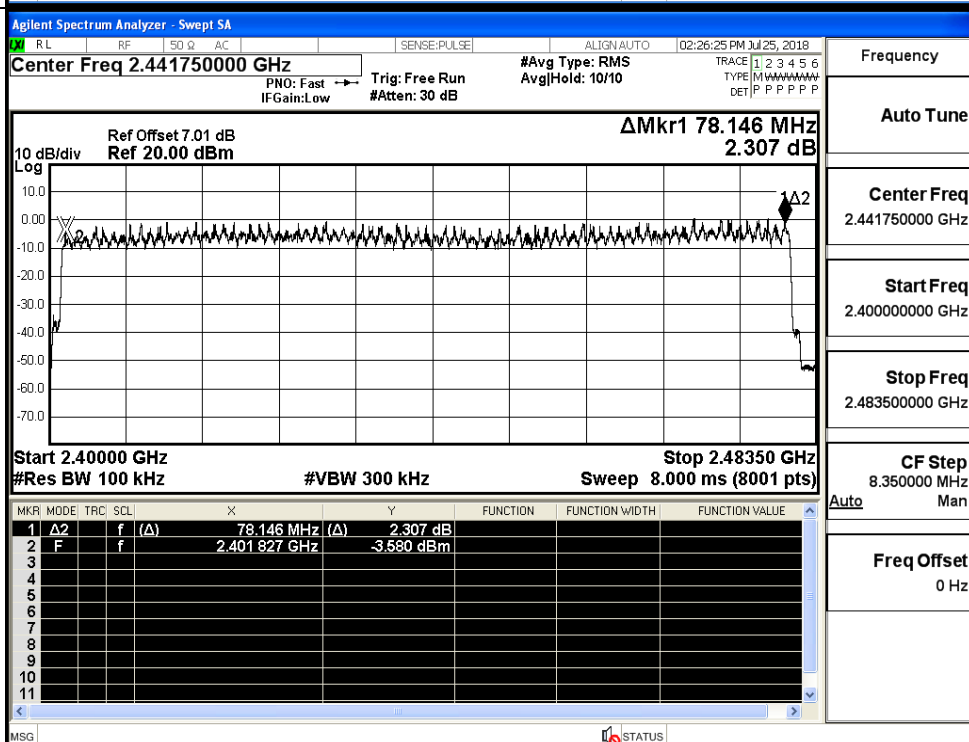


A.4 Hopping Channel Number

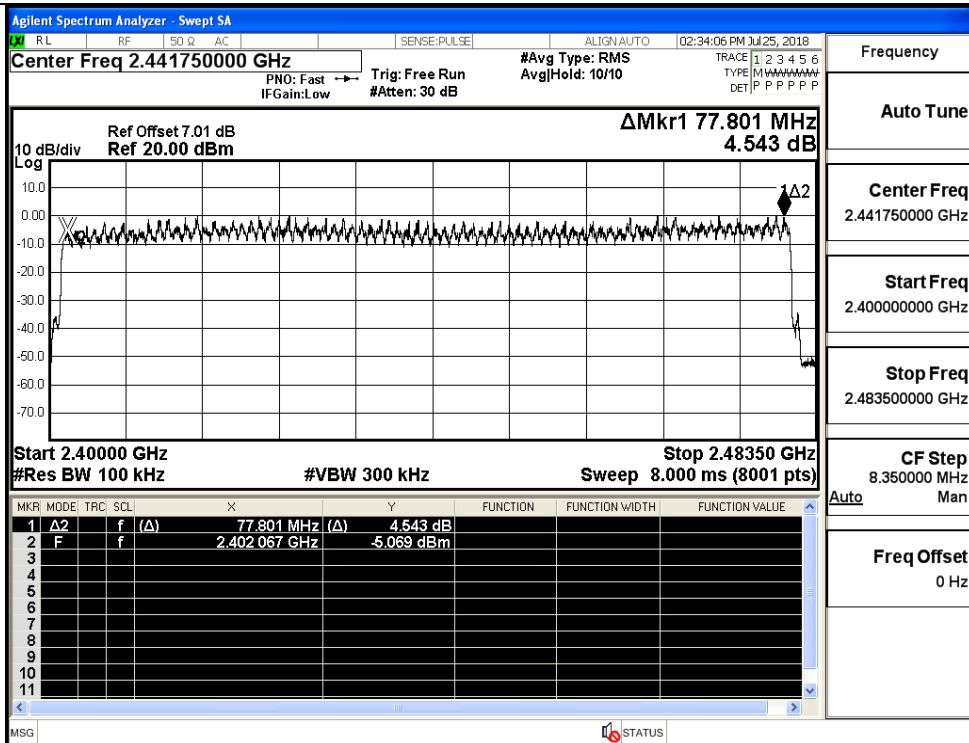
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

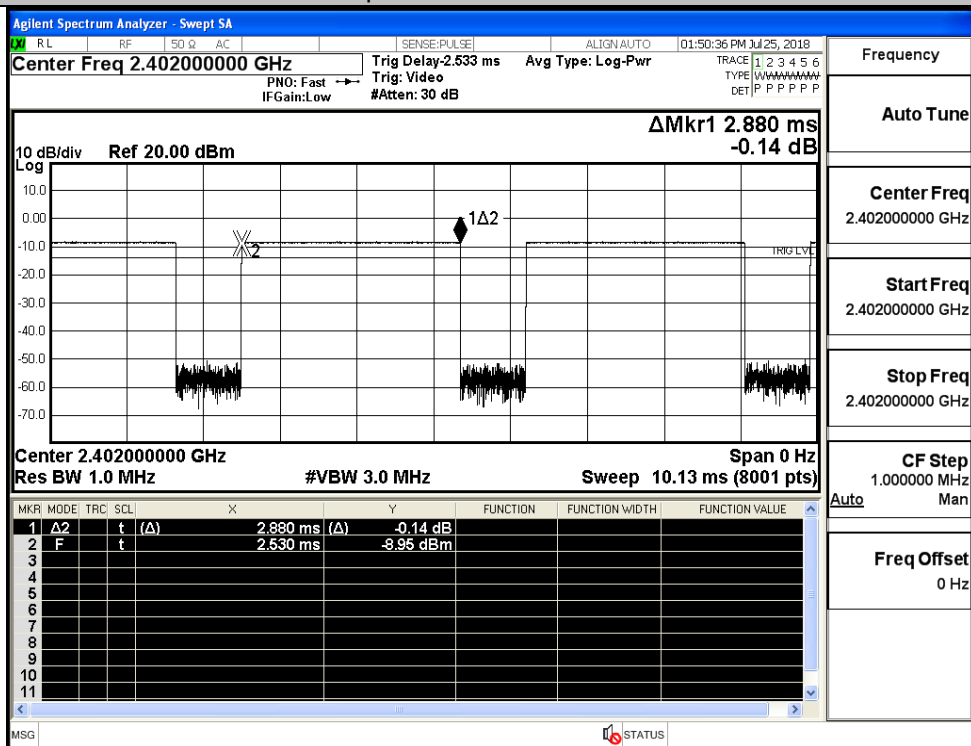


A.5 Dwell Time

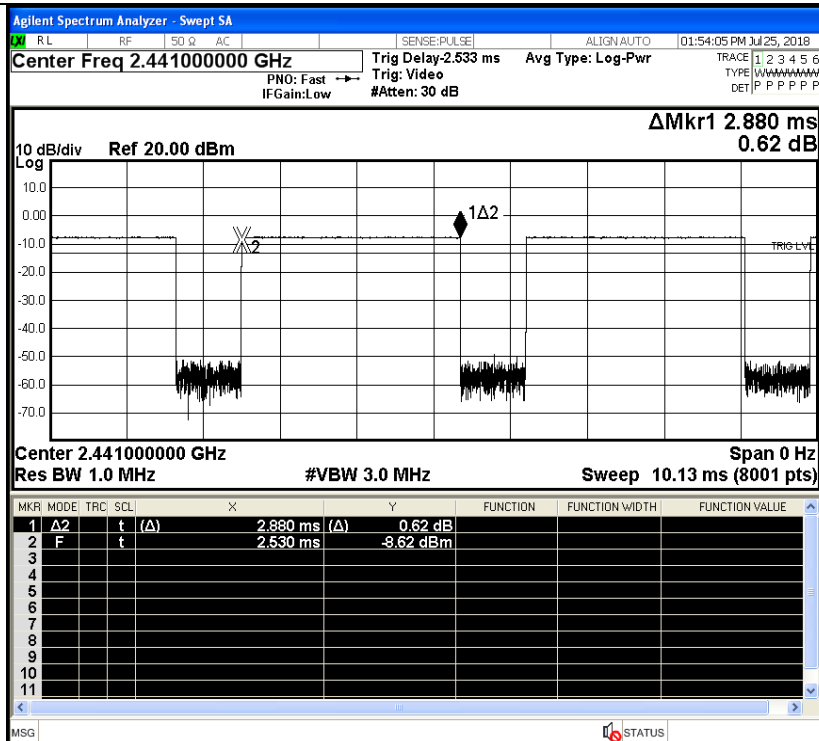
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

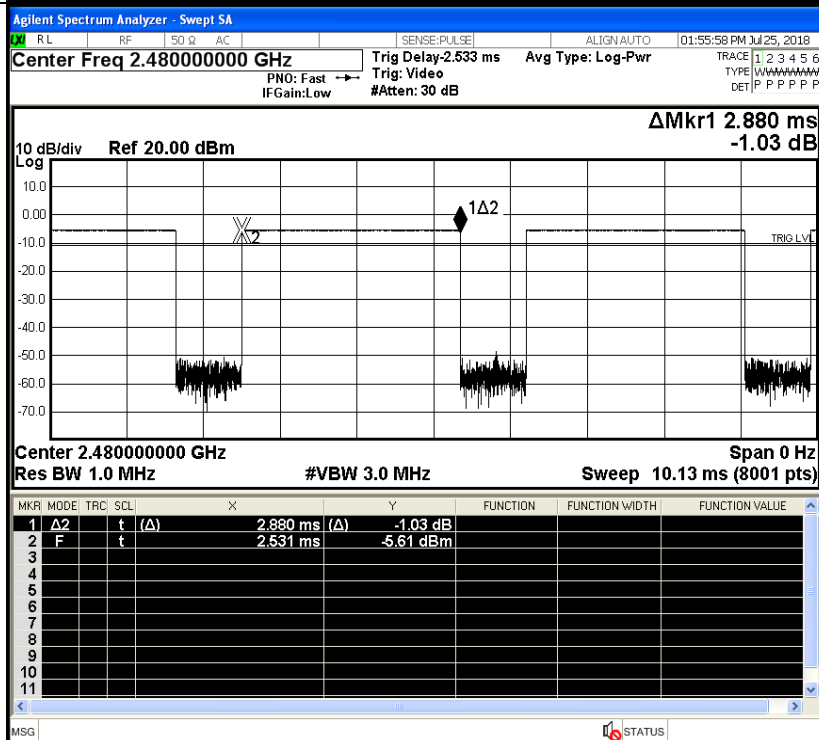


Frequency

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

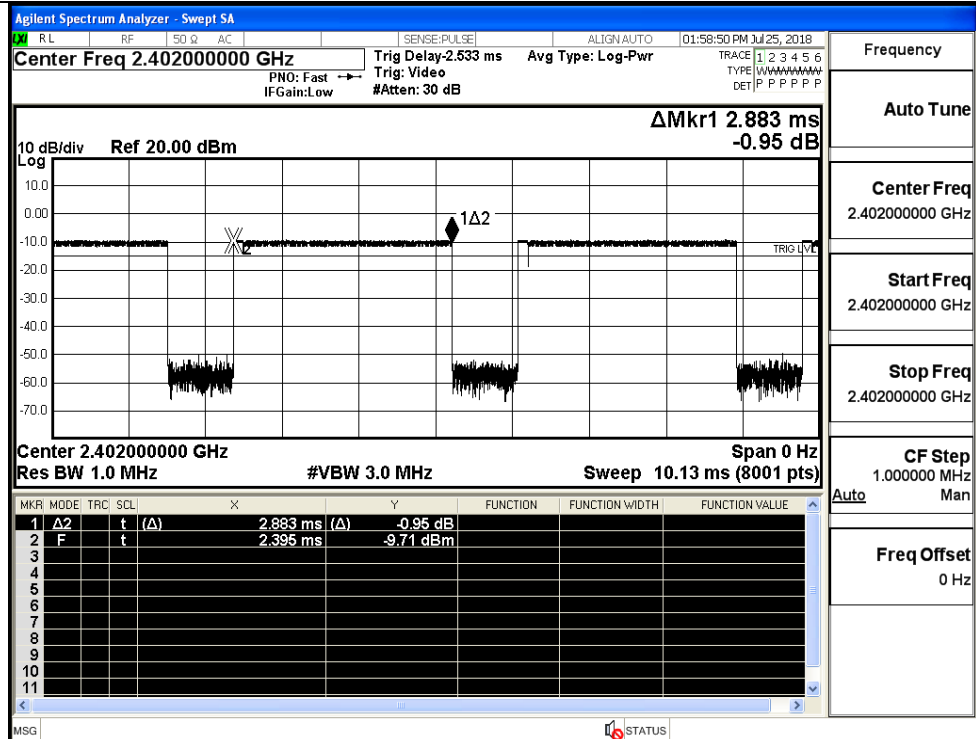


Frequency

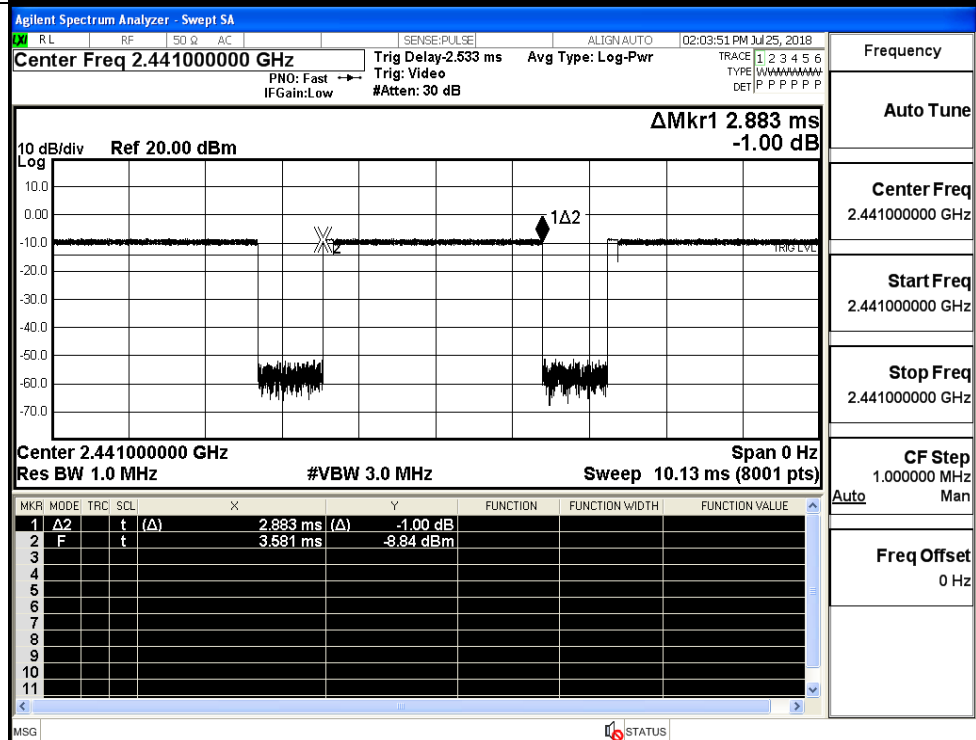
Auto Tune

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

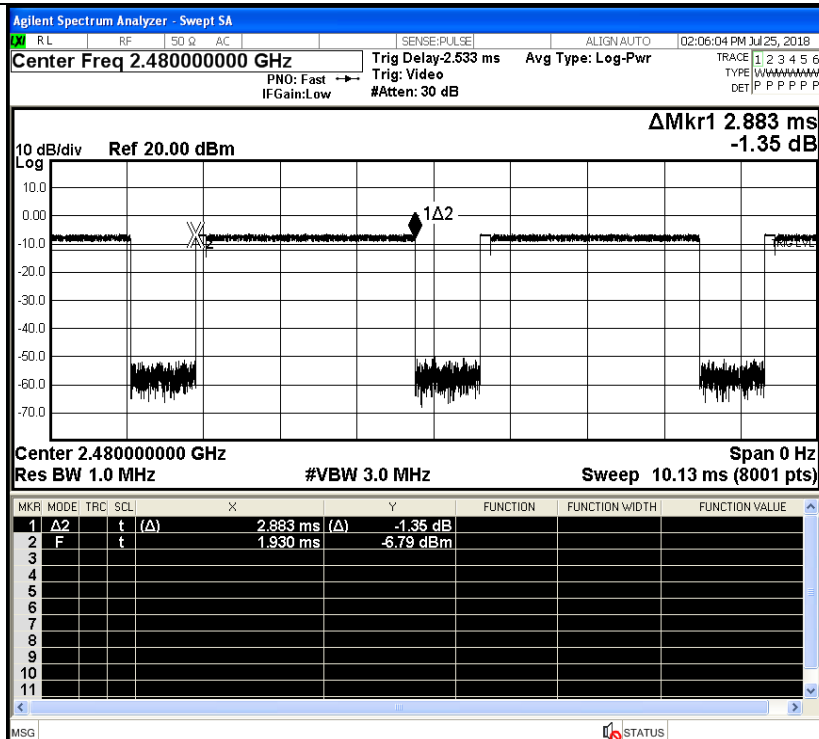
$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH



$\pi/4$ DQPSK
_2DH5/HCH



Frequency

Auto Tune

Center Freq
2.480000000 GHz

Start Freq
2.480000000 GHz

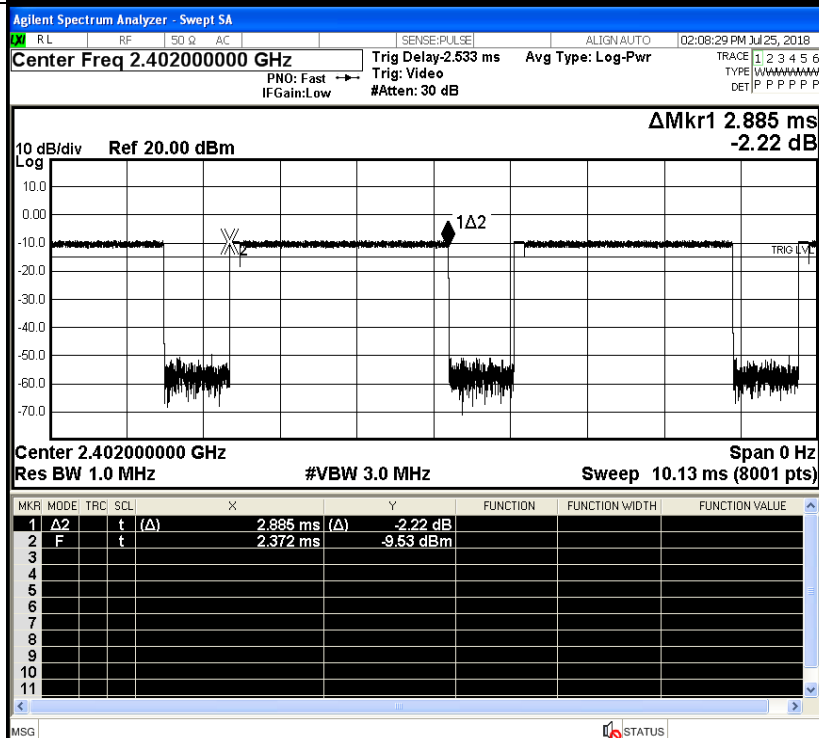
Stop Freq
2.480000000 GHz

CF Step
1.000000 MHz

Auto

Freq Offset
0 Hz

8DPSK _3DH5/LCH



Frequency

Auto Tune

Center Freq
2.402000000 GHz

Start Freq
2.402000000 GHz

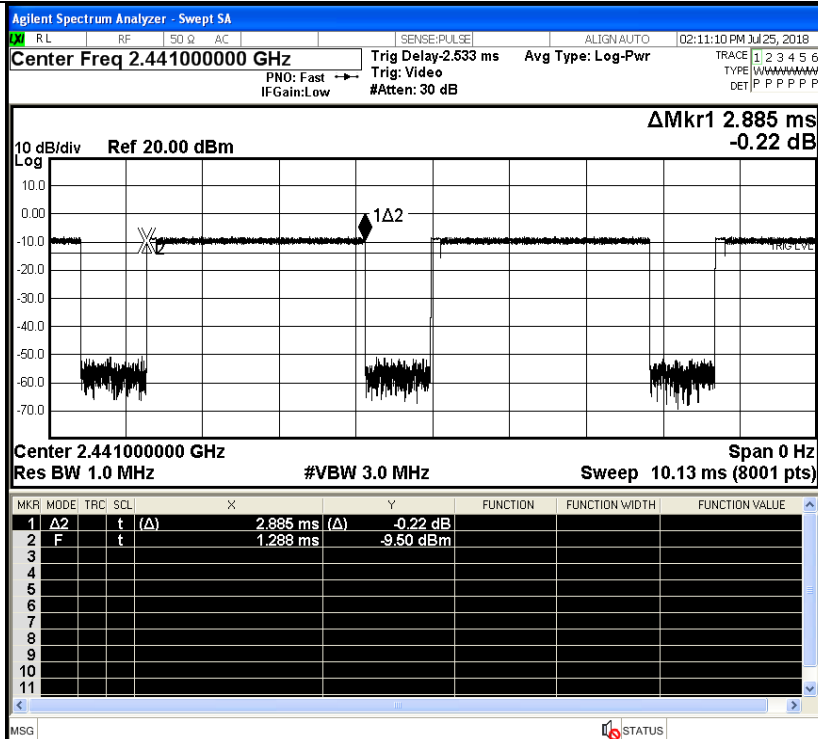
Stop Freq
2.402000000 GHz

CF Step
1.000000 MHz

Auto

Freq Offset
0 Hz

8DPSK_3DH5/MCH

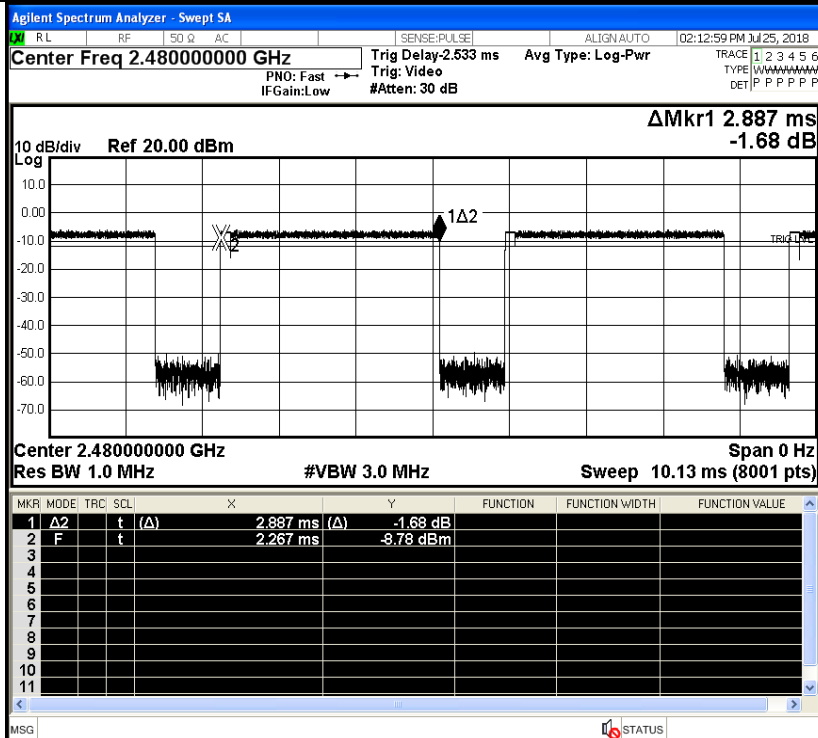


Frequency

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

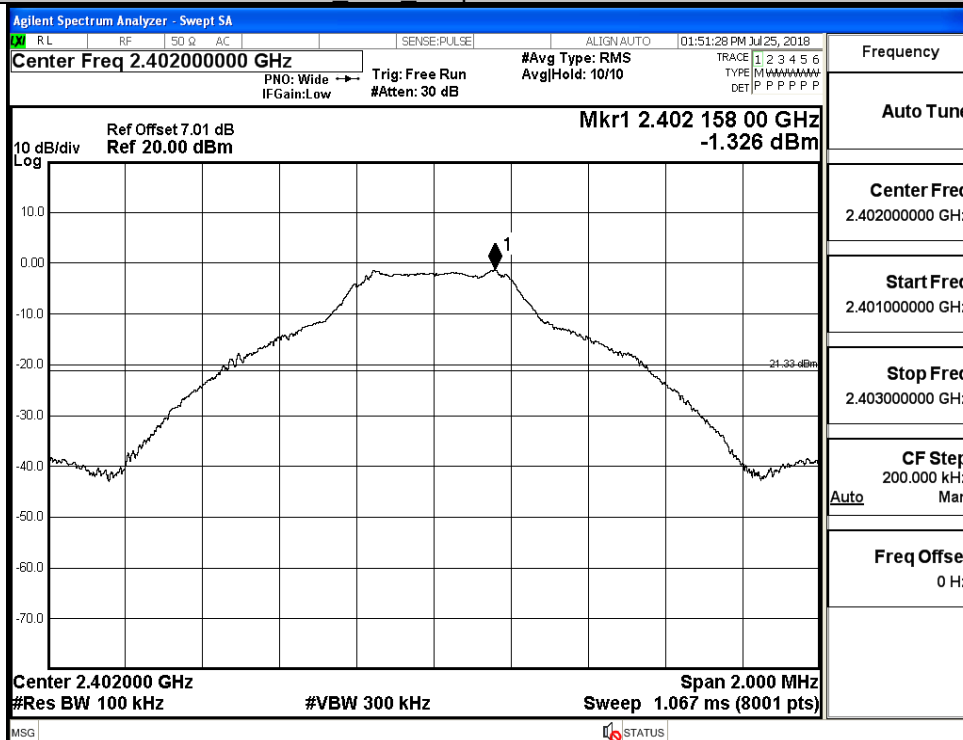
Center Freq
2.480000000 GHzStart Freq
2.480000000 GHzStop Freq
2.480000000 GHzCF Step
1.000000 MHz
Auto ManFreq Offset
0 Hz

A.6 RF Conducted Spurious Emissions

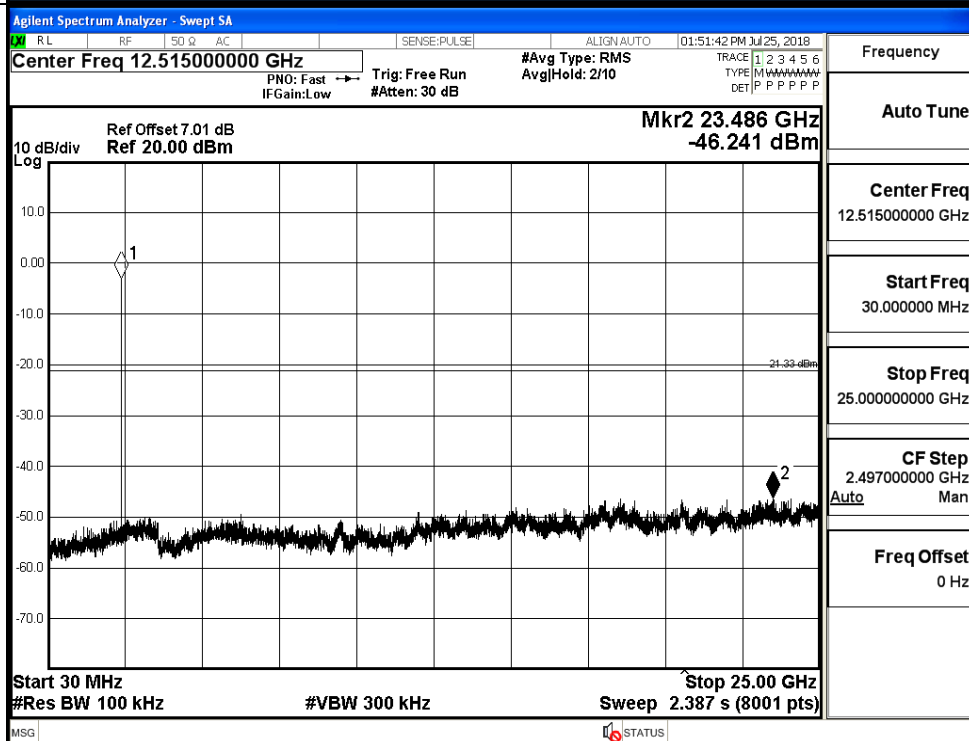
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-1.326	-46.241	-21.326	PASS
	MCH	-0.833	-45.612	-20.833	PASS
	HCH	1.363	-45.485	-18.637	PASS
$\pi/4$ DQPSK	LCH	-2.682	-45.440	-22.682	PASS
	MCH	-2.285	-45.850	-22.285	PASS
	HCH	0.152	-45.341	-19.848	PASS
8DPSK	LCH	-2.712	-45.870	-22.712	PASS
	MCH	-1.687	-45.358	-21.687	PASS
	HCH	-0.536	-46.256	-20.536	PASS

GFSK LCH Graphs

Pref

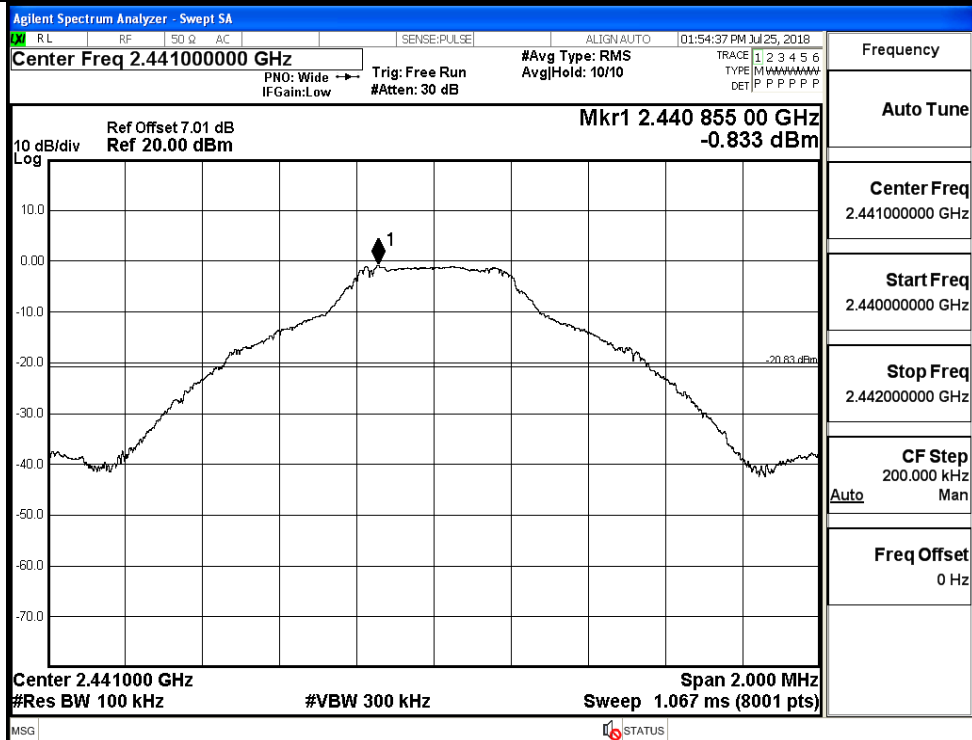


Puw

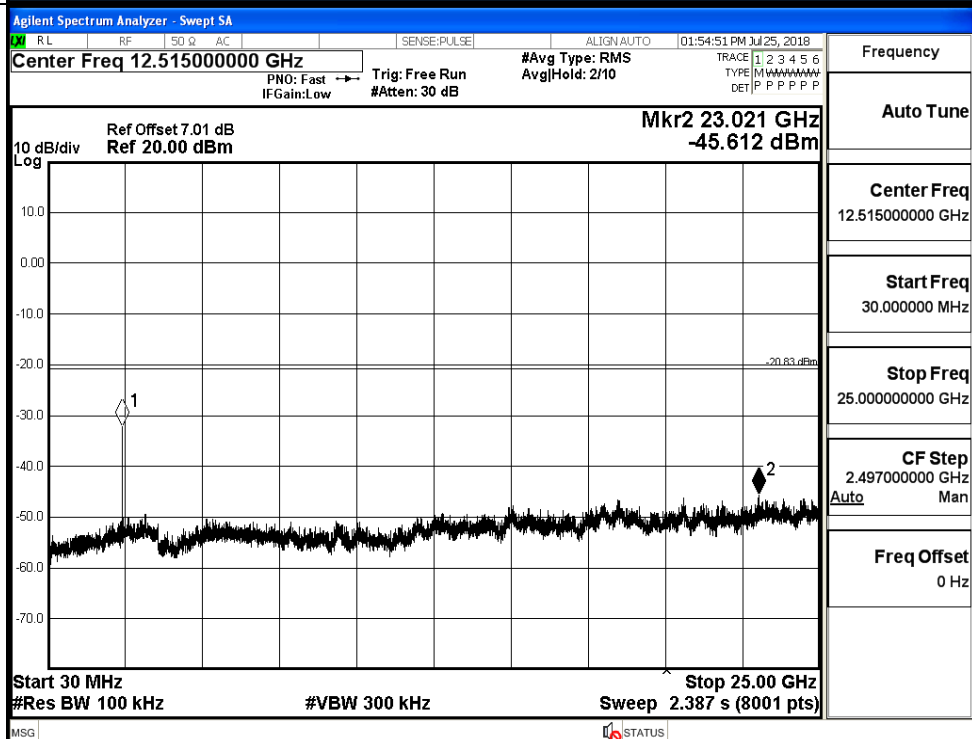


GFSK MCH Graphs

Pref

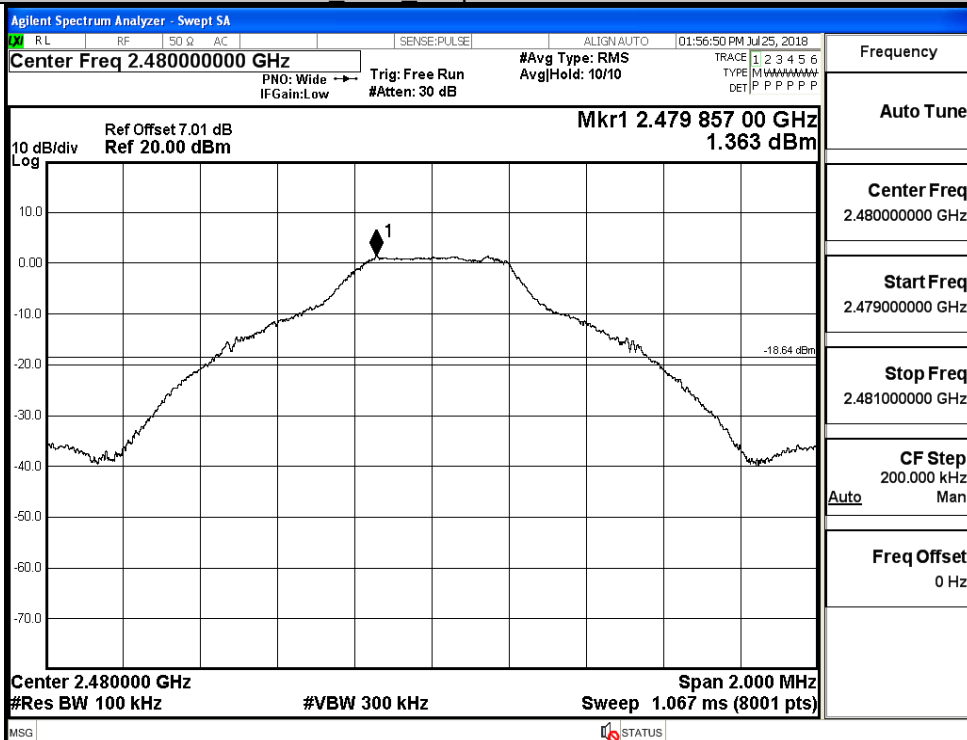


Puw

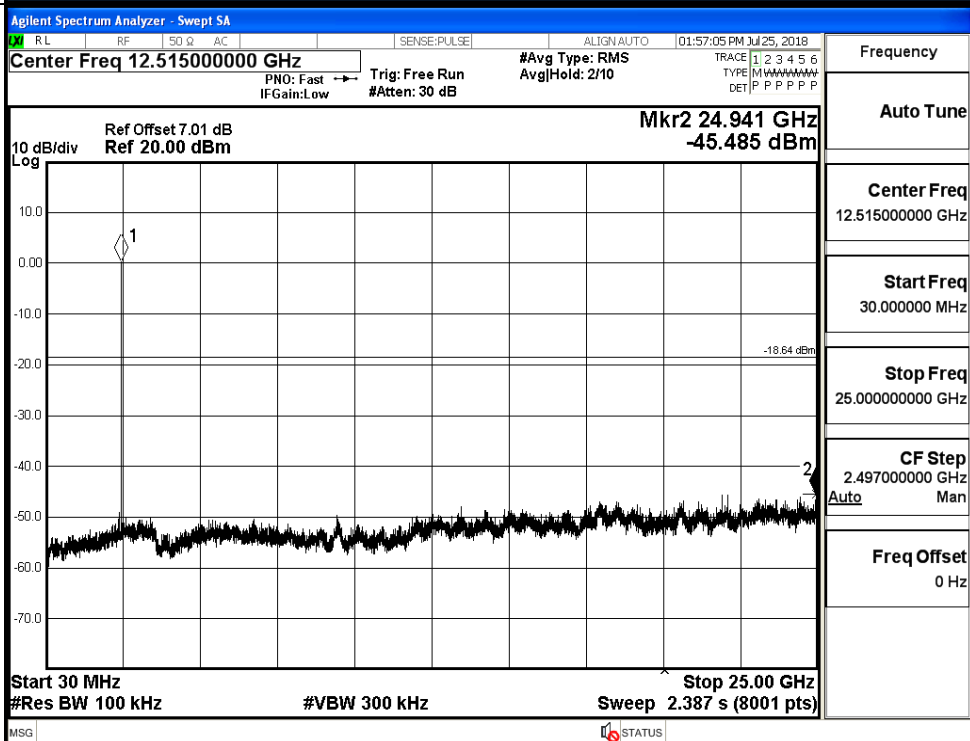


GFSK HCH Graphs

Pref

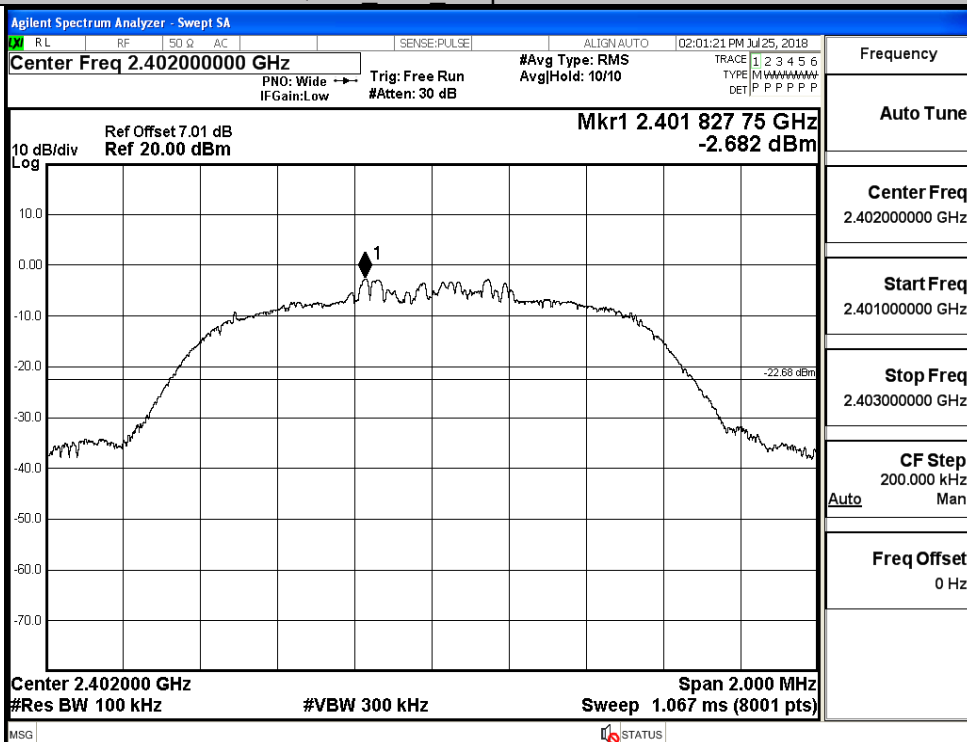


Puw

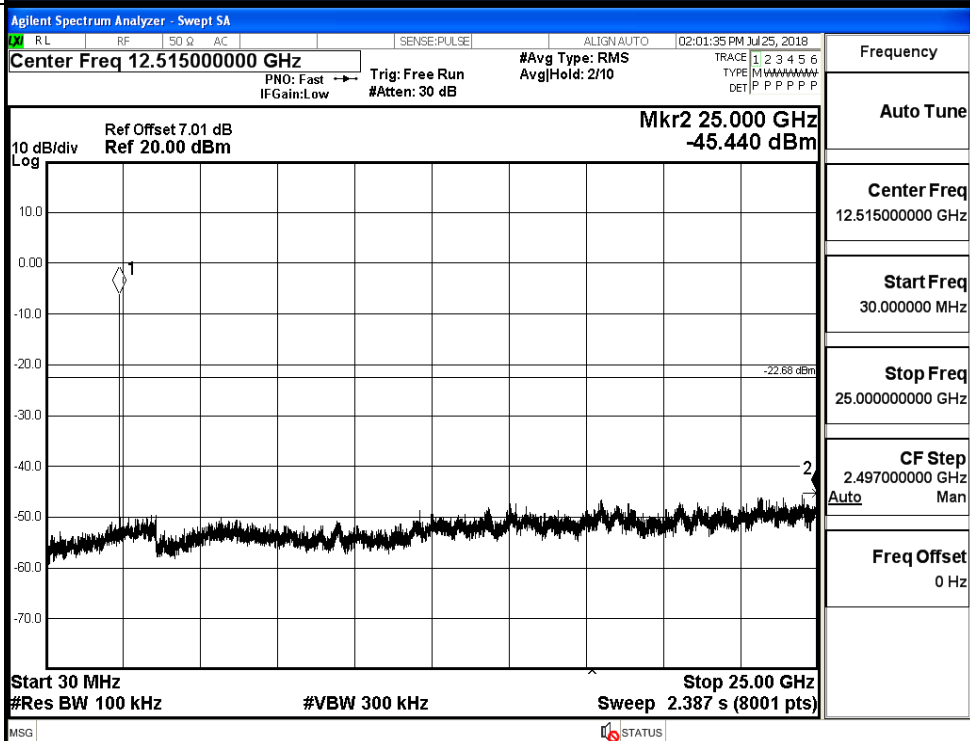


π /4DQPSK LCH Graphs

Pref

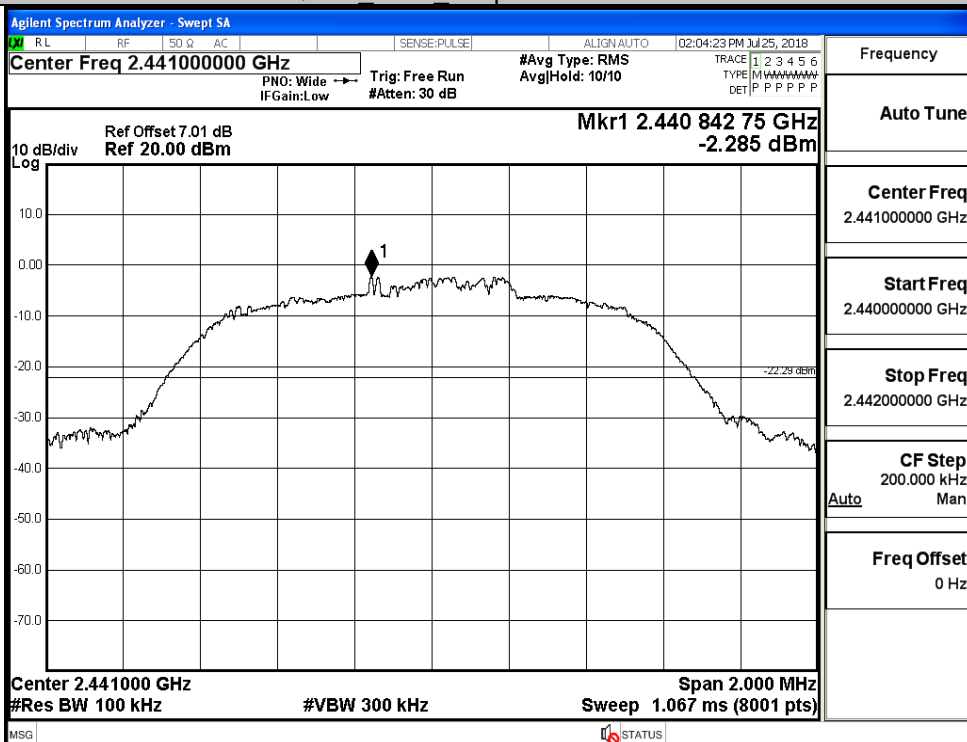


Puw

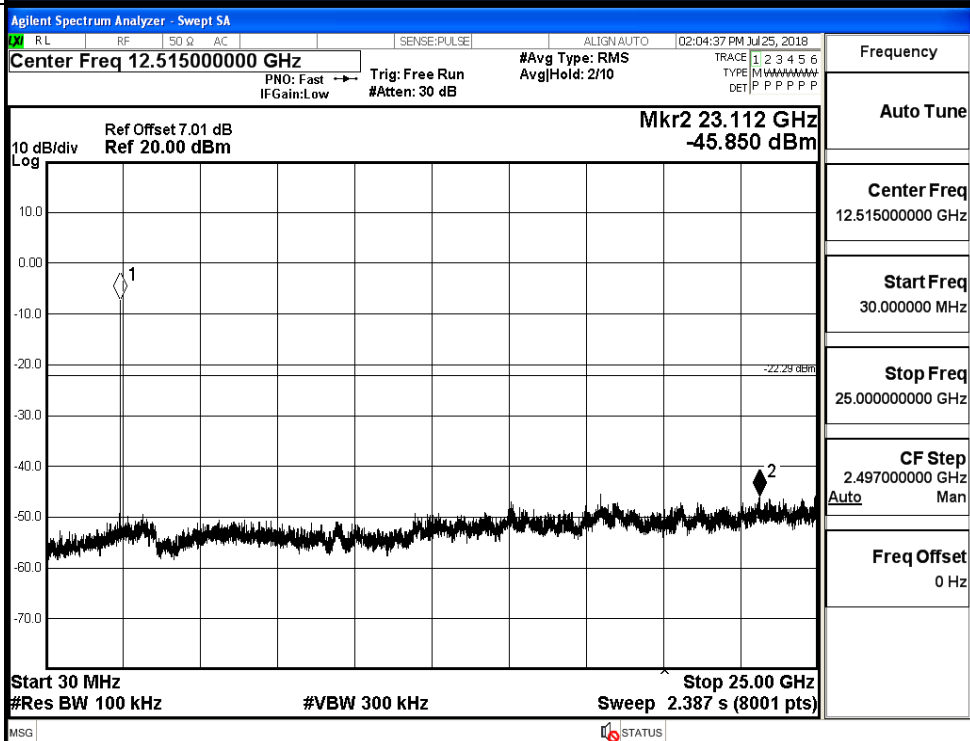


π /4DQPSK MCH Graphs

Pref

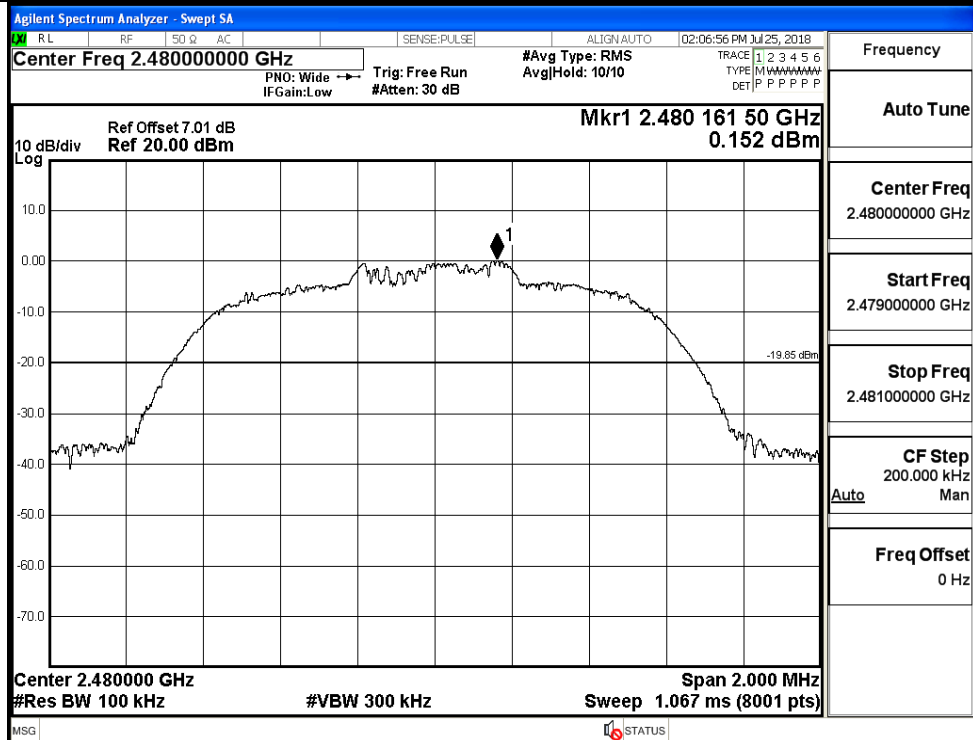


Puw

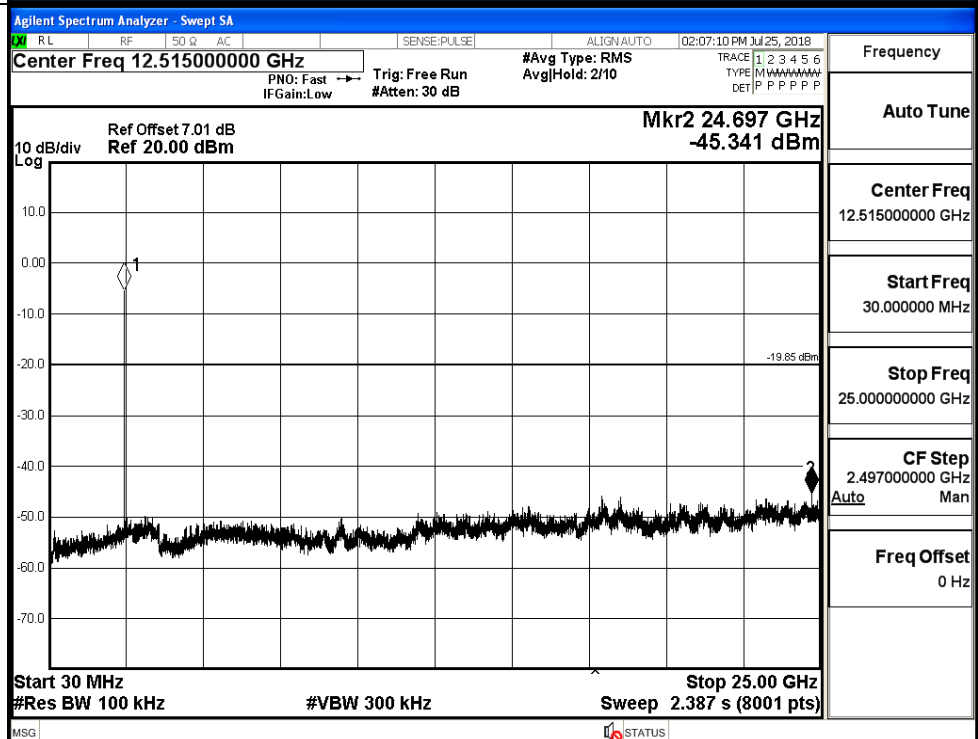


$\pi/4$ DQPSK HCH Graphs

Pref

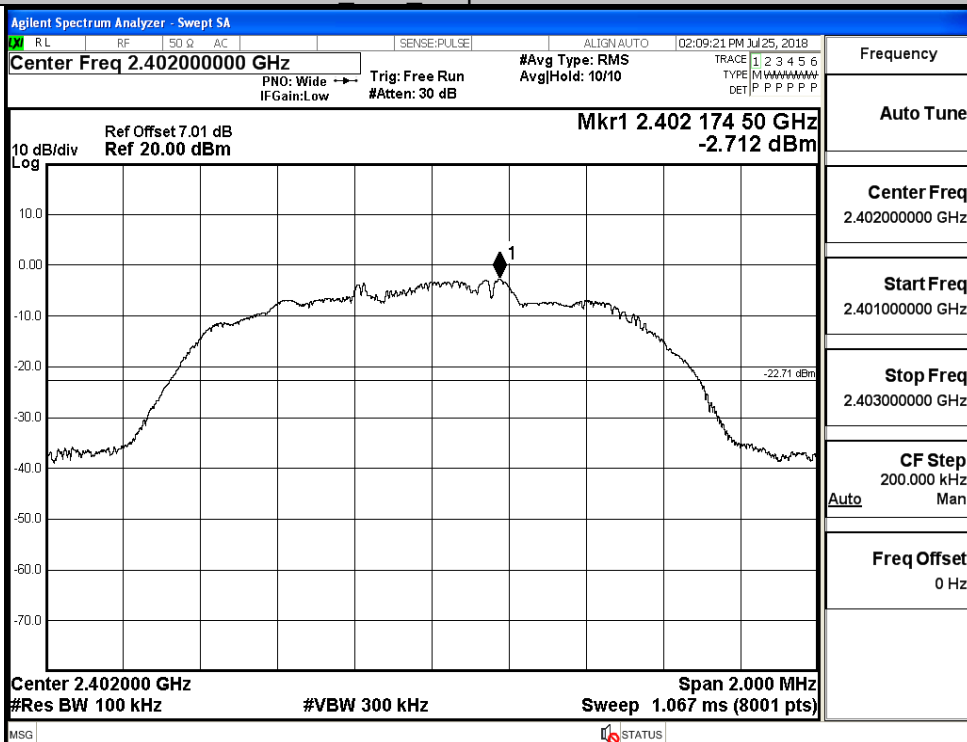


Puw

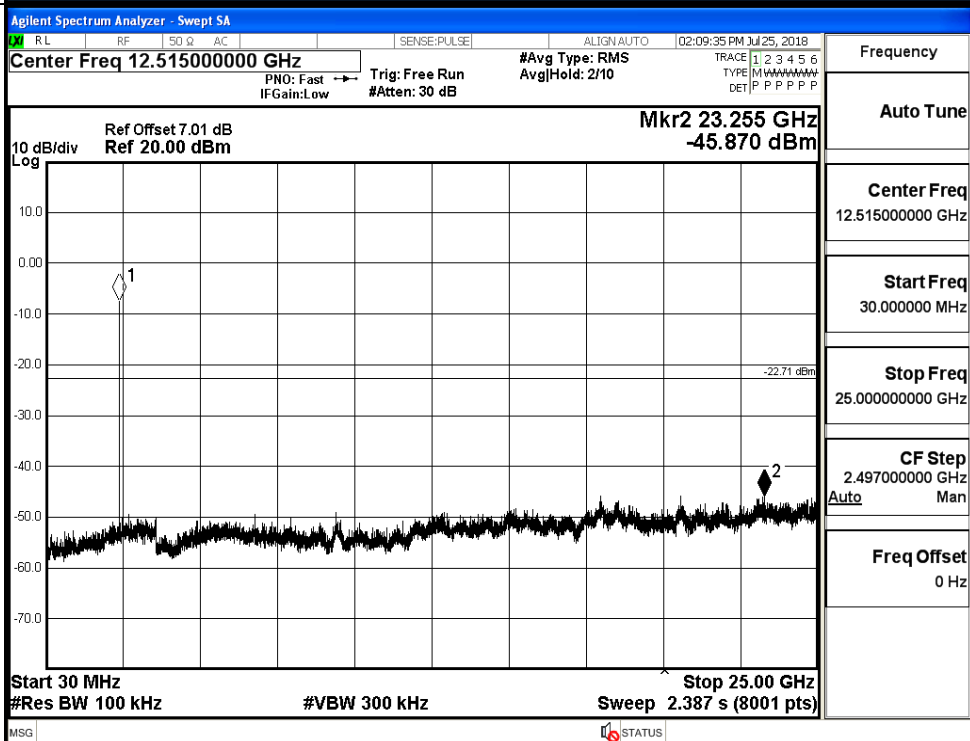


8DPSK LCH Graphs

Pref

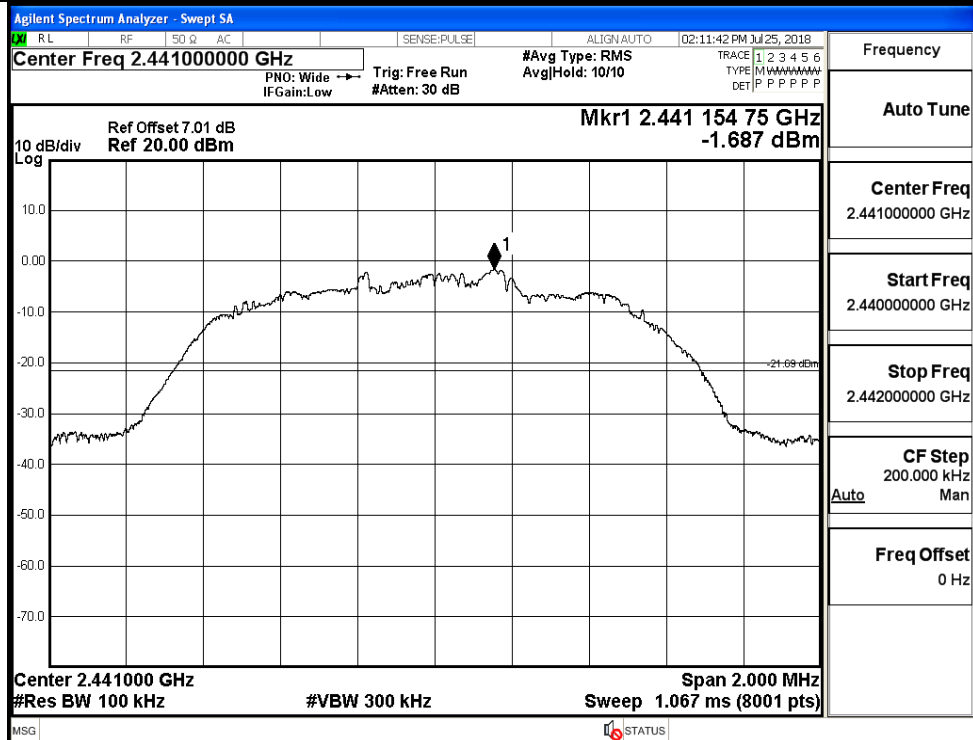


Puw

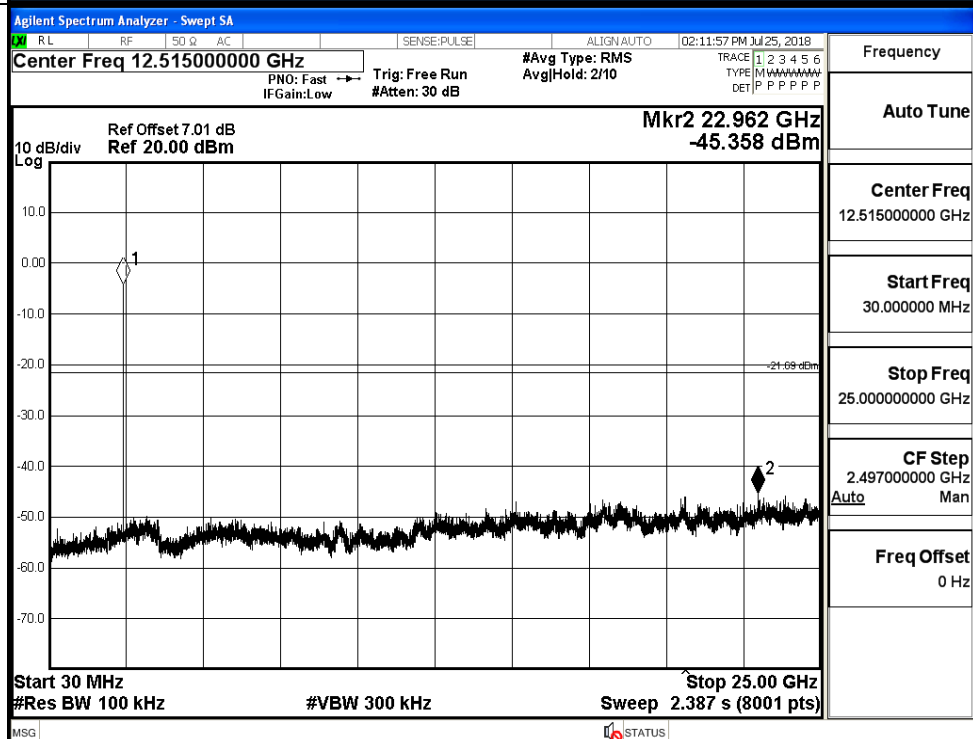


8DPSK MCH Graphs

Pref

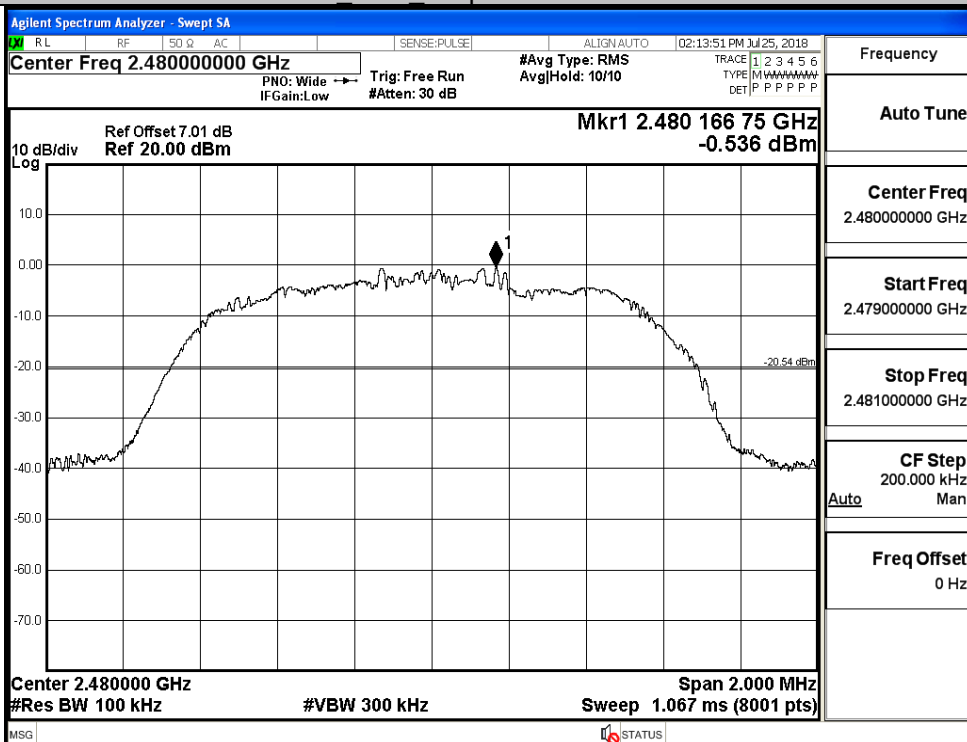


Puw

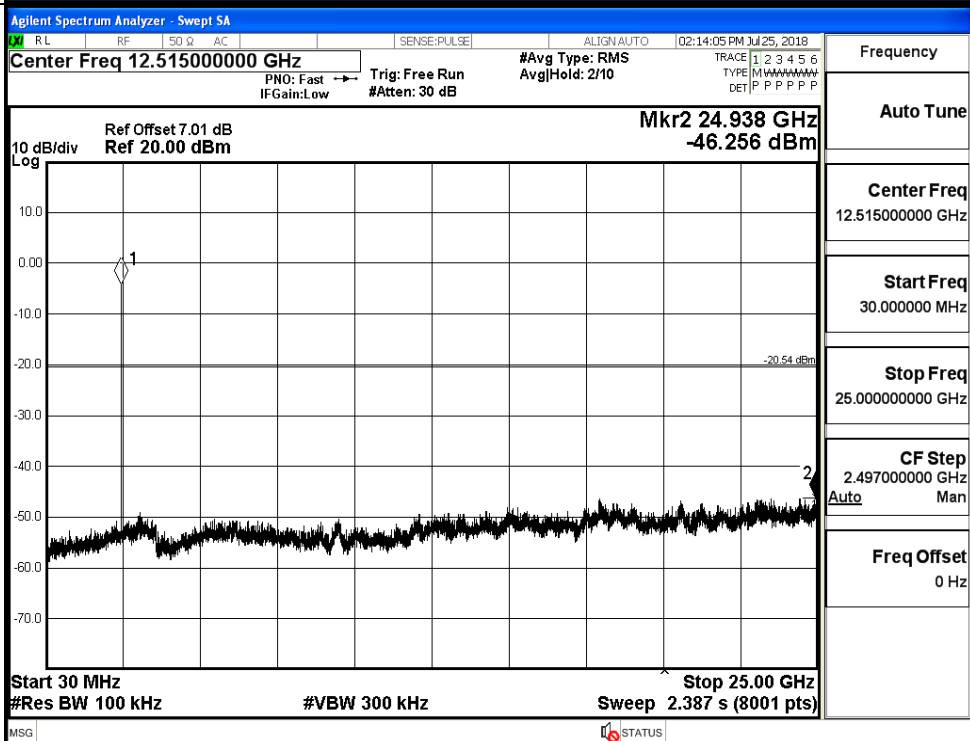


8DPSK_HCH Graphs

Pref



Puw

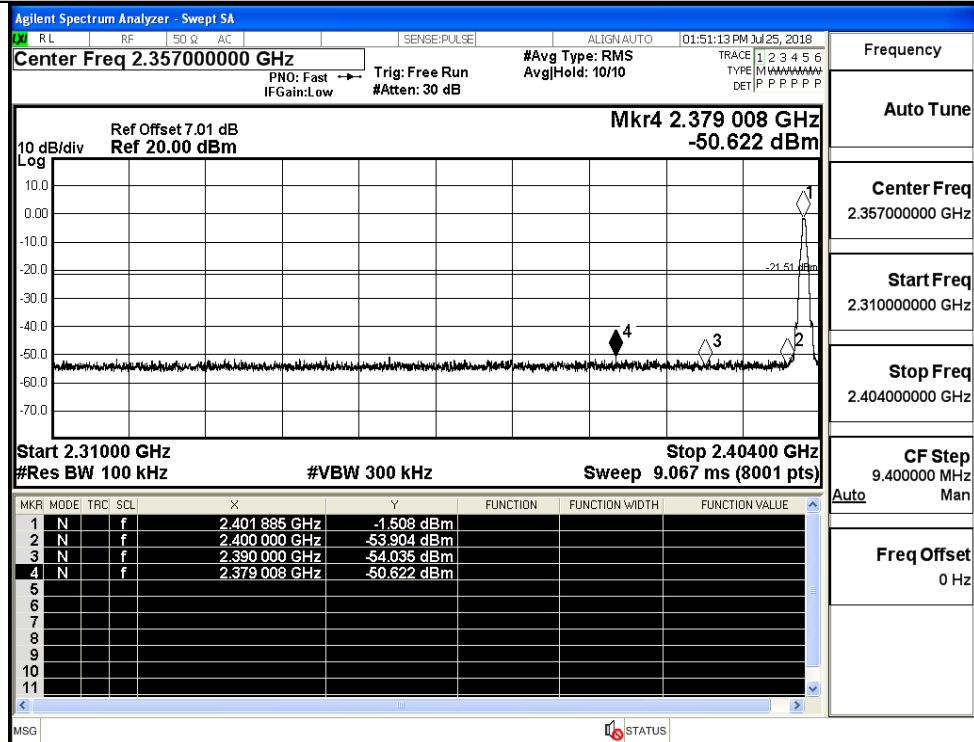


A.7 Band-edge for RF Conducted Emissions

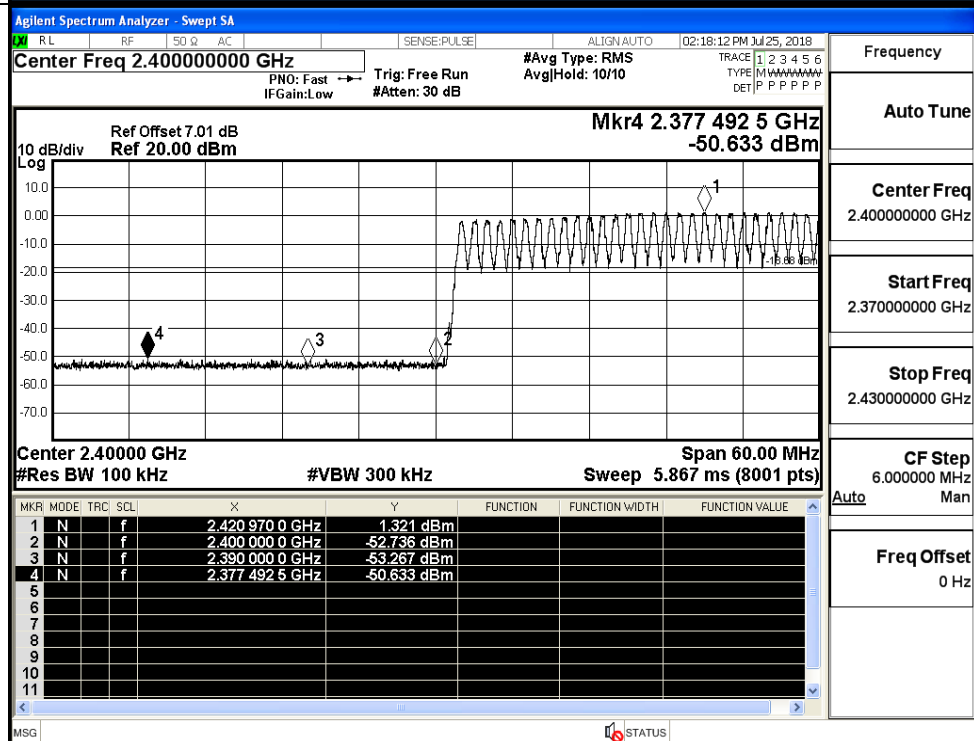
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-1.508	Off	-50.622	-21.51	PASS
			1.321	On	-50.633	-18.68	PASS
	HCH	2480	1.611	Off	-50.913	-18.39	PASS
			1.961	On	-50.066	-18.04	PASS
$\pi/4$ DQPSK	LCH	2402	-2.439	Off	-51.131	-22.44	PASS
			-0.135	On	-50.280	-20.14	PASS
	HCH	2480	-0.041	Off	-50.209	-20.04	PASS
			0.464	On	-50.344	-19.54	PASS
8DPSK	LCH	2402	-2.521	Off	-50.595	-22.52	PASS
			-0.028	On	-50.356	-20.03	PASS
	HCH	2480	0.267	Off	-50.618	-19.73	PASS
			0.308	On	-49.918	-19.69	PASS

Test Graphs

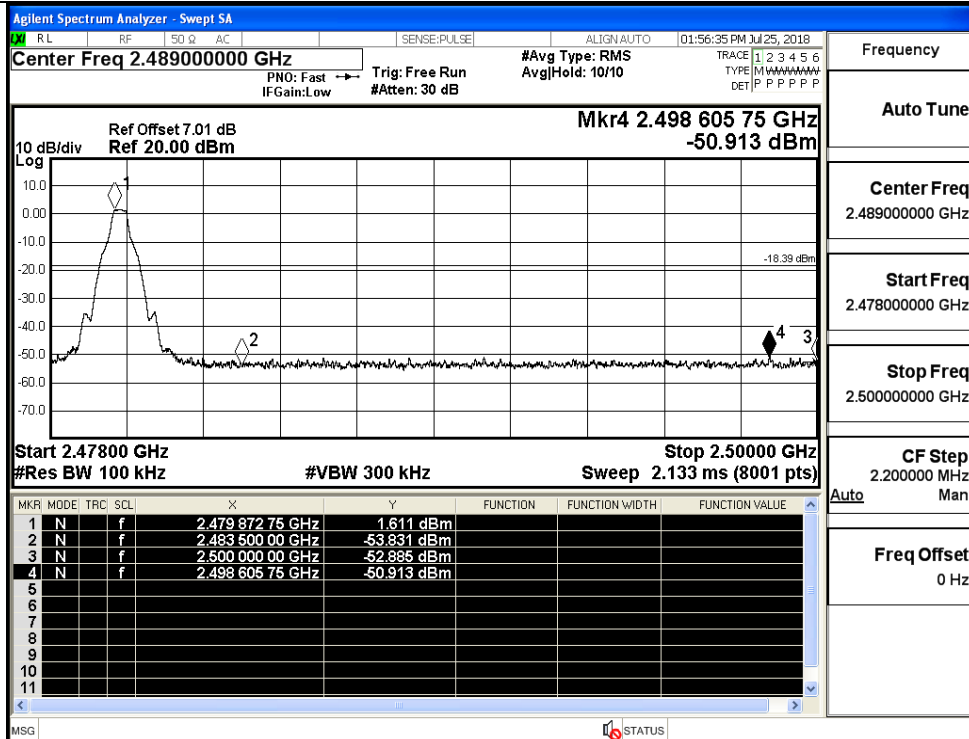
GFSK/LCH/No Hop



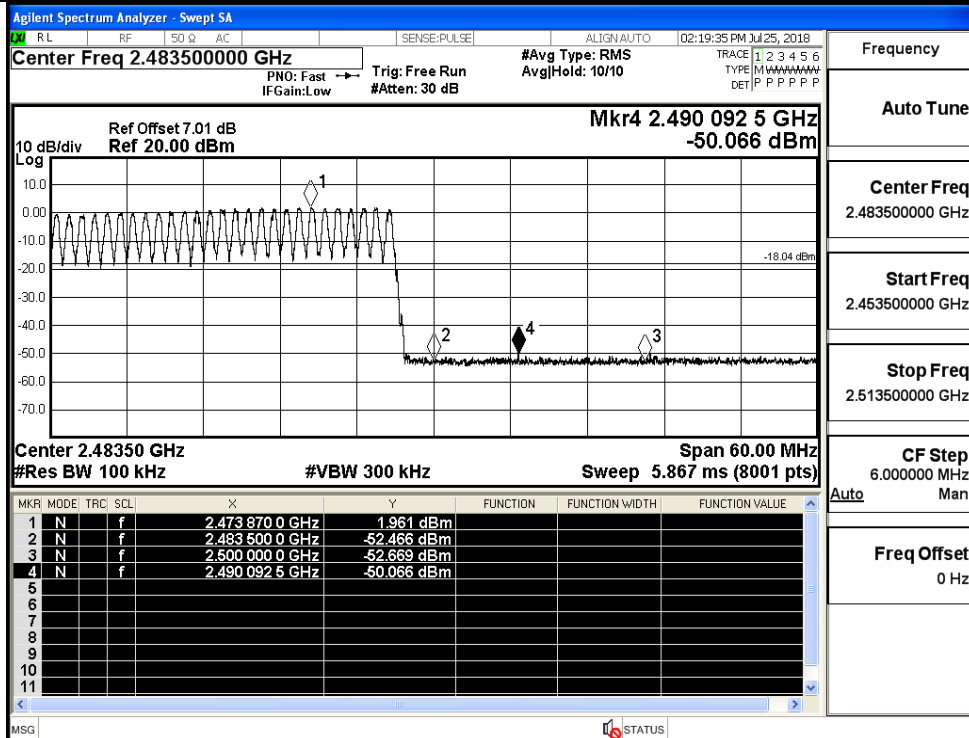
GFSK/LCH/Hop



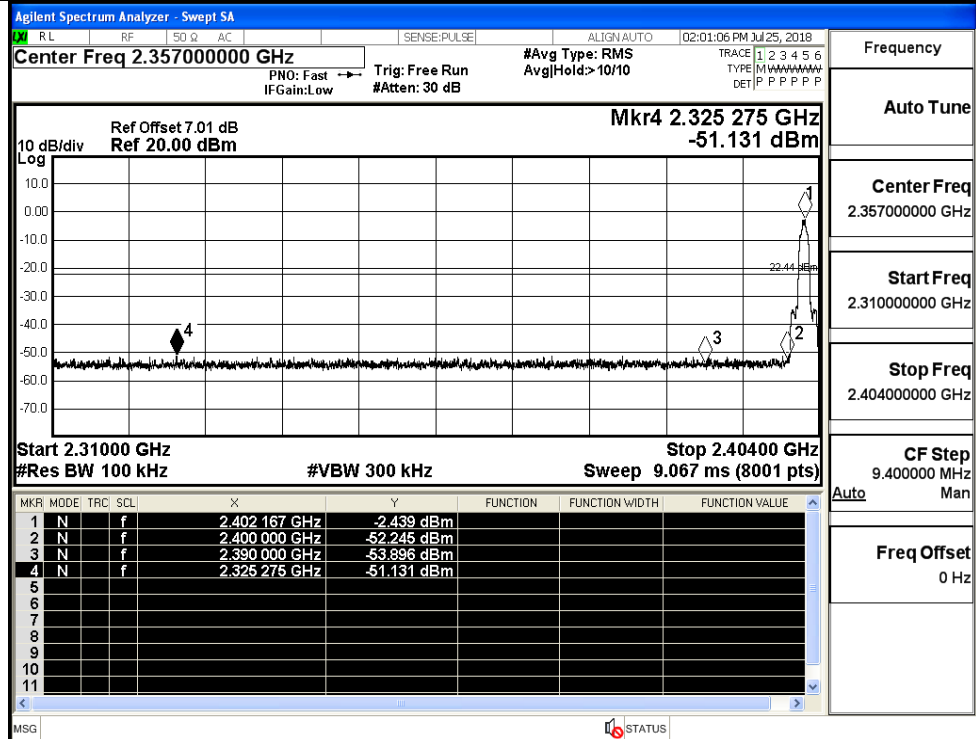
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

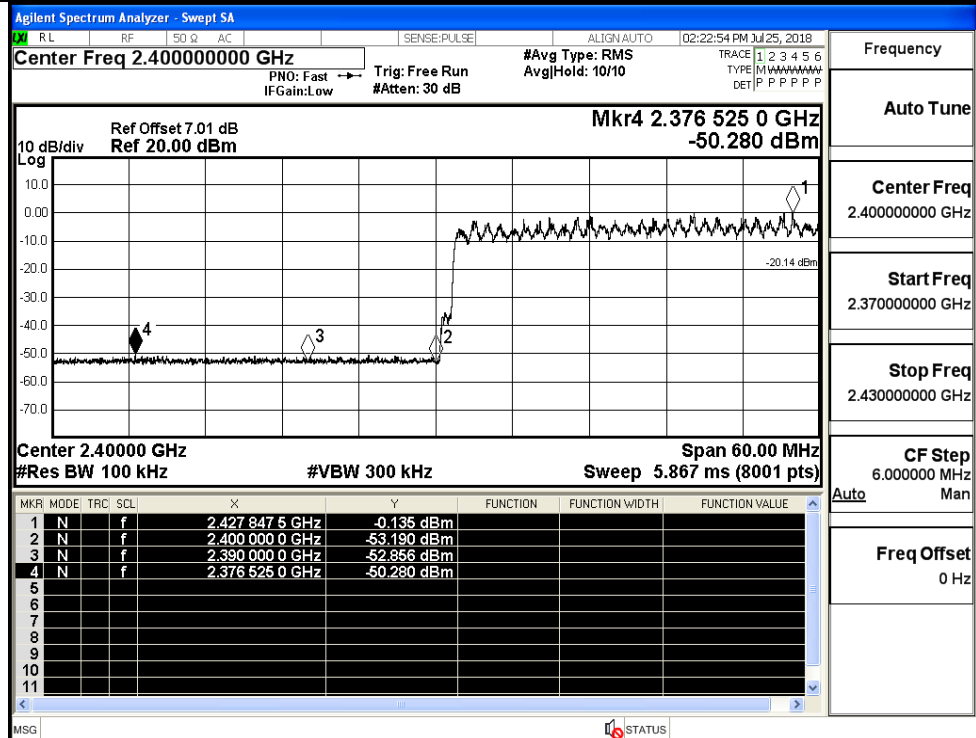
Start Freq
2.310000000 GHz

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

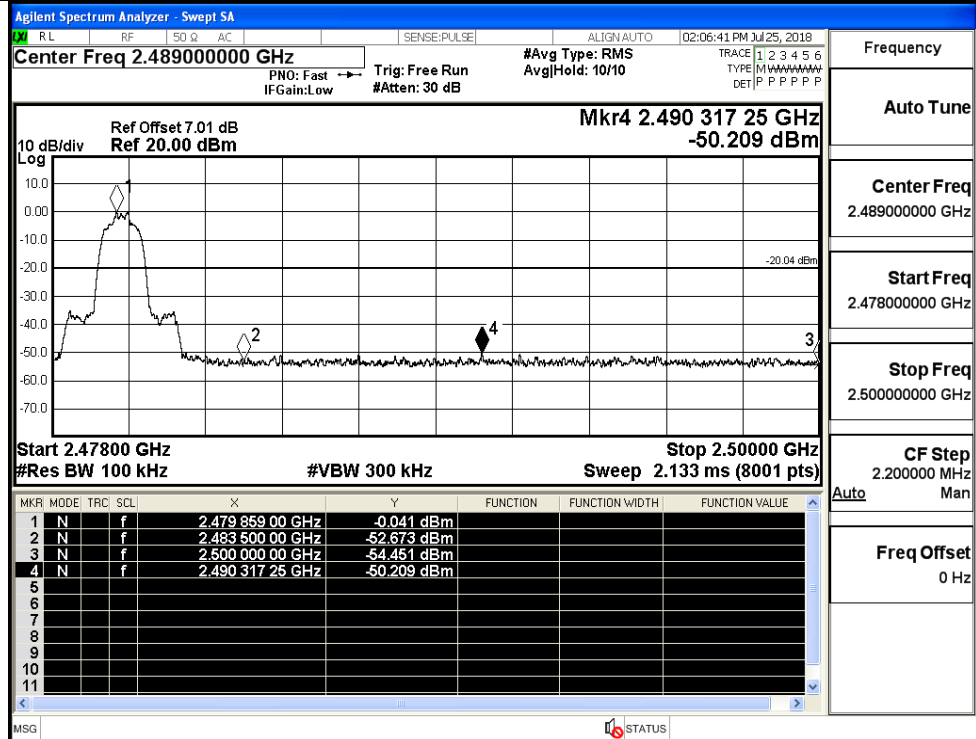
Start Freq
2.370000000 GHz

Stop Freq
2.430000000 GHz

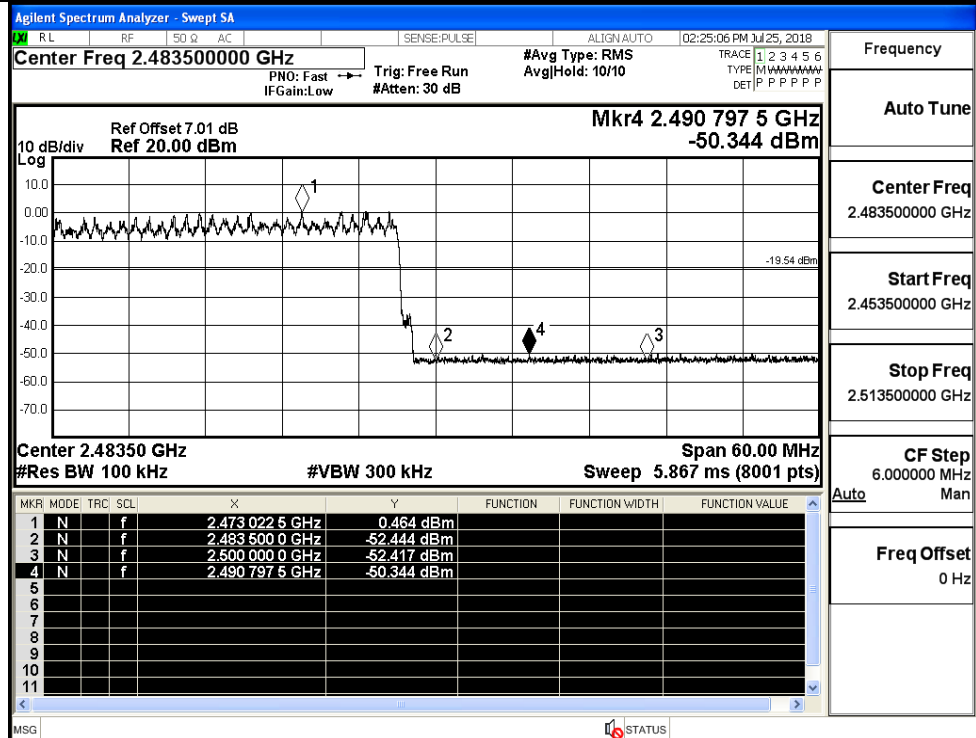
CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

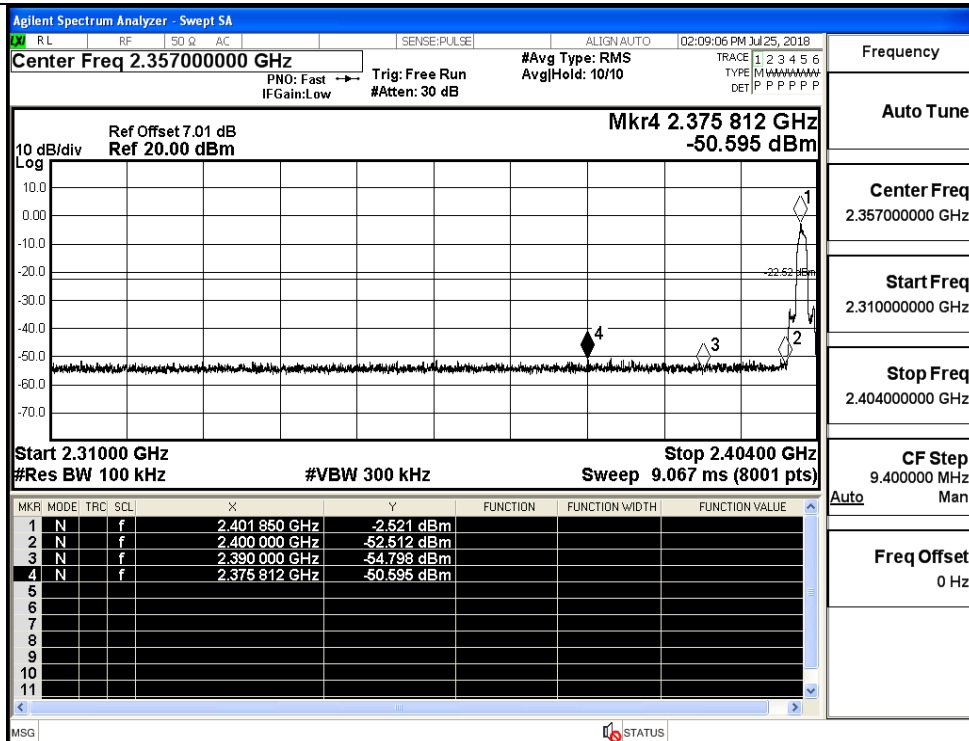
$\pi/4$ DQPSK/HCH/No
Hop



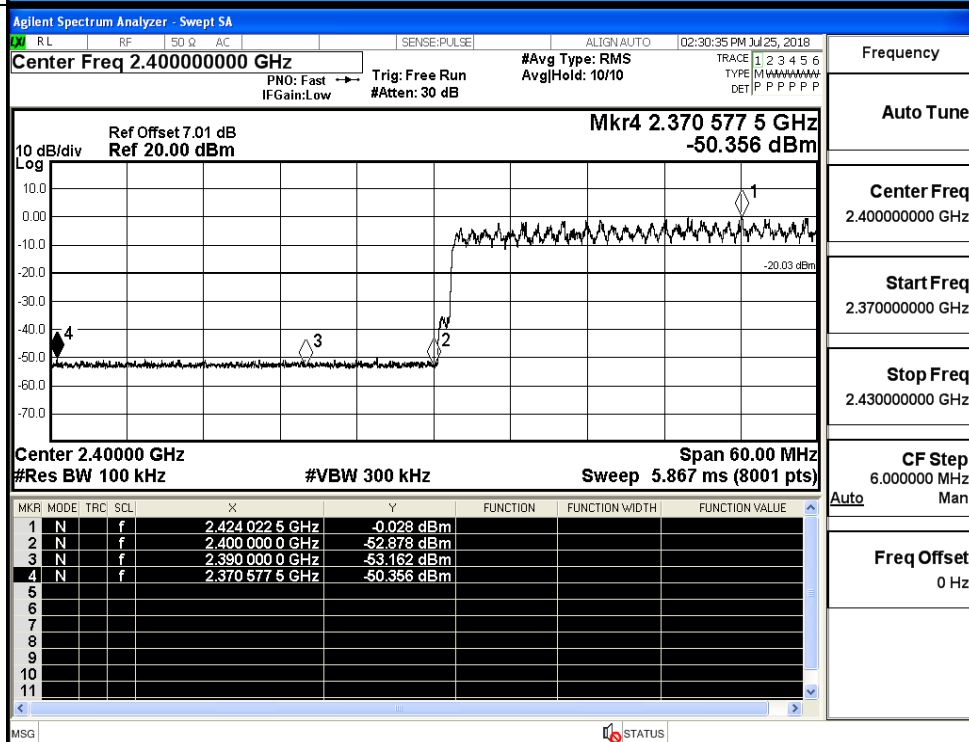
$\pi/4$ DQPSK/HCH/Hop



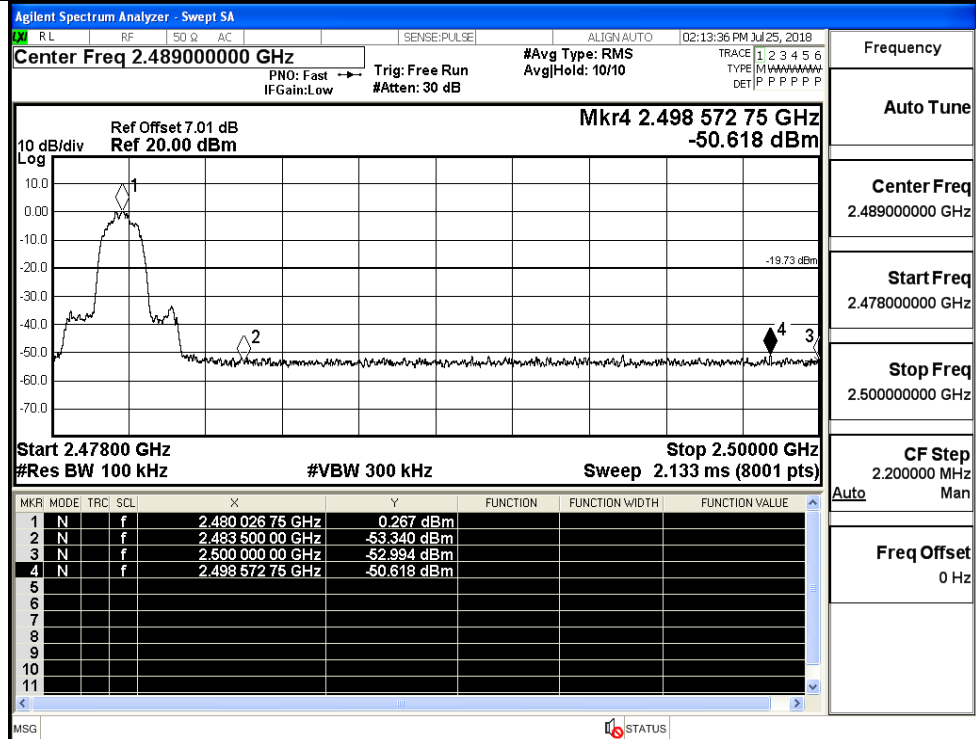
8DPSK/LCH/No Hop



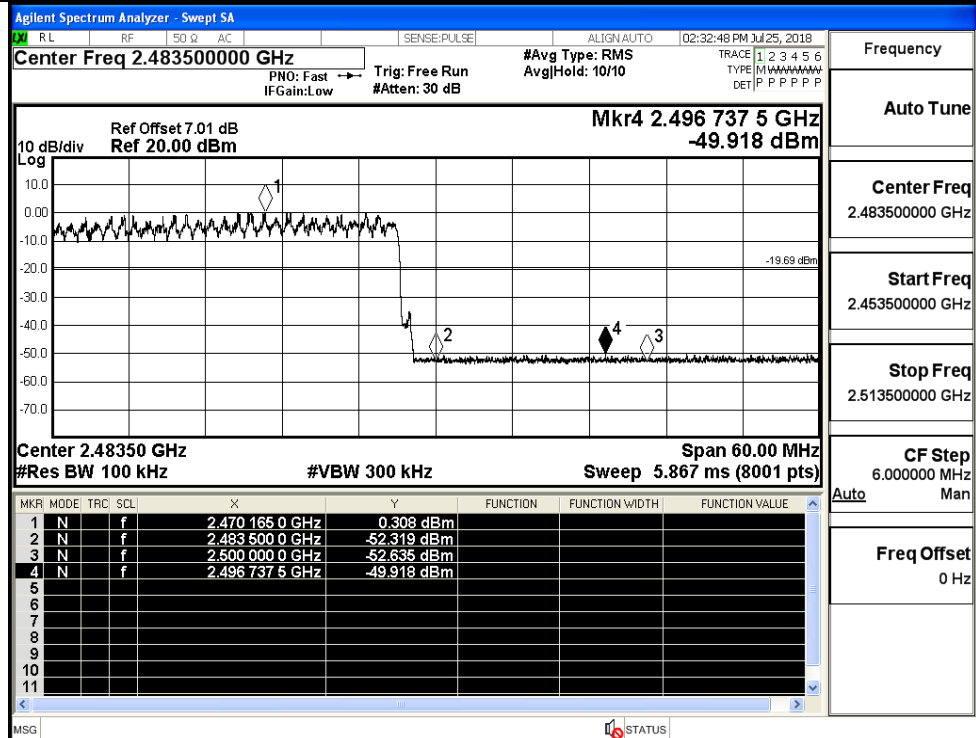
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



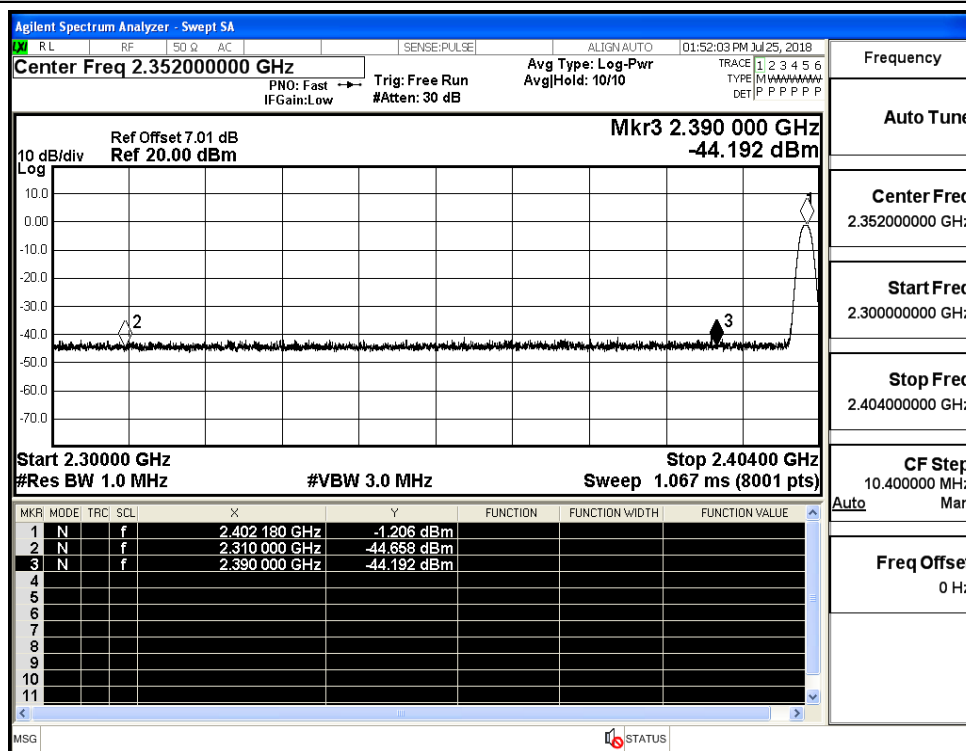
8DPSK/HCH/Hop



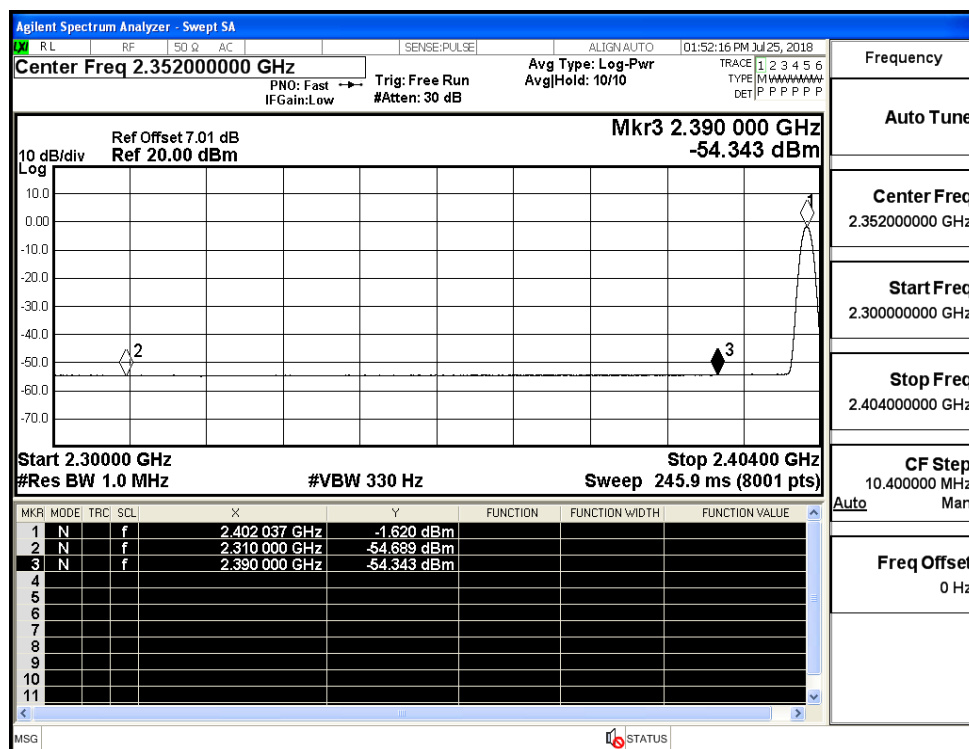
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.658	2.50	0	53.070	PEAK	74	PASS
	Off	2310.0	-54.699	2.50	0	43.029	AV	54	PASS
	Off	2390.0	-44.192	2.50	0	53.536	PEAK	74	PASS
	Off	2390.0	-54.343	2.50	0	43.385	AV	54	PASS
	Off	2483.5	-43.998	2.50	0	53.730	PEAK	74	PASS
	Off	2483.5	-53.655	2.50	0	44.073	AV	54	PASS
	Off	2500.0	-43.632	2.50	0	54.096	PEAK	74	PASS
	Off	2500.0	-54.069	2.50	0	43.659	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-44.174	2.50	0	53.554	PEAK	74	PASS
	Off	2310.0	-54.696	2.50	0	43.032	AV	54	PASS
	Off	2390.0	-44.394	2.50	0	53.334	PEAK	74	PASS
	Off	2390.0	-54.404	2.50	0	43.324	AV	54	PASS
	Off	2483.5	-43.849	2.50	0	53.879	PEAK	74	PASS
	Off	2483.5	-54.028	2.50	0	43.700	AV	54	PASS
	Off	2500.0	-44.040	2.50	0	53.688	PEAK	74	PASS
	Off	2500.0	-53.892	2.50	0	43.836	AV	54	PASS
8DPSK	Off	2310.0	-44.336	2.50	0	53.392	PEAK	74	PASS
	Off	2310.0	-54.671	2.50	0	43.057	AV	54	PASS
	Off	2390.0	-43.079	2.50	0	54.649	PEAK	74	PASS
	Off	2390.0	-54.435	2.50	0	43.293	AV	54	PASS
	Off	2483.5	-43.687	2.50	0	54.041	PEAK	74	PASS
	Off	2483.5	-53.956	2.50	0	43.772	AV	54	PASS
	Off	2500.0	-43.346	2.50	0	54.382	PEAK	74	PASS
	Off	2500.0	-53.904	2.50	0	43.824	AV	54	PASS

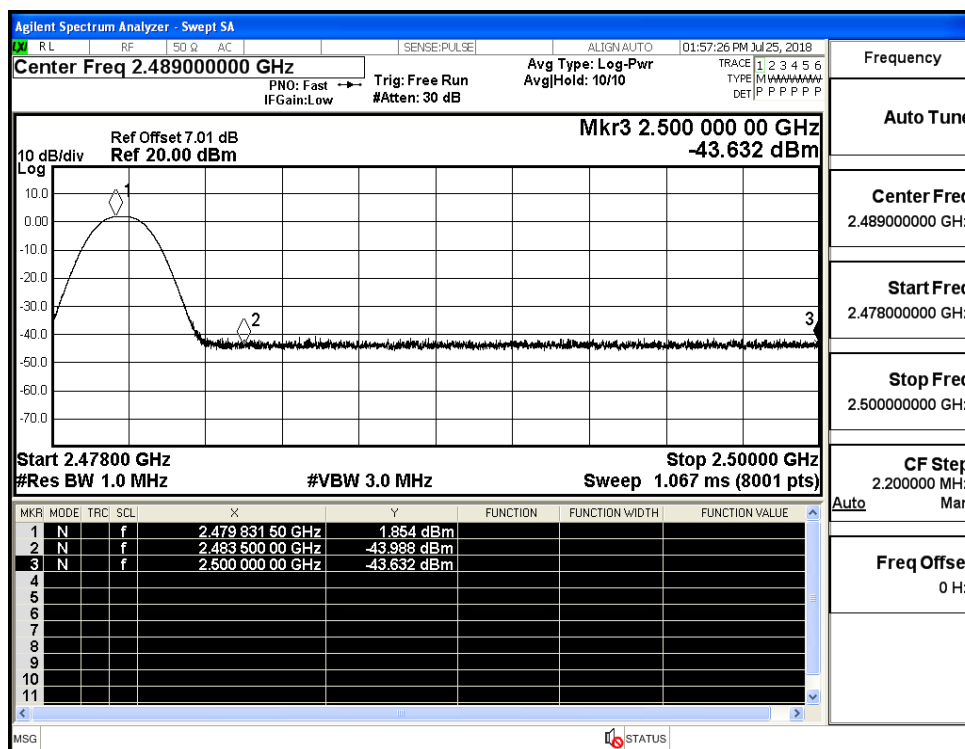
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



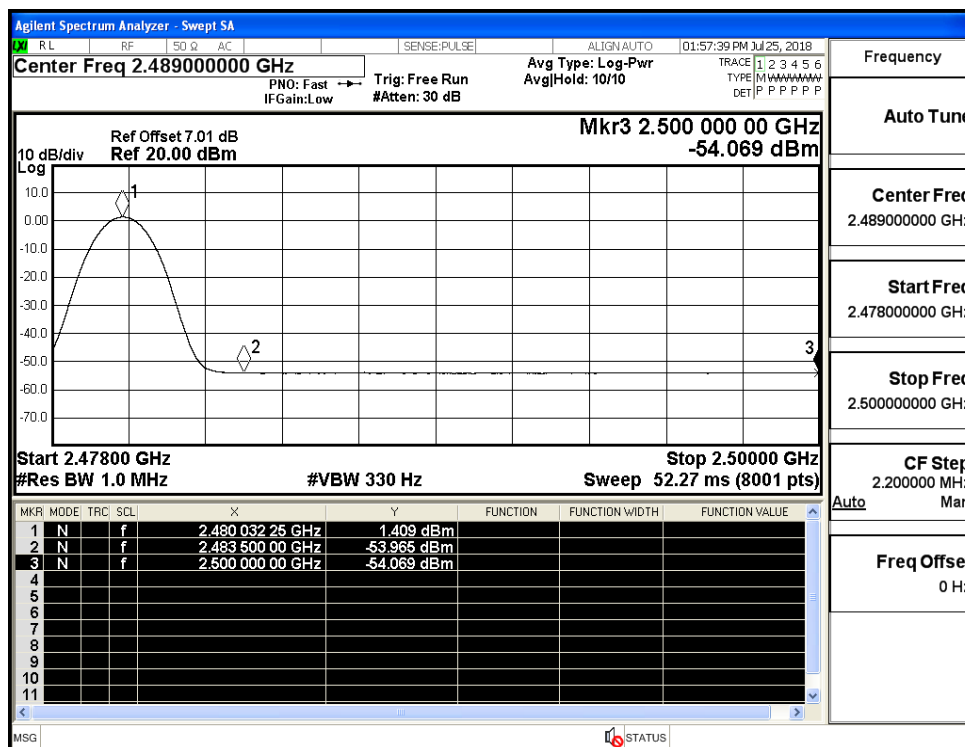
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

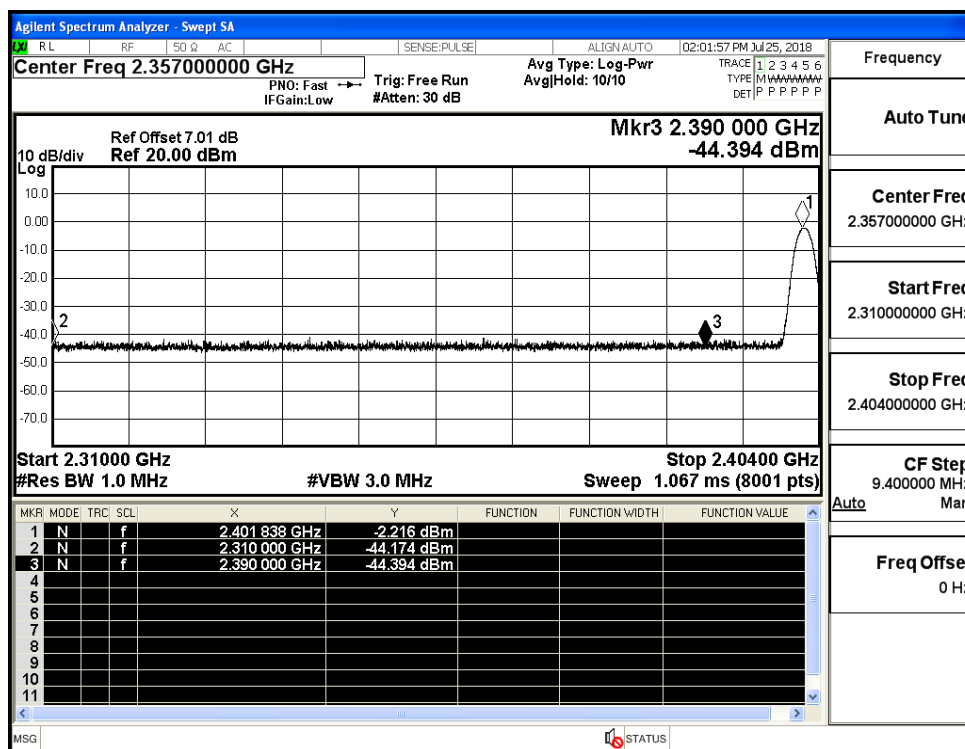
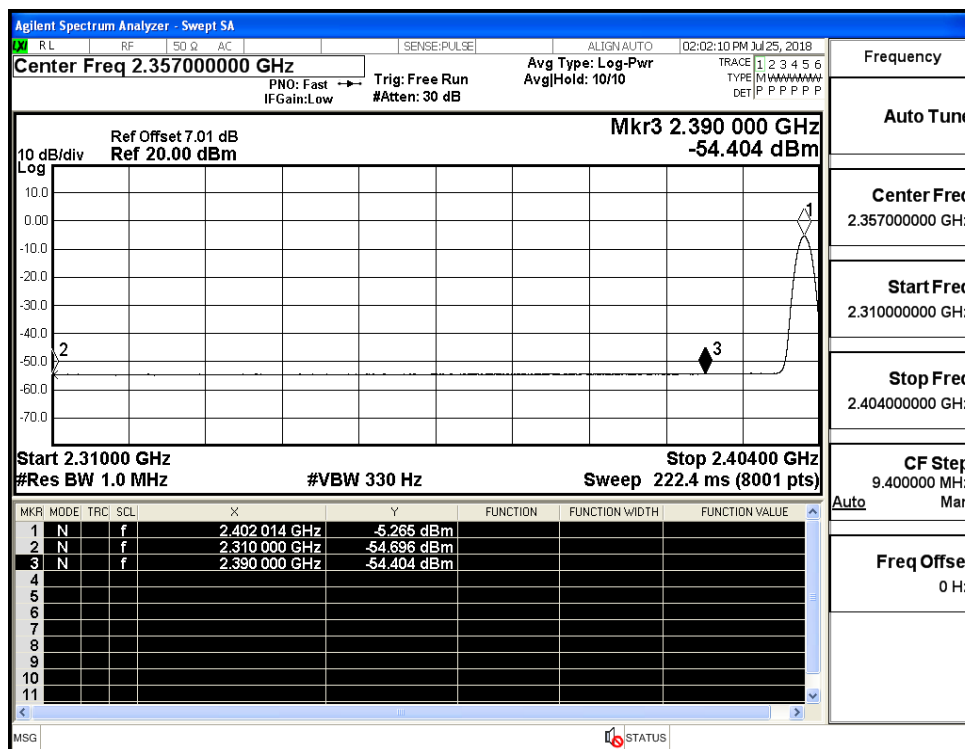


Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)

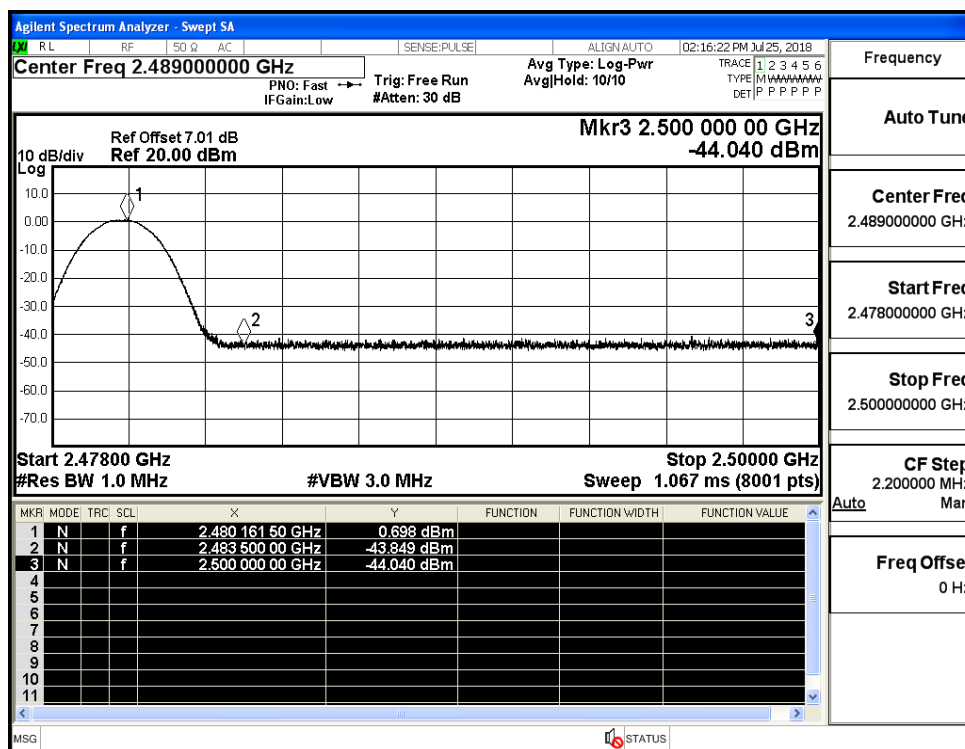


Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)

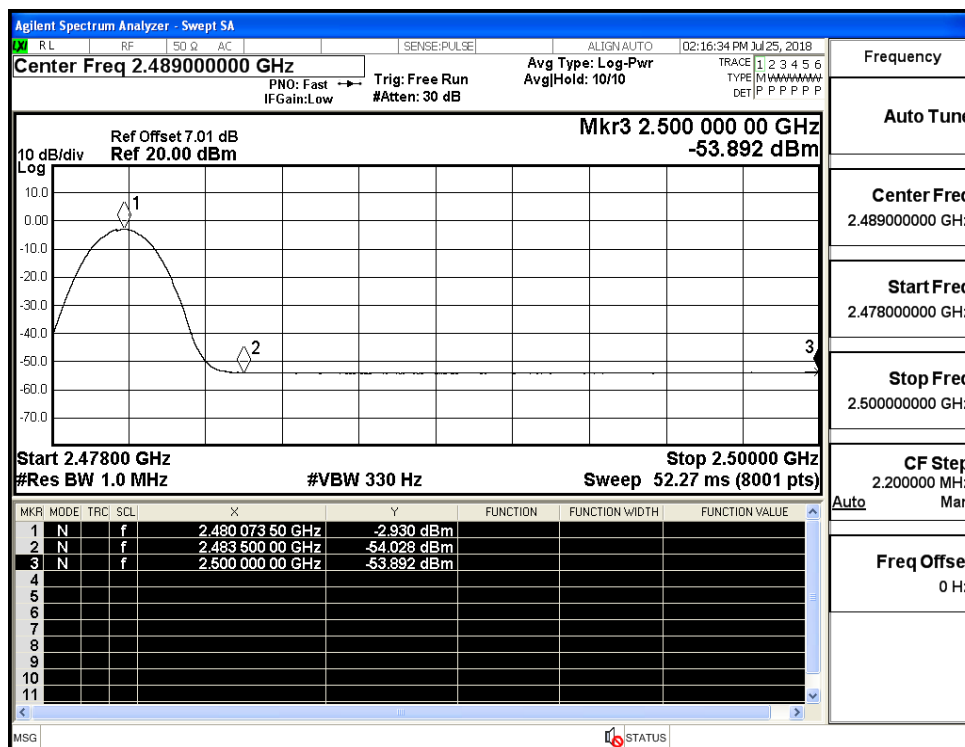


Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

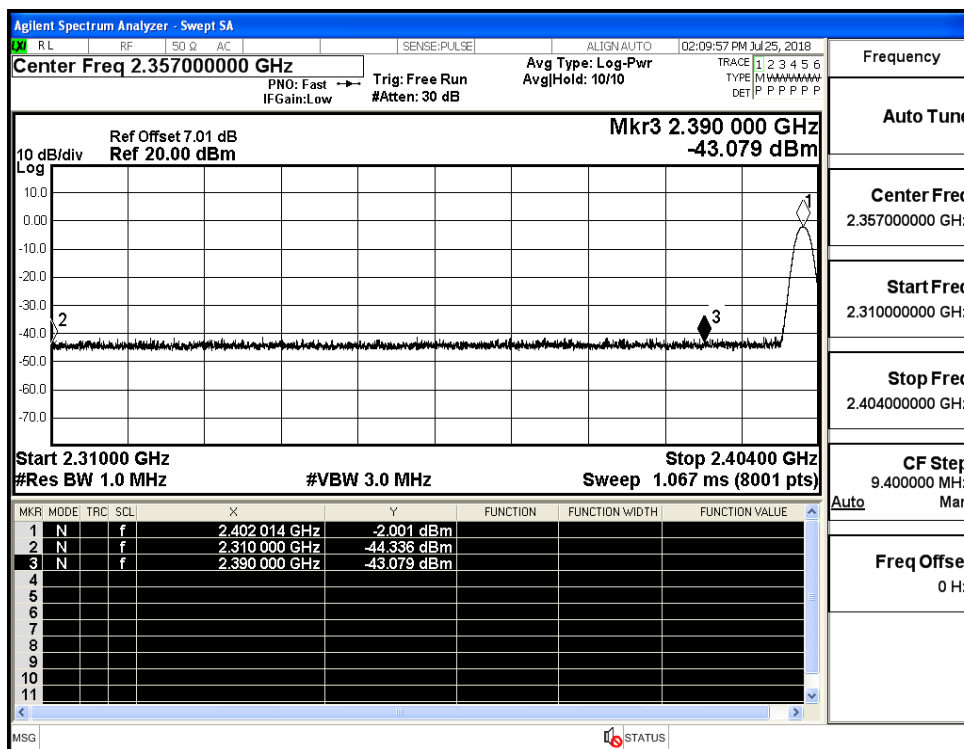
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



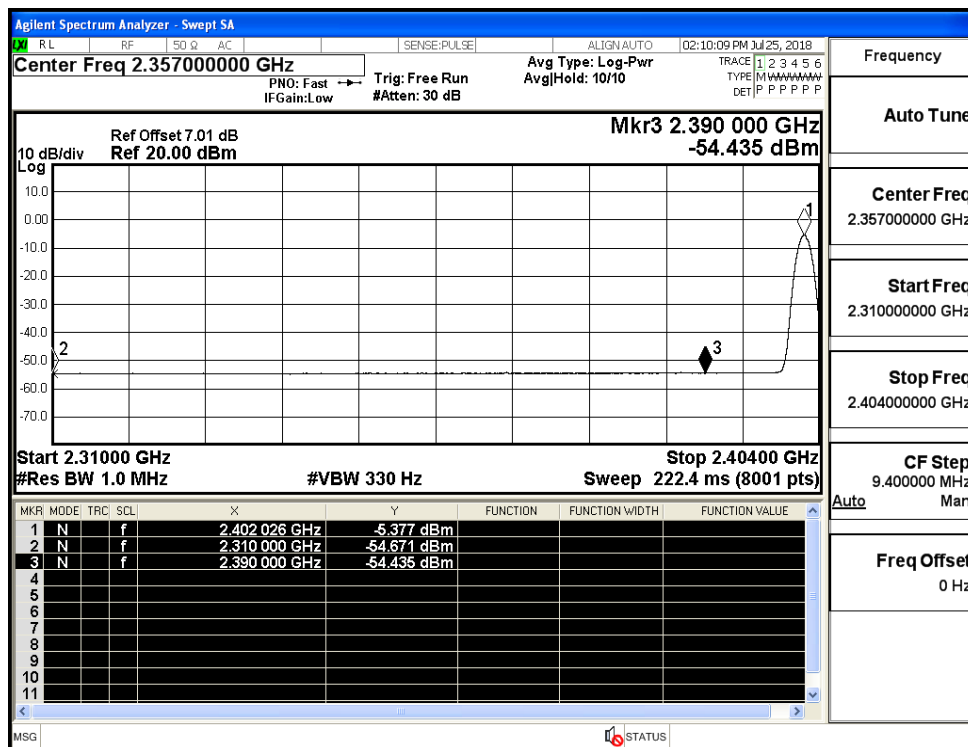
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



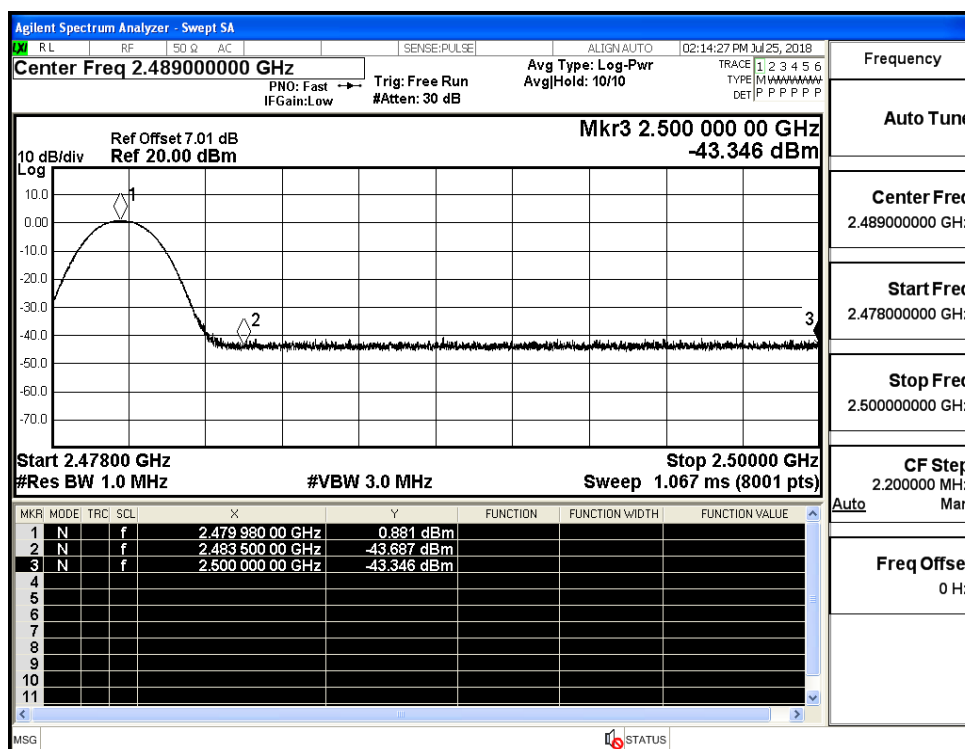
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

