

Appendix A

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

Product Name: Android TV BOX

Trade Mark: MECOOL

Test Model: KM8

Environmental Conditions

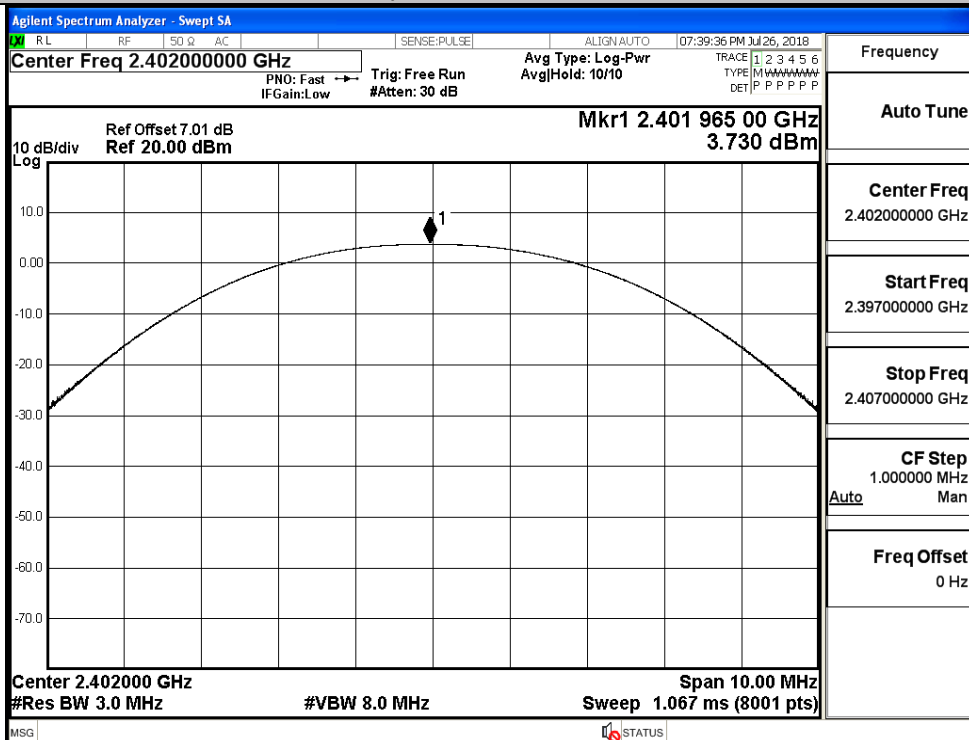
Temperature:	23.7 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Wilson.Hong
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

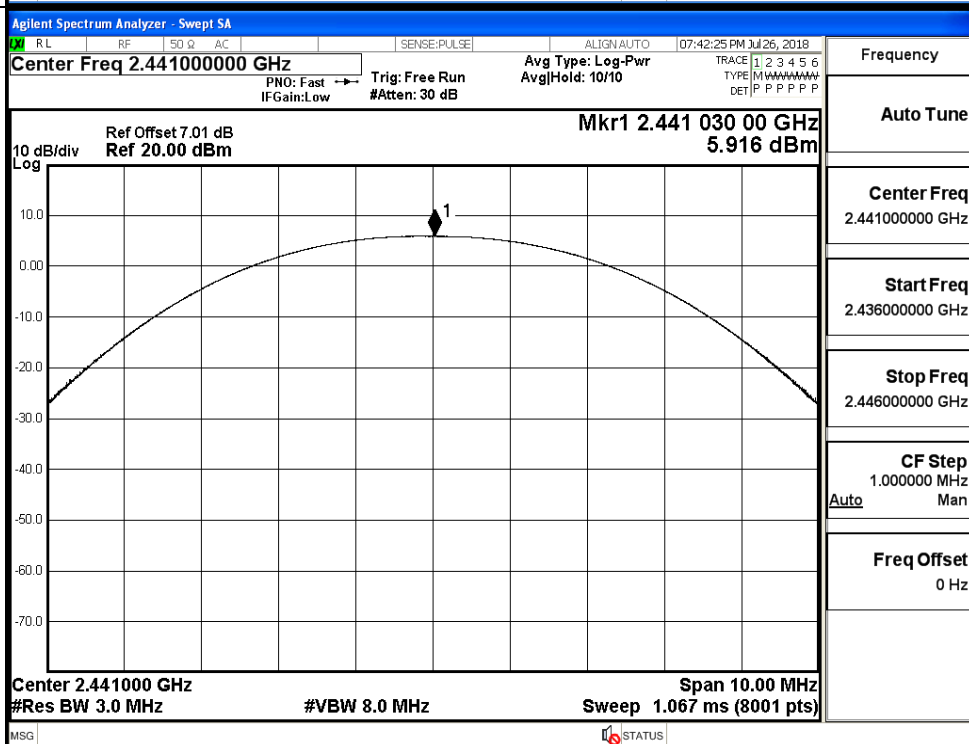
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.730	21	PASS
	MCH	5.916	21	PASS
	HCH	5.794	21	PASS
$\pi/4$ DQPSK	LCH	3.100	21	PASS
	MCH	5.190	21	PASS
	HCH	4.888	21	PASS
8DPSK	LCH	3.235	21	PASS
	MCH	5.267	21	PASS
	HCH	5.003	21	PASS

Test Graphs

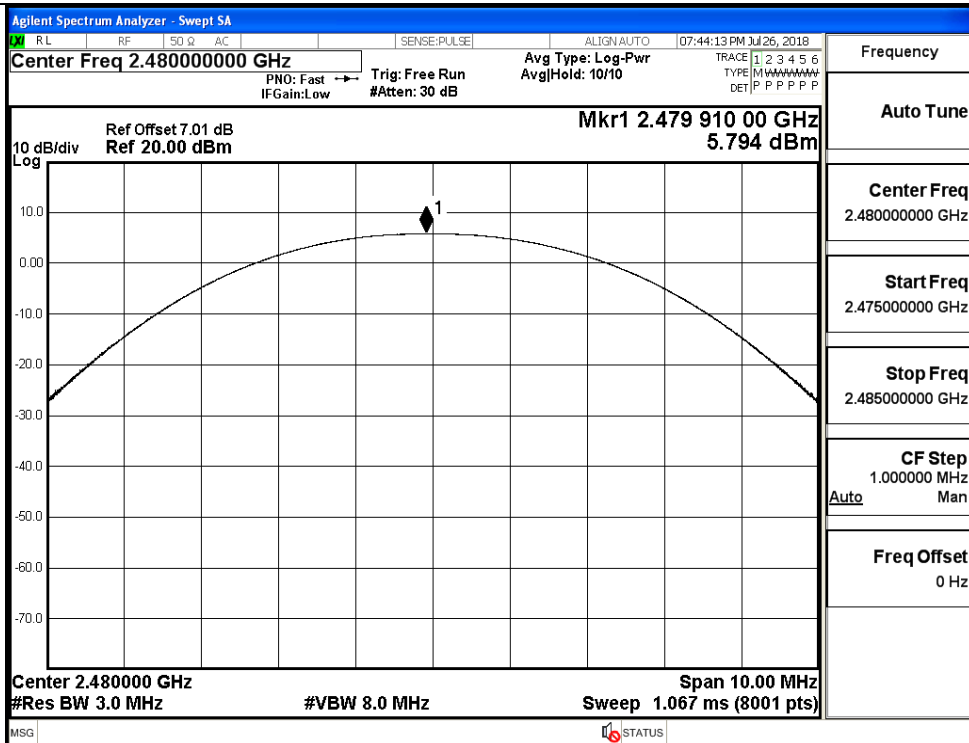
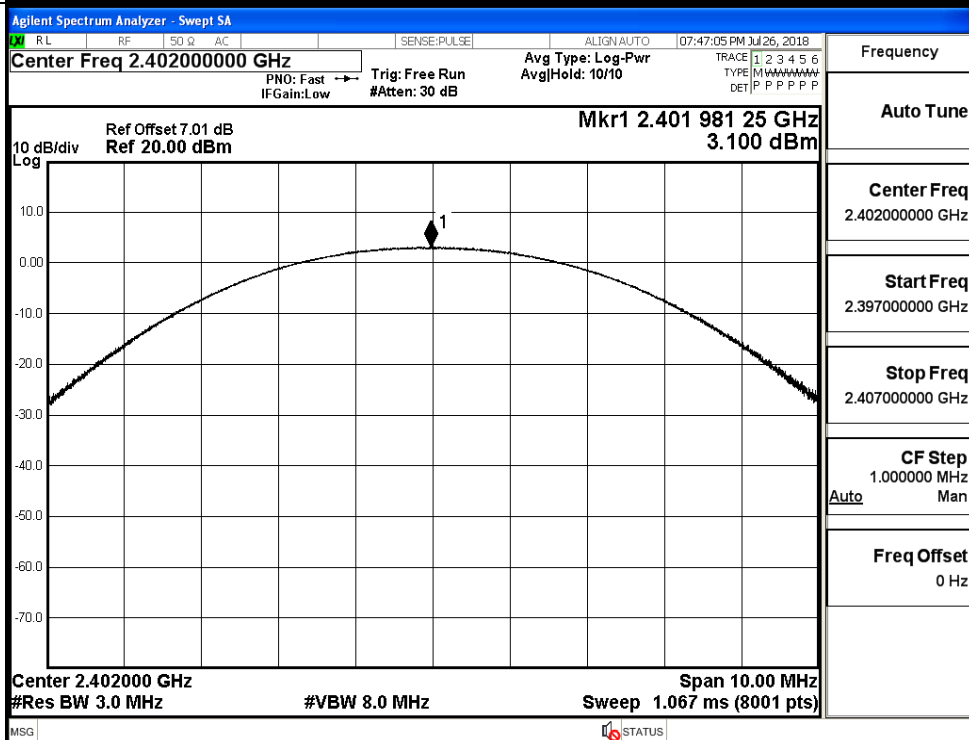
GFSK/LCH

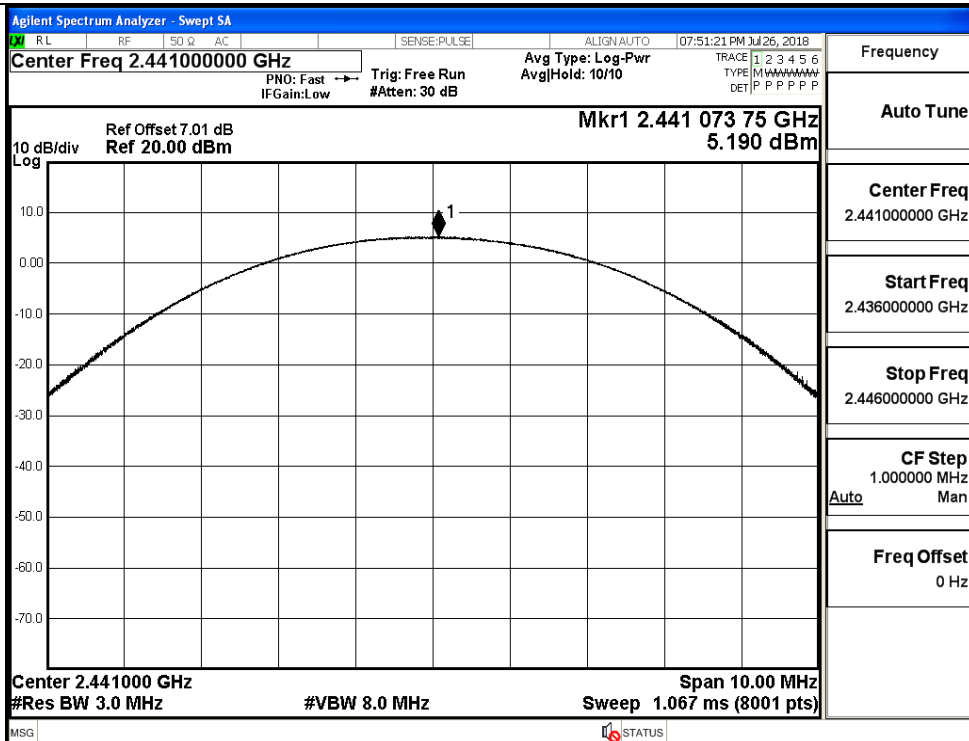
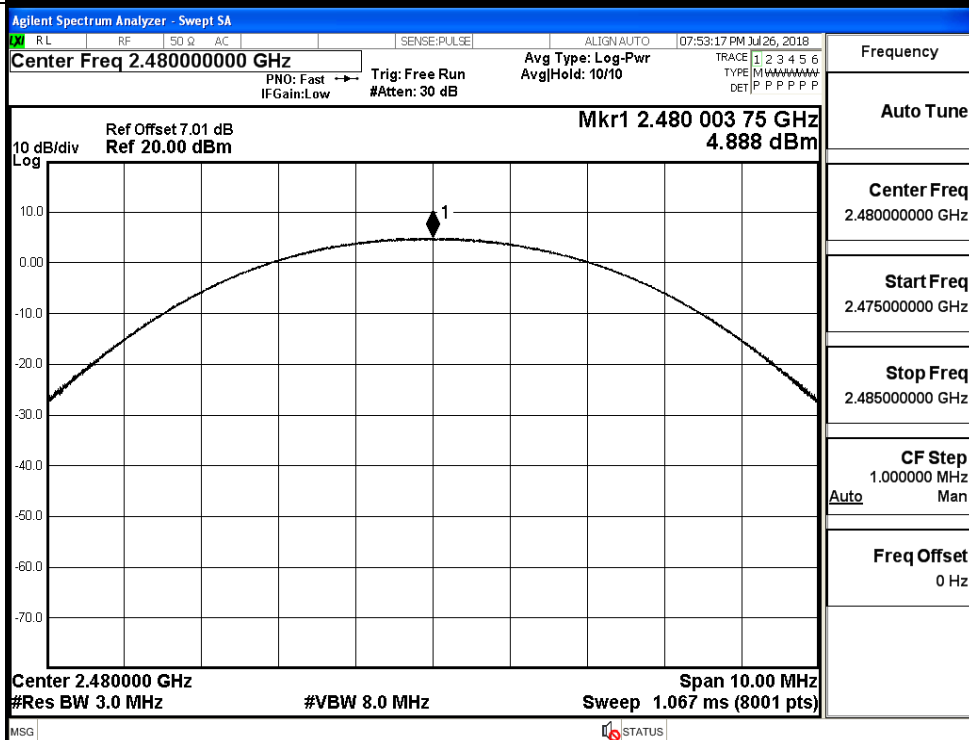


GFSK/MCH

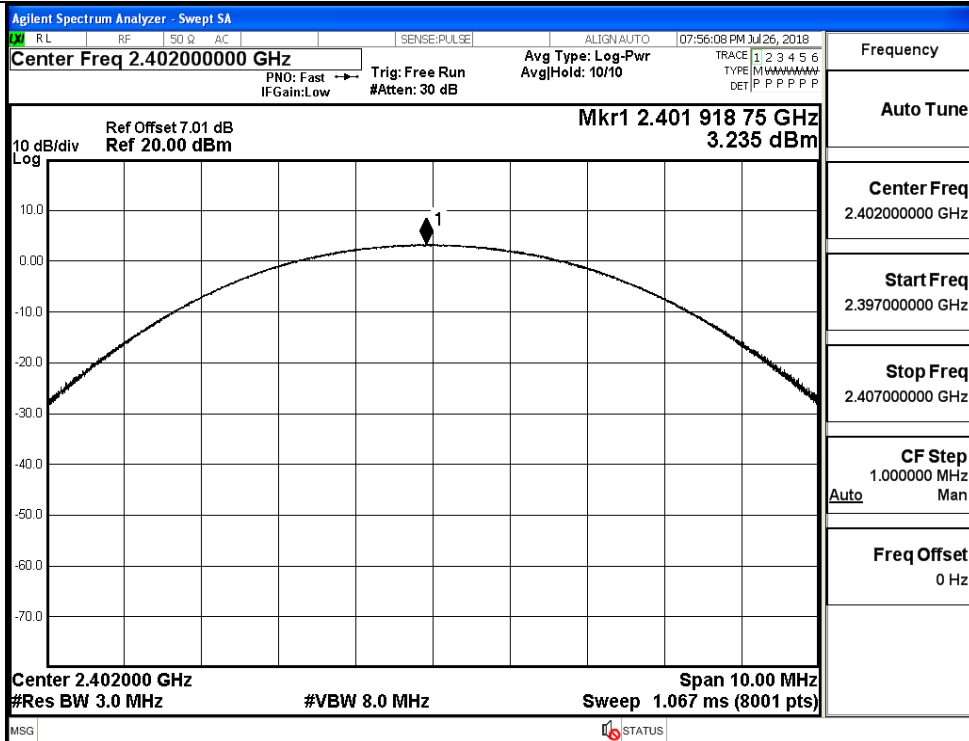


GFSK/HCH

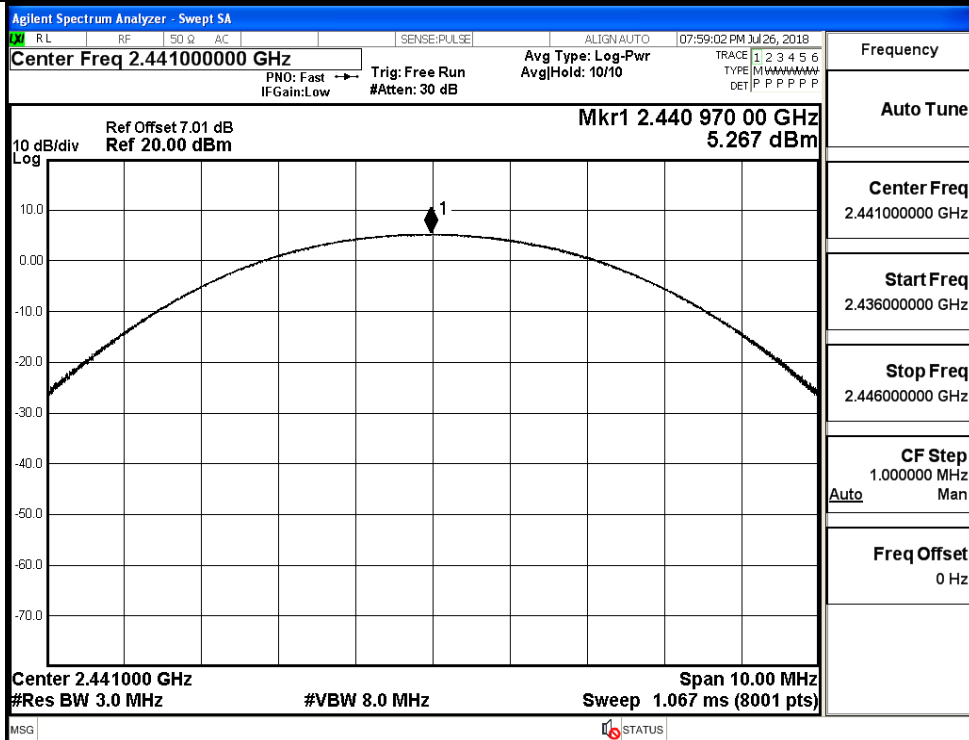
 π /4DQPSK/LCH

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

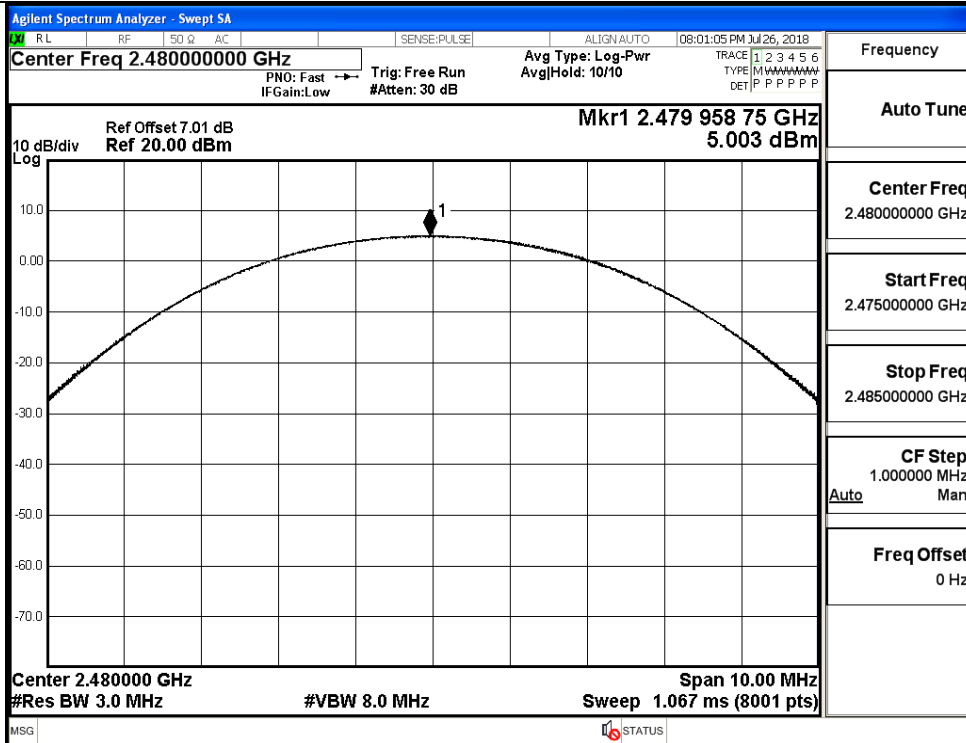
8DPSK/LCH



8DPSK/MCH



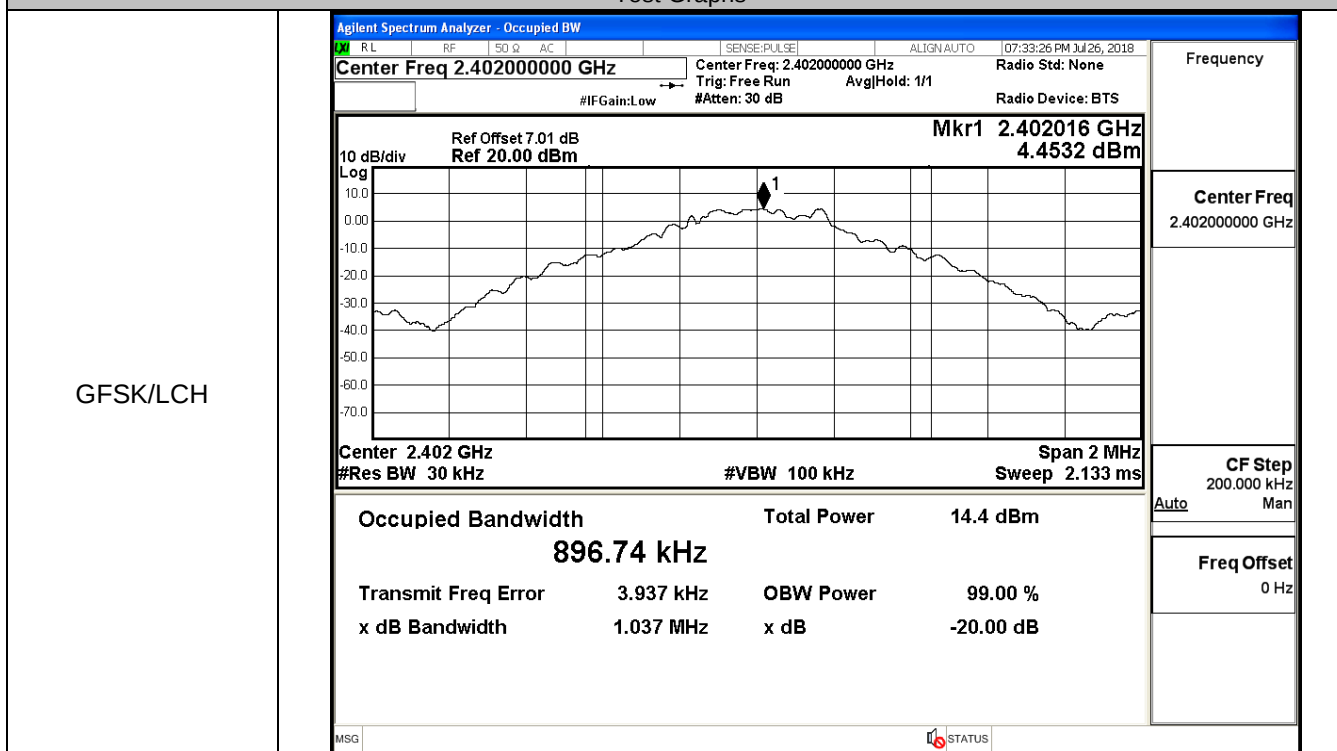
8DPSK/HCH



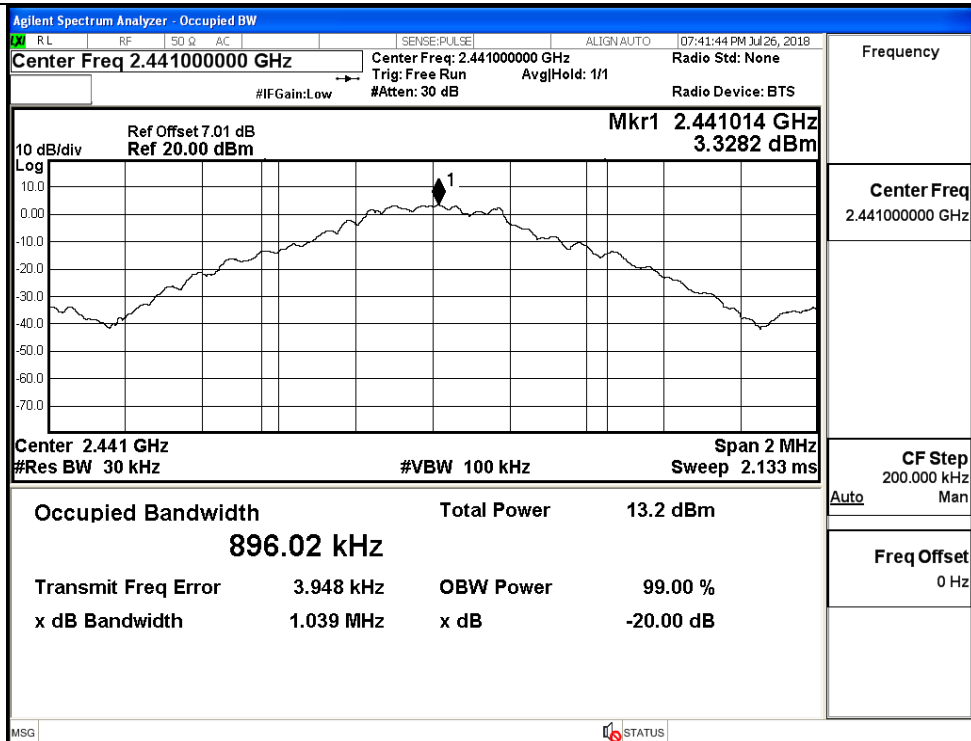
A.2 99% and 20dB Bandwidth

Mode	Channel.	99% Bandwidth [MHz]	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.89674	1.037	Not Specified	PASS
	MCH	0.89602	1.039	Not Specified	PASS
	HCH	0.90360	1.043	Not Specified	PASS
π /4DQPSK	LCH	1.1764	1.292	Not Specified	PASS
	MCH	1.1747	1.291	Not Specified	PASS
	HCH	1.1697	1.289	Not Specified	PASS
8DPSK	LCH	1.1852	1.301	Not Specified	PASS
	MCH	1.1825	1.293	Not Specified	PASS
	HCH	1.1765	1.291	Not Specified	PASS

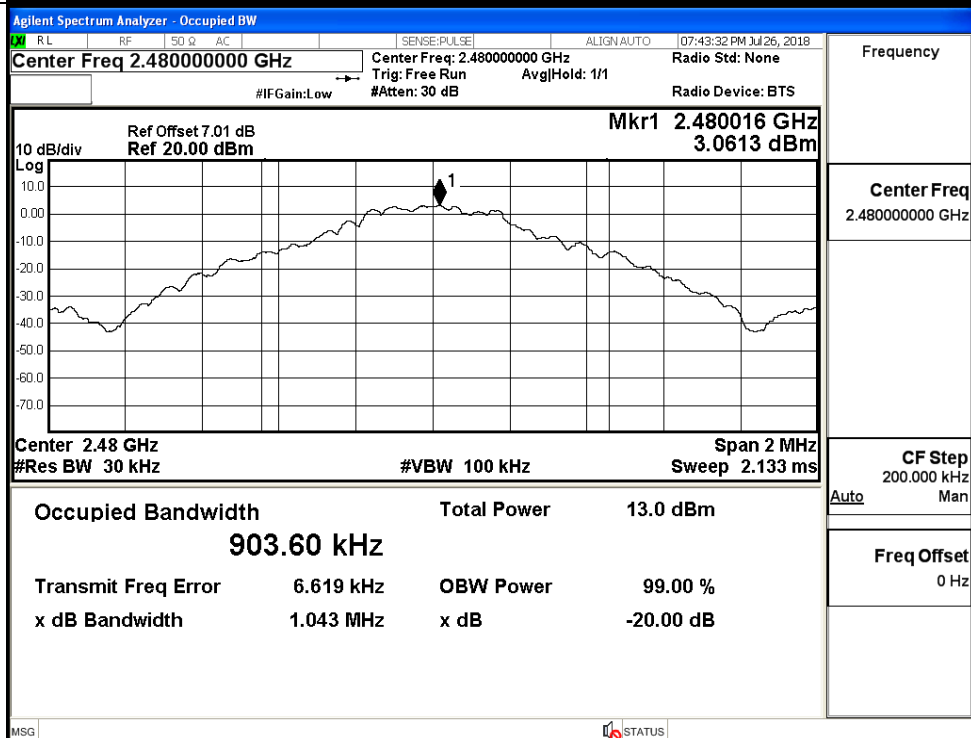
Test Graphs

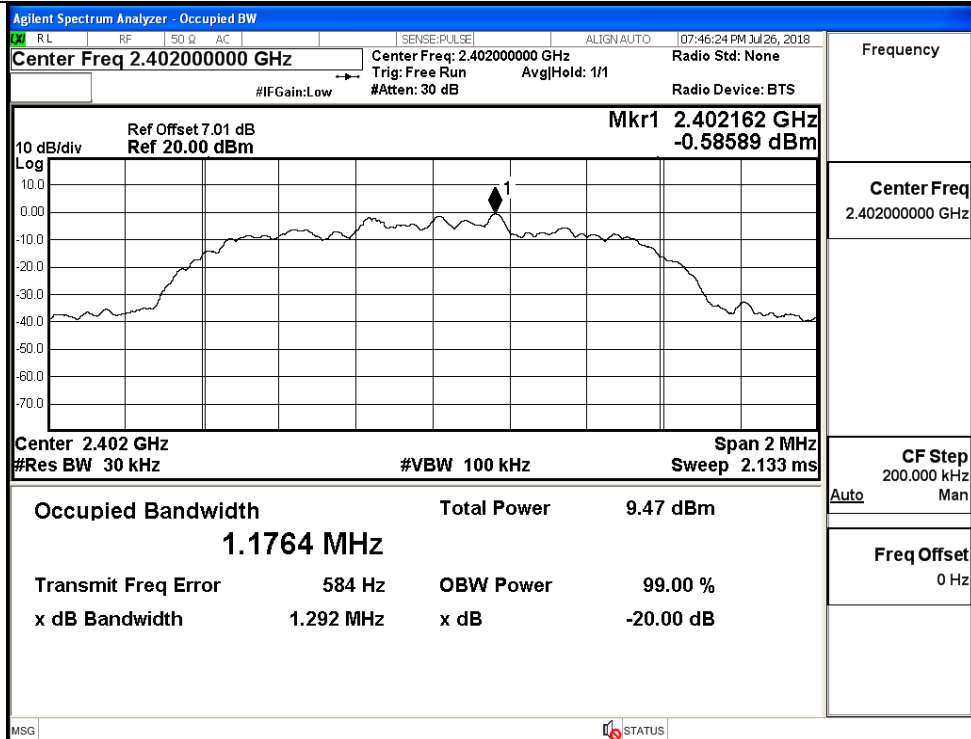
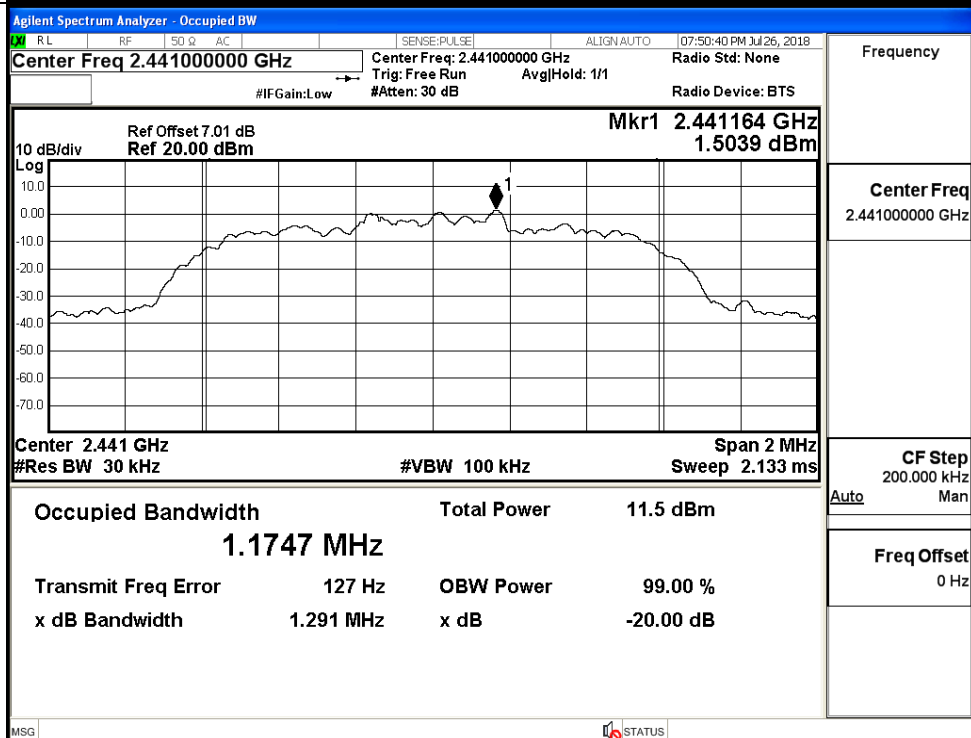


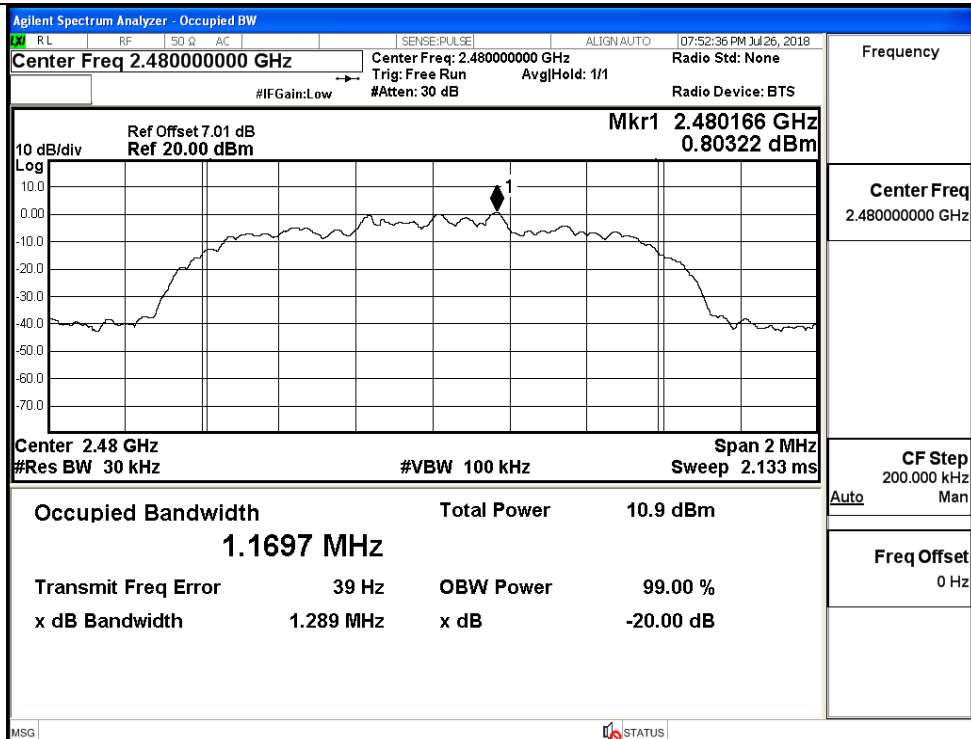
GFSK/MCH



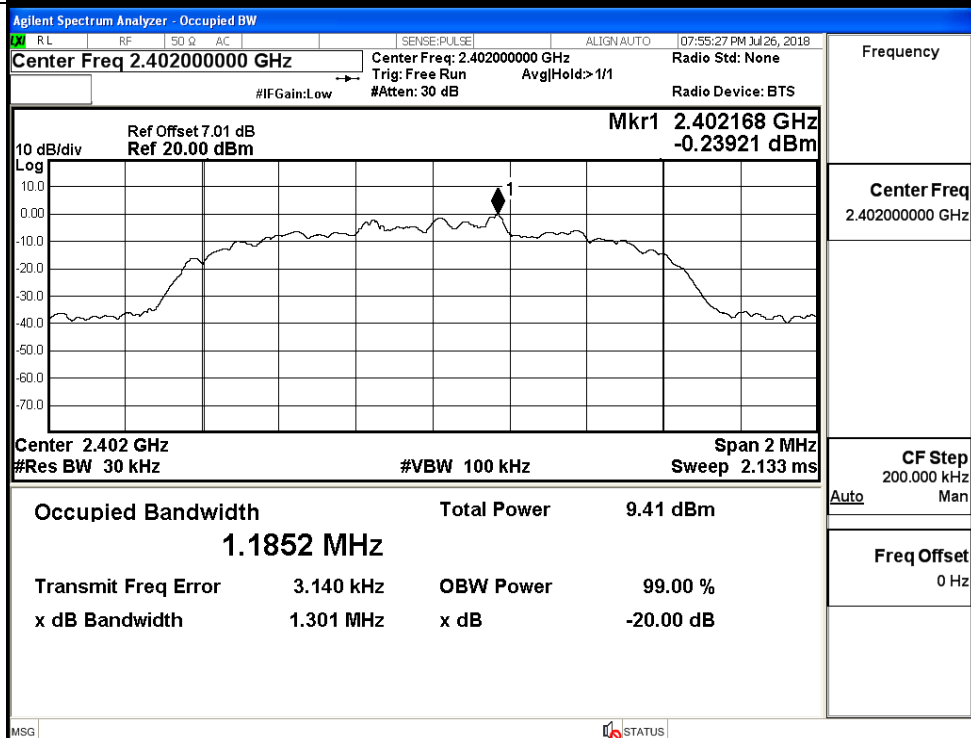
GFSK/HCH



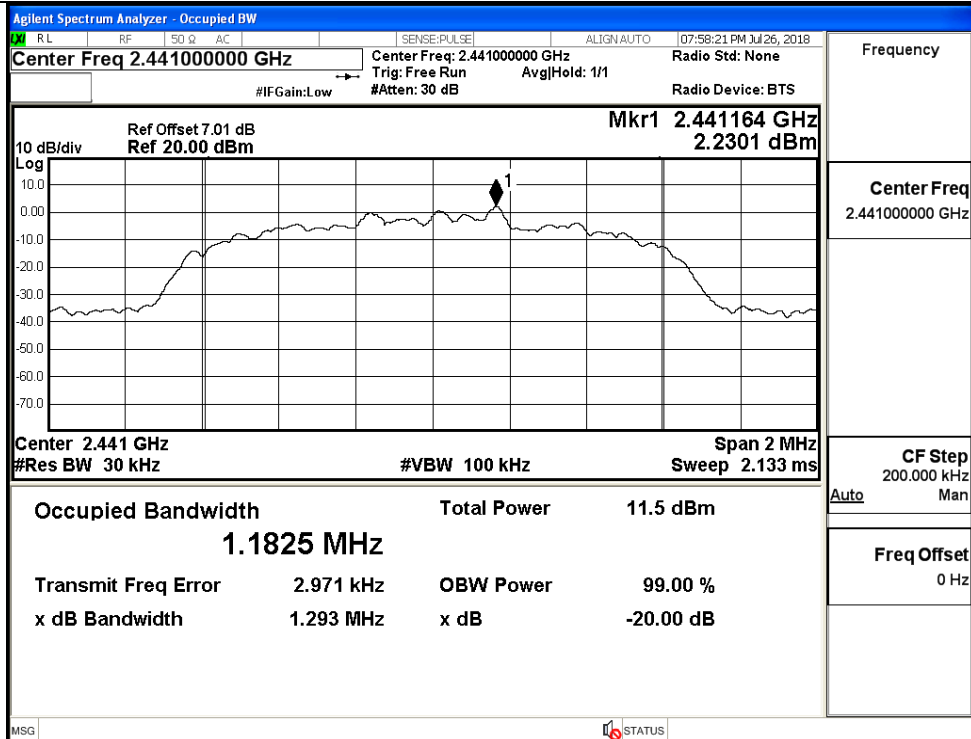
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

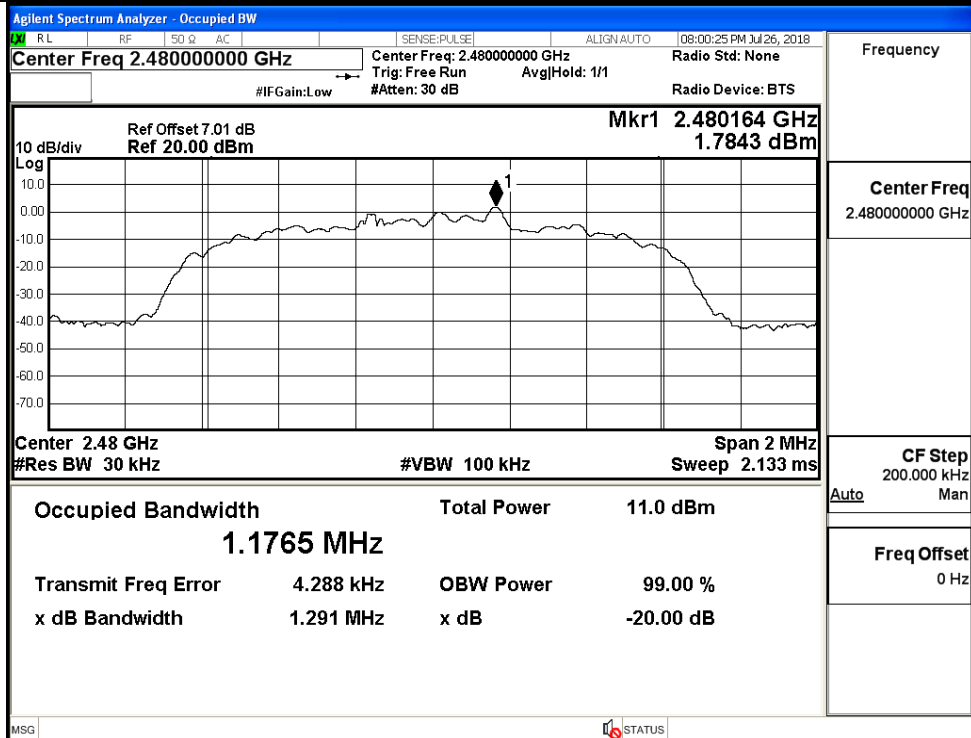
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

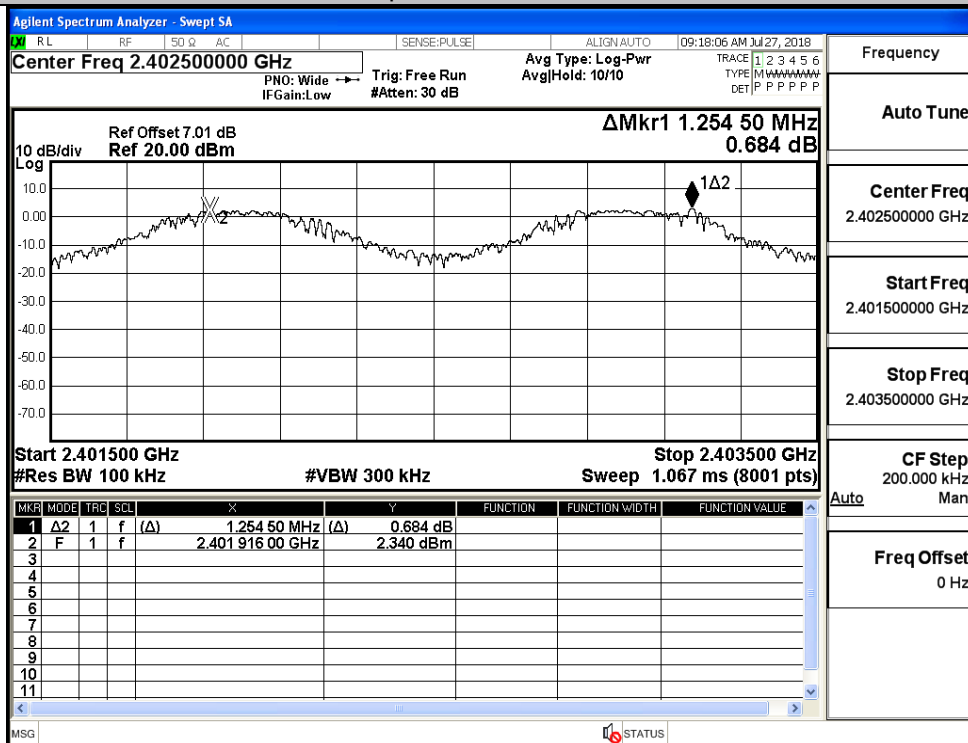


A.3 Carrier Frequency Separation

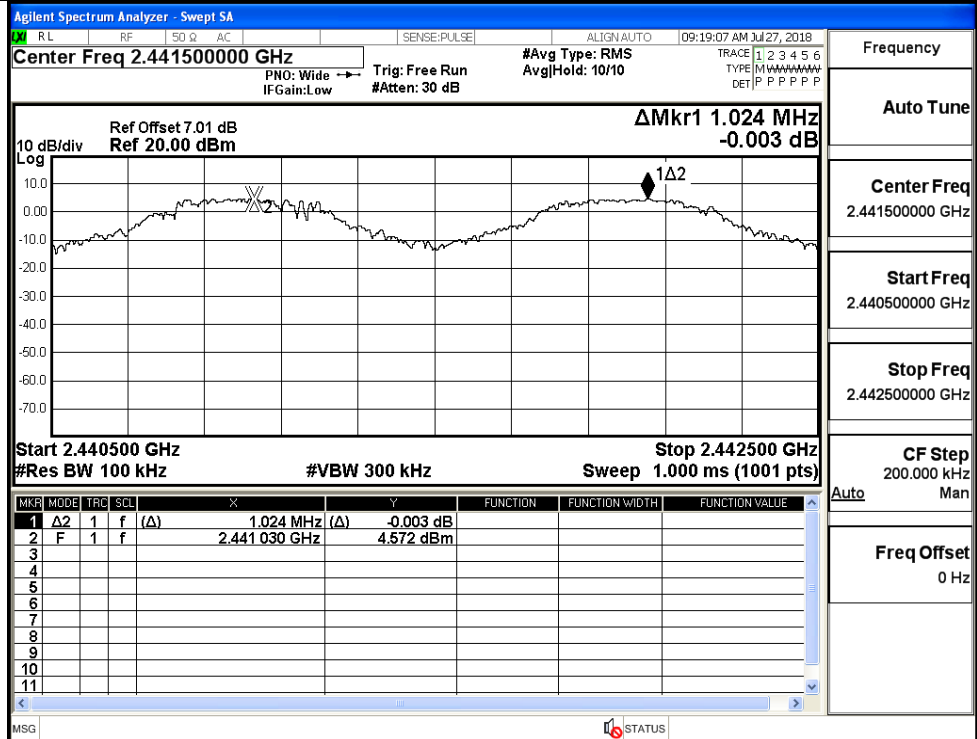
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.255	0.695	PASS
	MCH	1.024	0.695	PASS
	HCH	1.042	0.695	PASS
π /4DQPSK	LCH	0.988	0.861	PASS
	MCH	0.880	0.861	PASS
	HCH	1.290	0.861	PASS
8DPSK	LCH	1.192	0.867	PASS
	MCH	1.288	0.867	PASS
	HCH	1.352	0.867	PASS

Test Graphs

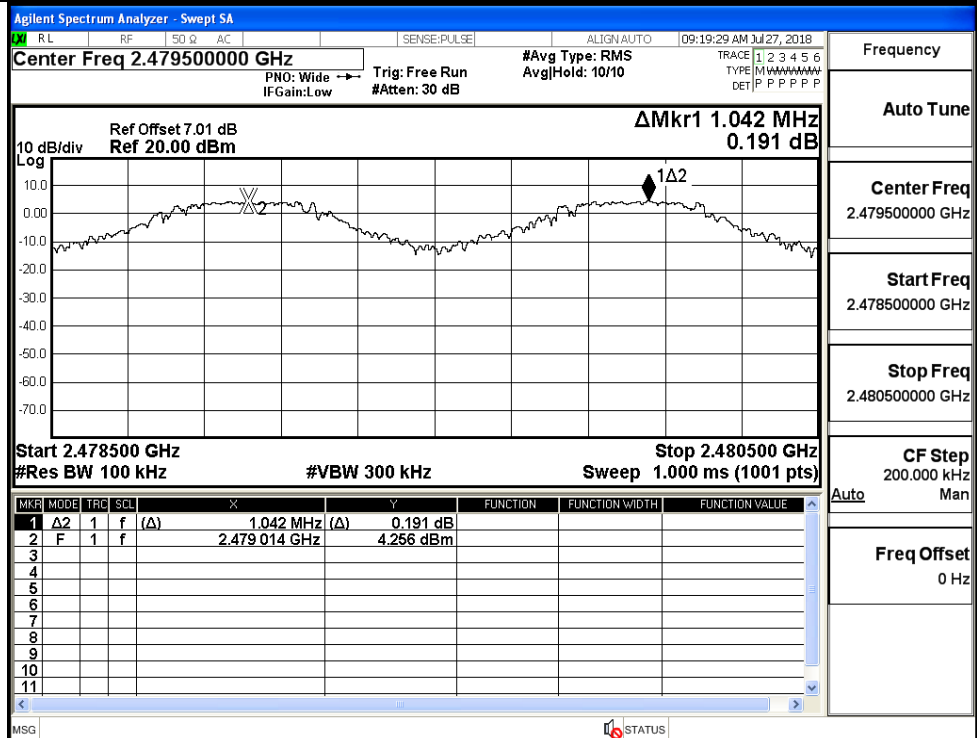
GFSK/LCH

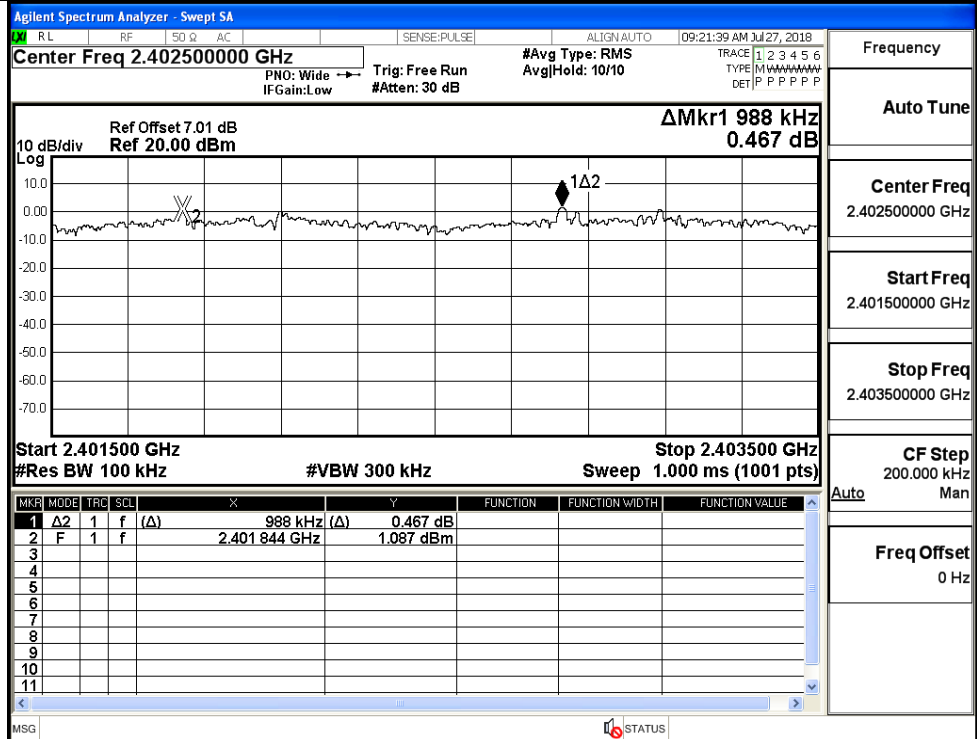
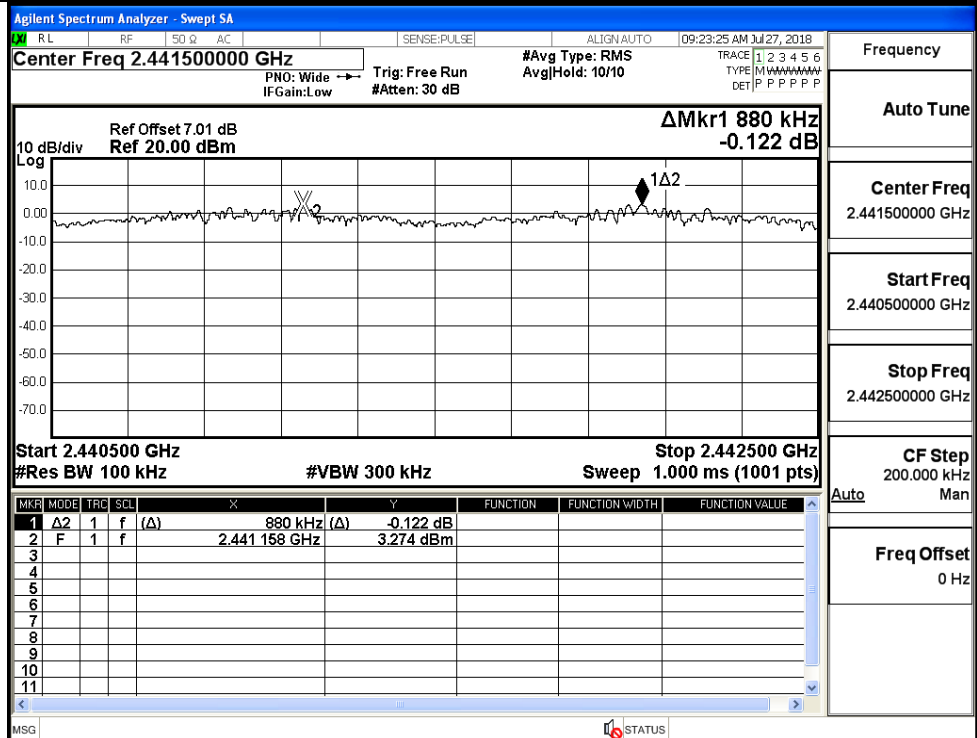


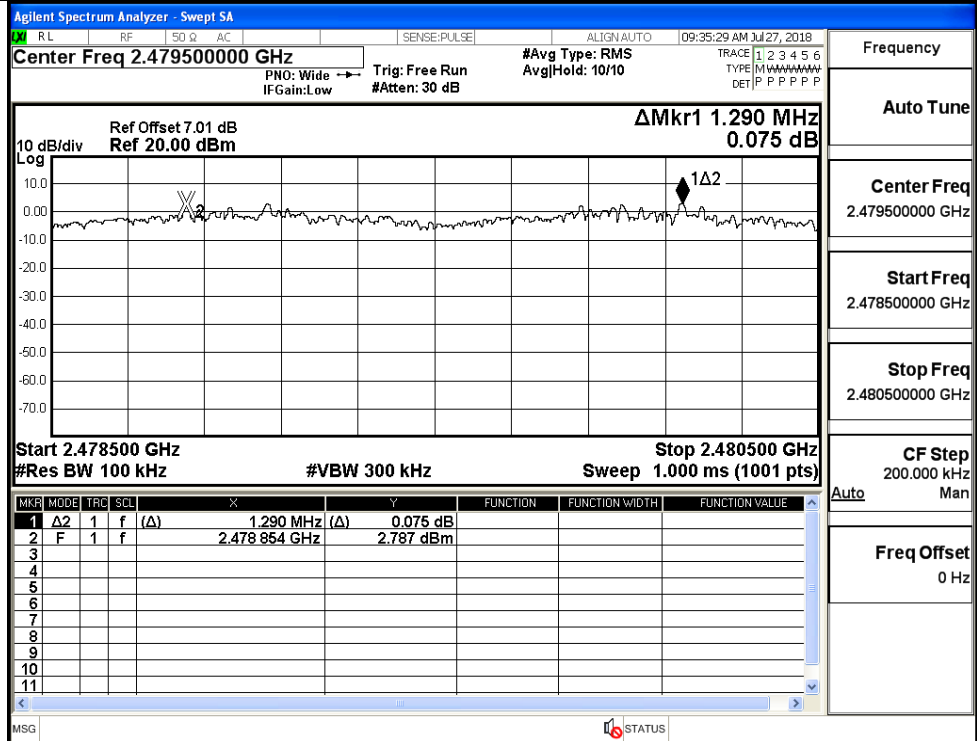
GFSK/MCH



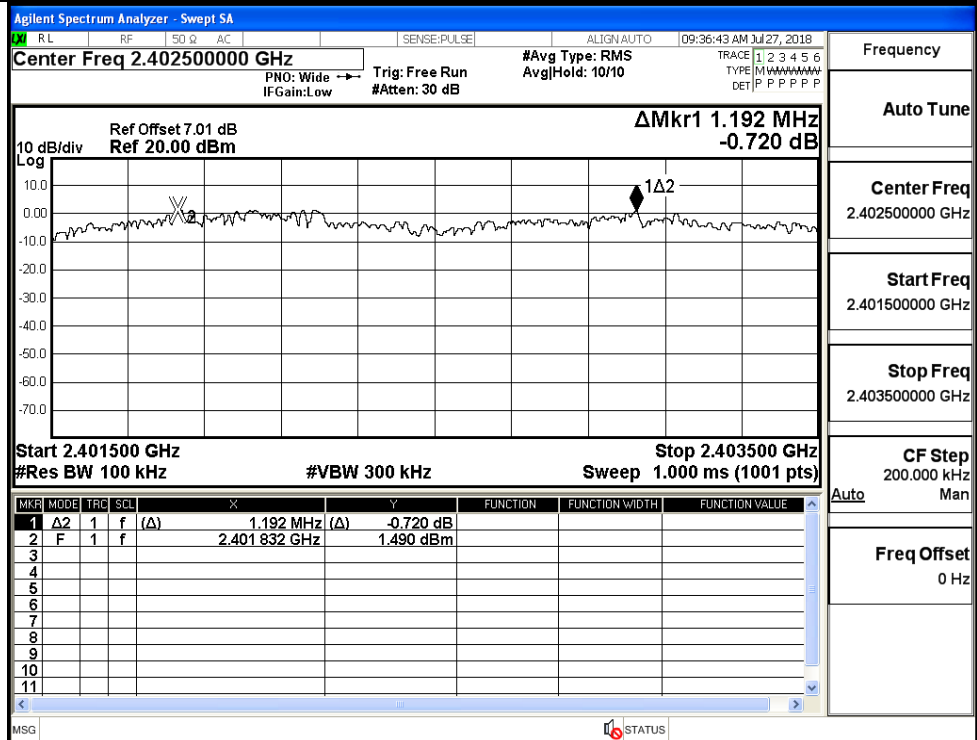
GFSK/HCH



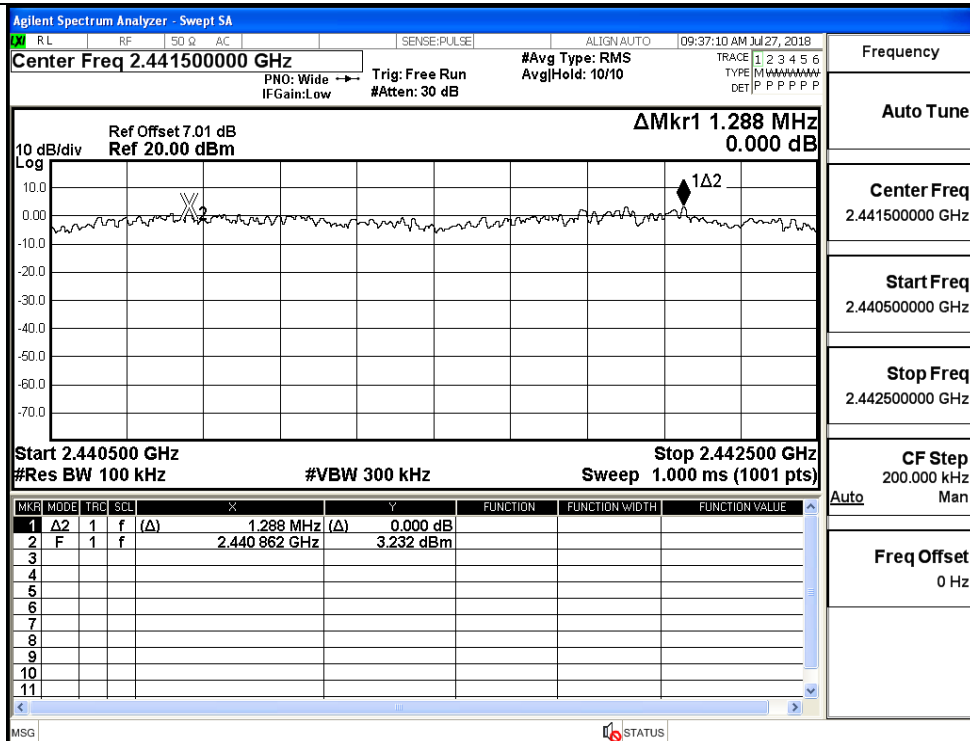
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

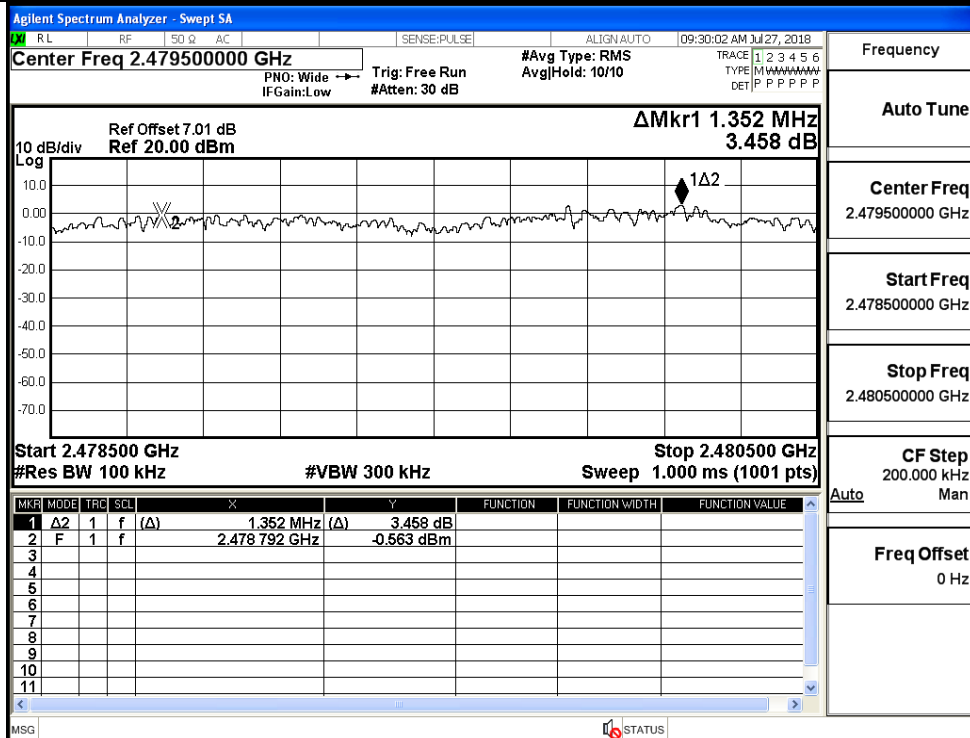
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

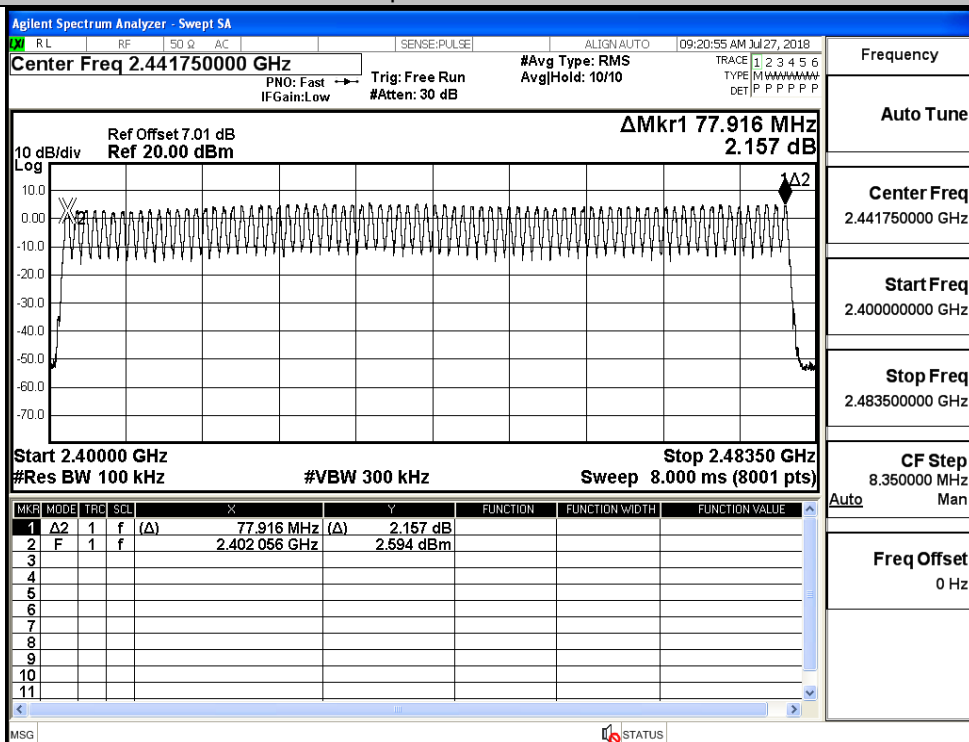
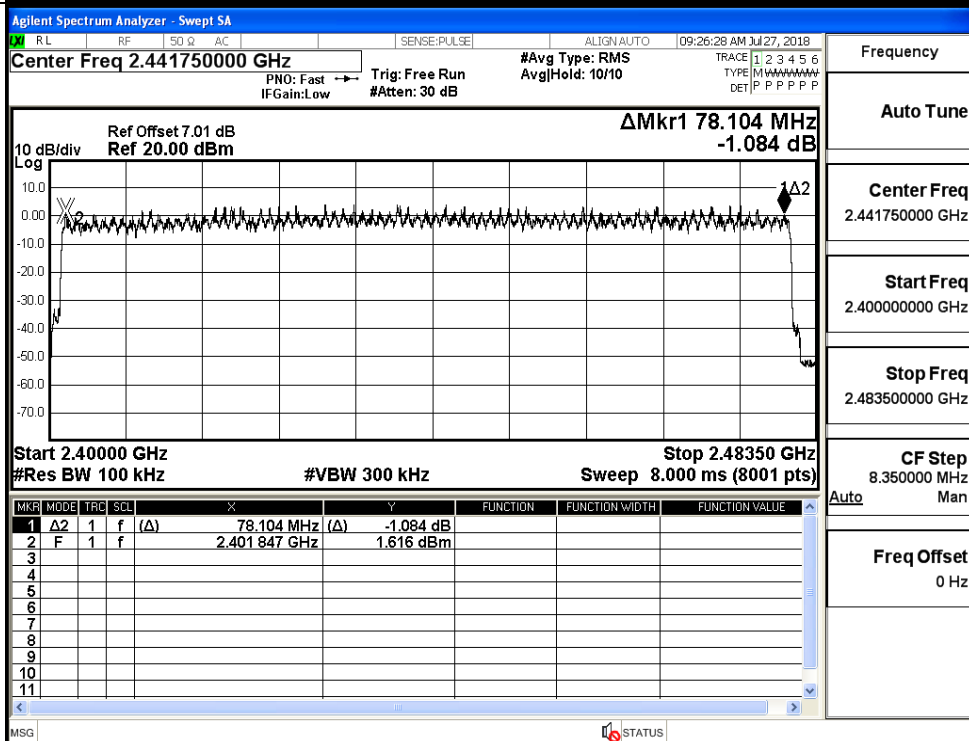


A.4 Hopping Channel Number

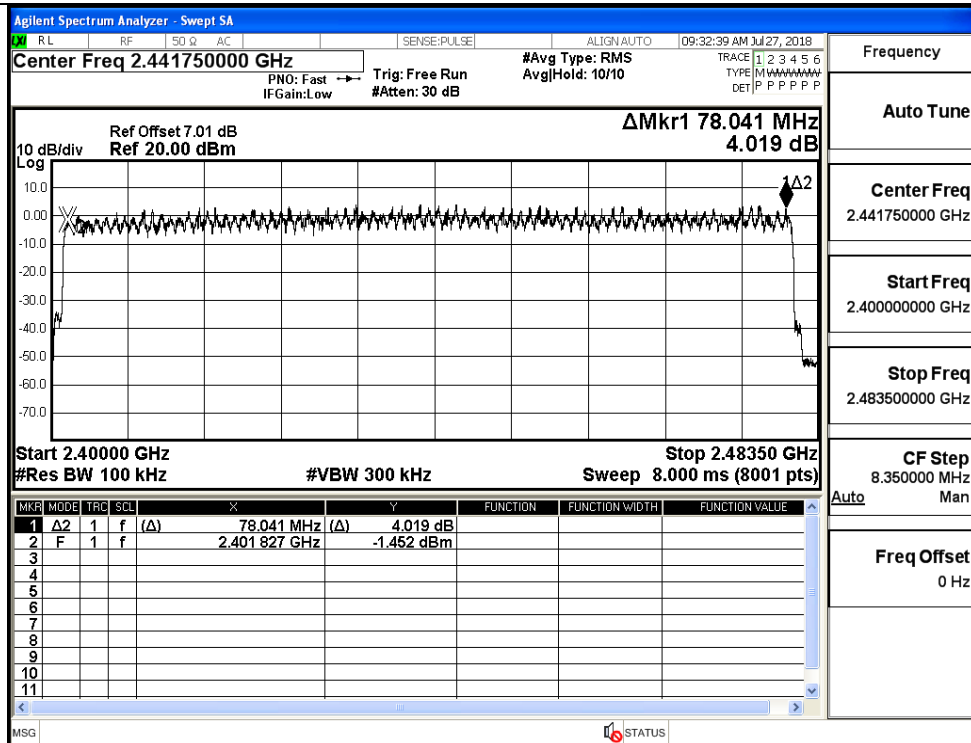
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

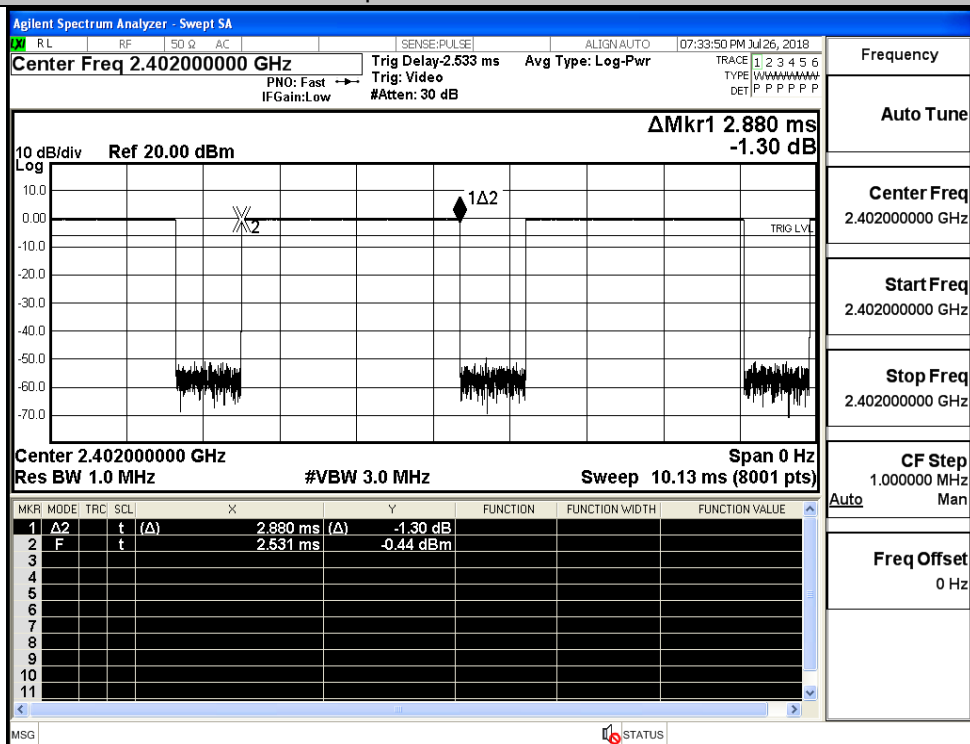
8DPSK/Hop



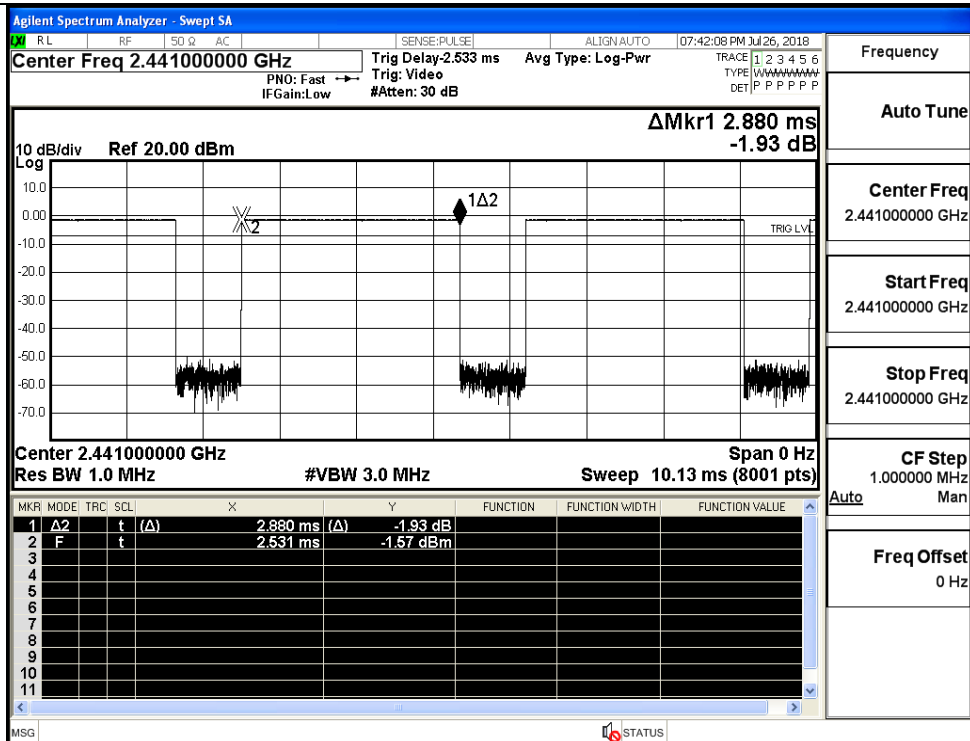
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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



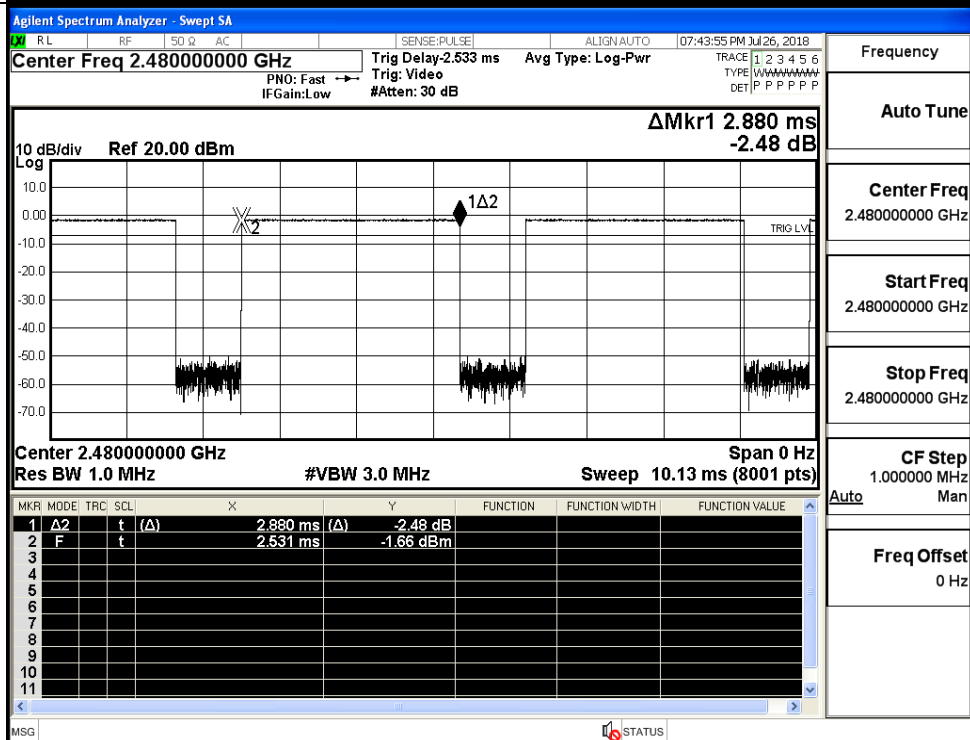
GFSK DH5/LCH



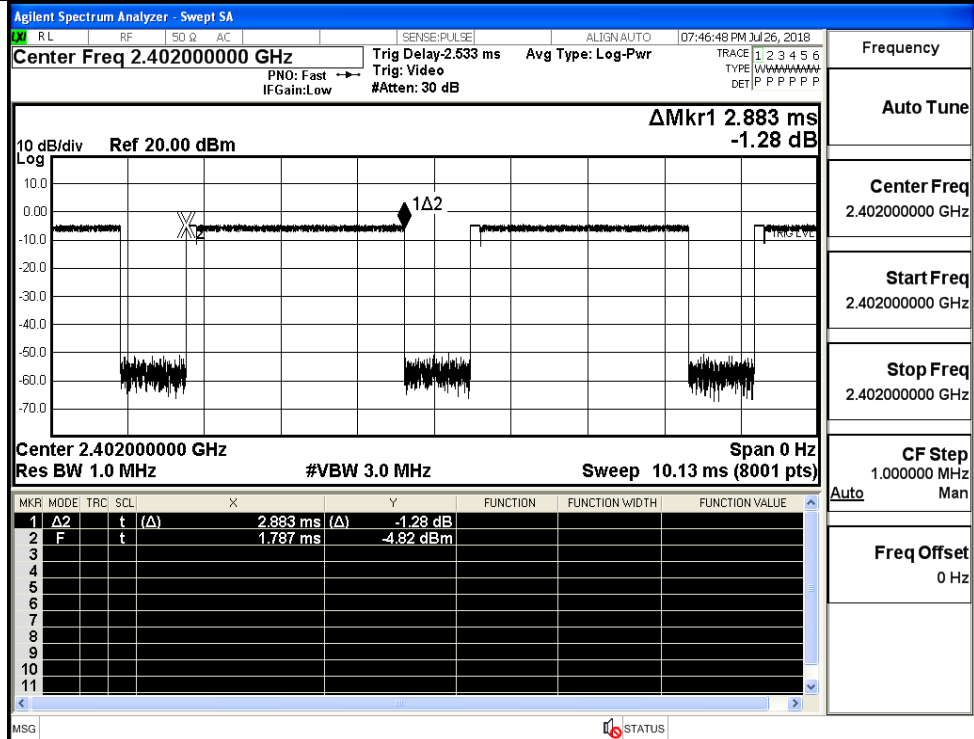
GFSK_DH5/MCH



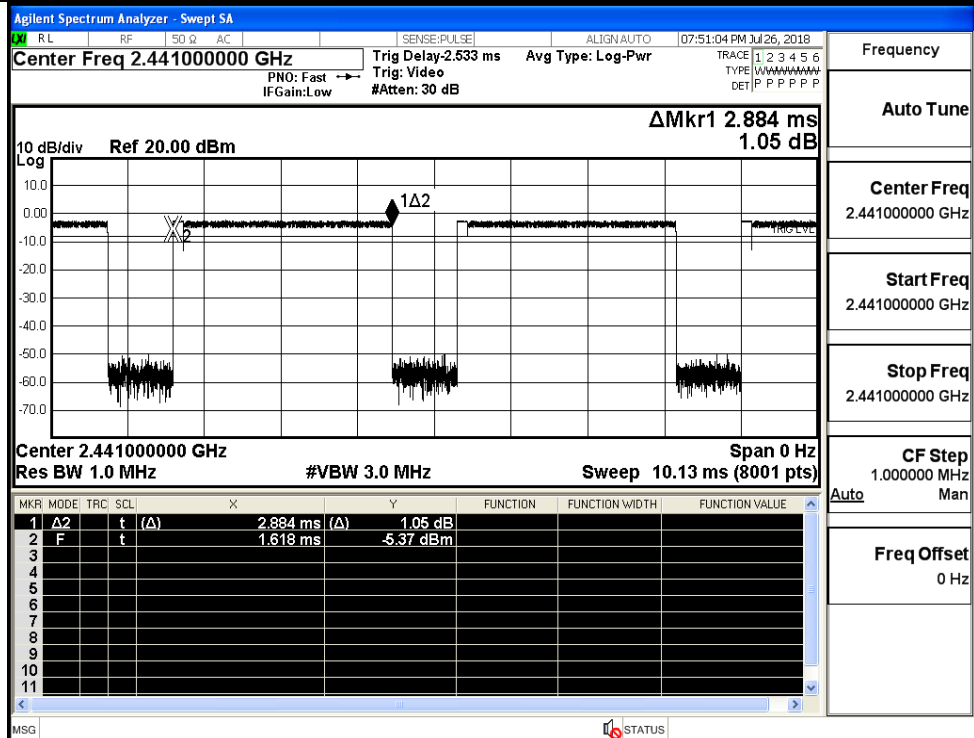
GFSK_DH5/HCH



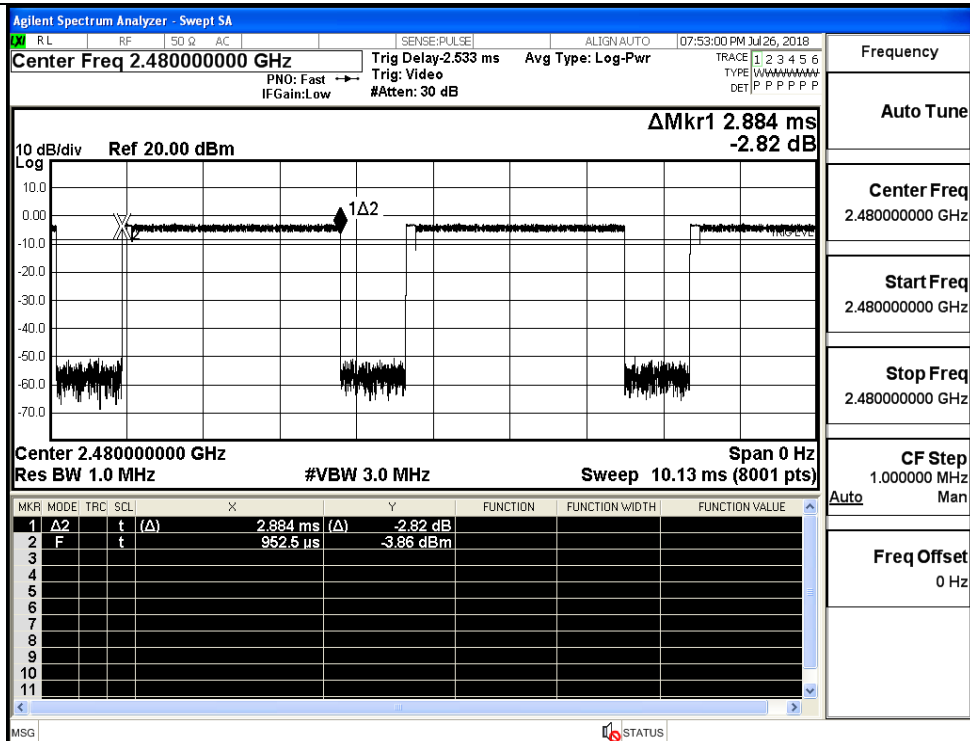
$\pi/4$ DQPSK
_2DH5/LCH



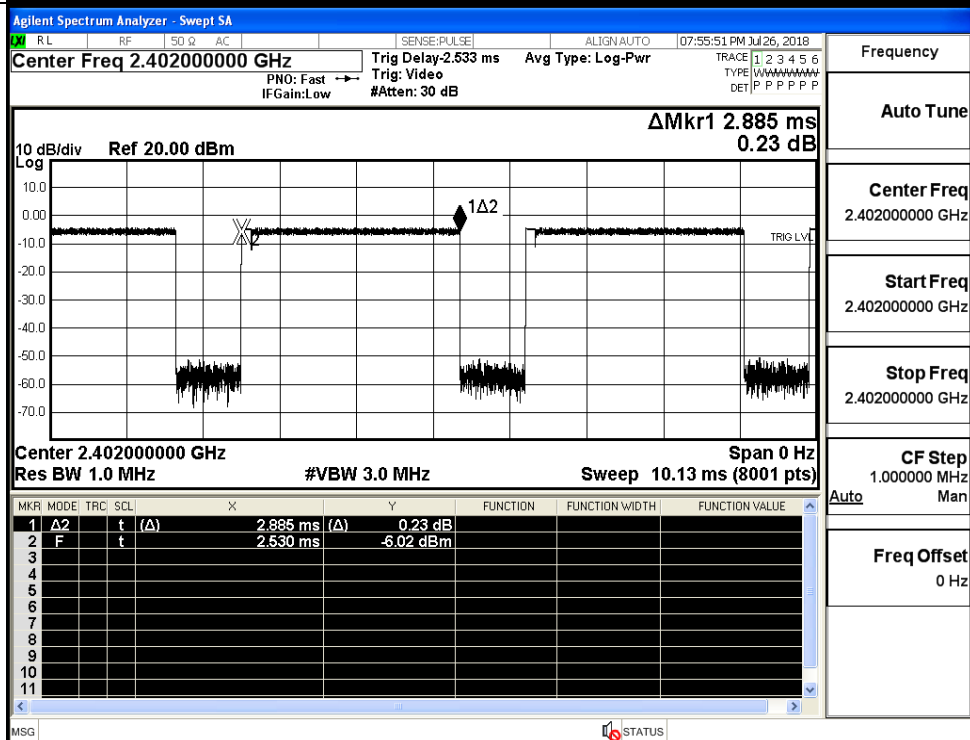
$\pi/4$ DQPSK
_2DH5/MCH



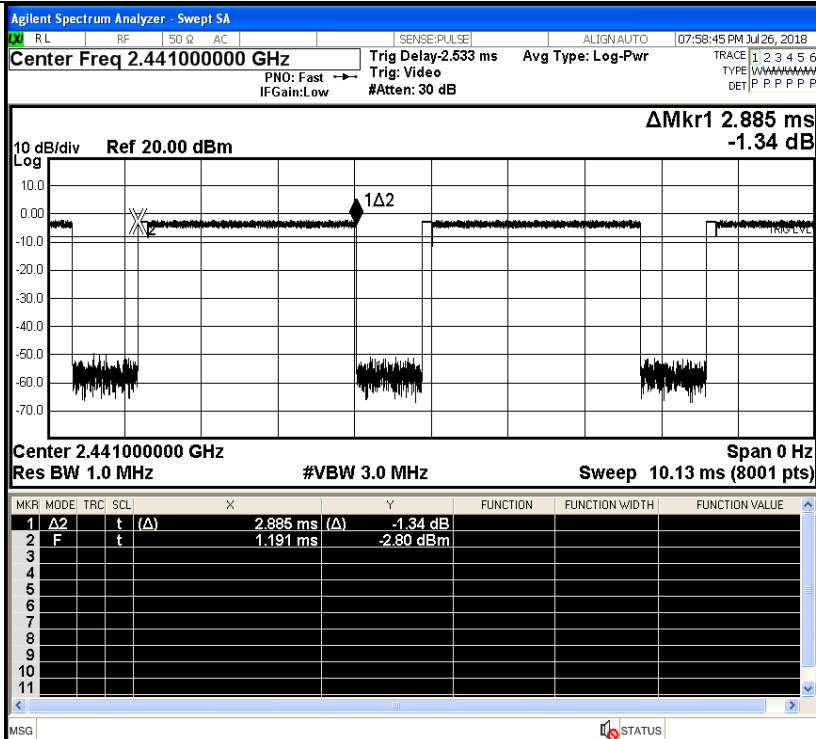
$\pi/4$ DQPSK
_2DH5/HCH



8DPSK _3DH5/LCH



8DPSK_3DH5/MCH

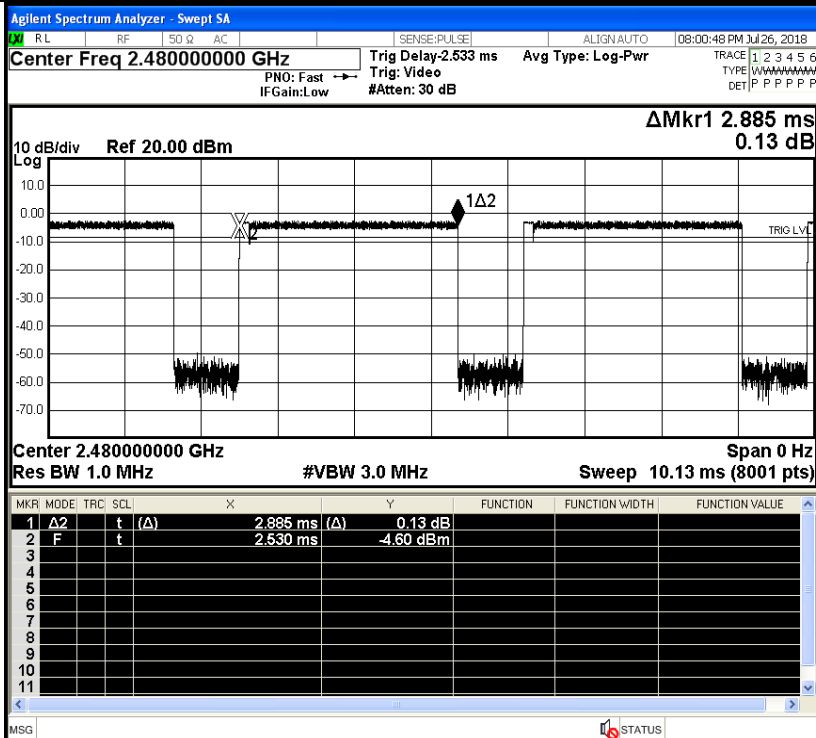


Frequency

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

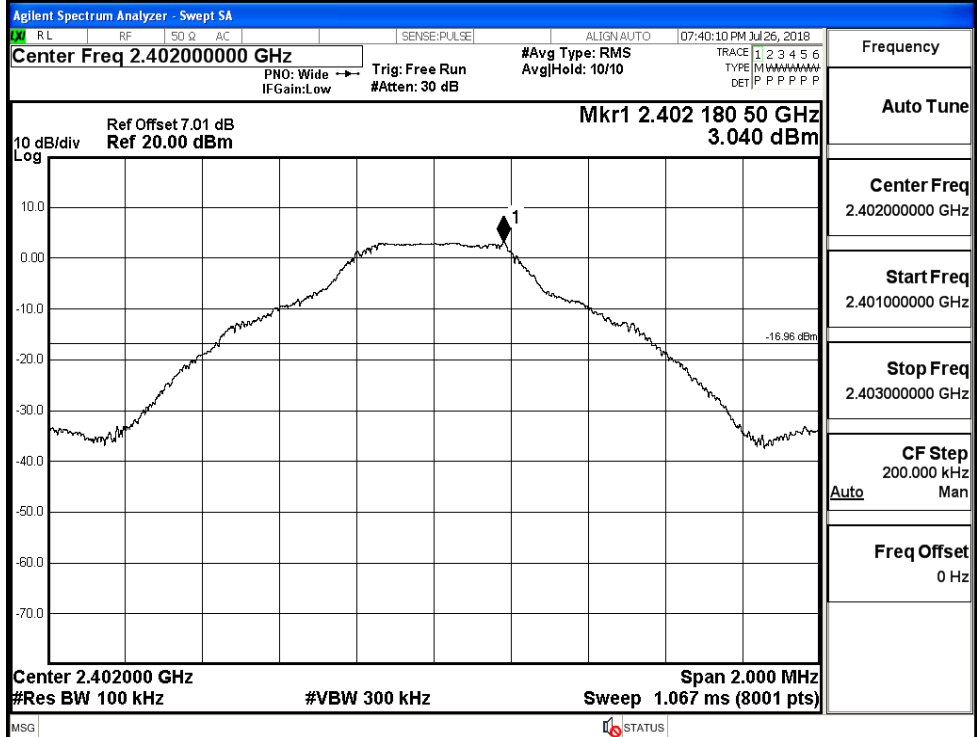
Center Freq
2.480000000 GHzStart Freq
2.480000000 GHzStop Freq
2.480000000 GHzCF Step
1.000000 MHz
Auto ManFreq Offset
0 Hz

A.6 RF Conducted Spurious Emissions

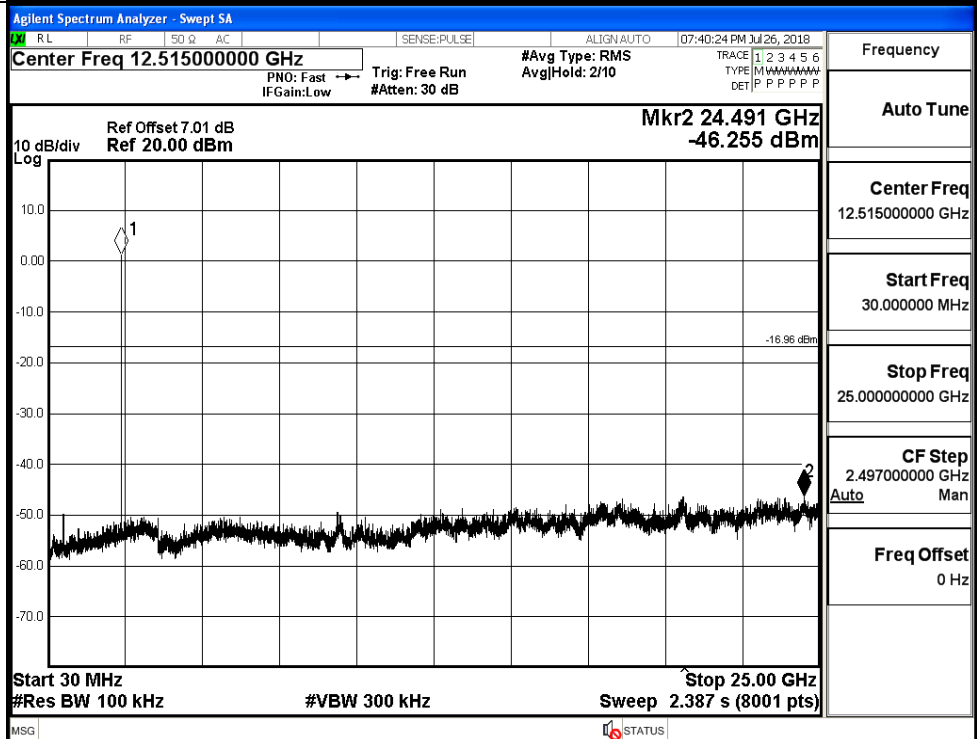
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.040	-46.255	-16.960	PASS
	MCH	5.574	-45.035	-14.426	PASS
	HCH	5.349	-46.151	-14.651	PASS
$\pi/4$ DQPSK	LCH	2.119	-45.886	-17.881	PASS
	MCH	4.118	-46.033	-15.882	PASS
	HCH	3.800	-46.053	-16.200	PASS
8DPSK	LCH	2.194	-45.543	-17.806	PASS
	MCH	4.252	-45.833	-15.748	PASS
	HCH	3.769	-45.529	-16.231	PASS

GFSK LCH Graphs

Pref

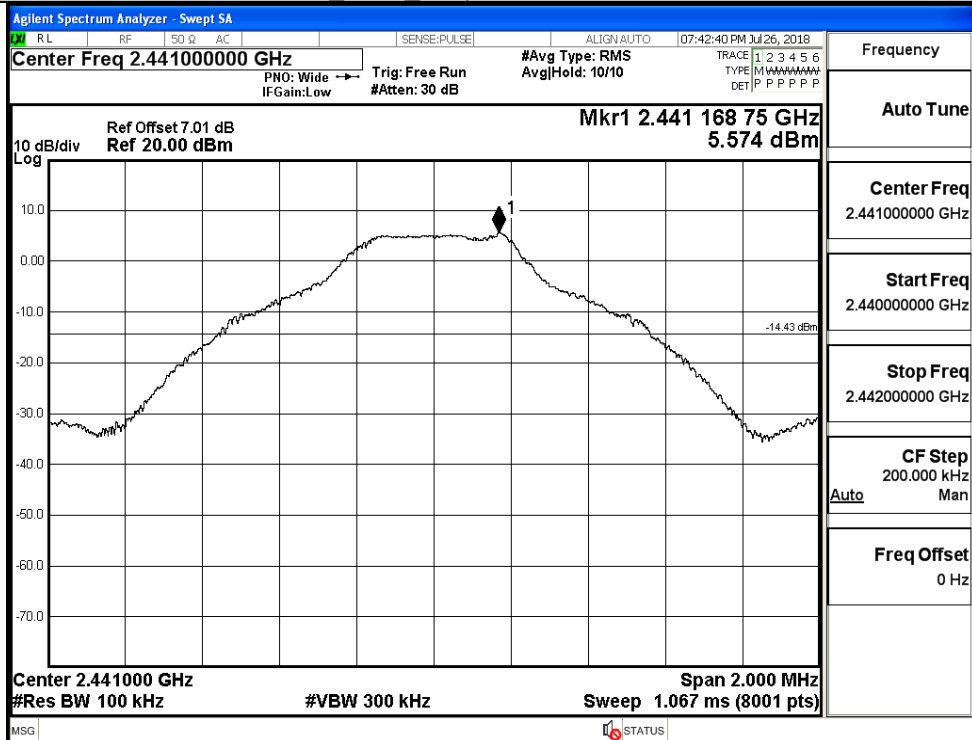


Puw

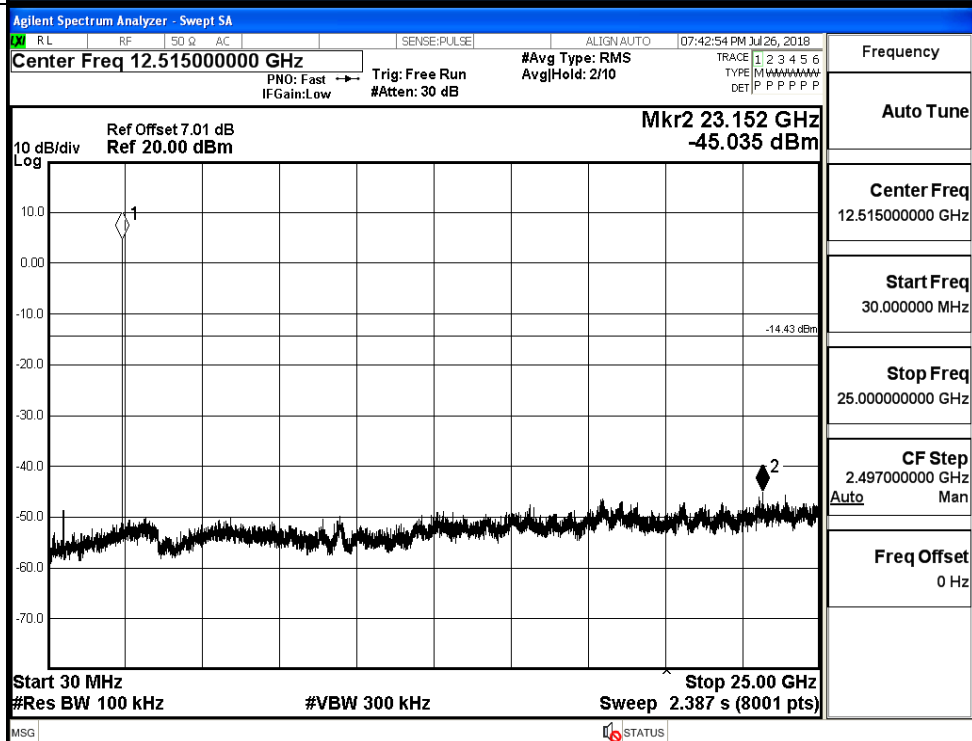


GFSK_MCH_Graphs

Pref

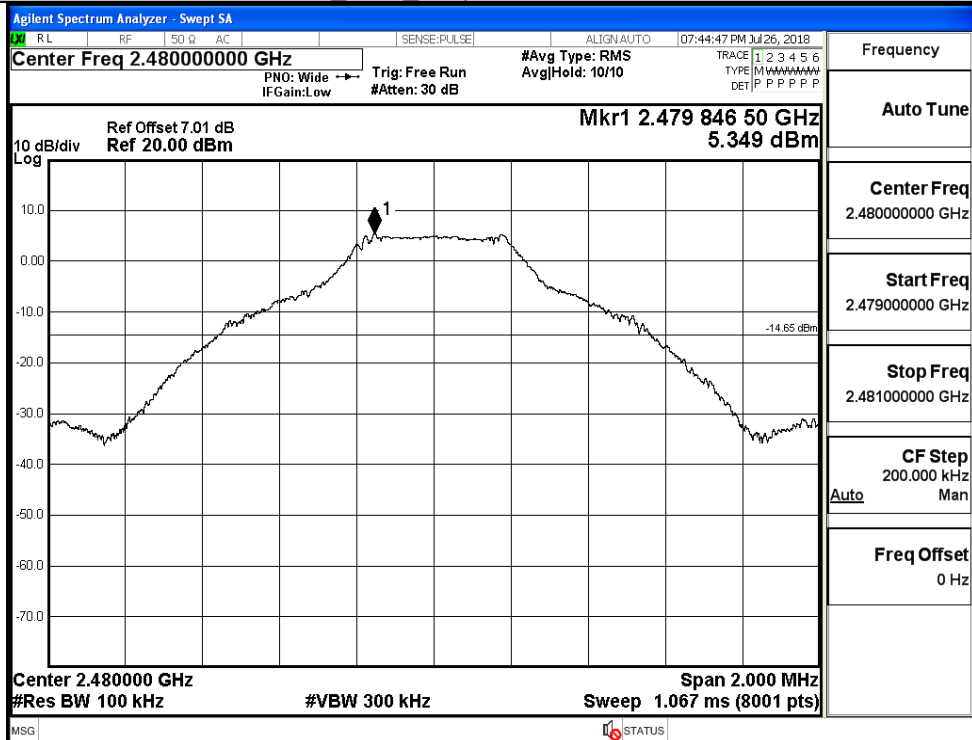


Puw

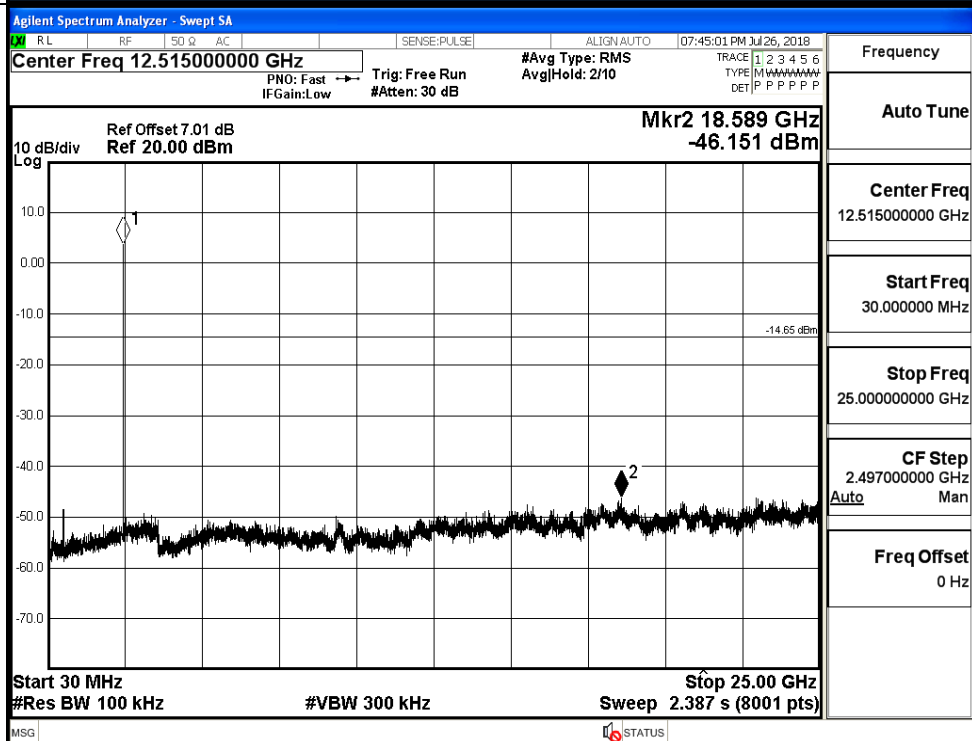


GFSK_HCH_Graphs

Pref

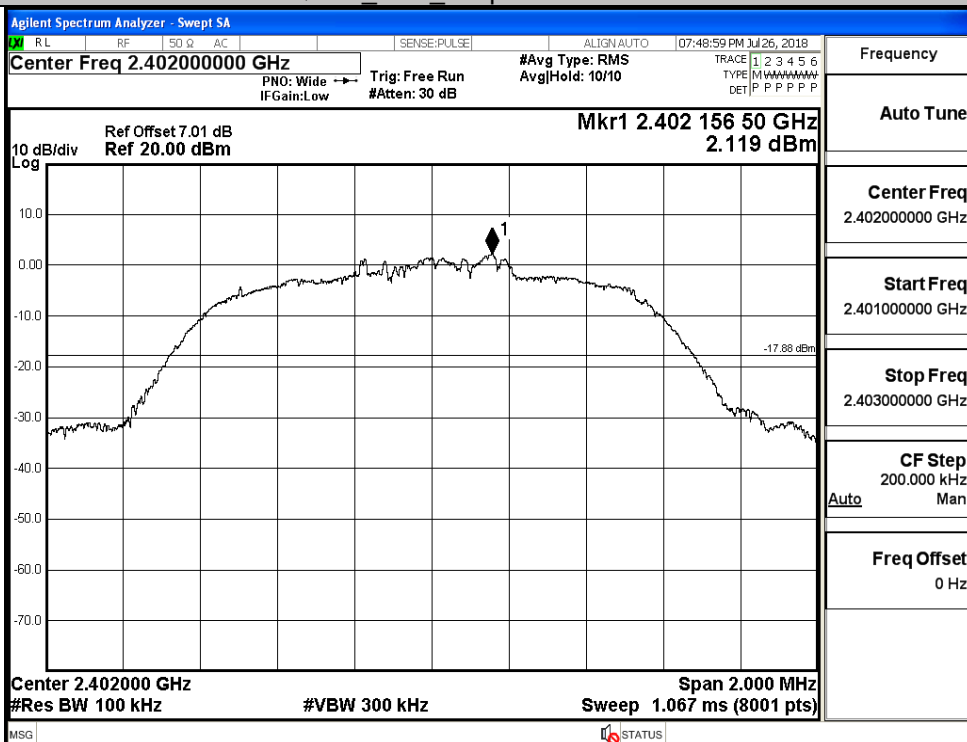


Puw

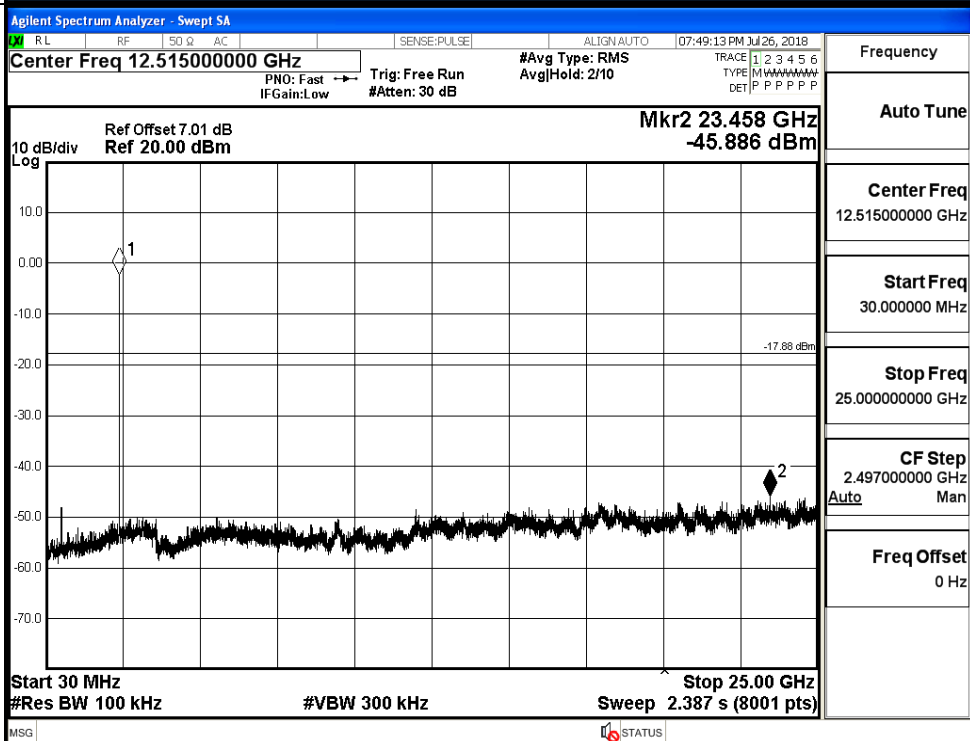


$\pi/4$ DQPSK LCH_Graphs

Pref

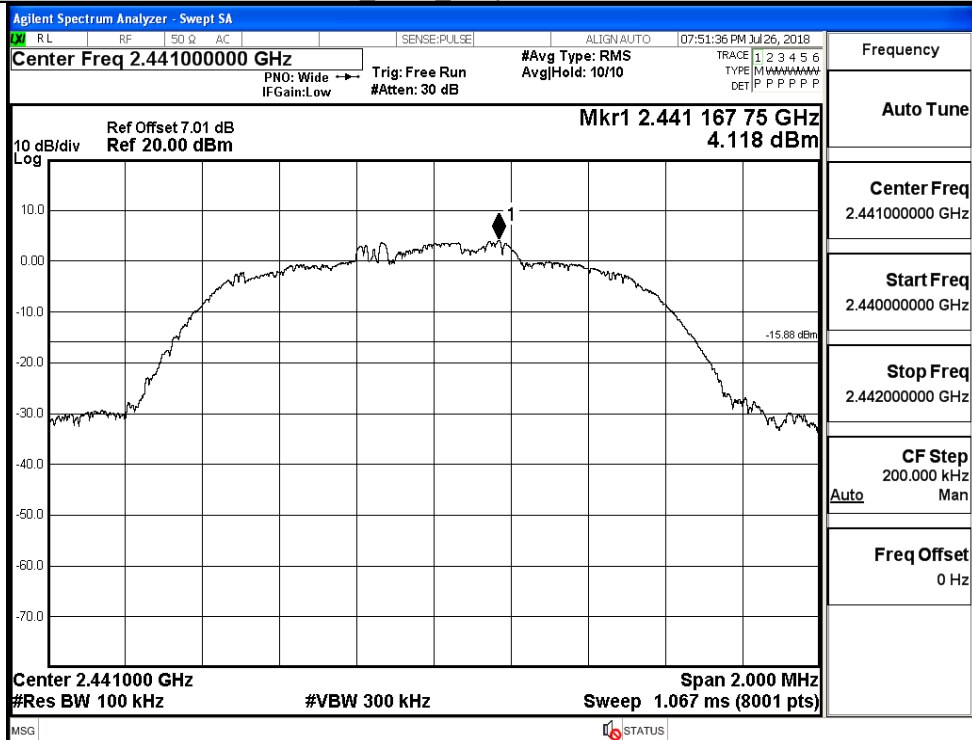


Puw

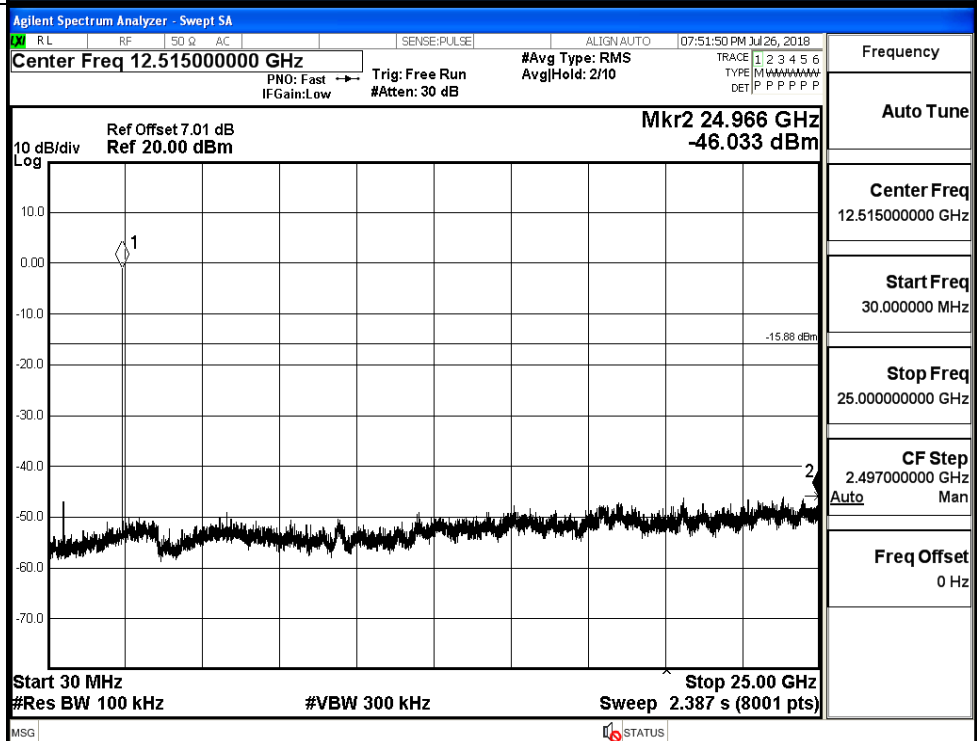


π /4DQPSK_MCH_Graphs

Pref

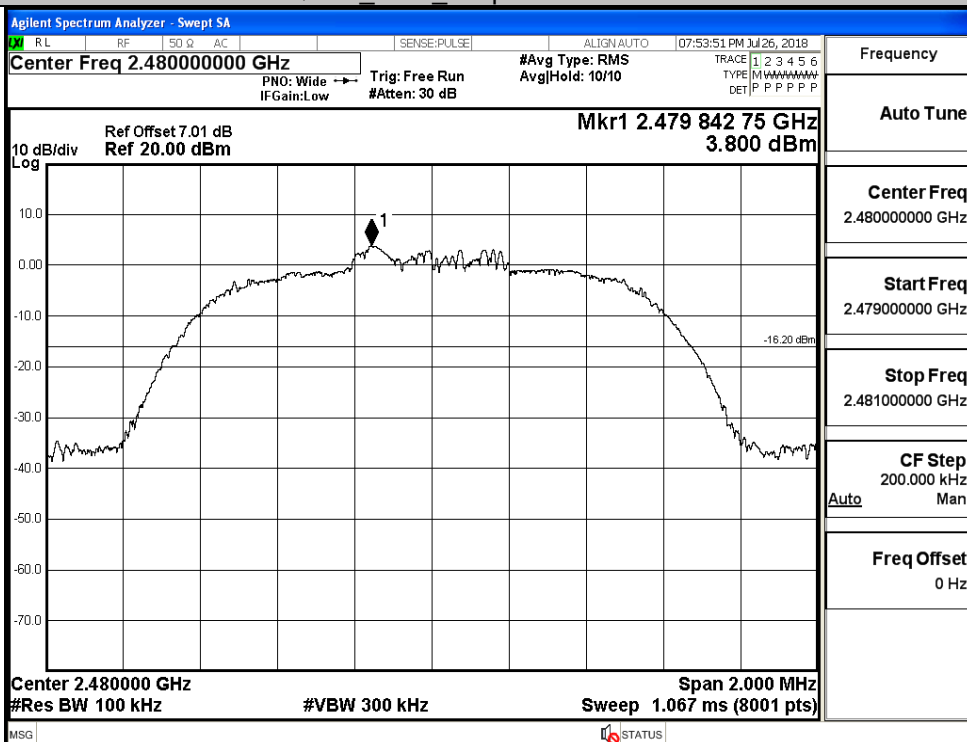


Puw

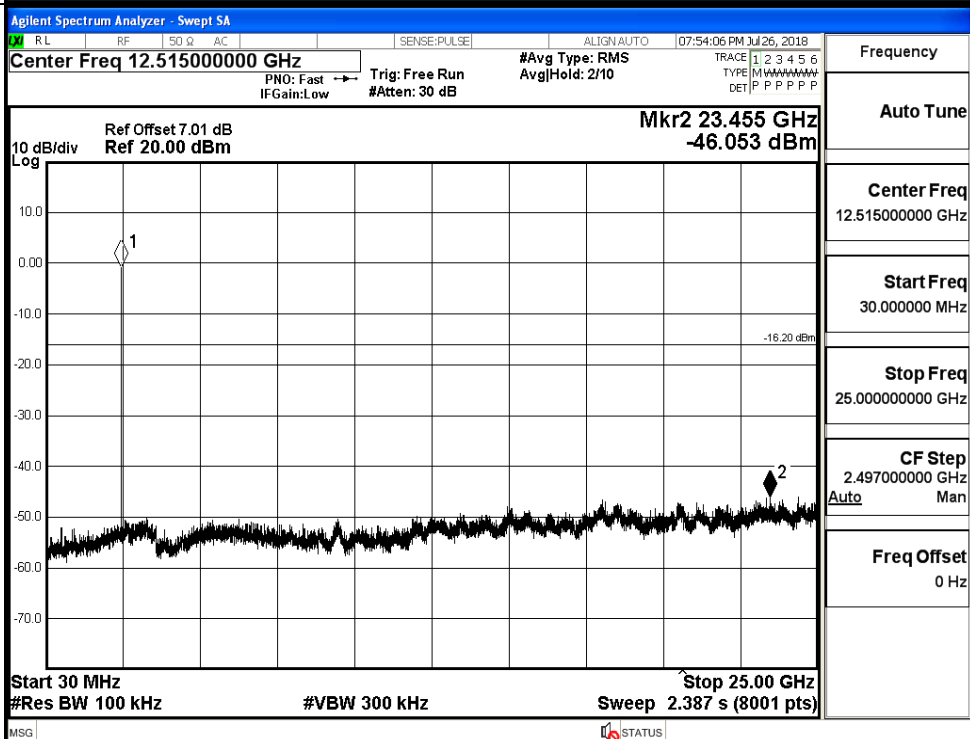


π /4DQPSK_HCH_Graphs

Pref

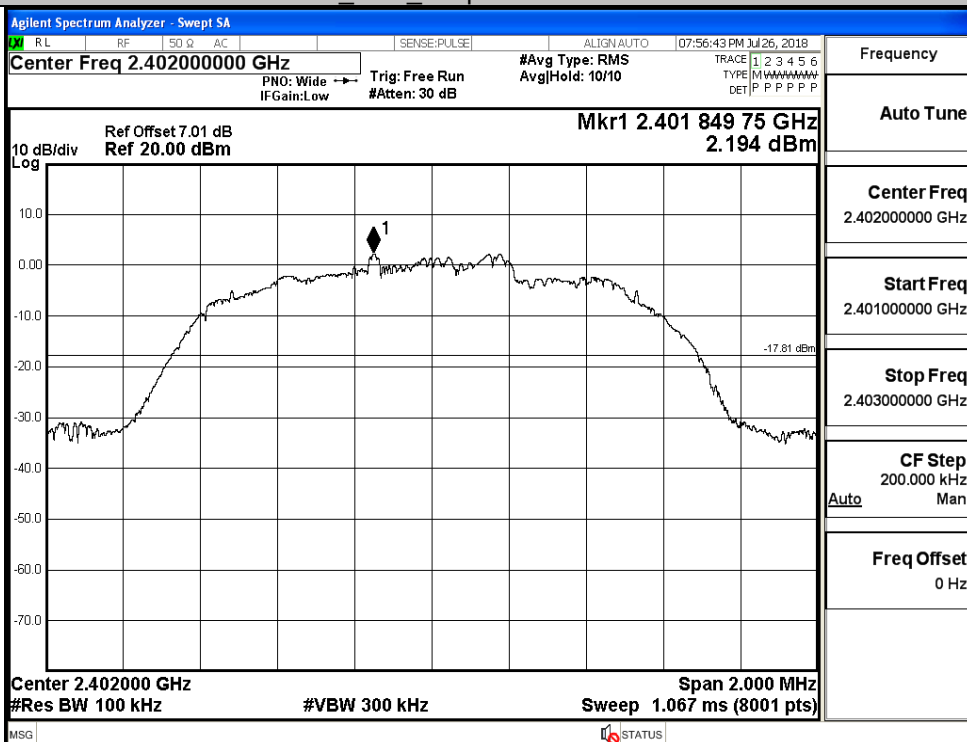


Puw

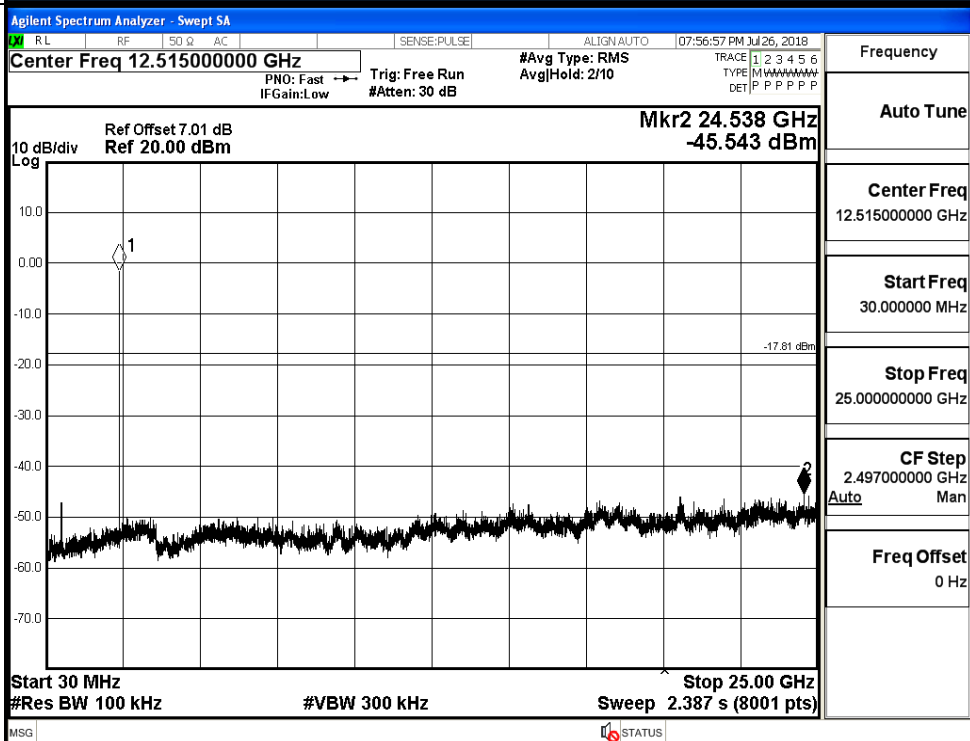


8DPSK_LCH_Graphs

Pref

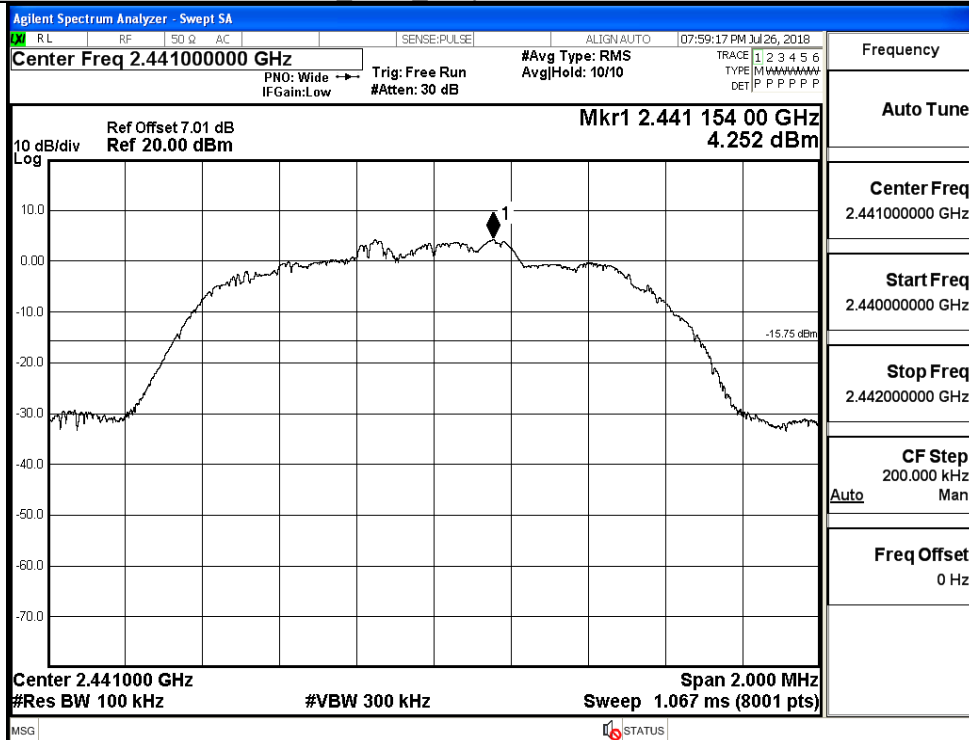


Puw

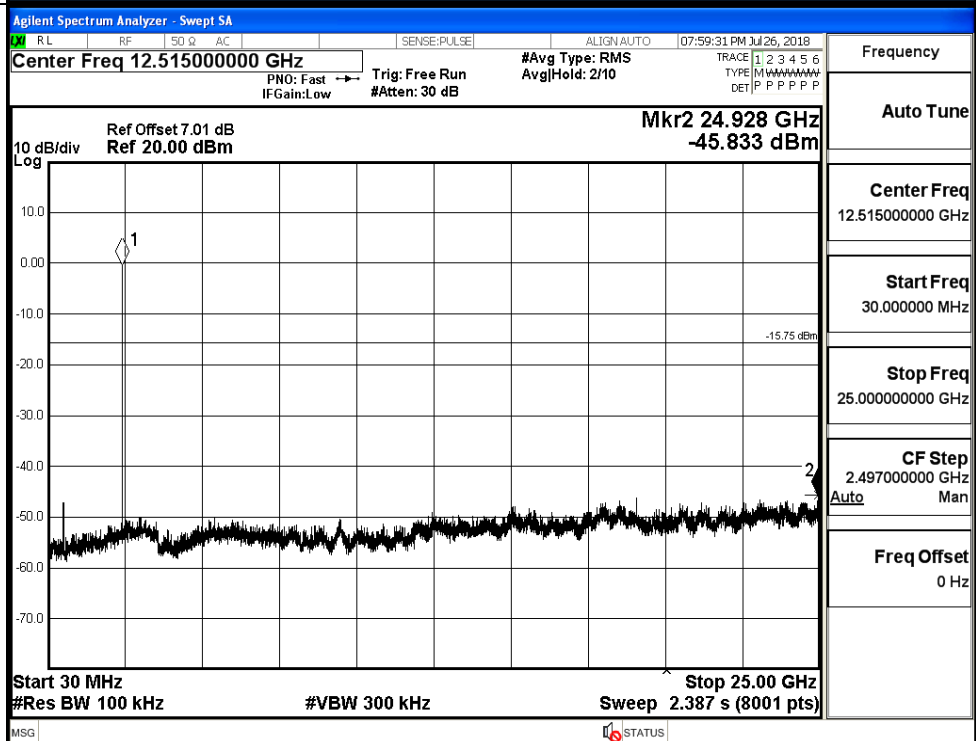


8DPSK_MCH_Graphs

Pref

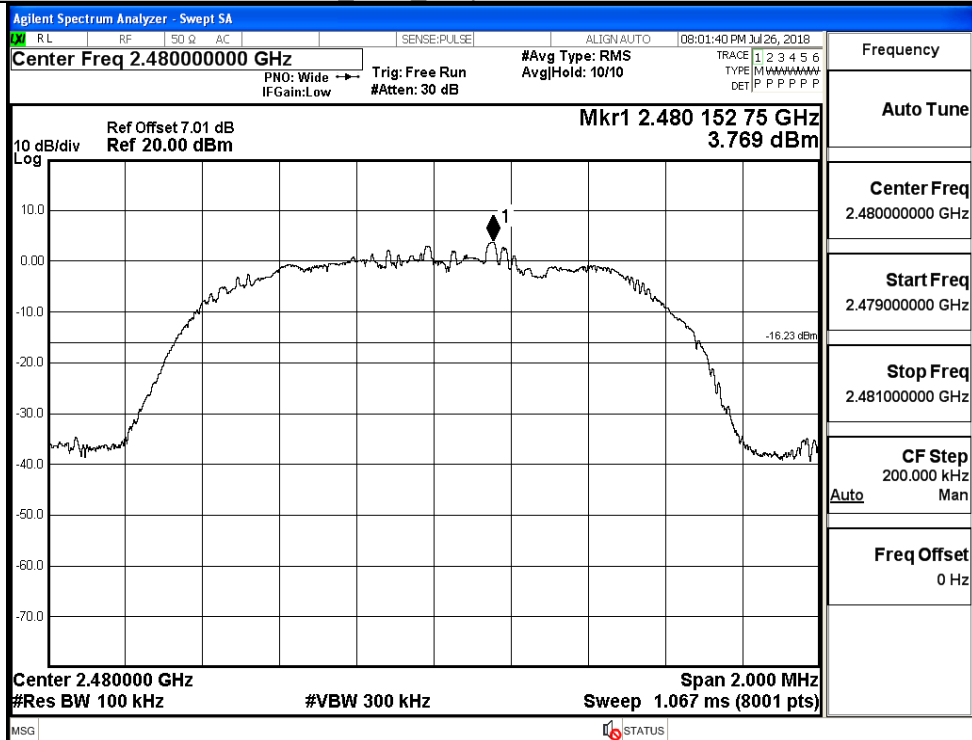


Puw

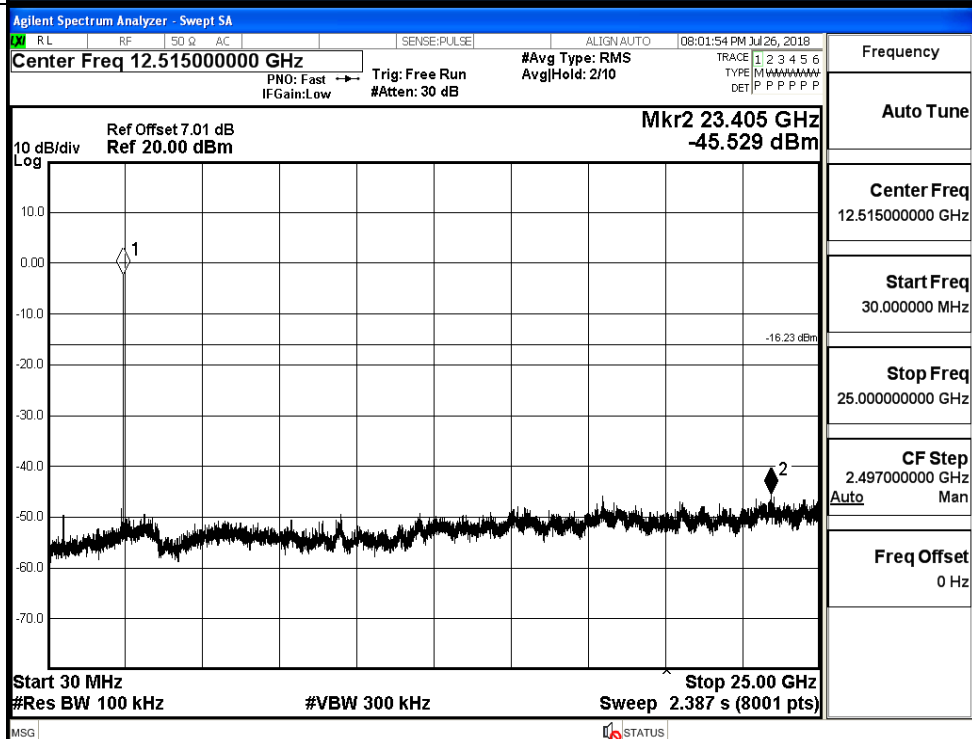


8DPSK_HCH_Graphs

Pref



Puw

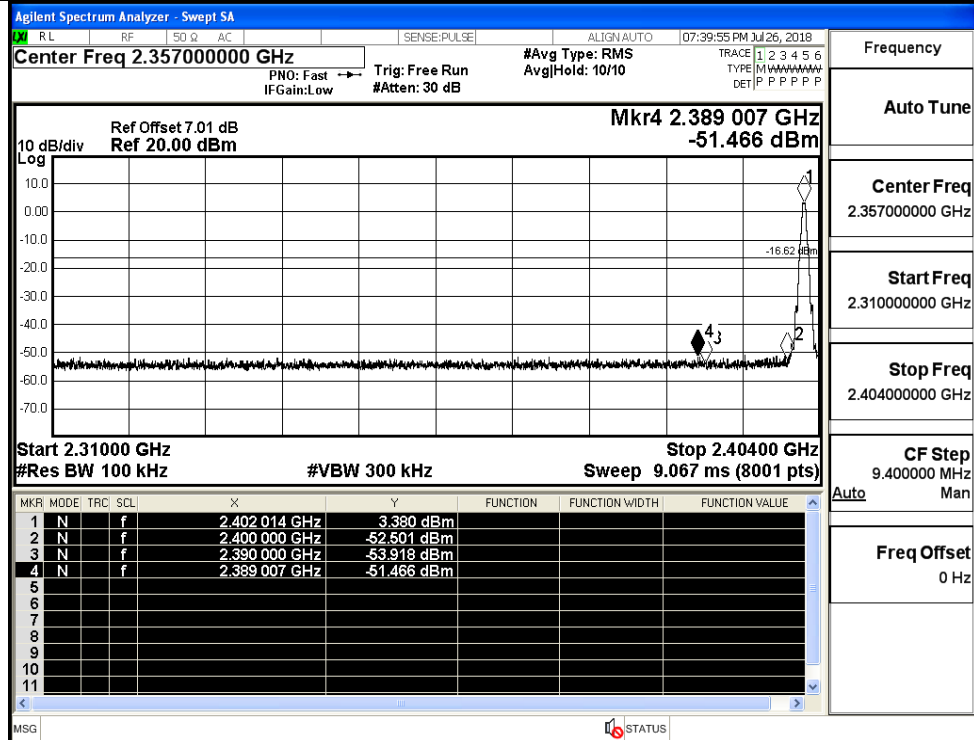


A.7 Band-edge for RF Conducted Emissions

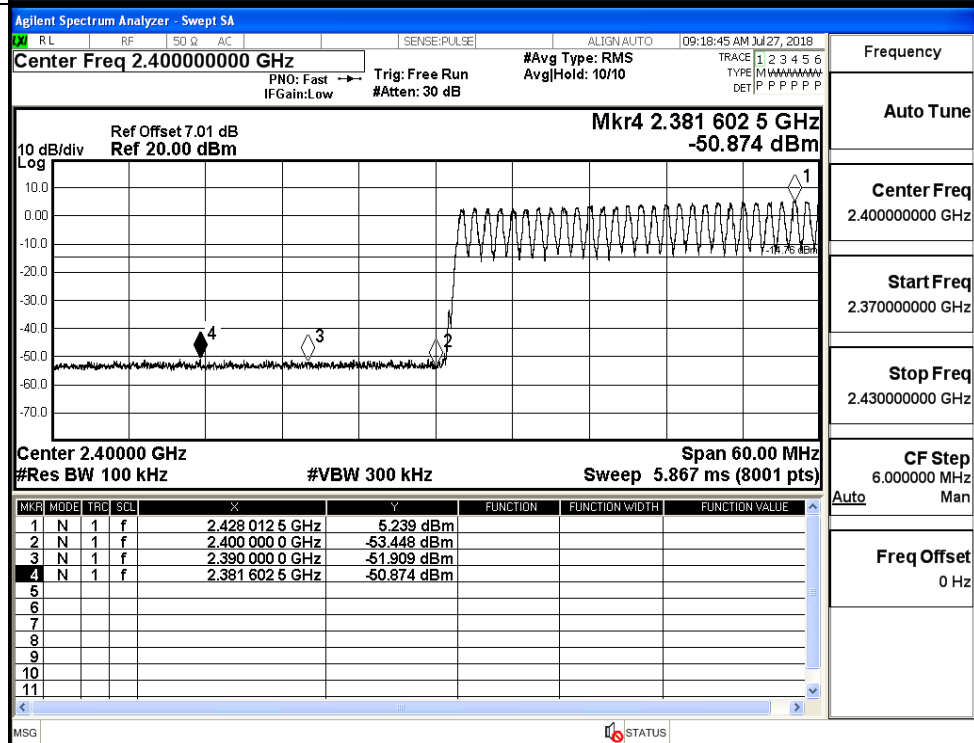
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	3.380	Off	-51.466	-16.62	PASS
			5.239	On	-50.874	-14.76	PASS
	HCH	2480	5.367	Off	-50.422	-14.63	PASS
			5.025	On	-50.735	-14.98	PASS
$\pi/4$ DQPSK	LCH	2402	2.247	Off	-51.229	-17.75	PASS
			3.602	On	-50.481	-16.4	PASS
	HCH	2480	3.817	Off	-50.518	-16.18	PASS
			3.495	On	-50.038	-16.51	PASS
8DPSK	LCH	2402	1.815	Off	-50.719	-18.19	PASS
			3.879	On	-49.983	-16.12	PASS
	HCH	2480	3.816	Off	-51.177	-16.18	PASS
			3.522	On	-50.150	-16.48	PASS

Test Graphs

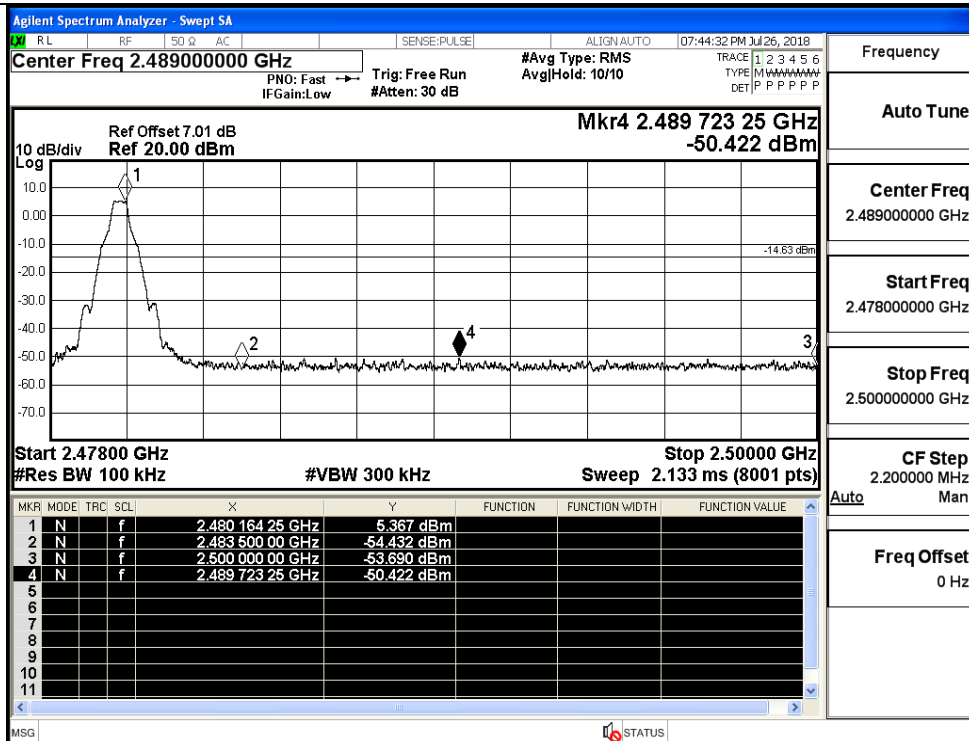
GFSK/LCH/No Hop



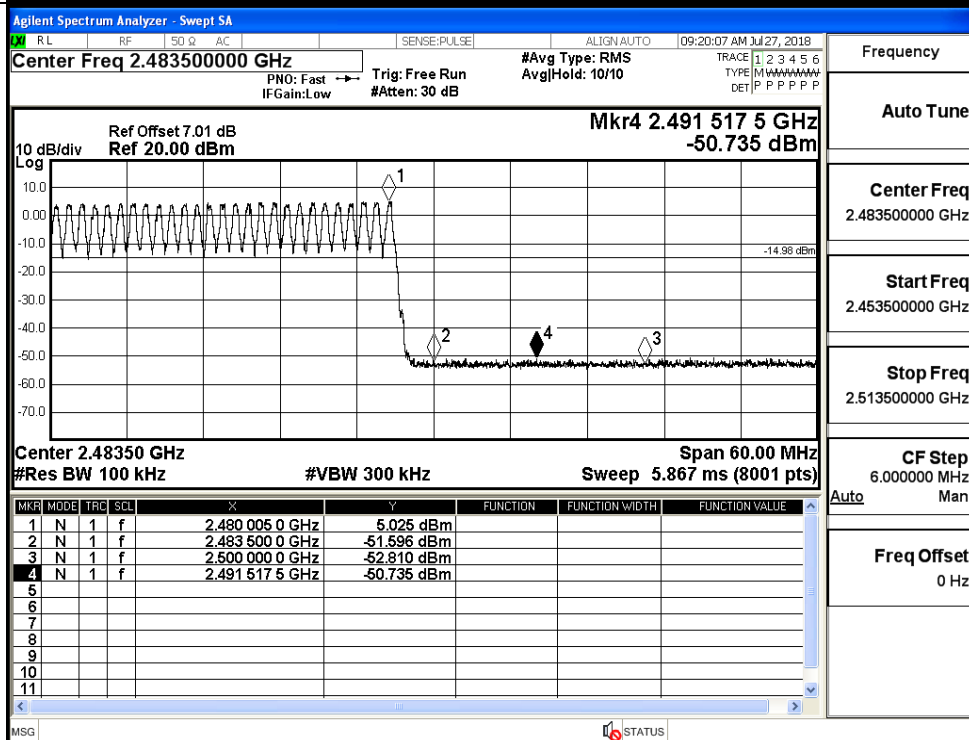
GFSK/LCH/Hop



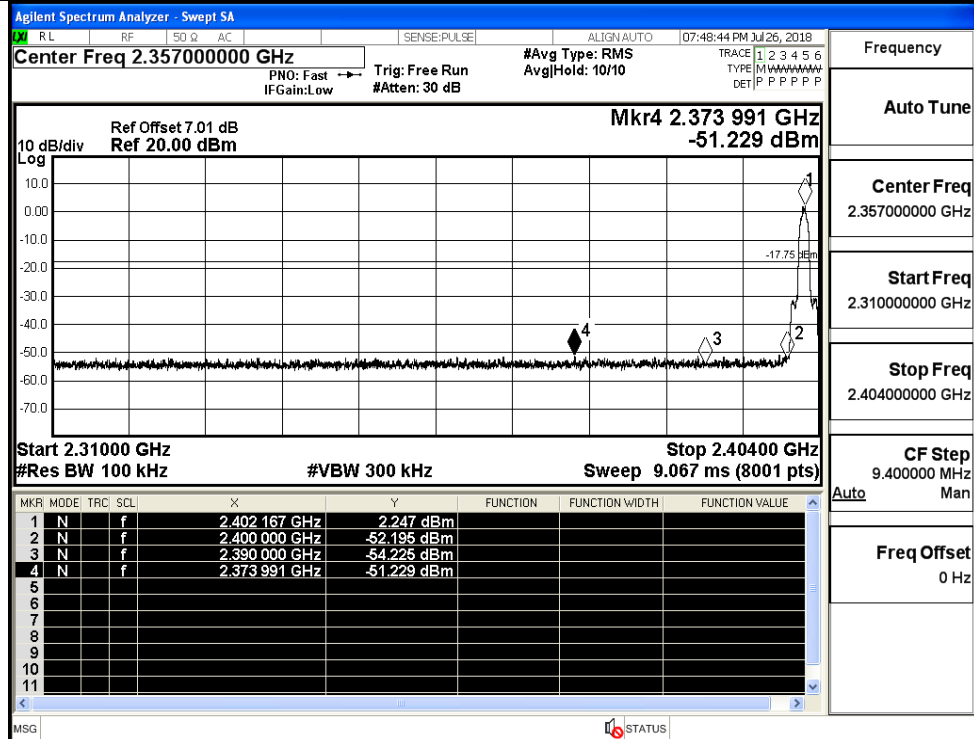
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

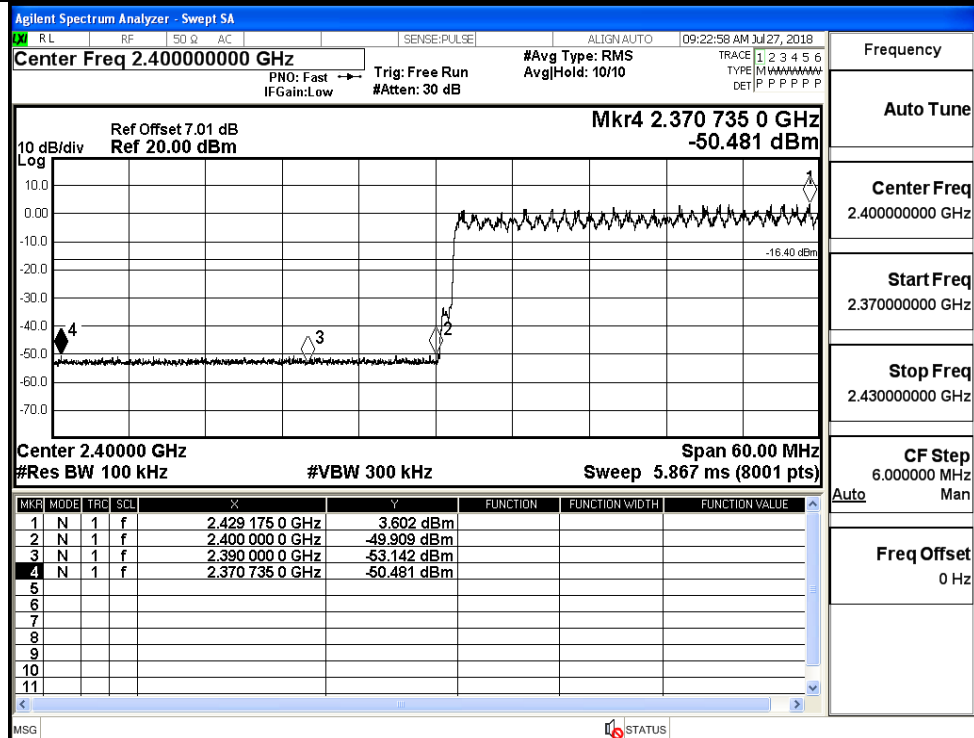
Start Freq
2.310000000 GHz

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

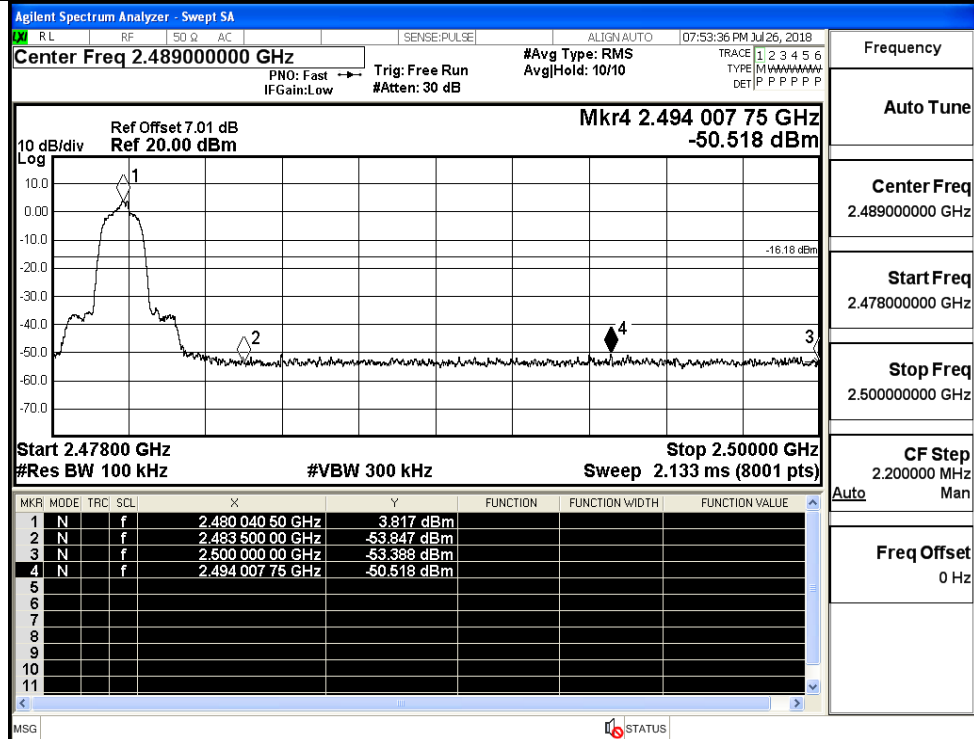
Start Freq
2.370000000 GHz

Stop Freq
2.430000000 GHz

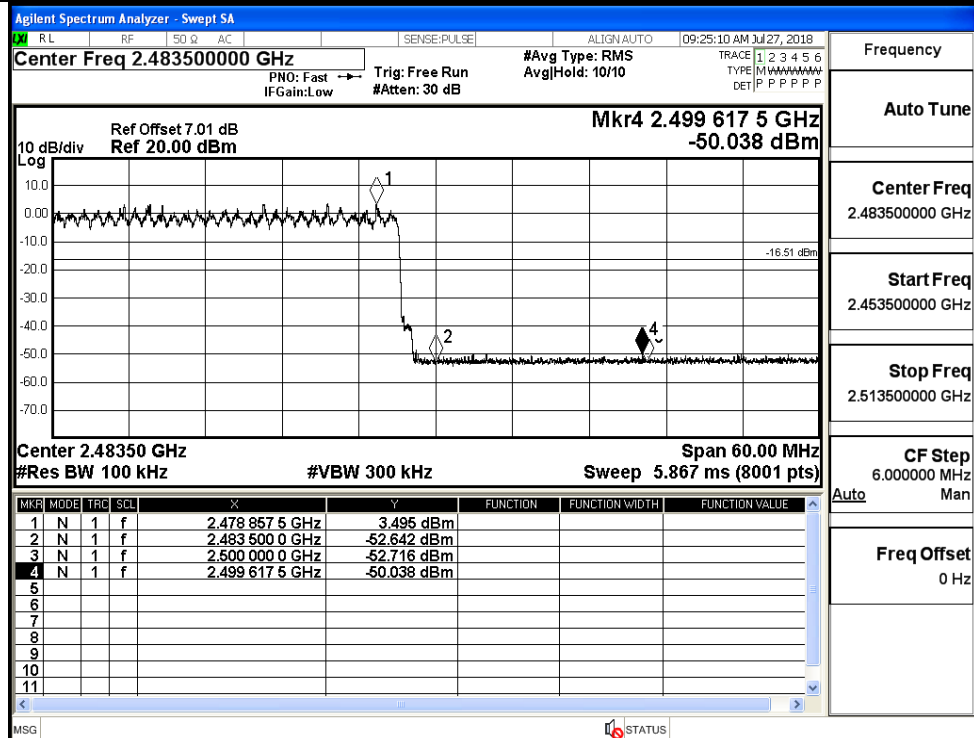
CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

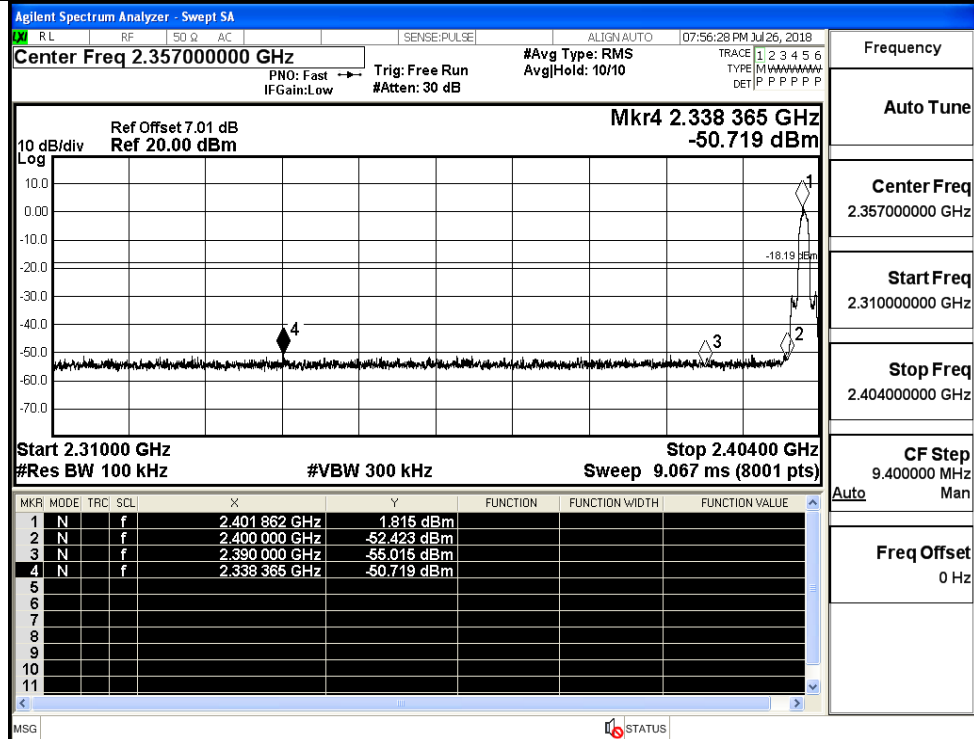
$\pi/4$ DQPSK/HCH/No
Hop



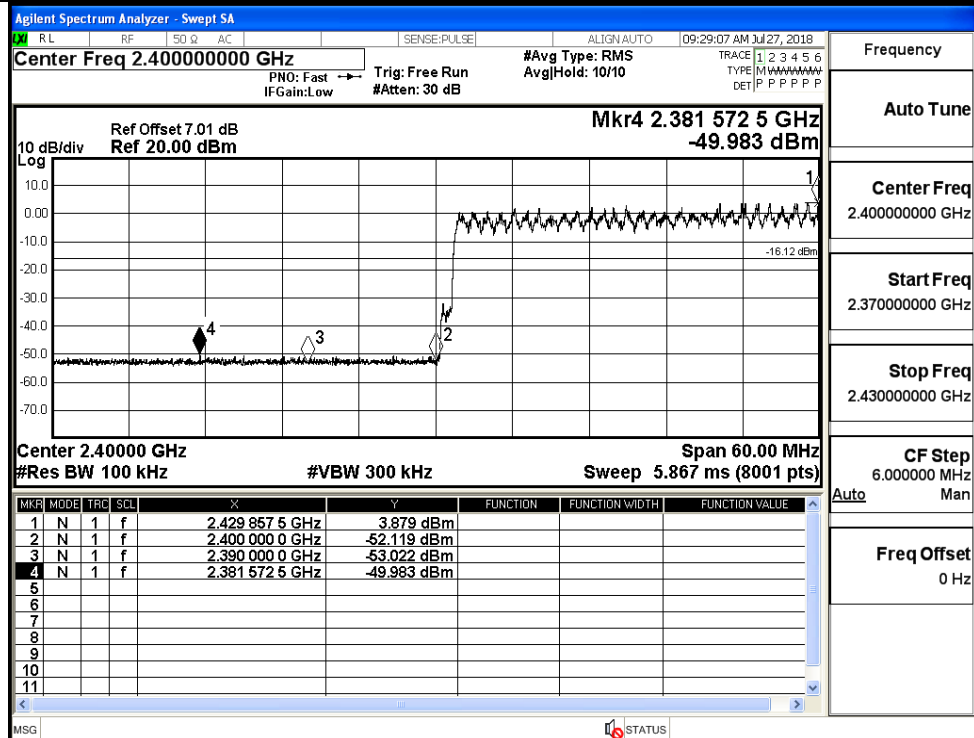
$\pi/4$ DQPSK/HCH/Hop



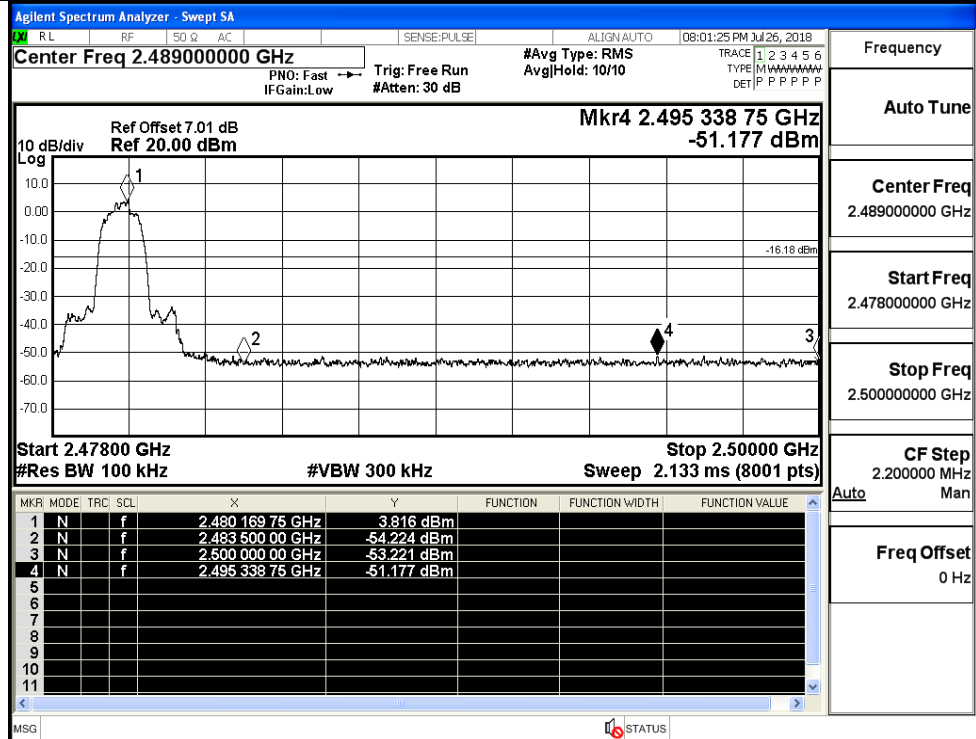
8DPSK/LCH/No Hop



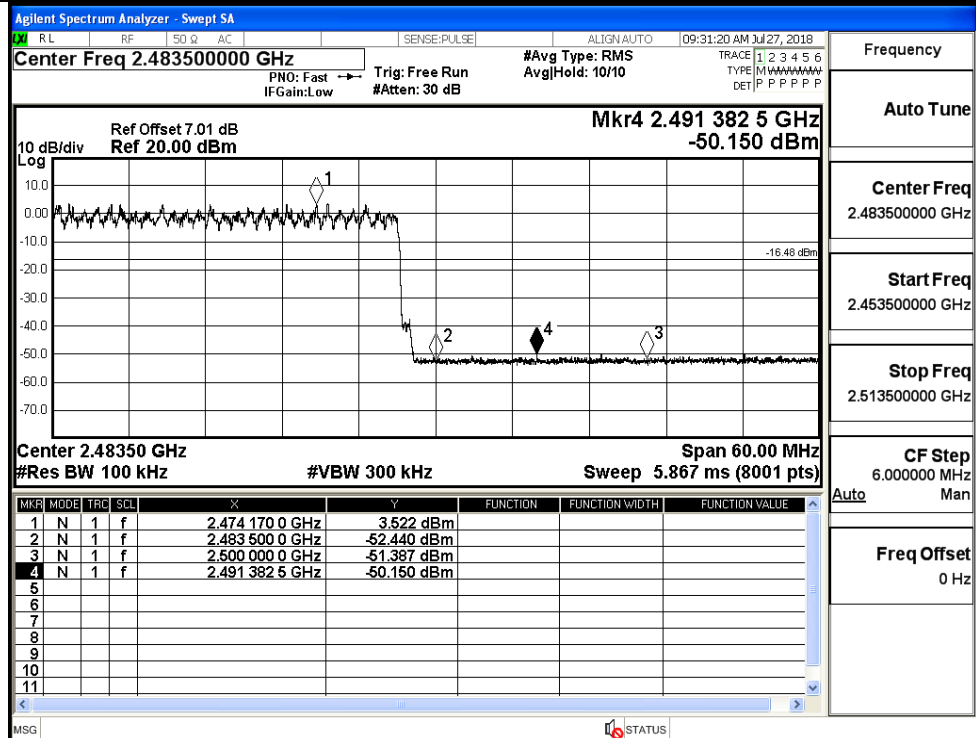
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



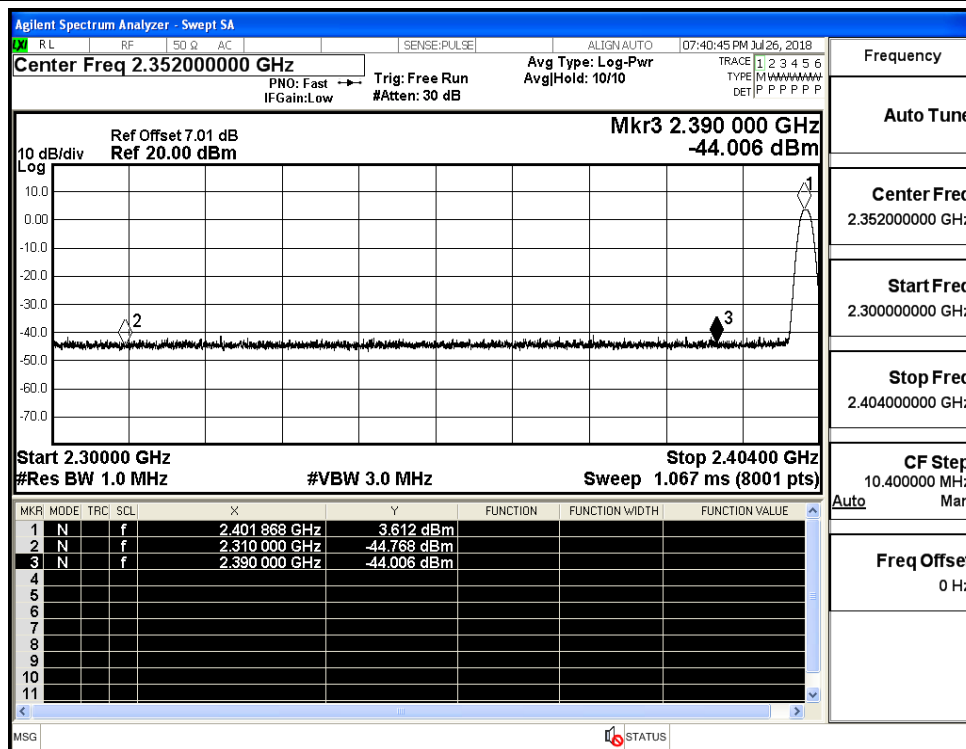
8DPSK/HCH/Hop



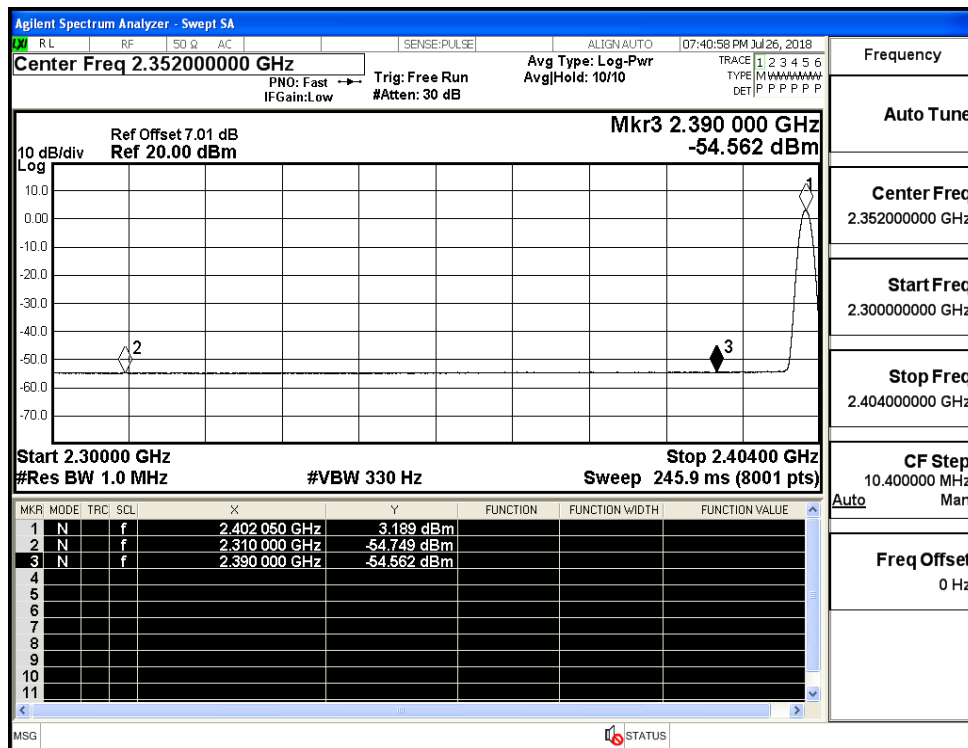
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.77	2.0	0	52.49	PEAK	74	PASS
	Off	2310.0	-54.75	2.0	0	42.51	AV	54	PASS
	Off	2390.0	-44.01	2.0	0	53.25	PEAK	74	PASS
	Off	2390.0	-54.56	2.0	0	42.70	AV	54	PASS
	Off	2483.5	-44.53	2.0	0	52.73	PEAK	74	PASS
	Off	2483.5	-53.64	2.0	0	43.61	AV	54	PASS
	Off	2500.0	-43.94	2.0	0	53.32	PEAK	74	PASS
	Off	2500.0	-54.06	2.0	0	43.20	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.62	2.0	0	53.64	PEAK	74	PASS
	Off	2310.0	-54.79	2.0	0	42.47	AV	54	PASS
	Off	2390.0	-43.90	2.0	0	53.36	PEAK	74	PASS
	Off	2390.0	-54.35	2.0	0	42.91	AV	54	PASS
	Off	2483.5	-44.16	2.0	0	53.10	PEAK	74	PASS
	Off	2483.5	-53.74	2.0	0	43.52	AV	54	PASS
	Off	2500.0	-43.99	2.0	0	53.27	PEAK	74	PASS
	Off	2500.0	-54.03	2.0	0	43.23	AV	54	PASS
8DPSK	Off	2310.0	-43.72	2.0	0	53.54	PEAK	74	PASS
	Off	2310.0	-54.74	2.0	0	42.52	AV	54	PASS
	Off	2390.0	-43.38	2.0	0	53.88	PEAK	74	PASS
	Off	2390.0	-54.43	2.0	0	42.83	AV	54	PASS
	Off	2483.5	-43.65	2.0	0	53.60	PEAK	74	PASS
	Off	2483.5	-53.75	2.0	0	43.51	AV	54	PASS
	Off	2500.0	-44.77	2.0	0	52.49	PEAK	74	PASS
	Off	2500.0	-54.12	2.0	0	43.14	AV	54	PASS

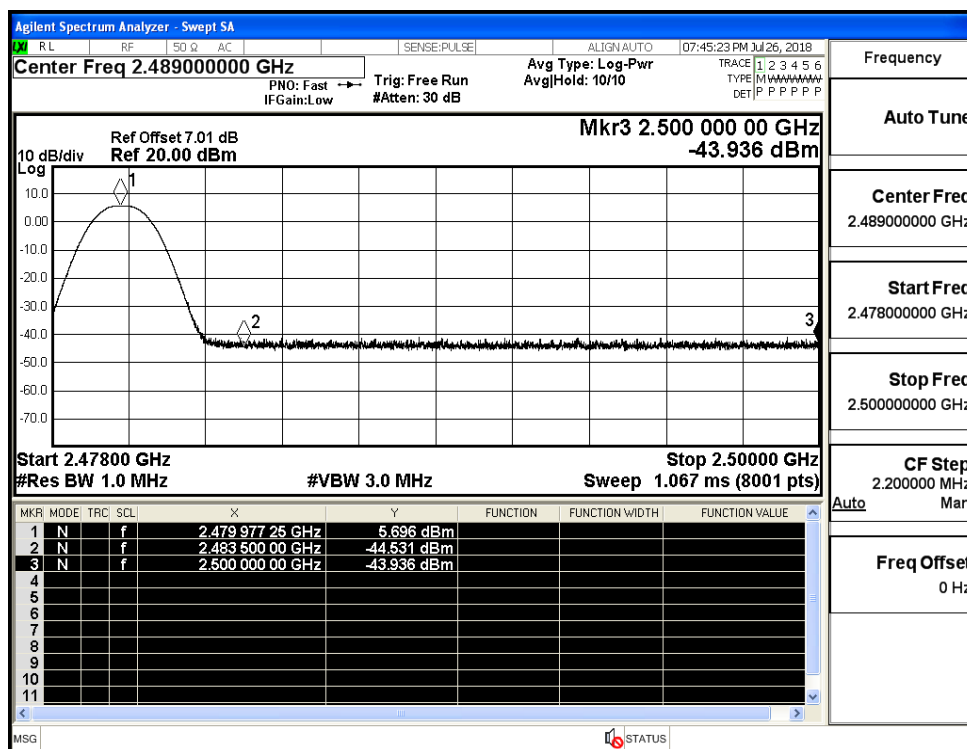
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



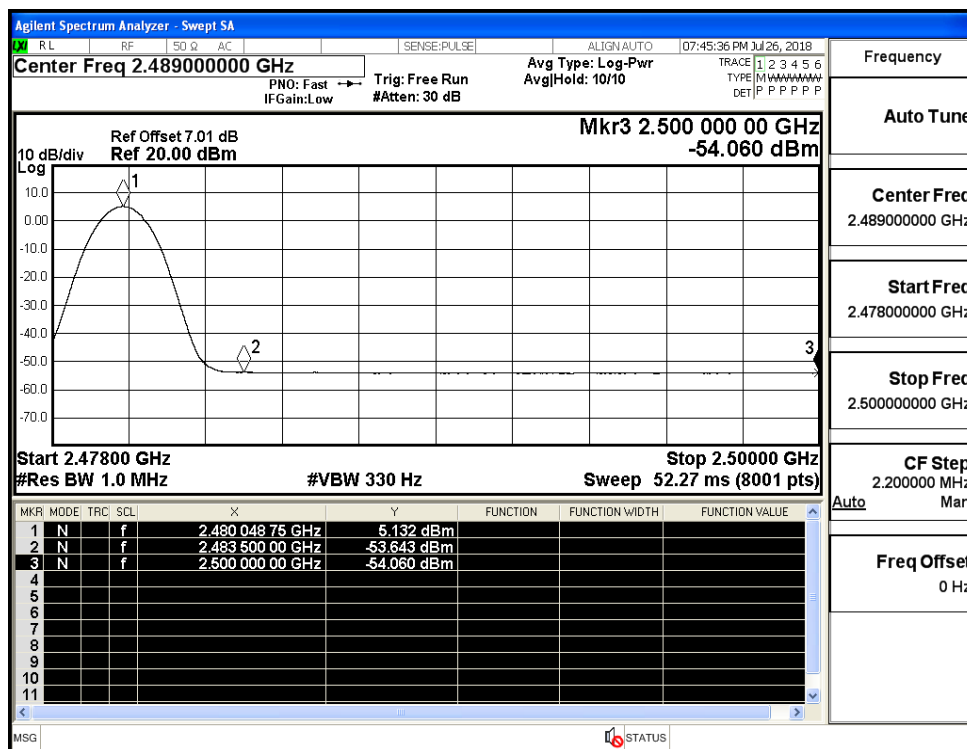
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

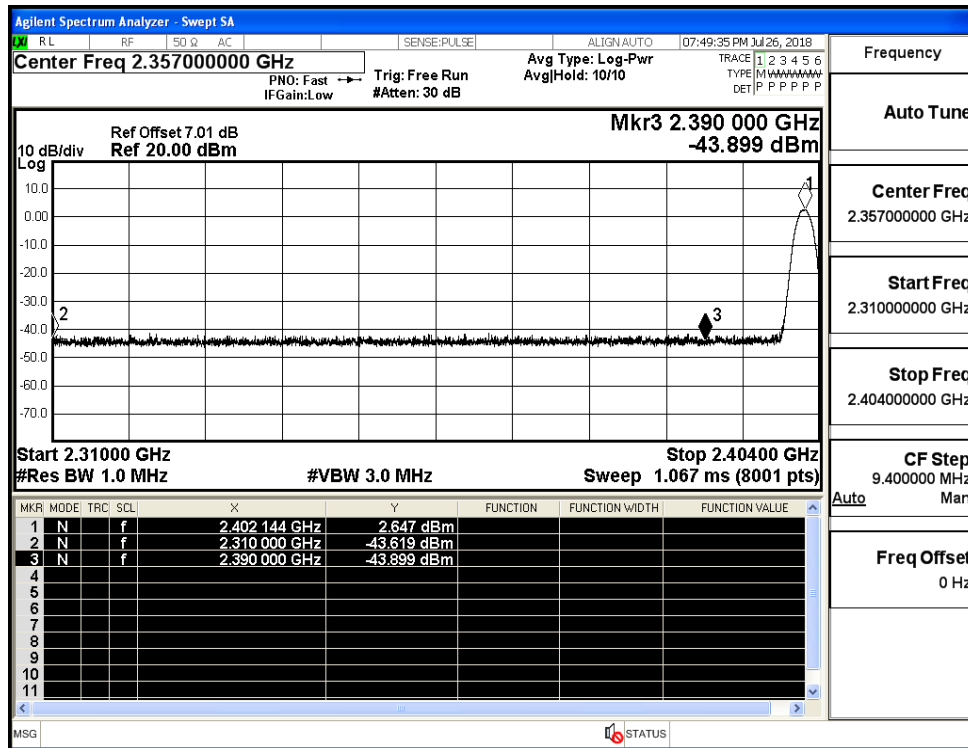
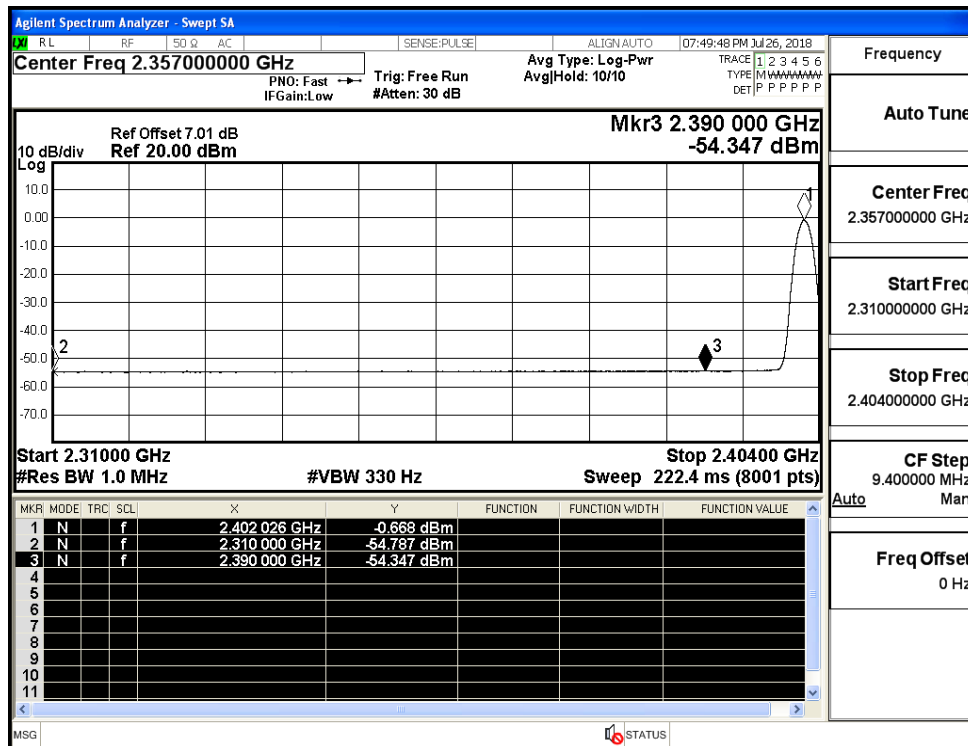


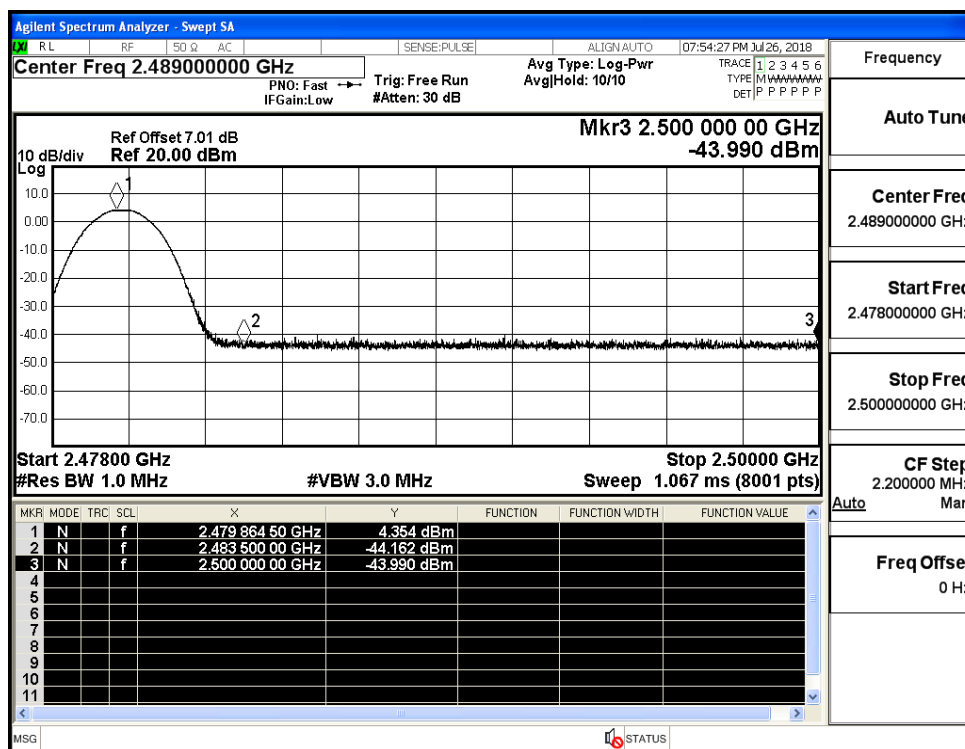
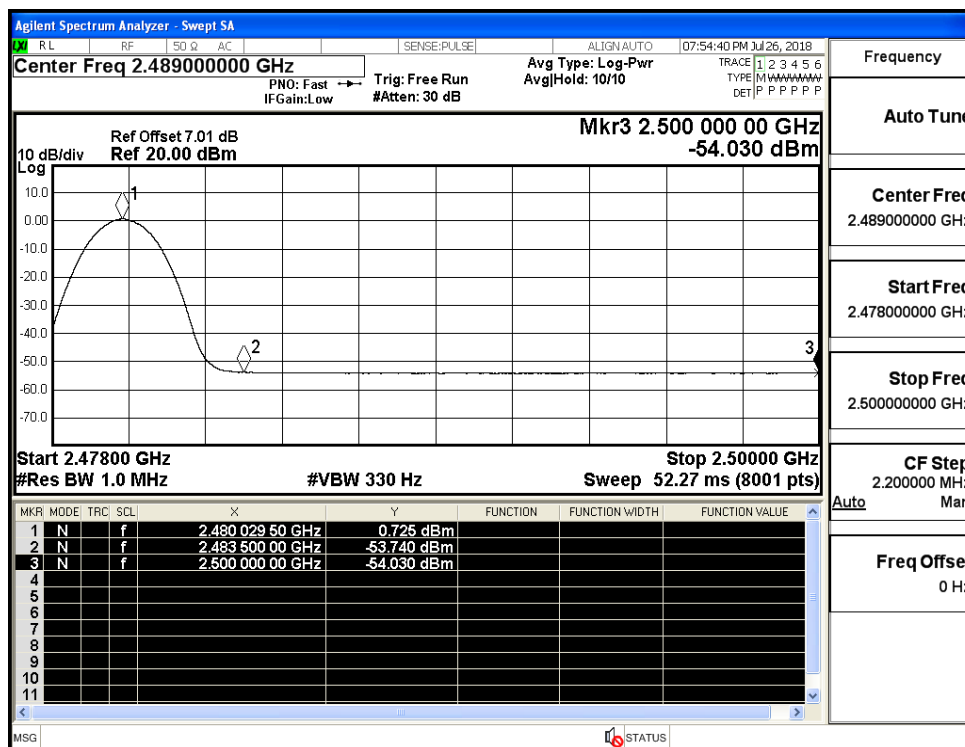
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



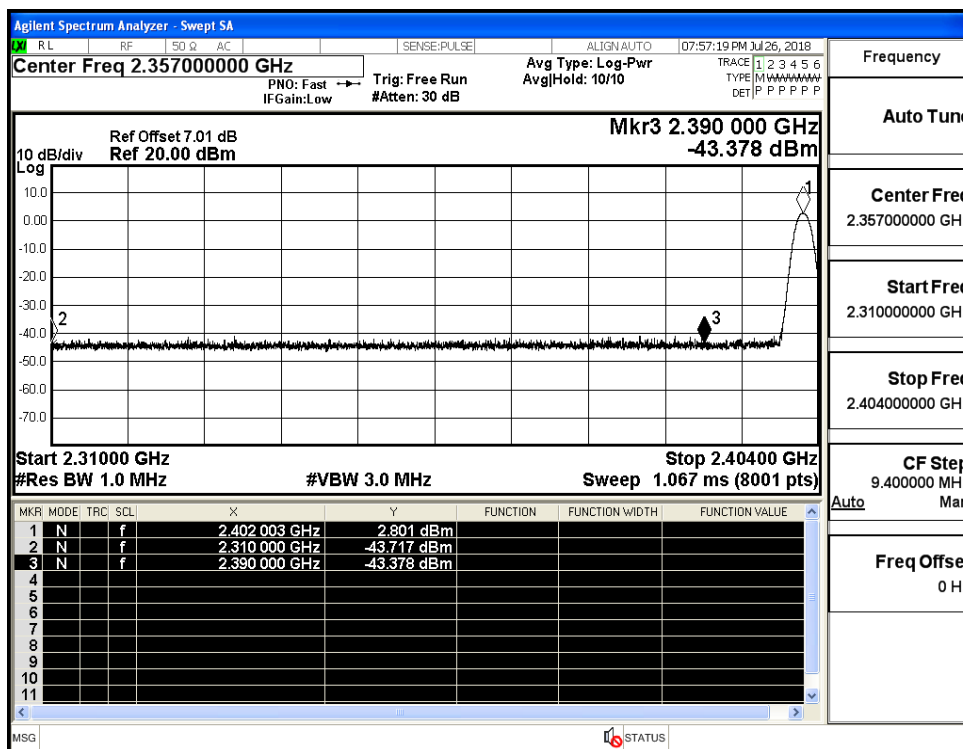
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



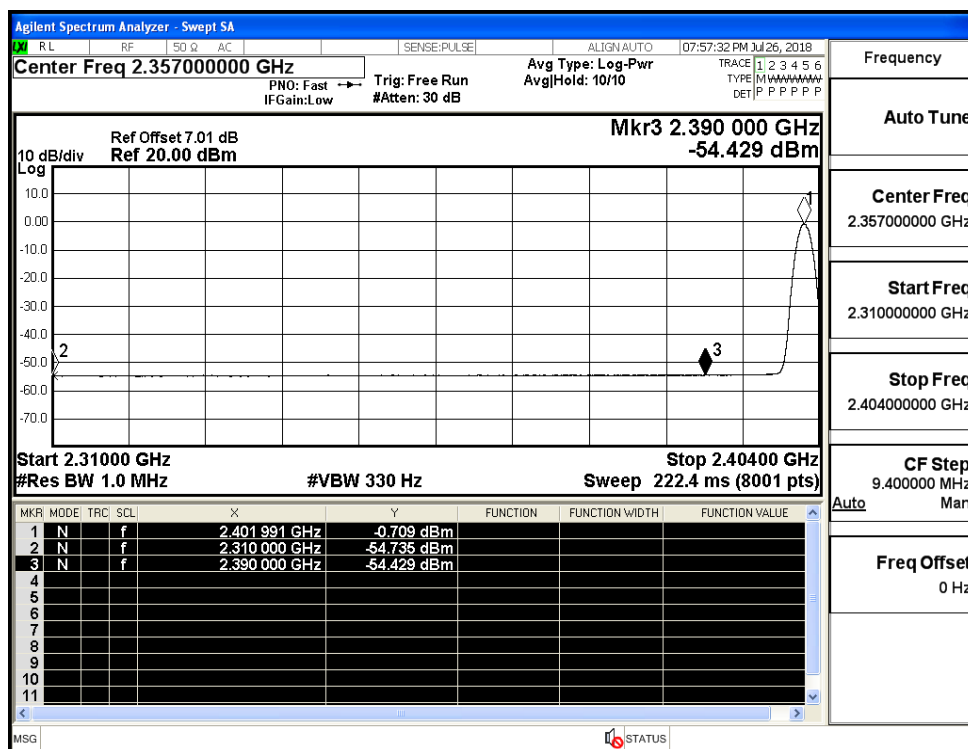
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

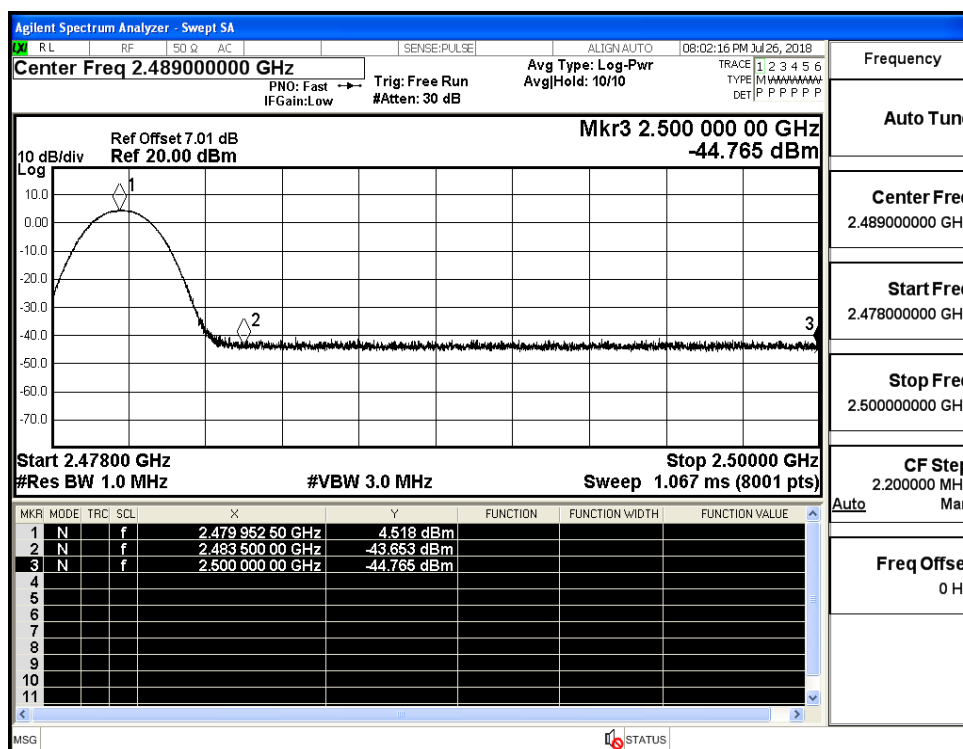
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

