

Appendix A

RF Test Data for BT V3.0(BDR/EDR) (Conducted Measurement)

Product Name: Android TV Box

Trade Mark: N/A

Test Model: ABOX

Environmental Conditions

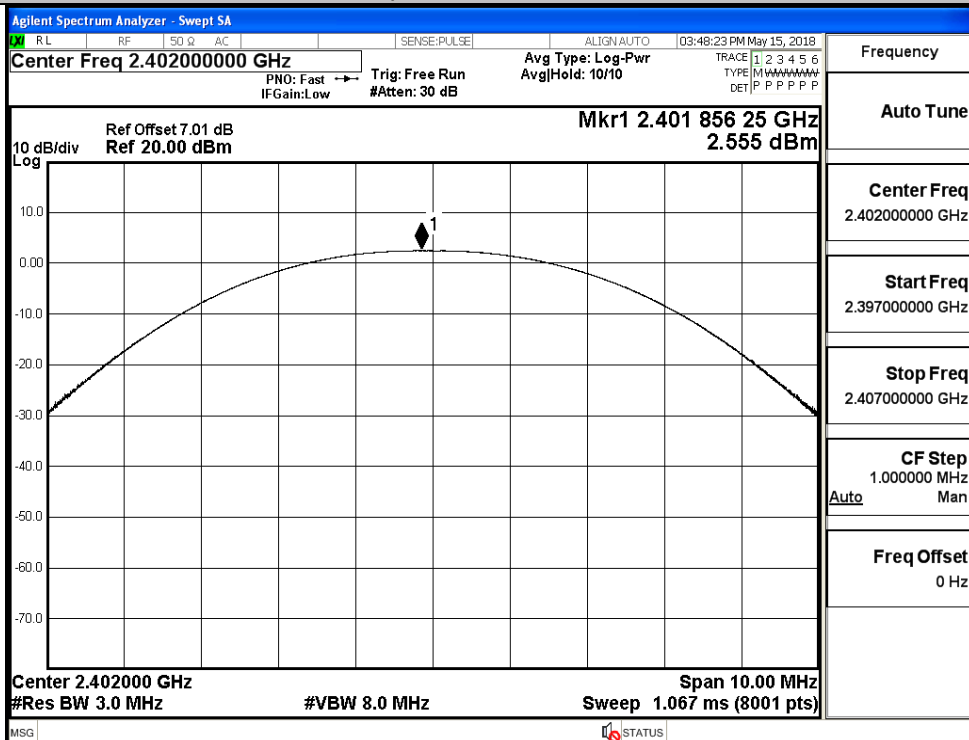
Temperature:	22.5 ° C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Ryan.Hu
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

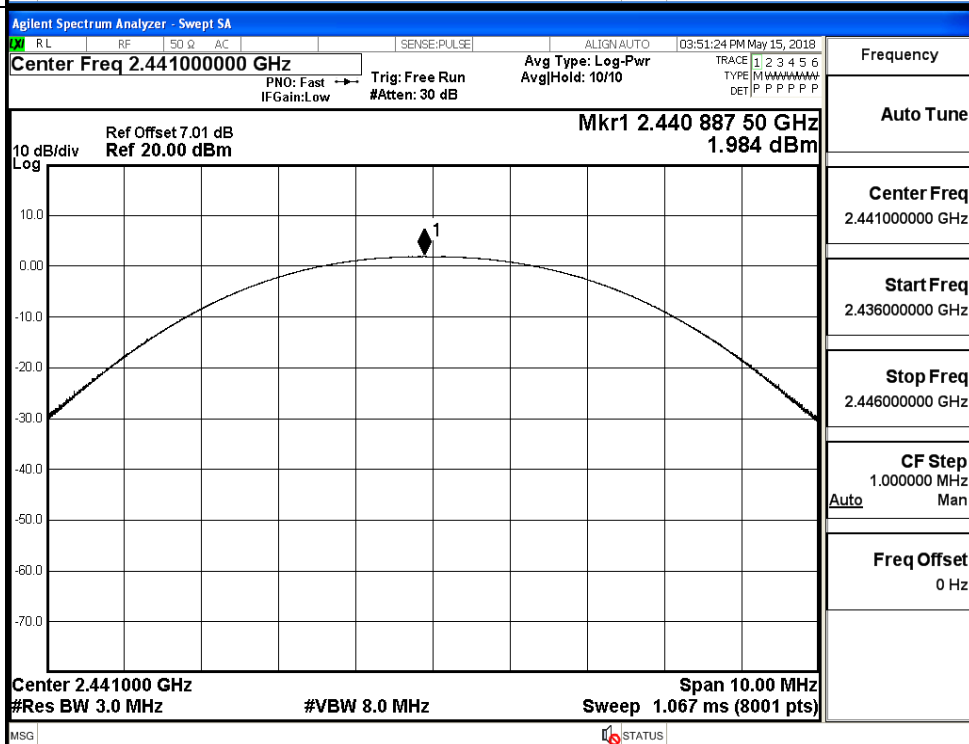
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.555	30	PASS
	MCH	1.984	30	PASS
	HCH	1.623	30	PASS
$\pi/4$ DQPSK	LCH	1.605	21	PASS
	MCH	0.806	21	PASS
	HCH	0.252	21	PASS
8DPSK	LCH	1.992	21	PASS
	MCH	1.178	21	PASS
	HCH	0.637	21	PASS

Test Graphs

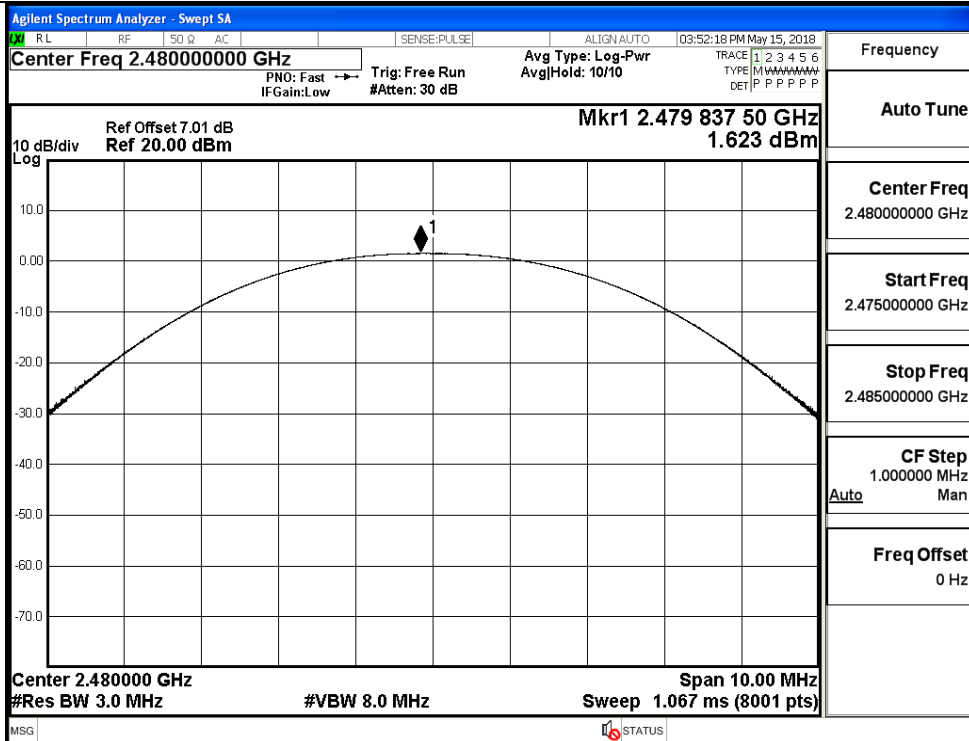
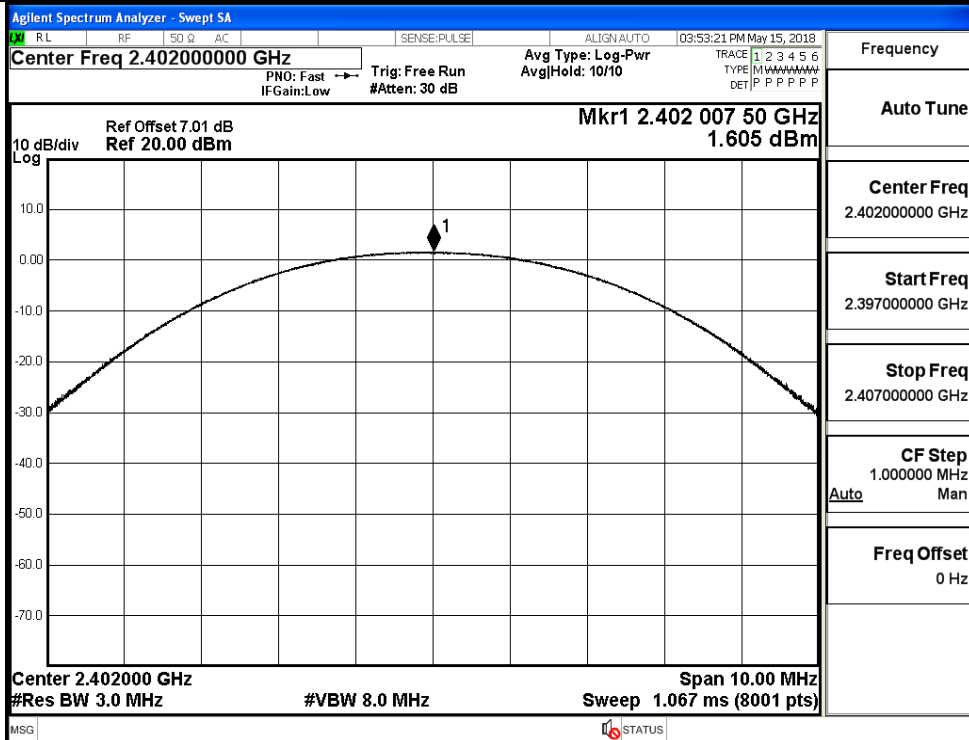
GFSK/LCH

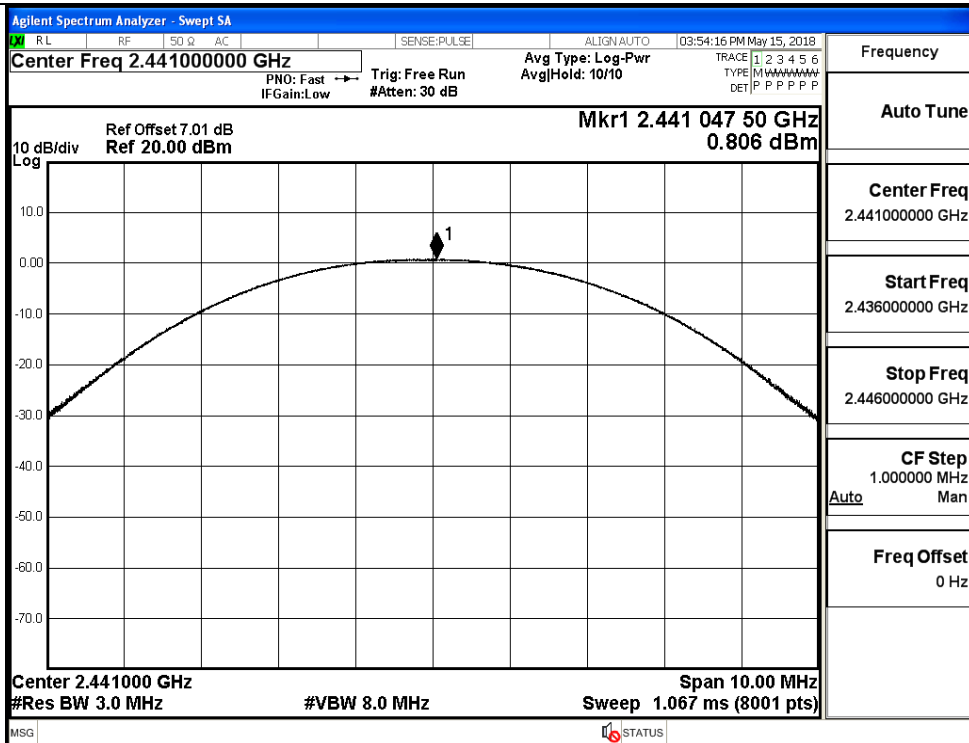
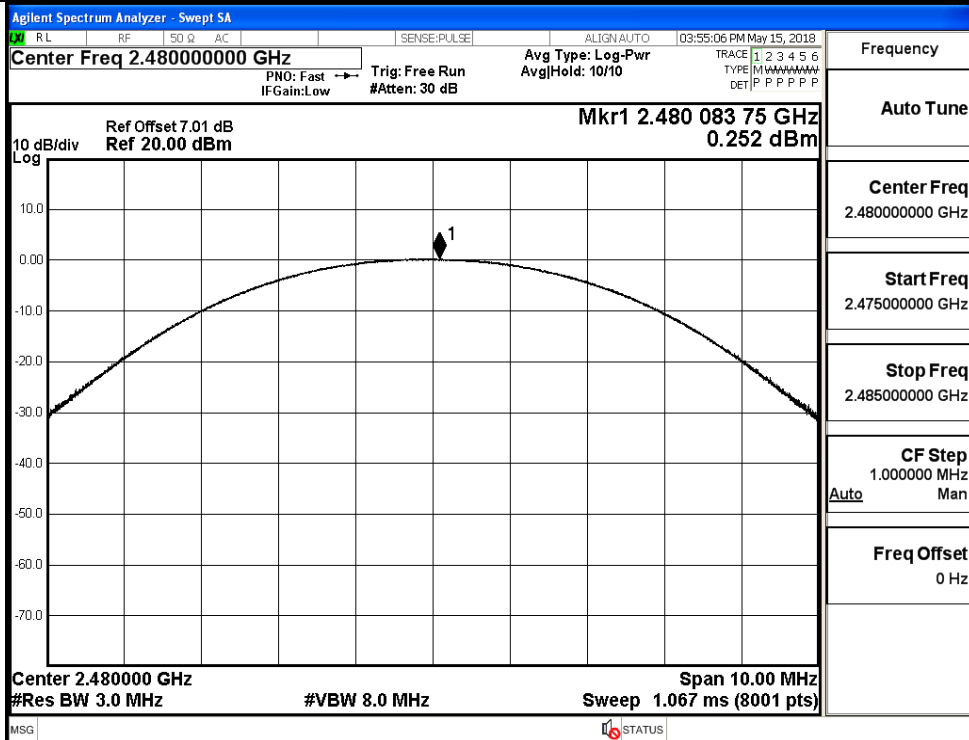


GFSK/MCH

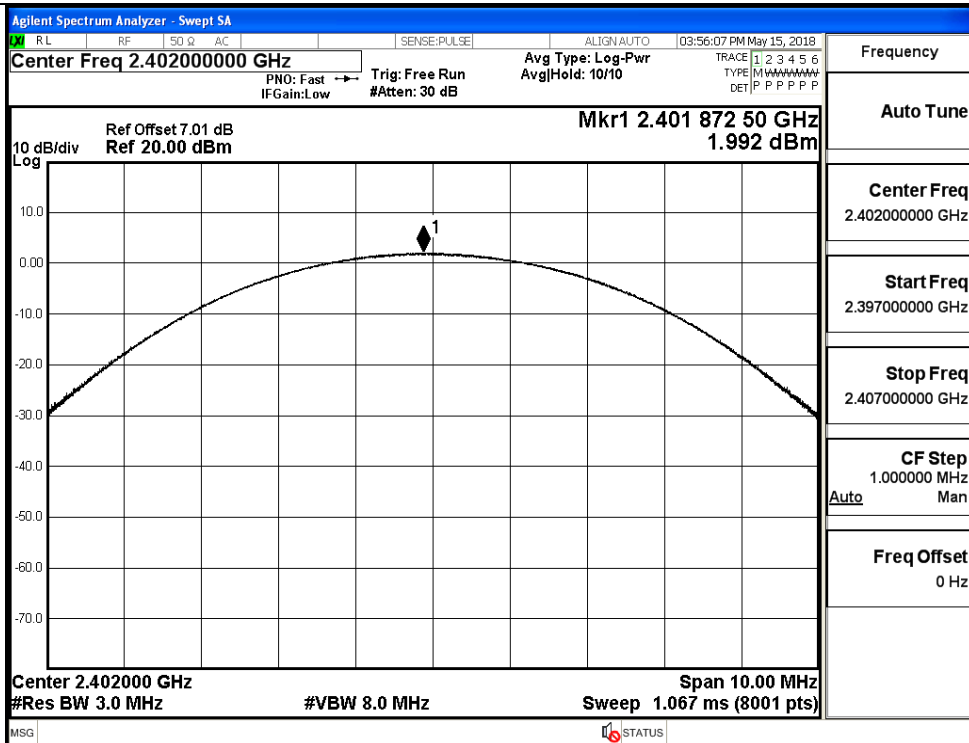


GFSK/HCH

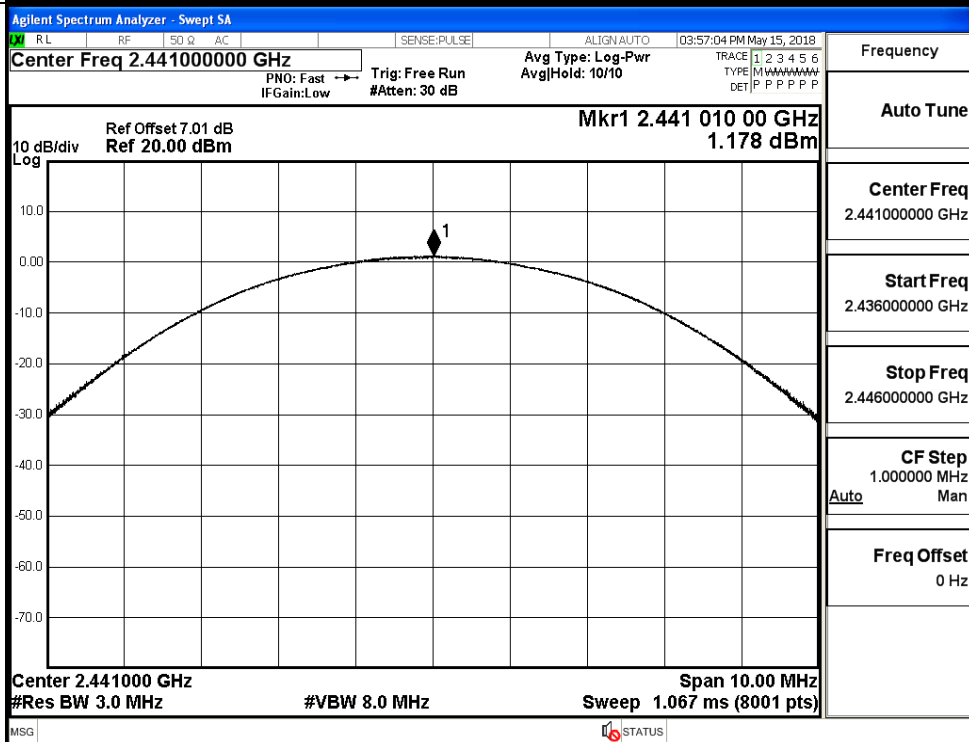
 π /4DQPSK/LCH

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

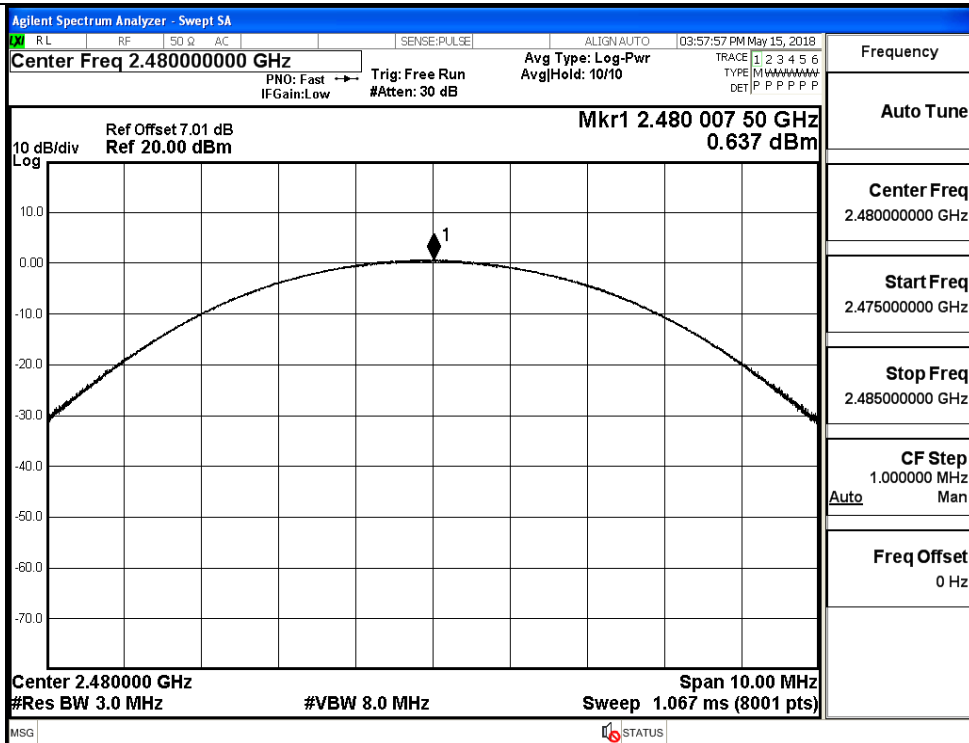
8DPSK/LCH



8DPSK/MCH



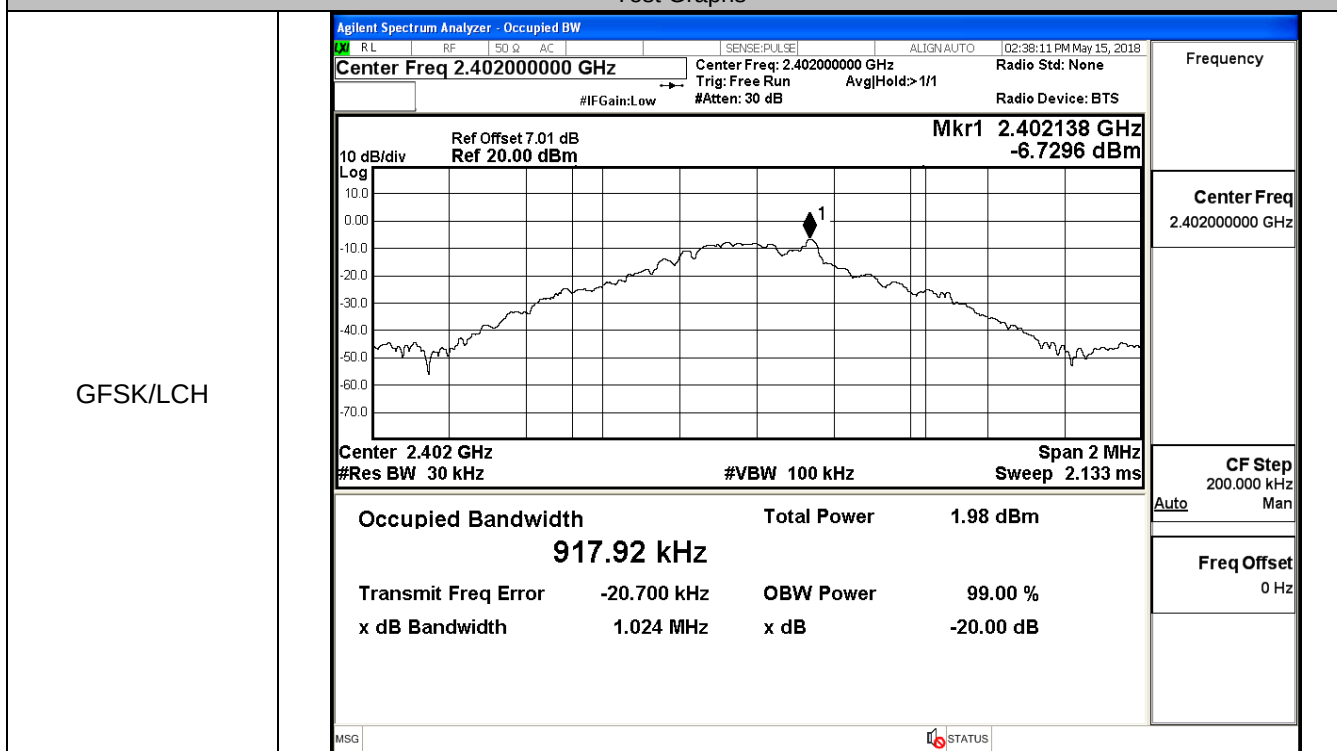
8DPSK/HCH



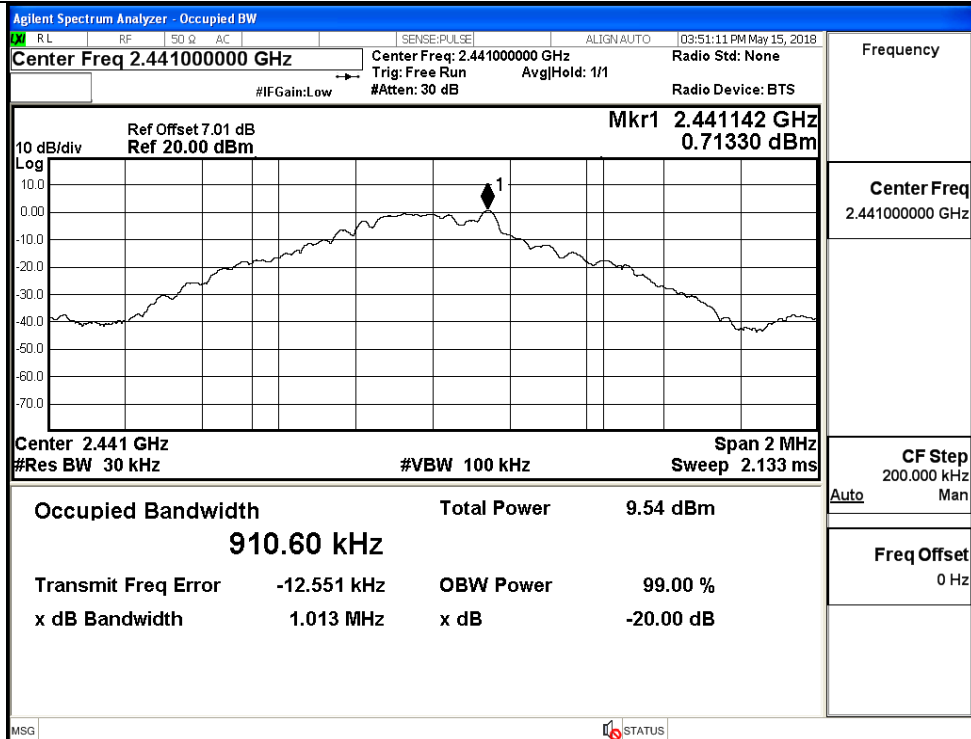
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.024	Not Specified	PASS
	MCH	1.013	Not Specified	PASS
	HCH	1.013	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.357	Not Specified	PASS
	MCH	1.357	Not Specified	PASS
	HCH	1.358	Not Specified	PASS
8DPSK	LCH	1.316	Not Specified	PASS
	MCH	1.328	Not Specified	PASS
	HCH	1.316	Not Specified	PASS

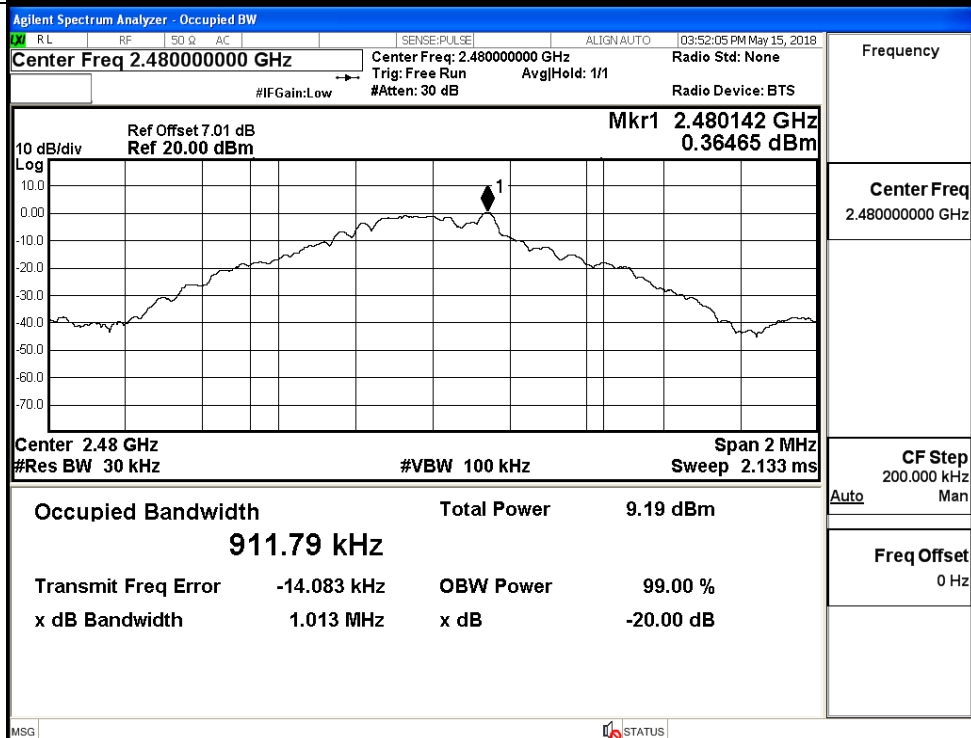
Test Graphs

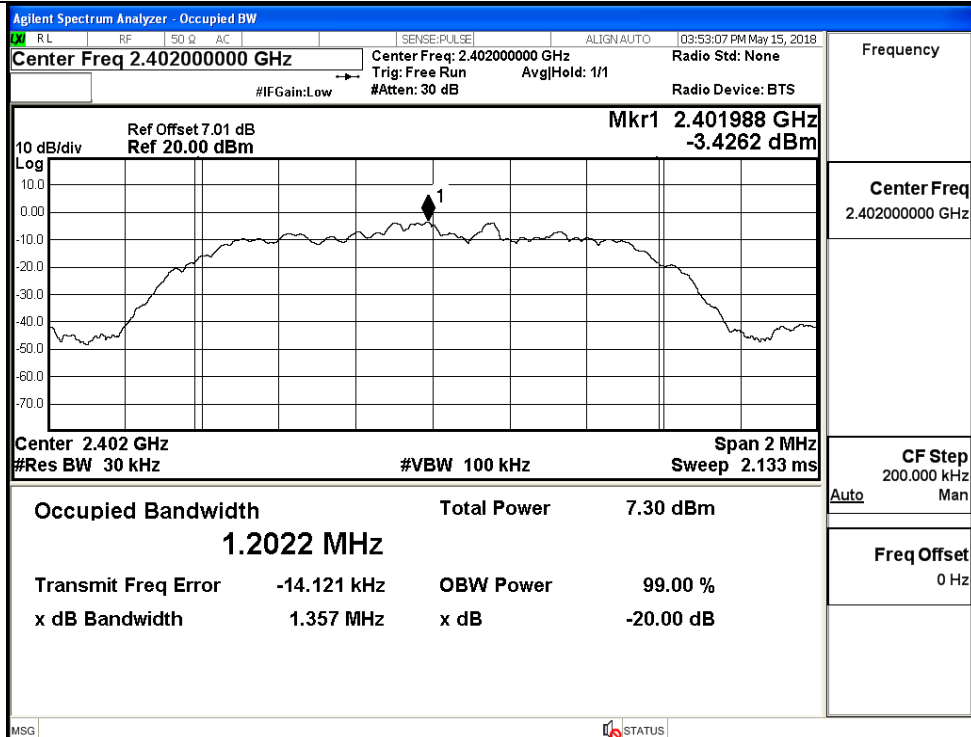
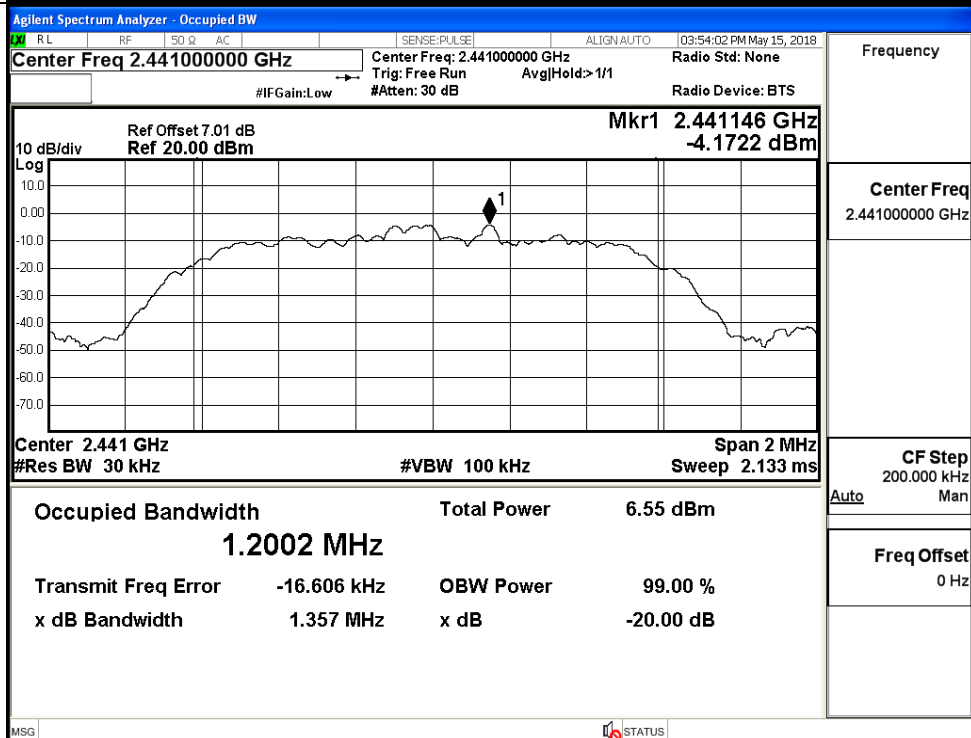


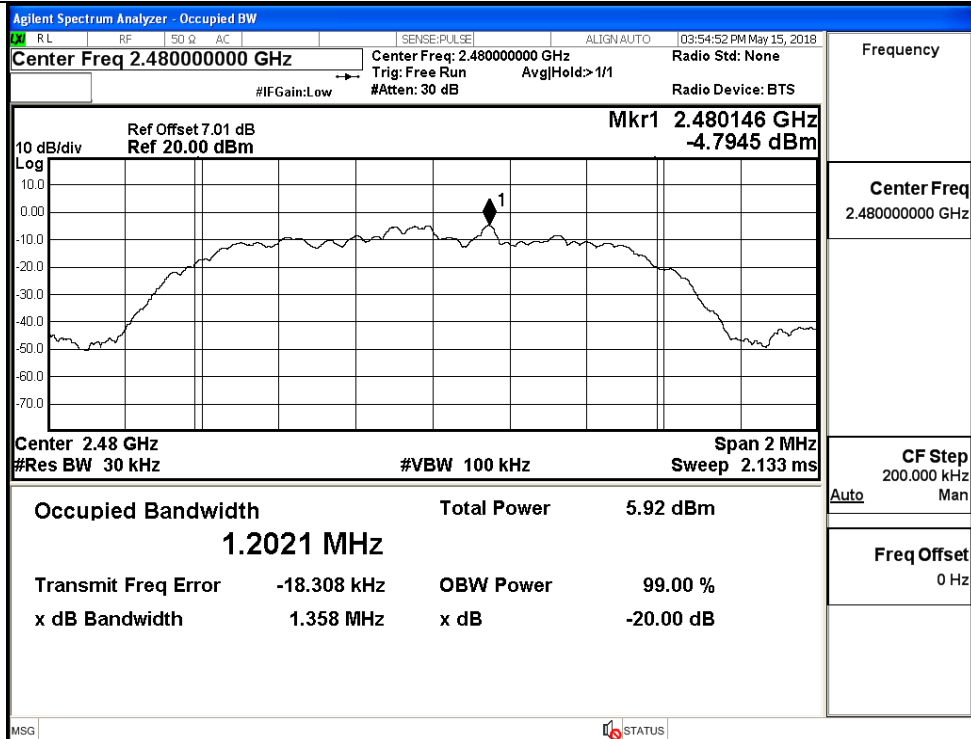
GFSK/MCH



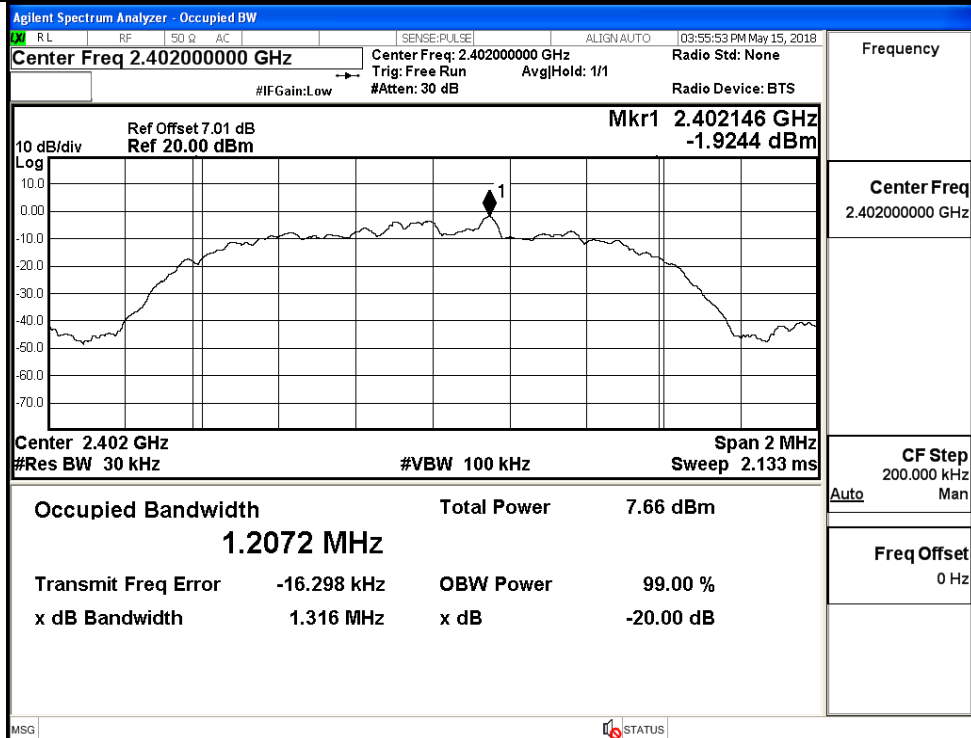
GFSK/HCH



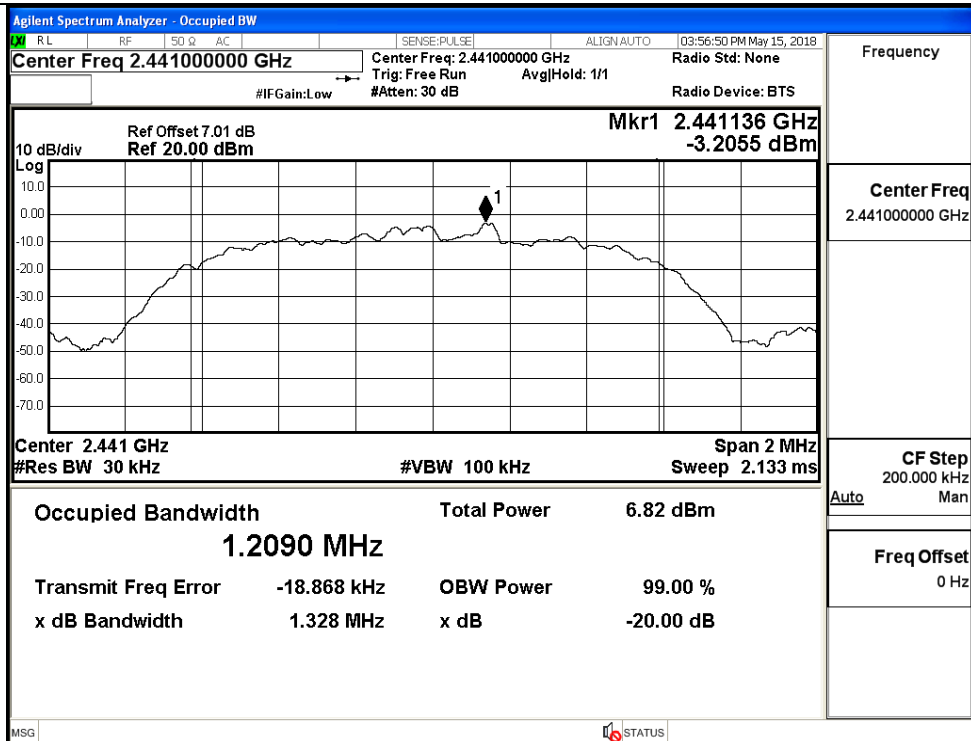
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

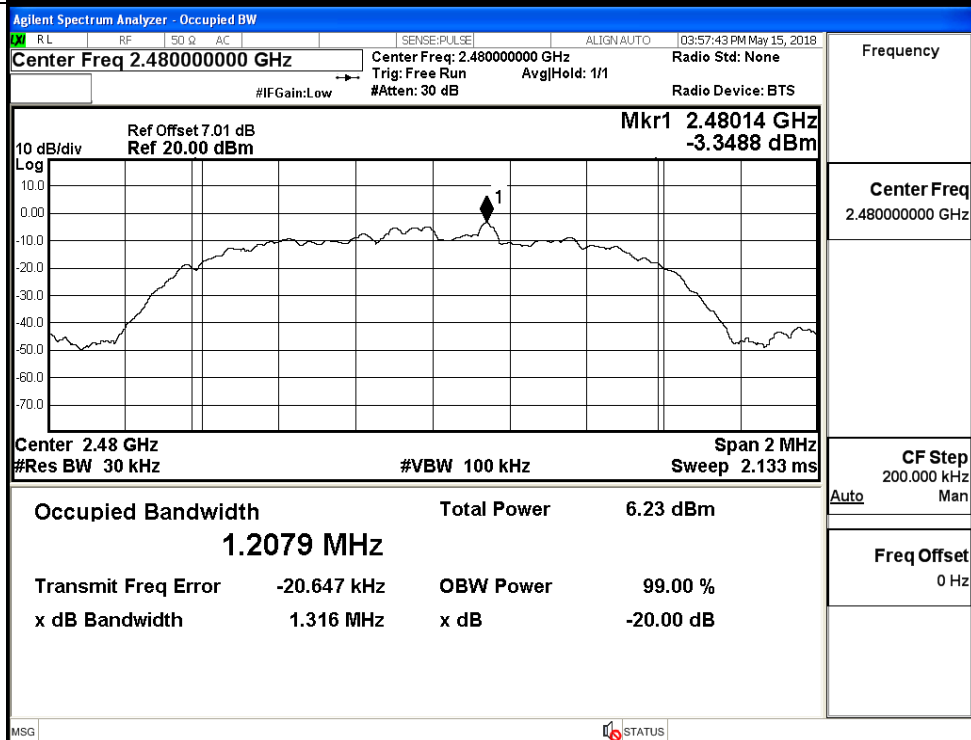
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

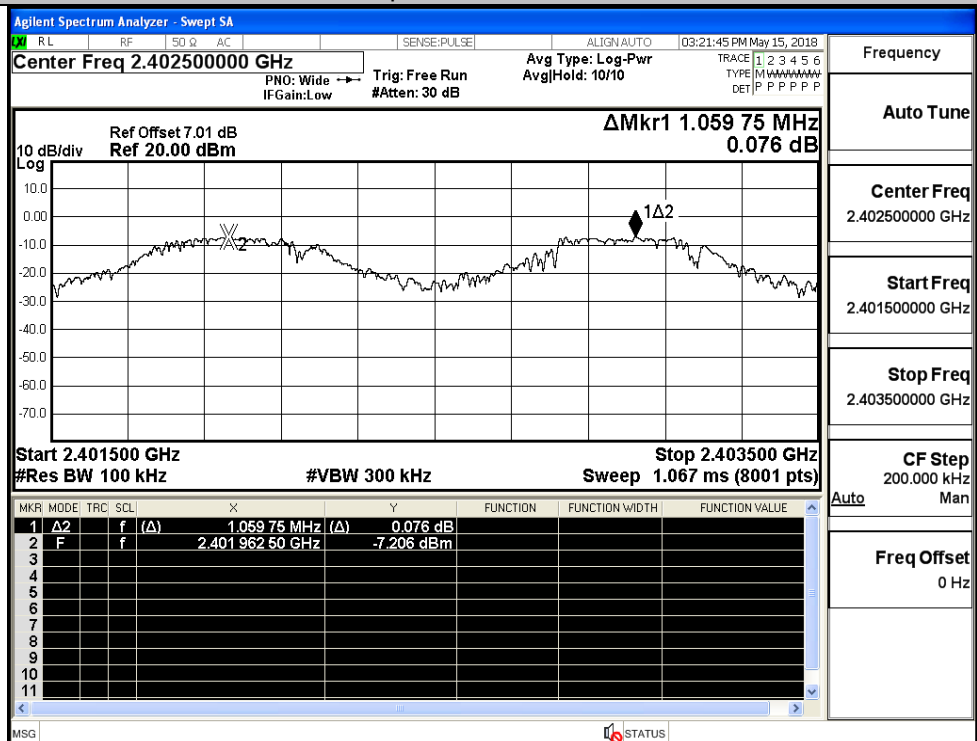


A.3 Carrier Frequency Separation

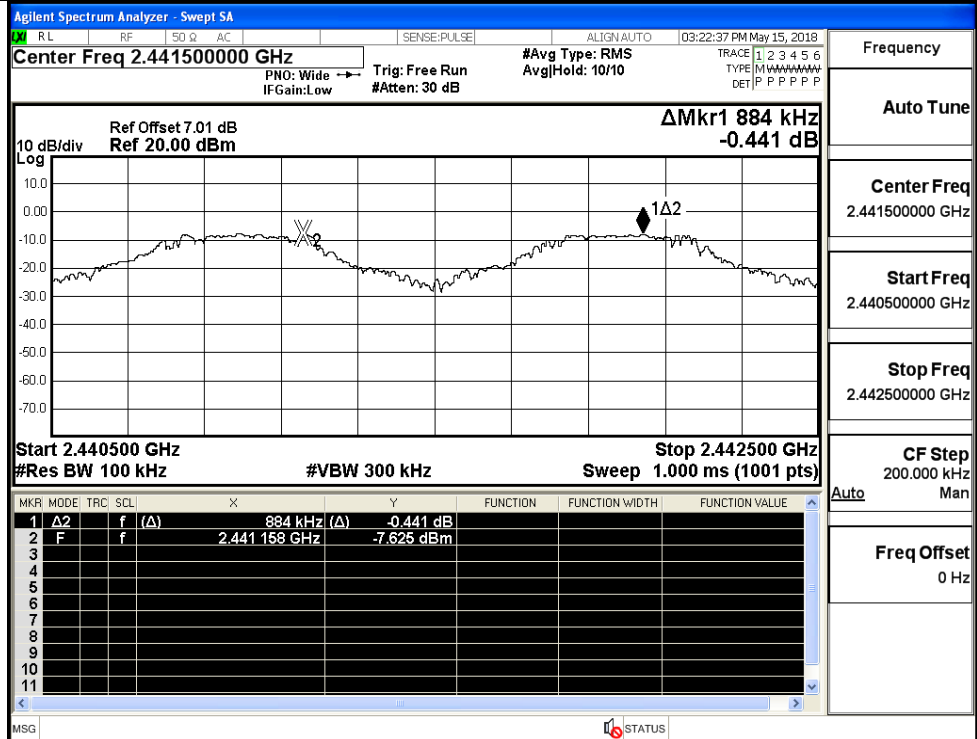
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.060	1.024	PASS
	MCH	0.884	1.013	PASS
	HCH	1.150	1.013	PASS
$\pi/4$ DQPSK	LCH	1.140	0.905	PASS
	MCH	1.002	0.905	PASS
	HCH	1.148	0.905	PASS
8DPSK	LCH	1.016	0.877	PASS
	MCH	1.022	0.885	PASS
	HCH	1.184	0.877	PASS

Test Graphs

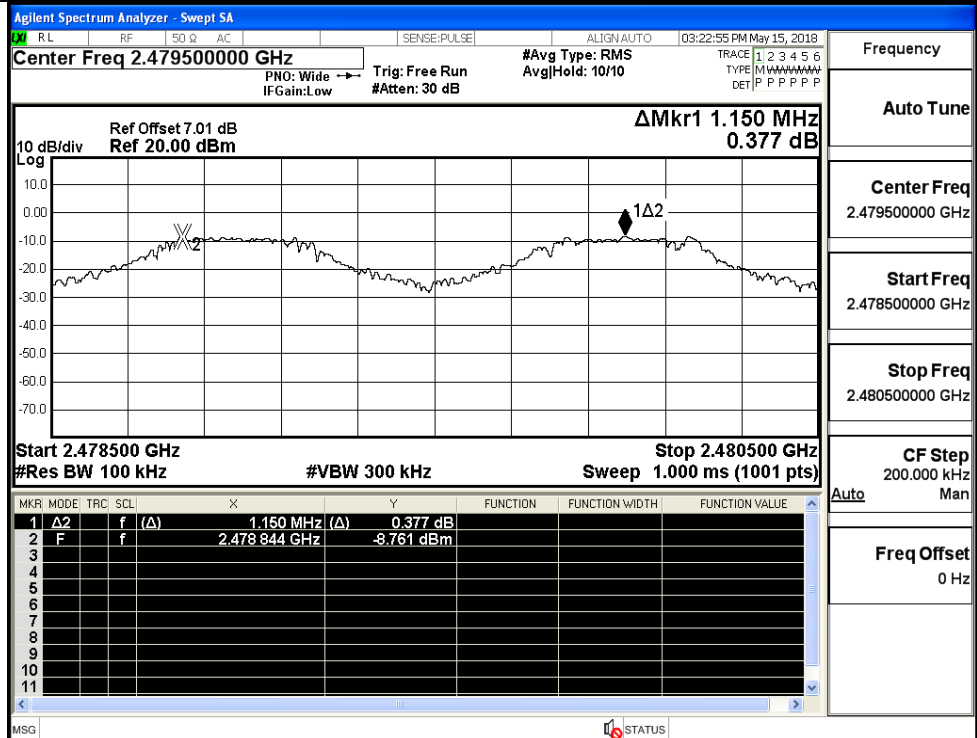
GFSK/LCH

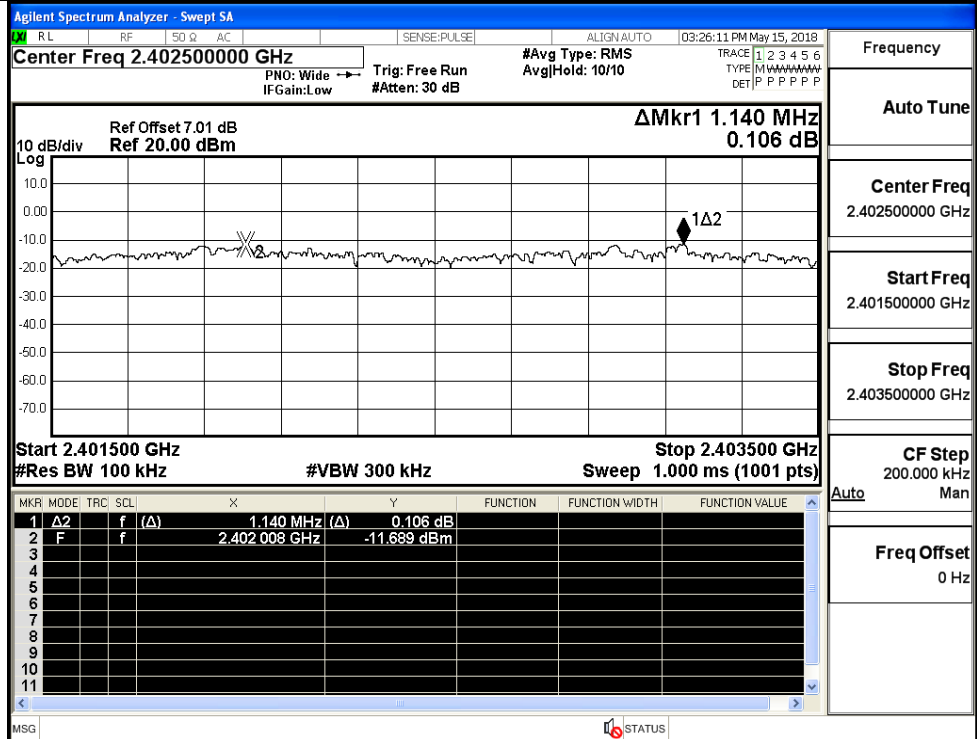
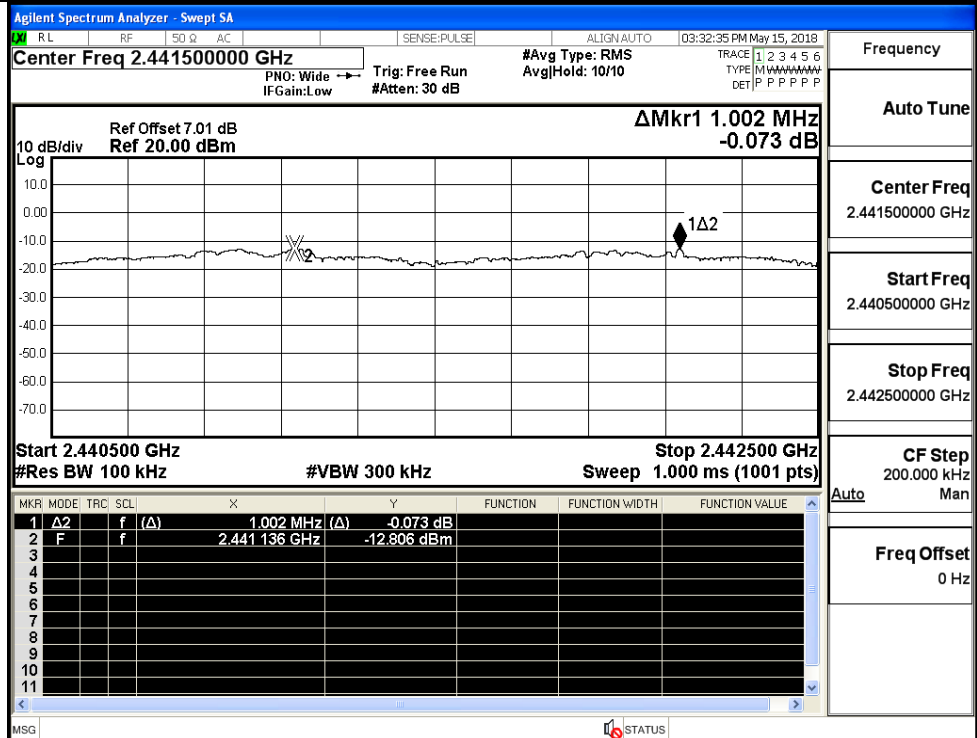


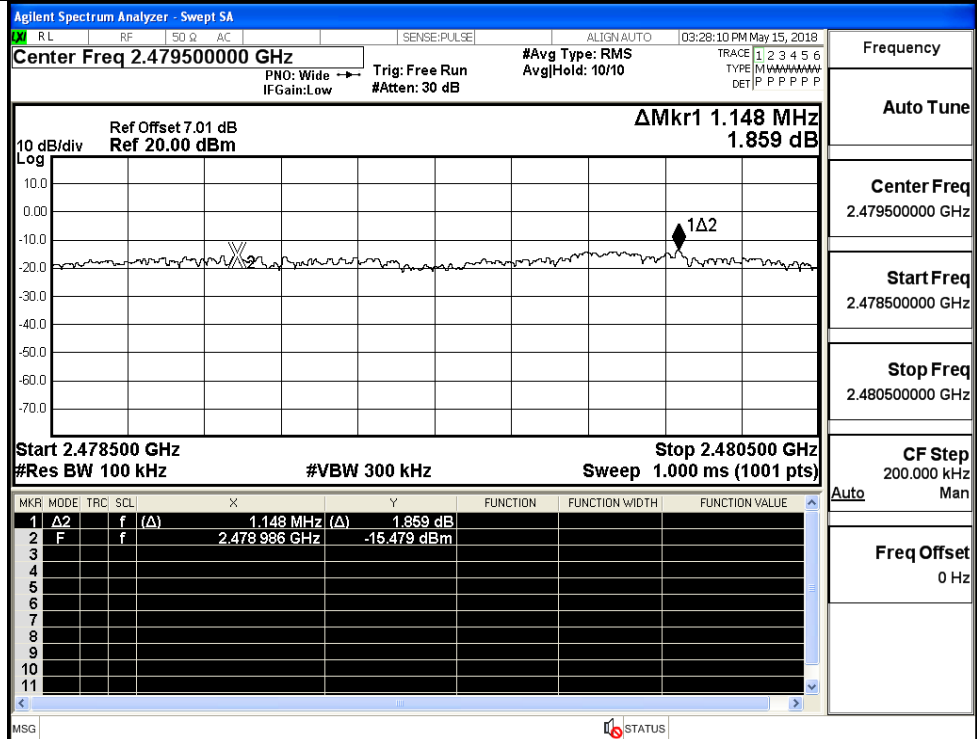
GFSK/MCH



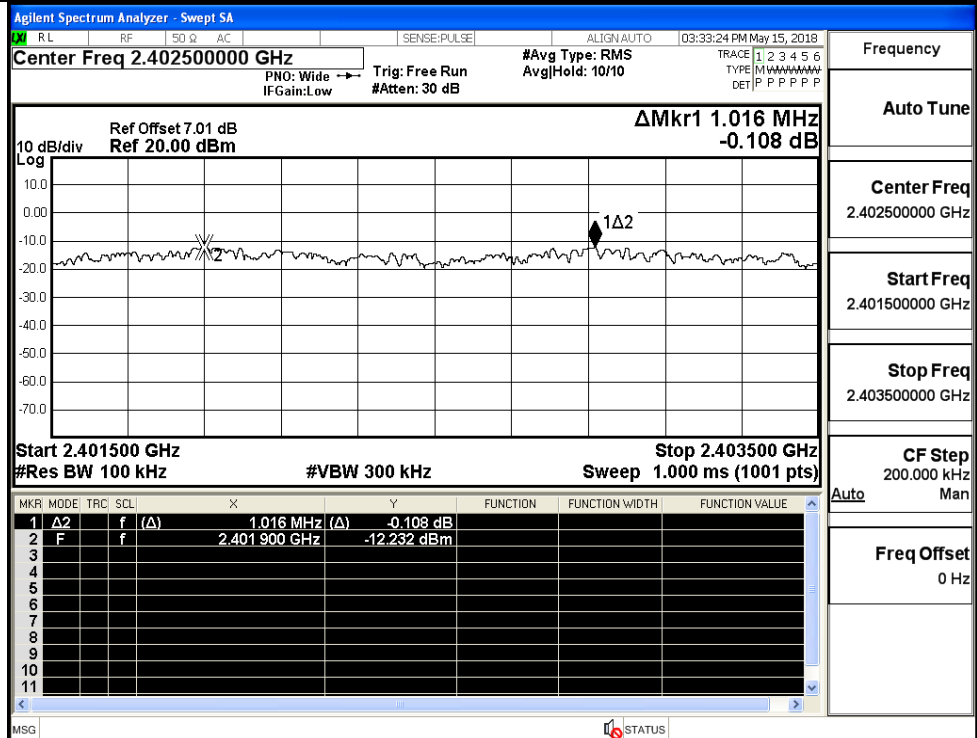
GFSK/HCH



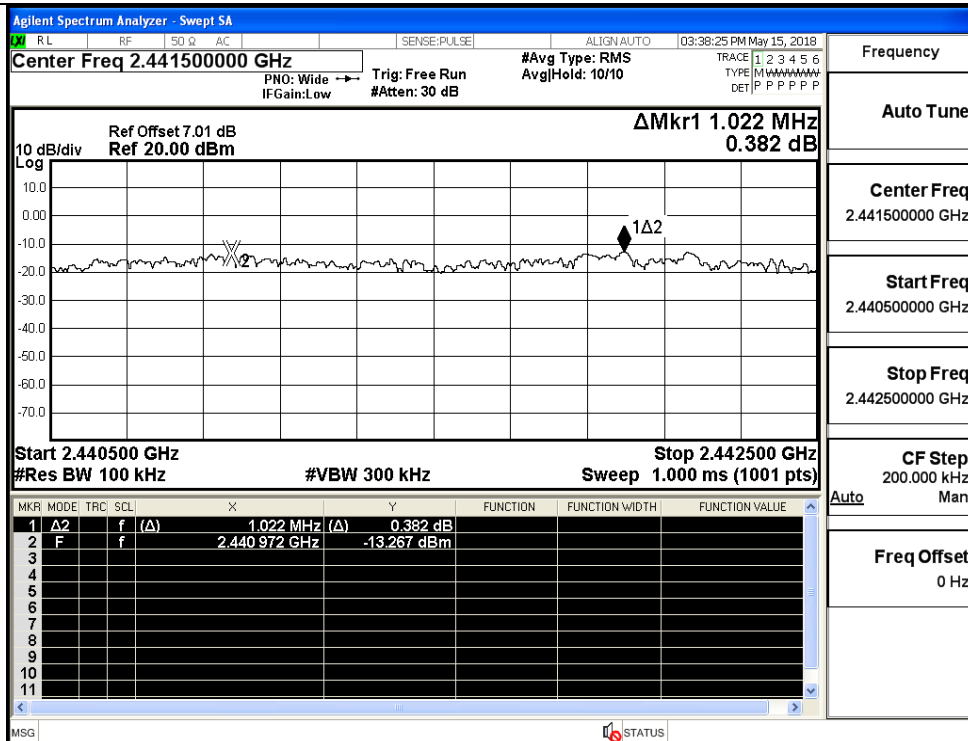
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

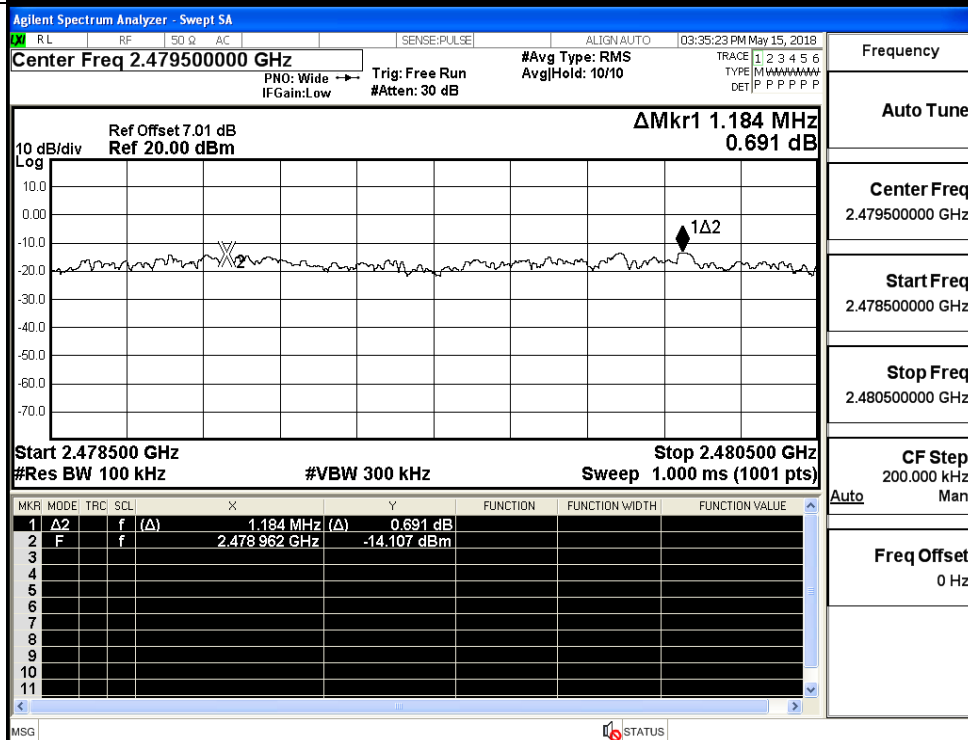
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

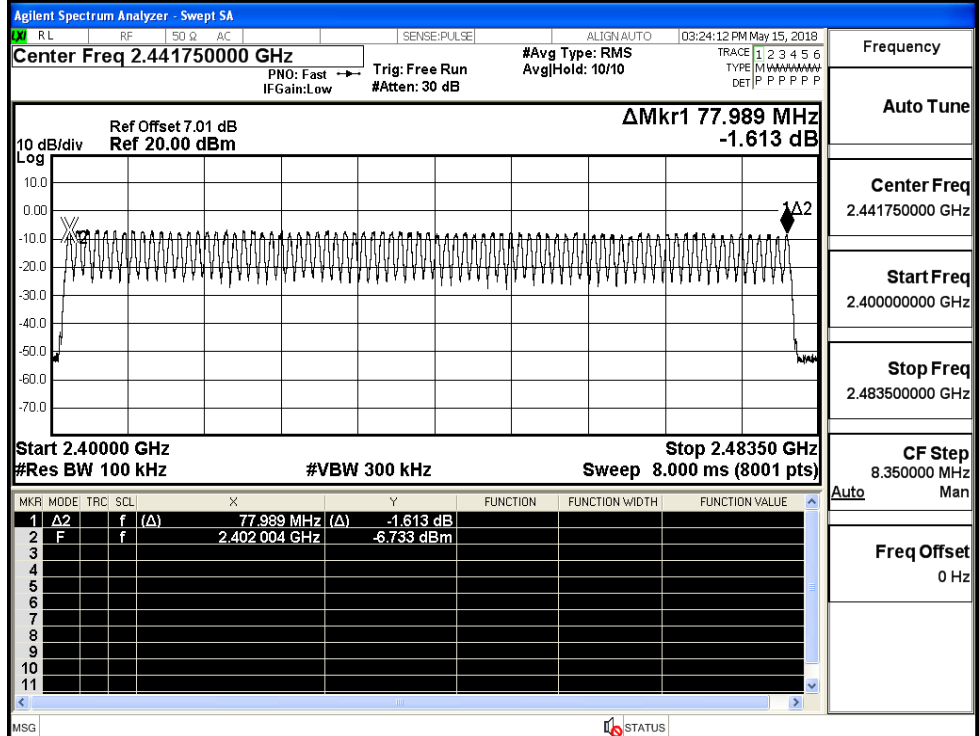
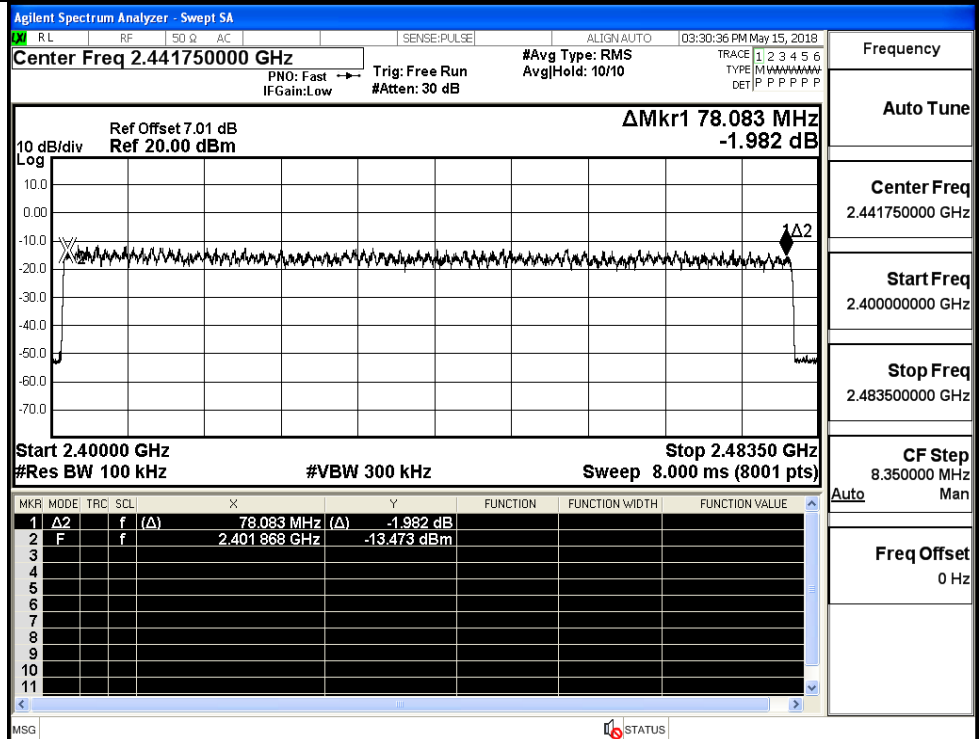


A.4 Hopping Channel Number

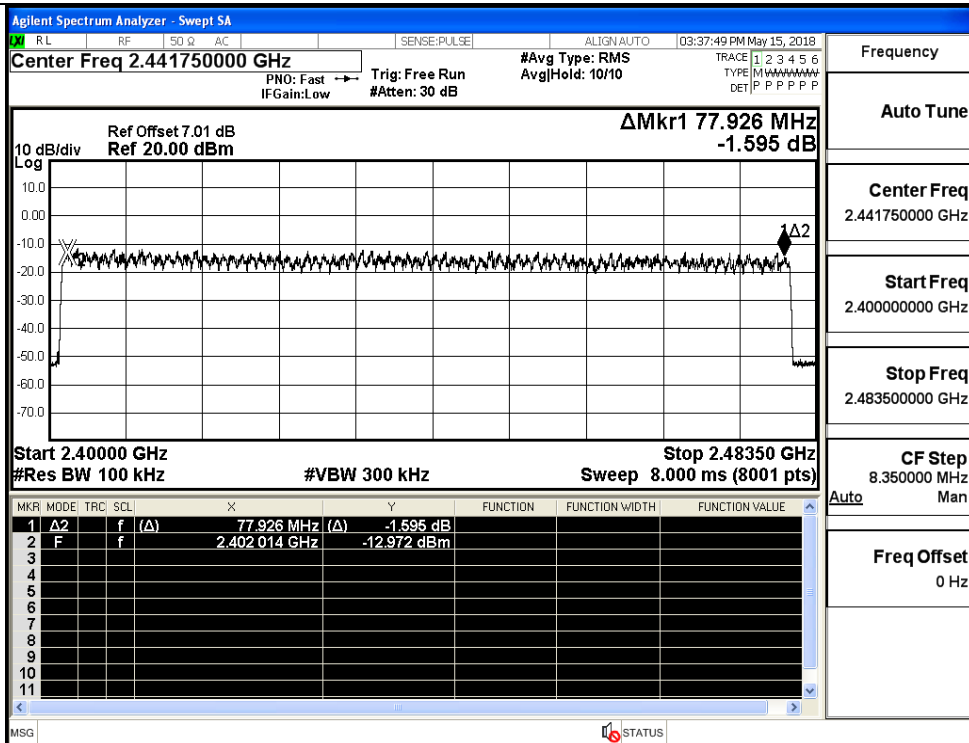
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

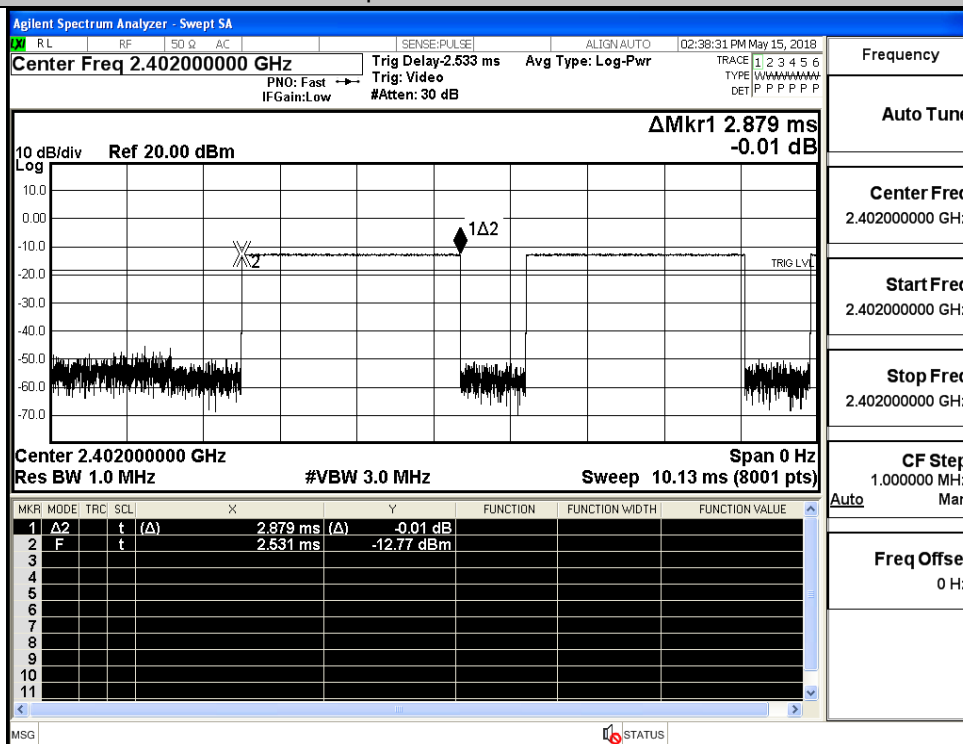


A.5 Dwell Time

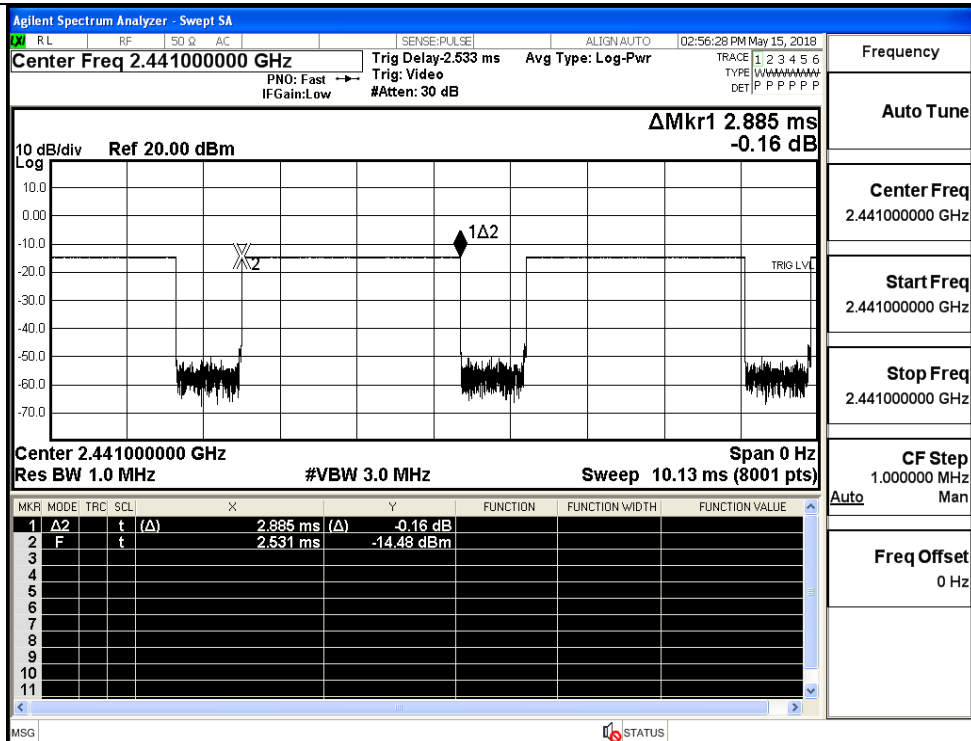
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.89	106.7	0.308	0.4	PASS
	DH5	HCH	2.89	106.7	0.308	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.308	0.4	PASS
	2DH5	MCH	2.89	106.7	0.308	0.4	PASS
	2DH5	HCH	2.89	106.7	0.308	0.4	PASS
8DPSK	3DH5	LCH	2.88	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

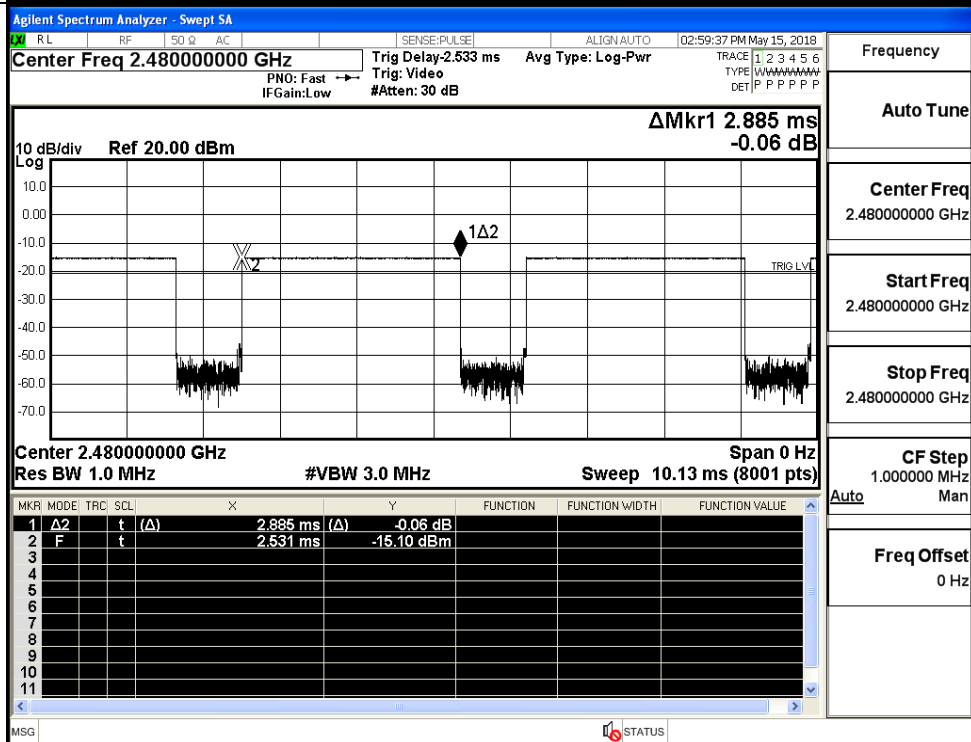
GFSK_DH5/LCH



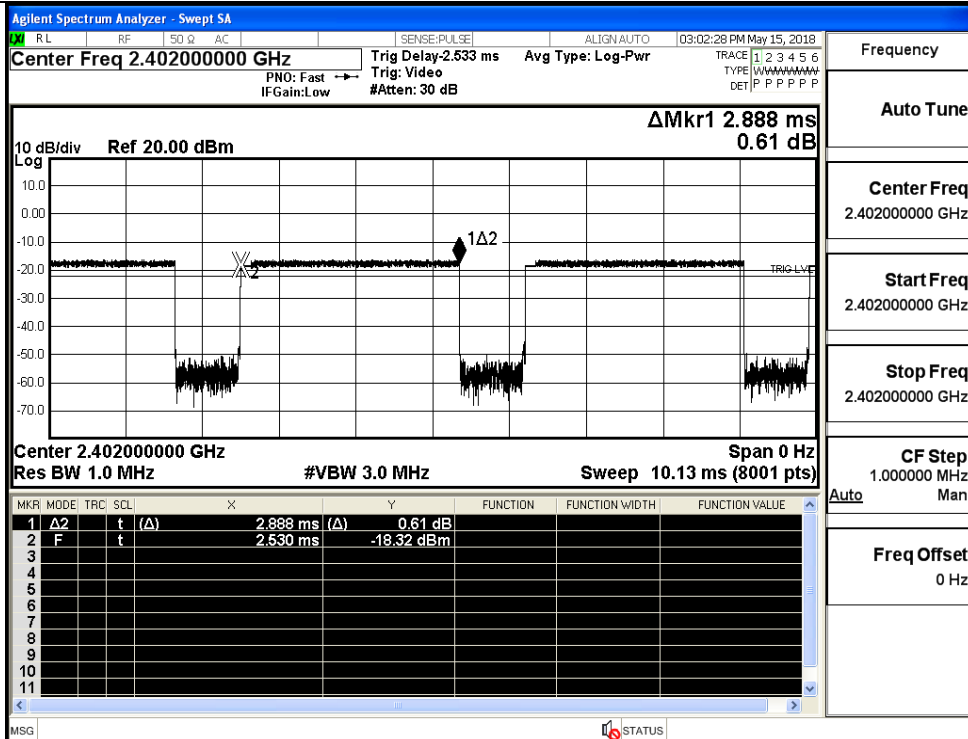
GFSK_DH5/MCH



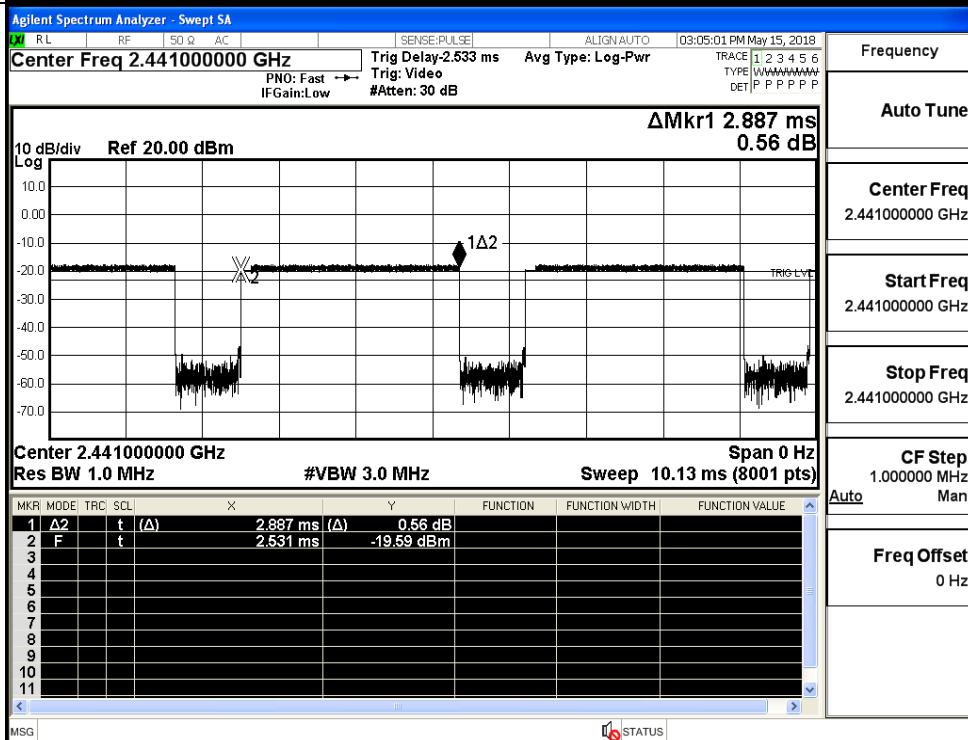
GFSK_DH5/HCH



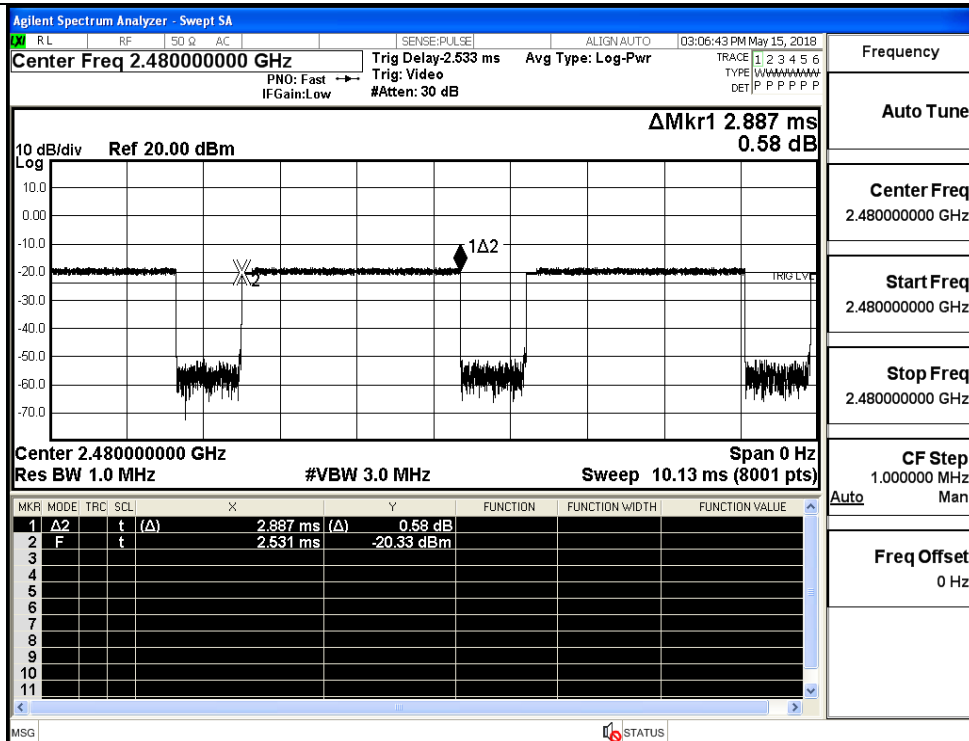
$\pi/4$ DQPSK
_2DH5/LCH



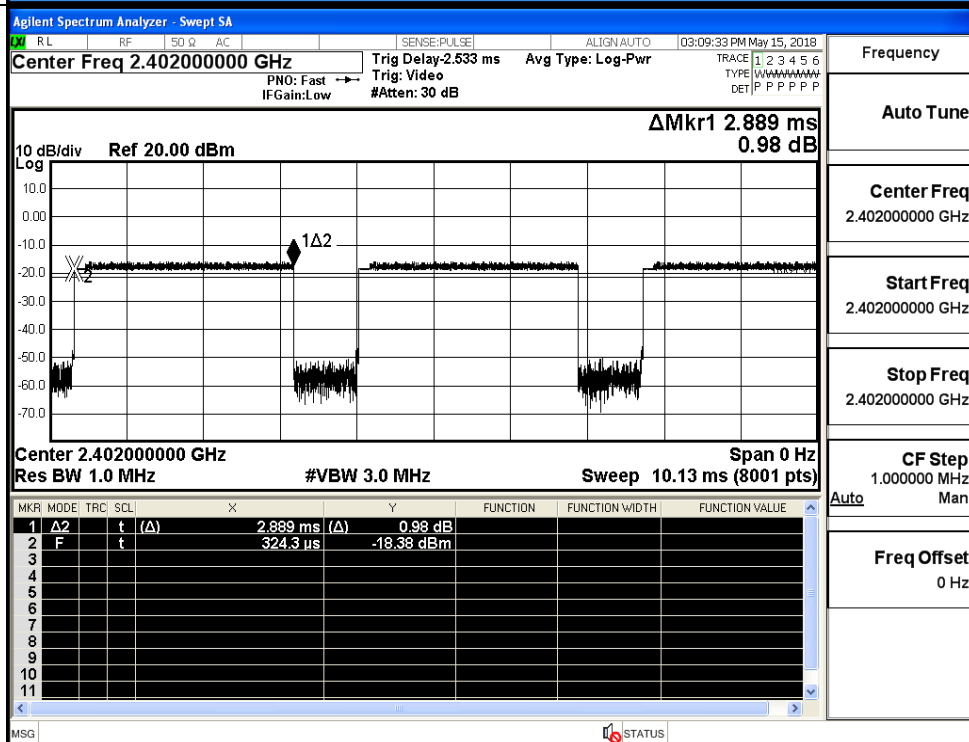
$\pi/4$ DQPSK
_2DH5/MCH



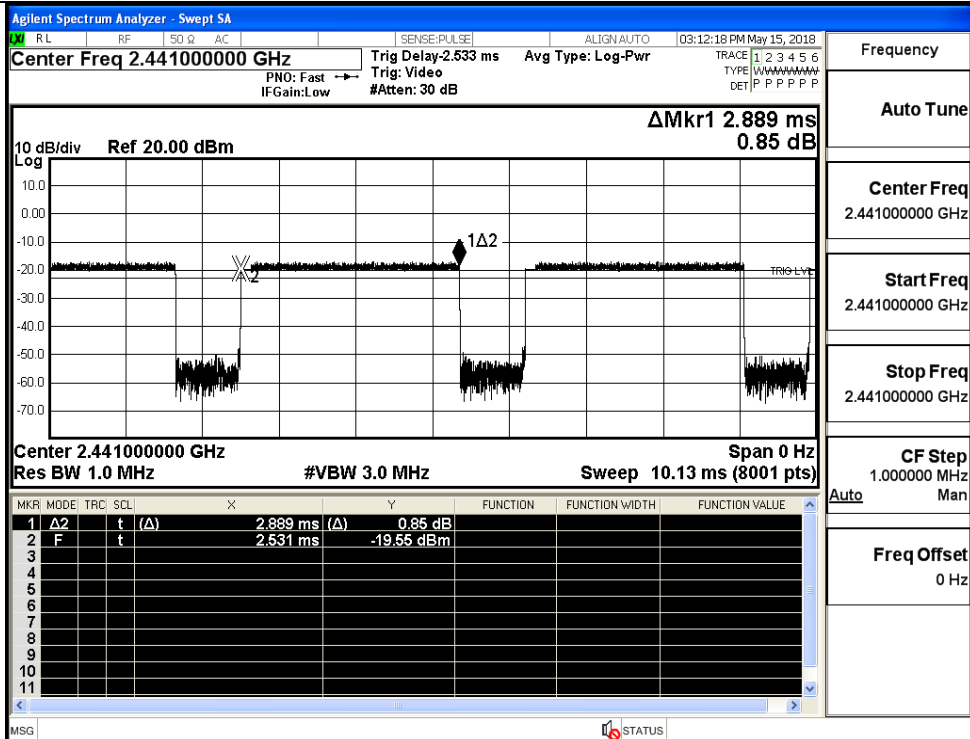
$\pi/4$ DQPSK
_2DH5/HCH



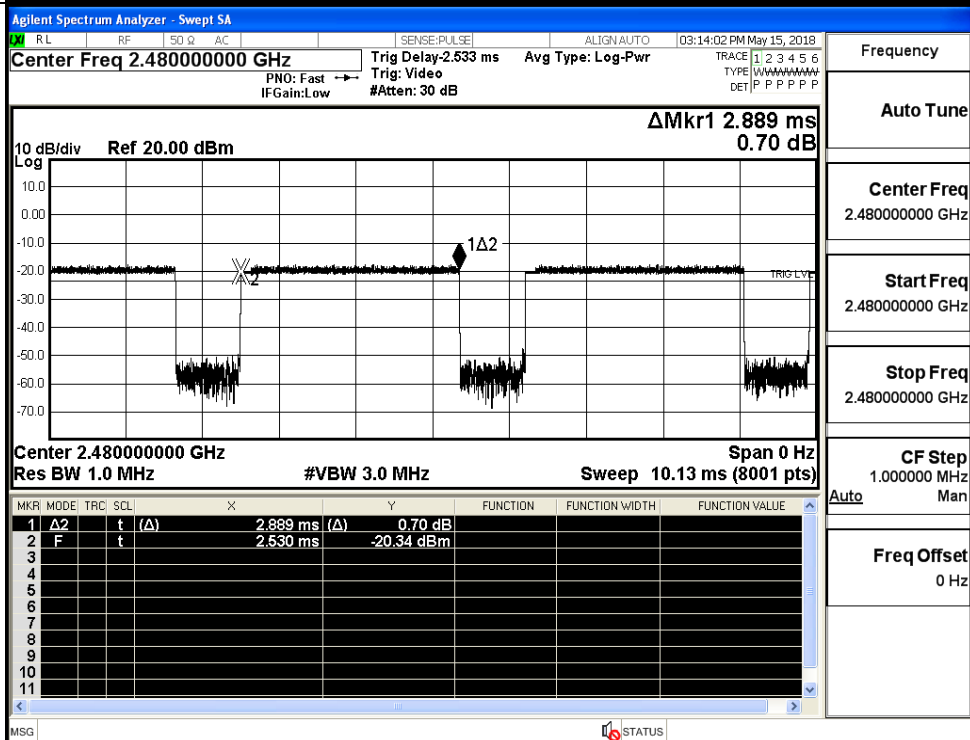
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



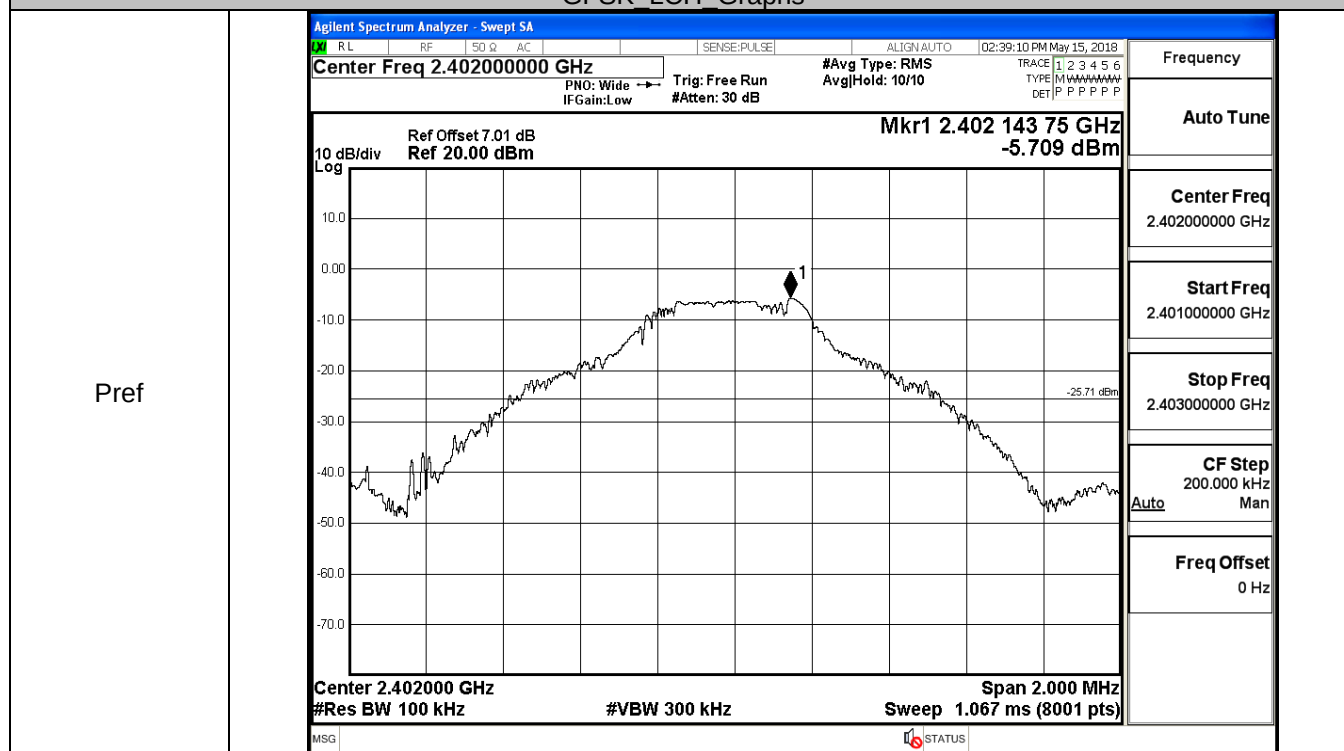
8DPSK_3DH5/HCH



A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-5.709	-45.215	-25.709	PASS
	MCH	-7.576	-45.762	-27.576	PASS
	HCH	-8.241	-45.547	-28.241	PASS
$\pi/4$ DQPSK	LCH	-12.019	-44.928	-32.019	PASS
	MCH	-12.9	-45.317	-32.900	PASS
	HCH	-13.642	-46.065	-33.642	PASS
8DPSK	LCH	-11.345	-45.461	-31.345	PASS
	MCH	-12.837	-45.957	-32.837	PASS
	HCH	-13.435	-46.206	-33.435	PASS

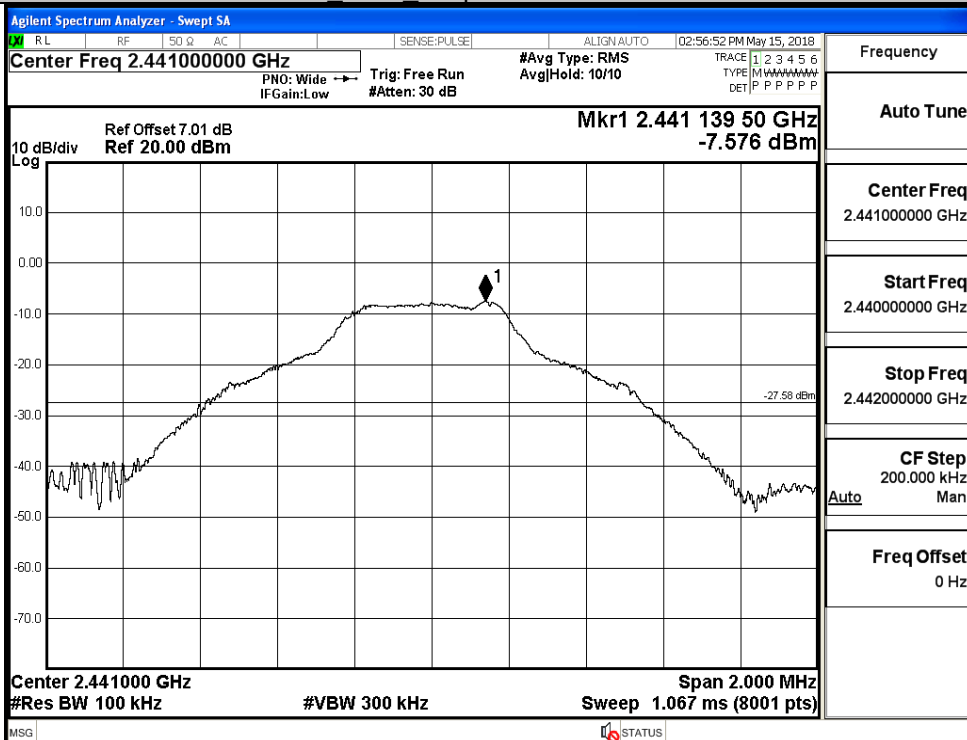
GFSK LCH Graphs



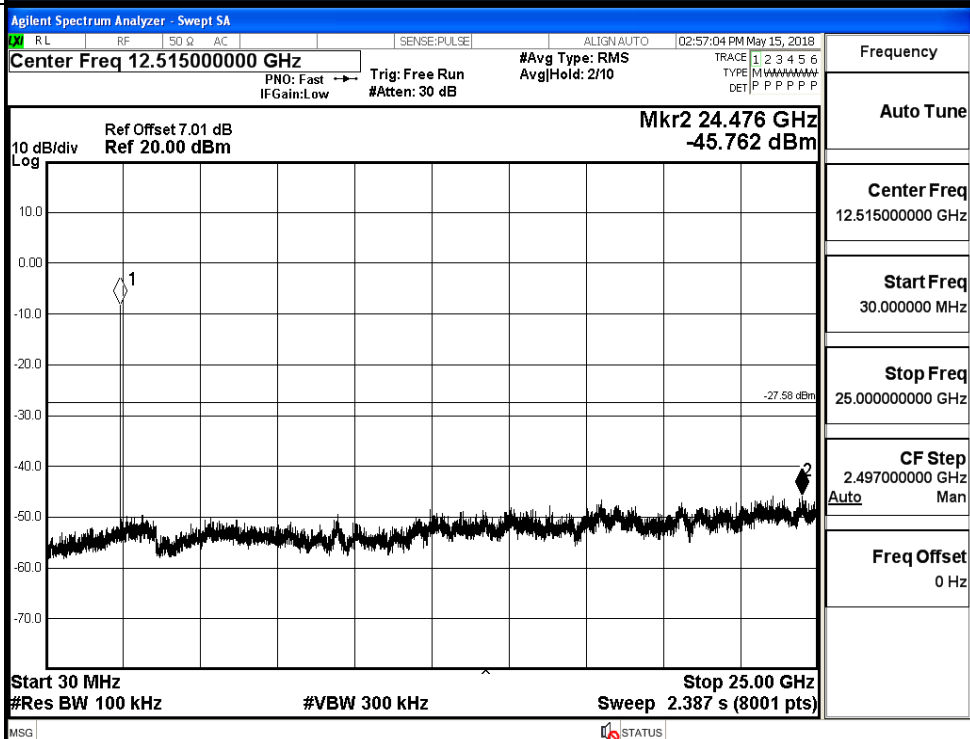


GFSK MCH Graphs

Pref

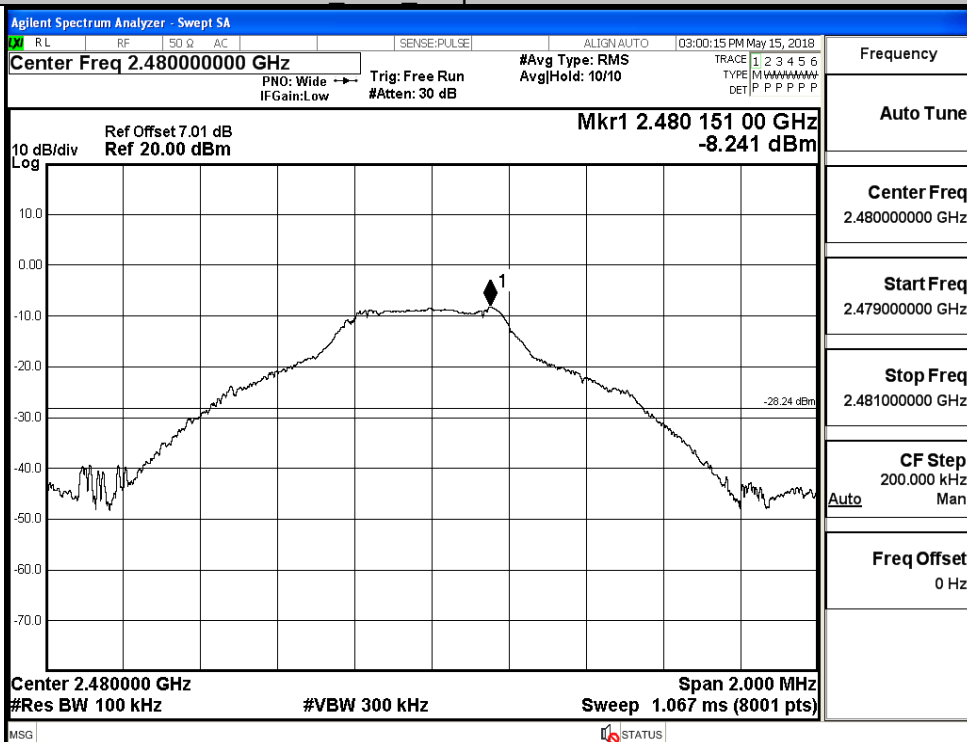


Puw

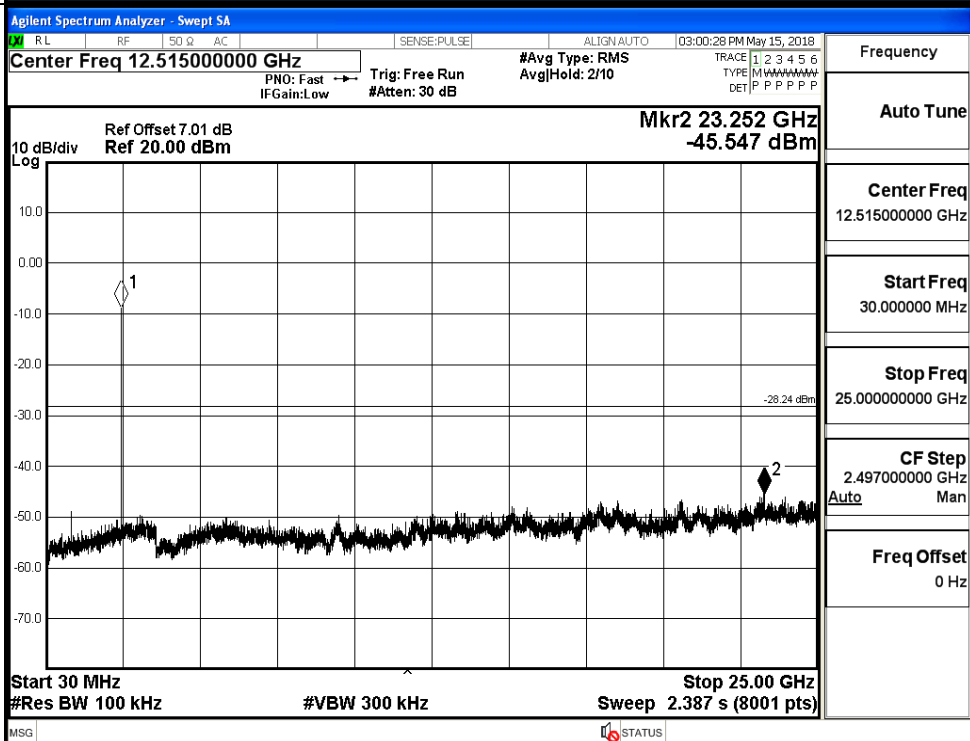


GFSK HCH Graphs

Pref

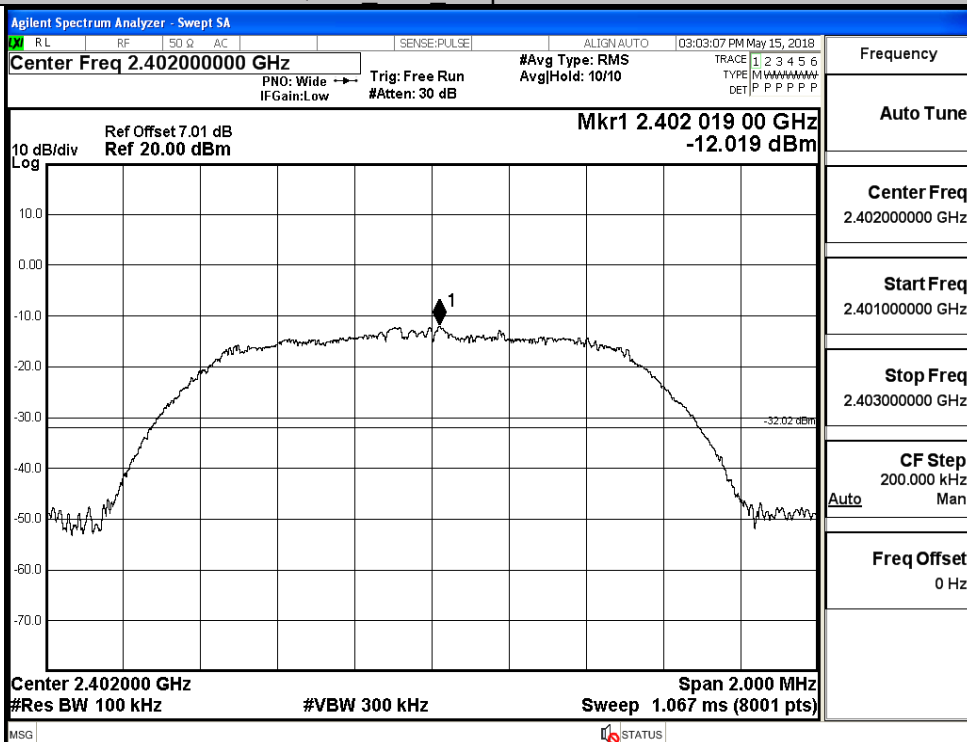


Puw

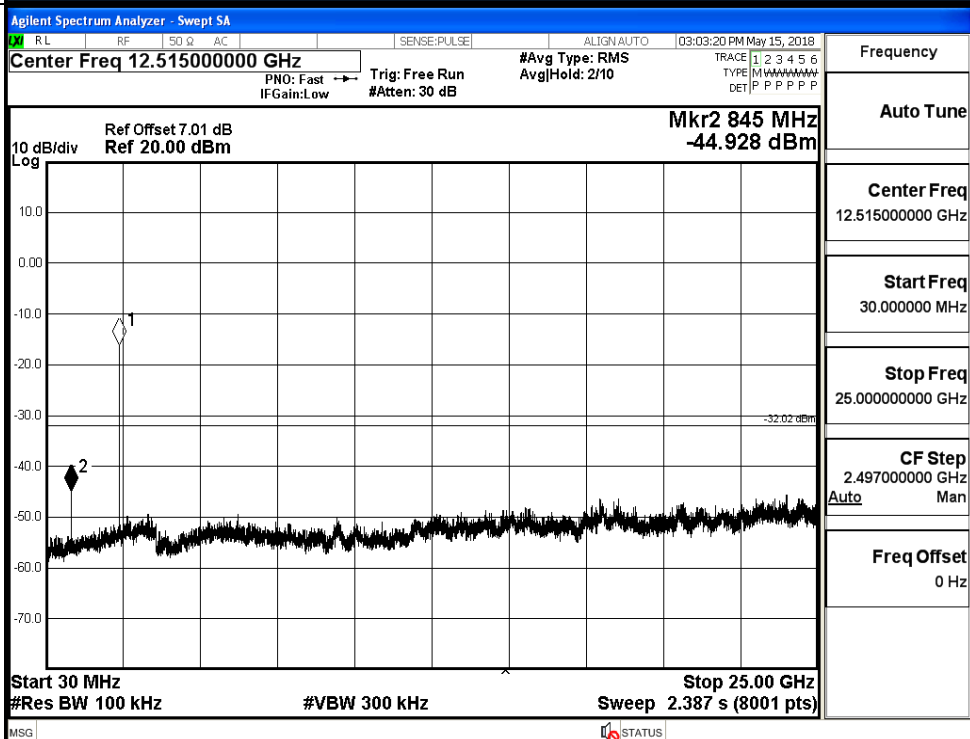


π /4DQPSK LCH Graphs

Pref

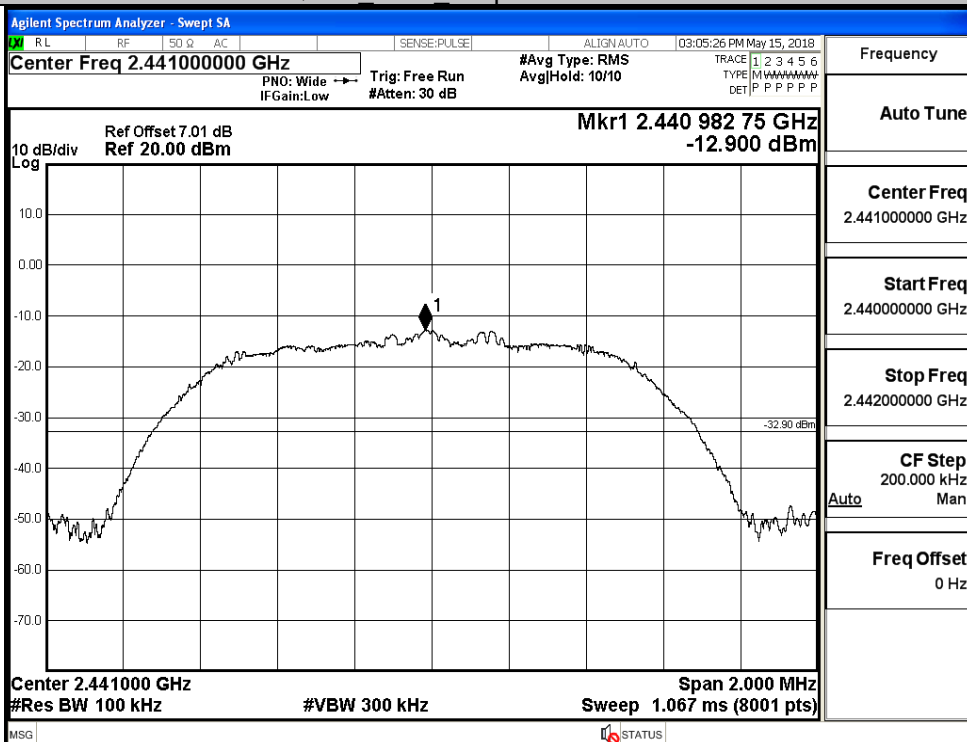


Puw

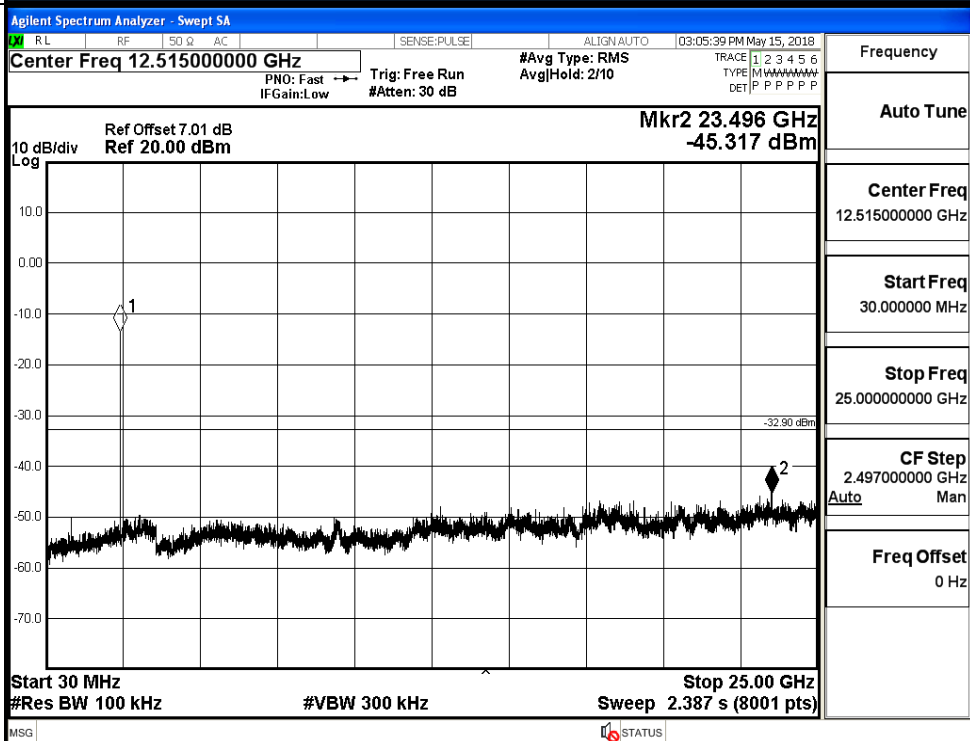


$\pi/4$ DQPSK MCH Graphs

Pref

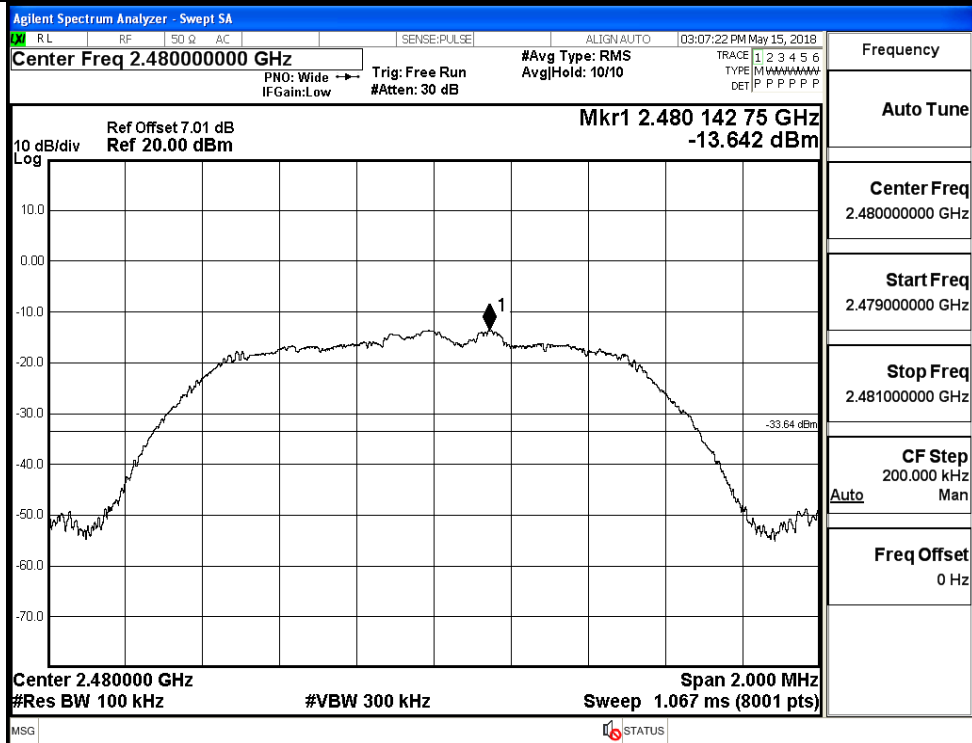


Puw

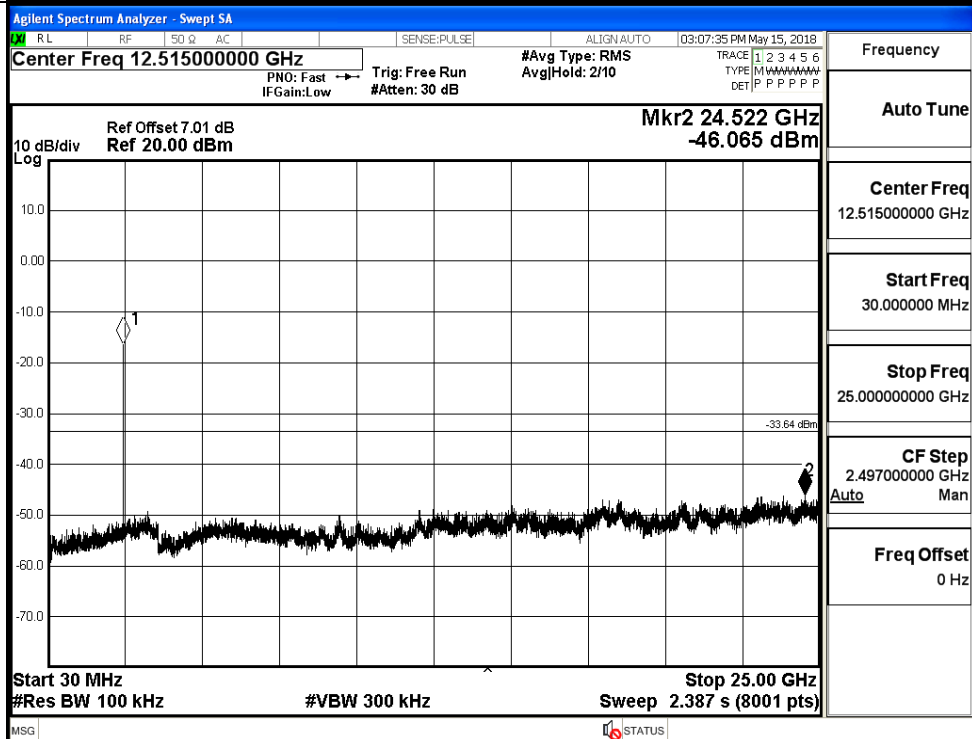


$\pi/4$ DQPSK HCH Graphs

Pref

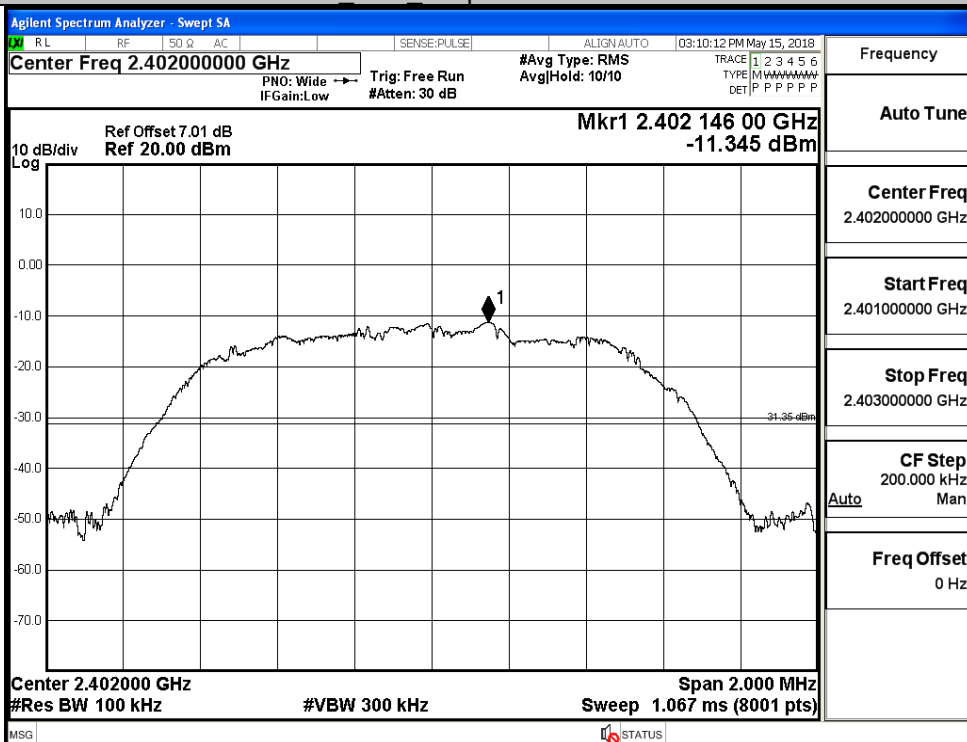


Puw

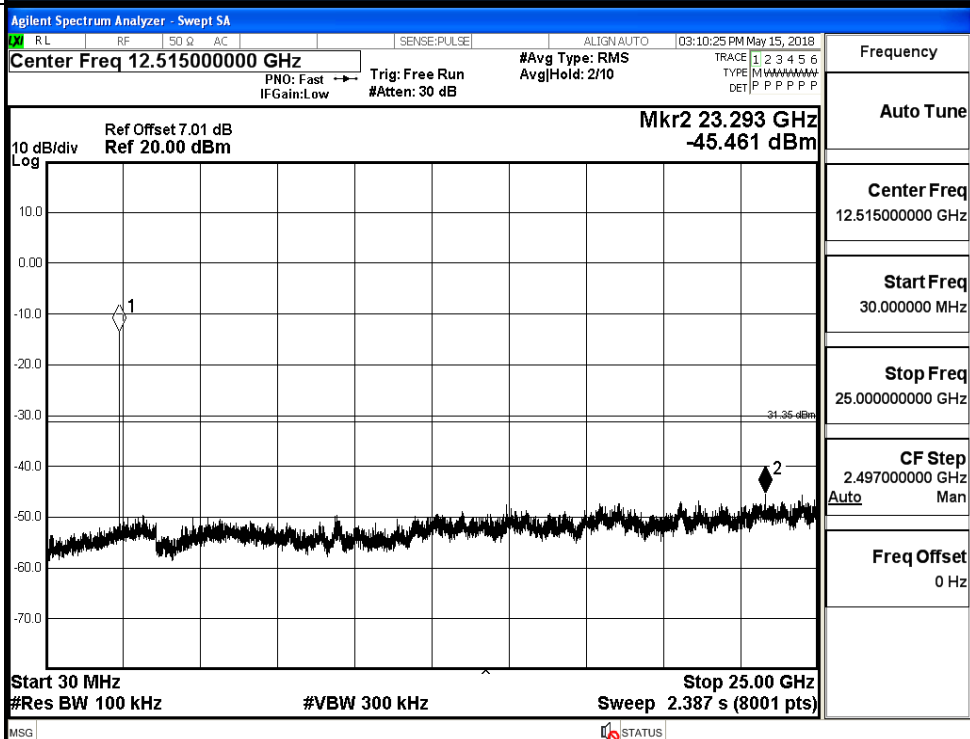


8DPSK LCH Graphs

Pref

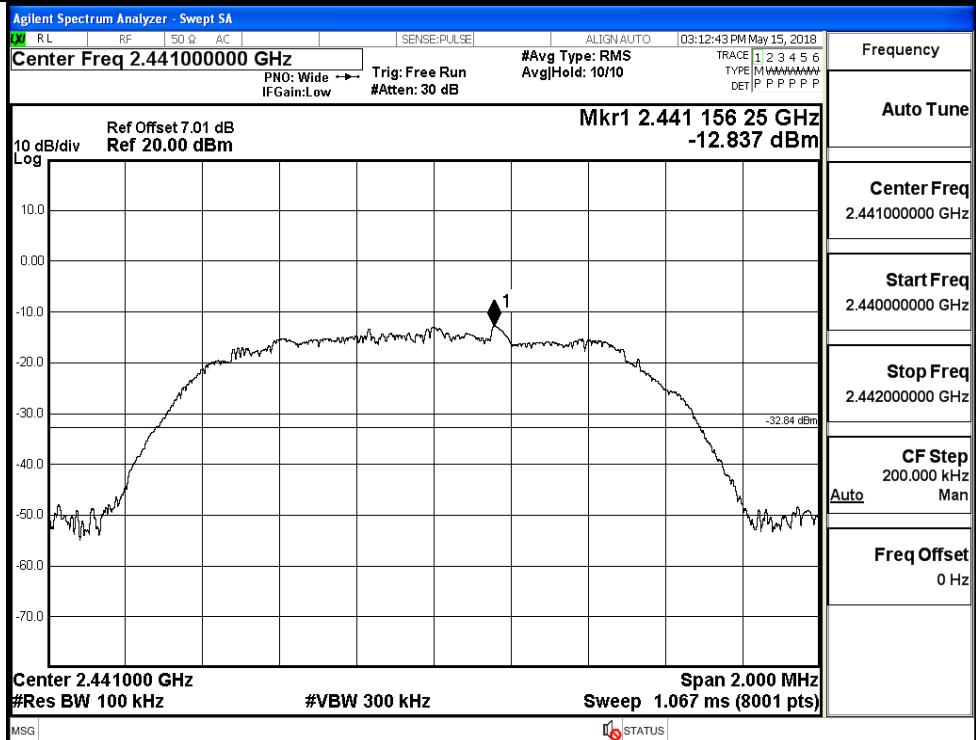


Puw

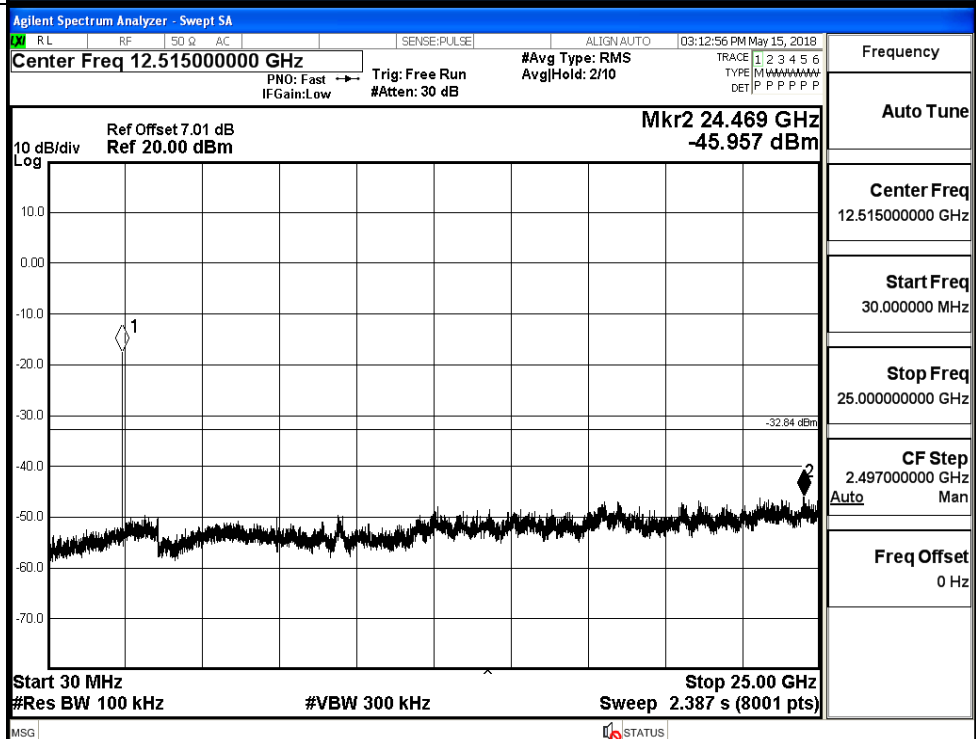


8DPSK MCH Graphs

Pref

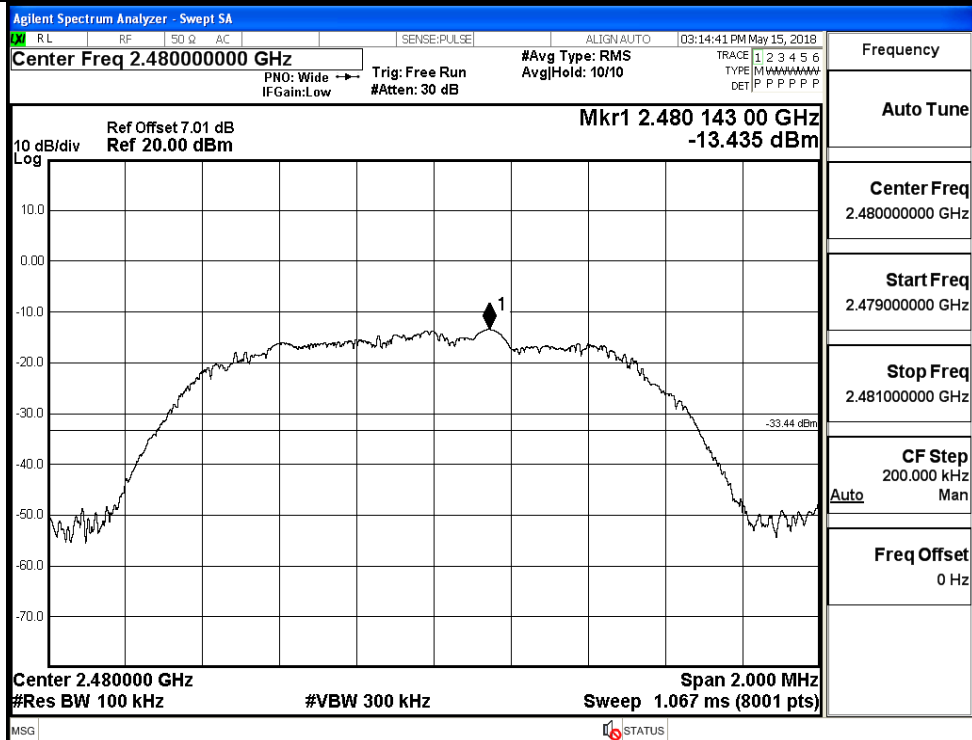


Puw

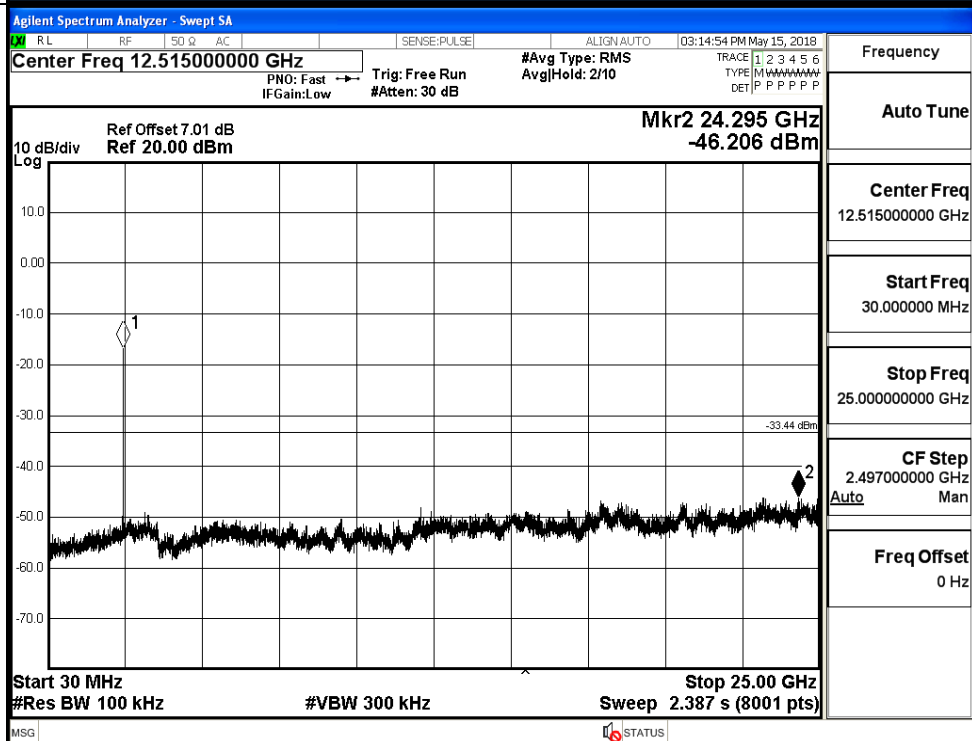


8DPSK_HCH Graphs

Pref



Puw

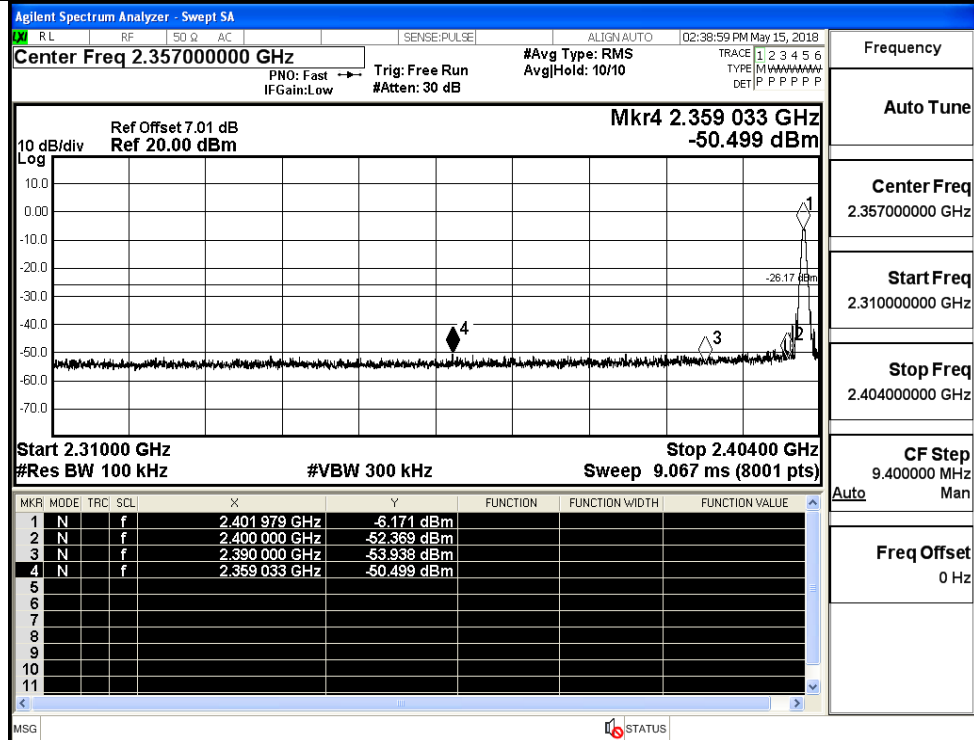


A.7 Band-edge for RF Conducted Emissions

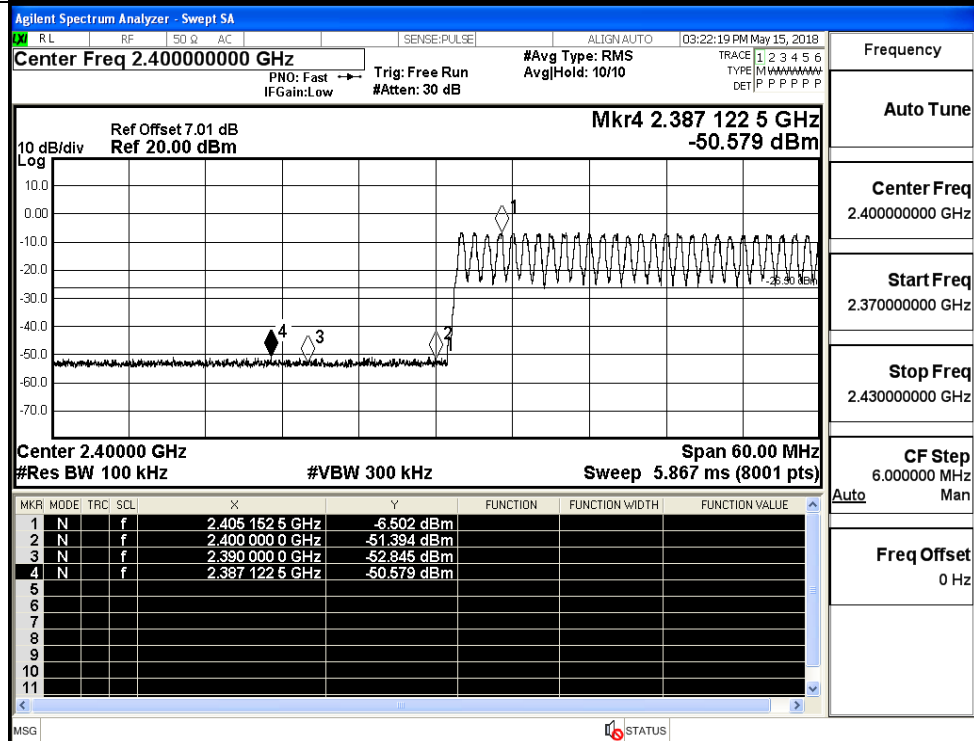
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-6.171	Off	-50.499	-26.17	PASS
			-6.502	On	-50.579	-26.5	PASS
	HCH	2480	-8.139	Off	-50.549	-28.14	PASS
			-7.729	On	-49.219	-27.73	PASS
$\pi/4$ DQPSK	LCH	2402	-11.646	Off	-50.896	-31.65	PASS
			-11.438	On	-49.807	-31.44	PASS
	HCH	2480	-13.728	Off	-50.774	-33.73	PASS
			-13.055	On	-49.960	-33.06	PASS
8DPSK	LCH	2402	-11.773	Off	-49.918	-31.77	PASS
			-11.623	On	-50.485	-31.62	PASS
	HCH	2480	-13.401	Off	-50.558	-33.4	PASS
			-13.071	On	-50.002	-33.07	PASS

Test Graphs

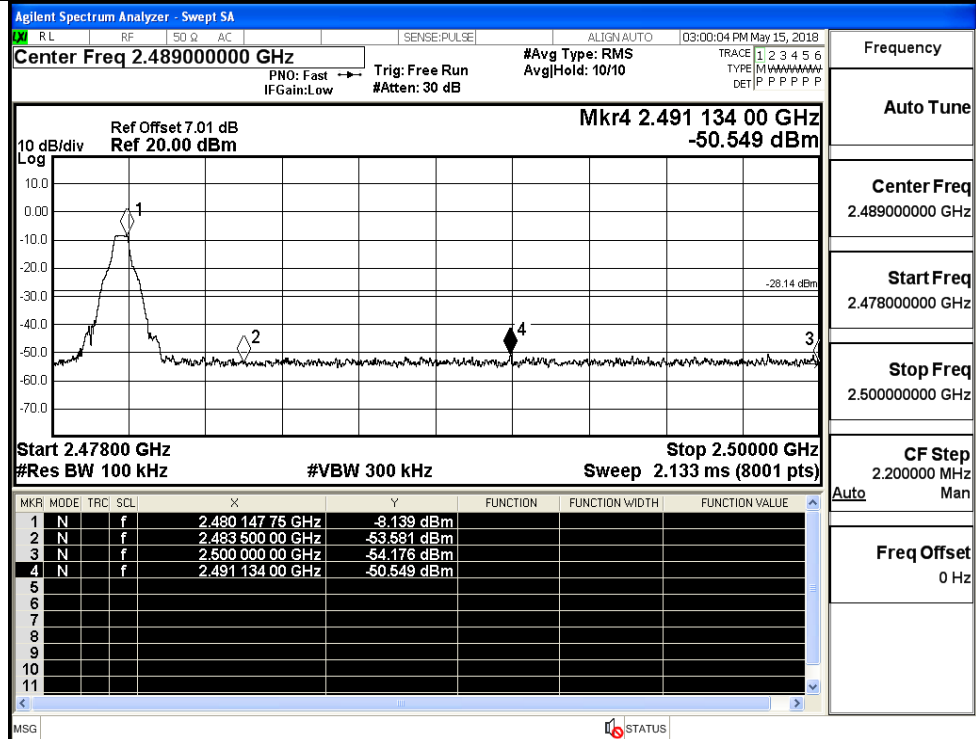
GFSK/LCH/No Hop



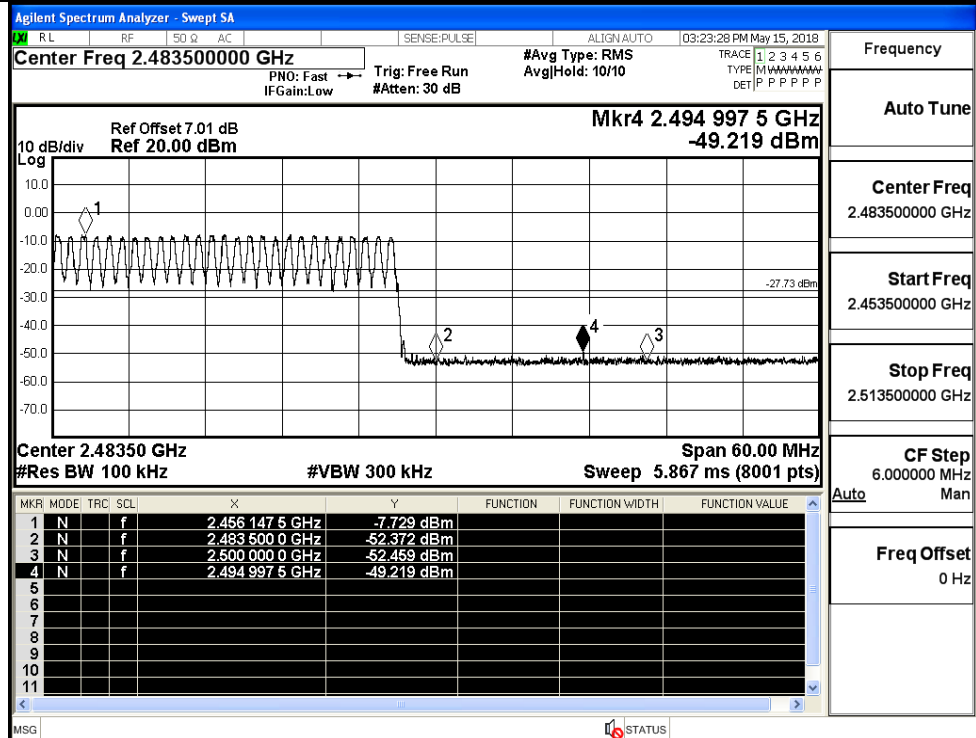
GFSK/LCH/Hop



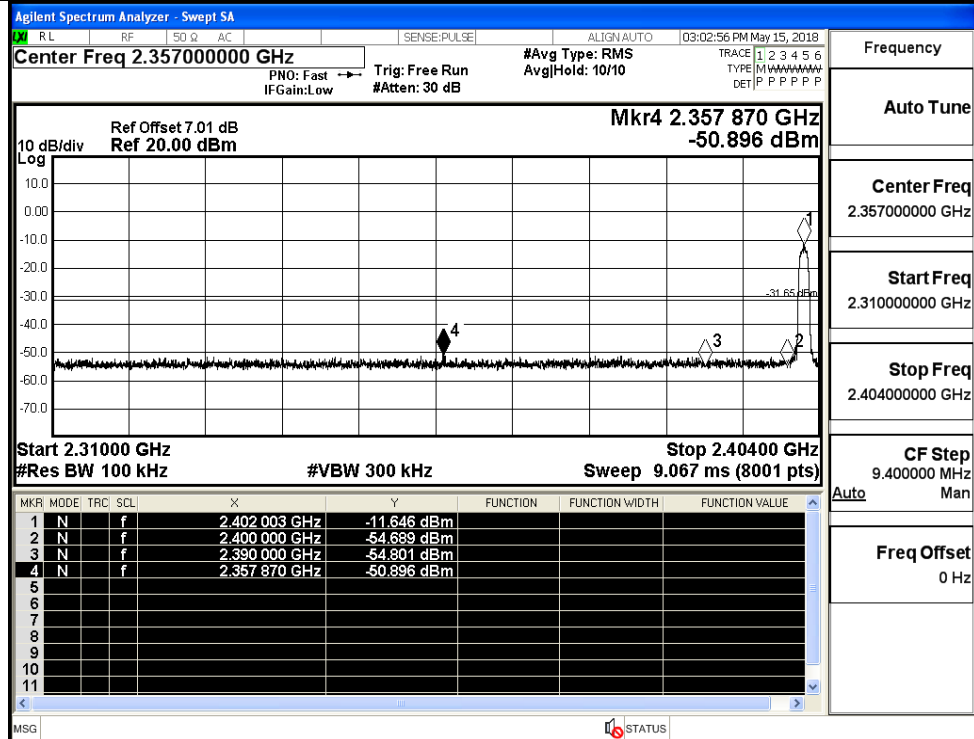
GFSK/HCH/No Hop



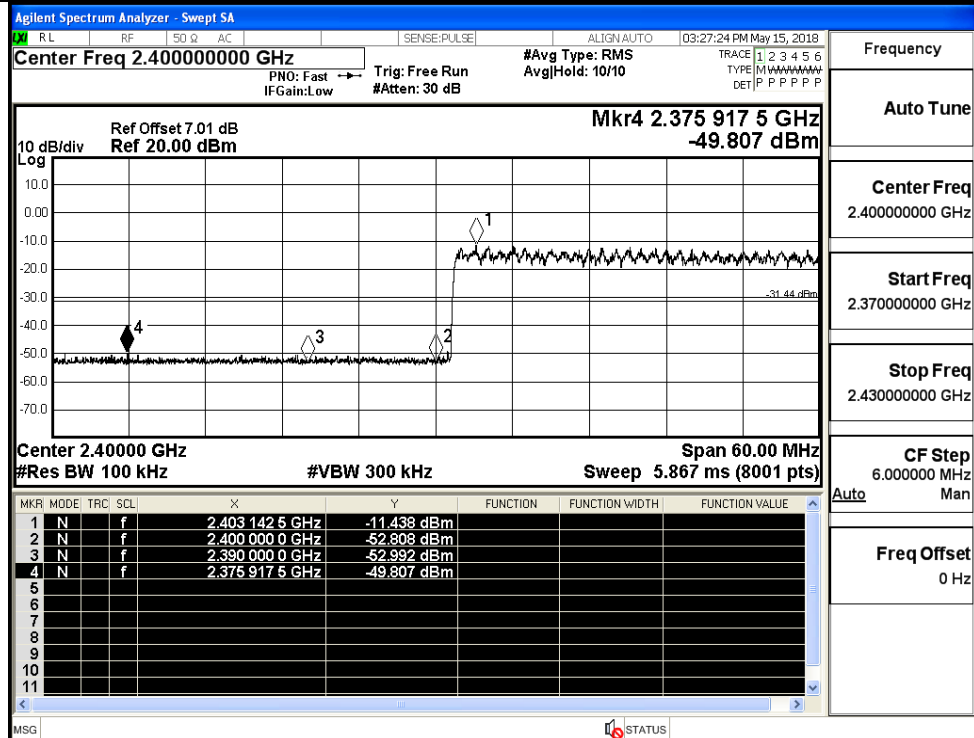
GFSK/HCH/Hop



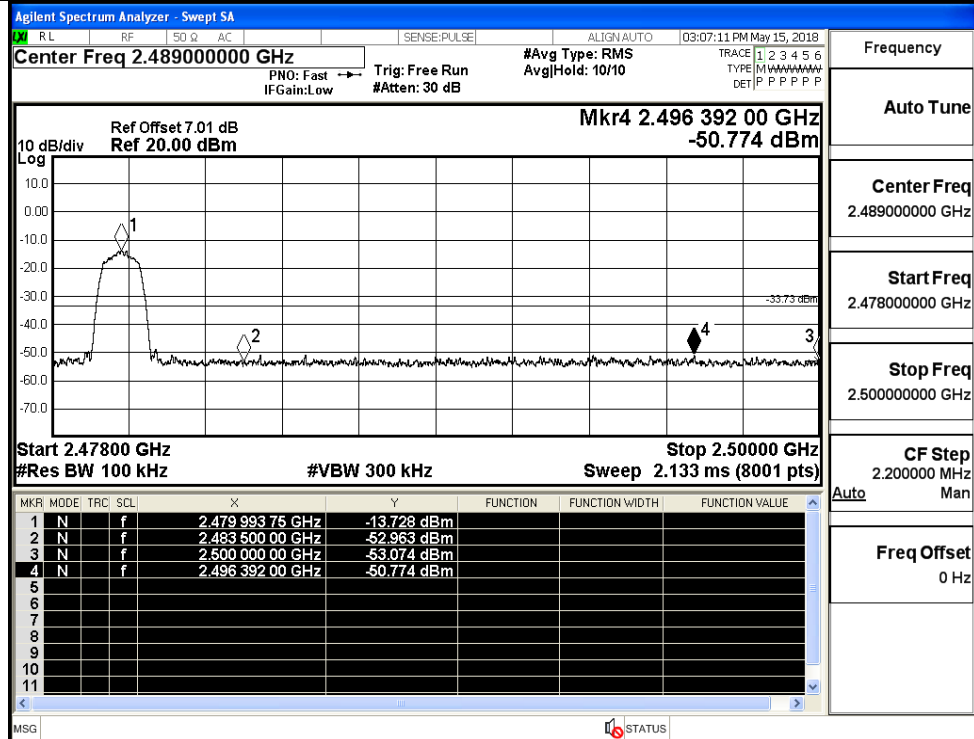
$\pi/4$ DQPSK/LCH/No
Hop



$\pi/4$ DQPSK/LCH/Hop



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

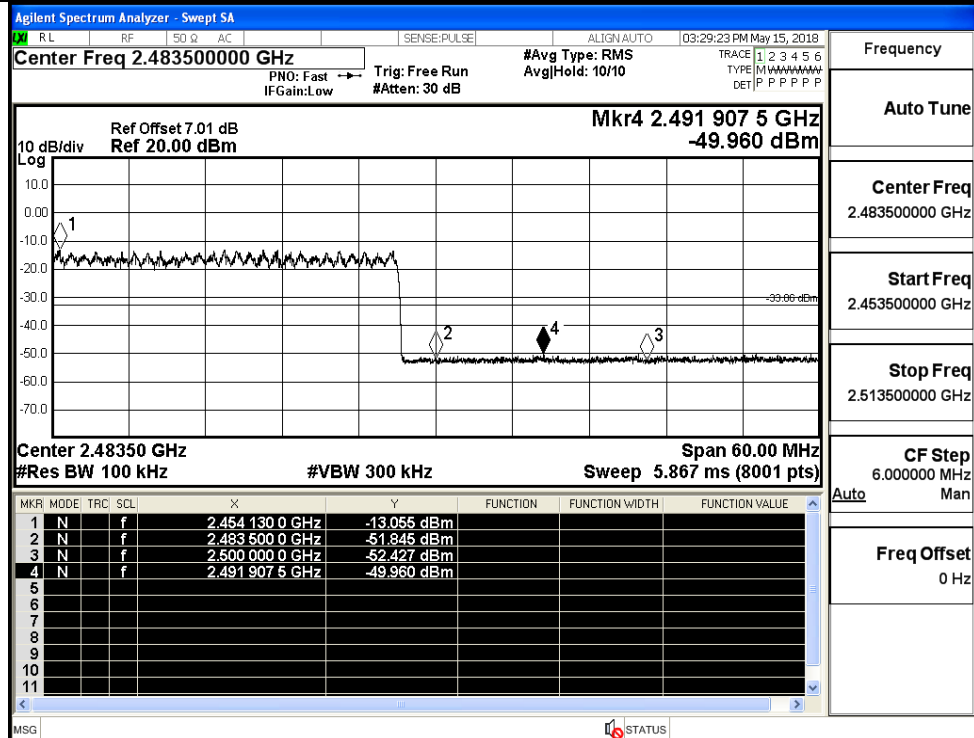


Frequency

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

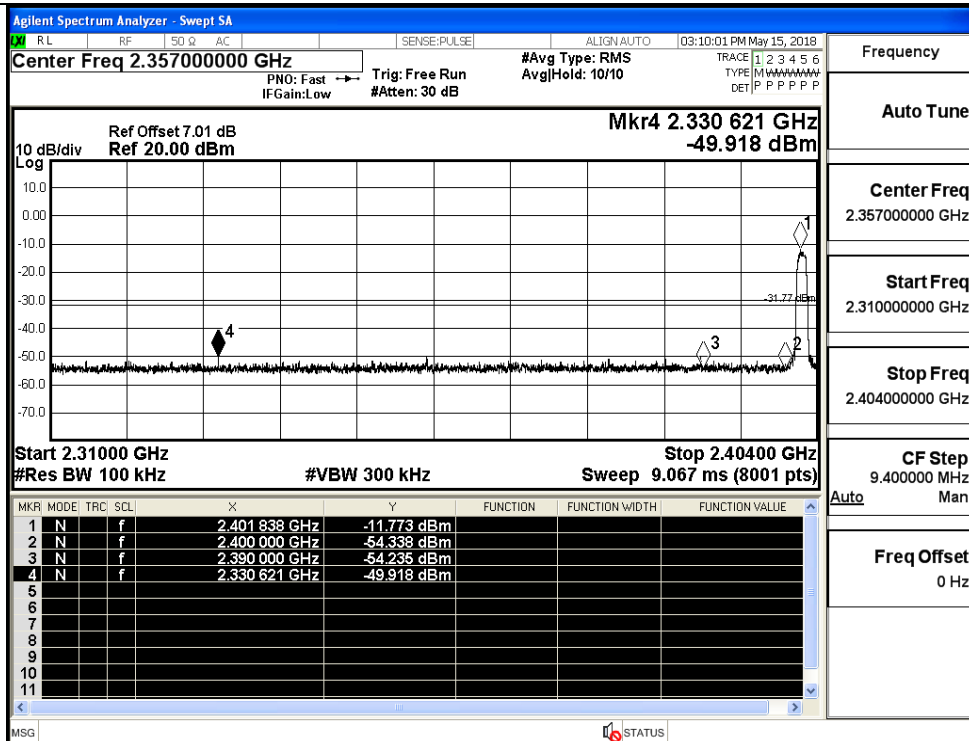


Frequency

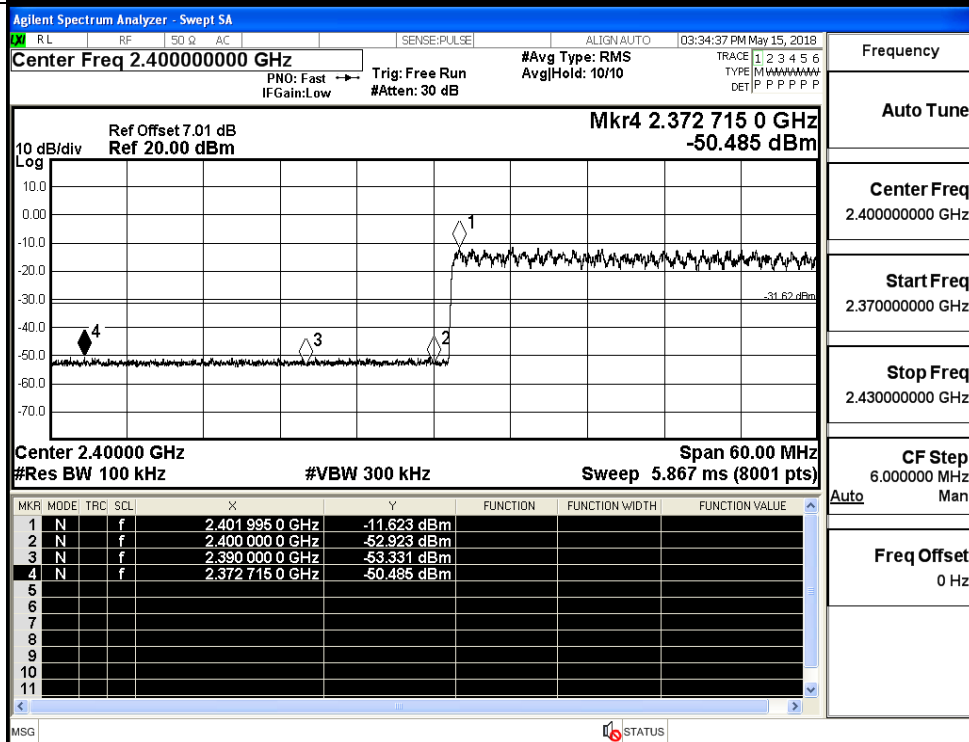
Auto Tune

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

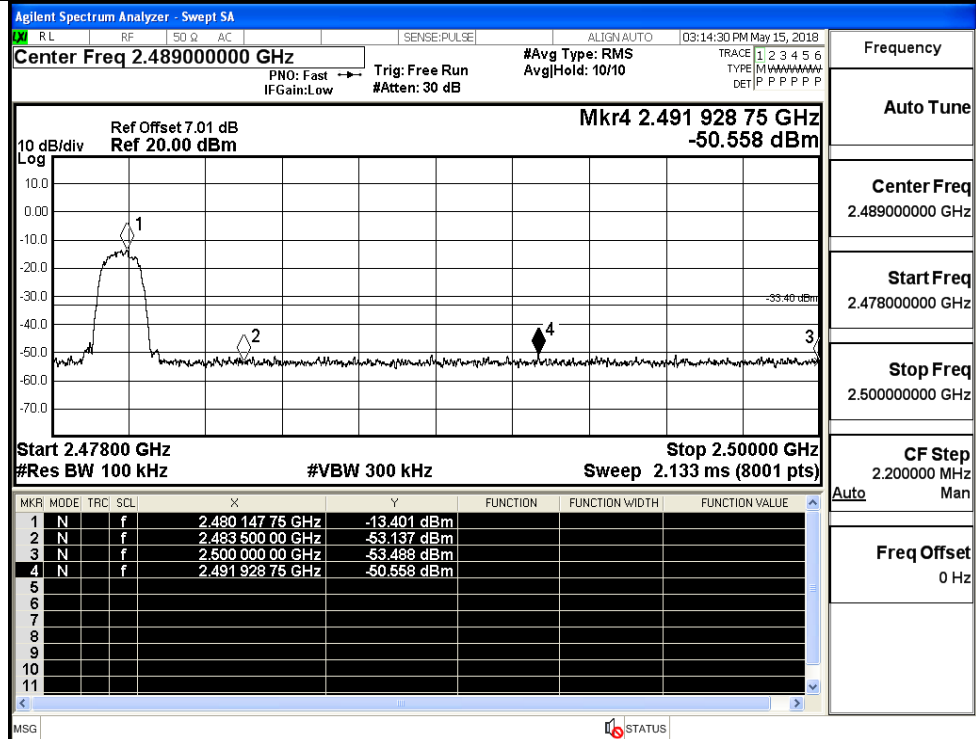
8DPSK/LCH/No Hop



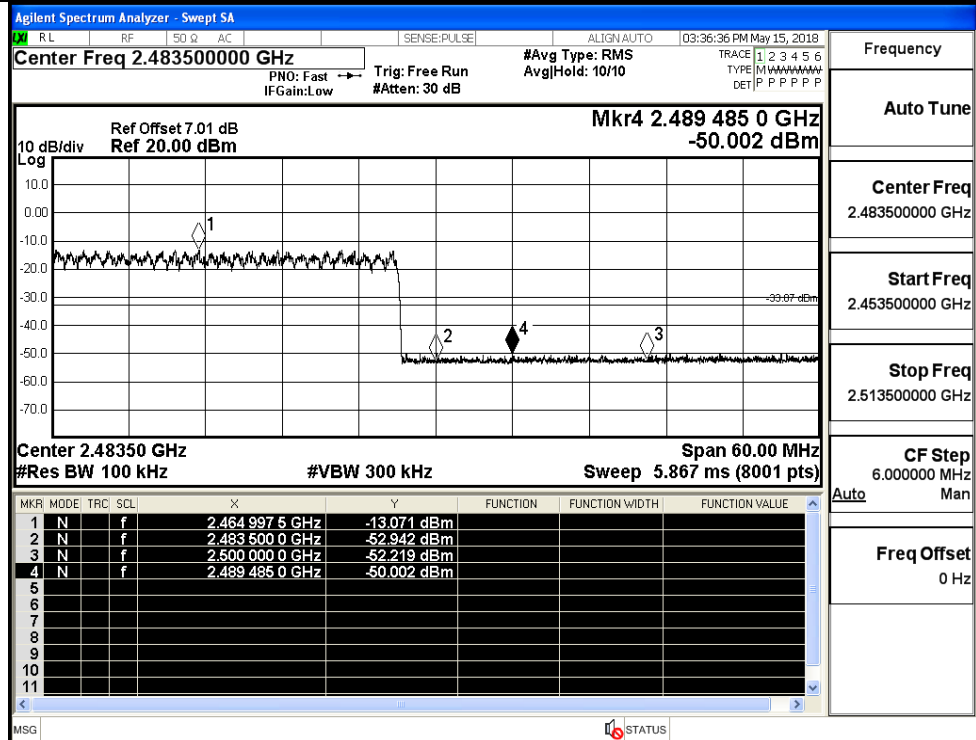
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



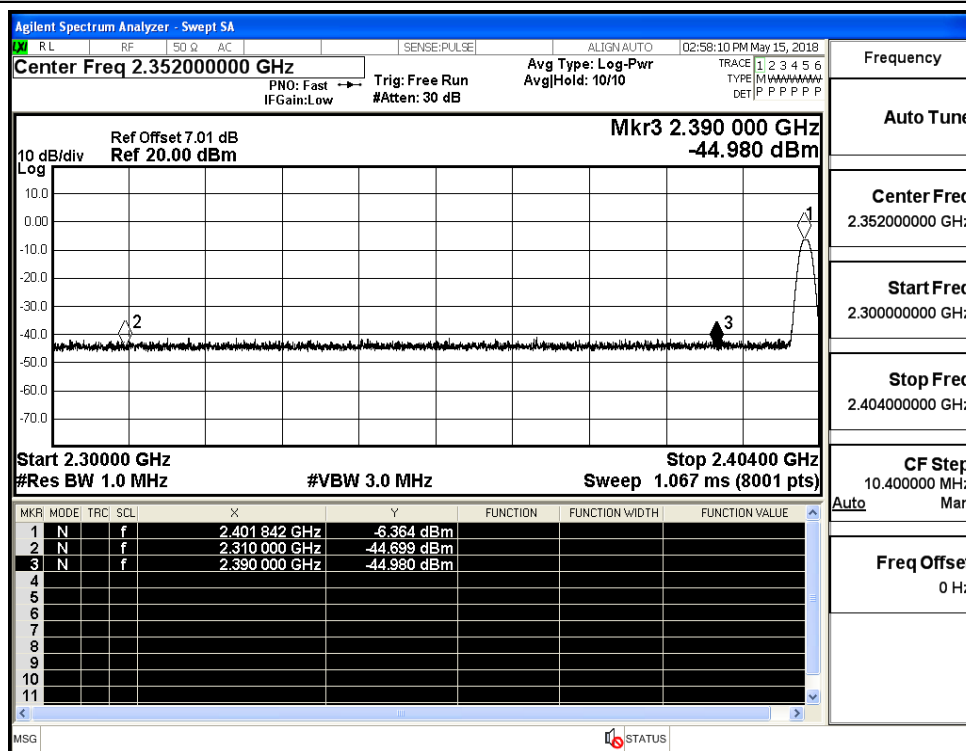
8DPSK/HCH/Hop



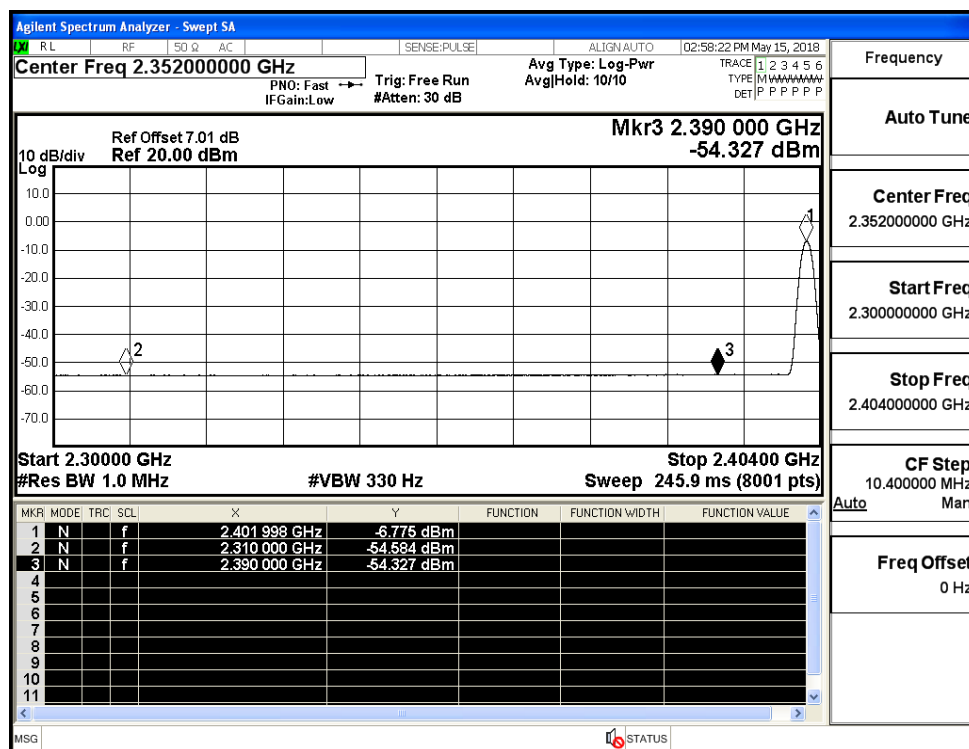
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.70	2.0	0	52.56	PEAK	74	PASS
	Off	2310.0	-54.58	2.0	0	42.67	AV	54	PASS
	Off	2390.0	-44.98	2.0	0	52.28	PEAK	74	PASS
	Off	2390.0	-54.33	2.0	0	42.93	AV	54	PASS
	Off	2483.5	-44.43	2.0	0	52.82	PEAK	74	PASS
	Off	2483.5	-54.01	2.0	0	43.24	AV	54	PASS
	Off	2500.0	-42.65	2.0	0	54.61	PEAK	74	PASS
	Off	2500.0	-53.91	2.0	0	43.35	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.52	2.0	0	53.74	PEAK	74	PASS
	Off	2310.0	-54.59	2.0	0	42.67	AV	54	PASS
	Off	2390.0	-42.98	2.0	0	54.28	PEAK	74	PASS
	Off	2390.0	-54.21	2.0	0	43.05	AV	54	PASS
	Off	2483.5	-42.62	2.0	0	54.63	PEAK	74	PASS
	Off	2483.5	-54.17	2.0	0	43.09	AV	54	PASS
	Off	2500.0	-43.51	2.0	0	53.75	PEAK	74	PASS
	Off	2500.0	-53.95	2.0	0	43.31	AV	54	PASS
8DPSK	Off	2310.0	-45.40	2.0	0	51.86	PEAK	74	PASS
	Off	2310.0	-54.62	2.0	0	42.64	AV	54	PASS
	Off	2390.0	-43.72	2.0	0	53.54	PEAK	74	PASS
	Off	2390.0	-54.26	2.0	0	43.00	AV	54	PASS
	Off	2483.5	-43.05	2.0	0	54.20	PEAK	74	PASS
	Off	2483.5	-54.12	2.0	0	43.14	AV	54	PASS
	Off	2500.0	-44.04	2.0	0	53.22	PEAK	74	PASS
	Off	2500.0	-54.00	2.0	0	43.25	AV	54	PASS

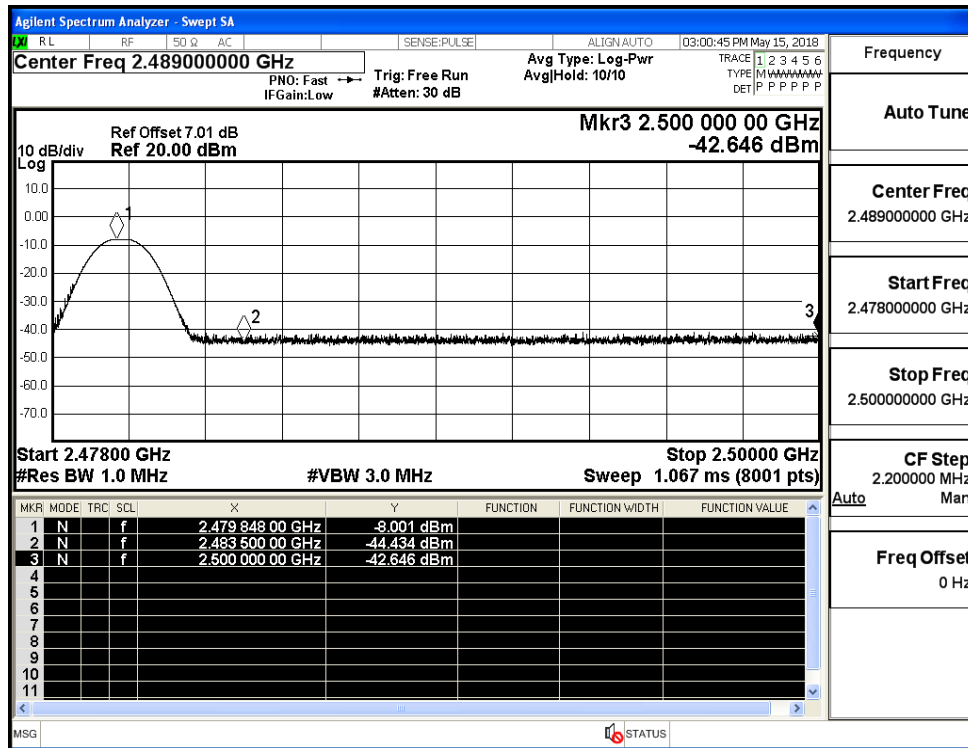
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



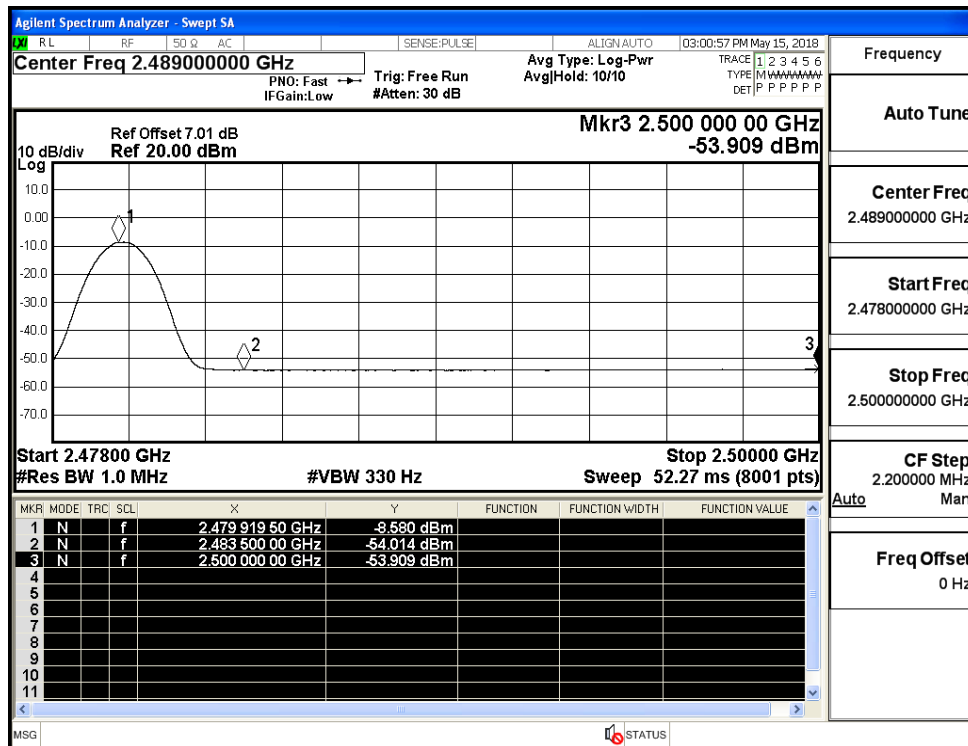
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

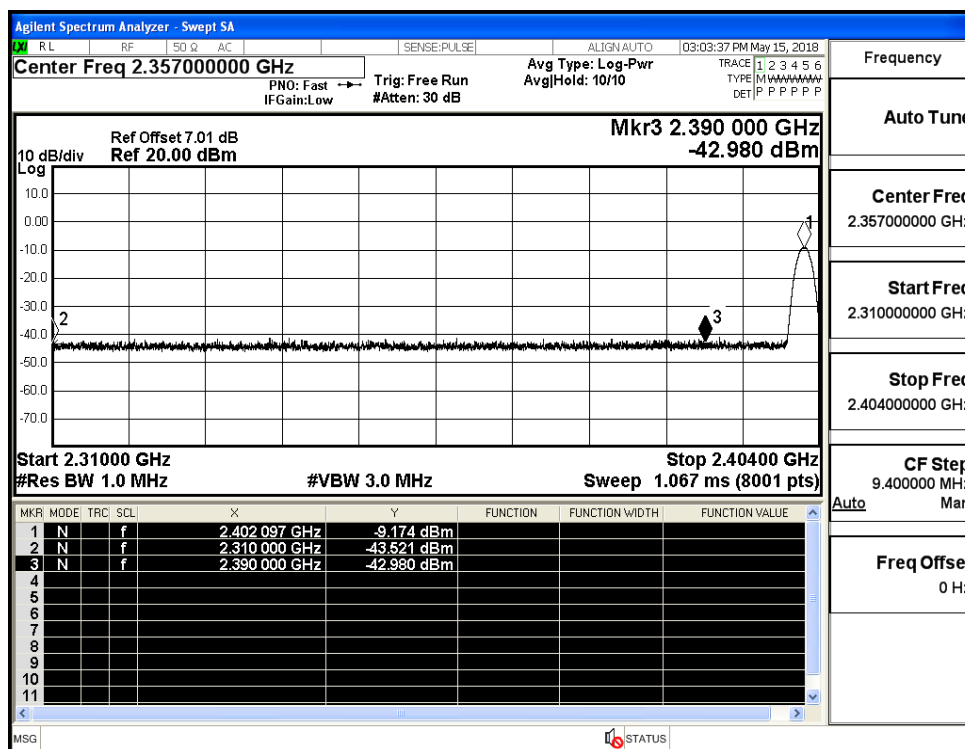
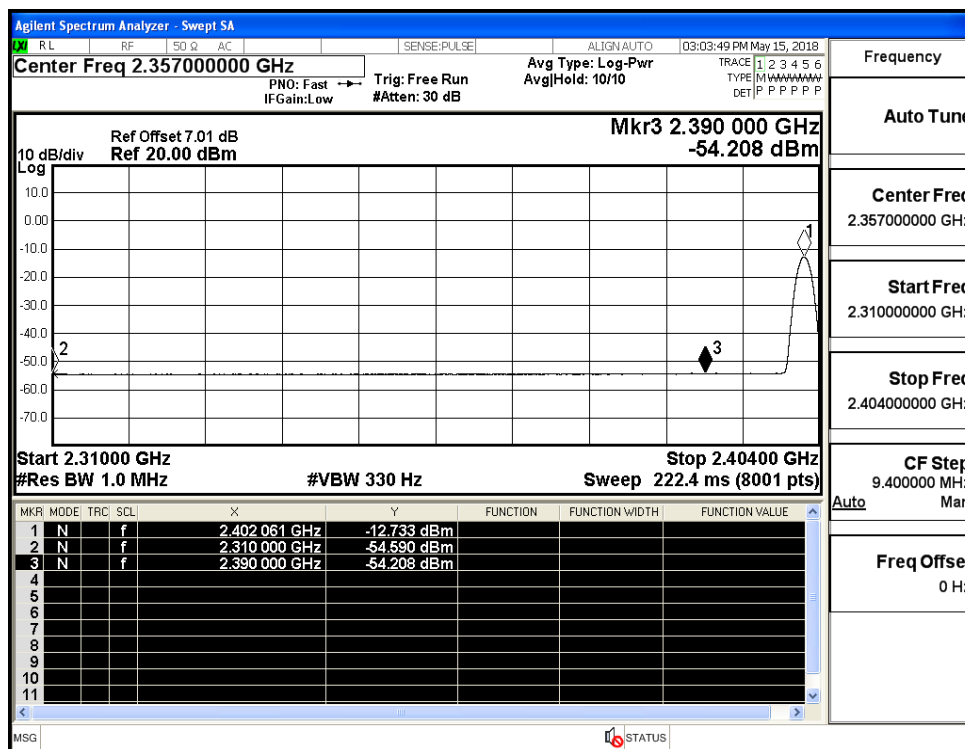


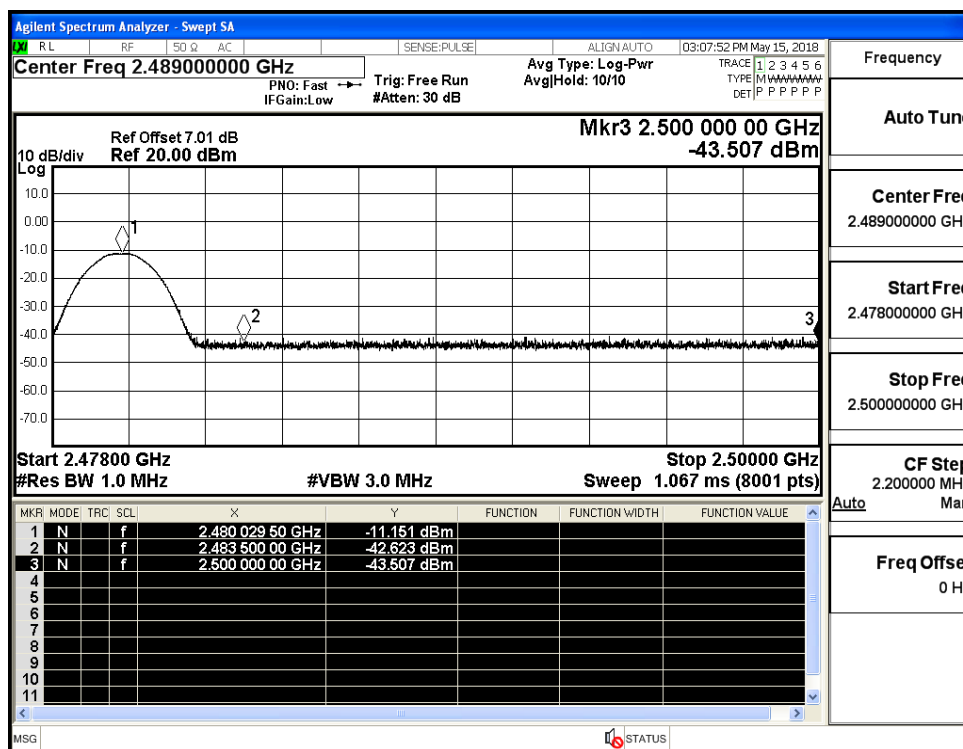
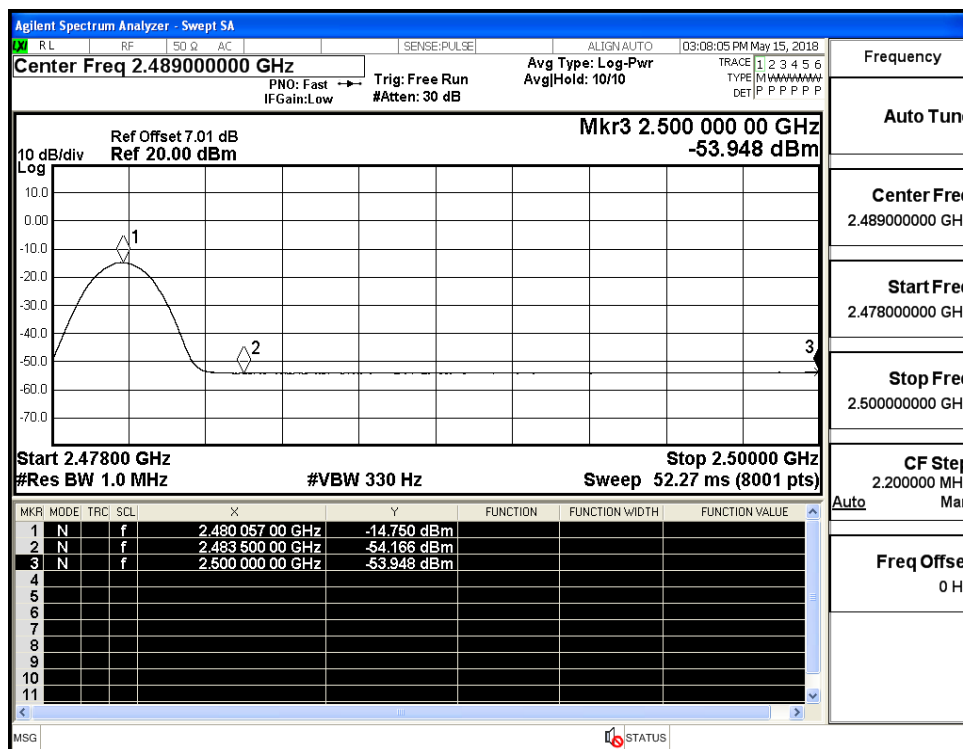
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



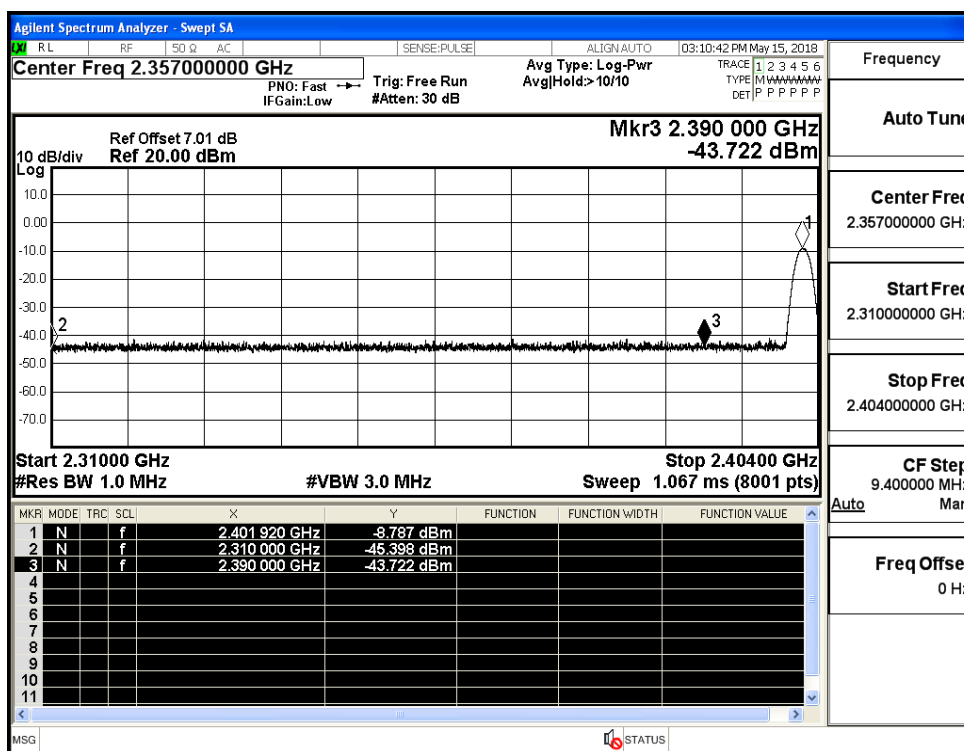
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



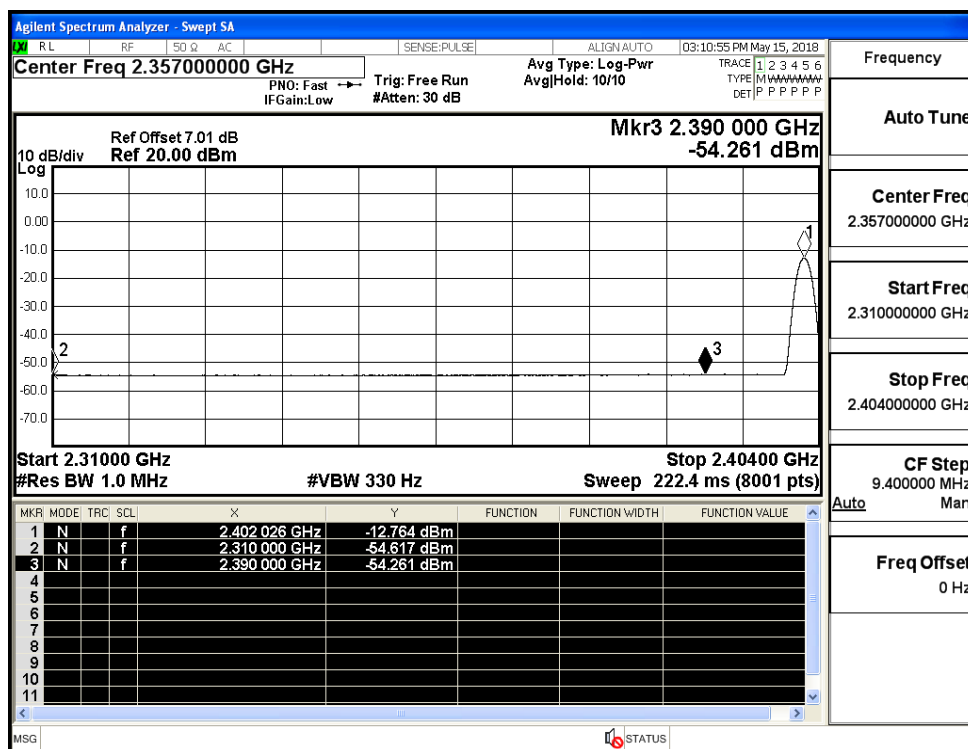
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

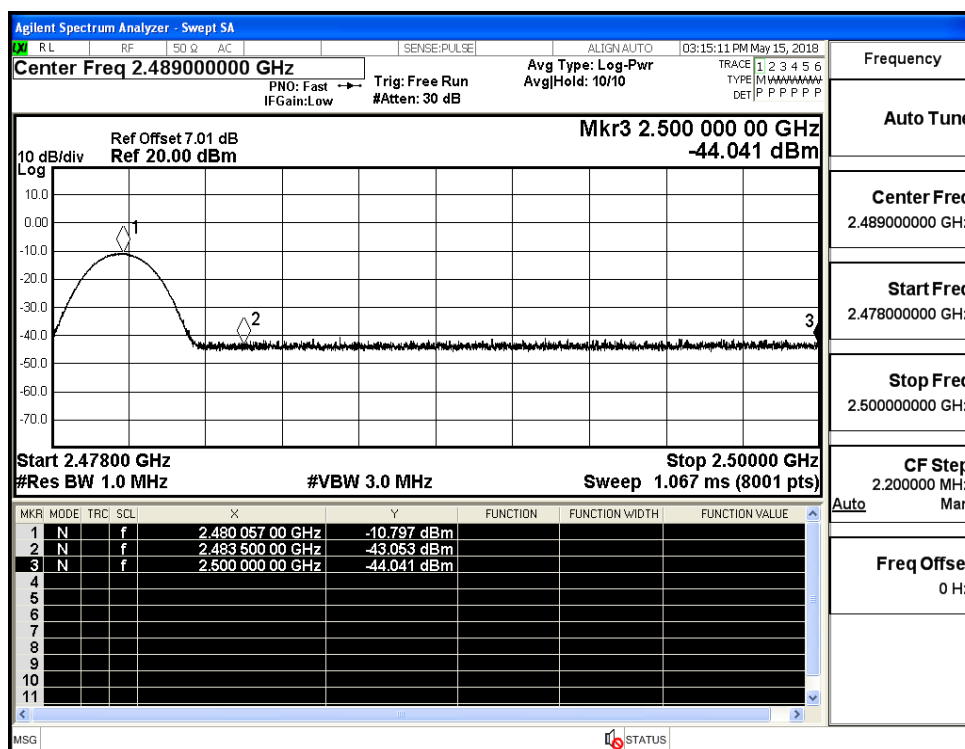
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

