

Appendix A

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

Product Name: **Feature phone**

Trade Mark: **KEN MOBILE (E&L)**

Test Model: **S600**

Environmental Conditions

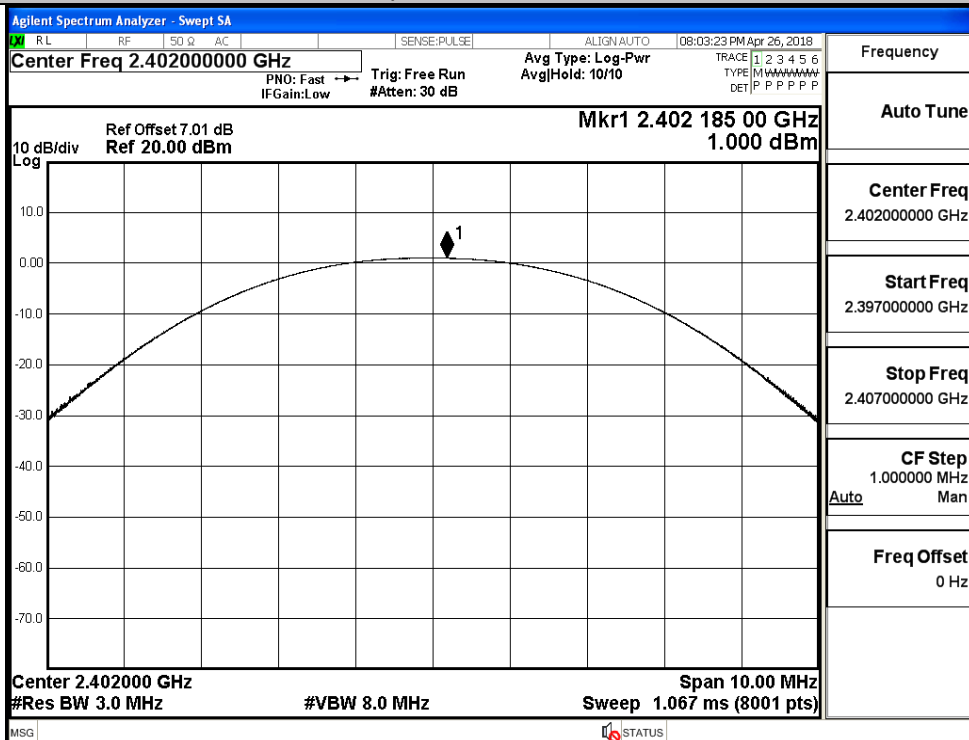
Temperature:	22.6° C
Relative Humidity:	51.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Jayden.Zhuo
Supervised by:	Dick.Su

A.1 Maxmum Conducted Peak Output Power

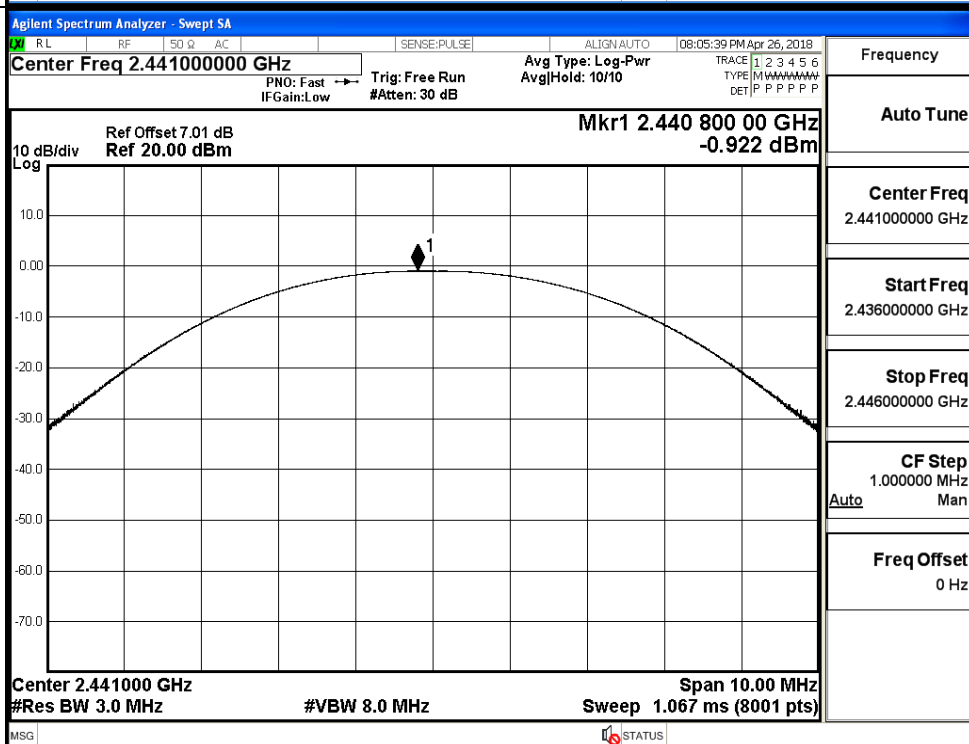
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	1.000	30	PASS
	MCH	-0.922	30	PASS
	HCH	-0.970	30	PASS
$\pi/4$ DQPSK	LCH	0.227	21	PASS
	MCH	-1.484	21	PASS
	HCH	-1.728	21	PASS
8DPSK	LCH	0.352	21	PASS
	MCH	-1.370	21	PASS
	HCH	-1.622	21	PASS

Test Graphs

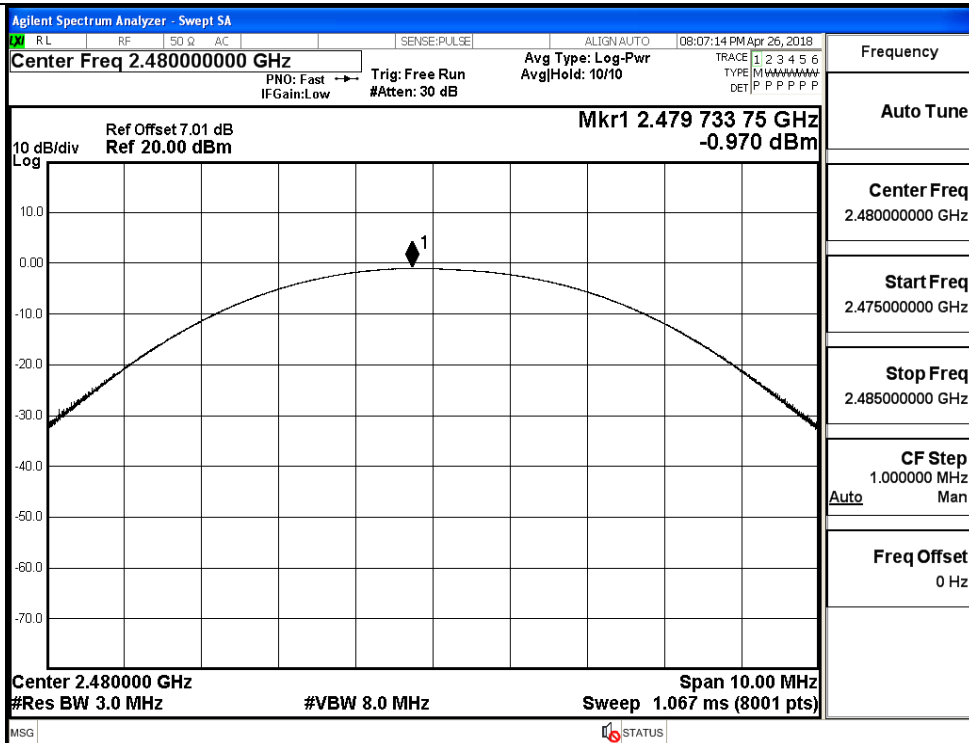
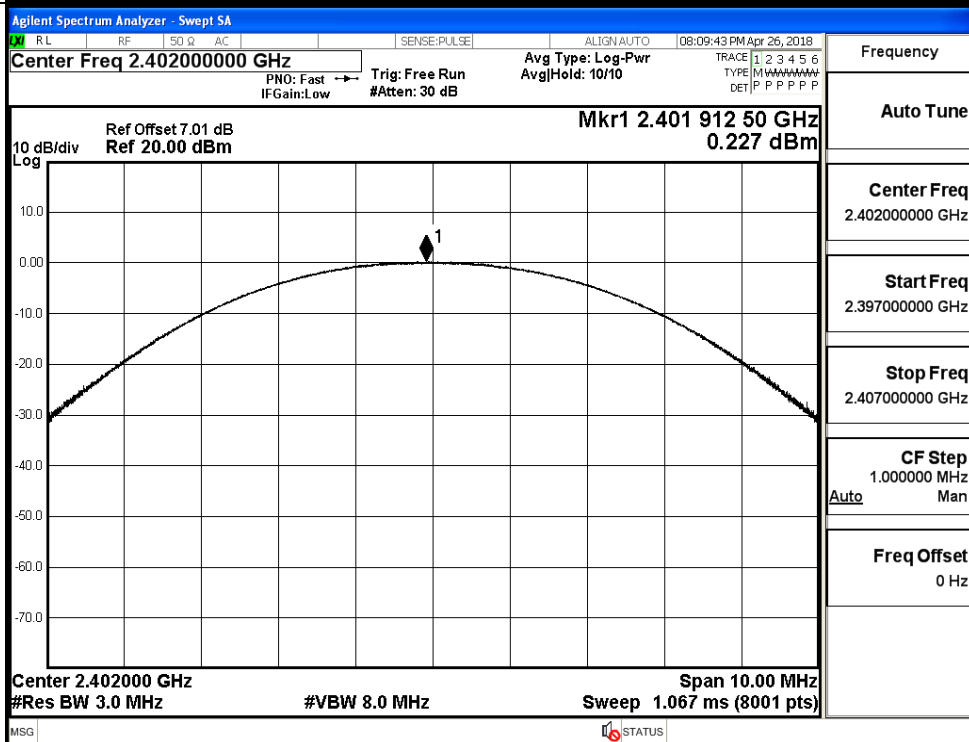
GFSK/LCH

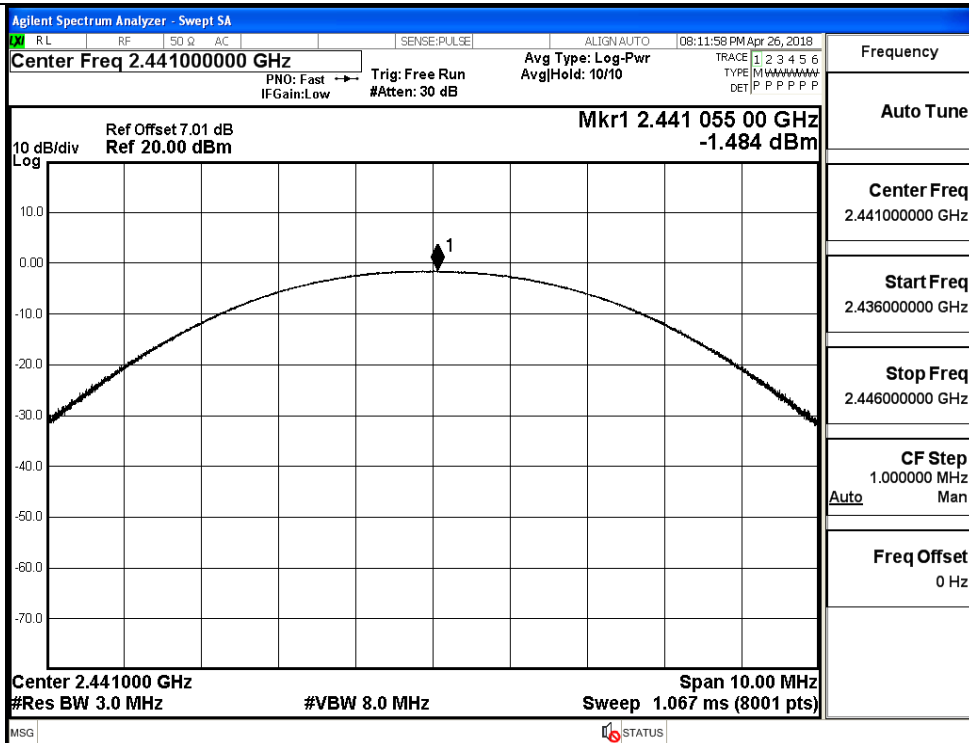
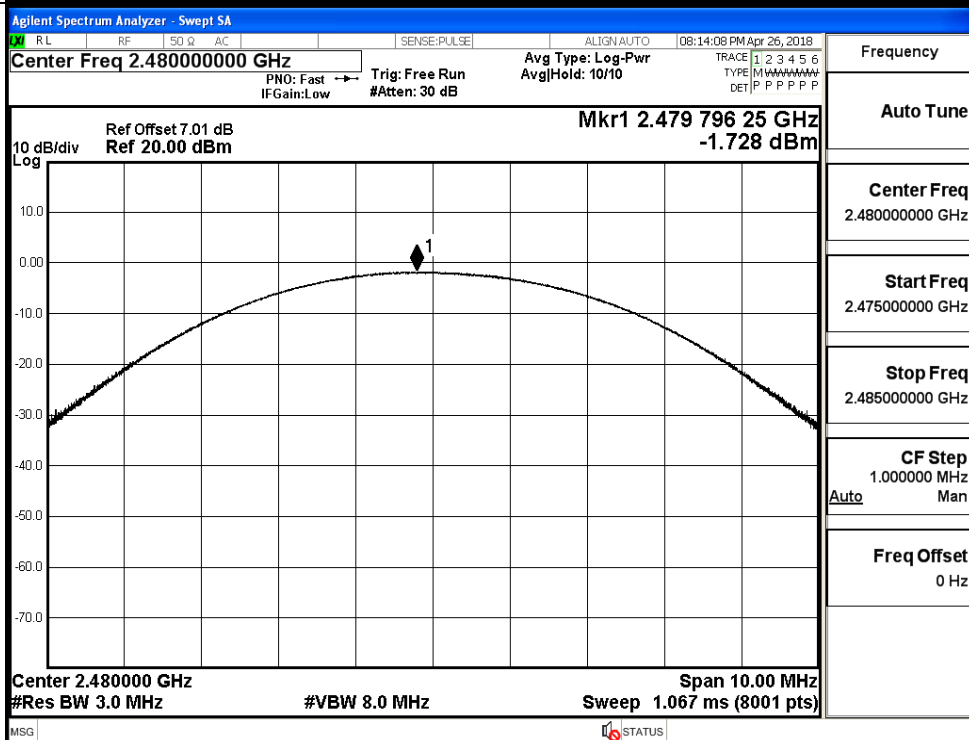


GFSK/MCH

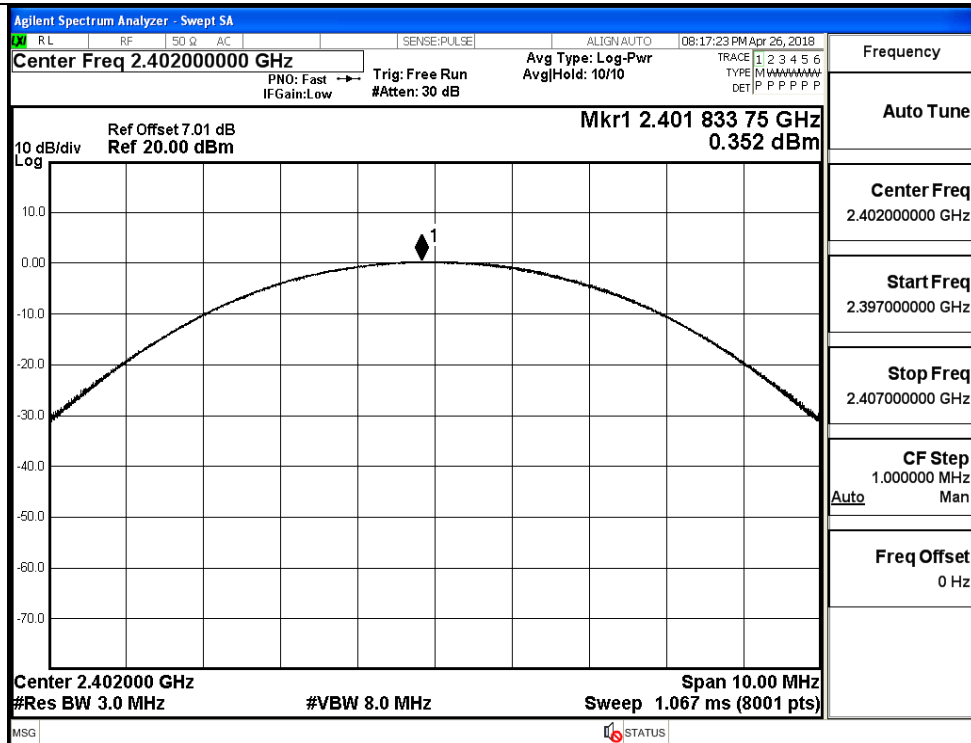


GFSK/HCH

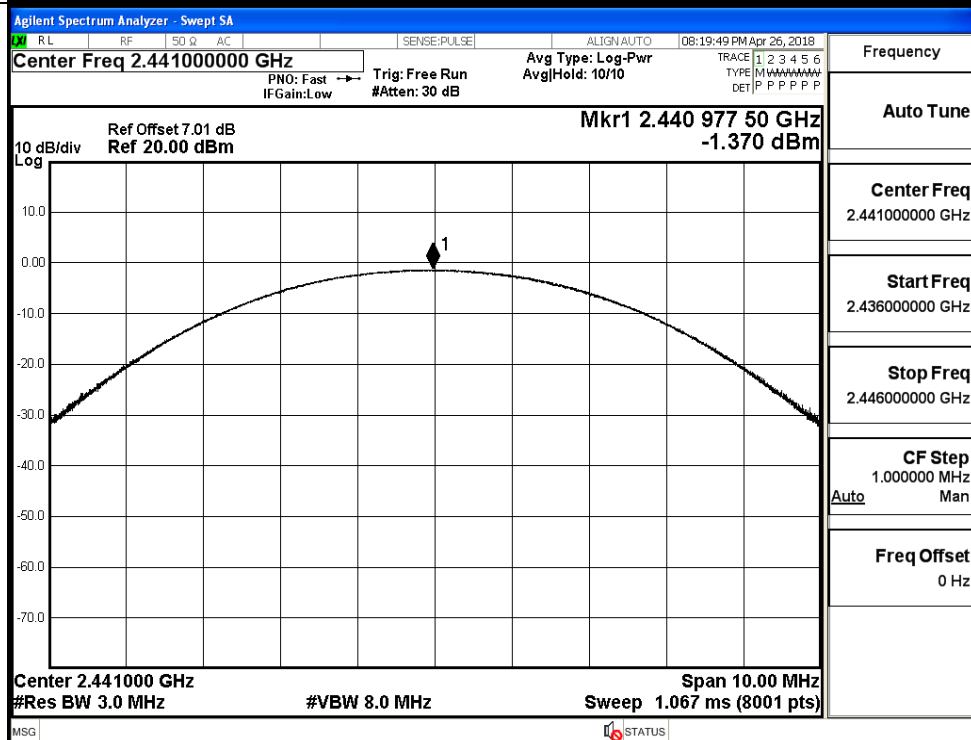
 π /4DQPSK/LCH

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

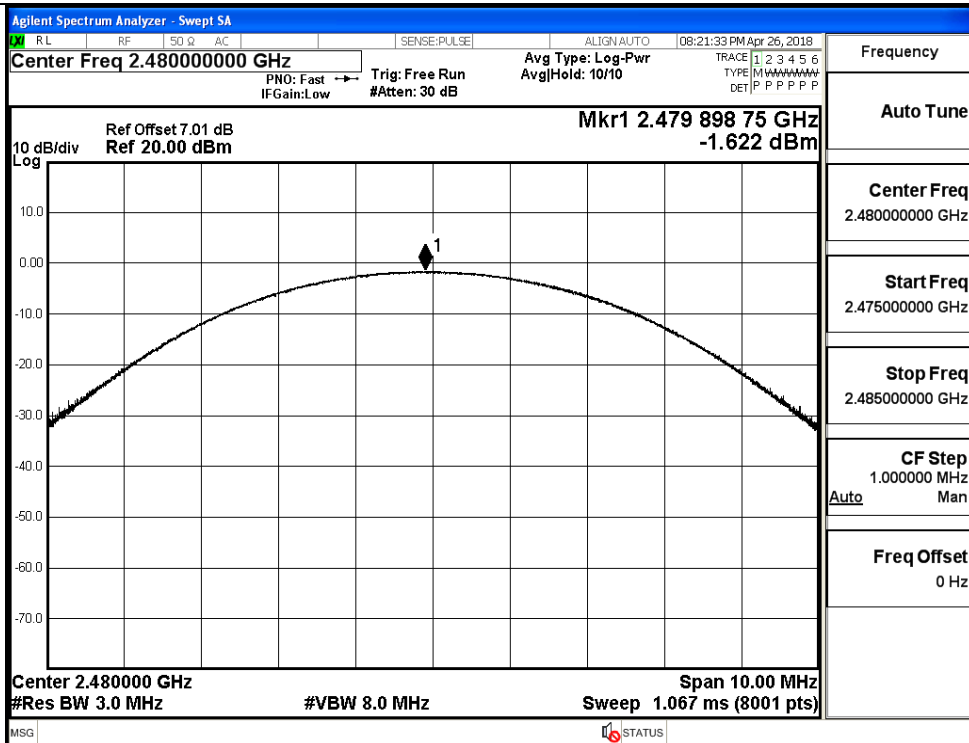
8DPSK/LCH



8DPSK/MCH



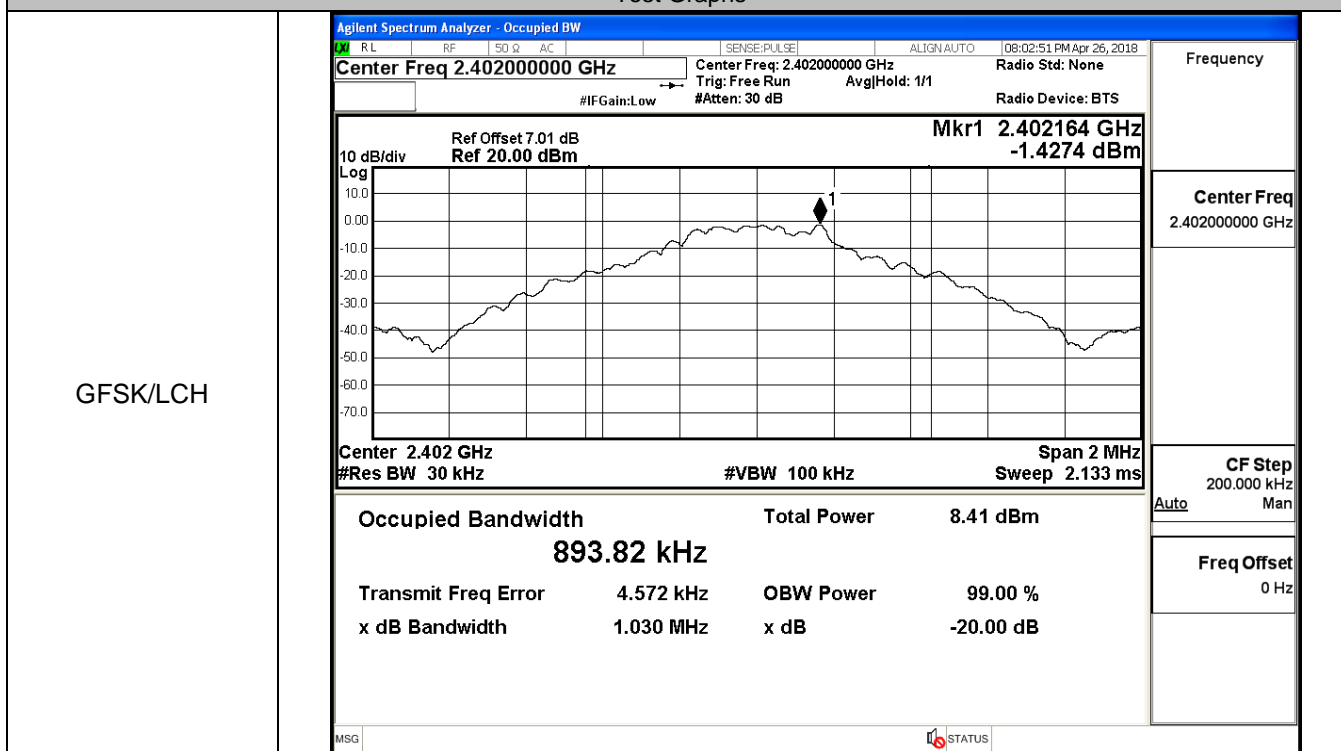
8DPSK/HCH



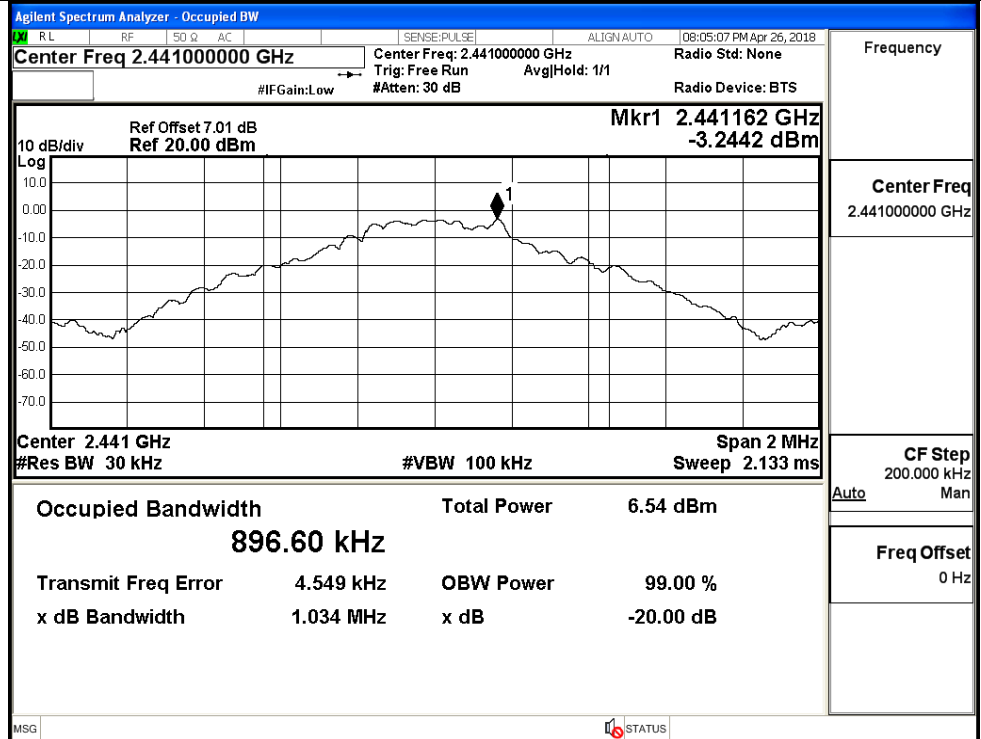
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.030	Not Specified	PASS
	MCH	1.034	Not Specified	PASS
	HCH	1.040	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.290	Not Specified	PASS
	MCH	1.312	Not Specified	PASS
	HCH	1.308	Not Specified	PASS
8DPSK	LCH	1.296	Not Specified	PASS
	MCH	1.299	Not Specified	PASS
	HCH	1.292	Not Specified	PASS

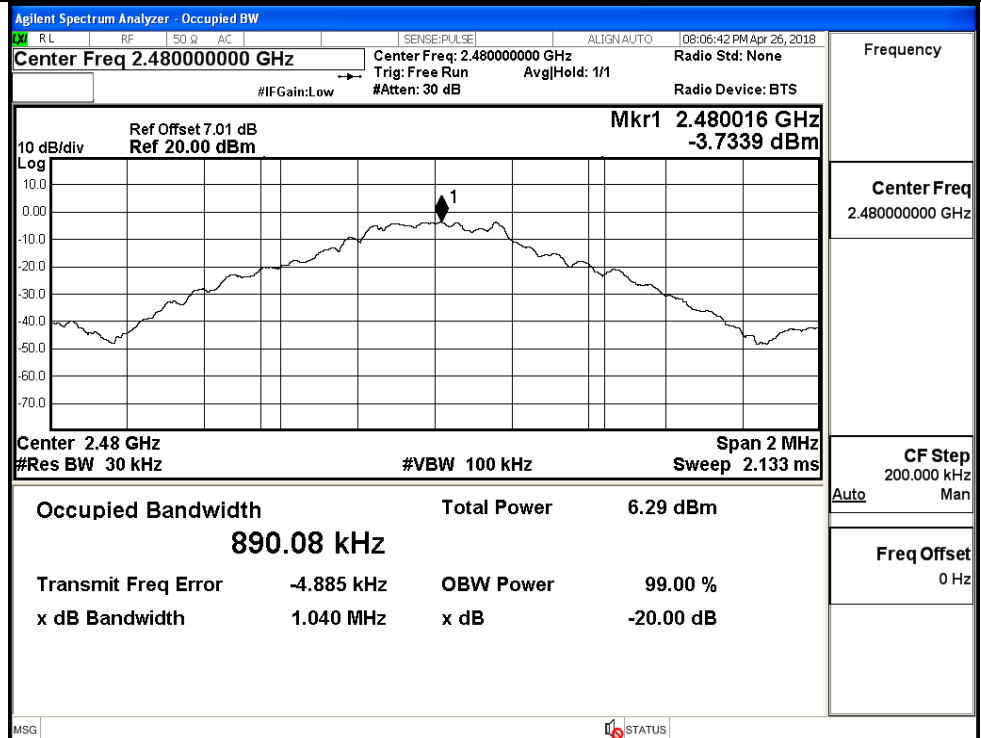
Test Graphs

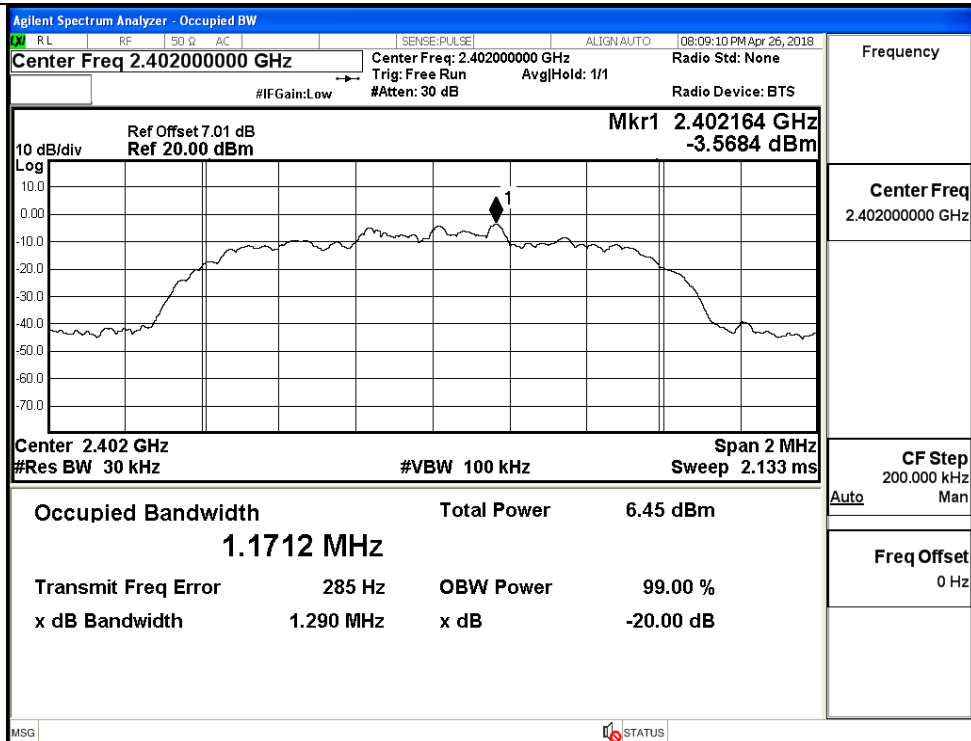
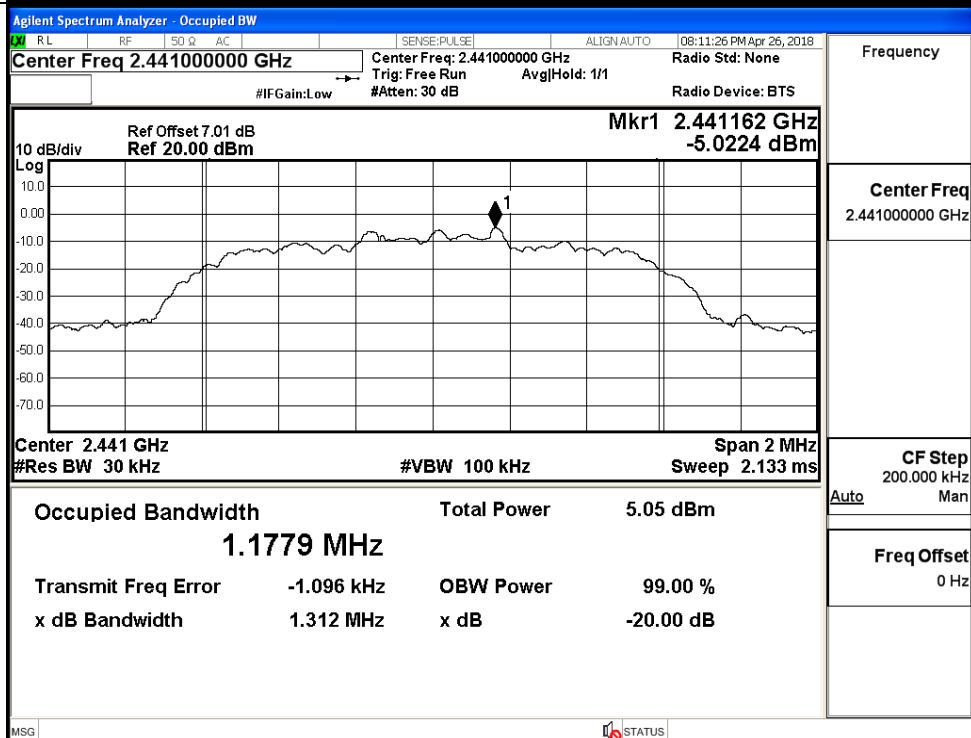


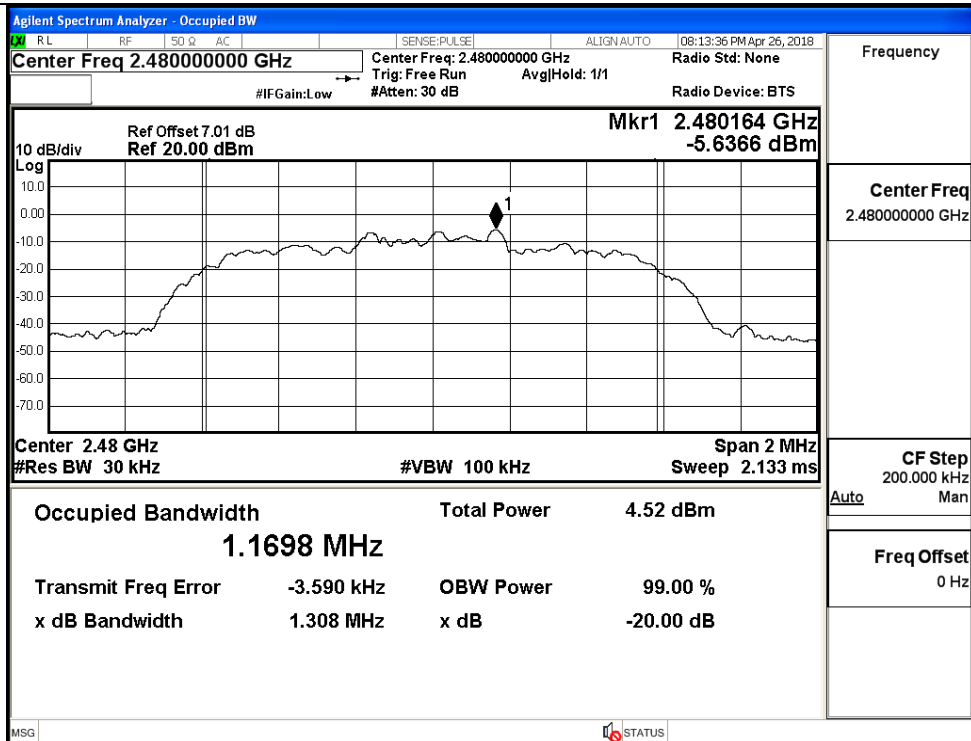
GFSK/MCH



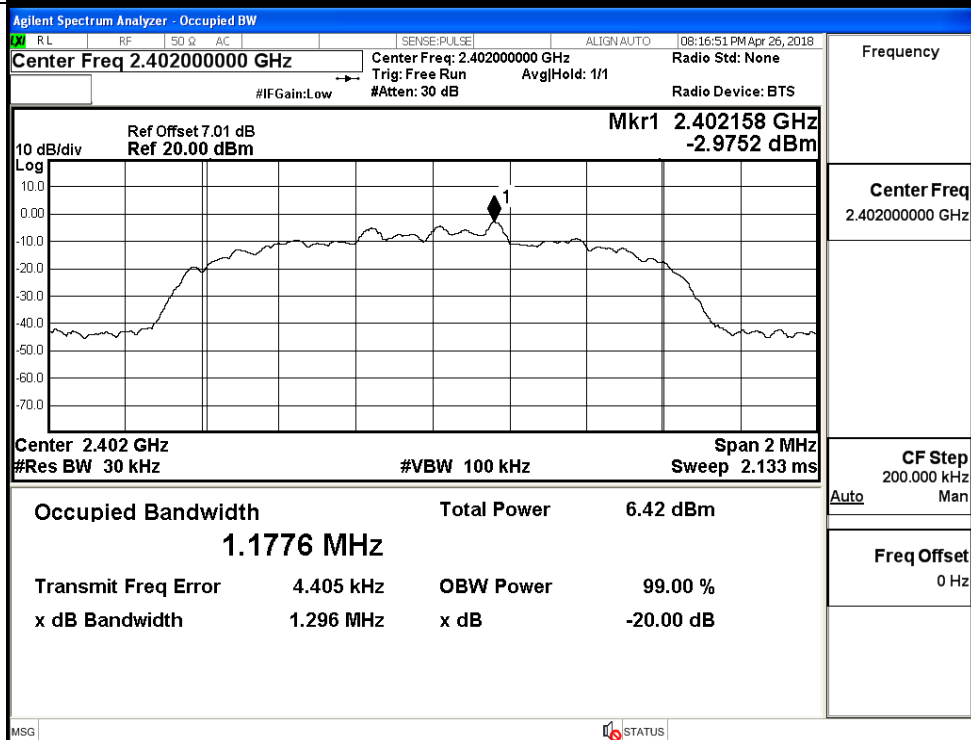
GFSK/HCH



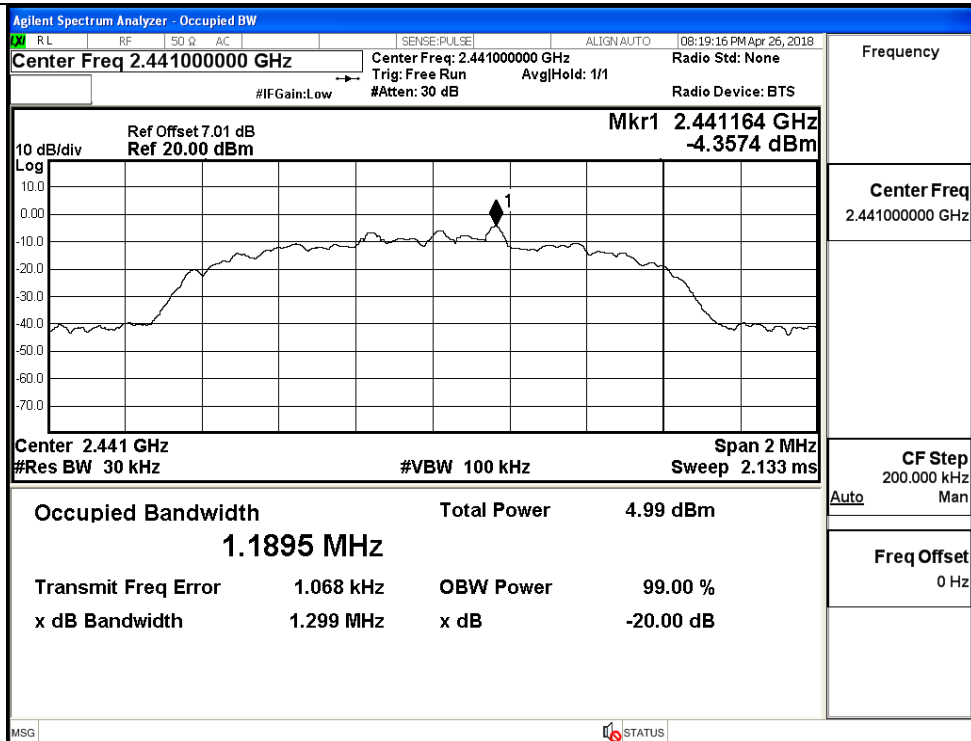
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

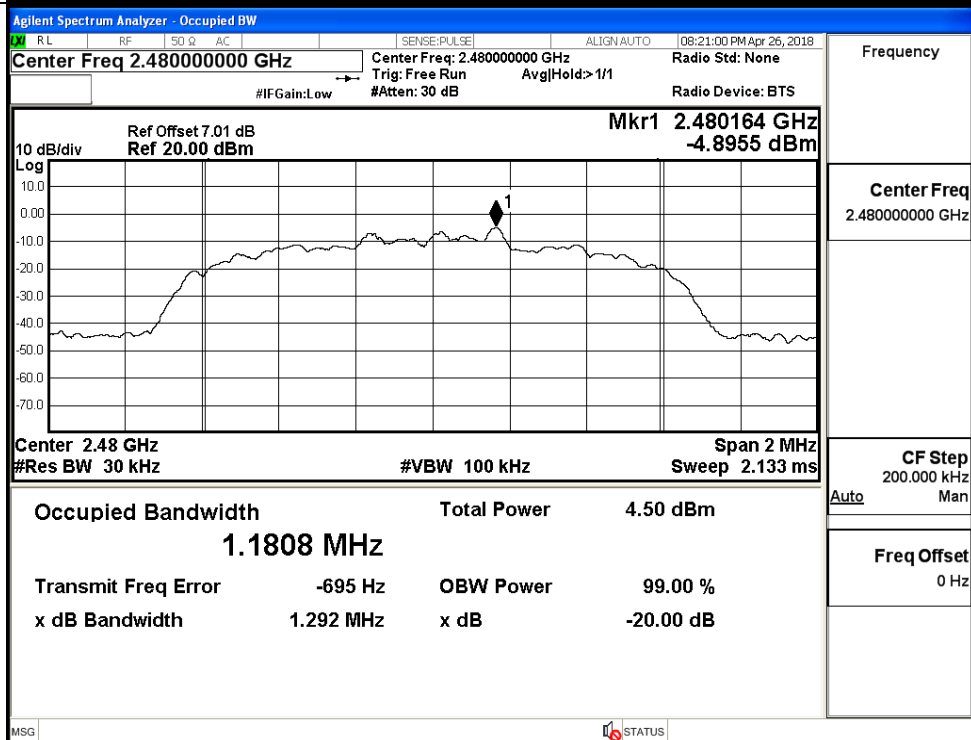
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

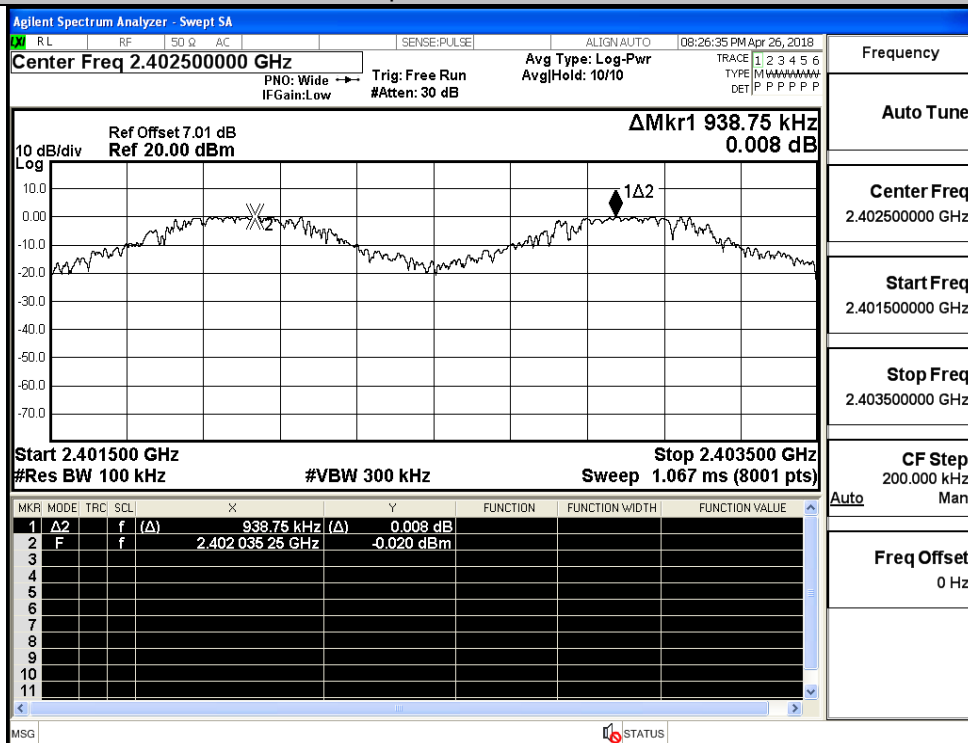


A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.939	0.693	PASS
	MCH	0.868	0.693	PASS
	HCH	0.822	0.693	PASS
$\pi/4$ DQPSK	LCH	1.208	0.875	PASS
	MCH	1.046	0.875	PASS
	HCH	1.000	0.875	PASS
8DPSK	LCH	1.022	0.866	PASS
	MCH	1.332	0.866	PASS
	HCH	0.990	0.866	PASS

Test Graphs

GFSK/LCH



Frequency

Auto Tune

Center Freq

2.402500000 GHz

Start Freq

2.401500000 GHz

Stop Freq

2.403500000 GHz

CF Step

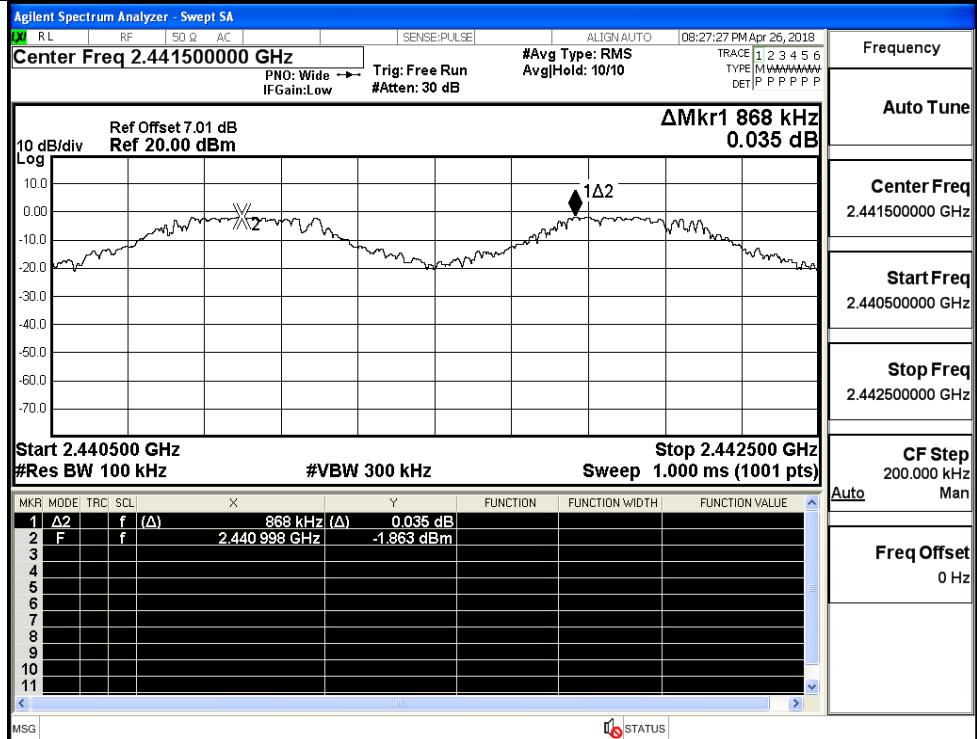
200.000 kHz

Man

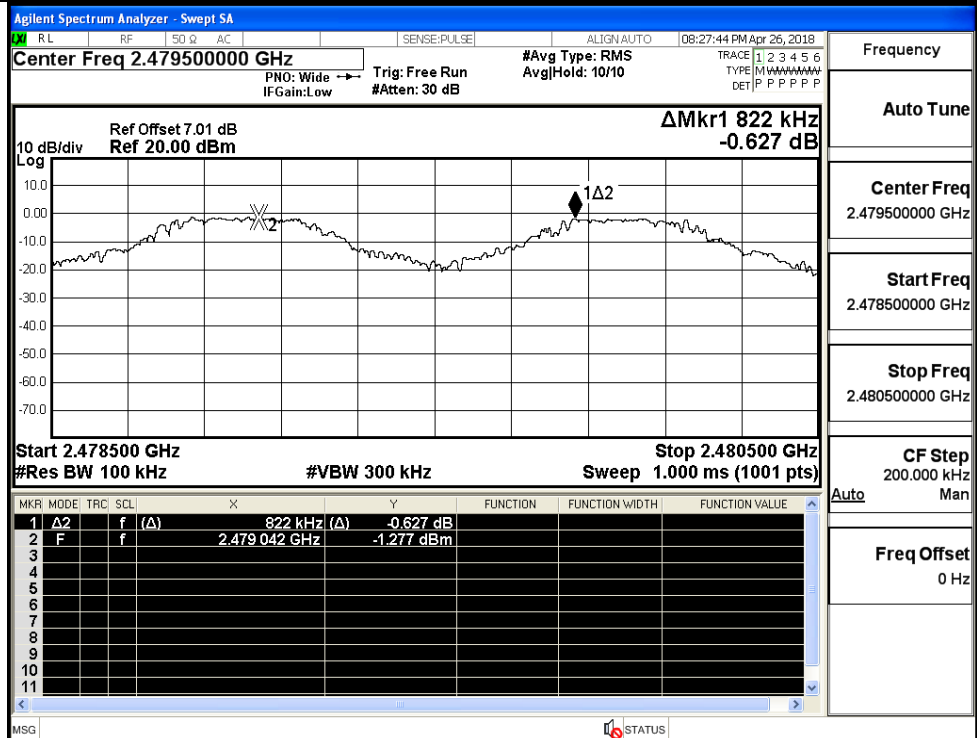
Freq Offset

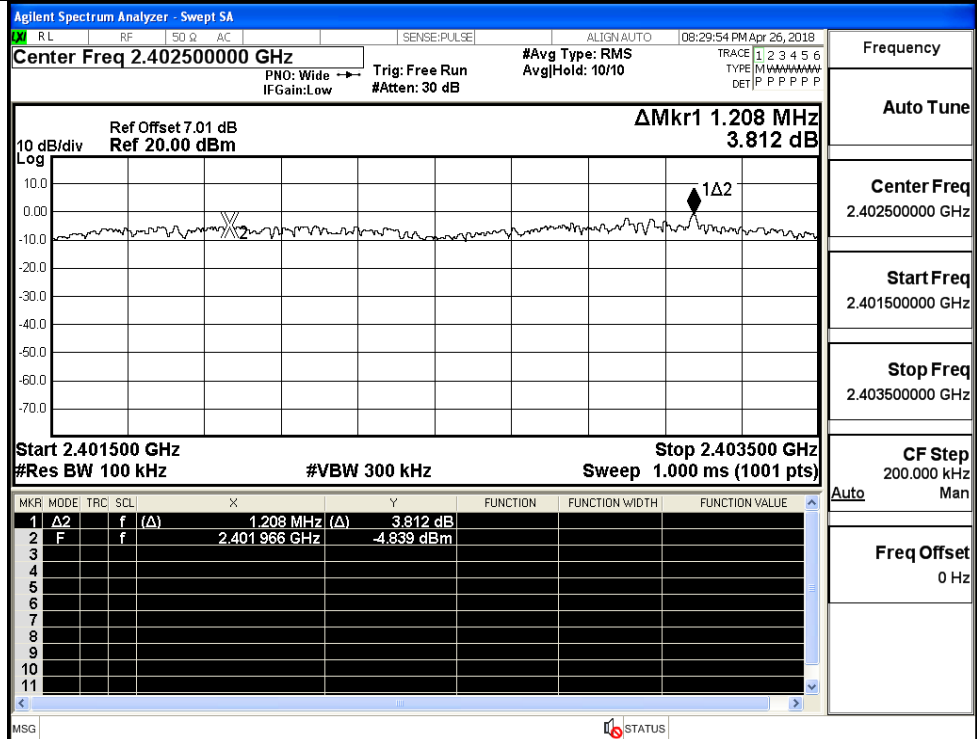
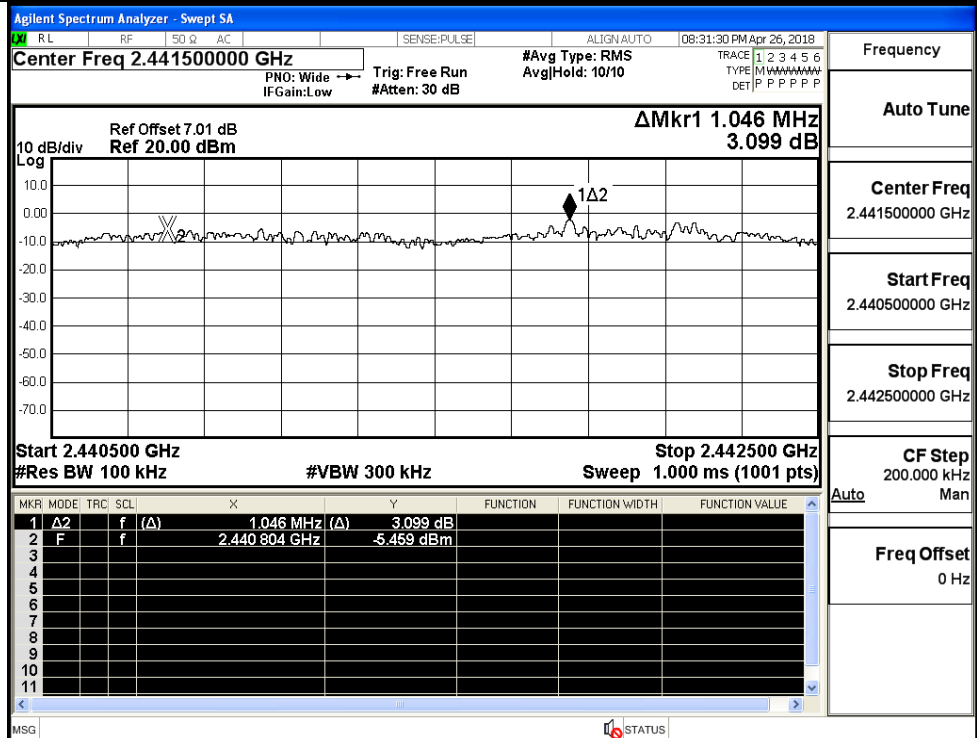
0 Hz

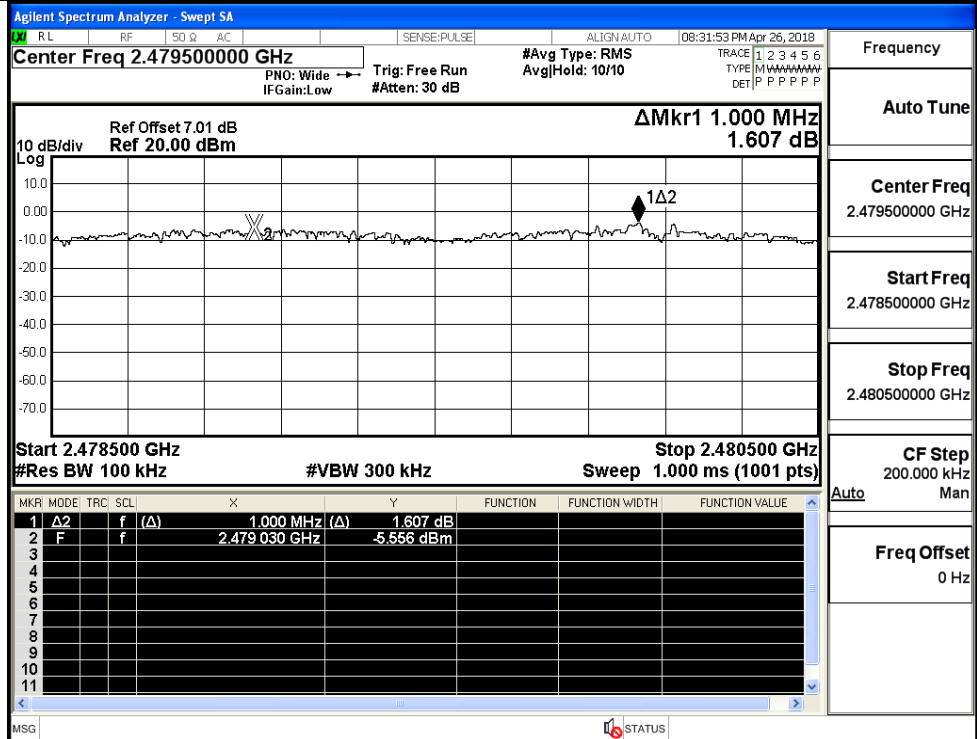
GFSK/MCH



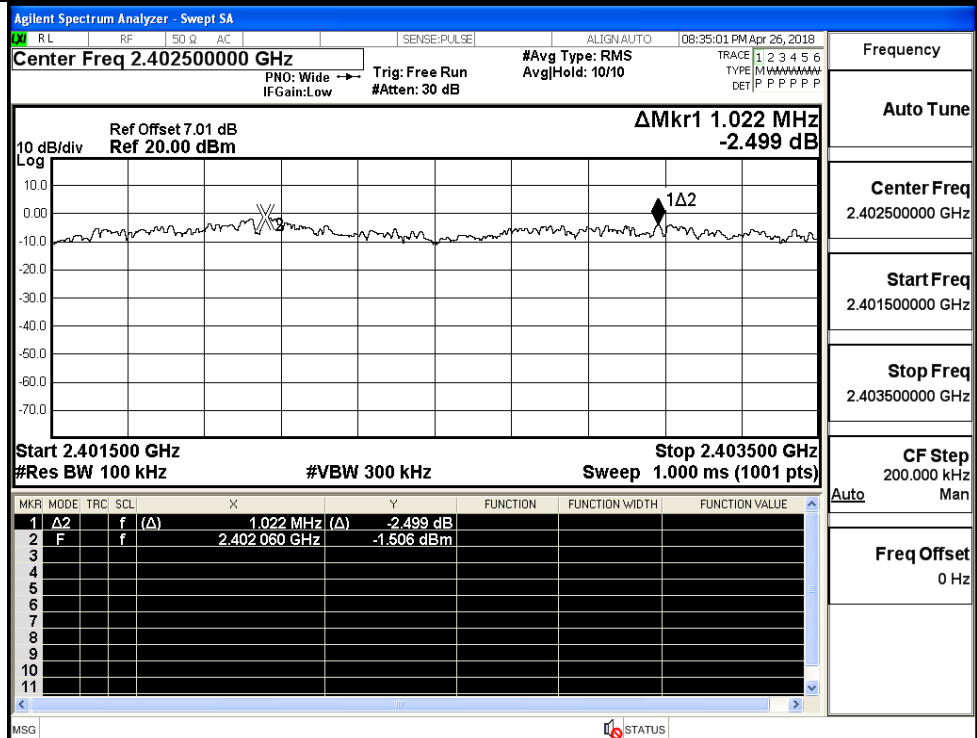
GFSK/HCH

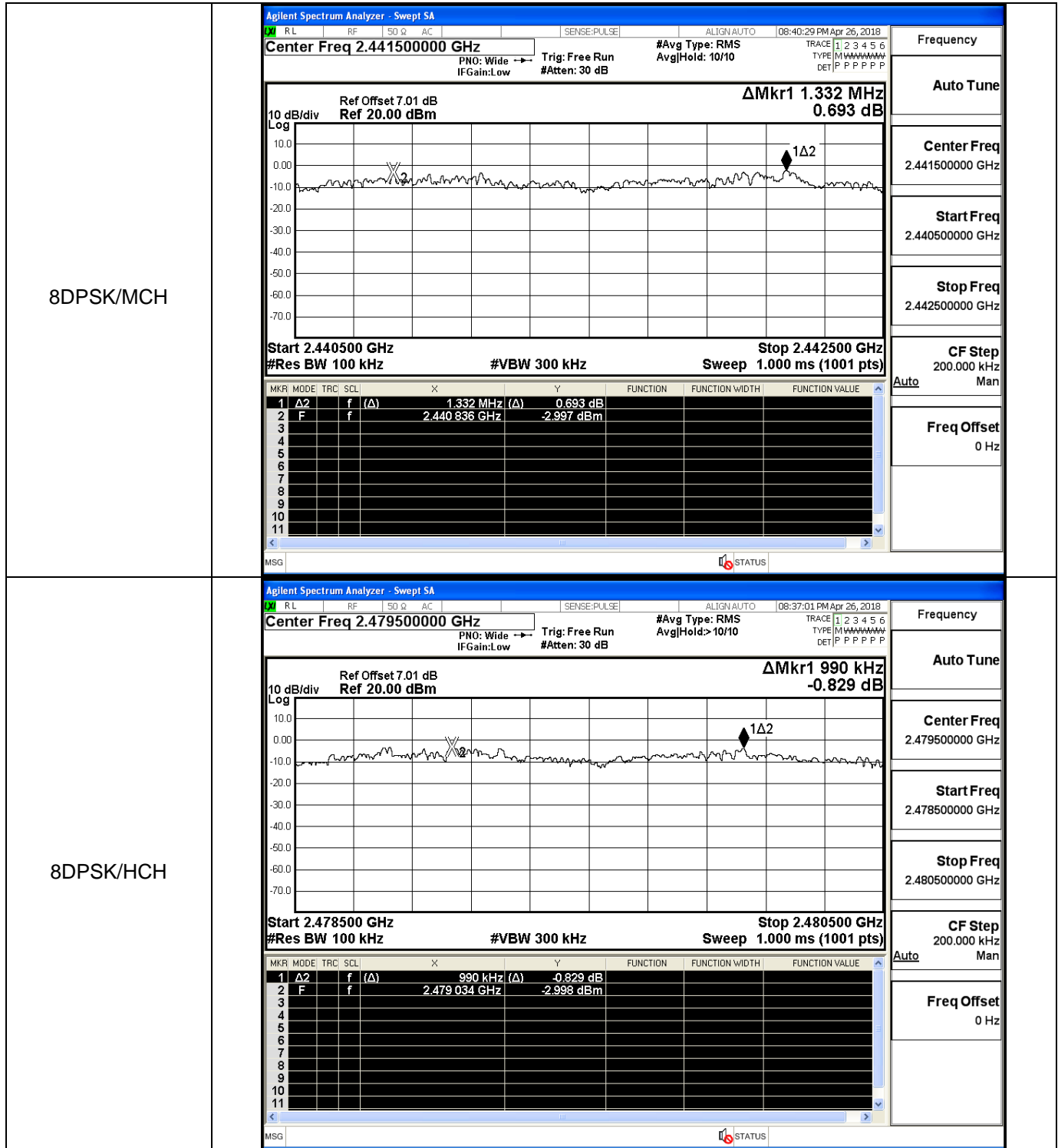


$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

8DPSK/LCH



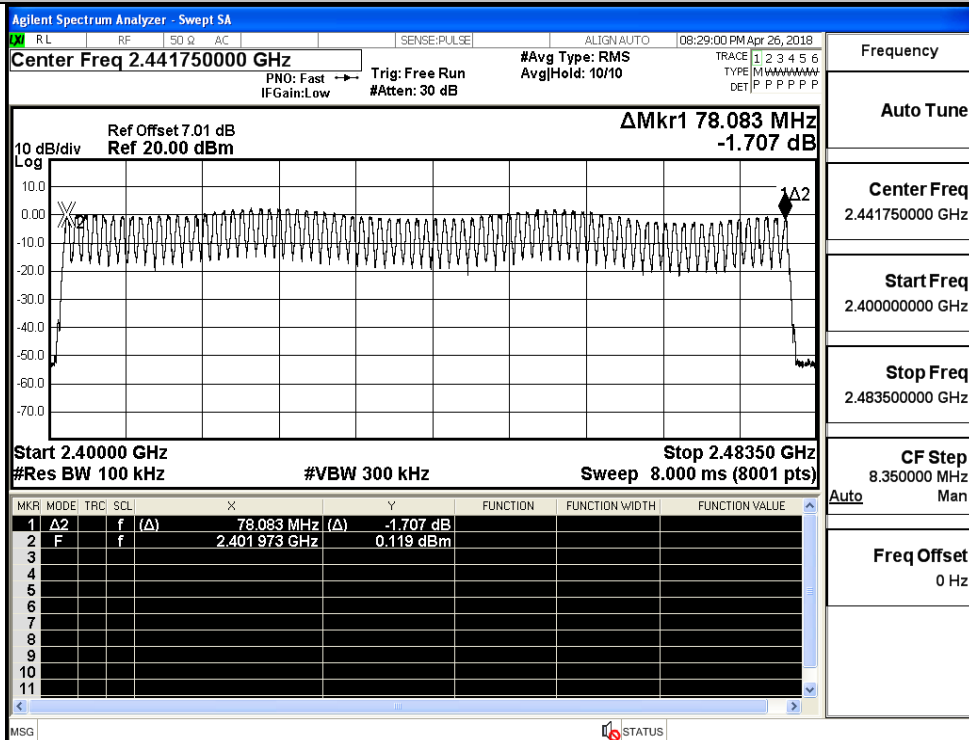
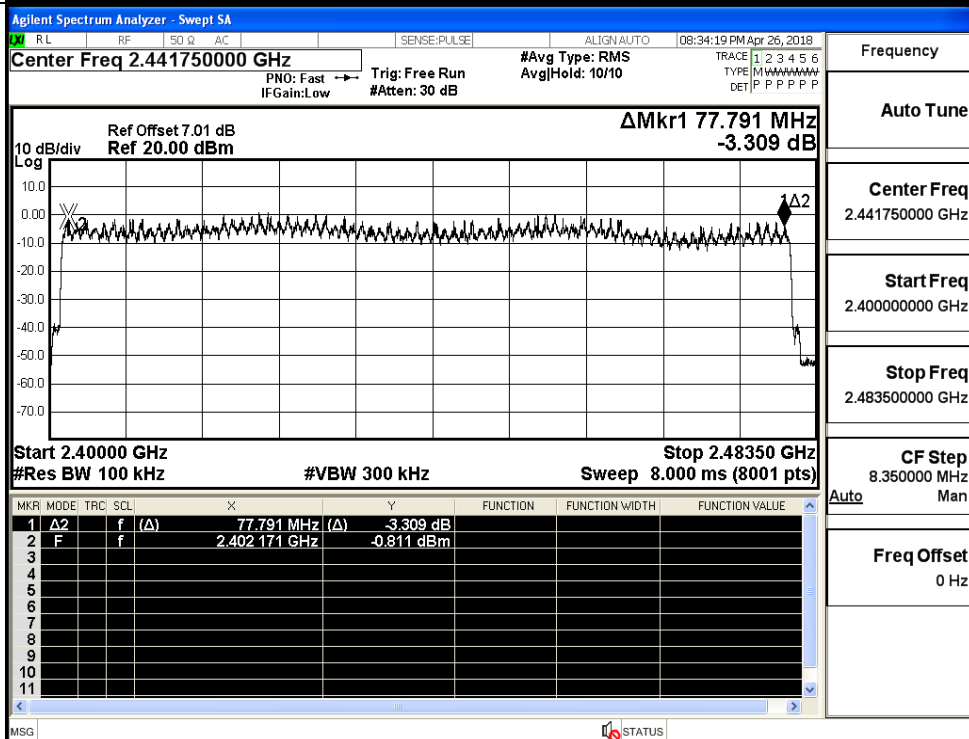


A.4 Hopping Channel Number

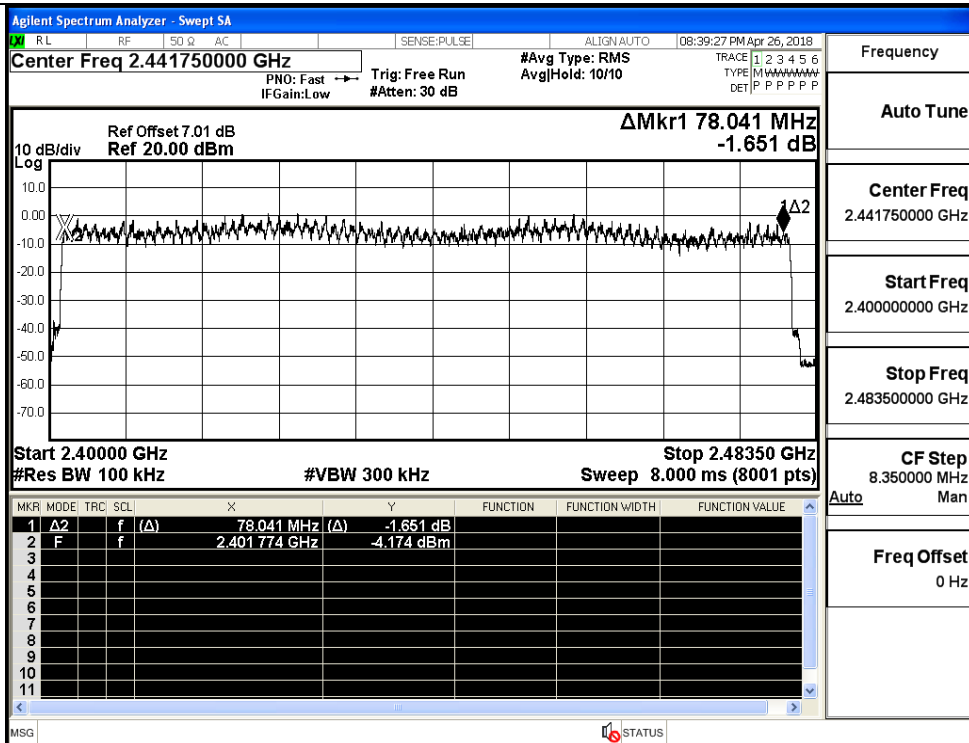
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

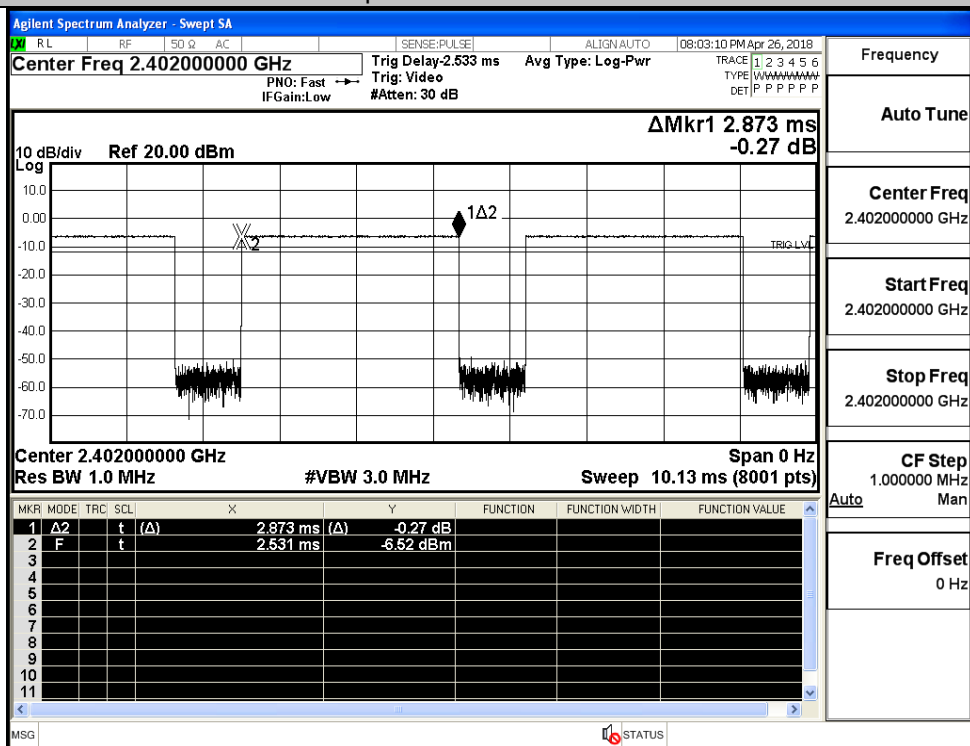


A.5 Dwell Time

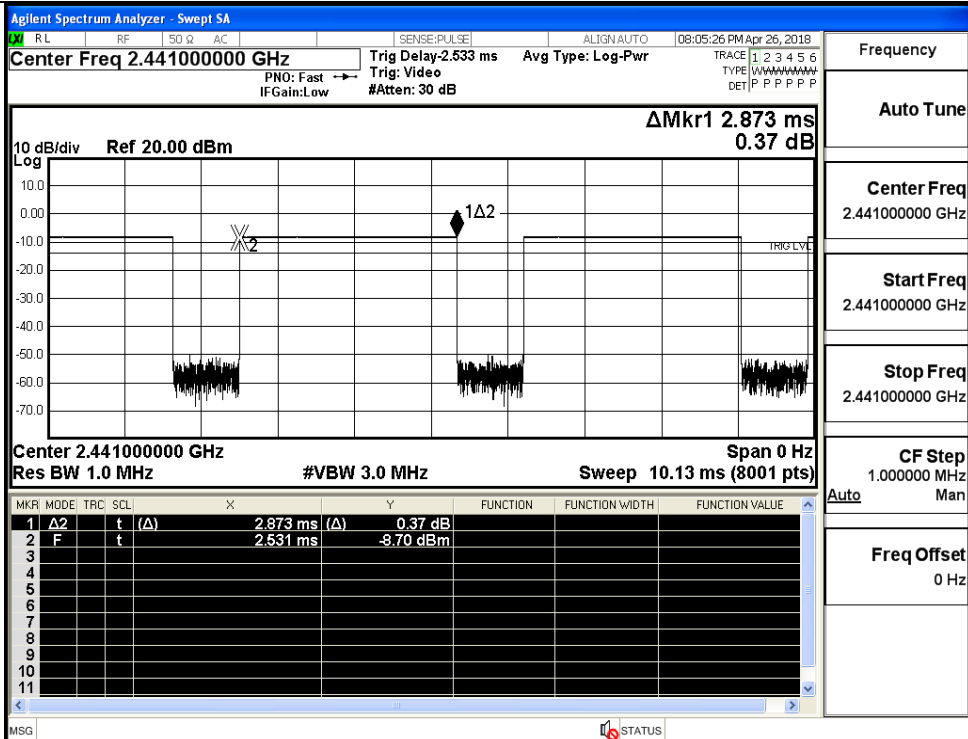
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.87	106.7	0.306	0.4	PASS
	DH5	MCH	2.87	106.7	0.306	0.4	PASS
	DH5	HCH	2.87	106.7	0.306	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.87	106.7	0.307	0.4	PASS
	2DH5	MCH	2.87	106.7	0.307	0.4	PASS
	2DH5	HCH	2.87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

Test Graphs

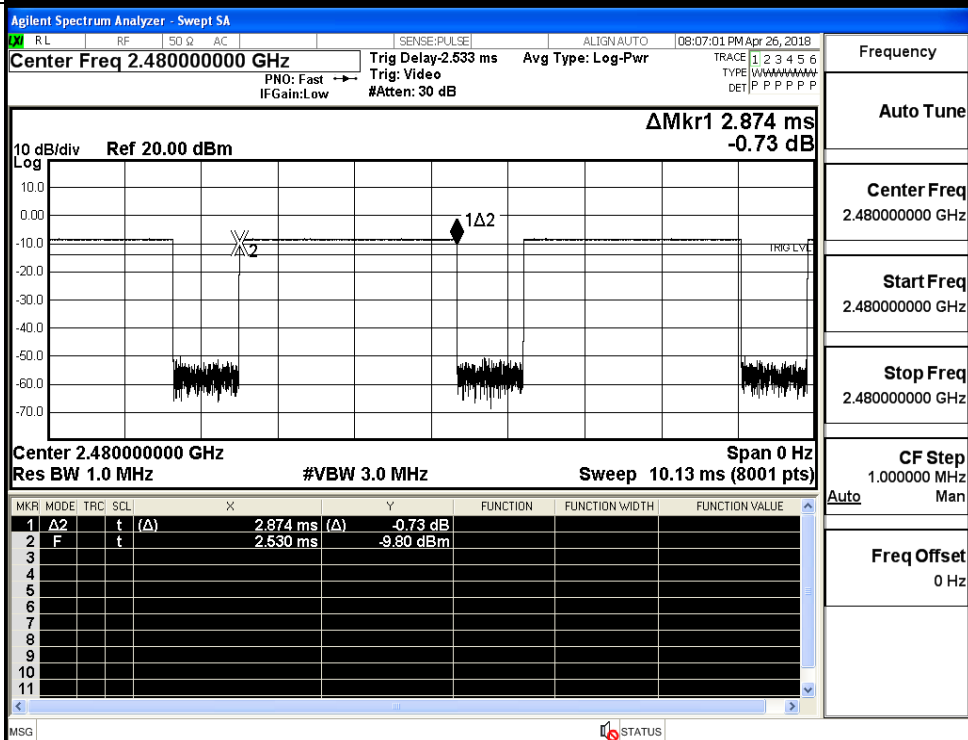
GFSK_DH5/LCH



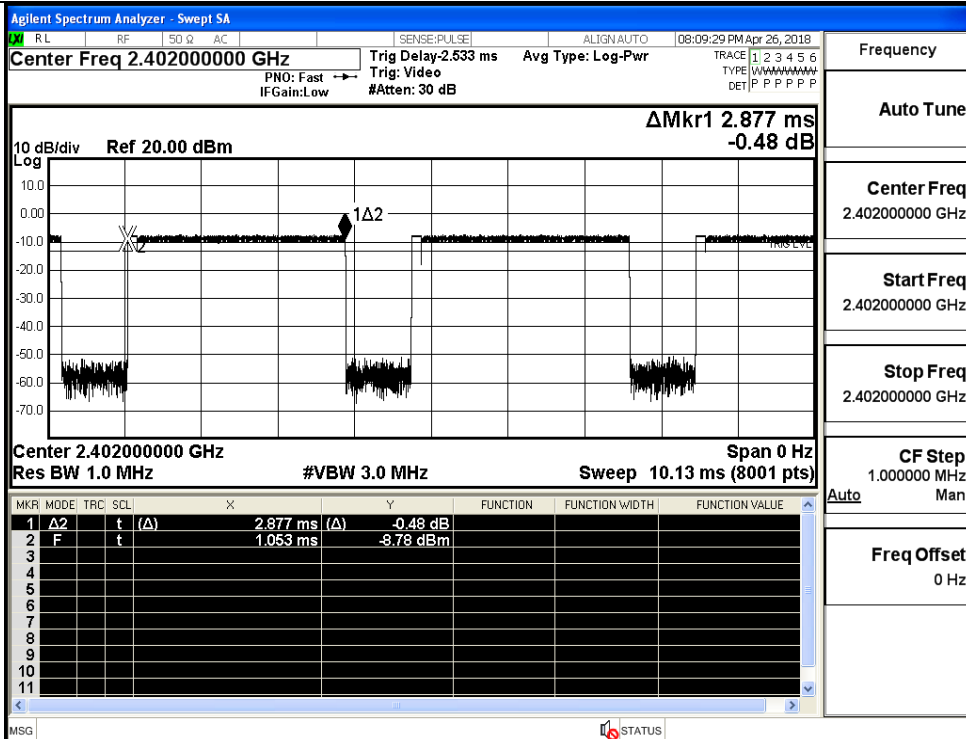
GFSK_DH5/MCH



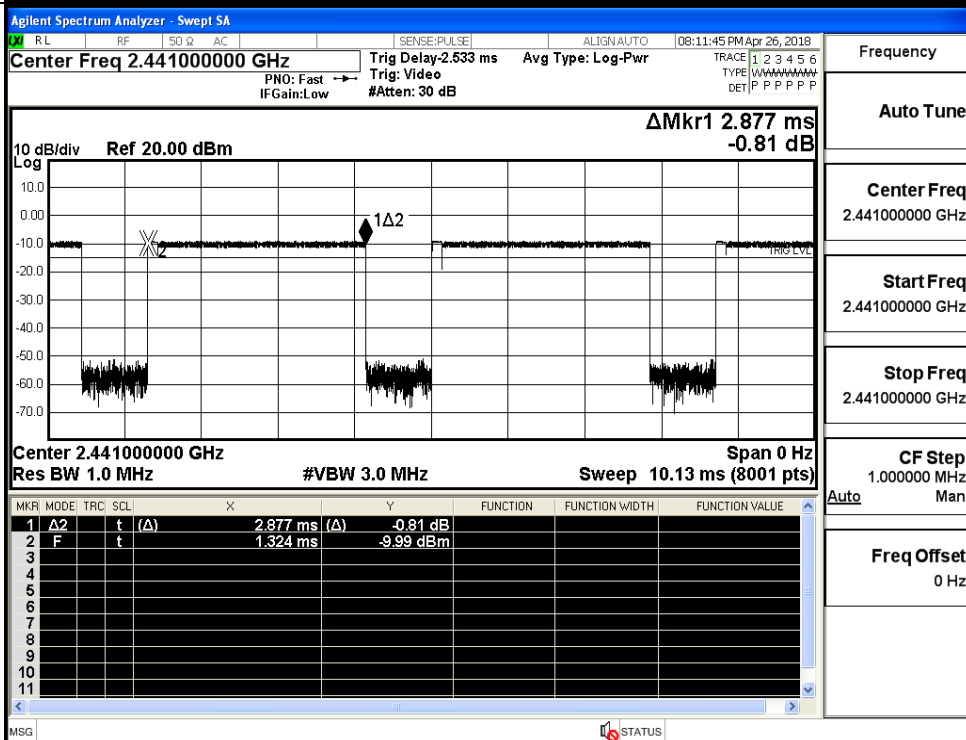
GFSK_DH5/HCH



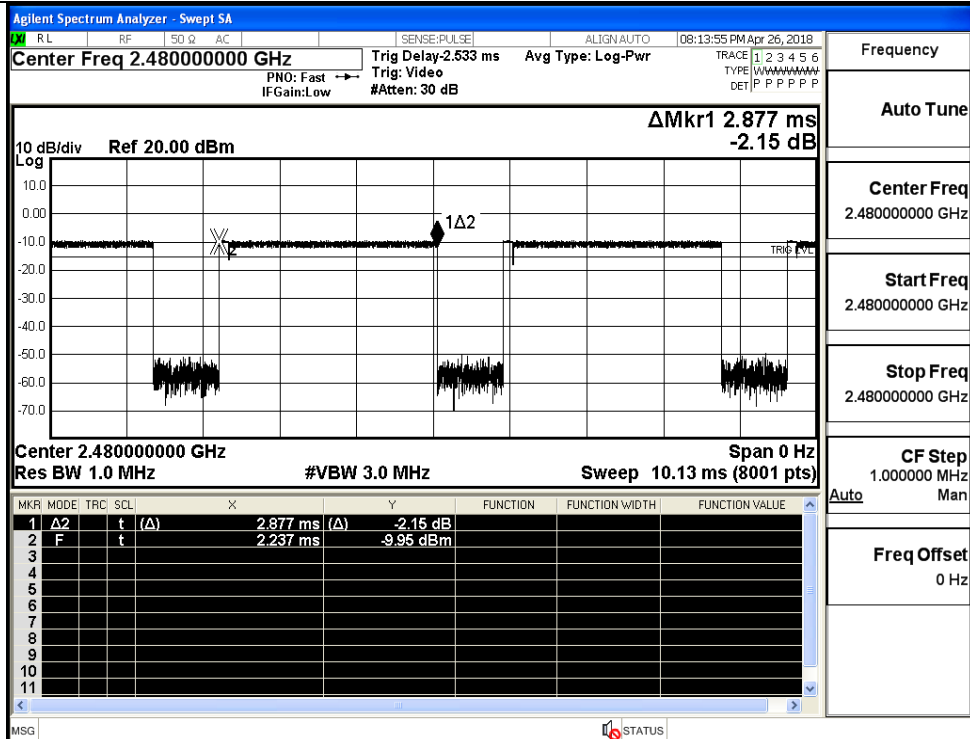
$\pi/4$ DQPSK
_2DH5/LCH



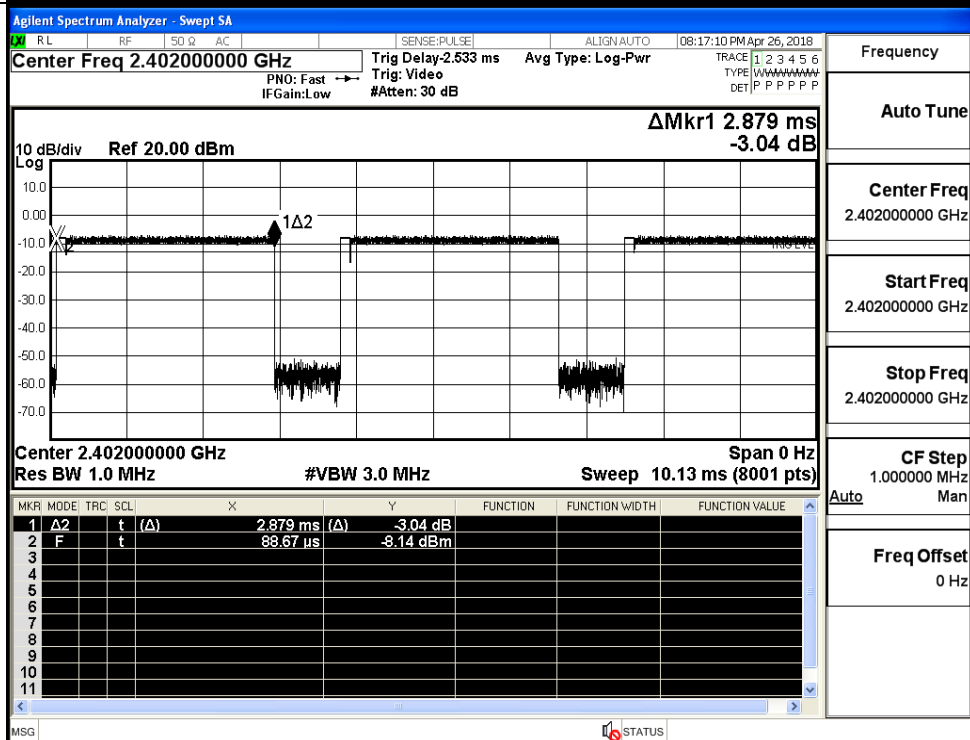
$\pi/4$ DQPSK
_2DH5/MCH



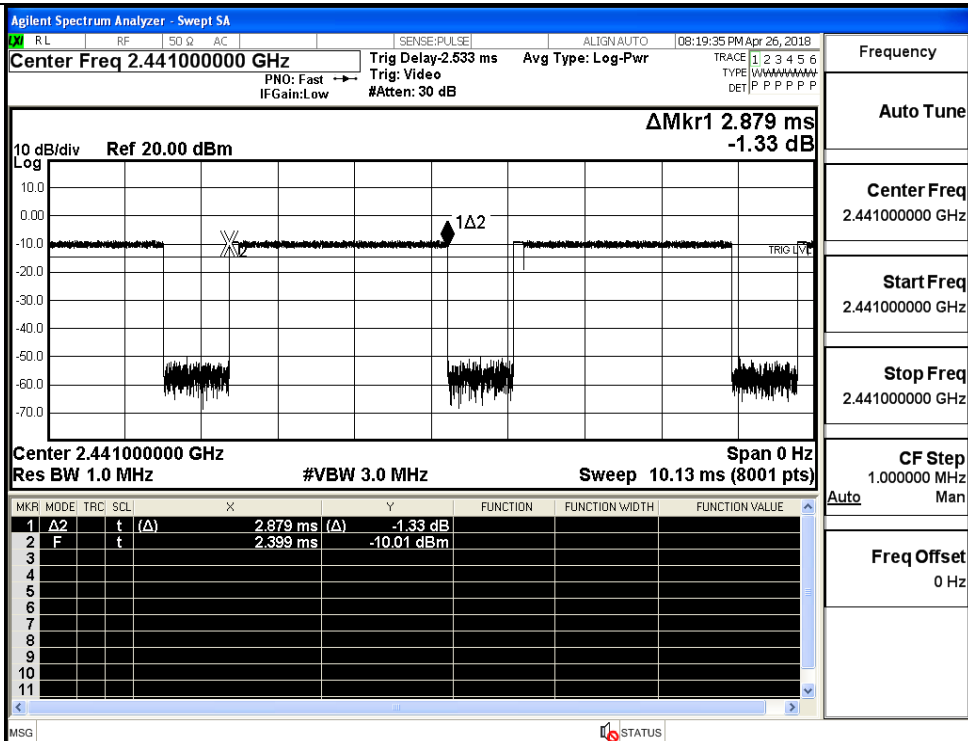
$\pi/4$ DQPSK
_2DH5/HCH



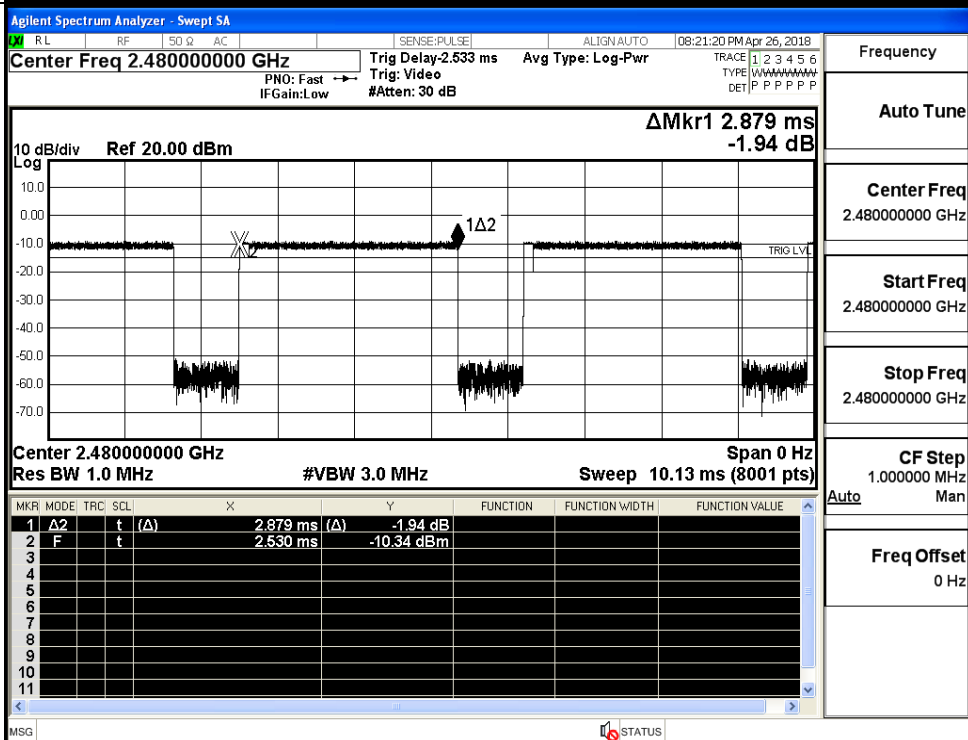
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



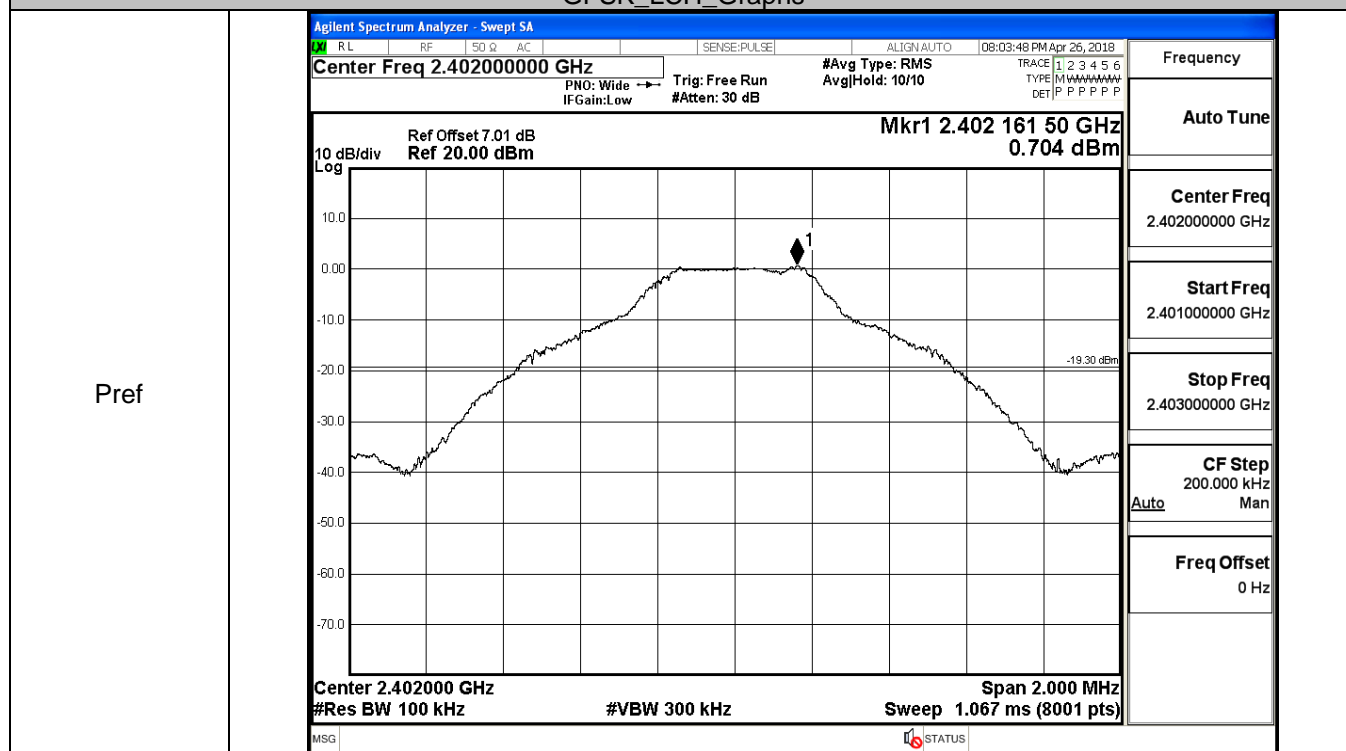
8DPSK_3DH5/HCH



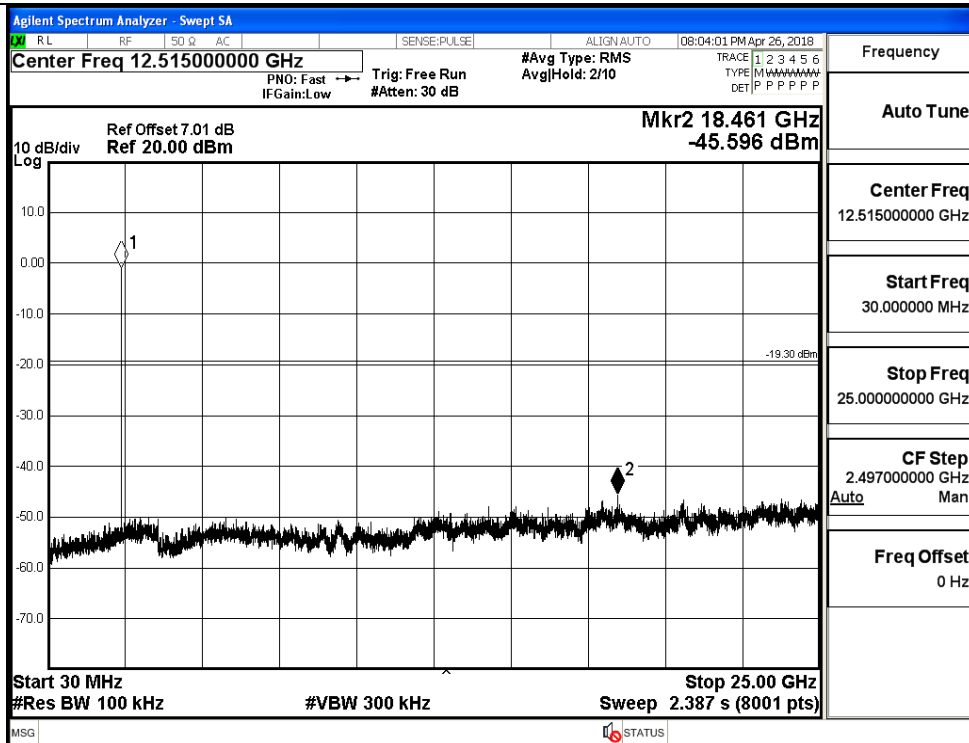
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.704	-45.596	-19.296	PASS
	MCH	-1.18	-45.983	-21.180	PASS
	HCH	-1.925	-45.692	-21.925	PASS
$\pi/4$ DQPSK	LCH	-1.026	-45.165	-21.026	PASS
	MCH	-2.218	-43.902	-22.218	PASS
	HCH	-3.245	-45.242	-23.245	PASS
8DPSK	LCH	-0.73	-45.947	-20.730	PASS
	MCH	-3.002	-44.962	-23.002	PASS
	HCH	-2.888	-45.382	-22.888	PASS

GFSK_LCH_Graphs

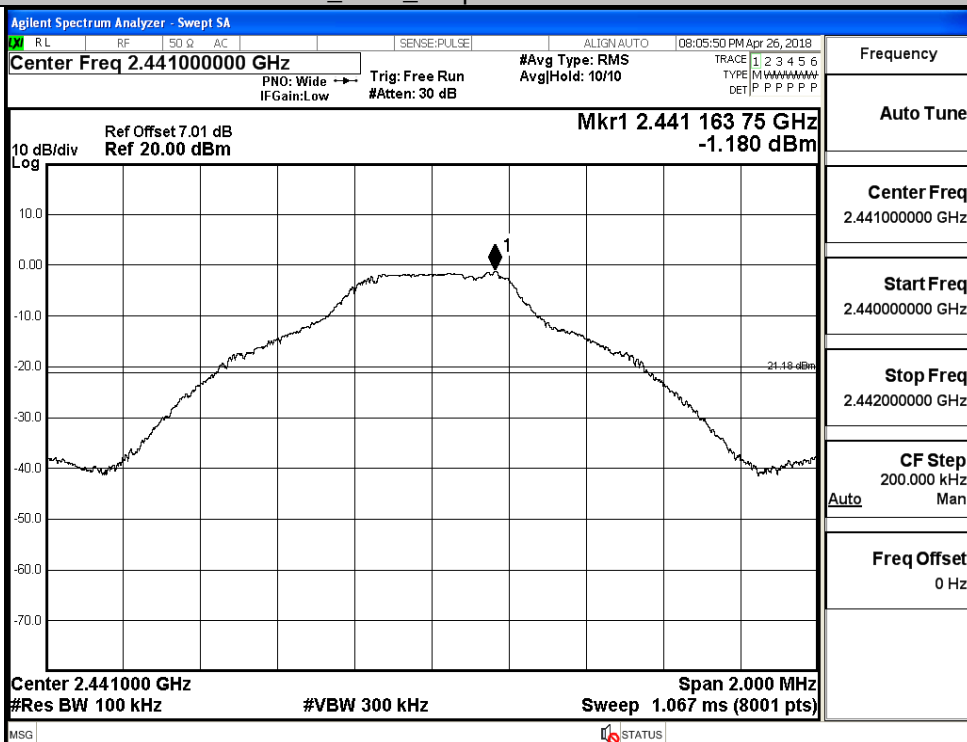


Puw

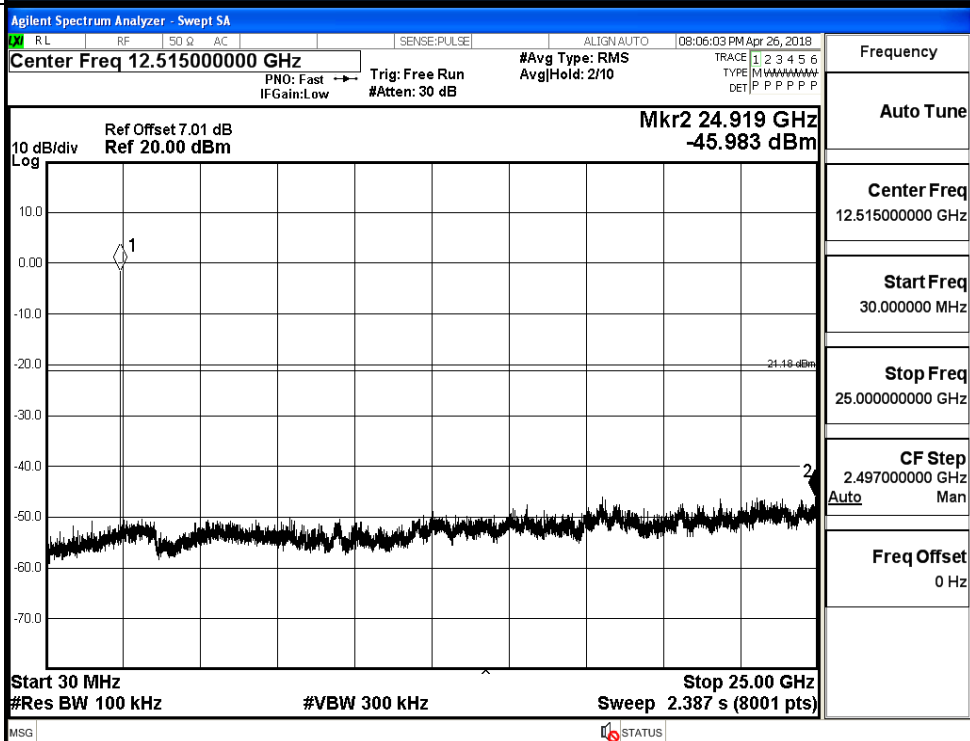


GFSK_MCH_Graphs

Pref

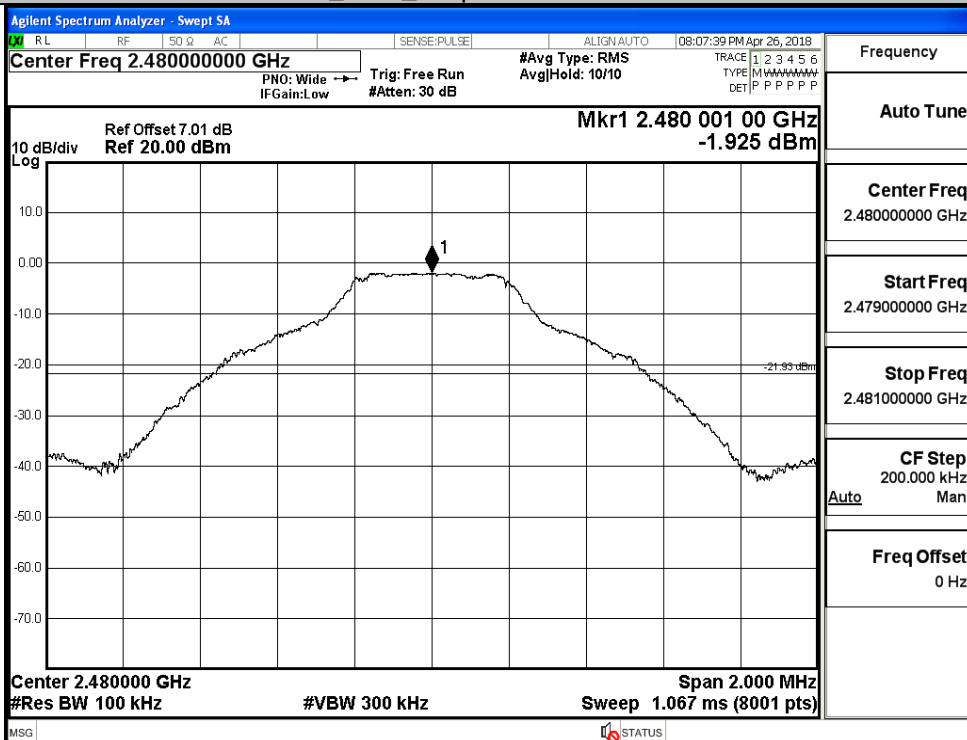


Puw

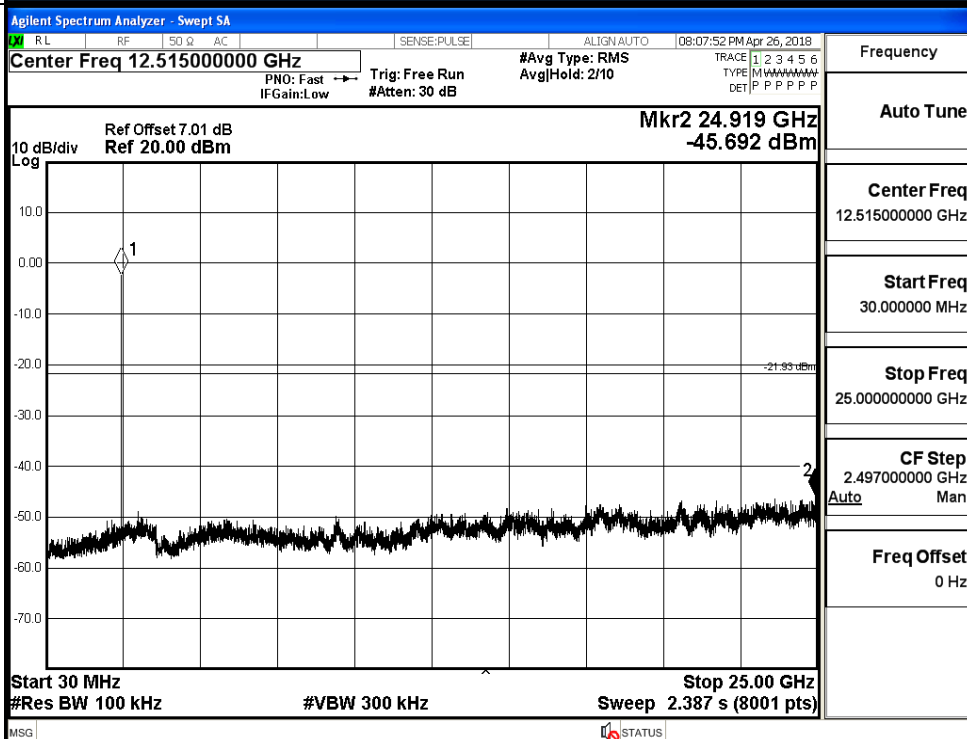


GFSK_HCH_Graphs

Pref

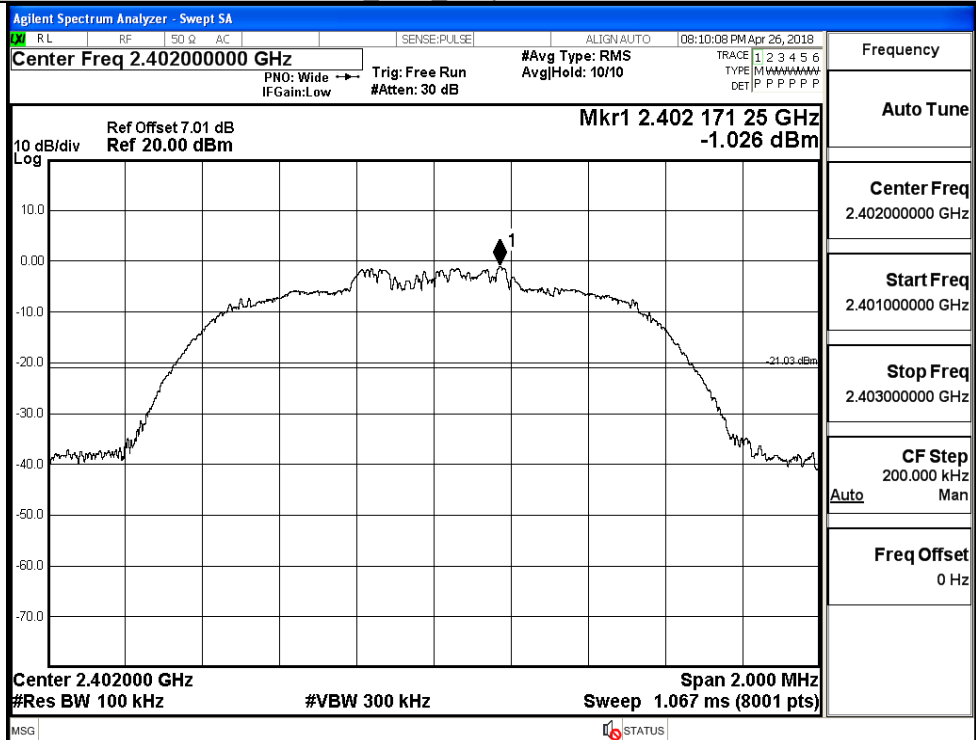


Puw

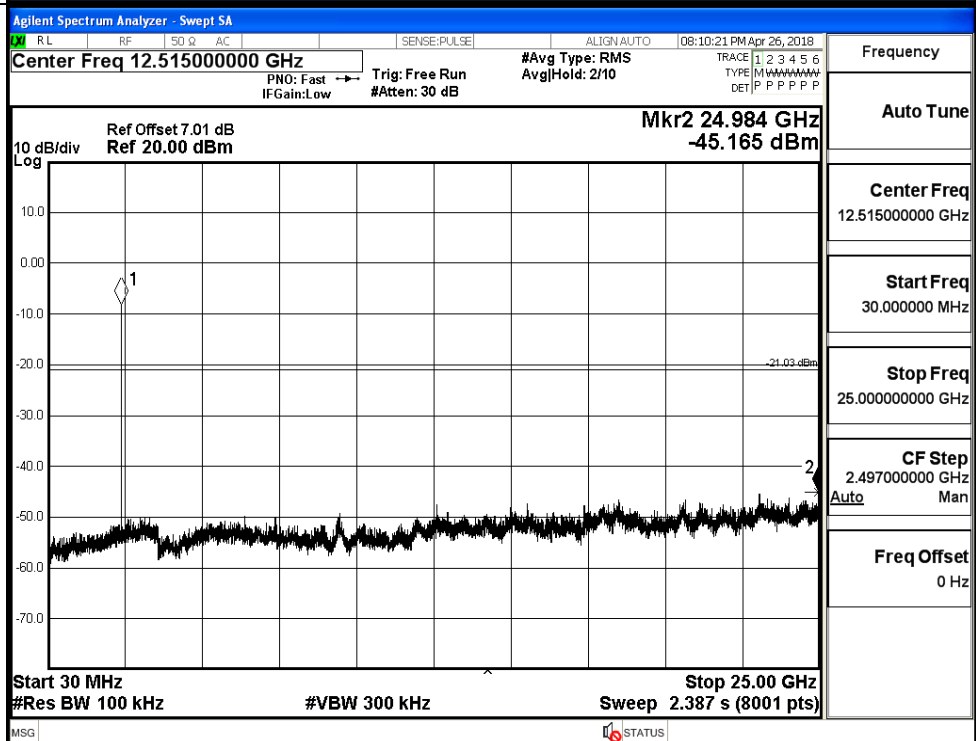


$\pi/4$ DQPSK_LCH_Graphs

Pref

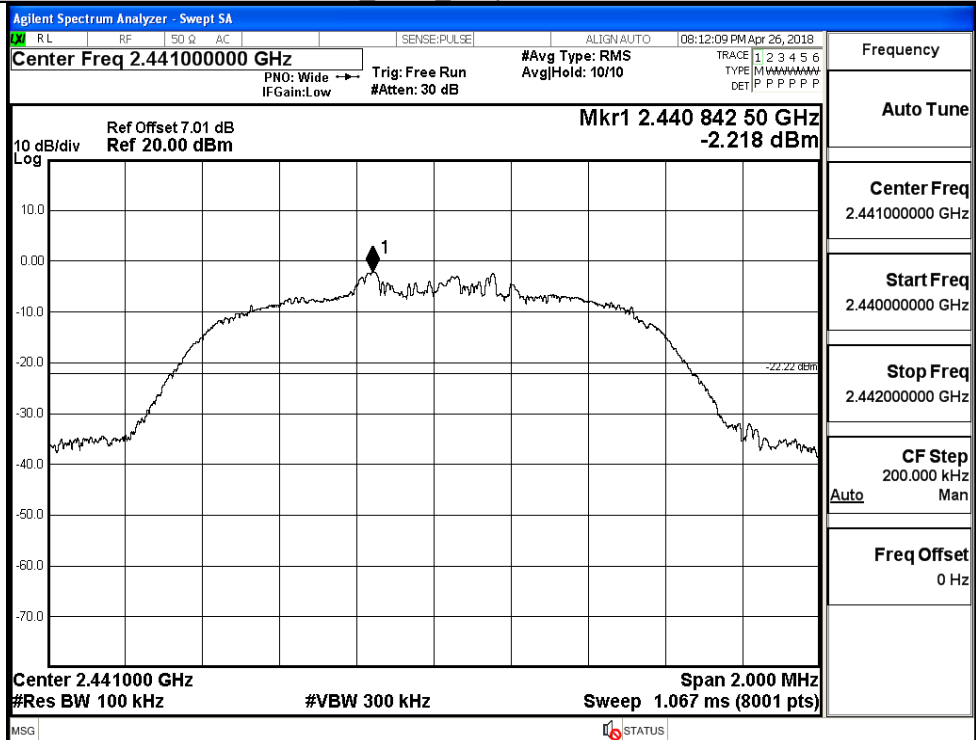


Puw

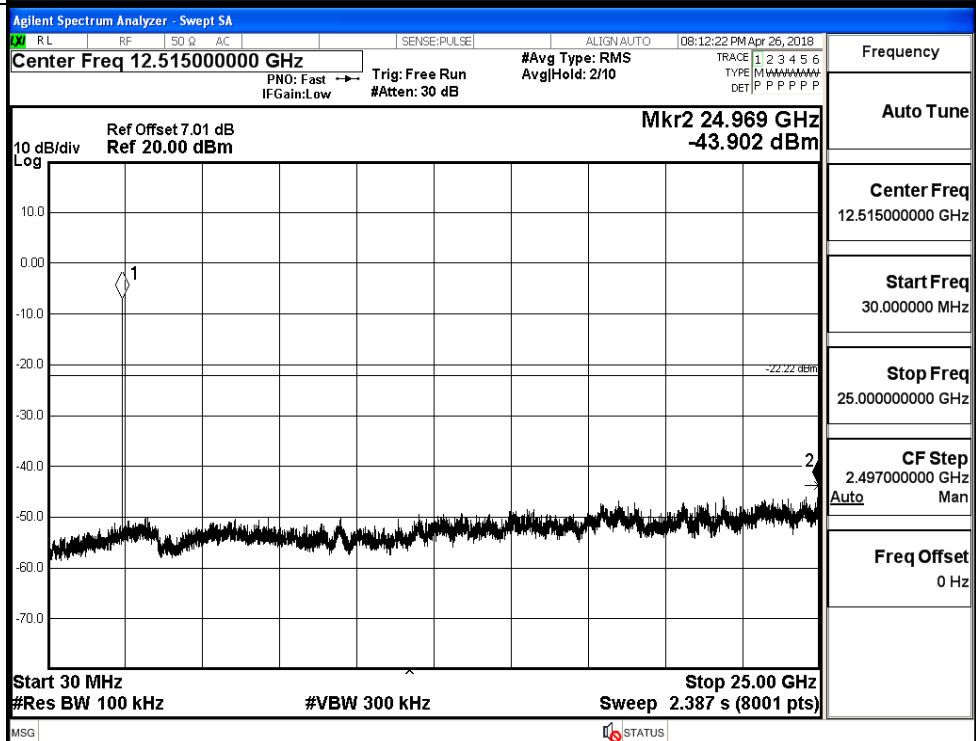


$\pi/4$ DQPSK_MCH_Graphs

Pref

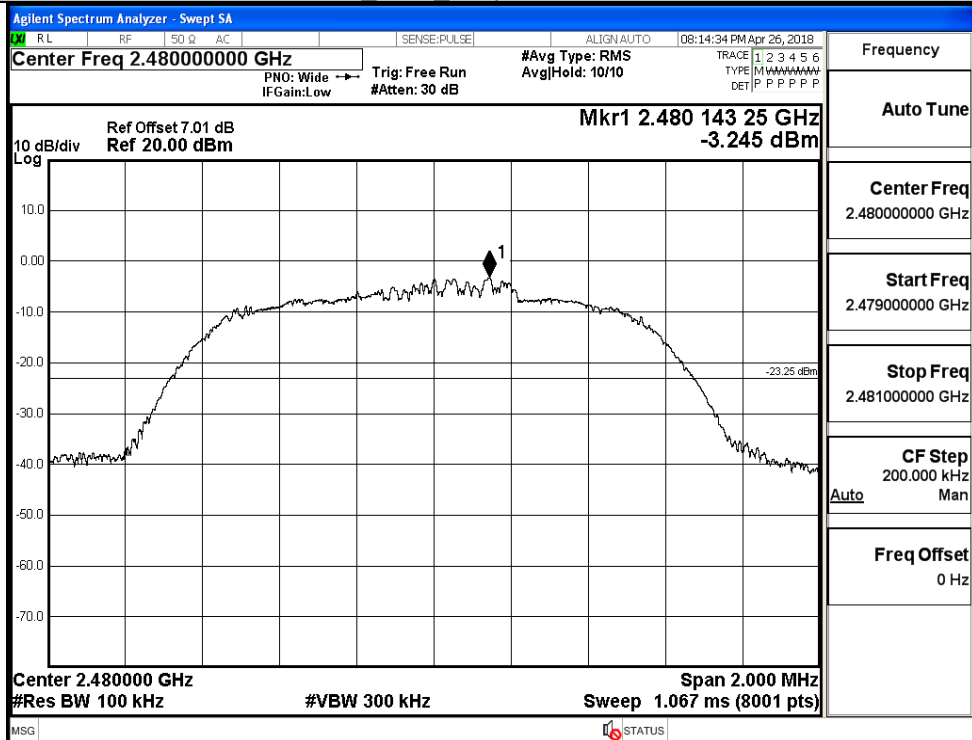


Puw

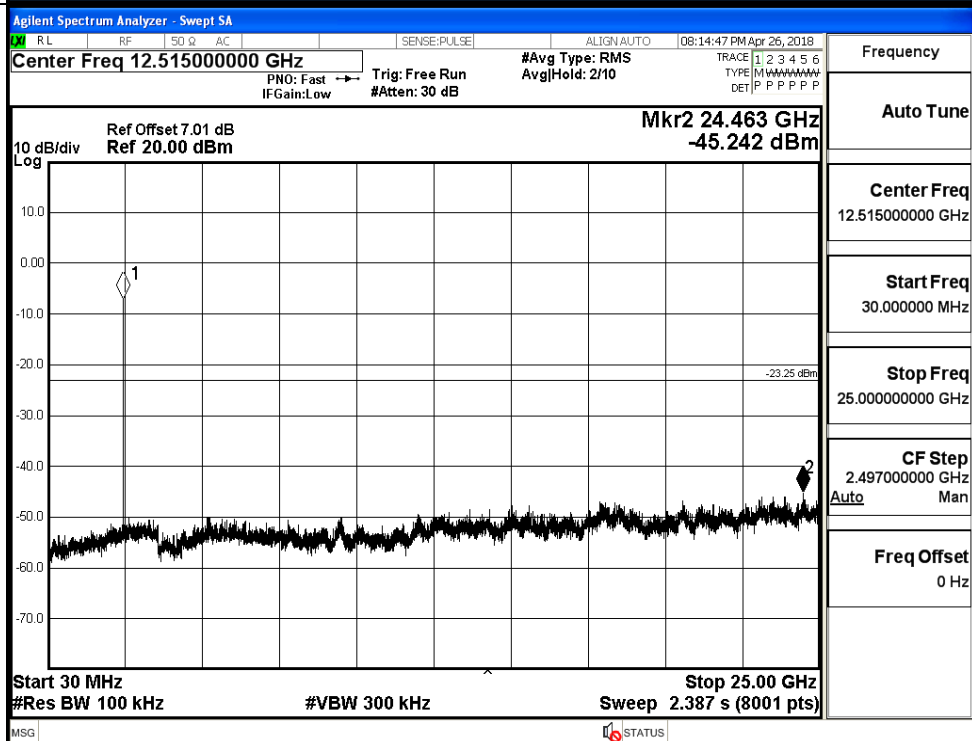


π /4DQPSK_HCH_Graphs

Pref

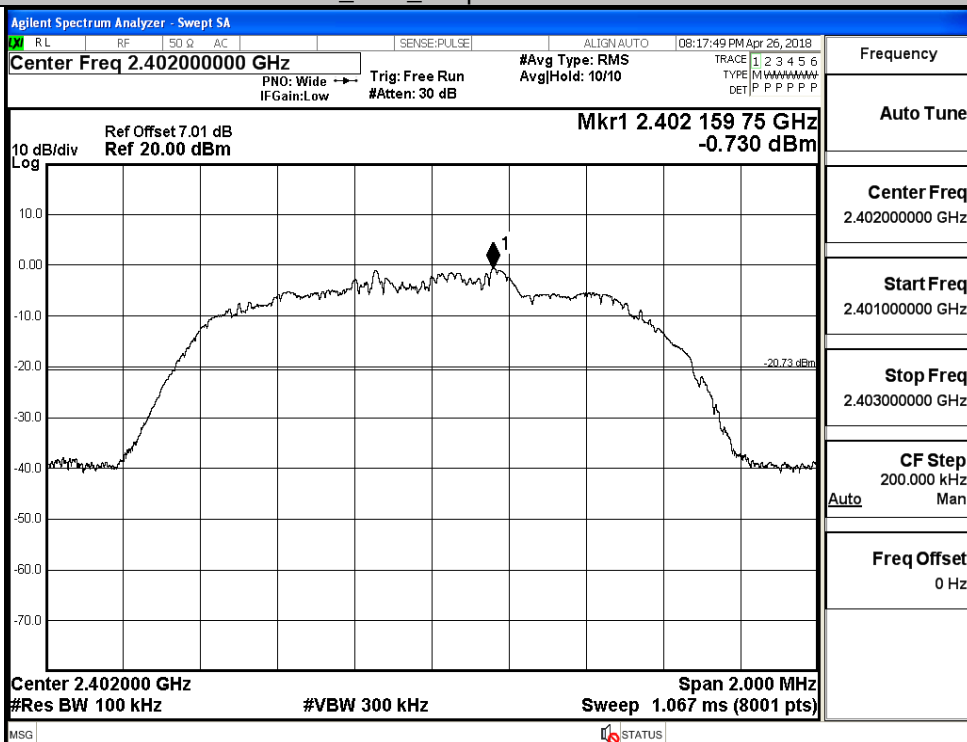


Puw

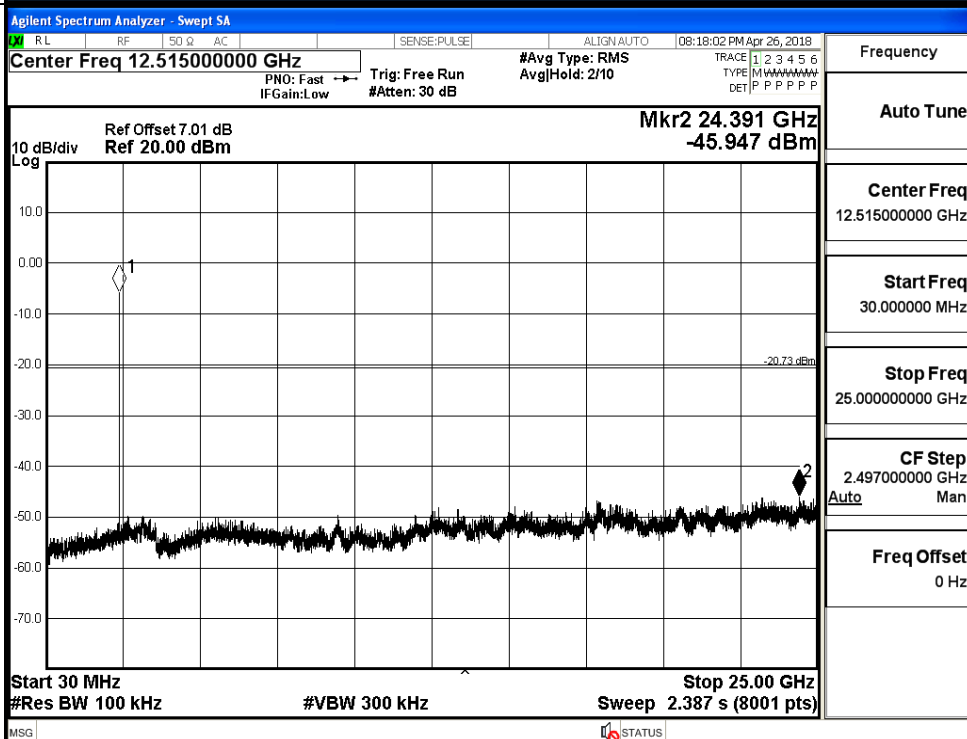


8DPSK_LCH_Graphs

Pref

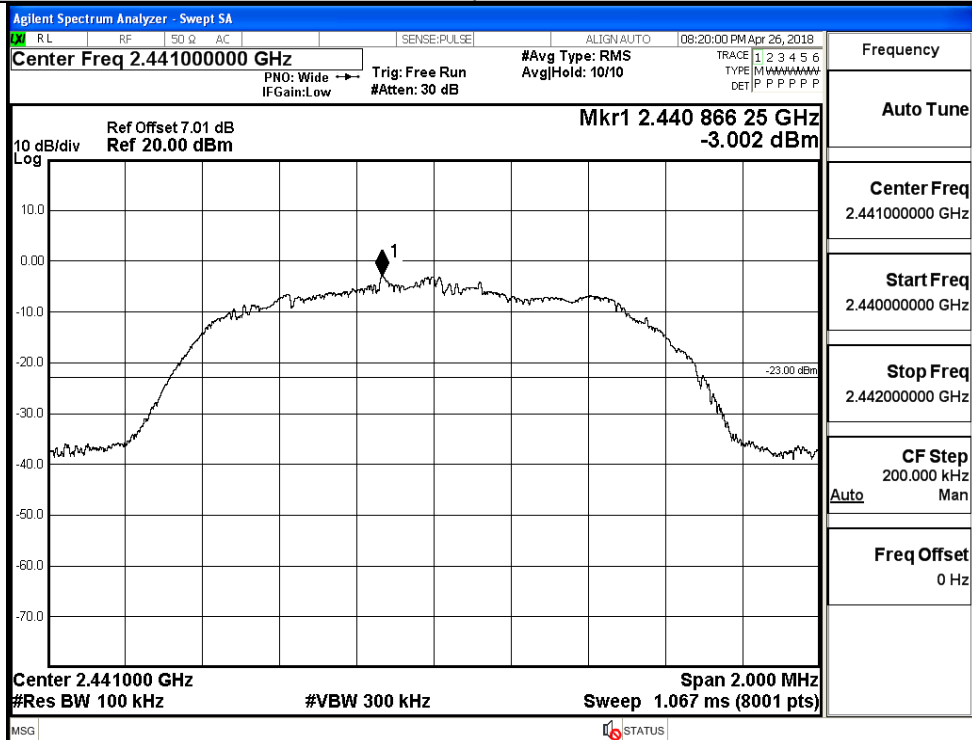


Puw

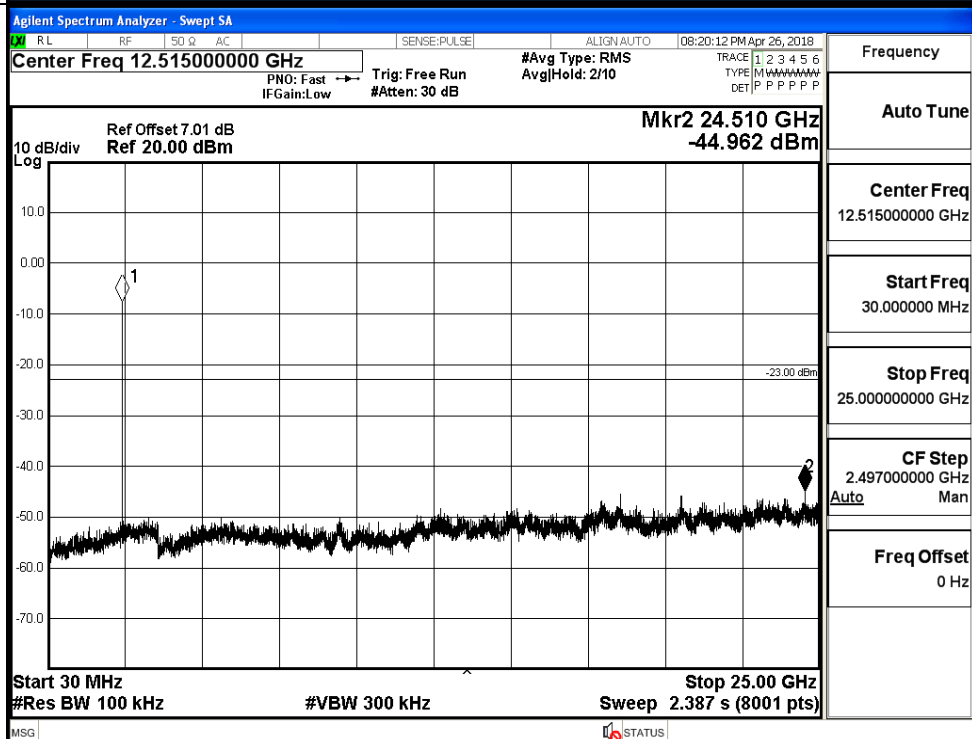


8DPSK_MCH_Graphs

Pref

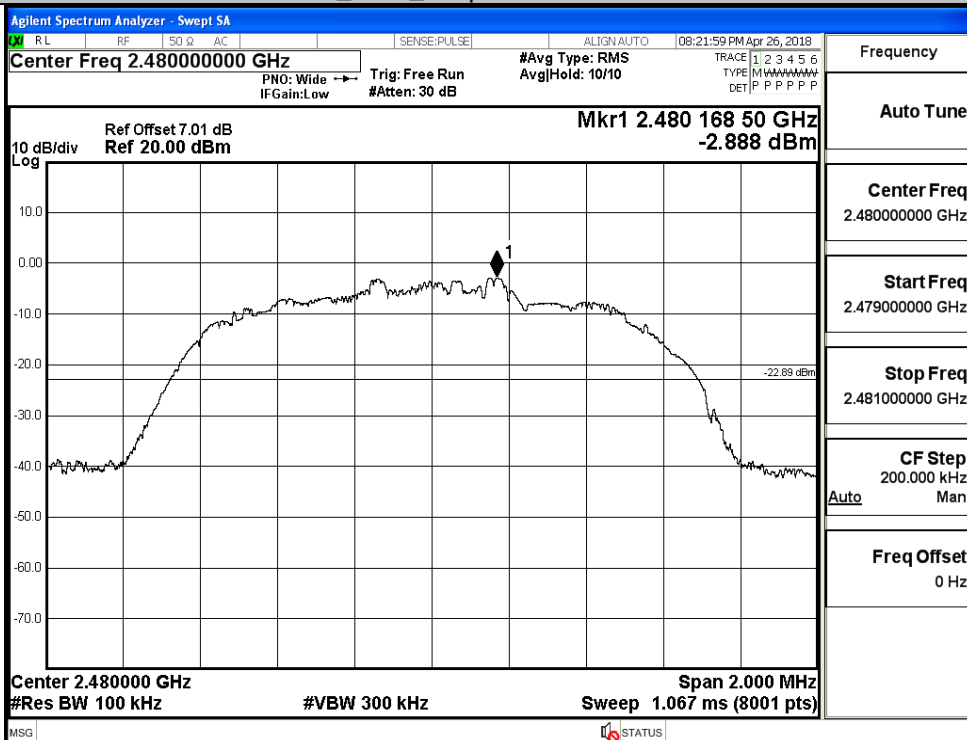


Puw

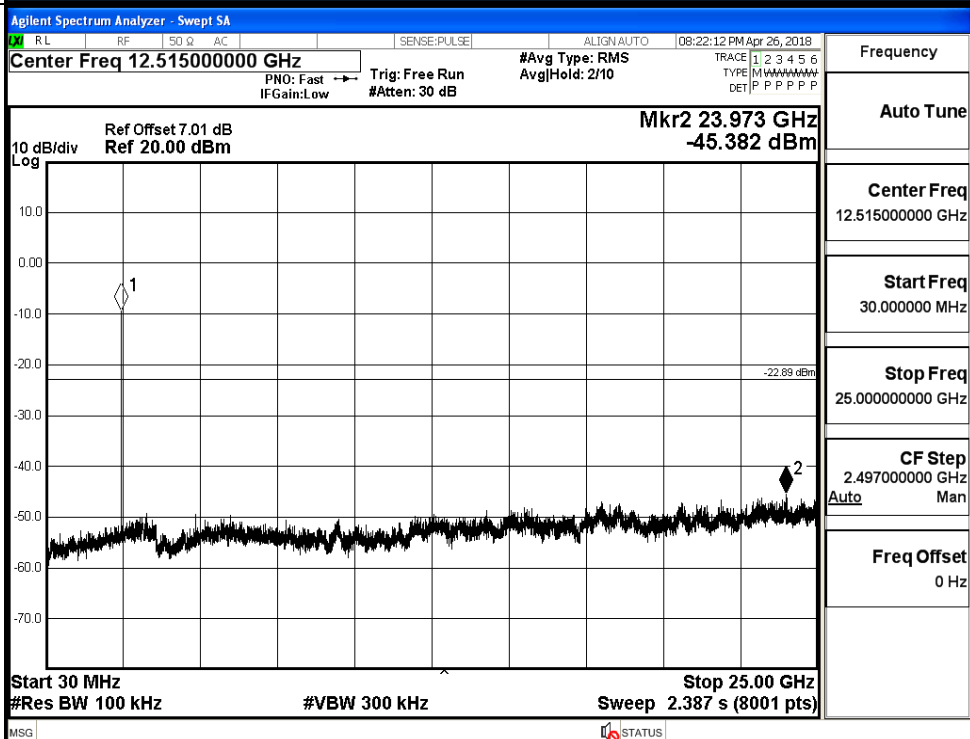


8DPSK_HCH_Graphs

Pref



Puw

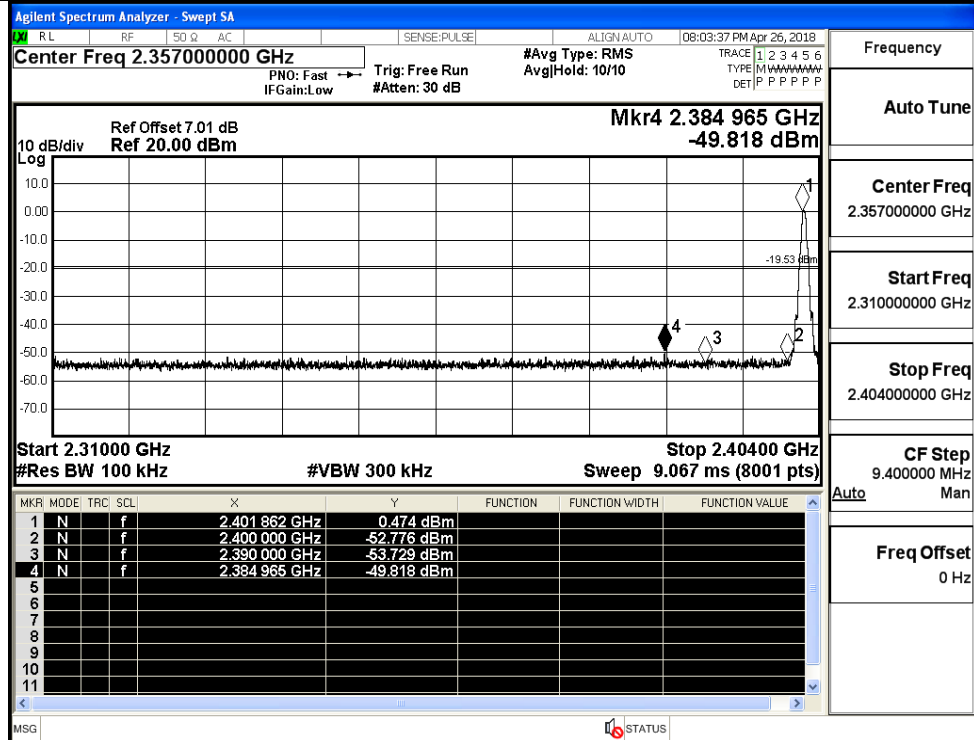


A.7 Band-edge for RF Conducted Emissions

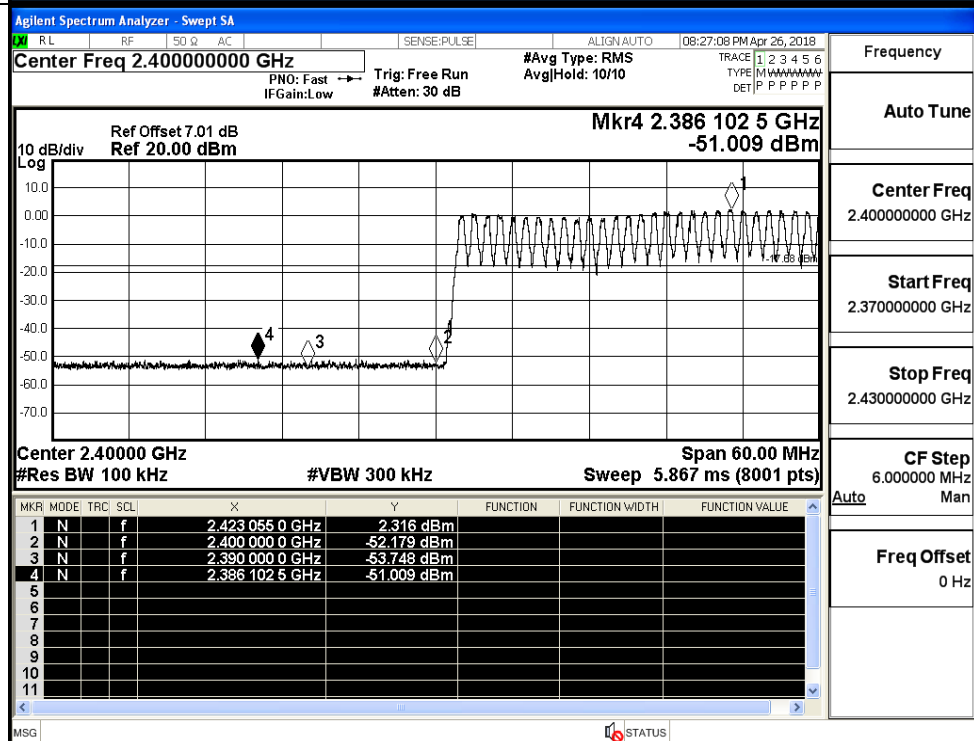
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	0.474	Off	-49.818	-19.53	PASS
			2.316	On	-51.009	-17.68	PASS
	HCH	2480	-1.203	Off	-51.235	-21.2	PASS
			1.809	On	-50.810	-18.19	PASS
$\pi/4$ DQPSK	LCH	2402	-1.369	Off	-50.719	-21.37	PASS
			0.999	On	-49.855	-19	PASS
	HCH	2480	-2.513	Off	-50.956	-22.51	PASS
			0.490	On	-50.062	-19.51	PASS
8DPSK	LCH	2402	-0.817	Off	-51.033	-20.82	PASS
			0.907	On	-50.084	-19.09	PASS
	HCH	2480	-2.842	Off	-51.363	-22.84	PASS
			0.432	On	-49.692	-19.57	PASS

Test Graphs

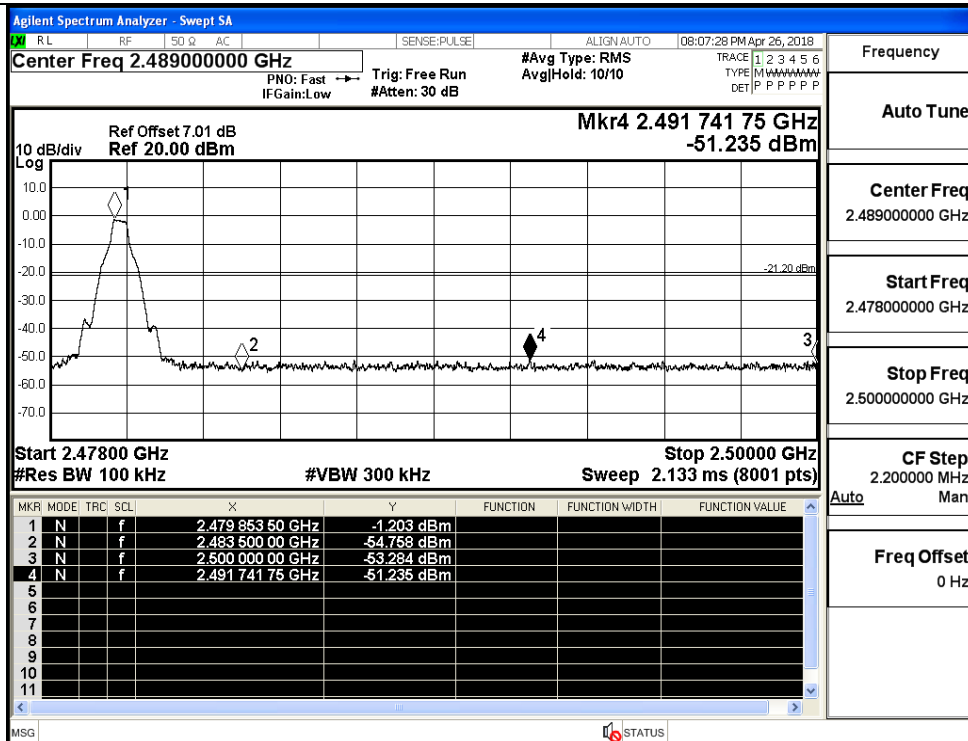
GFSK/LCH/No Hop



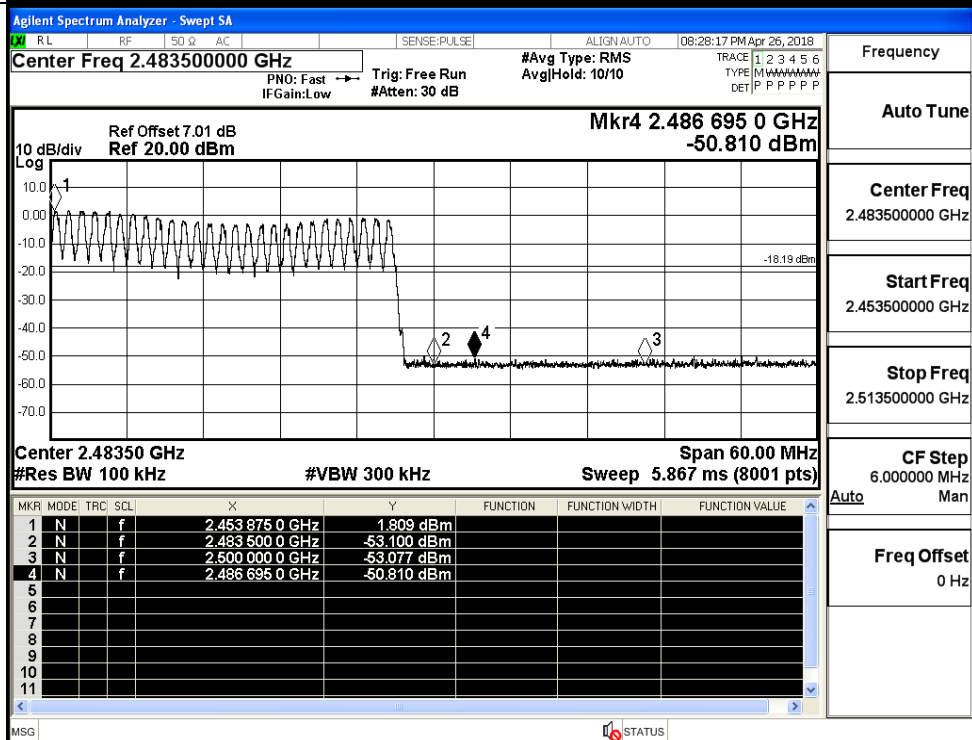
GFSK/LCH/Hop



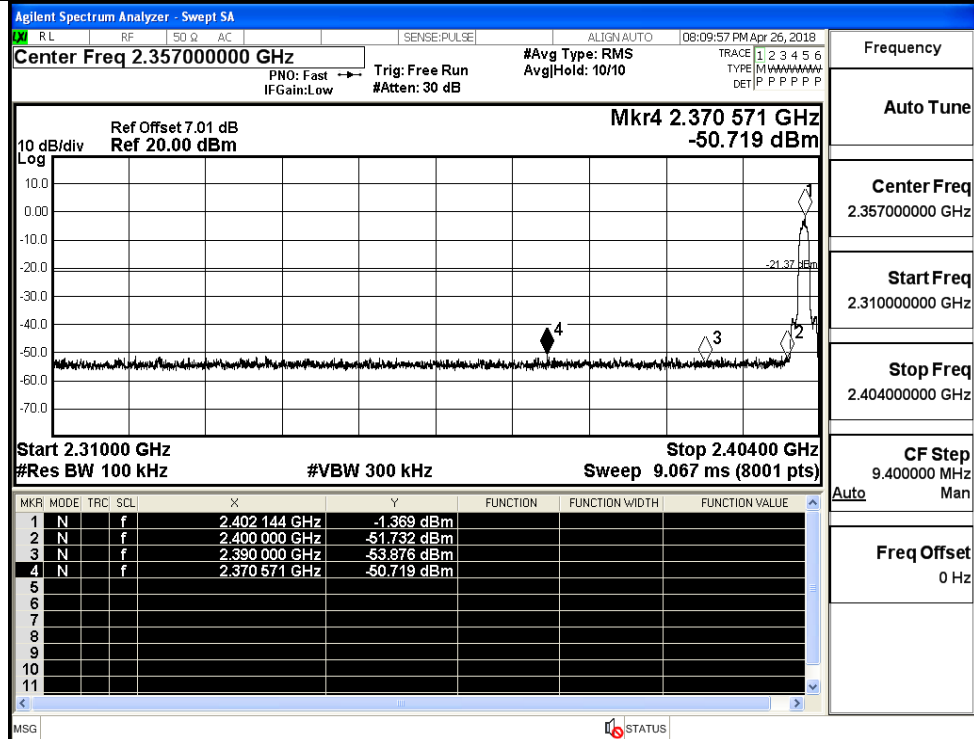
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

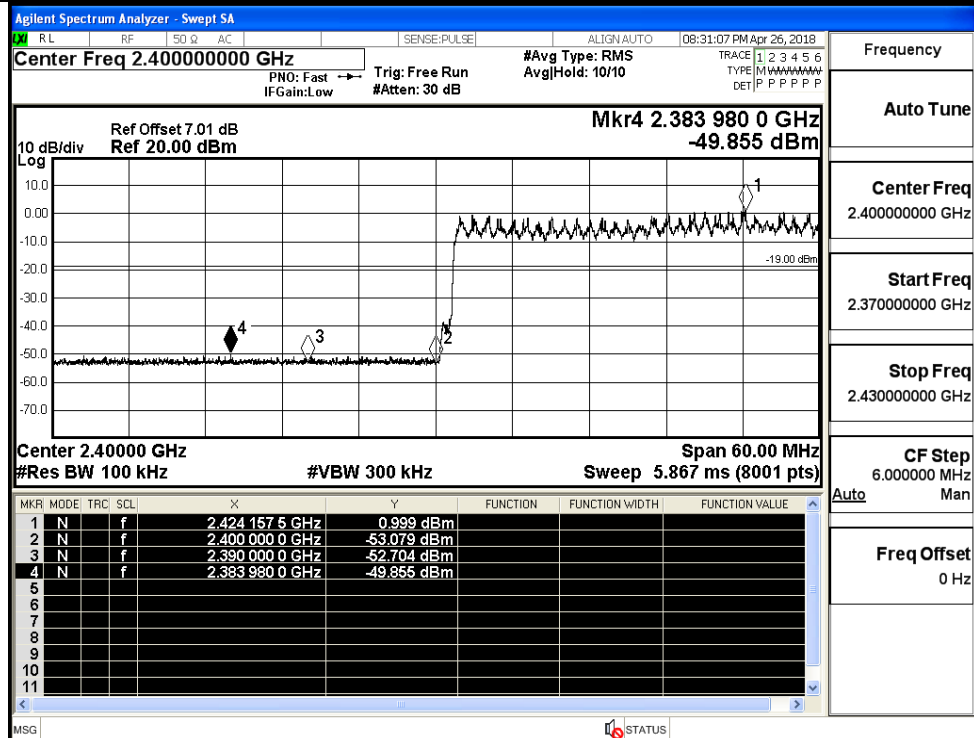
Start Freq
2.310000000 GHz

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

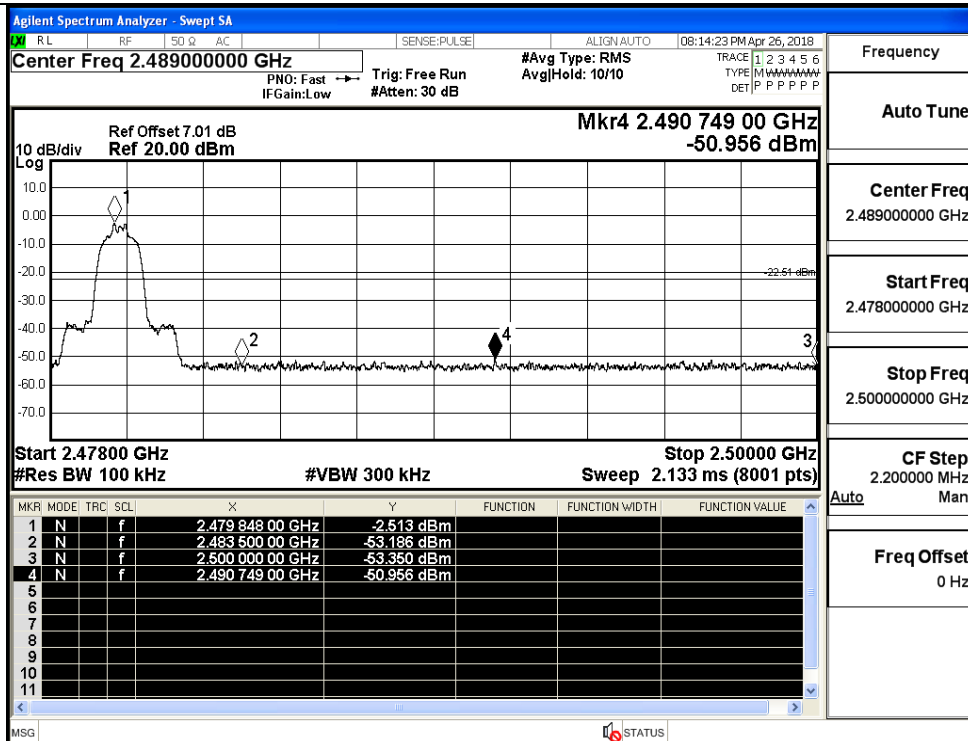
Start Freq
2.370000000 GHz

Stop Freq
2.430000000 GHz

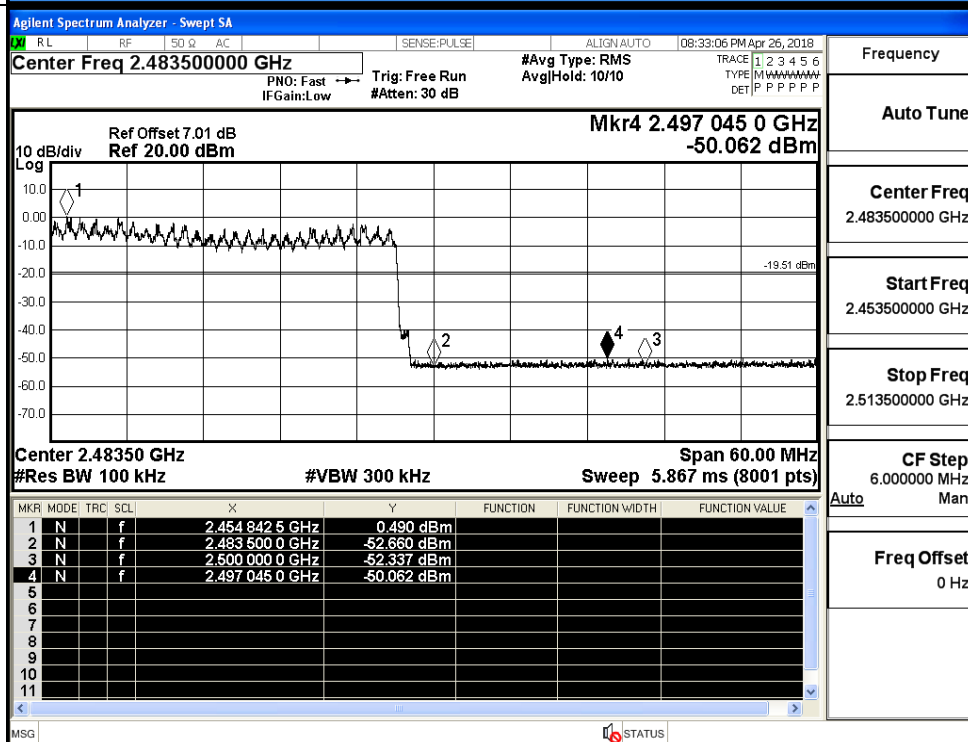
CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

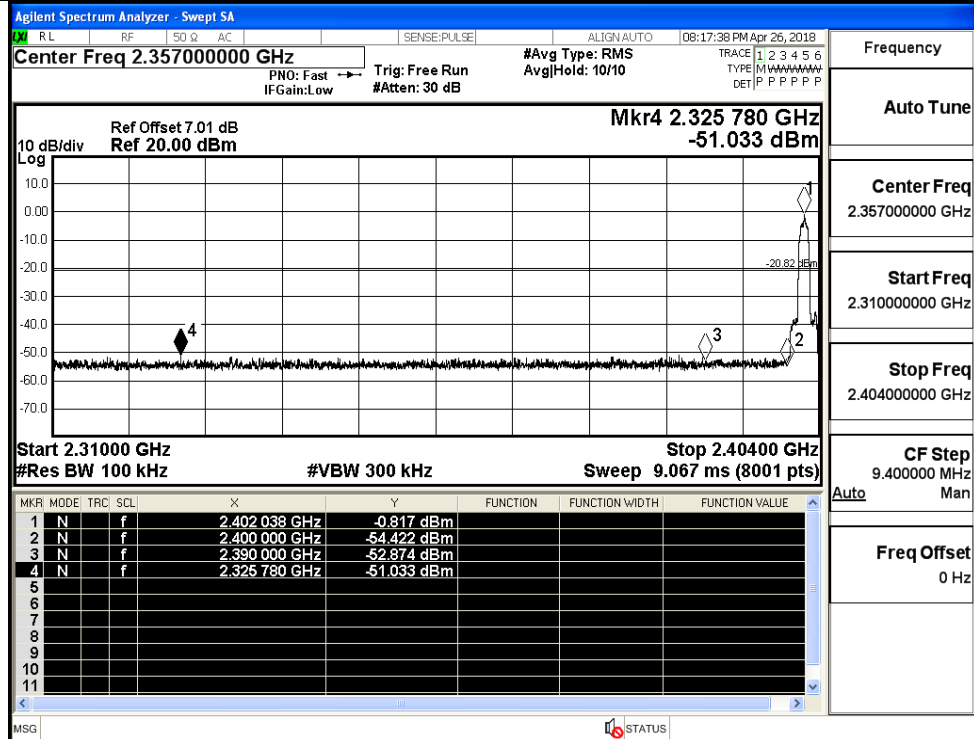
$\pi/4$ DQPSK/HCH/No
Hop



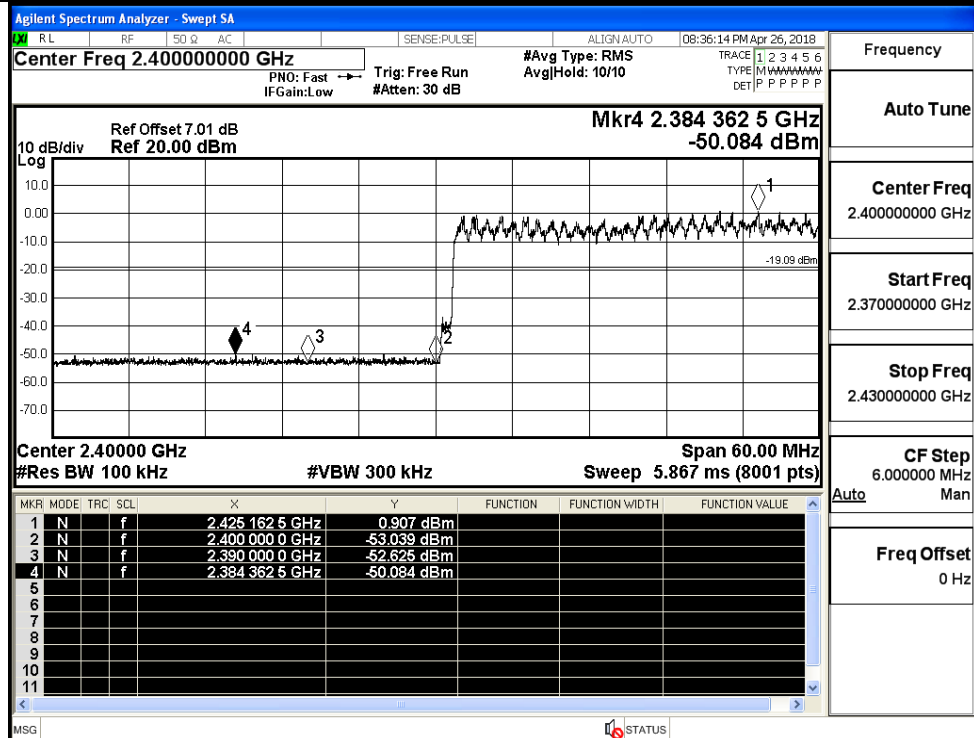
$\pi/4$ DQPSK/HCH/Hop



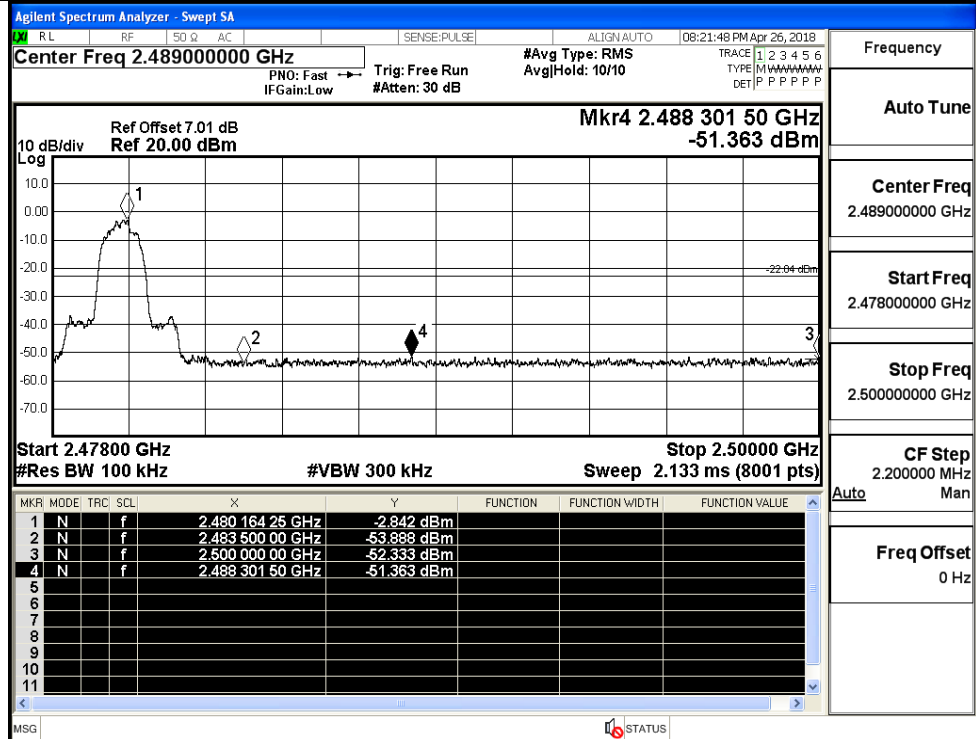
8DPSK/LCH/No Hop



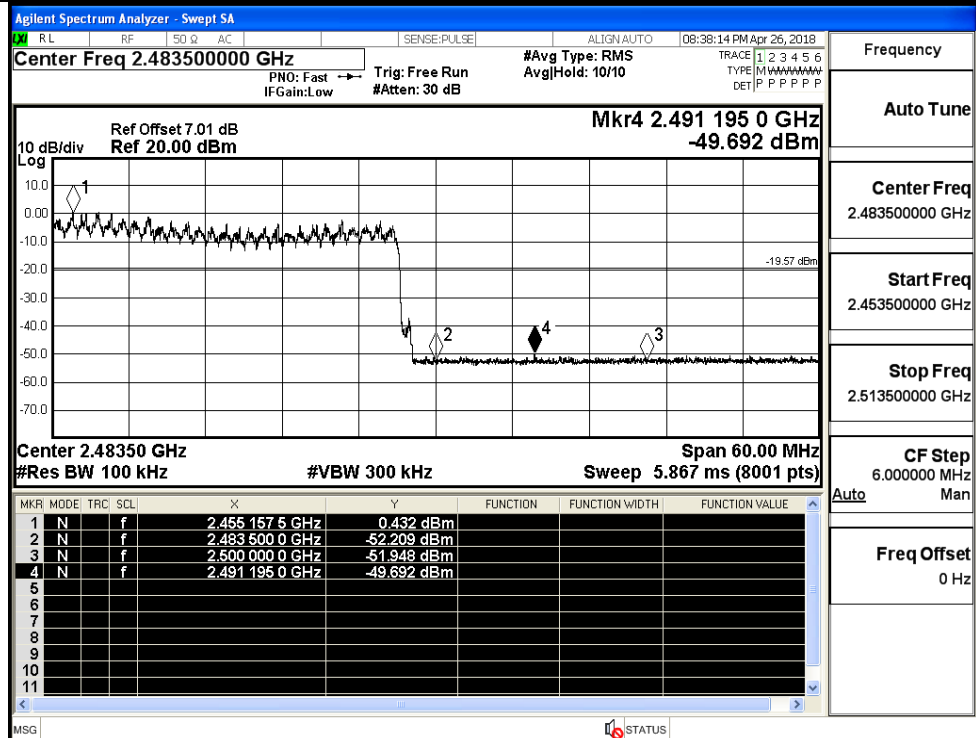
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



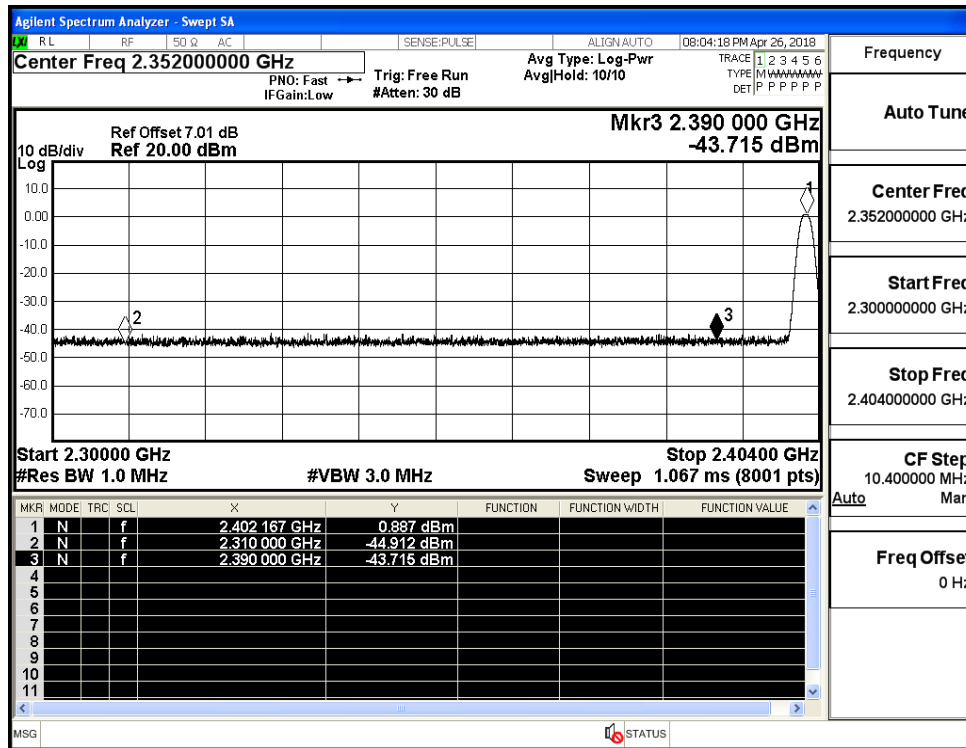
8DPSK/HCH/Hop



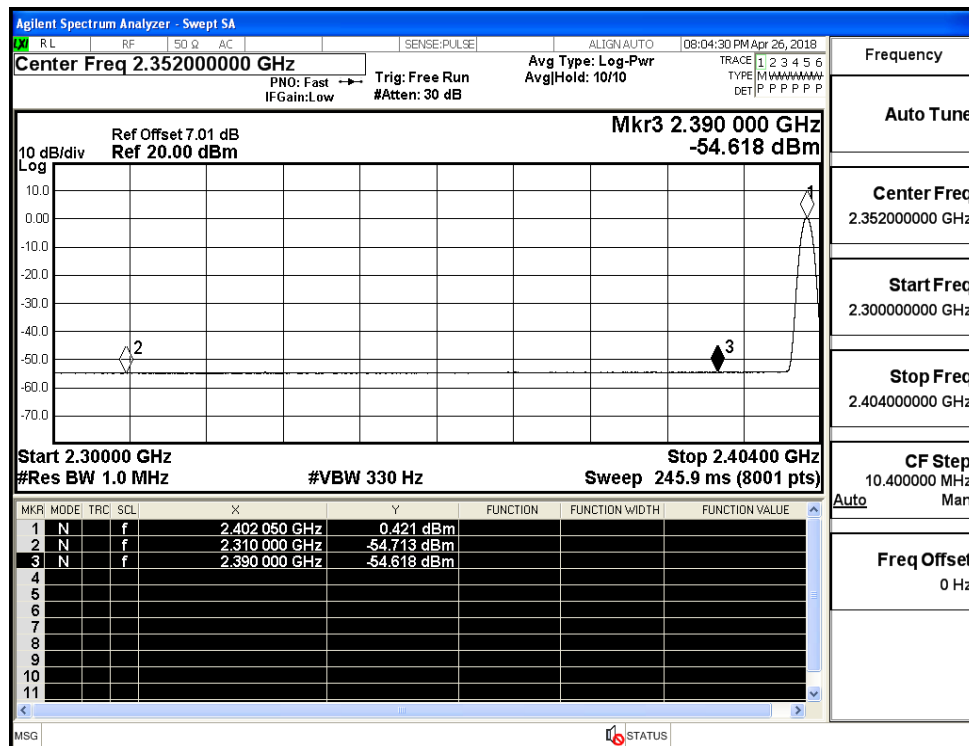
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.91	2.0	0	52.35	PEAK	74	PASS
	Off	2310.0	-54.71	2.0	0	42.54	AV	54	PASS
	Off	2390.0	-43.72	2.0	0	53.54	PEAK	74	PASS
	Off	2390.0	-54.62	2.0	0	42.64	AV	54	PASS
	Off	2483.5	-43.52	2.0	0	53.74	PEAK	74	PASS
	Off	2483.5	-54.25	2.0	0	43.01	AV	54	PASS
	Off	2500.0	-43.76	2.0	0	53.50	PEAK	74	PASS
	Off	2500.0	-54.06	2.0	0	43.20	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-44.54	2.0	0	52.71	PEAK	74	PASS
	Off	2310.0	-54.78	2.0	0	42.48	AV	54	PASS
	Off	2390.0	-43.23	2.0	0	54.03	PEAK	74	PASS
	Off	2390.0	-54.55	2.0	0	42.71	AV	54	PASS
	Off	2483.5	-41.88	2.0	0	55.38	PEAK	74	PASS
	Off	2483.5	-54.11	2.0	0	43.15	AV	54	PASS
	Off	2500.0	-42.68	2.0	0	54.58	PEAK	74	PASS
	Off	2500.0	-54.02	2.0	0	43.24	AV	54	PASS
8DPSK	Off	2310.0	-45.39	2.0	0	51.87	PEAK	74	PASS
	Off	2310.0	-54.70	2.0	0	42.56	AV	54	PASS
	Off	2390.0	-42.58	2.0	0	54.68	PEAK	74	PASS
	Off	2390.0	-54.55	2.0	0	42.70	AV	54	PASS
	Off	2483.5	-43.51	2.0	0	53.75	PEAK	74	PASS
	Off	2483.5	-54.23	2.0	0	43.03	AV	54	PASS
	Off	2500.0	-44.23	2.0	0	53.03	PEAK	74	PASS
	Off	2500.0	-54.11	2.0	0	43.15	AV	54	PASS

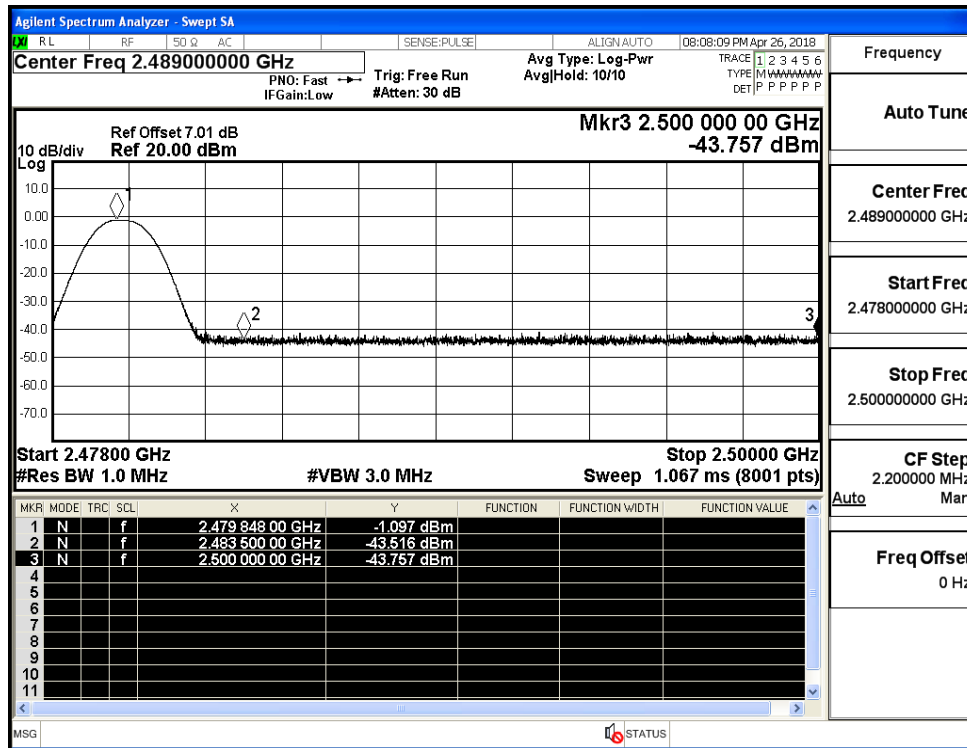
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



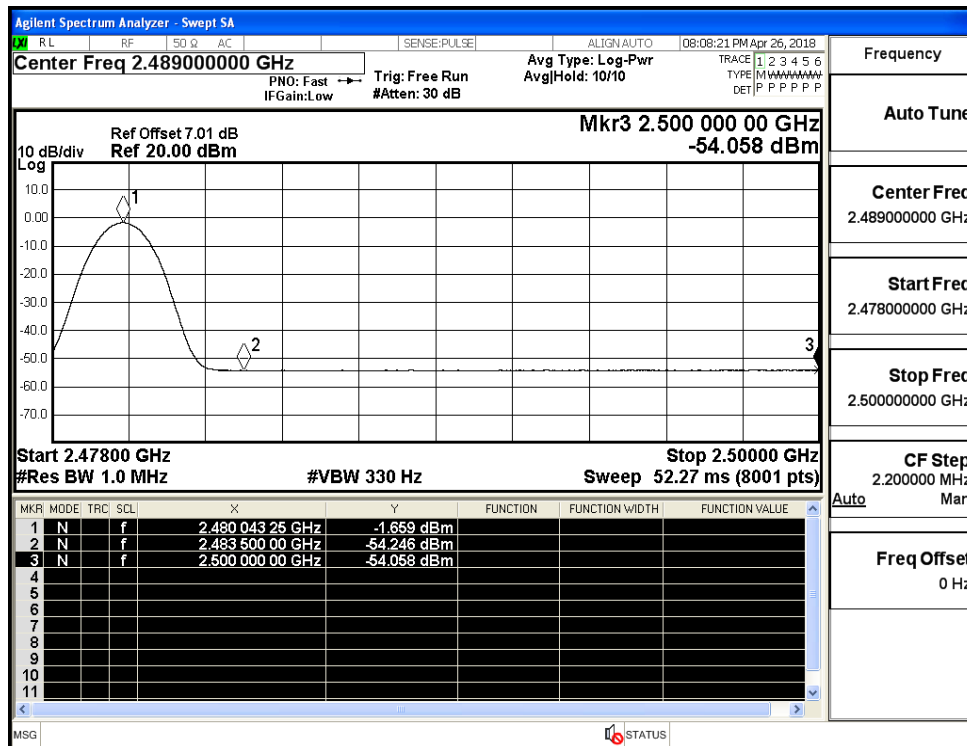
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

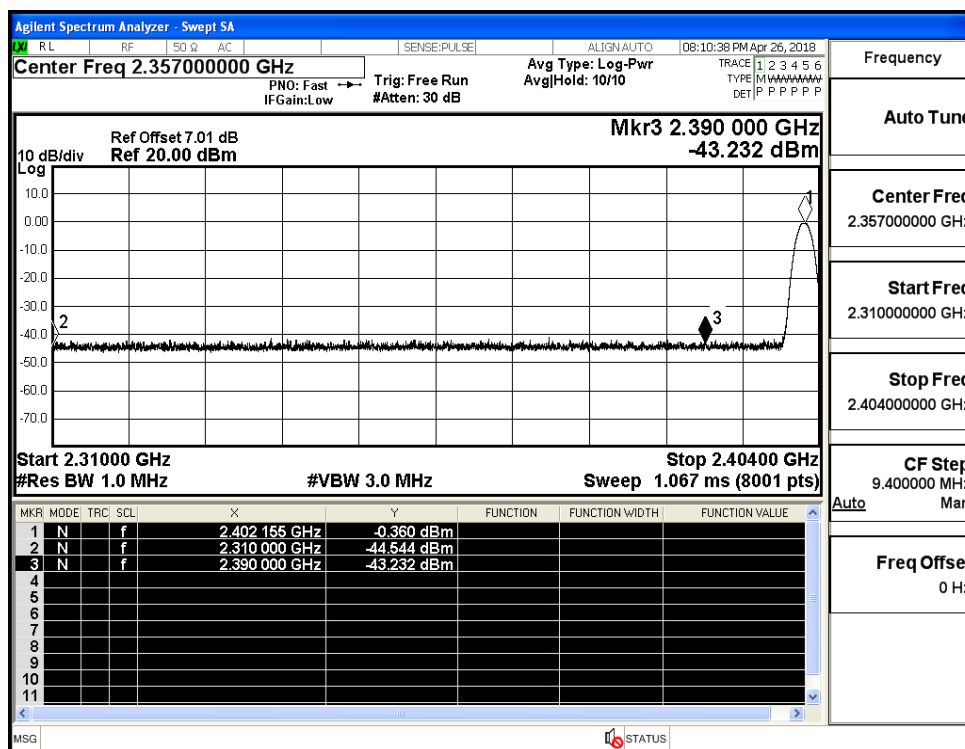
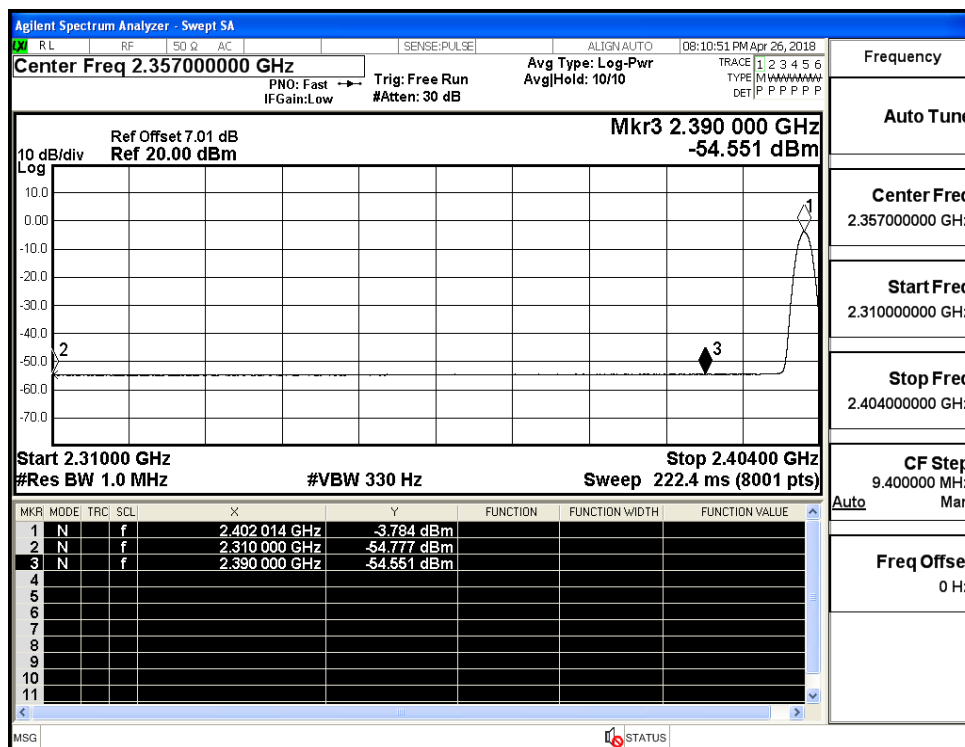


Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)

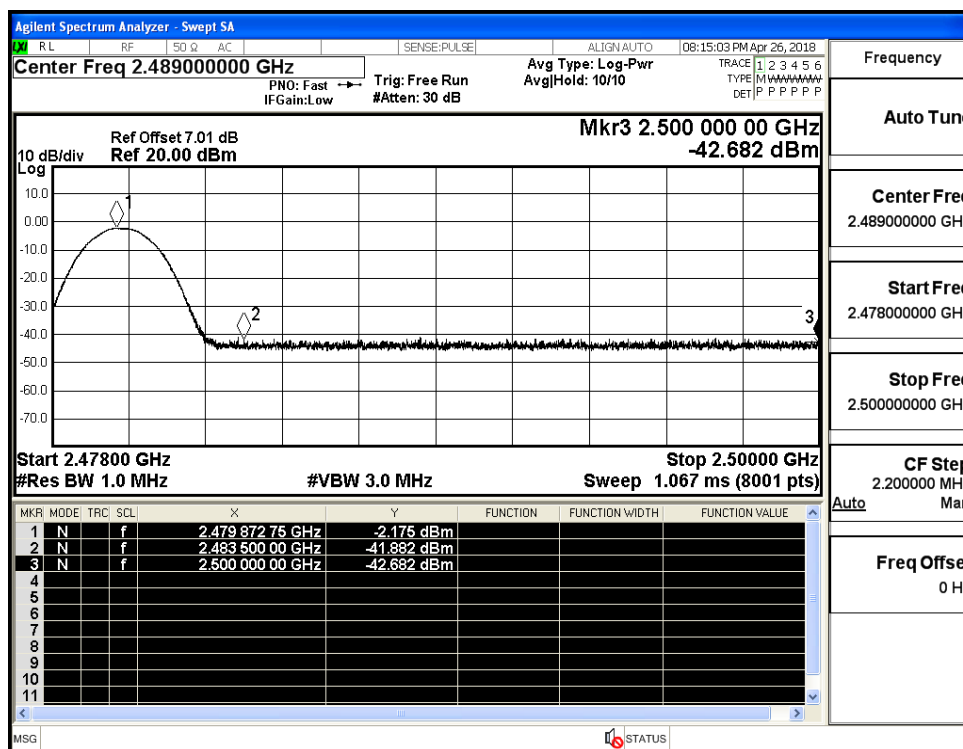


Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)

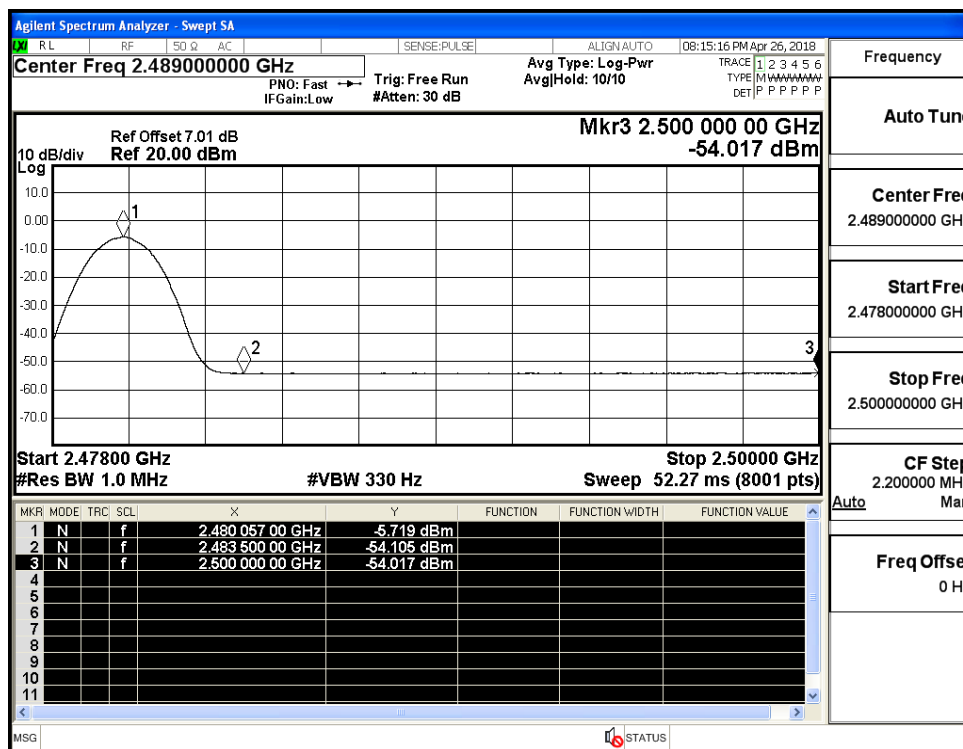


Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

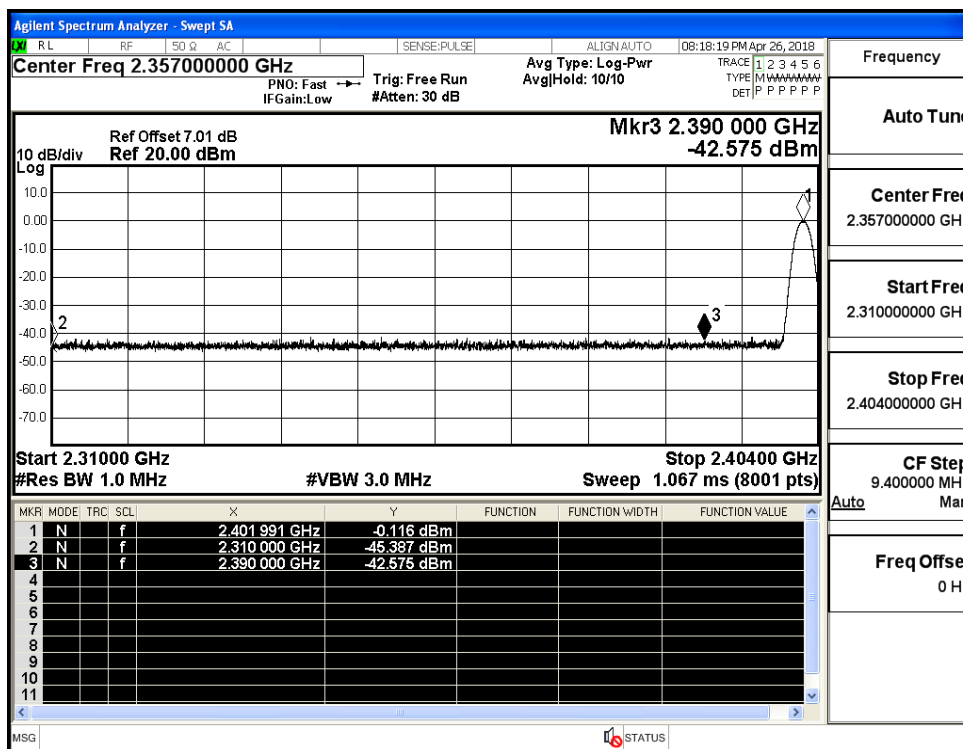
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



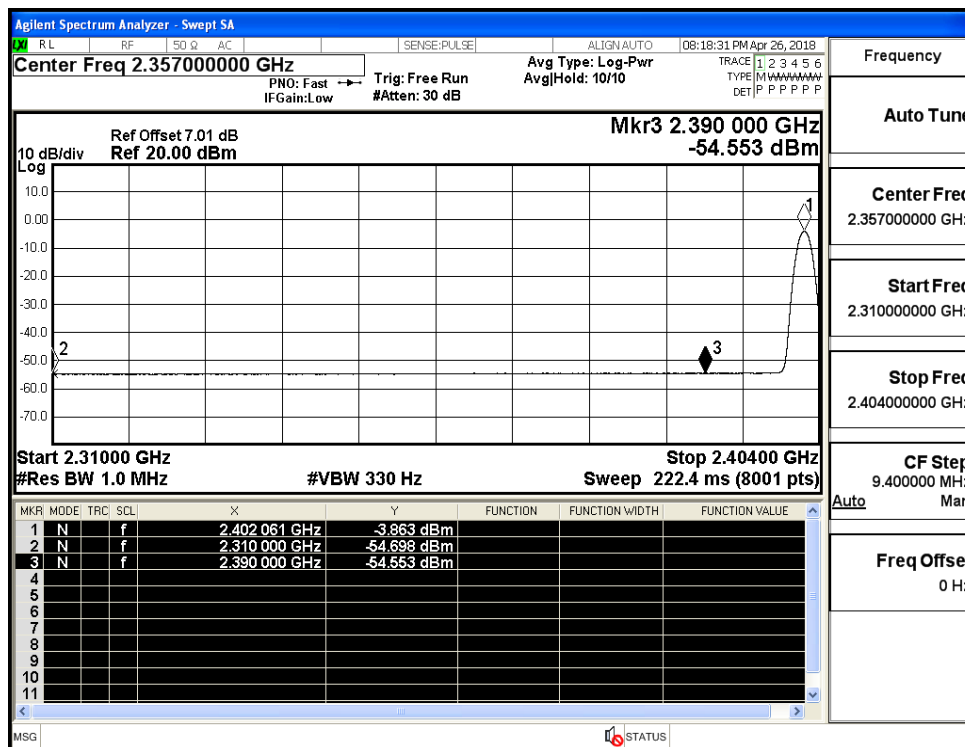
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



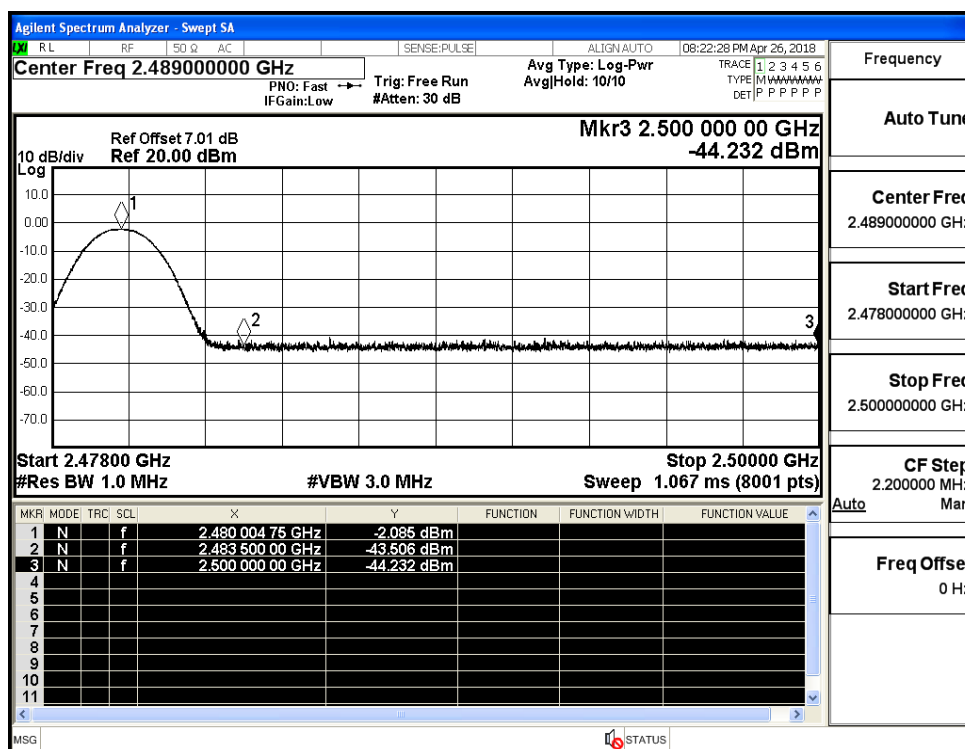
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

