

Appendix A

RF Test Data for BT V5.0 (BDR/EDR) (Conducted Measurement)

Product Name: Wired Headset

Trade Mark: Linklike

Test Model: Classic 8

Environmental Conditions

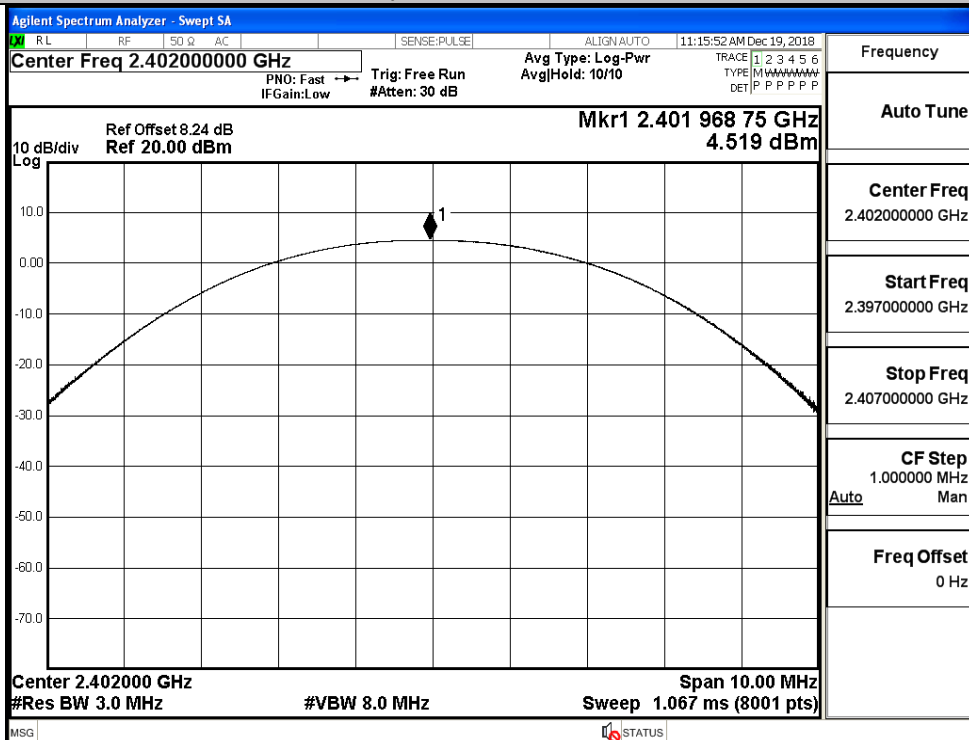
Temperature:	23.2 ° C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina Xu
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

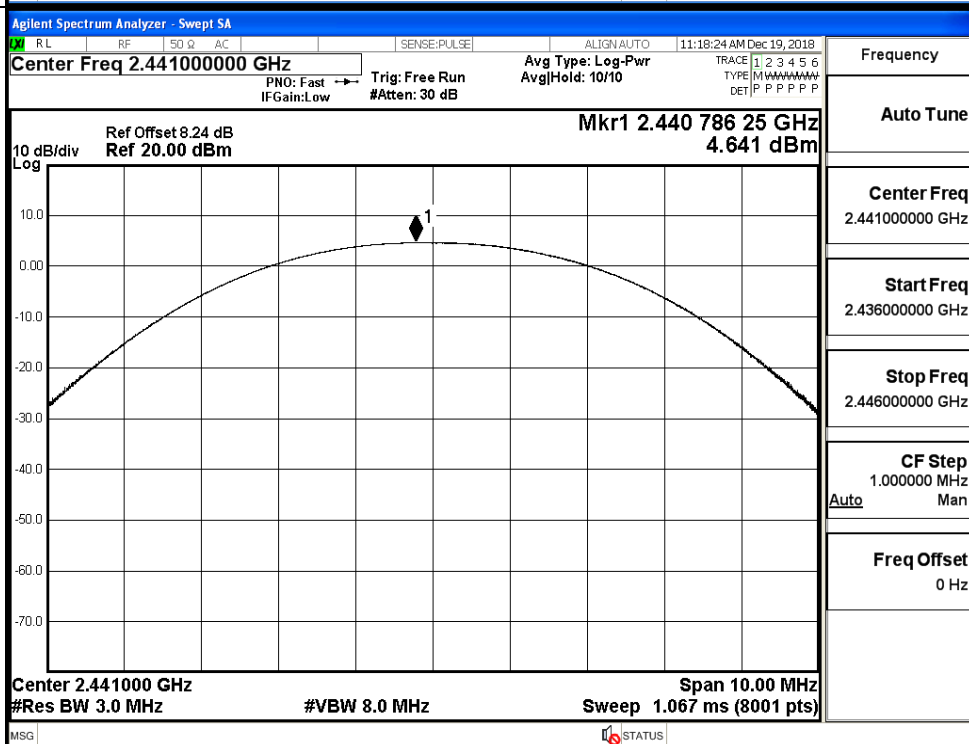
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	4.519	21	PASS
	MCH	4.641	21	PASS
	HCH	4.604	21	PASS
$\pi/4$ DQPSK	LCH	3.379	21	PASS
	MCH	3.450	21	PASS
	HCH	3.409	21	PASS
8DPSK	LCH	3.371	21	PASS
	MCH	3.994	21	PASS
	HCH	3.962	21	PASS

Test Graphs

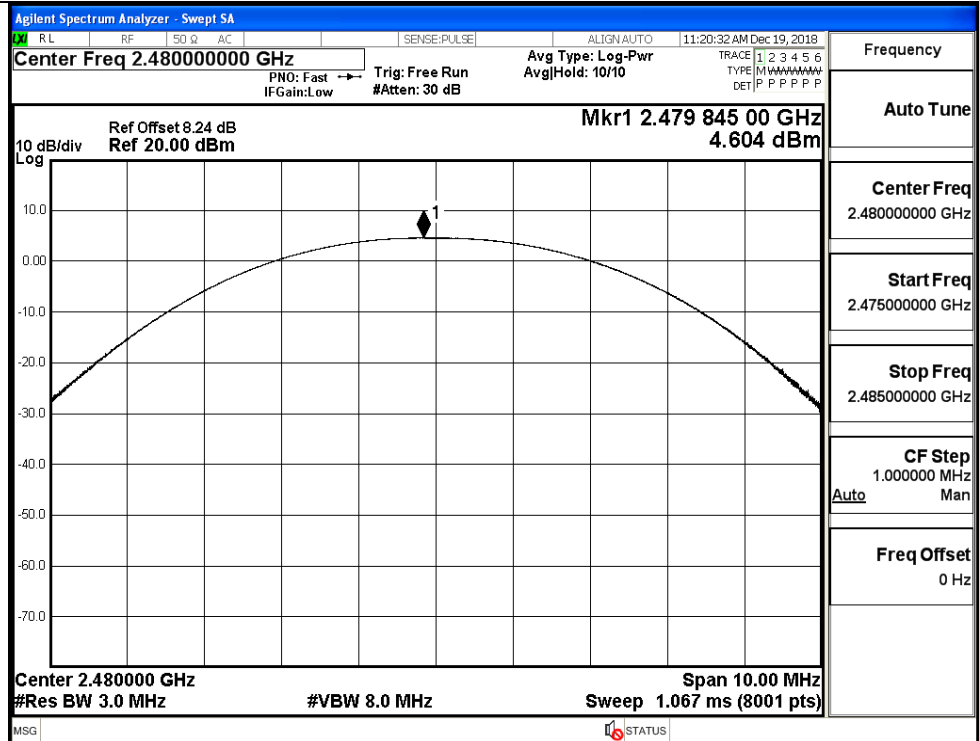
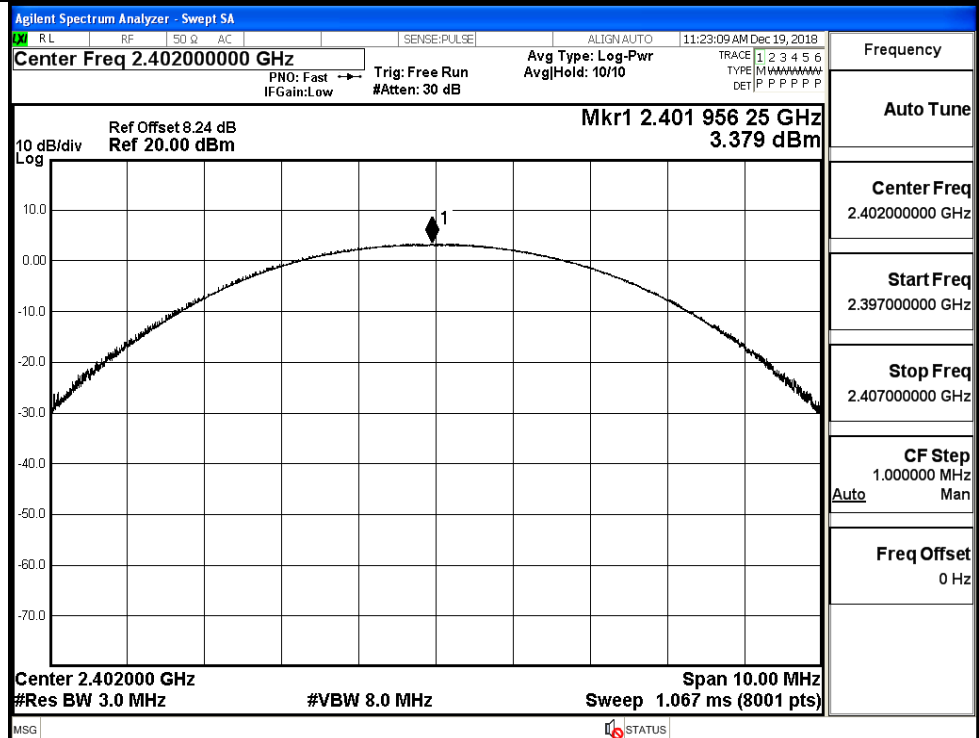
GFSK/LCH

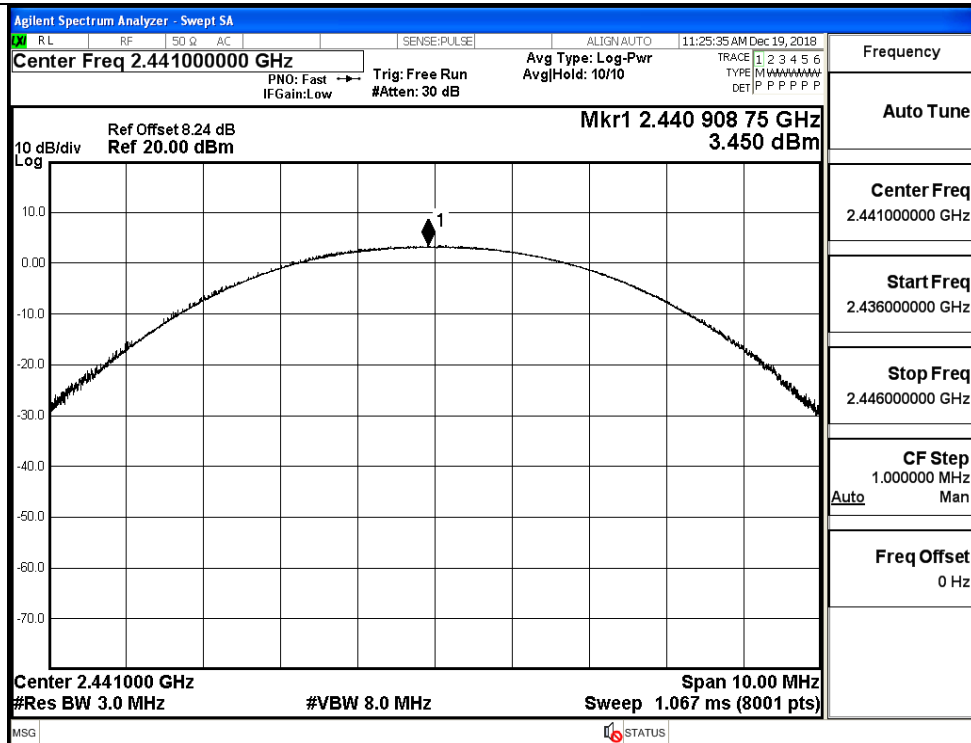
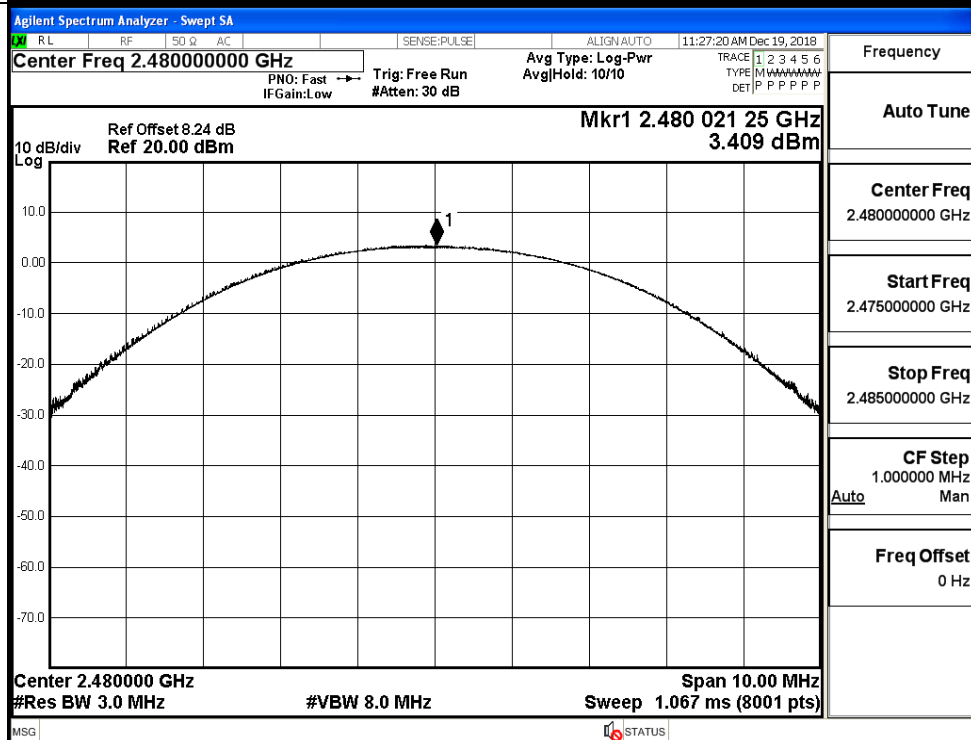


GFSK/MCH

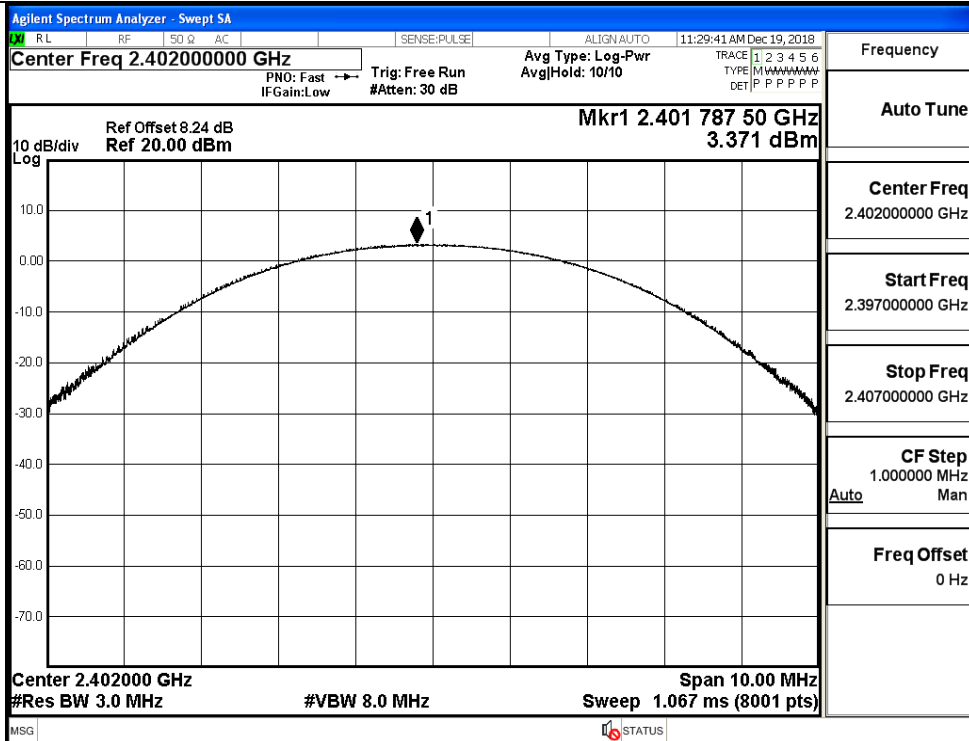


GFSK/HCH

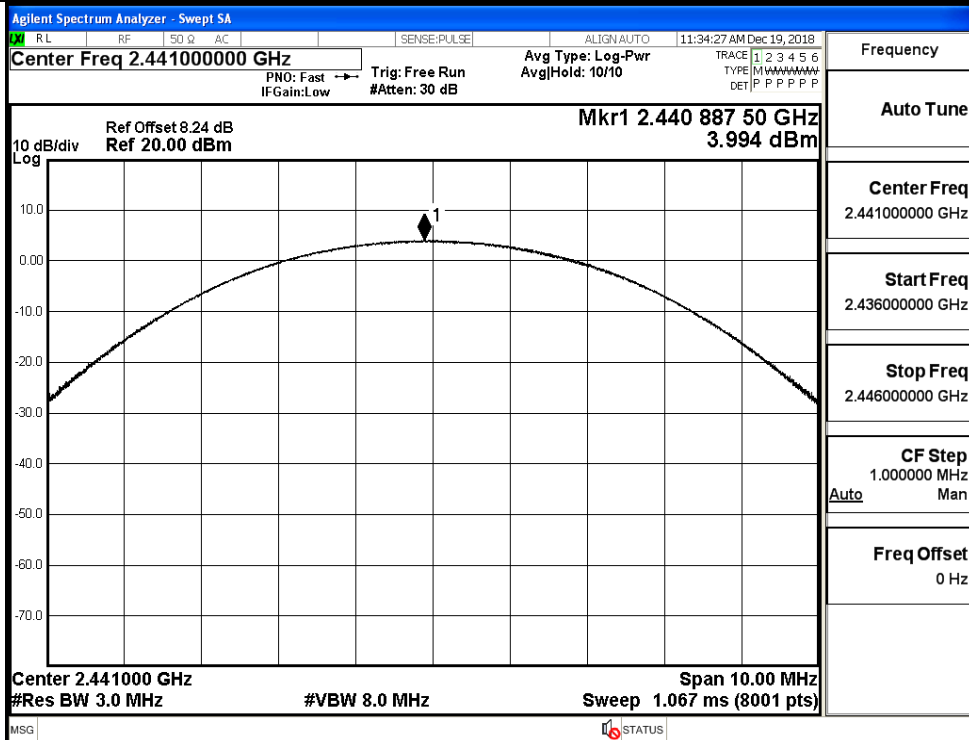
 π /4DQPSK/LCH

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

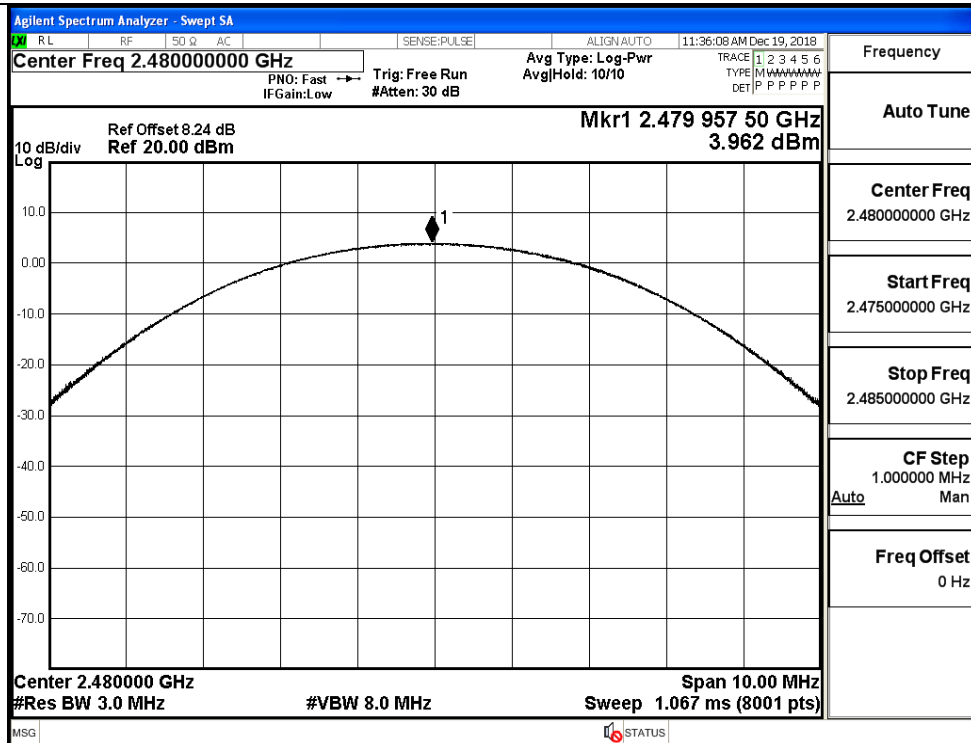
8DPSK/LCH



8DPSK/MCH



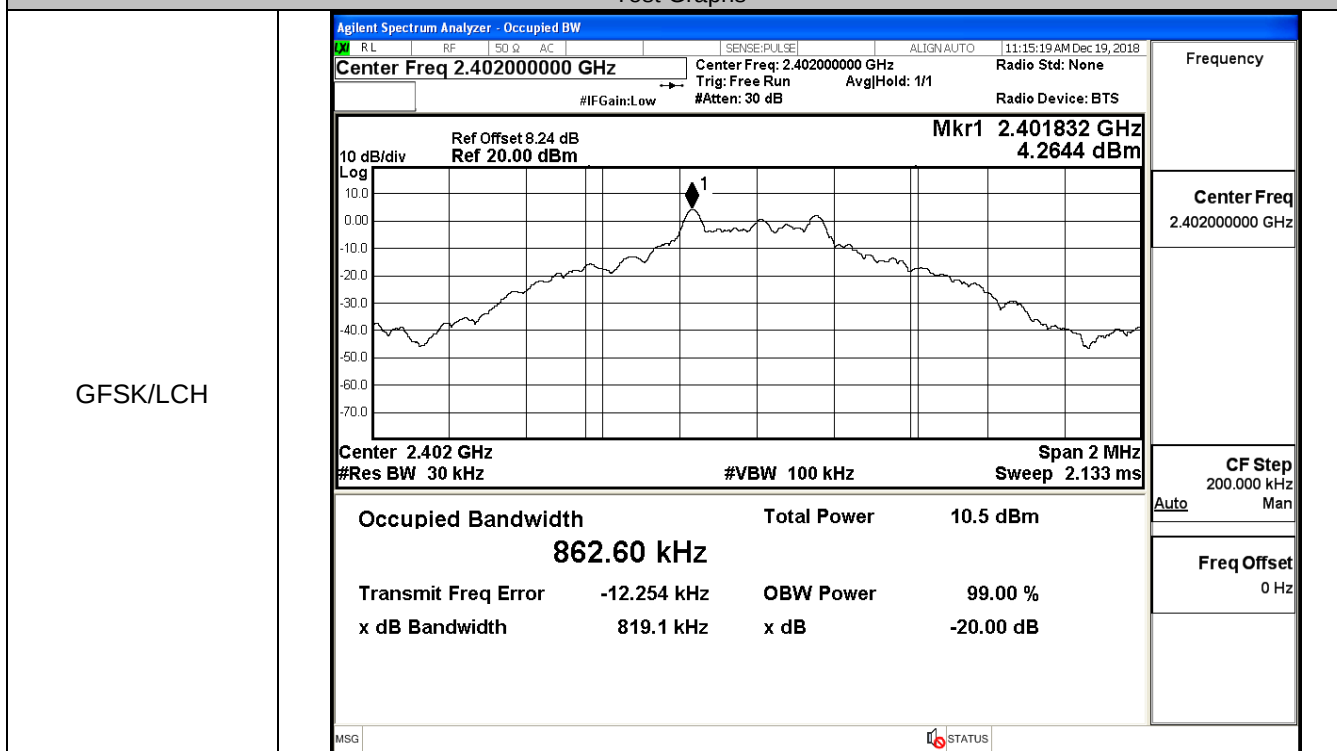
8DPSK/HCH



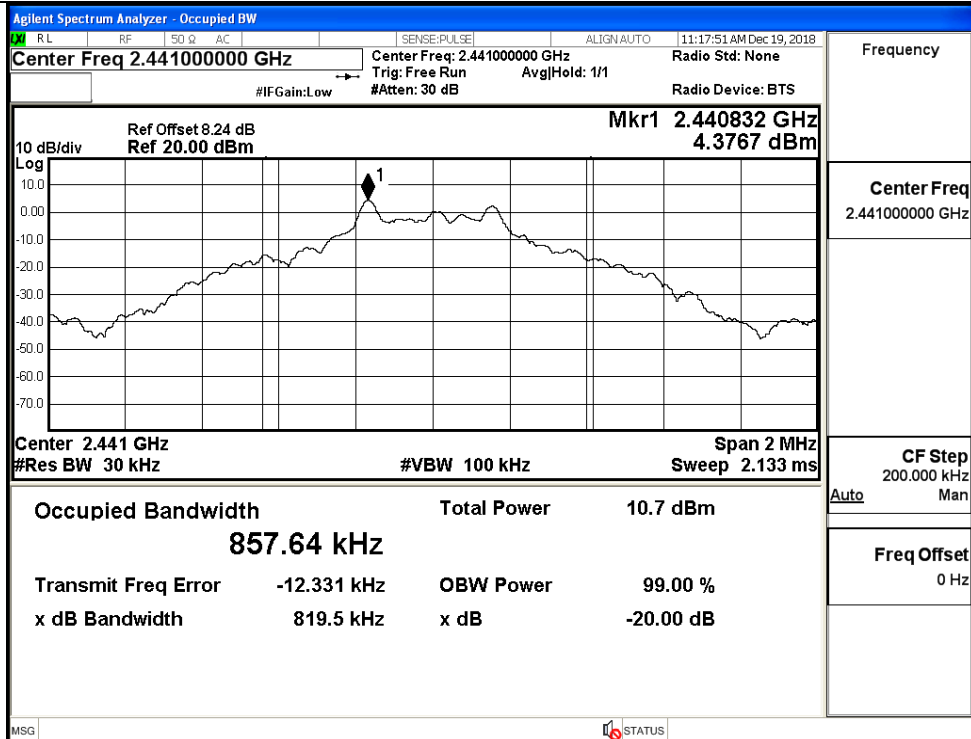
A.2 99% and 20dB Bandwidth

Mode	Channel.	99% Bandwidth [MHz]	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.86260	0.8191	Not Specified	PASS
	MCH	0.85764	0.8195	Not Specified	PASS
	HCH	0.85884	0.8277	Not Specified	PASS
π /4DQPSK	LCH	1.0733	1.148	Not Specified	PASS
	MCH	1.0739	1.145	Not Specified	PASS
	HCH	1.0720	1.134	Not Specified	PASS
8DPSK	LCH	1.1798	1.298	Not Specified	PASS
	MCH	1.1807	1.303	Not Specified	PASS
	HCH	1.1796	1.295	Not Specified	PASS

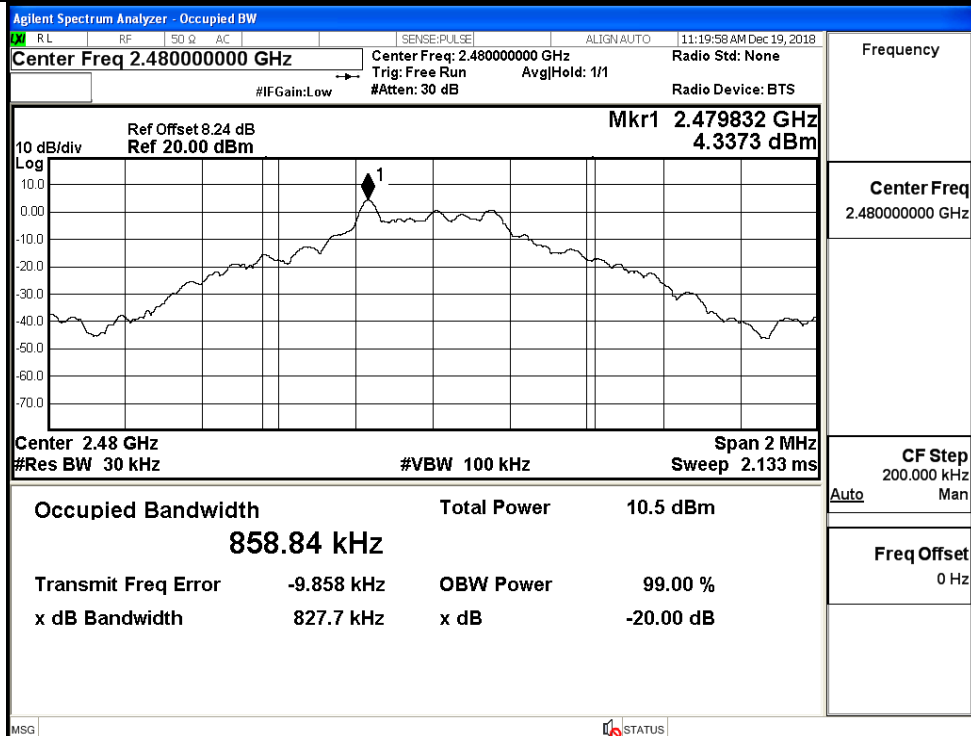
Test Graphs

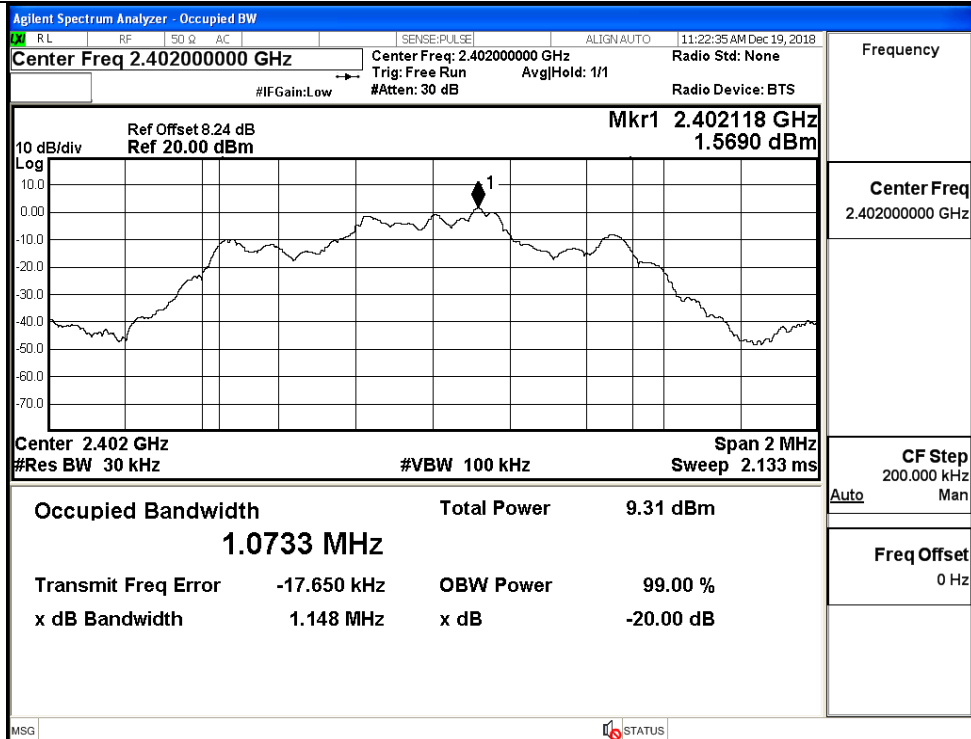
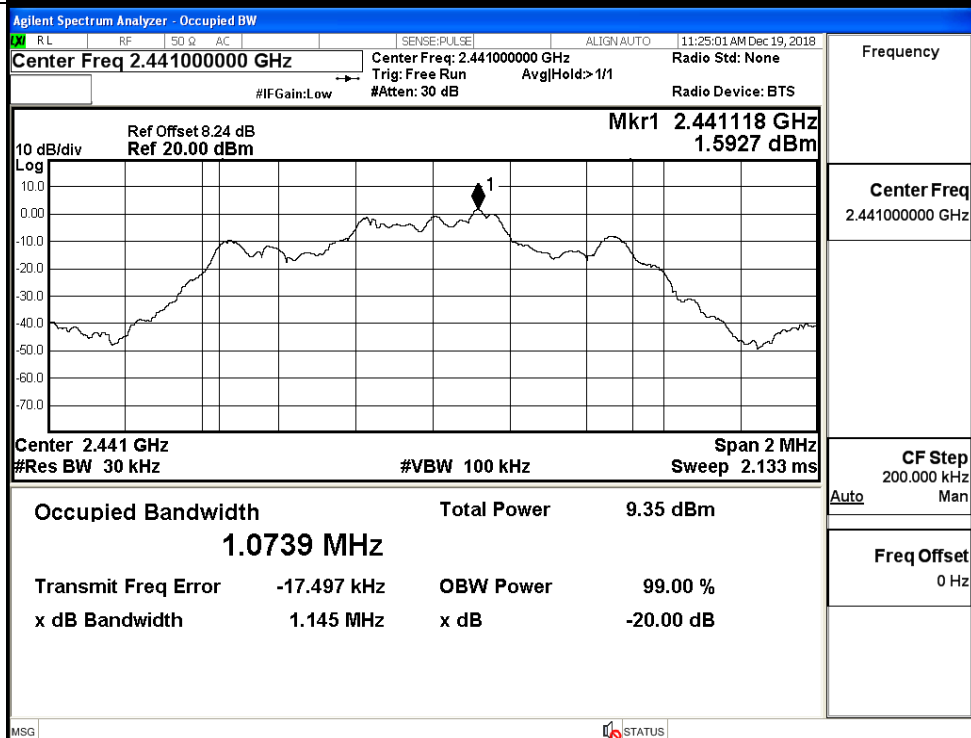


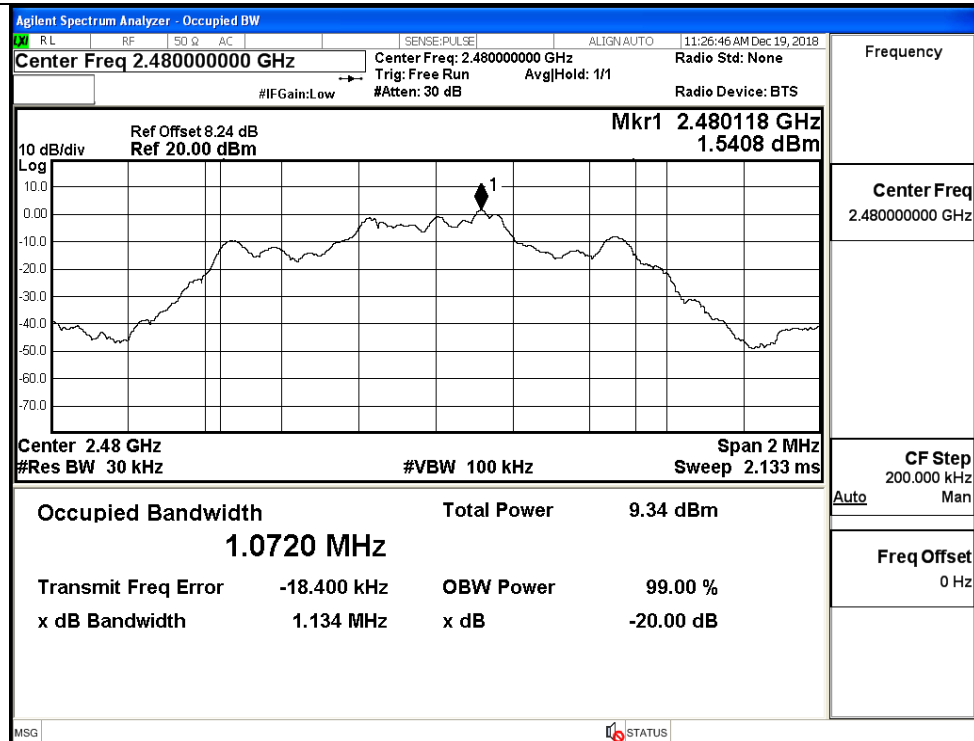
GFSK/MCH



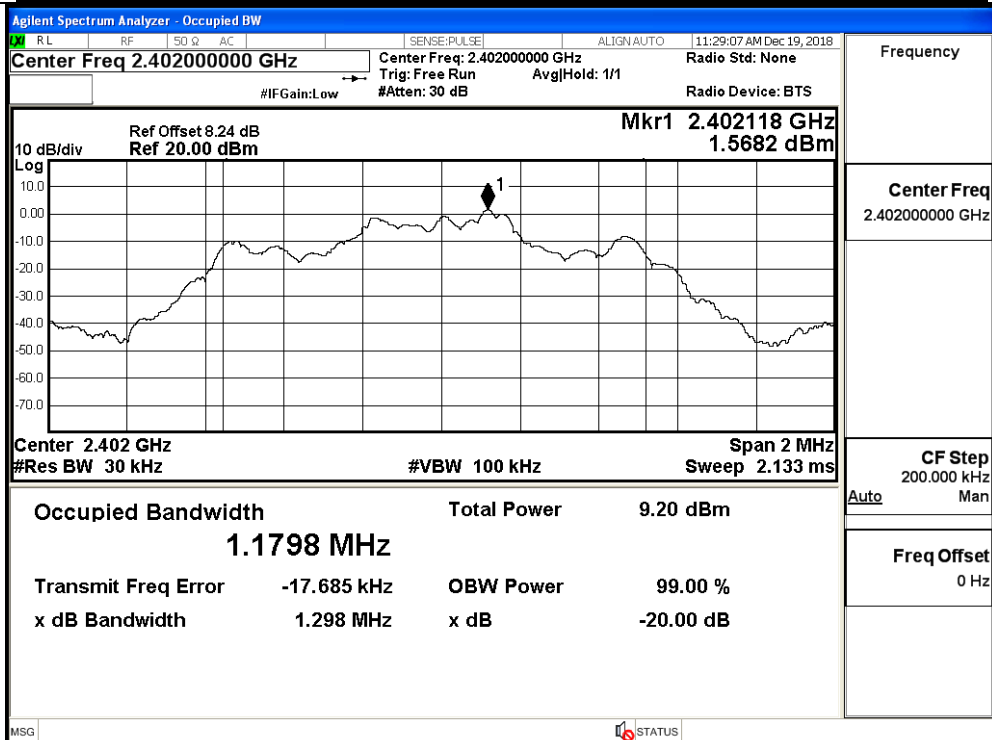
GFSK/HCH



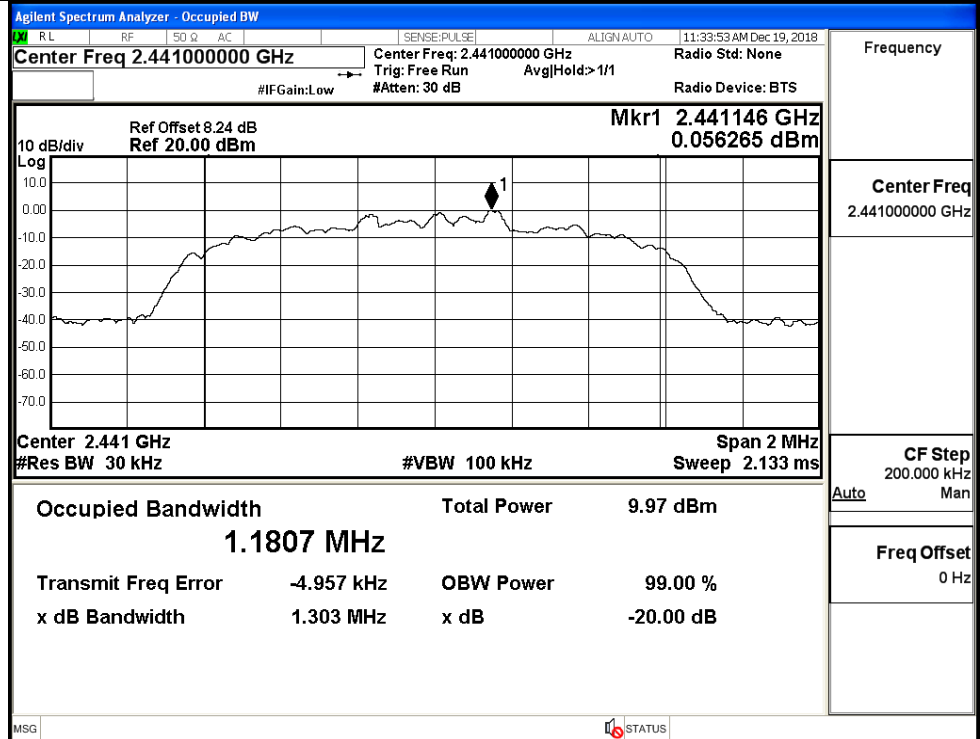
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

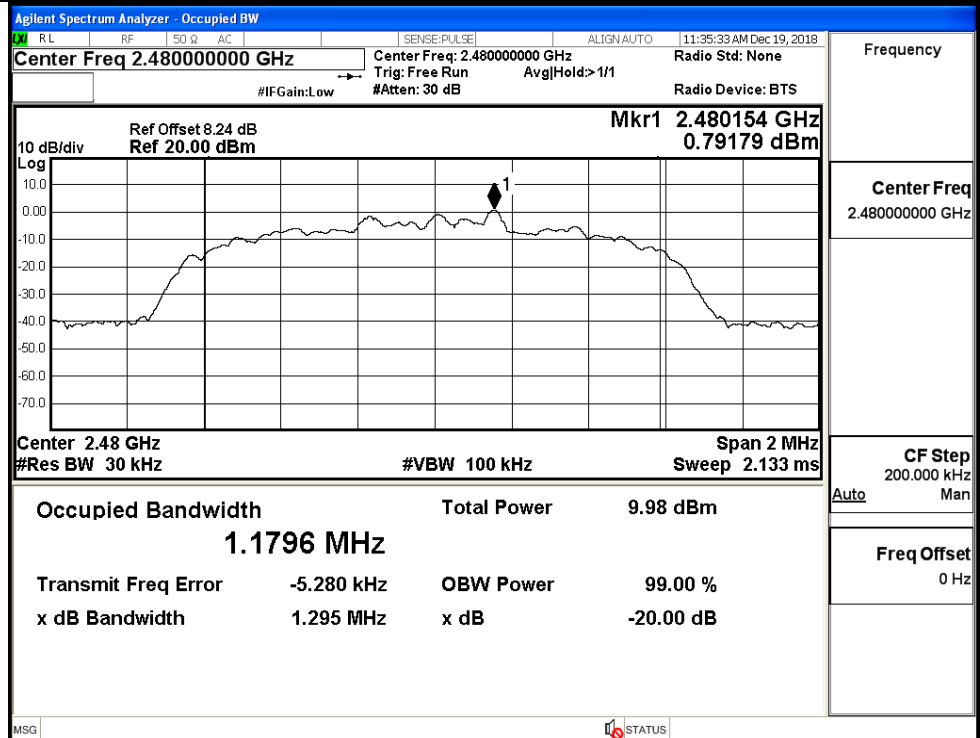
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

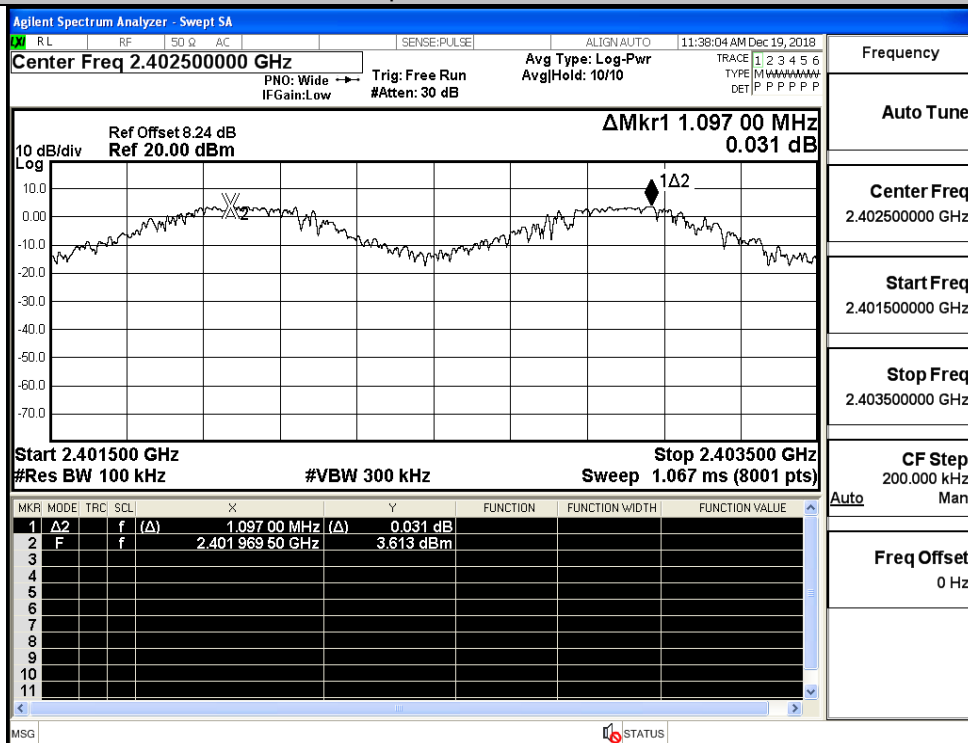


A.3 Carrier Frequency Separation

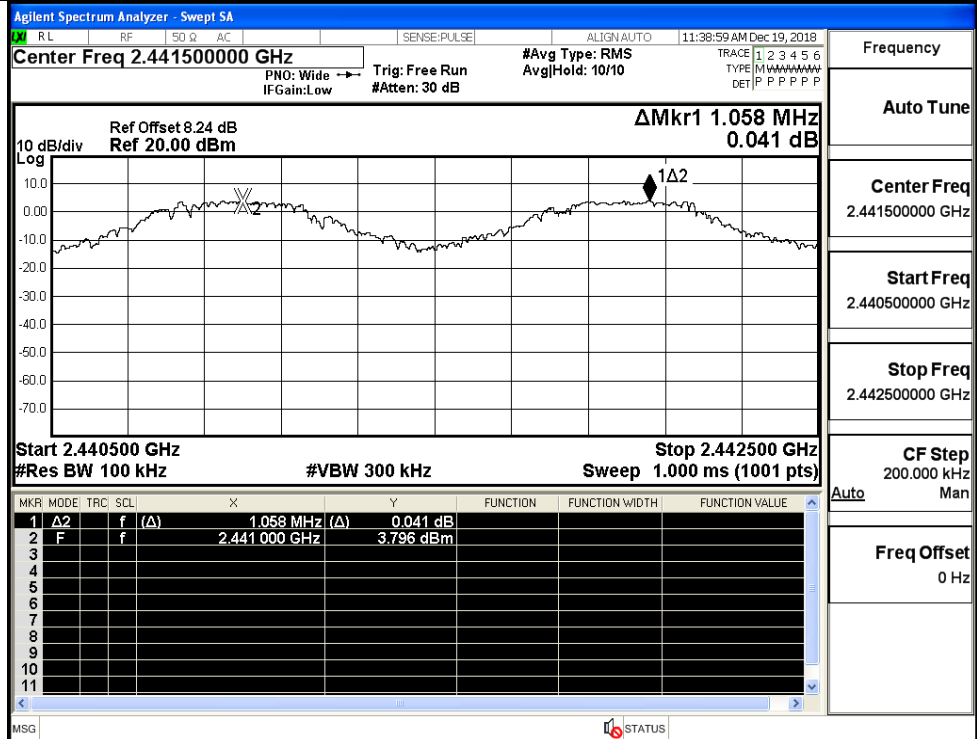
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.097	0.552	PASS
	MCH	1.058	0.552	PASS
	HCH	1.102	0.552	PASS
π /4DQPSK	LCH	1.016	0.765	PASS
	MCH	1.118	0.765	PASS
	HCH	1.082	0.765	PASS
8DPSK	LCH	1.148	0.869	PASS
	MCH	0.998	0.869	PASS
	HCH	0.824	0.869	PASS

Test Graphs

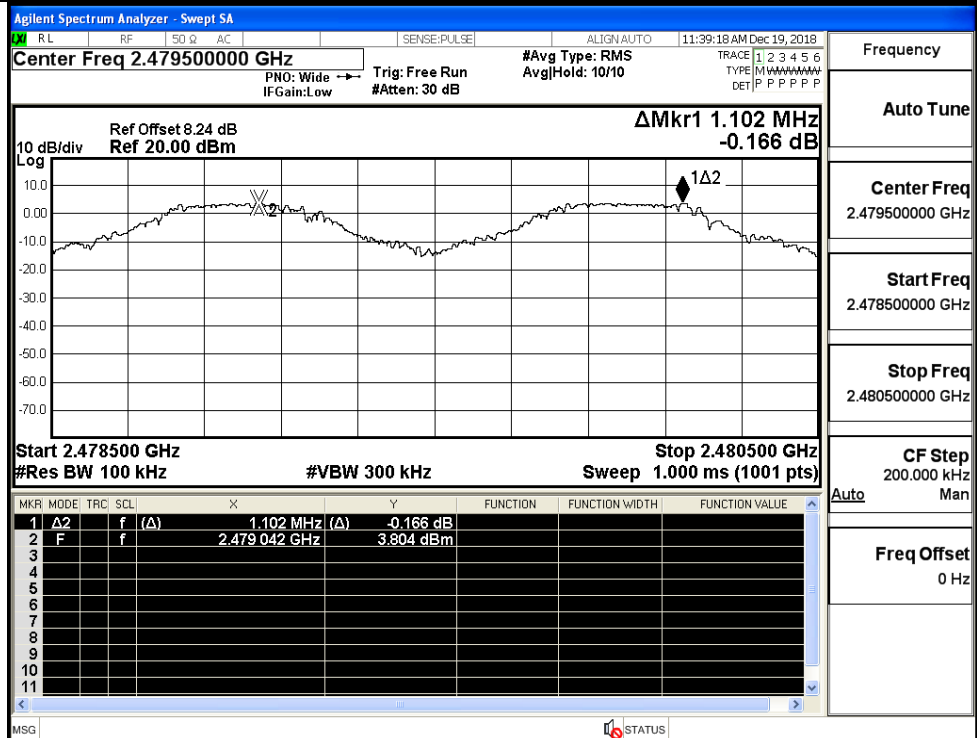
GFSK/LCH

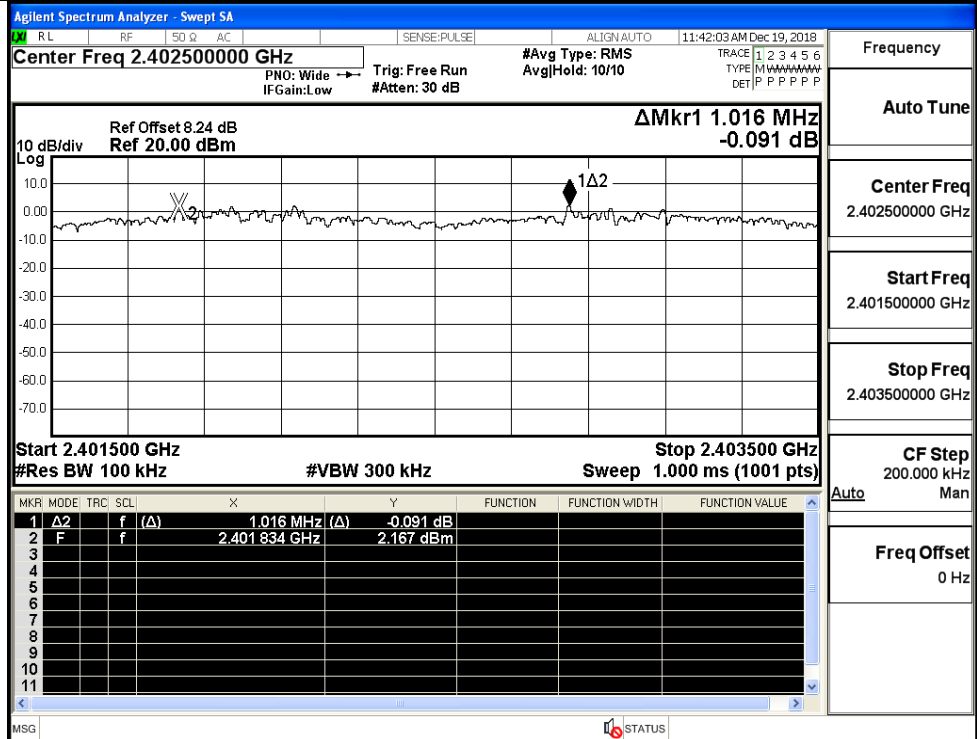
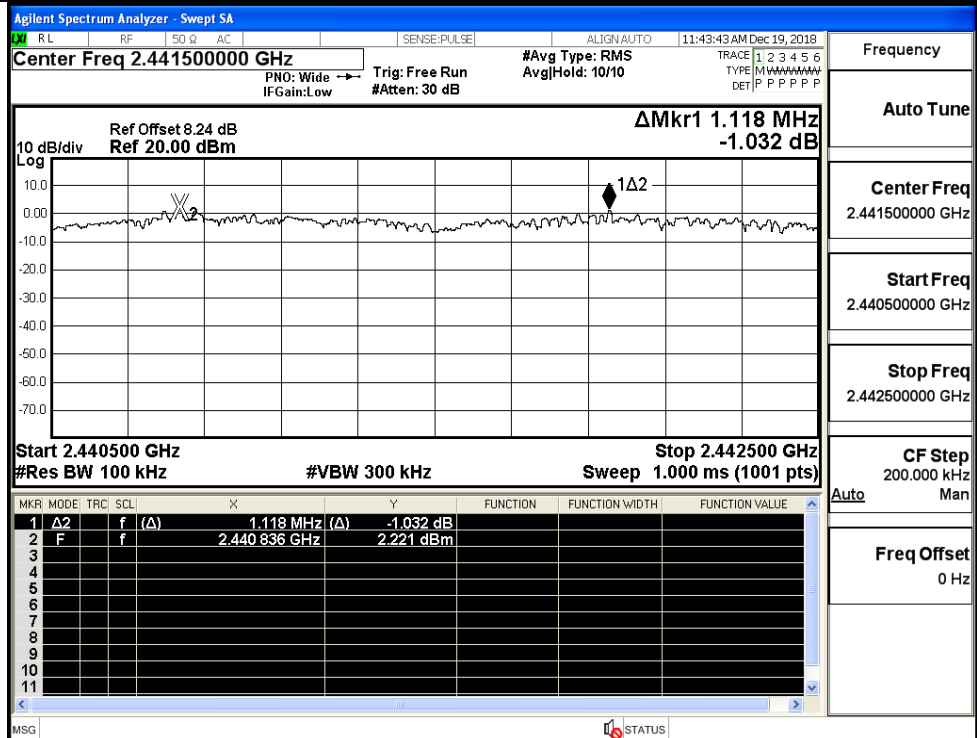


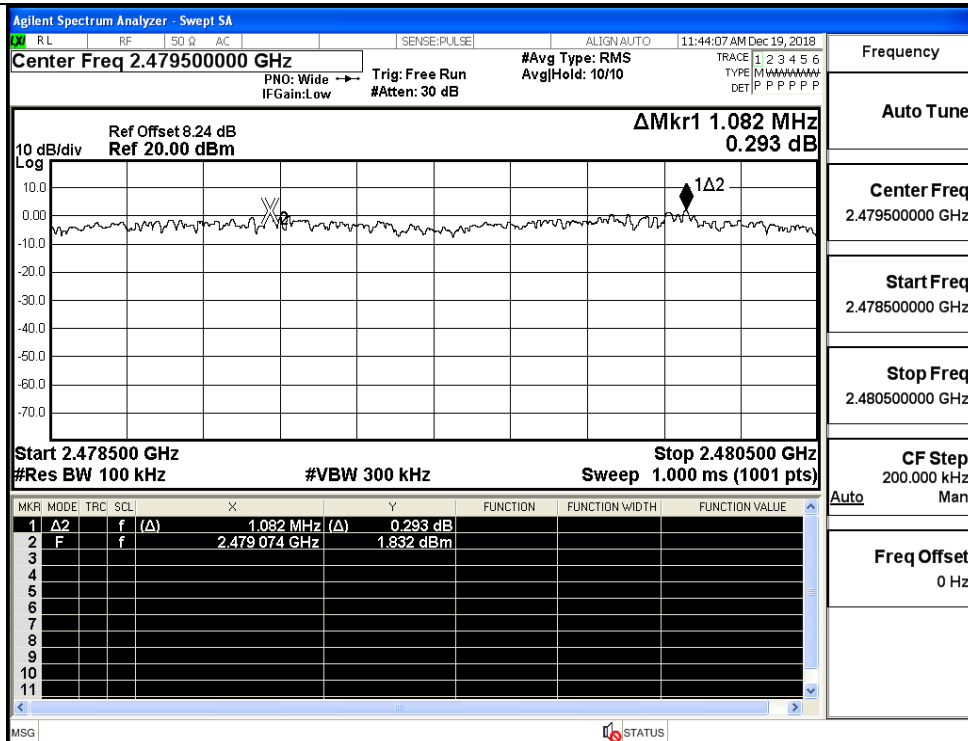
GFSK/MCH



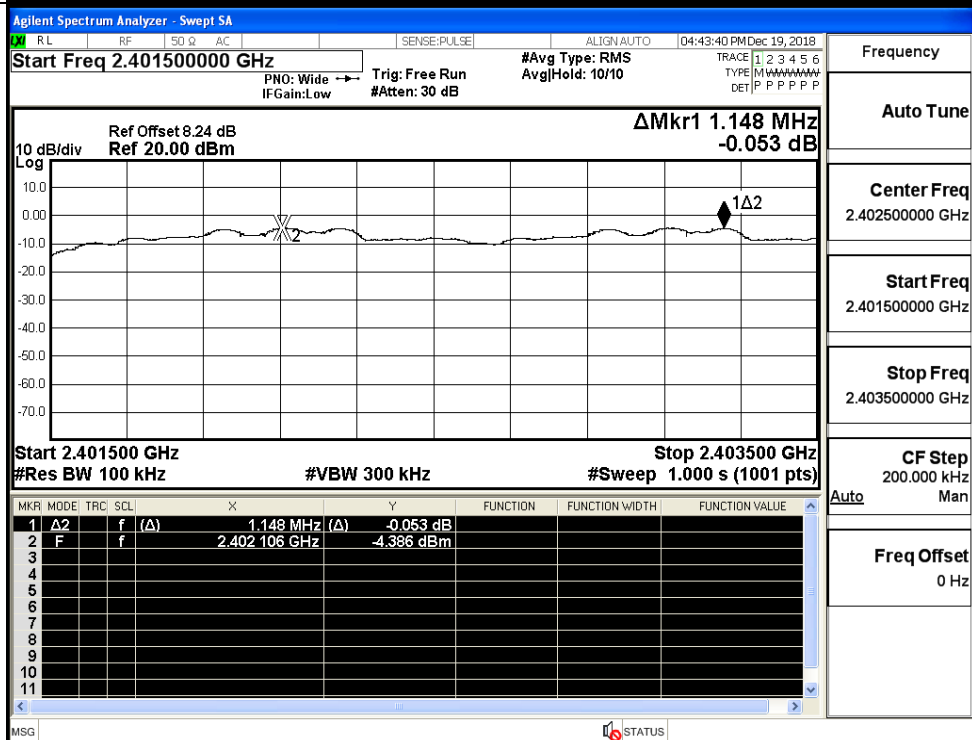
GFSK/HCH



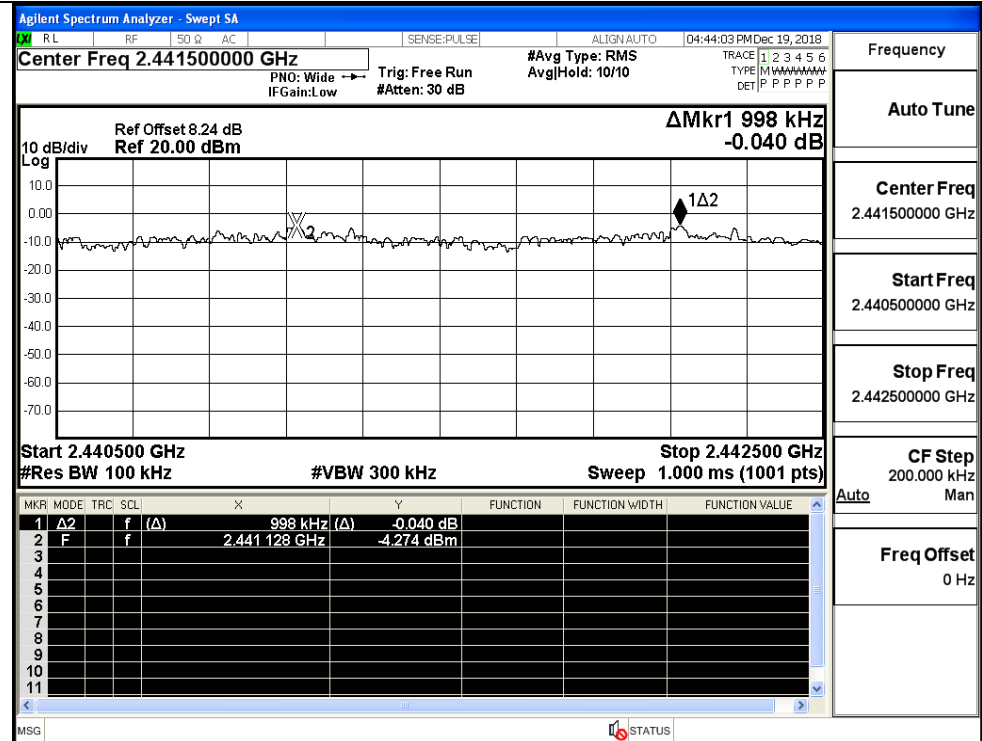
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

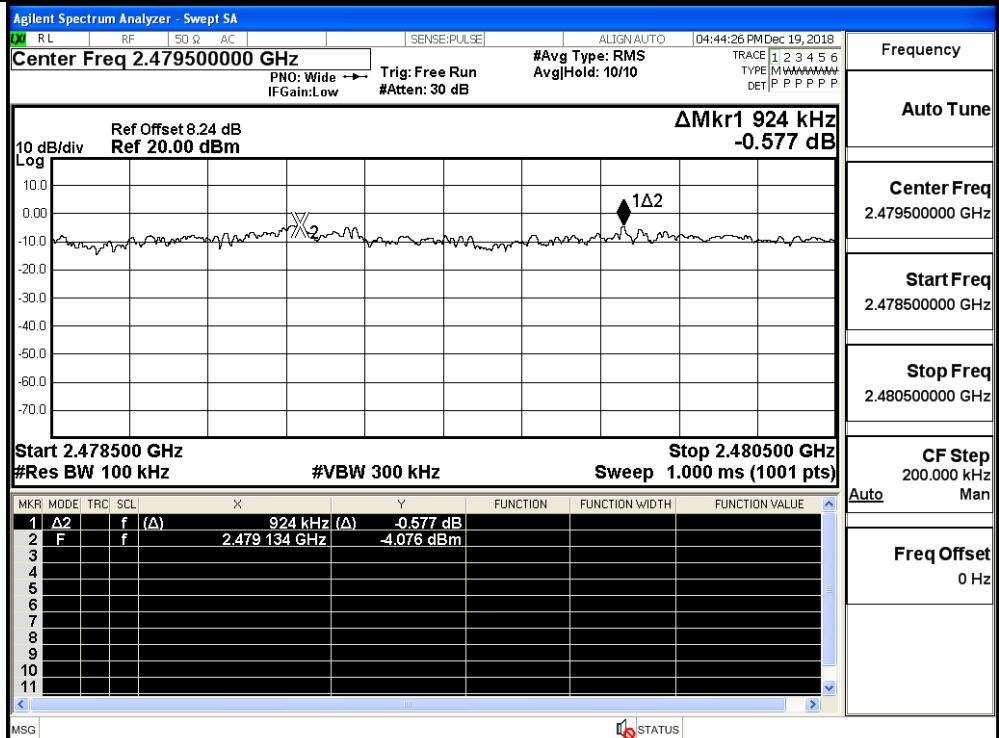
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

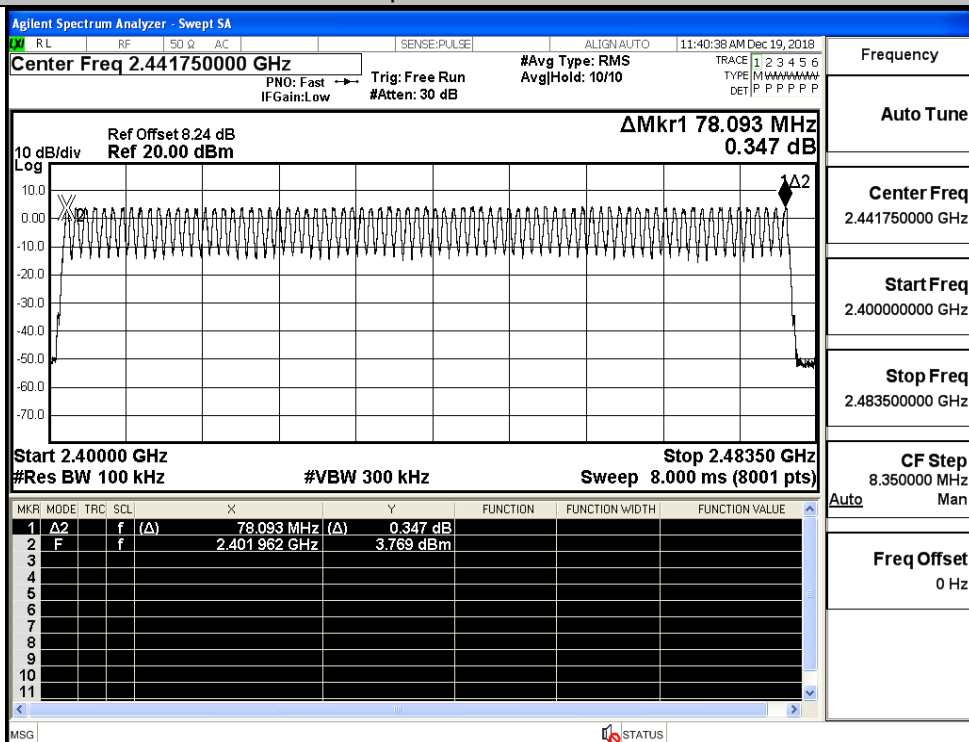
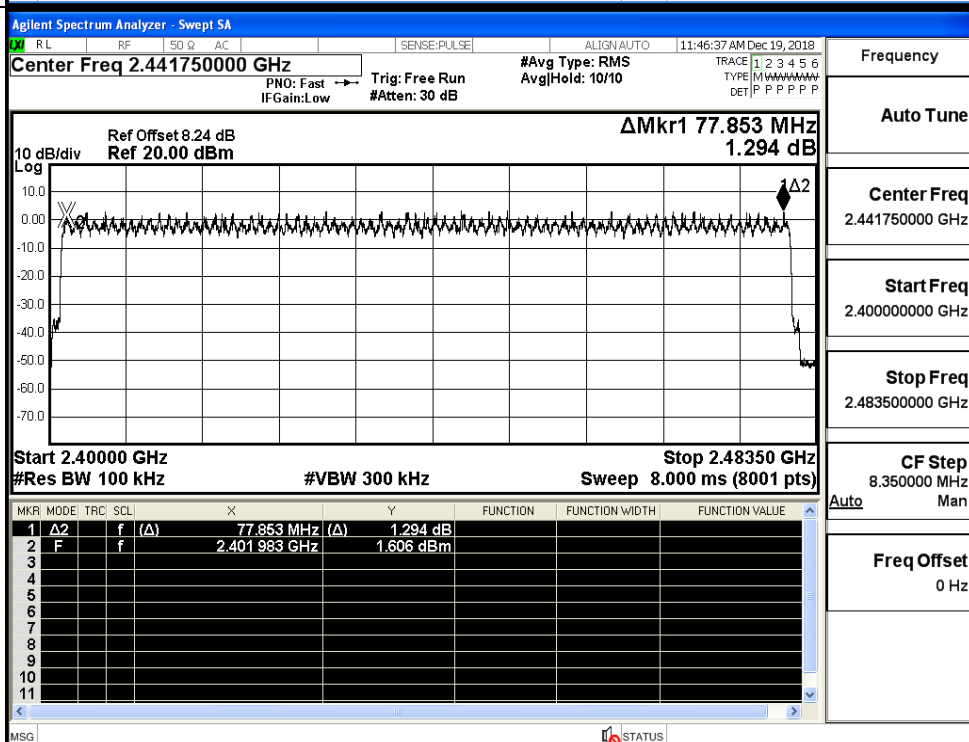


A.4 Hopping Channel Number

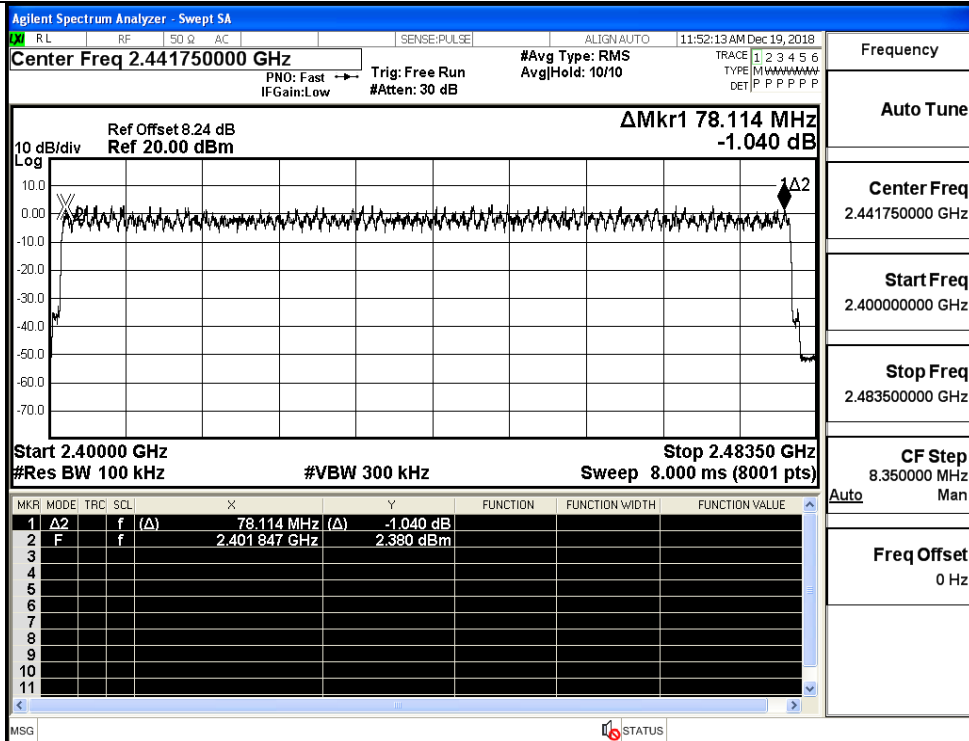
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS
8DPSK	Hop	79	≥ 15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

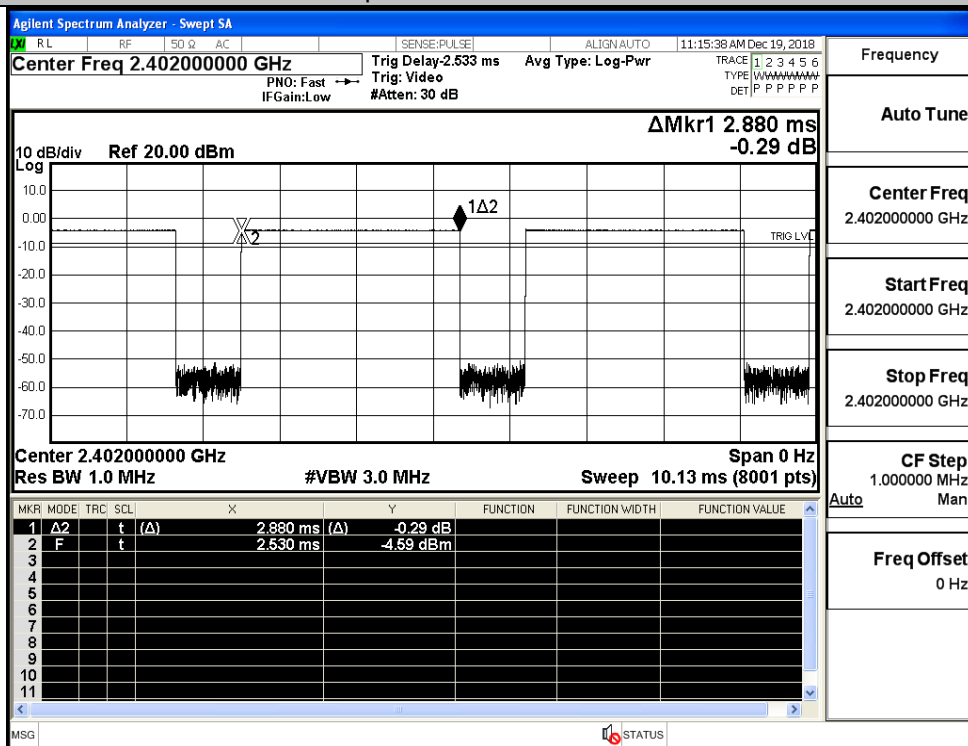


A.5 Dwell Time

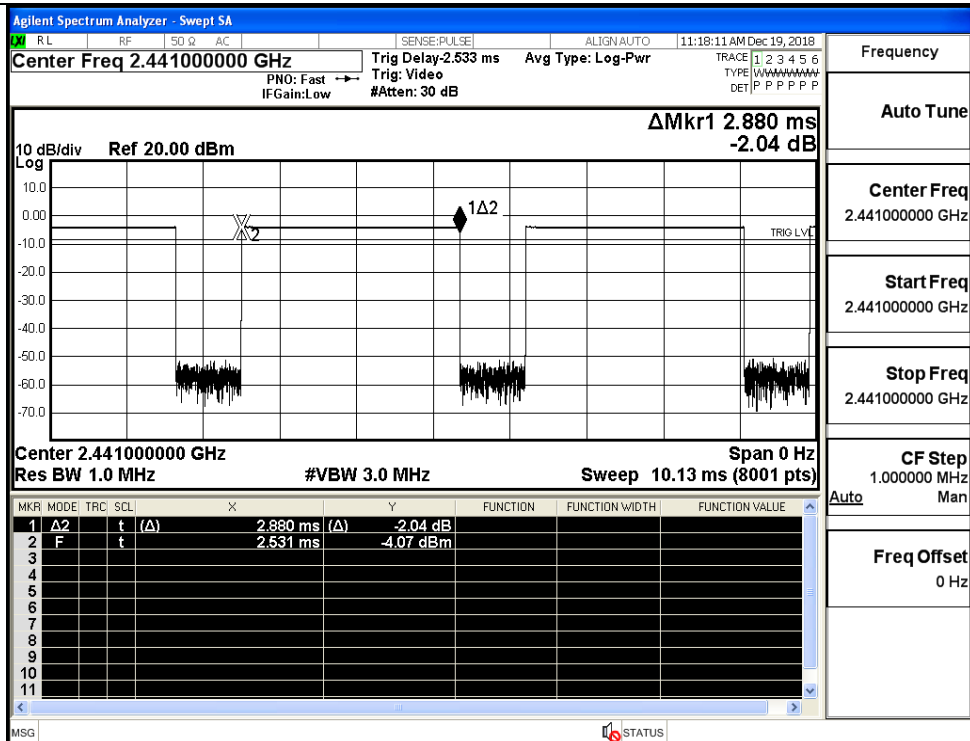
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

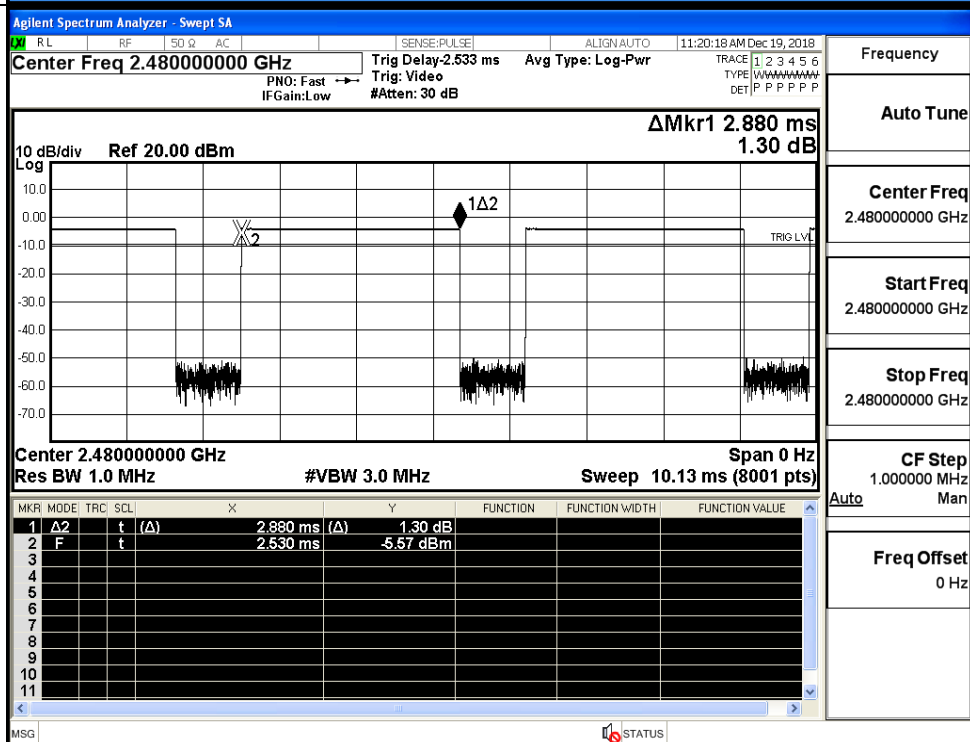
GFSK_DH5/LCH



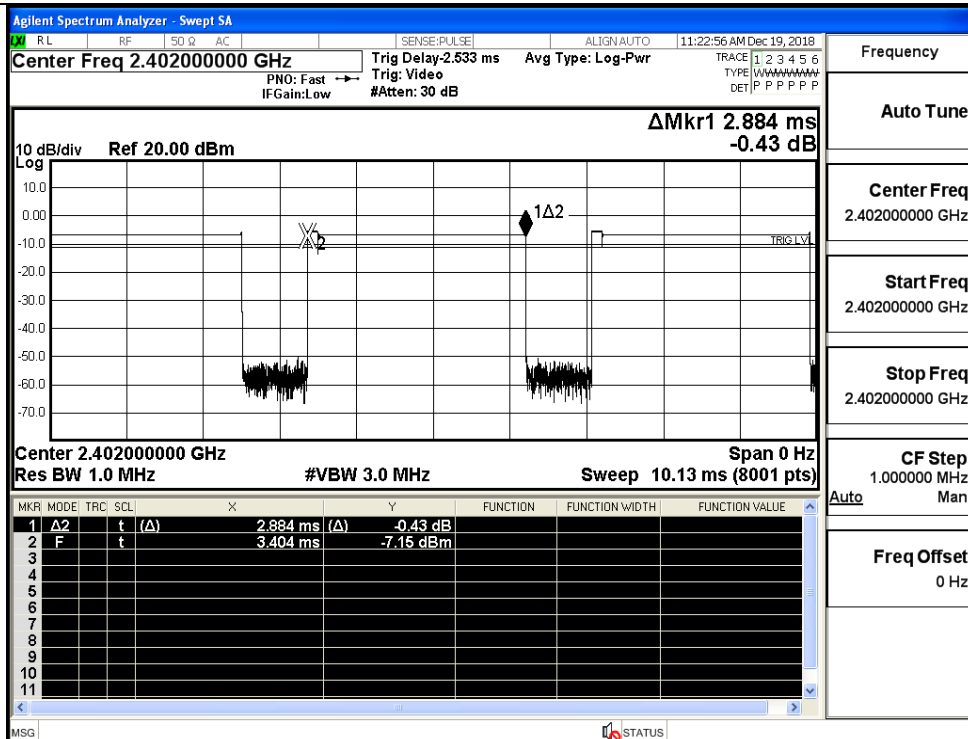
GFSK_DH5/MCH



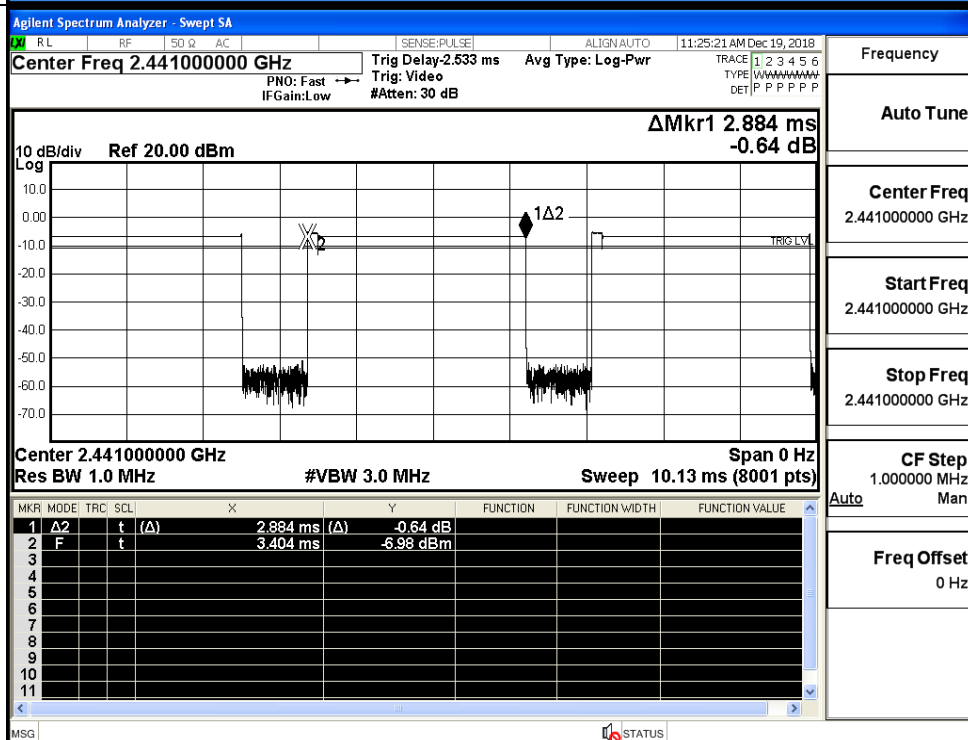
GFSK_DH5/HCH



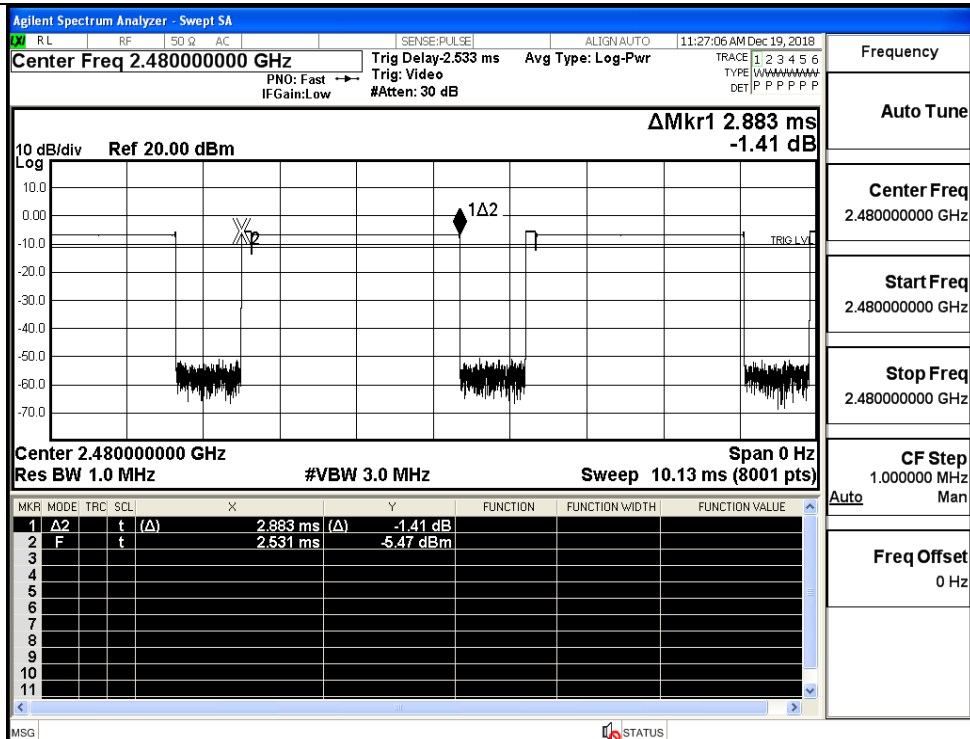
$\pi/4$ DQPSK
_2DH5/LCH



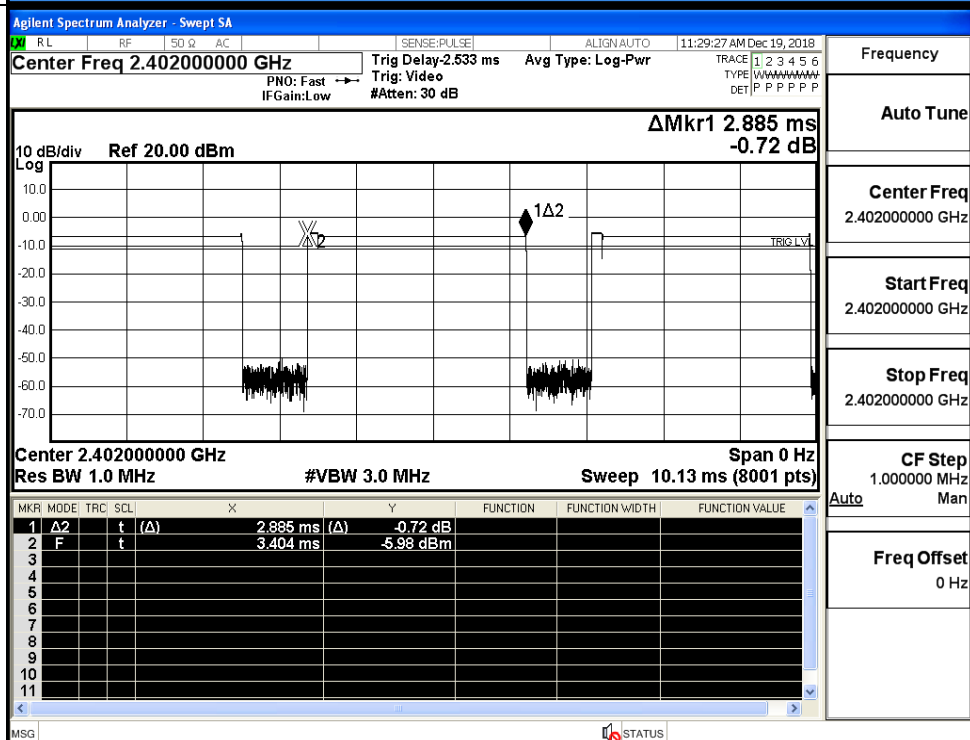
$\pi/4$ DQPSK
_2DH5/MCH



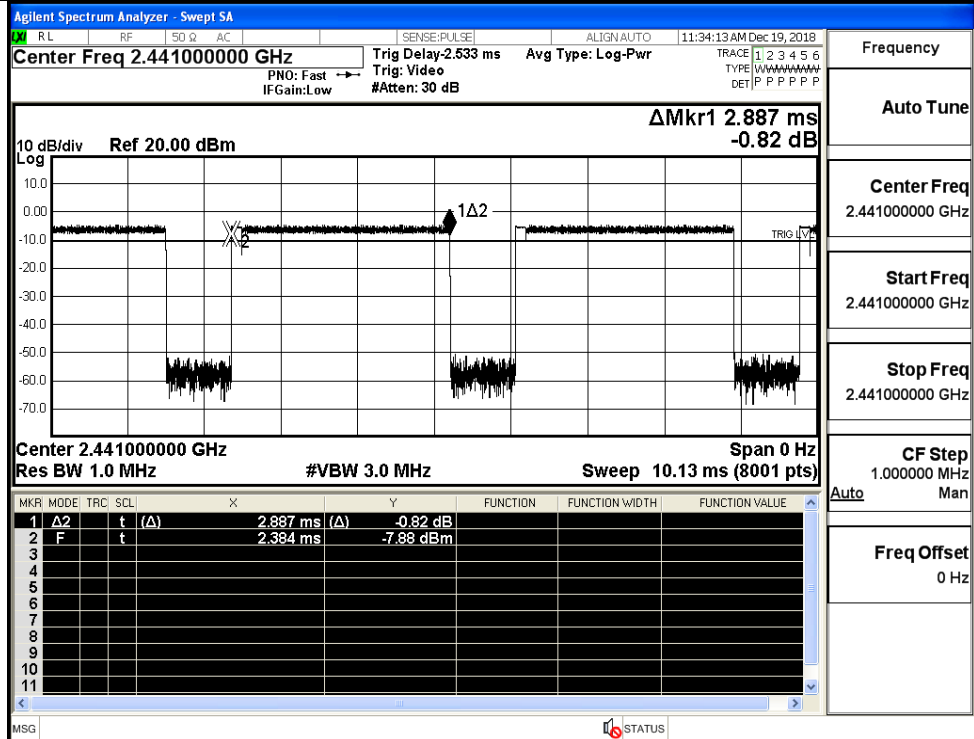
$\pi/4$ DQPSK
_2DH5/HCH



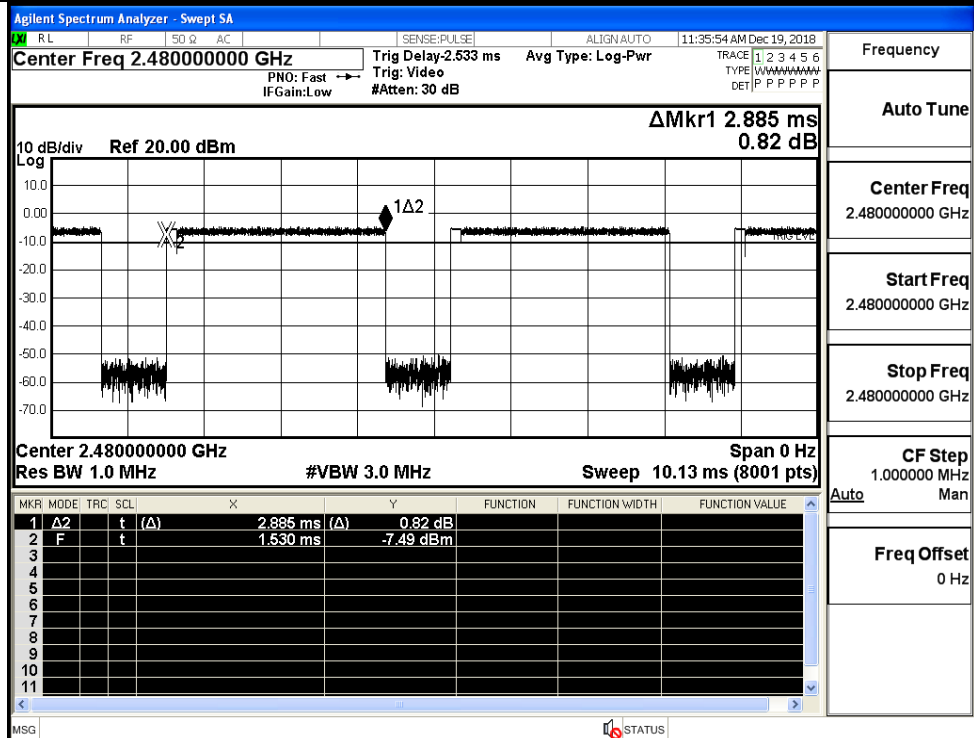
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

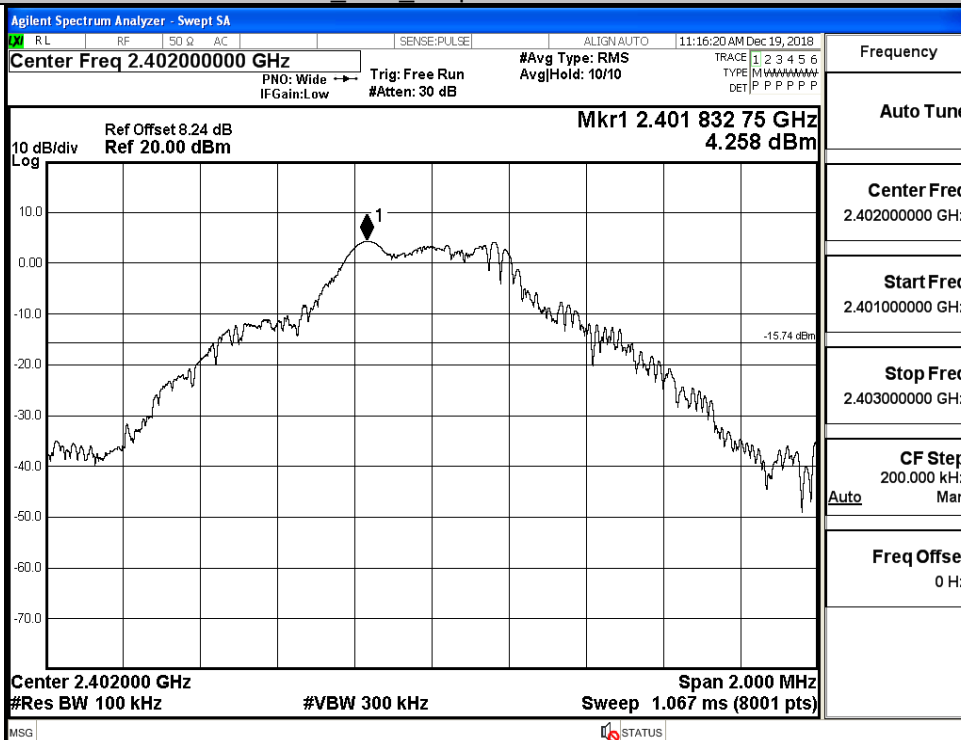


A.6 RF Conducted Spurious Emissions

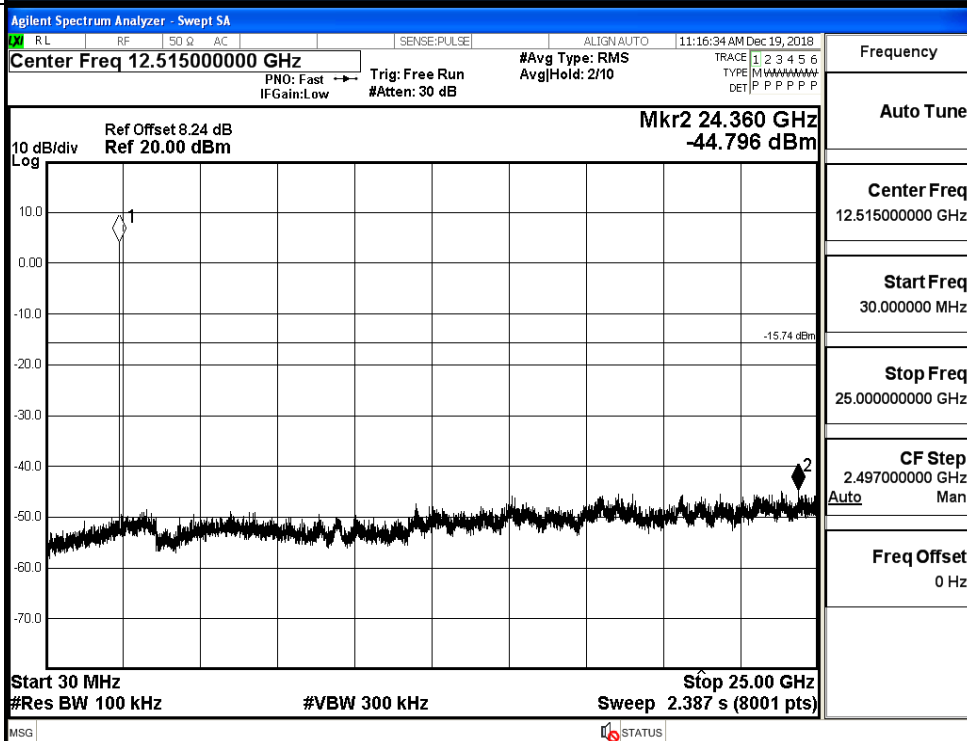
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	4.258	-44.796	-15.742	PASS
	MCH	4.371	-45.326	-15.629	PASS
	HCH	4.339	-44.935	-15.661	PASS
$\pi/4$ DQPSK	LCH	2.765	-44.367	-17.235	PASS
	MCH	2.822	-44.666	-17.178	PASS
	HCH	2.718	-44.195	-17.282	PASS
8DPSK	LCH	2.743	-45.122	-17.257	PASS
	MCH	2.908	-44.475	-17.092	PASS
	HCH	2.872	-43.773	-17.128	PASS

GFSK LCH Graphs

Pref

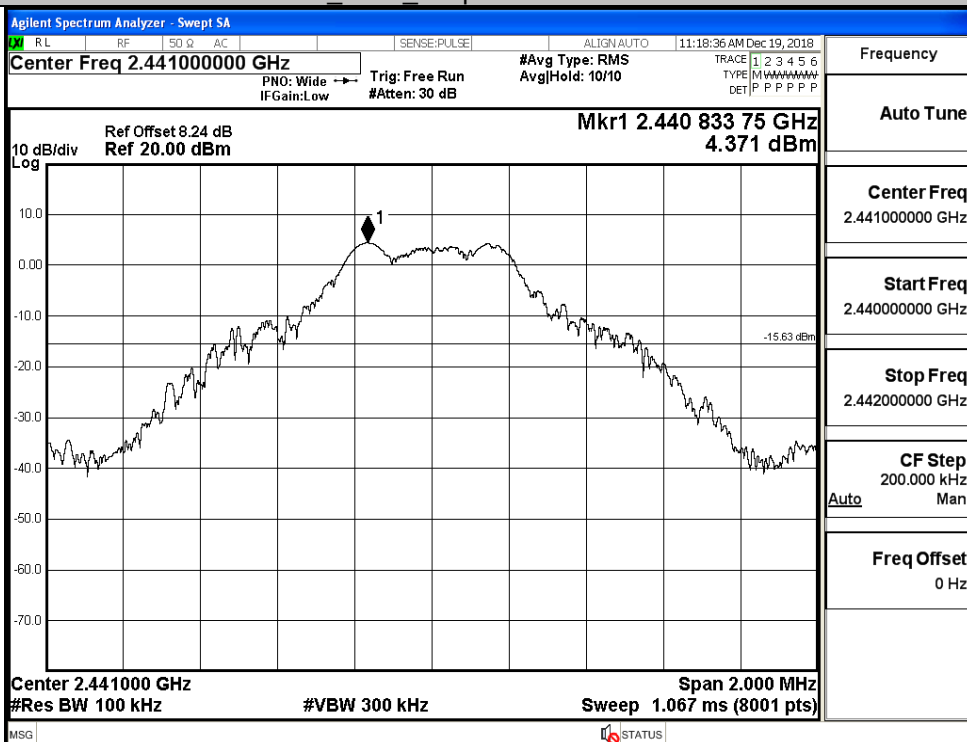


Puw

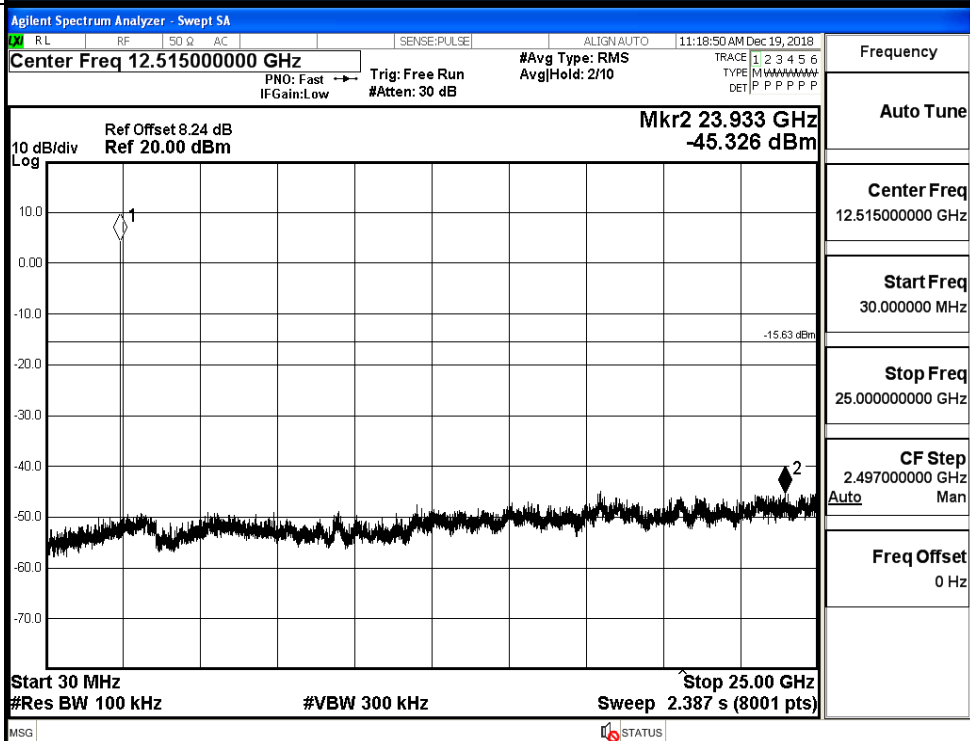


GFSK_MCH_Graphs

Pref

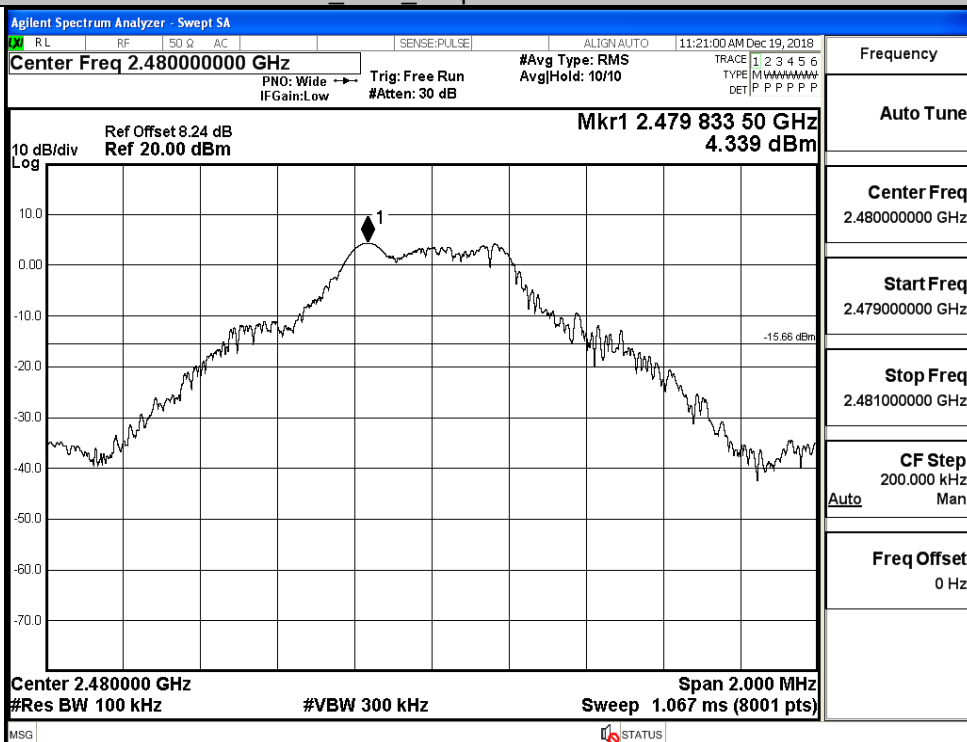


Puw

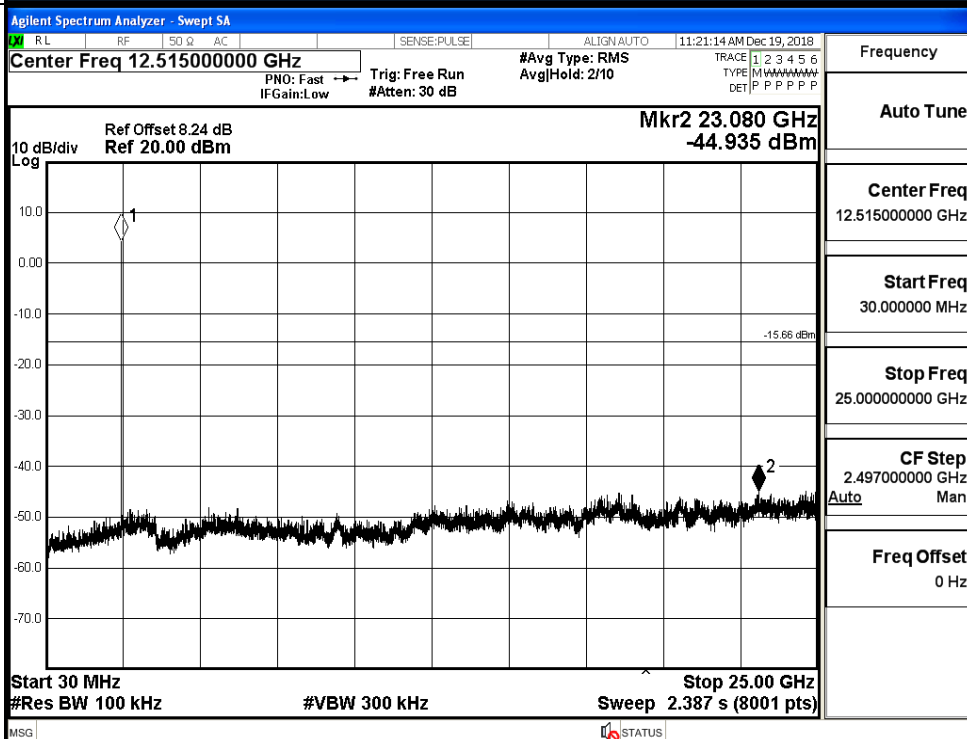


GFSK_HCH_Graphs

Pref

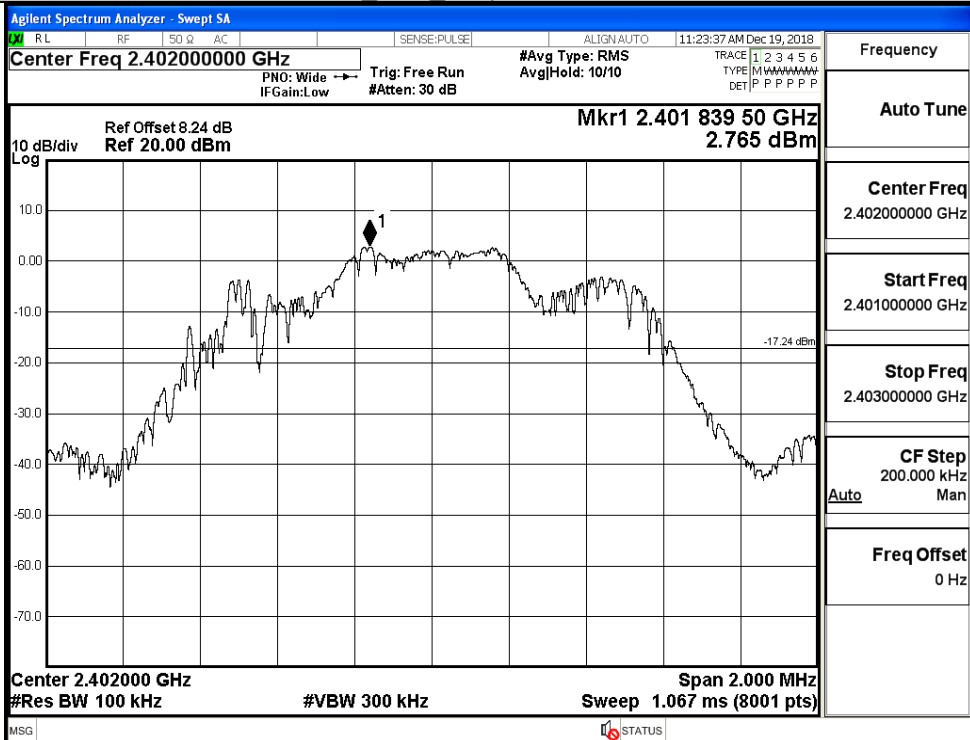


Puw

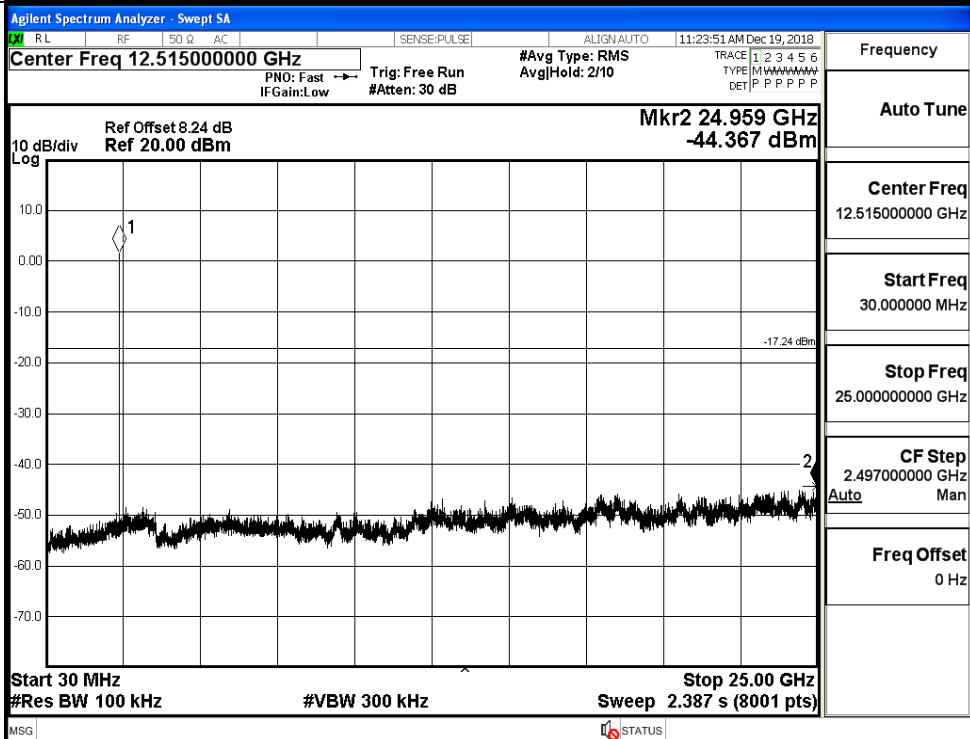


$\pi/4$ DQPSK LCH_Graphs

Pref

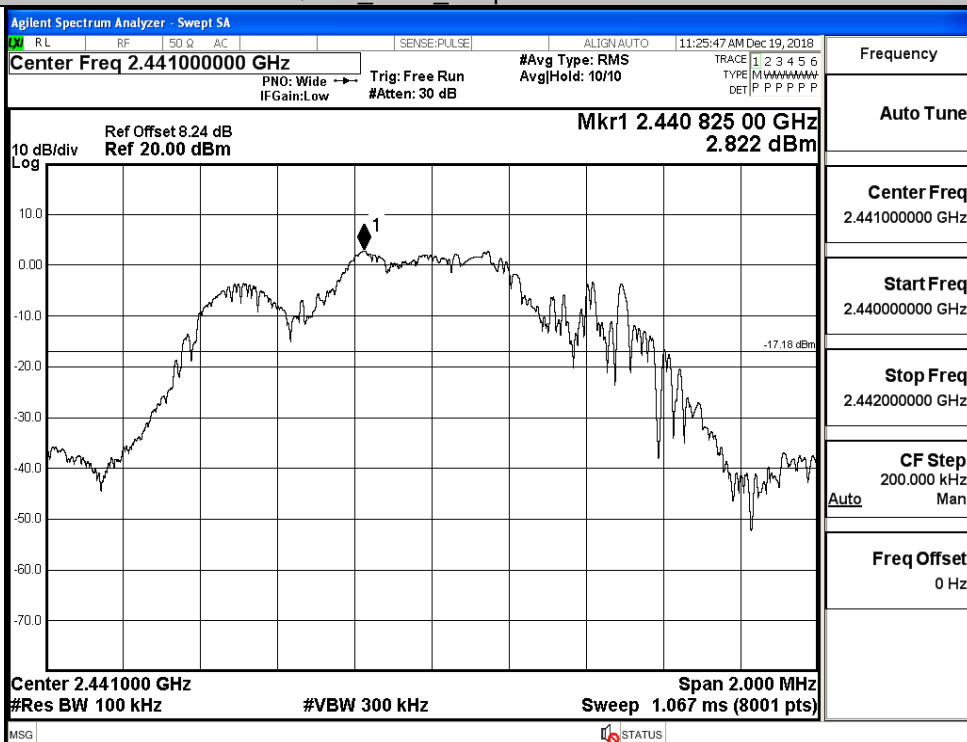


Puw

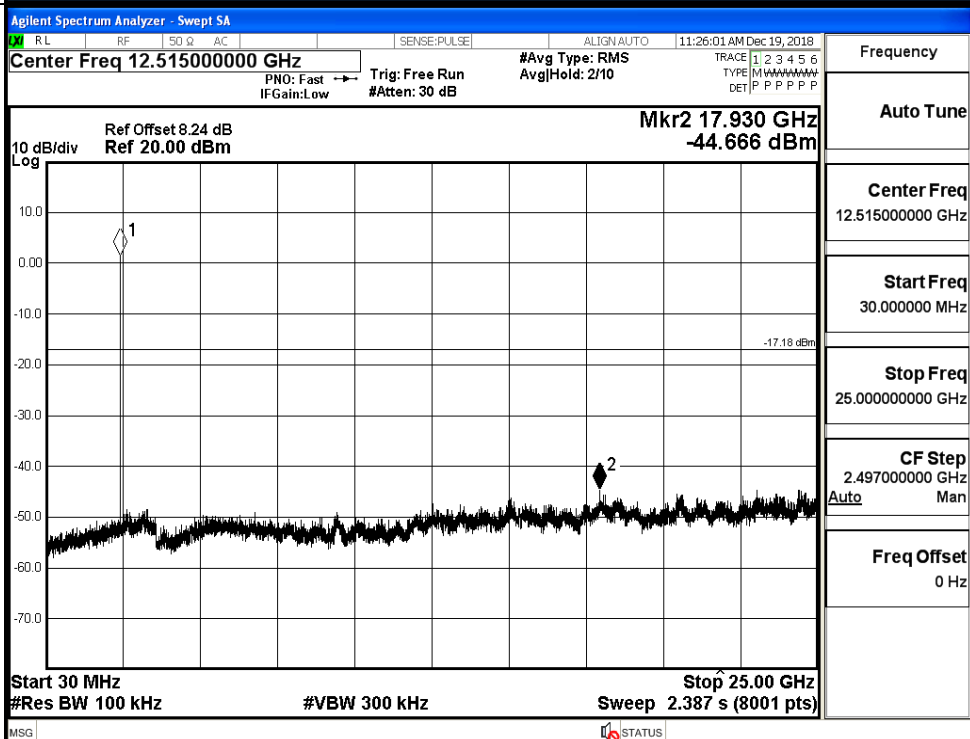


π /4DQPSK_MCH_Graphs

Pref

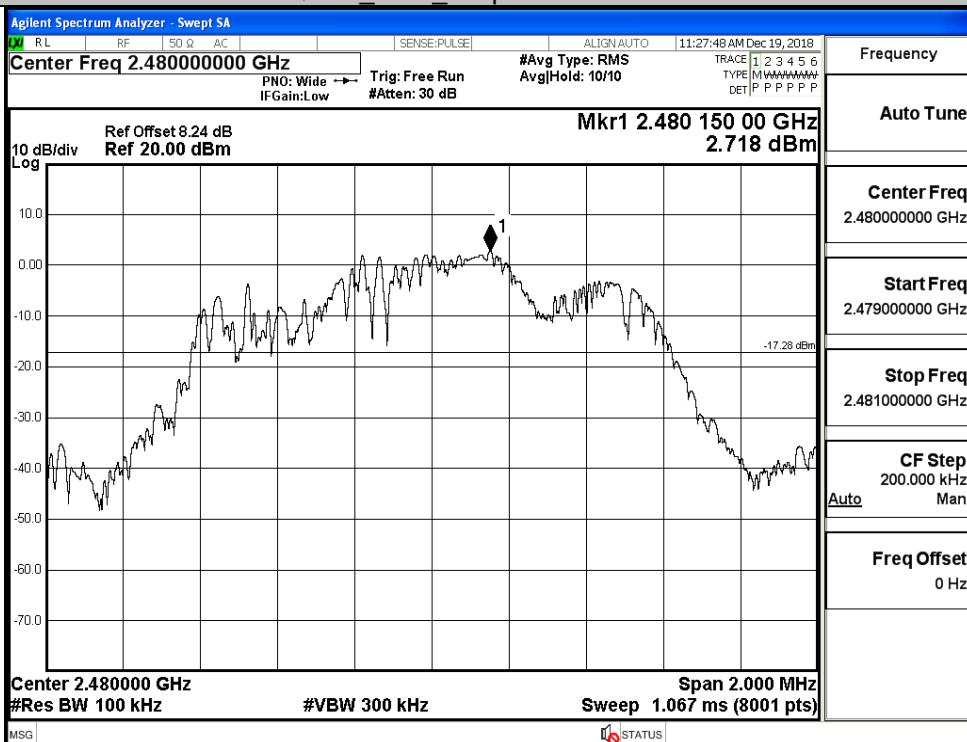


Puw

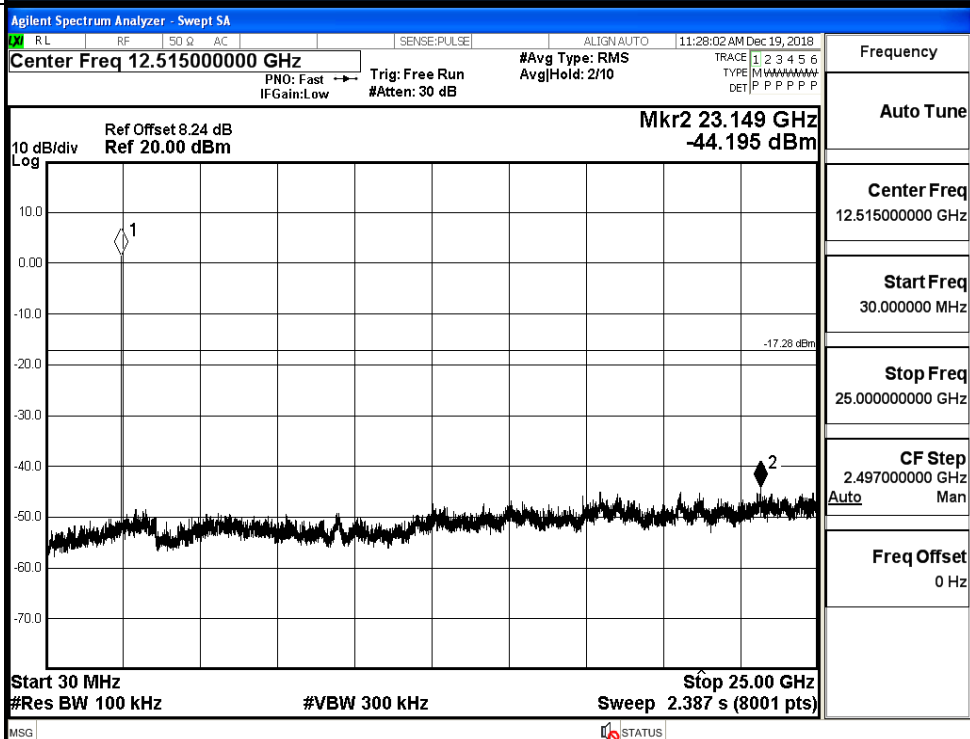


π /4DQPSK_HCH_Graphs

Pref

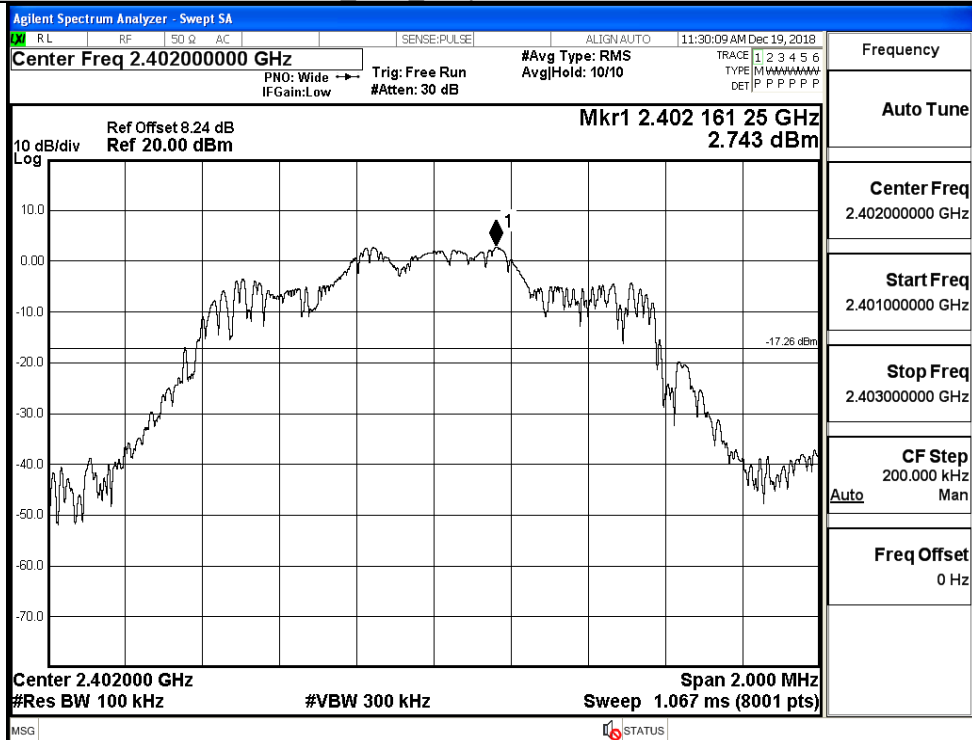


Puw

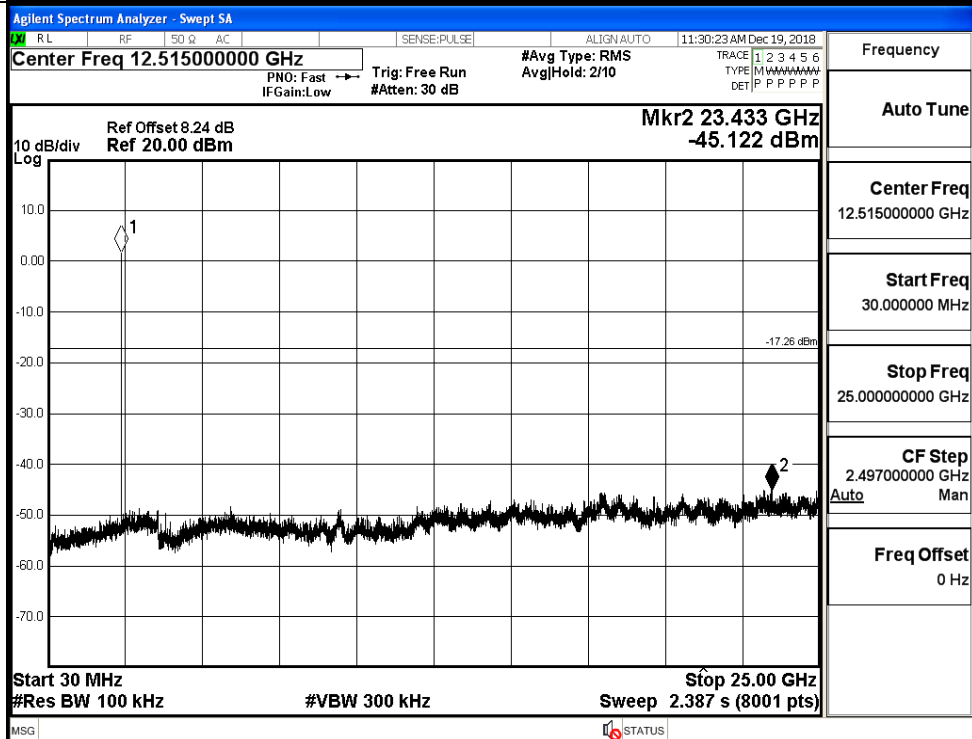


8DPSK_LCH_Graphs

Pref

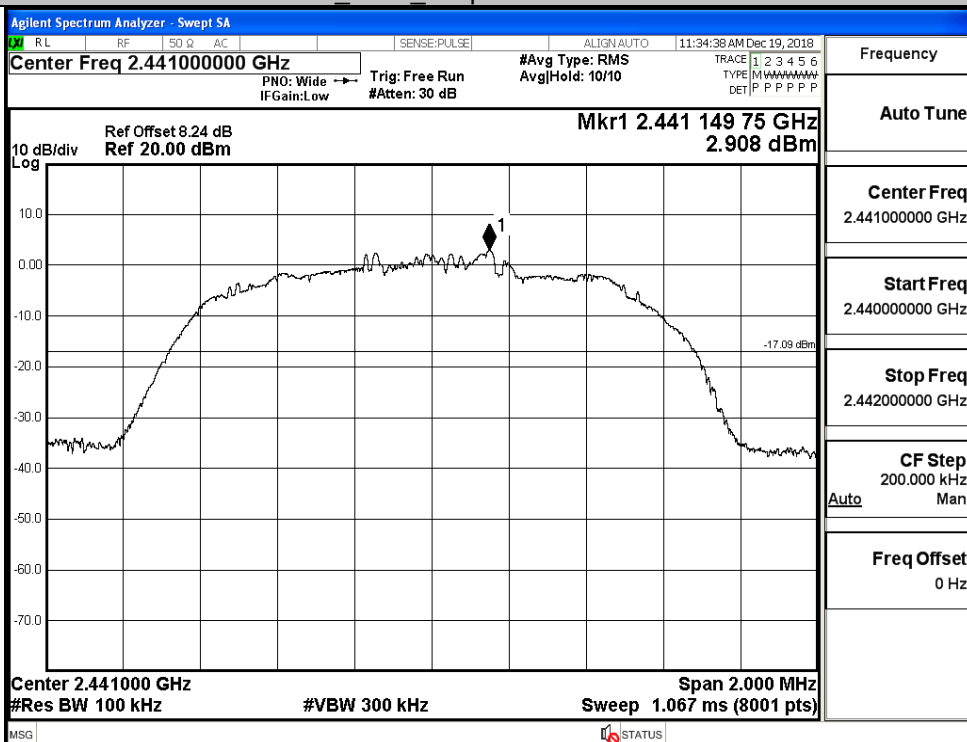


Puw

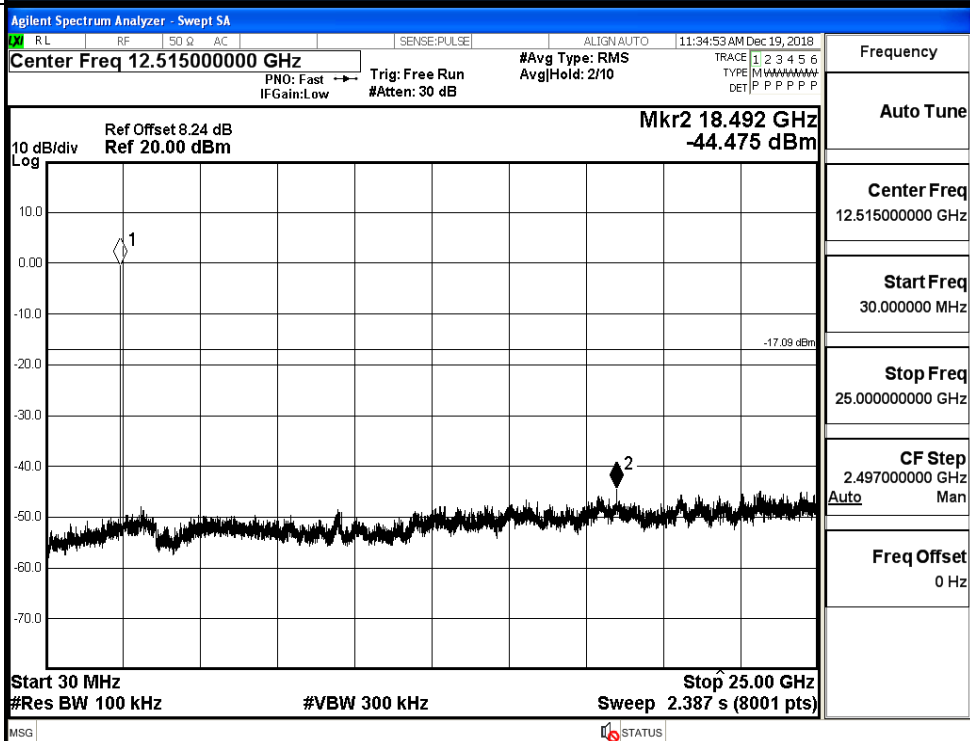


8DPSK_MCH_Graphs

Pref

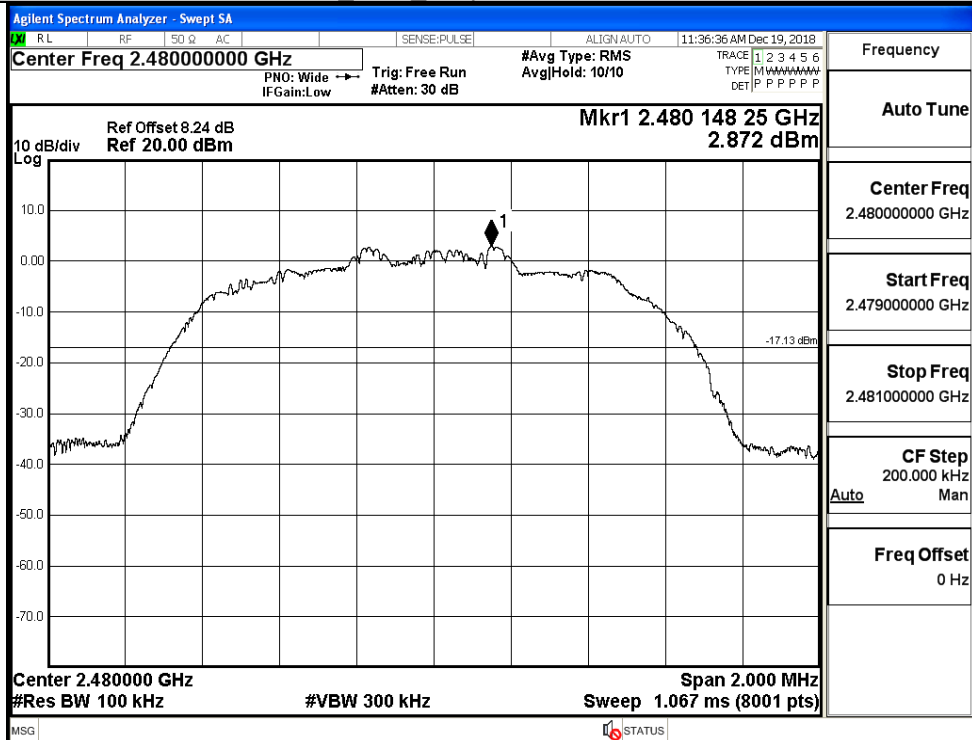


Puw

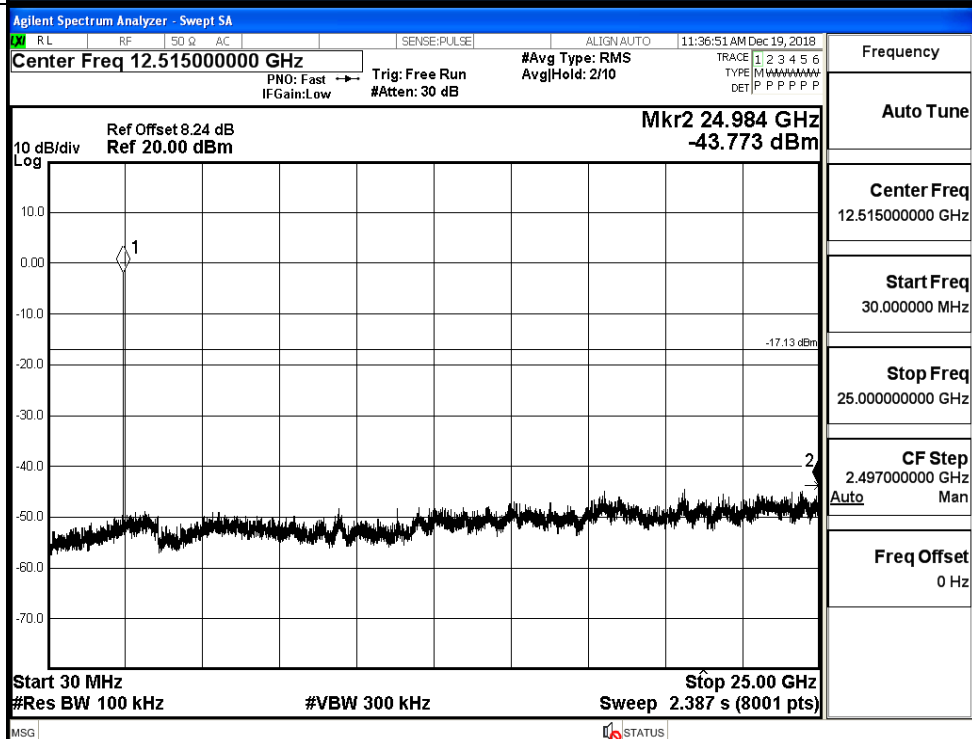


8DPSK_HCH_Graphs

Pref



Puw

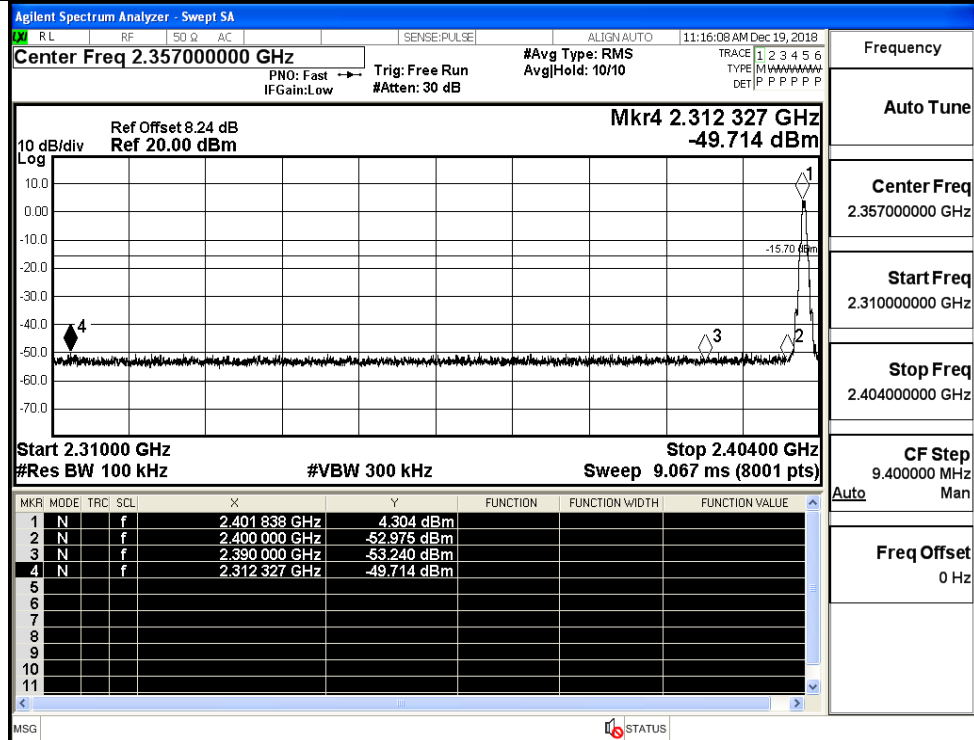


A.7 Band-edge for RF Conducted Emissions

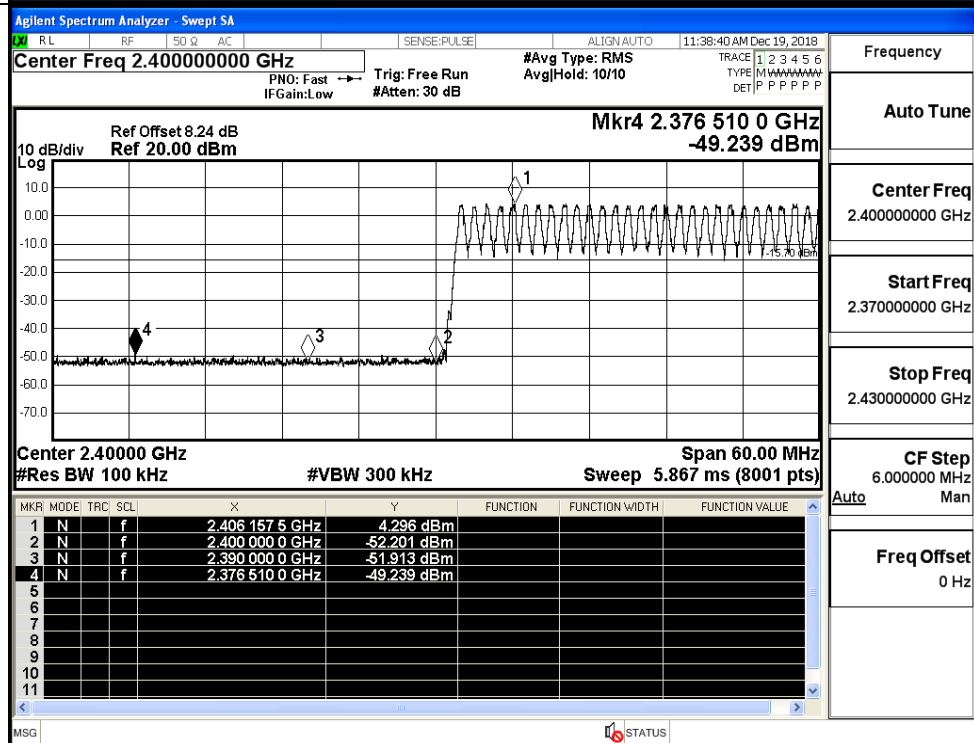
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	4.304	Off	-49.714	-15.7	PASS
			4.296	On	-49.239	-15.7	PASS
	HCH	2480	4.386	Off	-49.674	-15.61	PASS
			4.387	On	-48.977	-15.61	PASS
$\pi/4$ DQPSK	LCH	2402	2.771	Off	-49.794	-17.23	PASS
			2.862	On	-49.319	-17.14	PASS
	HCH	2480	2.898	Off	-49.862	-17.1	PASS
			3.069	On	-49.116	-16.93	PASS
8DPSK	LCH	2402	1.802	Off	-49.729	-18.2	PASS
			2.950	On	-49.036	-17.05	PASS
	HCH	2480	2.804	Off	-49.419	-17.2	PASS
			2.917	On	-49.127	-17.08	PASS

Test Graphs

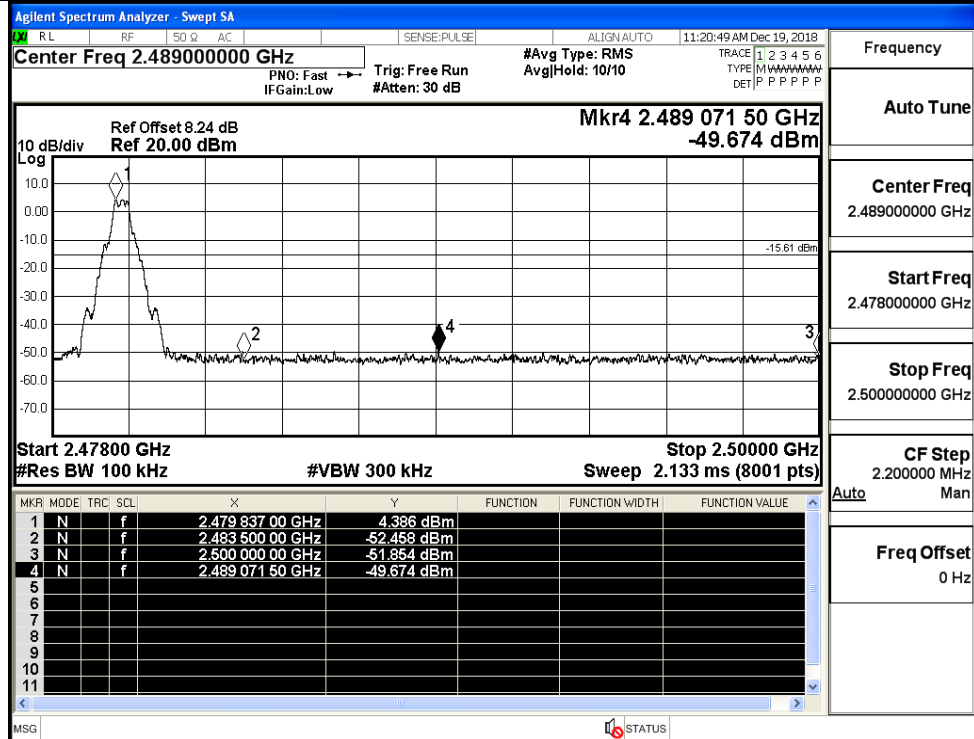
GFSK/LCH/No Hop



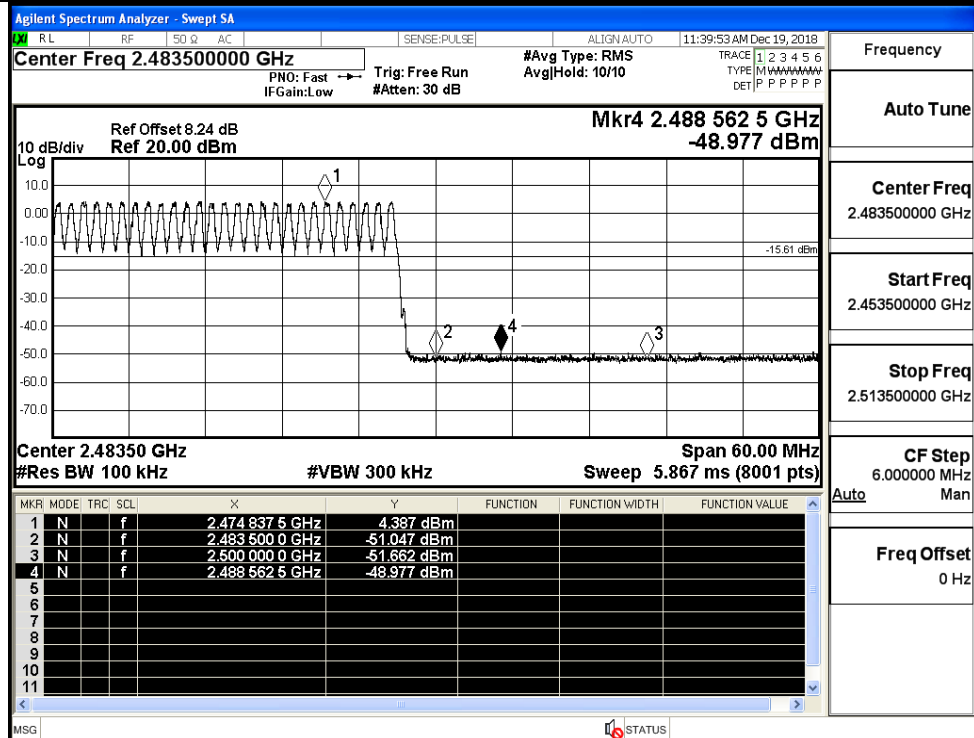
GFSK/LCH/Hop



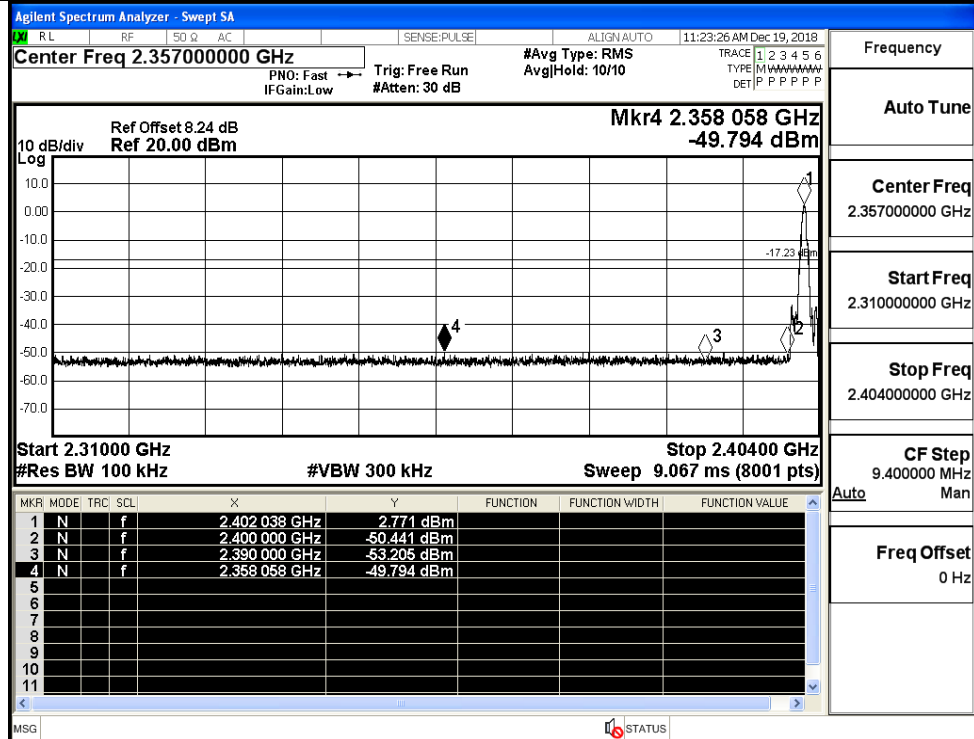
GFSK/HCH/No Hop



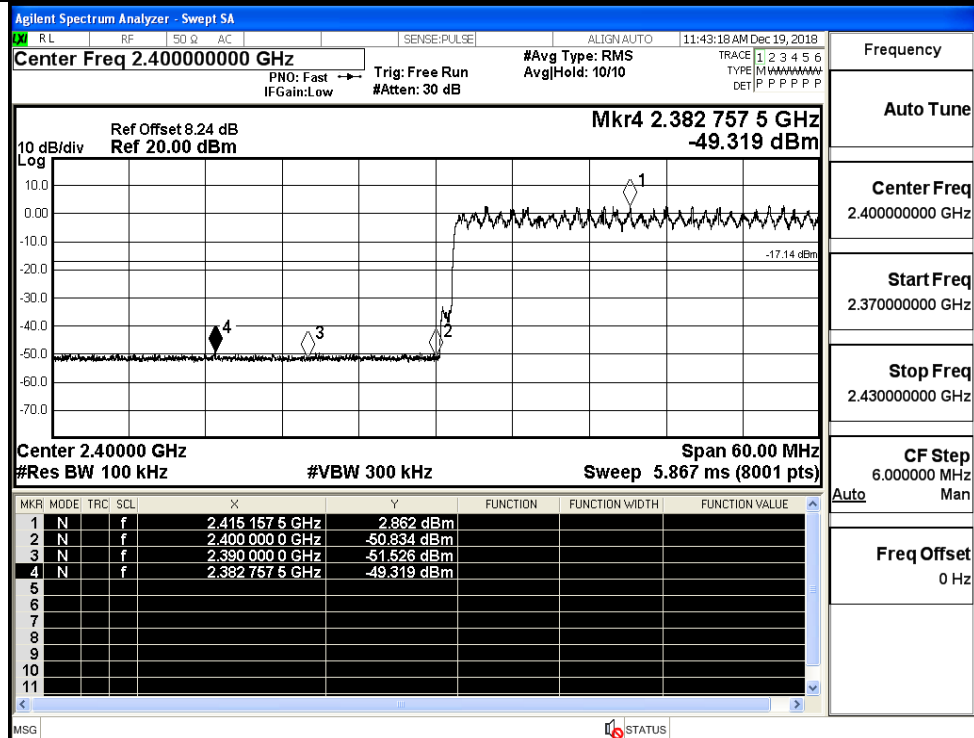
GFSK/HCH/Hop



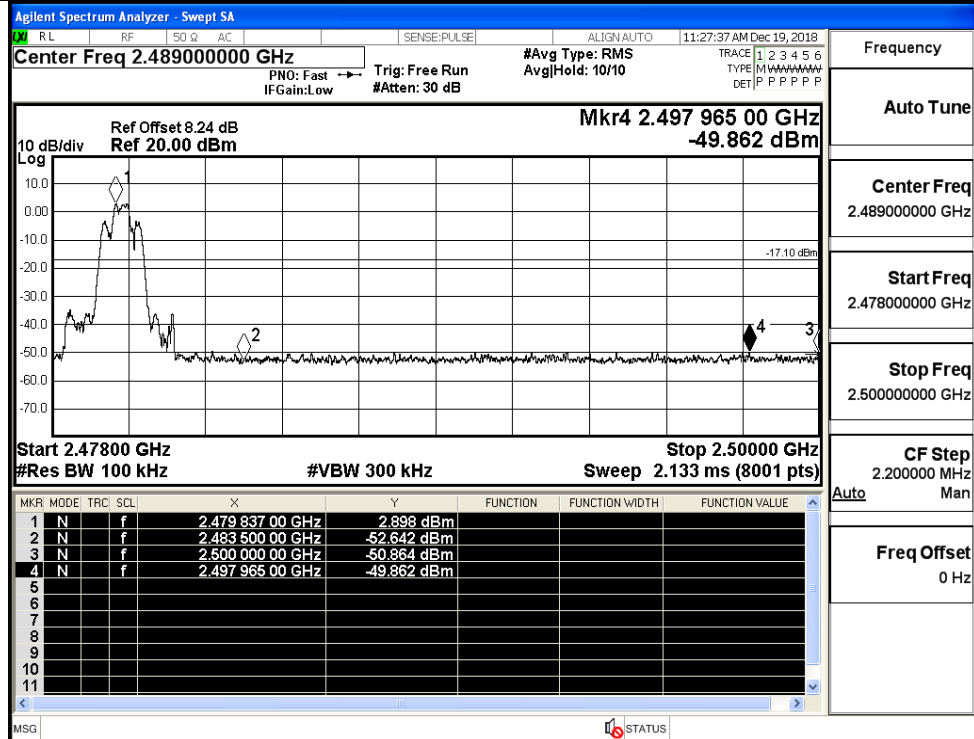
$\pi/4$ DQPSK/LCH/No
Hop



$\pi/4$ DQPSK/LCH/Hop



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

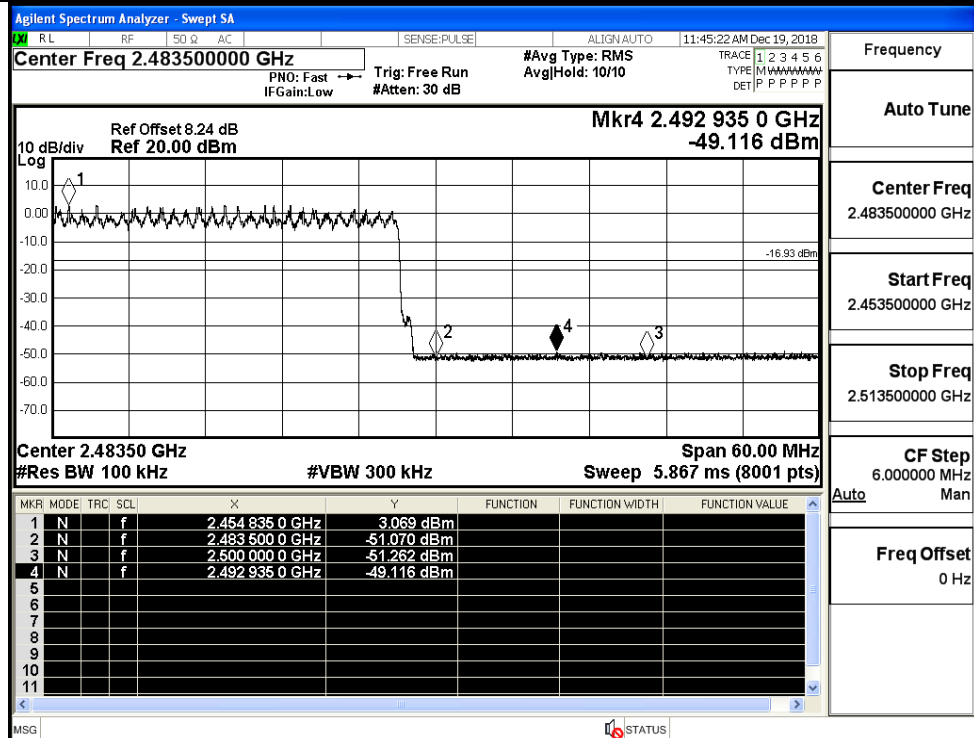


Frequency

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

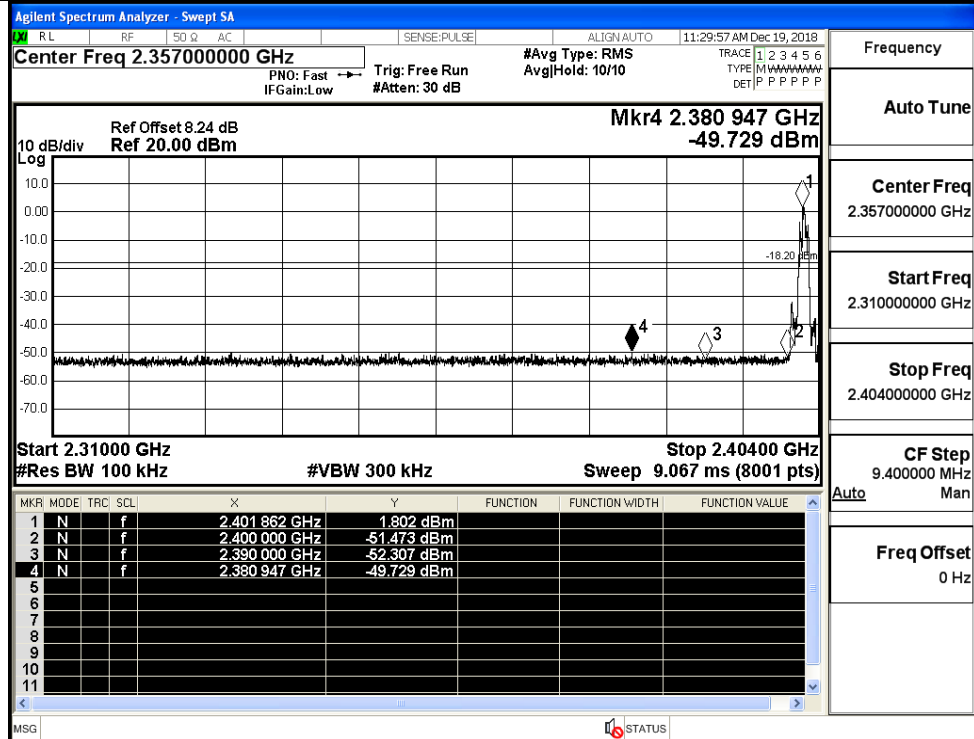


Frequency

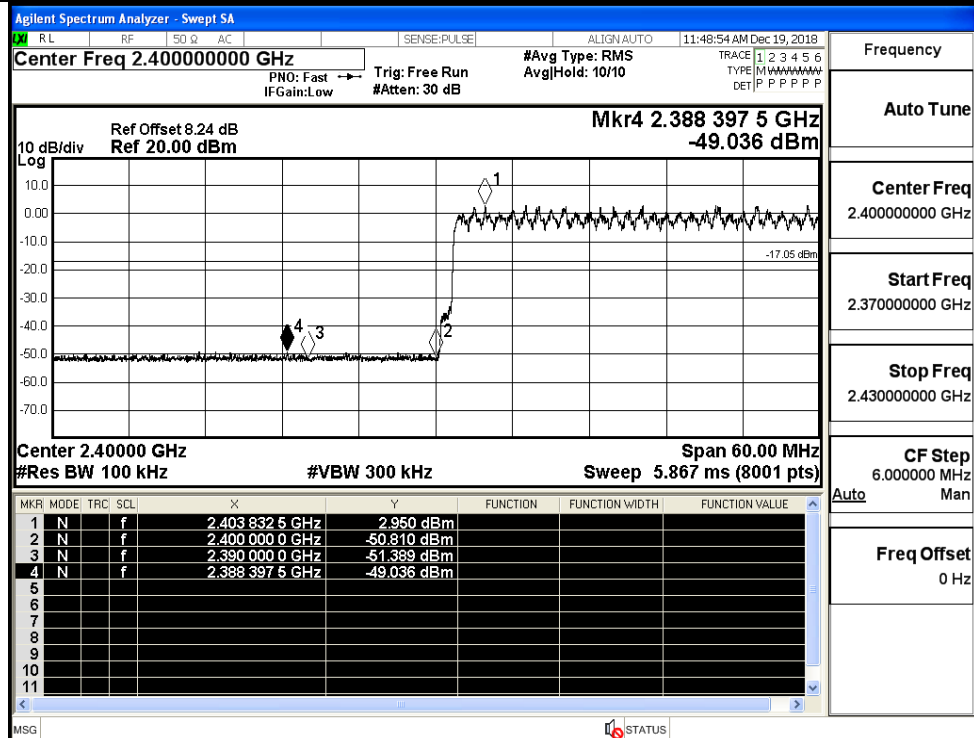
Auto Tune

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

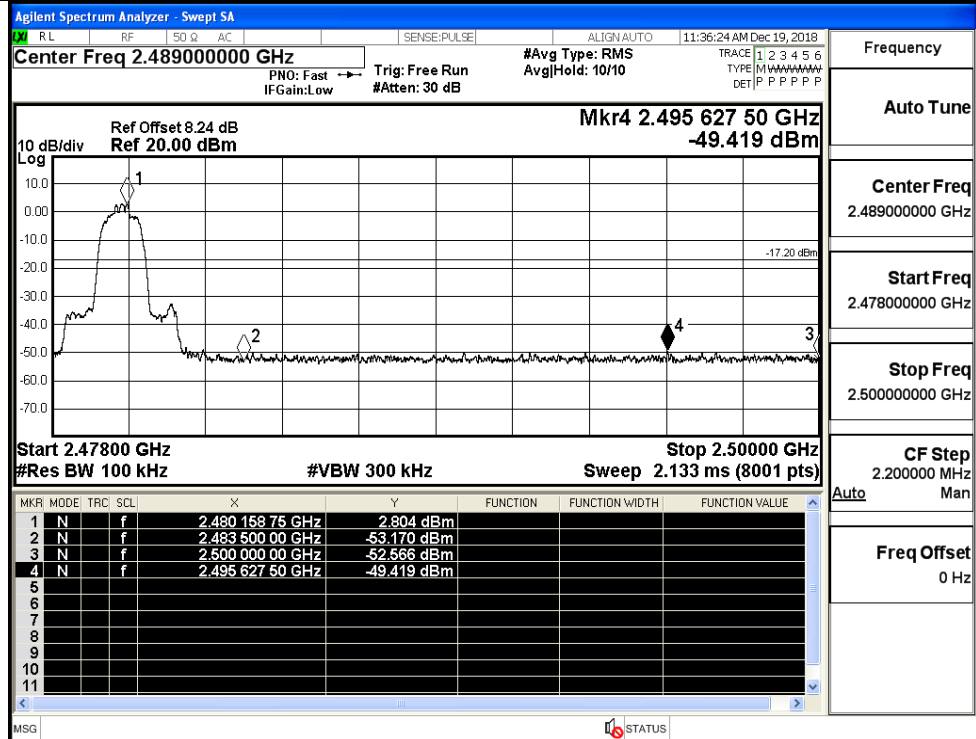
8DPSK/LCH/No Hop



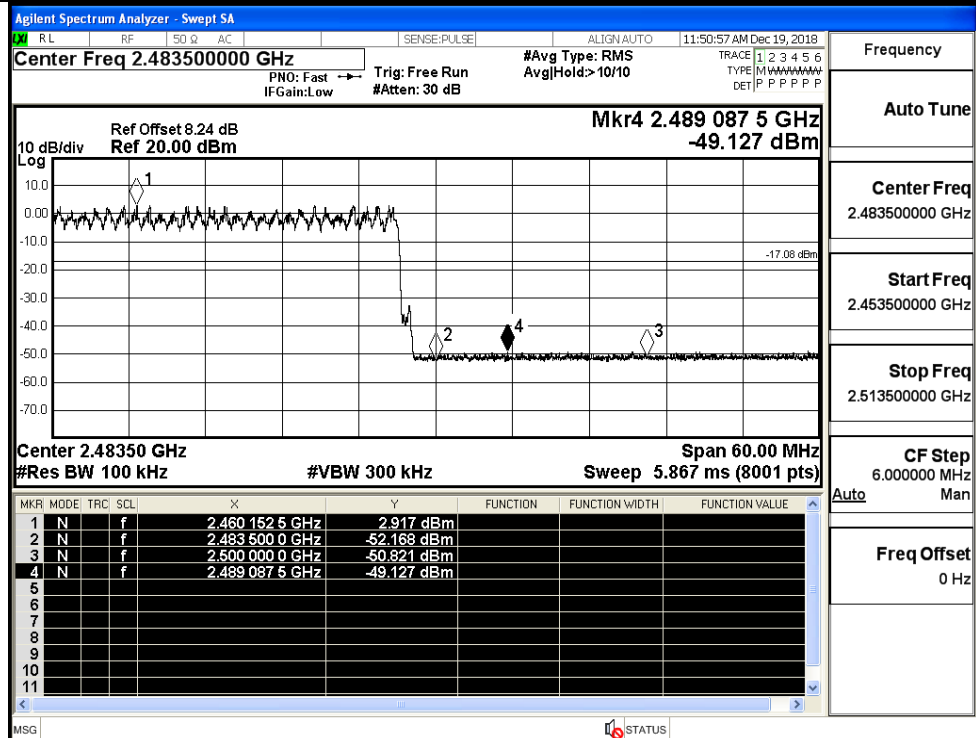
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



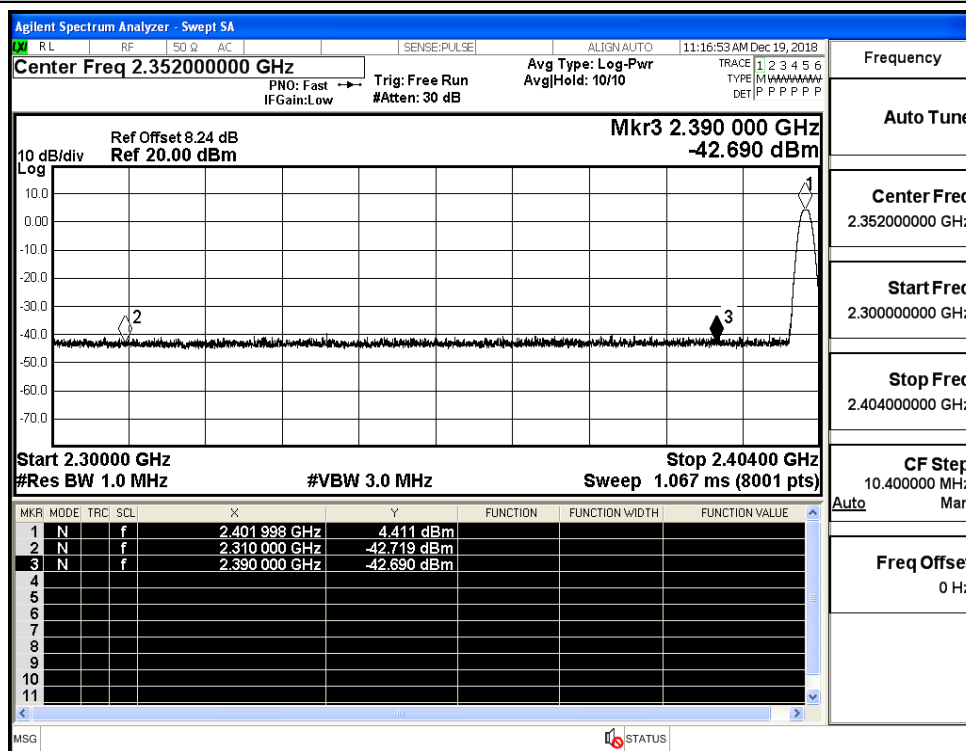
8DPSK/HCH/Hop



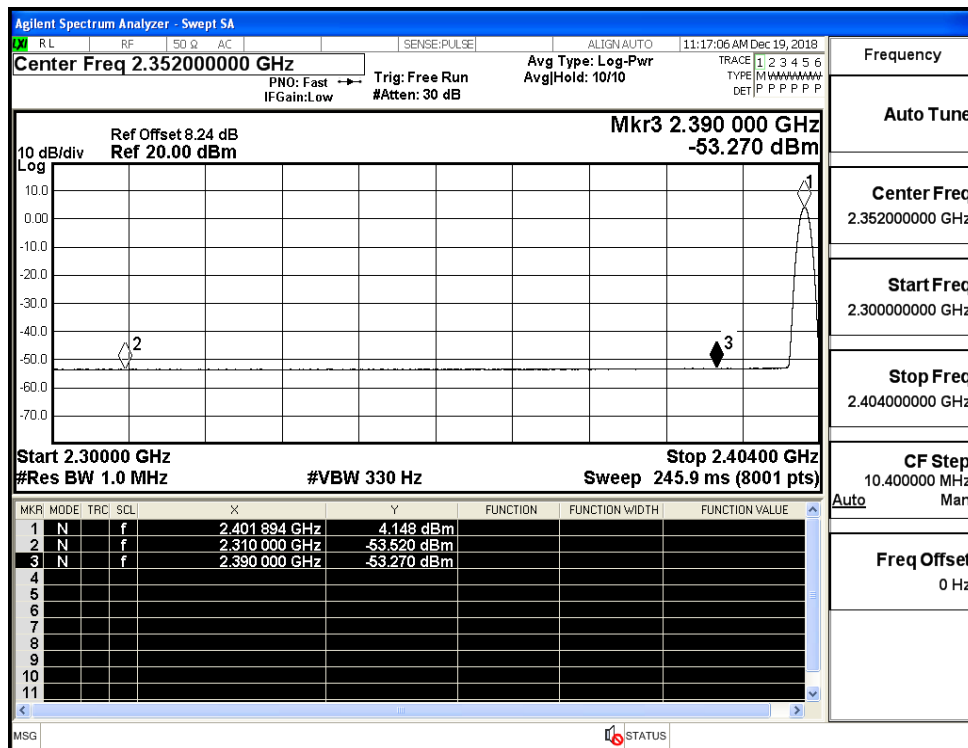
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.72	2.0	0	52.54	PEAK	74	PASS
	Off	2310.0	-53.52	2.0	0	41.74	AV	54	PASS
	Off	2390.0	-42.69	2.0	0	52.57	PEAK	74	PASS
	Off	2390.0	-53.27	2.0	0	41.99	AV	54	PASS
	Off	2483.5	-42.54	2.0	0	52.72	PEAK	74	PASS
	Off	2483.5	-52.73	2.0	0	42.52	AV	54	PASS
	Off	2500.0	-43.72	2.0	0	51.54	PEAK	74	PASS
	Off	2500.0	-52.87	2.0	0	42.39	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-42.12	2.0	0	53.14	PEAK	74	PASS
	Off	2310.0	-53.66	2.0	0	41.60	AV	54	PASS
	Off	2390.0	-43.22	2.0	0	52.04	PEAK	74	PASS
	Off	2390.0	-53.31	2.0	0	41.95	AV	54	PASS
	Off	2483.5	-43.35	2.0	0	51.90	PEAK	74	PASS
	Off	2483.5	-52.87	2.0	0	42.39	AV	54	PASS
	Off	2500.0	-42.95	2.0	0	52.31	PEAK	74	PASS
	Off	2500.0	-52.92	2.0	0	42.34	AV	54	PASS
8DPSK	Off	2310.0	-43.45	2.0	0	51.81	PEAK	74	PASS
	Off	2310.0	-53.47	2.0	0	41.79	AV	54	PASS
	Off	2390.0	-42.80	2.0	0	52.46	PEAK	74	PASS
	Off	2390.0	-53.34	2.0	0	41.92	AV	54	PASS
	Off	2483.5	-41.68	2.0	0	53.58	PEAK	74	PASS
	Off	2483.5	-52.63	2.0	0	42.63	AV	54	PASS
	Off	2500.0	-43.28	2.0	0	51.97	PEAK	74	PASS
	Off	2500.0	-52.92	2.0	0	42.34	AV	54	PASS

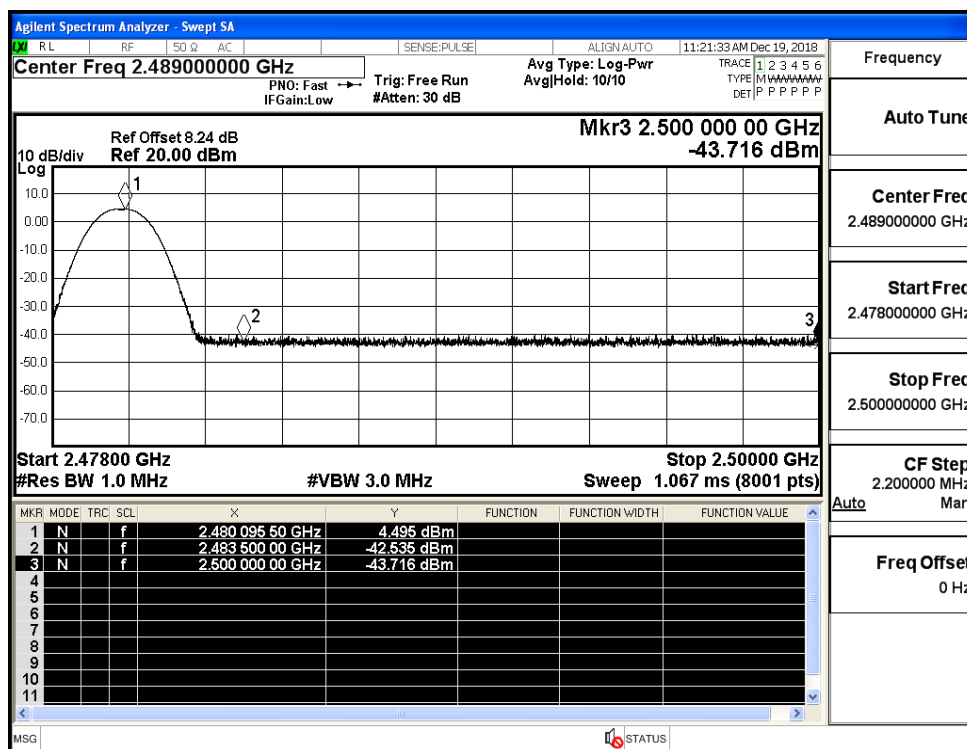
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



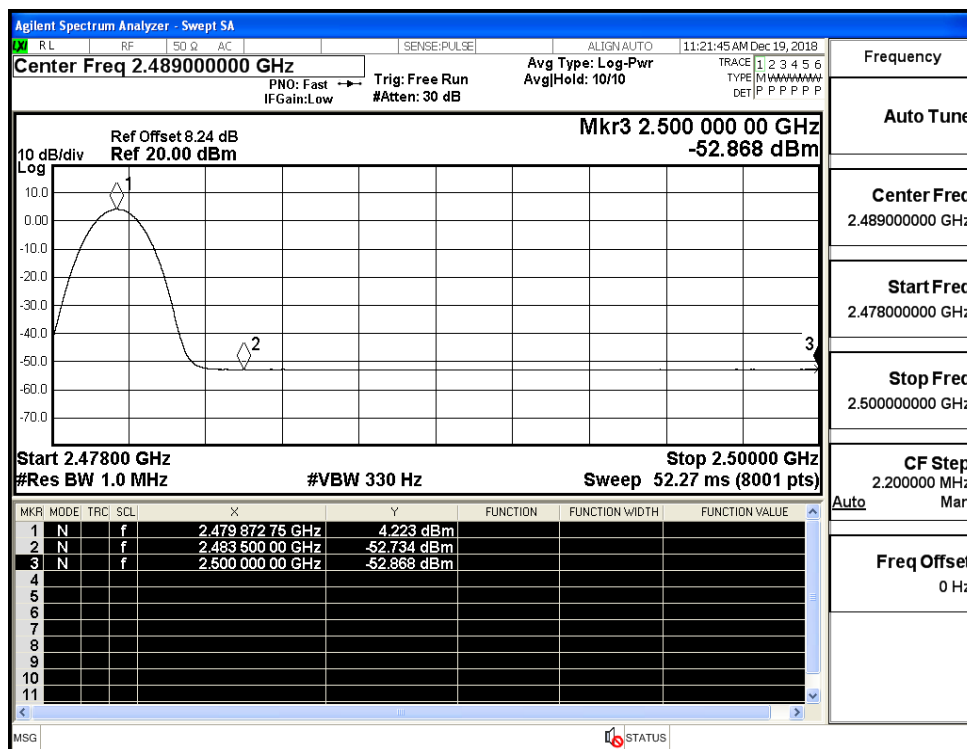
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

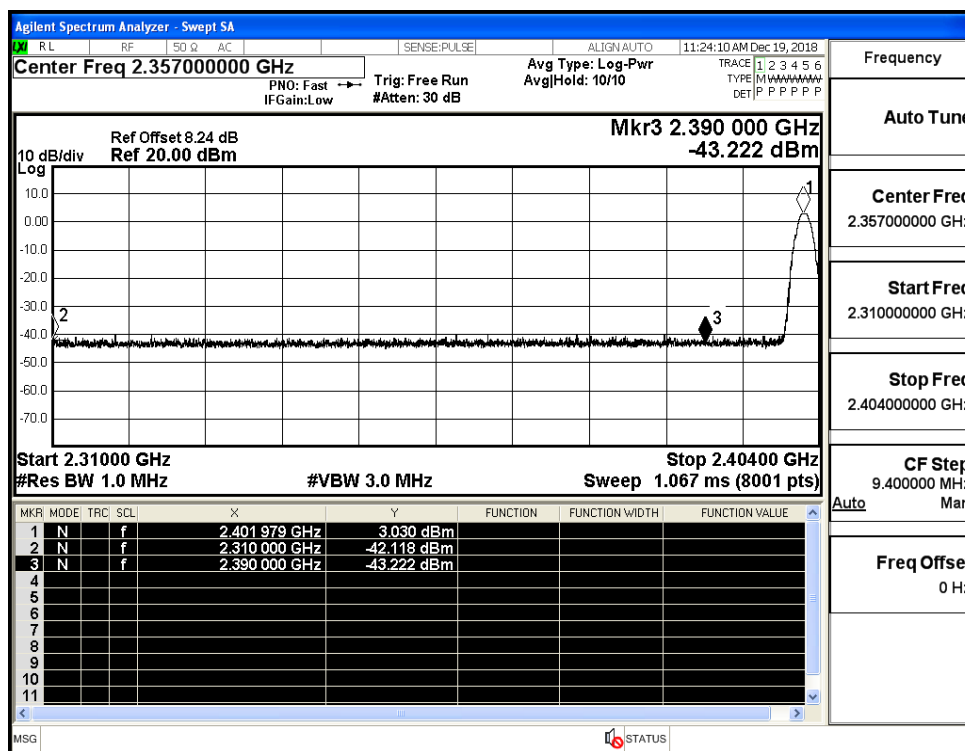
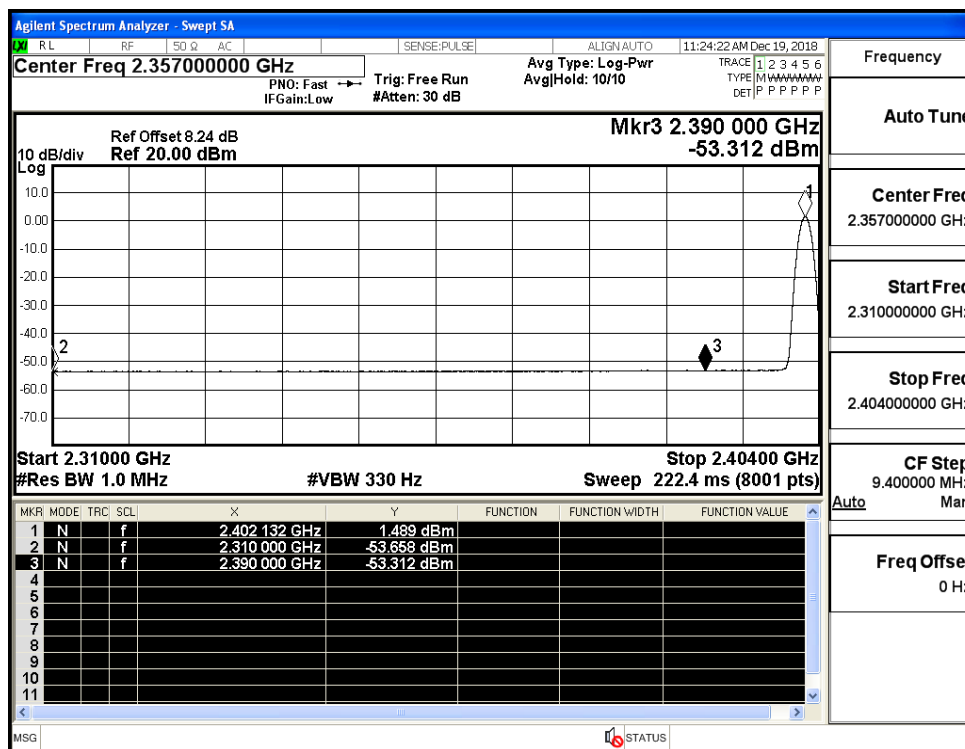


Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)

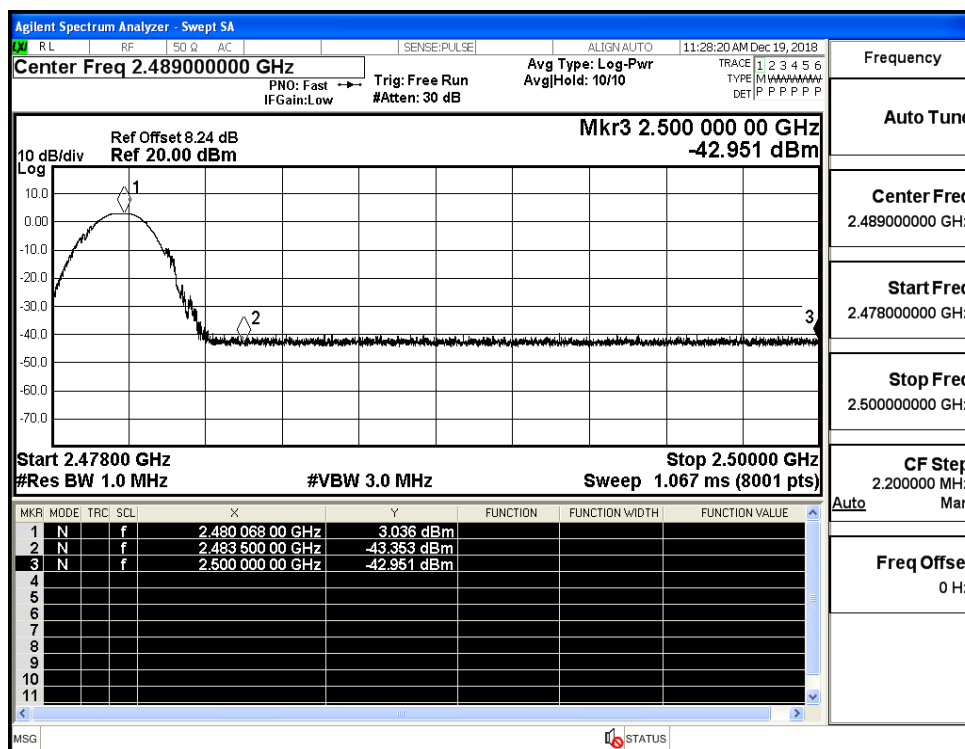


Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)

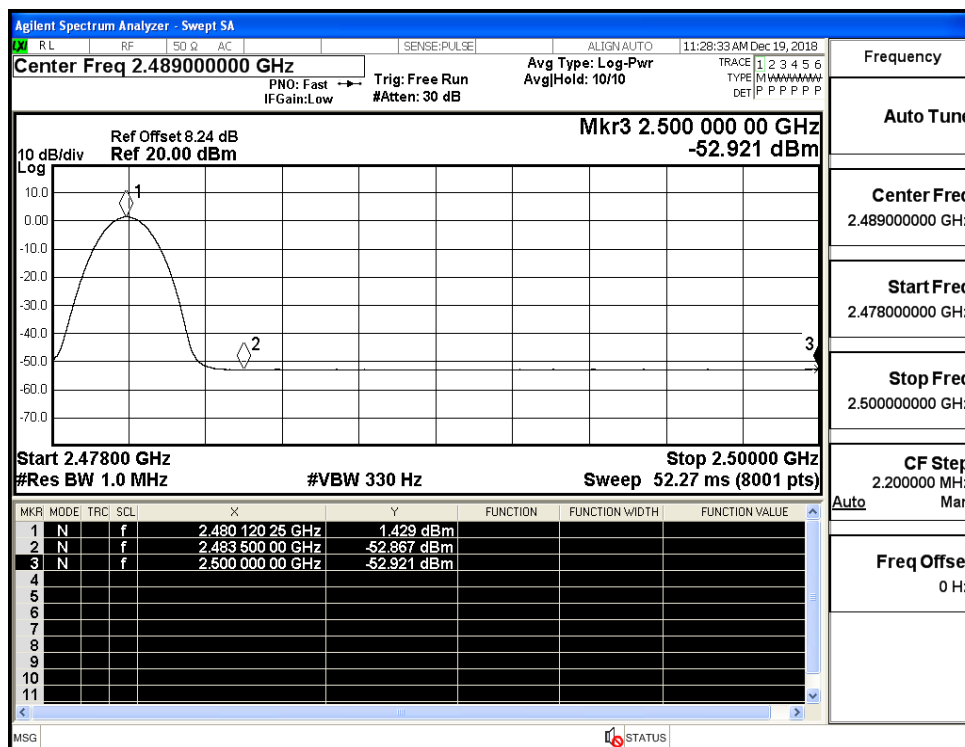


Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

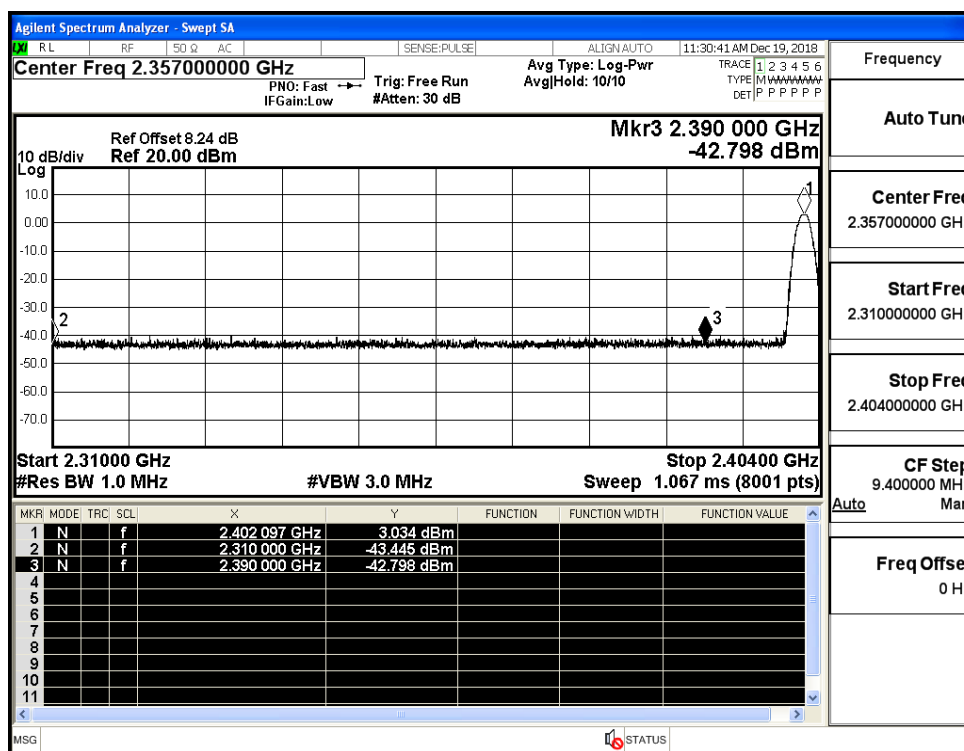
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



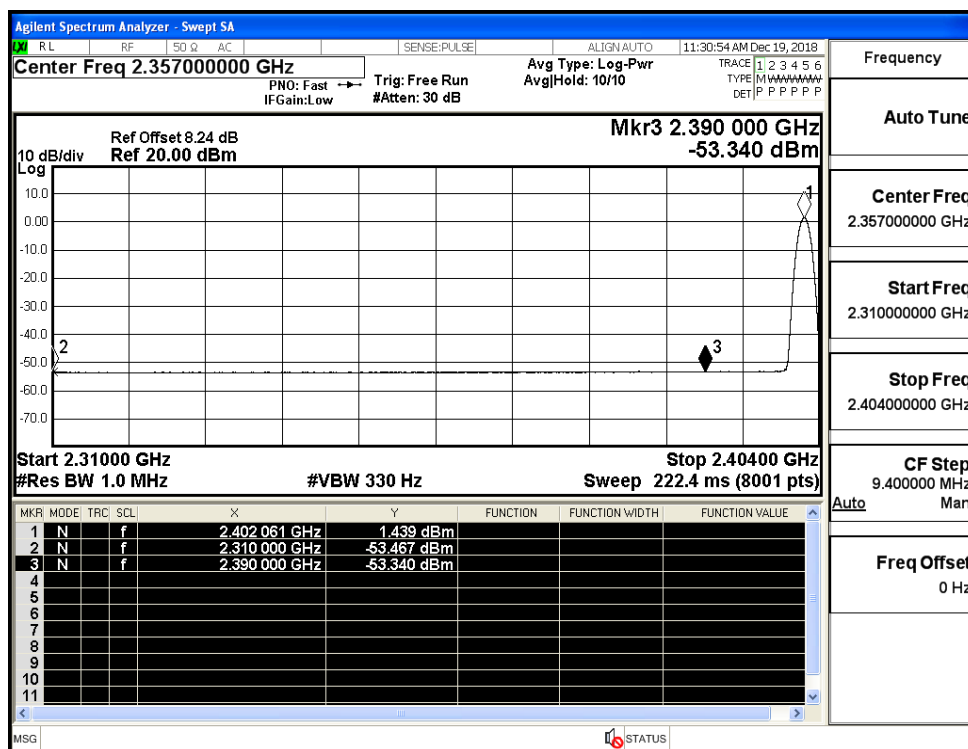
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



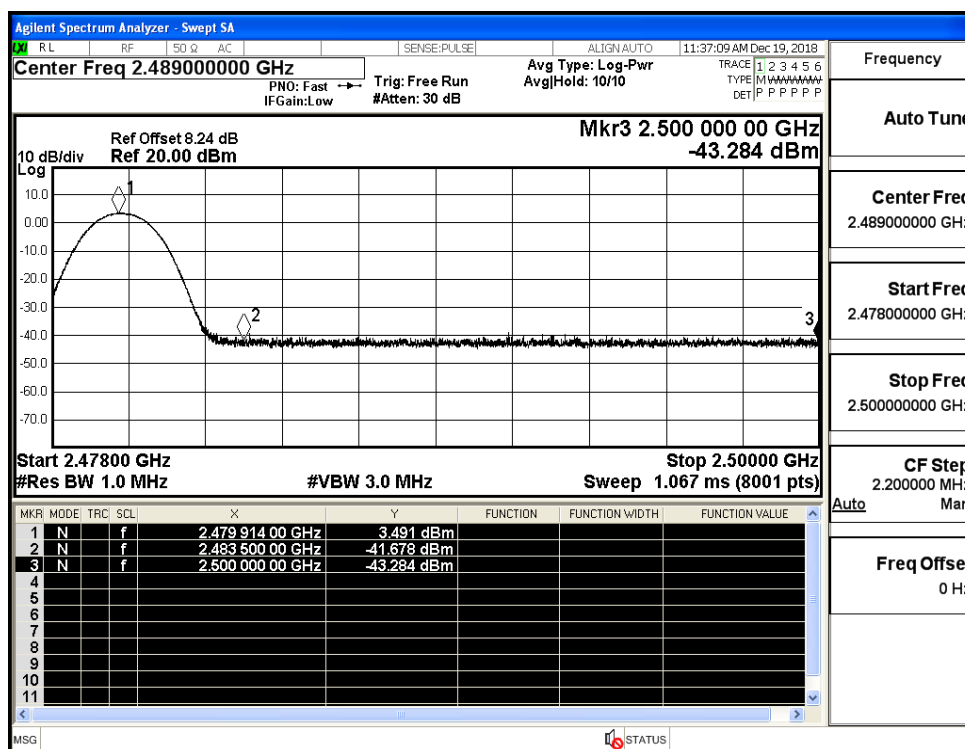
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

