

Appendix A

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

Product Name: Dash camera

Trade Mark: SCOSCHE

Test Model: NEXC1

Environmental Conditions

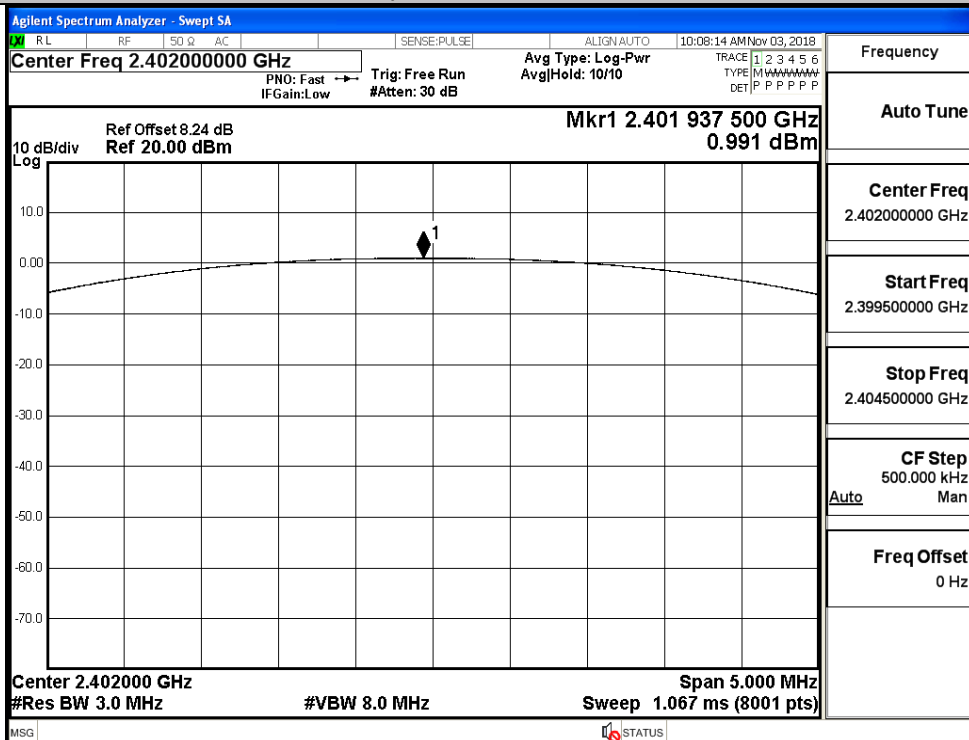
Temperature:	24.5 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina.Xu
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

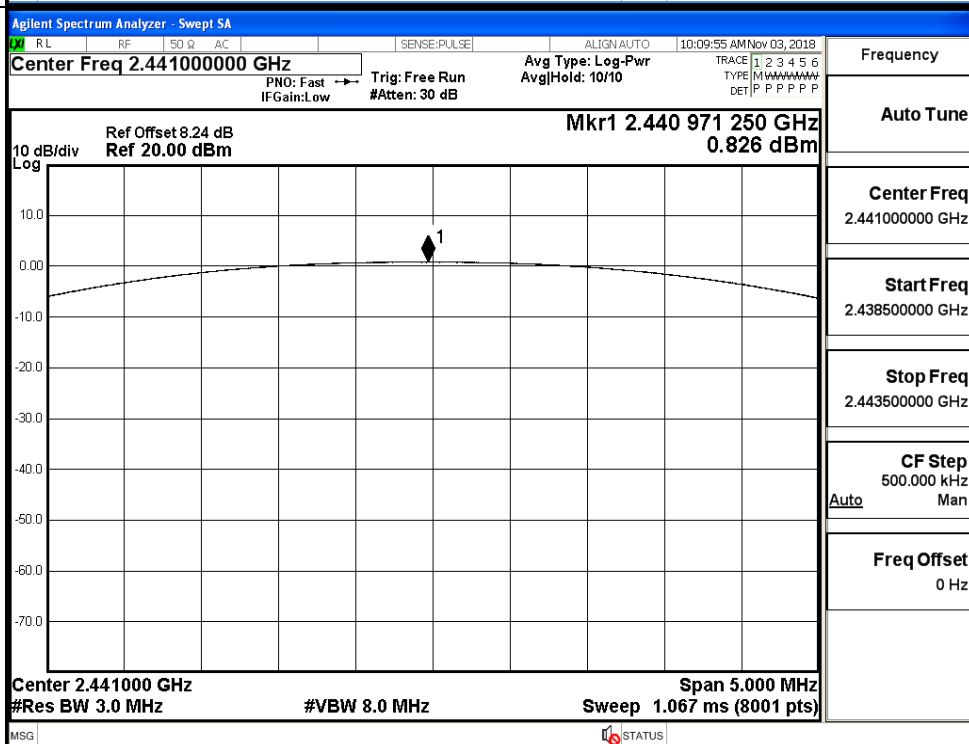
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.991	21	PASS
	MCH	0.826	21	PASS
	HCH	0.660	21	PASS
$\pi/4$ DQPSK	LCH	0.273	21	PASS
	MCH	0.407	21	PASS
	HCH	0.259	21	PASS
8DPSK	LCH	0.742	21	PASS
	MCH	0.589	21	PASS
	HCH	0.424	21	PASS

Test Graphs

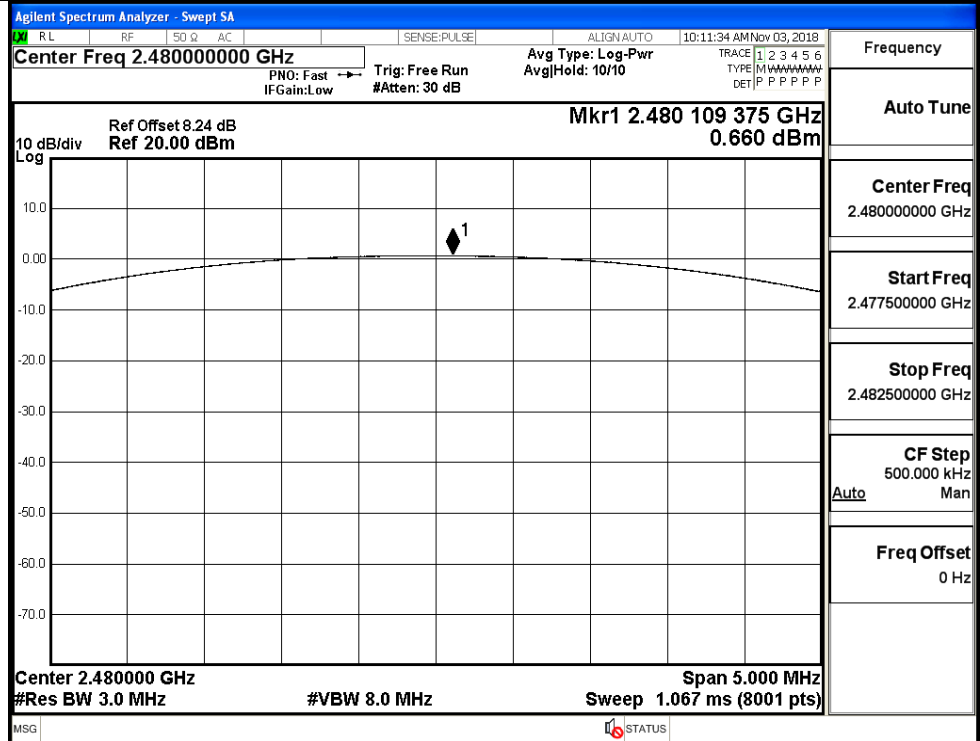
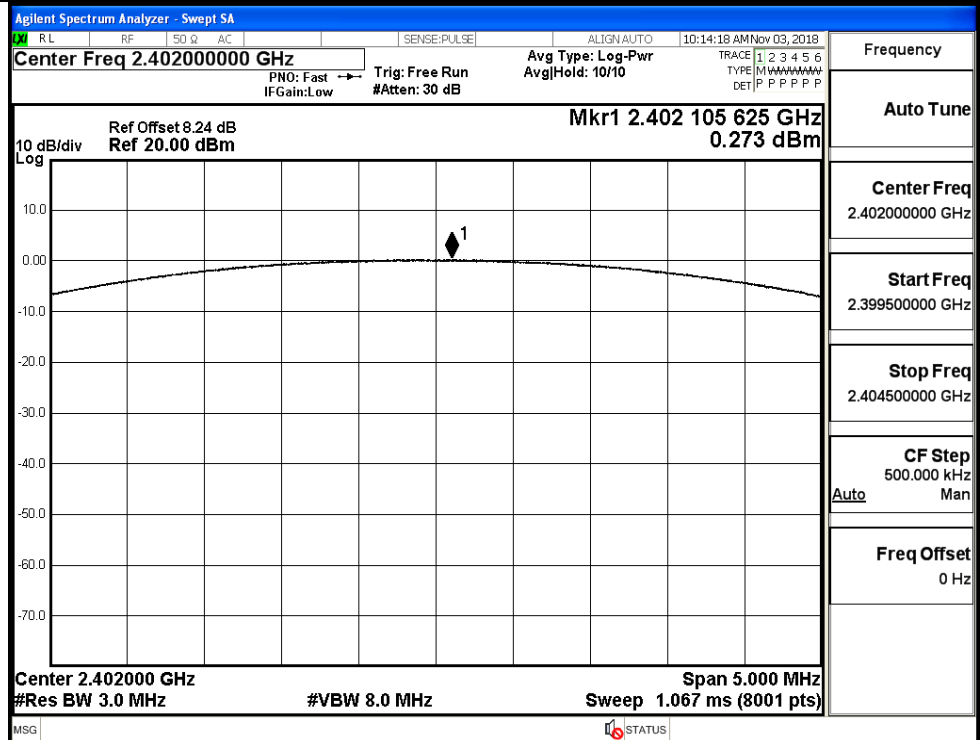
GFSK/LCH

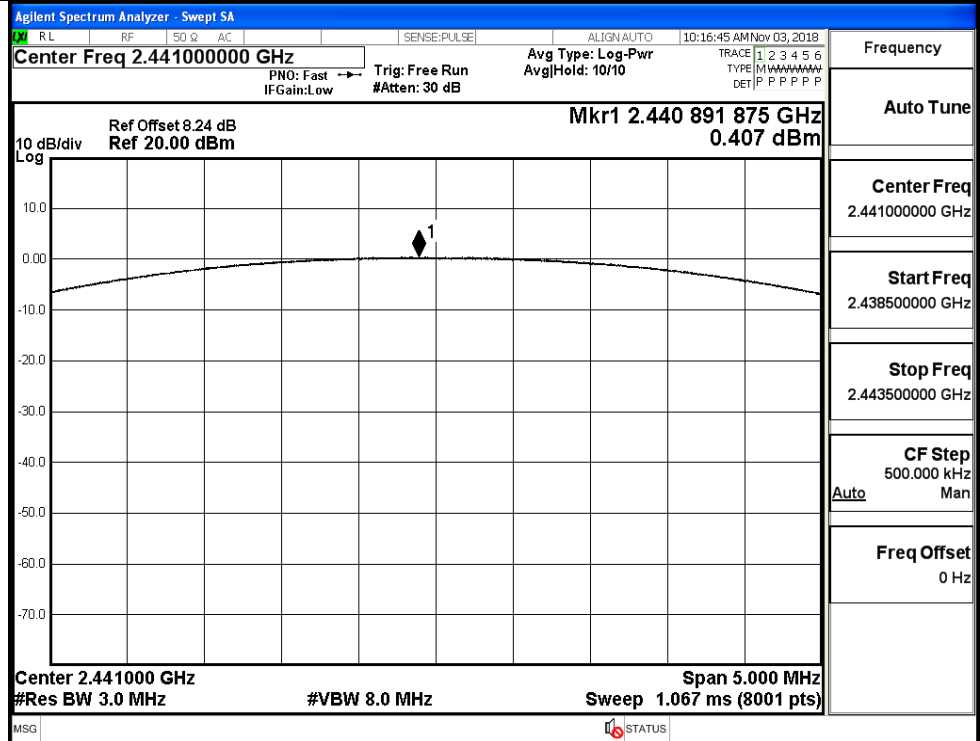
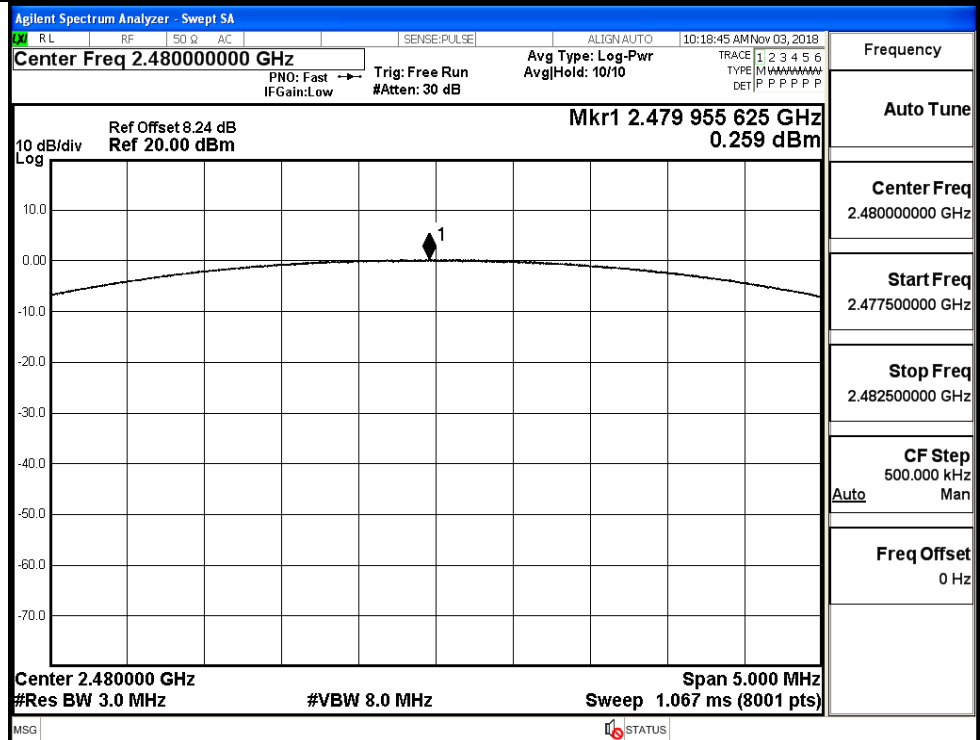


GFSK/MCH

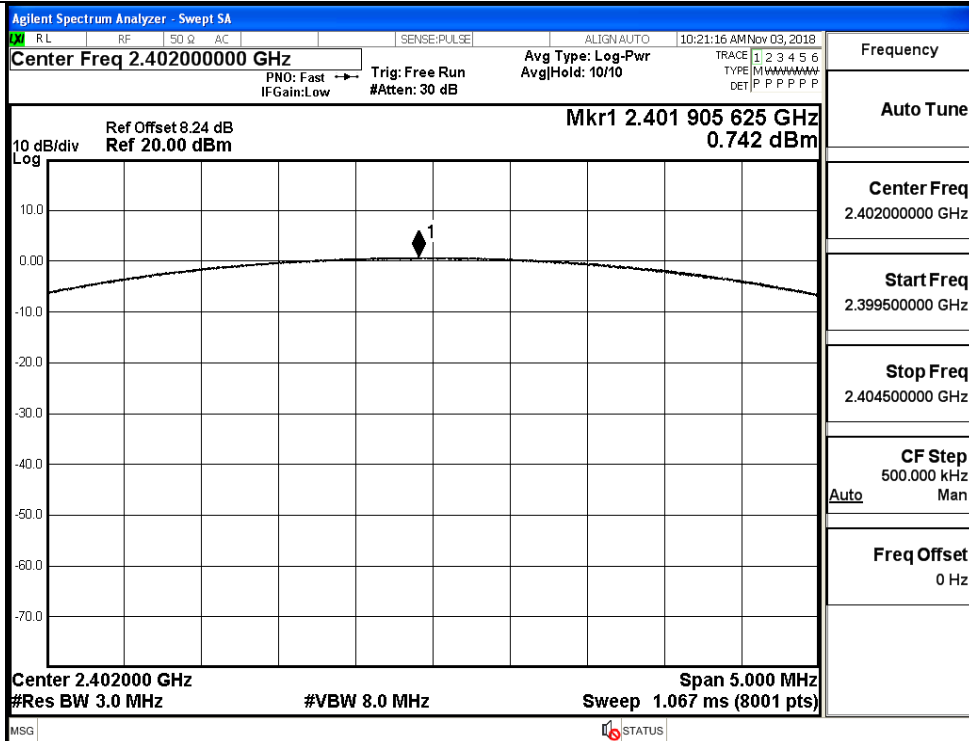


GFSK/HCH

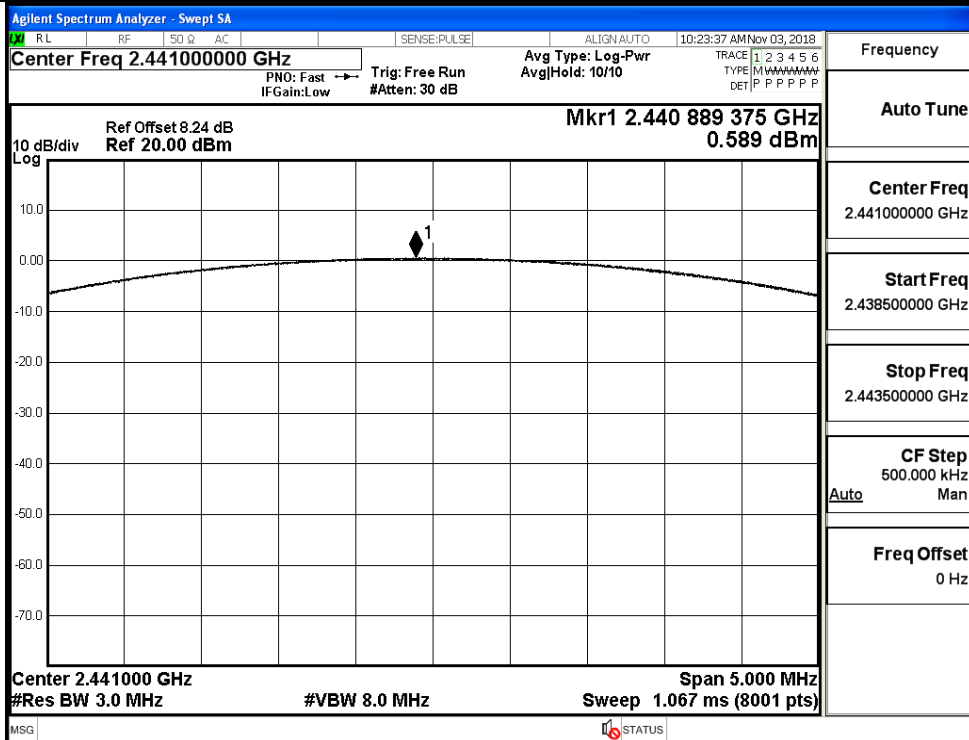
 π /4DQPSK/LCH

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

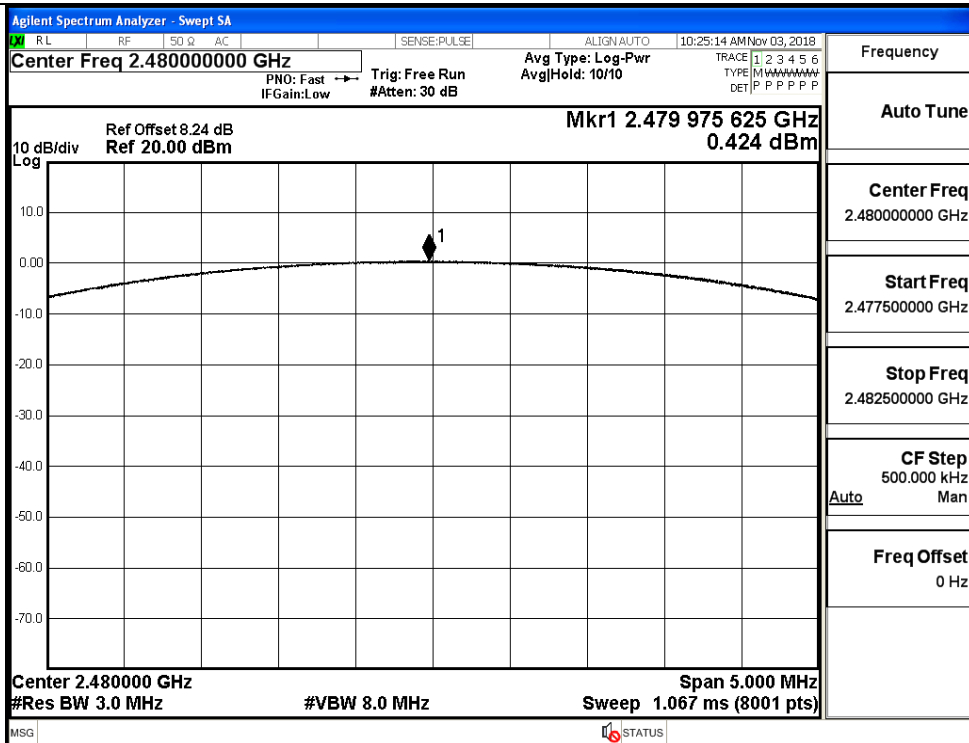
8DPSK/LCH



8DPSK/MCH



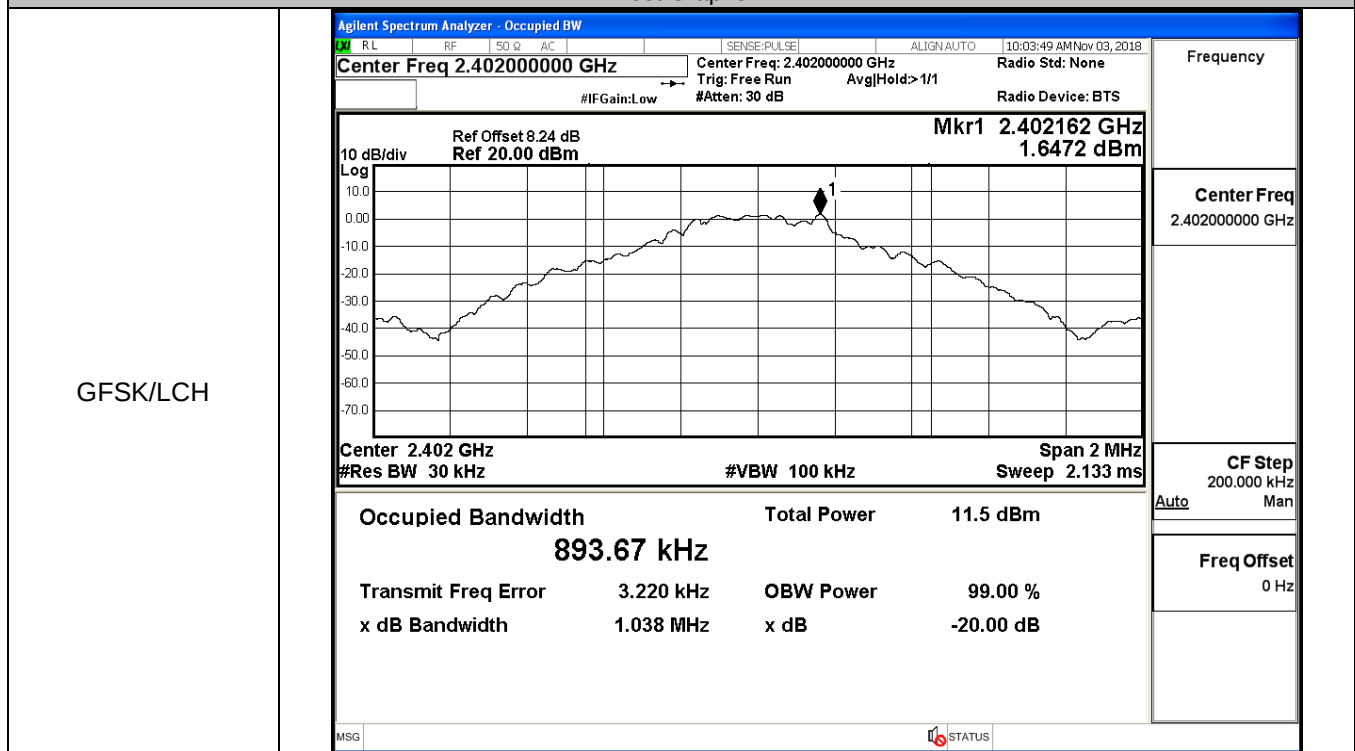
8DPSK/HCH



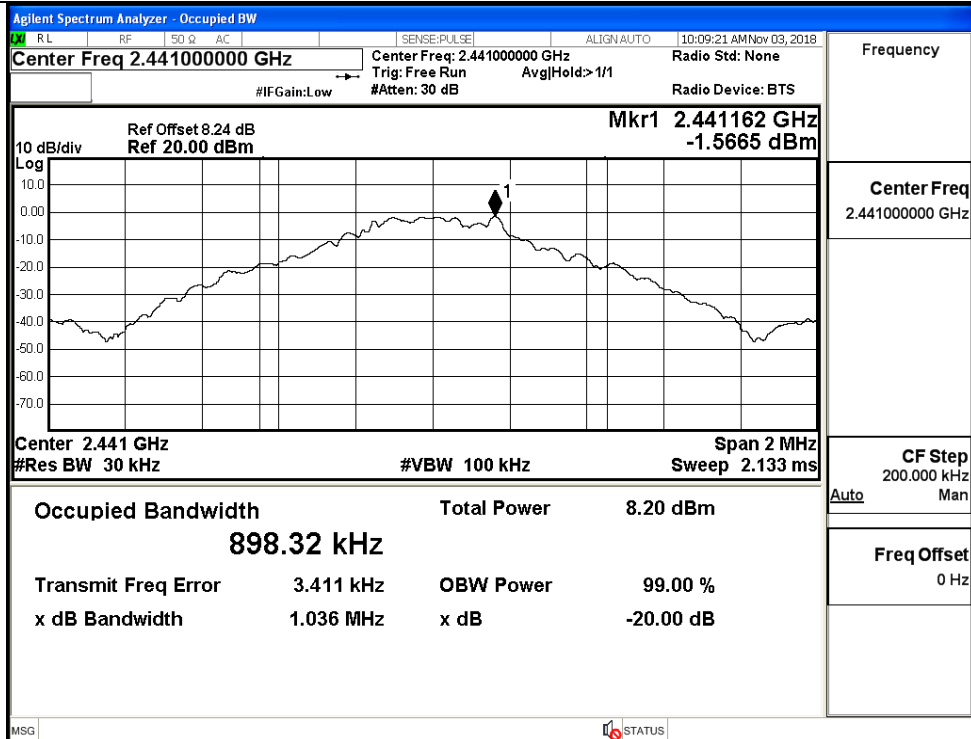
A.2 99% and 20dB Bandwidth

Mode	Channel.	99% Bandwidth [MHz]	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.89367	1.038	Not Specified	PASS
	MCH	0.89832	1.036	Not Specified	PASS
	HCH	0.89905	1.042	Not Specified	PASS
π /4DQPSK	LCH	1.1768	1.308	Not Specified	PASS
	MCH	1.1752	1.293	Not Specified	PASS
	HCH	1.1715	1.291	Not Specified	PASS
8DPSK	LCH	1.1845	1.295	Not Specified	PASS
	MCH	1.1844	1.296	Not Specified	PASS
	HCH	1.1806	1.295	Not Specified	PASS

Test Graphs



GFSK/MCH



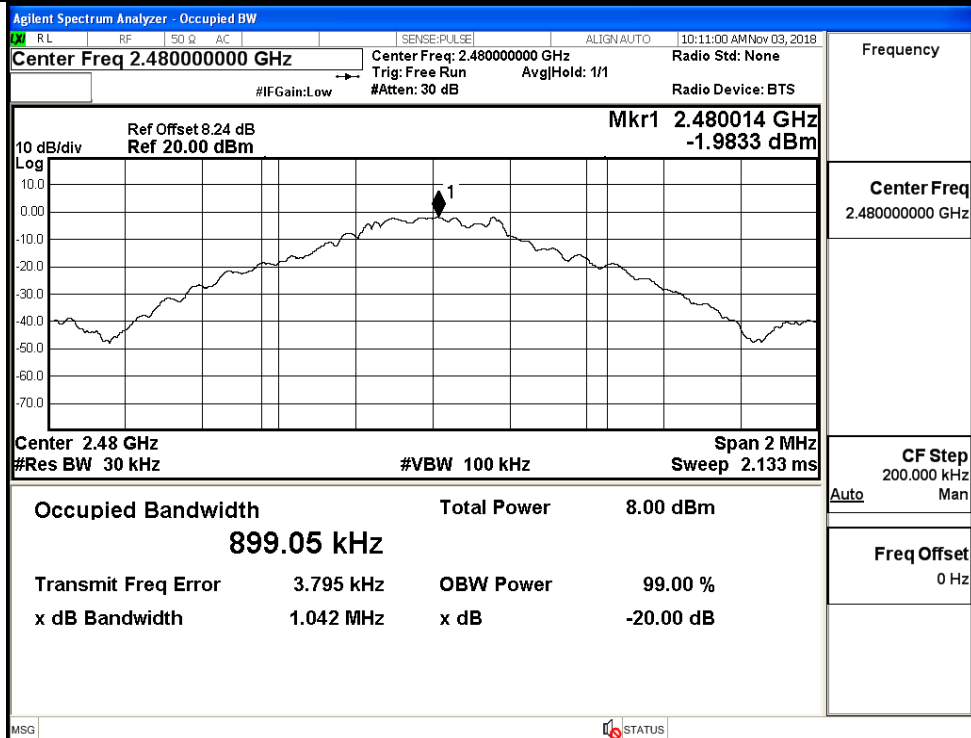
Frequency

Center Freq
2.441000000 GHzCF Step
200.000 kHz
Man

Auto

Freq Offset
0 Hz

GFSK/HCH

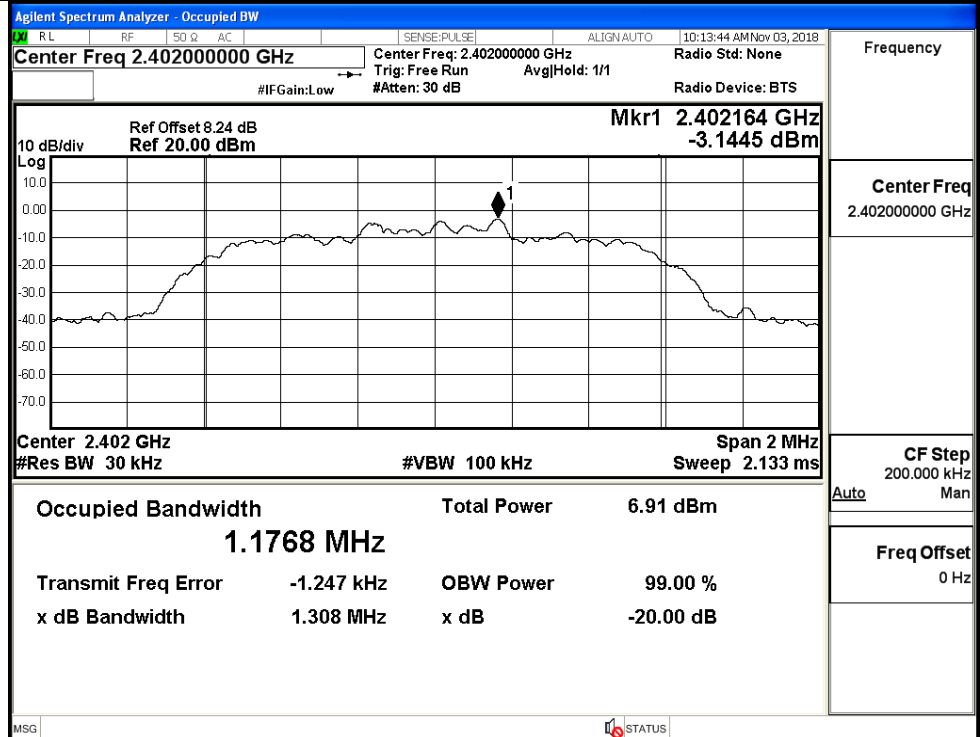
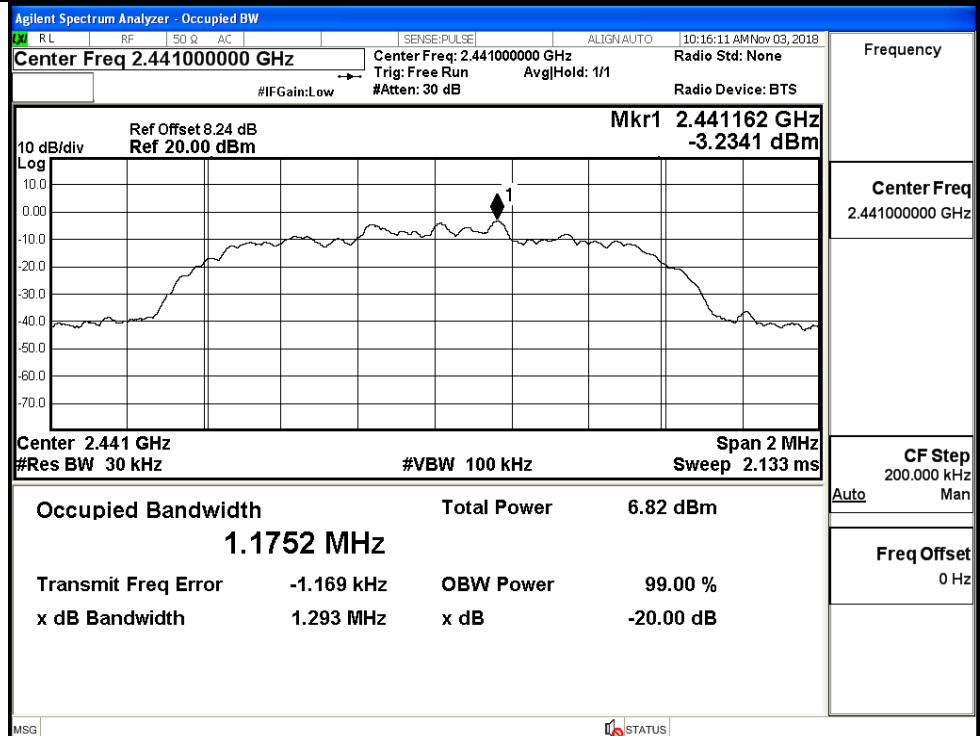


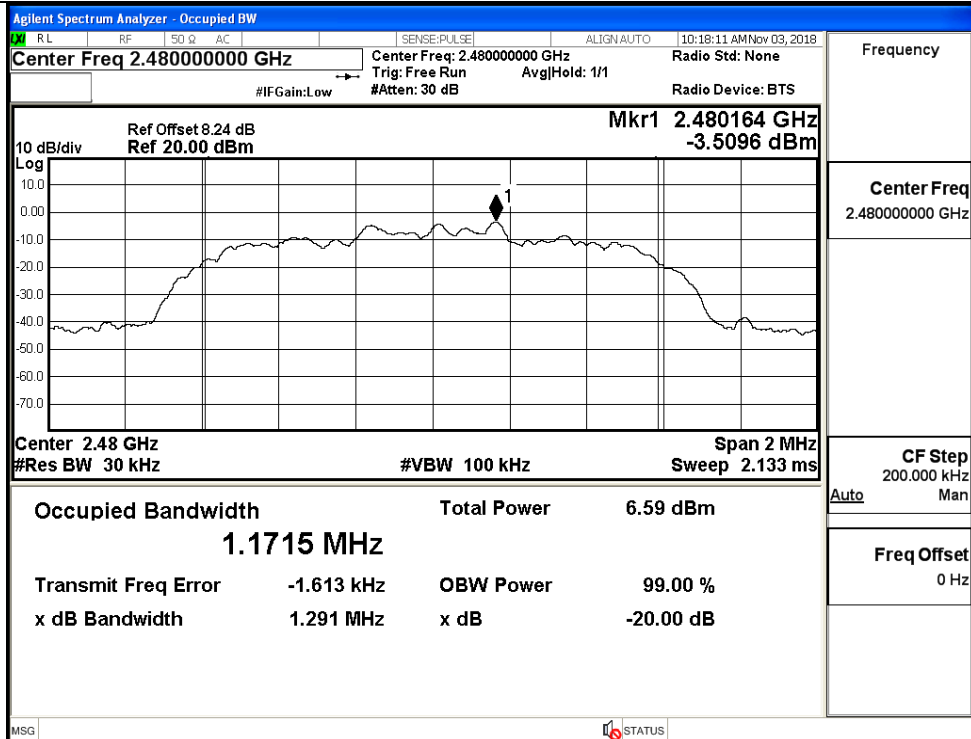
Frequency

Center Freq
2.480000000 GHzCF Step
200.000 kHz
Man

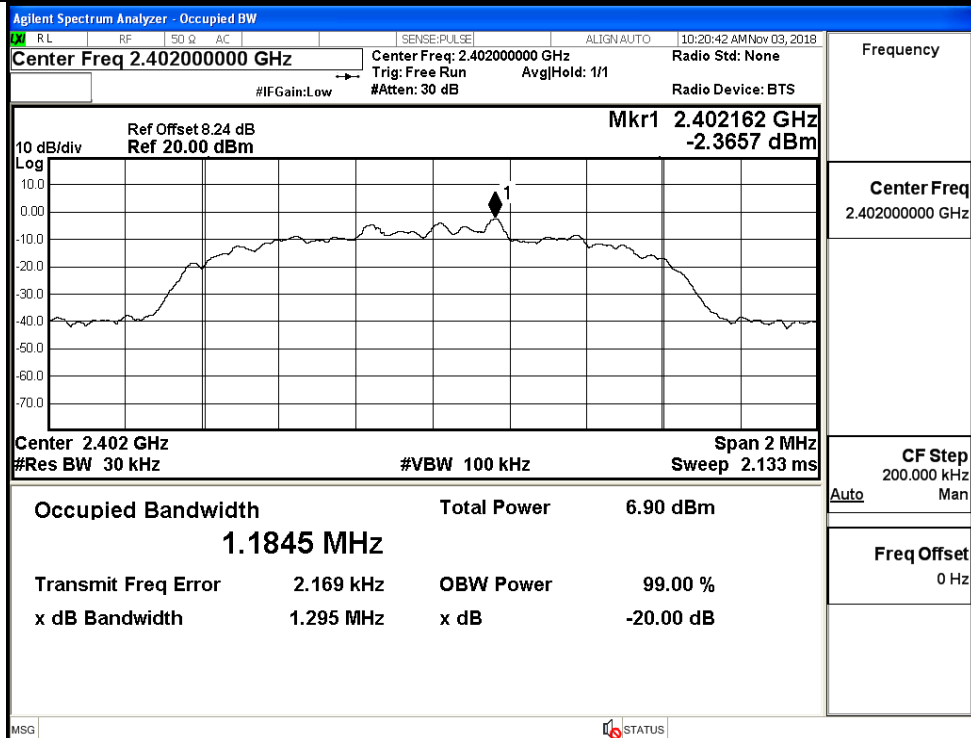
Auto

Freq Offset
0 Hz

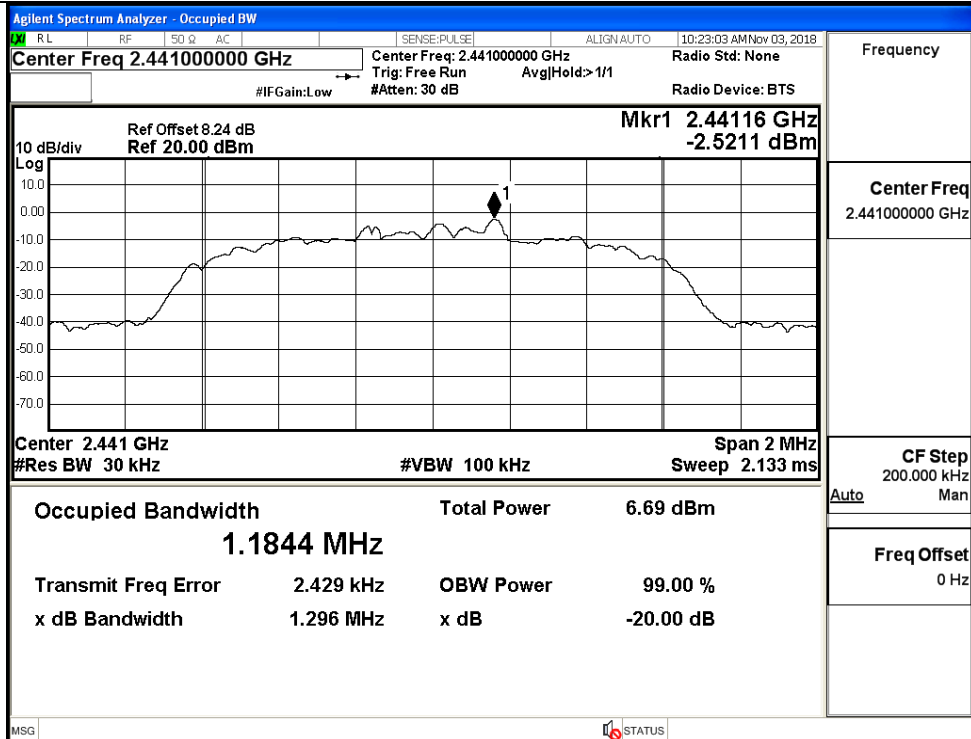
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

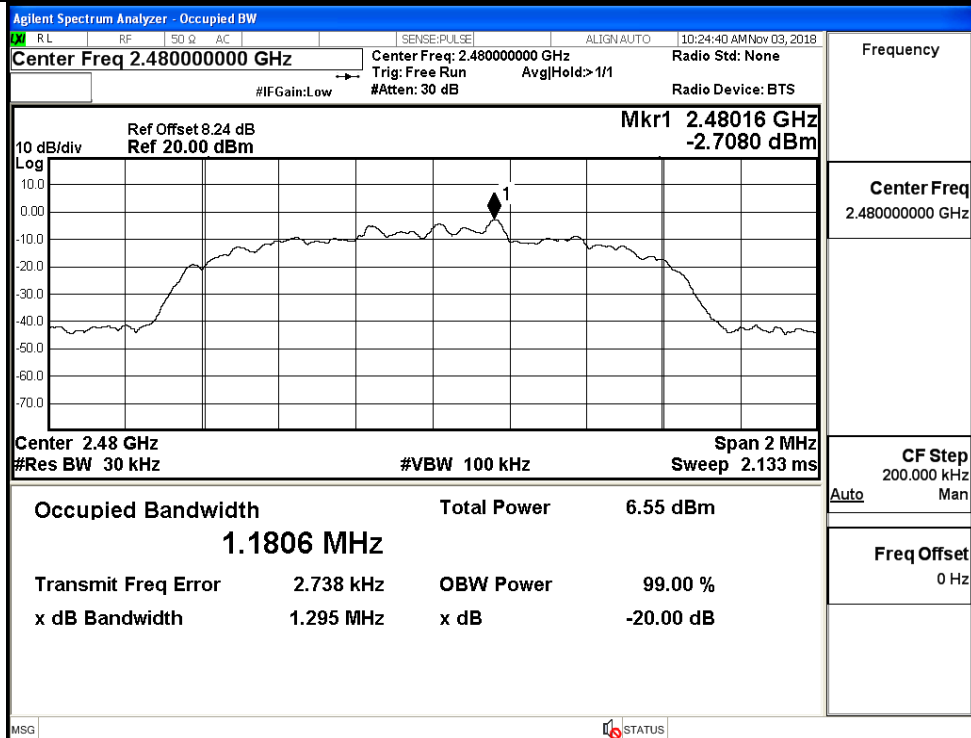
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

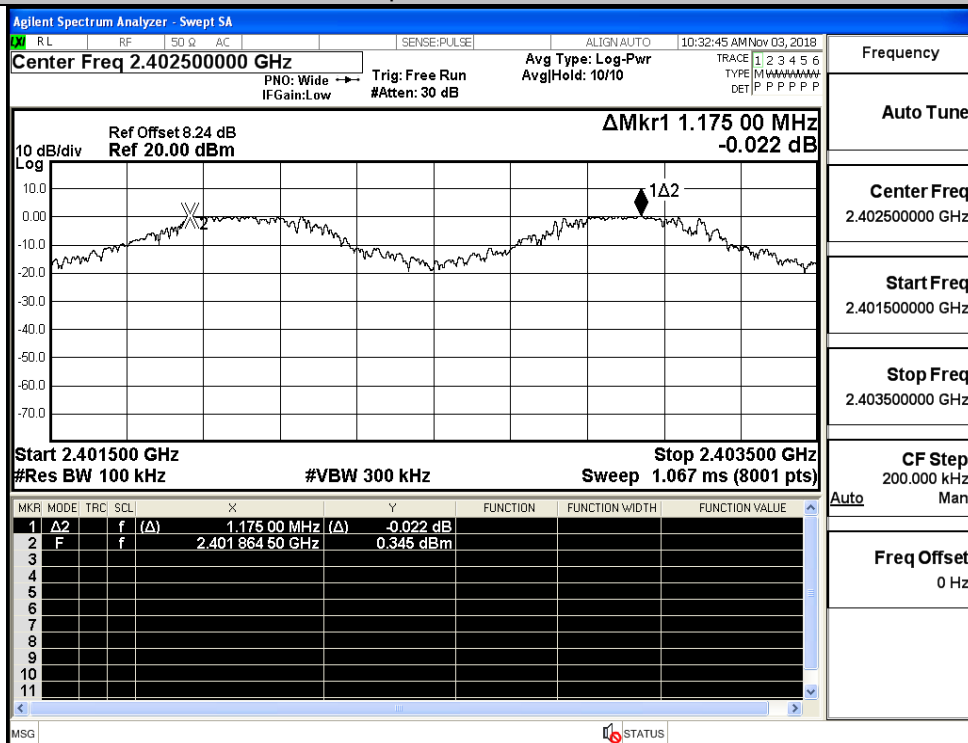


A.3 Carrier Frequency Separation

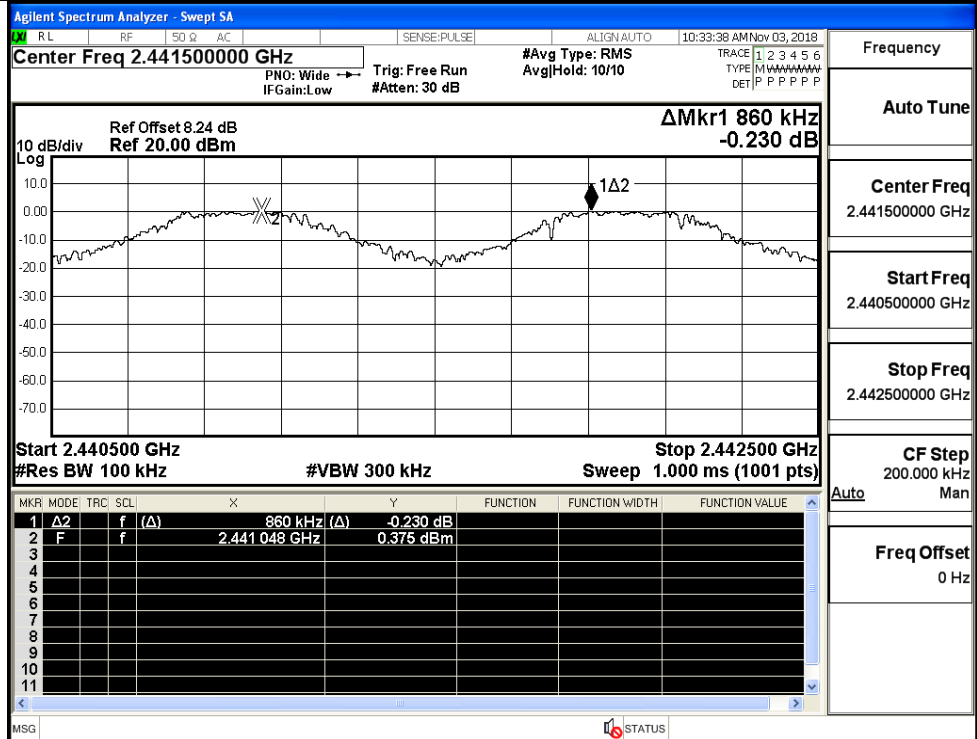
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.175	0.695	PASS
	MCH	0.860	0.695	PASS
	HCH	1.184	0.695	PASS
$\pi/4$ DQPSK	LCH	1.338	0.872	PASS
	MCH	0.898	0.872	PASS
	HCH	1.320	0.872	PASS
8DPSK	LCH	0.890	0.864	PASS
	MCH	1.000	0.864	PASS
	HCH	1.238	0.864	PASS

Test Graphs

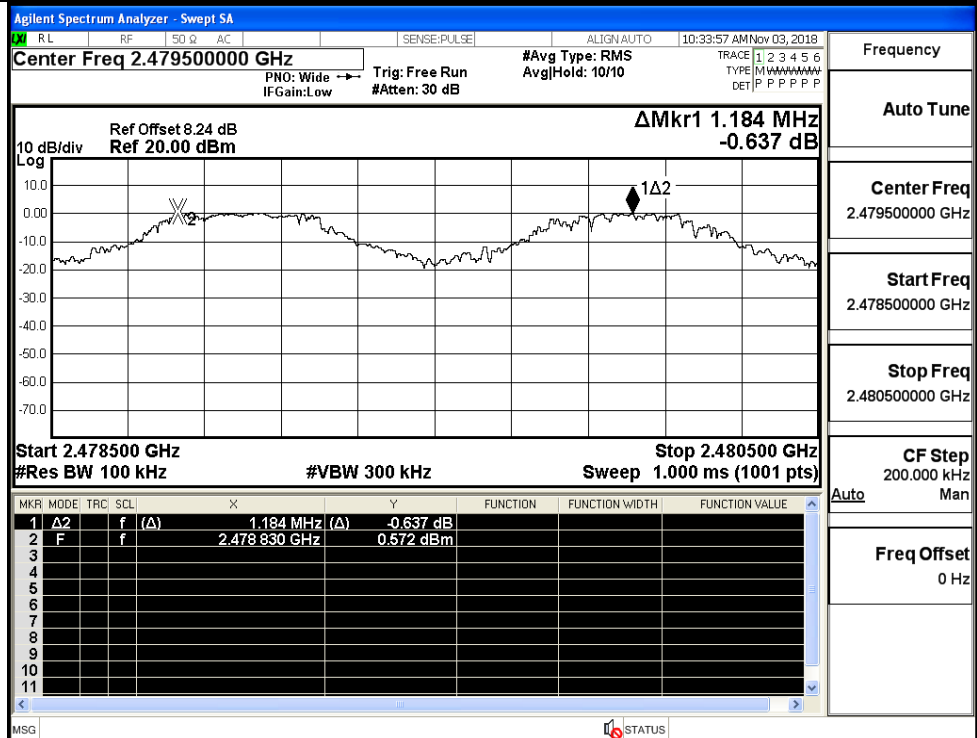
GFSK/LCH

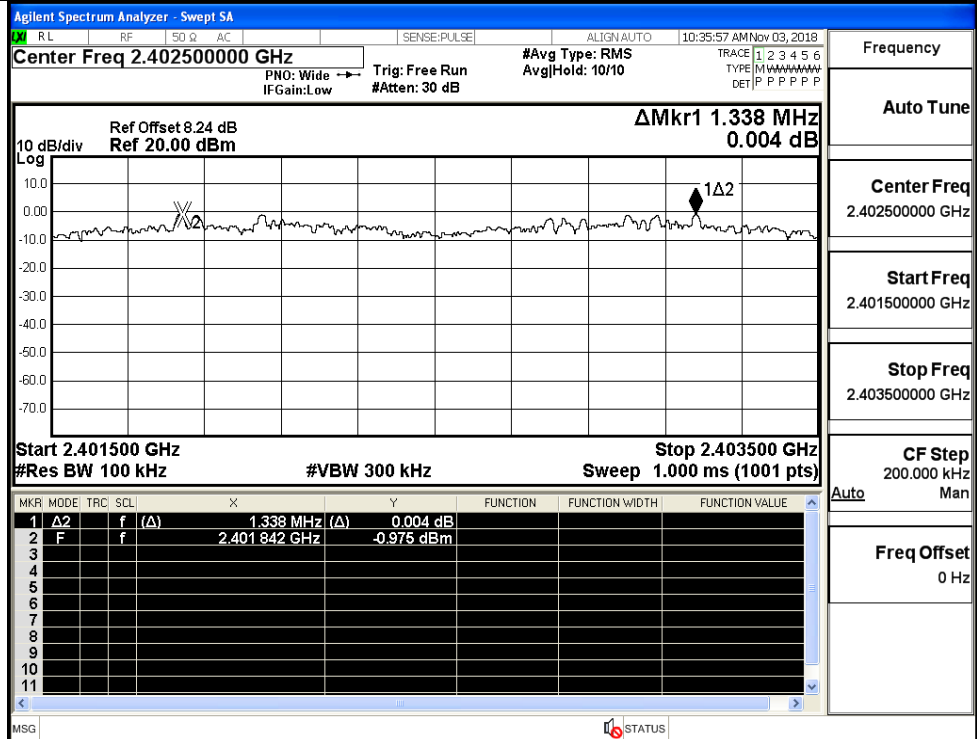
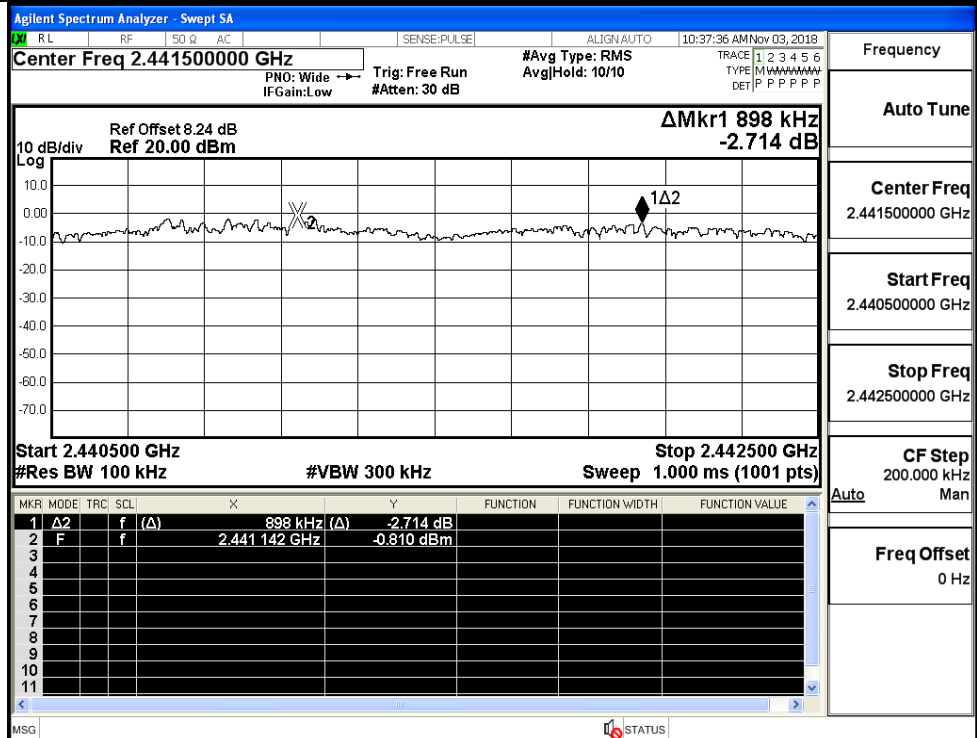


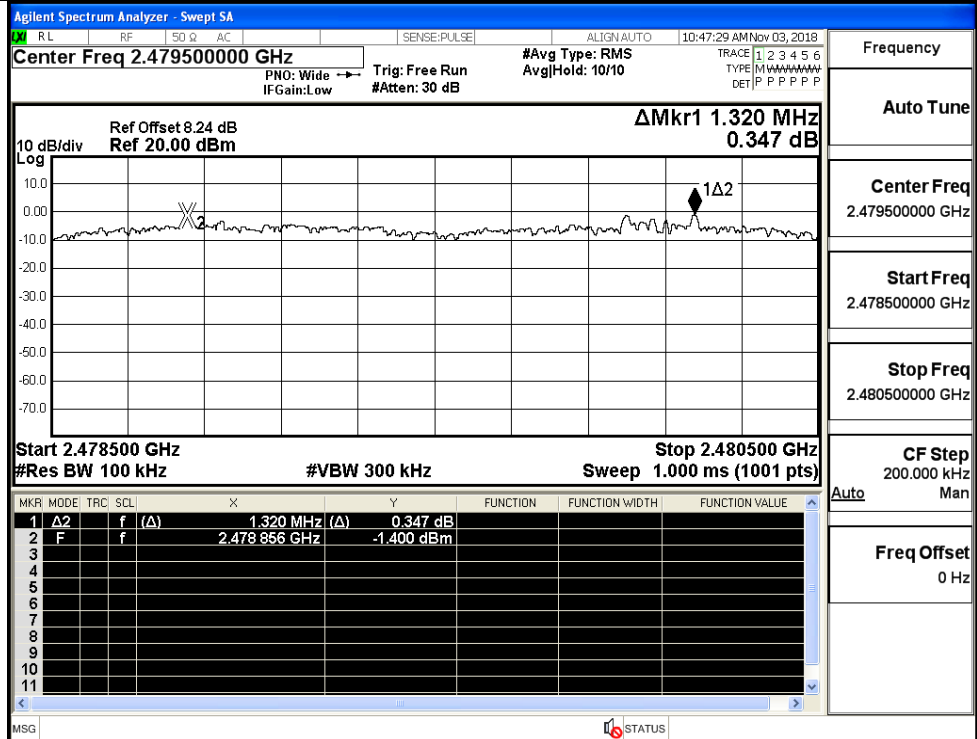
GFSK/MCH



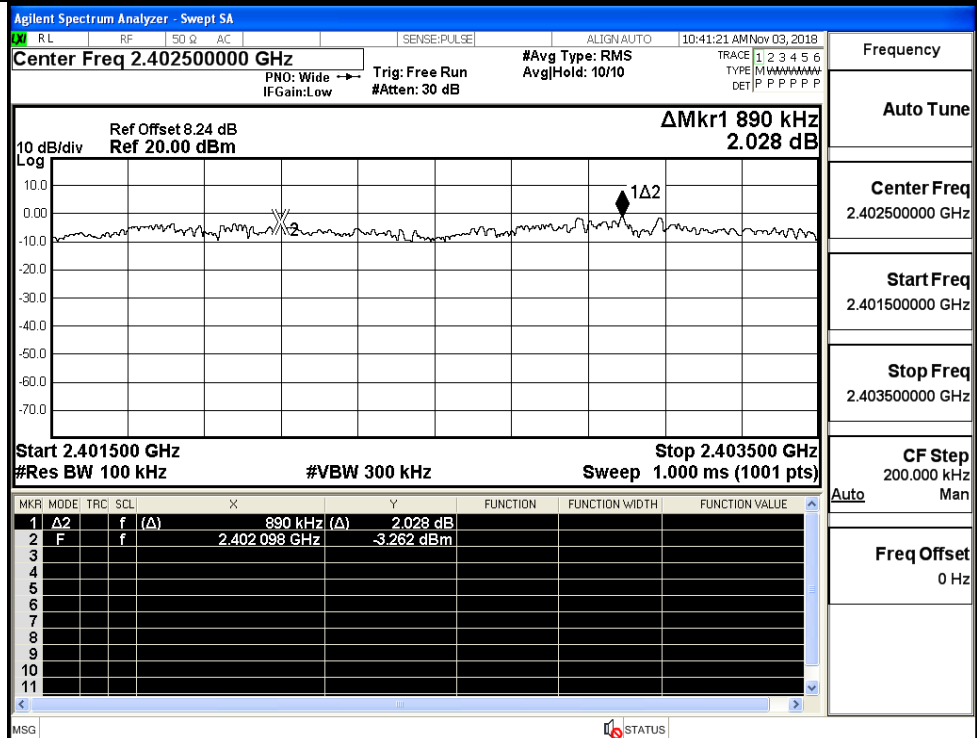
GFSK/HCH



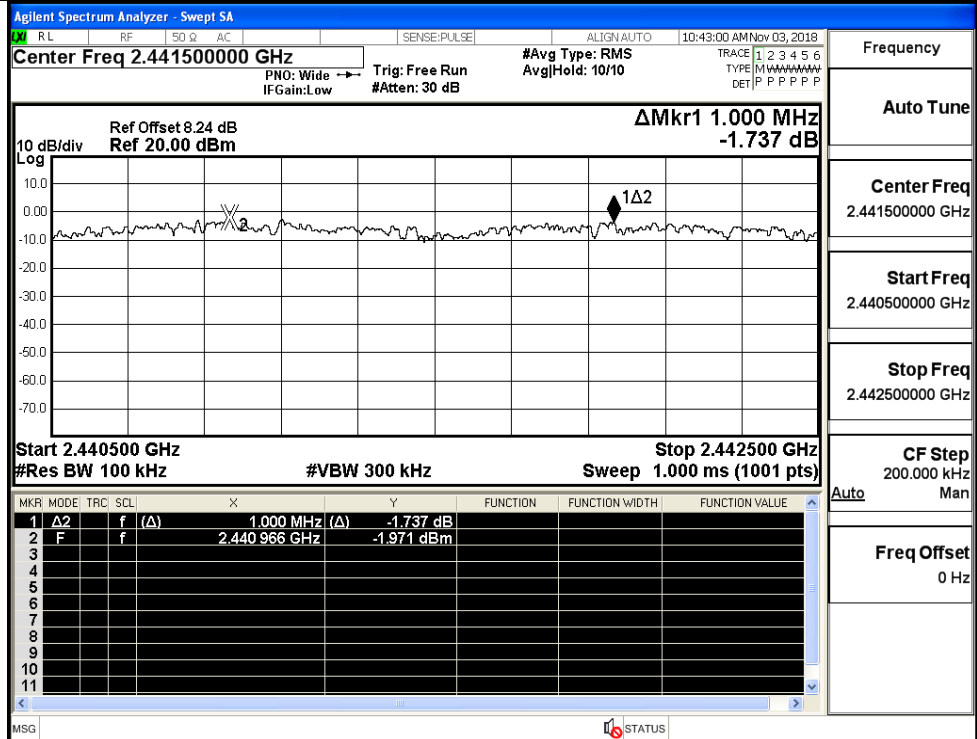
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

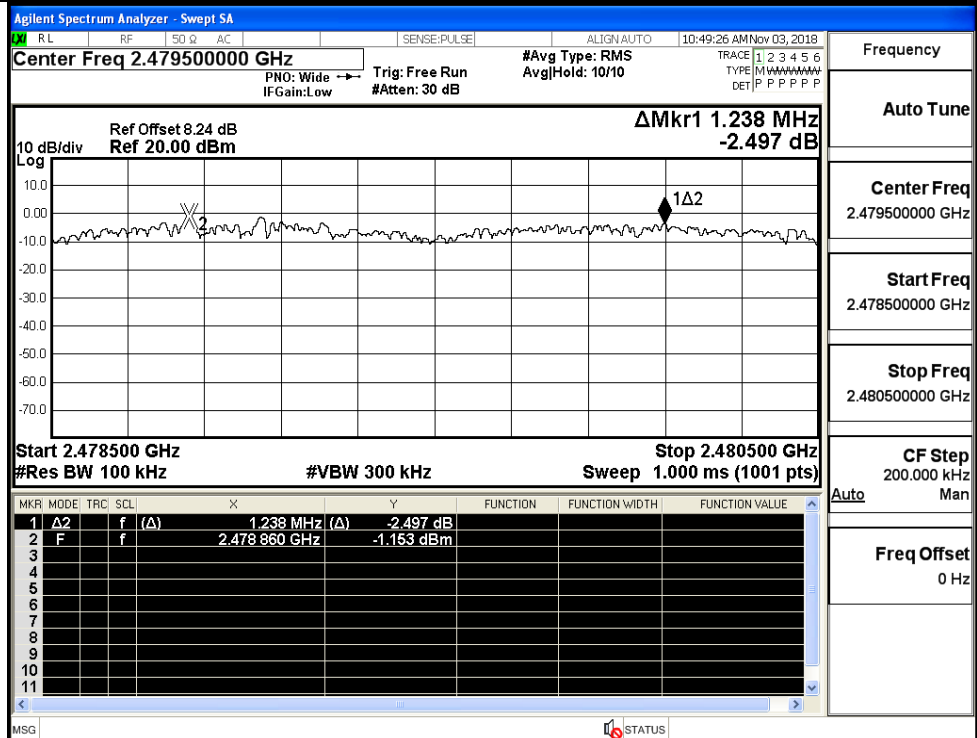
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

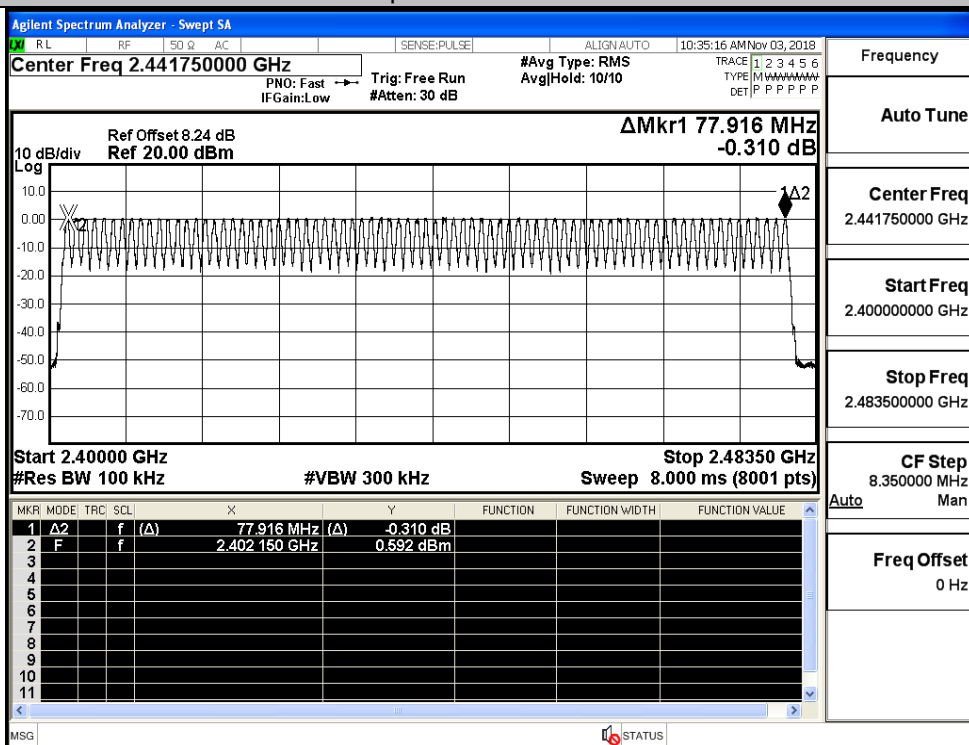


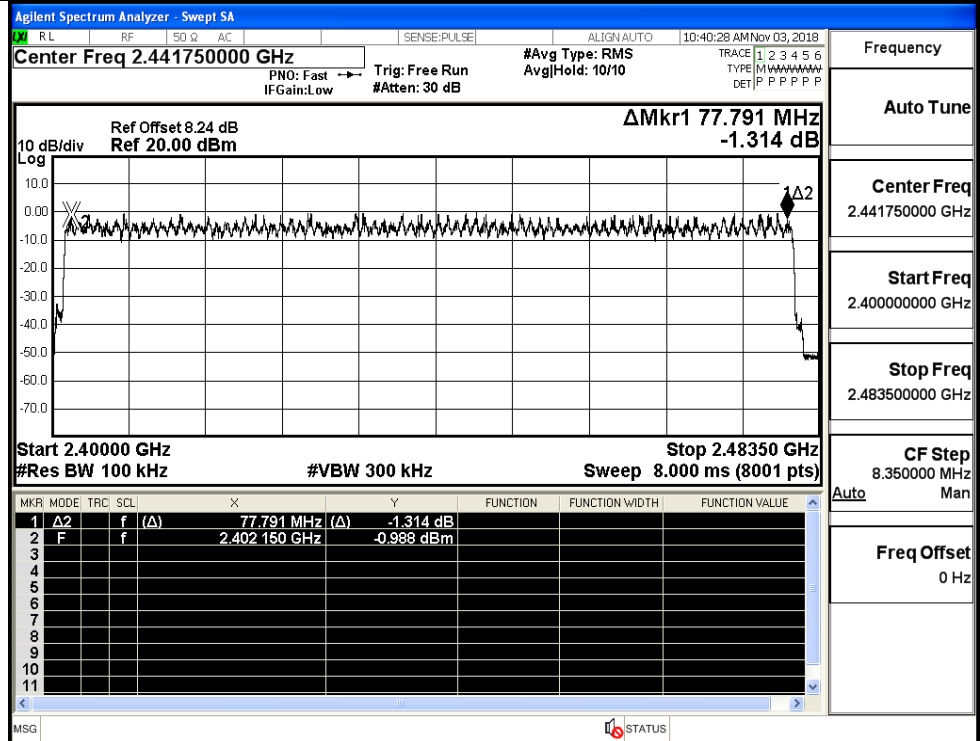
A.4 Hopping Channel Number

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

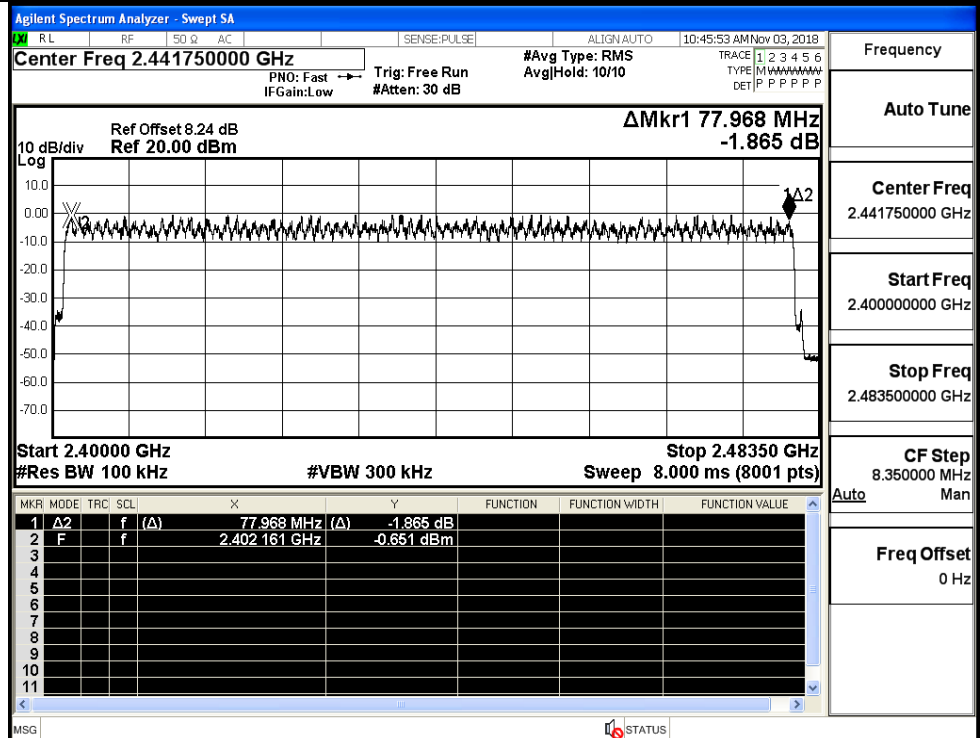
Test Graphs

GFSK/Hop



$\pi/4$ DQPSK/Hop

8DPSK/Hop

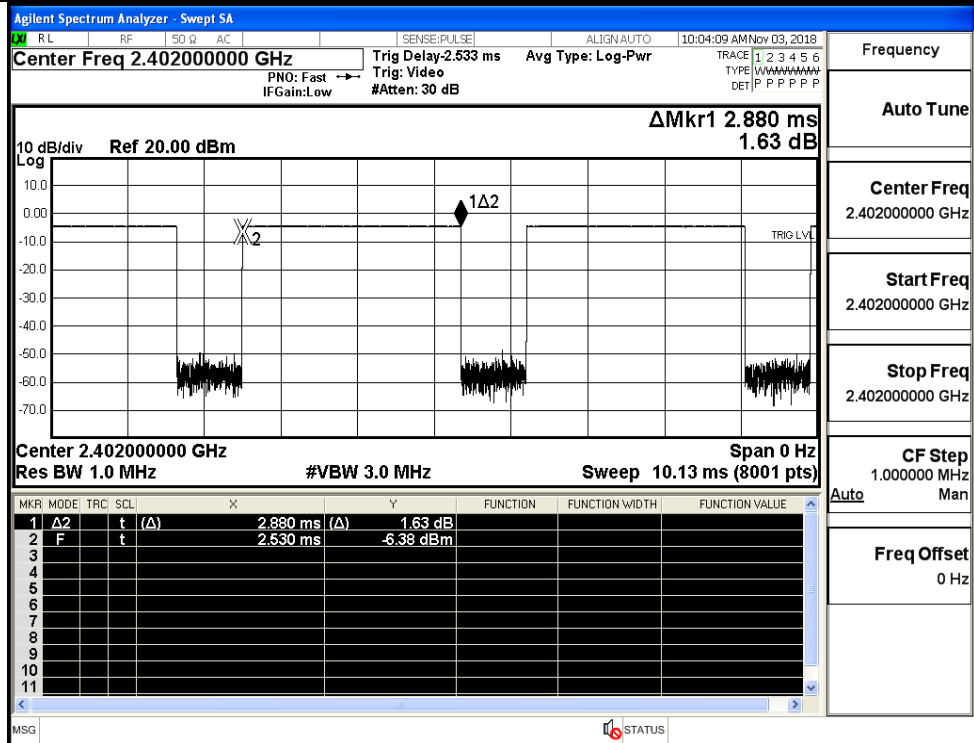


A.5 Dwell Time

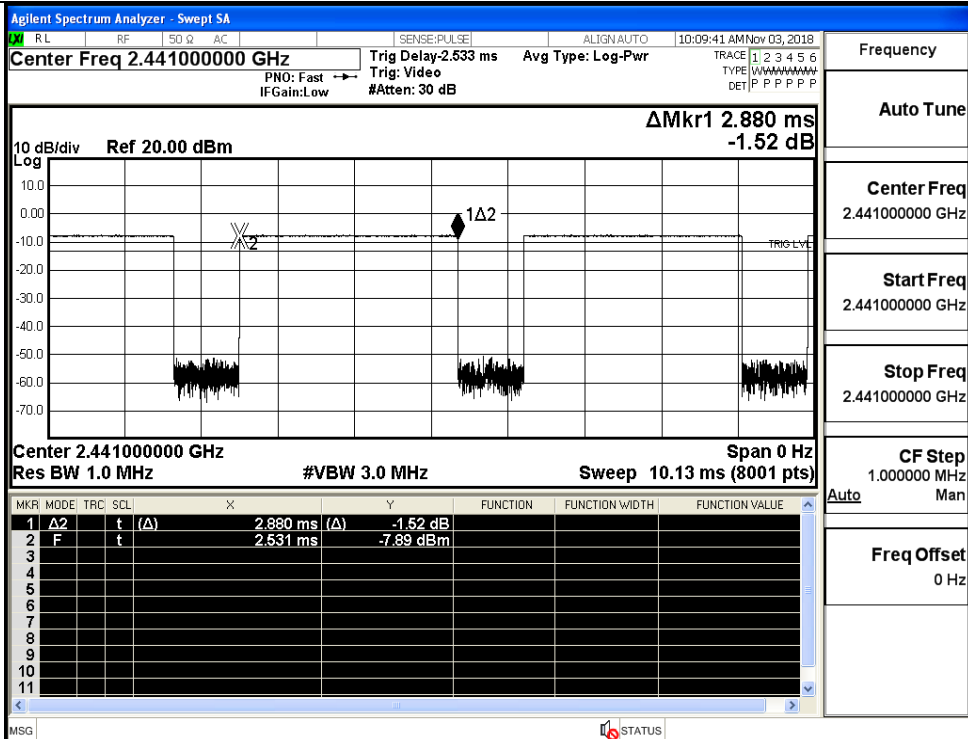
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

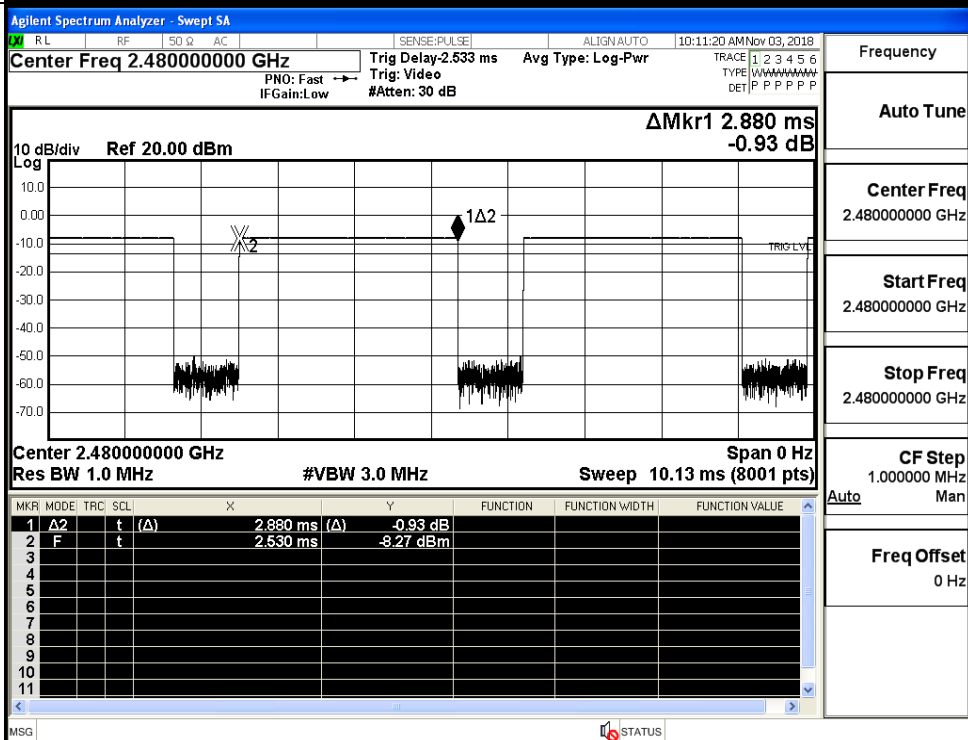
GFSK_DH5/LCH



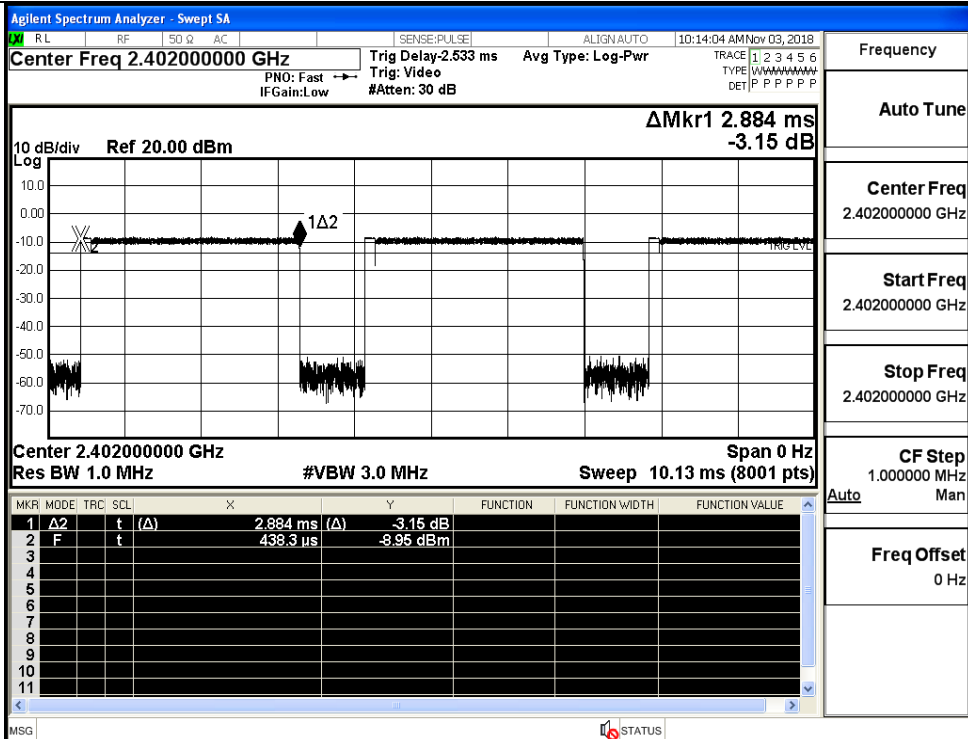
GFSK_DH5/MCH



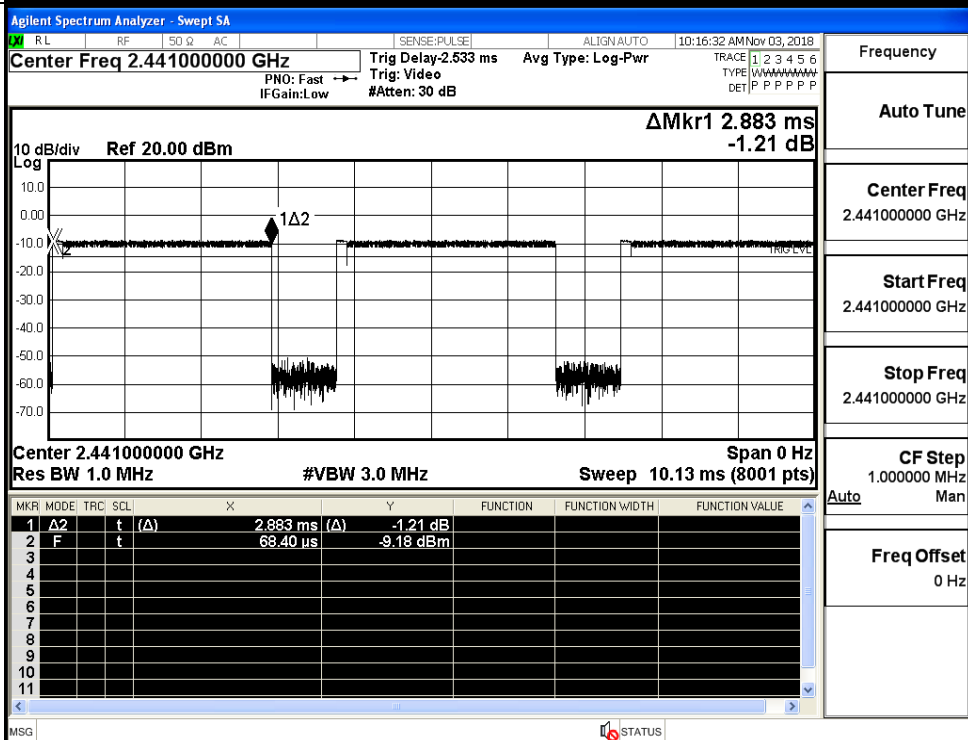
GFSK_DH5/HCH



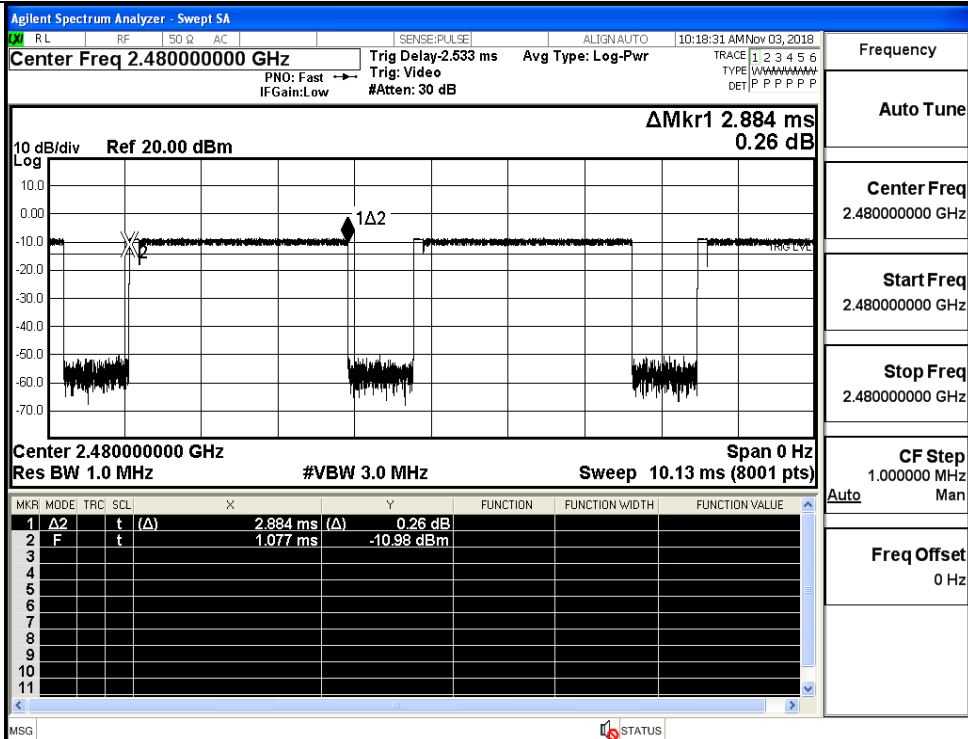
$\pi/4$ DQPSK
_2DH5/LCH



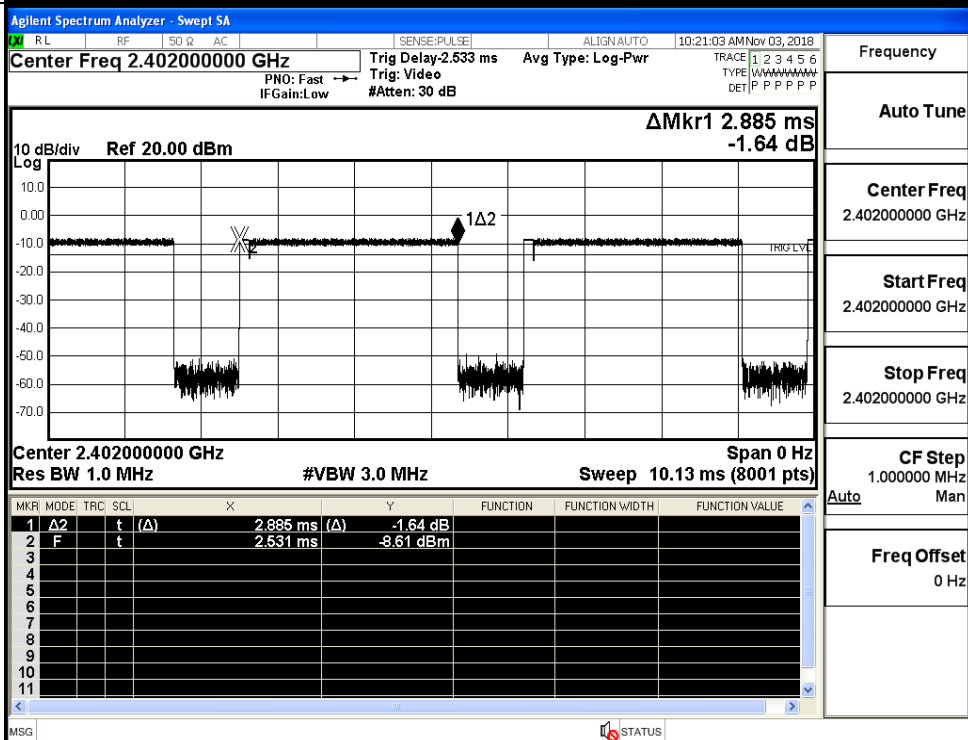
$\pi/4$ DQPSK
_2DH5/MCH



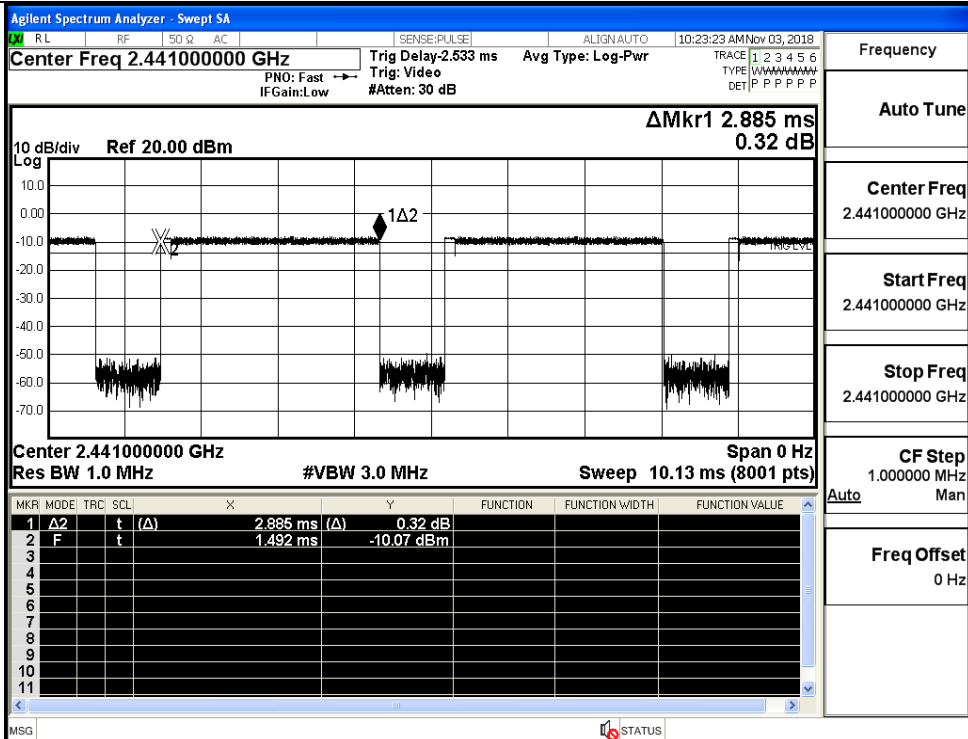
$\pi/4$ DQPSK
_2DH5/HCH



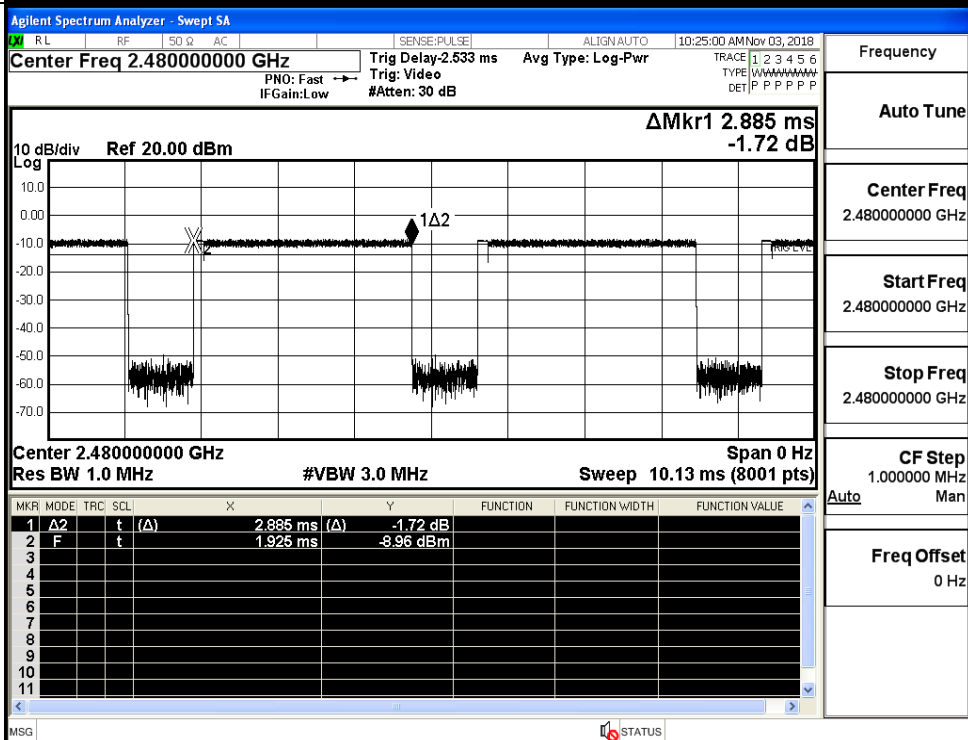
8DPSK_3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

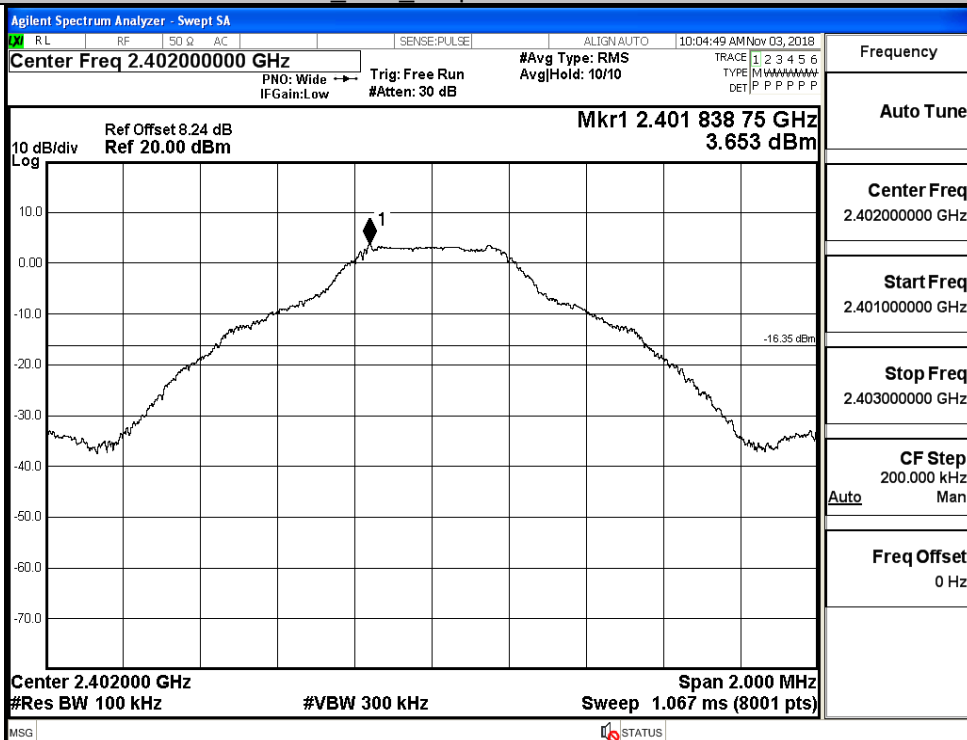


A.7 RF Conducted Spurious Emissions

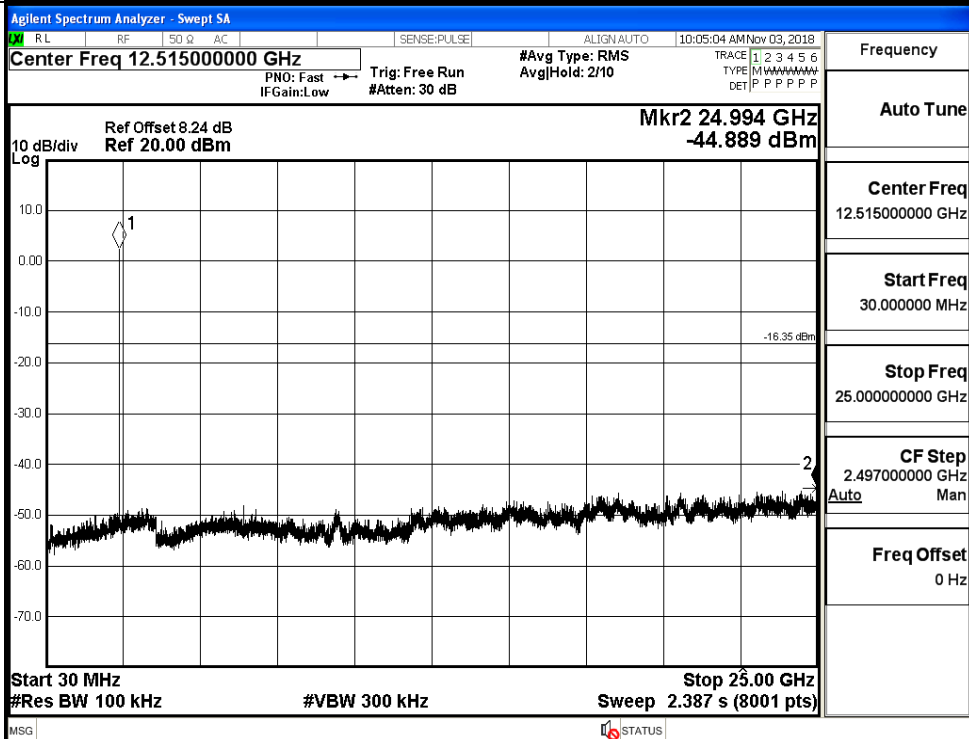
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.653	-44.889	-16.347	PASS
	MCH	0.454	-44.712	-19.546	PASS
	HCH	0.317	-44.434	-19.683	PASS
$\pi/4$ DQPSK	LCH	-0.614	-43.407	-20.614	PASS
	MCH	-0.685	-44.702	-20.685	PASS
	HCH	-0.68	-43.296	-20.680	PASS
8DPSK	LCH	-0.271	-44.962	-20.271	PASS
	MCH	-0.434	-44.614	-20.434	PASS
	HCH	-0.745	-44.503	-20.745	PASS

GFSK LCH Graphs

Pref

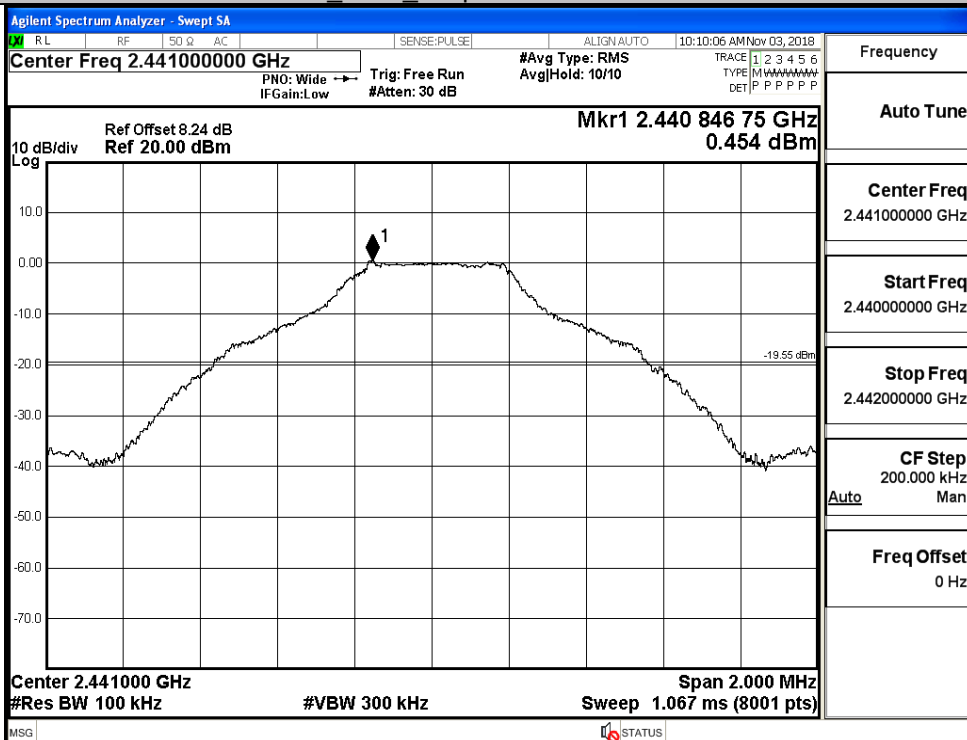


Puw

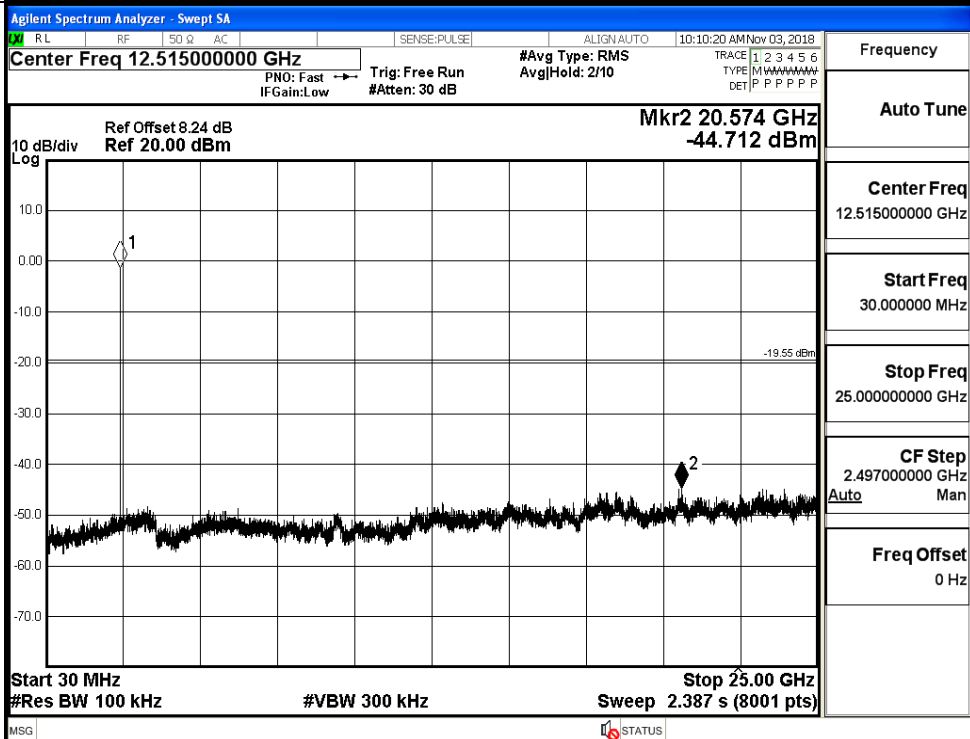


GFSK_MCH_Graphs

Pref

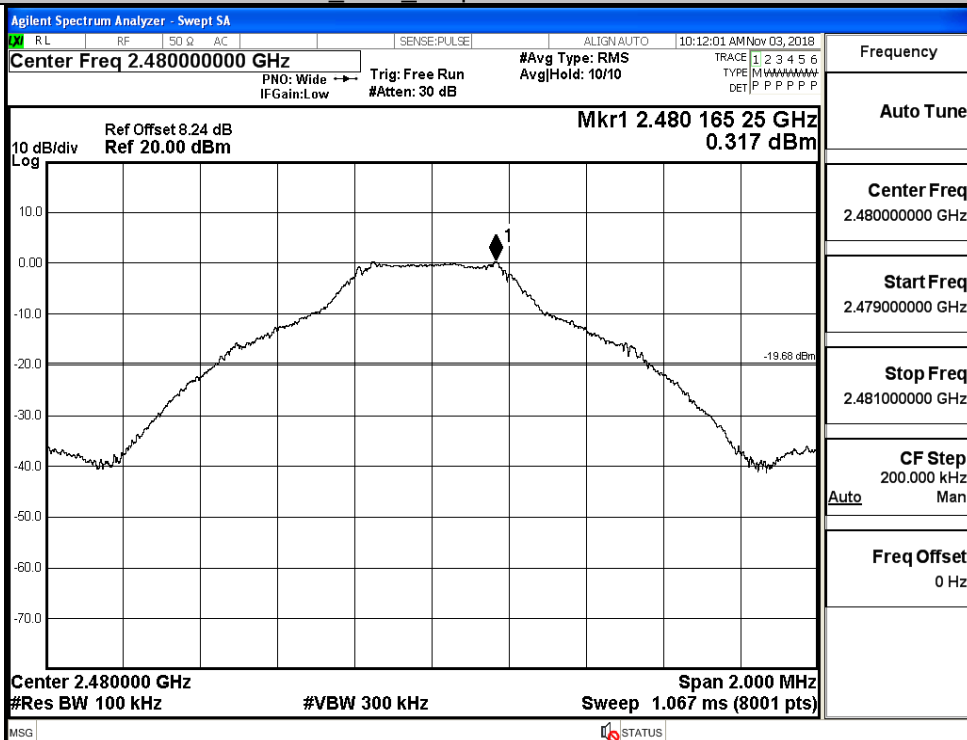


Puw

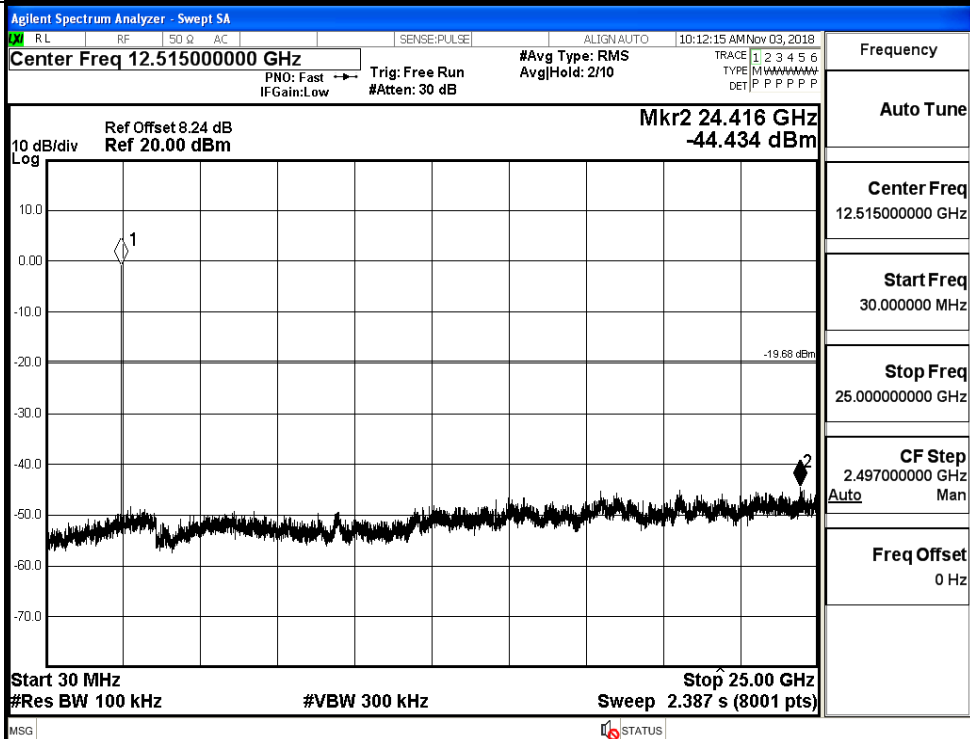


GFSK_HCH_Graphs

Pref

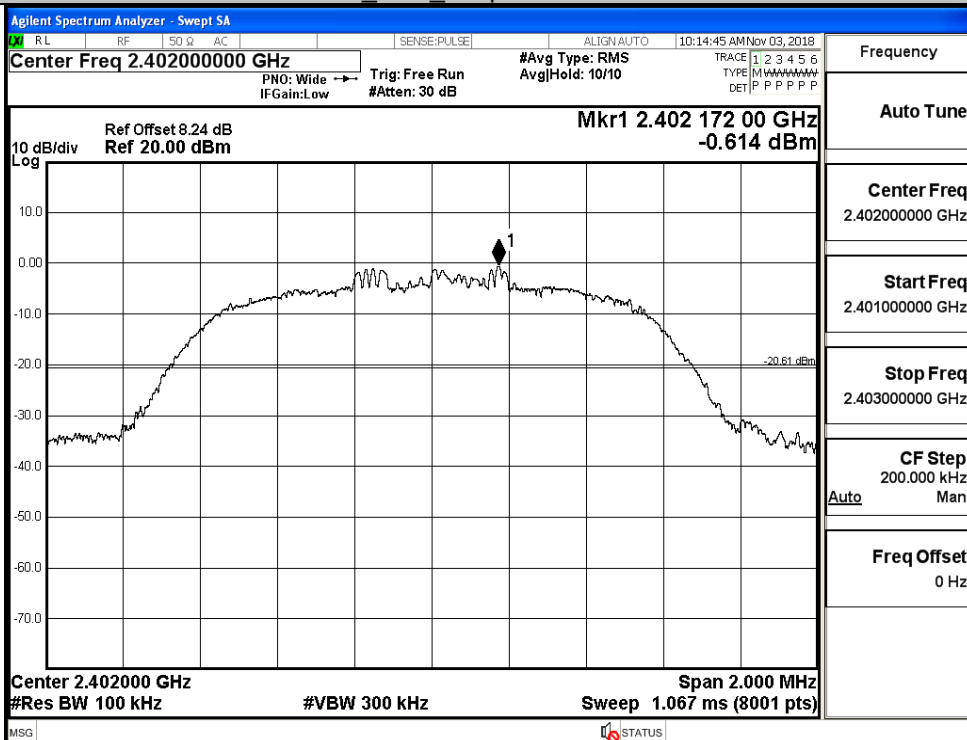


Puw

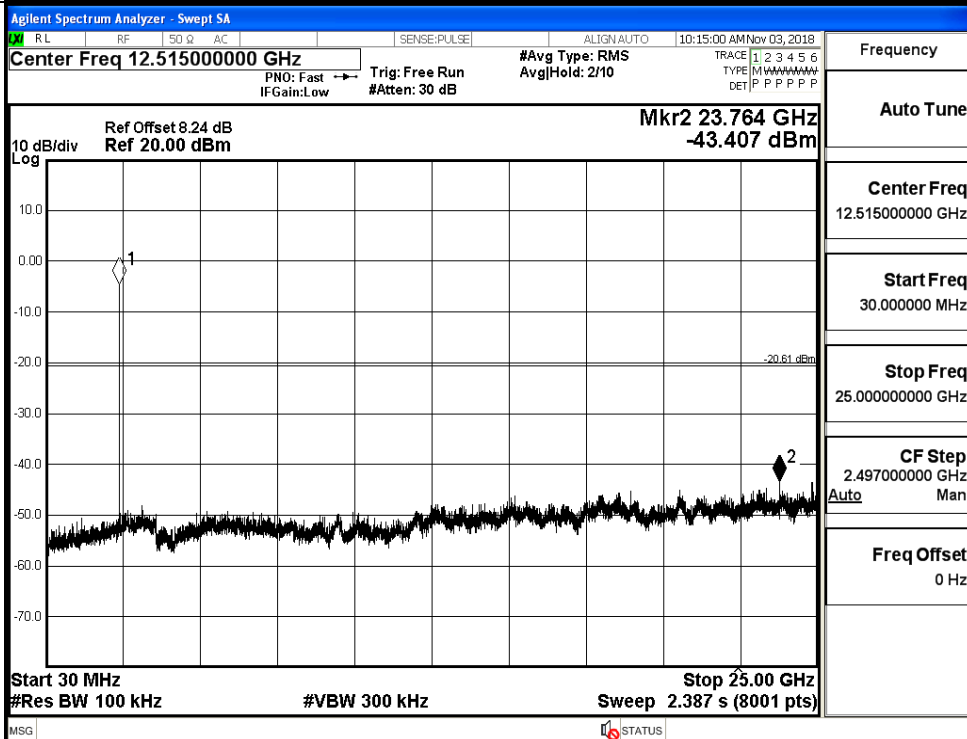


$\pi/4$ DQPSK LCH_Graphs

Pref

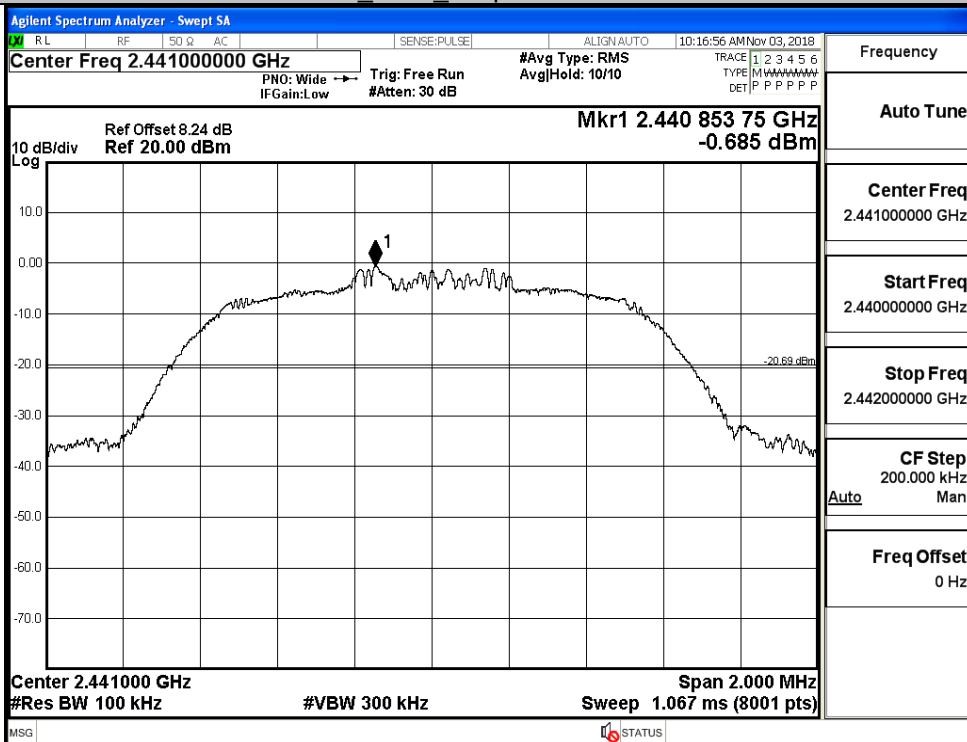


Puw

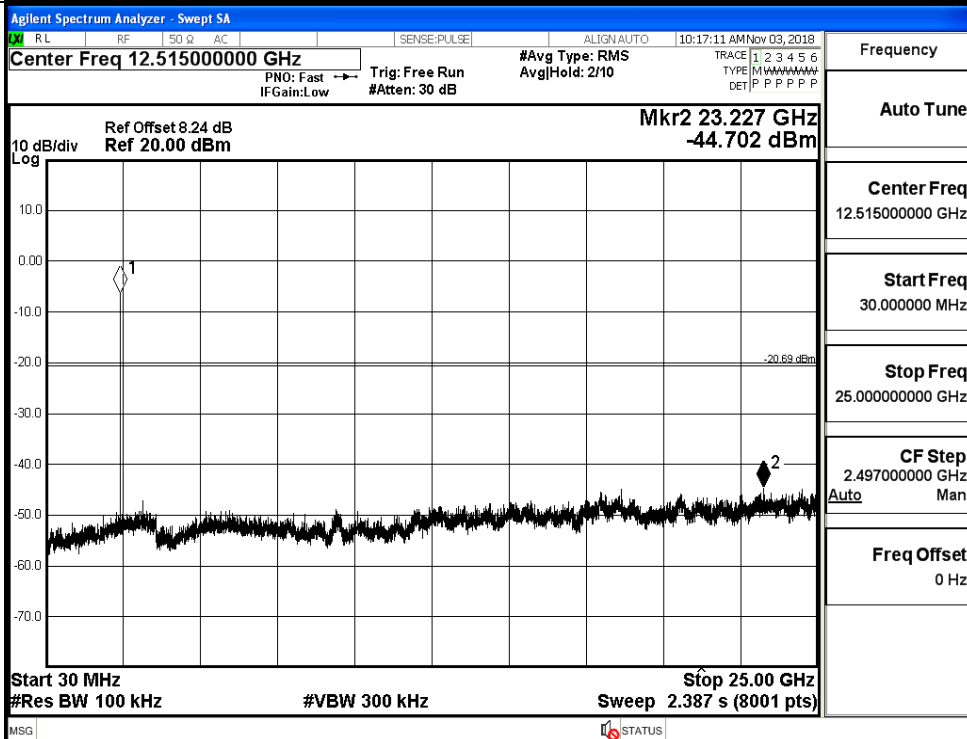


π /4DQPSK_MCH_Graphs

Pref

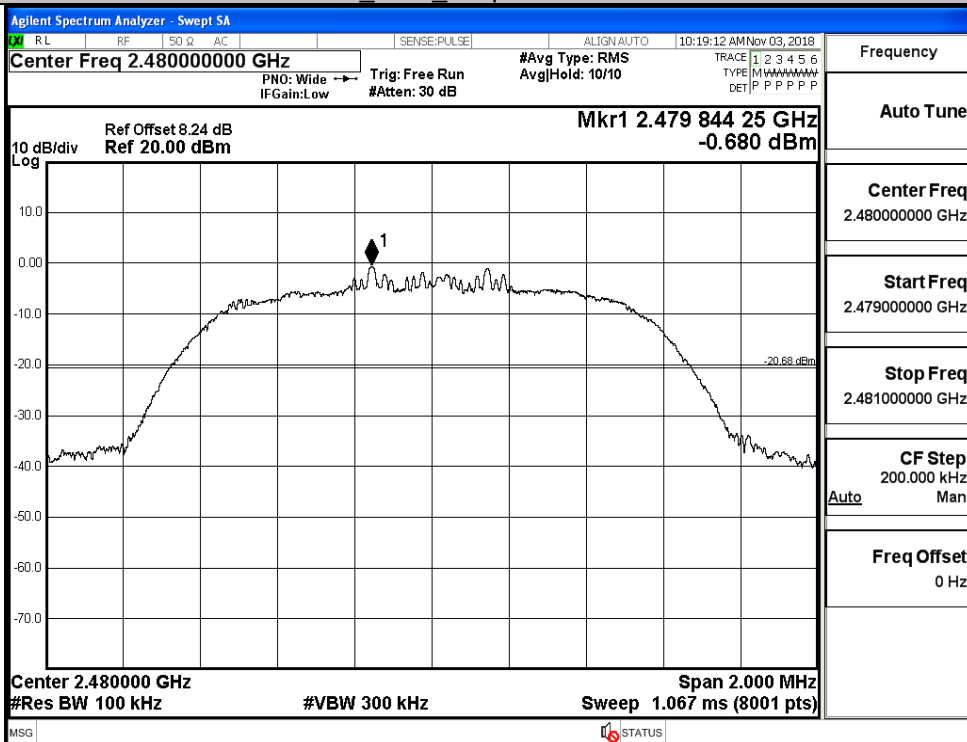


Puw

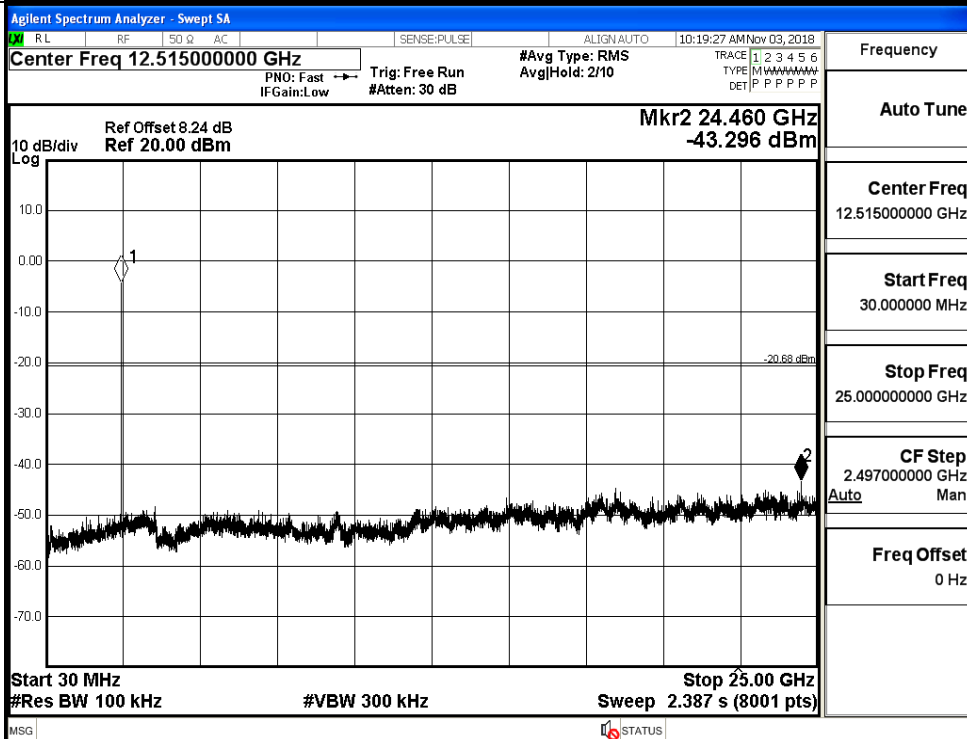


π /4DQPSK_HCH_Graphs

Pref

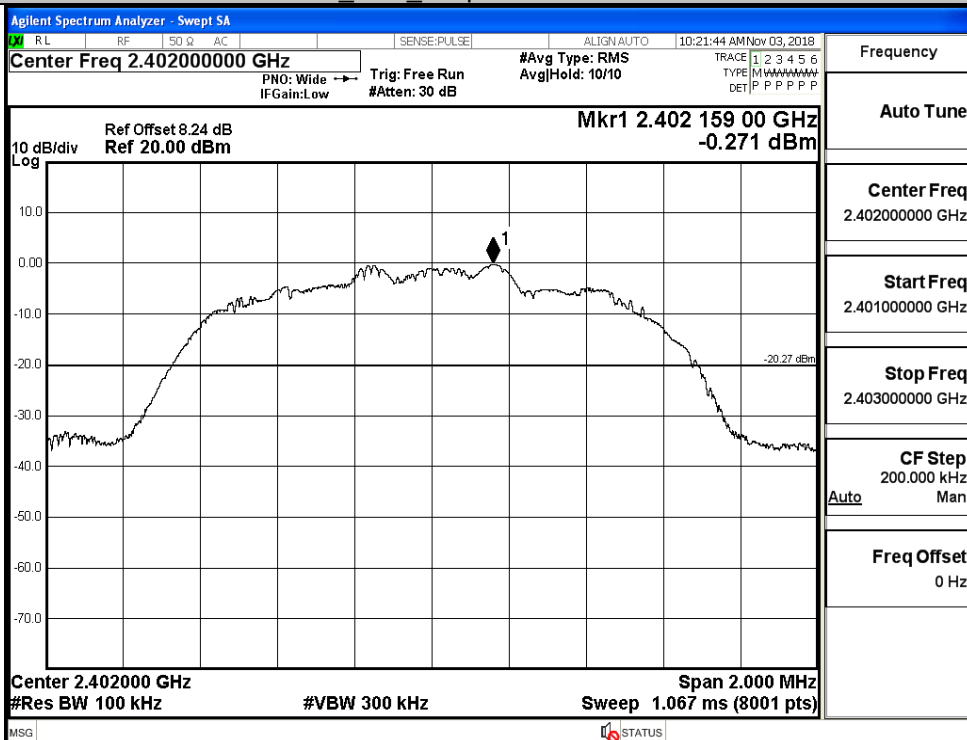


Puw

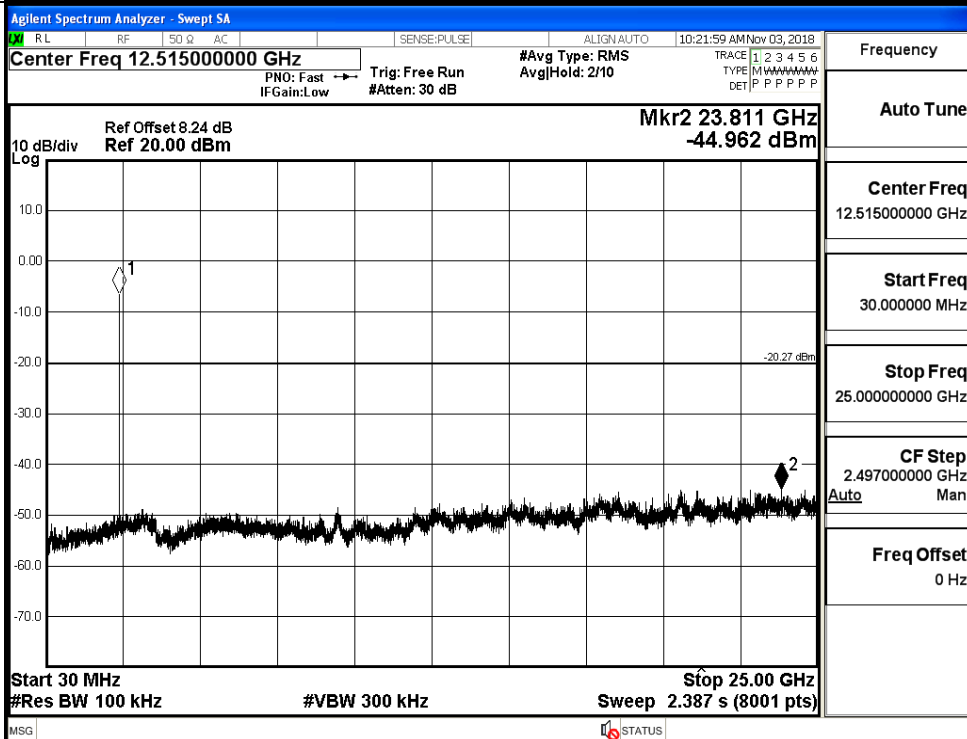


8DPSK_LCH_Graphs

Pref

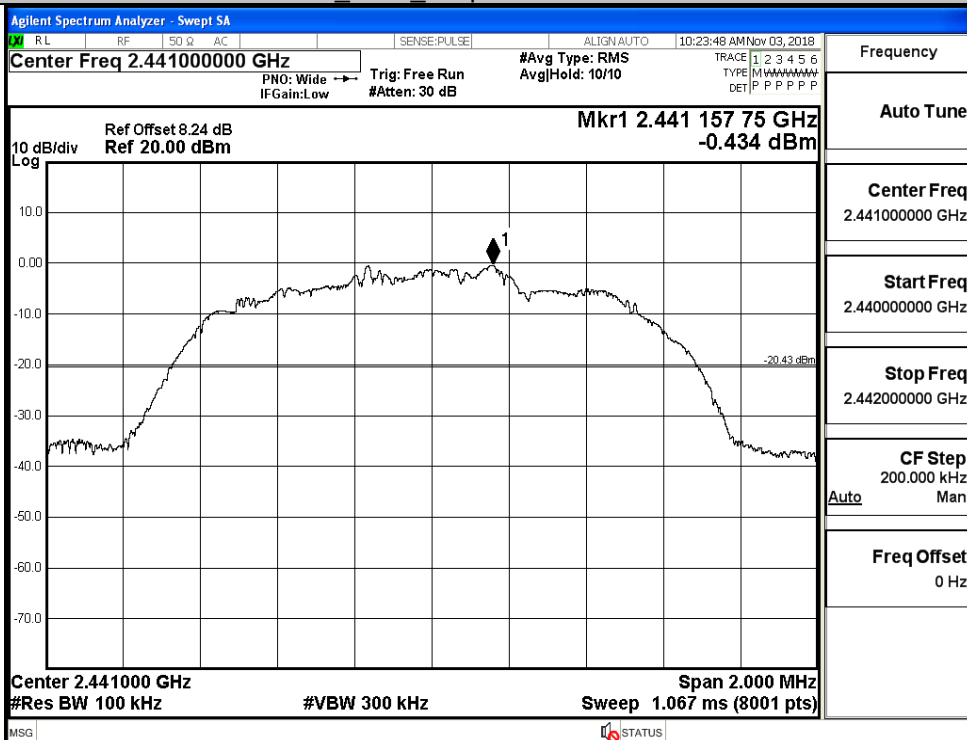


Puw

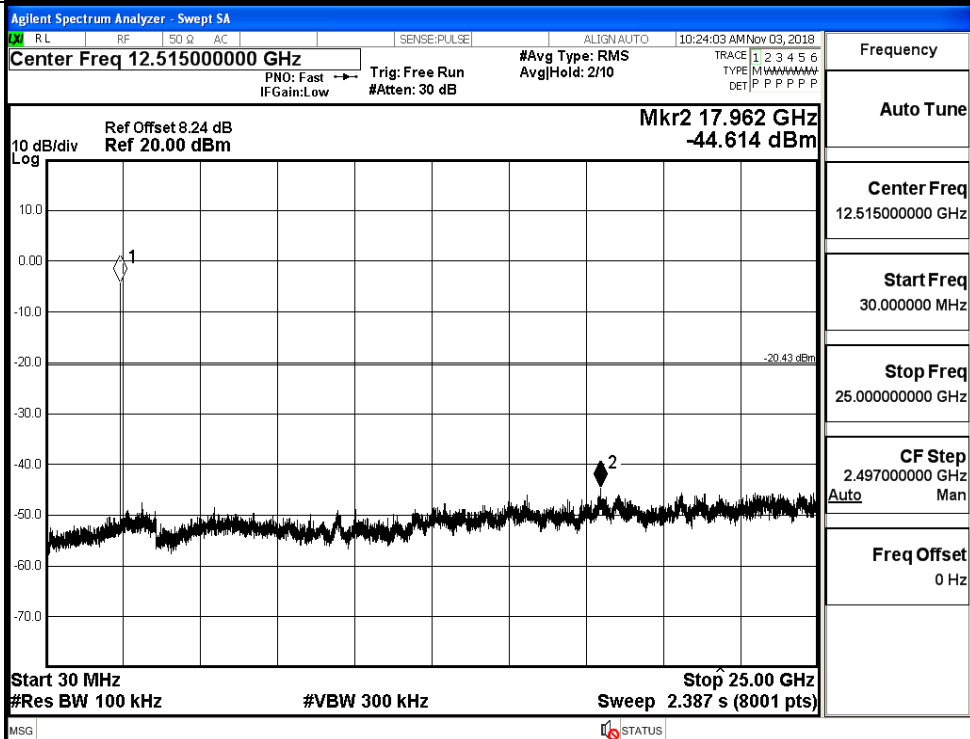


8DPSK_MCH_Graphs

Pref

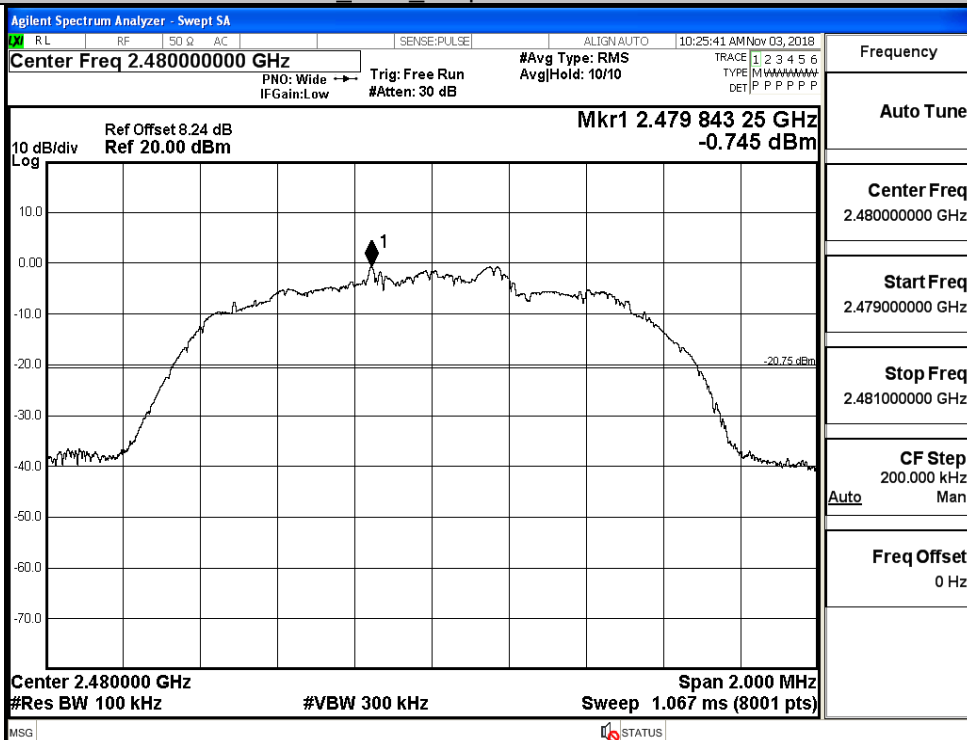


Puw

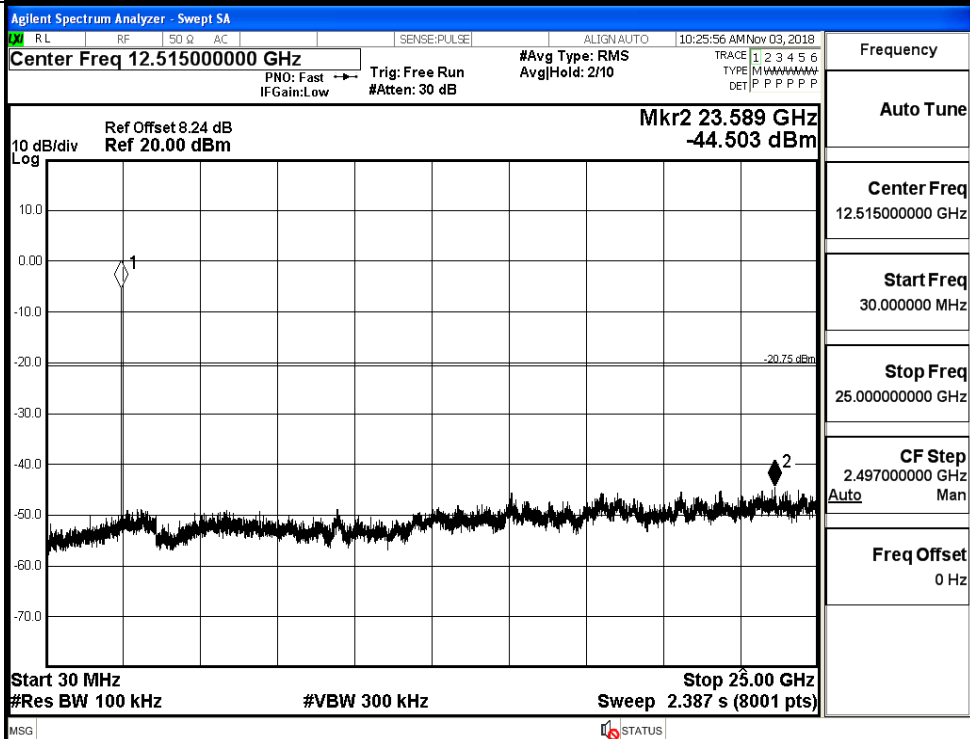


8DPSK_HCH_Graphs

Pref



Puw

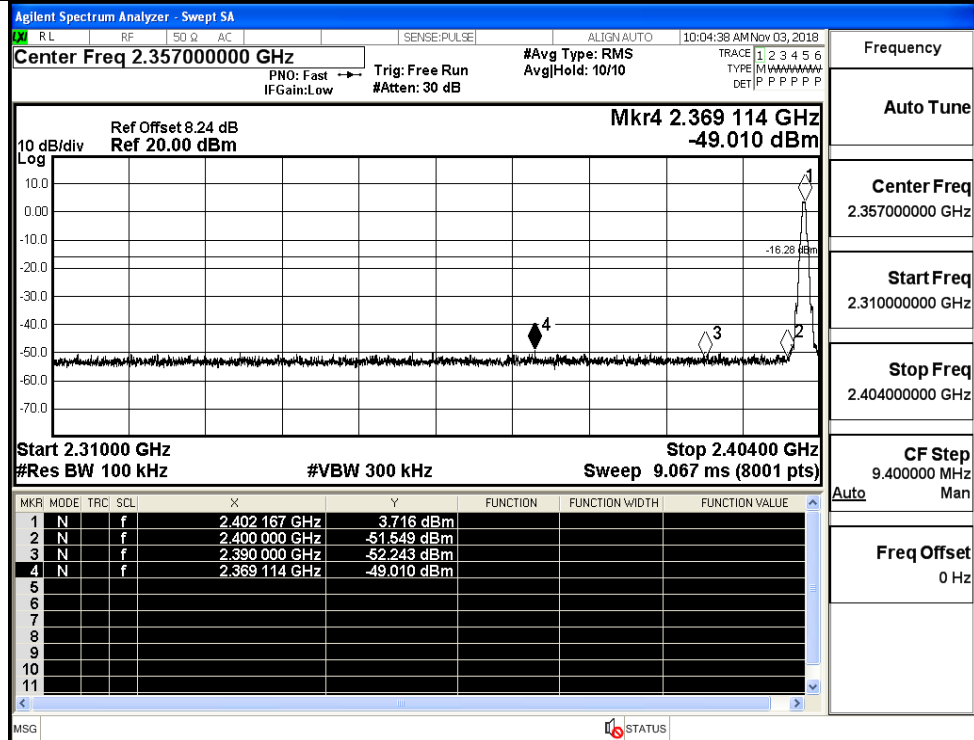


A.7 Band-edge for RF Conducted Emissions

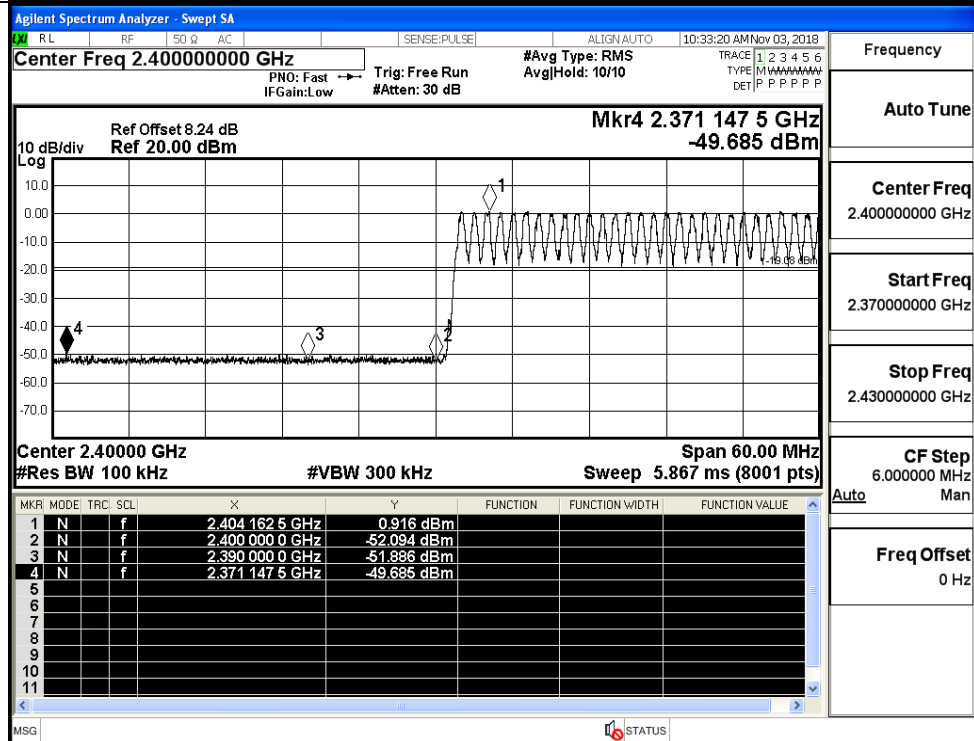
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	3.716	Off	-49.010	-16.28	PASS
			0.916	On	-49.685	-19.08	PASS
	HCH	2480	0.362	Off	-49.605	-19.64	PASS
			0.749	On	-48.597	-19.25	PASS
$\pi/4$ DQPSK	LCH	2402	-2.241	Off	-49.888	-22.24	PASS
			-0.249	On	-49.386	-20.25	PASS
	HCH	2480	-0.653	Off	-49.265	-20.65	PASS
			-0.625	On	-49.323	-20.63	PASS
8DPSK	LCH	2402	-0.215	Off	-49.790	-20.22	PASS
			-0.306	On	-49.290	-20.31	PASS
	HCH	2480	-0.588	Off	-48.923	-20.59	PASS
			-0.596	On	-49.185	-20.6	PASS

Test Graphs

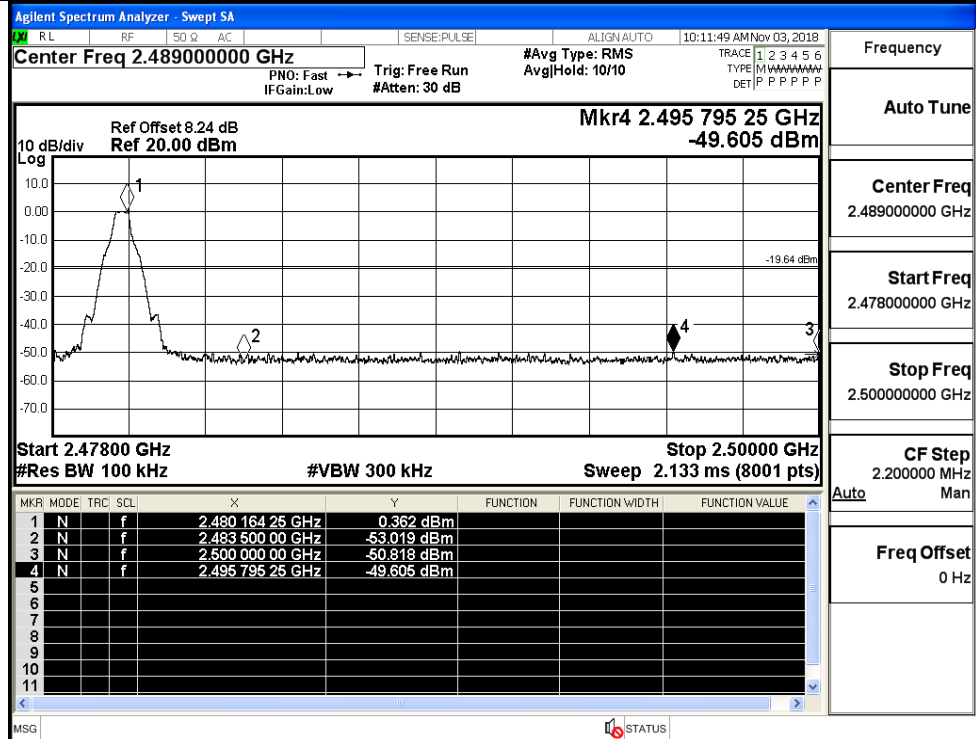
GFSK/LCH/No Hop



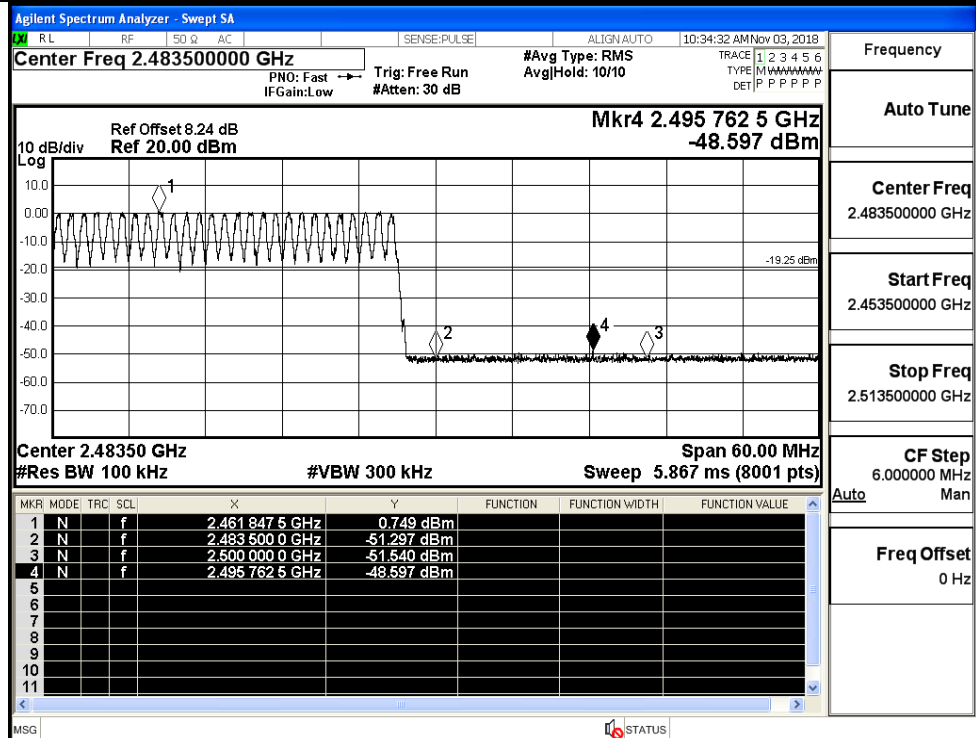
GFSK/LCH/Hop



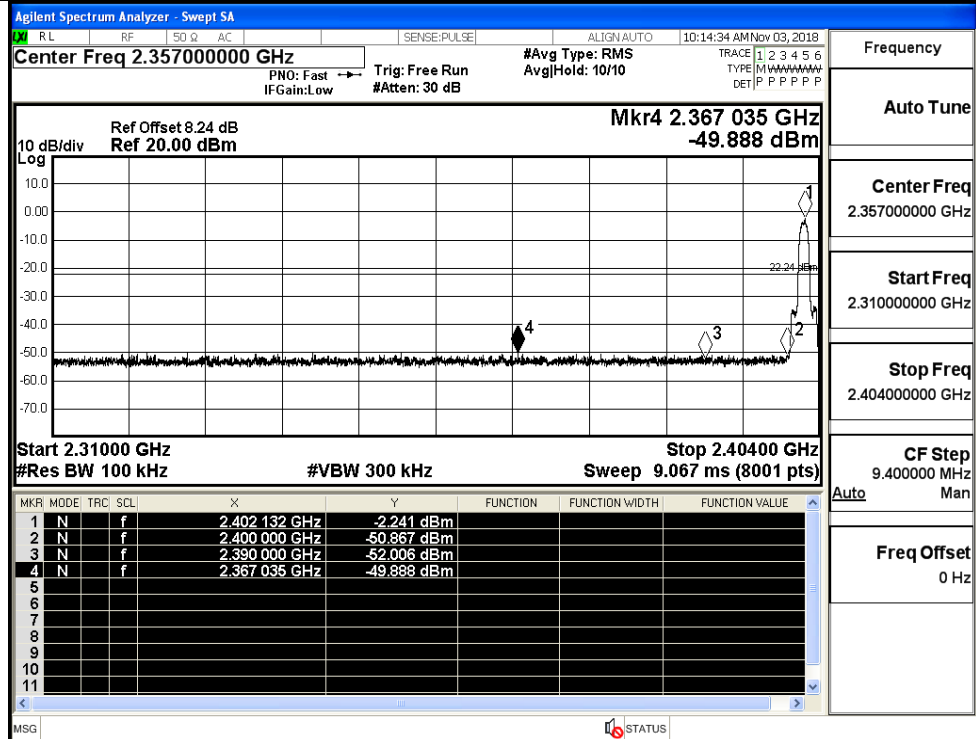
GFSK/HCH/No Hop



GFSK/HCH/Hop



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

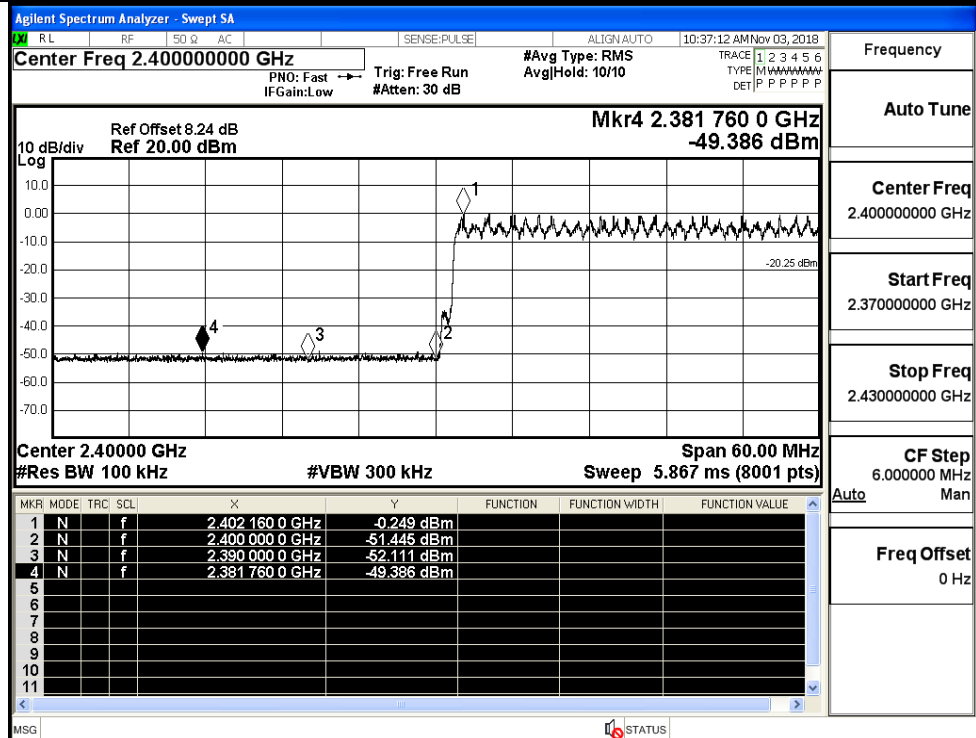


Frequency

Auto Tune

Center Freq
2.357000000 GHzStart Freq
2.310000000 GHzStop Freq
2.404000000 GHzCF Step
9.400000 MHz
Auto ManFreq Offset
0 Hz

$\pi/4$ DQPSK/LCH/Hop

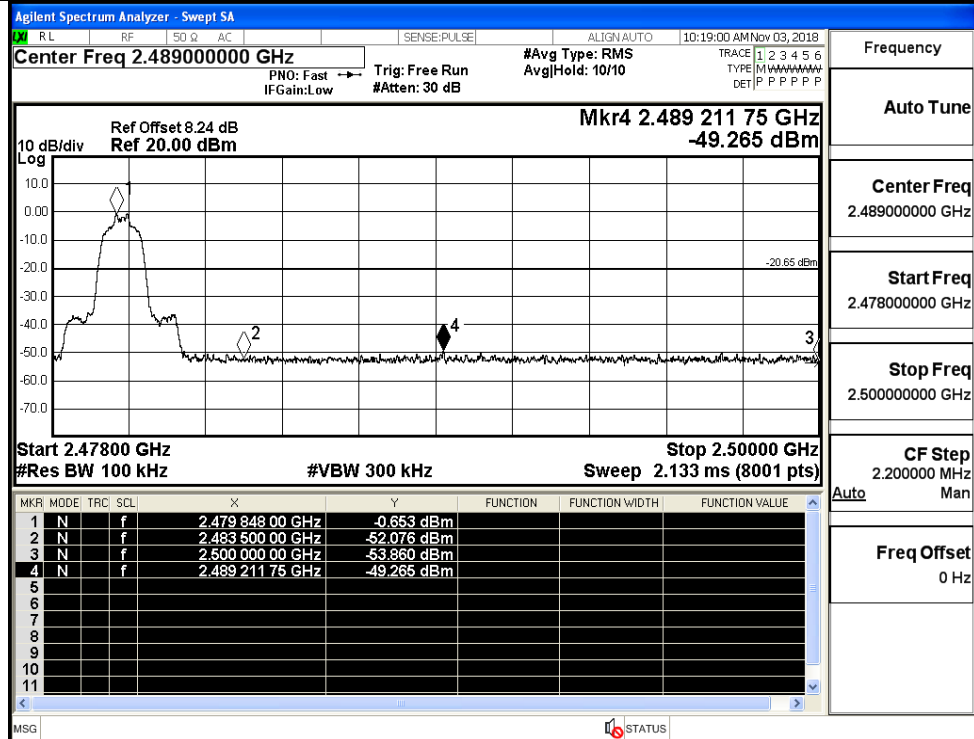


Frequency

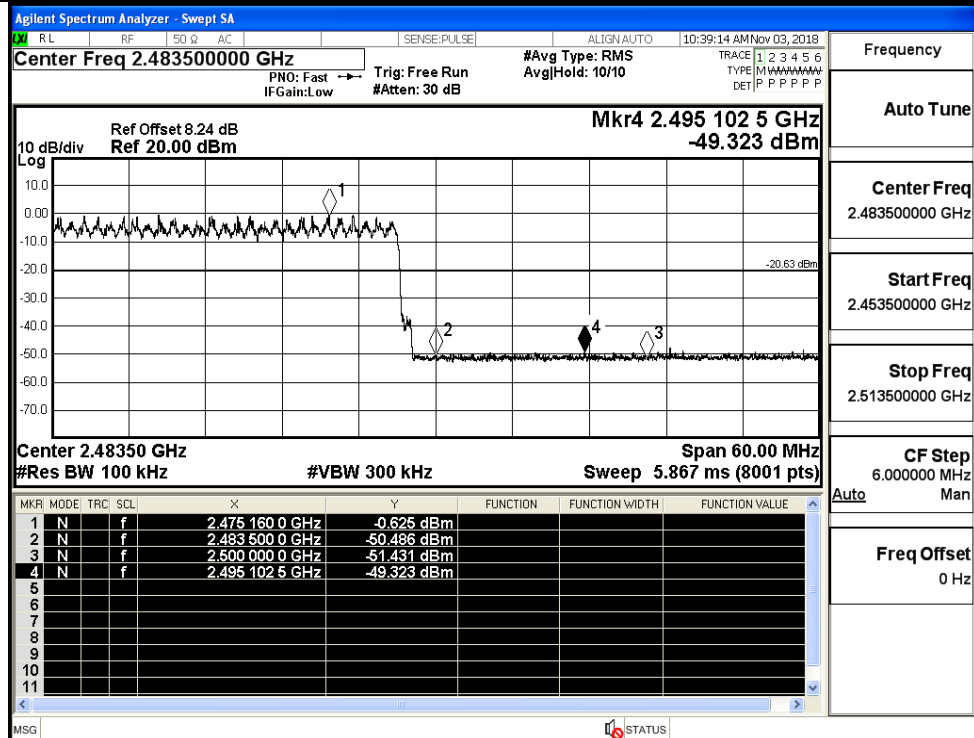
Auto Tune

Center Freq
2.400000000 GHzStart Freq
2.370000000 GHzStop Freq
2.430000000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

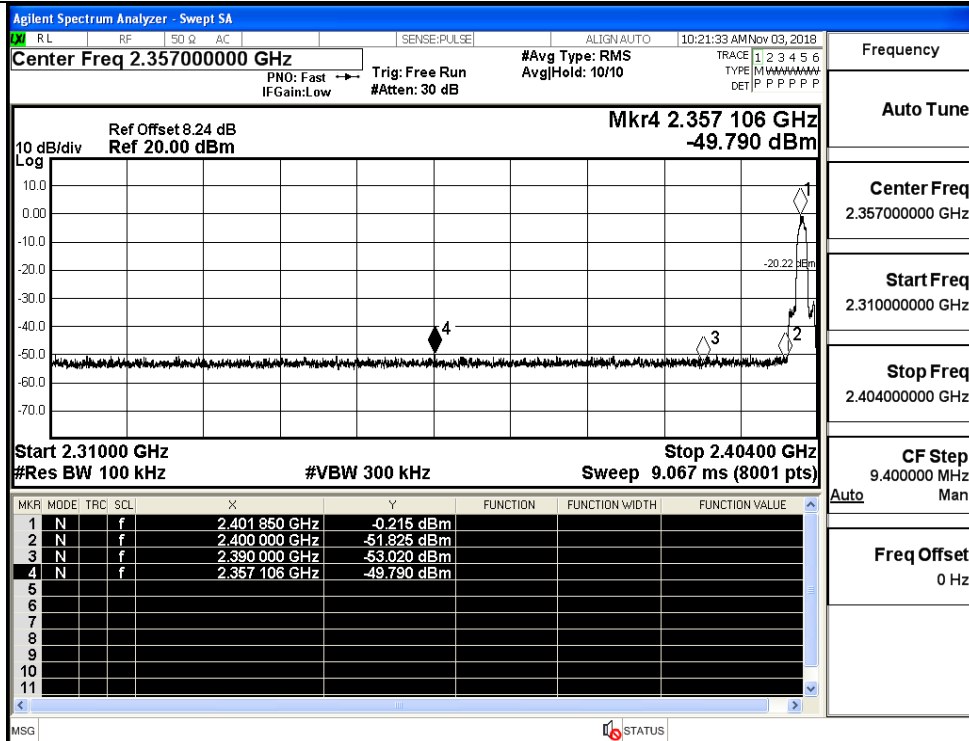
$\pi/4$ DQPSK/HCH/No
Hop



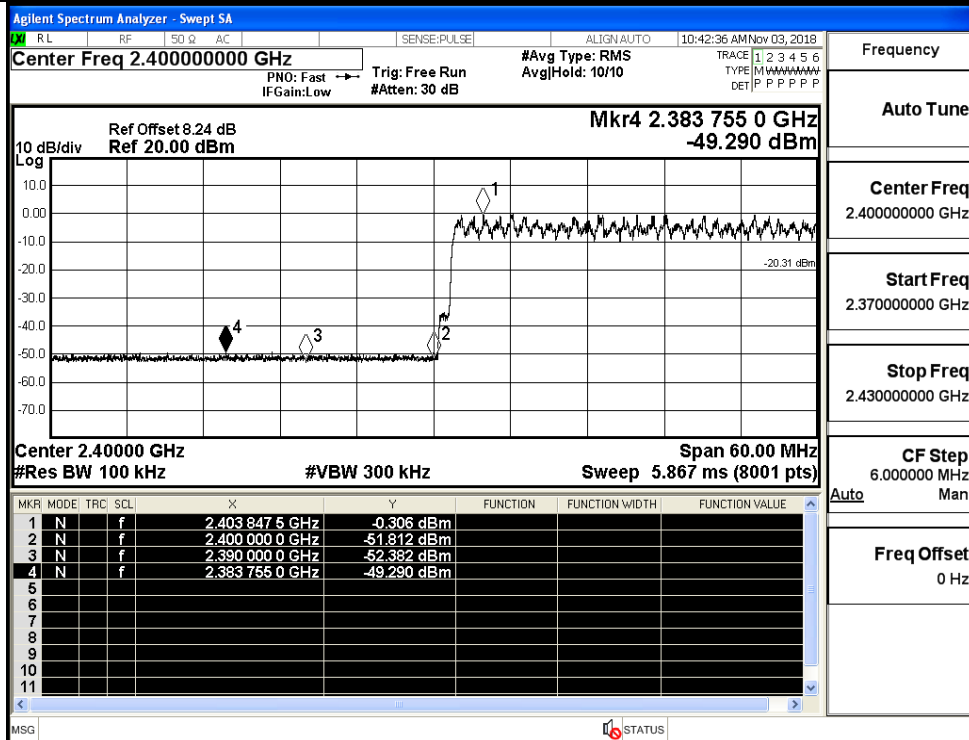
$\pi/4$ DQPSK/HCH/Hop



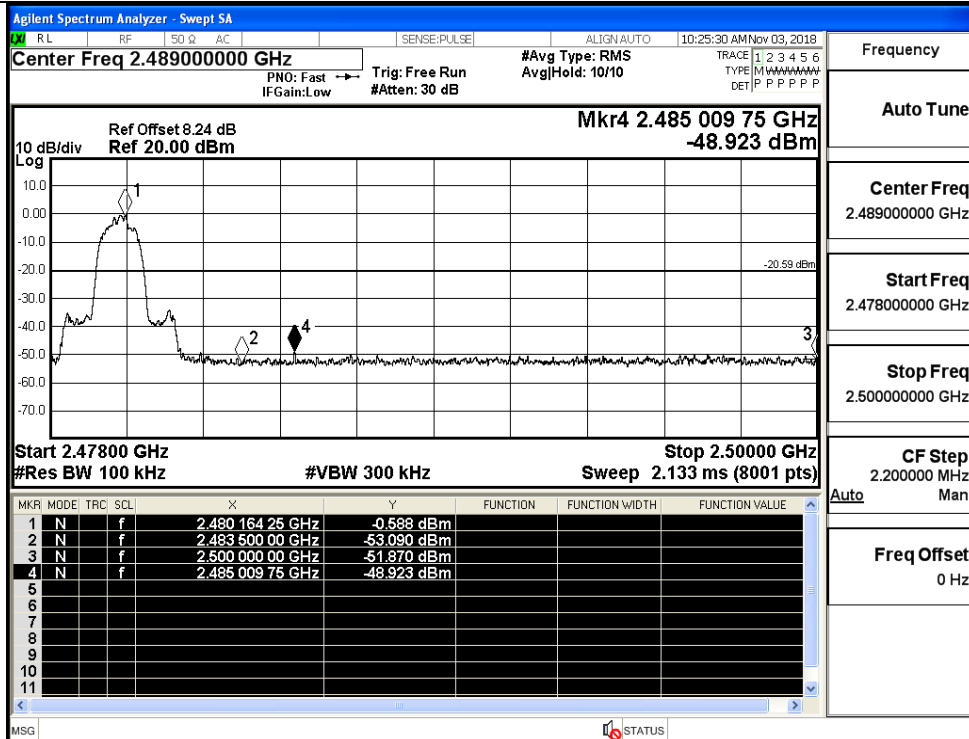
8DPSK/LCH/No Hop



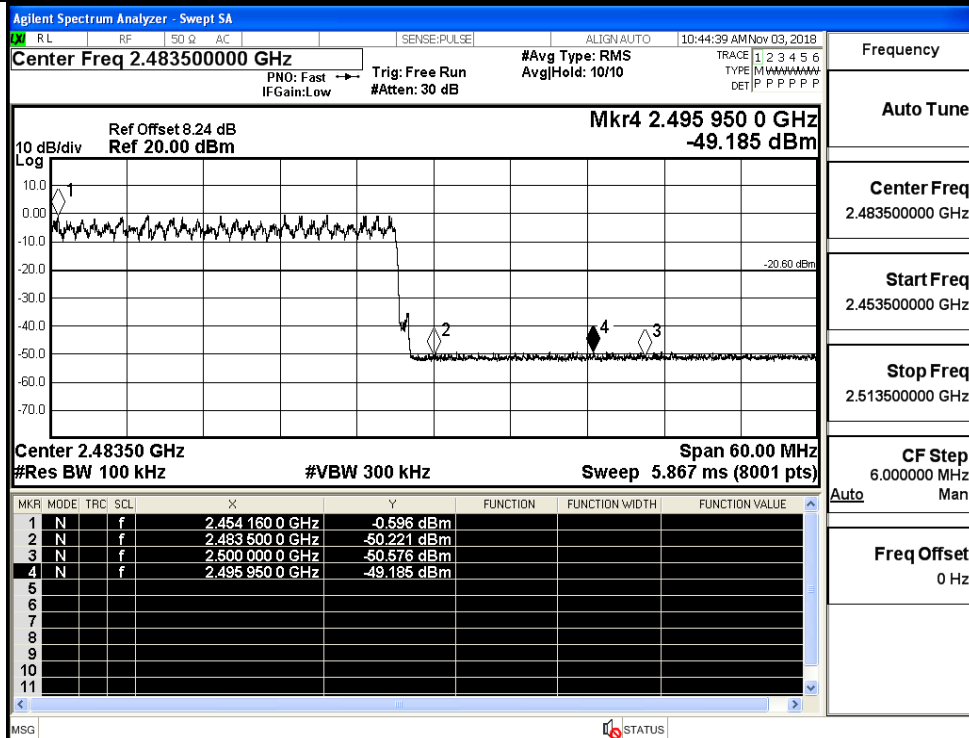
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



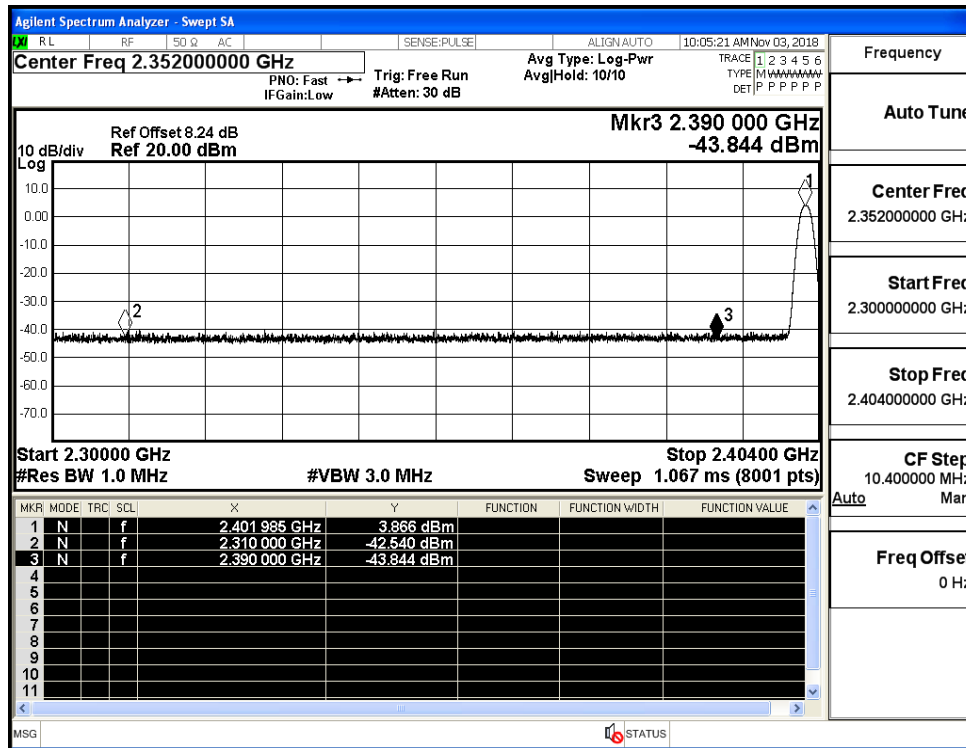
8DPSK/HCH/Hop



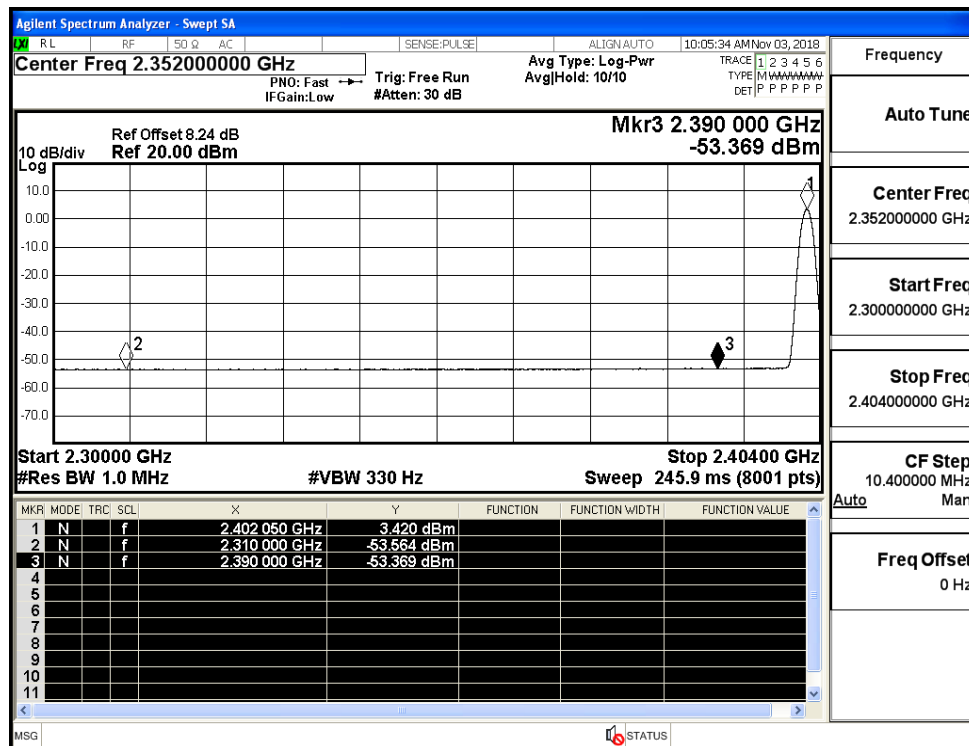
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.54	2.6	0	55.26	PEAK	74	PASS
	Off	2310.0	-53.56	2.6	0	44.24	AV	54	PASS
	Off	2390.0	-43.84	2.6	0	53.96	PEAK	74	PASS
	Off	2390.0	-53.37	2.6	0	44.43	AV	54	PASS
	Off	2483.5	-42.69	2.6	0	55.11	PEAK	74	PASS
	Off	2483.5	-52.96	2.6	0	44.84	AV	54	PASS
	Off	2500.0	-42.74	2.6	0	55.06	PEAK	74	PASS
	Off	2500.0	-52.80	2.6	0	45.00	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.19	2.6	0	54.61	PEAK	74	PASS
	Off	2310.0	-53.62	2.6	0	44.18	AV	54	PASS
	Off	2390.0	-42.34	2.6	0	55.46	PEAK	74	PASS
	Off	2390.0	-53.27	2.6	0	44.53	AV	54	PASS
	Off	2483.5	-41.73	2.6	0	56.07	PEAK	74	PASS
	Off	2483.5	-52.97	2.6	0	44.83	AV	54	PASS
	Off	2500.0	-43.02	2.6	0	54.78	PEAK	74	PASS
	Off	2500.0	-52.86	2.6	0	44.94	AV	54	PASS
8DPSK	Off	2310.0	-43.58	2.6	0	54.22	PEAK	74	PASS
	Off	2310.0	-53.48	2.6	0	44.32	AV	54	PASS
	Off	2390.0	-43.63	2.6	0	54.17	PEAK	74	PASS
	Off	2390.0	-53.30	2.6	0	44.50	AV	54	PASS
	Off	2483.5	-43.71	2.6	0	54.09	PEAK	74	PASS
	Off	2483.5	-52.91	2.6	0	44.89	AV	54	PASS
	Off	2500.0	-43.14	2.6	0	54.66	PEAK	74	PASS
	Off	2500.0	-52.92	2.6	0	44.88	AV	54	PASS

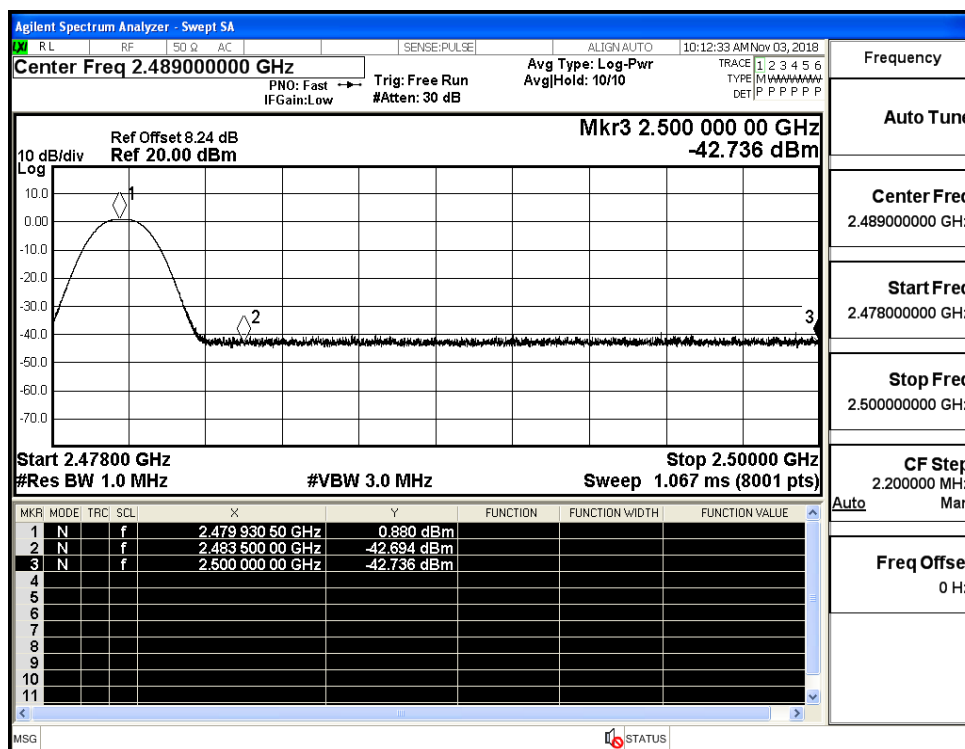
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



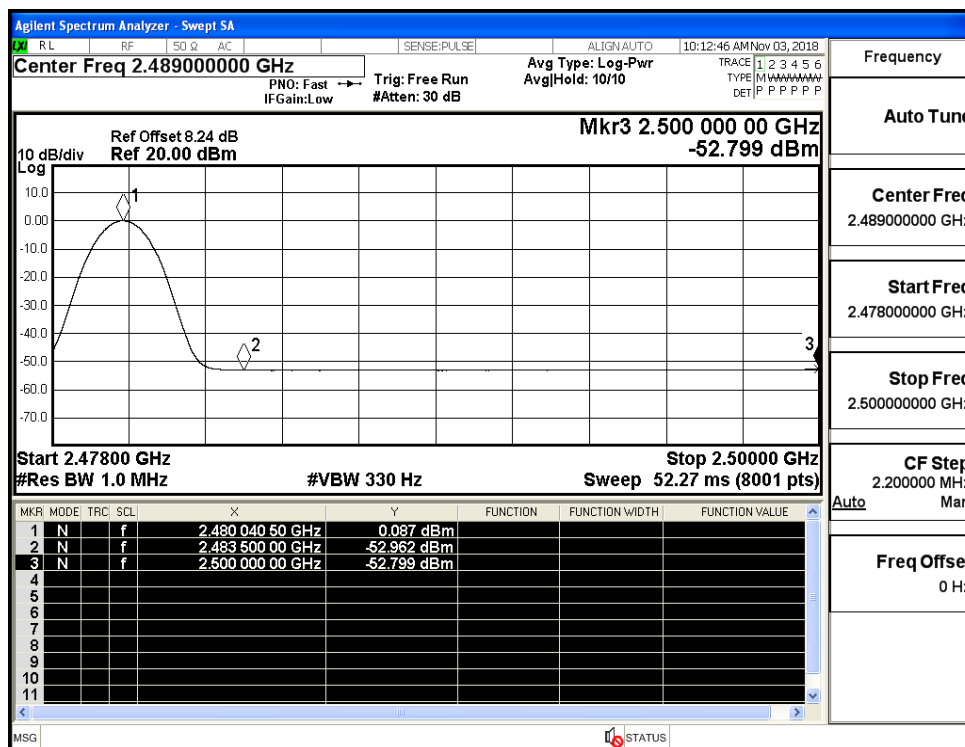
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

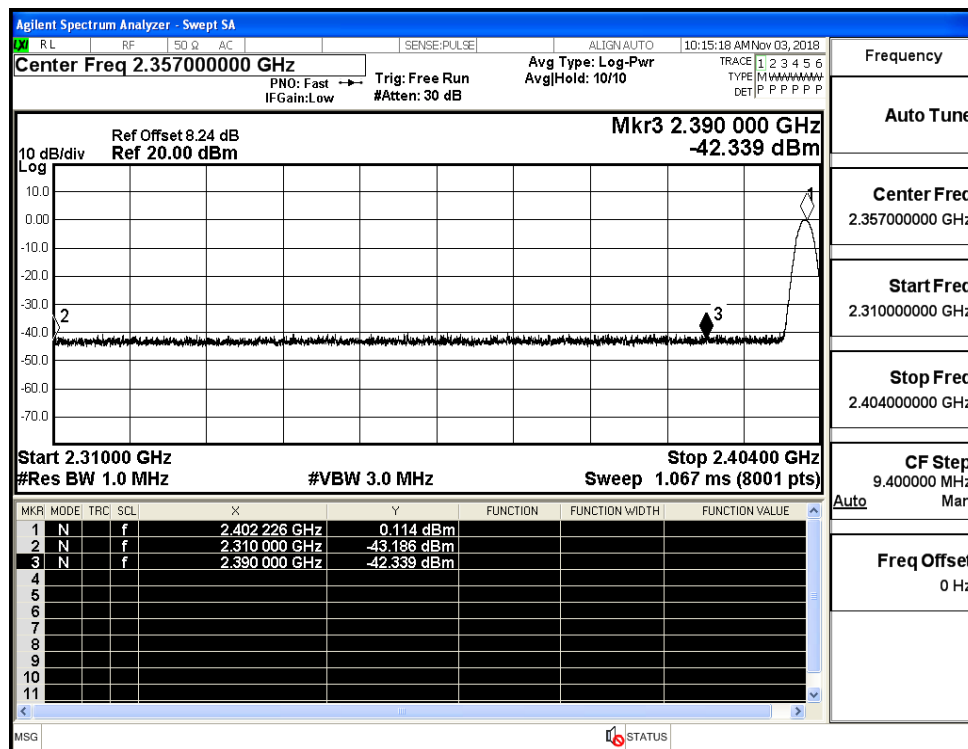
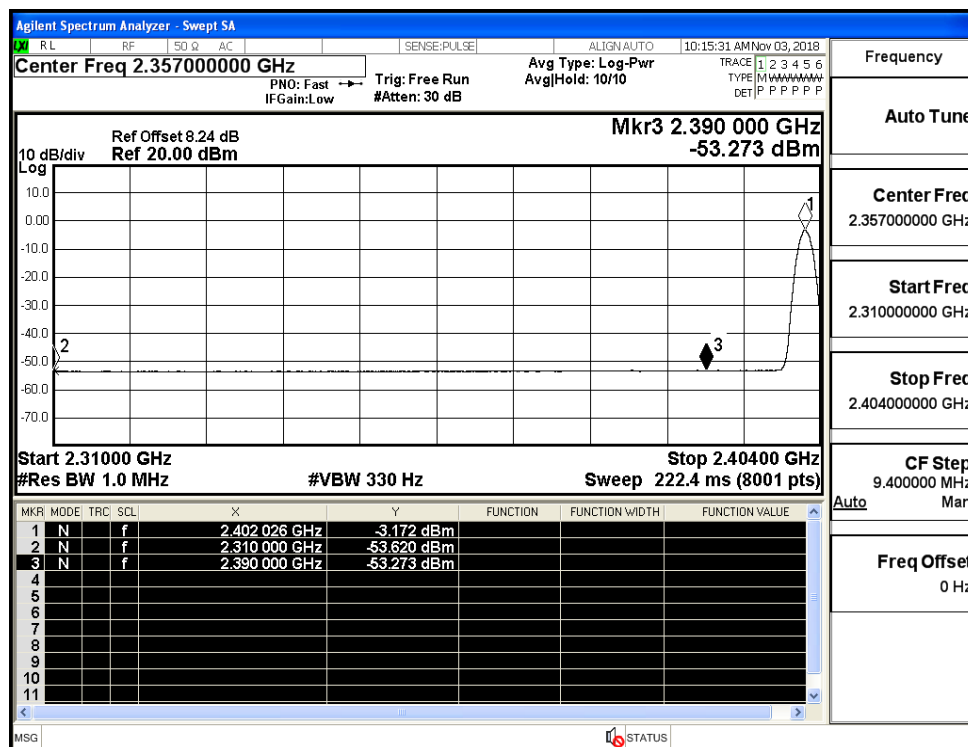


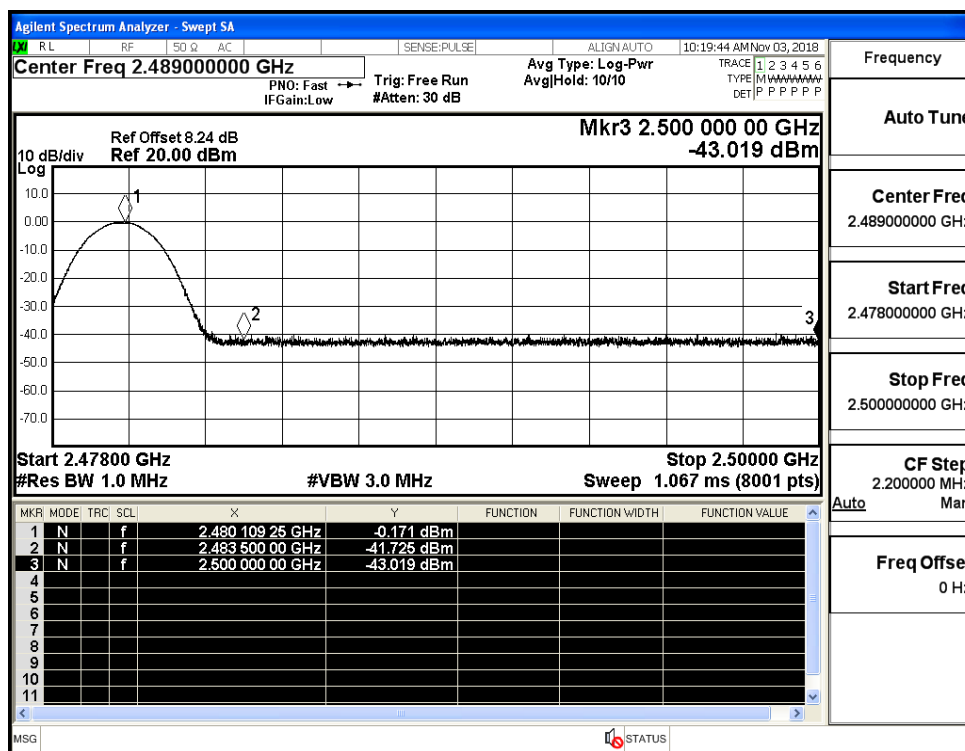
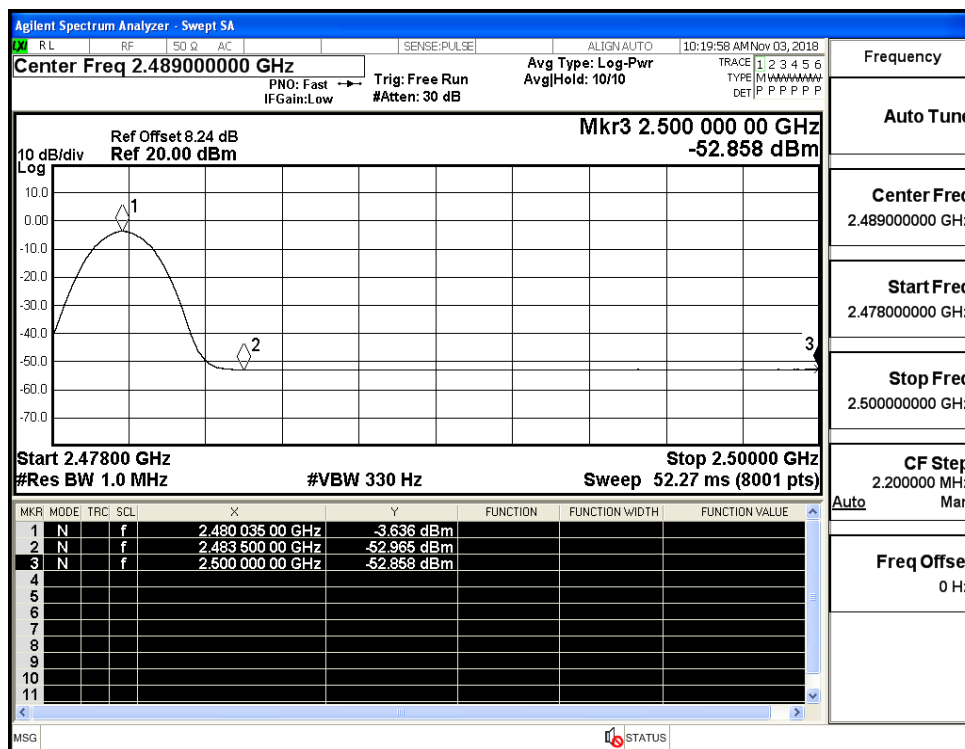
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



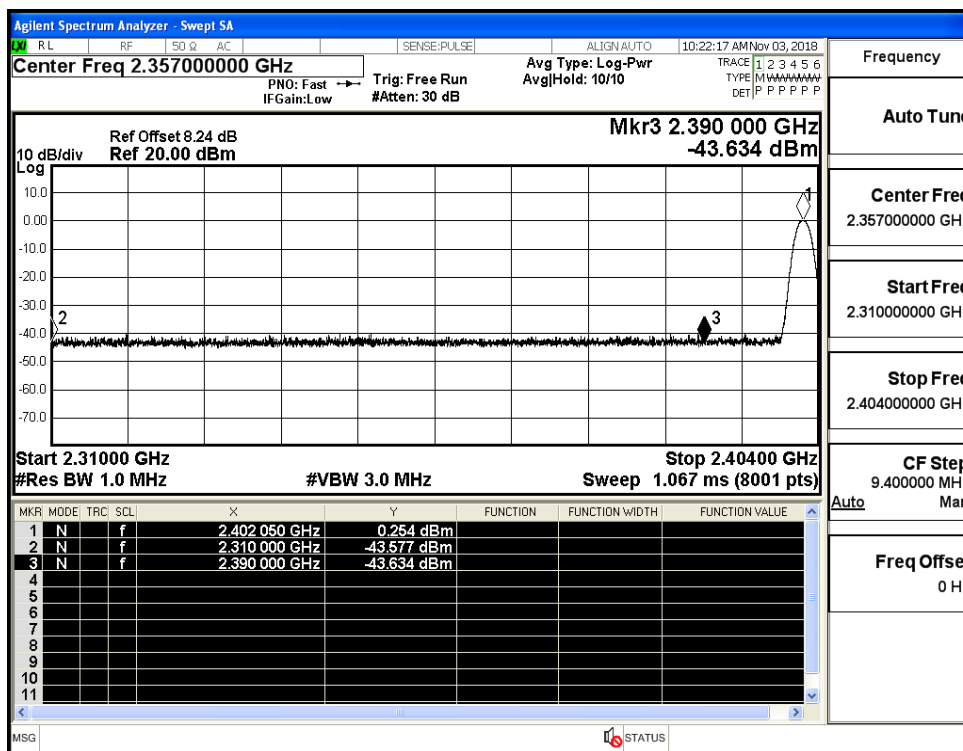
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



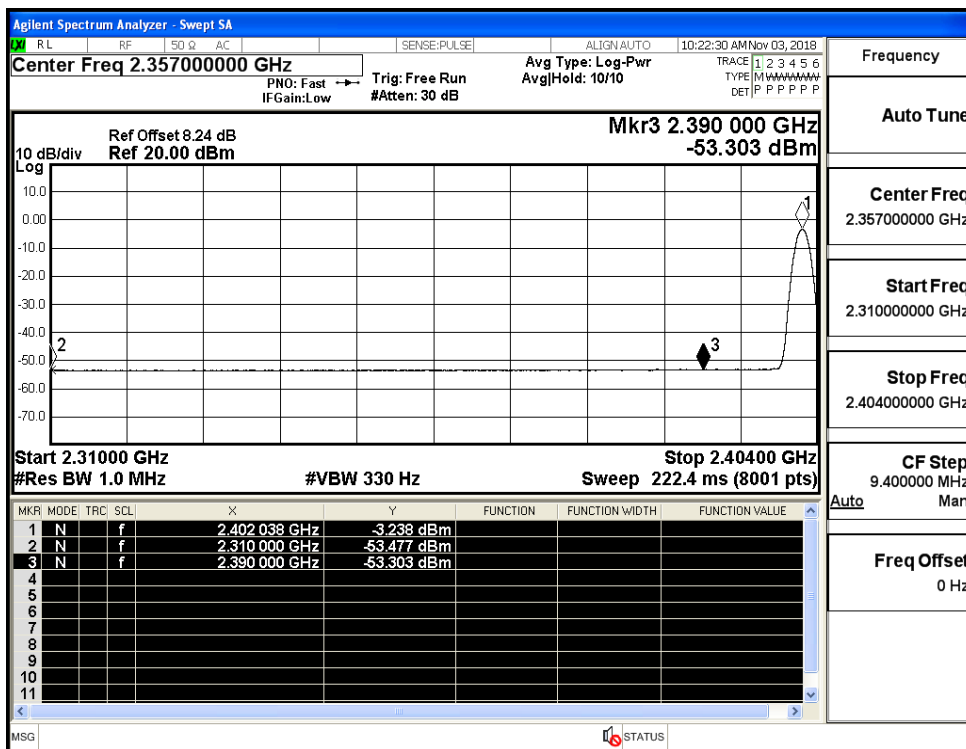
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

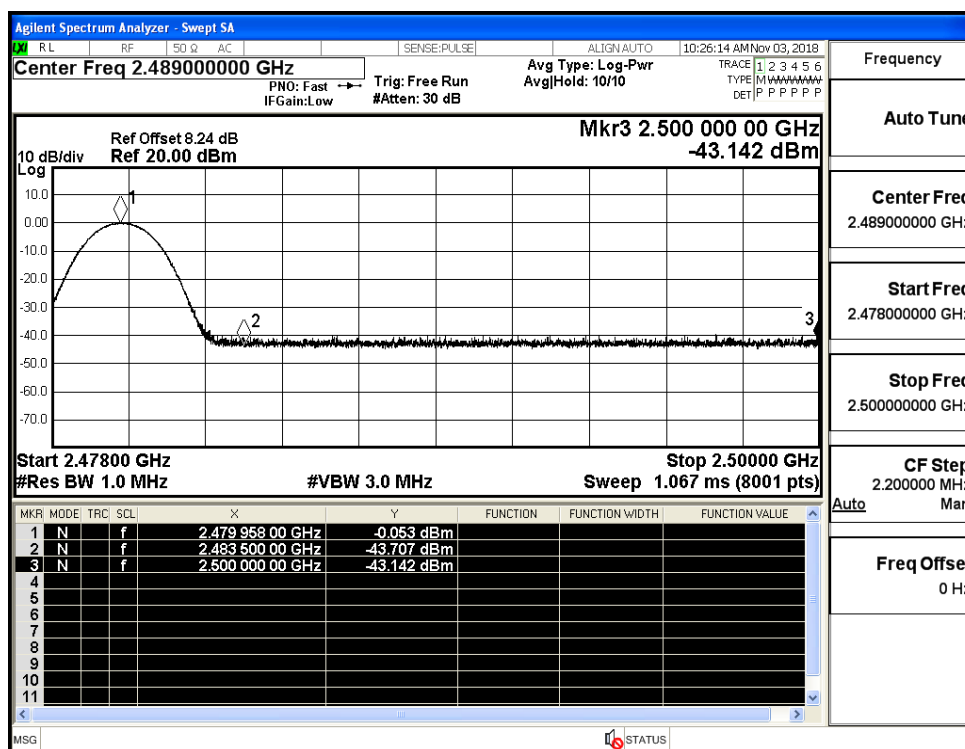
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

