

Appendix A

RF Test Data for BT V2.1+EDR (Conducted Measurement)

Product Name: MOBILE PHONE

Trade Mark: CPR

Test Model: CS900

Environmental Conditions

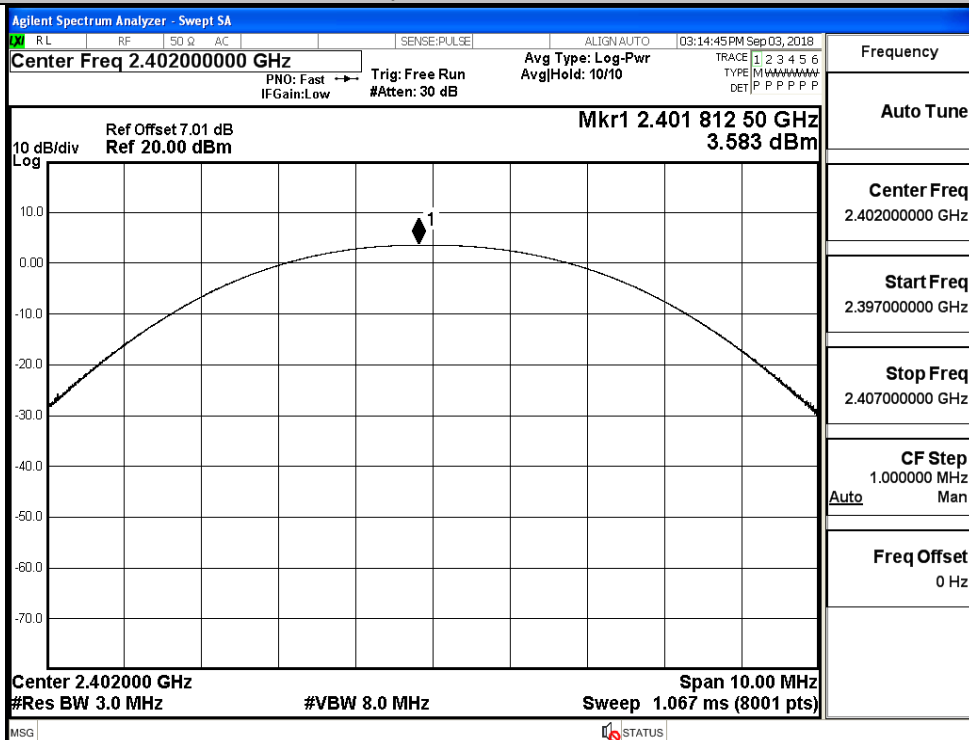
Temperature:	23.5 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden Zhuo

A.1 Maximum Conducted Peak Output Power

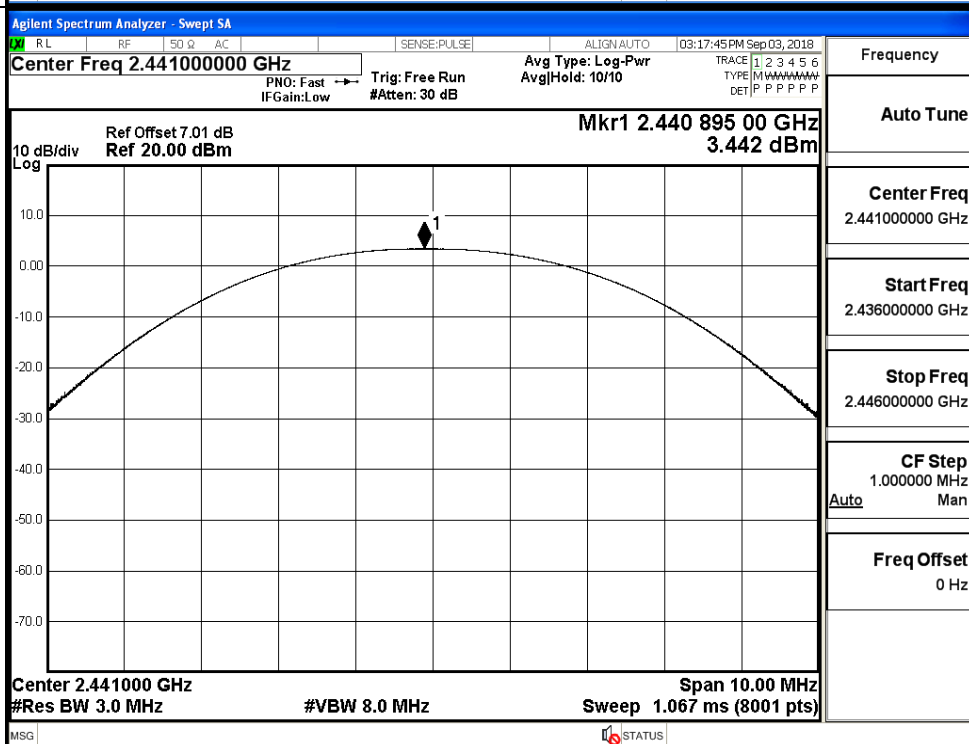
Mode	Channel.	Maximum Peak Output Power [dBm]	Maximum Average Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.583	3.443	30	PASS
	MCH	3.442	3.263	30	PASS
	HCH	3.288	3.171	30	PASS
$\pi/4$ DQPSK	LCH	2.666	2.506	21	PASS
	MCH	2.619	2.448	21	PASS
	HCH	2.518	2.362	21	PASS
8DPSK	LCH	2.836	2.647	21	PASS
	MCH	2.736	2.572	21	PASS
	HCH	2.639	2.492	21	PASS

Test Graphs

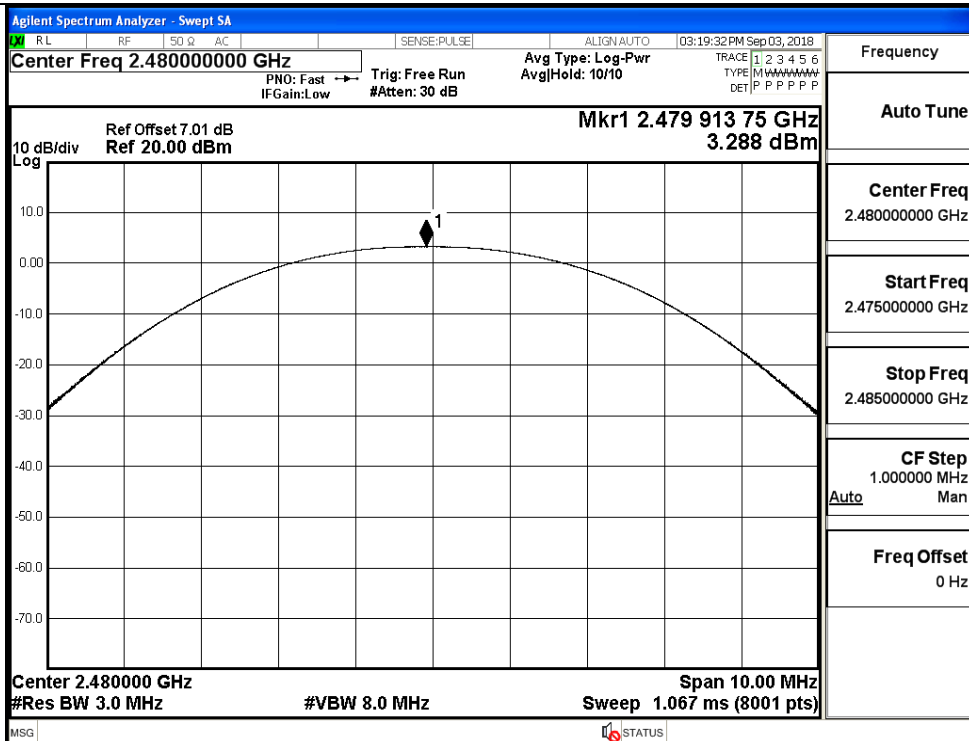
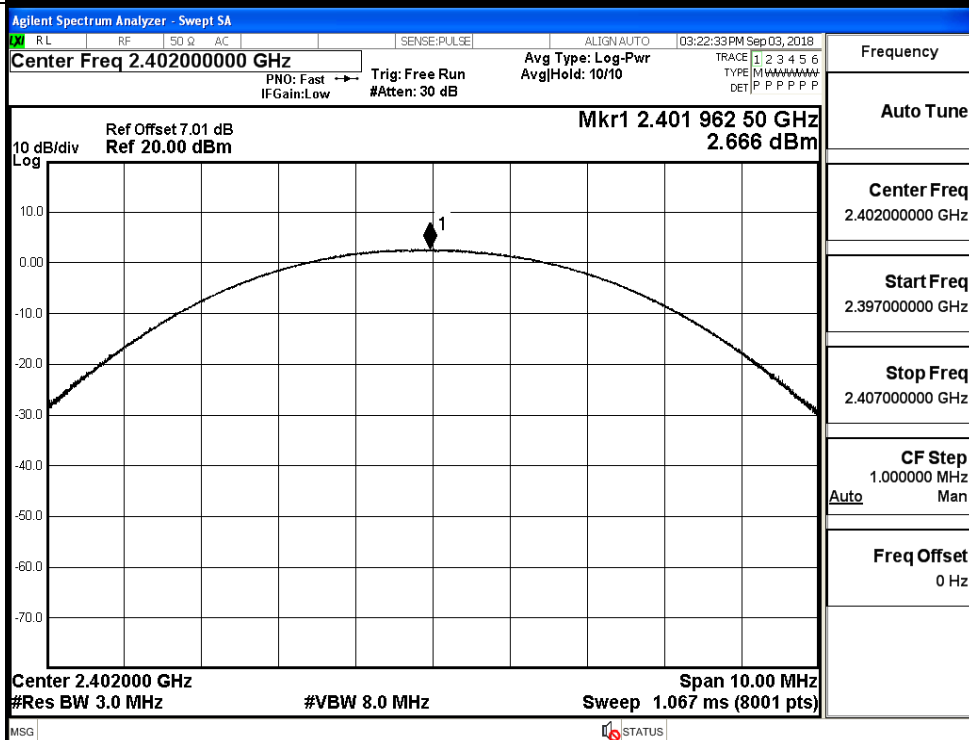
GFSK/LCH

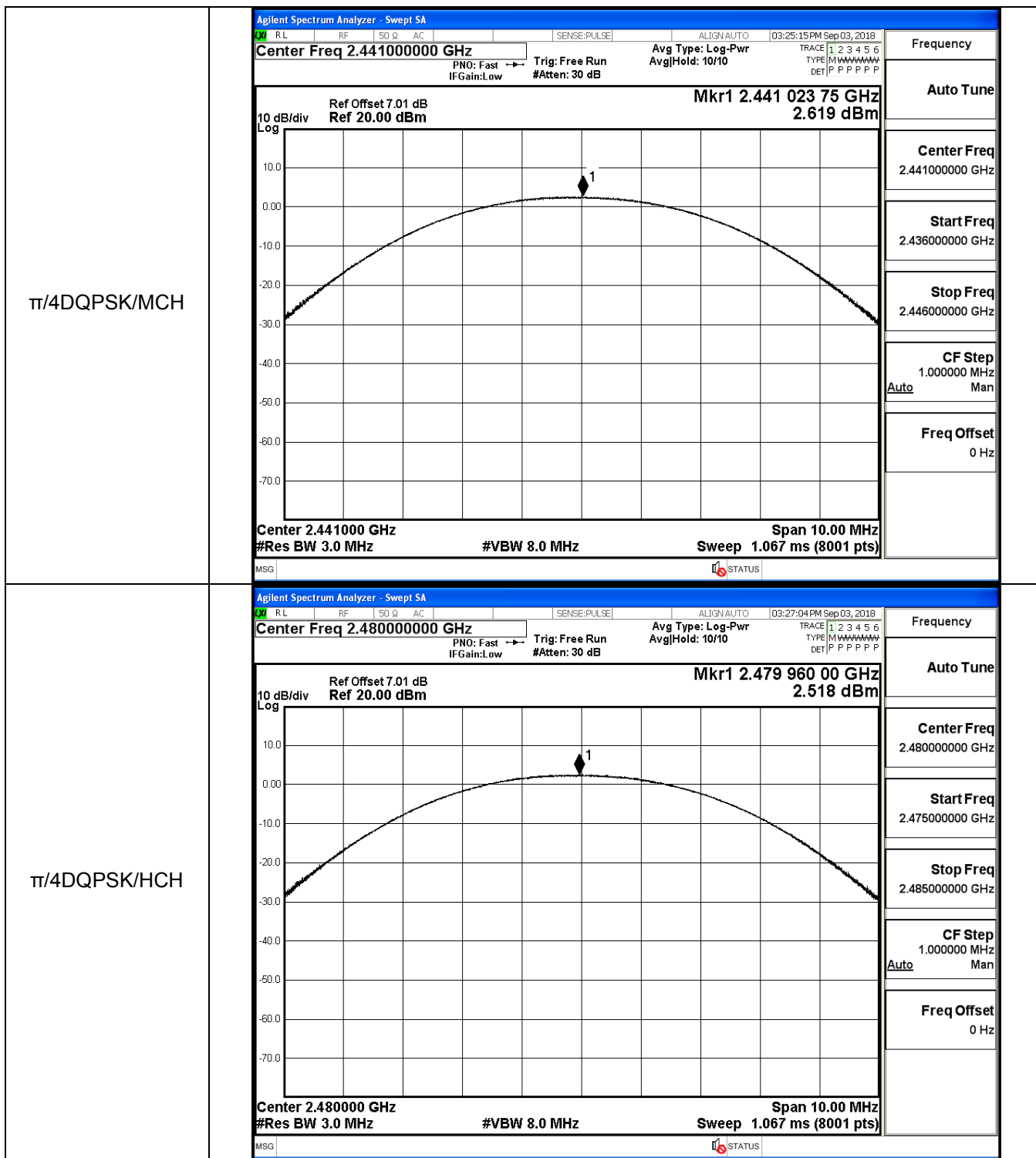


GFSK/MCH

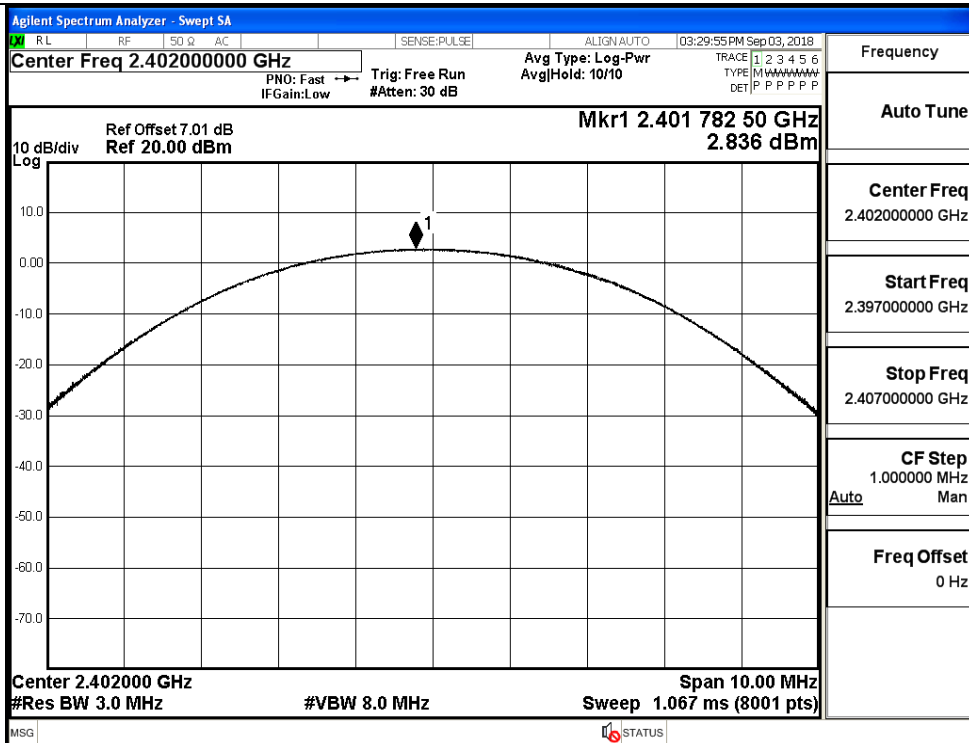


GFSK/HCH

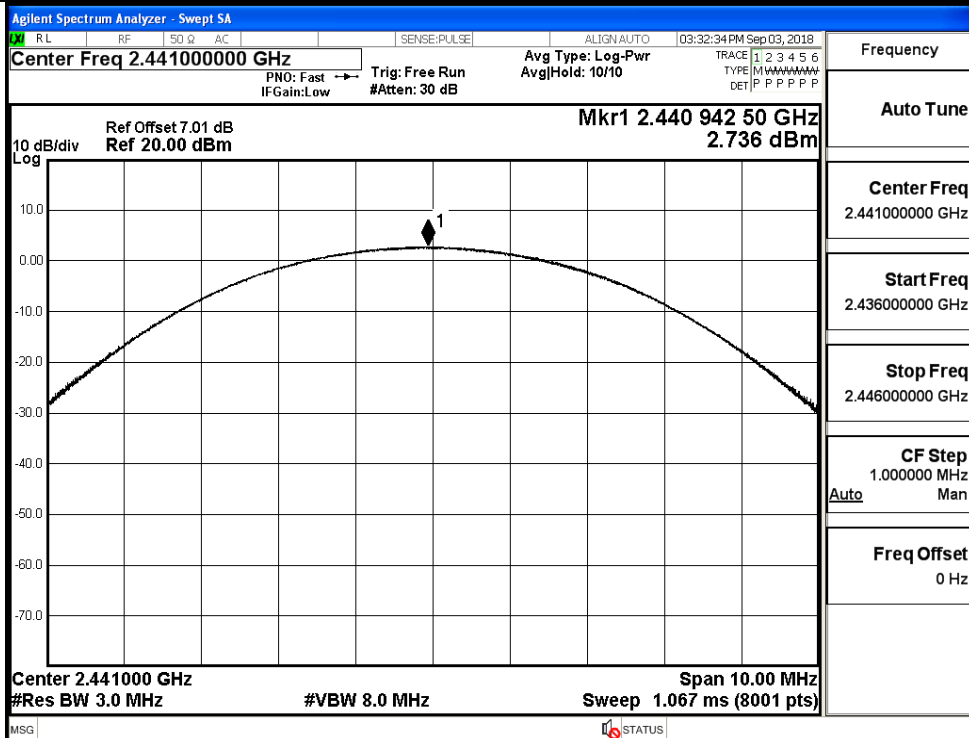
 π /4DQPSK/LCH



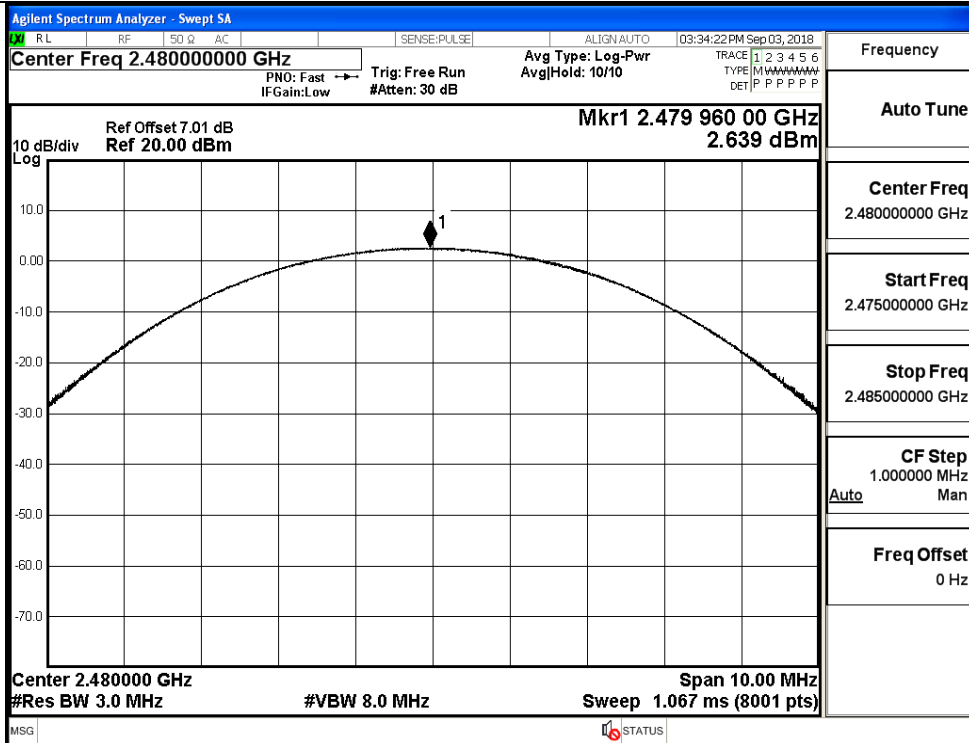
8DPSK/LCH



8DPSK/MCH



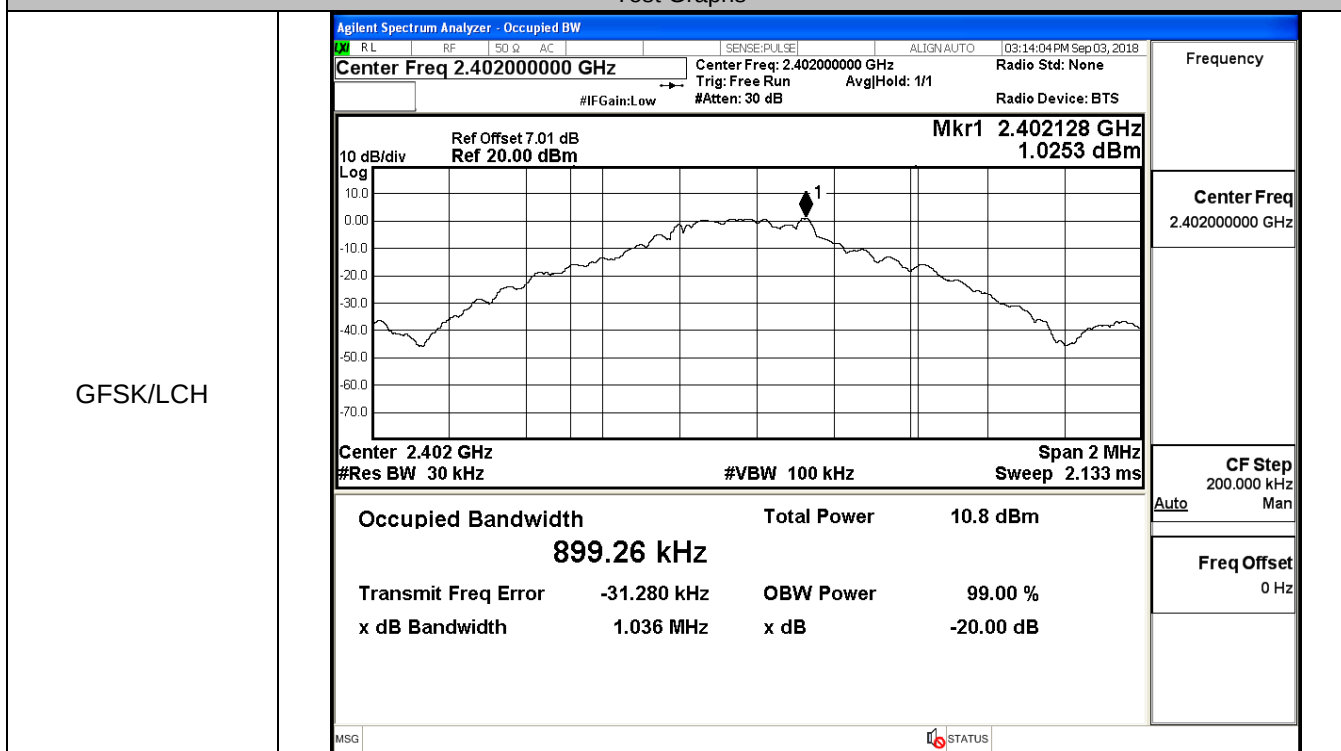
8DPSK/HCH



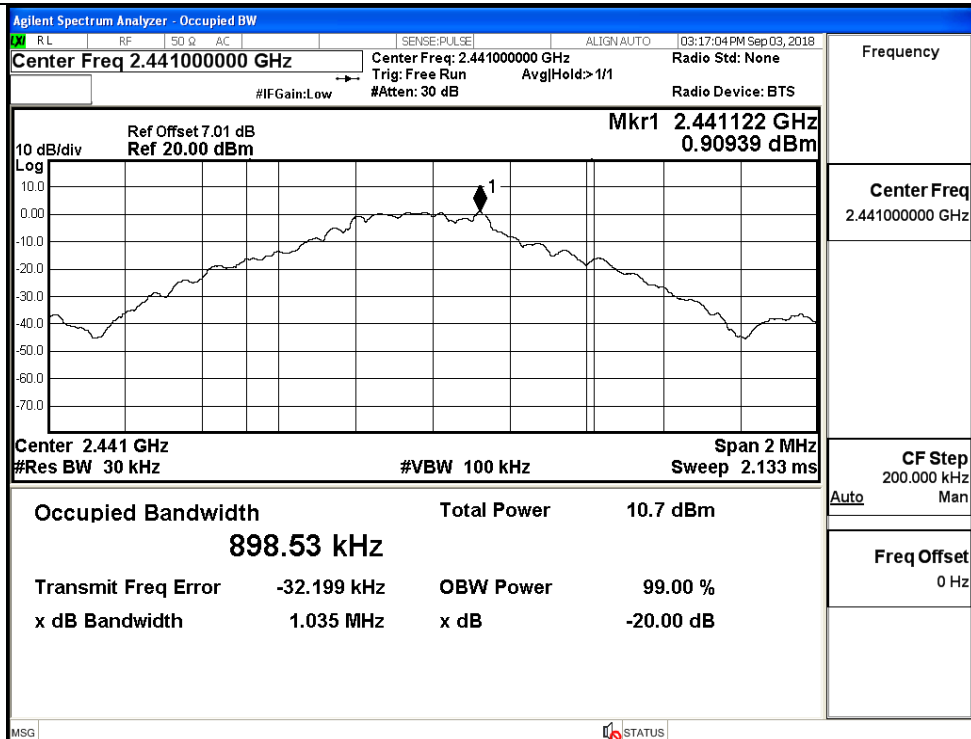
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.036	Not Specified	PASS
	MCH	1.035	Not Specified	PASS
	HCH	1.032	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.288	Not Specified	PASS
	MCH	1.288	Not Specified	PASS
	HCH	1.290	Not Specified	PASS
8DPSK	LCH	1.292	Not Specified	PASS
	MCH	1.291	Not Specified	PASS
	HCH	1.294	Not Specified	PASS

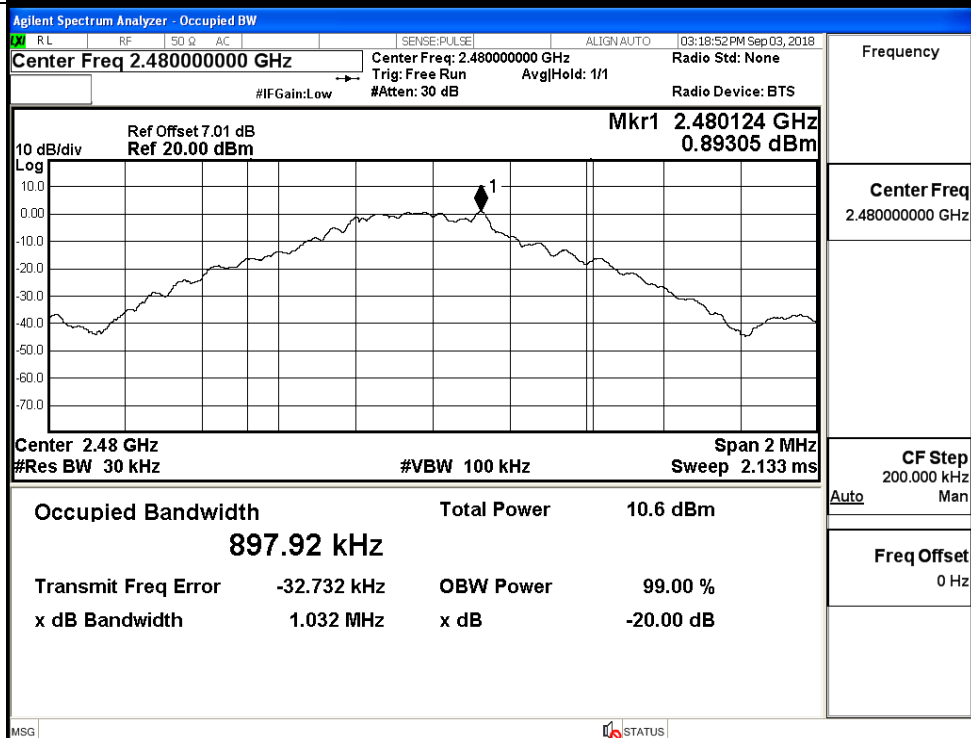
Test Graphs

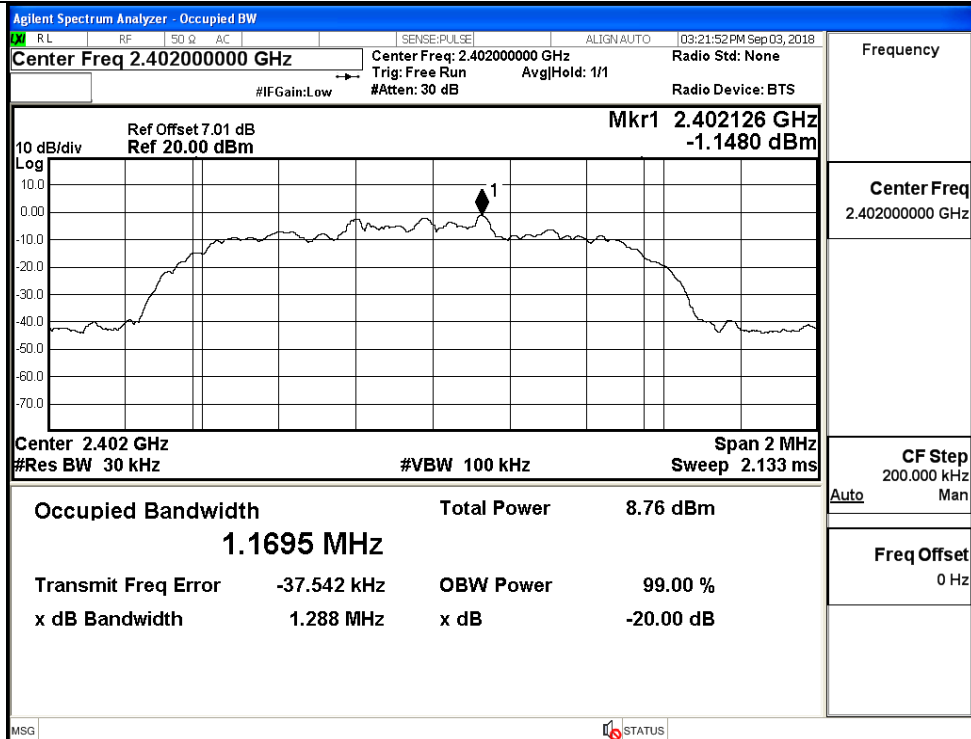
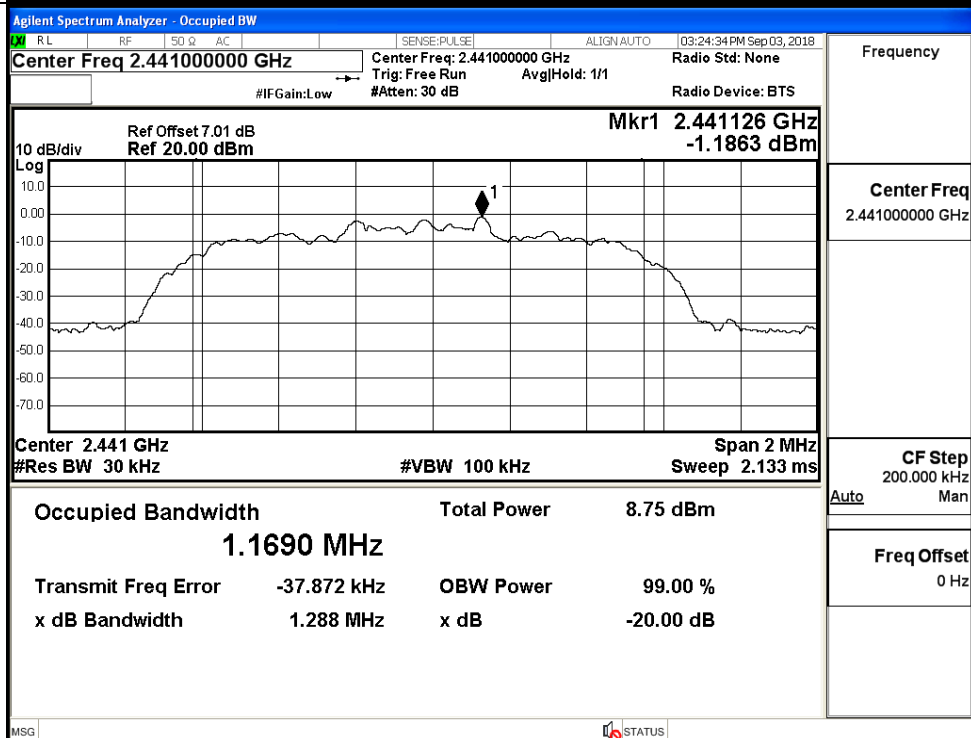


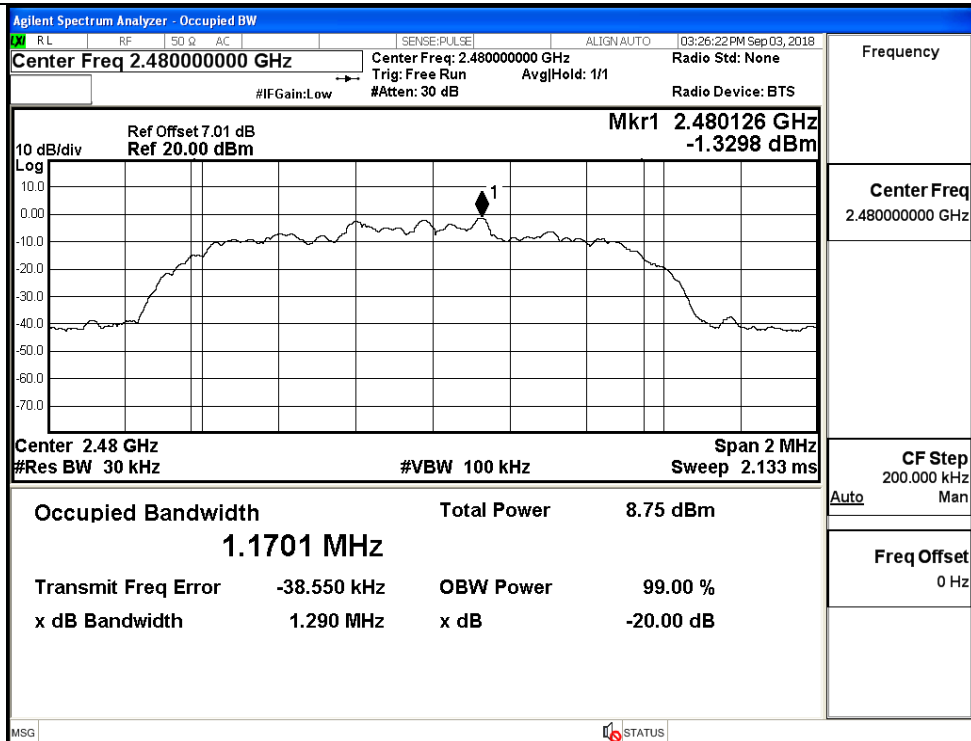
GFSK/MCH



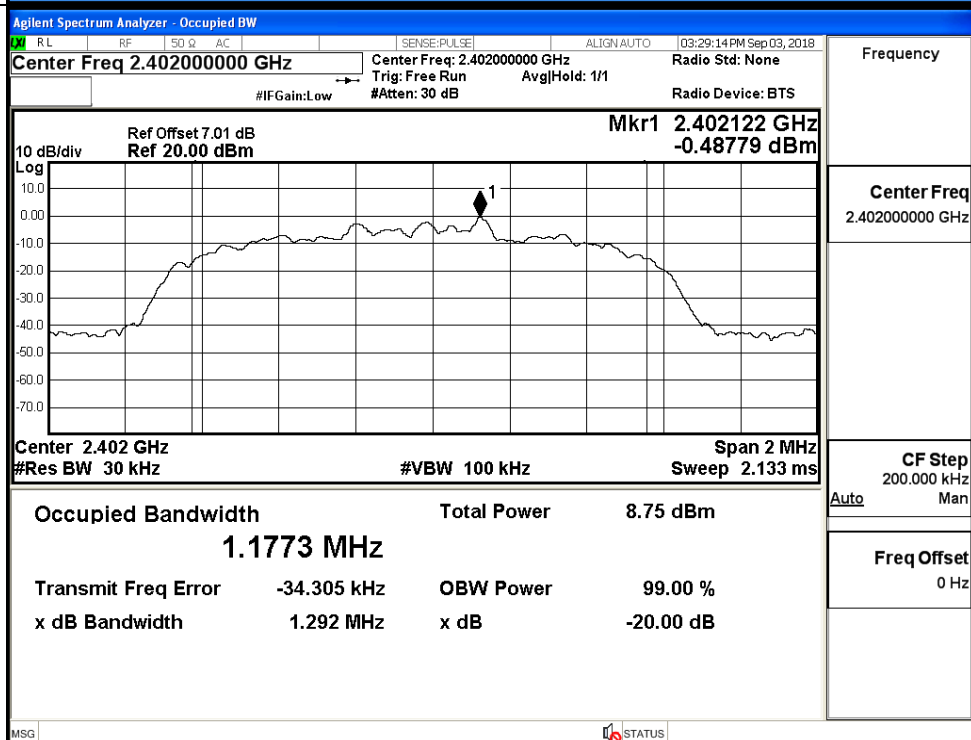
GFSK/HCH



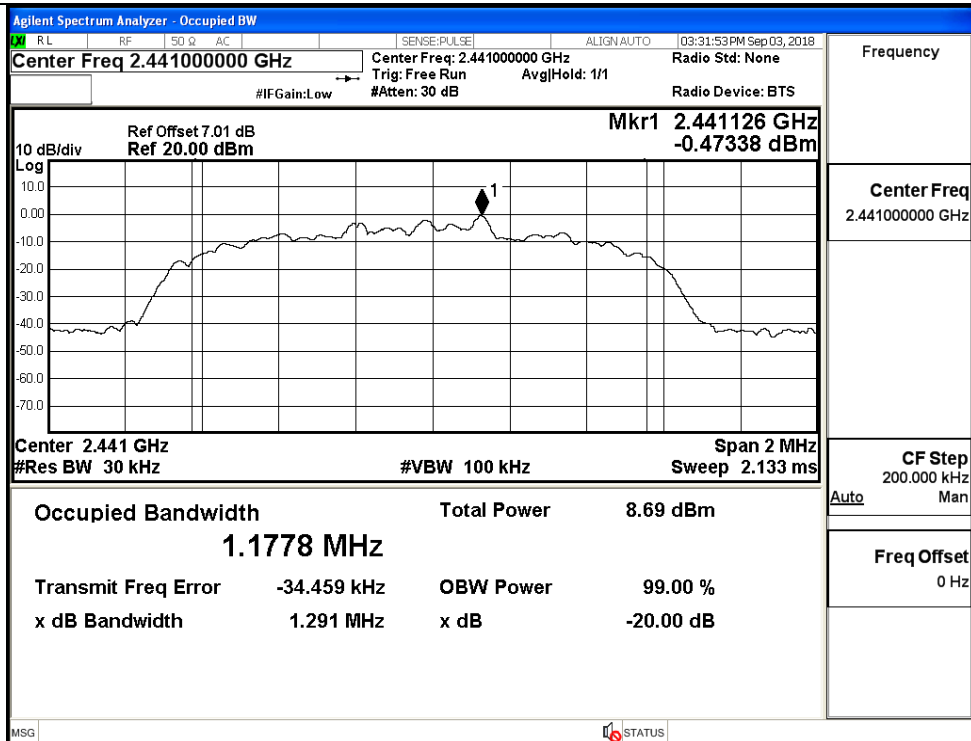
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

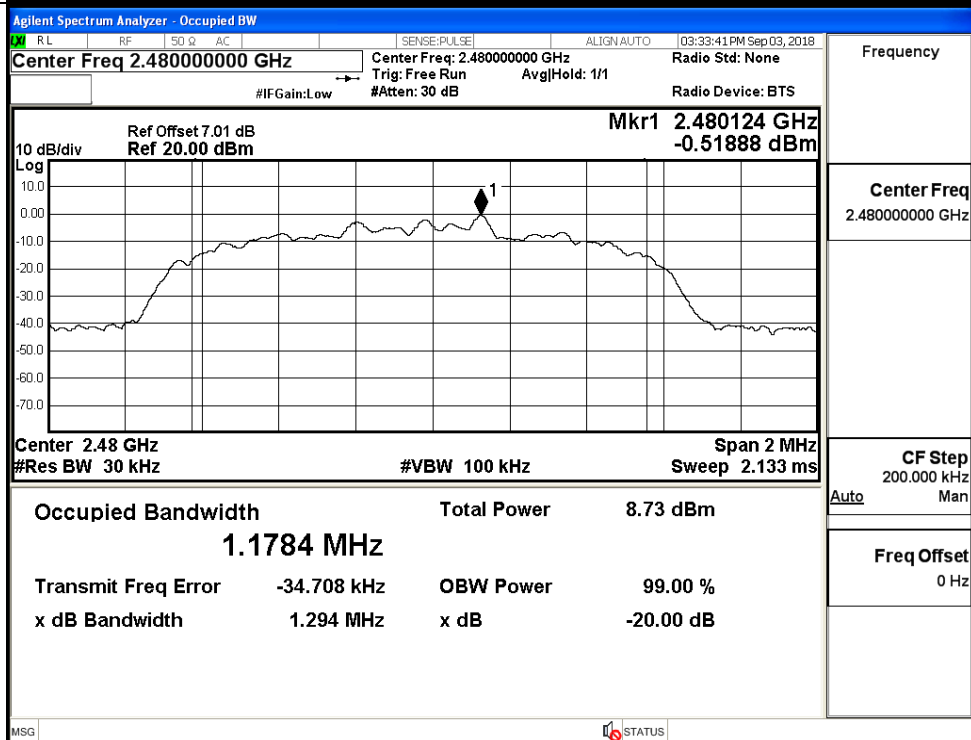
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

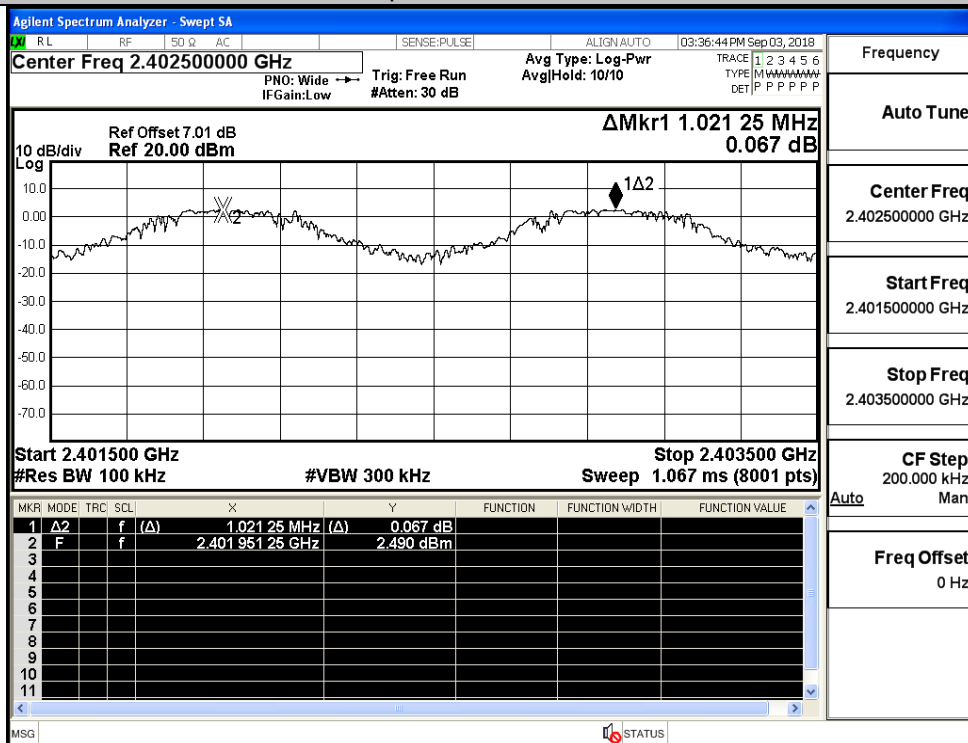


A.3 Carrier Frequency Separation

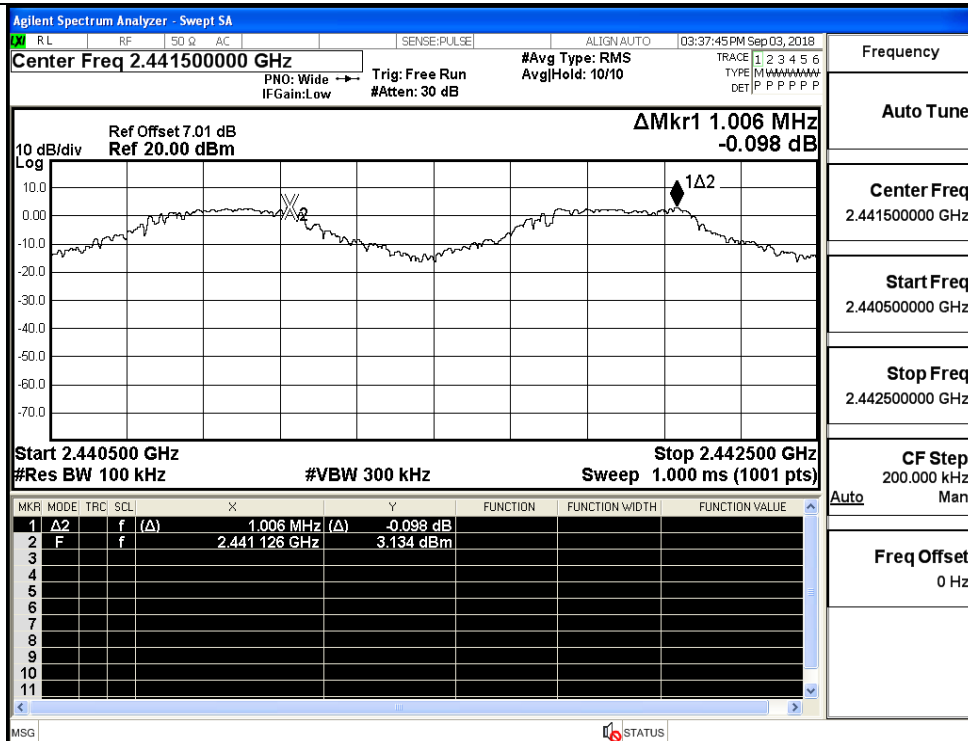
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.021	0.691	PASS
	MCH	1.006	0.690	PASS
	HCH	0.946	0.688	PASS
$\pi/4$ DQPSK	LCH	0.984	0.859	PASS
	MCH	1.010	0.859	PASS
	HCH	1.326	0.860	PASS
8DPSK	LCH	1.046	0.861	PASS
	MCH	1.002	0.861	PASS
	HCH	1.112	0.863	PASS

Test Graphs

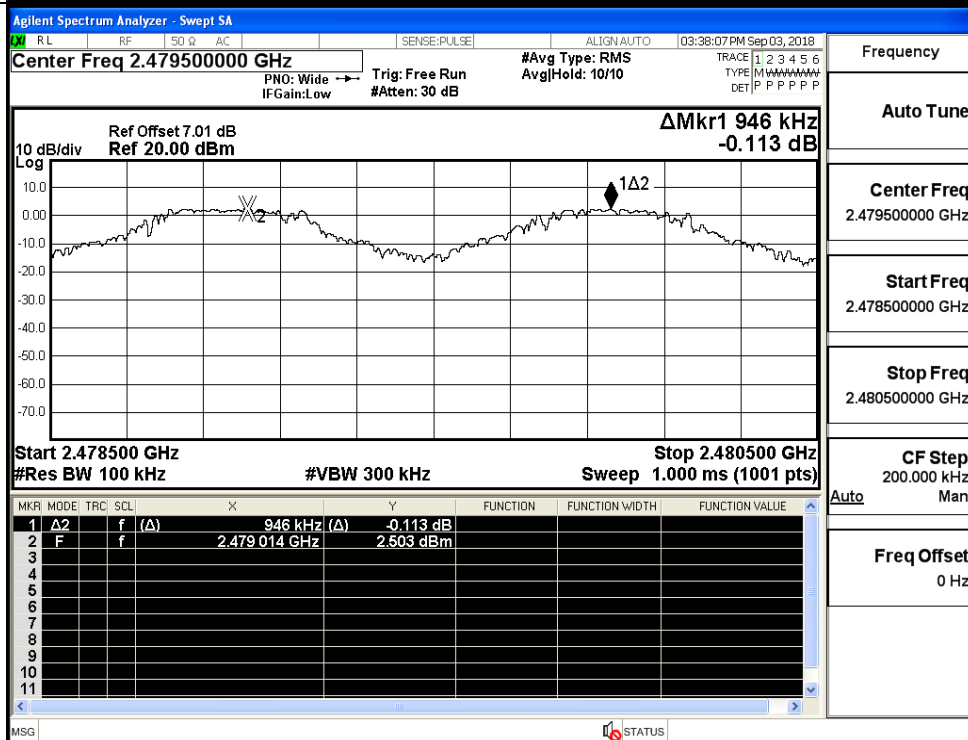
GFSK/LCH

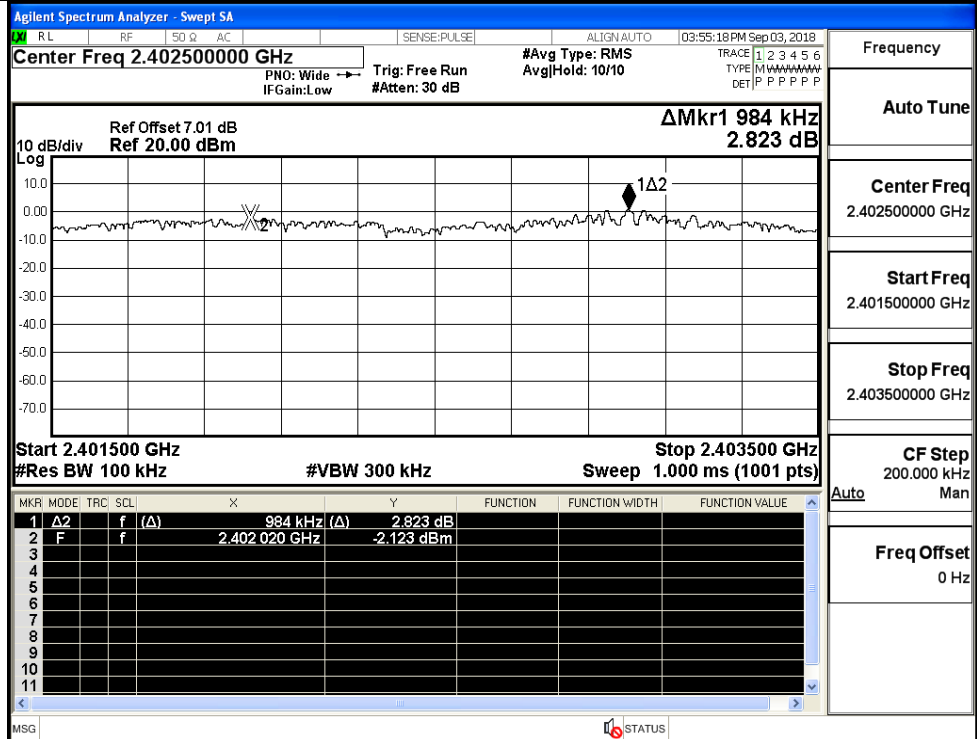
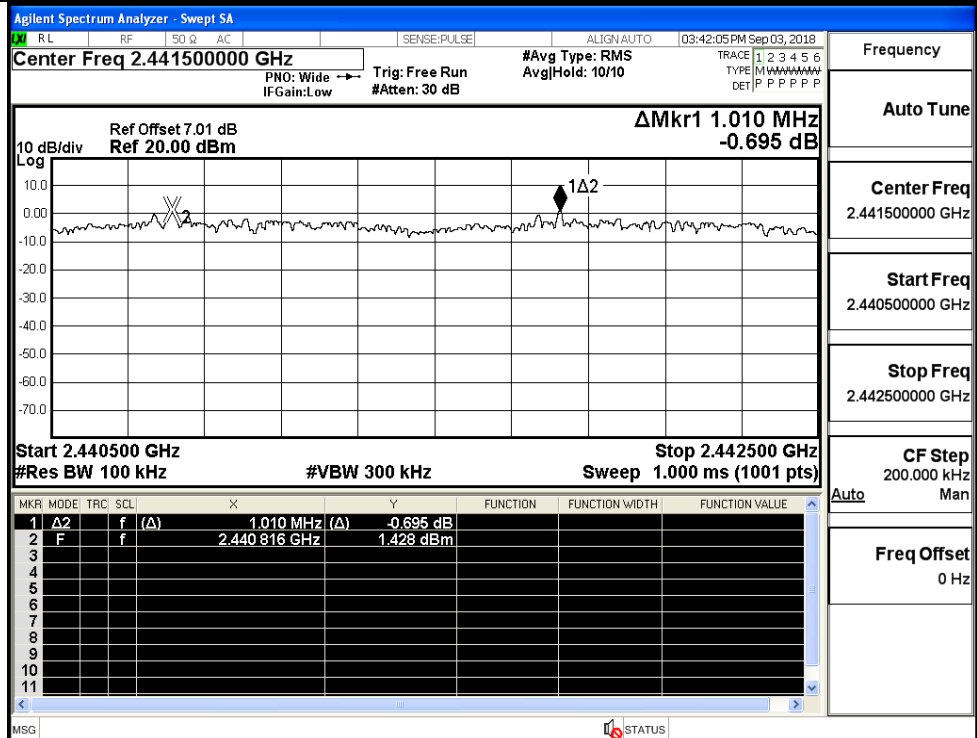


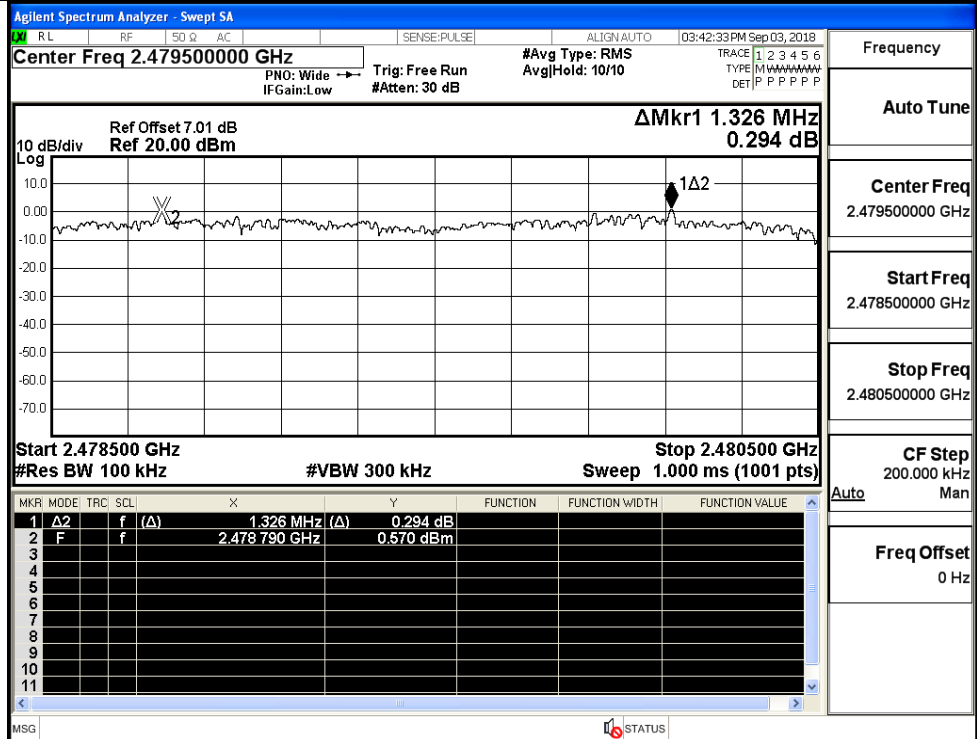
GFSK/MCH



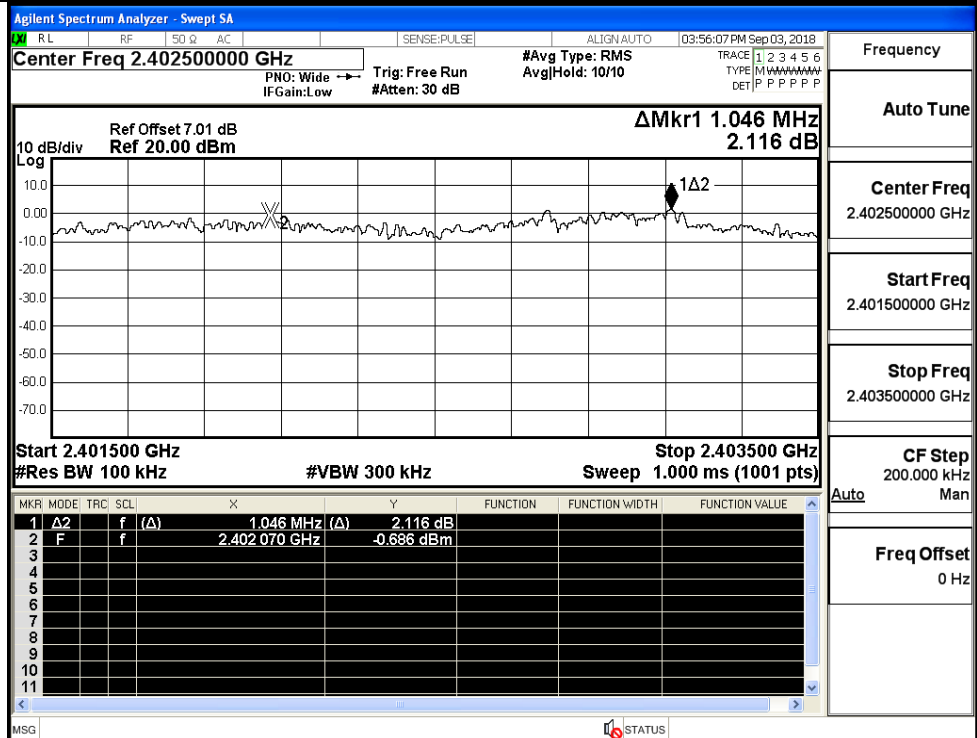
GFSK/HCH



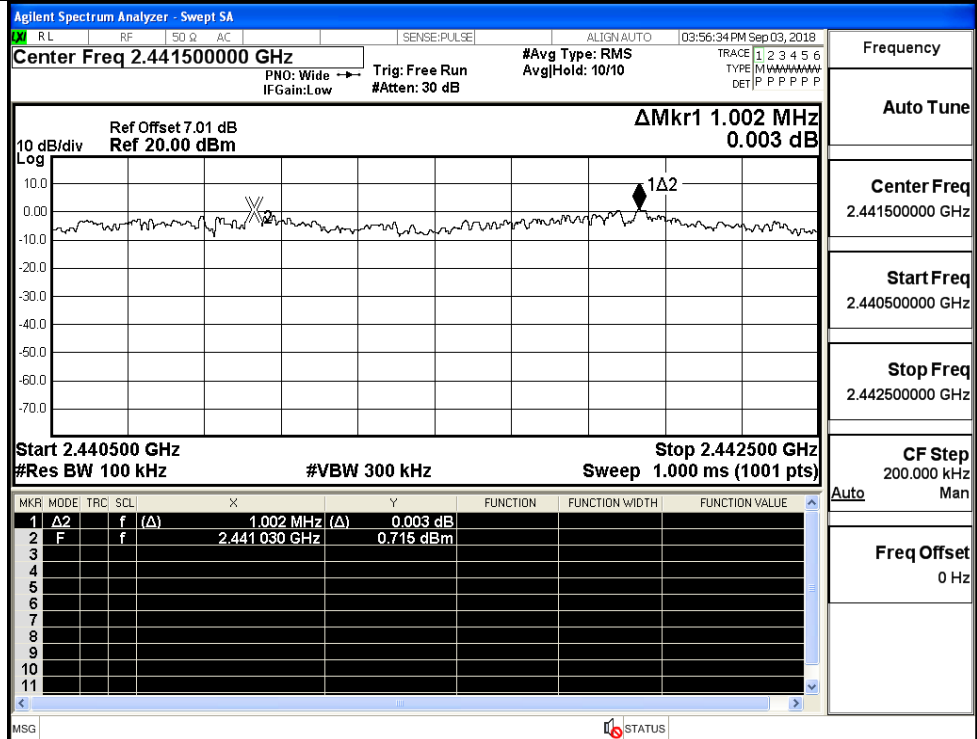
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

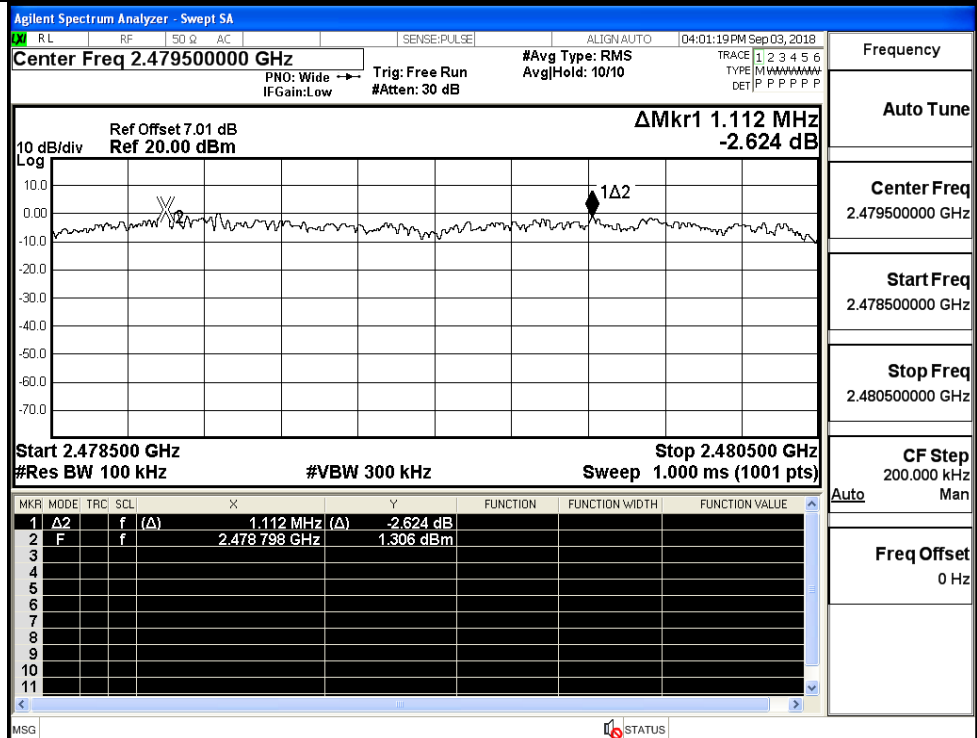
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

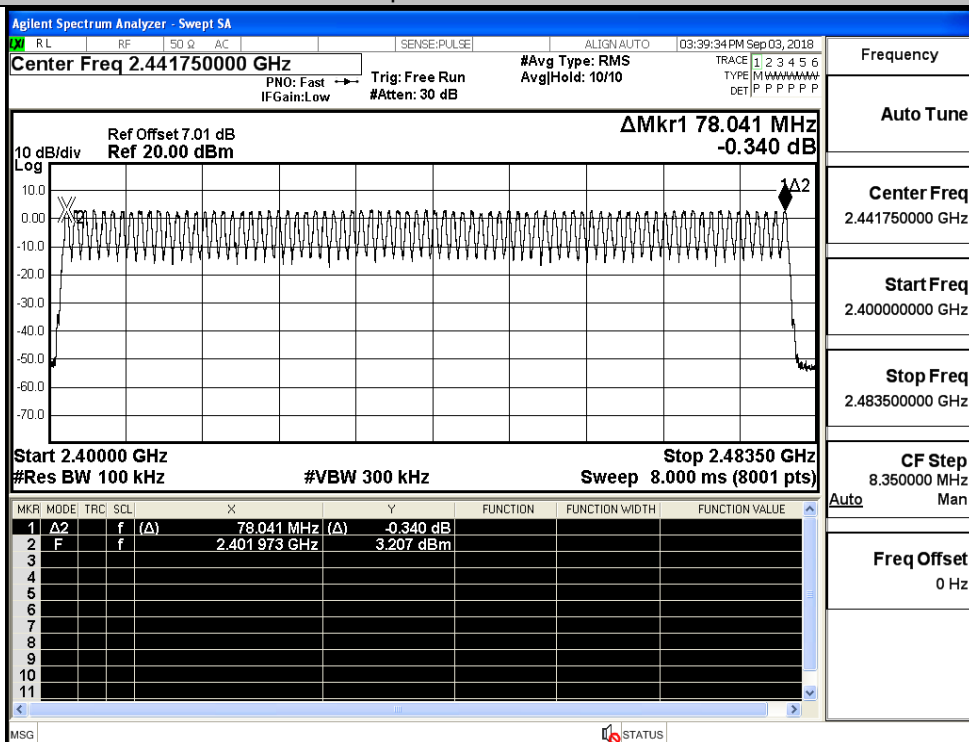
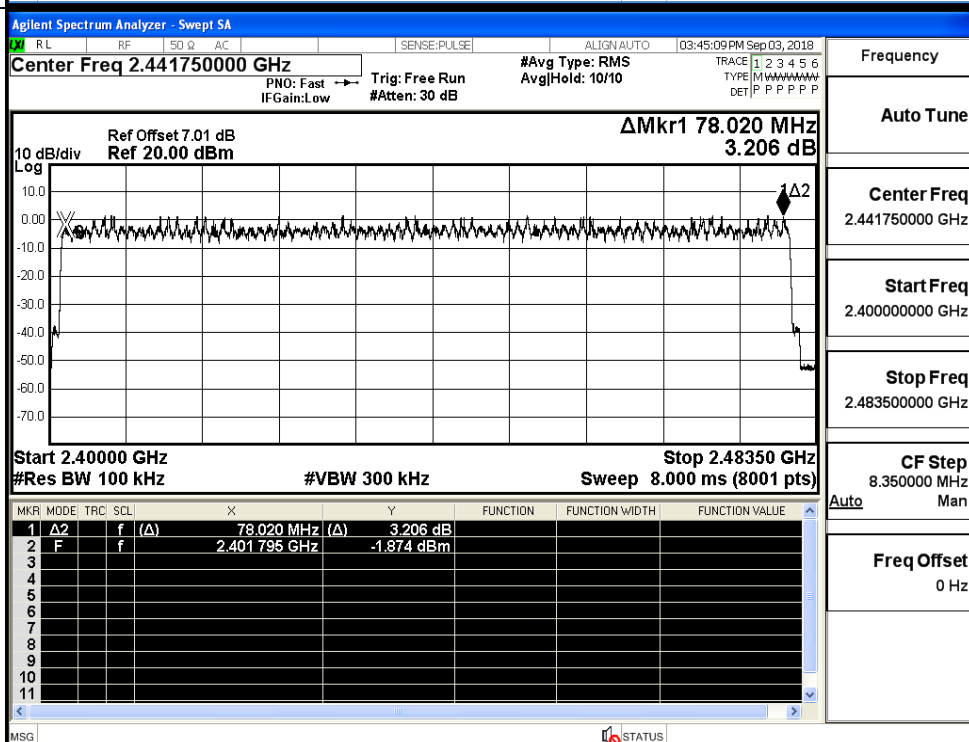


A.4 Hopping Channel Number

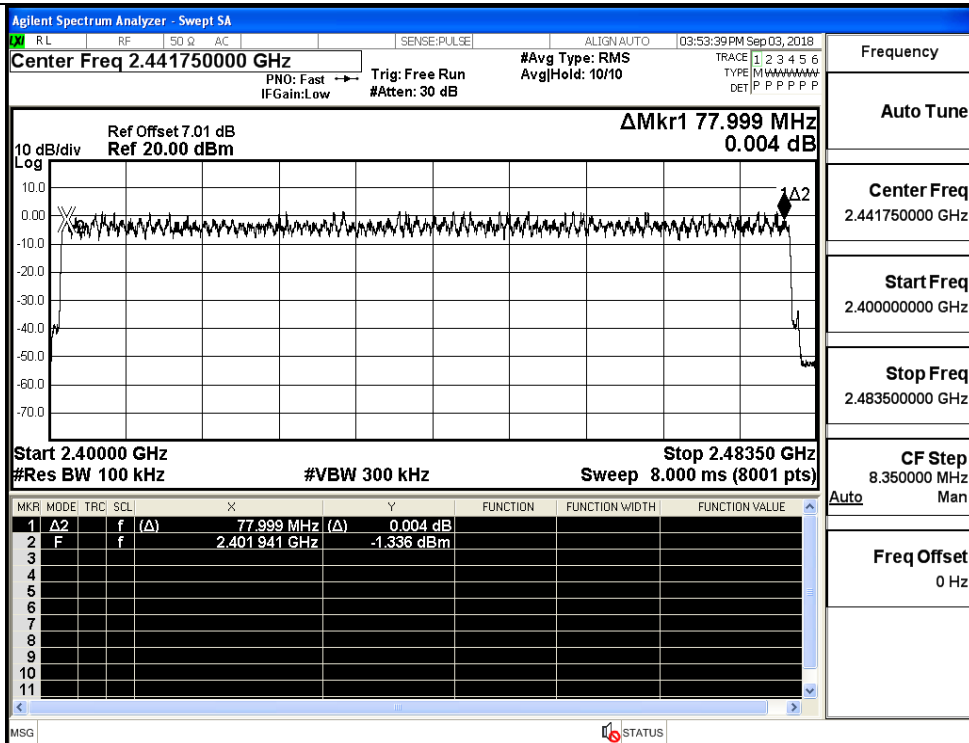
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS
8DPSK	Hop	79	≥ 15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

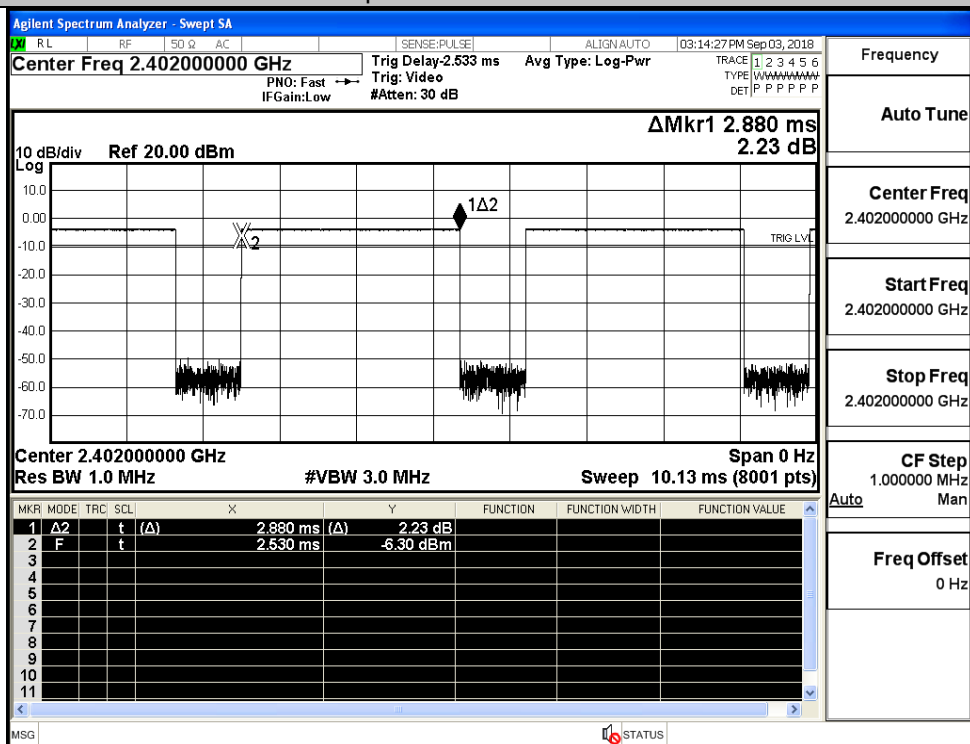


A.5 Dwell Time

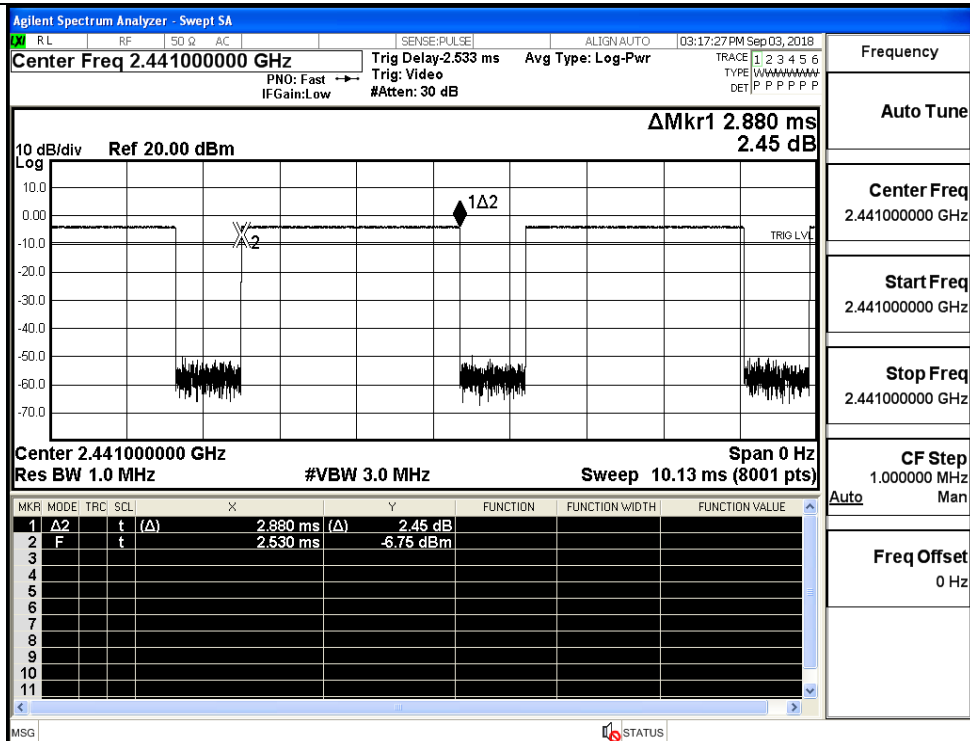
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

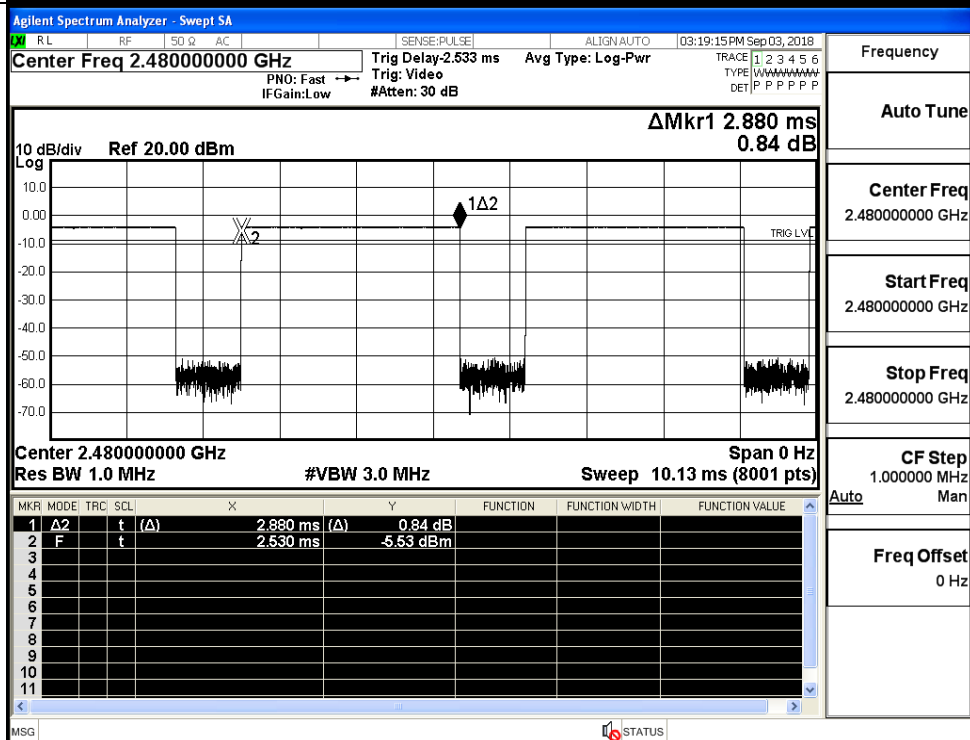
GFSK_DH5/LCH



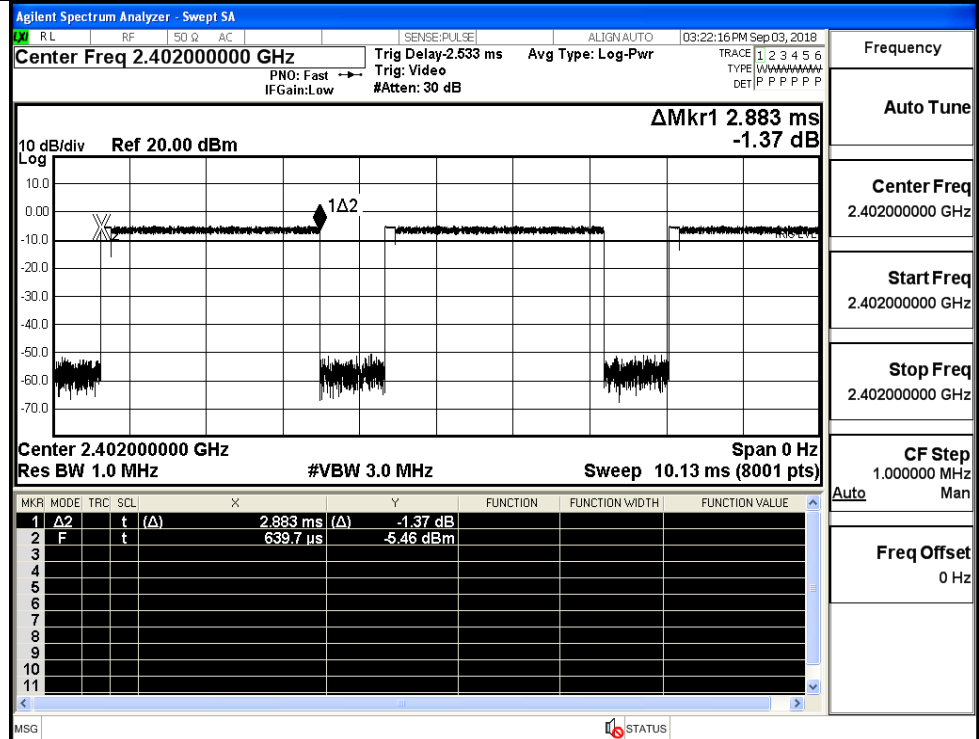
GFSK_DH5/MCH



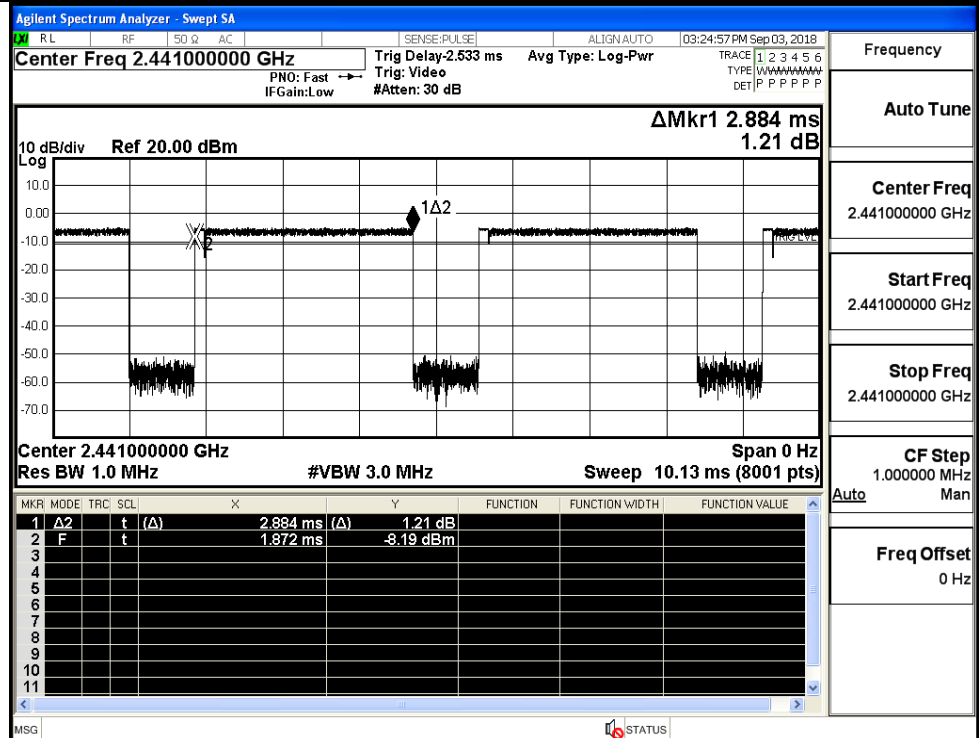
GFSK_DH5/HCH



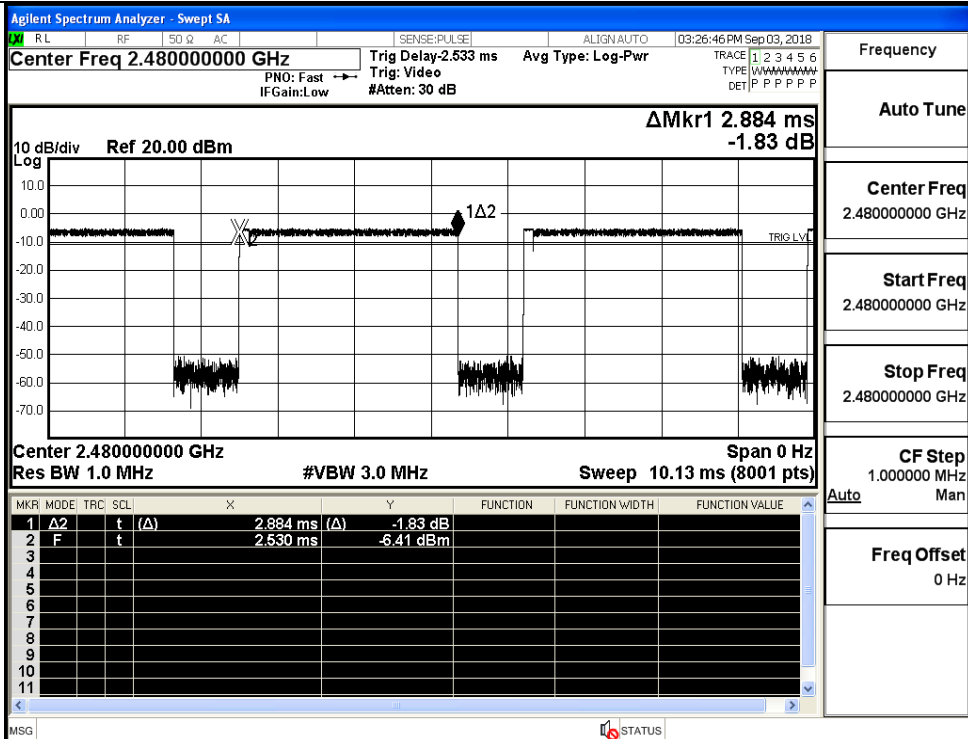
$\pi/4$ DQPSK
_2DH5/LCH



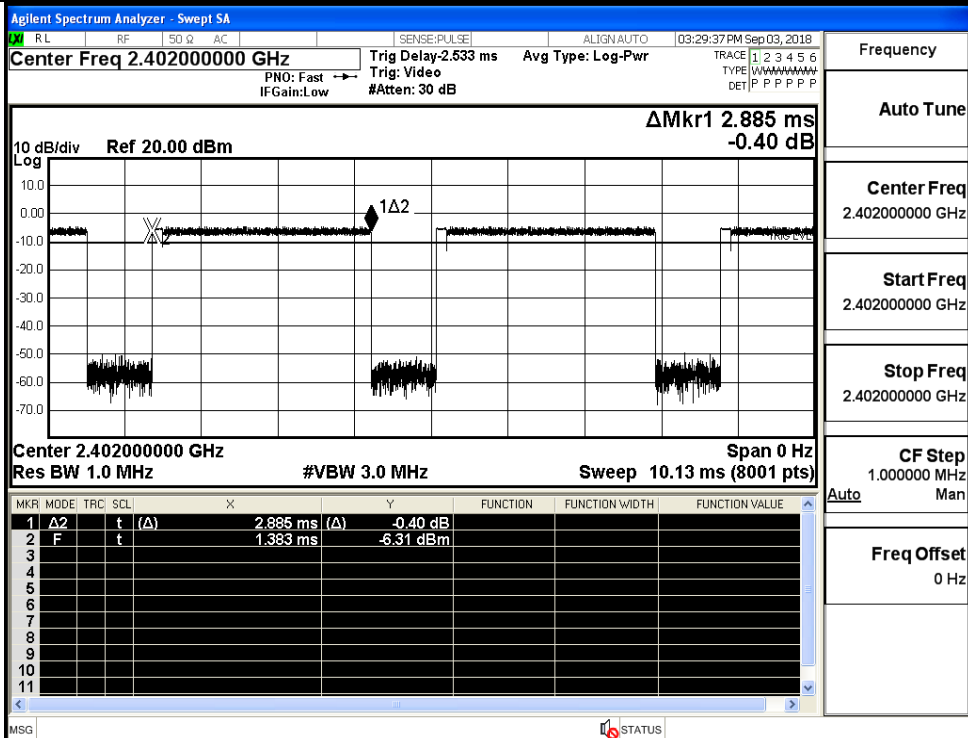
$\pi/4$ DQPSK
_2DH5/MCH



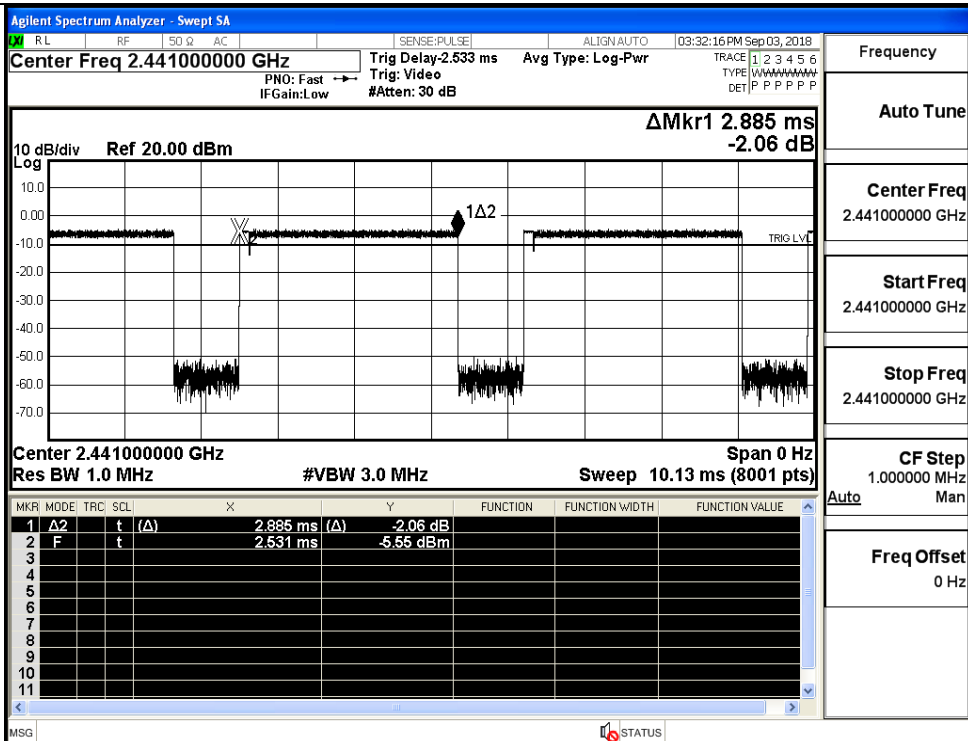
$\pi/4$ DQPSK
_2DH5/HCH



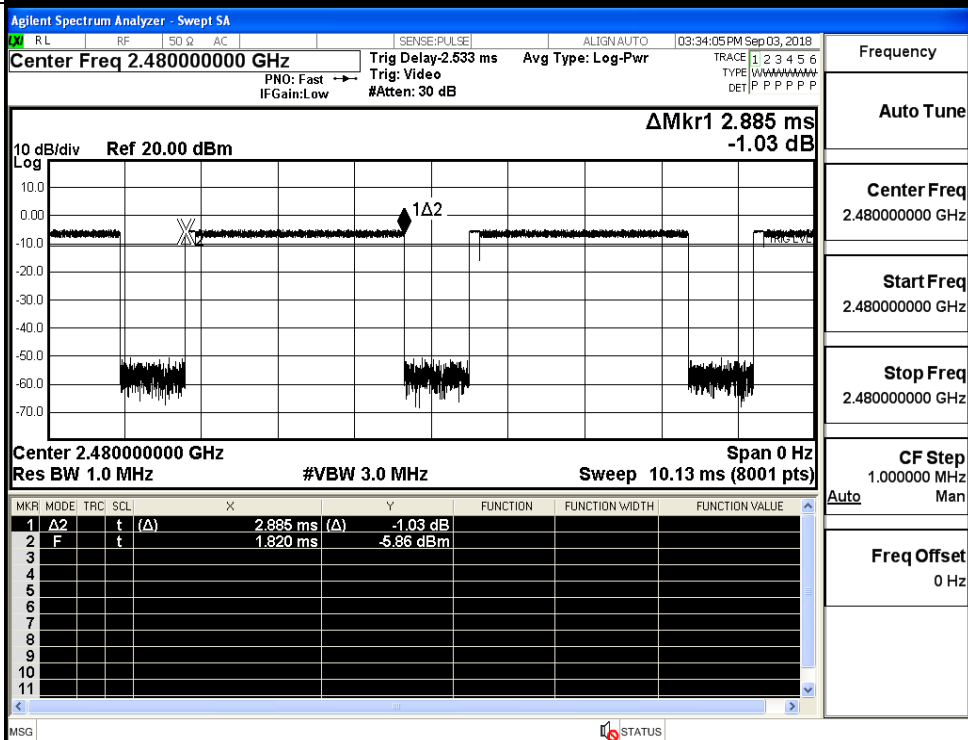
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



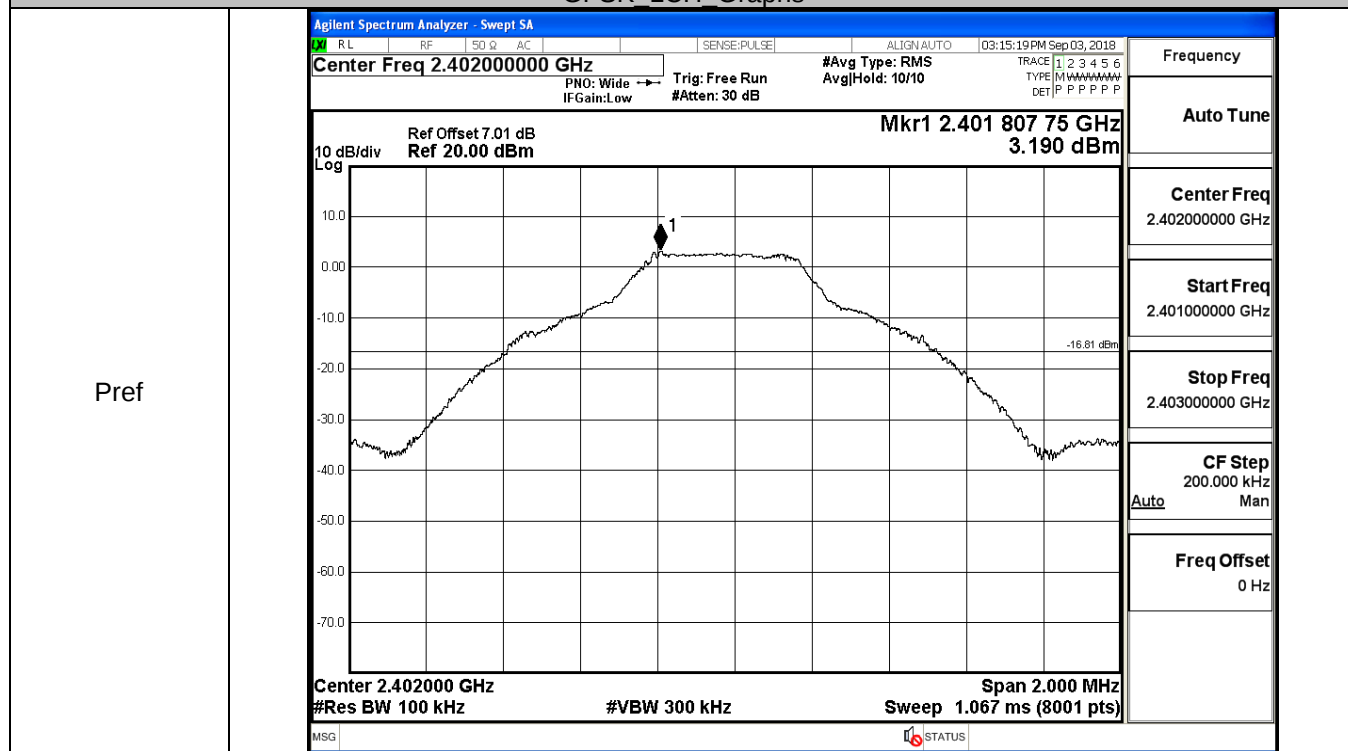
8DPSK_3DH5/HCH

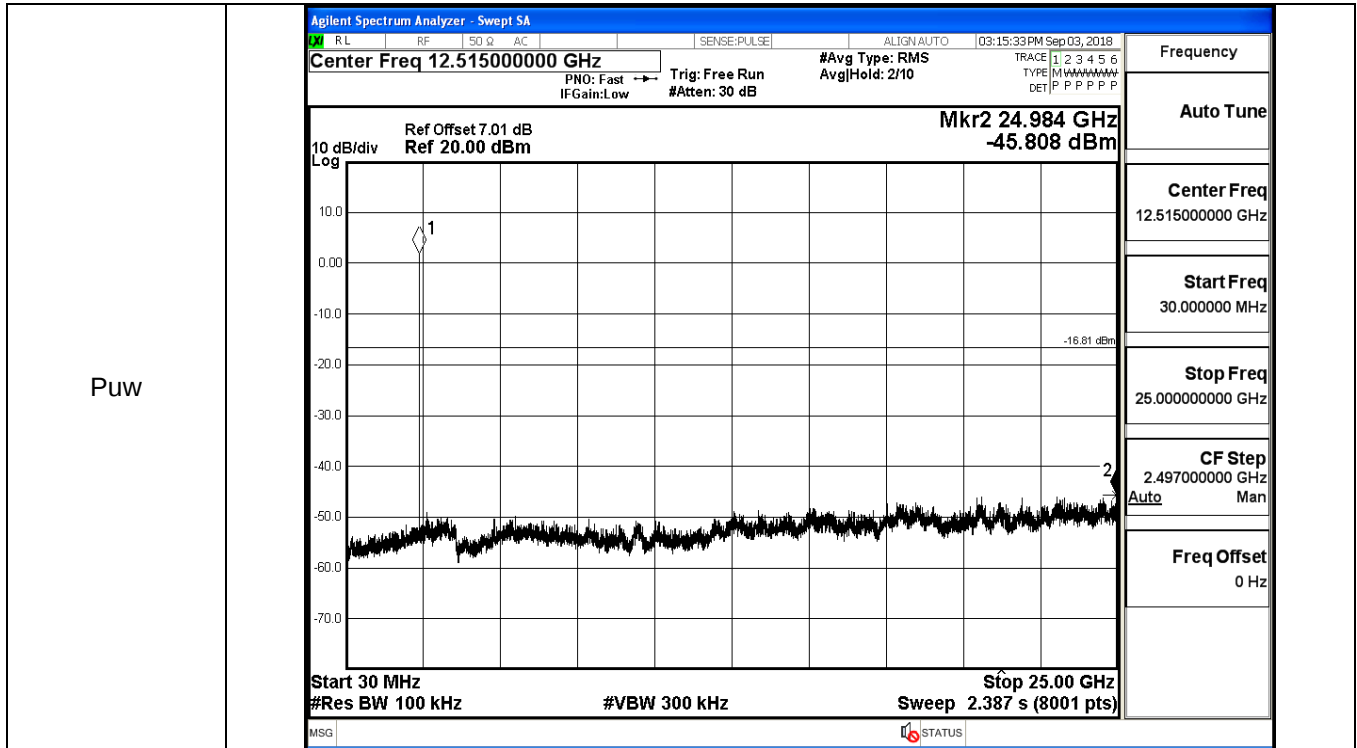


A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.190	-45.808	-16.810	PASS
	MCH	3.112	-46.213	-16.888	PASS
	HCH	2.976	-46.017	-17.024	PASS
$\pi/4$ DQPSK	LCH	1.457	-45.736	-18.543	PASS
	MCH	1.603	-44.318	-18.397	PASS
	HCH	1.399	-45.299	-18.601	PASS
8DPSK	LCH	1.591	-45.943	-18.409	PASS
	MCH	1.534	-45.787	-18.466	PASS
	HCH	1.247	-45.594	-18.753	PASS

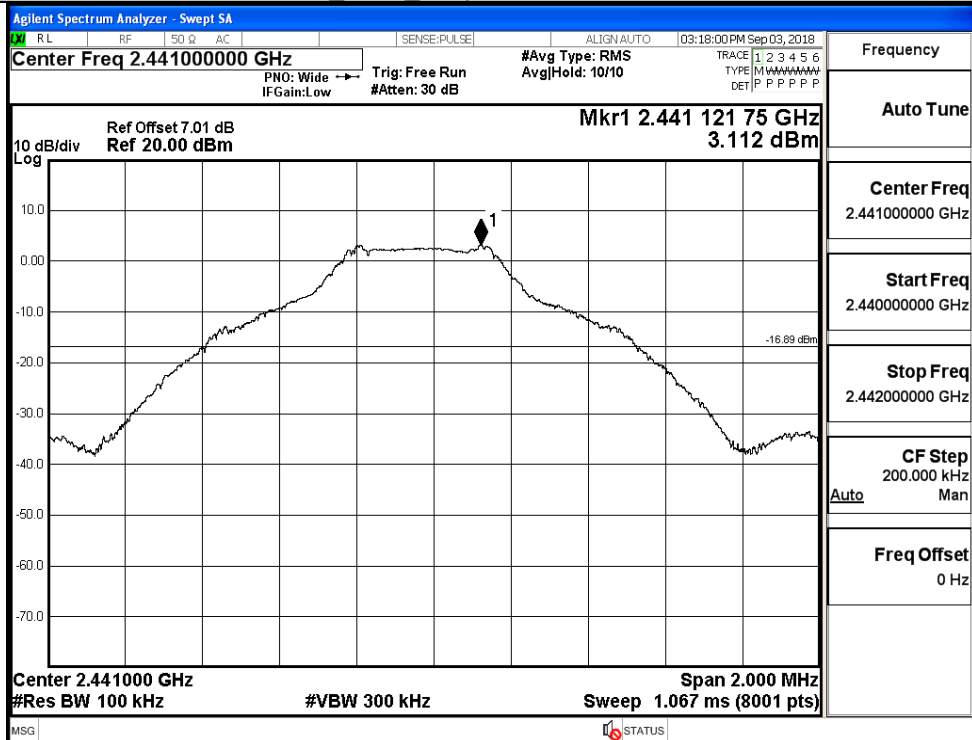
GFSK LCH Graphs



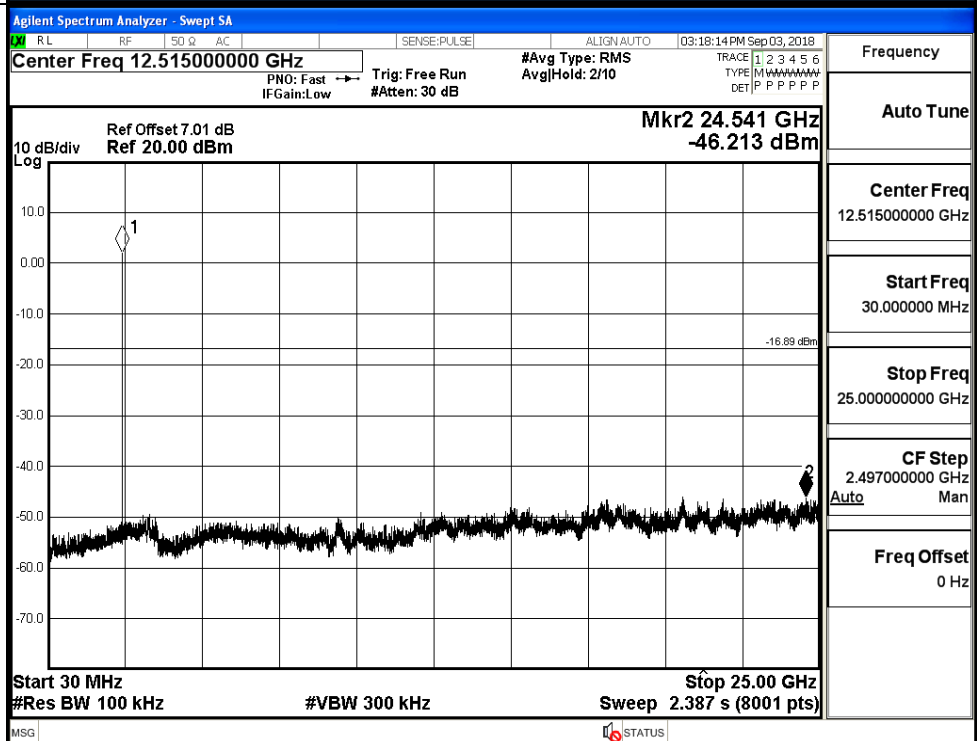


GFSK_MCH_Graphs

Pref

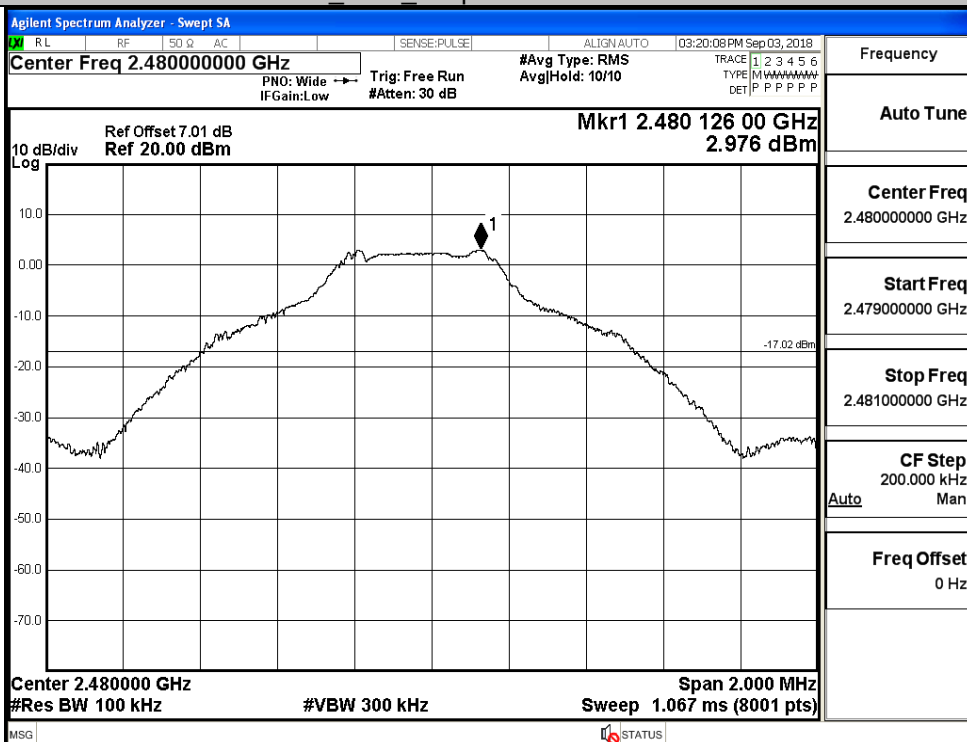


Puw

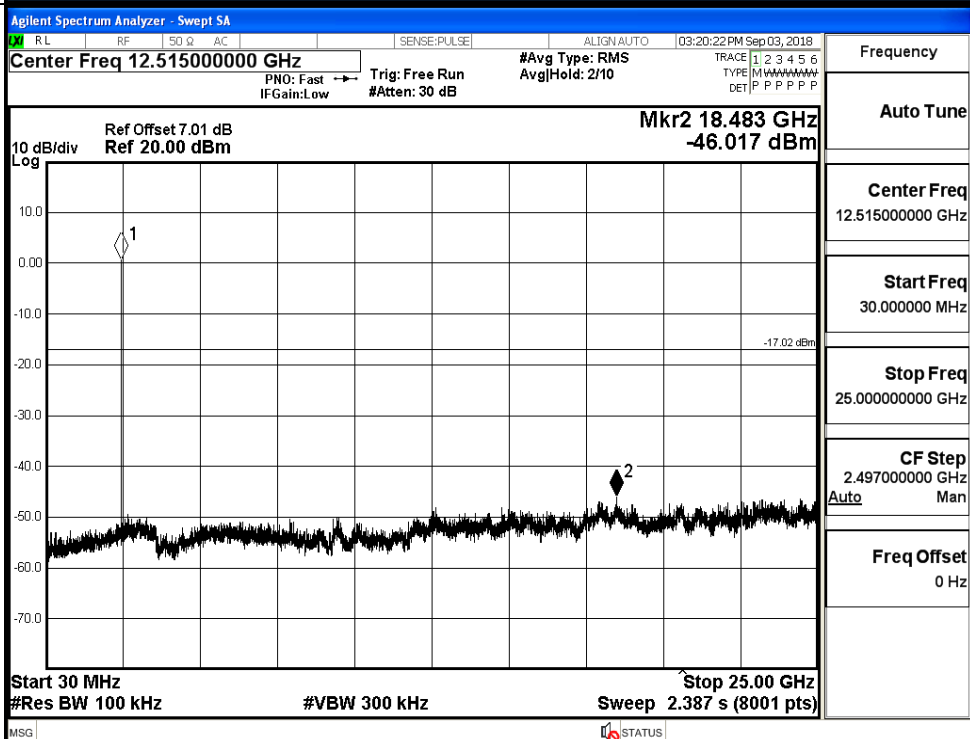


GFSK_HCH_Graphs

Pref

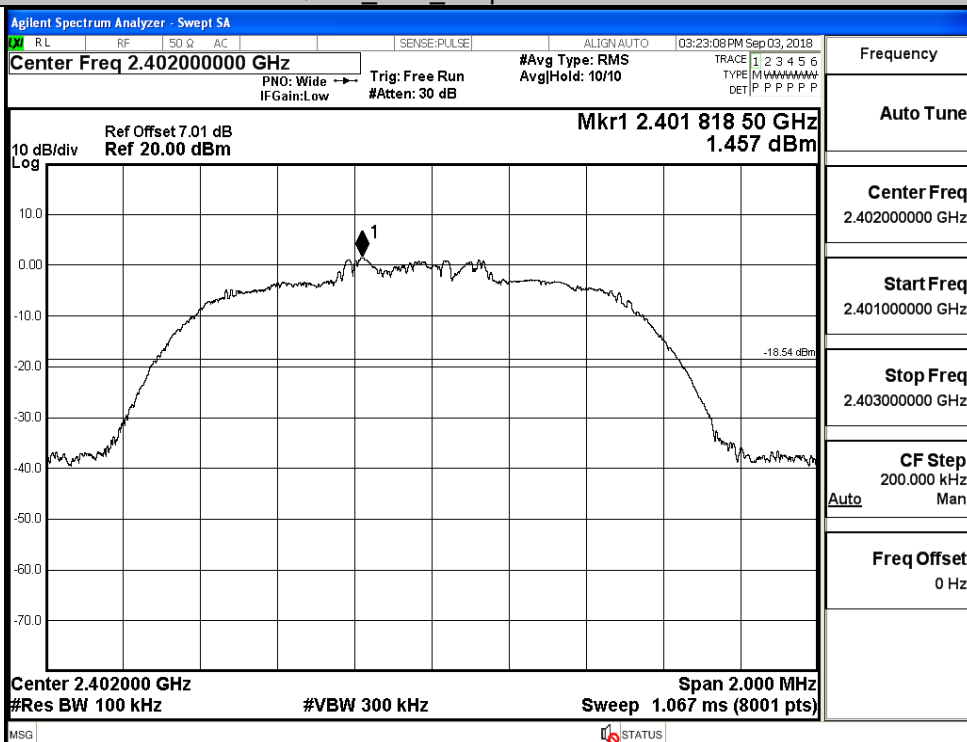


Puw

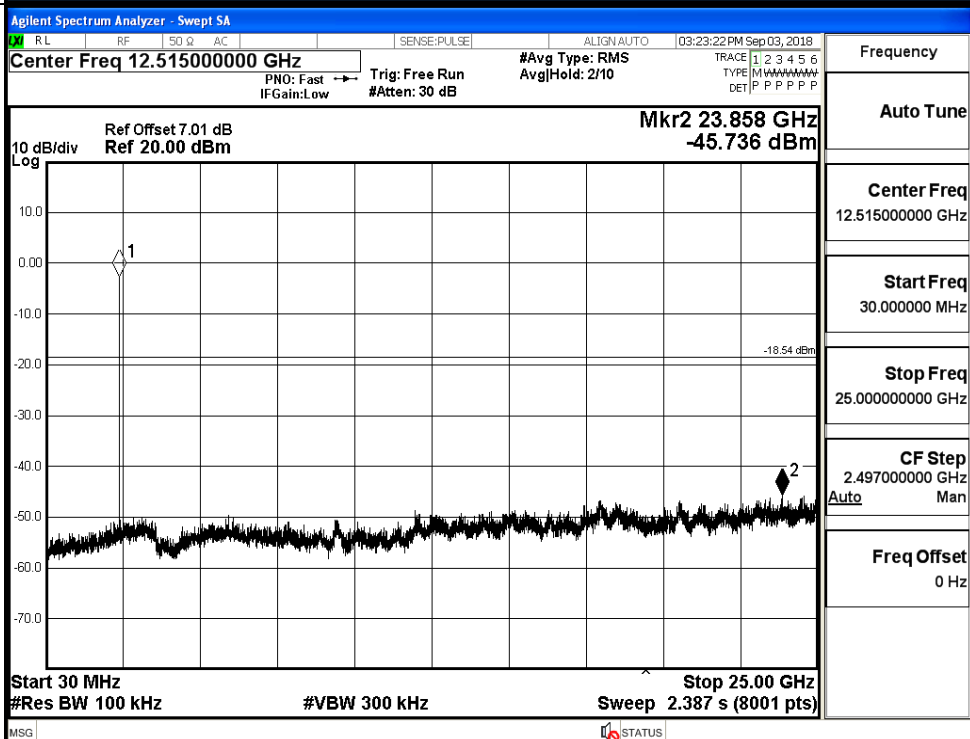


$\pi/4$ DQPSK_LCH_Graphs

Pref

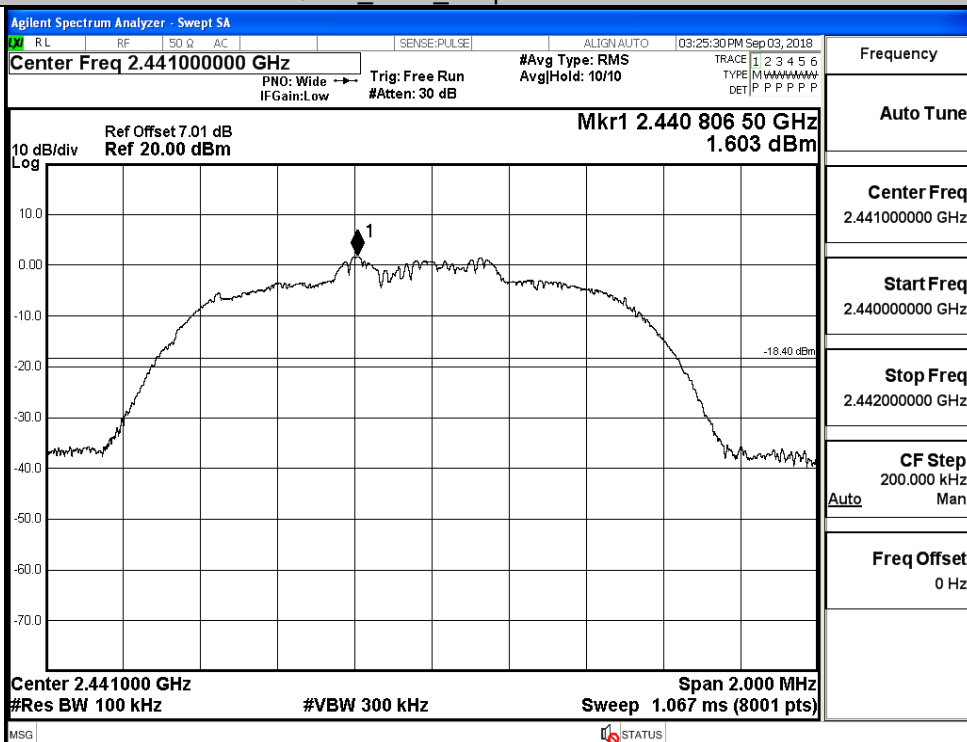


Puw

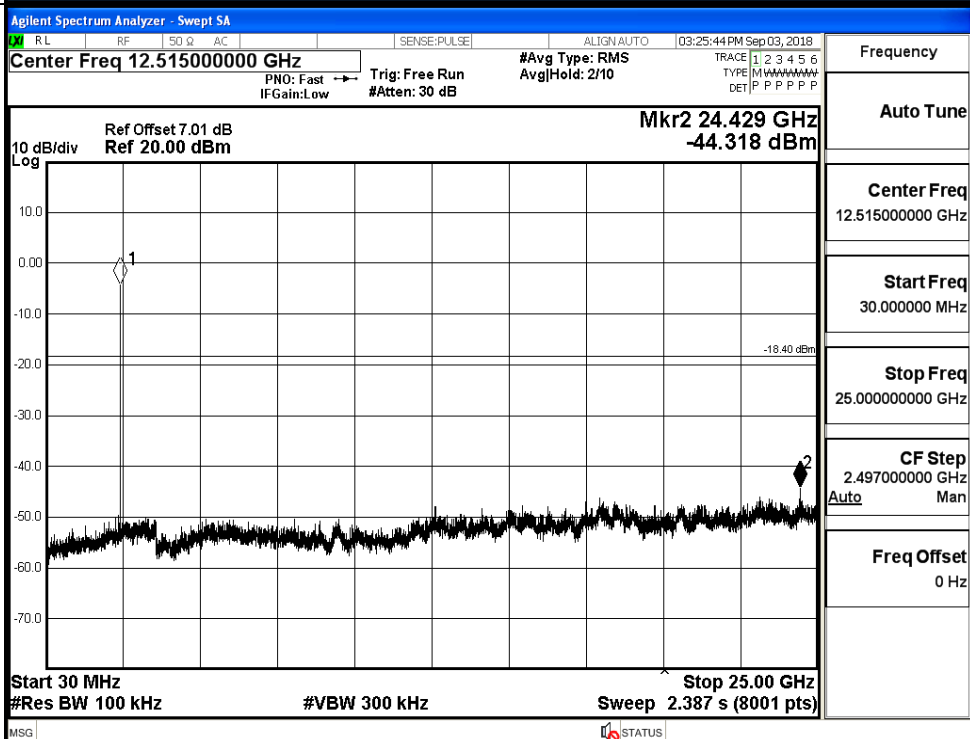


π /4DQPSK_MCH_Graphs

Pref

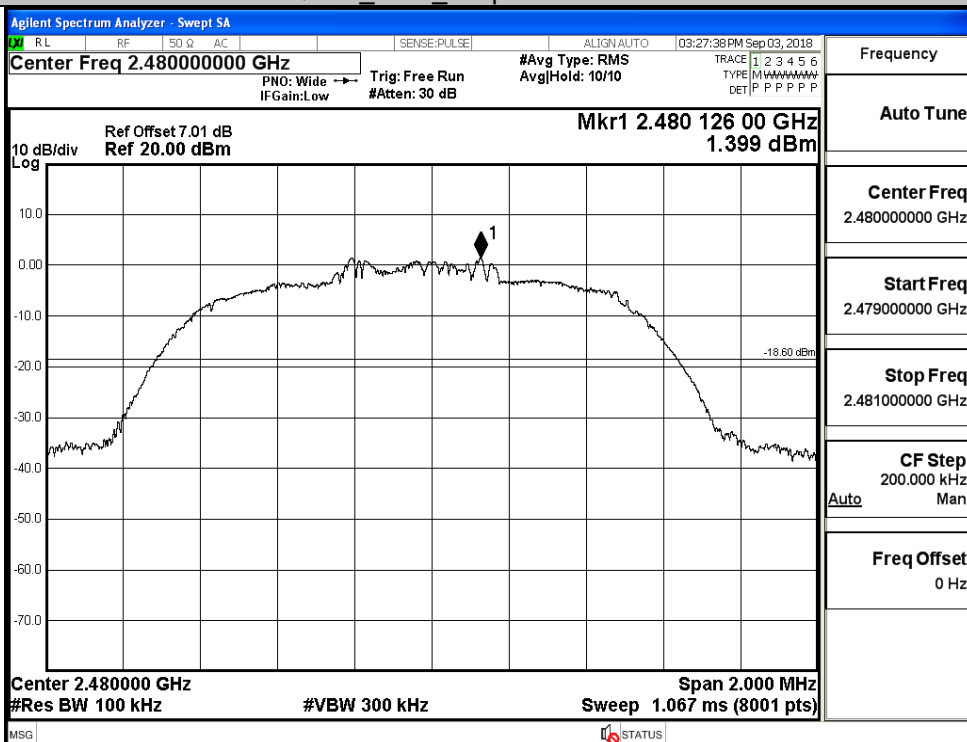


Puw

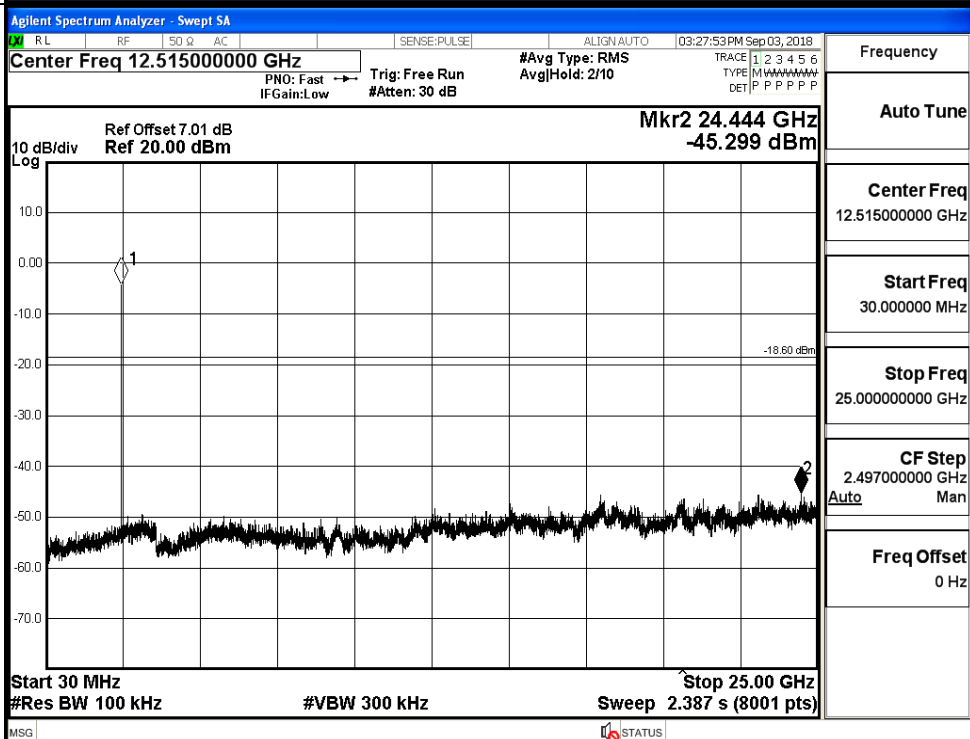


$\pi/4$ DQPSK_HCH_Graphs

Pref

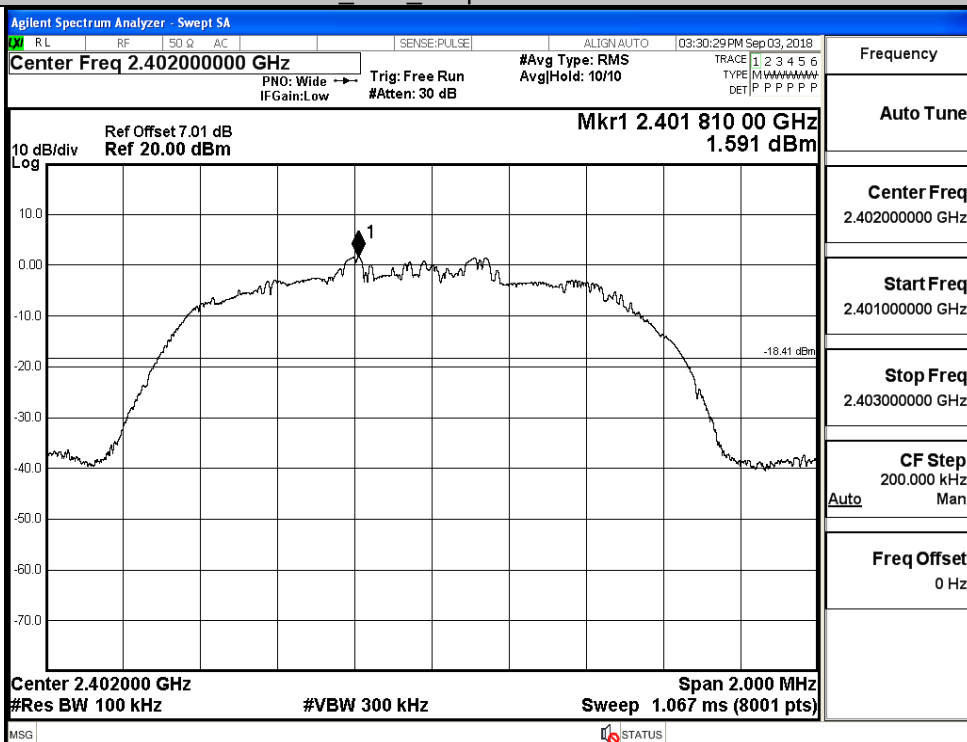


Puw

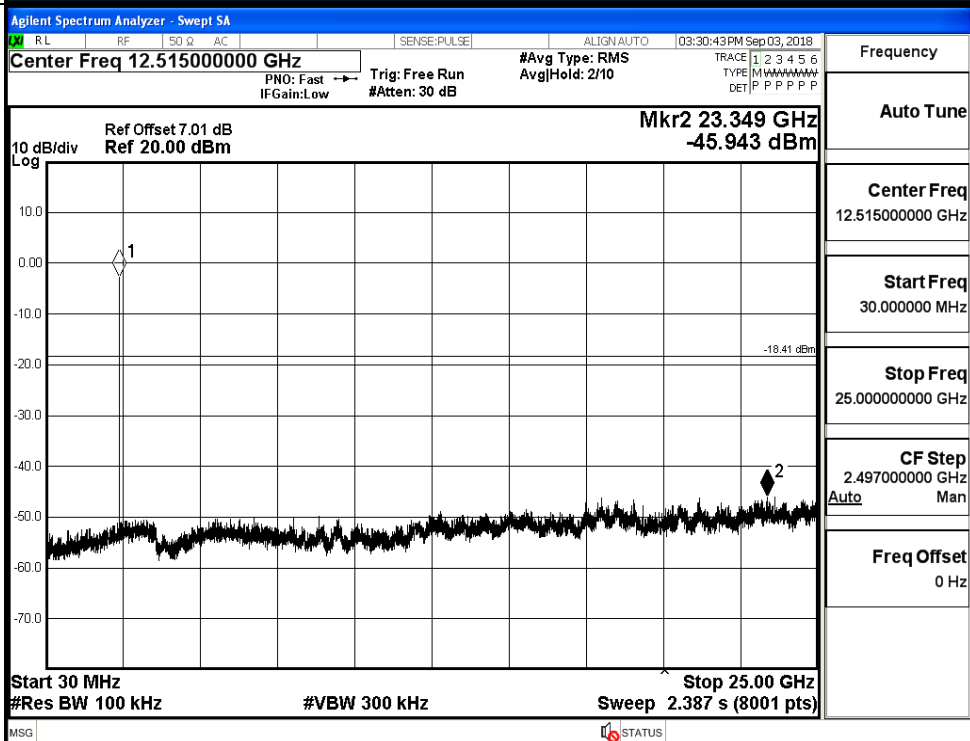


8DPSK_LCH_Graphs

Pref

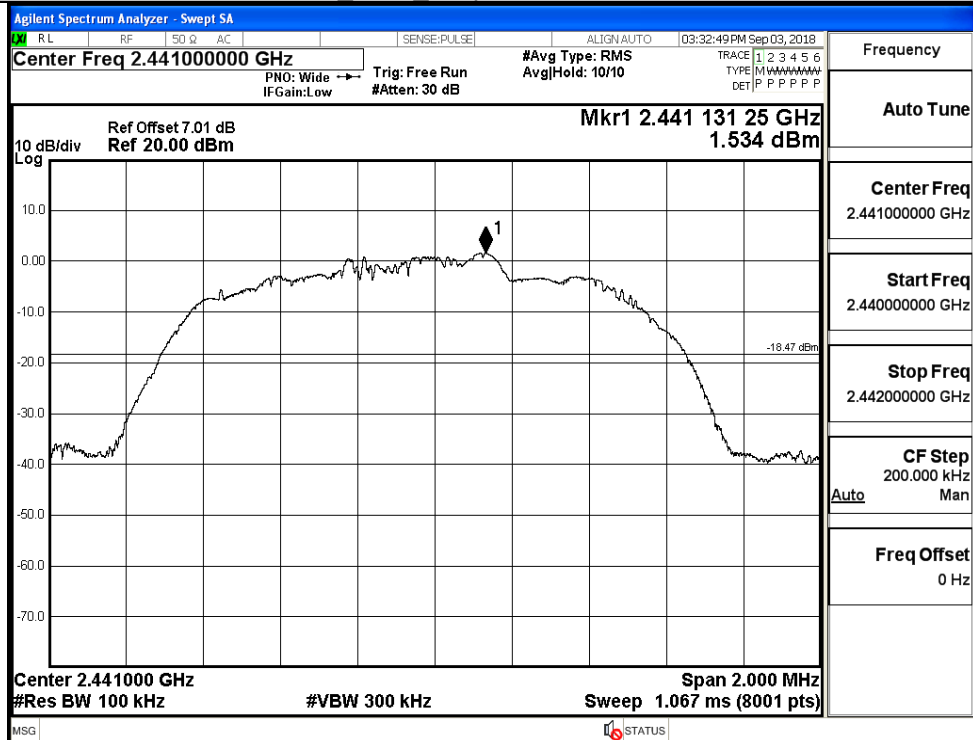


Puw

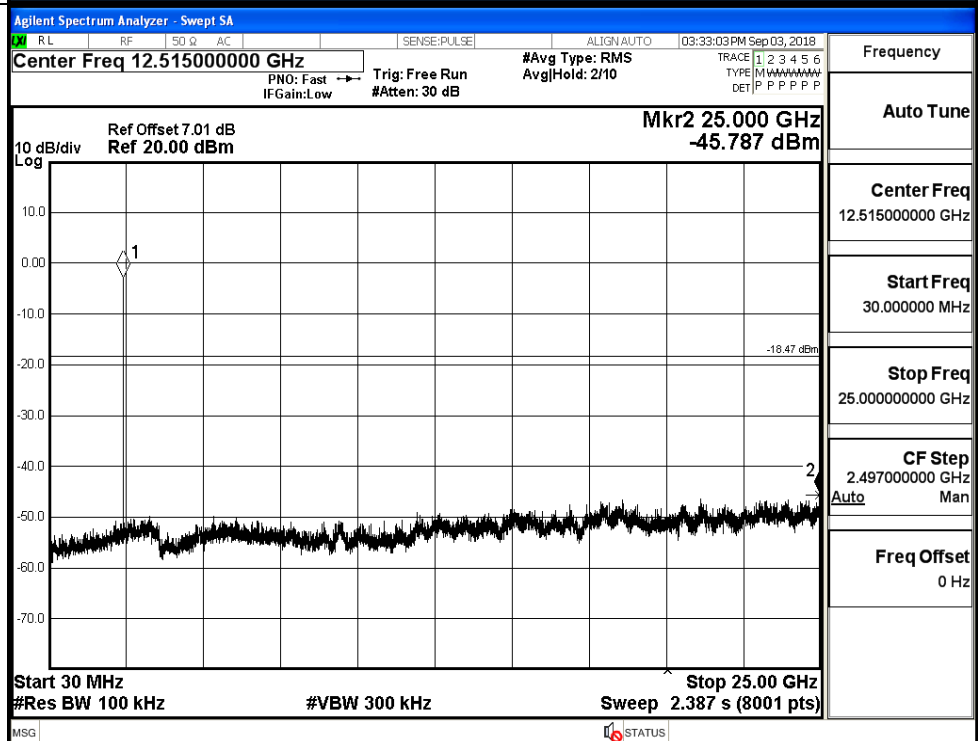


8DPSK_MCH_Graphs

Pref

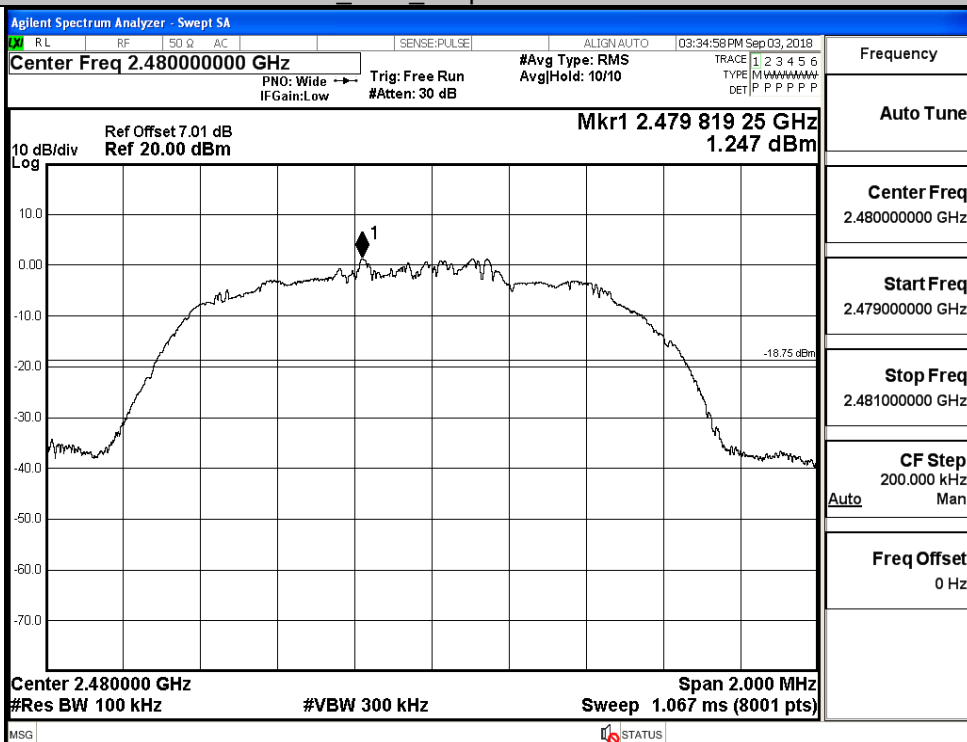


Puw

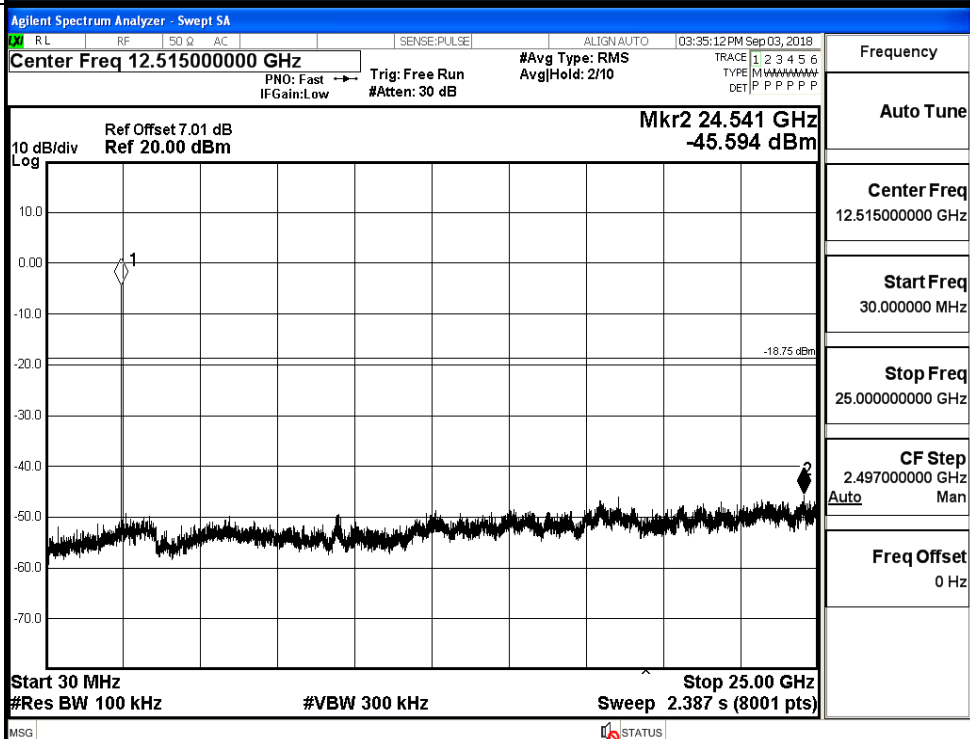


8DPSK_HCH_Graphs

Pref



Puw

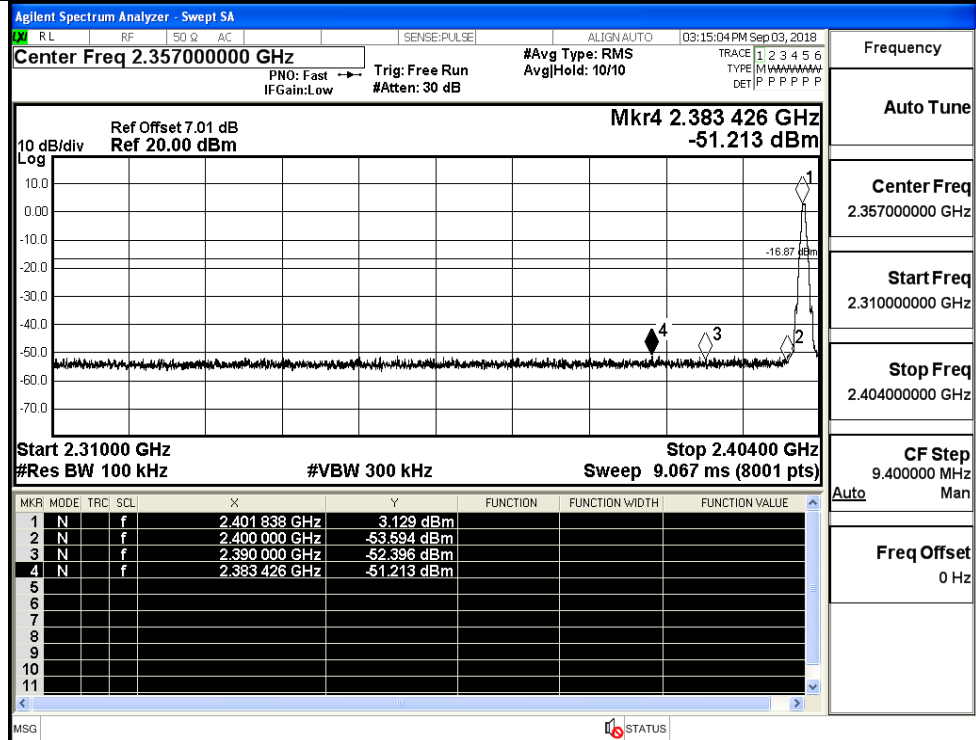


A.7 Band-edge for RF Conducted Emissions

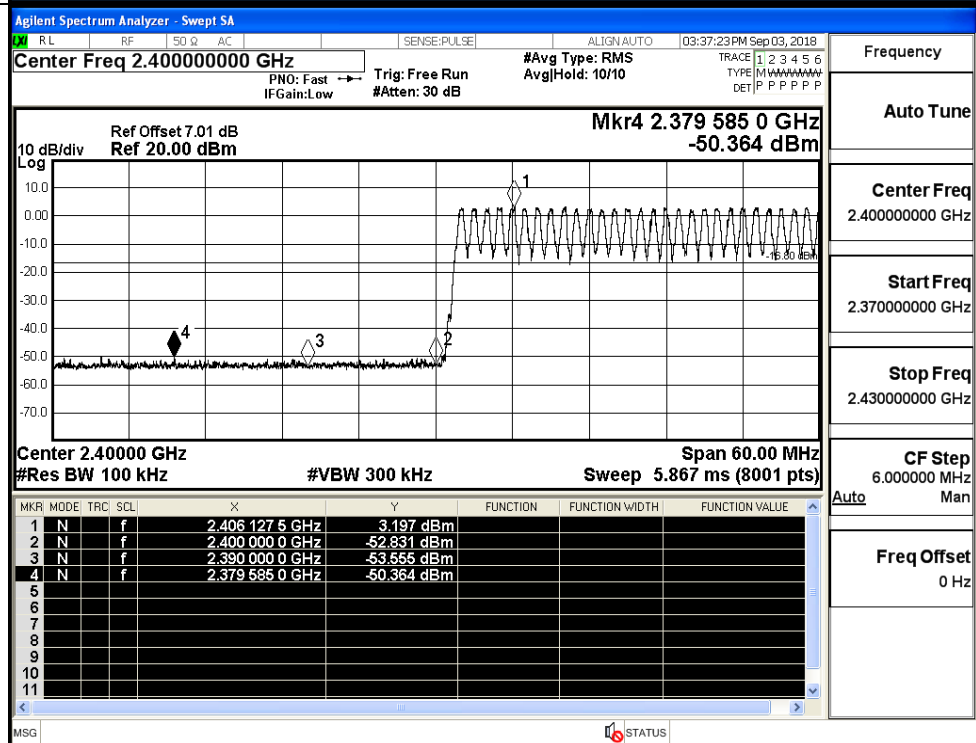
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	3.129	Off	-51.213	-16.87	PASS
			3.197	On	-50.364	-16.8	PASS
	HCH	2480	2.966	Off	-50.754	-17.03	PASS
			3.123	On	-50.202	-16.88	PASS
$\pi/4$ DQPSK	LCH	2402	1.670	Off	-51.119	-18.33	PASS
			1.438	On	-49.630	-18.56	PASS
	HCH	2480	1.547	Off	-51.191	-18.45	PASS
			1.381	On	-50.166	-18.62	PASS
8DPSK	LCH	2402	1.747	Off	-50.678	-18.25	PASS
			1.630	On	-50.406	-18.37	PASS
	HCH	2480	1.510	Off	-51.227	-18.49	PASS
			1.523	On	-50.299	-18.48	PASS

Test Graphs

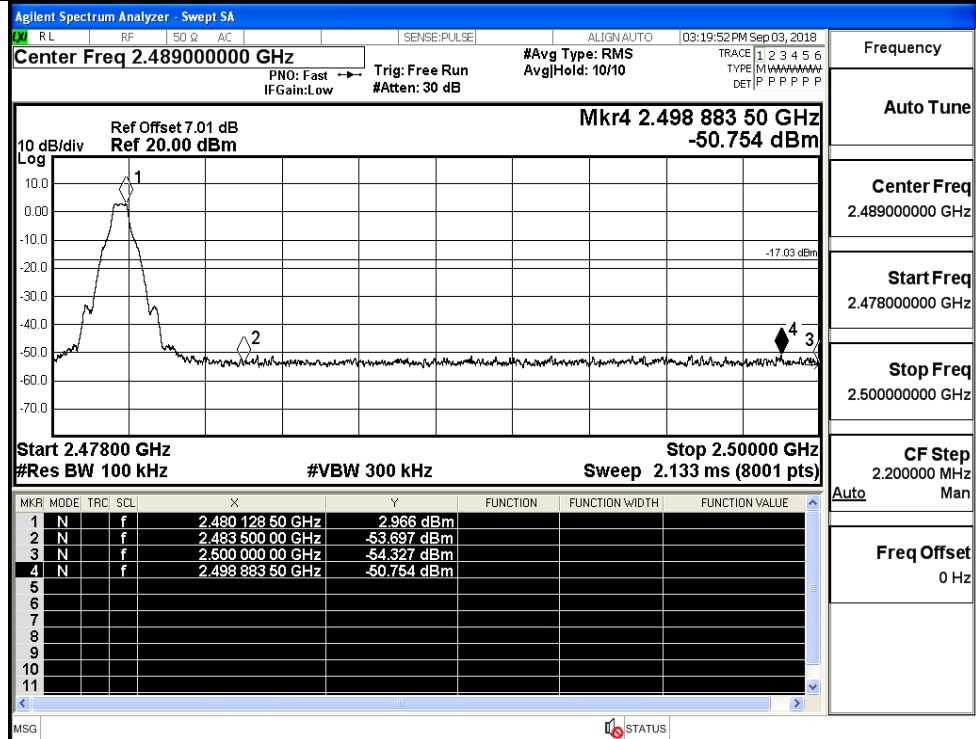
GFSK/LCH/No Hop



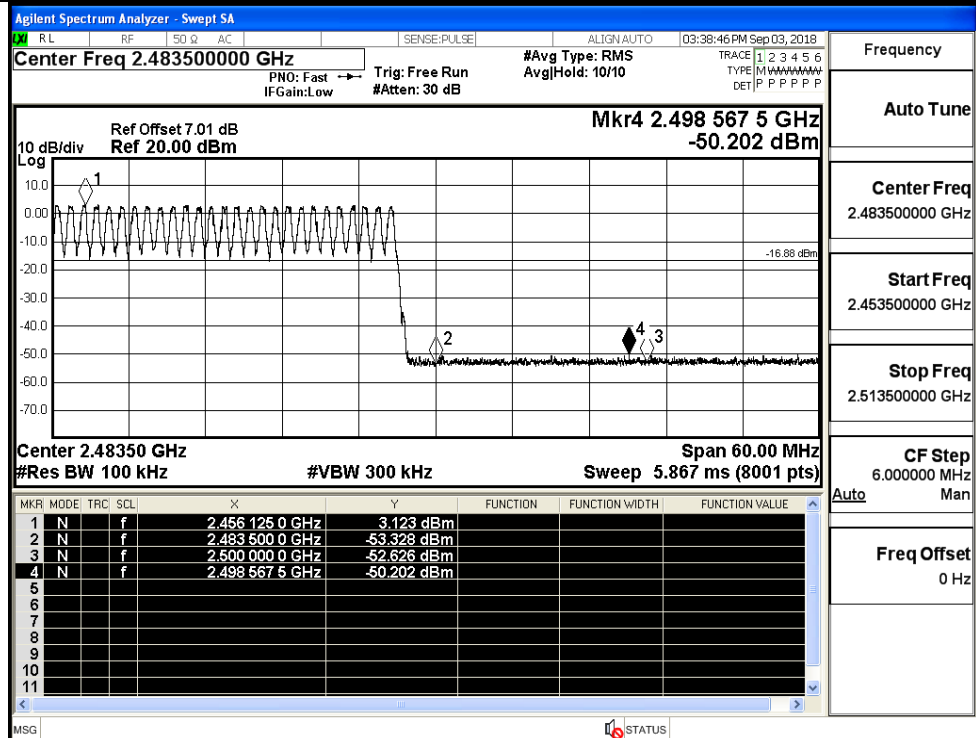
GFSK/LCH/Hop



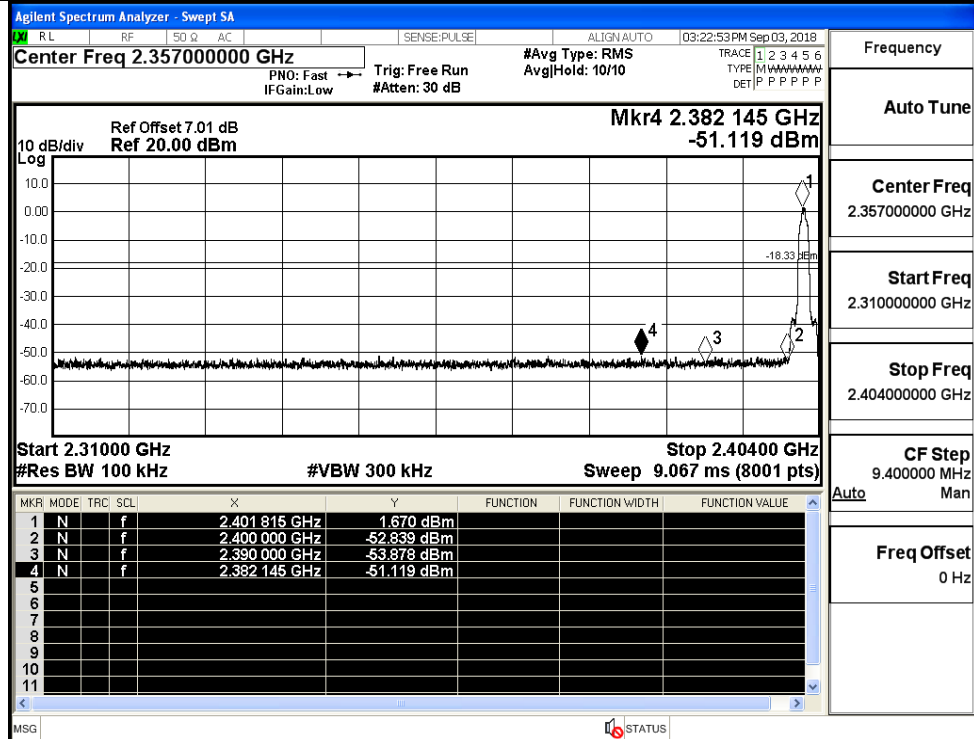
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

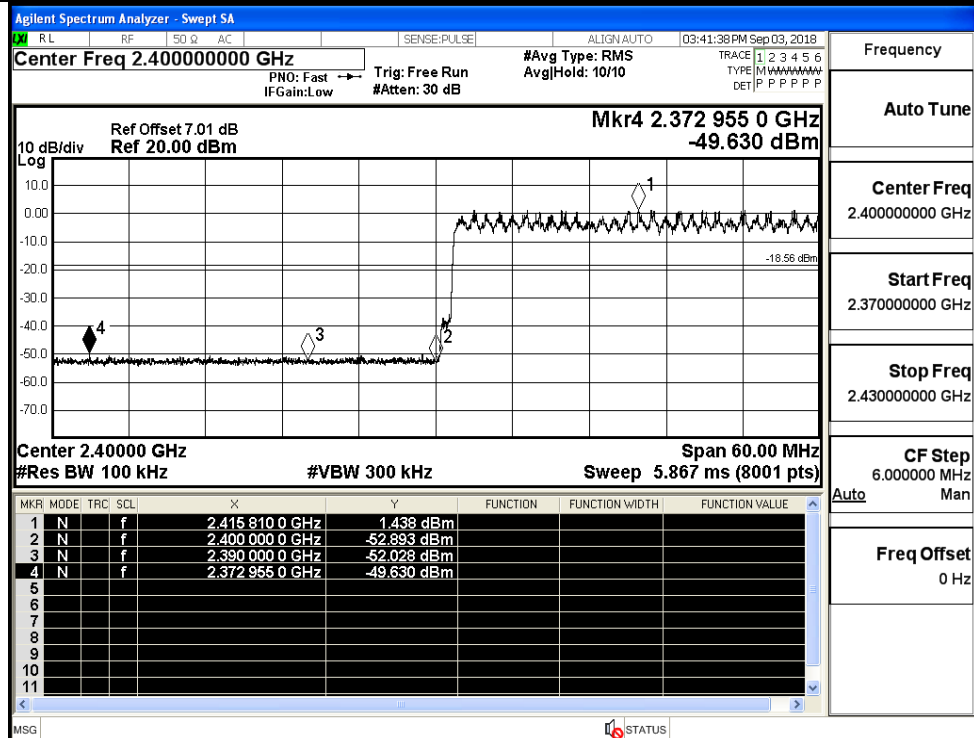
Start Freq
2.310000000 GHz

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

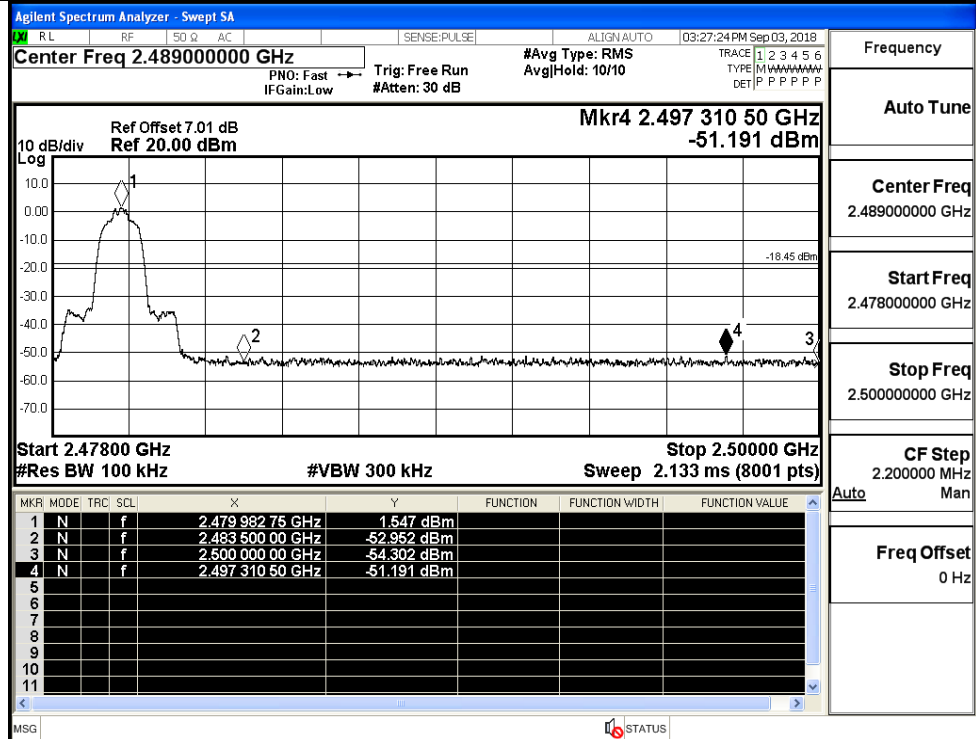
Start Freq
2.370000000 GHz

Stop Freq
2.430000000 GHz

CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

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

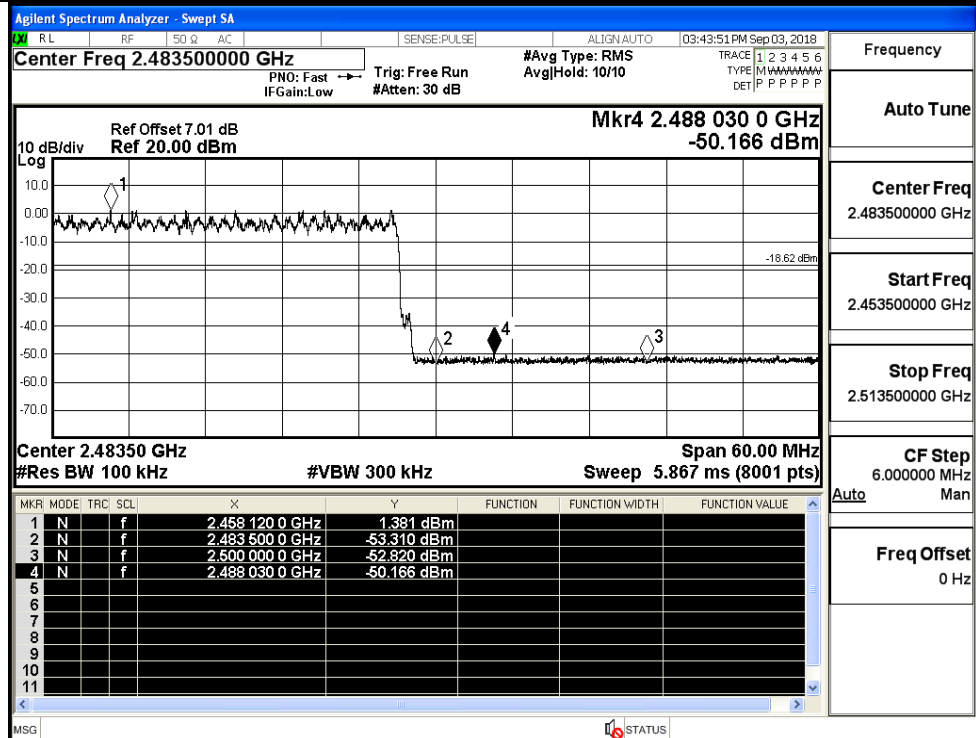


Frequency

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

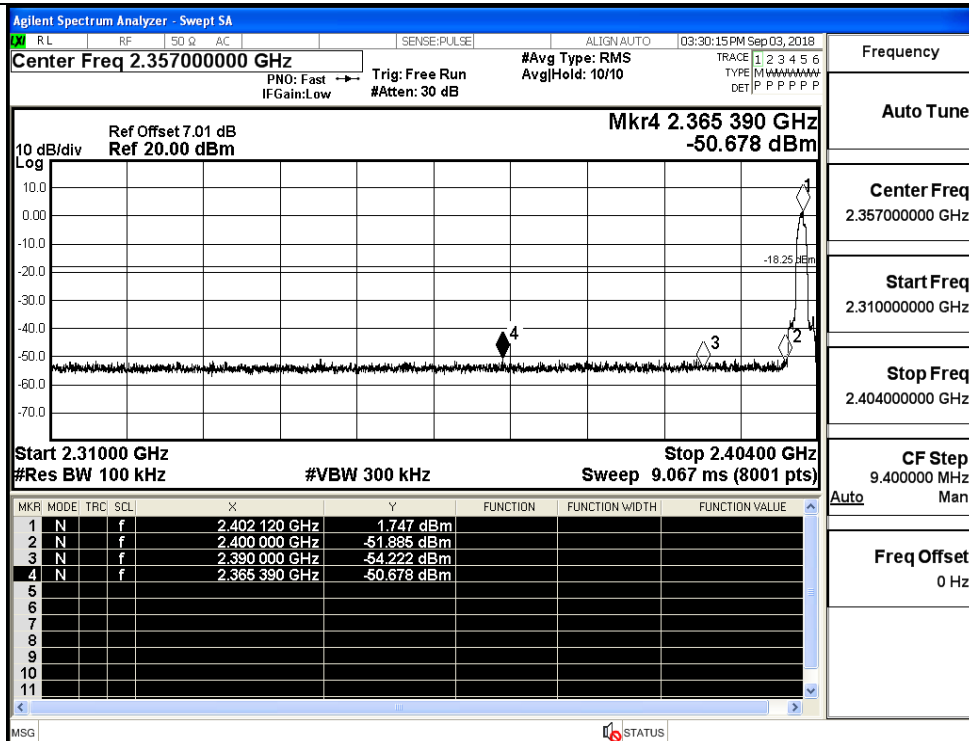


Frequency

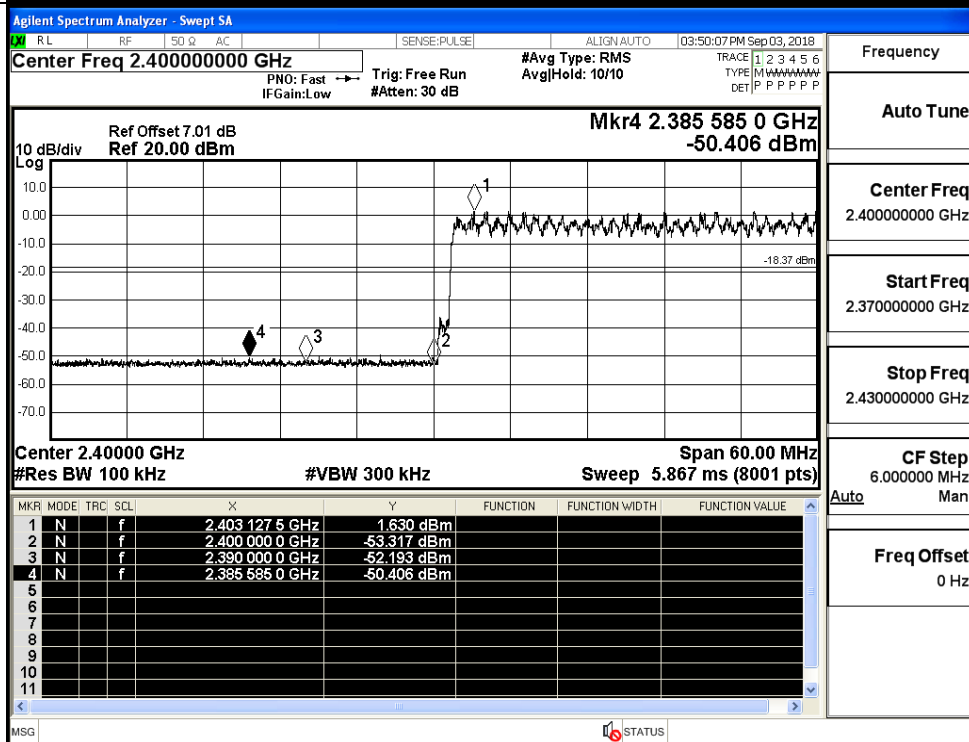
Auto Tune

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

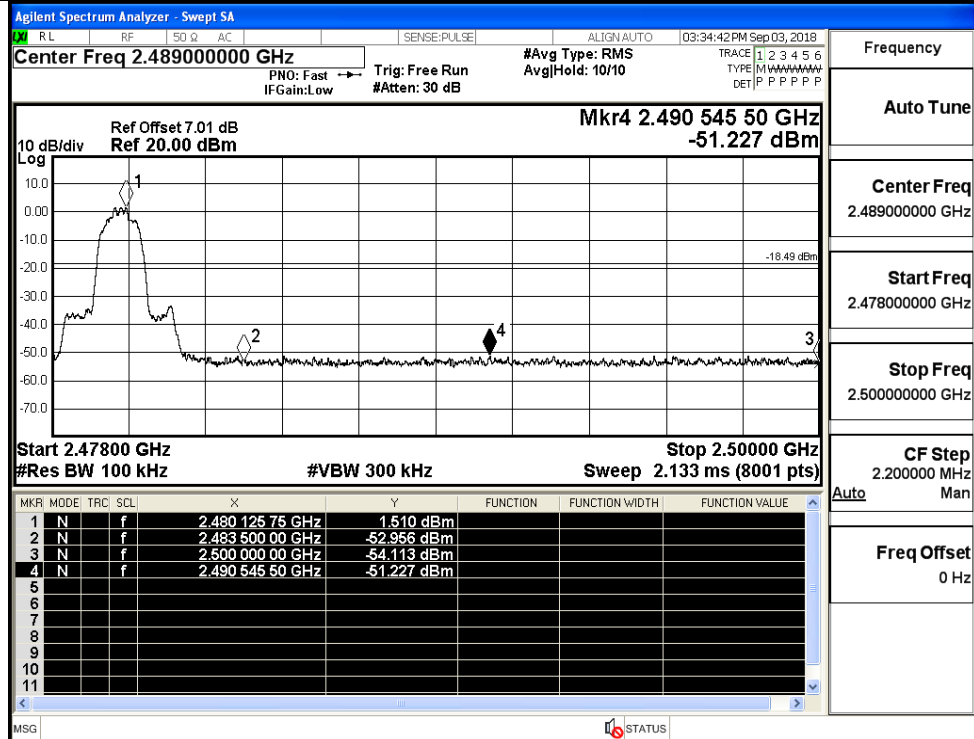
8DPSK/LCH/No Hop



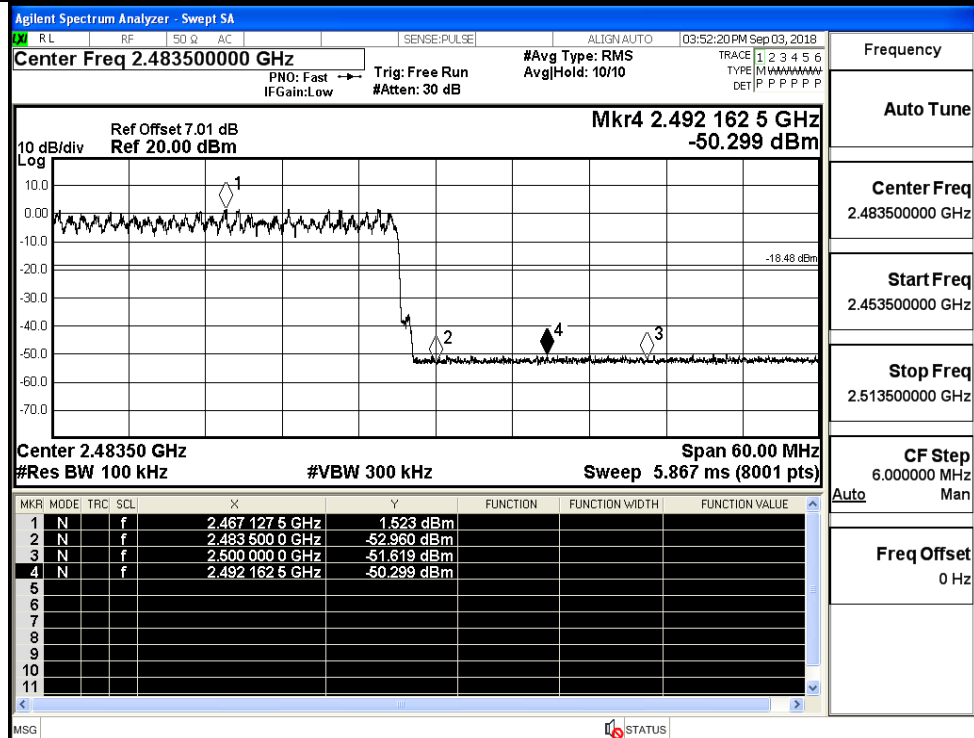
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



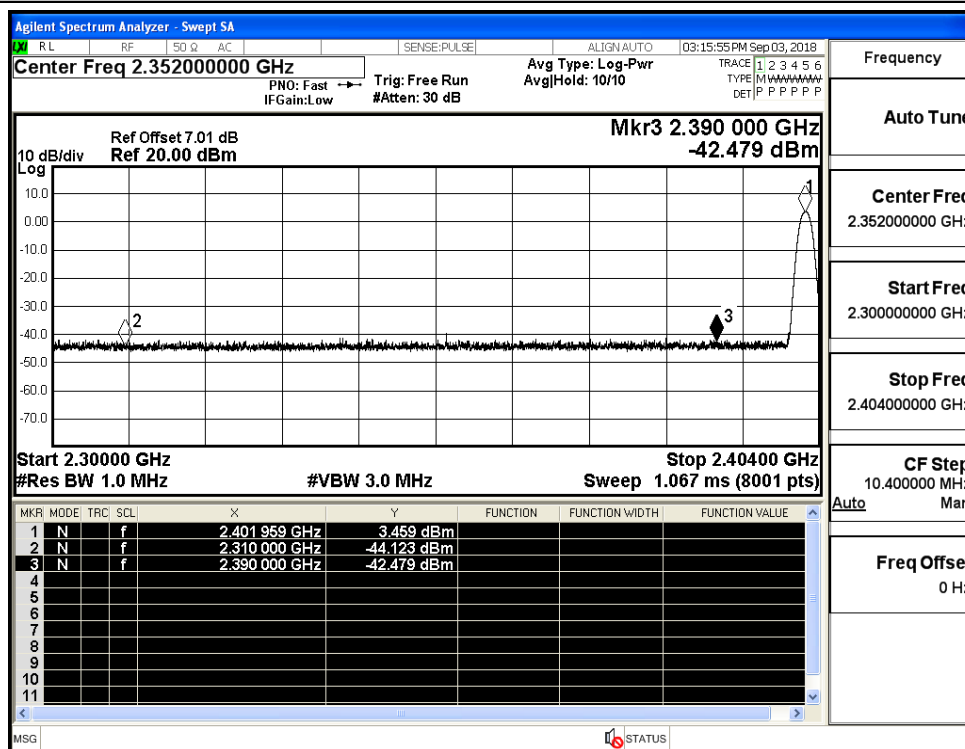
8DPSK/HCH/Hop



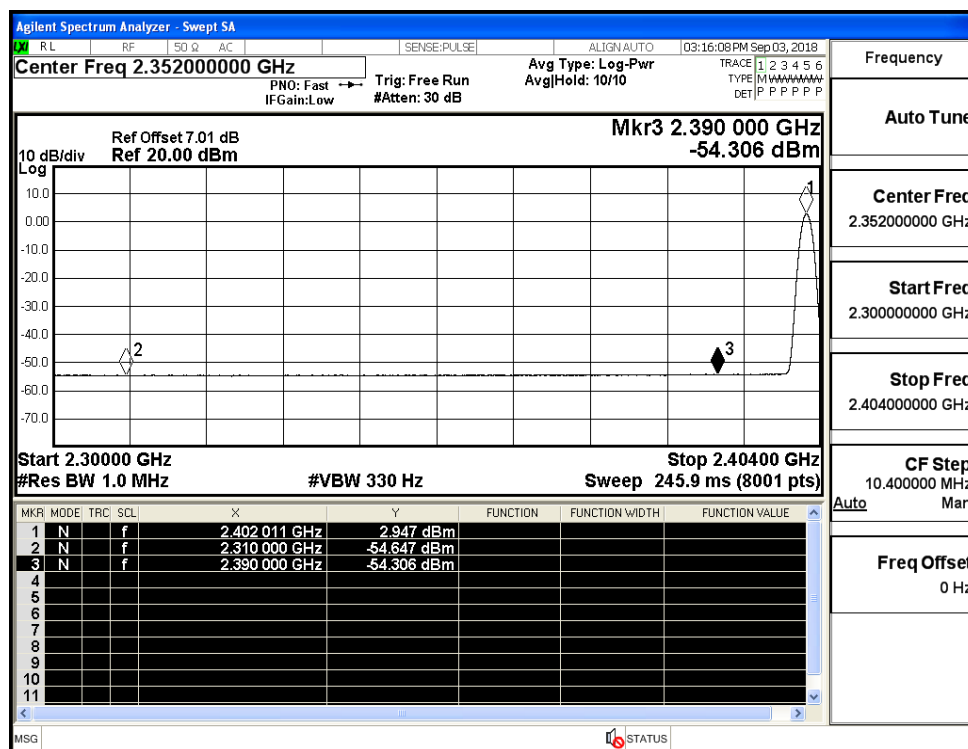
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.12	2.0	0	53.13	PEAK	74	PASS
	Off	2310.0	-54.65	2.0	0	42.61	AV	54	PASS
	Off	2390.0	-42.48	2.0	0	54.78	PEAK	74	PASS
	Off	2390.0	-54.31	2.0	0	42.95	AV	54	PASS
	Off	2483.5	-45.01	2.0	0	52.25	PEAK	74	PASS
	Off	2483.5	-53.89	2.0	0	43.37	AV	54	PASS
	Off	2500.0	-43.71	2.0	0	53.54	PEAK	74	PASS
	Off	2500.0	-53.97	2.0	0	43.28	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.86	2.0	0	53.39	PEAK	74	PASS
	Off	2310.0	-54.55	2.0	0	42.70	AV	54	PASS
	Off	2390.0	-42.87	2.0	0	54.39	PEAK	74	PASS
	Off	2390.0	-54.30	2.0	0	42.96	AV	54	PASS
	Off	2483.5	-43.35	2.0	0	53.91	PEAK	74	PASS
	Off	2483.5	-53.95	2.0	0	43.31	AV	54	PASS
	Off	2500.0	-43.21	2.0	0	54.05	PEAK	74	PASS
	Off	2500.0	-53.90	2.0	0	43.35	AV	54	PASS
8DPSK	Off	2310.0	-45.03	2.0	0	52.22	PEAK	74	PASS
	Off	2310.0	-54.55	2.0	0	42.70	AV	54	PASS
	Off	2390.0	-43.77	2.0	0	53.49	PEAK	74	PASS
	Off	2390.0	-54.25	2.0	0	43.01	AV	54	PASS
	Off	2483.5	-43.83	2.0	0	53.43	PEAK	74	PASS
	Off	2483.5	-53.80	2.0	0	43.45	AV	54	PASS
	Off	2500.0	-45.02	2.0	0	52.24	PEAK	74	PASS
	Off	2500.0	-53.83	2.0	0	43.43	AV	54	PASS

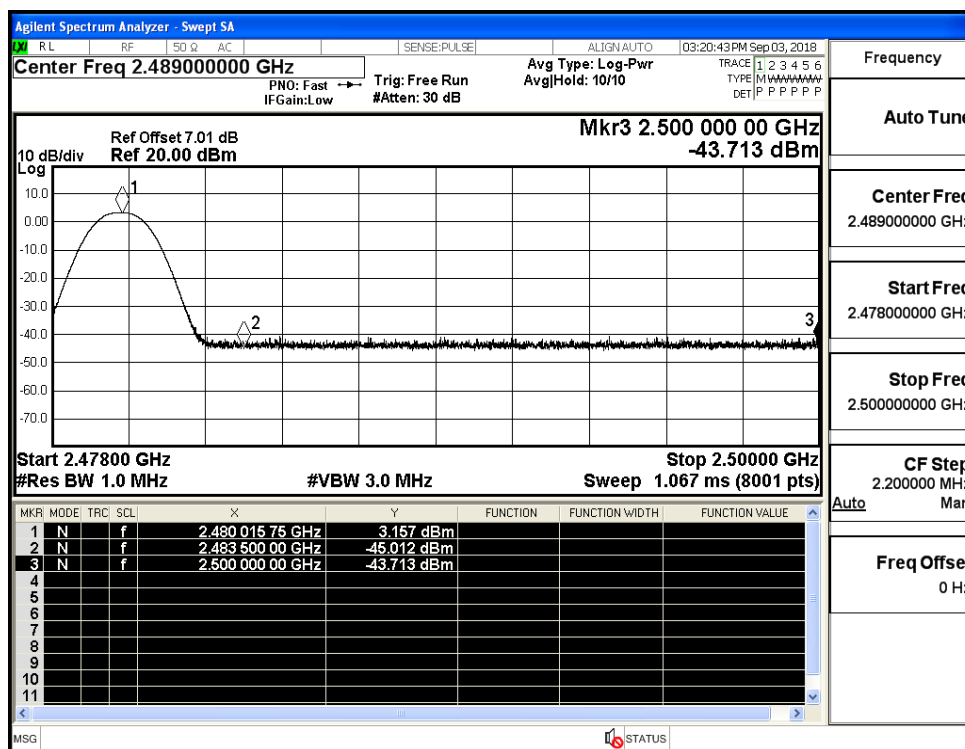
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



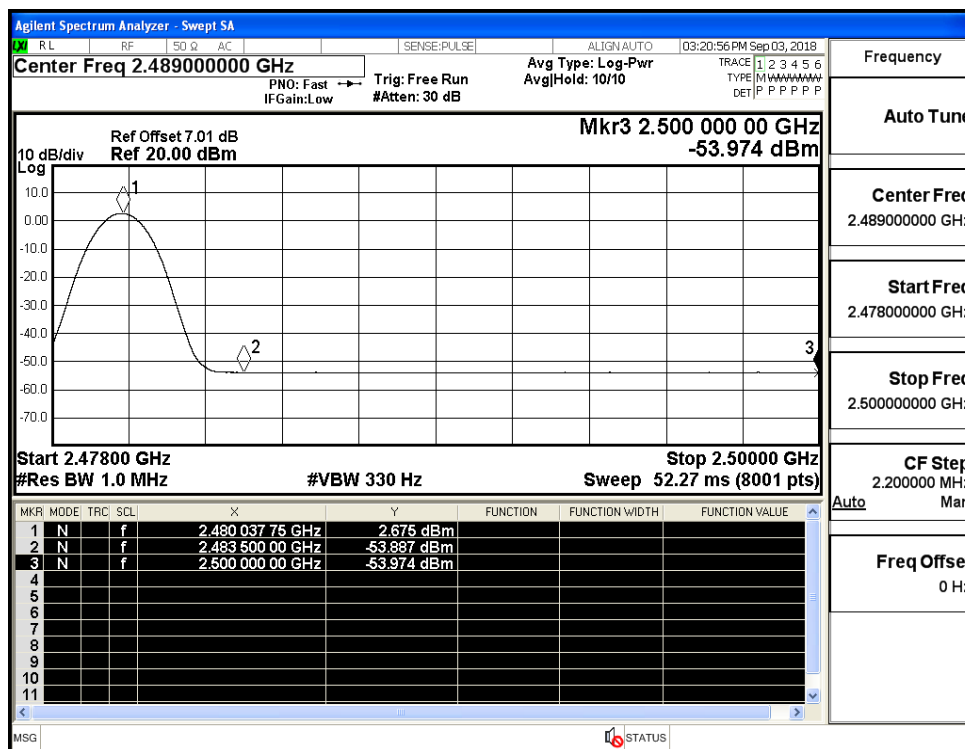
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

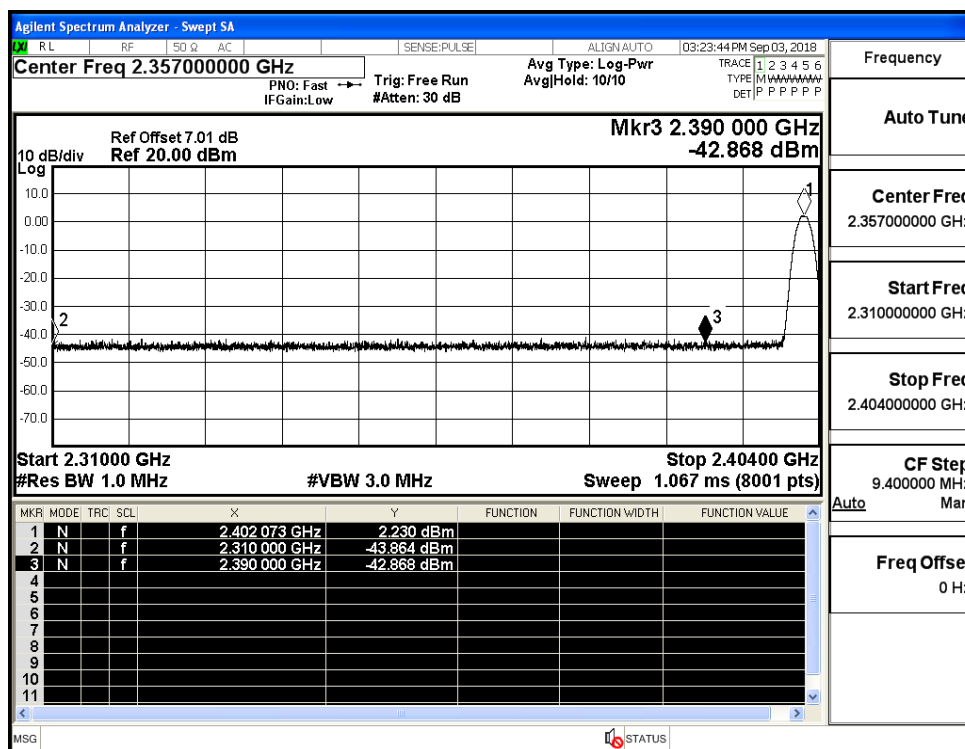
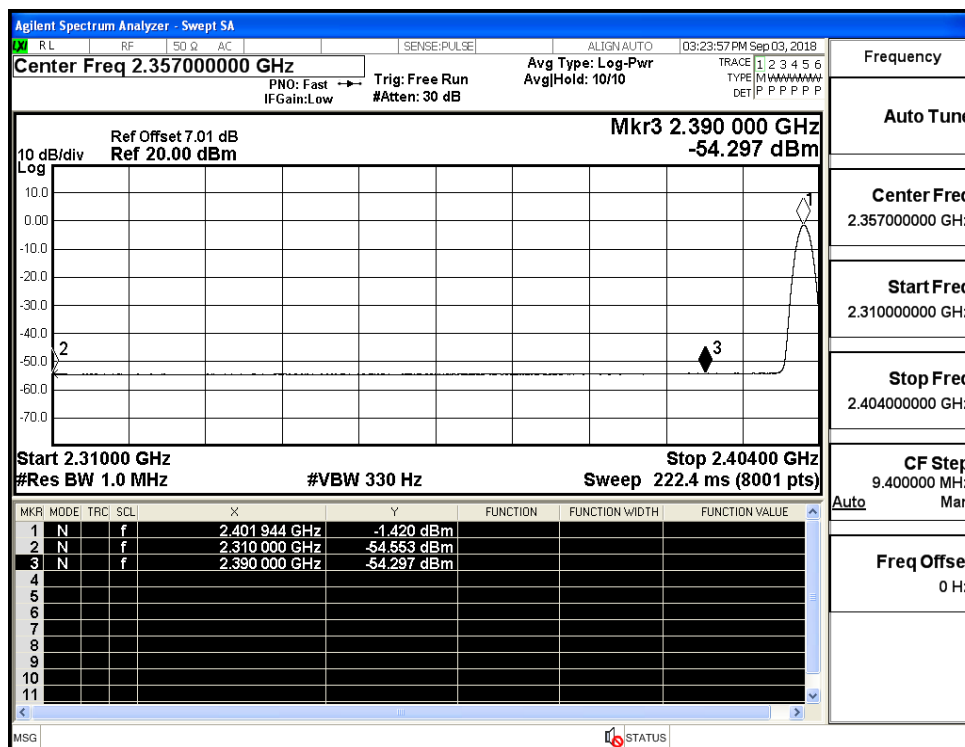


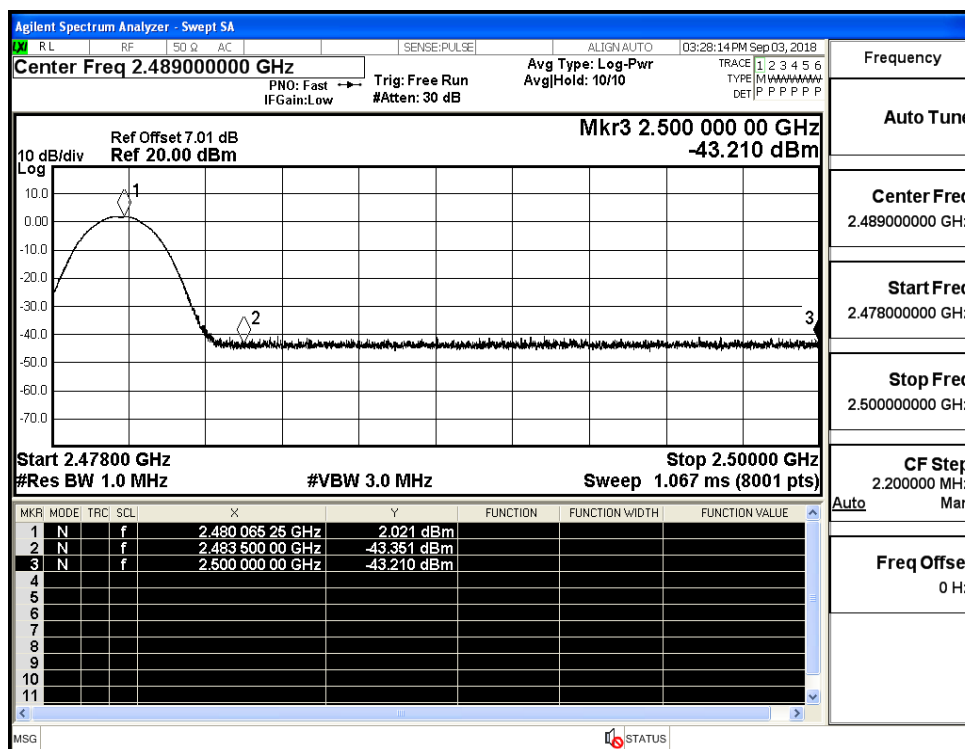
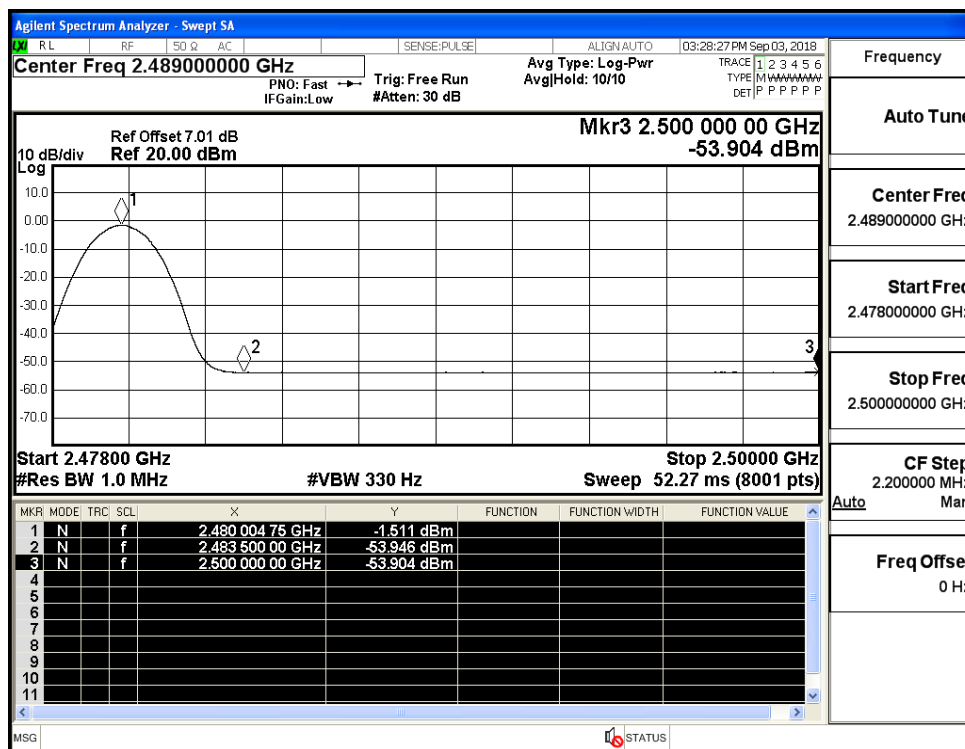
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



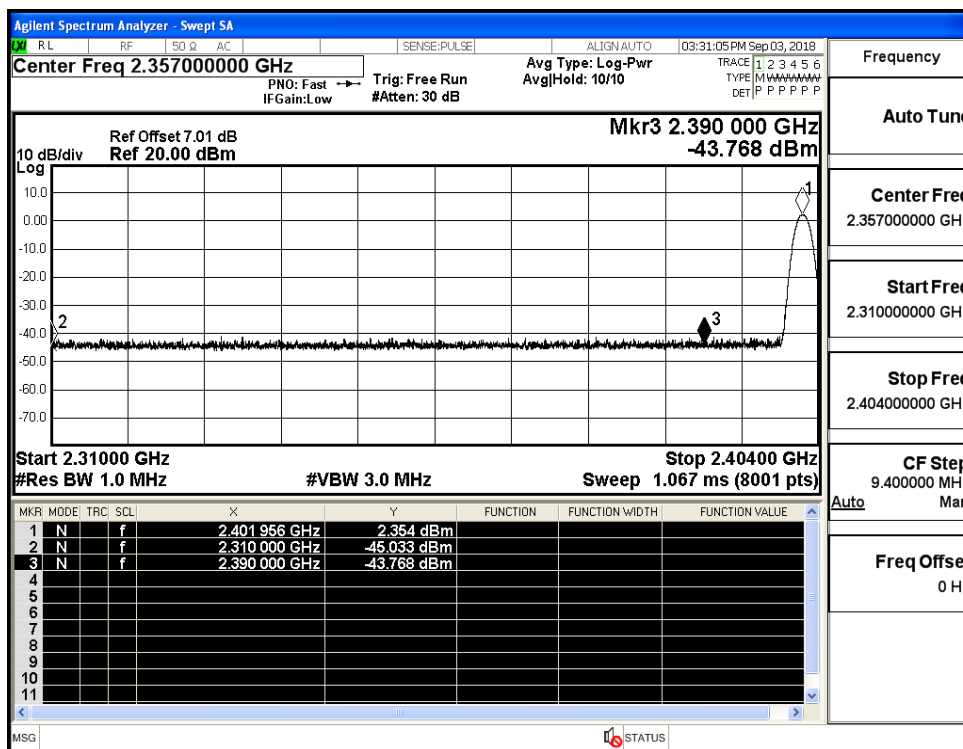
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



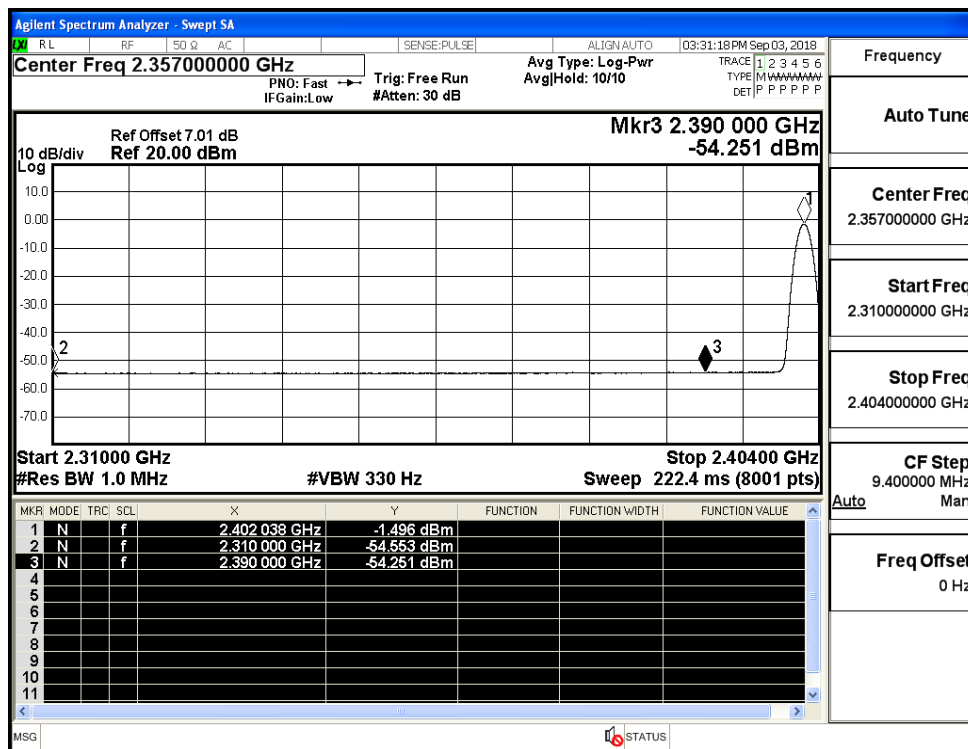
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

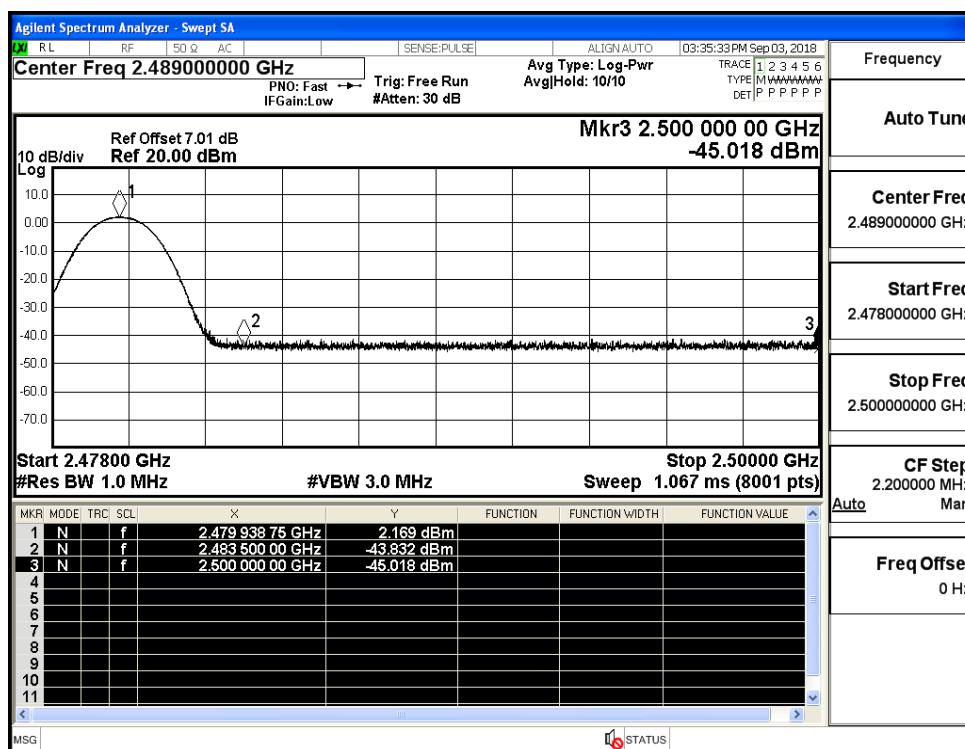
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

