

Appendix A

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

Product Name: 4G Smartphone

Trade Mark: Kenxinda, Ken mobile, KXD, E&L, EL

Test Model: T50

Environmental Conditions

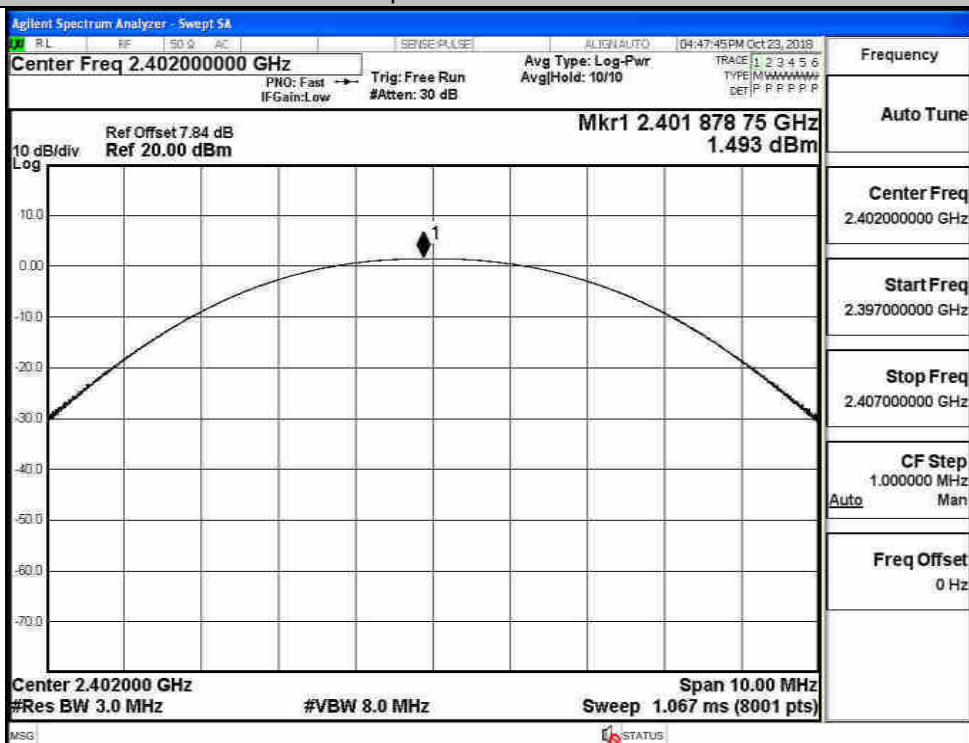
Temperature:	23.4° C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom.Liu
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

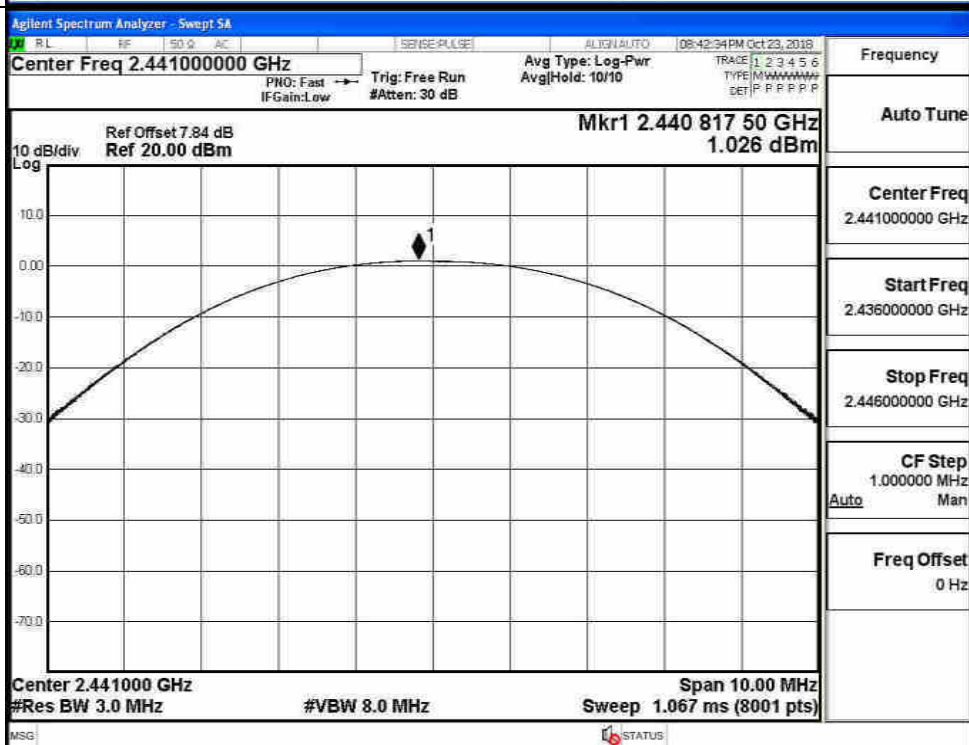
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	1.493	21	PASS
	MCH	1.026	21	PASS
	HCH	1.852	21	PASS
$\pi/4$ DQPSK	LCH	0.769	21	PASS
	MCH	0.523	21	PASS
	HCH	1.015	21	PASS
8DPSK	LCH	0.970	21	PASS
	MCH	0.643	21	PASS
	HCH	1.048	21	PASS

Test Graphs

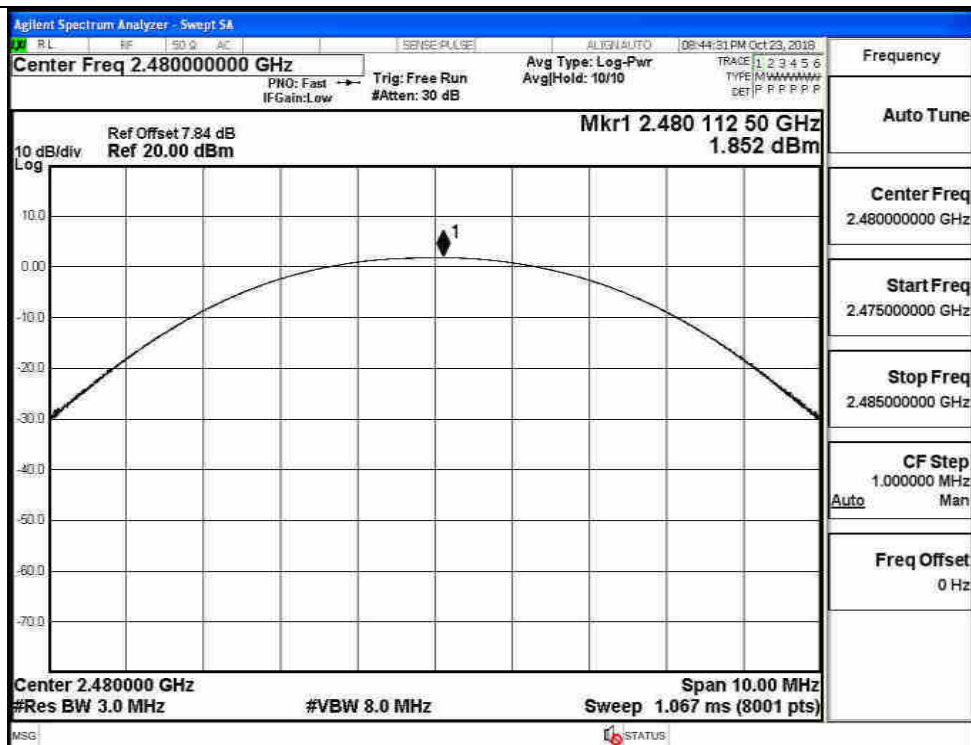
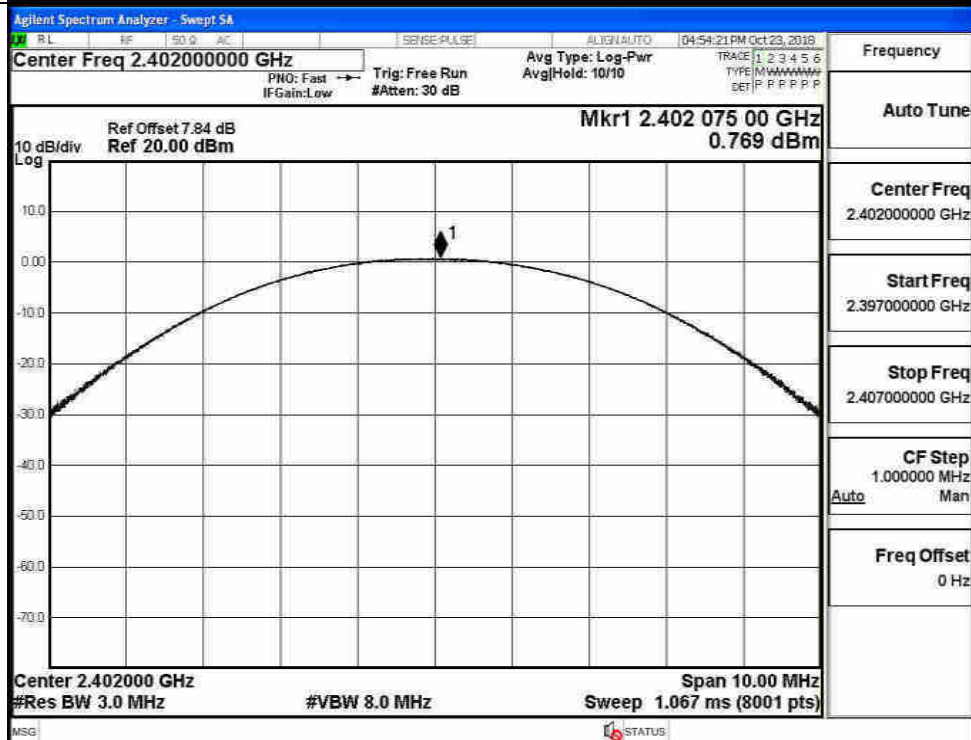
GFSK/LCH

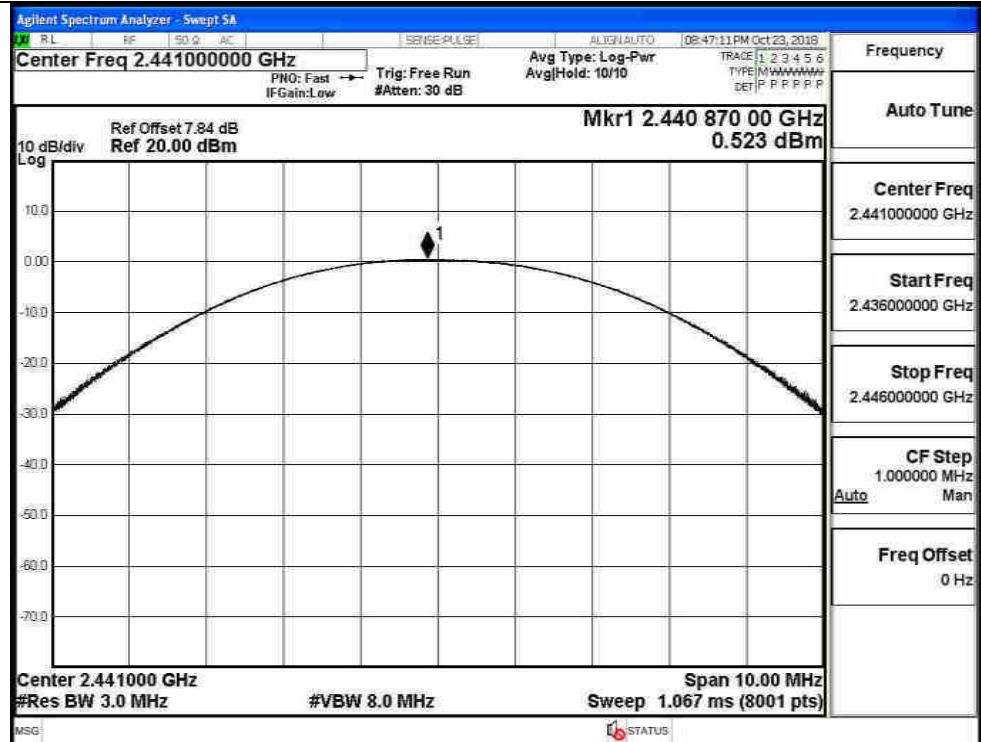
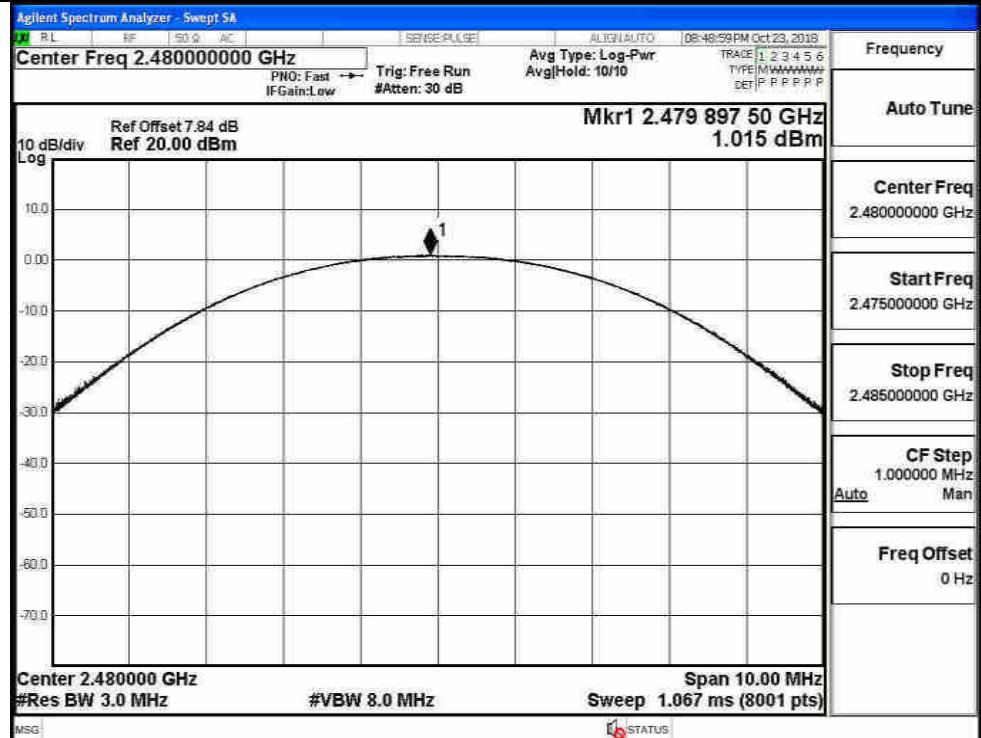


GFSK/MCH

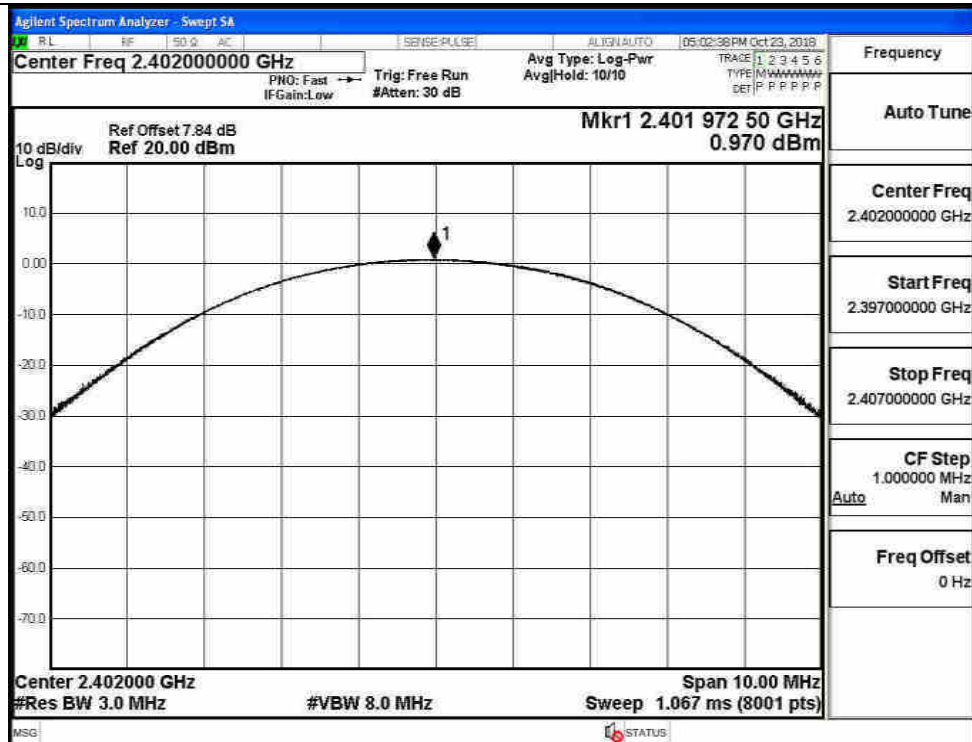


GFSK/HCH

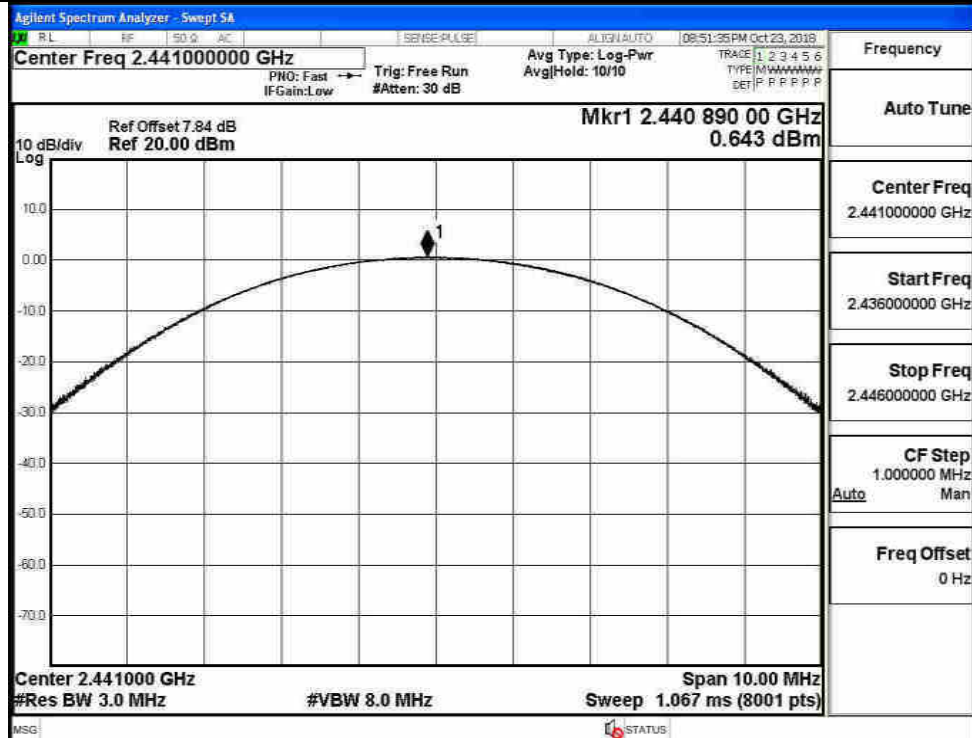
 $\pi/4$ DQPSK/LCH

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

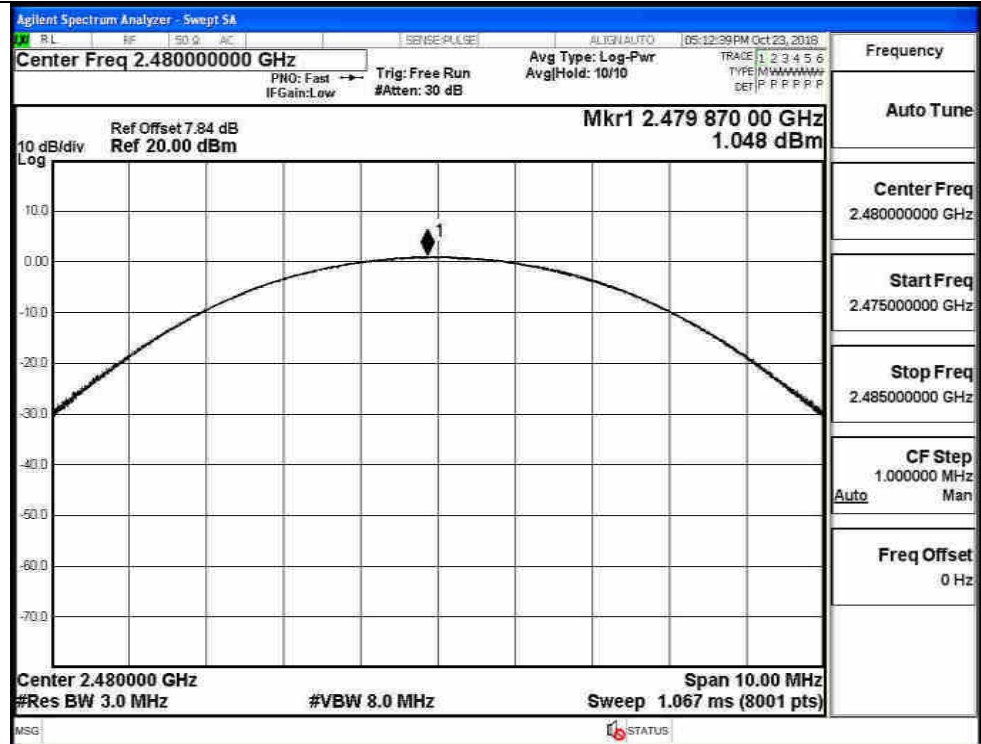
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

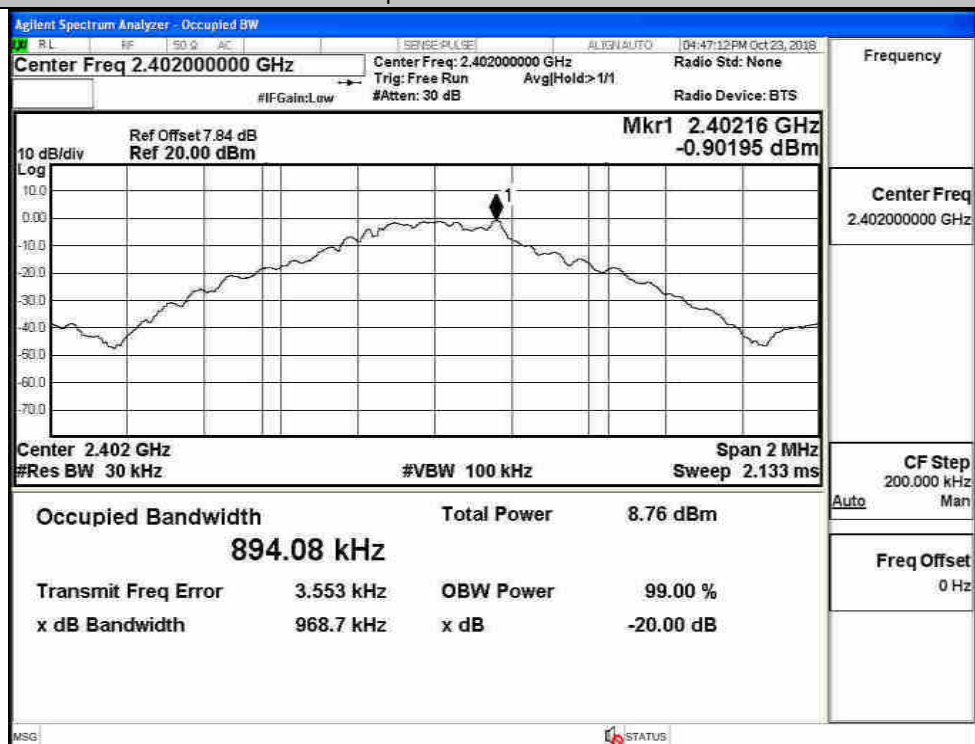


A.2 20dB Bandwidth

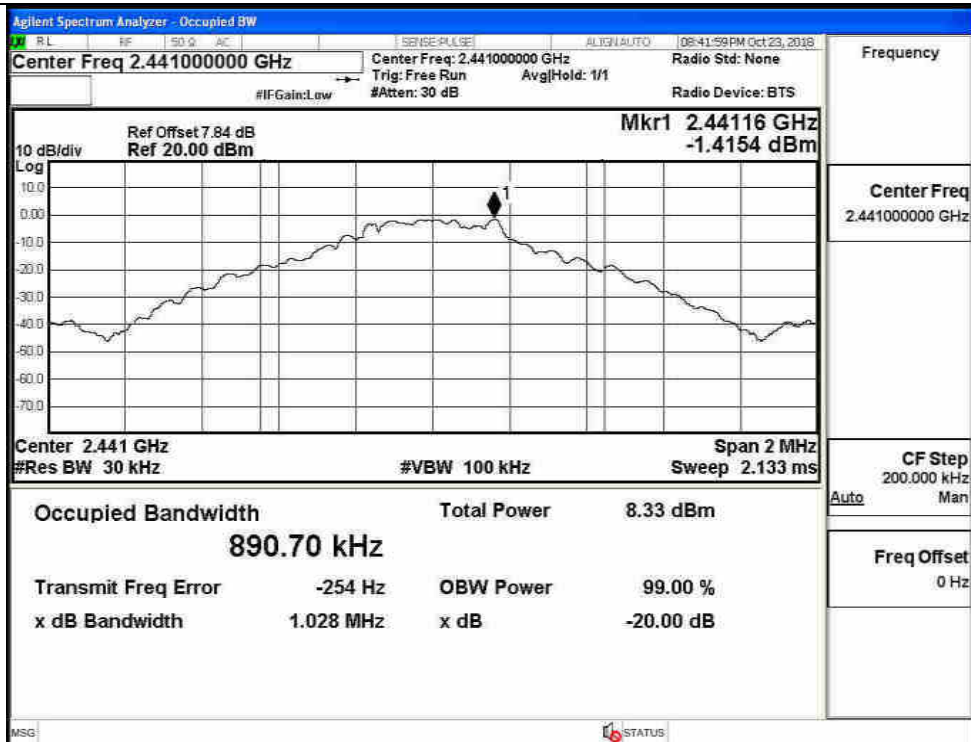
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9687	Not Specified	PASS
	MCH	1.028	Not Specified	PASS
	HCH	1.026	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.288	Not Specified	PASS
	MCH	1.309	Not Specified	PASS
	HCH	1.290	Not Specified	PASS
8DPSK	LCH	1.297	Not Specified	PASS
	MCH	1.299	Not Specified	PASS
	HCH	1.296	Not Specified	PASS

Test Graphs

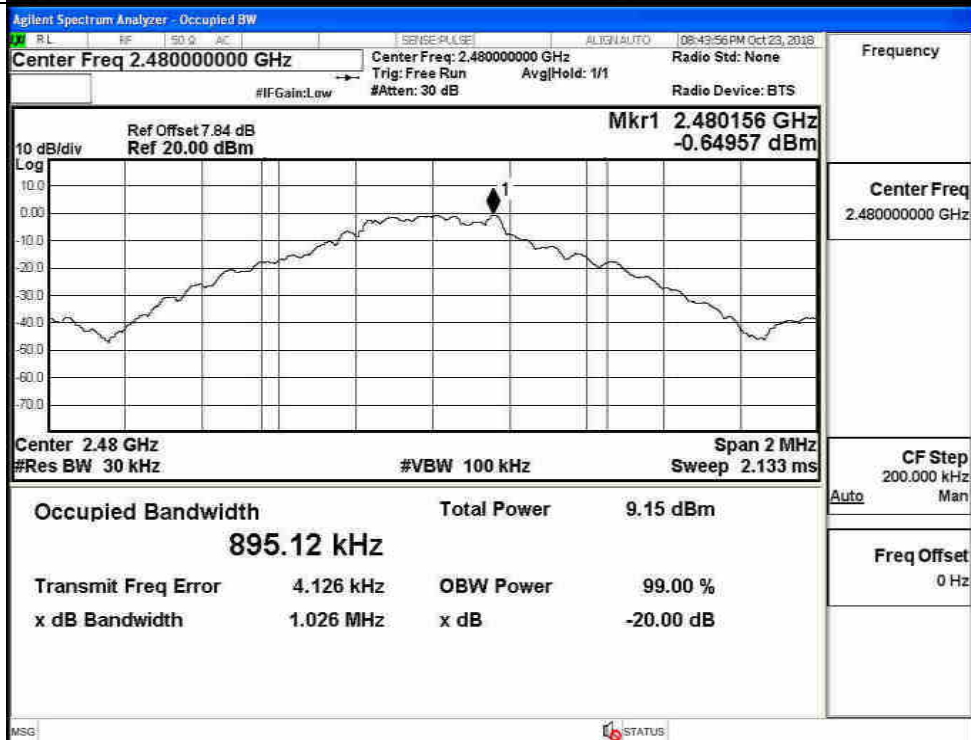
GFSK/LCH

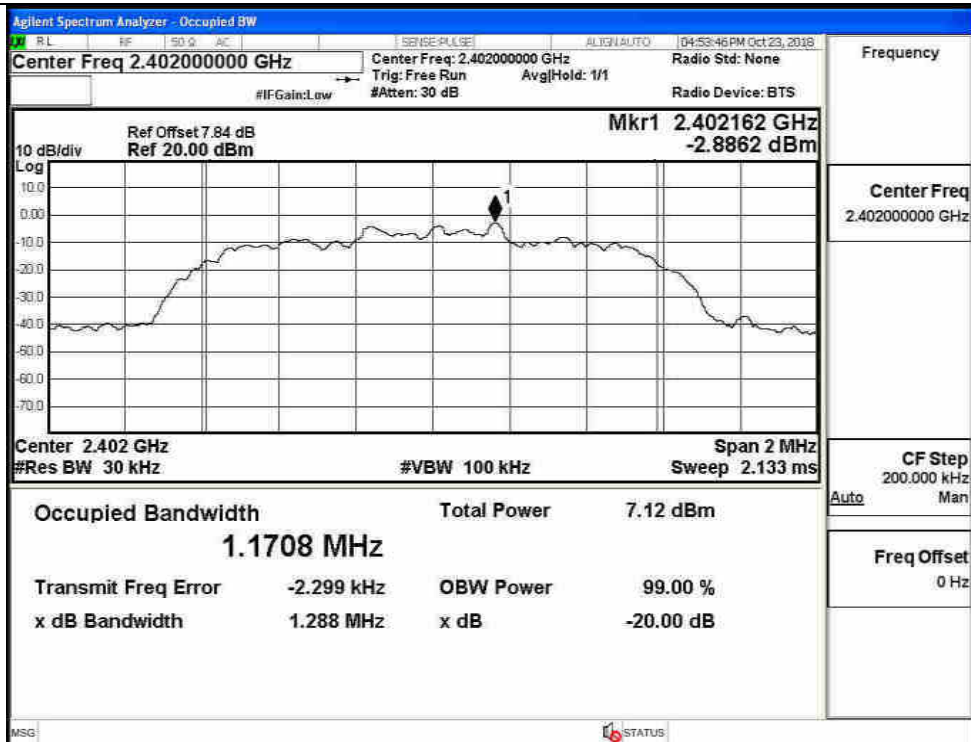
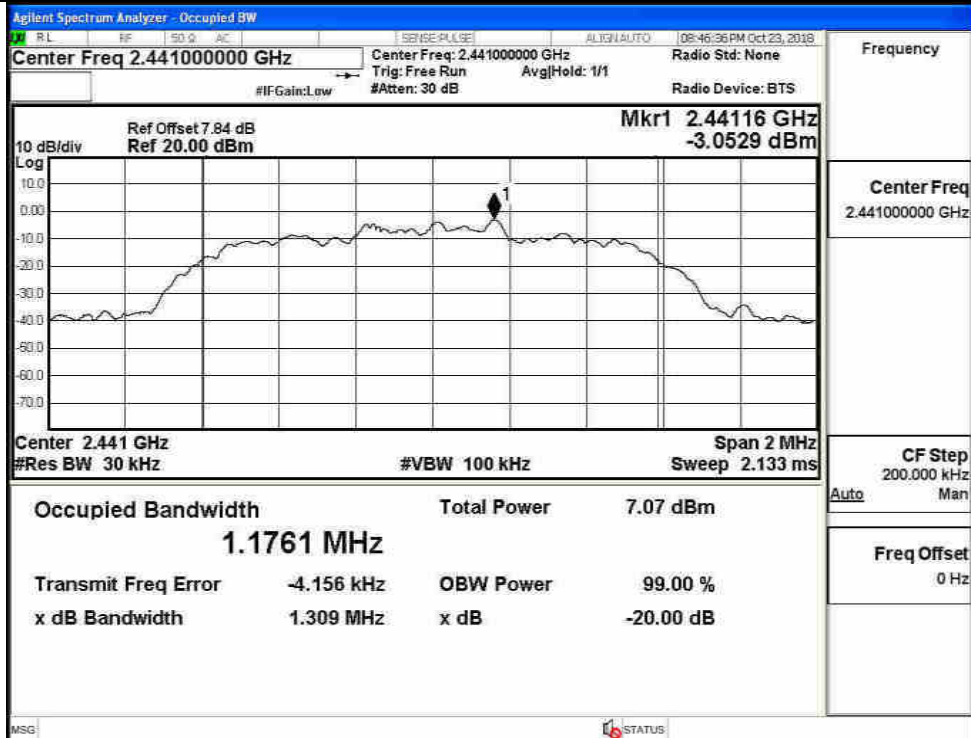


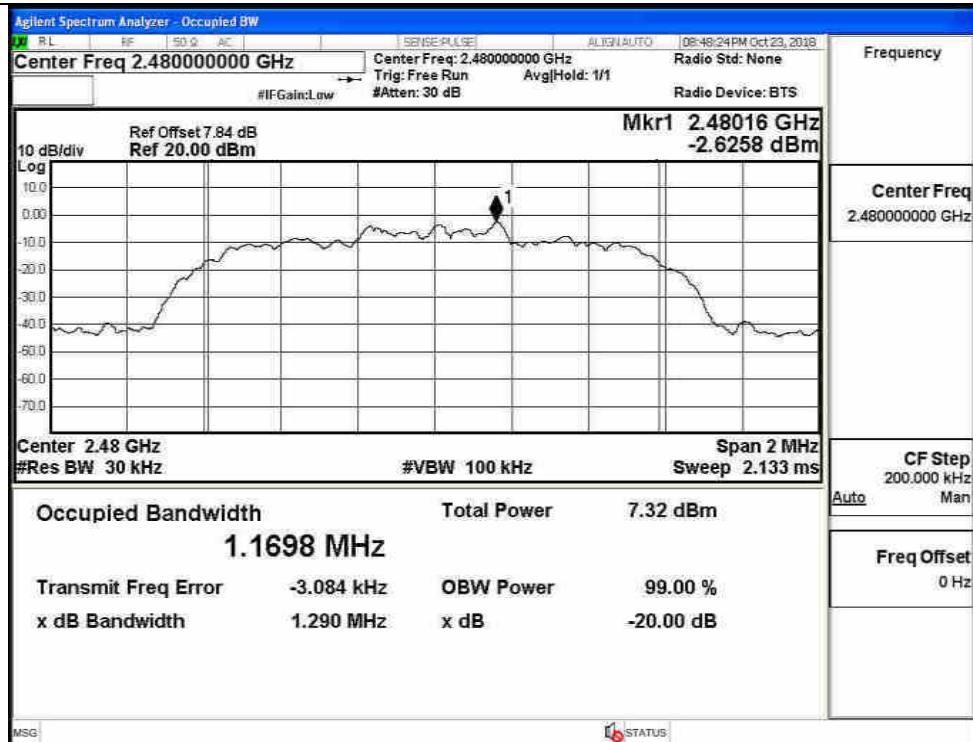
GFSK/MCH



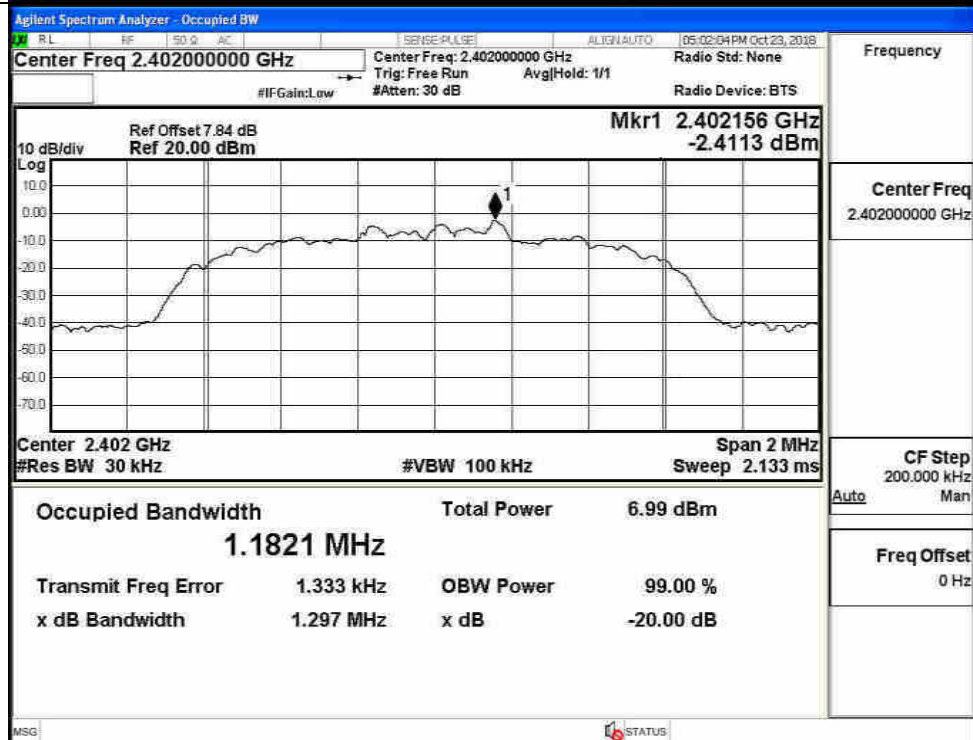
GFSK/HCH



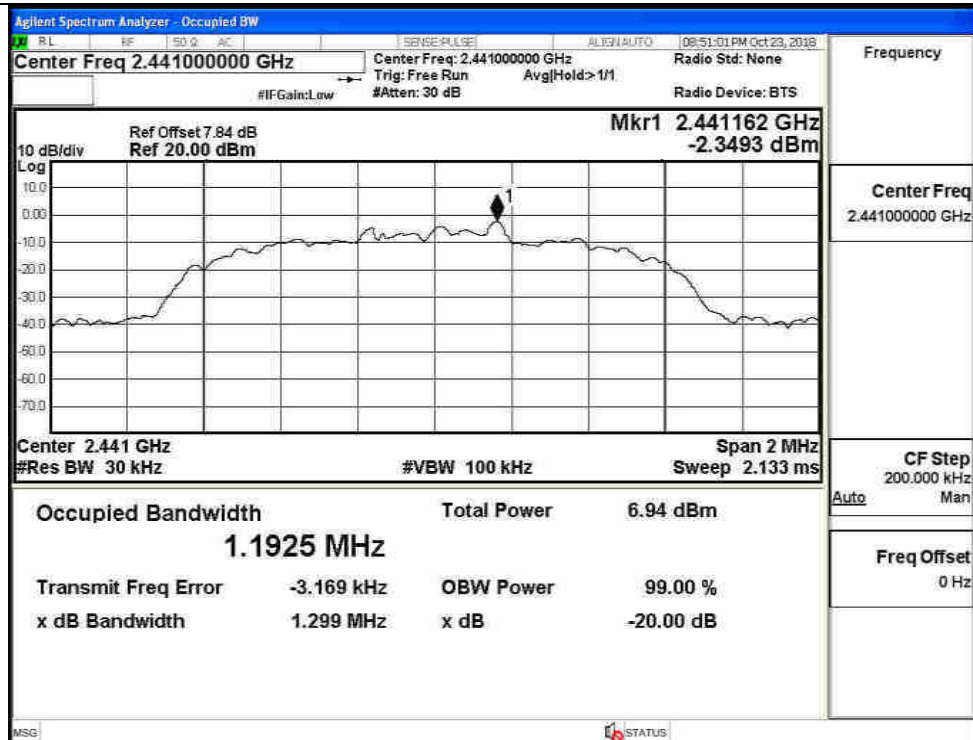
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

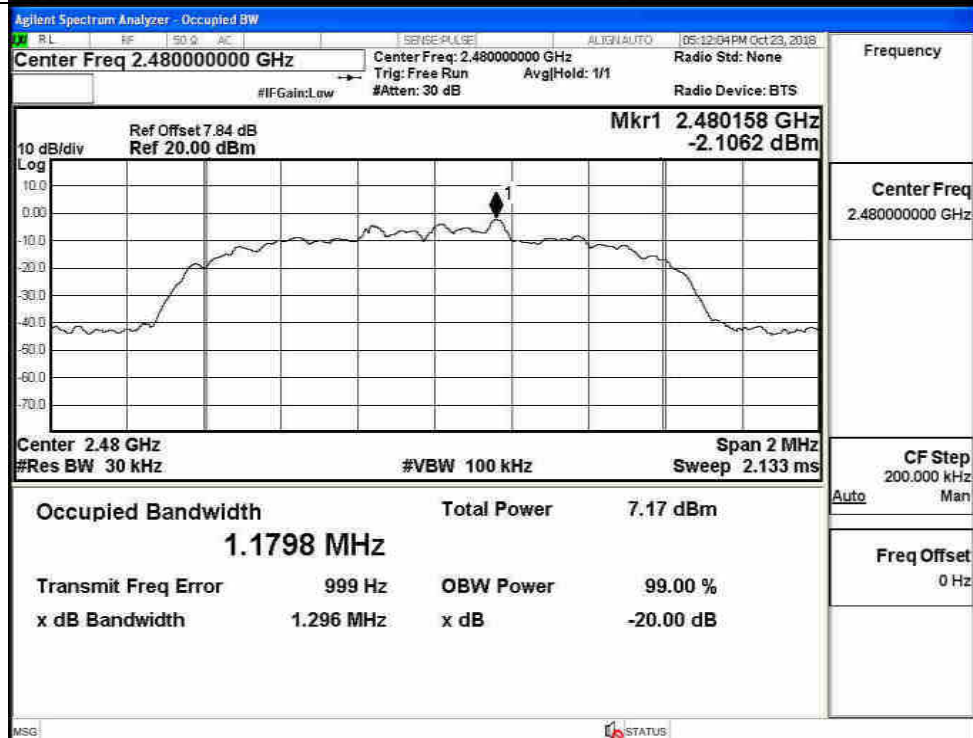
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

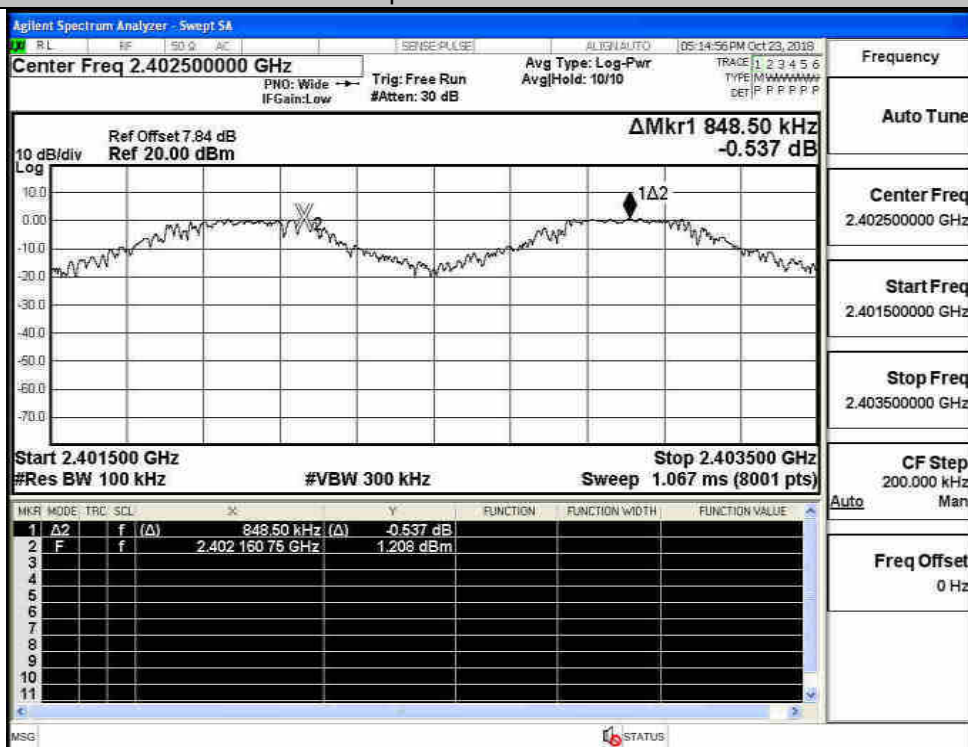


A.3 Carrier Frequency Separation

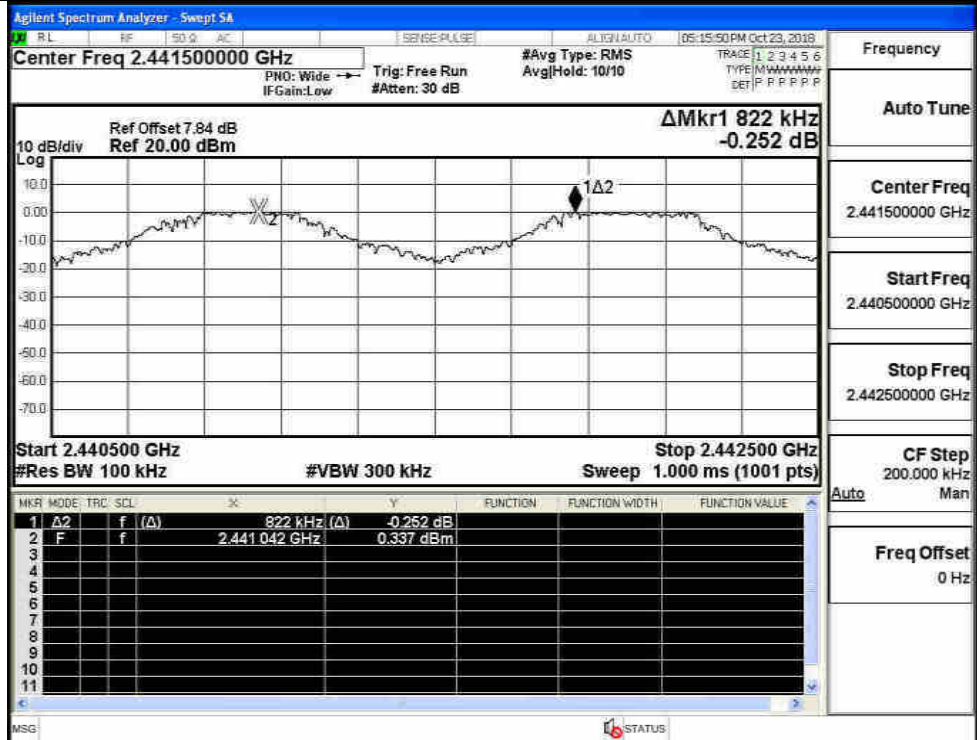
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.849	0.680	PASS
	MCH	0.822	0.680	PASS
	HCH	0.980	0.680	PASS
$\pi/4$ DQPSK	LCH	0.906	0.873	PASS
	MCH	1.040	0.873	PASS
	HCH	1.288	0.873	PASS
8DPSK	LCH	1.042	0.865	PASS
	MCH	1.016	0.865	PASS
	HCH	0.910	0.865	PASS

Test Graphs

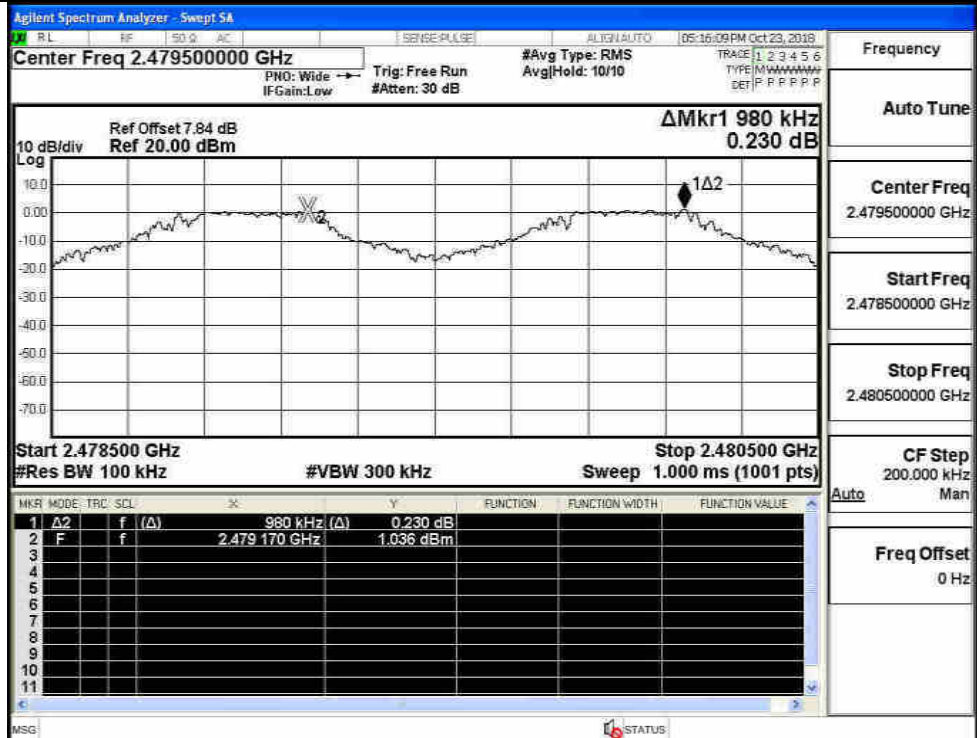
GFSK/LCH

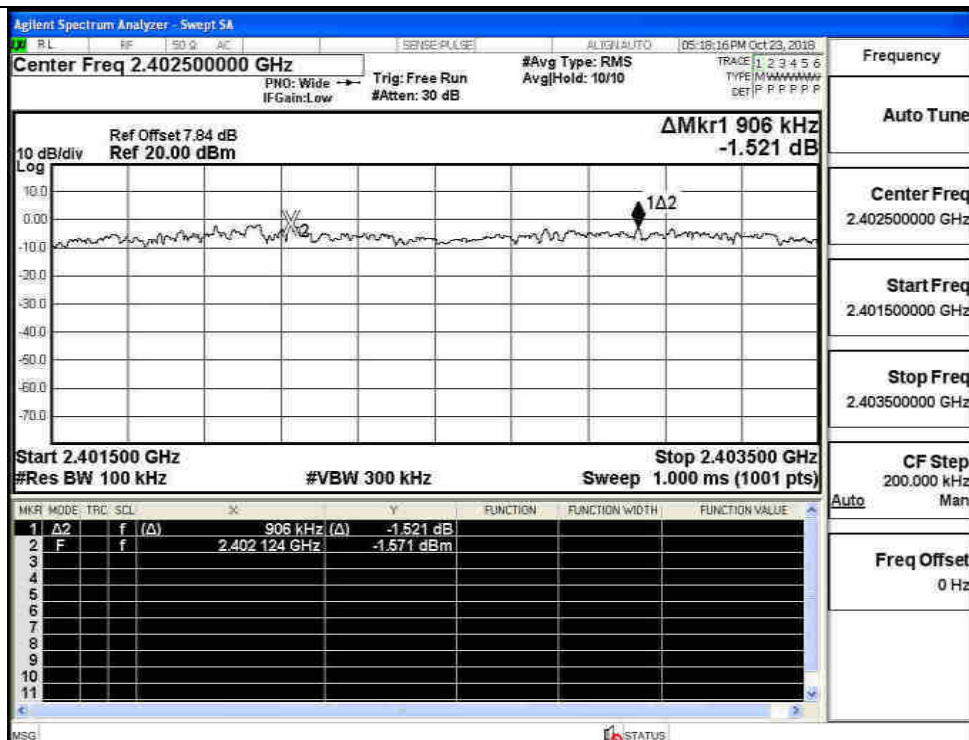
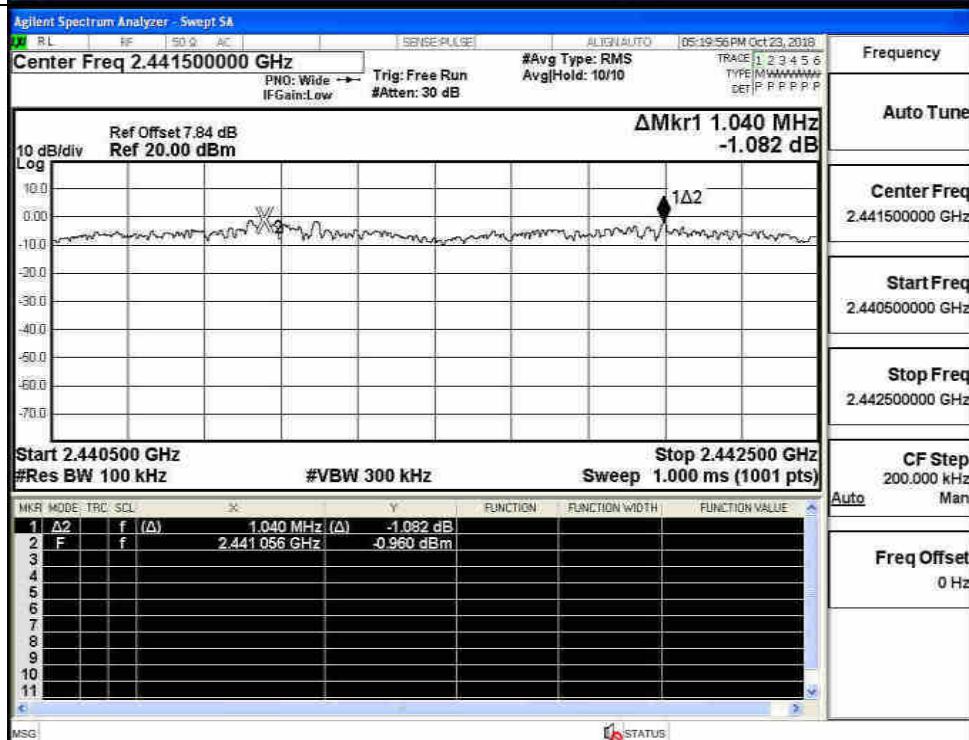


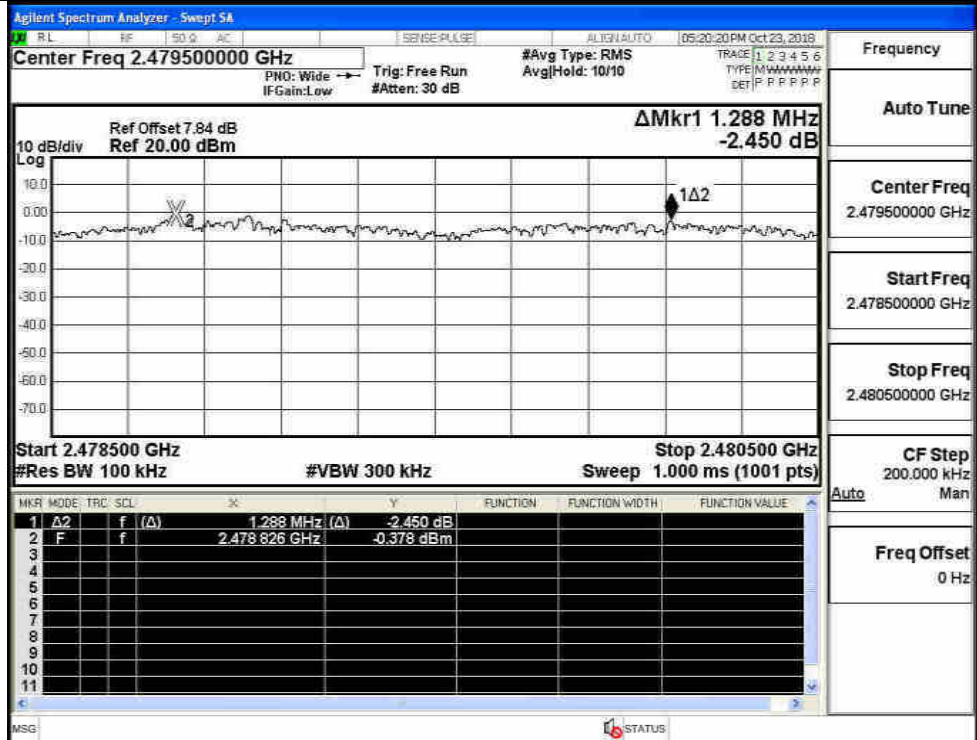
GFSK/MCH



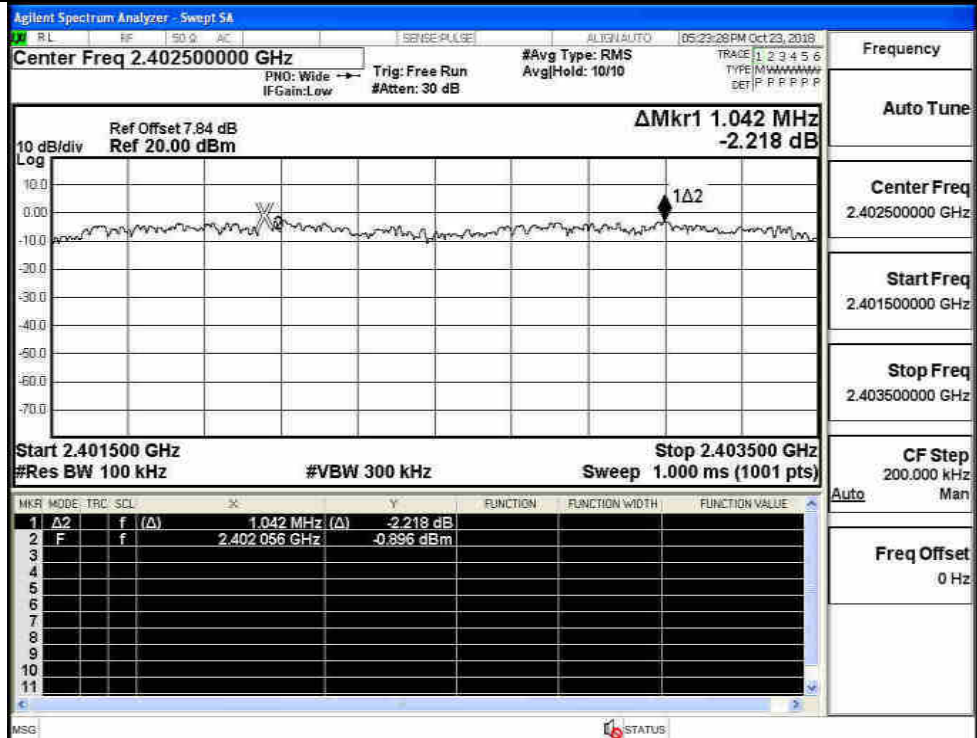
GFSK/HCH



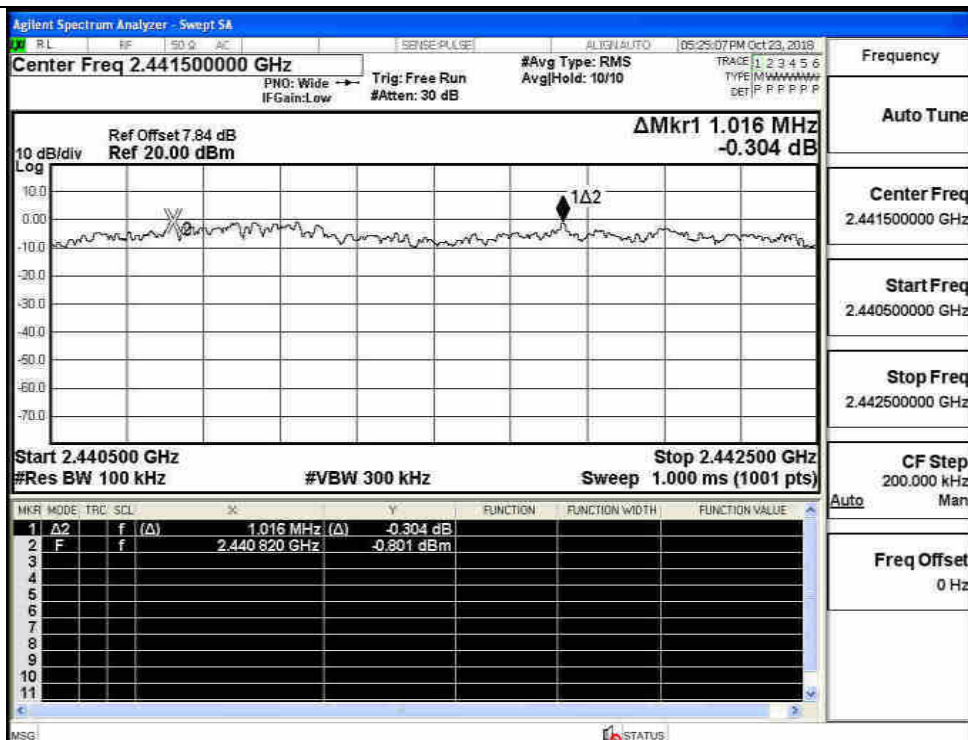
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

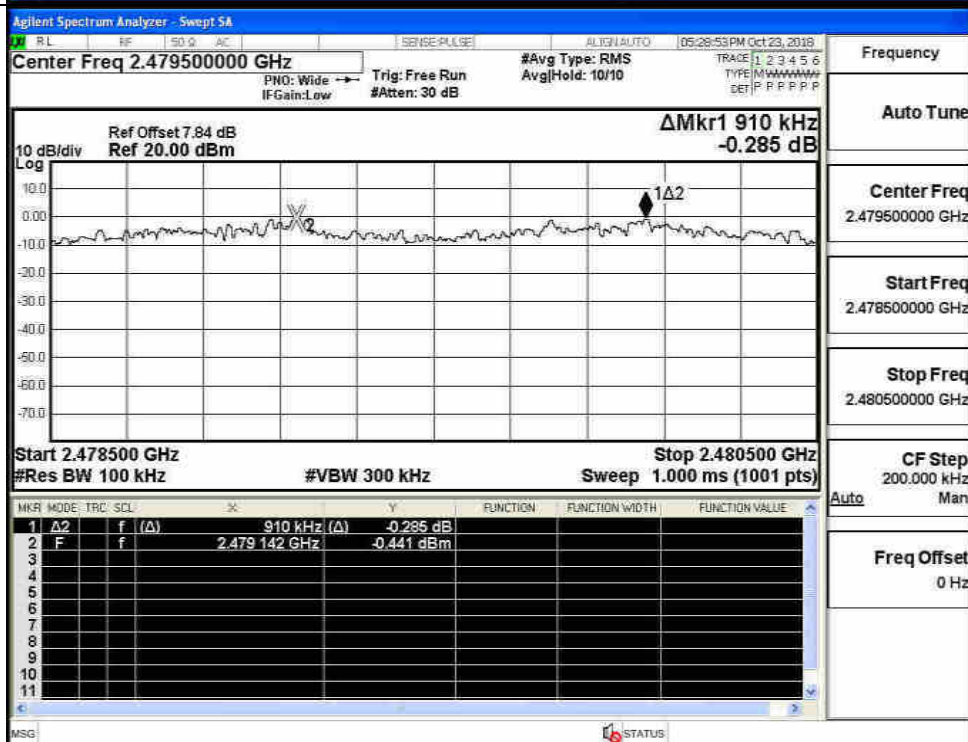
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

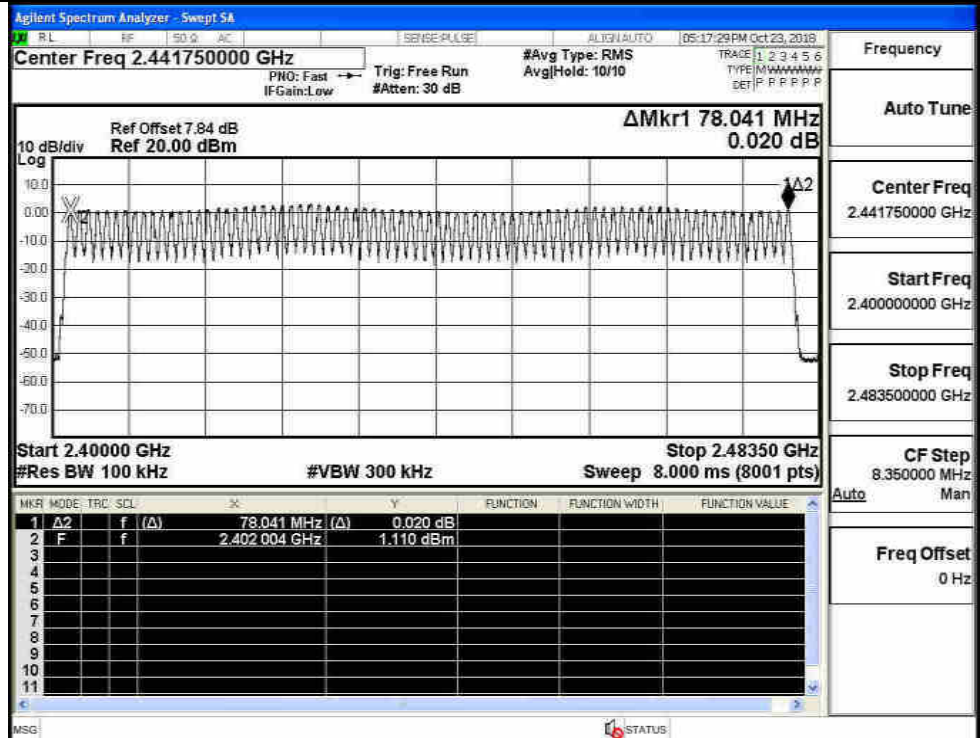
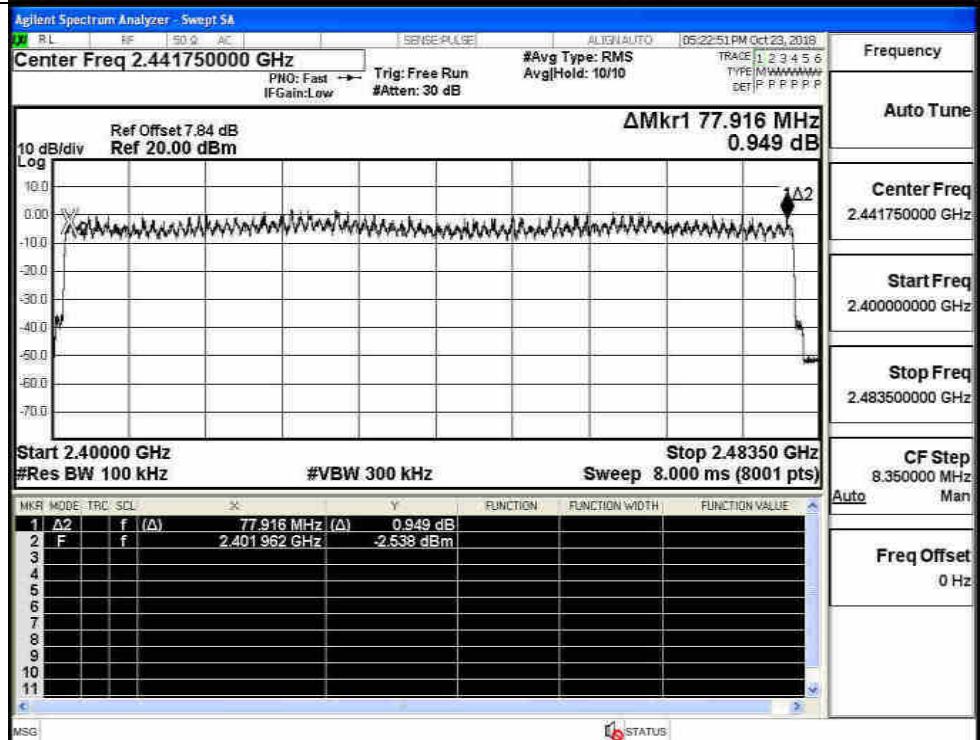


A.4 Hopping Channel Number

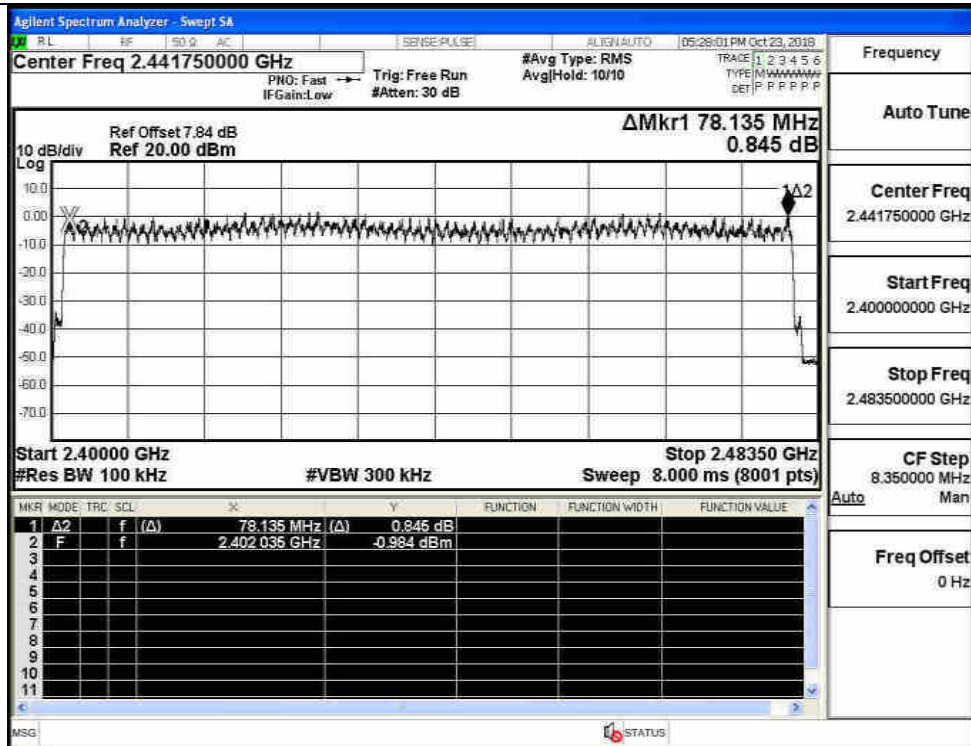
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

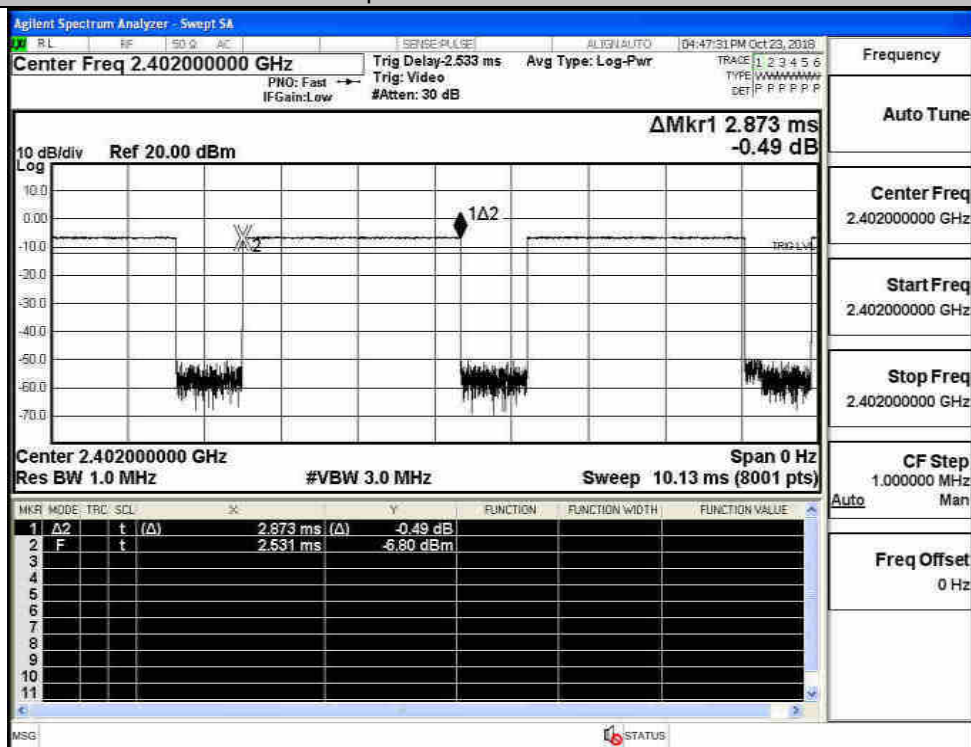


A.5 Dwell Time

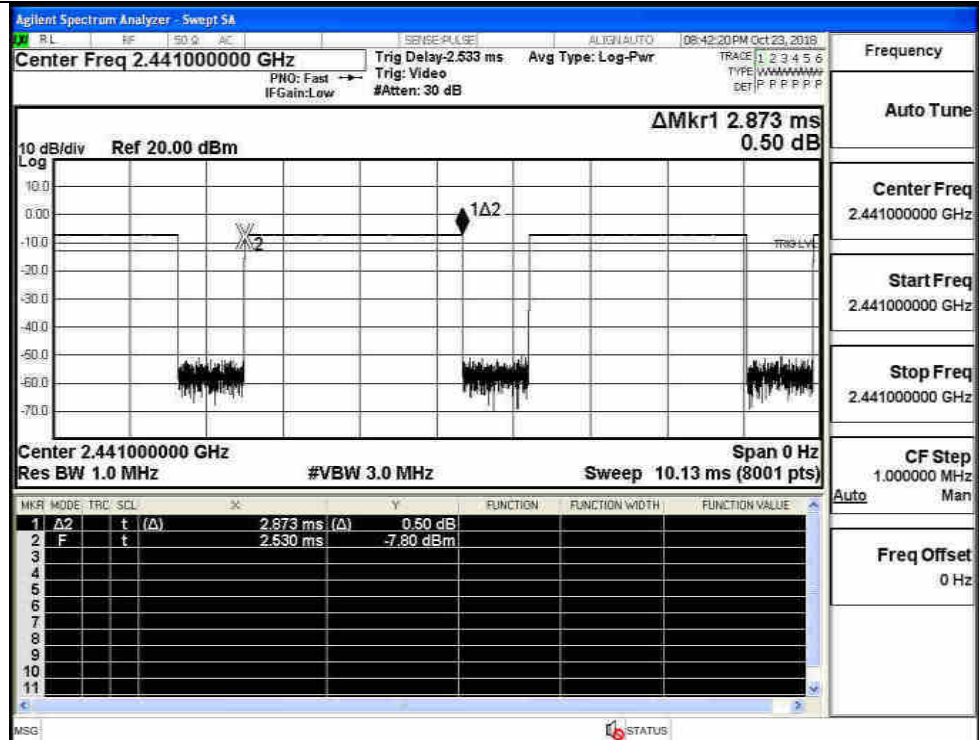
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.87	106.7	0.306	0.4	PASS
	DH5	MCH	2.87	106.7	0.306	0.4	PASS
	DH5	HCH	2.87	106.7	0.306	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.87	106.7	0.307	0.4	PASS
	2DH5	MCH	2.87	106.7	0.307	0.4	PASS
	2DH5	HCH	2.87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

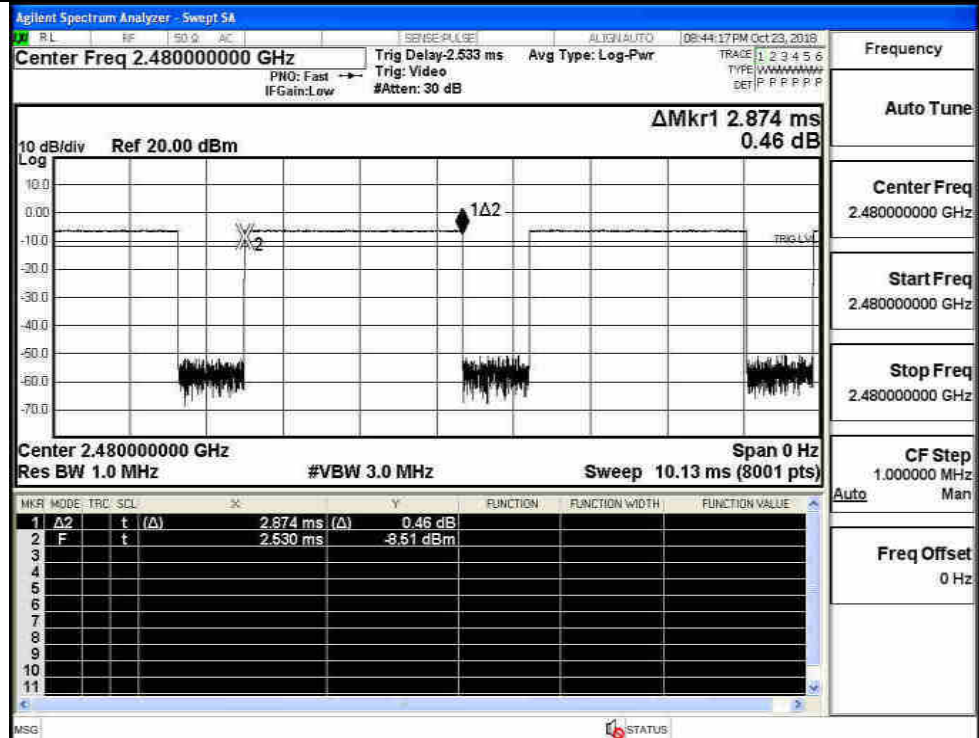
GFSK_DH5/LCH



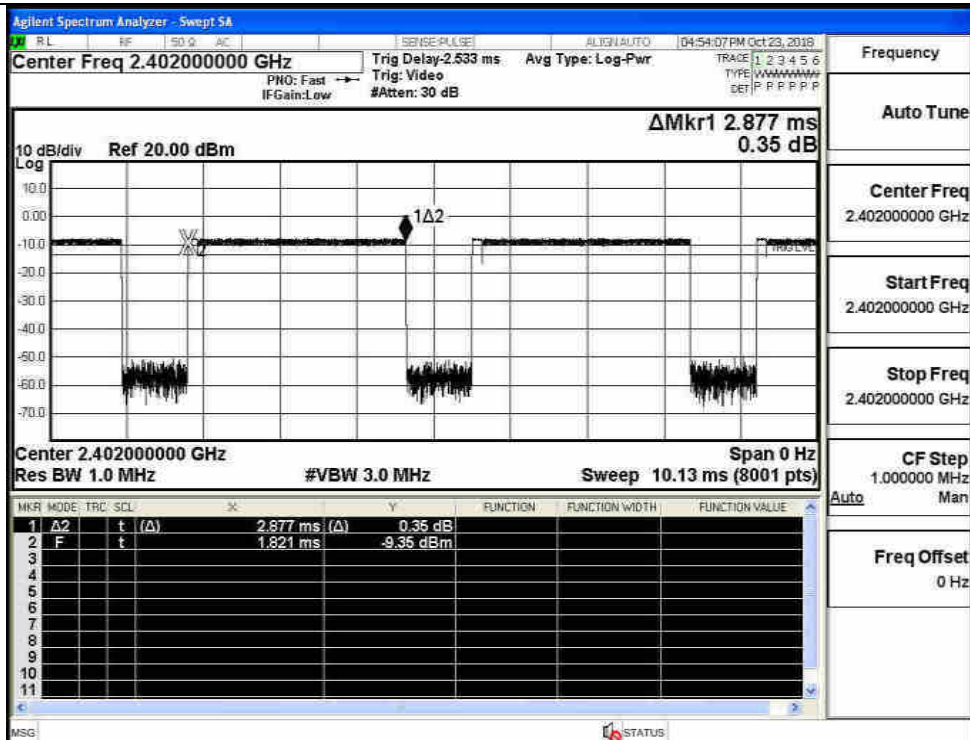
GFSK_DH5/MCH



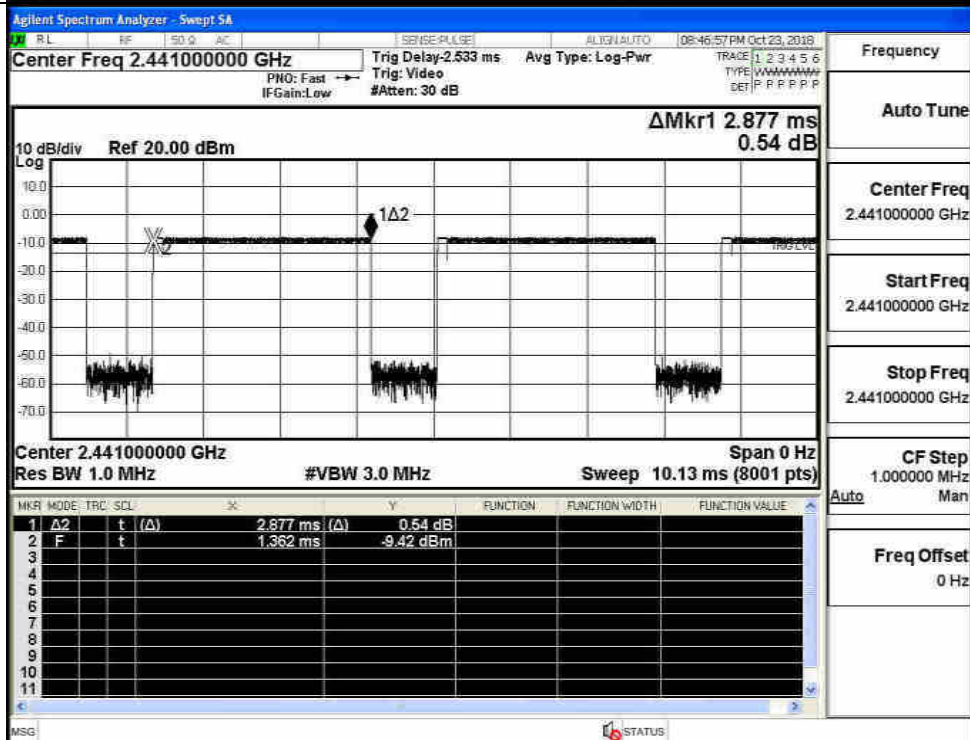
GFSK_DH5/HCH



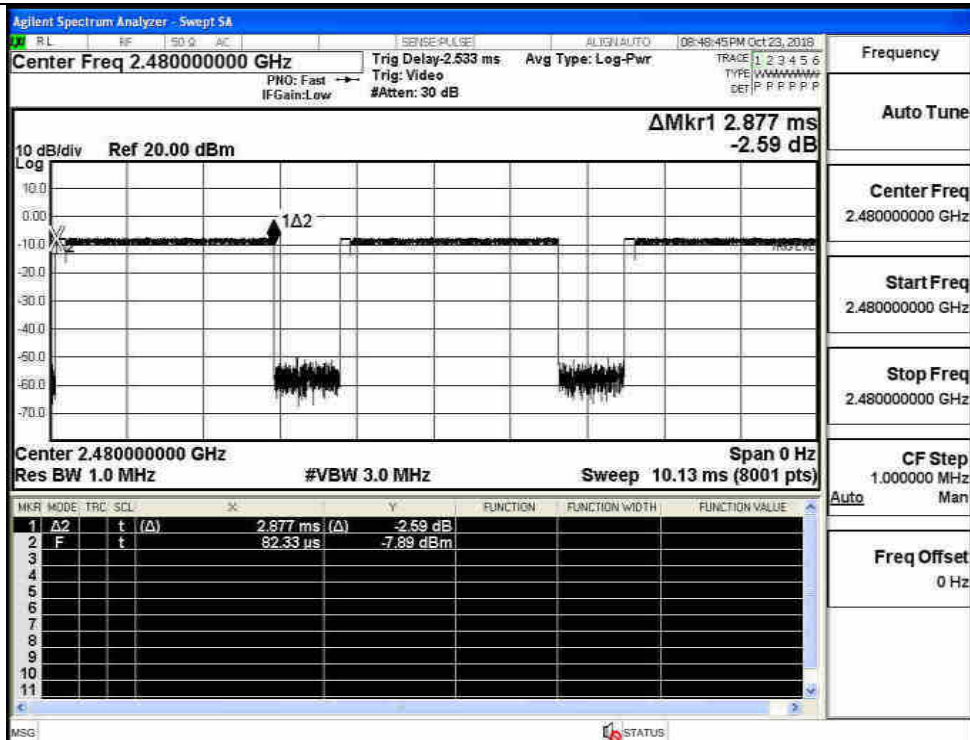
$\pi/4$ DQPSK
_2DH5/LCH



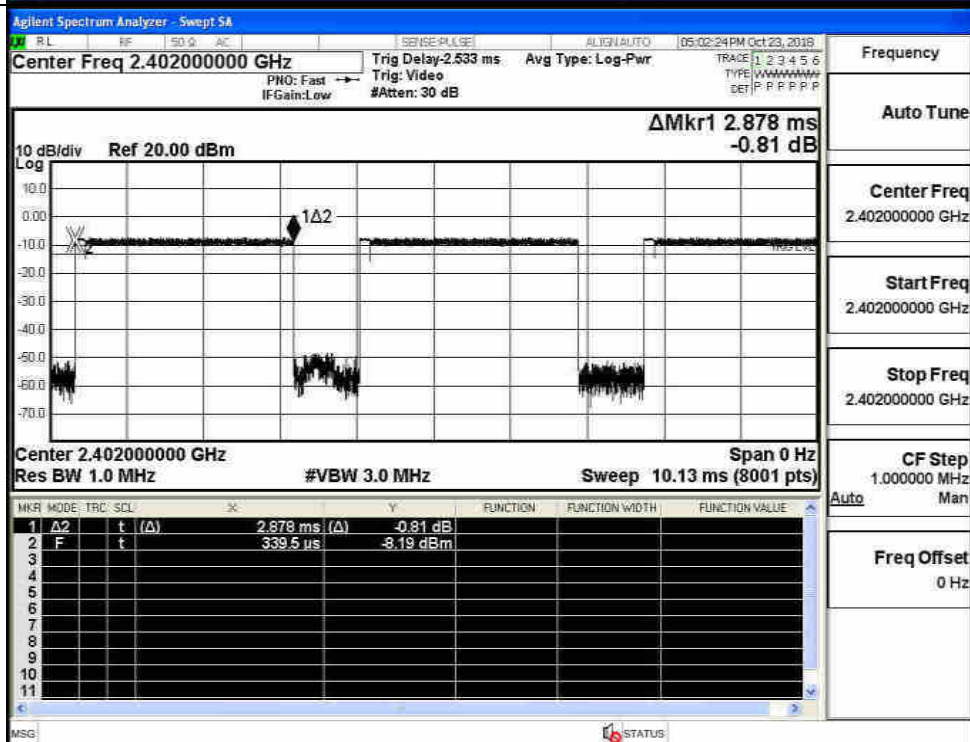
$\pi/4$ DQPSK
_2DH5/MCH



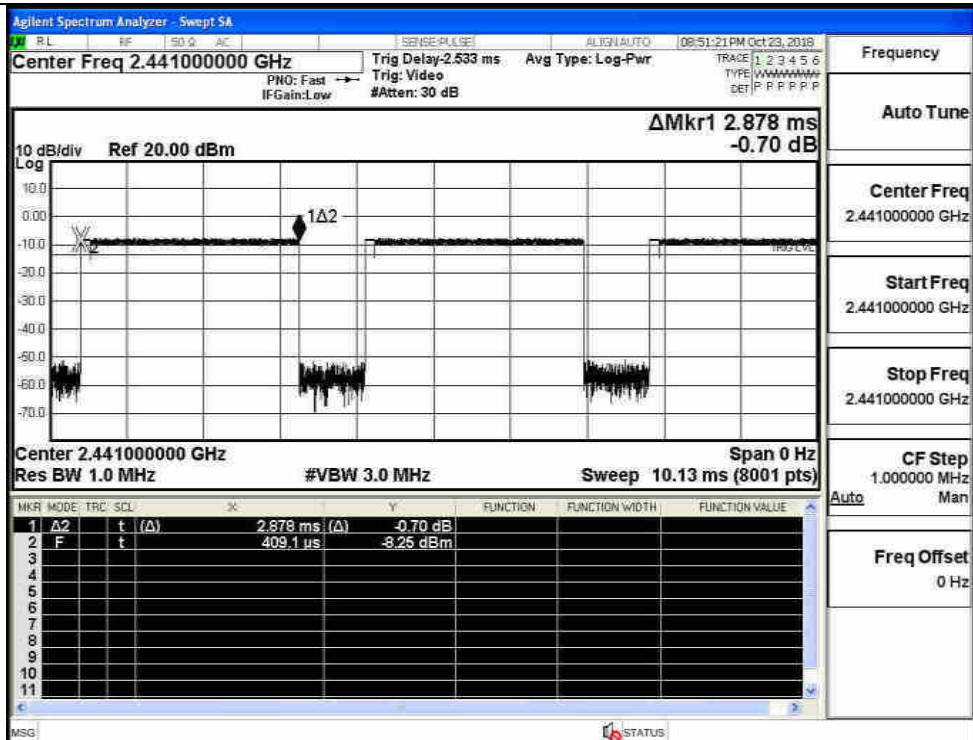
$\pi/4$ DQPSK
_2DH5/HCH



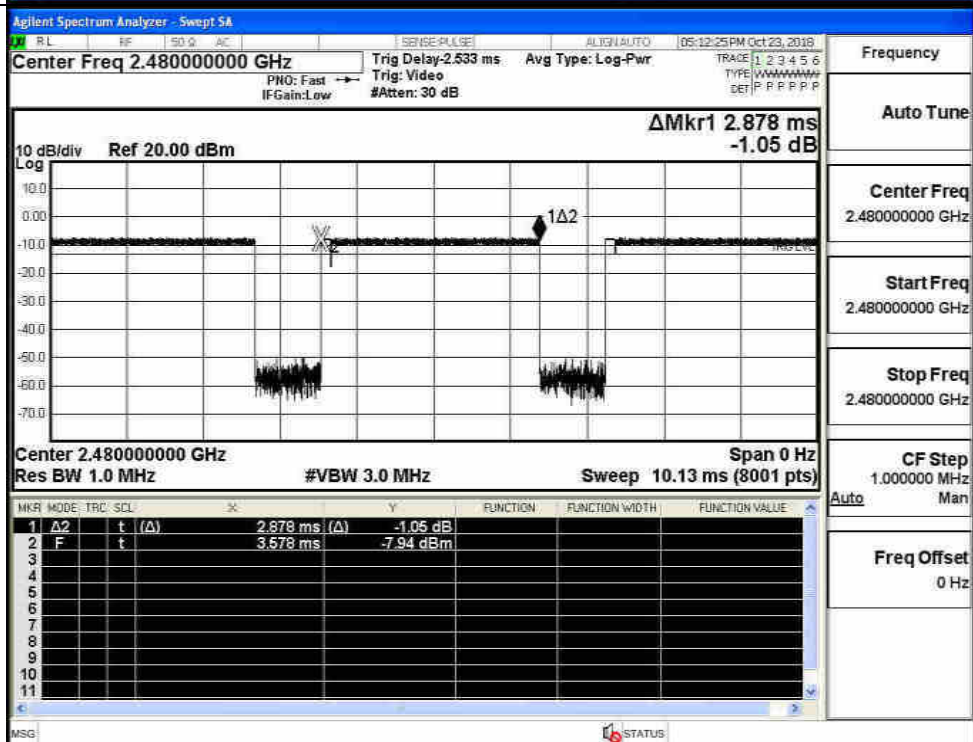
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

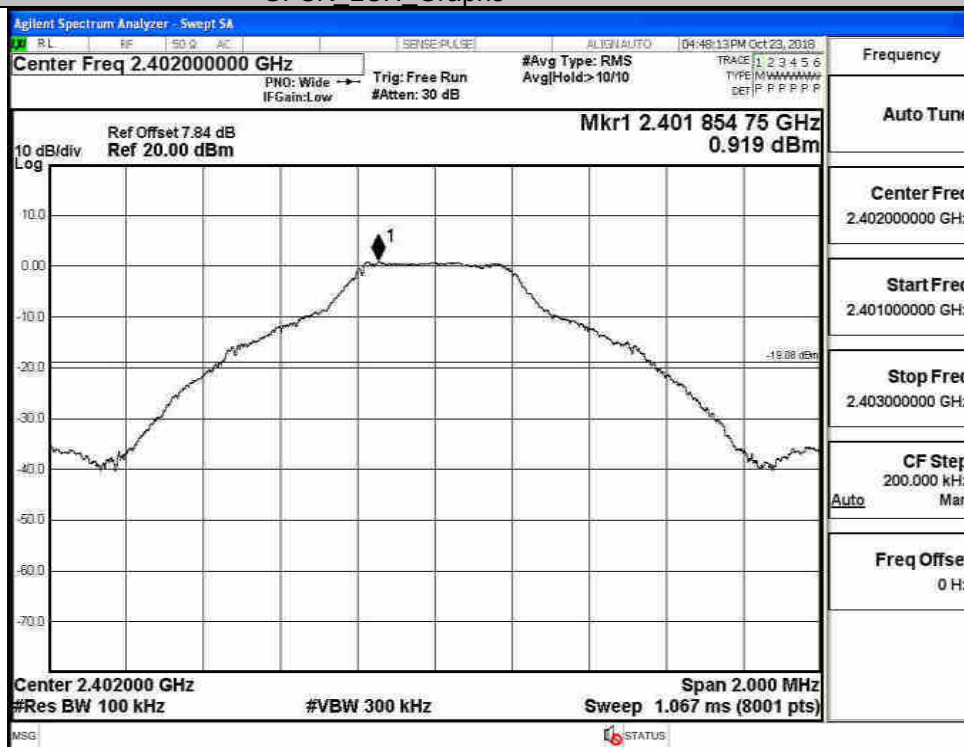


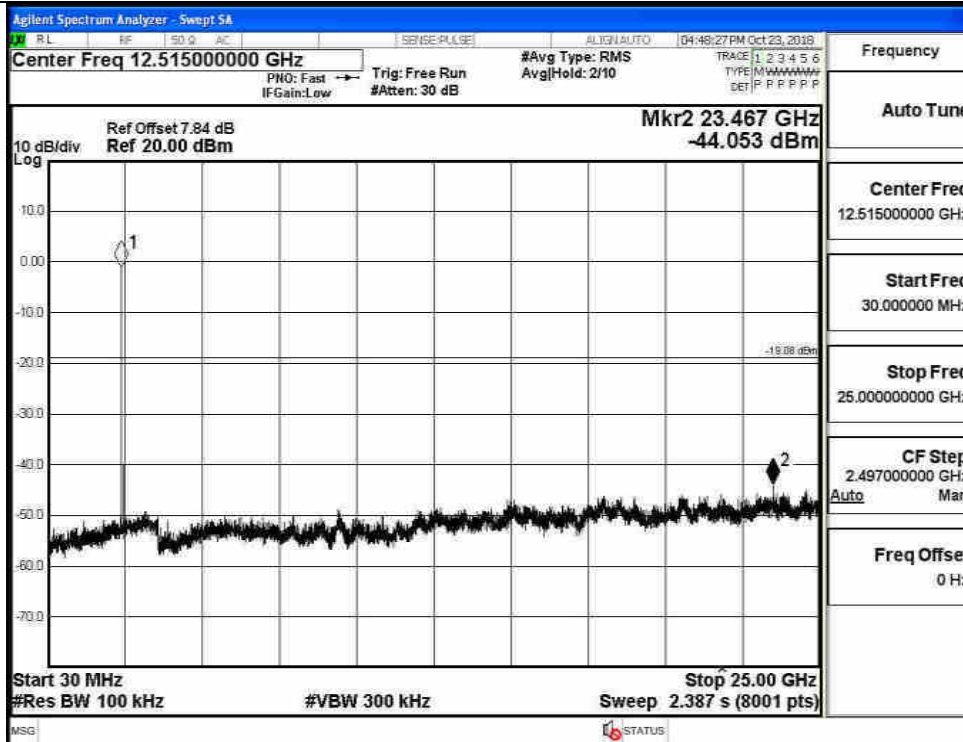
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.919	-44.053	-19.081	PASS
	MCH	0.801	-44.928	-19.199	PASS
	HCH	1.47	-44.567	-18.530	PASS
$\pi/4$ DQPSK	LCH	-0.243	-44.586	-20.243	PASS
	MCH	-0.181	-44.809	-20.181	PASS
	HCH	0	-44.448	-20.000	PASS
8DPSK	LCH	-0.126	-43.317	-20.126	PASS
	MCH	-0.305	-45.252	-20.305	PASS
	HCH	-0.092	-44.908	-20.092	PASS

GFSK LCH Graphs

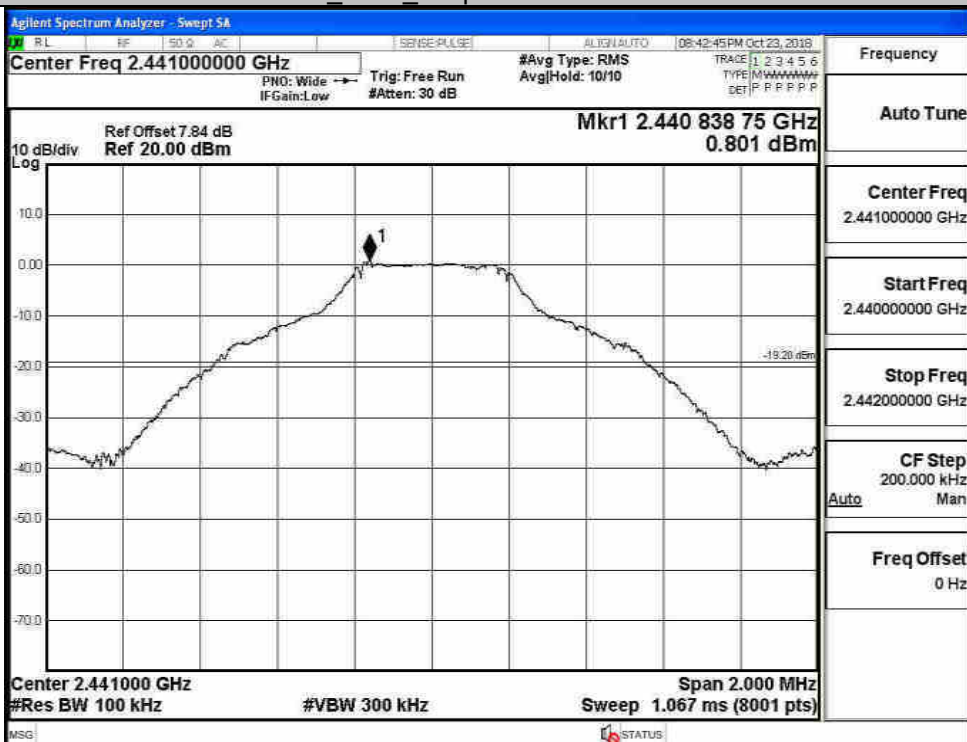
Pref



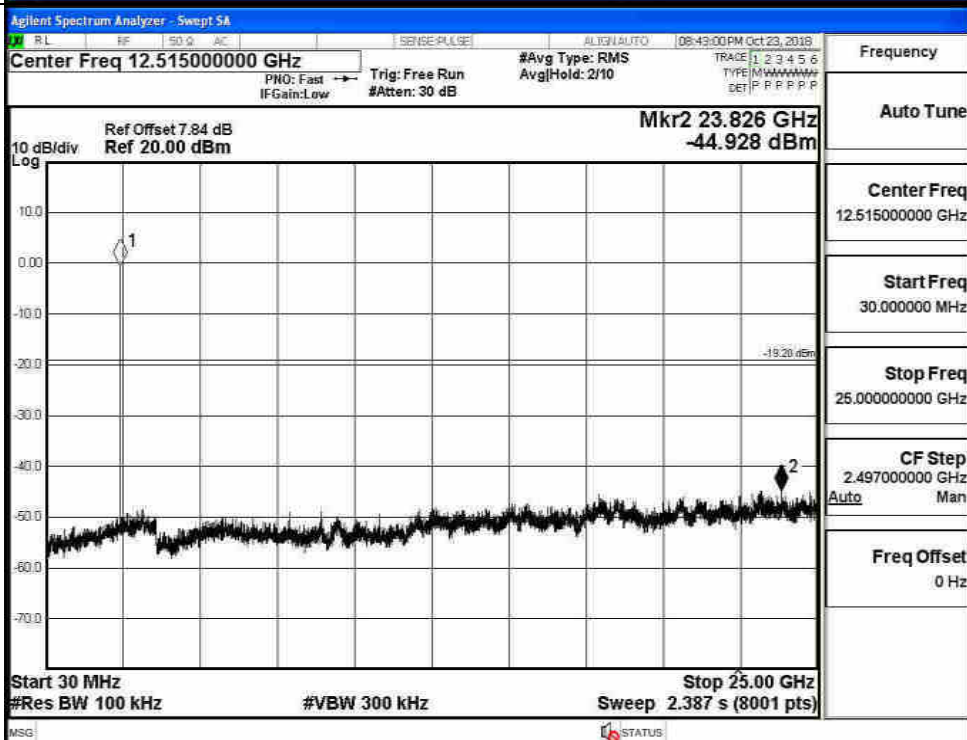
P_uw

GFSK_MCH_Graphs

Pref

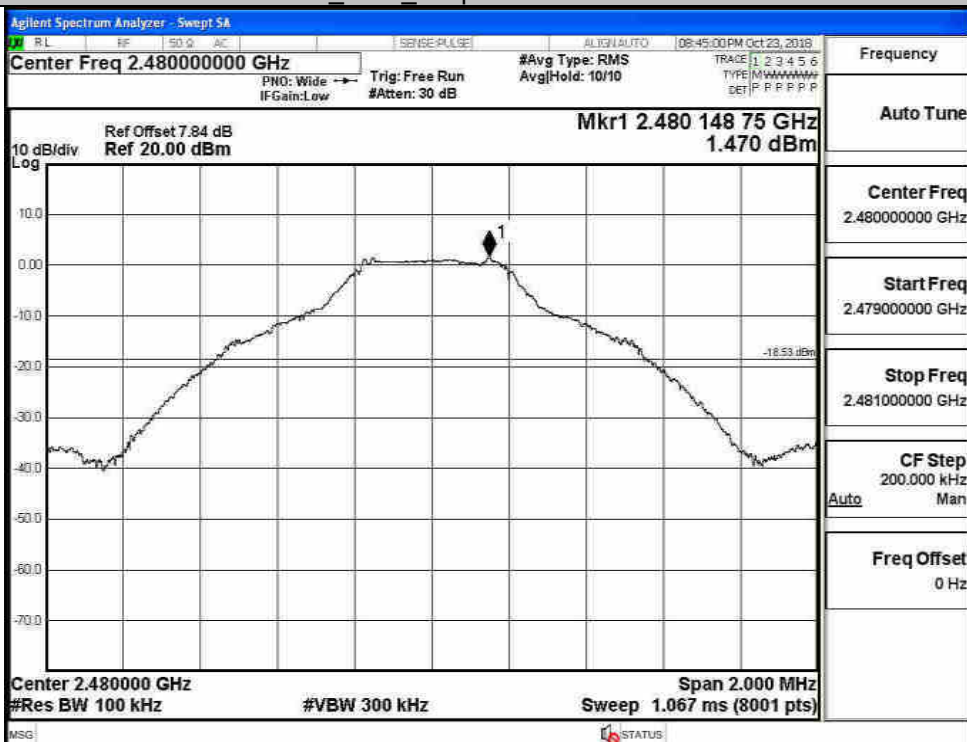


Puw

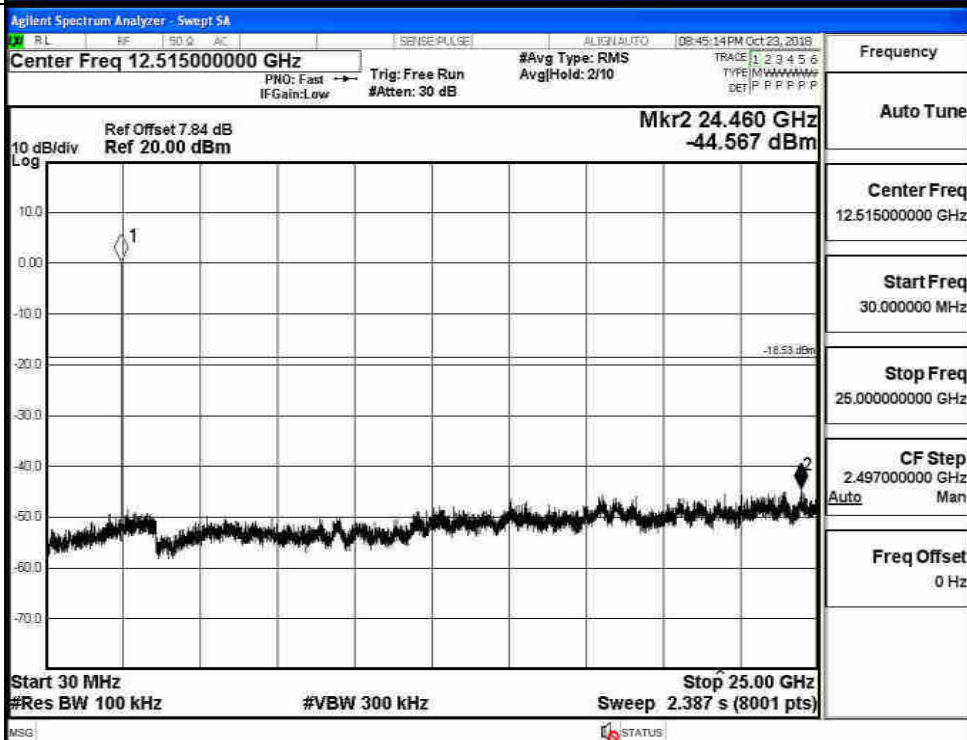


GFSK_HCH_Graphs

Pref

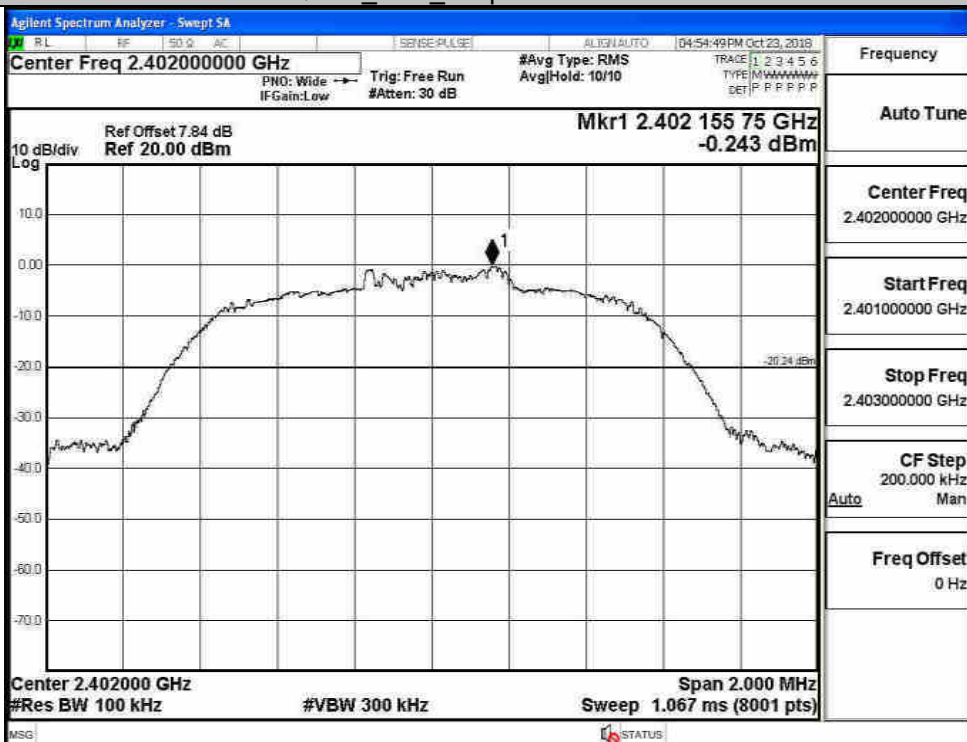


Puw

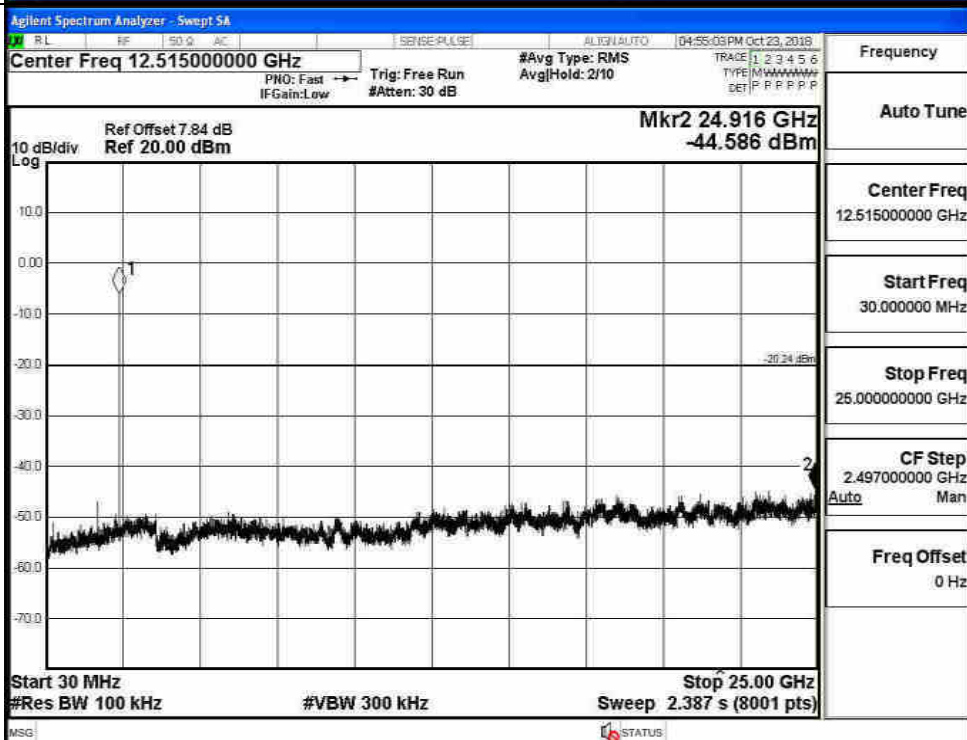


$\pi/4$ DQPSK_LCH_Graphs

Pref

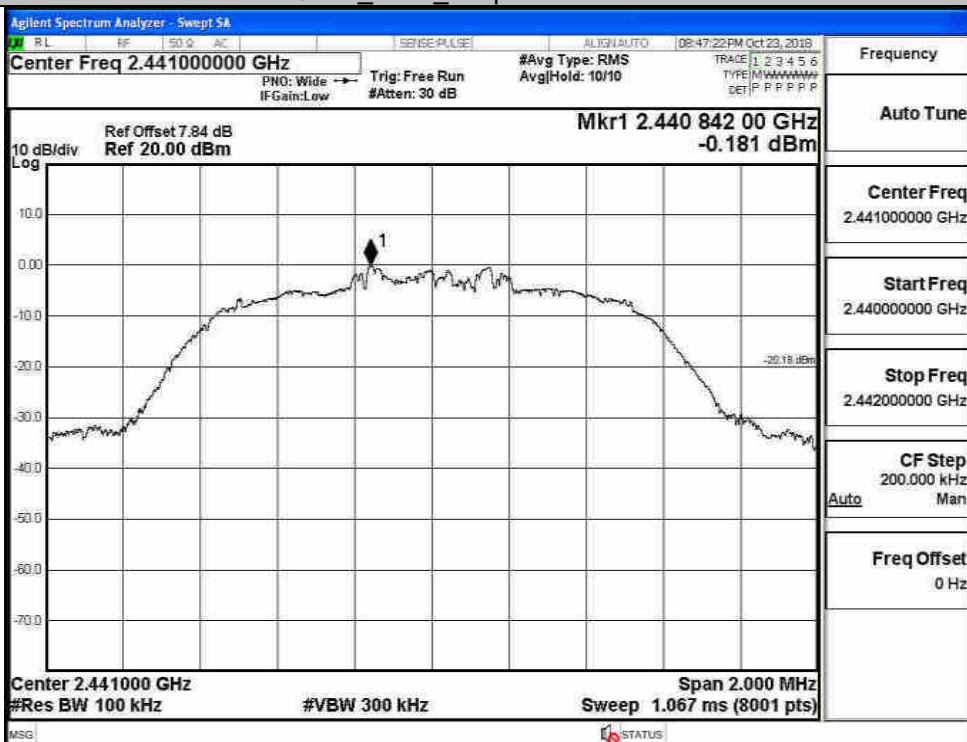


Puw

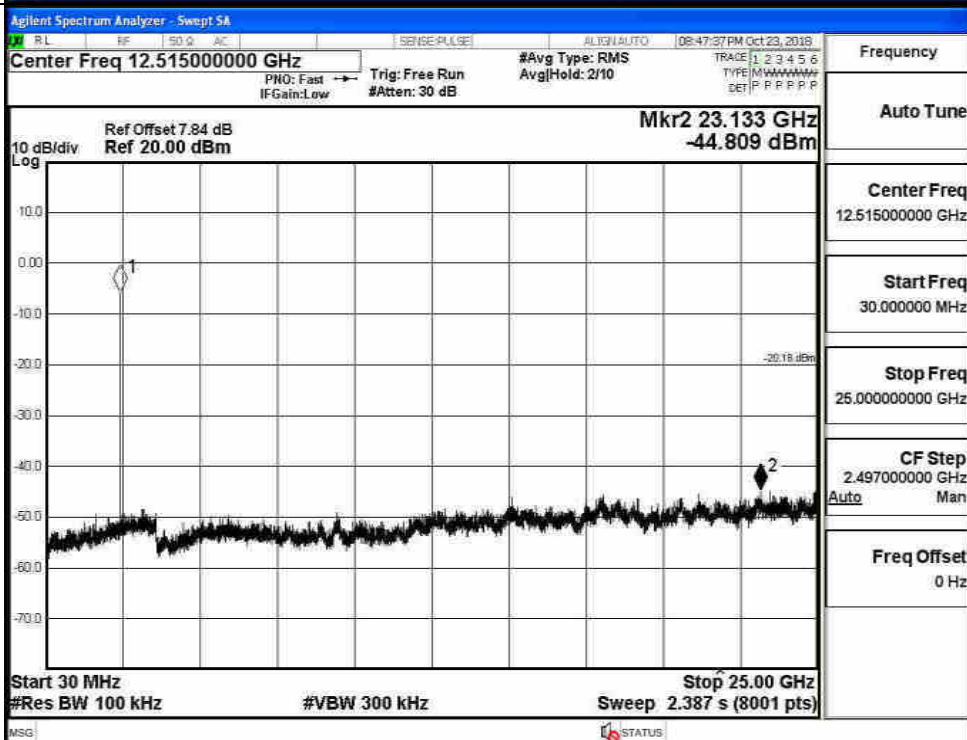


π /4DQPSK_MCH_Graphs

Pref

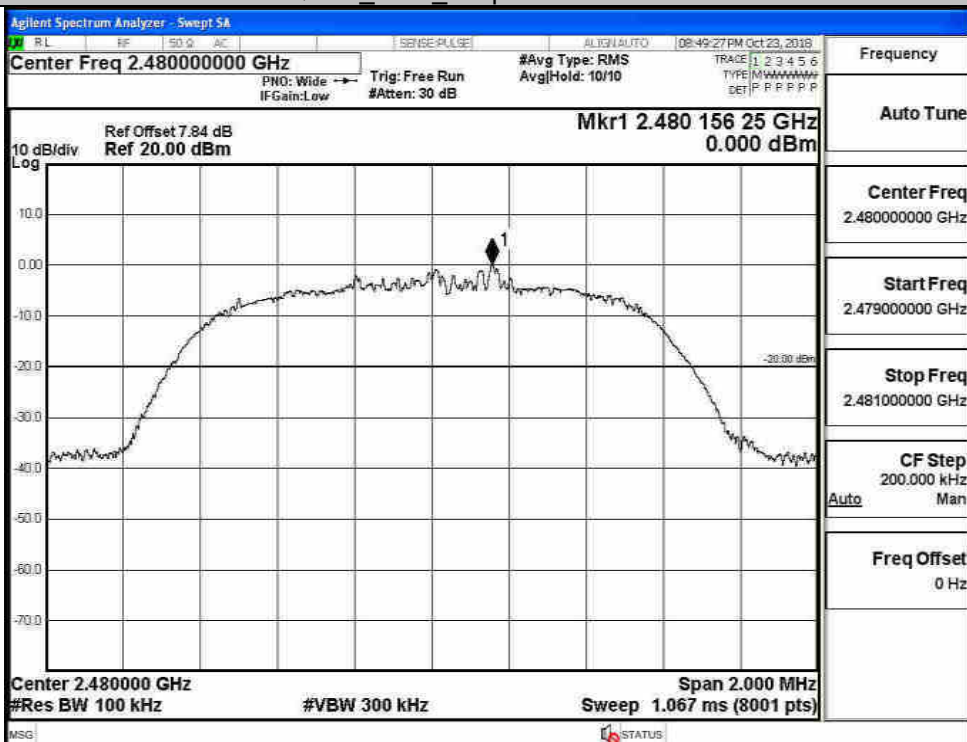


Puw

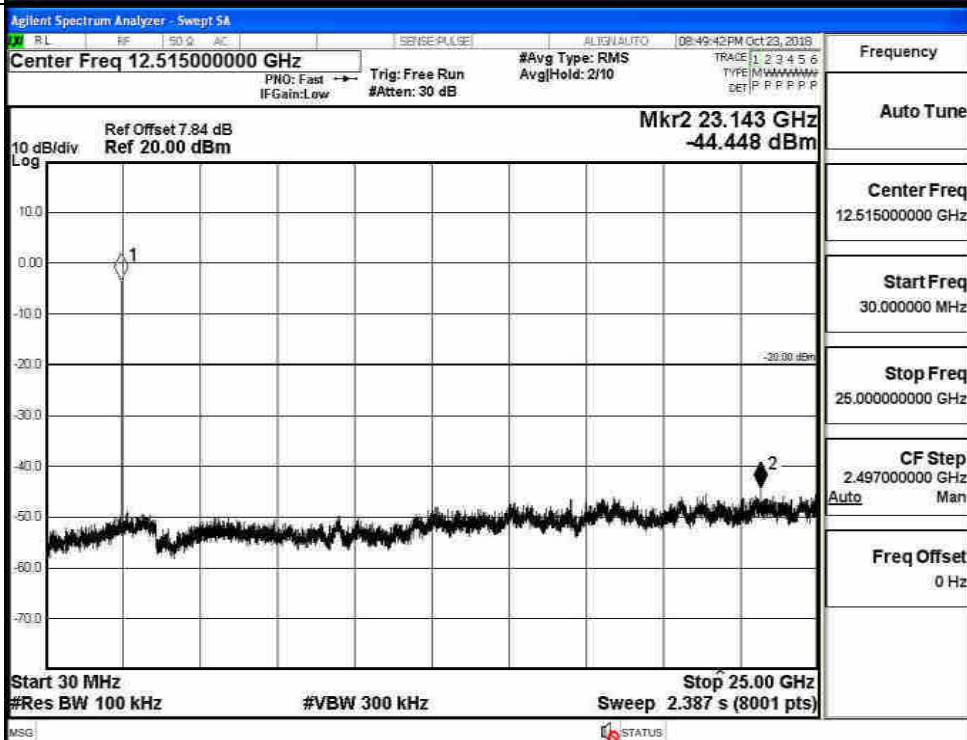


$\pi/4$ DQPSK_HCH_Graphs

Pref

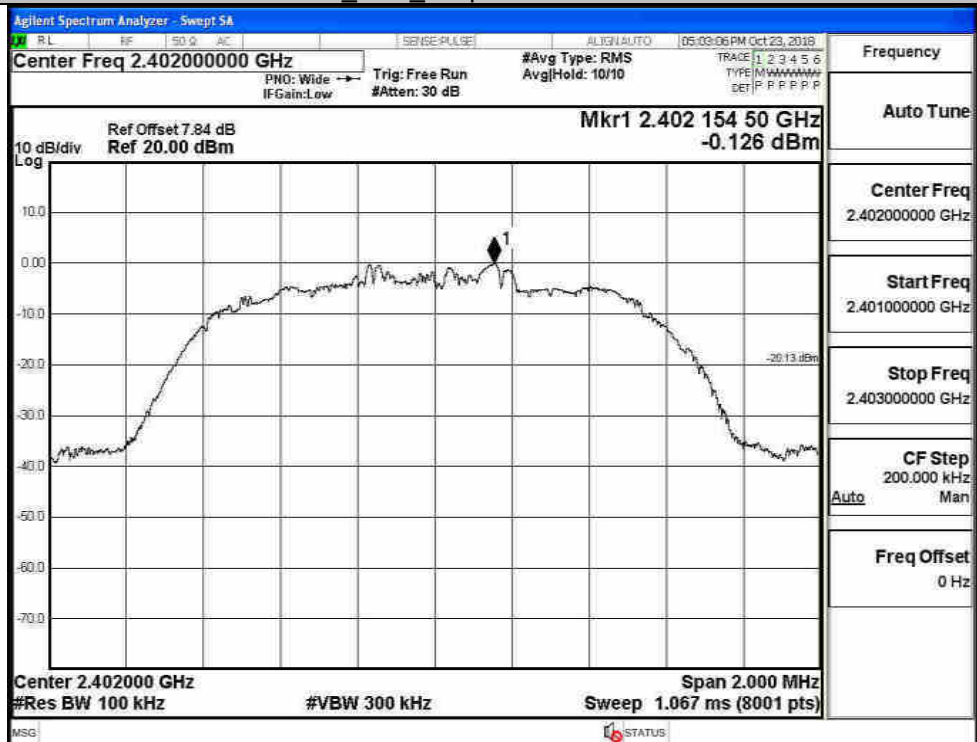


Puw

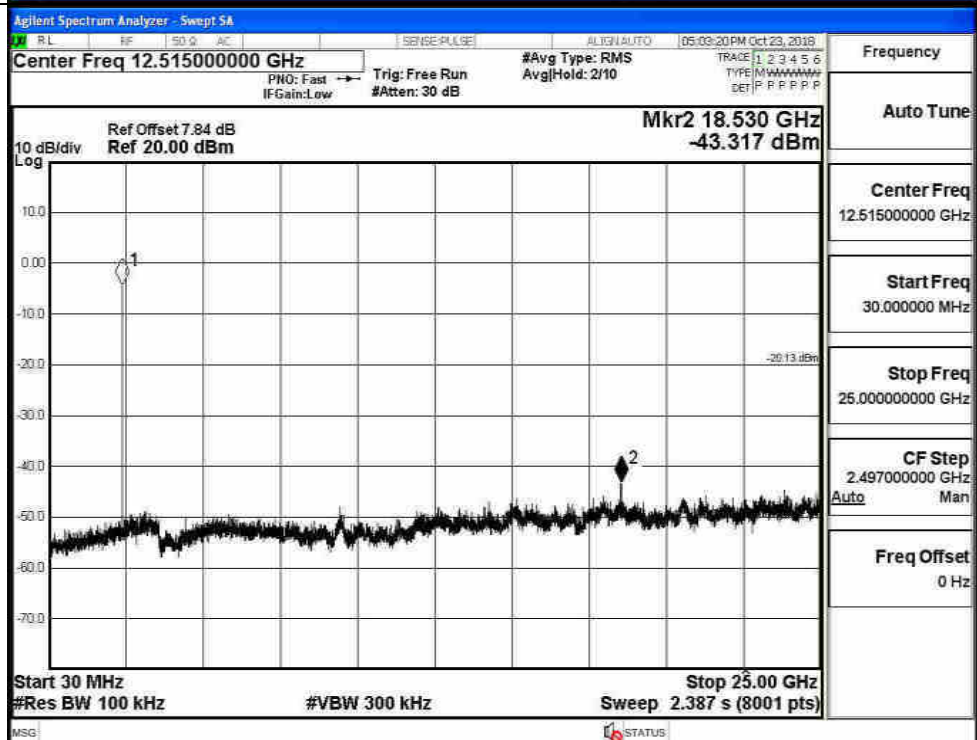


8DPSK_LCH_Graphs

Pref

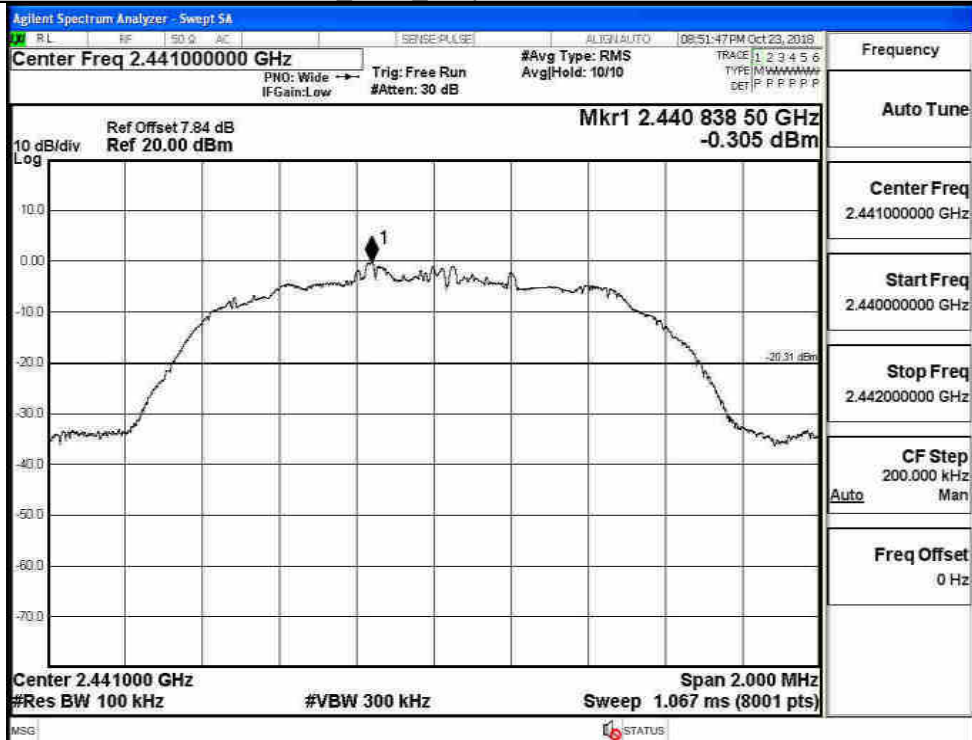


Puw

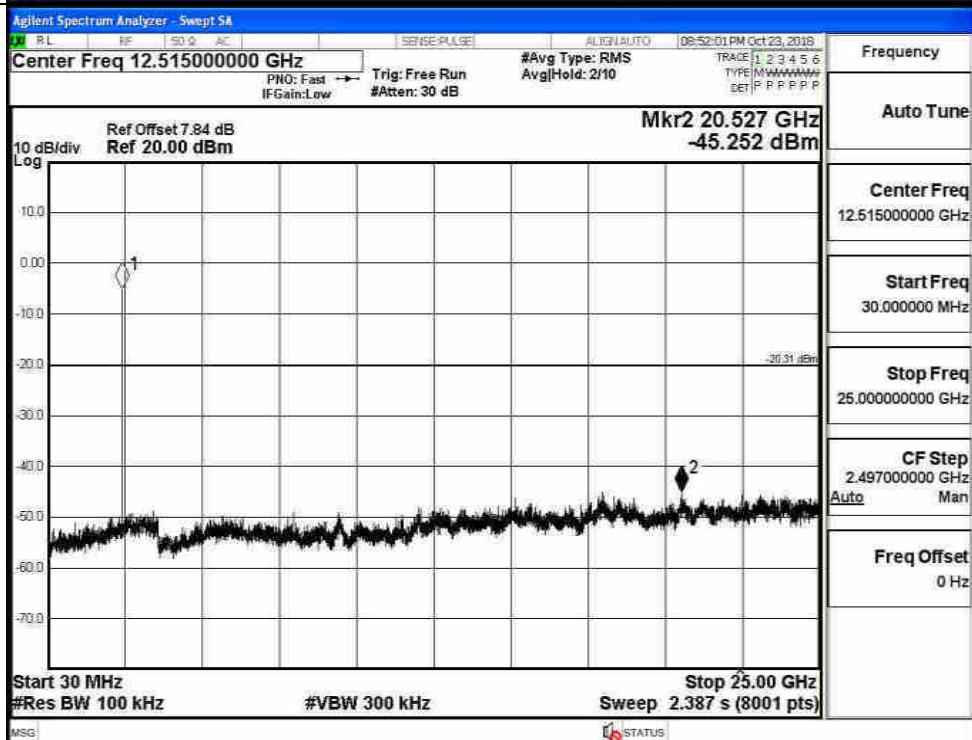


8DPSK_MCH_Graphs

Pref

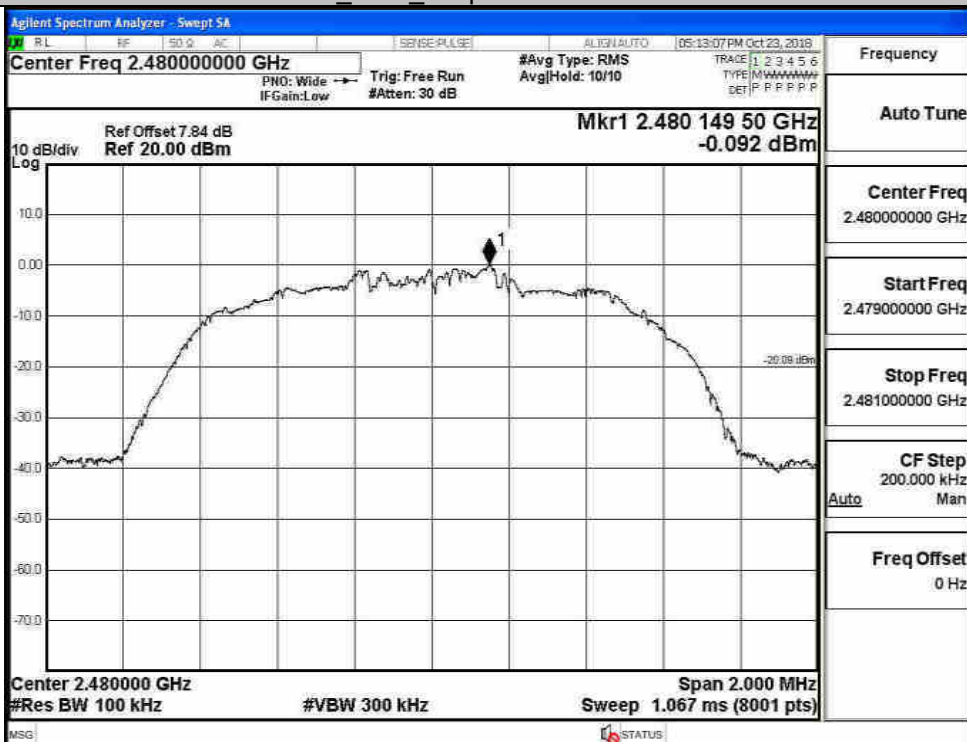


Puw

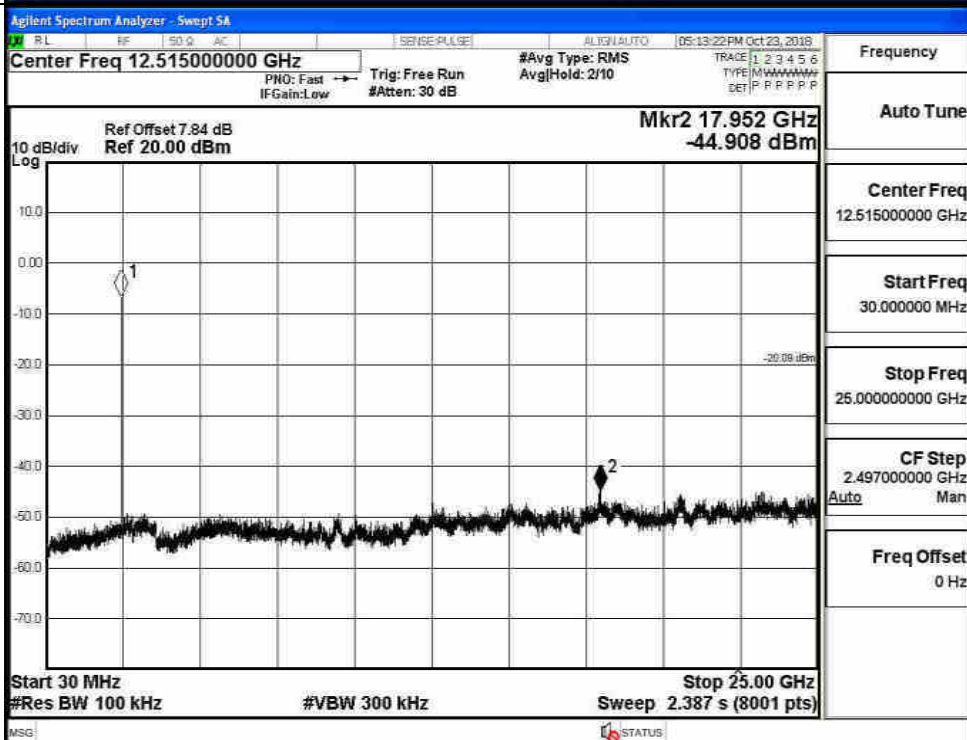


8DPSK_HCH_Graphs

Pref



Puw

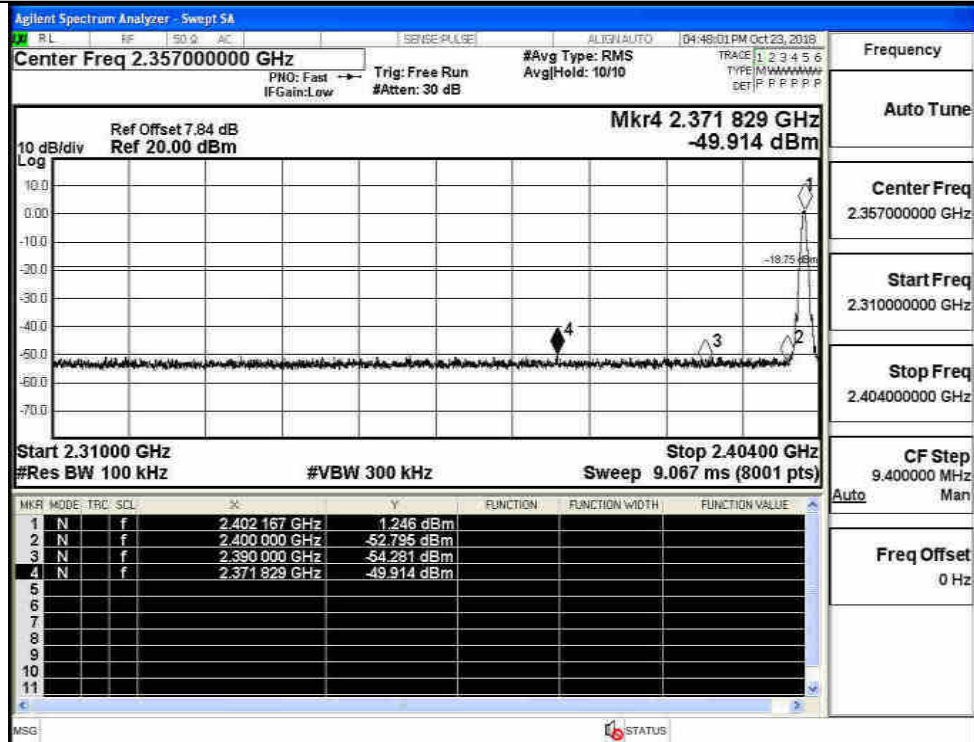


A.7 Band-edge for RF Conducted Emissions

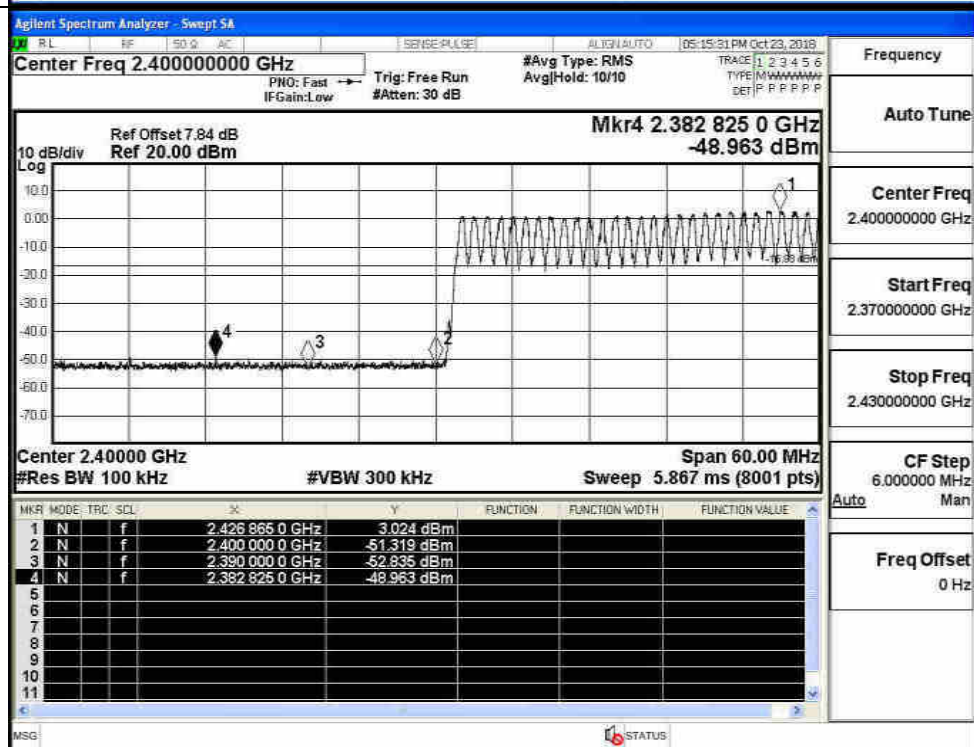
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	1.246	Off	-49.914	-18.75	PASS
			3.024	On	-48.963	-16.98	PASS
	HCH	2480	1.573	Off	-49.773	-18.43	PASS
			2.557	On	-49.463	-17.44	PASS
$\pi/4$ DQPSK	LCH	2402	-0.078	Off	-50.173	-20.08	PASS
			1.630	On	-49.686	-18.37	PASS
	HCH	2480	-0.108	Off	-50.226	-20.11	PASS
			1.071	On	-49.274	-18.93	PASS
8DPSK	LCH	2402	-0.095	Off	-50.442	-20.1	PASS
			1.508	On	-49.651	-18.49	PASS
	HCH	2480	0.076	Off	-50.024	-19.92	PASS
			1.180	On	-49.775	-18.82	PASS

Test Graphs

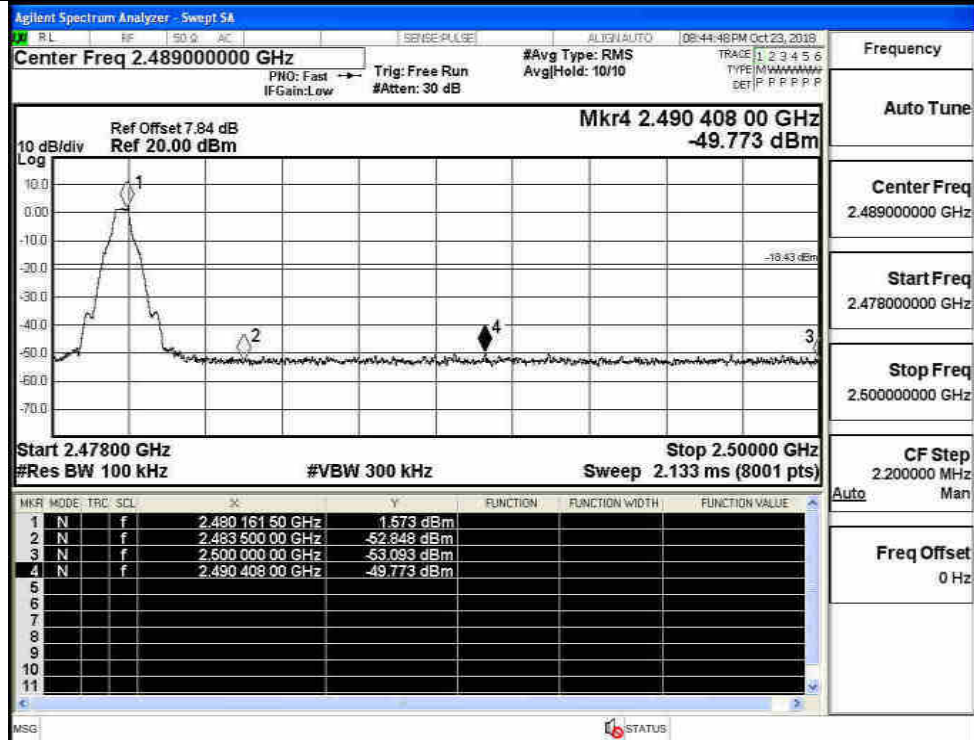
GFSK/LCH/No Hop



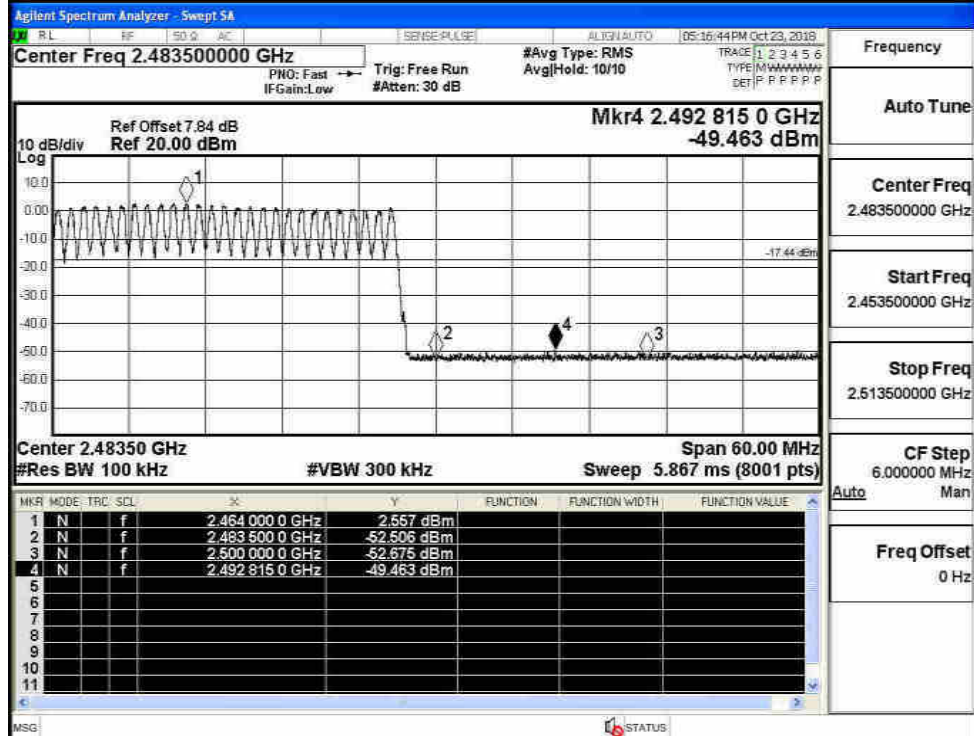
GFSK/LCH/Hop



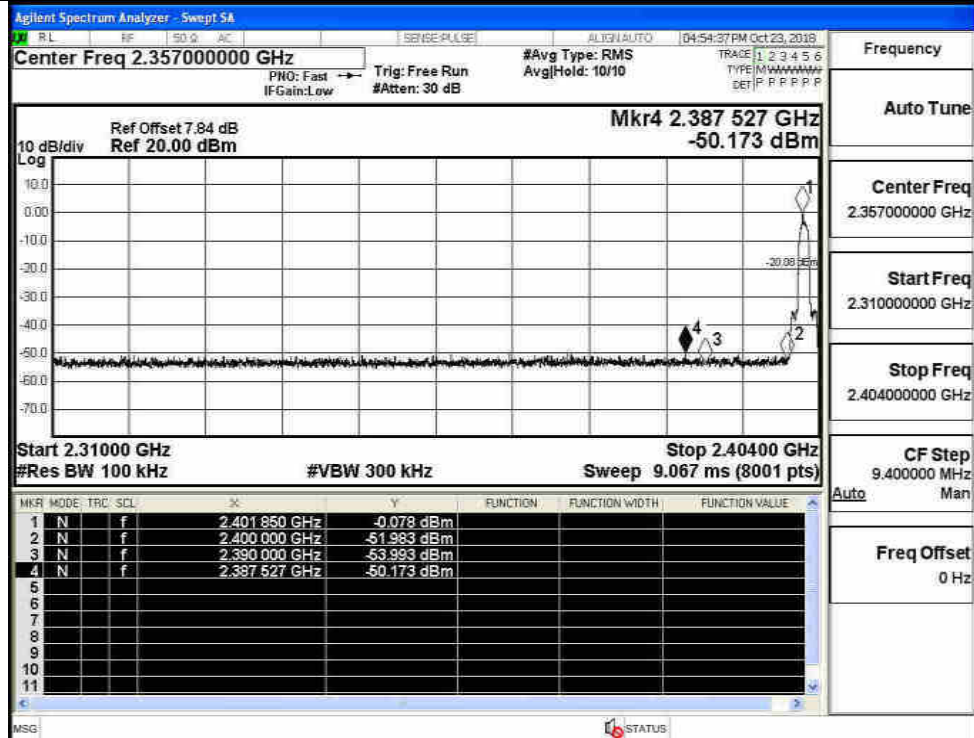
GFSK/HCH/No Hop



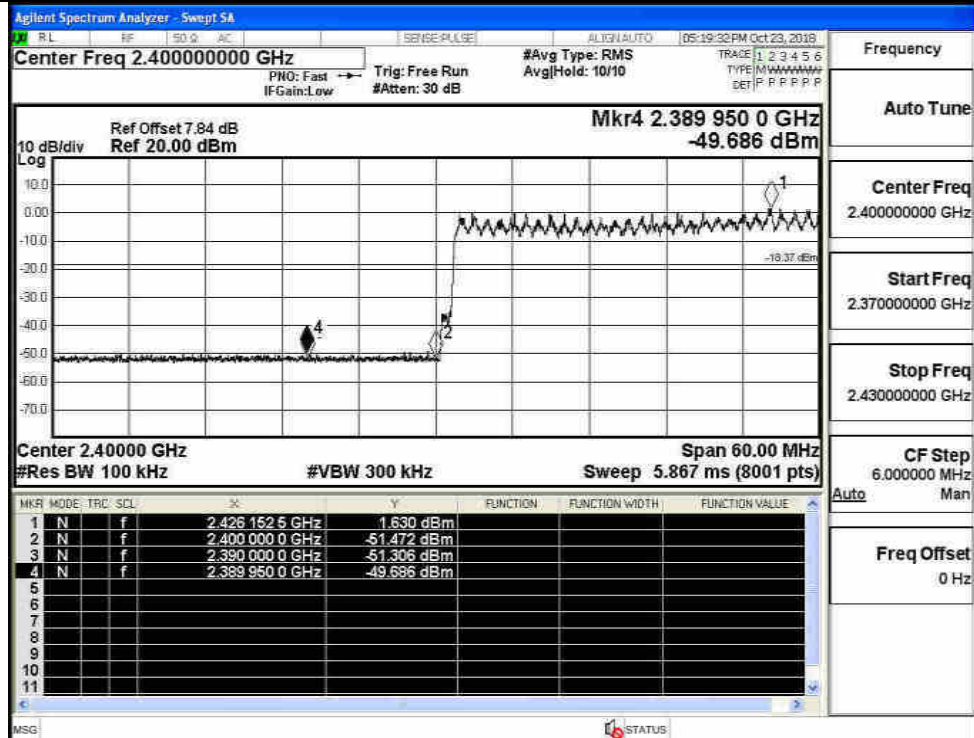
GFSK/HCH/Hop



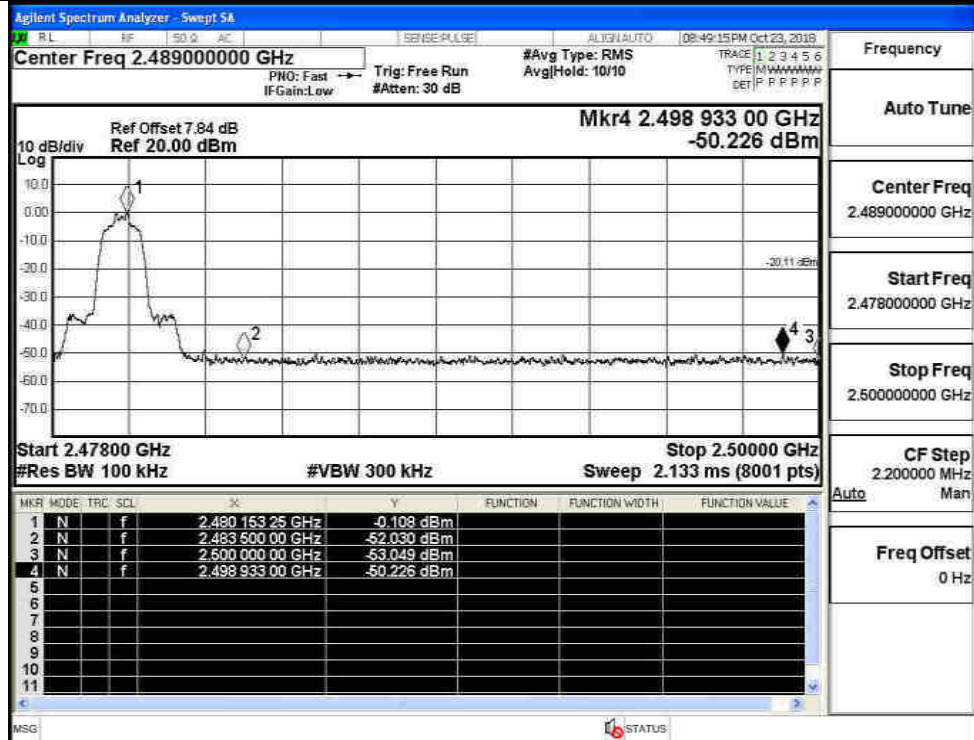
$\pi/4$ DQPSK/LCH/No
Hop



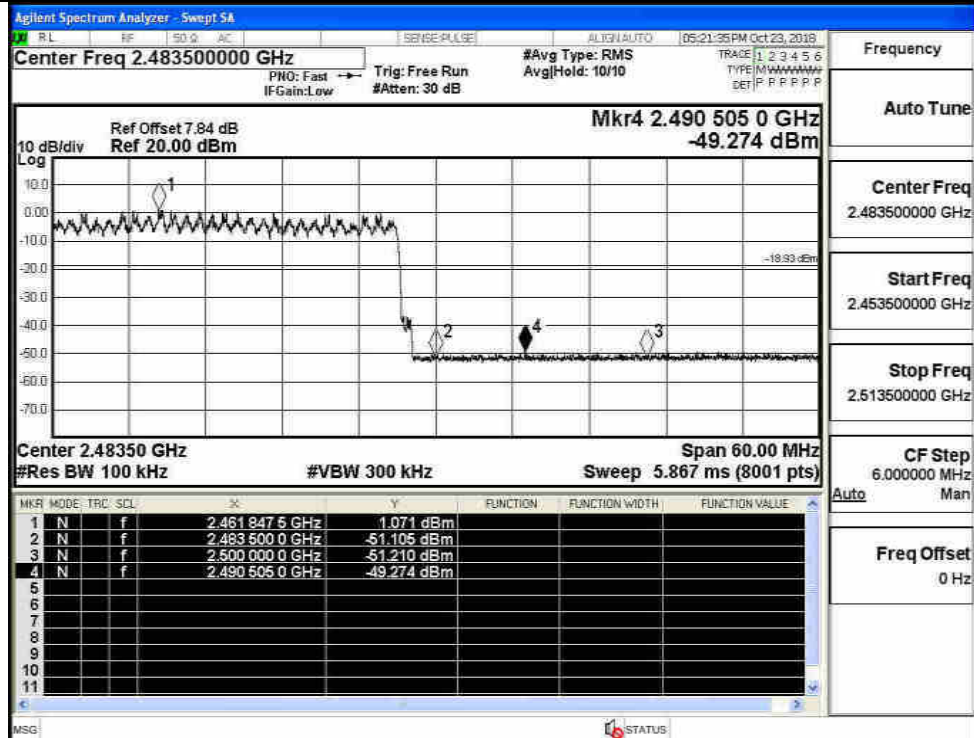
$\pi/4$ DQPSK/LCH/Hop



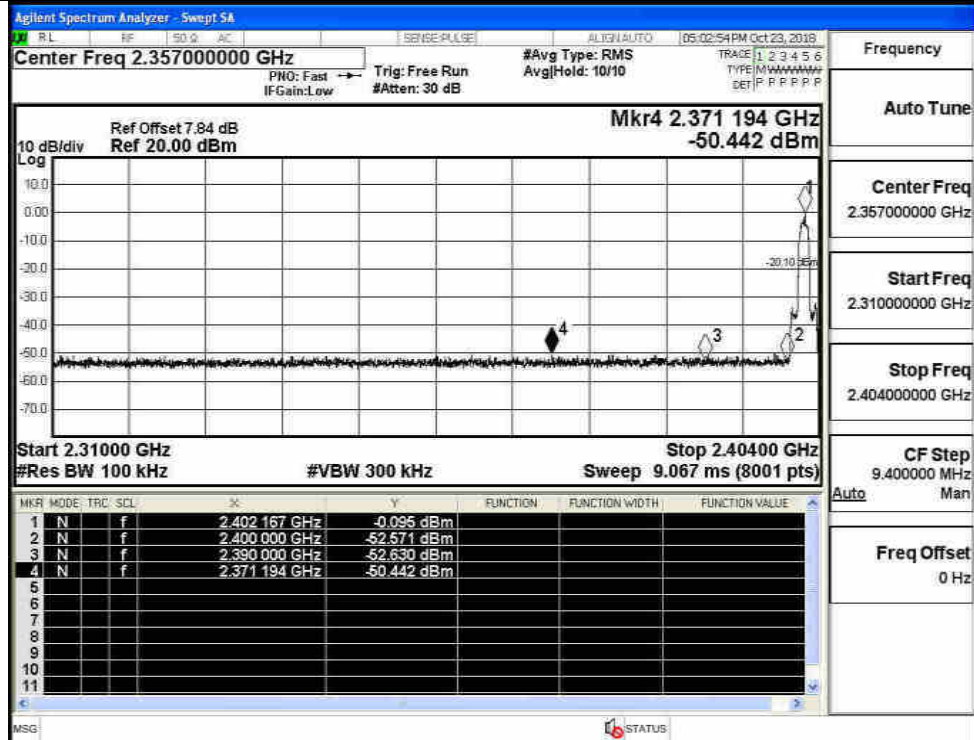
$\pi/4$ DQPSK/HCH/No
Hop



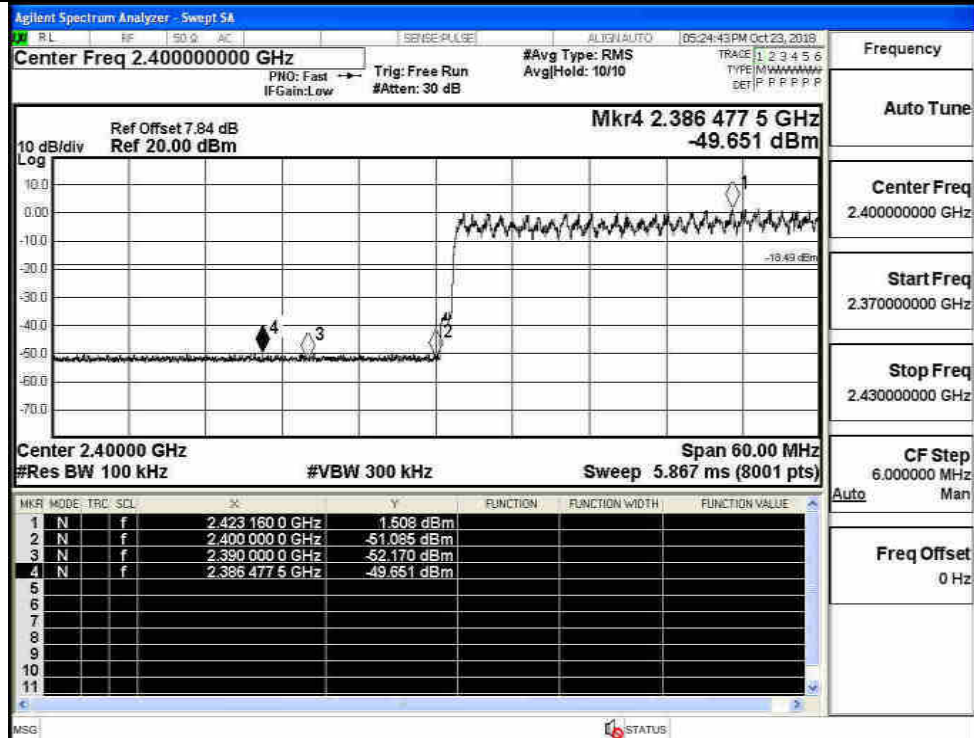
$\pi/4$ DQPSK/HCH/Hop



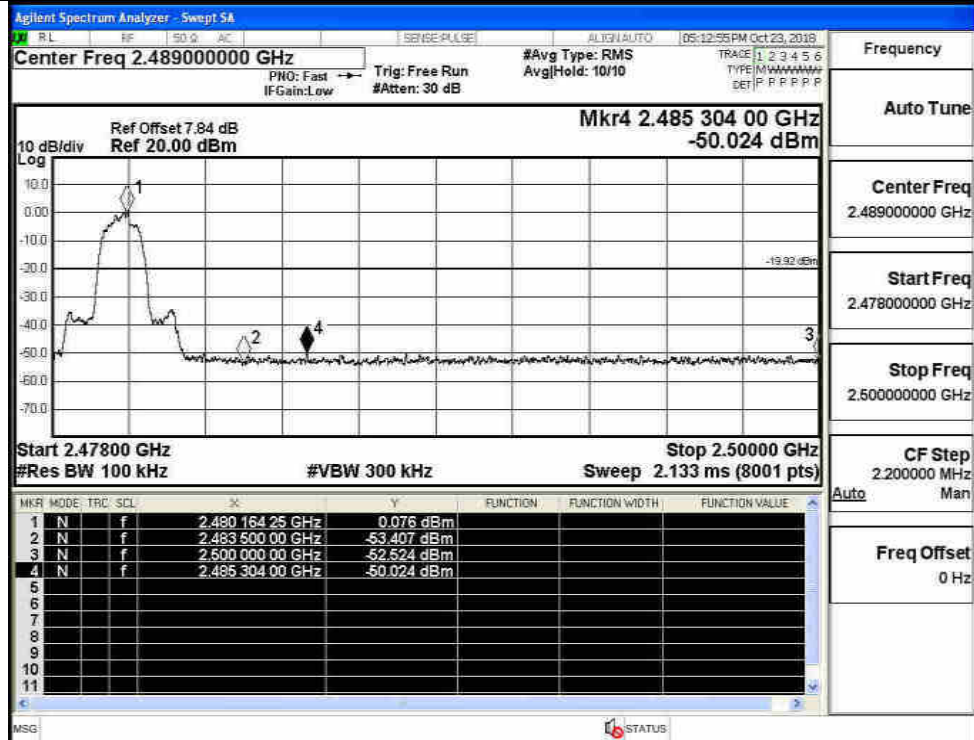
8DPSK/LCH/No Hop



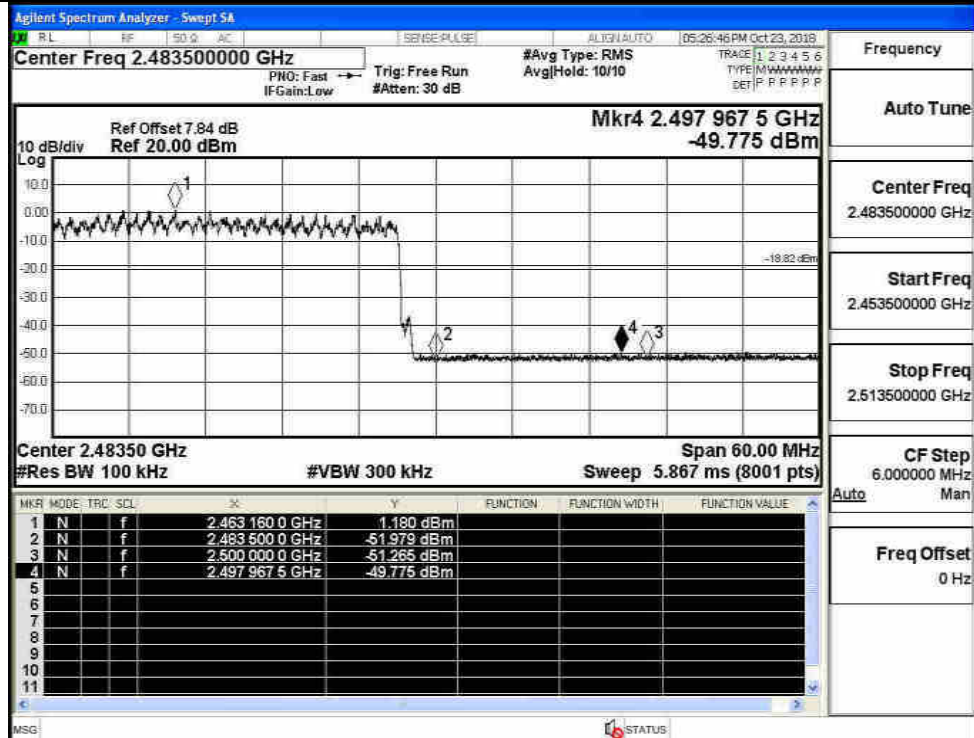
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



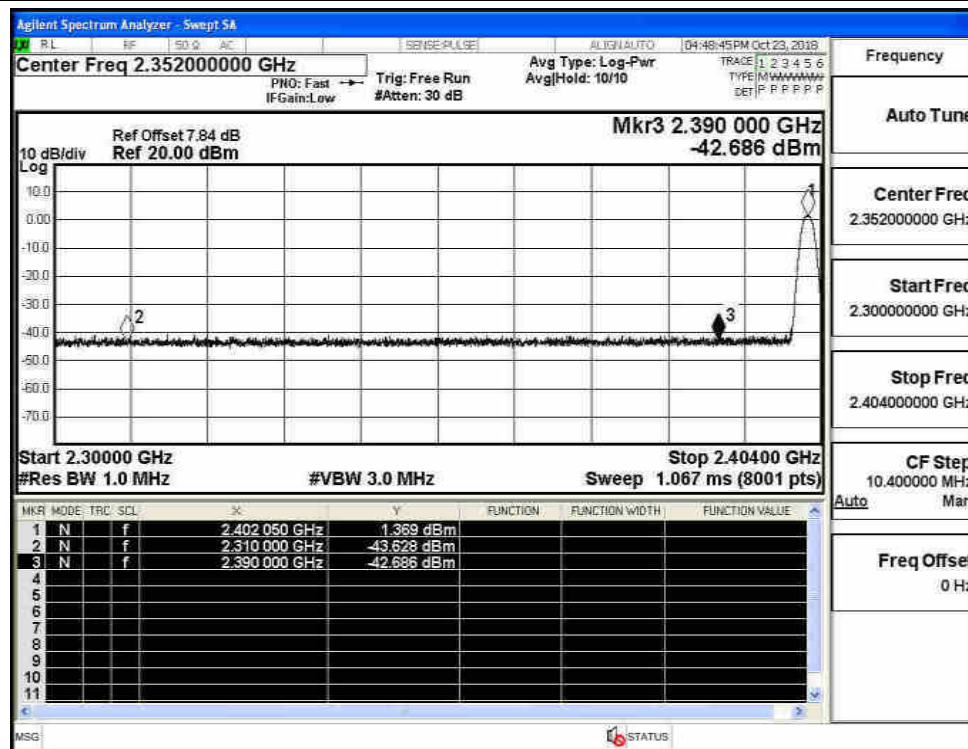
8DPSK/HCH/Hop



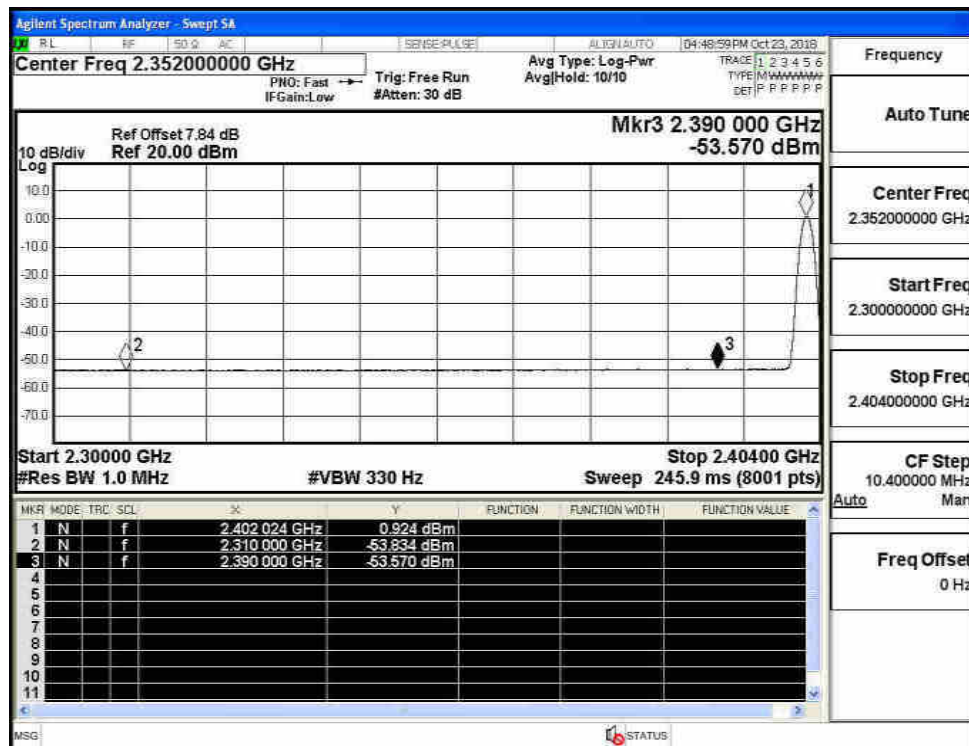
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.63	2.0	0	53.60	PEAK	74	PASS
	Off	2310.0	-53.83	2.0	0	43.40	AV	54	PASS
	Off	2390.0	-42.69	2.0	0	54.54	PEAK	74	PASS
	Off	2390.0	-53.57	2.0	0	43.66	AV	54	PASS
	Off	2483.5	-42.78	2.0	0	54.45	PEAK	74	PASS
	Off	2483.5	-53.36	2.0	0	43.87	AV	54	PASS
	Off	2500.0	-43.69	2.0	0	53.54	PEAK	74	PASS
	Off	2500.0	-53.31	2.0	0	43.92	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-44.89	2.0	0	52.34	PEAK	74	PASS
	Off	2310.0	-53.90	2.0	0	43.33	AV	54	PASS
	Off	2390.0	-42.54	2.0	0	54.69	PEAK	74	PASS
	Off	2390.0	-53.51	2.0	0	43.72	AV	54	PASS
	Off	2483.5	-42.31	2.0	0	54.92	PEAK	74	PASS
	Off	2483.5	-53.16	2.0	0	44.07	AV	54	PASS
	Off	2500.0	-43.63	2.0	0	53.60	PEAK	74	PASS
	Off	2500.0	-53.32	2.0	0	43.91	AV	54	PASS
8DPSK	Off	2310.0	-44.24	2.0	0	52.99	PEAK	74	PASS
	Off	2310.0	-53.79	2.0	0	43.44	AV	54	PASS
	Off	2390.0	-42.93	2.0	0	54.30	PEAK	74	PASS
	Off	2390.0	-53.67	2.0	0	43.56	AV	54	PASS
	Off	2483.5	-42.97	2.0	0	54.26	PEAK	74	PASS
	Off	2483.5	-53.22	2.0	0	44.01	AV	54	PASS
	Off	2500.0	-43.36	2.0	0	53.87	PEAK	74	PASS
	Off	2500.0	-53.25	2.0	0	43.98	AV	54	PASS

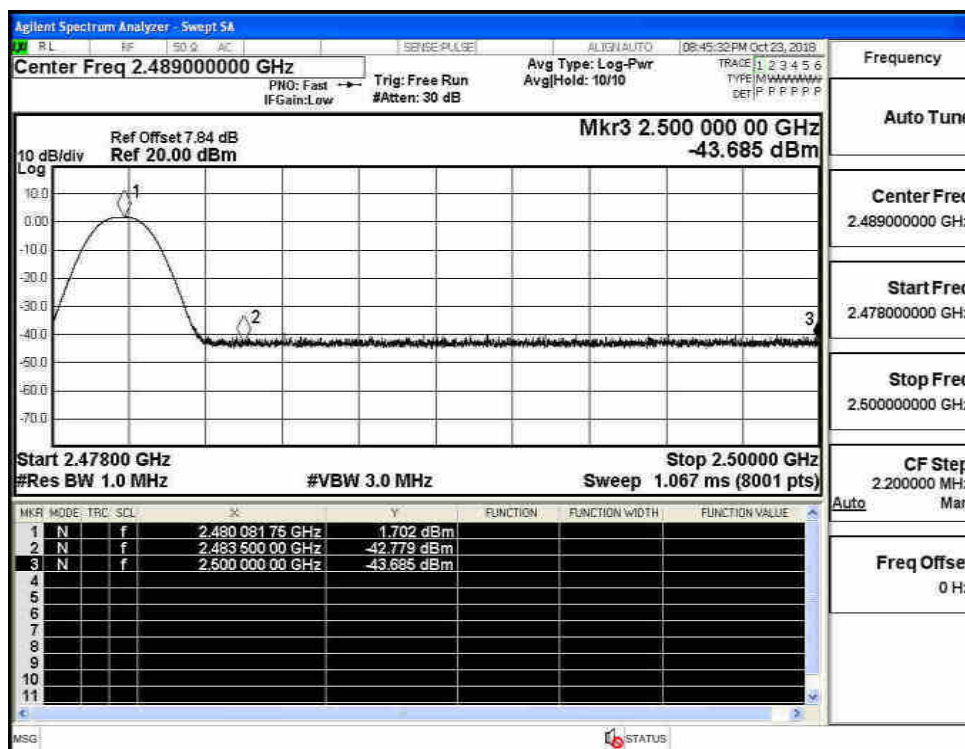
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



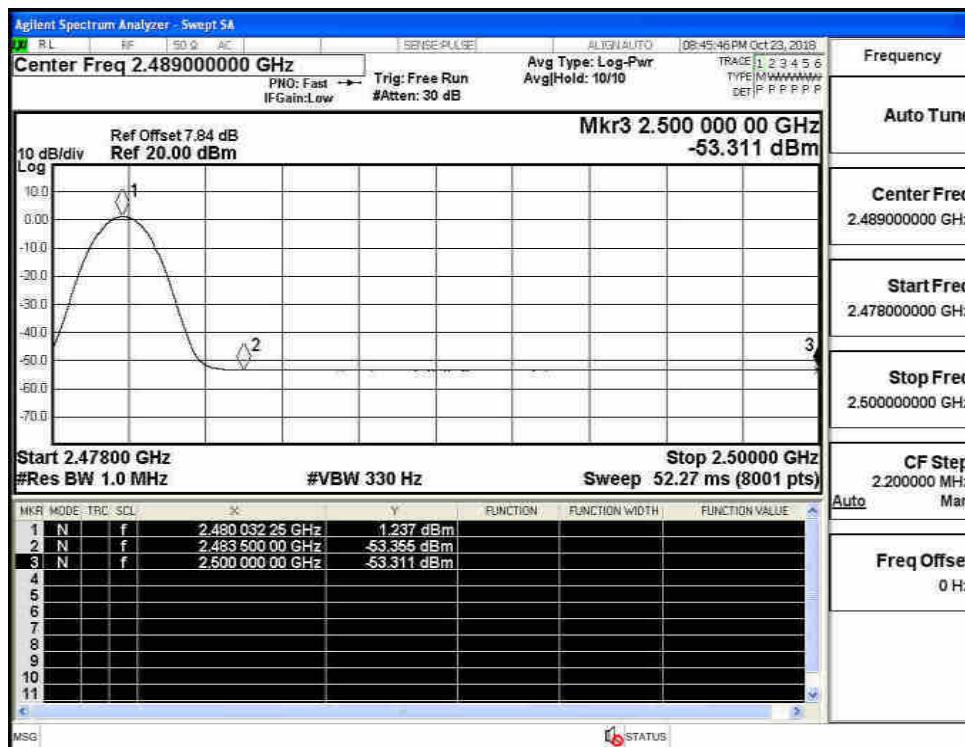
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

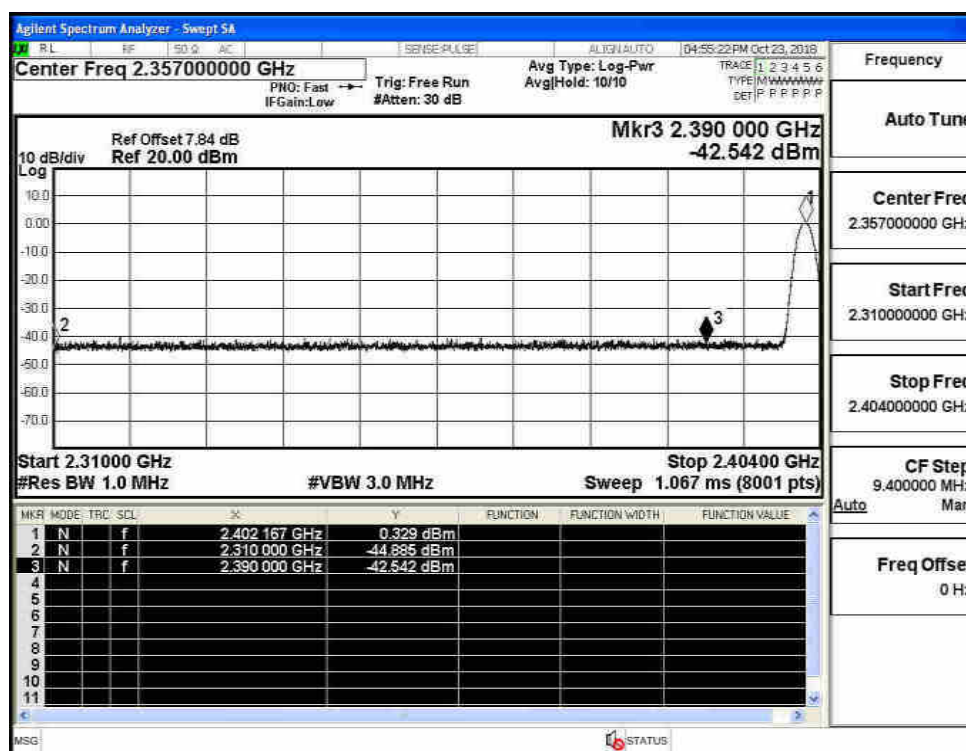
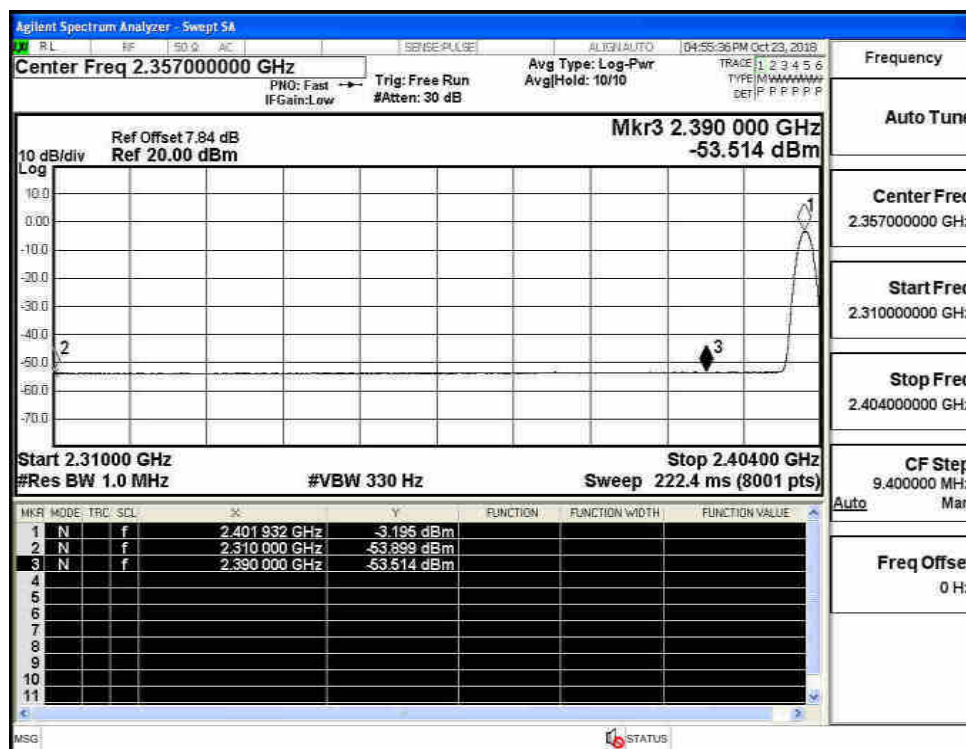


Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)

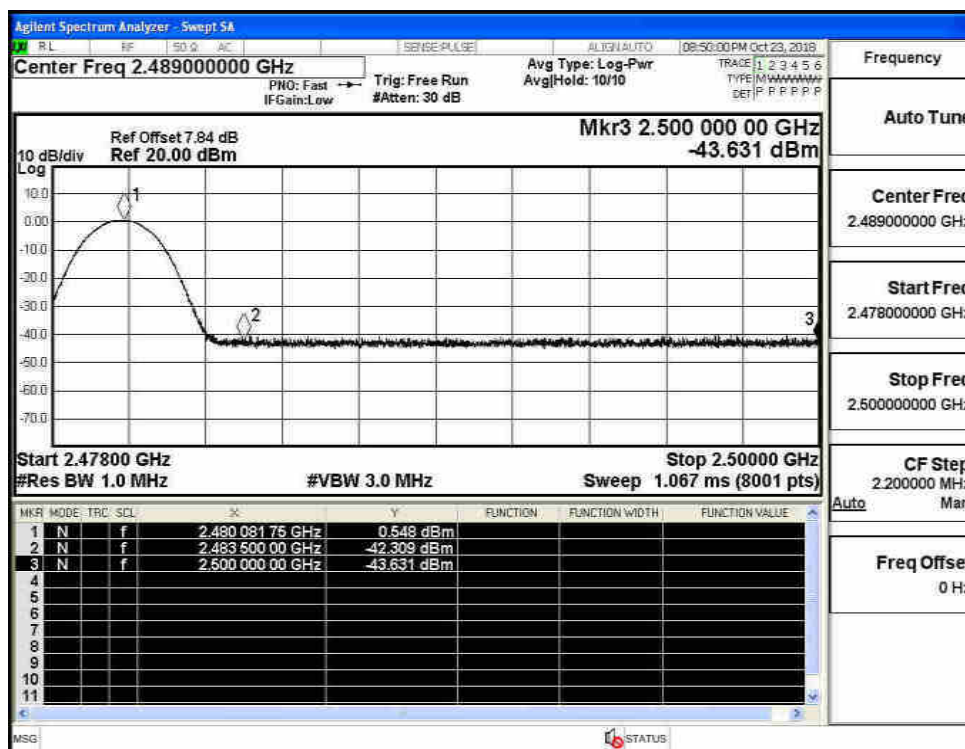


Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)

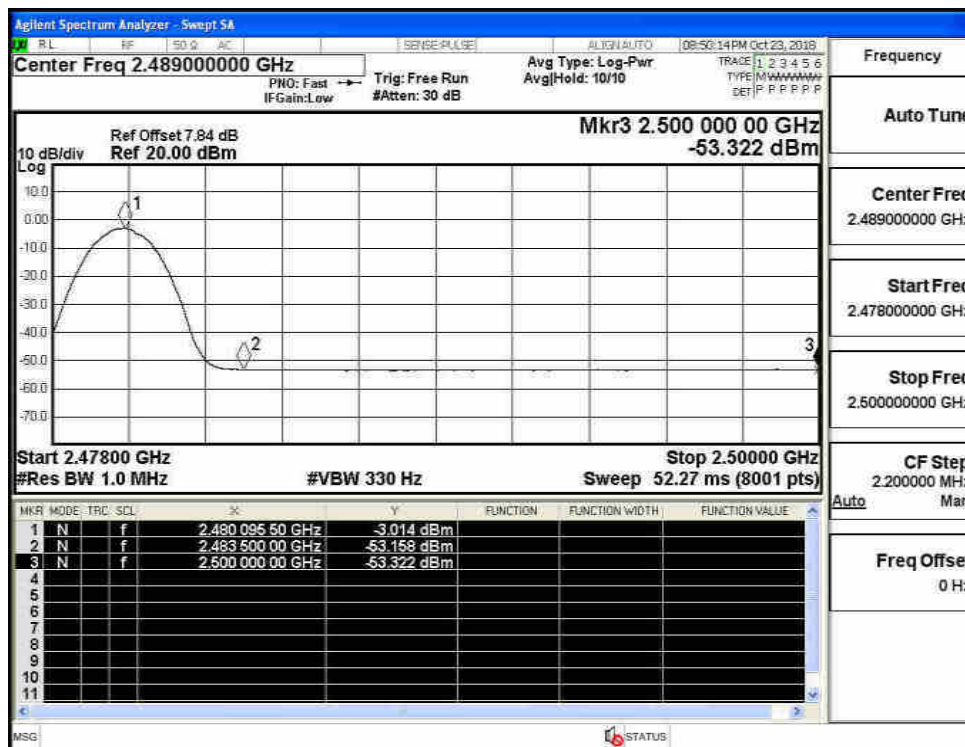


Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

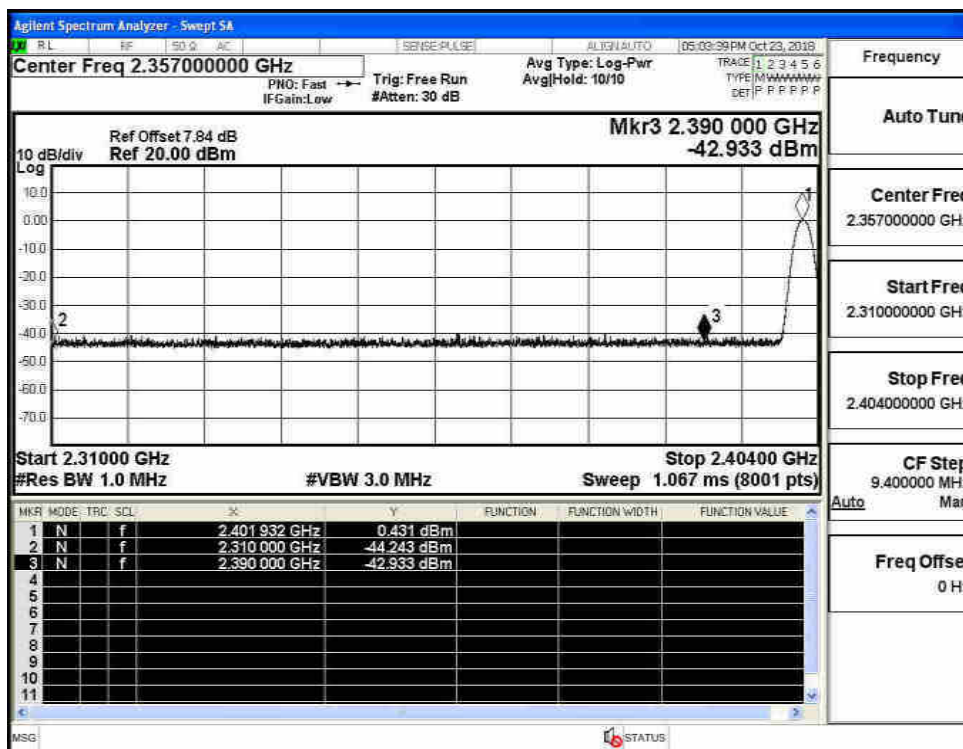
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



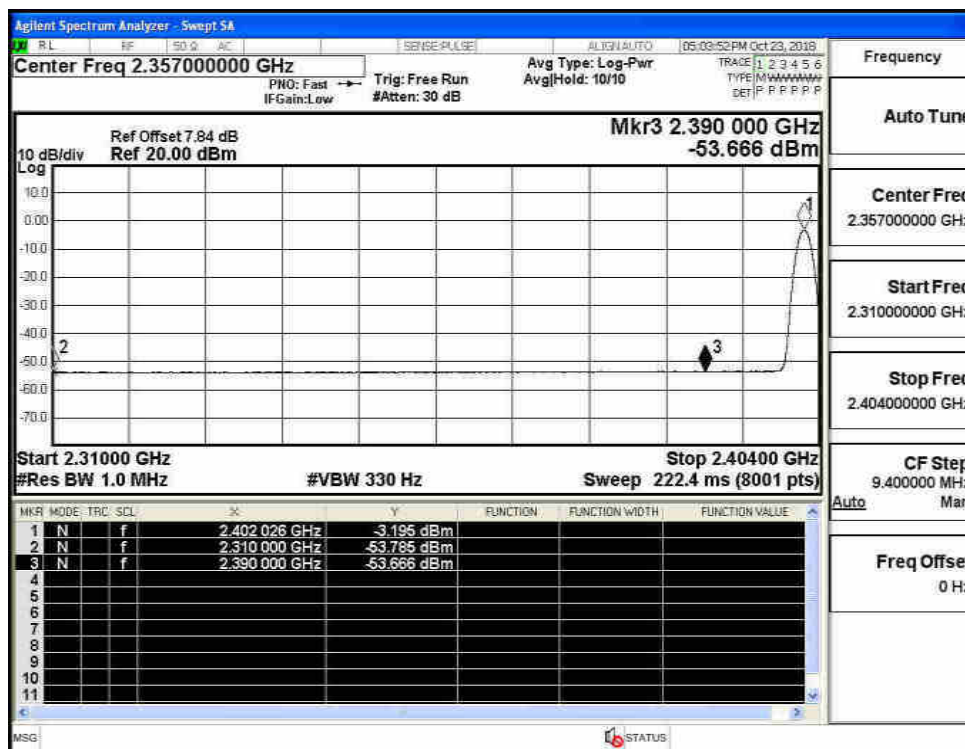
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



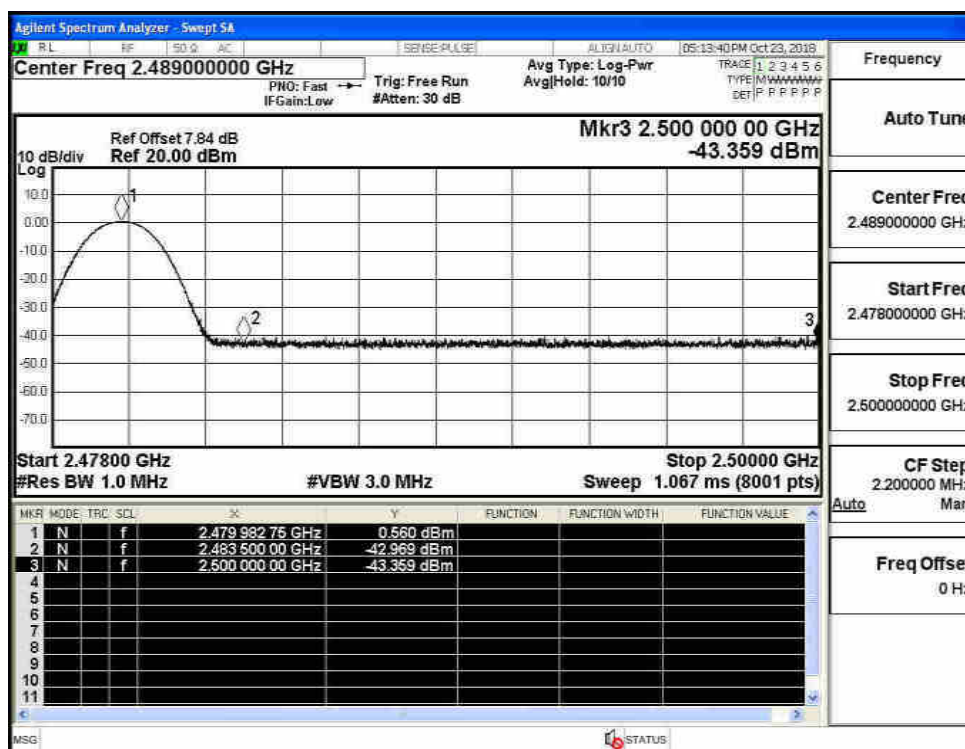
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

