

Appendix A

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

Product Name: TURNTABLE PLAYER

Trade Mark: GPO

Test Model: PR100

Environmental Conditions

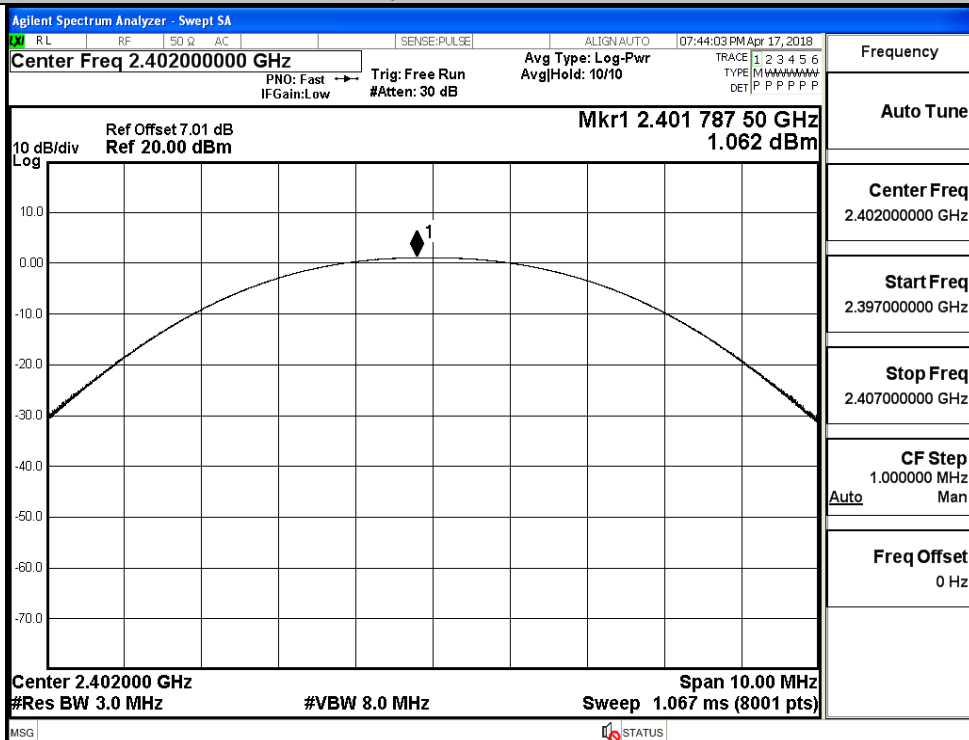
Temperature:	24.2 ° C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Willson.hong
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

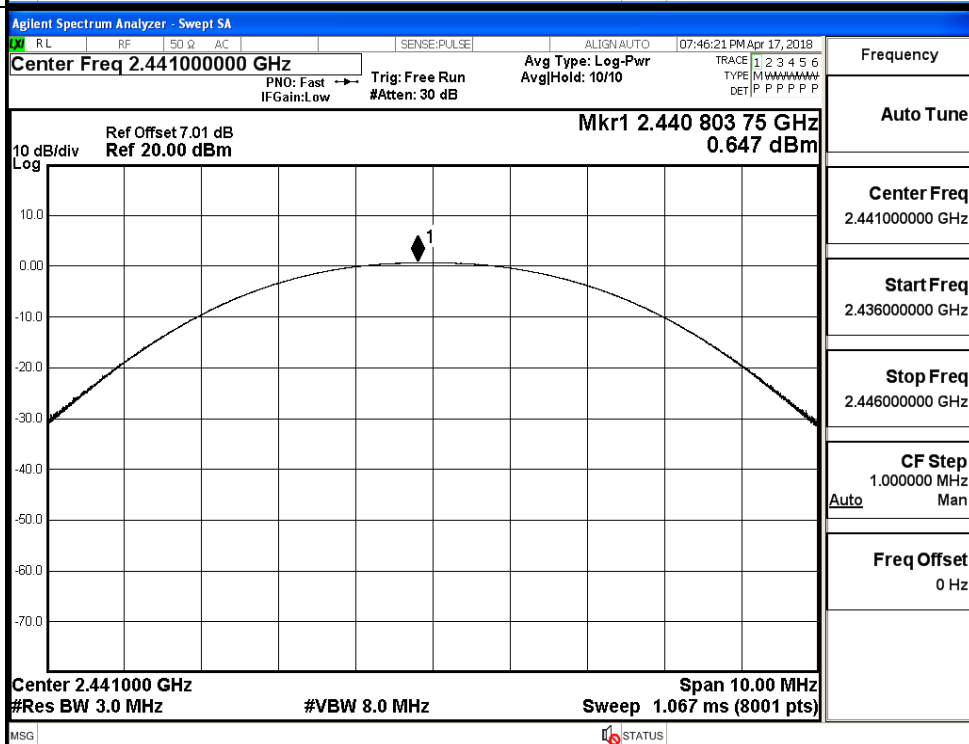
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	1.062	21	PASS
	MCH	0.647	21	PASS
	HCH	0.598	21	PASS
$\pi/4$ DQPSK	LCH	-1.316	21	PASS
	MCH	-1.558	21	PASS
	HCH	-1.585	21	PASS

Test Graphs

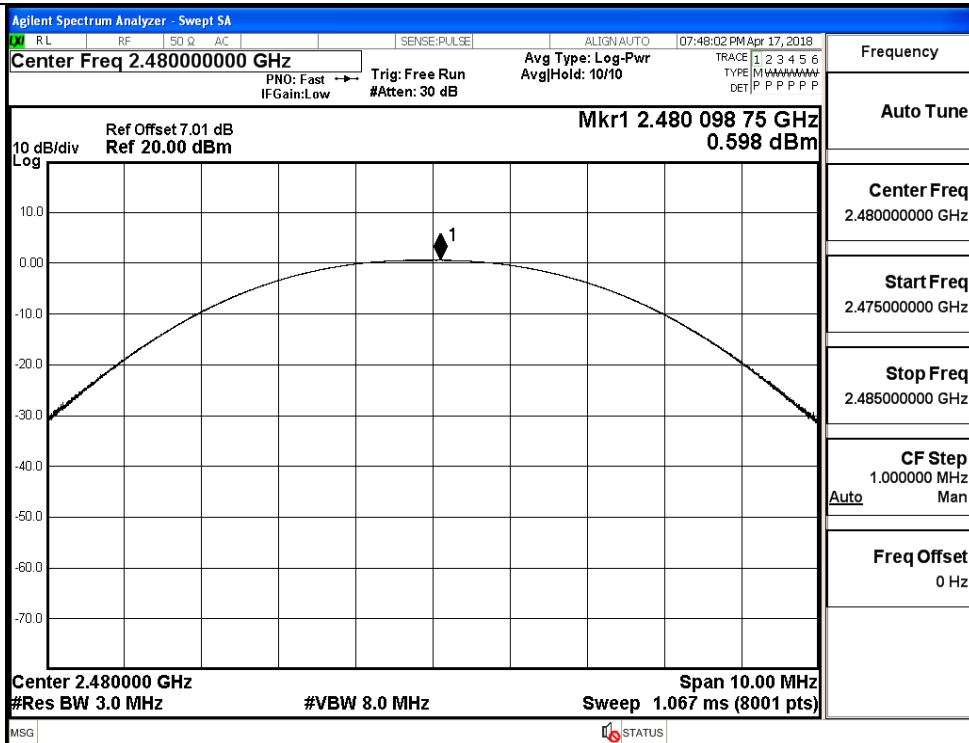
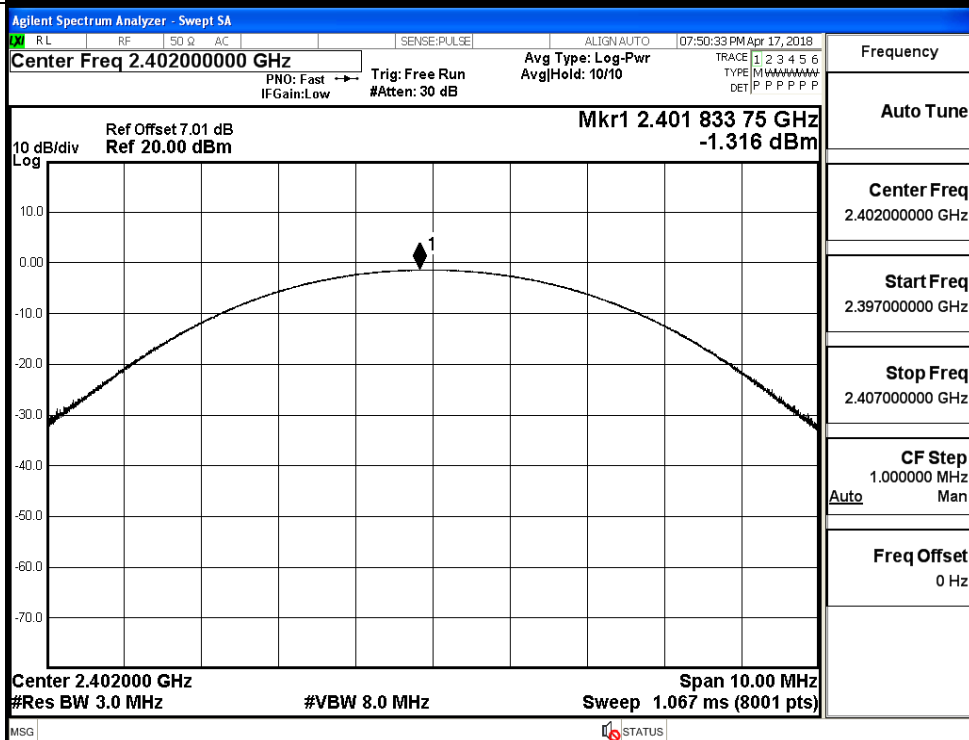
GFSK/LCH

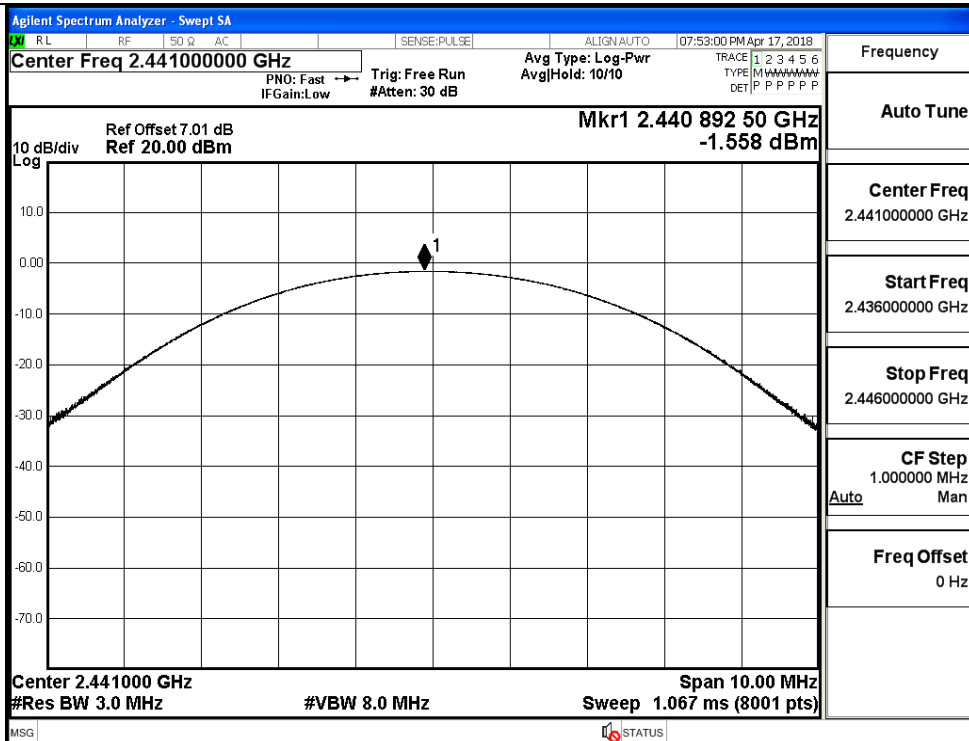
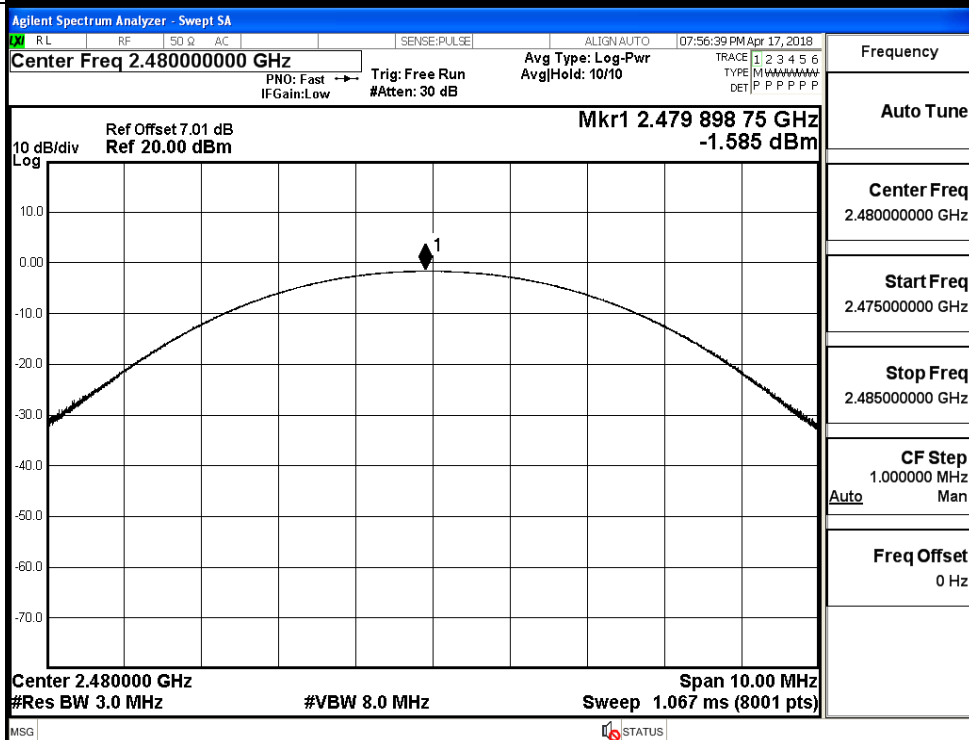


GFSK/MCH



GFSK/HCH

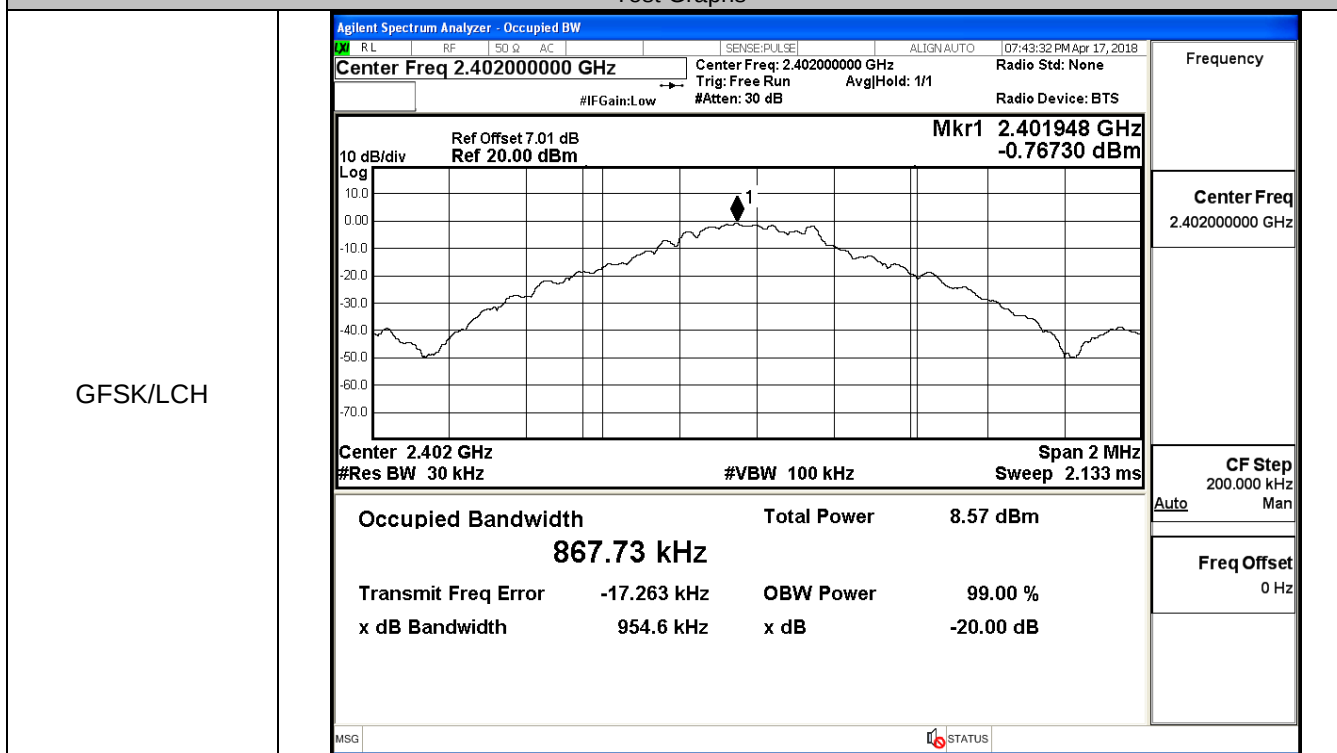
 π /4DQPSK/LCH

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

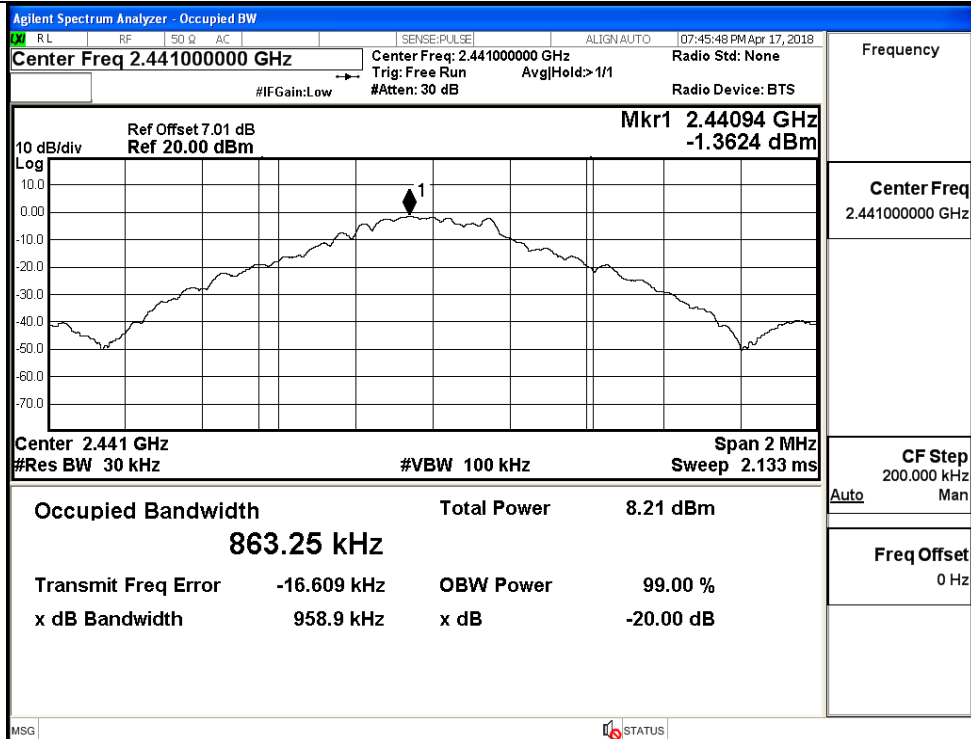
A.2 99% and 20dB Bandwidth

Mode	Channel.	99% Bandwidth [MHz]	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.86773	0.9546	Not Specified	PASS
	MCH	0.86325	0.9589	Not Specified	PASS
	HCH	0.86664	0.9626	Not Specified	PASS
π /4DQPSK	LCH	1.3423	1.442	Not Specified	PASS
	MCH	1.3411	1.441	Not Specified	PASS
	HCH	1.3424	1.479	Not Specified	PASS

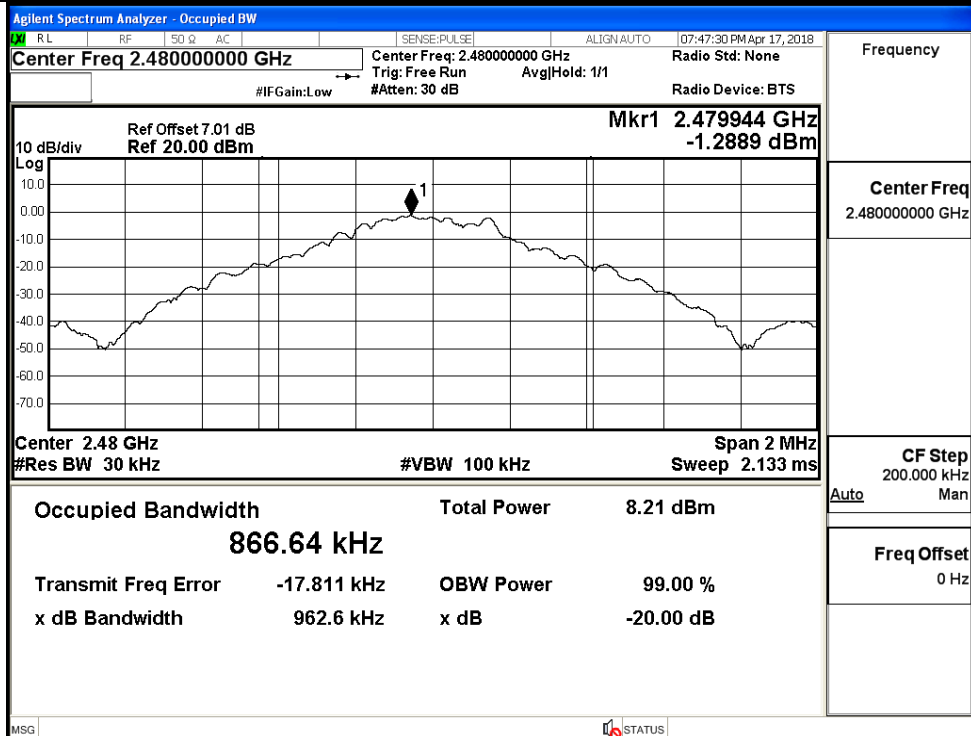
Test Graphs

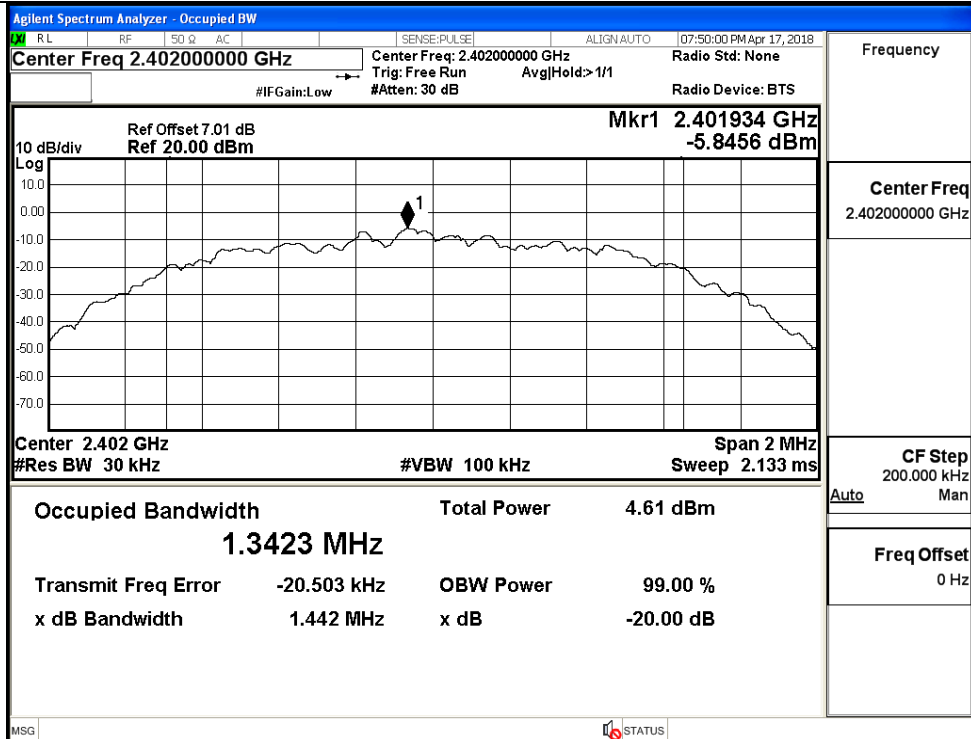
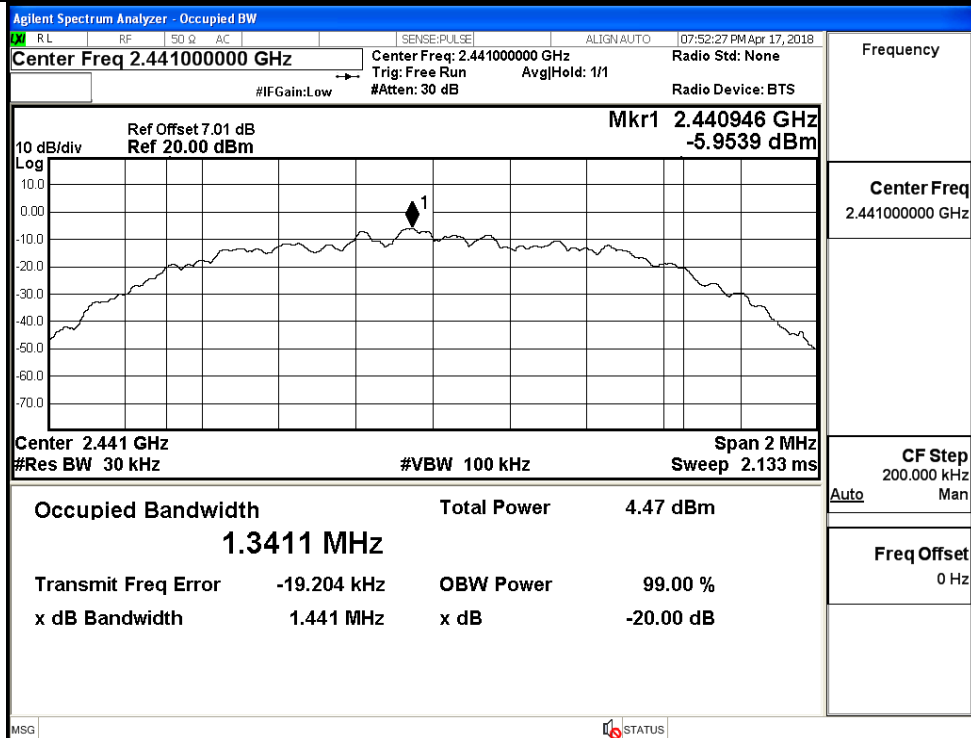


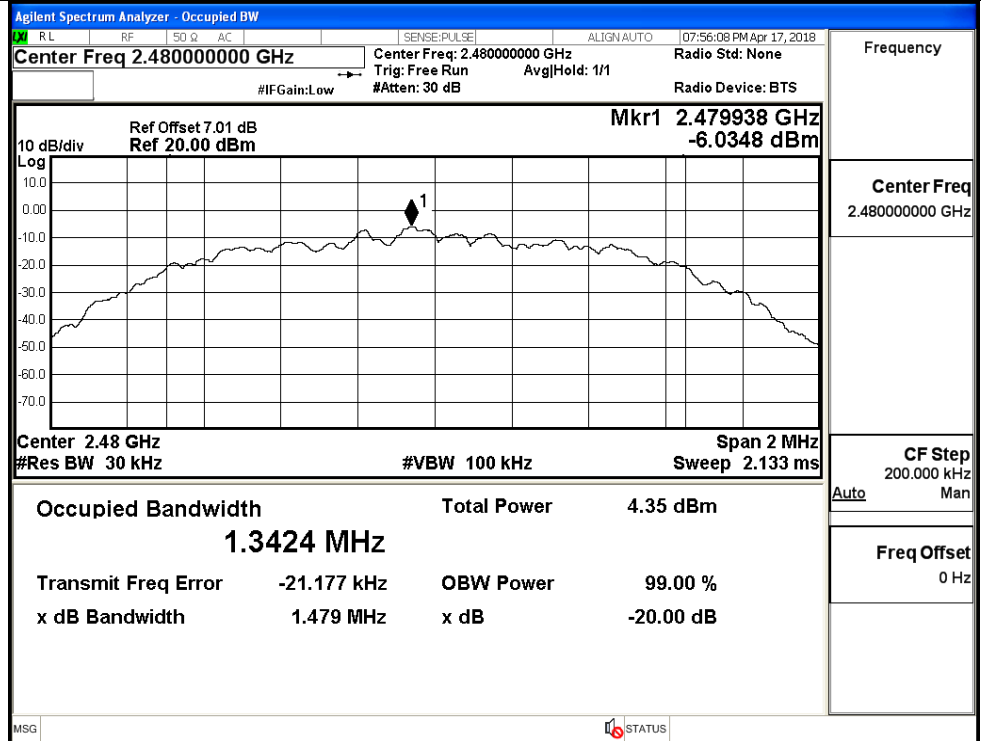
GFSK/MCH



GFSK/HCH



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

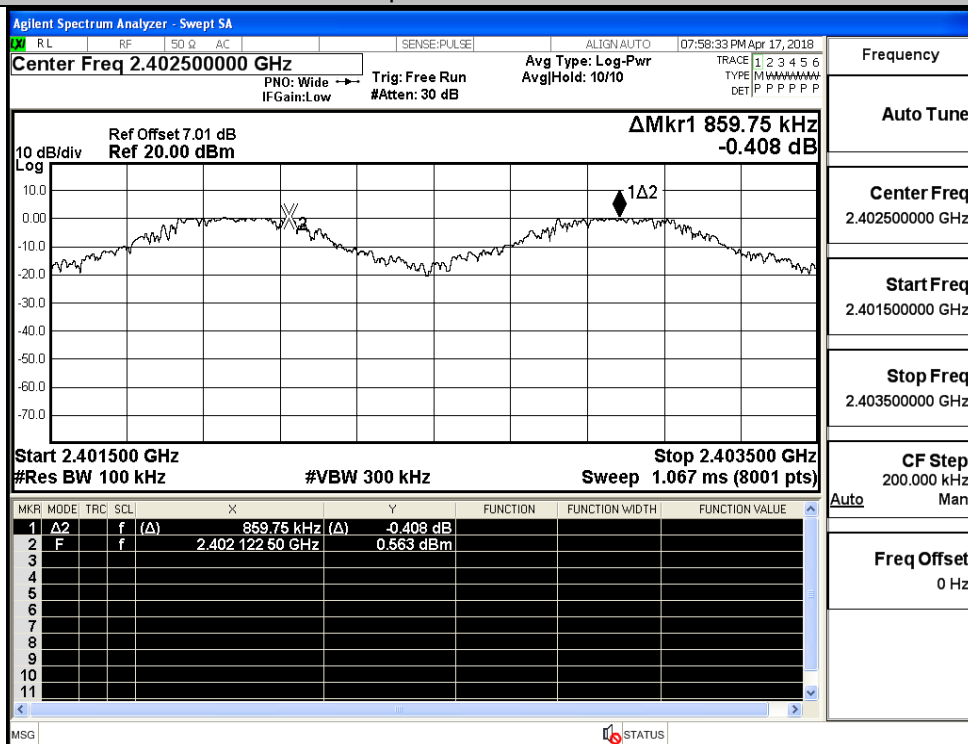
$\pi/4$ DQPSK/HCH

A.3 Carrier Frequency Separation

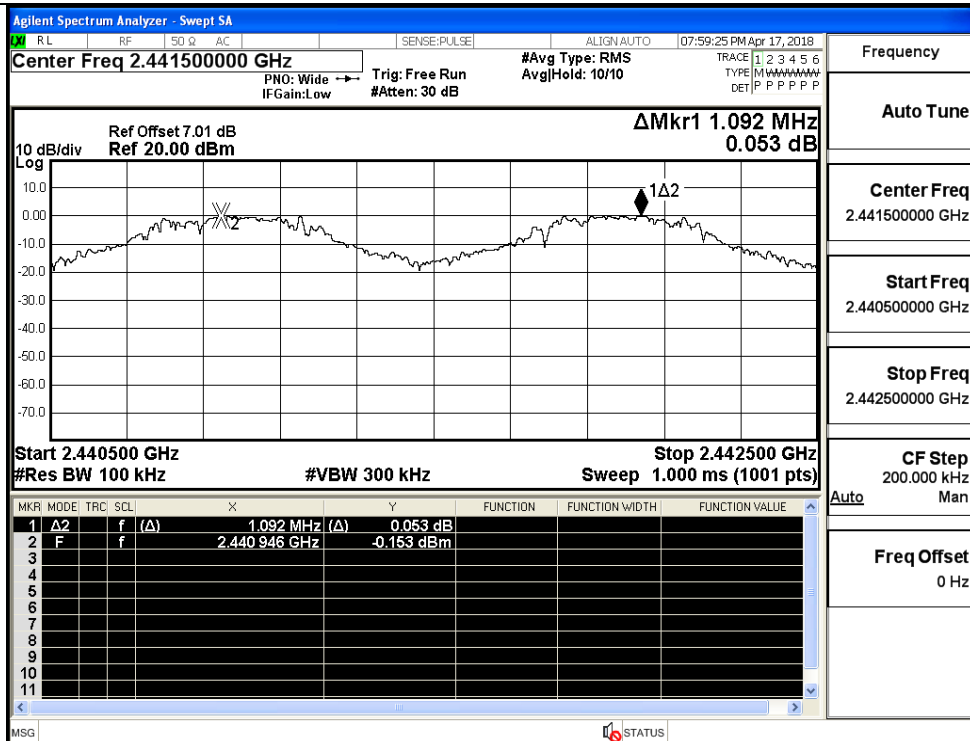
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.860	0.636	PASS
	MCH	1.092	0.639	PASS
	HCH	1.038	0.642	PASS
π /4DQPSK	LCH	1.010	0.961	PASS
	MCH	1.146	0.961	PASS
	HCH	1.170	0.986	PASS

Test Graphs

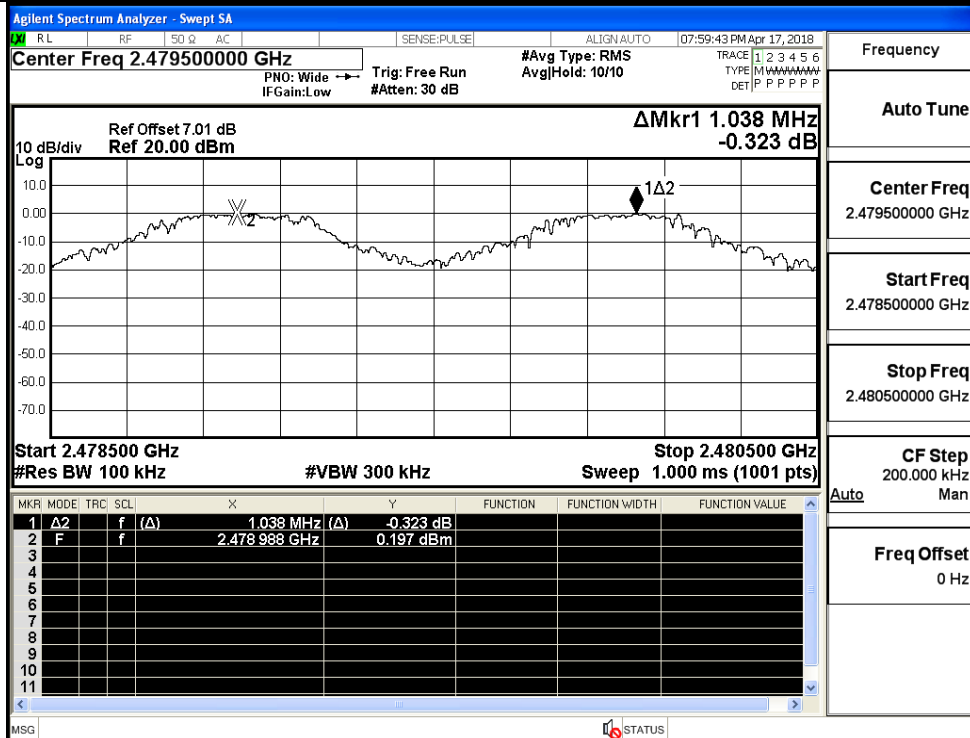
GFSK/LCH

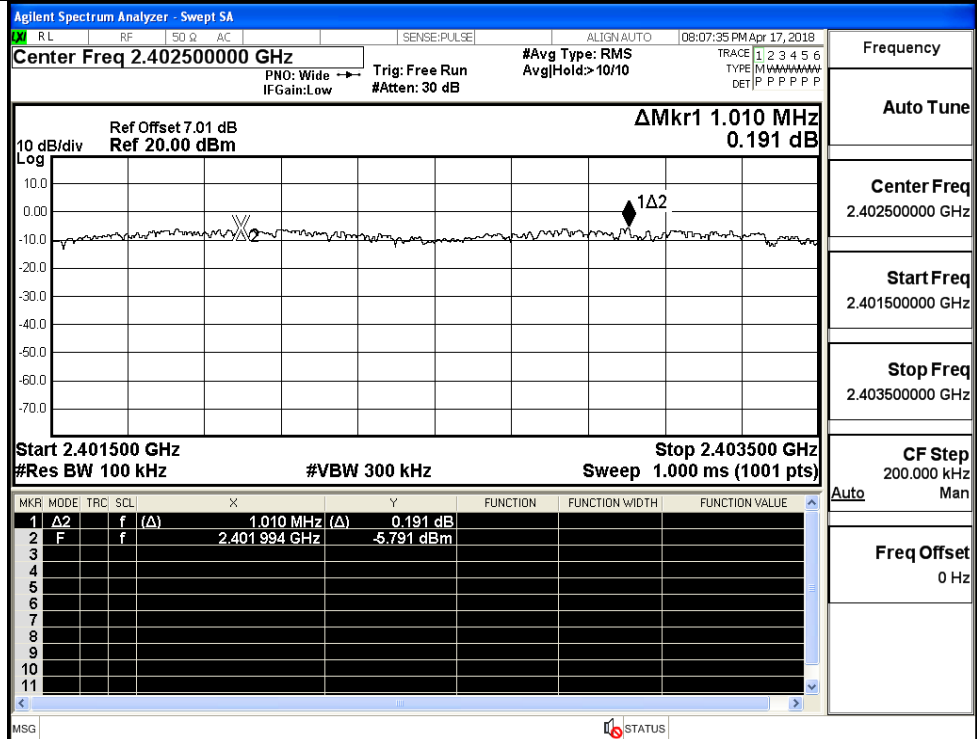
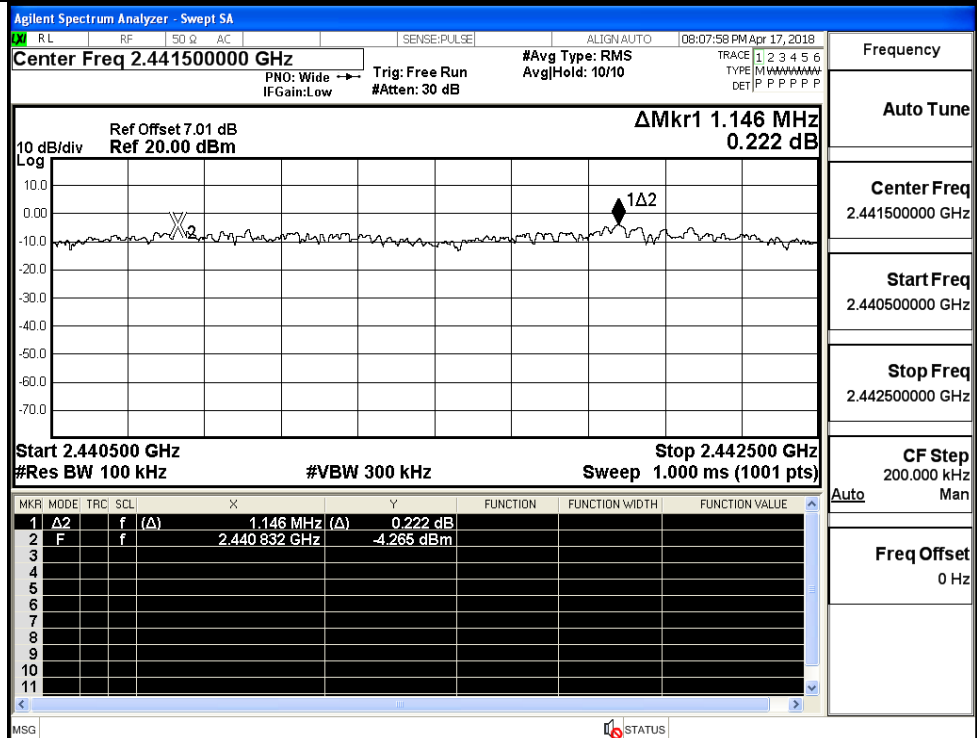


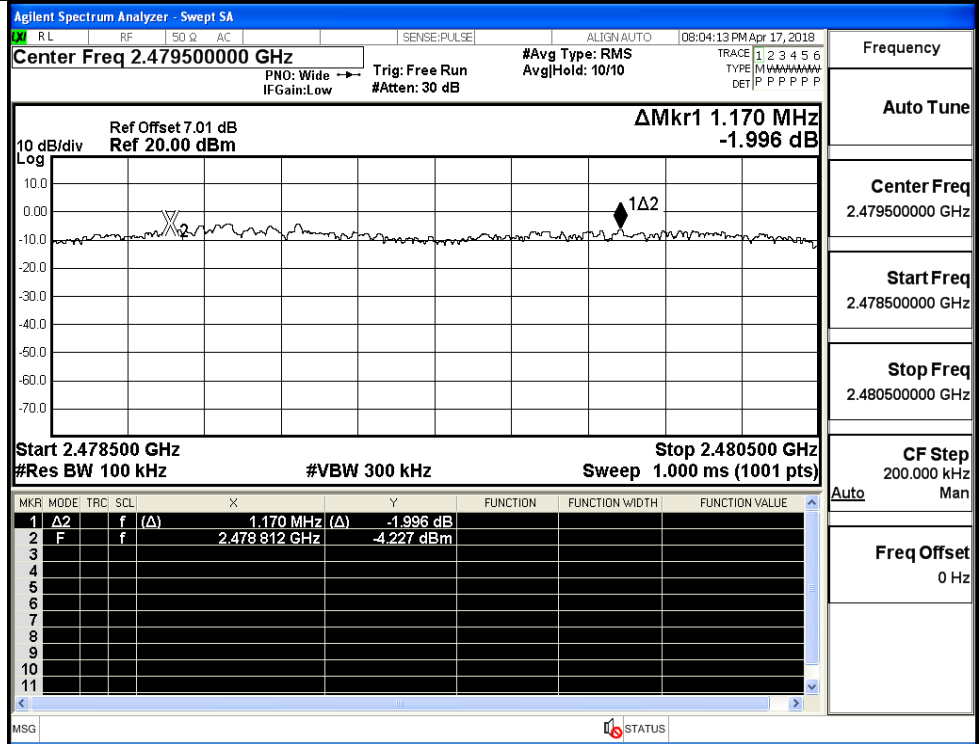
GFSK/MCH



GFSK/HCH



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

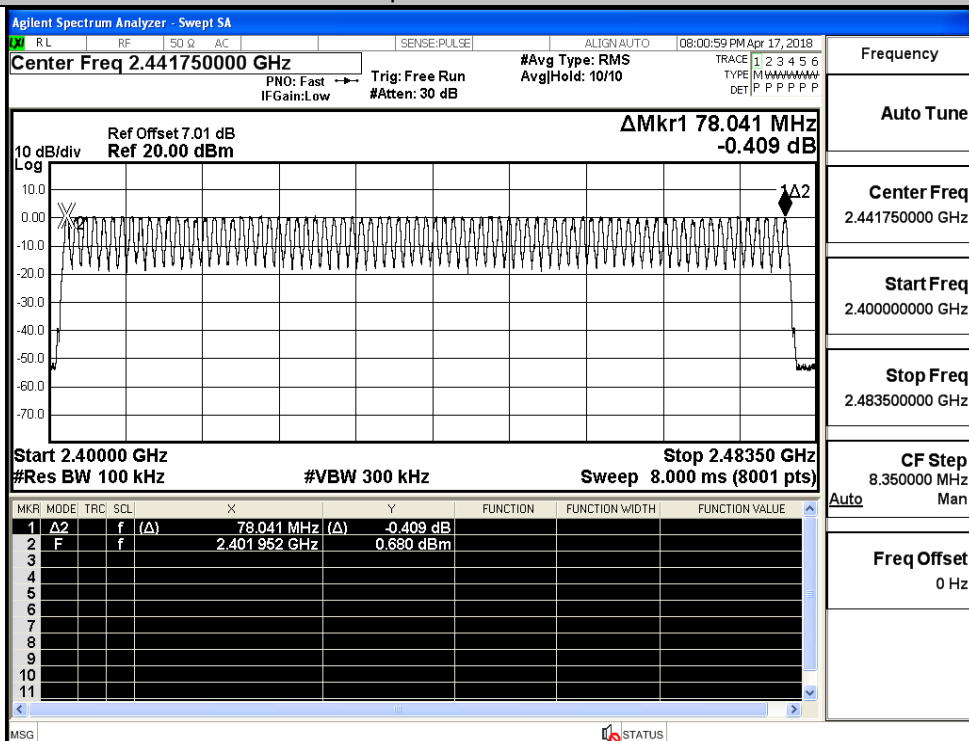
$\pi/4$ DQPSK/HCH

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

Test Graphs

GFSK/Hop



Frequency

Auto Tune

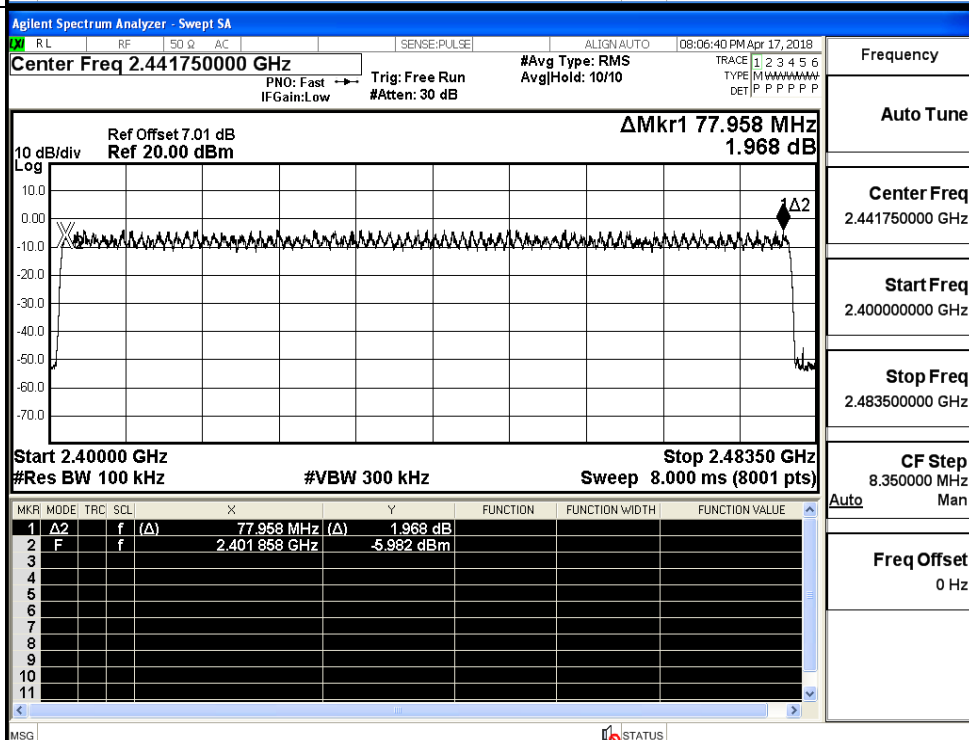
Center Freq
2.441750000 GHz

Start Freq
2.400000000 GHz

Stop Freq
2.483500000 GHz

CF Step
8.350000 MHz
Man

Freq Offset
0 Hz

 $\pi/4$ DQPSK/Hop

Frequency

Auto Tune

Center Freq
2.441750000 GHz

Start Freq
2.400000000 GHz

Stop Freq
2.483500000 GHz

CF Step
8.350000 MHz
Man

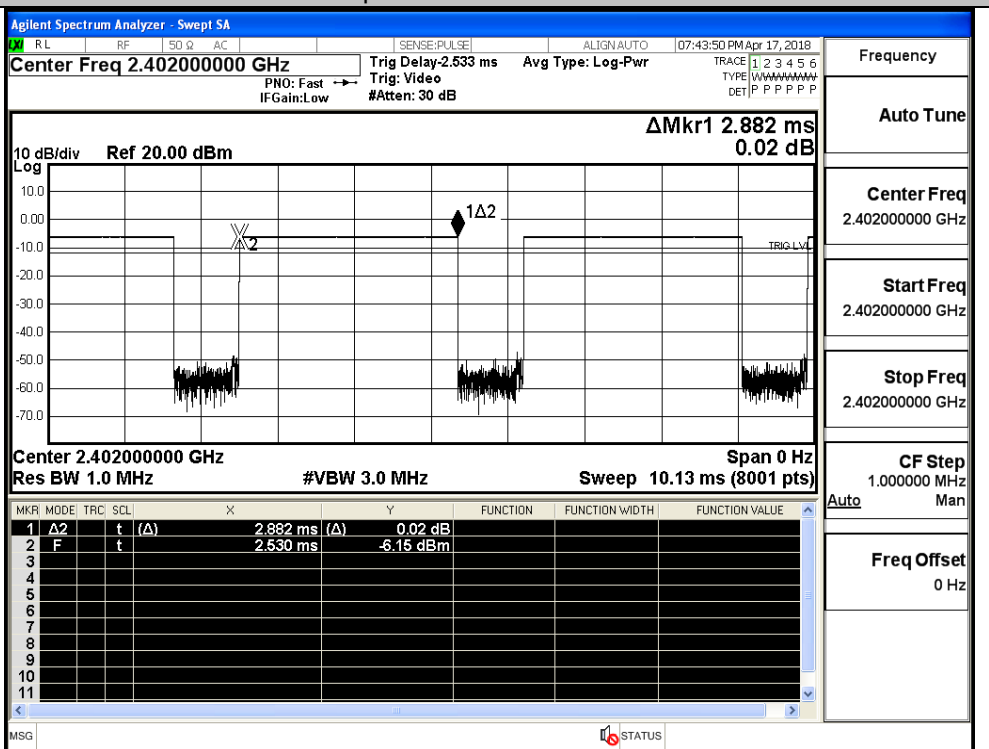
Freq Offset
0 Hz

A.5 Dwell Time

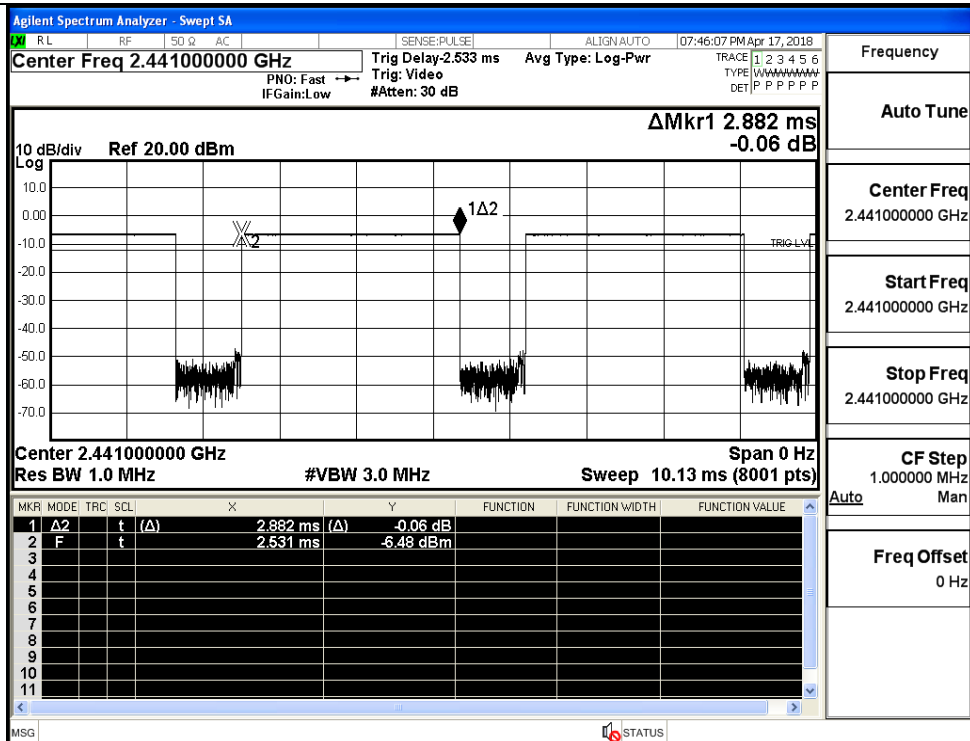
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

Test Graphs

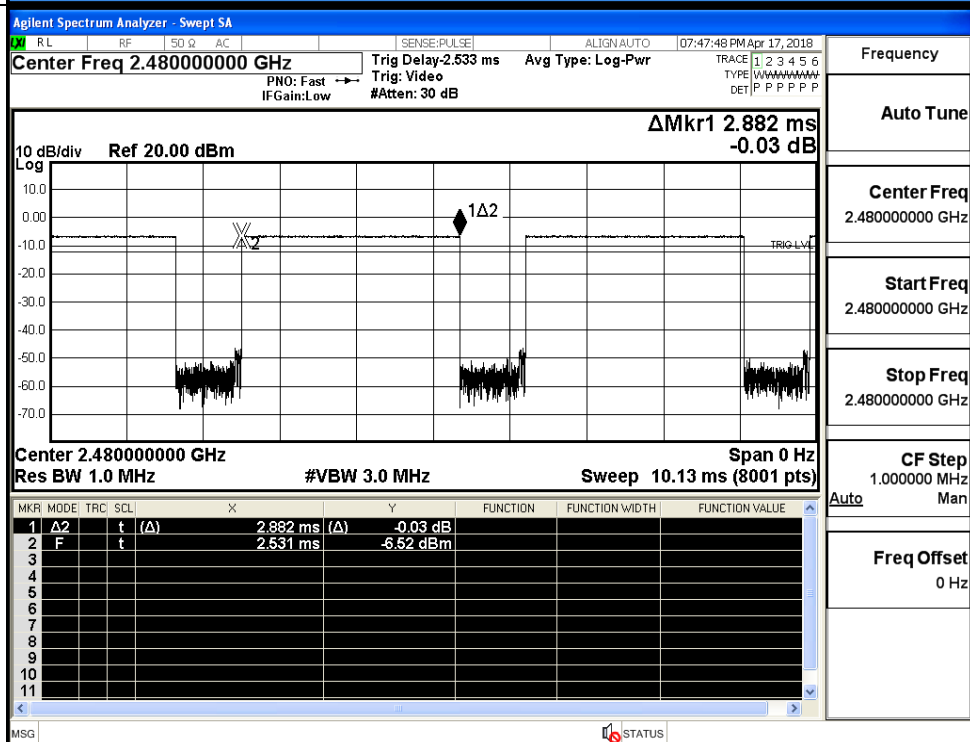
GFSK_DH5/LCH



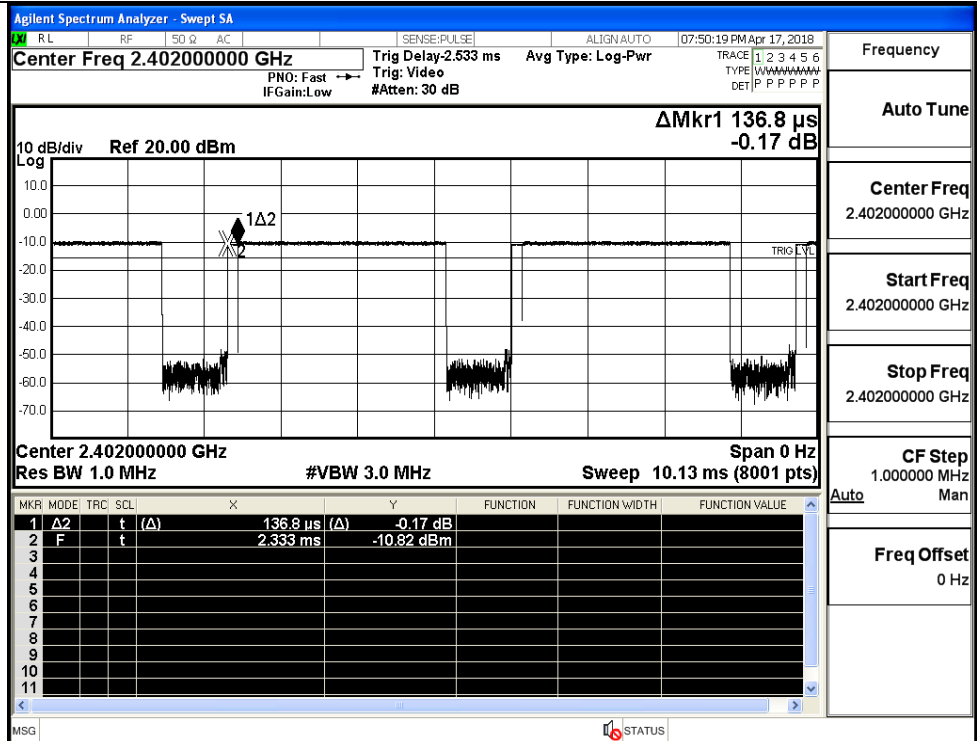
GFSK_DH5/MCH



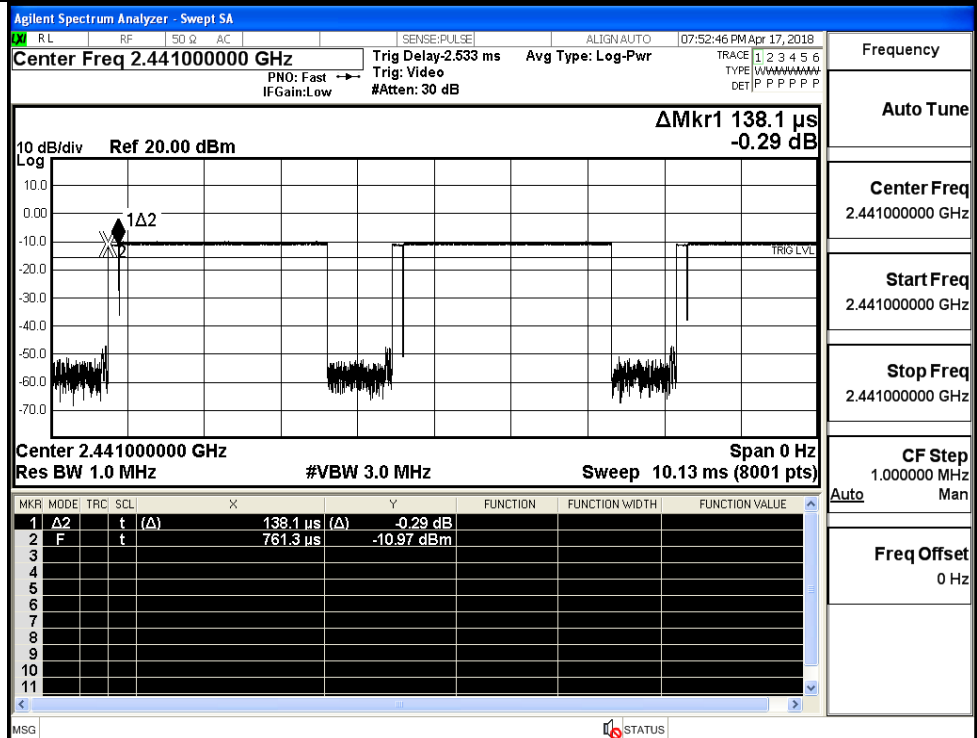
GFSK_DH5/HCH



$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH



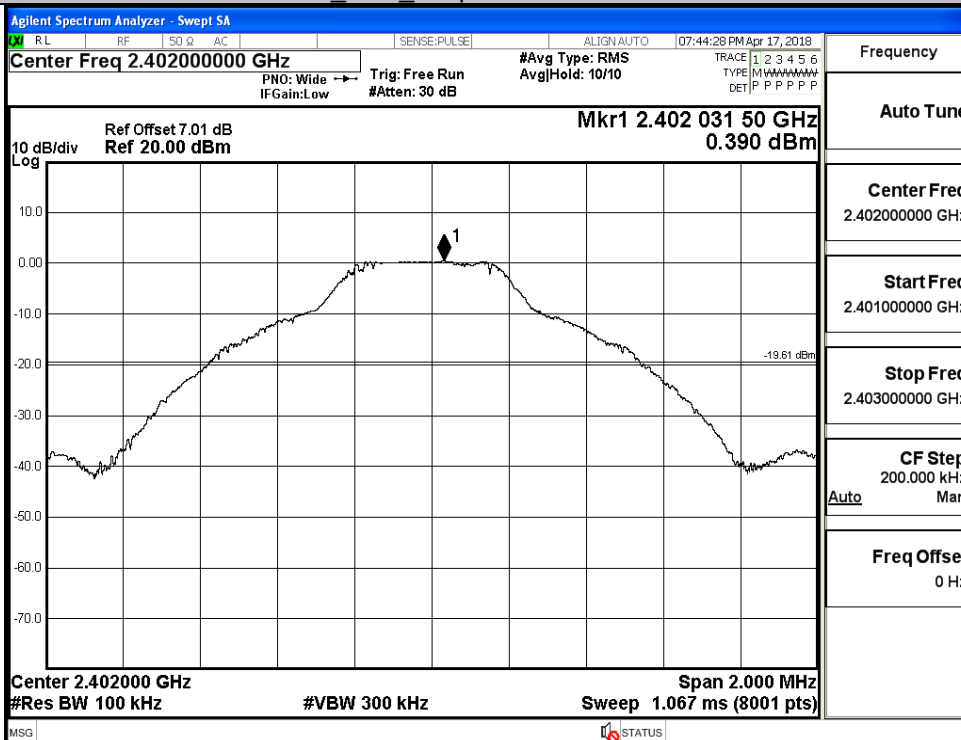
[illegible]

A.6 RF Conducted Spurious Emissions

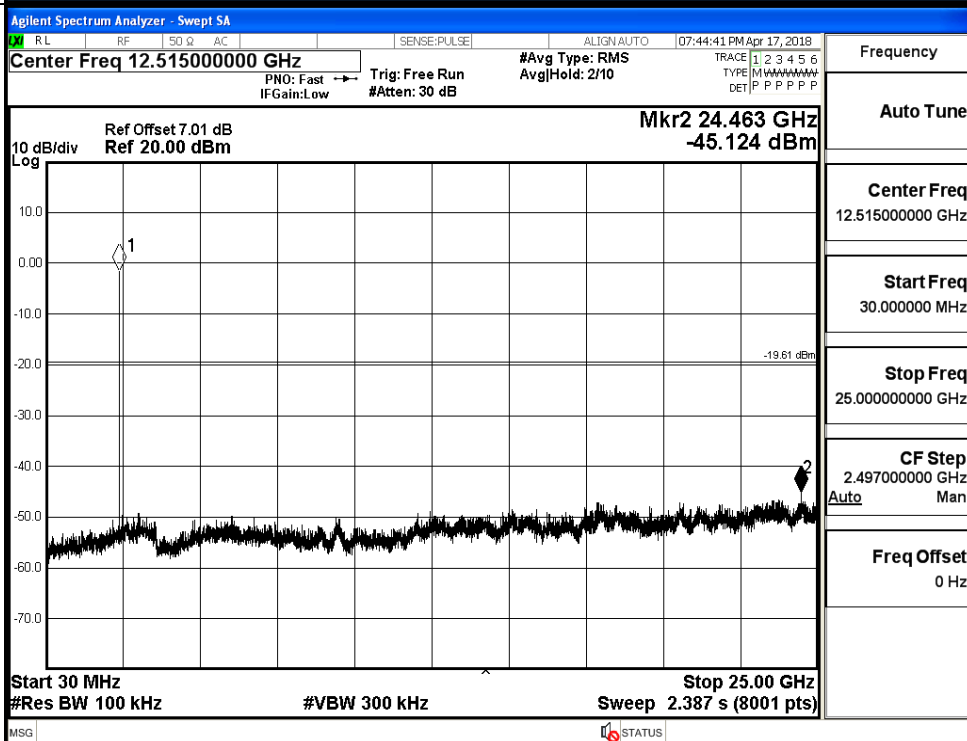
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.39	-45.124	-19.610	PASS
	MCH	0.509	-45.411	-19.491	PASS
	HCH	0.32	-45.390	-19.680	PASS
$\pi/4$ DQPSK	LCH	-3.903	-45.816	-23.903	PASS
	MCH	-4.02	-44.925	-24.020	PASS
	HCH	-4.153	-45.502	-24.153	PASS

GFSK LCH Graphs

Pref

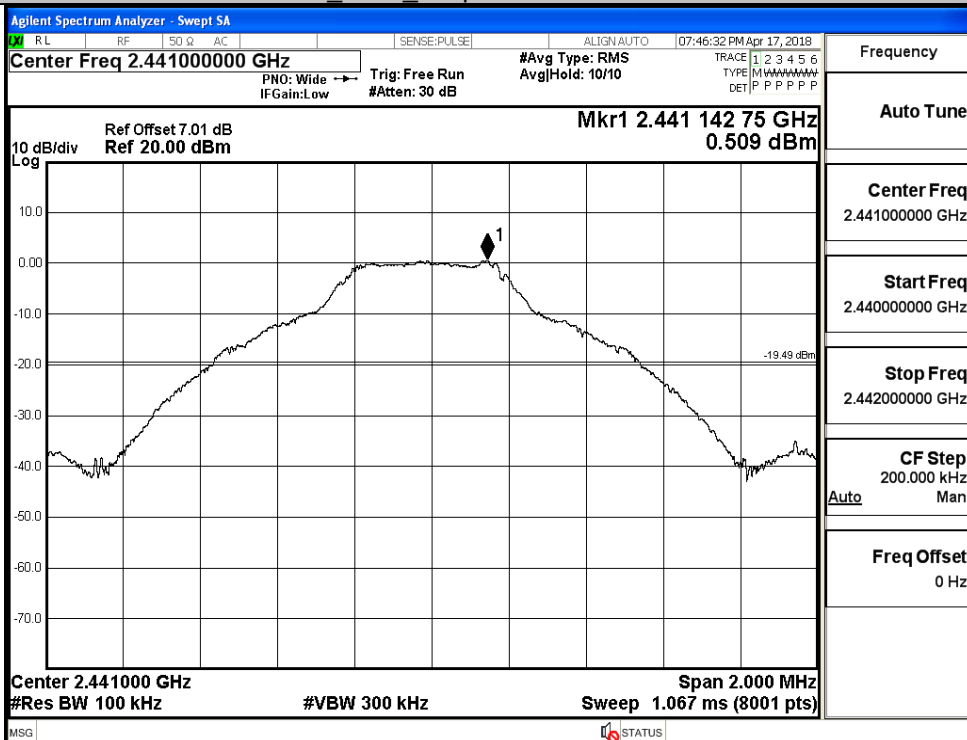


Puw

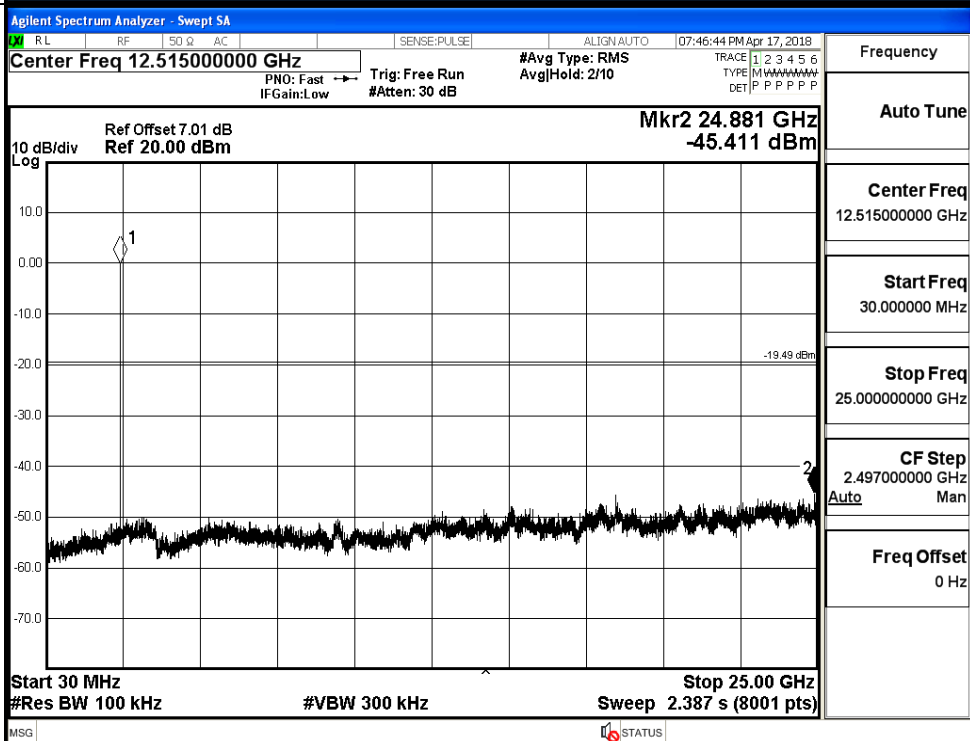


GFSK_MCH_Graphs

Pref

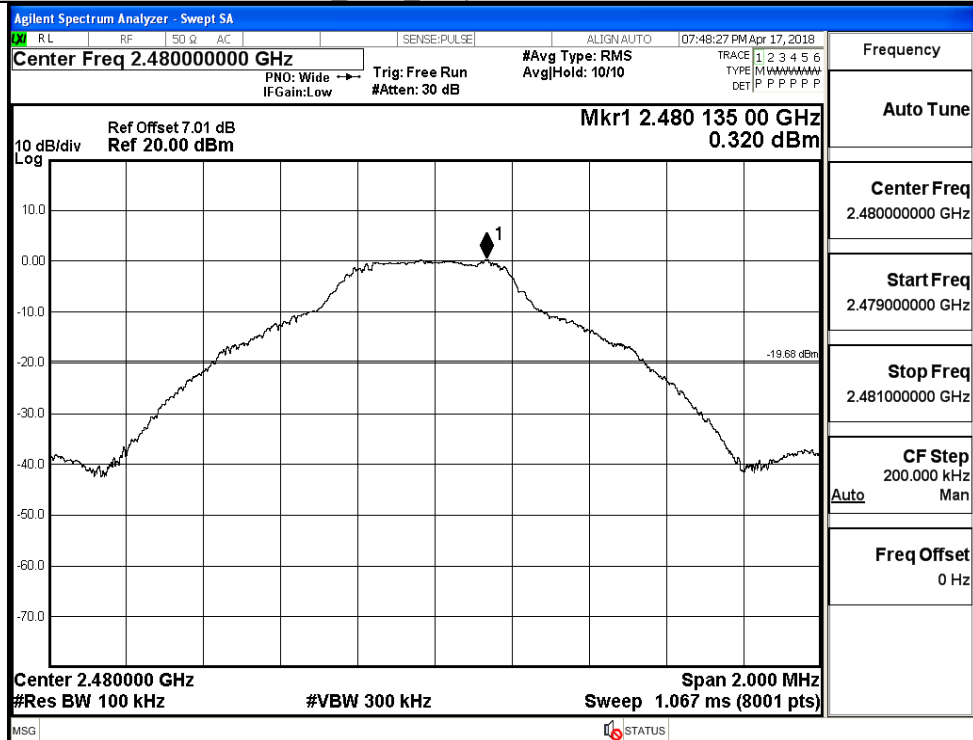


Puw

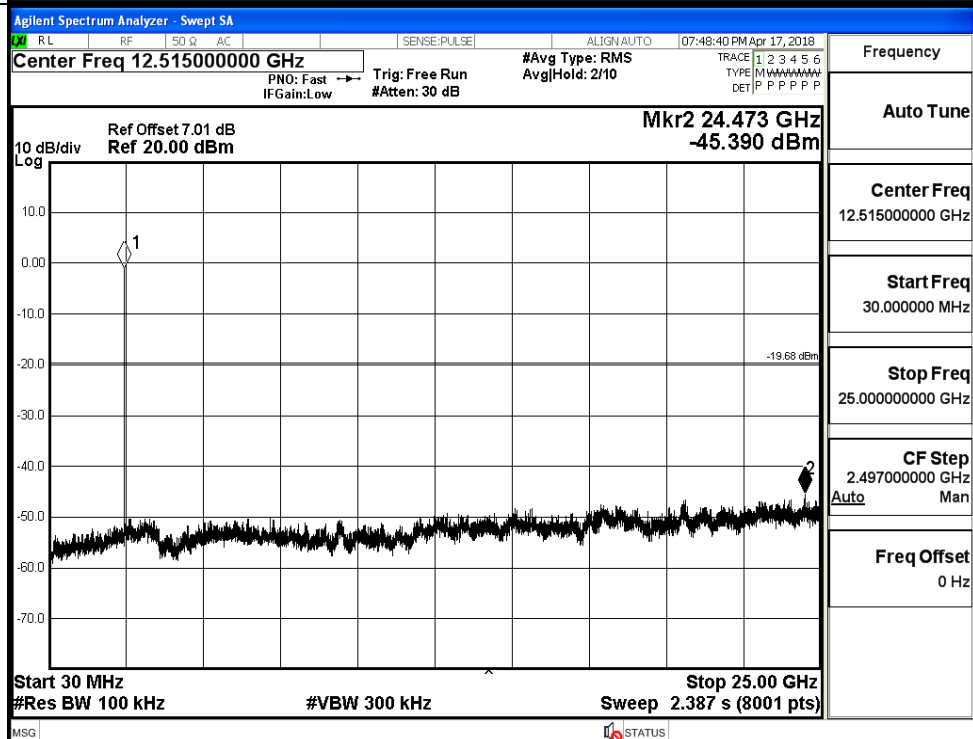


GFSK_HCH_Graphs

Pref

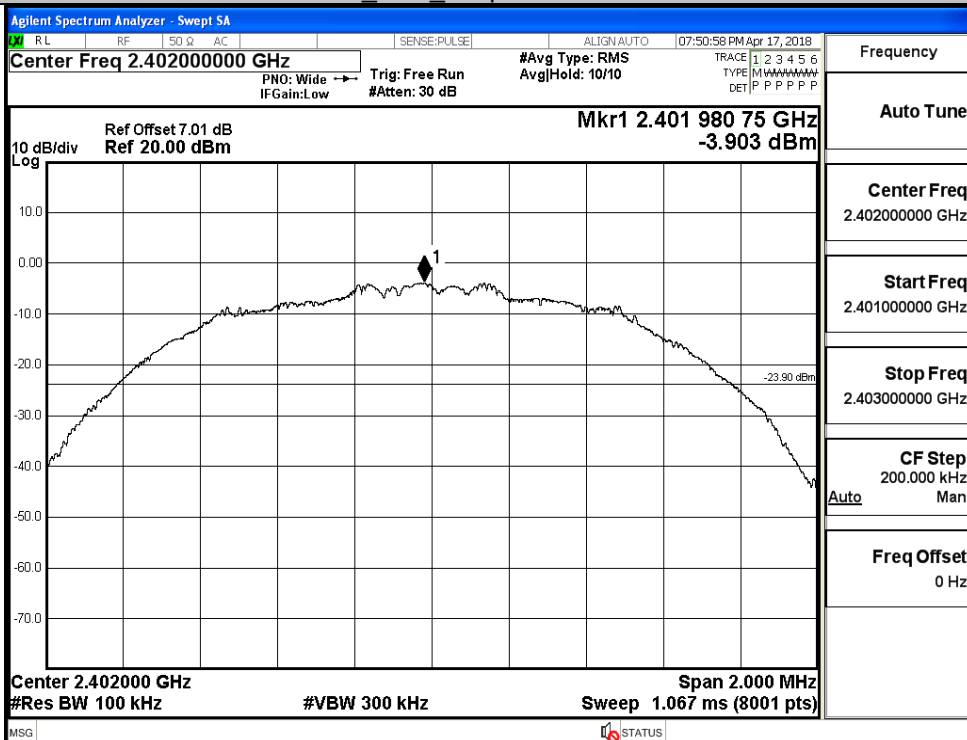


Puw

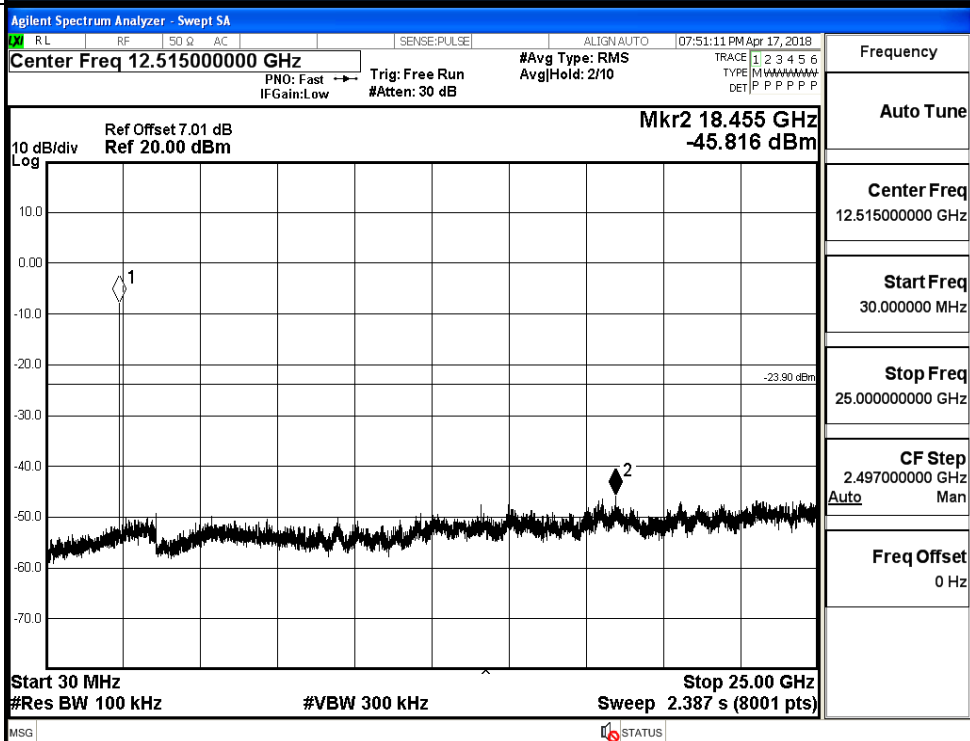


$\pi/4$ DQPSK LCH_Graphs

Pref

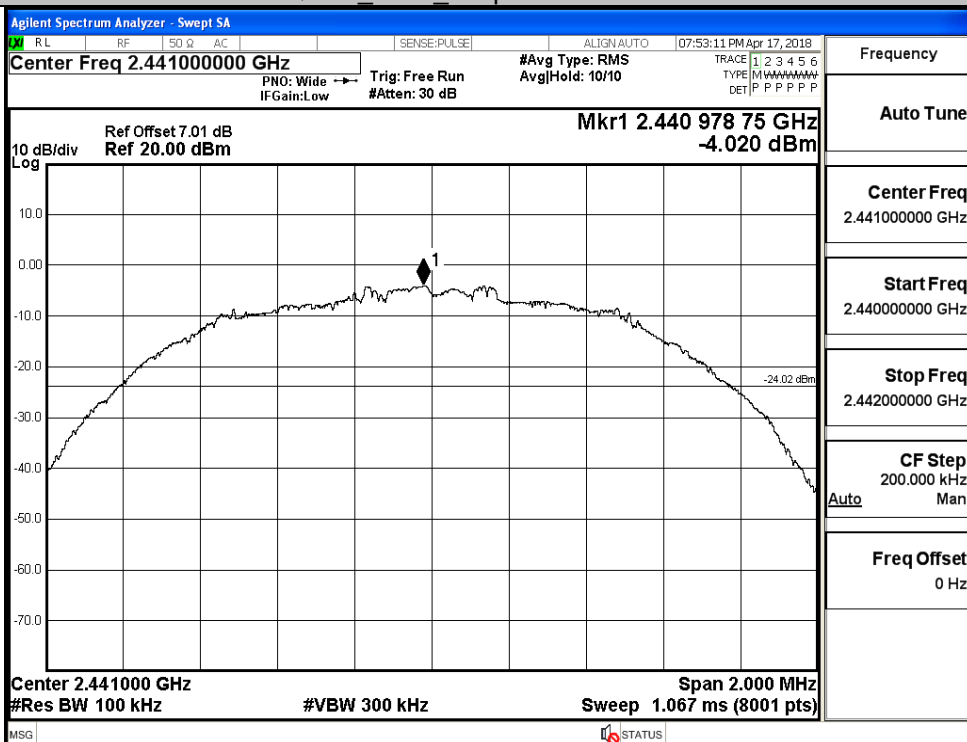


Puw

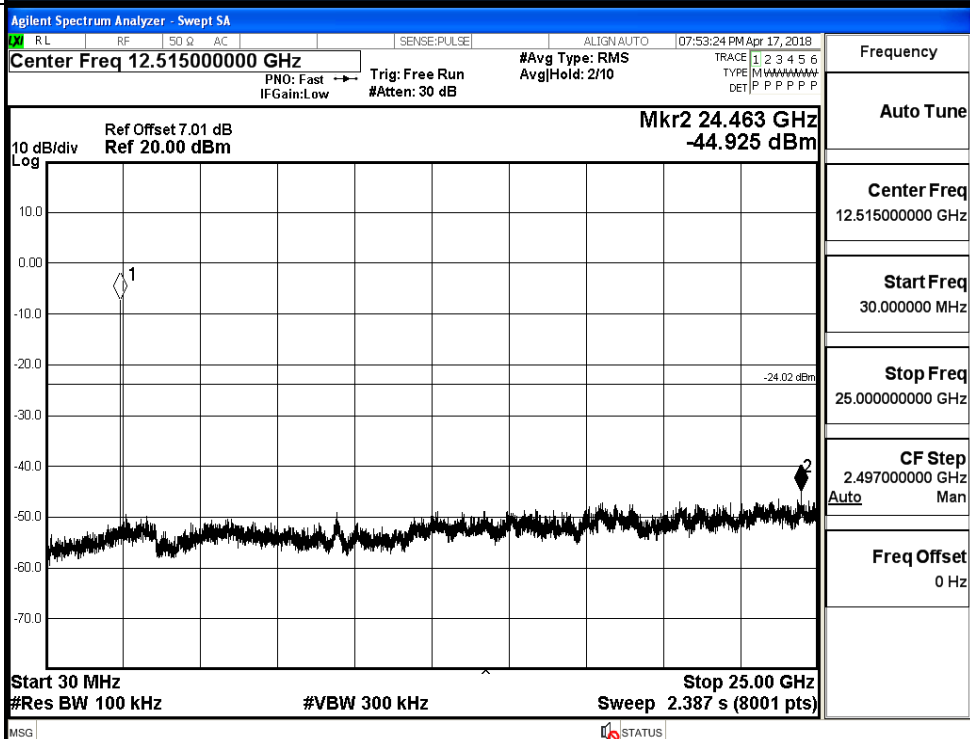


π /4DQPSK_MCH_Graphs

Pref

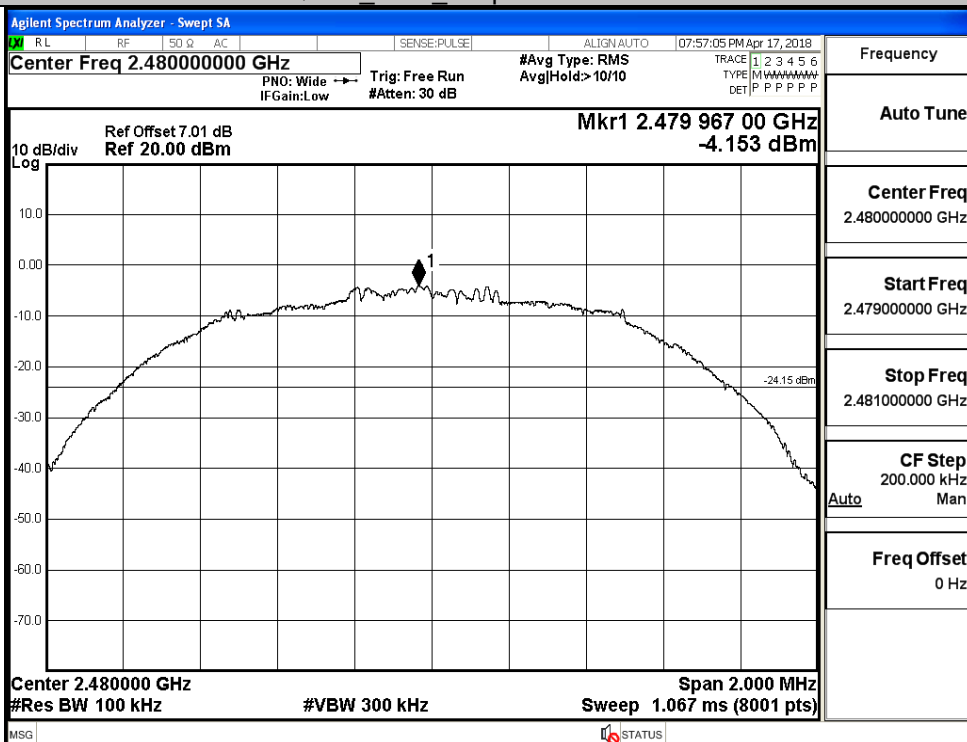


Puw

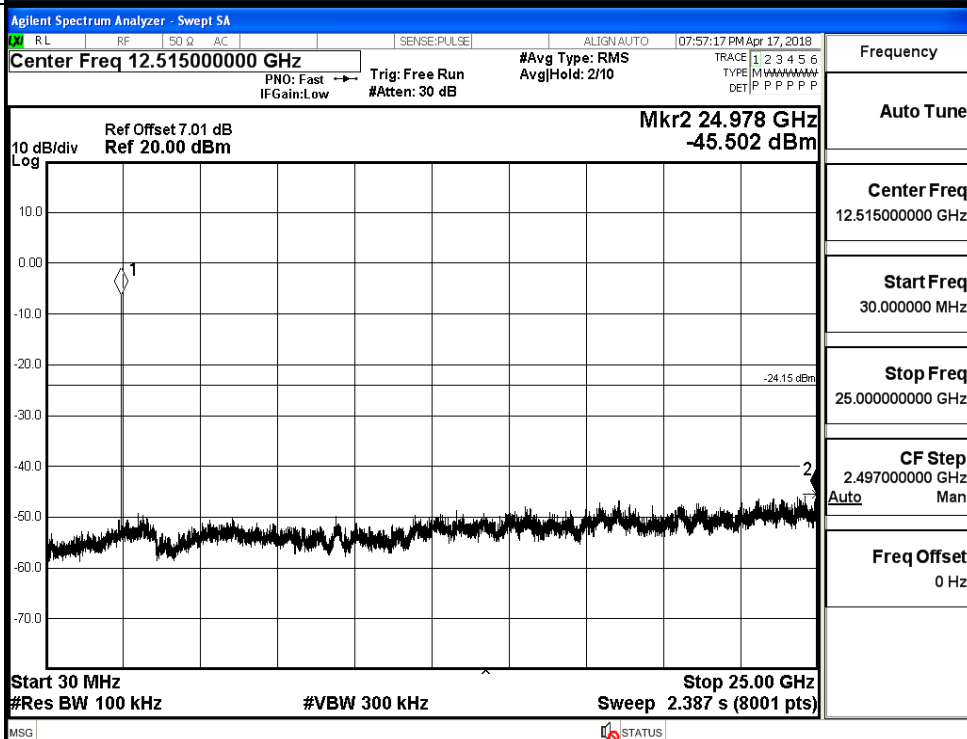


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

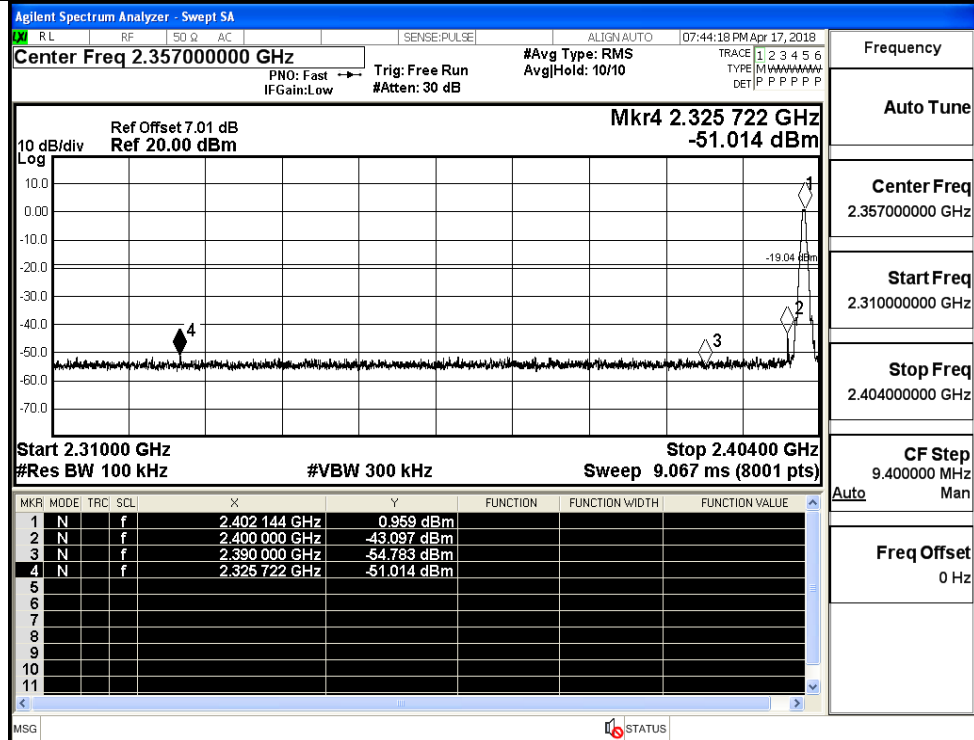


A.7 Band-edge for RF Conducted Emissions

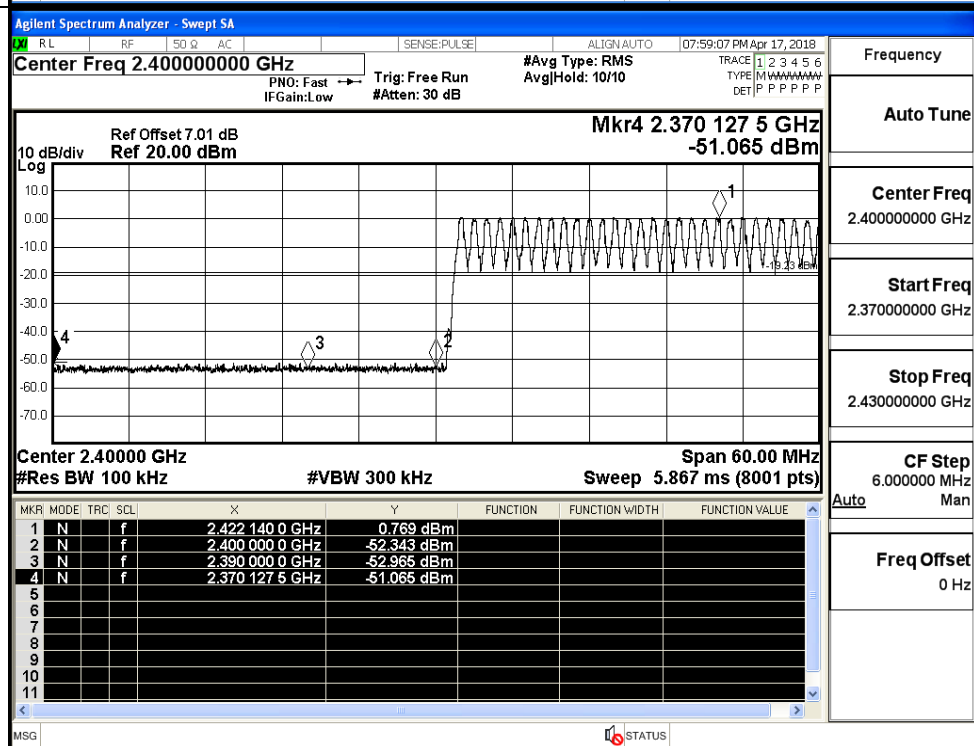
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	0.959	Off	-51.014	-19.04	PASS
			0.769	On	-51.065	-19.23	PASS
	HCH	2480	0.445	Off	-43.968	-19.56	PASS
			0.570	On	-45.648	-19.43	PASS
$\pi/4$ DQPSK	LCH	2402	-3.964	Off	-50.876	-23.96	PASS
			-3.817	On	-50.861	-23.82	PASS
	HCH	2480	-4.206	Off	-43.422	-24.21	PASS
			-4.047	On	-44.997	-24.05	PASS

Test Graphs

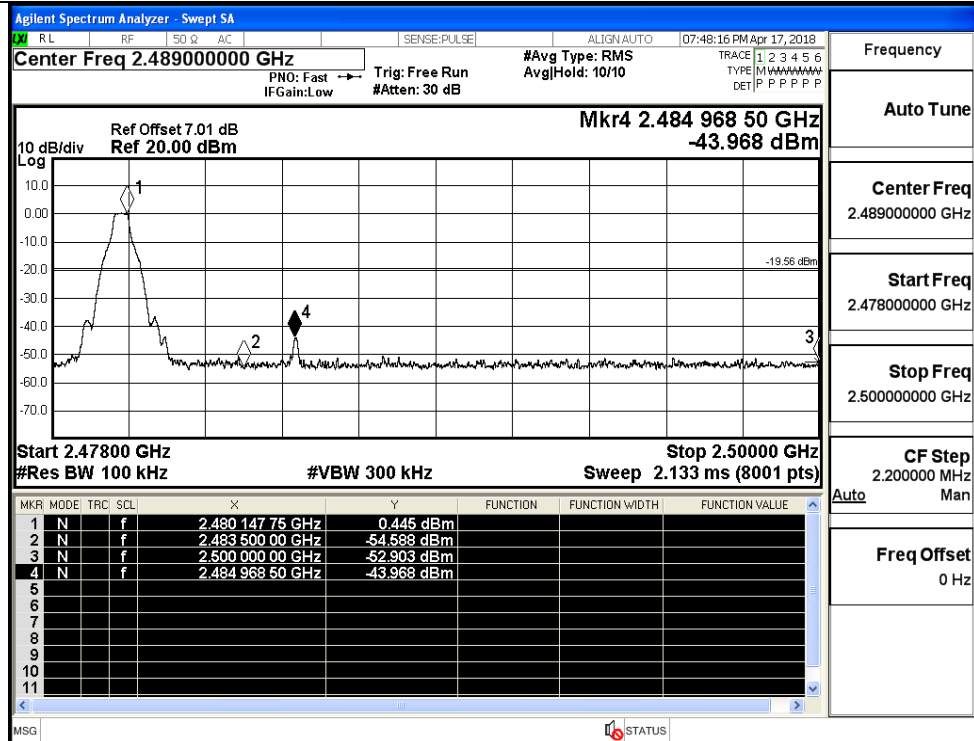
GFSK/LCH/No Hop



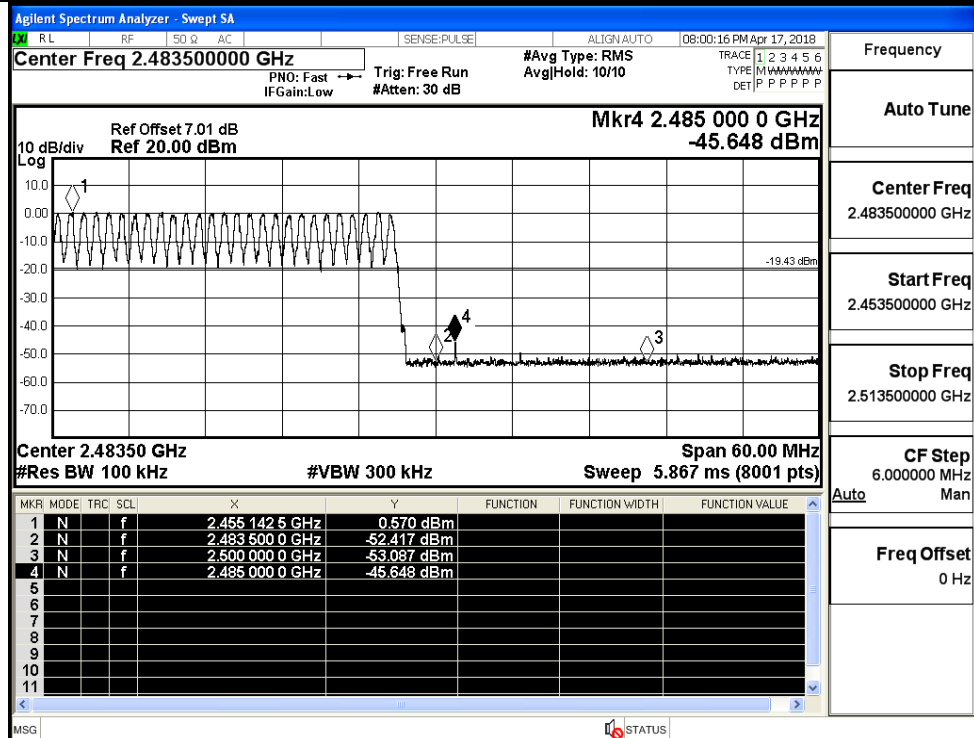
GFSK/LCH/Hop



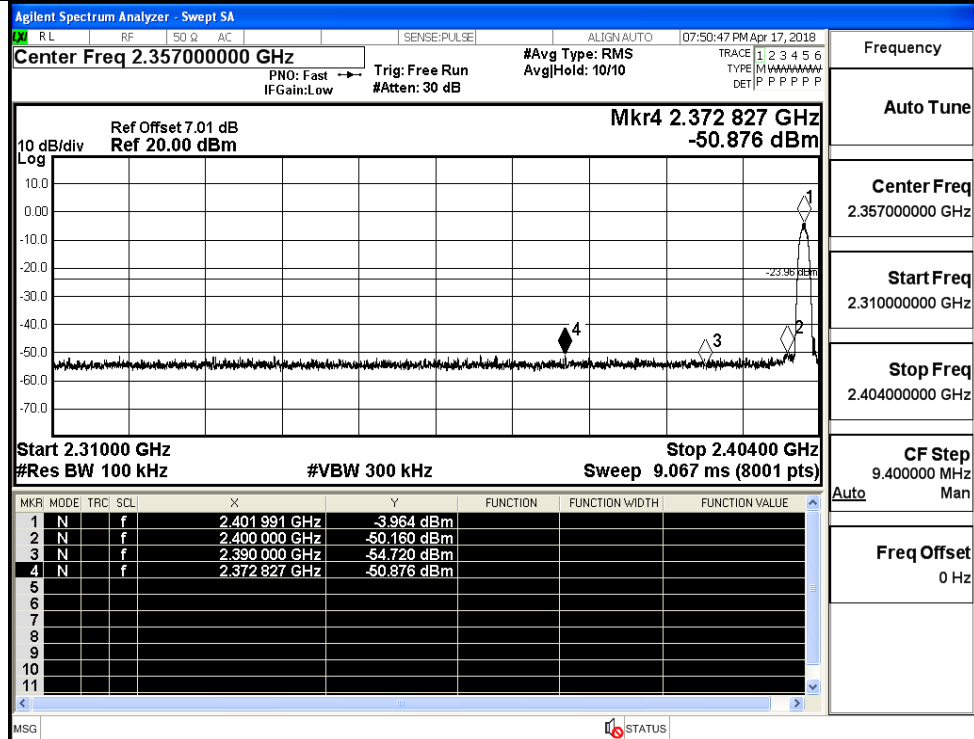
GFSK/HCH/No Hop



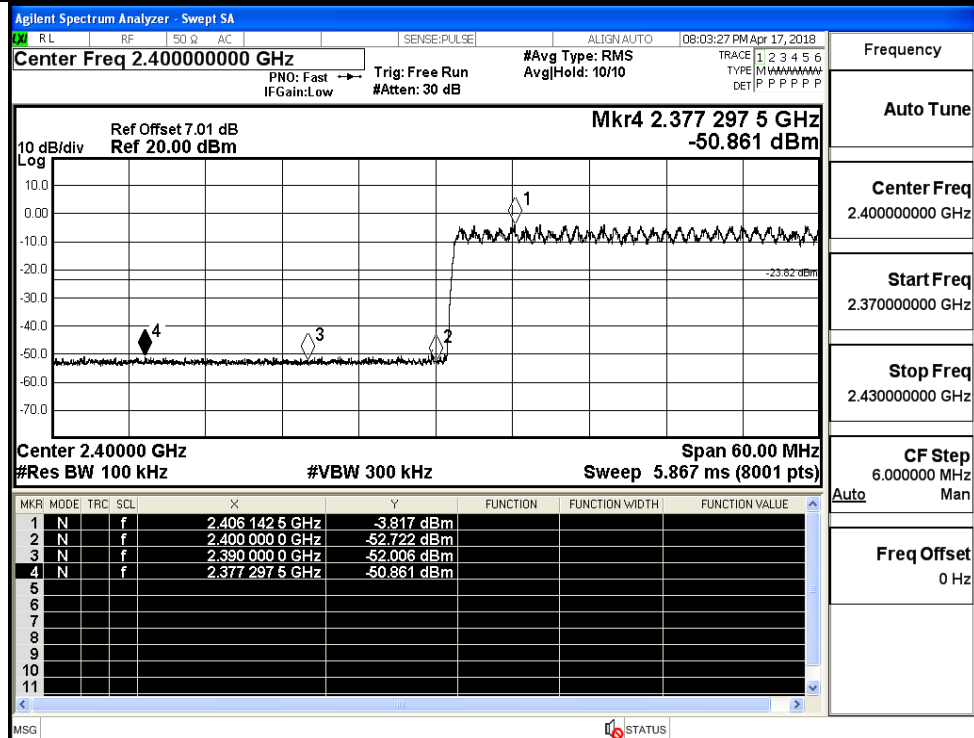
GFSK/HCH/Hop



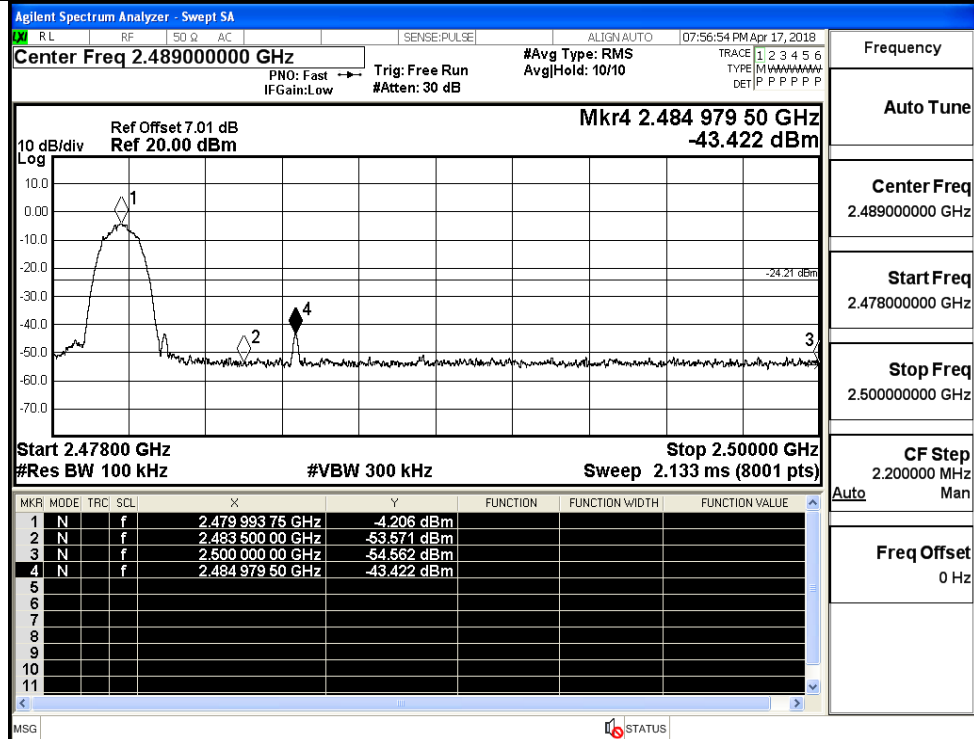
$\pi/4$ DQPSK/LCH/No
Hop



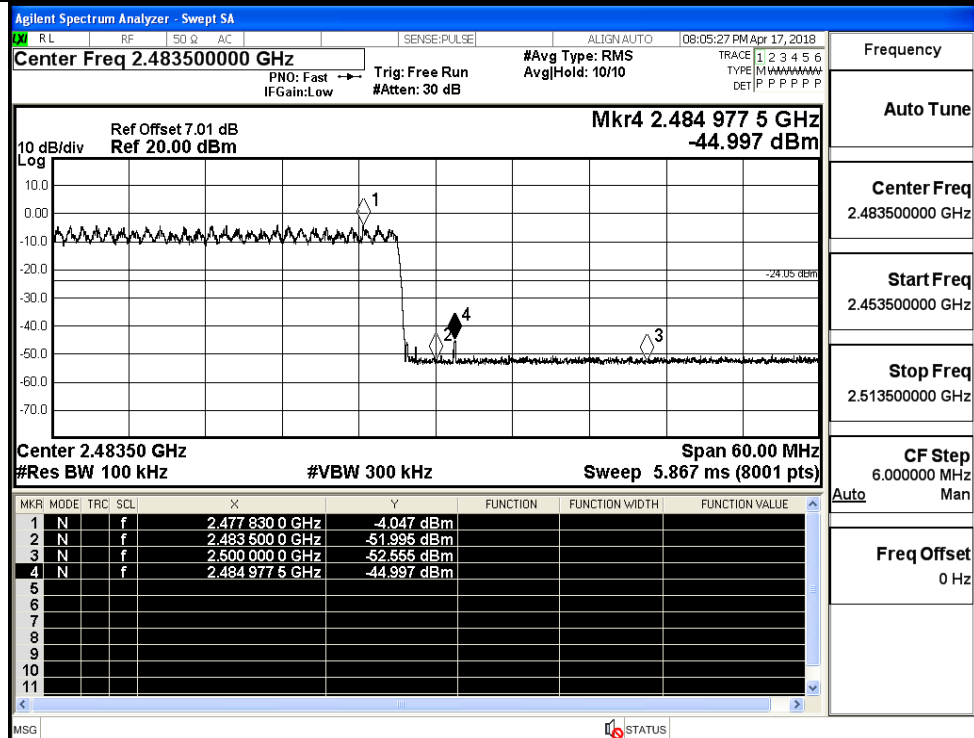
$\pi/4$ DQPSK/LCH/Hop



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



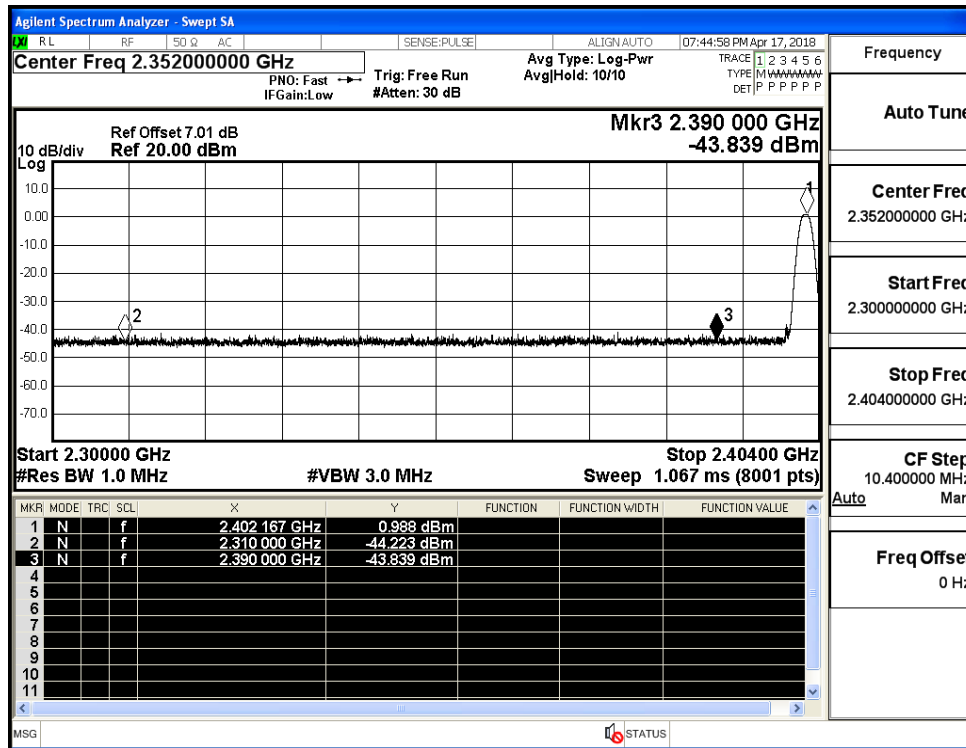
$\pi/4$ DQPSK/HCH/Hop



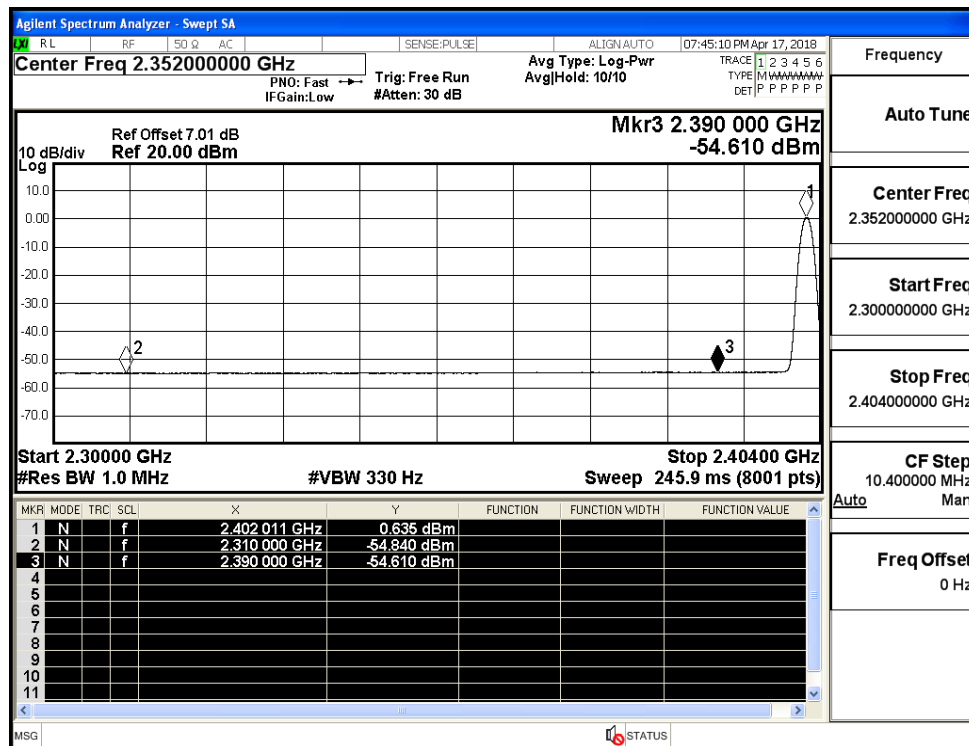
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.22	2.0	0	52.98	PEAK	74	PASS
	Off	2310.0	-54.84	2.0	0	42.36	AV	54	PASS
	Off	2390.0	-43.84	2.0	0	53.36	PEAK	74	PASS
	Off	2390.0	-54.61	2.0	0	42.59	AV	54	PASS
	Off	2483.5	-44.06	2.0	0	53.14	PEAK	74	PASS
	Off	2483.5	-54.20	2.0	0	43.00	AV	54	PASS
	Off	2500.0	-44.19	2.0	0	53.01	PEAK	74	PASS
	Off	2500.0	-54.11	2.0	0	43.09	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-45.06	2.0	0	52.14	PEAK	74	PASS
	Off	2310.0	-54.82	2.0	0	42.38	AV	54	PASS
	Off	2390.0	-45.17	2.0	0	52.03	PEAK	74	PASS
	Off	2390.0	-54.47	2.0	0	42.73	AV	54	PASS
	Off	2483.5	-43.38	2.0	0	53.82	PEAK	74	PASS
	Off	2483.5	-54.02	2.0	0	43.18	AV	54	PASS
	Off	2500.0	-43.62	2.0	0	53.58	PEAK	74	PASS
	Off	2500.0	-54.14	2.0	0	43.06	AV	54	PASS

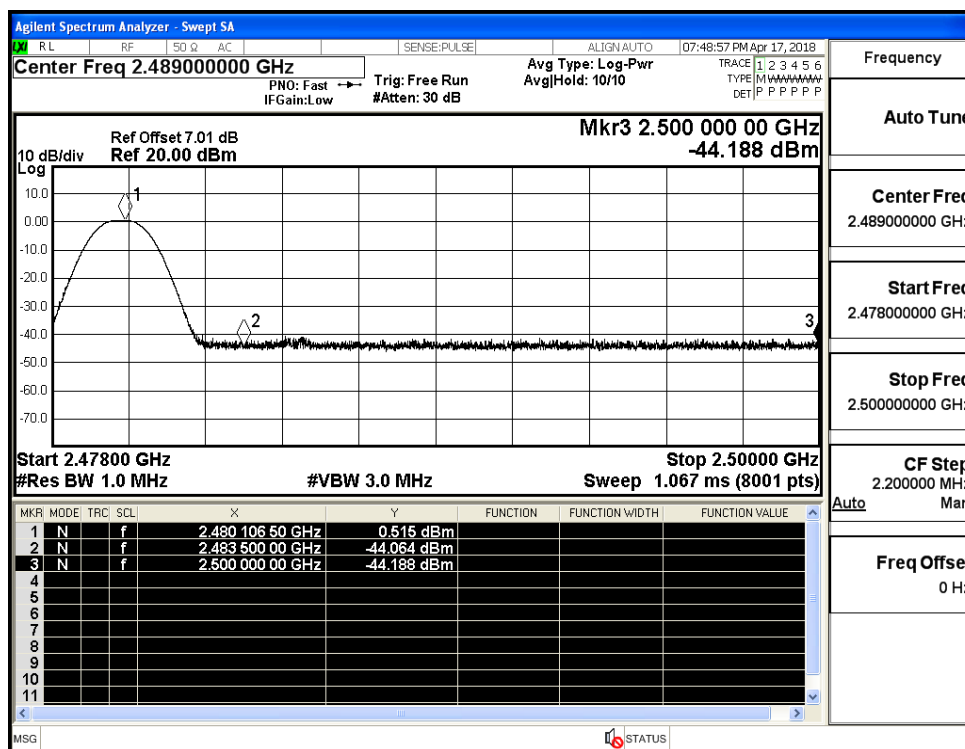
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



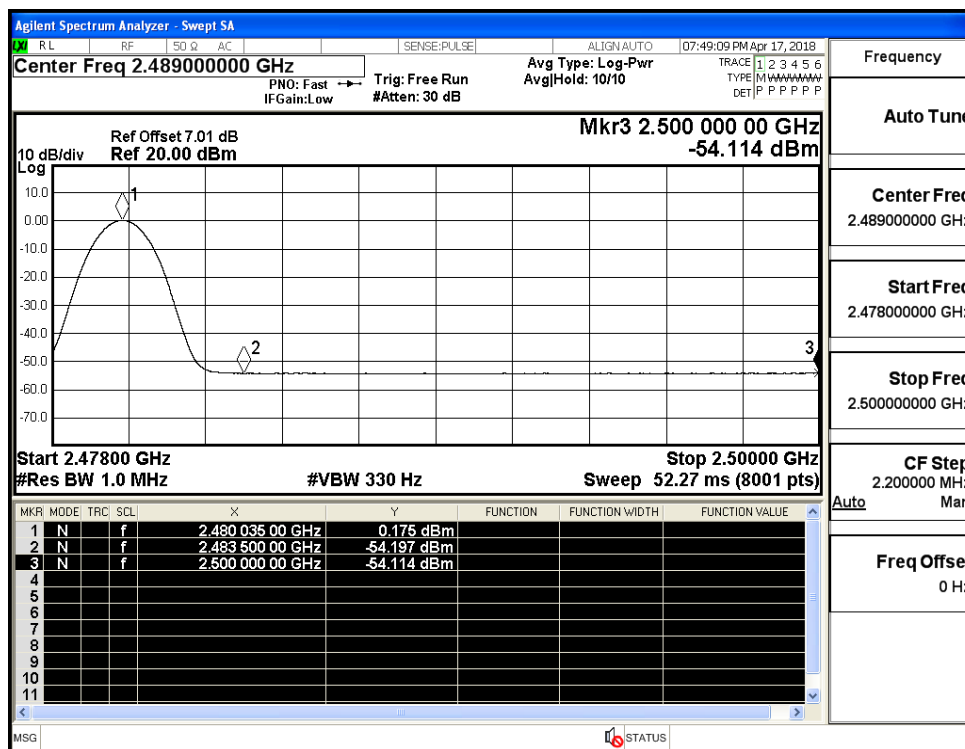
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

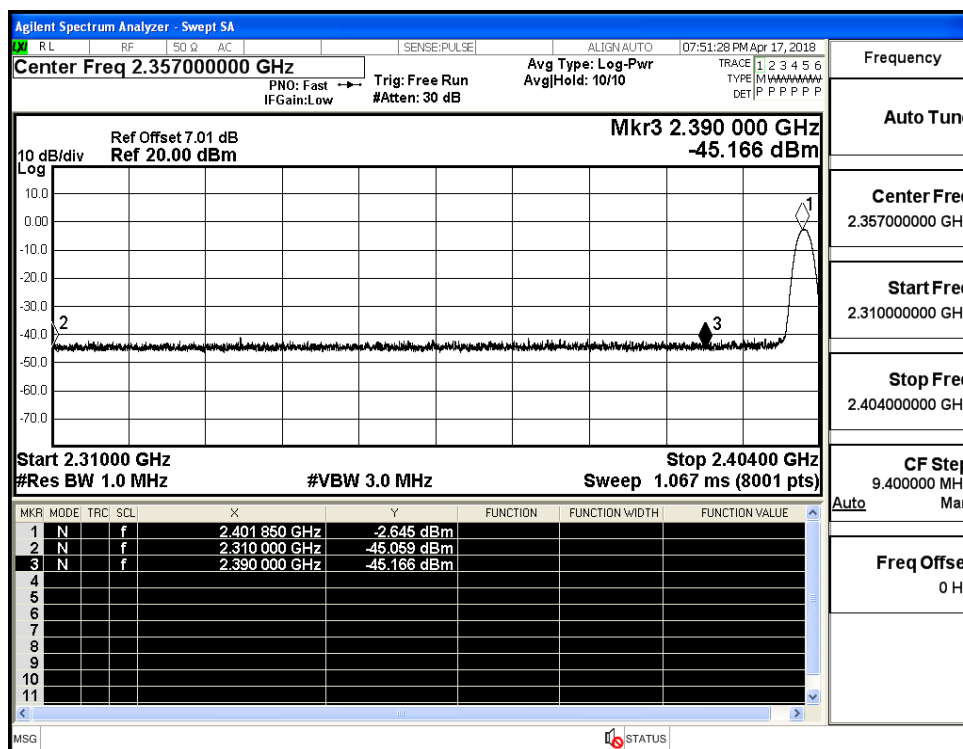
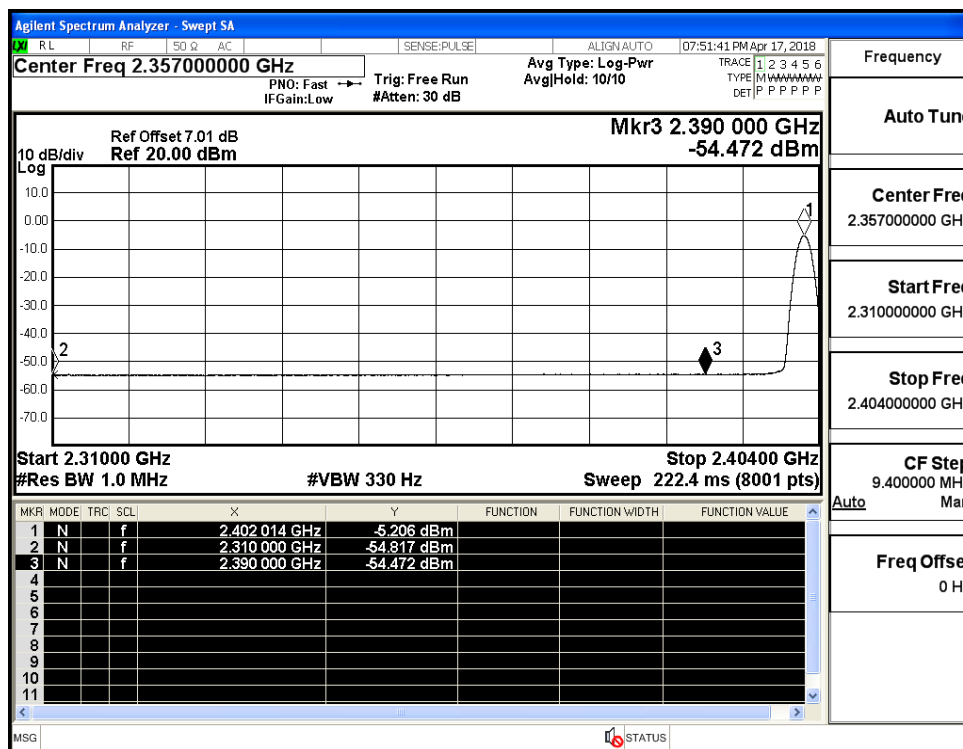


Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)

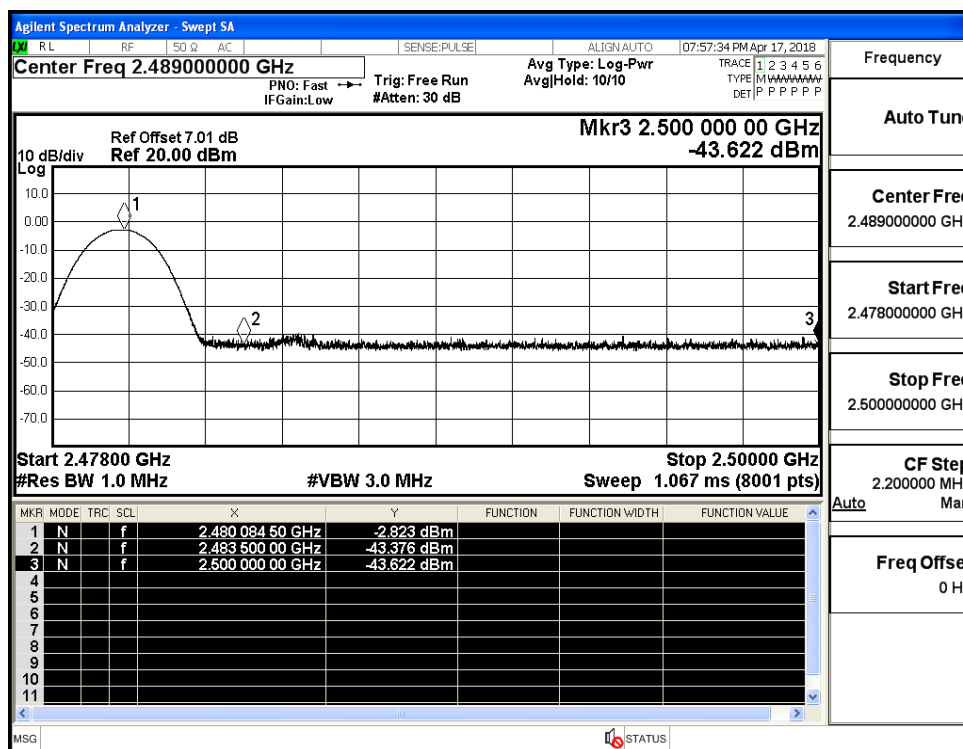


Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



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)

