

Appendix A

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

Product Name: PROTABLE VIDEO PROJECTOR

Trade Mark: GPX,KJM,iLive

Test Model: PJ609B

Environmental Conditions

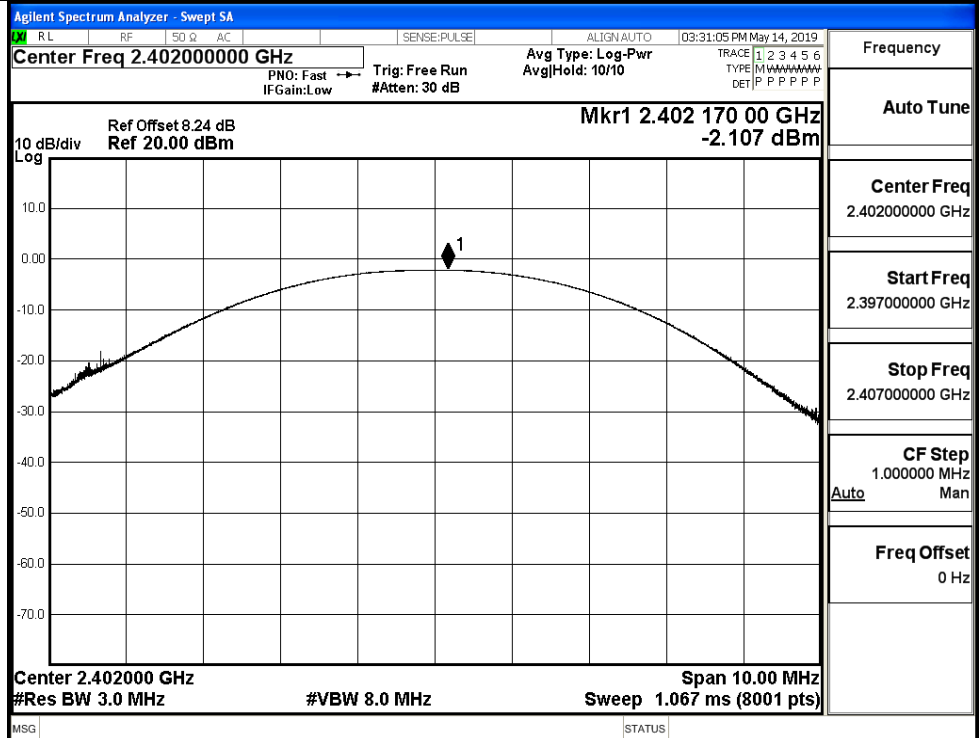
Temperature:	24.8 ° C
Relative Humidity:	52.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Tom.Liu

A.1 Maximum Conducted Peak Output Power

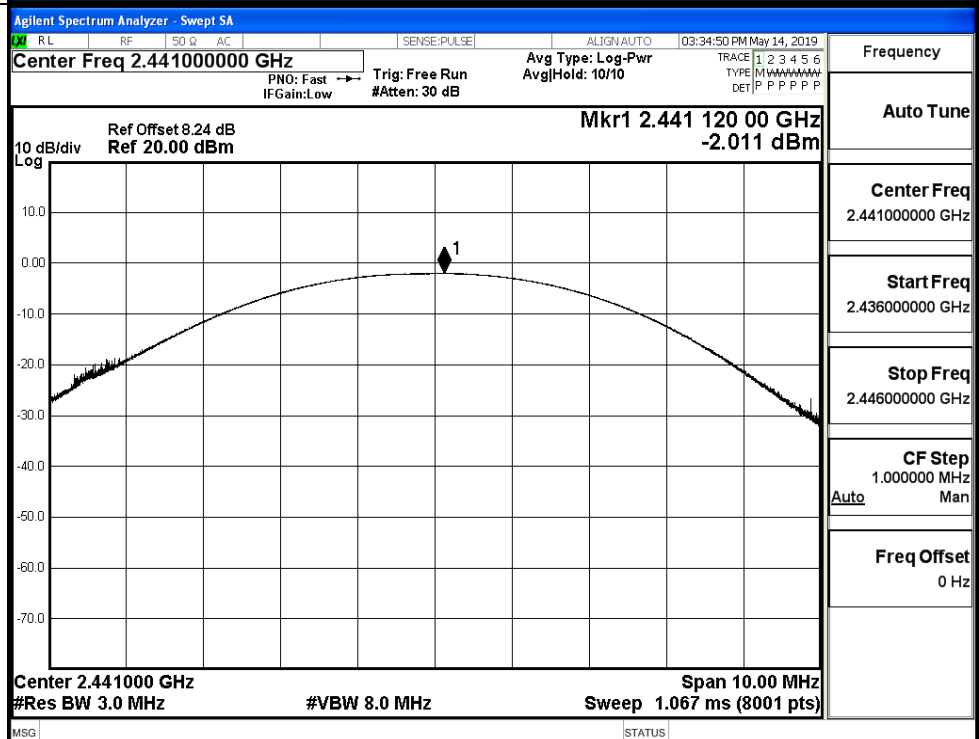
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-2.107	30	PASS
	MCH	-2.011	30	PASS
	HCH	-2.411	30	PASS
$\pi/4$ DQPSK	LCH	-0.953	21	PASS
	MCH	-0.865	21	PASS
	HCH	-1.249	21	PASS

Test Graphs

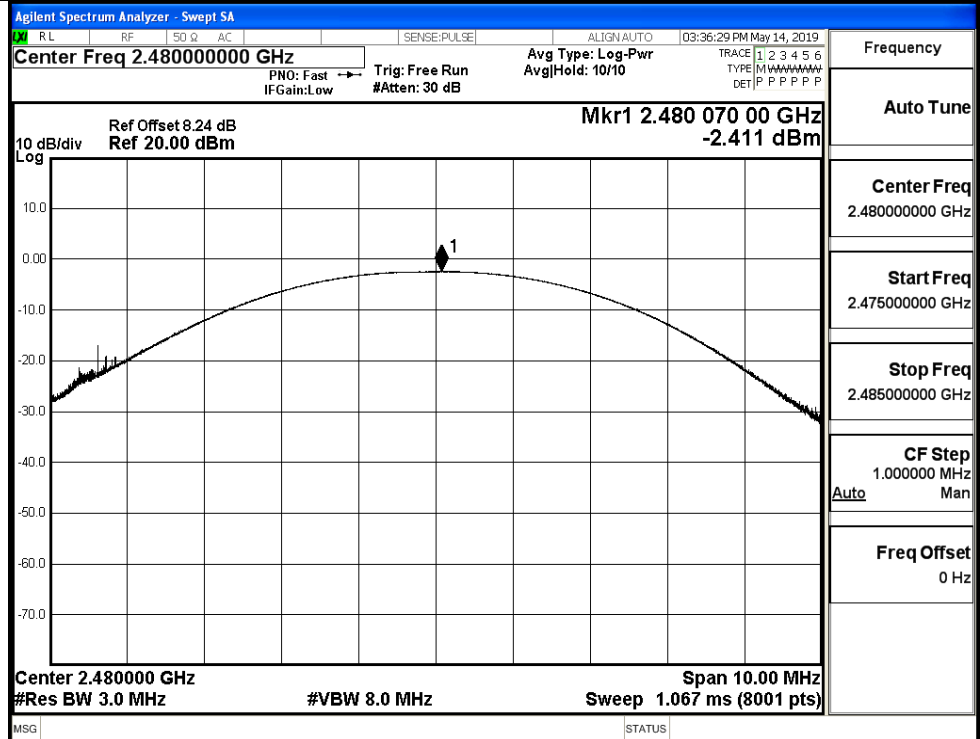
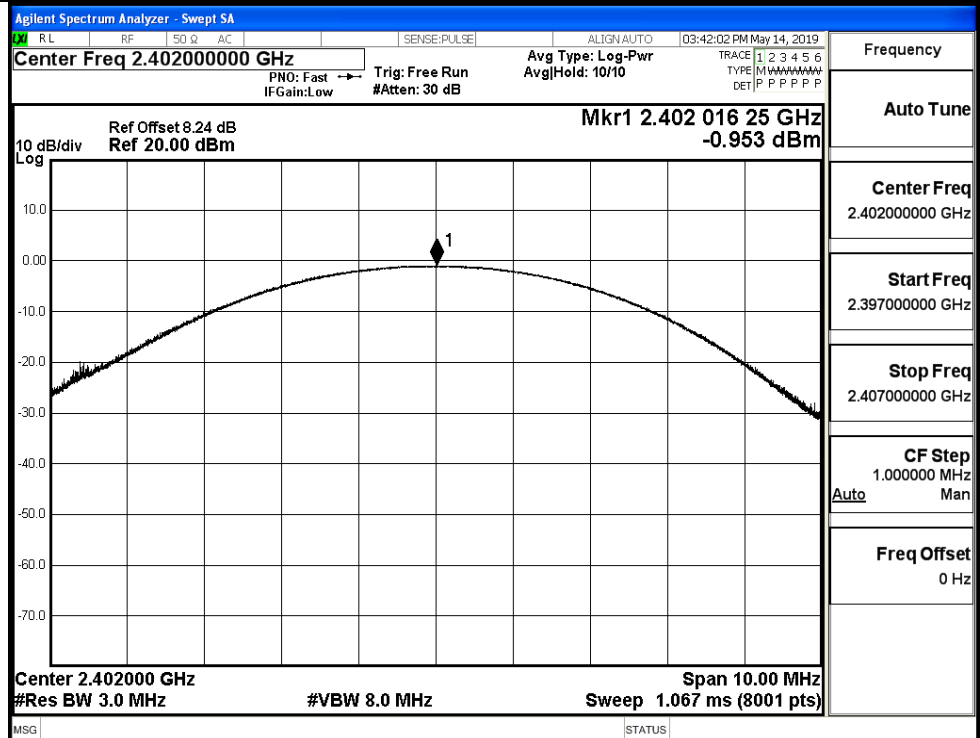
GFSK/LCH

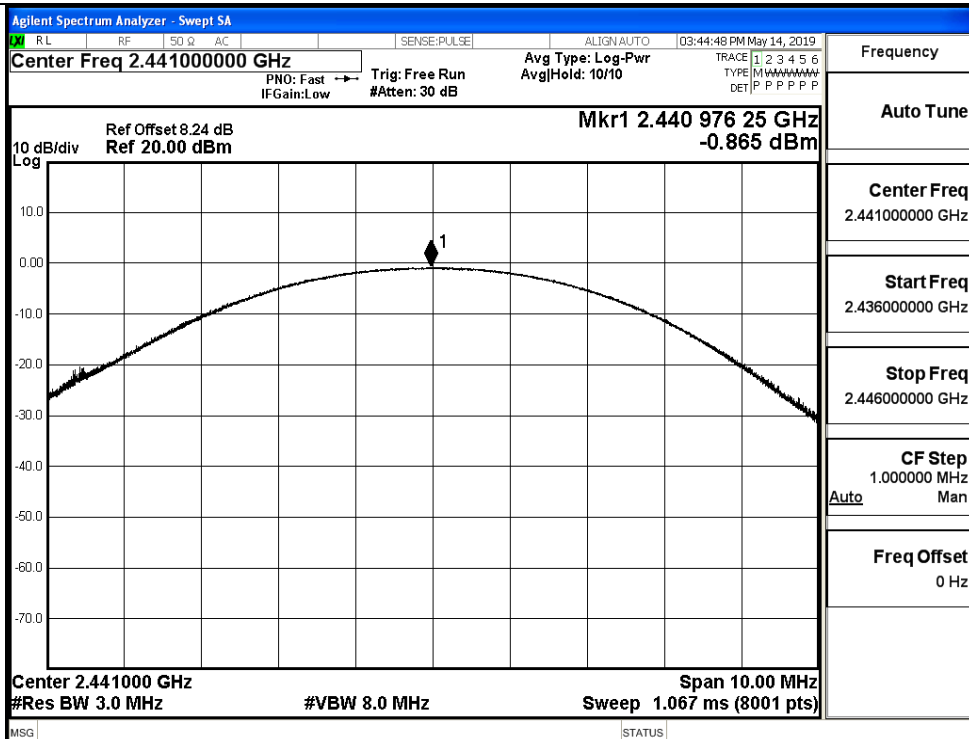
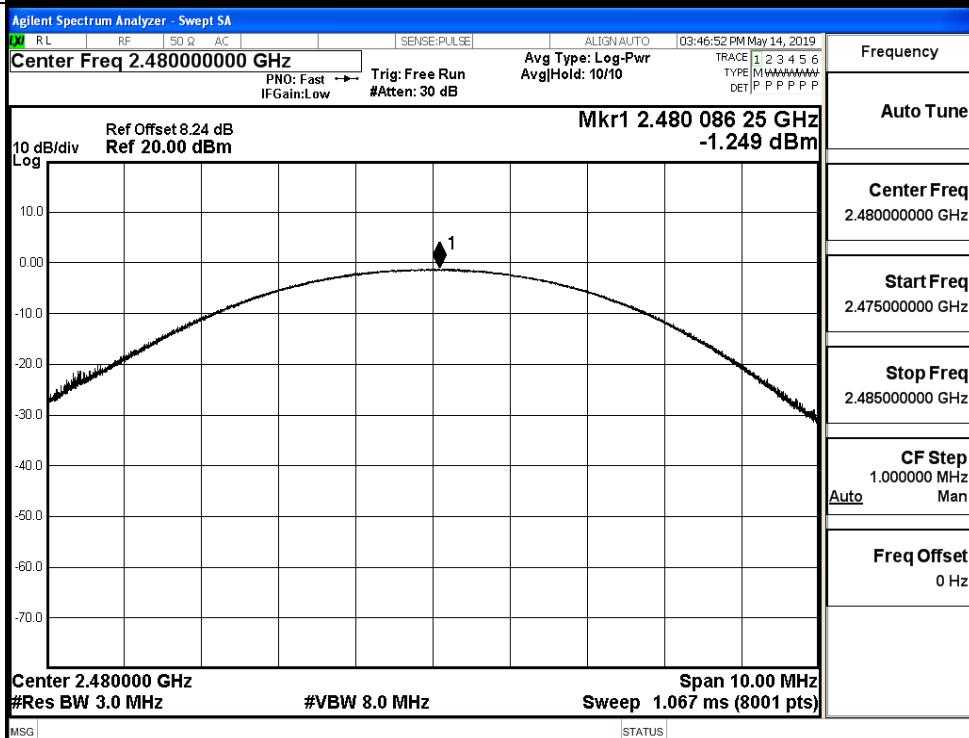


GFSK/MCH



GFSK/HCH

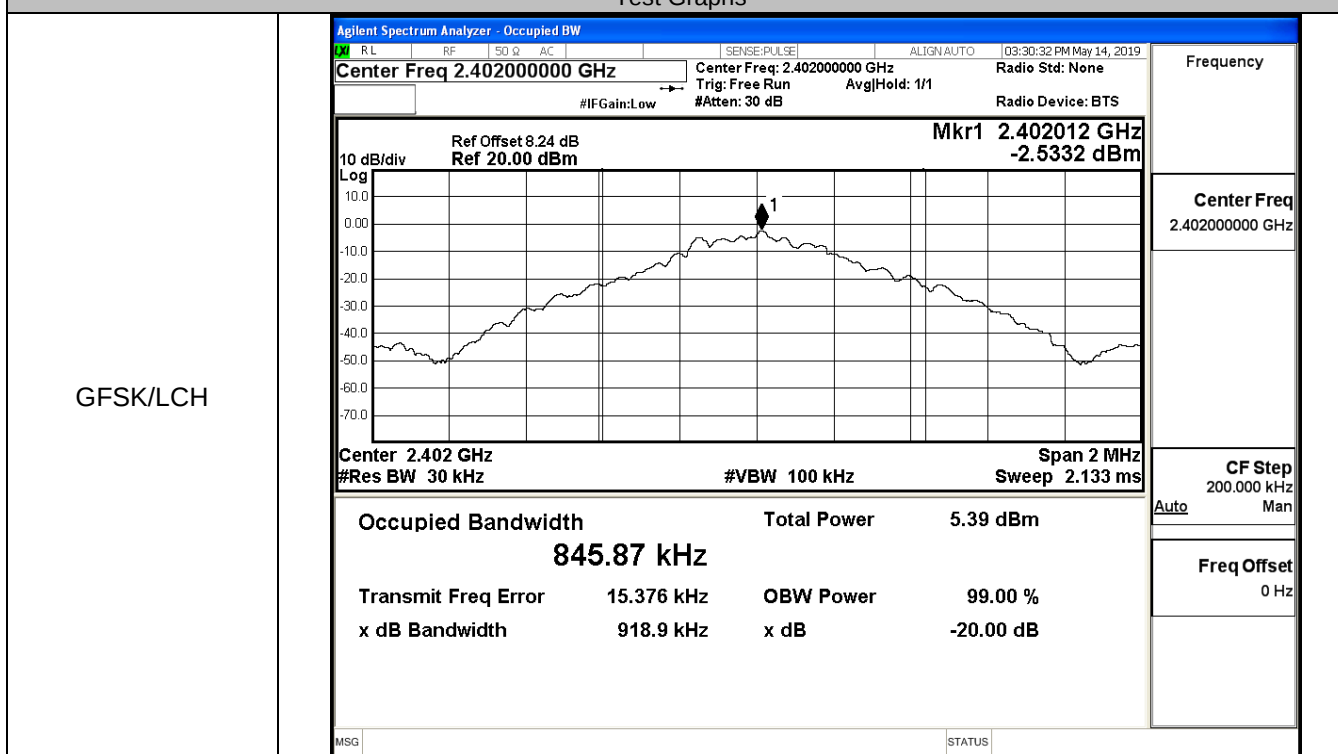
 π /4DQPSK/LCH

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

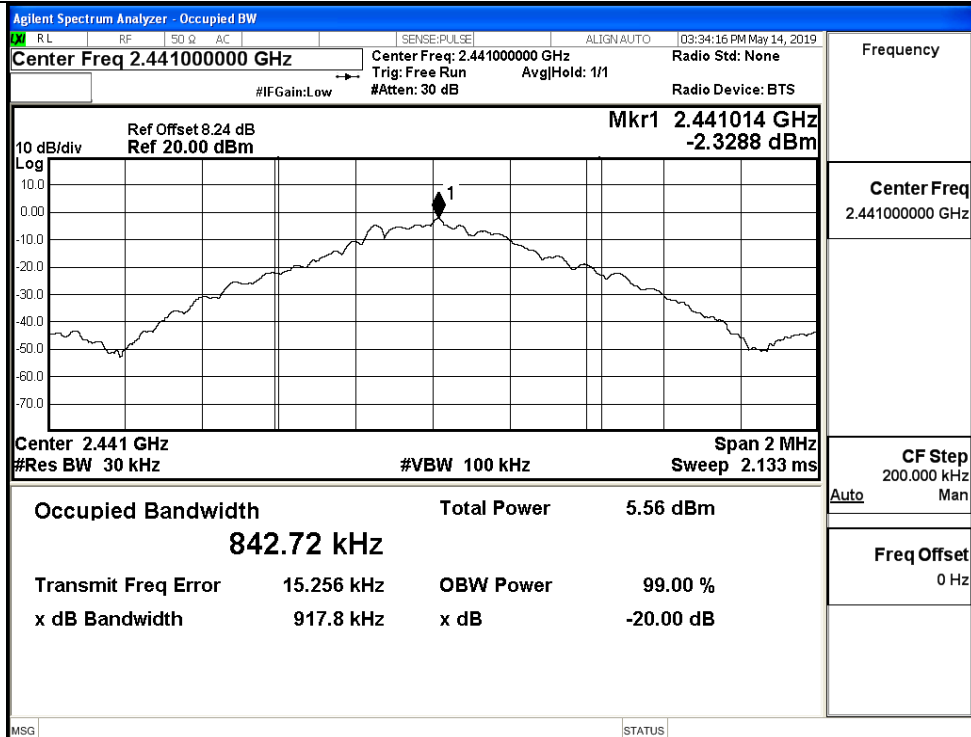
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9189	Not Specified	PASS
	MCH	0.9178	Not Specified	PASS
	HCH	0.9183	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.224	Not Specified	PASS
	MCH	1.247	Not Specified	PASS
	HCH	1.225	Not Specified	PASS

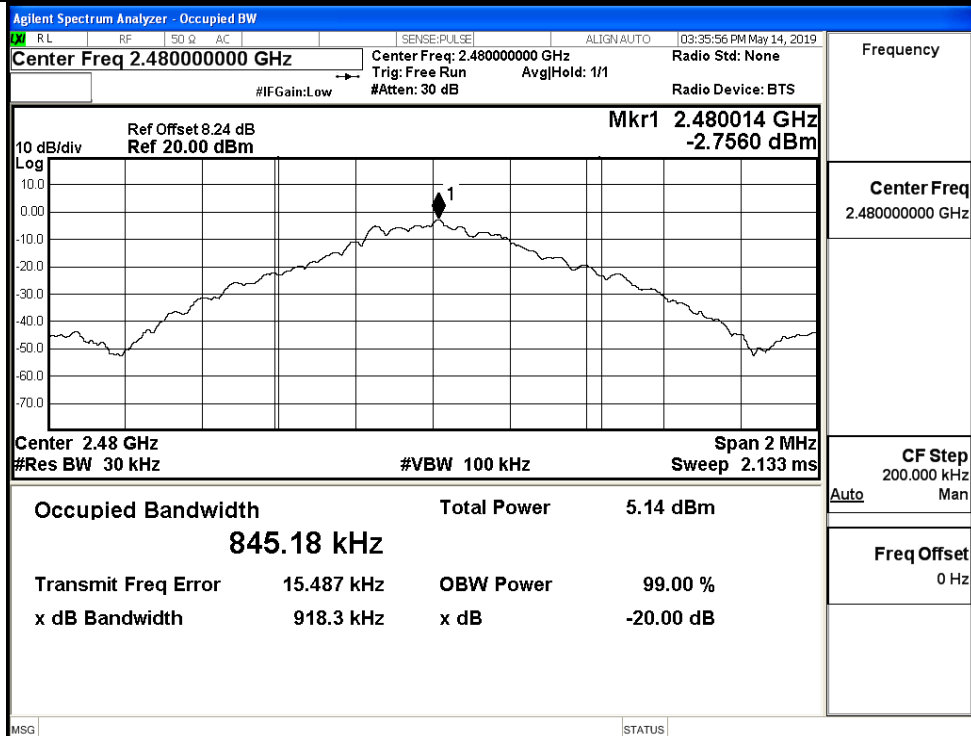
Test Graphs

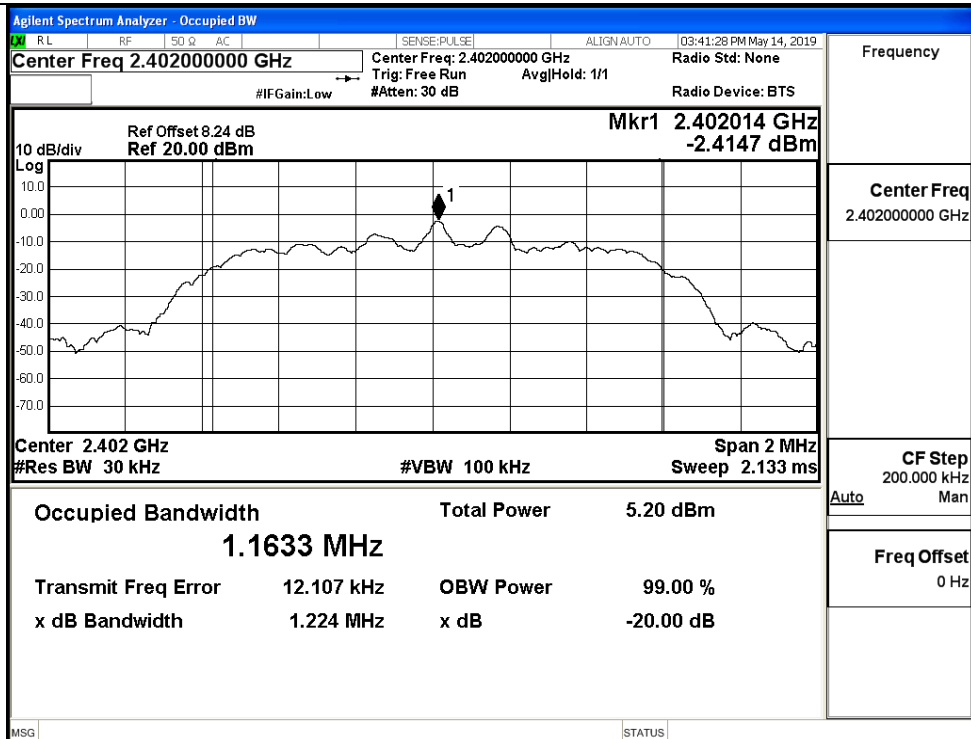
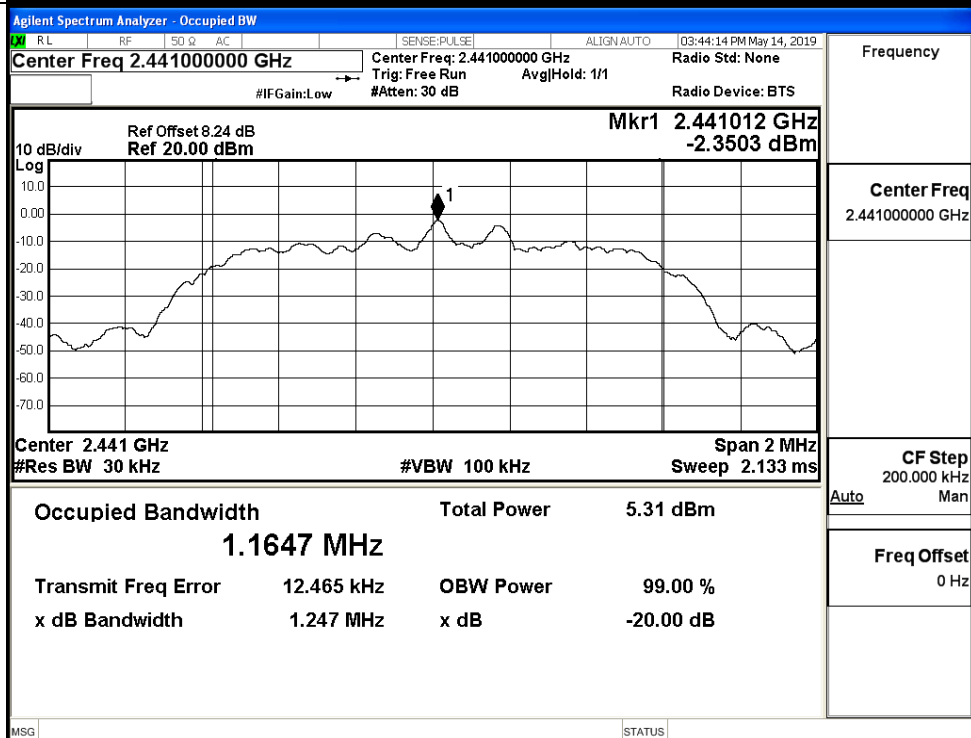


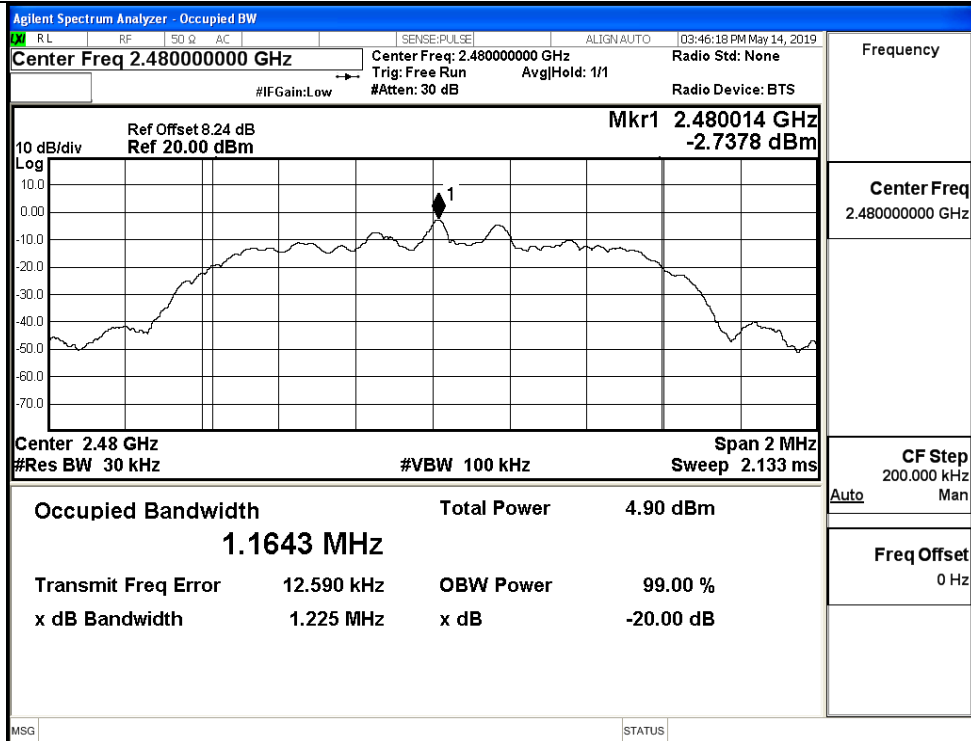
GFSK/MCH



GFSK/HCH



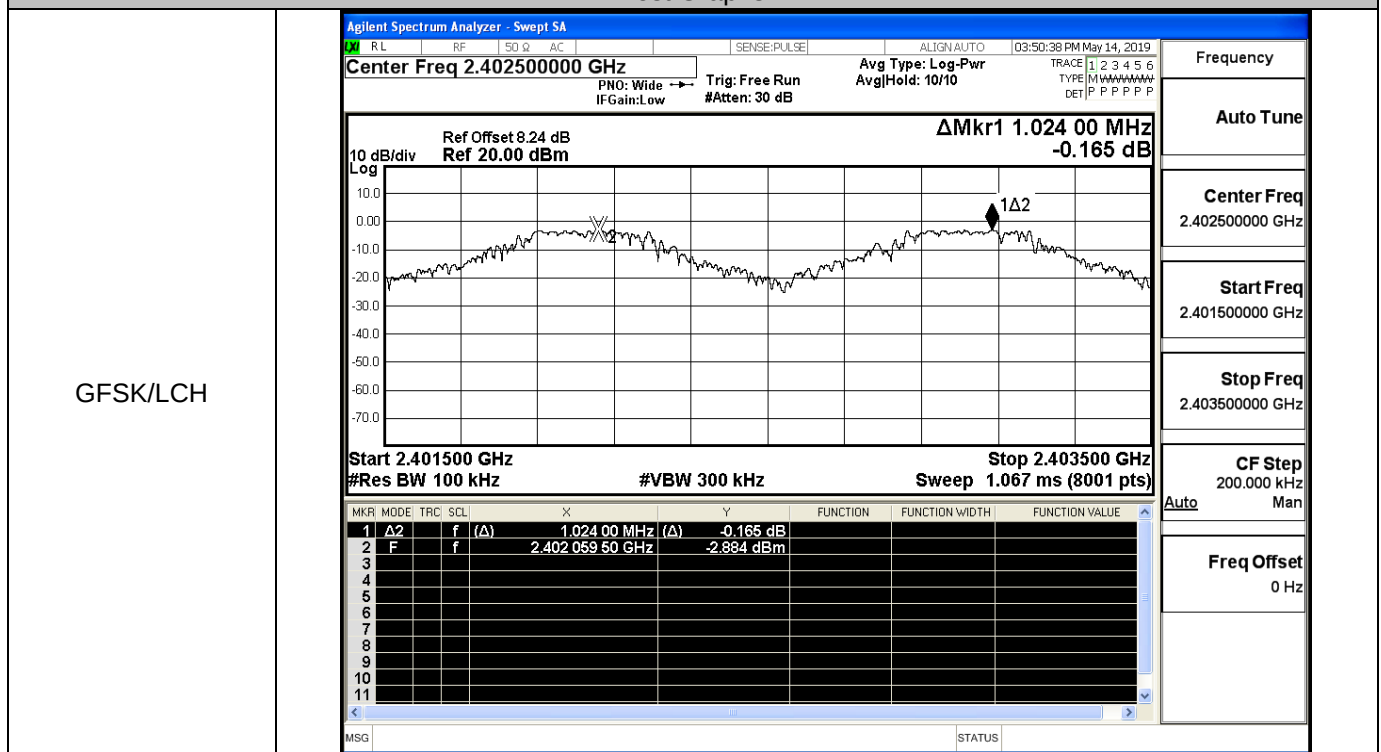
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

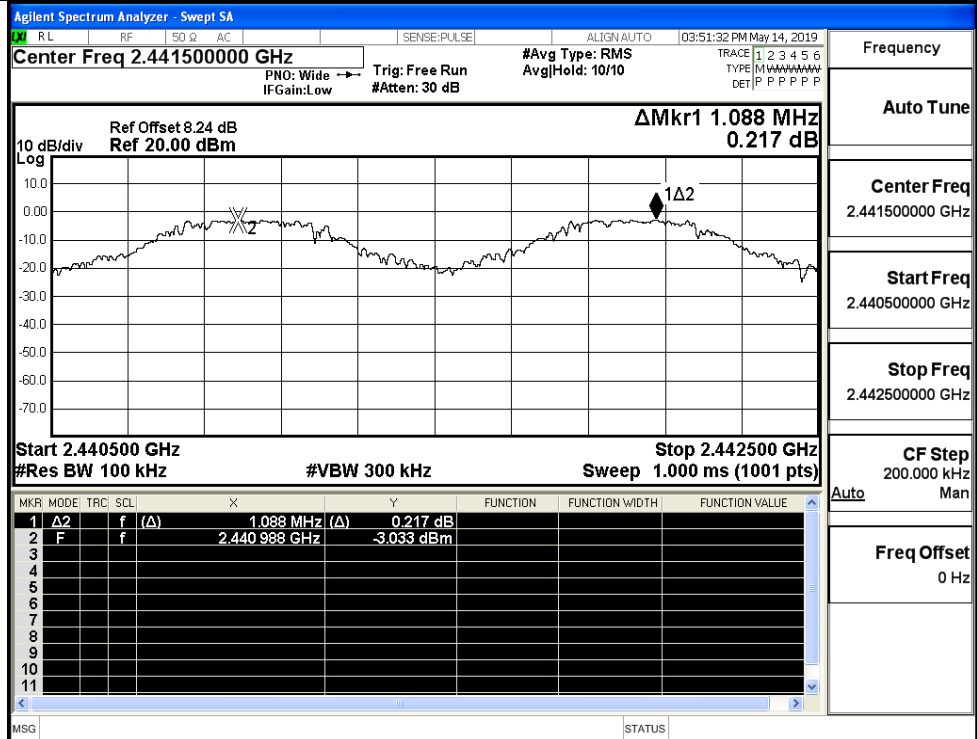
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.024	0.613	PASS
	MCH	1.088	0.613	PASS
	HCH	1.066	0.613	PASS
π /4DQPSK	LCH	1.044	0.831	PASS
	MCH	1.000	0.831	PASS
	HCH	1.180	0.831	PASS

Test Graphs



GFSK/MCH

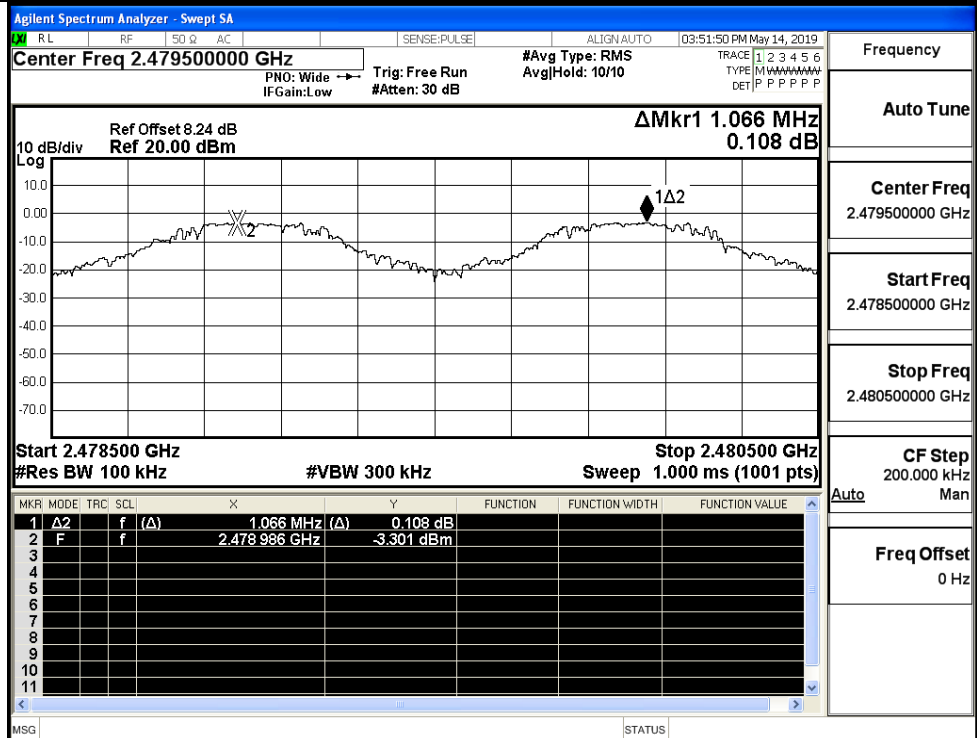


Frequency

Auto Tune

Center Freq
2.441500000 GHzStart Freq
2.440500000 GHzStop Freq
2.442500000 GHzCF Step
200.000 kHz
ManFreq Offset
0 Hz

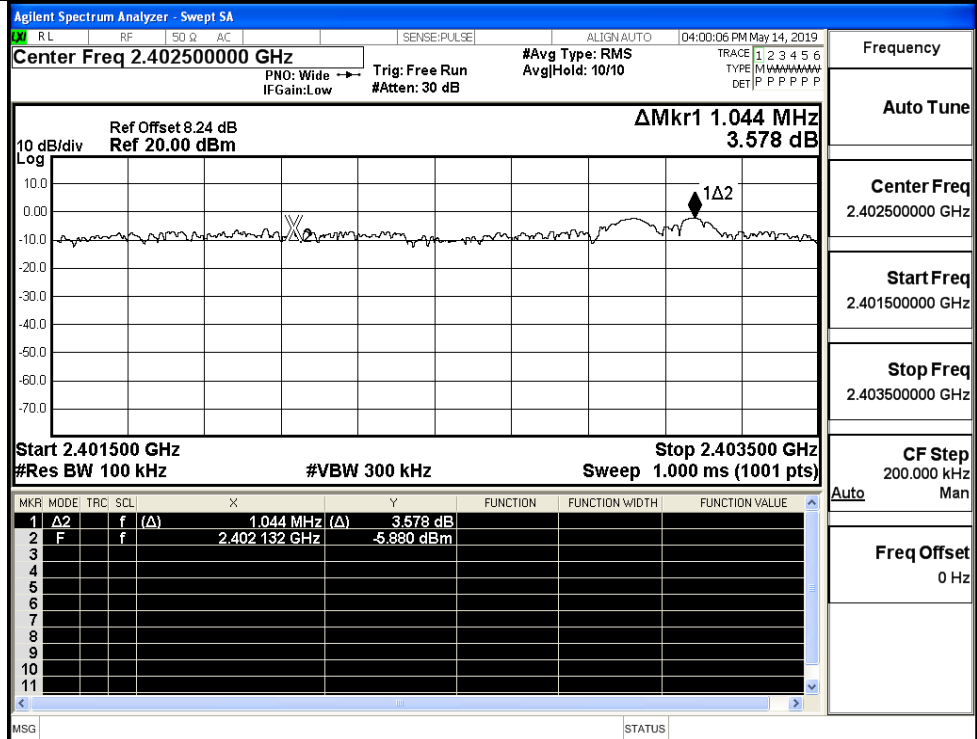
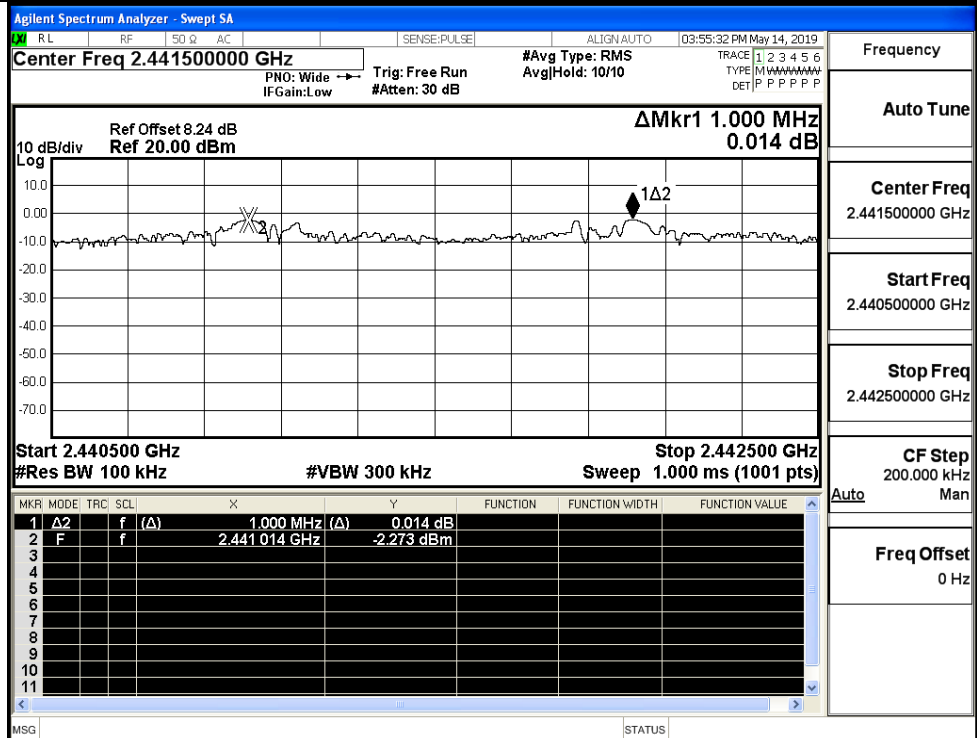
GFSK/HCH

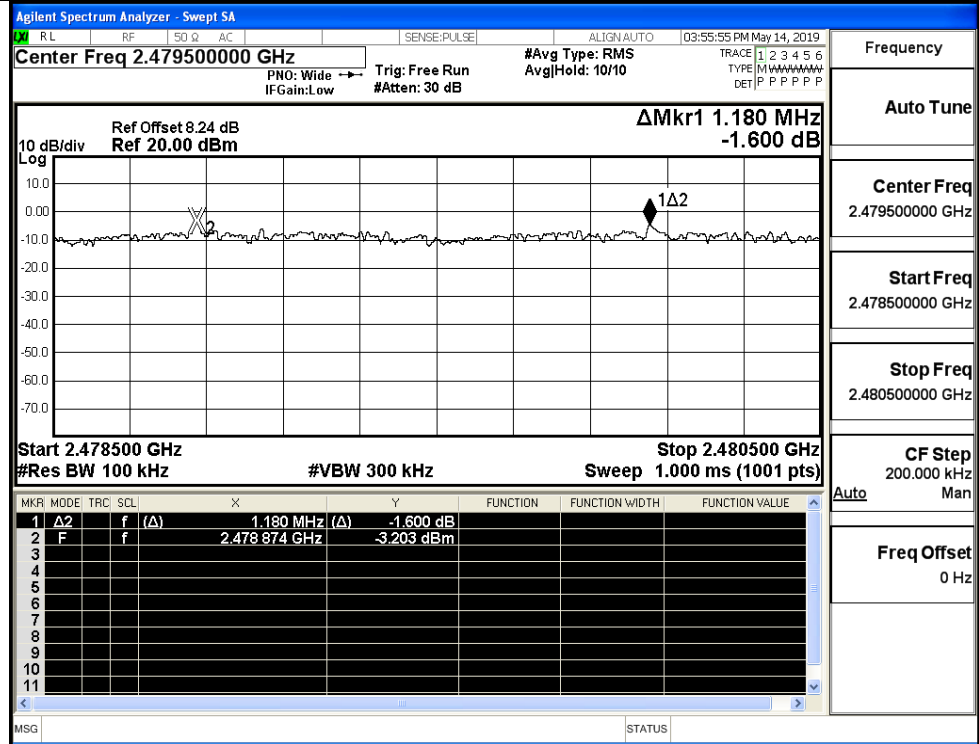


Frequency

Auto Tune

Center Freq
2.479500000 GHzStart Freq
2.478500000 GHzStop Freq
2.480500000 GHzCF Step
200.000 kHz
ManFreq Offset
0 Hz

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

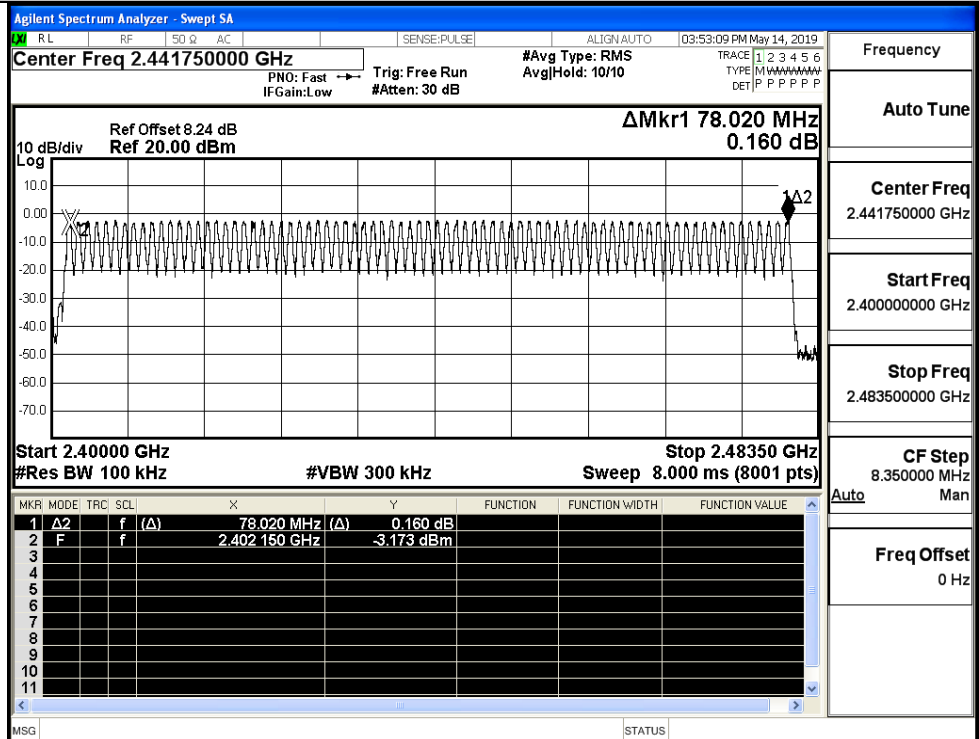
$\pi/4$ DQPSK/HCH

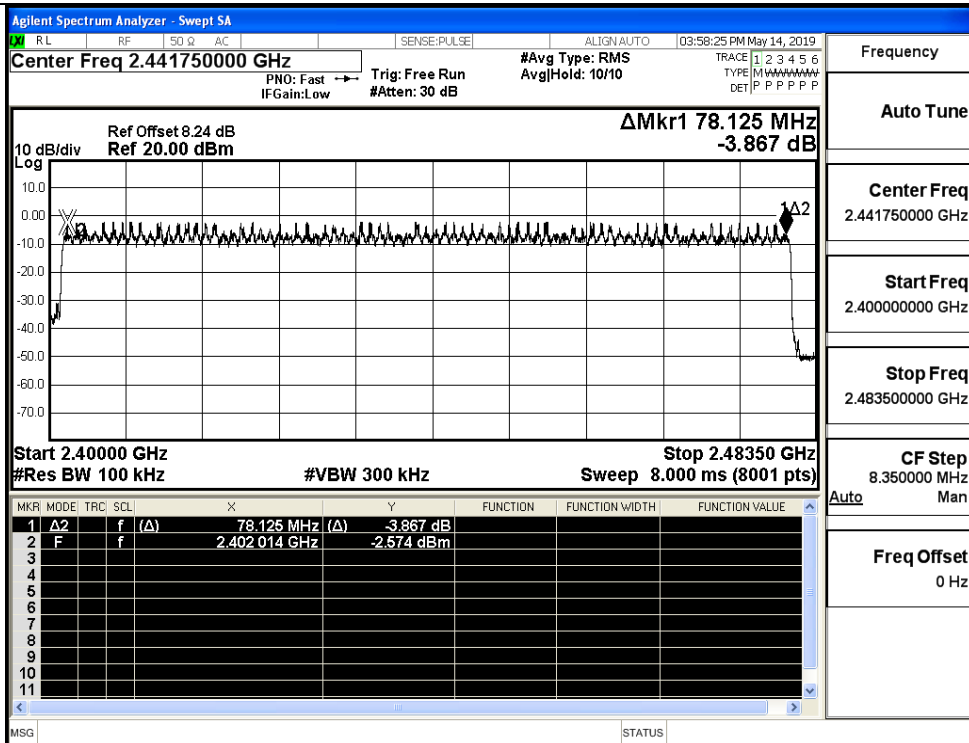
A.4 Hopping Channel Number

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



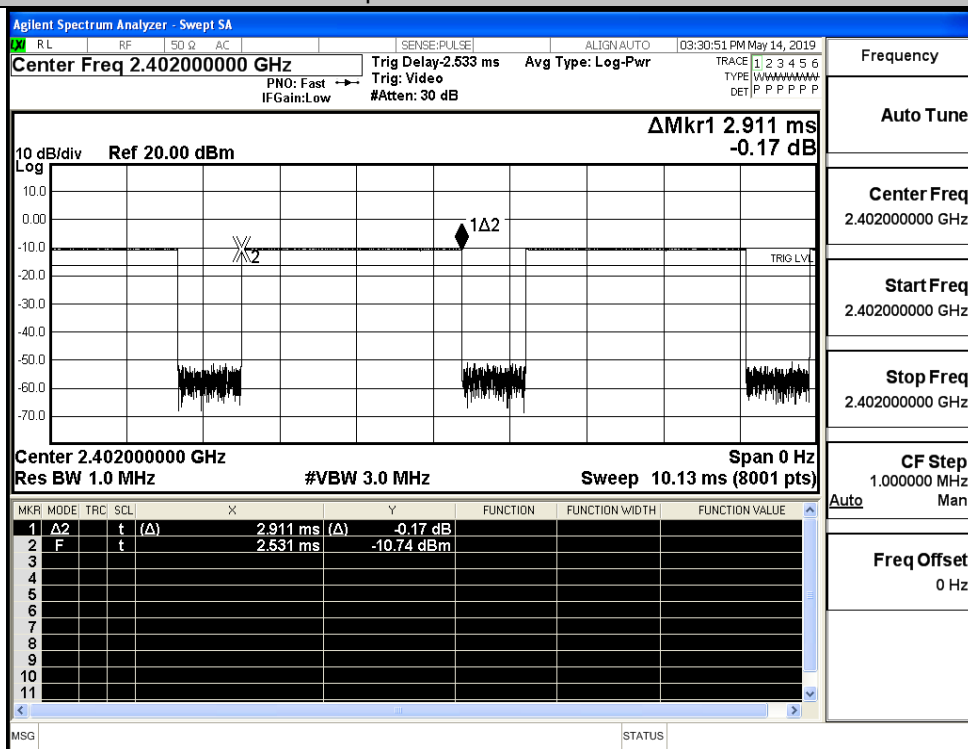
$\pi/4$ DQPSK/Hop

A.5 Dwell Time

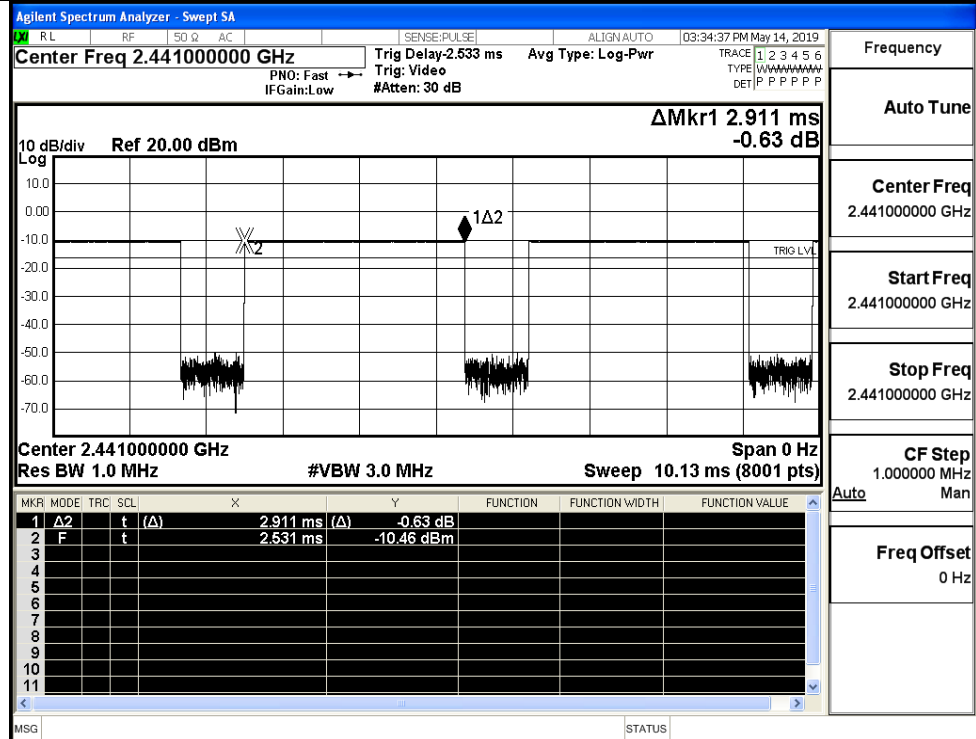
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.91	106.7	0.31	0.4	PASS
	DH5	MCH	2.91	106.7	0.31	0.4	PASS
	DH5	HCH	2.91	106.7	0.31	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.91	106.7	0.312	0.4	PASS
	2DH5	MCH	2.91	106.7	0.017	0.4	PASS
	2DH5	HCH	2.91	106.7	0.312	0.4	PASS

Test Graphs

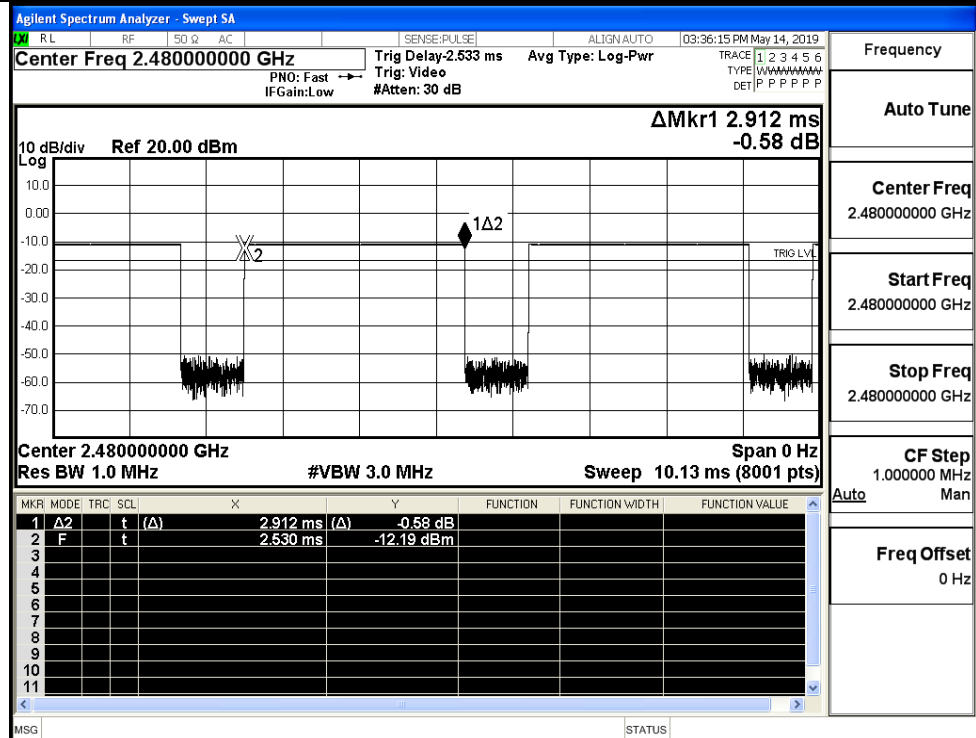
GFSK_DH5/LCH



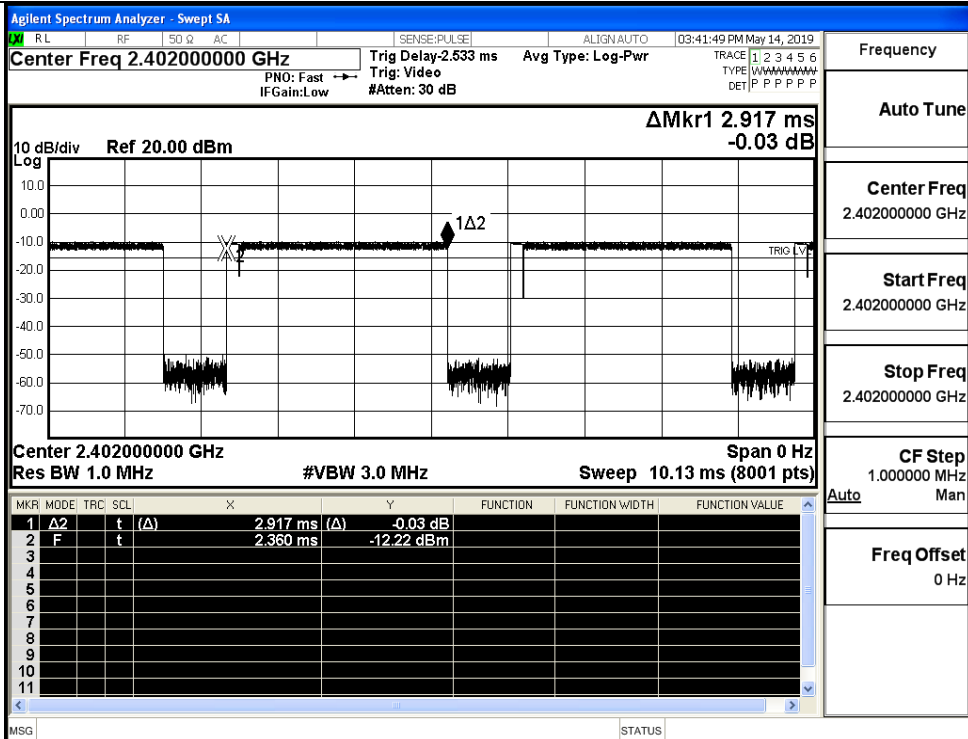
GFSK_DH5/MCH



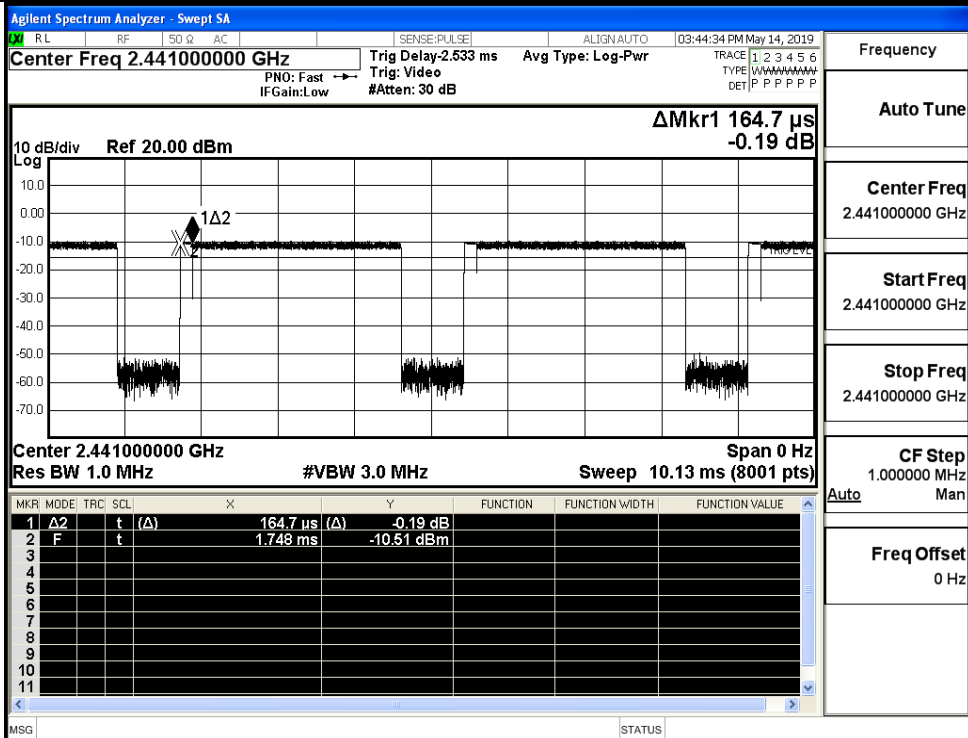
GFSK_DH5/HCH



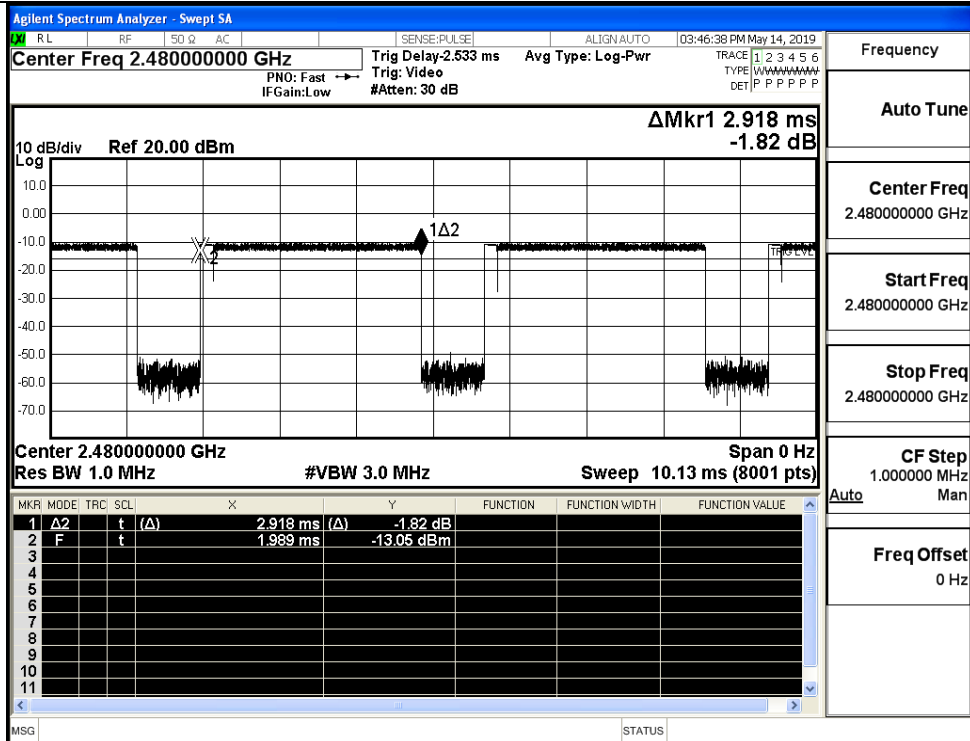
$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH

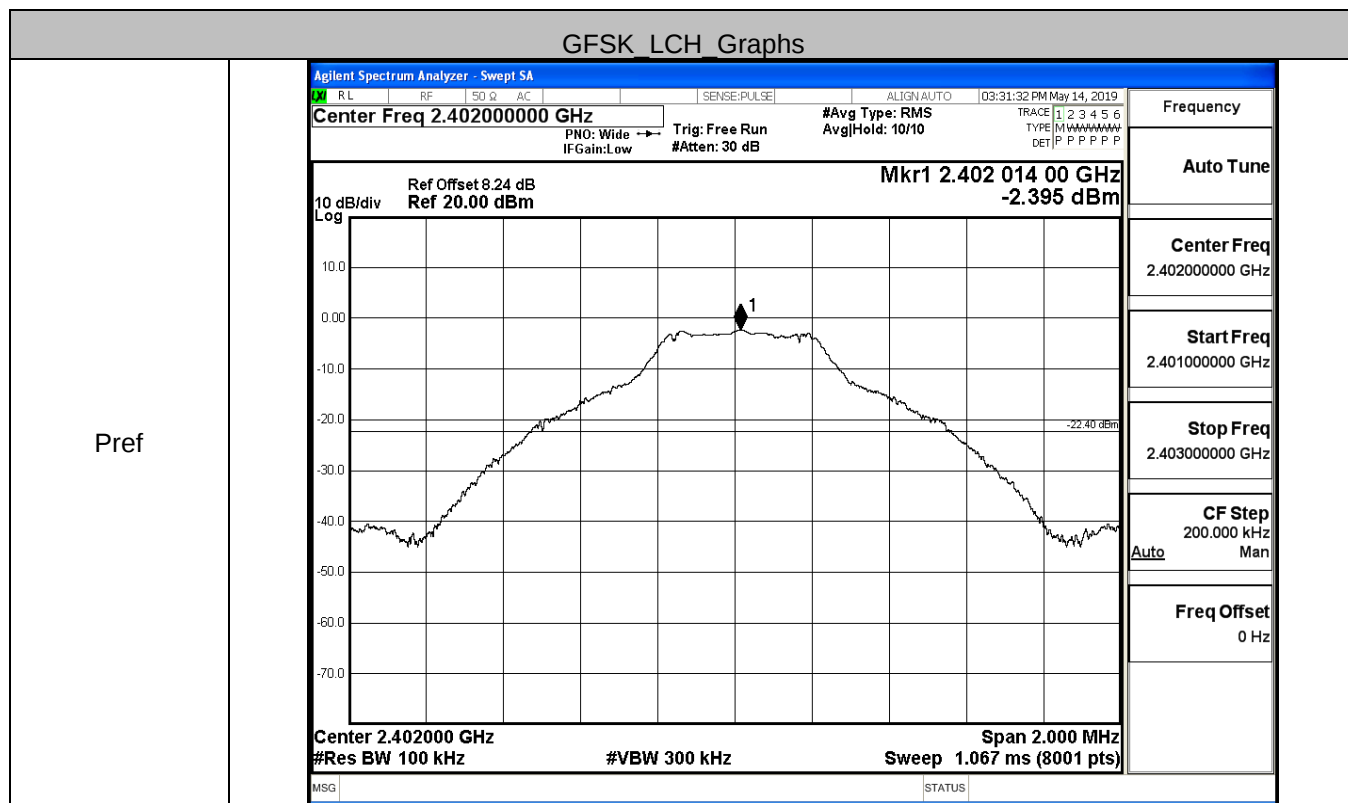


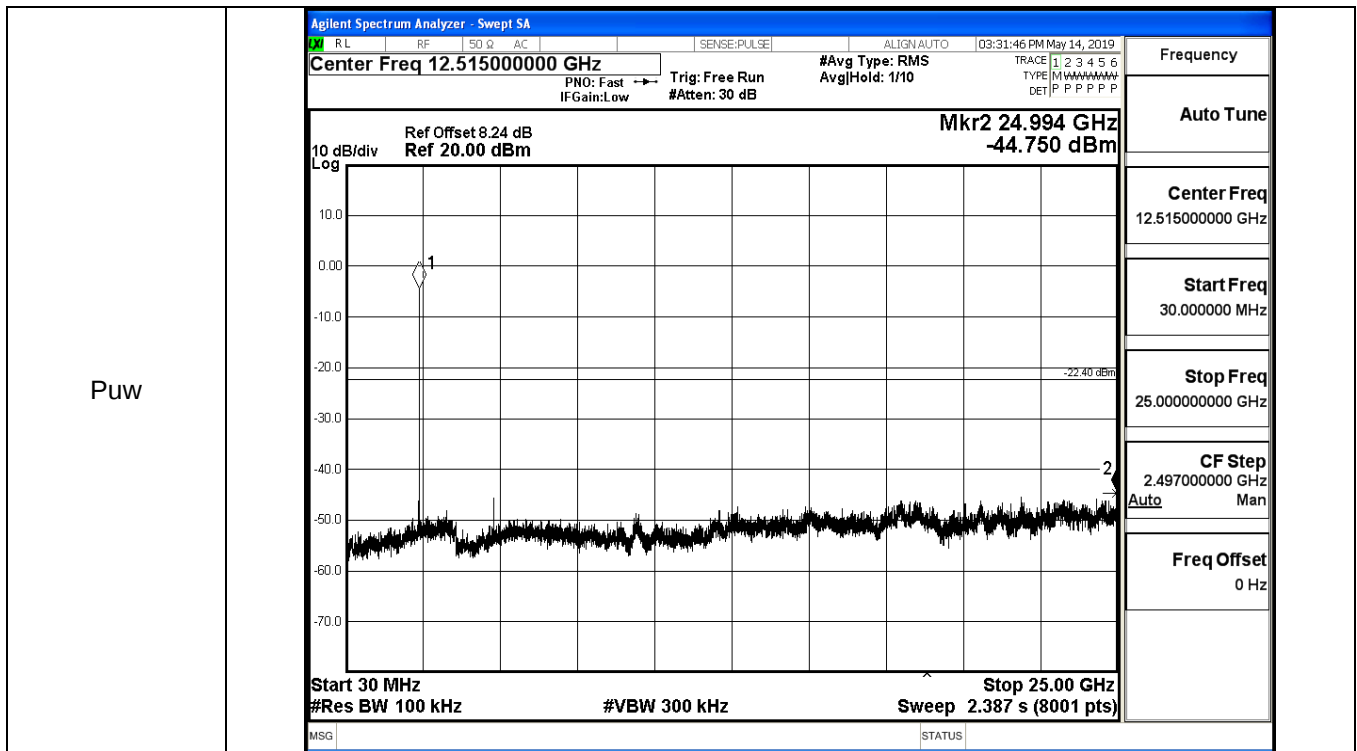
$\pi/4$ DQPSK
_2DH5/HCH



A.6 RF Conducted Spurious Emissions

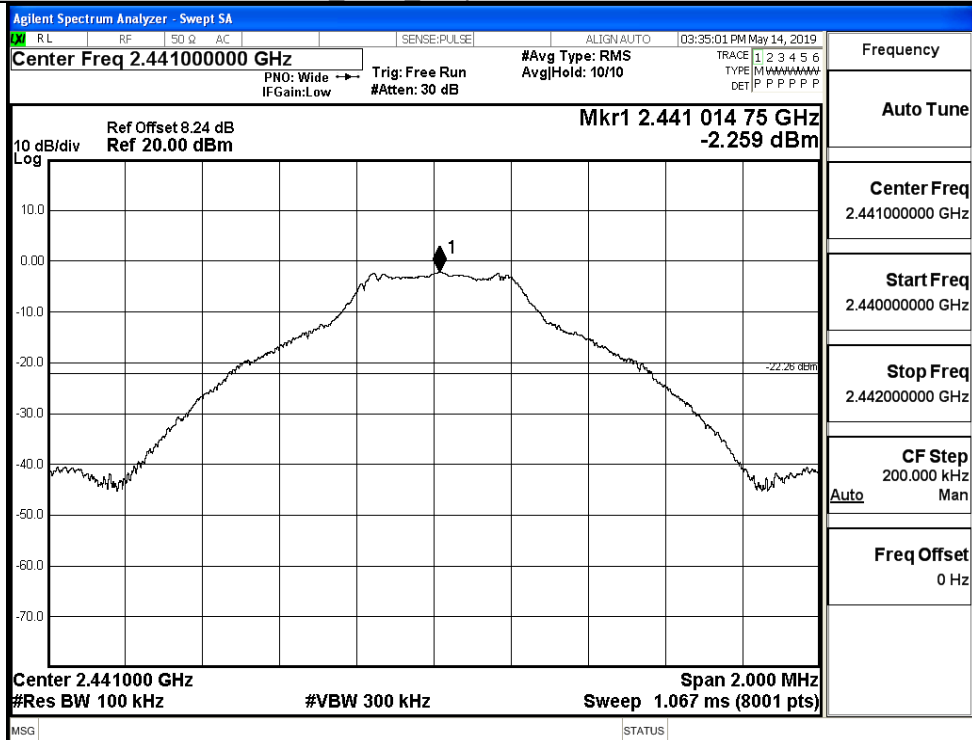
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-2.395	-44.750	-22.395	PASS
	MCH	-2.259	-43.679	-22.259	PASS
	HCH	-2.694	-44.697	-22.694	PASS
$\pi/4$ DQPSK	LCH	-2.295	-41.339	-22.295	PASS
	MCH	-2.19	-44.167	-22.190	PASS
	HCH	-2.614	-45.131	-22.614	PASS



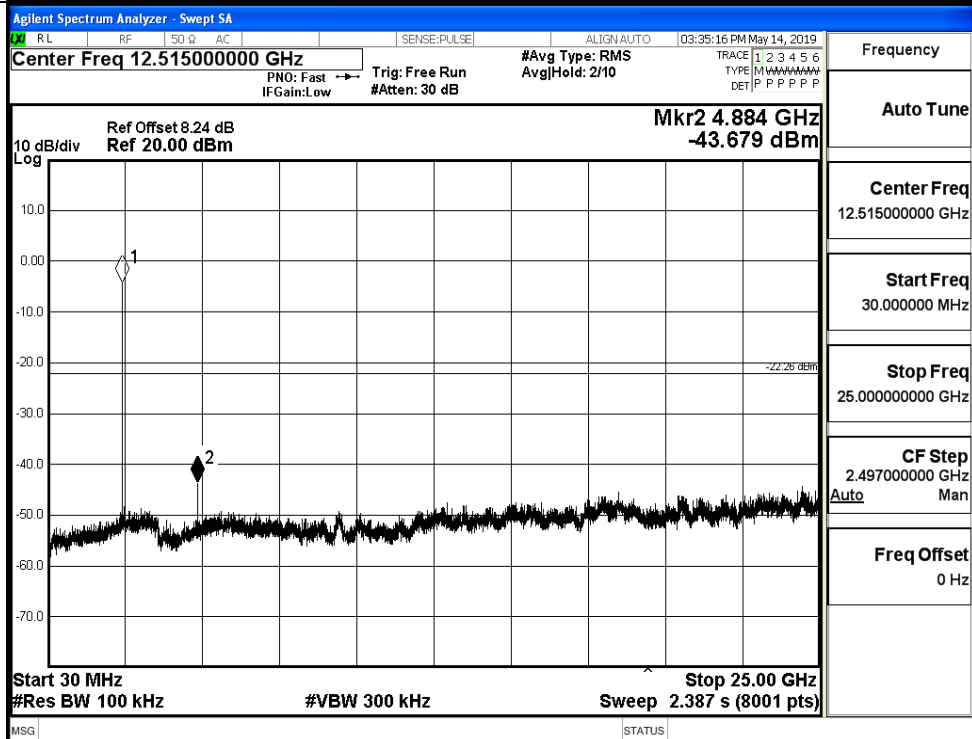


GFSK_MCH_Graphs

Pref

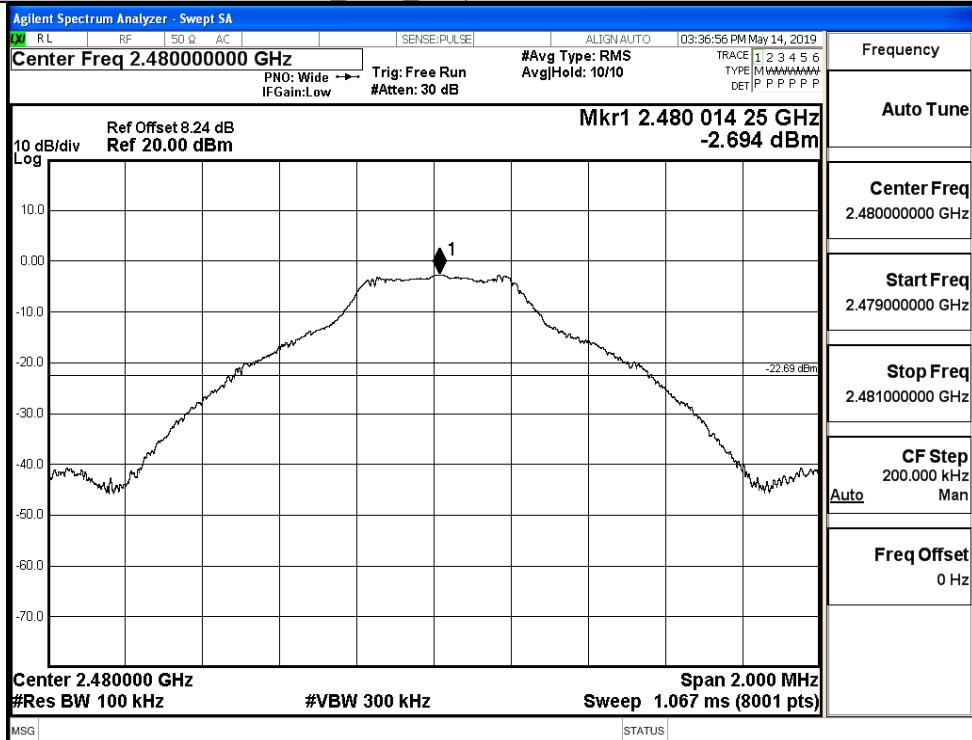


Puw

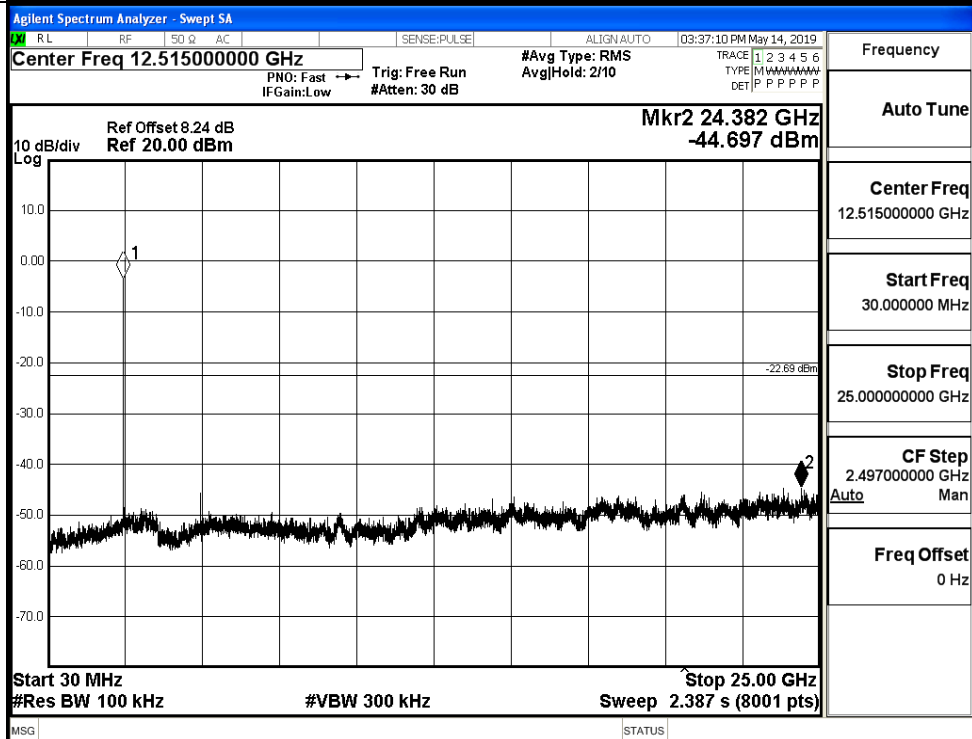


GFSK_HCH_Graphs

Pref

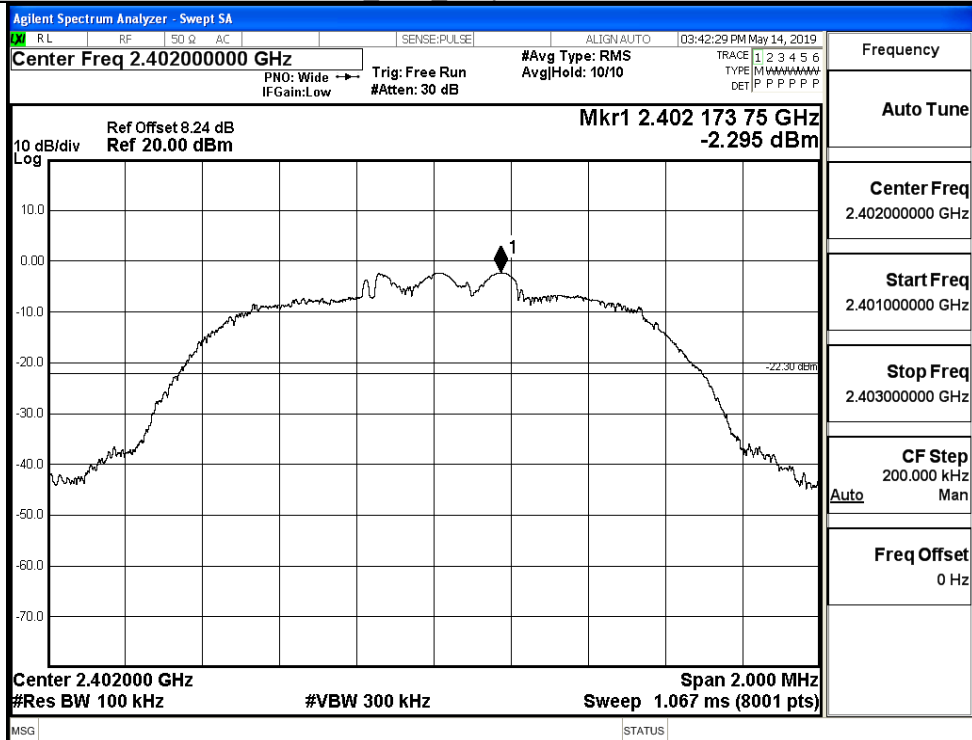


Puw

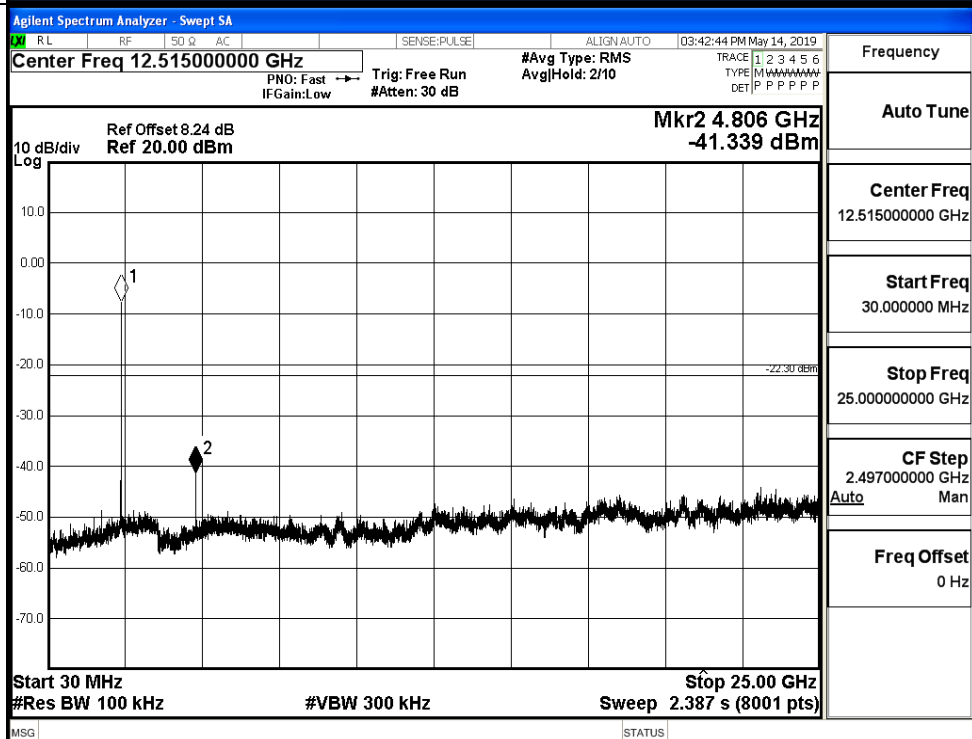


π /4DQPSK LCH_Graphs

Pref

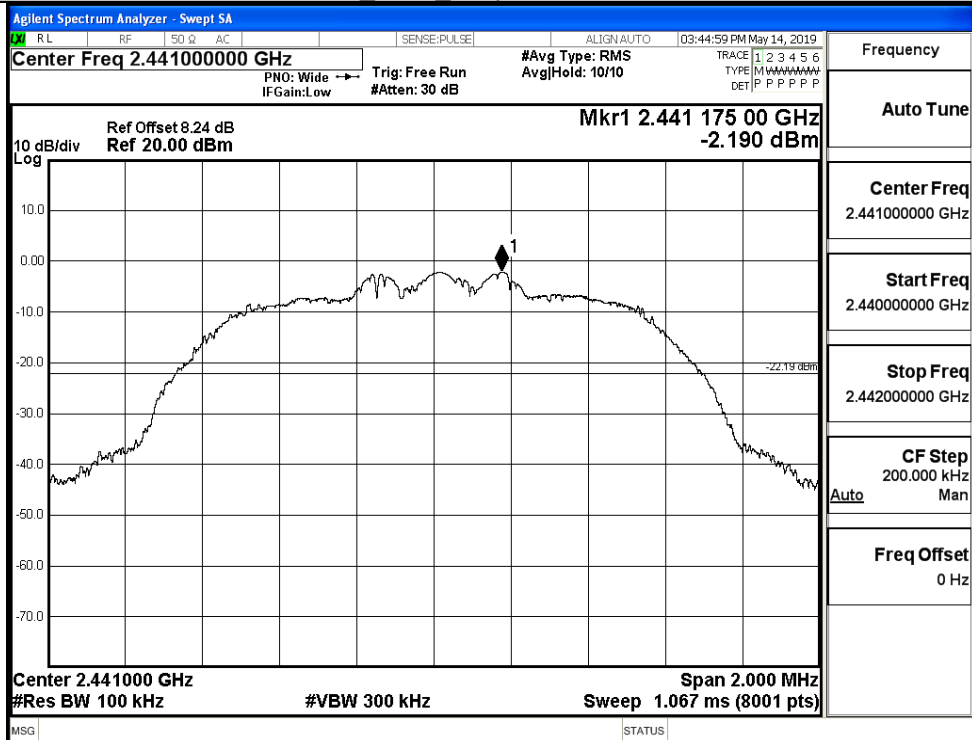


Puw

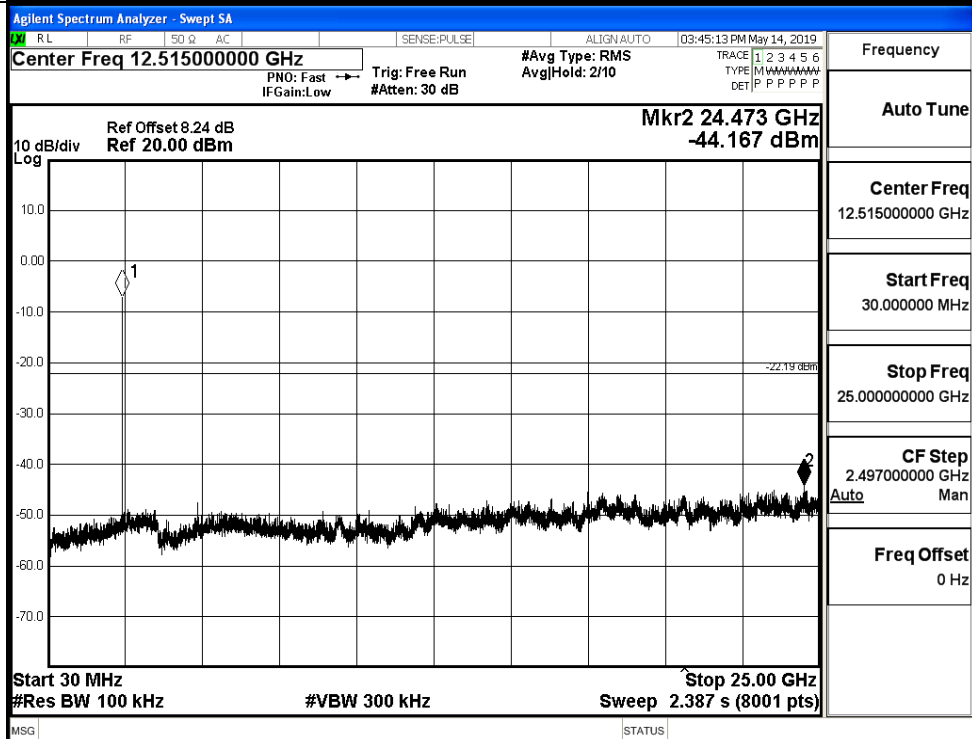


$\pi/4$ DQPSK_MCH_Graphs

Pref

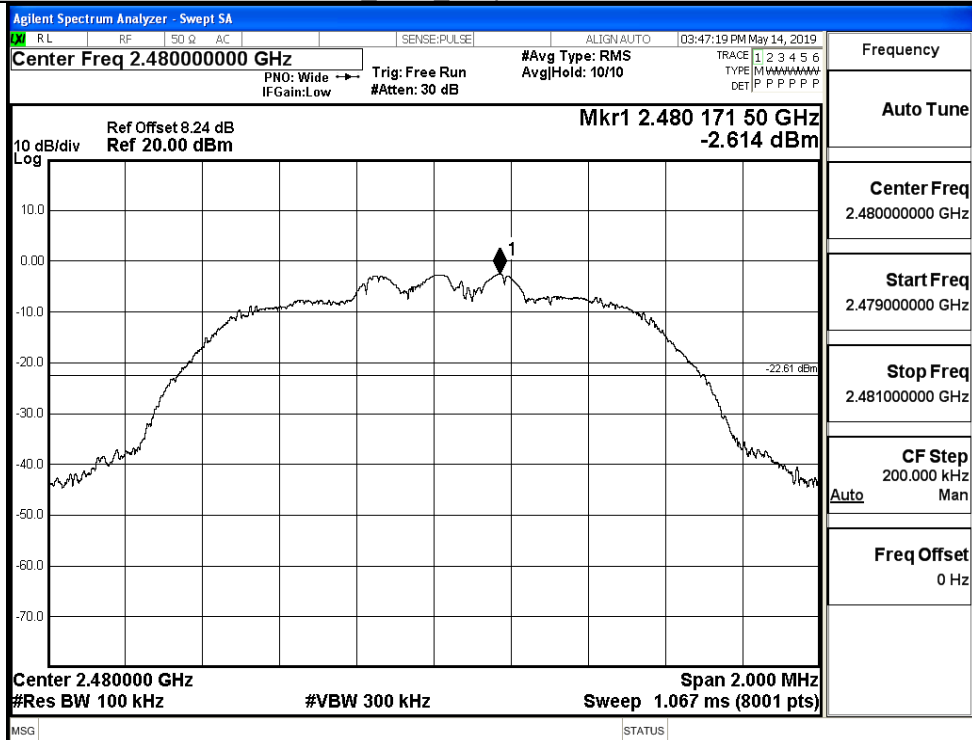


Puw

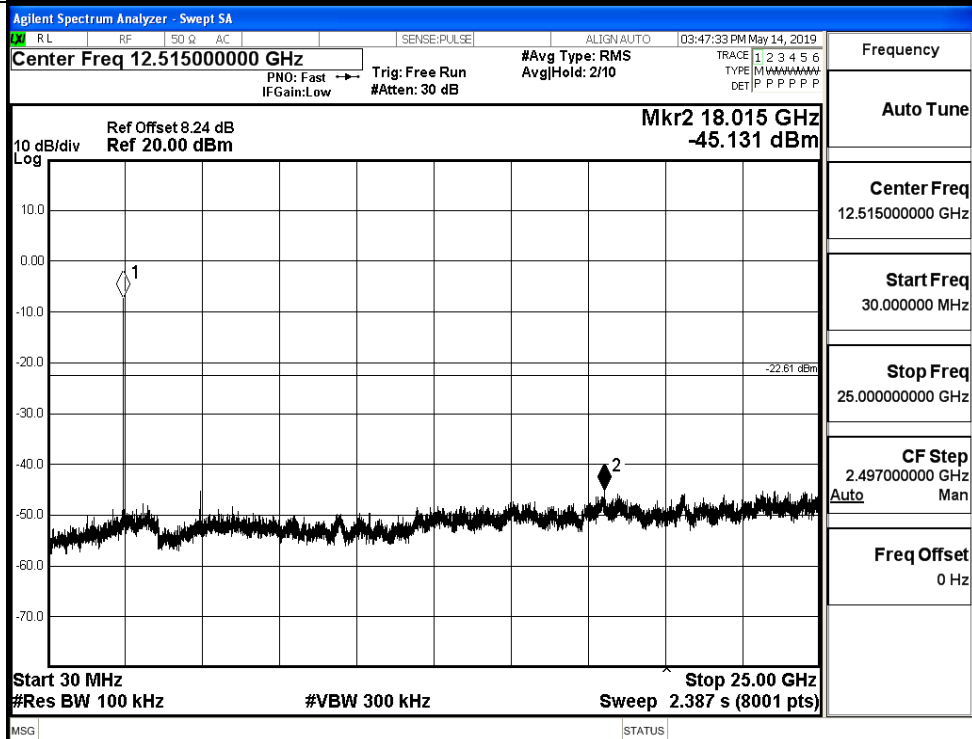


π /4DQPSK_HCH_Graphs

Pref



Puw

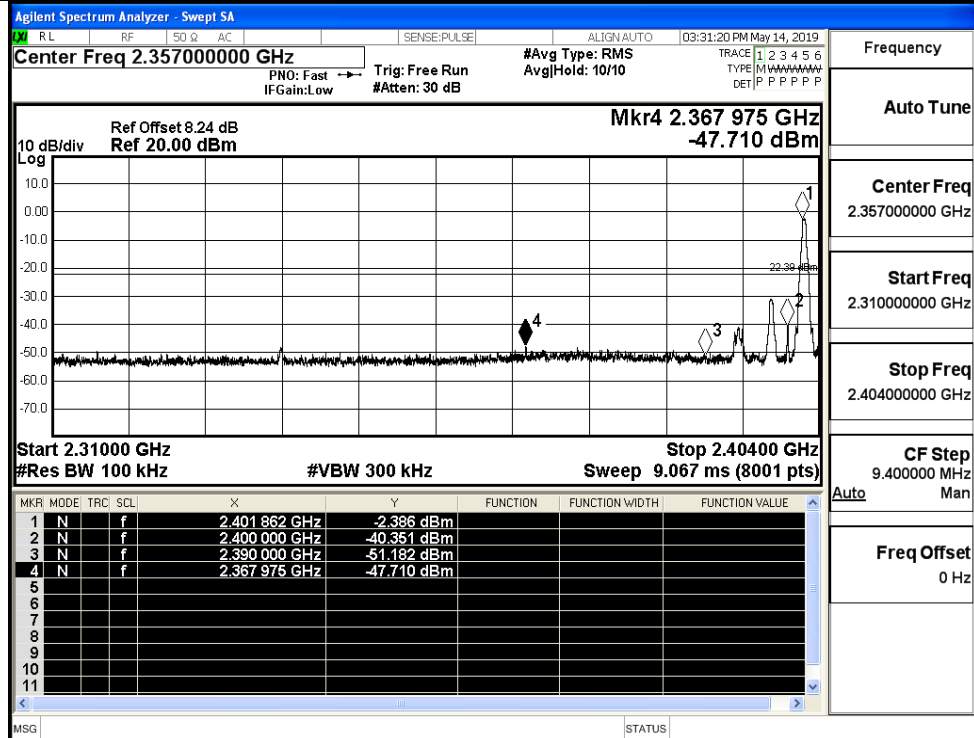


A.7 Band-edge for RF Conducted Emissions

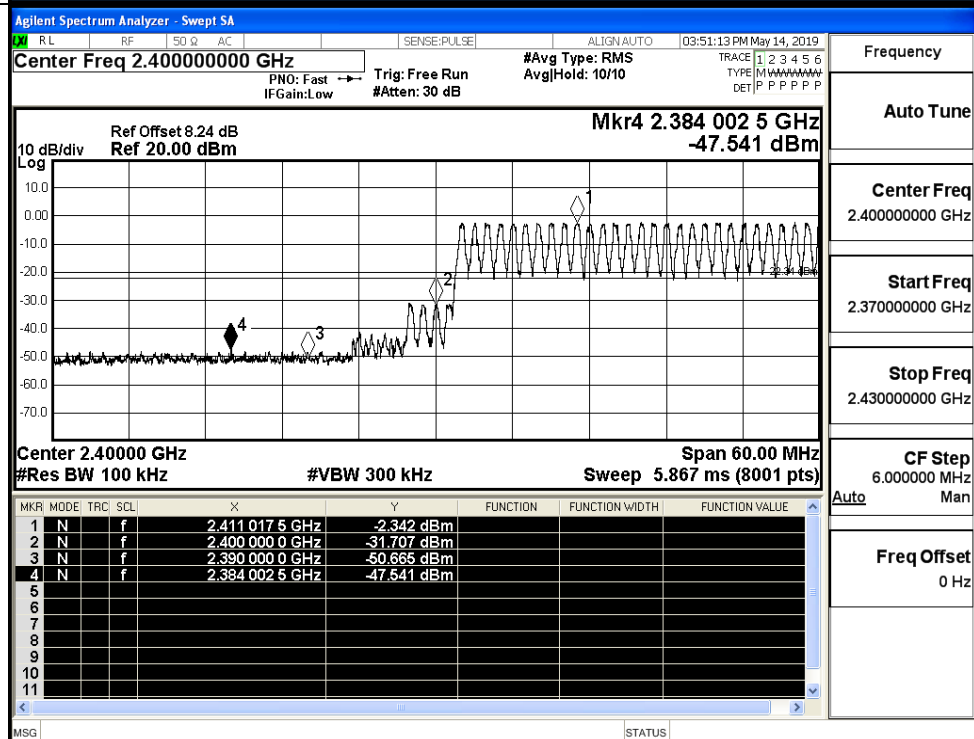
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-2.386	Off	-47.710	-22.39	PASS
			-2.342	On	-47.541	-22.34	PASS
	HCH	2480	-2.645	Off	-47.615	-22.65	PASS
			-2.387	On	-47.870	-22.39	PASS
$\pi/4$ DQPSK	LCH	2402	-2.225	Off	-48.703	-22.23	PASS
			-2.274	On	-47.070	-22.27	PASS
	HCH	2480	-2.603	Off	-47.728	-22.6	PASS
			-2.292	On	-47.432	-22.29	PASS

Test Graphs

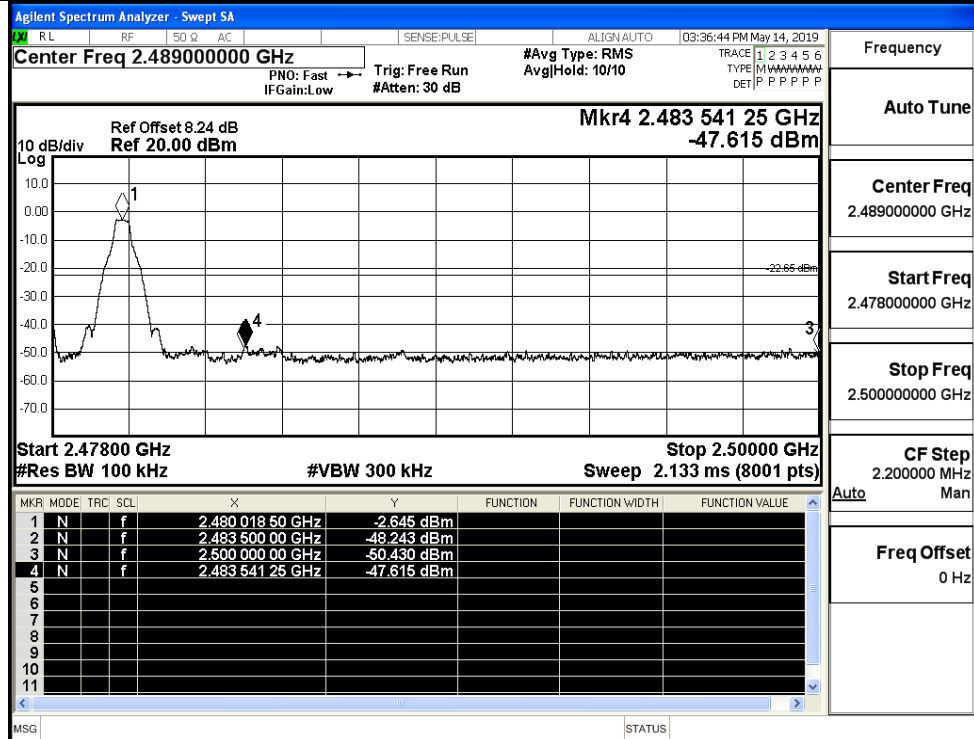
GFSK/LCH/No Hop



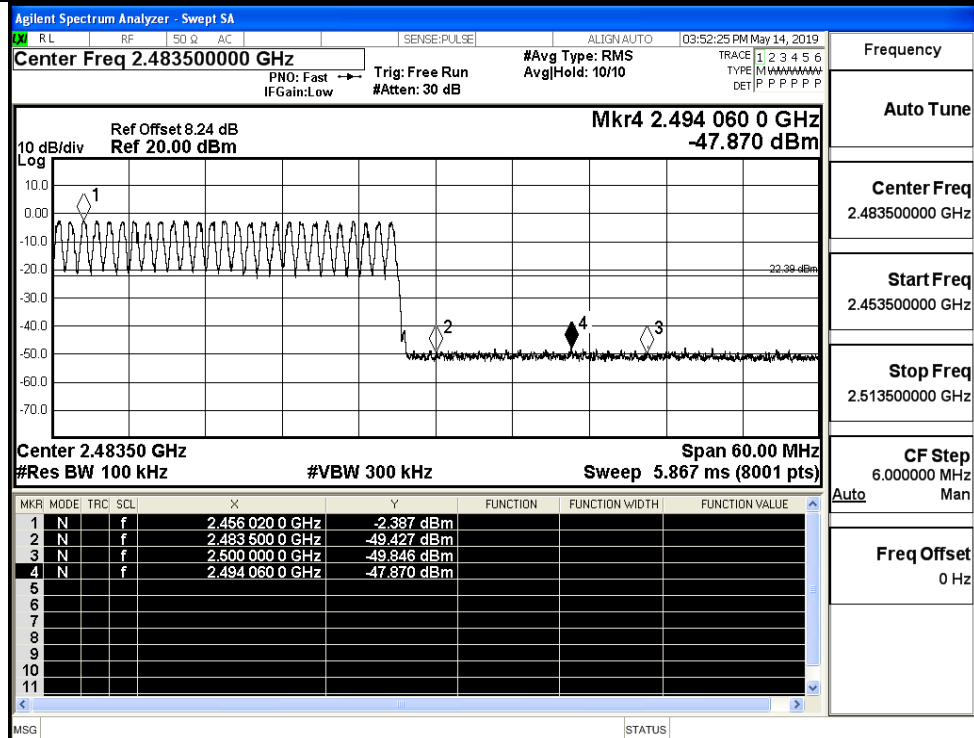
GFSK/LCH/Hop



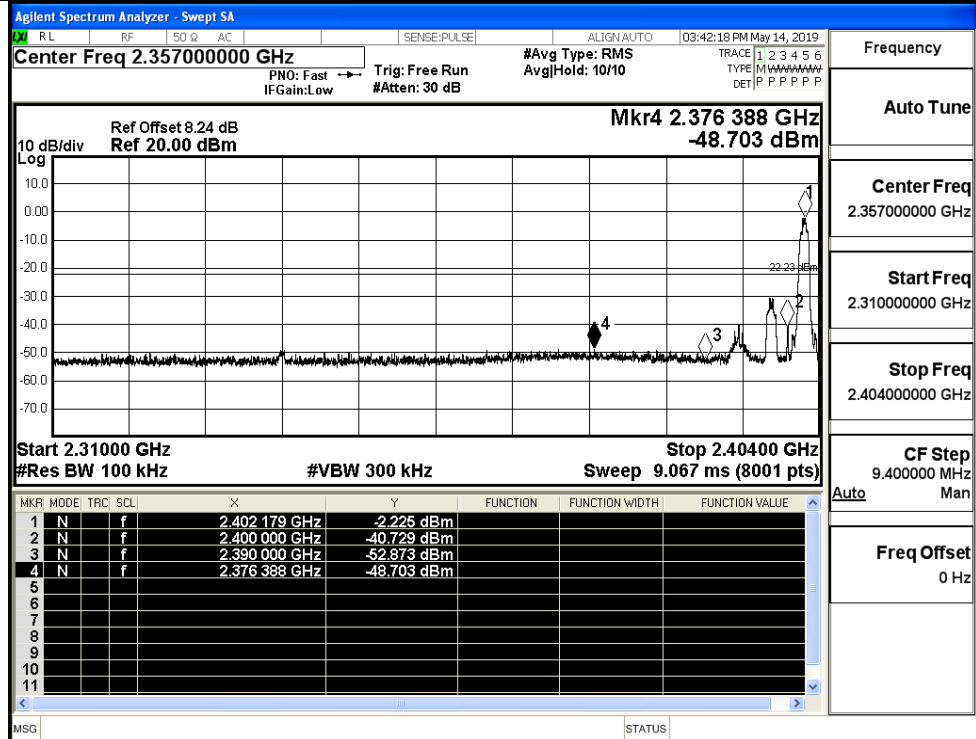
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

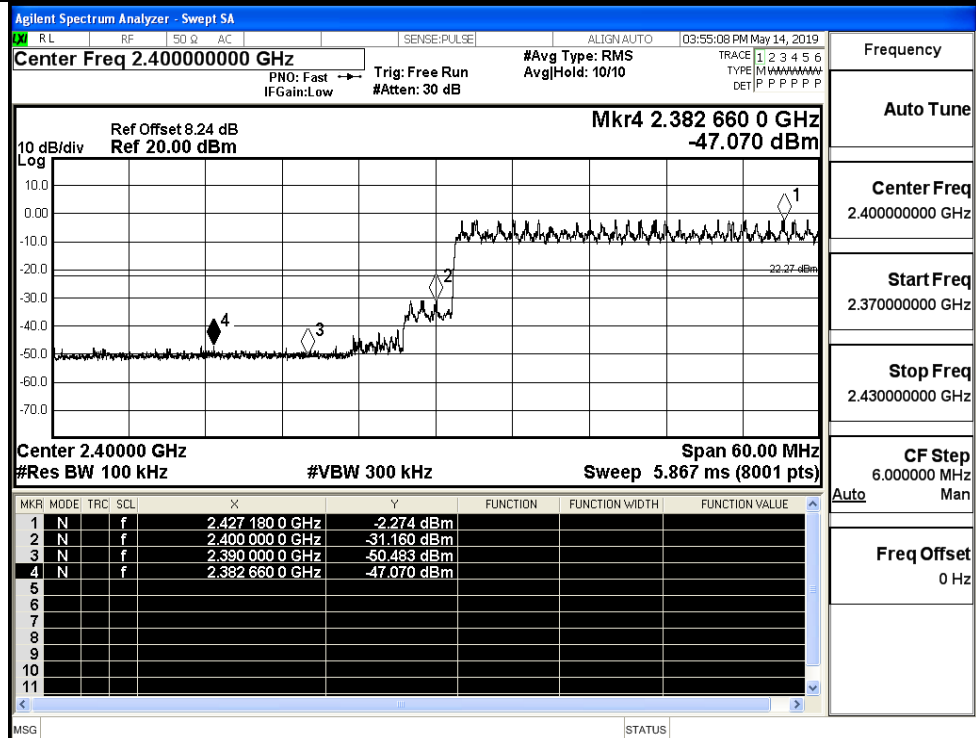
Start Freq
2.310000000 GHz

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

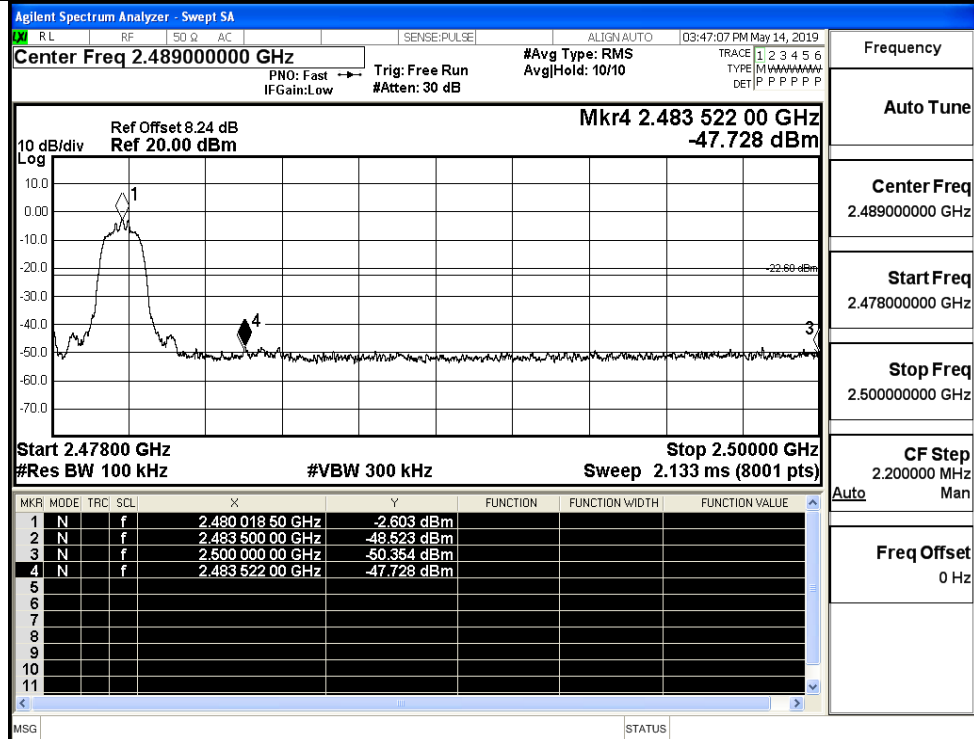
Start Freq
2.370000000 GHz

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 GHz

Start Freq
2.478000000 GHz

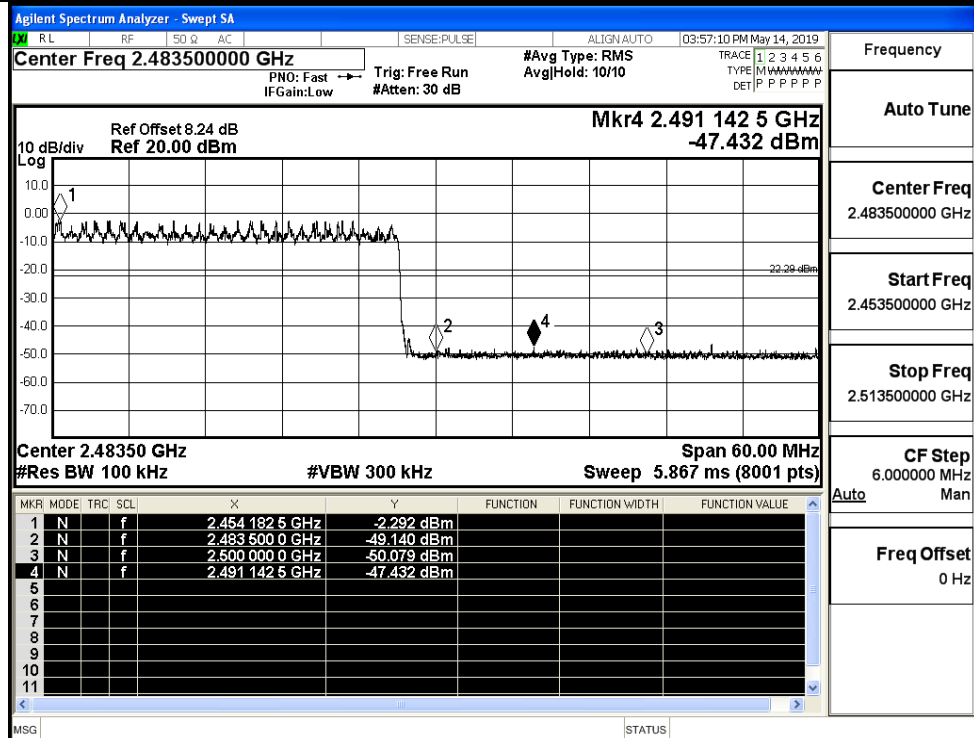
Stop Freq
2.500000000 GHz

CF Step
2.200000 MHz

Auto Man

Freq Offset
0 Hz

$\pi/4$ DQPSK/HCH/Hop



Frequency

Auto Tune

Center Freq
2.483500000 GHz

Start Freq
2.453500000 GHz

Stop Freq
2.513500000 GHz

CF Step
6.000000 MHz

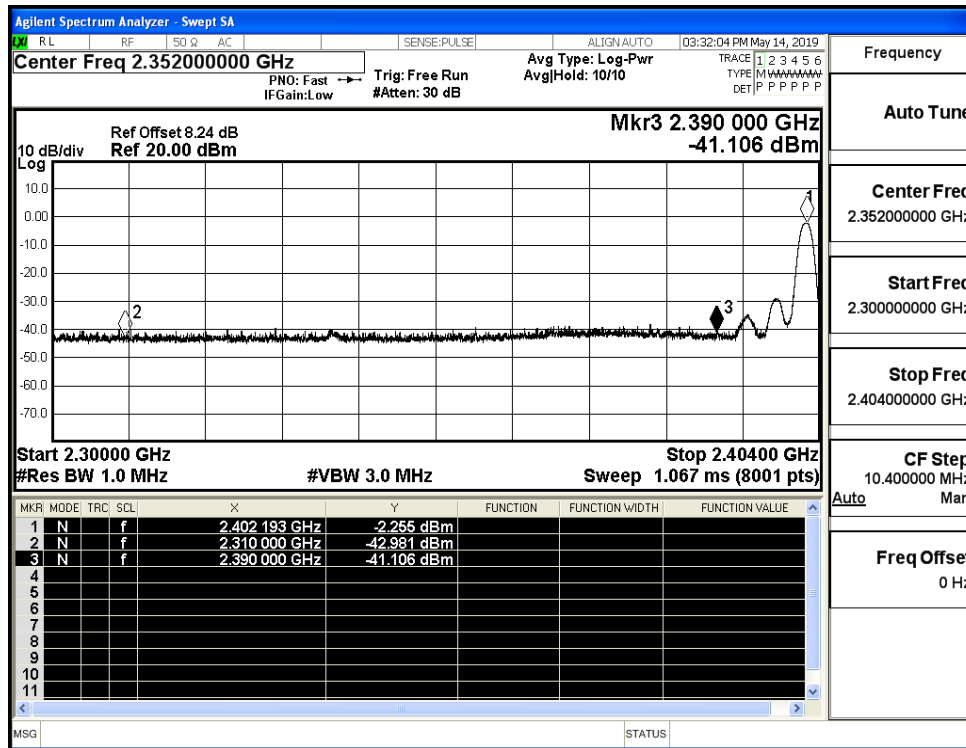
Auto Man

Freq Offset
0 Hz

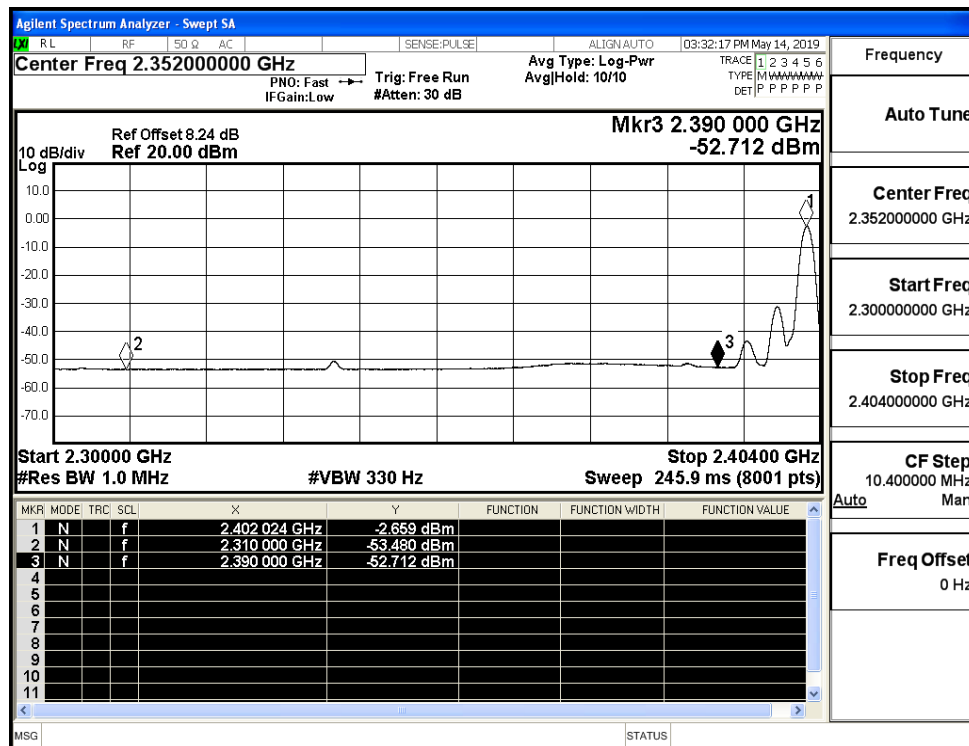
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.98	2.0	0	52.28	PEAK	74	PASS
	Off	2310.0	-53.48	2.0	0	41.78	AV	54	PASS
	Off	2390.0	-41.11	2.0	0	54.15	PEAK	74	PASS
	Off	2390.0	-52.71	2.0	0	42.55	AV	54	PASS
	Off	2483.5	-40.86	2.0	0	54.40	PEAK	74	PASS
	Off	2483.5	-50.64	2.0	0	44.61	AV	54	PASS
	Off	2500.0	-40.85	2.0	0	54.41	PEAK	74	PASS
	Off	2500.0	-51.33	2.0	0	43.93	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.89	2.0	0	51.37	PEAK	74	PASS
	Off	2310.0	-53.34	2.0	0	41.92	AV	54	PASS
	Off	2390.0	-42.18	2.0	0	53.08	PEAK	74	PASS
	Off	2390.0	-52.73	2.0	0	42.53	AV	54	PASS
	Off	2483.5	-42.31	2.0	0	52.94	PEAK	74	PASS
	Off	2483.5	-51.49	2.0	0	43.77	AV	54	PASS
	Off	2500.0	-40.80	2.0	0	54.46	PEAK	74	PASS
	Off	2500.0	-51.57	2.0	0	43.69	AV	54	PASS

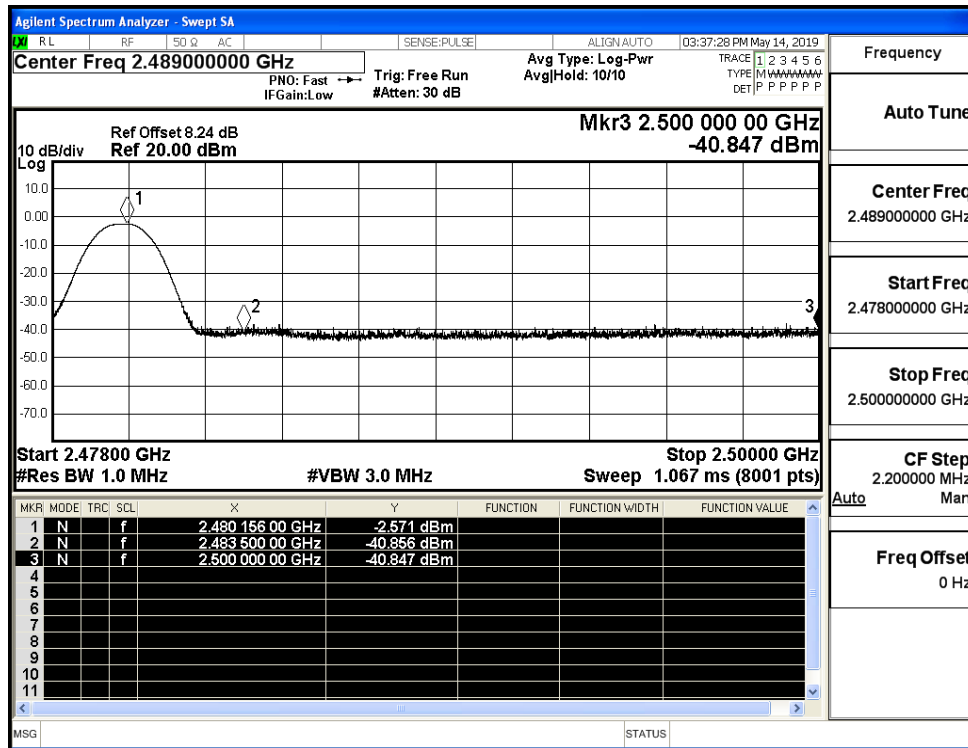
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



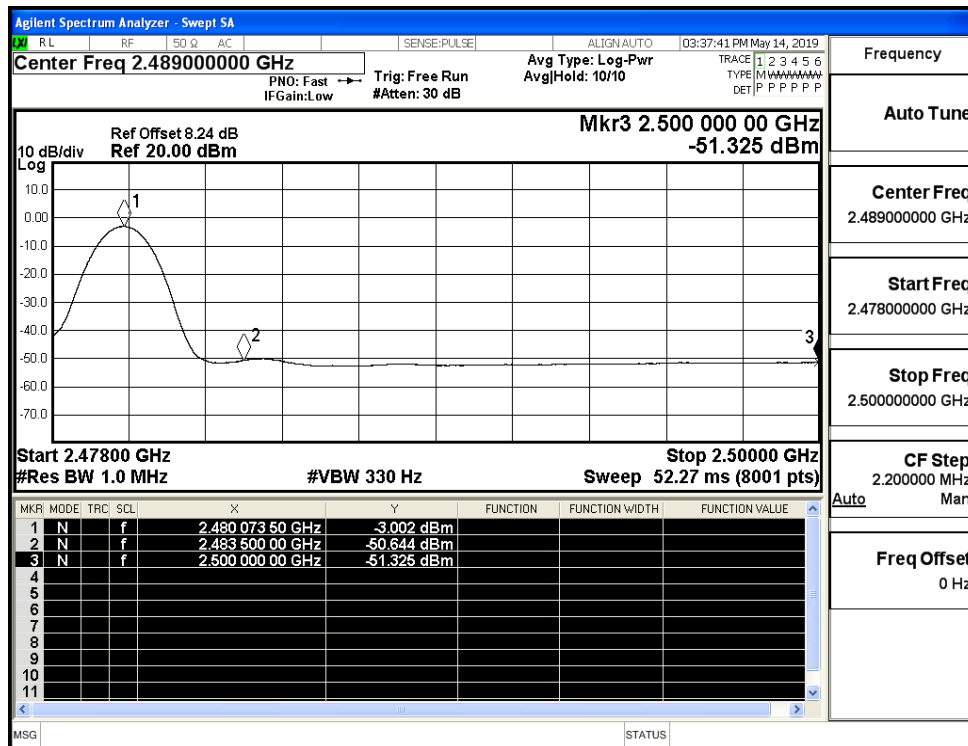
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

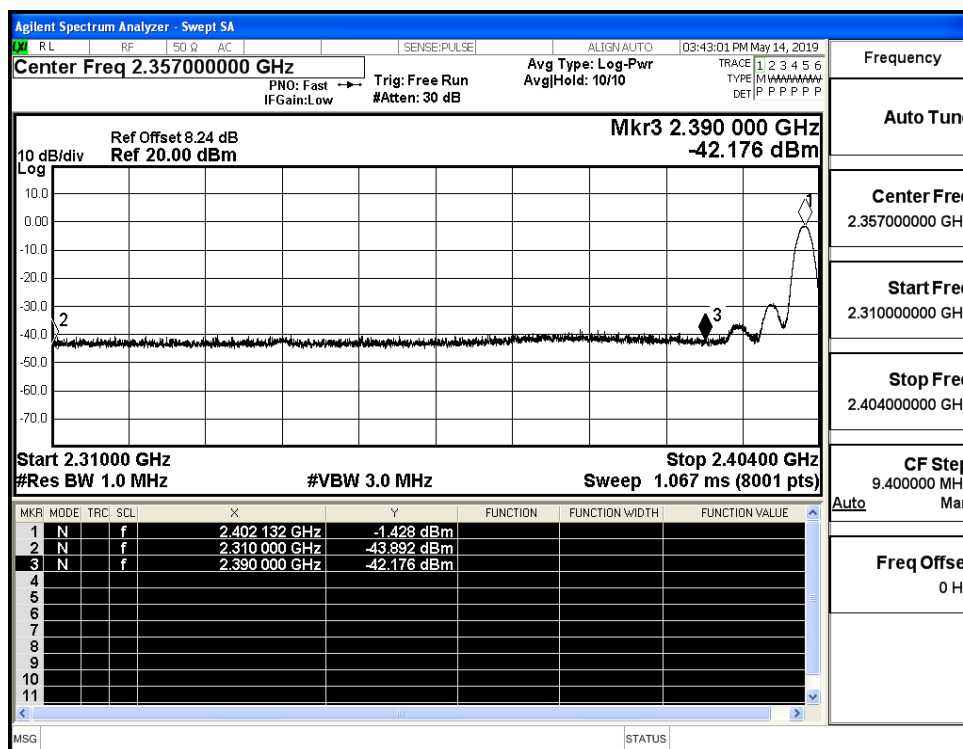
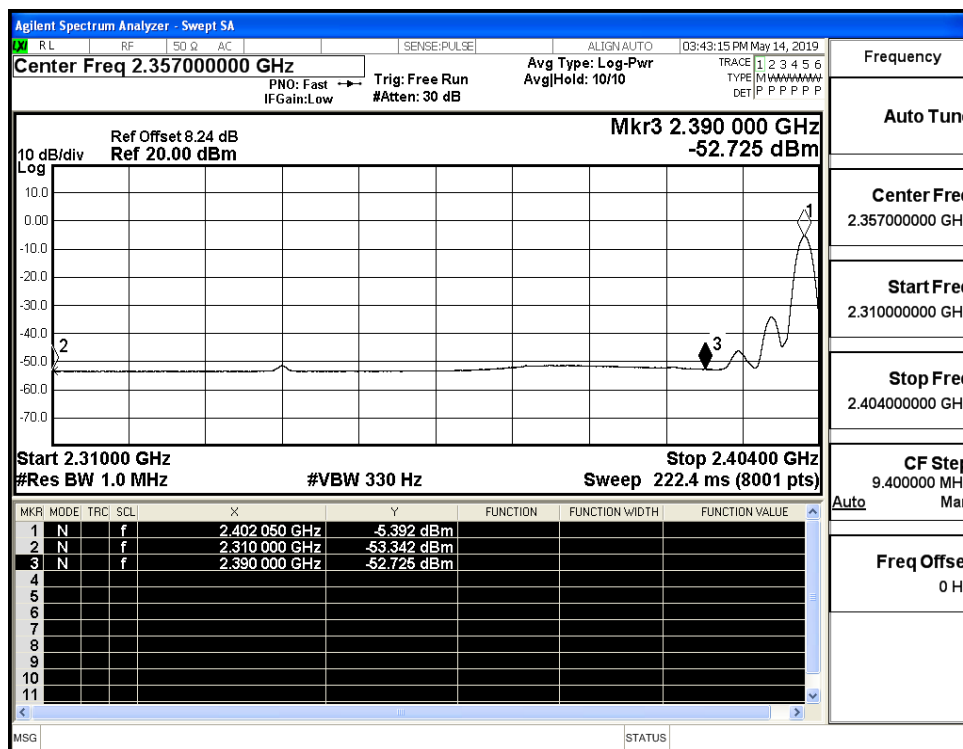


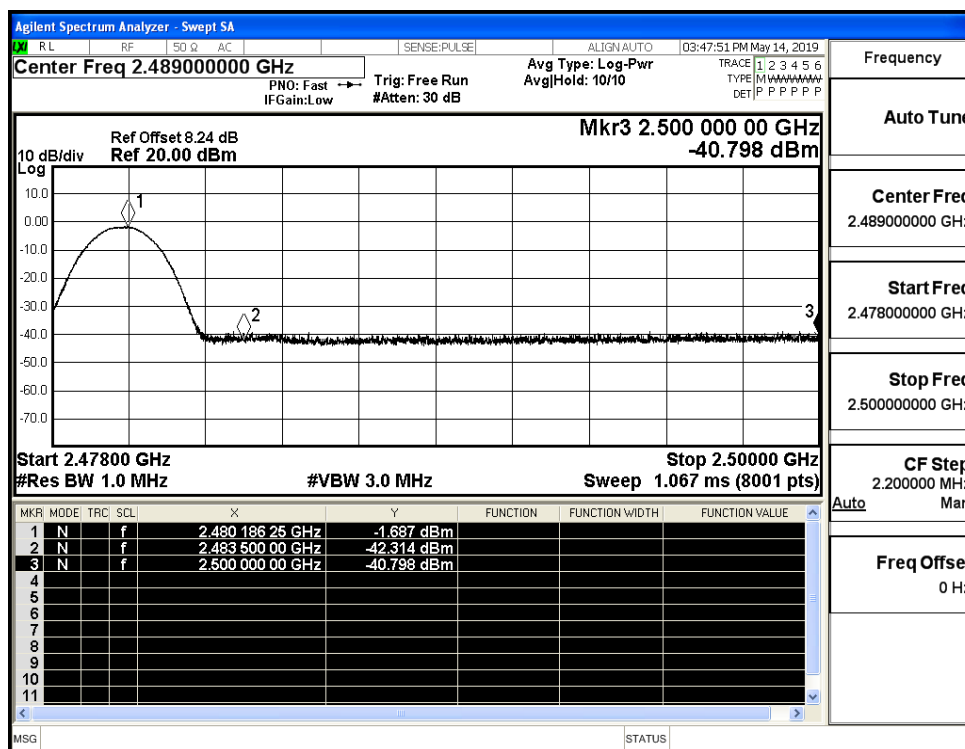
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



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)