

Appendix A

RF Test Data for BT V5.0(BDR/EDR) (Conducted Measurement)

Product Name: Audio Transmitter

Trade Mark: ADVANCE PARIS

Test Model: HDT800

Environmental Conditions

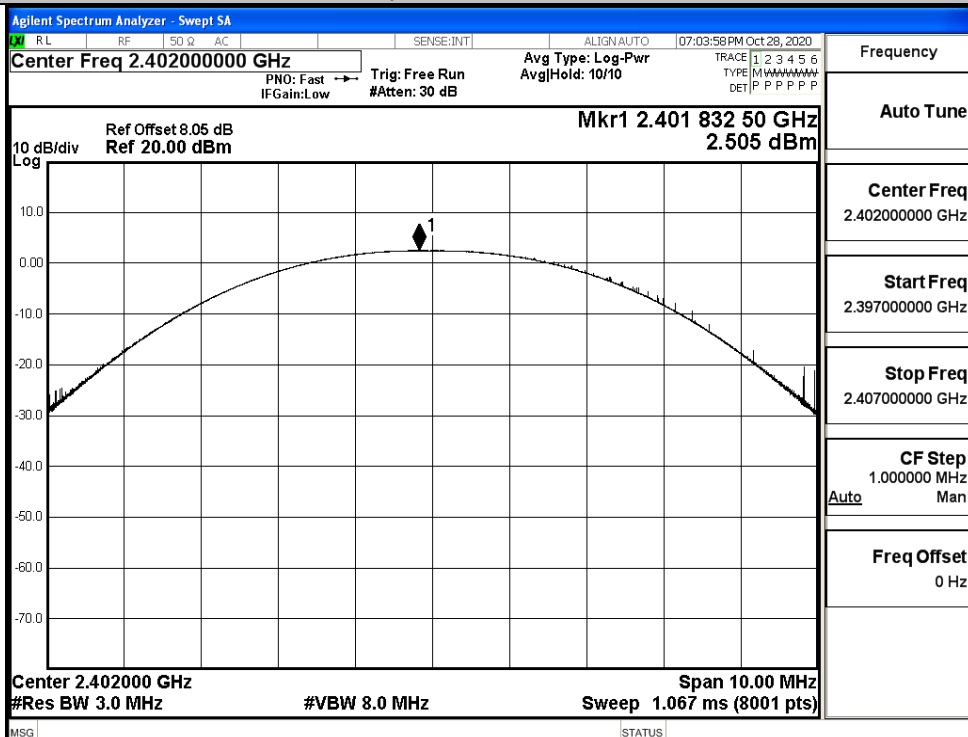
Temperature:	22.6°C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

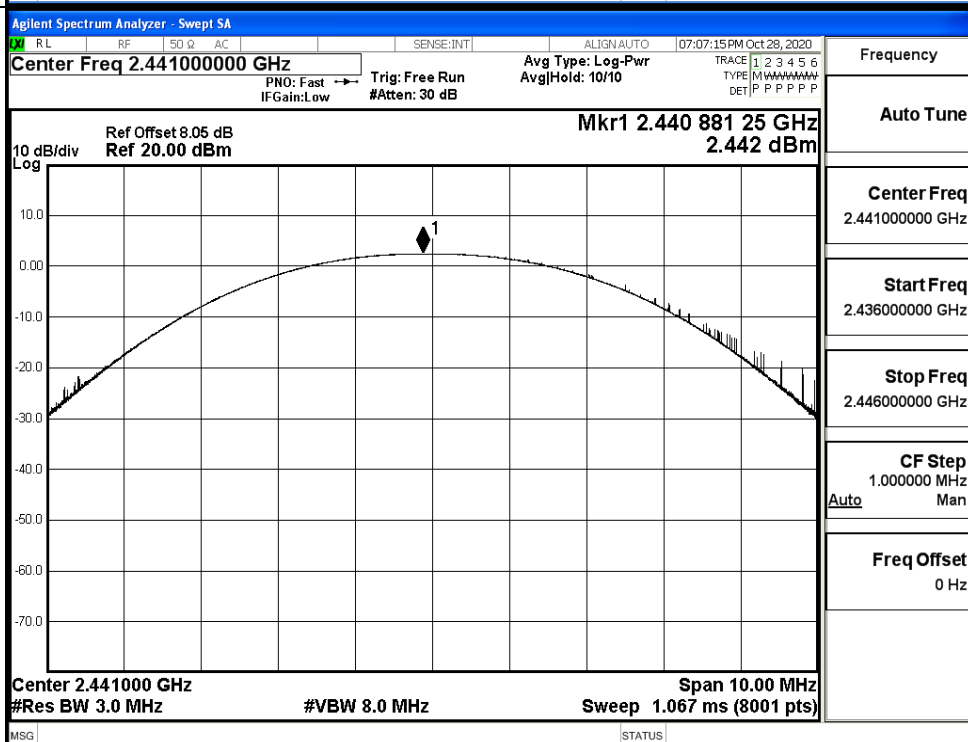
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.505	30	PASS
	MCH	2.442	30	PASS
	HCH	2.105	30	PASS
$\pi/4$ DQPSK	LCH	2.514	21	PASS
	MCH	2.455	21	PASS
	HCH	2.079	21	PASS
8DPSK	LCH	2.476	21	PASS
	MCH	2.400	21	PASS
	HCH	2.053	21	PASS

Test Graphs

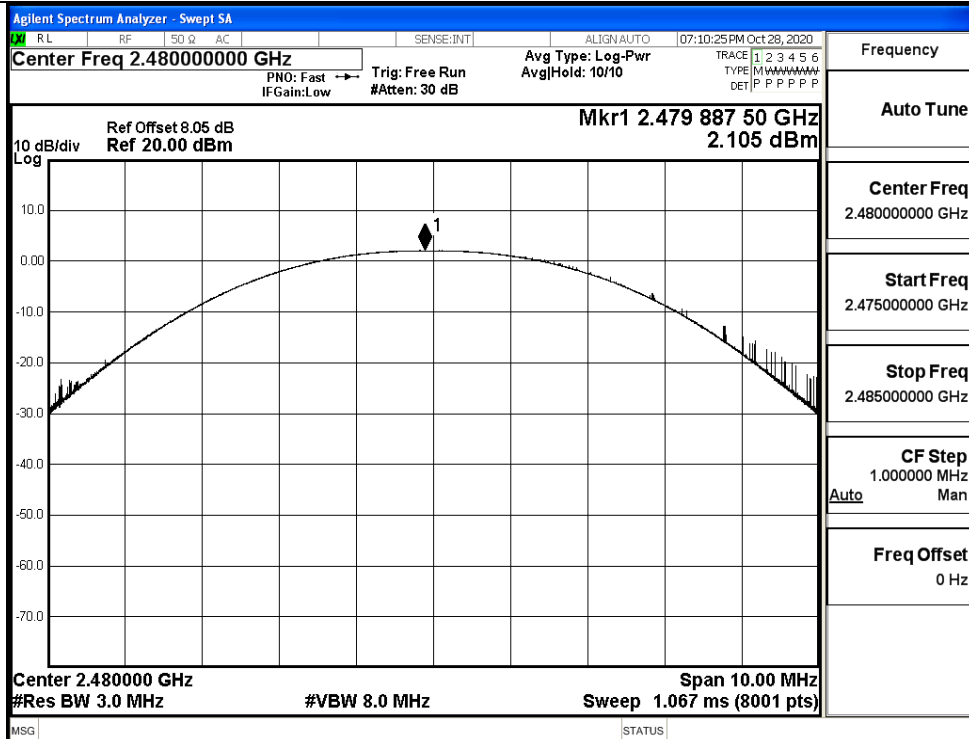
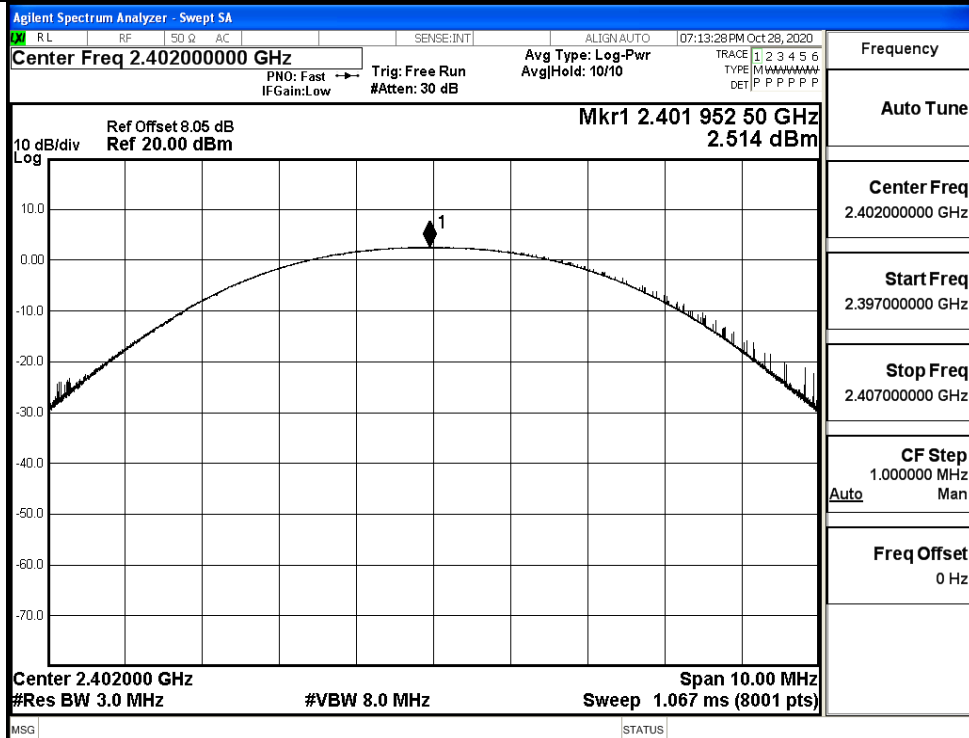
GFSK/LCH

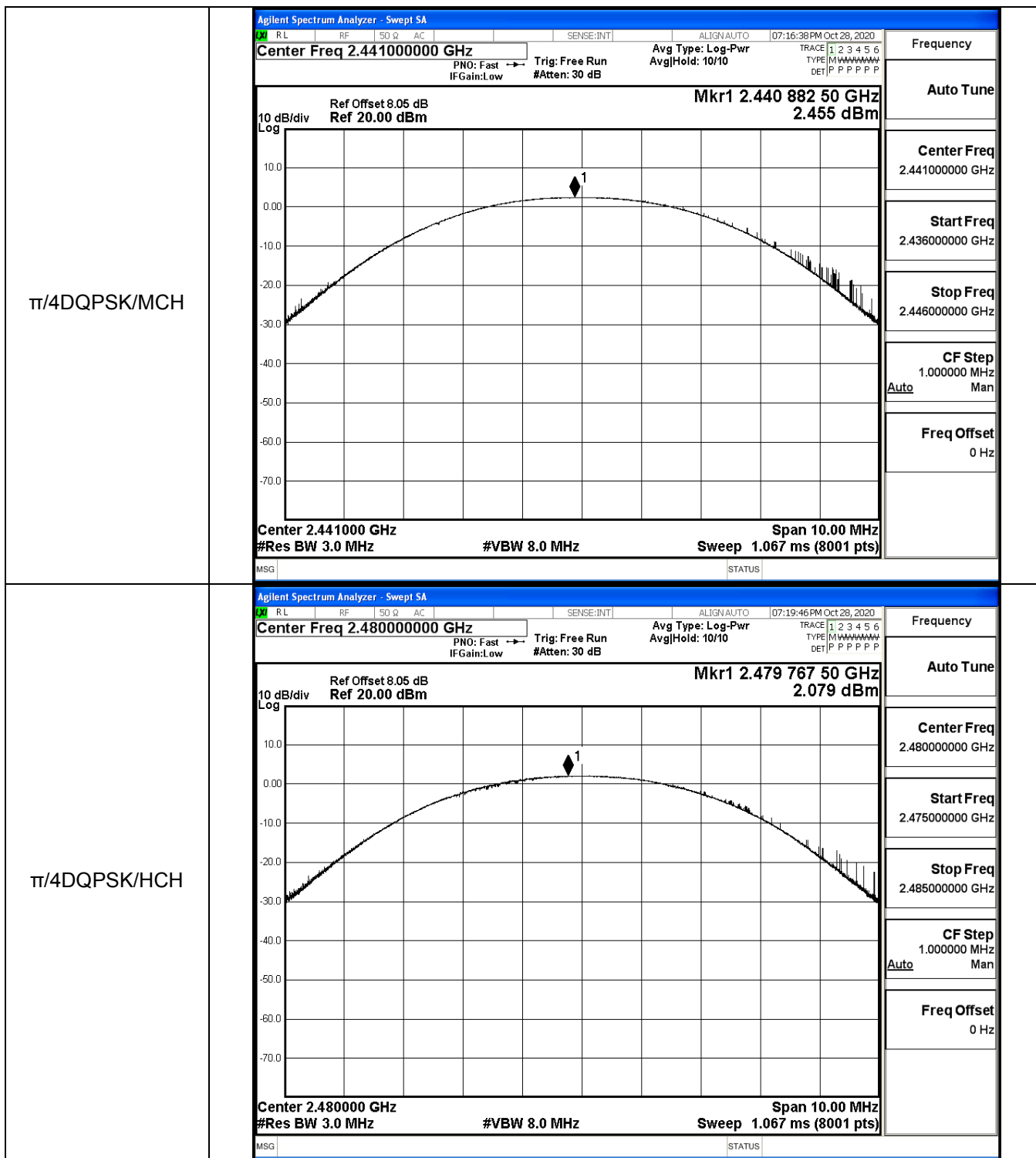


GFSK/MCH

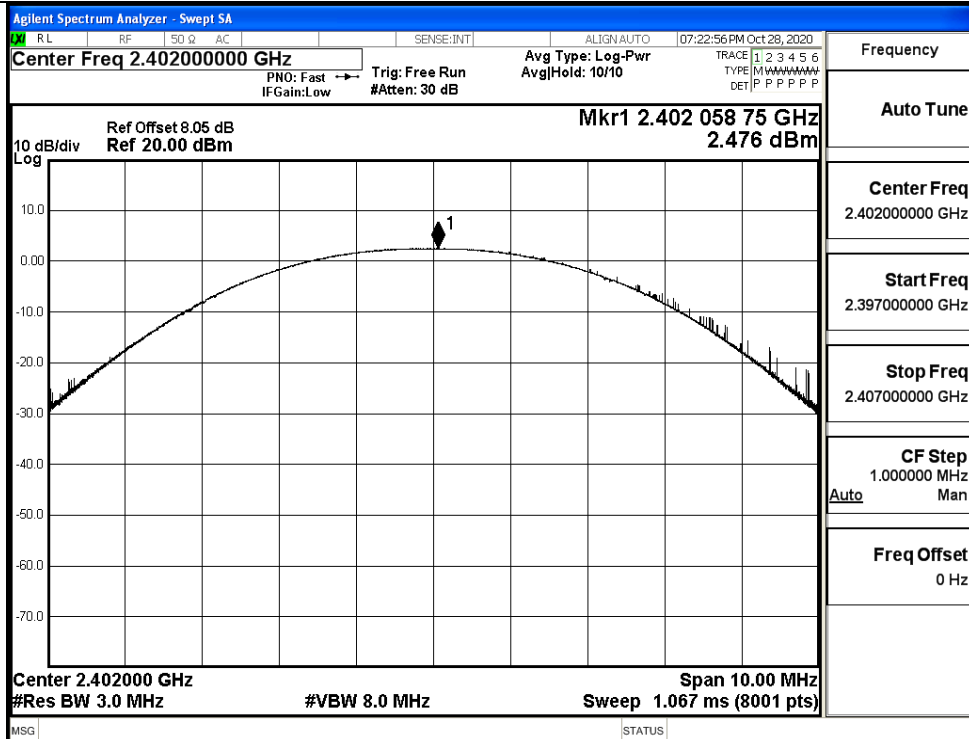


GFSK/HCH

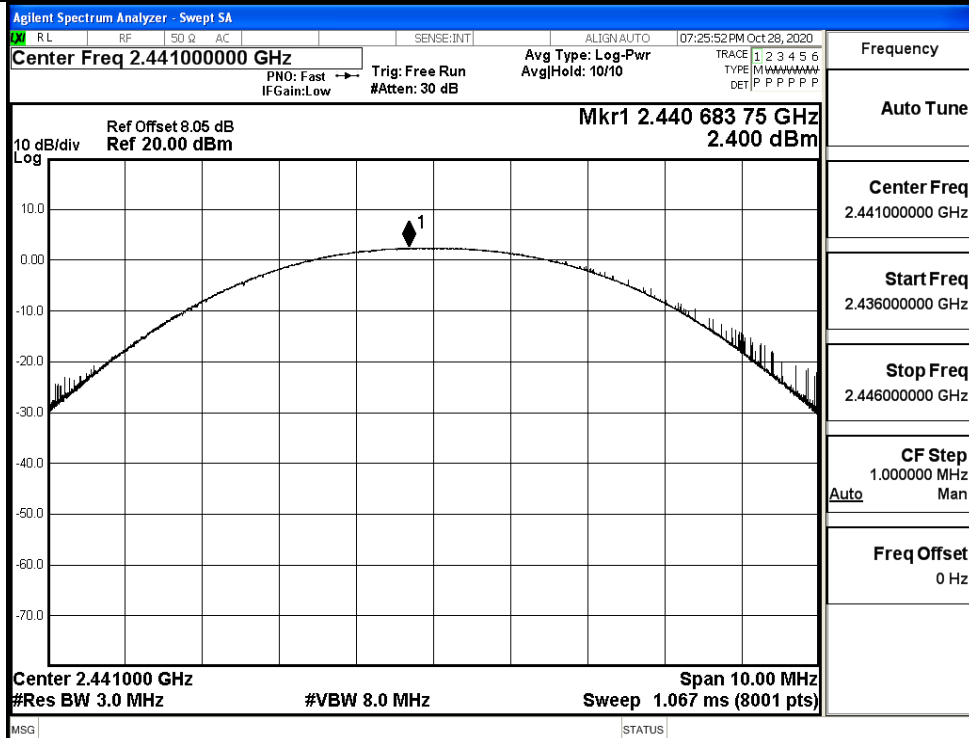
 $\pi/4$ DQPSK/LCH



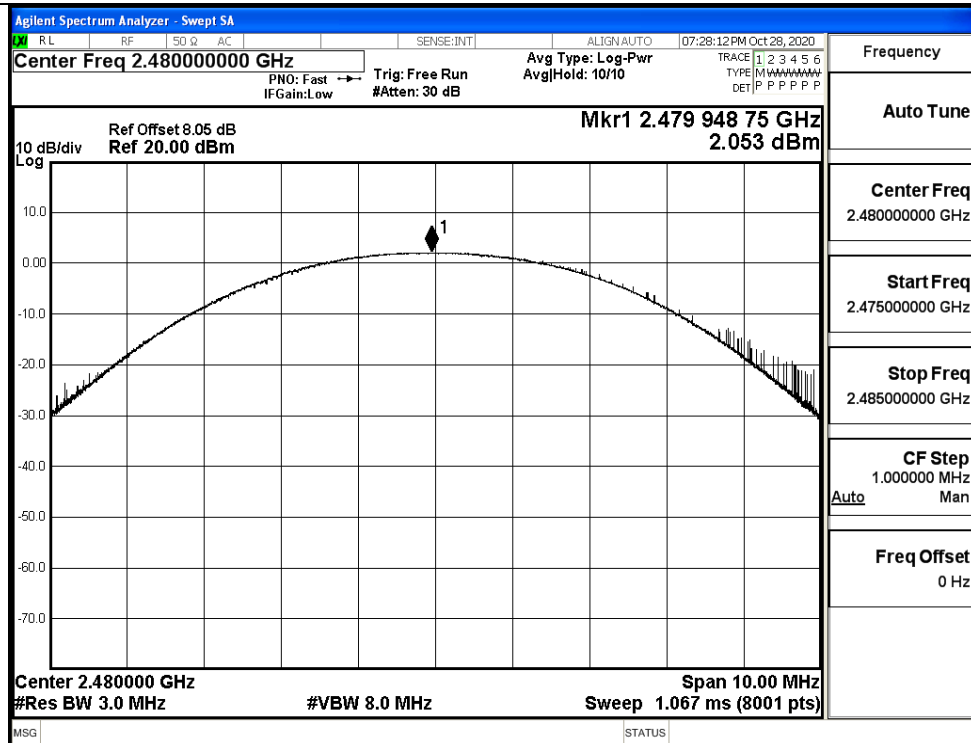
8DPSK/LCH



8DPSK/MCH



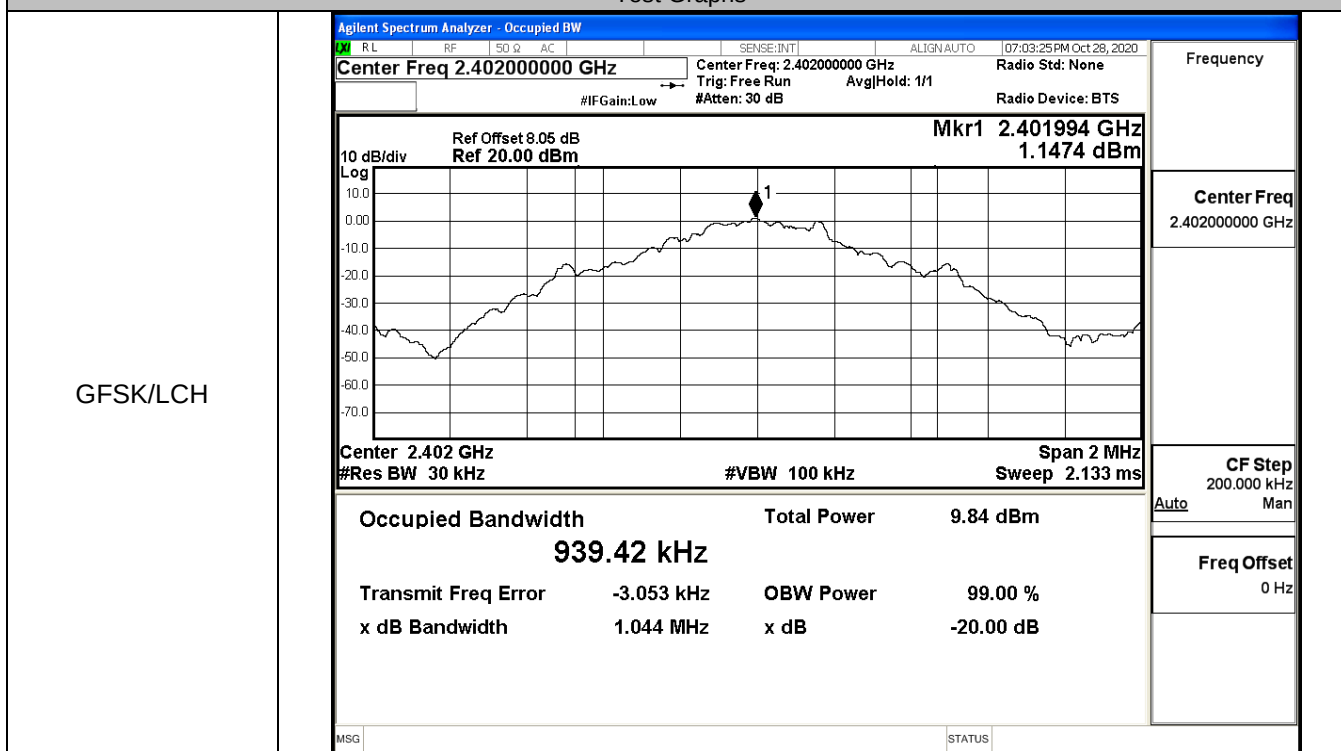
8DPSK/HCH



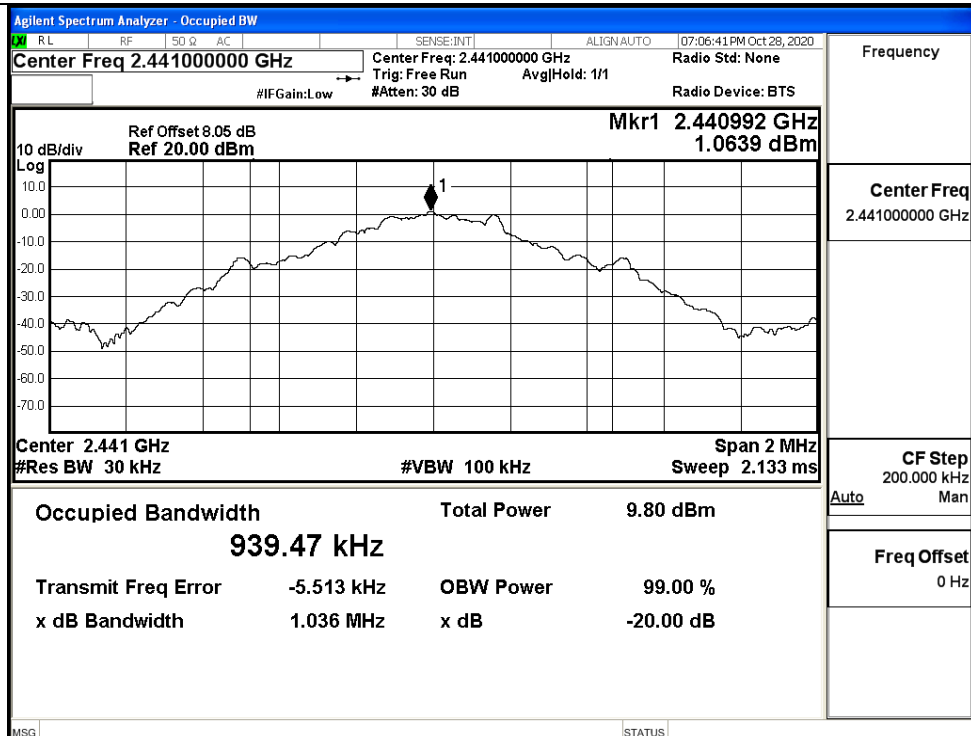
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.044	Not Specified	PASS
	MCH	1.036	Not Specified	PASS
	HCH	1.042	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.202	Not Specified	PASS
	MCH	1.196	Not Specified	PASS
	HCH	1.190	Not Specified	PASS
8DPSK	LCH	1.249	Not Specified	PASS
	MCH	1.243	Not Specified	PASS
	HCH	1.201	Not Specified	PASS

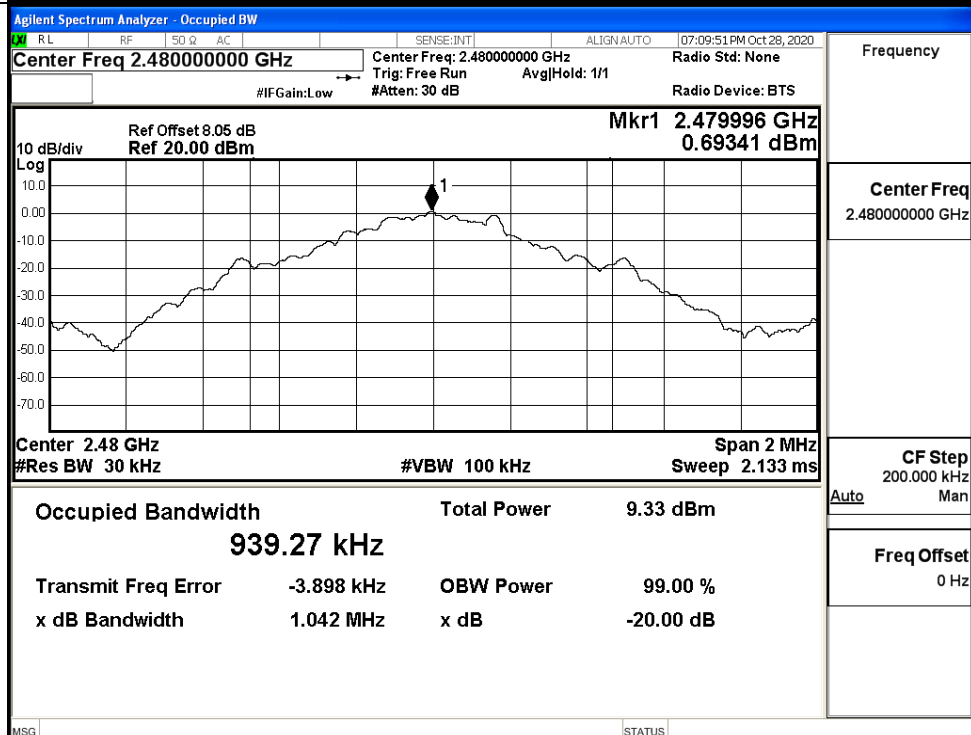
Test Graphs

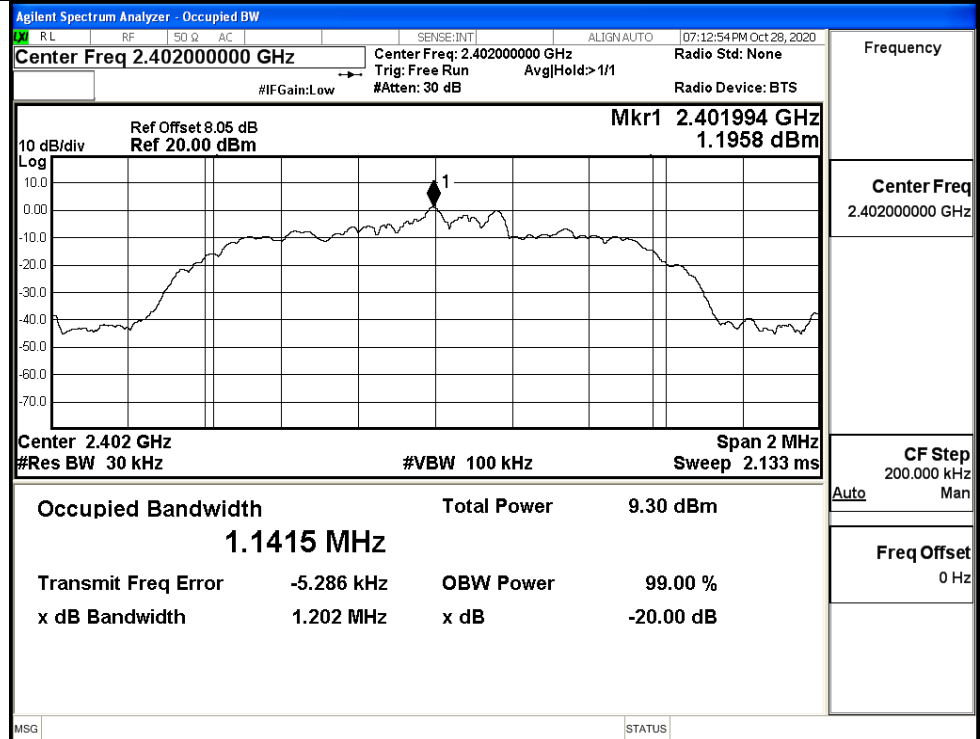
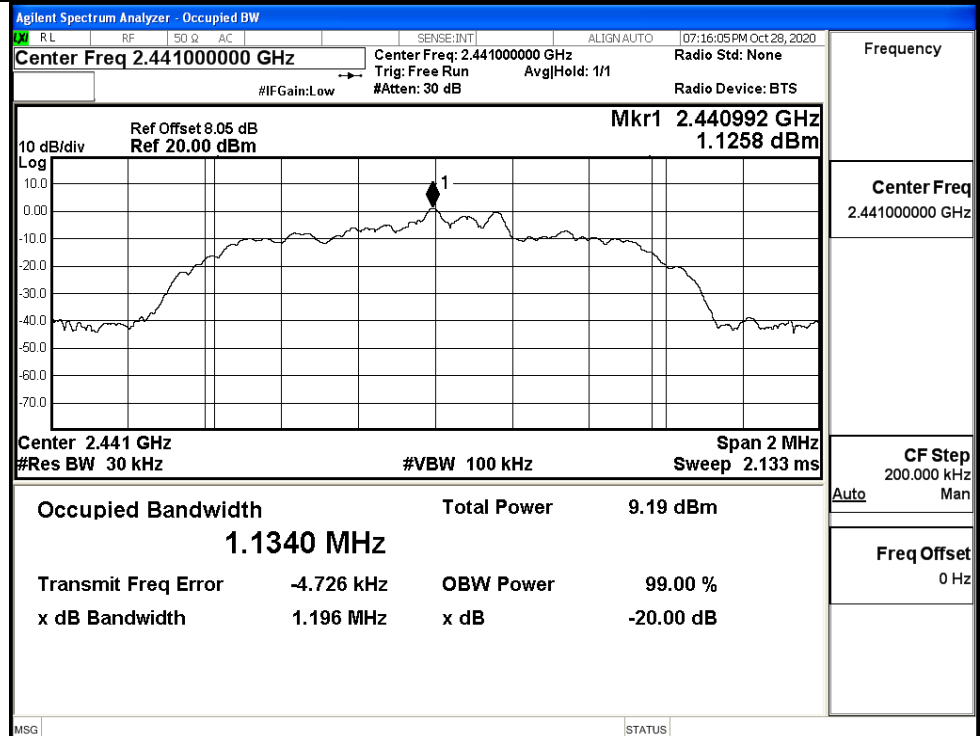


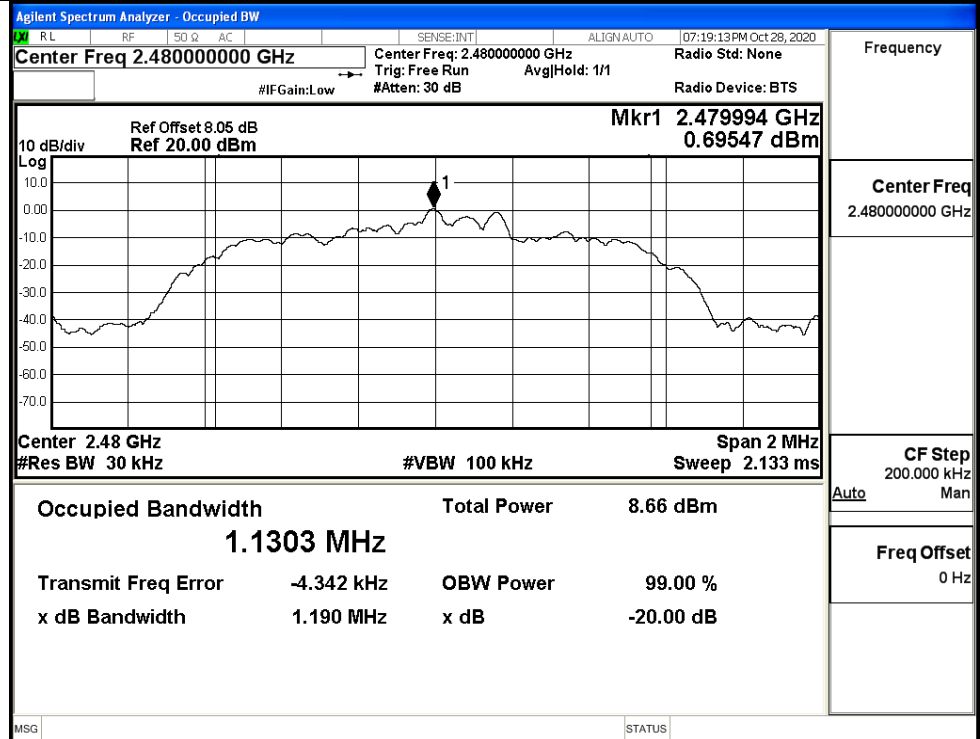
GFSK/MCH



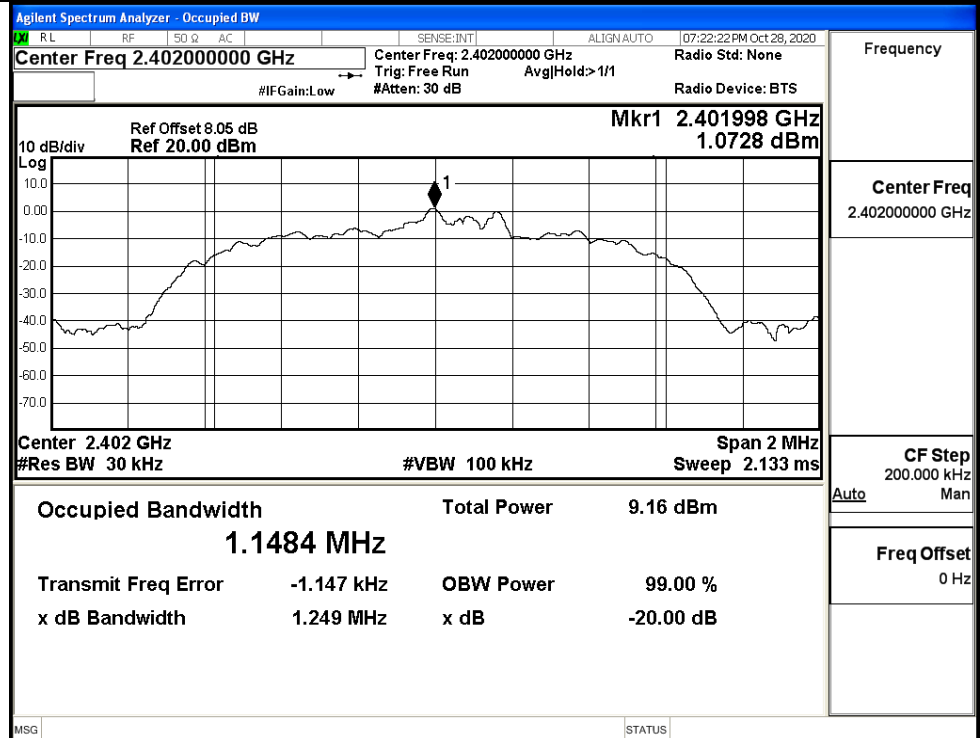
GFSK/HCH



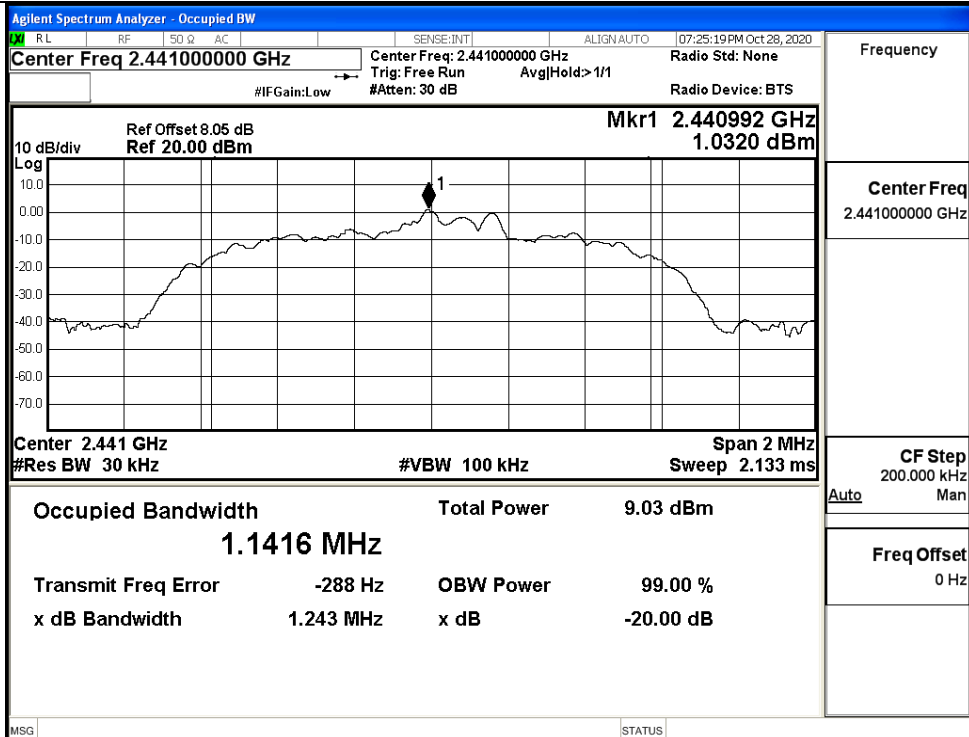
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

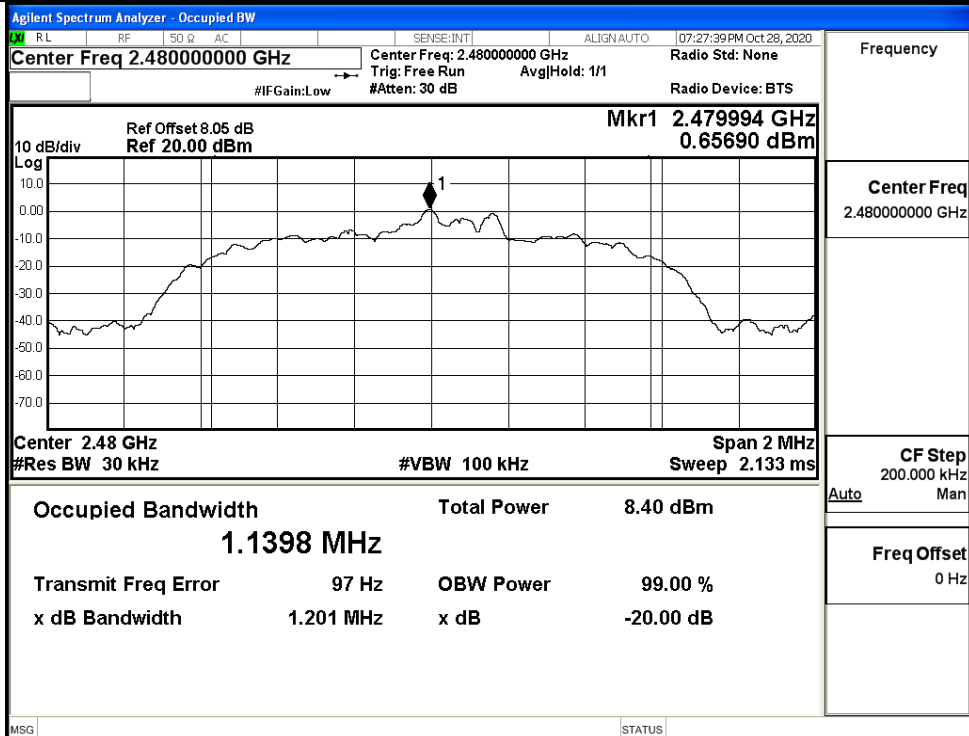
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

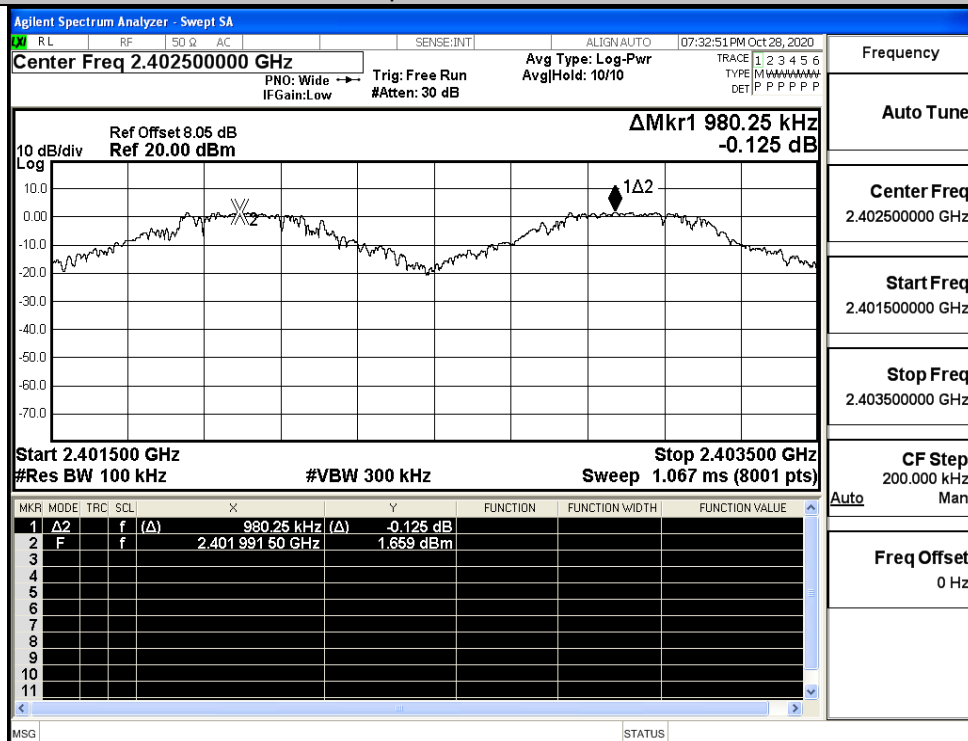


A.3 Carrier Frequency Separation

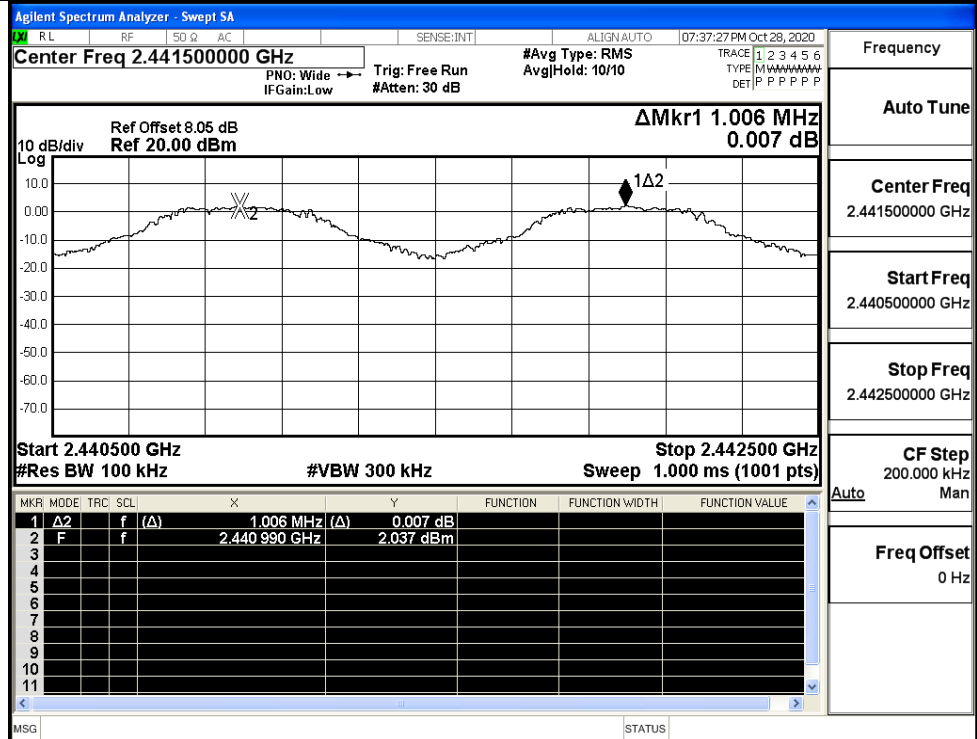
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.980	0.696	PASS
	MCH	1.006	0.696	PASS
	HCH	1.008	0.696	PASS
$\pi/4$ DQPSK	LCH	0.988	0.801	PASS
	MCH	0.996	0.801	PASS
	HCH	1.116	0.801	PASS
8DPSK	LCH	0.852	0.833	PASS
	MCH	0.988	0.833	PASS
	HCH	1.066	0.833	PASS

Test Graphs

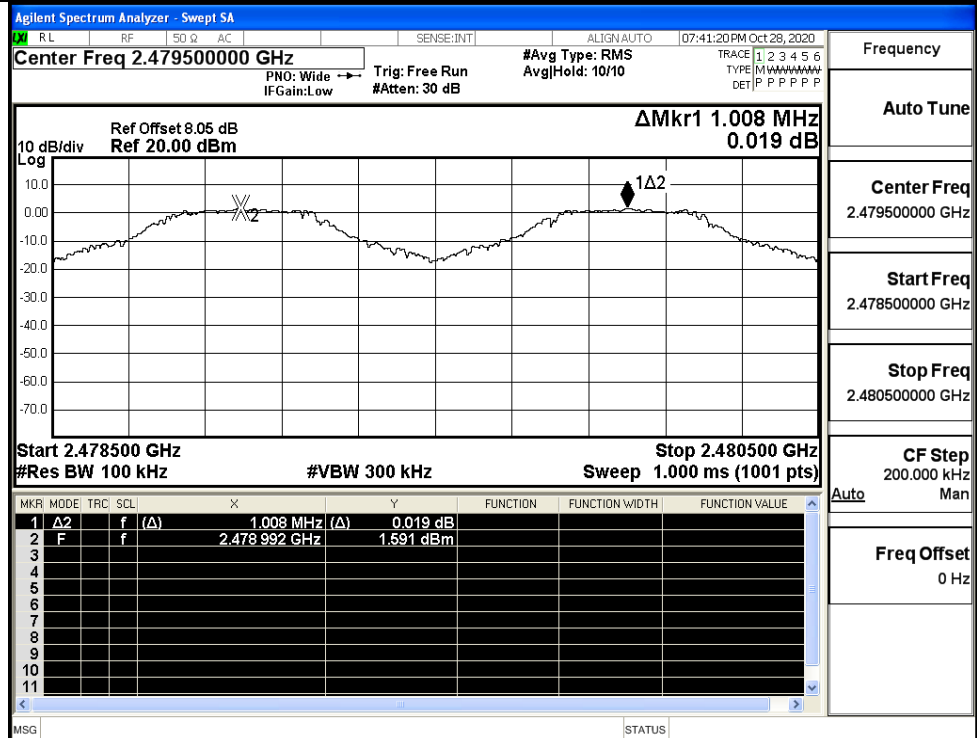
GFSK/LCH

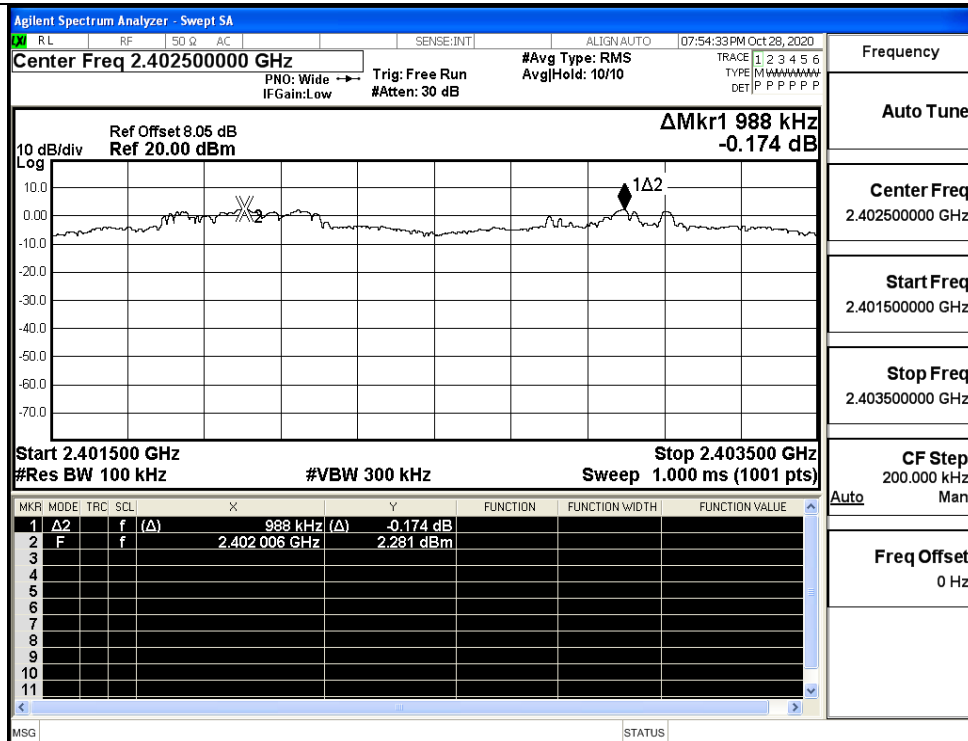


GFSK/MCH



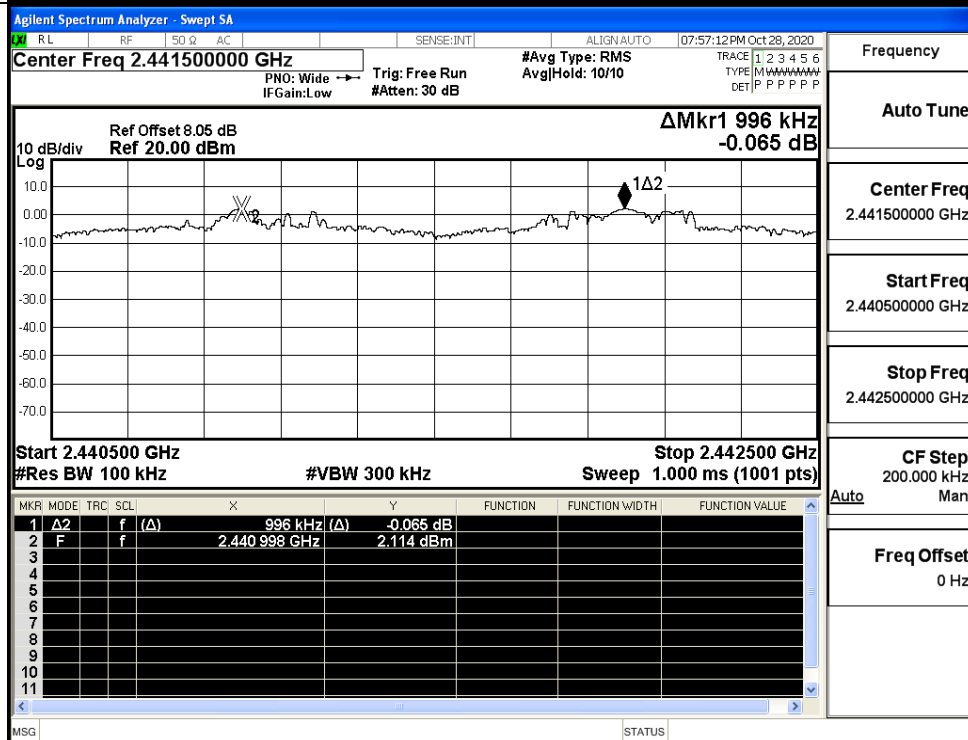
GFSK/HCH



$\pi/4$ DQPSK/LCH

Frequency

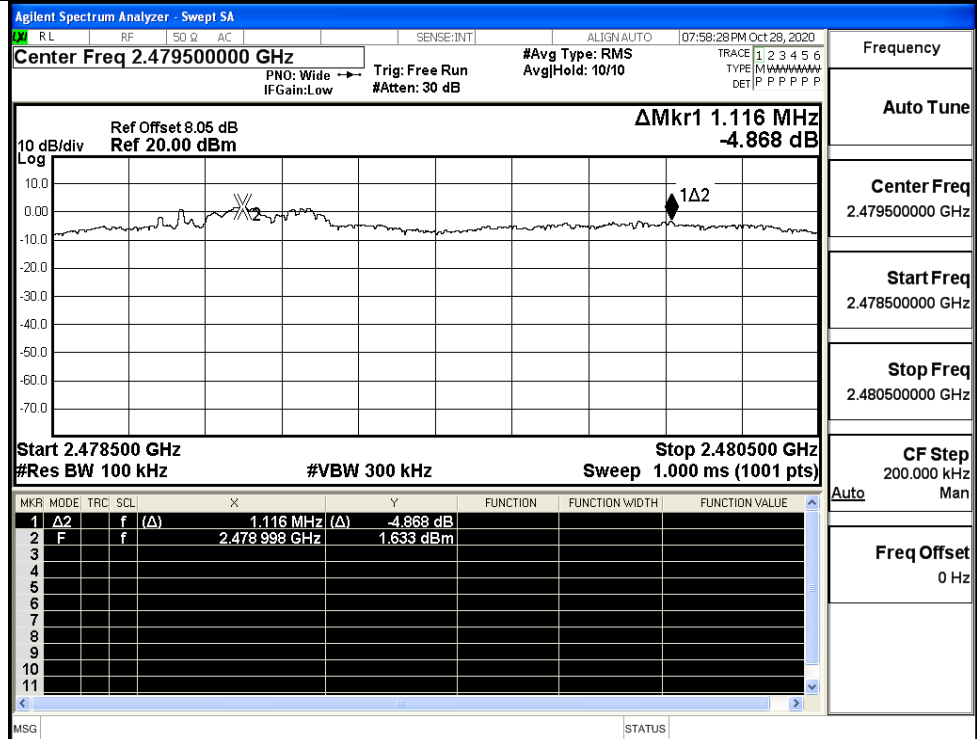
Auto Tune

Center Freq
2.402500000 GHzStart Freq
2.401500000 GHzStop Freq
2.403500000 GHzCF Step
200.000 kHz
ManFreq Offset
0 Hz $\pi/4$ DQPSK/MCH

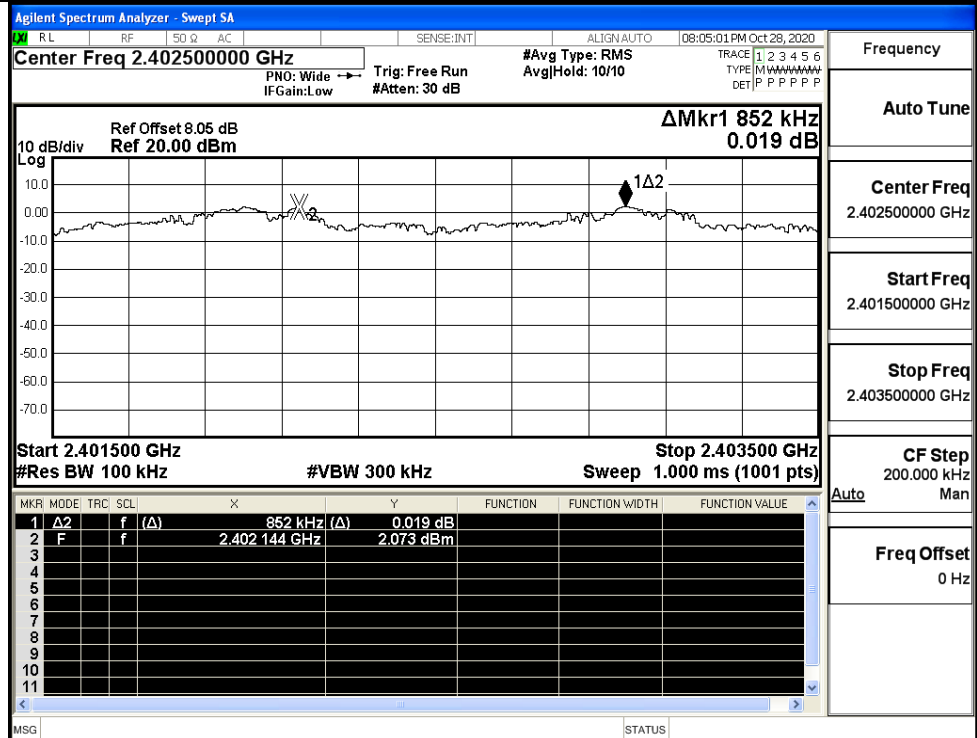
Frequency

Auto Tune

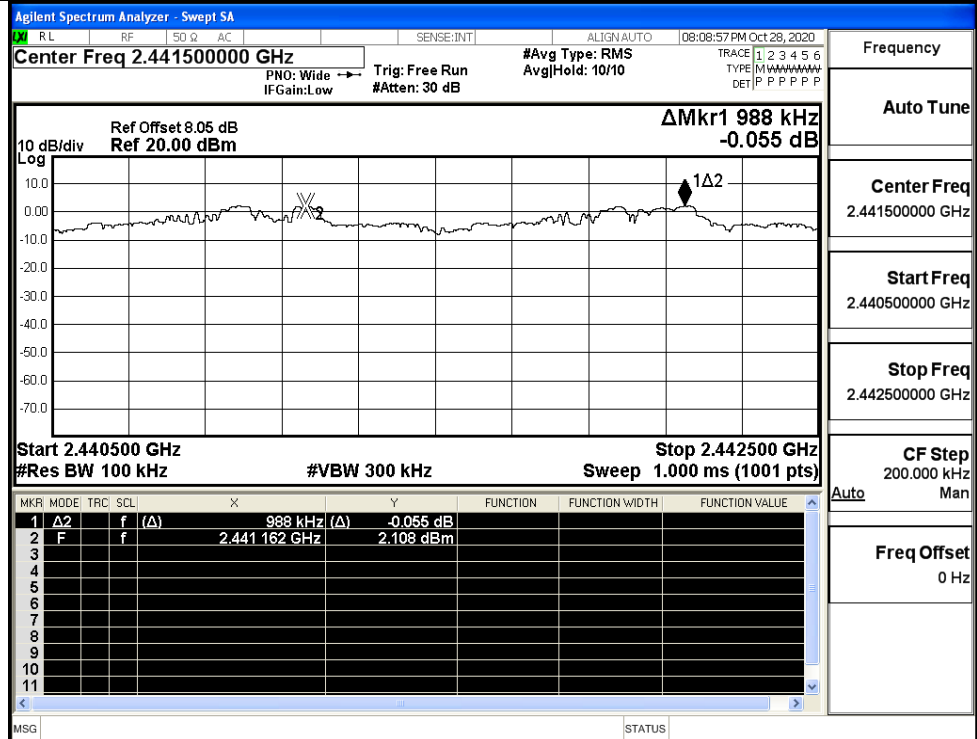
Center Freq
2.441500000 GHzStart Freq
2.440500000 GHzStop Freq
2.442500000 GHzCF Step
200.000 kHz
ManFreq Offset
0 Hz

$\pi/4$ DQPSK/HCH

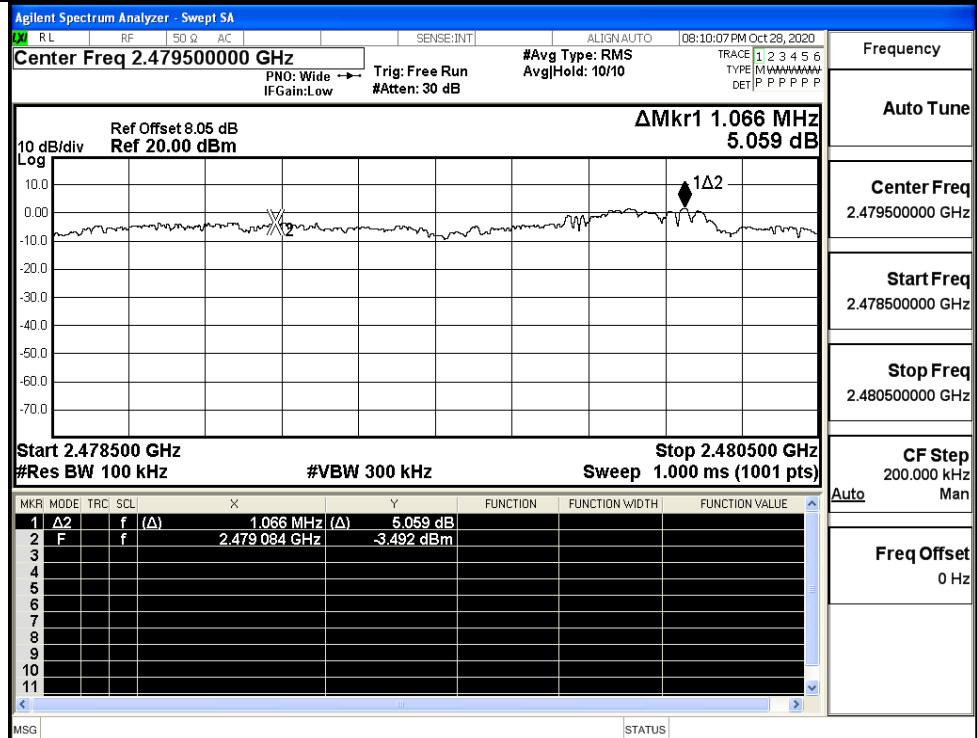
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

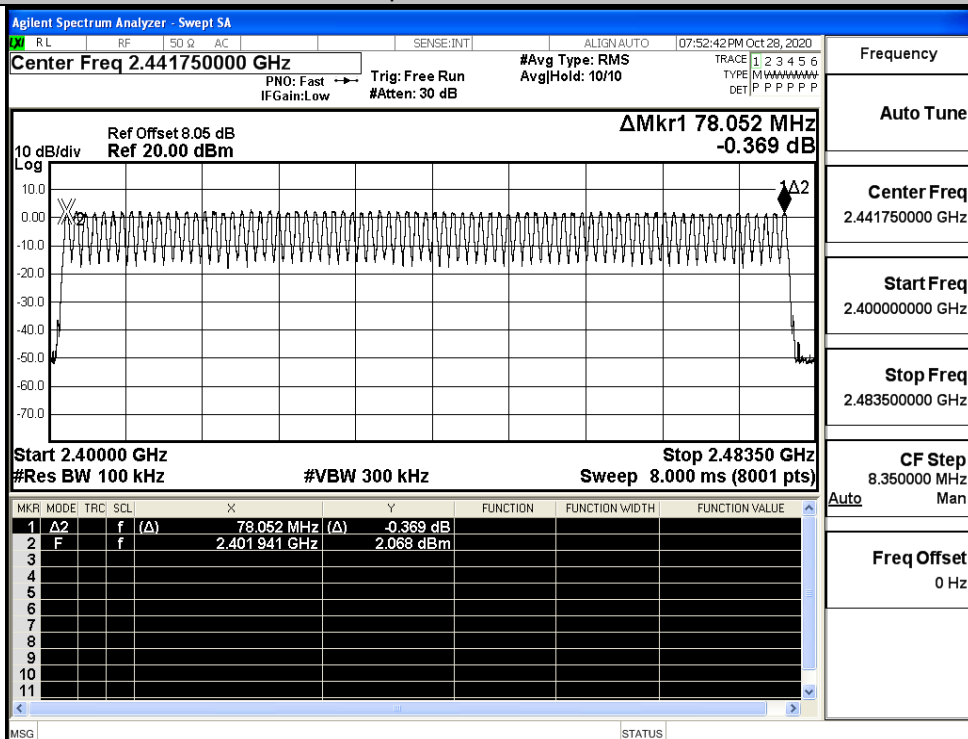


A.4 Hopping Channel Number

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

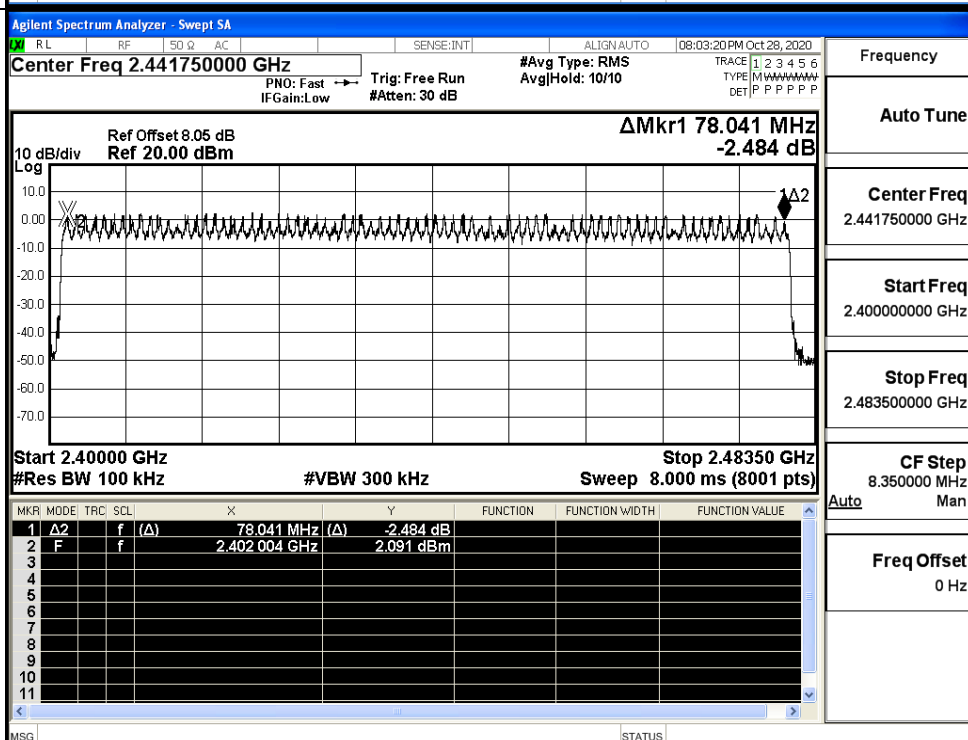
Test Graphs

GFSK/Hop



Frequency

Auto Tune

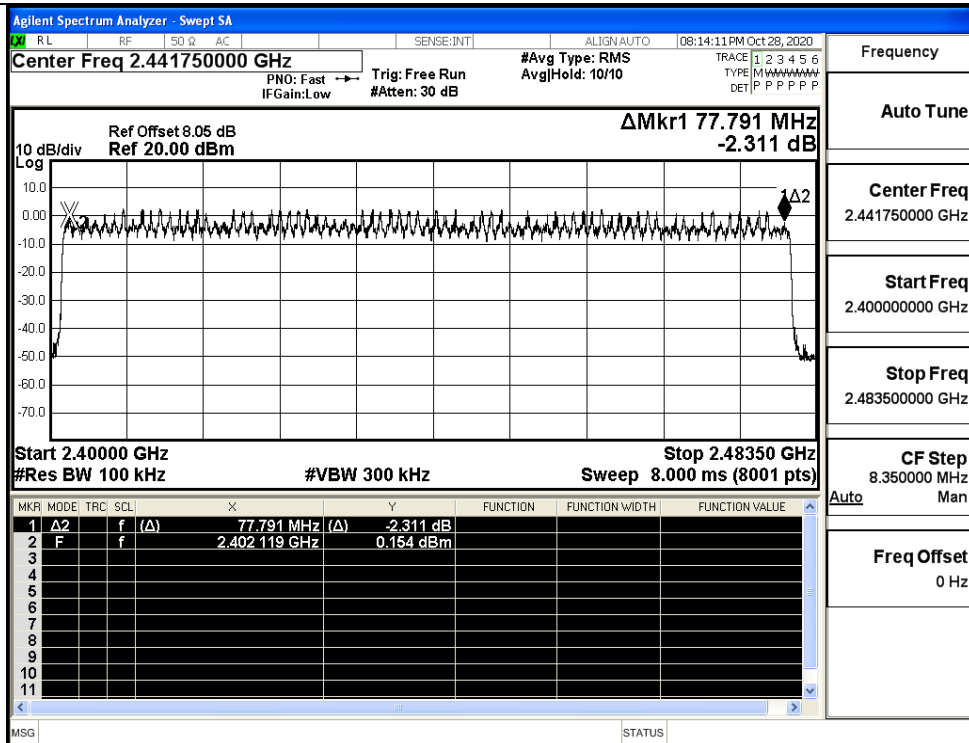
Center Freq
2.441750000 GHzStart Freq
2.400000000 GHzStop Freq
2.483500000 GHzCF Step
8.350000 MHz
ManFreq Offset
0 Hz $\pi/4$ DQPSK/Hop

Frequency

Auto Tune

Center Freq
2.441750000 GHzStart Freq
2.400000000 GHzStop Freq
2.483500000 GHzCF Step
8.350000 MHz
ManFreq Offset
0 Hz

8DPSK/Hop

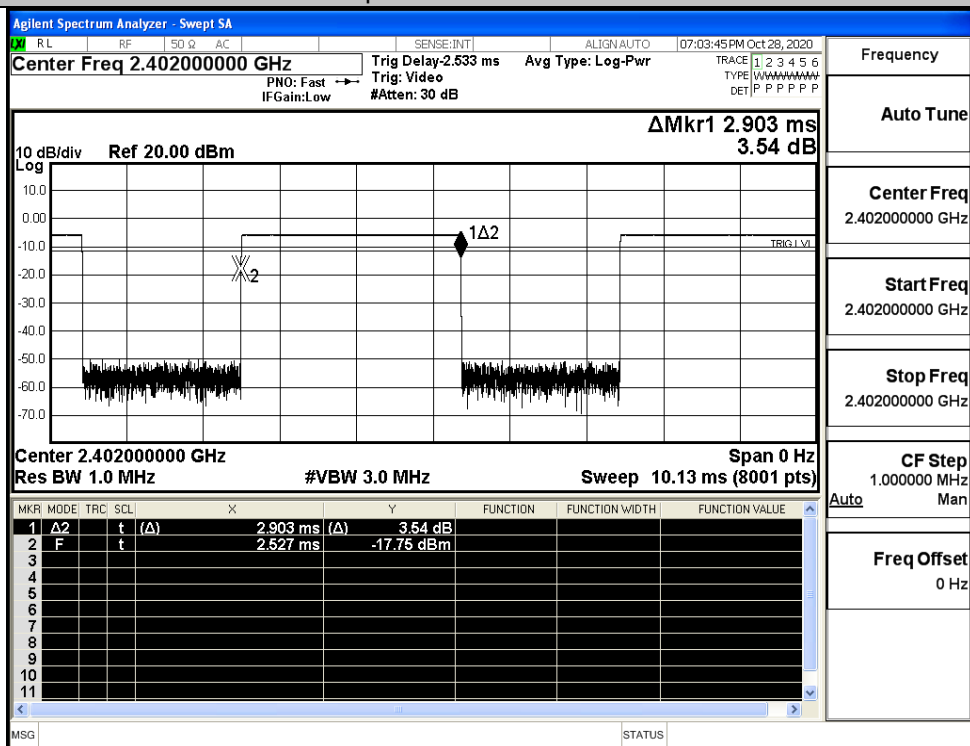


A.5 Dwell Time

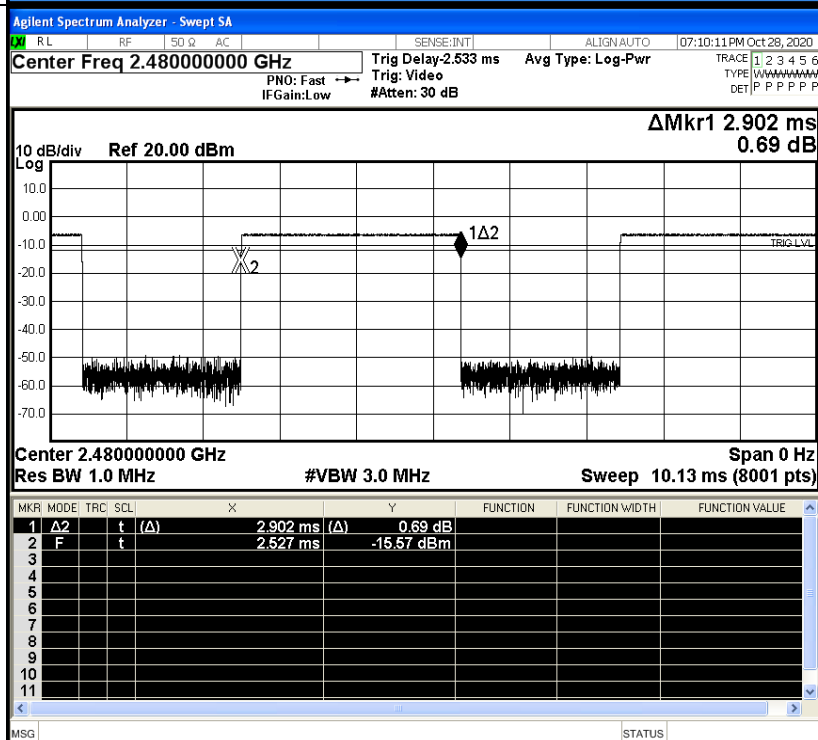
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.9	106.7	0.309	0.4	PASS
	DH5	MCH	2.9	106.7	0.309	0.4	PASS
	DH5	HCH	2.9	106.7	0.309	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.9	106.7	0.31	0.4	PASS
	2DH5	MCH	2.9	106.7	0.31	0.4	PASS
	2DH5	HCH	2.9	106.7	0.31	0.4	PASS
8DPSK	3DH5	LCH	2.9	106.7	0.31	0.4	PASS
	3DH5	MCH	2.9	106.7	0.31	0.4	PASS
	3DH5	HCH	2.9	106.7	0.31	0.4	PASS

Test Graphs

GFSK_DH5/LCH

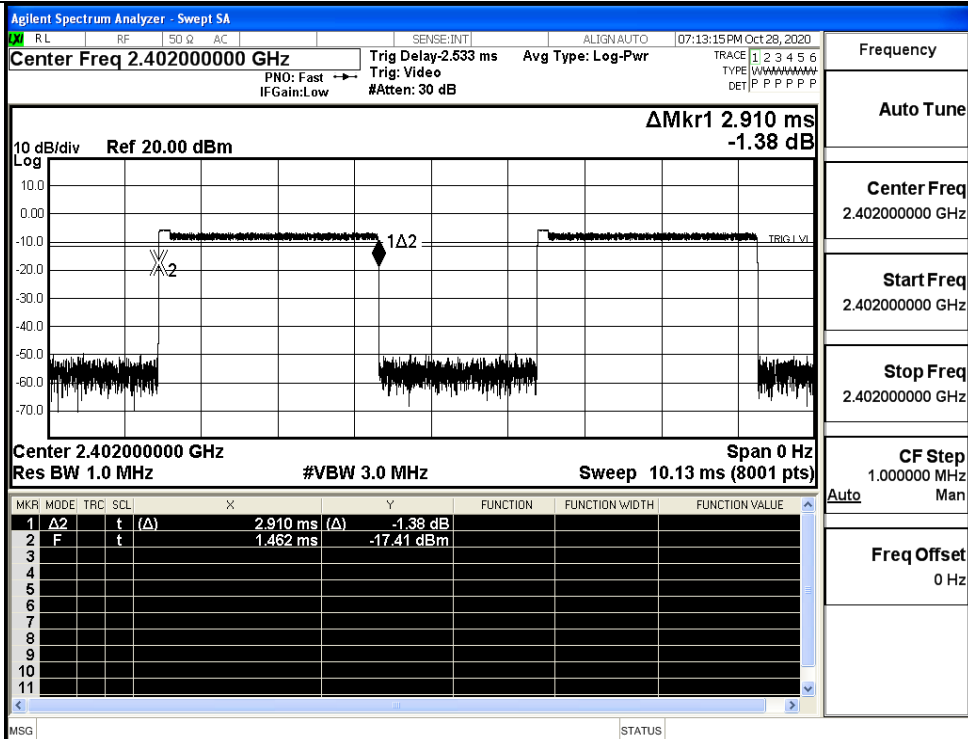


GFSK DH5/HCH

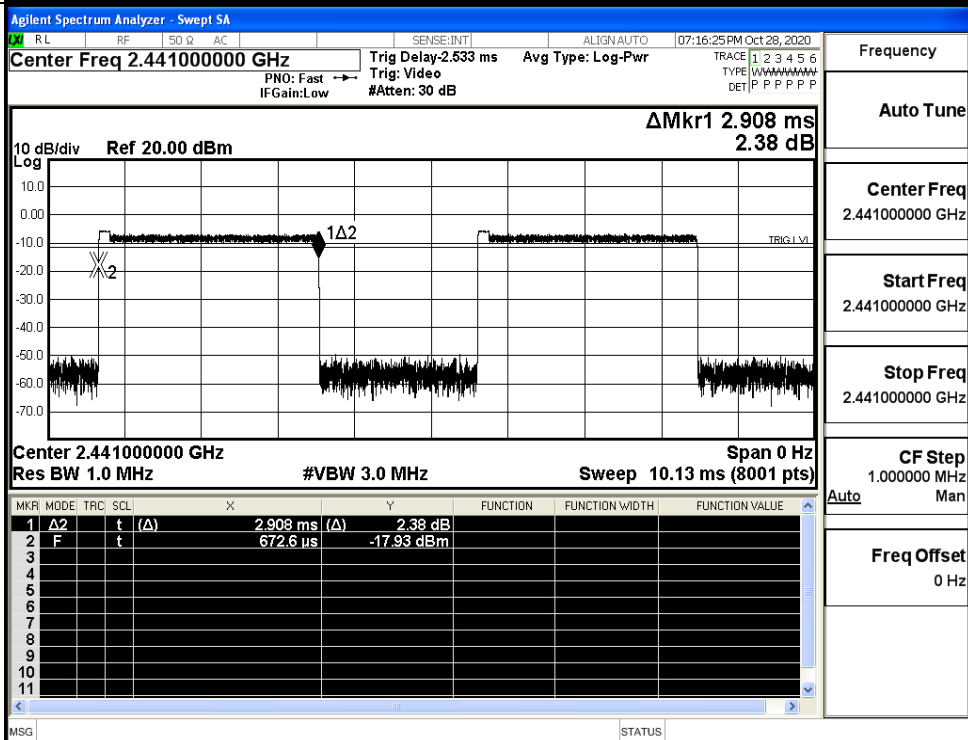


Frequency	
Auto Tune	
Center Freq	2.480000000 GHz
Start Freq	2.480000000 GHz
Stop Freq	2.480000000 GHz
CF Step	1.000000 MHz
Auto	Man
Freq Offset	0 Hz

$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH



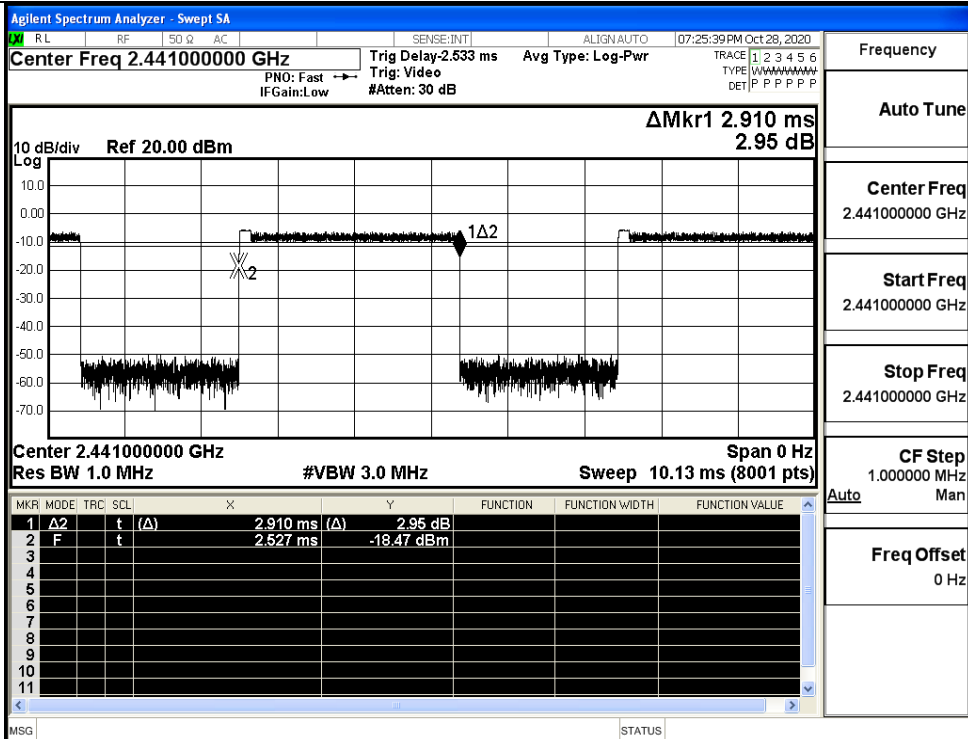
[illegible]

Frequency
Auto Tune
Center Freq 2.480000000 GHz
Start Freq 2.480000000 GHz
Stop Freq 2.480000000 GHz
CF Step 1.000000 MHz <u>Auto</u> Man
Freq Offset 0 Hz

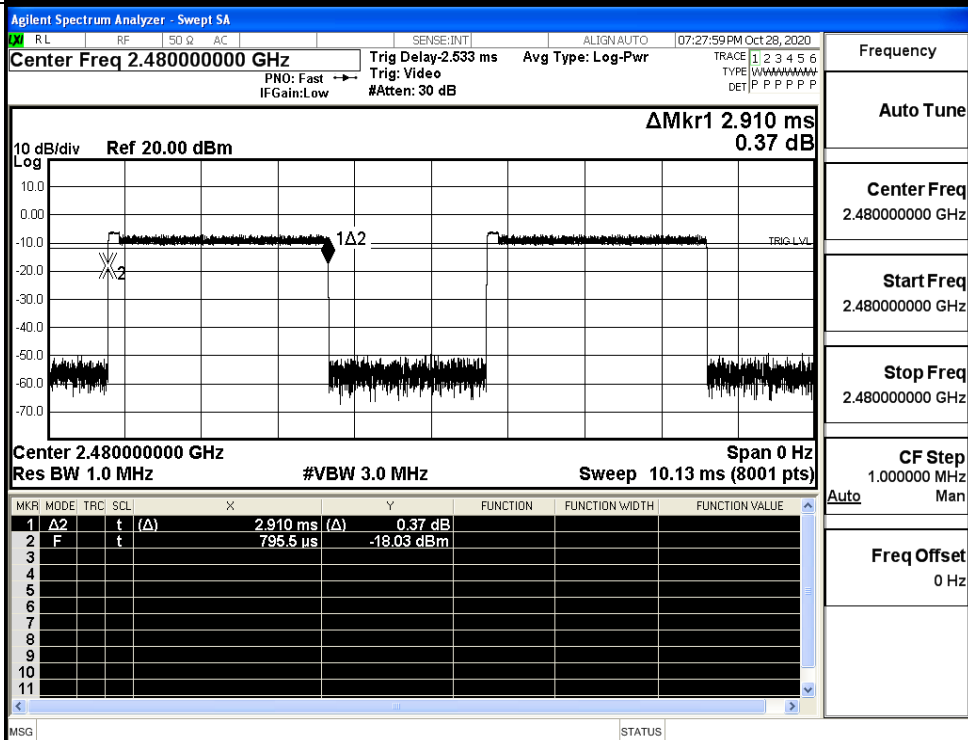
[illegible]

Frequency
Auto Tune
Center Freq 2.402000000 GHz
Start Freq 2.402000000 GHz
Stop Freq 2.402000000 GHz
CF Step 1.000000 MHz
Auto Man
Freq Offset 0 Hz

8DPSK_3DH5/MCH



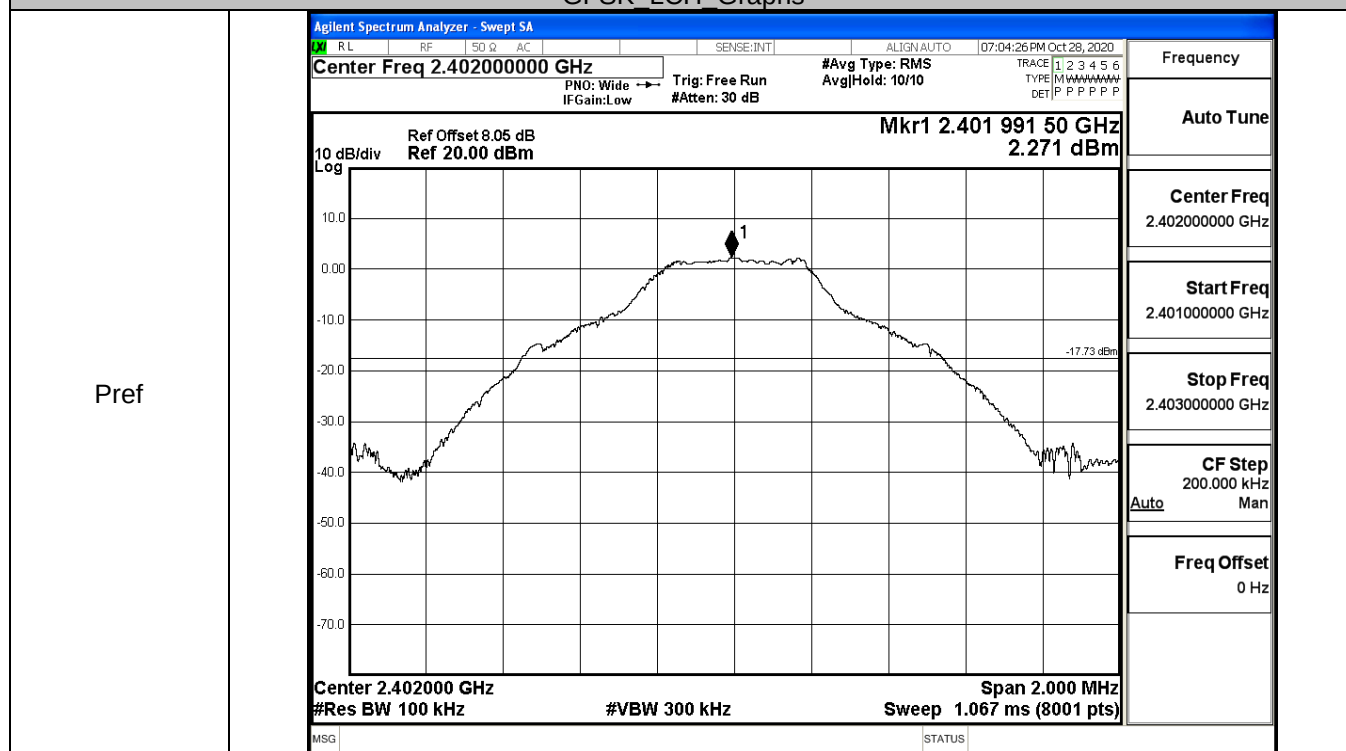
8DPSK_3DH5/HCH



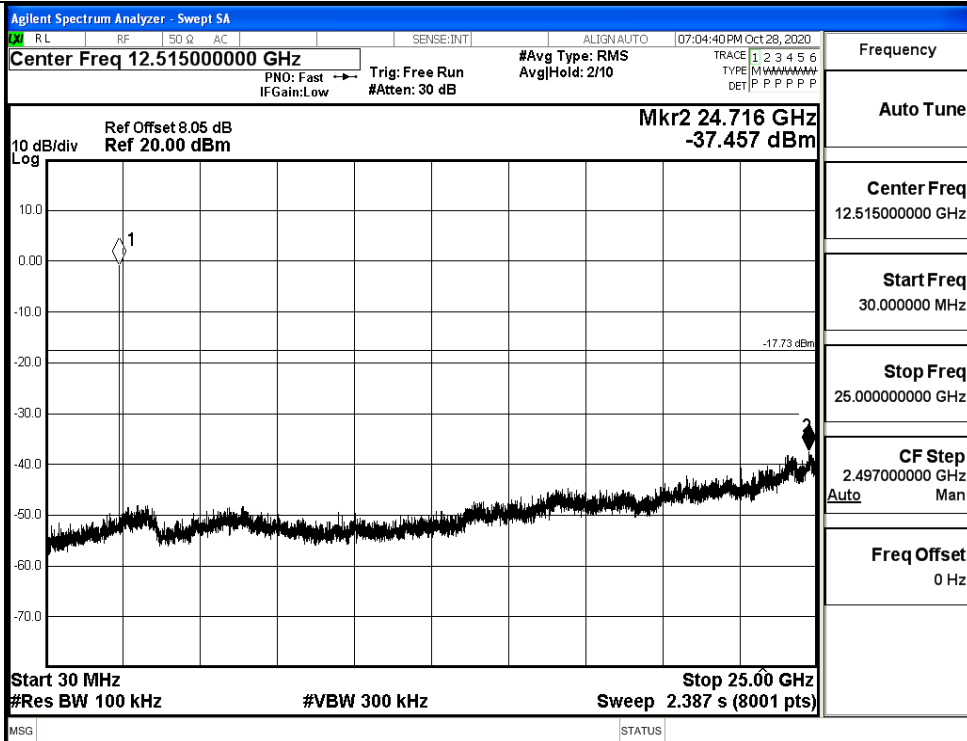
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.271	-37.457	-17.729	PASS
	MCH	2.141	-37.308	-17.859	PASS
	HCH	1.694	-36.590	-18.306	PASS
$\pi/4$ DQPSK	LCH	2.265	-37.079	-17.735	PASS
	MCH	1.83	-36.478	-18.170	PASS
	HCH	1.369	-36.470	-18.631	PASS
8DPSK	LCH	2.303	-36.621	-17.697	PASS
	MCH	2.128	-36.208	-17.872	PASS
	HCH	1.65	-36.277	-18.350	PASS

GFSK LCH Graphs

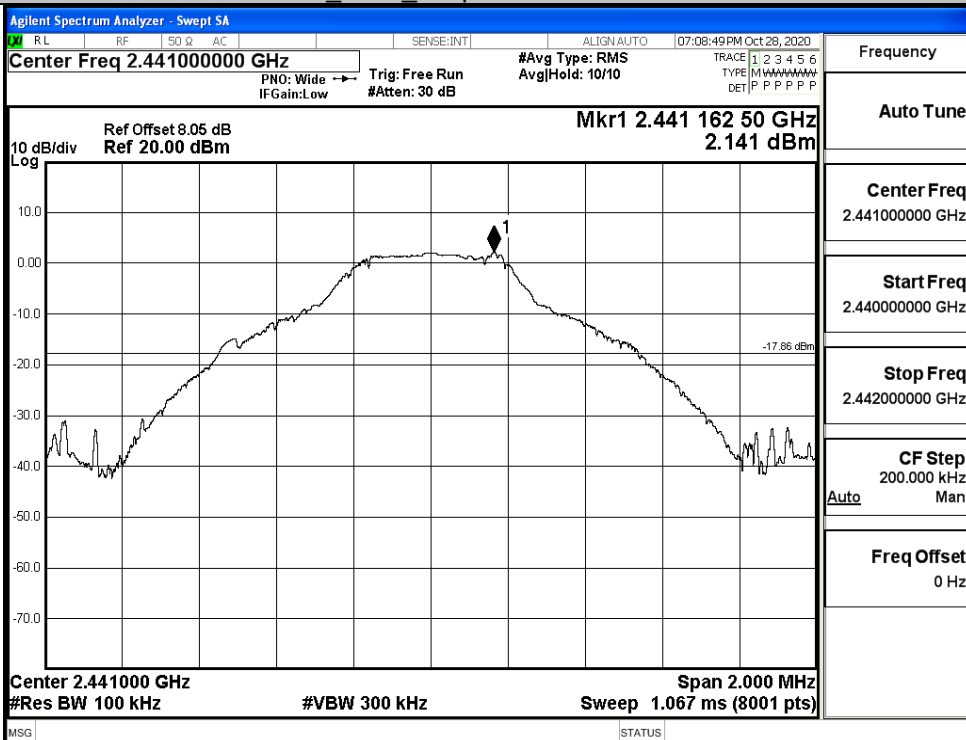


Puw

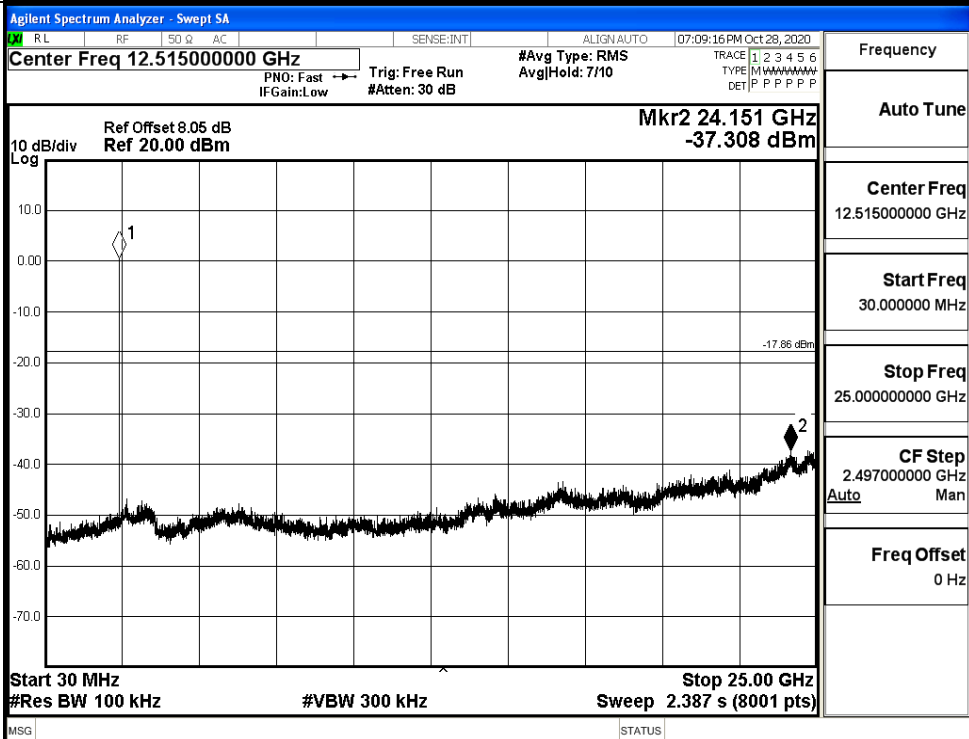


GFSK_MCH_Graphs

Pref

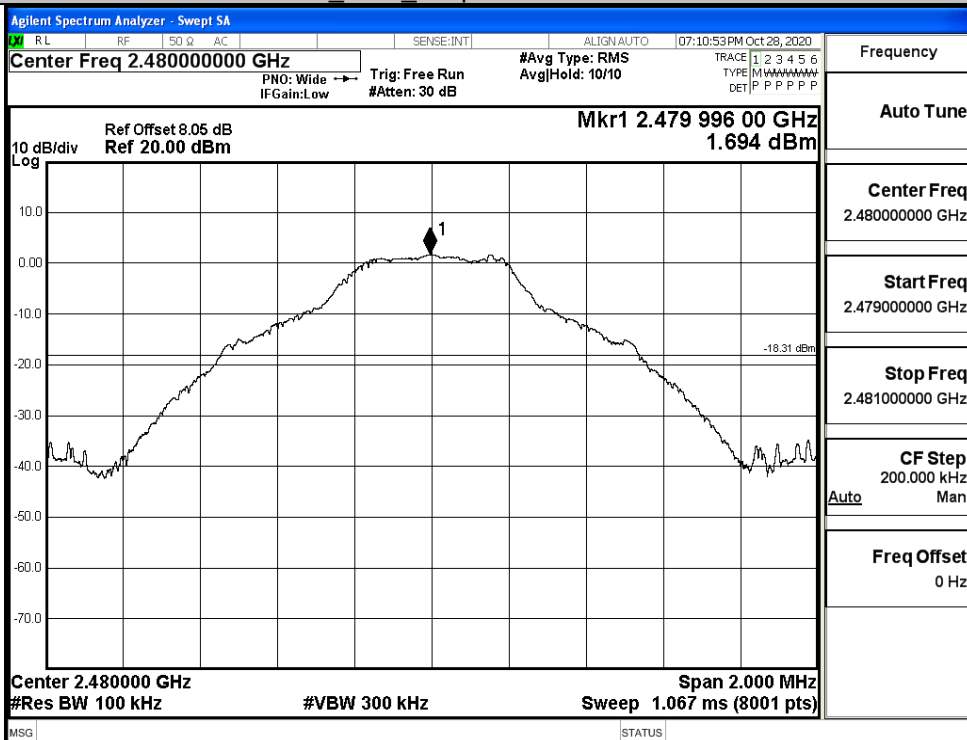


Puw

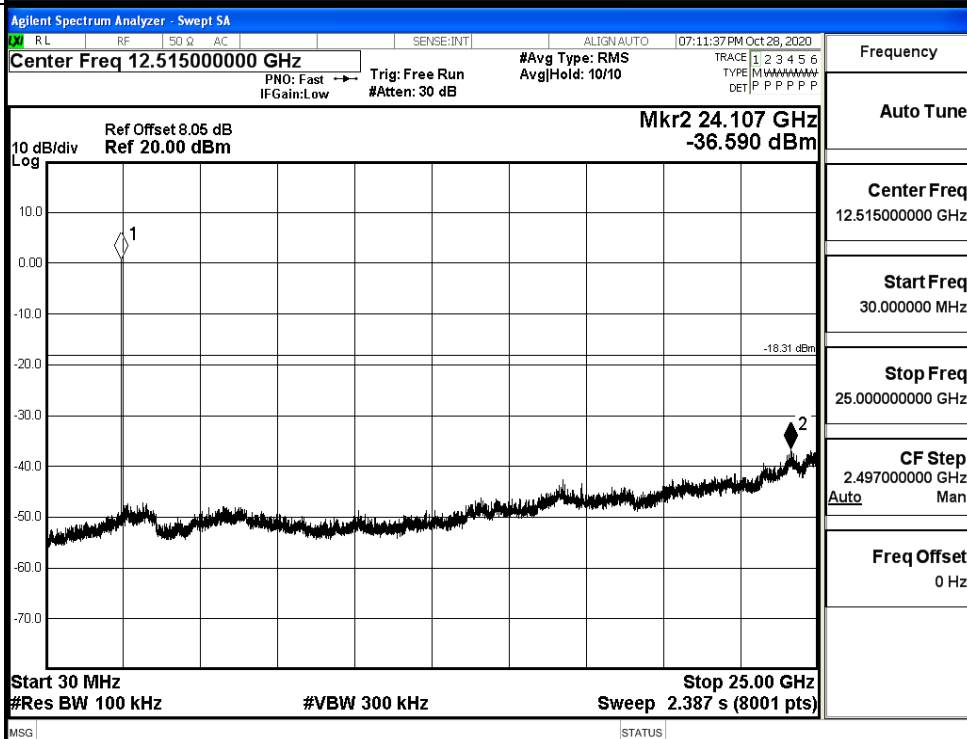


GFSK HCH_Graphs

Pref

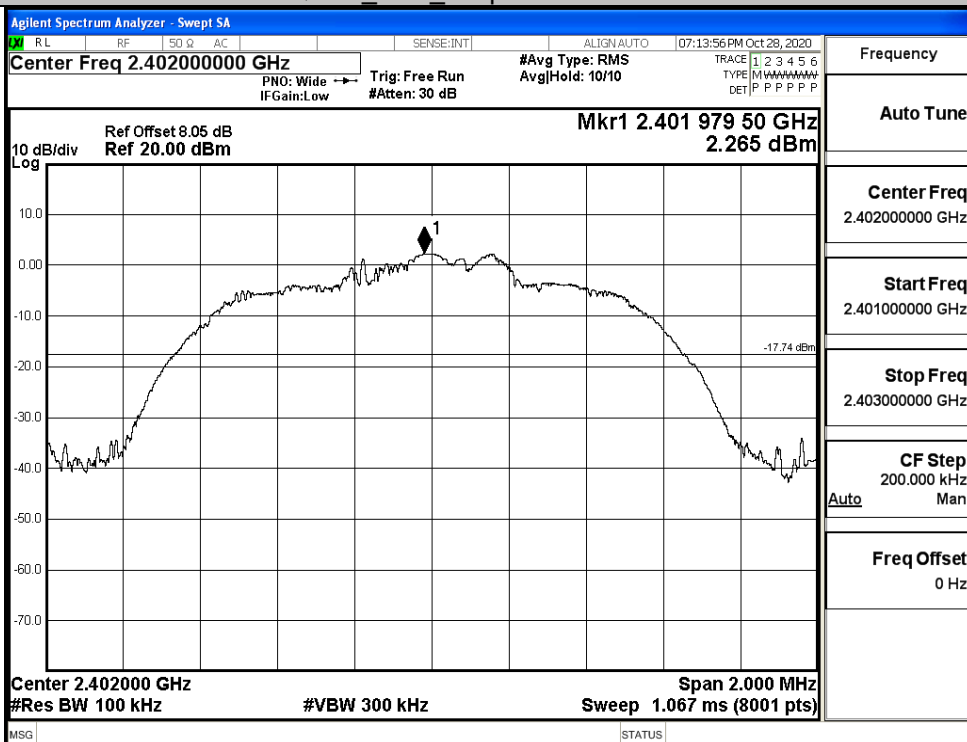


Puw

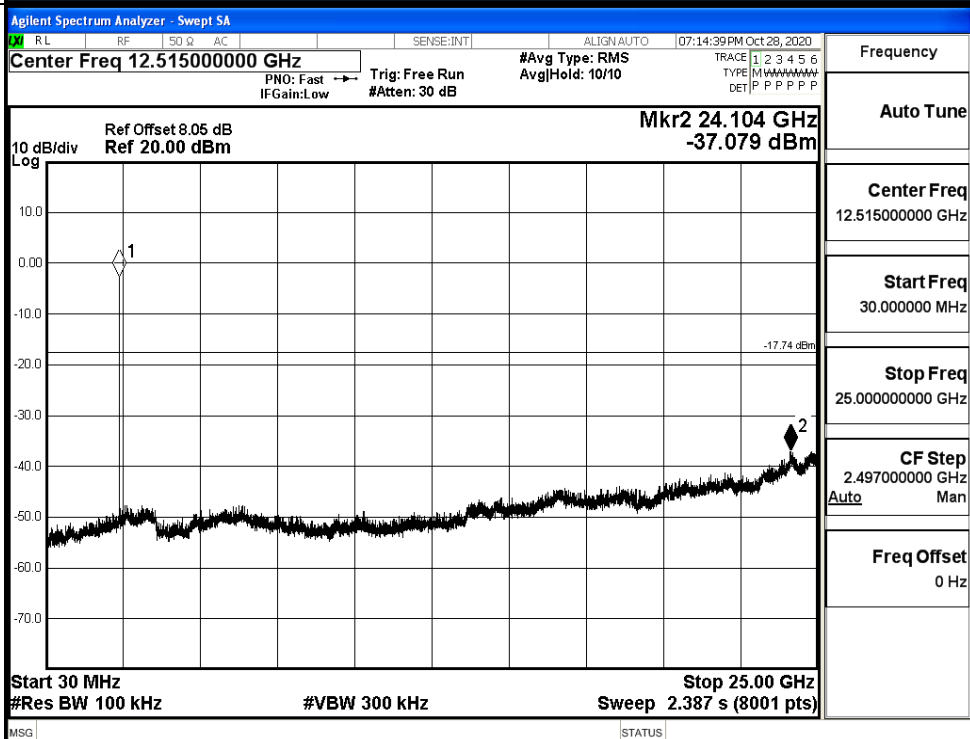


$\pi/4$ DQPSK_LCH_Graphs

Pref

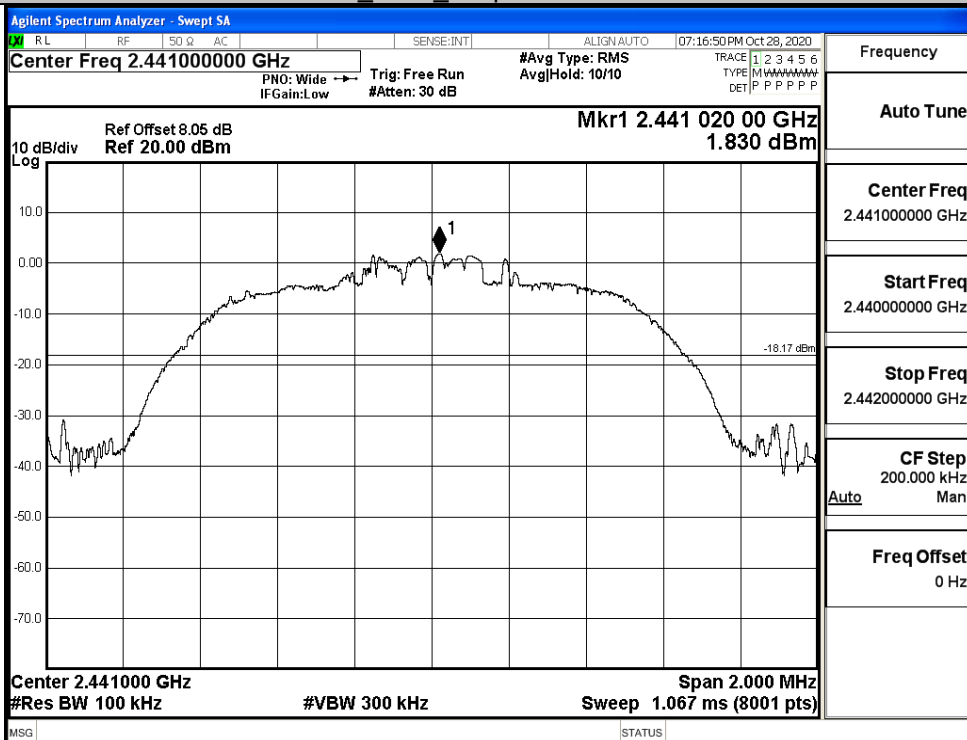


Puw

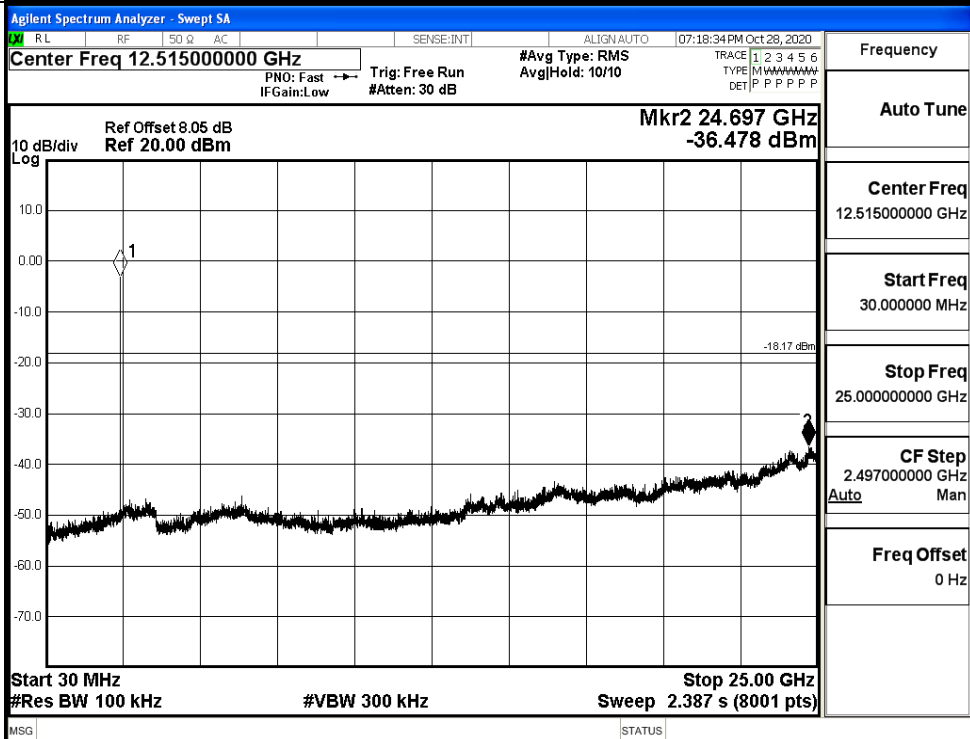


π /4DQPSK_MCH_Graphs

Pref

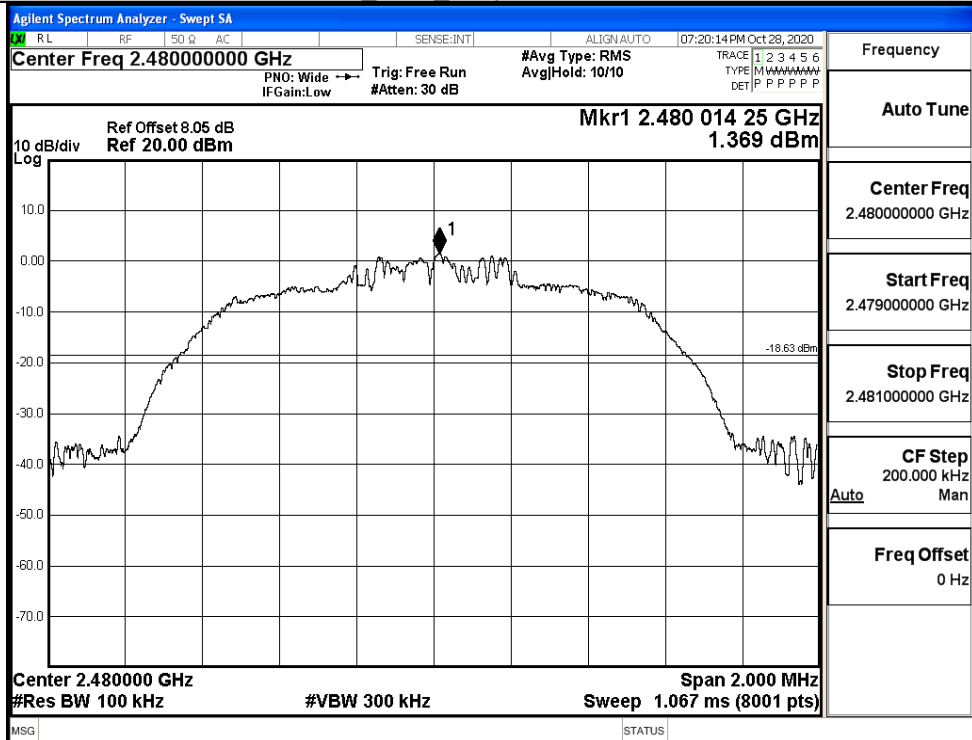


Puw

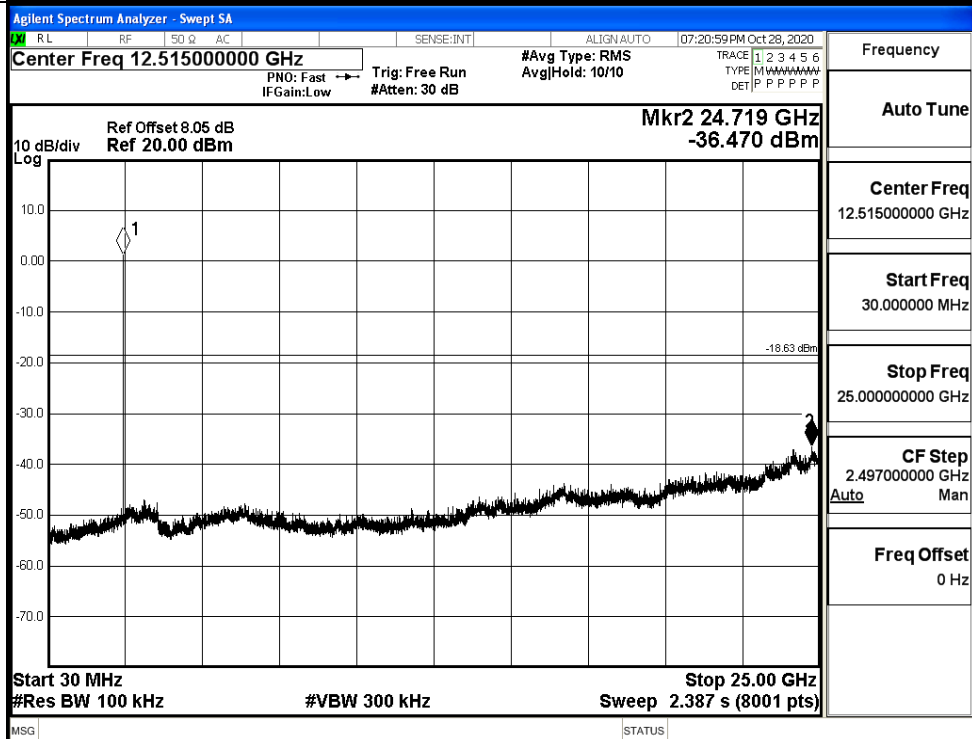


π /4DQPSK_HCH_Graphs

Pref

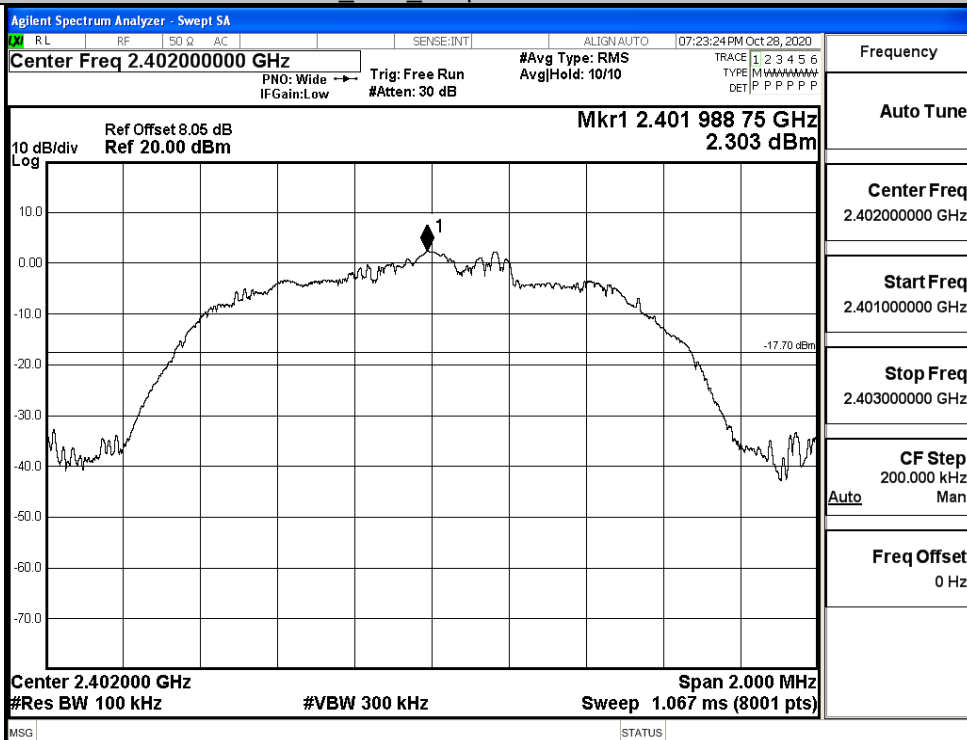


Puw

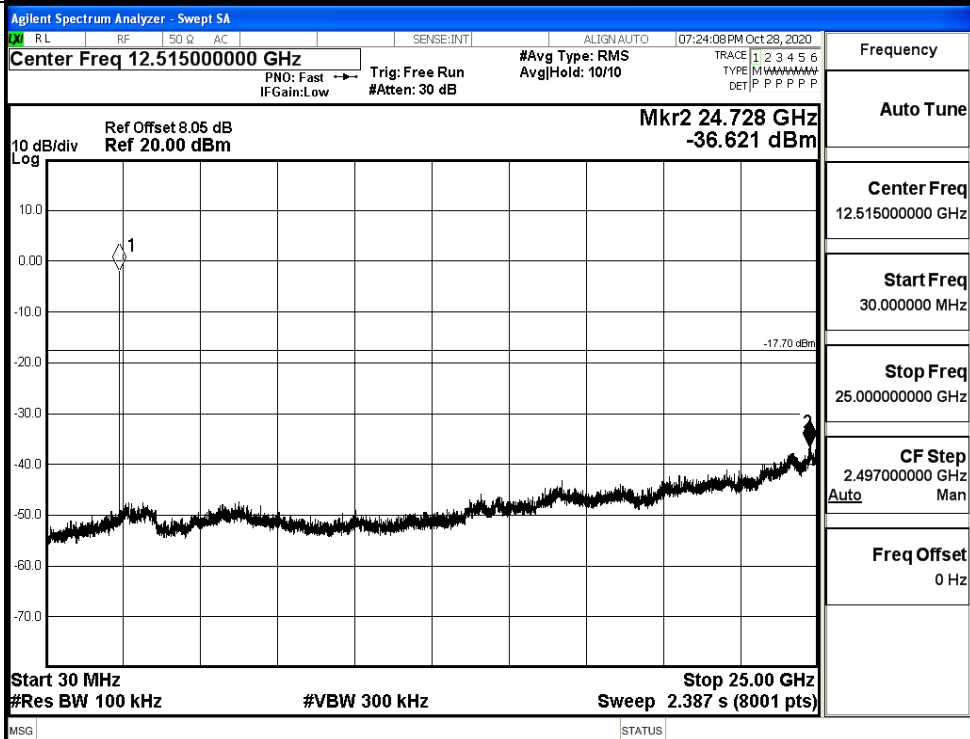


8DPSK_LCH_Graphs

Pref

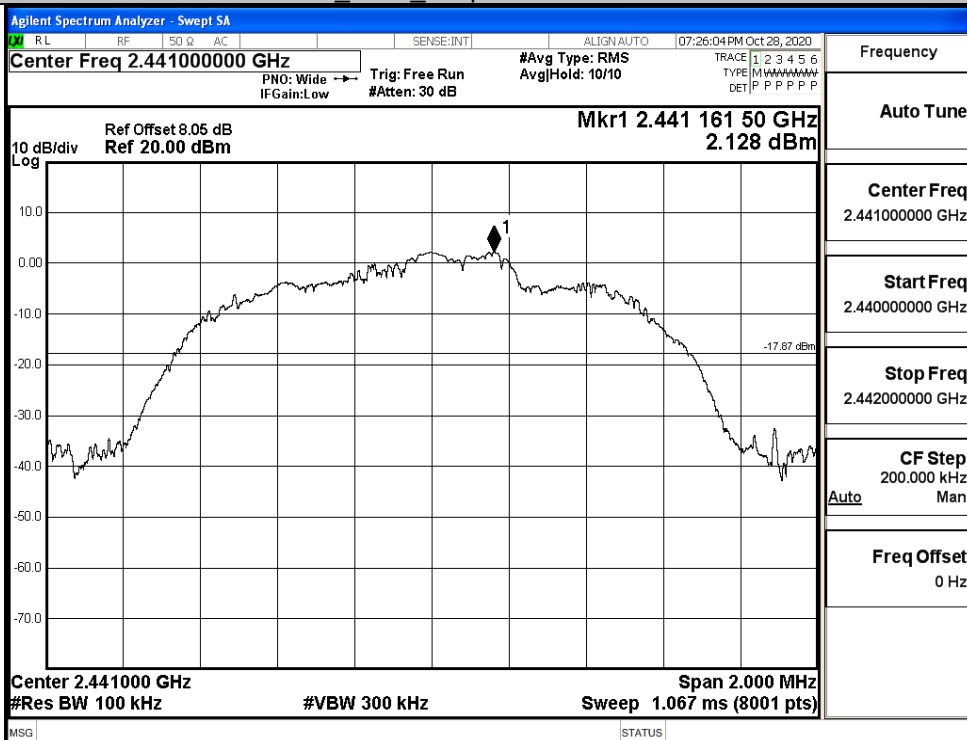


Puw

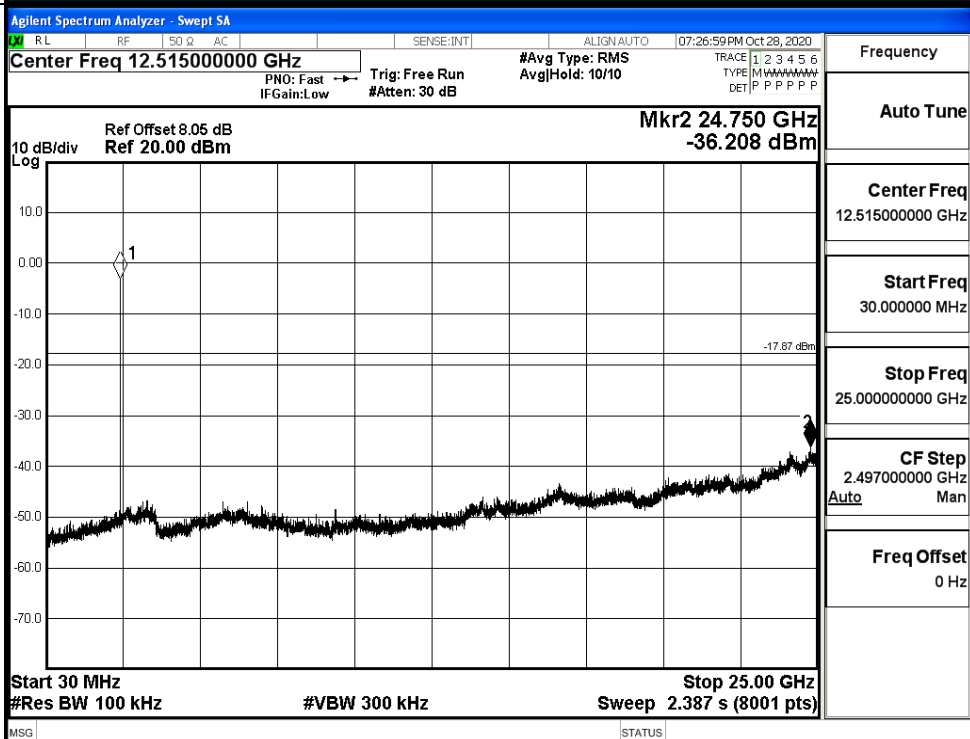


8DPSK_MCH_Graphs

Pref

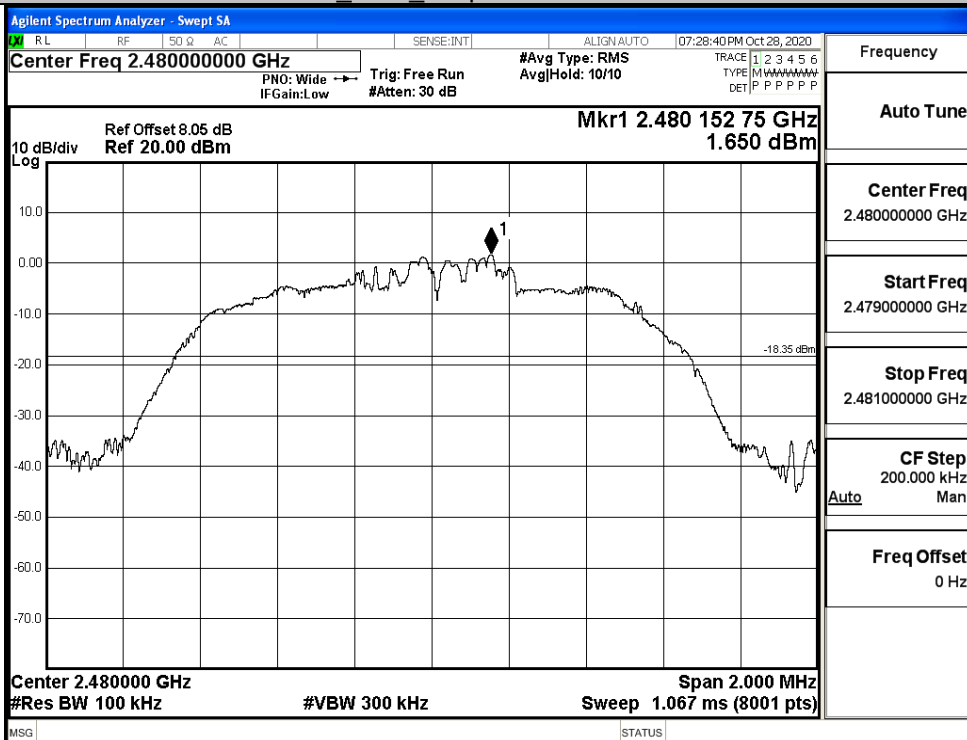


Puw

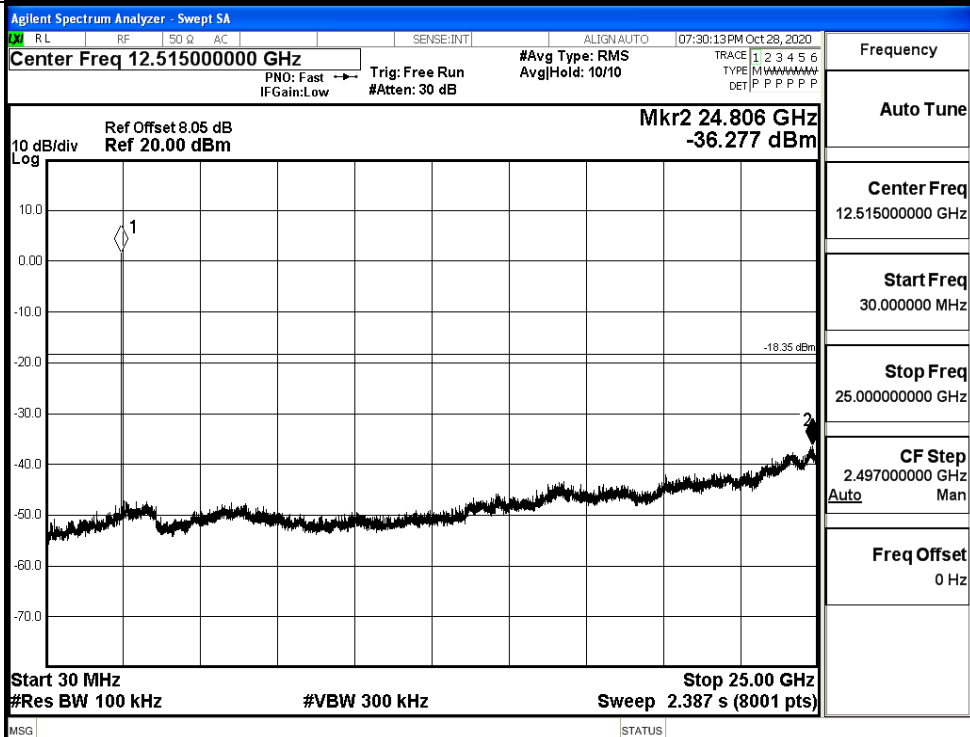


8DPSK_HCH_Graphs

Pref



Puw

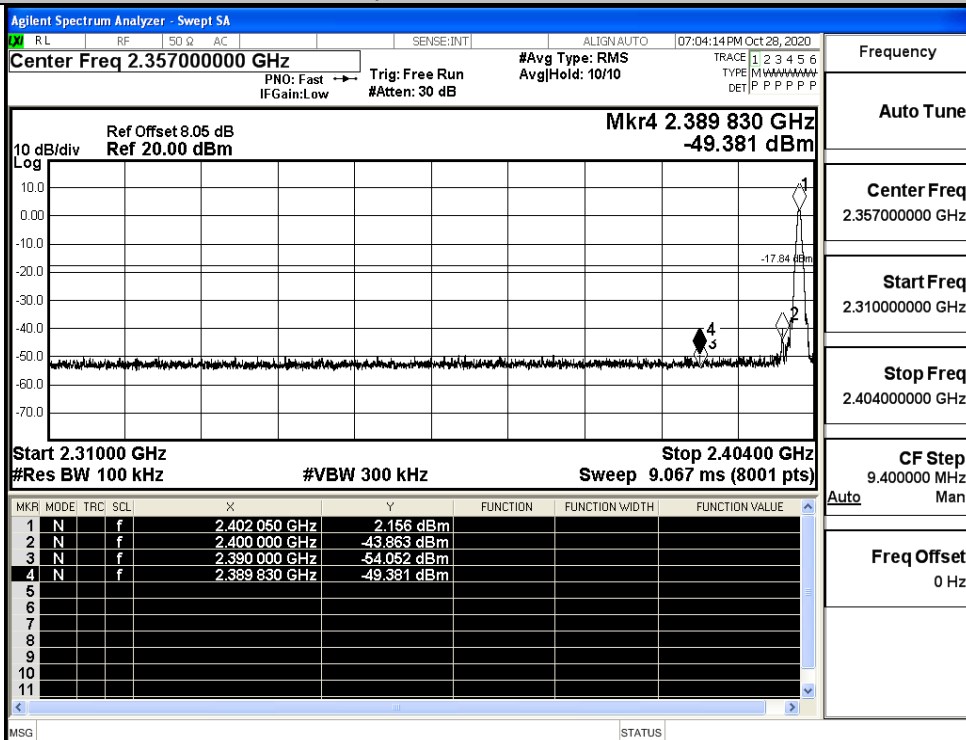


A.7 Band-edge for RF Conducted Emissions

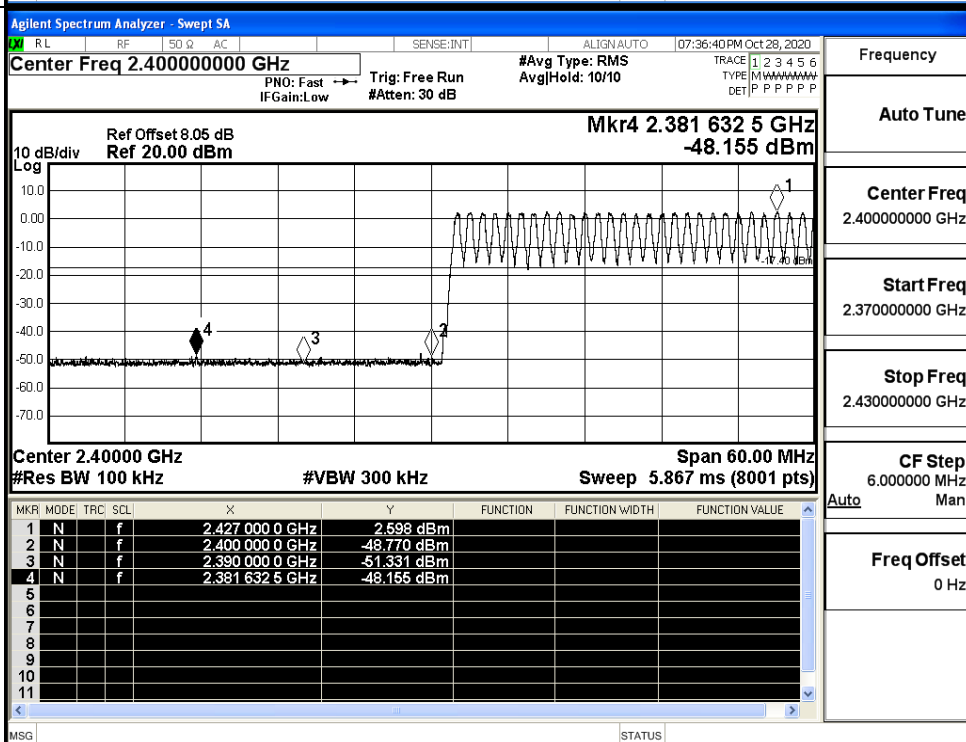
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	2.156	Off	-49.381	-17.84	PASS
			2.598	On	-48.155	-17.4	PASS
	HCH	2480	1.677	Off	-48.167	-18.32	PASS
			2.004	On	-48.547	-18	PASS
$\pi/4$ DQPSK	LCH	2402	2.348	Off	-49.167	-17.65	PASS
			2.374	On	-47.730	-17.63	PASS
	HCH	2480	1.689	Off	-48.257	-18.31	PASS
			2.188	On	-47.908	-17.81	PASS
8DPSK	LCH	2402	1.180	Off	-49.457	-18.82	PASS
			2.521	On	-48.443	-17.48	PASS
	HCH	2480	1.629	Off	-48.957	-18.37	PASS
			2.110	On	-47.643	-17.89	PASS

Test Graphs

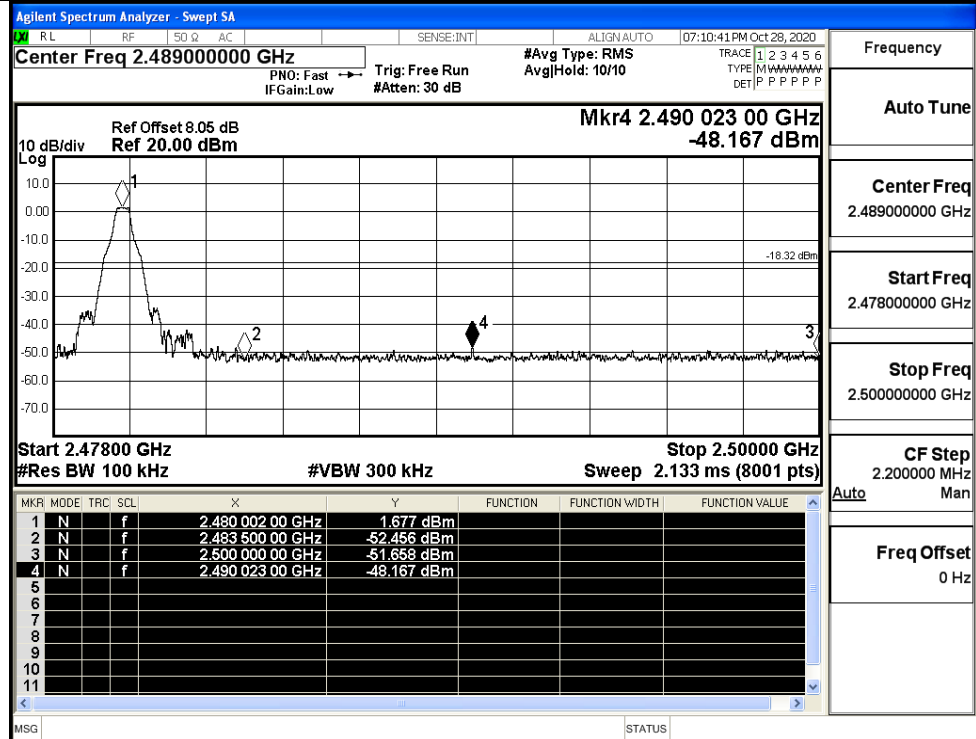
GFSK/LCH/No Hop



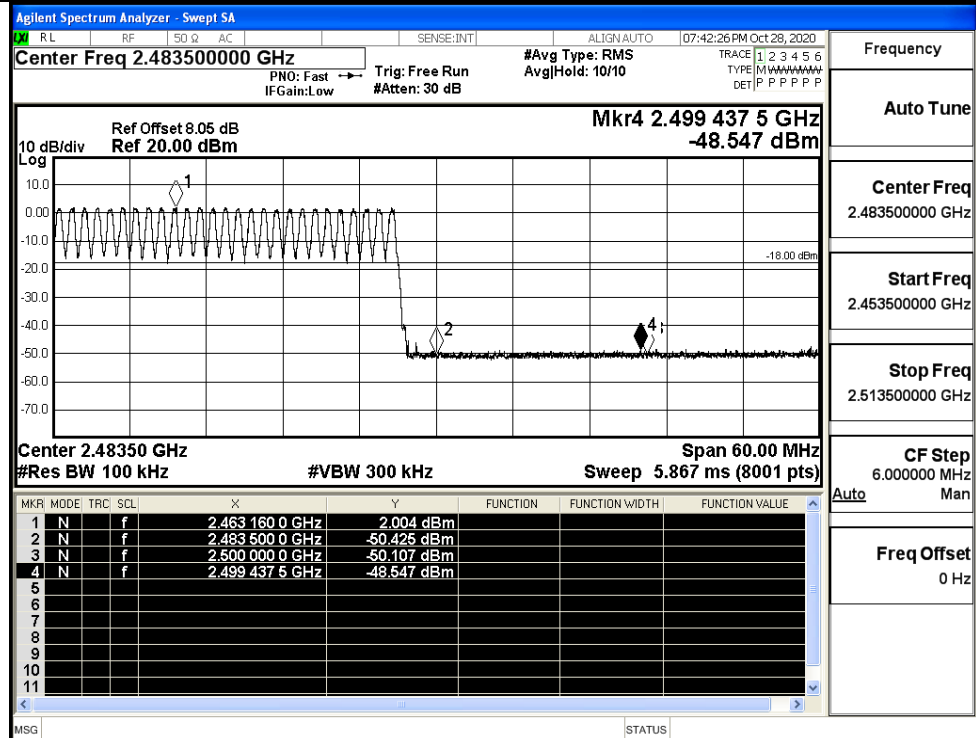
GFSK/LCH/Hop



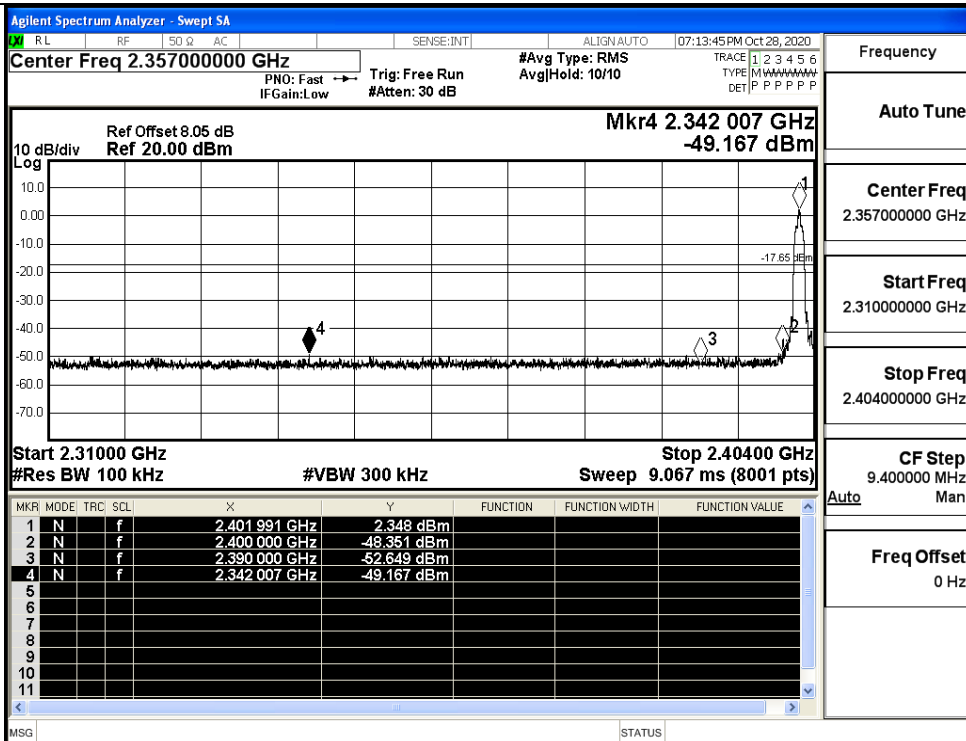
GFSK/HCH/No Hop



GFSK/HCH/Hop



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

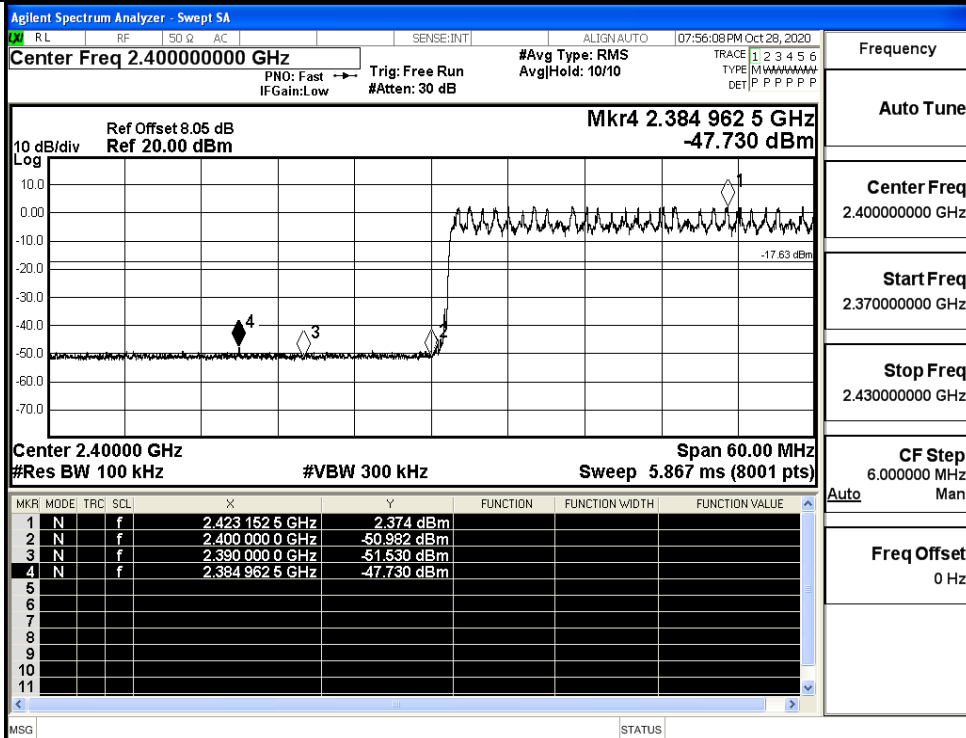


Frequency

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

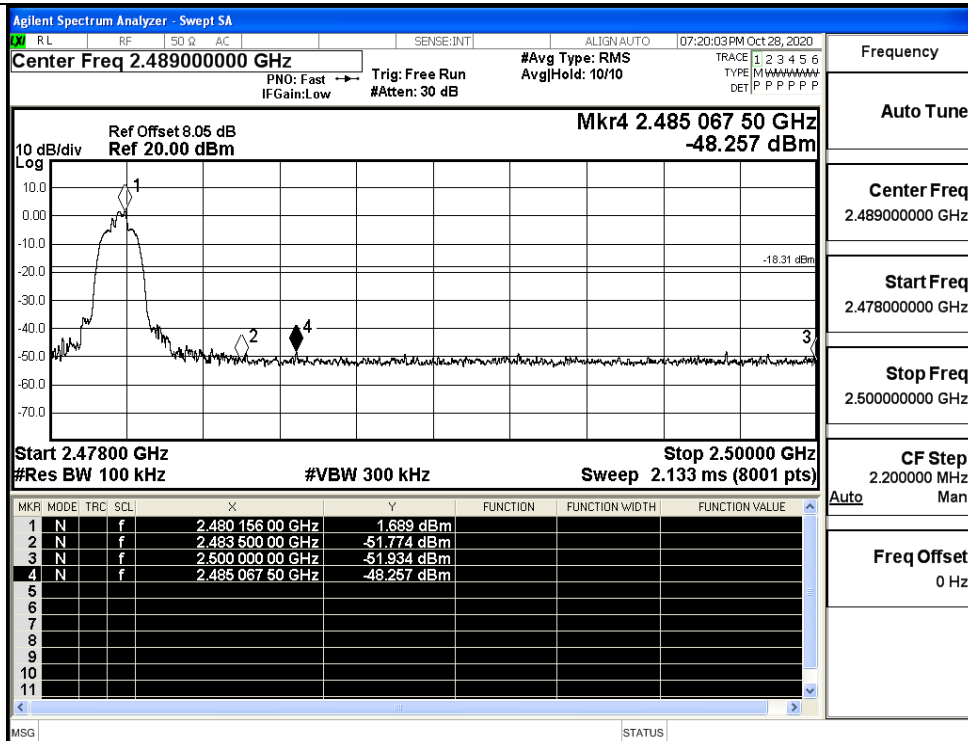


Frequency

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

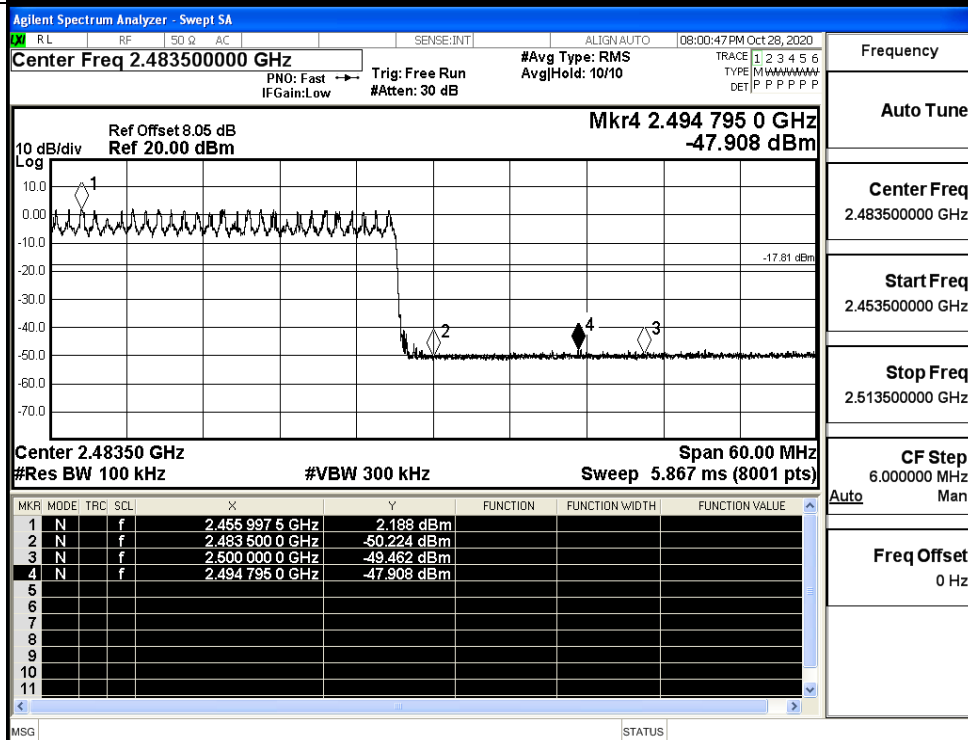


Frequency

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

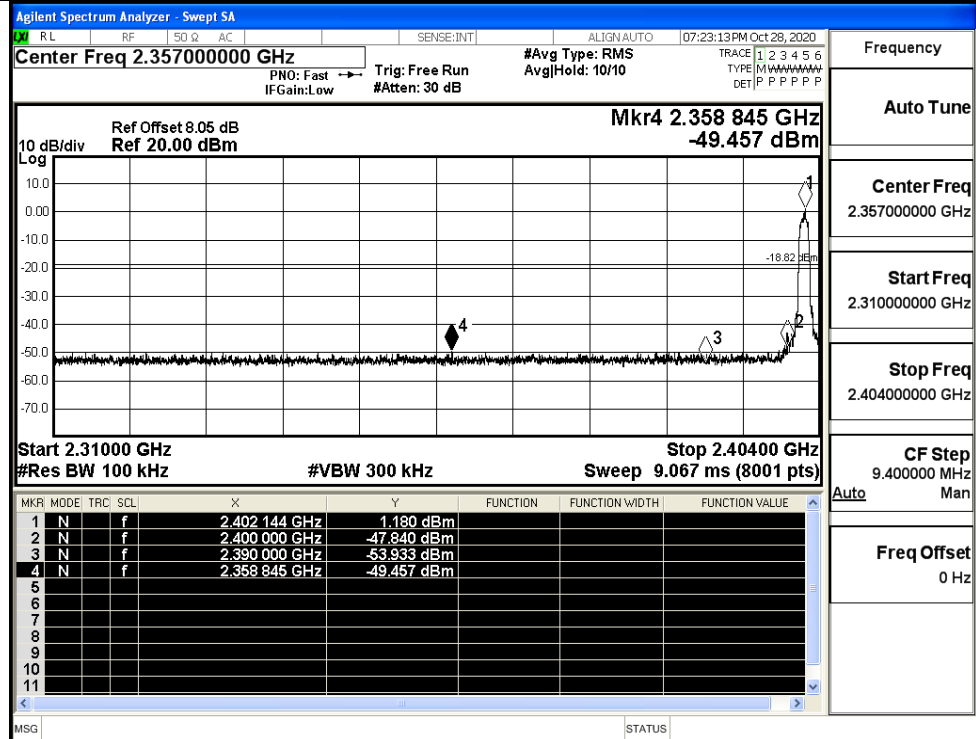


Frequency

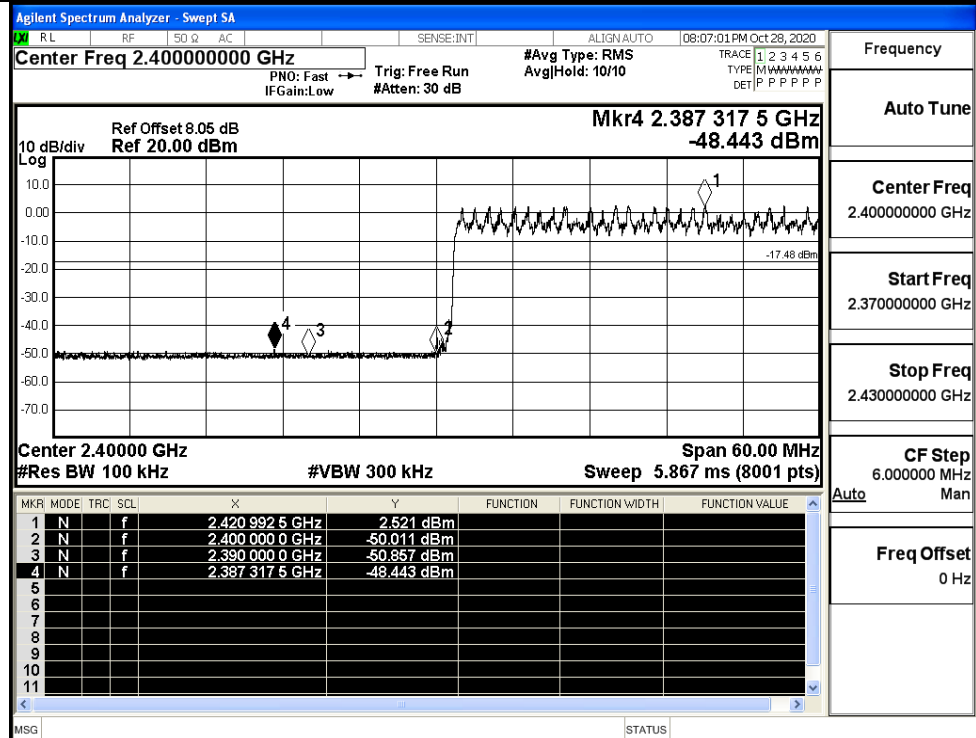
Auto Tune

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

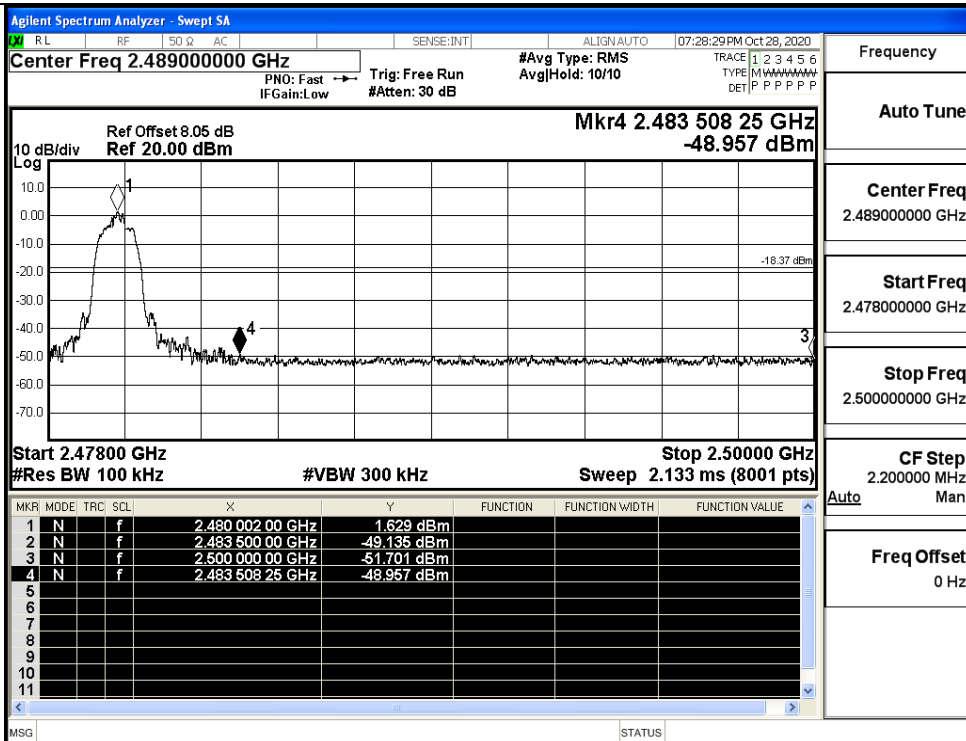
8DPSK/LCH/No Hop



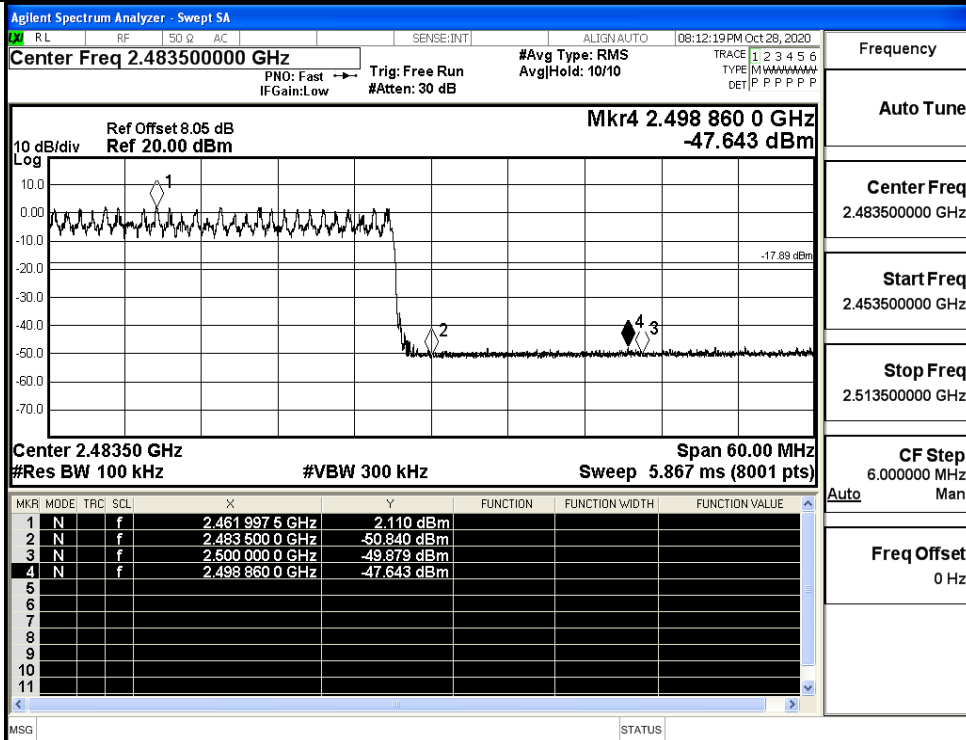
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



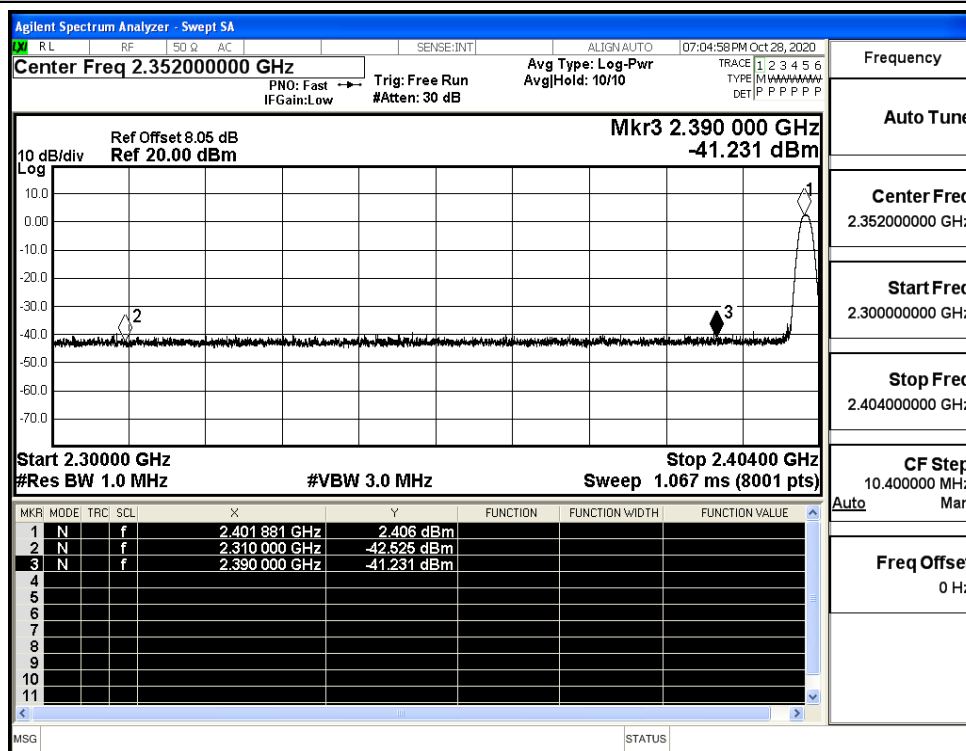
8DPSK/HCH/Hop



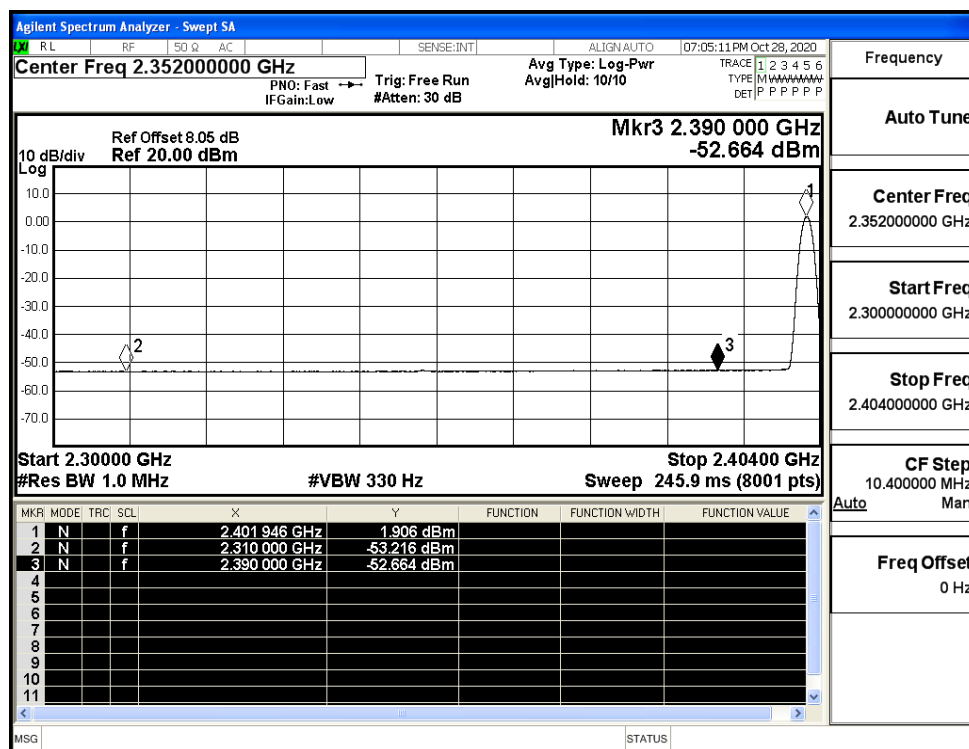
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.53	2.0	0	54.70	PEAK	74	PASS
	Off	2310.0	-53.22	2.0	0	44.01	AV	54	PASS
	Off	2390.0	-41.23	2.0	0	56.00	PEAK	74	PASS
	Off	2390.0	-52.66	2.0	0	44.57	AV	54	PASS
	Off	2483.5	-35.97	2.0	0	61.26	PEAK	74	PASS
	Off	2483.5	-52.14	2.0	0	45.09	AV	54	PASS
	Off	2500.0	-42.94	2.0	0	54.29	PEAK	74	PASS
	Off	2500.0	-52.10	2.0	0	45.13	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.45	2.0	0	53.78	PEAK	74	PASS
	Off	2310.0	-53.22	2.0	0	44.01	AV	54	PASS
	Off	2390.0	-42.93	2.0	0	54.30	PEAK	74	PASS
	Off	2390.0	-52.72	2.0	0	44.51	AV	54	PASS
	Off	2483.5	-42.83	2.0	0	54.40	PEAK	74	PASS
	Off	2483.5	-52.25	2.0	0	44.98	AV	54	PASS
	Off	2500.0	-41.47	2.0	0	55.76	PEAK	74	PASS
	Off	2500.0	-52.19	2.0	0	45.04	AV	54	PASS
8DPSK	Off	2310.0	-43.33	2.0	0	53.90	PEAK	74	PASS
	Off	2310.0	-53.17	2.0	0	44.06	AV	54	PASS
	Off	2390.0	-41.80	2.0	0	55.43	PEAK	74	PASS
	Off	2390.0	-52.78	2.0	0	44.45	AV	54	PASS
	Off	2483.5	-43.25	2.0	0	53.98	PEAK	74	PASS
	Off	2483.5	-52.22	2.0	0	45.01	AV	54	PASS
	Off	2500.0	-41.75	2.0	0	54.70	PEAK	74	PASS
	Off	2500.0	-52.22	2.0	0	44.01	AV	54	PASS

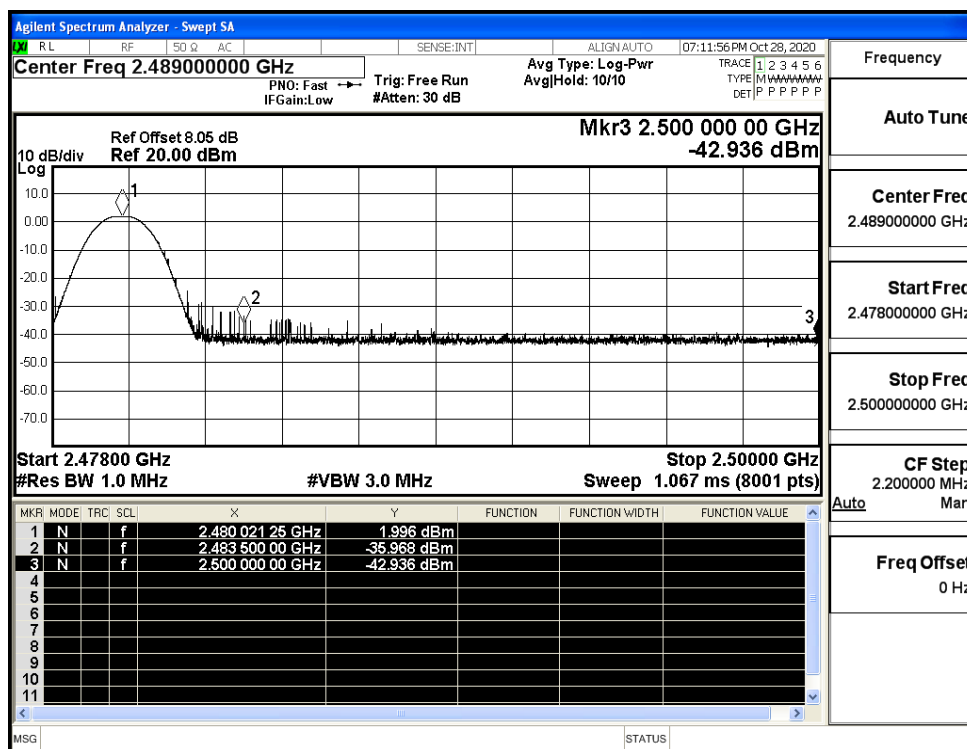
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



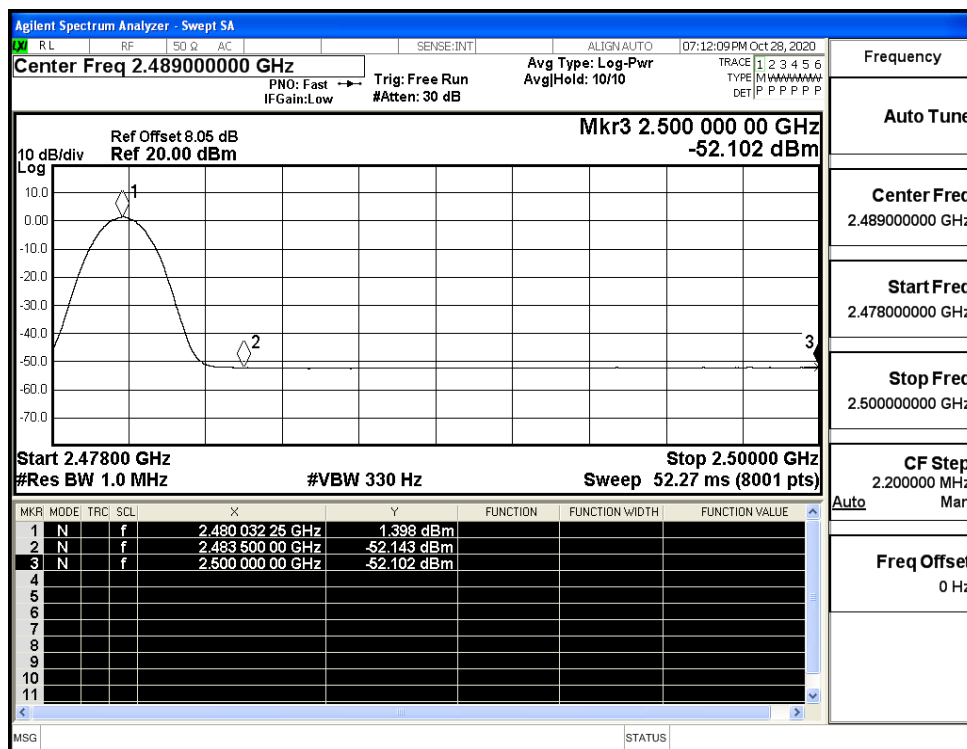
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

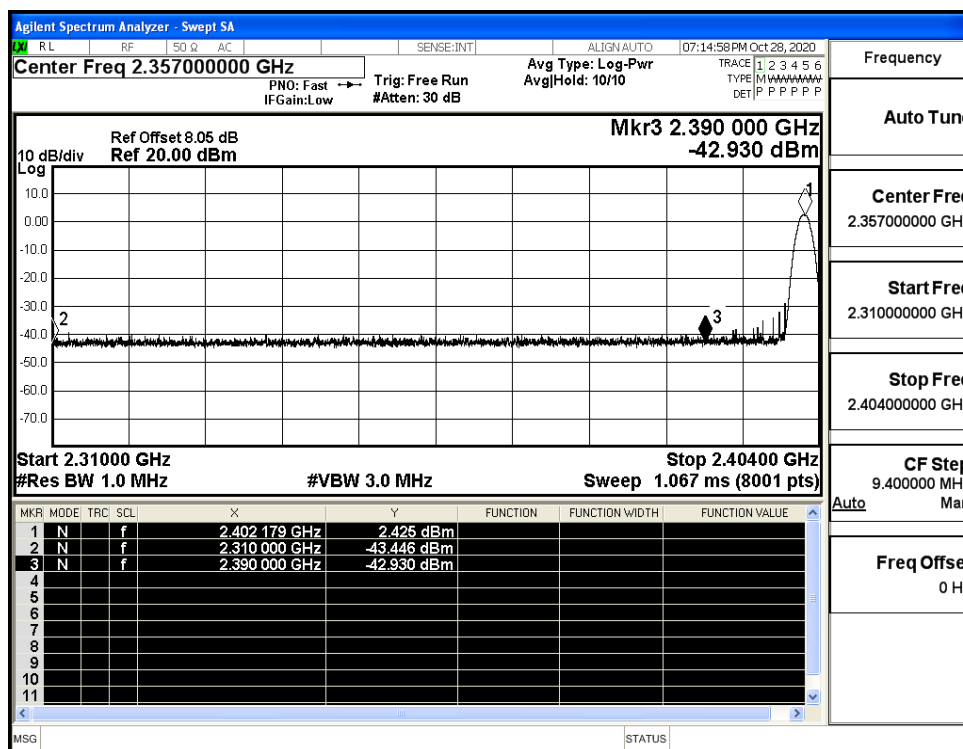
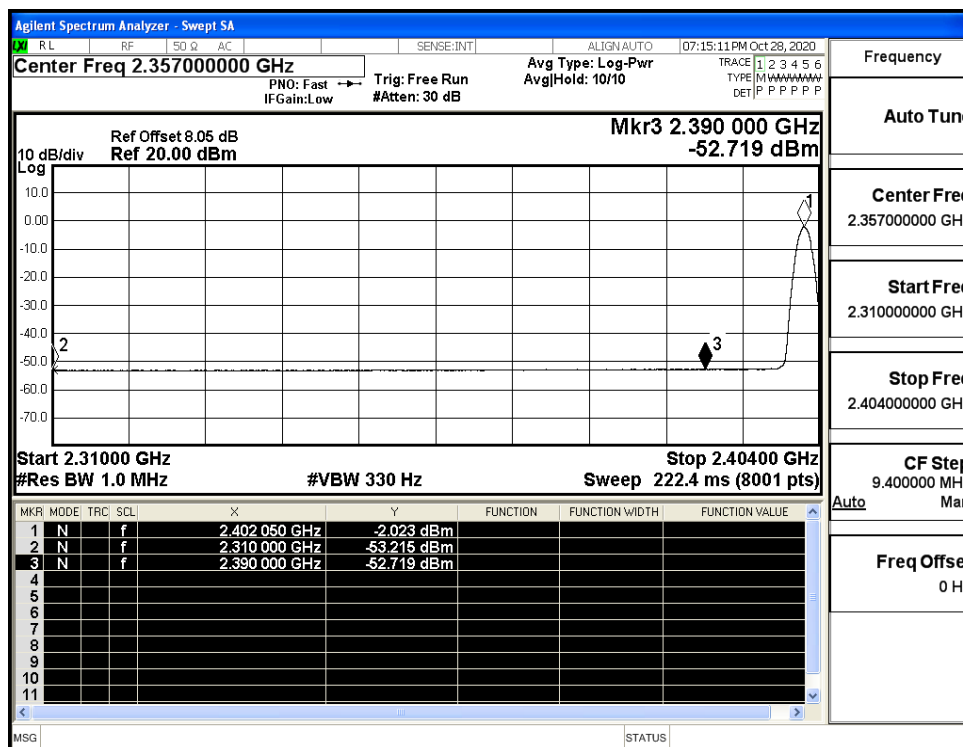


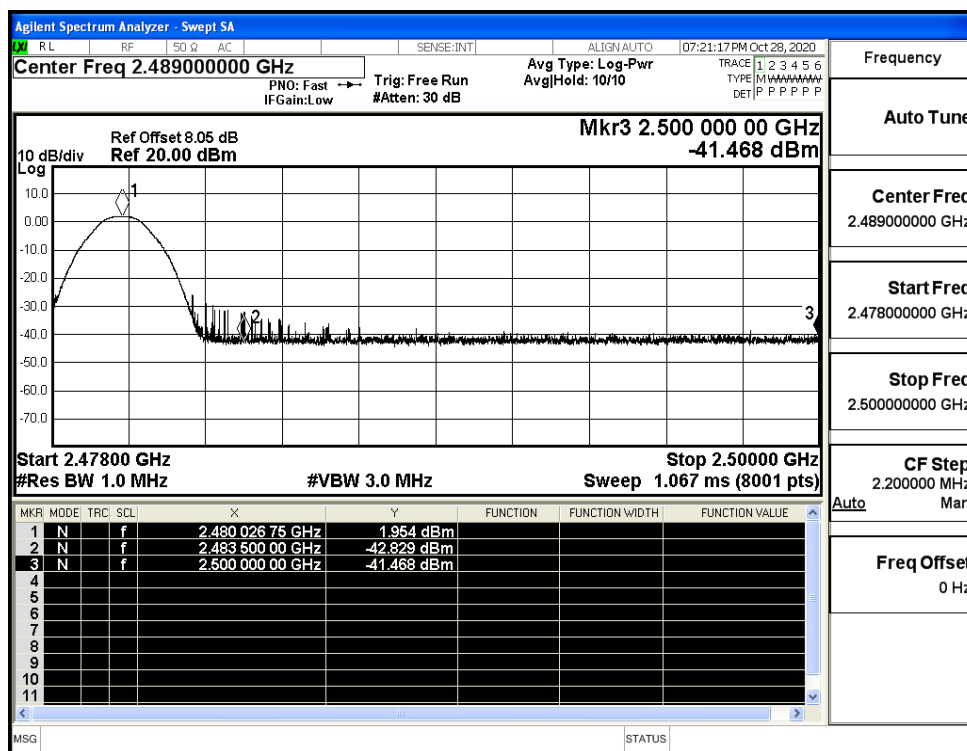
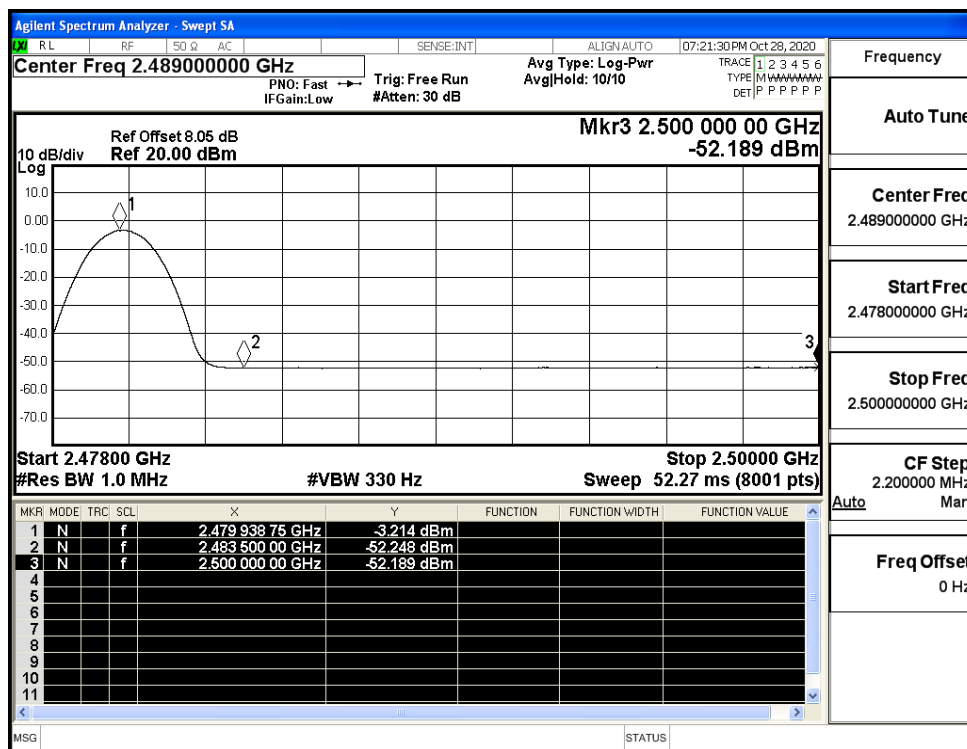
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



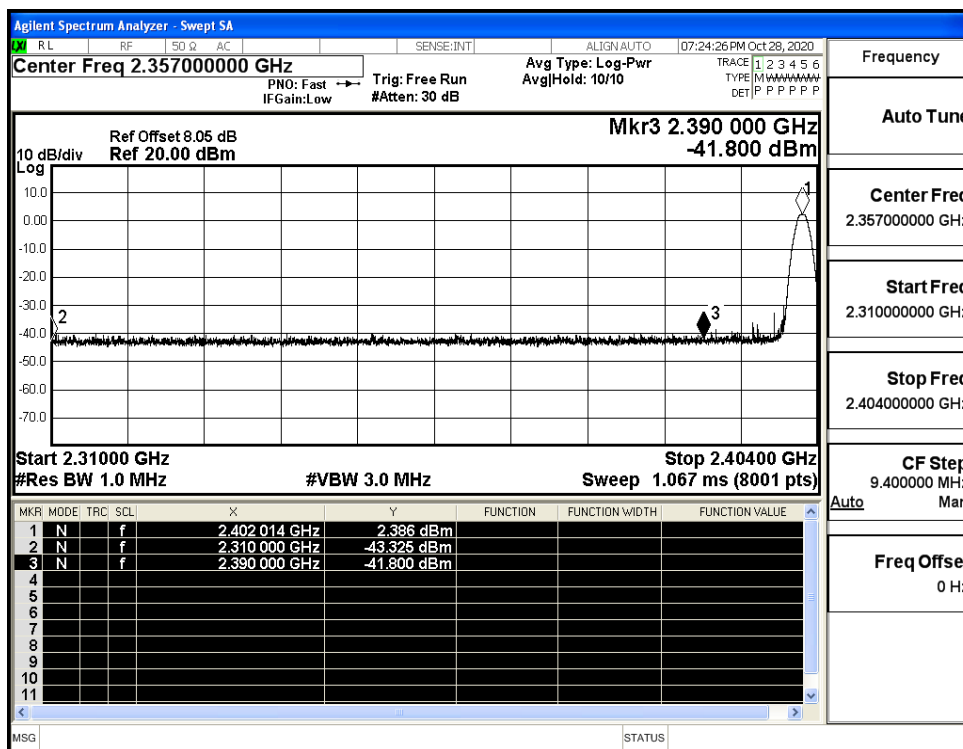
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



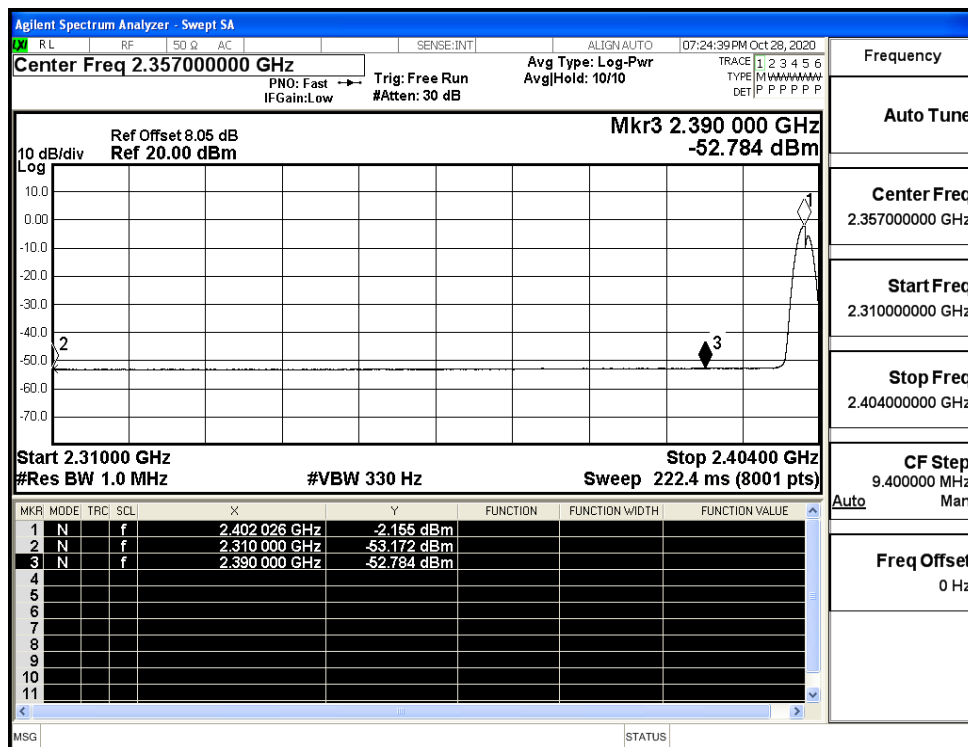
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

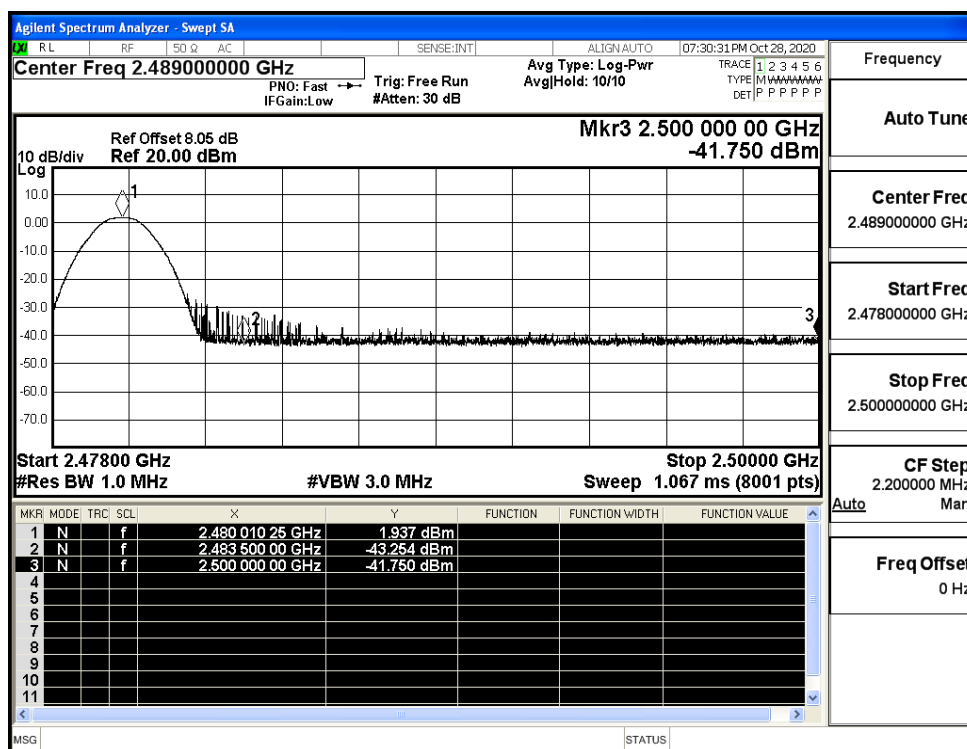
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

