

Appendix A

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

Product Name: MEITRACK GPS P88L

Trade Mark: MEITRACK®

Test Model: P88L-A

Environmental Conditions

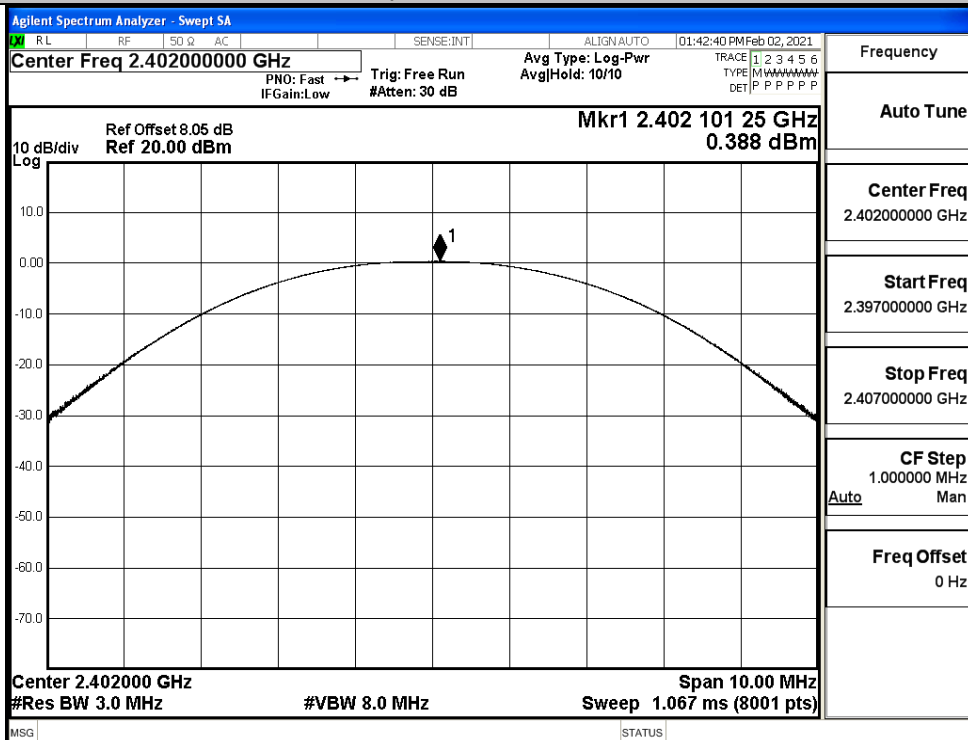
Temperature:	22.8° C
Relative Humidity:	53.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

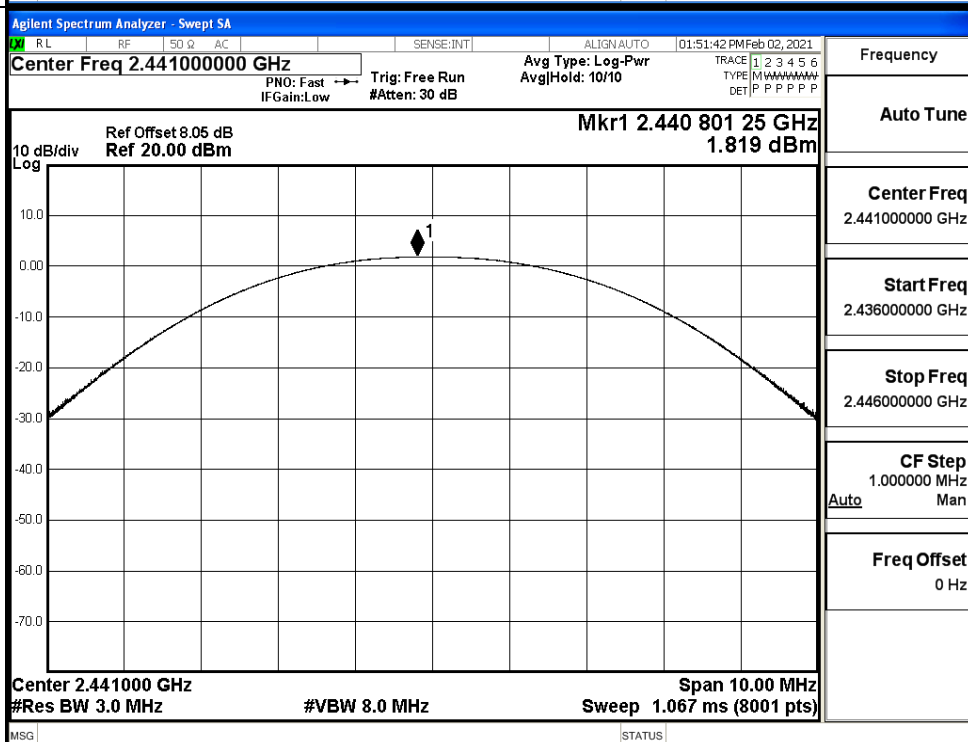
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.388	21	PASS
	MCH	1.819	21	PASS
	HCH	0.270	21	PASS
$\pi/4$ DQPSK	LCH	-0.495	21	PASS
	MCH	1.002	21	PASS
	HCH	-0.532	21	PASS
8DPSK	LCH	-0.418	21	PASS
	MCH	1.107	21	PASS
	HCH	-0.371	21	PASS

Test Graphs

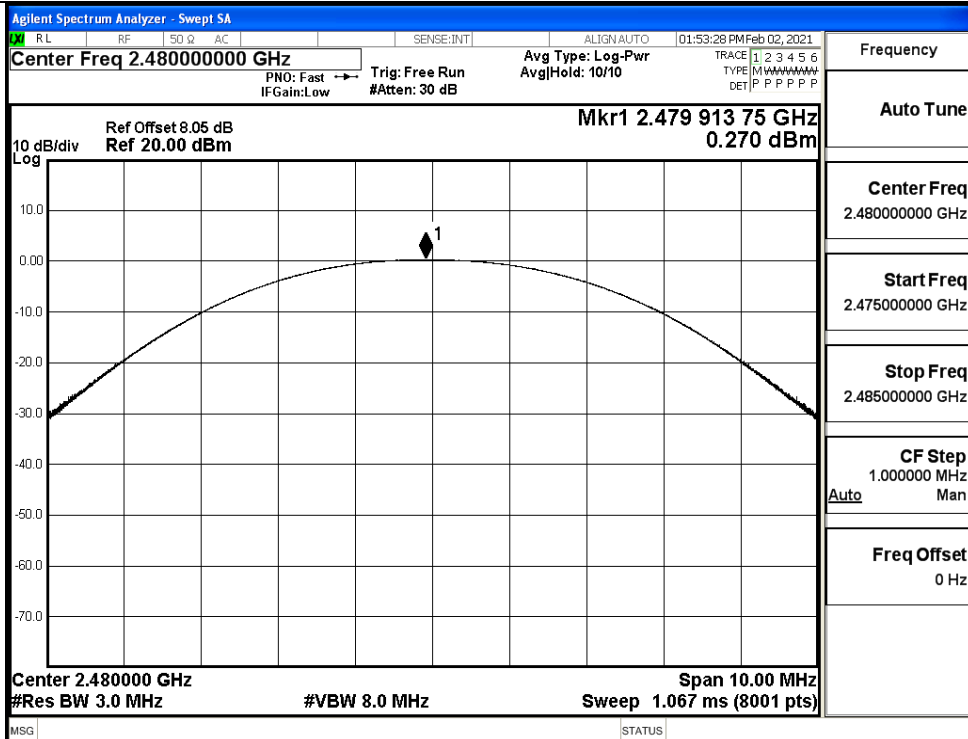
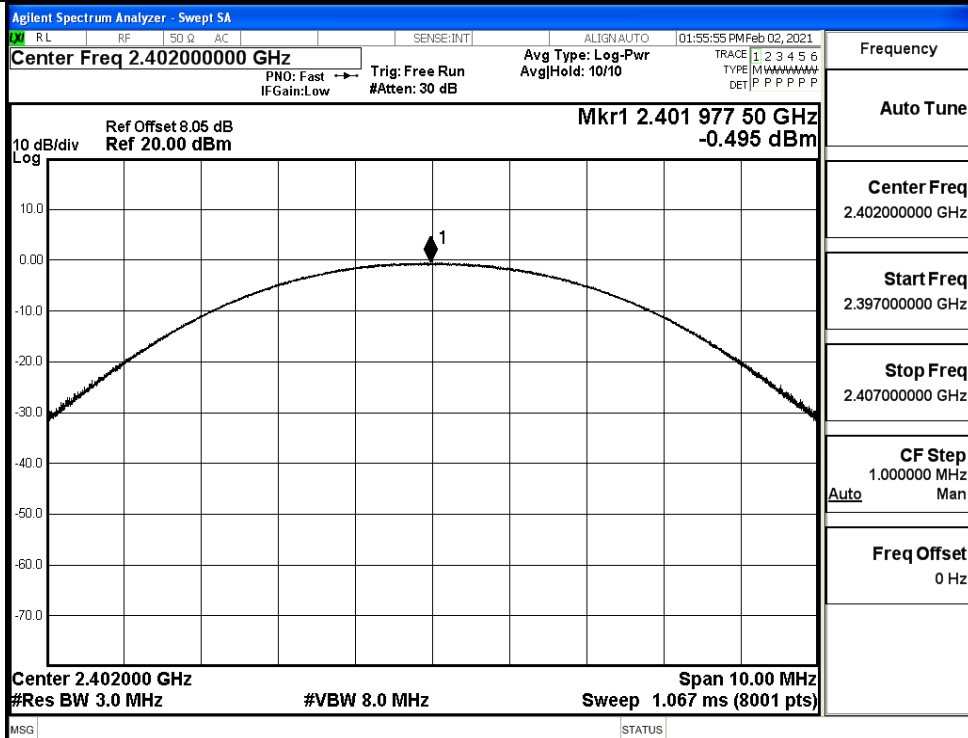
GFSK/LCH

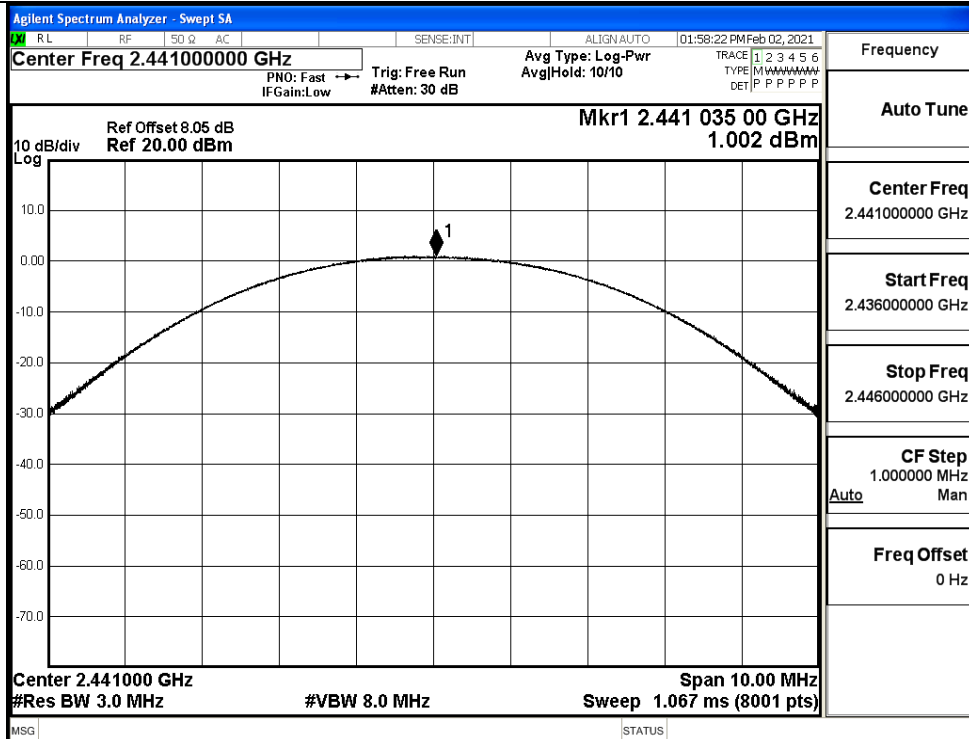
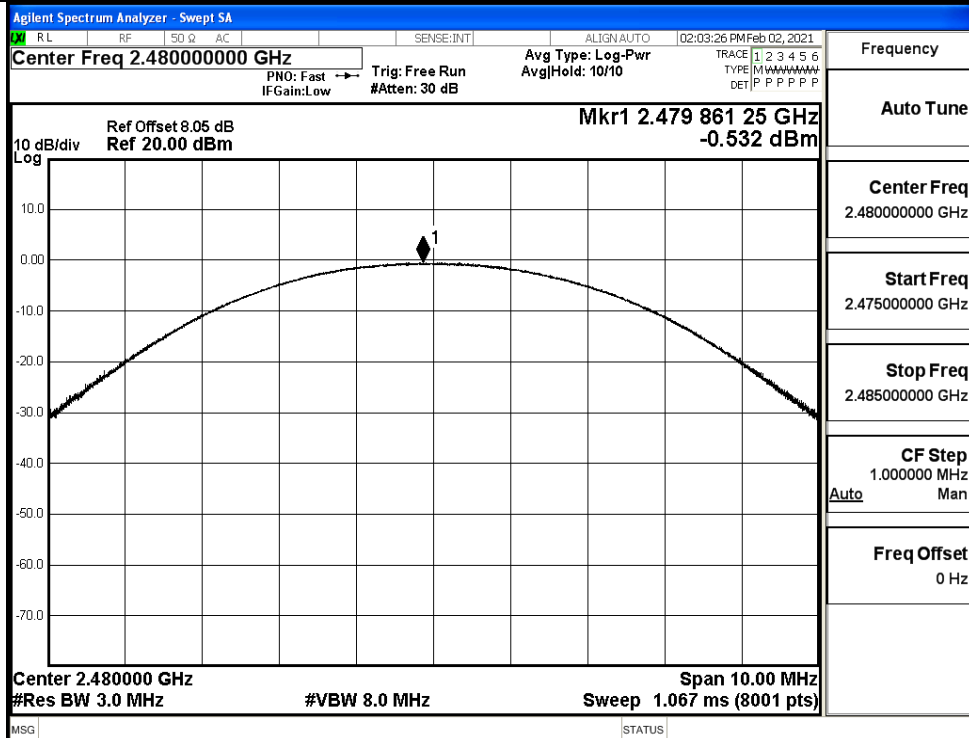


GFSK/MCH

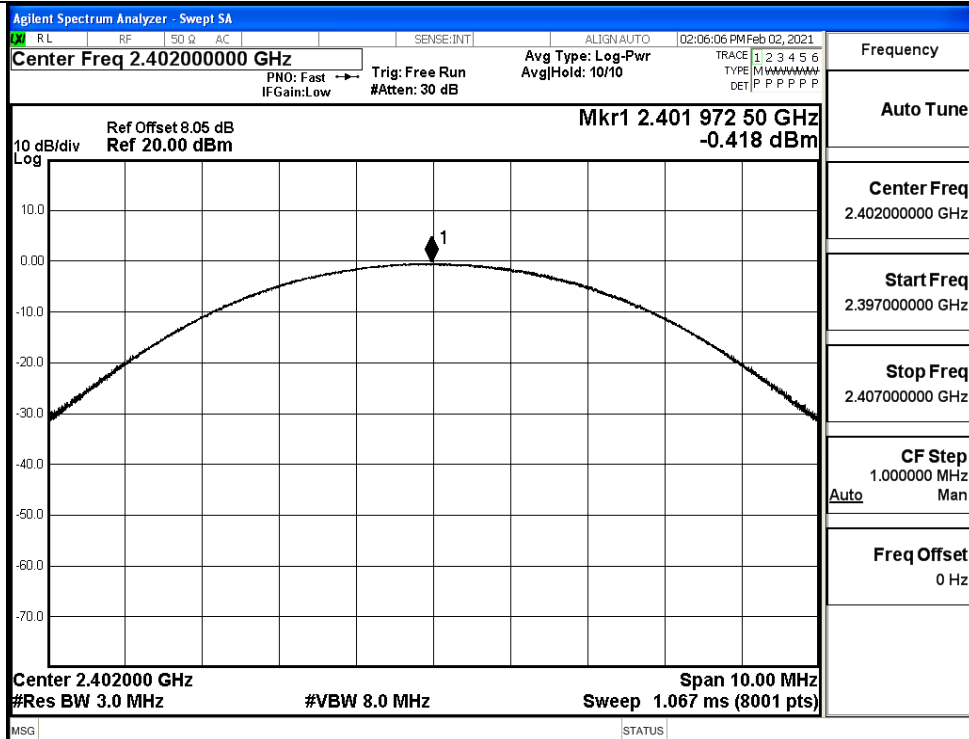


GFSK/HCH

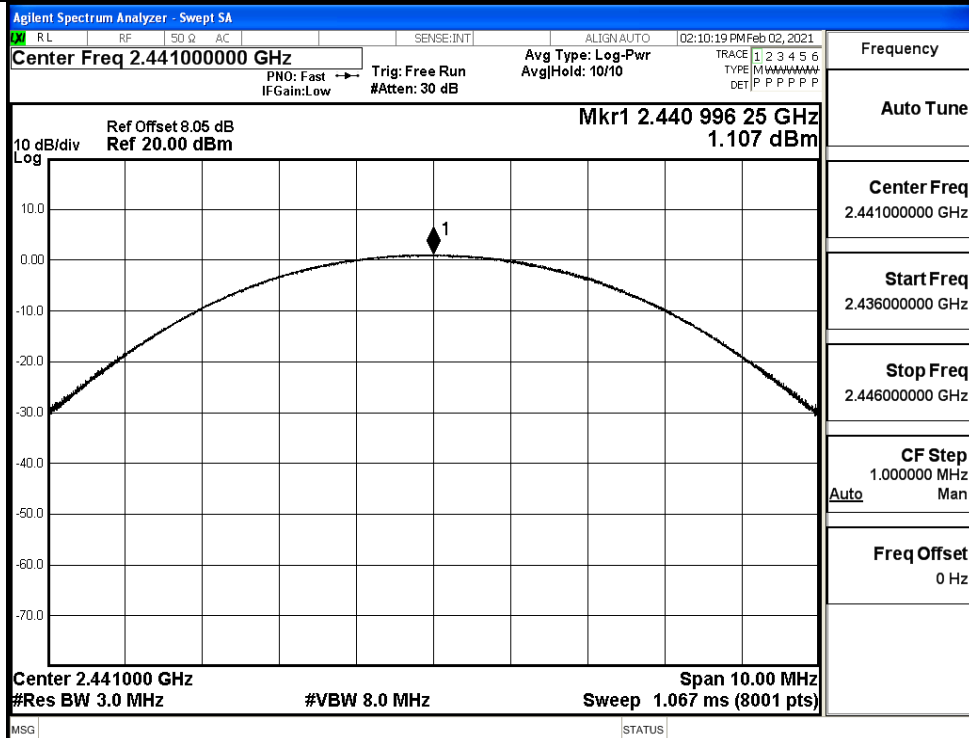
 $\pi/4$ DQPSK/LCH

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

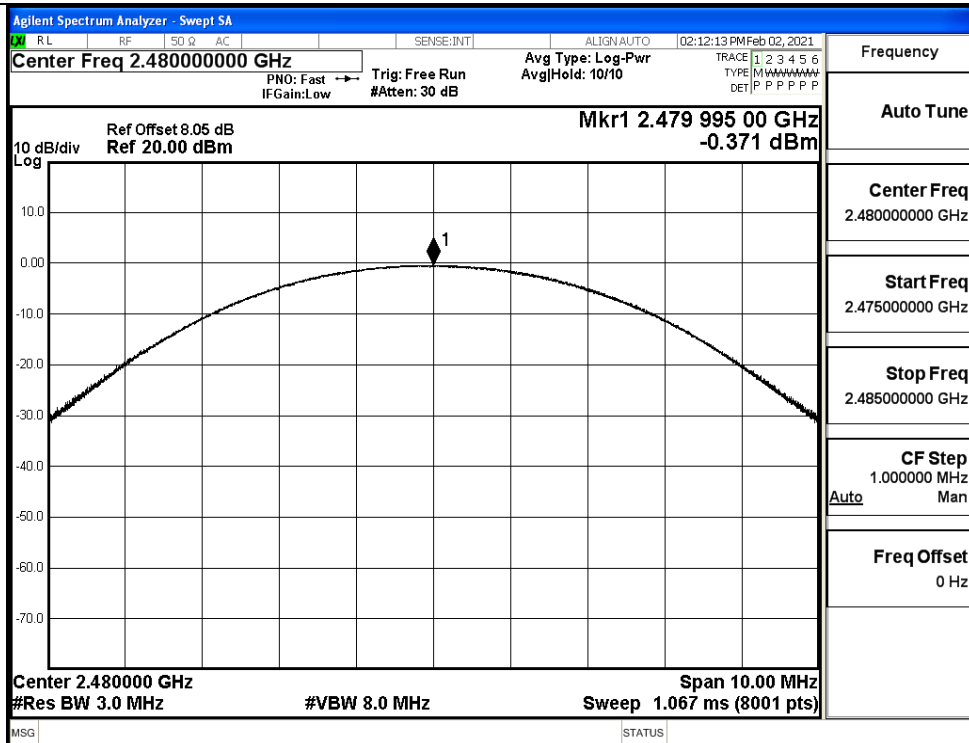
8DPSK/LCH



8DPSK/MCH



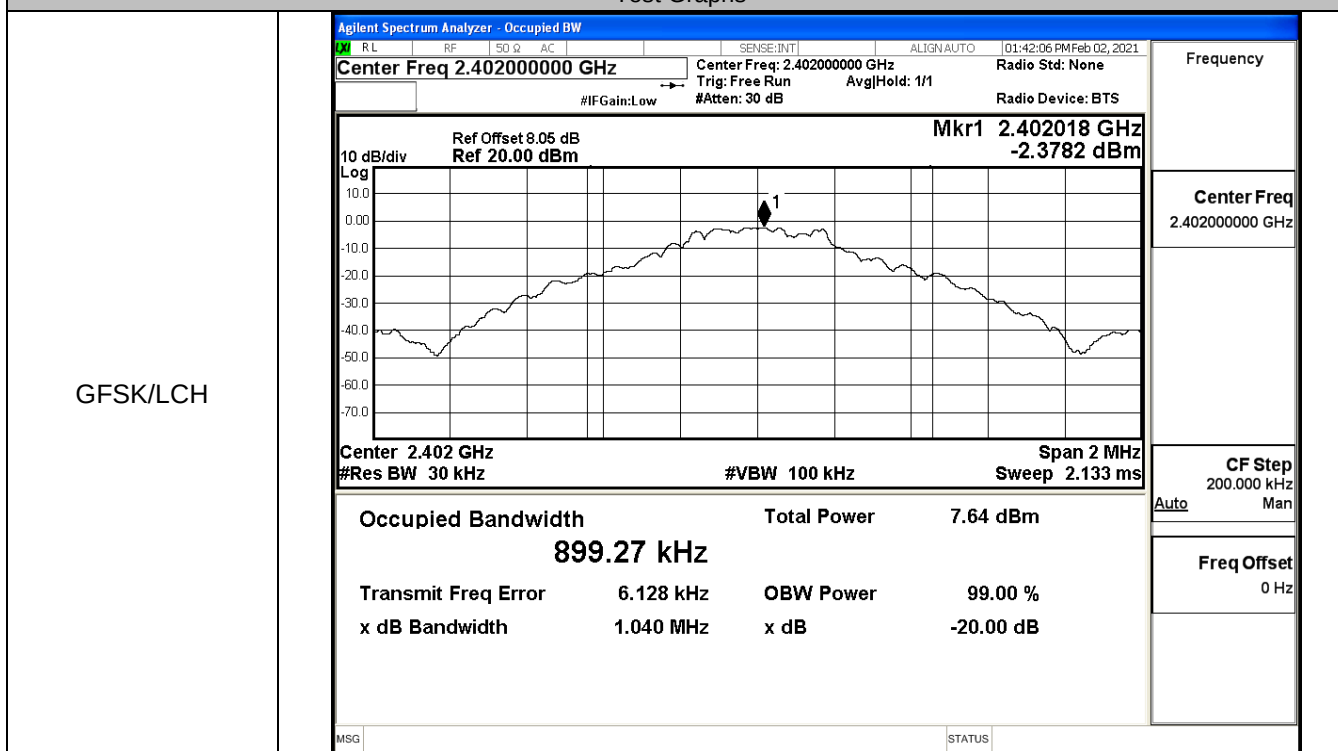
8DPSK/HCH



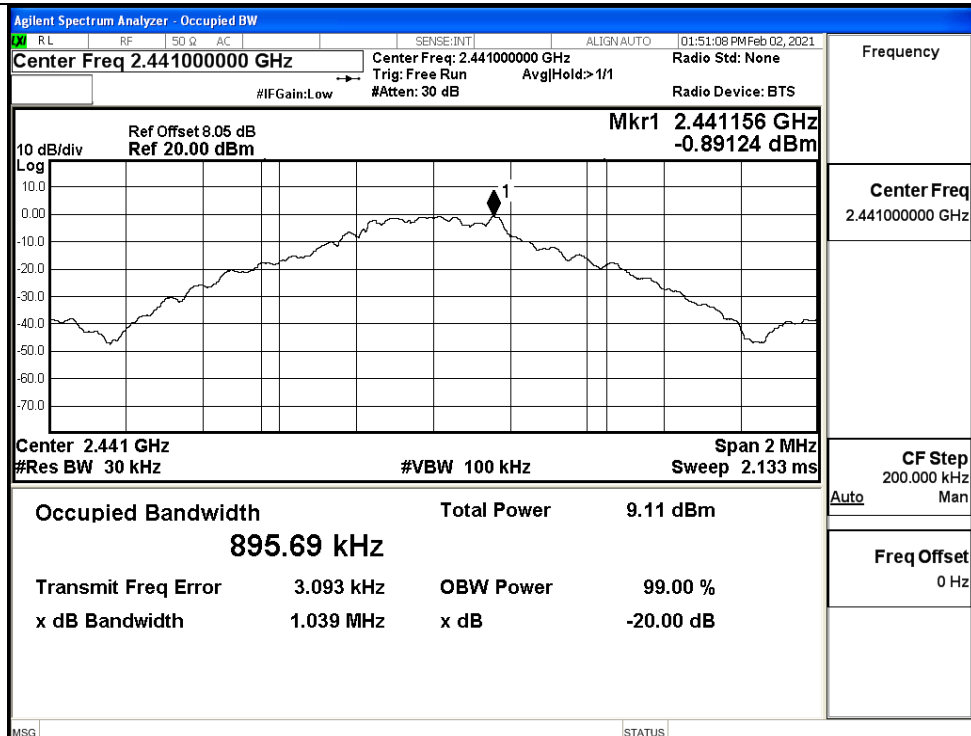
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.040	Not Specified	PASS
	MCH	1.039	Not Specified	PASS
	HCH	1.032	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.287	Not Specified	PASS
	MCH	1.288	Not Specified	PASS
	HCH	1.317	Not Specified	PASS
8DPSK	LCH	1.293	Not Specified	PASS
	MCH	1.290	Not Specified	PASS
	HCH	1.293	Not Specified	PASS

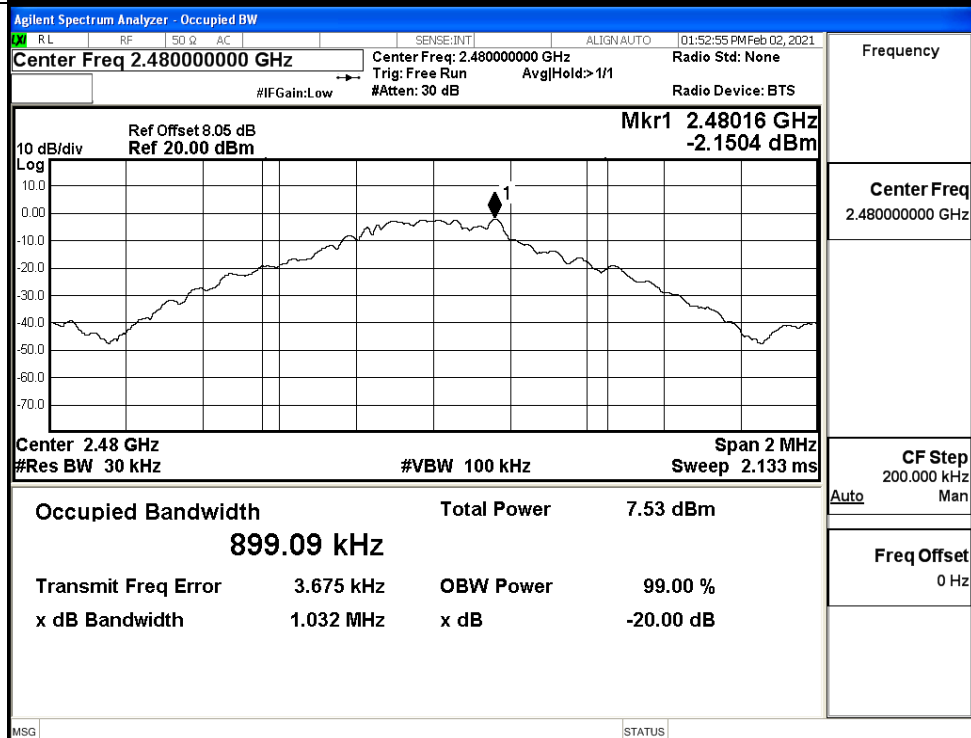
Test Graphs

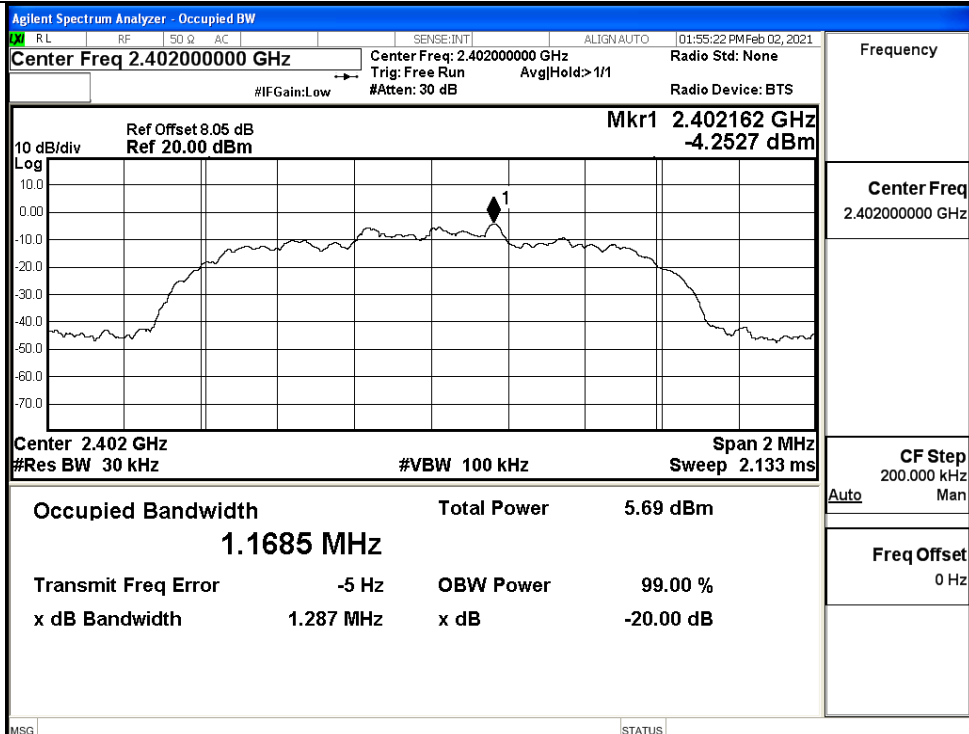
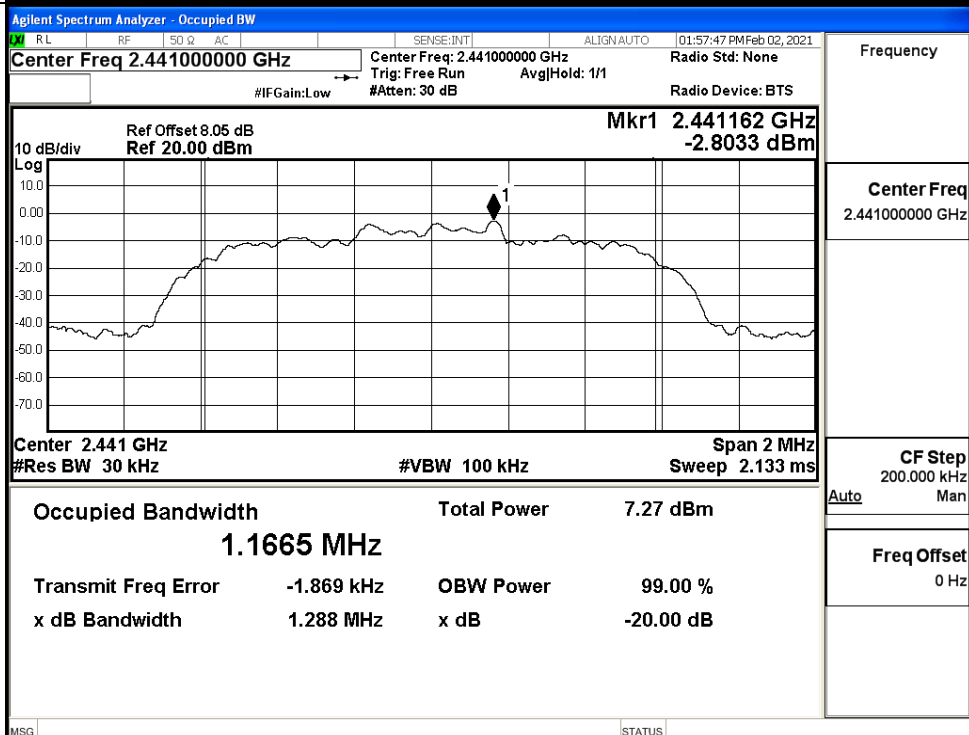


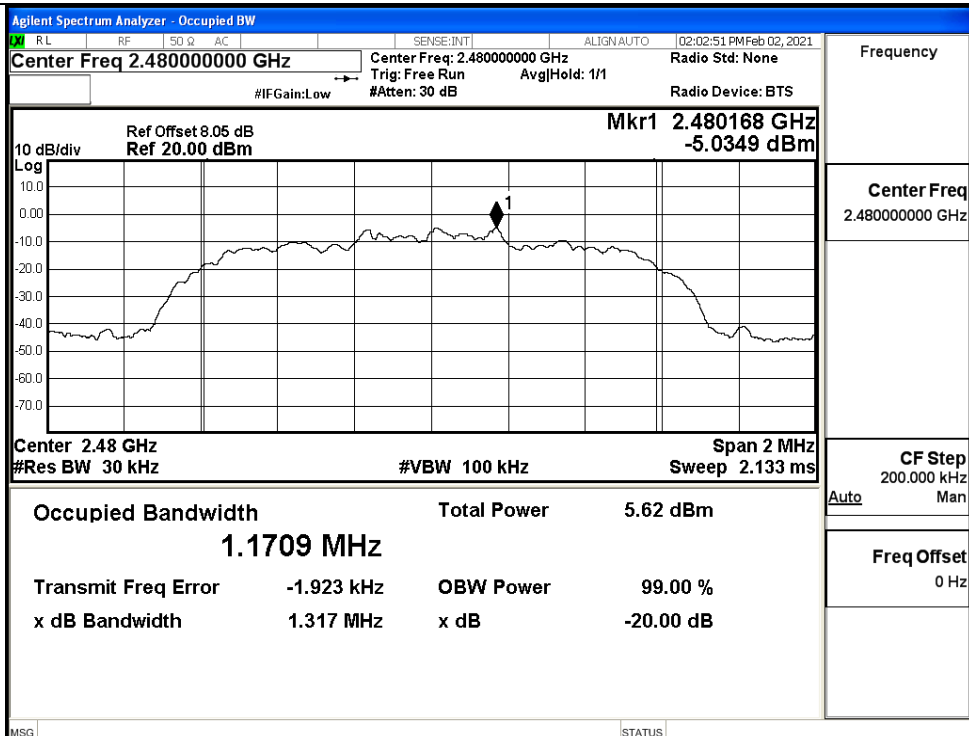
GFSK/MCH



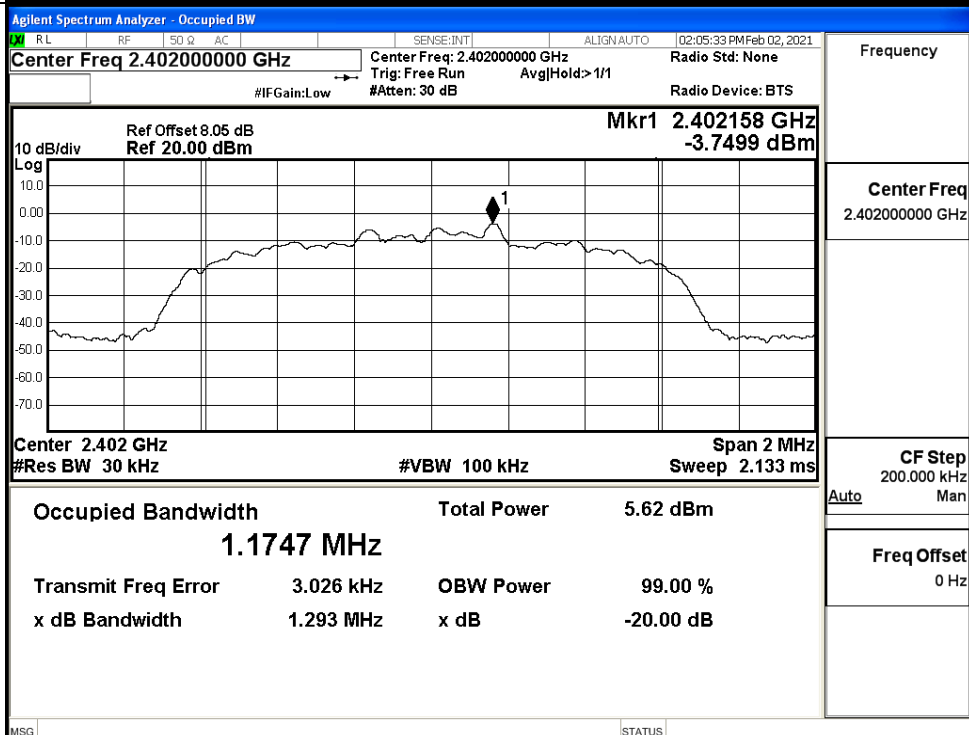
GFSK/HCH



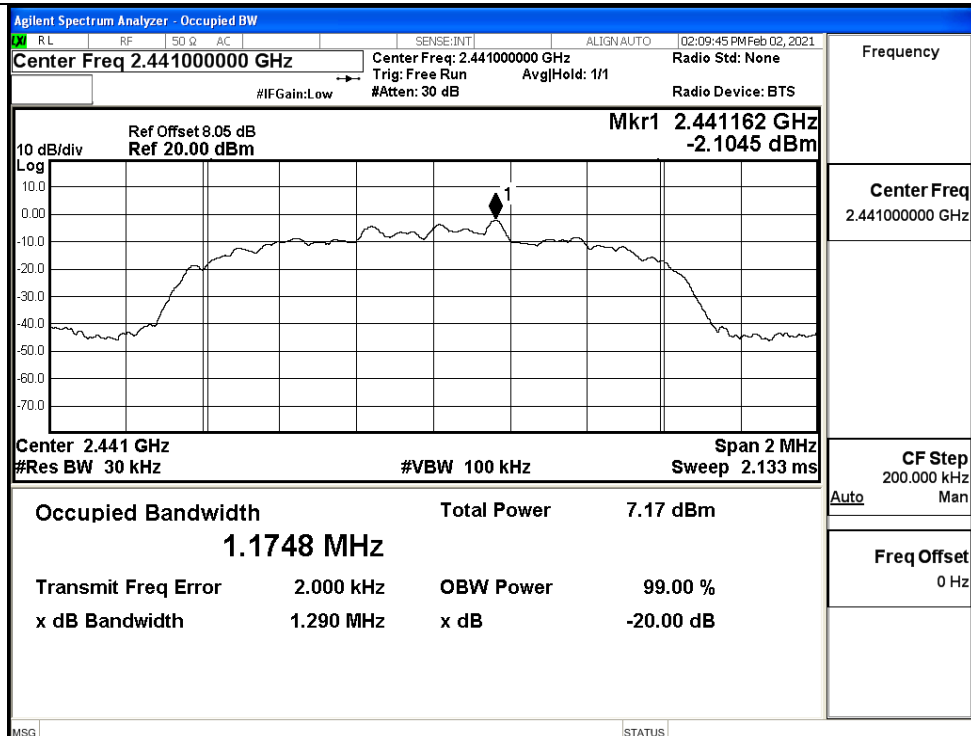
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

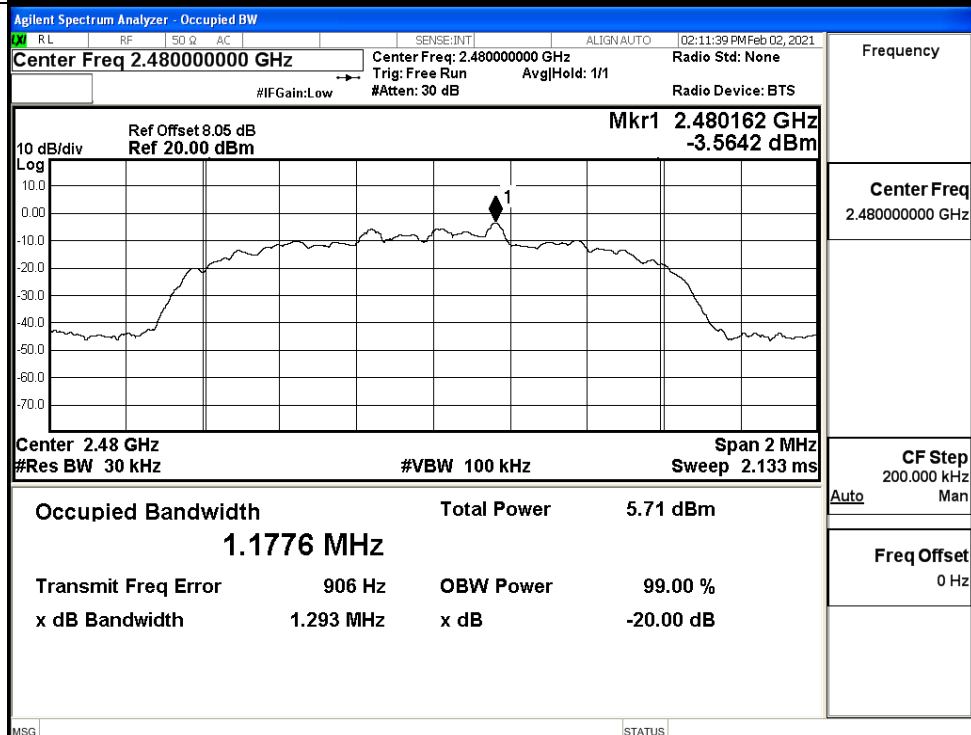
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

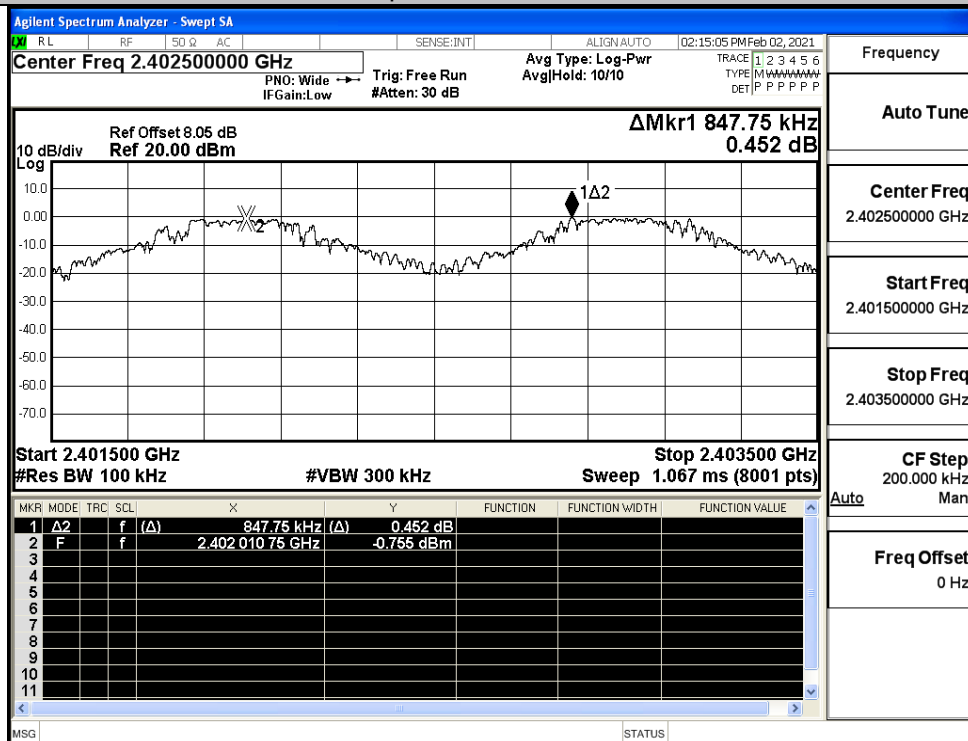


A.3 Carrier Frequency Separation

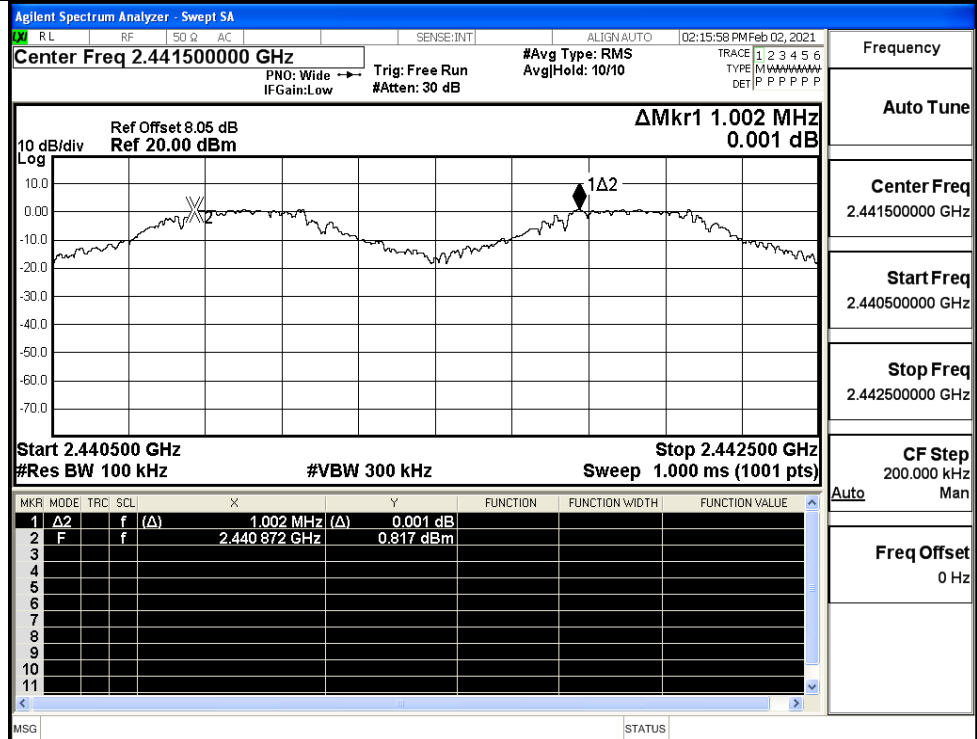
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.848	0.693	PASS
	MCH	1.002	0.693	PASS
	HCH	0.832	0.693	PASS
$\pi/4$ DQPSK	LCH	1.122	0.878	PASS
	MCH	0.996	0.878	PASS
	HCH	0.974	0.878	PASS
8DPSK	LCH	0.888	0.862	PASS
	MCH	1.142	0.862	PASS
	HCH	1.308	0.862	PASS

Test Graphs

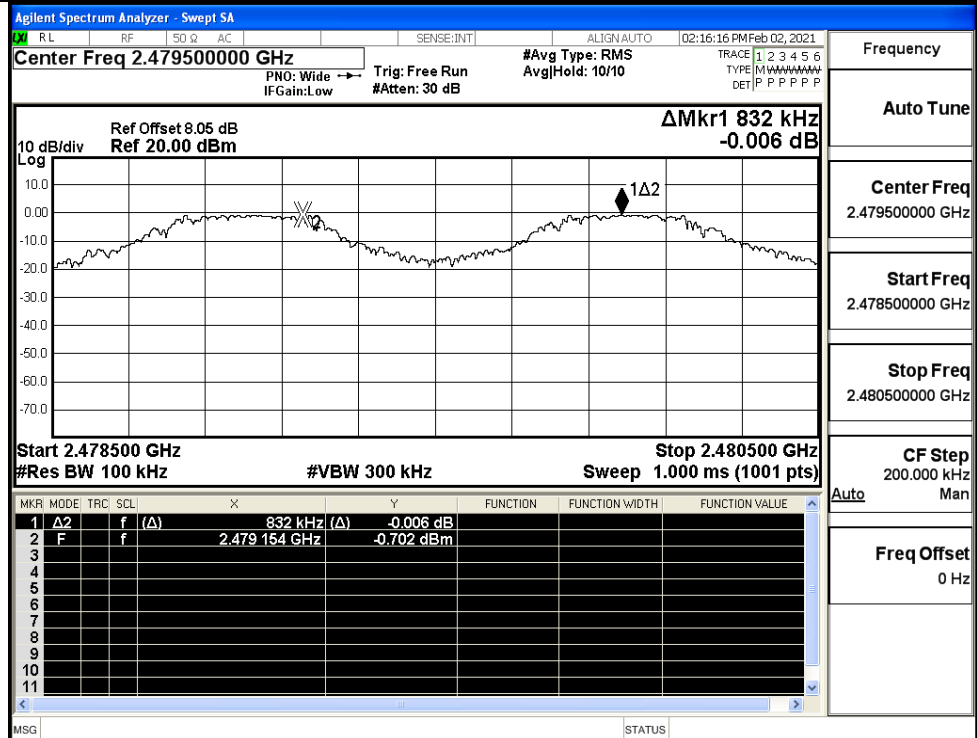
GFSK/LCH

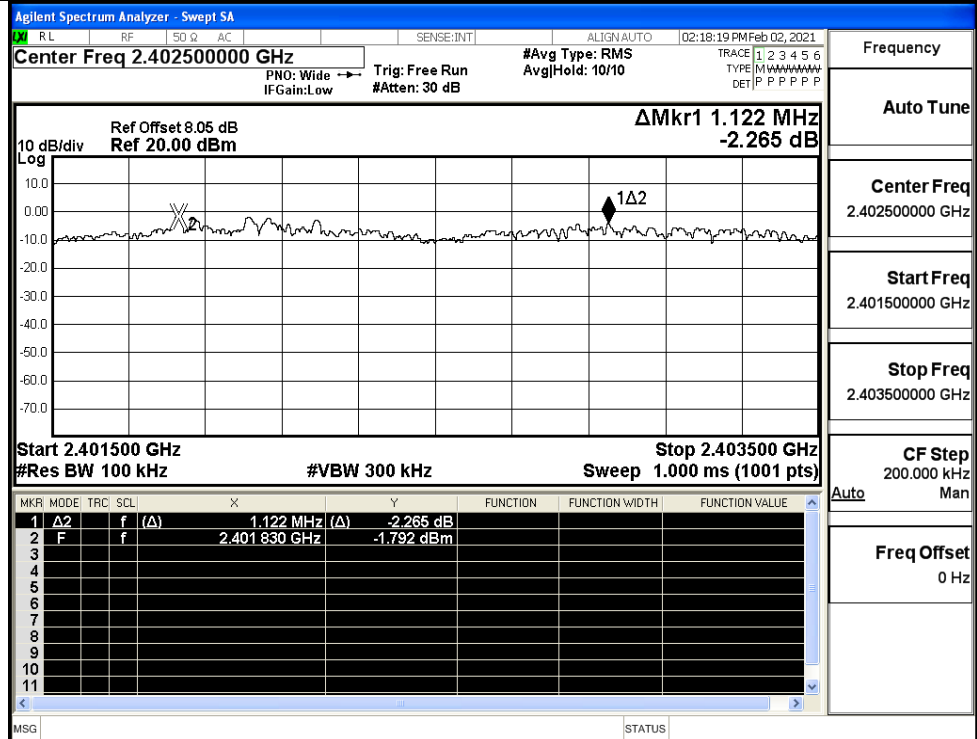
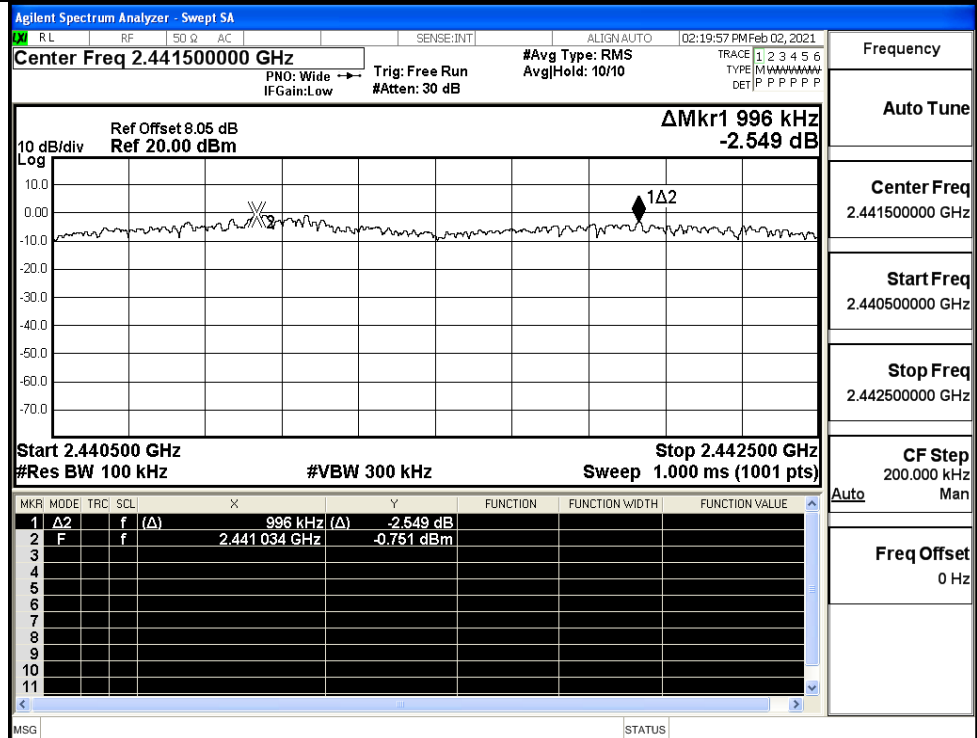


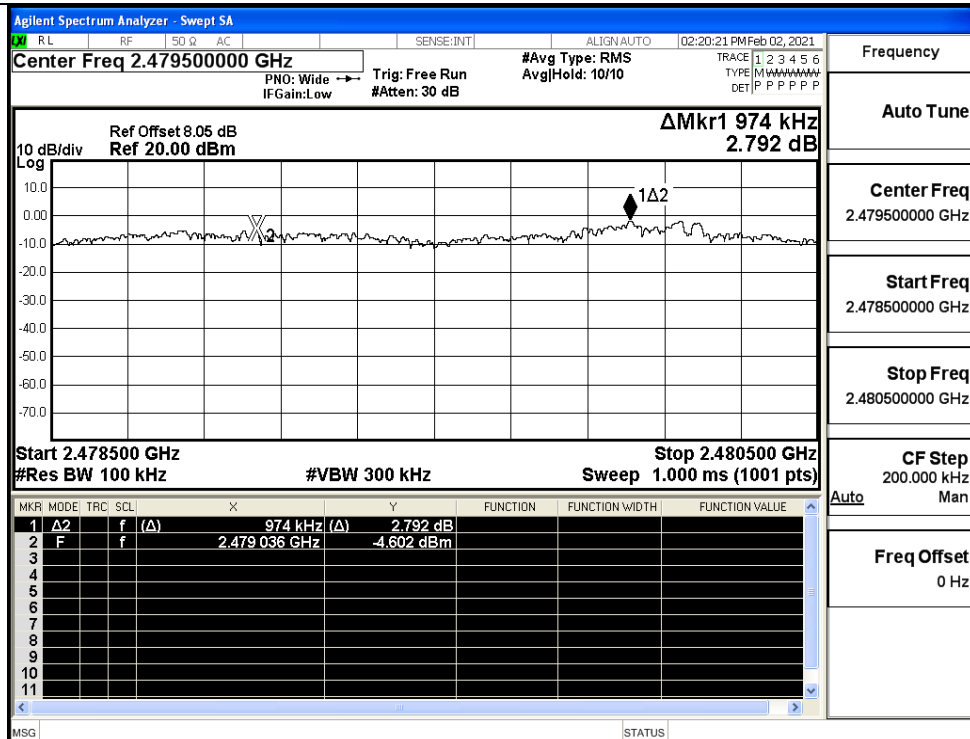
GFSK/MCH



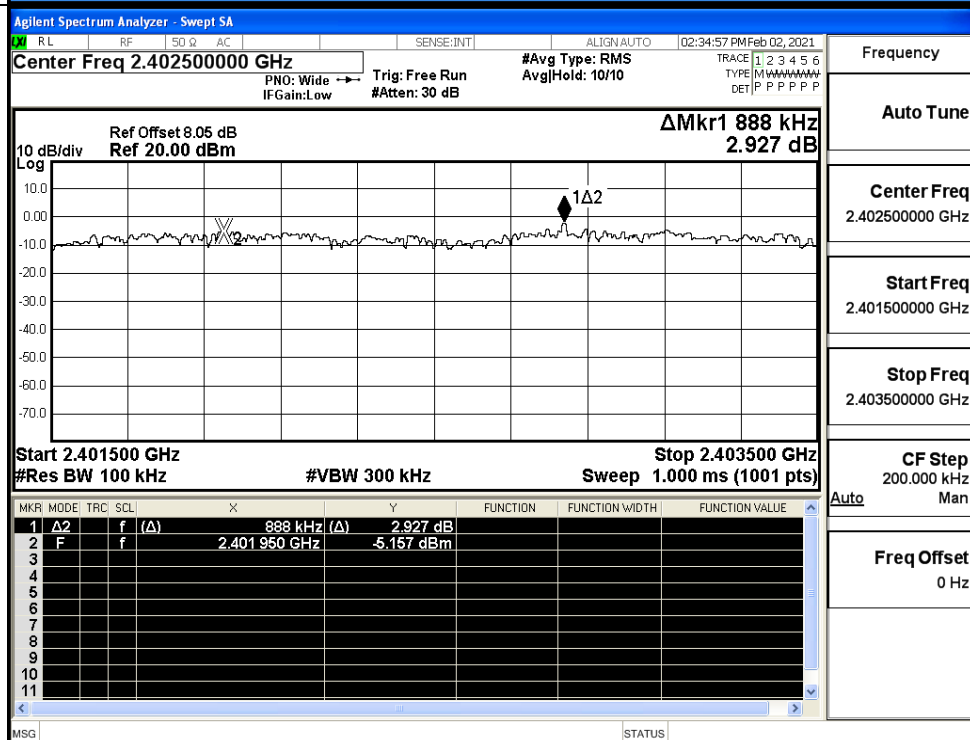
GFSK/HCH



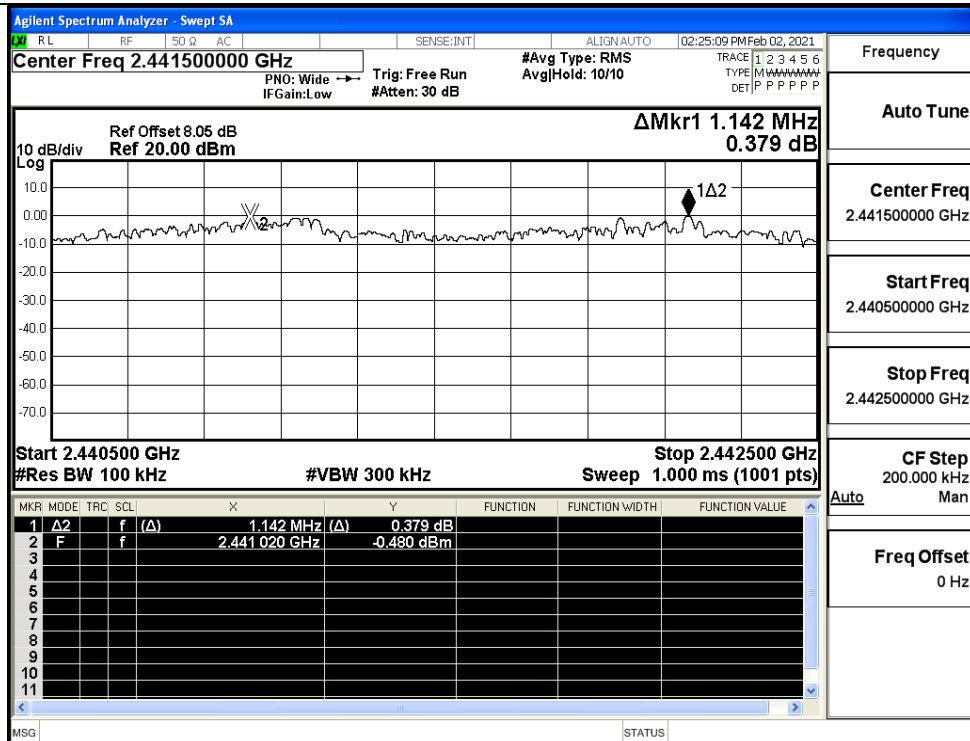
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

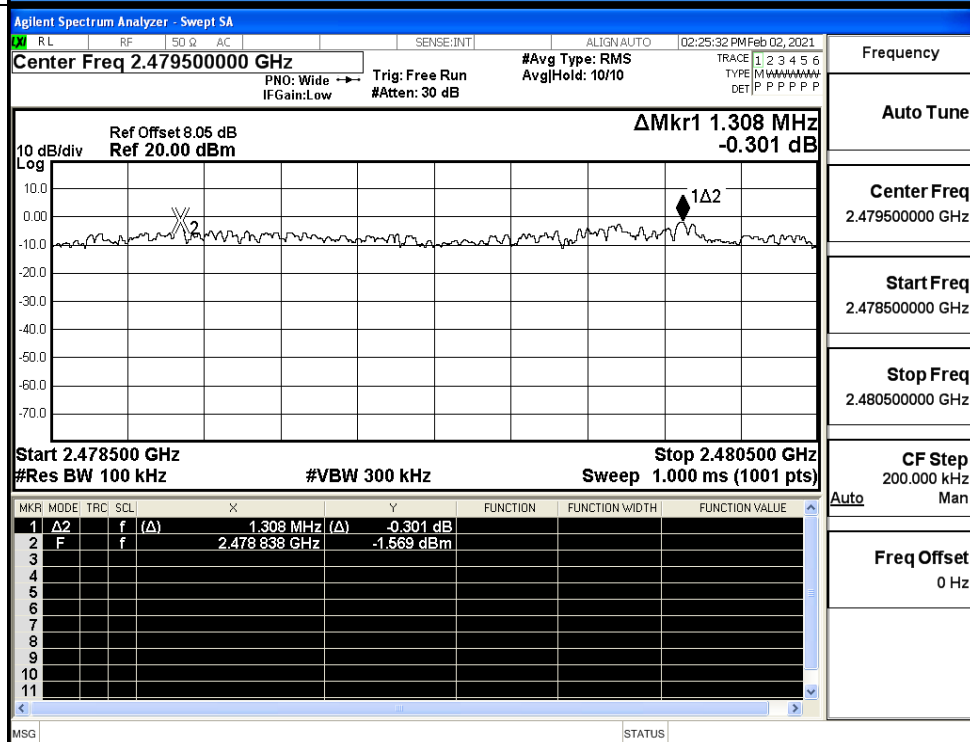
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

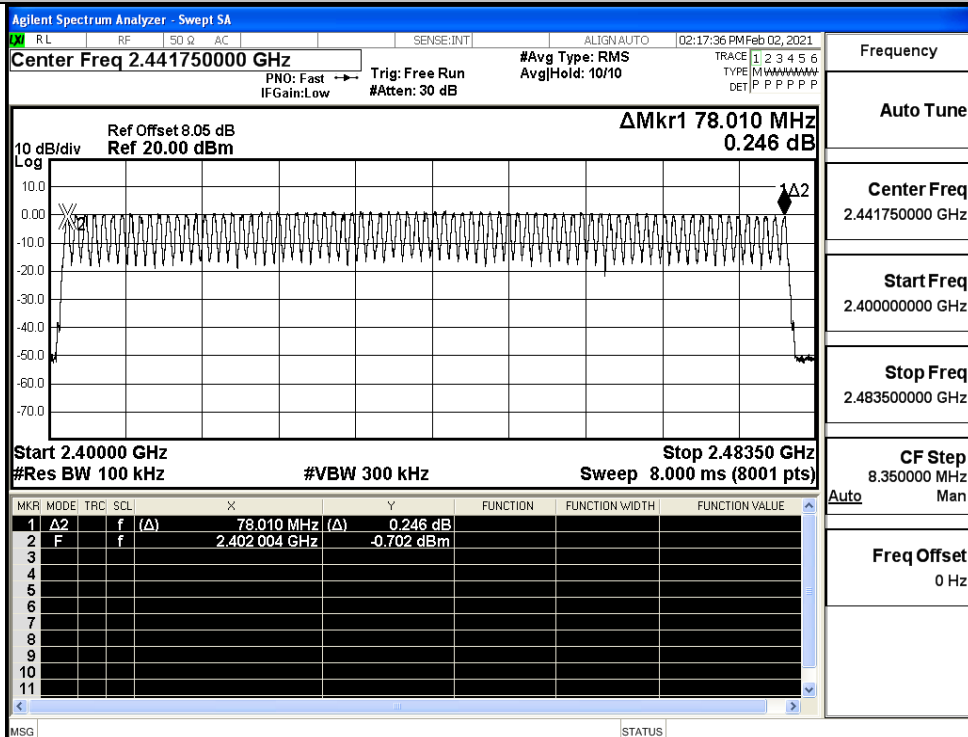
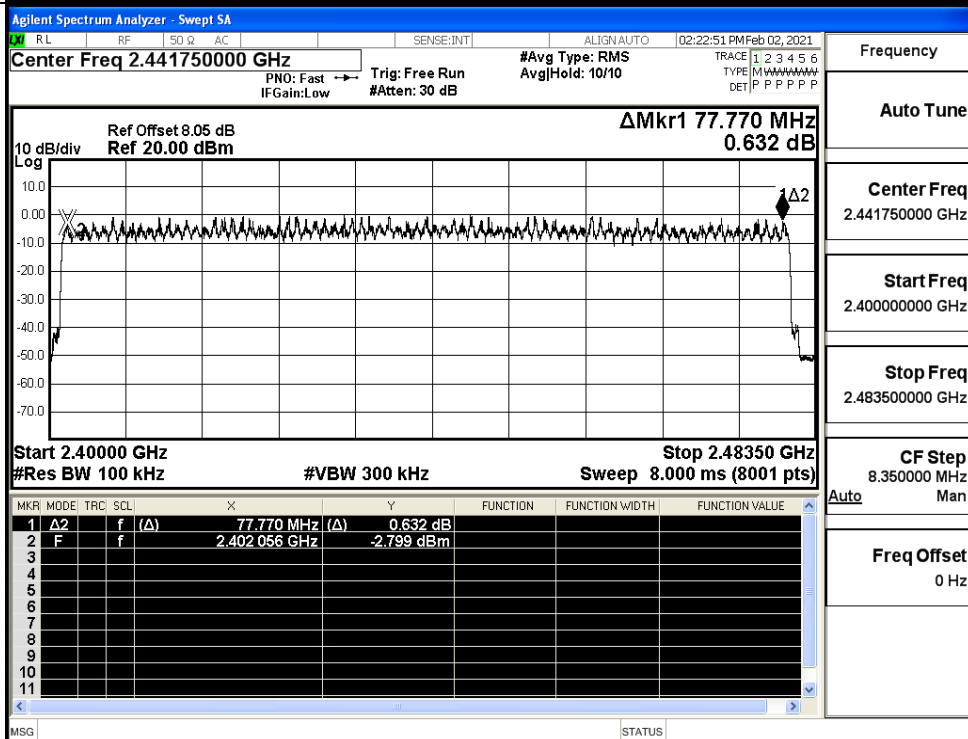


A.4 Hopping Channel Number

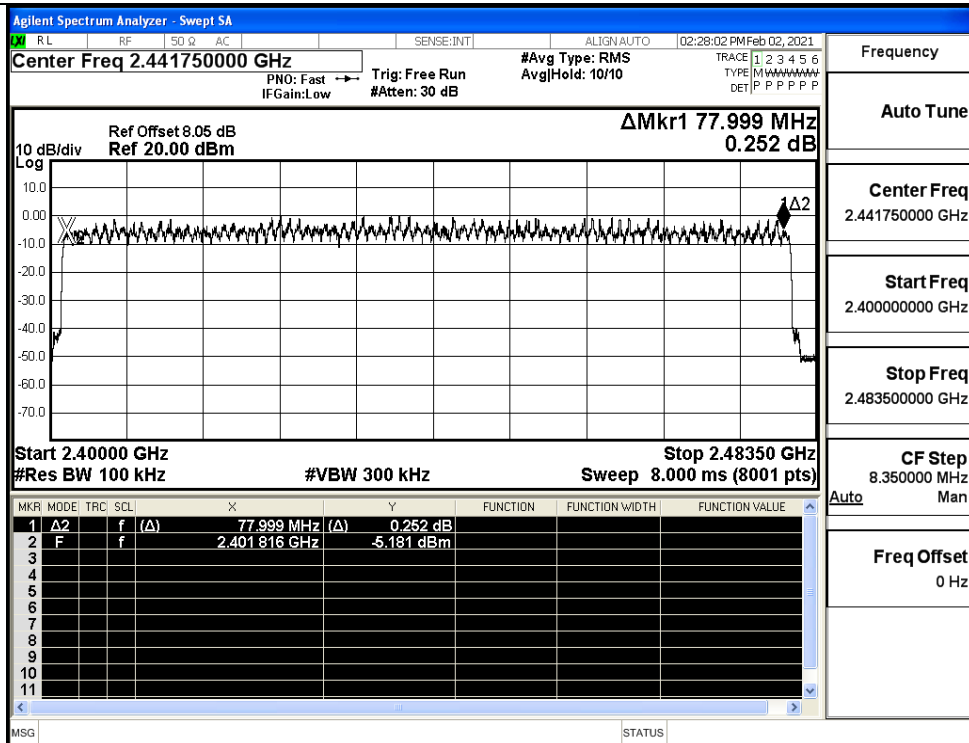
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

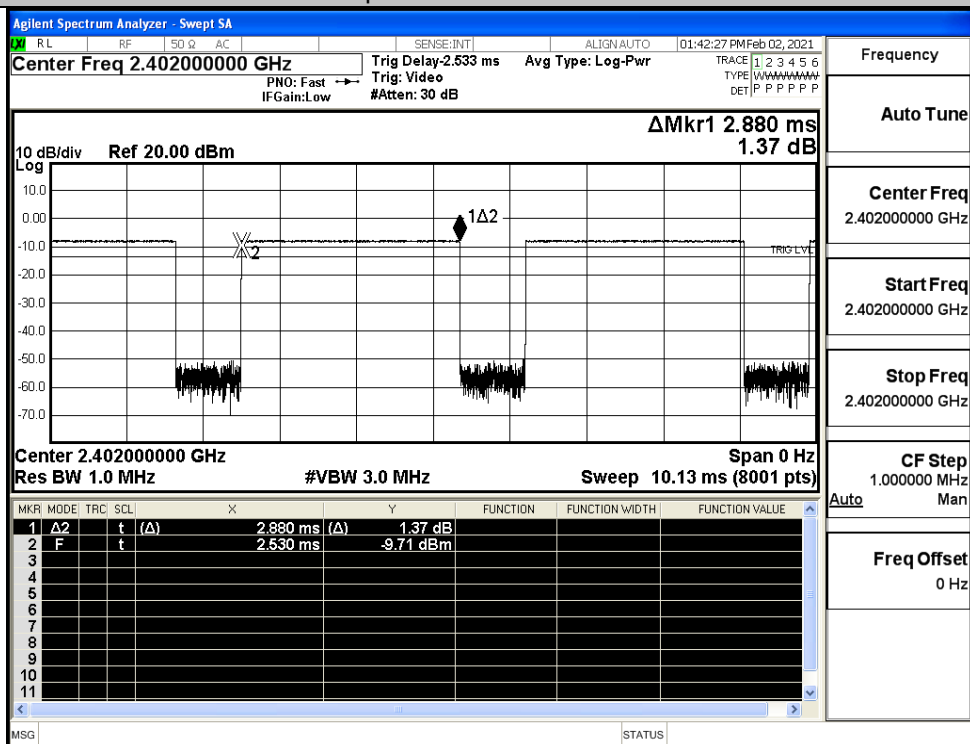


A.5 Dwell Time

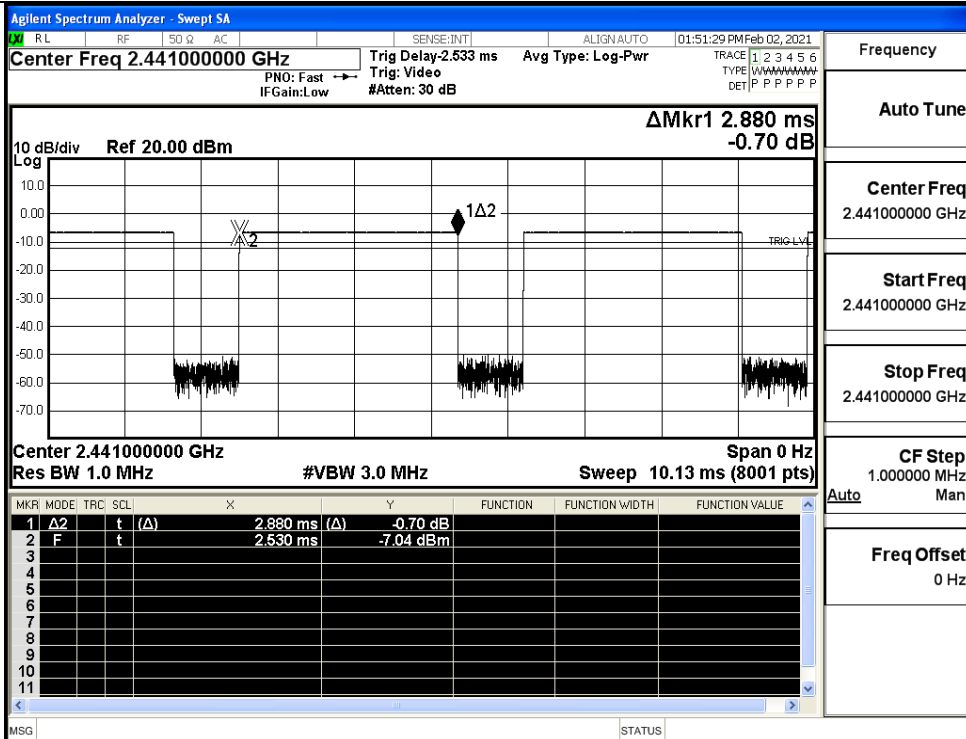
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88	106.7	0.307	0.4	PASS
8DPSK	3DH5	LCH	2.88	106.7	0.308	0.4	PASS
	3DH5	MCH	2.88	106.7	0.308	0.4	PASS
	3DH5	HCH	2.88	106.7	0.308	0.4	PASS

Test Graphs

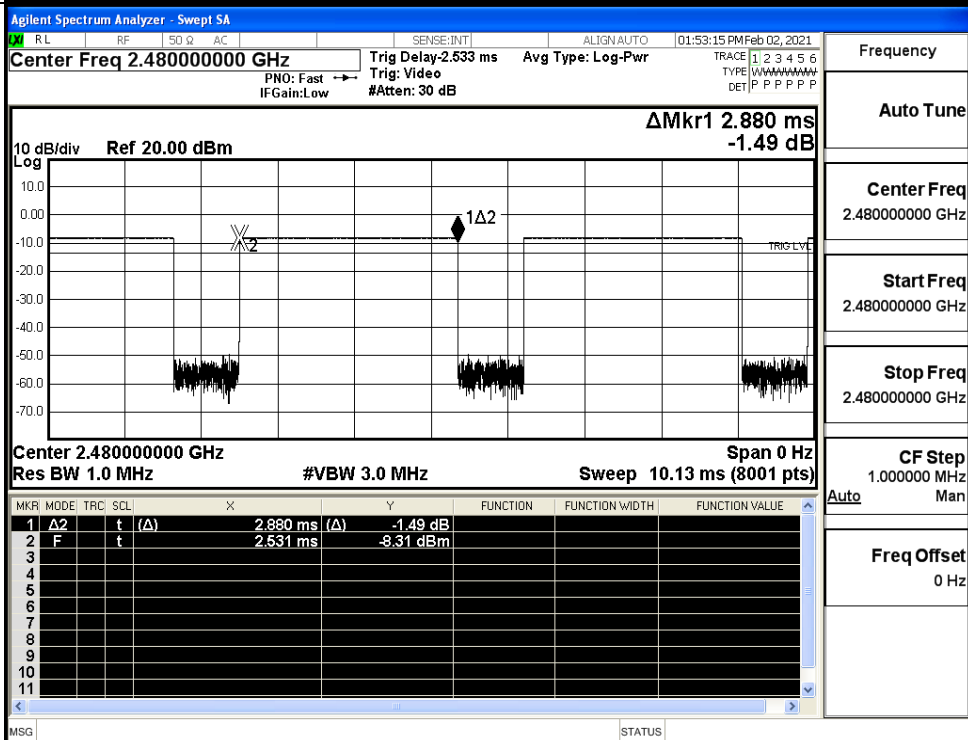
GFSK_DH5/LCH



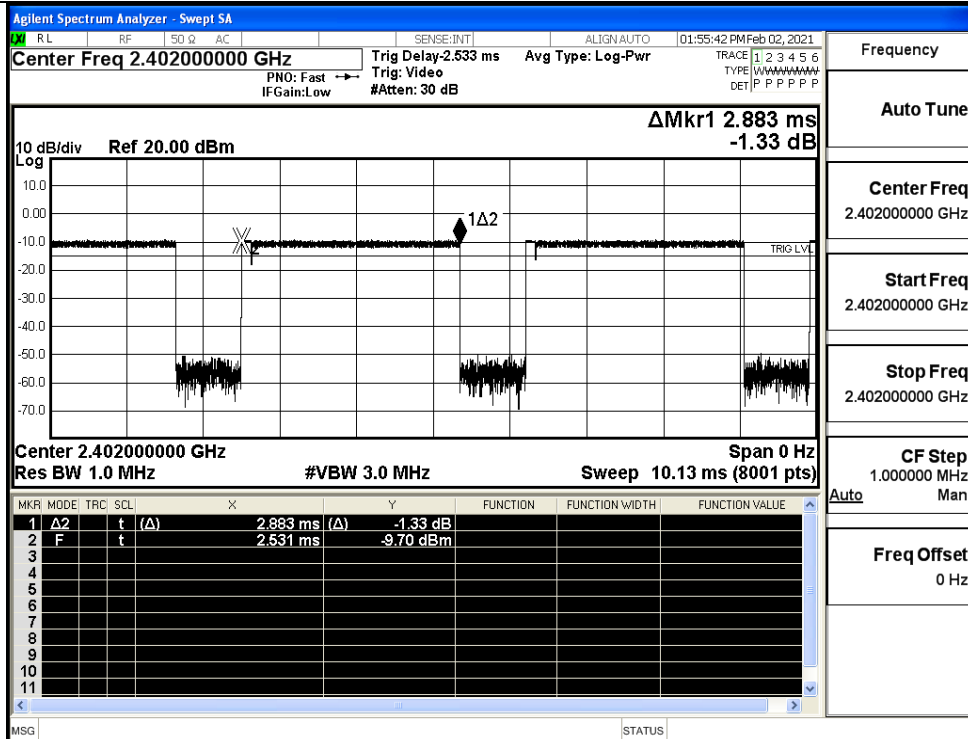
GFSK_DH5/MCH



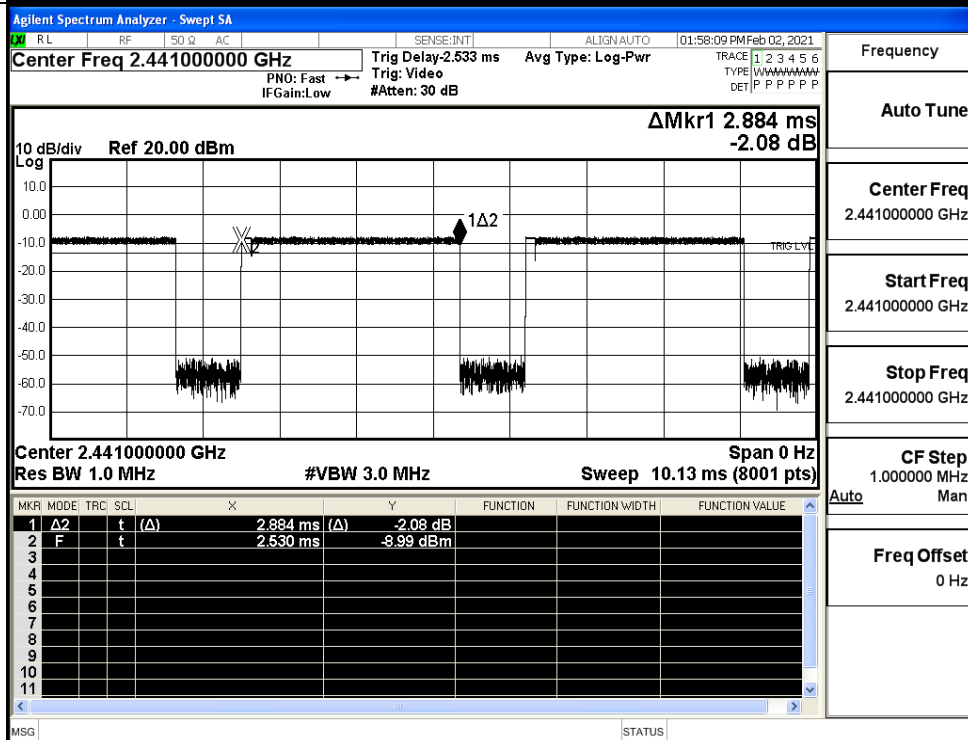
GFSK_DH5/HCH



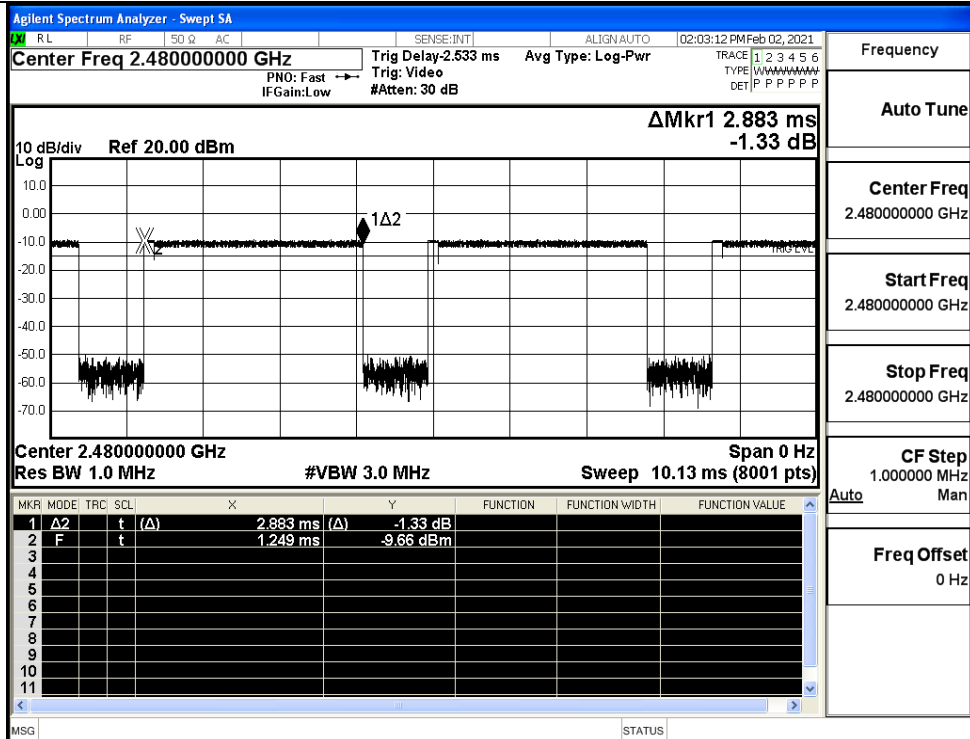
$\pi/4$ DQPSK
_2DH5/LCH



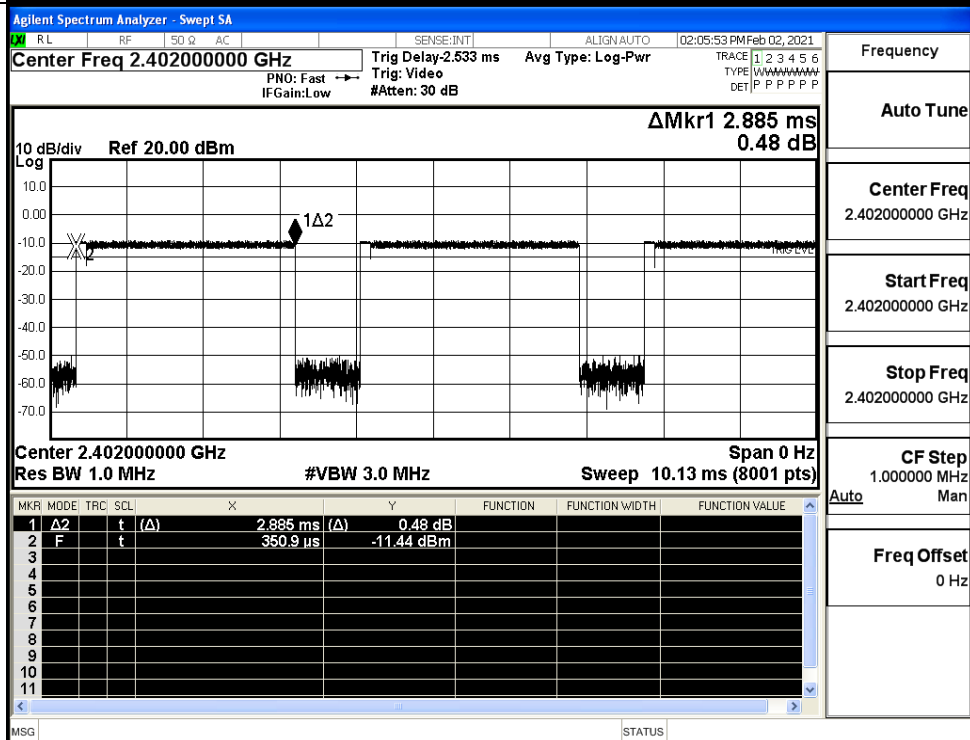
$\pi/4$ DQPSK
_2DH5/MCH



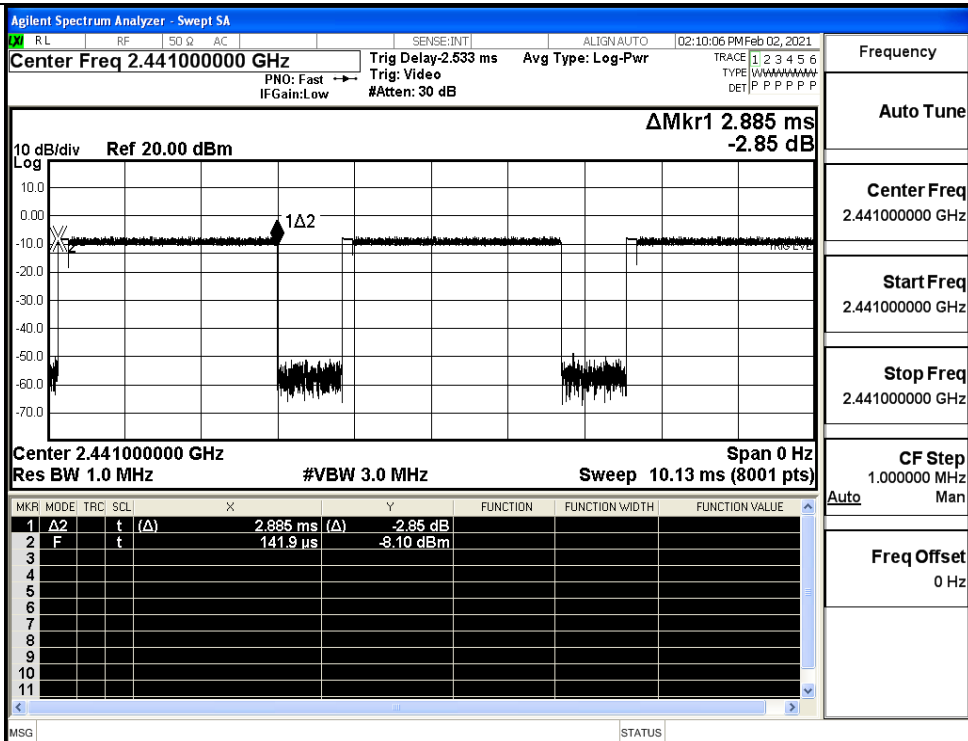
$\pi/4$ DQPSK
_2DH5/HCH



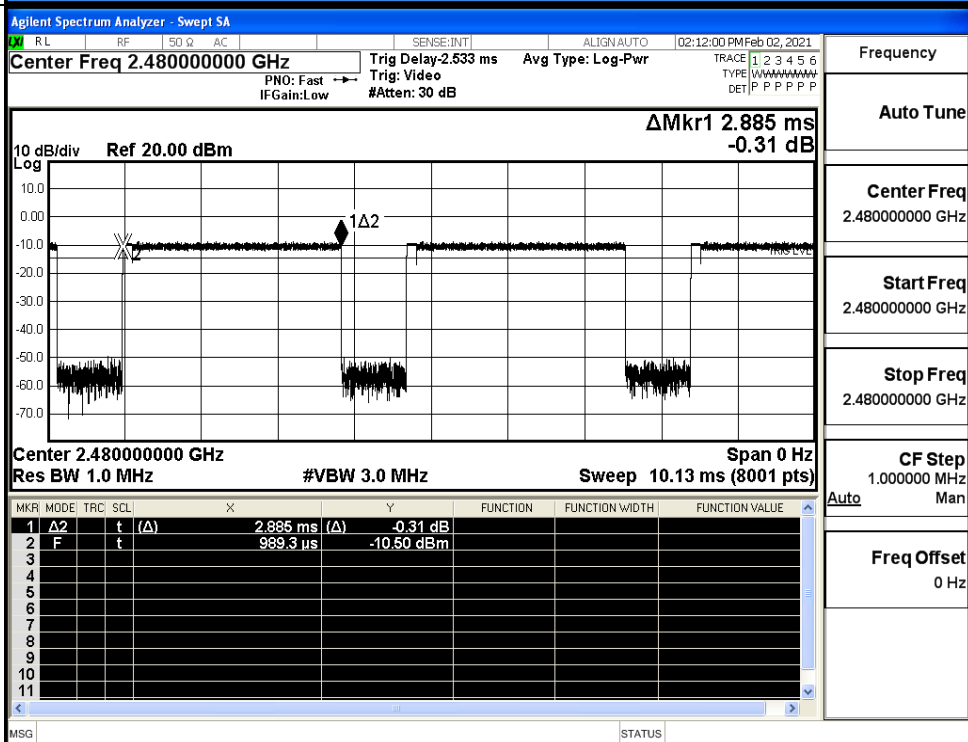
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



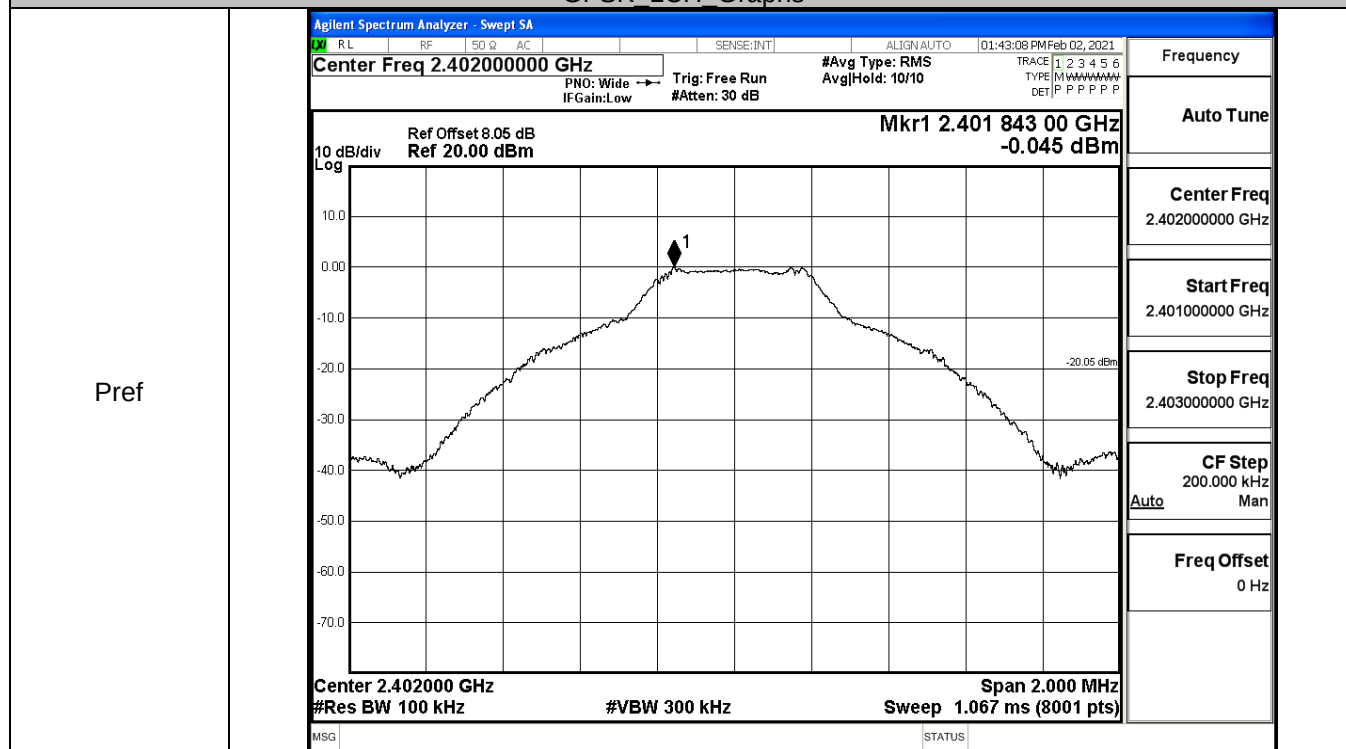
8DPSK_3DH5/HCH



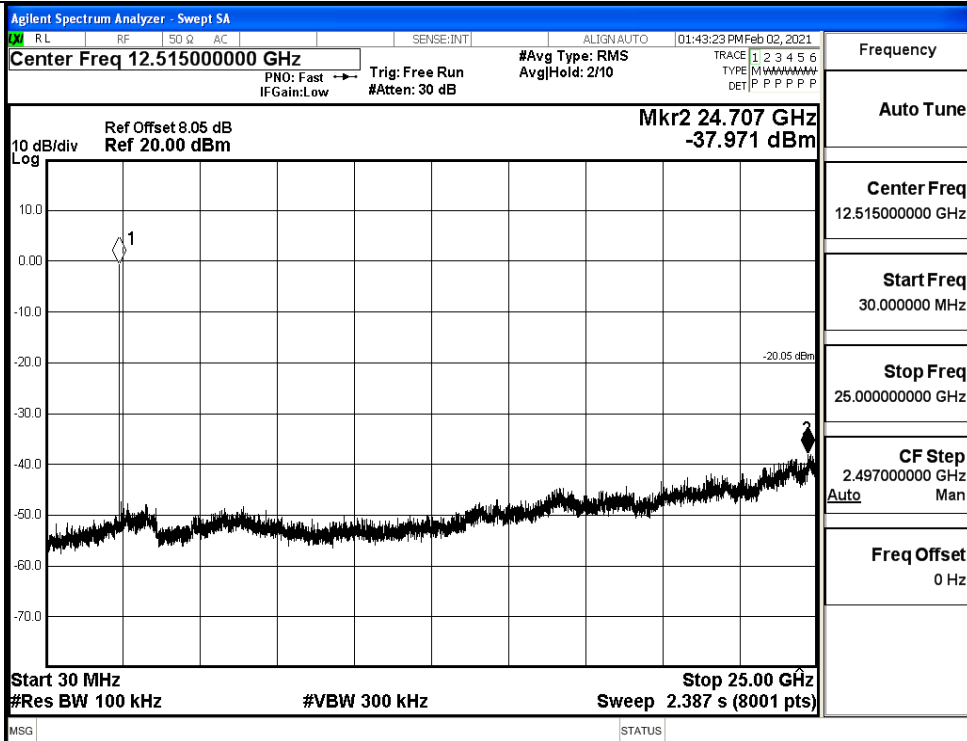
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.045	-37.971	-20.045	PASS
	MCH	1.325	-38.080	-18.675	PASS
	HCH	-0.077	-36.360	-20.077	PASS
$\pi/4$ DQPSK	LCH	-1.669	-37.539	-21.669	PASS
	MCH	-0.373	-38.467	-20.373	PASS
	HCH	-1.558	-38.231	-21.558	PASS
8DPSK	LCH	-1.596	-37.744	-21.596	PASS
	MCH	-0.059	-37.931	-20.059	PASS
	HCH	-1.598	-37.479	-21.598	PASS

GFSK LCH Graphs

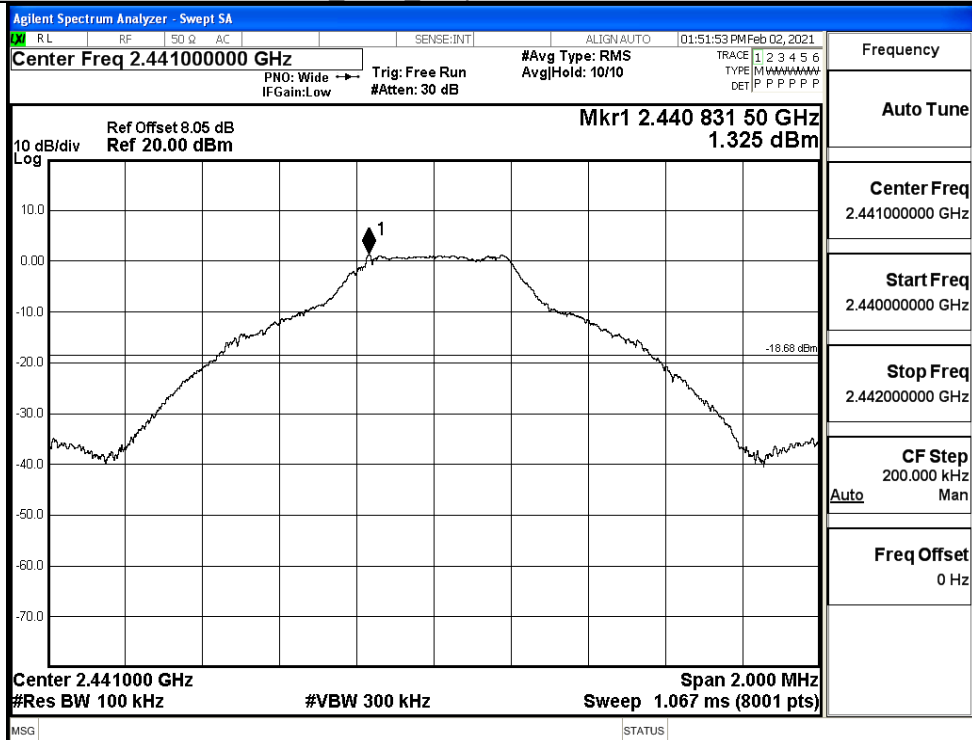


Puw

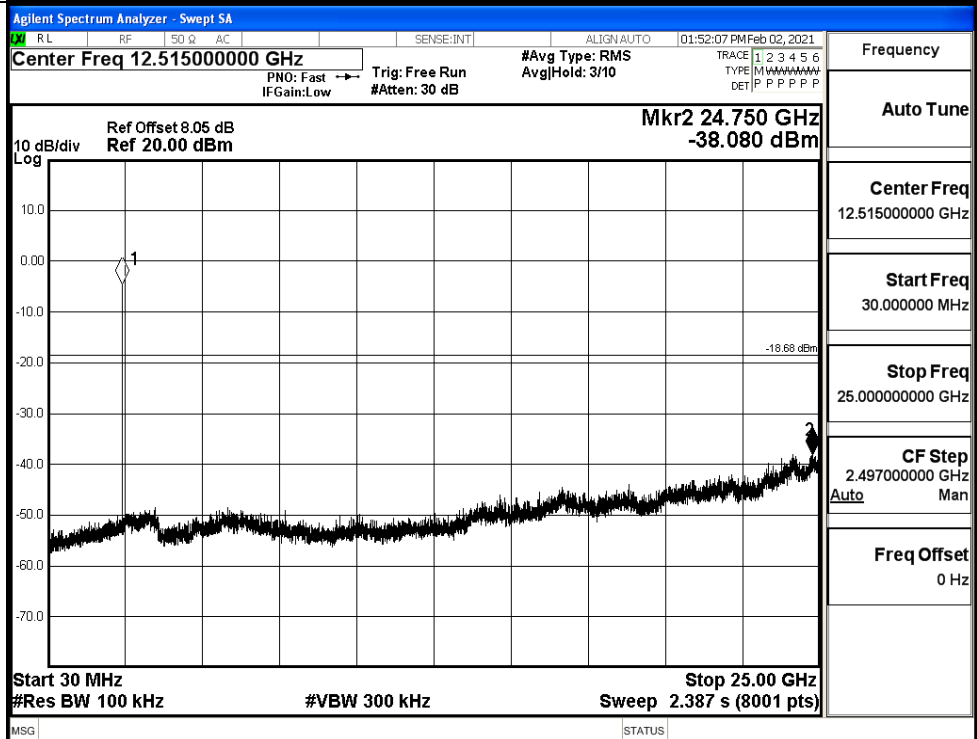


GFSK_MCH_Graphs

Pref

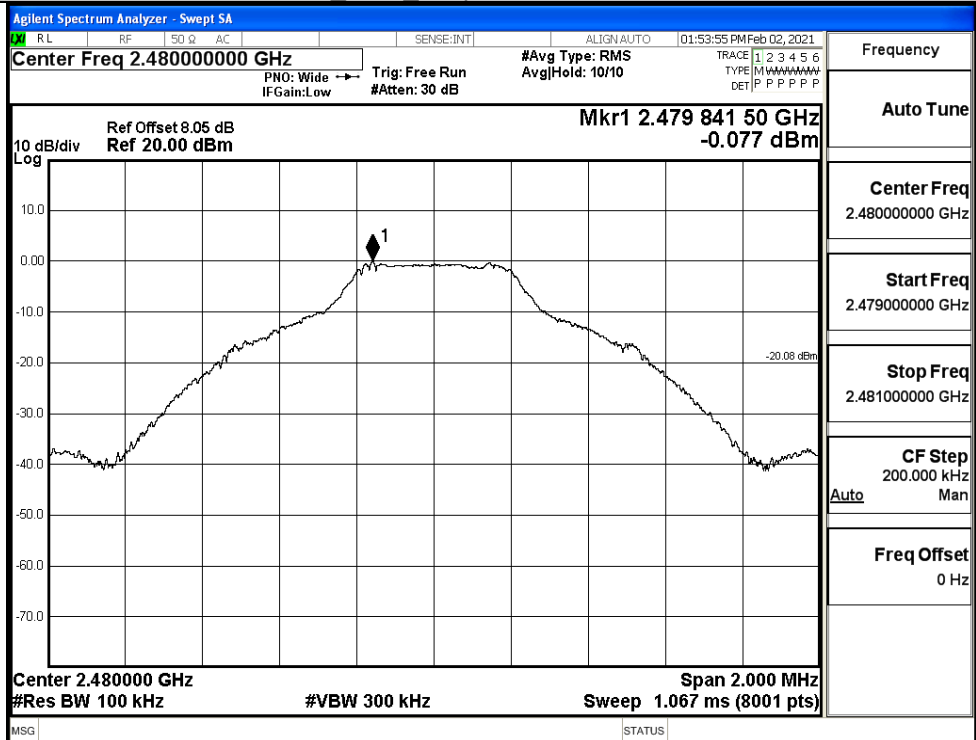


Puw



GFSK HCH_Graphs

Pref

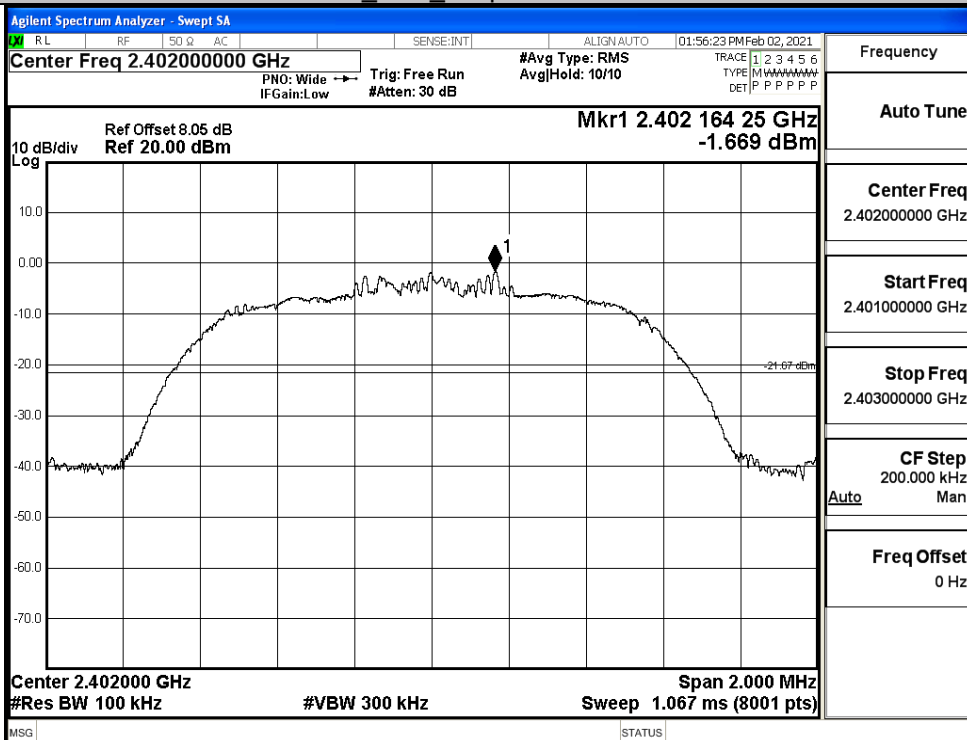


Puw

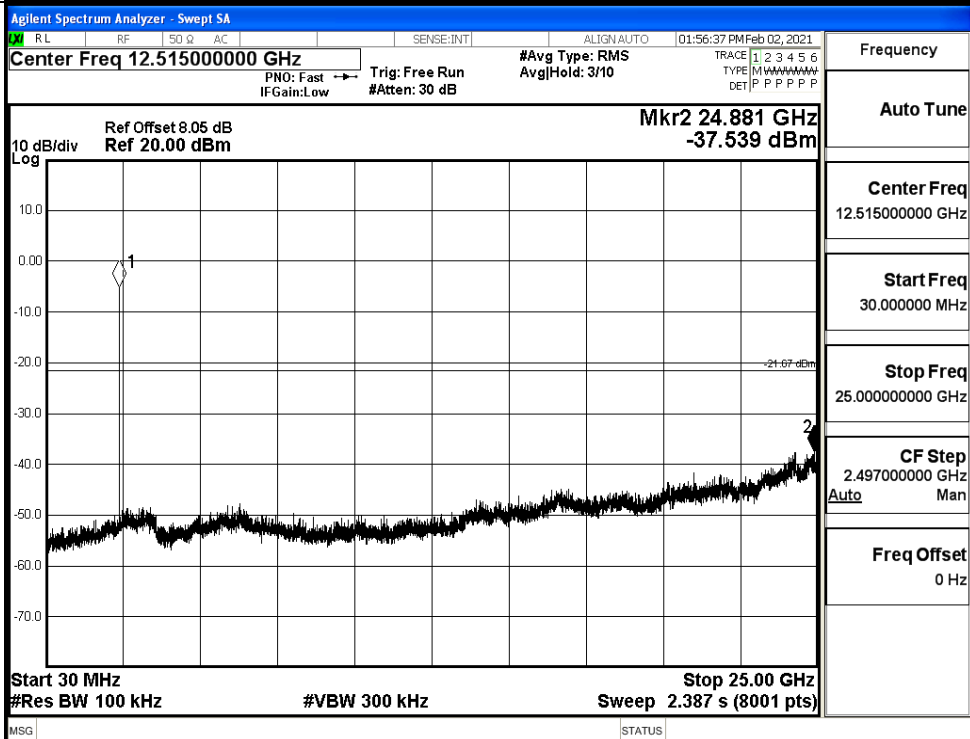


$\pi/4$ DQPSK_LCH_Graphs

Pref

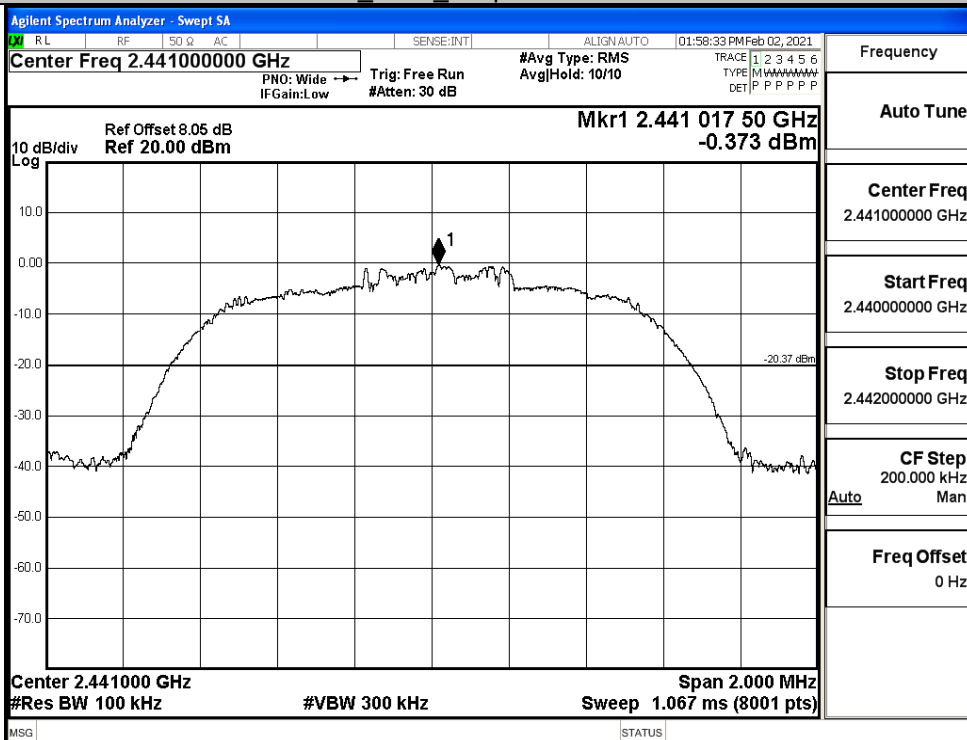


Puw

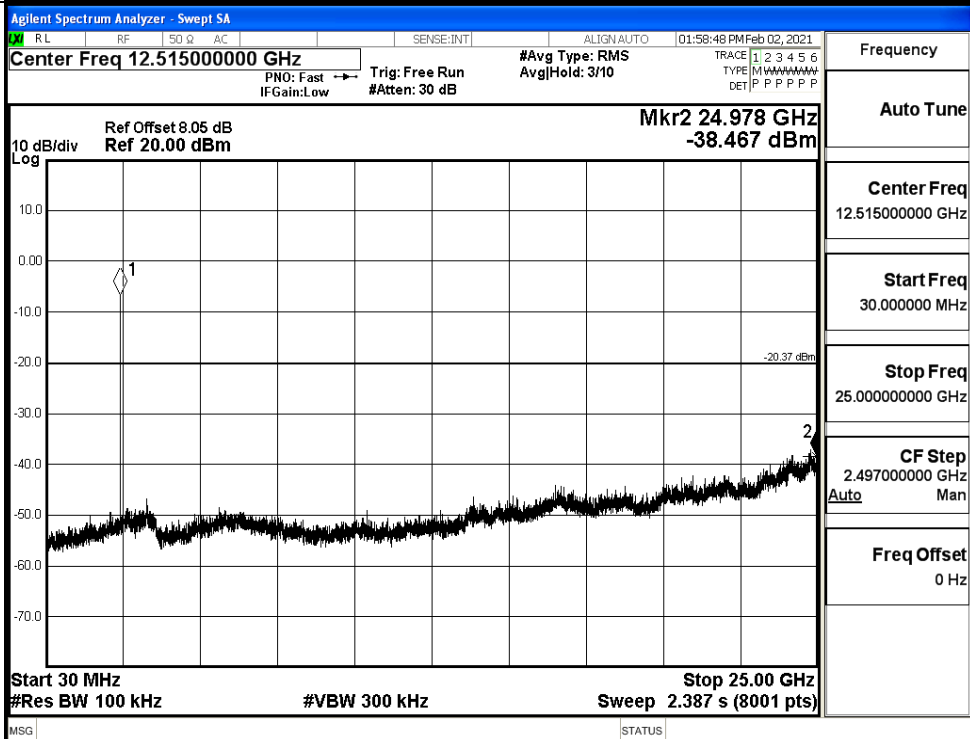


π /4DQPSK_MCH_Graphs

Pref

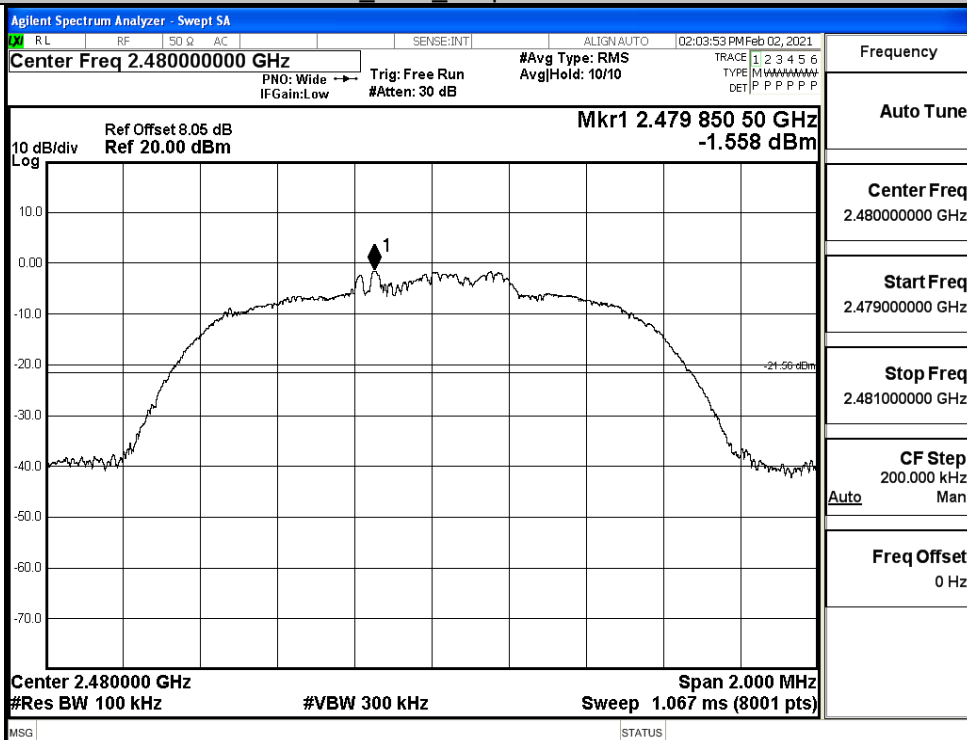


Puw

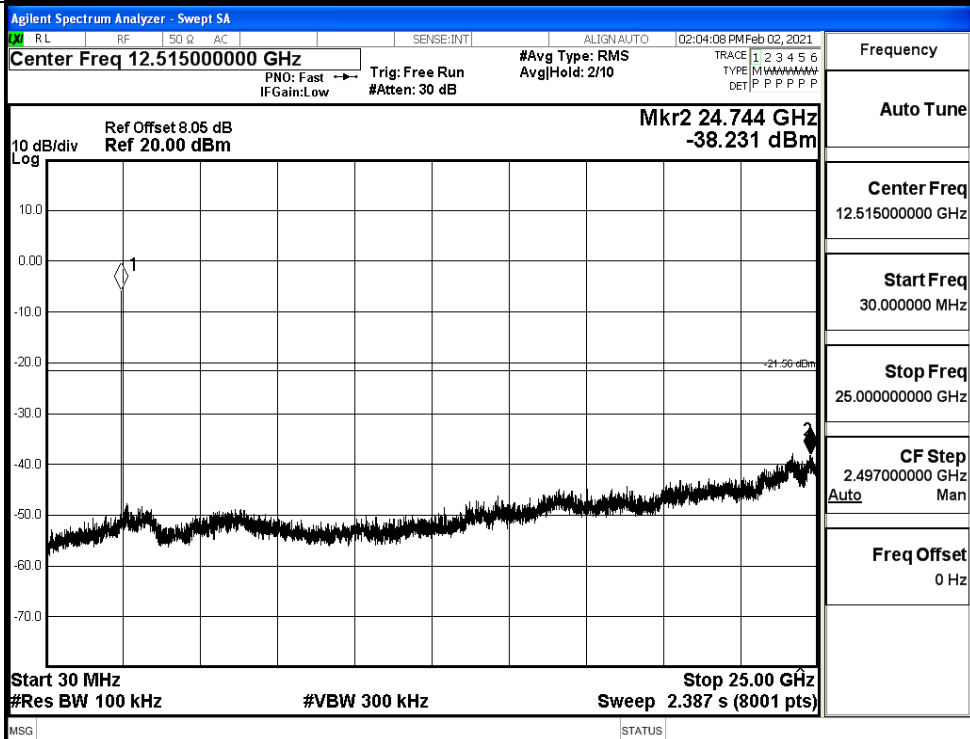


π /4DQPSK_HCH_Graphs

Pref

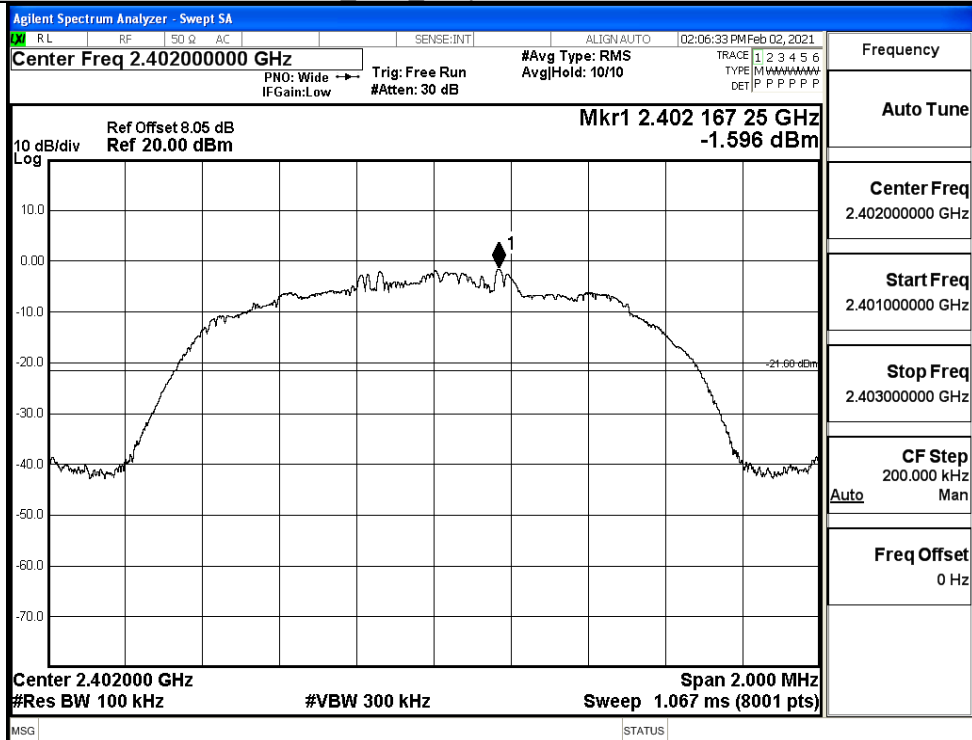


Puw

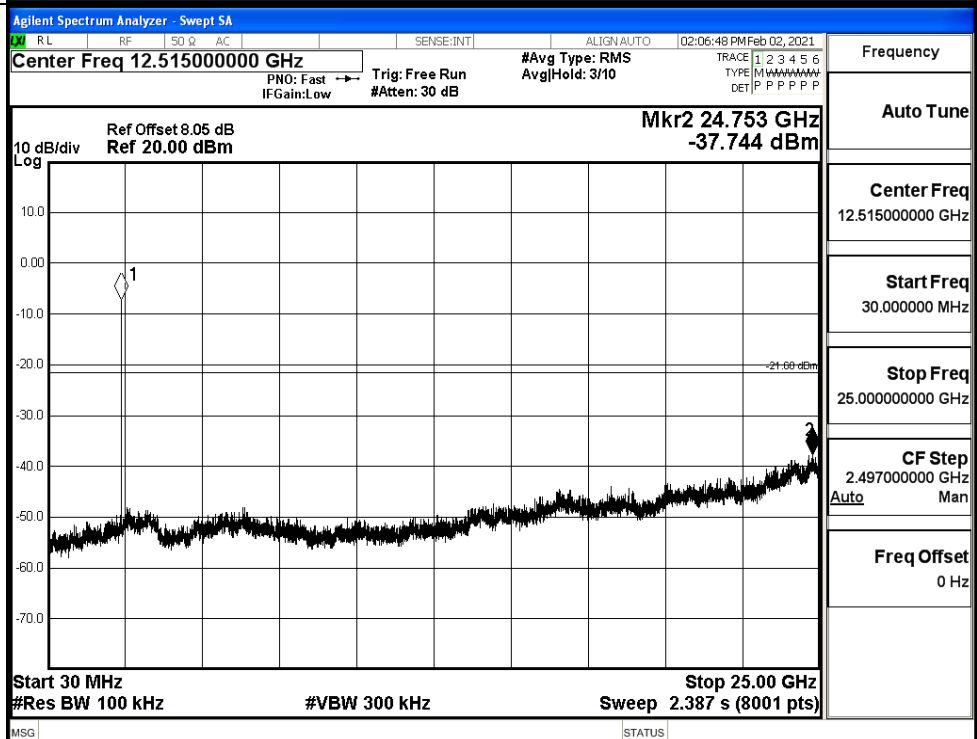


8DPSK_LCH_Graphs

Pref

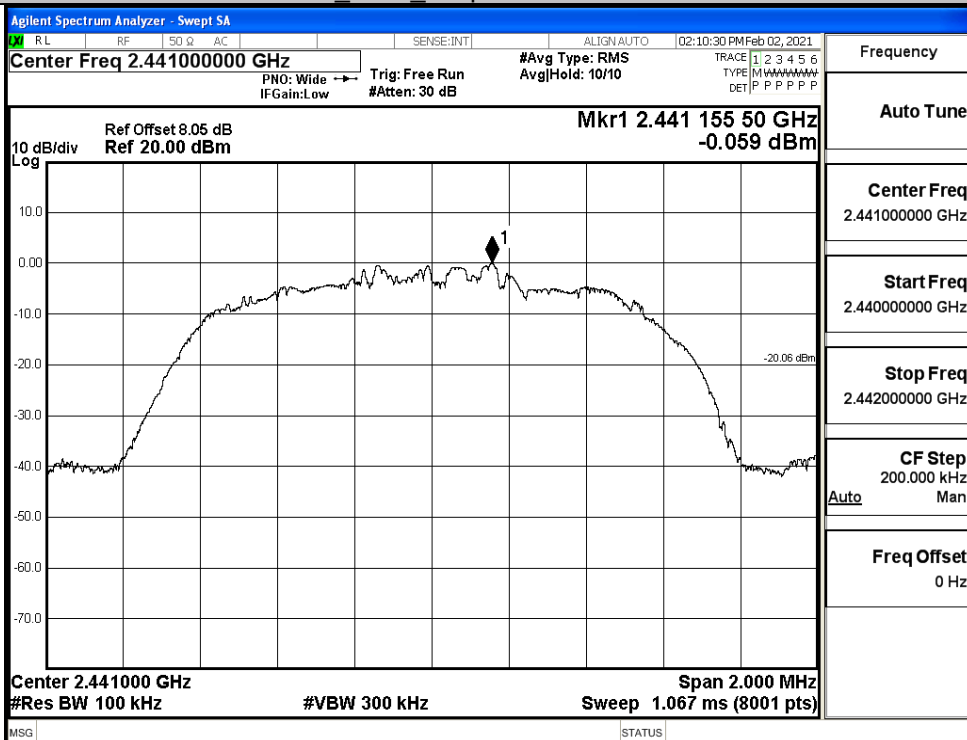


Puw

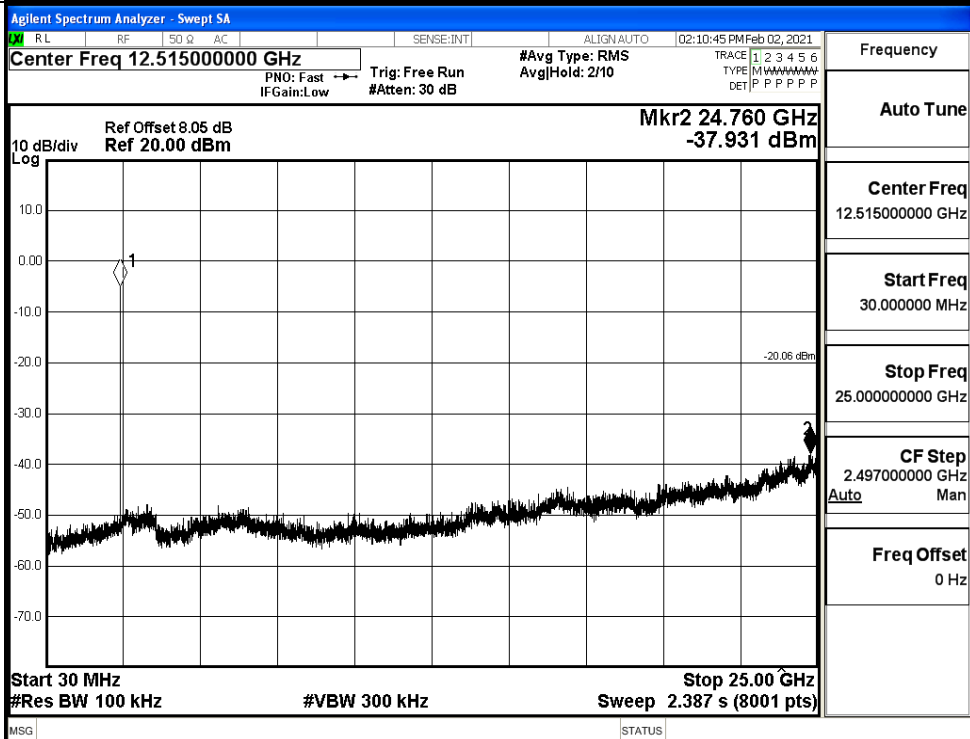


8DPSK_MCH_Graphs

Pref

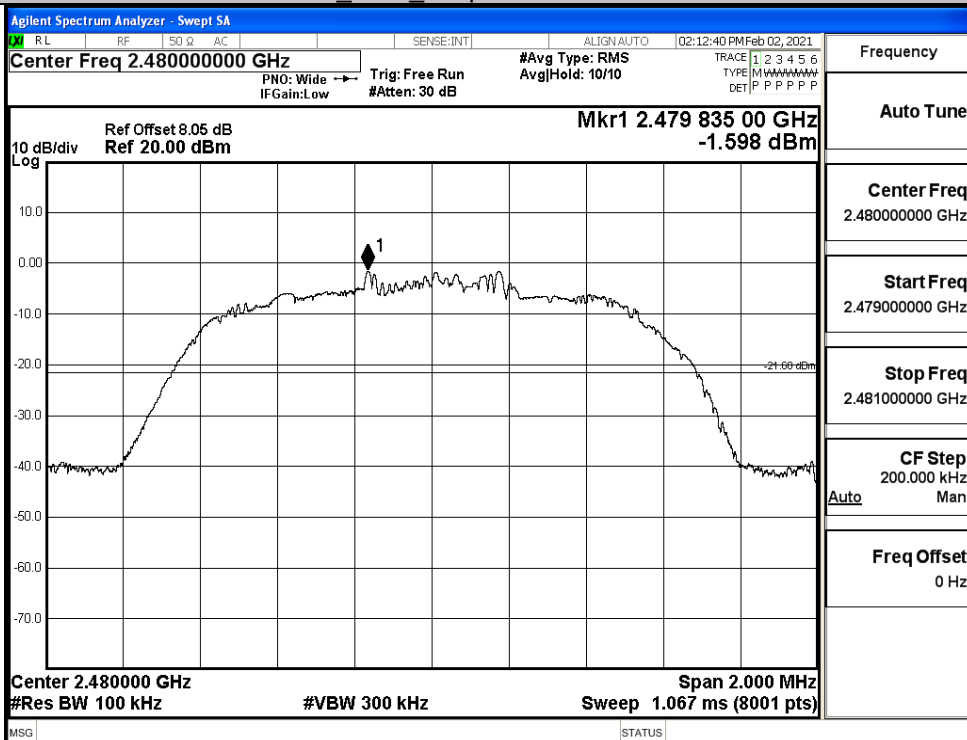


Puw

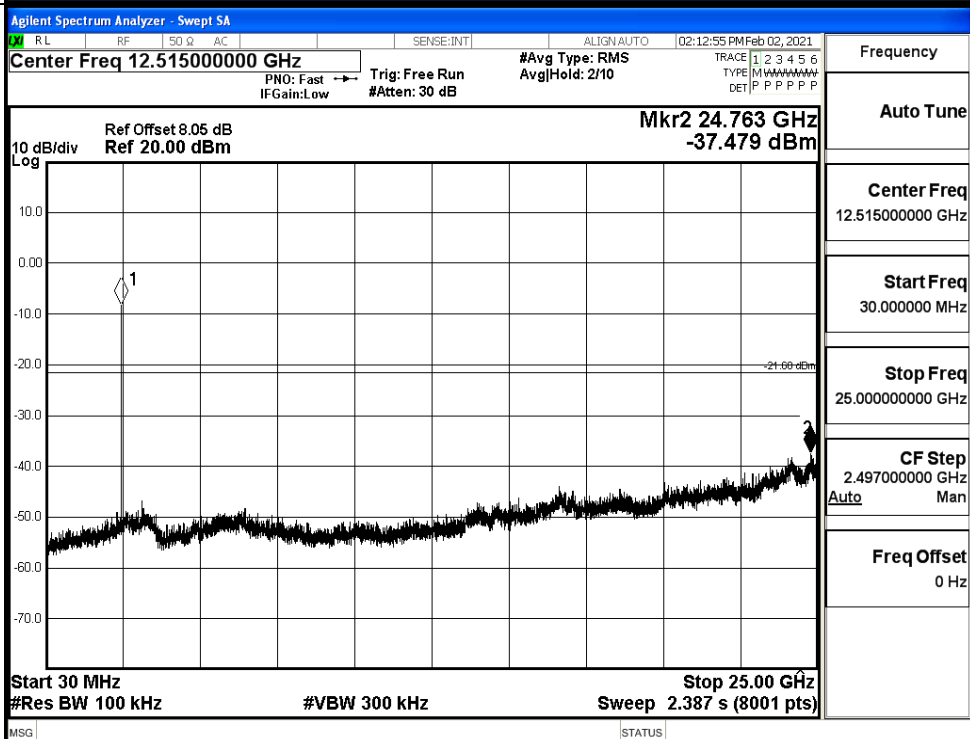


8DPSK_HCH_Graphs

Pref



Puw

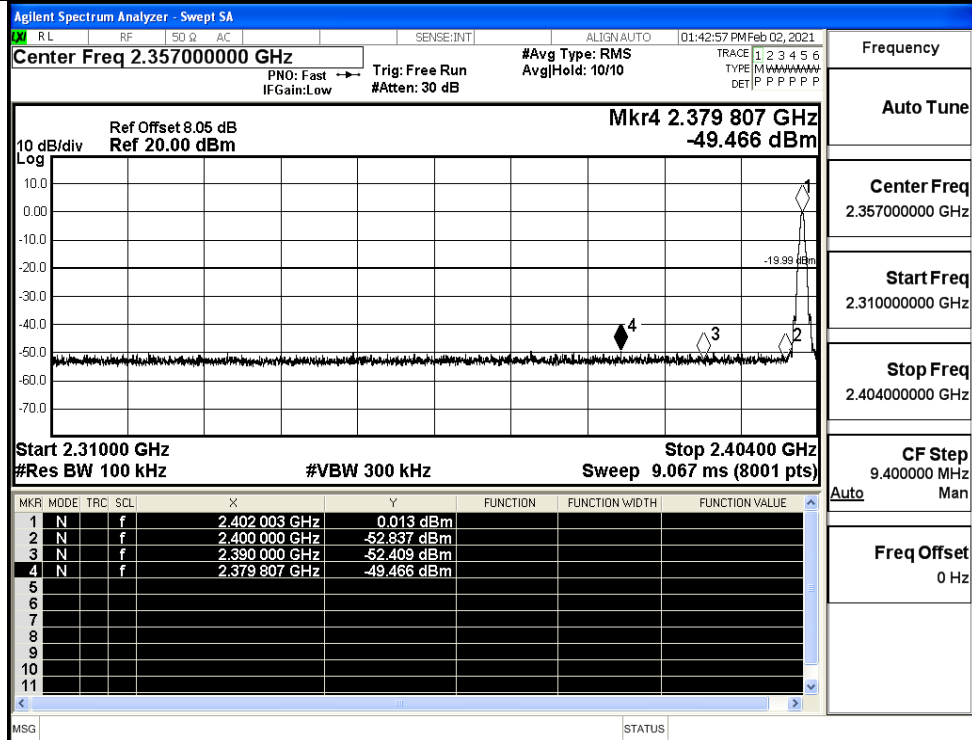


A.7 Band-edge for RF Conducted Emissions

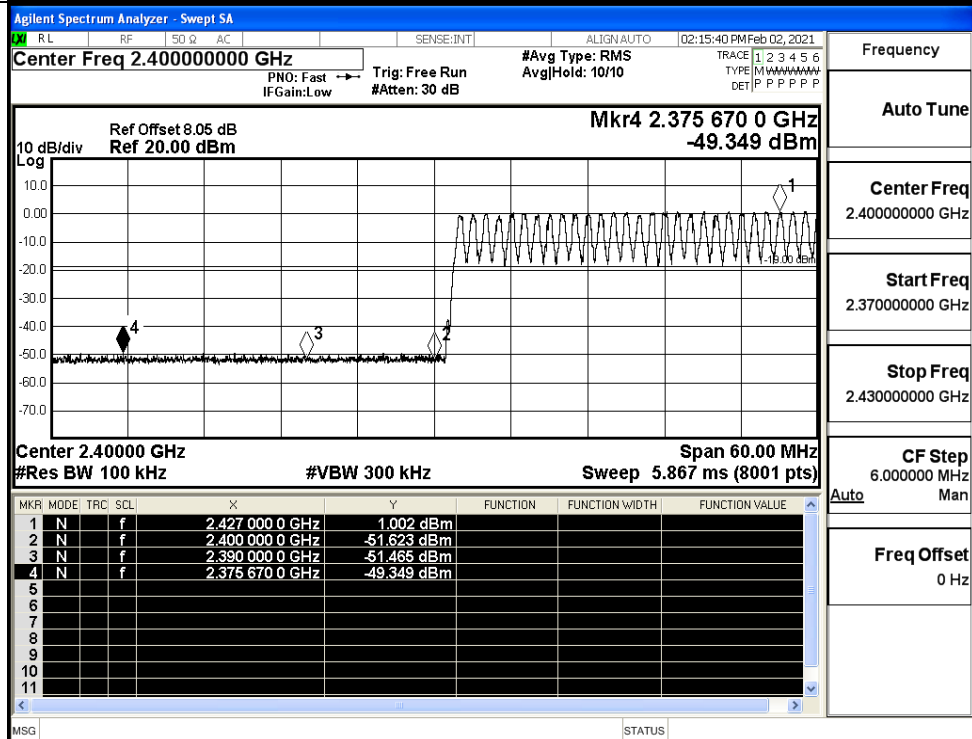
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	0.013	Off	-49.466	-19.99	PASS
			1.002	On	-49.349	-19	PASS
	HCH	2480	-0.111	Off	-48.675	-20.11	PASS
			0.818	On	-48.728	-19.18	PASS
$\pi/4$ DQPSK	LCH	2402	-1.352	Off	-49.503	-21.35	PASS
			-0.282	On	-48.908	-20.28	PASS
	HCH	2480	-1.338	Off	-48.431	-21.34	PASS
			-0.714	On	-47.985	-20.71	PASS
8DPSK	LCH	2402	-1.648	Off	-49.613	-21.65	PASS
			-0.144	On	-49.097	-20.14	PASS
	HCH	2480	-1.428	Off	-48.502	-21.43	PASS
			-0.584	On	-48.130	-20.58	PASS

Test Graphs

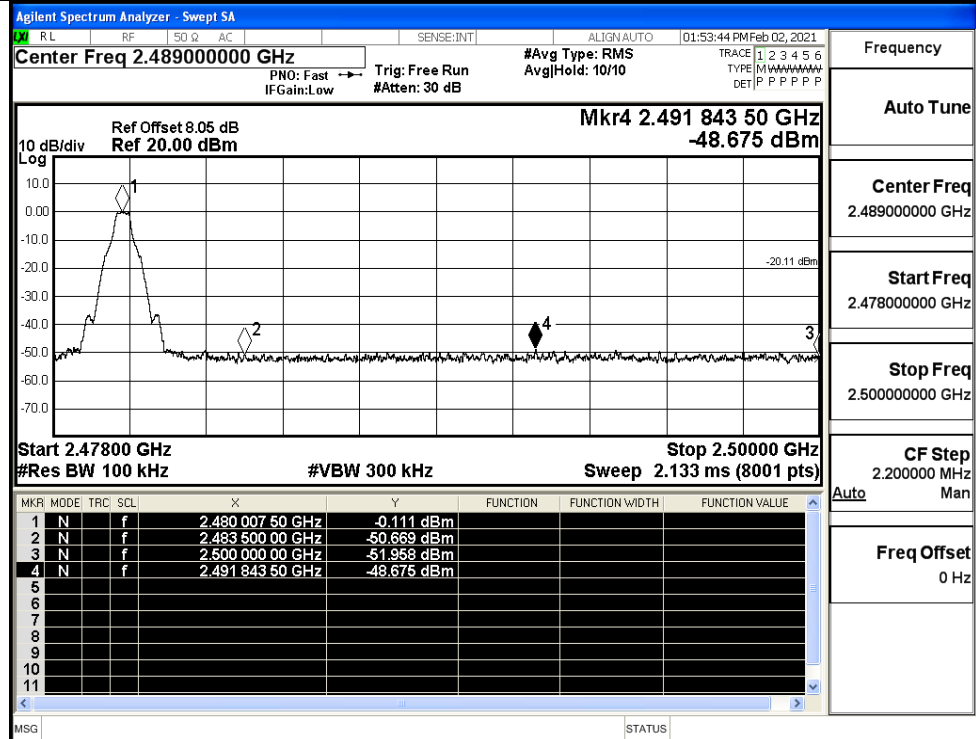
GFSK/LCH/No Hop



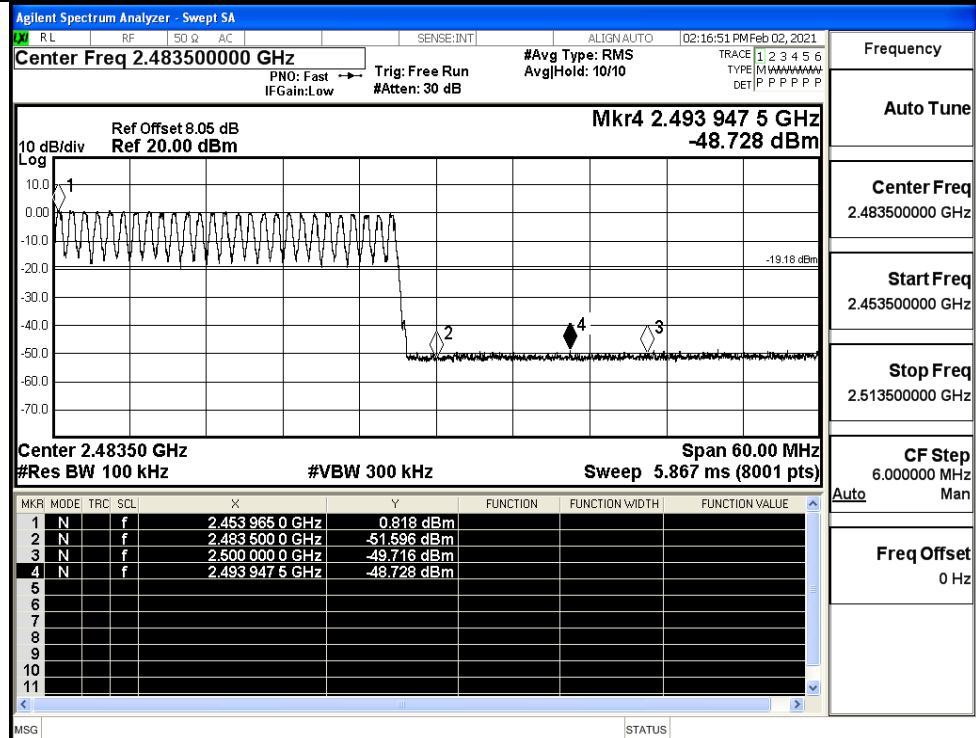
GFSK/LCH/Hop



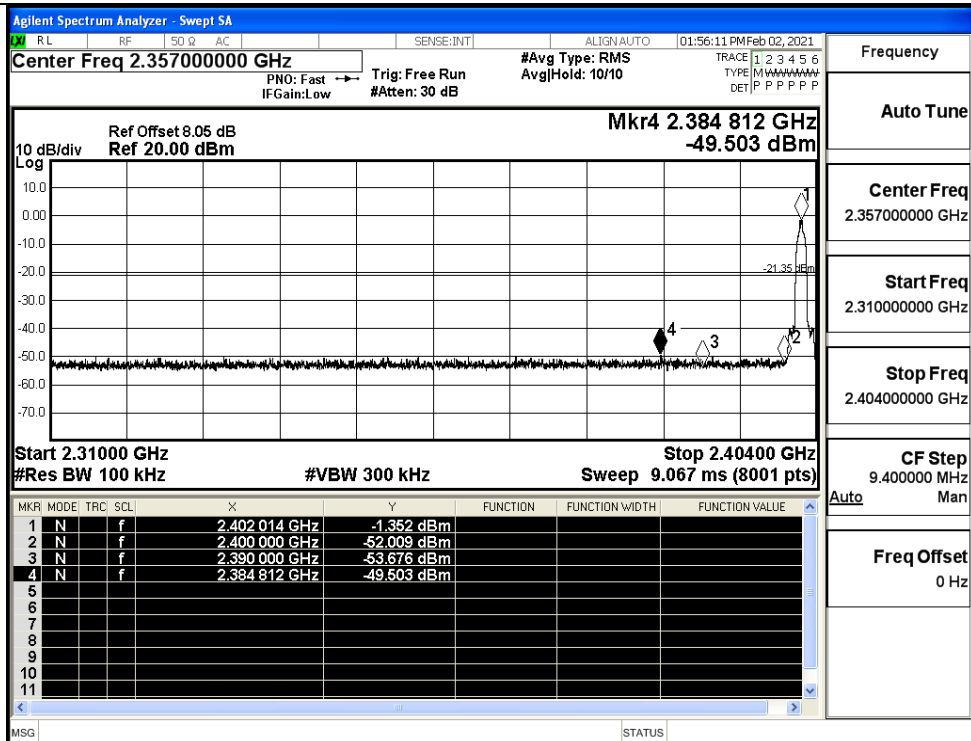
GFSK/HCH/No Hop



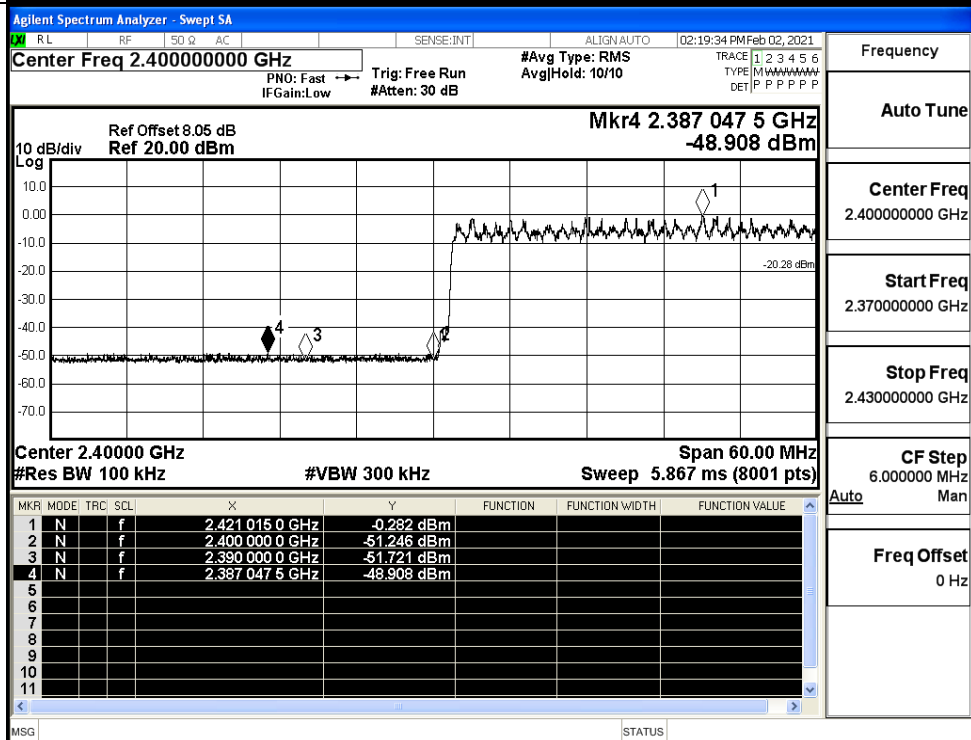
GFSK/HCH/Hop



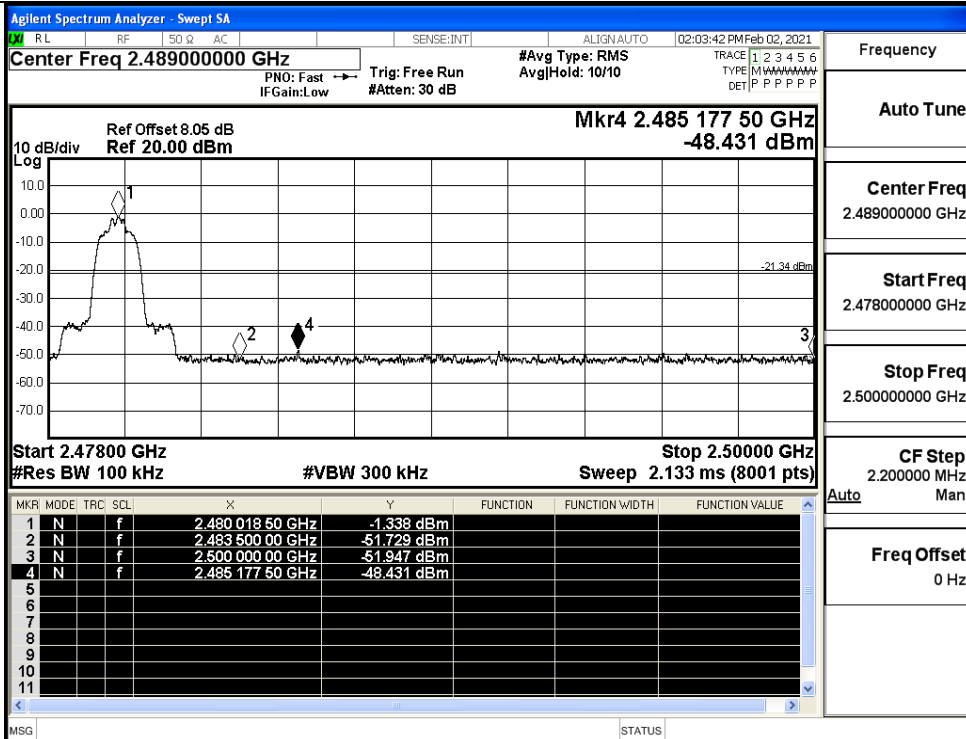
$\pi/4$ DQPSK/LCH/No
Hop



$\pi/4$ DQPSK/LCH/Hop



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



Frequency

Auto Tune

Center Freq
2.489000000 GHz

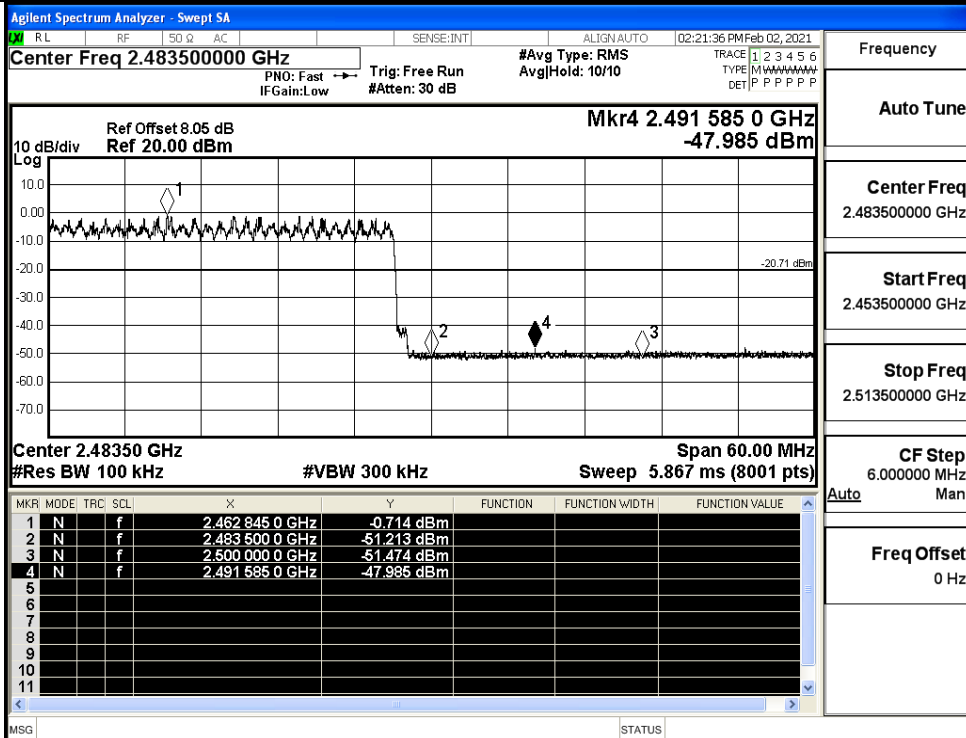
Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

CF Step
2.200000 MHz

Freq Offset
0 Hz

$\pi/4$ DQPSK/HCH/Hop



Frequency

Auto Tune

Center Freq
2.483500000 GHz

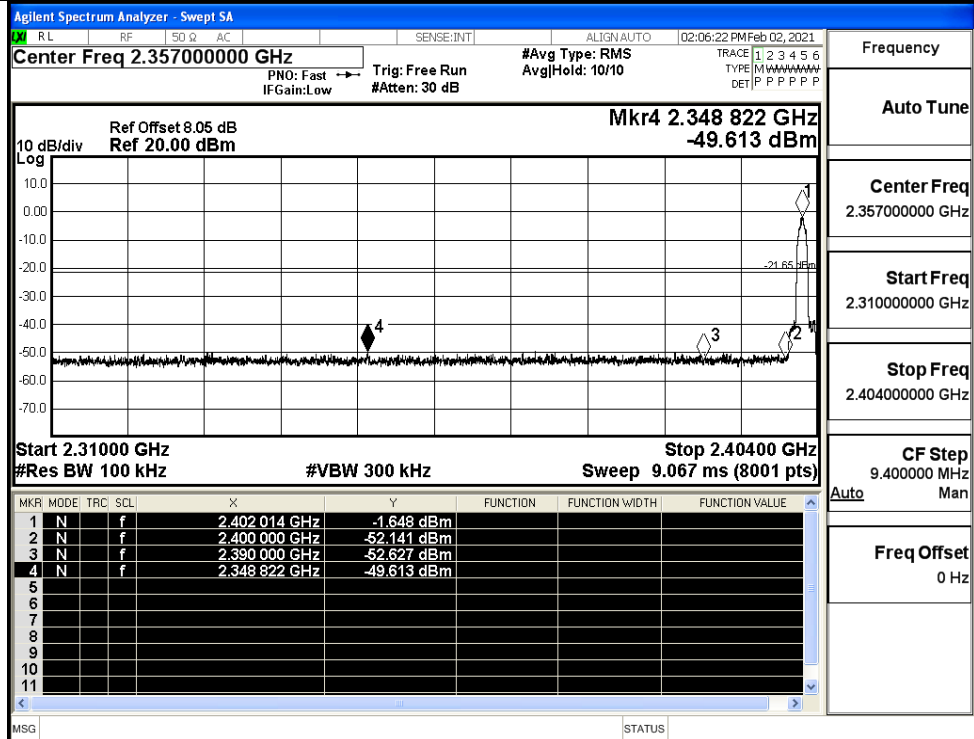
Start Freq
2.453500000 GHz

Stop Freq
2.513500000 GHz

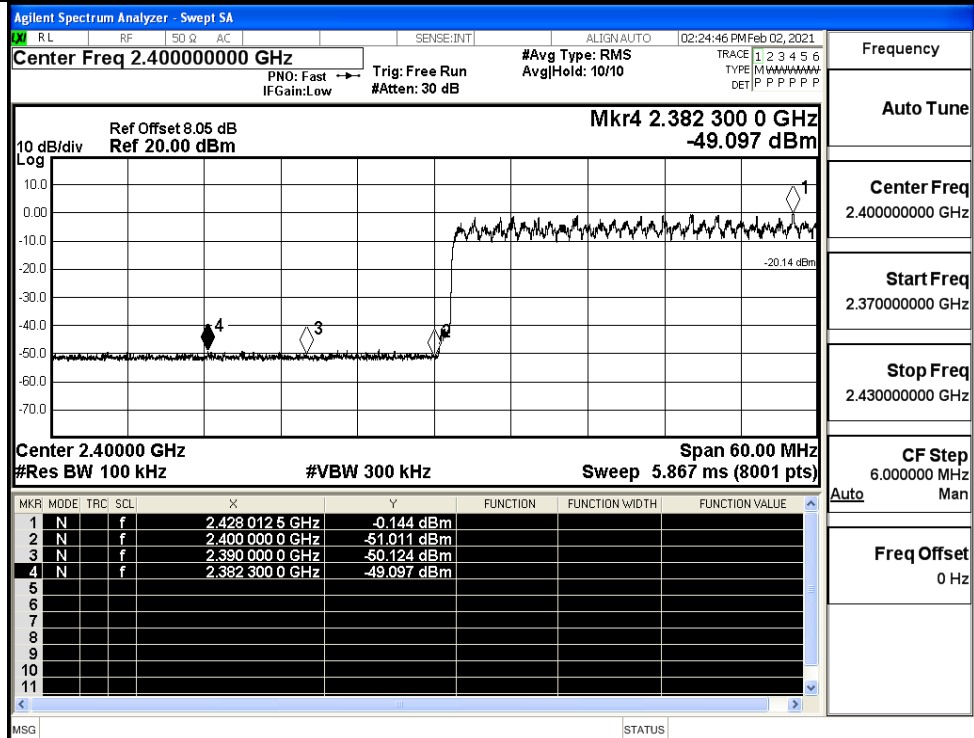
CF Step
6.000000 MHz

Freq Offset
0 Hz

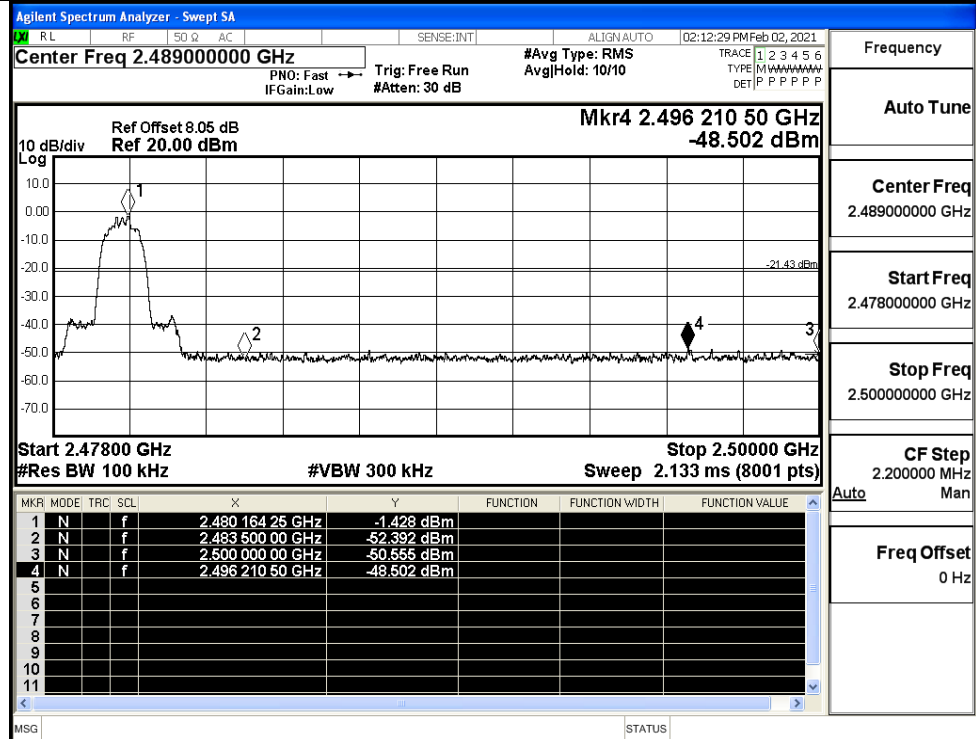
8DPSK/LCH/No Hop



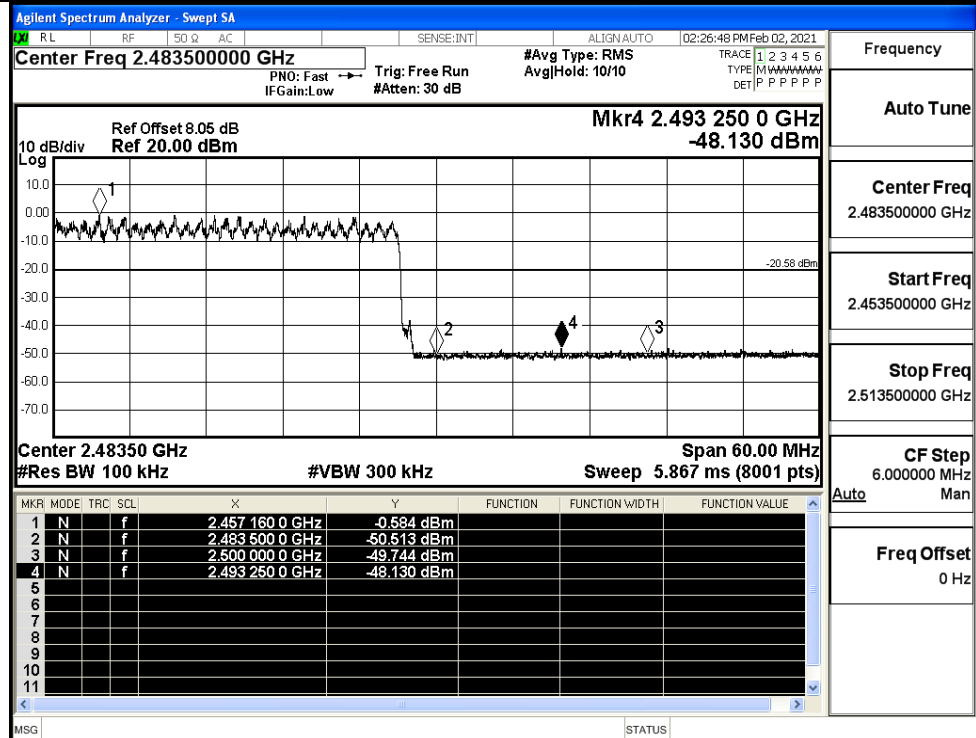
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



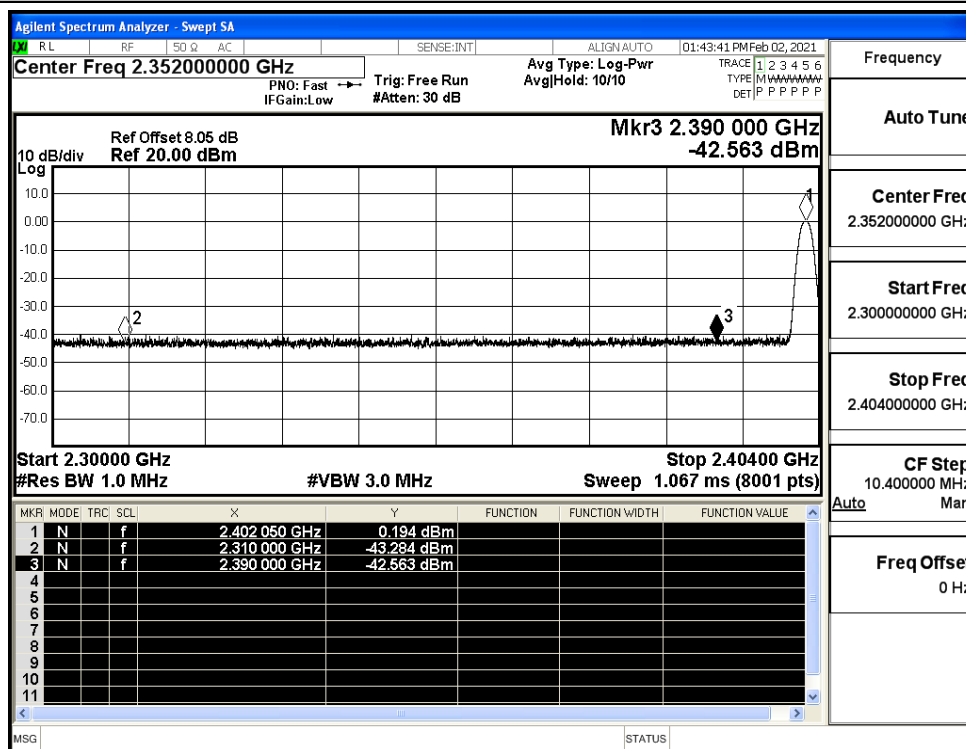
8DPSK/HCH/Hop



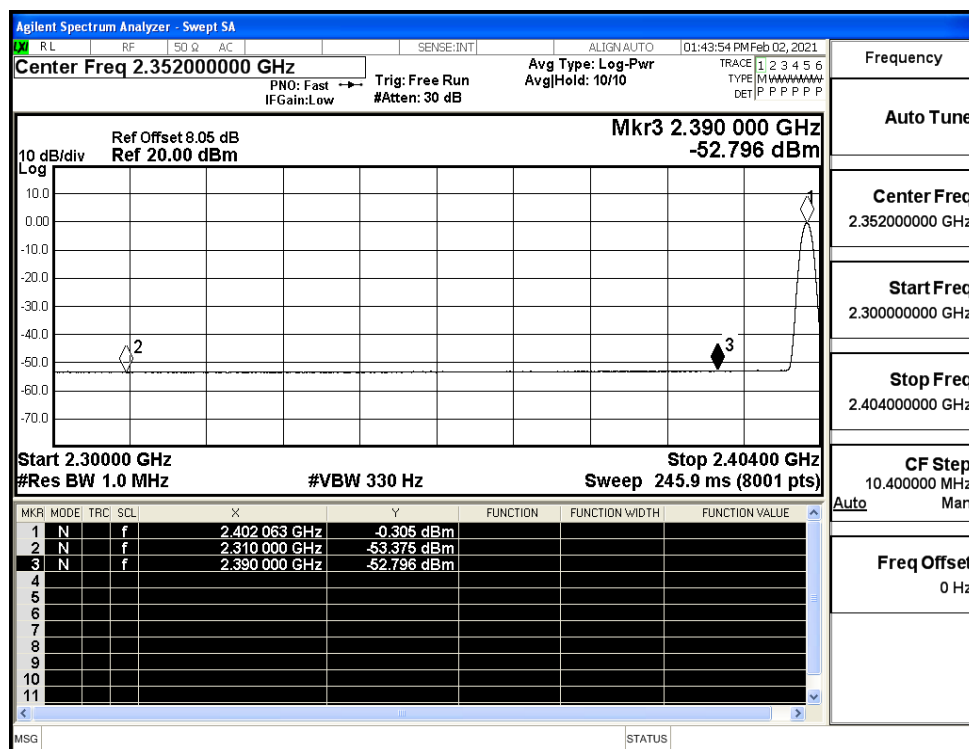
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.28	2.0	0	51.97	PEAK	74	PASS
	Off	2310.0	-53.38	2.0	0	41.88	AV	54	PASS
	Off	2390.0	-42.56	2.0	0	52.69	PEAK	74	PASS
	Off	2390.0	-52.80	2.0	0	42.46	AV	54	PASS
	Off	2483.5	-41.69	2.0	0	53.57	PEAK	74	PASS
	Off	2483.5	-52.35	2.0	0	42.91	AV	54	PASS
	Off	2500.0	-42.90	2.0	0	52.36	PEAK	74	PASS
	Off	2500.0	-52.43	2.0	0	42.83	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-42.26	2.0	0	53.00	PEAK	74	PASS
	Off	2310.0	-53.35	2.0	0	41.91	AV	54	PASS
	Off	2390.0	-41.90	2.0	0	53.36	PEAK	74	PASS
	Off	2390.0	-53.05	2.0	0	42.21	AV	54	PASS
	Off	2483.5	-41.32	2.0	0	53.94	PEAK	74	PASS
	Off	2483.5	-52.46	2.0	0	42.80	AV	54	PASS
	Off	2500.0	-41.92	2.0	0	53.34	PEAK	74	PASS
	Off	2500.0	-52.47	2.0	0	42.79	AV	54	PASS
8DPSK	Off	2310.0	-44.01	2.0	0	51.25	PEAK	74	PASS
	Off	2310.0	-53.47	2.0	0	41.79	AV	54	PASS
	Off	2390.0	-42.98	2.0	0	52.28	PEAK	74	PASS
	Off	2390.0	-53.07	2.0	0	42.19	AV	54	PASS
	Off	2483.5	-42.67	2.0	0	52.59	PEAK	74	PASS
	Off	2483.5	-52.51	2.0	0	42.75	AV	54	PASS
	Off	2500.0	-41.88	2.0	0	53.38	PEAK	74	PASS
	Off	2500.0	-52.37	2.0	0	42.89	AV	54	PASS

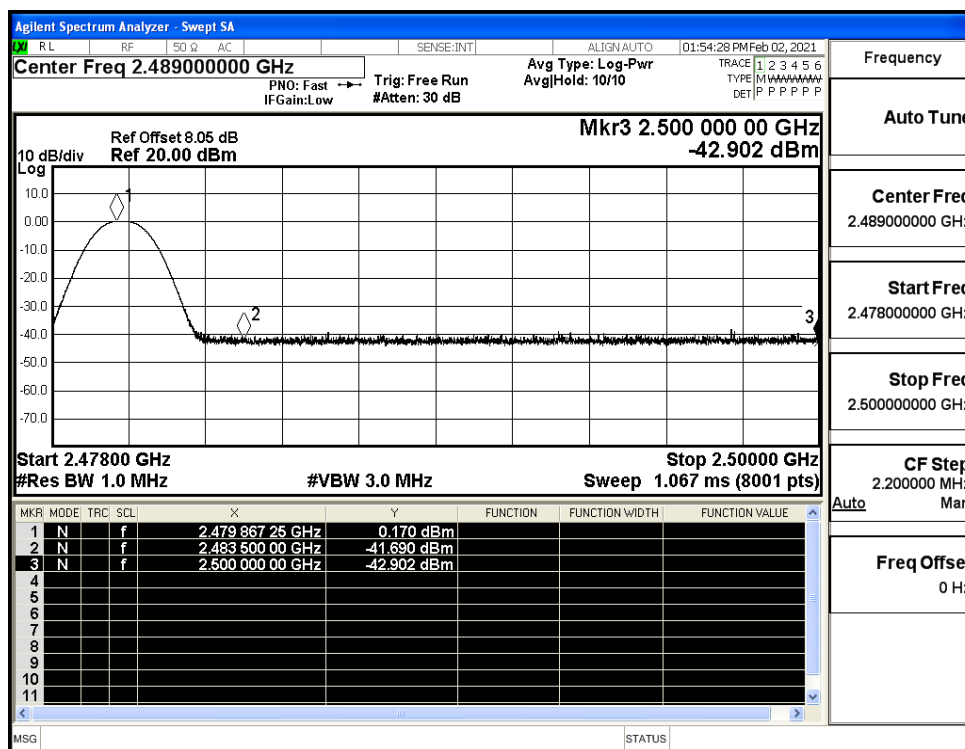
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



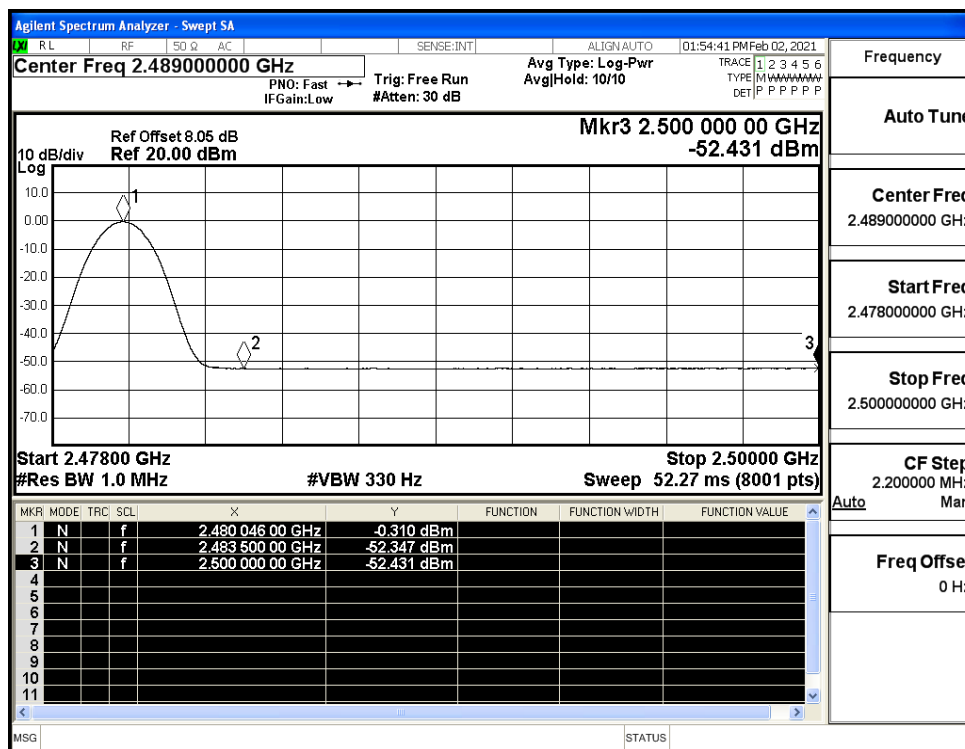
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

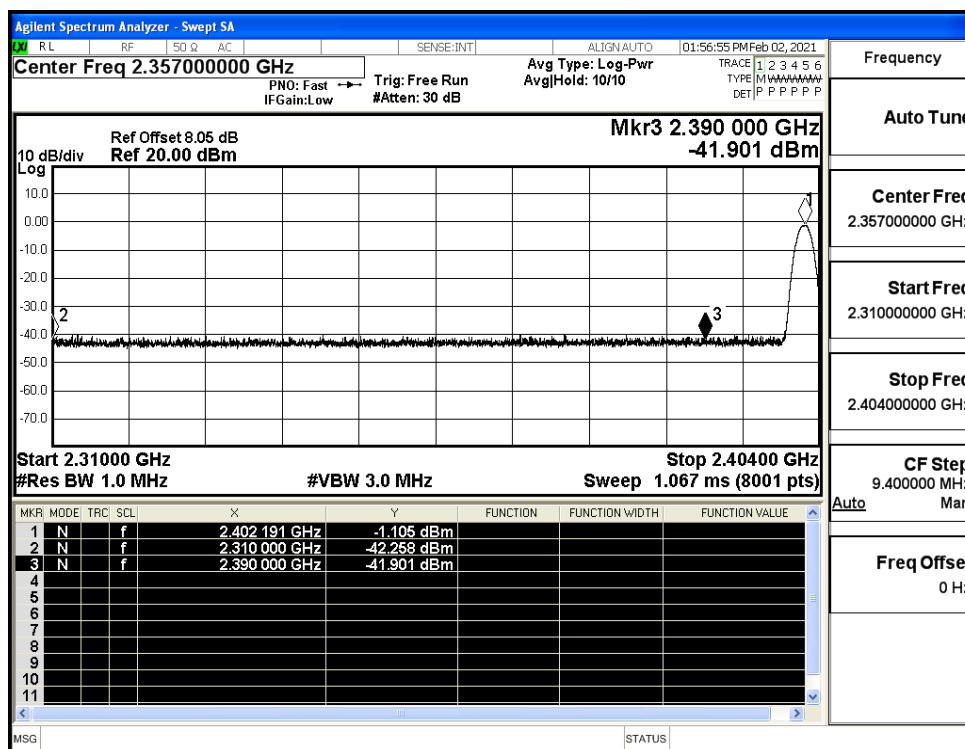
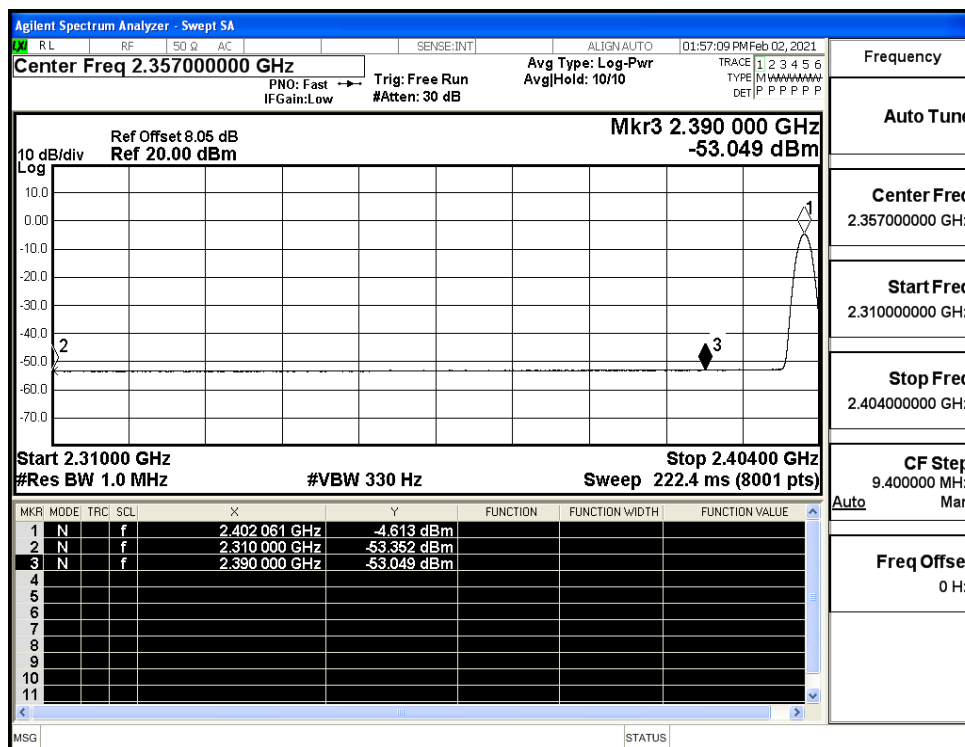


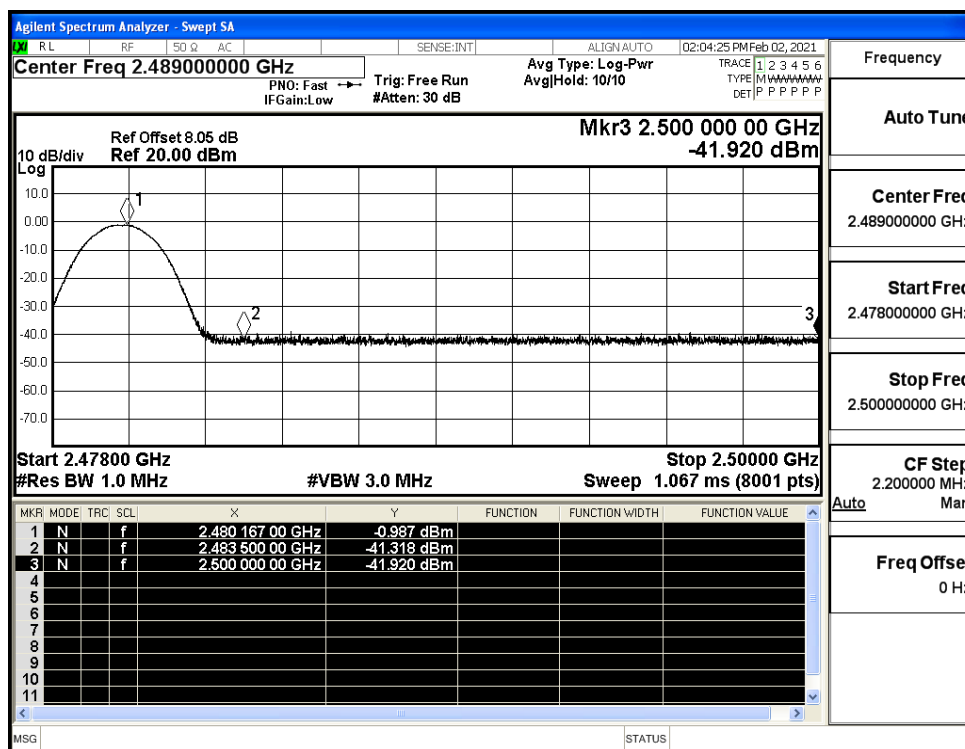
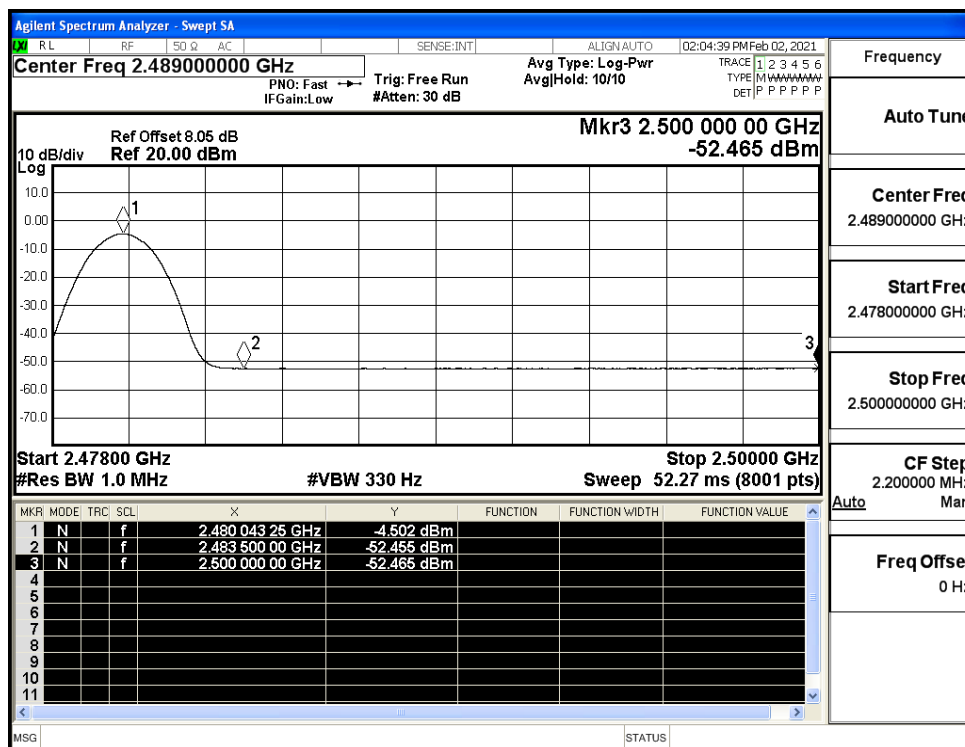
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



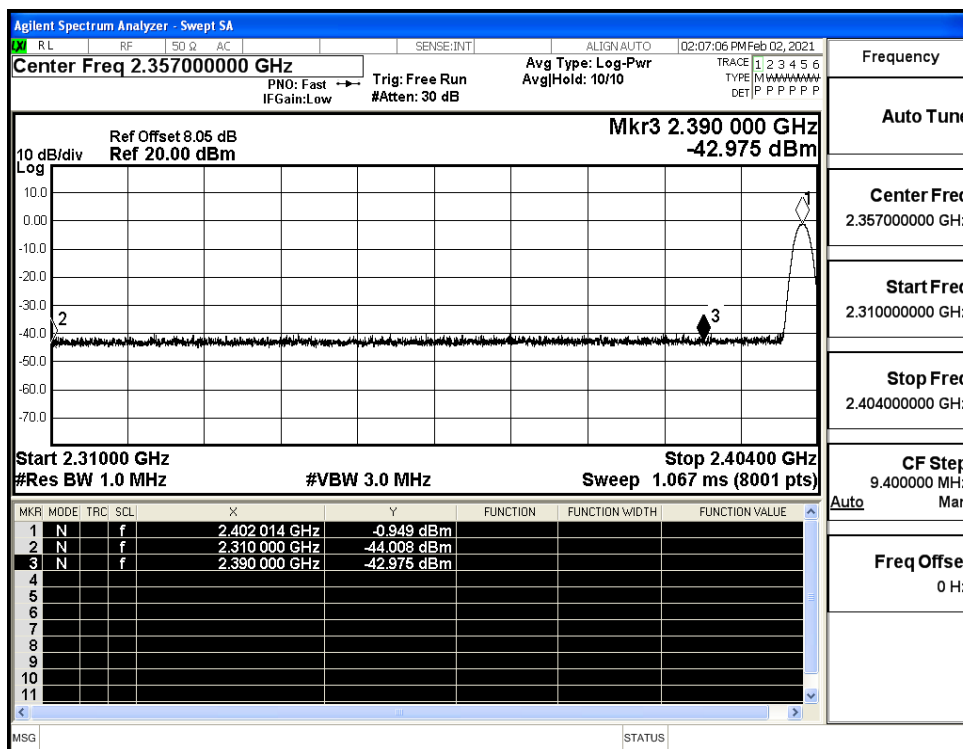
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



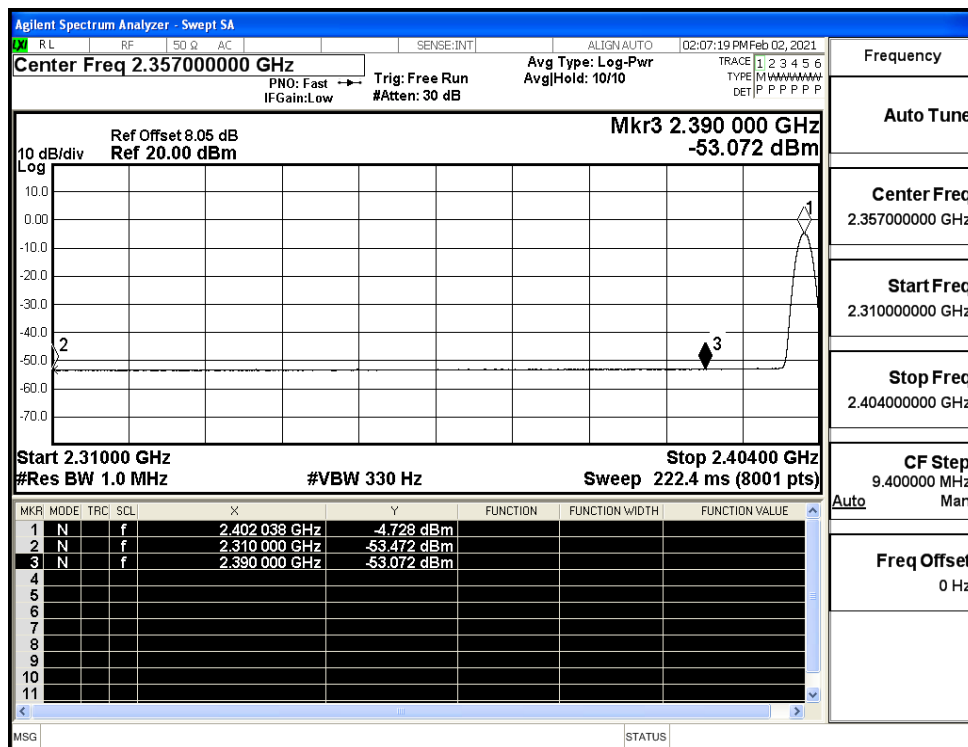
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

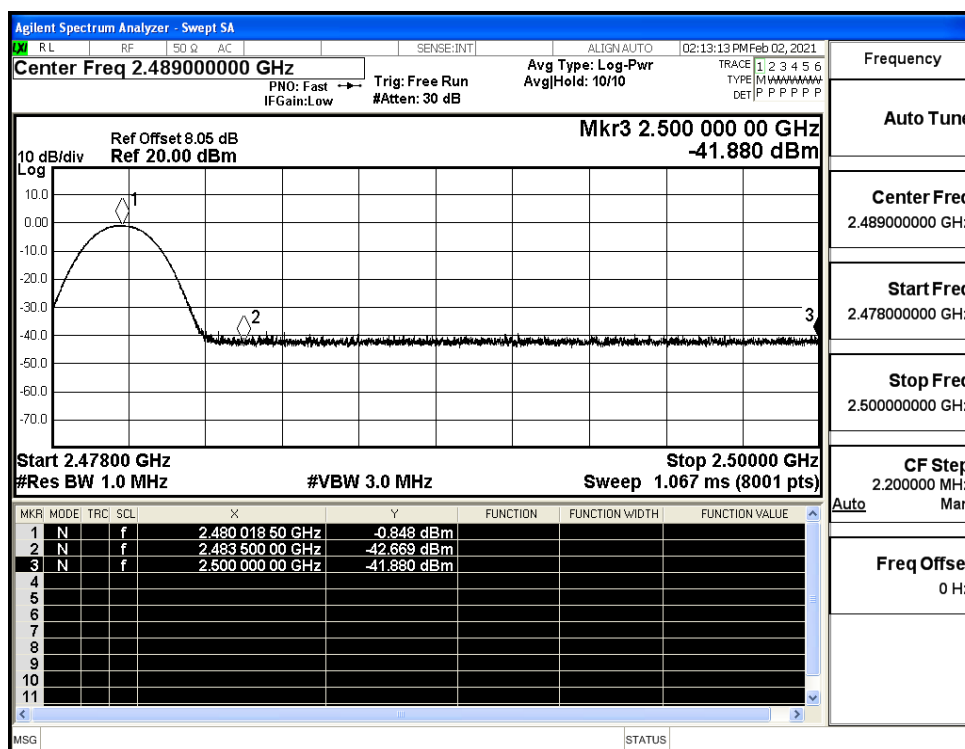
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

