

Appendix A

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

Product Name: Microphone

Trade Mark: N/A

Test Model: Mic-K17

Environmental Conditions

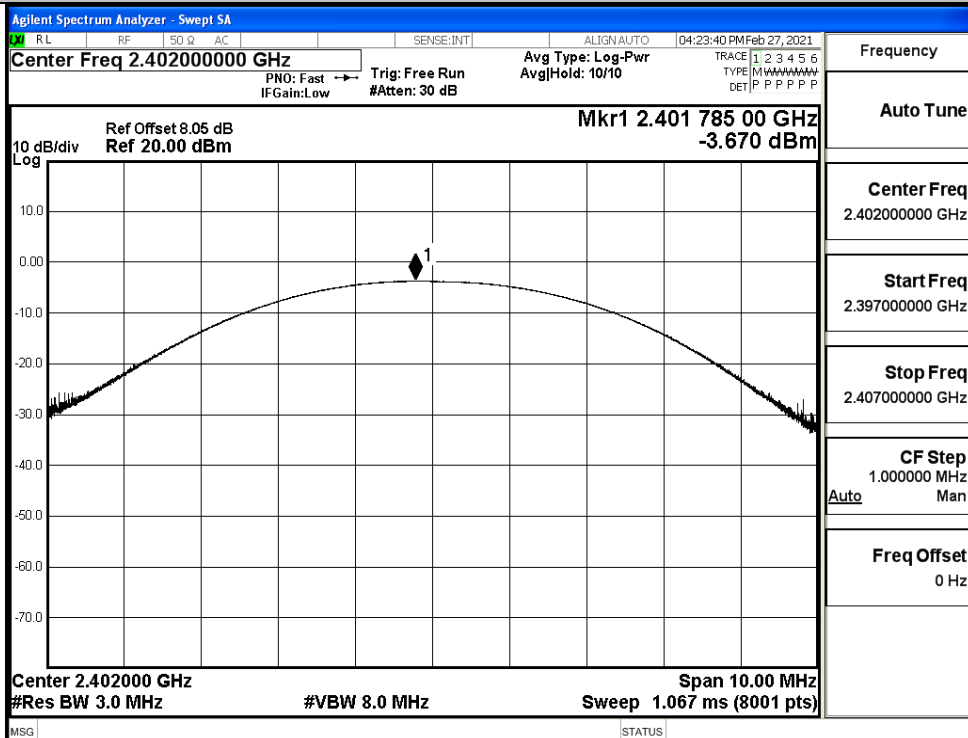
Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

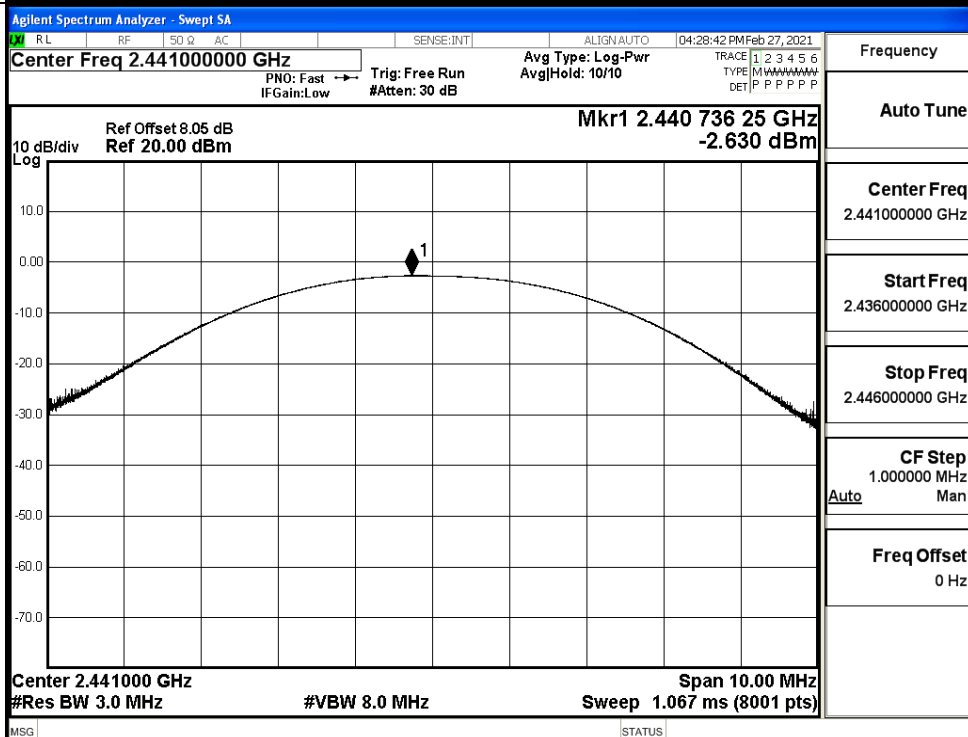
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-3.670	21	PASS
	MCH	-2.630	21	PASS
	HCH	-2.068	21	PASS
$\pi/4$ DQPSK	LCH	-2.914	21	PASS
	MCH	-1.907	21	PASS
	HCH	-1.352	21	PASS

Test Graphs

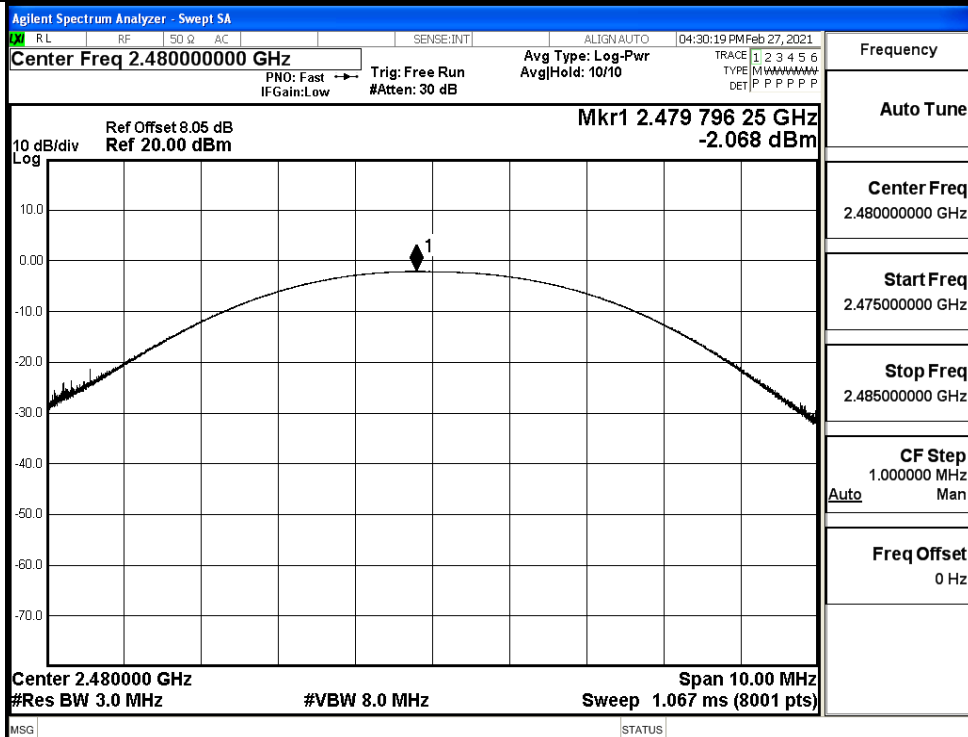
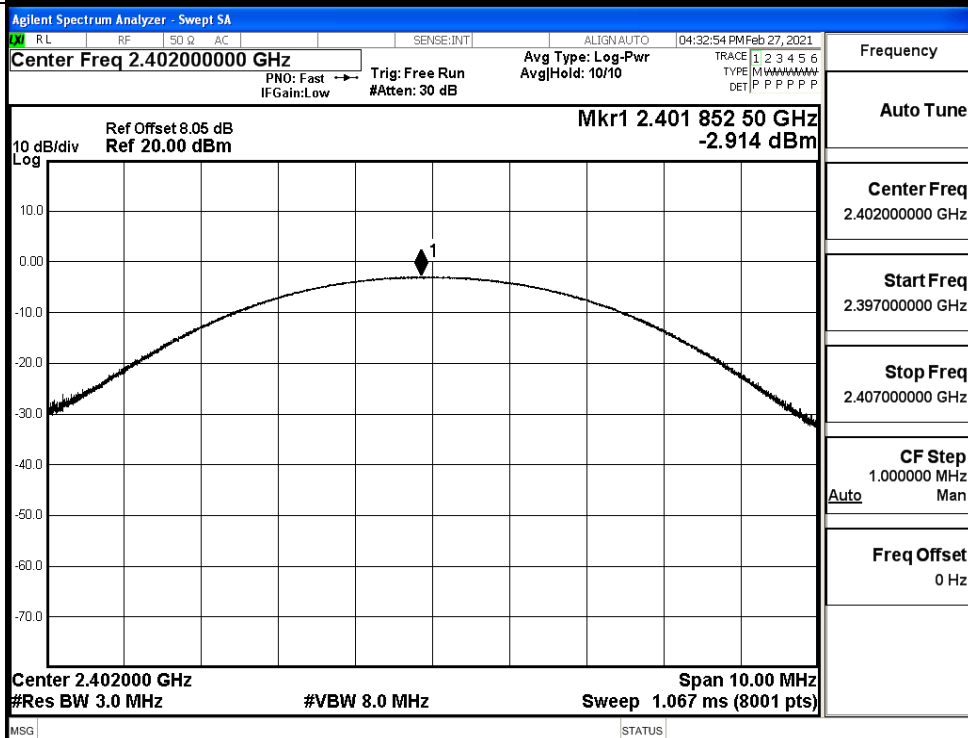
GFSK/LCH

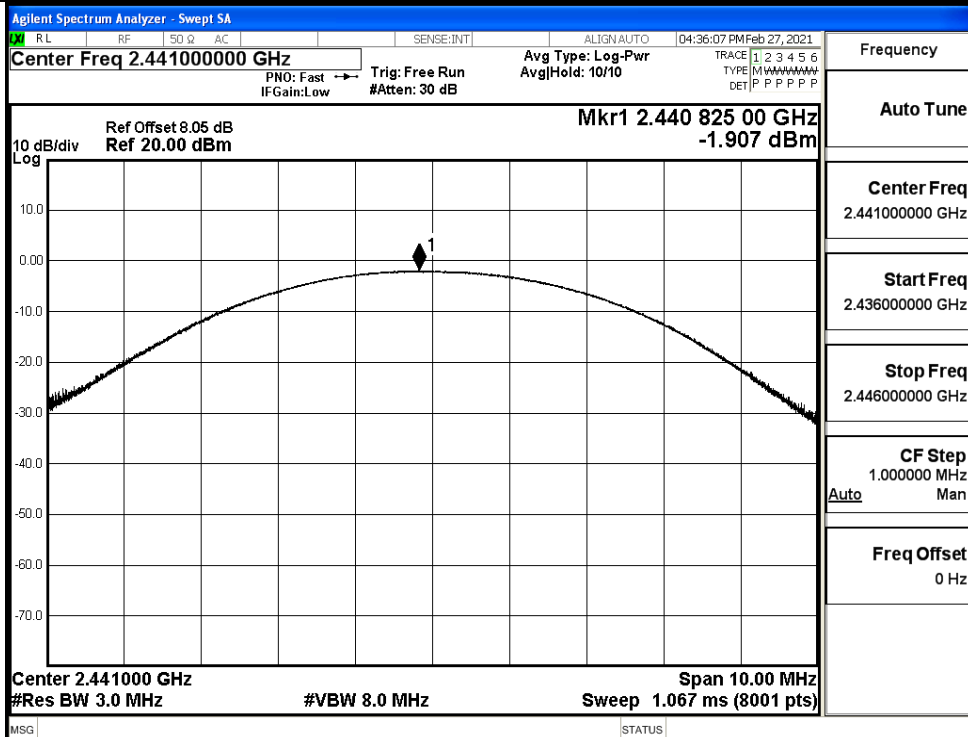
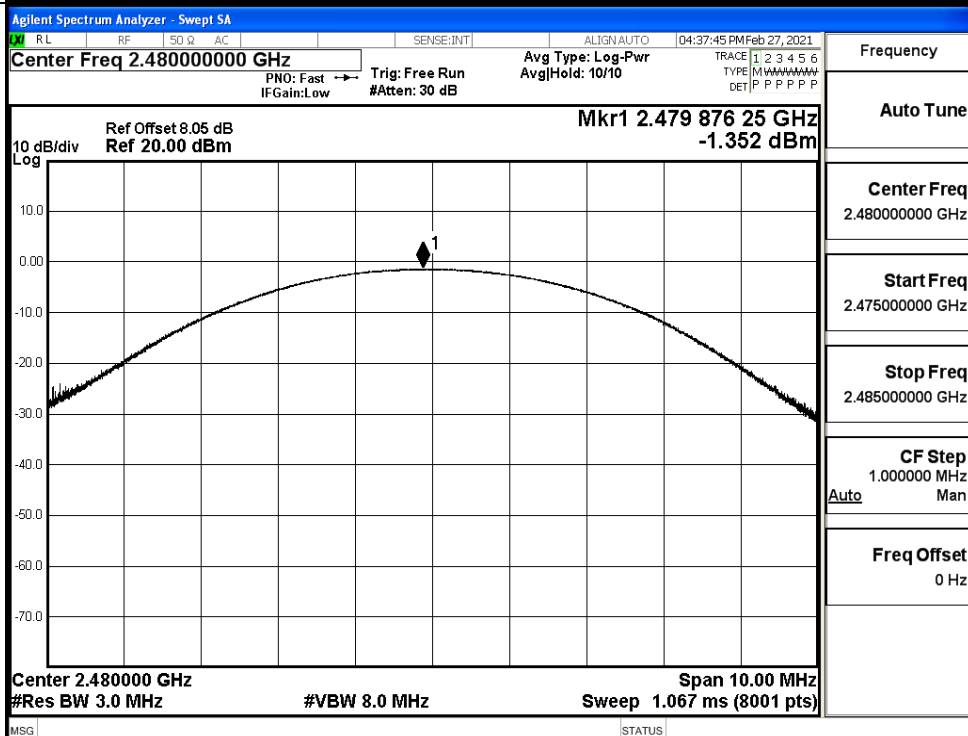


GFSK/MCH



GFSK/HCH

 π /4DQPSK/LCH

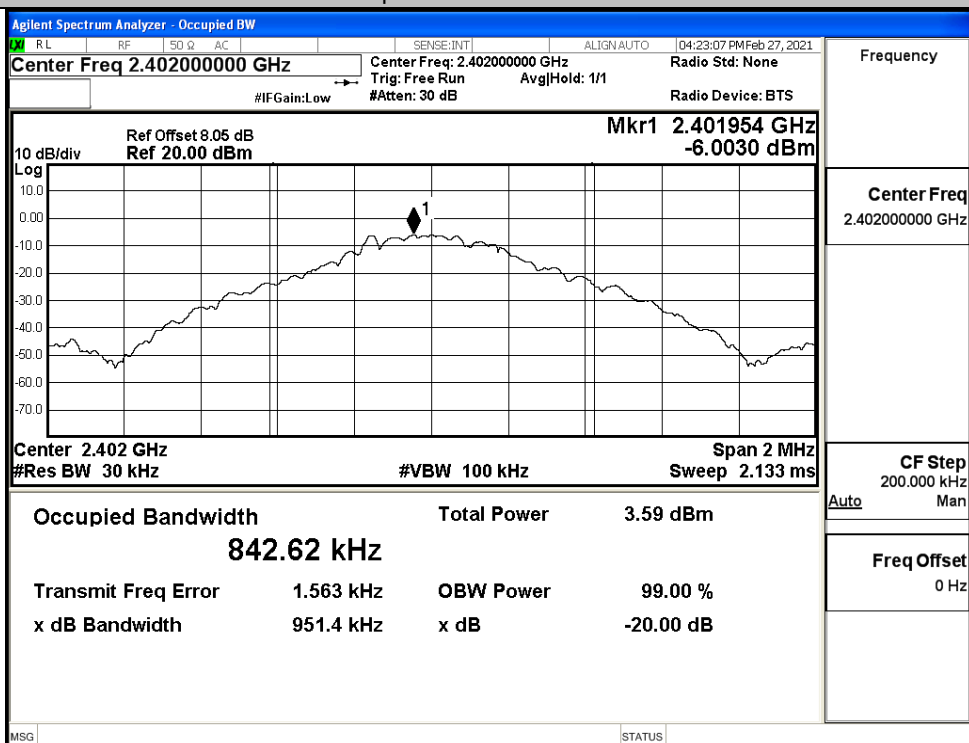
$\pi/4$ DQPSK/MCH $\pi/4$ DQPSK/HCH

A.2 20dB Bandwidth

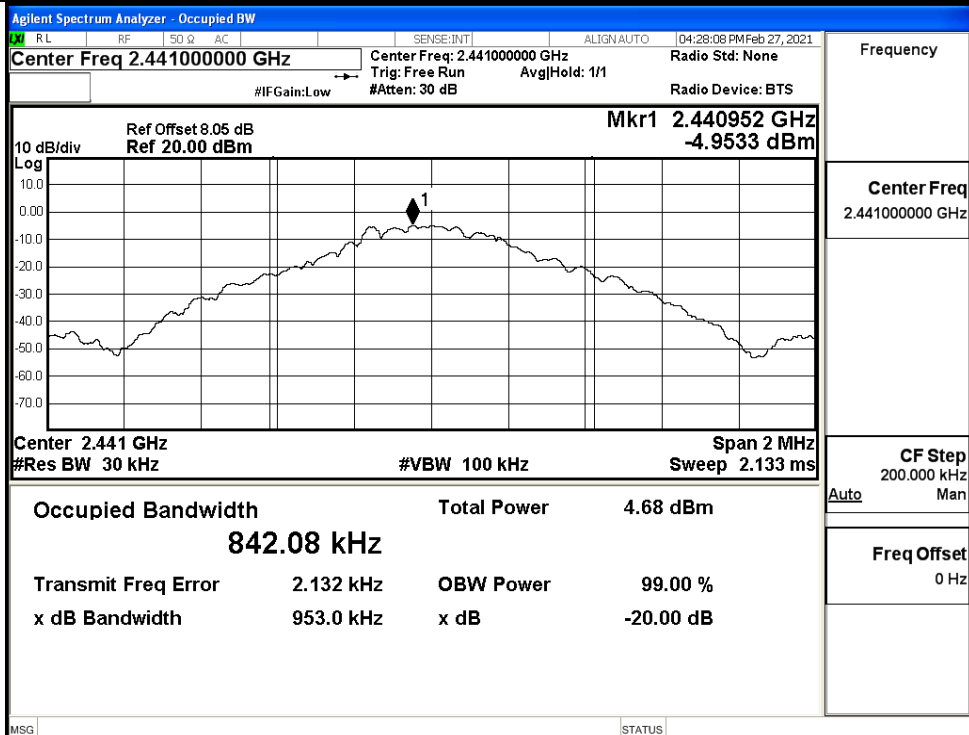
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9514	Not Specified	PASS
	MCH	0.9530	Not Specified	PASS
	HCH	0.9518	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.313	Not Specified	PASS
	MCH	1.311	Not Specified	PASS
	HCH	1.311	Not Specified	PASS

Test Graphs

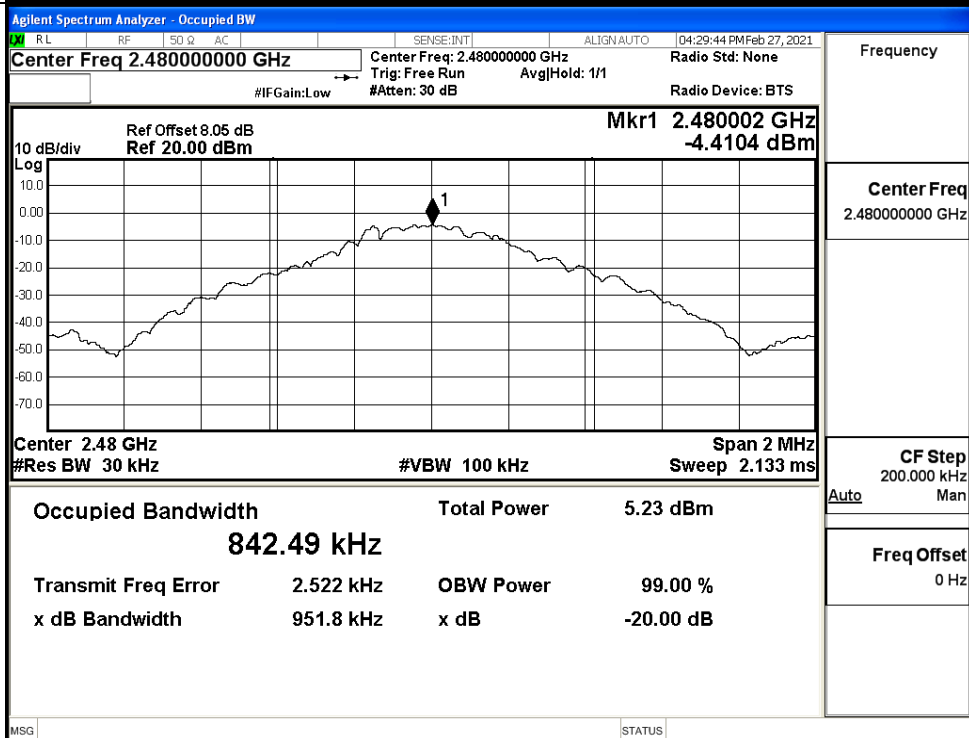
GFSK/LCH

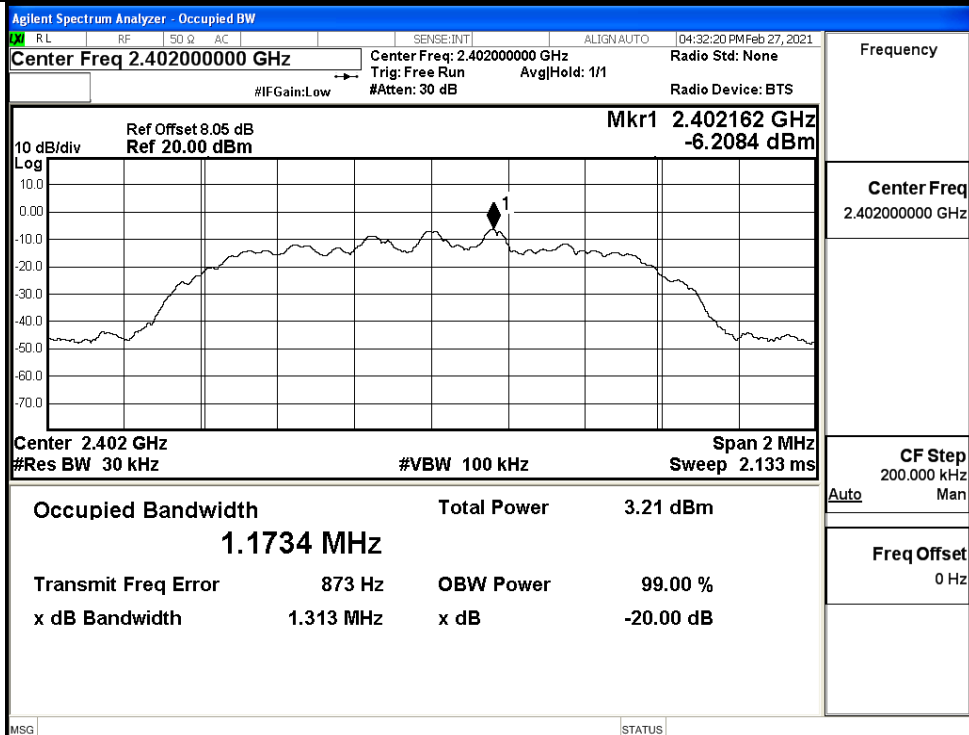
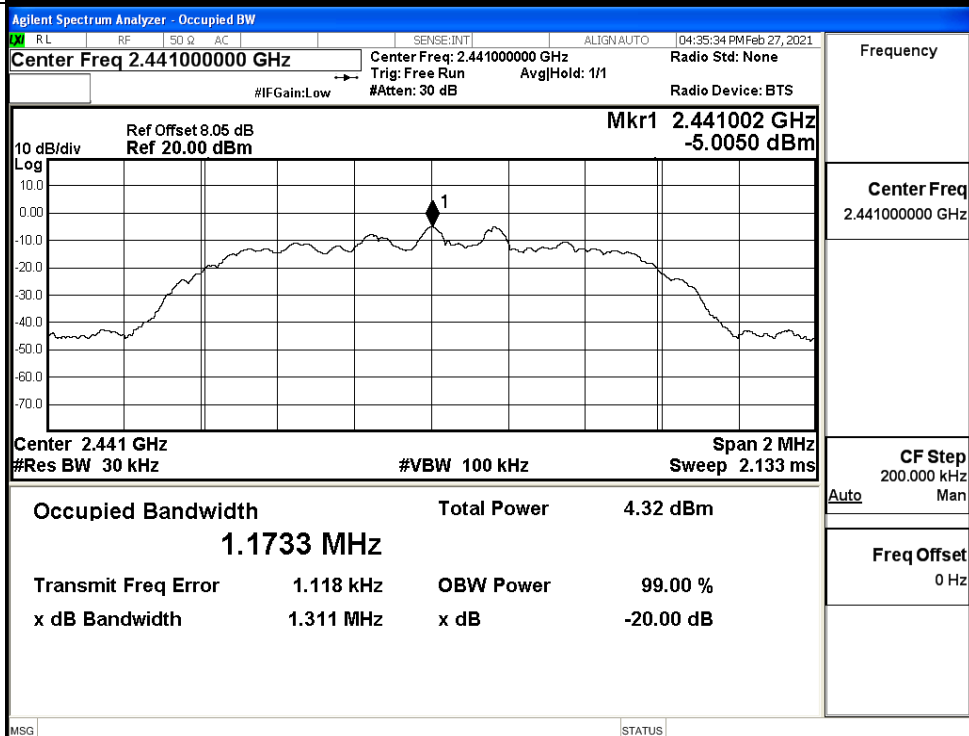


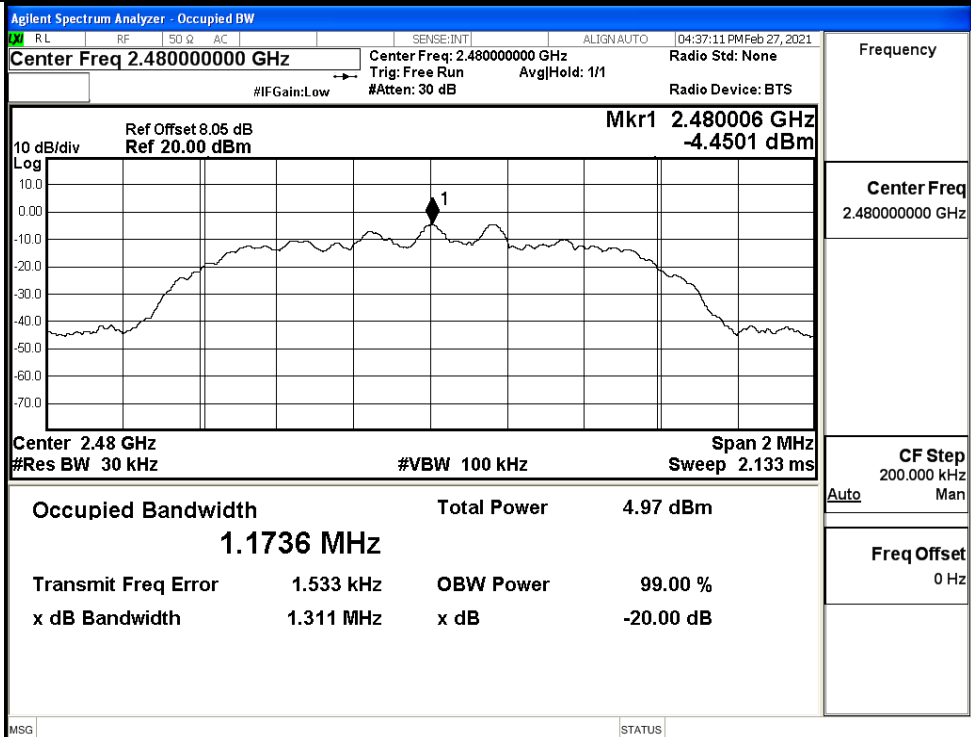
GFSK/MCH



GFSK/HCH



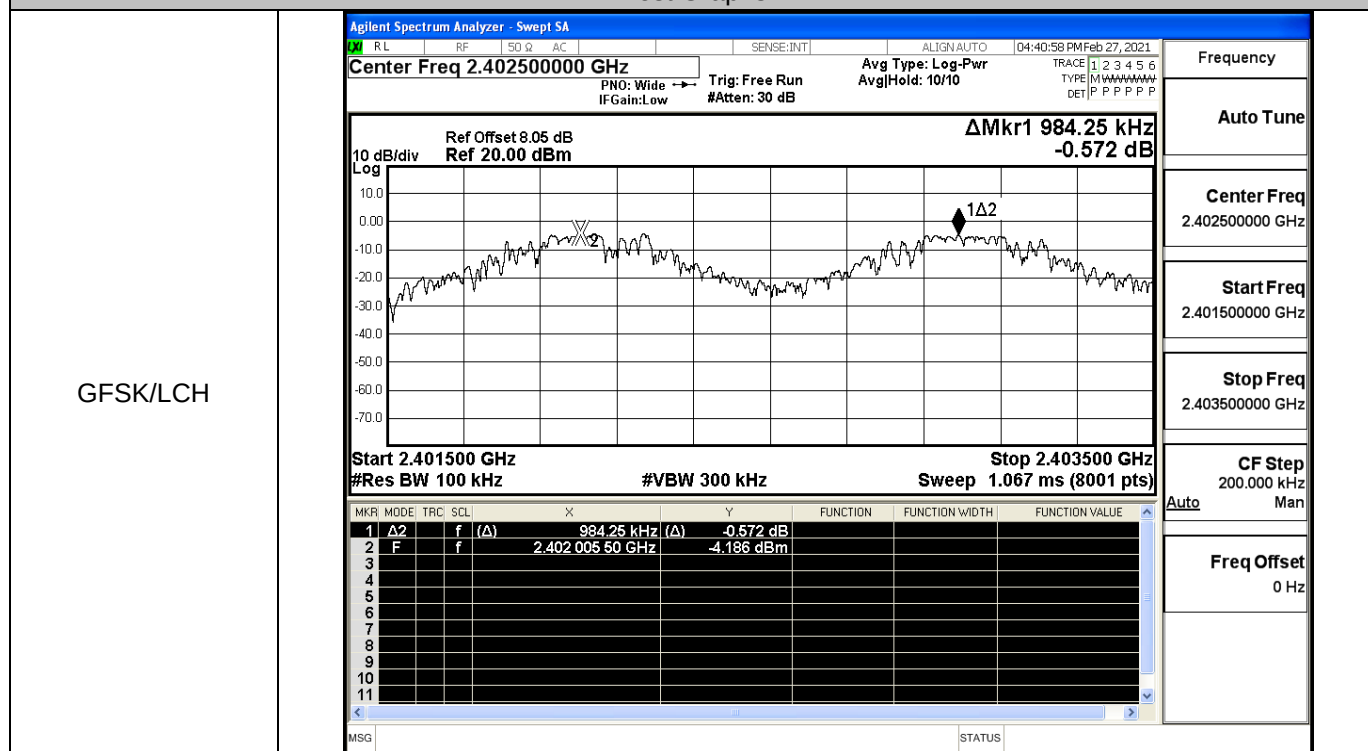
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

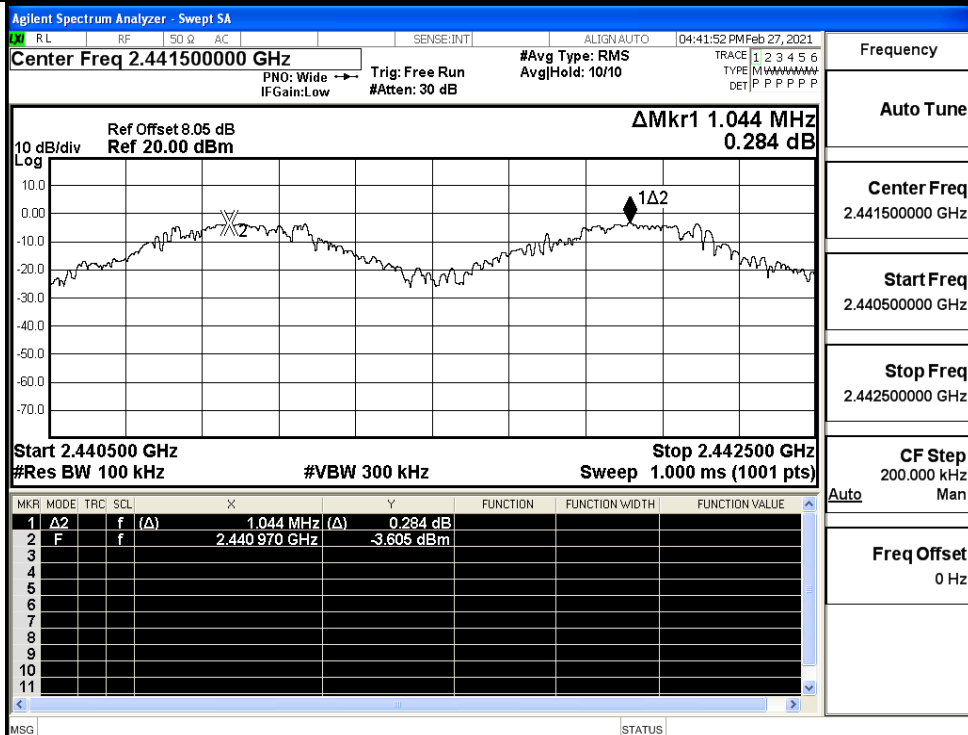
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.984	0.635	PASS
	MCH	1.044	0.635	PASS
	HCH	1.016	0.635	PASS
$\pi/4$ DQPSK	LCH	0.982	0.875	PASS
	MCH	1.160	0.875	PASS
	HCH	1.114	0.875	PASS

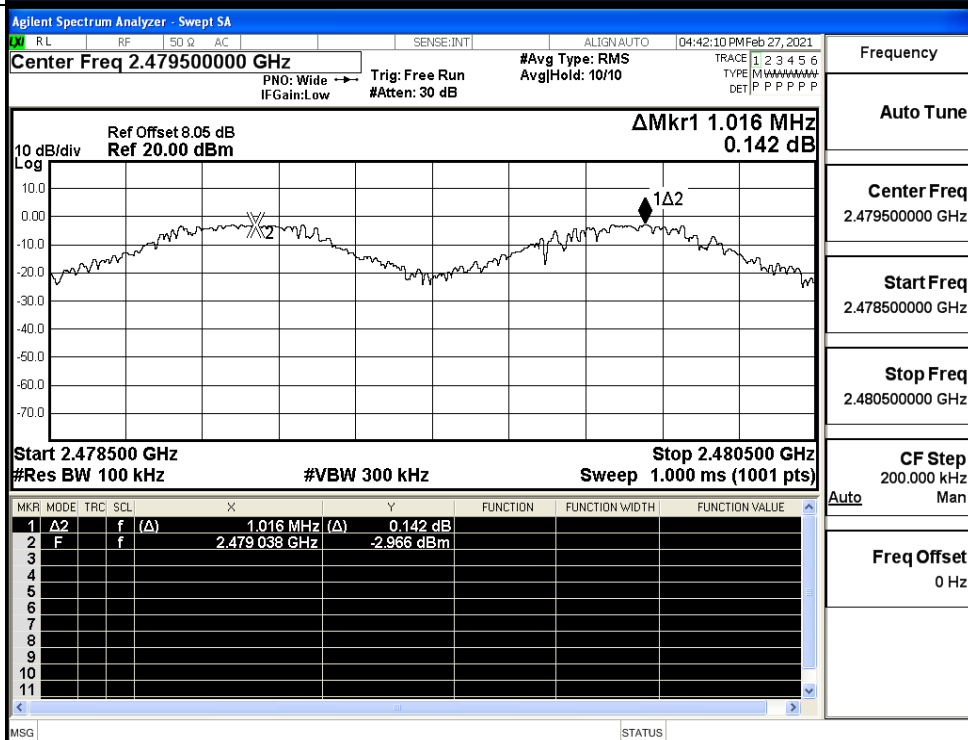
Test Graphs

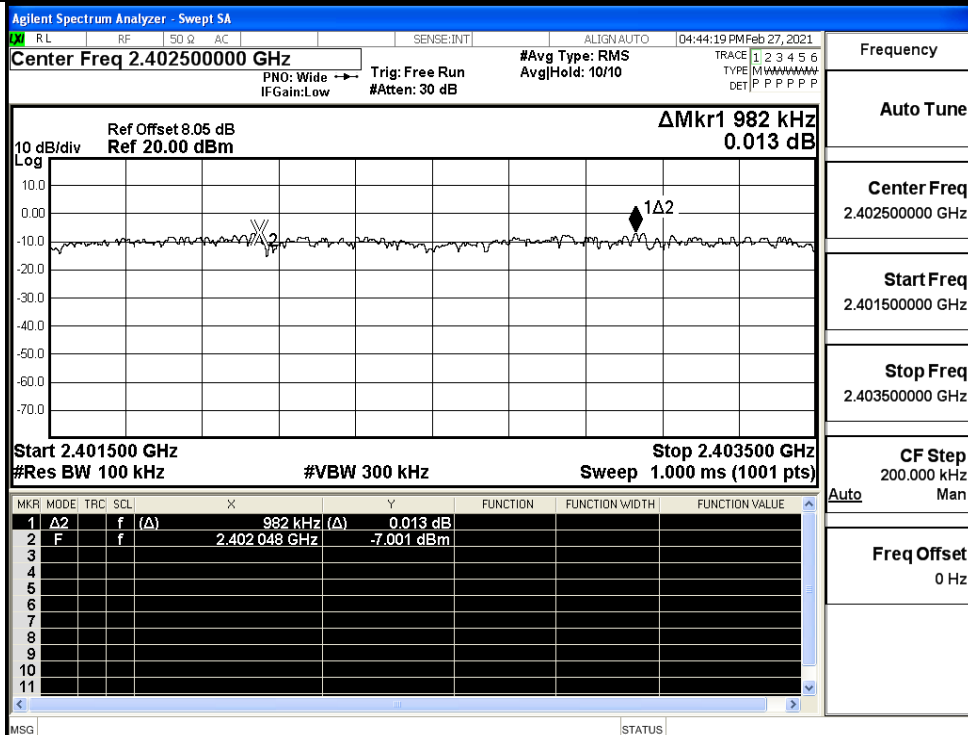
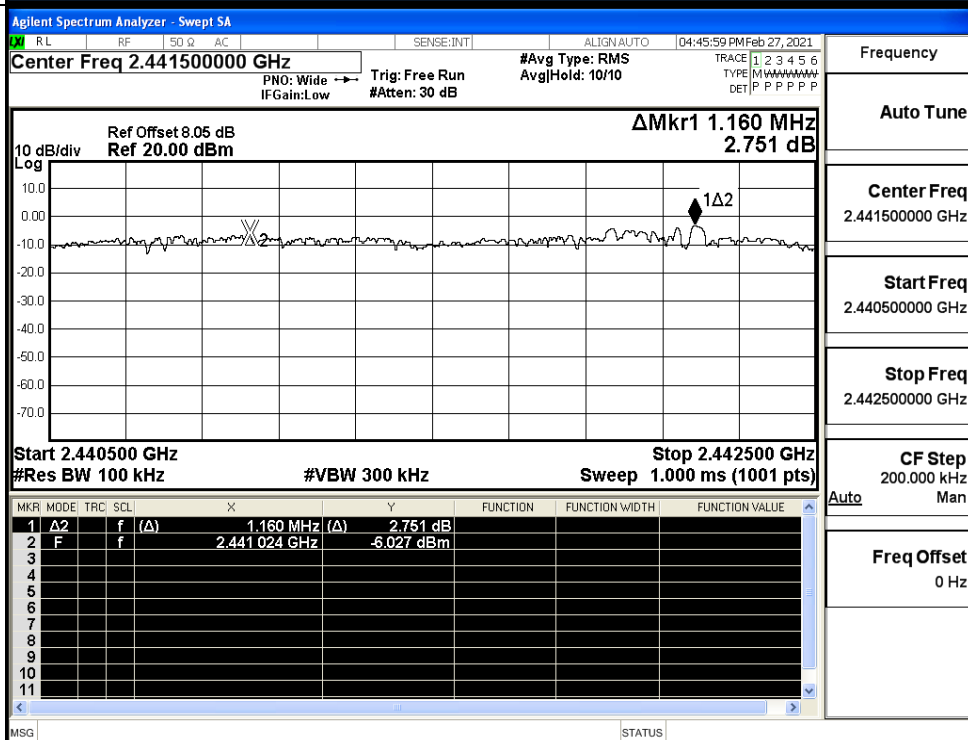


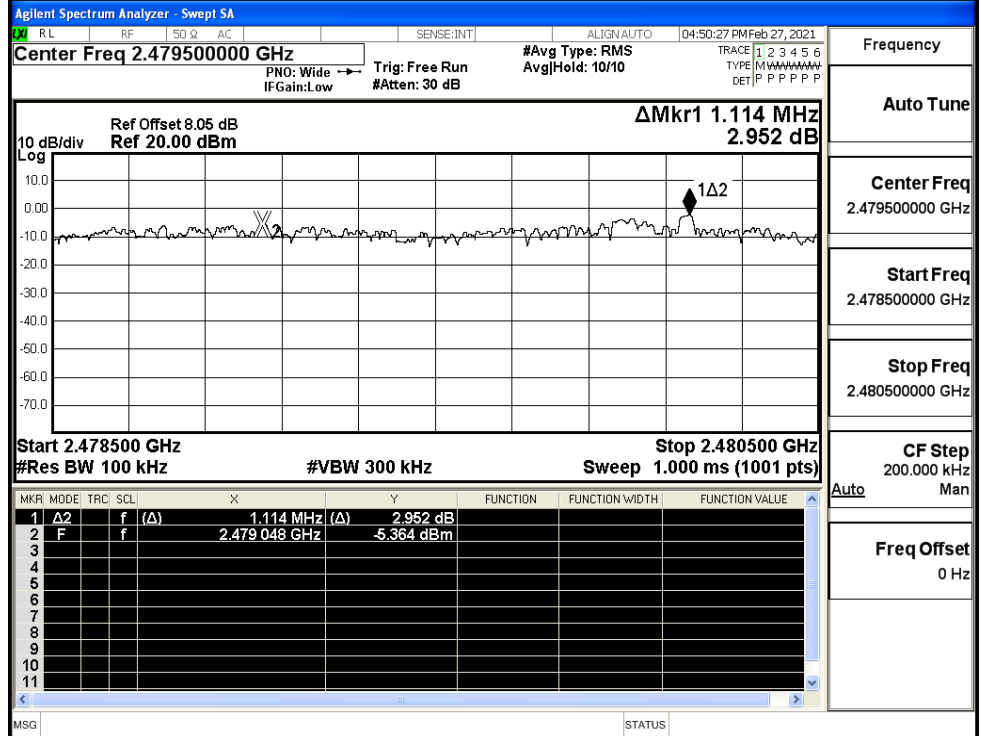
GFSK/MCH



GFSK/HCH



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

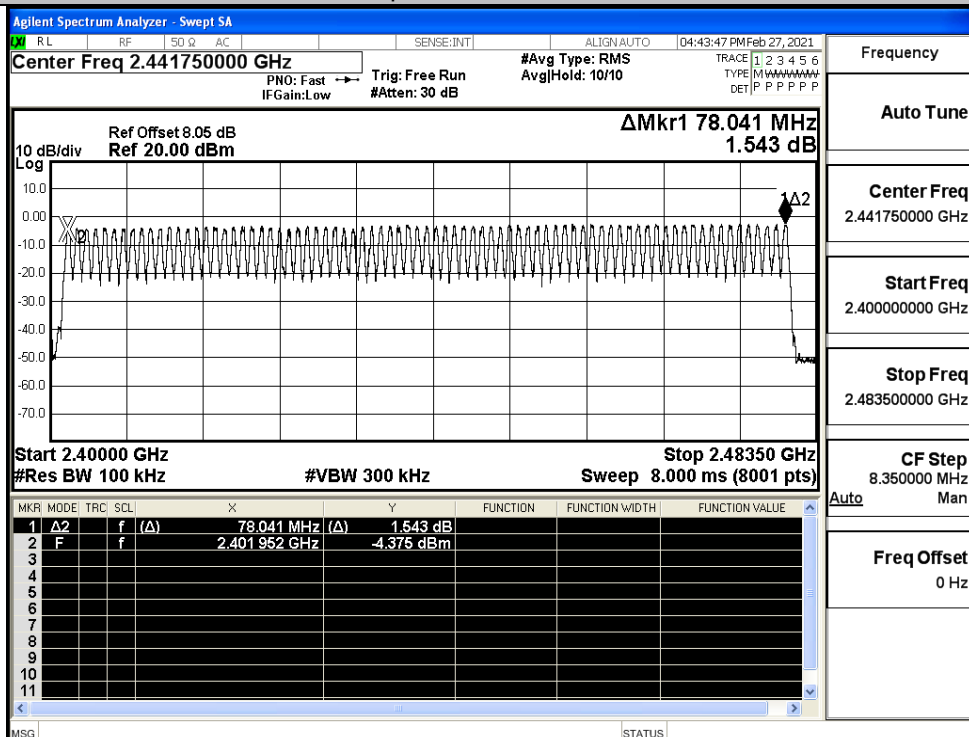
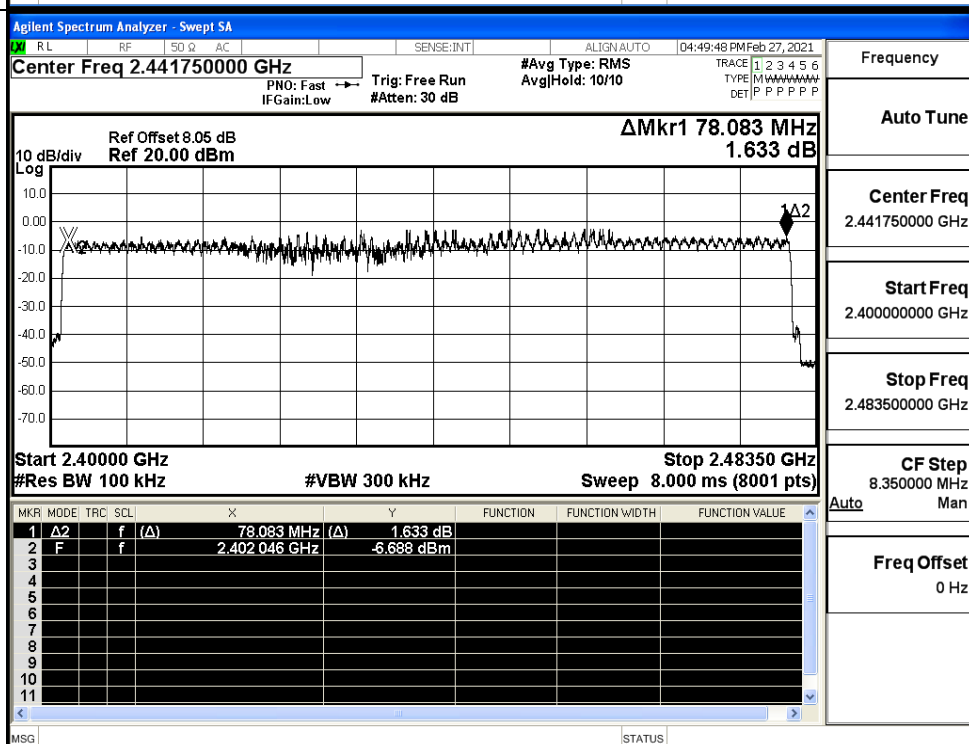
$\pi/4$ DQPSK/HCH

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

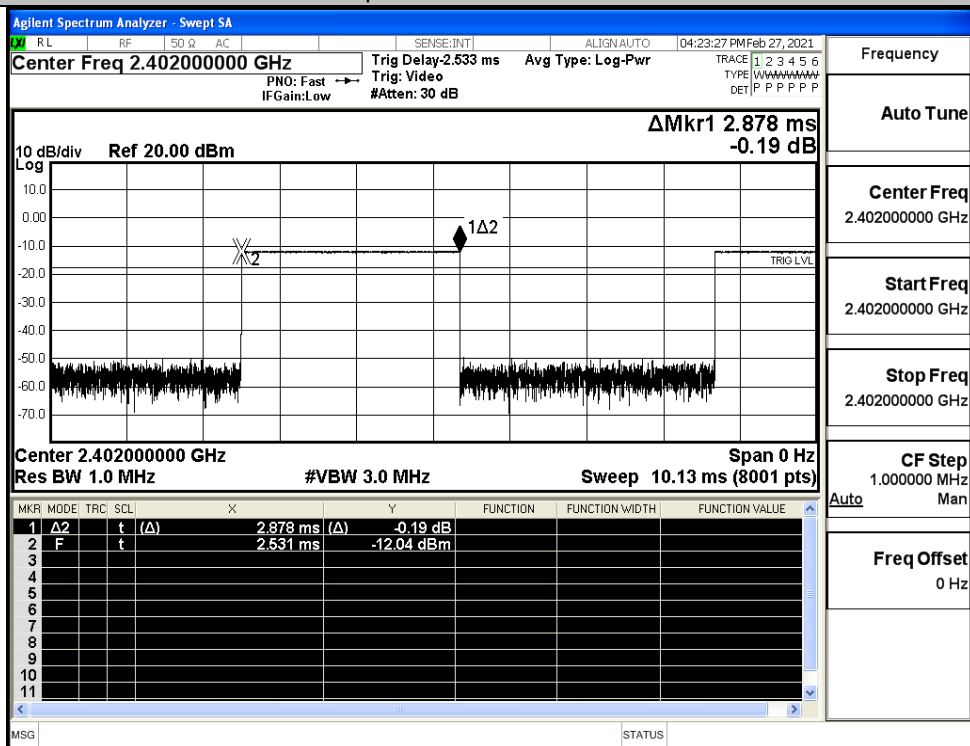
 $\pi/4$ DQPSK/Hop

A.5 Dwell Time

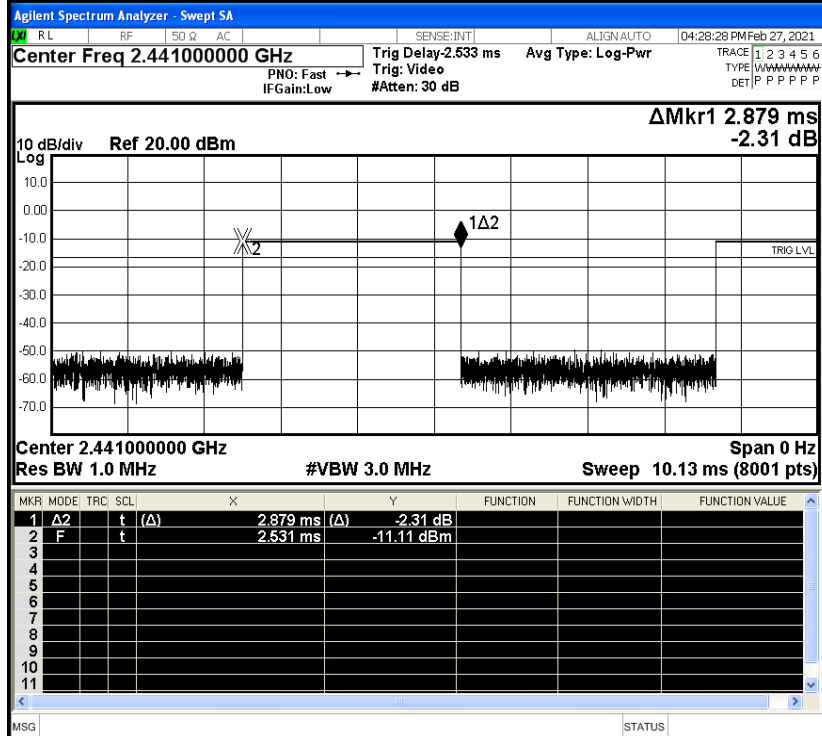
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

Test Graphs

GFSK_DH5/LCH



GFSK_DH5/MCH



Frequency

Auto Tune

Center Freq

2.441000000 GHz

Start Freq

2.441000000 GHz

Stop Freq

2.441000000 GHz

CF Step

1.000000 MHz

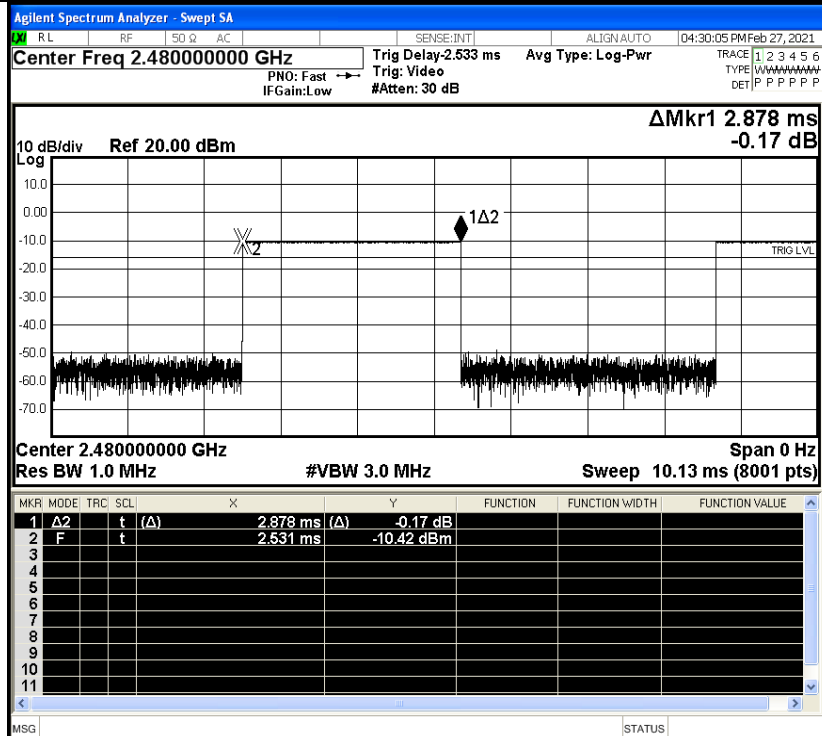
Auto

Man

Freq Offset

0 Hz

GFSK_DH5/HCH



Frequency

Auto Tune

Center Freq

2.480000000 GHz

Start Freq

2.480000000 GHz

Stop Freq

2.480000000 GHz

CF Step

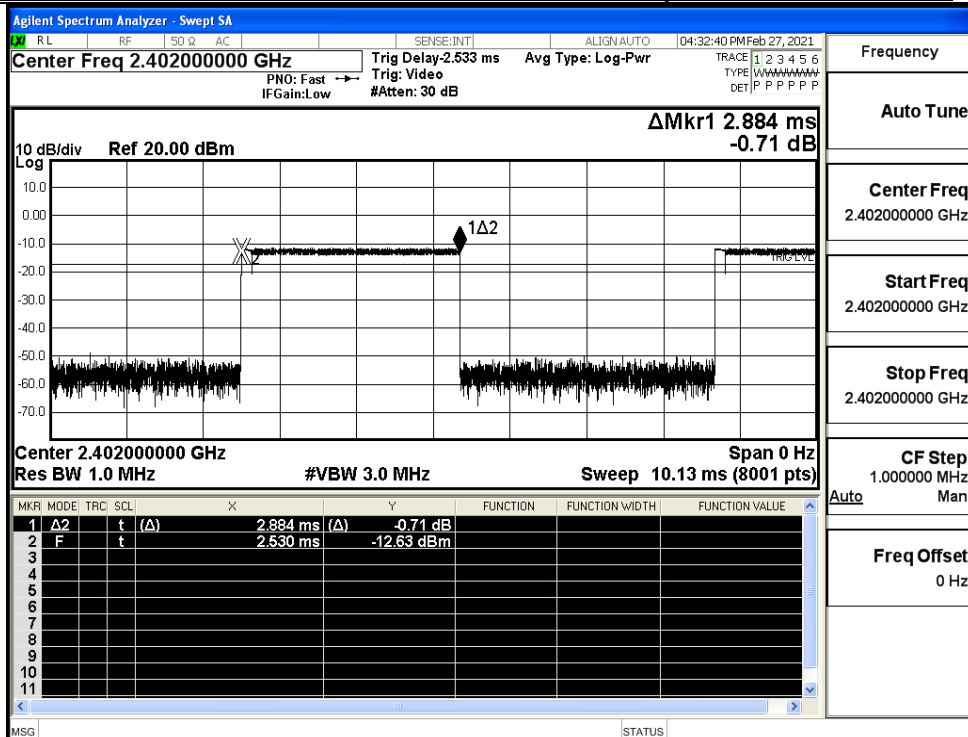
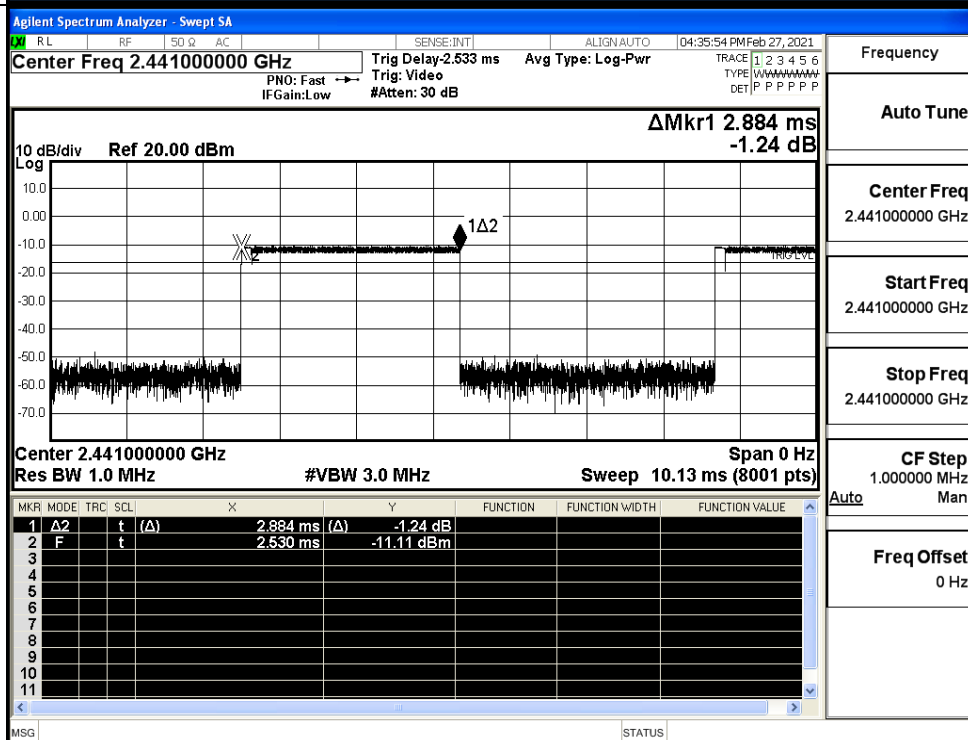
1.000000 MHz

Auto

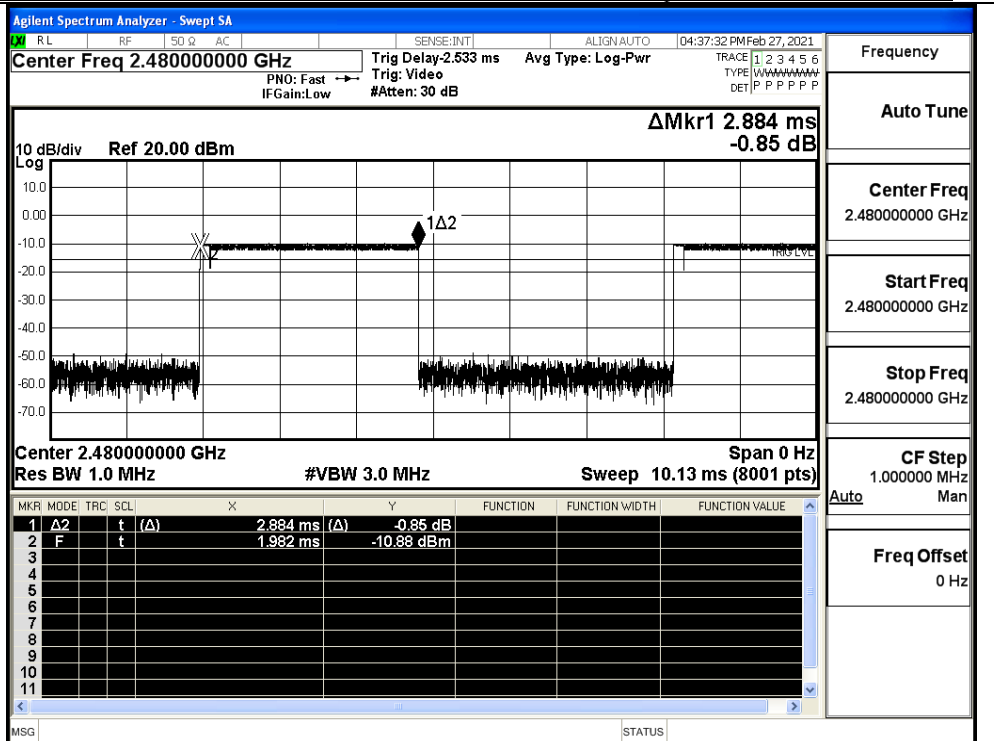
Man

Freq Offset

0 Hz

$\pi/4$ DQPSK
_2DH5/LCH $\pi/4$ DQPSK
_2DH5/MCH

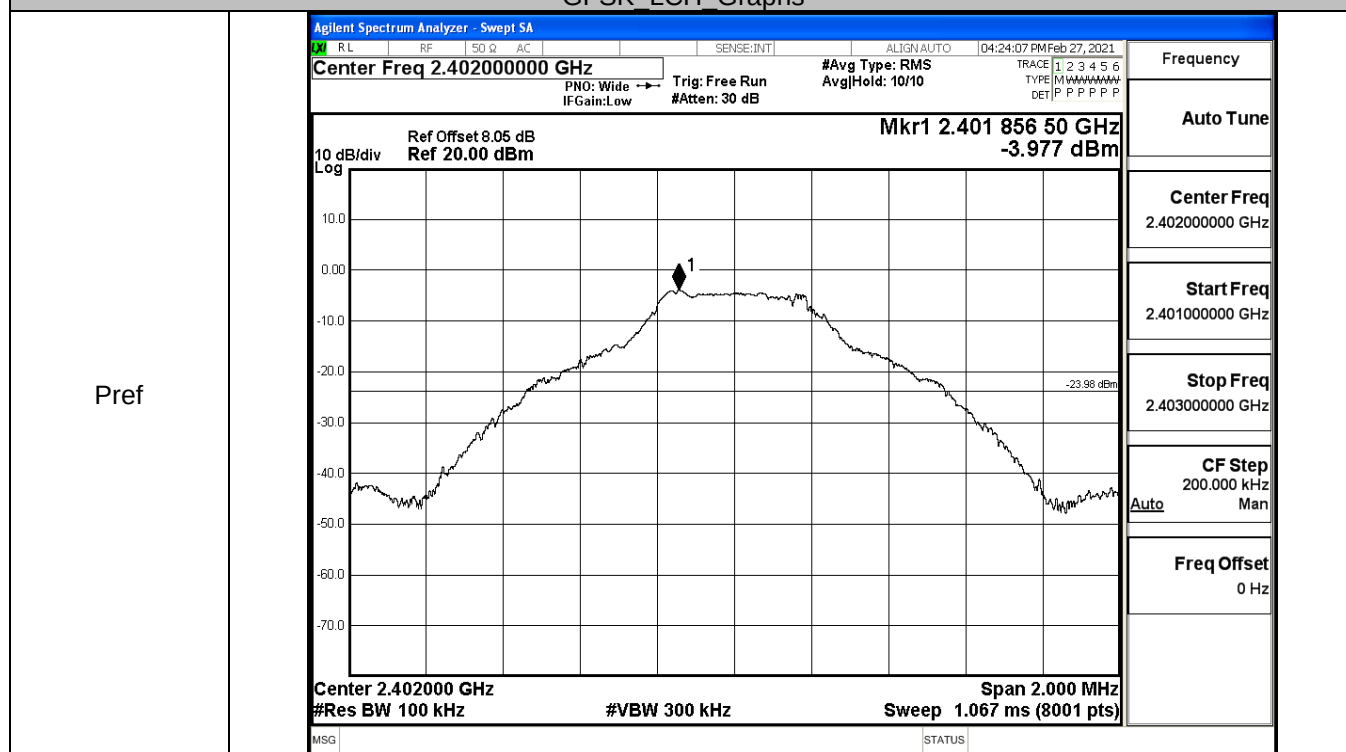
$\pi/4$ DQPSK
_2DH5/HCH



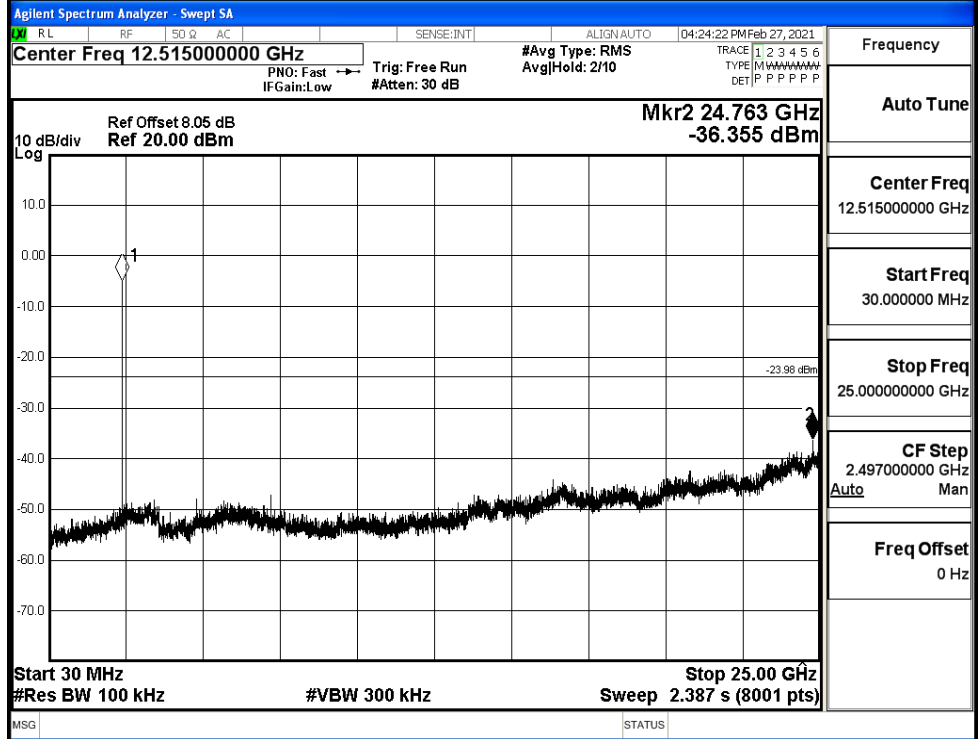
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-3.977	-36.355	-23.977	PASS
	MCH	-3.065	-38.046	-23.065	PASS
	HCH	-2.882	-37.542	-22.882	PASS
$\pi/4$ DQPSK	LCH	-4.008	-35.768	-24.008	PASS
	MCH	-2.983	-38.586	-22.983	PASS
	HCH	-2.409	-37.592	-22.409	PASS

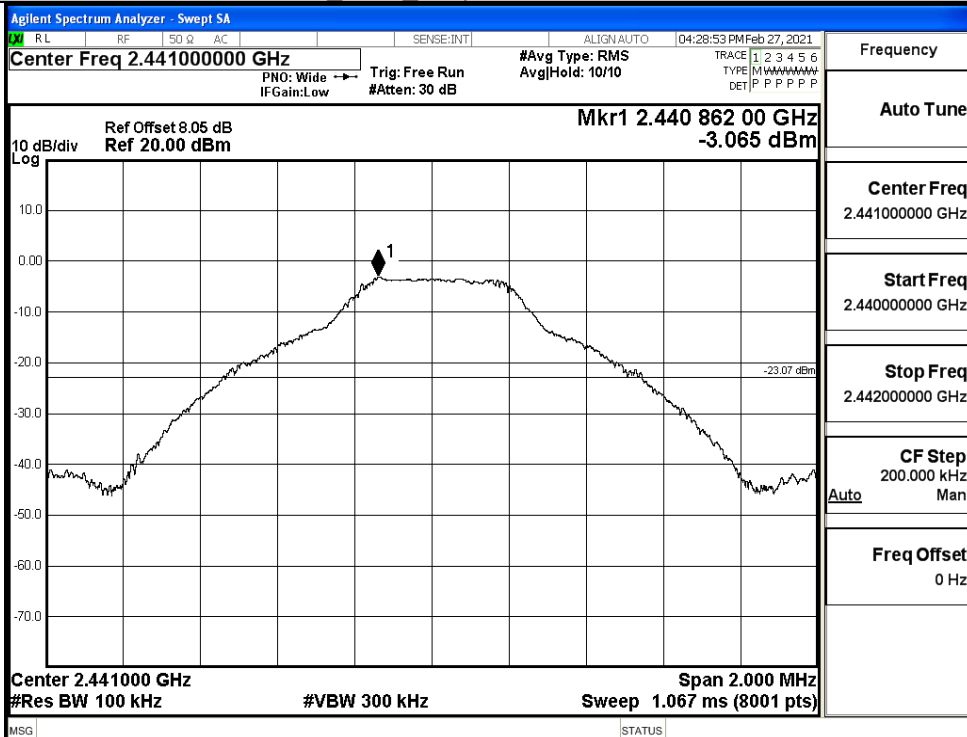
GFSK LCH Graphs



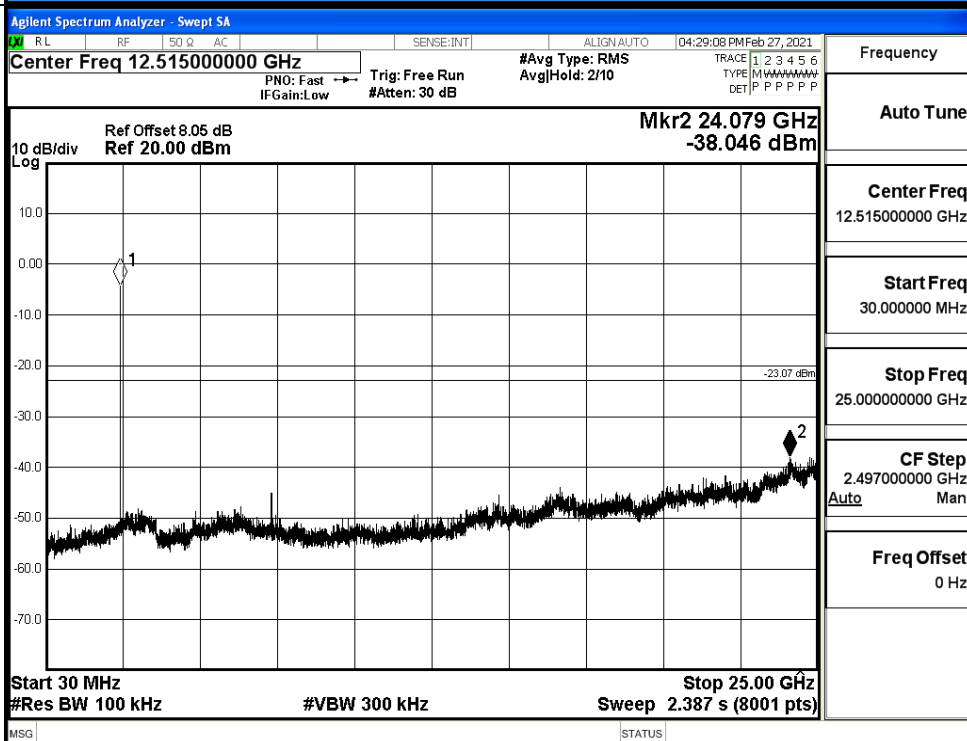
Puw



Pref

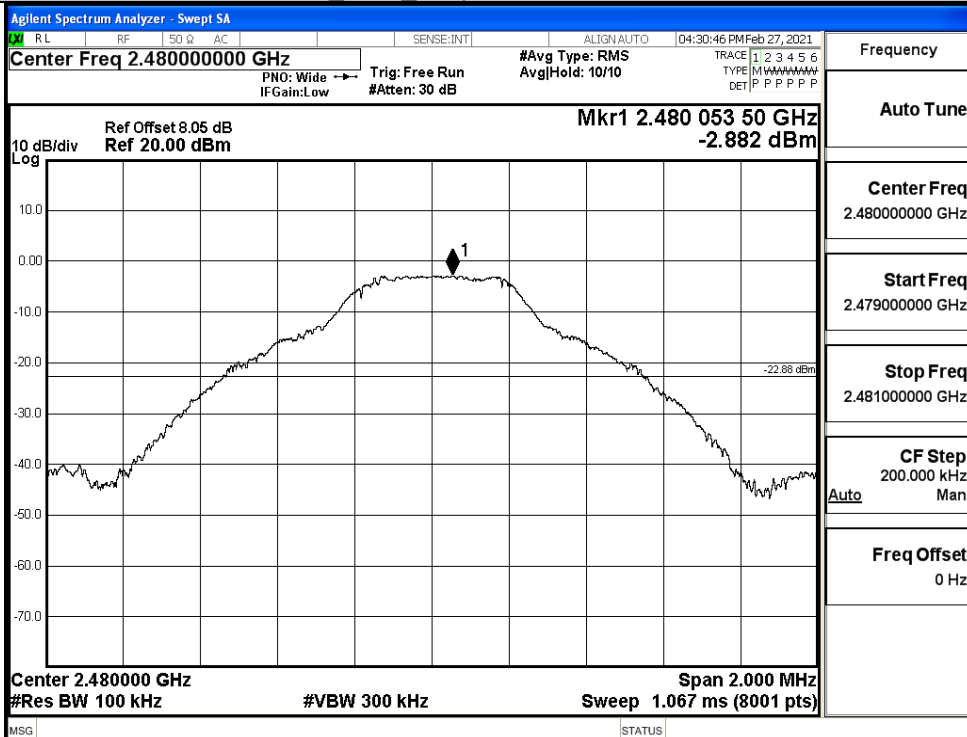


Puw

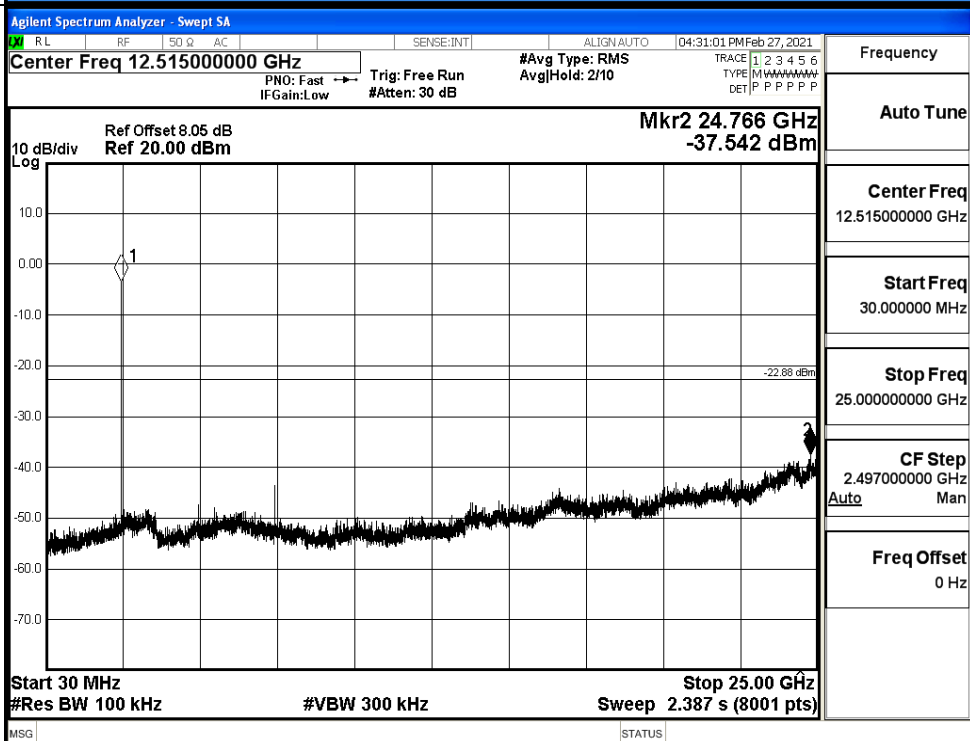


GFSK_HCH_Graphs

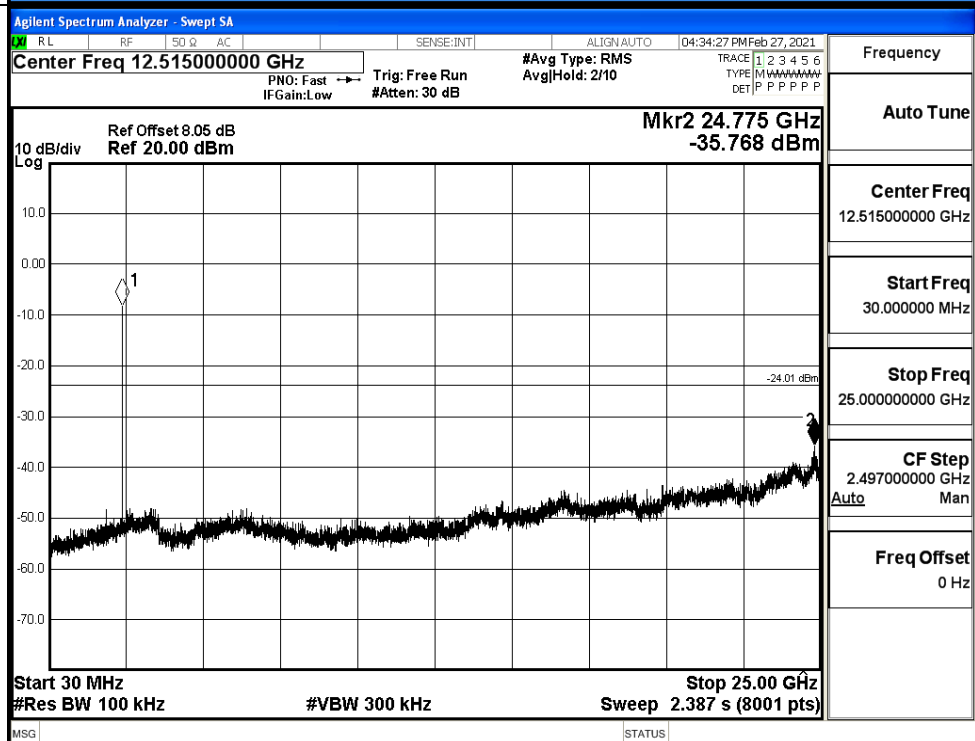
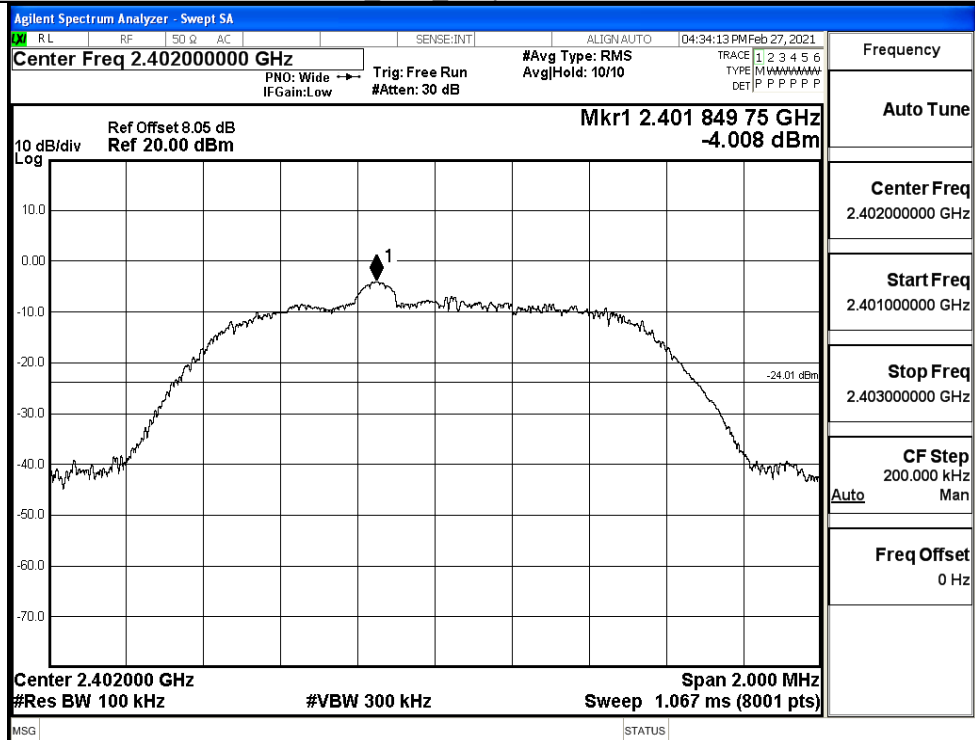
Pref



Puw

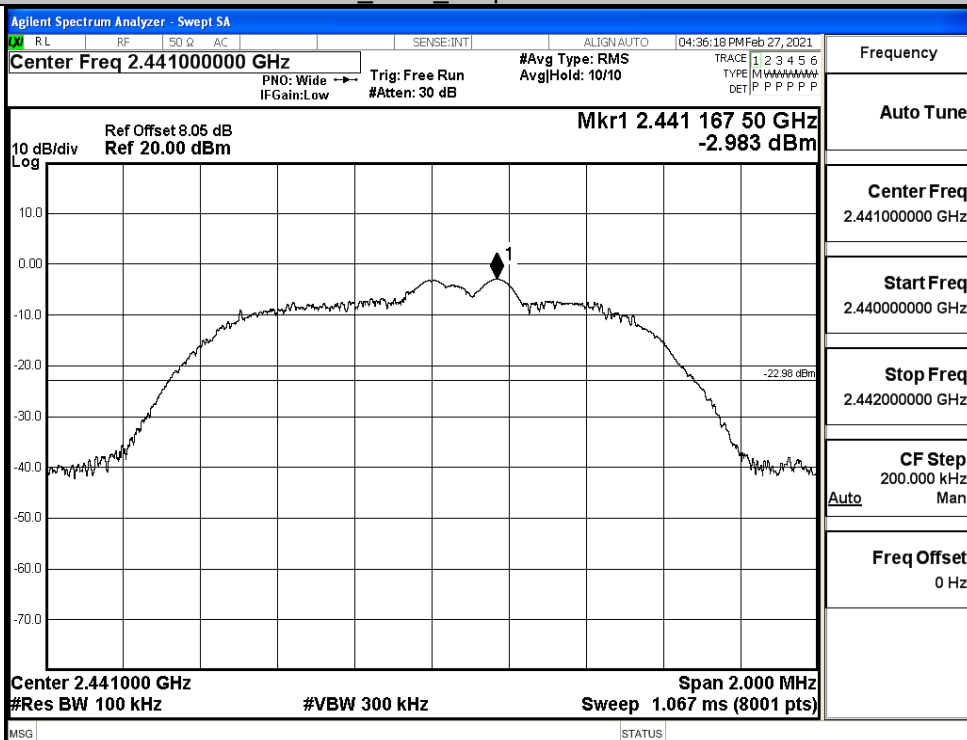


$\pi/4$ DQPSK_LCH_Graphs

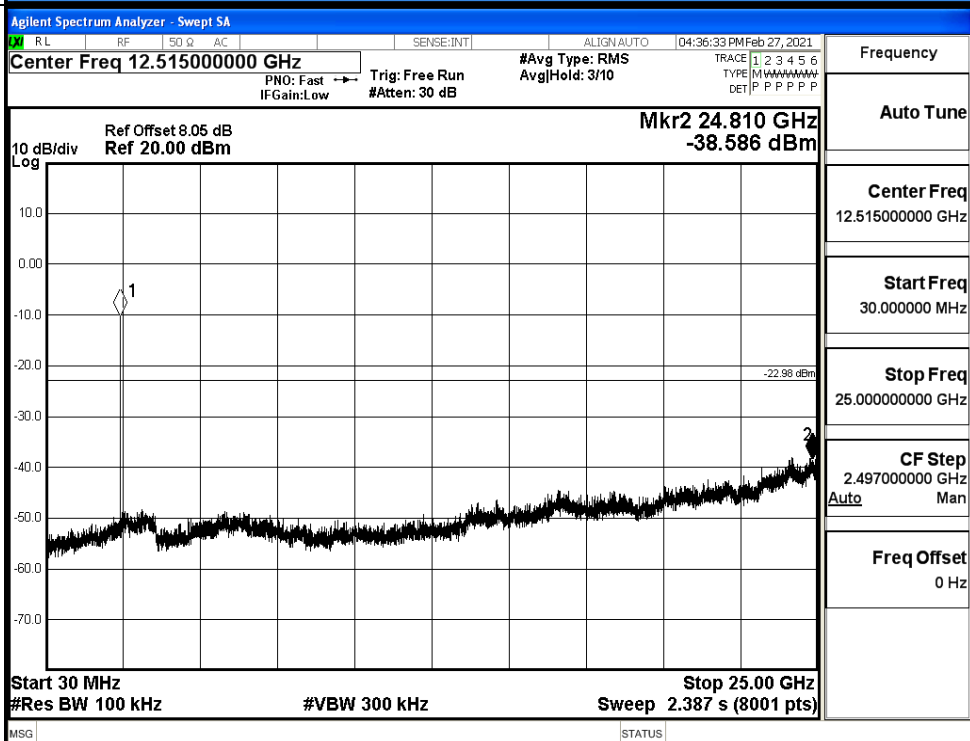


π /4DQPSK_MCH_Graphs

Pref

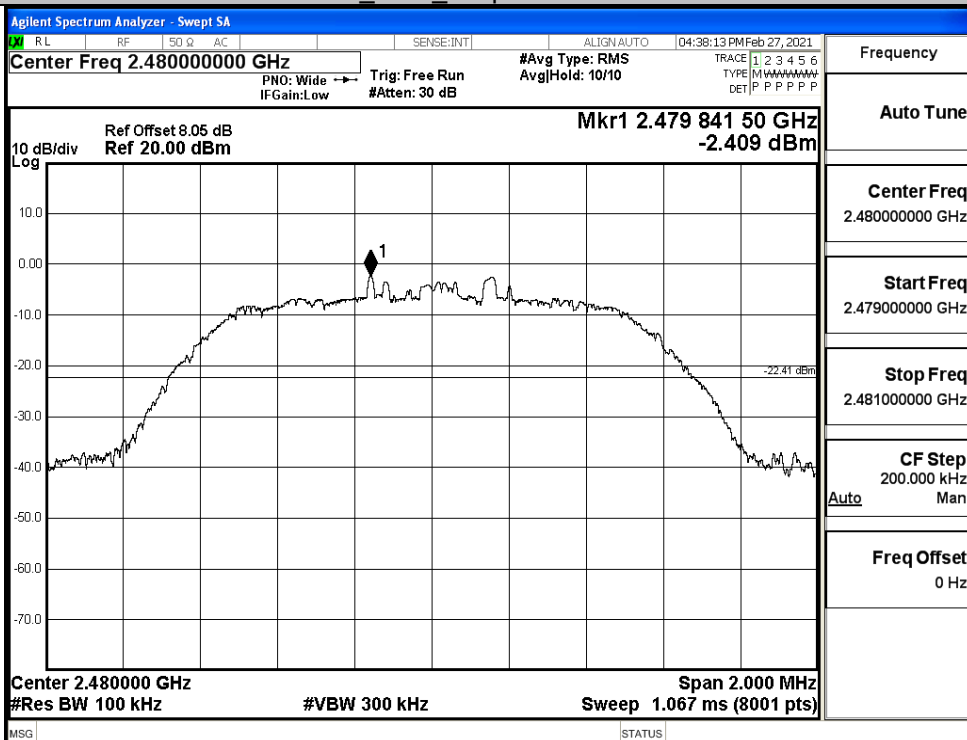


Puw

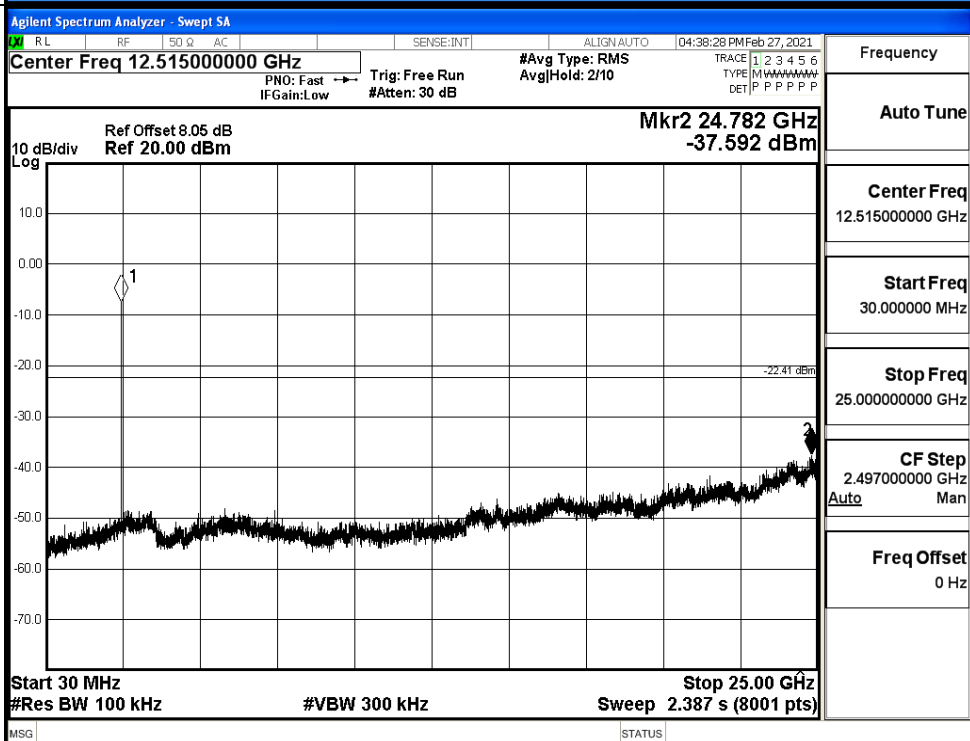


π /4DQPSK_HCH_Graphs

Pref



Puw

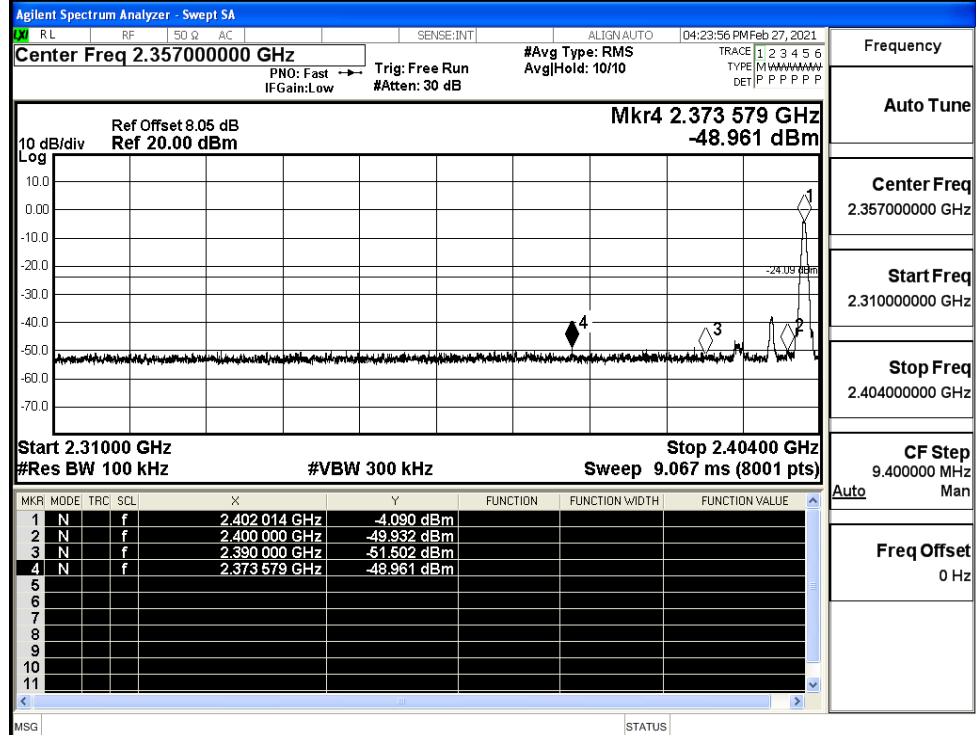


A.7 Band-edge for RF Conducted Emissions

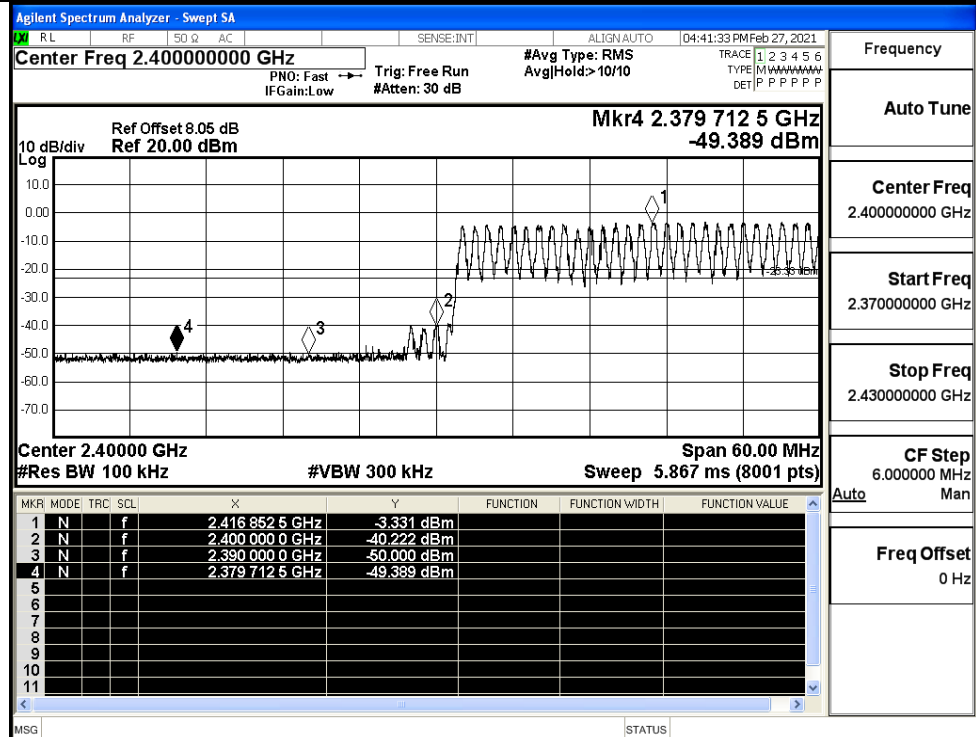
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-4.090	Off	-48.961	-24.09	PASS
			-3.331	On	-49.389	-23.33	PASS
	HCH	2480	-2.409	Off	-47.277	-22.41	PASS
			-2.284	On	-48.320	-22.28	PASS
π /4DQPSK	LCH	2402	-4.042	Off	-49.512	-24.04	PASS
			-3.262	On	-49.141	-23.26	PASS
	HCH	2480	-2.478	Off	-44.925	-22.48	PASS
			-2.459	On	-47.724	-22.46	PASS

Test Graphs

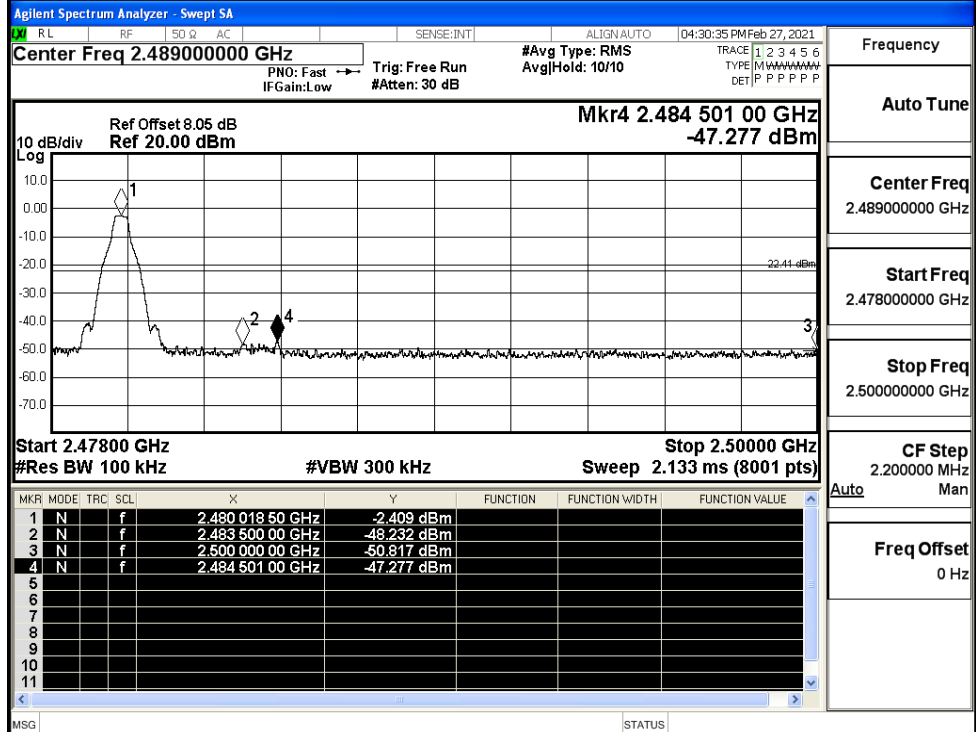
GFSK/LCH/No Hop



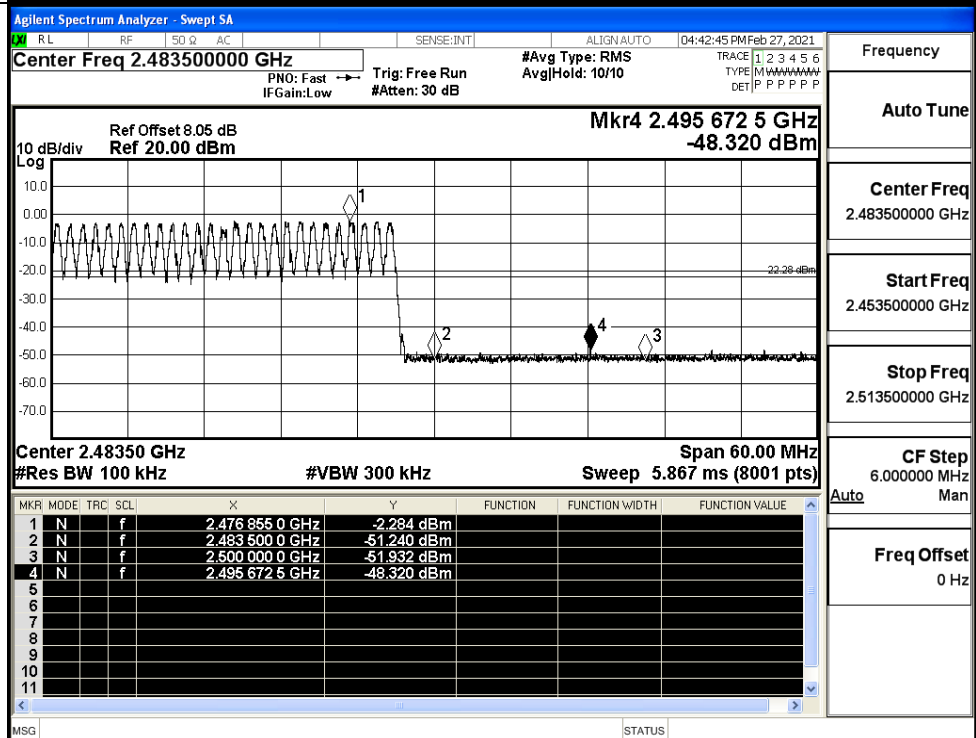
GFSK/LCH/Hop



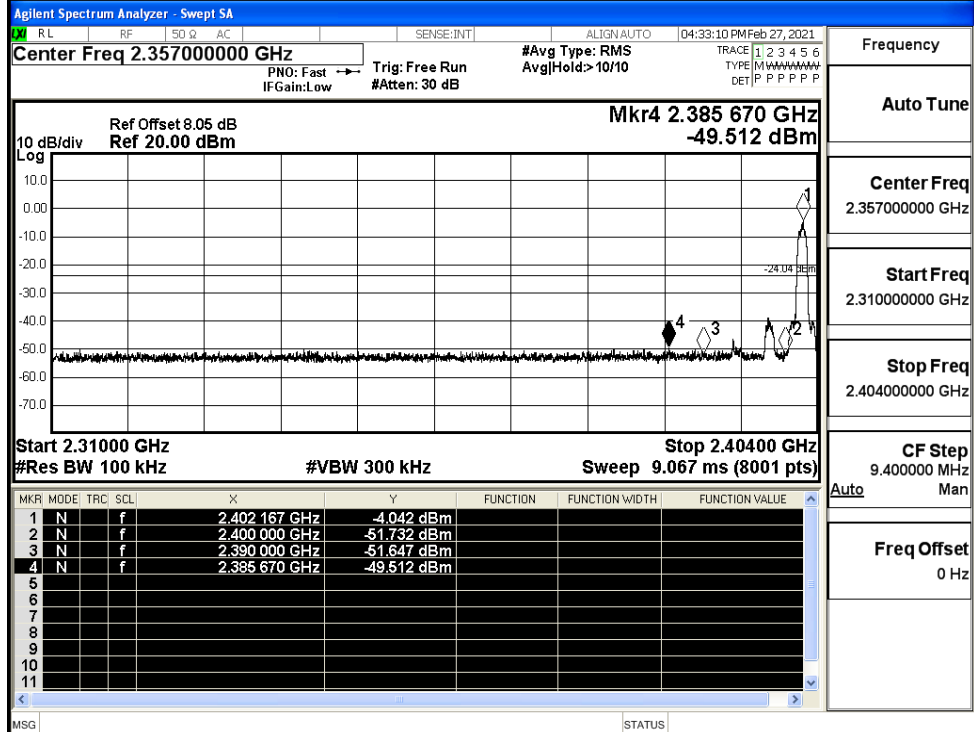
GFSK/HCH/No Hop



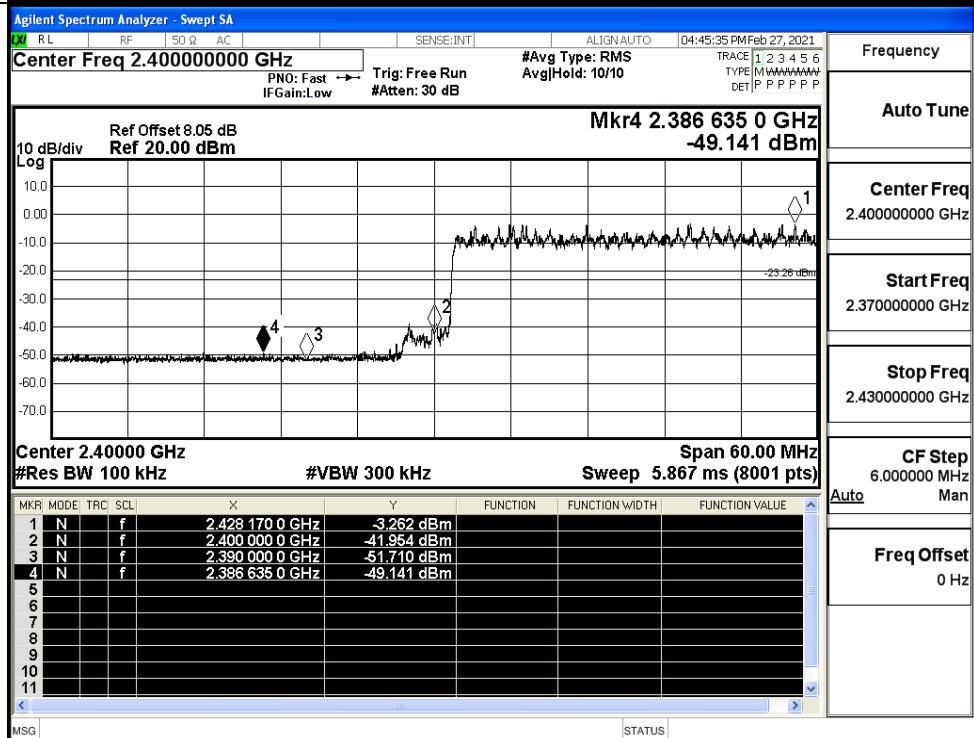
GFSK/HCH/Hop



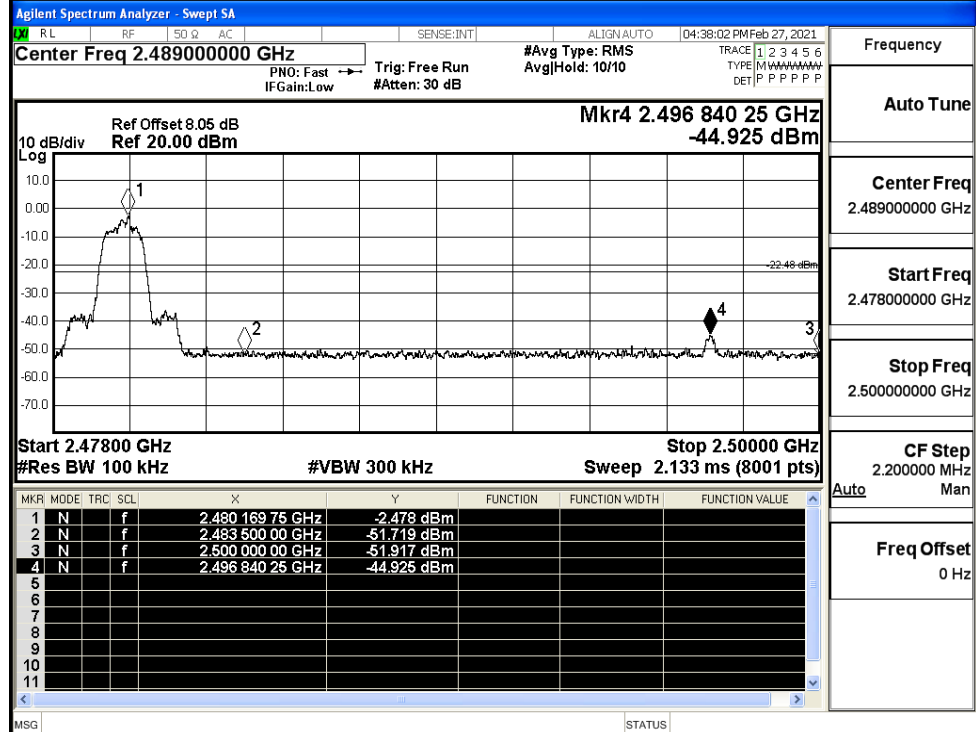
$\pi/4$ DQPSK/LCH/No
Hop



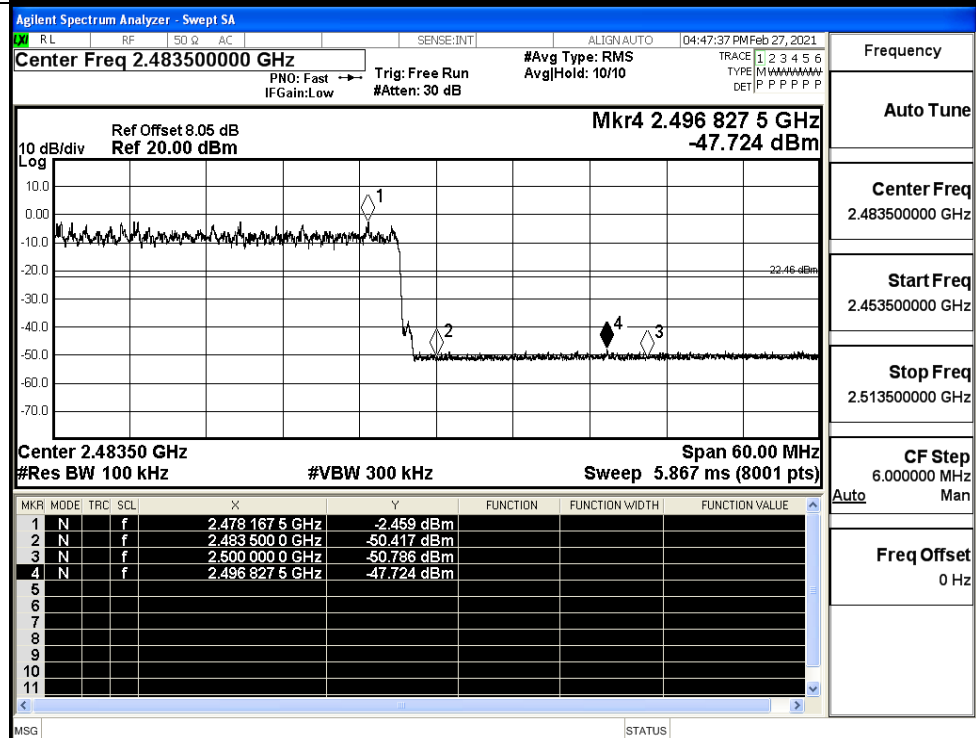
$\pi/4$ DQPSK/LCH/Hop



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



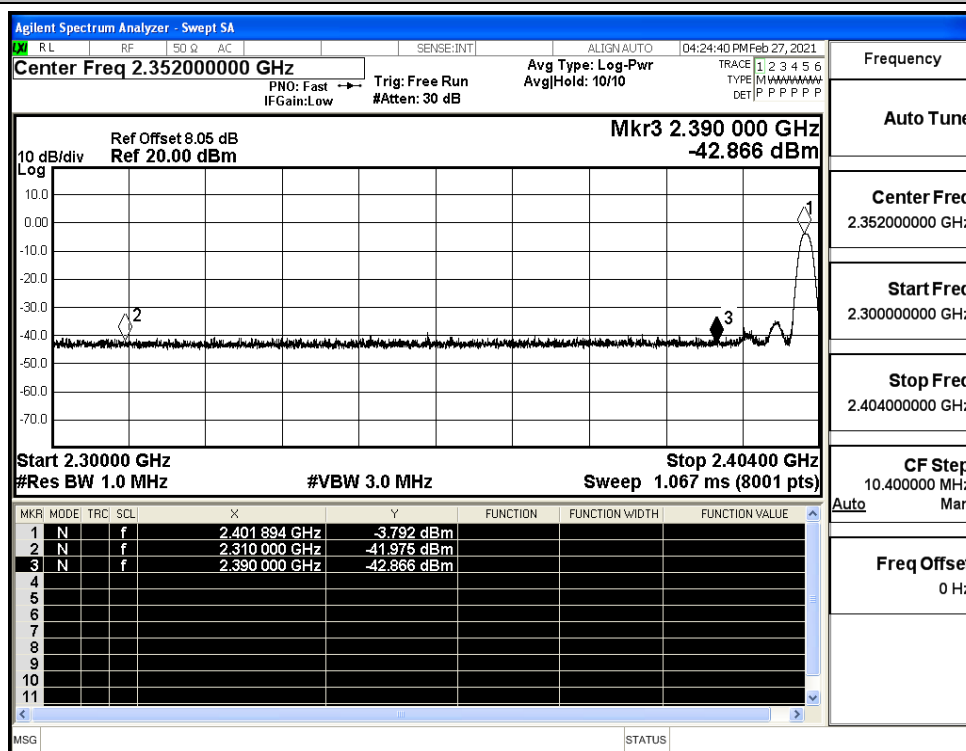
$\pi/4$ DQPSK/HCH/Hop



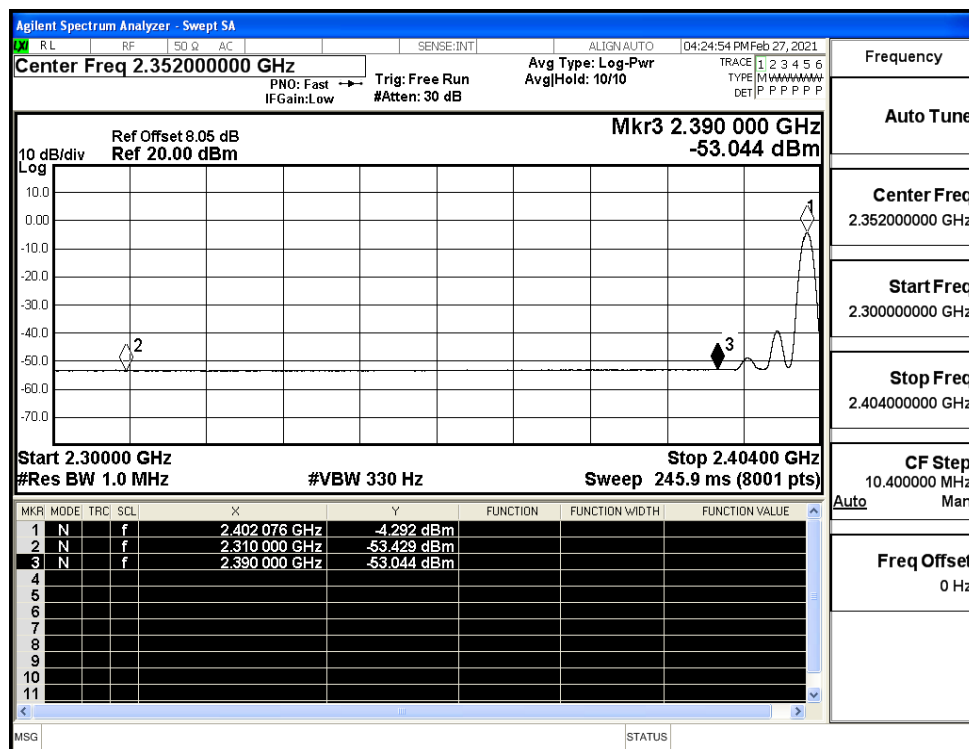
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-41.98	3.3	0	56.55	PEAK	74	PASS
	Off	2310.0	-53.43	3.3	0	45.10	AV	54	PASS
	Off	2390.0	-42.87	3.3	0	55.66	PEAK	74	PASS
	Off	2390.0	-53.04	3.3	0	45.49	AV	54	PASS
	Off	2483.5	-42.10	3.3	0	56.43	PEAK	74	PASS
	Off	2483.5	-50.45	3.3	0	48.08	AV	54	PASS
	Off	2500.0	-42.89	3.3	0	55.64	PEAK	74	PASS
	Off	2500.0	-52.37	3.3	0	46.16	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-42.67	3.3	0	55.86	PEAK	74	PASS
	Off	2310.0	-53.31	3.3	0	45.22	AV	54	PASS
	Off	2390.0	-43.09	3.3	0	55.44	PEAK	74	PASS
	Off	2390.0	-52.99	3.3	0	45.54	AV	54	PASS
	Off	2483.5	-42.75	3.3	0	55.78	PEAK	74	PASS
	Off	2483.5	-51.18	3.3	0	47.35	AV	54	PASS
	Off	2500.0	-43.15	3.3	0	55.38	PEAK	74	PASS
	Off	2500.0	-52.40	3.3	0	46.13	AV	54	PASS

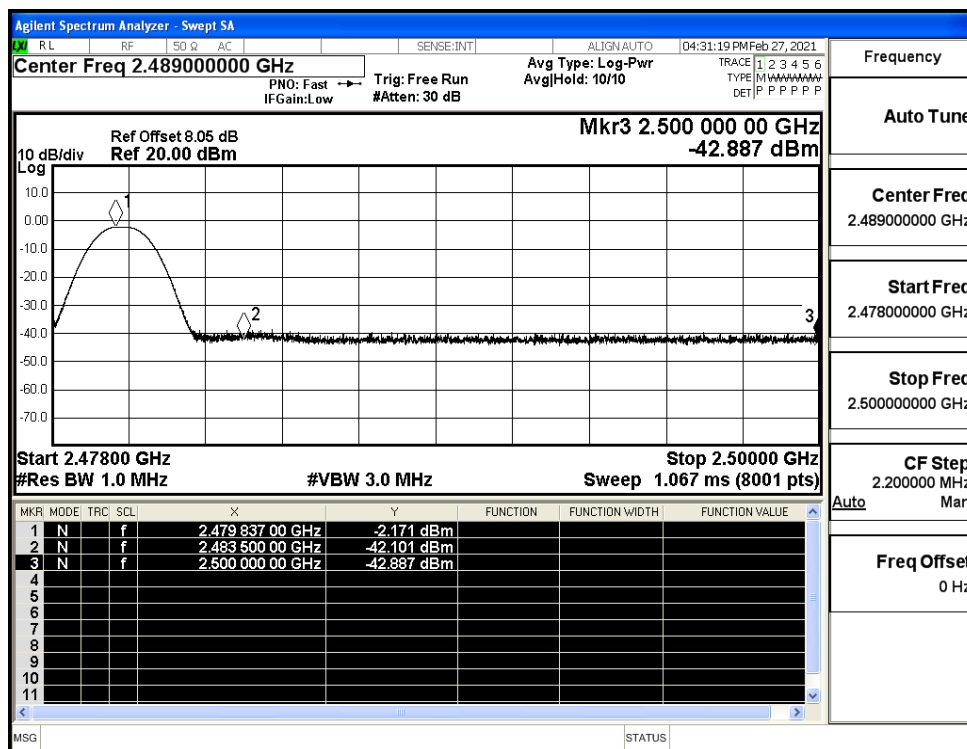
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



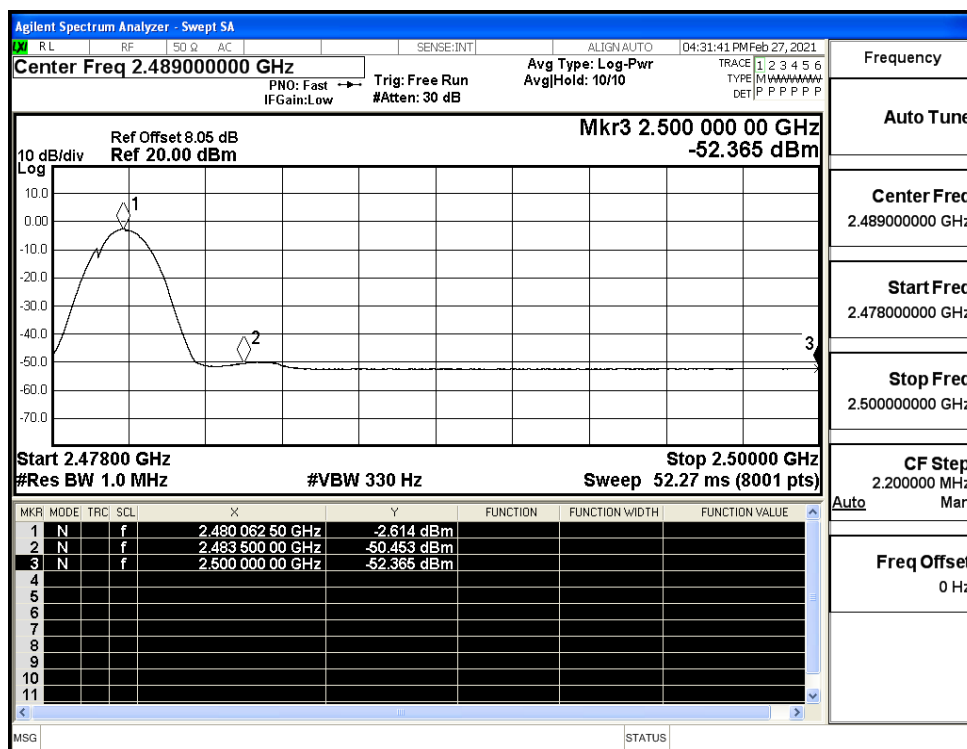
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)



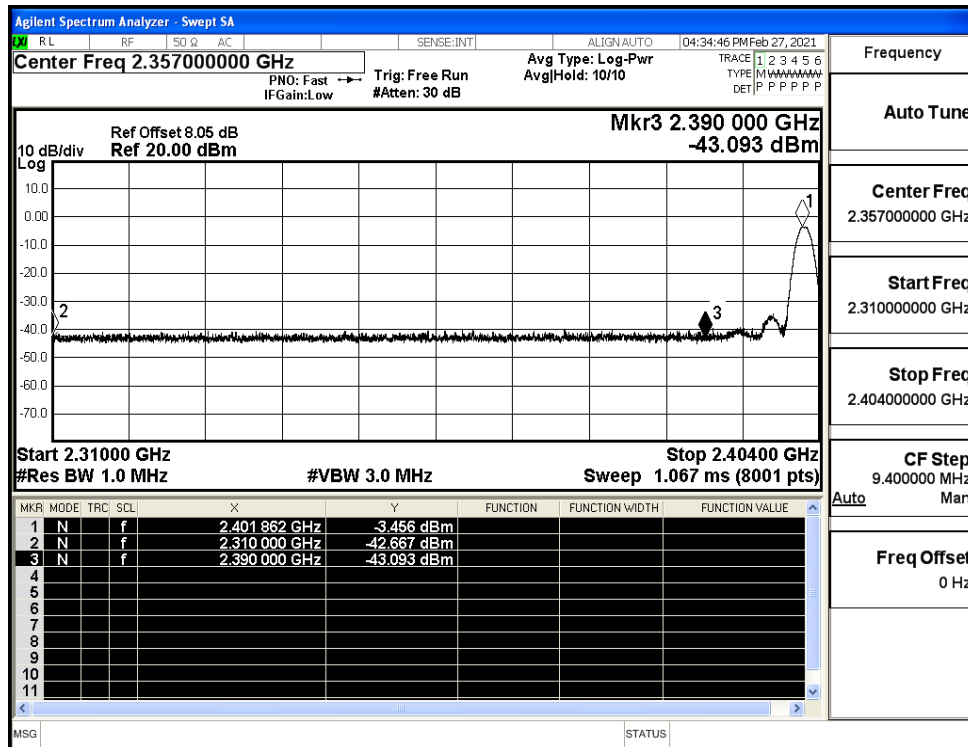
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



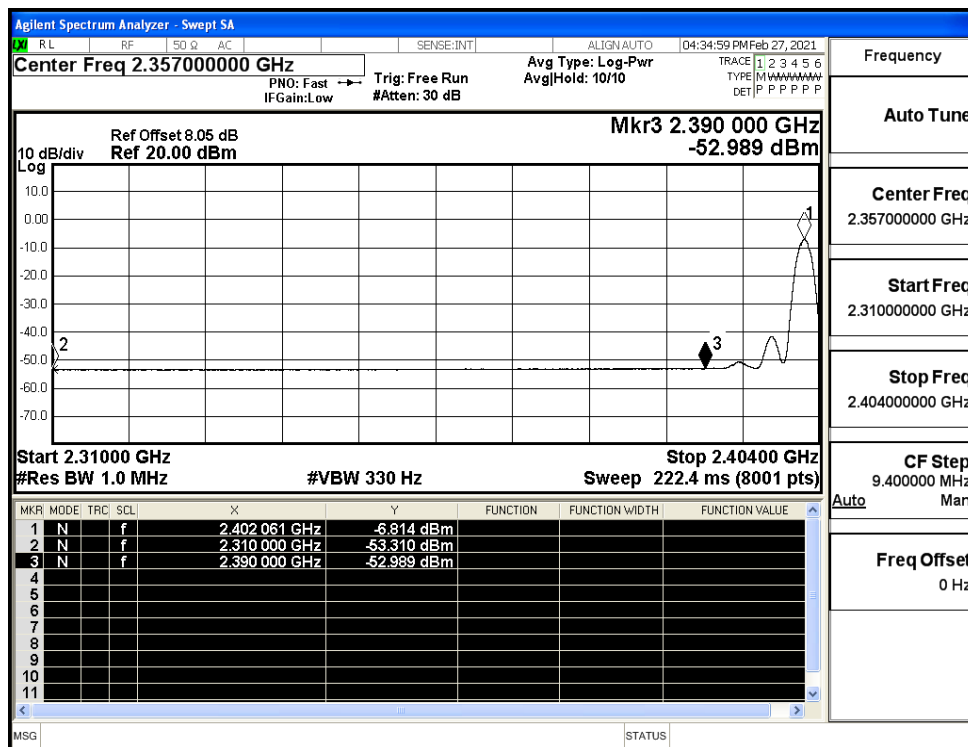
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



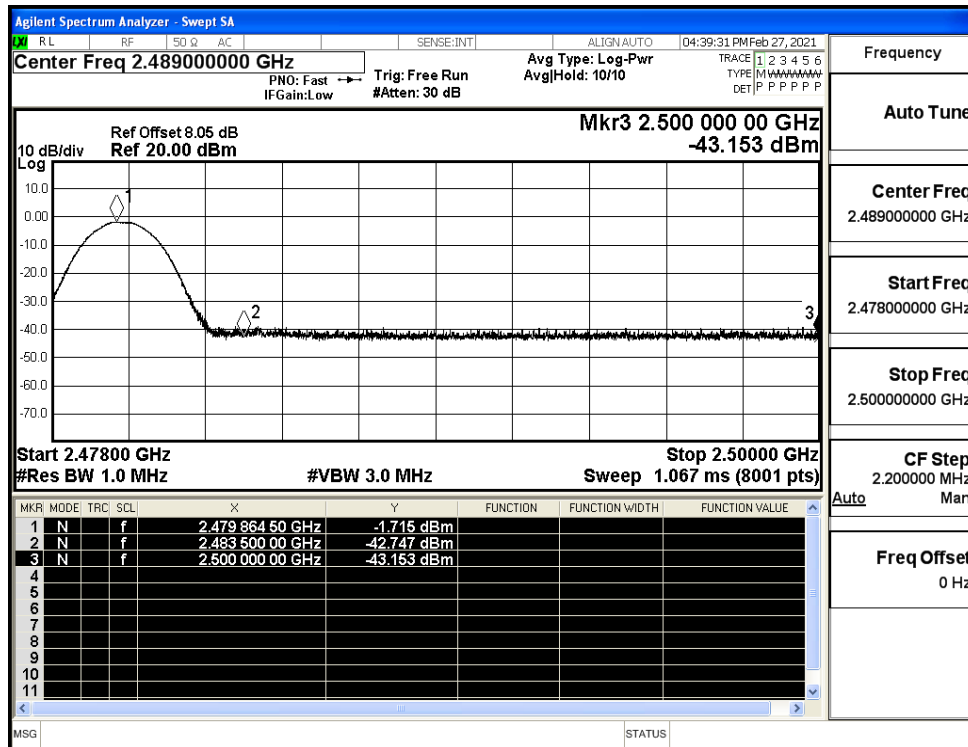
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



Restrict-band band-edge measurements_Hopping Off_π/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)

