

Appendix A

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

Product Name: Wireless Charger Music Lamp

Trade Mark: EZVALO

Test Model: LYVD02

Environmental Conditions

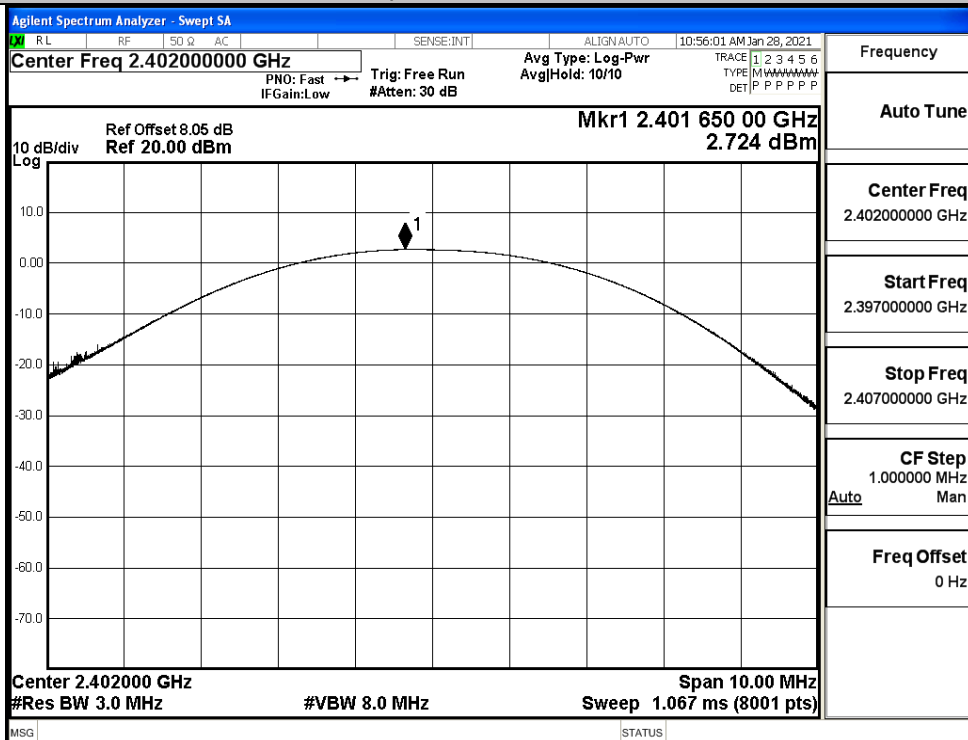
Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

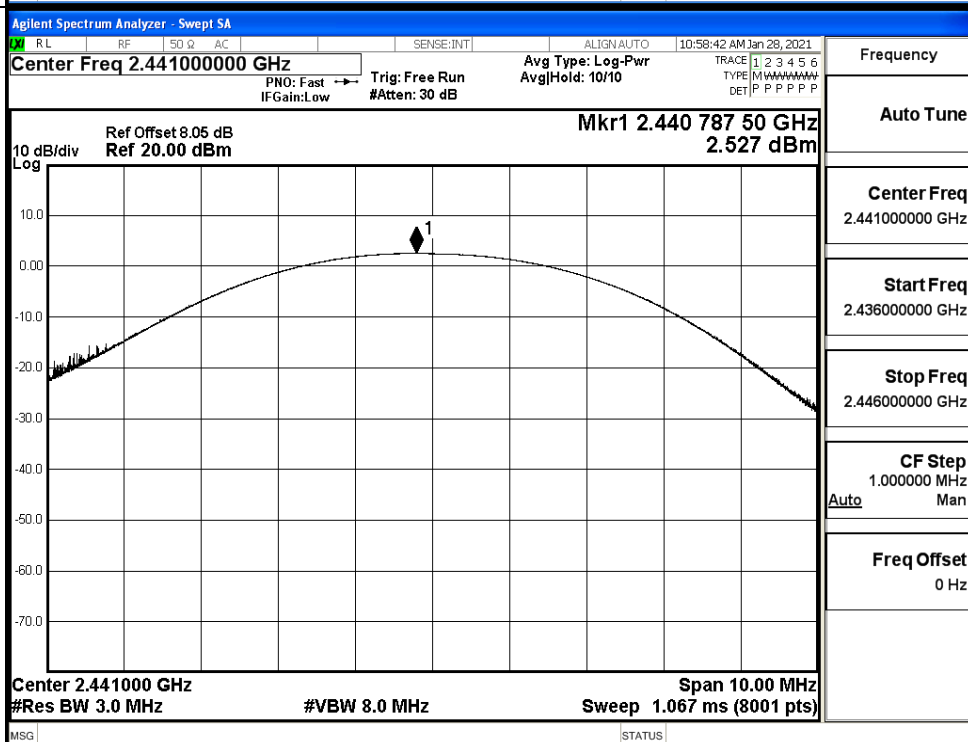
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.724	21	PASS
	MCH	2.527	21	PASS
	HCH	2.012	21	PASS
$\pi/4$ DQPSK	LCH	3.479	21	PASS
	MCH	3.267	21	PASS
	HCH	2.755	21	PASS

Test Graphs

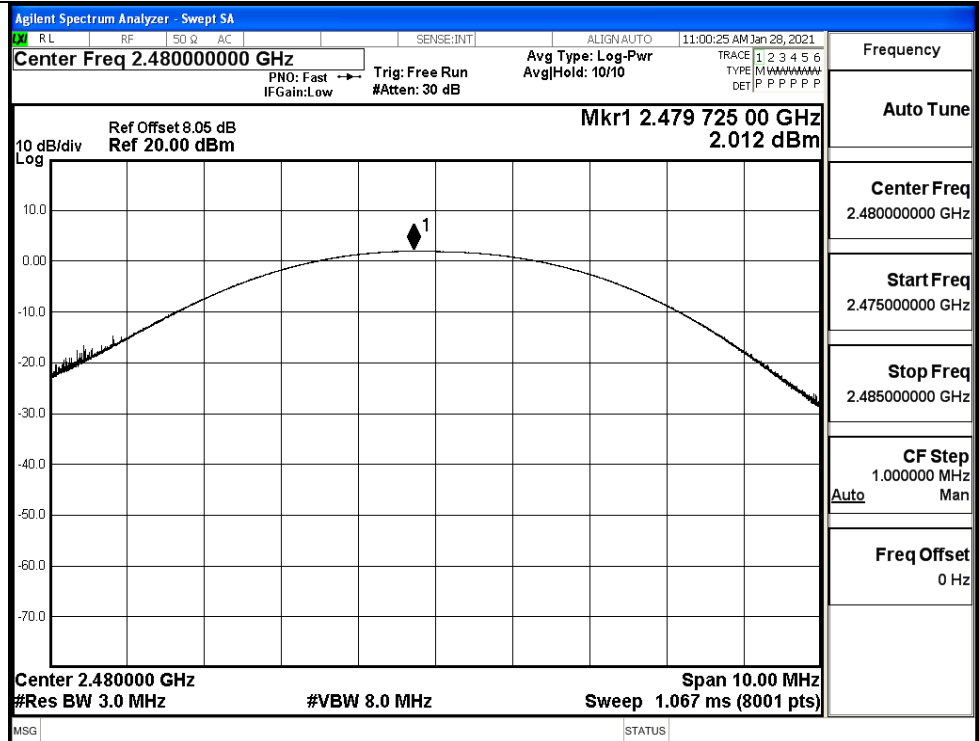
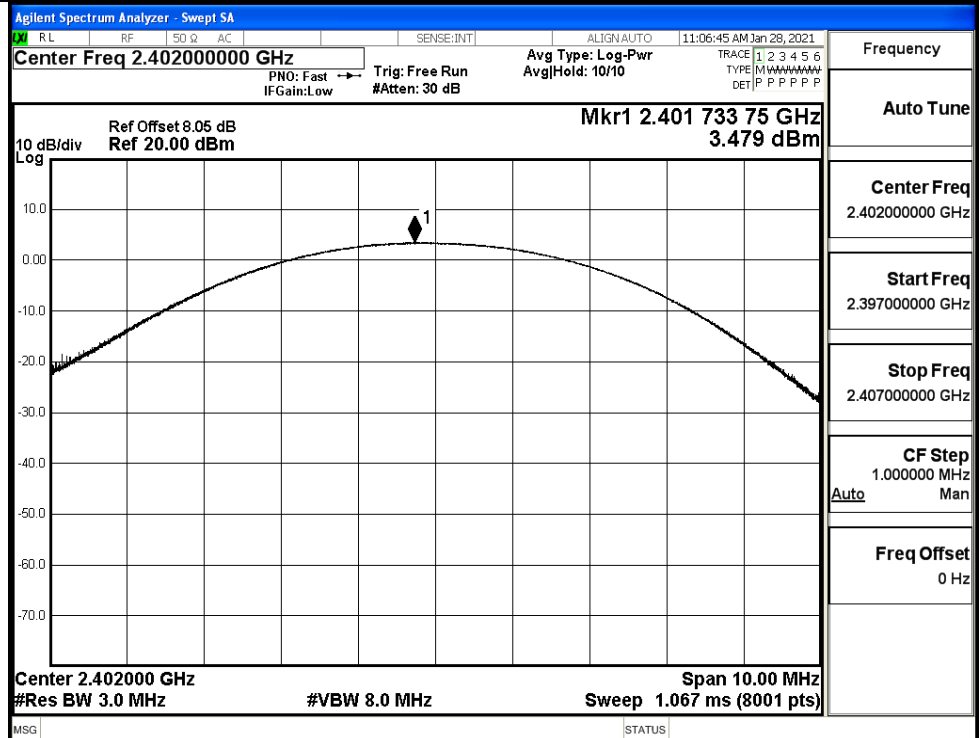
GFSK/LCH

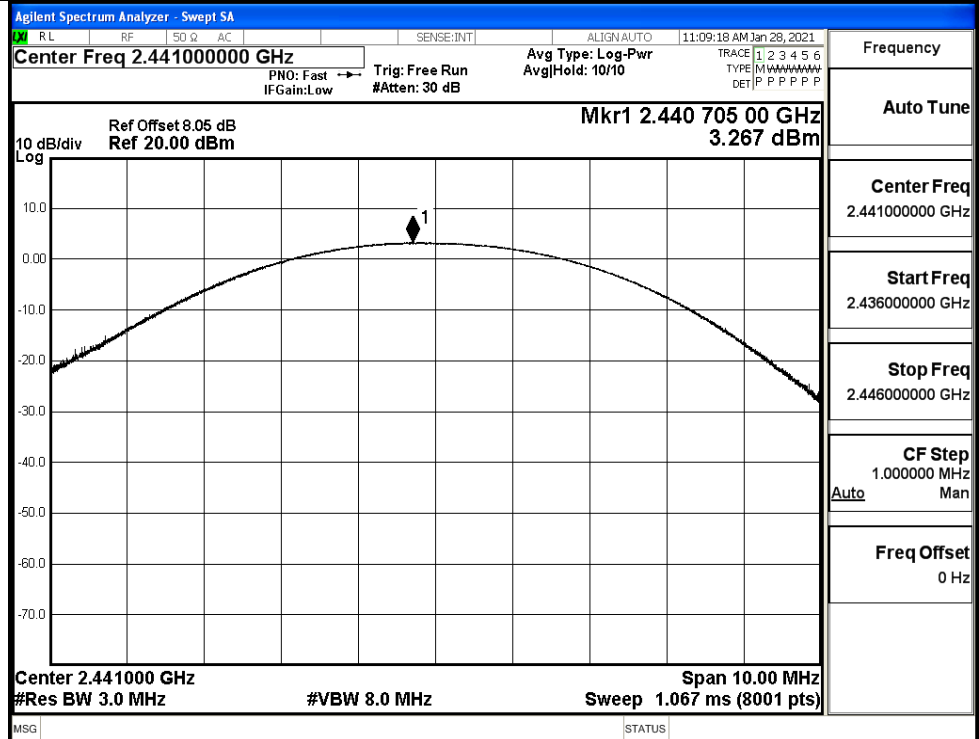
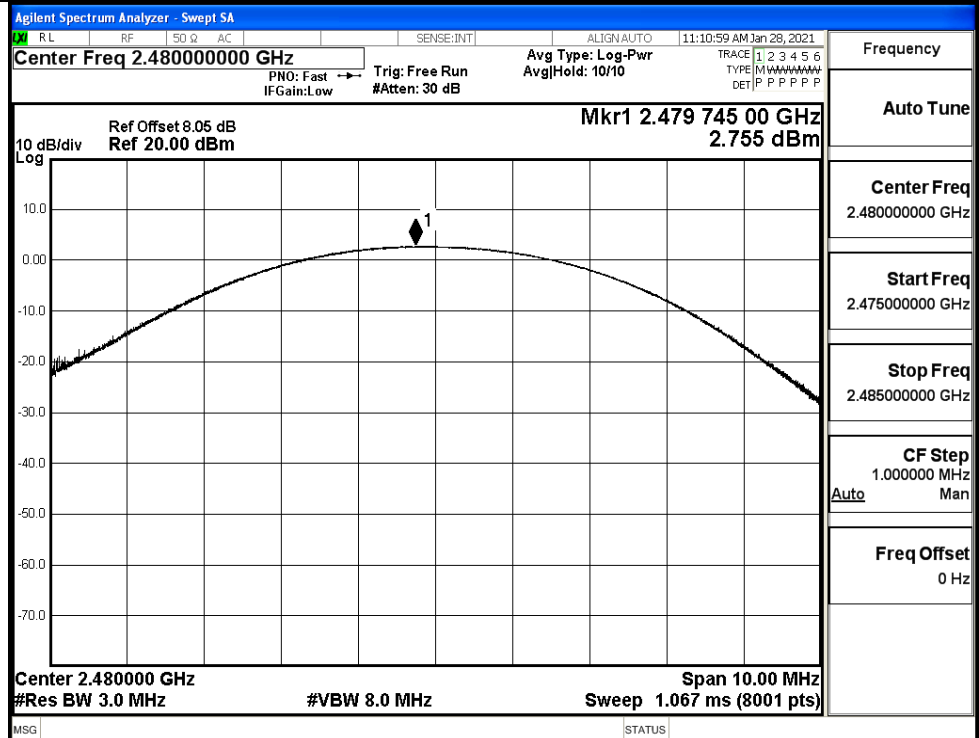


GFSK/MCH



GFSK/HCH

 $\pi/4$ DQPSK/LCH

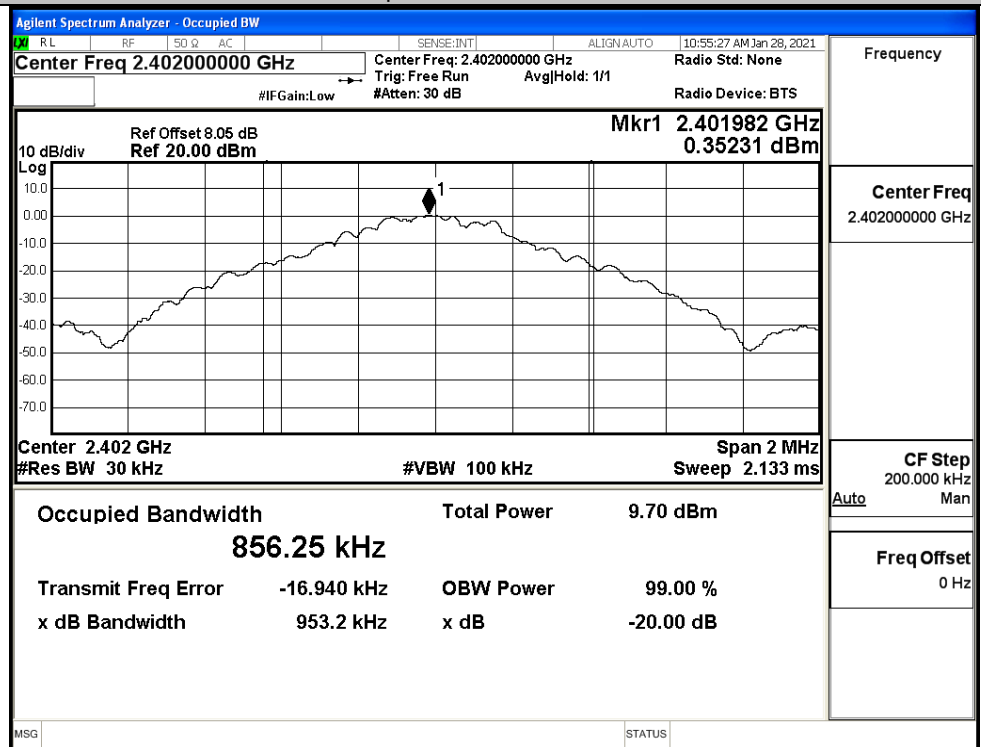
$\pi/4$ DQPSK/MCH $\pi/4$ DQPSK/HCH

A.2 20dB Bandwidth

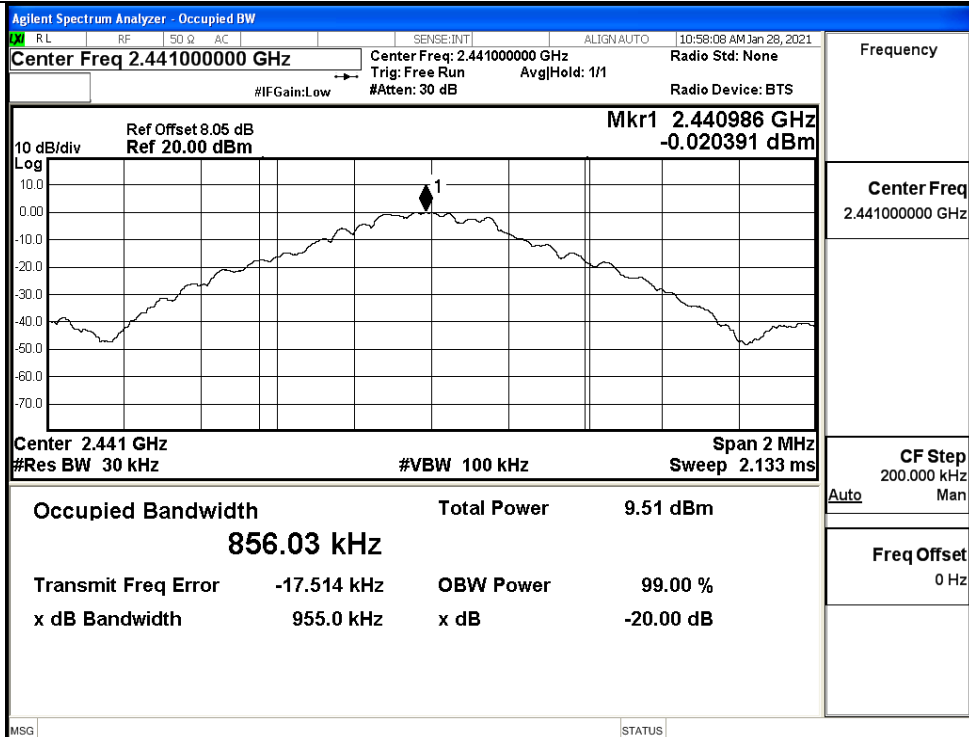
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9532	Not Specified	PASS
	MCH	0.9550	Not Specified	PASS
	HCH	0.9526	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.313	Not Specified	PASS
	MCH	1.312	Not Specified	PASS
	HCH	1.311	Not Specified	PASS

Test Graphs

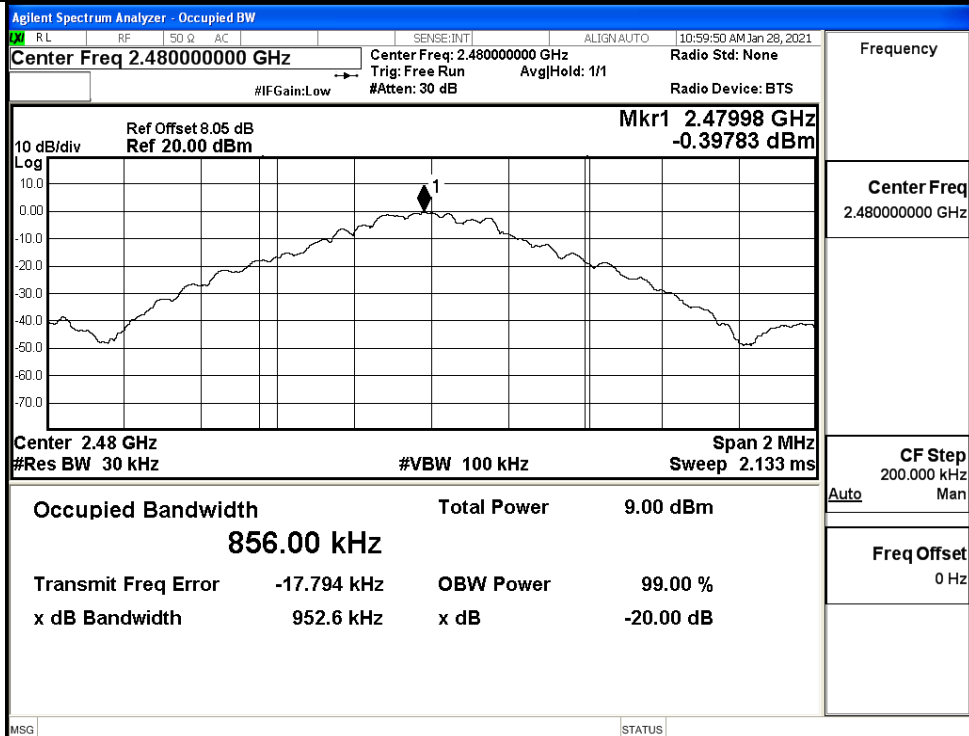
GFSK/LCH

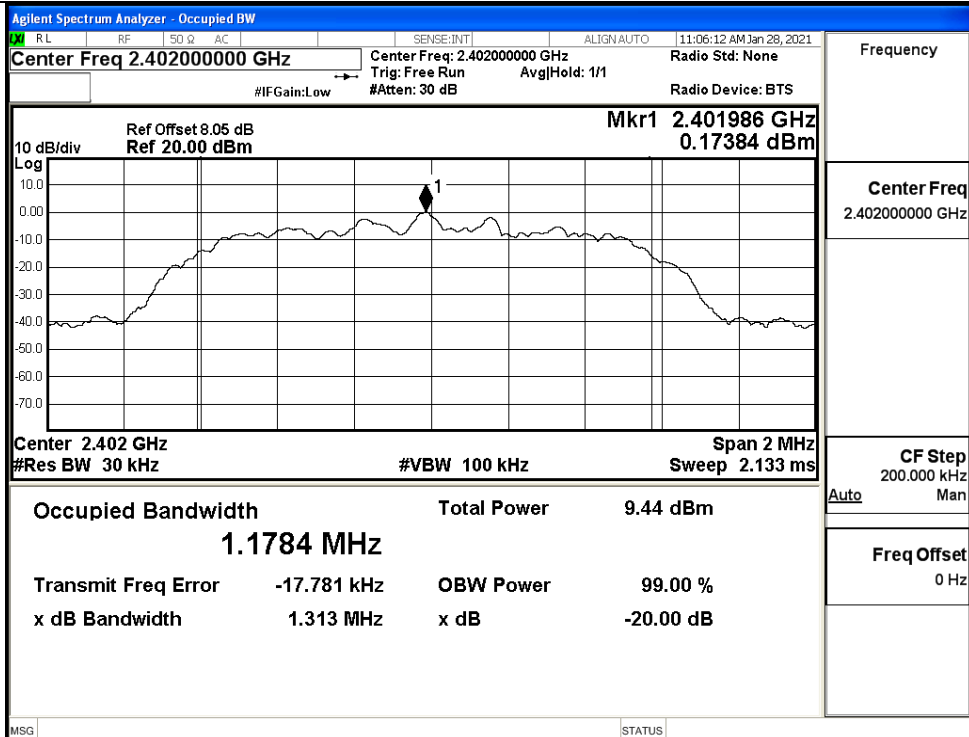
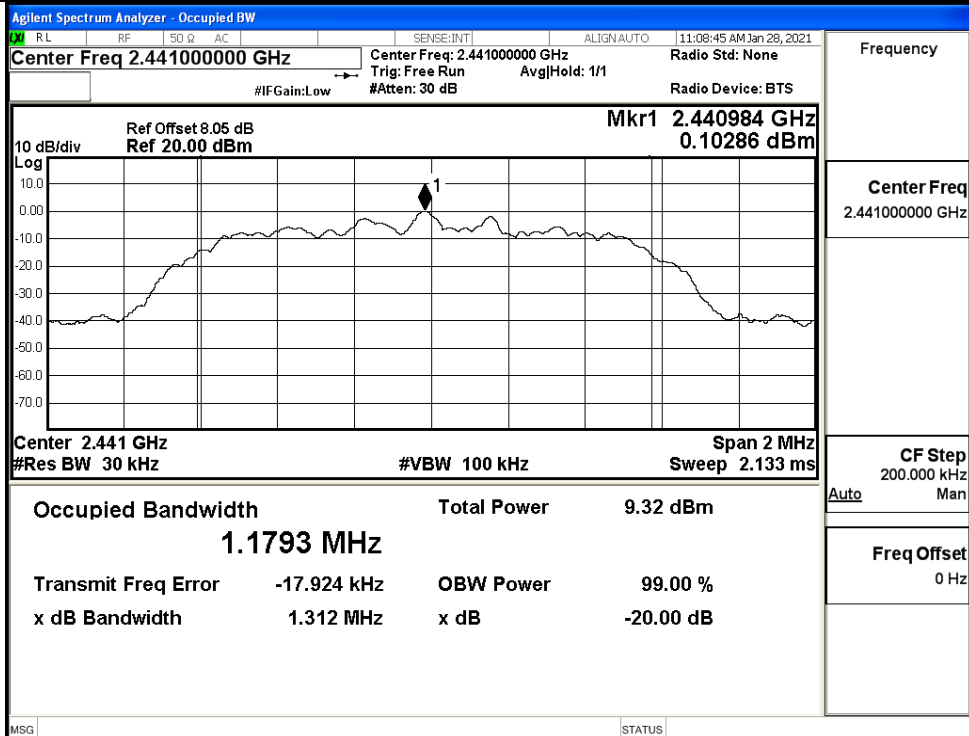


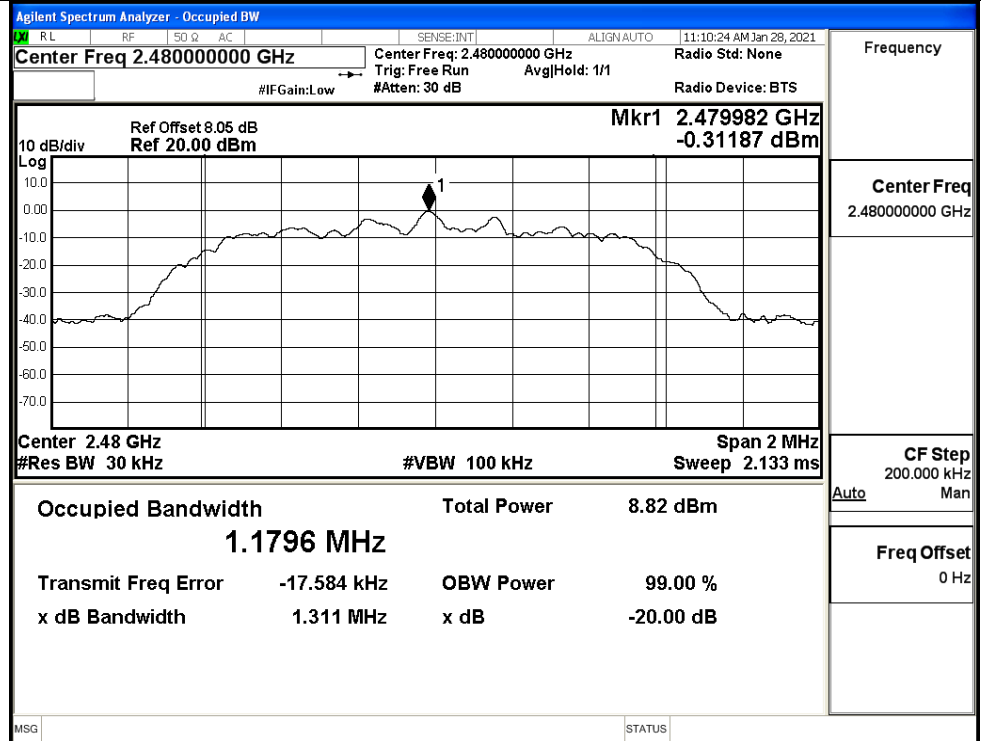
GFSK/MCH



GFSK/HCH



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

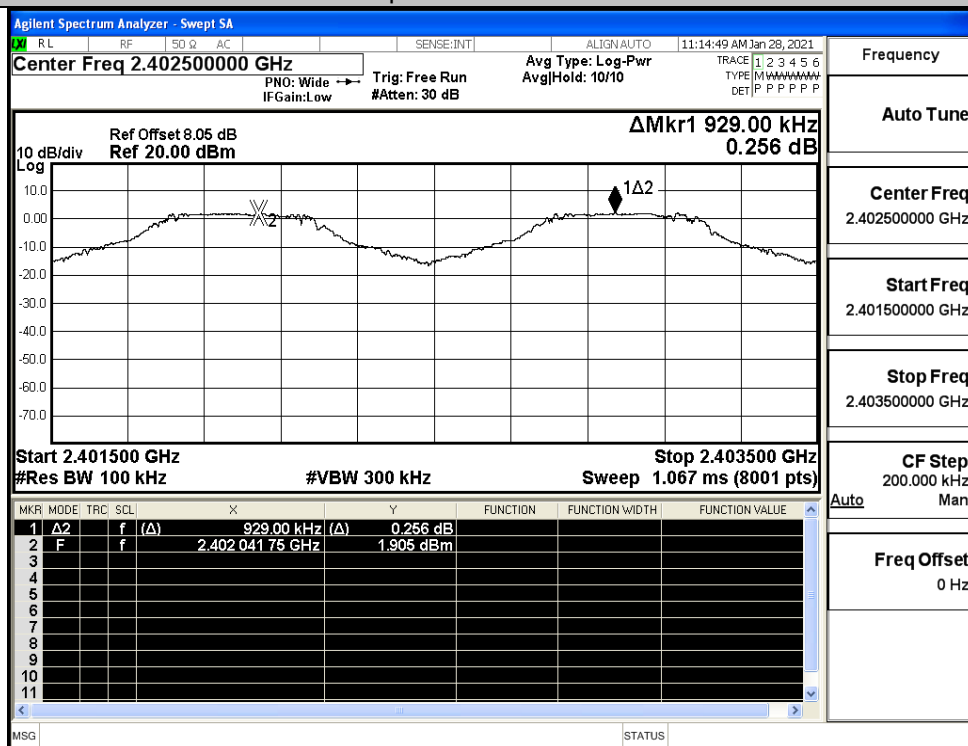
$\pi/4$ DQPSK/HCH

A.3 Carrier Frequency Separation

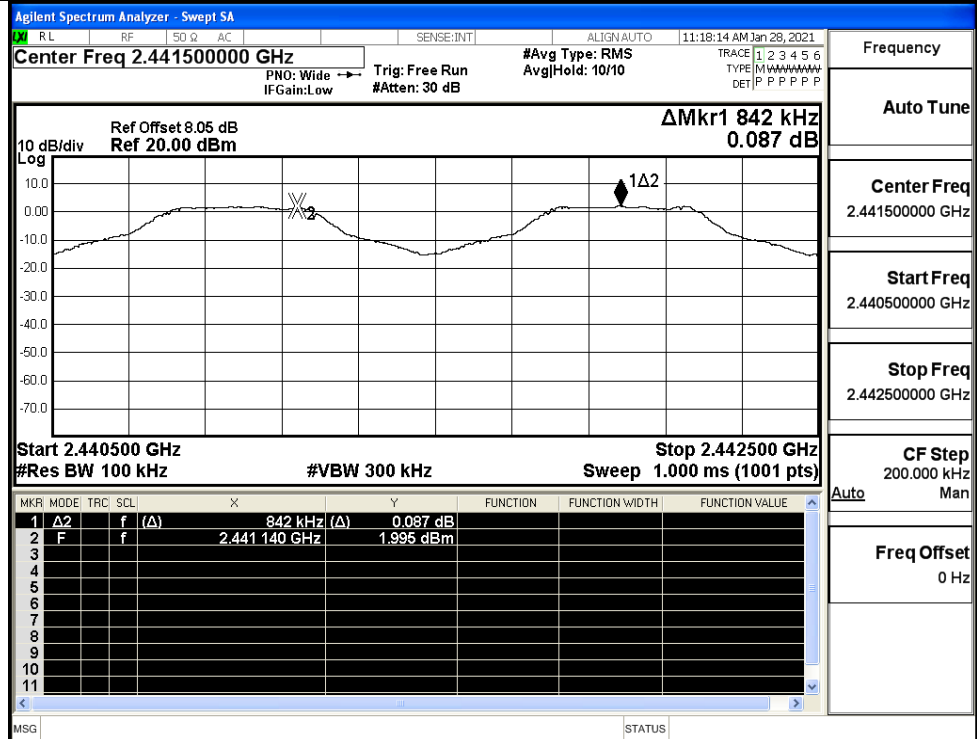
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.929	0.637	PASS
	MCH	0.842	0.637	PASS
	HCH	1.018	0.637	PASS
π /4DQPSK	LCH	1.200	0.875	PASS
	MCH	1.044	0.875	PASS
	HCH	1.020	0.875	PASS

Test Graphs

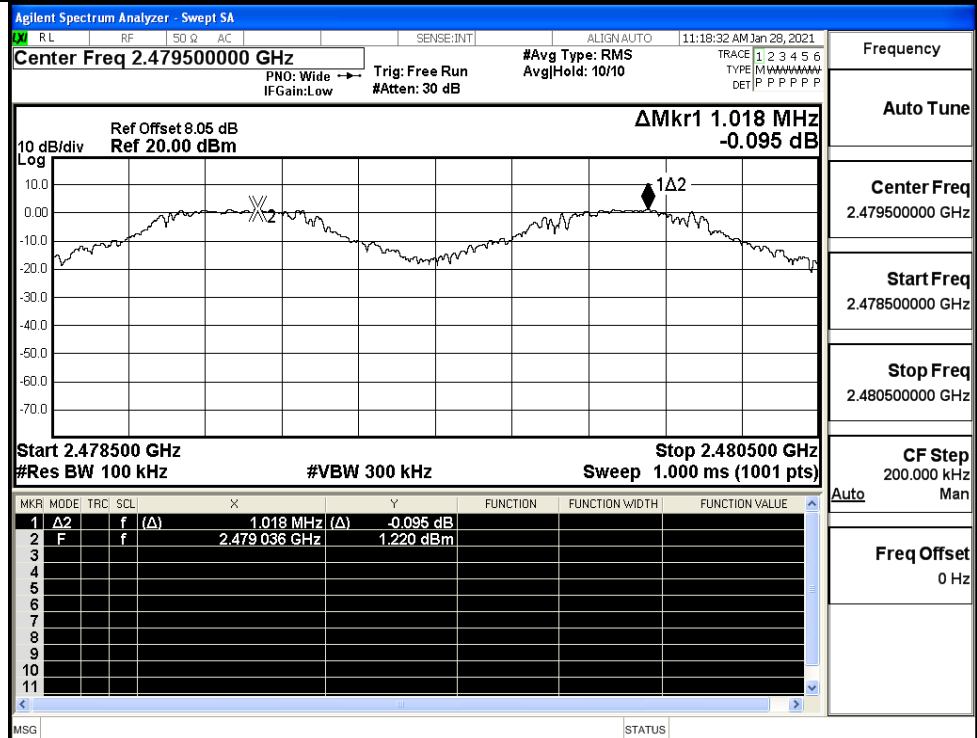
GFSK/LCH

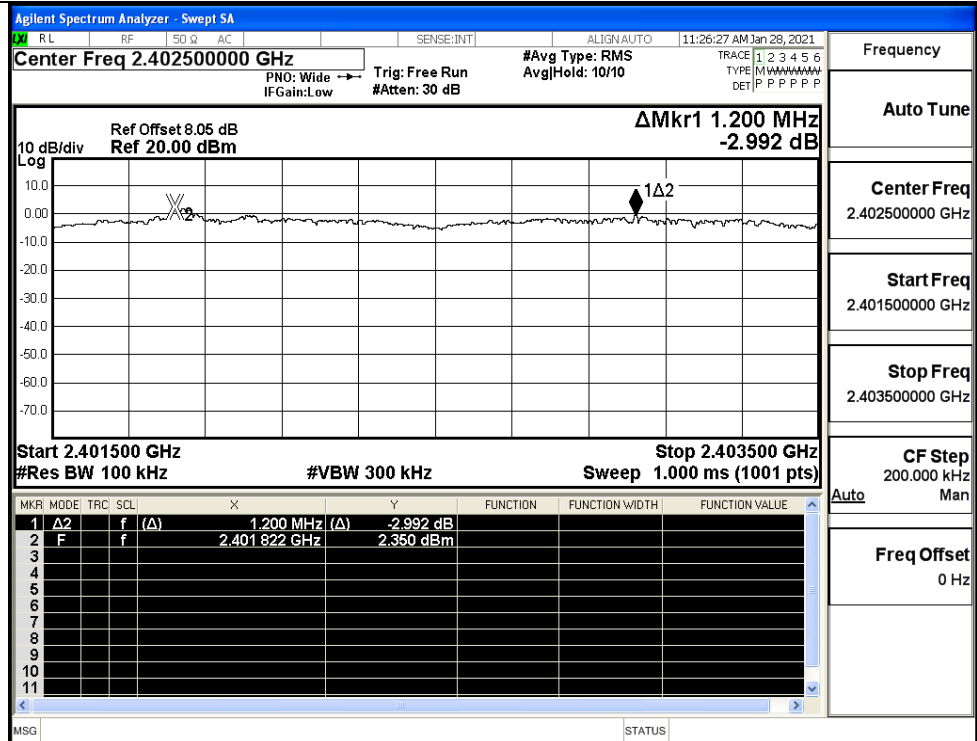
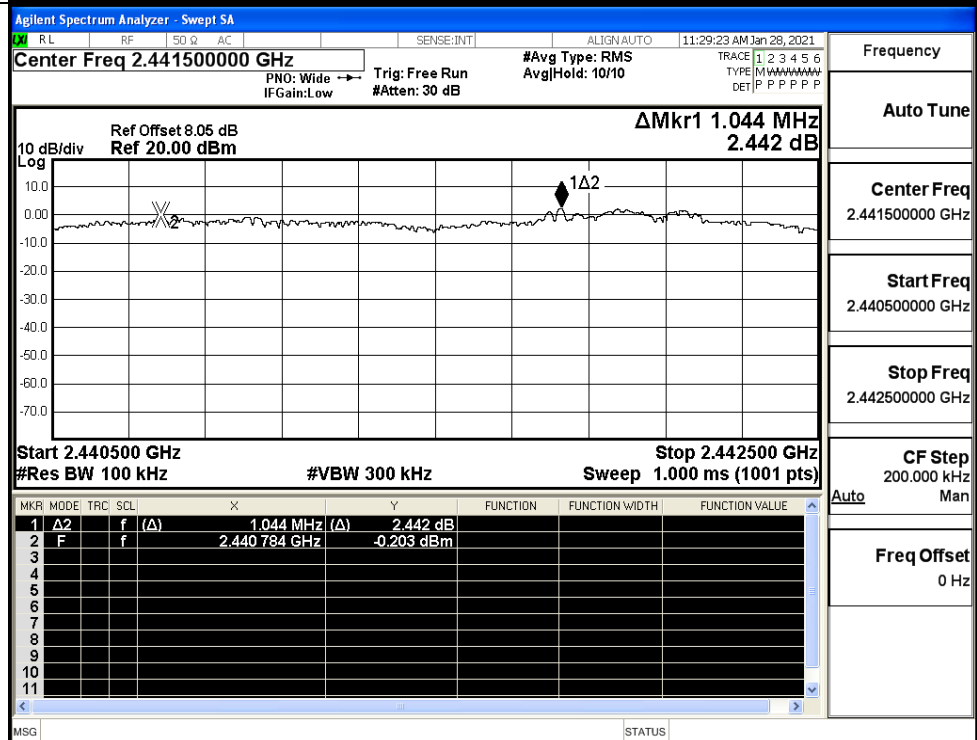


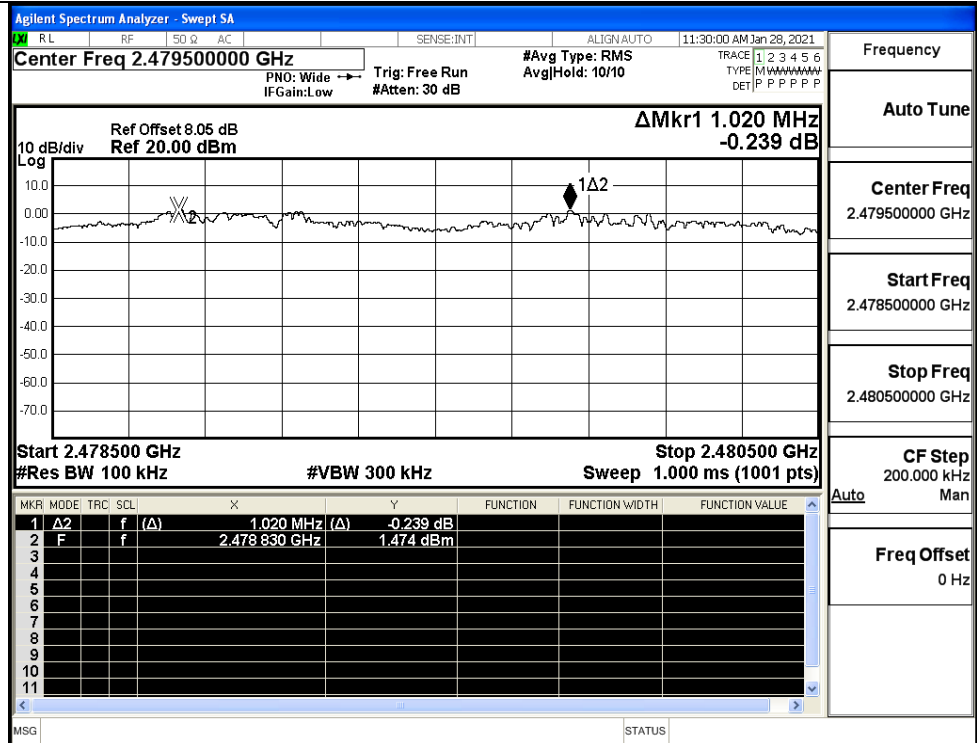
GFSK/MCH



GFSK/HCH



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

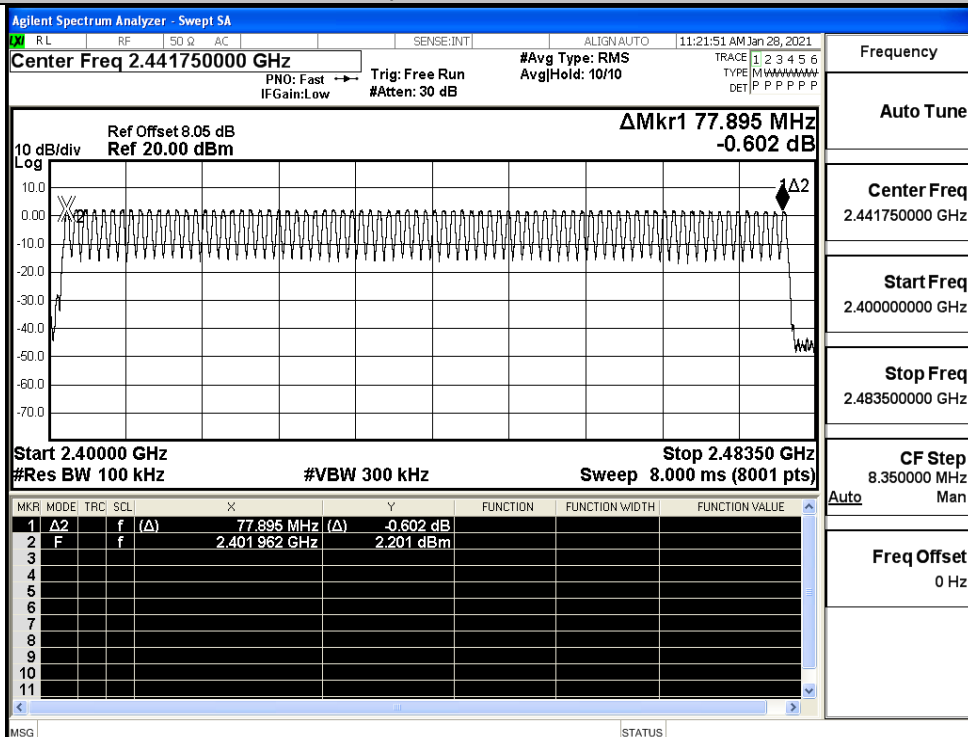
$\pi/4$ DQPSK/HCH

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

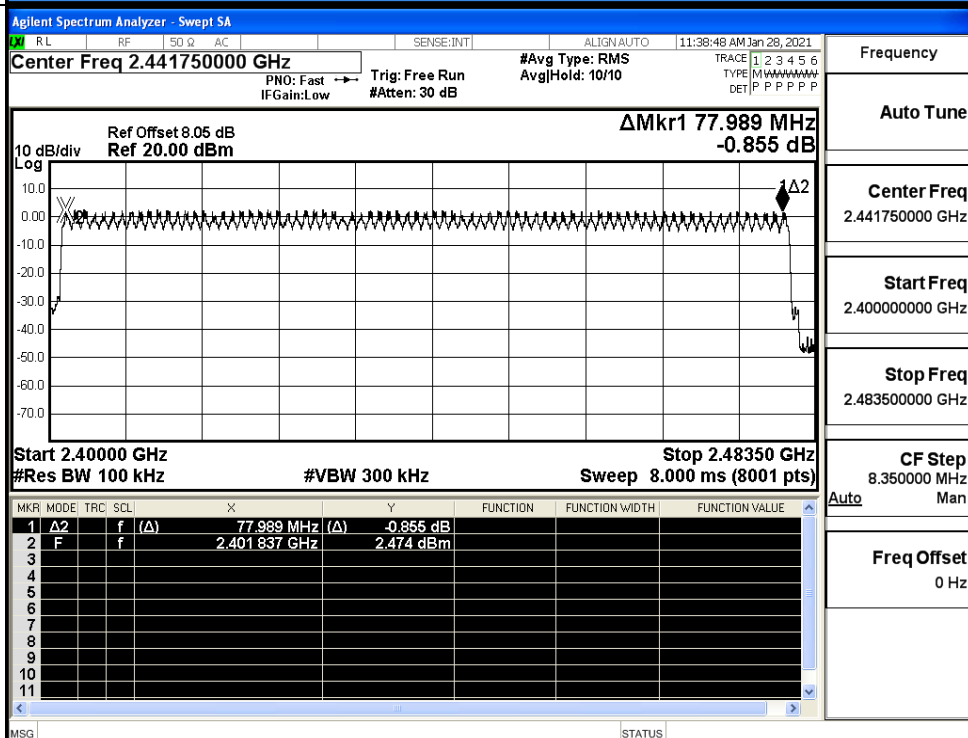
Center Freq
2.441750000 GHz

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

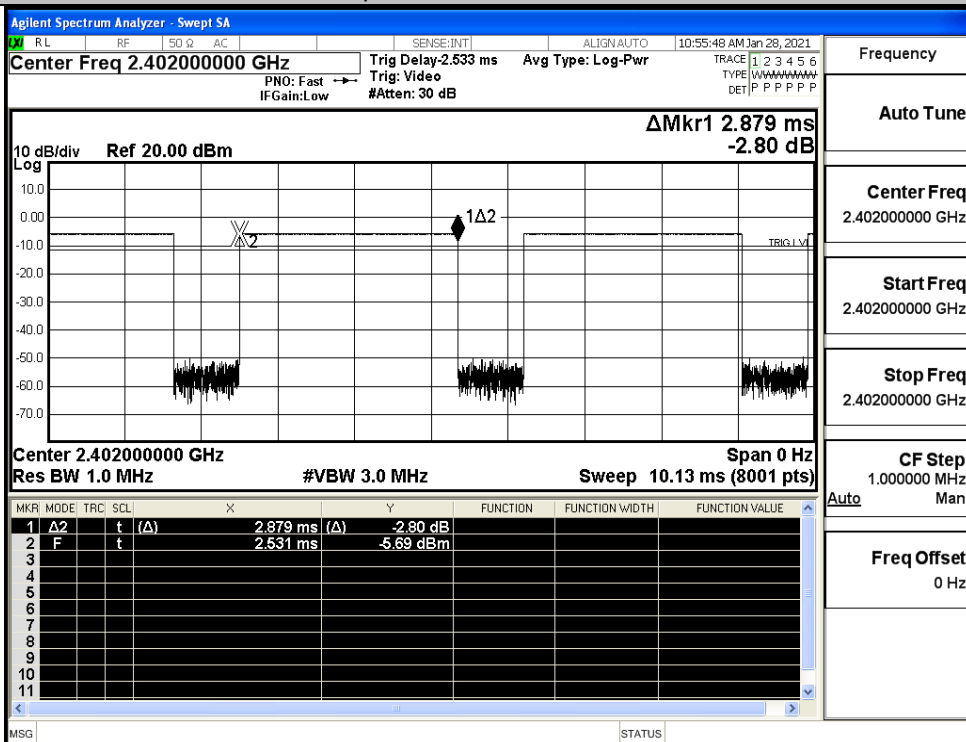
Freq Offset
0 Hz

A.5 Dwell Time

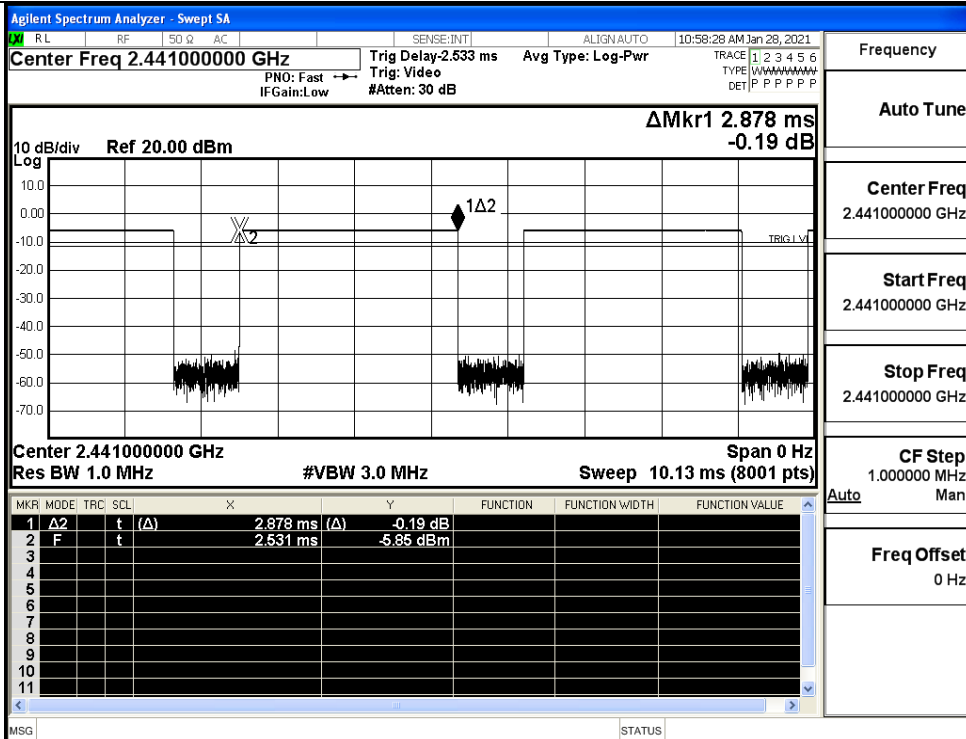
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

Test Graphs

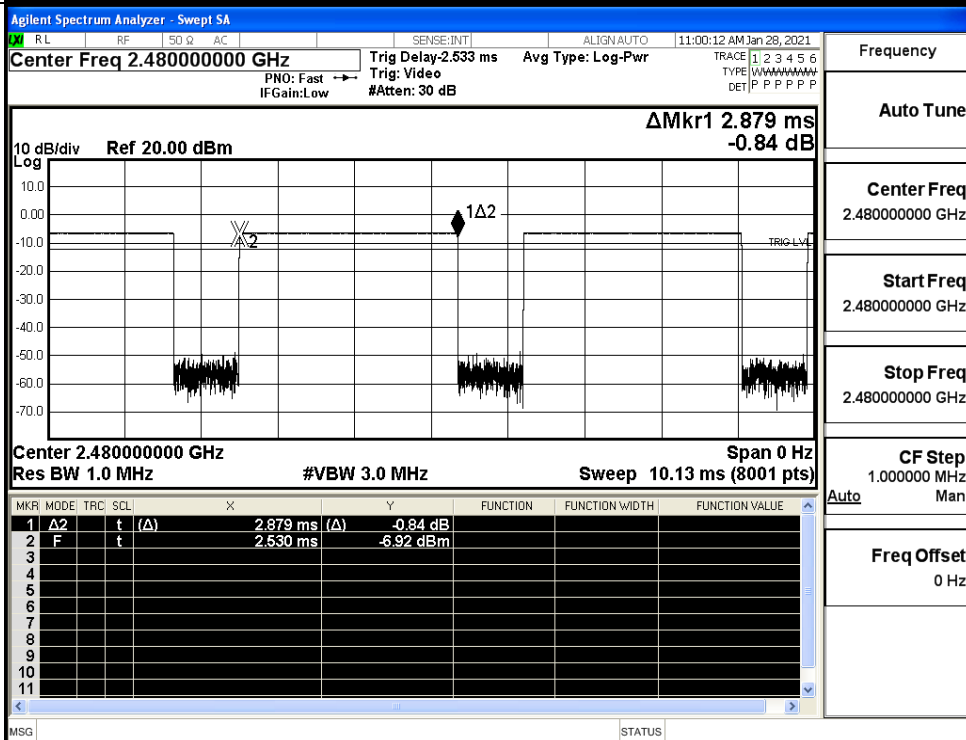
GFSK_DH5/LCH



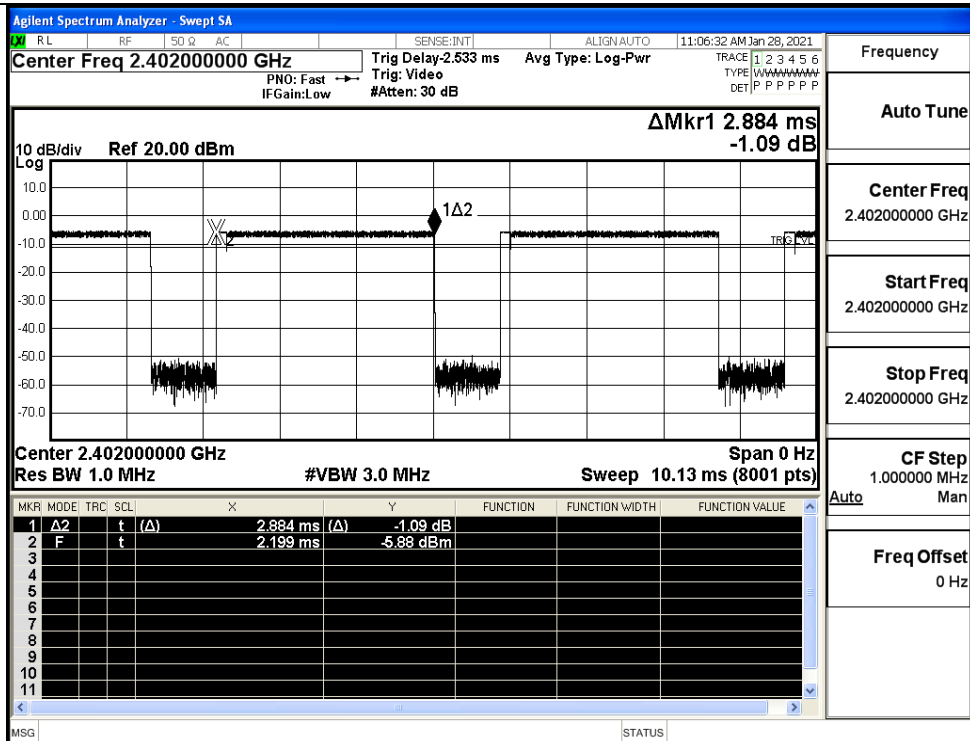
GFSK_DH5/MCH



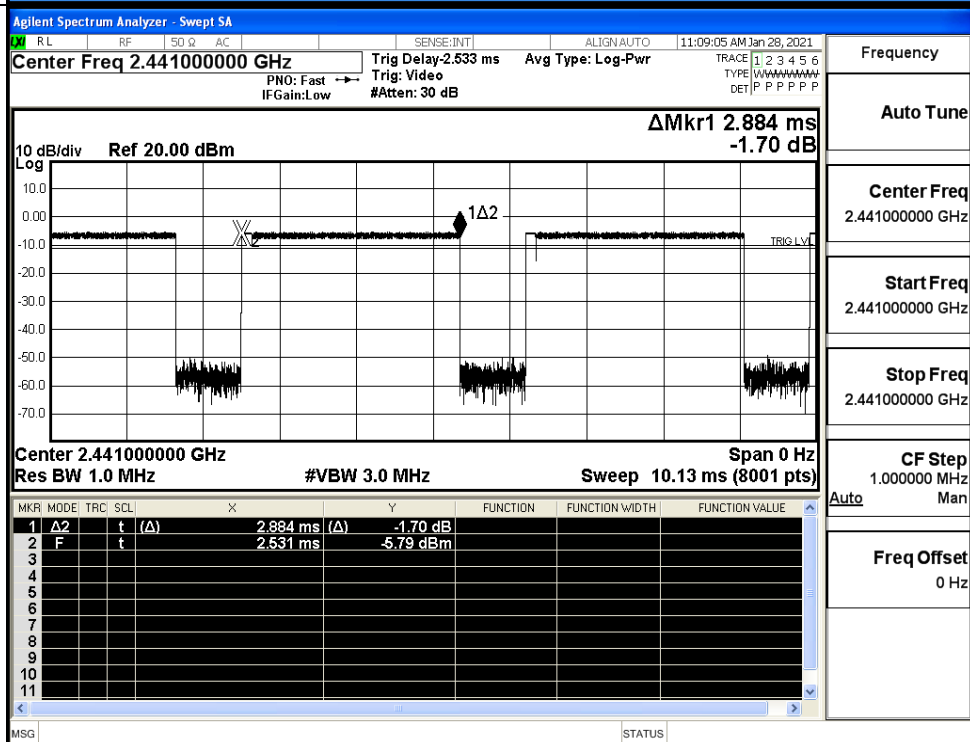
GFSK_DH5/HCH



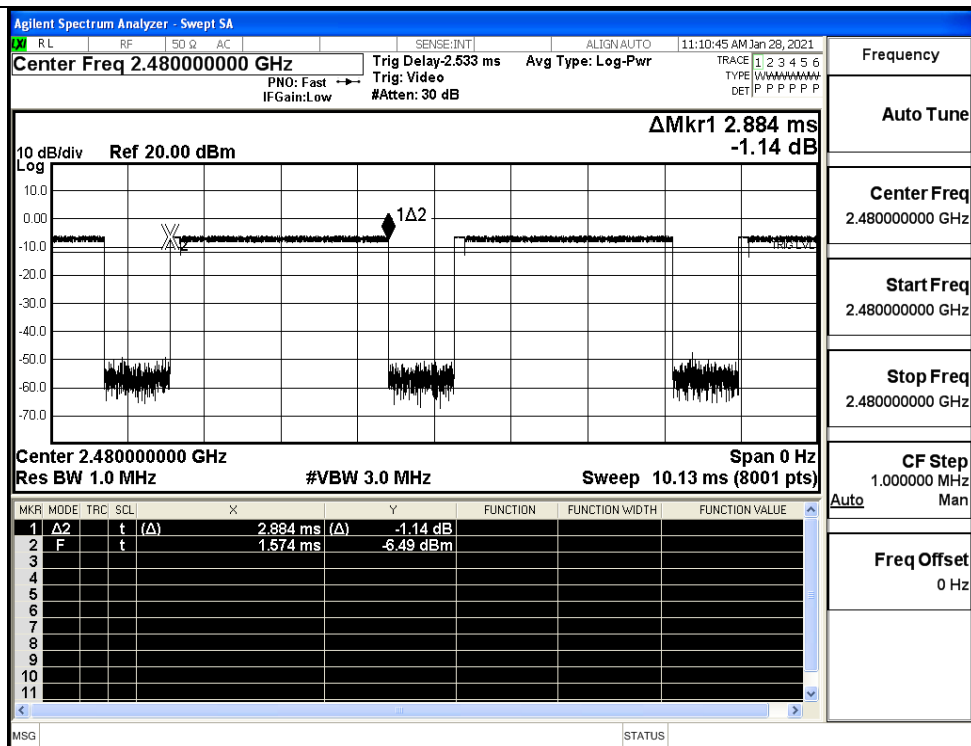
$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH



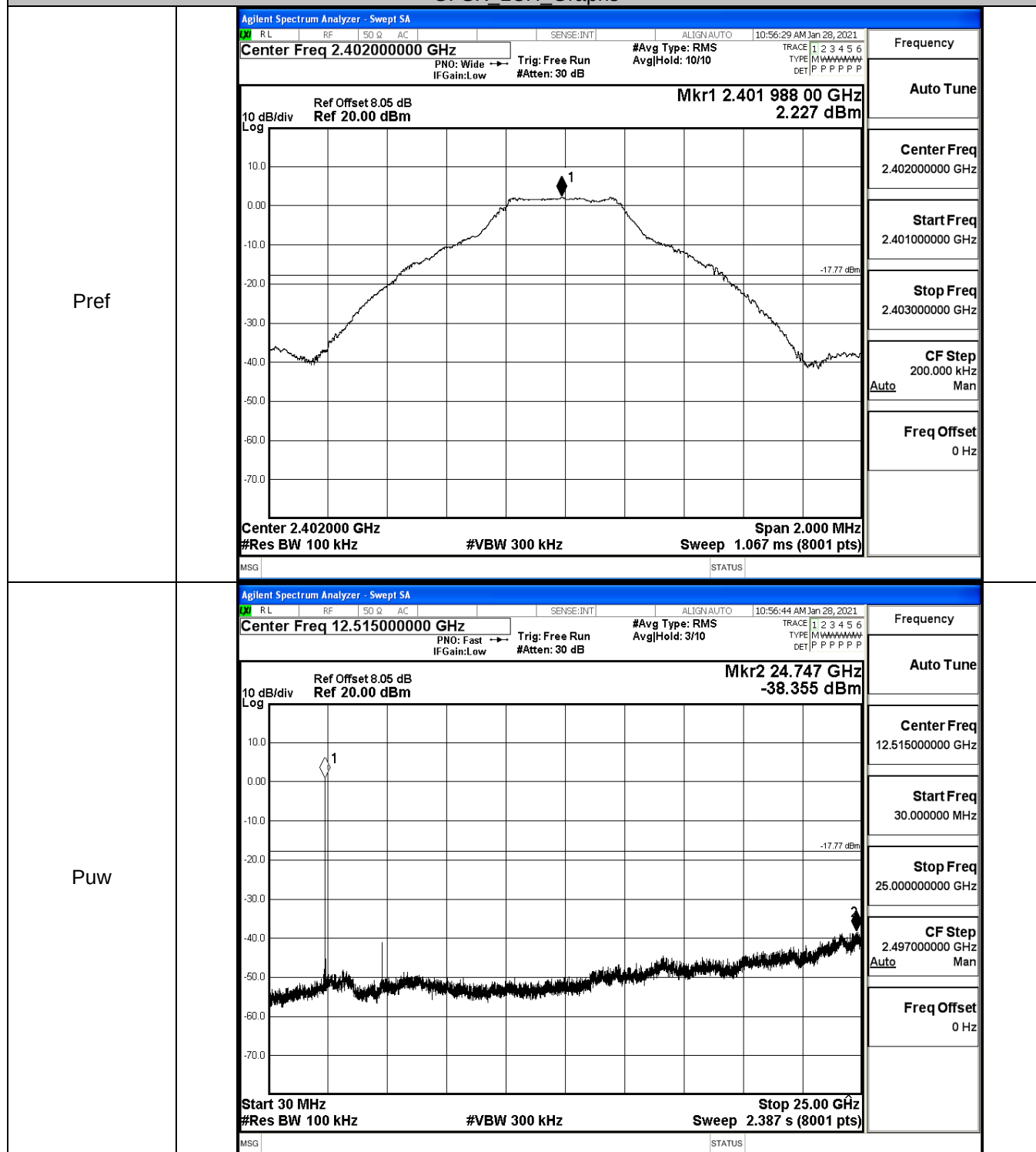
π/4DQPSK
2DH5/HCH



A.6 RF Conducted Spurious Emissions

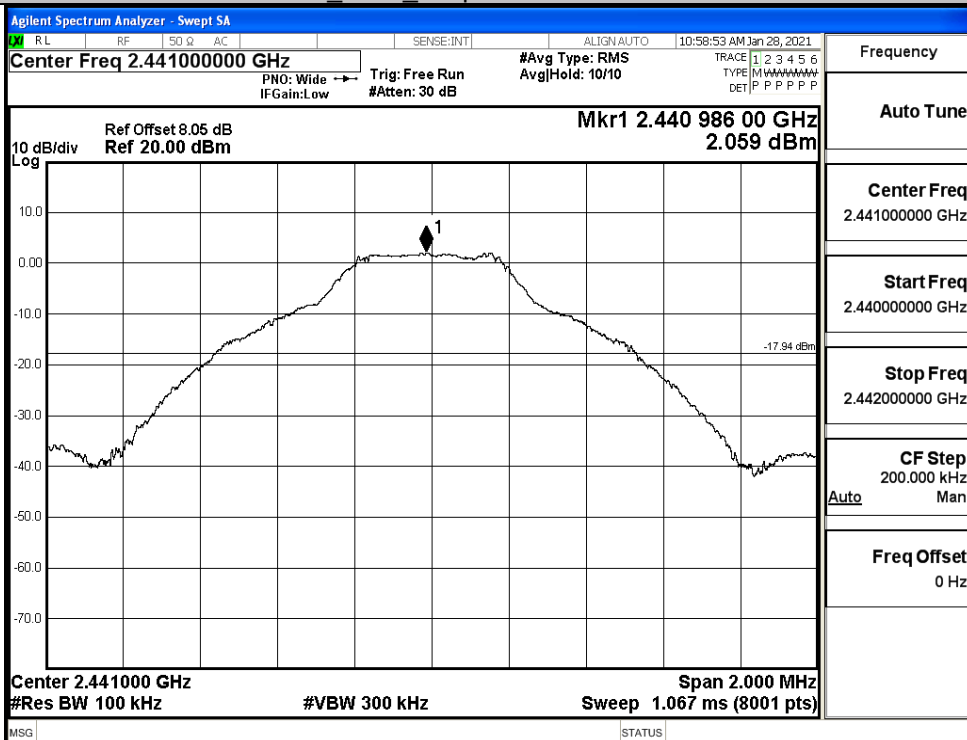
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.227	-38.355	-17.773	PASS
	MCH	2.059	-37.168	-17.941	PASS
	HCH	1.531	-37.396	-18.469	PASS
π /4DQPSK	LCH	2.347	-37.373	-17.653	PASS
	MCH	2.22	-37.528	-17.780	PASS
	HCH	1.745	-37.167	-18.255	PASS

GFSK_LCH_Graphs

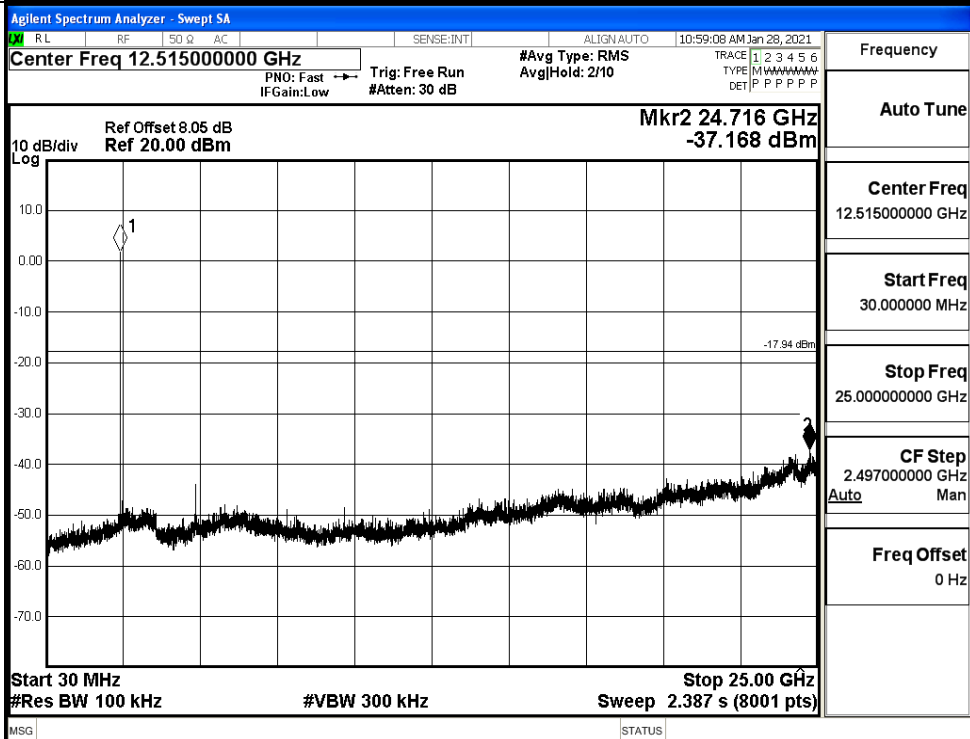


GFSK_MCH_Graphs

Pref

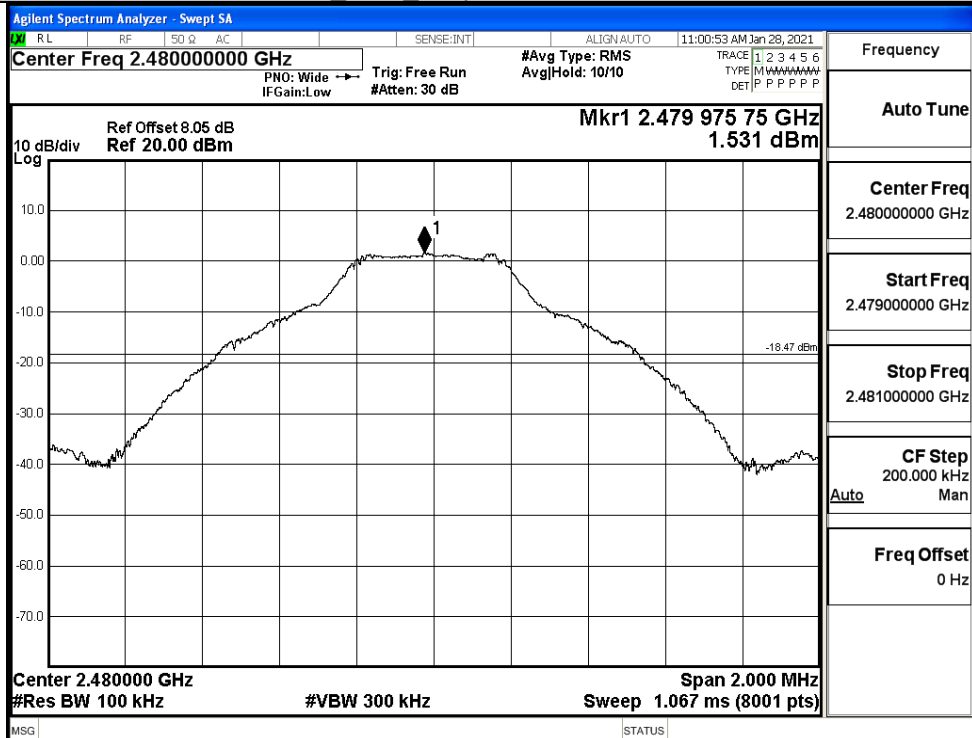


Puw

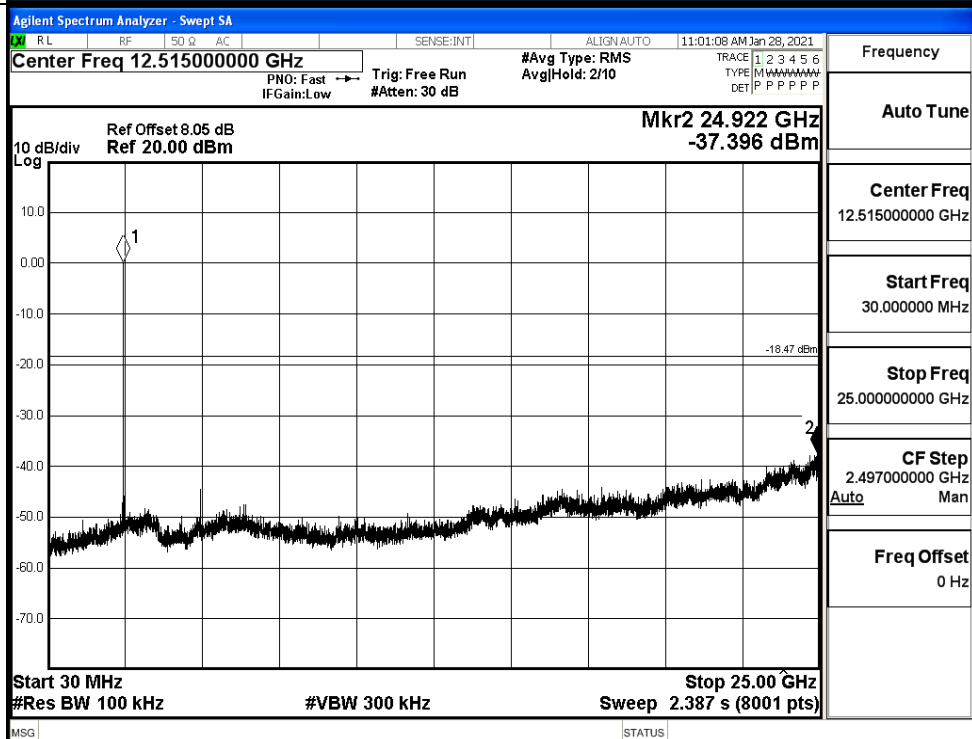


GFSK HCH Graphs

Pref

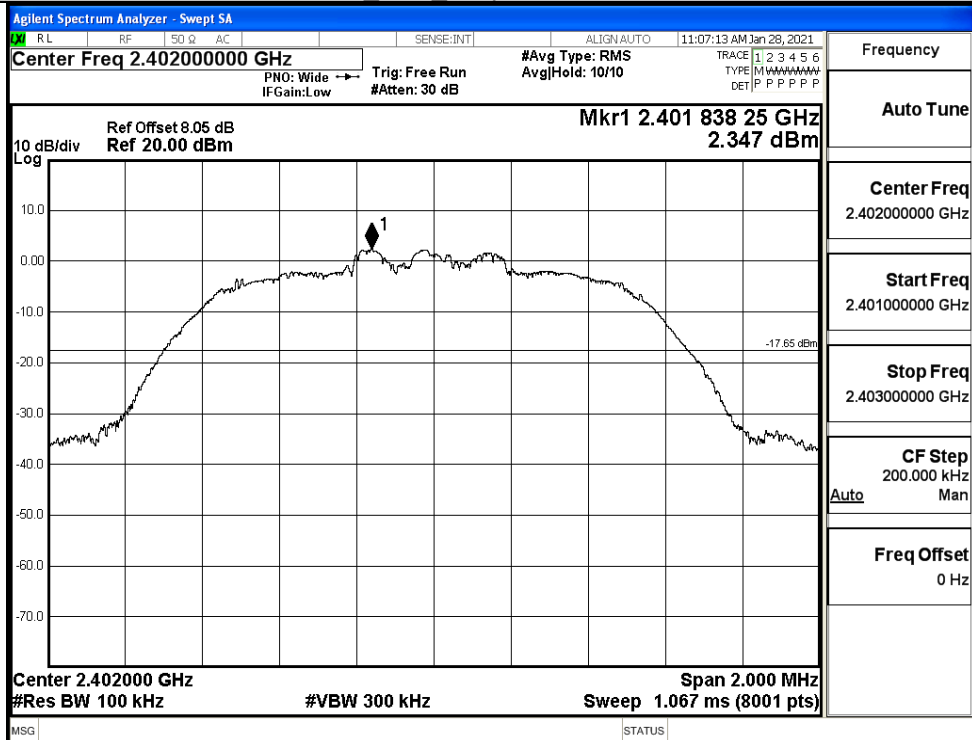


Puw

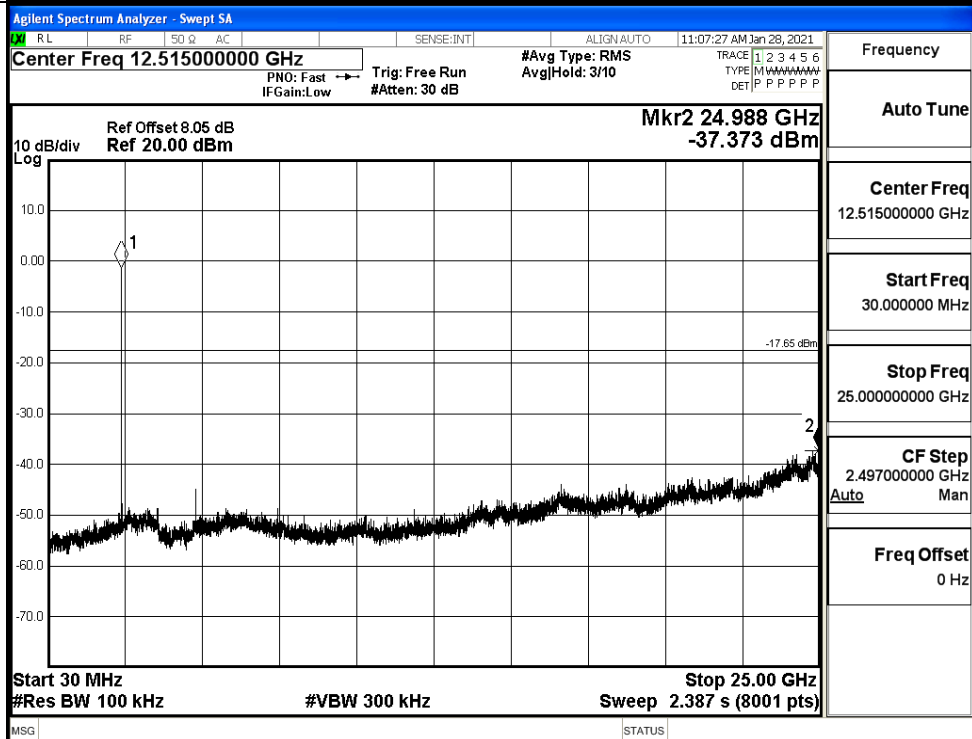


$\pi/4$ DQPSK LCH_Graphs

Pref

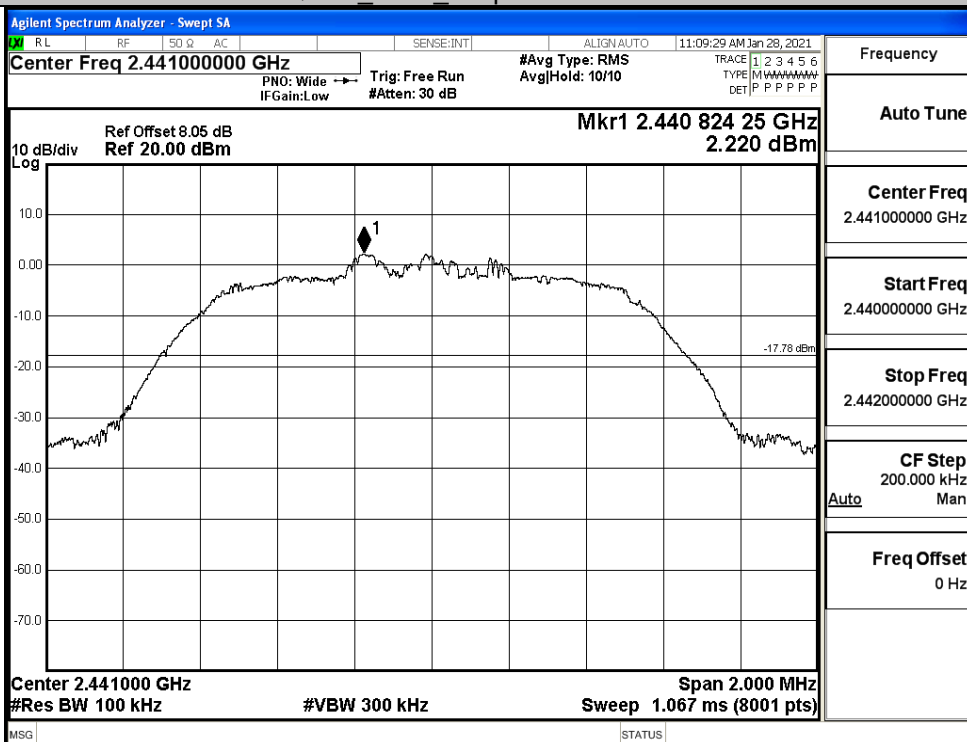


Puw

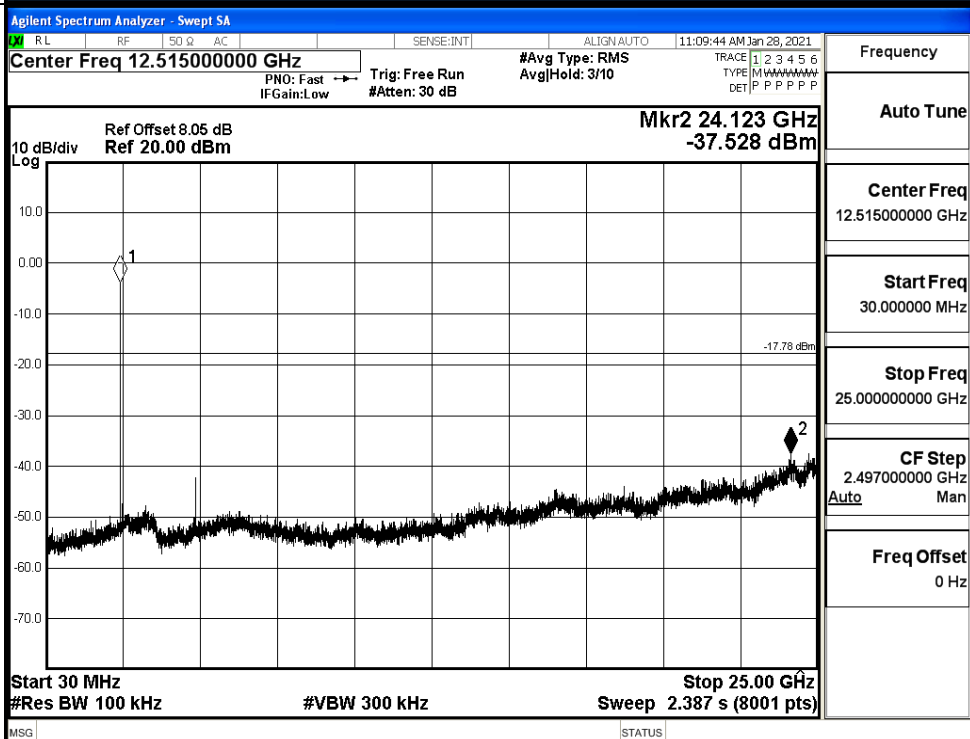


$\pi/4$ DQPSK_MCH_Graphs

Pref

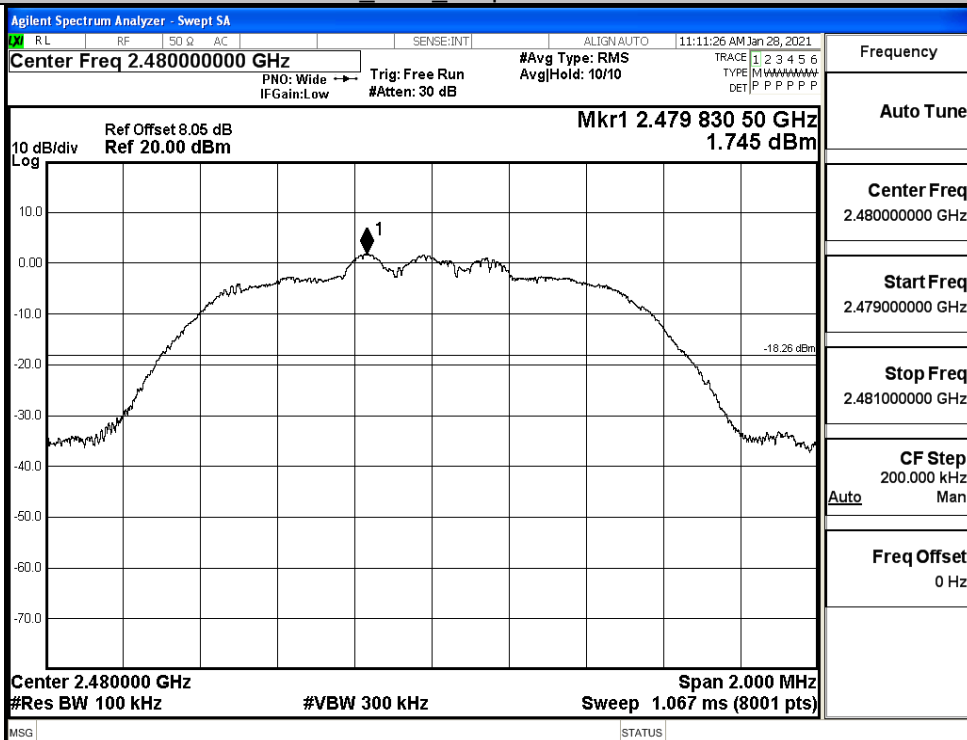


Puw

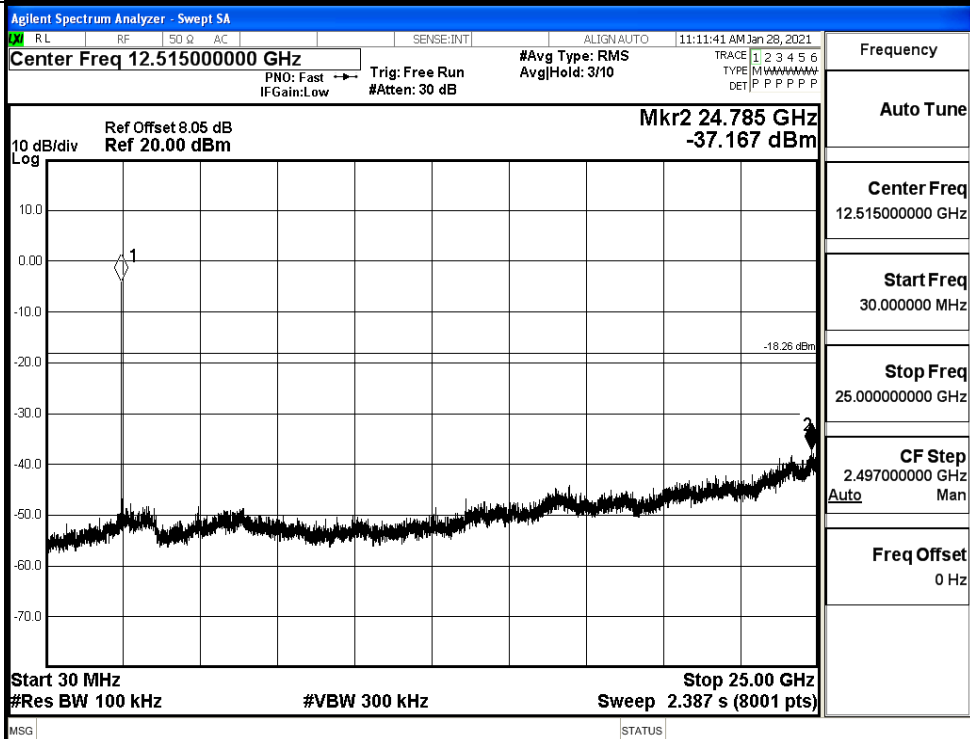


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

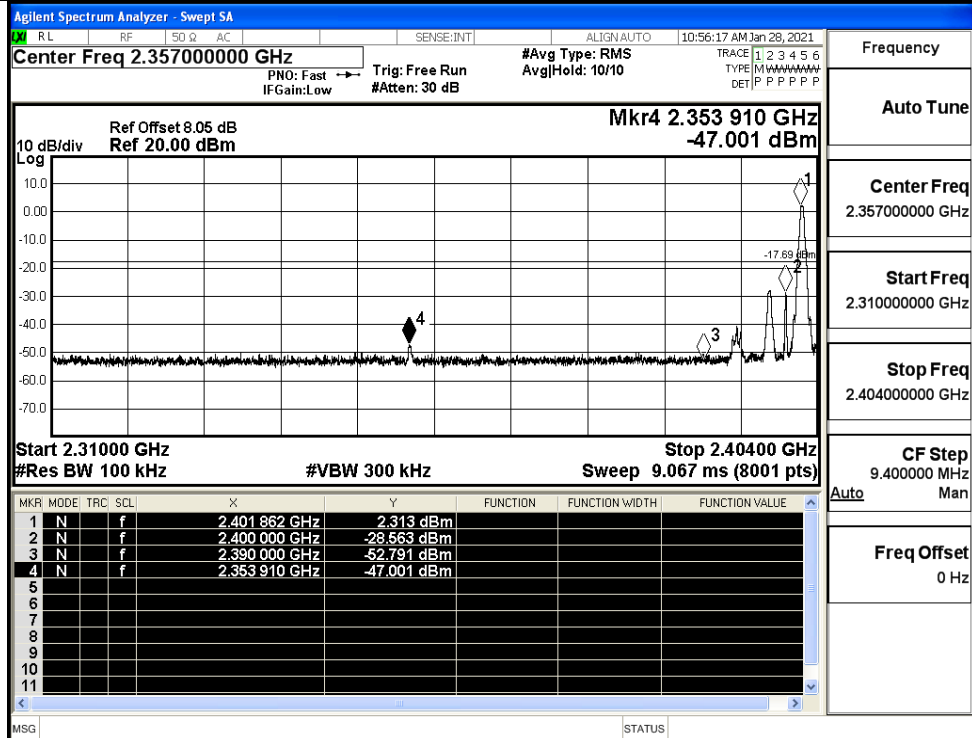


A.7 Band-edge for RF Conducted Emissions

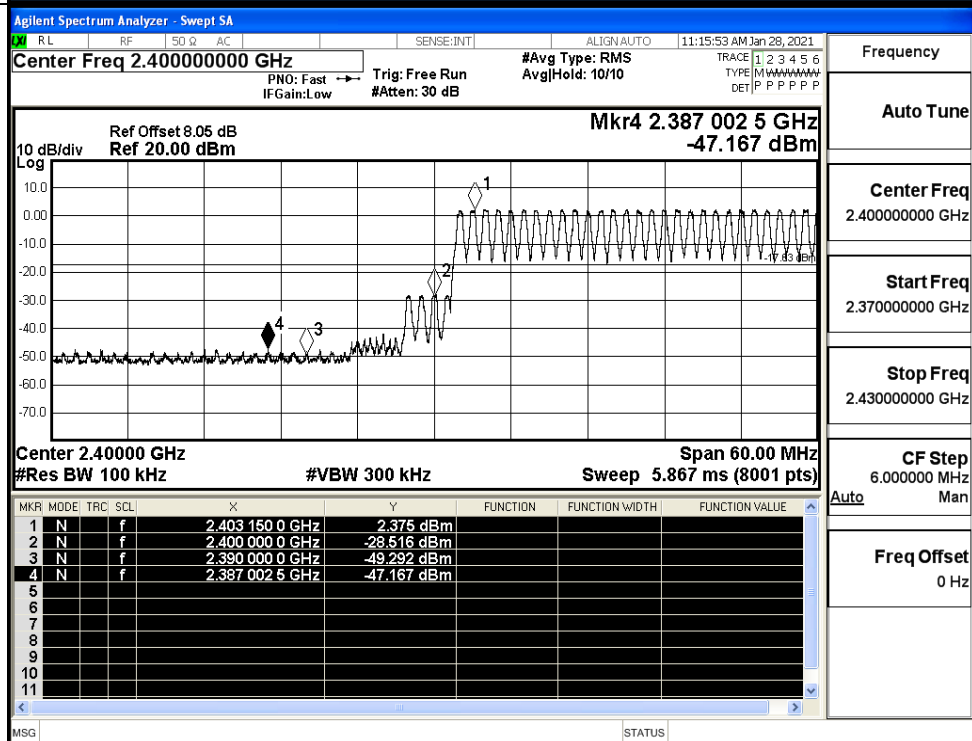
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	2.313	Off	-47.001	-17.69	PASS
			2.375	On	-47.167	-17.63	PASS
	HCH	2480	1.624	Off	-41.402	-18.38	PASS
			2.004	On	-42.870	-18	PASS
$\pi/4$ DQPSK	LCH	2402	2.279	Off	-49.443	-17.72	PASS
			2.514	On	-47.448	-17.49	PASS
	HCH	2480	1.838	Off	-42.527	-18.16	PASS
			2.202	On	-43.234	-17.8	PASS

Test Graphs

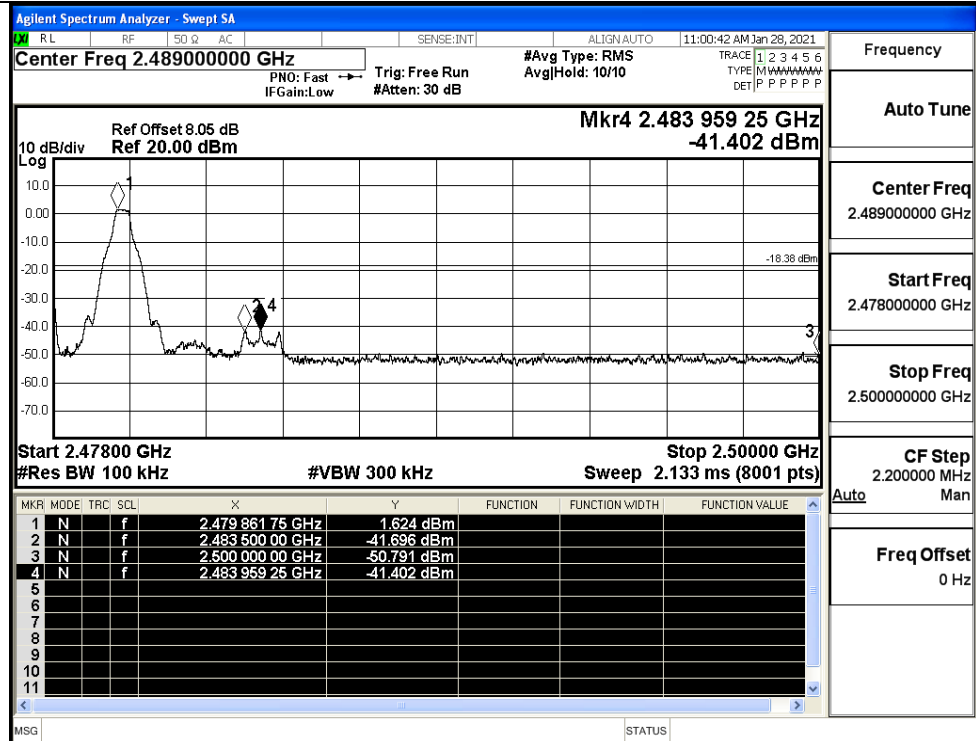
GFSK/LCH/No Hop



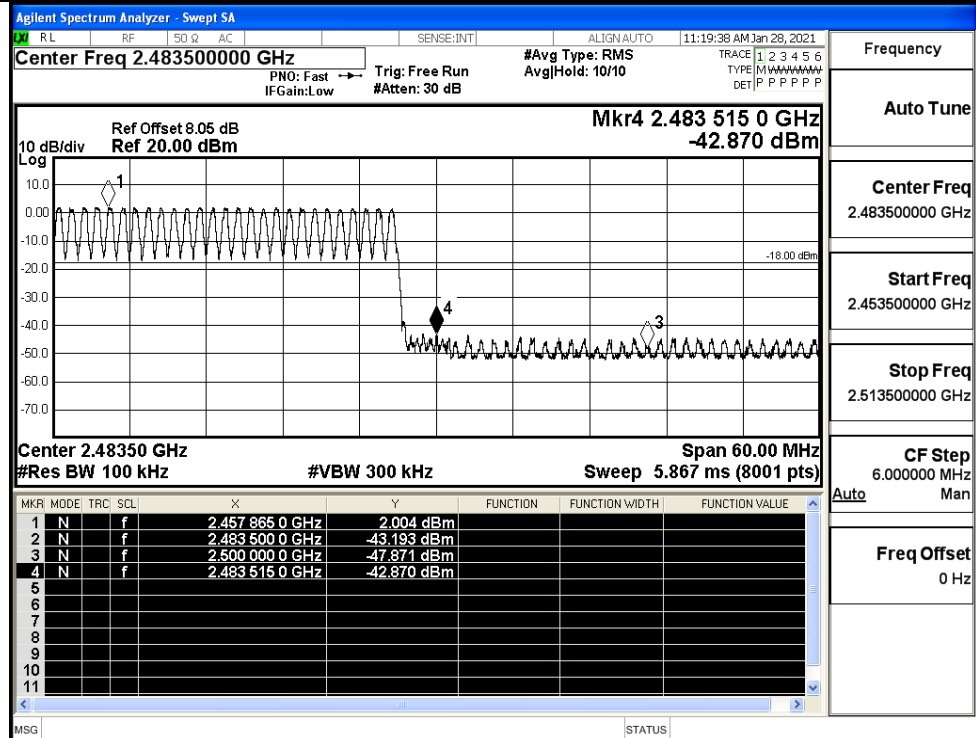
GFSK/LCH/Hop



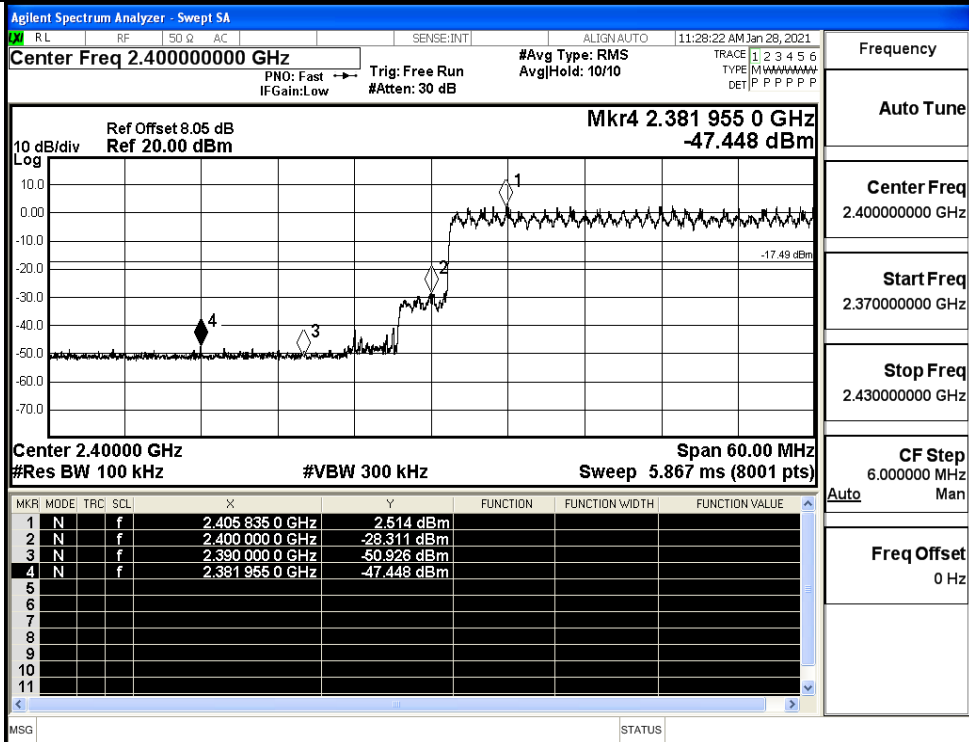
GFSK/HCH/No Hop



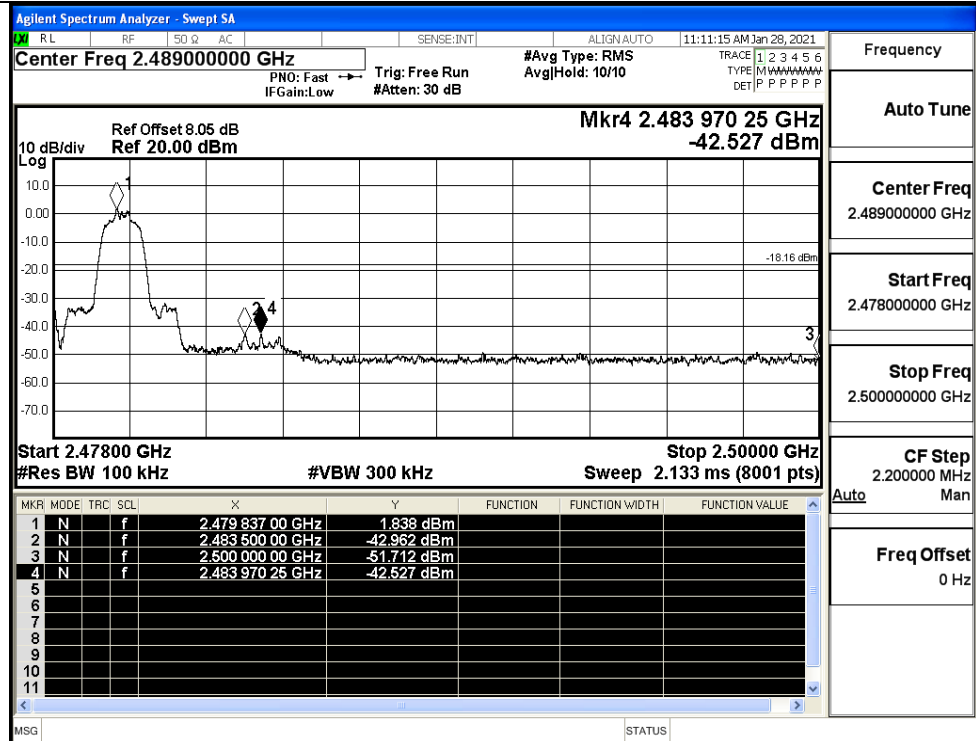
GFSK/HCH/Hop



$\pi/4$ DQPSK/LCH/Hop



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



Frequency

Auto Tune

Center Freq
2.489000000 GHz

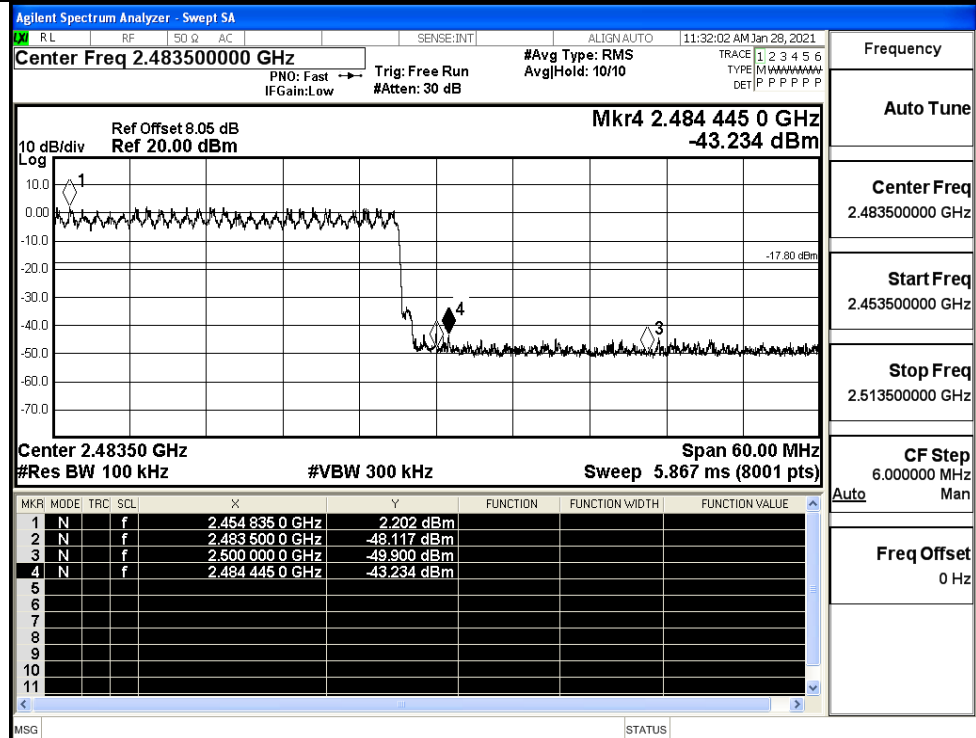
Start Freq
2.478000000 GHz

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

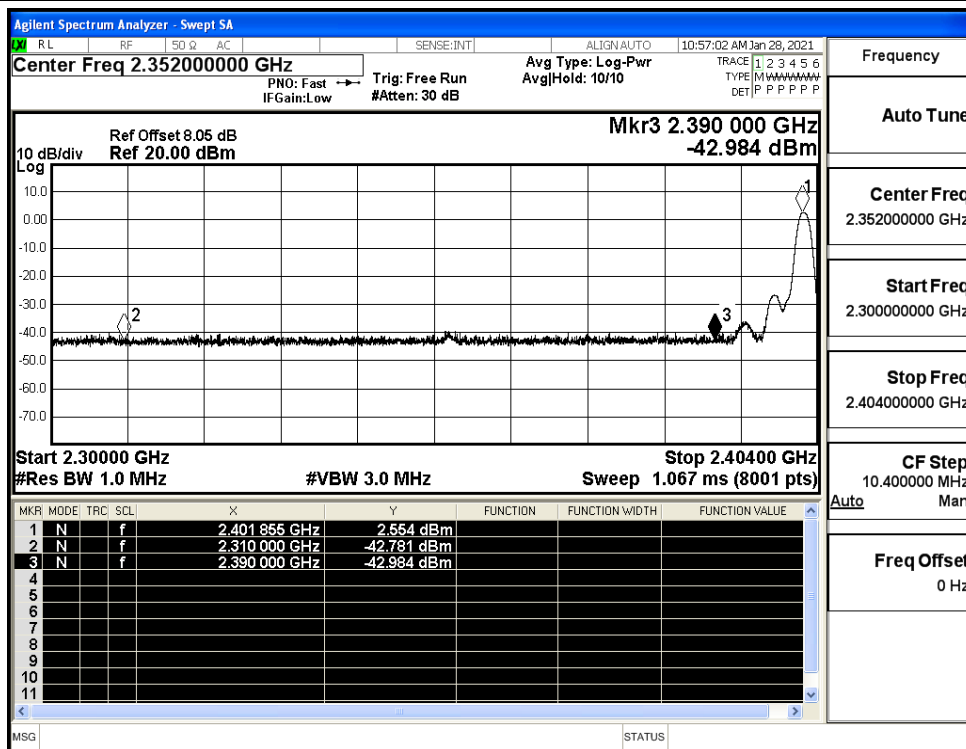
CF Step
6.000000 MHz

Freq Offset
0 Hz

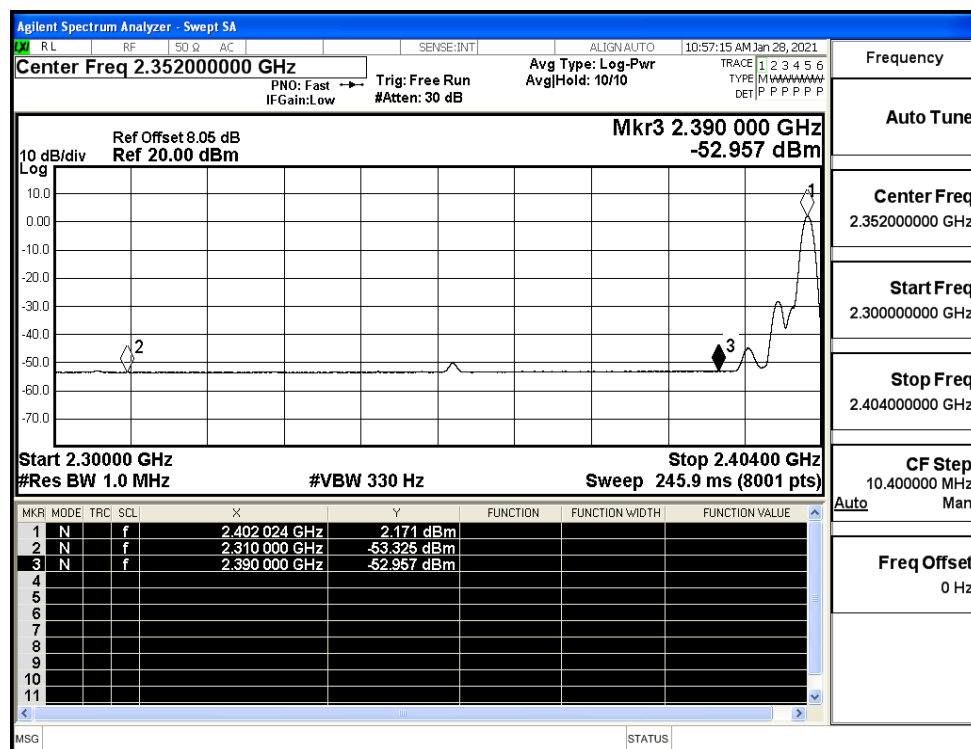
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.78	2.0	0	54.48	PEAK	74	PASS
	Off	2310.0	-53.33	2.0	0	43.93	AV	54	PASS
	Off	2390.0	-42.98	2.0	0	54.28	PEAK	74	PASS
	Off	2390.0	-52.96	2.0	0	44.30	AV	54	PASS
	Off	2483.5	-37.45	2.0	0	59.81	PEAK	74	PASS
	Off	2483.5	-46.04	2.0	0	51.22	AV	54	PASS
	Off	2500.0	-42.63	2.0	0	54.63	PEAK	74	PASS
	Off	2500.0	-52.40	2.0	0	44.86	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.75	2.0	0	53.51	PEAK	74	PASS
	Off	2310.0	-53.46	2.0	0	43.80	AV	54	PASS
	Off	2390.0	-42.57	2.0	0	54.69	PEAK	74	PASS
	Off	2390.0	-53.05	2.0	0	44.21	AV	54	PASS
	Off	2483.5	-38.14	2.0	0	59.12	PEAK	74	PASS
	Off	2483.5	-47.93	2.0	0	49.33	AV	54	PASS
	Off	2500.0	-43.12	2.0	0	54.14	PEAK	74	PASS
	Off	2500.0	-52.43	2.0	0	44.83	AV	54	PASS

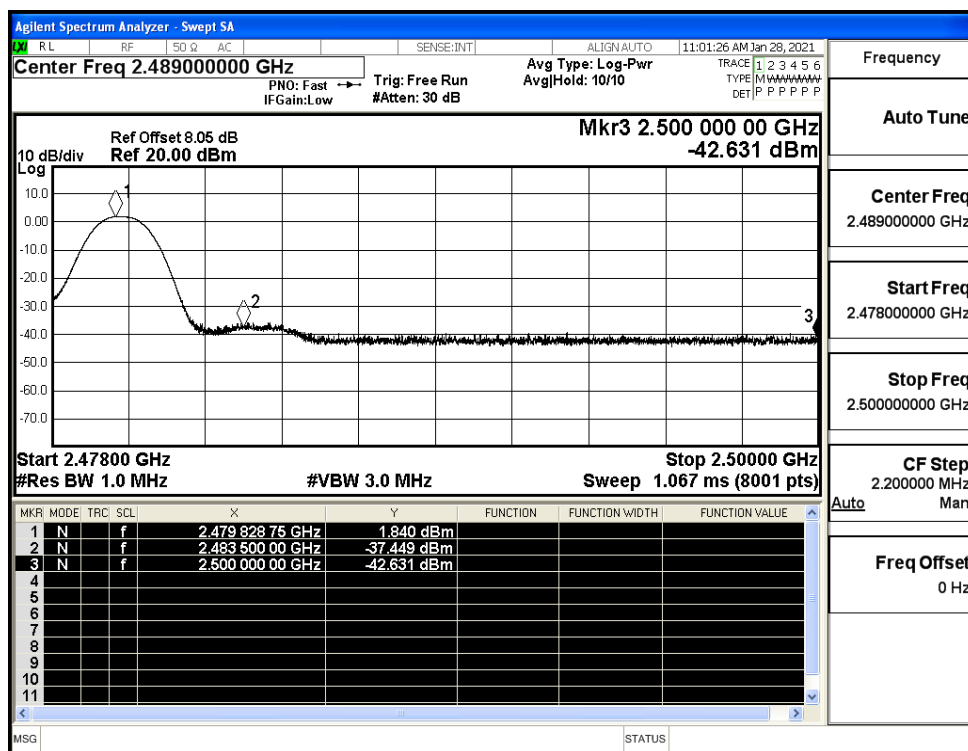
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



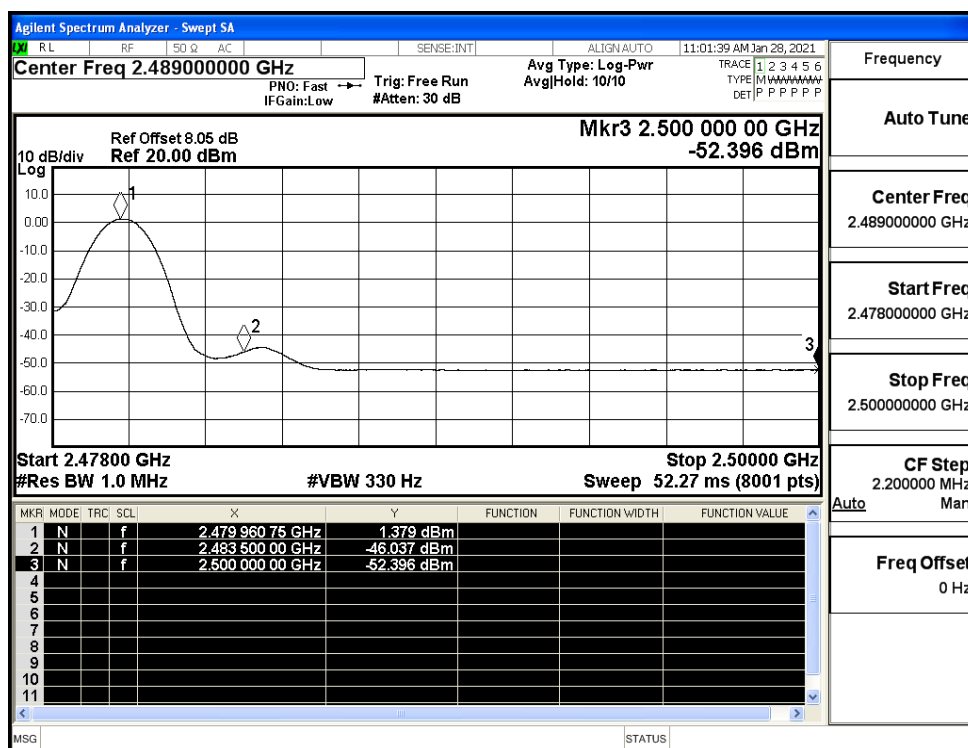
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



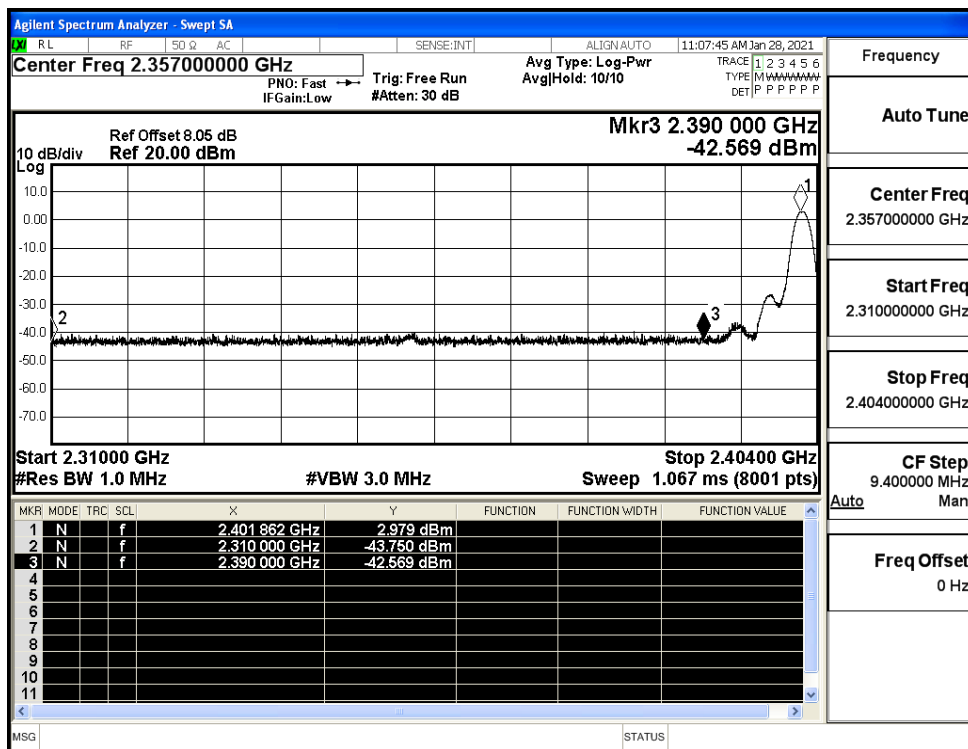
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



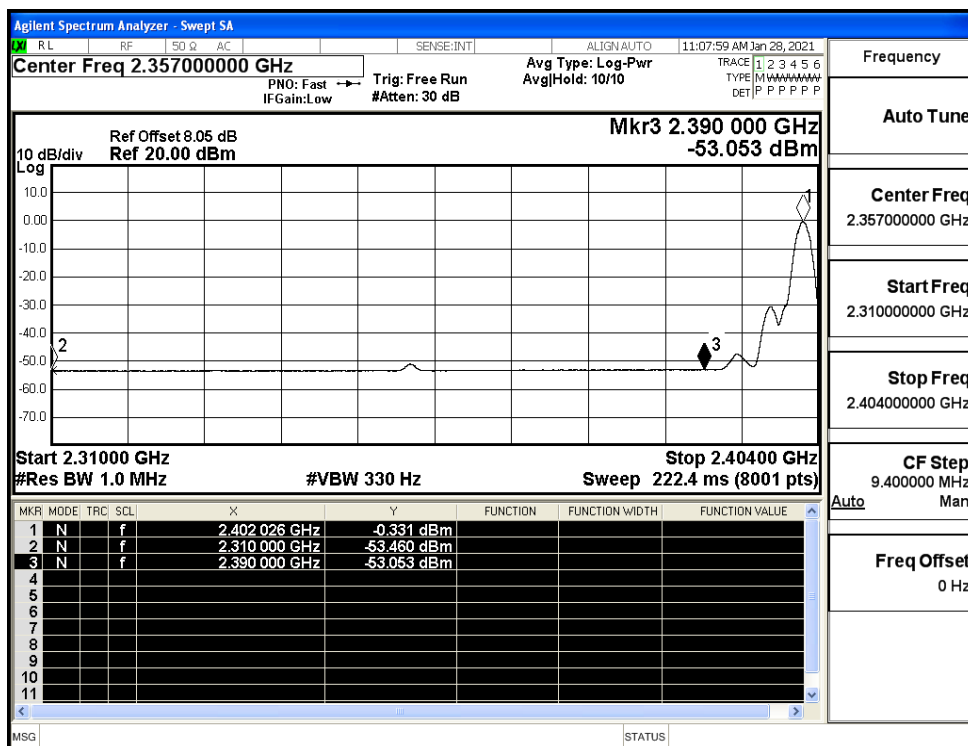
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



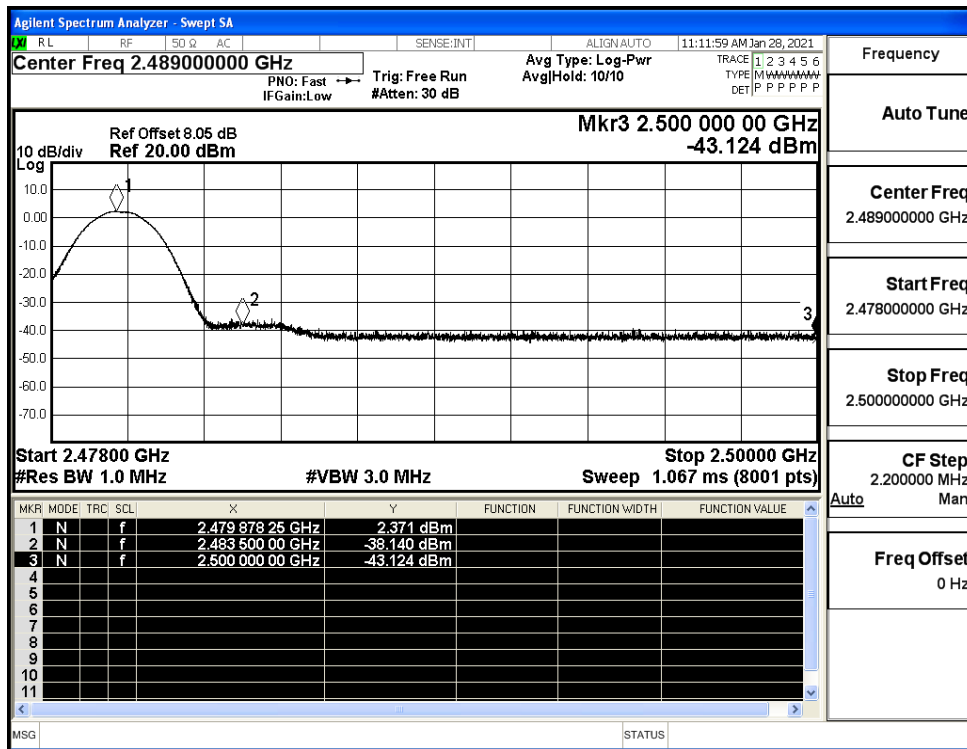
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



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 $\pi/4$ -DQPSK_Average (High Channel)