

Appendix A
RF Test Data for BT V5.0 (Conducted Measurement)
Product Name: Classic Portable Turntable
Trade Mark: ByronStatics
Test Model: KTS-601BT

Environmental Conditions

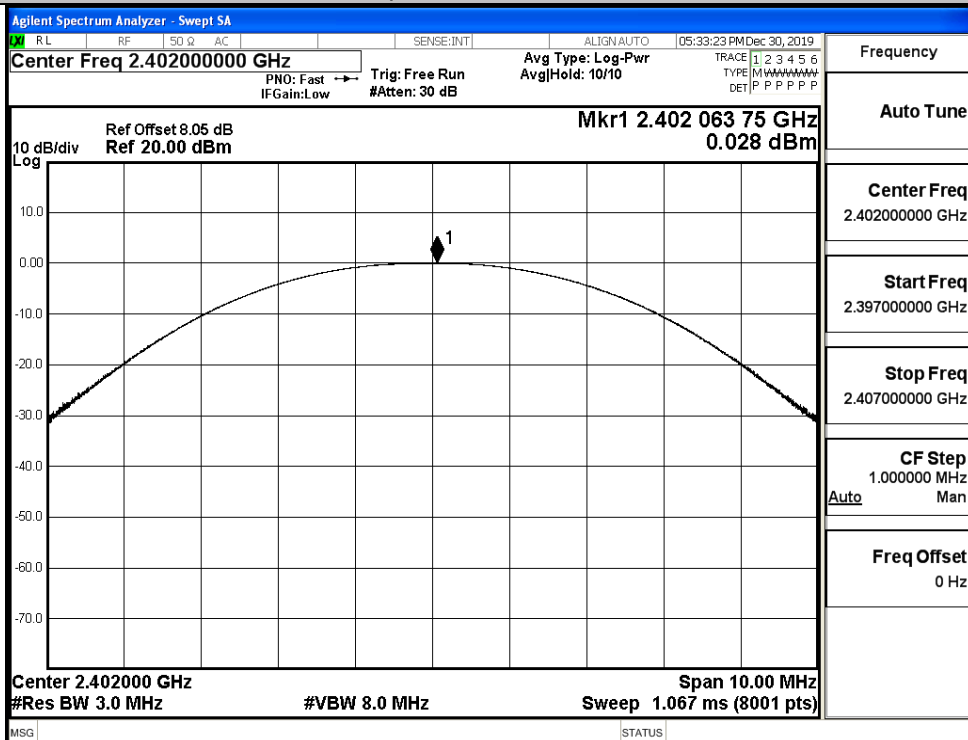
Temperature:	25.1 ° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Qu Xin
Supervised by:	Tom Liu

A.1 Maximum Conducted Peak Output Power

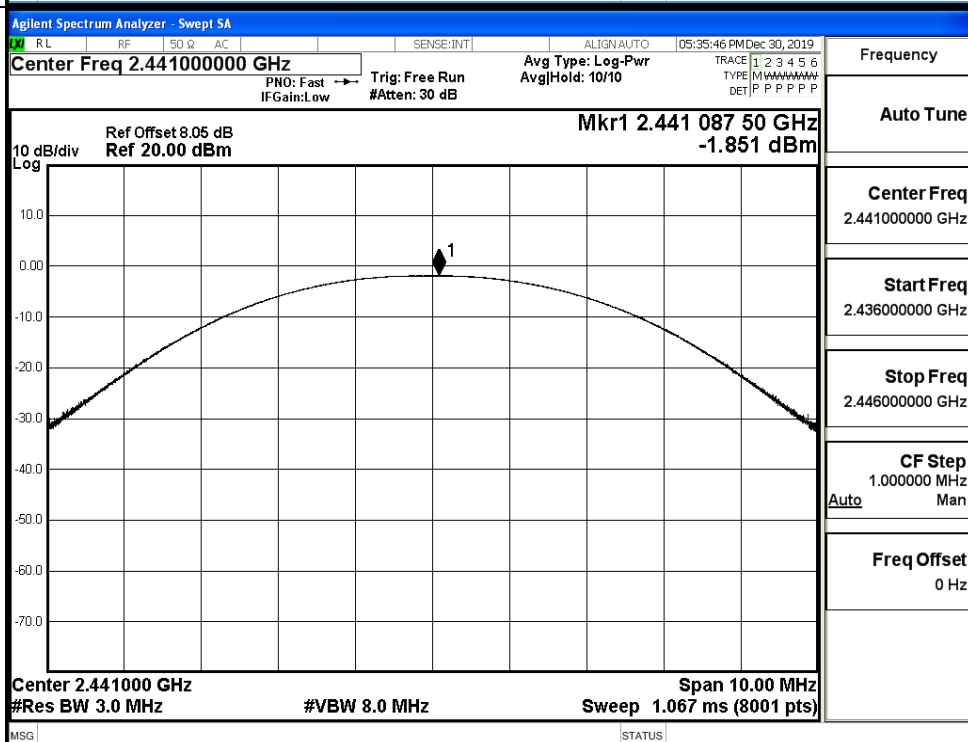
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.028	30	PASS
	MCH	-1.851	30	PASS
	HCH	-0.685	30	PASS
$\pi/4$ DQPSK	LCH	-0.764	21	PASS
	MCH	-2.457	21	PASS
	HCH	-1.364	21	PASS

Test Graphs

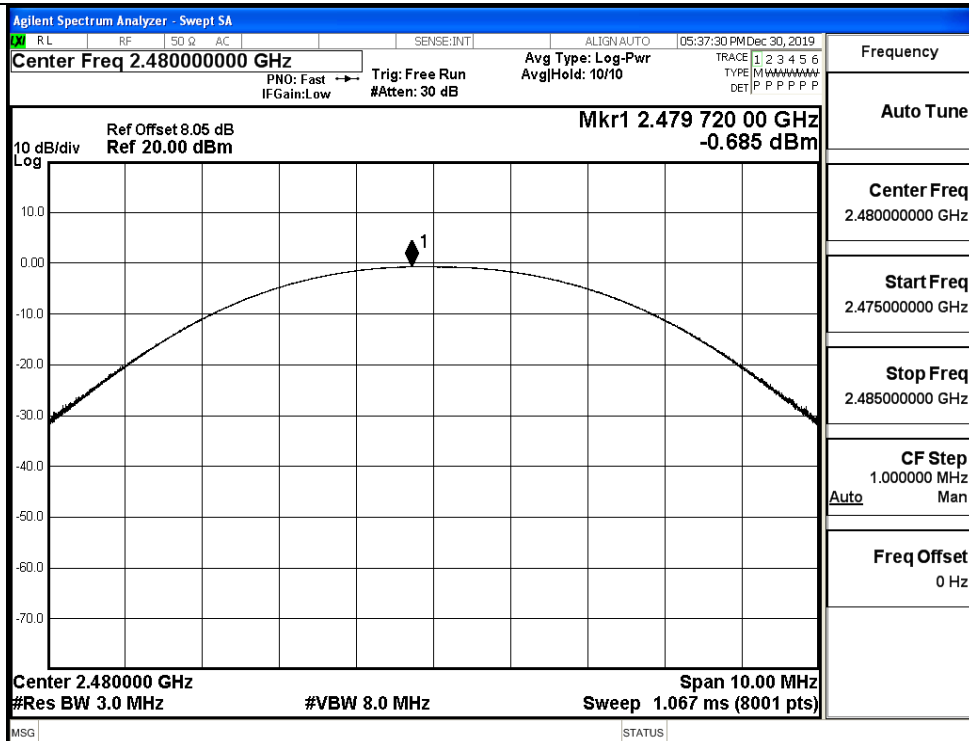
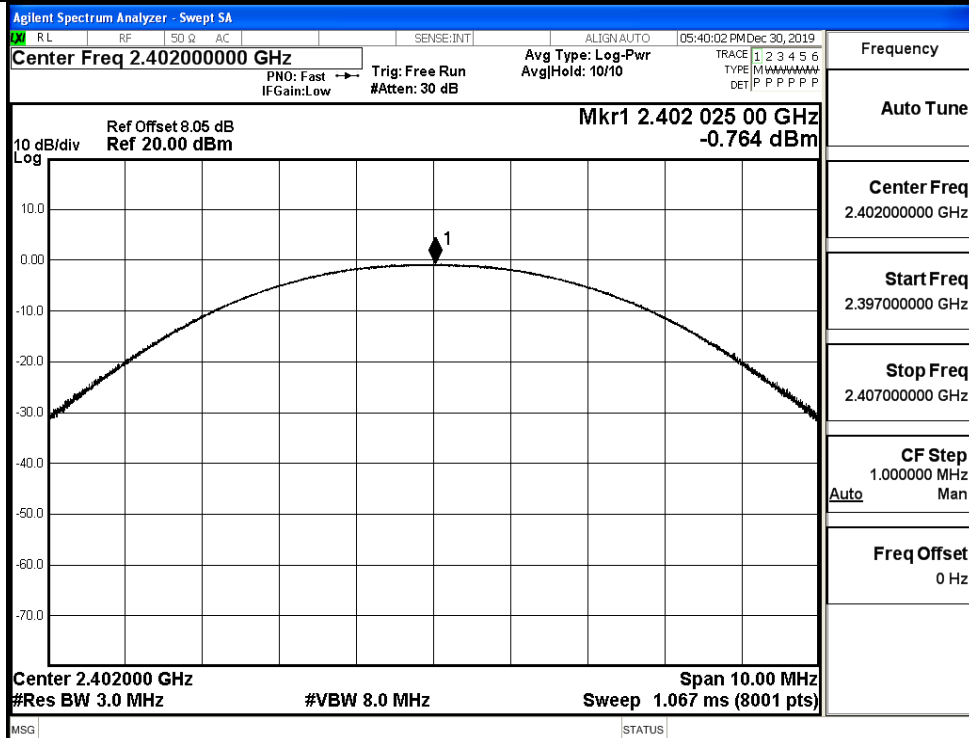
GFSK/LCH

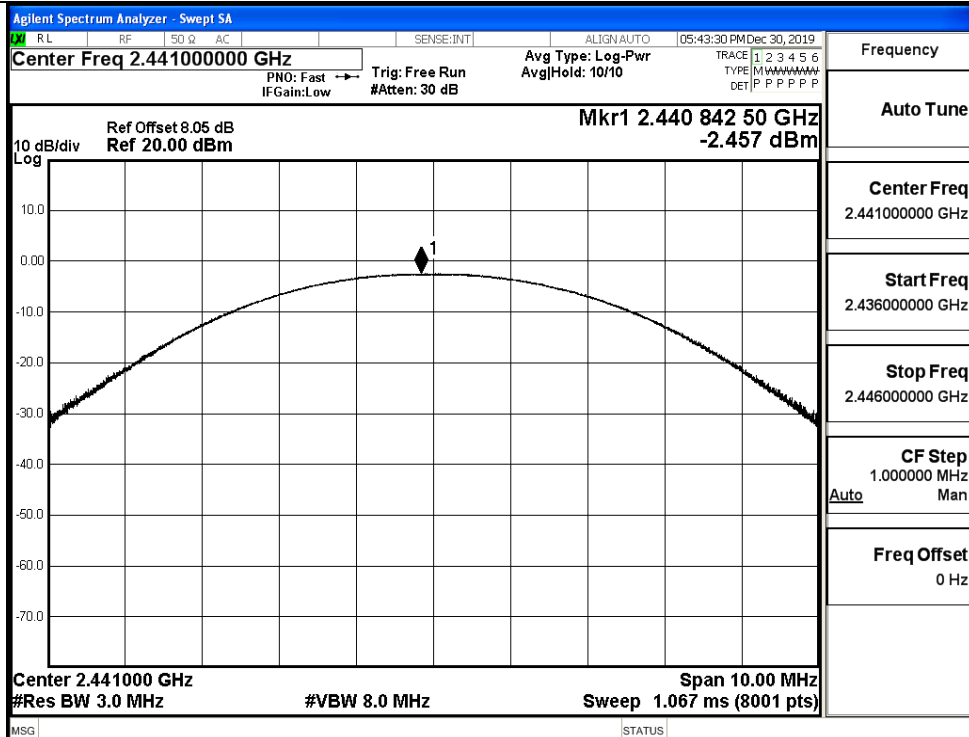
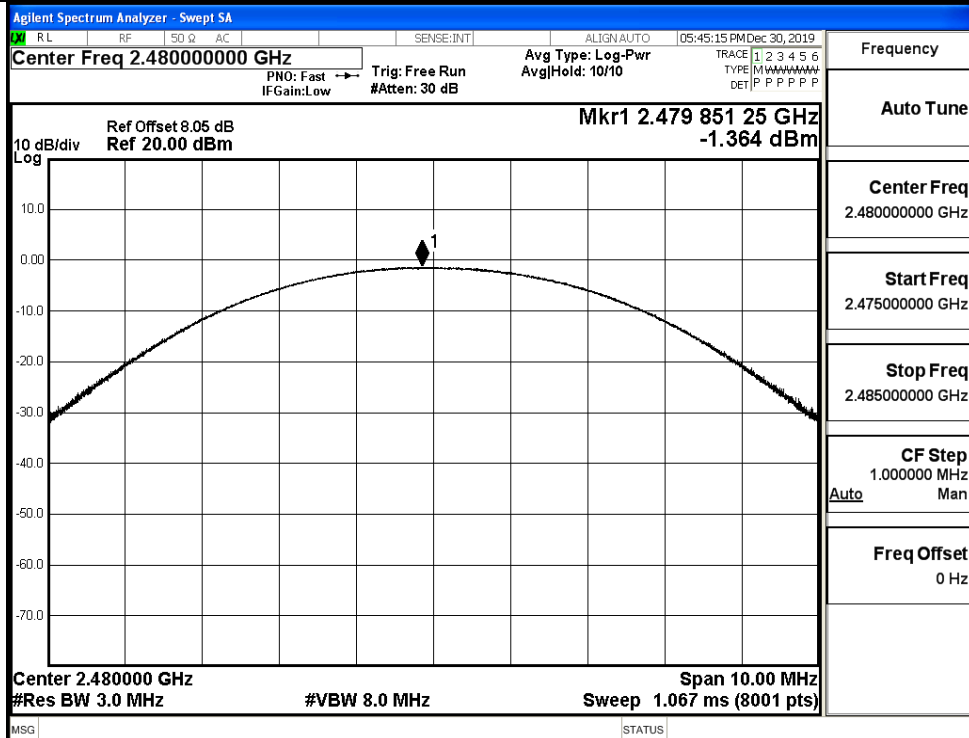


GFSK/MCH



GFSK/HCH

 $\pi/4$ DQPSK/LCH

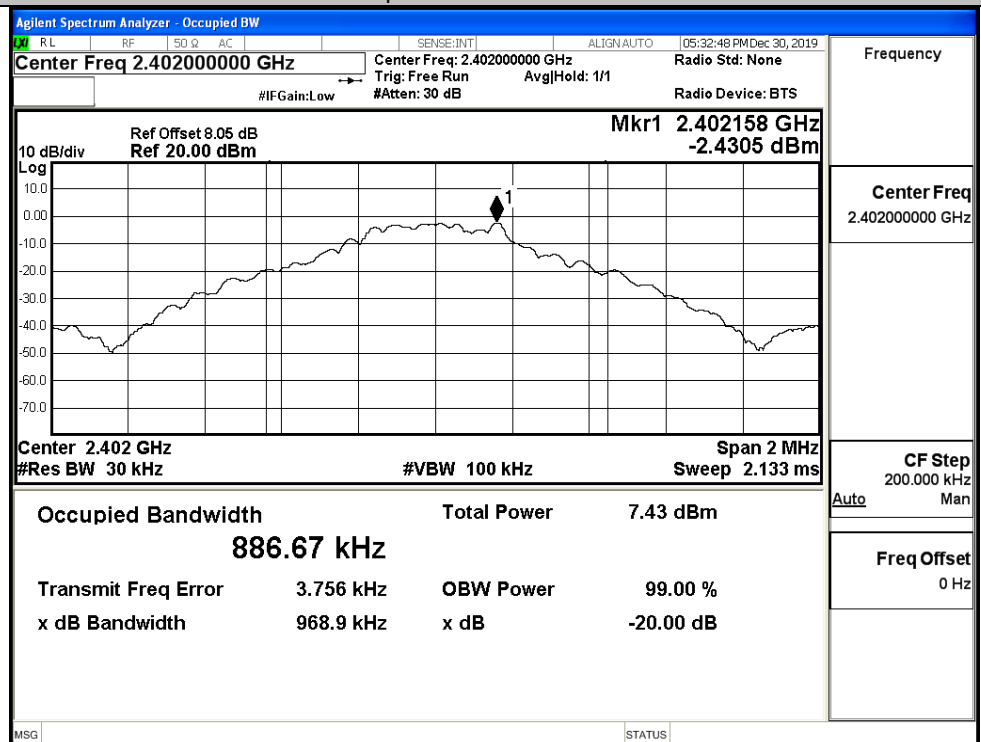
$\pi/4$ DQPSK/MCH $\pi/4$ DQPSK/HCH

A.2 20dB Bandwidth

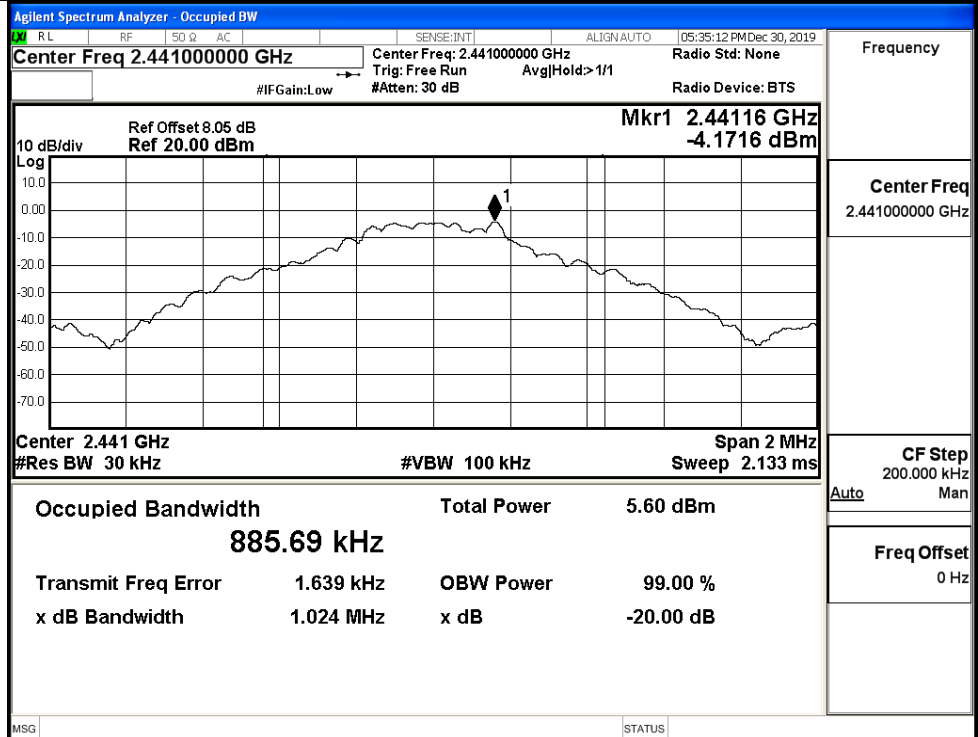
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9689	Not Specified	PASS
	MCH	1.024	Not Specified	PASS
	HCH	1.029	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.289	Not Specified	PASS
	MCH	1.310	Not Specified	PASS
	HCH	1.290	Not Specified	PASS

Test Graphs

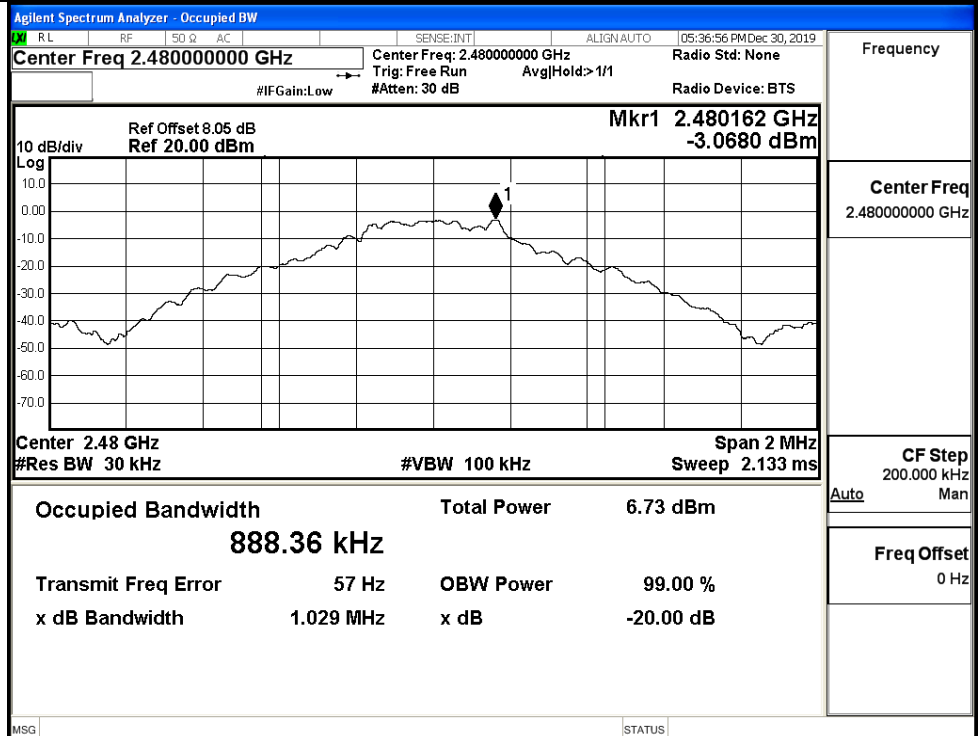
GFSK/LCH

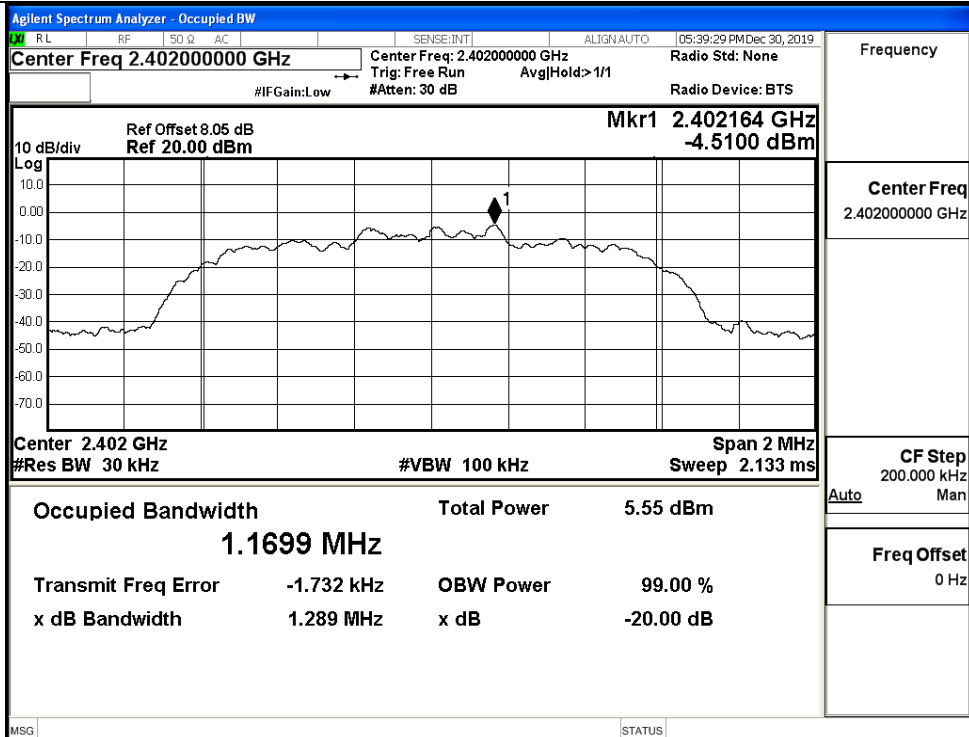
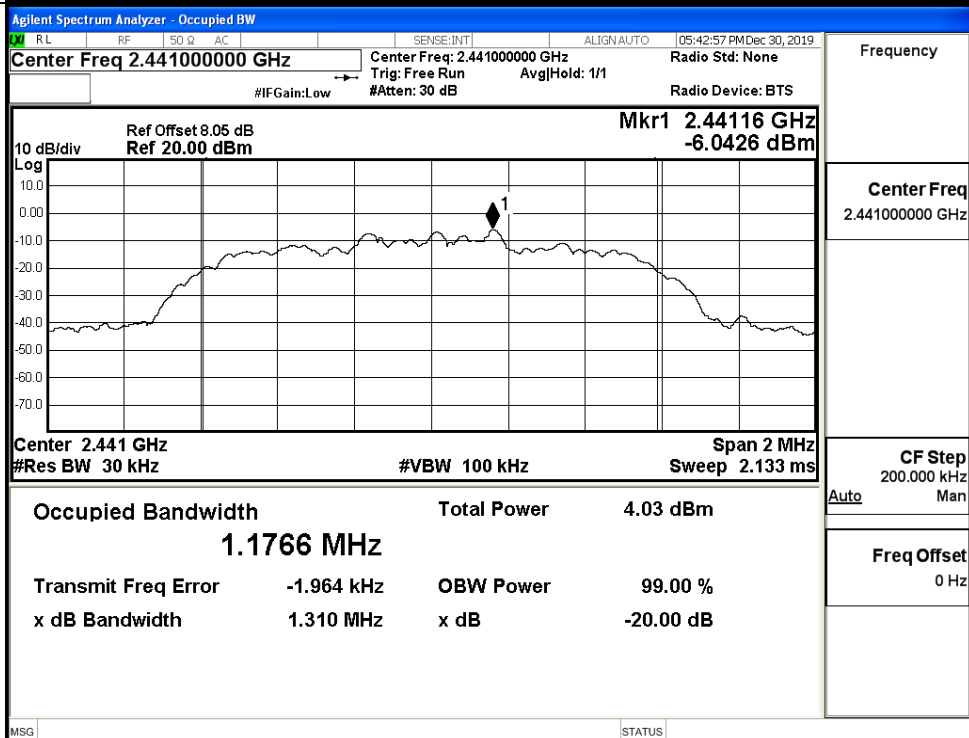


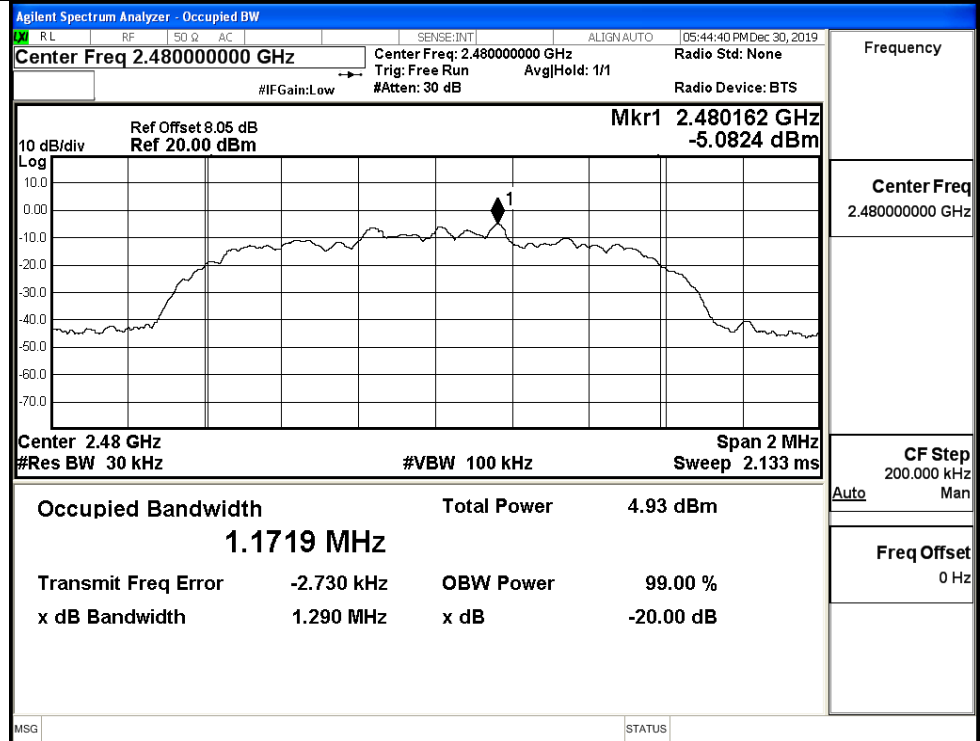
GFSK/MCH



GFSK/HCH



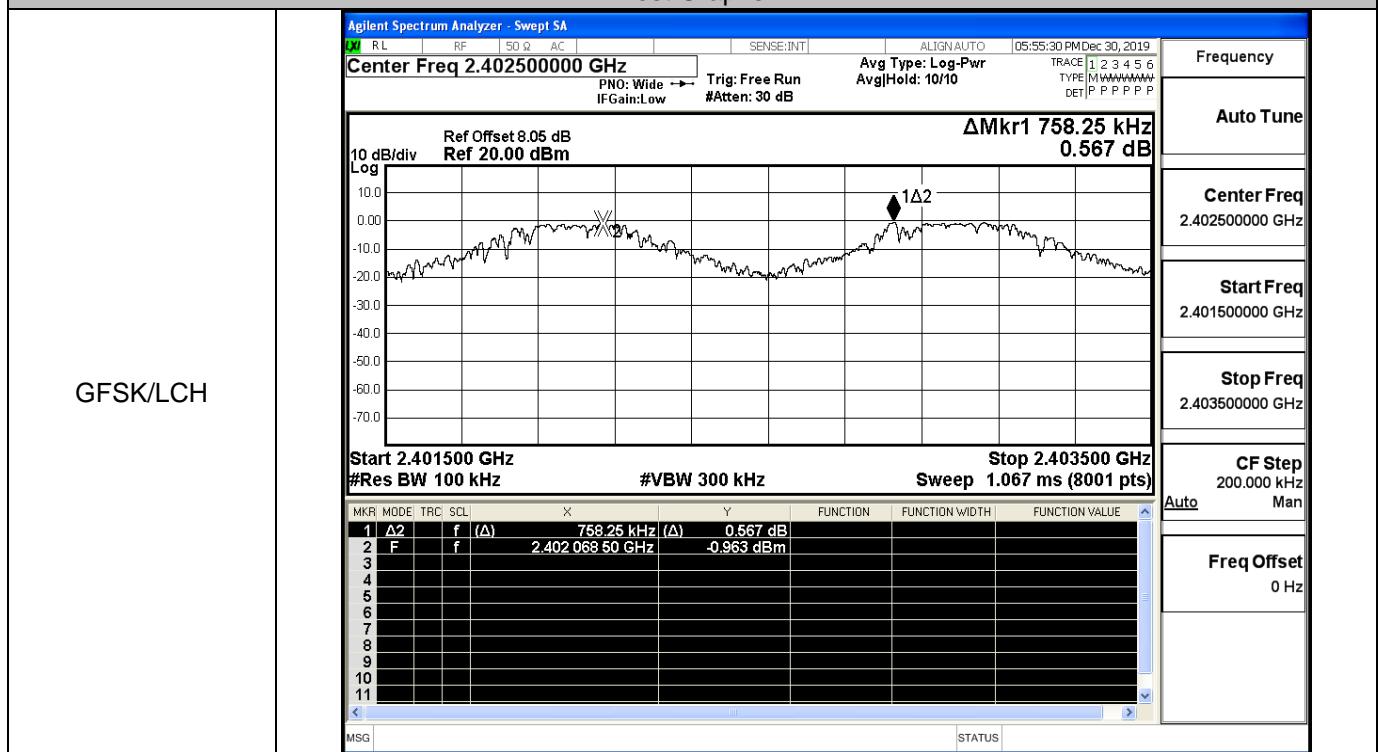
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

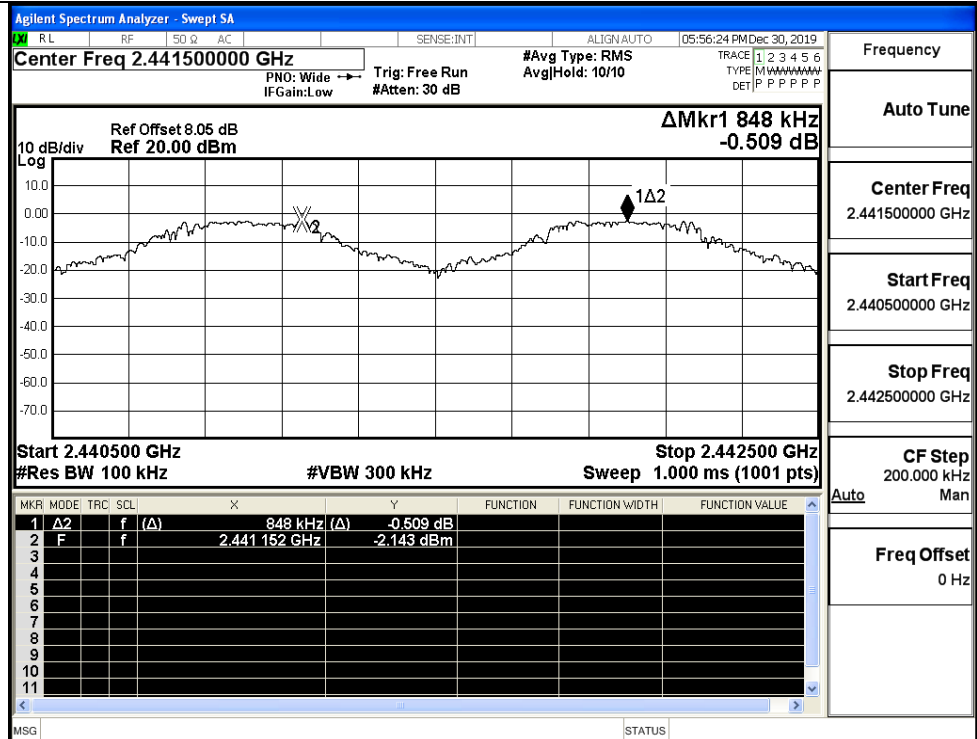
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.758	0.686	PASS
	MCH	0.848	0.686	PASS
	HCH	0.884	0.686	PASS
π /4DQPSK	LCH	1.040	0.873	PASS
	MCH	0.880	0.873	PASS
	HCH	1.186	0.873	PASS

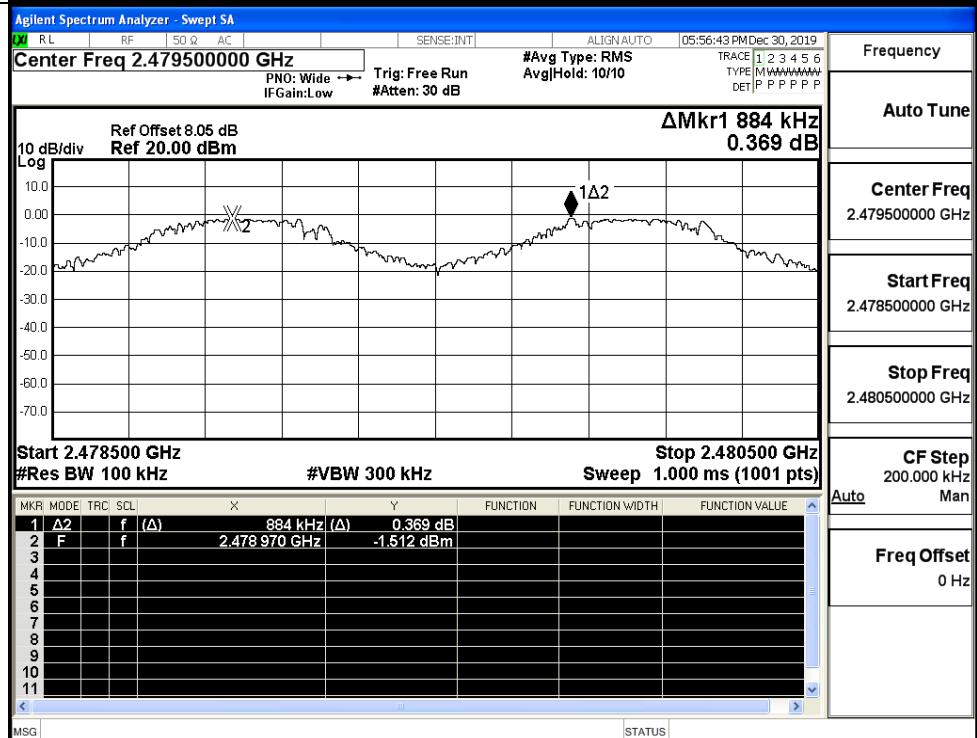
Test Graphs

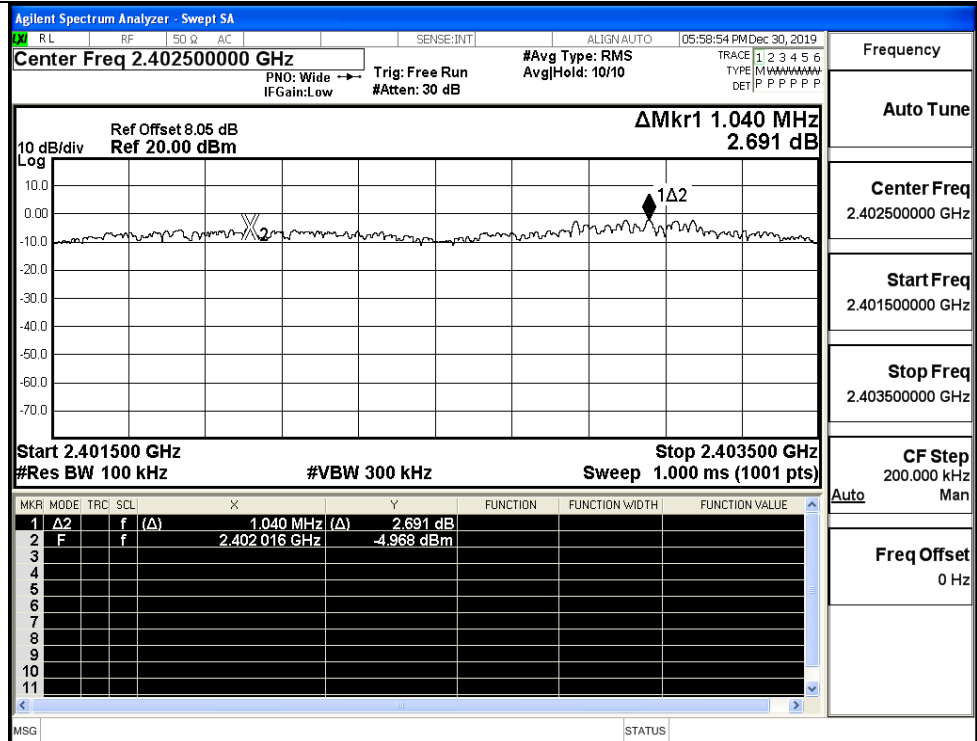
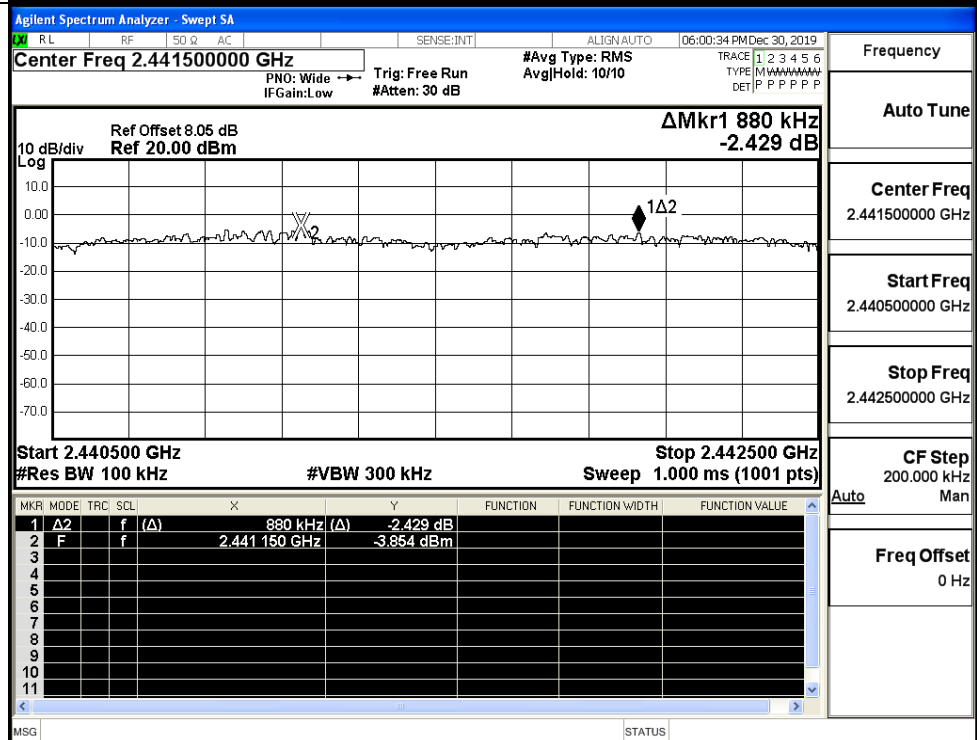


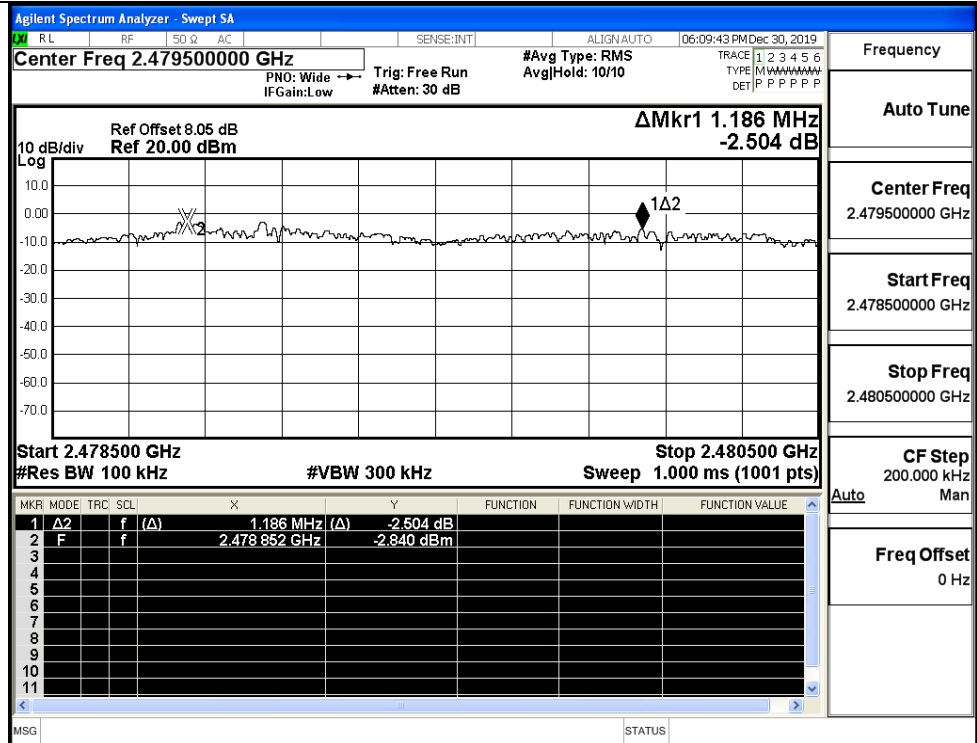
GFSK/MCH



GFSK/HCH



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

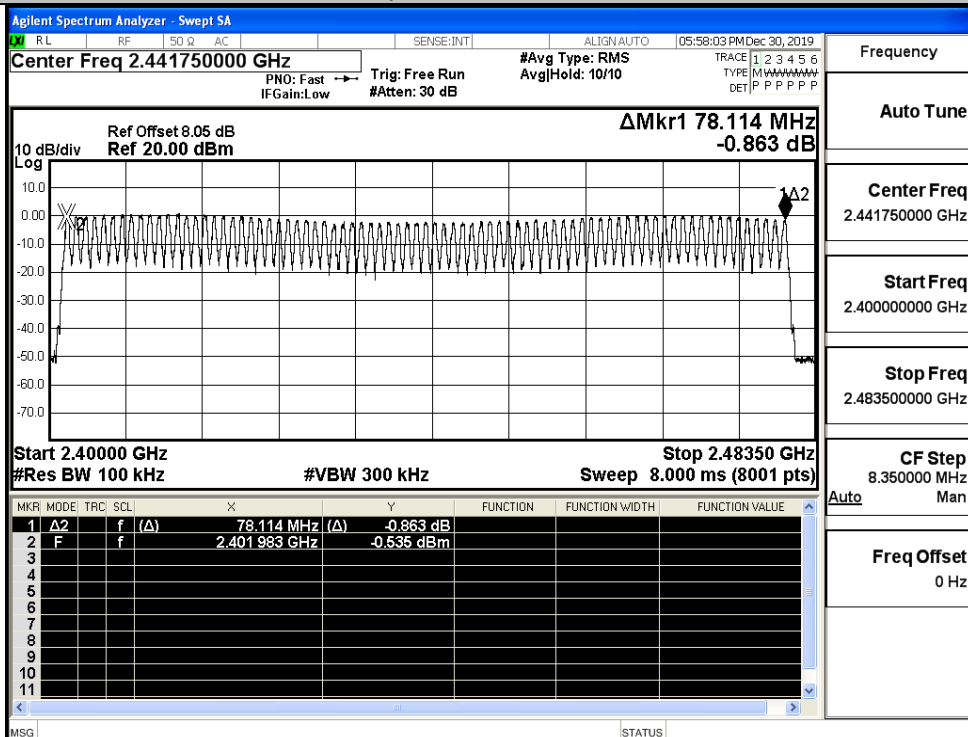
$\pi/4$ DQPSK/HCH

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



Frequency

Auto Tune

Center Freq

2.441750000 GHz

Start Freq

2.400000000 GHz

Stop Freq

2.483500000 GHz

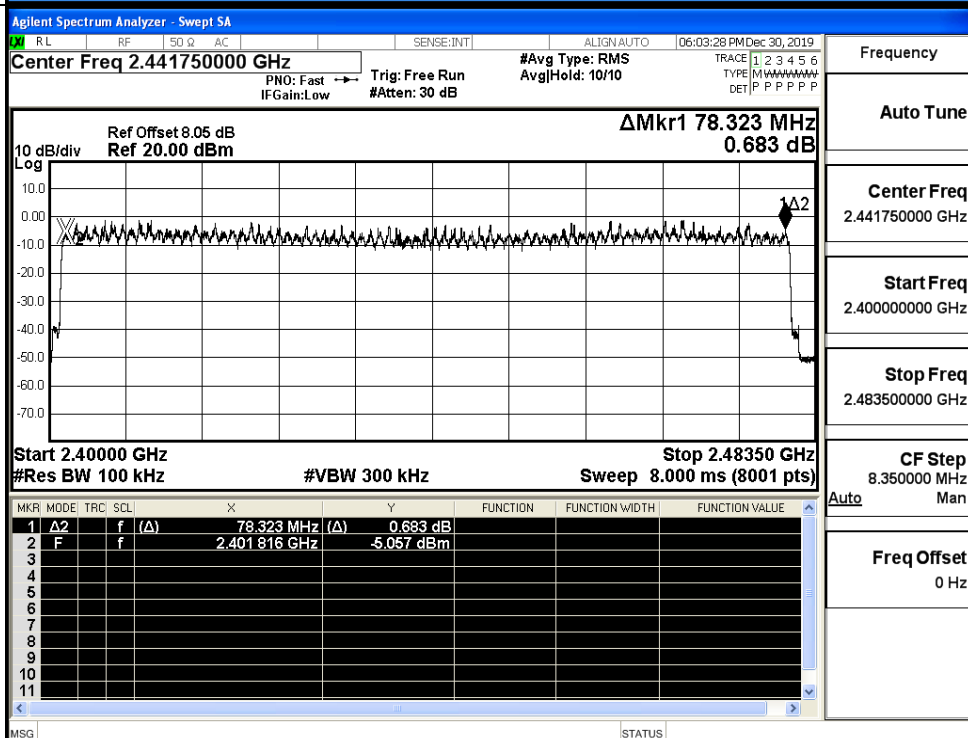
CF Step

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

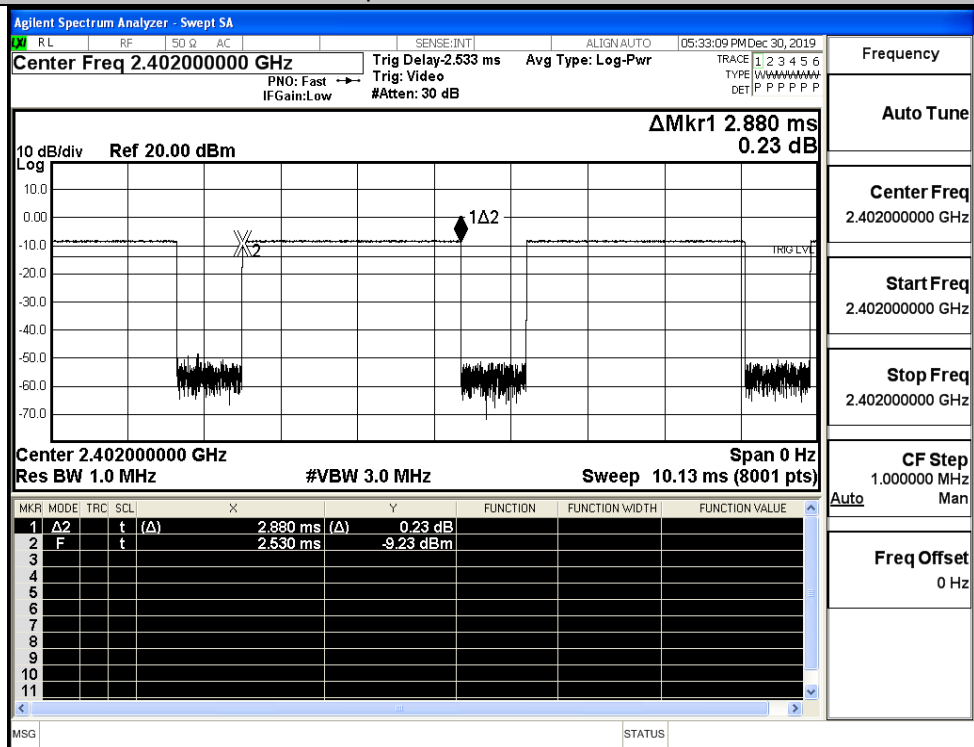
0 Hz

A.5 Dwell Time

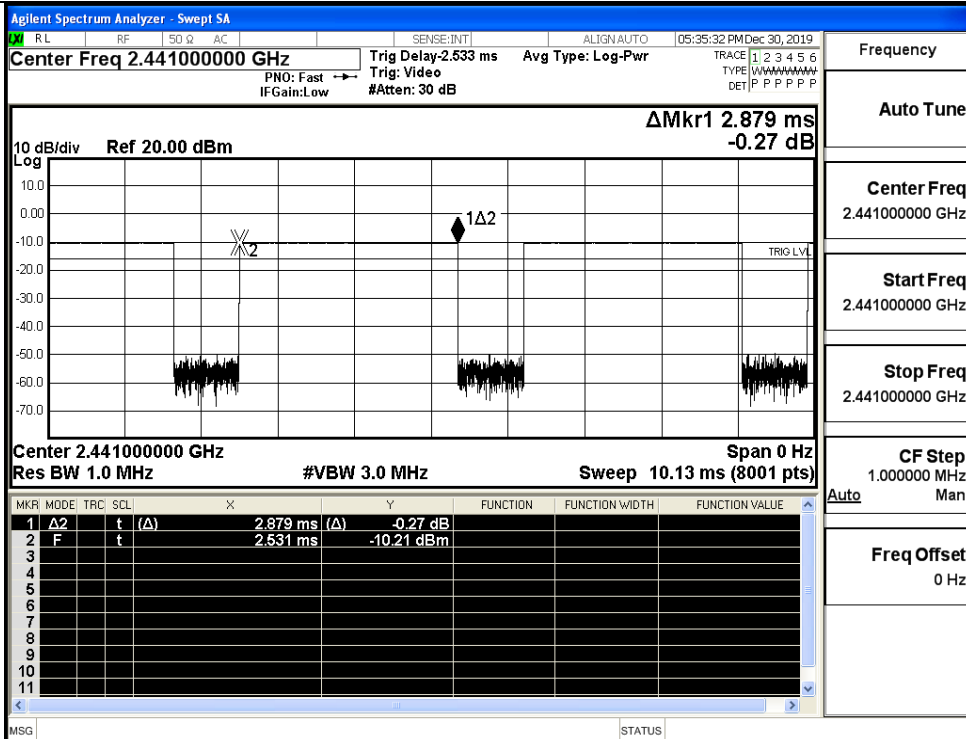
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

Test Graphs

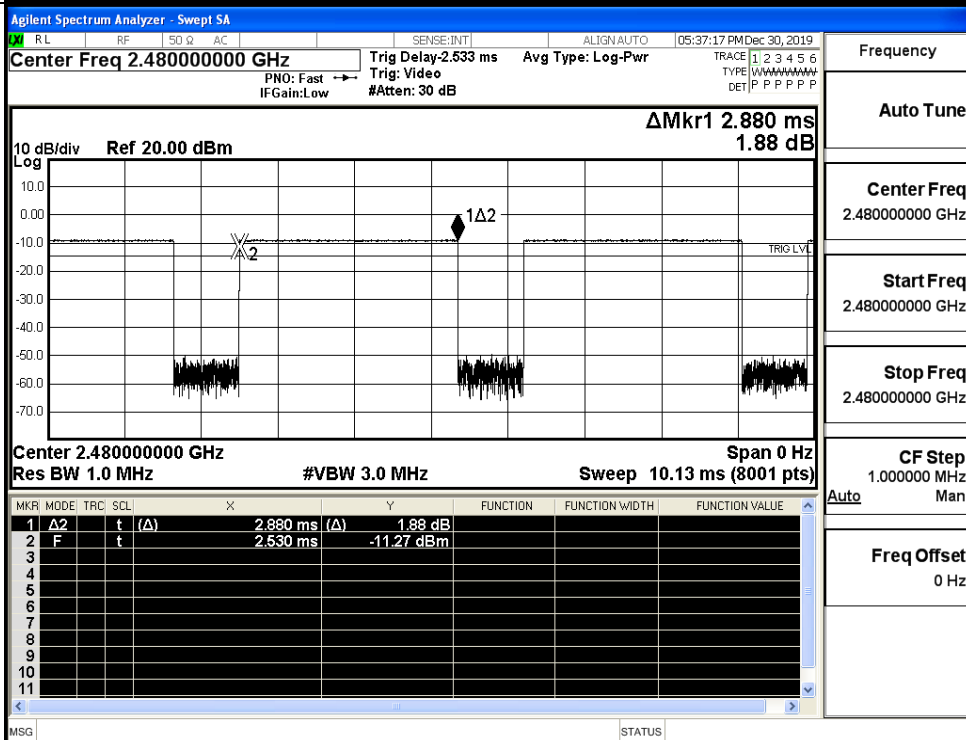
GFSK_DH5/LCH



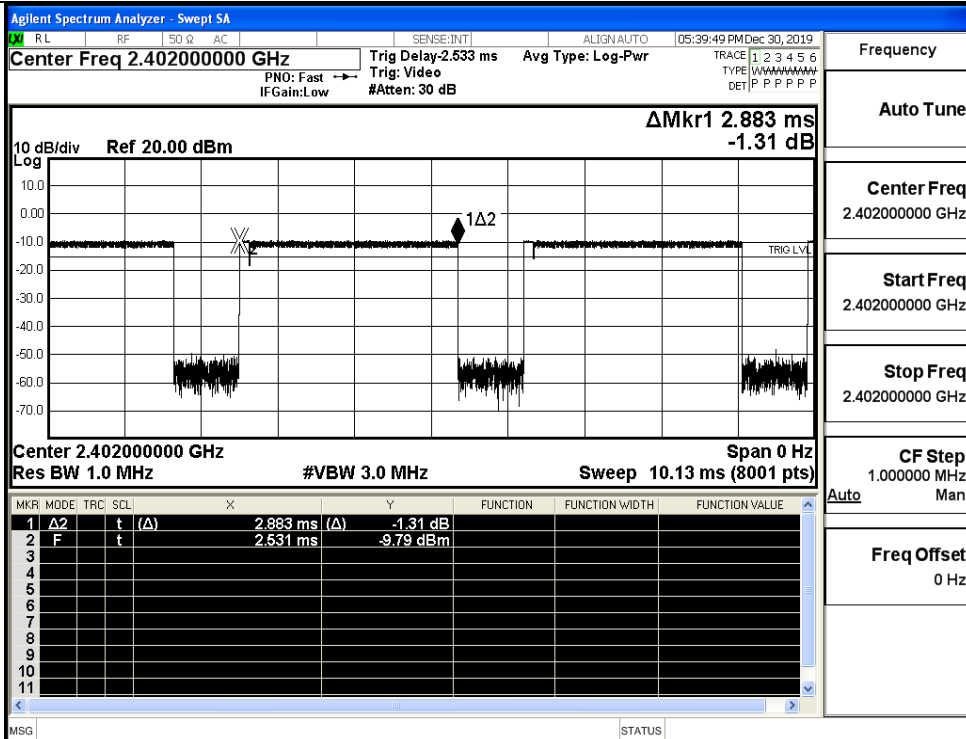
GFSK_DH5/MCH



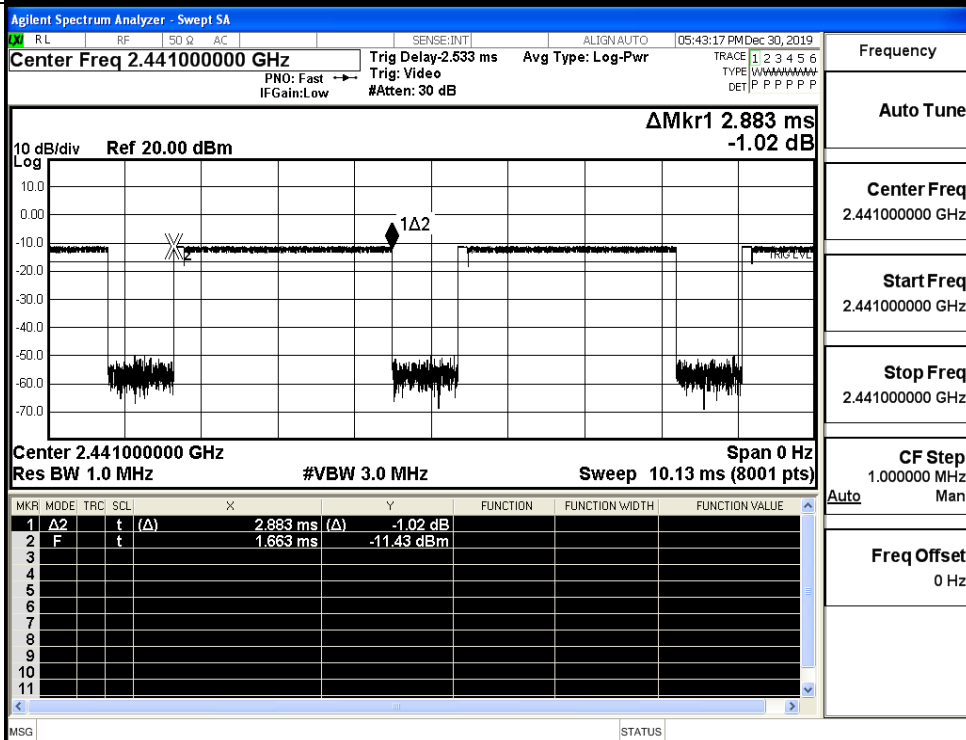
GFSK_DH5/HCH



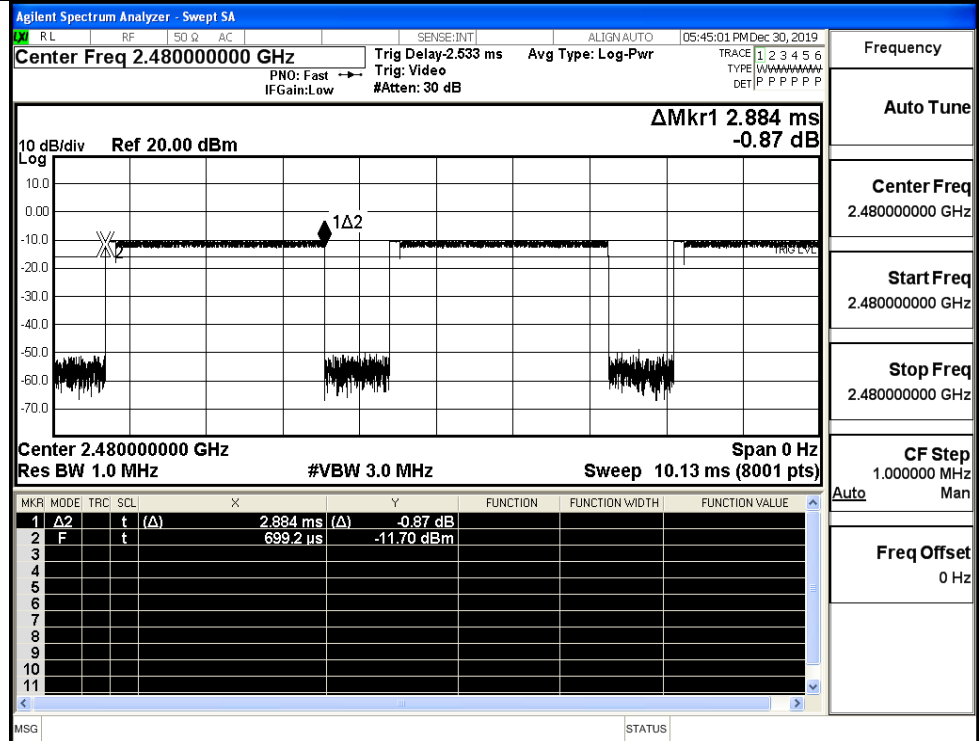
$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH

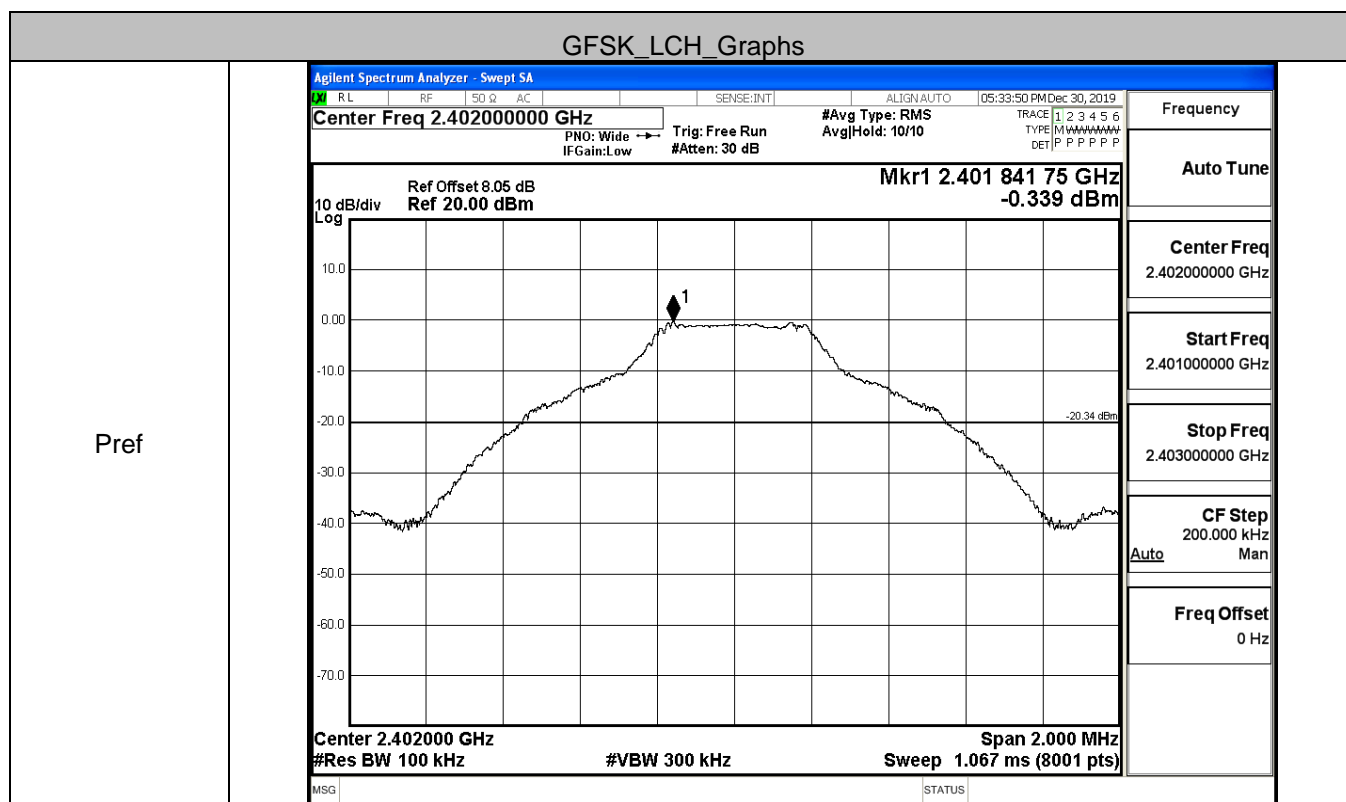


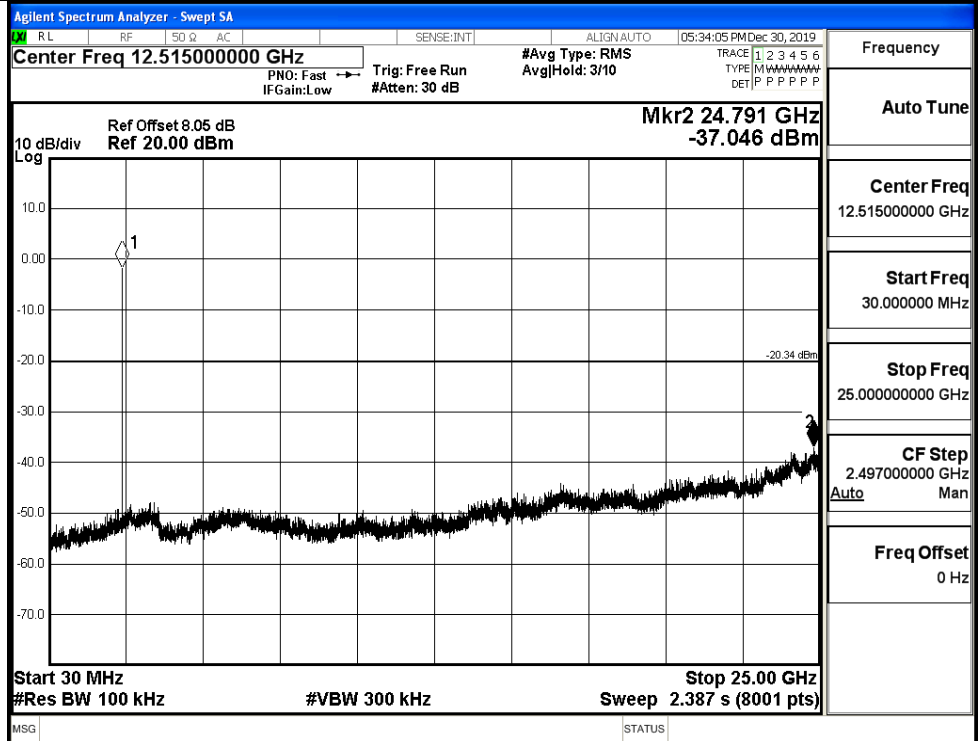
$\pi/4$ DQPSK
_2DH5/HCH



A.6 RF Conducted Spurious Emissions

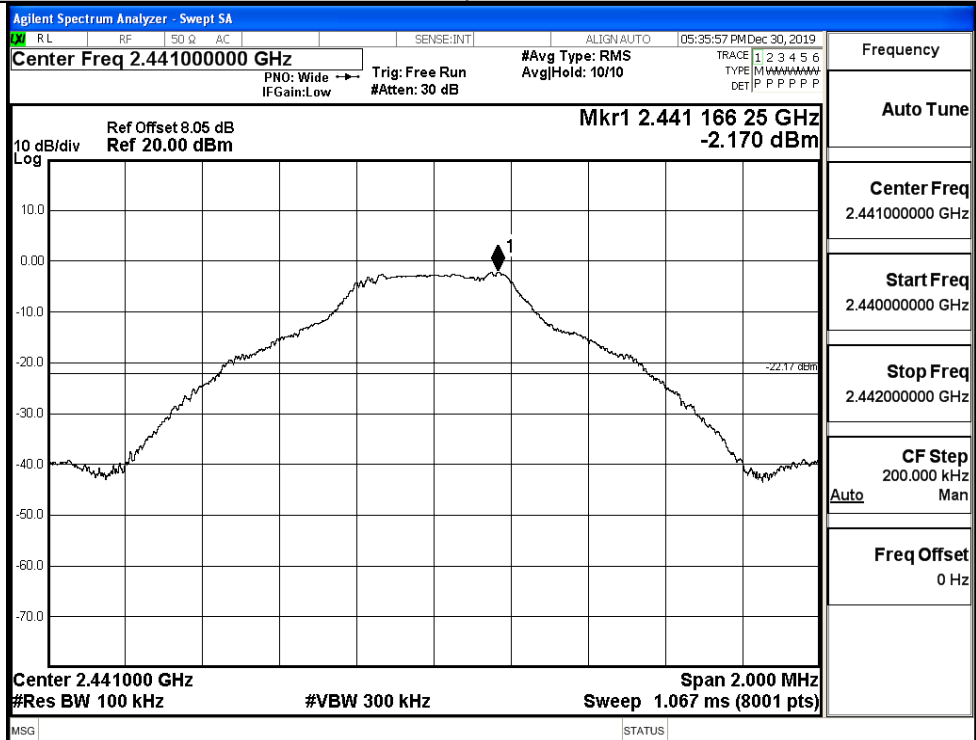
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.339	-37.046	-20.339	PASS
	MCH	-2.17	-38.230	-22.170	PASS
	HCH	-1.079	-37.820	-21.079	PASS
$\pi/4$ DQPSK	LCH	-1.683	-37.813	-21.683	PASS
	MCH	-3.356	-37.308	-23.356	PASS
	HCH	-2.225	-37.881	-22.225	PASS



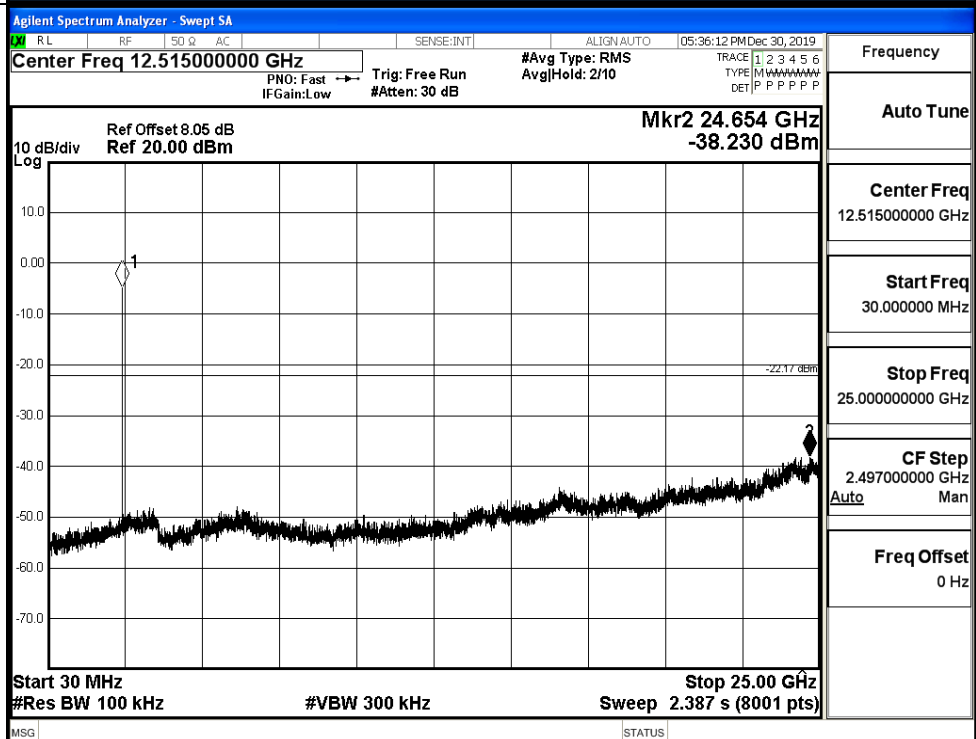
P_uw

GFSK_MCH_Graphs

Pref

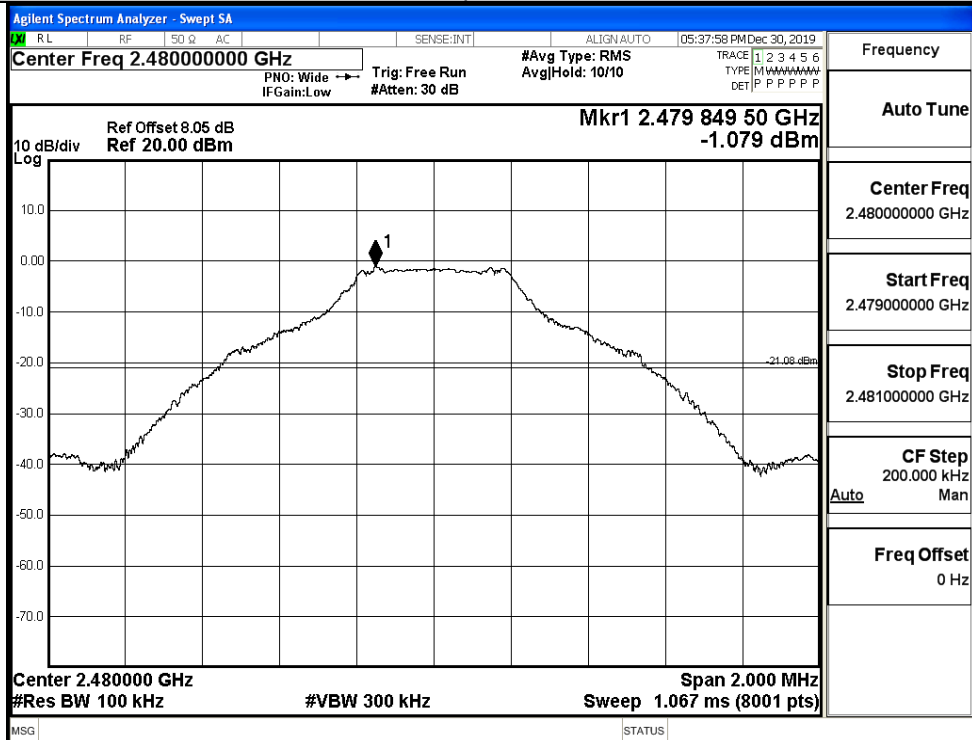


Puw

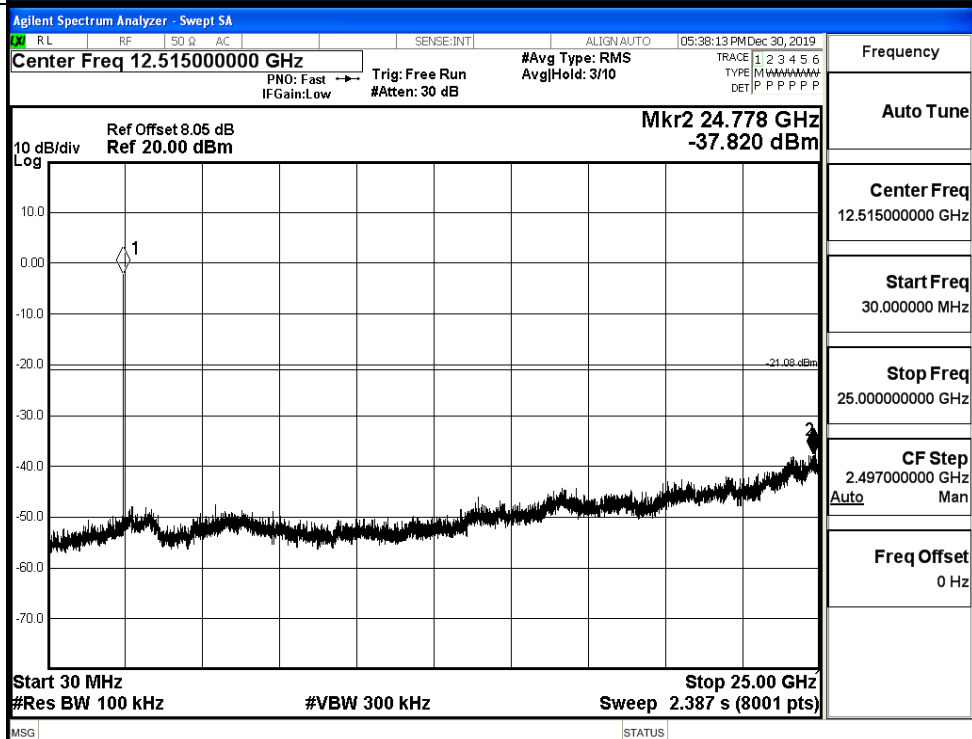


GFSK_HCH_Graphs

Pref

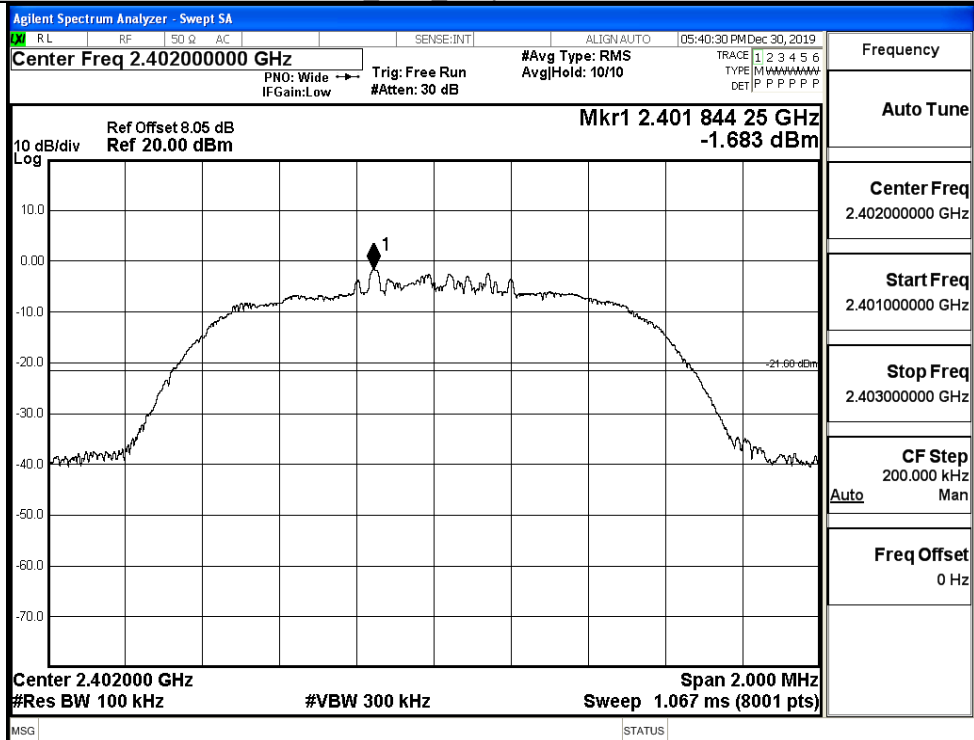


Puw

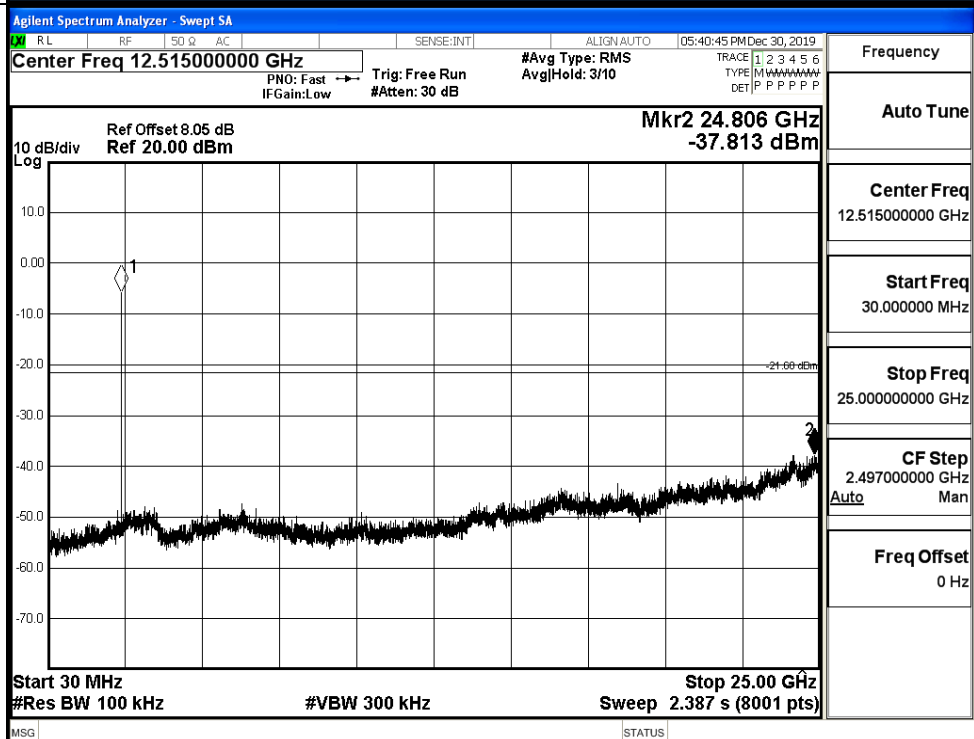


$\pi/4$ DQPSK_LCH_Graphs

Pref

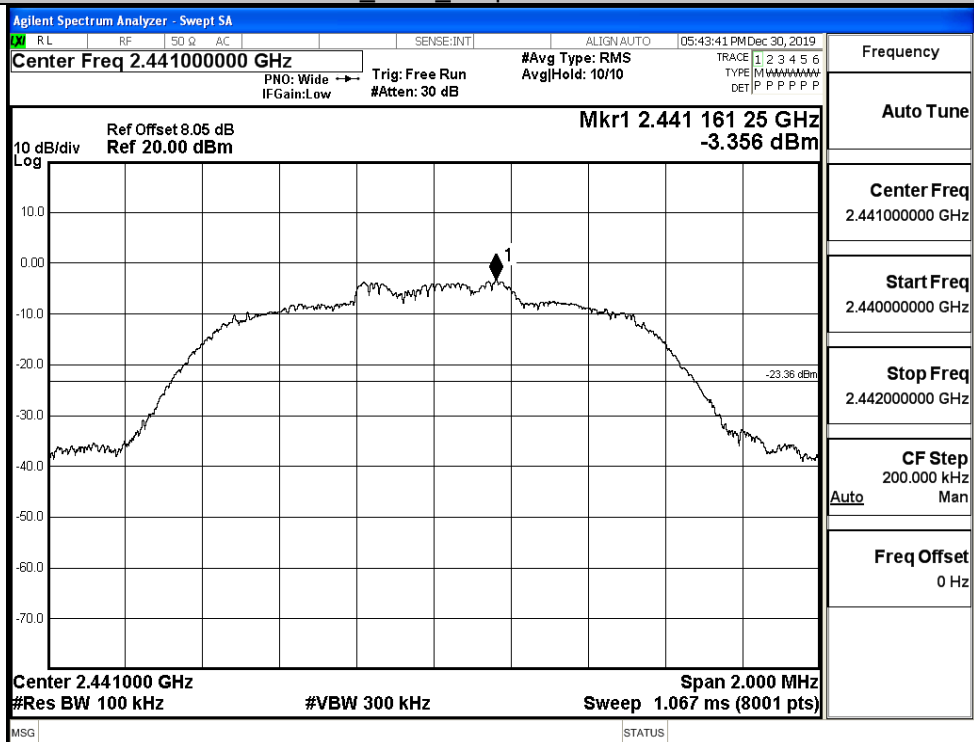


Puw

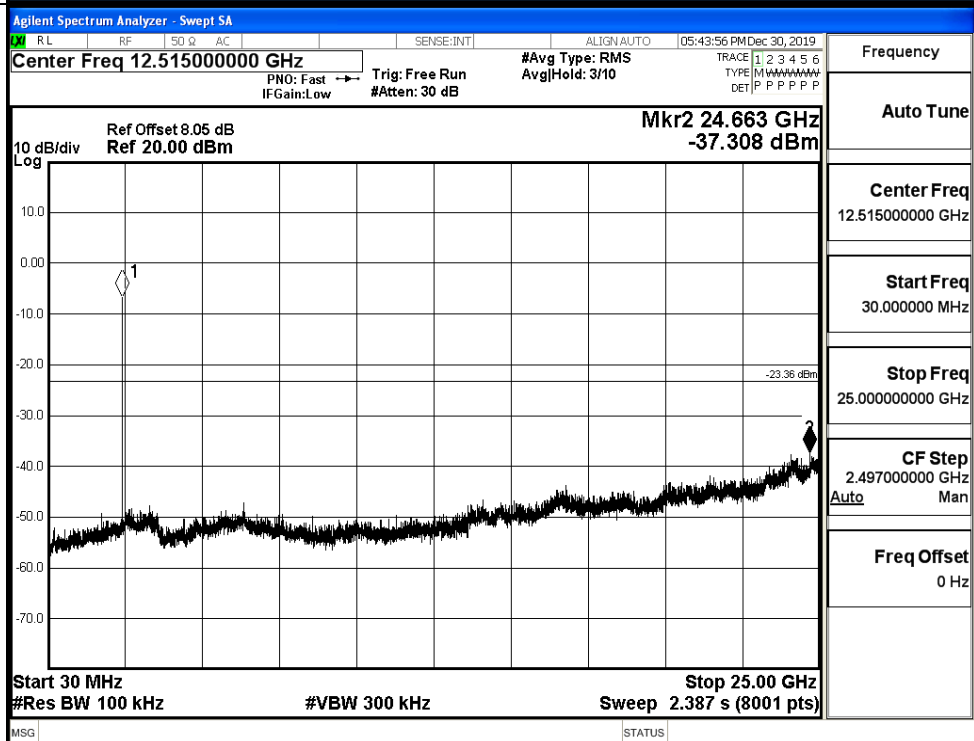


π /4DQPSK_MCH_Graphs

Pref

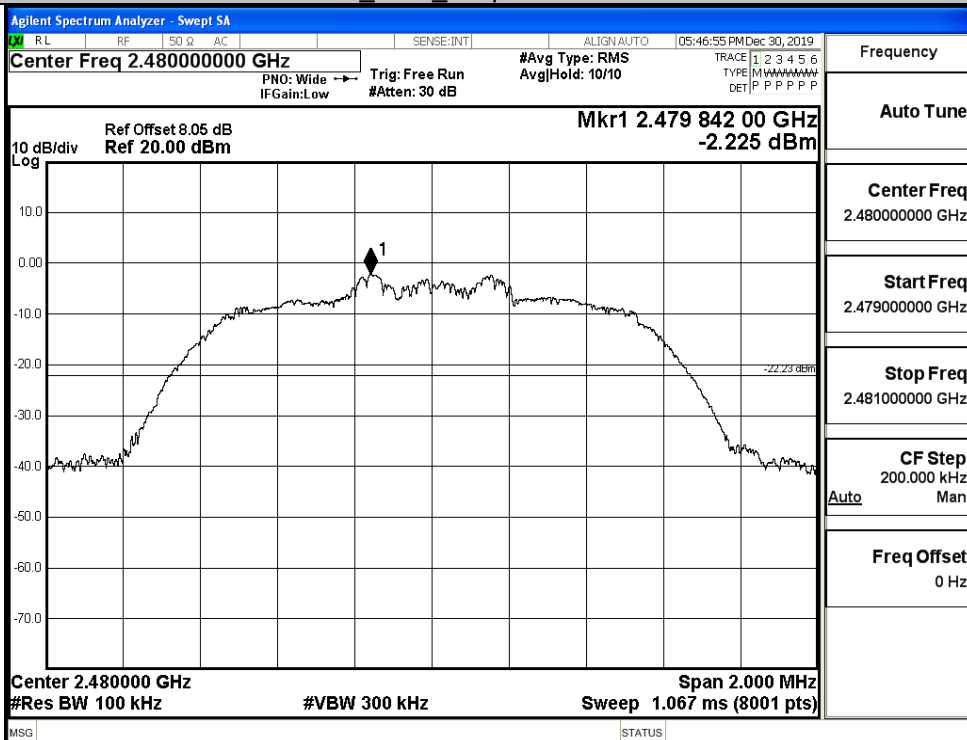


Puw

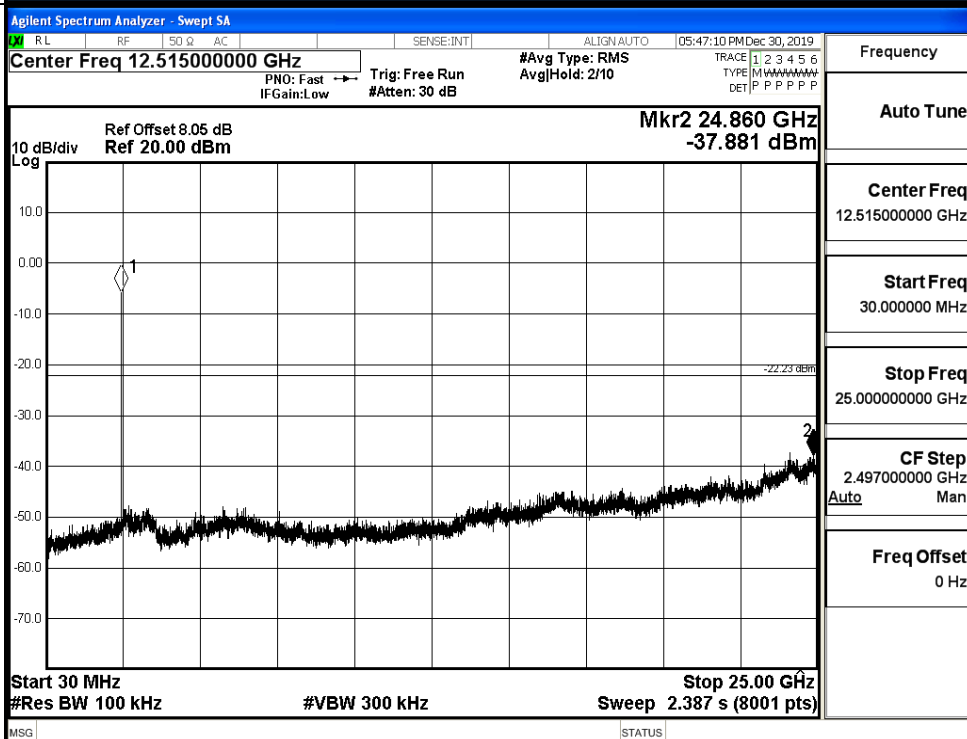


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

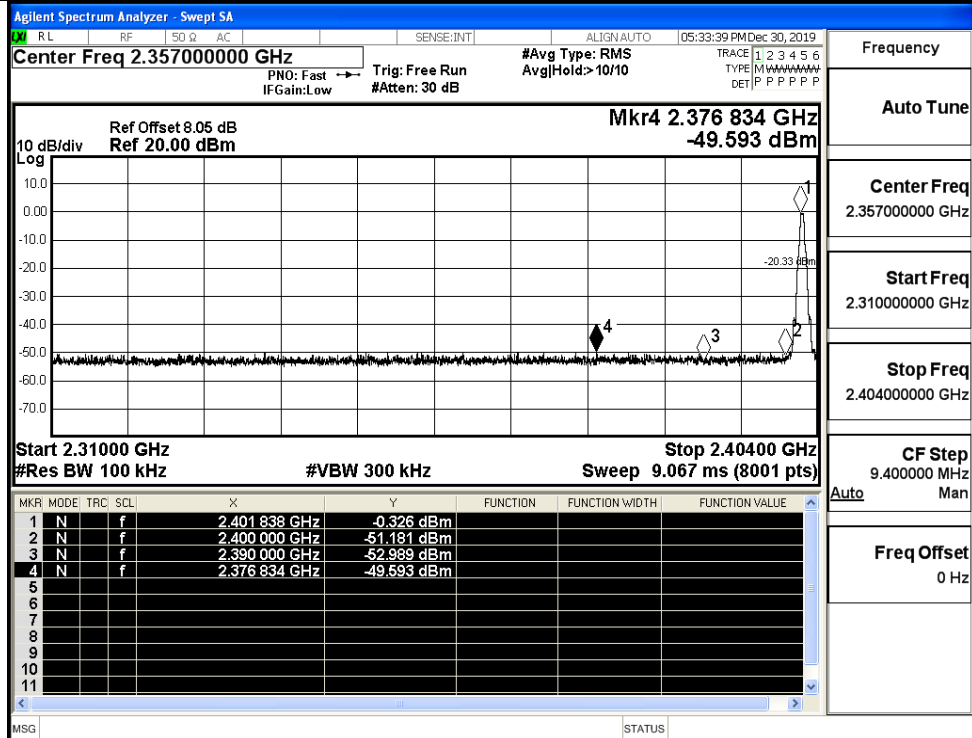


A.7 Band-edge for RF Conducted Emissions

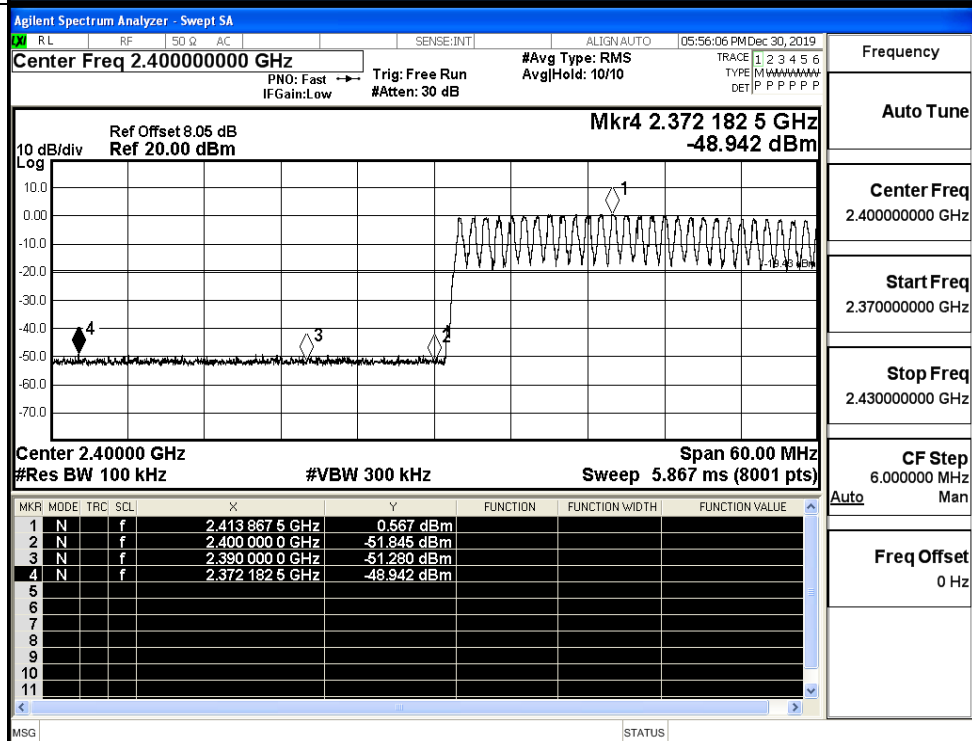
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-0.326	Off	-49.593	-20.33	PASS
			0.567	On	-48.942	-19.43	PASS
	HCH	2480	-0.856	Off	-49.144	-20.86	PASS
			0.177	On	-49.213	-19.82	PASS
$\pi/4$ DQPSK	LCH	2402	-1.564	Off	-49.495	-21.56	PASS
			-0.828	On	-48.934	-20.83	PASS
	HCH	2480	-2.285	Off	-48.332	-22.29	PASS
			-1.308	On	-48.668	-21.31	PASS

Test Graphs

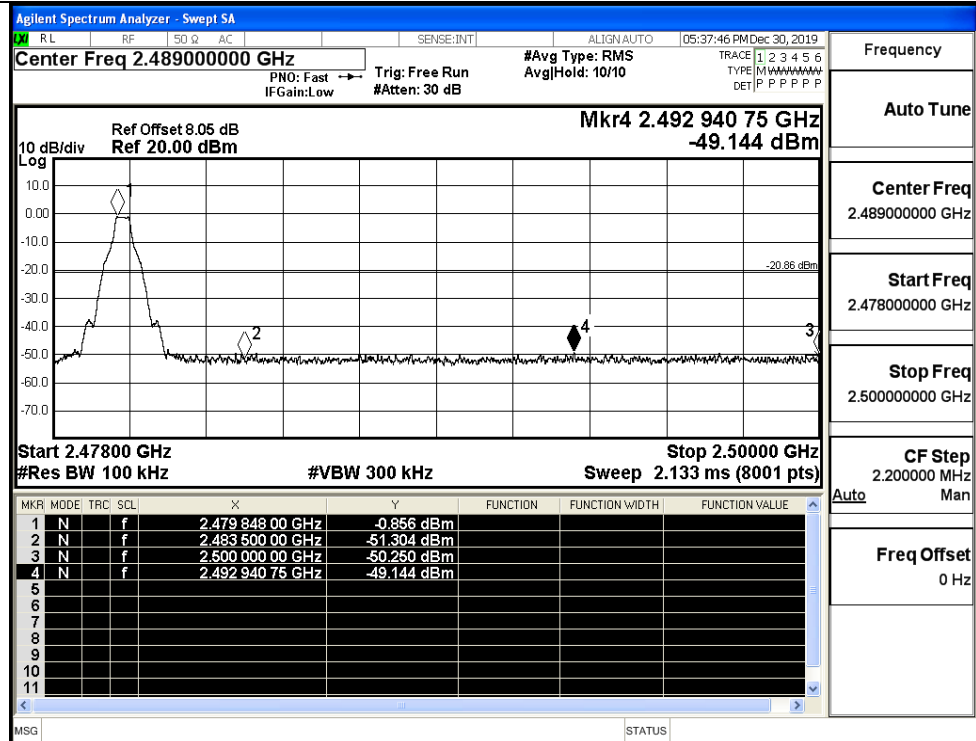
GFSK/LCH/No Hop



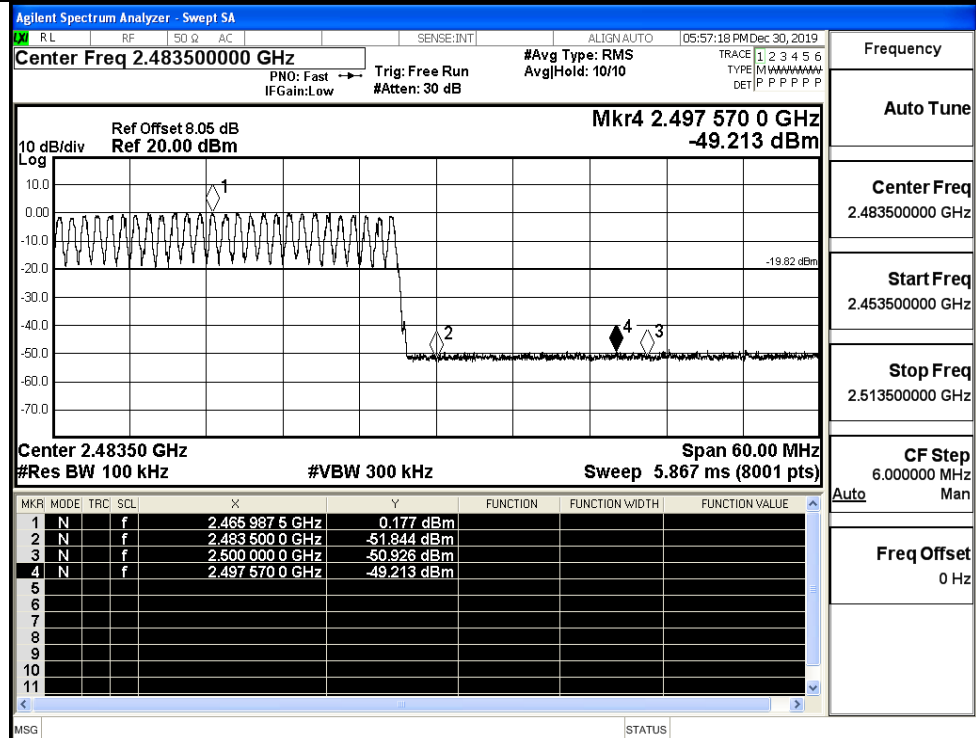
GFSK/LCH/Hop



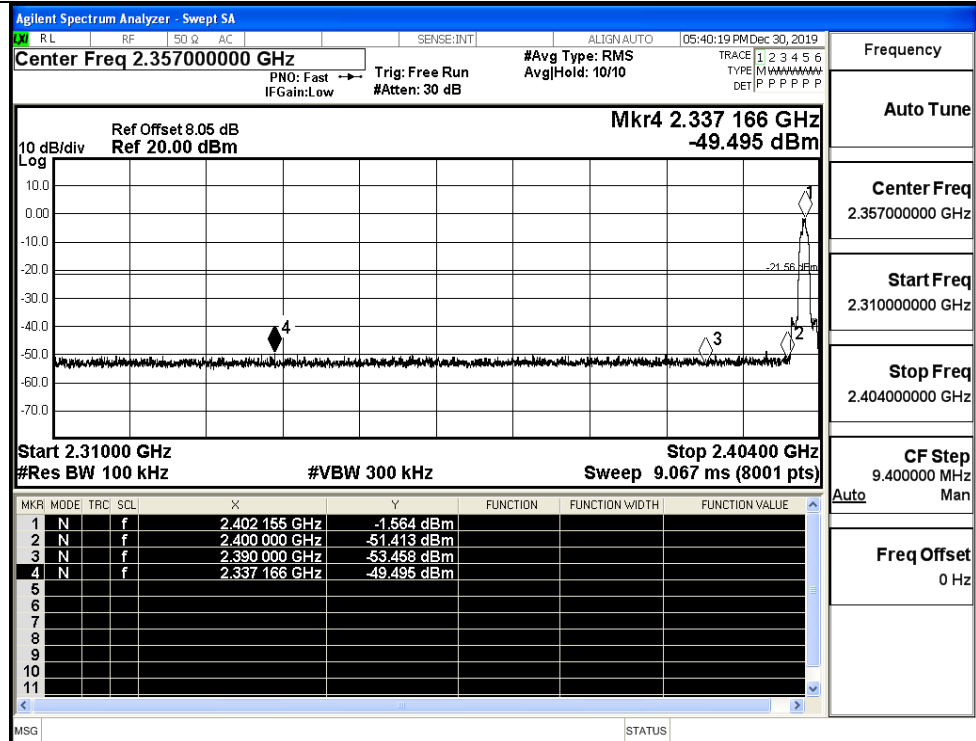
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

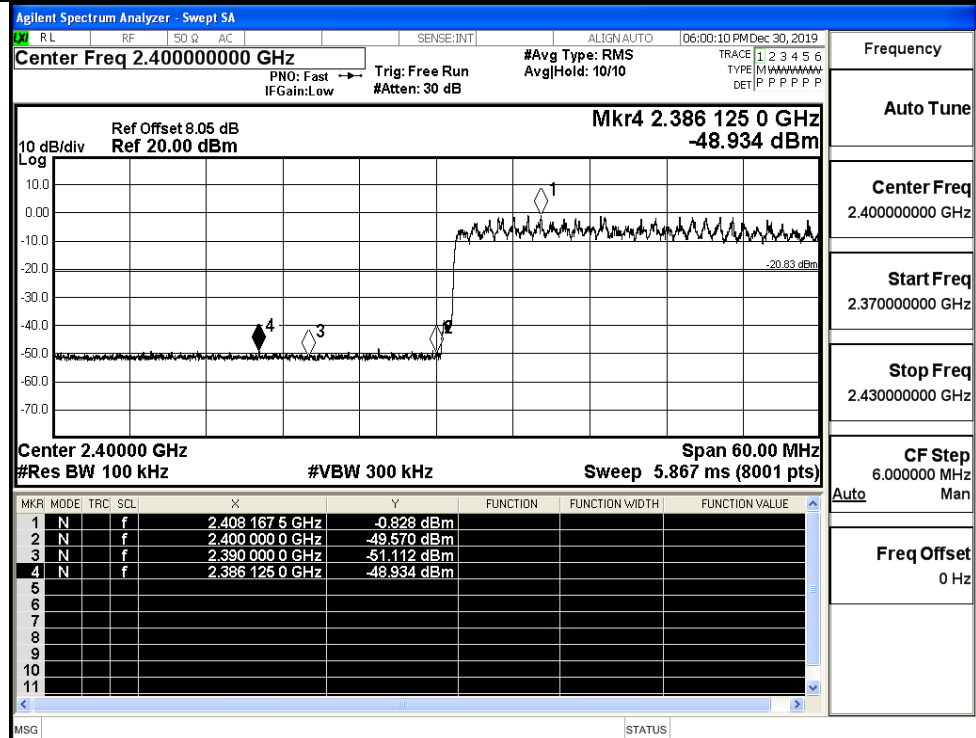
Start Freq
2.310000000 GHz

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

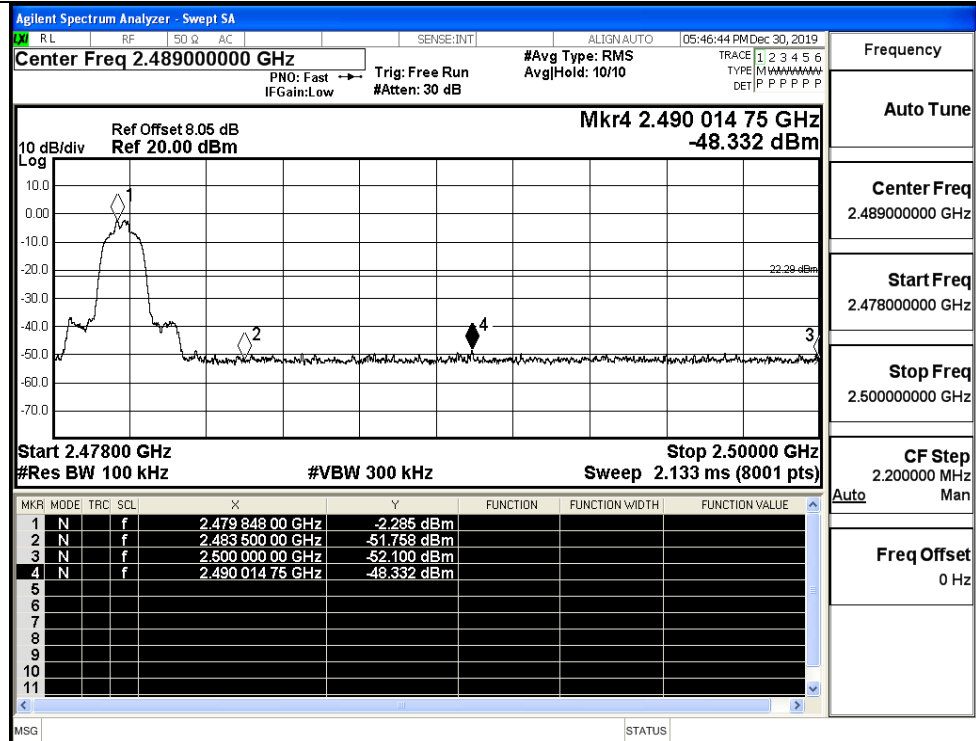
Start Freq
2.370000000 GHz

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

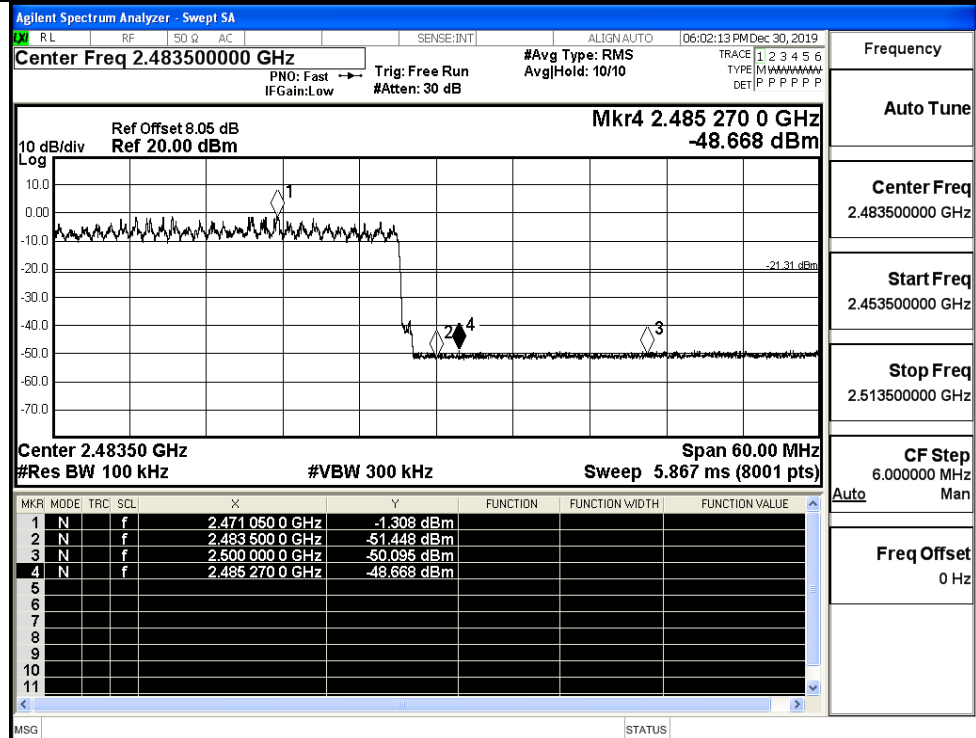
Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

CF Step
2.200000 MHz

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

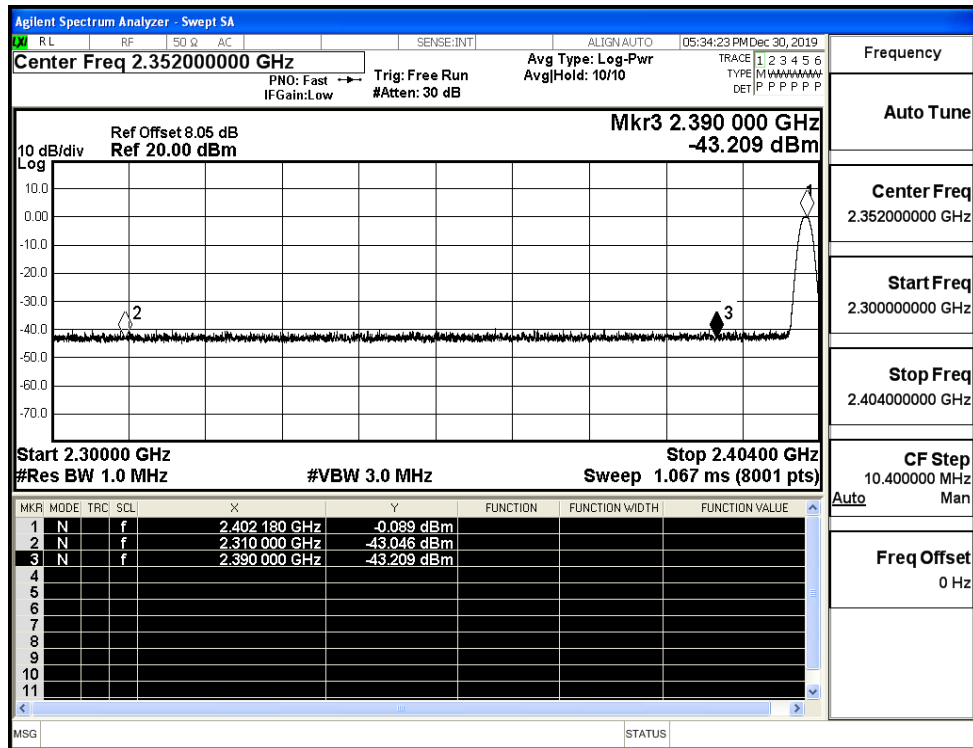
CF Step
6.000000 MHz

Freq Offset
0 Hz

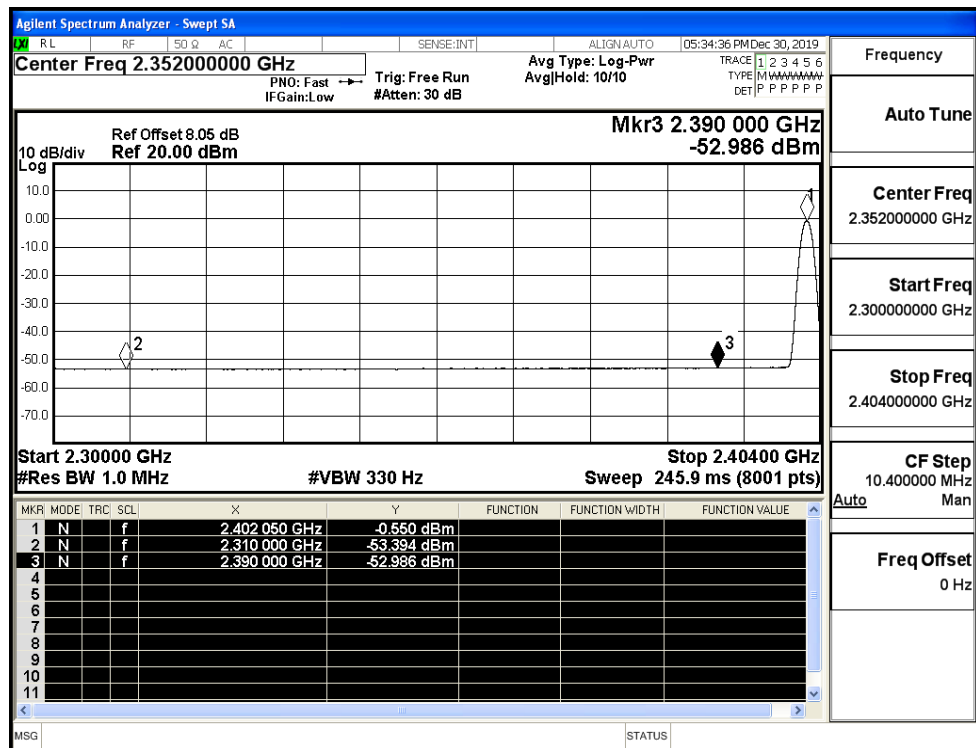
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.05	2.0	0	54.21	PEAK	74	PASS
	Off	2310.0	-53.39	2.0	0	43.86	AV	54	PASS
	Off	2390.0	-43.21	2.0	0	54.05	PEAK	74	PASS
	Off	2390.0	-52.99	2.0	0	44.27	AV	54	PASS
	Off	2483.5	-42.92	2.0	0	54.34	PEAK	74	PASS
	Off	2483.5	-52.47	2.0	0	44.79	AV	54	PASS
	Off	2500.0	-42.31	2.0	0	54.95	PEAK	74	PASS
	Off	2500.0	-52.14	2.0	0	45.12	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.93	2.0	0	53.33	PEAK	74	PASS
	Off	2310.0	-53.36	2.0	0	43.90	AV	54	PASS
	Off	2390.0	-42.99	2.0	0	54.27	PEAK	74	PASS
	Off	2390.0	-52.98	2.0	0	44.28	AV	54	PASS
	Off	2483.5	-41.31	2.0	0	55.95	PEAK	74	PASS
	Off	2483.5	-52.34	2.0	0	44.92	AV	54	PASS
	Off	2500.0	-42.08	2.0	0	55.18	PEAK	74	PASS
	Off	2500.0	-52.37	2.0	0	44.89	AV	54	PASS

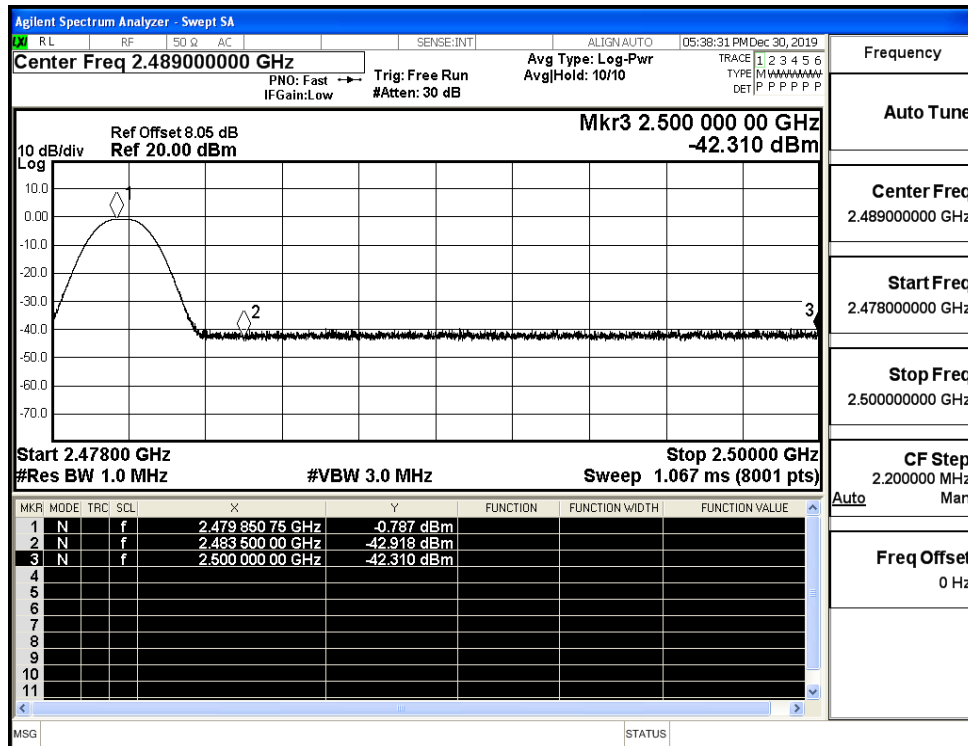
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



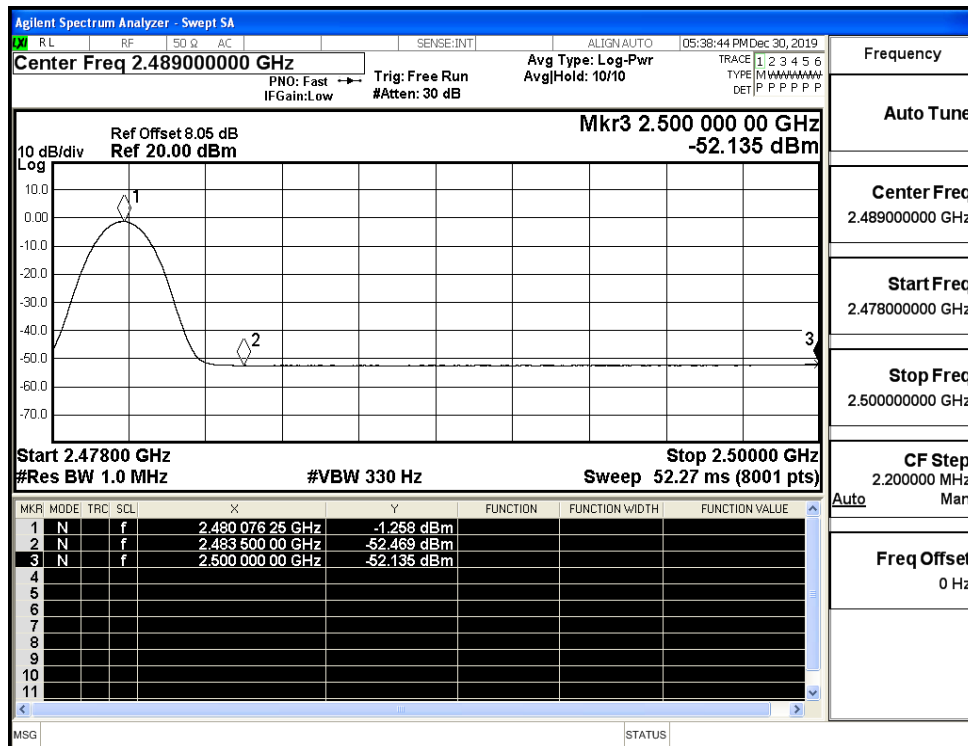
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)

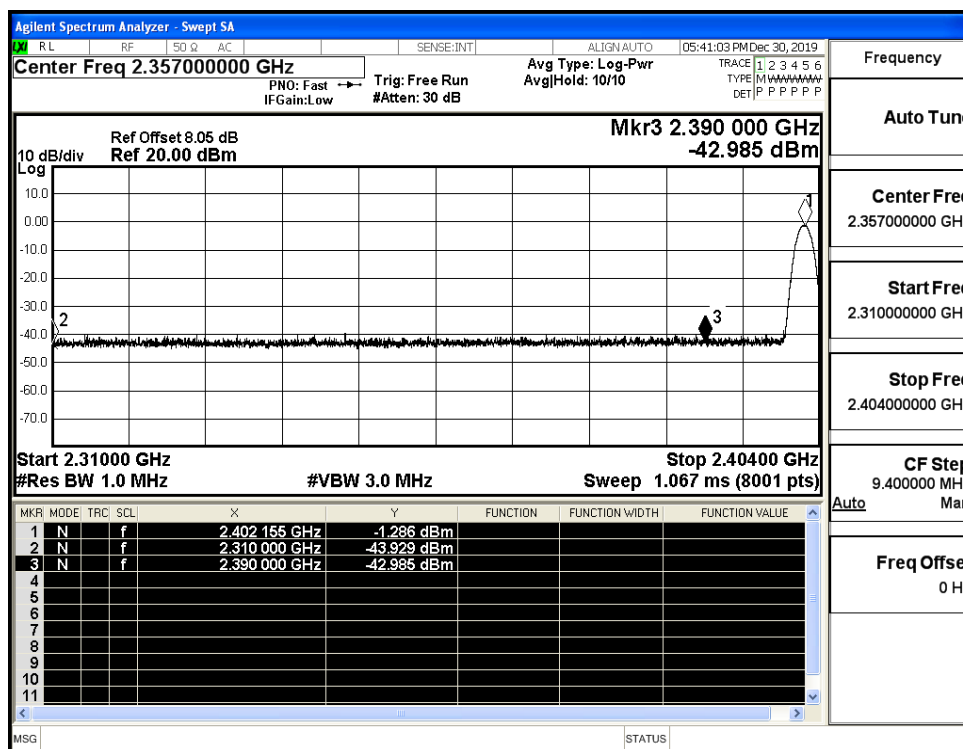
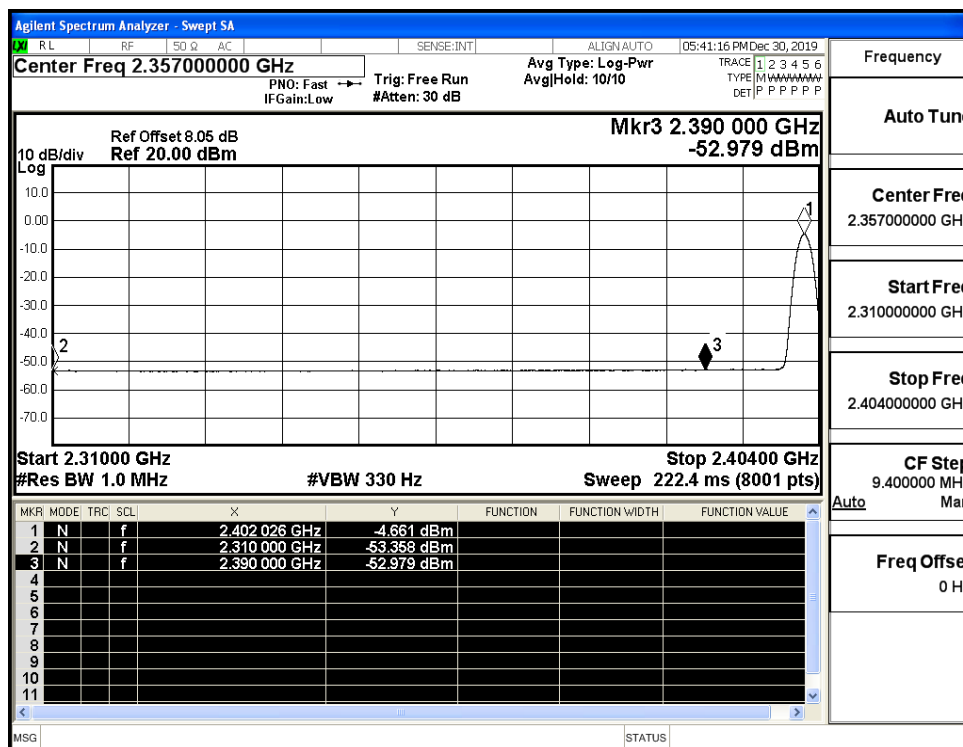


Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)

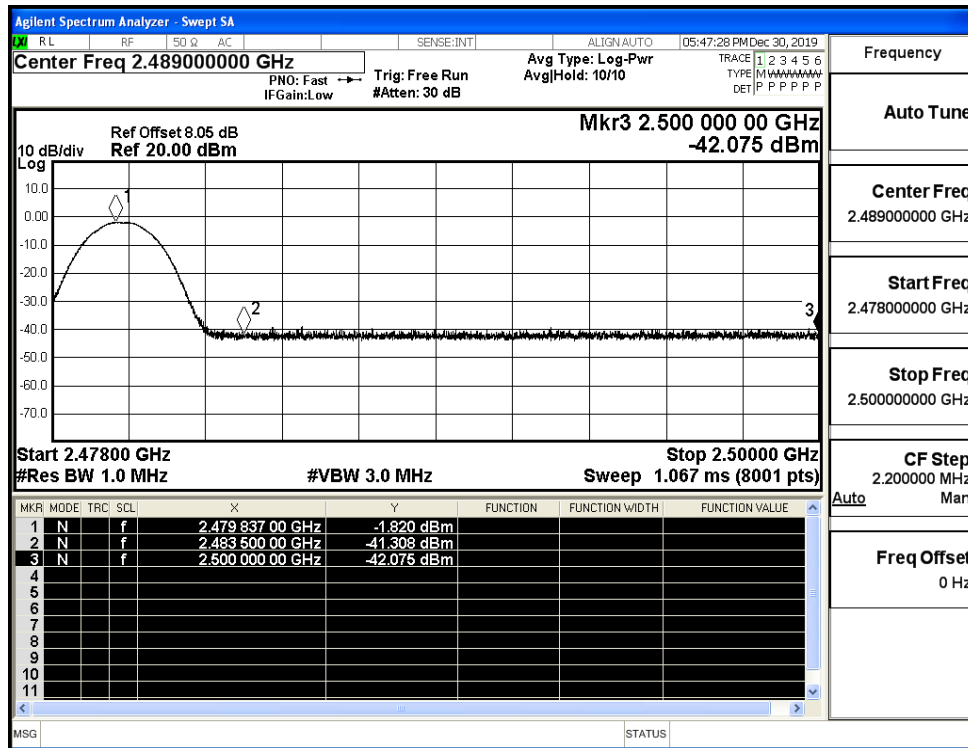


Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



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_π/4-DQPSK_PEAK (High Channel)



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)

