

Appendix A

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

Product Name: Wall Mountable Bluetooth CD Player

Trade Mark: N/A

Test Model: YR-Q100

Environmental Conditions

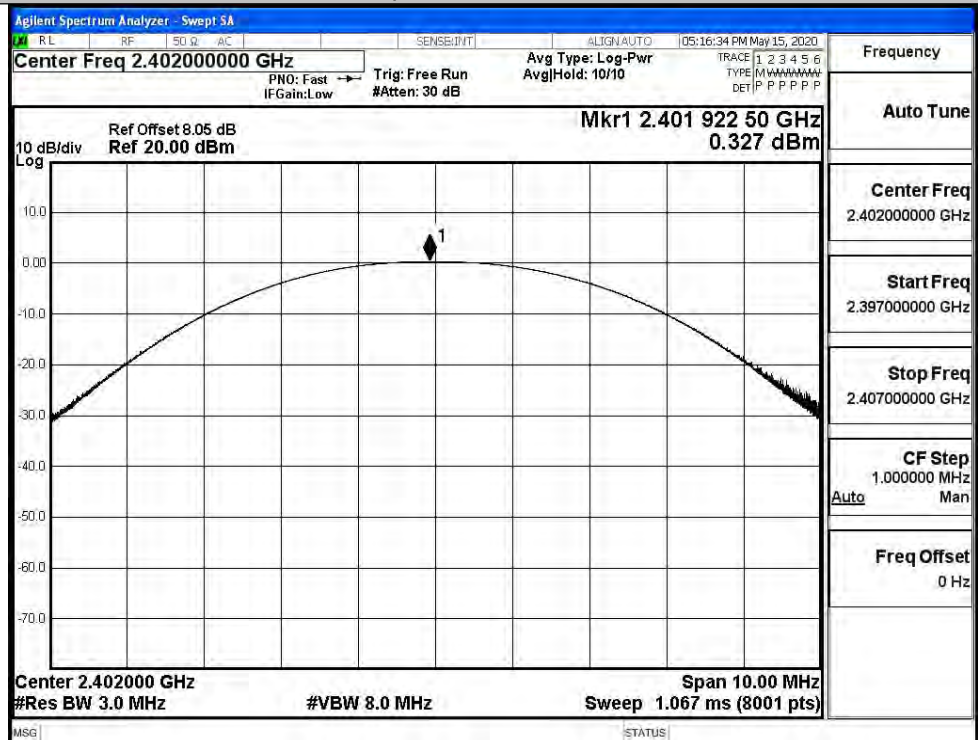
Temperature:	23.6 ° C
Relative Humidity:	54.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Qu Xin
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

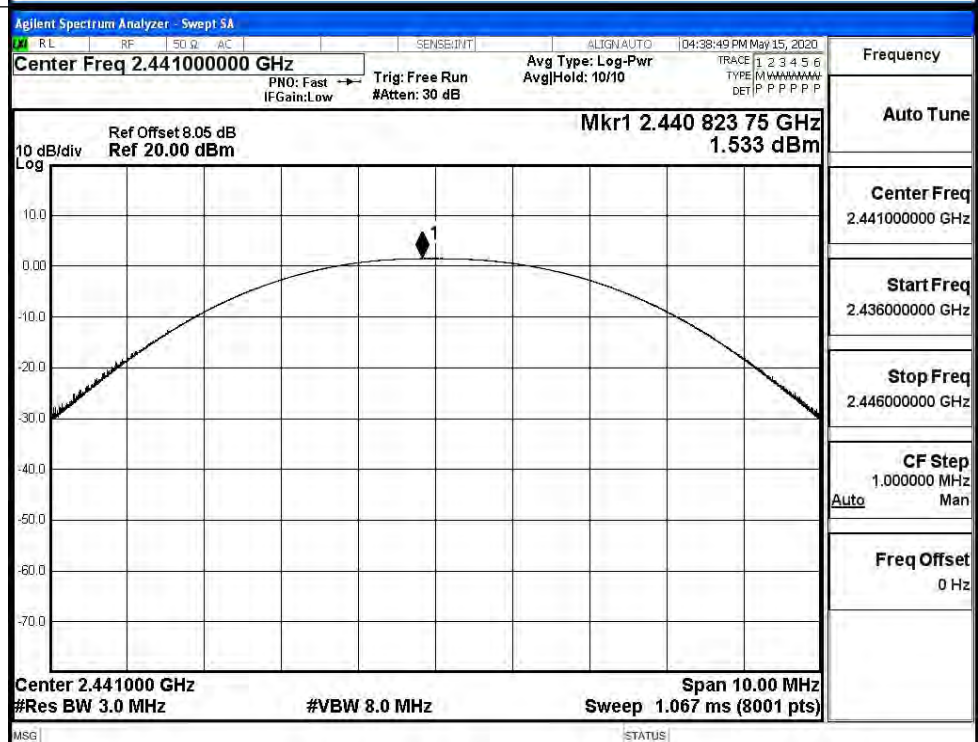
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.327	21	PASS
	MCH	1.533	21	PASS
	HCH	0.088	21	PASS
$\pi/4$ DQPSK	LCH	1.122	21	PASS
	MCH	2.348	21	PASS
	HCH	0.923	21	PASS
8DPSK	LCH	1.730	21	PASS
	MCH	0.145	21	PASS
	HCH	1.567	21	PASS

Test Graphs

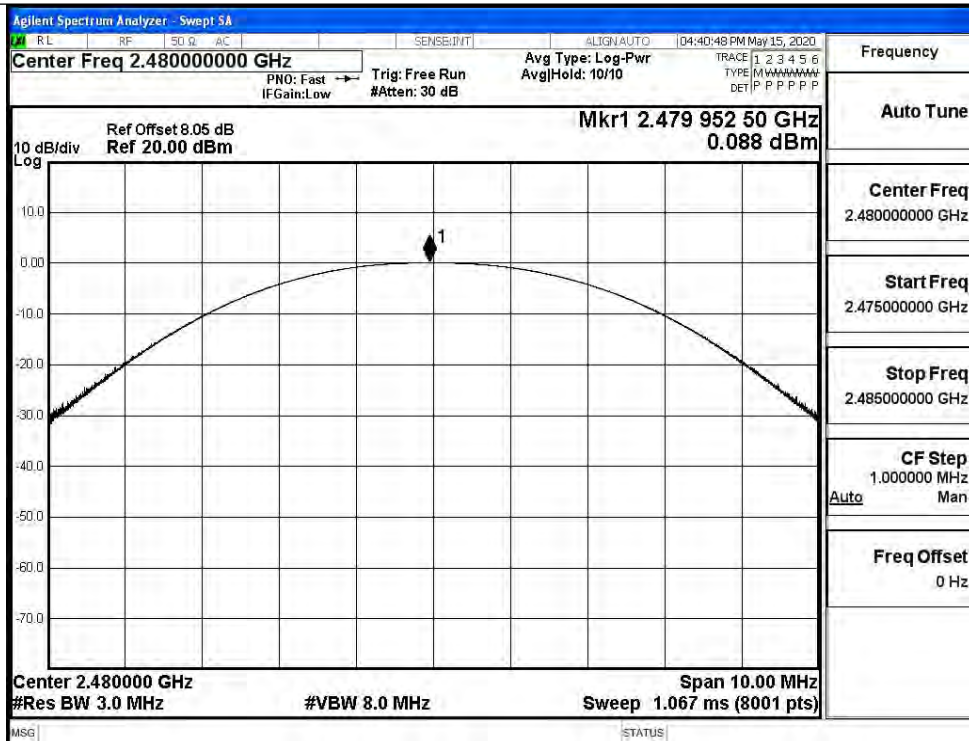
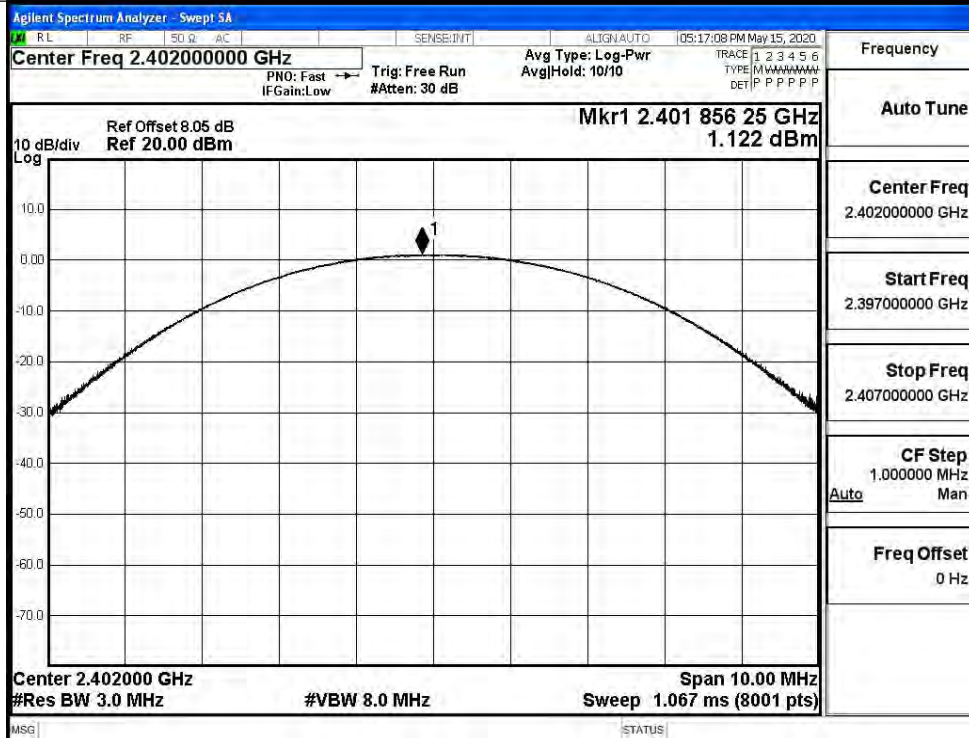
GFSK/LCH

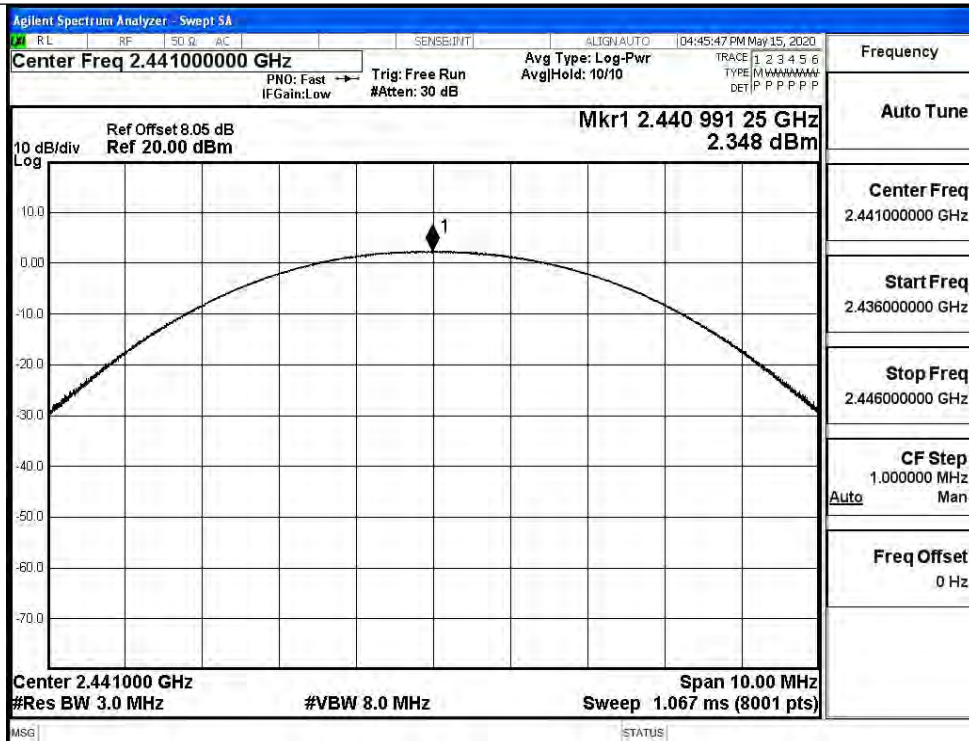
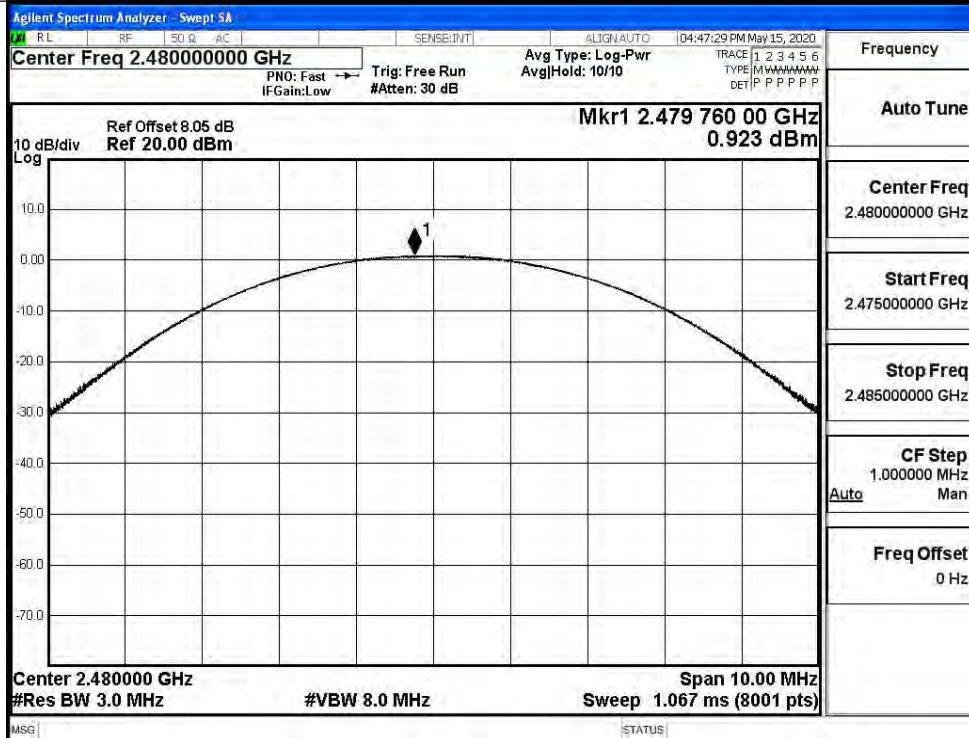


GFSK/MCH

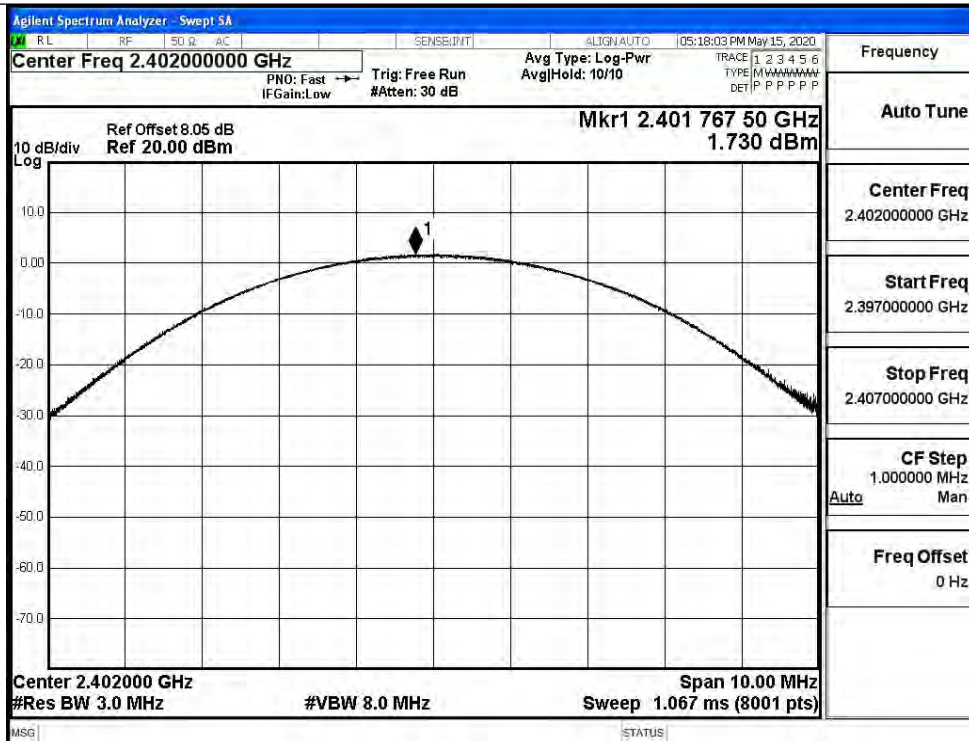


GFSK/HCH

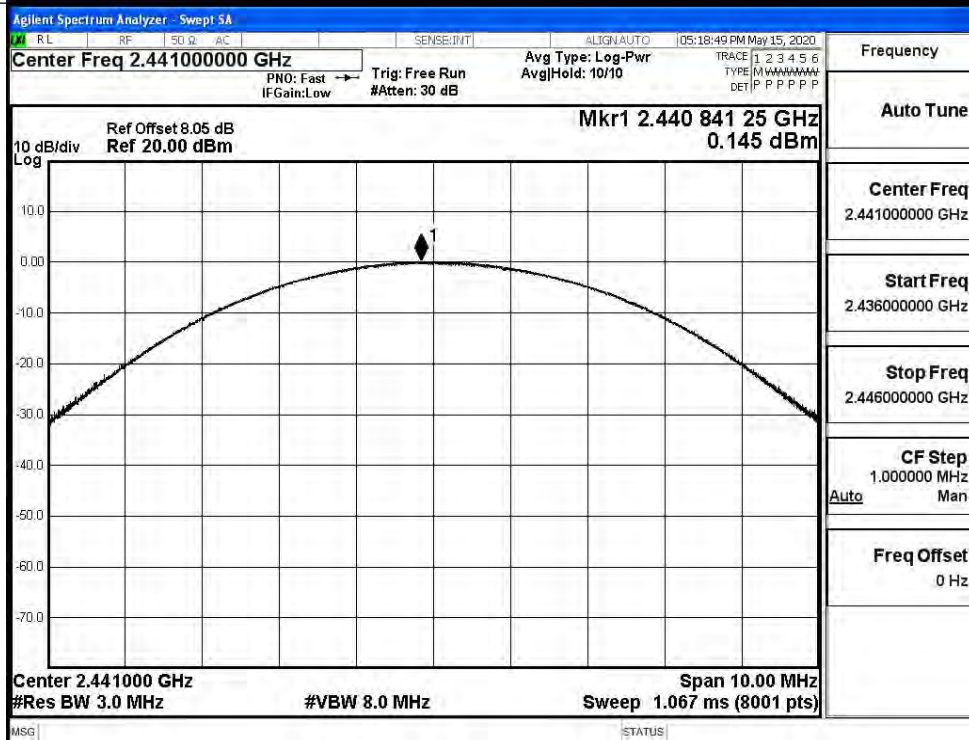
 $\pi/4$ DQPSK/LCH

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

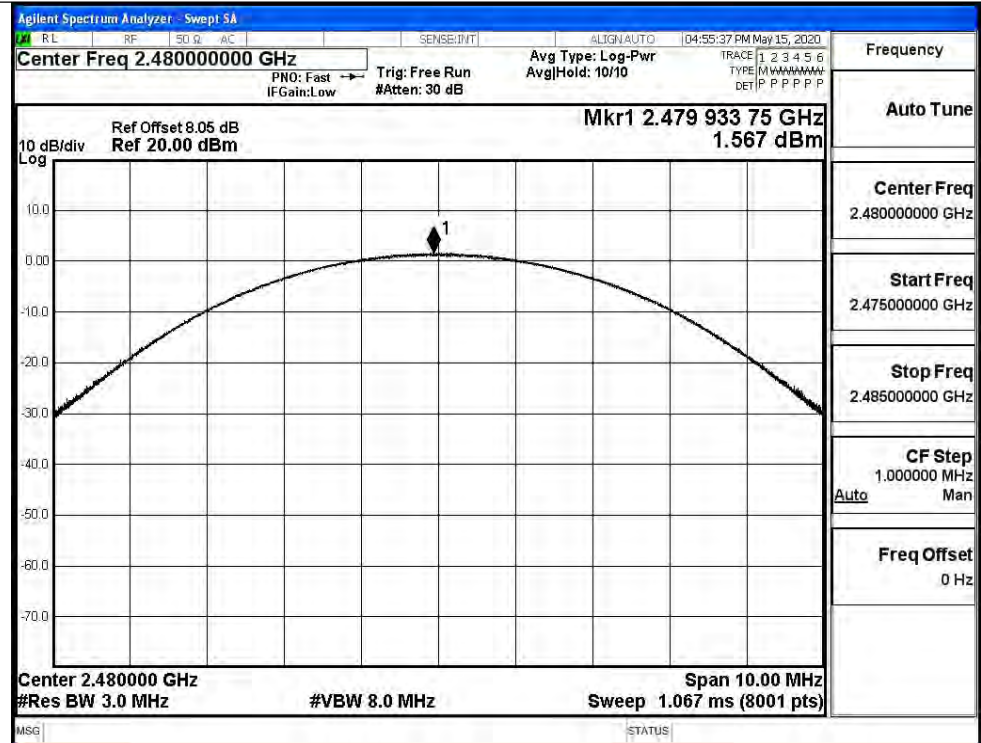
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

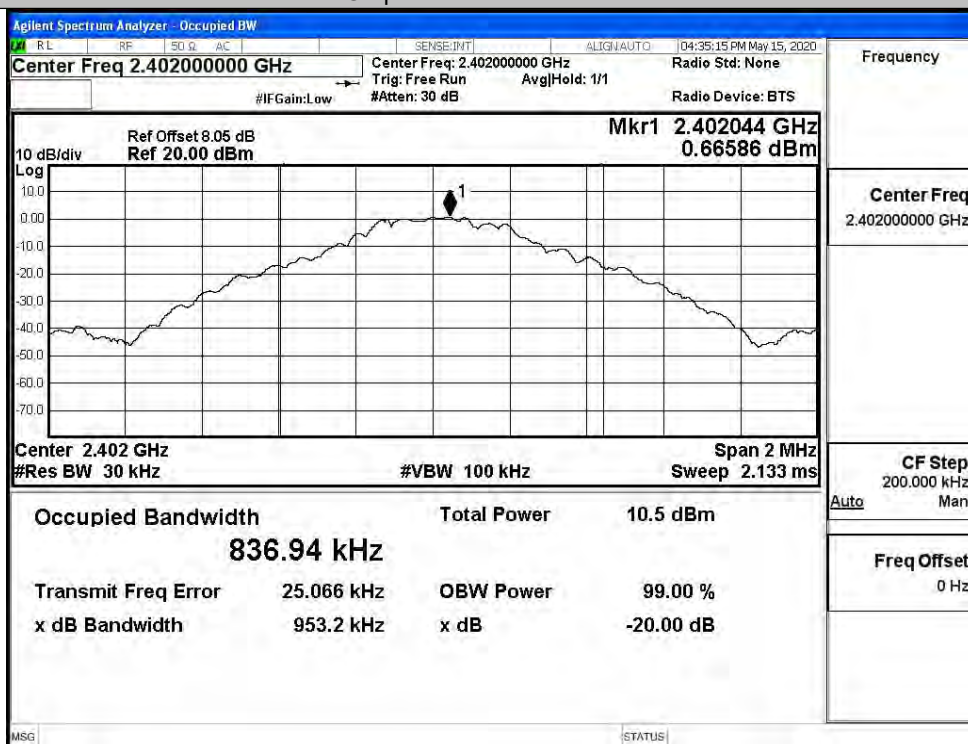


A.2 20dB Bandwidth

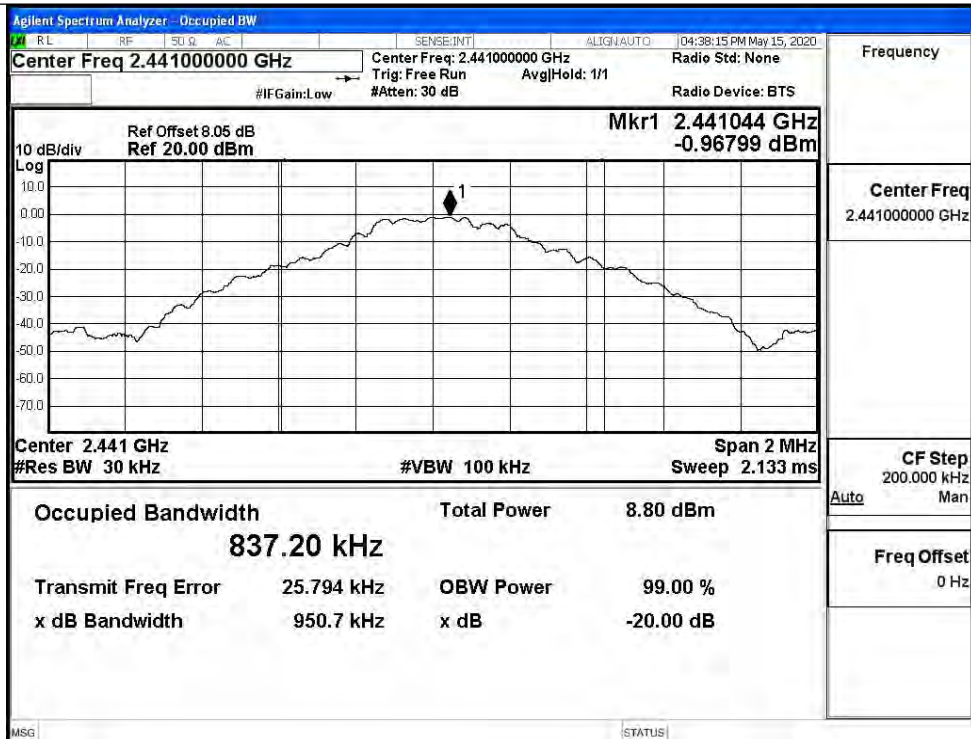
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9532	Not Specified	PASS
	MCH	0.9507	Not Specified	PASS
	HCH	0.9497	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.283	Not Specified	PASS
	MCH	1.284	Not Specified	PASS
	HCH	1.282	Not Specified	PASS
8DPSK	LCH	1.295	Not Specified	PASS
	MCH	1.295	Not Specified	PASS
	HCH	1.296	Not Specified	PASS

Test Graphs

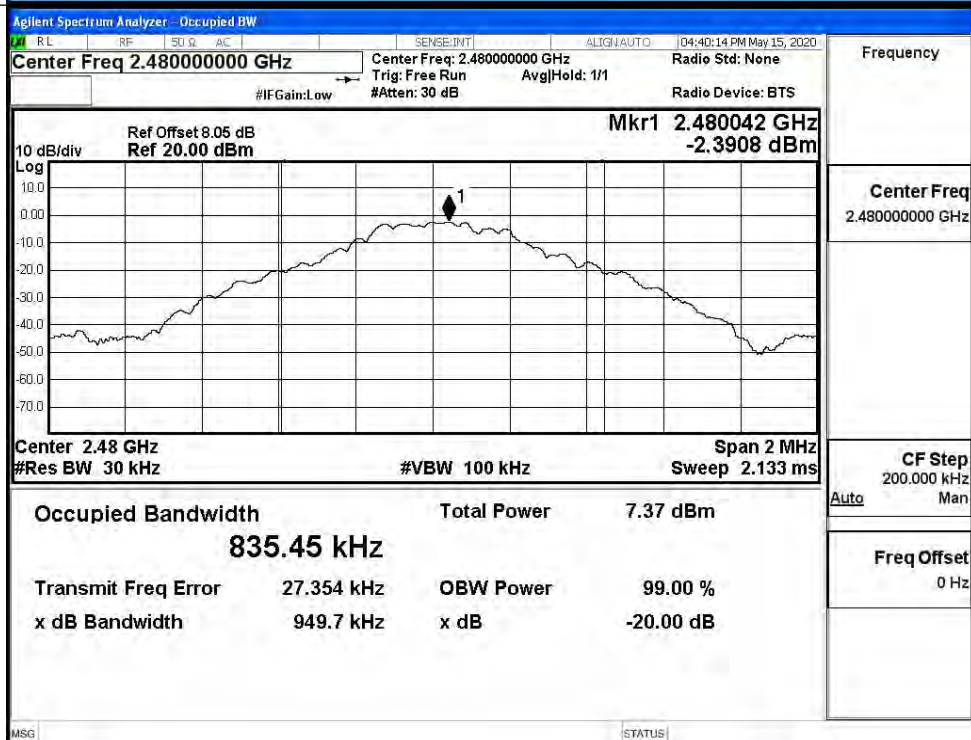
GFSK/LCH

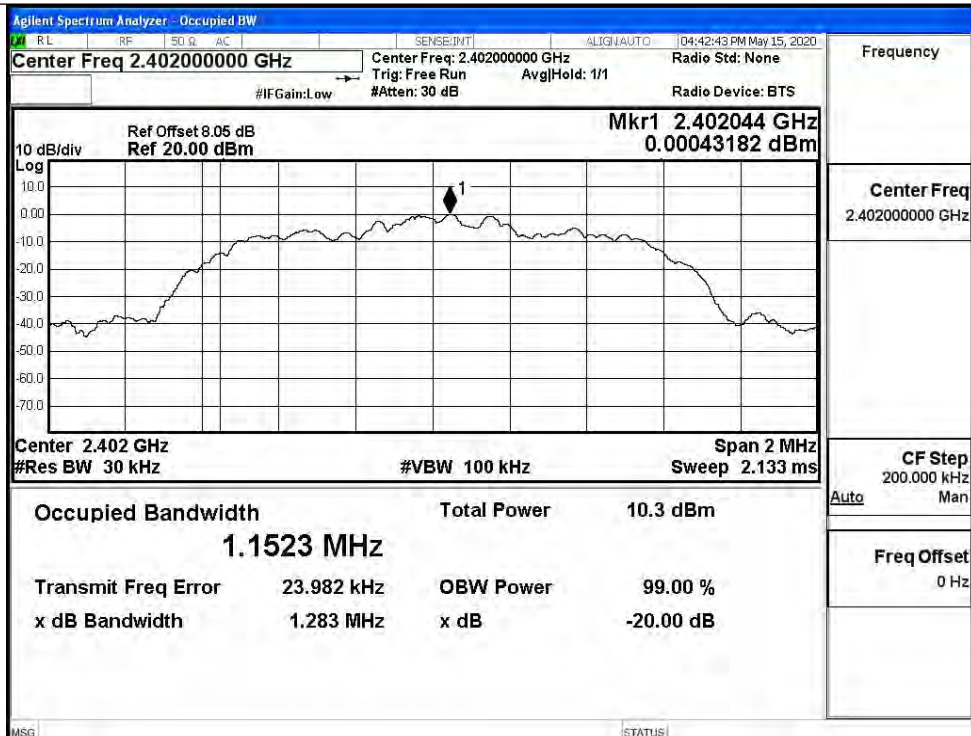
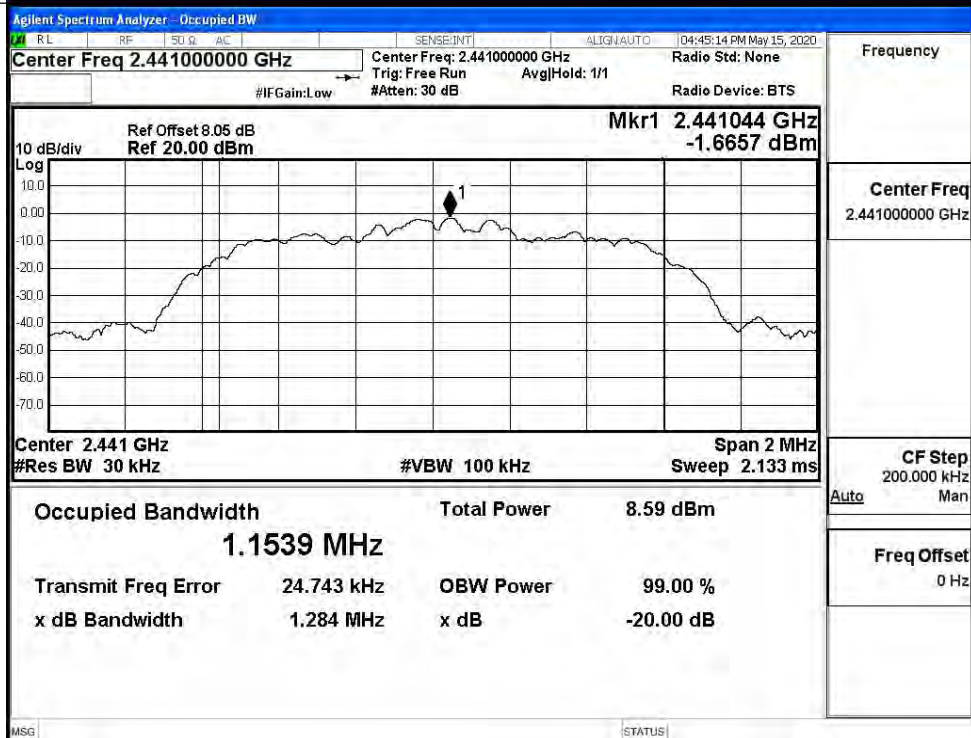


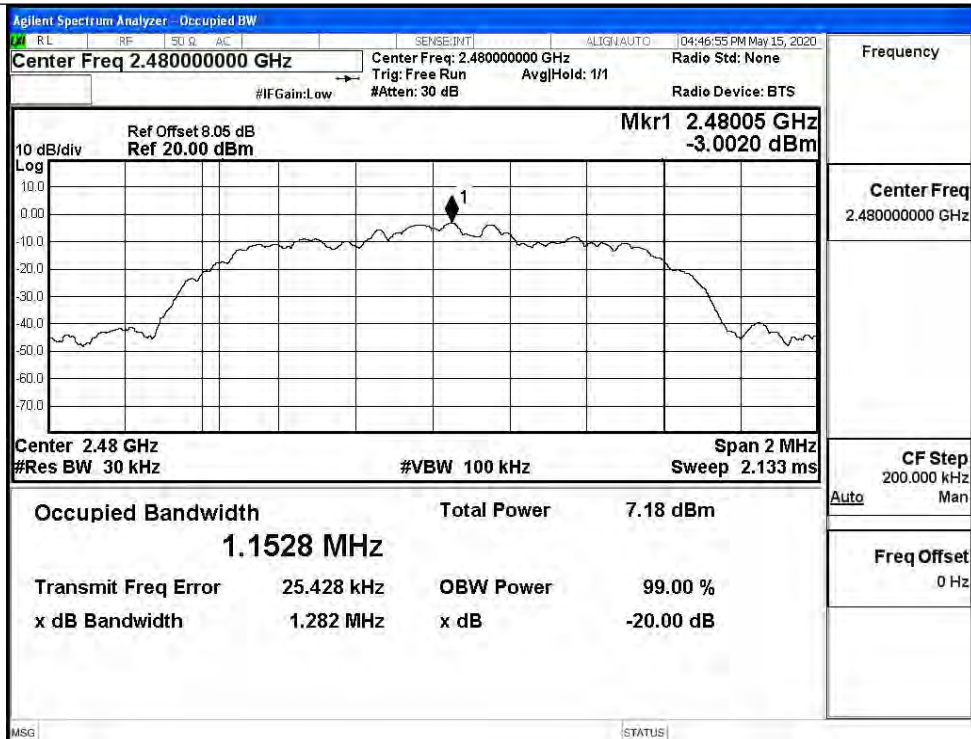
GFSK/MCH



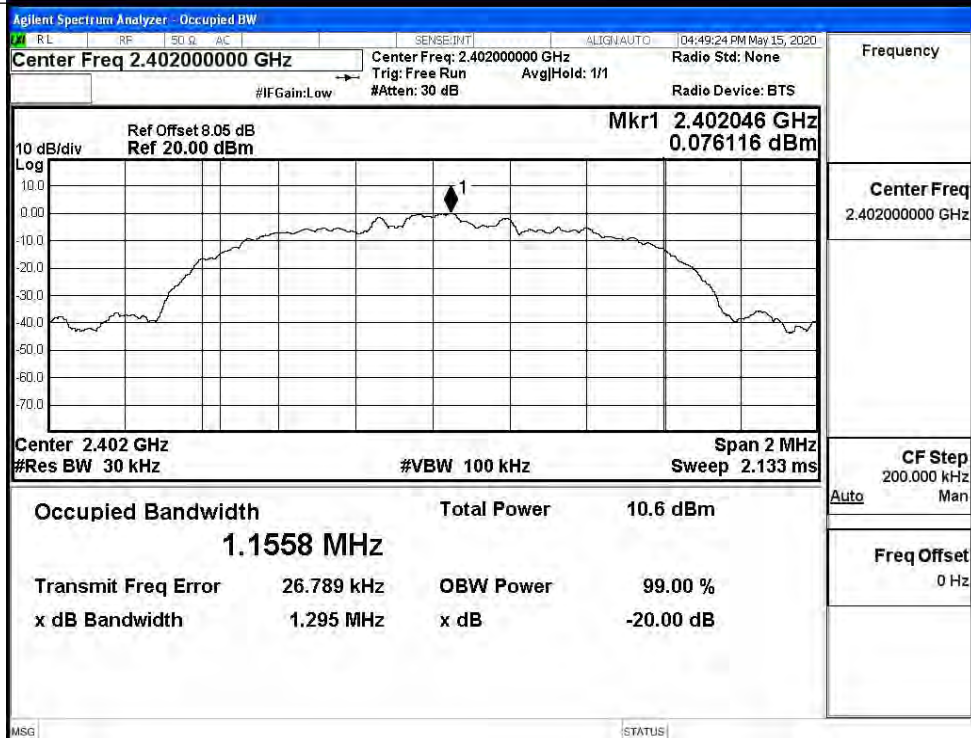
GFSK/HCH



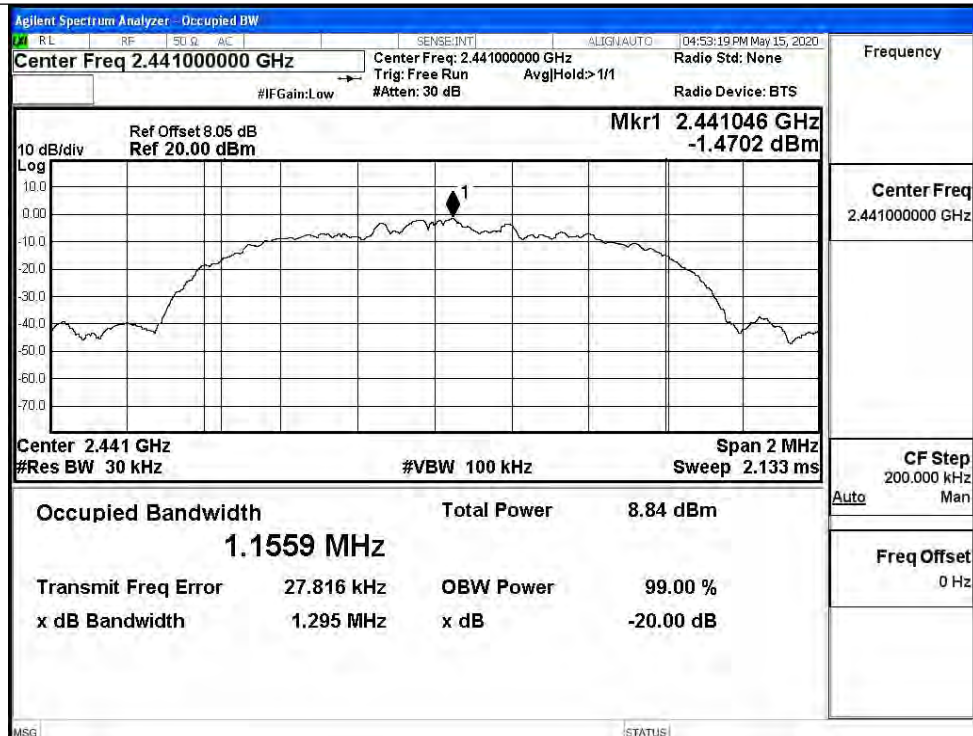
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

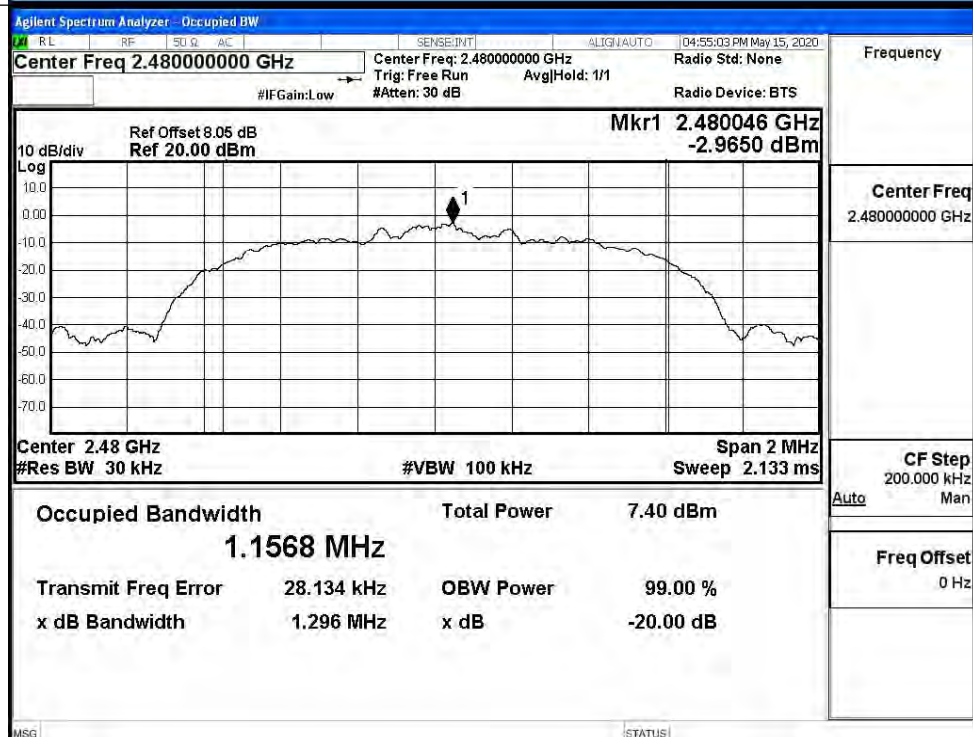
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

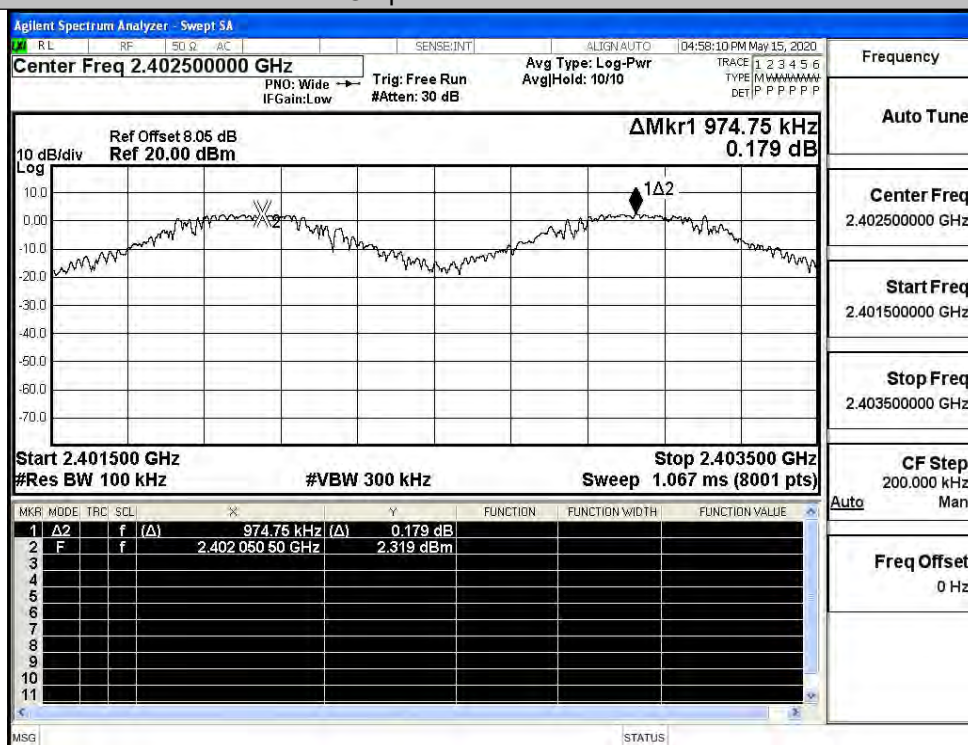


A.3 Carrier Frequency Separation

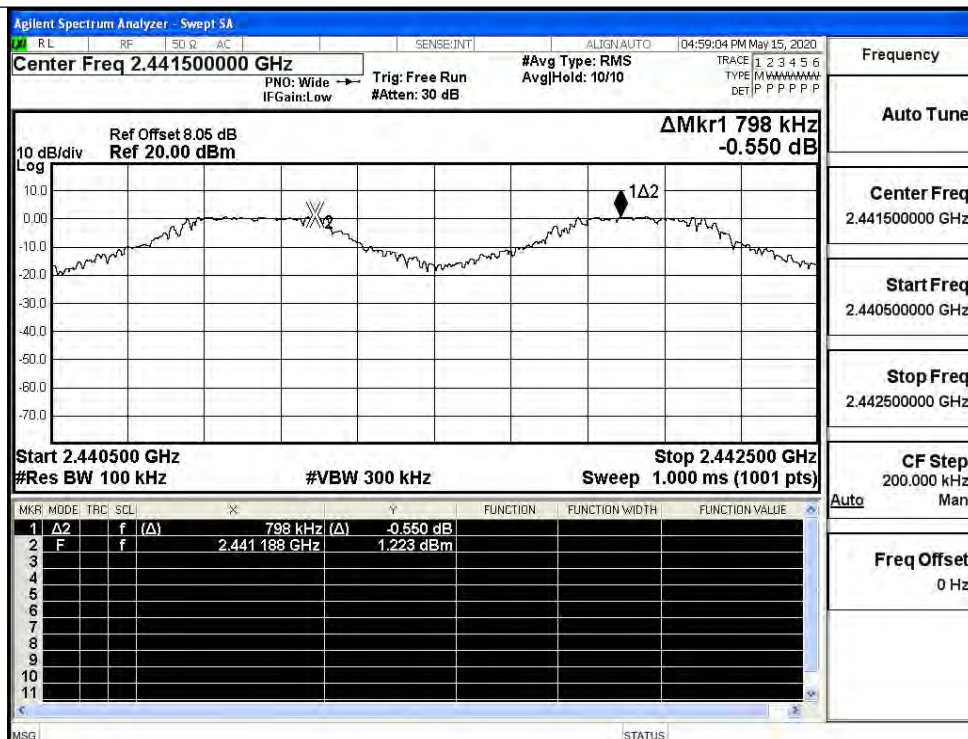
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.975	0.635	PASS
	MCH	0.798	0.635	PASS
	HCH	1.104	0.635	PASS
$\pi/4$ DQPSK	LCH	1.088	0.856	PASS
	MCH	0.998	0.856	PASS
	HCH	1.016	0.856	PASS
8DPSK	LCH	0.992	0.864	PASS
	MCH	1.162	0.864	PASS
	HCH	1.002	0.864	PASS

Test Graphs

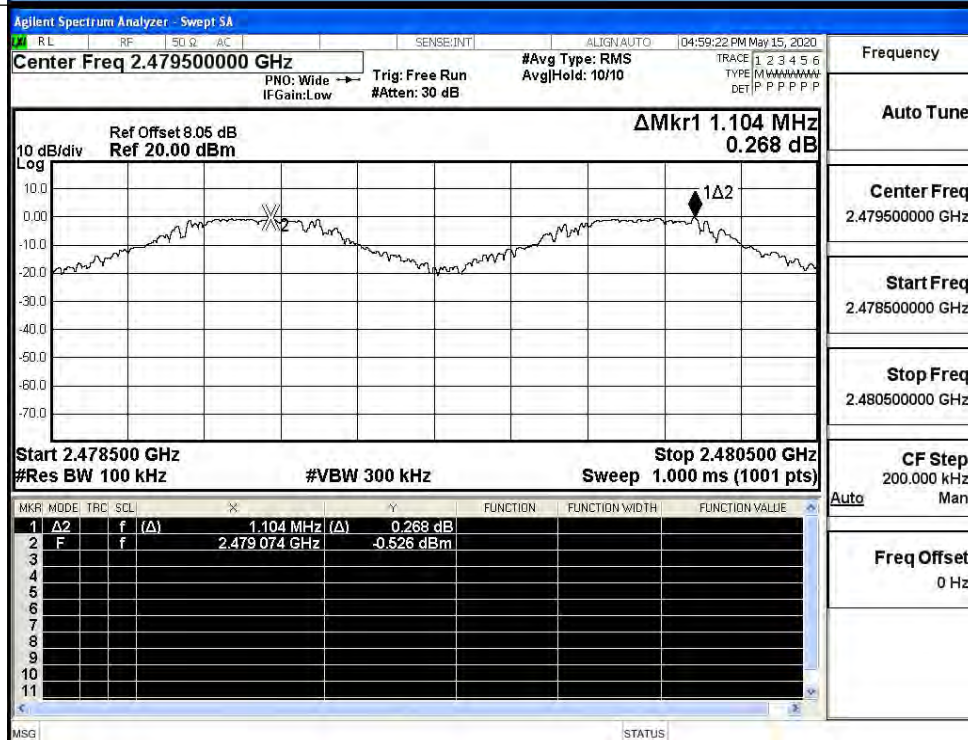
GFSK/LCH

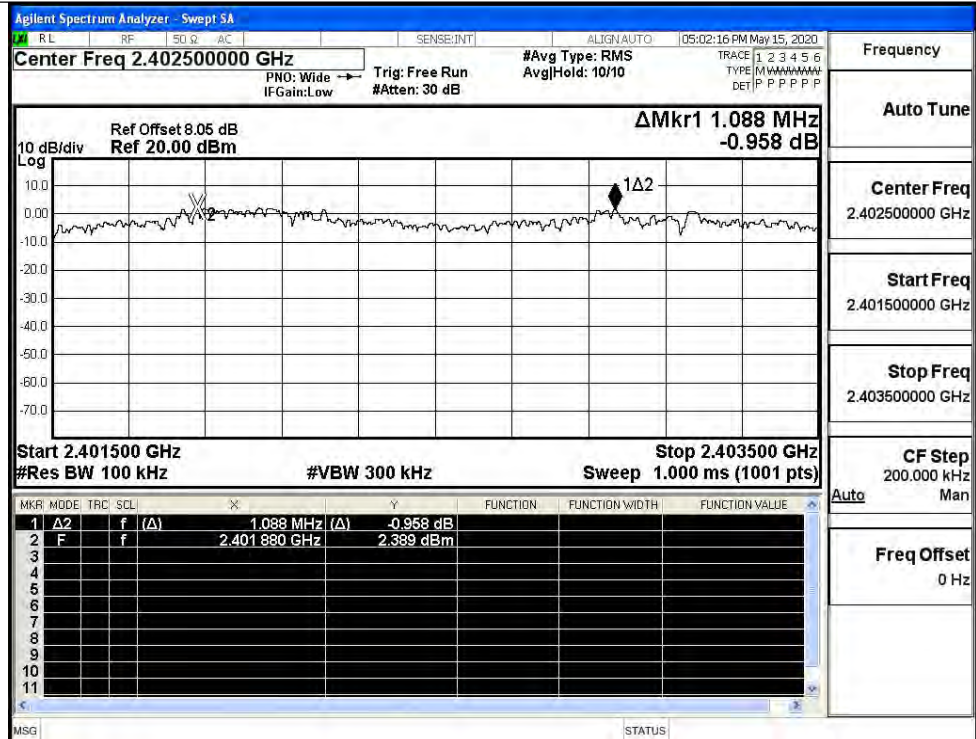
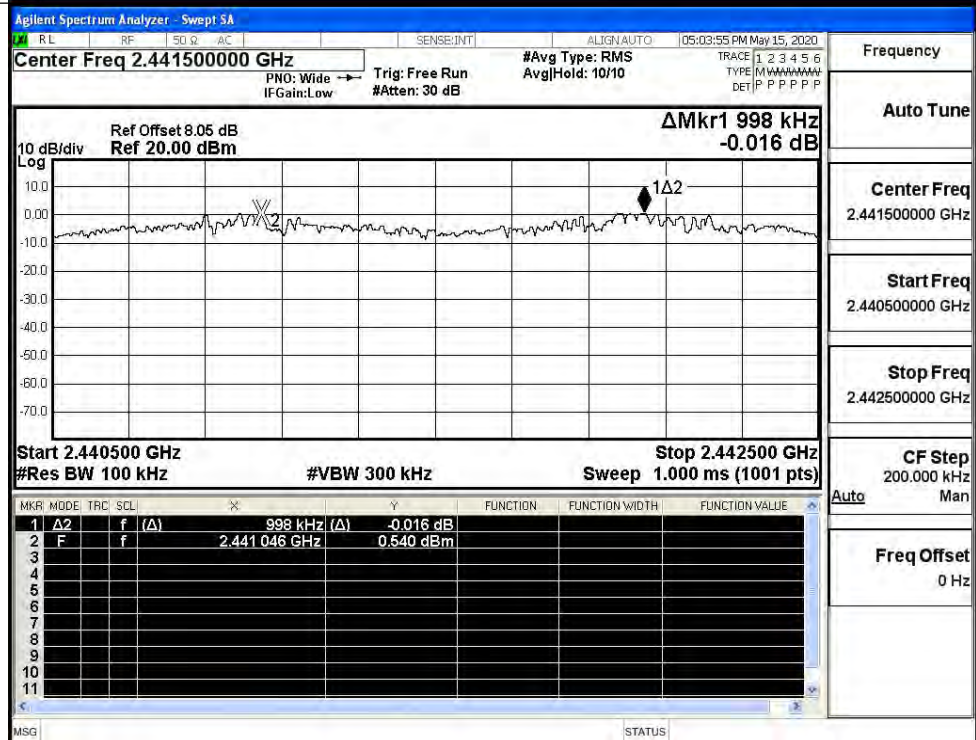


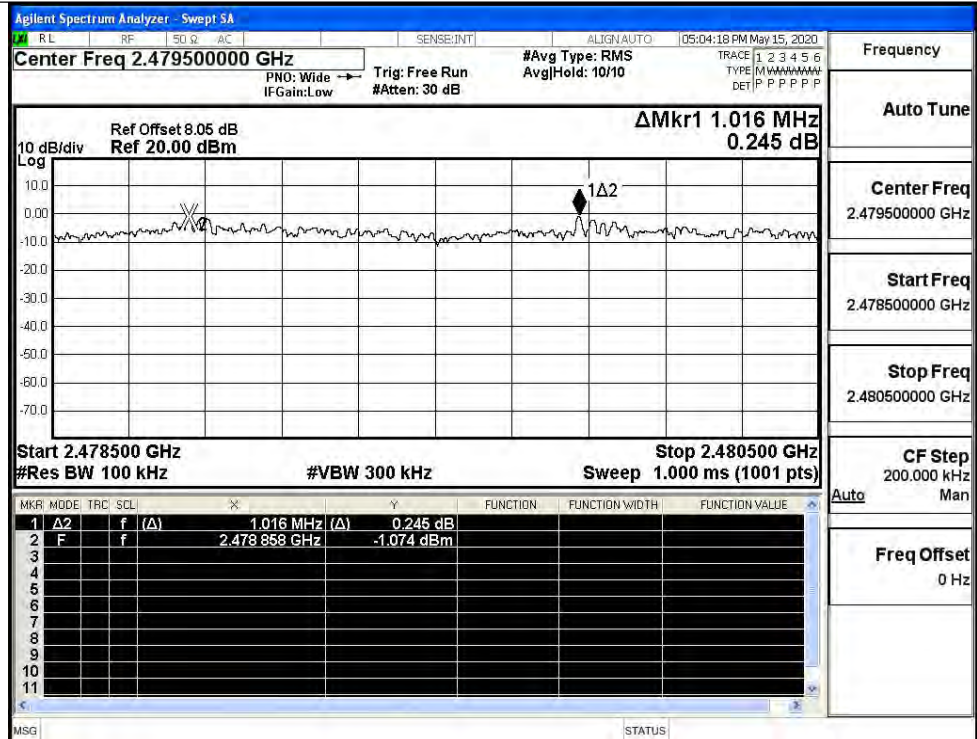
GFSK/MCH



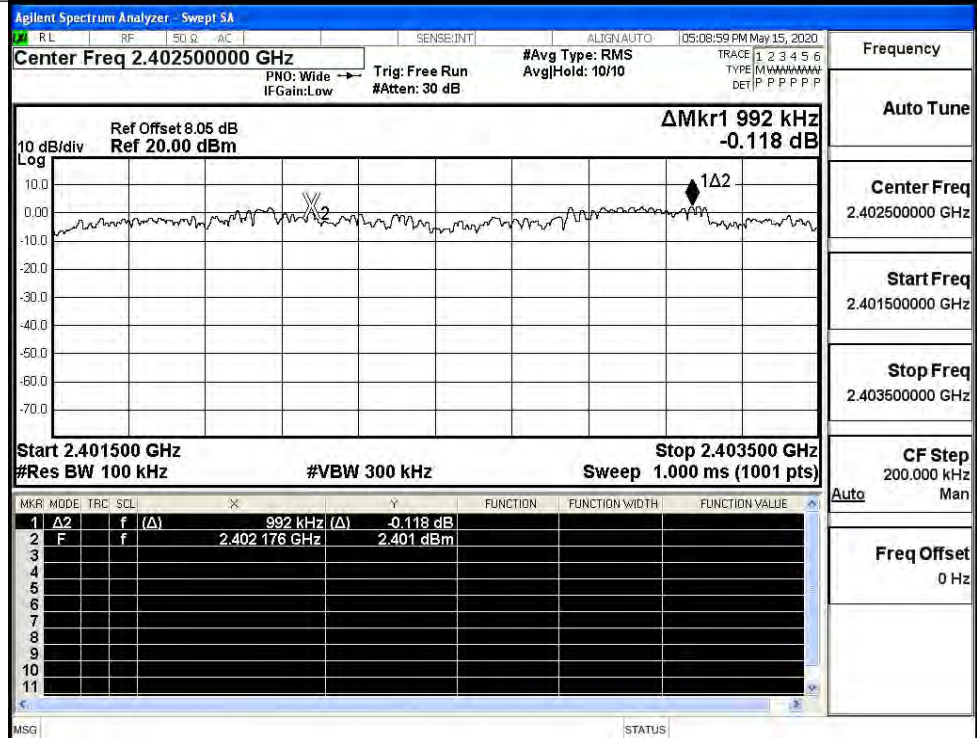
GFSK/HCH



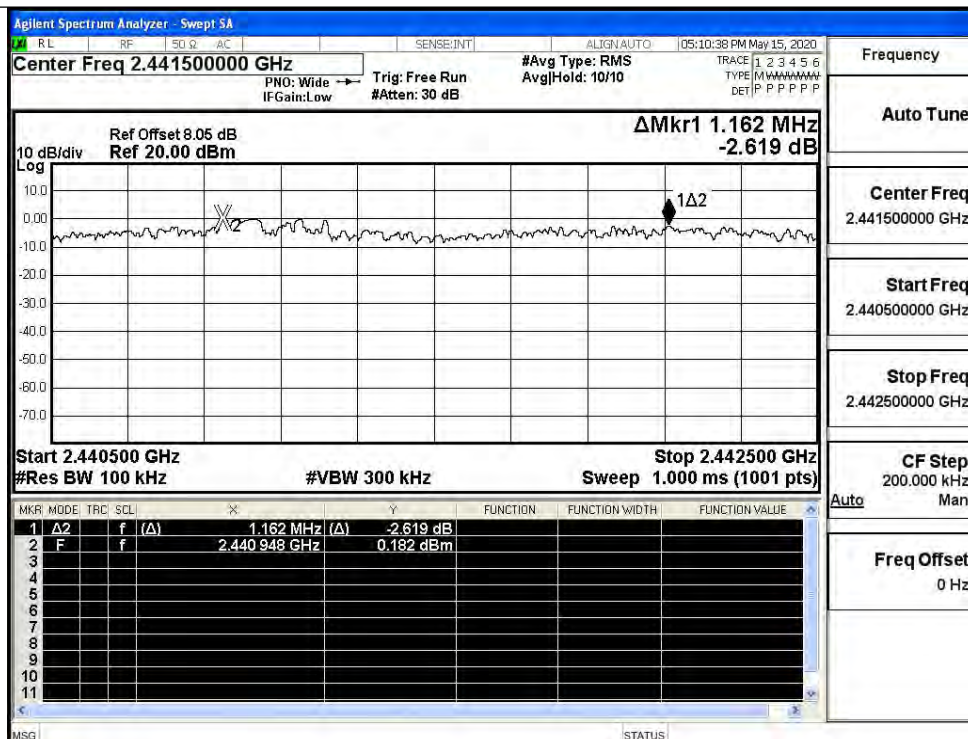
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

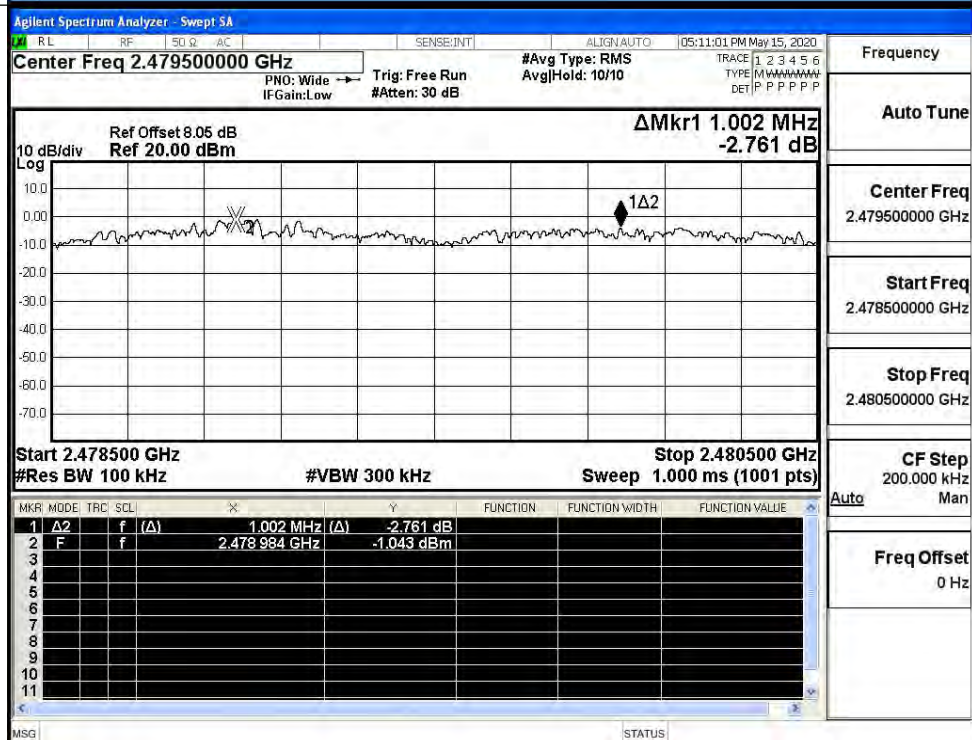
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

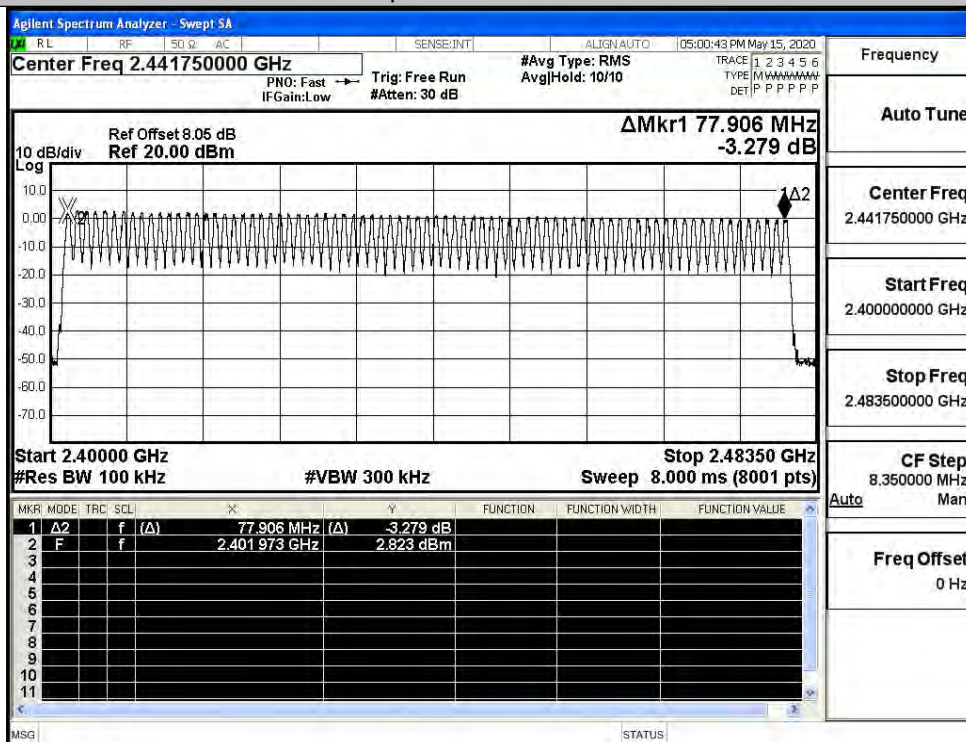
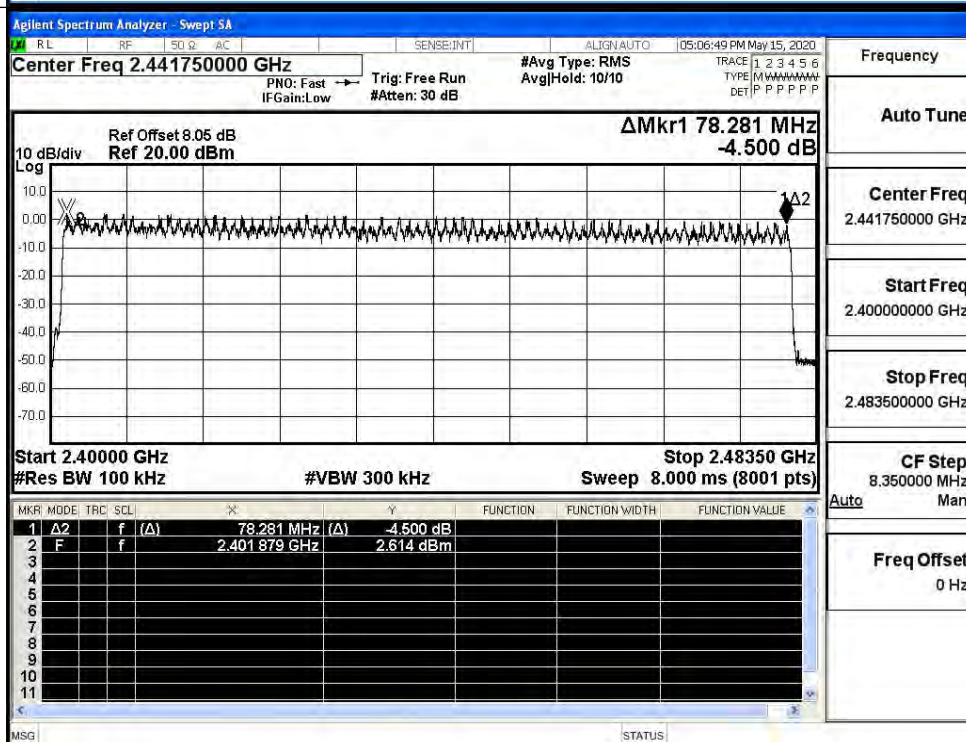


A.4 Hopping Channel Number

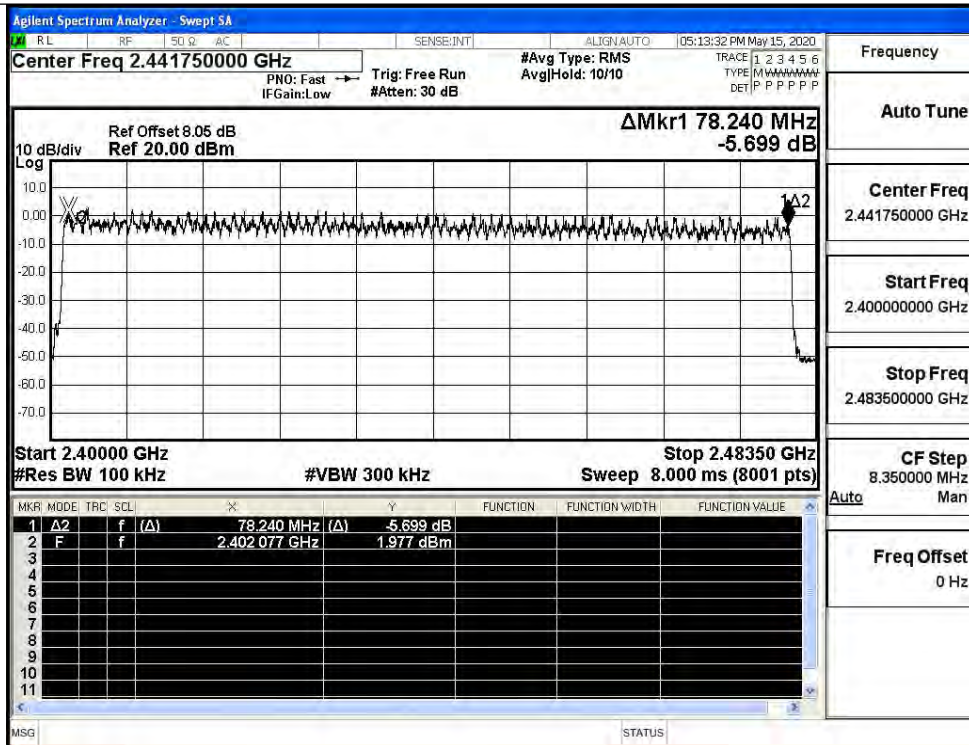
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS
8DPSK	Hop	79	≥ 15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

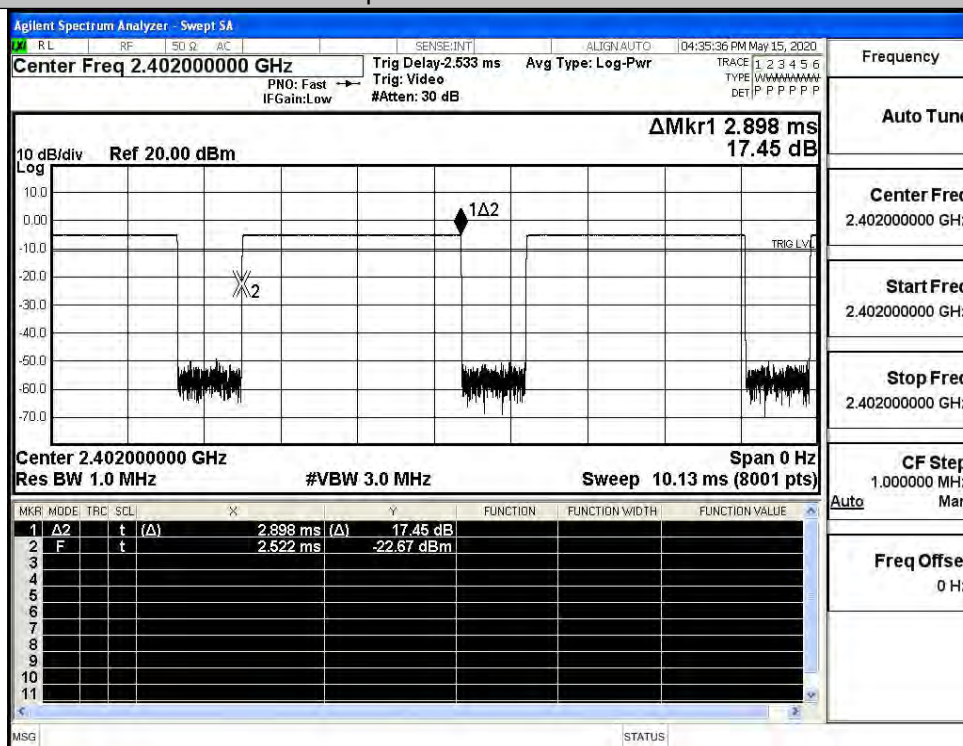


A.5 Dwell Time

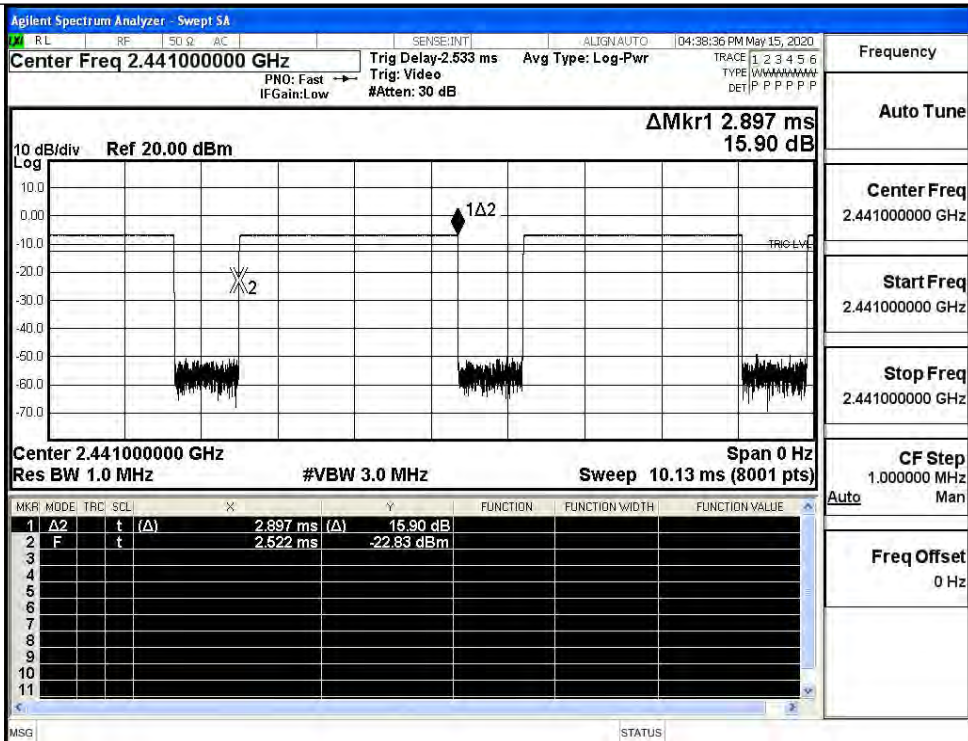
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.9	106.7	0.309	0.4	PASS
	DH5	MCH	2.9	106.7	0.309	0.4	PASS
	DH5	HCH	2.9	106.7	0.309	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.9	106.7	0.309	0.4	PASS
	2DH5	MCH	2.9	106.7	0.309	0.4	PASS
	2DH5	HCH	2.9	106.7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

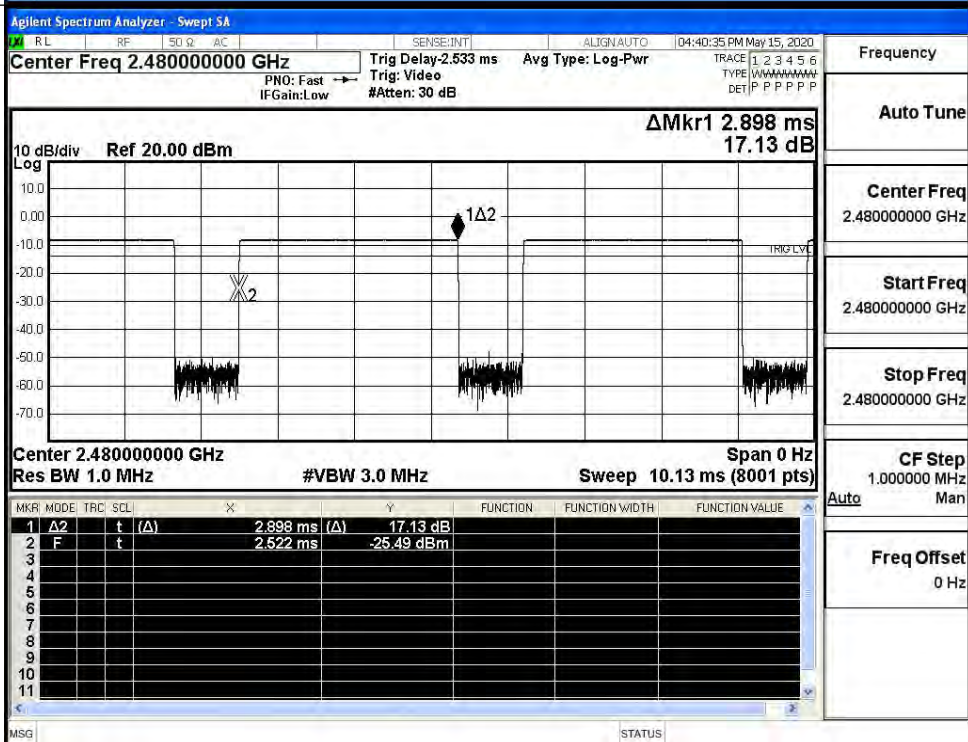
GFSK_DH5/LCH



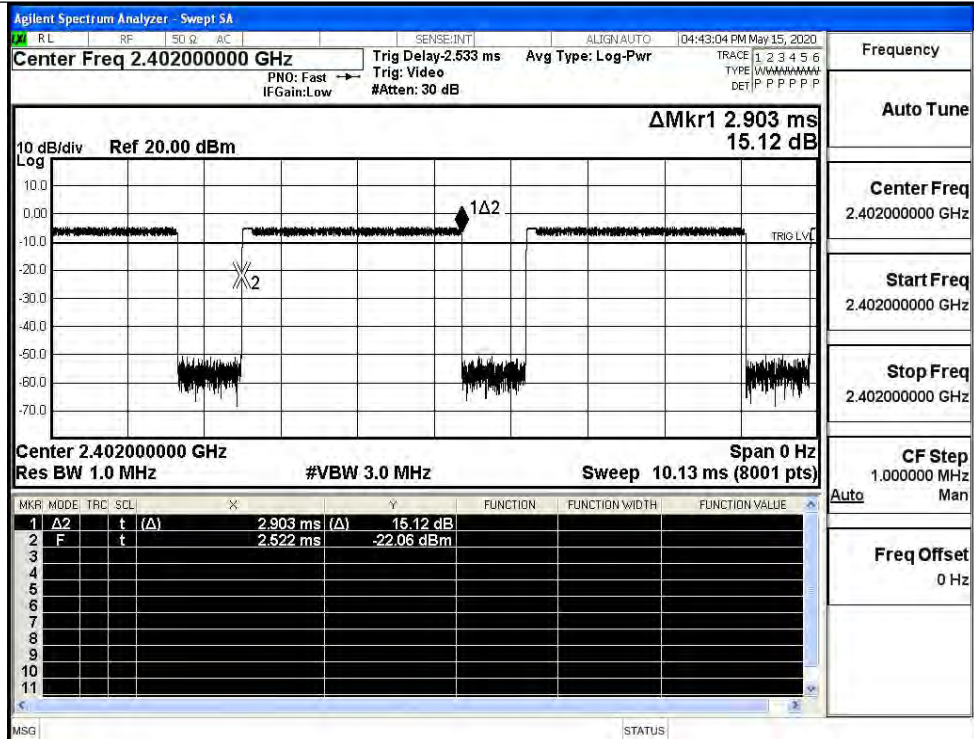
GFSK_DH5/MCH



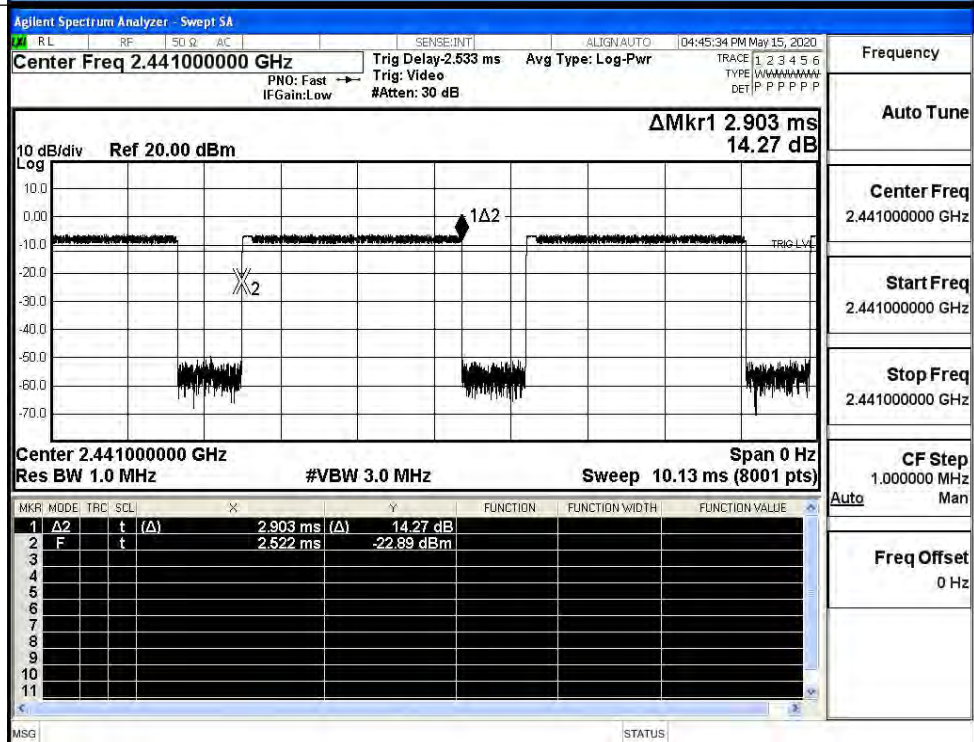
GFSK_DH5/HCH



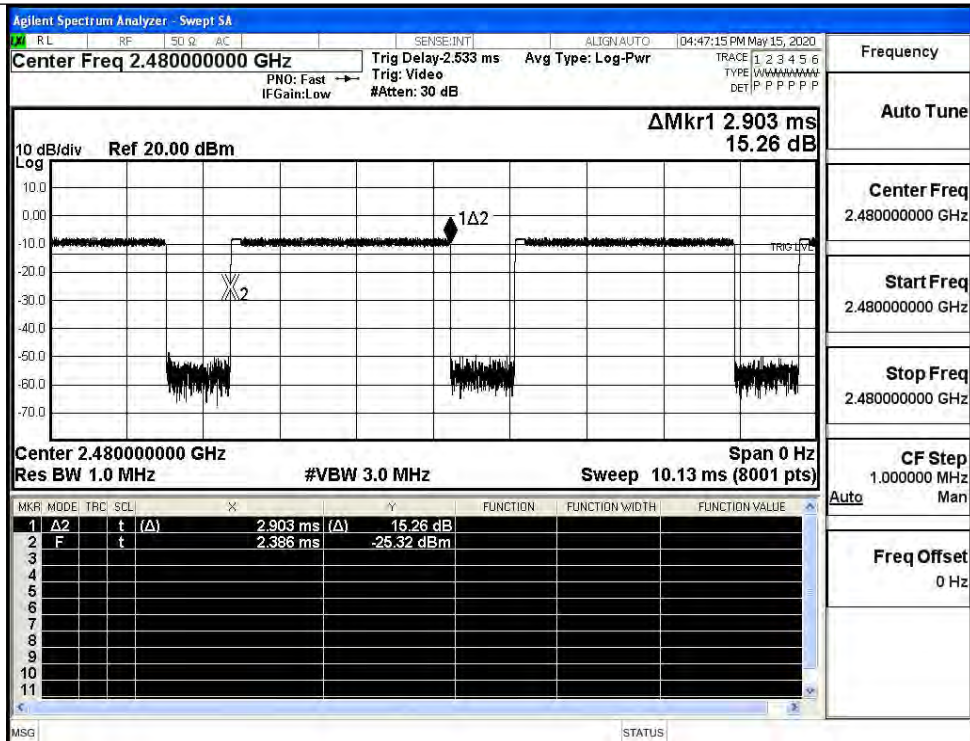
$\pi/4$ DQPSK
_2DH5/LCH



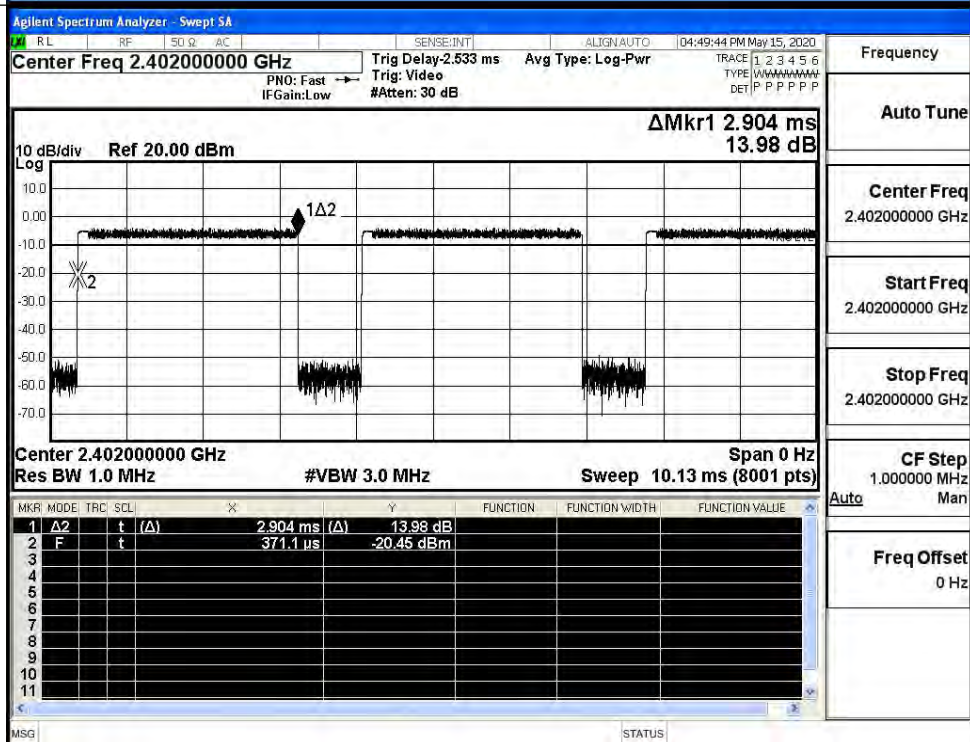
$\pi/4$ DQPSK
_2DH5/MCH



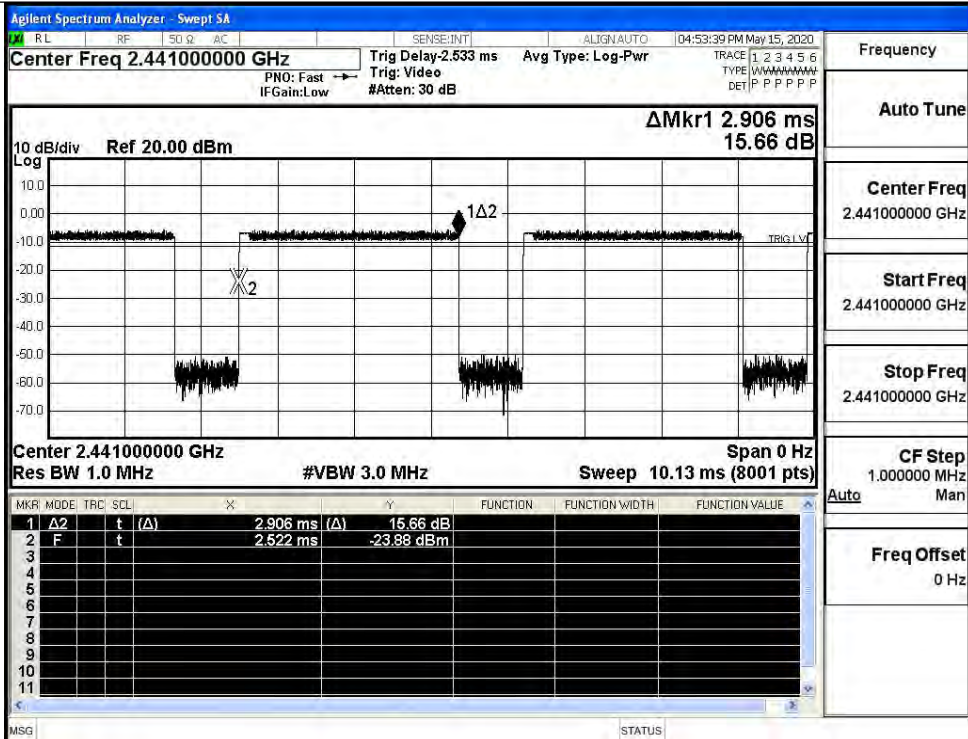
$\pi/4$ DQPSK
_2DH5/HCH



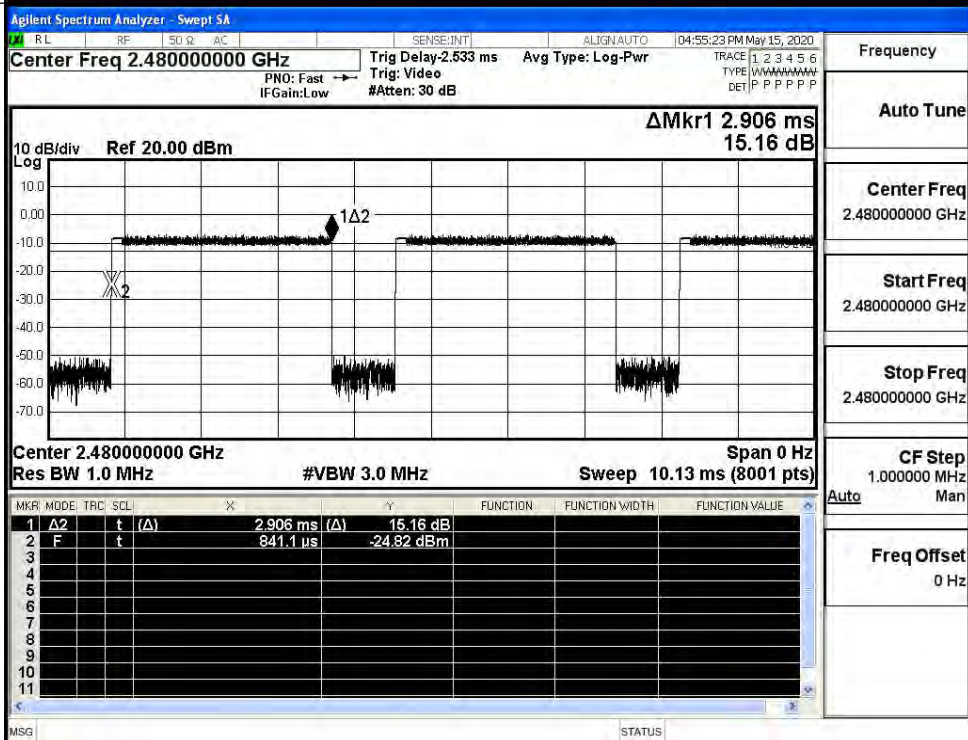
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

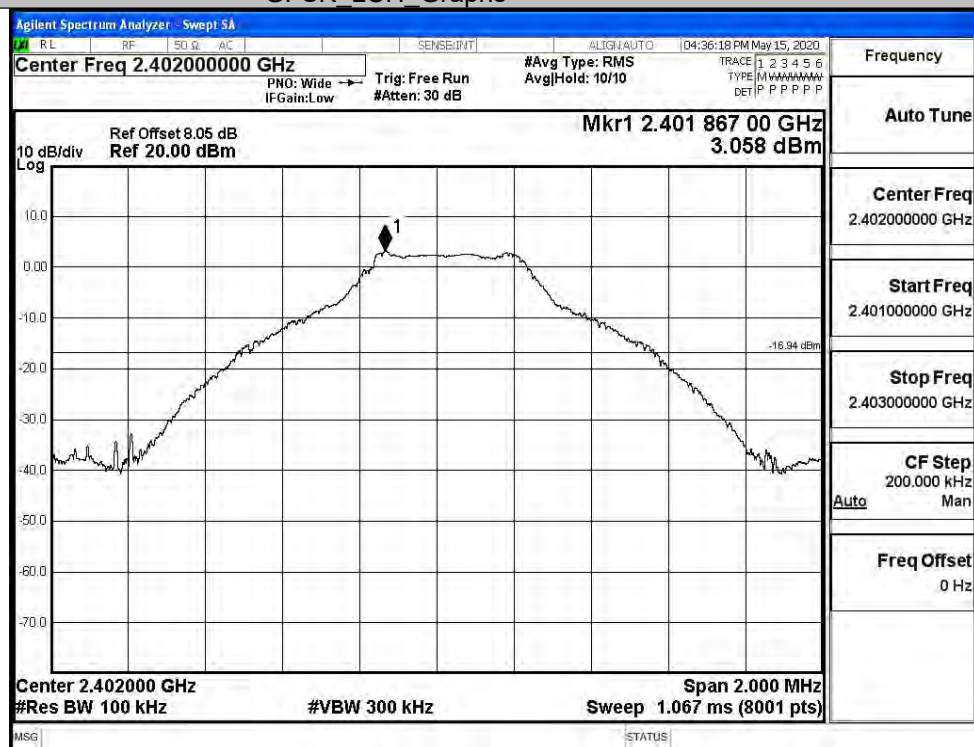


A.6 RF Conducted Spurious Emissions

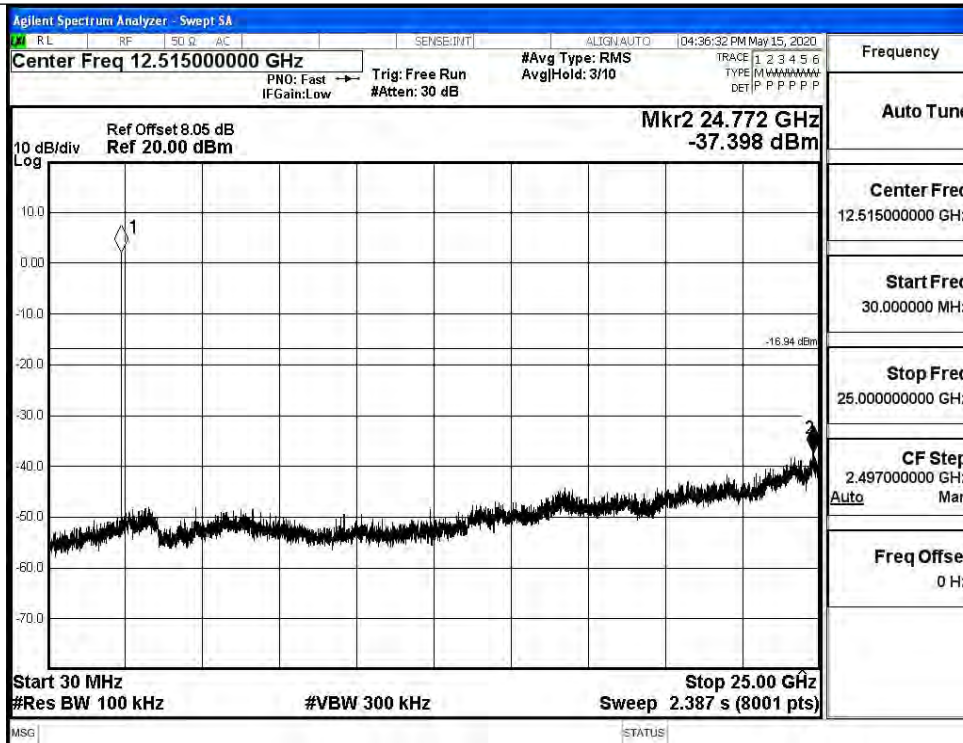
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.058	-37.398	-16.942	PASS
	MCH	1.341	-37.372	-18.659	PASS
	HCH	-0.236	-27.680	-20.236	PASS
$\pi/4$ DQPSK	LCH	2.34	-27.355	-17.660	PASS
	MCH	0.669	-37.773	-19.331	PASS
	HCH	-0.819	-37.378	-20.819	PASS
8DPSK	LCH	2.928	-37.944	-17.072	PASS
	MCH	1.149	-26.987	-18.851	PASS
	HCH	-0.225	-37.435	-20.225	PASS

GFSK LCH Graphs

Pref

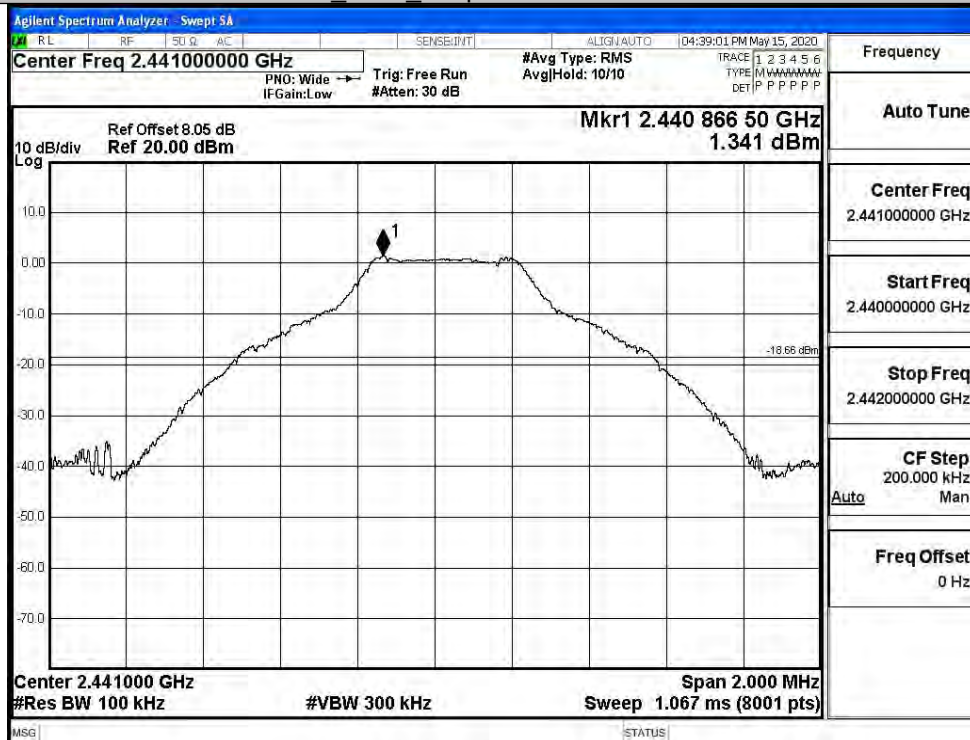


Puw

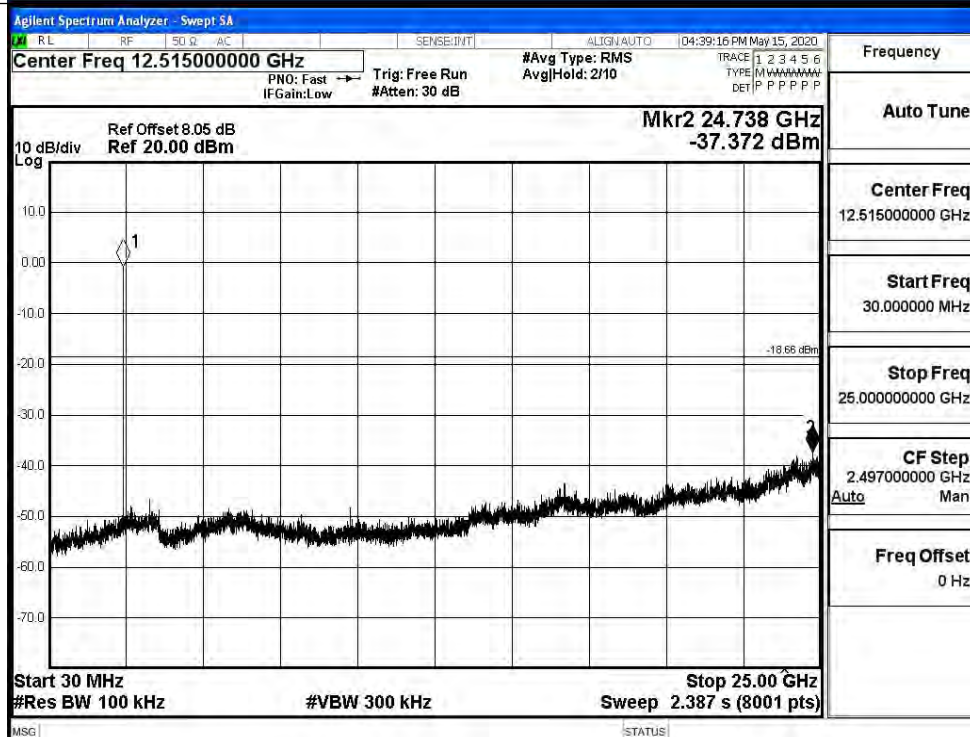


GFSK MCH_Graphs

Pref

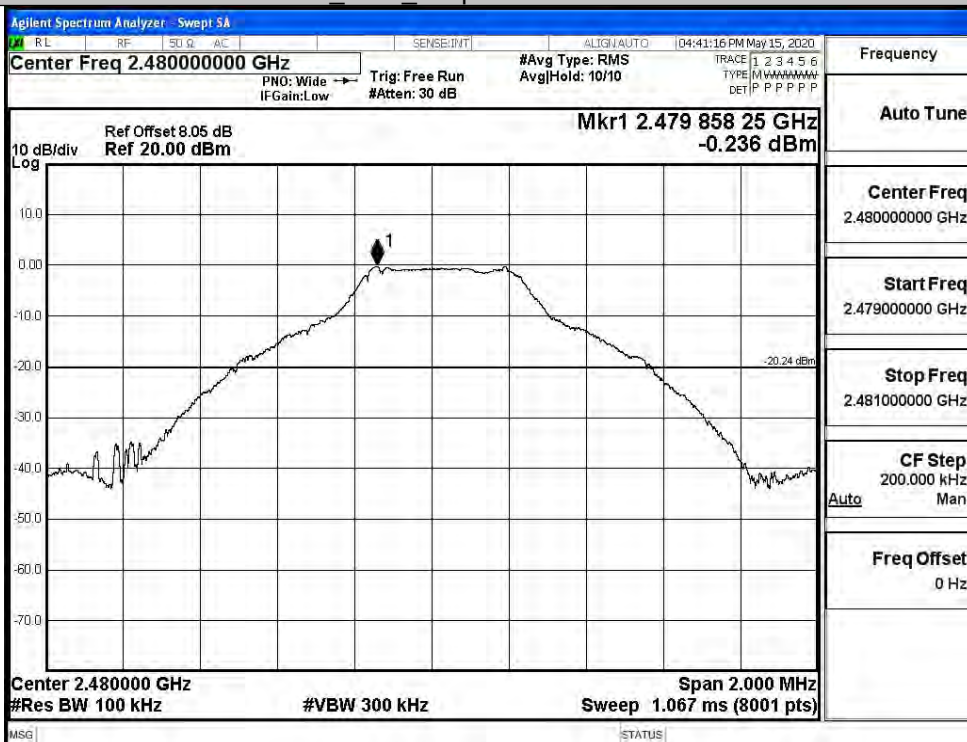


Puw

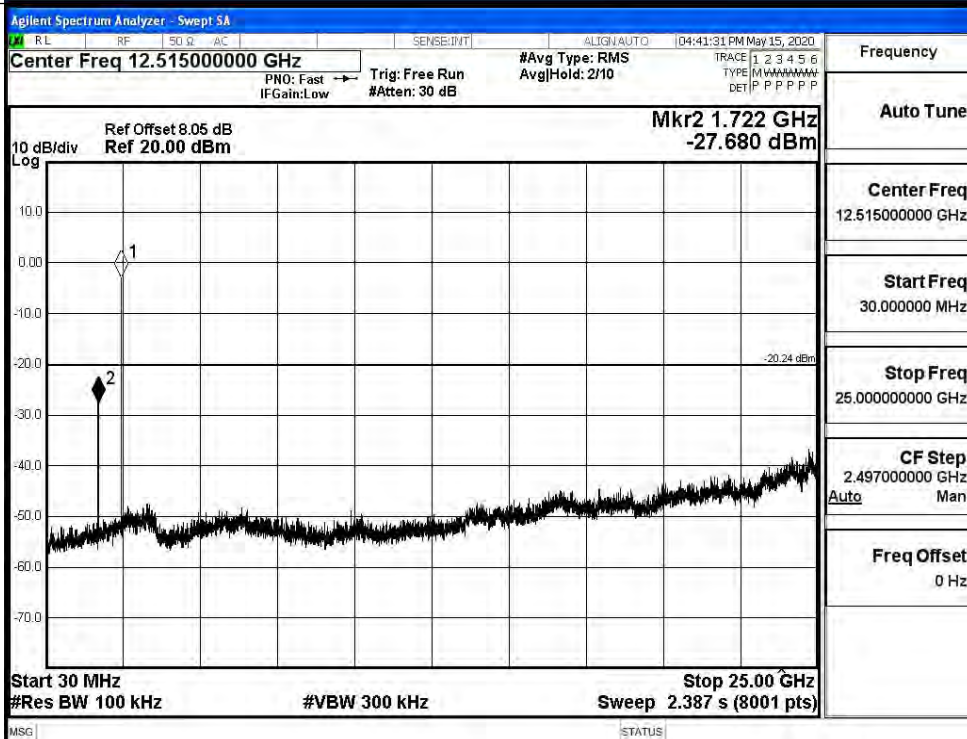


GFSK HCH_Graphs

Pref

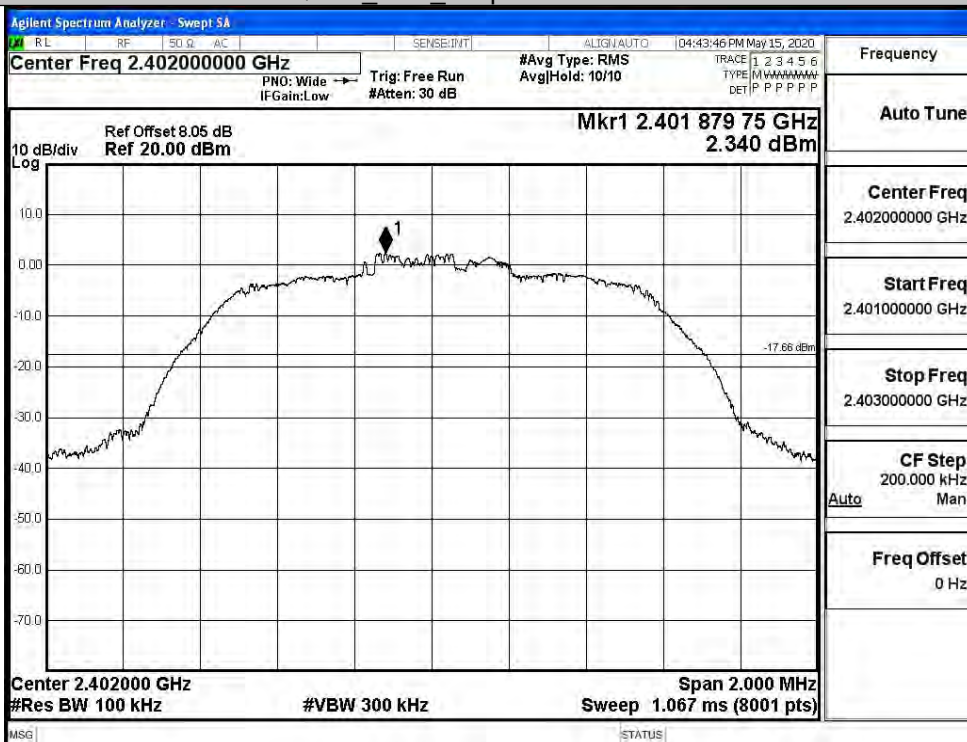


Puw

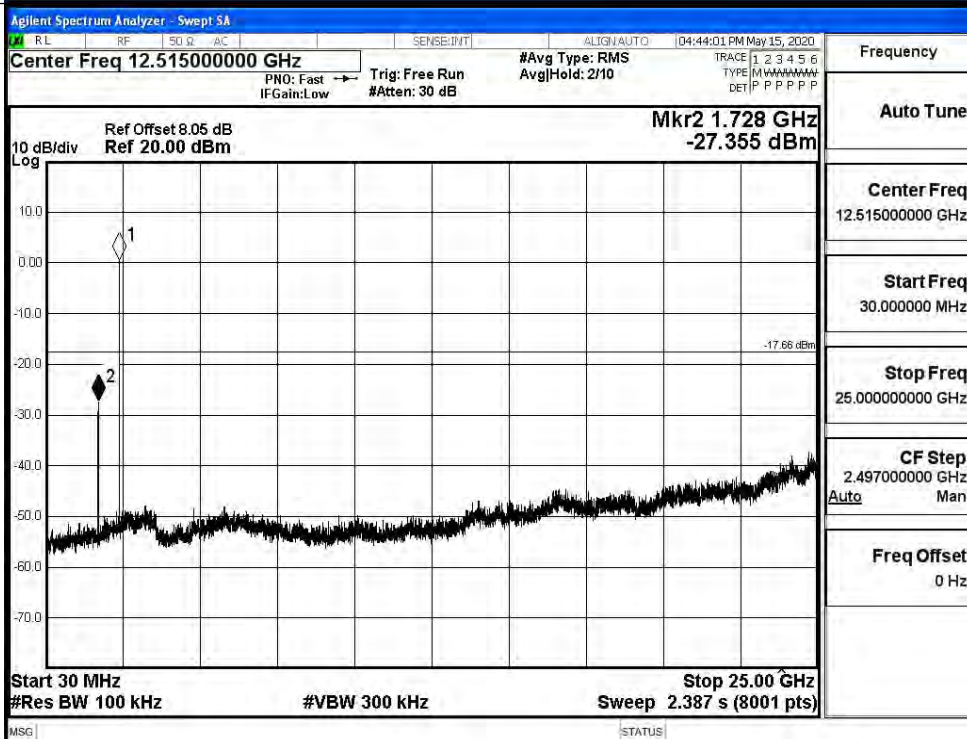


$\pi/4$ DQPSK LCH_Graphs

Pref

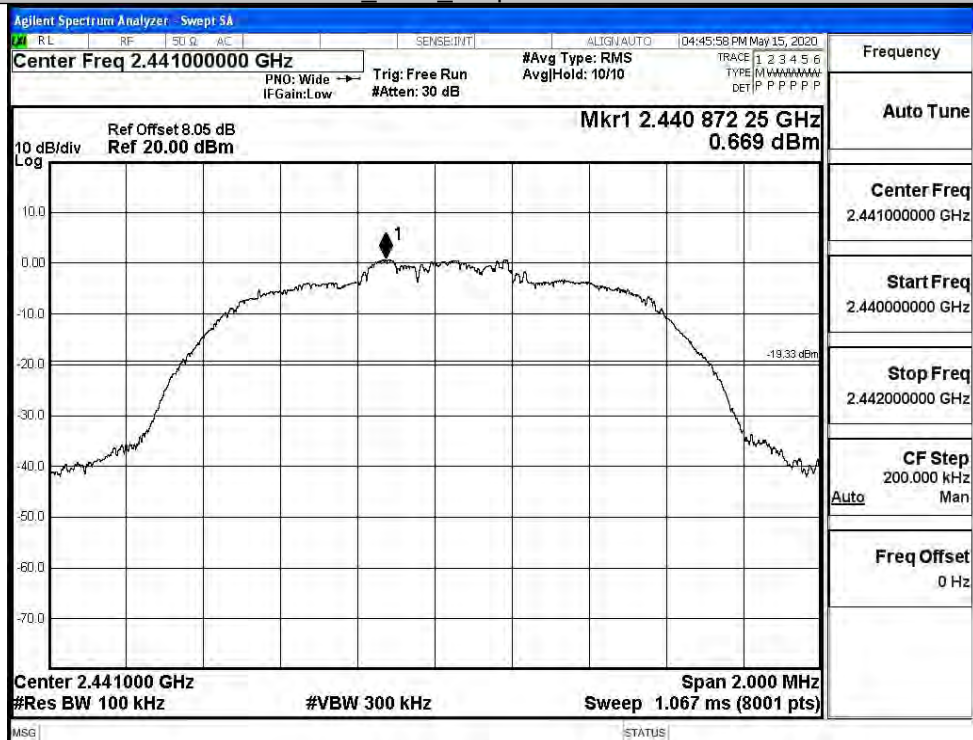


Puw

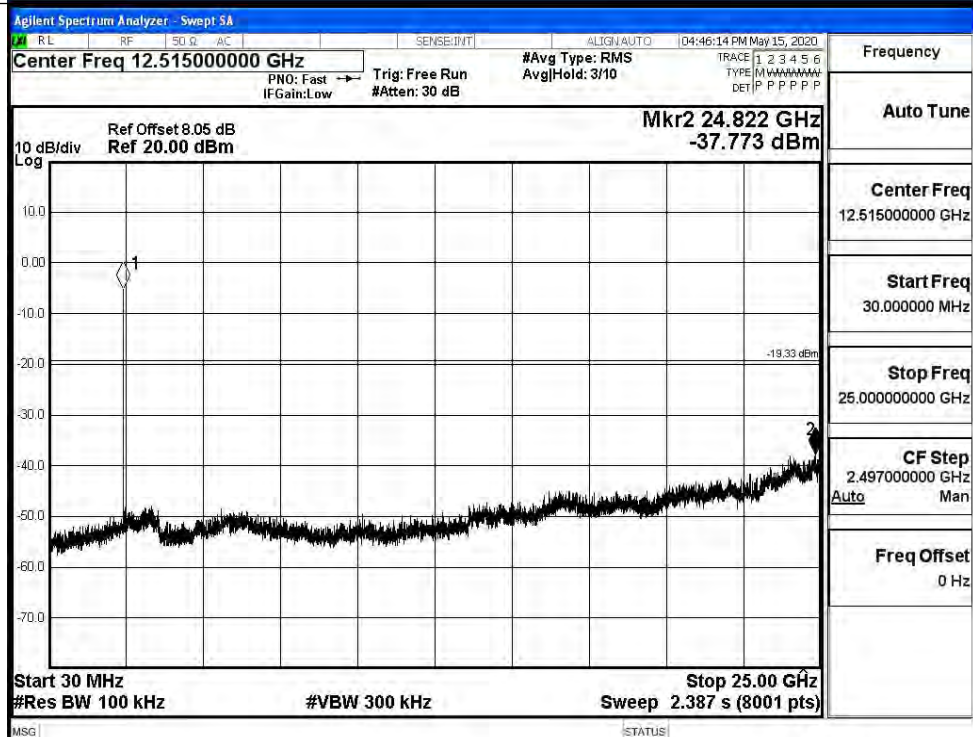


π /4DQPSK_MCH_Graphs

Pref

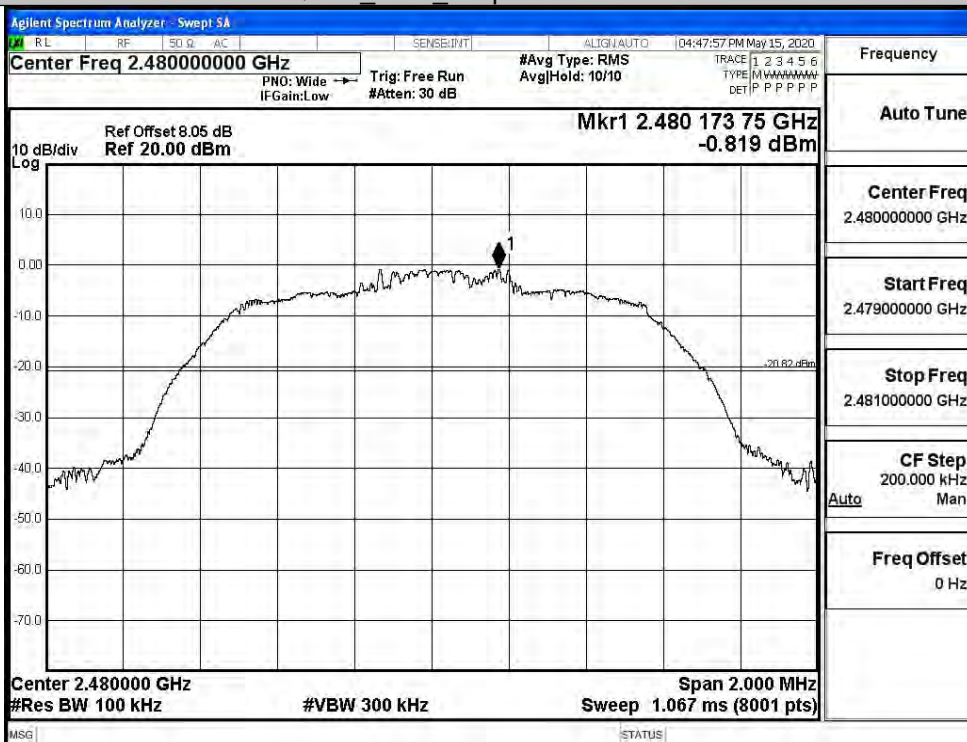


Puw

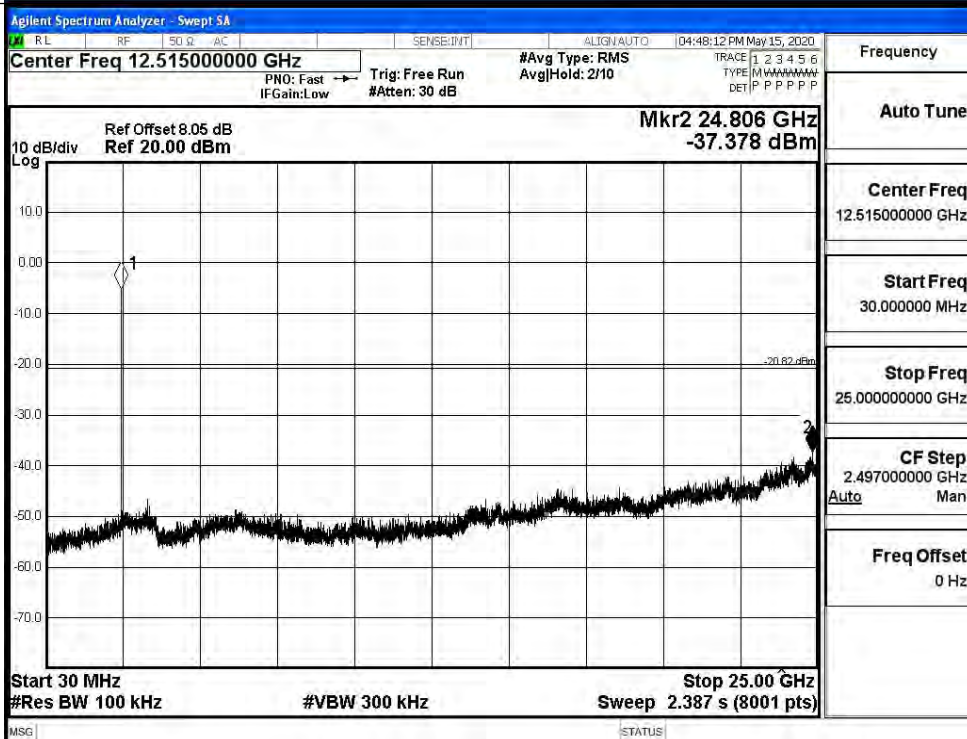


π /4DQPSK HCH_Graphs

Pref

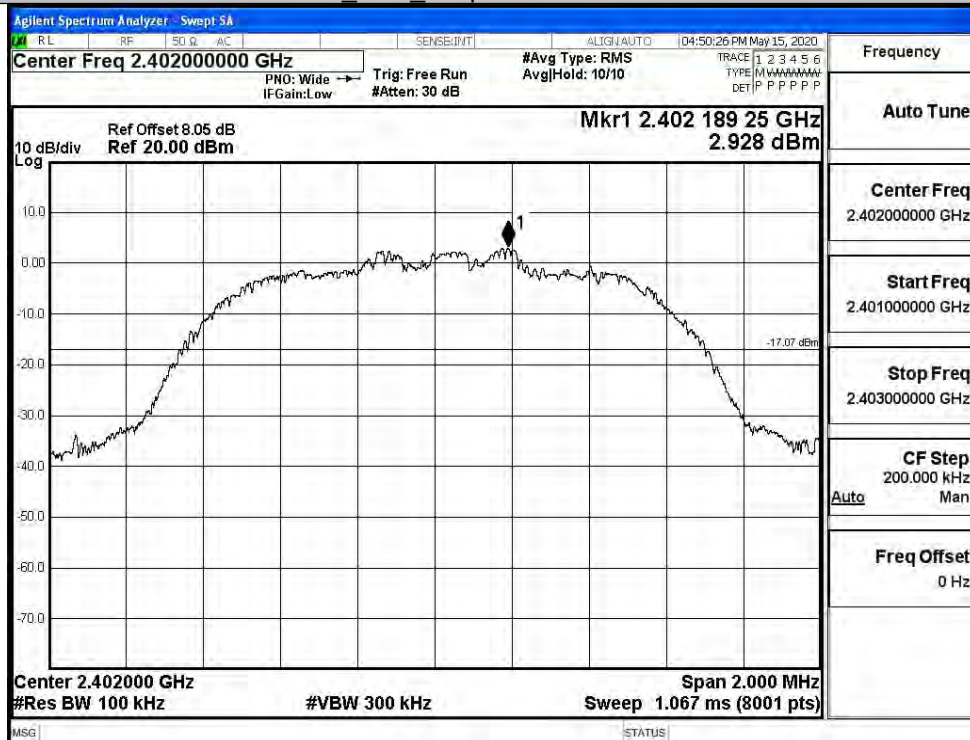


Puw

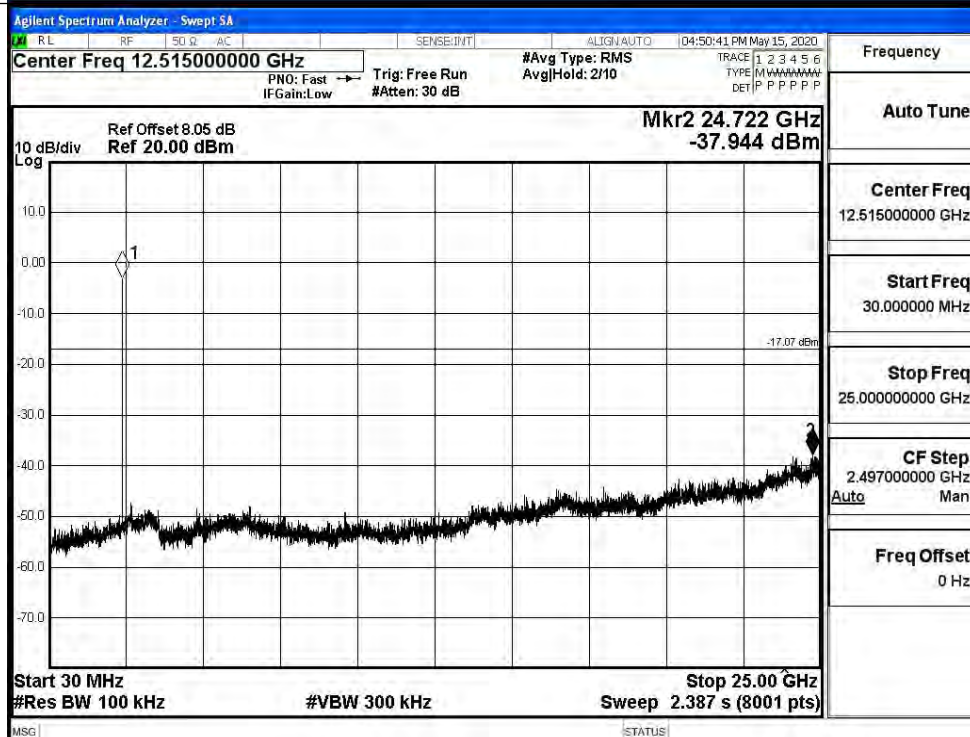


8DPSK_LCH_Graphs

Pref

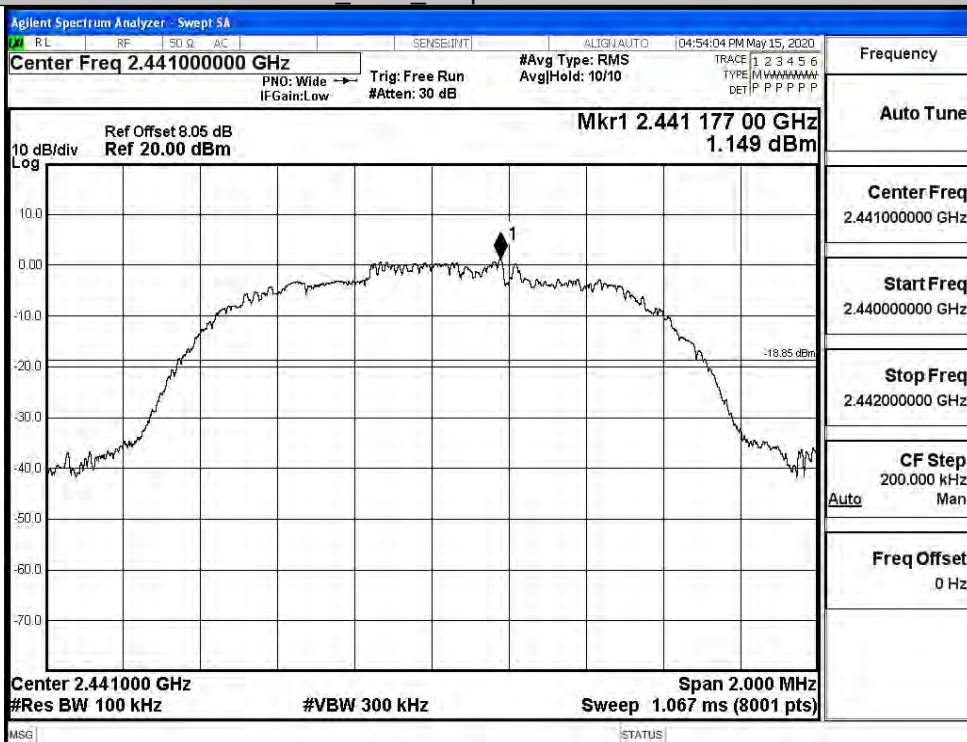


Puw

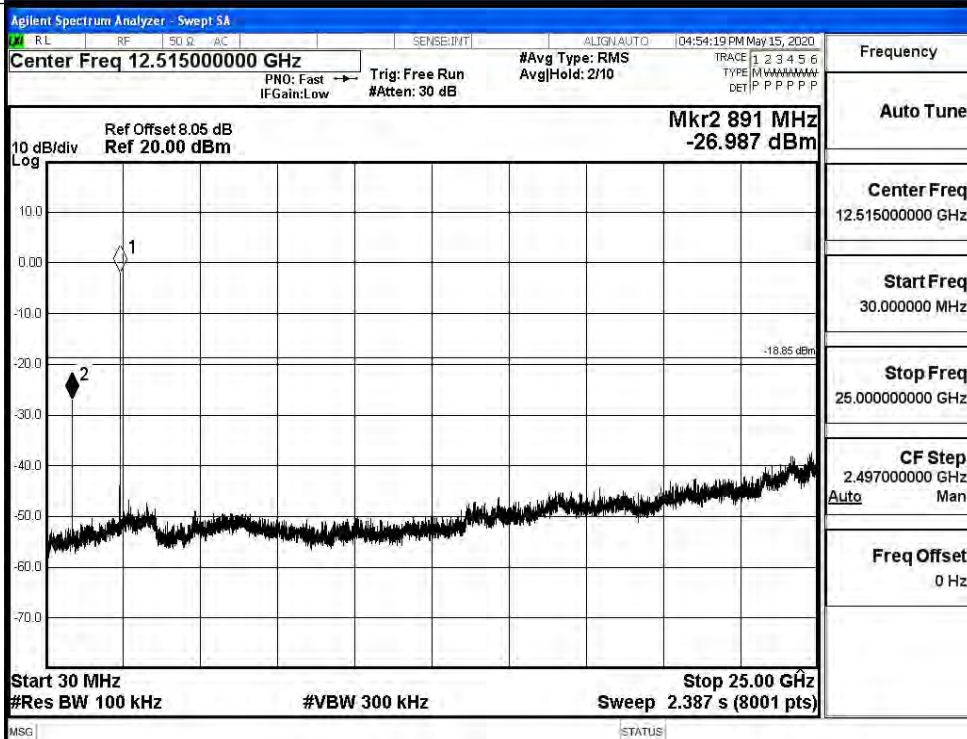


8DPSK_MCH_Graphs

Pref

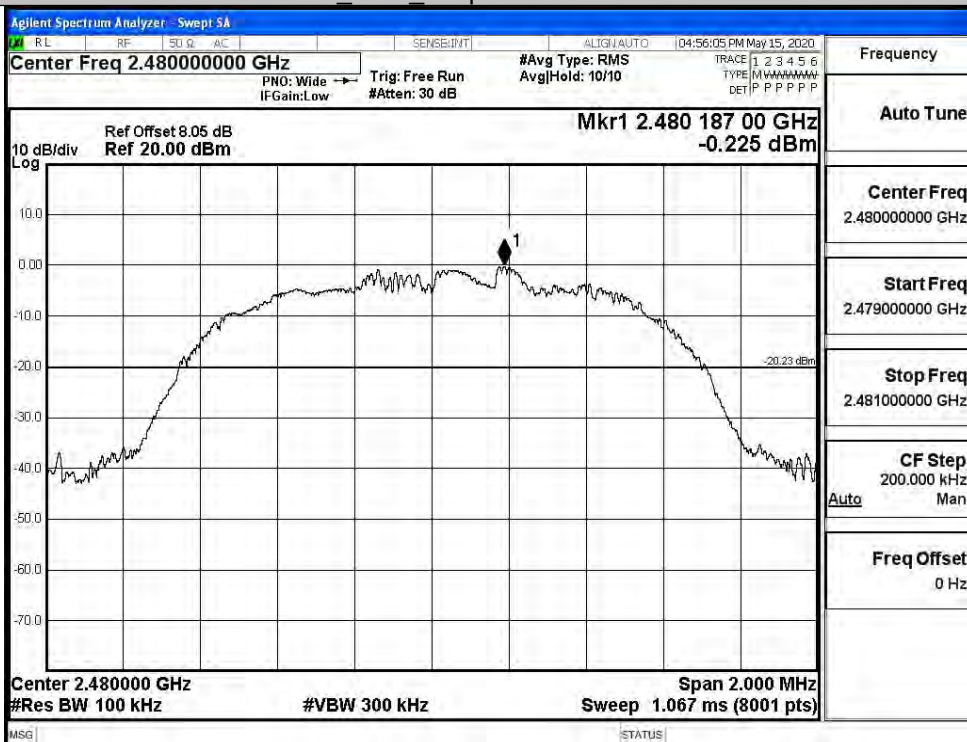


Puw

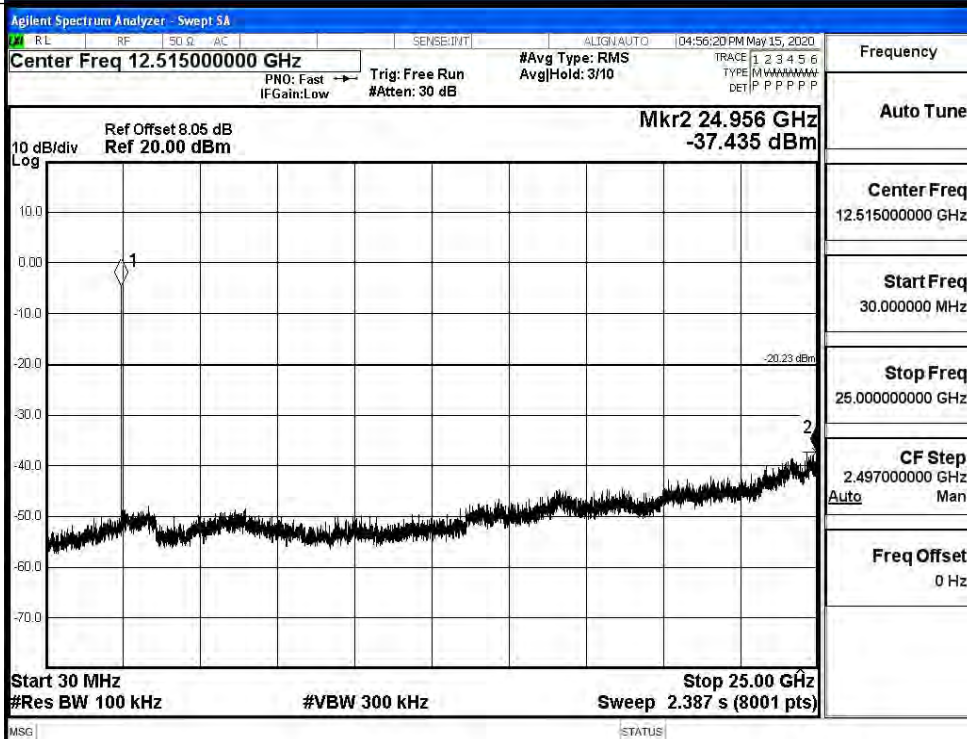


8DPSK_HCH_Graphs

Pref



Puw

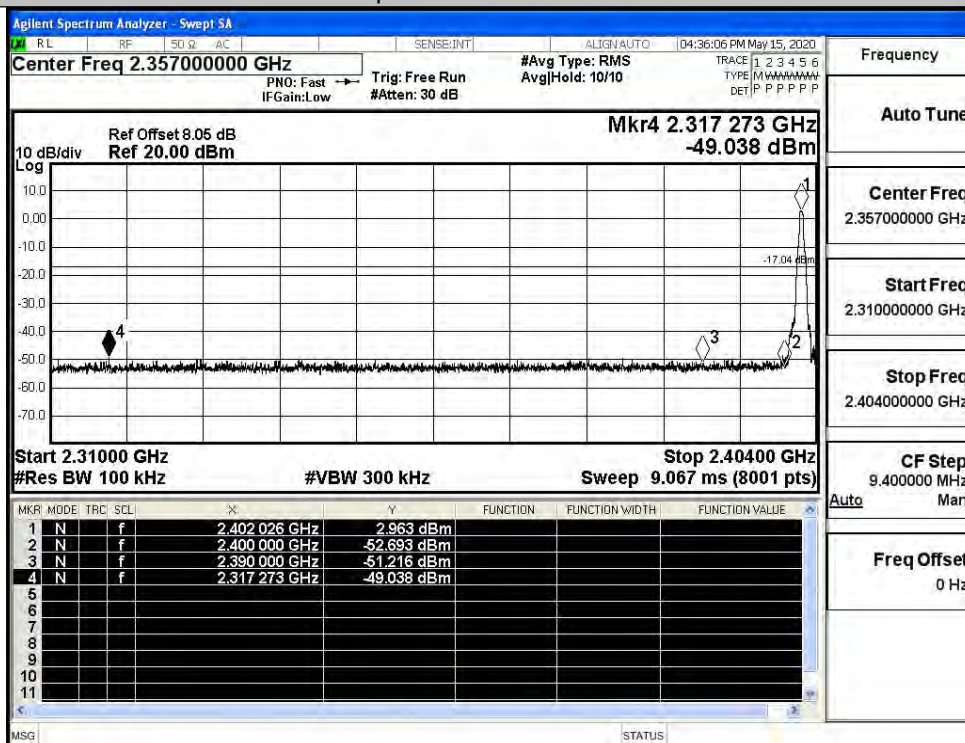


A.7 Band-edge for RF Conducted Emissions

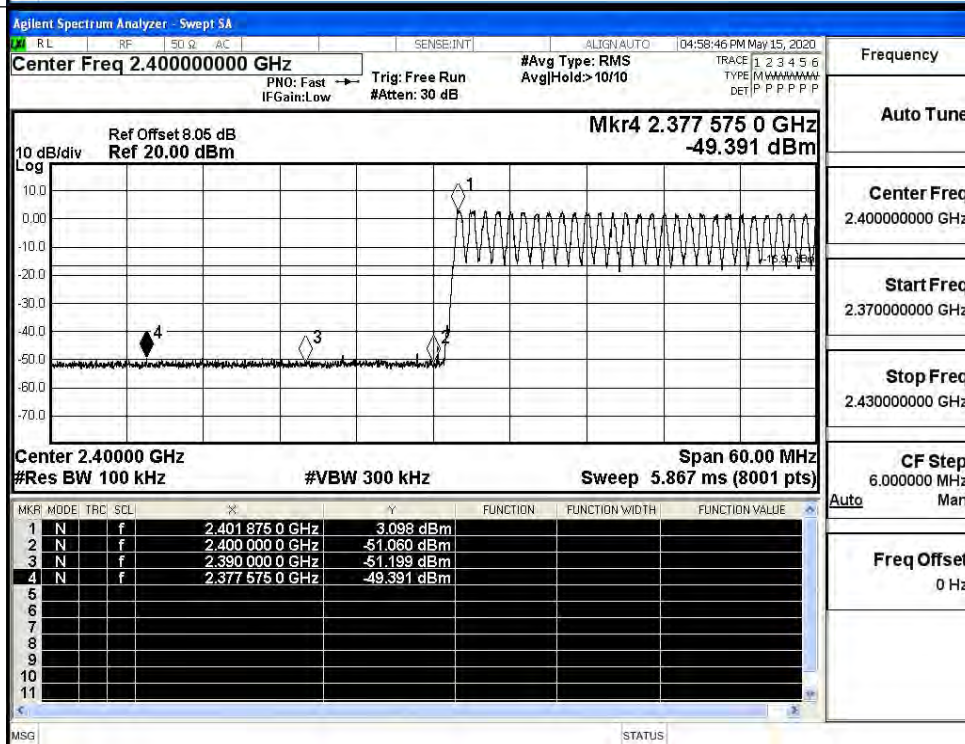
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	2.963	Off	-49.038	-17.04	PASS
			3.098	On	-49.391	-16.9	PASS
	HCH	2480	-0.149	Off	-49.353	-20.15	PASS
			0.464	On	-48.847	-19.54	PASS
$\pi/4$ DQPSK	LCH	2402	2.702	Off	-48.920	-17.3	PASS
			2.354	On	-48.687	-17.65	PASS
	HCH	2480	-0.357	Off	-49.299	-20.36	PASS
			0.167	On	-48.623	-19.83	PASS
8DPSK	LCH	2402	2.731	Off	-49.450	-17.27	PASS
			2.618	On	-48.148	-17.38	PASS
	HCH	2480	-0.105	Off	-49.027	-20.11	PASS
			0.363	On	-48.748	-19.64	PASS

Test Graphs

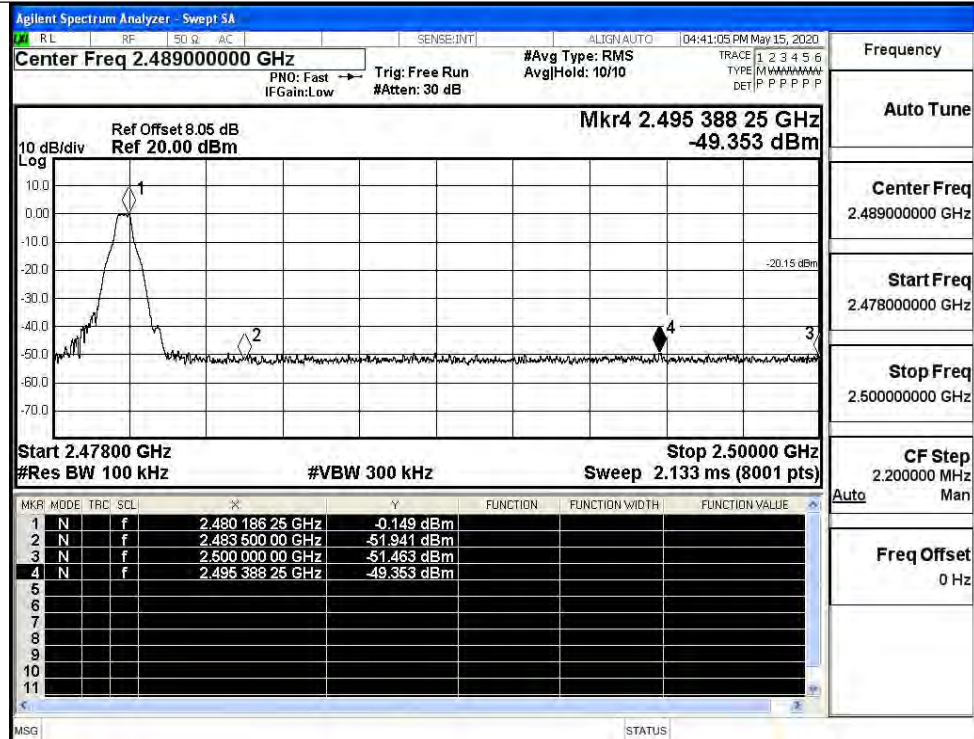
GFSK/LCH/No Hop



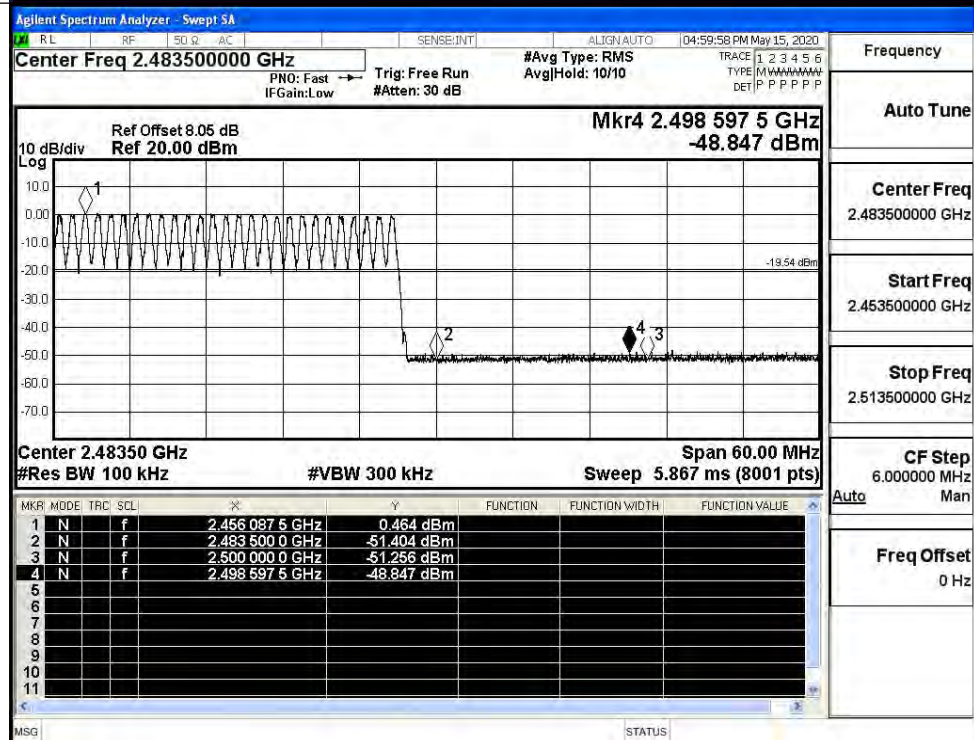
GFSK/LCH/Hop



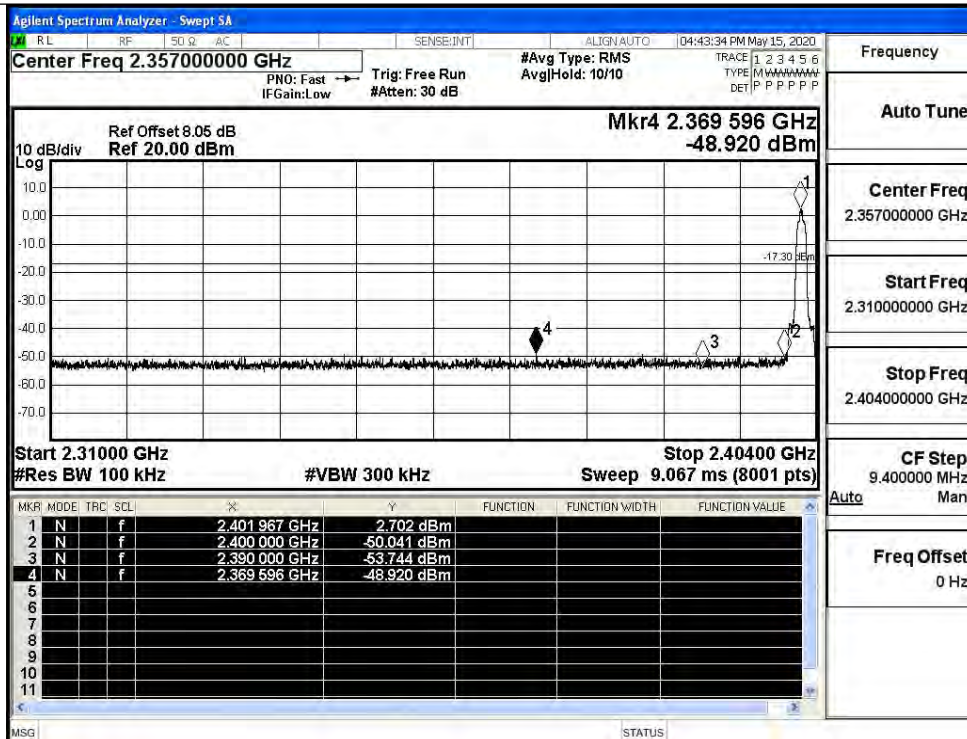
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

Start Freq
2.310000000 GHz

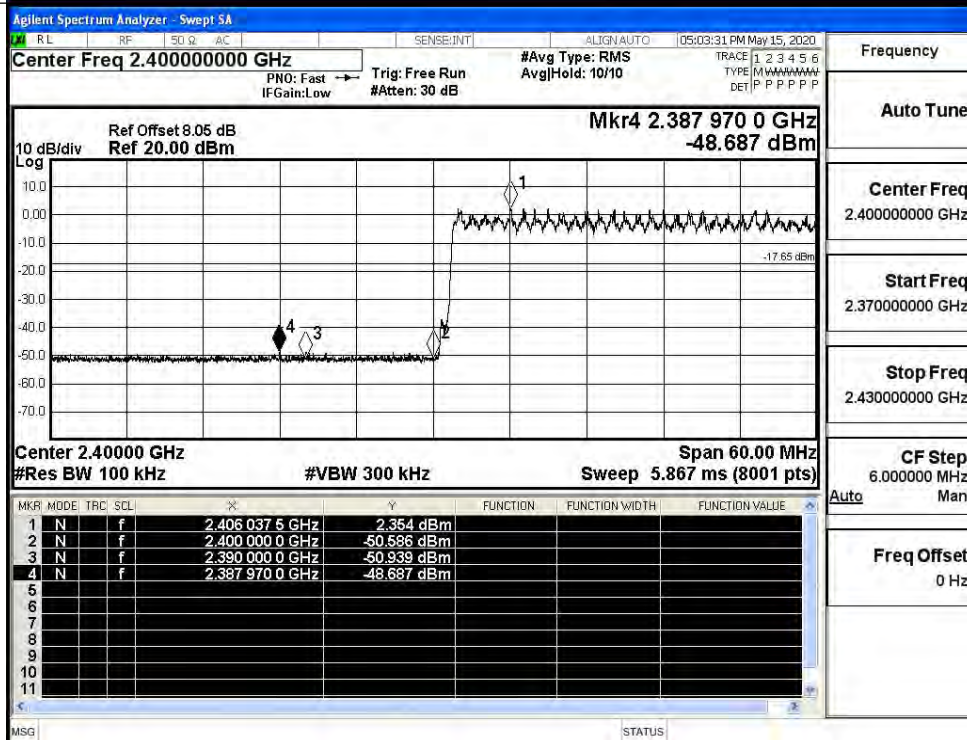
Stop Freq
2.404000000 GHz

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

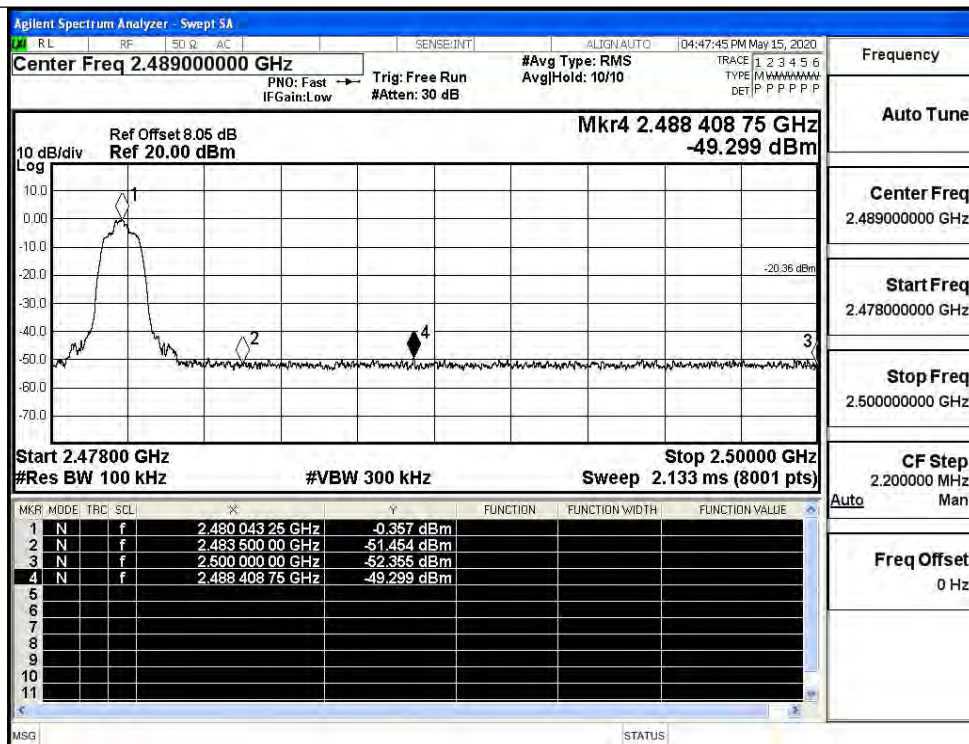
Stop Freq
2.430000000 GHz

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

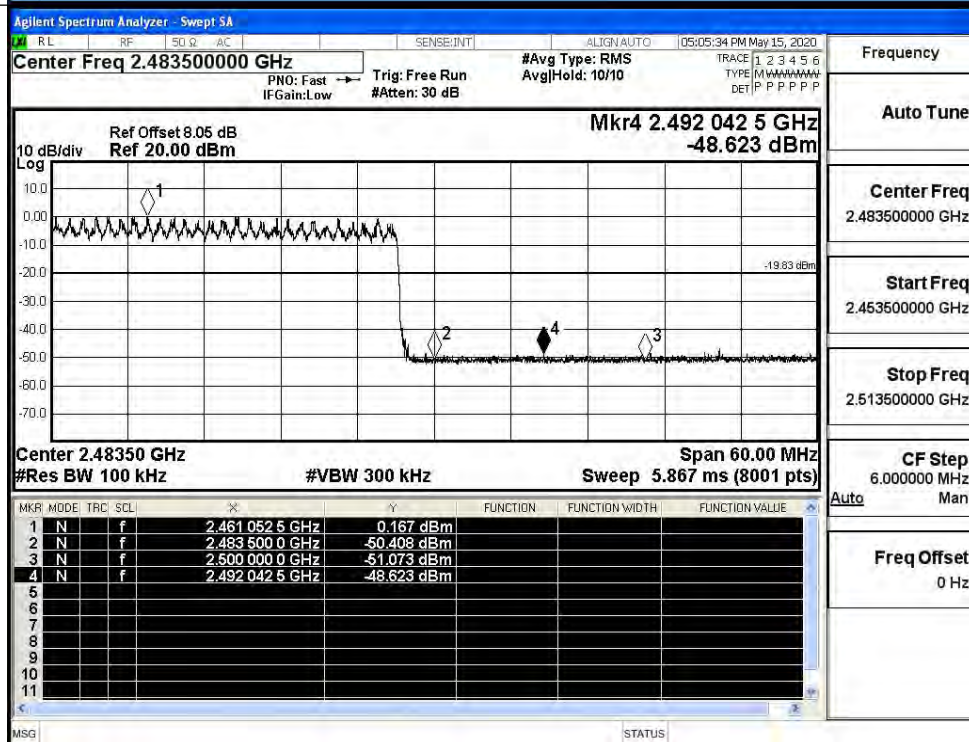
Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz

$\pi/4$ DQPSK/HCH/Hop



Frequency

Auto Tune

Center Freq
2.483500000 GHz

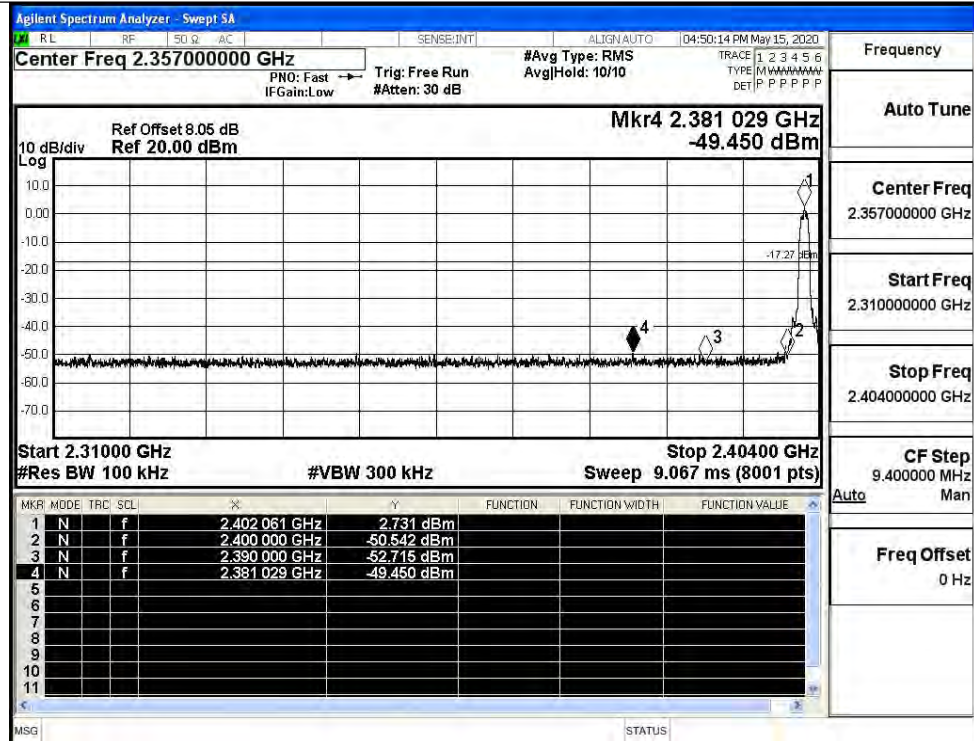
Start Freq
2.463500000 GHz

Stop Freq
2.513500000 GHz

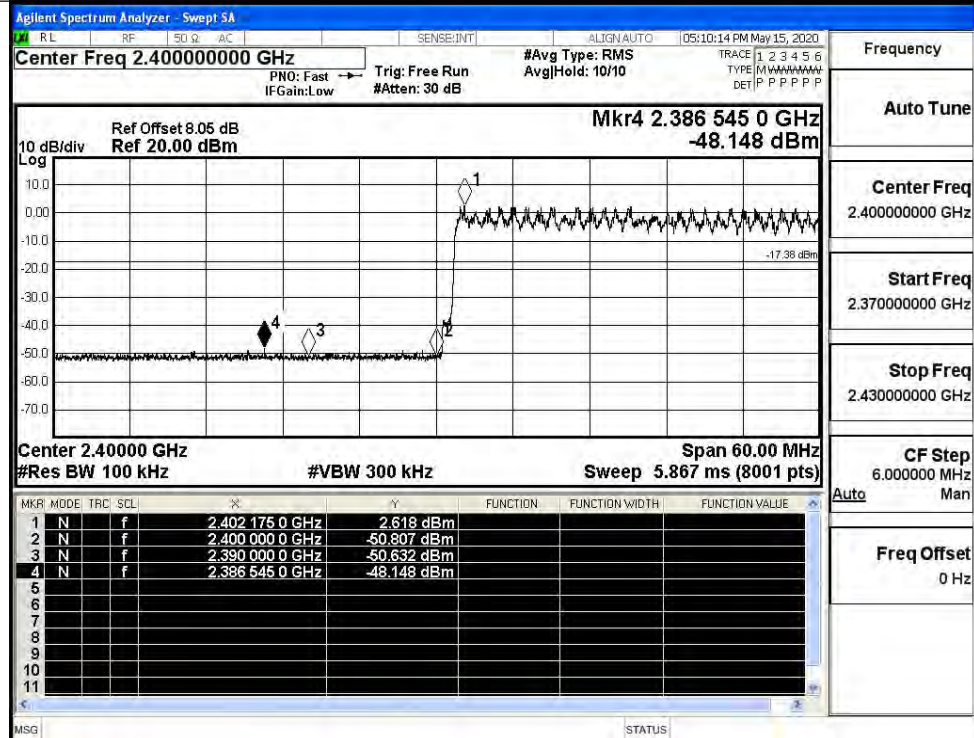
CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

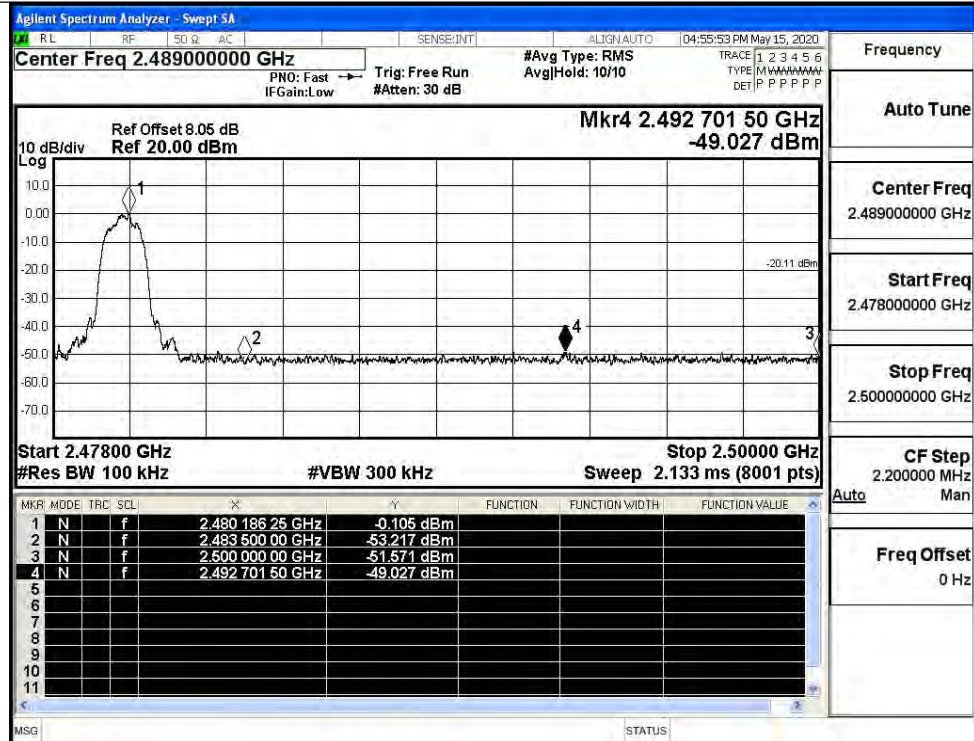
8DPSK/LCH/No Hop



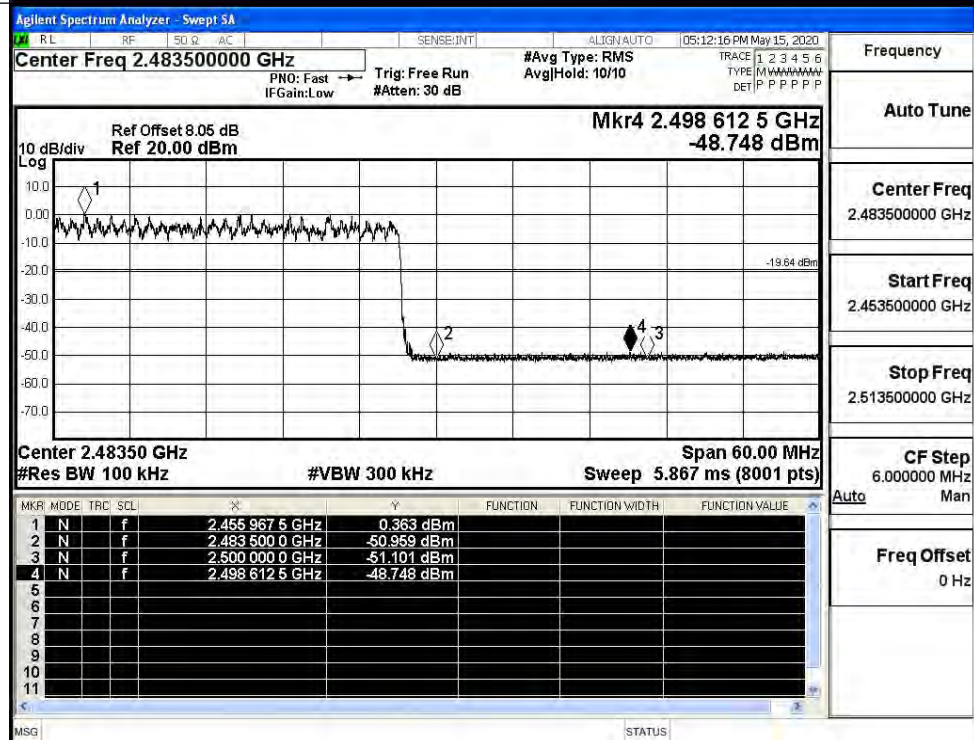
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



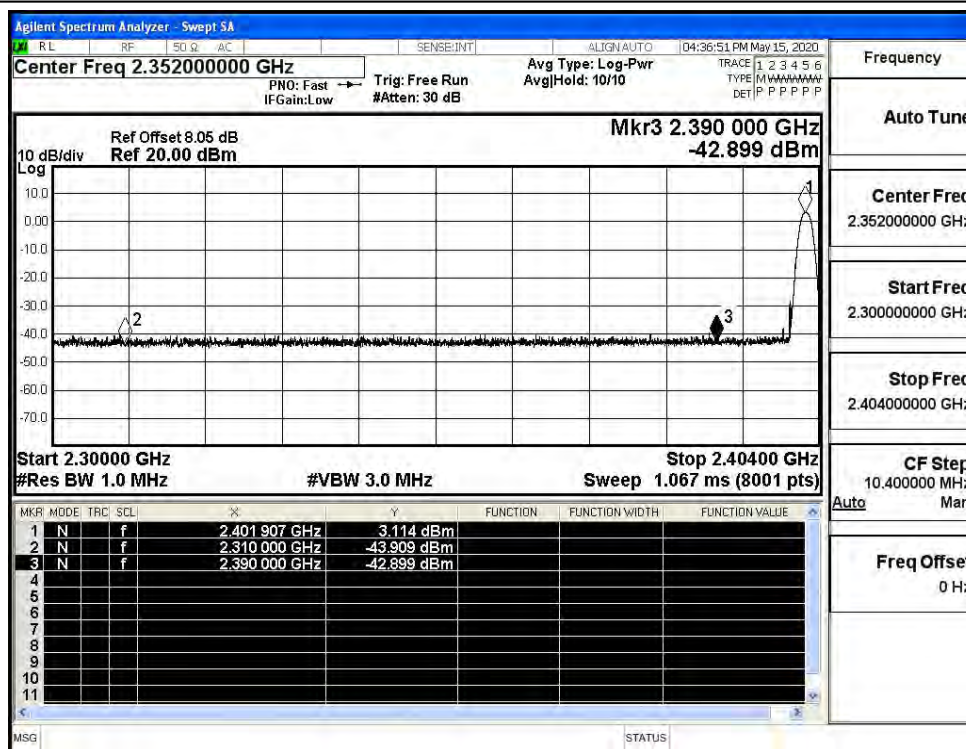
8DPSK/HCH/Hop



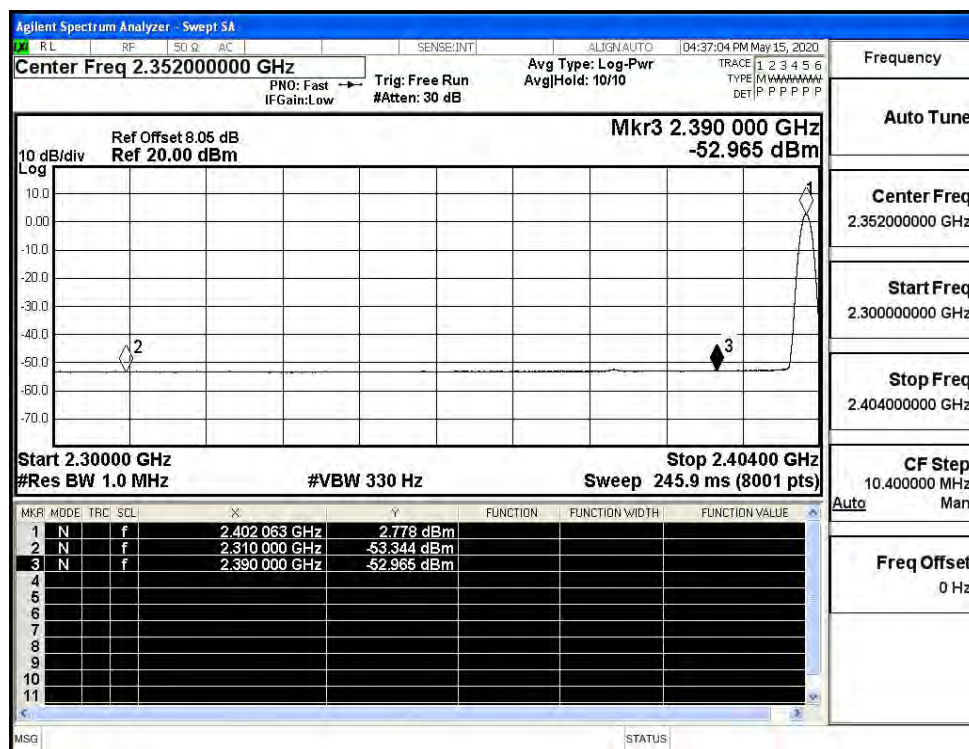
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.91	2.0	0	51.35	PEAK	74	PASS
	Off	2310.0	-53.34	2.0	0	41.91	AV	54	PASS
	Off	2390.0	-42.90	2.0	0	52.36	PEAK	74	PASS
	Off	2390.0	-52.97	2.0	0	42.29	AV	54	PASS
	Off	2483.5	-41.49	2.0	0	53.77	PEAK	74	PASS
	Off	2483.5	-52.30	2.0	0	42.96	AV	54	PASS
	Off	2500.0	-42.98	2.0	0	52.27	PEAK	74	PASS
	Off	2500.0	-52.19	2.0	0	43.07	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-42.90	2.0	0	52.36	PEAK	74	PASS
	Off	2310.0	-53.31	2.0	0	41.95	AV	54	PASS
	Off	2390.0	-43.33	2.0	0	51.93	PEAK	74	PASS
	Off	2390.0	-53.04	2.0	0	42.22	AV	54	PASS
	Off	2483.5	-41.72	2.0	0	53.54	PEAK	74	PASS
	Off	2483.5	-52.43	2.0	0	42.82	AV	54	PASS
	Off	2500.0	-41.80	2.0	0	53.46	PEAK	74	PASS
	Off	2500.0	-52.26	2.0	0	43.00	AV	54	PASS
8DPSK	Off	2310.0	-42.43	2.0	0	52.83	PEAK	74	PASS
	Off	2310.0	-53.28	2.0	0	41.98	AV	54	PASS
	Off	2390.0	-43.09	2.0	0	52.17	PEAK	74	PASS
	Off	2390.0	-53.06	2.0	0	42.20	AV	54	PASS
	Off	2483.5	-42.32	2.0	0	52.94	PEAK	74	PASS
	Off	2483.5	-52.44	2.0	0	42.82	AV	54	PASS
	Off	2500.0	-42.45	2.0	0	52.81	PEAK	74	PASS
	Off	2500.0	-52.35	2.0	0	42.91	AV	54	PASS

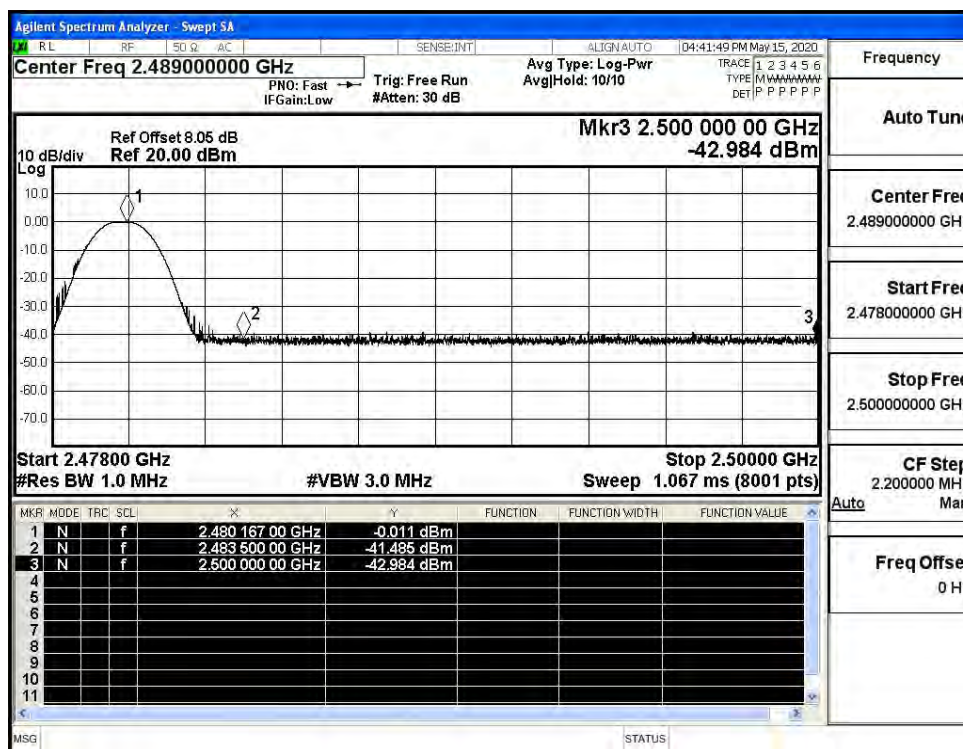
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



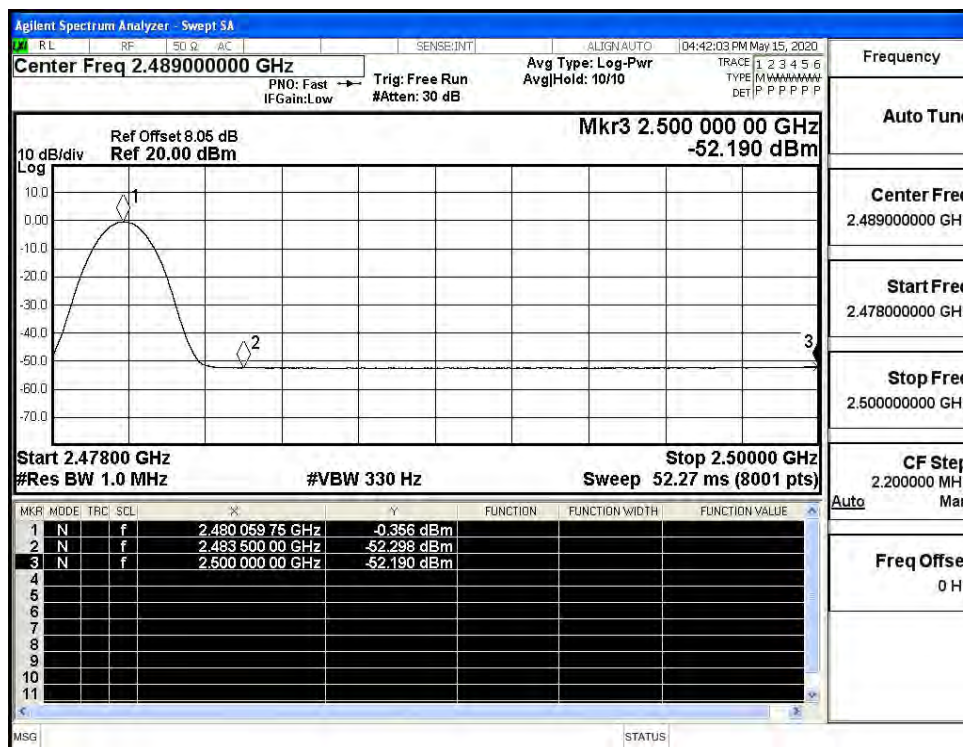
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

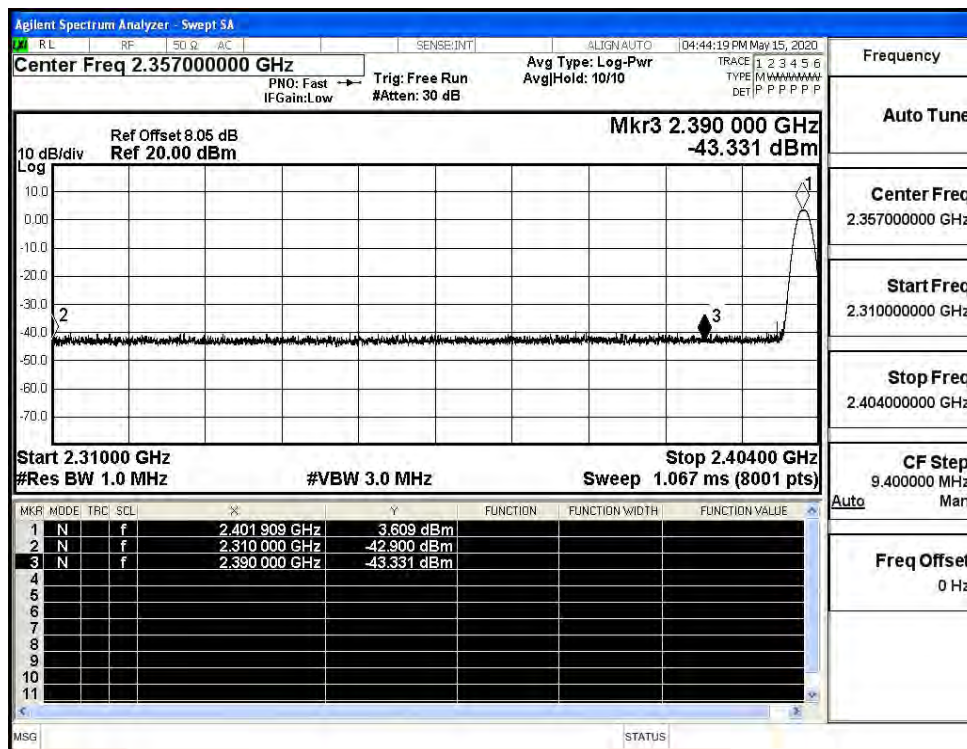
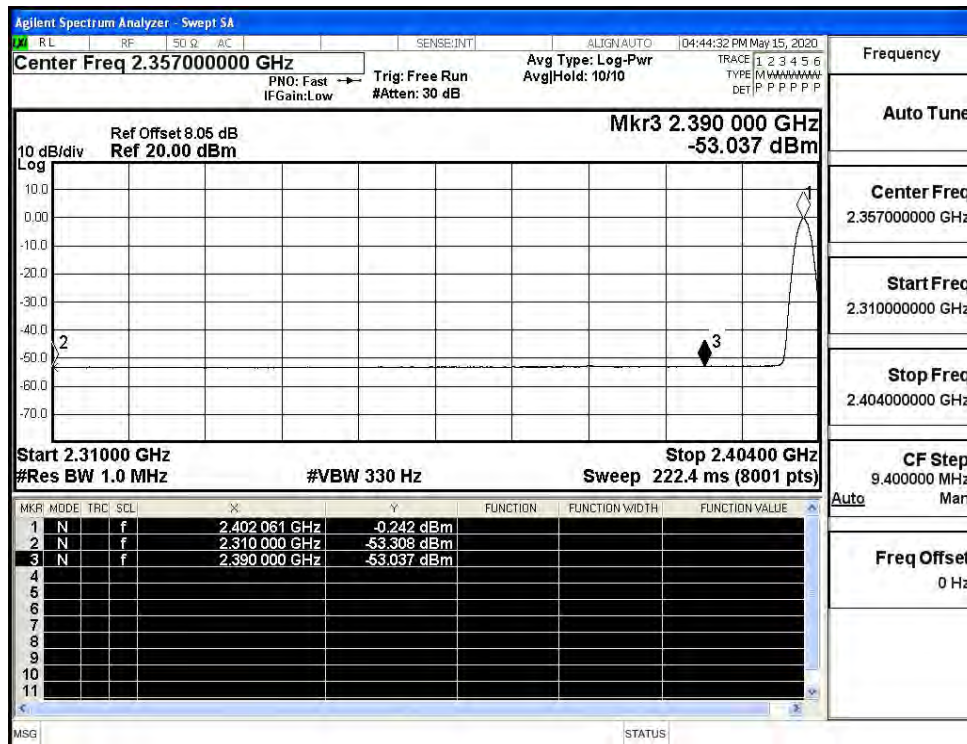


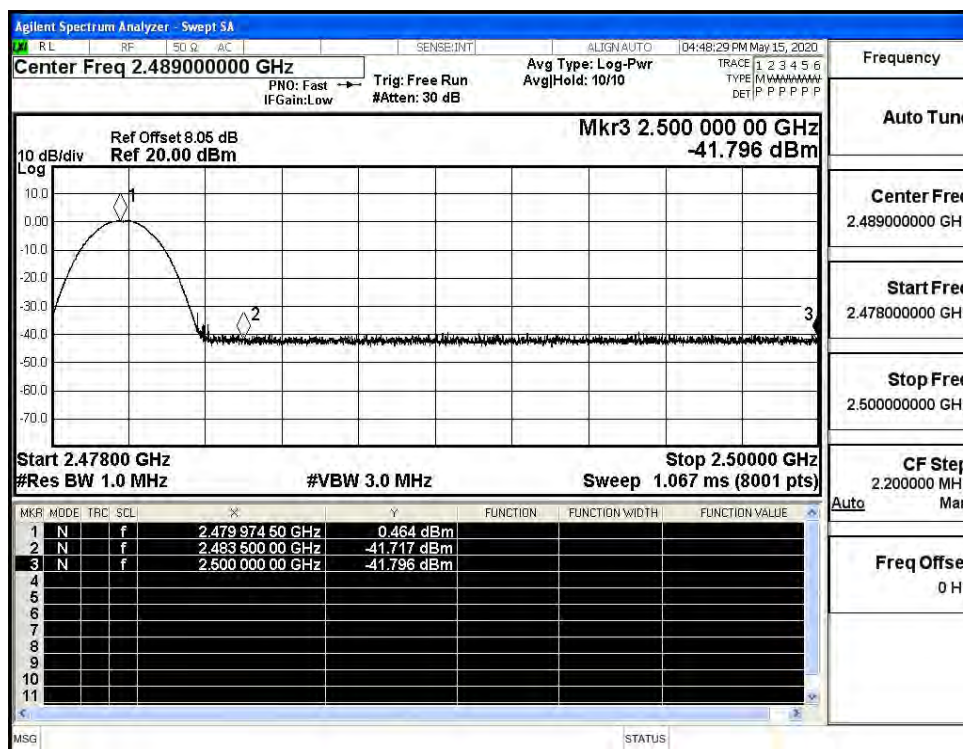
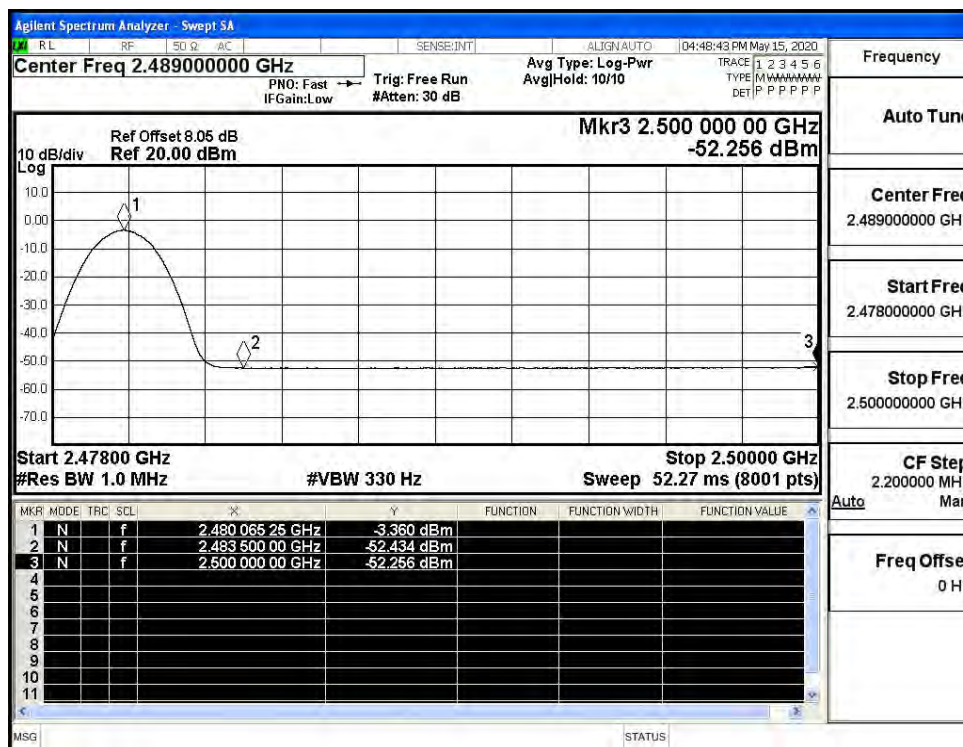
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



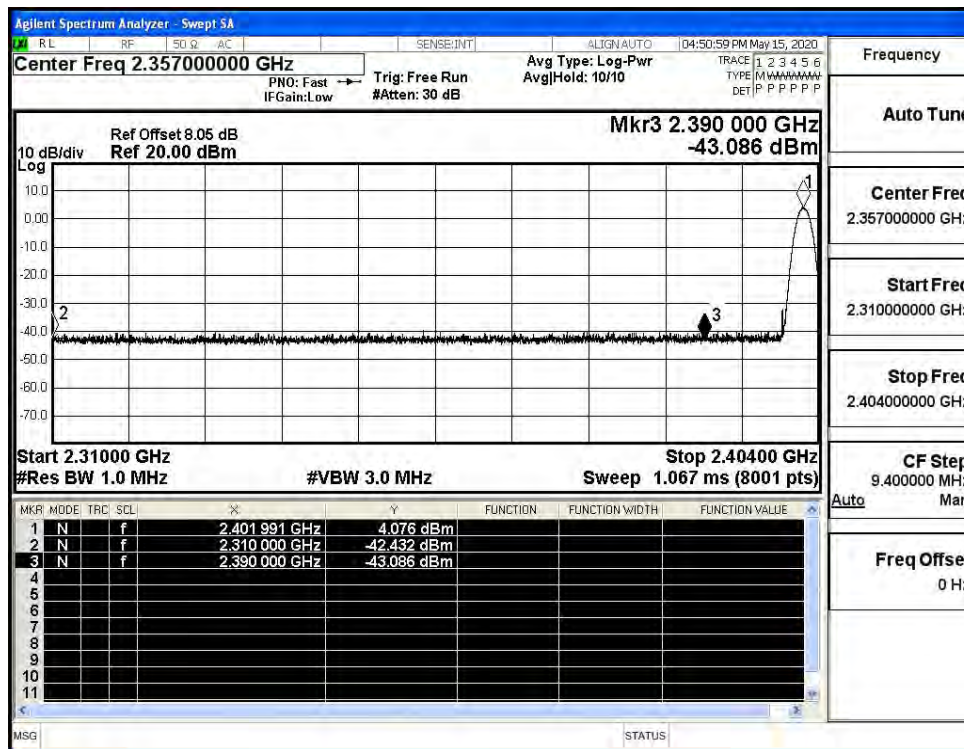
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



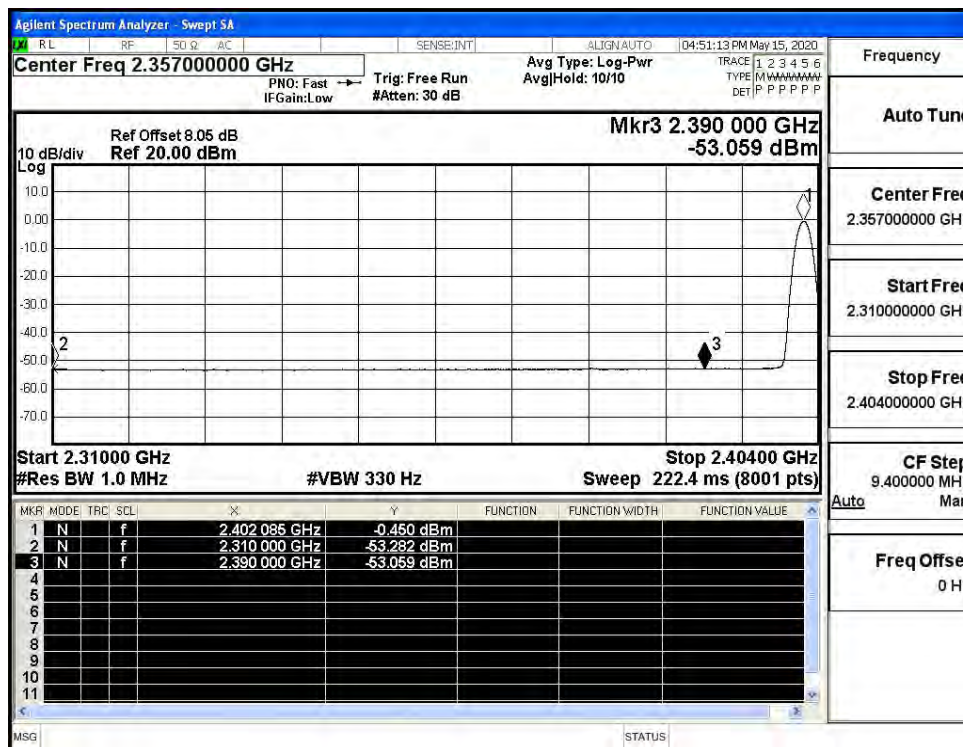
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

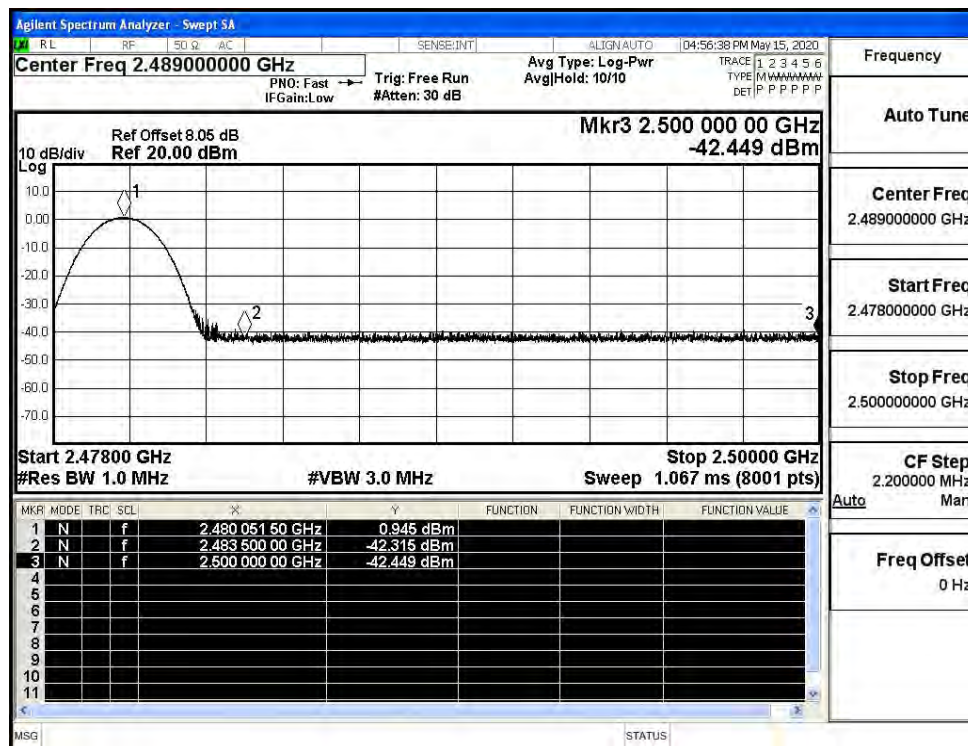
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

