

Appendix B

RF Test Data for BT V4.2(BDR/EDR) (Conducted Measurement)

Product Name: Portable Internet Radio

Trade Mark: N/A

Test Model: MA-26D

Environmental Conditions

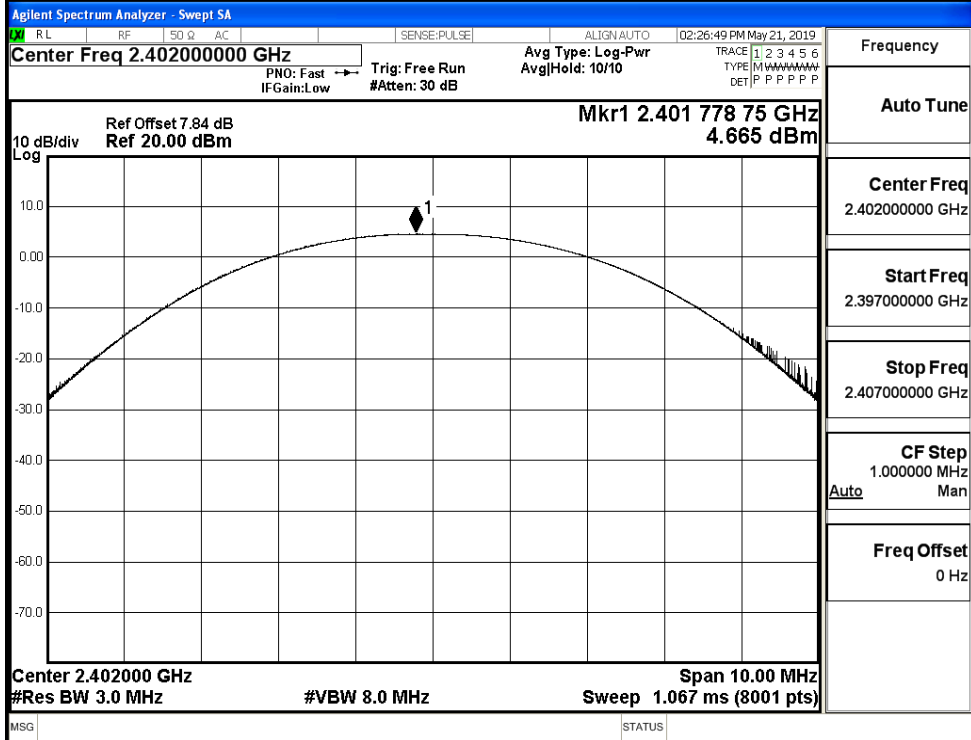
Temperature:	23.9 ° C
Relative Humidity:	54.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom.Liu
Supervised by:	Aking Jin

B.1 Maxmum Conducted Peak Output Power

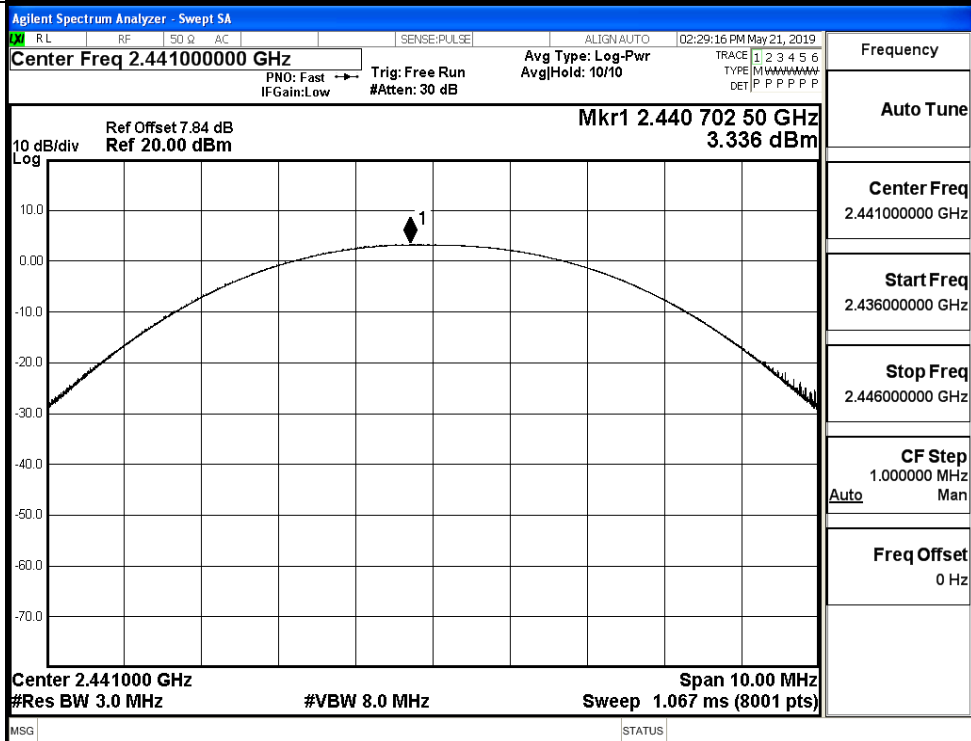
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	4.665	30	PASS
	MCH	3.336	30	PASS
	HCH	2.456	30	PASS
π/4DQPSK	LCH	3.331	21	PASS
	MCH	3.177	21	PASS
	HCH	1.882	21	PASS
8DPSK	LCH	3.622	21	PASS
	MCH	3.419	21	PASS
	HCH	2.166	21	PASS

Test Graphs

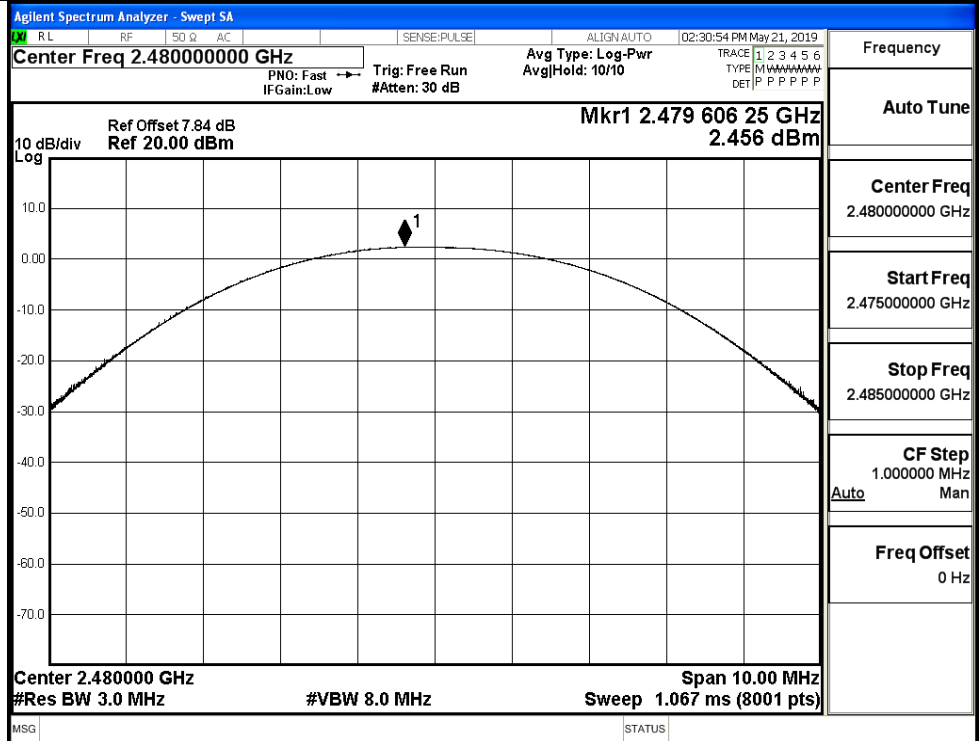
GFSK/LCH



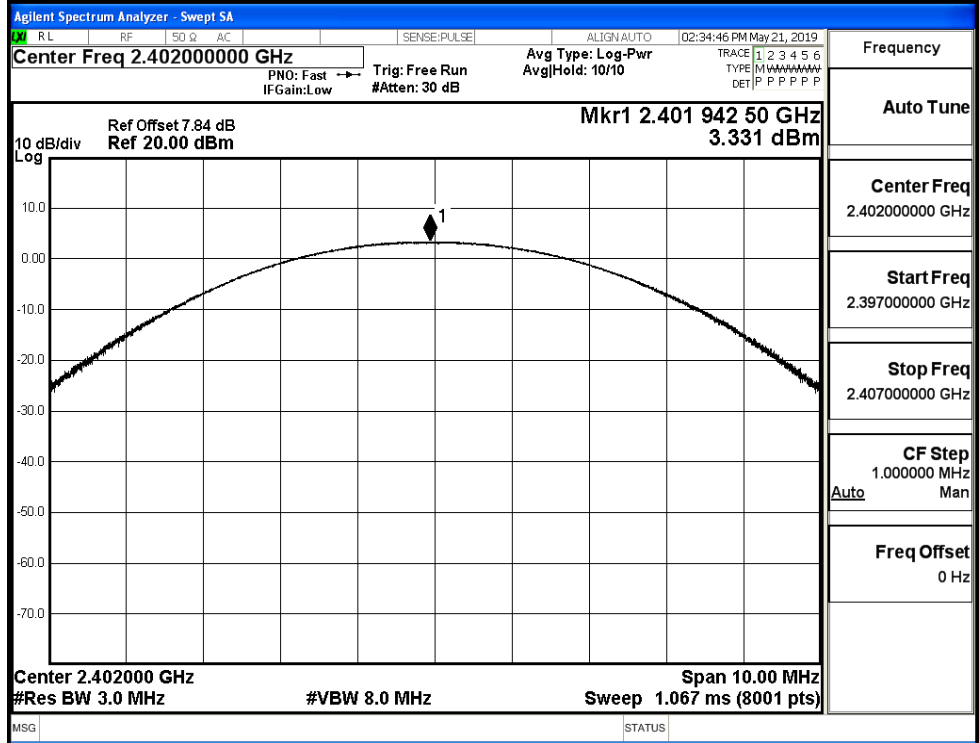
GFSK/MCH



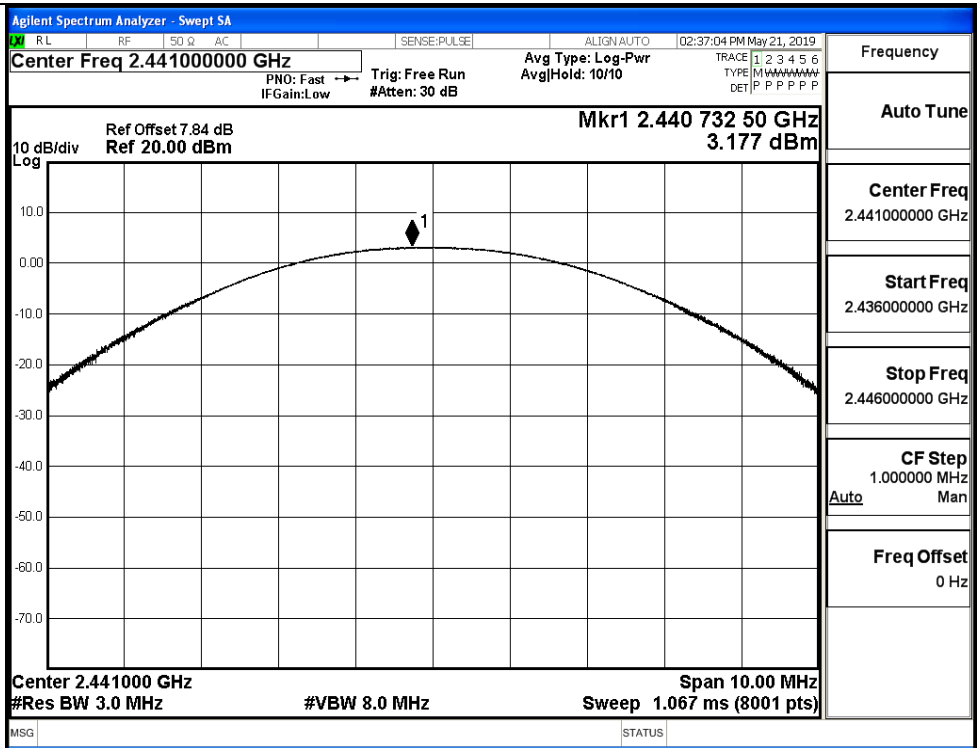
GFSK/HCH



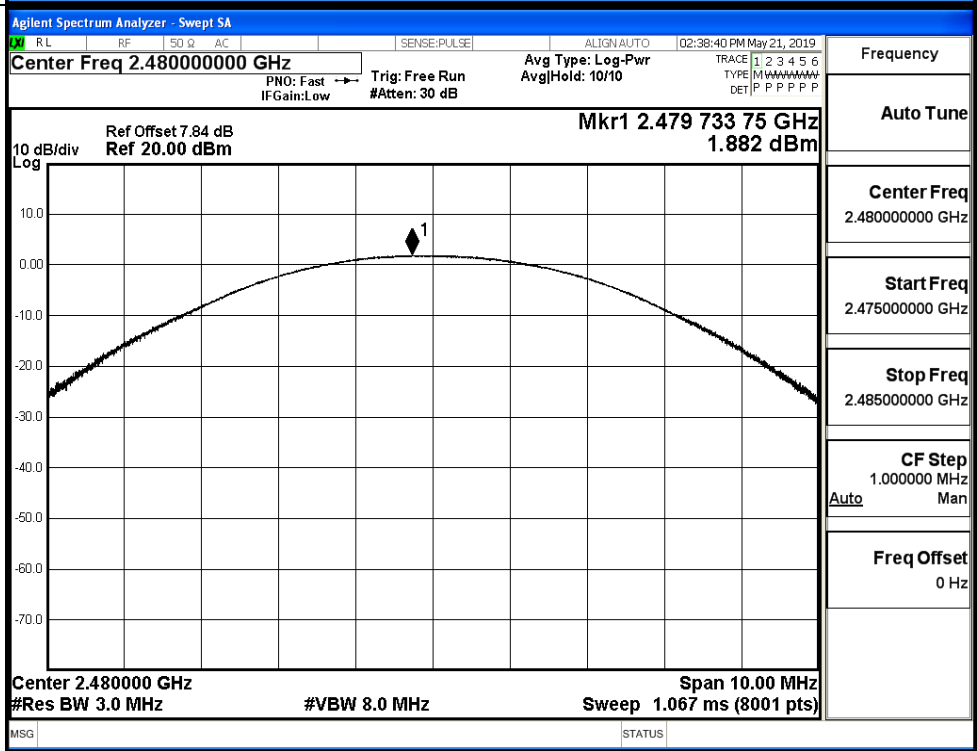
$\pi/4$ DQPSK/LCH



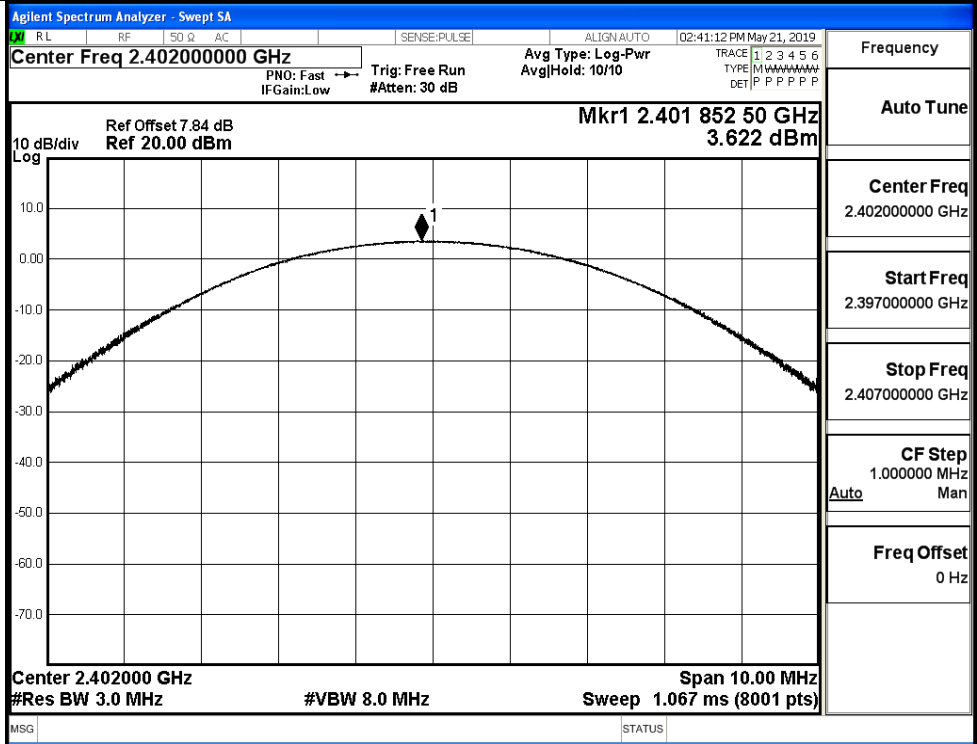
π /4DQPSK/MCH



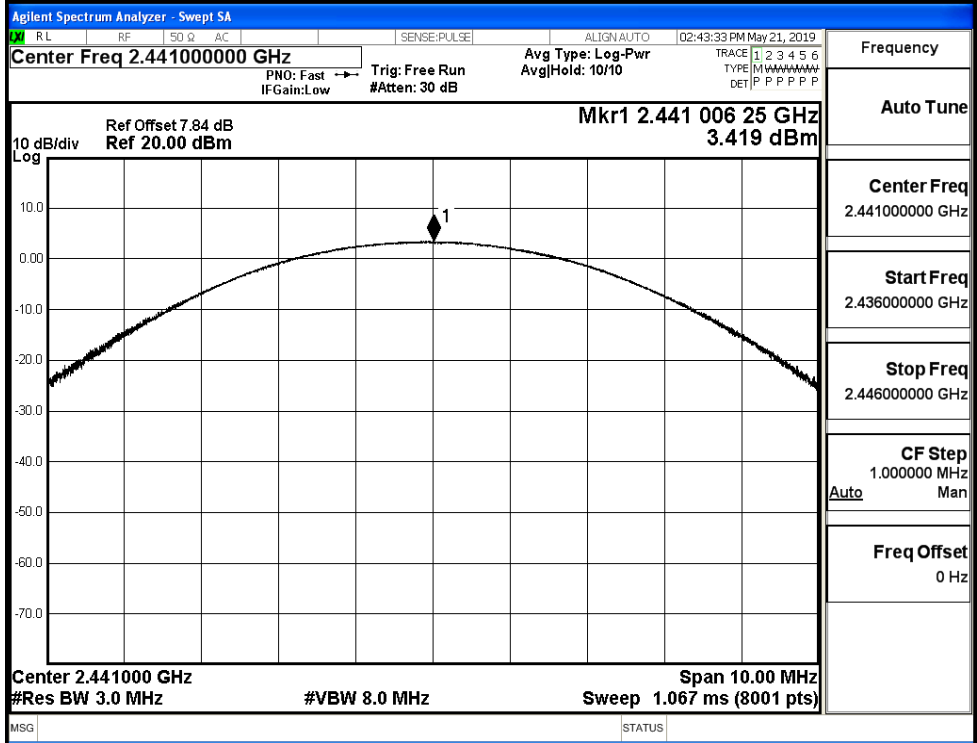
π /4DQPSK/HCH



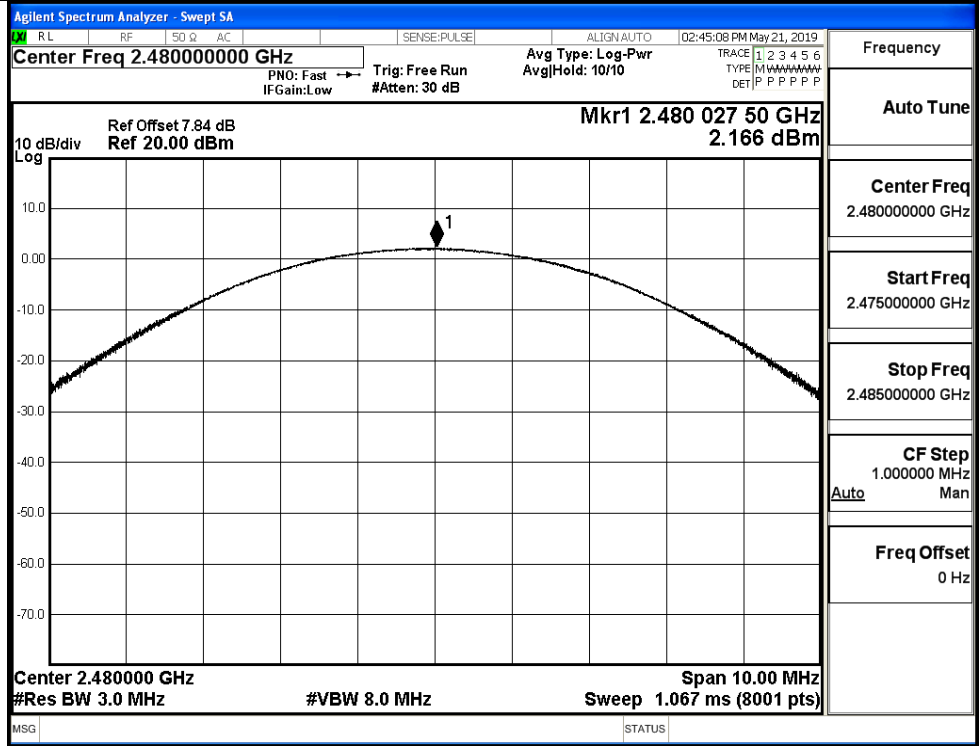
8DPSK/LCH



8DPSK/MCH

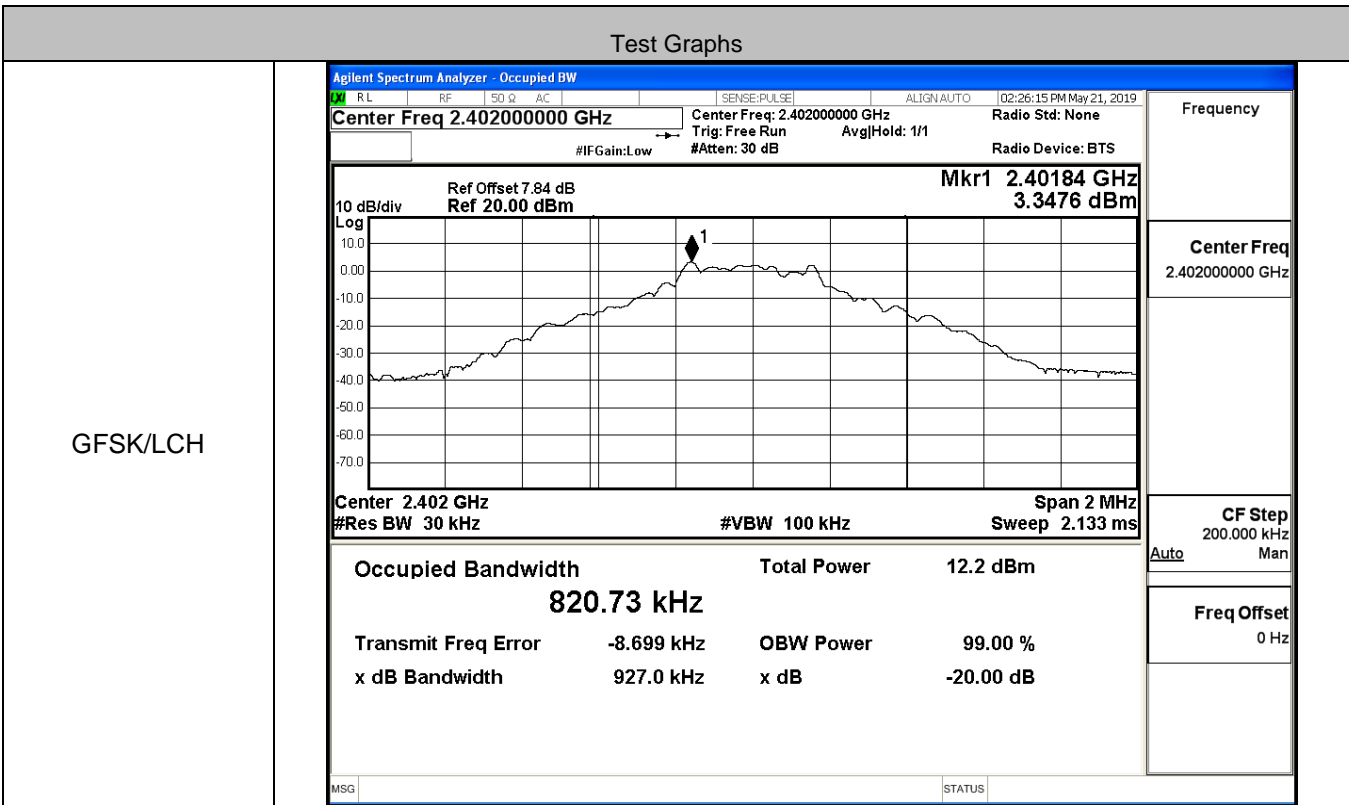


8DPSK/HCH

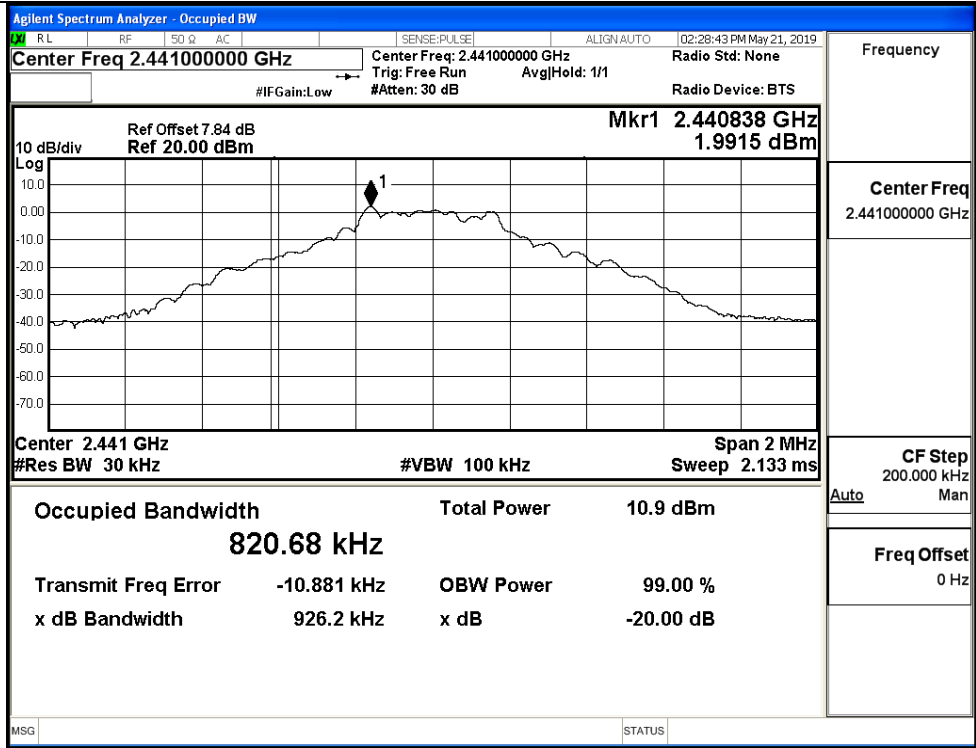


B.2 20dB Bandwidth

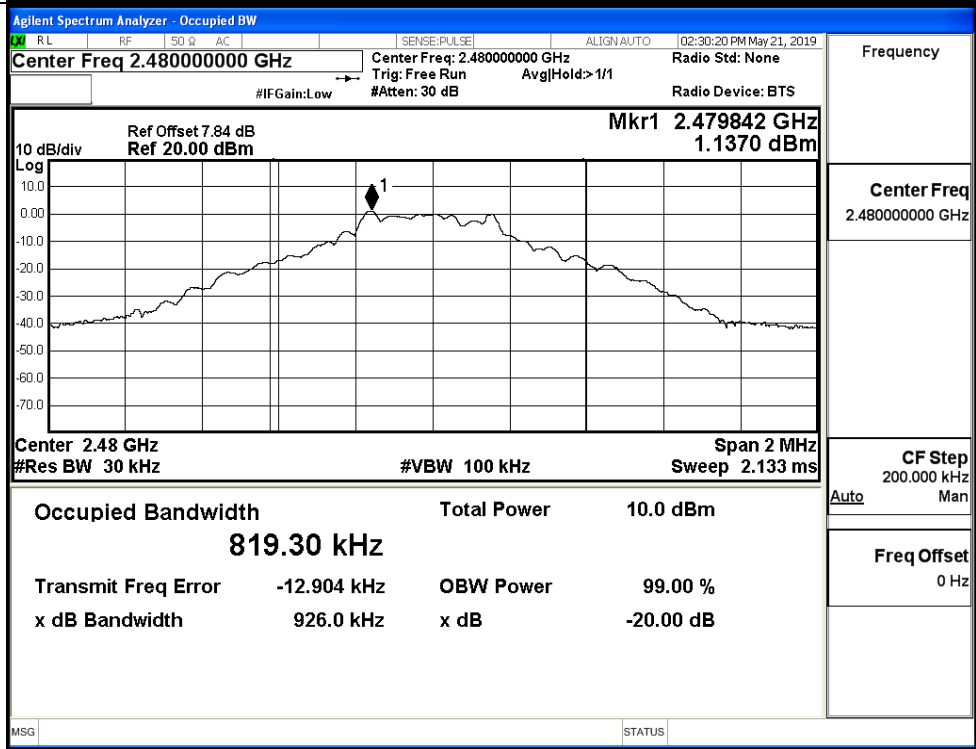
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9270	Not Specified	PASS
	MCH	0.9262	Not Specified	PASS
	HCH	0.9260	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.281	Not Specified	PASS
	MCH	1.283	Not Specified	PASS
	HCH	1.280	Not Specified	PASS
8DPSK	LCH	1.286	Not Specified	PASS
	MCH	1.290	Not Specified	PASS
	HCH	1.294	Not Specified	PASS



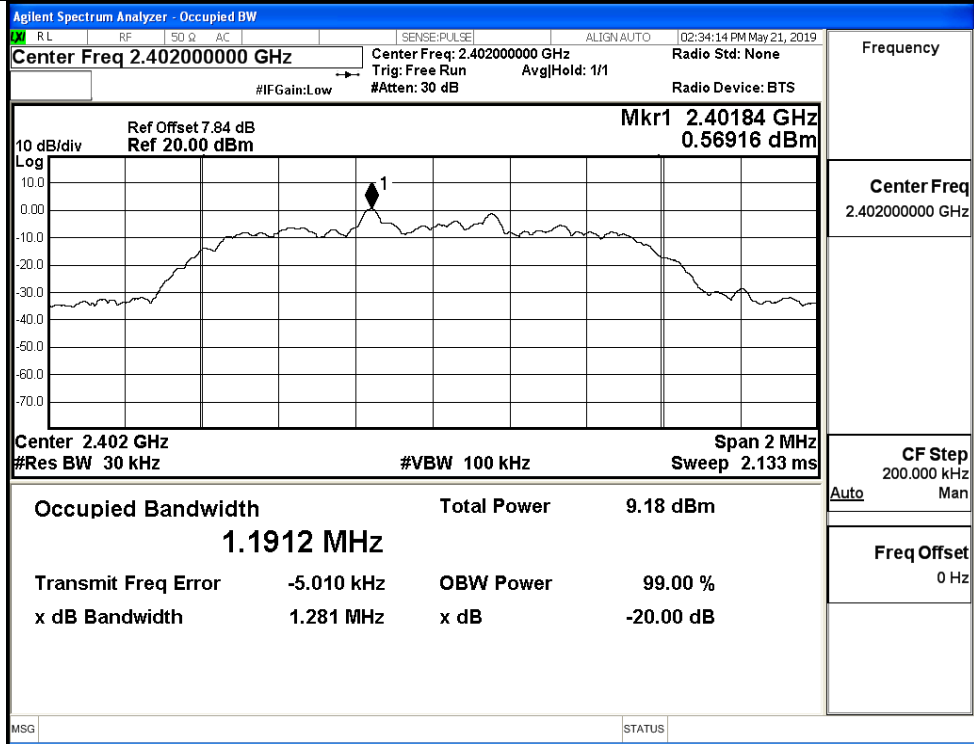
GFSK/MCH



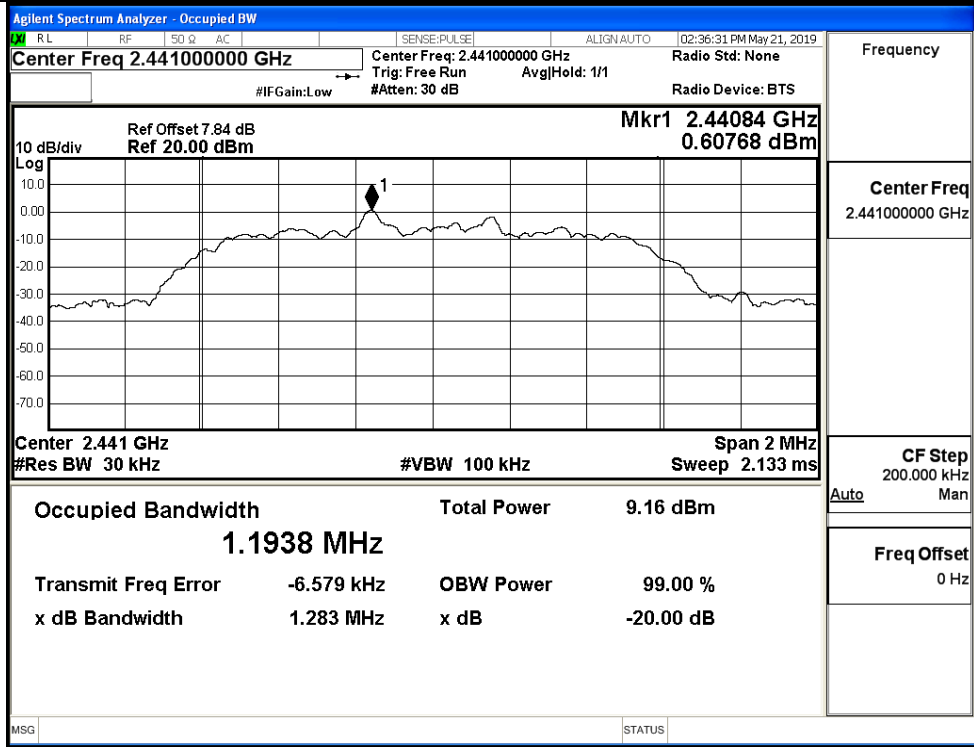
GFSK/HCH



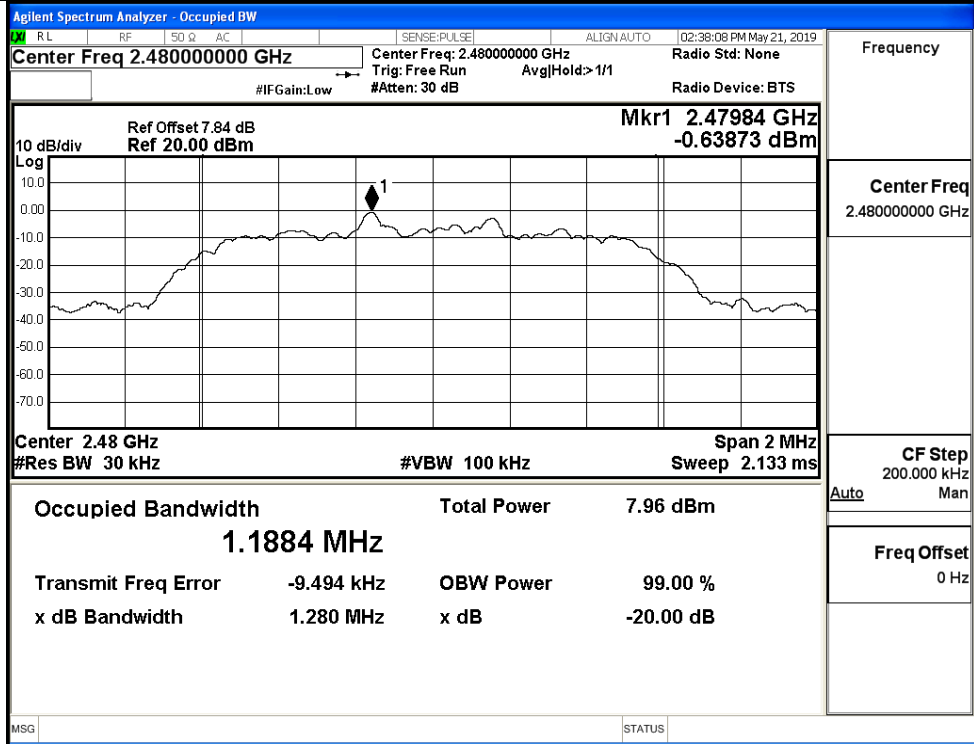
$\pi/4$ DQPSK/LCH



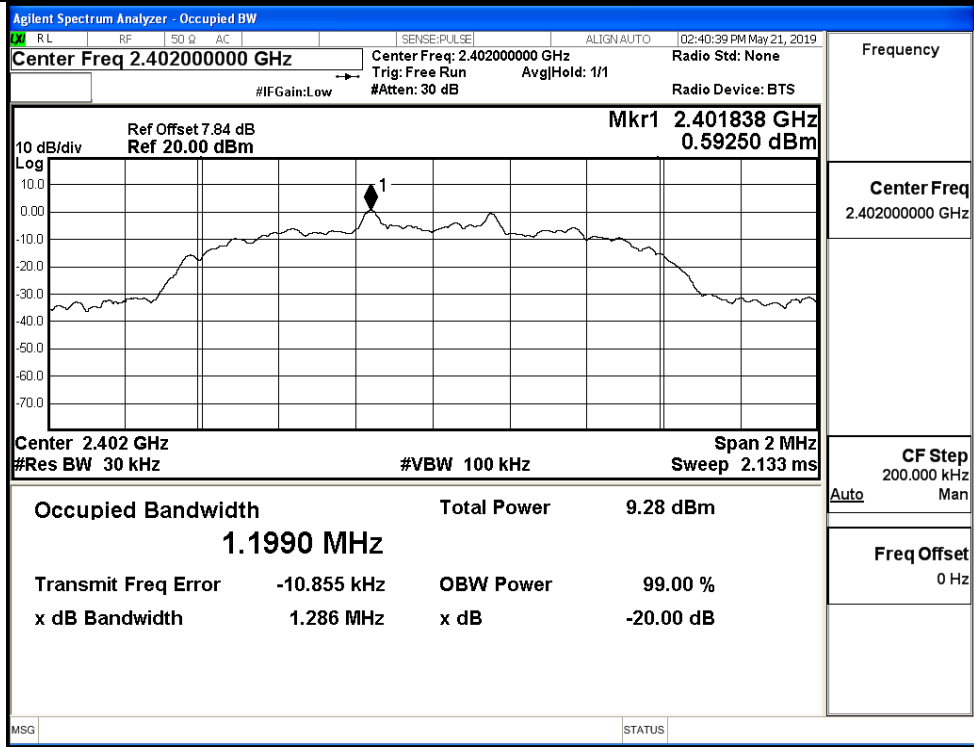
$\pi/4$ DQPSK/MCH



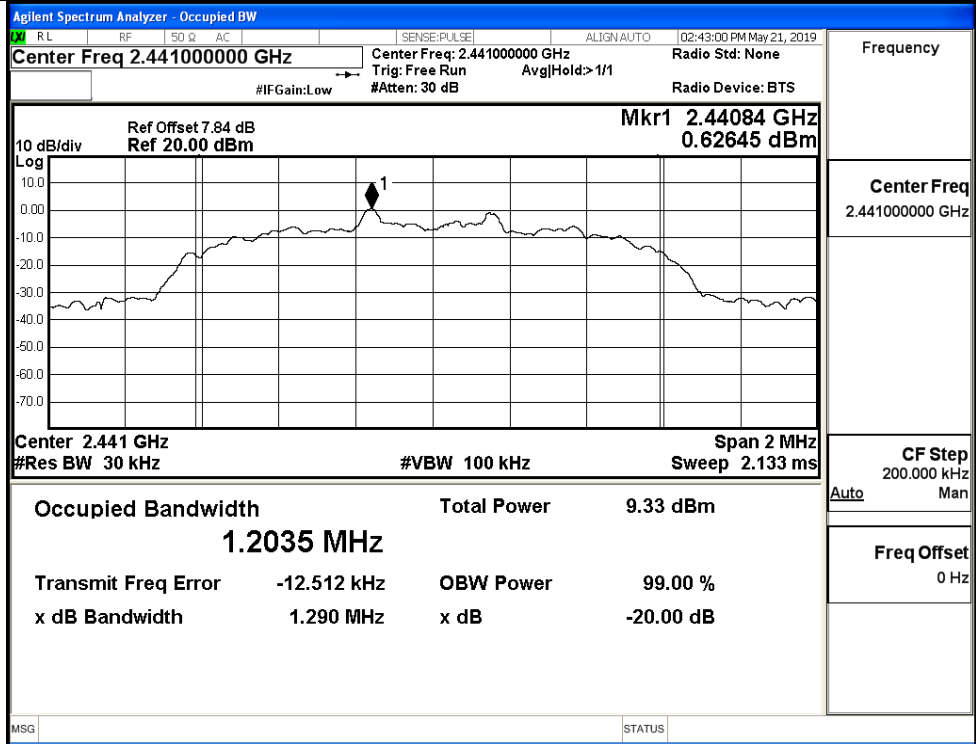
$\pi/4$ DQPSK/HCH



8DPSK/LCH

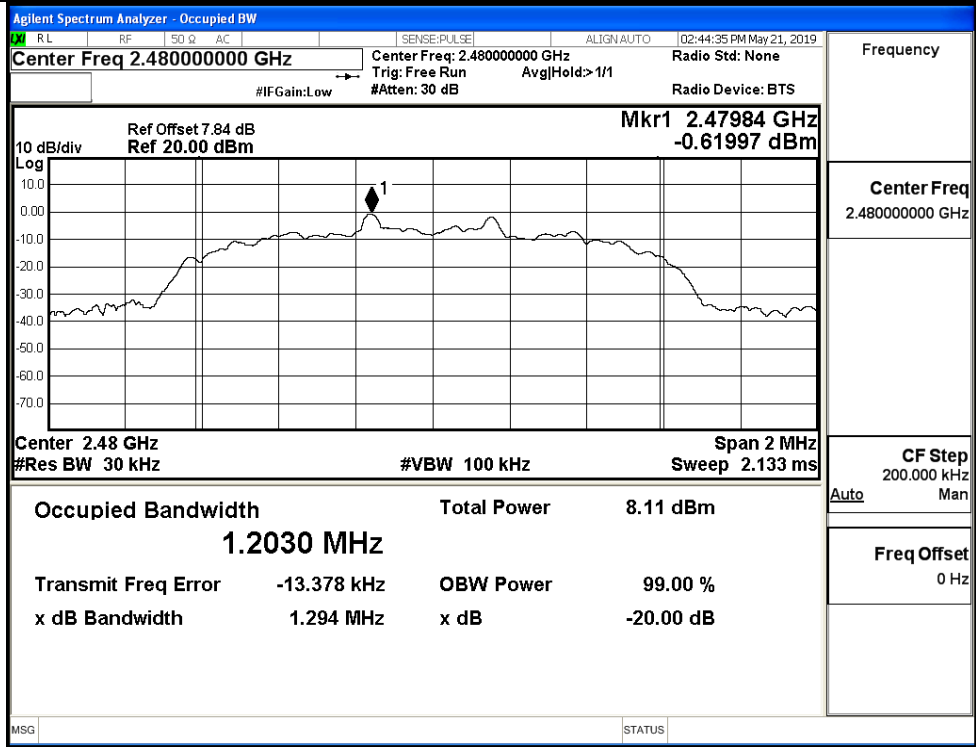


8DPSK/MCH



Frequency	2.441000000 GHz
Center Freq	2.441000000 GHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz

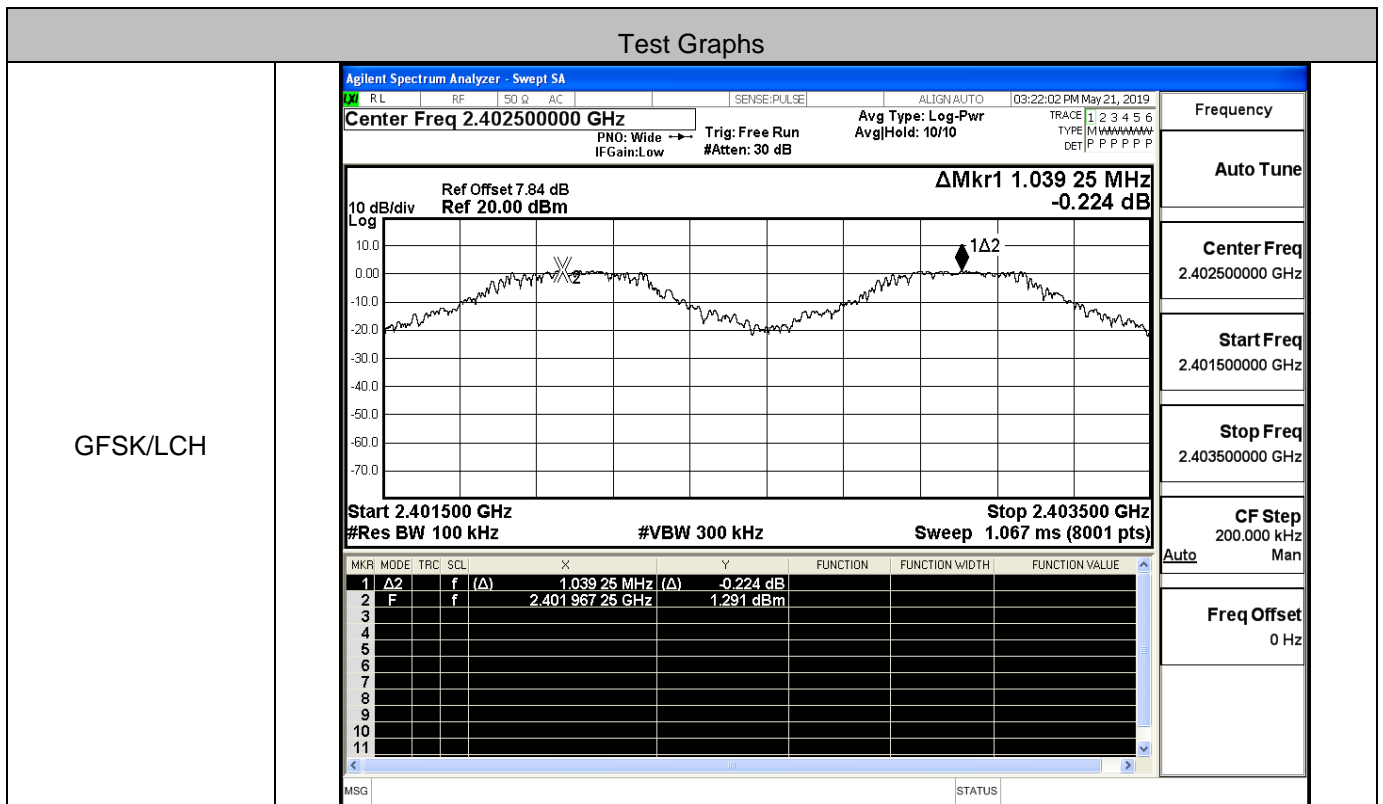
8DPSK/HCH



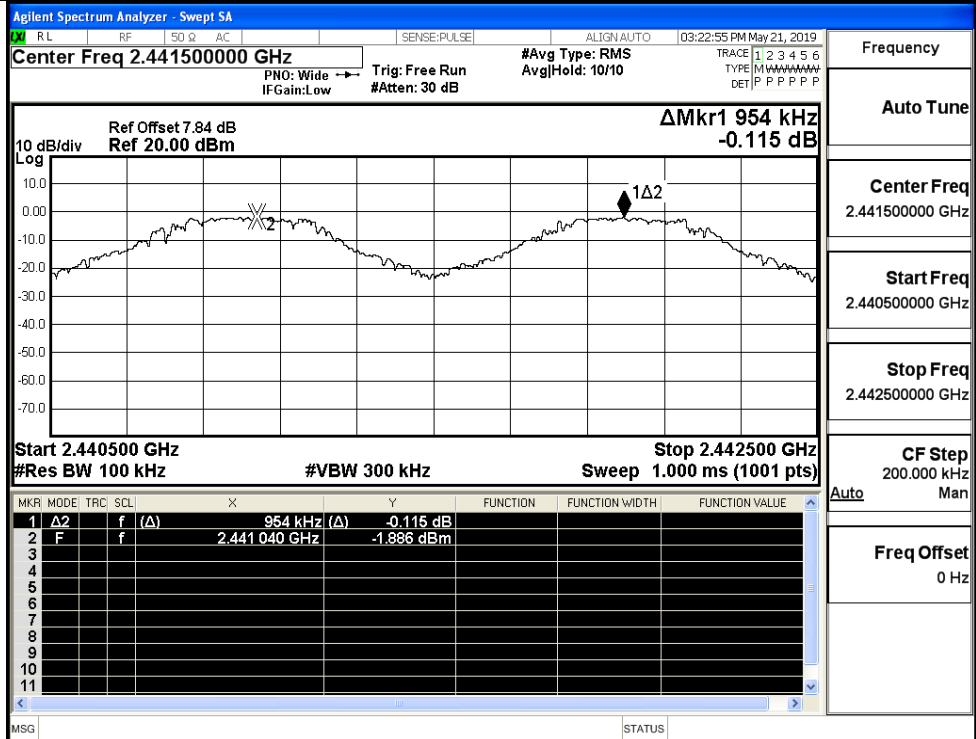
Frequency	2.480000000 GHz
Center Freq	2.480000000 GHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz

B.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.039	0.618	PASS
	MCH	0.954	0.618	PASS
	HCH	0.934	0.618	PASS
π/4DQPSK	LCH	1.196	0.855	PASS
	MCH	1.158	0.855	PASS
	HCH	1.224	0.855	PASS
8DPSK	LCH	0.914	0.863	PASS
	MCH	1.102	0.863	PASS
	HCH	0.916	0.863	PASS



GFSK/MCH



Frequency

Auto Tune

Center Freq
2.441500000 GHz

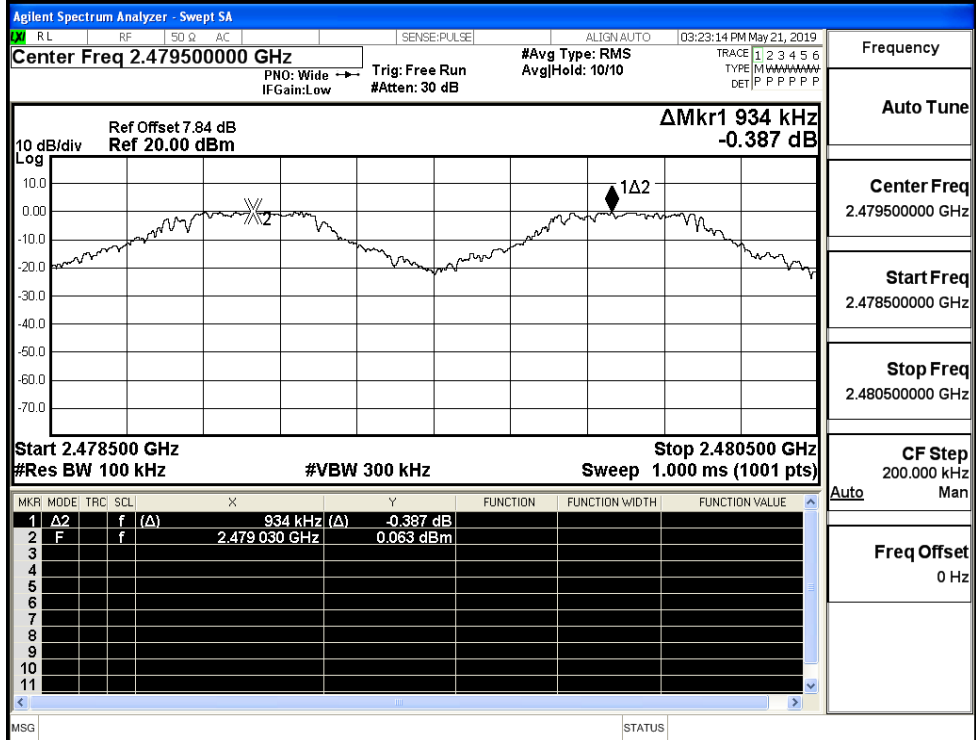
Start Freq
2.440500000 GHz

Stop Freq
2.442500000 GHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

GFSK/HCH



Frequency

Auto Tune

Center Freq
2.479500000 GHz

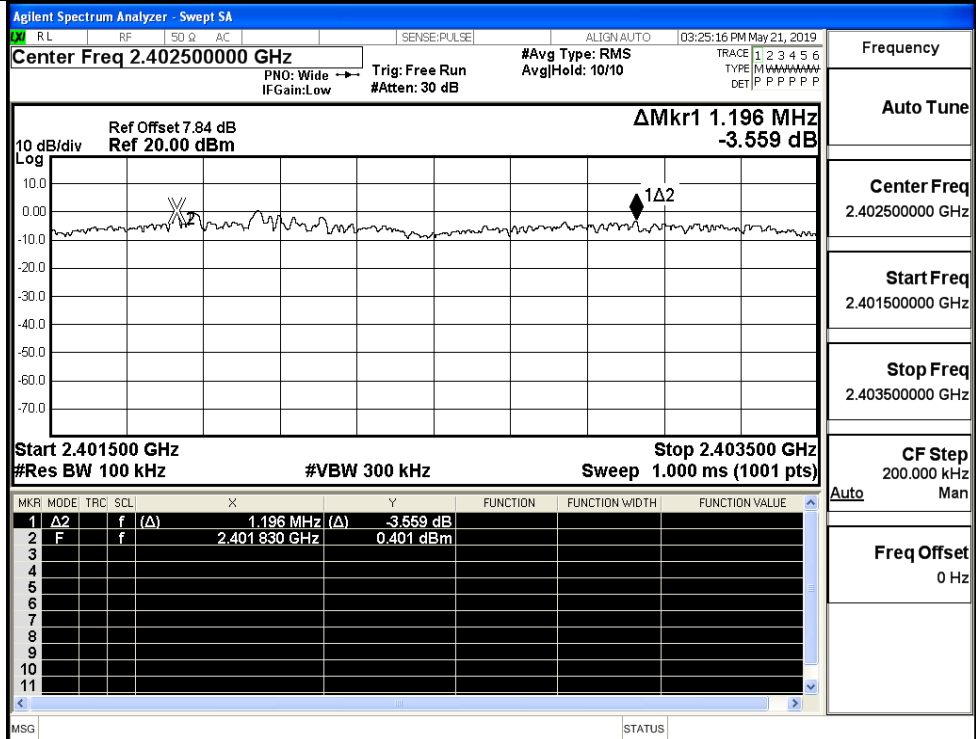
Start Freq
2.478500000 GHz

Stop Freq
2.480500000 GHz

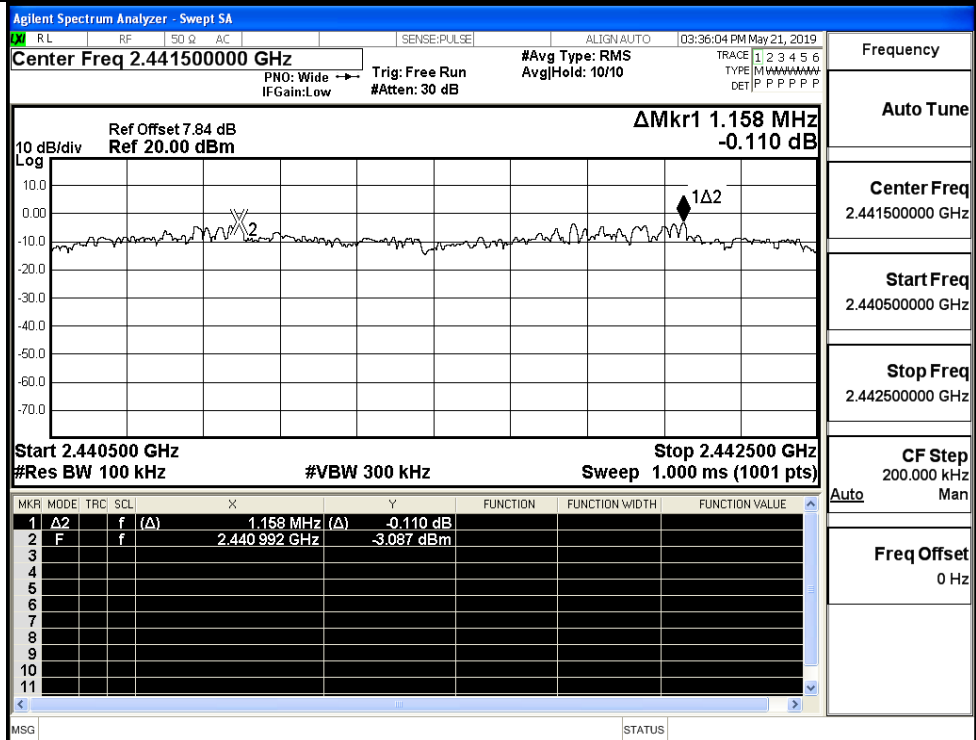
CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

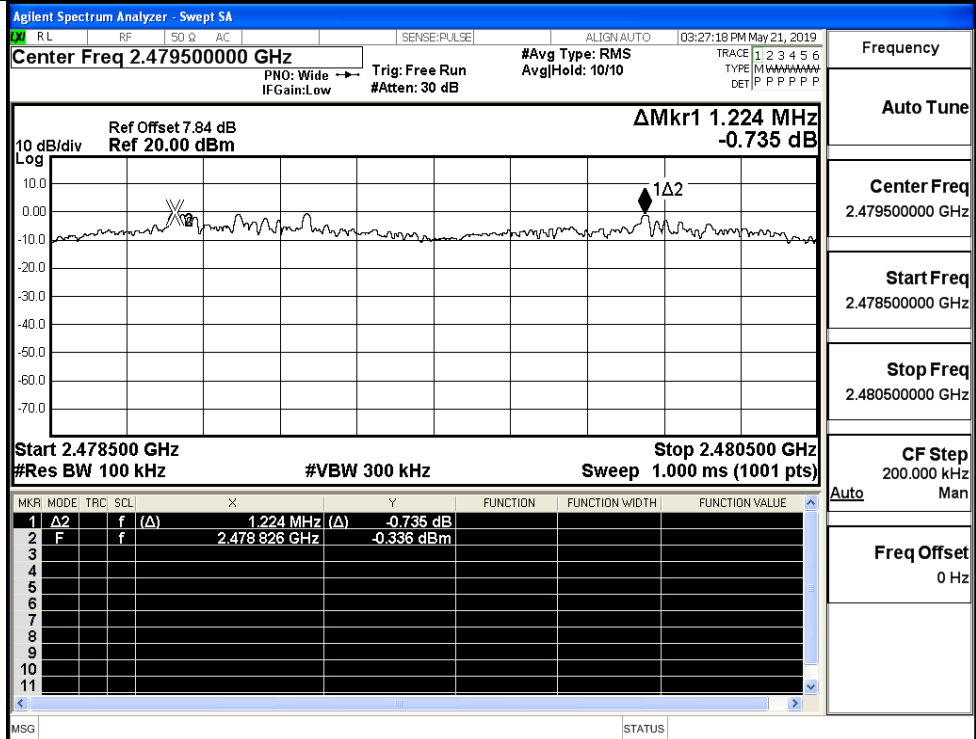
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH



π/4DQPSK/HCH



Frequency

Auto Tune

Center Freq
2.479500000 GHz

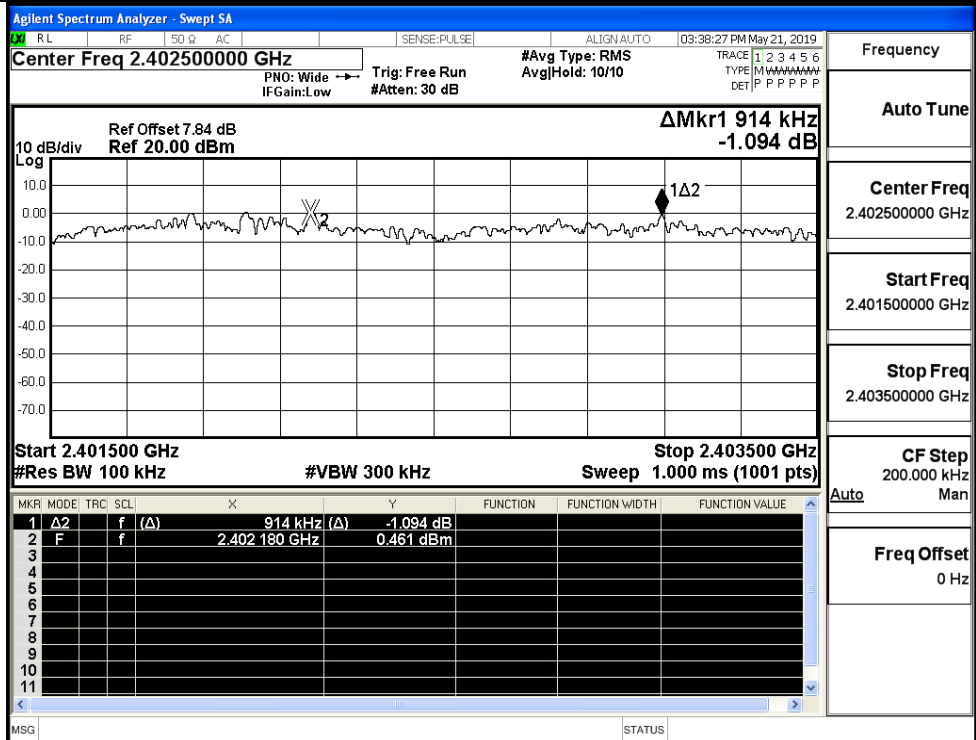
Start Freq
2.478500000 GHz

Stop Freq
2.480500000 GHz

CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

8DPSK/LCH



Frequency

Auto Tune

Center Freq
2.402500000 GHz

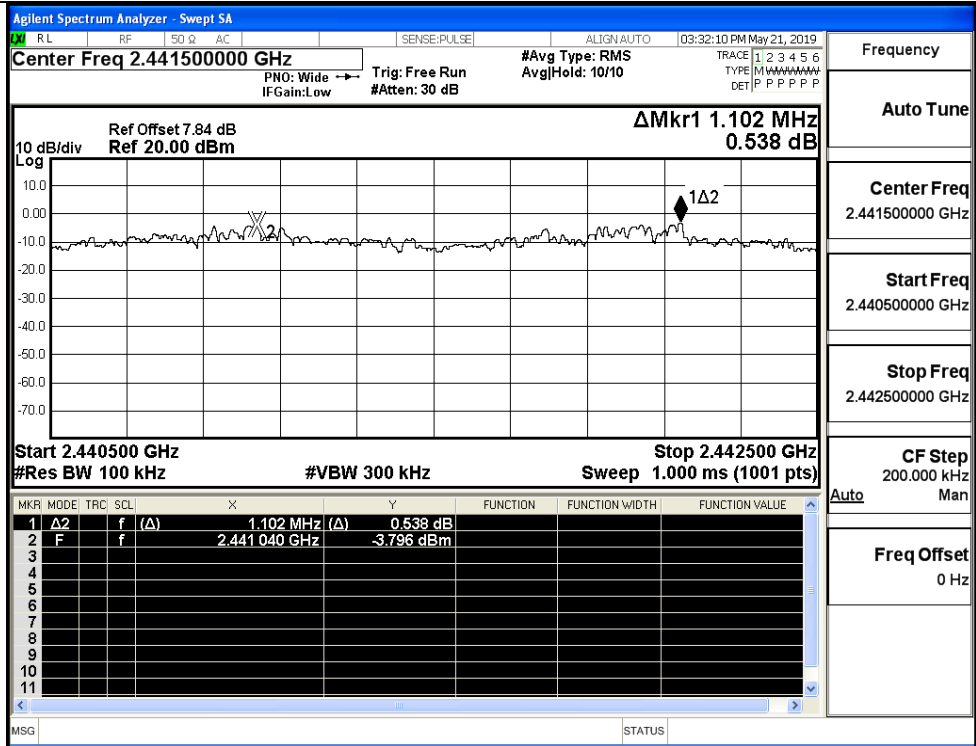
Start Freq
2.401500000 GHz

Stop Freq
2.403500000 GHz

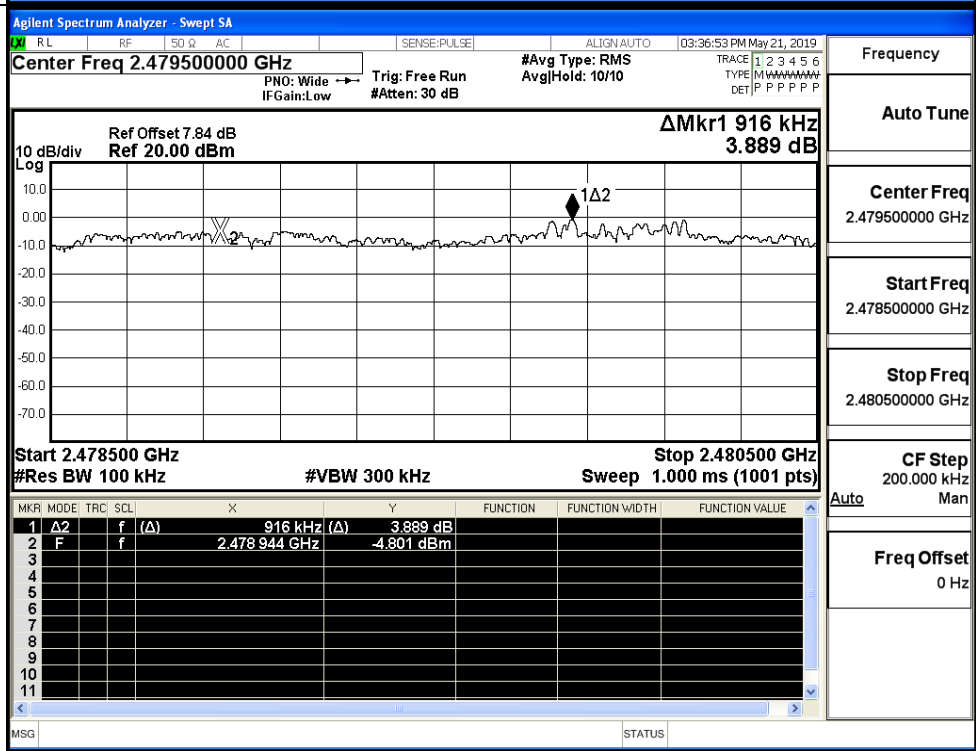
CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

8DPSK/MCH

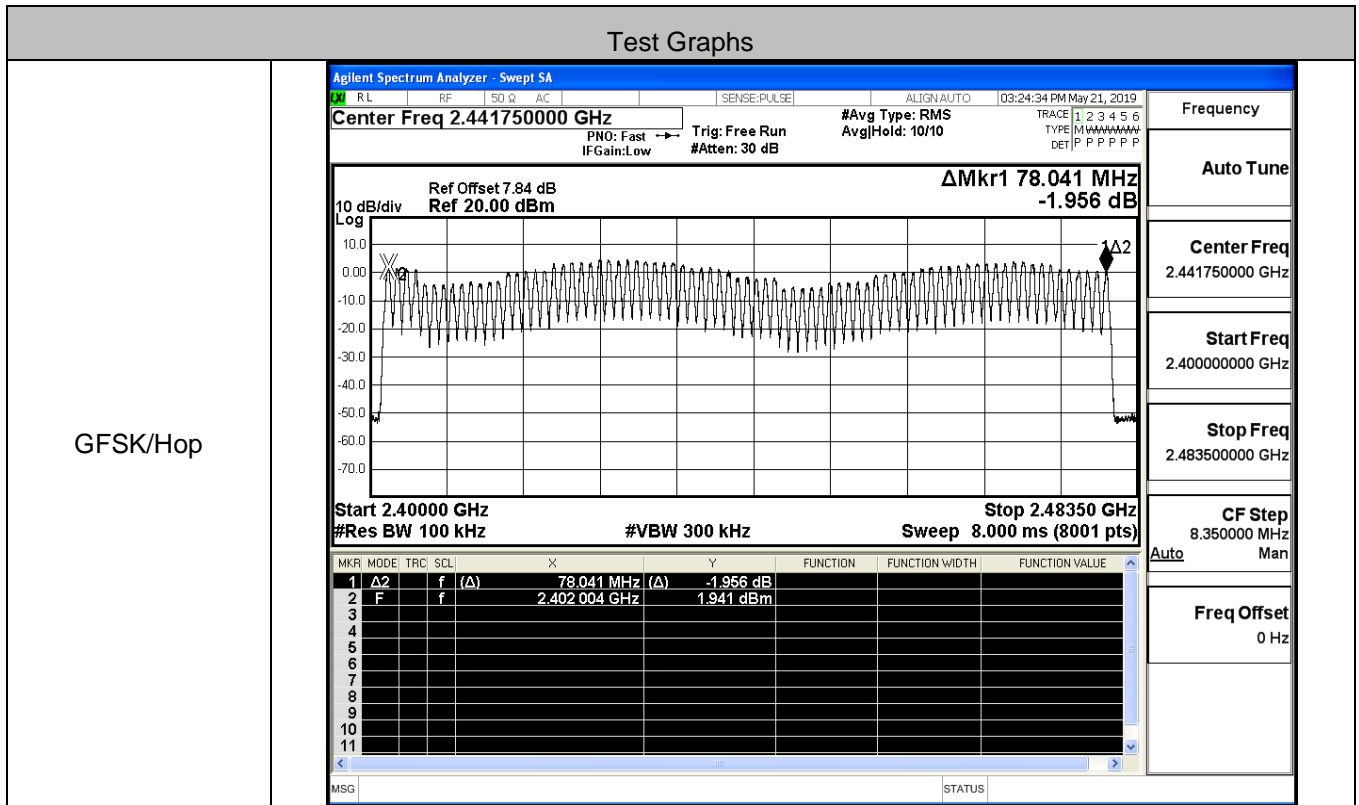


8DPSK/HCH

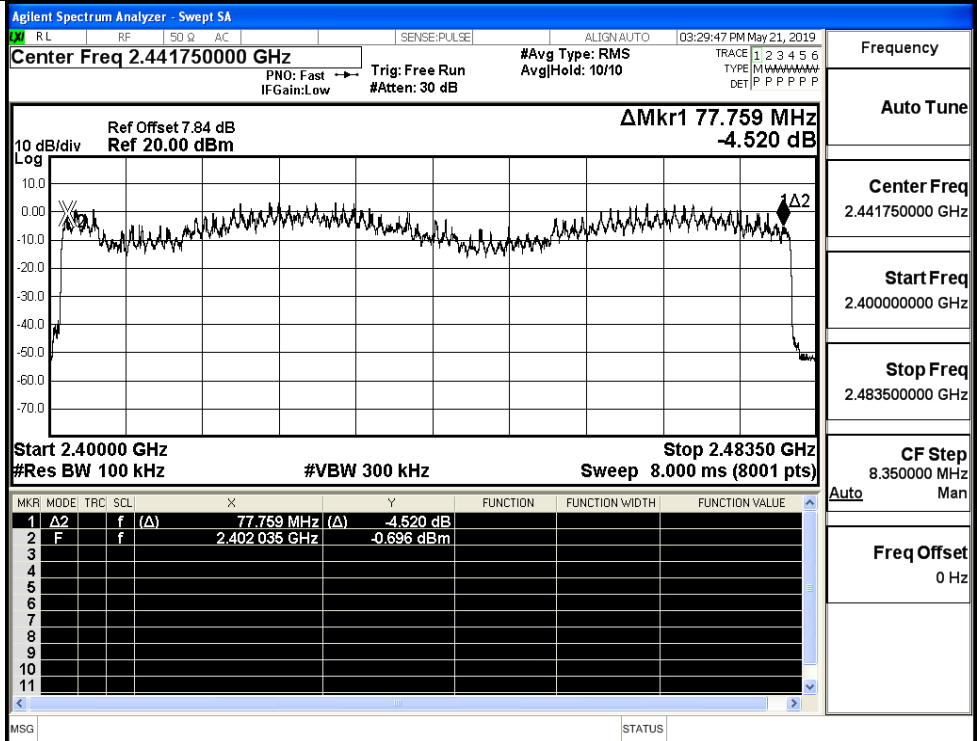


B.4 Hopping Channel Number

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

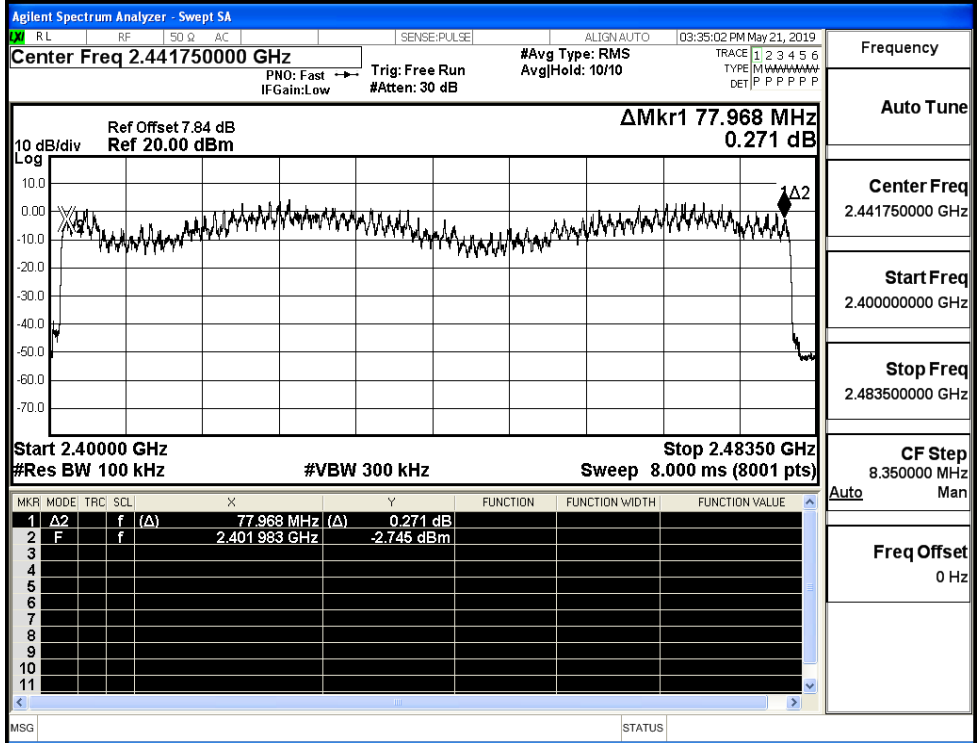


$\pi/4$ DQPSK/Hop



Frequency
Auto Tune
Center Freq
2.441750000 GHz
Start Freq
2.400000000 GHz
Stop Freq
2.483500000 GHz
CF Step
8.350000 MHz
Auto Man
Freq Offset
0 Hz

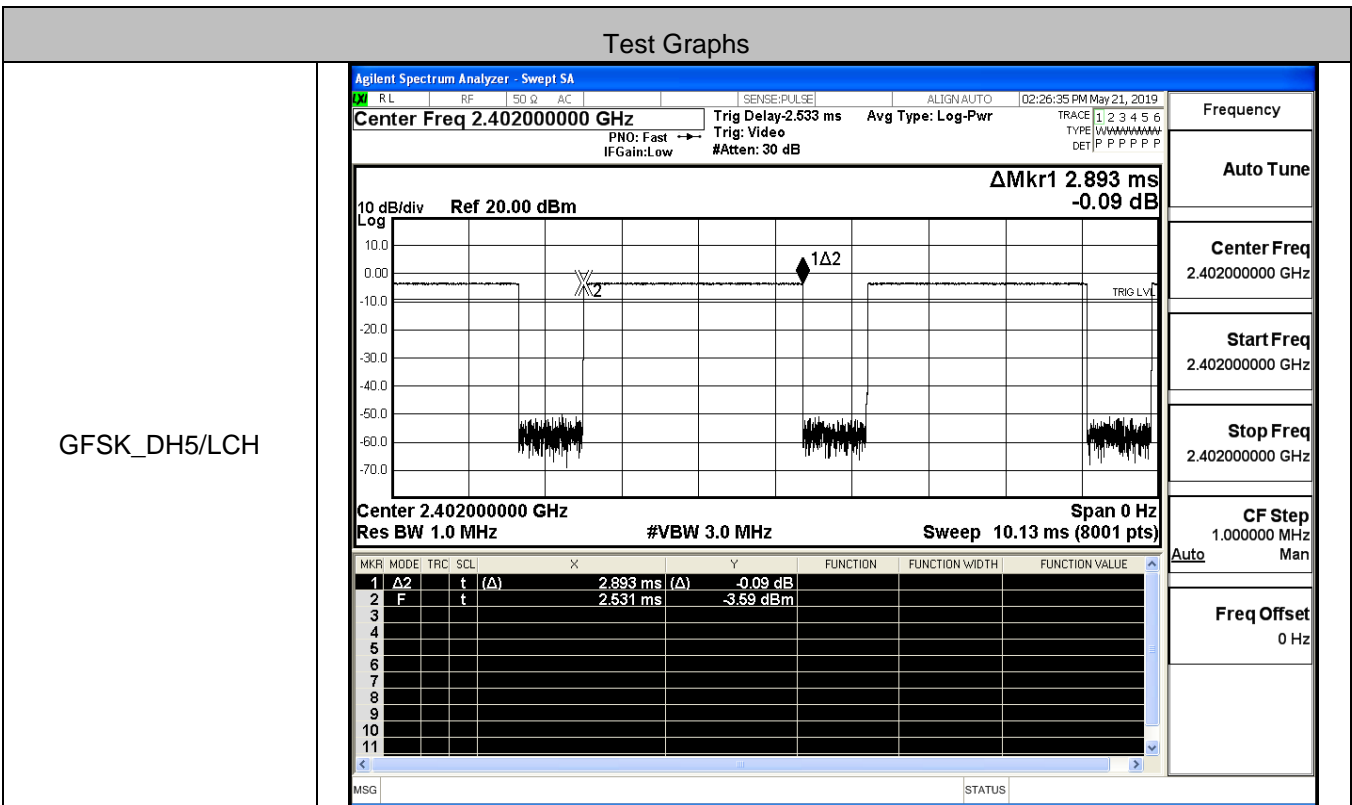
8DPSK/Hop



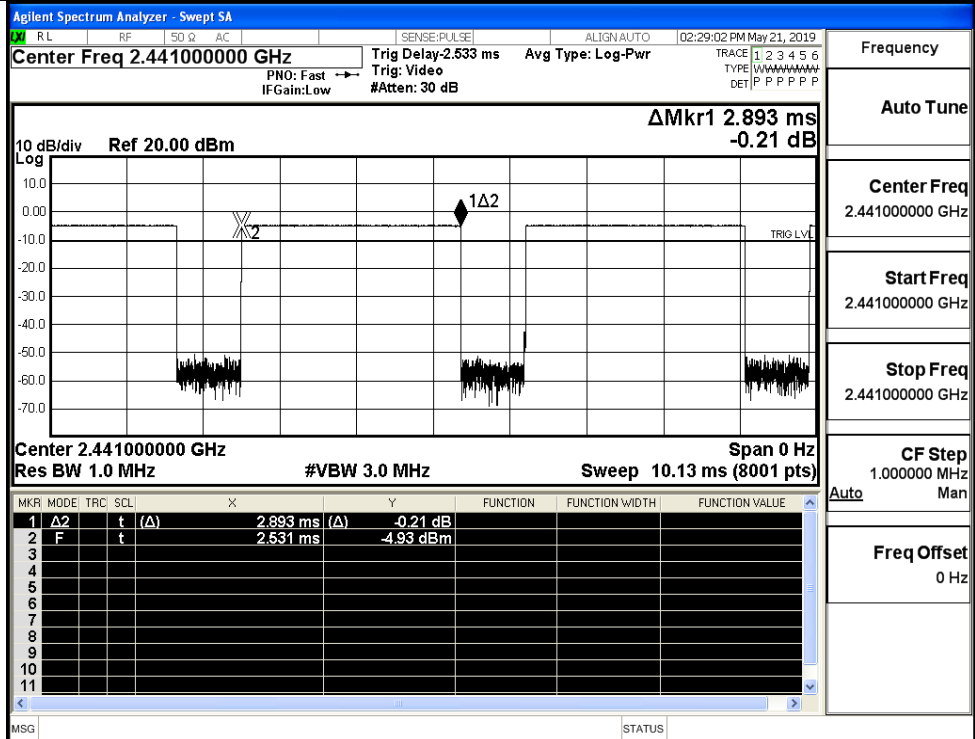
Frequency
Auto Tune
Center Freq
2.441750000 GHz
Start Freq
2.400000000 GHz
Stop Freq
2.483500000 GHz
CF Step
8.350000 MHz
Auto Man
Freq Offset
0 Hz

B.5 Dwell Time

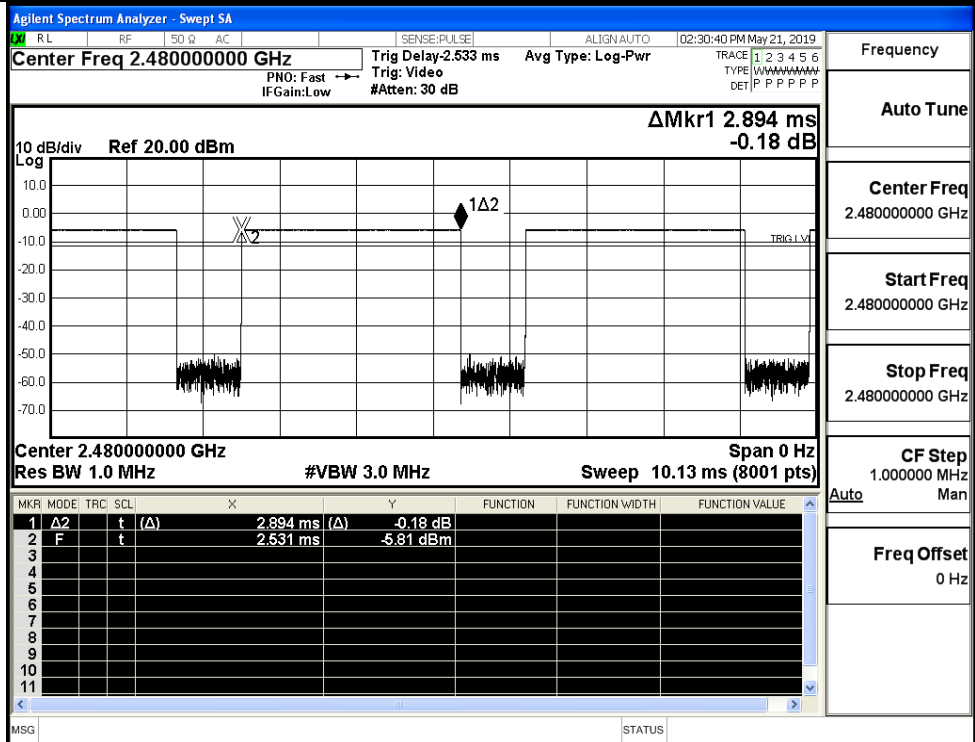
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.89	106.7	0.308	0.4	PASS
	DH5	MCH	2.89	106.7	0.308	0.4	PASS
	DH5	HCH	2.89	106.7	0.308	0.4	PASS
π/4DQPSK	2DH5	LCH	2.89	106.7	0.307	0.4	PASS
	2DH5	MCH	2.89	106.7	0.307	0.4	PASS
	2DH5	HCH	2.89	106.7	0.307	0.4	PASS
8DPSK	3DH5	LCH	2.89	106.7	0.307	0.4	PASS
	3DH5	MCH	2.89	106.7	0.307	0.4	PASS
	3DH5	HCH	2.89	106.7	0.307	0.4	PASS



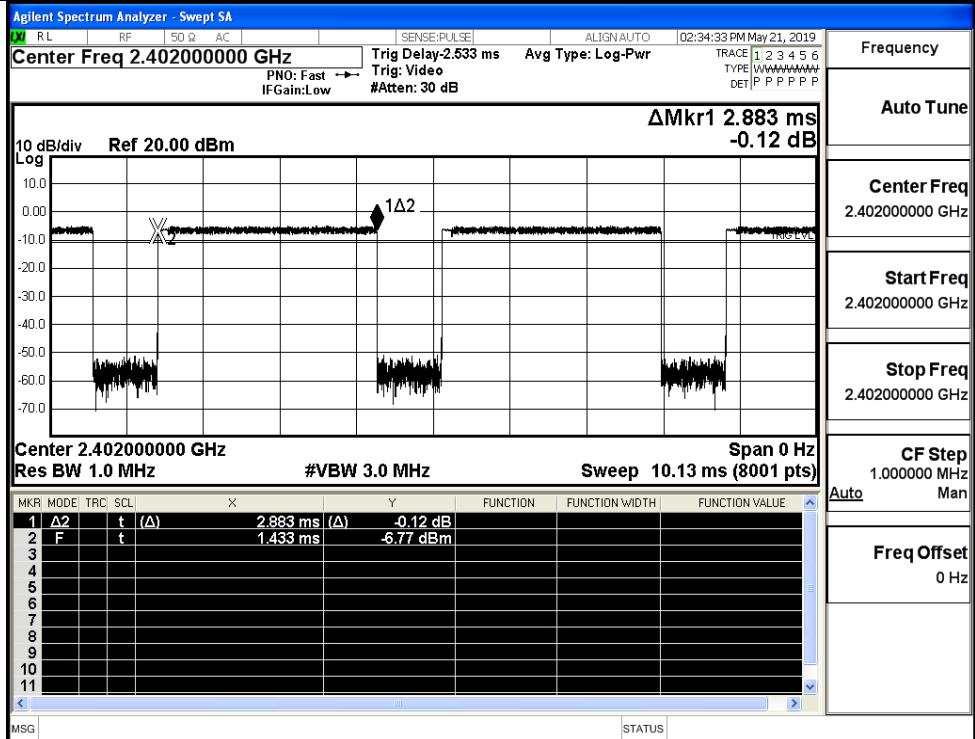
GFSK_DH5/MCH



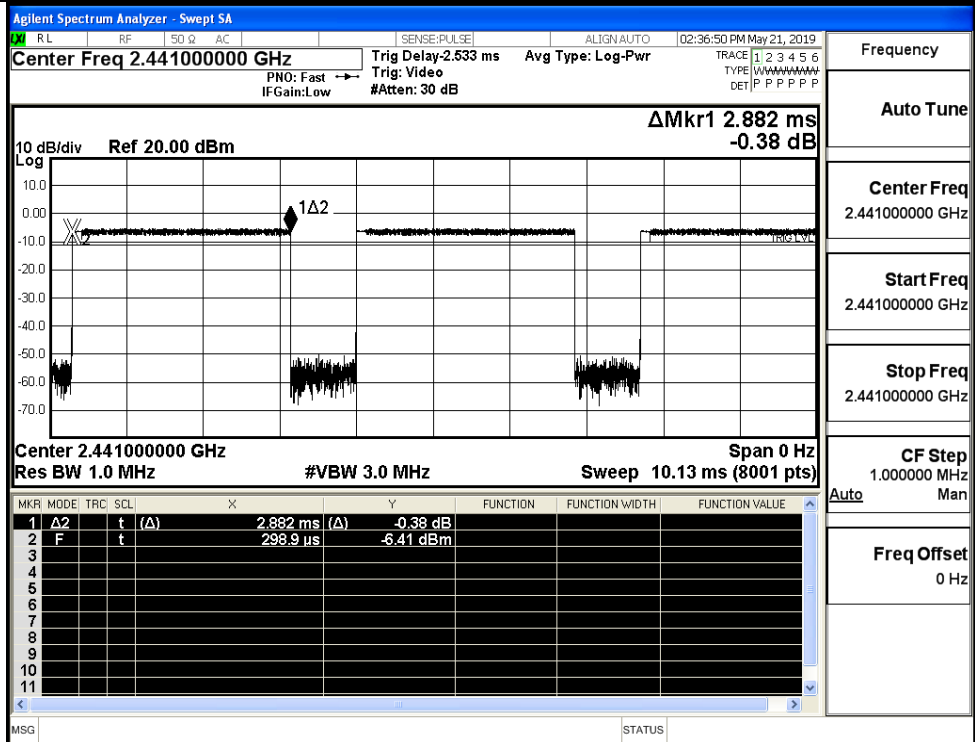
GFSK_DH5/HCH



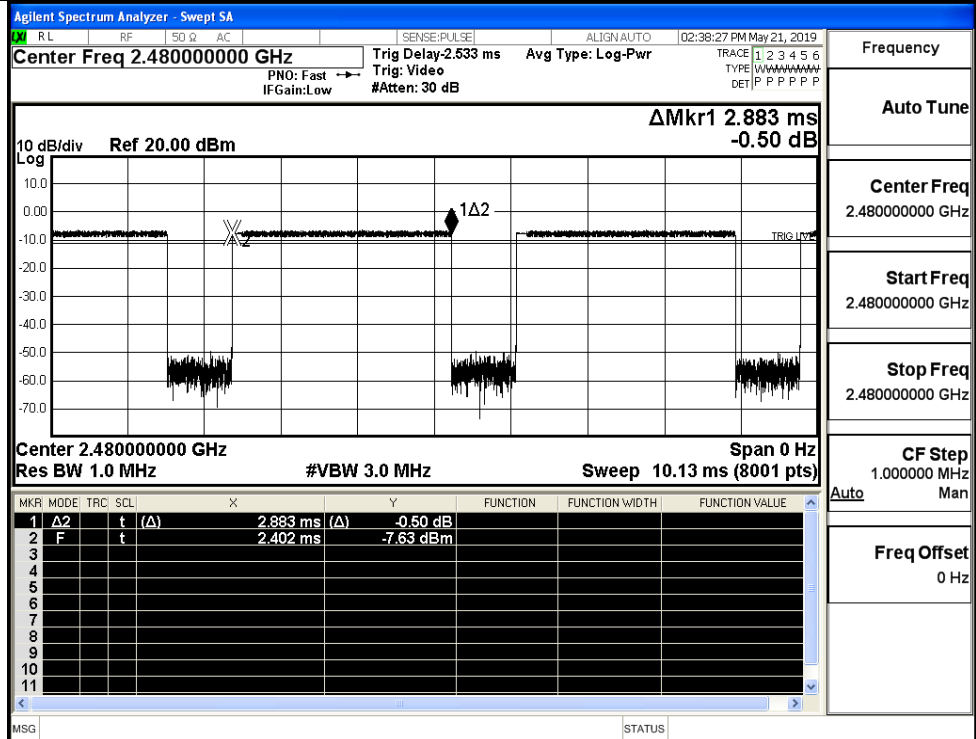
$\pi/4$ DQPSK
_2DH5/LCH



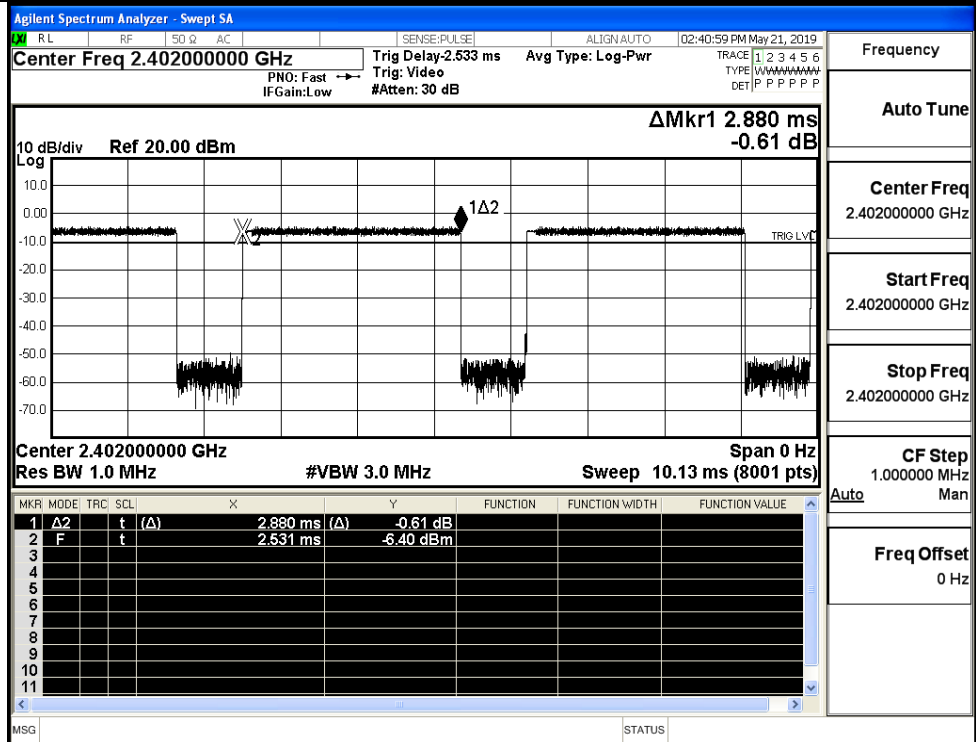
$\pi/4$ DQPSK
_2DH5/MCH



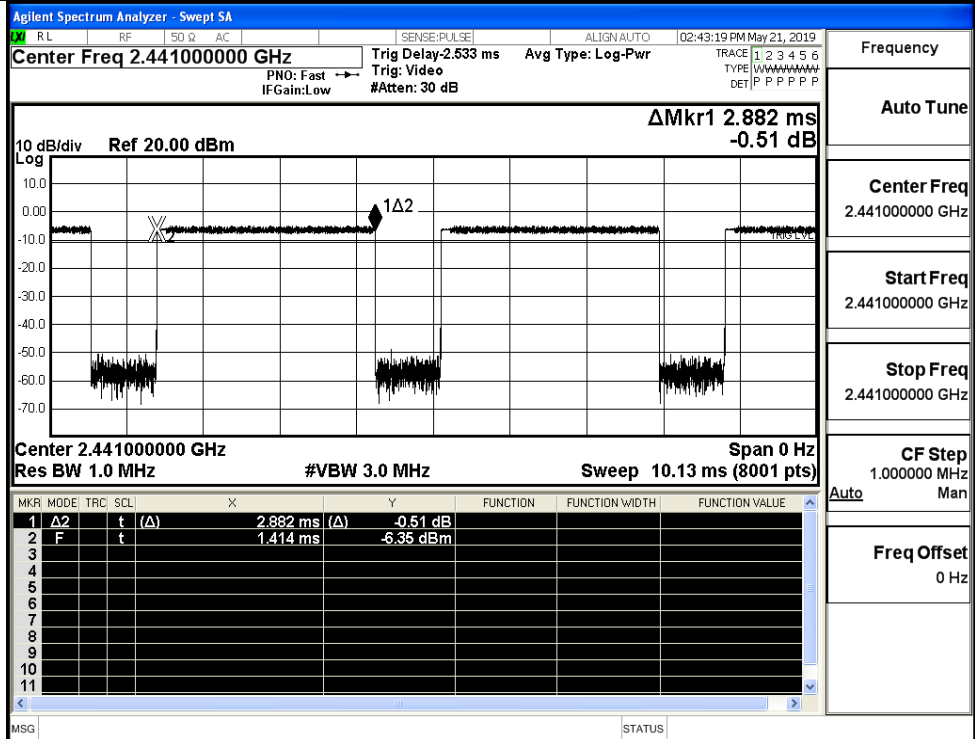
$\pi/4$ DQPSK
_2DH5/HCH



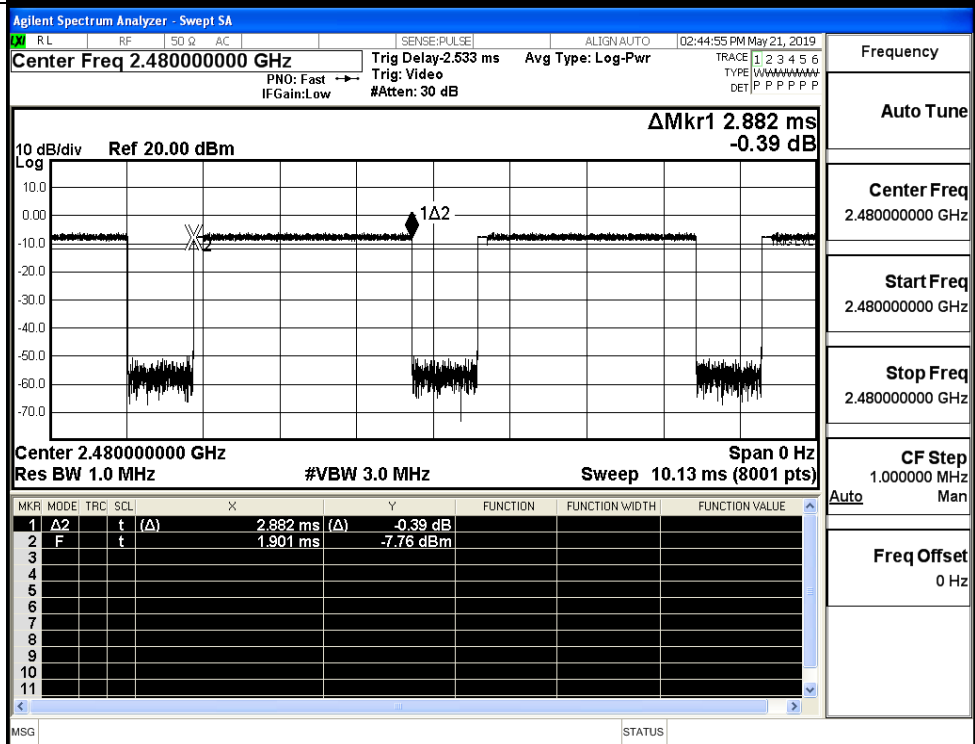
8DPSK_3DH5/LCH



8DPSK_3DH5/MCH



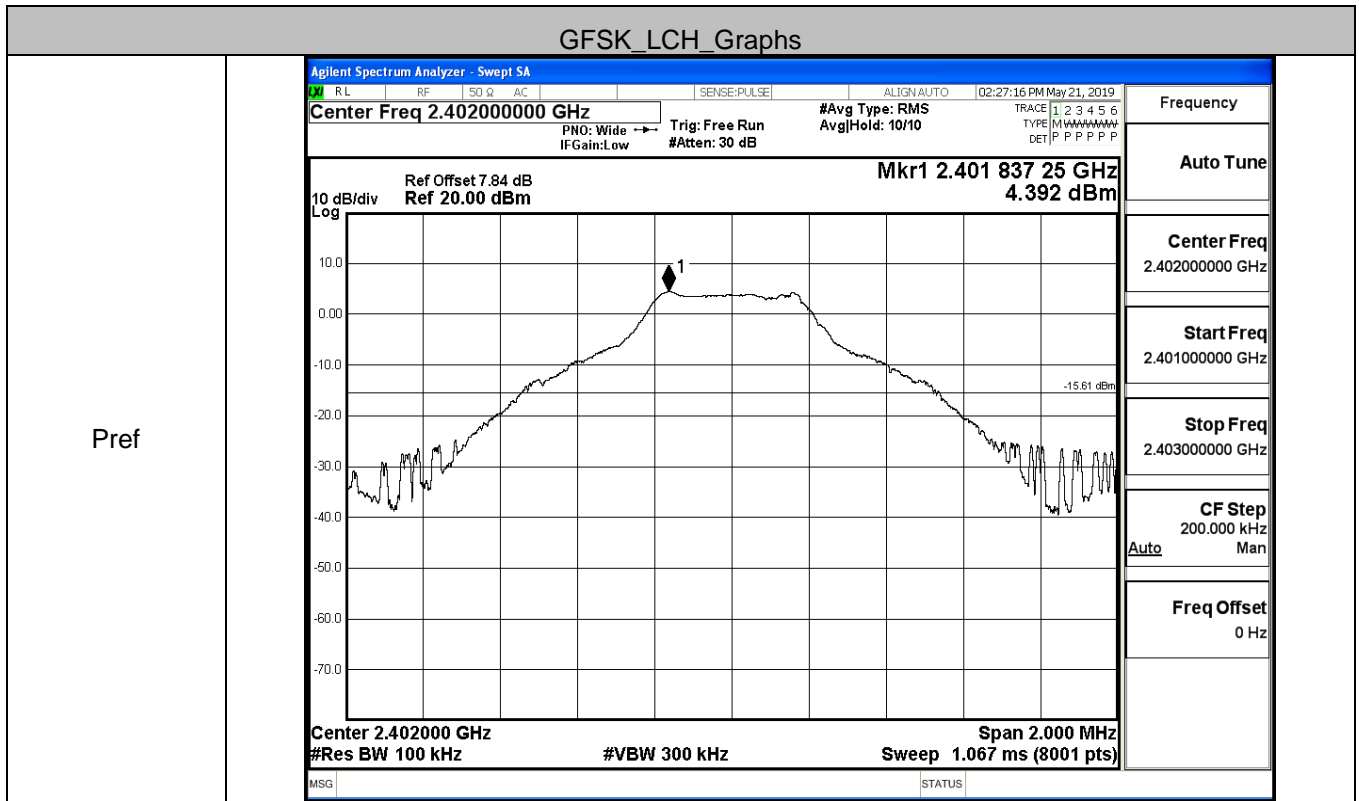
8DPSK_3DH5/HCH



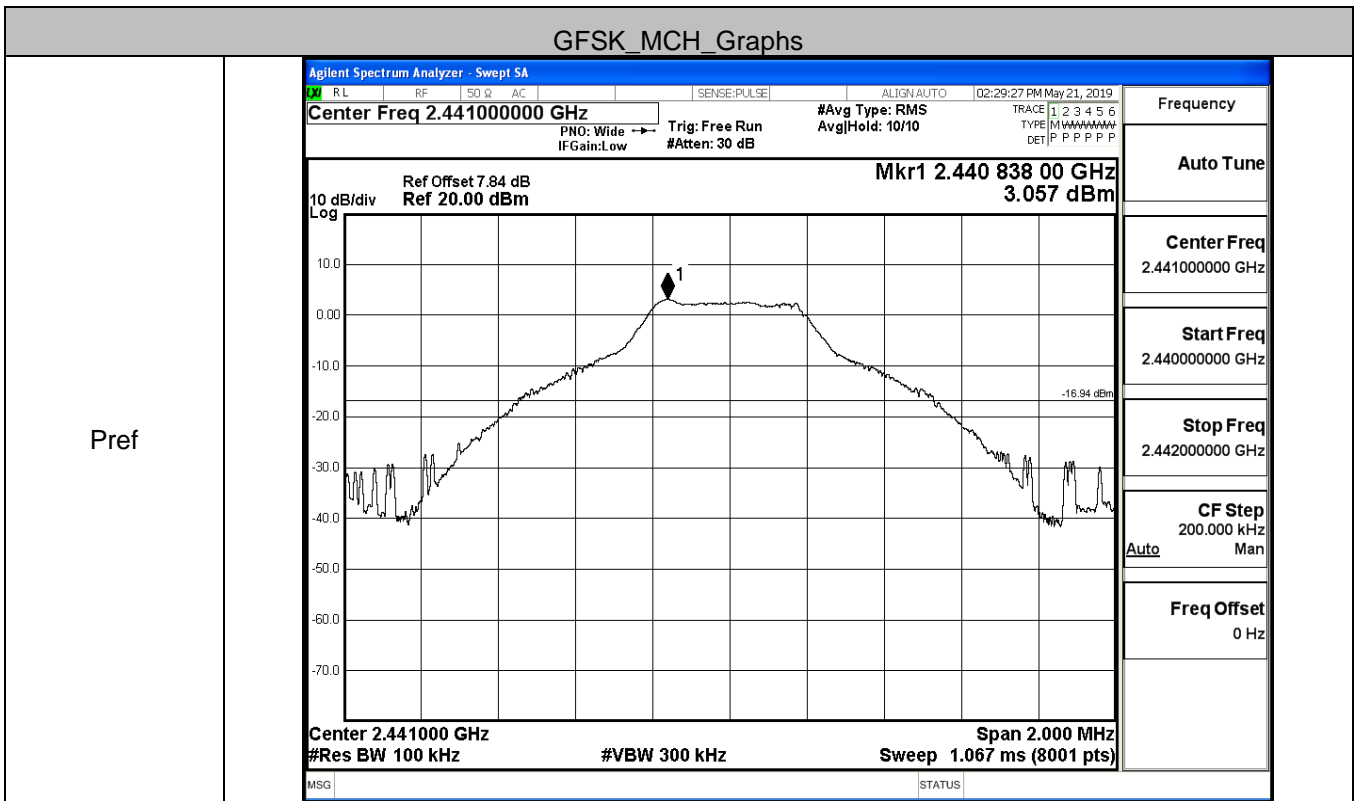
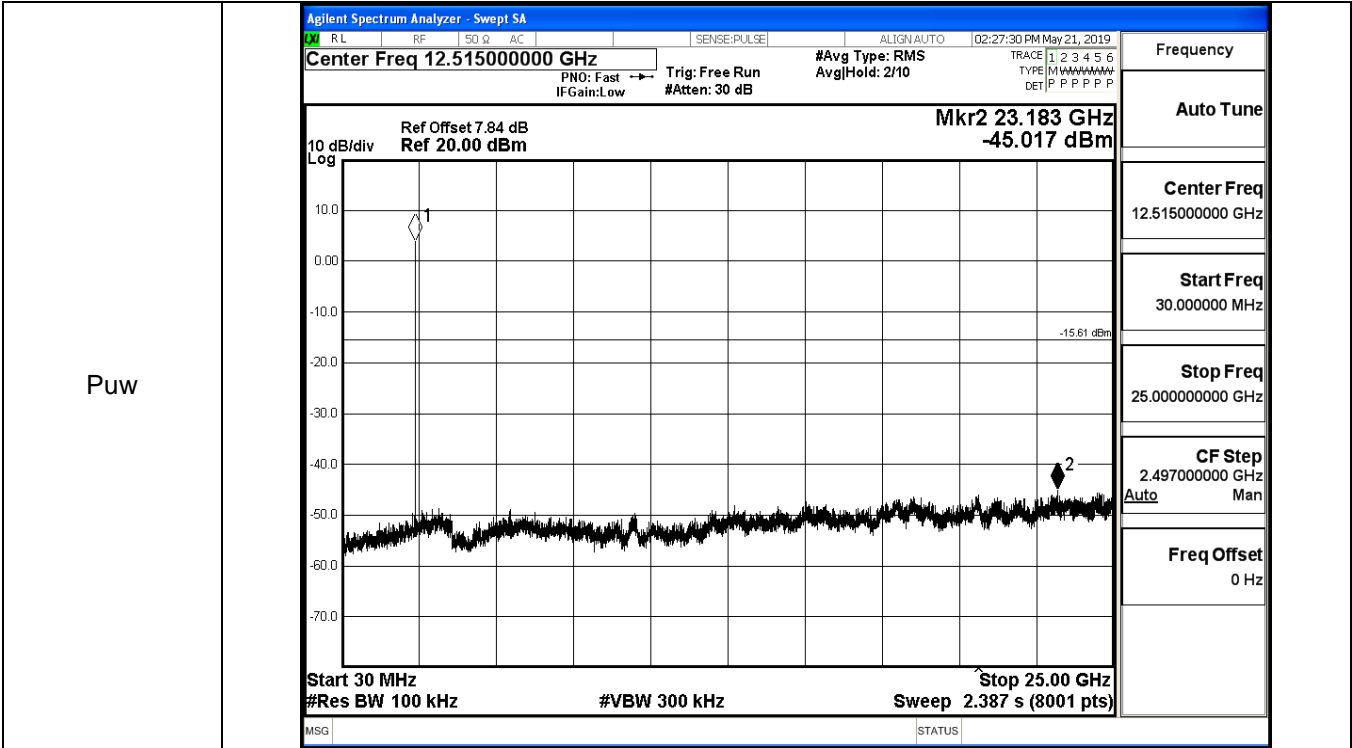
B.6 RF Conducted Spurious Emissions

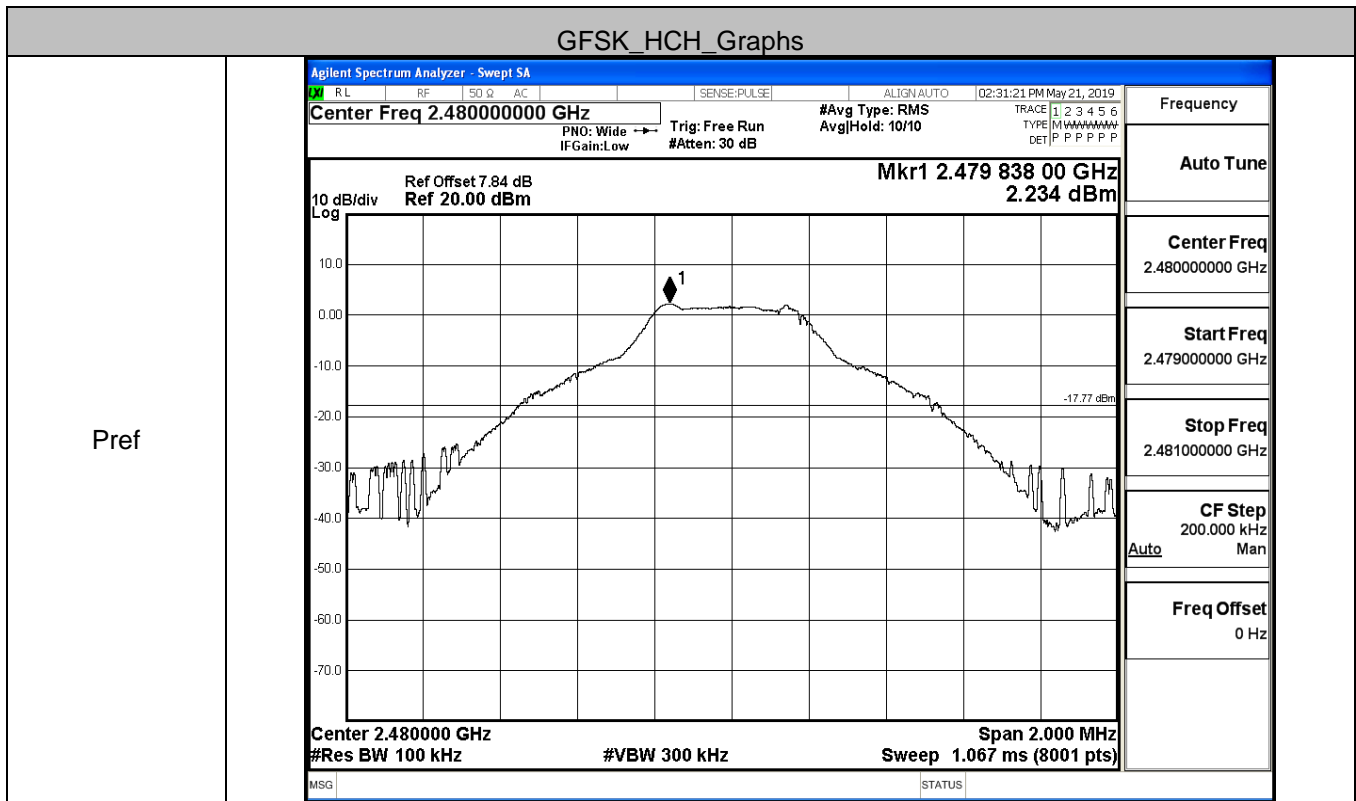
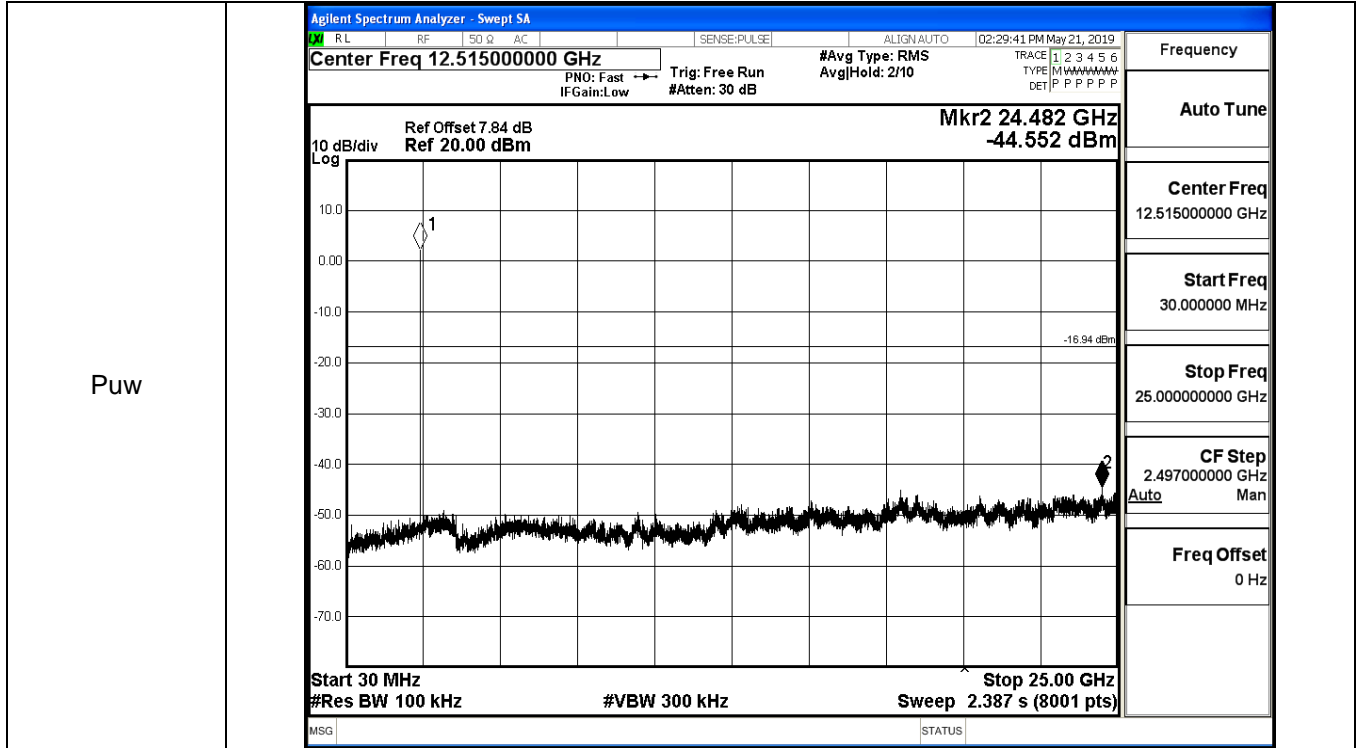
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	4.392	-45.017	-15.608	PASS
	MCH	3.057	-44.552	-16.943	PASS
	HCH	2.234	-44.924	-17.766	PASS
π /4DQPSK	LCH	1.497	-44.400	-18.503	PASS
	MCH	1.68	-44.741	-18.320	PASS
	HCH	0.391	-44.453	-19.609	PASS
8DPSK	LCH	1.635	-44.872	-18.365	PASS
	MCH	1.717	-45.415	-18.283	PASS
	HCH	0.464	-45.242	-19.536	PASS

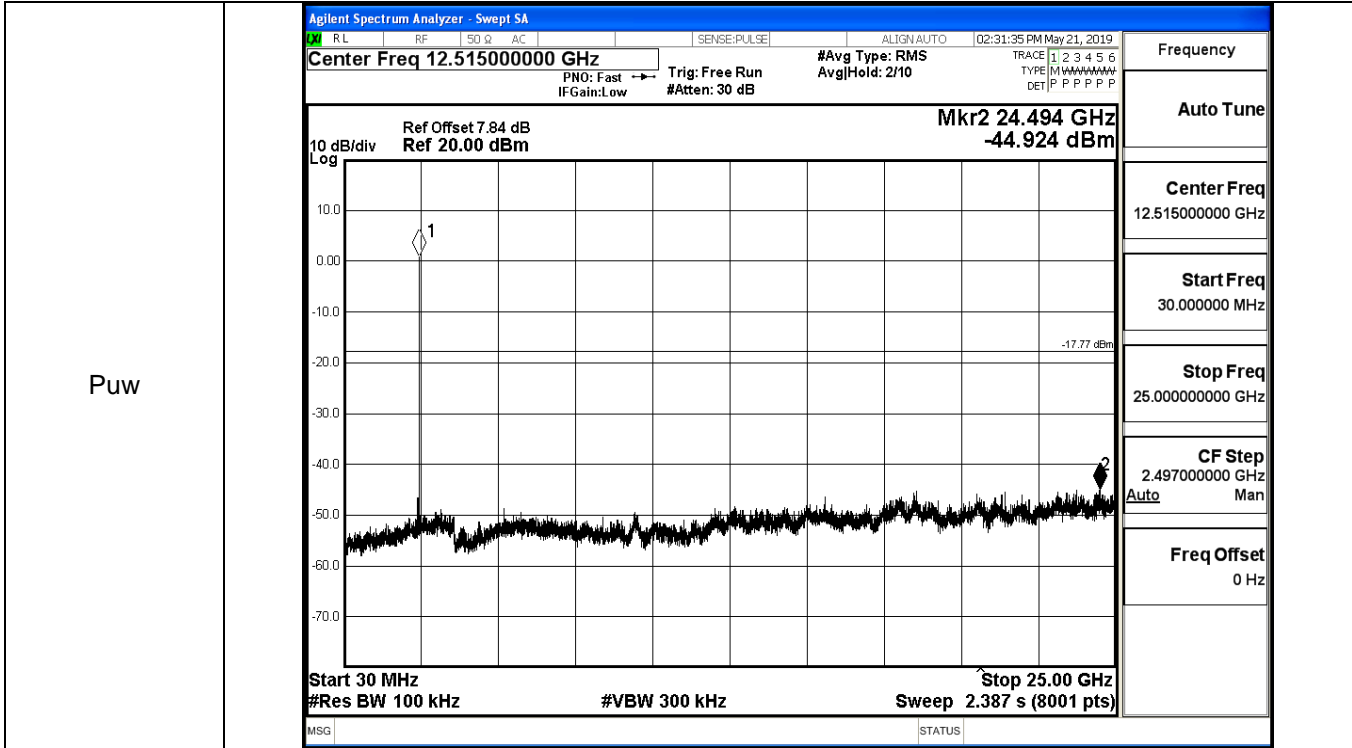
GFSK_LCH_Graphs



Pref

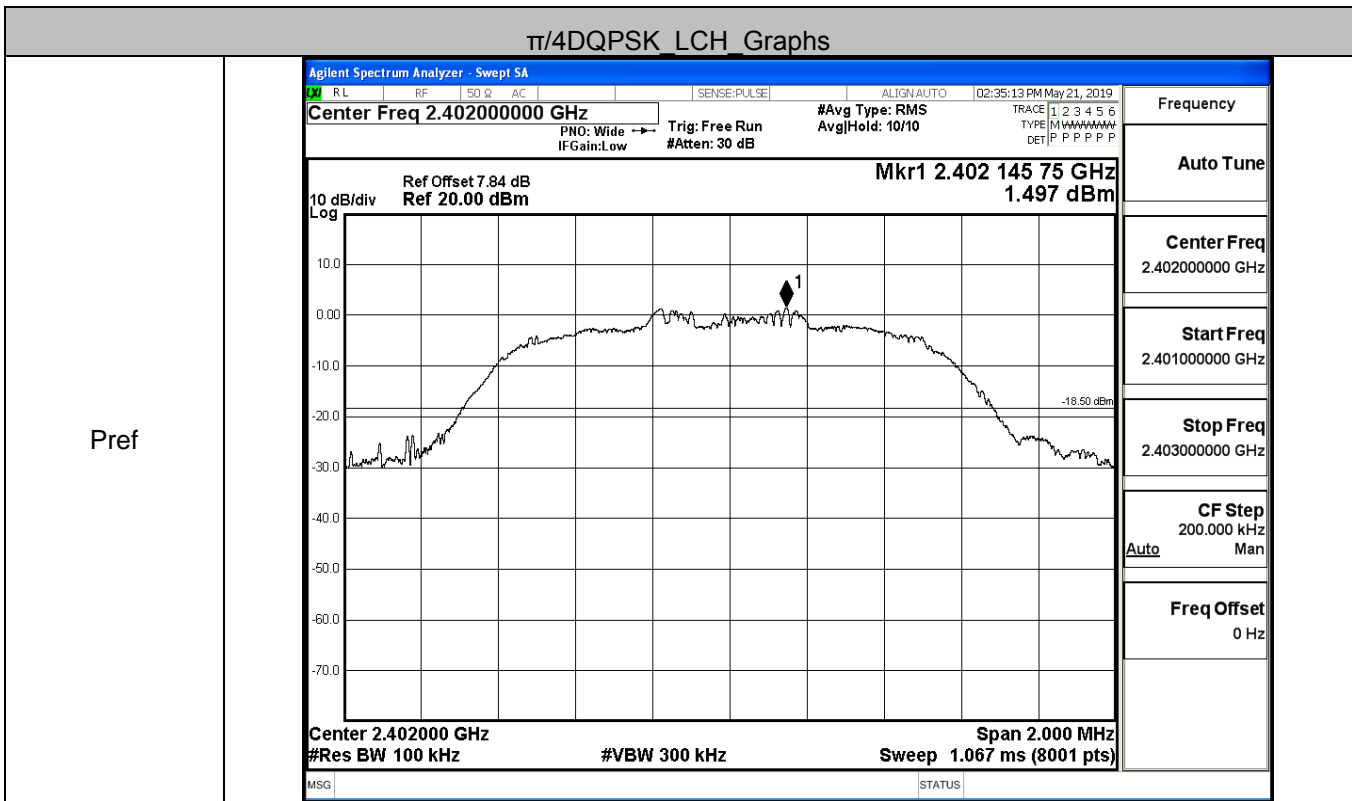




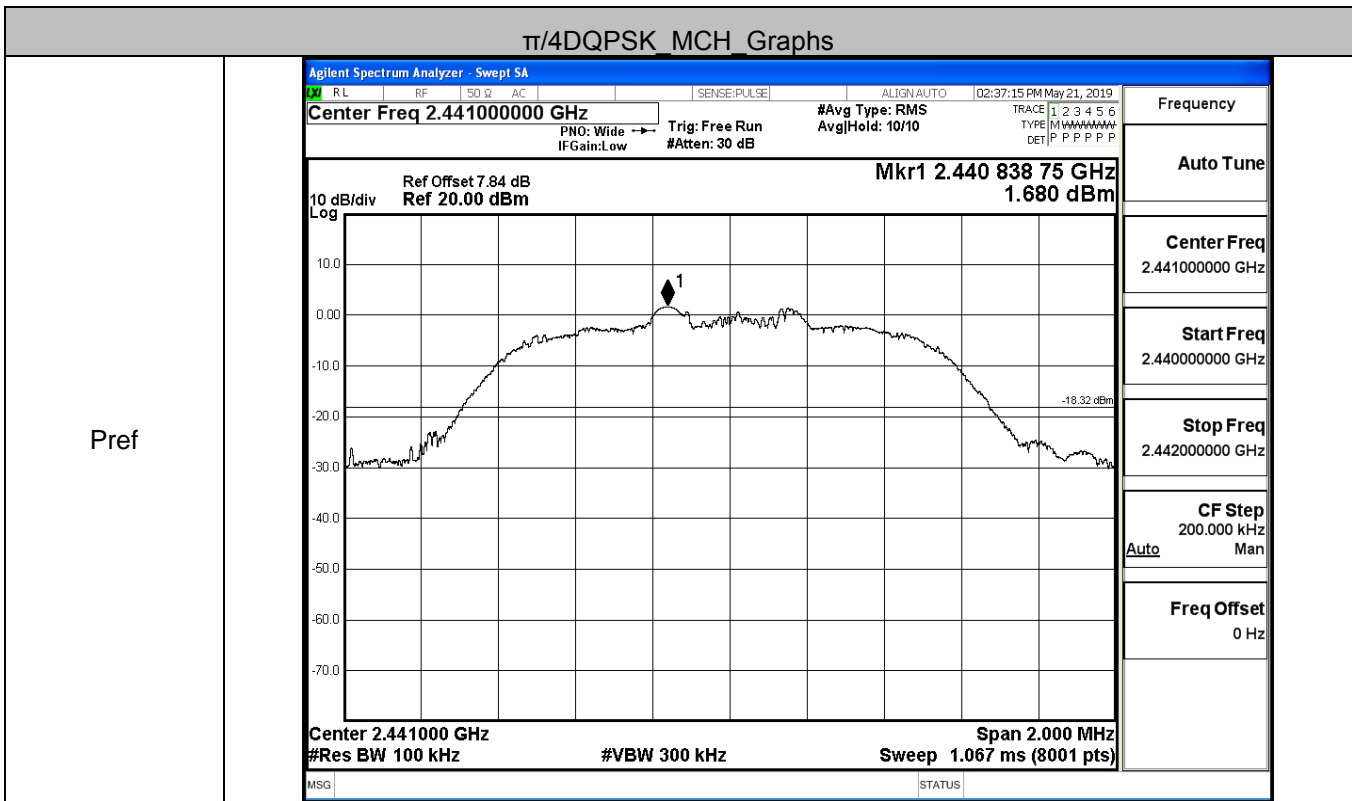
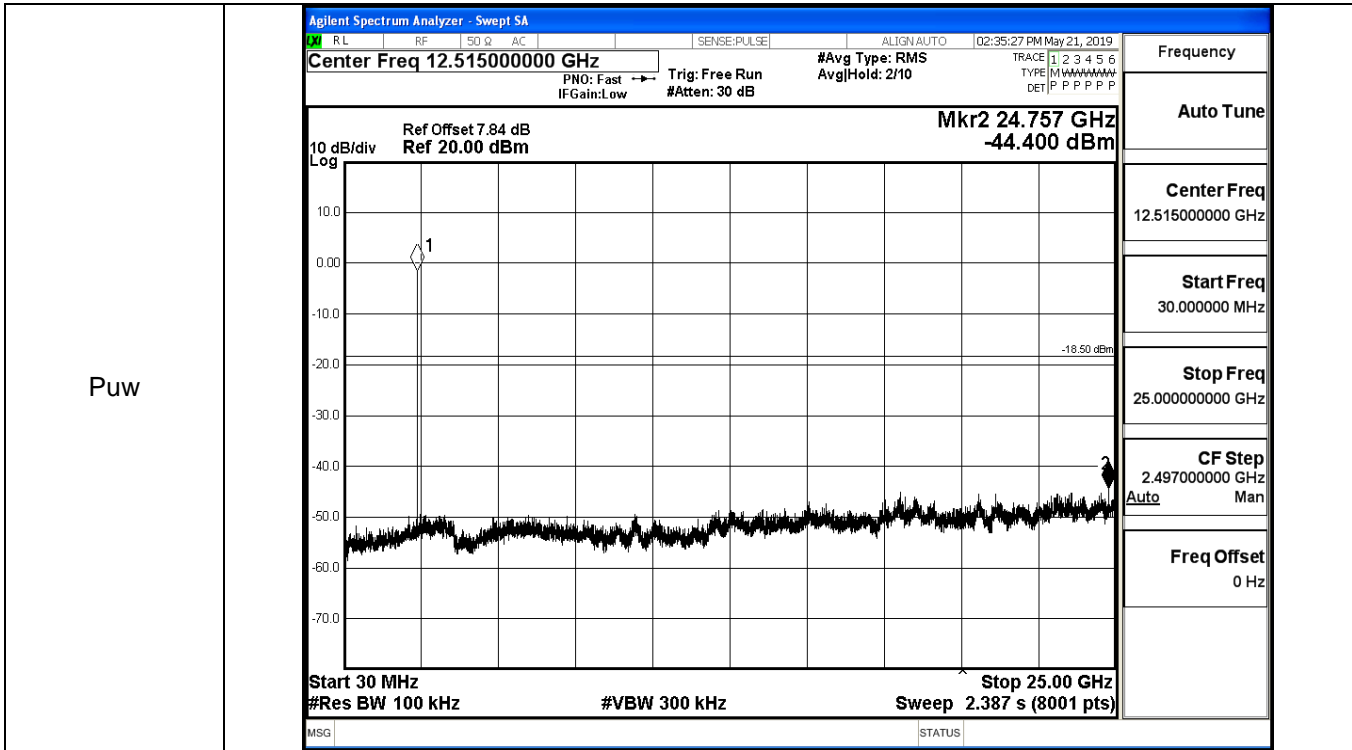


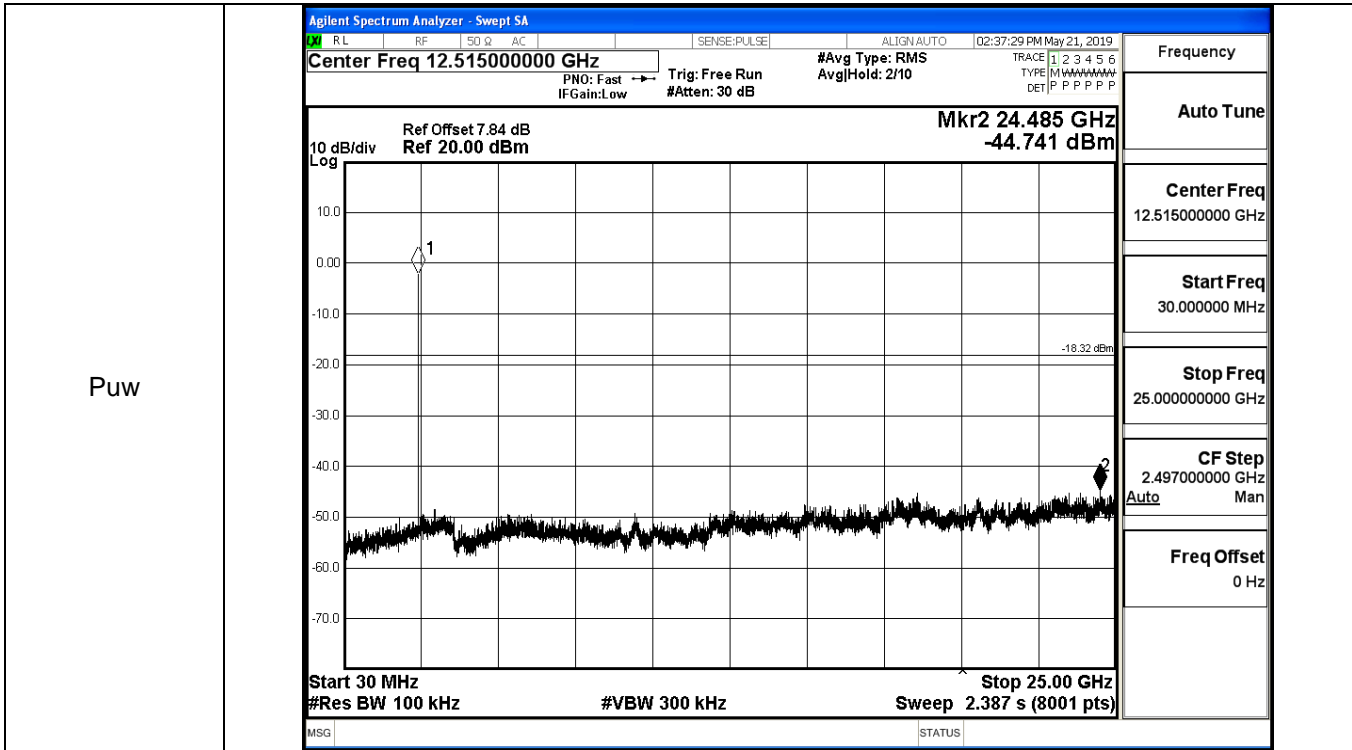
Puw

$\pi/4$ DQPSK LCH Graphs



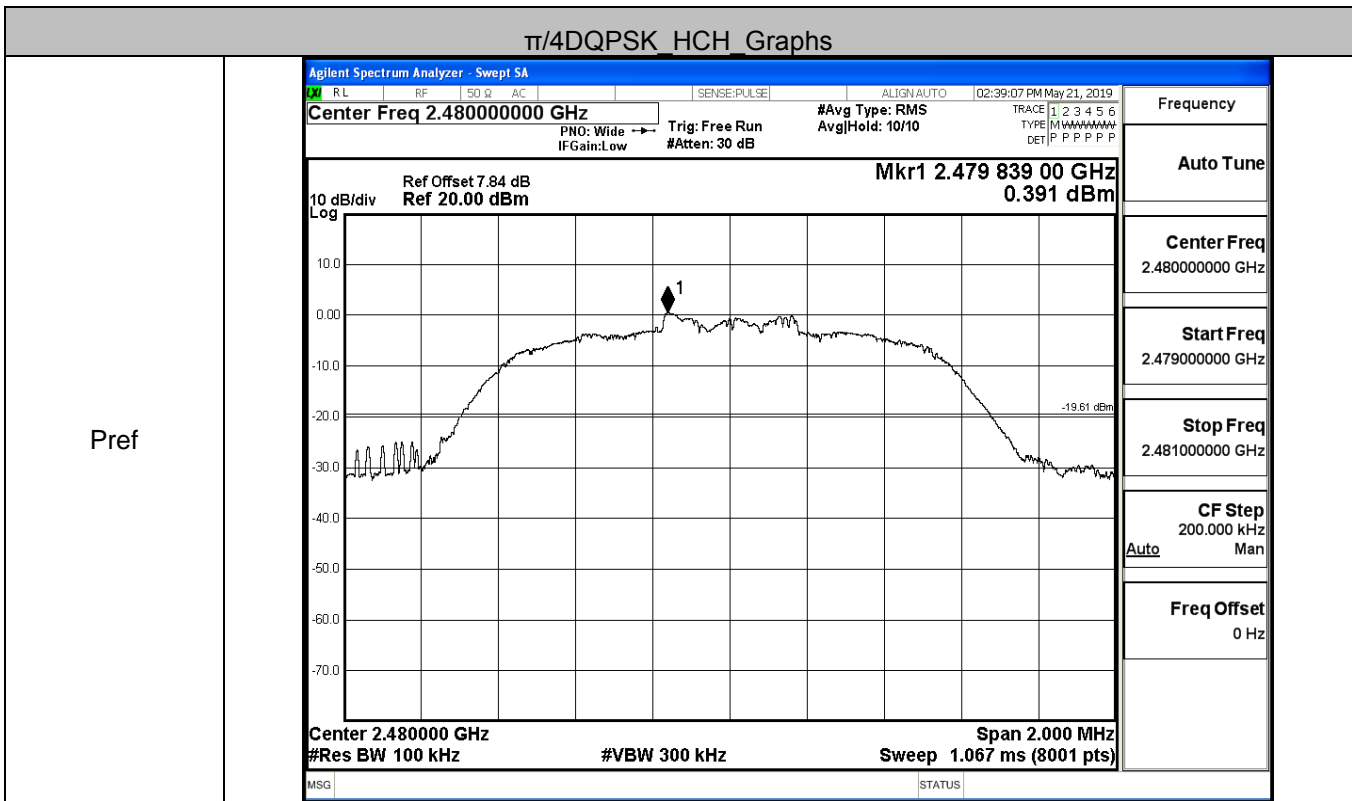
Pref



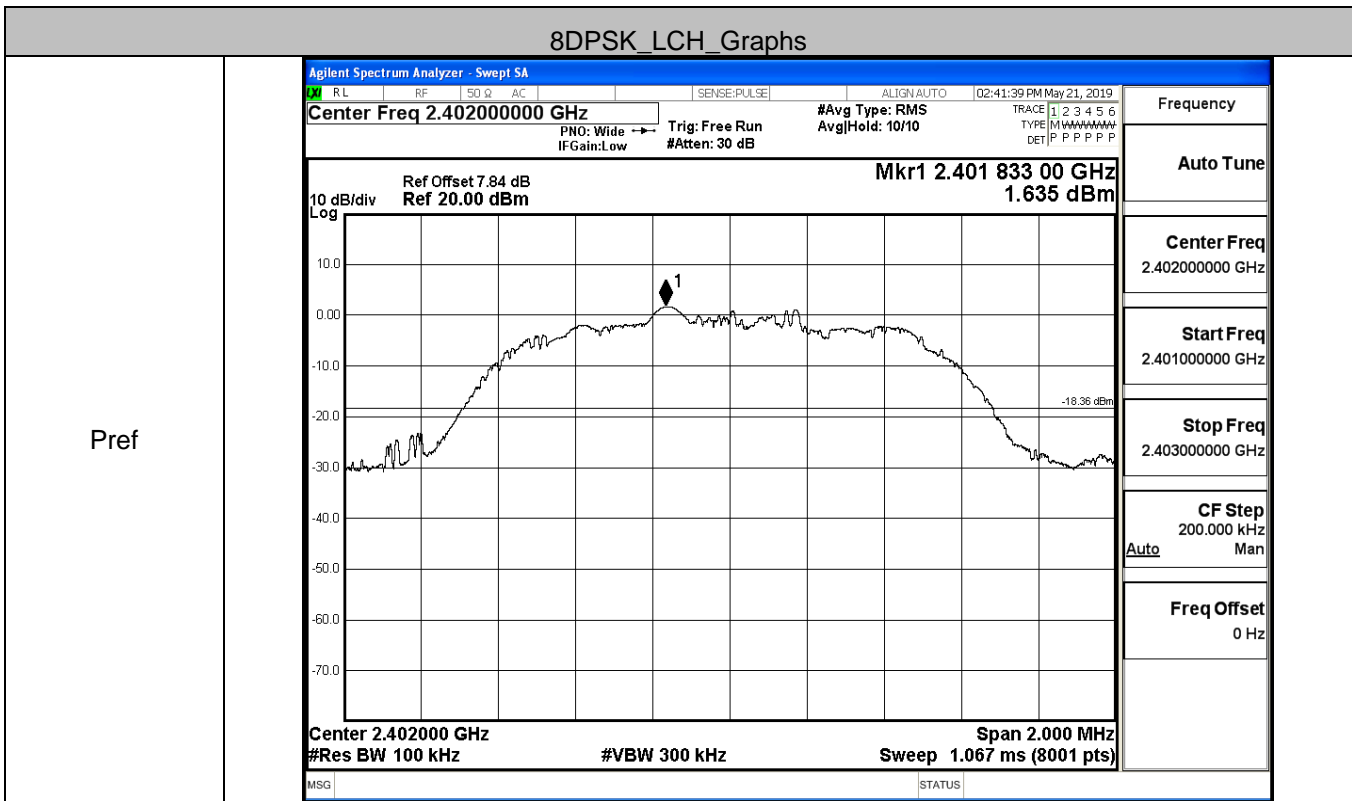
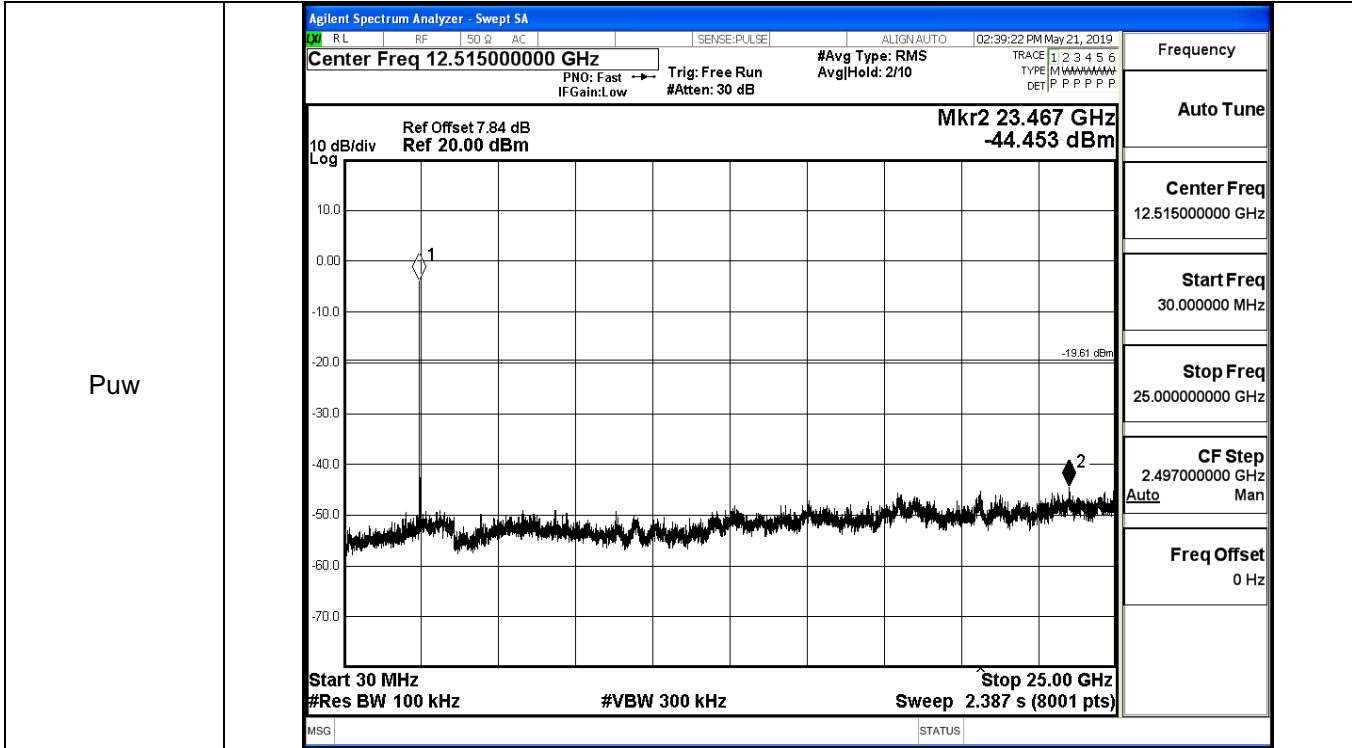


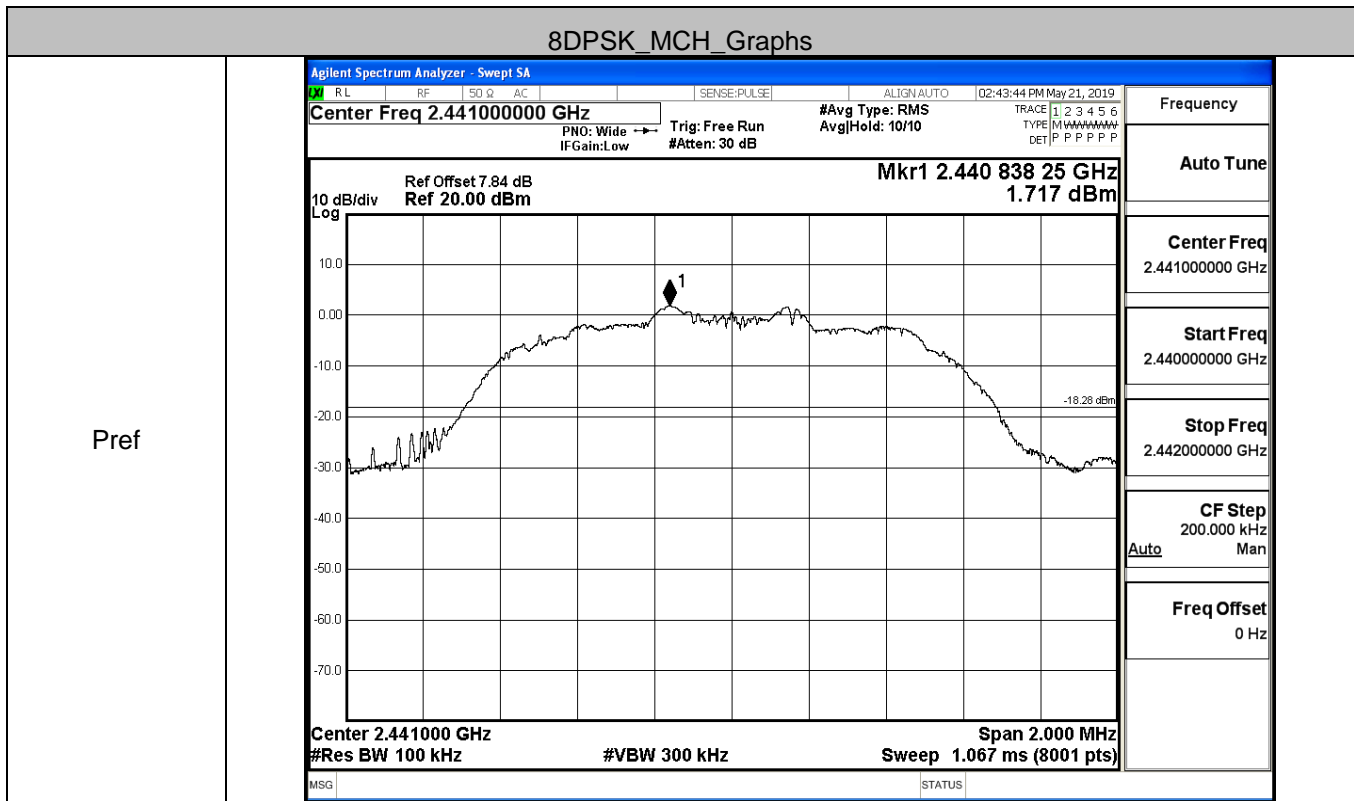
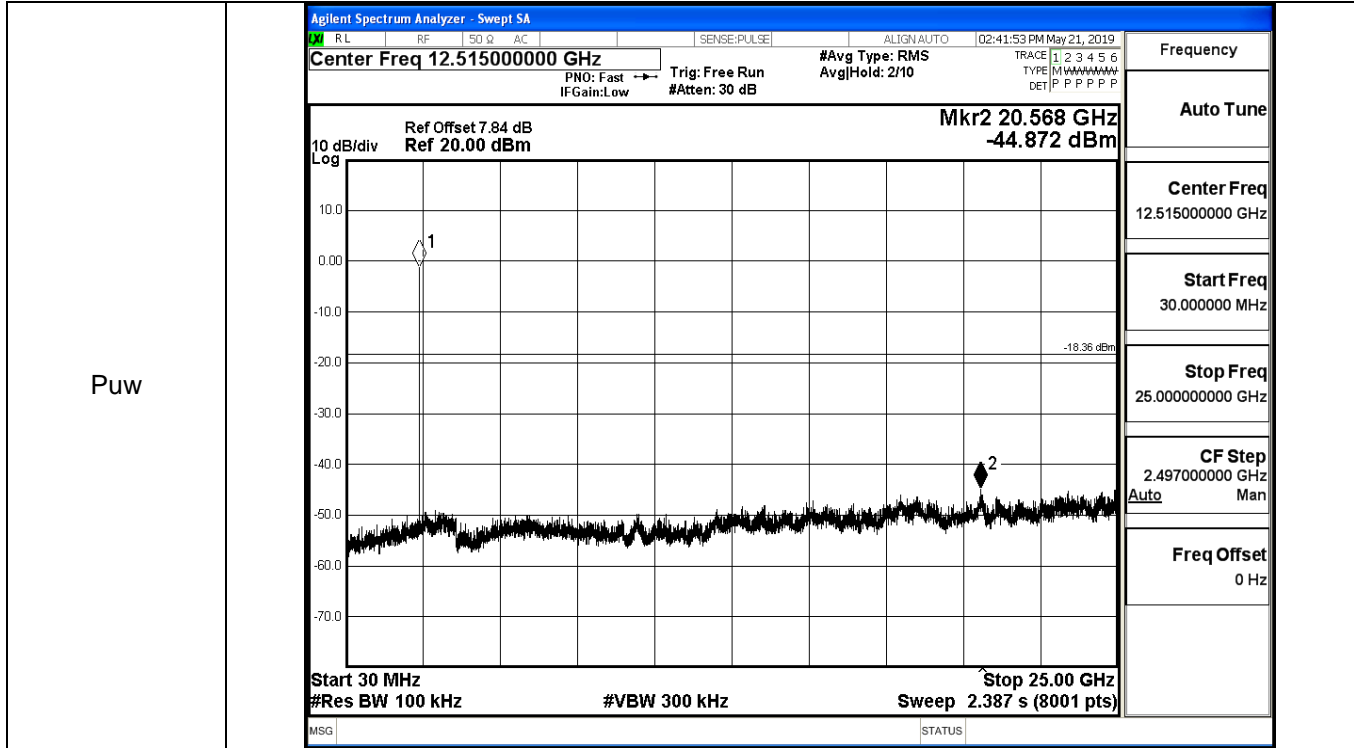
Puw

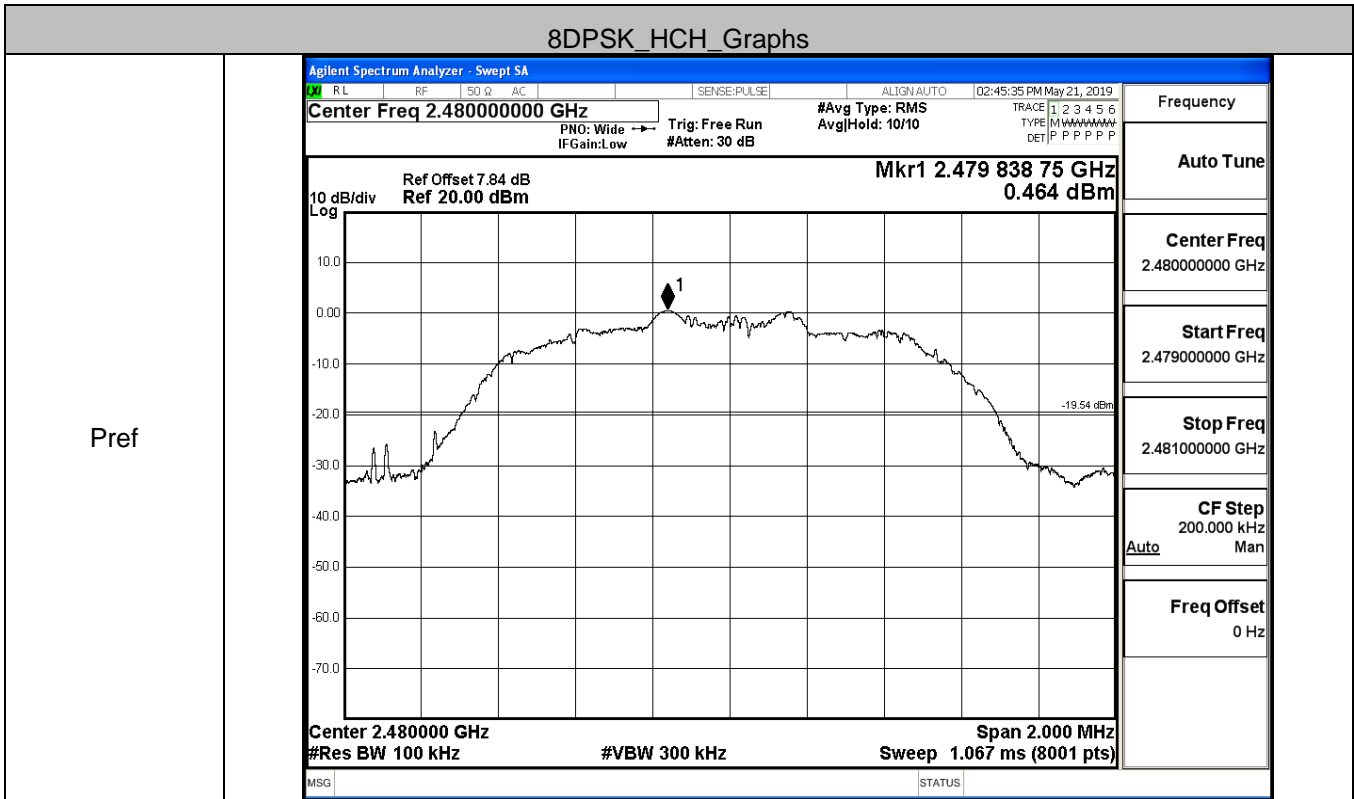
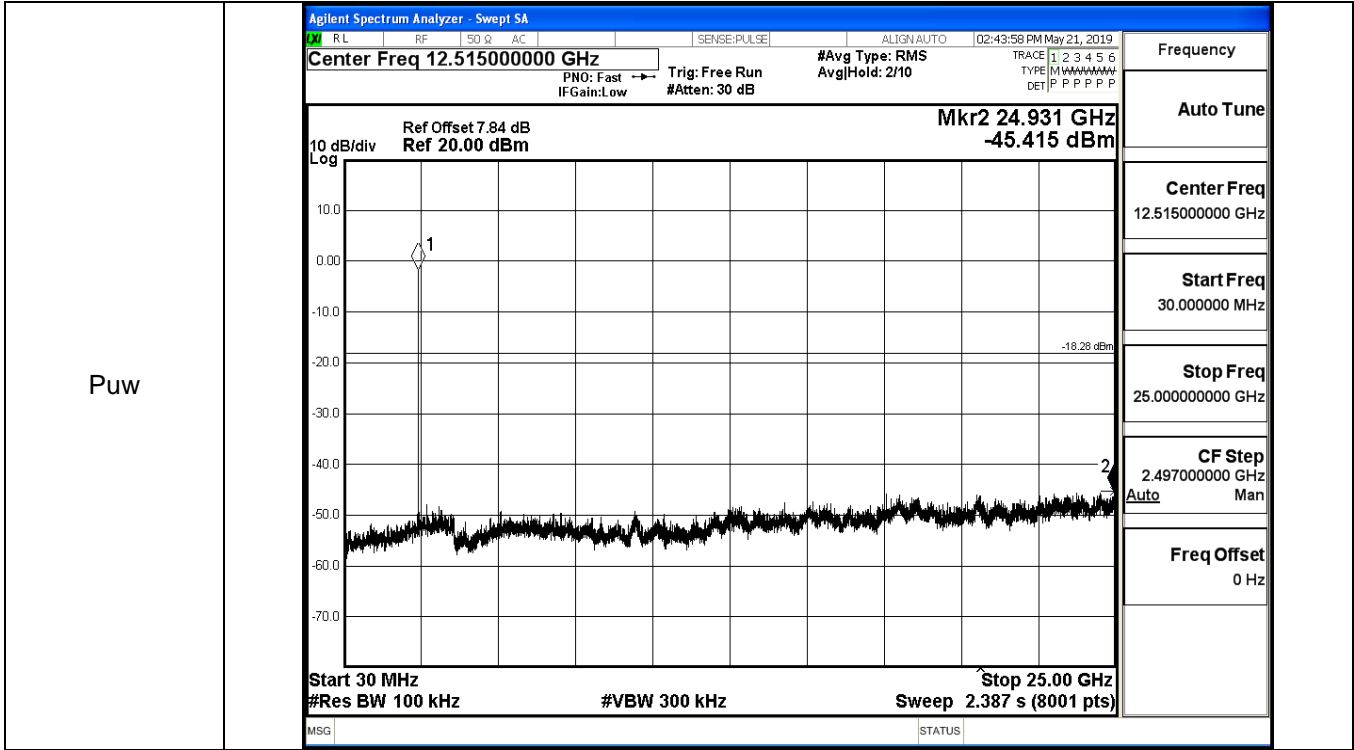
π/4DQPSK HCH Graphs

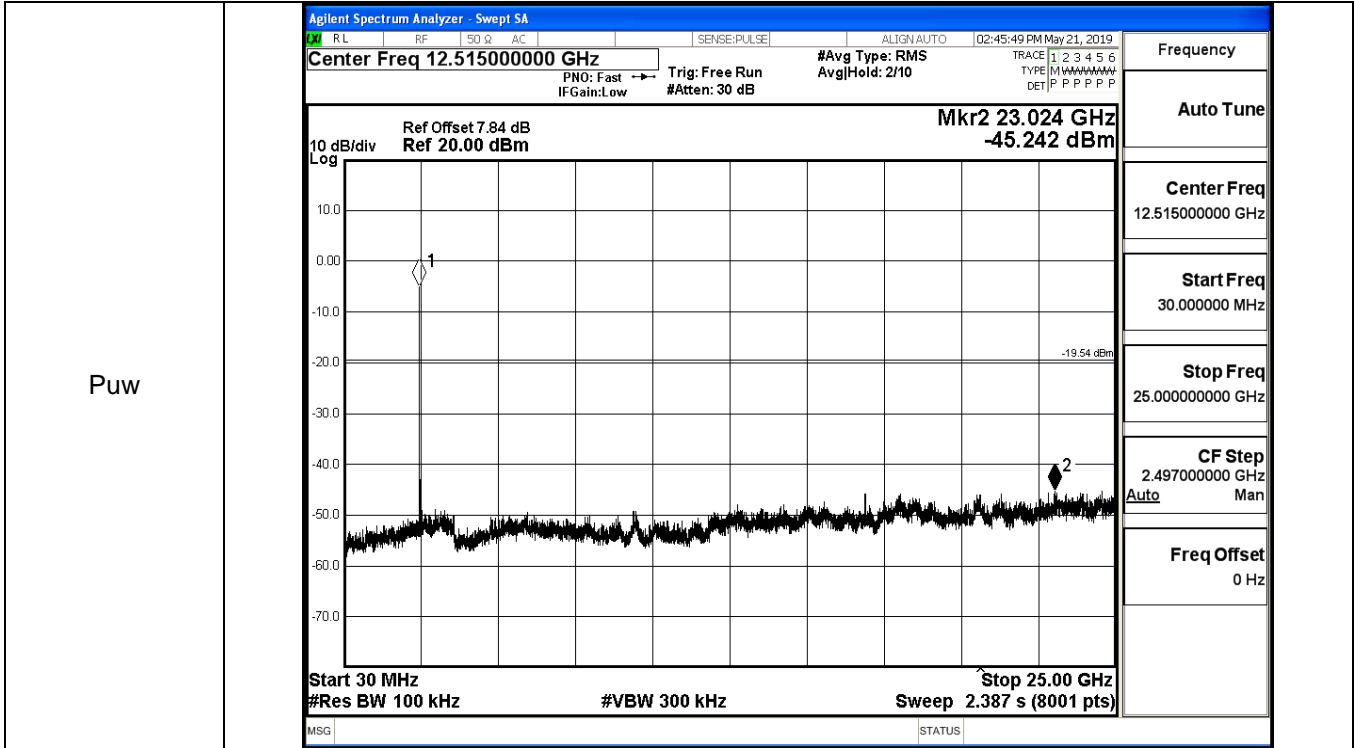


Pref







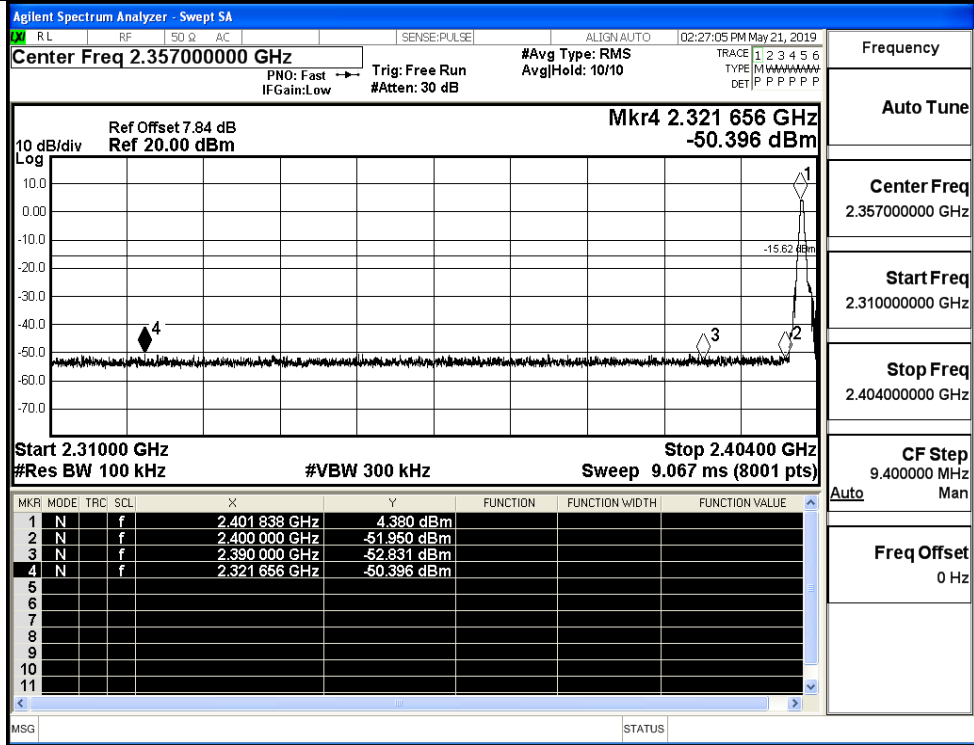


B.7 Band-edge for RF Conducted Emissions

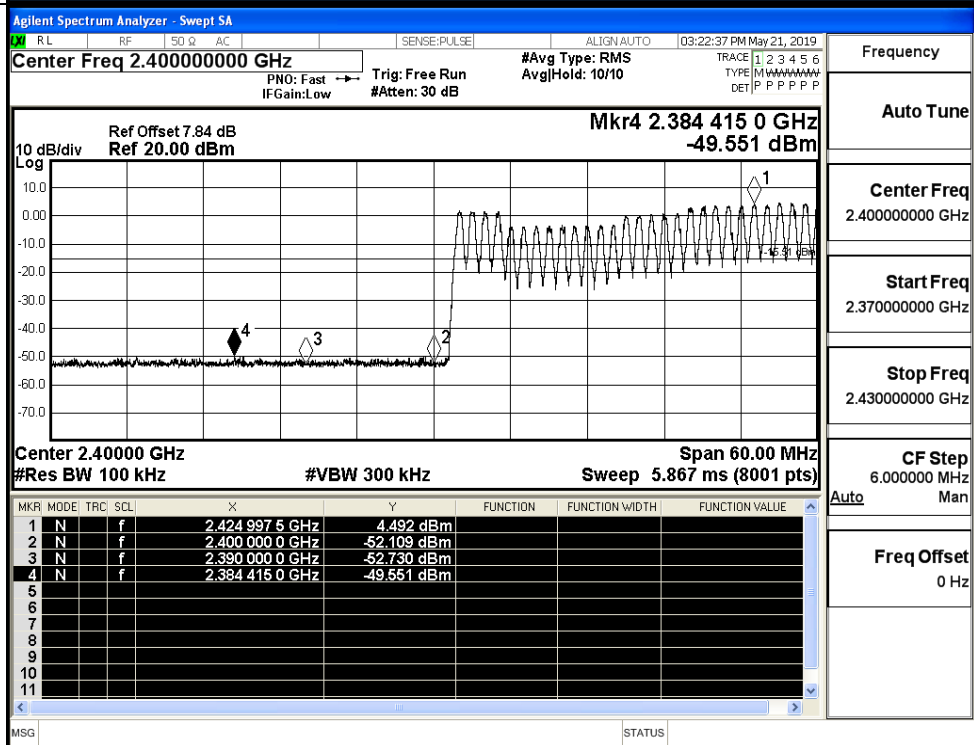
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	4.380	Off	-50.396	-15.62	PASS
			4.492	On	-49.551	-15.51	PASS
	HCH	2480	2.263	Off	-49.883	-17.74	PASS
			3.721	On	-49.587	-16.28	PASS
$\pi/4$ DQPSK	LCH	2402	0.805	Off	-49.806	-19.2	PASS
			4.139	On	-48.961	-15.86	PASS
	HCH	2480	-0.016	Off	-48.776	-20.02	PASS
			2.886	On	-49.463	-17.11	PASS
8DPSK	LCH	2402	1.531	Off	-50.227	-18.47	PASS
			3.447	On	-49.301	-16.55	PASS
	HCH	2480	0.465	Off	-50.235	-19.54	PASS
			3.550	On	-48.591	-16.45	PASS

Test Graphs

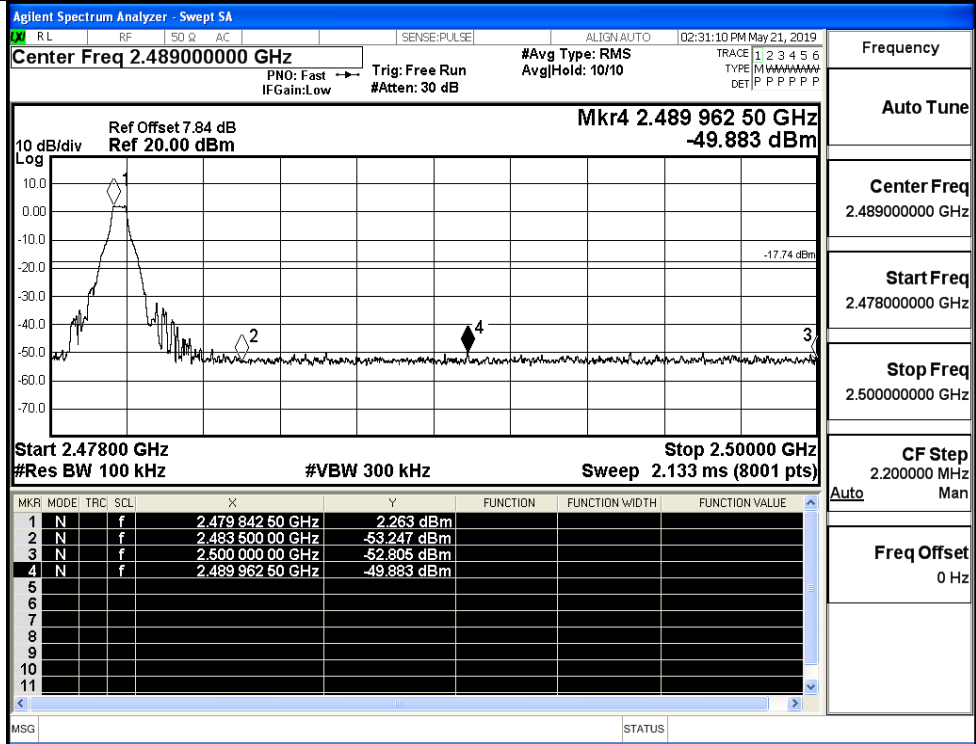
GFSK/LCH/No Hop



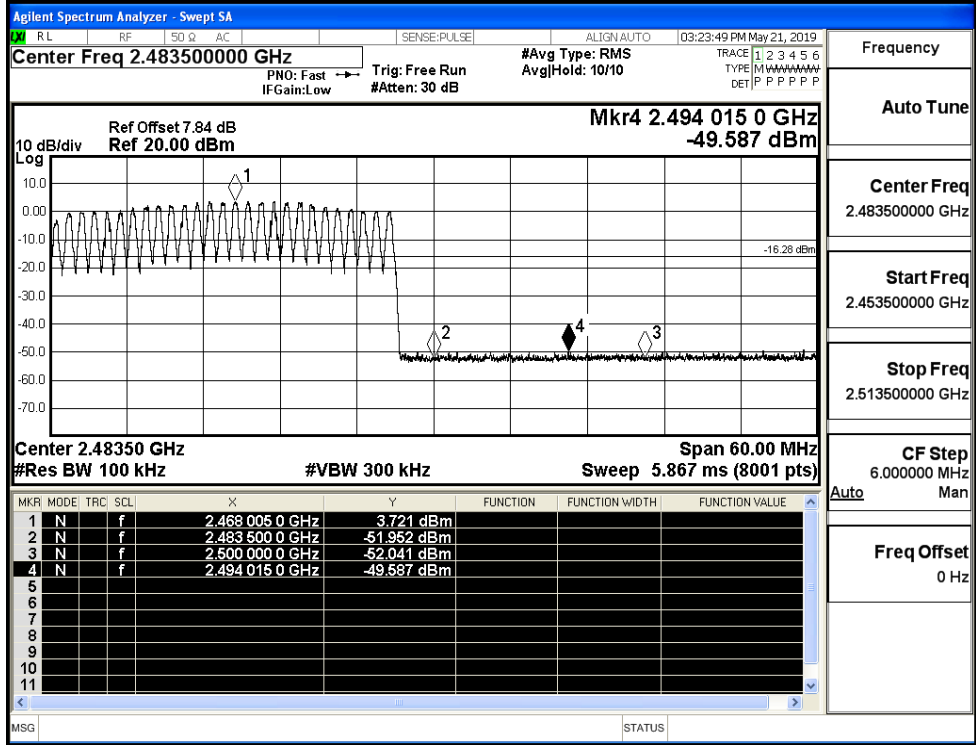
GFSK/LCH/Hop



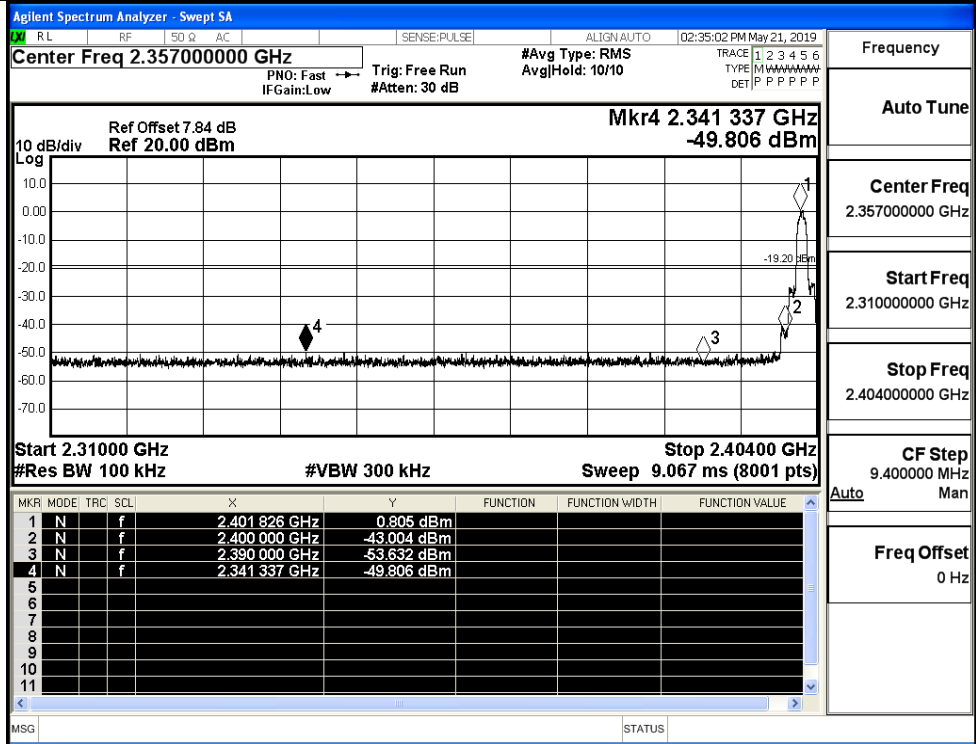
GFSK/HCH/No Hop



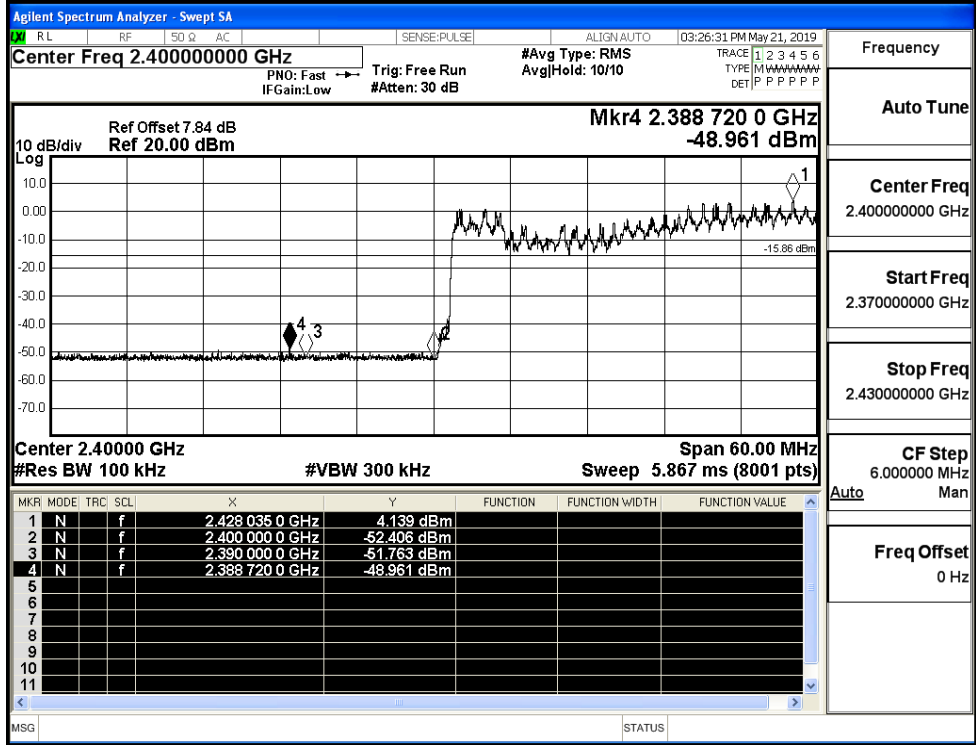
GFSK/HCH/Hop



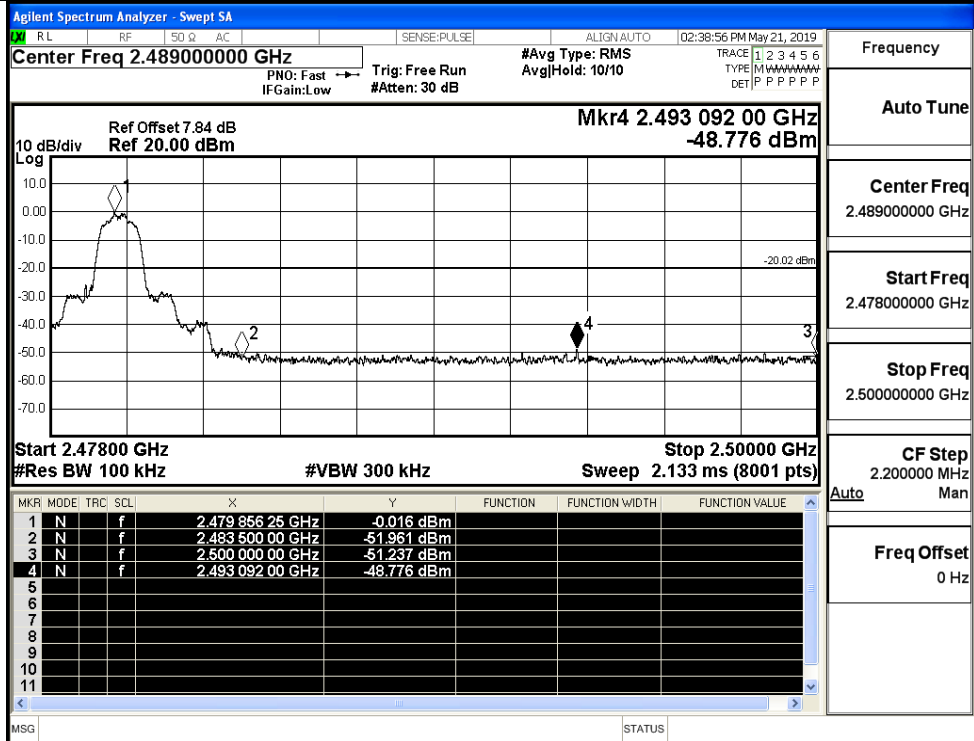
$\pi/4$ DQPSK/LCH/No
Hop



$\pi/4$ DQPSK/LCH/Hop



π /4DQPSK/HCH/No
Hop



Frequency

Auto Tune

Center Freq
2.489000000 GHz

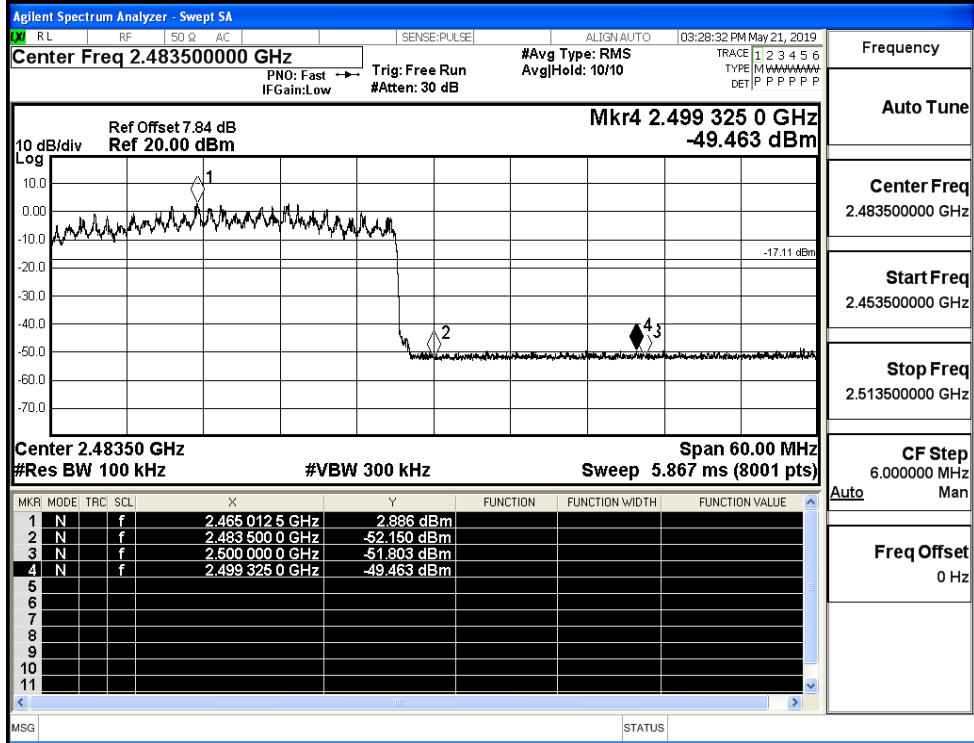
Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

CF Step
2.200000 MHz

Freq Offset
0 Hz

π /4DQPSK/HCH/Hop



Frequency

Auto Tune

Center Freq
2.483500000 GHz

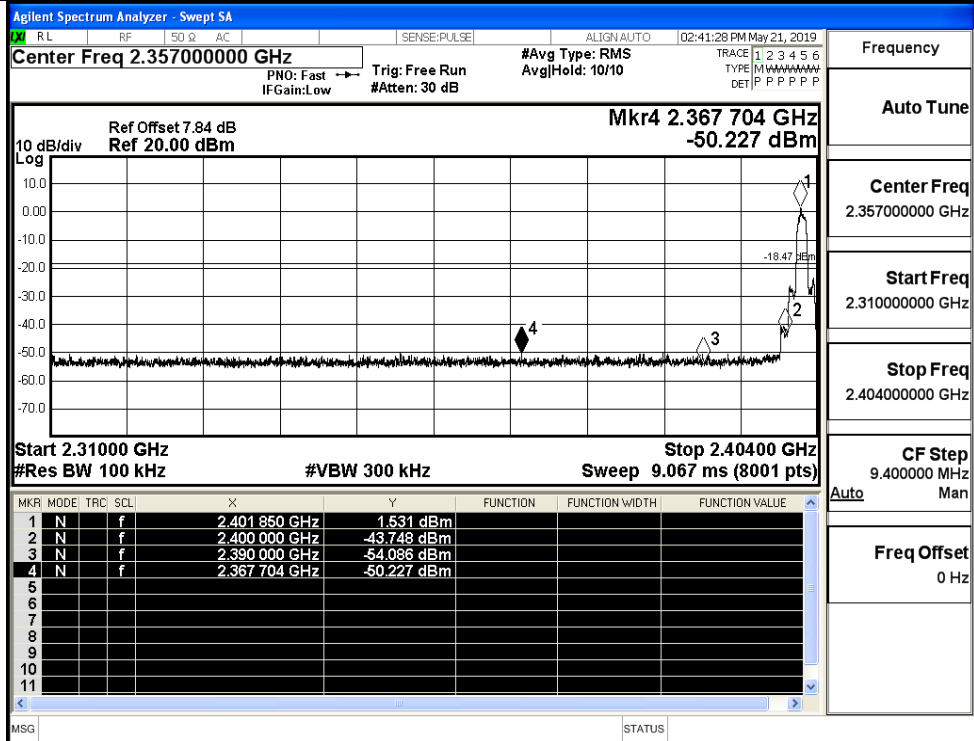
Start Freq
2.453500000 GHz

Stop Freq
2.513500000 GHz

CF Step
6.000000 MHz

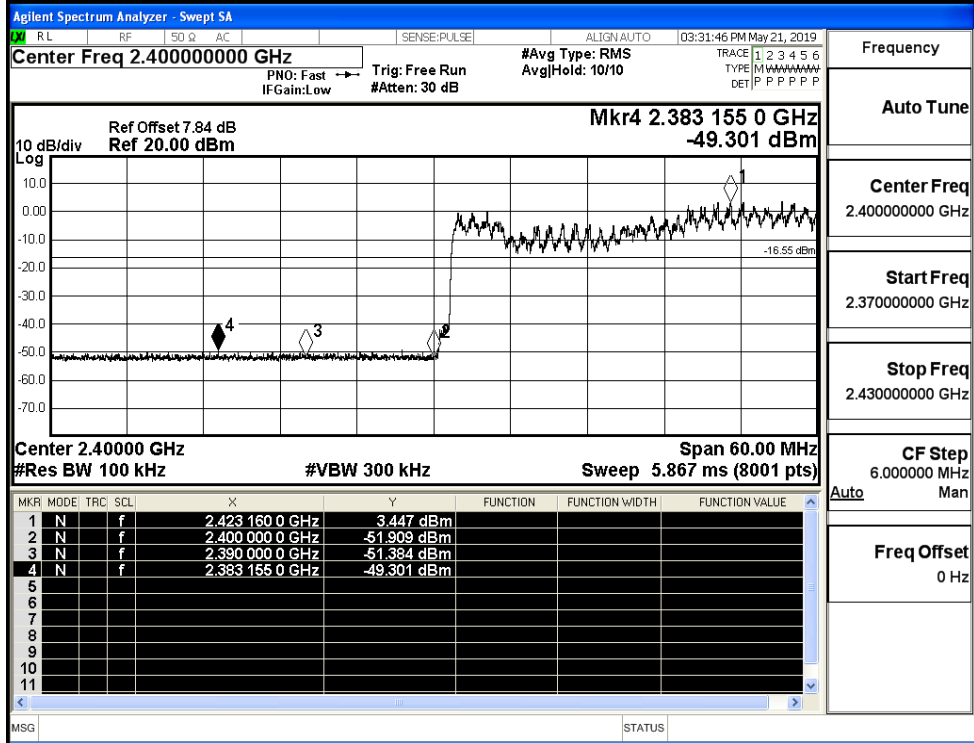
Freq Offset
0 Hz

8DPSK/LCH/No Hop



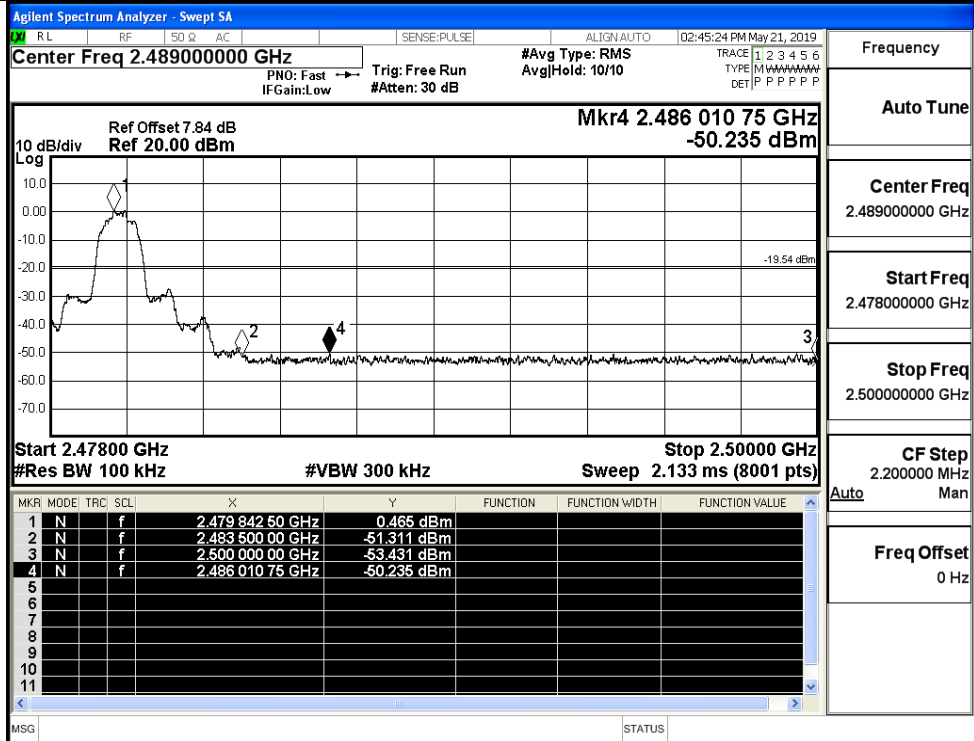
Frequency
Auto Tune
Center Freq
2.357000000 GHz
Start Freq
2.310000000 GHz
Stop Freq
2.404000000 GHz
CF Step
9.400000 MHz
Auto Man
Freq Offset
0 Hz

8DPSK/LCH/Hop



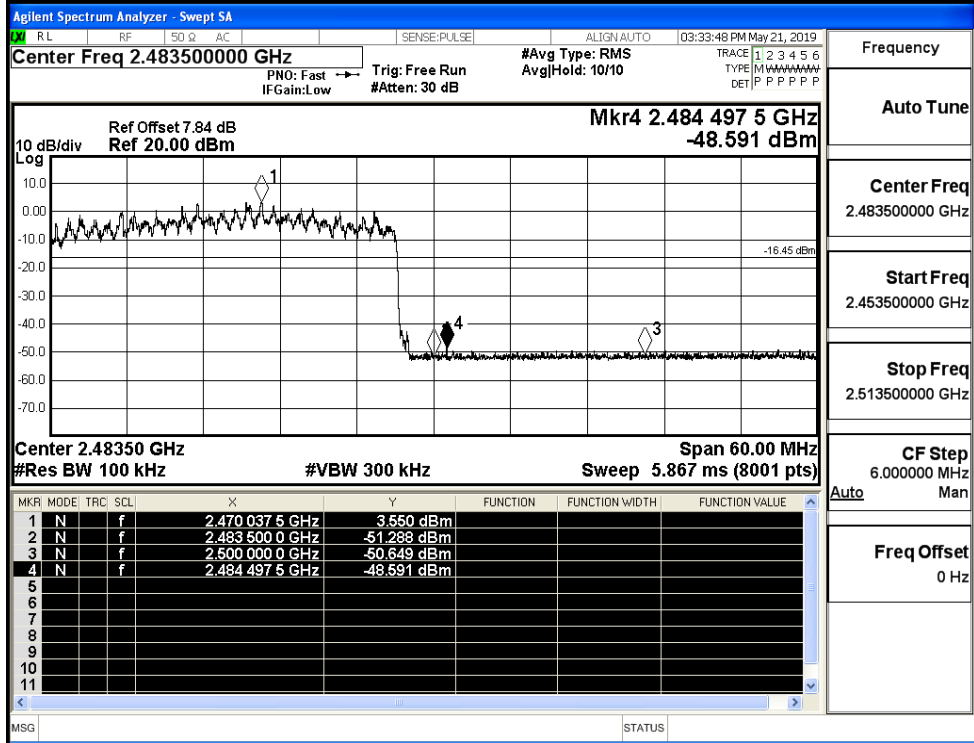
Frequency
Auto Tune
Center Freq
2.400000000 GHz
Start Freq
2.370000000 GHz
Stop Freq
2.430000000 GHz
CF Step
6.000000 MHz
Auto Man
Freq Offset
0 Hz

8DPSK/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

8DPSK/HCH/Hop

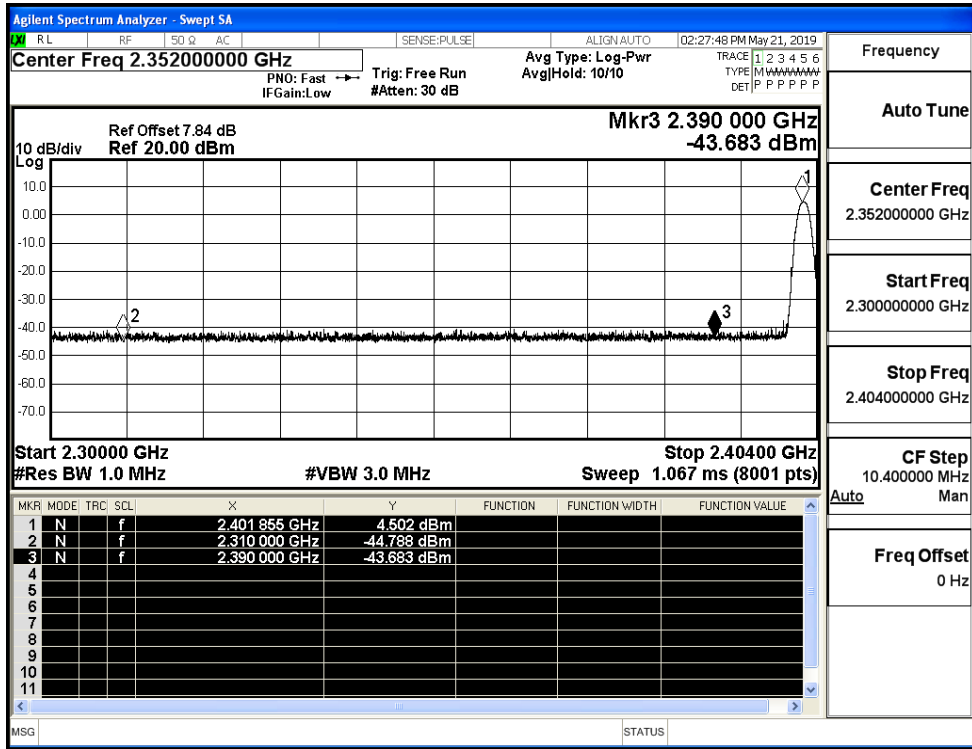


Frequency
Auto Tune
Center Freq 2.483500000 GHz
Start Freq 2.453500000 GHz
Stop Freq 2.513500000 GHz
CF Step 6.000000 MHz
Auto Man
Freq Offset 0 Hz

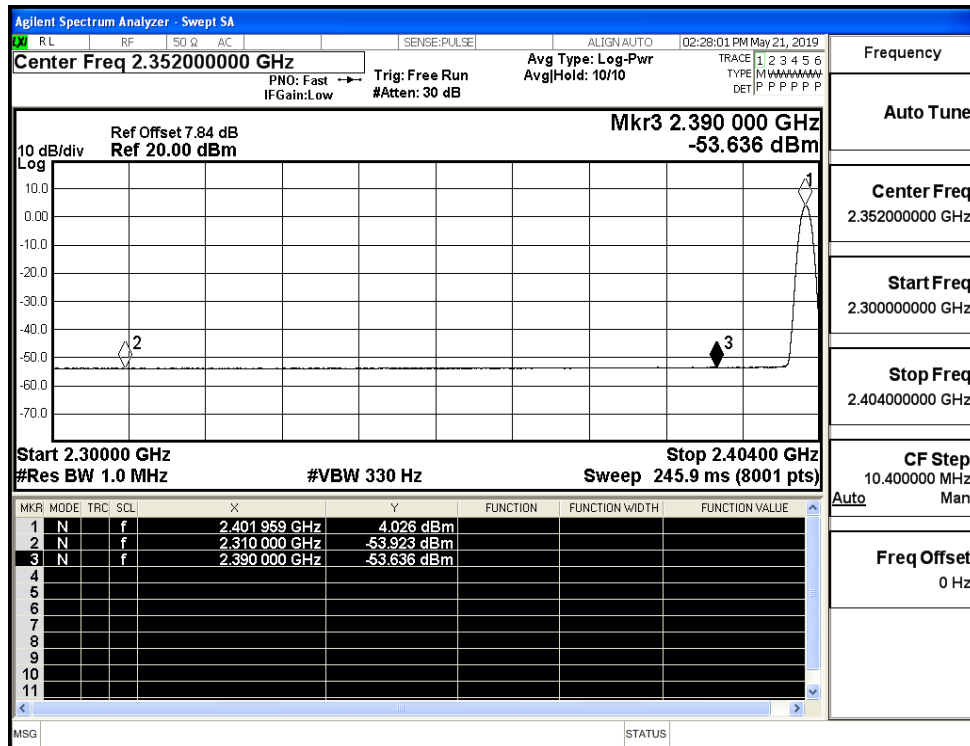
B.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.79	3.3	0	53.71	PEAK	74	PASS
	Off	2310.0	-53.92	3.3	0	44.58	AV	54	PASS
	Off	2390.0	-43.68	3.3	0	54.82	PEAK	74	PASS
	Off	2390.0	-53.64	3.3	0	44.86	AV	54	PASS
	Off	2483.5	-42.82	3.3	0	55.68	PEAK	74	PASS
	Off	2483.5	-53.28	3.3	0	45.22	AV	54	PASS
	Off	2500.0	-43.74	3.3	0	54.76	PEAK	74	PASS
	Off	2500.0	-53.14	3.3	0	45.36	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.97	3.3	0	54.53	PEAK	74	PASS
	Off	2310.0	-53.81	3.3	0	44.69	AV	54	PASS
	Off	2390.0	-43.31	3.3	0	55.19	PEAK	74	PASS
	Off	2390.0	-53.42	3.3	0	45.08	AV	54	PASS
	Off	2483.5	-37.70	3.3	0	60.80	PEAK	74	PASS
	Off	2483.5	-52.06	3.3	0	46.44	AV	54	PASS
	Off	2500.0	-43.24	3.3	0	55.26	PEAK	74	PASS
	Off	2500.0	-53.21	3.3	0	45.29	AV	54	PASS
8DPSK	Off	2310.0	-43.49	3.3	0	55.01	PEAK	74	PASS
	Off	2310.0	-53.71	3.3	0	44.79	AV	54	PASS
	Off	2390.0	-42.00	3.3	0	56.50	PEAK	74	PASS
	Off	2390.0	-53.60	3.3	0	44.90	AV	54	PASS
	Off	2483.5	-38.51	3.3	0	59.99	PEAK	74	PASS
	Off	2483.5	-51.97	3.3	0	46.53	AV	54	PASS
	Off	2500.0	-42.48	3.3	0	56.02	PEAK	74	PASS
	Off	2500.0	-53.27	3.3	0	45.23	AV	54	PASS

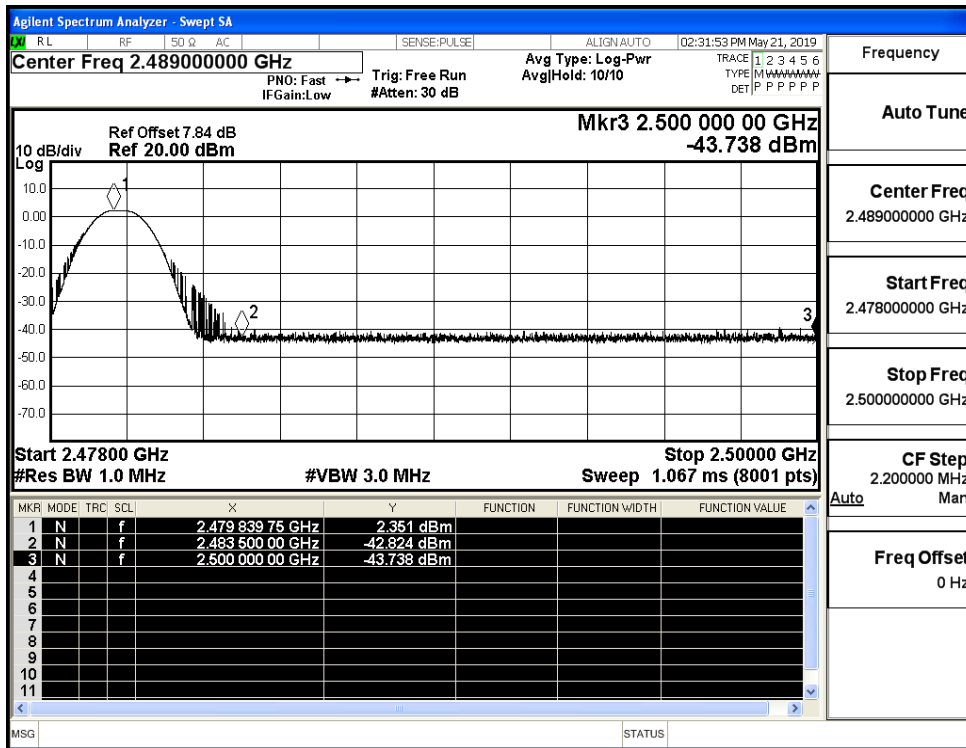
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



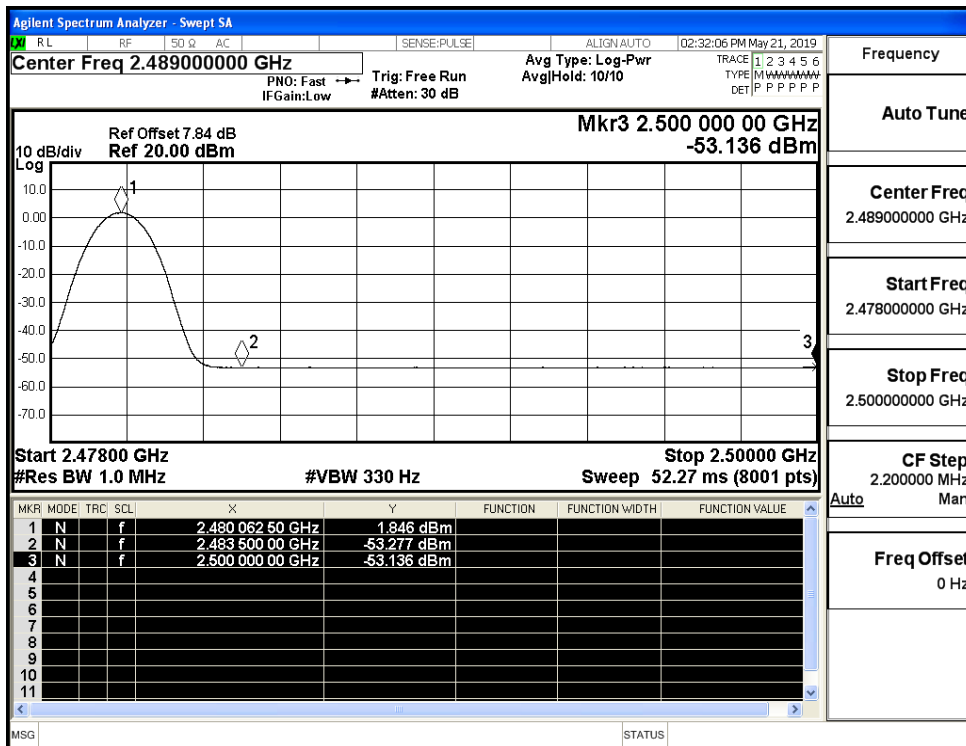
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)



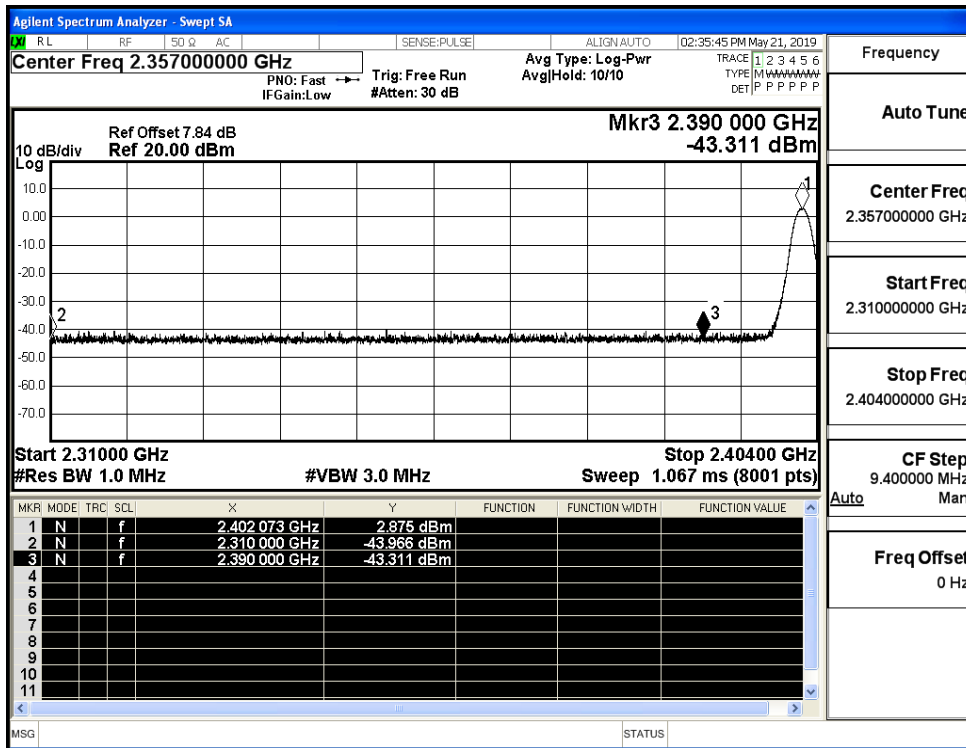
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



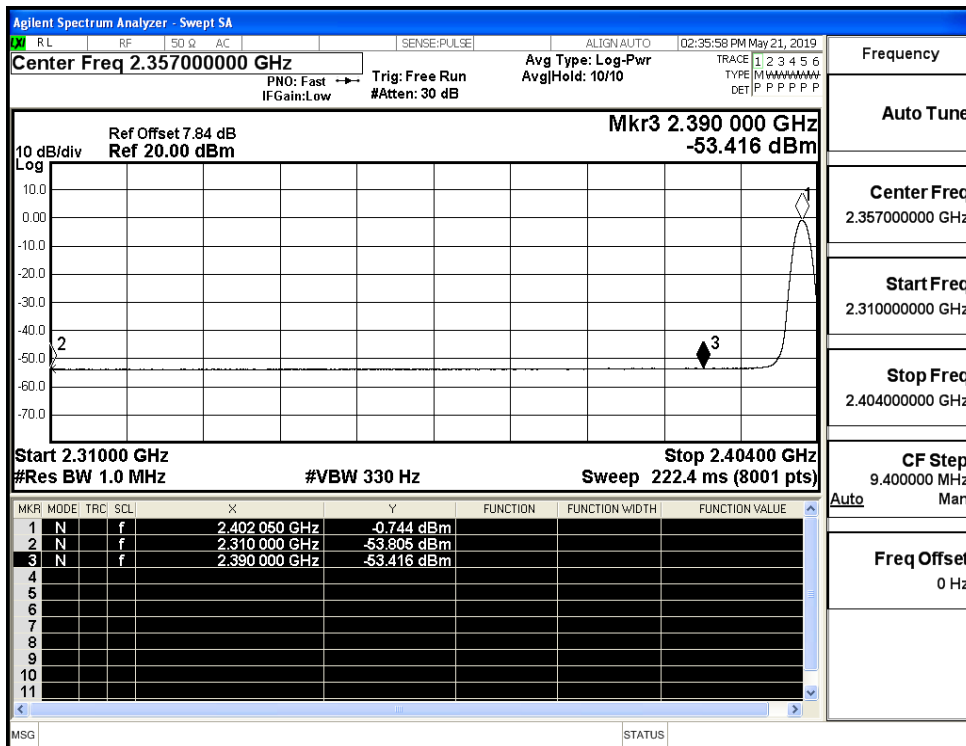
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



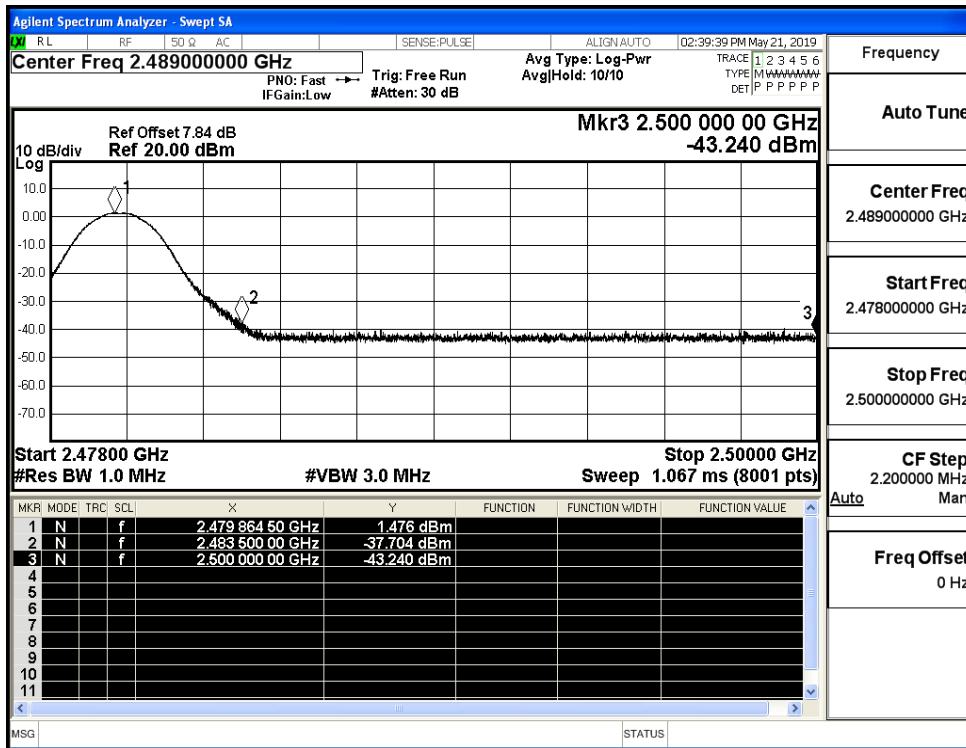
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)



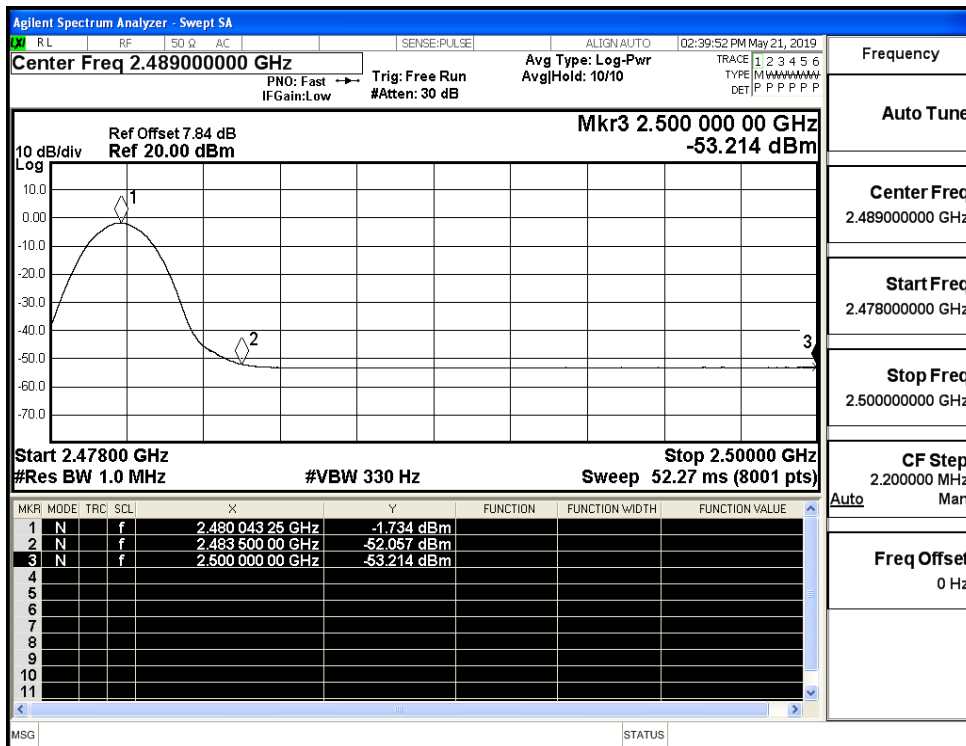
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)



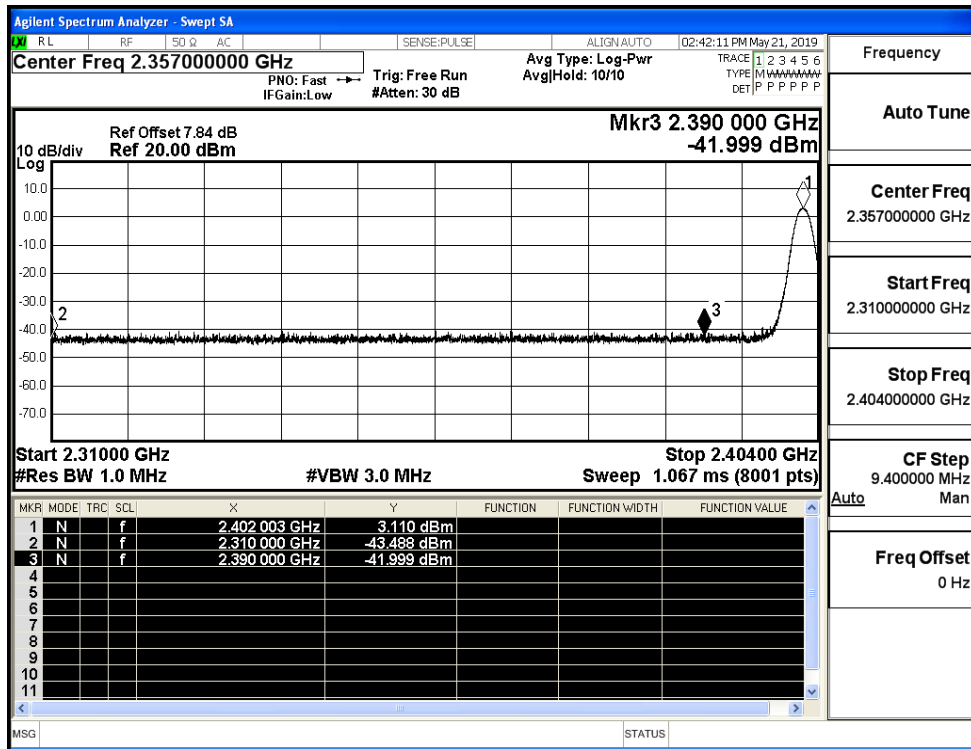
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



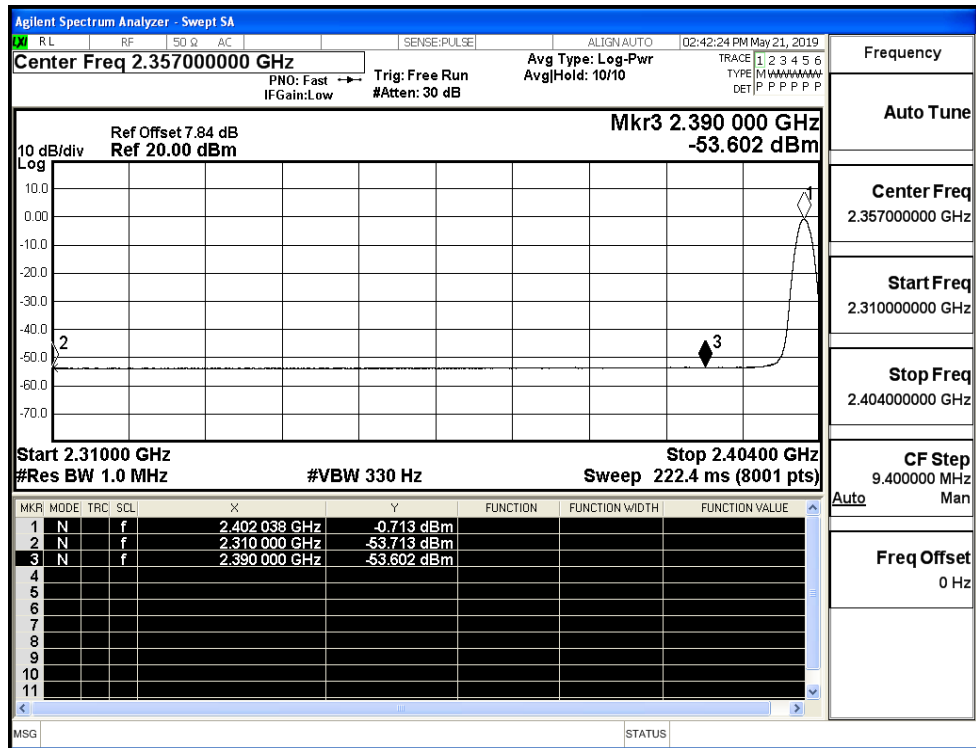
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



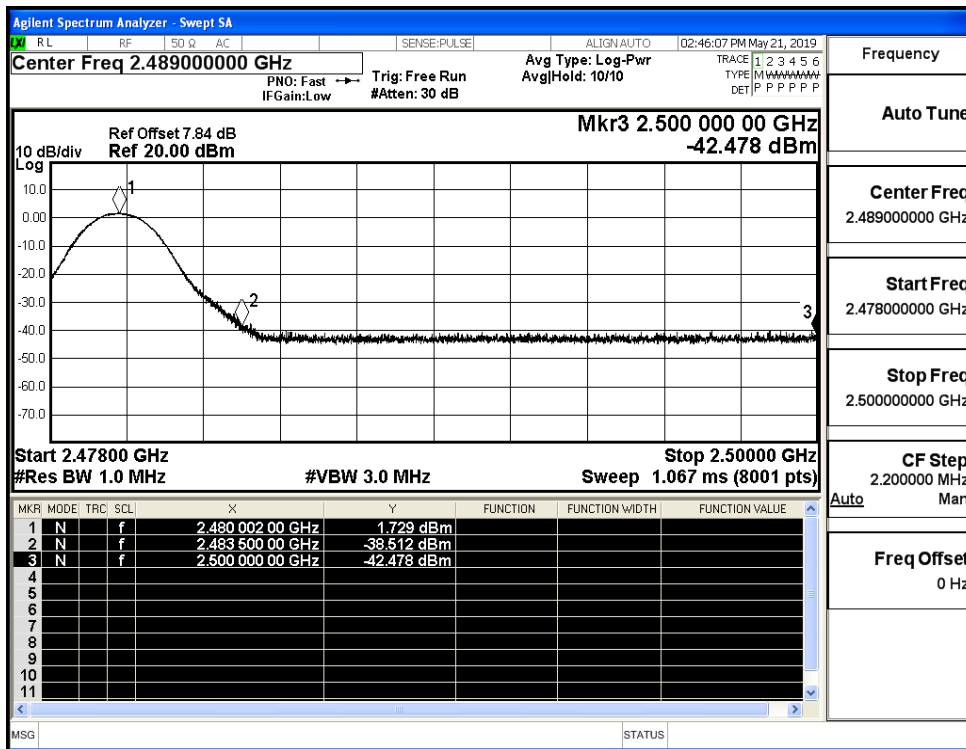
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

