

Appendix A

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

Product Name: 8-Person Instant Cabin Tent with Built-in LED Lights and Bluetooth Speaker

Trade Mark: Ozark Trail

Test Model: WMT-130972C1

Environmental Conditions

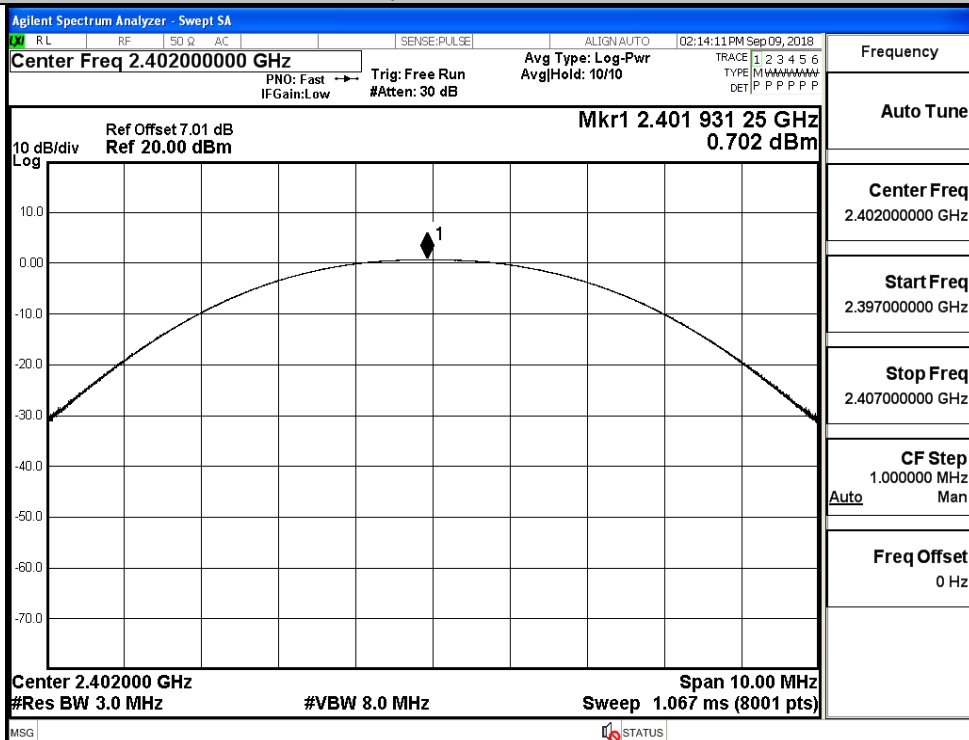
Temperature:	24.1° C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

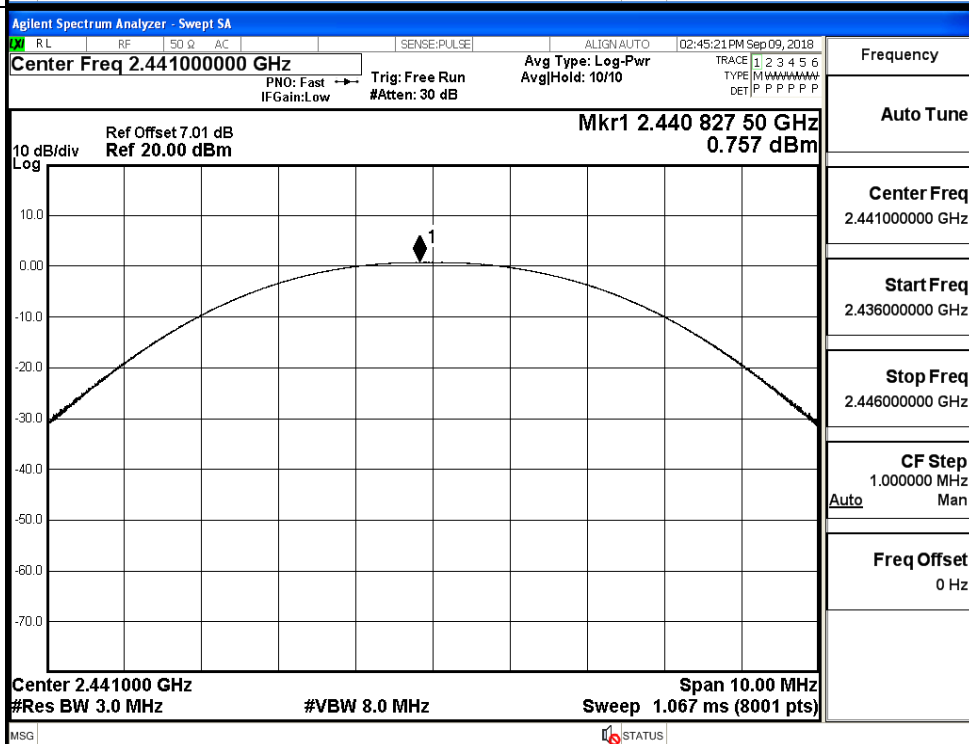
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.702	21	PASS
	MCH	0.757	21	PASS
	HCH	0.289	21	PASS
$\pi/4$ DQPSK	LCH	0.472	21	PASS
	MCH	0.550	21	PASS
	HCH	0.075	21	PASS
8DPSK	LCH	0.616	21	PASS
	MCH	0.712	21	PASS
	HCH	0.279	21	PASS

Test Graphs

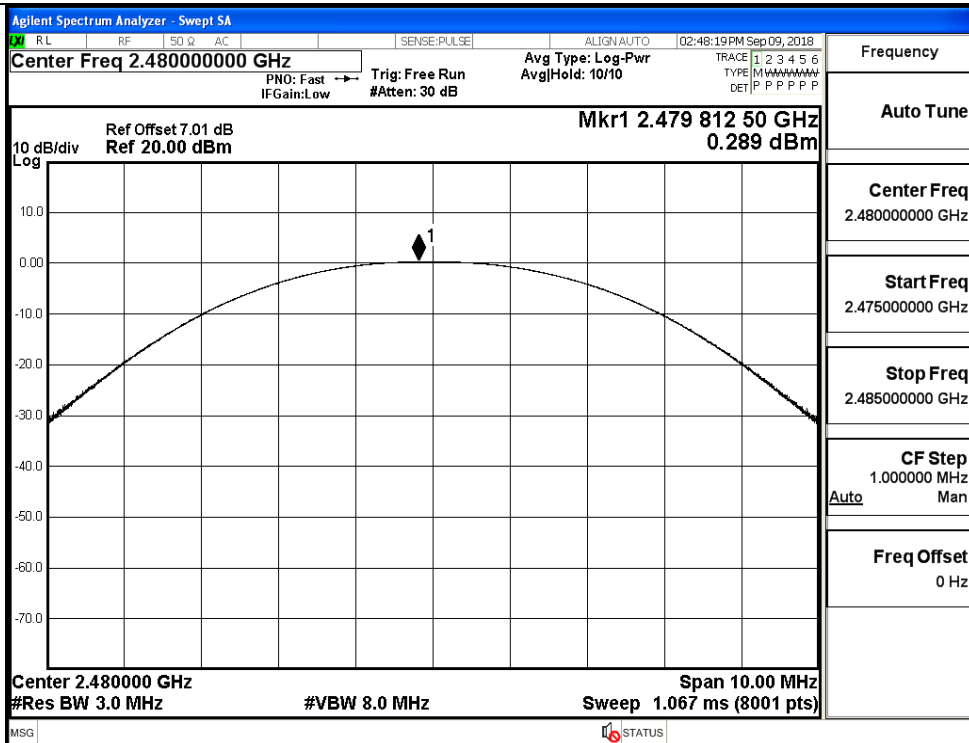
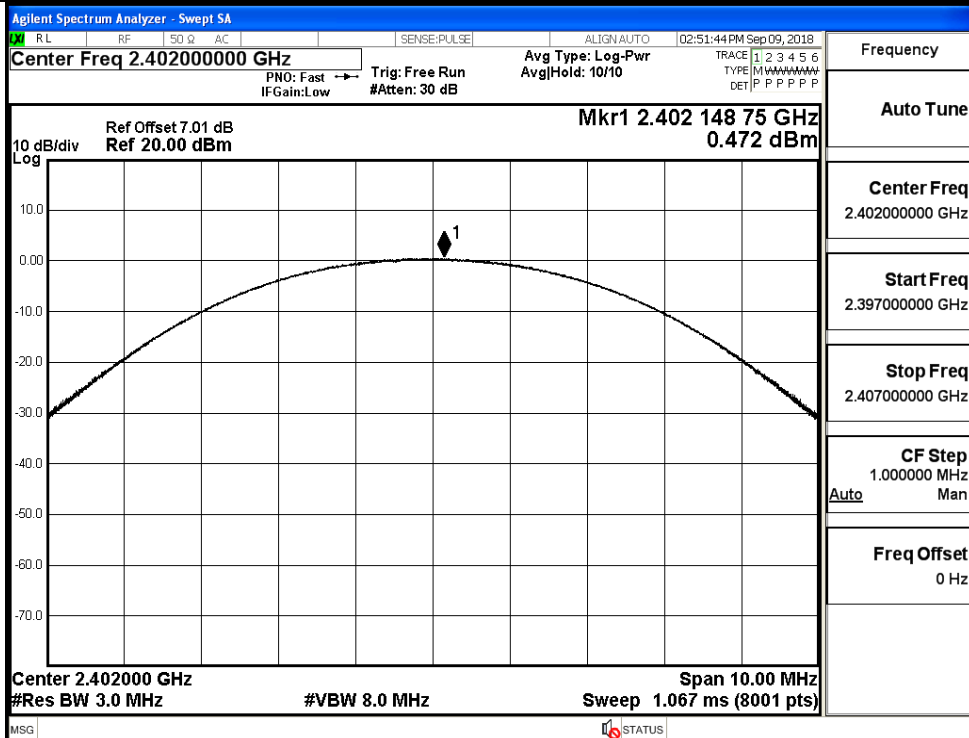
GFSK/LCH

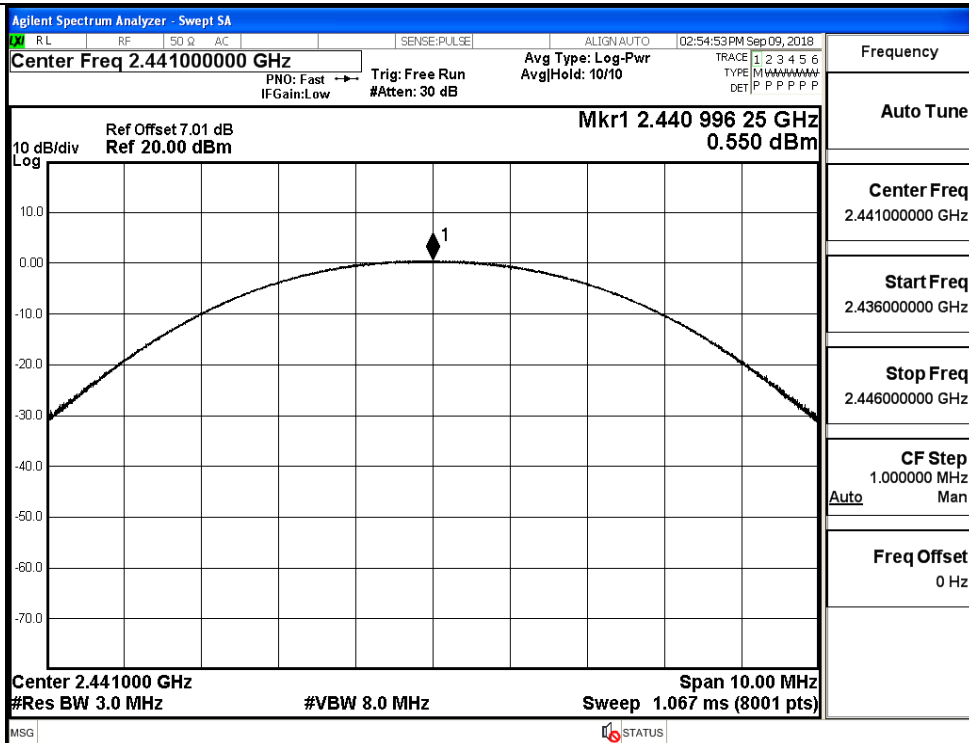
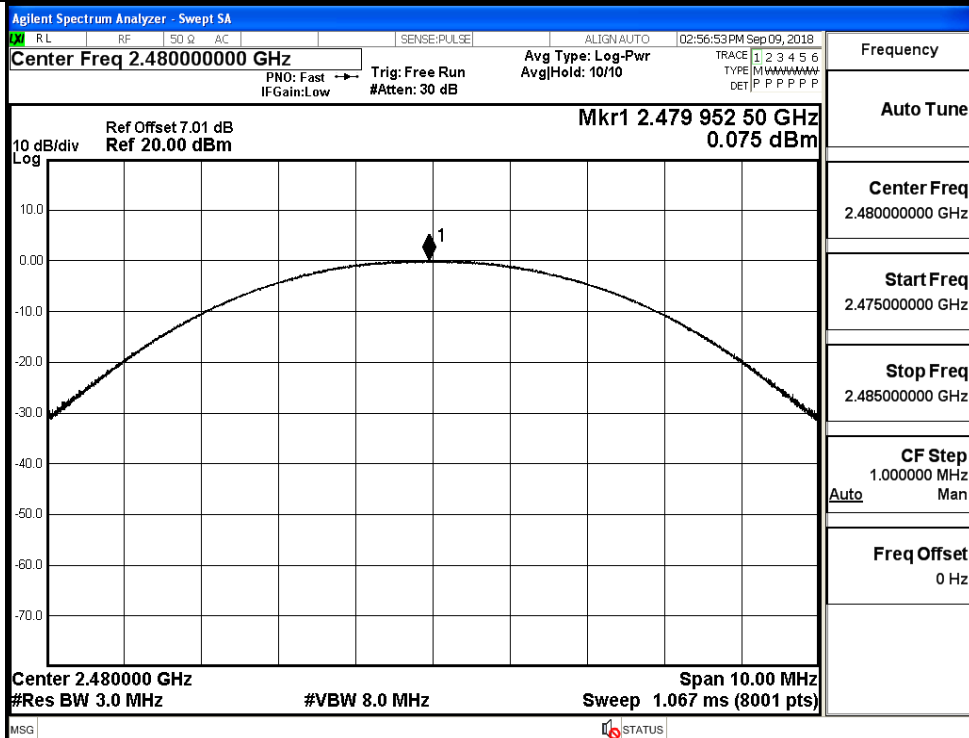


GFSK/MCH

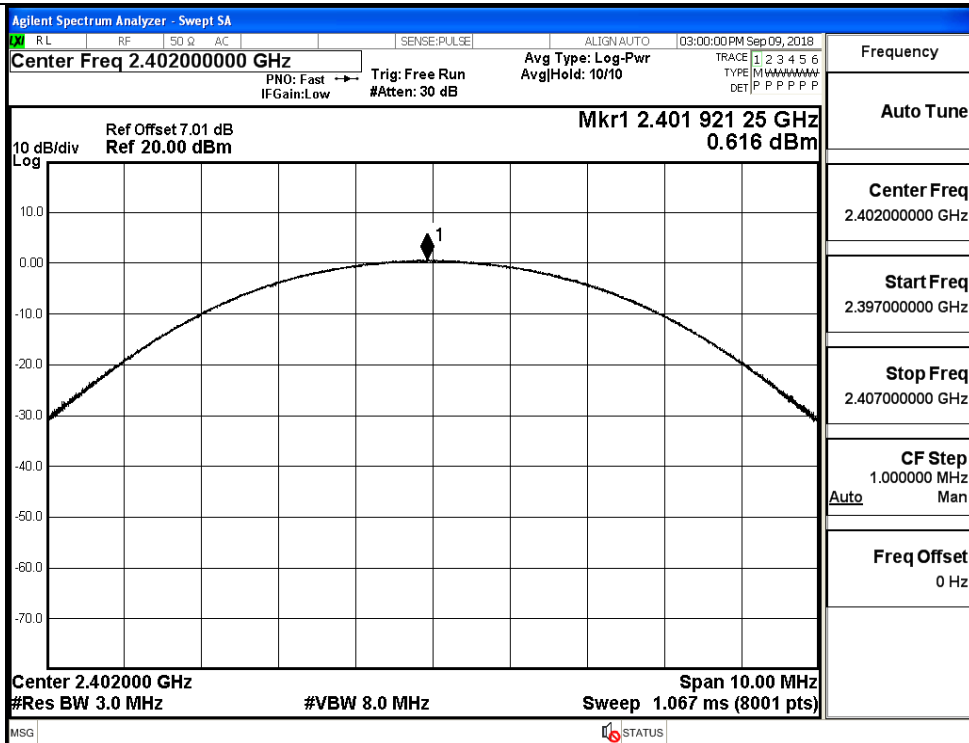


GFSK/HCH

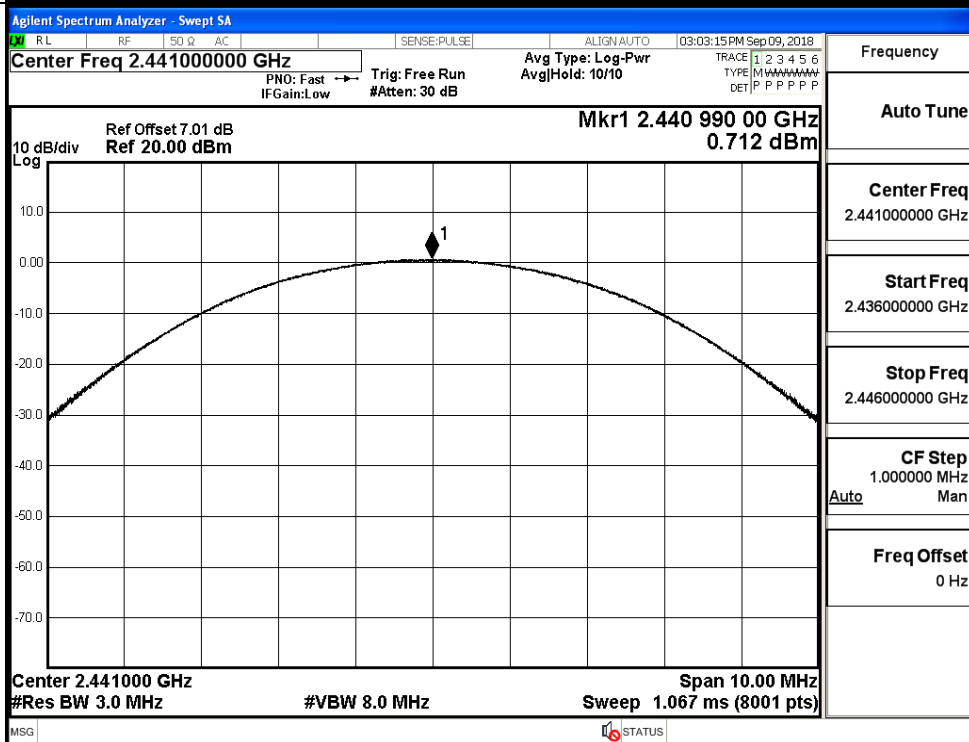
 π /4DQPSK/LCH

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

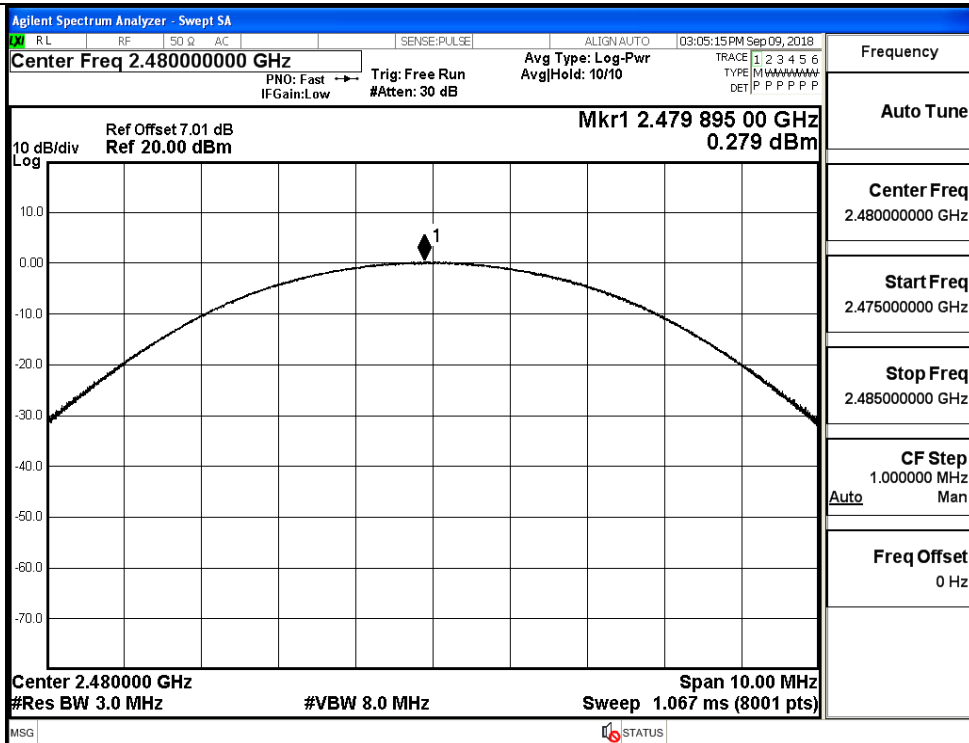
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

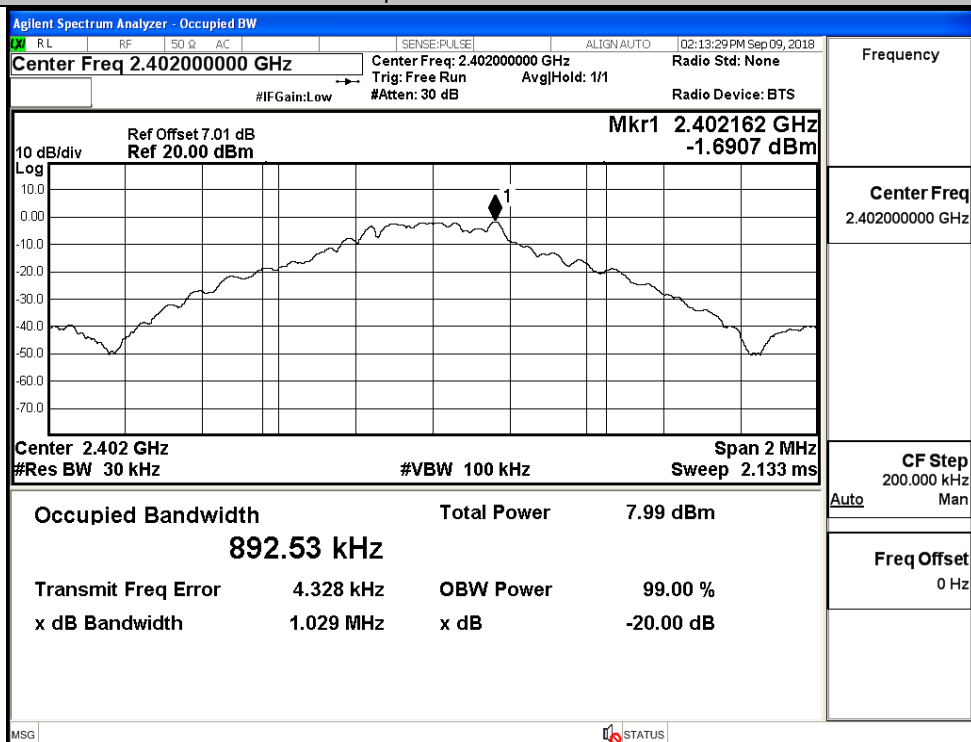


A.2 99% and 20dB Bandwidth

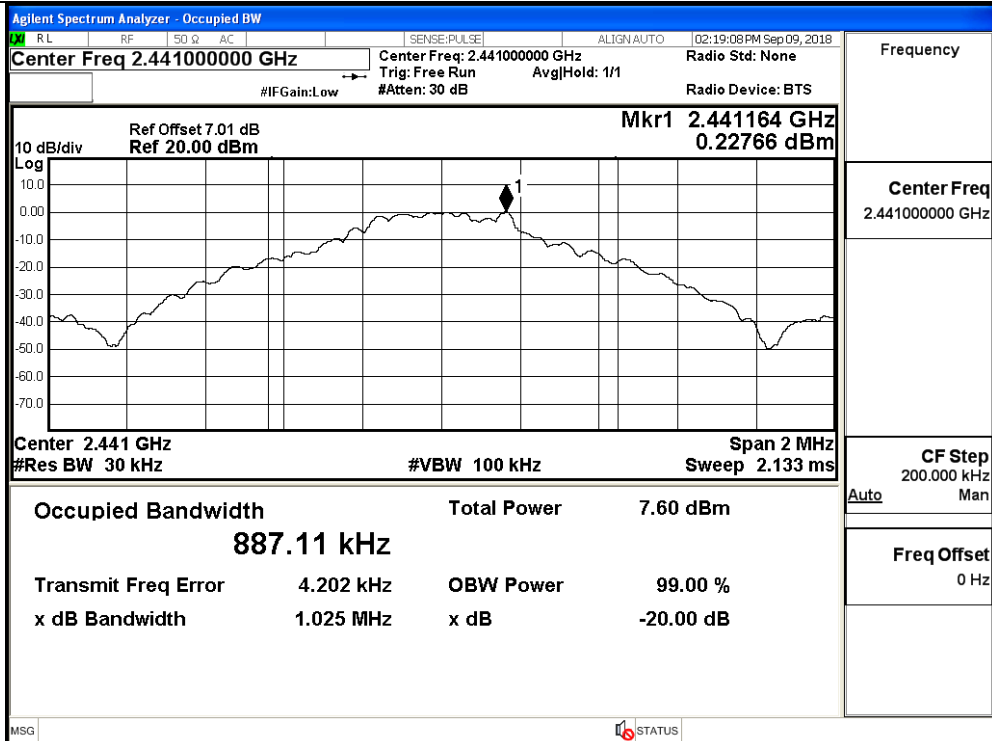
Mode	Channel.	99% Bandwidth [MHz]	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.89253	1.029	Not Specified	PASS
	MCH	0.88711	1.025	Not Specified	PASS
	HCH	0.88780	0.9689	Not Specified	PASS
π /4DQPSK	LCH	1.1687	1.291	Not Specified	PASS
	MCH	1.1666	1.286	Not Specified	PASS
	HCH	1.1665	1.286	Not Specified	PASS
8DPSK	LCH	1.1717	1.286	Not Specified	PASS
	MCH	1.1740	1.287	Not Specified	PASS
	HCH	1.1711	1.286	Not Specified	PASS

Test Graphs

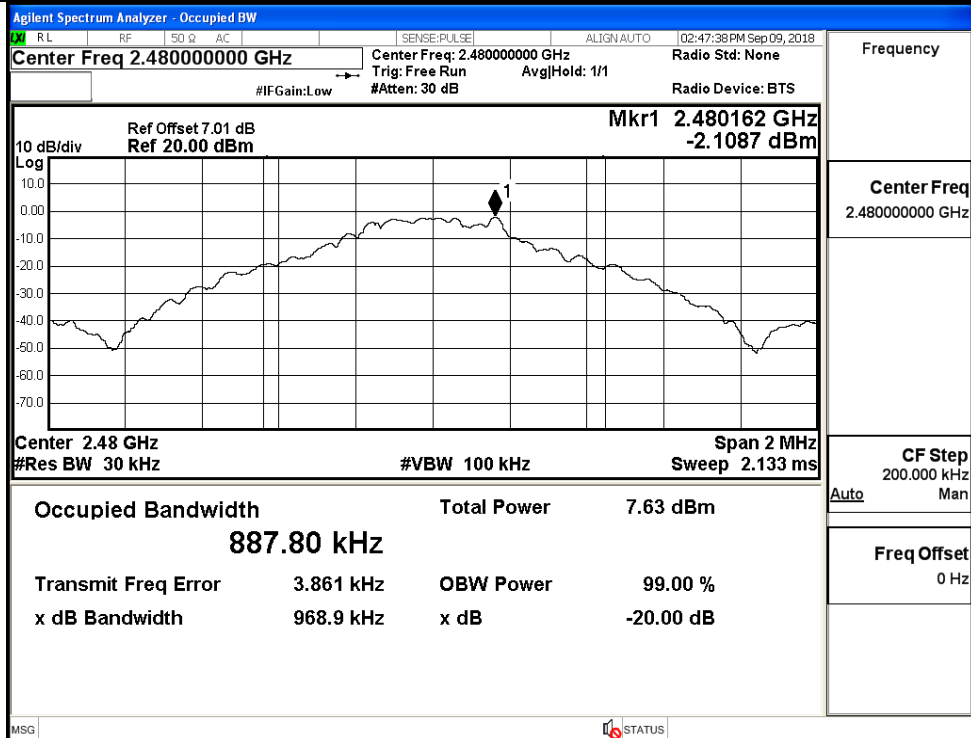
GFSK/LCH

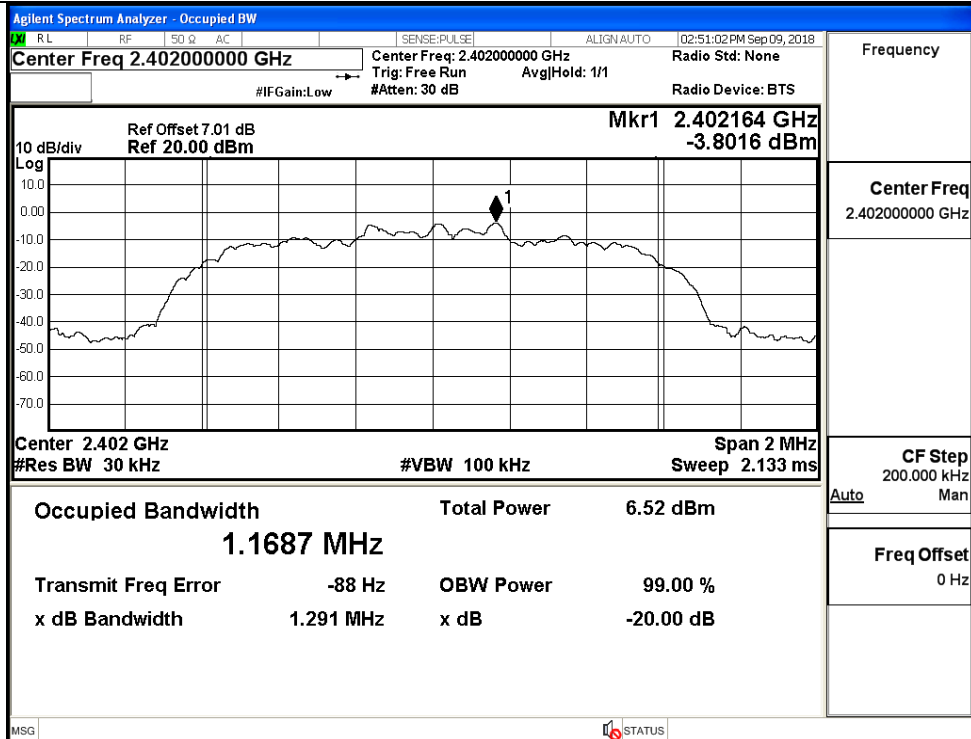
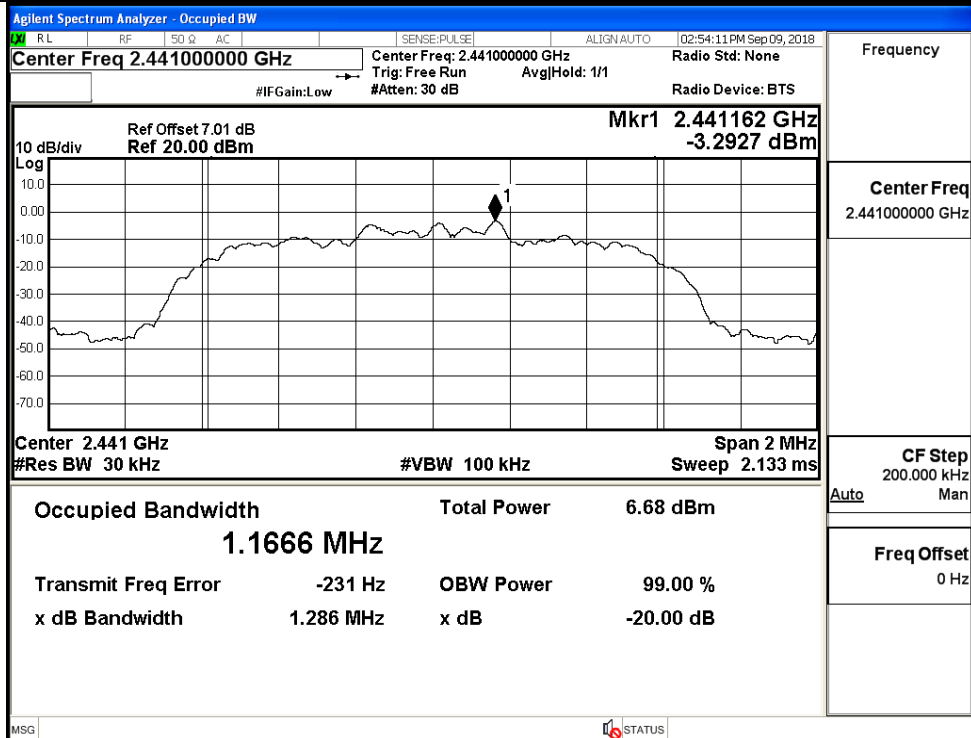


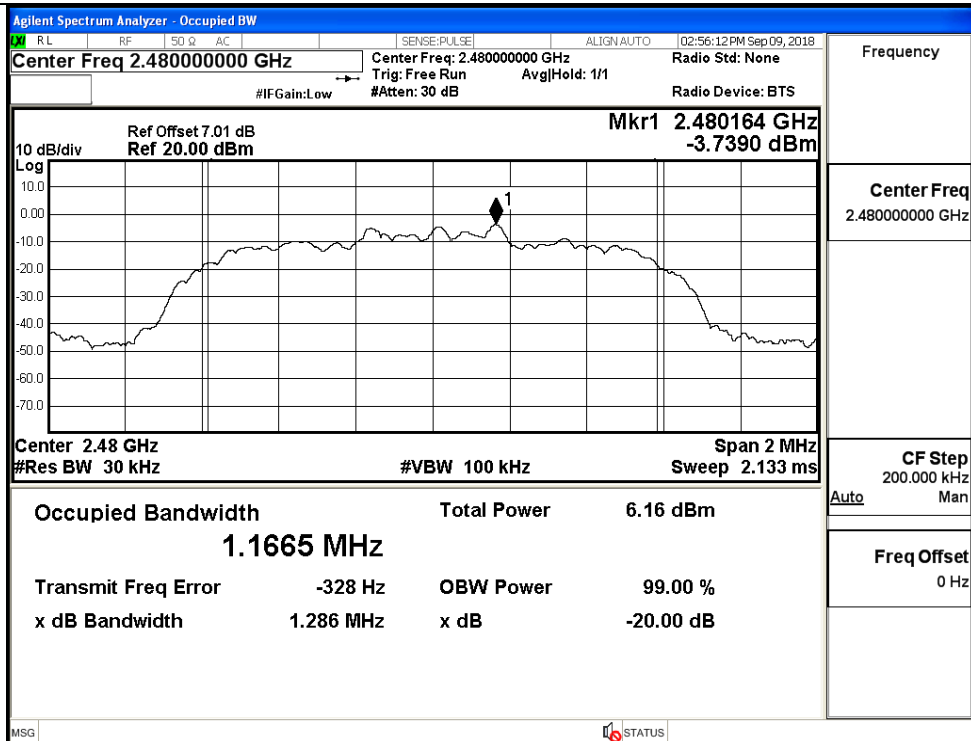
GFSK/MCH



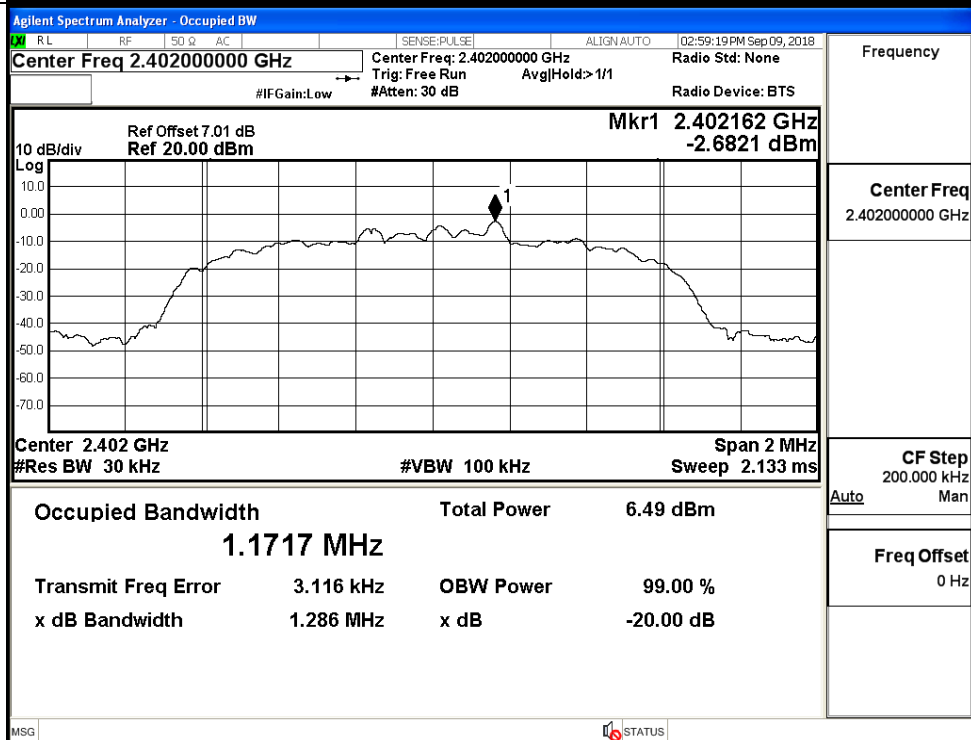
GFSK/HCH



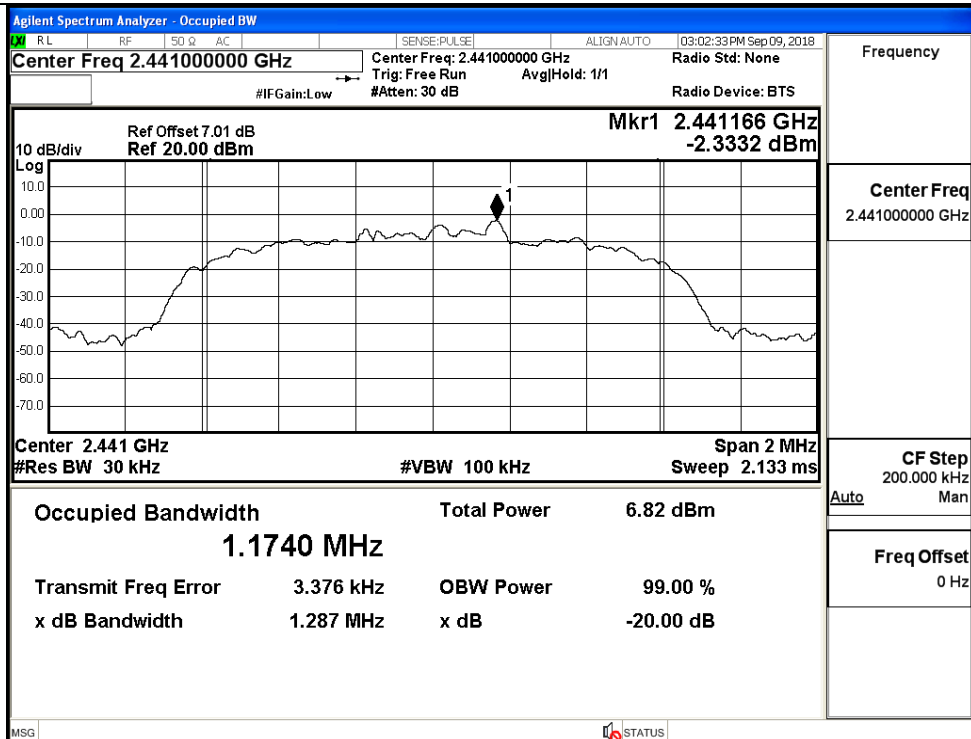
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

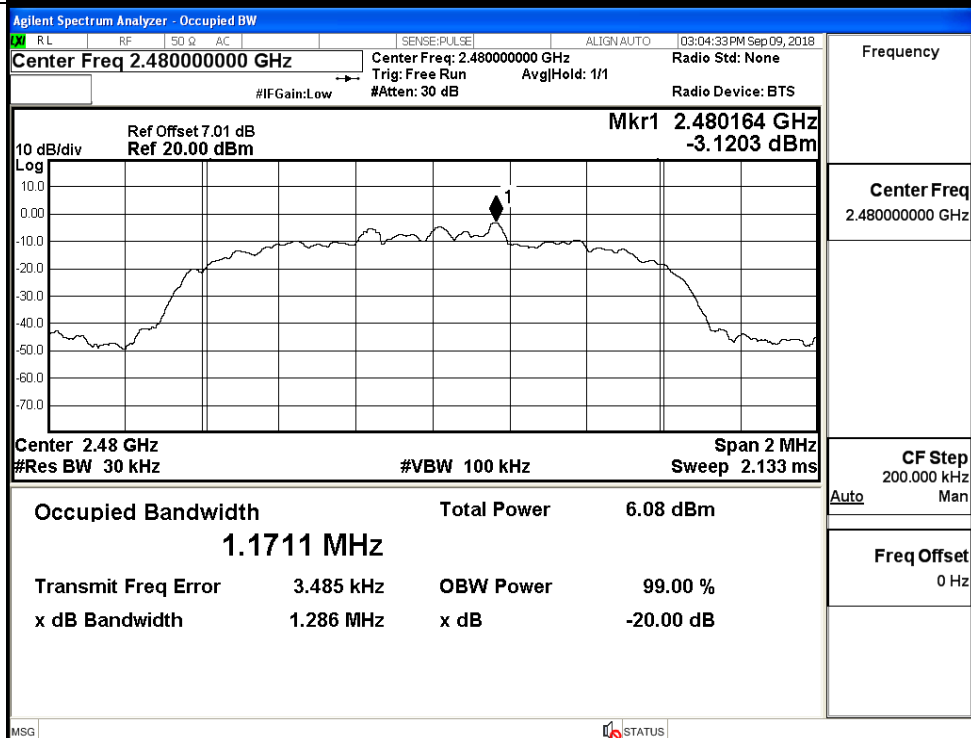
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

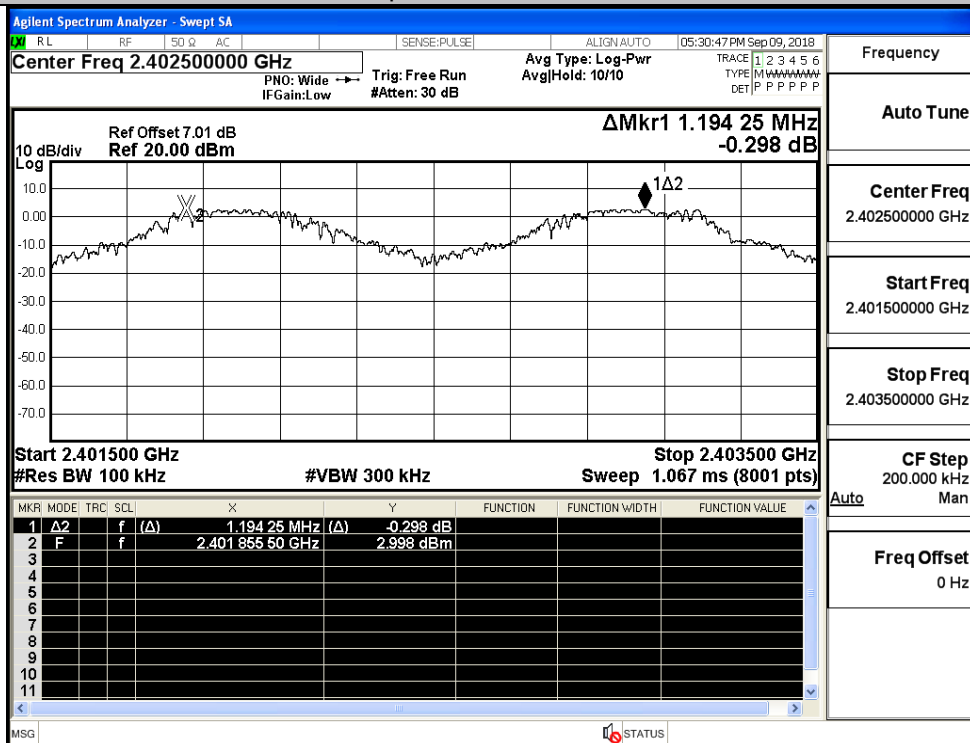


A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.194	0.686	PASS
	MCH	1.234	0.686	PASS
	HCH	1.040	0.686	PASS
$\pi/4$ DQPSK	LCH	1.042	0.861	PASS
	MCH	1.184	0.861	PASS
	HCH	1.122	0.861	PASS
8DPSK	LCH	1.344	0.858	PASS
	MCH	1.148	0.858	PASS
	HCH	1.164	0.858	PASS

Test Graphs

GFSK/LCH

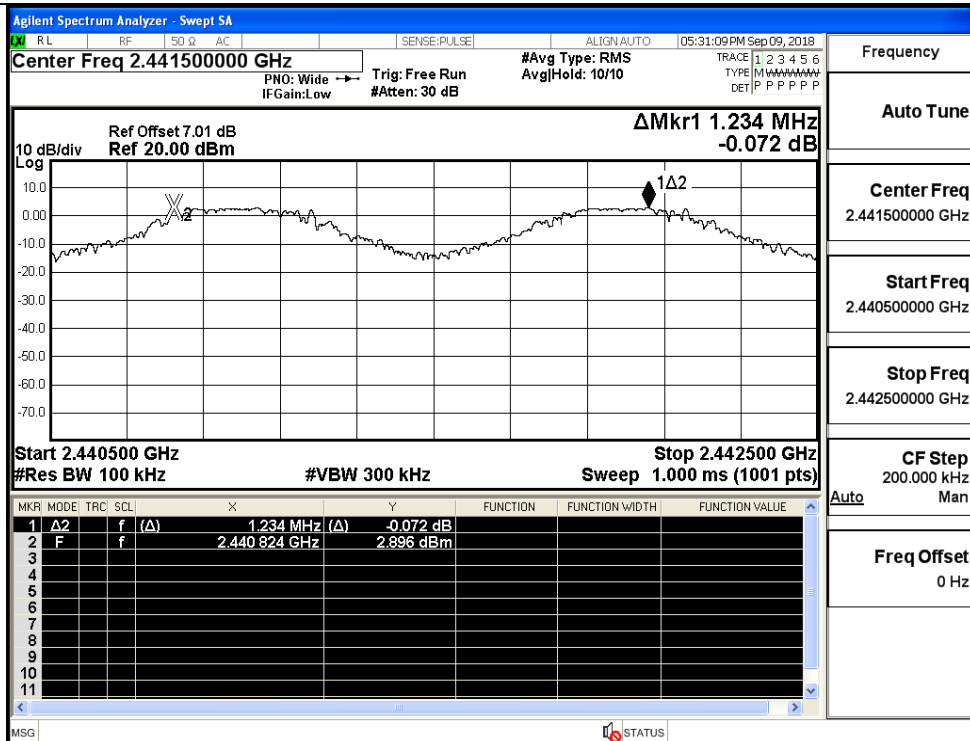


Frequency

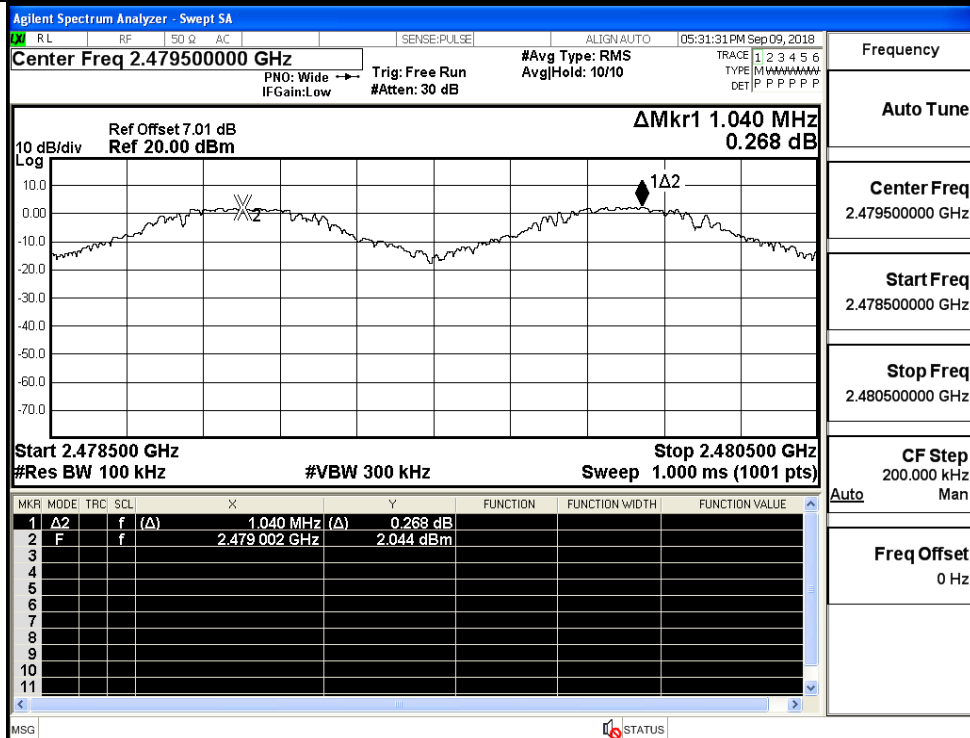
Auto Tune

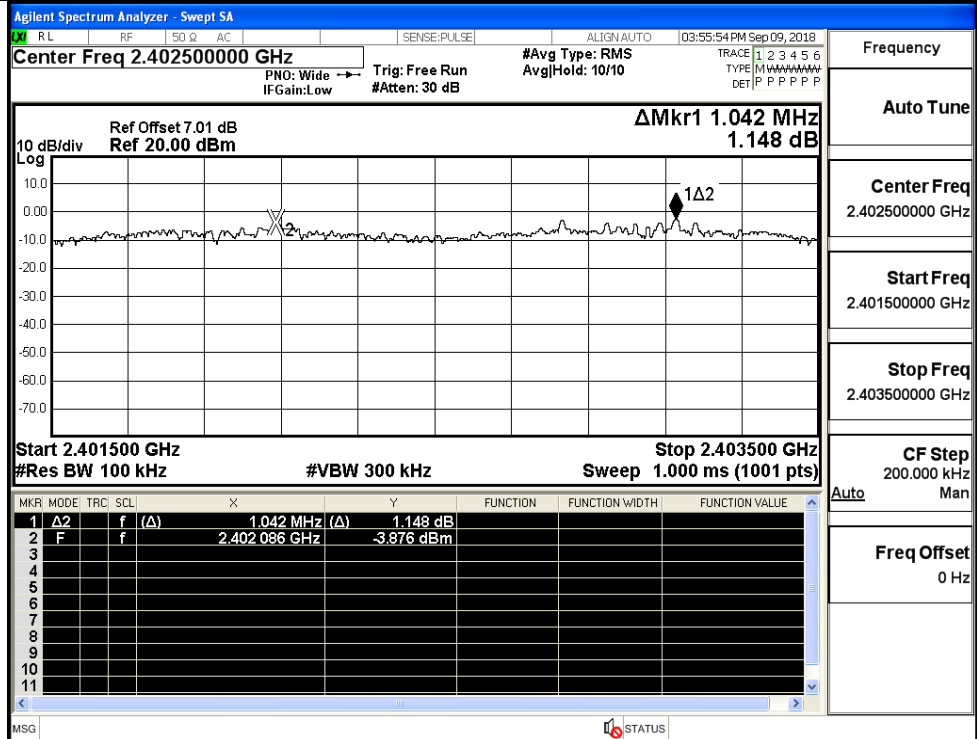
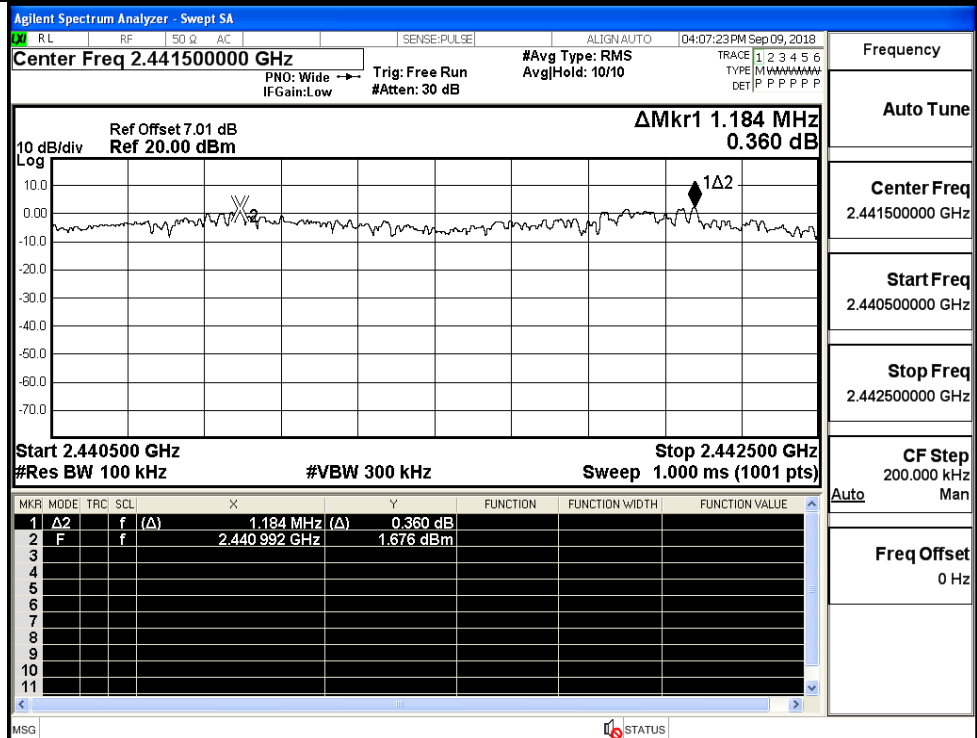
Center Freq
2.402500000 GHzStart Freq
2.401500000 GHzStop Freq
2.403500000 GHzCF Step
200.000 kHz
ManFreq Offset
0 Hz

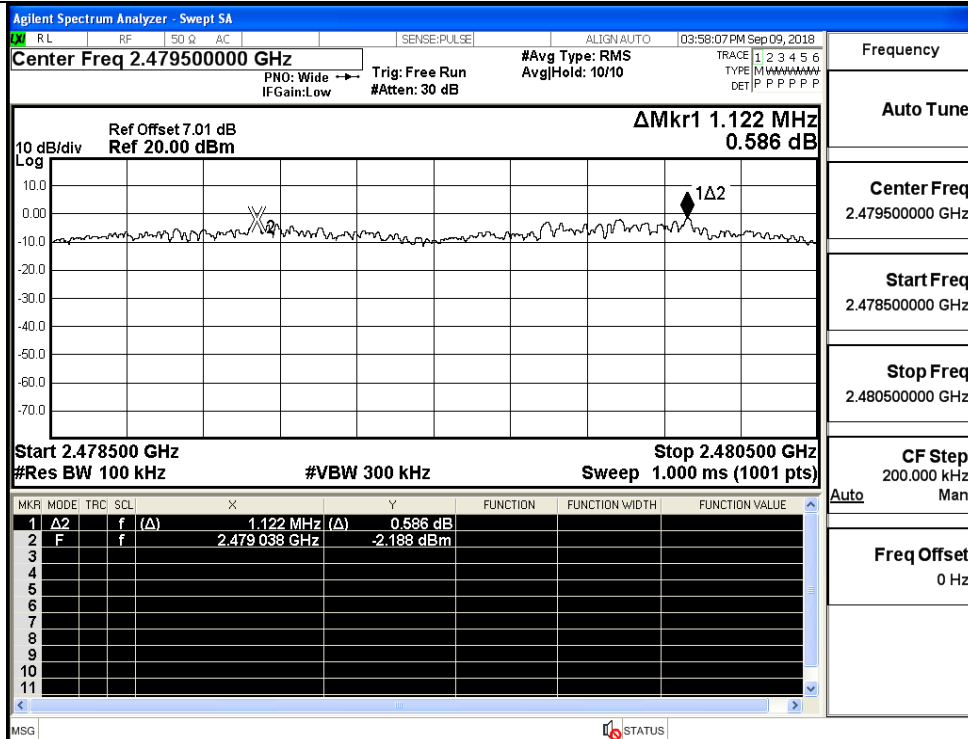
GFSK/MCH



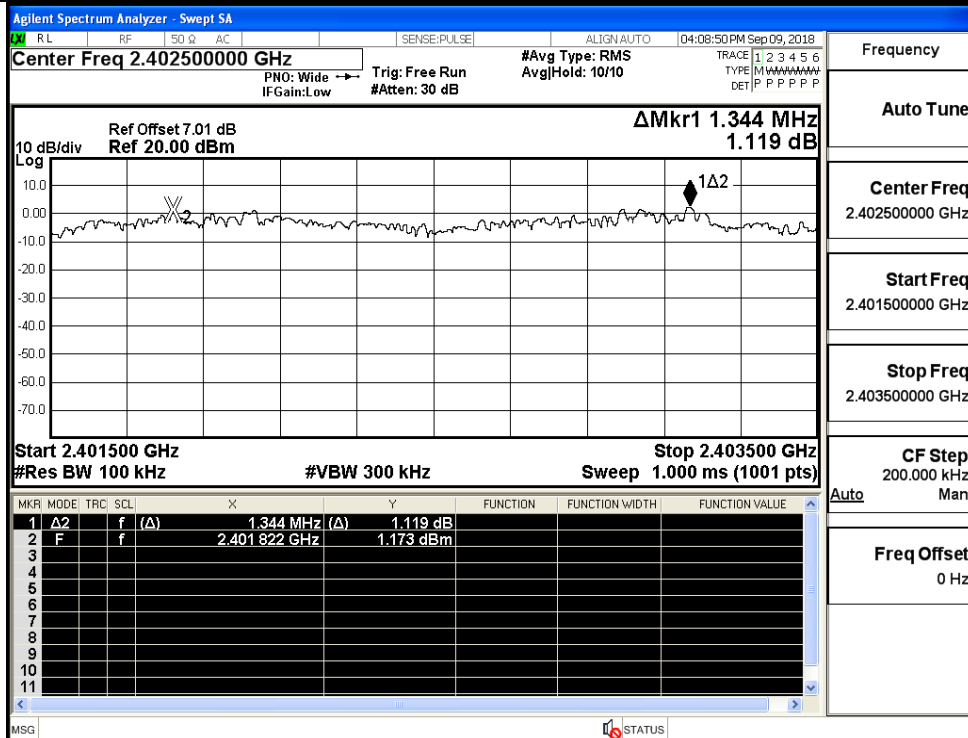
GFSK/HCH



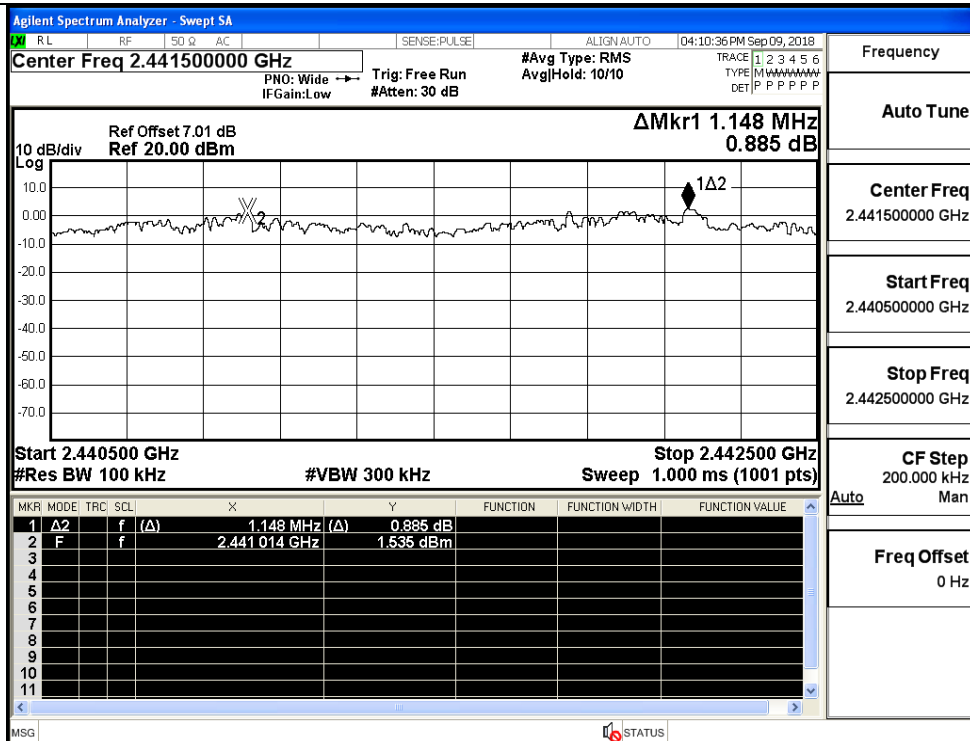
π /4DQPSK/LCH π /4DQPSK/MCH

$\pi/4$ DQPSK/HCH

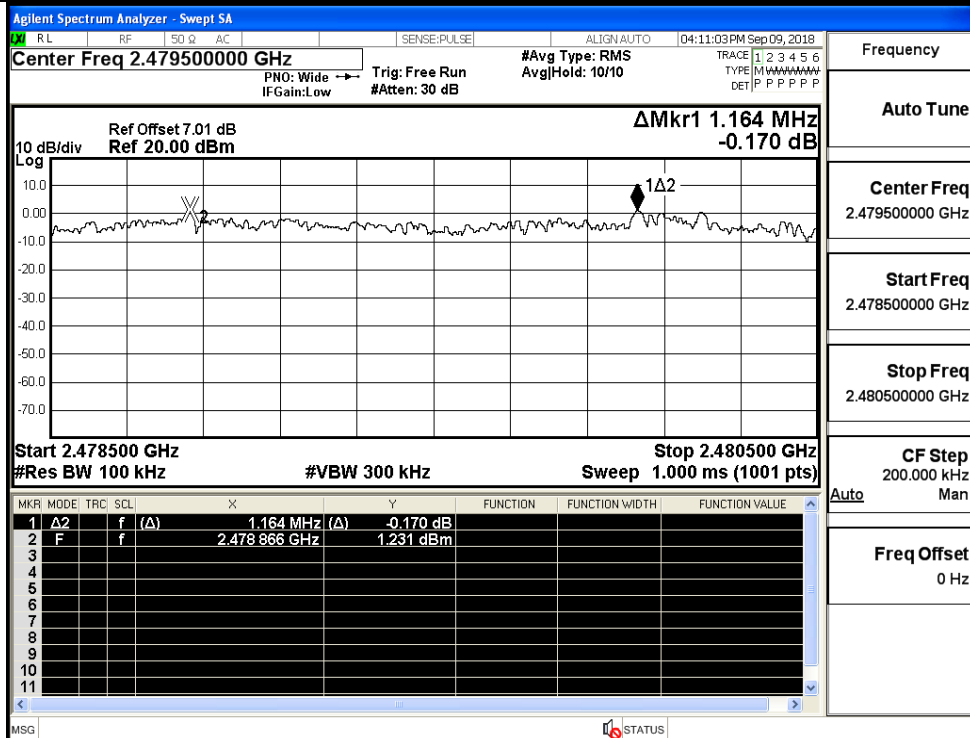
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

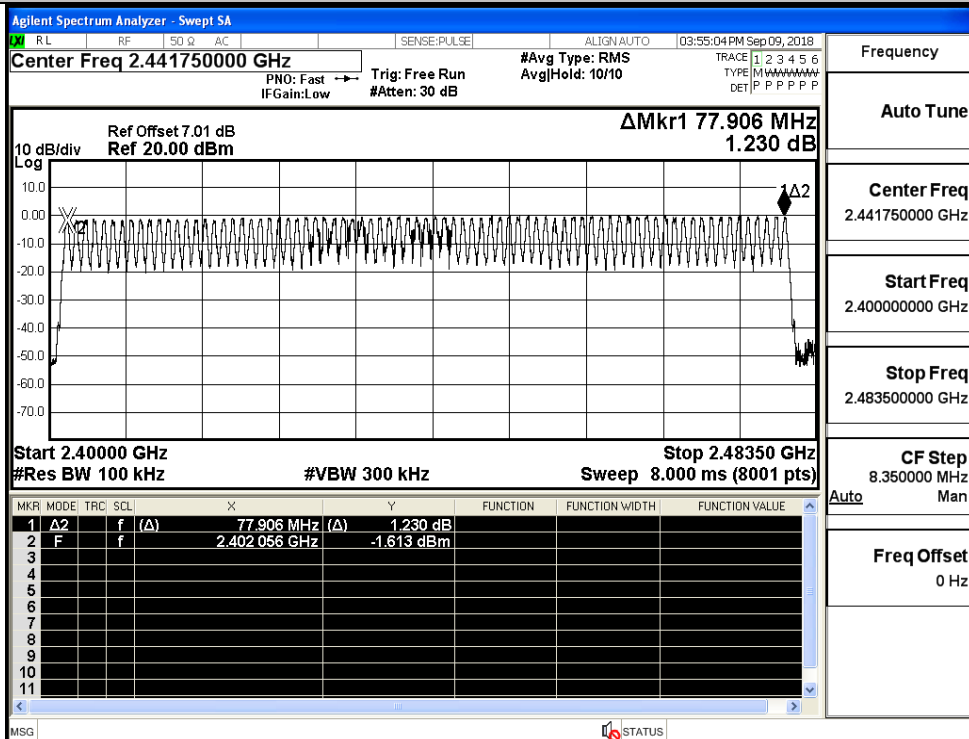
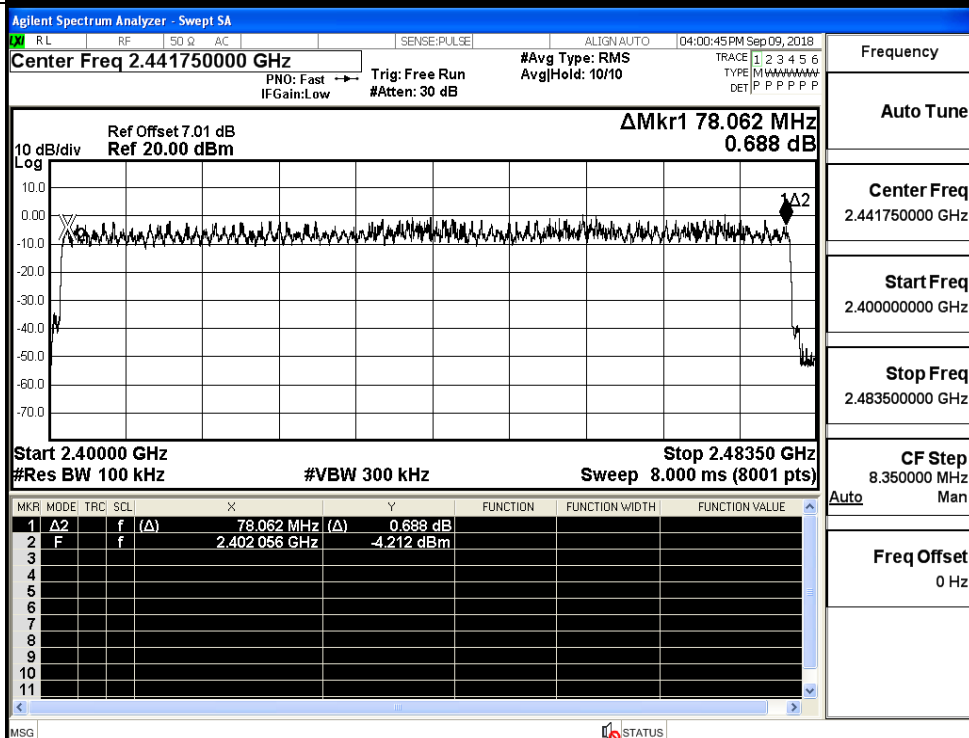


A.4 Hopping Channel Number

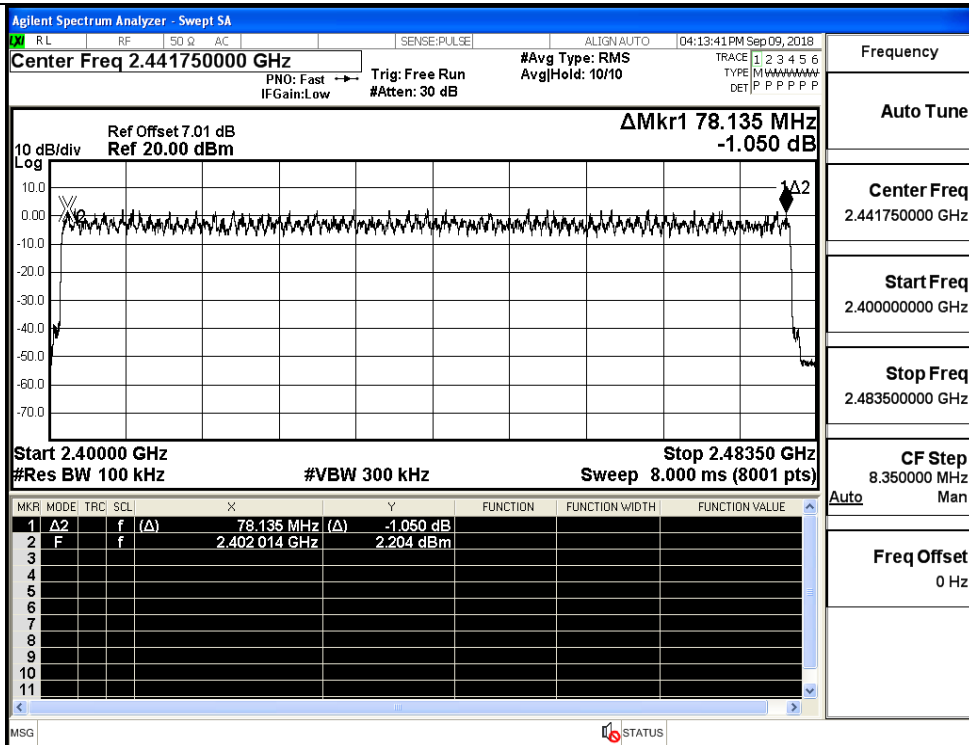
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS
8DPSK	Hop	79	≥ 15	PASS

Test Graphs

GFSK/Hop

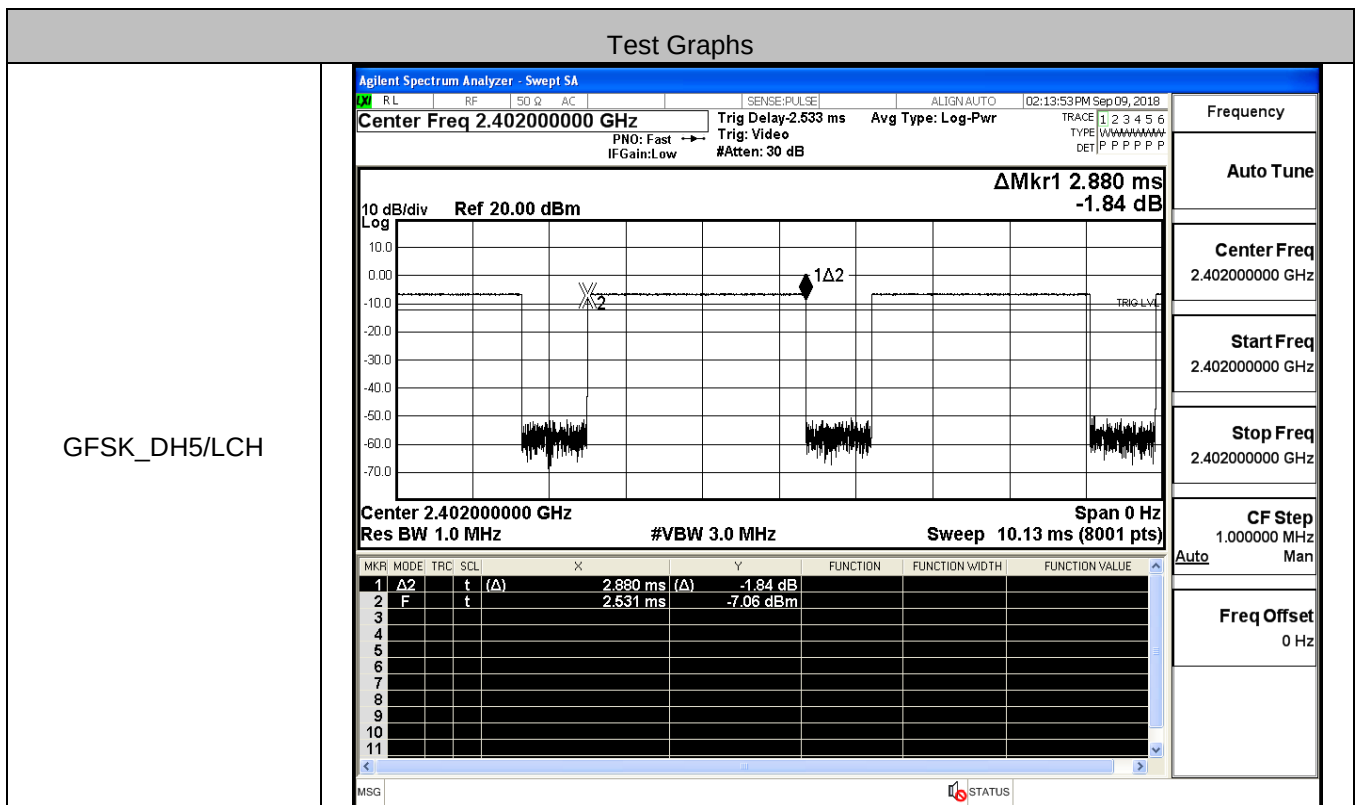
 $\pi/4$ DQPSK/Hop

8DPSK/Hop

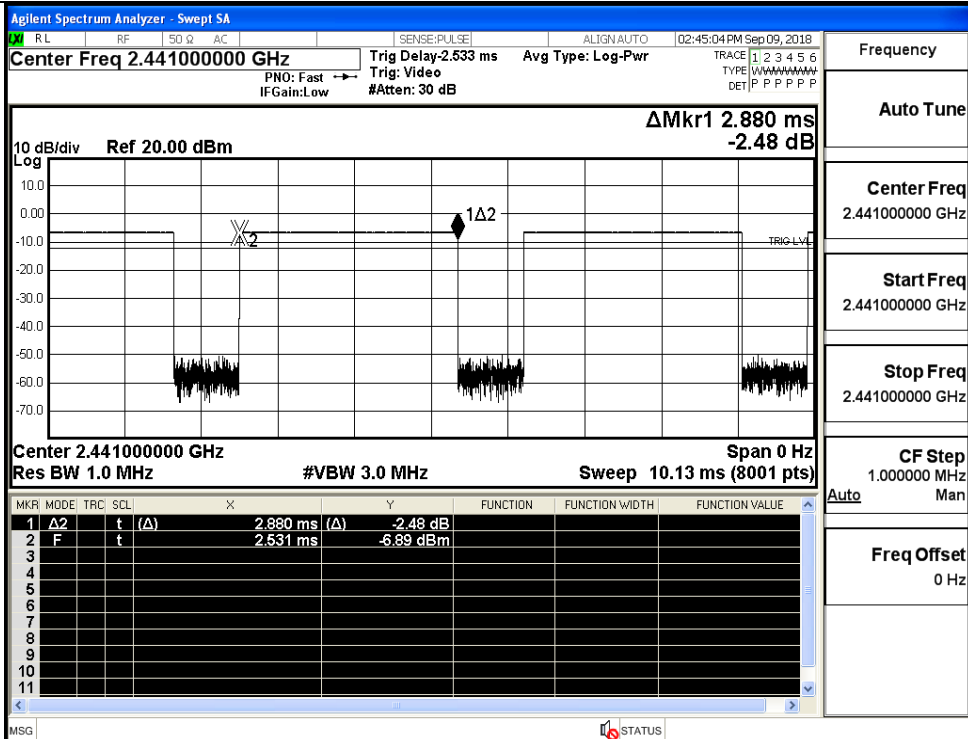


A.5 Dwell Time

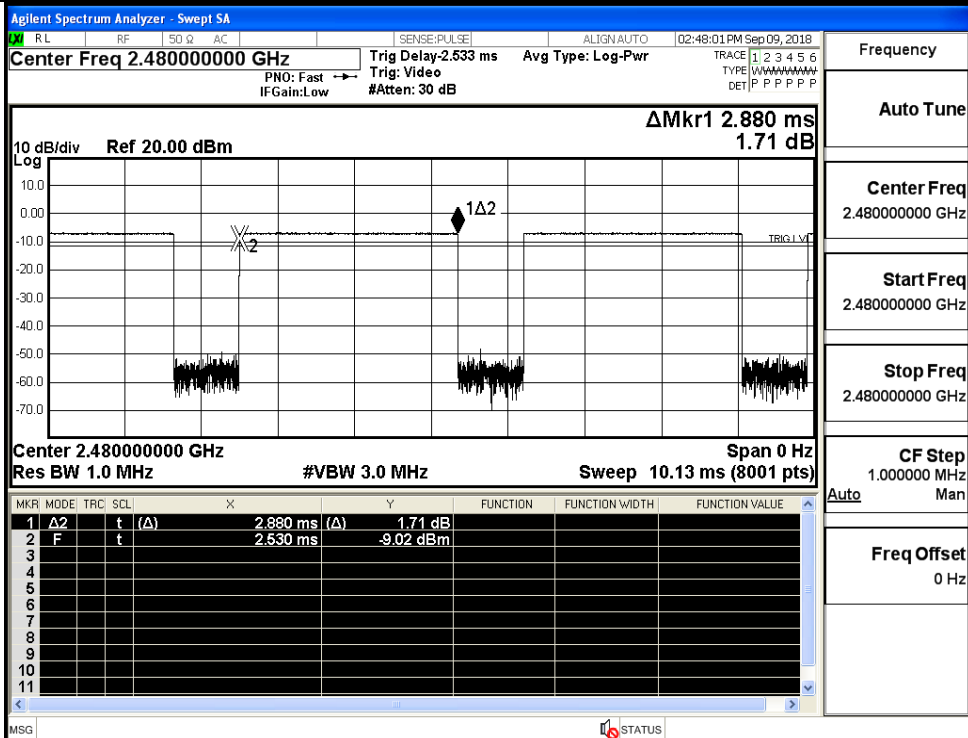
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88	106.7	0.307	0.4	PASS
8DPSK	3DH5	LCH	2.89	106.7	0.308	0.4	PASS
	3DH5	MCH	2.89	106.7	0.308	0.4	PASS
	3DH5	HCH	2.89	106.7	0.308	0.4	PASS



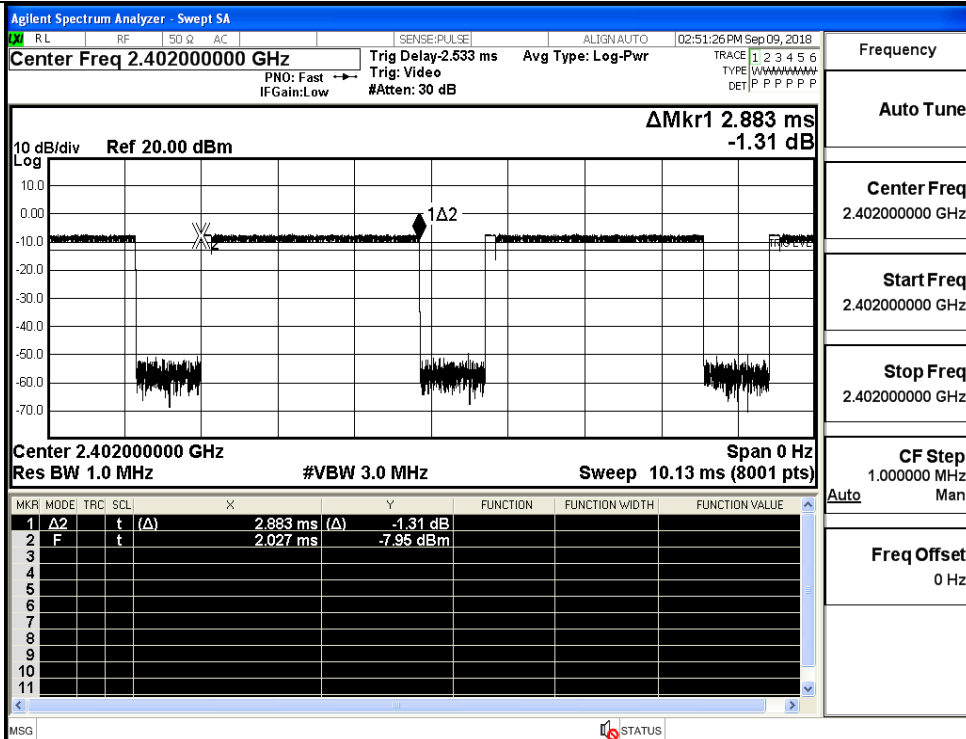
GFSK_DH5/MCH



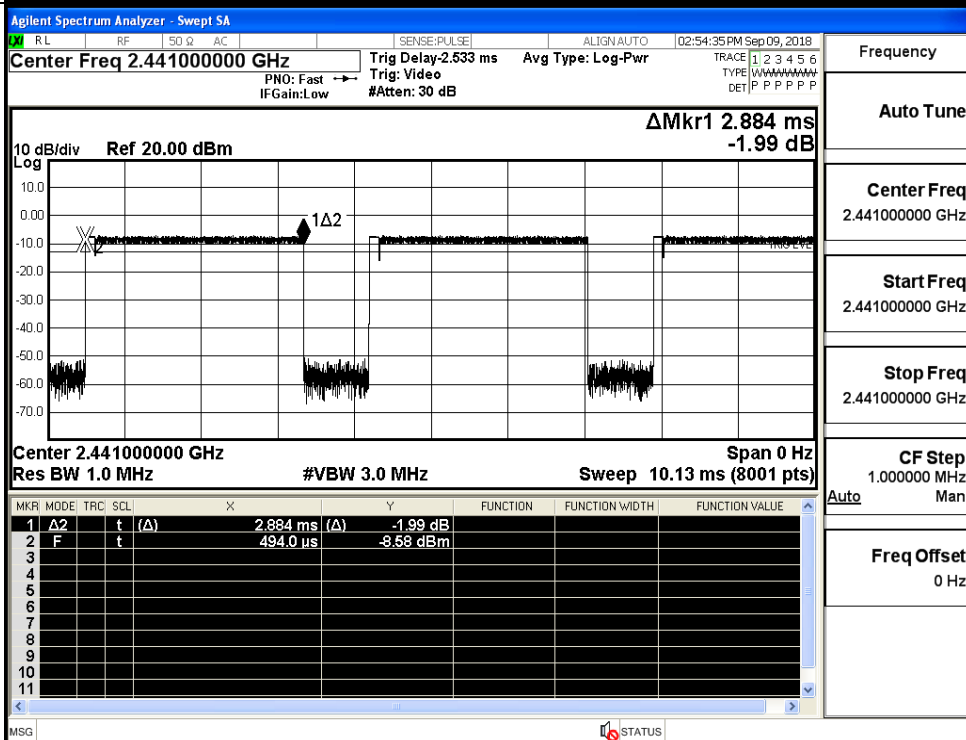
GFSK_DH5/HCH



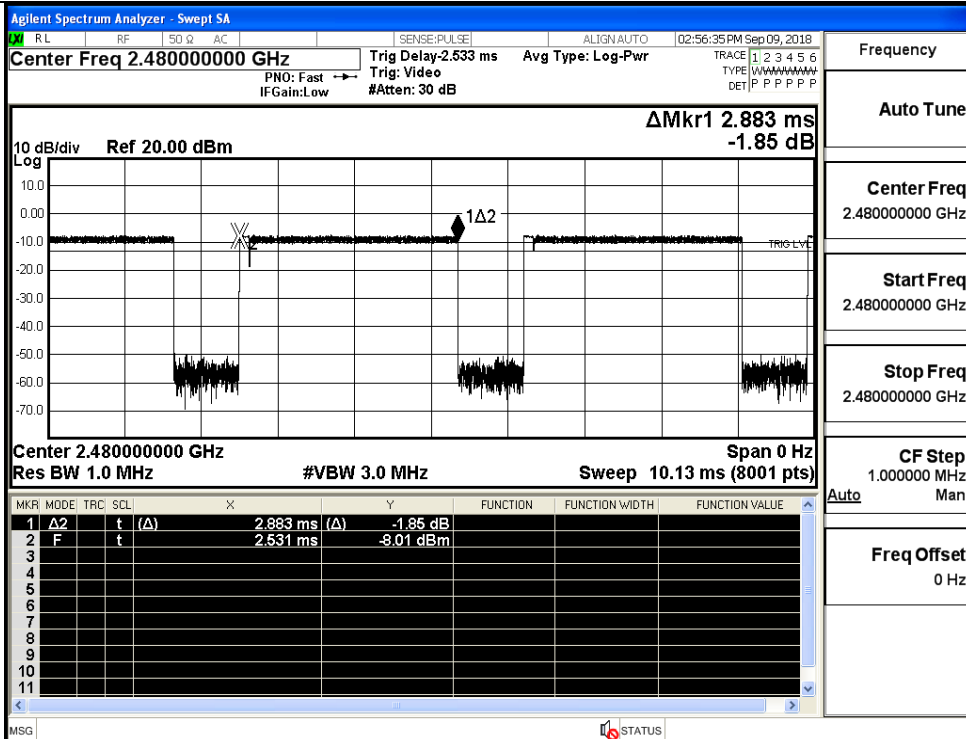
$\pi/4$ DQPSK
_2DH5/LCH



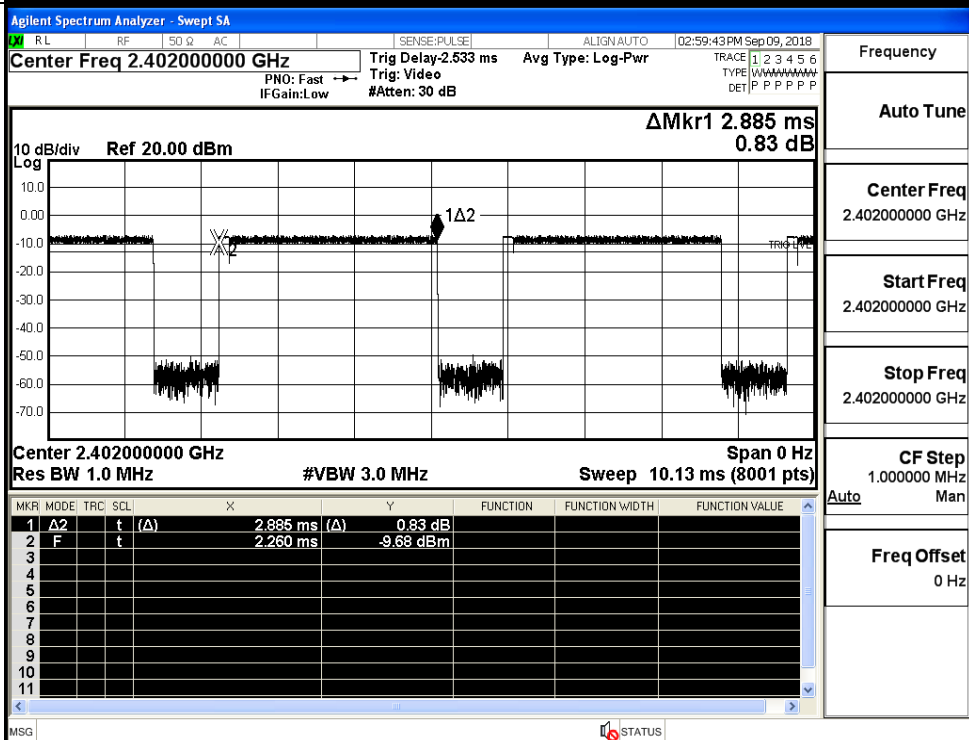
$\pi/4$ DQPSK
_2DH5/MCH



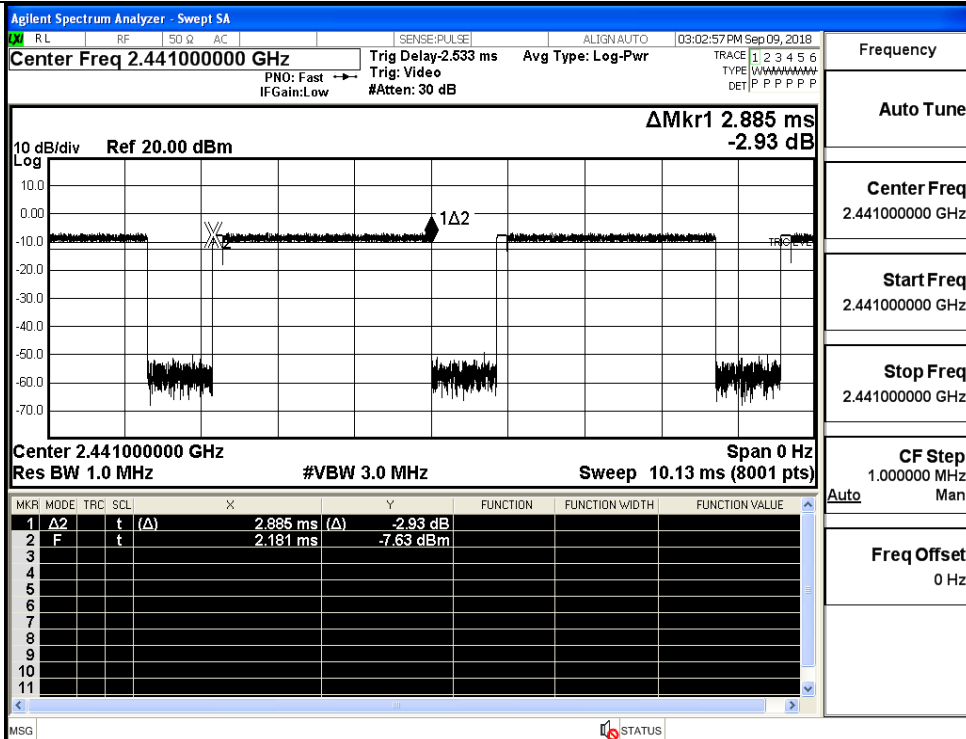
$\pi/4$ DQPSK
_2DH5/HCH



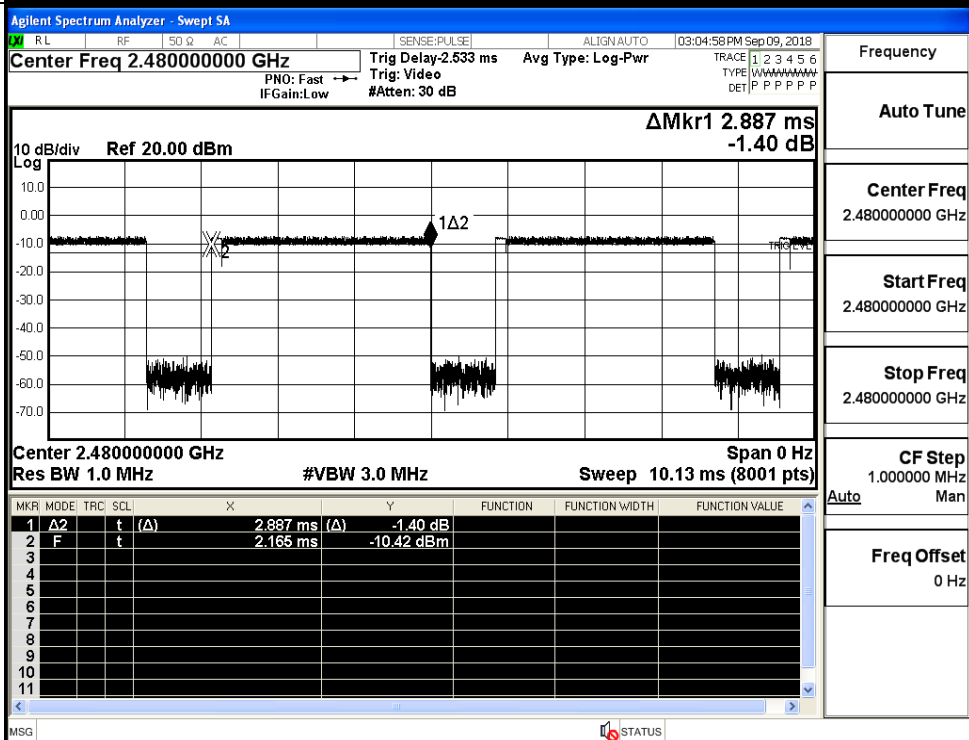
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

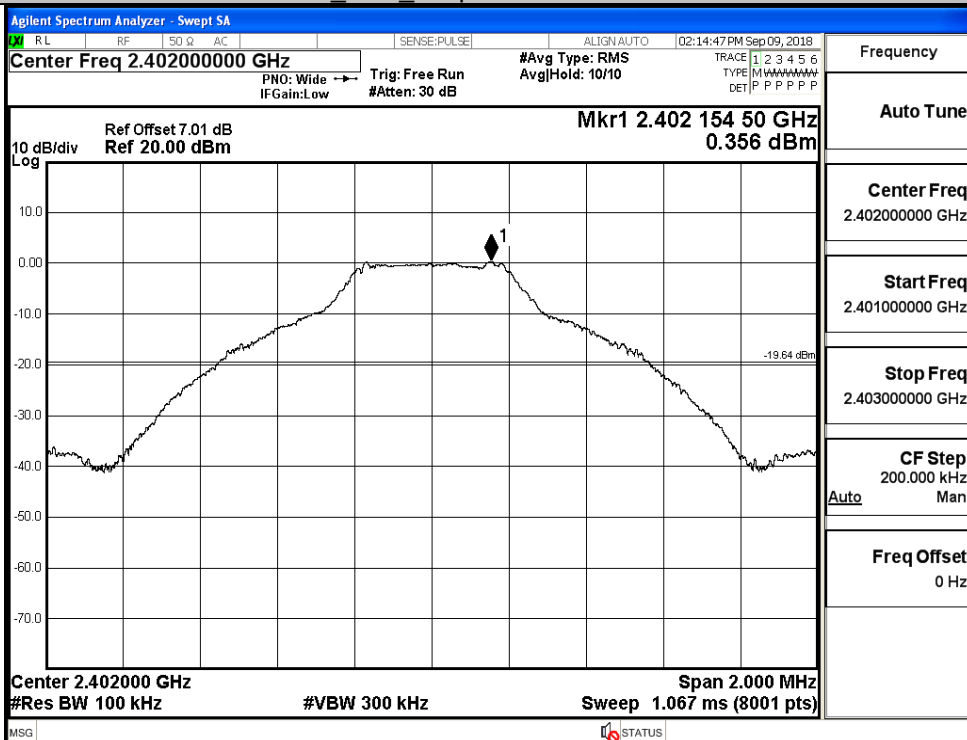


A.6 RF Conducted Spurious Emissions

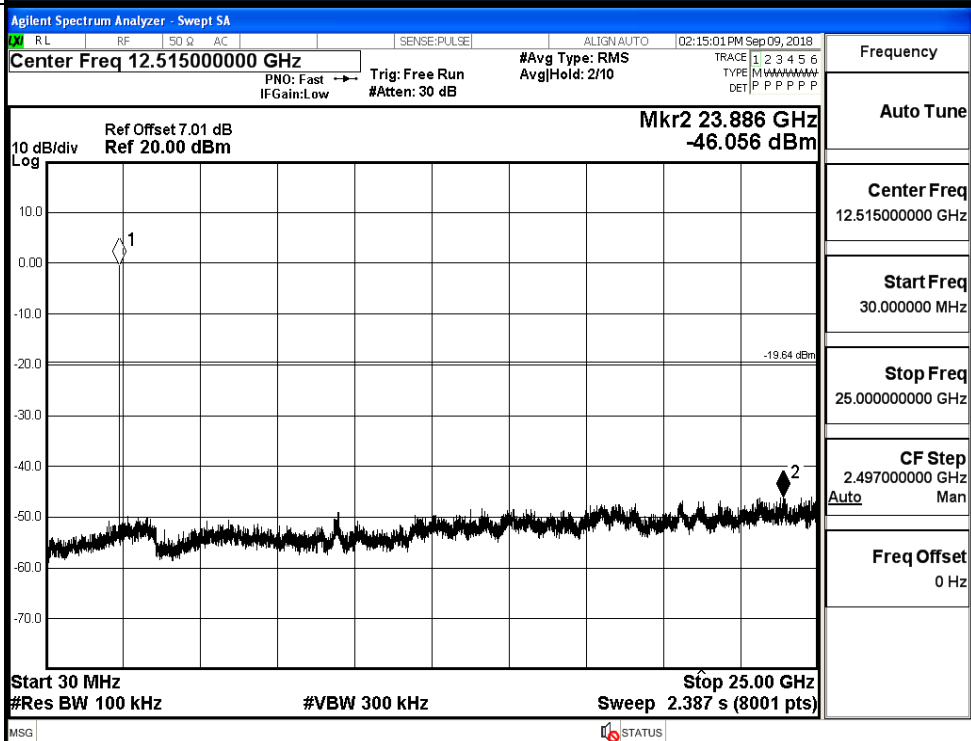
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.356	-46.056	-19.644	PASS
	MCH	0.441	-45.720	-19.559	PASS
	HCH	-0.041	-45.386	-20.041	PASS
$\pi/4$ DQPSK	LCH	-0.664	-45.682	-20.664	PASS
	MCH	-0.546	-45.360	-20.546	PASS
	HCH	-1.642	-45.124	-21.642	PASS
8DPSK	LCH	-0.589	-45.708	-20.589	PASS
	MCH	-0.608	-44.536	-20.608	PASS
	HCH	-0.982	-46.075	-20.982	PASS

GFSK LCH Graphs

Pref

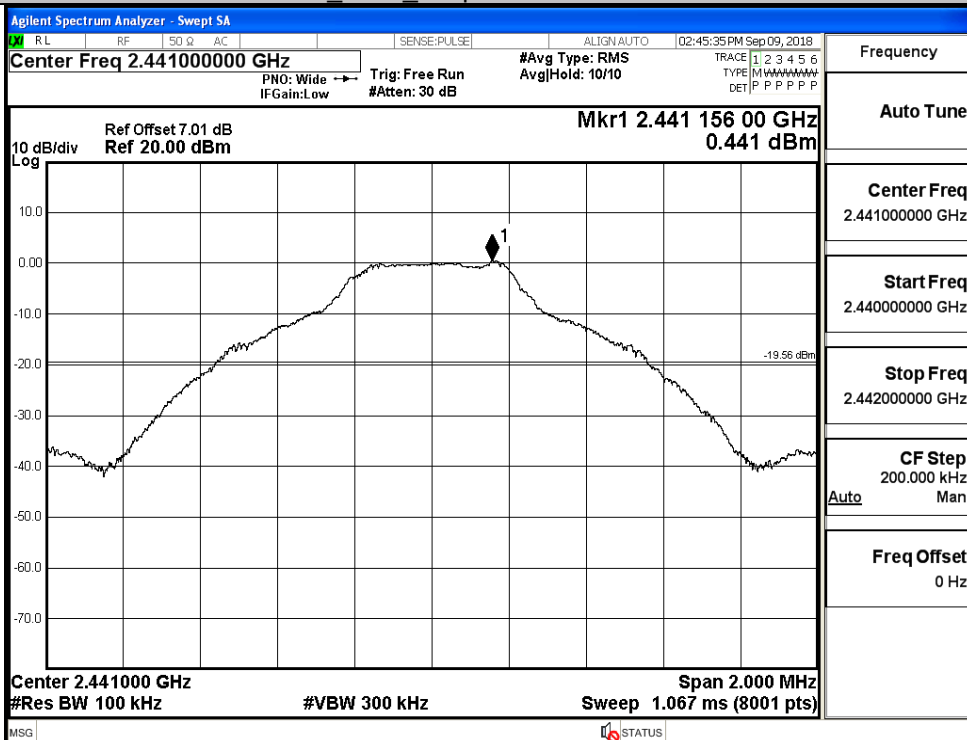


Puw

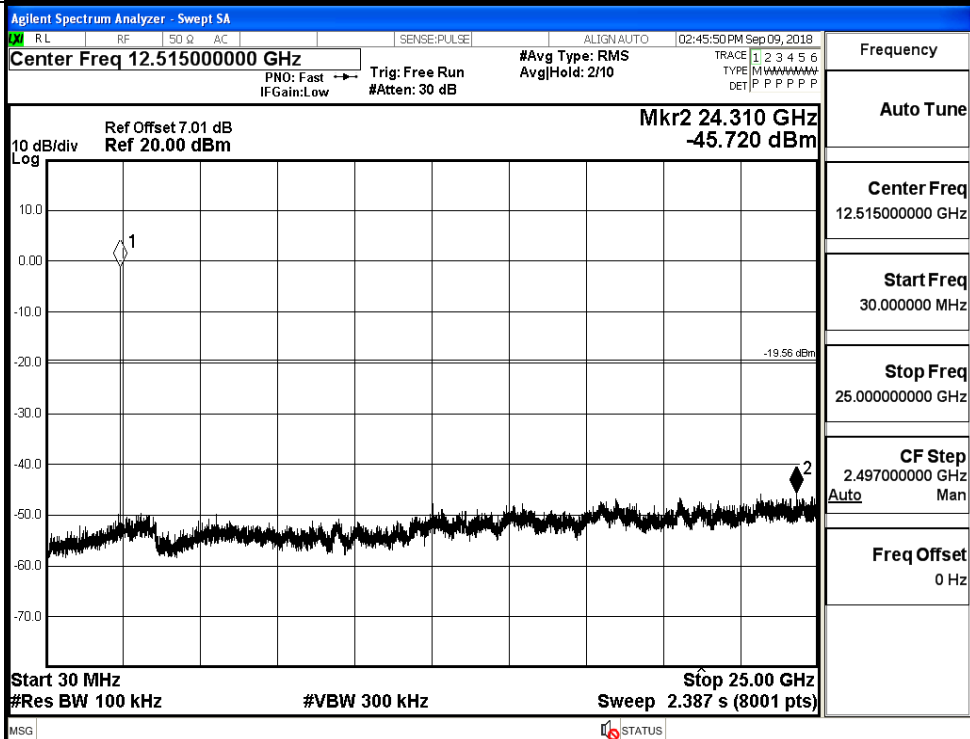


GFSK_MCH_Graphs

Pref

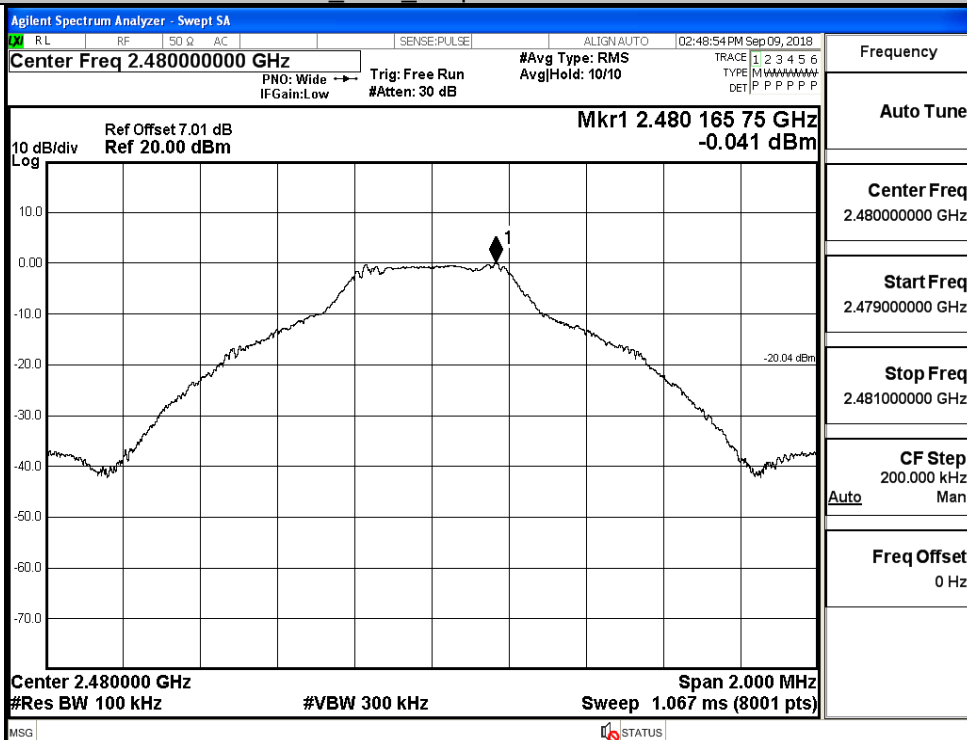


Puw

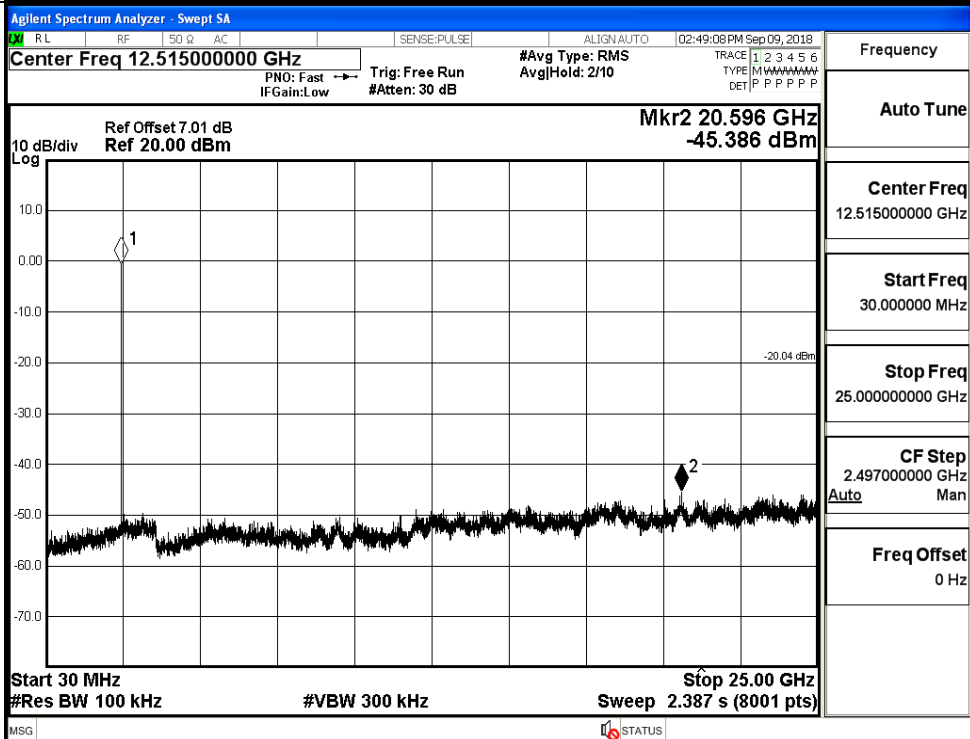


GFSK_HCH_Graphs

Pref

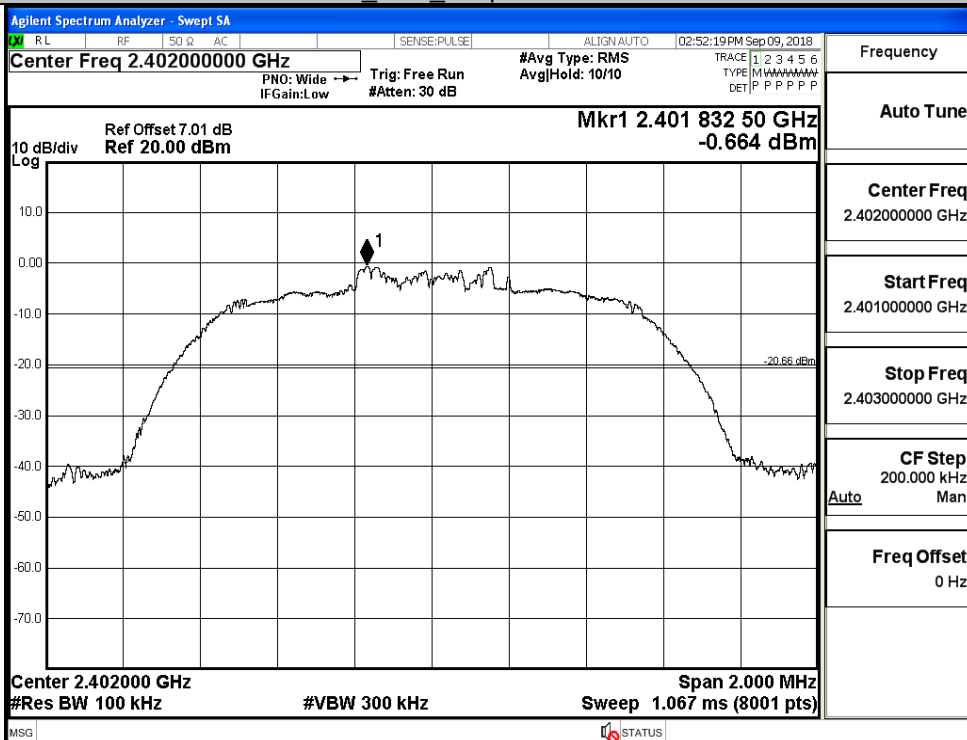


Puw

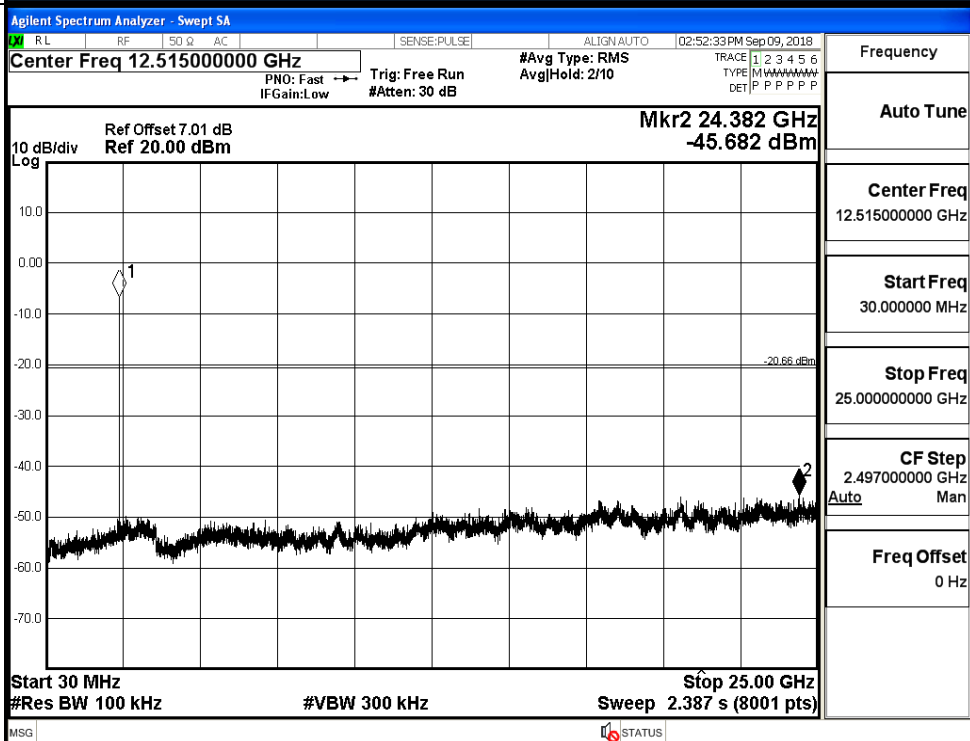


π /4DQPSK LCH_Graphs

Pref

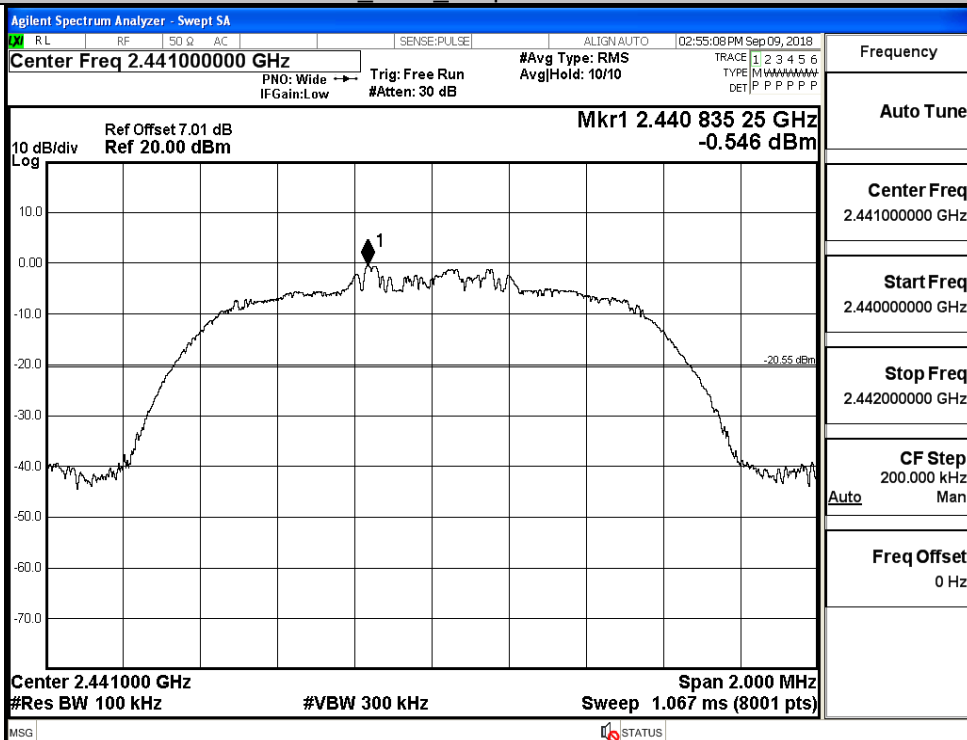


Puw

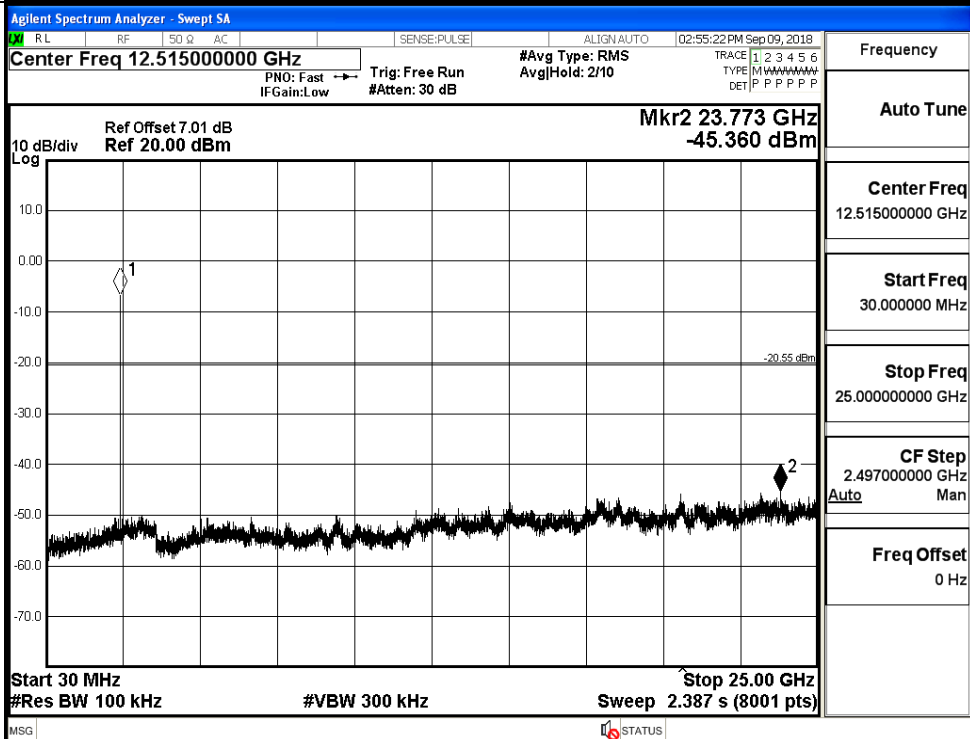


π /4DQPSK_MCH_Graphs

Pref

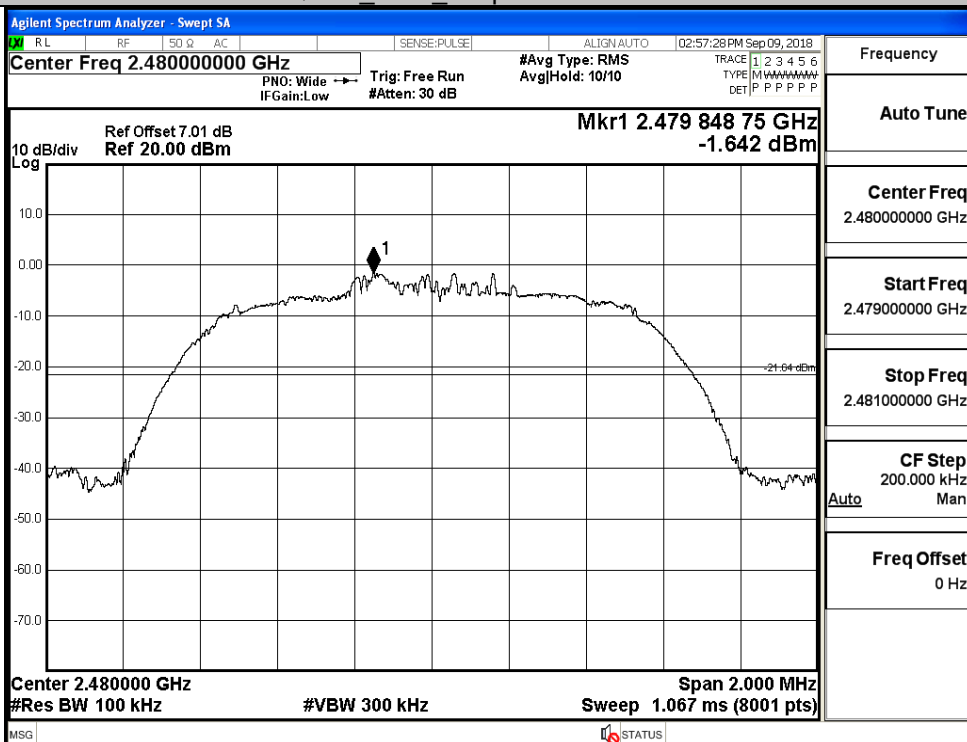


Puw

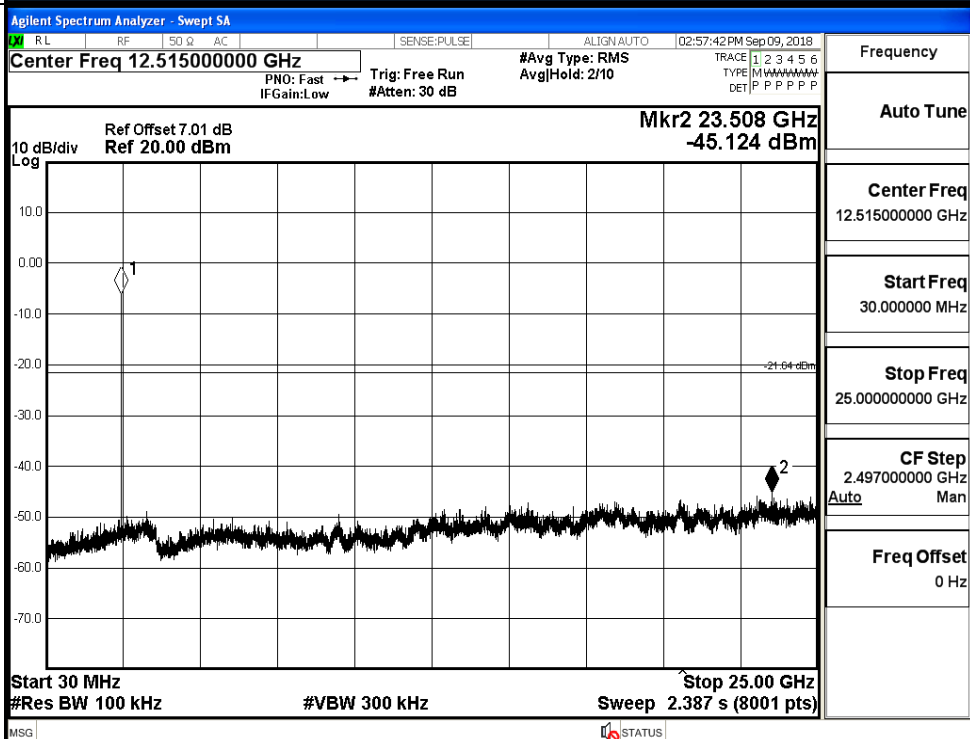


π /4DQPSK_HCH_Graphs

Pref

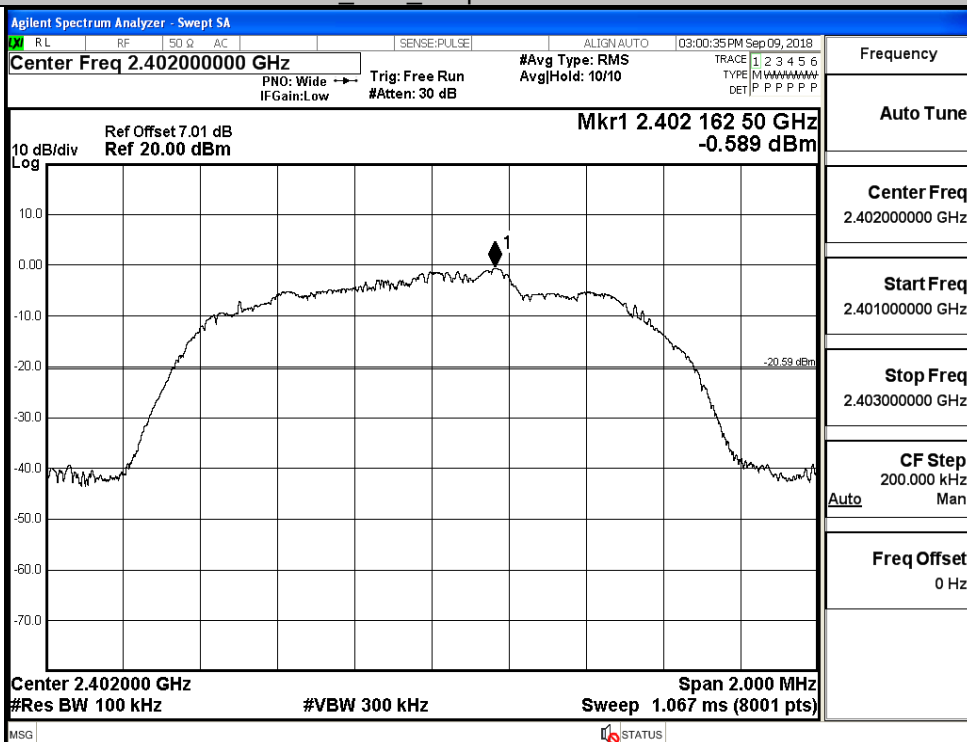


Puw

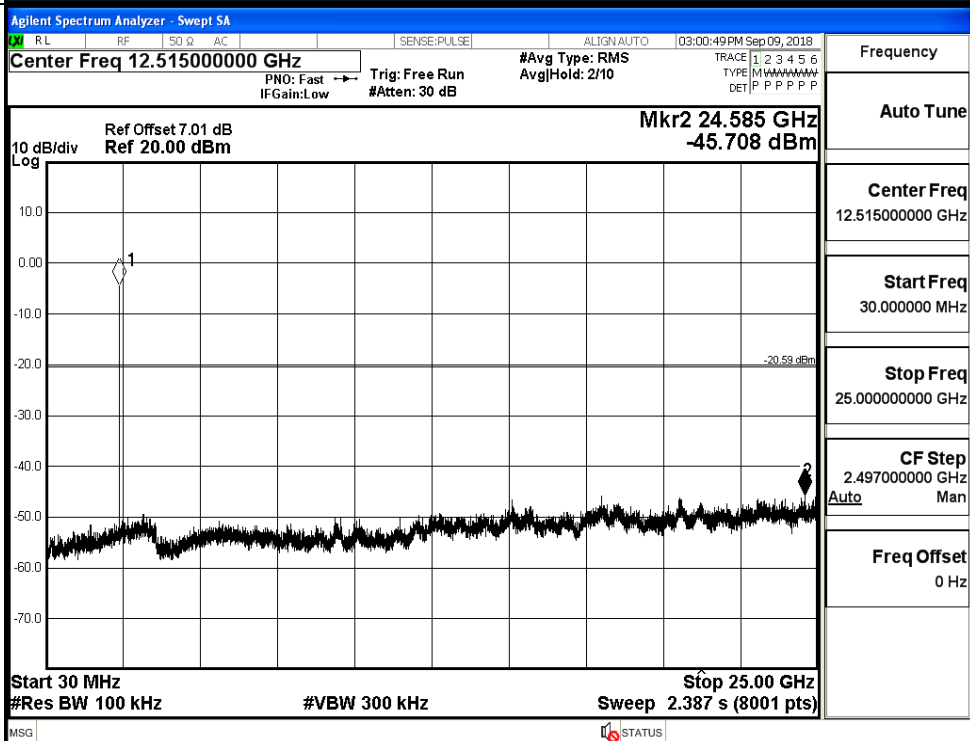


8DPSK_LCH_Graphs

Pref

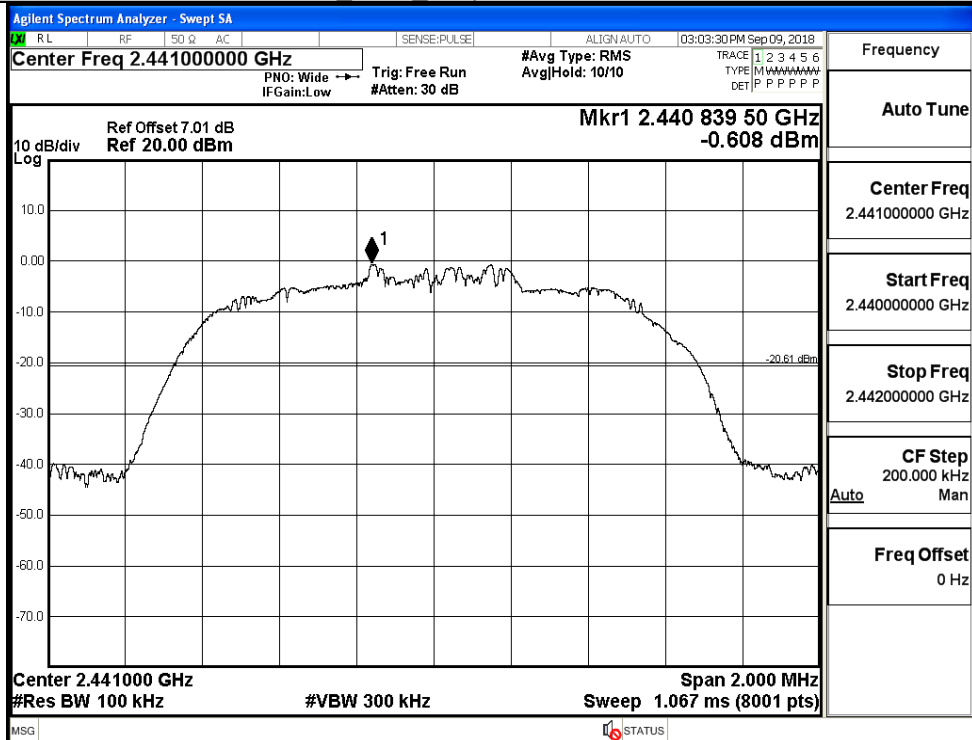


Puw

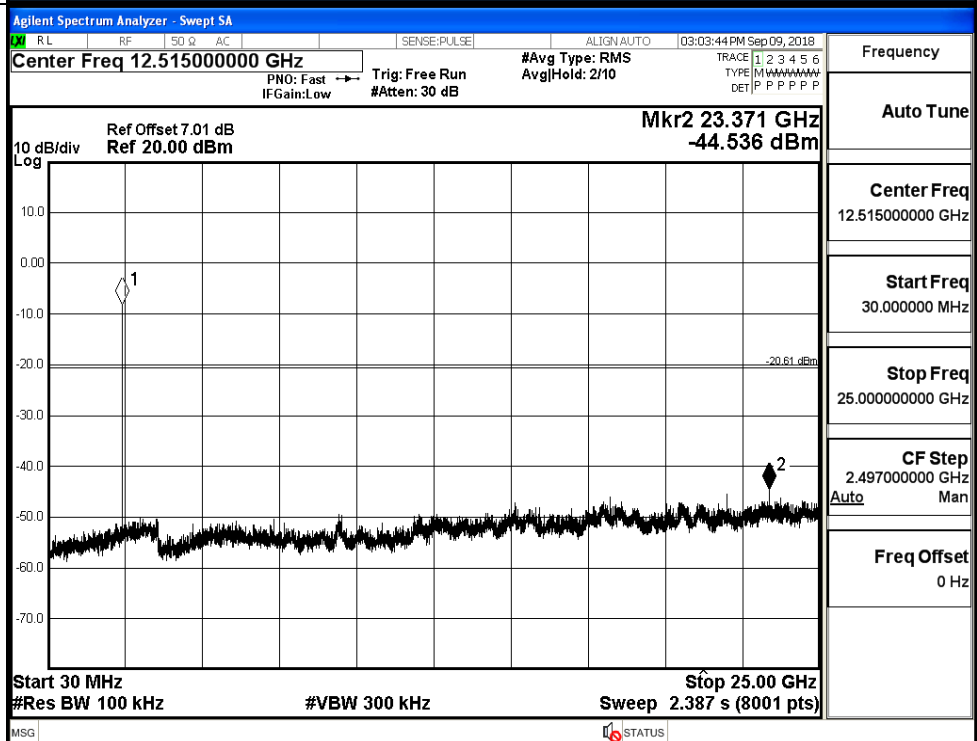


8DPSK_MCH_Graphs

Pref

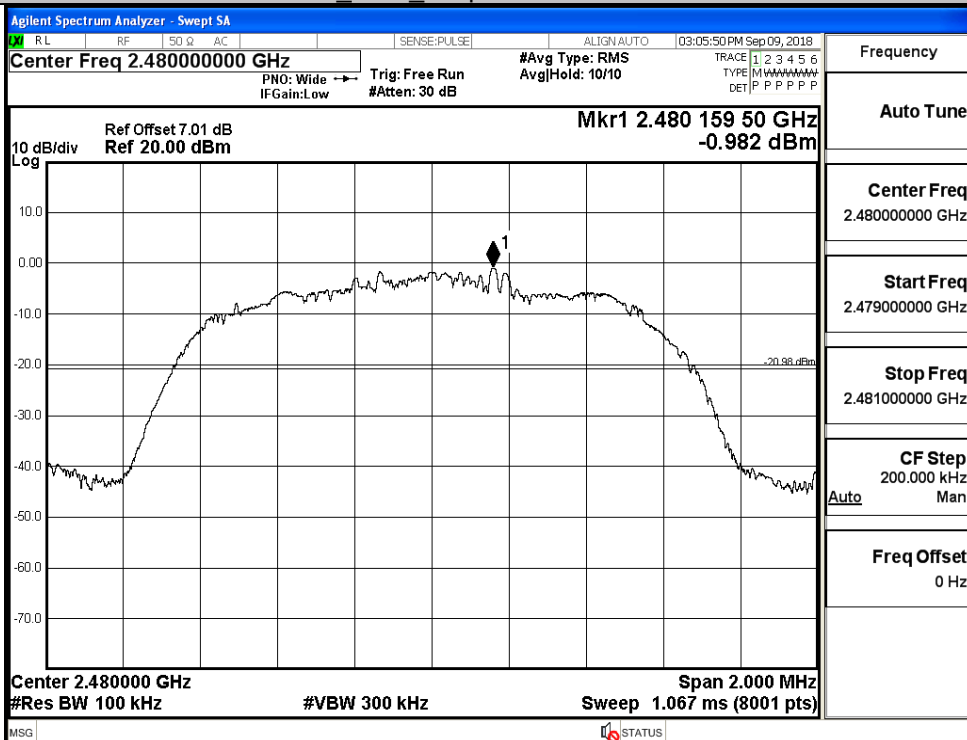


Puw

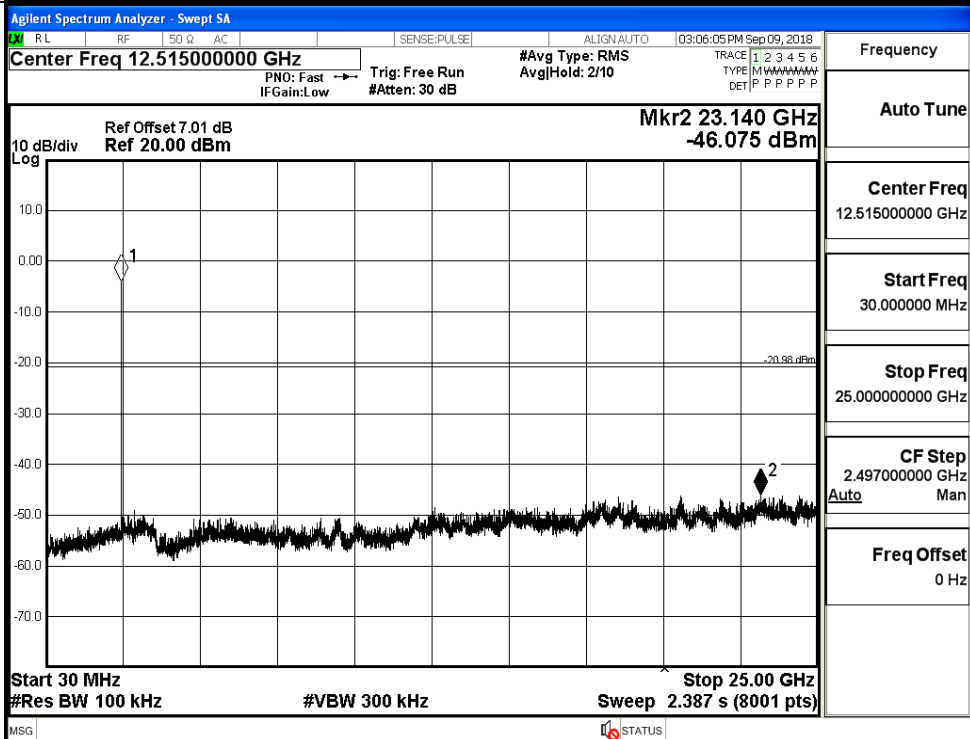


8DPSK_HCH_Graphs

Pref



Puw

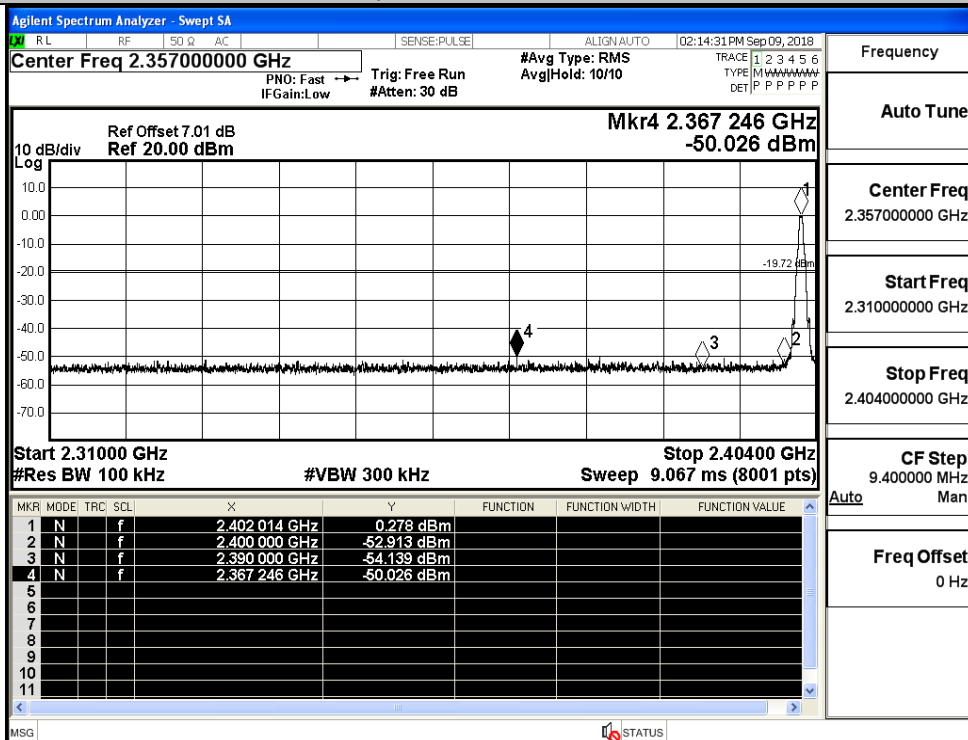


A.7 Band-edge for RF Conducted Emissions

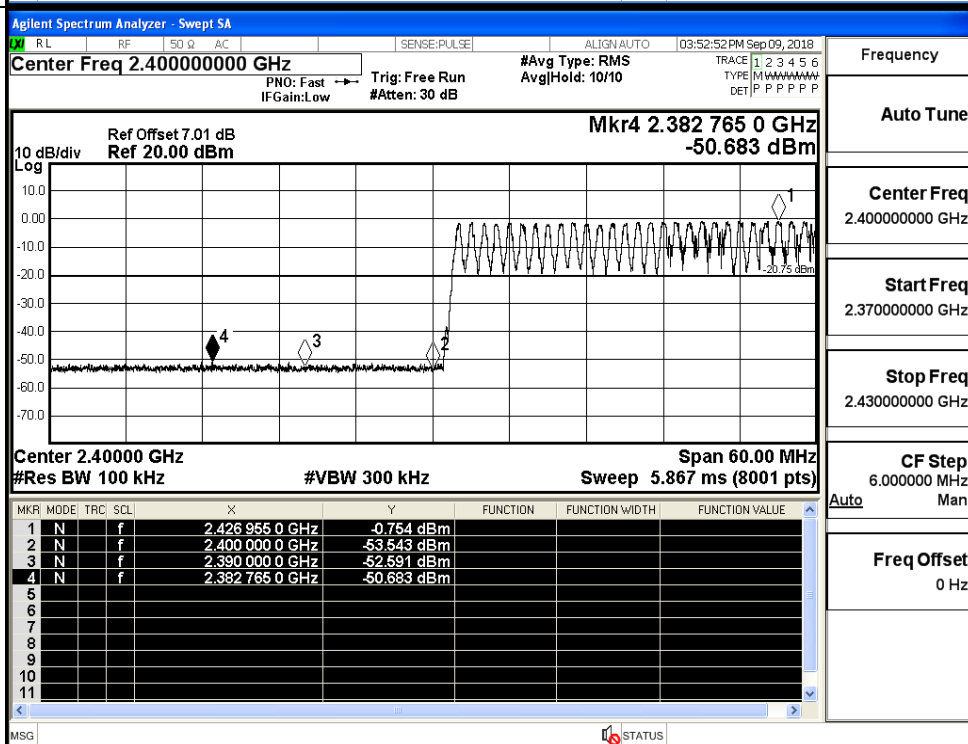
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	0.278	Off	-50.026	-19.72	PASS
			-0.754	On	-50.683	-20.75	PASS
	HCH	2480	0.082	Off	-50.298	-19.92	PASS
			-0.140	On	-50.352	-20.14	PASS
$\pi/4$ DQPSK	LCH	2402	-0.510	Off	-50.962	-20.51	PASS
			-1.350	On	-50.499	-21.35	PASS
	HCH	2480	-0.958	Off	-50.665	-20.96	PASS
			-0.159	On	-44.154	-20.16	PASS
8DPSK	LCH	2402	-0.487	Off	-50.366	-20.49	PASS
			2.272	On	-50.175	-17.73	PASS
	HCH	2480	-0.919	Off	-50.802	-20.92	PASS
			2.256	On	-50.113	-17.74	PASS

Test Graphs

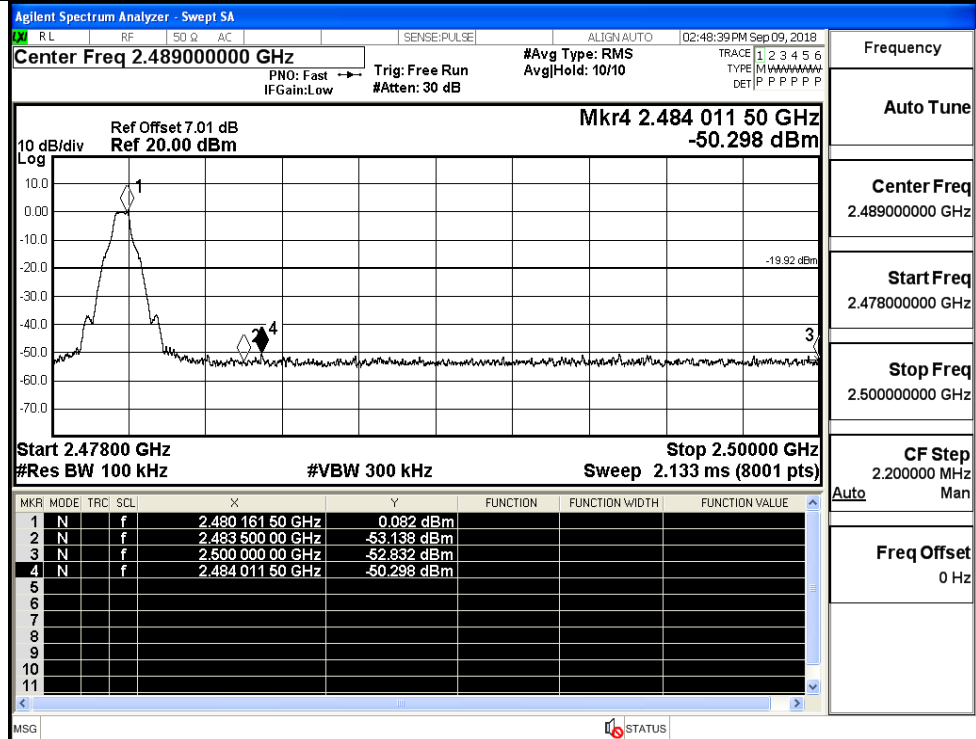
GFSK/LCH/No Hop



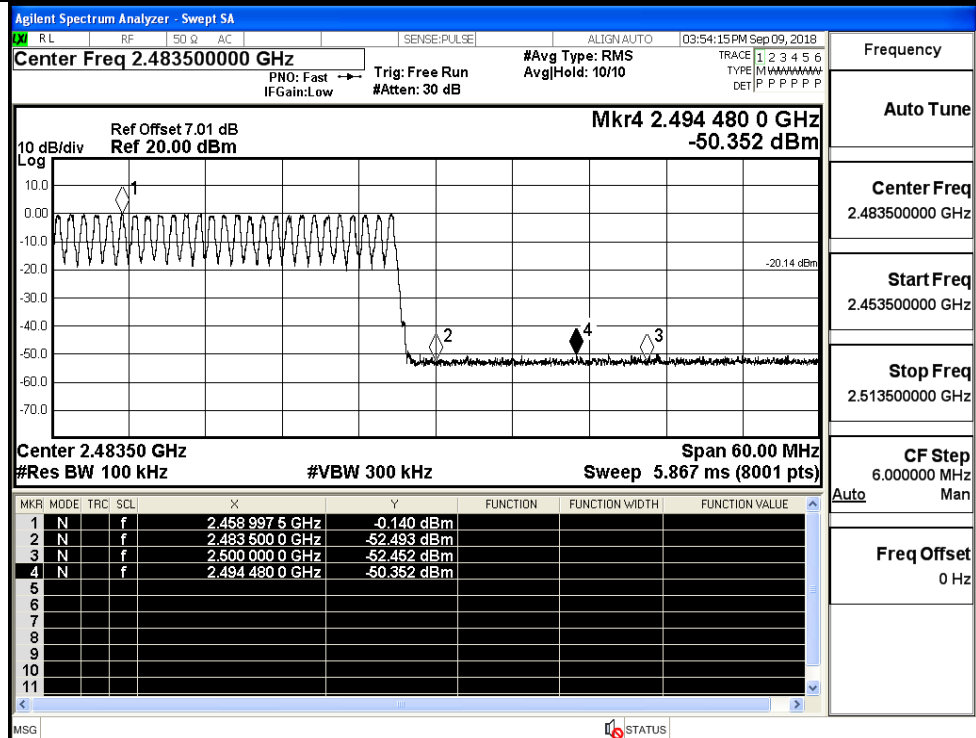
GFSK/LCH/Hop



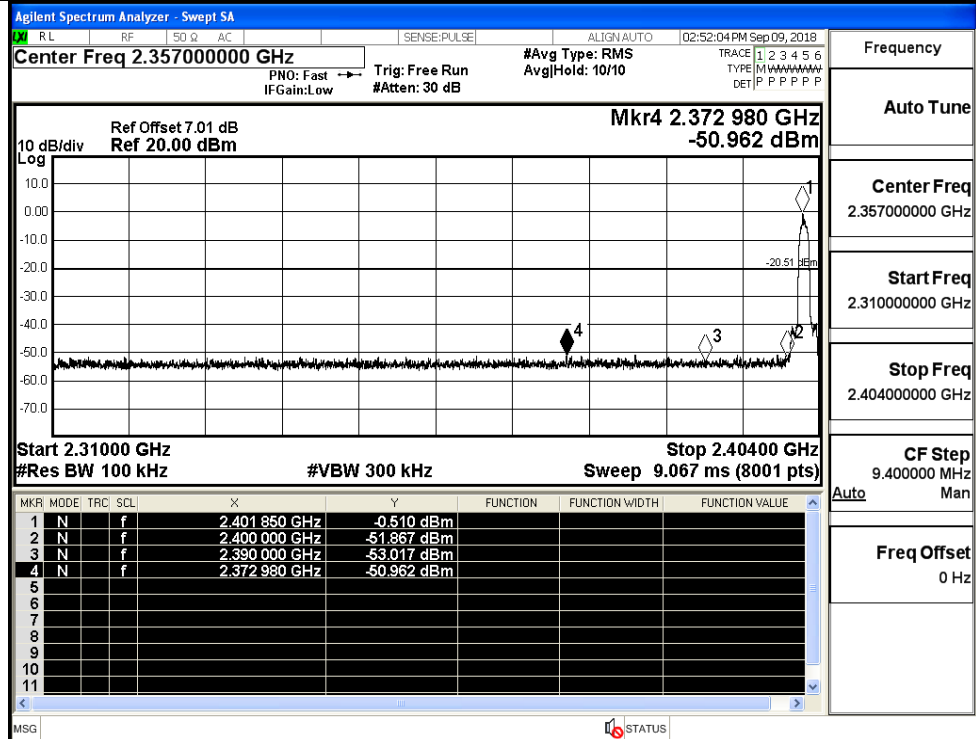
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

Start Freq
2.310000000 GHz

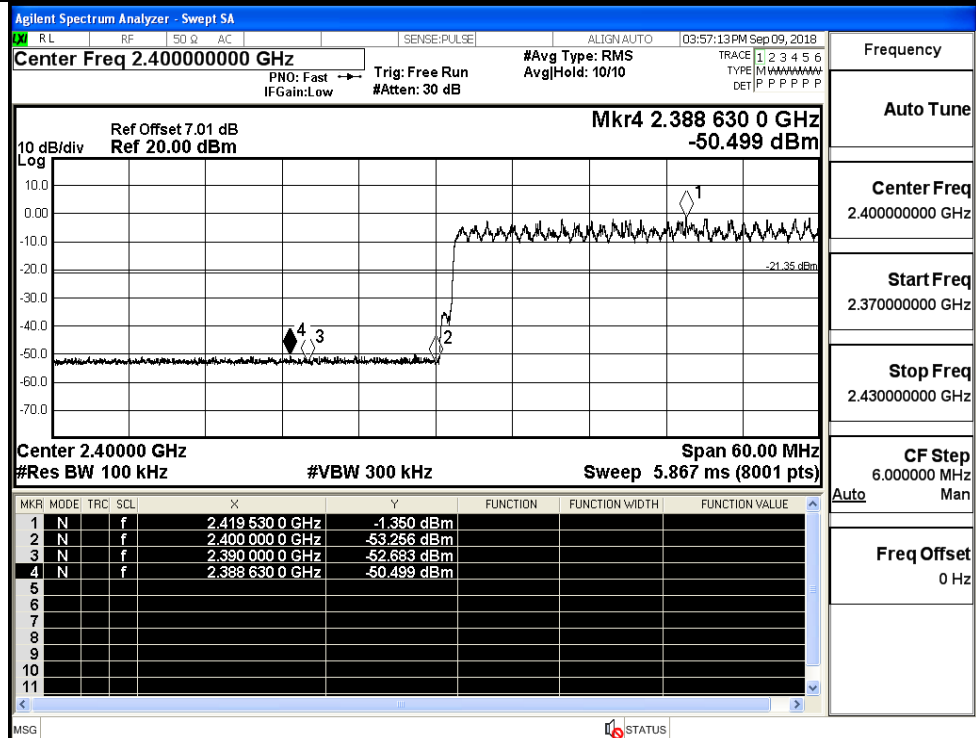
Stop Freq
2.404000000 GHz

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

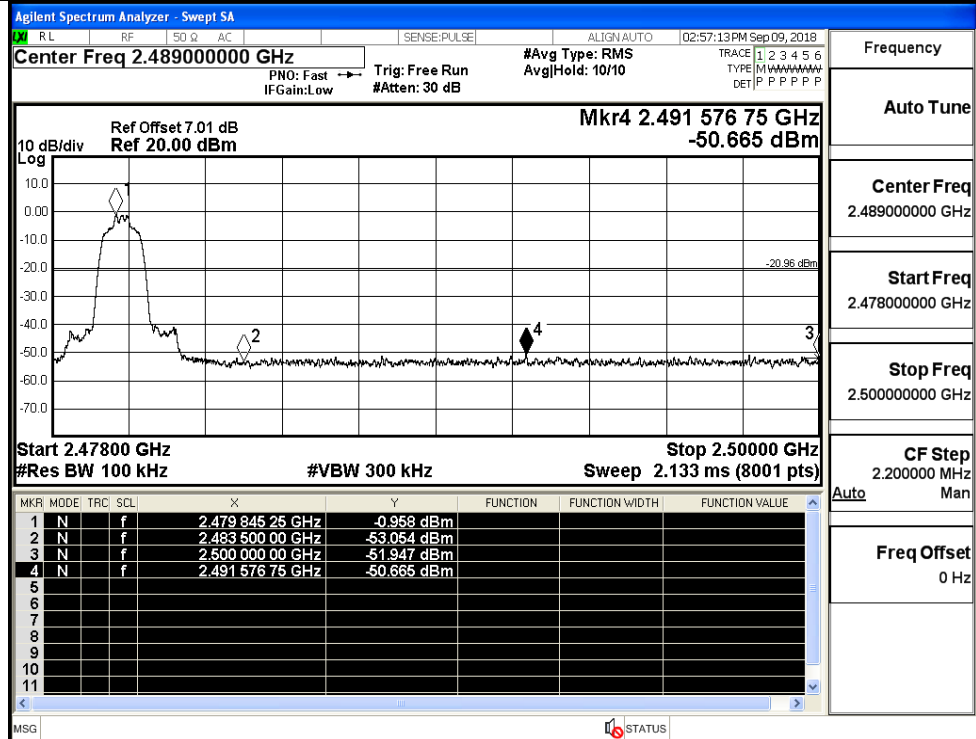
Stop Freq
2.430000000 GHz

CF Step
6.000000 MHz

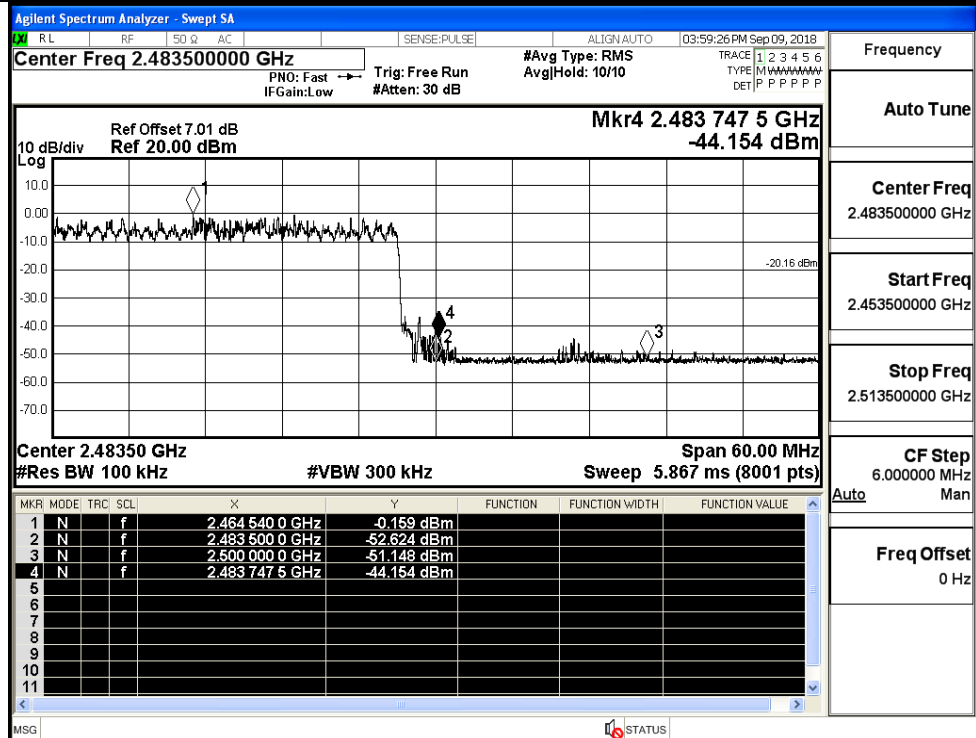
Auto Man

Freq Offset
0 Hz

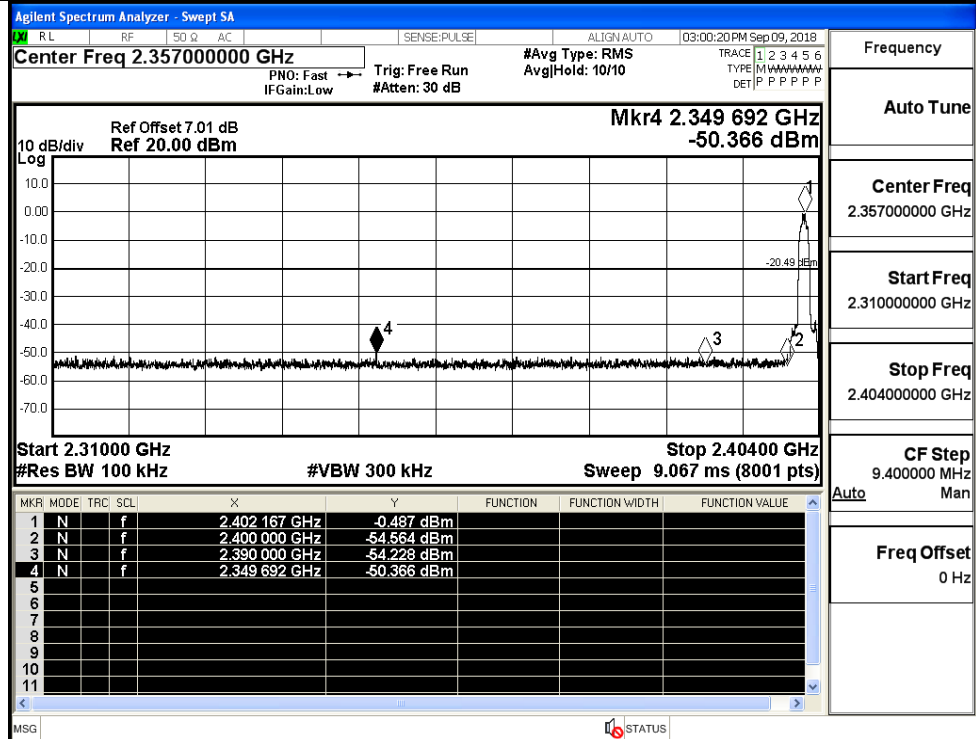
$\pi/4$ DQPSK/HCH/No
Hop



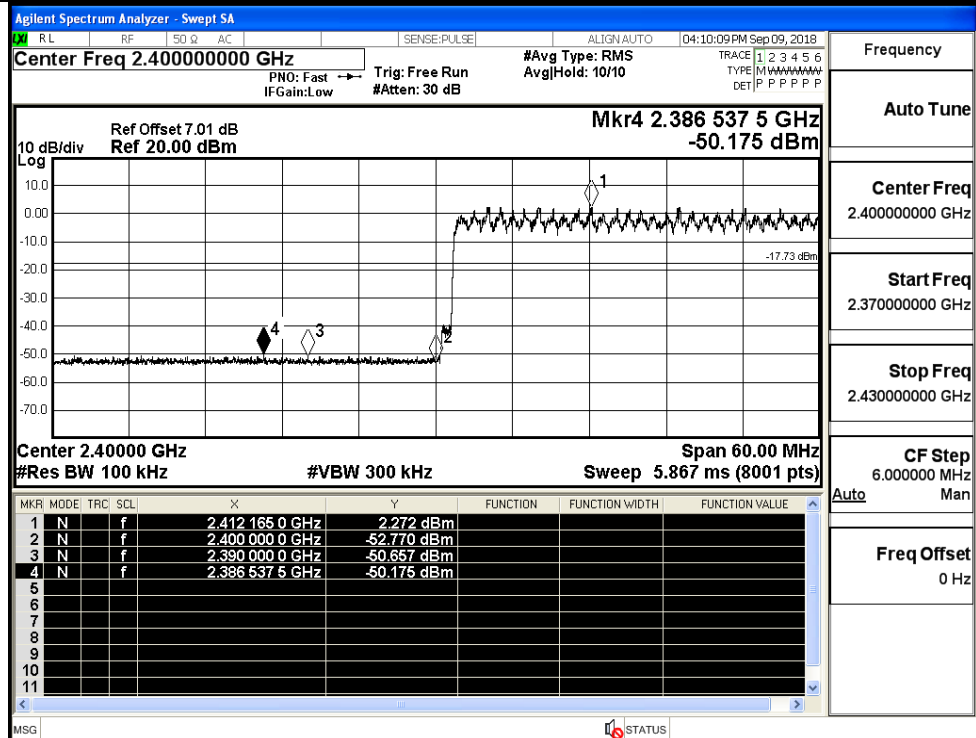
$\pi/4$ DQPSK/HCH/Hop



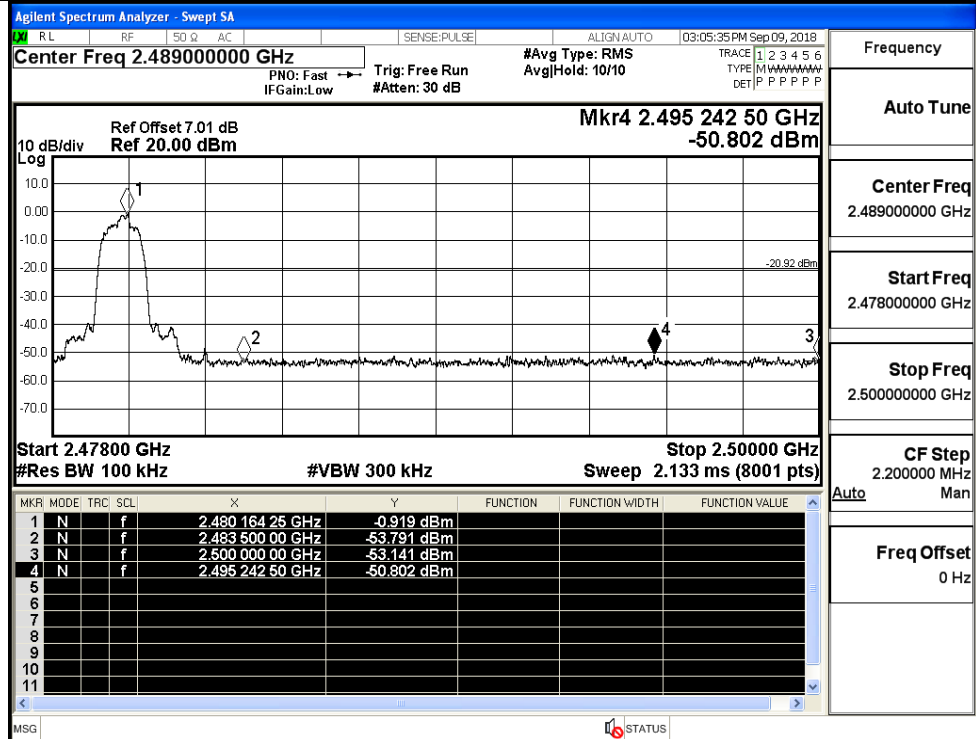
8DPSK/LCH/No Hop



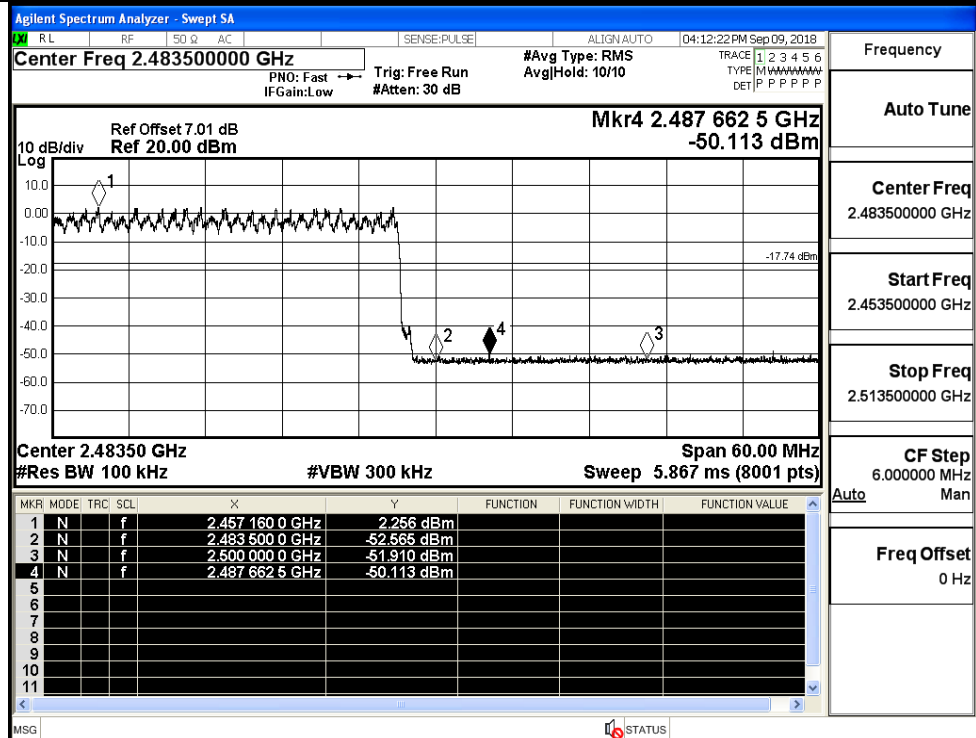
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



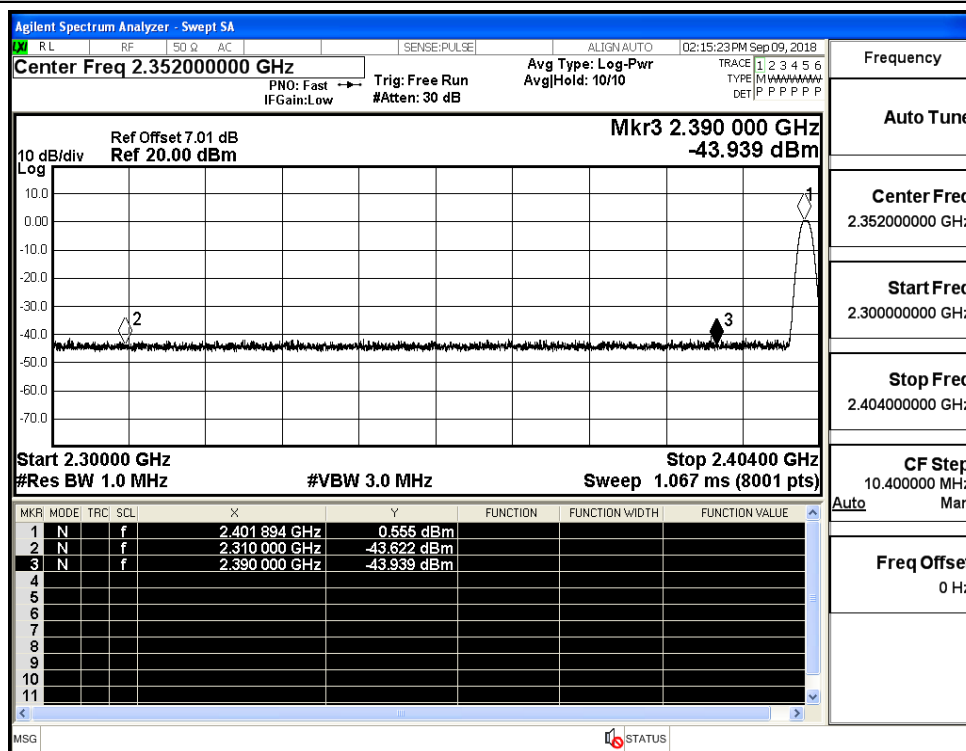
8DPSK/HCH/Hop



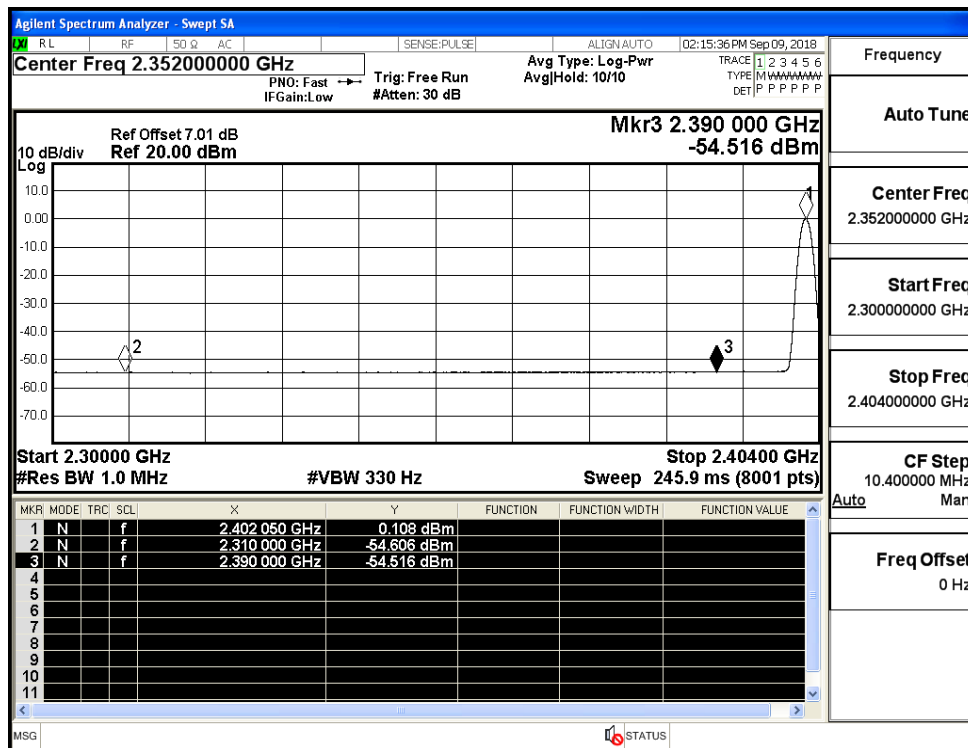
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.62	2.0	0	51.64	PEAK	74	PASS
	Off	2310.0	-54.61	2.0	0	40.65	AV	54	PASS
	Off	2390.0	-43.94	2.0	0	51.32	PEAK	74	PASS
	Off	2390.0	-54.52	2.0	0	40.74	AV	54	PASS
	Off	2483.5	-43.76	2.0	0	51.50	PEAK	74	PASS
	Off	2483.5	-53.90	2.0	0	41.36	AV	54	PASS
	Off	2500.0	-43.72	2.0	0	51.53	PEAK	74	PASS
	Off	2500.0	-54.03	2.0	0	41.23	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.90	2.0	0	51.36	PEAK	74	PASS
	Off	2310.0	-54.52	2.0	0	40.74	AV	54	PASS
	Off	2390.0	-43.22	2.0	0	52.04	PEAK	74	PASS
	Off	2390.0	-54.34	2.0	0	40.92	AV	54	PASS
	Off	2483.5	-42.80	2.0	0	52.46	PEAK	74	PASS
	Off	2483.5	-53.86	2.0	0	41.40	AV	54	PASS
	Off	2500.0	-43.82	2.0	0	51.44	PEAK	74	PASS
	Off	2500.0	-53.99	2.0	0	41.27	AV	54	PASS
8DPSK	Off	2310.0	-43.97	2.0	0	51.29	PEAK	74	PASS
	Off	2310.0	-54.45	2.0	0	40.81	AV	54	PASS
	Off	2390.0	-44.68	2.0	0	50.58	PEAK	74	PASS
	Off	2390.0	-54.27	2.0	0	40.98	AV	54	PASS
	Off	2483.5	-43.43	2.0	0	51.83	PEAK	74	PASS
	Off	2483.5	-54.03	2.0	0	41.22	AV	54	PASS
	Off	2500.0	-44.22	2.0	0	51.03	PEAK	74	PASS
	Off	2500.0	-53.96	2.0	0	41.29	AV	54	PASS

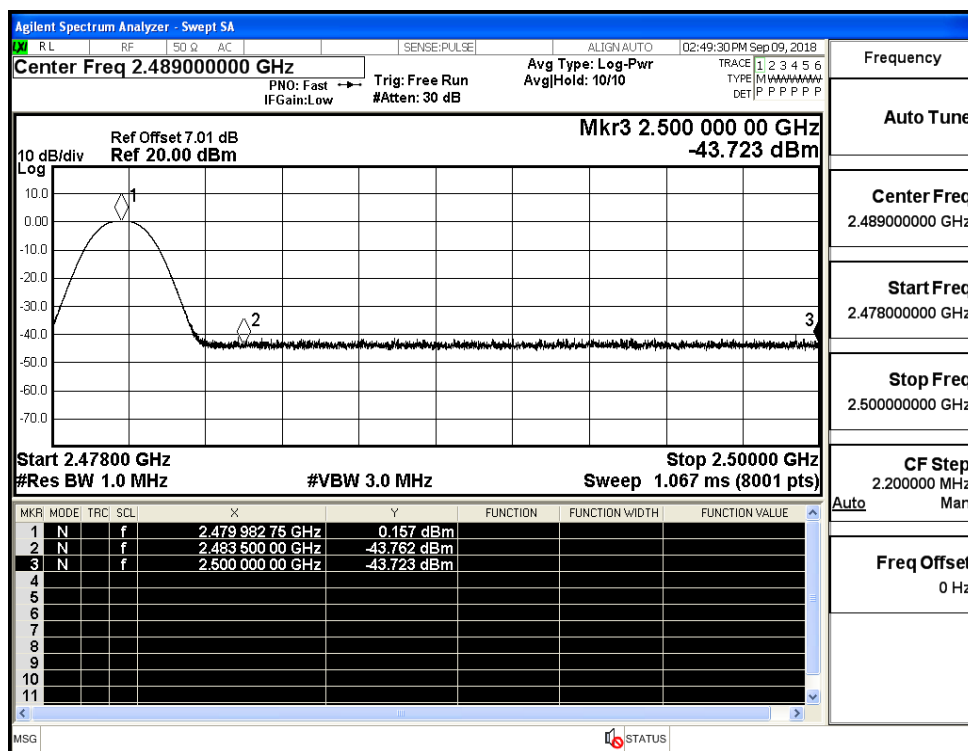
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



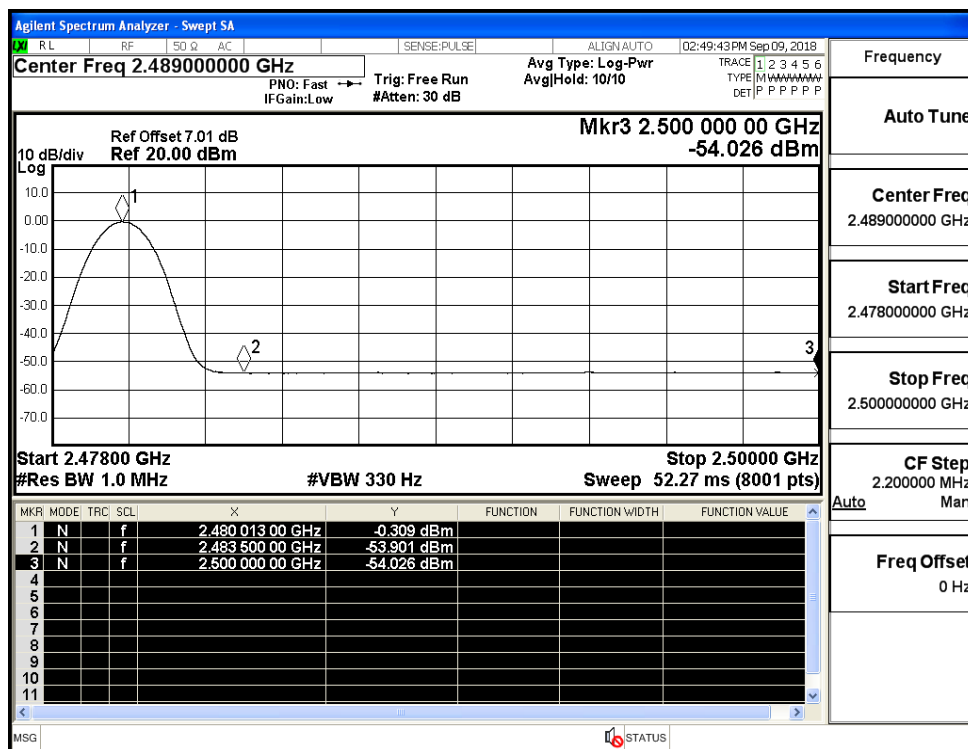
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

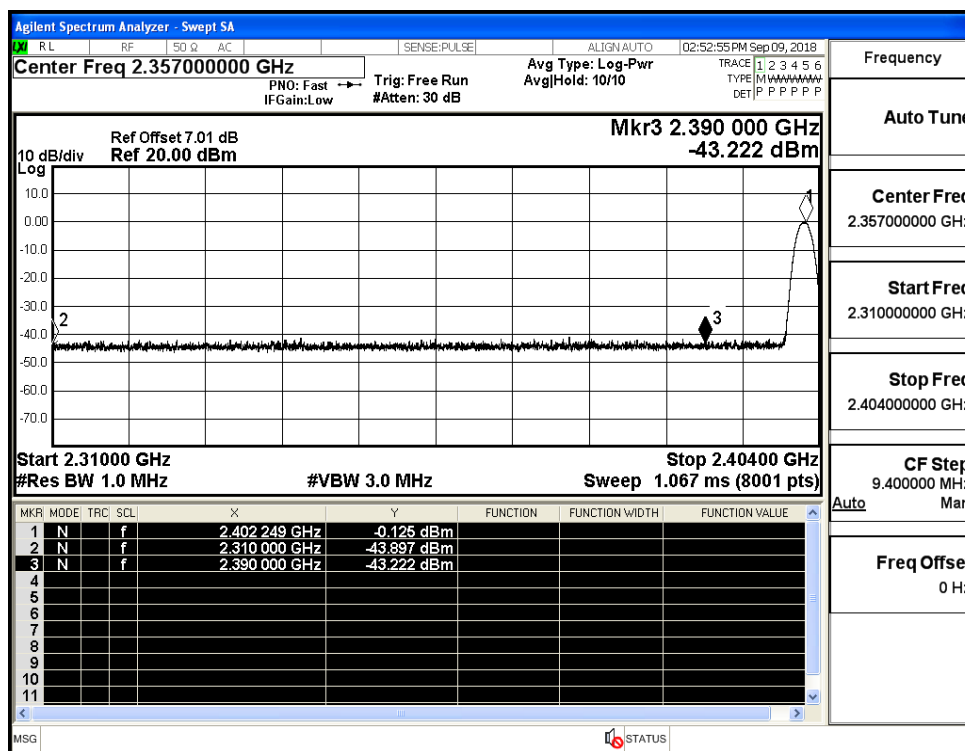
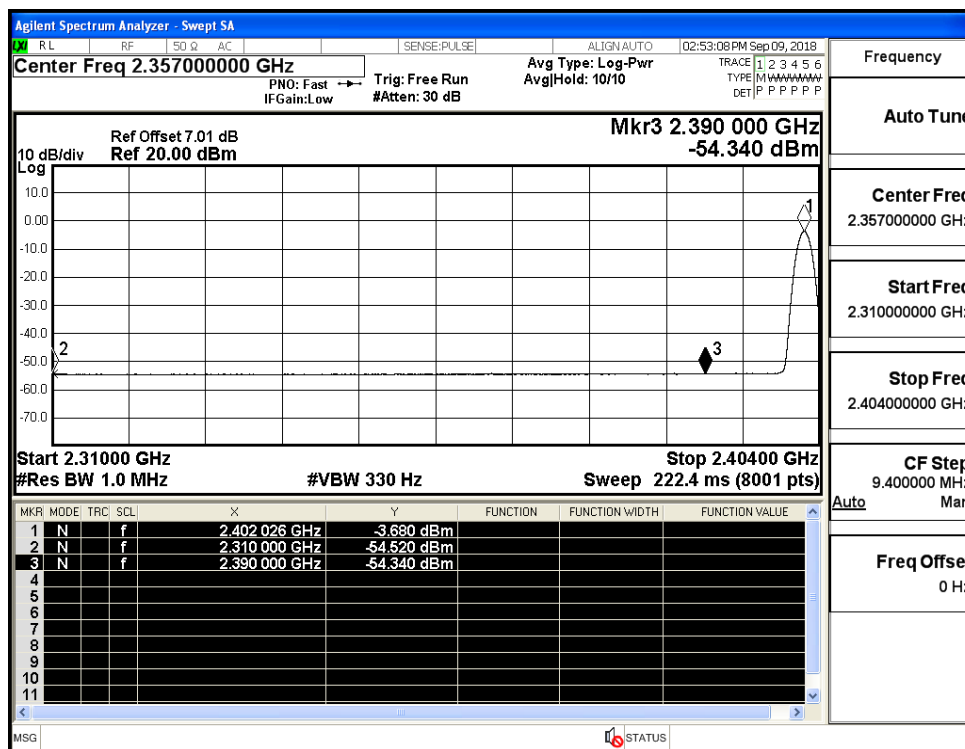


Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)

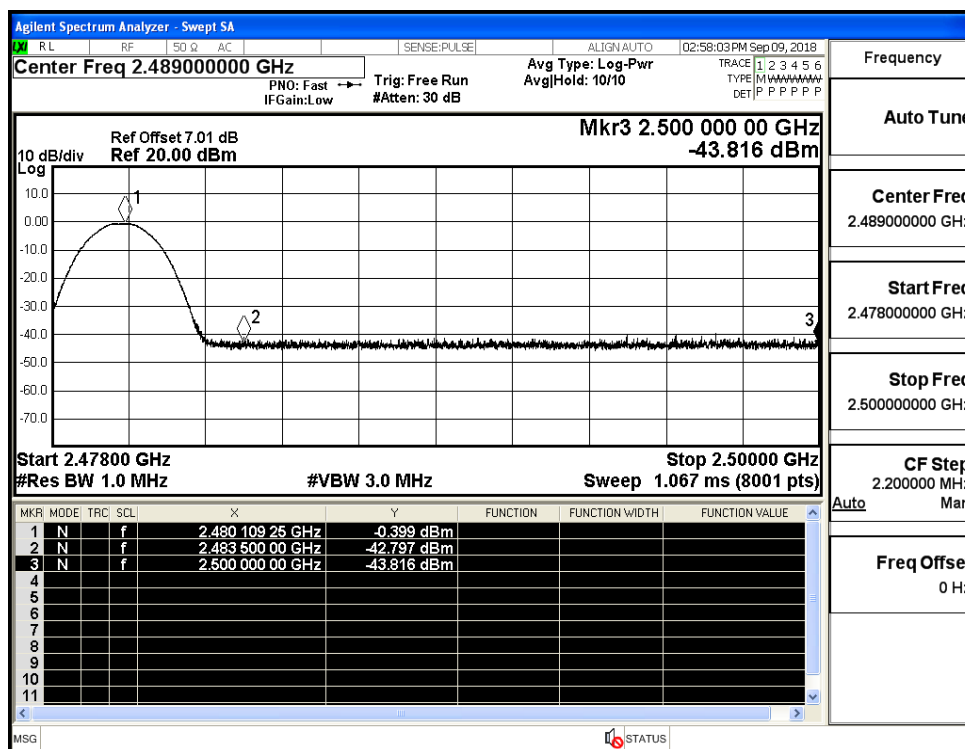


Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)

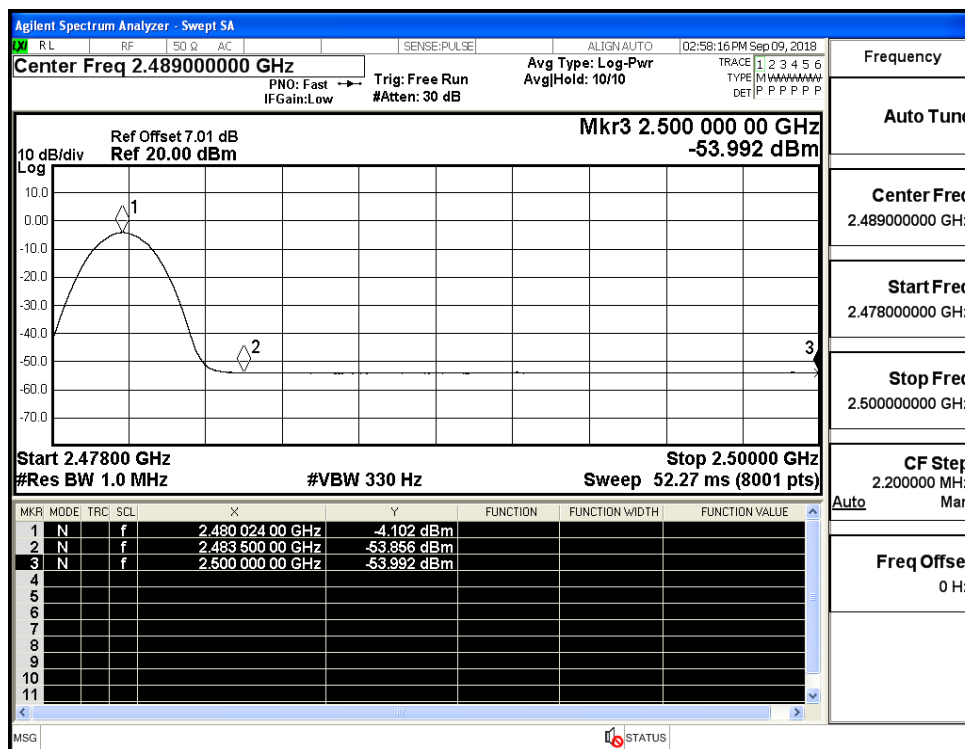


Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

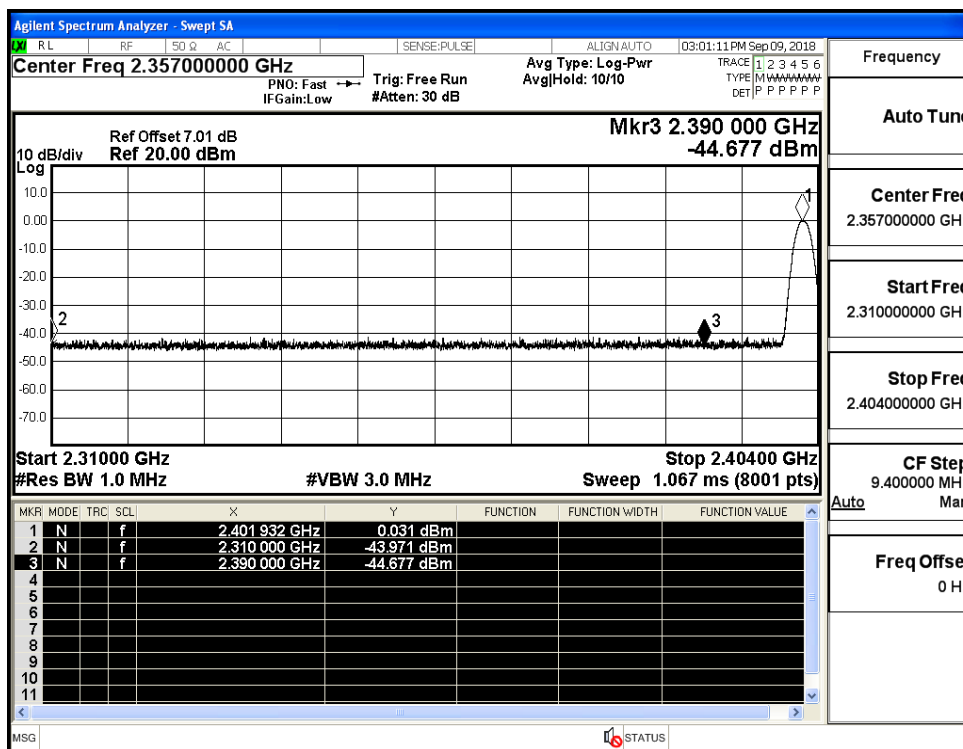
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



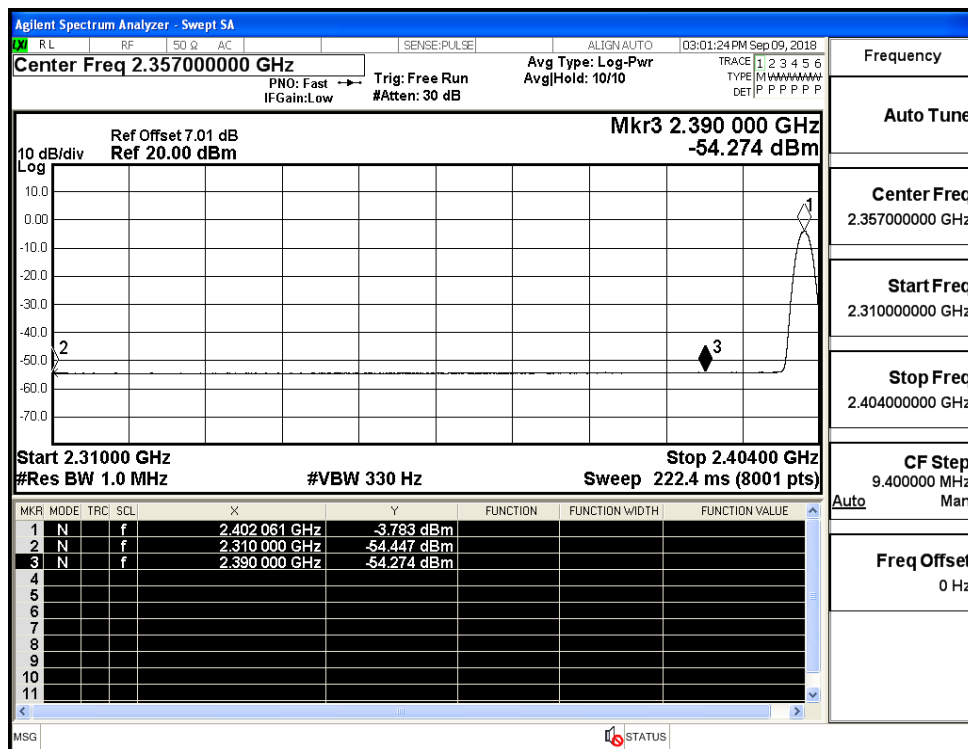
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



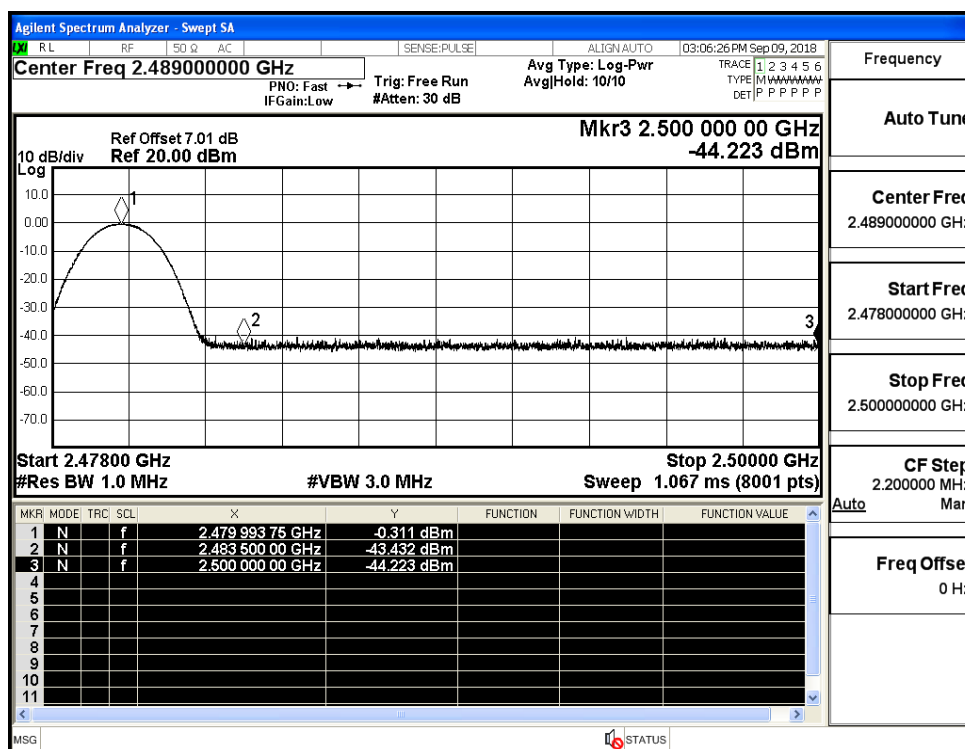
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

