

## Appendix A

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

Product Name: CD Player

Trade Mark: HOTT

Test Model: CD711T

#### Environmental Conditions

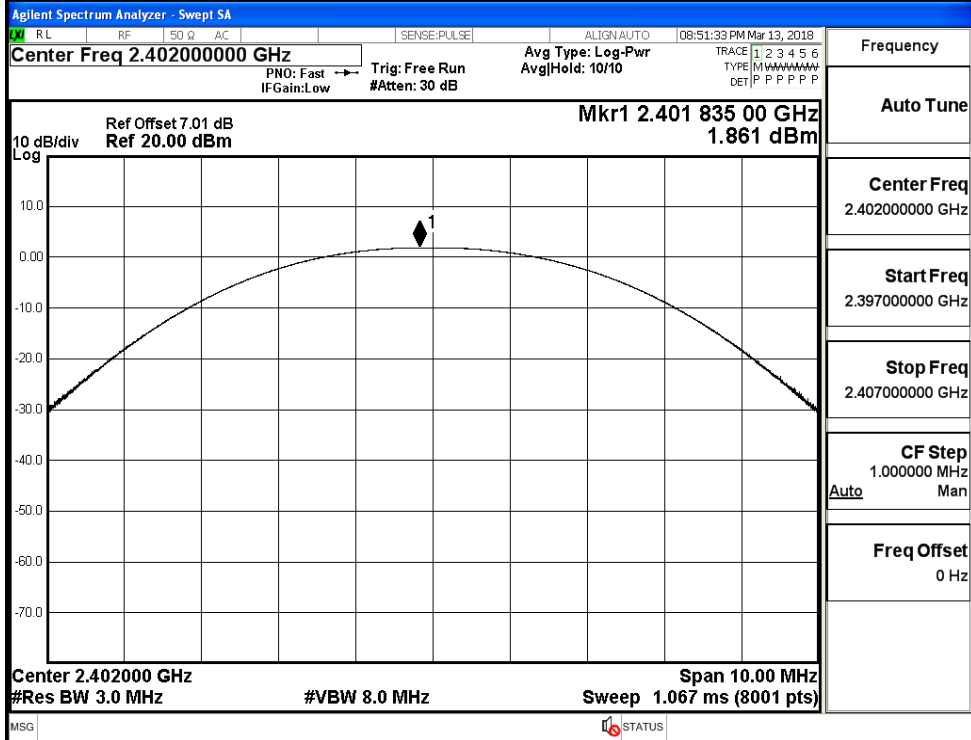
Temperature:	21.3 °C
Relative Humidity:	52.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden Zhuo

#### A.1 Maximum Conducted Peak Output Power

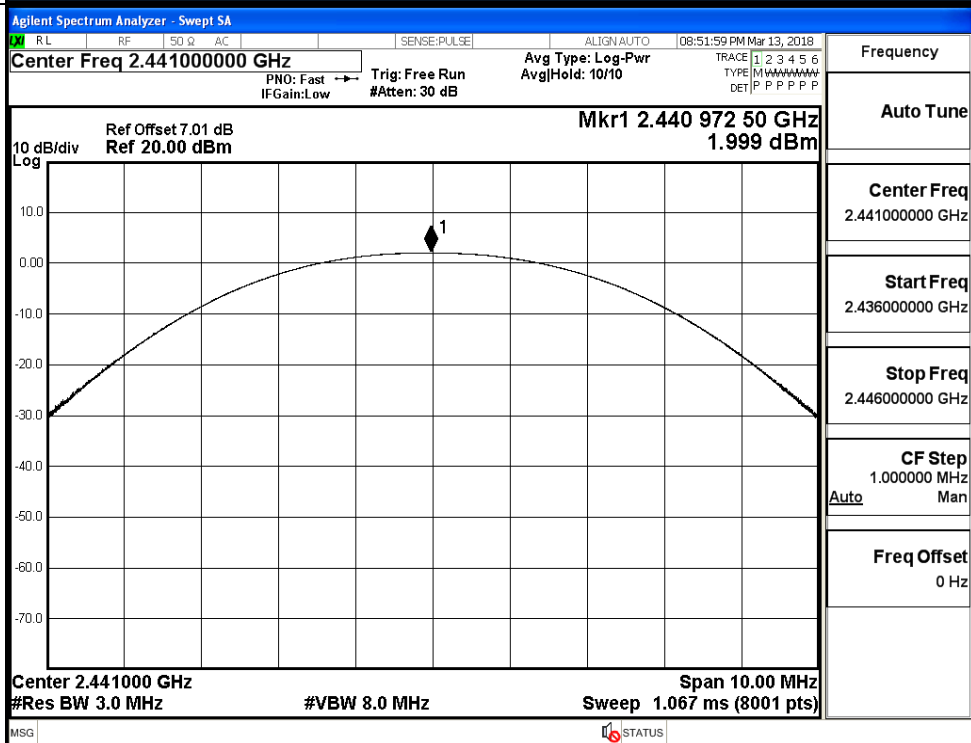
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	1.861	21	PASS
	MCH	1.999	21	PASS
	HCH	1.911	21	PASS
$\pi/4$ DQPSK	LCH	1.703	21	PASS
	MCH	1.824	21	PASS
	HCH	1.720	21	PASS
8DPSK	LCH	1.896	21	PASS
	MCH	2.019	21	PASS
	HCH	1.902	21	PASS

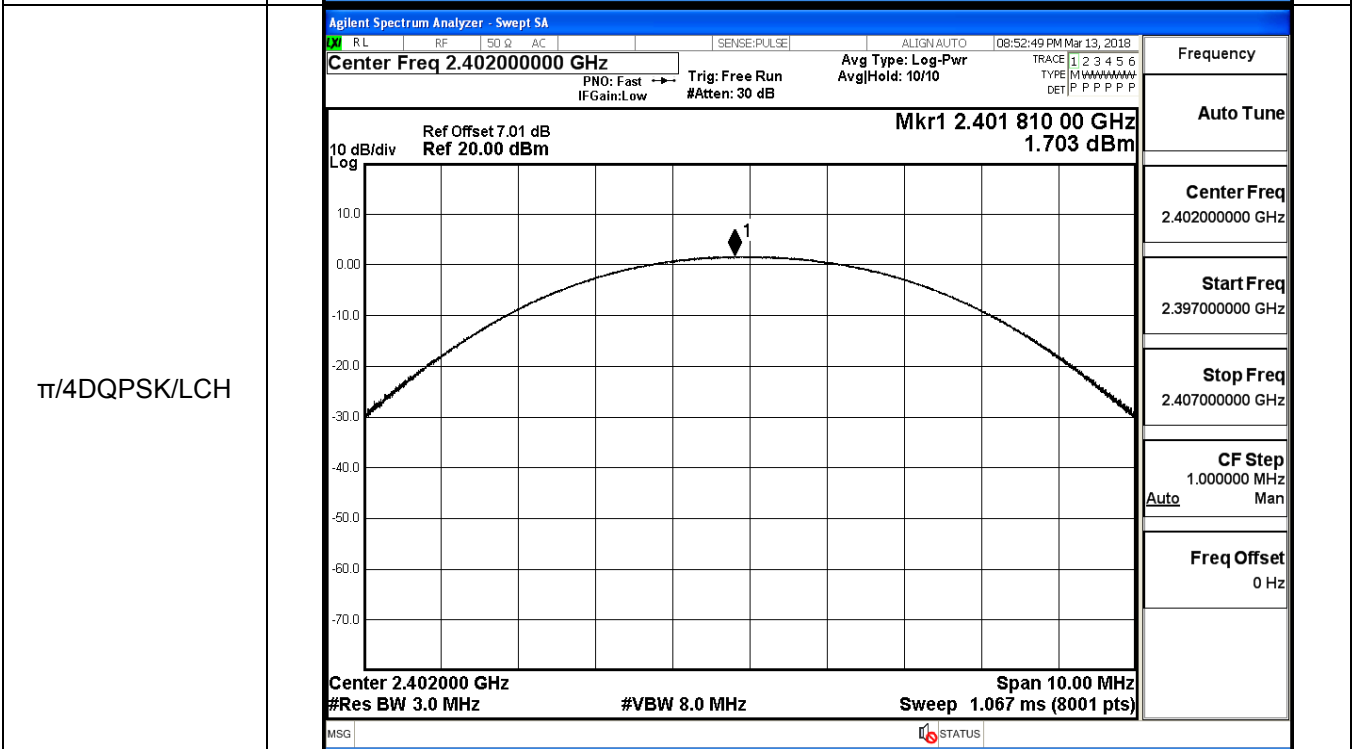
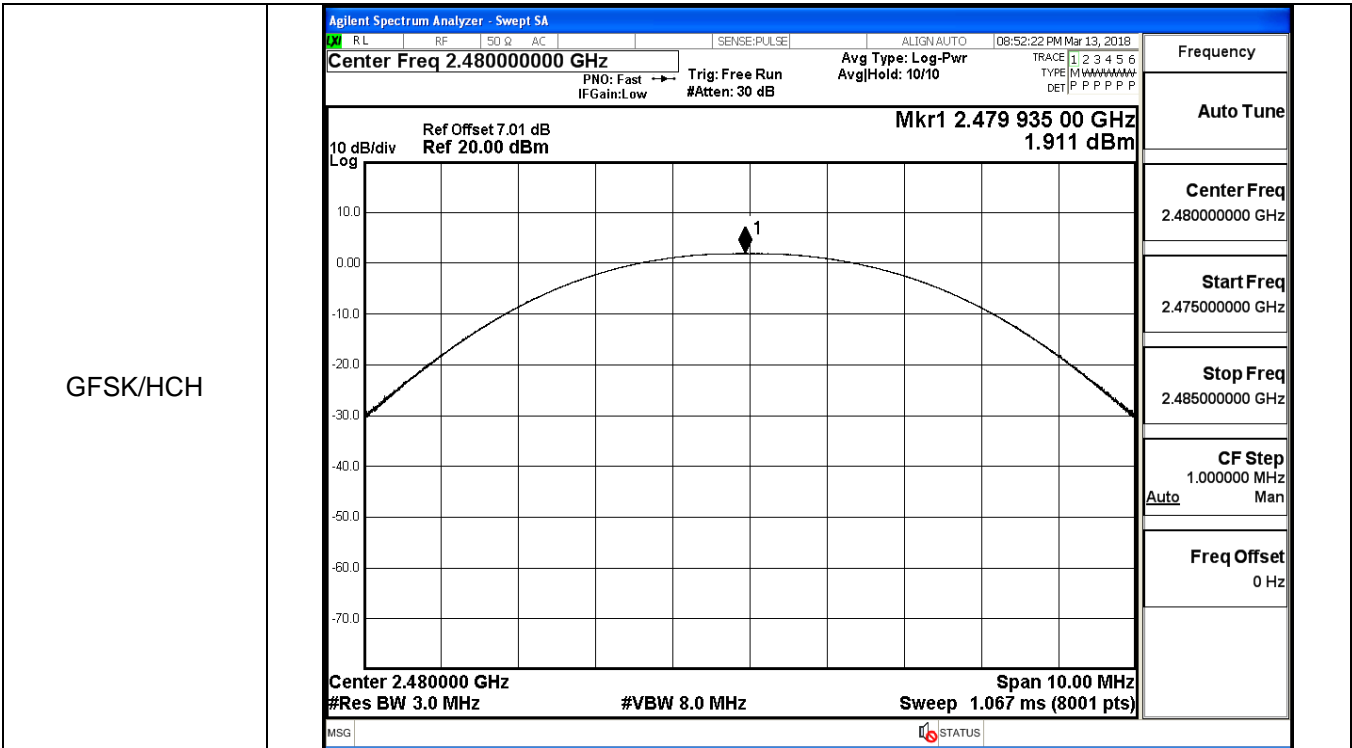
Test Graphs

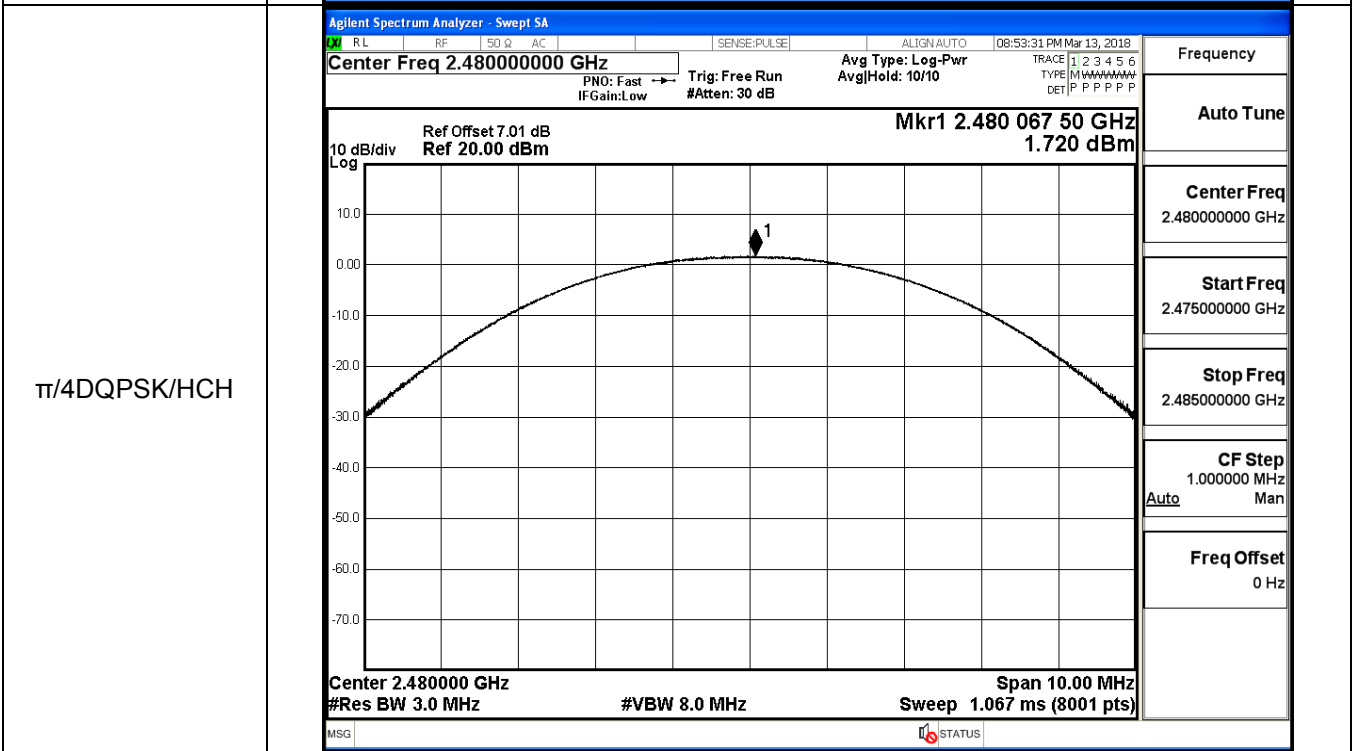
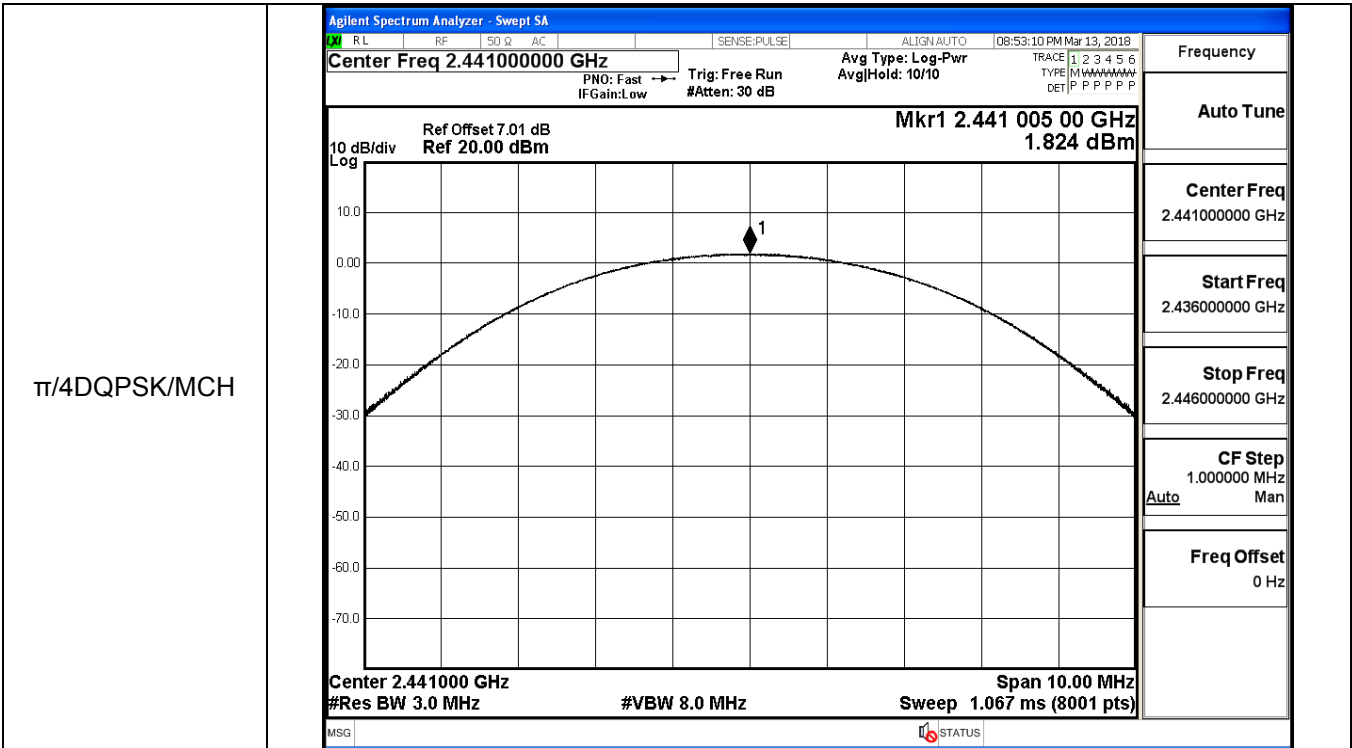
GFSK/LCH



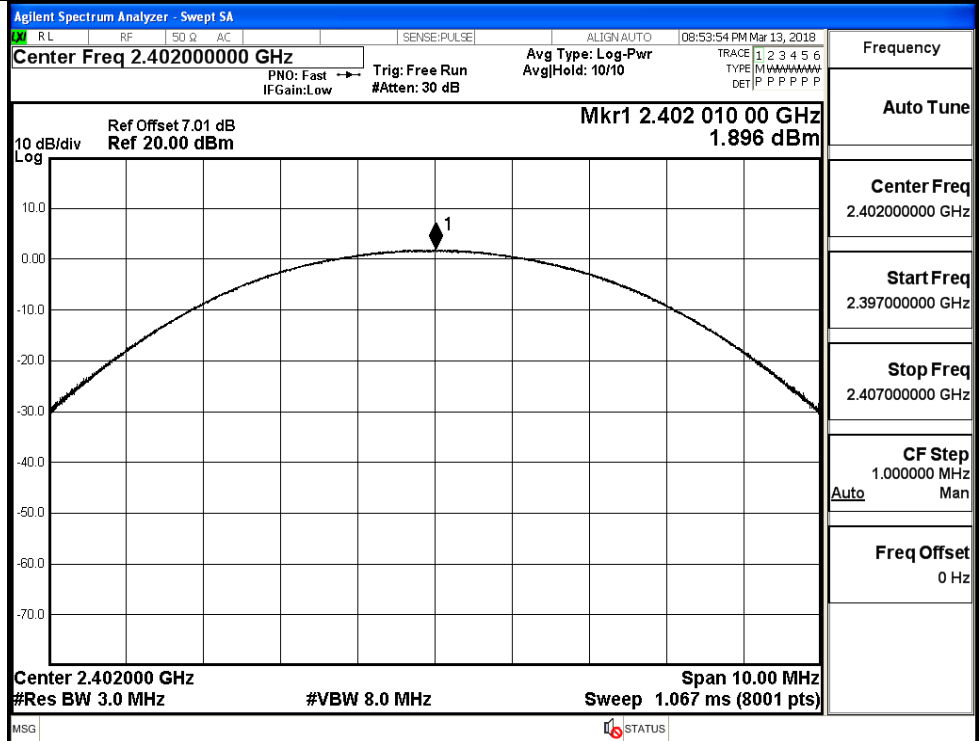
GFSK/MCH



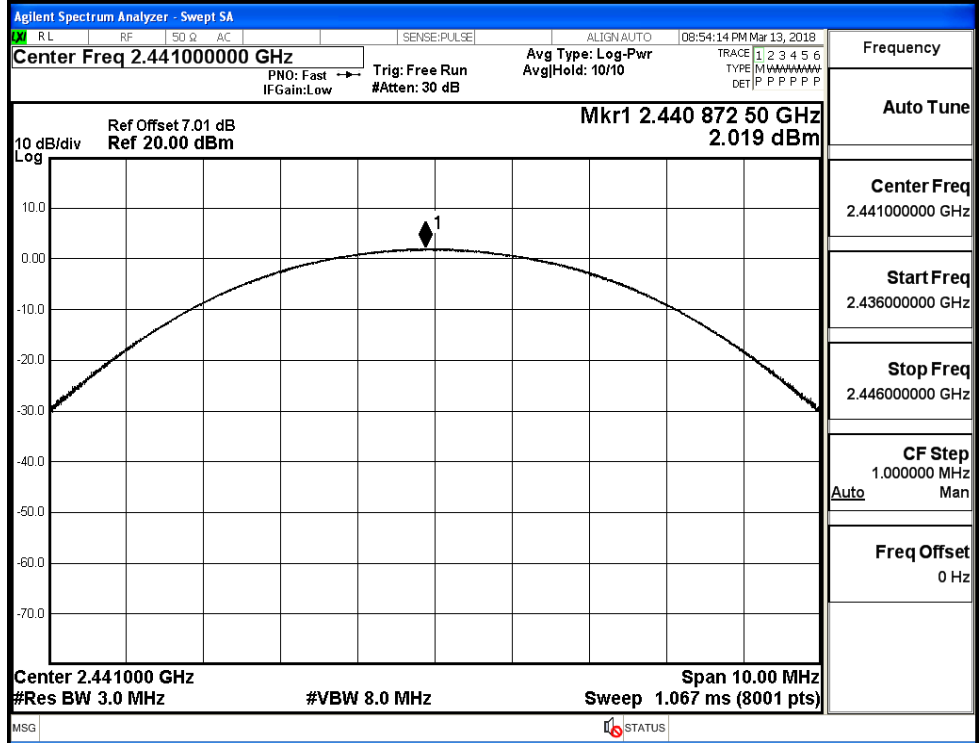




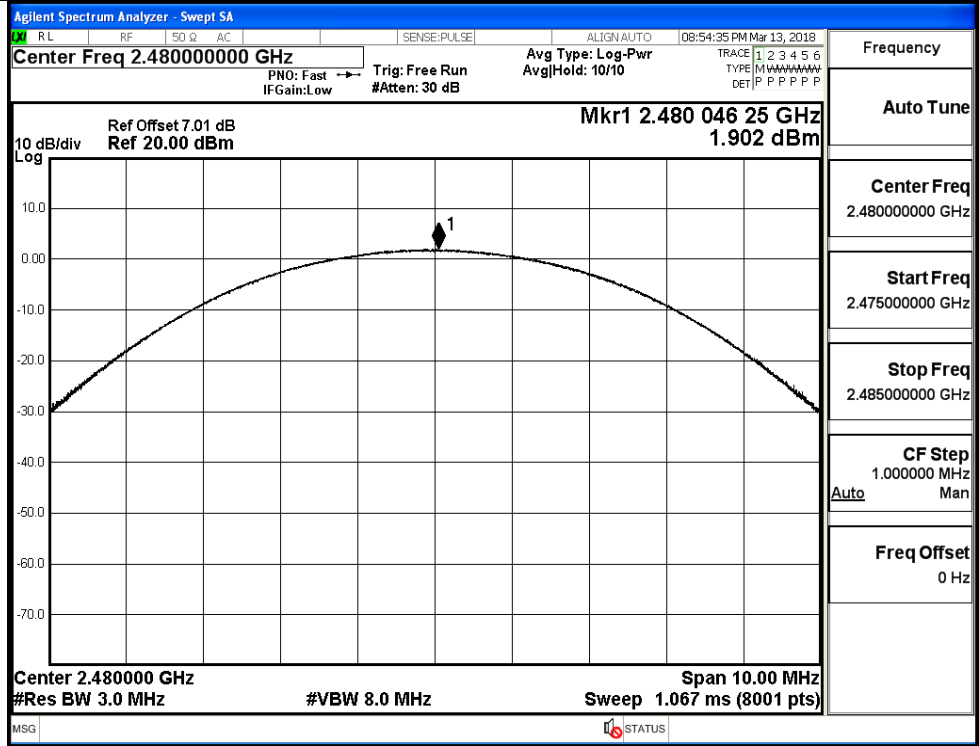
8DPSK/LCH



8DPSK/MCH

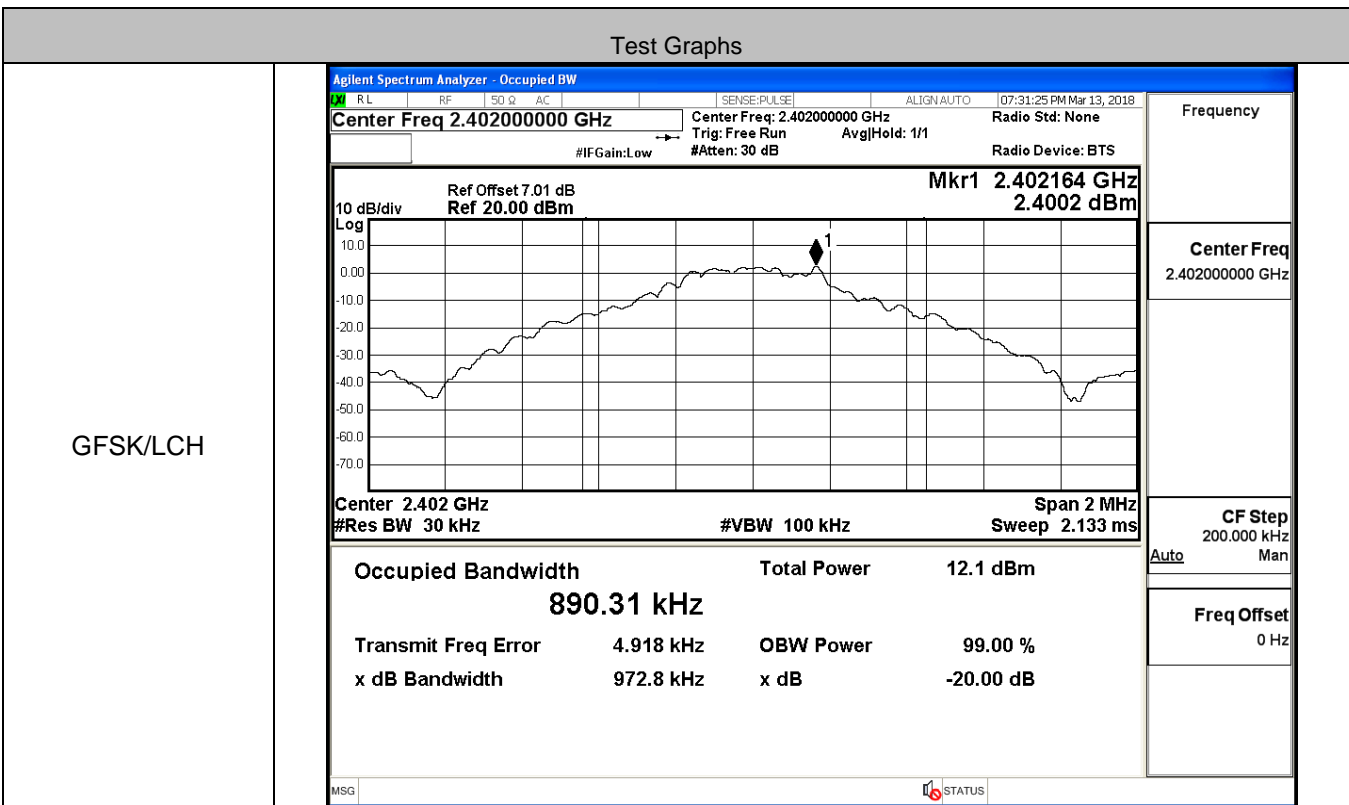


8DPSK/HCH

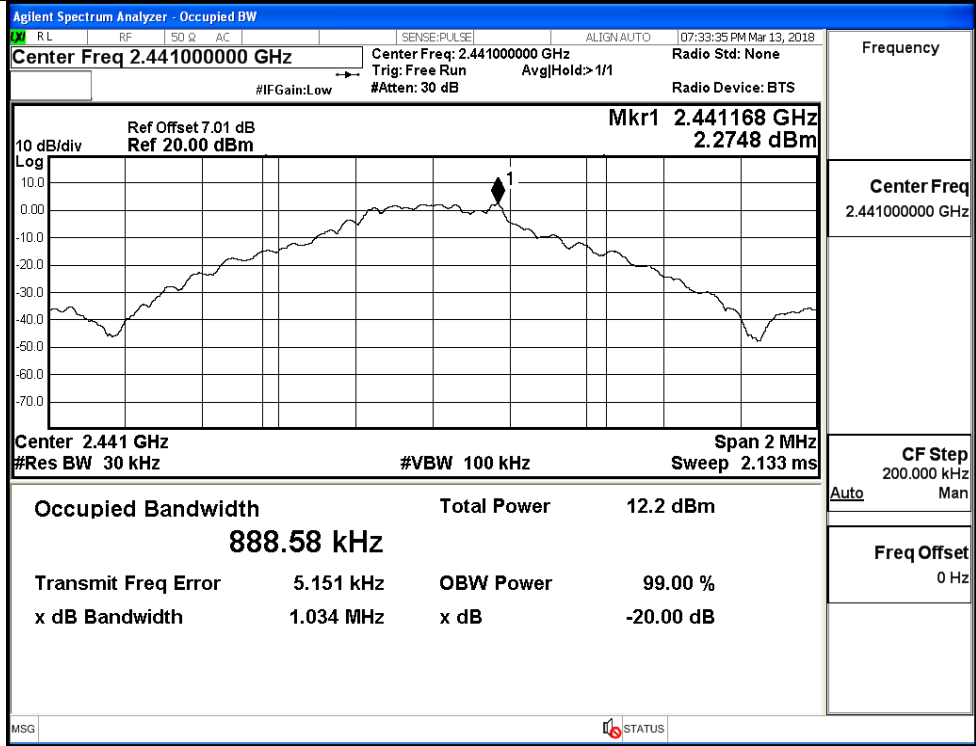


**A.2 20dB Bandwidth**

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9728	Not Specified	PASS
	MCH	1.034	Not Specified	PASS
	HCH	0.9675	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.288	Not Specified	PASS
	MCH	1.287	Not Specified	PASS
	HCH	1.286	Not Specified	PASS
8DPSK	LCH	1.290	Not Specified	PASS
	MCH	1.290	Not Specified	PASS
	HCH	1.289	Not Specified	PASS

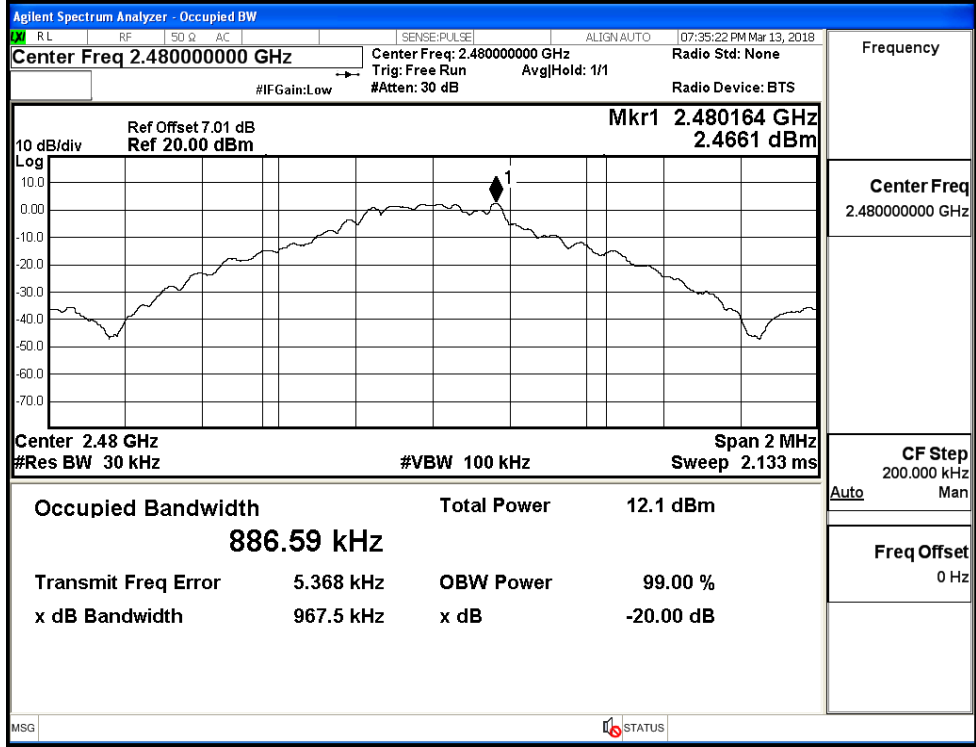


GFSK/MCH



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

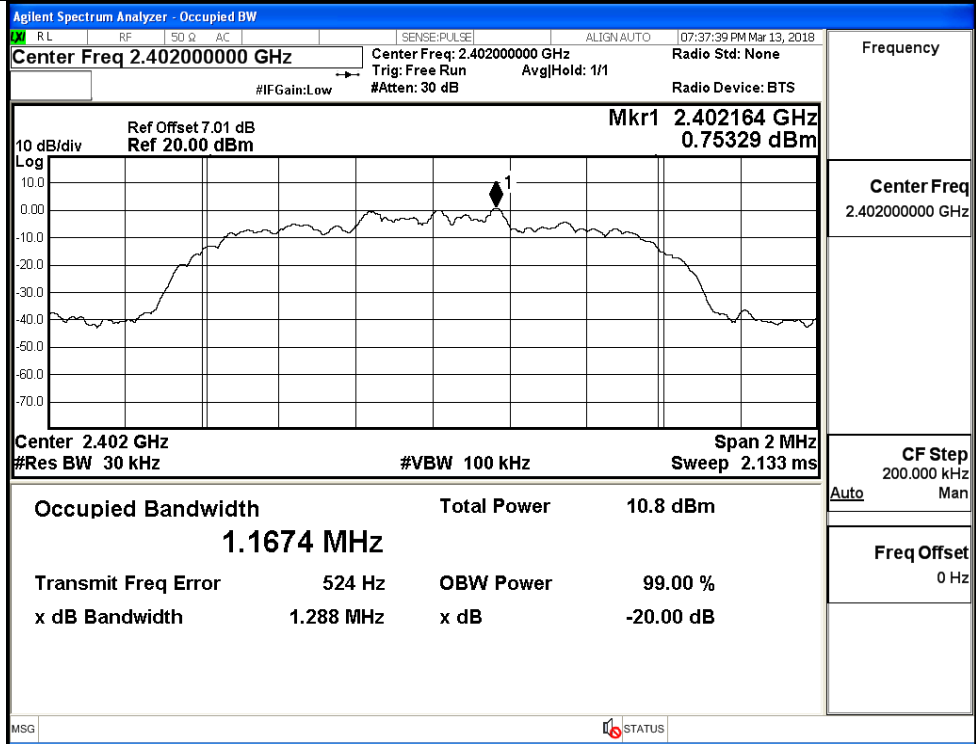
GFSK/HCH



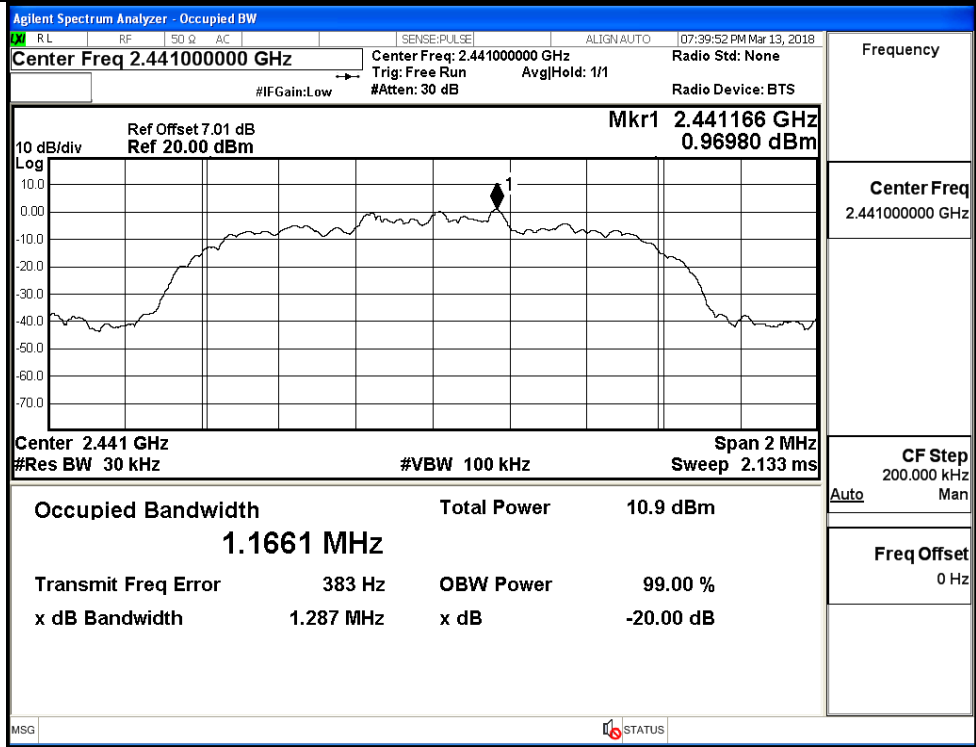
Frequency	2.480000000 GHz
Center Freq	2.480000000 GHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz



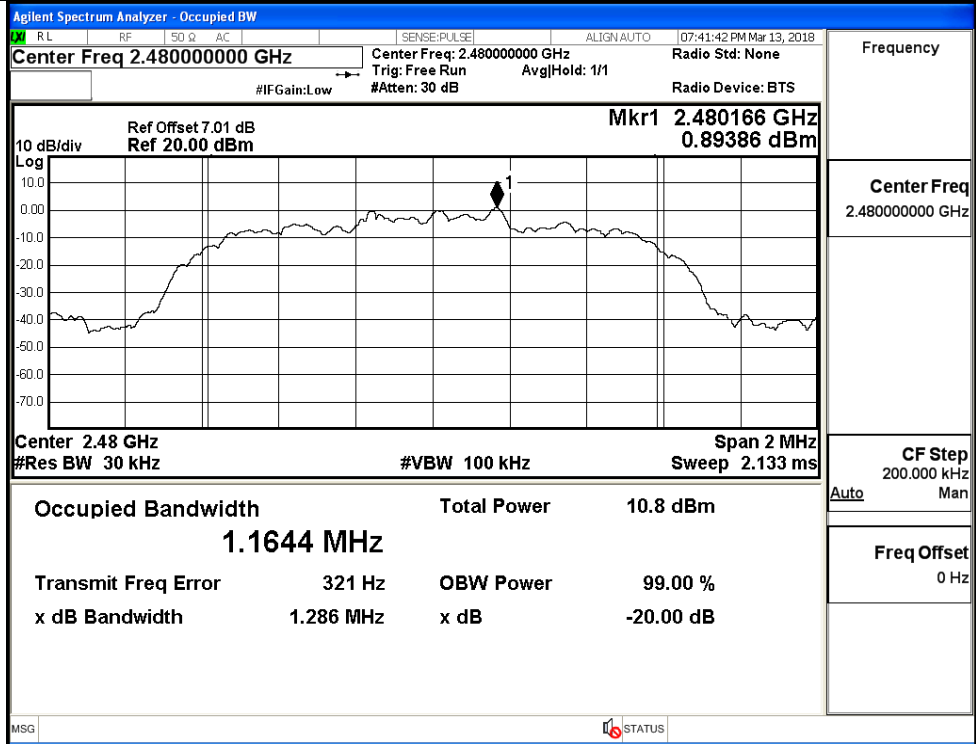
$\pi/4$ DQPSK/LCH



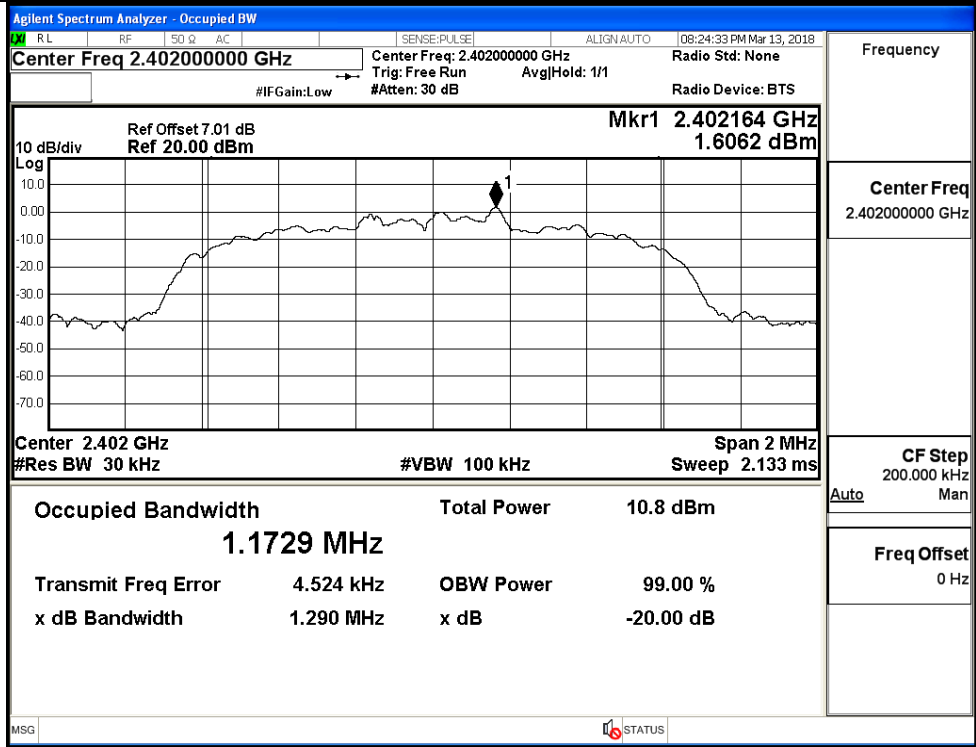
$\pi/4$ DQPSK/MCH



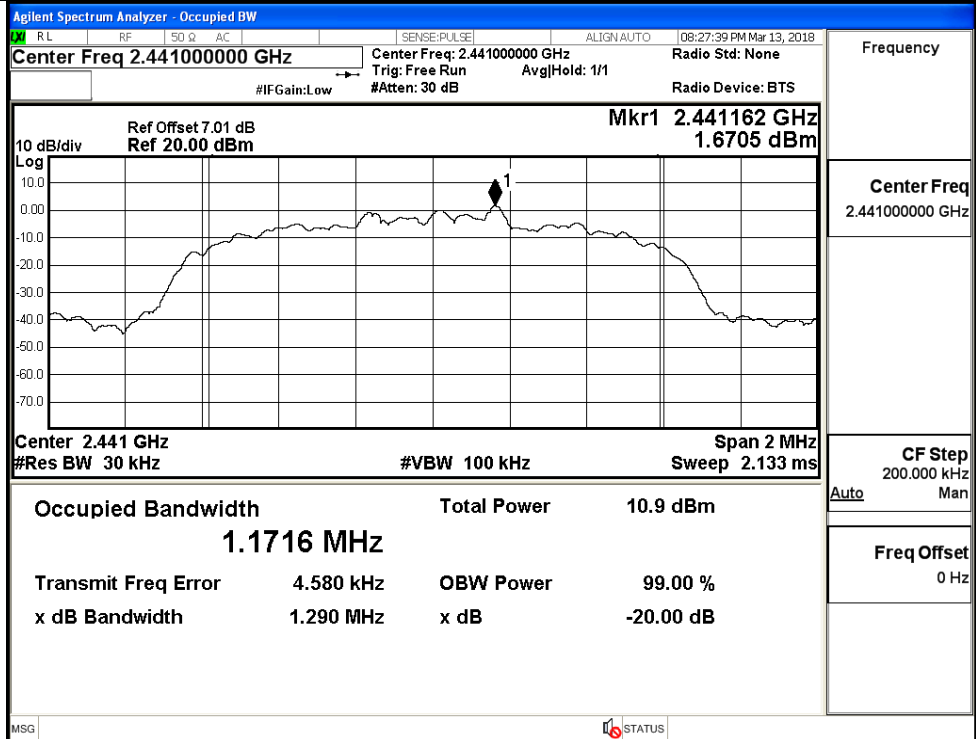
$\pi/4$ DQPSK/HCH



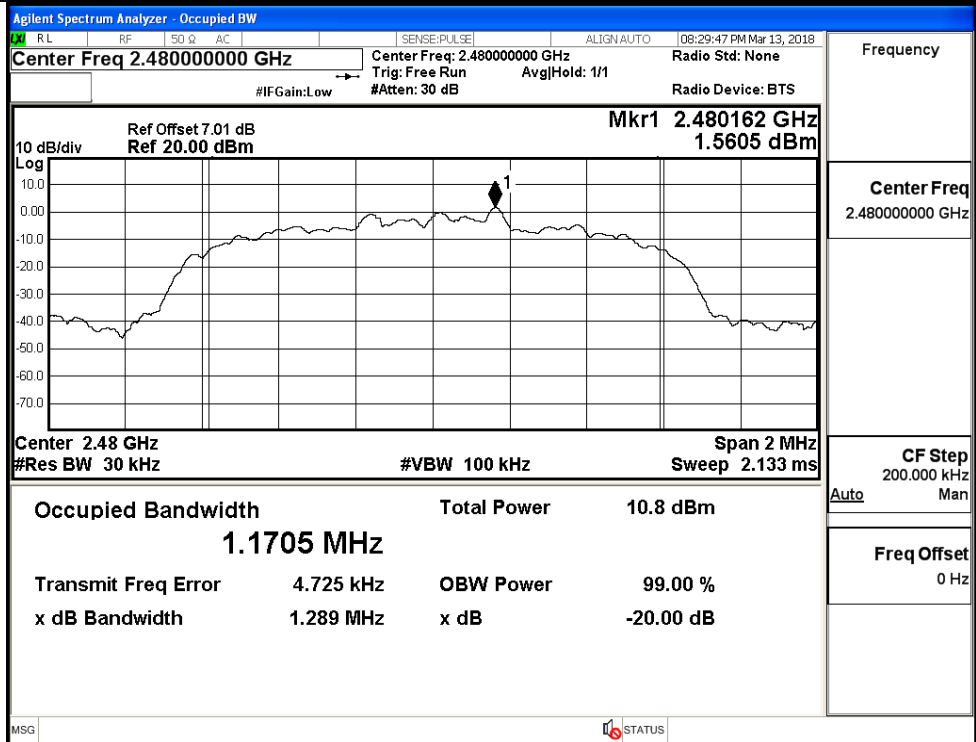
8DPSK/LCH



8DPSK/MCH

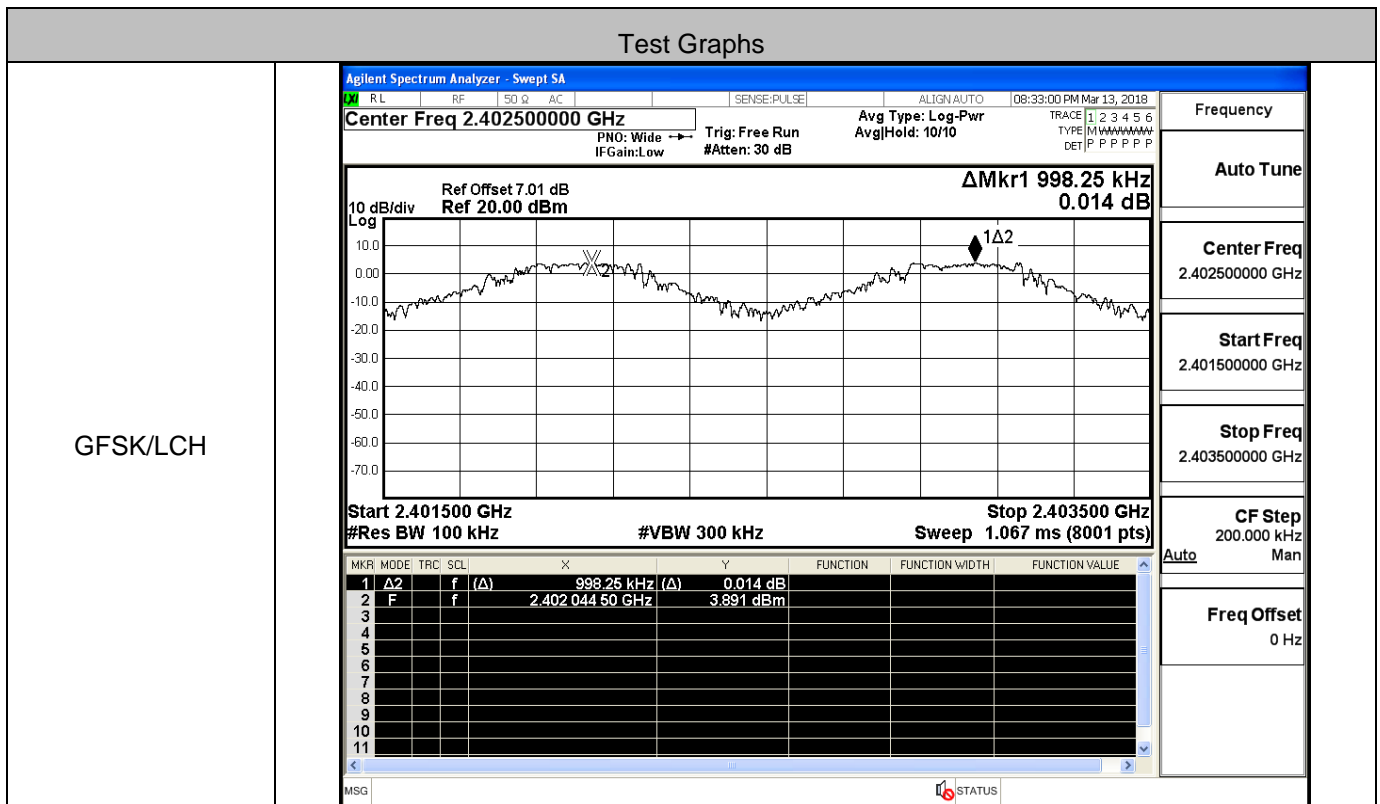


8DPSK/HCH

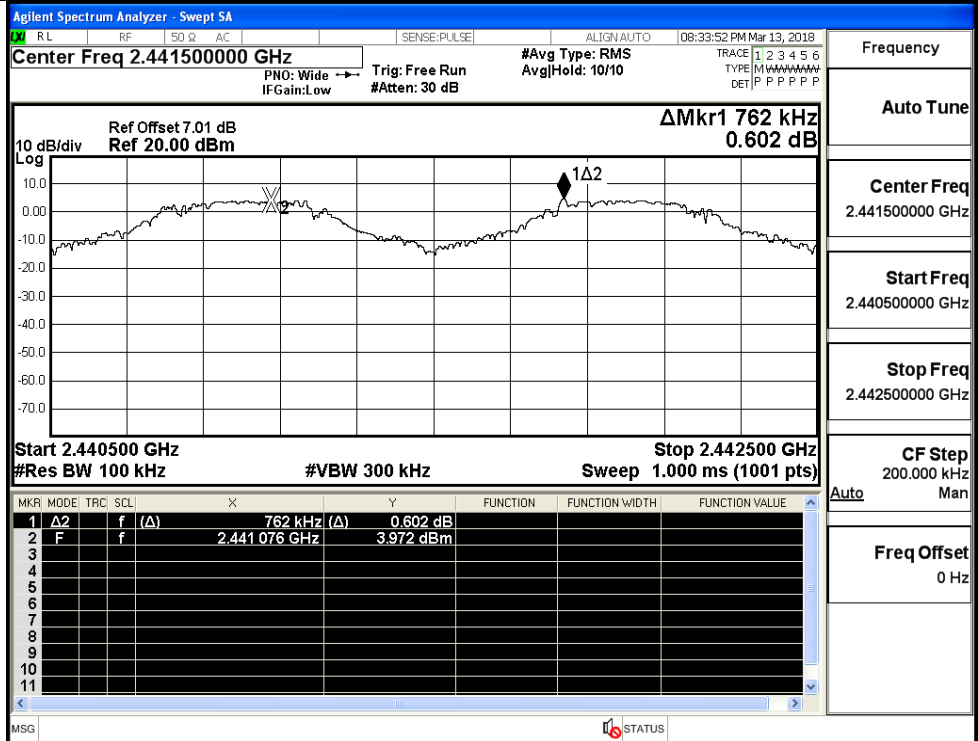


### A.3 Carrier Frequency Separation

Mode	Channel	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.998	0.6485	PASS
	MCH	0.762	0.6893	PASS
	HCH	1.146	0.6450	PASS
π/4DQPSK	LCH	1.194	0.8587	PASS
	MCH	1.020	0.8580	PASS
	HCH	1.282	0.8573	PASS
8DPSK	LCH	0.974	0.8600	PASS
	MCH	0.936	0.8600	PASS
	HCH	1.346	0.8593	PASS



GFSK/MCH



Frequency

Auto Tune

Center Freq  
2.441500000 GHz

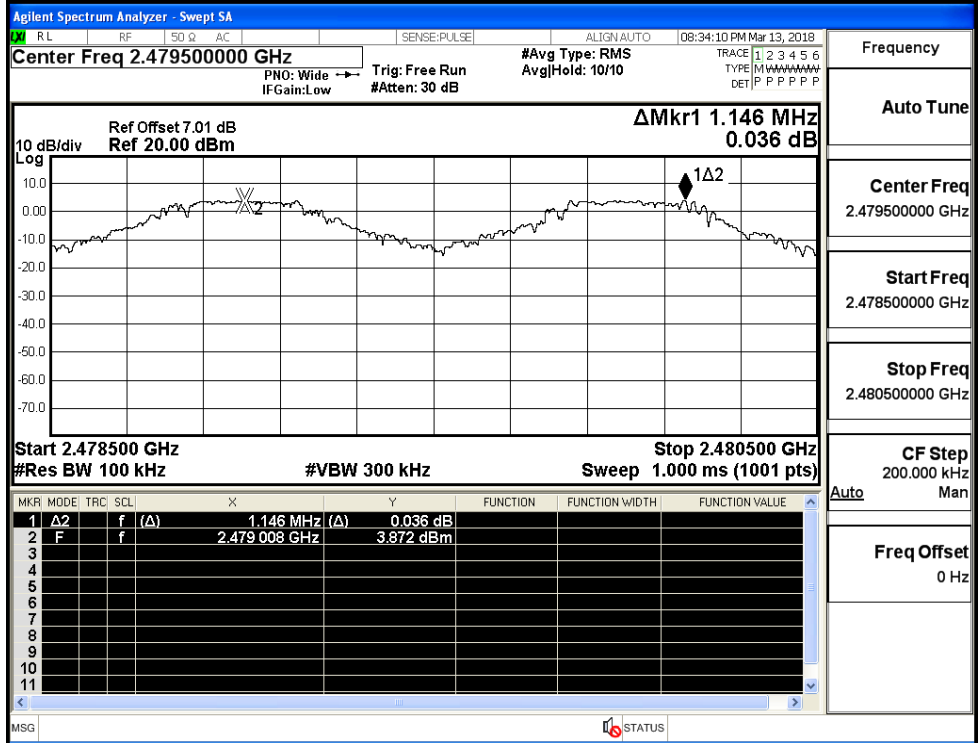
Start Freq  
2.440500000 GHz

Stop Freq  
2.442500000 GHz

CF Step  
200.000 kHz  
Man

Freq Offset  
0 Hz

GFSK/HCH



Frequency

Auto Tune

Center Freq  
2.479500000 GHz

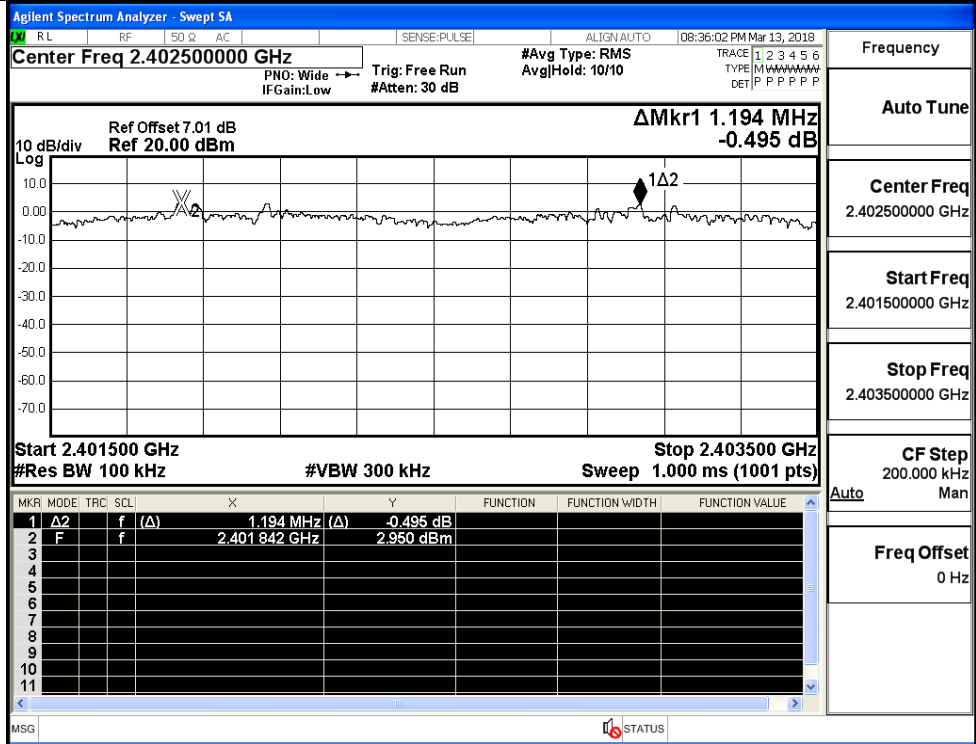
Start Freq  
2.478500000 GHz

Stop Freq  
2.480500000 GHz

CF Step  
200.000 kHz  
Man

Freq Offset  
0 Hz

$\pi/4$ DQPSK/LCH



Frequency

Auto Tune

Center Freq  
2.40250000 GHz

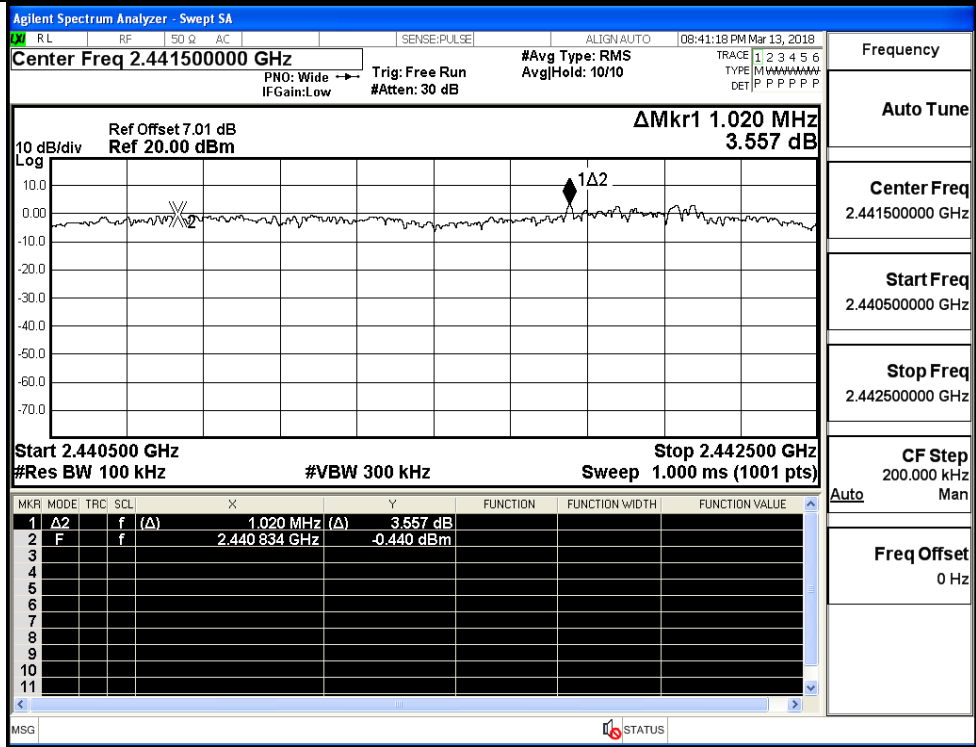
Start Freq  
2.40150000 GHz

Stop Freq  
2.40350000 GHz

CF Step  
200.000 kHz  
Auto Man

Freq Offset  
0 Hz

$\pi/4$ DQPSK/MCH



Frequency

Auto Tune

Center Freq  
2.44150000 GHz

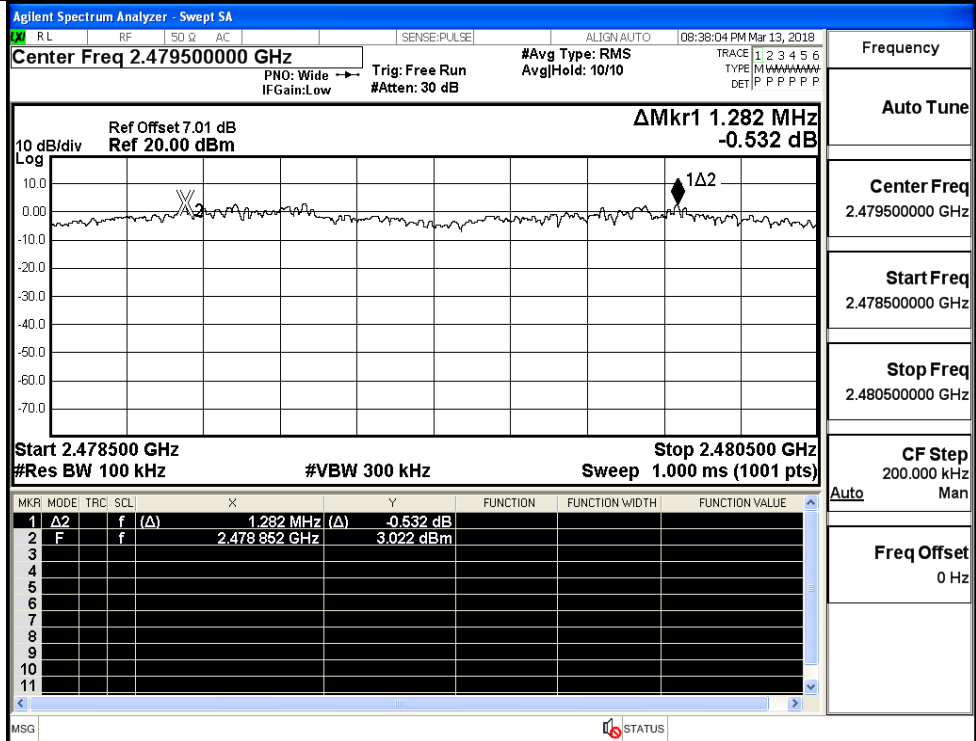
Start Freq  
2.44050000 GHz

Stop Freq  
2.44250000 GHz

CF Step  
200.000 kHz  
Auto Man

Freq Offset  
0 Hz

π/4DQPSK/HCH



Frequency

Auto Tune

Center Freq  
2.479500000 GHz

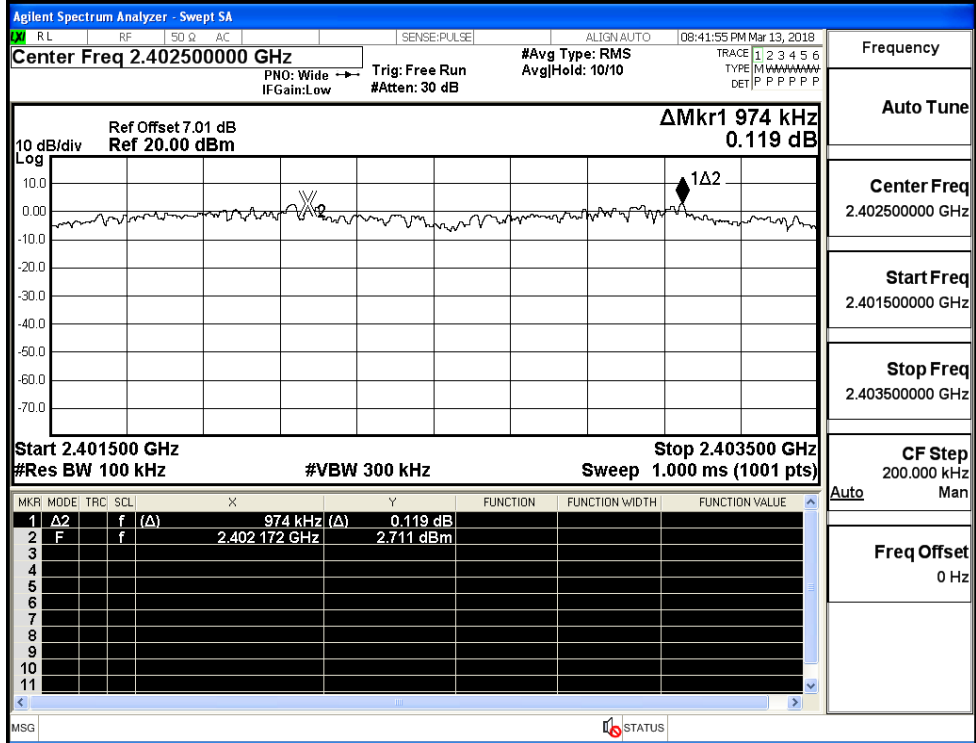
Start Freq  
2.478500000 GHz

Stop Freq  
2.480500000 GHz

CF Step  
200.000 kHz  
Auto Man

Freq Offset  
0 Hz

8DPSK/LCH



Frequency

Auto Tune

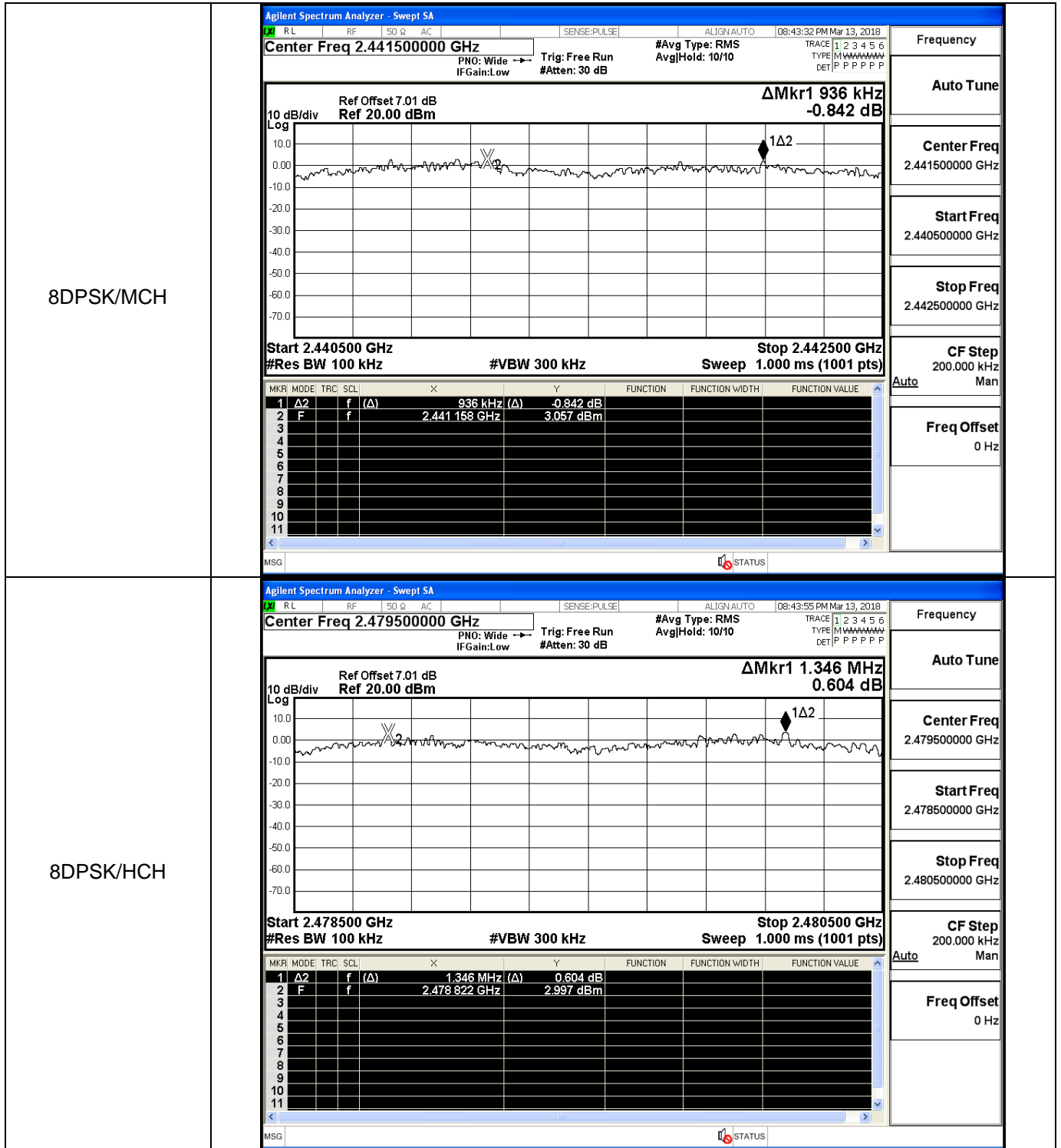
Center Freq  
2.402500000 GHz

Start Freq  
2.401500000 GHz

Stop Freq  
2.403500000 GHz

CF Step  
200.000 kHz  
Auto Man

Freq Offset  
0 Hz



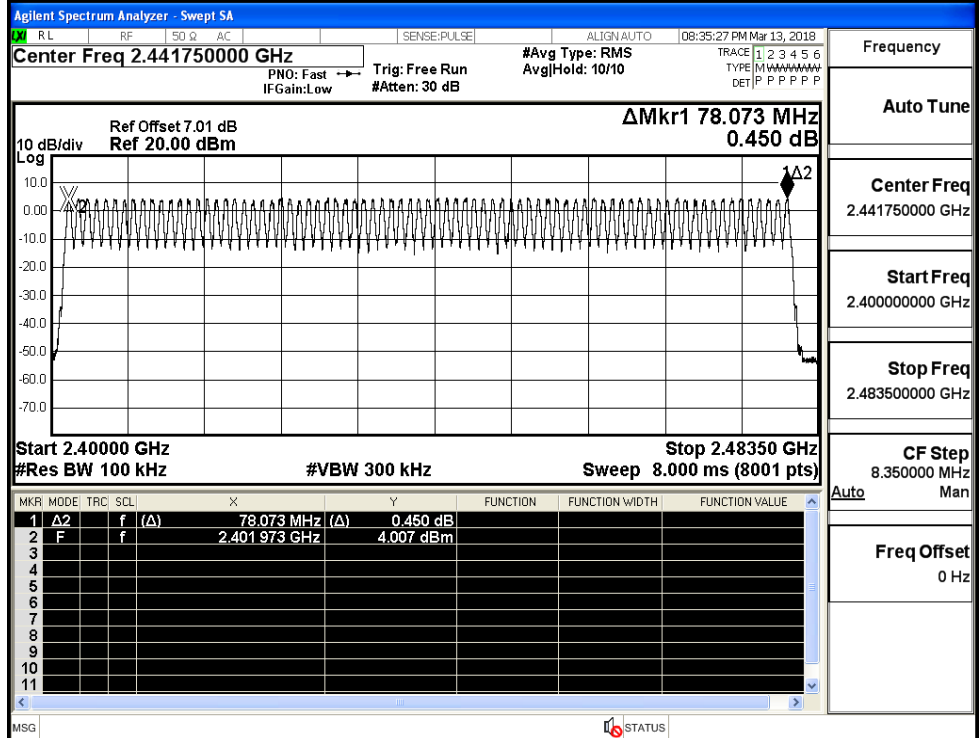
**A.4 Hopping Channel Number**

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

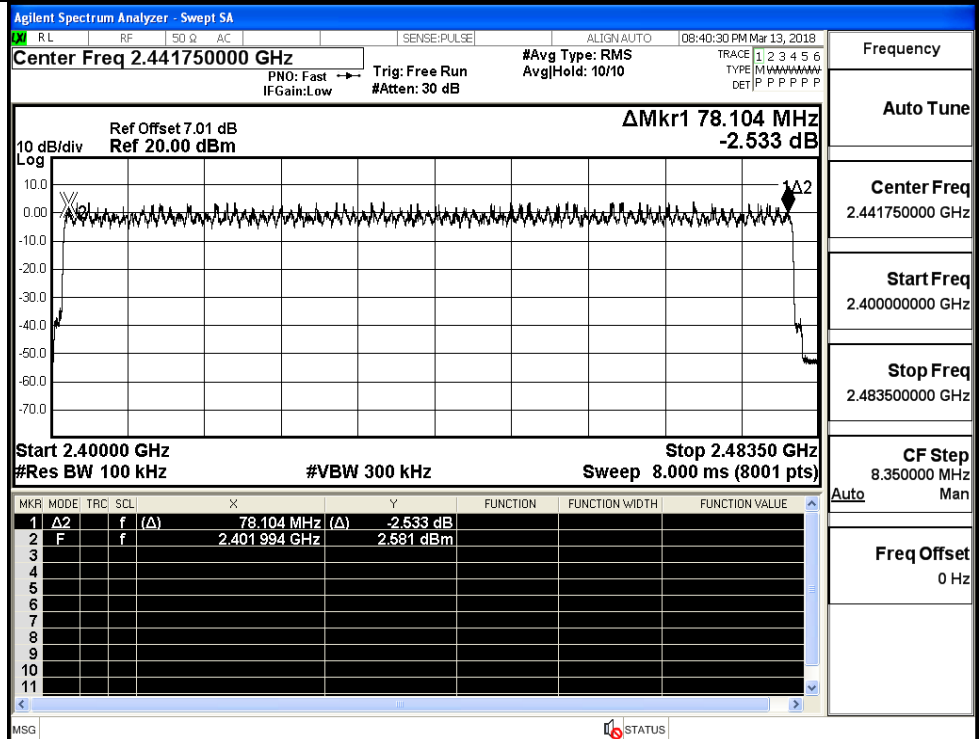


Test Graphs

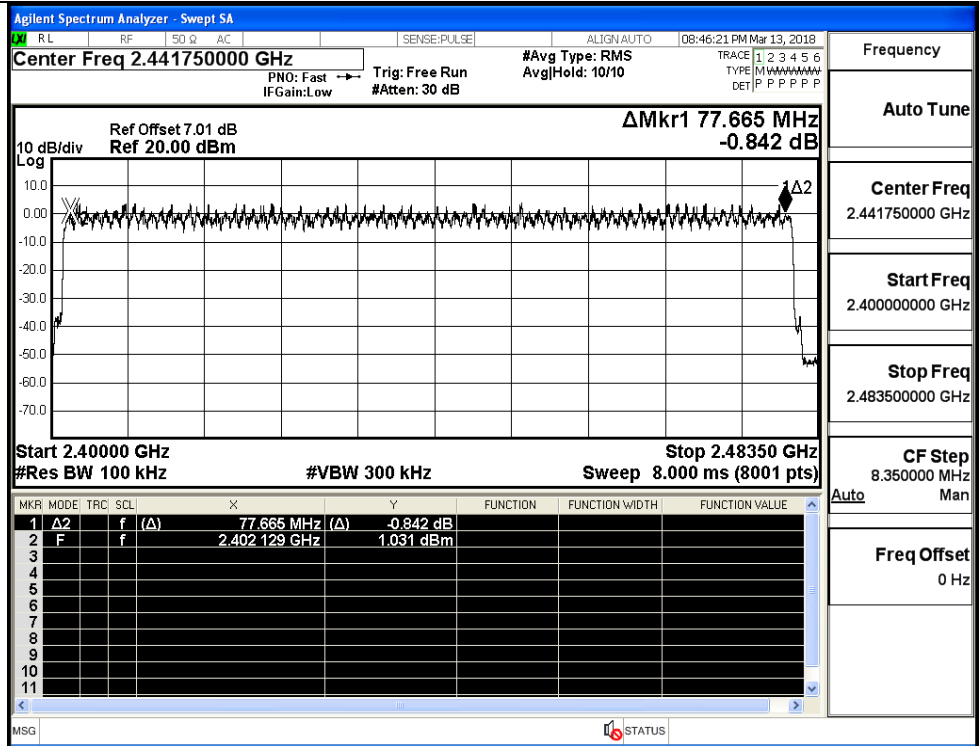
GFSK/Hop



$\pi/4$ DQPSK/Hop

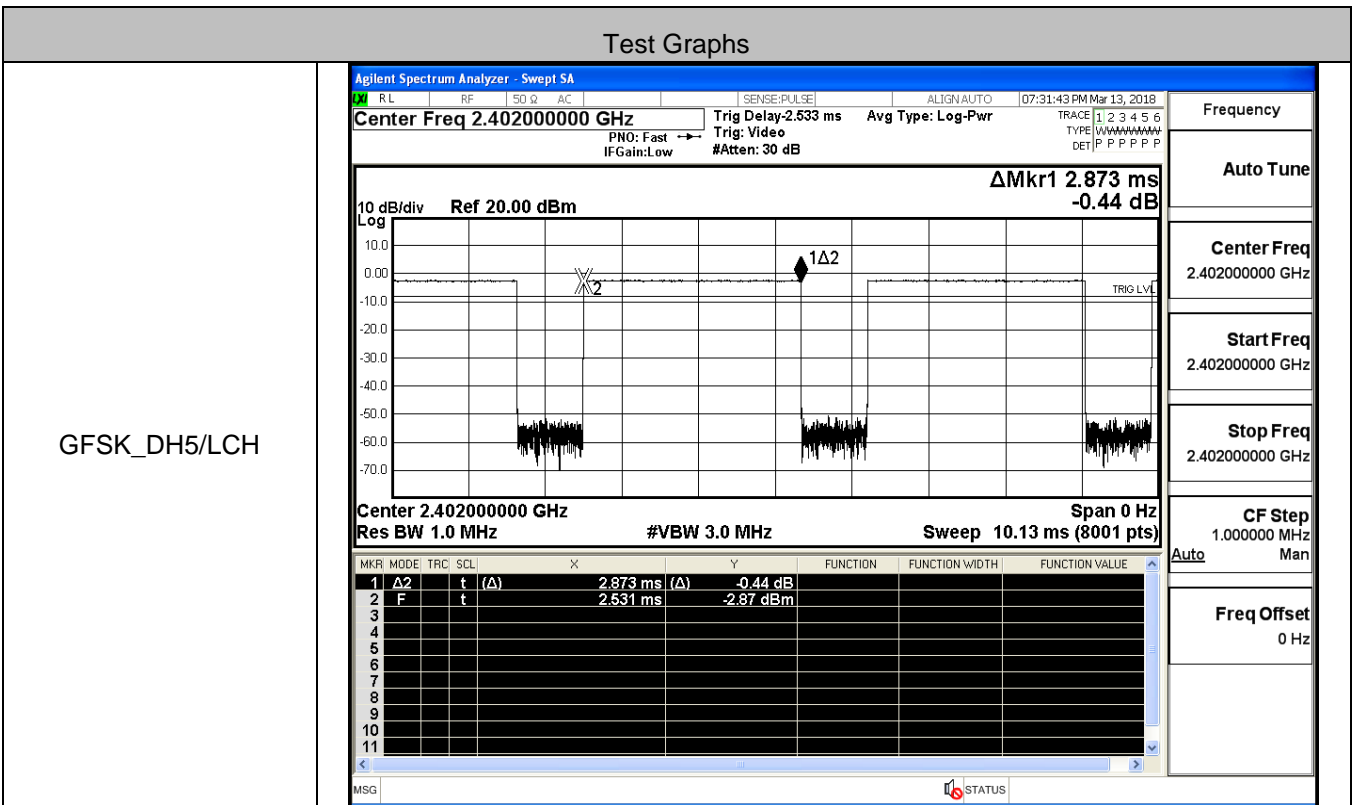


8DPSK/Hop

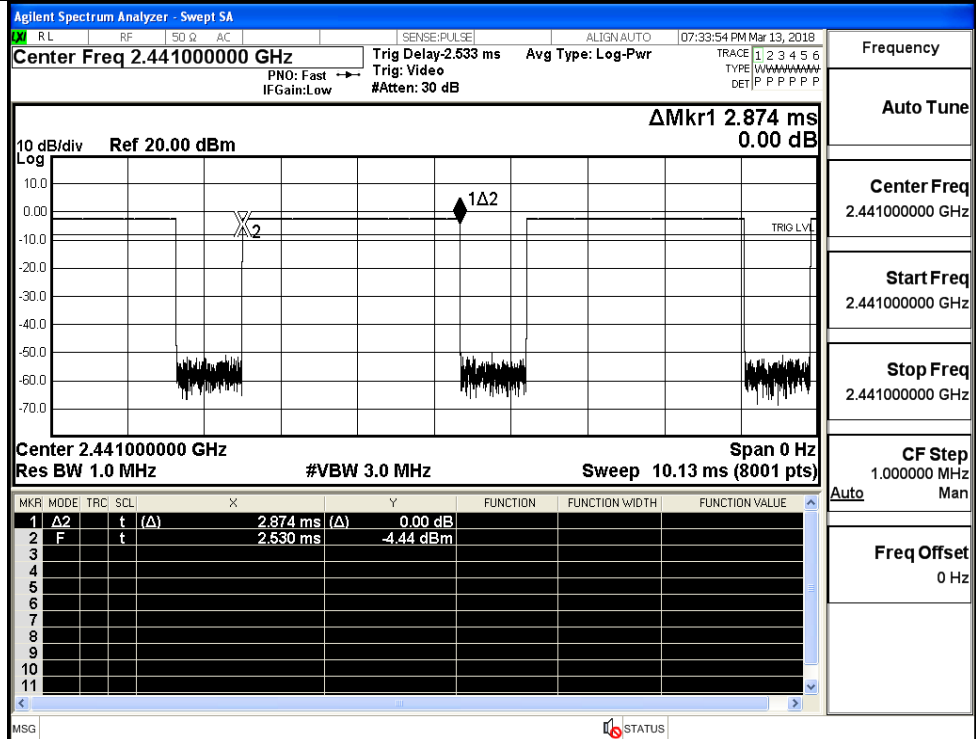


A.5 Dwell Time

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.87	106.7	0.306	0.4	PASS
	DH5	MCH	2.87	106.7	0.306	0.4	PASS
	DH5	HCH	2.87	106.7	0.306	0.4	PASS
π/4DQPSK	2DH5	LCH	2.87	106.7	0.307	0.4	PASS
	2DH5	MCH	2.87	106.7	0.307	0.4	PASS
	2DH5	HCH	2.87	106.7	0.307	0.4	PASS
8DPSK	3DH5	LCH	2.87	106.7	0.307	0.4	PASS
	3DH5	MCH	2.87	106.7	0.307	0.4	PASS
	3DH5	HCH	2.87	106.7	0.307	0.4	PASS



GFSK\_DH5/MCH



Frequency

Auto Tune

Center Freq 2.441000000 GHz

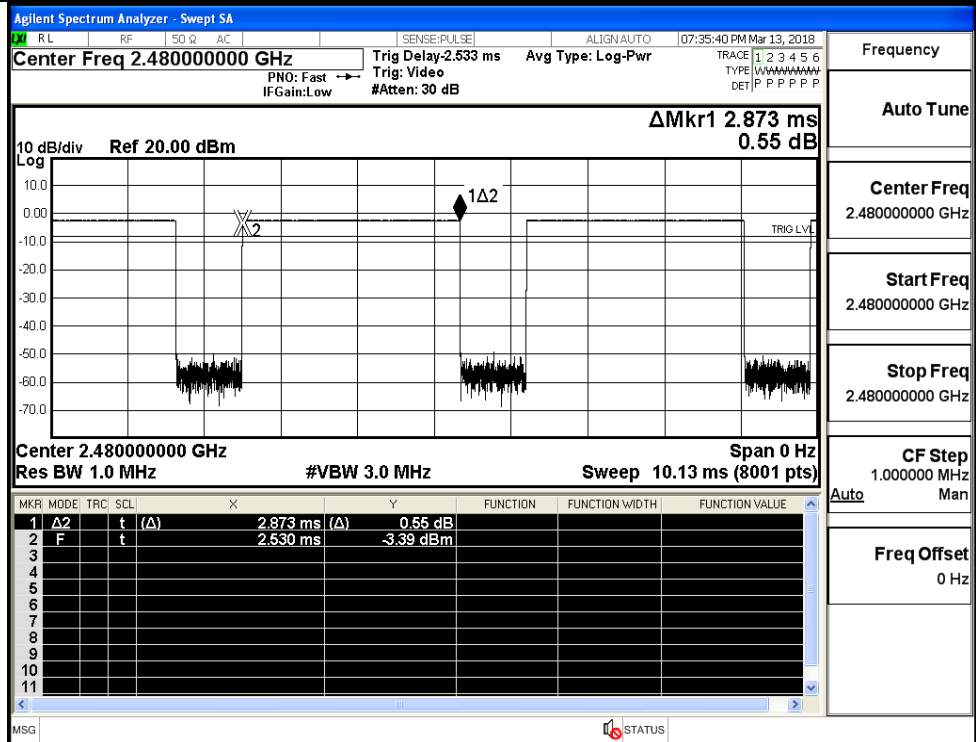
Start Freq 2.441000000 GHz

Stop Freq 2.441000000 GHz

CF Step 1.000000 MHz

Freq Offset 0 Hz

GFSK\_DH5/HCH



Frequency

Auto Tune

Center Freq 2.480000000 GHz

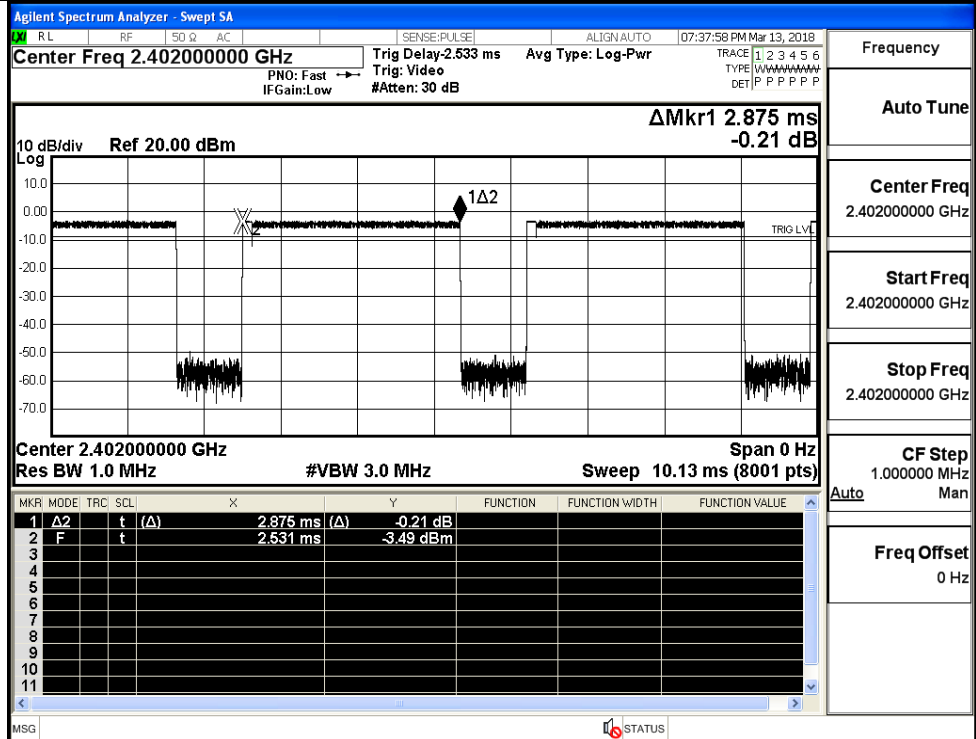
Start Freq 2.480000000 GHz

Stop Freq 2.480000000 GHz

CF Step 1.000000 MHz

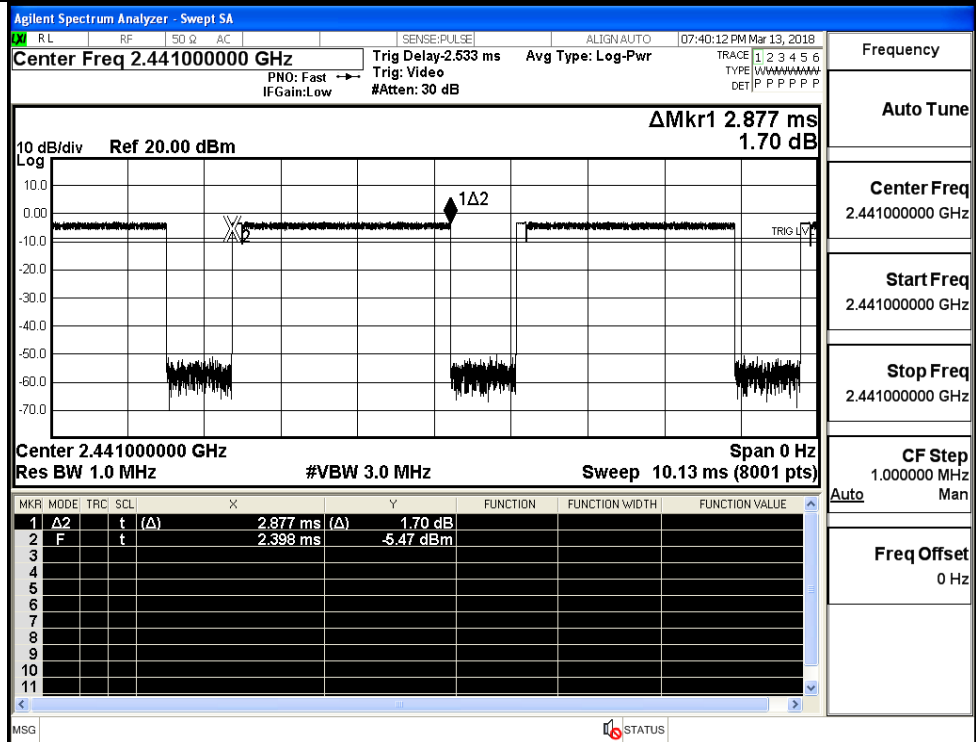
Freq Offset 0 Hz

$\pi/4$ DQPSK  
\_2DH5/LCH



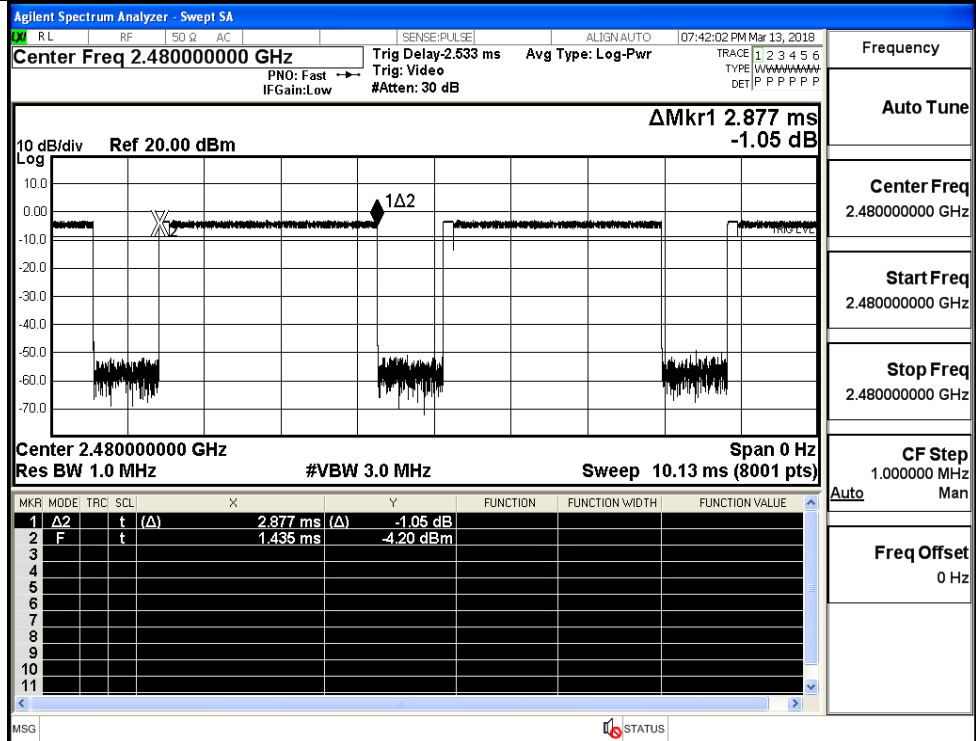
Frequency	2.402000000 GHz
Auto Tune	
Center Freq	2.402000000 GHz
Start Freq	2.402000000 GHz
Stop Freq	2.402000000 GHz
CF Step	1.000000 MHz
Auto	Man
Freq Offset	0 Hz

$\pi/4$ DQPSK  
\_2DH5/MCH

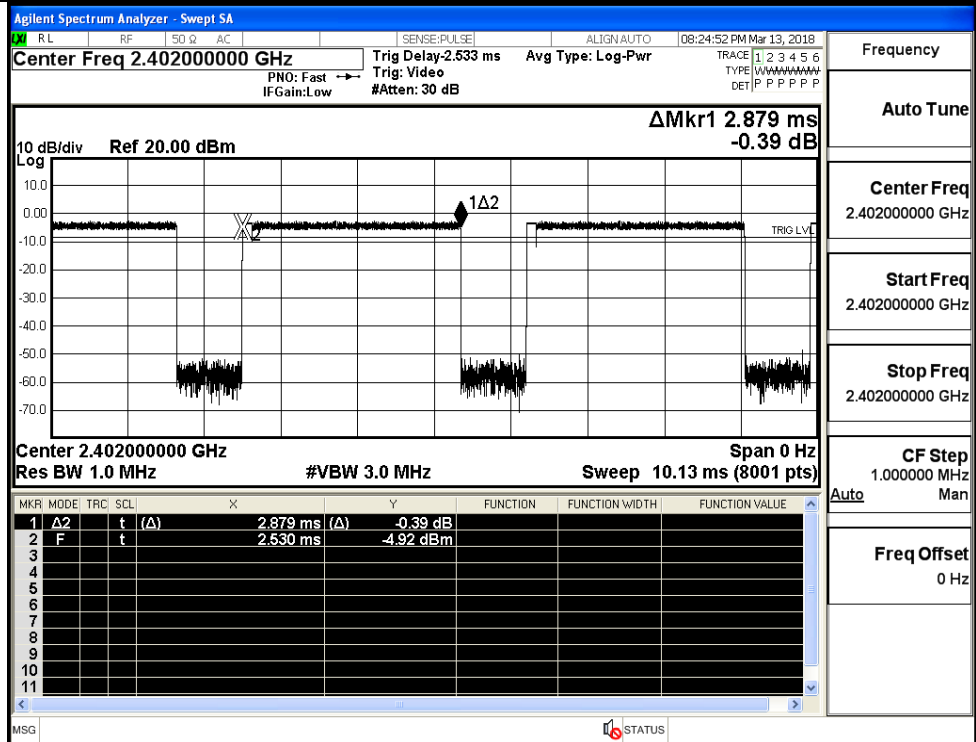


Frequency	2.441000000 GHz
Auto Tune	
Center Freq	2.441000000 GHz
Start Freq	2.441000000 GHz
Stop Freq	2.441000000 GHz
CF Step	1.000000 MHz
Auto	Man
Freq Offset	0 Hz

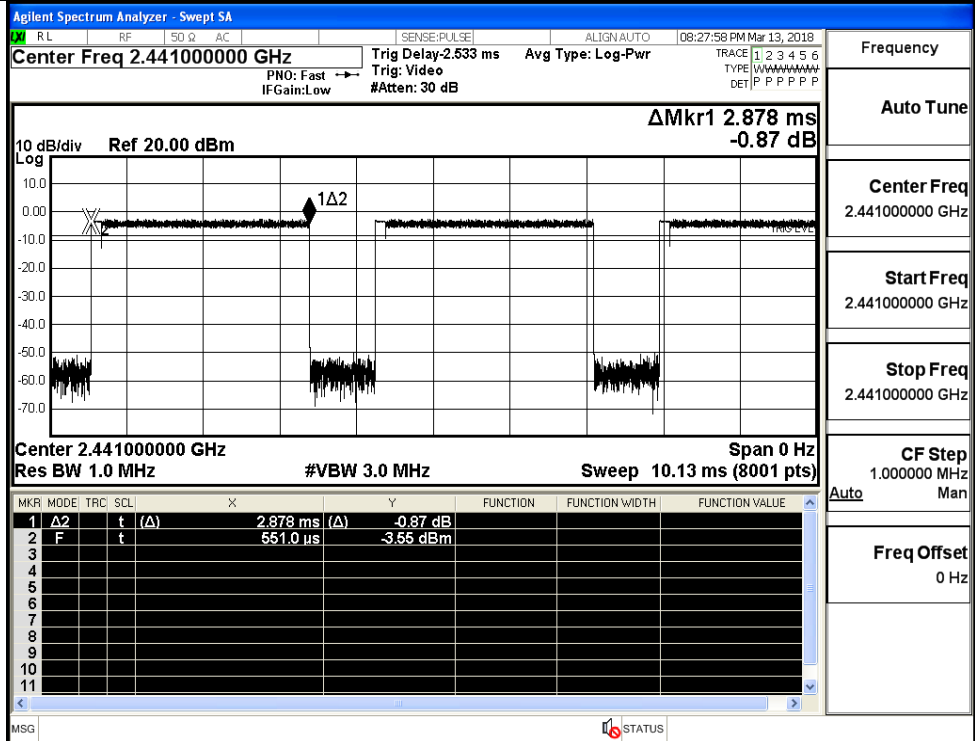
$\pi/4$ DQPSK  
\_2DH5/HCH



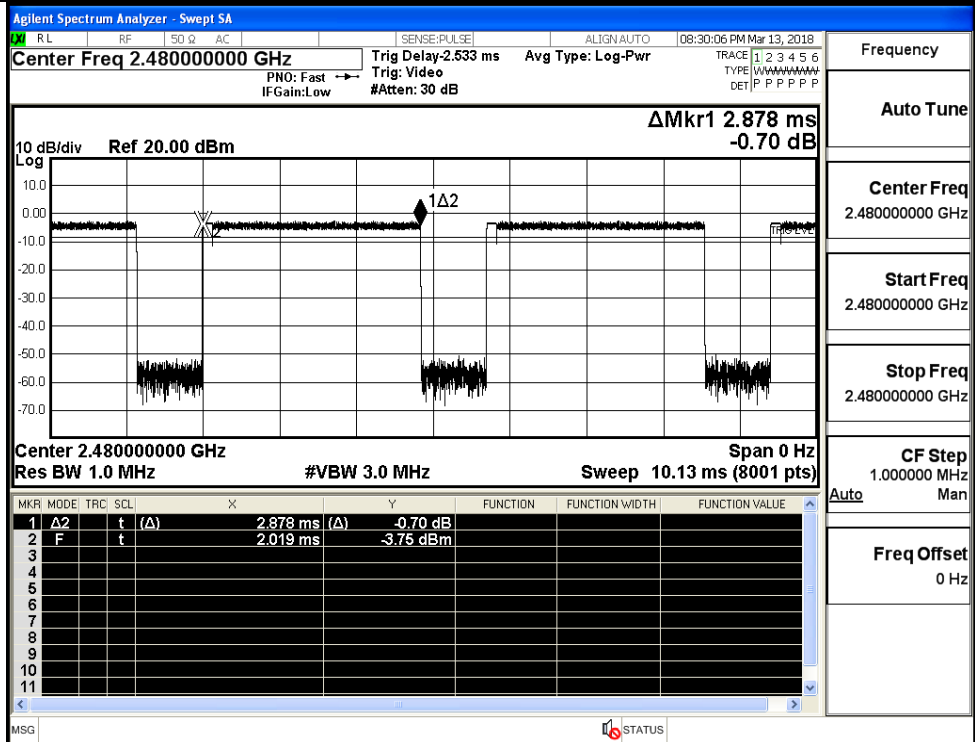
8DPSK\_3DH5/LCH



8DPSK\_3DH5/MCH



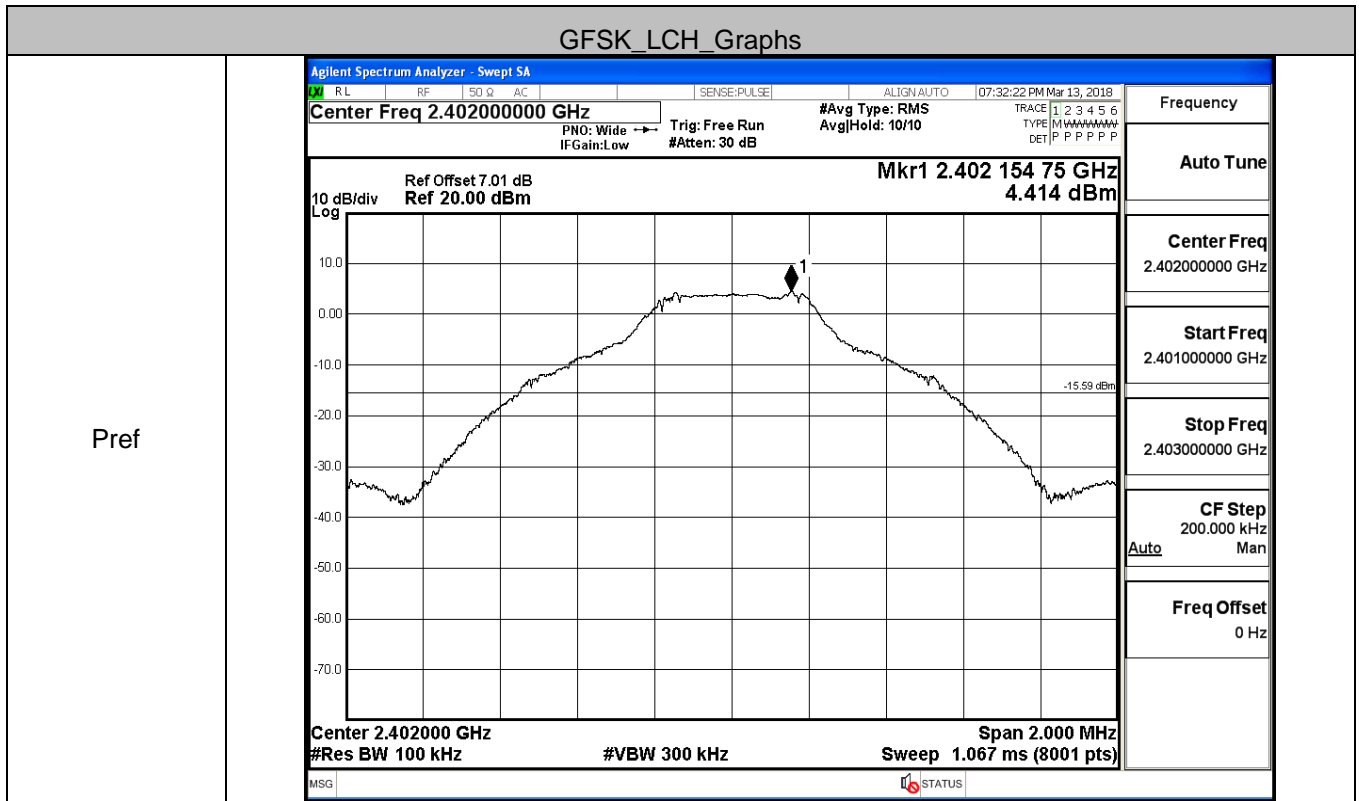
8DPSK\_3DH5/HCH



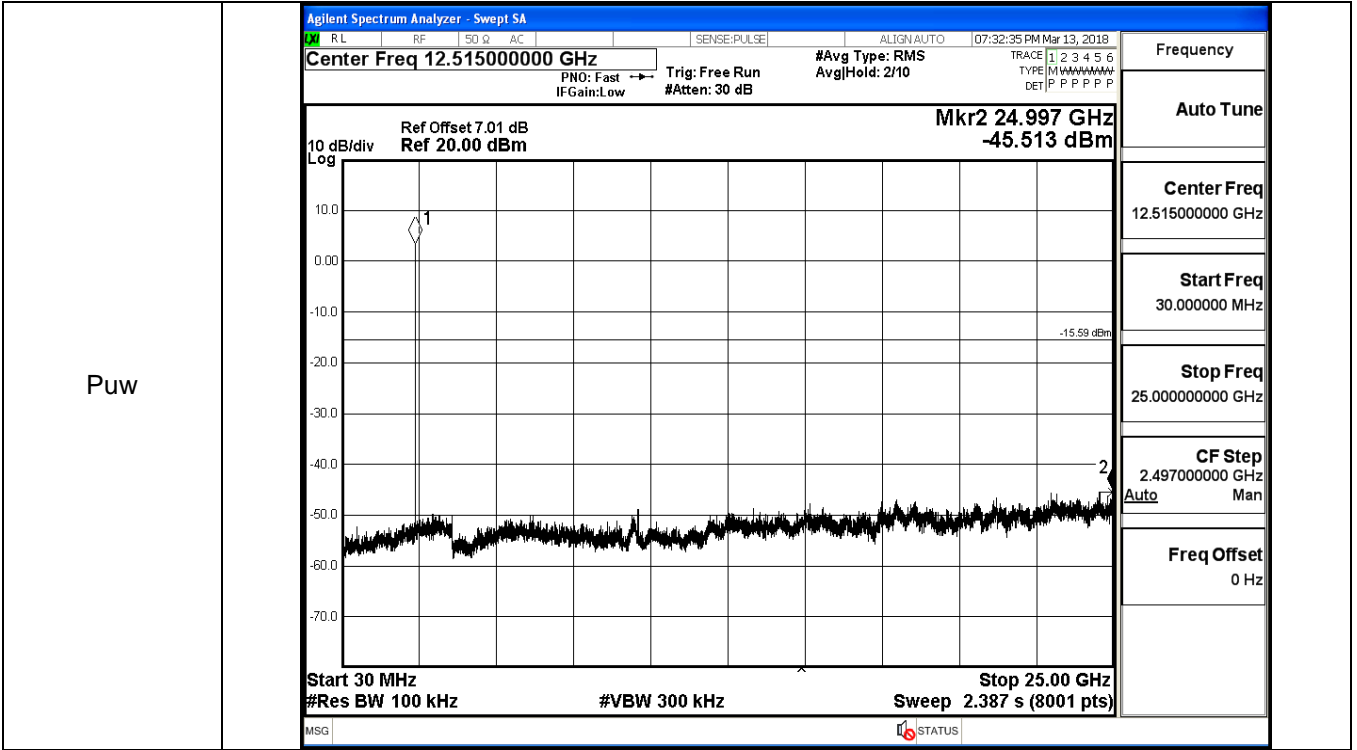
**A.6 RF Conducted Spurious Emissions**

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	4.414	-45.513	-15.586	PASS
	MCH	4.623	-45.467	-15.377	PASS
	HCH	4.539	-45.988	-15.461	PASS
$\pi$ /4DQPSK	LCH	3.473	-44.931	-16.527	PASS
	MCH	3.526	-44.930	-16.474	PASS
	HCH	3.668	-45.641	-16.332	PASS
8DPSK	LCH	3.602	-45.348	-16.398	PASS
	MCH	3.689	-45.499	-16.311	PASS
	HCH	3.584	-45.499	-16.416	PASS

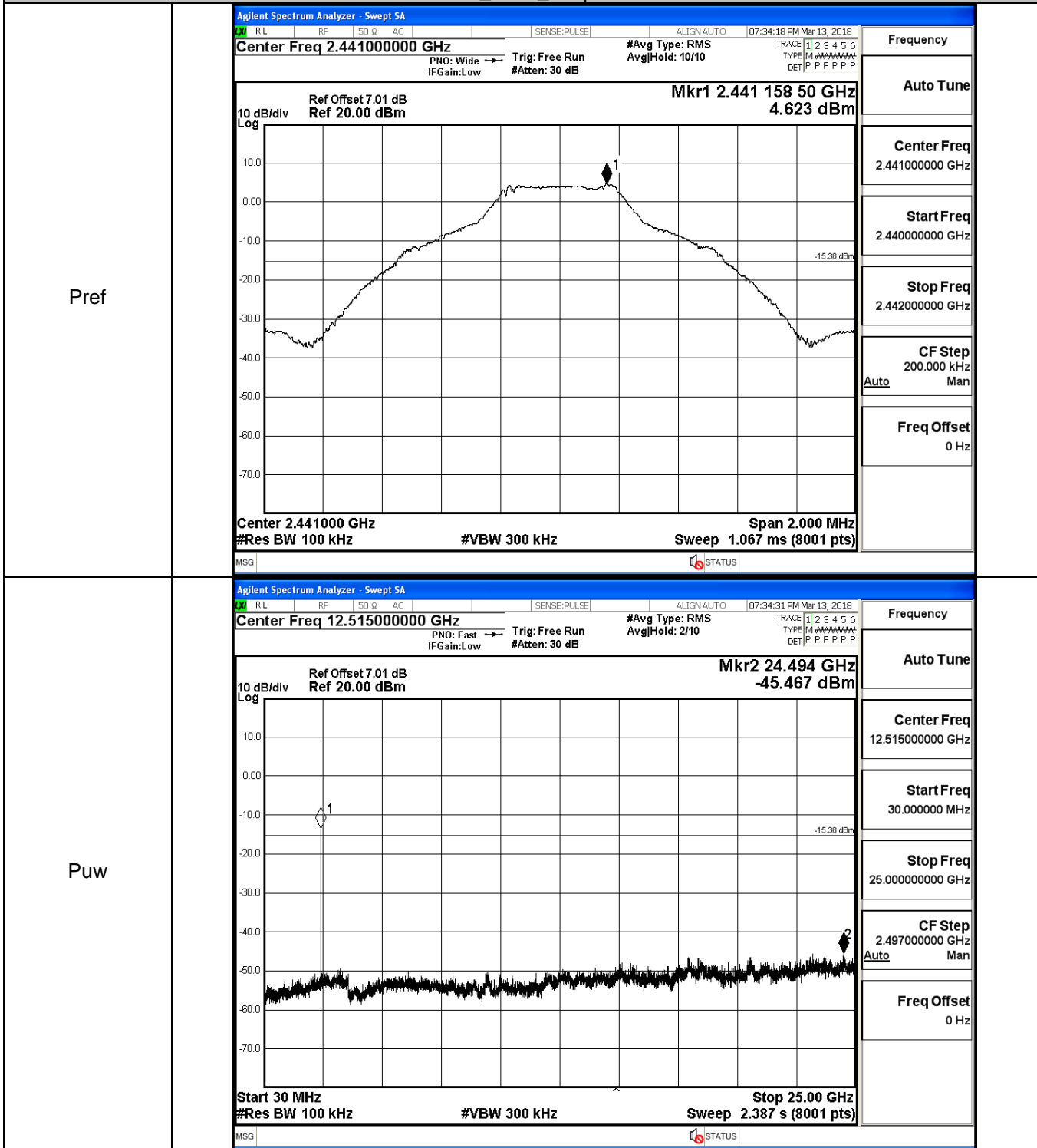
GFSK\_LCH\_Graphs



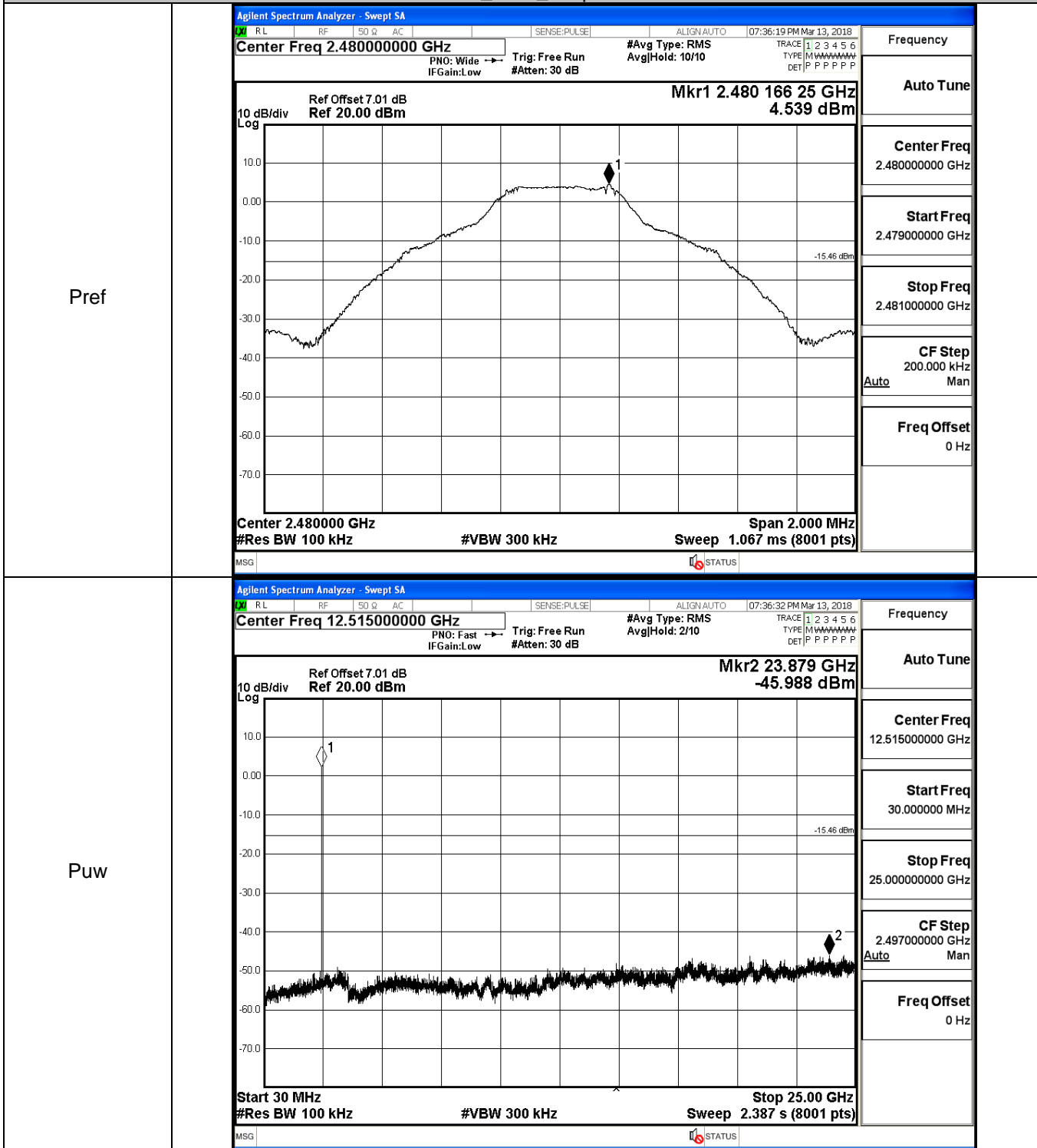




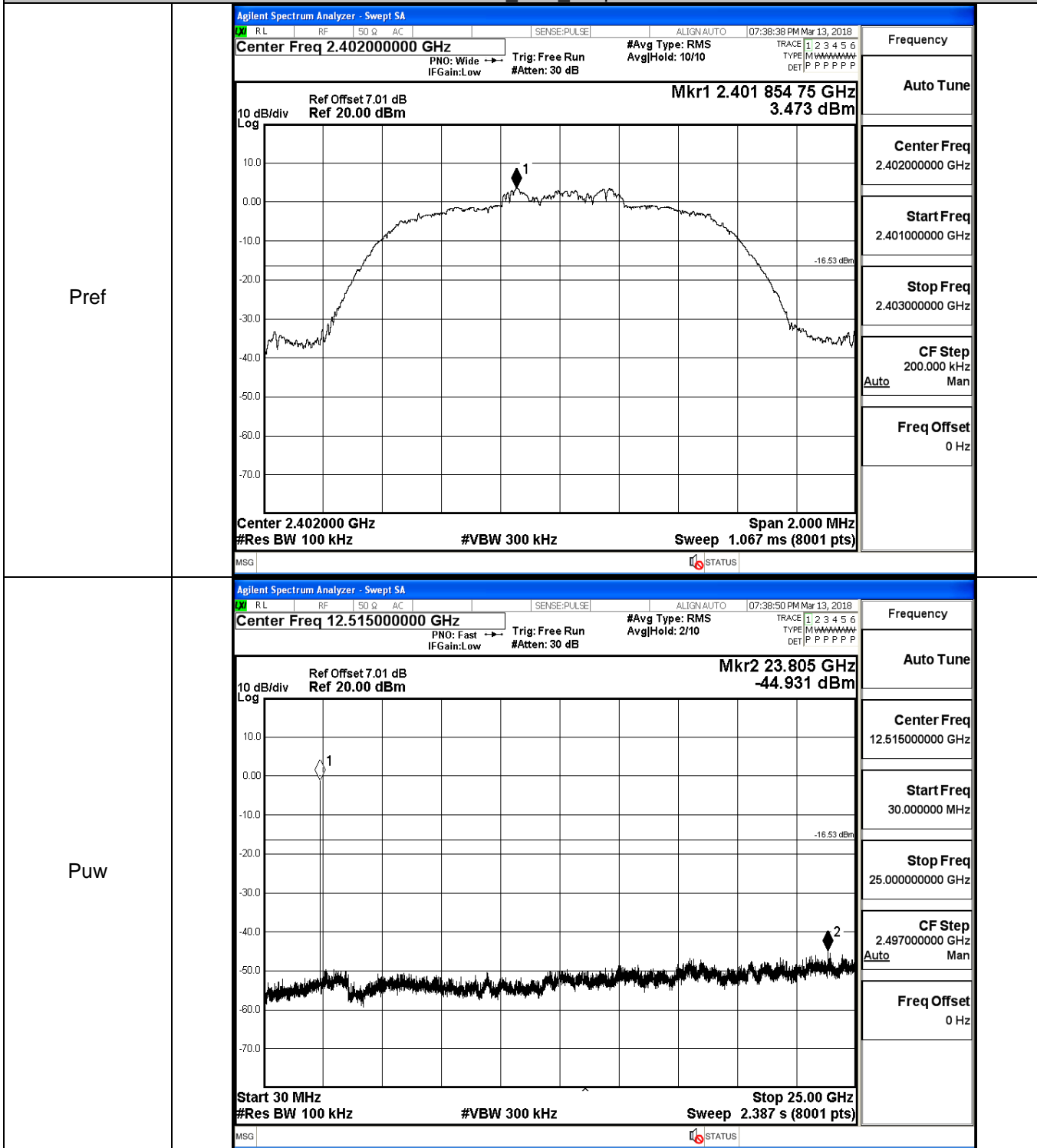
GFSK\_MCH\_Graphs



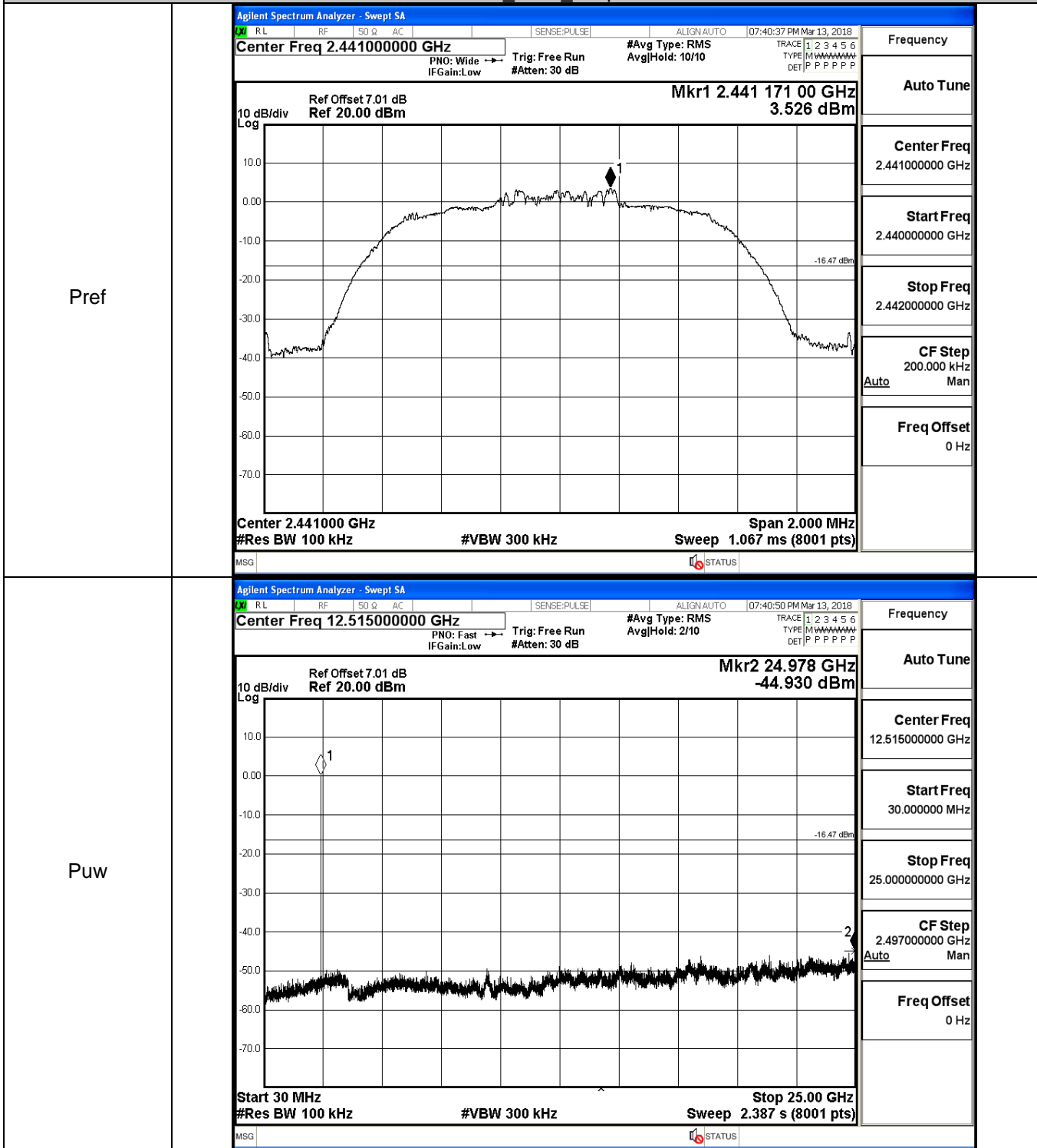
GFSK\_HCH\_Graphs



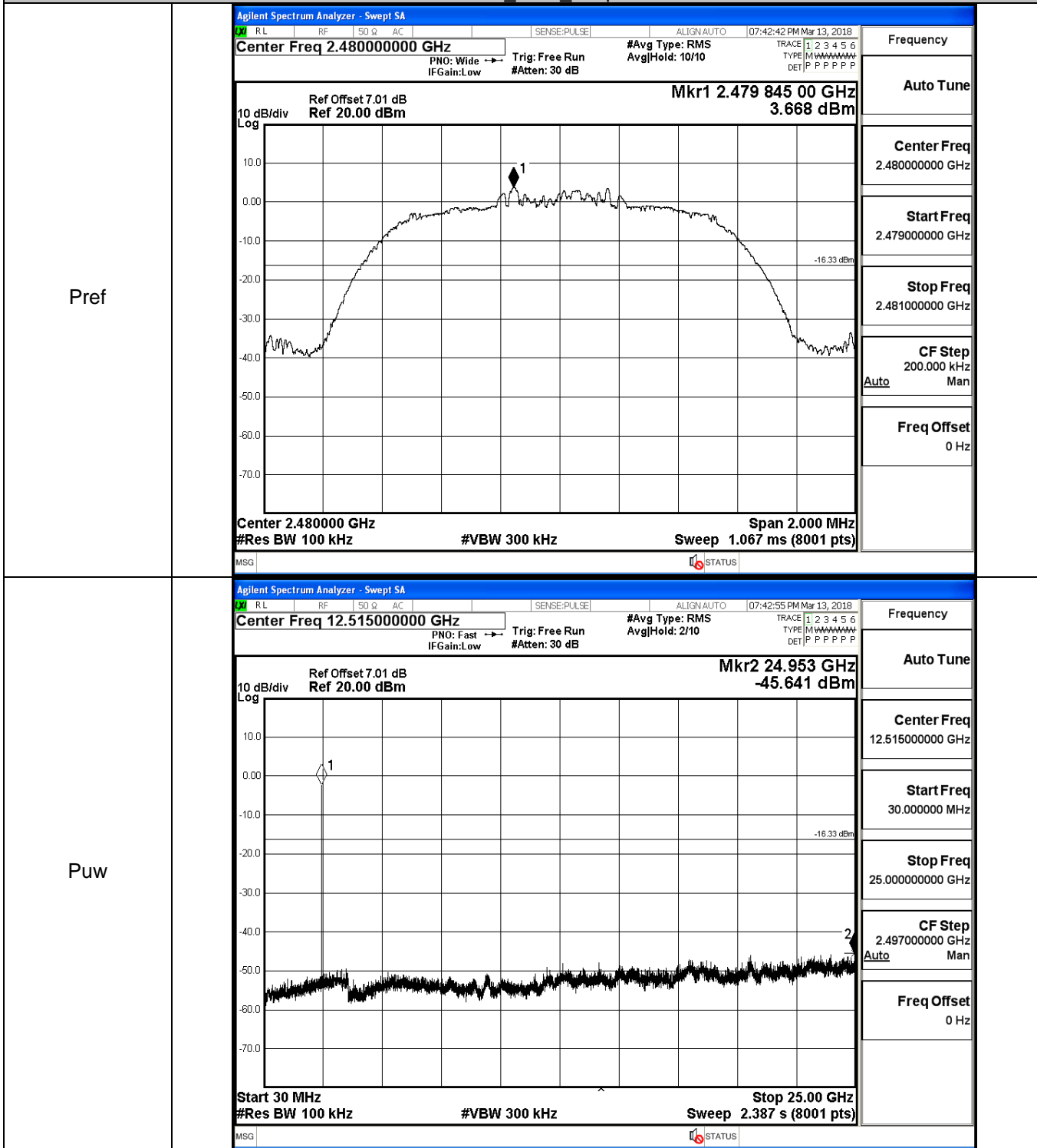
$\pi/4$ DQPSK\_LCH\_Graphs



$\pi/4$ DQPSK\_MCH\_Graphs

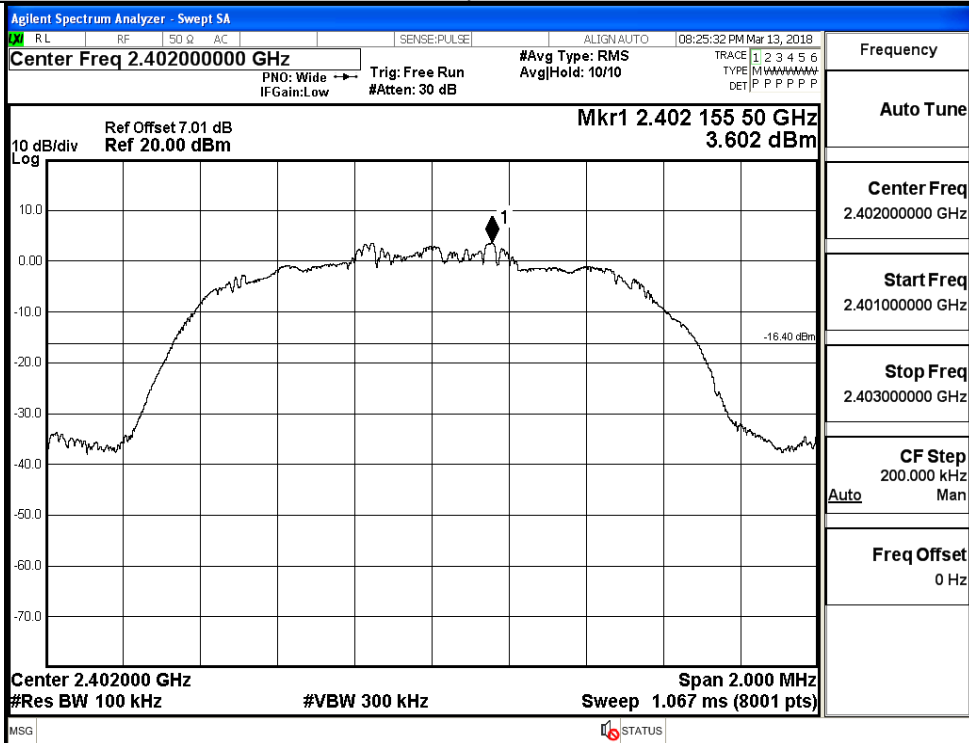


$\pi/4$ DQPSK\_HCH\_Graphs

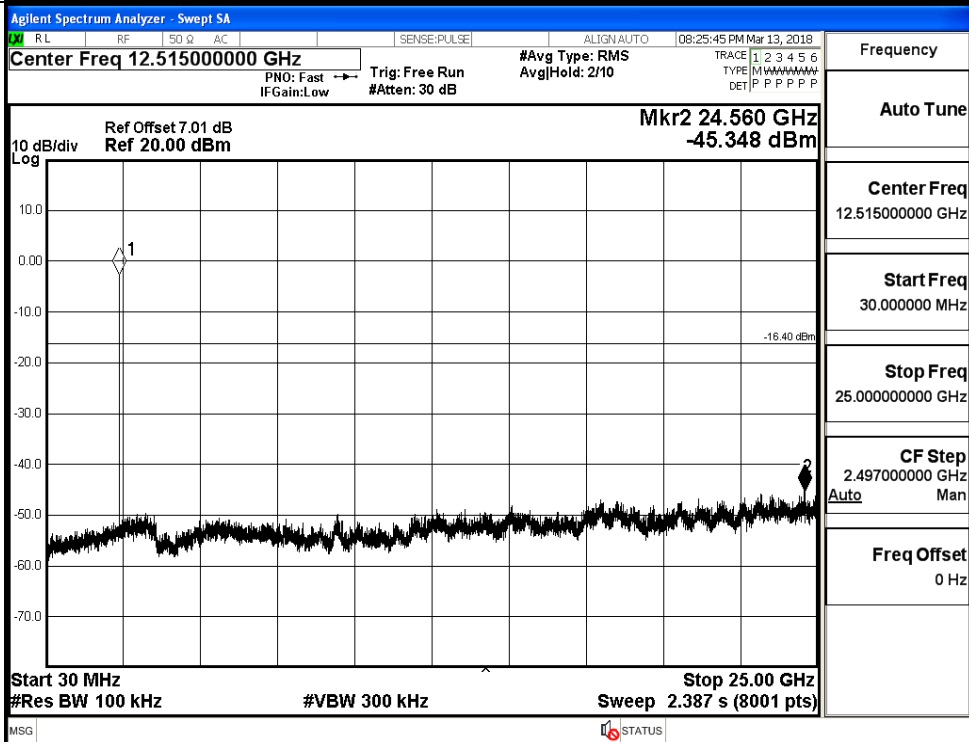


8DPSK\_LCH\_Graphs

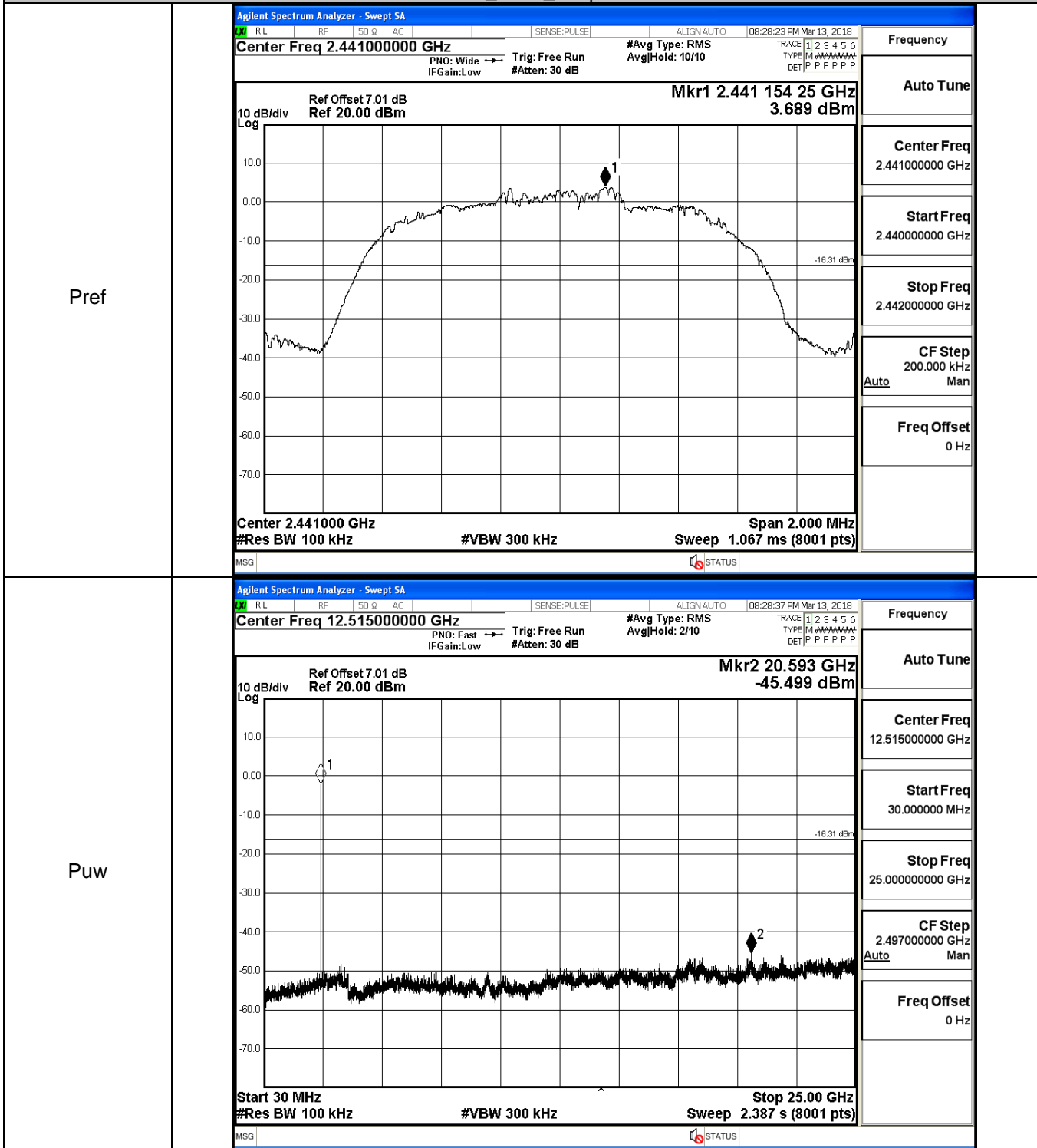
Pref



Puw

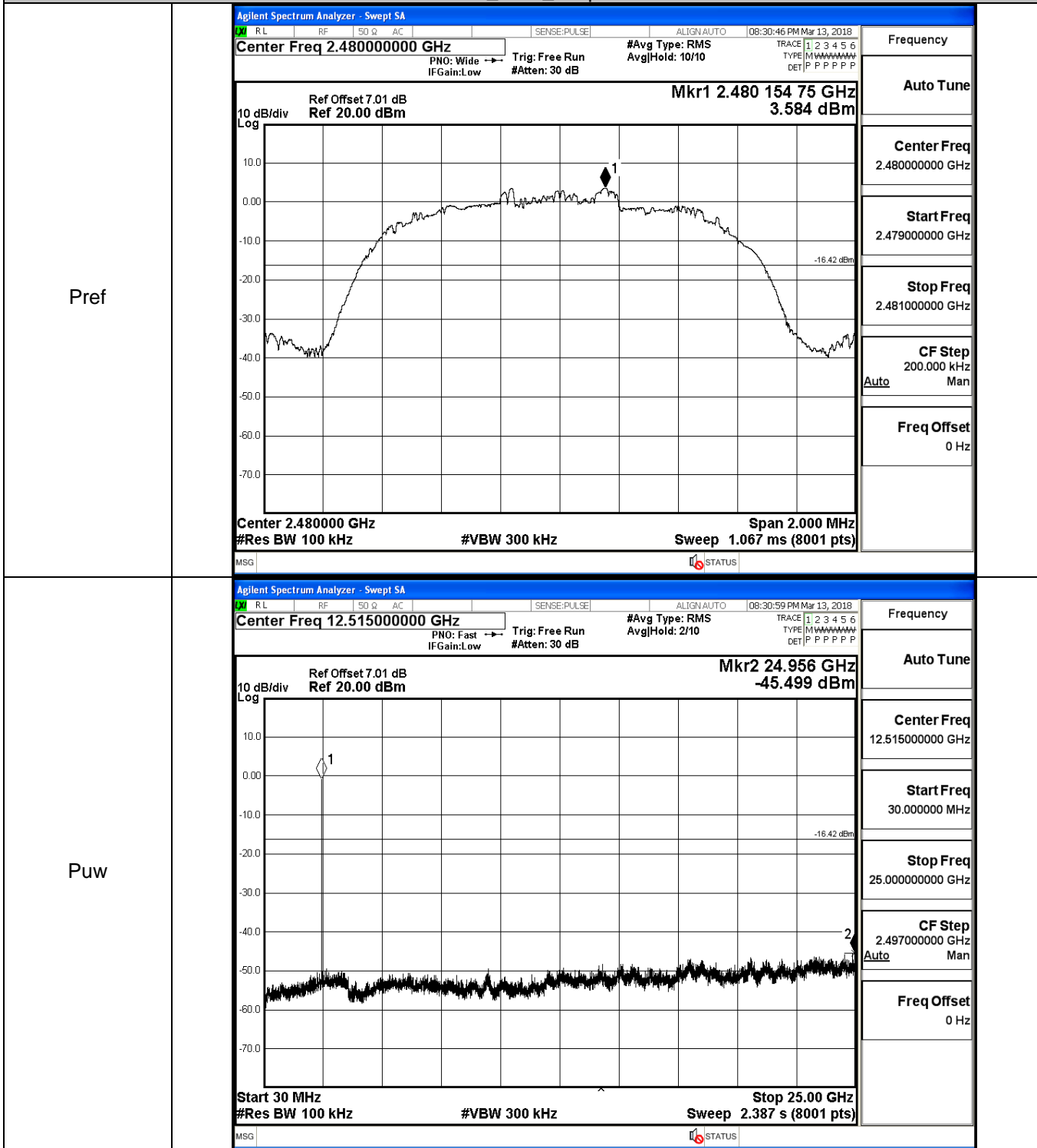


8DPSK\_MCH\_Graphs





8DPSK\_HCH\_Graphs

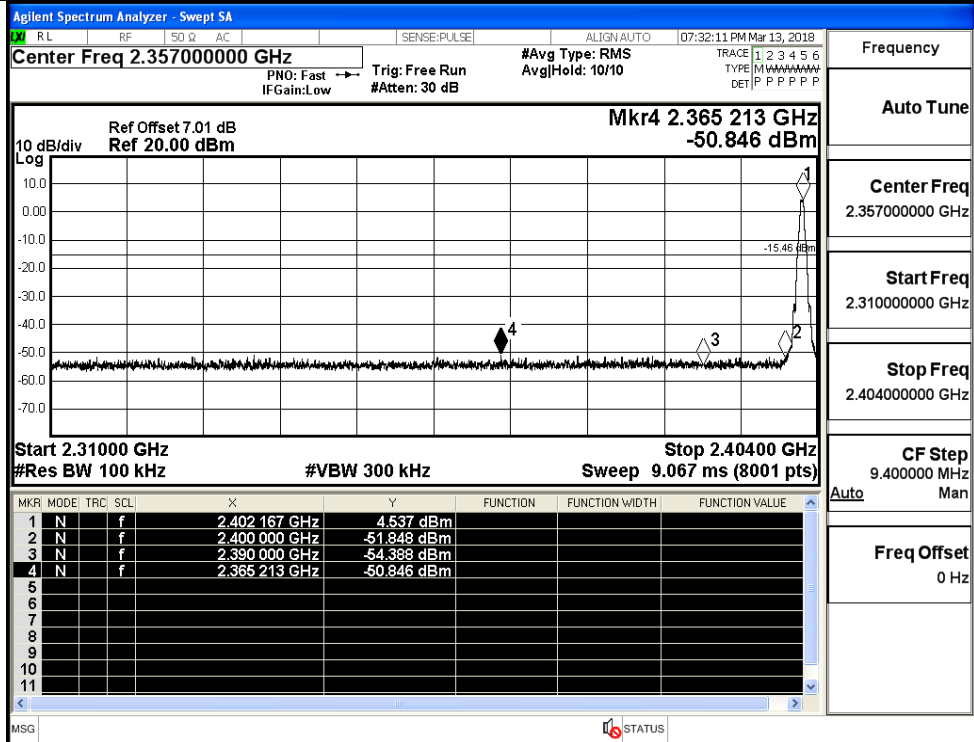


## A.7 Band-edge for RF Conducted Emissions

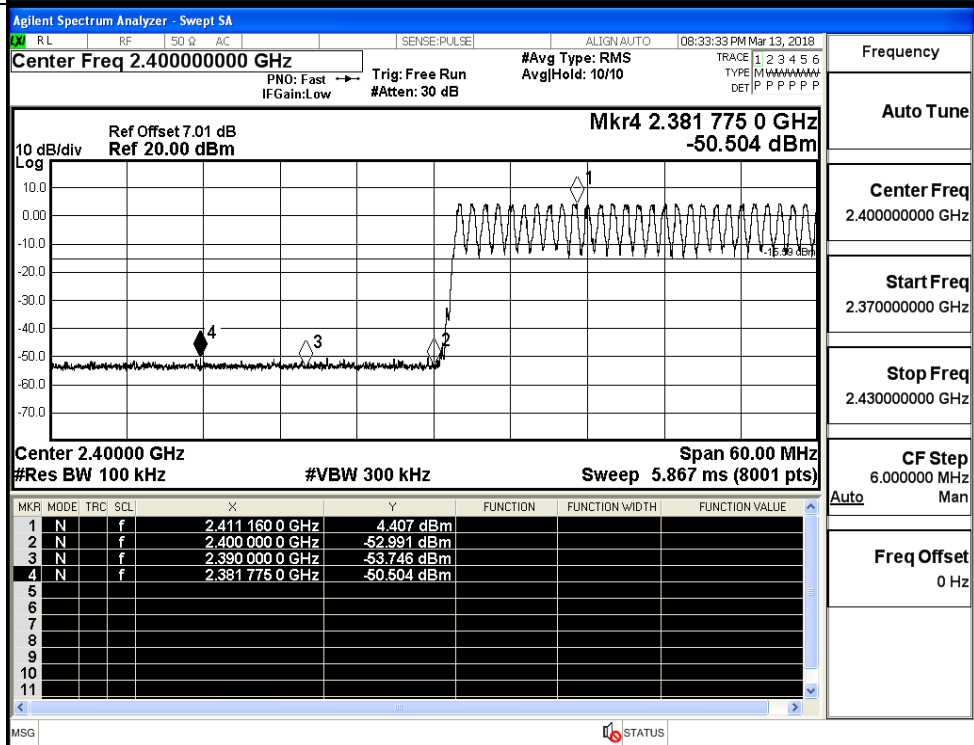
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	4.537	Off	-50.846	-15.46	PASS
			4.407	On	-50.504	-15.59	PASS
	HCH	2480	4.511	Off	-50.596	-15.49	PASS
			4.623	On	-50.489	-15.38	PASS
$\pi/4$ DQPSK	LCH	2402	3.049	Off	-51.429	-16.95	PASS
			3.663	On	-50.402	-16.34	PASS
	HCH	2480	3.730	Off	-50.528	-16.27	PASS
			3.764	On	-50.525	-16.24	PASS
8DPSK	LCH	2402	3.223	Off	-51.197	-16.78	PASS
			3.714	On	-50.879	-16.29	PASS
	HCH	2480	3.176	Off	-49.281	-16.82	PASS
			3.656	On	-50.568	-16.34	PASS

Test Graphs

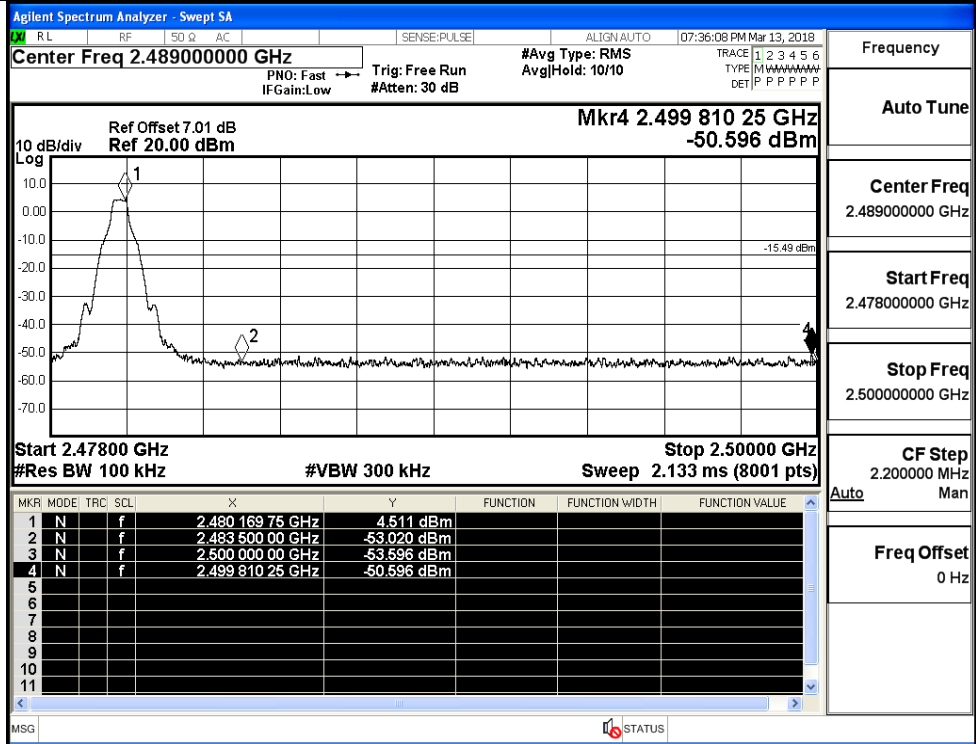
GFSK/LCH/No Hop



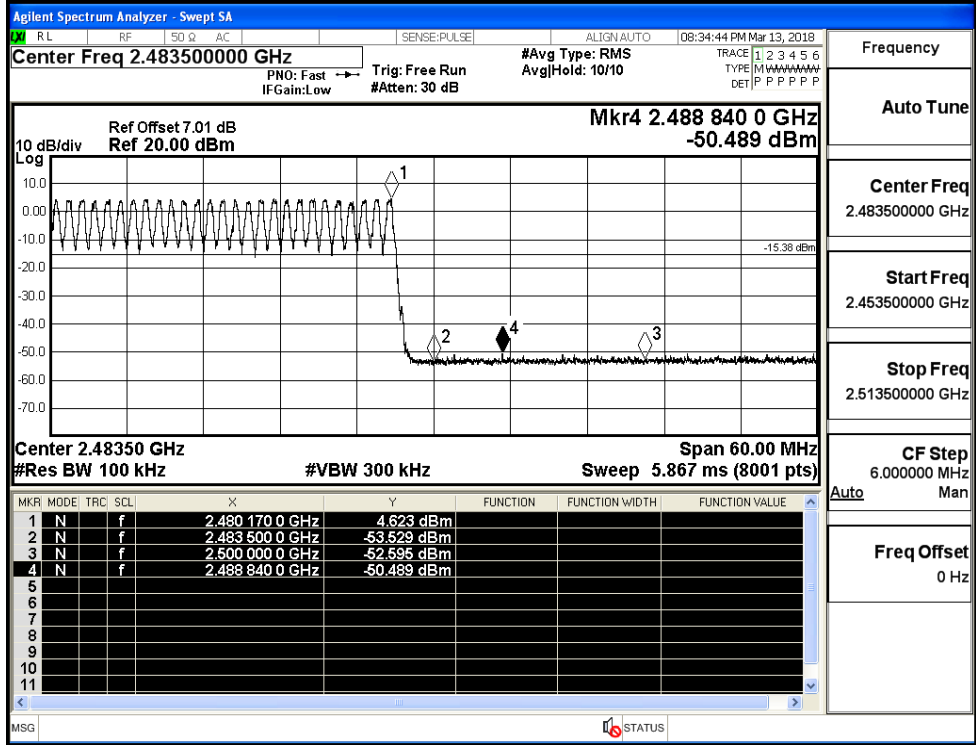
GFSK/LCH/Hop



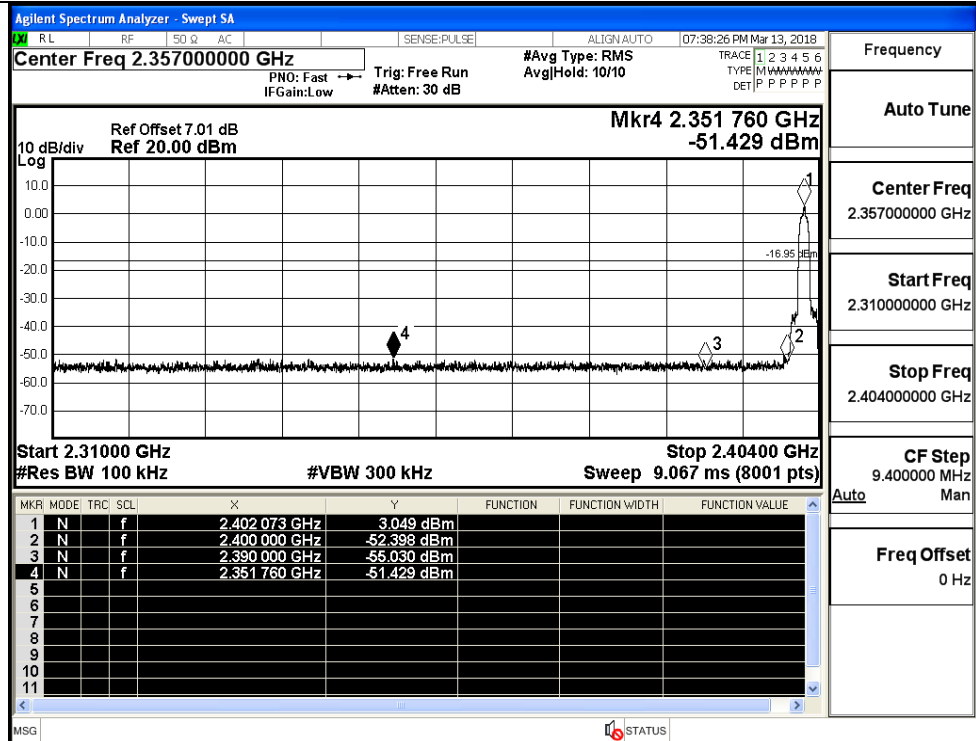
GFSK/HCH/No Hop



GFSK/HCH/Hop

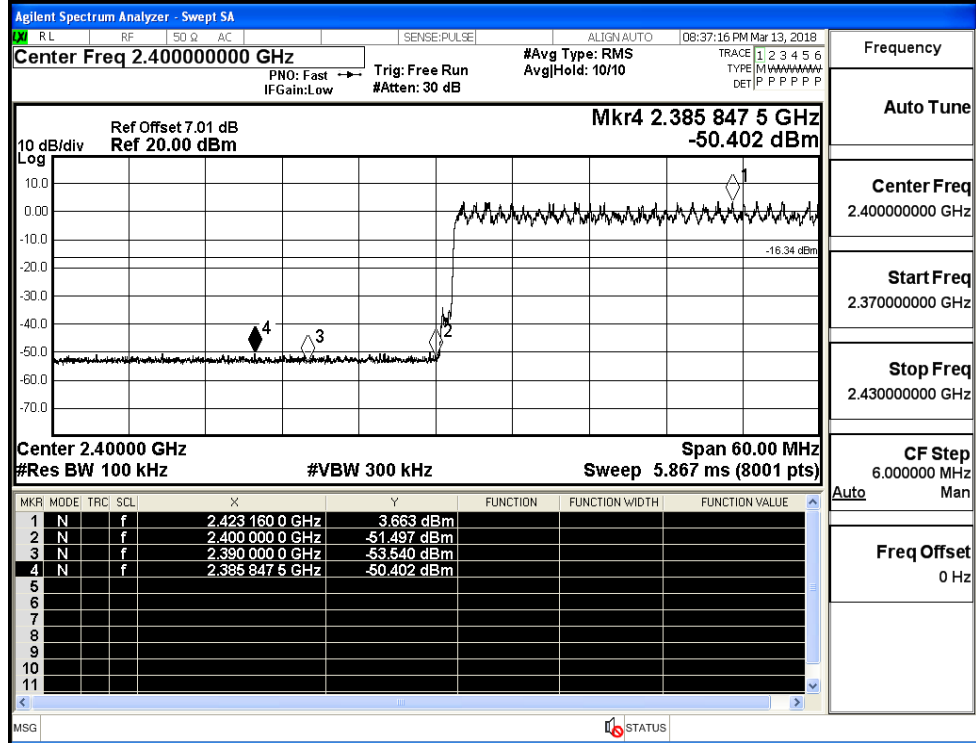


$\pi/4$ DQPSK/LCH/No  
Hop



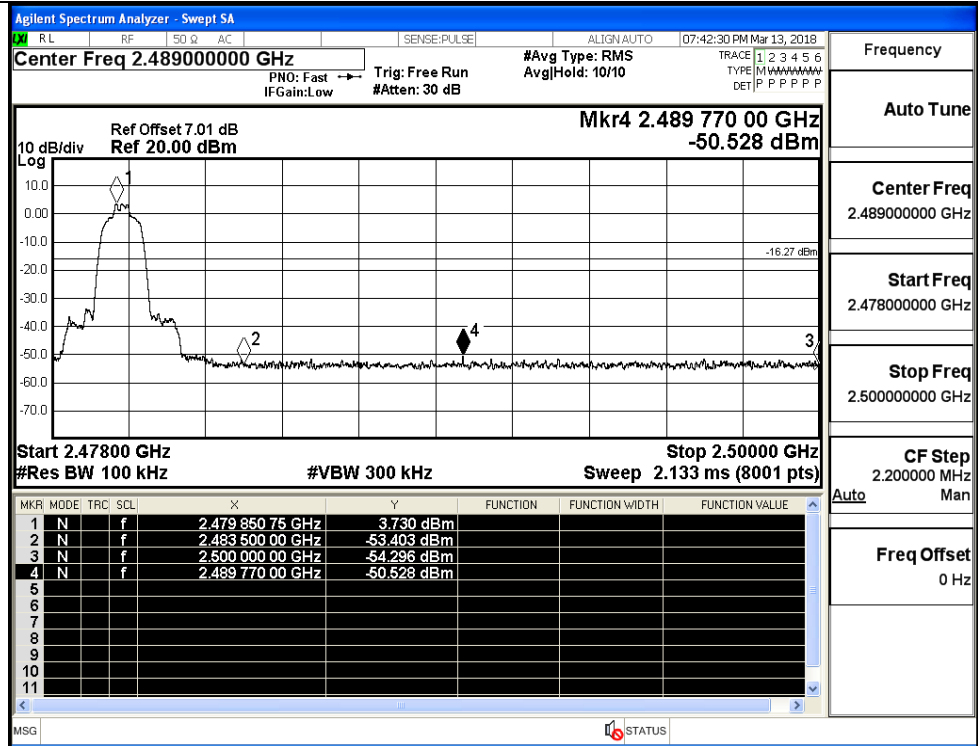
Frequency  
Auto Tune  
Center Freq  
2.357000000 GHz  
Start Freq  
2.310000000 GHz  
Stop Freq  
2.404000000 GHz  
CF Step  
9.400000 MHz  
Auto Man  
Freq Offset  
0 Hz

$\pi/4$ DQPSK/LCH/Hop

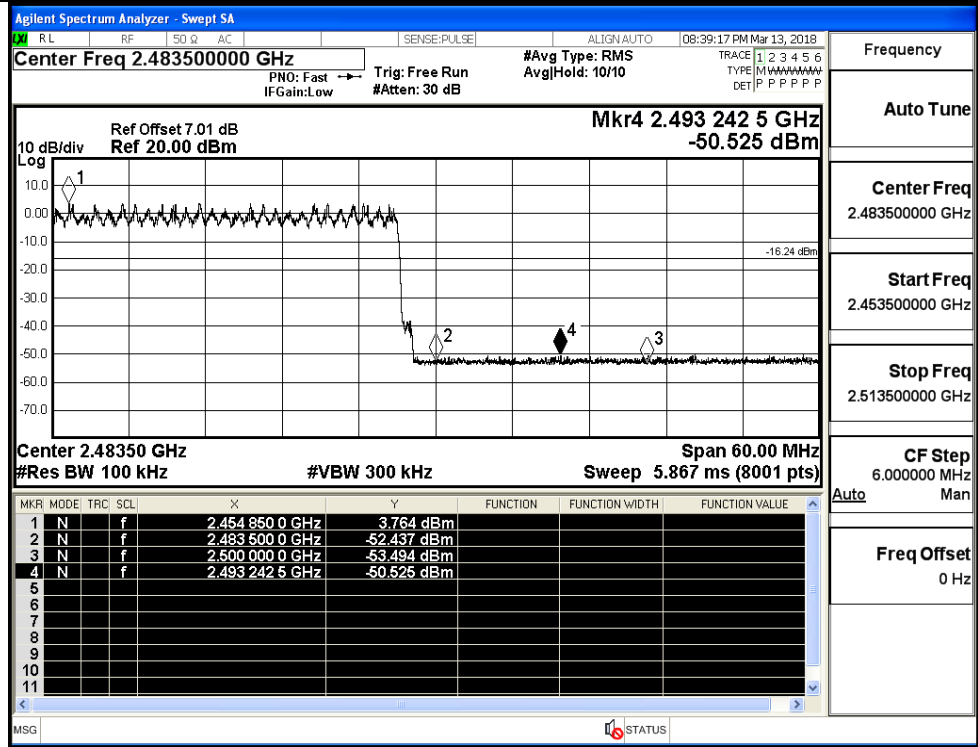


Frequency  
Auto Tune  
Center Freq  
2.400000000 GHz  
Start Freq  
2.370000000 GHz  
Stop Freq  
2.430000000 GHz  
CF Step  
6.000000 MHz  
Auto Man  
Freq Offset  
0 Hz

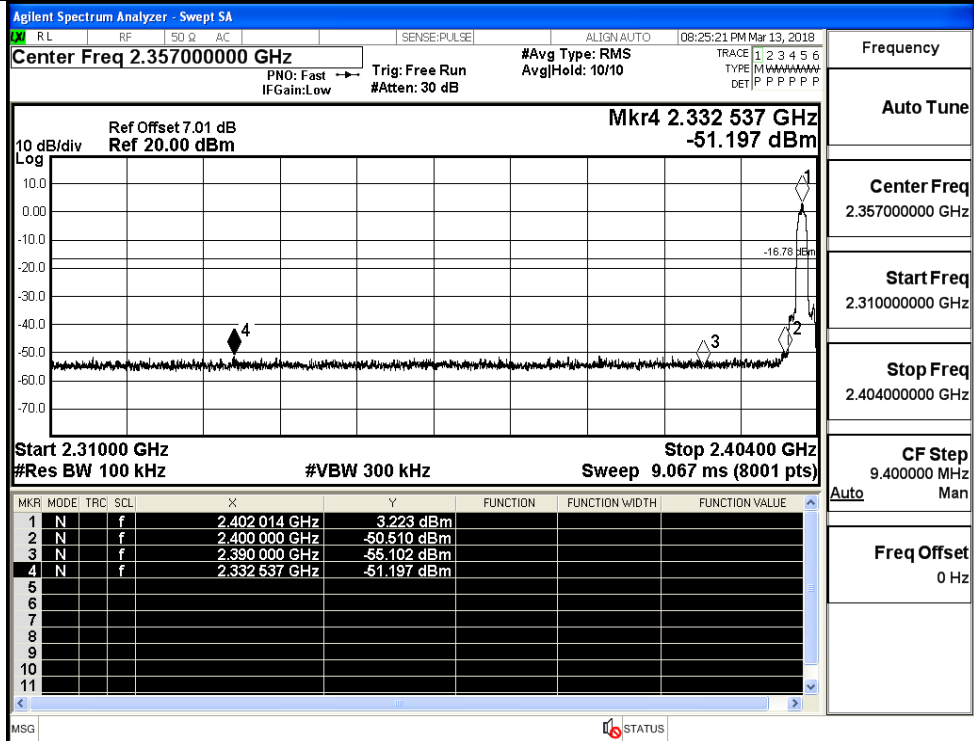
$\pi/4$ DQPSK/HCH/No  
Hop



$\pi/4$ DQPSK/HCH/Hop

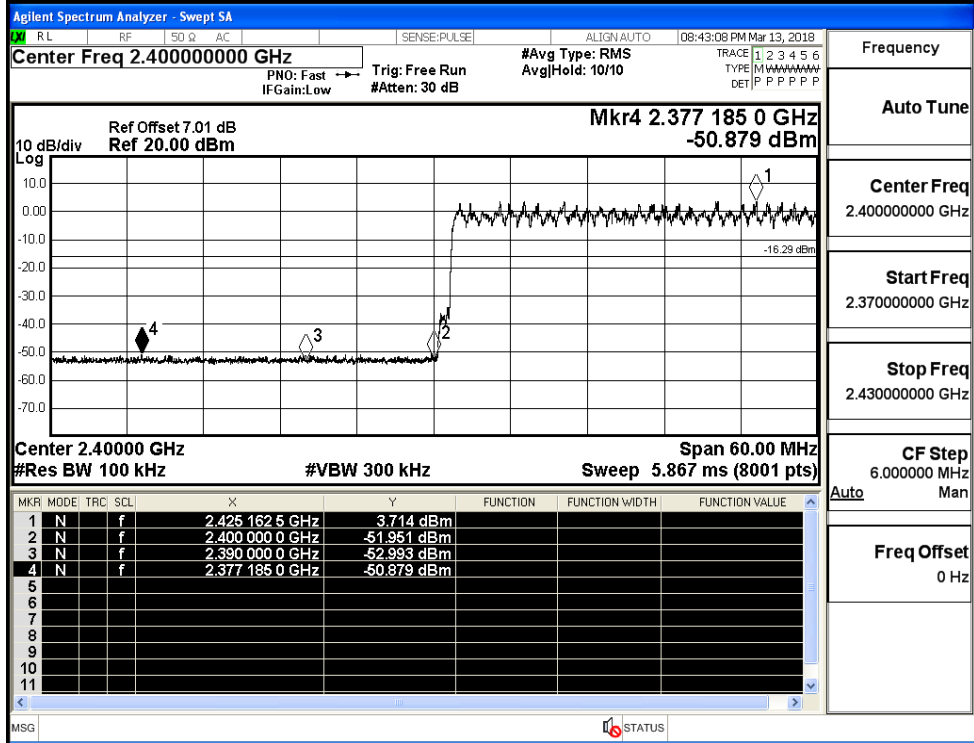


8DPSK/LCH/No Hop



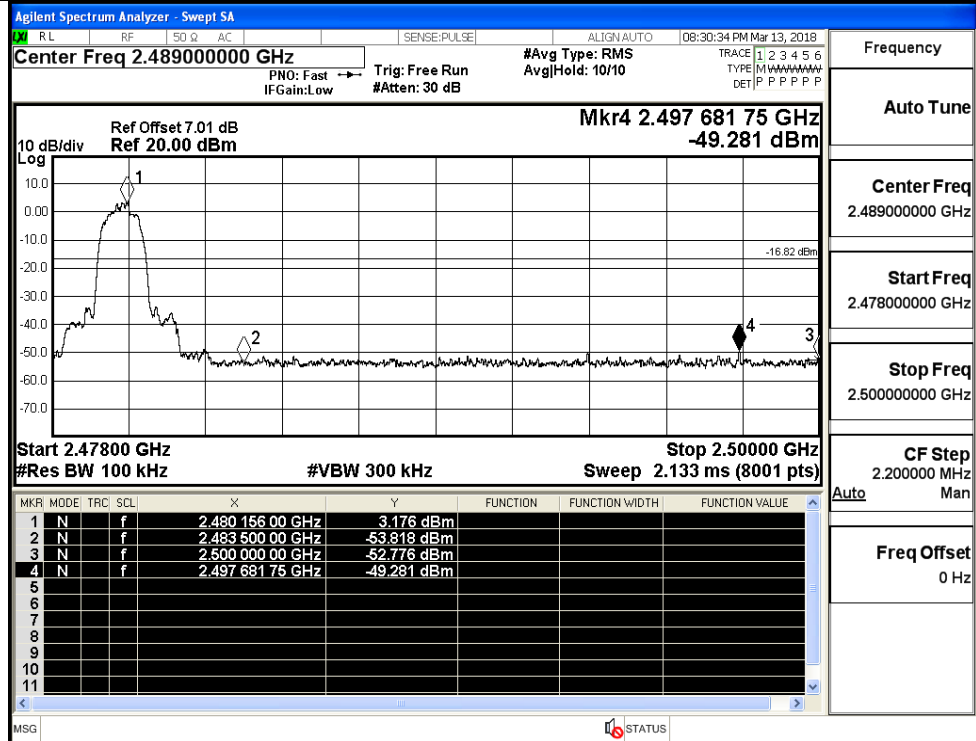
Frequency  
Auto Tune  
Center Freq  
2.357000000 GHz  
Start Freq  
2.310000000 GHz  
Stop Freq  
2.404000000 GHz  
CF Step  
9.400000 MHz  
Auto Man  
Freq Offset  
0 Hz

8DPSK/LCH/Hop



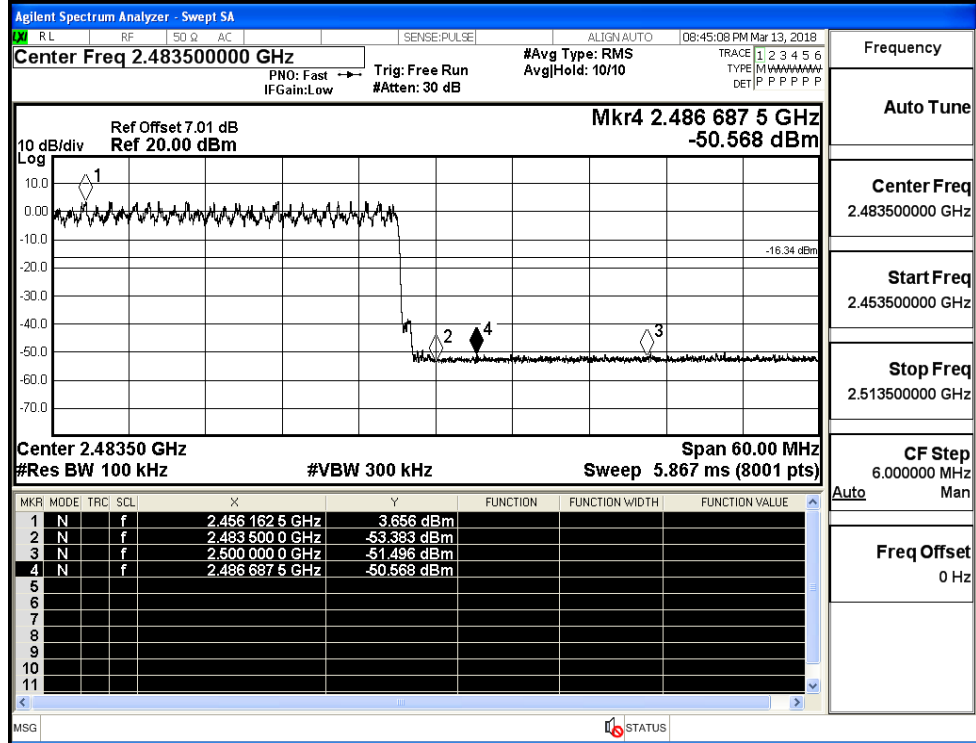
Frequency  
Auto Tune  
Center Freq  
2.400000000 GHz  
Start Freq  
2.370000000 GHz  
Stop Freq  
2.430000000 GHz  
CF Step  
6.000000 MHz  
Auto Man  
Freq Offset  
0 Hz

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



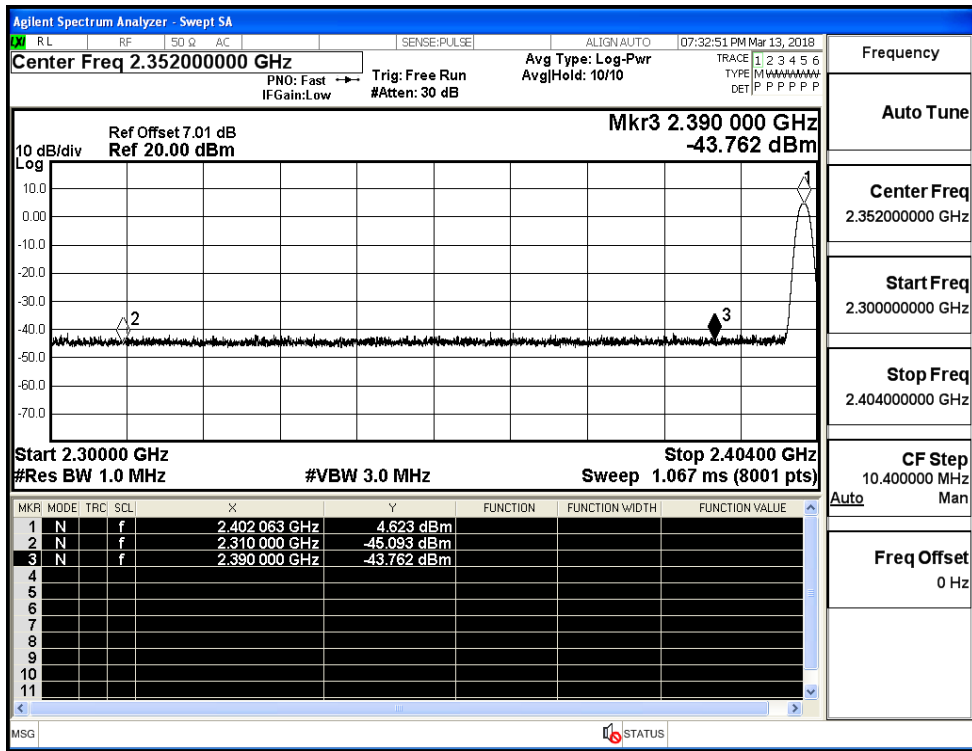
Frequency	
Auto Tune	
Center Freq	2.483500000 GHz
Start Freq	2.453500000 GHz
Stop Freq	2.513500000 GHz
CF Step	6.000000 MHz
Auto	Man
Freq Offset	0 Hz



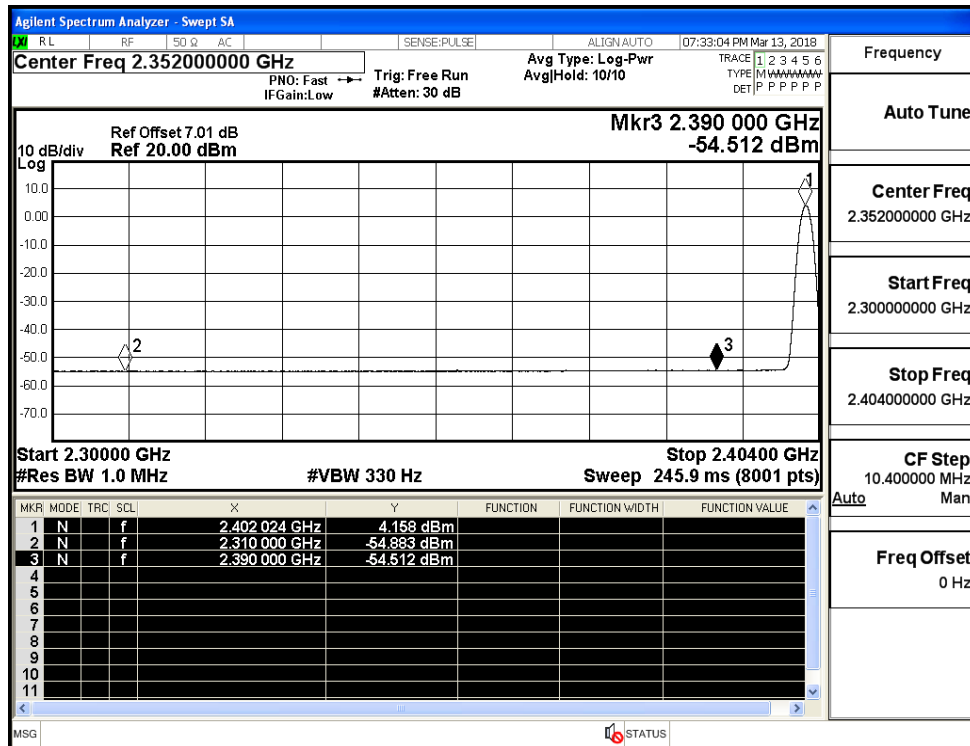
## A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-45.09	2.0	0	50.16	PEAK	74	PASS
	Off	2310.0	-54.88	2.0	0	40.37	AV	54	PASS
	Off	2390.0	-43.76	2.0	0	51.50	PEAK	74	PASS
	Off	2390.0	-54.51	2.0	0	40.75	AV	54	PASS
	Off	2483.5	-42.90	2.0	0	52.36	PEAK	74	PASS
	Off	2483.5	-54.19	2.0	0	41.06	AV	54	PASS
	Off	2500.0	-44.70	2.0	0	50.56	PEAK	74	PASS
	Off	2500.0	-54.23	2.0	0	41.03	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-45.12	2.0	0	50.14	PEAK	74	PASS
	Off	2310.0	-54.83	2.0	0	40.43	AV	54	PASS
	Off	2390.0	-45.56	2.0	0	49.70	PEAK	74	PASS
	Off	2390.0	-54.51	2.0	0	40.74	AV	54	PASS
	Off	2483.5	-44.16	2.0	0	51.10	PEAK	74	PASS
	Off	2483.5	-54.03	2.0	0	41.23	AV	54	PASS
	Off	2500.0	-43.80	2.0	0	51.46	PEAK	74	PASS
	Off	2500.0	-54.24	2.0	0	41.02	AV	54	PASS
8DPSK	Off	2310.0	-45.36	2.0	0	49.89	PEAK	74	PASS
	Off	2310.0	-54.91	2.0	0	40.35	AV	54	PASS
	Off	2390.0	-44.94	2.0	0	50.31	PEAK	74	PASS
	Off	2390.0	-54.65	2.0	0	40.61	AV	54	PASS
	Off	2483.5	-44.89	2.0	0	50.37	PEAK	74	PASS
	Off	2483.5	-54.01	2.0	0	41.24	AV	54	PASS
	Off	2500.0	-42.26	2.0	0	53.00	PEAK	74	PASS
	Off	2500.0	-54.25	2.0	0	41.01	AV	54	PASS

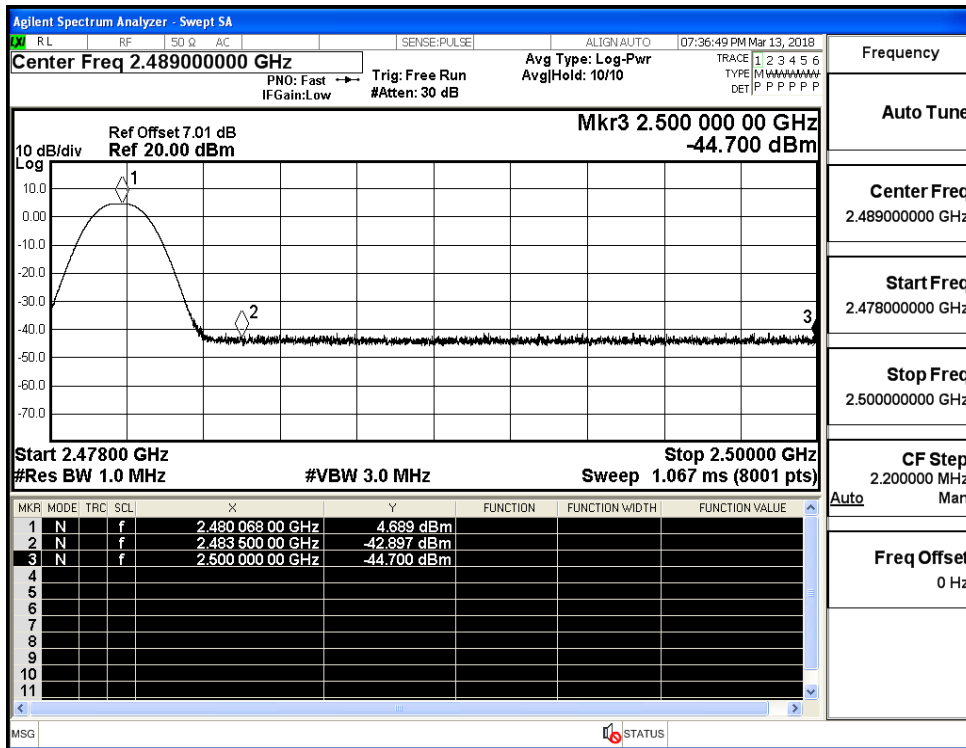
Restrict-band band-edge measurements\_Hopping Off\_GFSK\_PEAK (Low Channel)



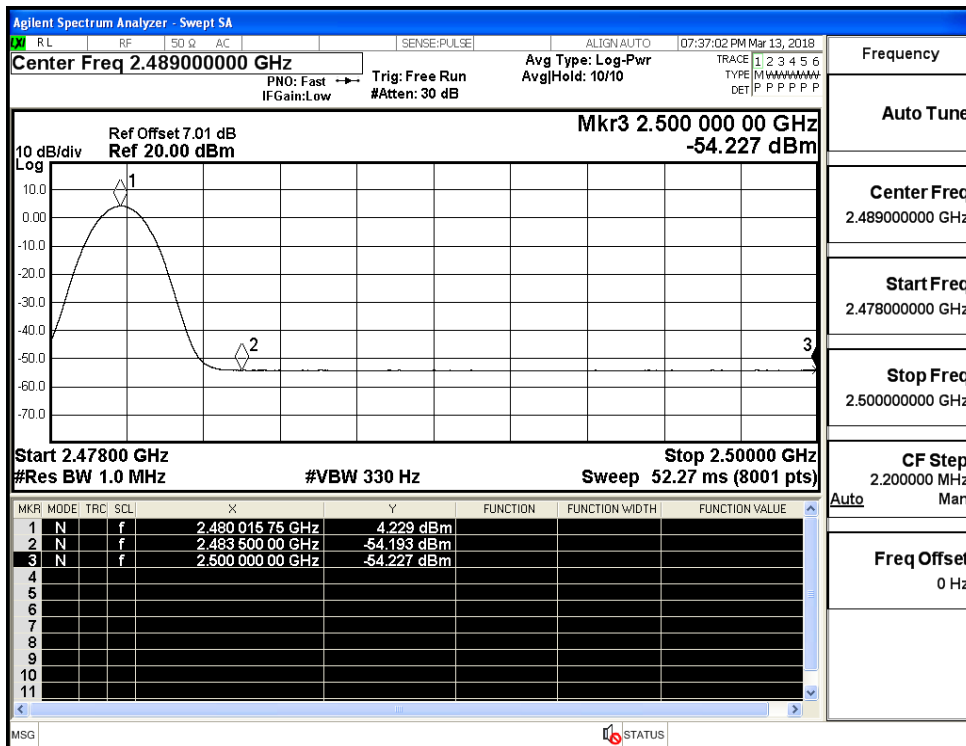
Restrict-band band-edge measurements\_Hopping Off\_GFSK\_Average (Low Channel)



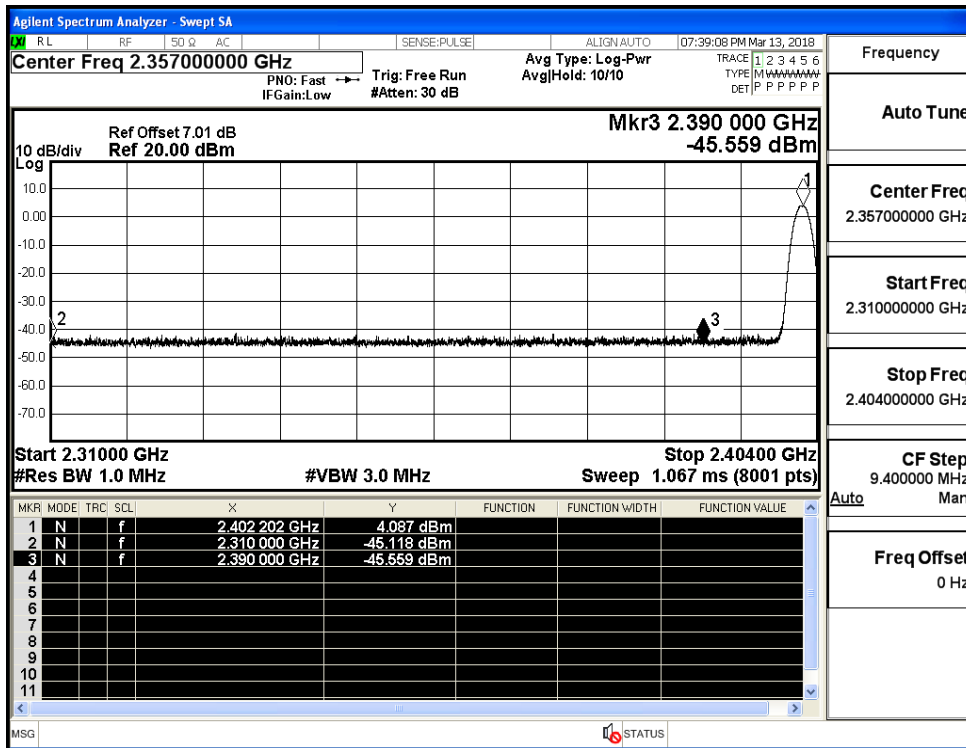
Restrict-band band-edge measurements\_Hopping Off\_GFSK\_PEAK (High Channel)



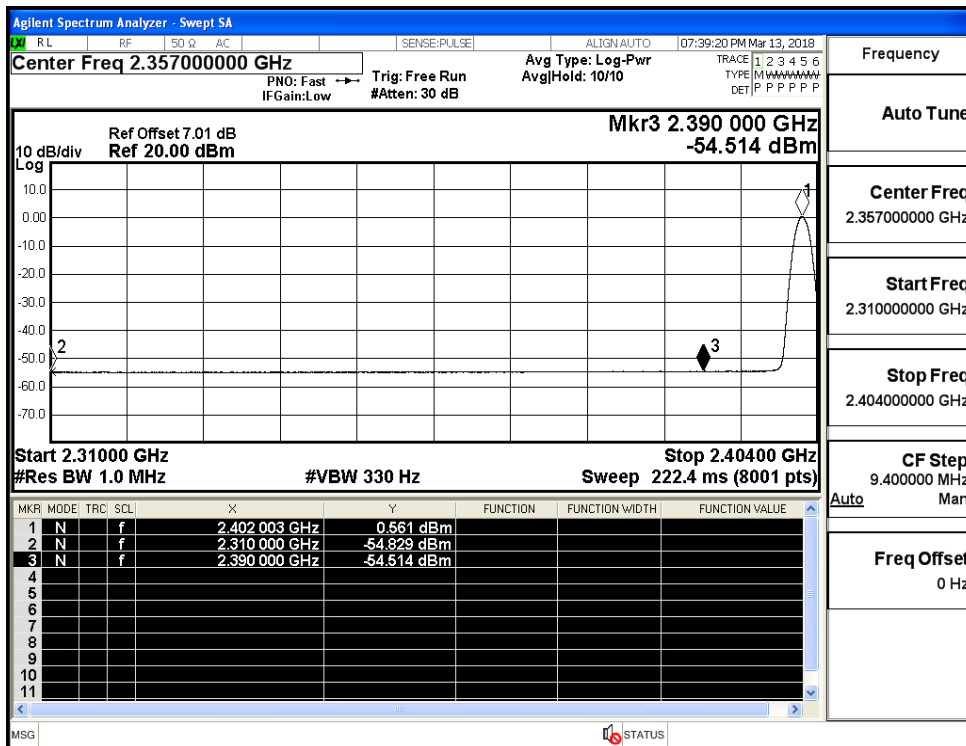
Restrict-band band-edge measurements\_Hopping Off\_GFSK\_Average (High Channel)



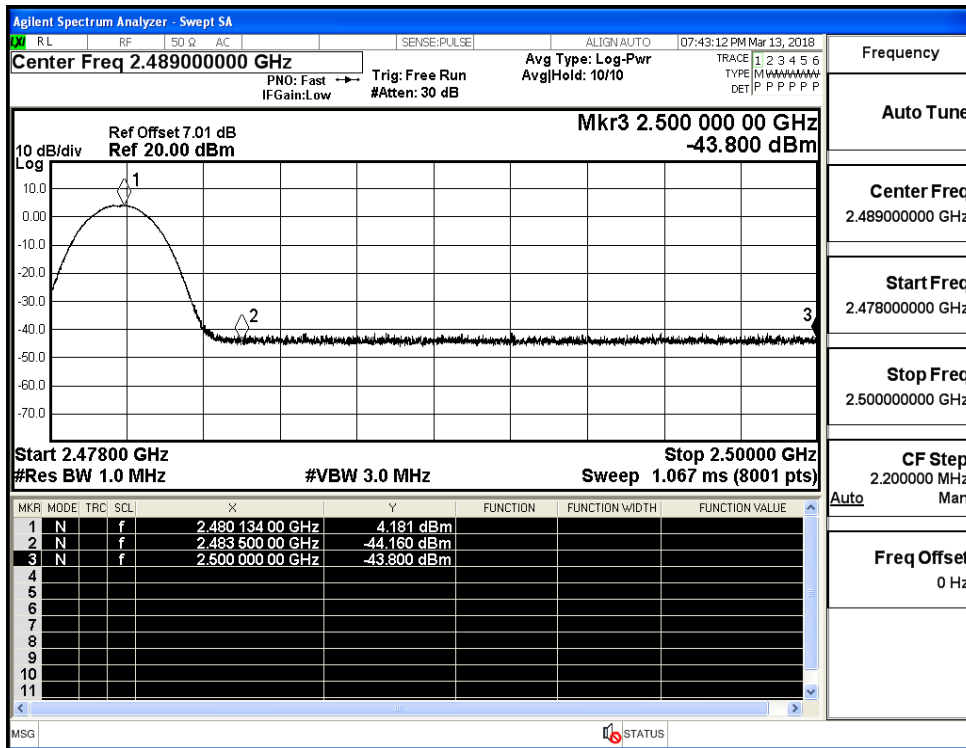
Restrict-band band-edge measurements\_Hopping Off  $\pi/4$ -DQPSK\_PEAK (Low Channel)



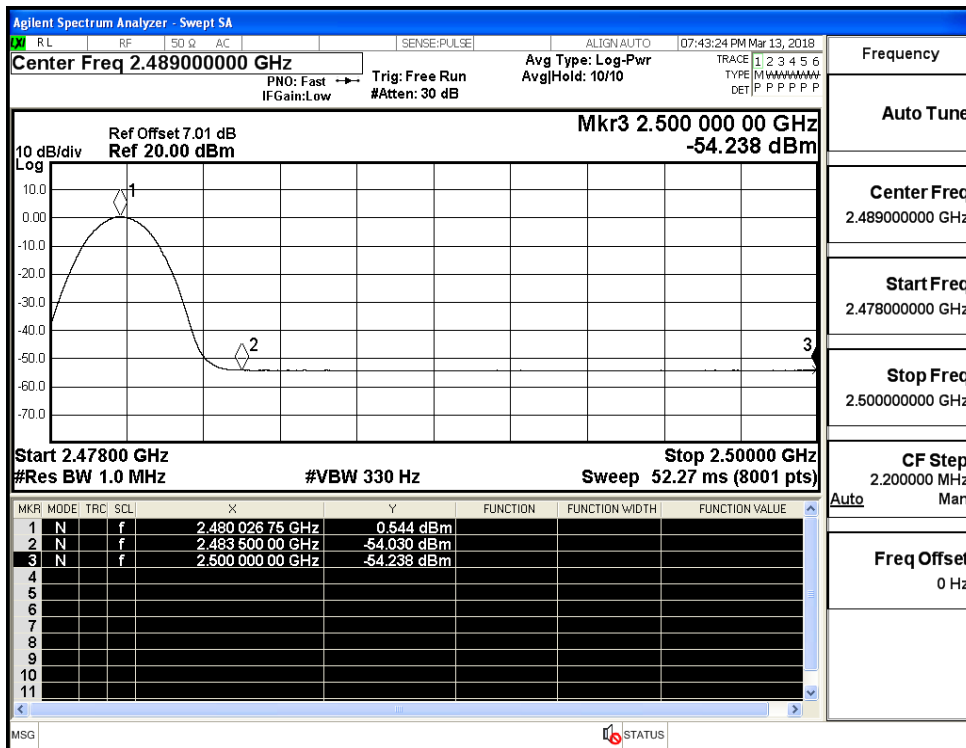
Restrict-band band-edge measurements\_Hopping Off  $\pi/4$ -DQPSK\_Average (Low Channel)



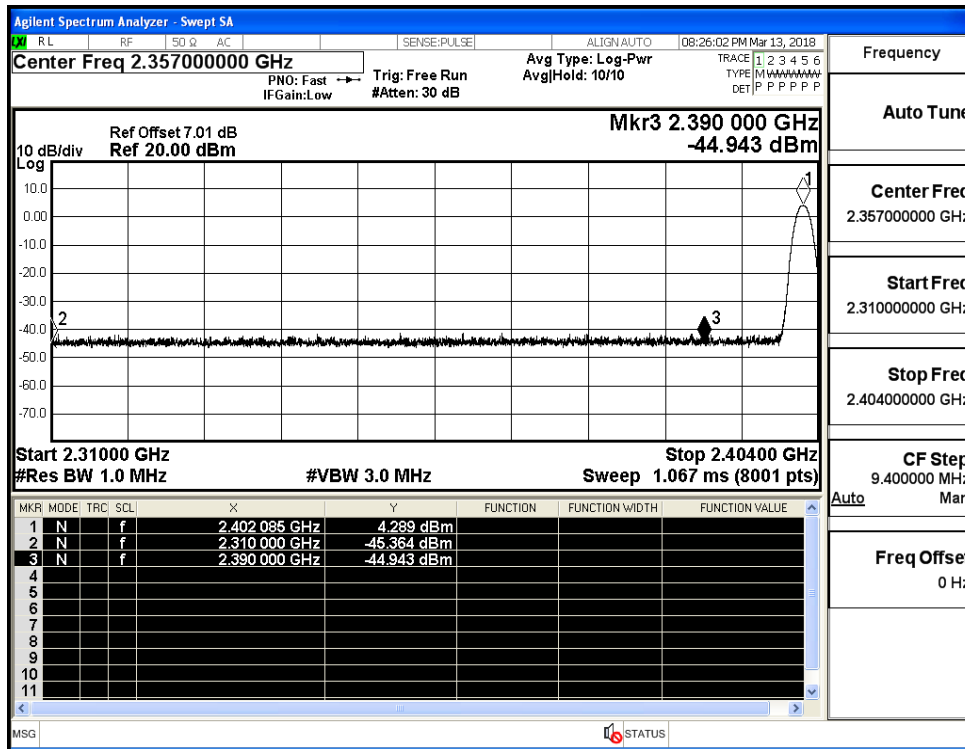
Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_PEAK (High Channel)



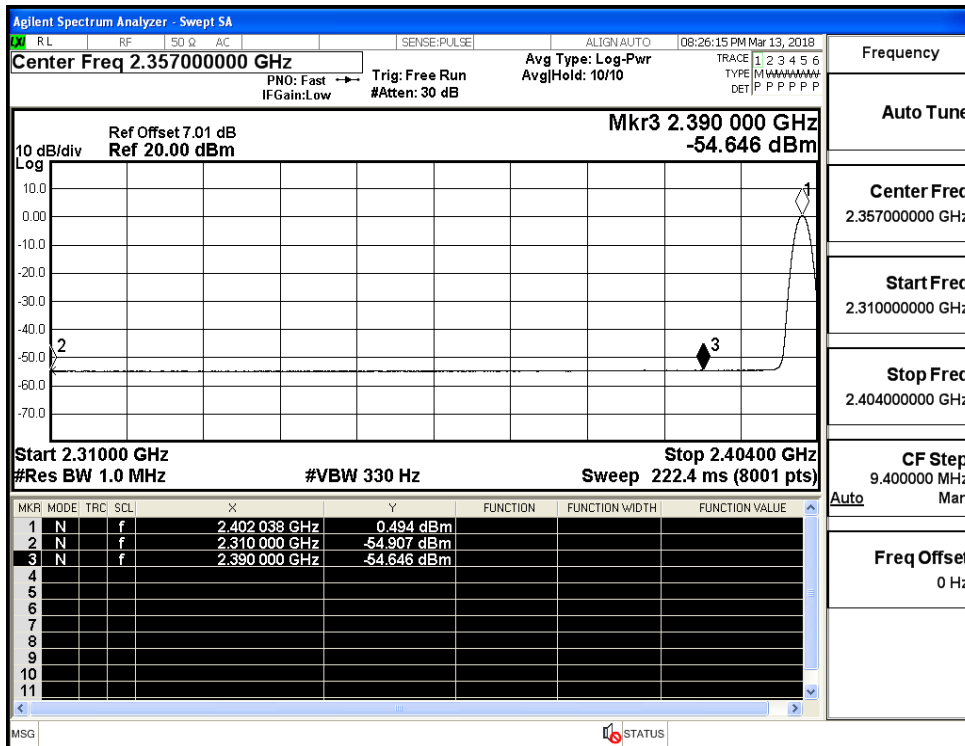
Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_Average (High Channel)



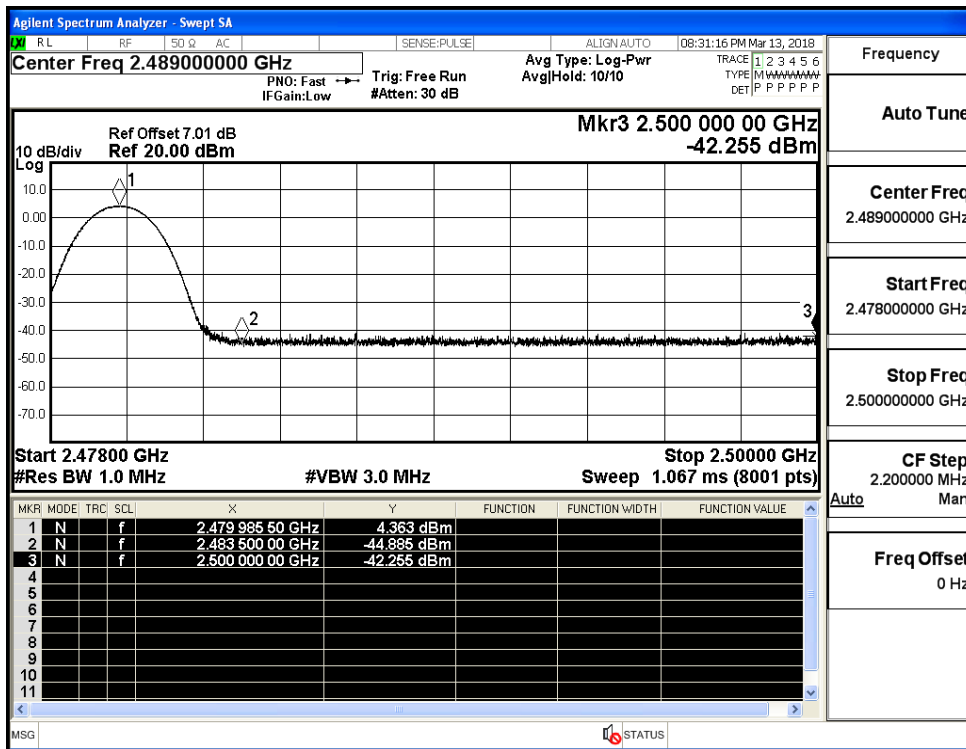
Restrict-band band-edge measurements\_Hopping Off\_8DPSK\_PEAK (Low Channel)



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)

