

## Appendix A

### RF Test Data for BT V5.0(DSS) (Conducted Measurement)

Product Name: CD /BLUETOOTH BOOMBOX

Trade Mark: N/A

Test Model: AAABLK100009771

#### Environmental Conditions

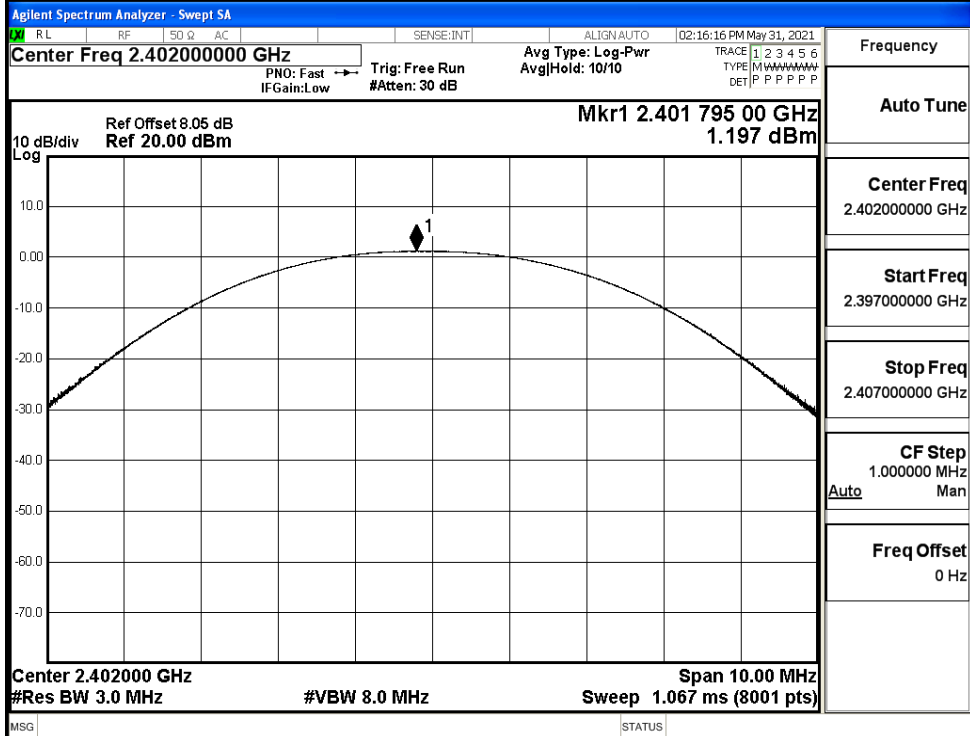
Temperature:	23.7 °C
Relative Humidity:	51.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

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

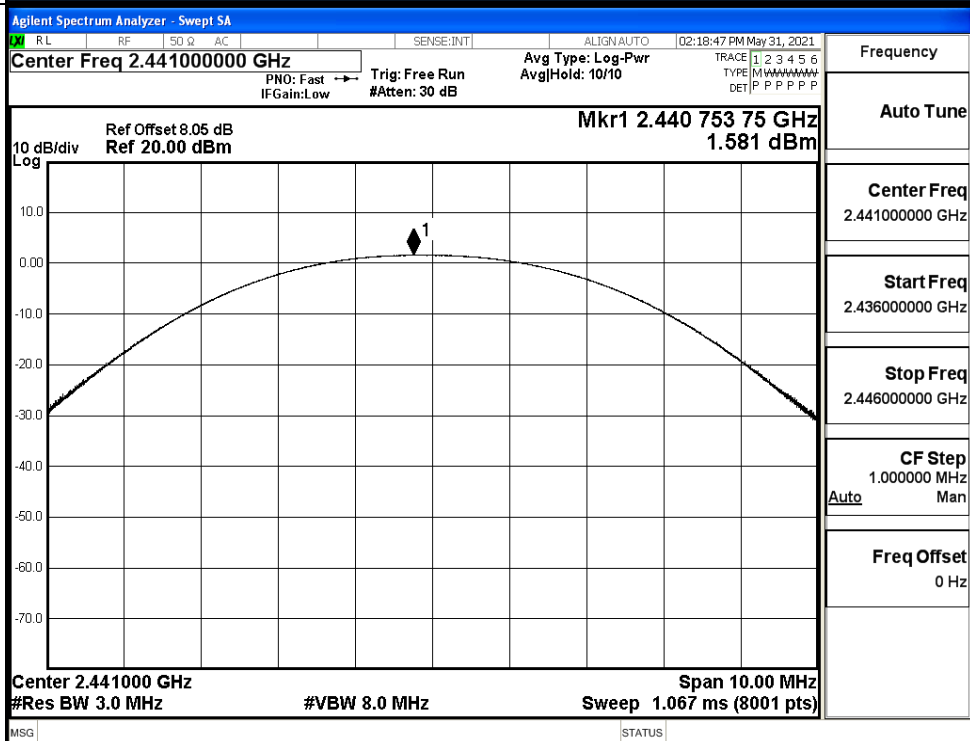
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	1.197	21	PASS
	MCH	1.581	21	PASS
	HCH	1.673	21	PASS
$\pi/4$ DQPSK	LCH	1.179	21	PASS
	MCH	1.520	21	PASS
	HCH	1.528	21	PASS

Test Graphs

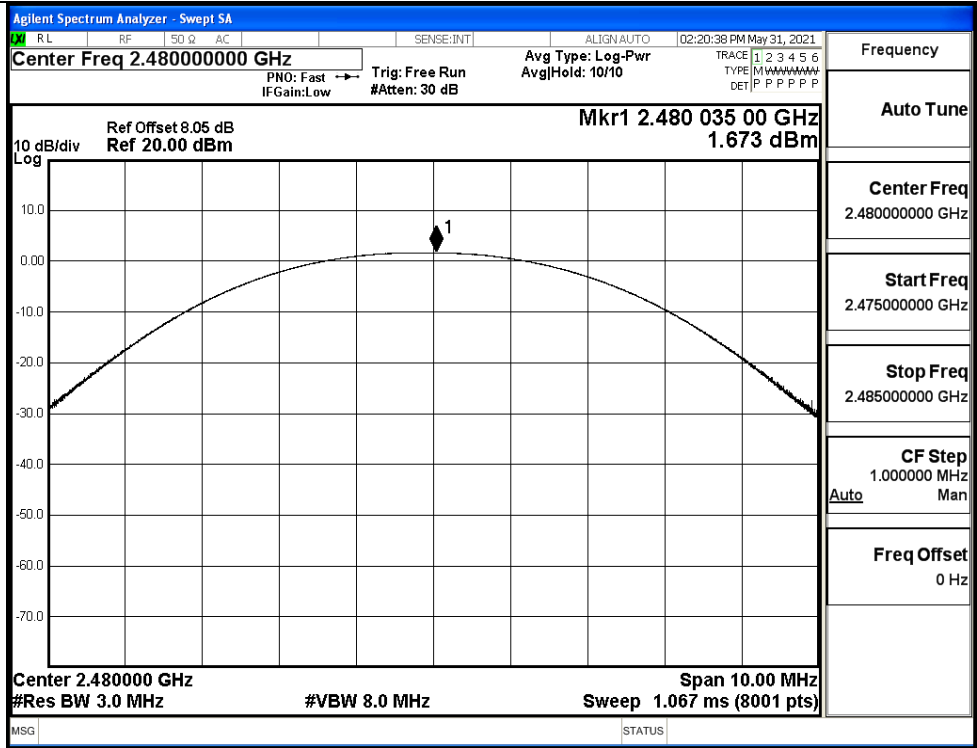
GFSK/LCH



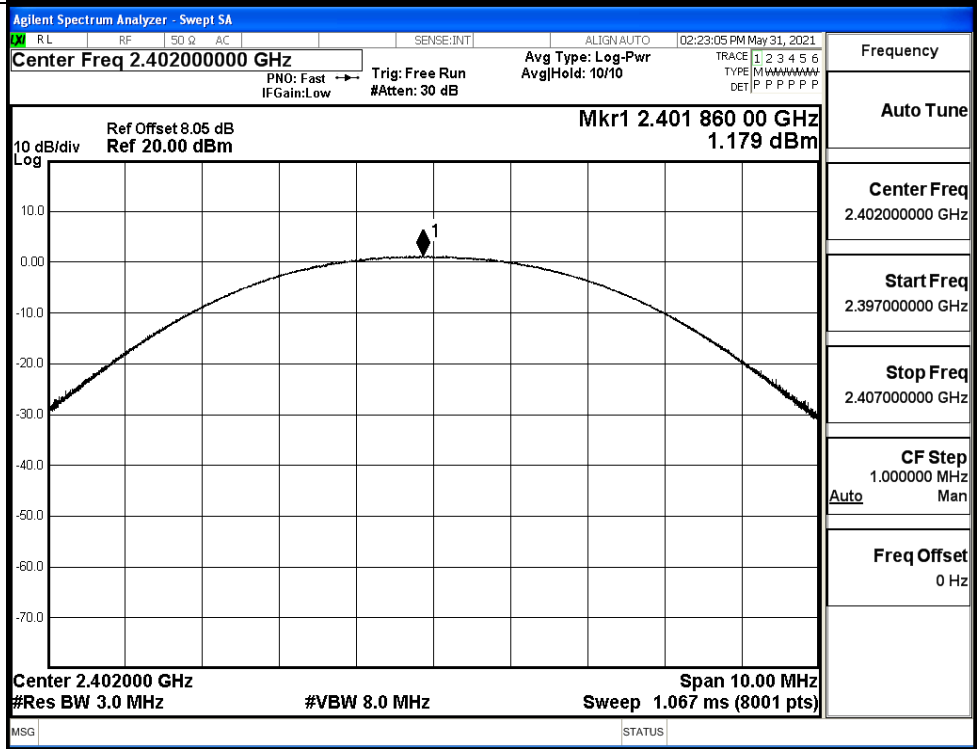
GFSK/MCH



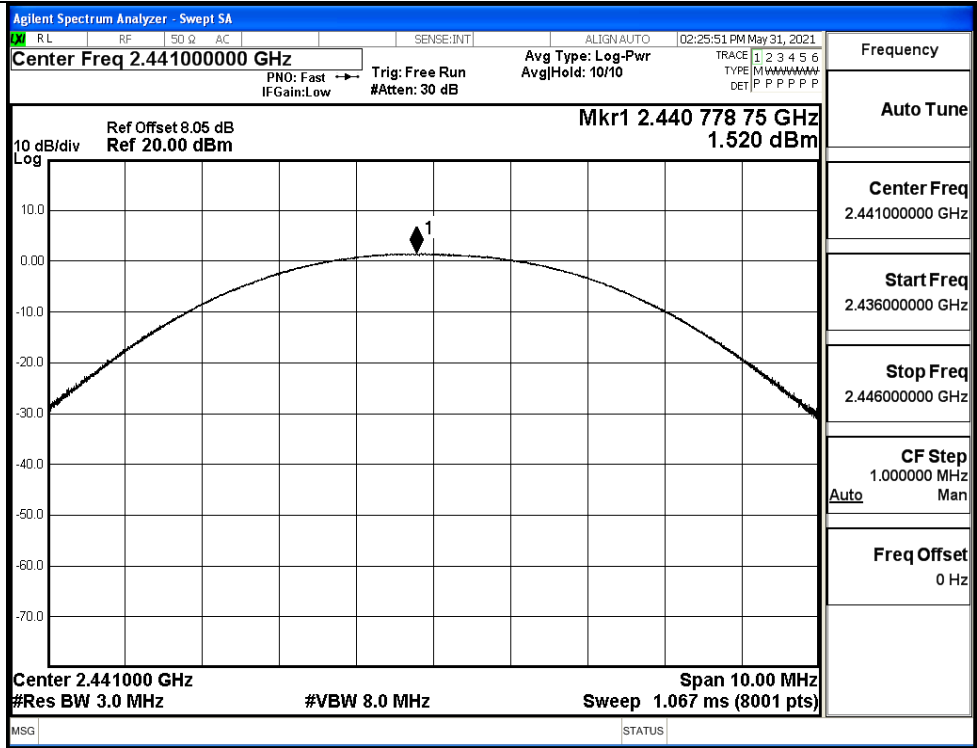
GFSK/HCH



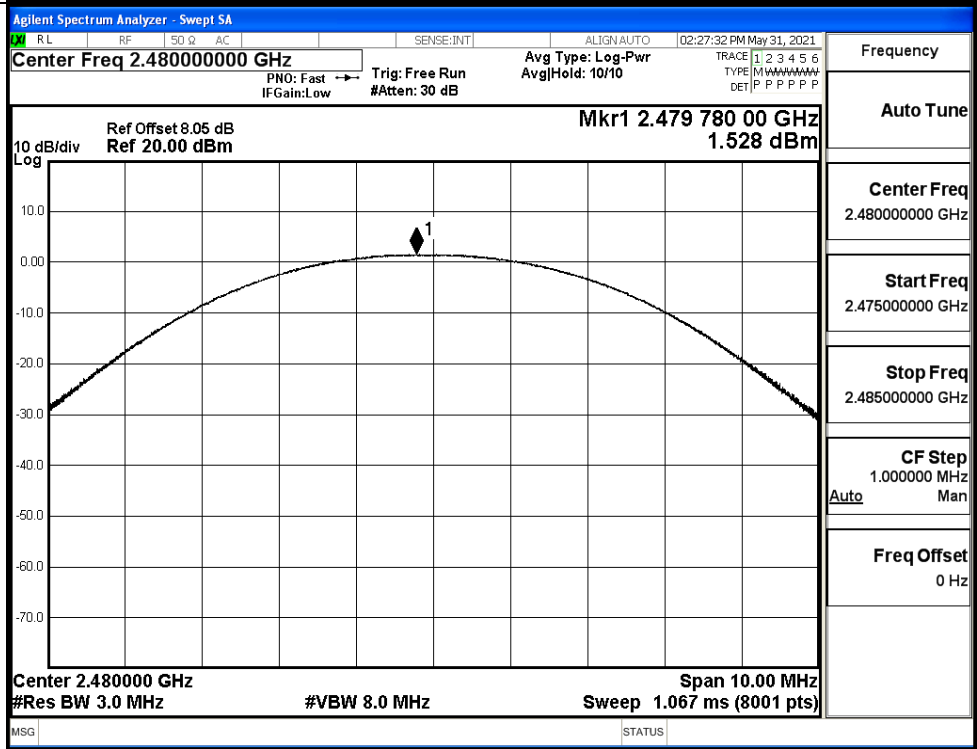
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH

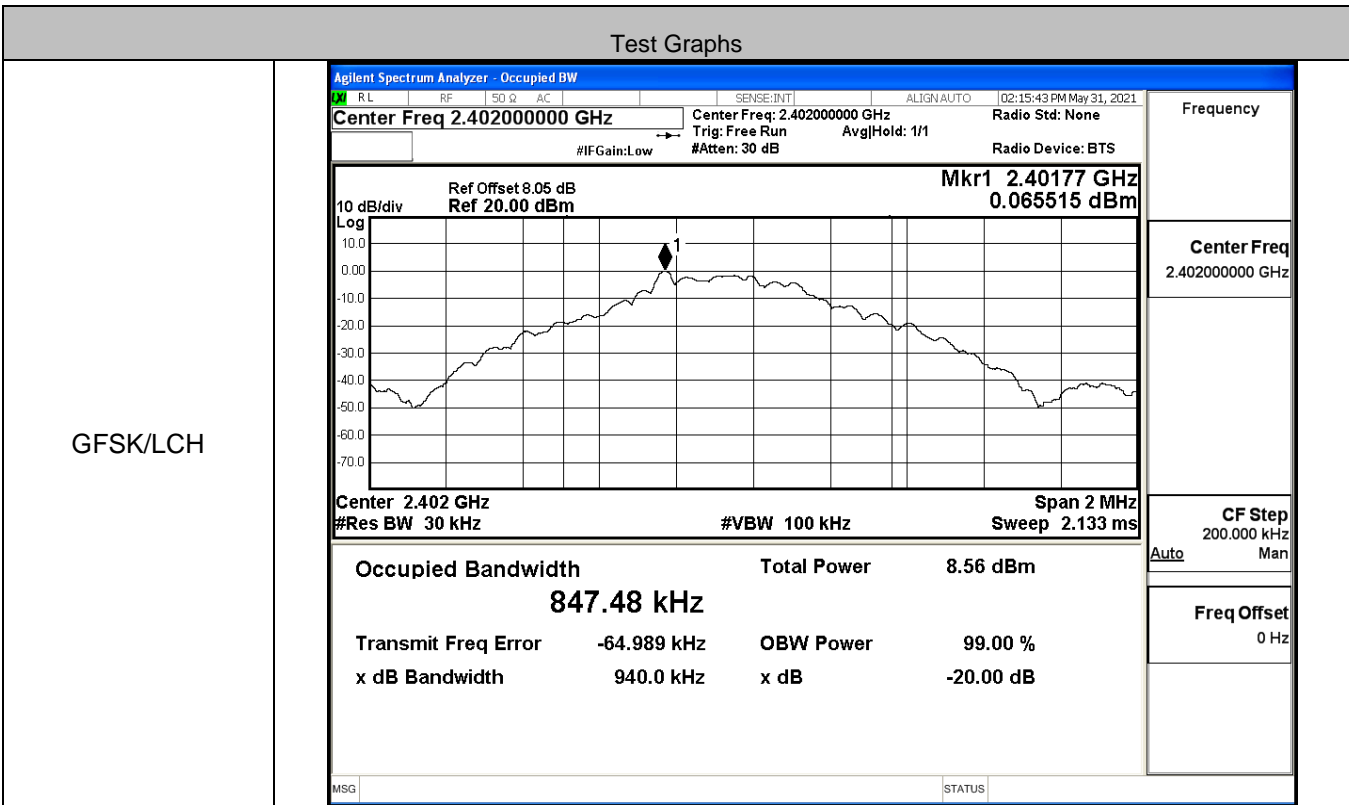


$\pi/4$ DQPSK/HCH

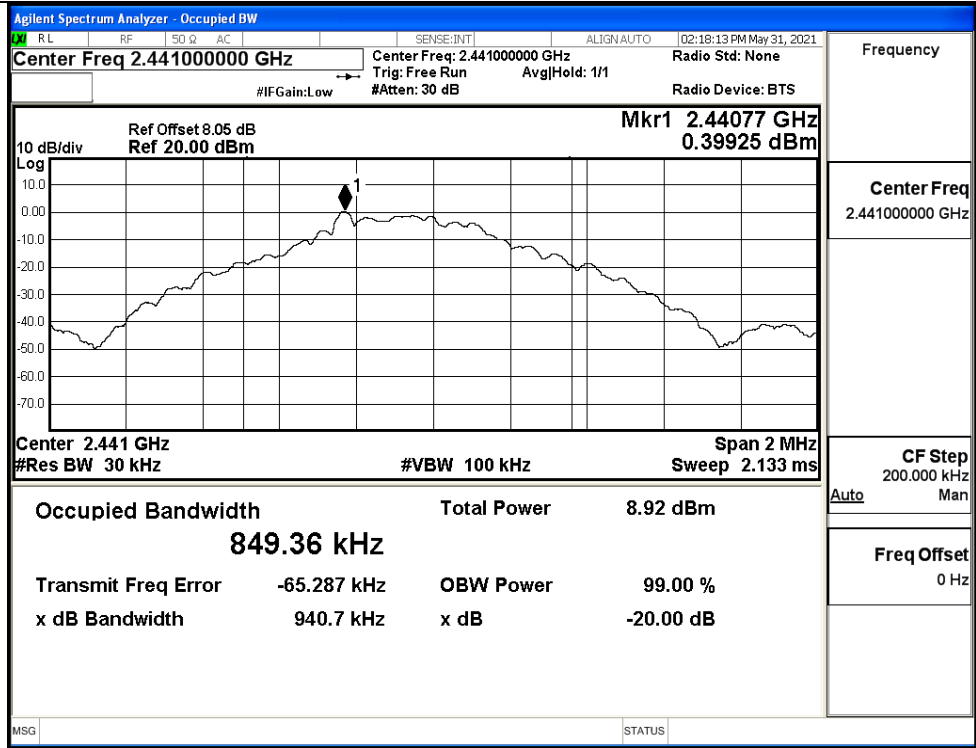


**A.2 20dB Bandwidth**

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9400	Not Specified	PASS
	MCH	0.9407	Not Specified	PASS
	HCH	0.9420	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.271	Not Specified	PASS
	MCH	1.271	Not Specified	PASS
	HCH	1.273	Not Specified	PASS

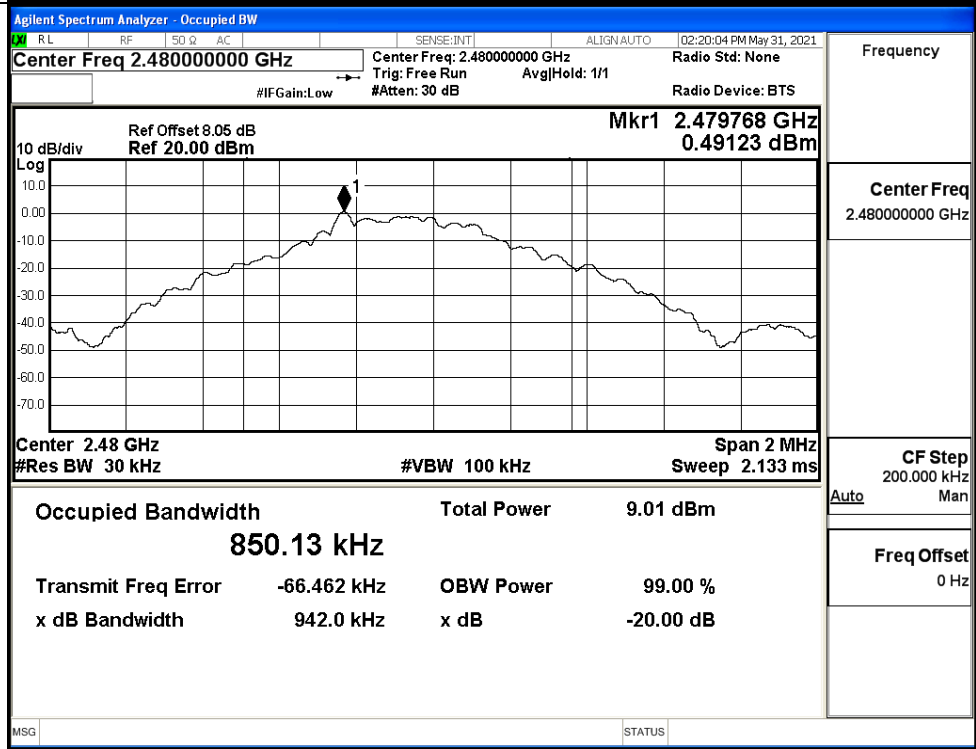


GFSK/MCH



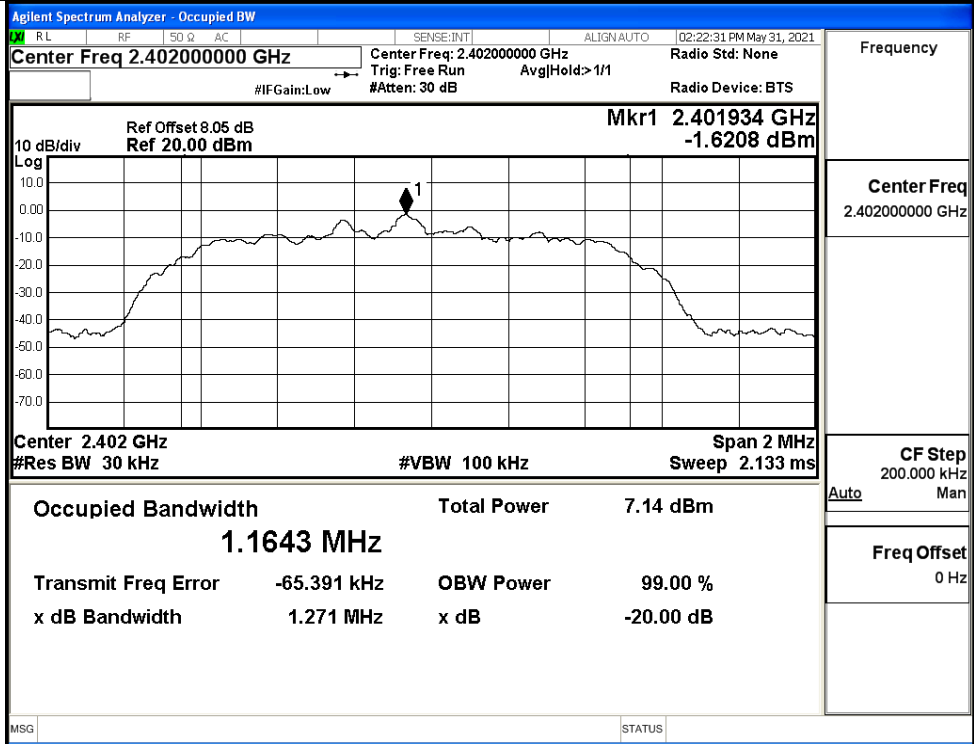
Frequency	2.441000000 GHz
Center Freq	2.441000000 GHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz

GFSK/HCH

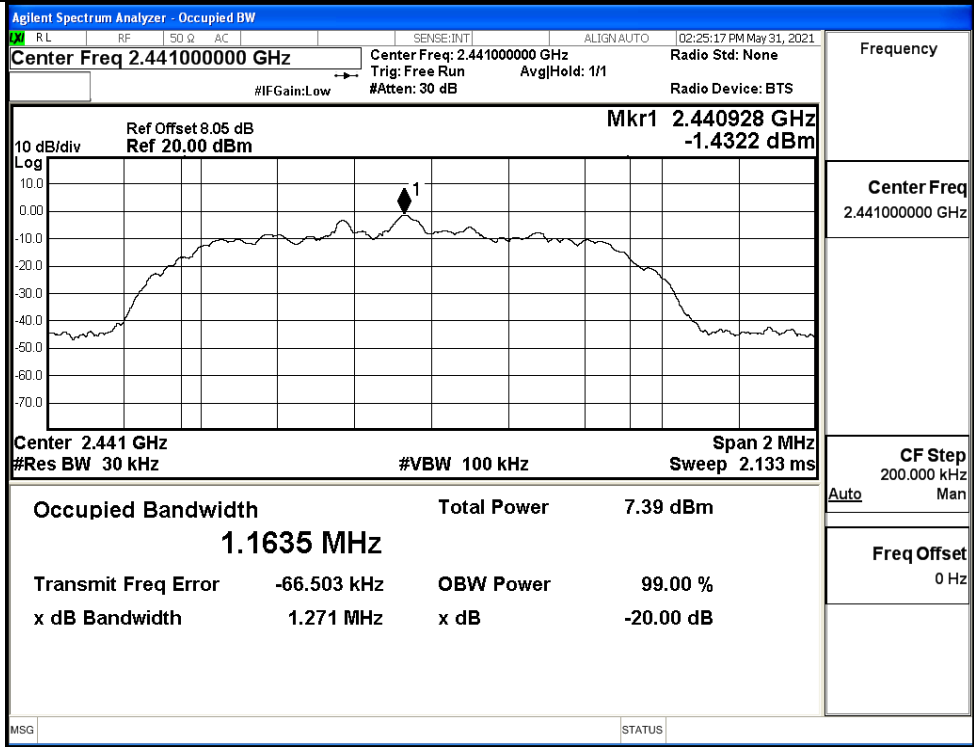


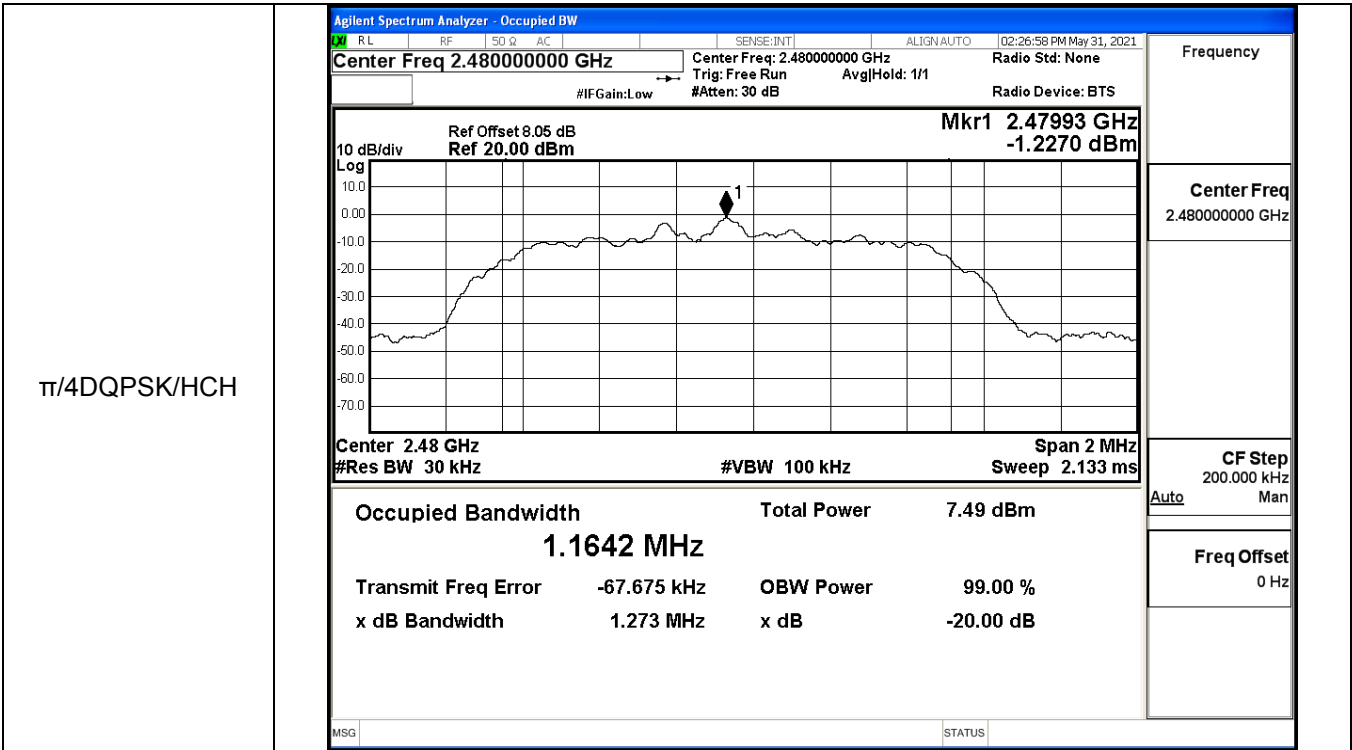
Frequency	2.480000000 GHz
Center Freq	2.480000000 GHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz

$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH

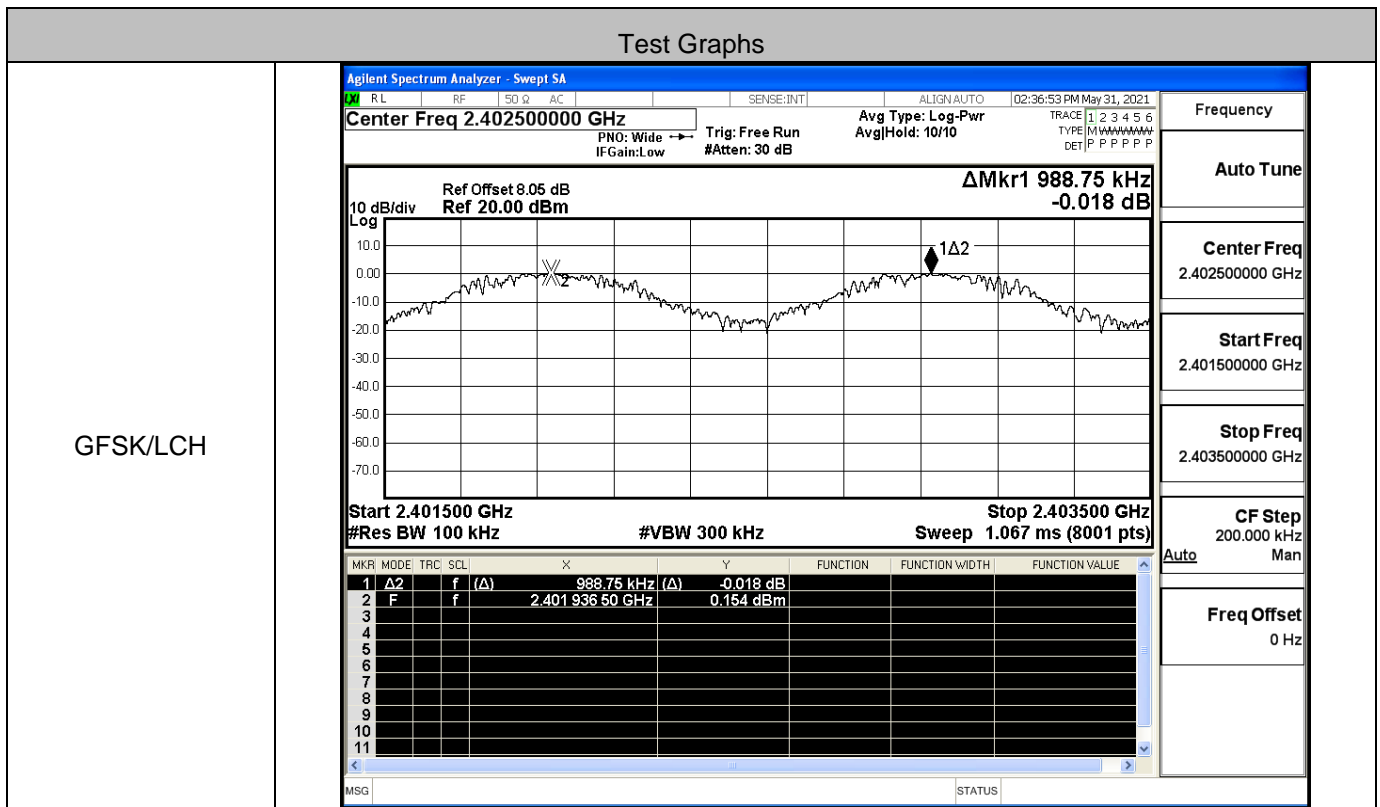




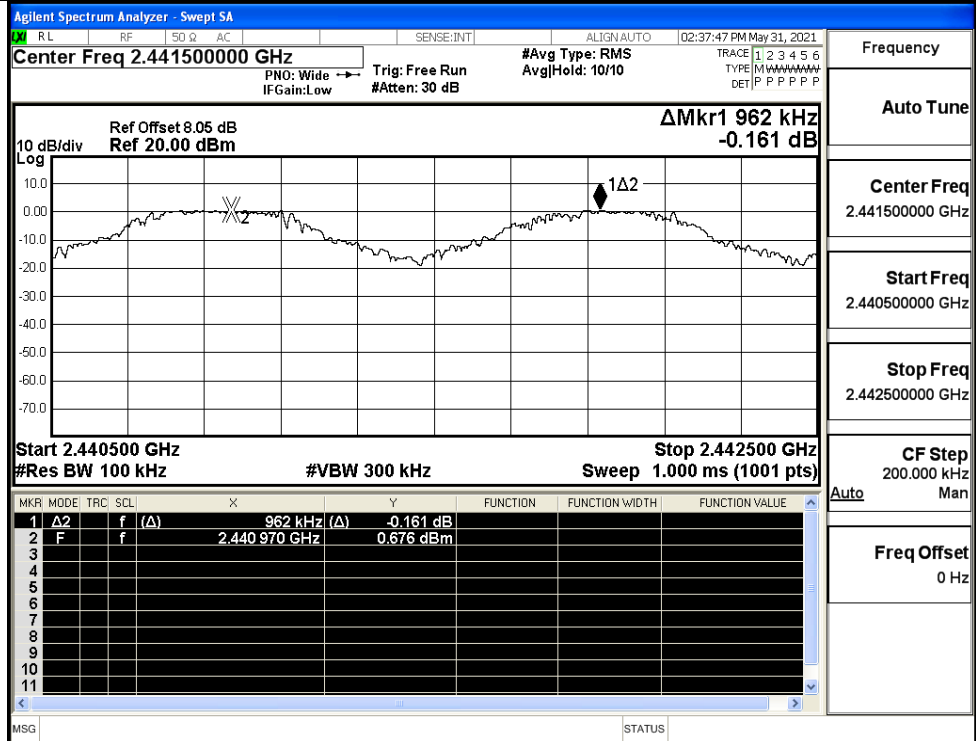


### A.3 Carrier Frequency Separation

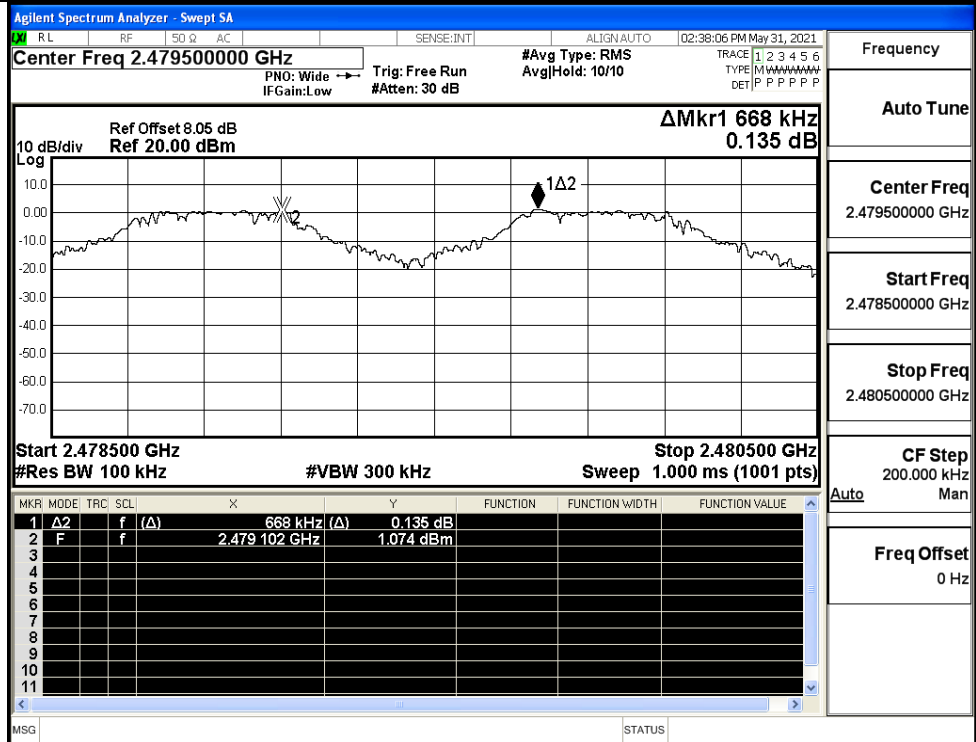
Mode	Channel	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.989	0.628	PASS
	MCH	0.962	0.628	PASS
	HCH	0.668	0.628	PASS
π/4DQPSK	LCH	0.954	0.849	PASS
	MCH	1.008	0.849	PASS
	HCH	1.136	0.849	PASS



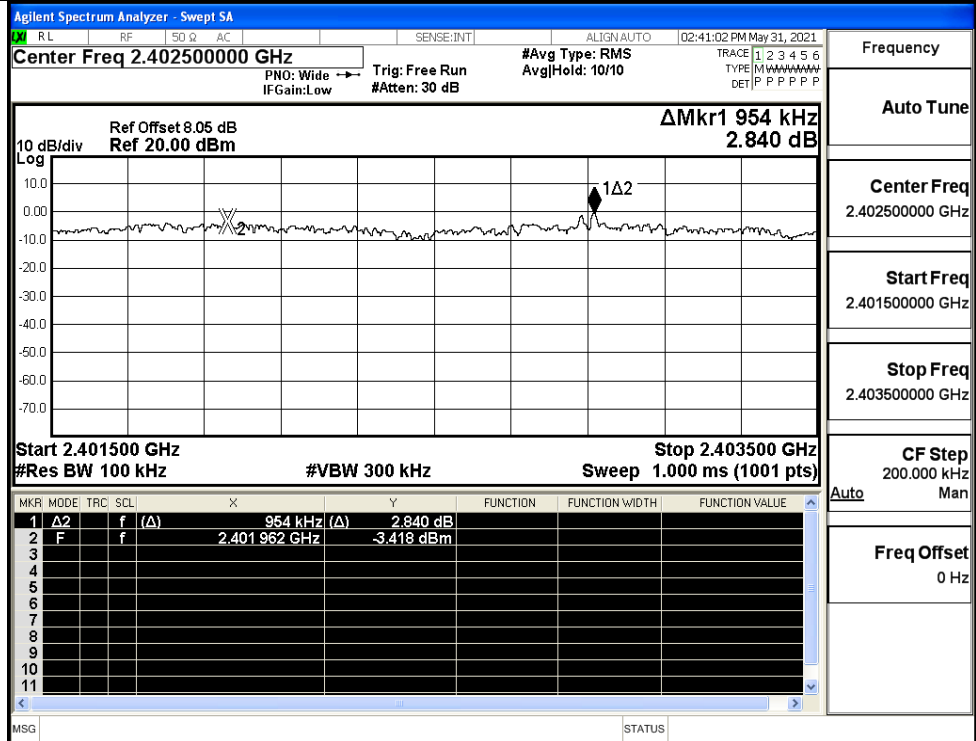
GFSK/MCH



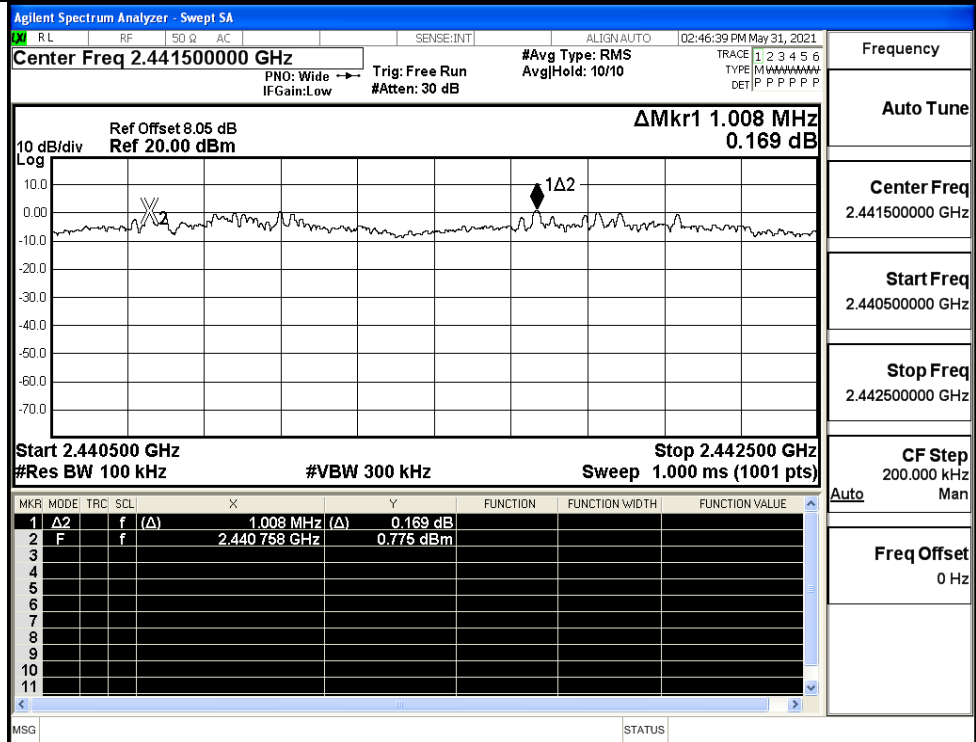
GFSK/HCH



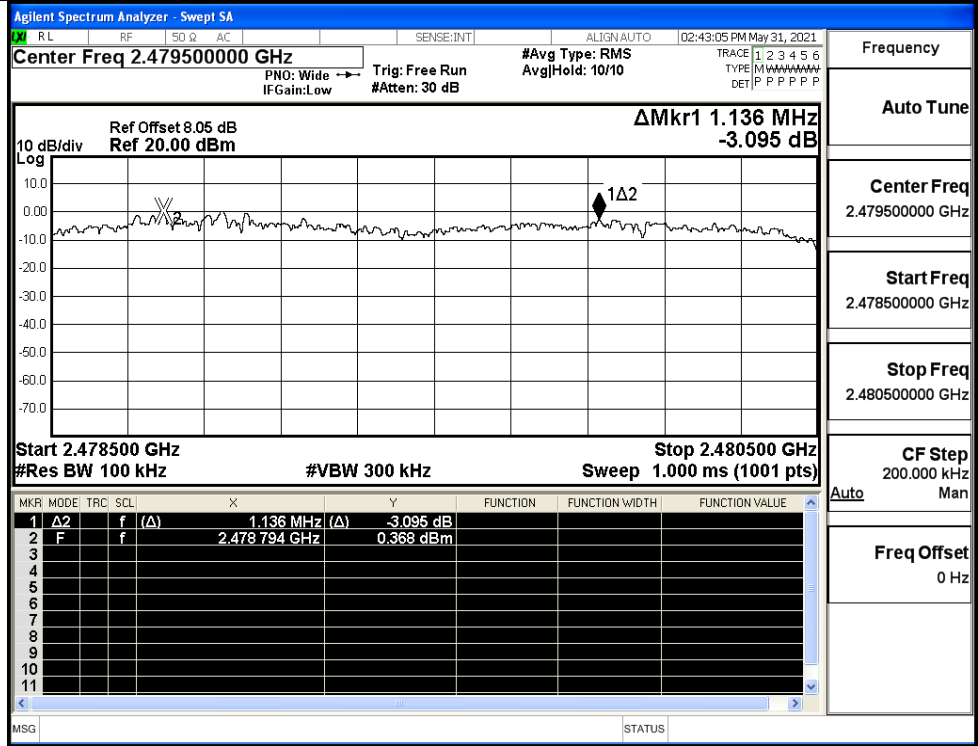
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH



$\pi/4$ DQPSK/HCH



### A.4 Hopping Channel Number

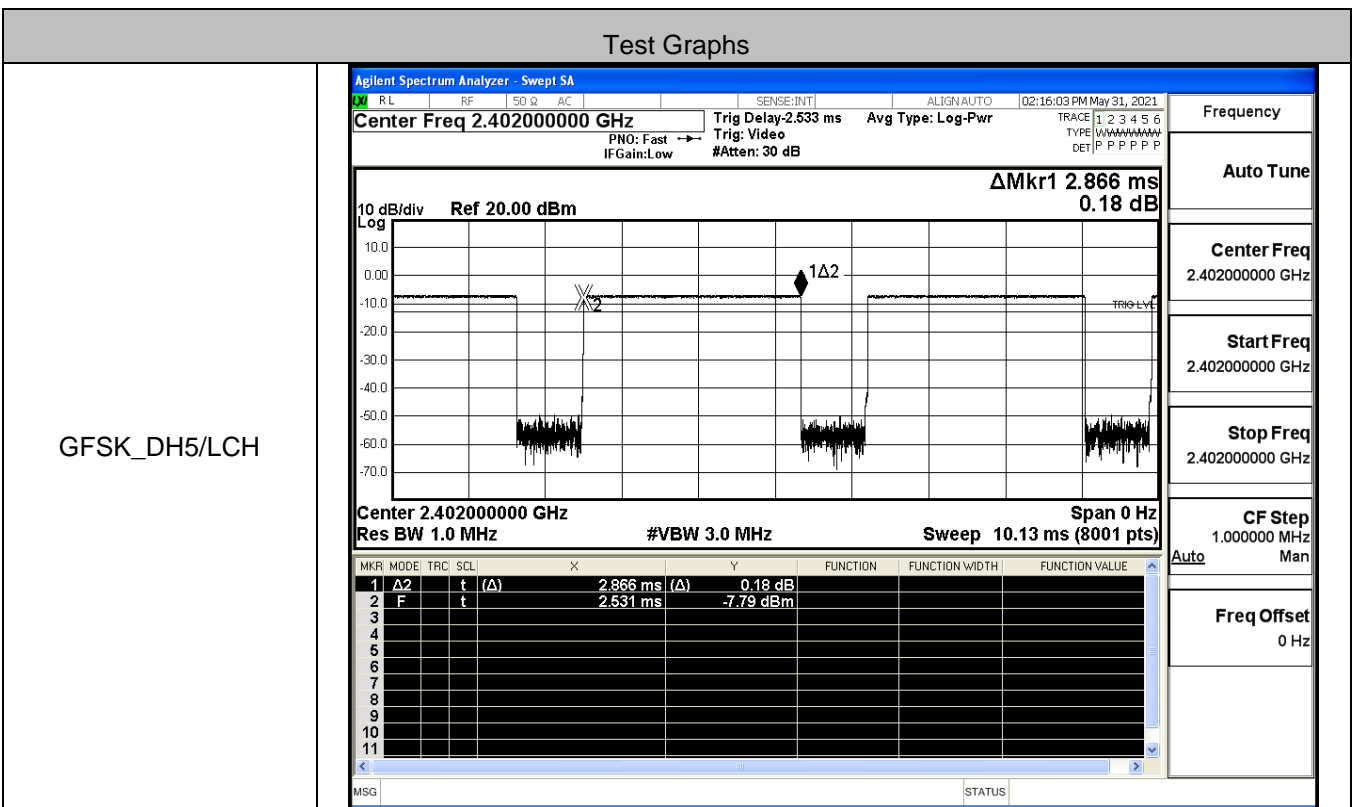
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS

#### Test Graphs

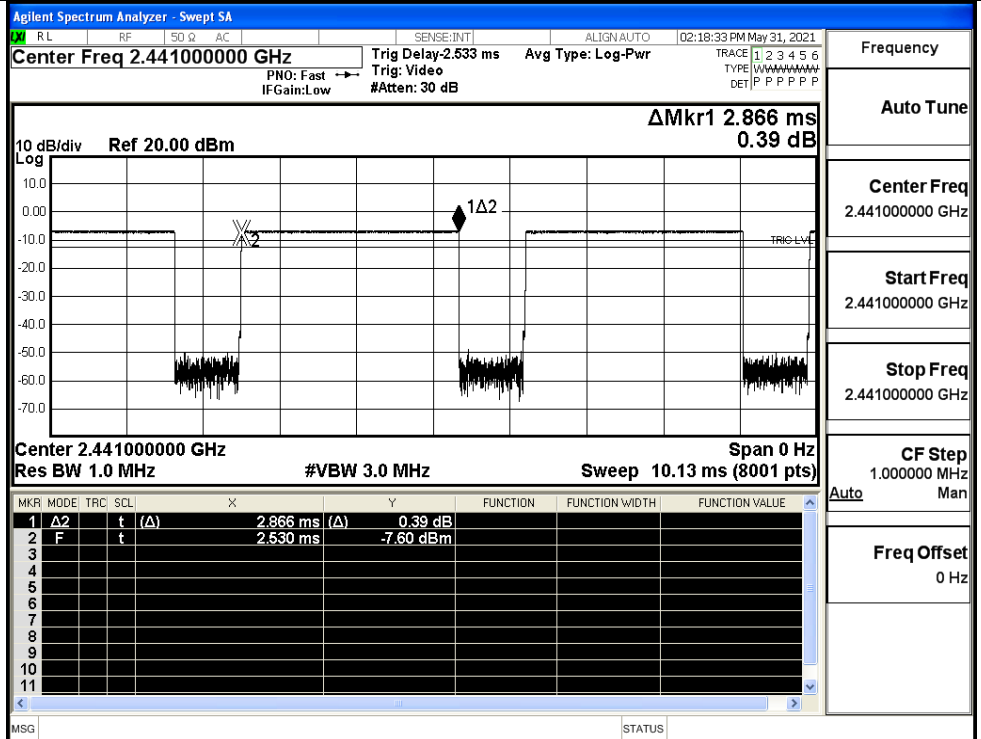
<p>GFSK/Hop</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.441750000 GHz</p> <p>Start Freq 2.400000000 GHz</p> <p>Stop Freq 2.483500000 GHz</p> <p>CF Step 8.350000 MHz Man</p> <p>Freq Offset 0 Hz</p>
<p><math>\pi/4</math>DQPSK/Hop</p>		<p>Frequency</p> <p>Auto Tune</p> <p>Center Freq 2.441750000 GHz</p> <p>Start Freq 2.400000000 GHz</p> <p>Stop Freq 2.483500000 GHz</p> <p>CF Step 8.350000 MHz Man</p> <p>Freq Offset 0 Hz</p>

### A.5 Dwell Time

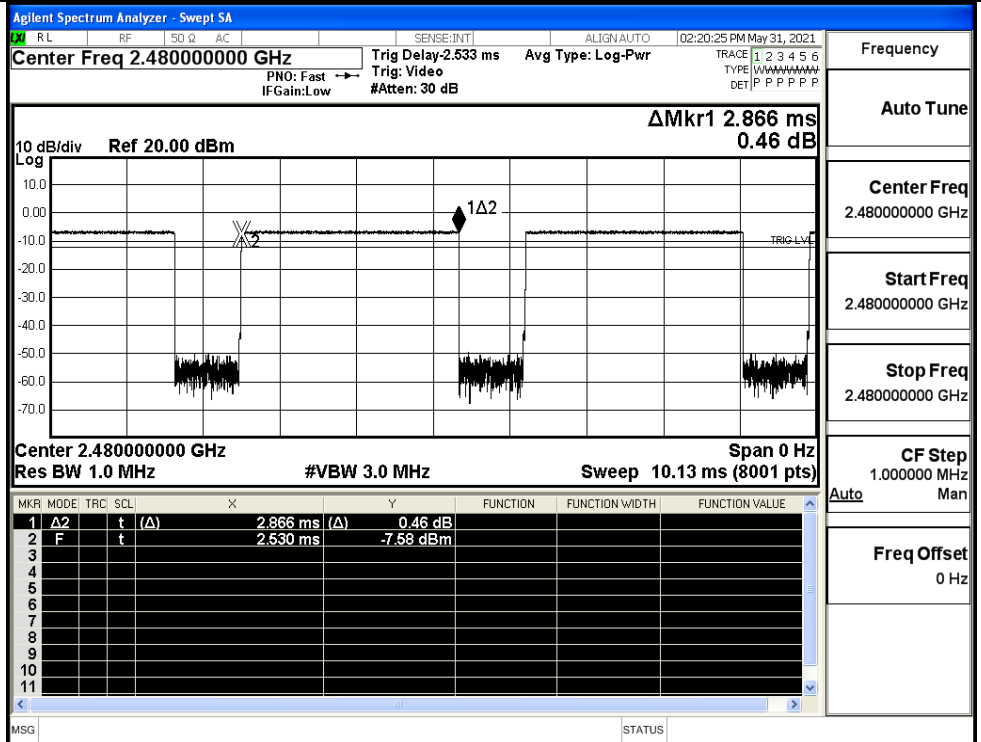
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.87	106.7	0.306	0.4	PASS
	DH5	MCH	2.87	106.7	0.306	0.4	PASS
	DH5	HCH	2.87	106.7	0.306	0.4	PASS
π/4DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88	106.7	0.307	0.4	PASS



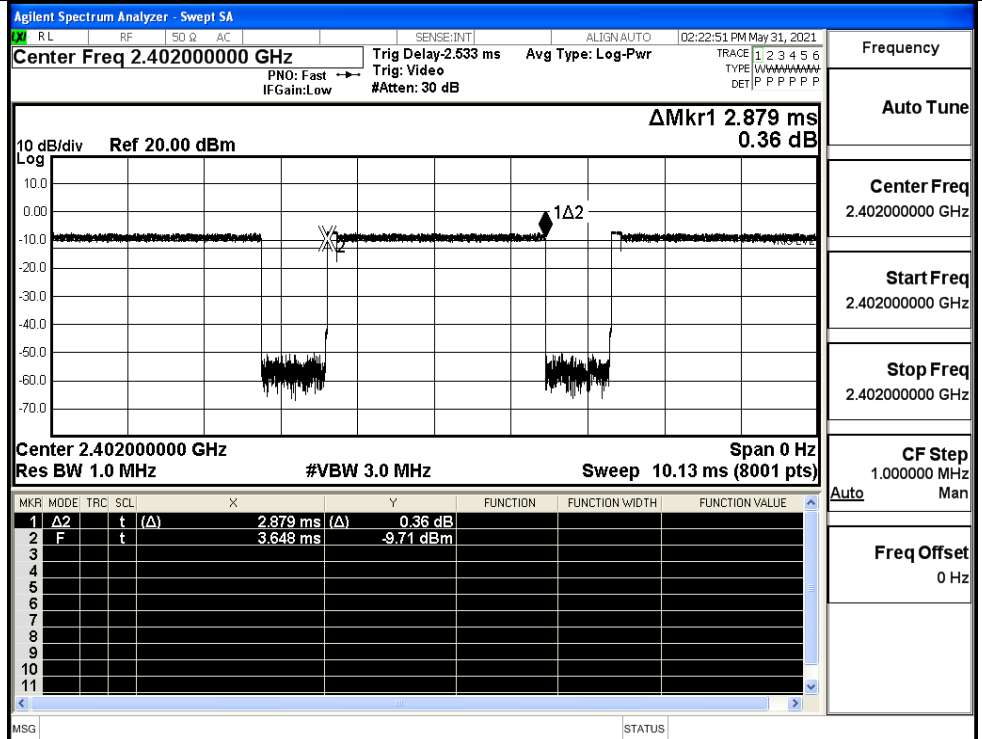
GFSK\_DH5/MCH



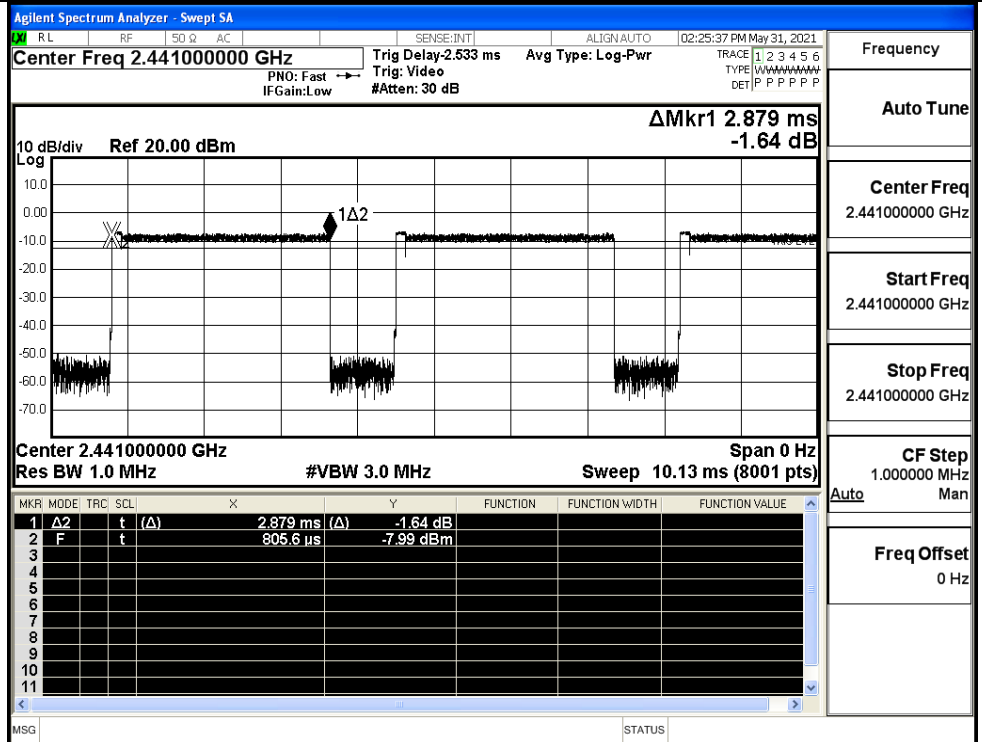
GFSK\_DH5/HCH



$\pi/4$ DQPSK  
\_2DH5/LCH

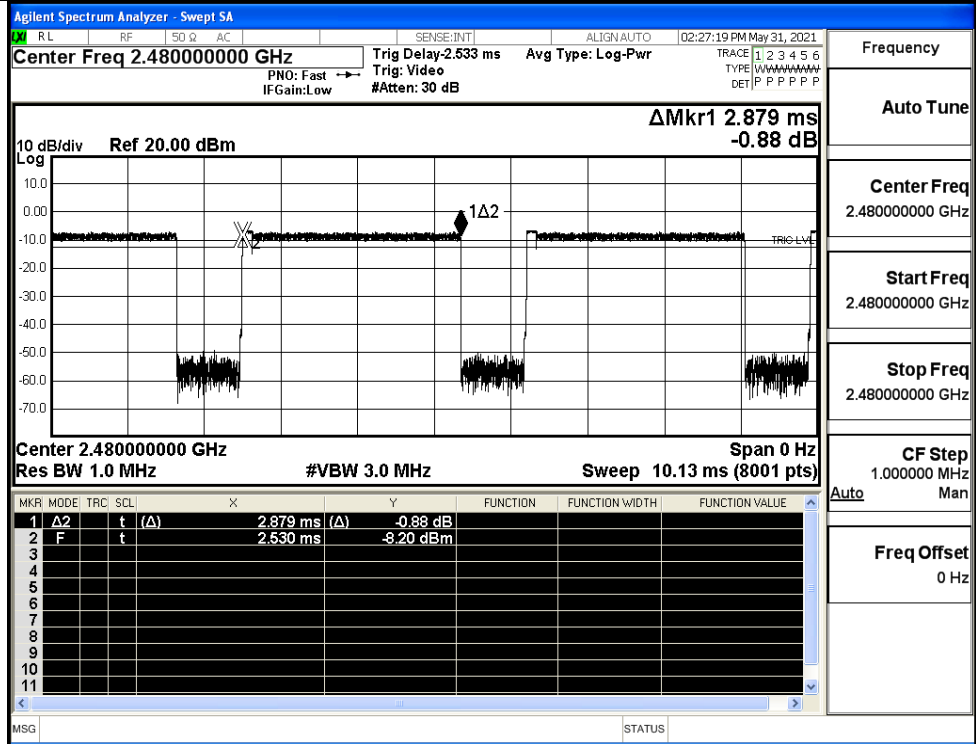


$\pi/4$ DQPSK  
\_2DH5/MCH



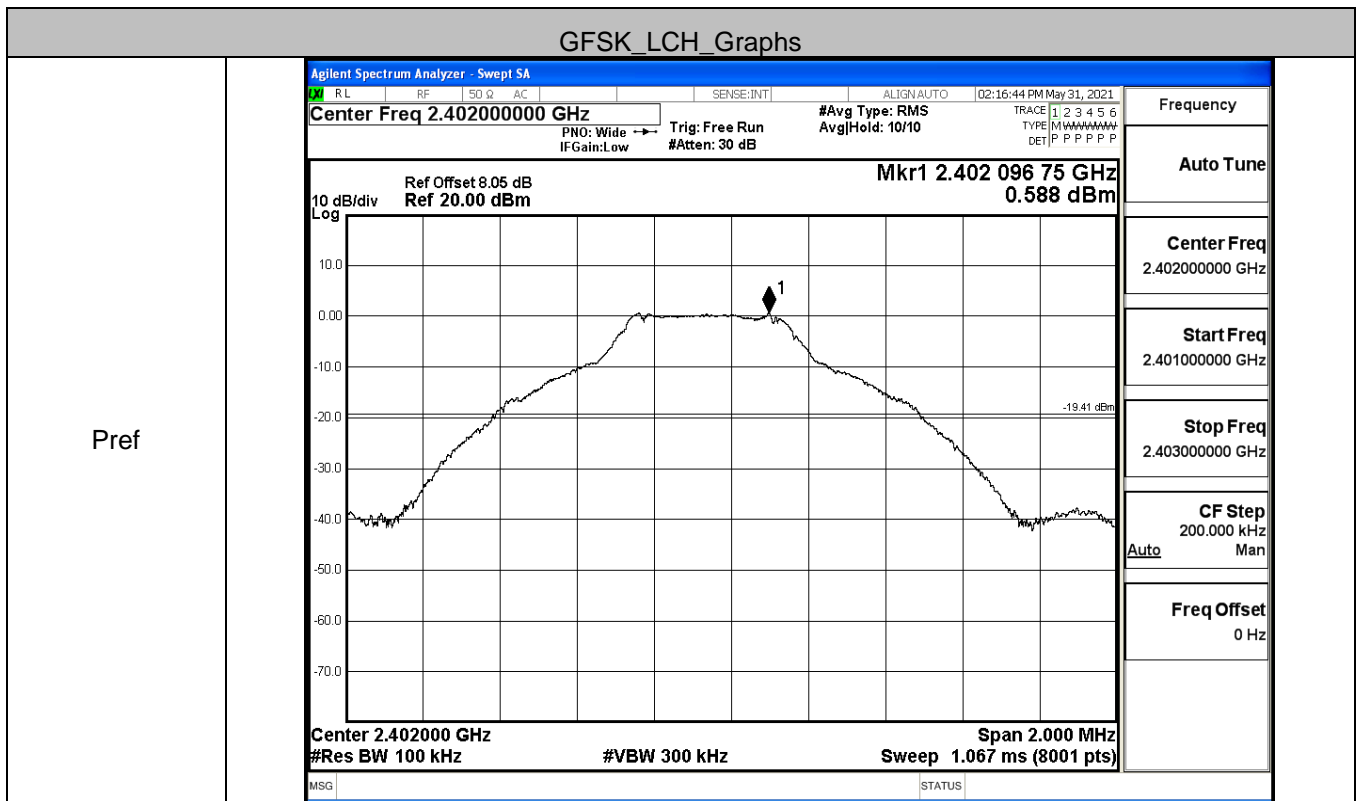


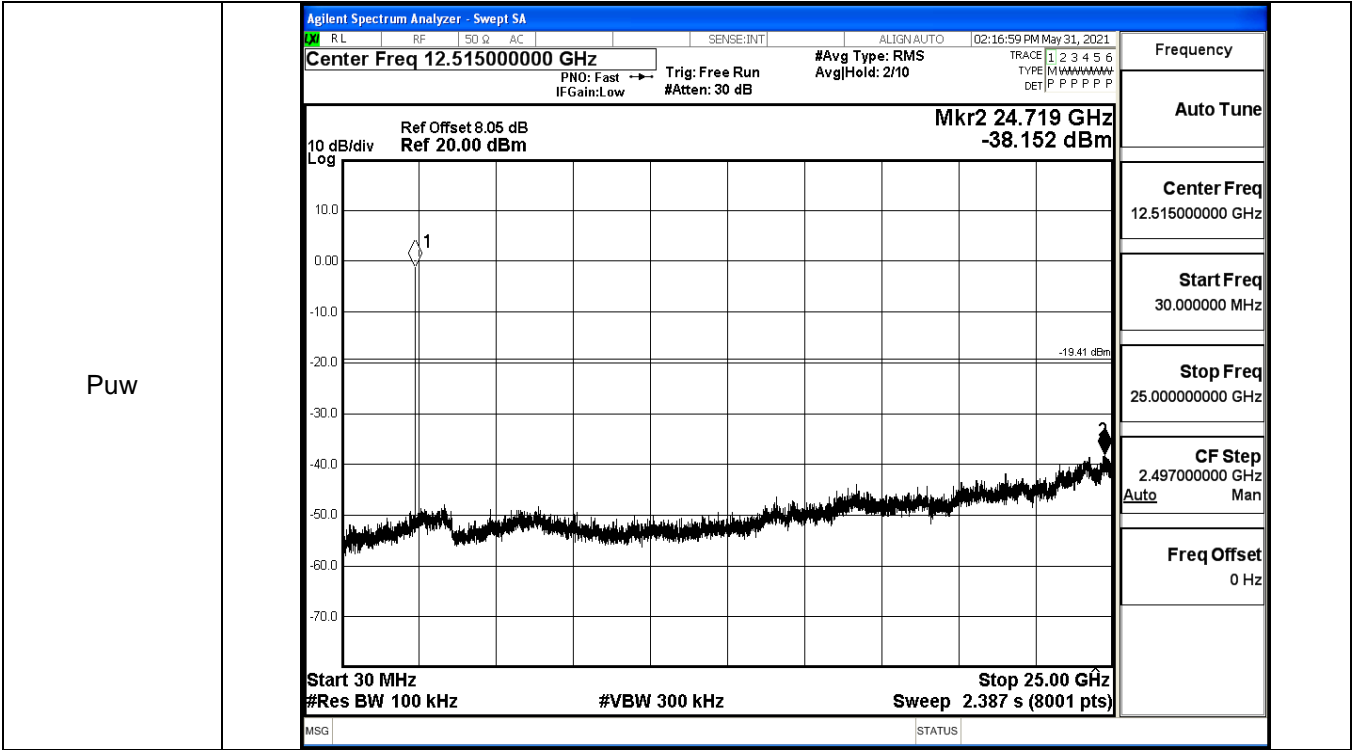
$\pi/4$ DQPSK  
\_2DH5/HCH



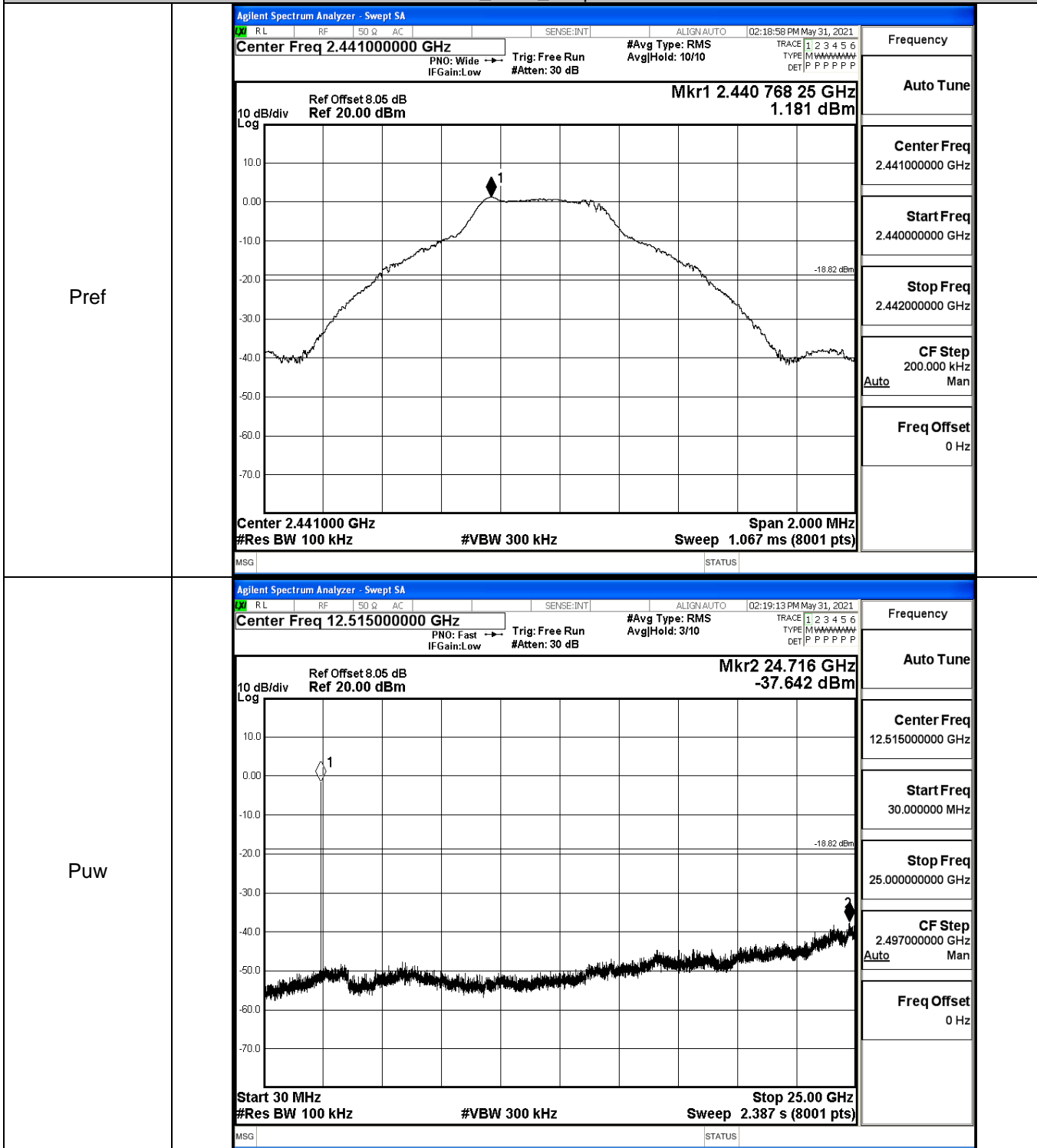
### A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.588	-38.152	-19.412	PASS
	MCH	1.181	-37.642	-18.819	PASS
	HCH	1.293	-36.536	-18.707	PASS
π/4DQPSK	LCH	0.571	-37.297	-19.429	PASS
	MCH	0.934	-36.687	-19.066	PASS
	HCH	1.033	-38.002	-18.967	PASS

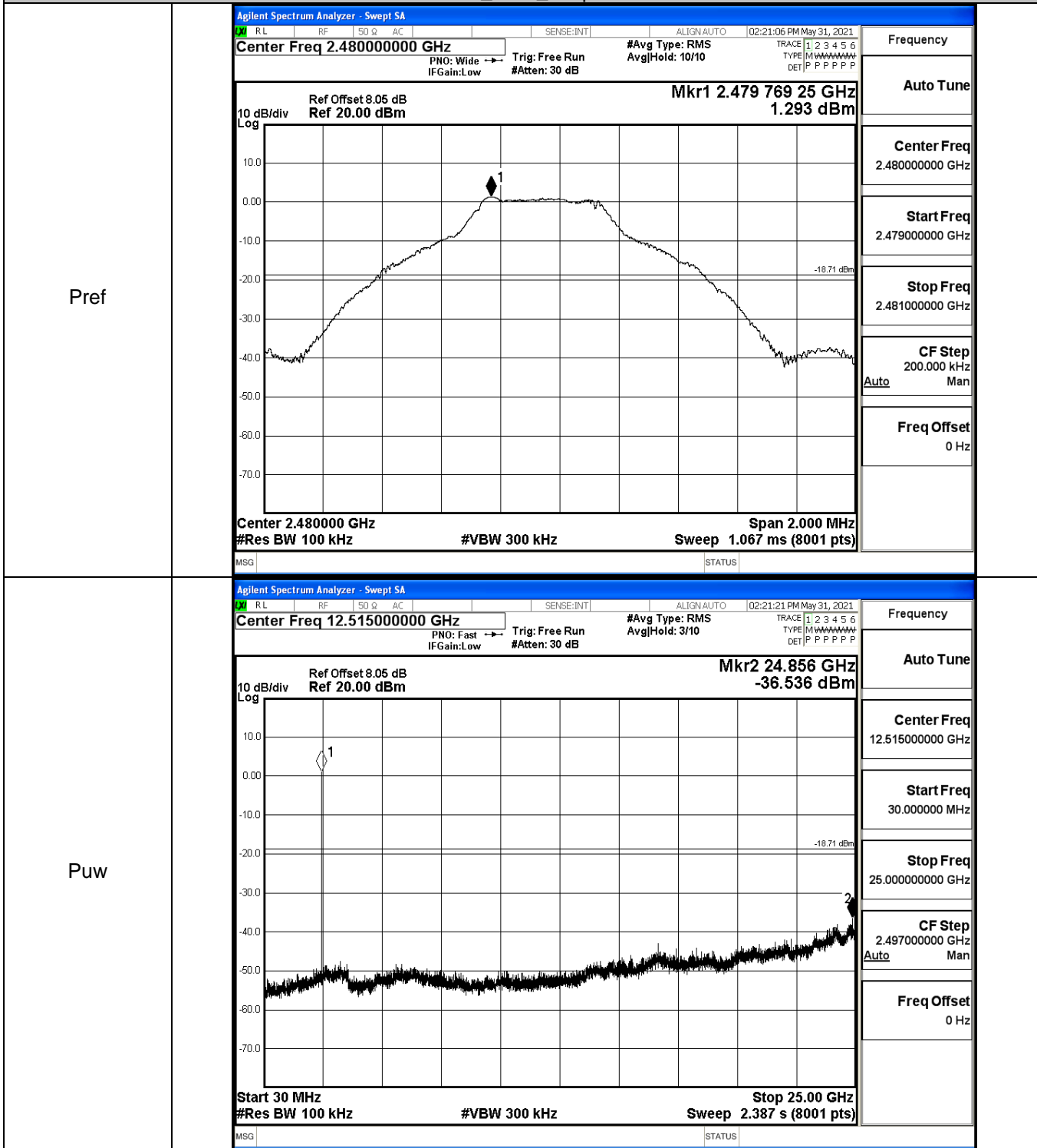




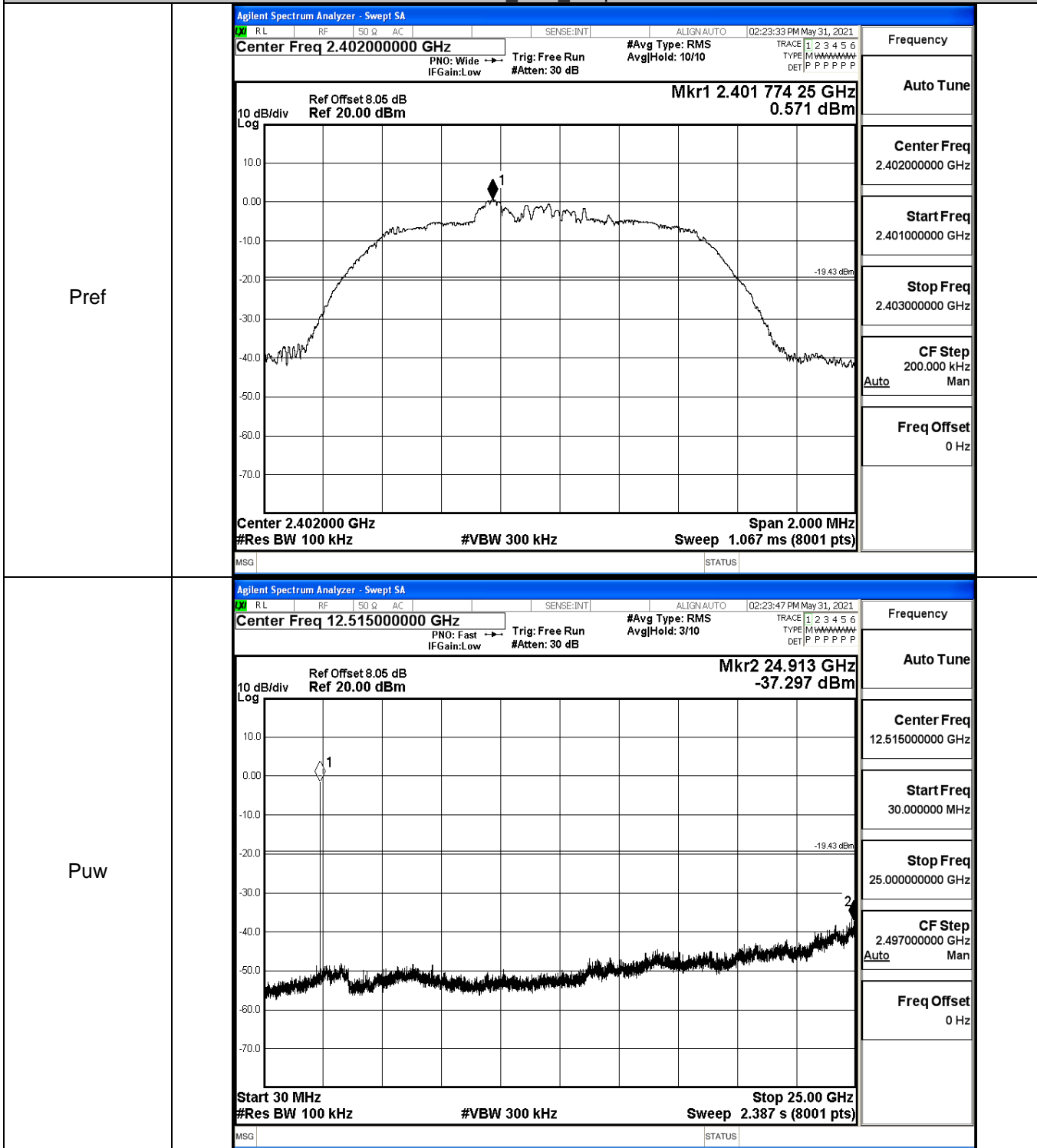
GFSK\_MCH\_Graphs



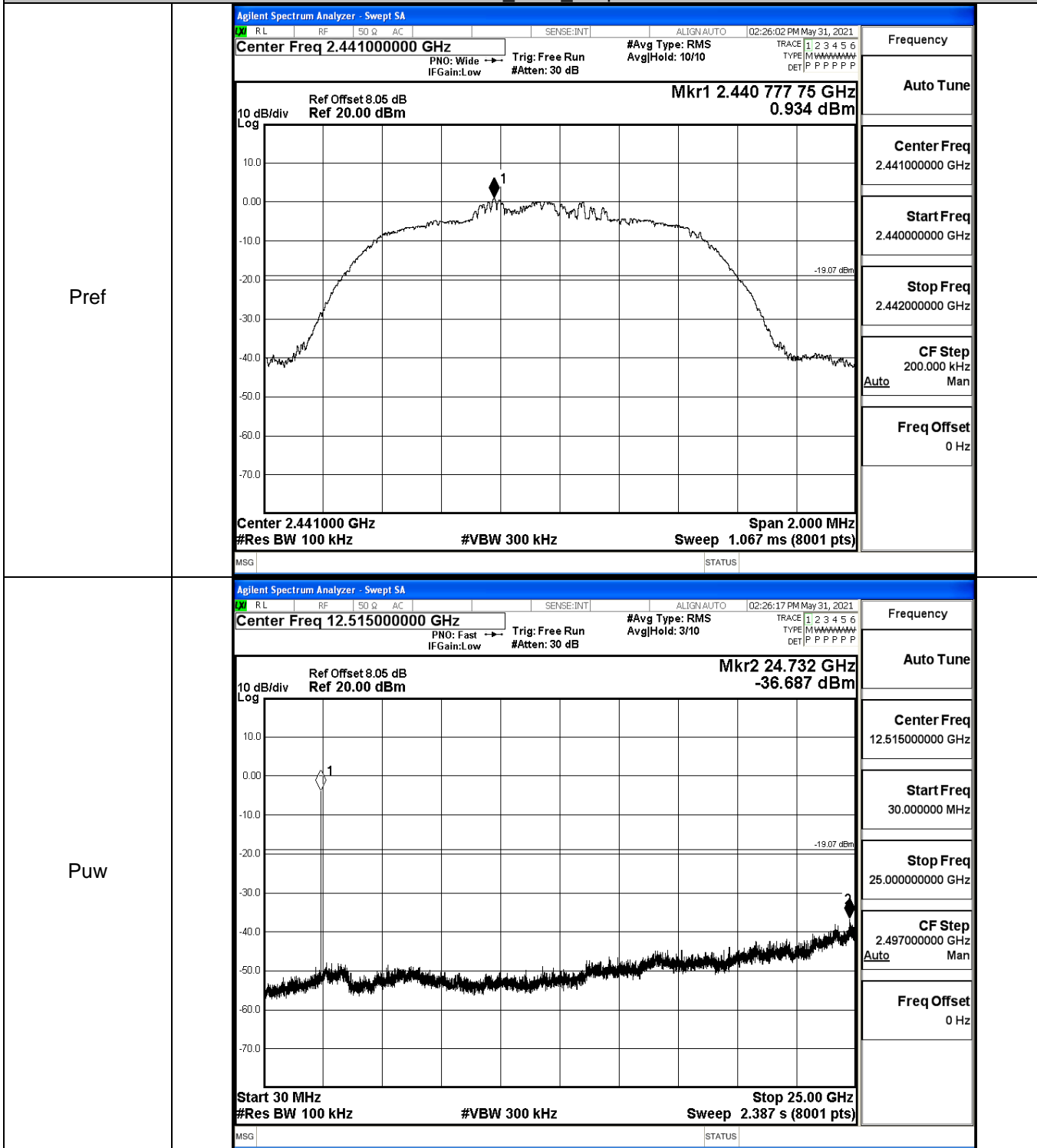
GFSK\_HCH\_Graphs



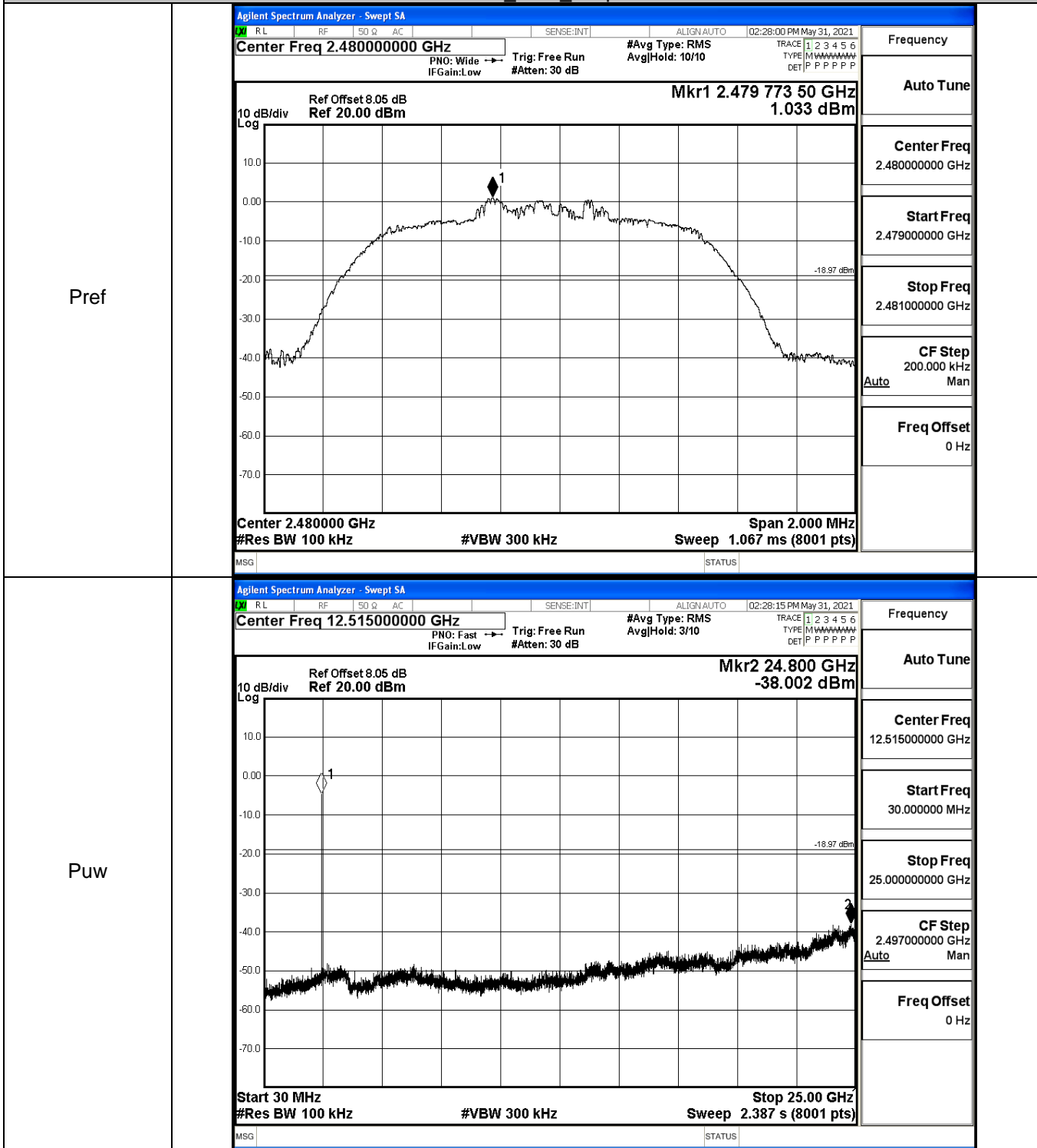
$\pi/4$ DQPSK\_LCH\_Graphs



$\pi/4$ DQPSK\_MCH\_Graphs



$\pi/4$ DQPSK\_HCH\_Graphs



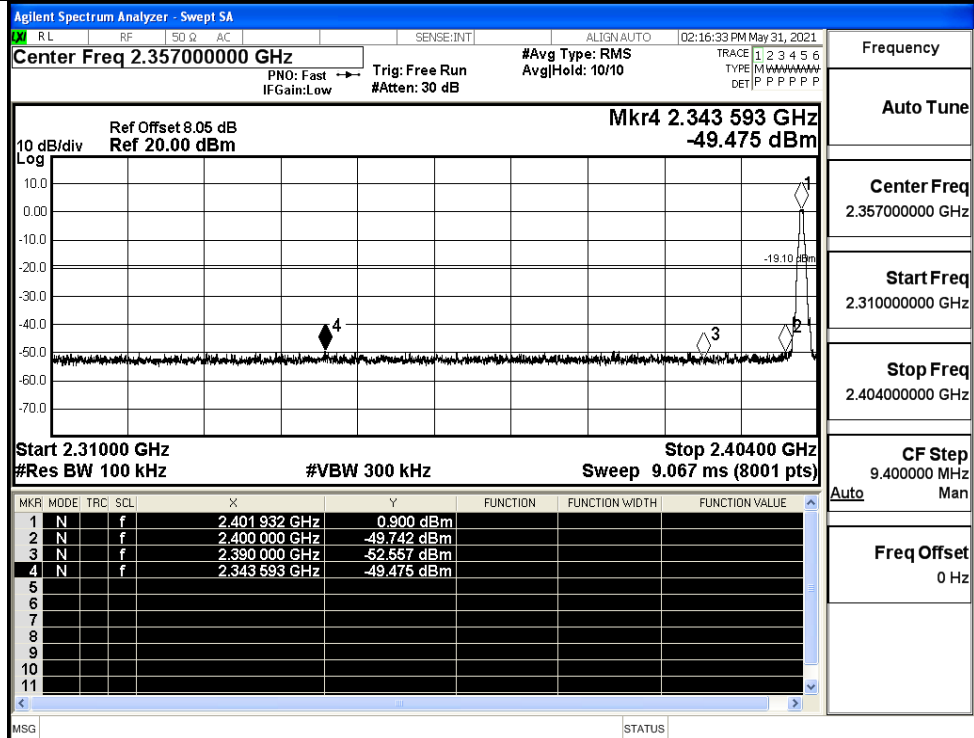


## A.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	0.900	Off	-49.475	-19.1	PASS
			0.877	On	-48.806	-19.12	PASS
	HCH	2480	1.357	Off	-48.853	-18.64	PASS
			1.097	On	-48.718	-18.9	PASS
$\pi/4$ DQPSK	LCH	2402	0.278	Off	-49.166	-19.72	PASS
			0.802	On	-48.925	-19.2	PASS
	HCH	2480	0.966	Off	-48.968	-19.03	PASS
			1.155	On	-49.012	-18.85	PASS

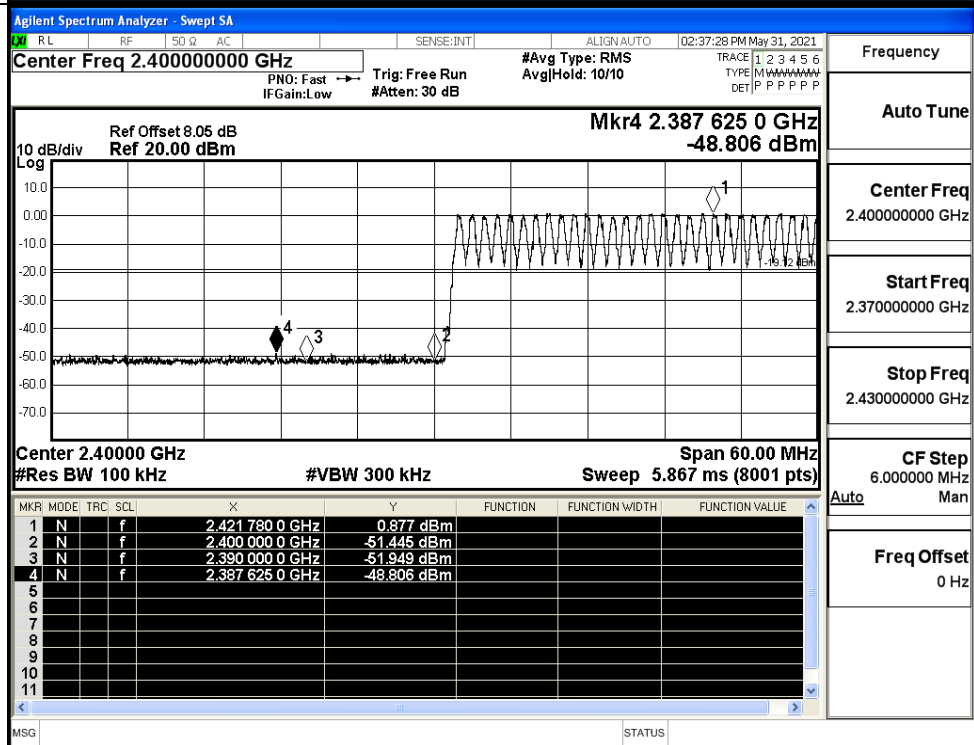
Test Graphs

GFSK/LCH/No Hop



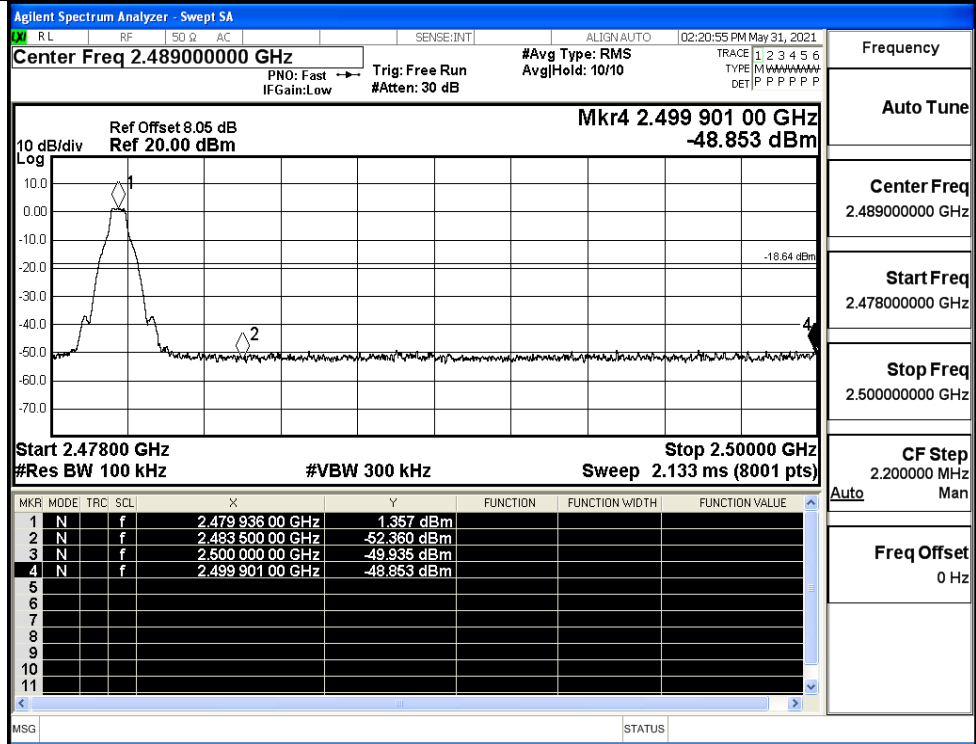
Frequency	Auto Tune
Center Freq	2.357000000 GHz
Start Freq	2.310000000 GHz
Stop Freq	2.404000000 GHz
CF Step	9.400000 MHz
Auto	Man
Freq Offset	0 Hz

GFSK/LCH/Hop

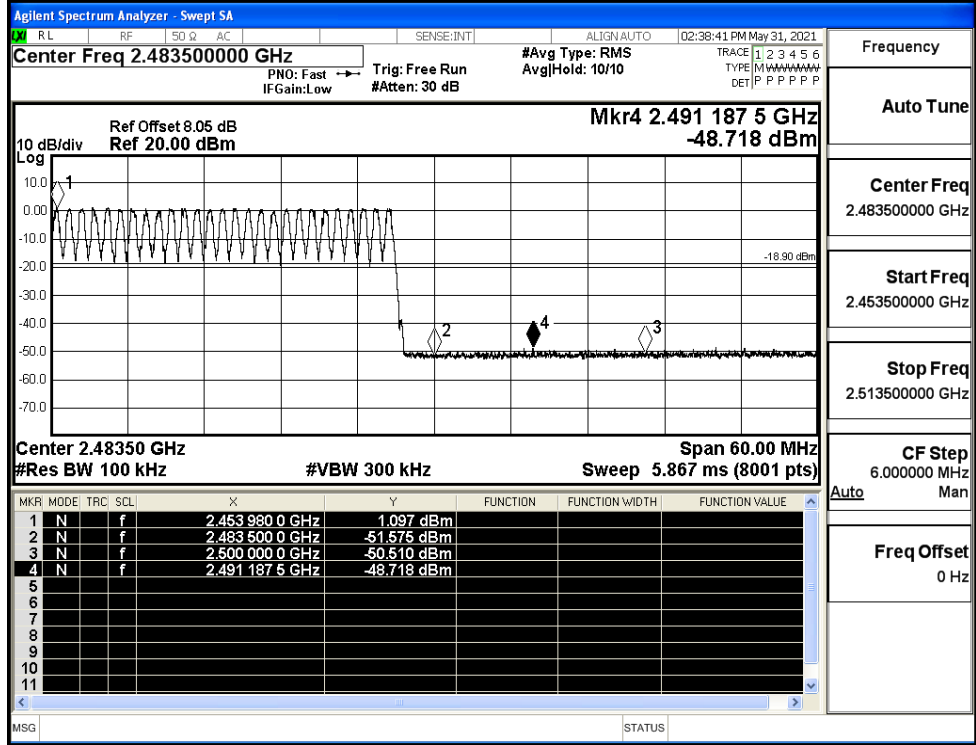


Frequency	Auto Tune
Center Freq	2.400000000 GHz
Start Freq	2.370000000 GHz
Stop Freq	2.430000000 GHz
CF Step	6.000000 MHz
Auto	Man
Freq Offset	0 Hz

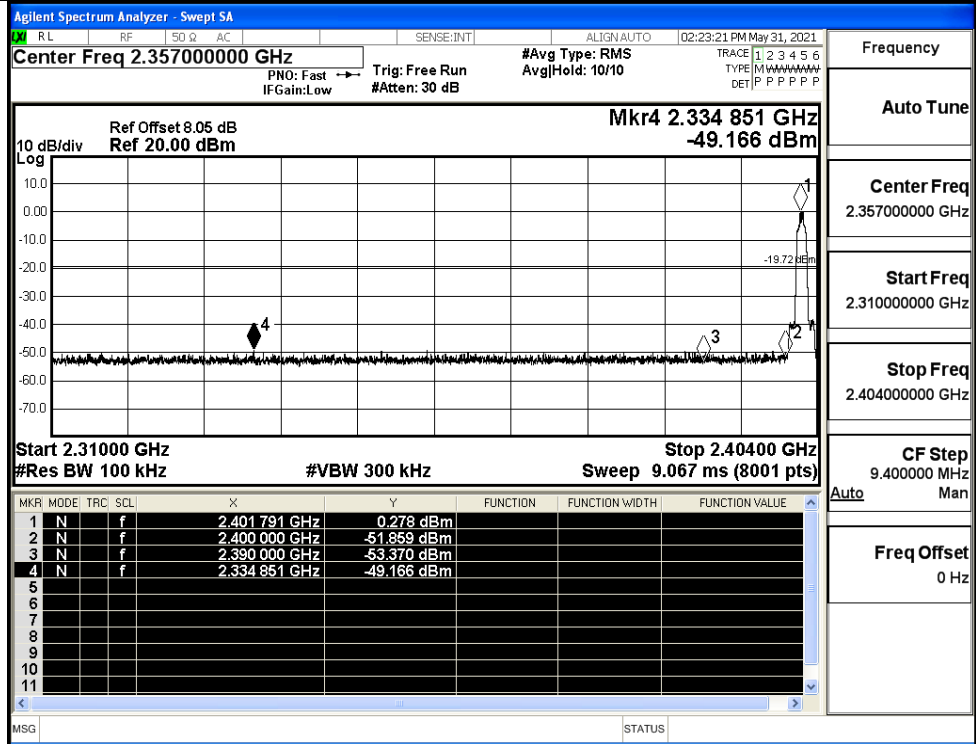
GFSK/HCH/No Hop



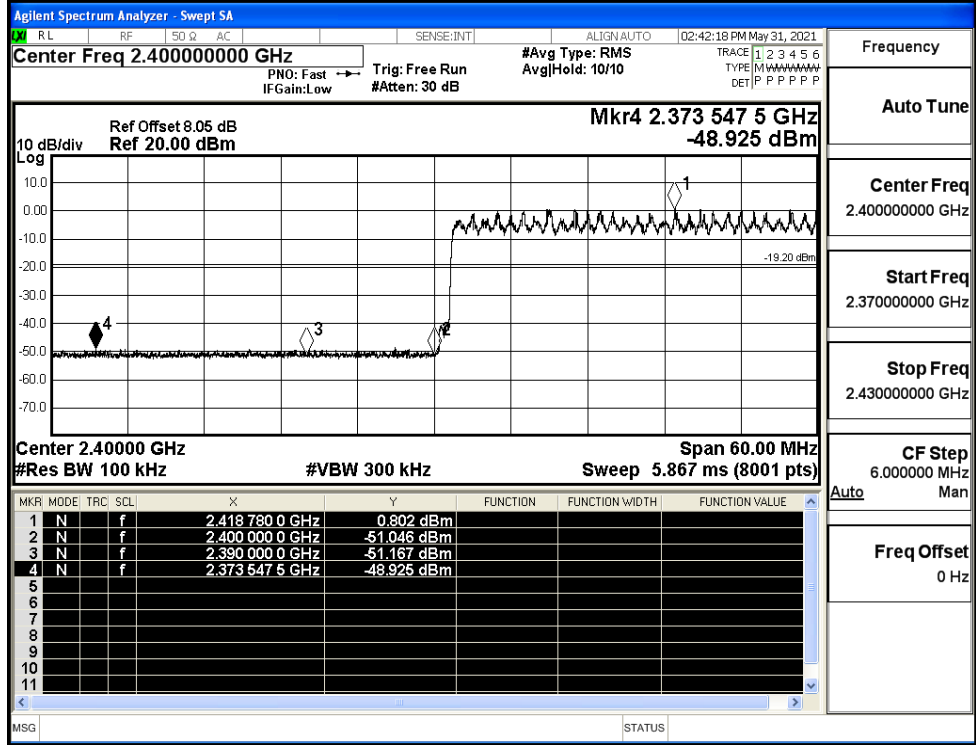
GFSK/HCH/Hop



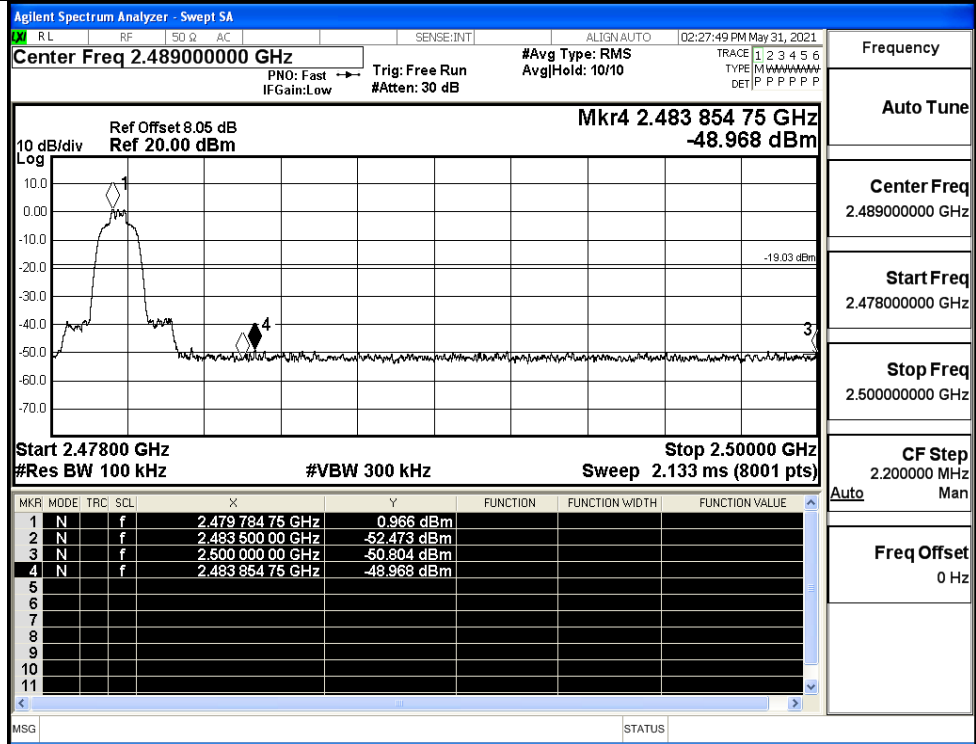
$\pi/4$ DQPSK/LCH/No  
Hop



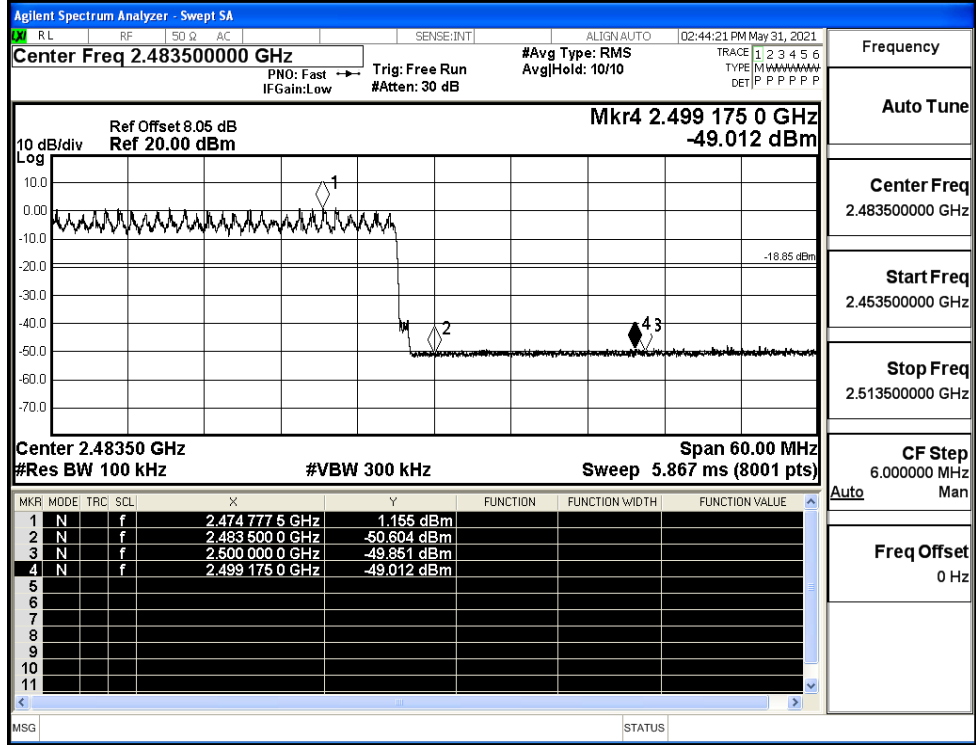
$\pi/4$ DQPSK/LCH/Hop



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



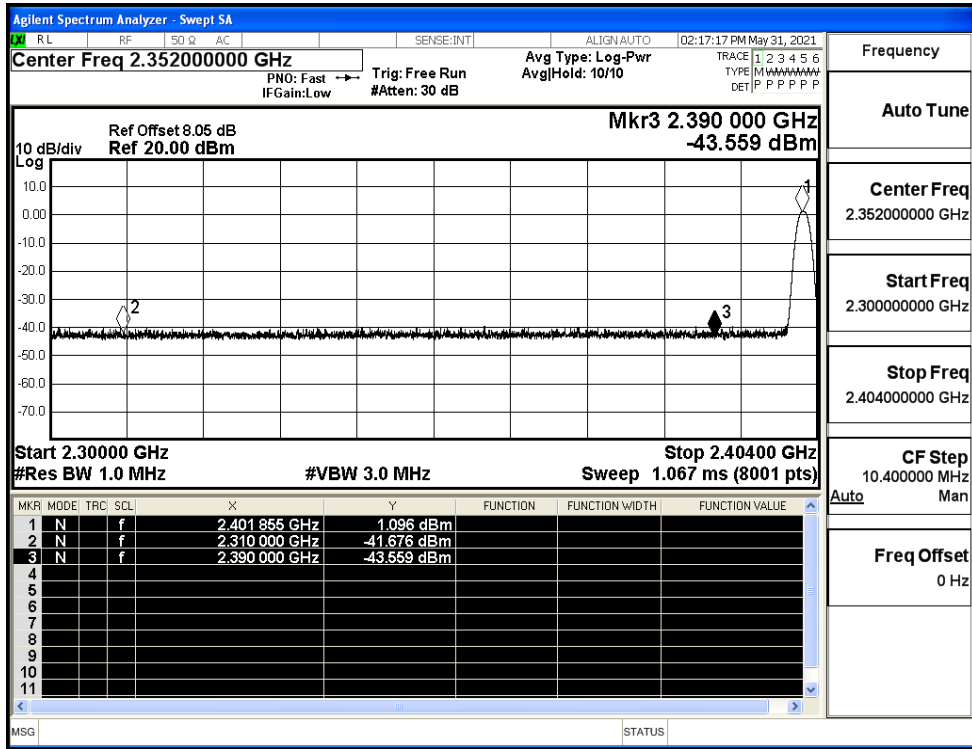
$\pi$ /4DQPSK/HCH/Hop



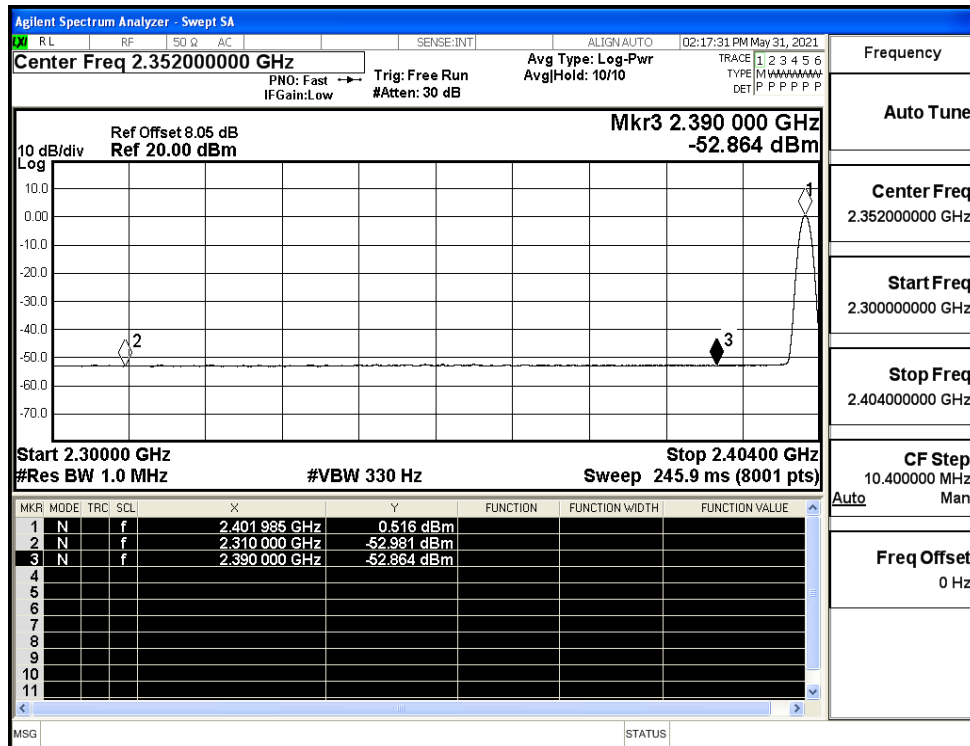
## A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-41.68	2.0	0	55.58	PEAK	74	PASS
	Off	2310.0	-52.98	2.0	0	44.28	AV	54	PASS
	Off	2390.0	-43.56	2.0	0	53.70	PEAK	74	PASS
	Off	2390.0	-52.86	2.0	0	44.39	AV	54	PASS
	Off	2483.5	-42.24	2.0	0	55.01	PEAK	74	PASS
	Off	2483.5	-52.25	2.0	0	45.01	AV	54	PASS
	Off	2500.0	-42.54	2.0	0	54.72	PEAK	74	PASS
	Off	2500.0	-52.21	2.0	0	45.05	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-44.02	2.0	0	53.24	PEAK	74	PASS
	Off	2310.0	-53.19	2.0	0	44.07	AV	54	PASS
	Off	2390.0	-42.87	2.0	0	54.39	PEAK	74	PASS
	Off	2390.0	-52.90	2.0	0	44.36	AV	54	PASS
	Off	2483.5	-41.79	2.0	0	55.47	PEAK	74	PASS
	Off	2483.5	-52.26	2.0	0	45.00	AV	54	PASS
	Off	2500.0	-42.36	2.0	0	54.90	PEAK	74	PASS
	Off	2500.0	-52.29	2.0	0	44.97	AV	54	PASS

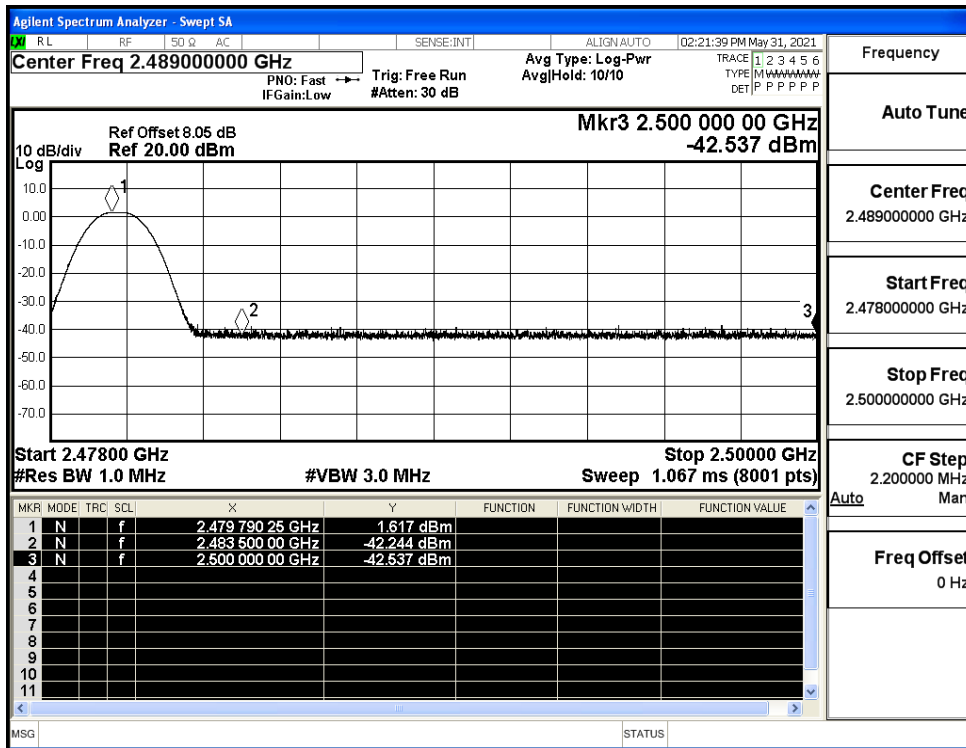
Restrict-band band-edge measurements\_Hopping Off\_GFSK\_PEAK (Low Channel)



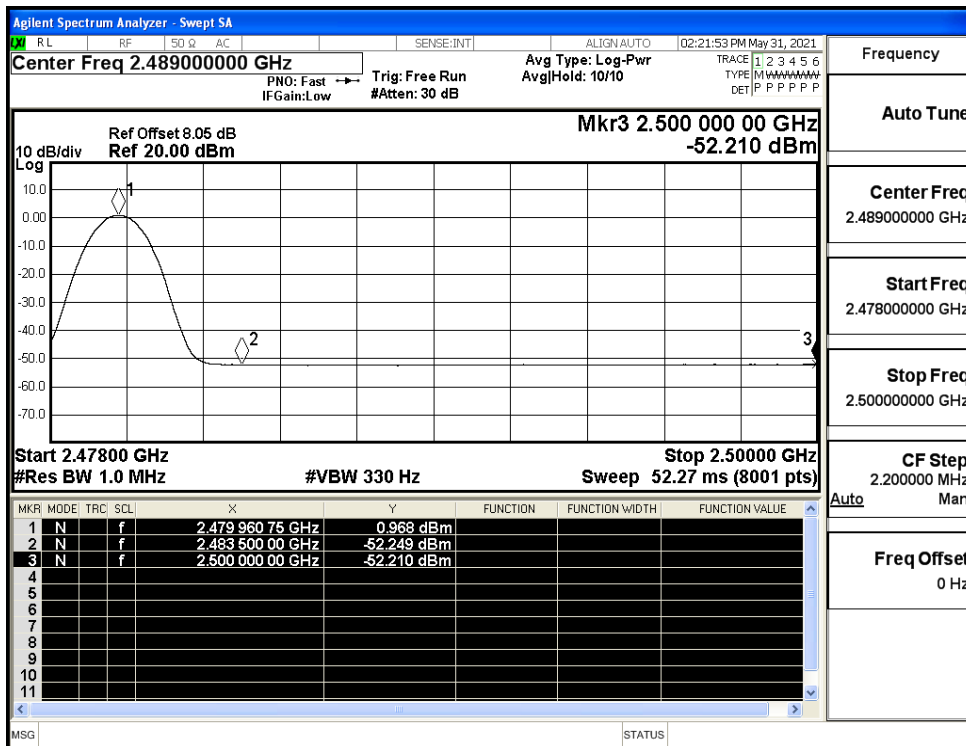
Restrict-band band-edge measurements\_Hopping Off\_GFSK\_Average (Low Channel)



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

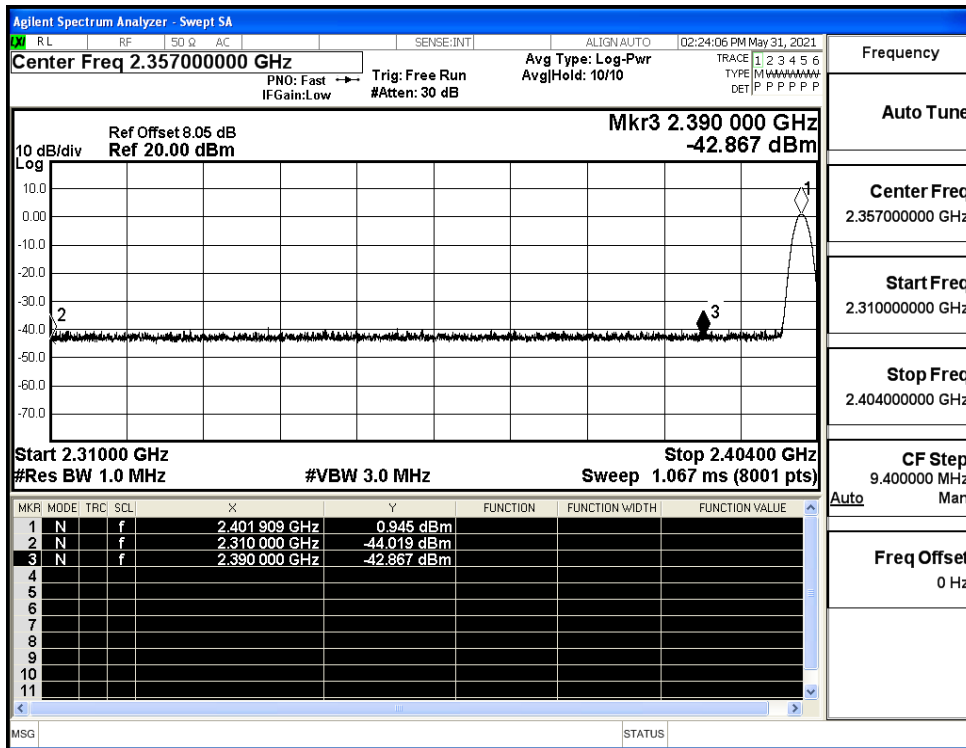


Restrict-band band-edge measurements\_Hopping Off\_GFSK\_Average (High Channel)

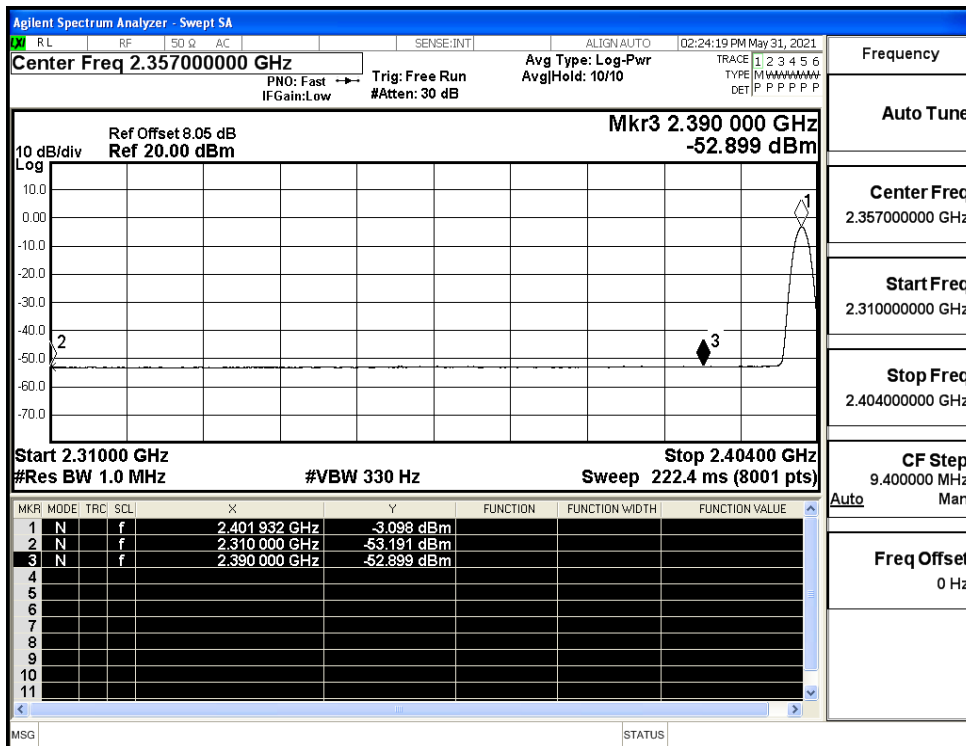




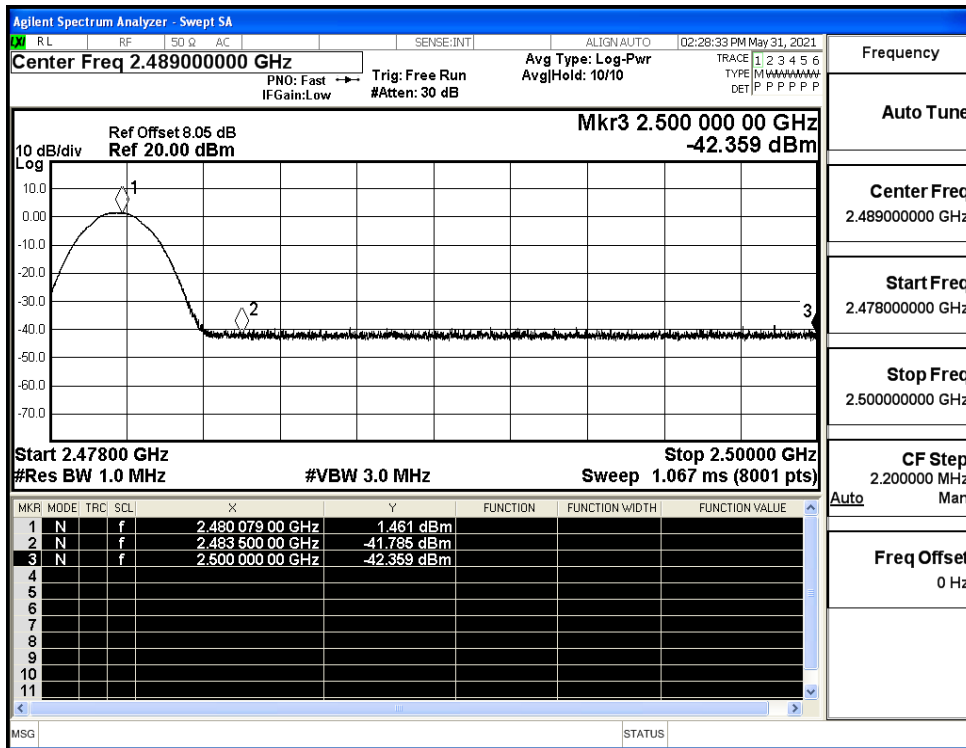
Restrict-band band-edge measurements\_Hopping Off  $\pi/4$ -DQPSK\_PEAK (Low Channel)



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)

