

Appendix A

RF Test Data for BT V4.0(BDR/EDR) (Conducted Measurement)

Product Name: Touch Pico Projector

Trade Mark: Lazertouch

Test Model: LTSJ

Environmental Conditions

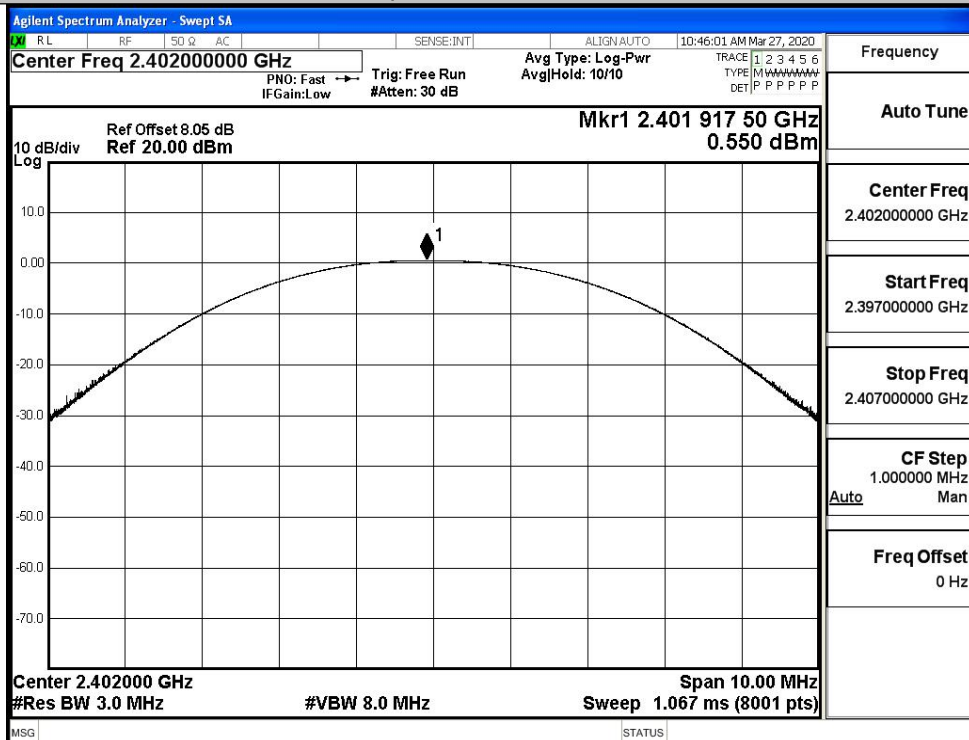
Temperature:	23.4 ° C
Relative Humidity:	52.8%
ATM Pressure:	100.0 kPa
Test Engineer:	QUXIN
Supervised by:	Li Huan

A.1 Maxmum Conducted Peak Output Power

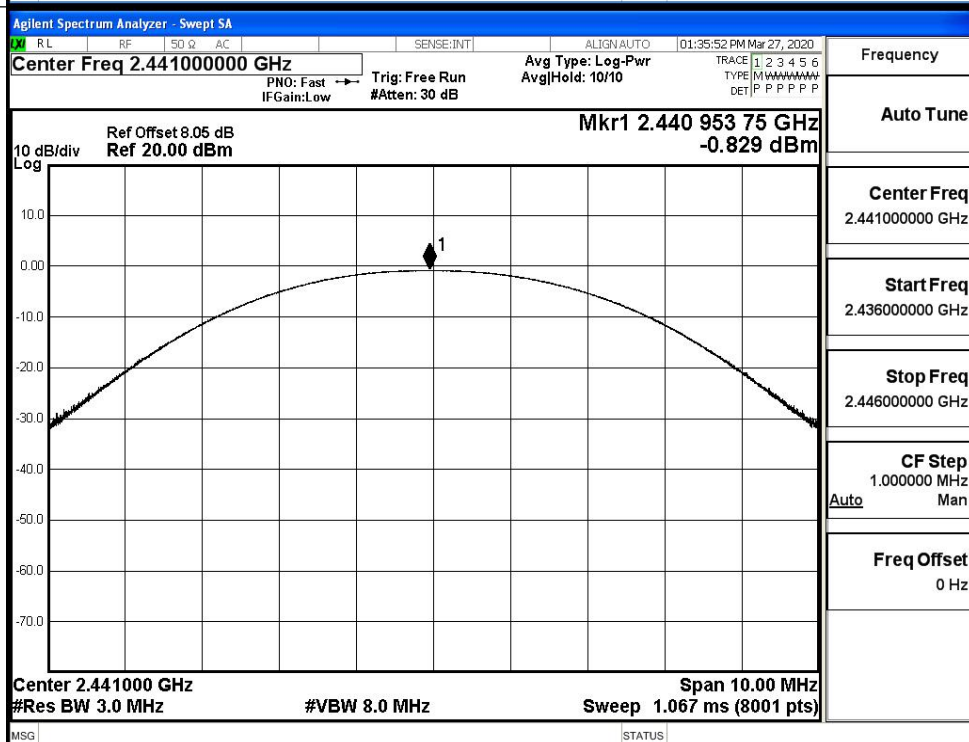
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.550	21	PASS
	MCH	-0.829	21	PASS
	HCH	0.230	21	PASS
$\pi/4$ DQPSK	LCH	-0.147	21	PASS
	MCH	1.391	21	PASS
	HCH	-0.250	21	PASS
8DPSK	LCH	0.285	21	PASS
	MCH	1.856	21	PASS
	HCH	0.147	21	PASS

Test Graphs

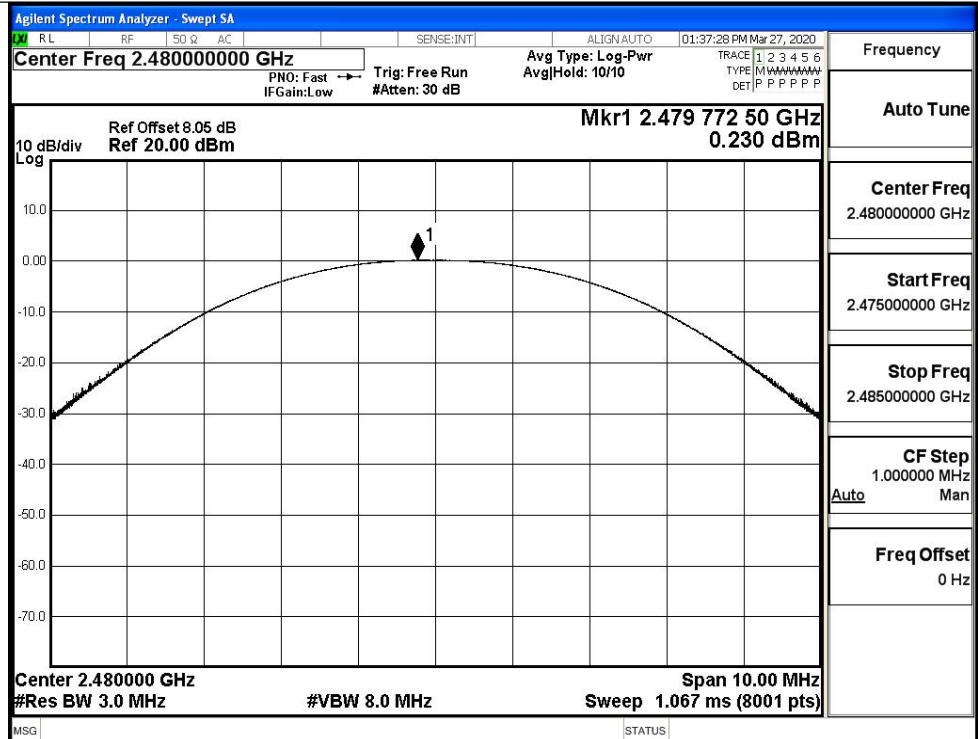
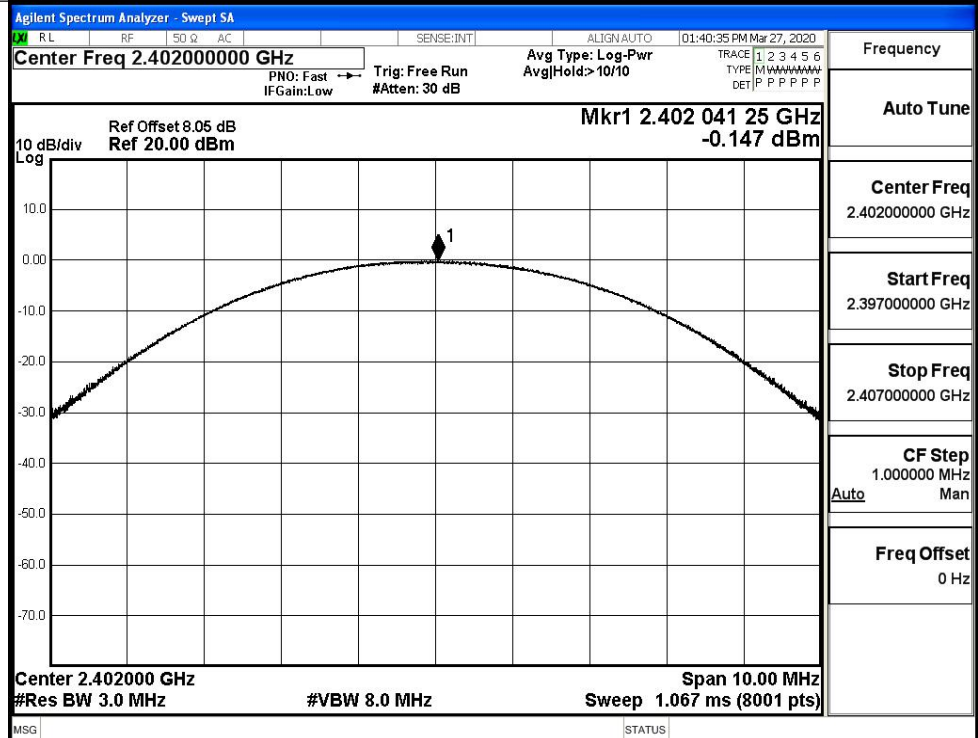
GFSK/LCH

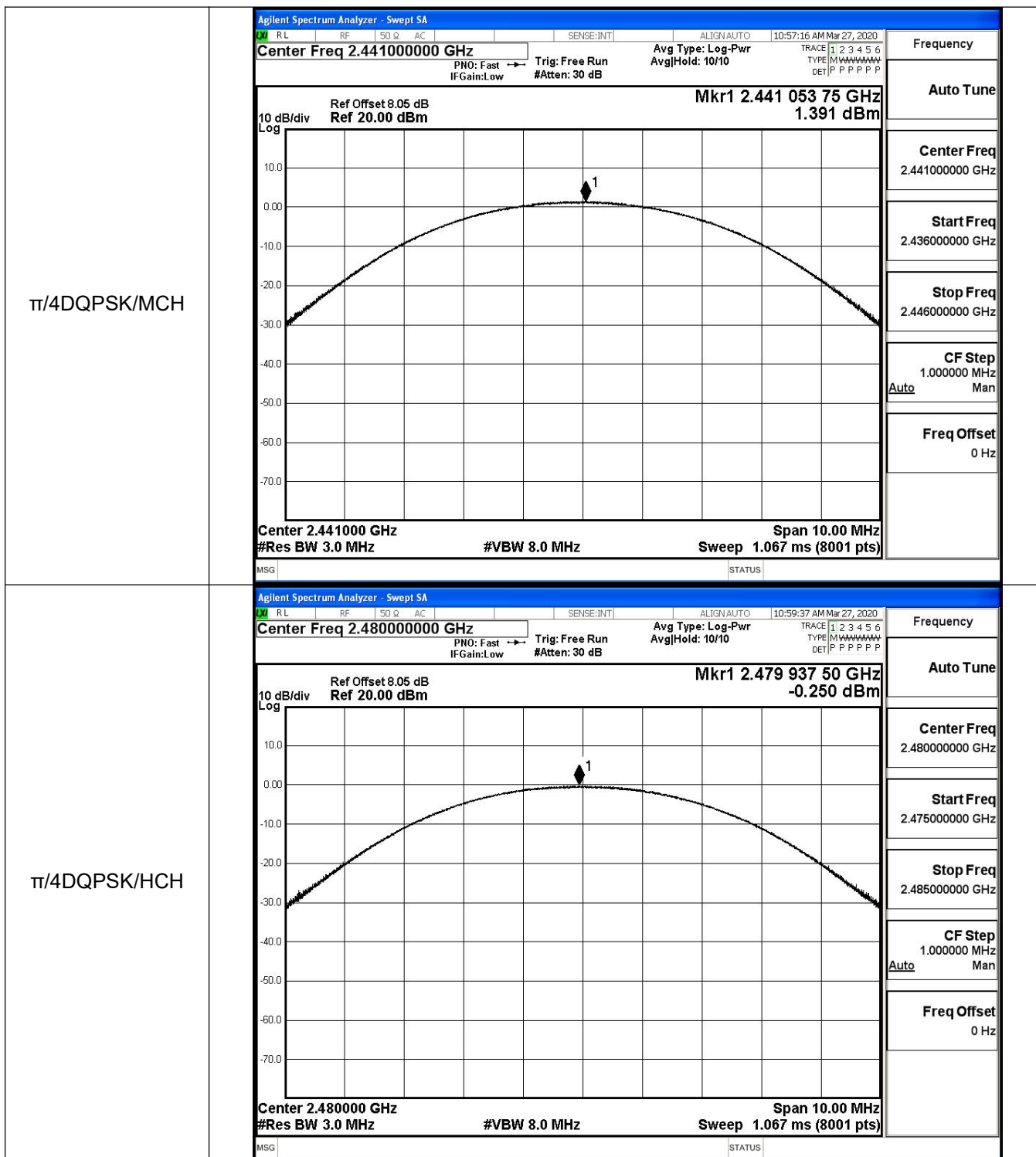


GFSK/MCH

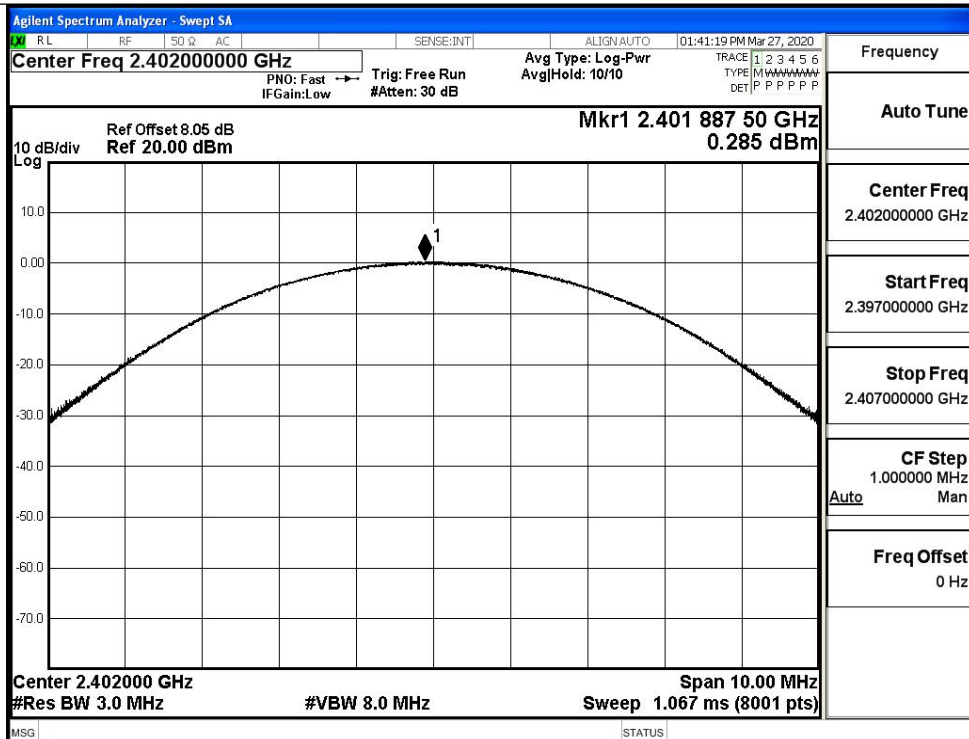


GFSK/HCH

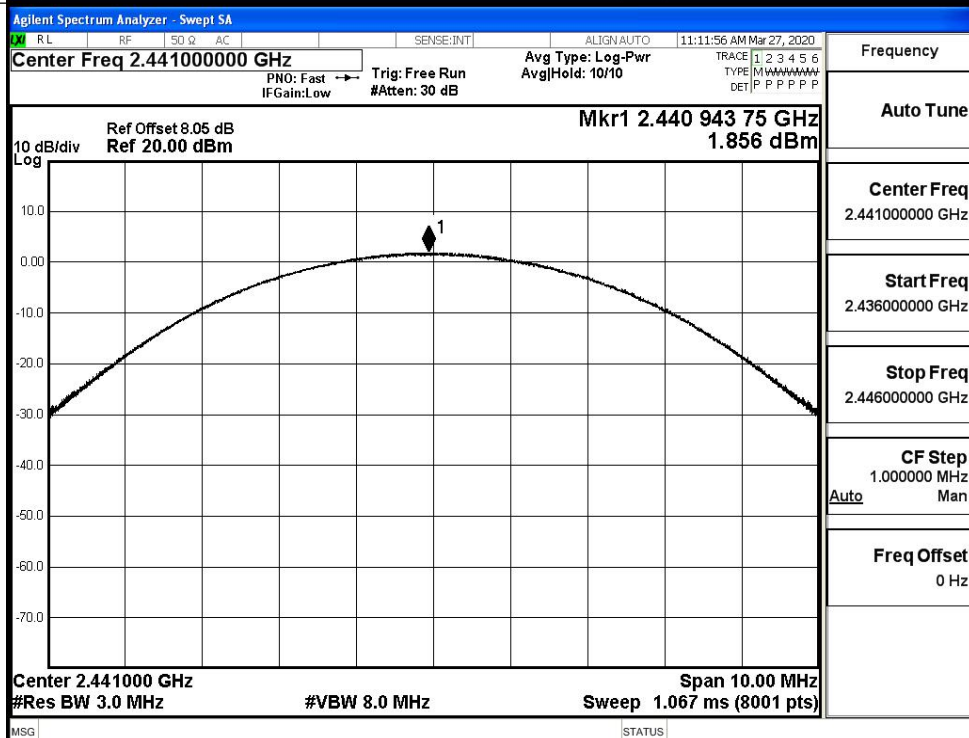
 π /4DQPSK/LCH



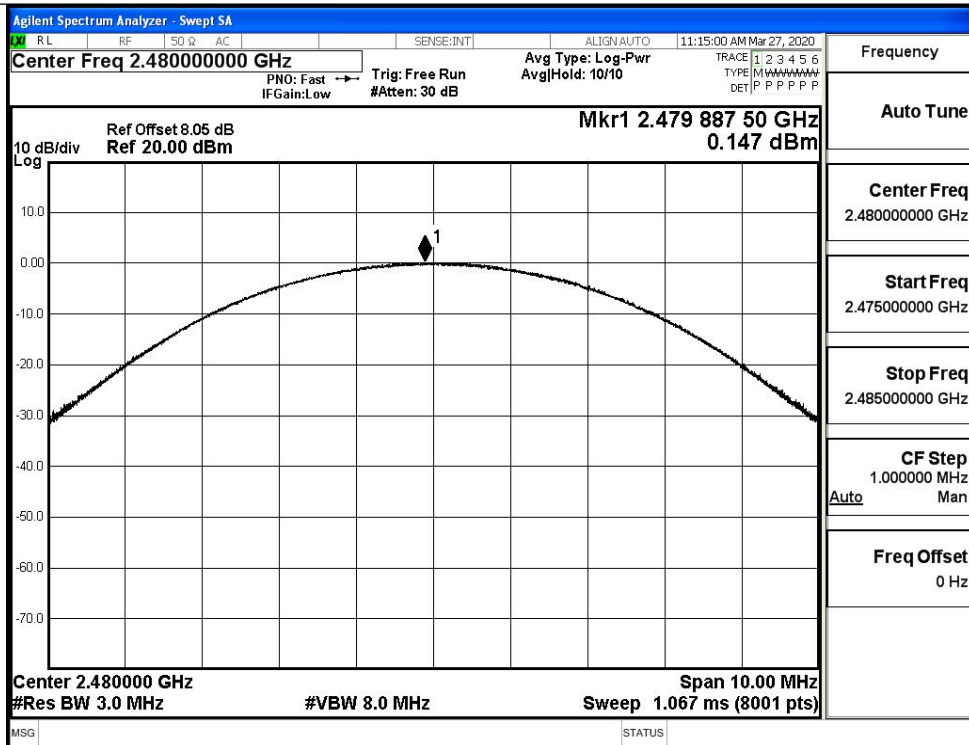
8DPSK/LCH



8DPSK/MCH



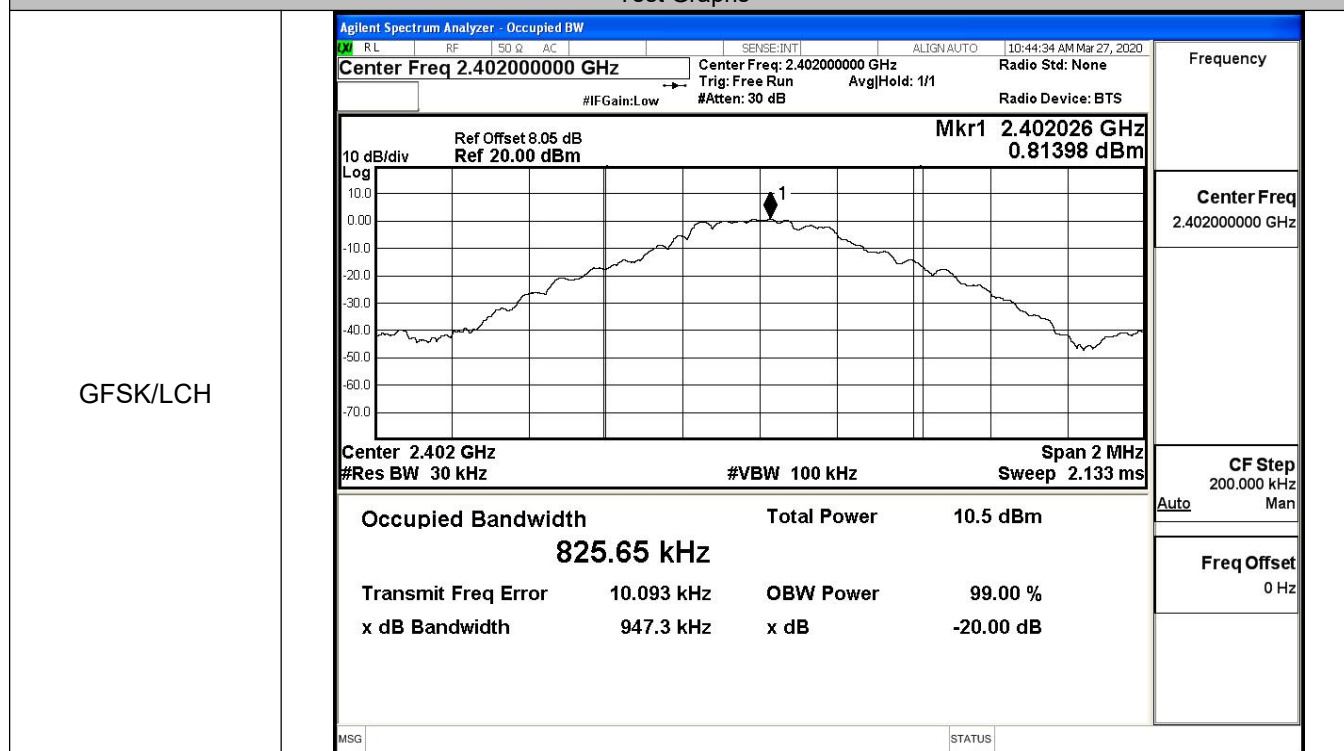
8DPSK/HCH



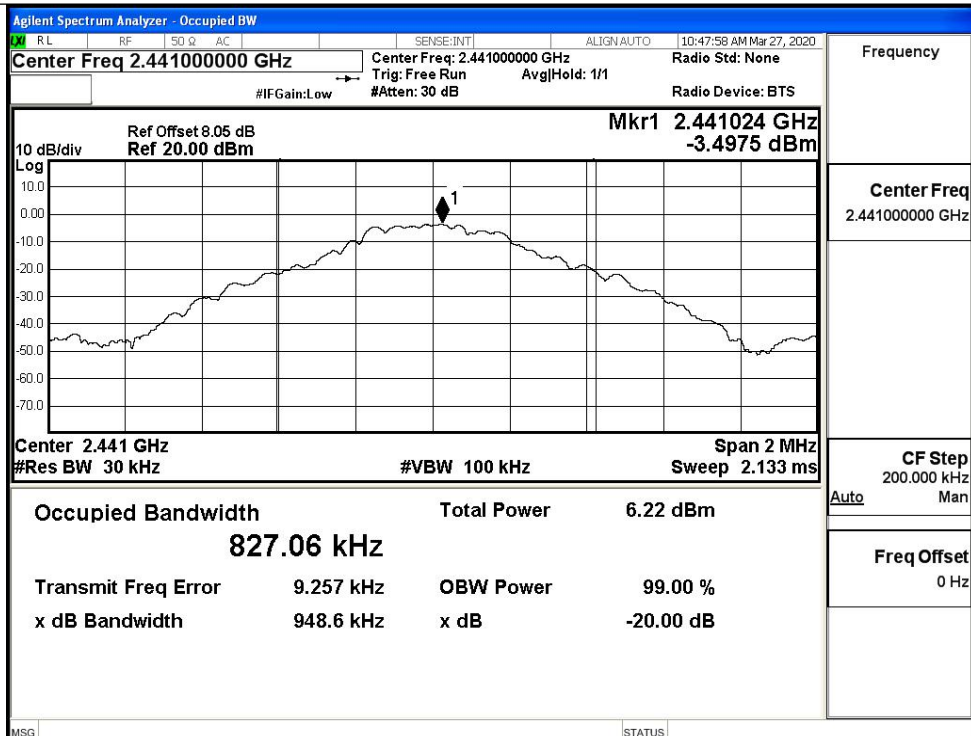
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9473	Not Specified	PASS
	MCH	0.9486	Not Specified	PASS
	HCH	0.9483	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.324	Not Specified	PASS
	MCH	1.324	Not Specified	PASS
	HCH	1.327	Not Specified	PASS
8DPSK	LCH	1.301	Not Specified	PASS
	MCH	1.307	Not Specified	PASS
	HCH	1.304	Not Specified	PASS

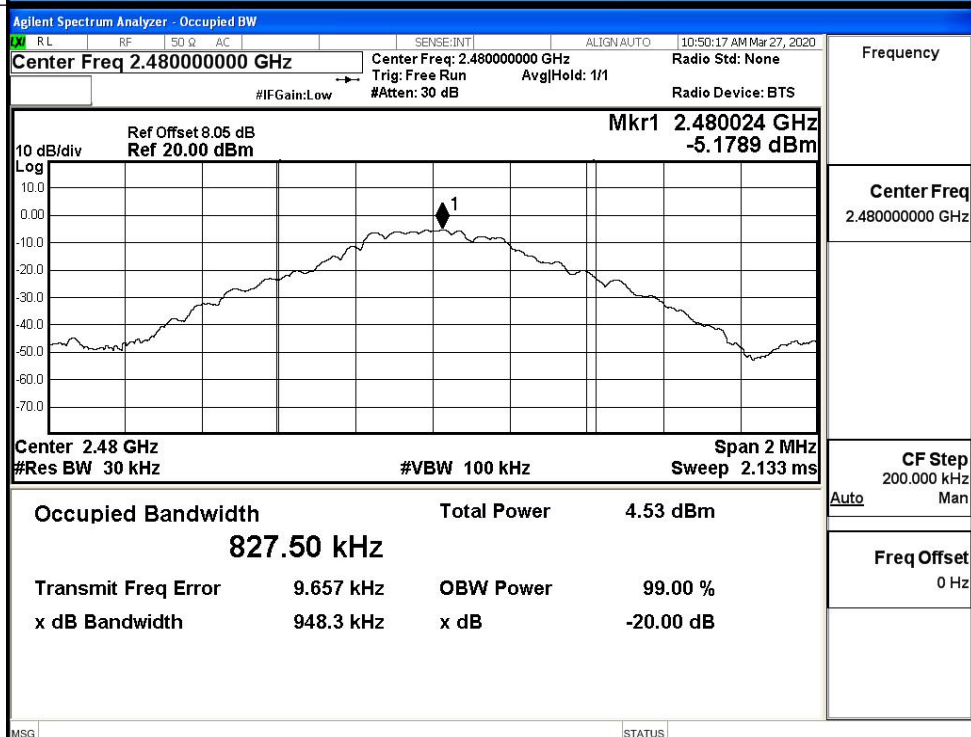
Test Graphs

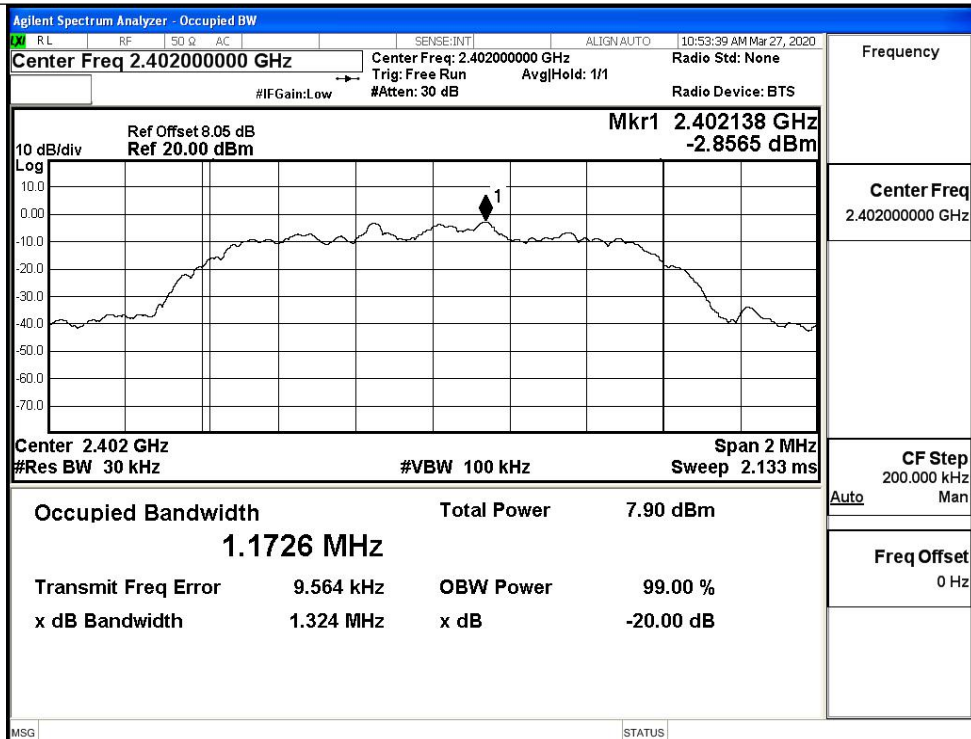
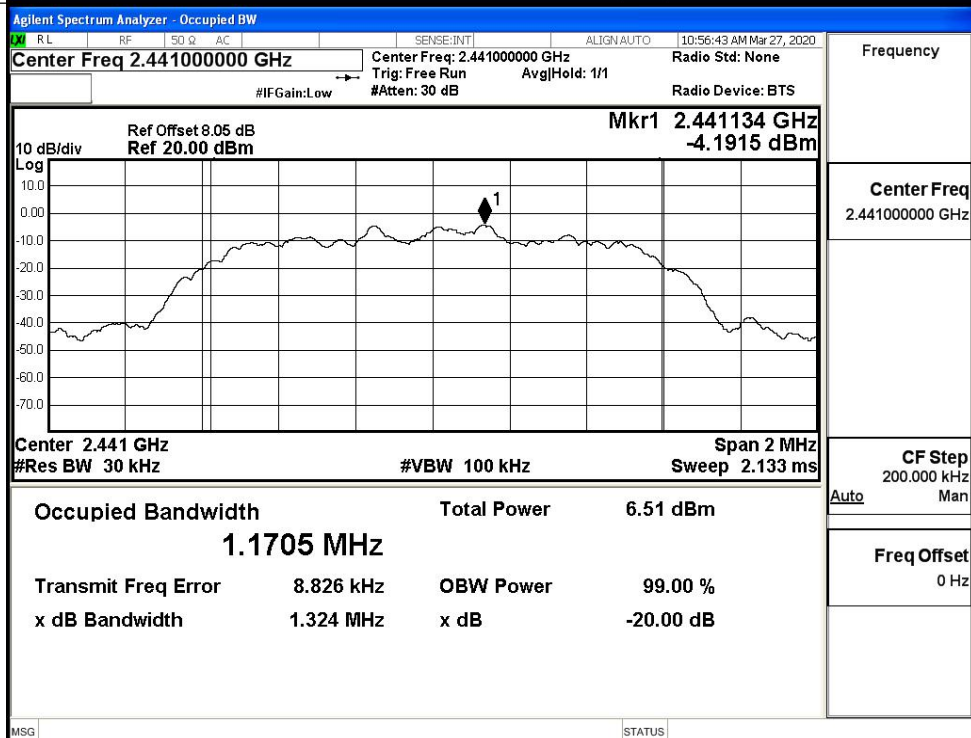


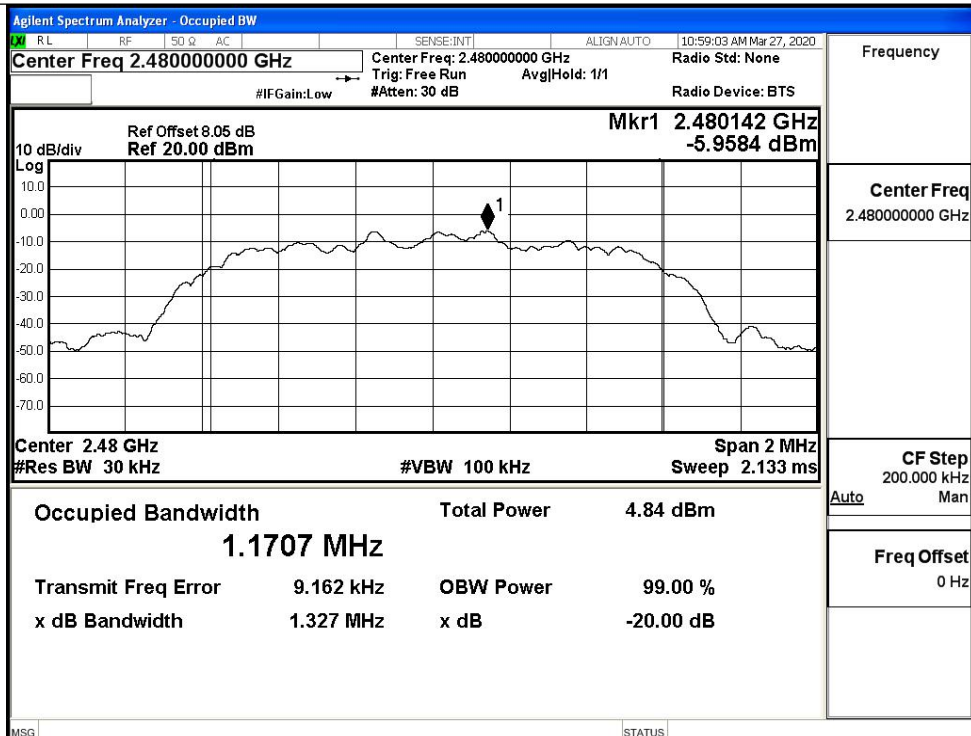
GFSK/MCH



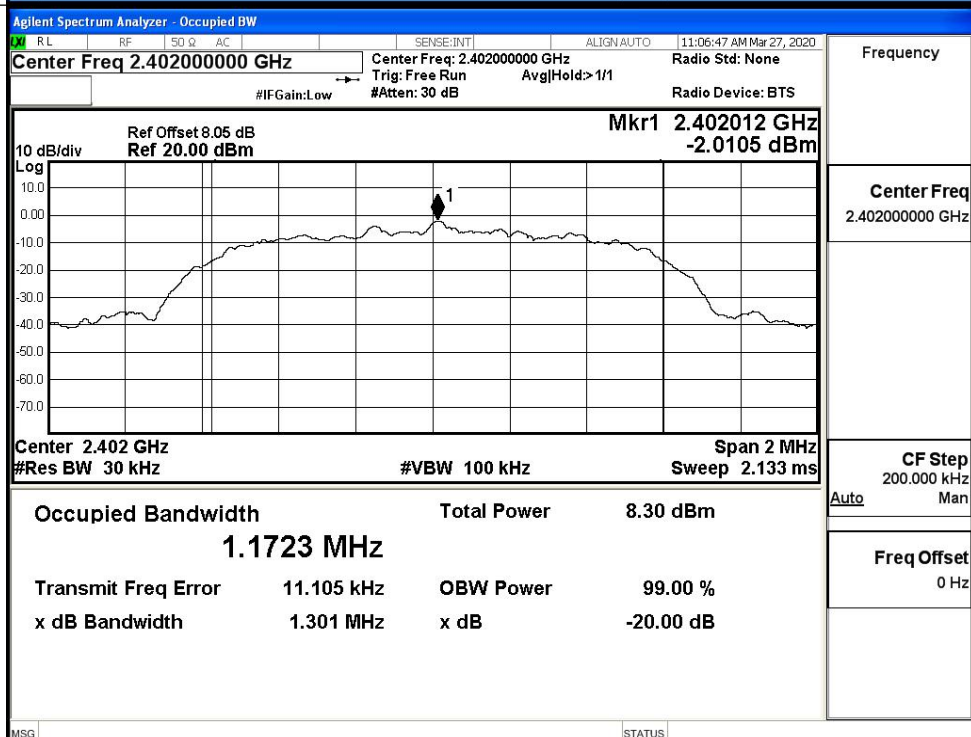
GFSK/HCH



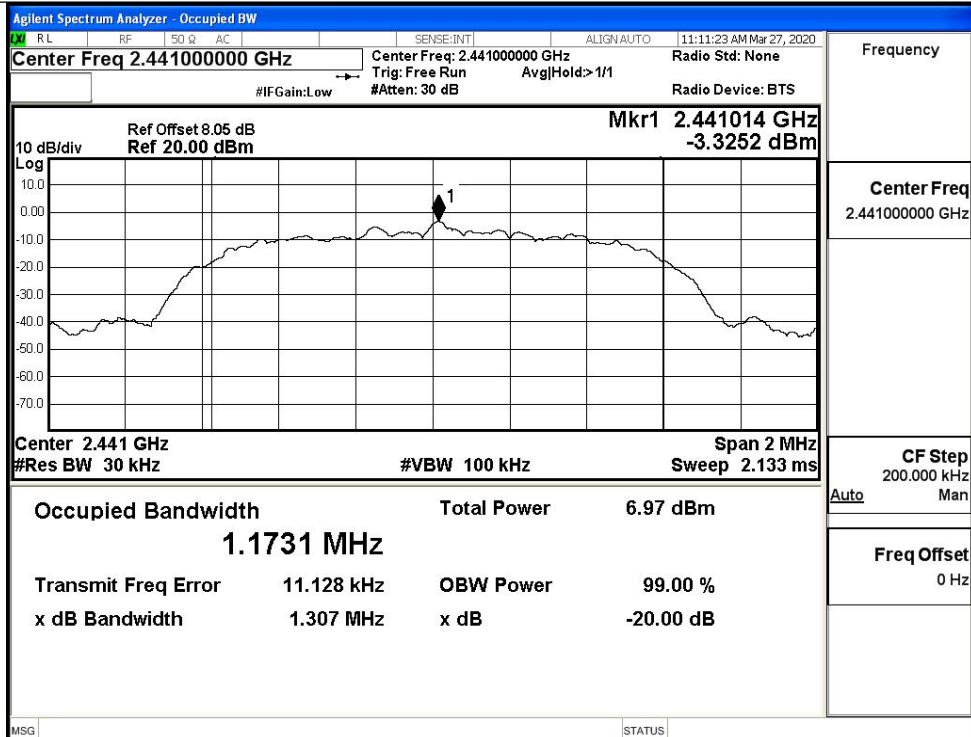
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

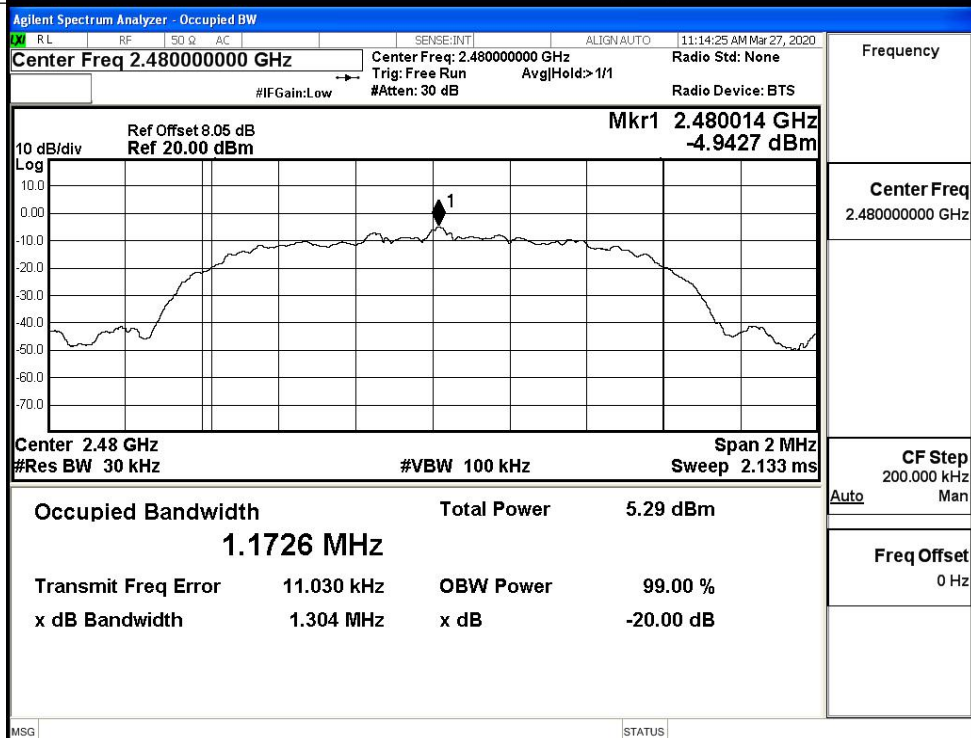
8DPSK/LCH



8DPSK/MCH



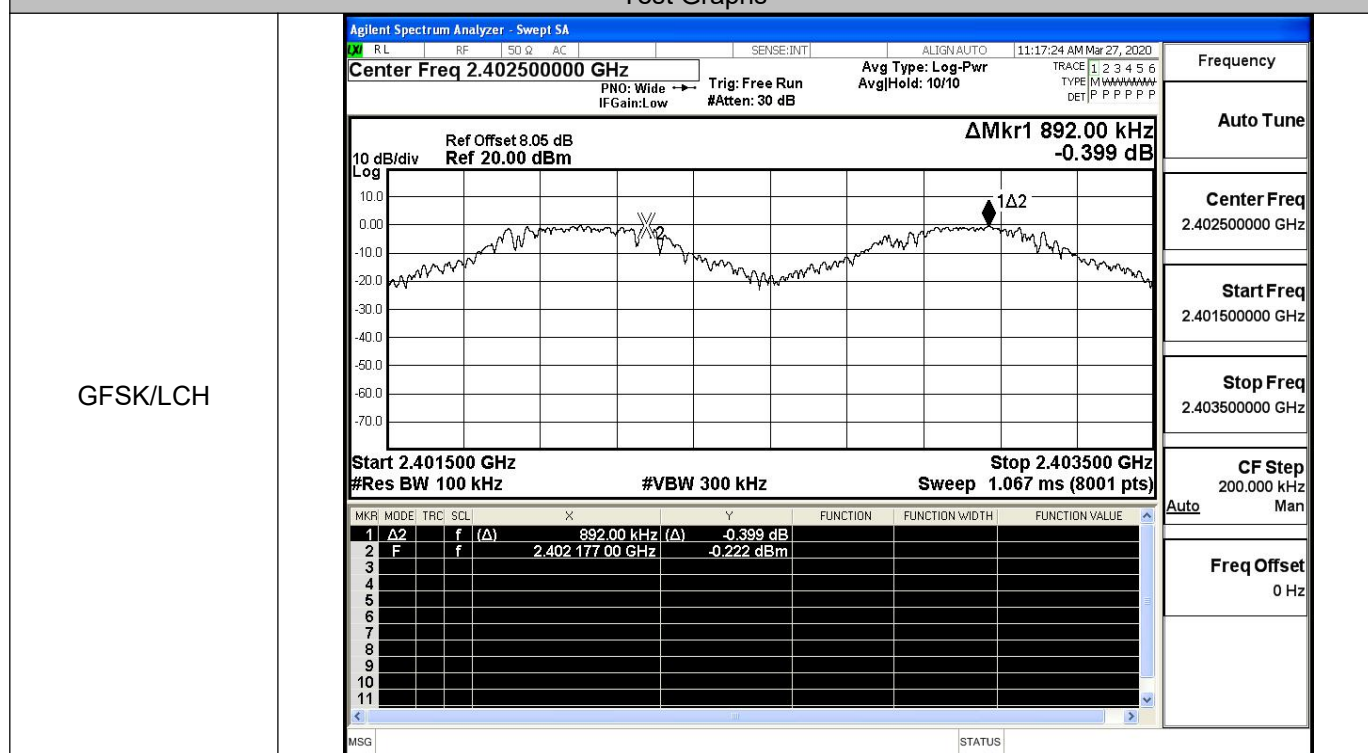
8DPSK/HCH



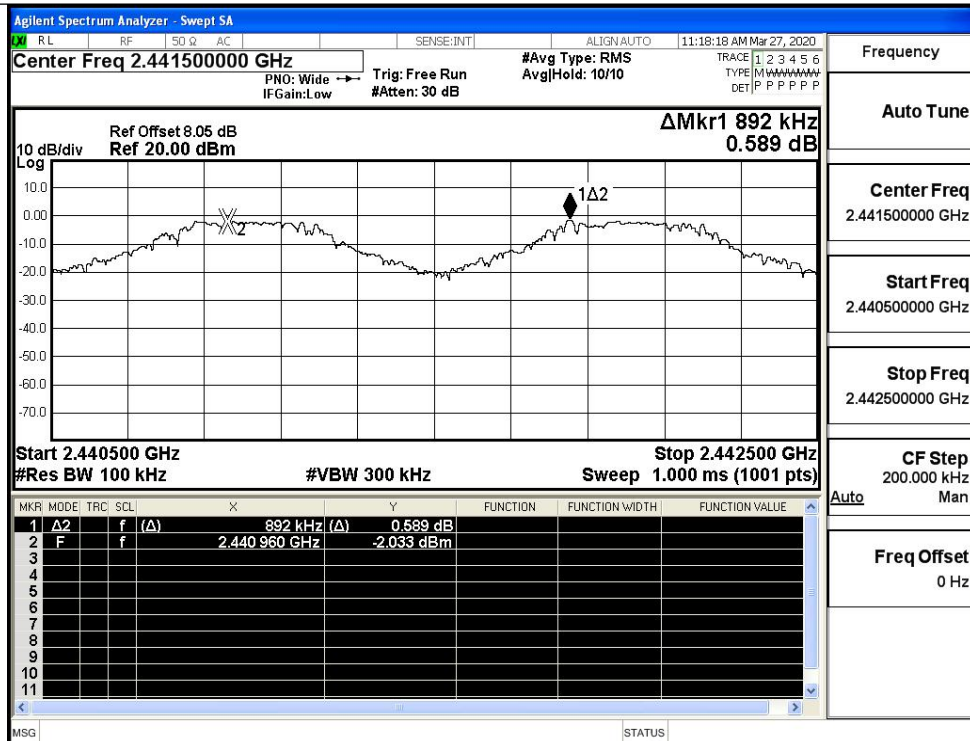
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.892	0.632	PASS
	MCH	0.892	0.632	PASS
	HCH	1.040	0.632	PASS
$\pi/4$ DQPSK	LCH	0.940	0.885	PASS
	MCH	0.988	0.885	PASS
	HCH	1.296	0.885	PASS
8DPSK	LCH	0.902	0.871	PASS
	MCH	1.312	0.871	PASS
	HCH	0.906	0.871	PASS

Test Graphs



GFSK/MCH

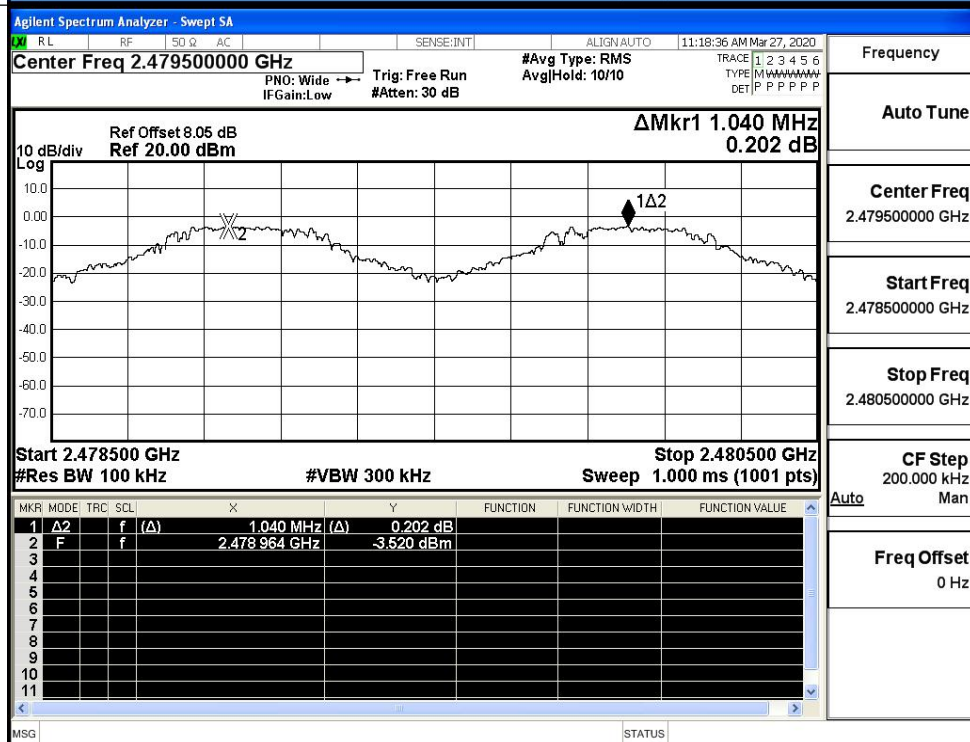


Frequency

Auto Tune

Center Freq
2.441500000 GHzStart Freq
2.440500000 GHzStop Freq
2.442500000 GHzCF Step
200.000 kHz
ManFreq Offset
0 Hz

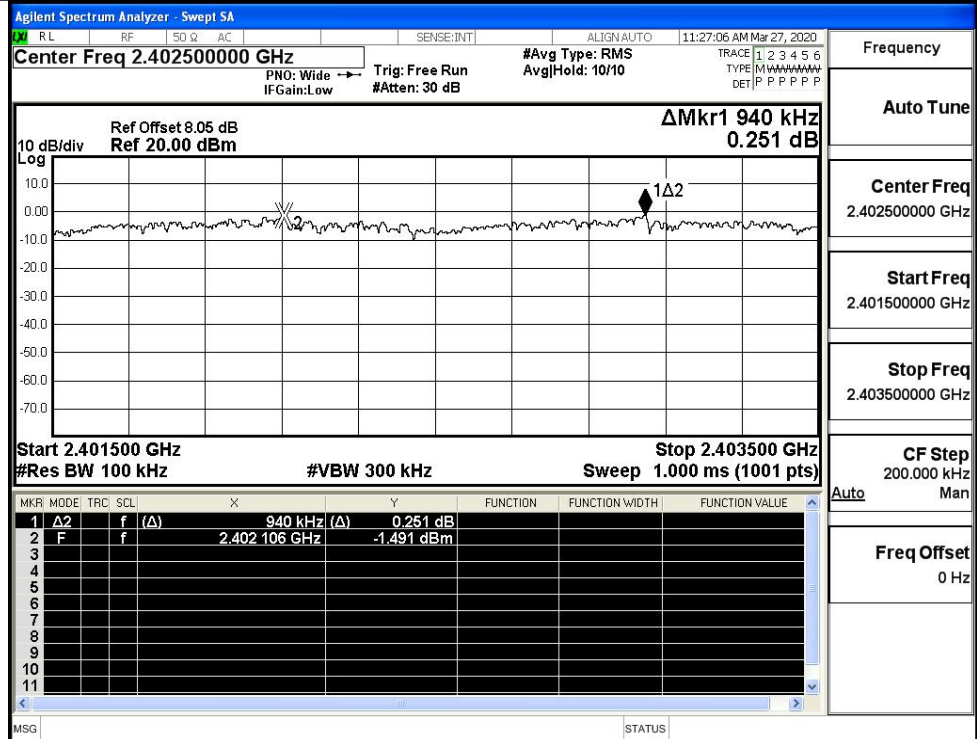
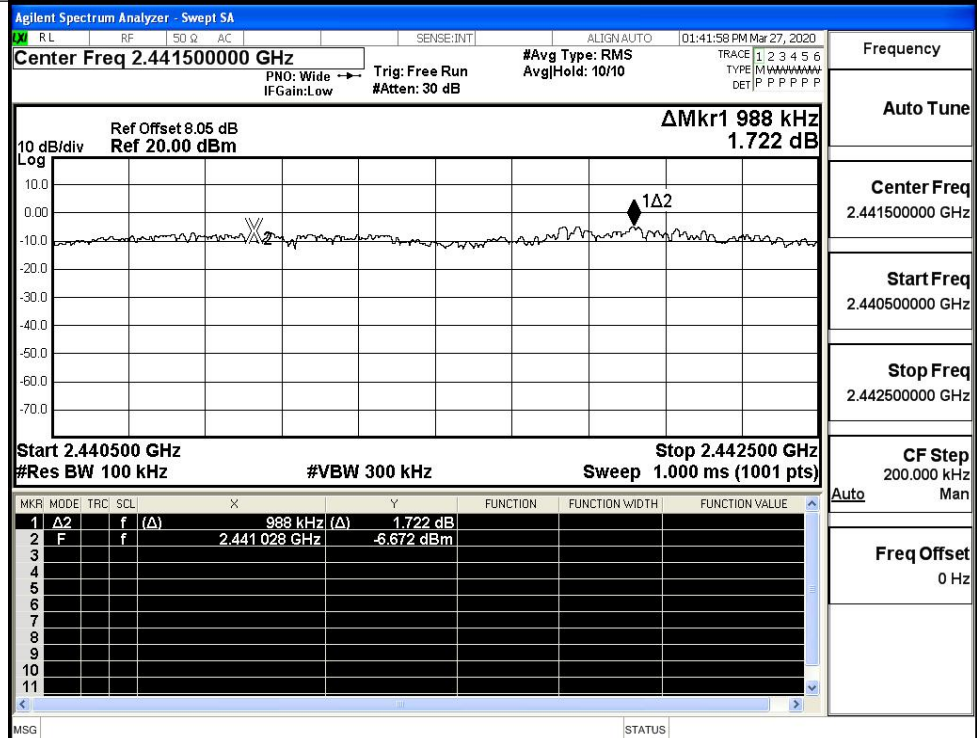
GFSK/HCH

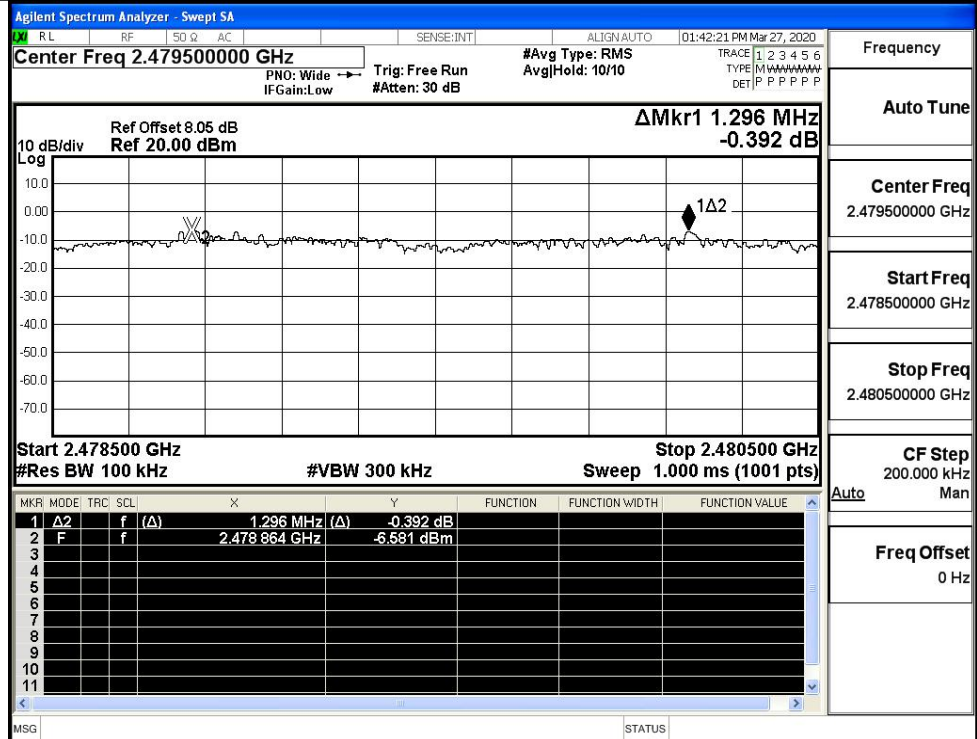


Frequency

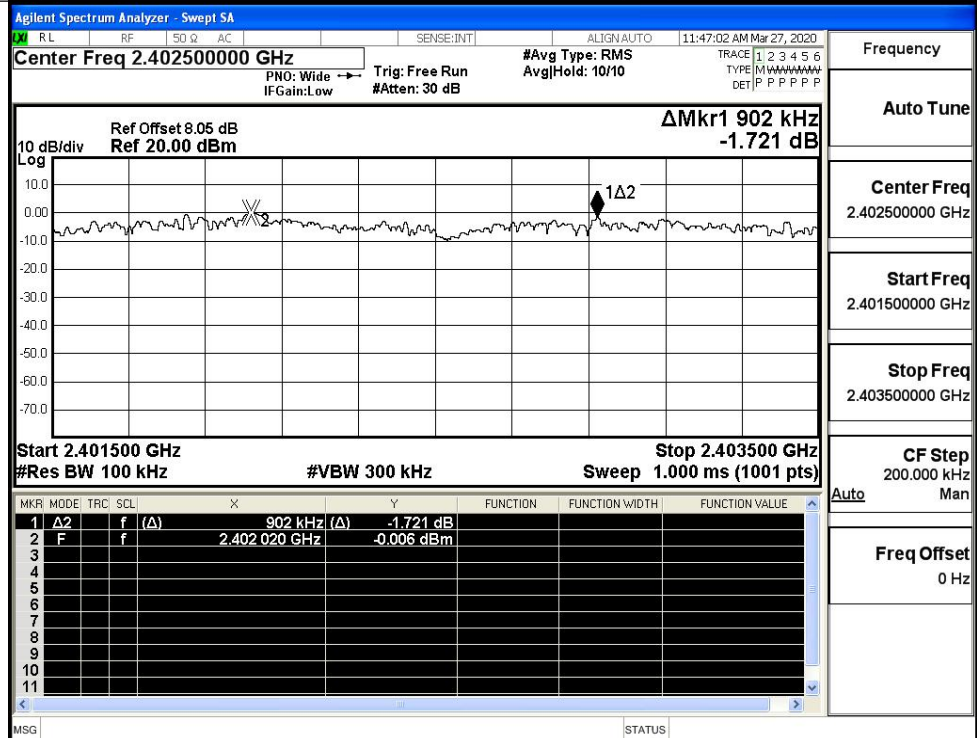
Auto Tune

Center Freq
2.479500000 GHzStart Freq
2.478500000 GHzStop Freq
2.480500000 GHzCF Step
200.000 kHz
ManFreq Offset
0 Hz

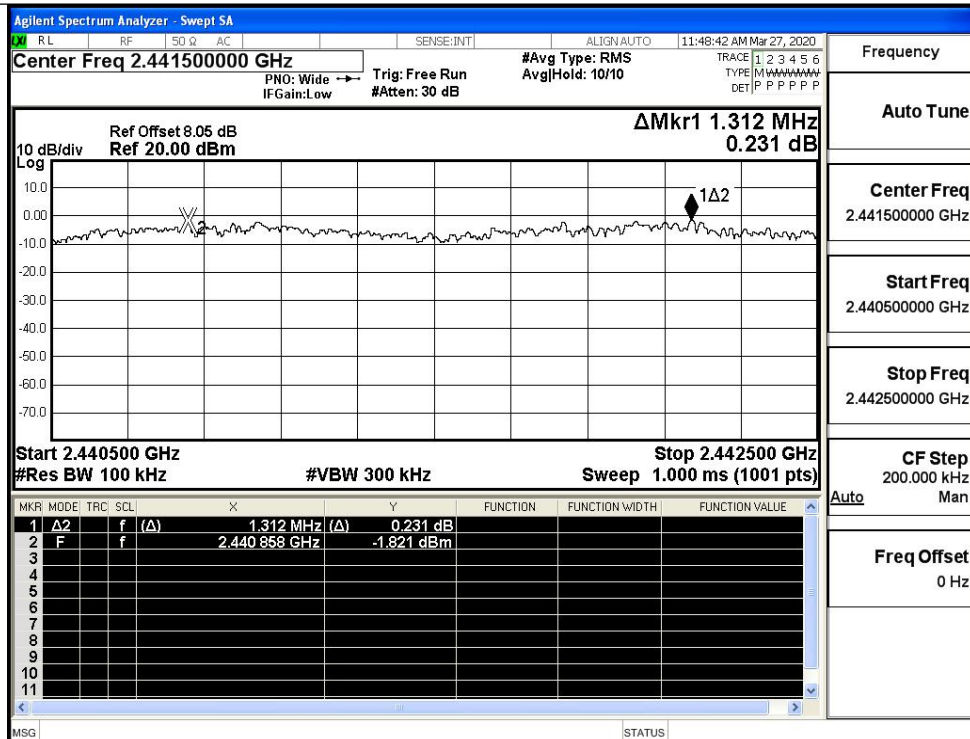
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

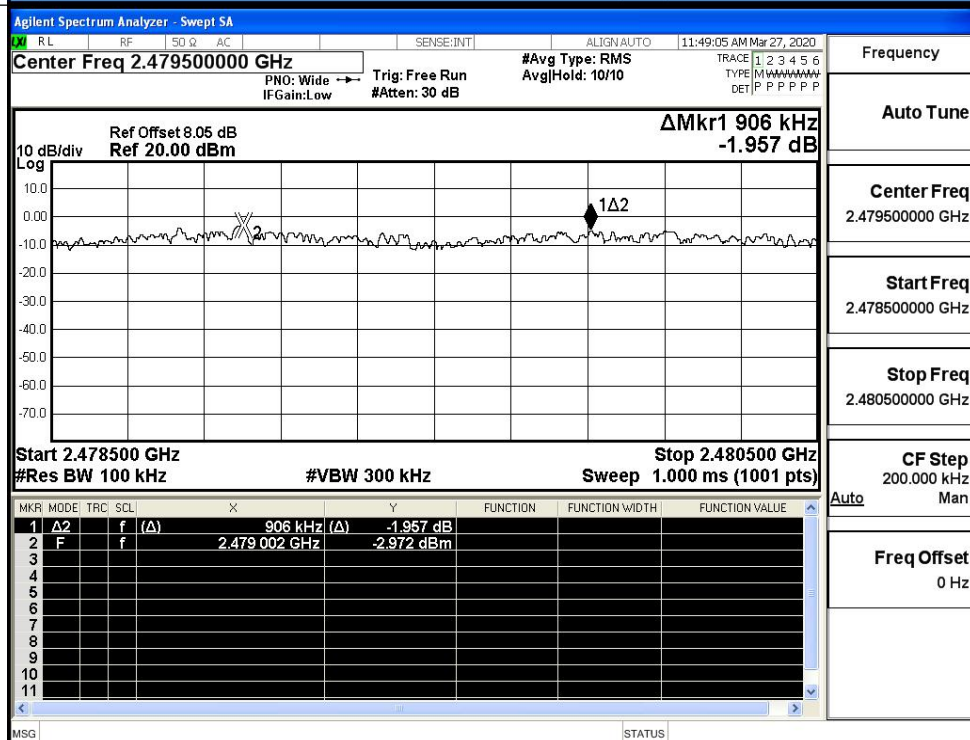
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

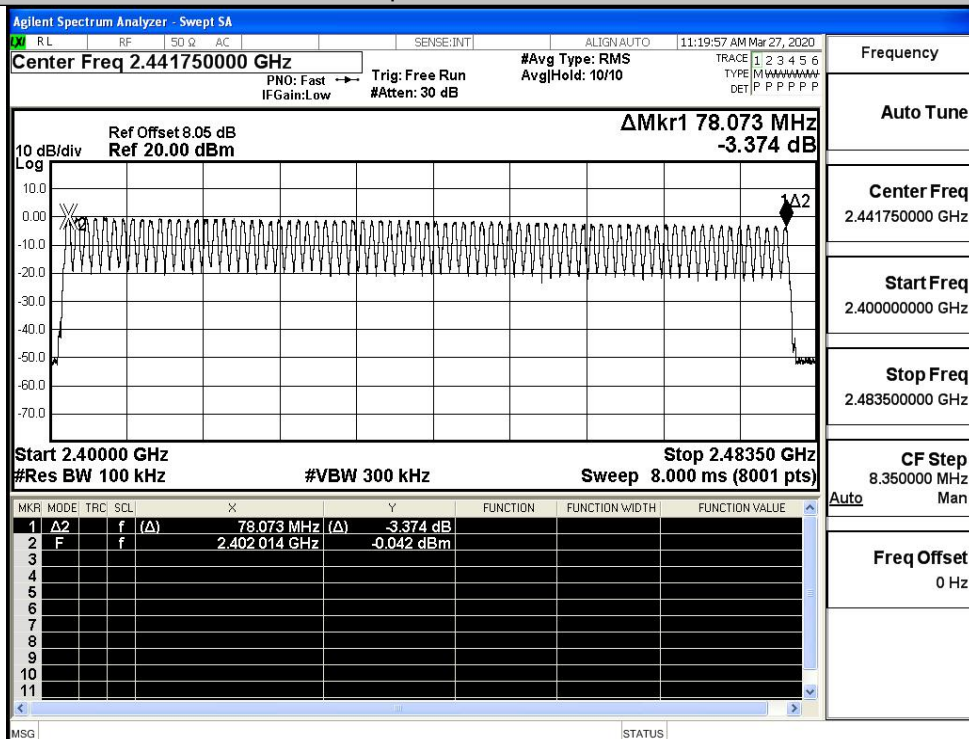


A.4 Hopping Channel Number

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



Frequency

Auto Tune

Center Freq

2.441750000 GHz

Start Freq

2.400000000 GHz

Stop Freq

2.483500000 GHz

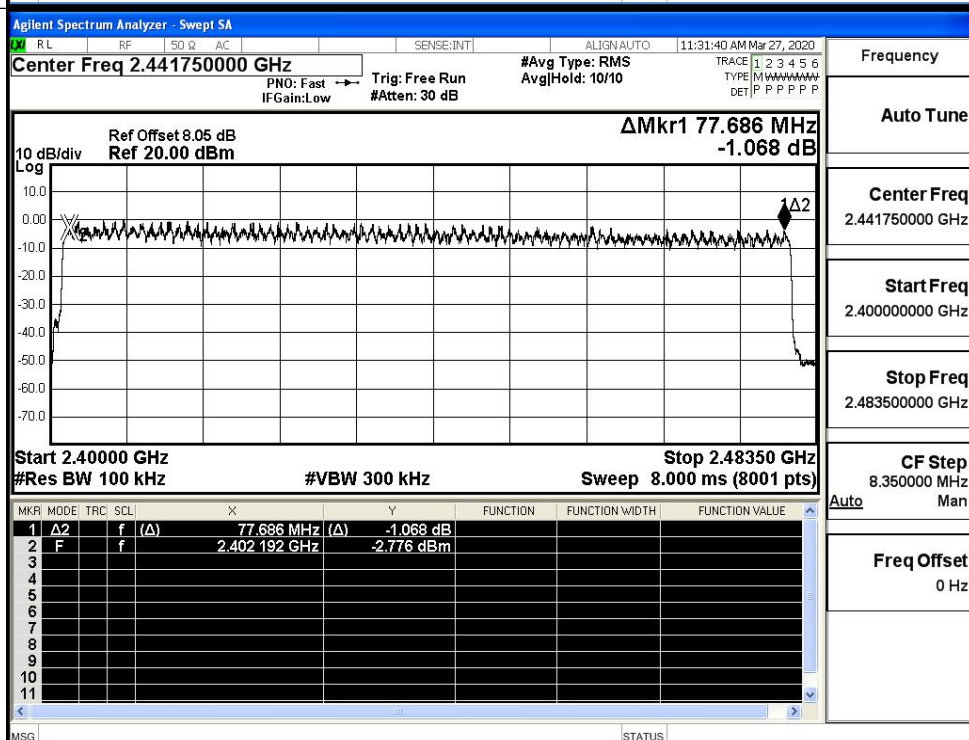
CF Step

8.350000 MHz

Auto Man

Freq Offset

0 Hz

 $\pi/4$ DQPSK/Hop

Frequency

Auto Tune

Center Freq

2.441750000 GHz

Start Freq

2.400000000 GHz

Stop Freq

2.483500000 GHz

CF Step

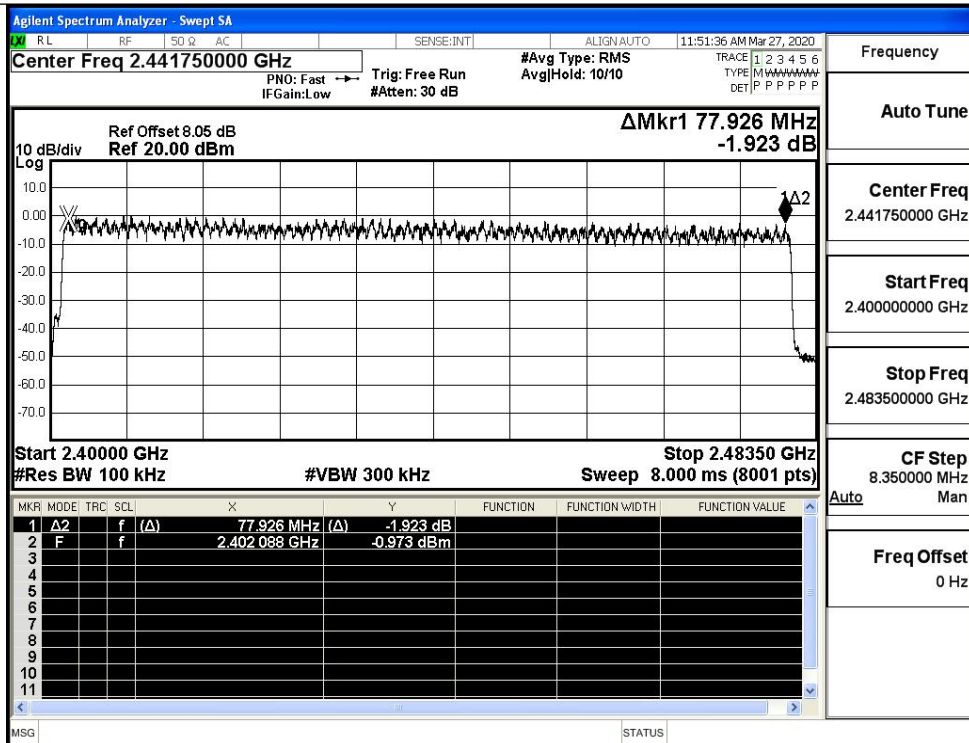
8.350000 MHz

Auto Man

Freq Offset

0 Hz

8DPSK/Hop

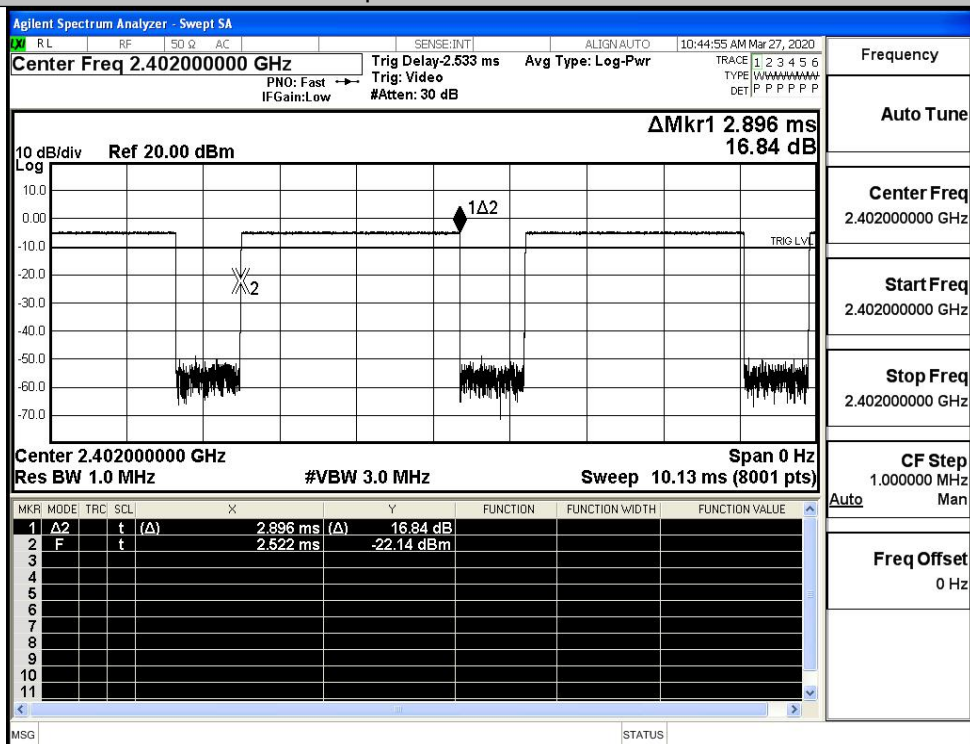


A.5 Dwell Time

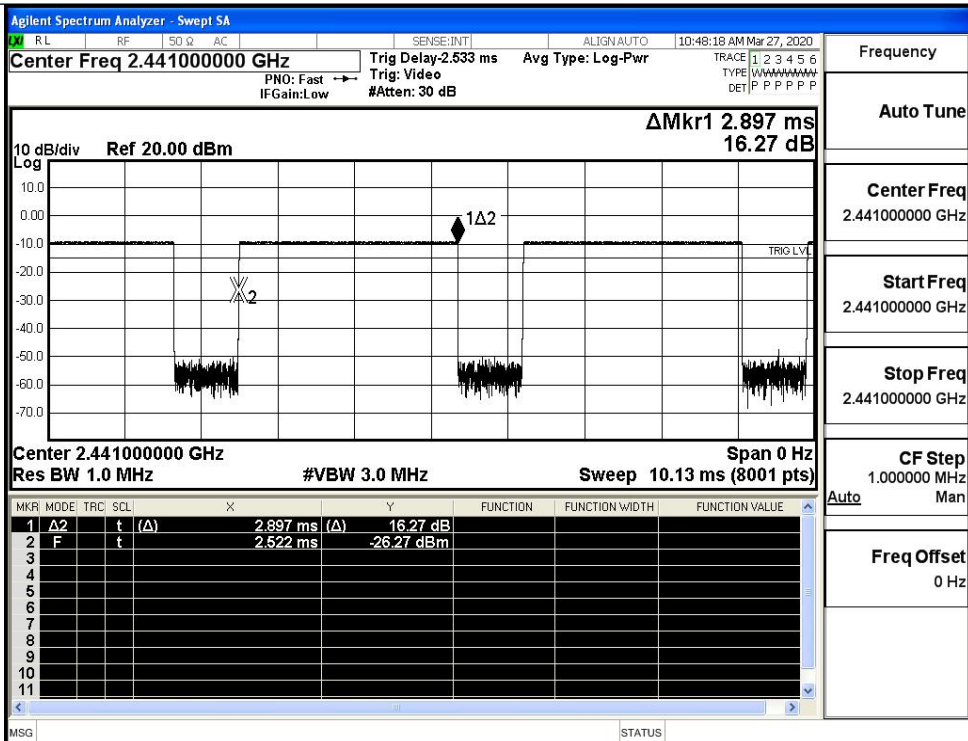
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.9	106.7	0.309	0.4	PASS
	DH5	MCH	2.9	106.7	0.309	0.4	PASS
	DH5	HCH	2.9	106.7	0.309	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.9	106.7	0.309	0.4	PASS
	2DH5	MCH	2.9	106.7	0.309	0.4	PASS
	2DH5	HCH	2.9	106.7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

Test Graphs

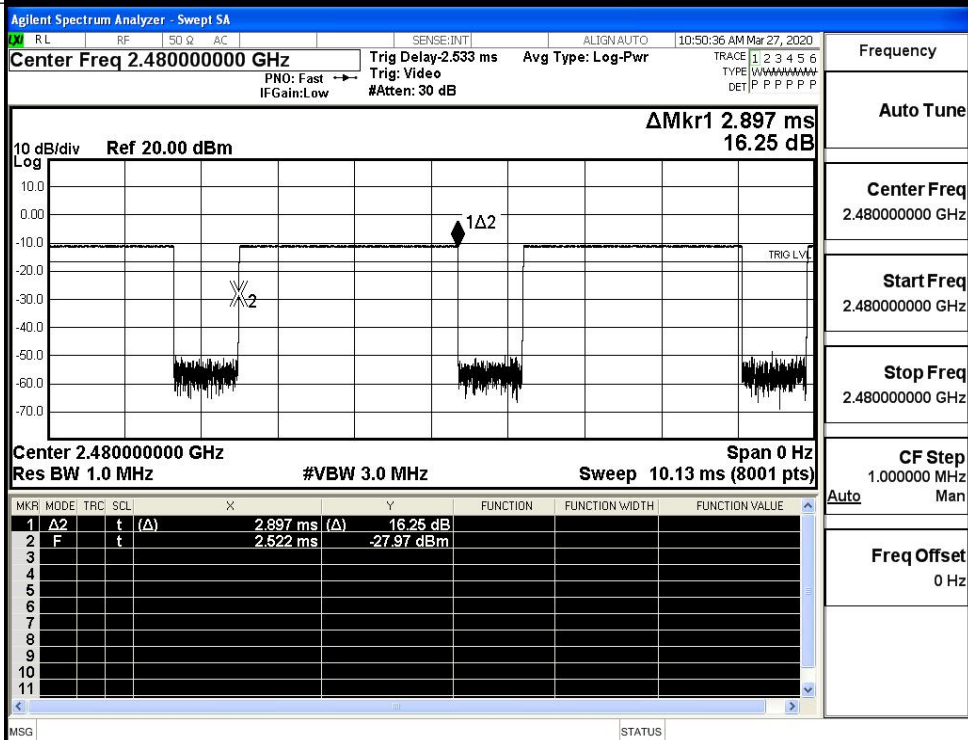
GFSK_DH5/LCH



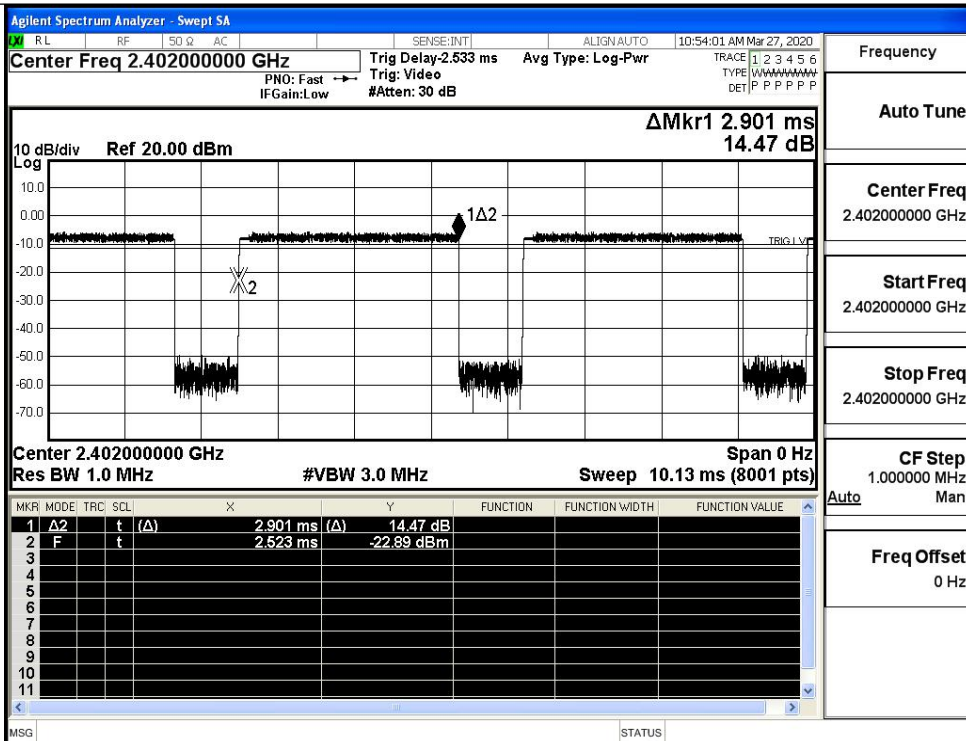
GFSK_DH5/MCH



GFSK_DH5/HCH



$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH

