

Appendix A

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

Product Name: Wireless Bluetooth Earphone with Tragus Massager

Trade Mark: DB

Test Model: Drowse Buster-P

Environmental Conditions

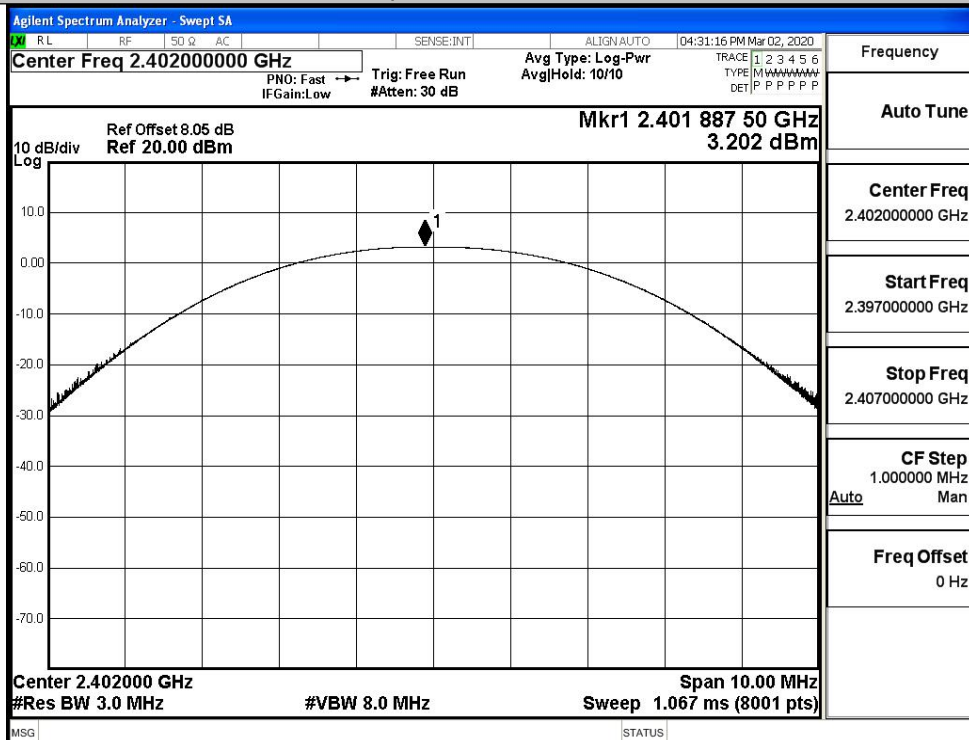
Temperature:	25 ° C
Relative Humidity:	50%
ATM Pressure:	100.0 kPa
Test Engineer:	Qu Xin
Supervised by:	Tom.Liu

A.1 Maximum Conducted Peak Output Power

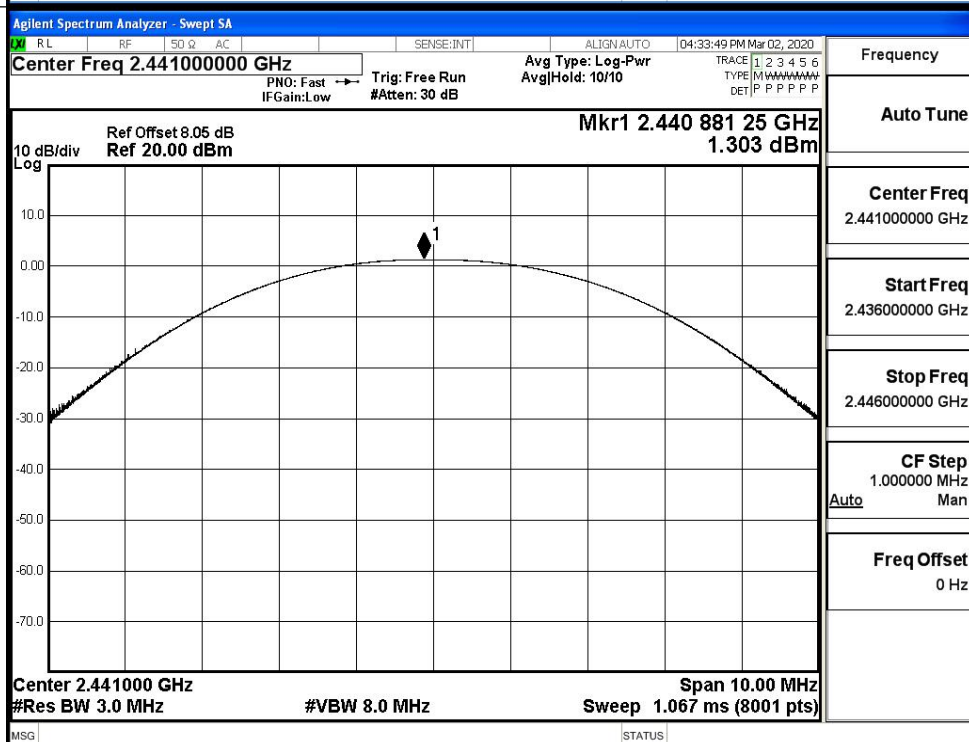
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.202	21	PASS
	MCH	1.303	21	PASS
	HCH	-0.213	21	PASS
$\pi/4$ DQPSK	LCH	3.946	21	PASS
	MCH	2.094	21	PASS
	HCH	0.540	21	PASS
8DPSK	LCH	3.894	21	PASS
	MCH	2.070	21	PASS
	HCH	0.519	21	PASS

Test Graphs

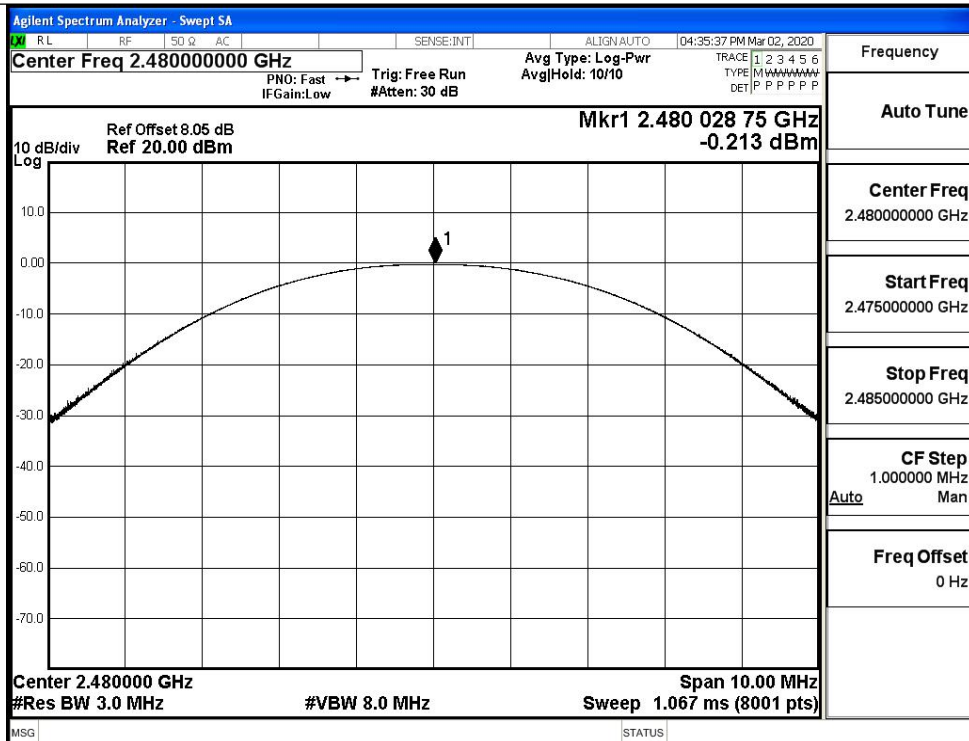
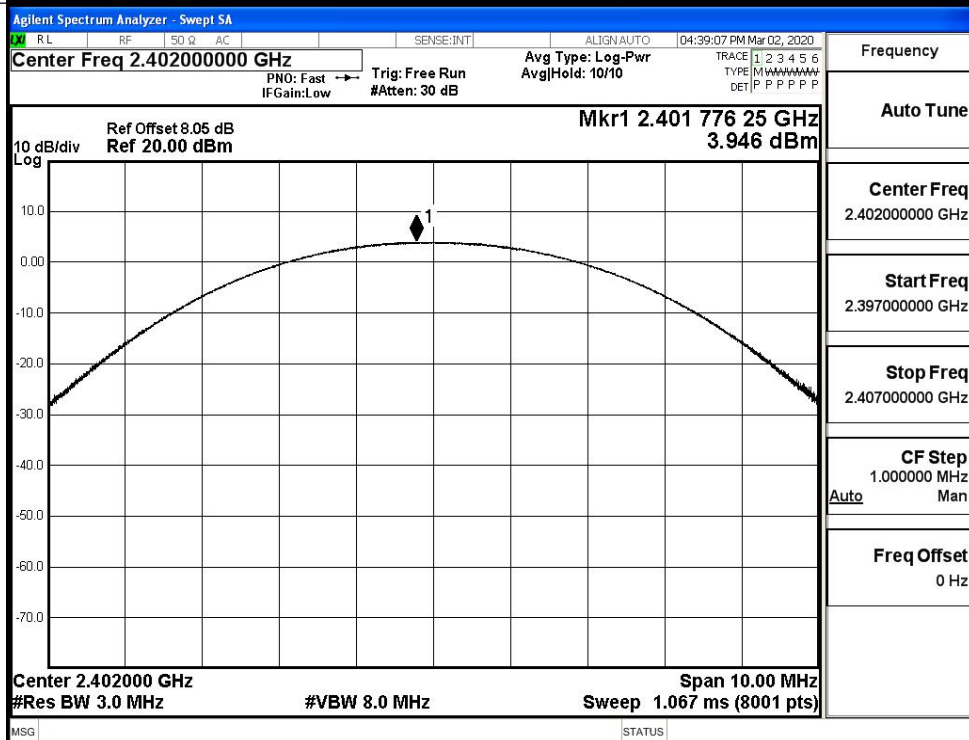
GFSK/LCH

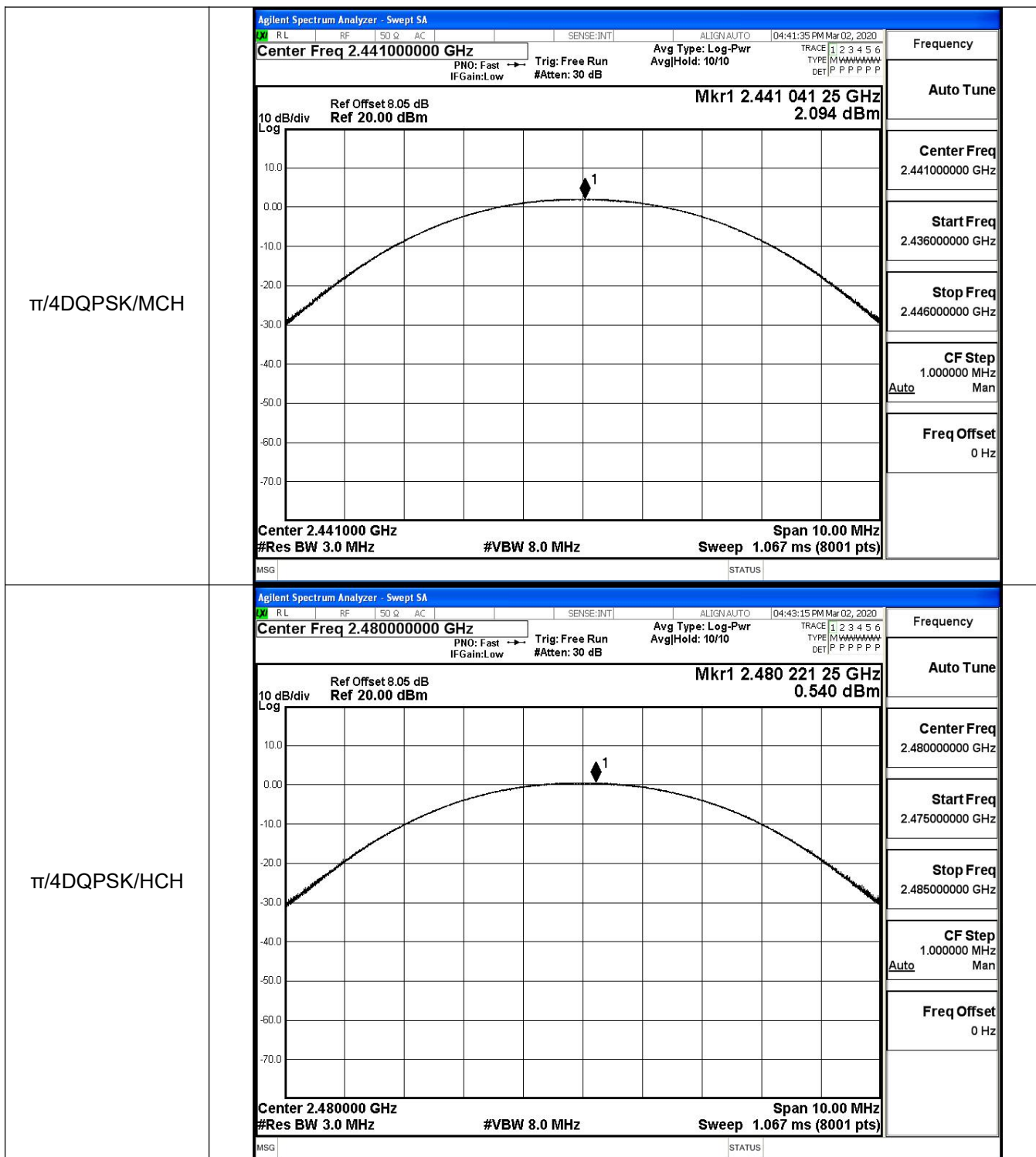


GFSK/MCH

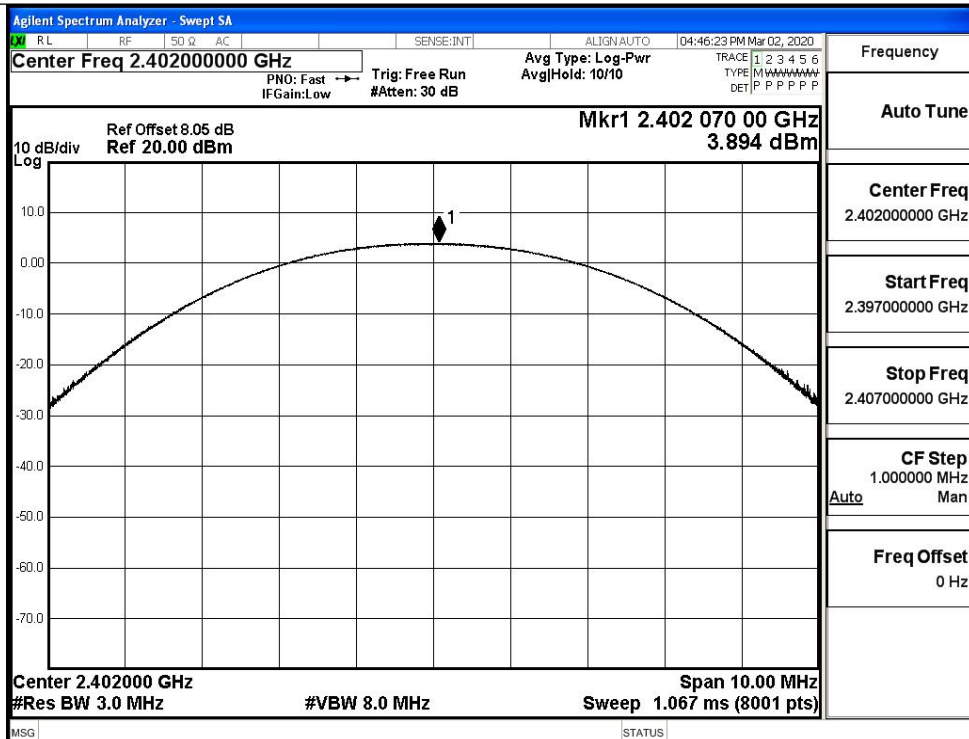


GFSK/HCH

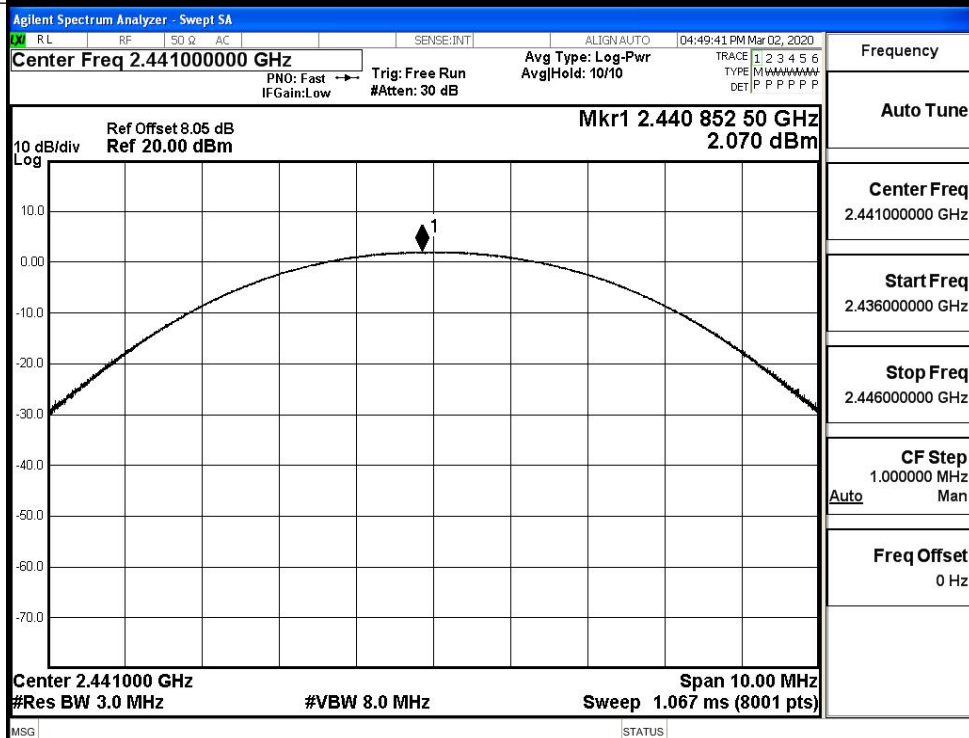
 π /4DQPSK/LCH



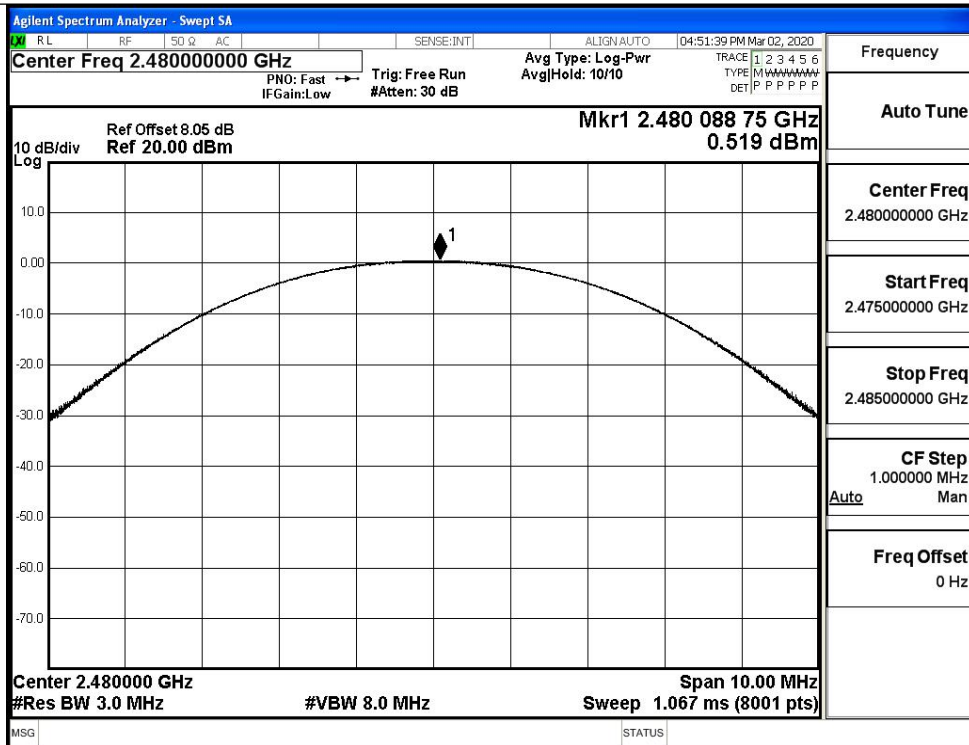
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

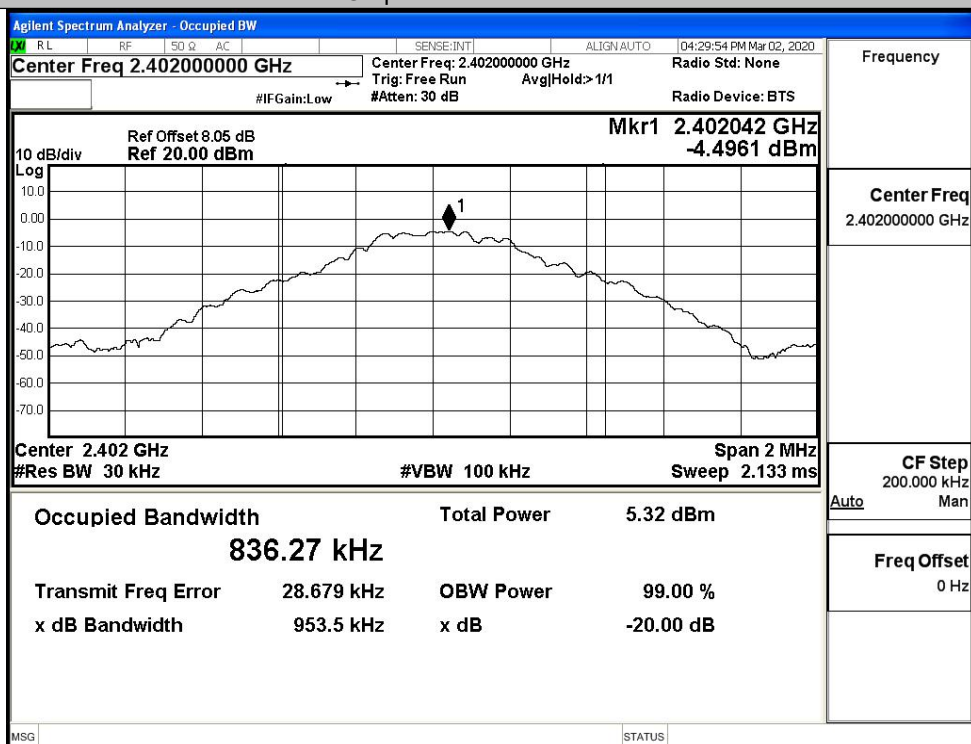


A.2 20dB Bandwidth

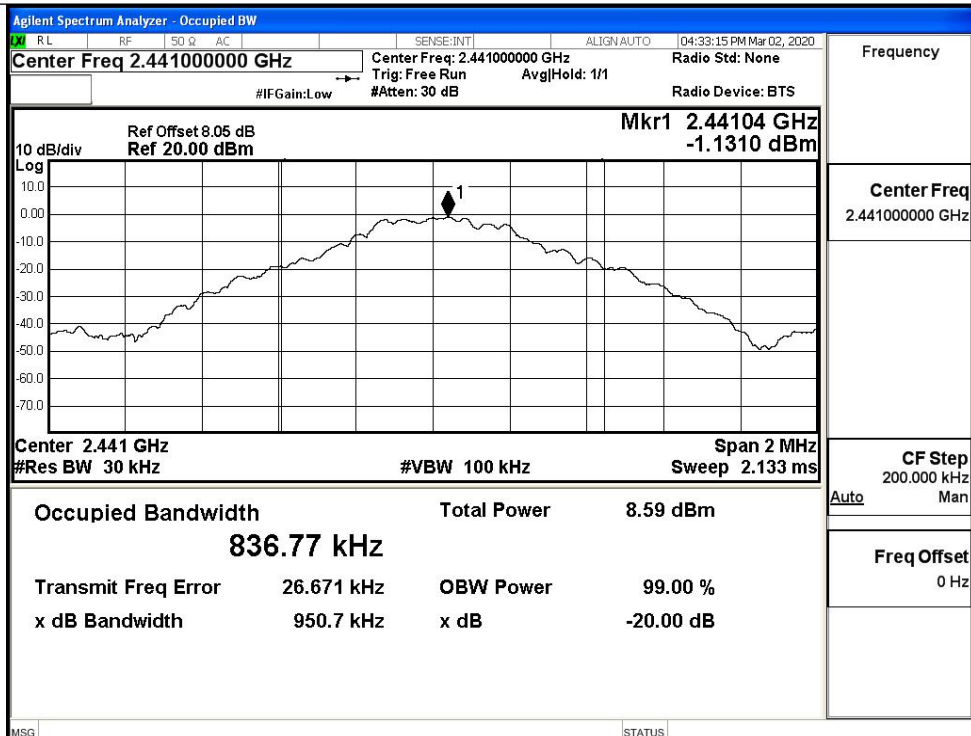
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9535	Not Specified	PASS
	MCH	0.9507	Not Specified	PASS
	HCH	0.9521	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.284	Not Specified	PASS
	MCH	1.282	Not Specified	PASS
	HCH	1.283	Not Specified	PASS
8DPSK	LCH	1.283	Not Specified	PASS
	MCH	1.283	Not Specified	PASS
	HCH	1.283	Not Specified	PASS

Test Graphs

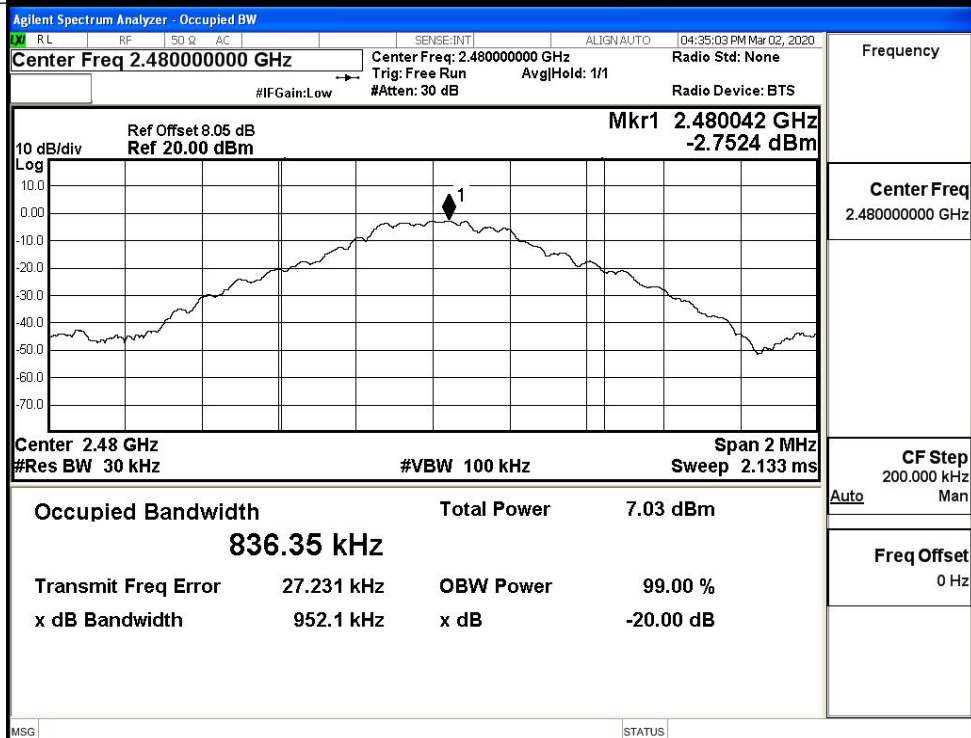
GFSK/LCH

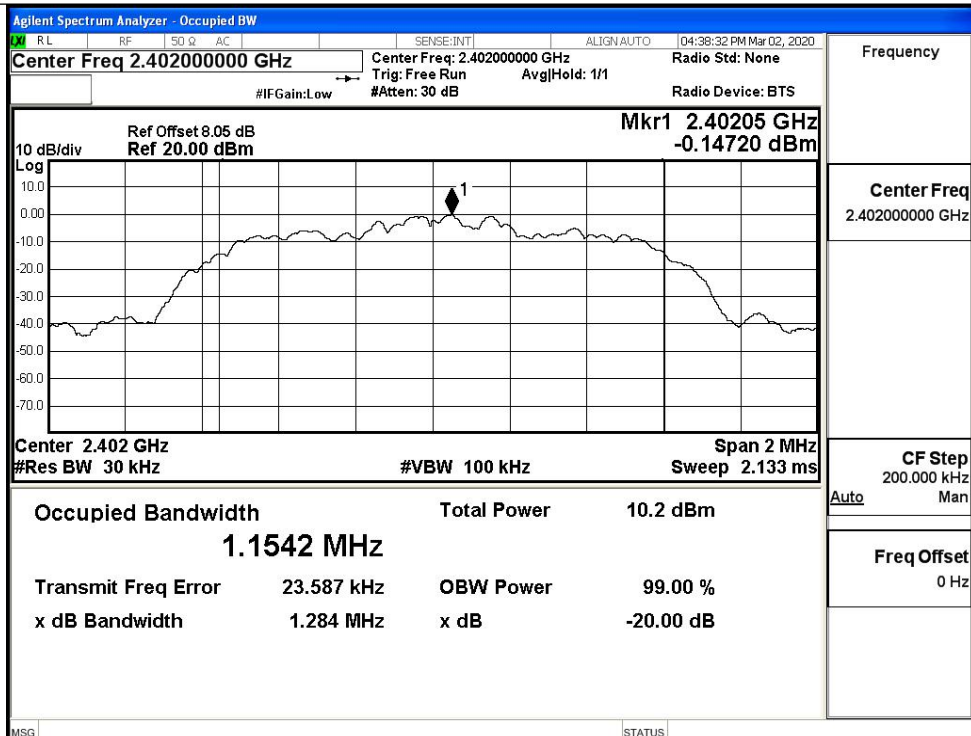
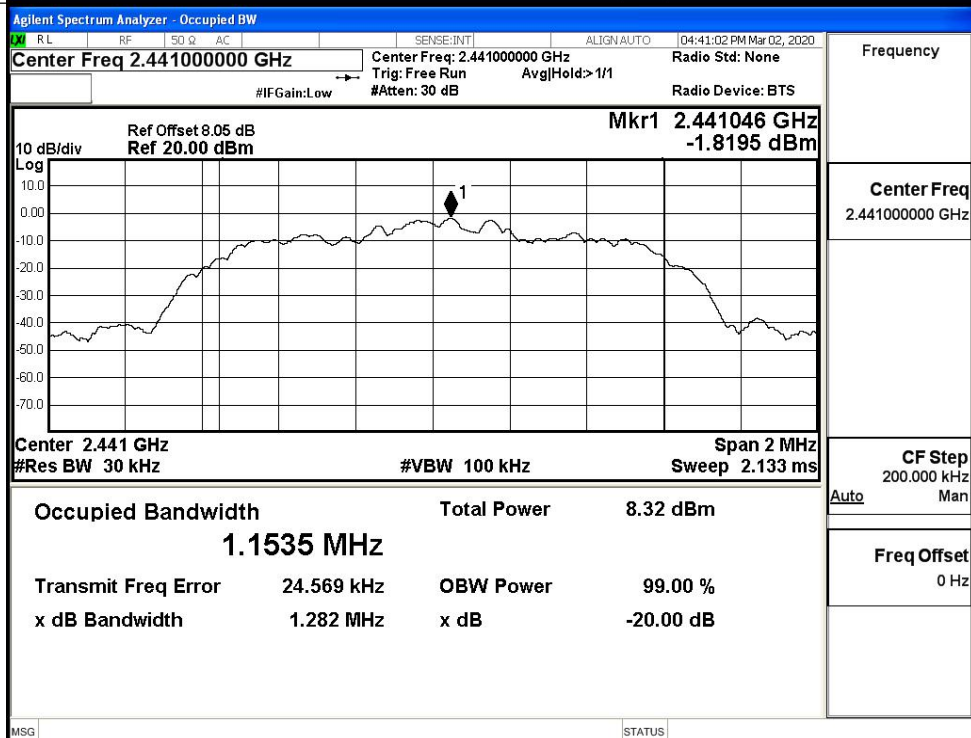


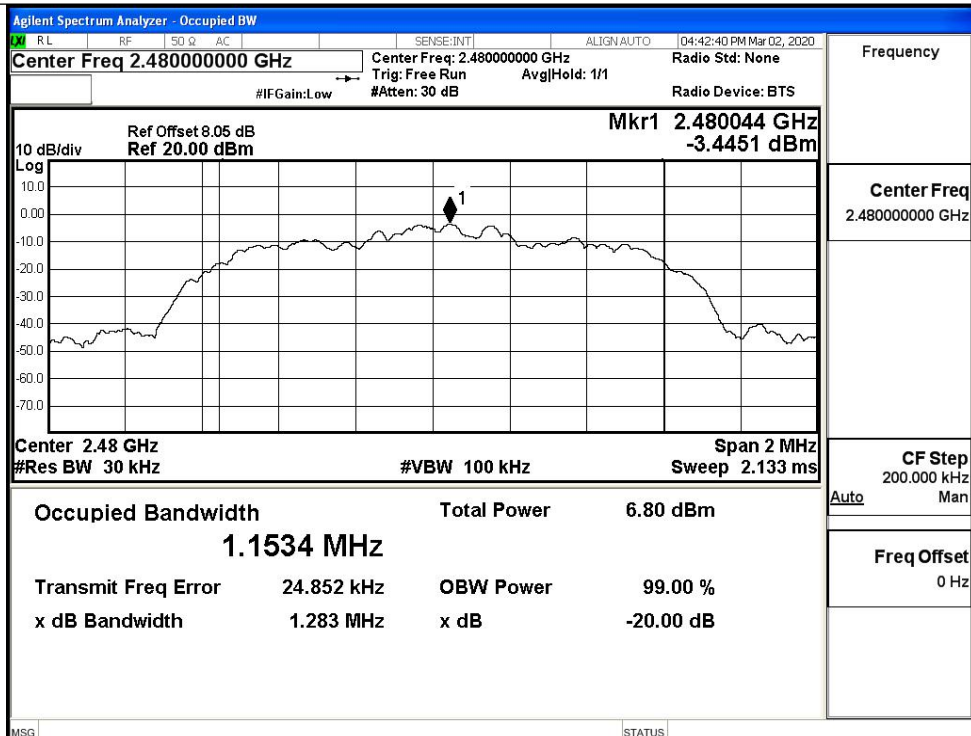
GFSK/MCH



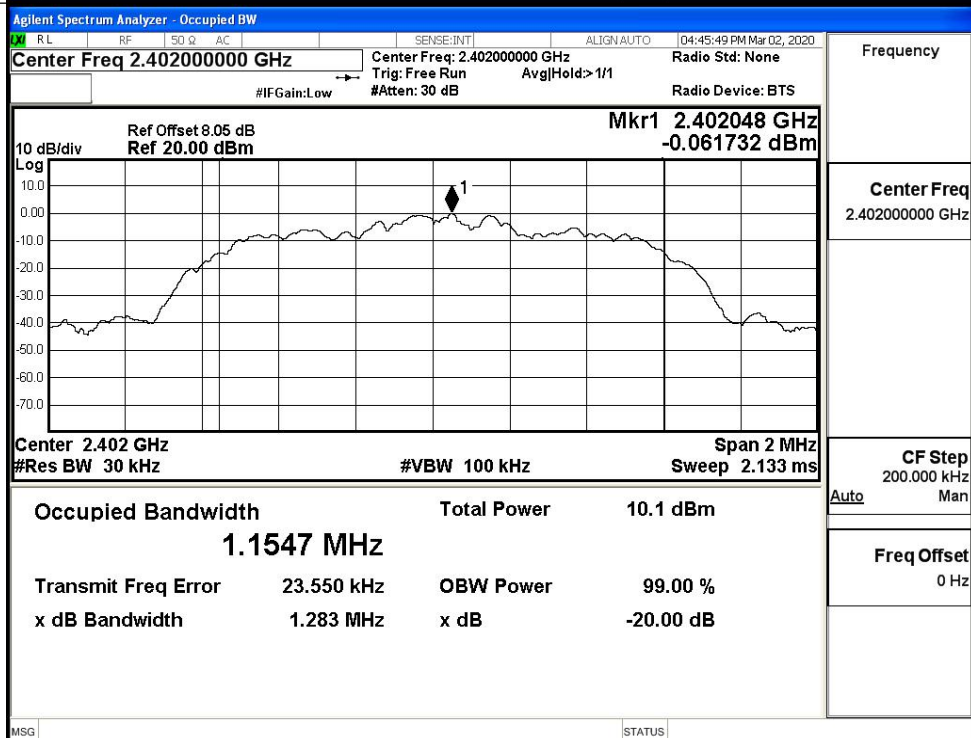
GFSK/HCH



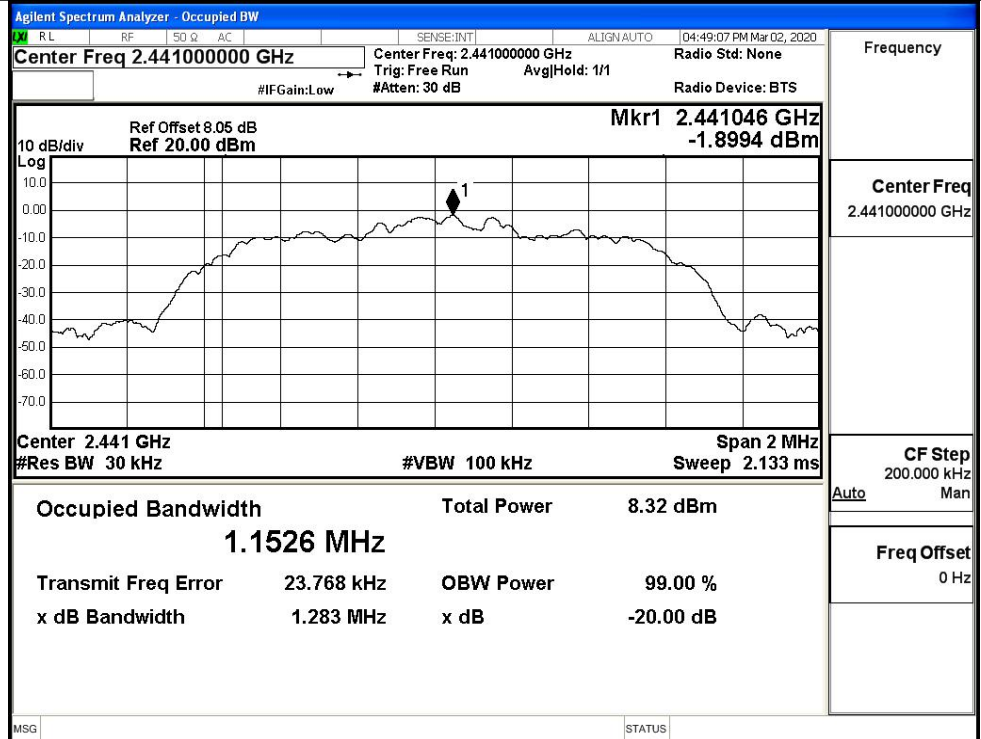
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

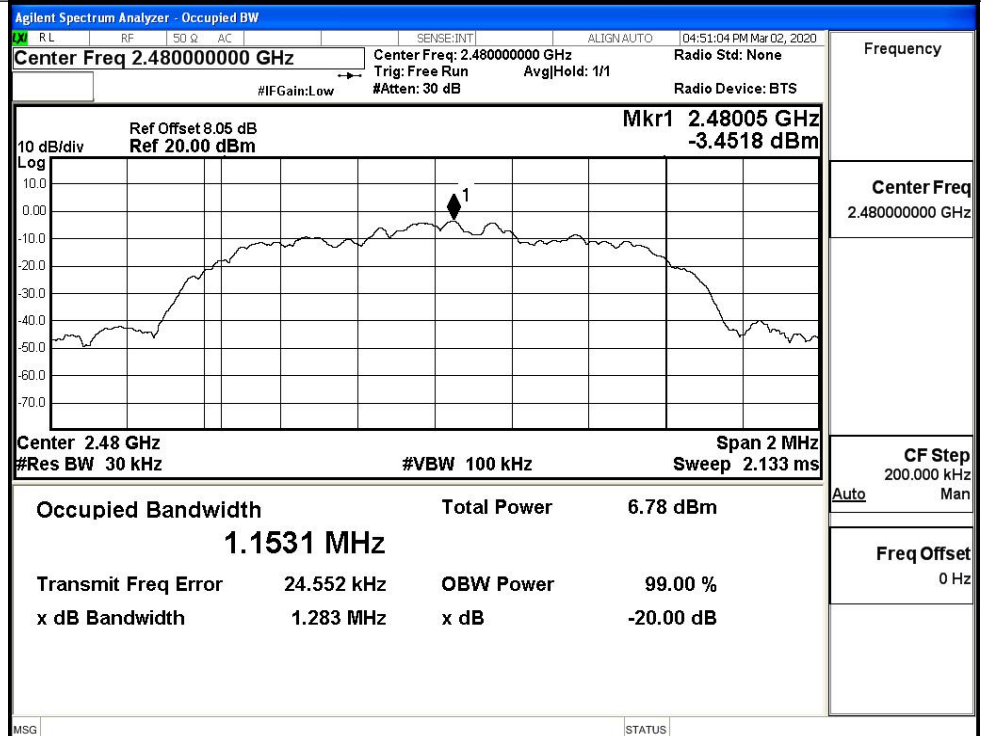
8DPSK/LCH



8DPSK/MCH



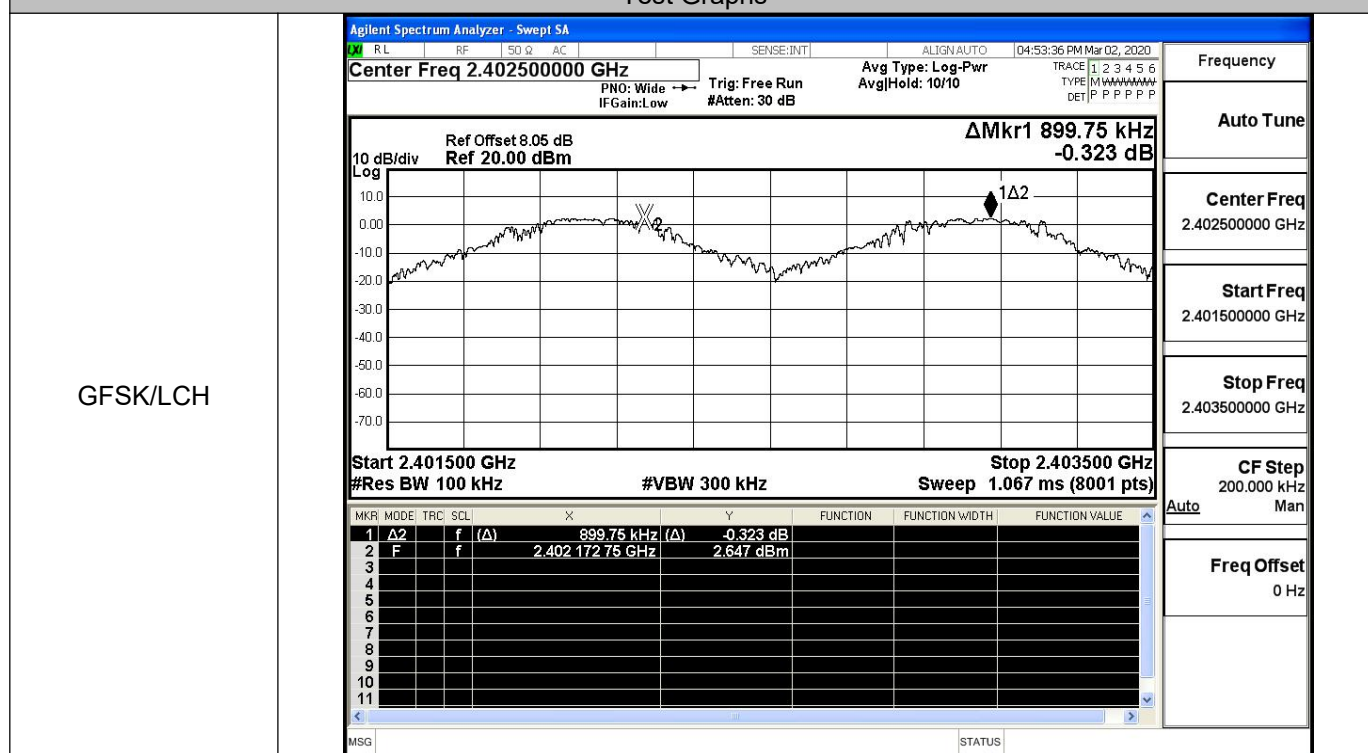
8DPSK/HCH



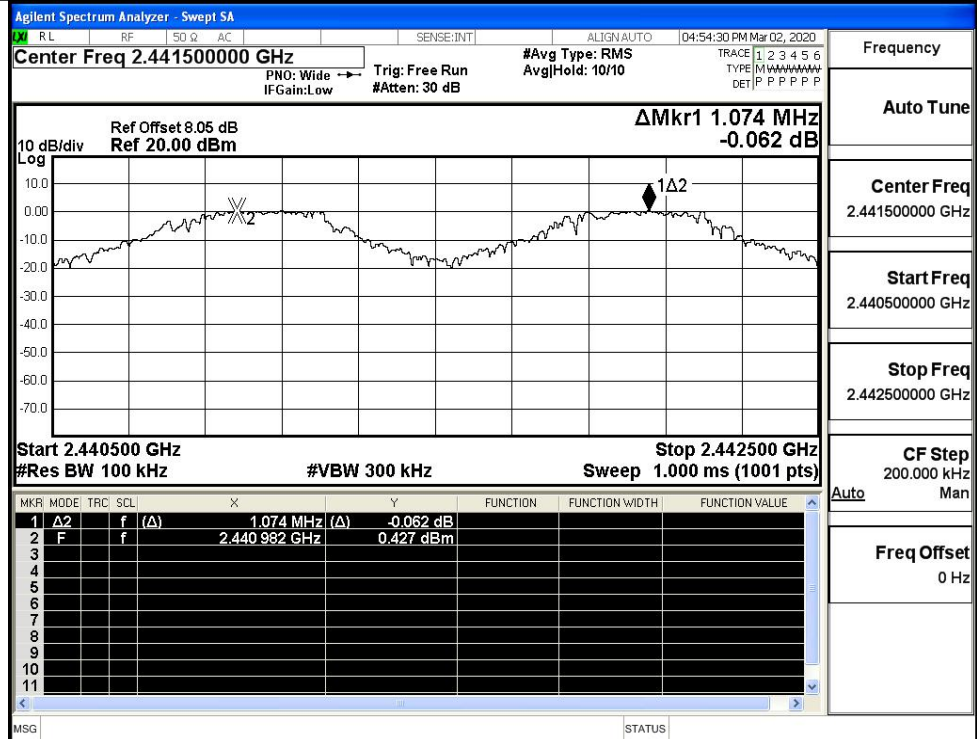
A.3 Carrier Frequency Separation

Mode	Channel	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.900	0.636	PASS
	MCH	1.074	0.636	PASS
	HCH	1.104	0.636	PASS
$\pi/4$ DQPSK	LCH	1.090	0.856	PASS
	MCH	1.014	0.856	PASS
	HCH	1.084	0.856	PASS
8DPSK	LCH	0.858	0.855	PASS
	MCH	1.000	0.855	PASS
	HCH	1.236	0.855	PASS

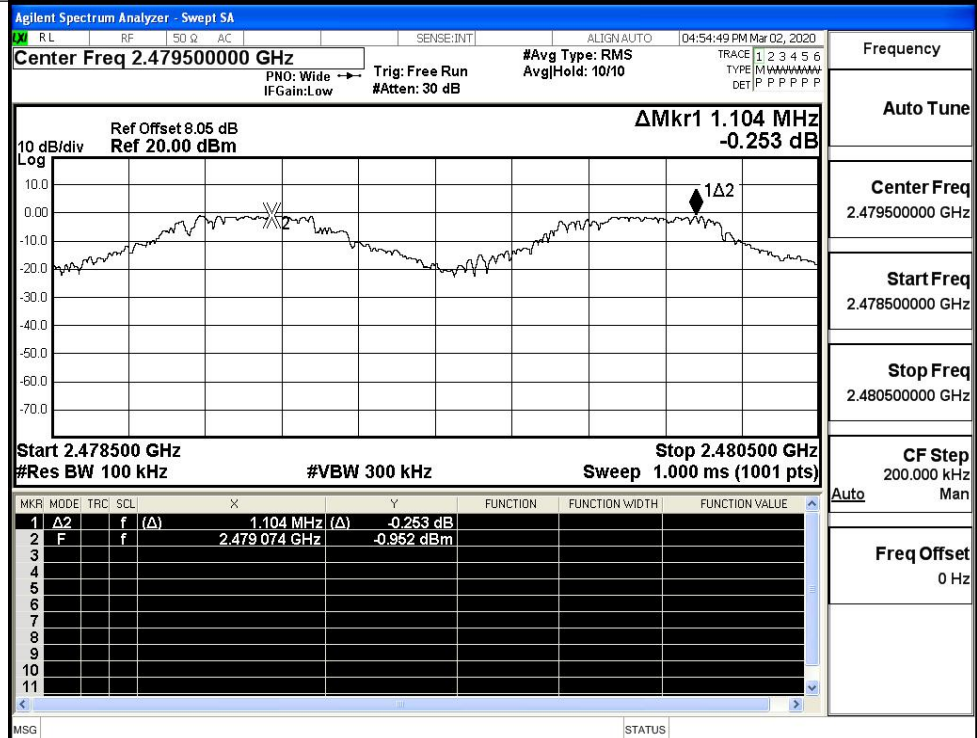
Test Graphs

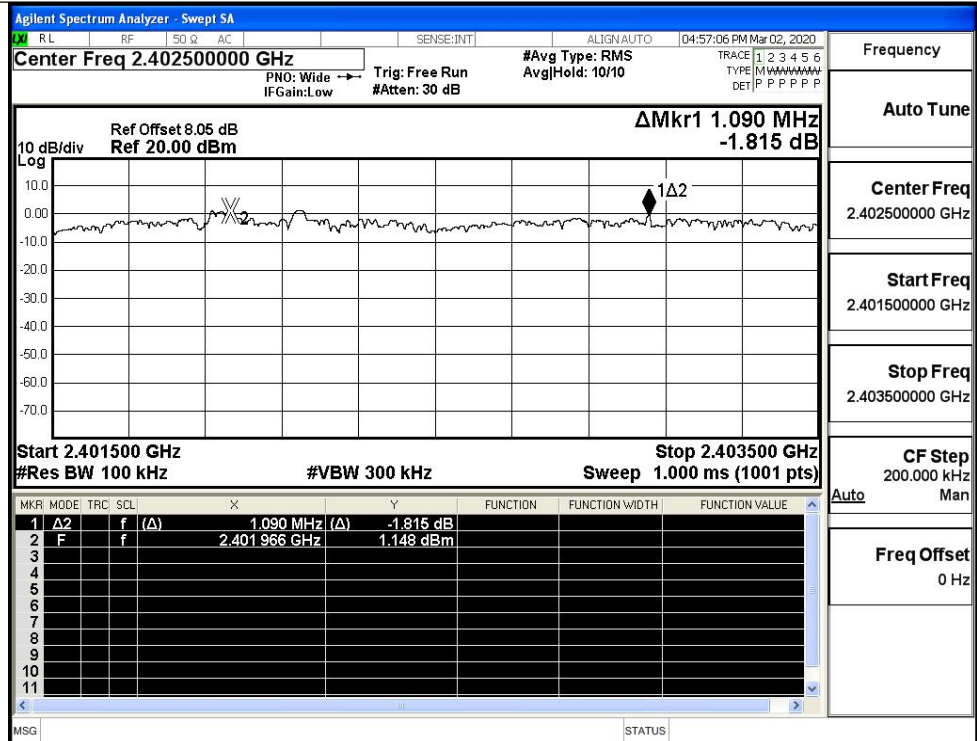
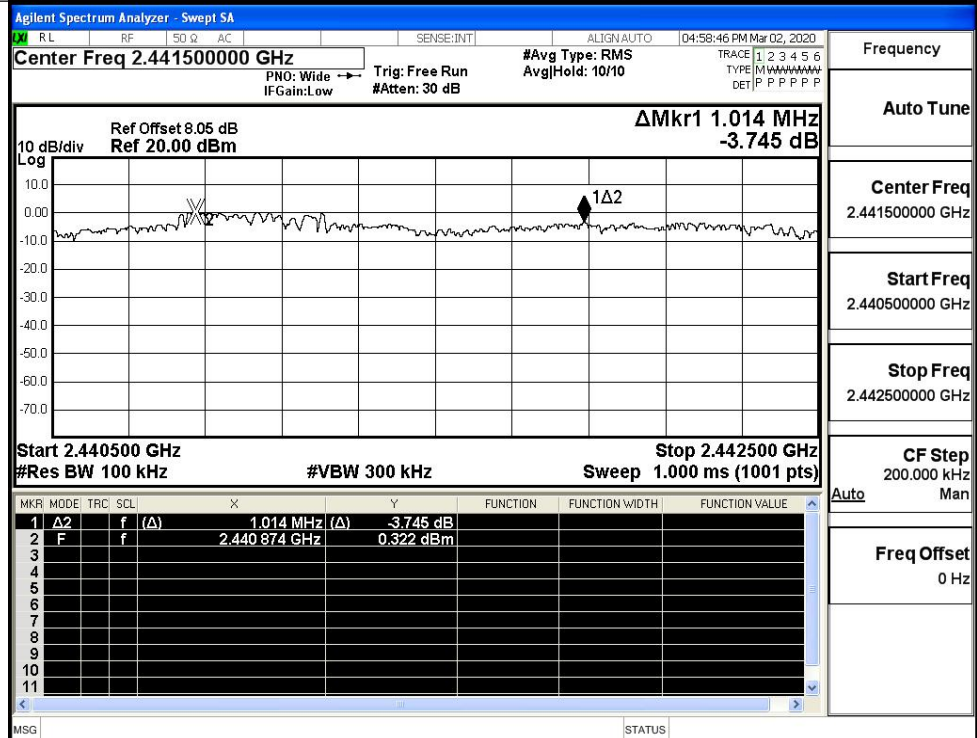


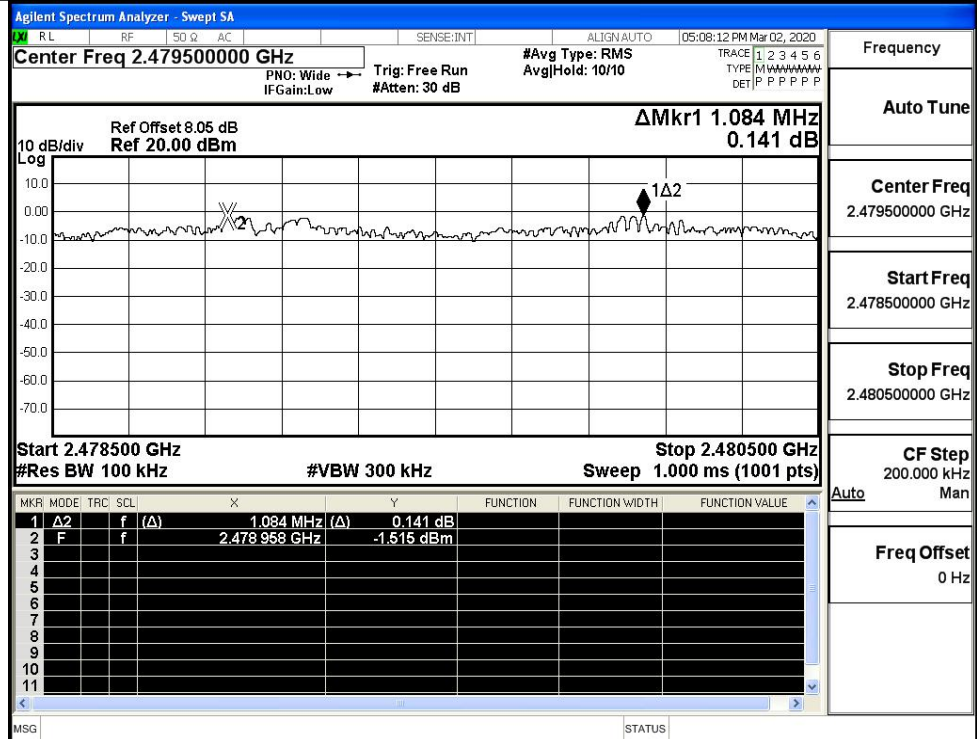
GFSK/MCH



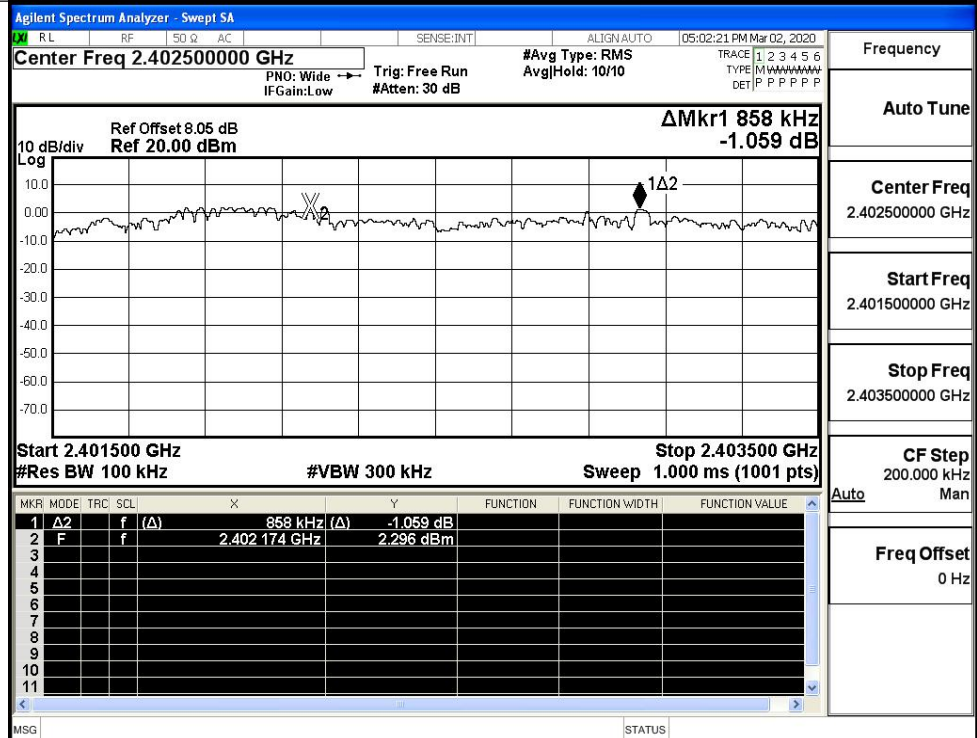
GFSK/HCH



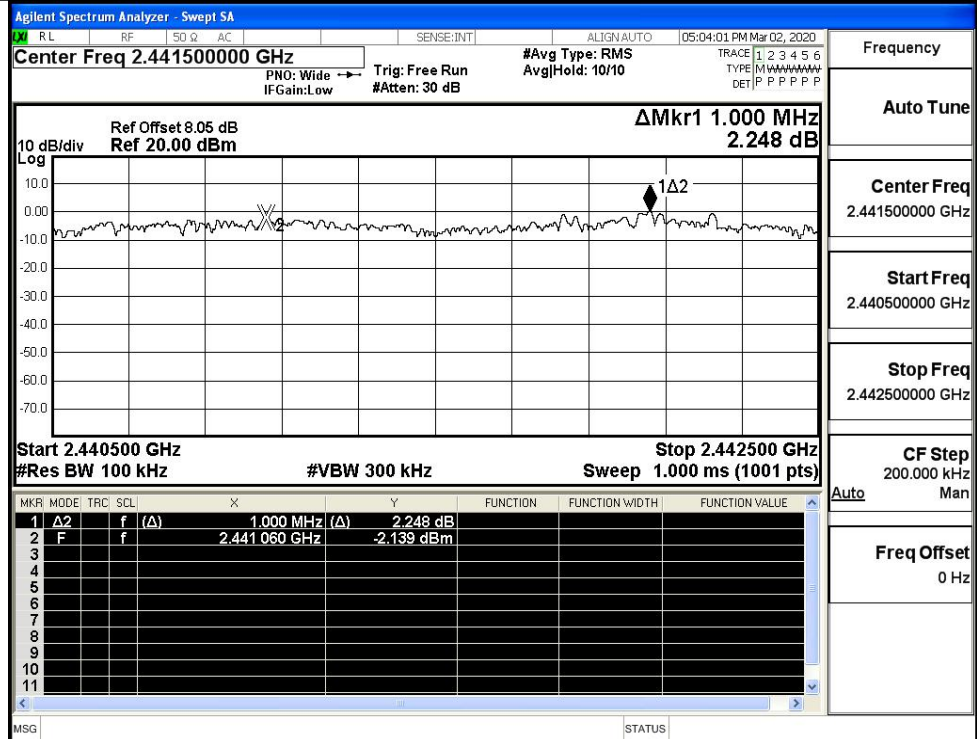
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

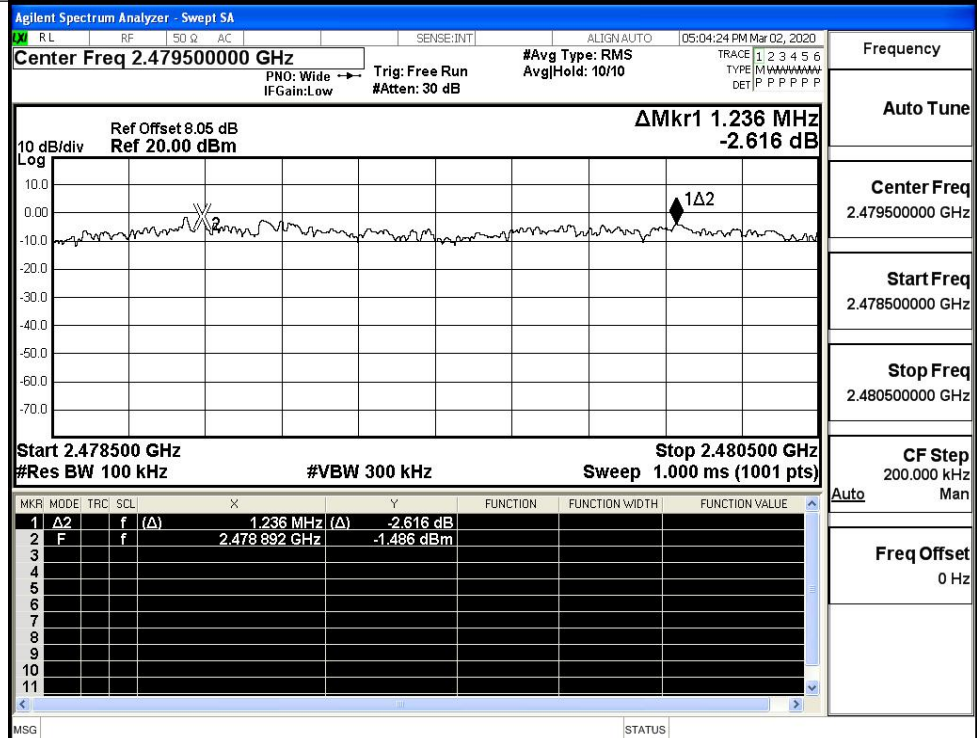
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

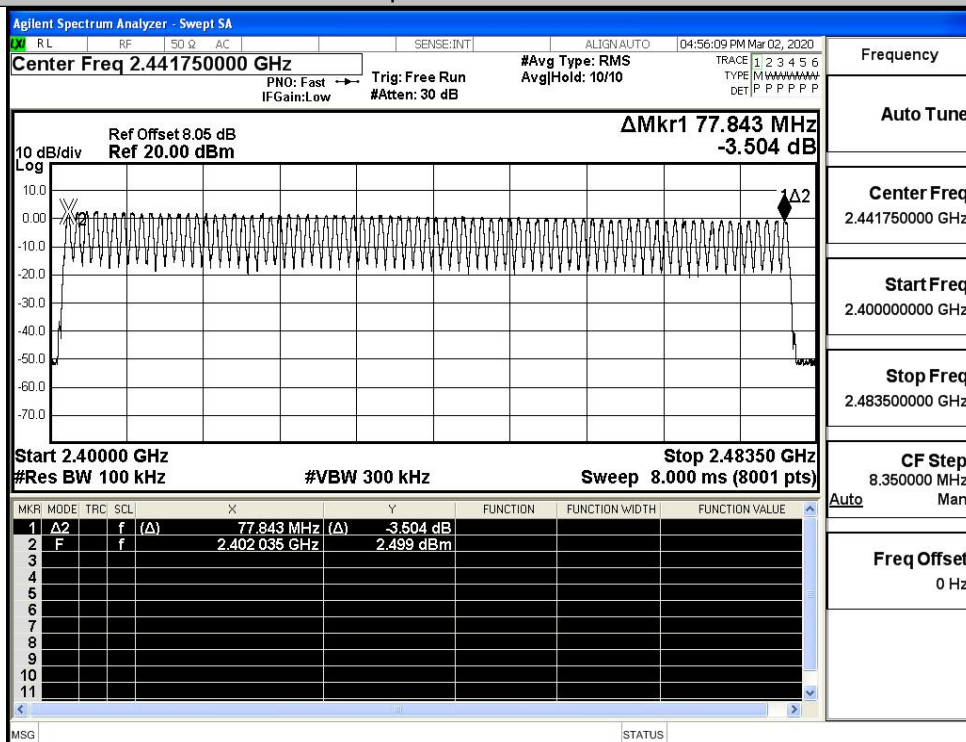
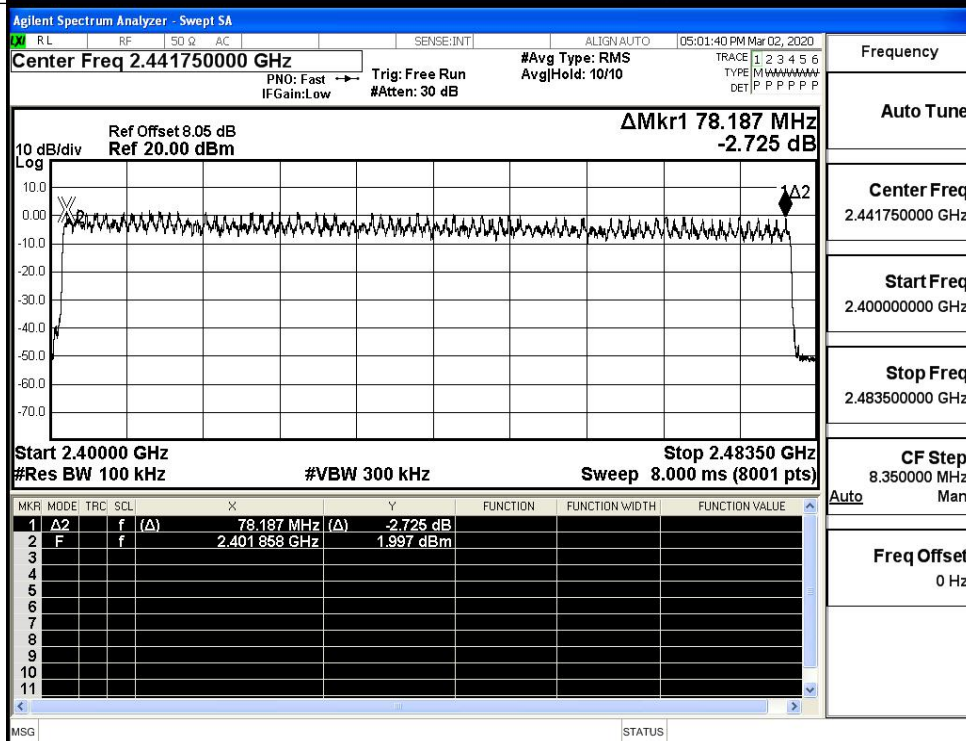


A.4 Hopping Channel Number

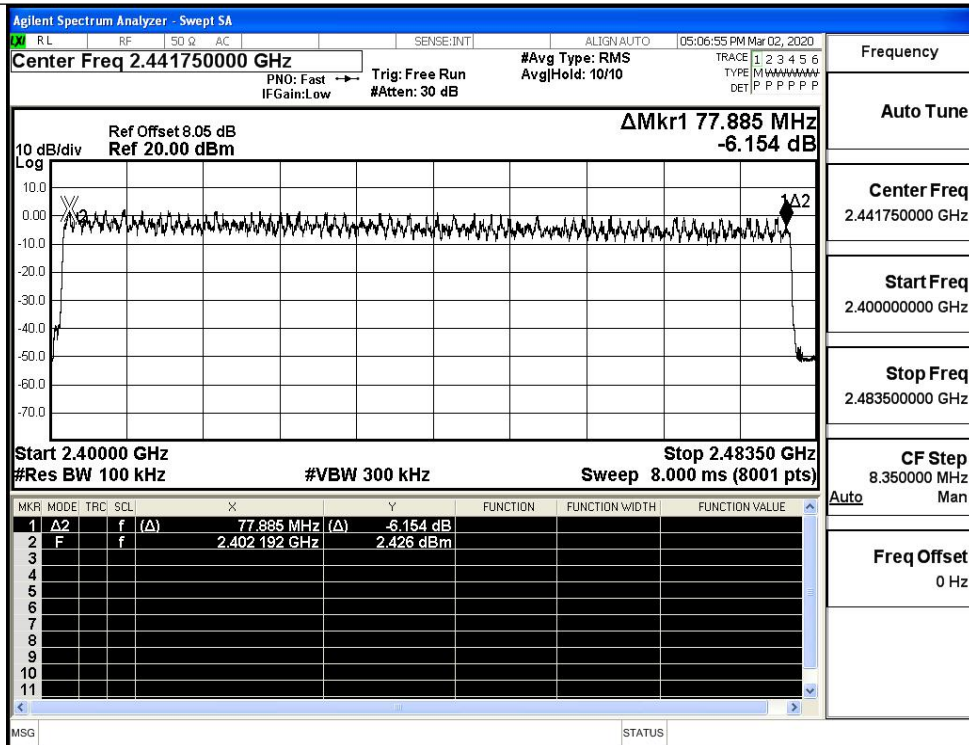
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

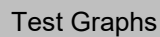
GFSK/Hop

 $\pi/4$ DQPSK/Hop

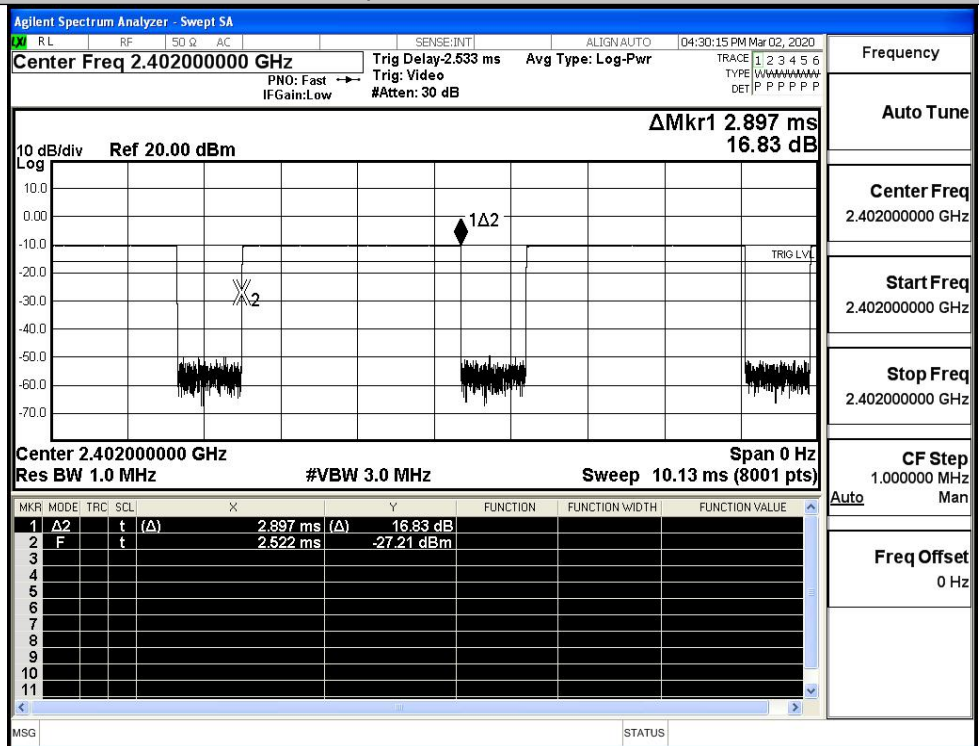
8DPSK/Hop



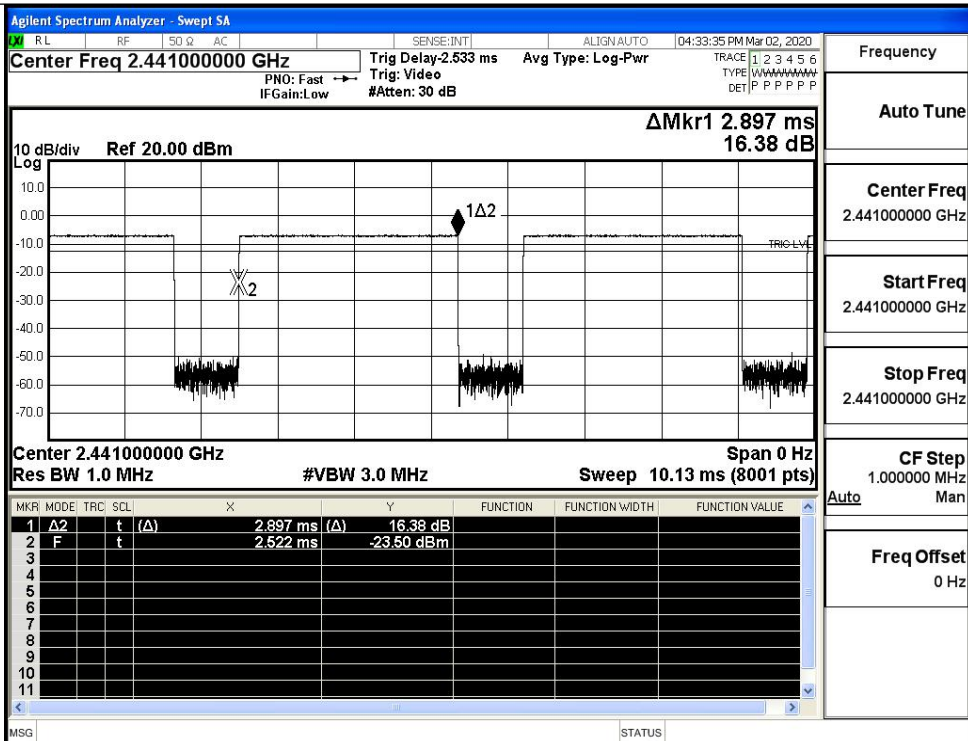
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.9	106.7	0.309	0.4	PASS
	DH5	MCH	2.9	106.7	0.309	0.4	PASS
	DH5	HCH	2.9	106.7	0.309	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.9	106.7	0.309	0.4	PASS
	2DH5	MCH	2.9	106.7	0.309	0.4	PASS
	2DH5	HCH	2.9	106.7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



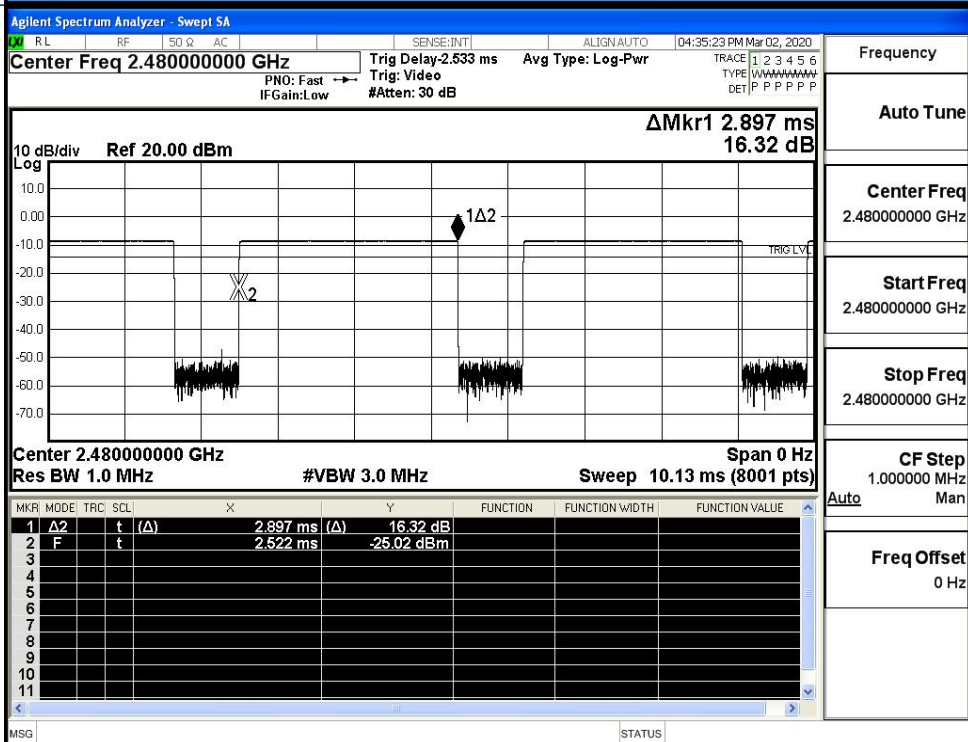
GFSK_DH5/LCH



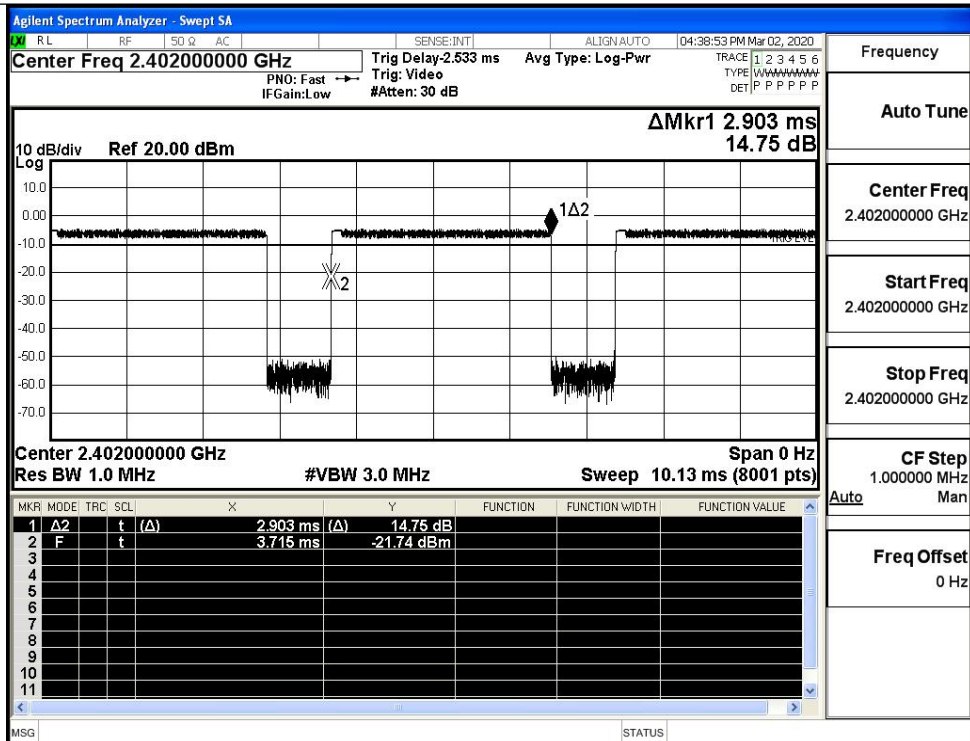
GFSK_DH5/MCH



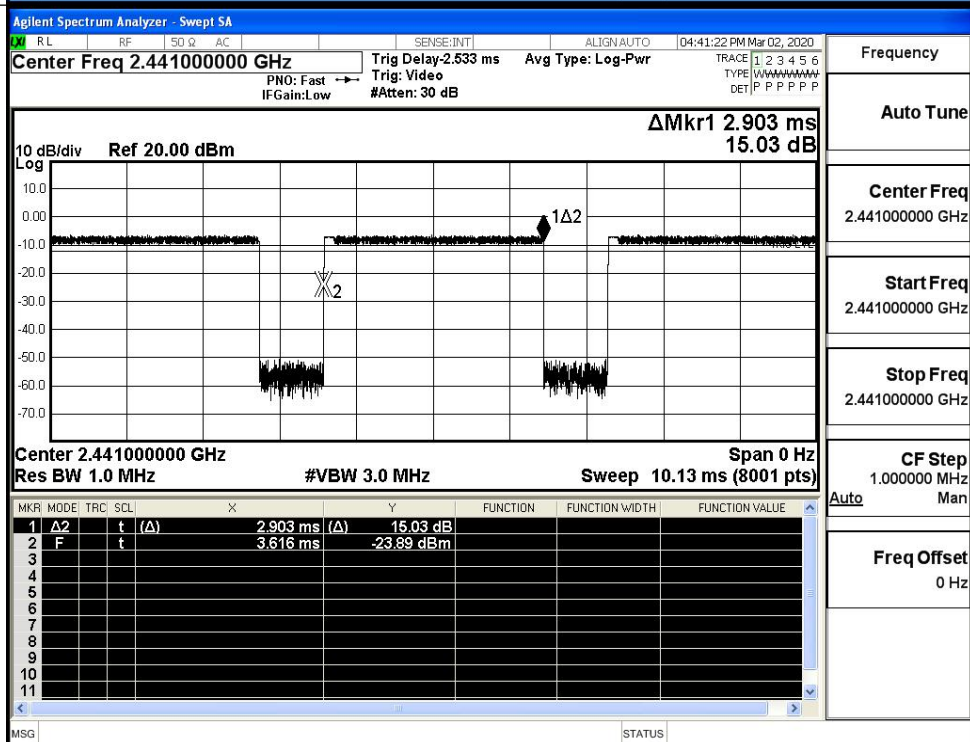
GFSK_DH5/HCH



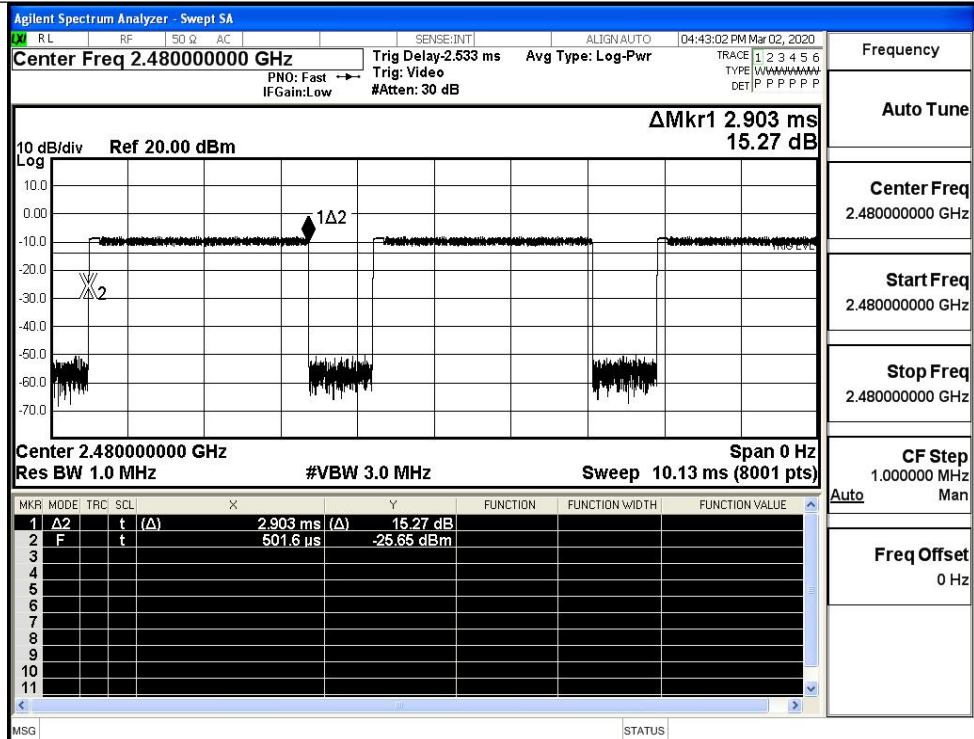
$\pi/4$ DQPSK
_2DH5/LCH



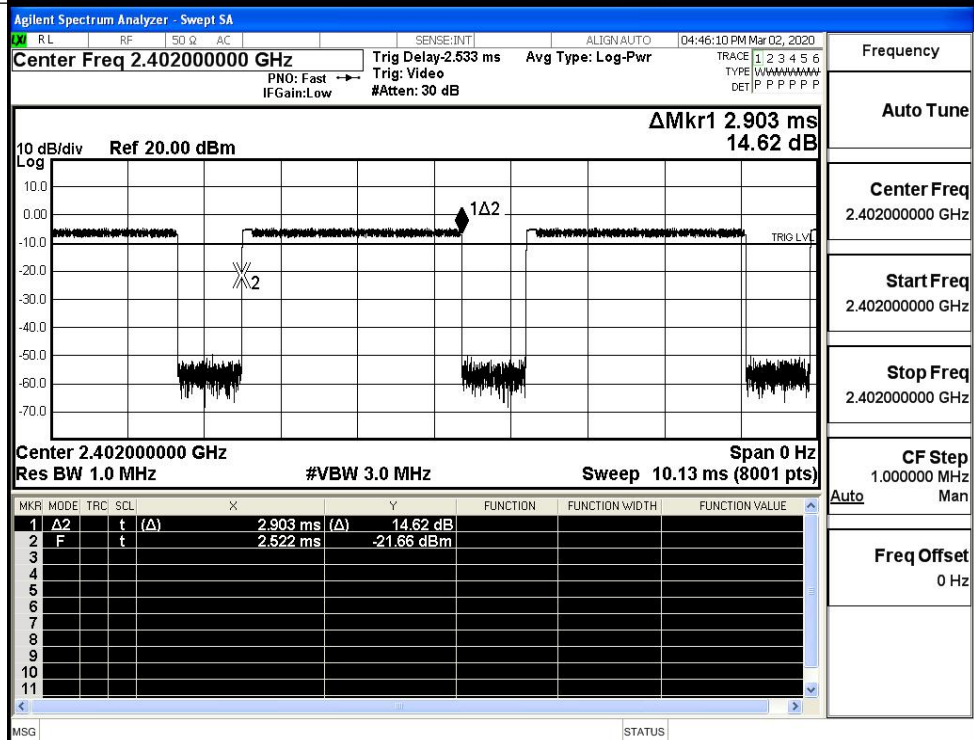
$\pi/4$ DQPSK
_2DH5/MCH



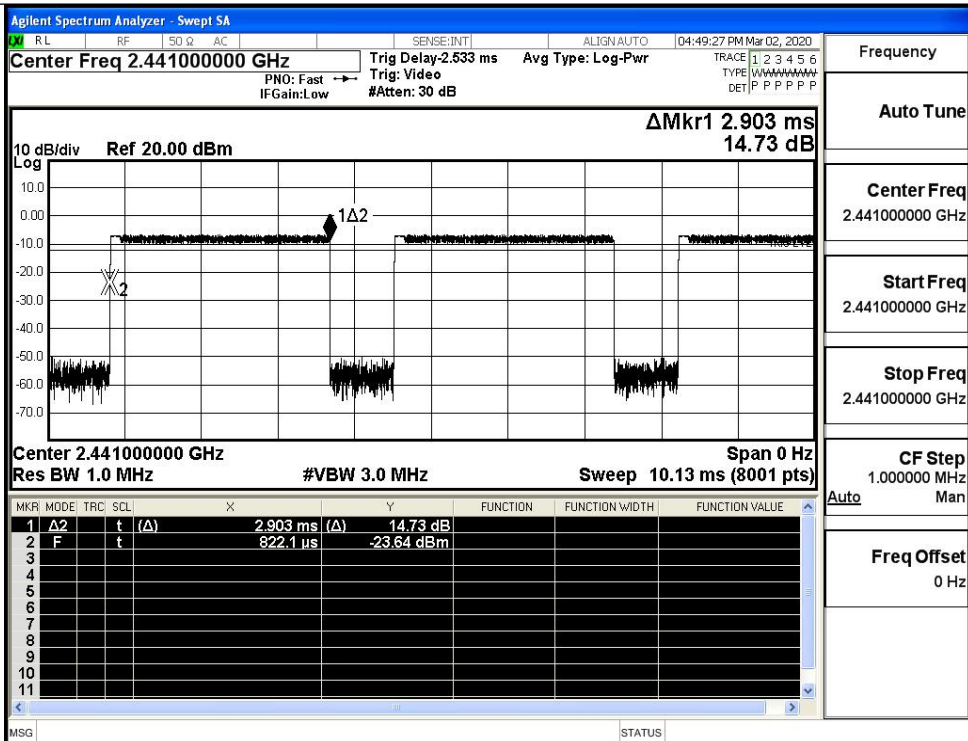
$\pi/4$ DQPSK
_2DH5/HCH



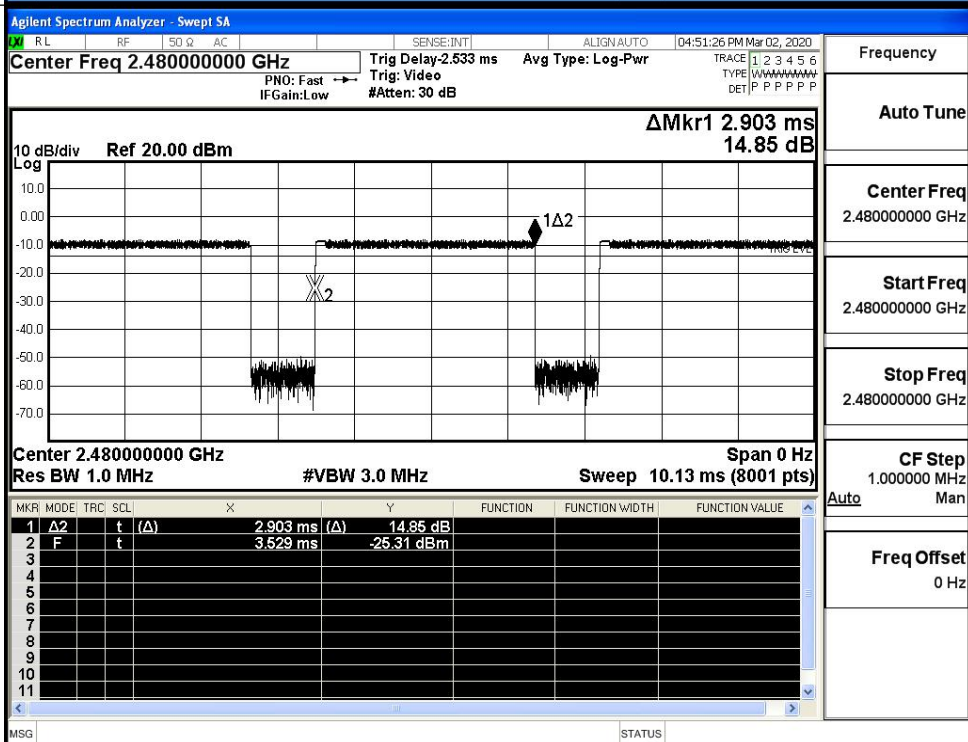
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH



A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.046	-37.664	-16.954	PASS
	MCH	1.105	-37.905	-18.895	PASS
	HCH	-0.9	-38.006	-20.900	PASS
$\pi/4$ DQPSK	LCH	2.264	-37.393	-17.736	PASS
	MCH	0.304	-38.150	-19.696	PASS
	HCH	-1.195	-38.289	-21.195	PASS
8DPSK	LCH	2.19	-37.978	-17.810	PASS
	MCH	0.359	-37.327	-19.641	PASS
	HCH	-1.243	-37.968	-21.243	PASS

GFSK LCH Graphs

Pref

