

Appendix A

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

Product Name: IP PHONE

Trade Mark: 

Test Model: UC924W

Environmental Conditions

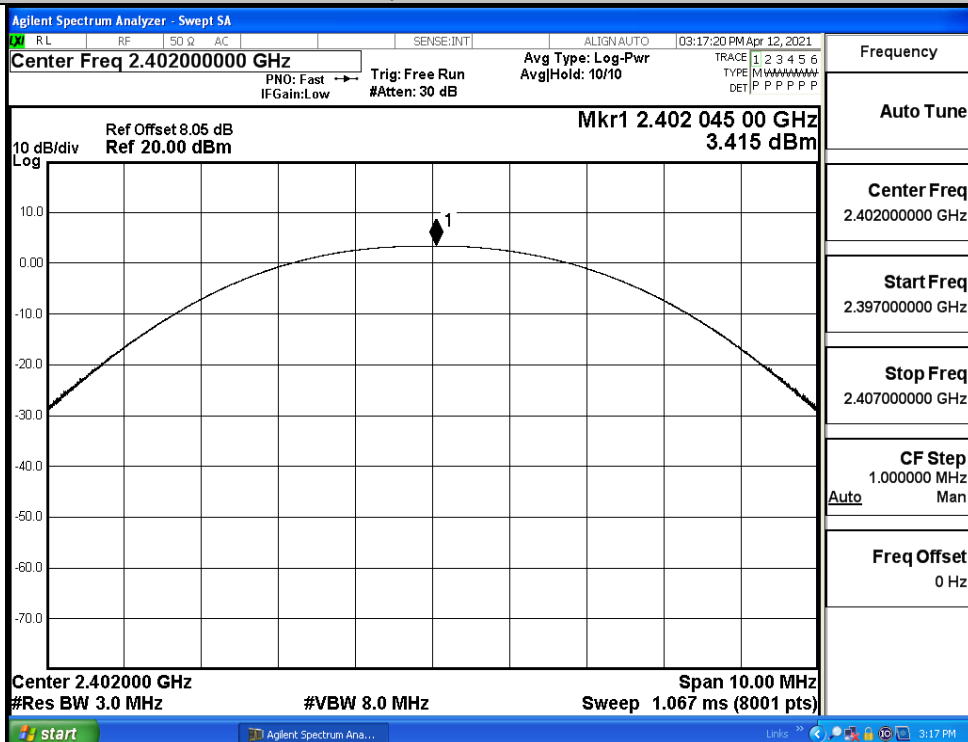
Temperature:	24.6 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

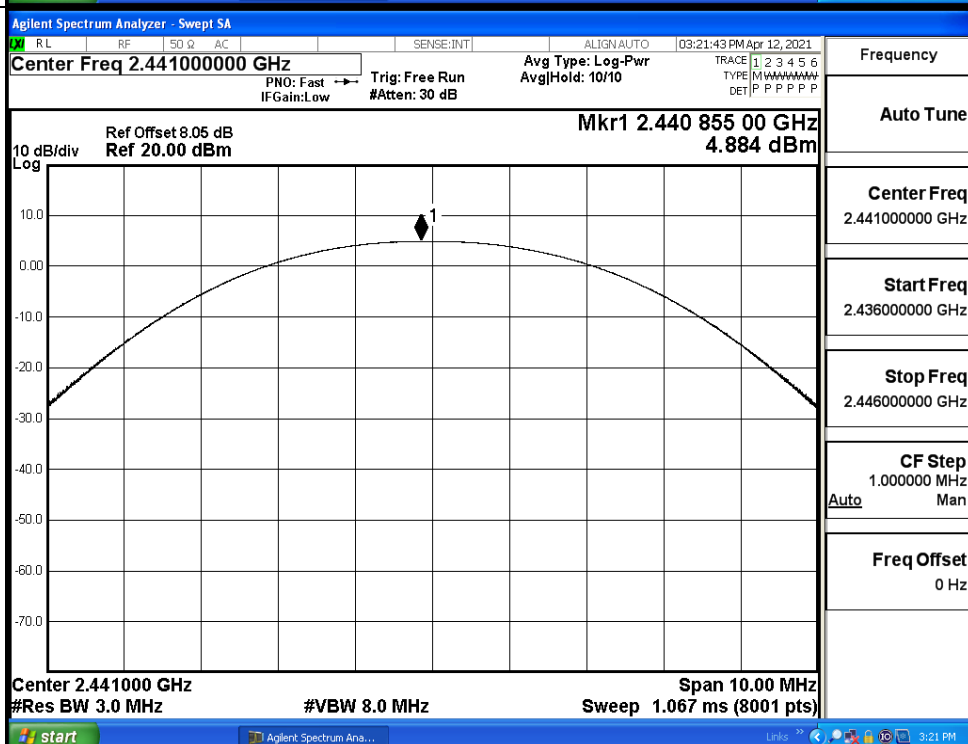
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.415	21	PASS
	MCH	4.884	21	PASS
	HCH	3.297	21	PASS
$\pi/4$ DQPSK	LCH	2.593	21	PASS
	MCH	4.082	21	PASS
	HCH	2.541	21	PASS
8DPSK	LCH	2.728	21	PASS
	MCH	4.259	21	PASS
	HCH	2.741	21	PASS

Test Graphs

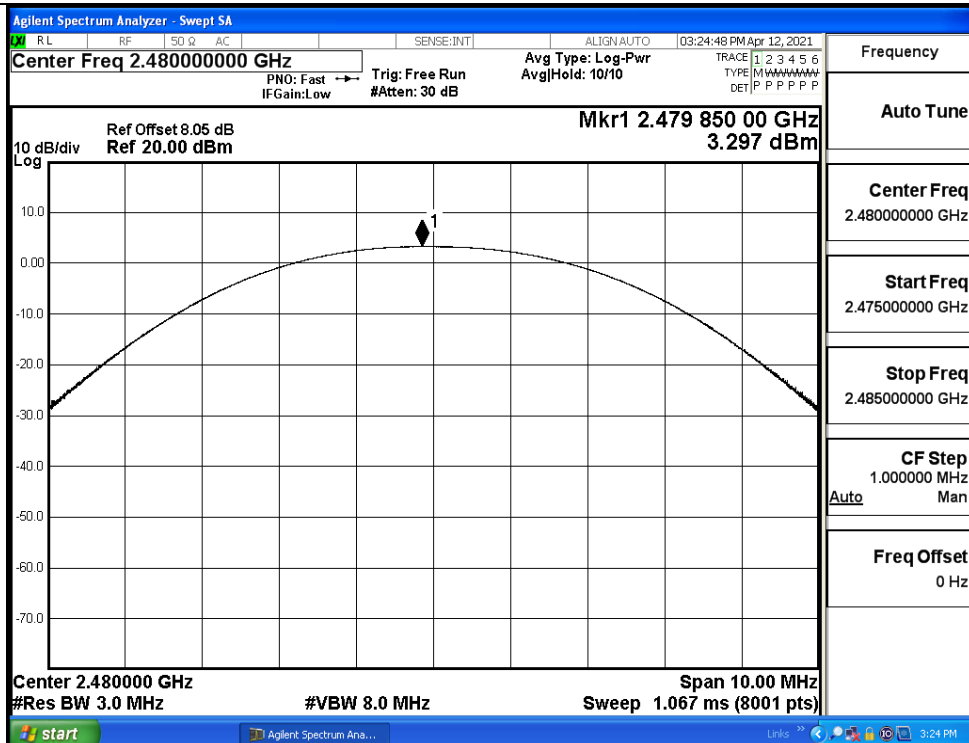
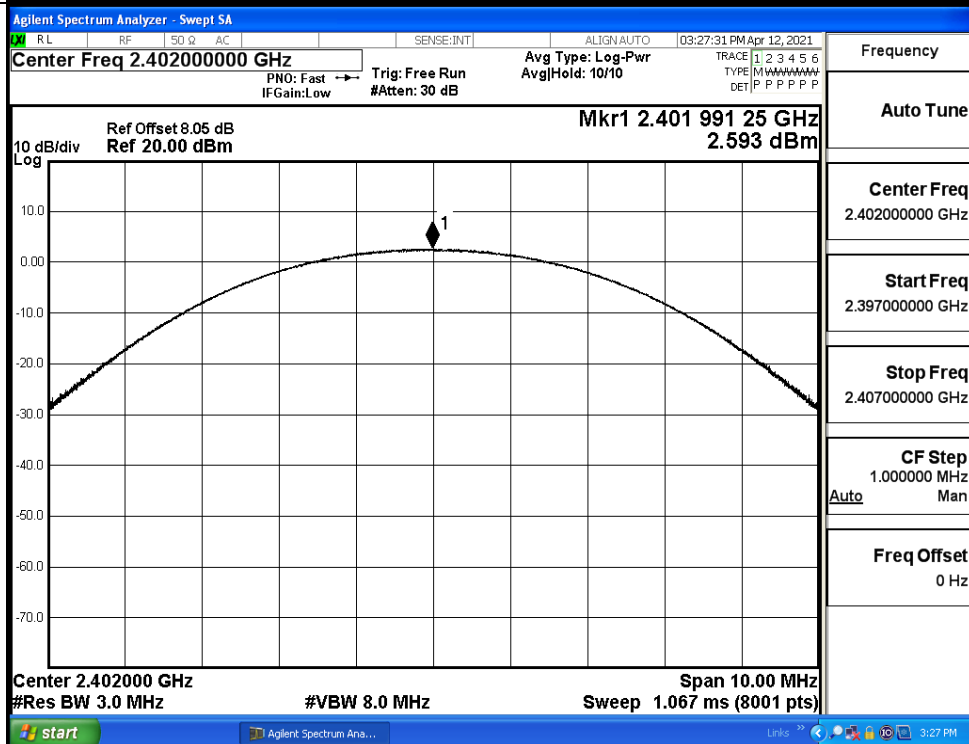
GFSK/LCH

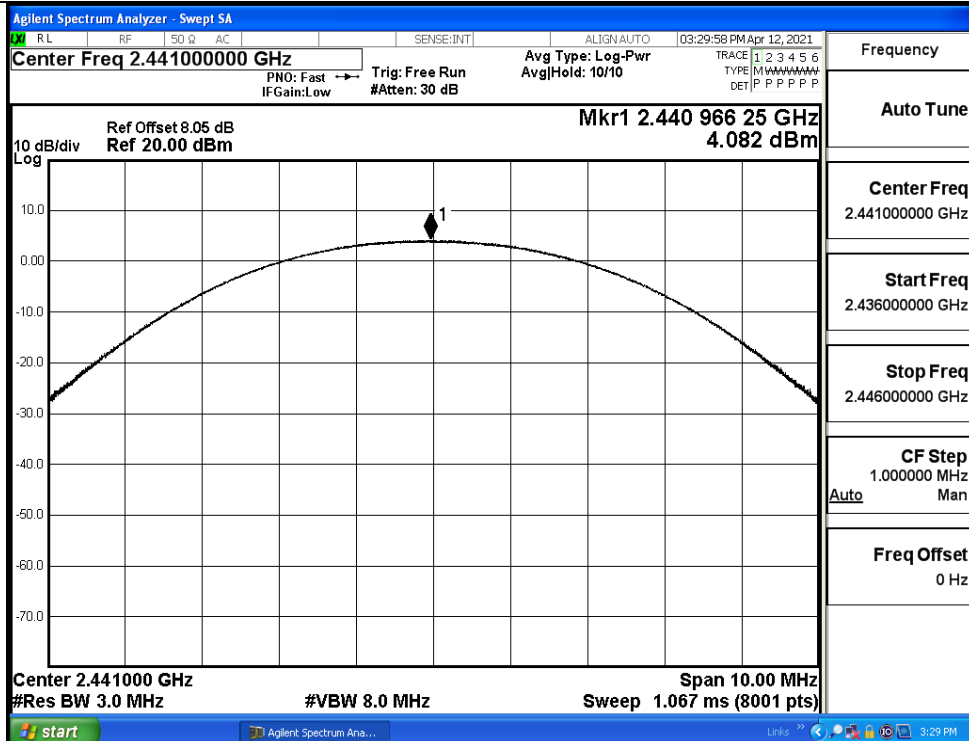
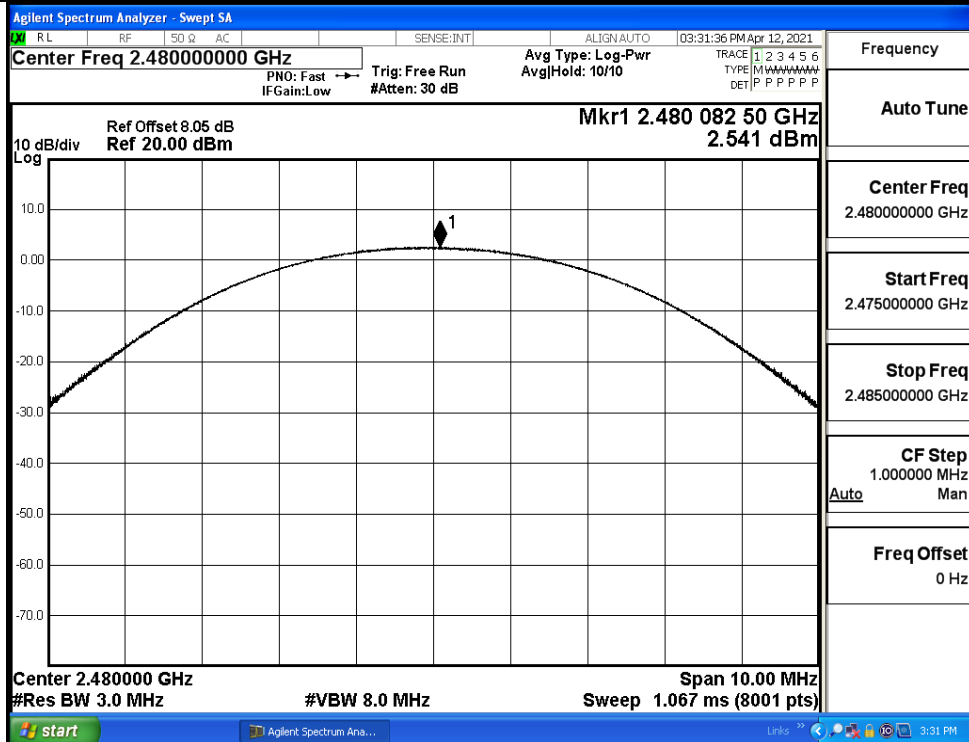


GFSK/MCH

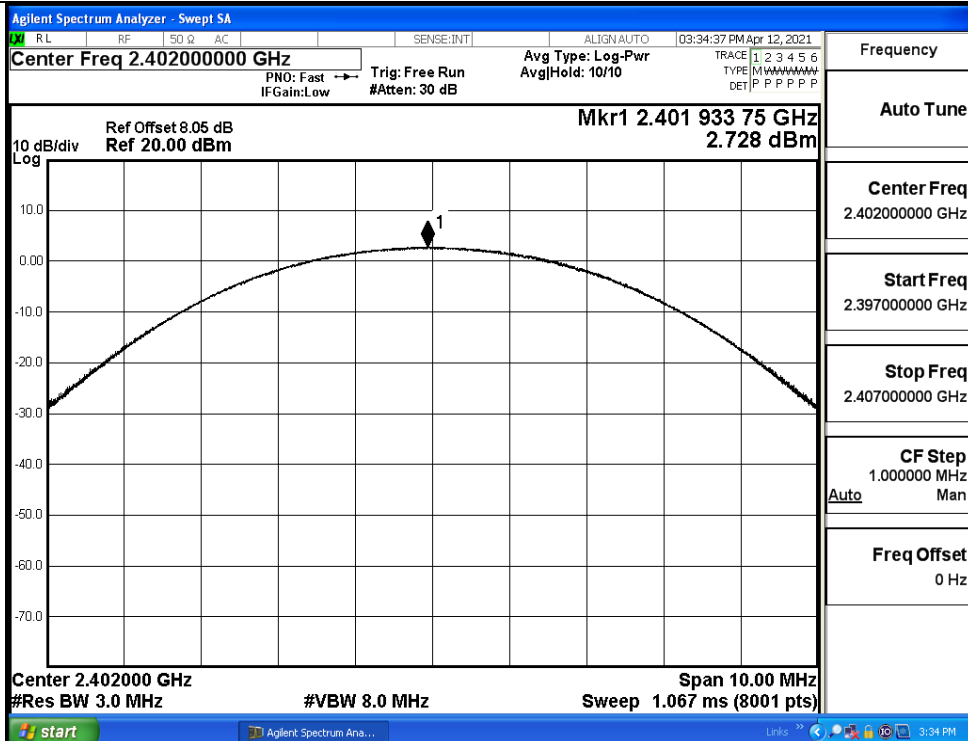


GFSK/HCH

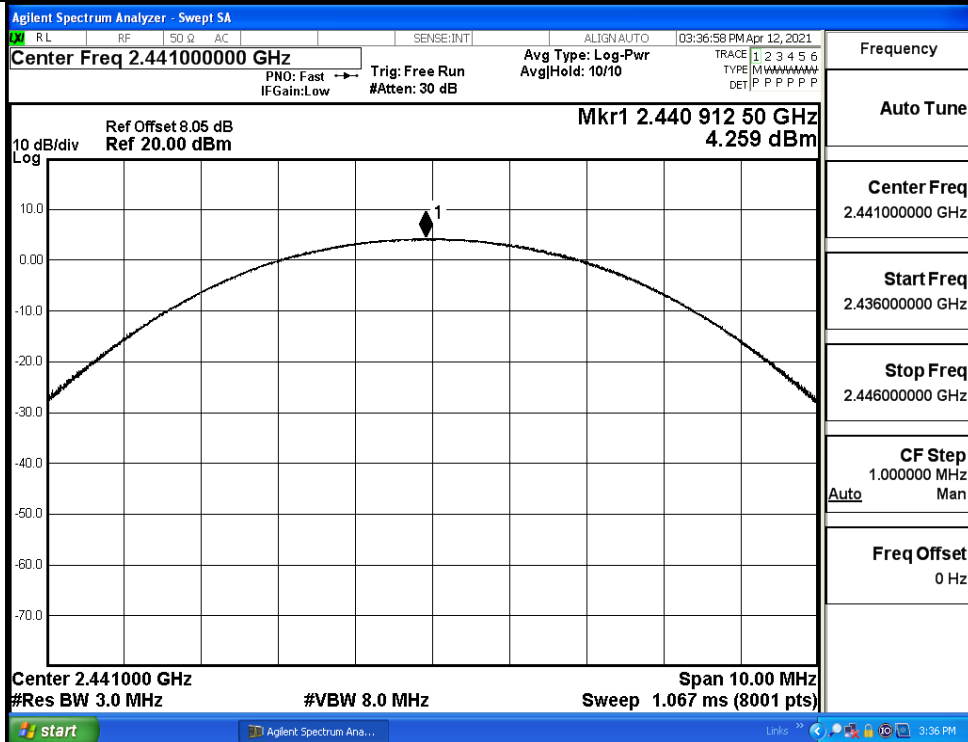
 $\pi/4$ DQPSK/LCH

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

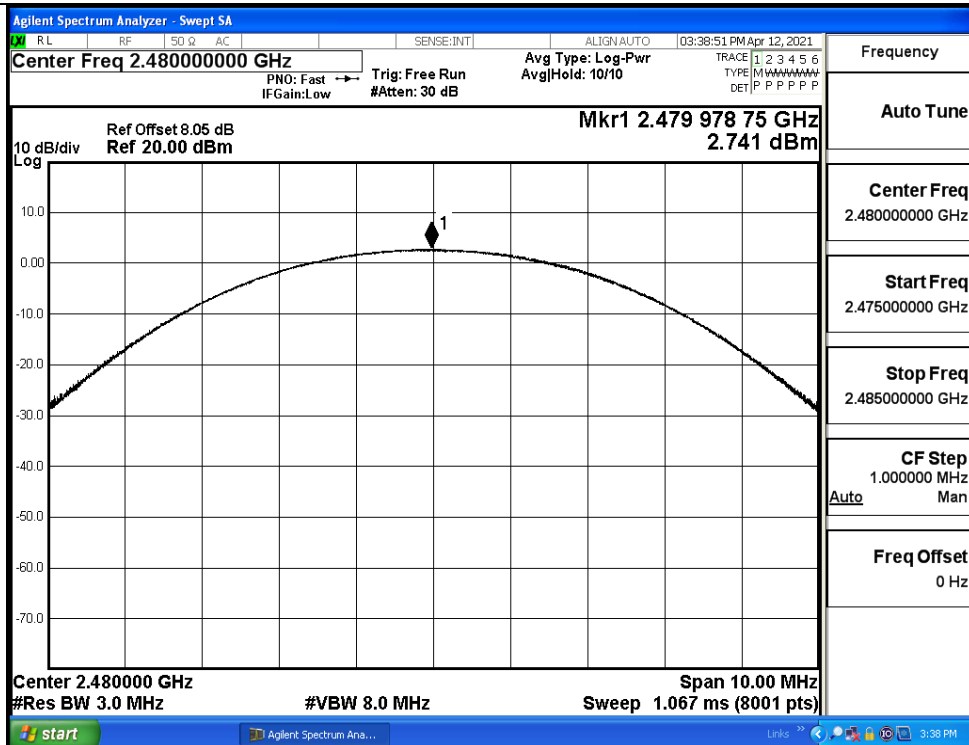
8DPSK/LCH



8DPSK/MCH



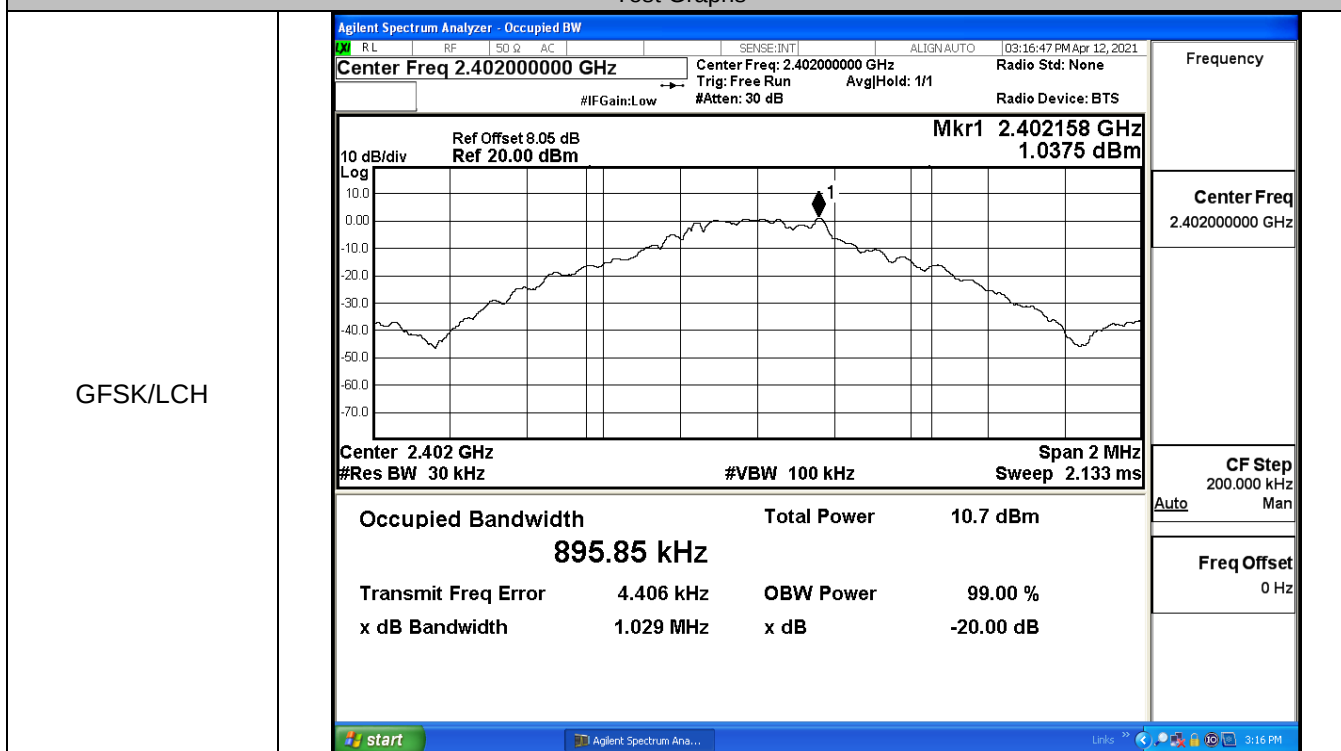
8DPSK/HCH



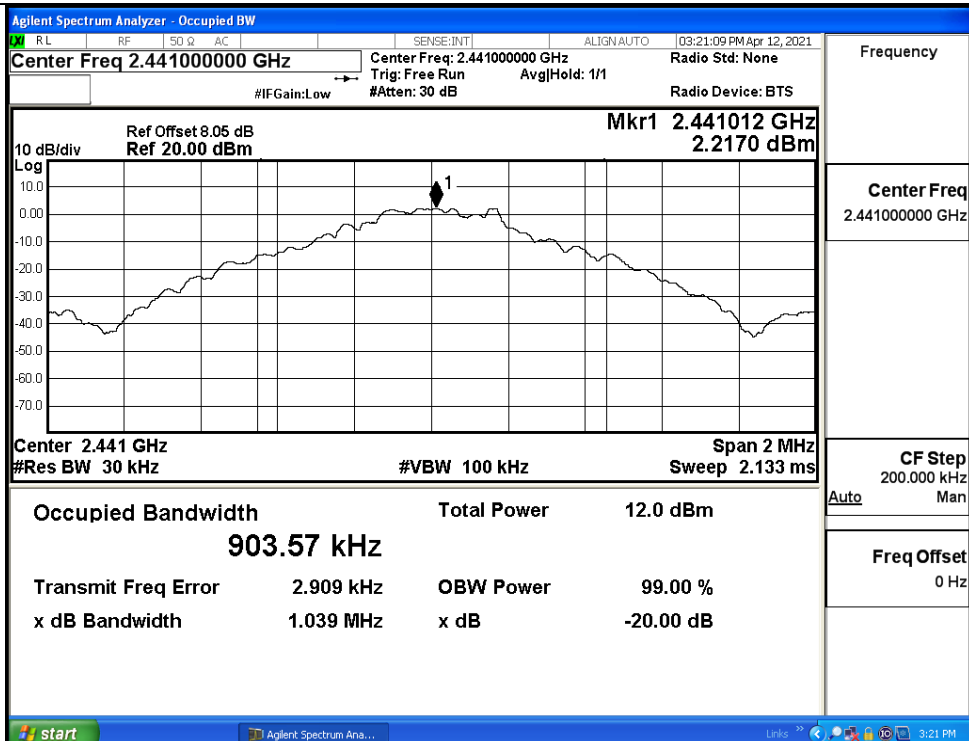
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.029	Not Specified	PASS
	MCH	1.039	Not Specified	PASS
	HCH	1.031	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.291	Not Specified	PASS
	MCH	1.288	Not Specified	PASS
	HCH	1.288	Not Specified	PASS
8DPSK	LCH	1.290	Not Specified	PASS
	MCH	1.292	Not Specified	PASS
	HCH	1.293	Not Specified	PASS

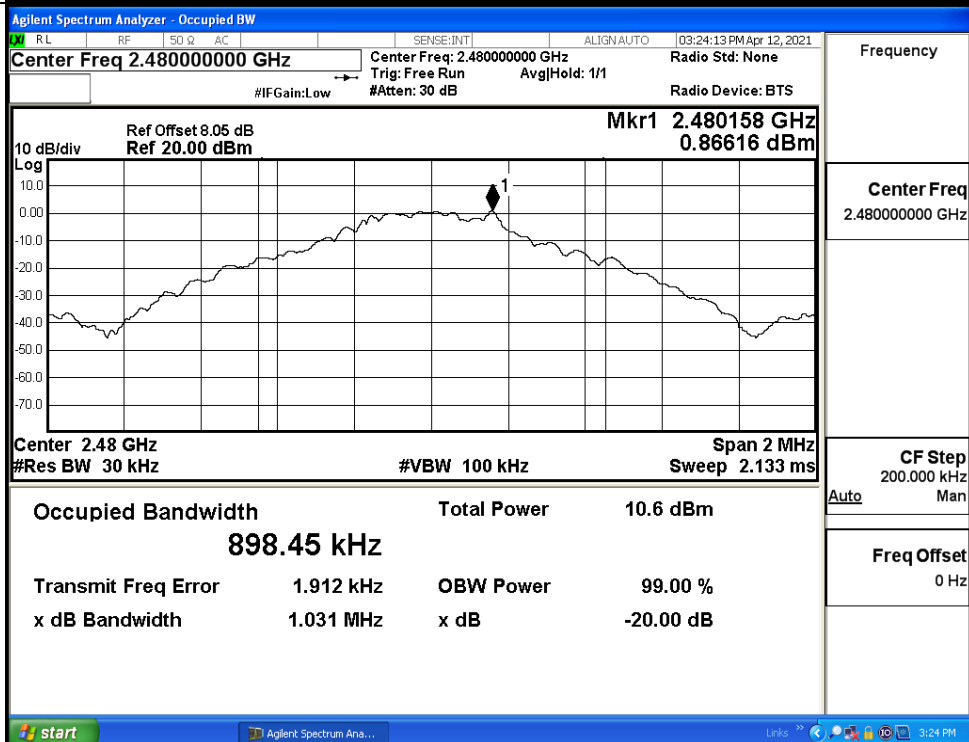
Test Graphs

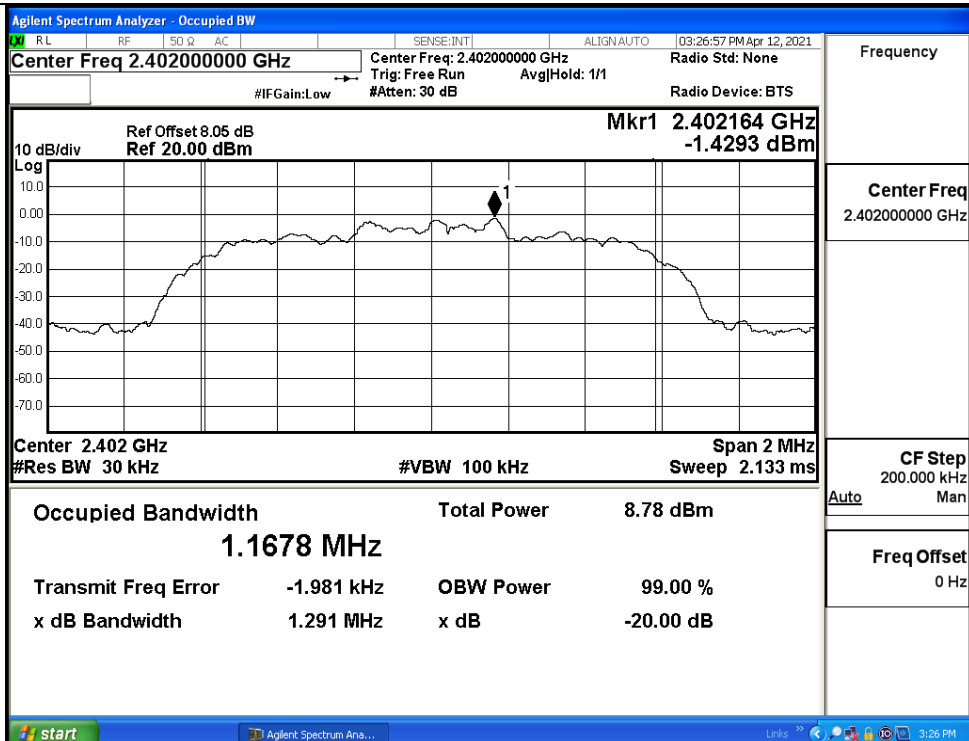
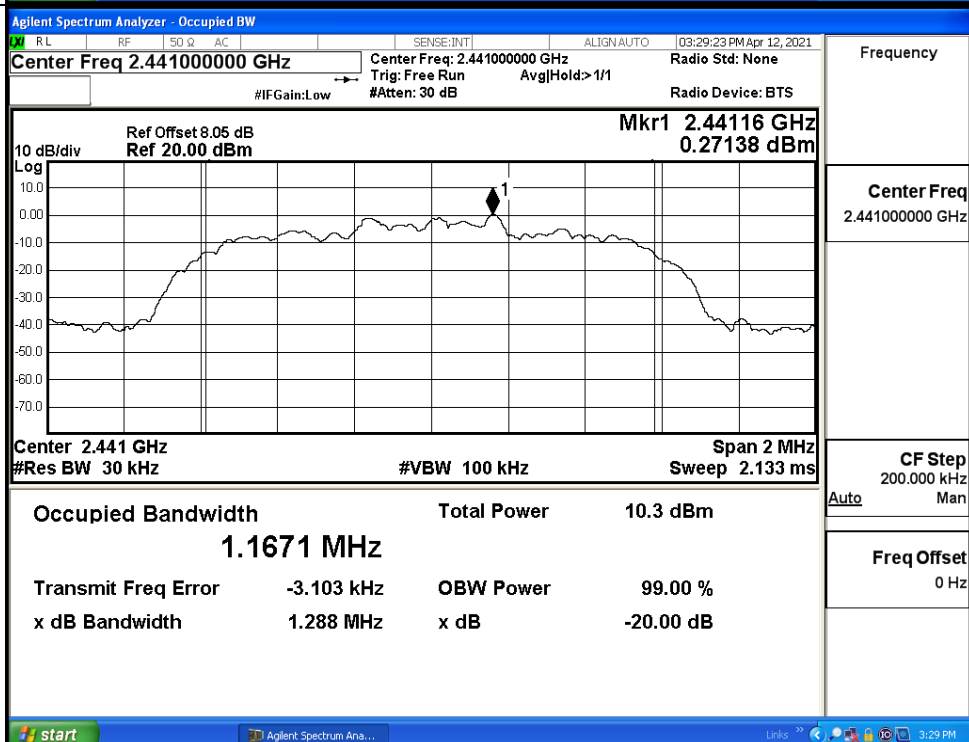


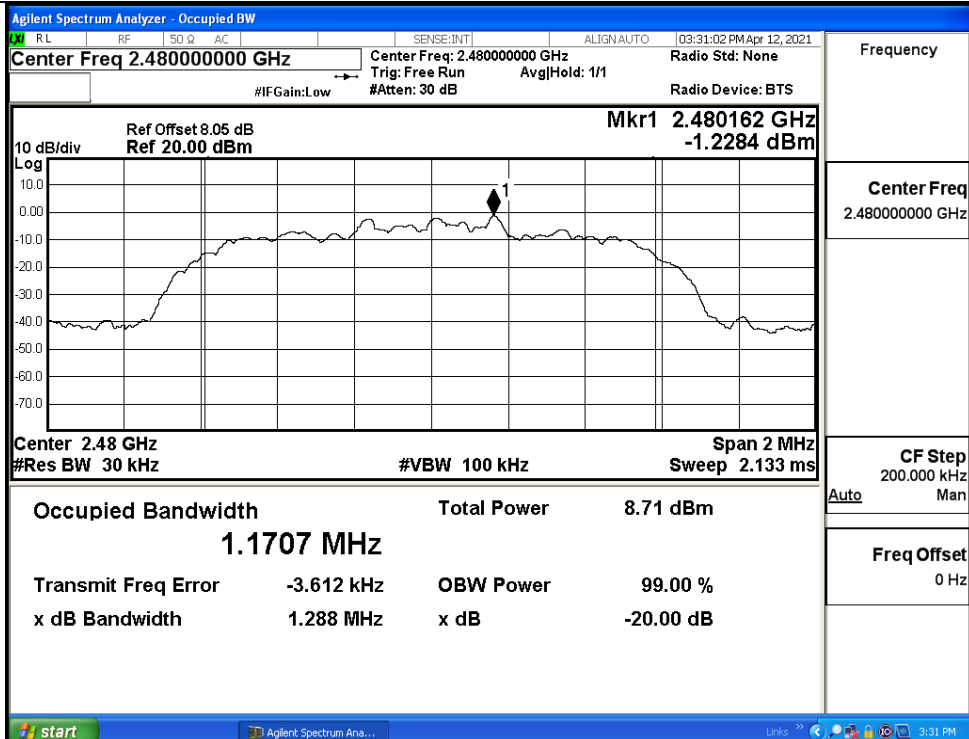
GFSK/MCH



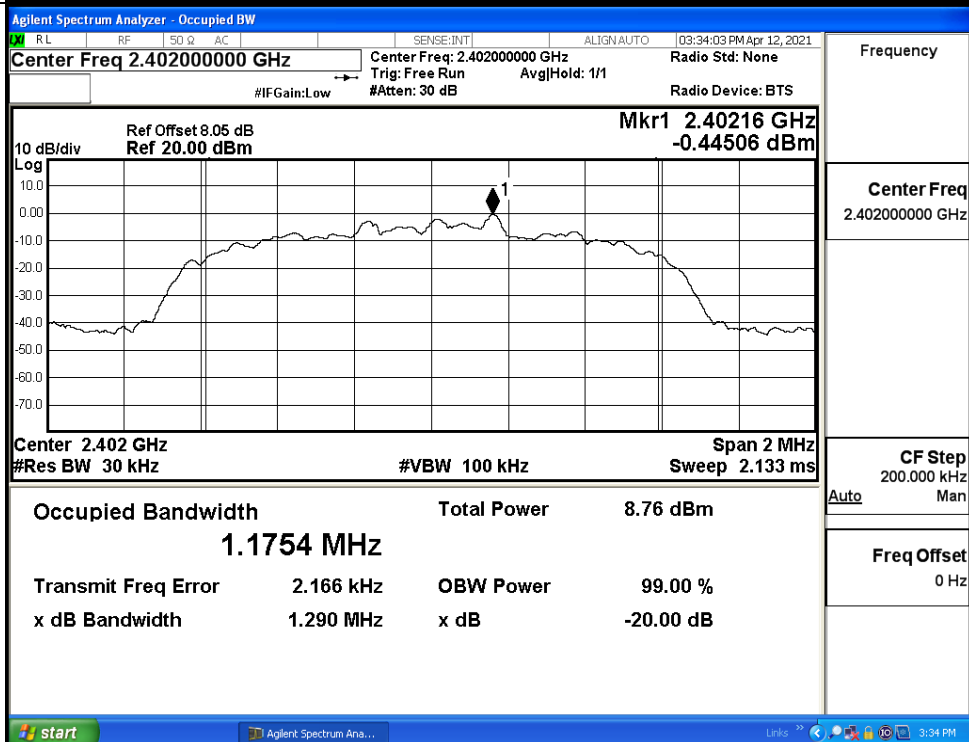
GFSK/HCH



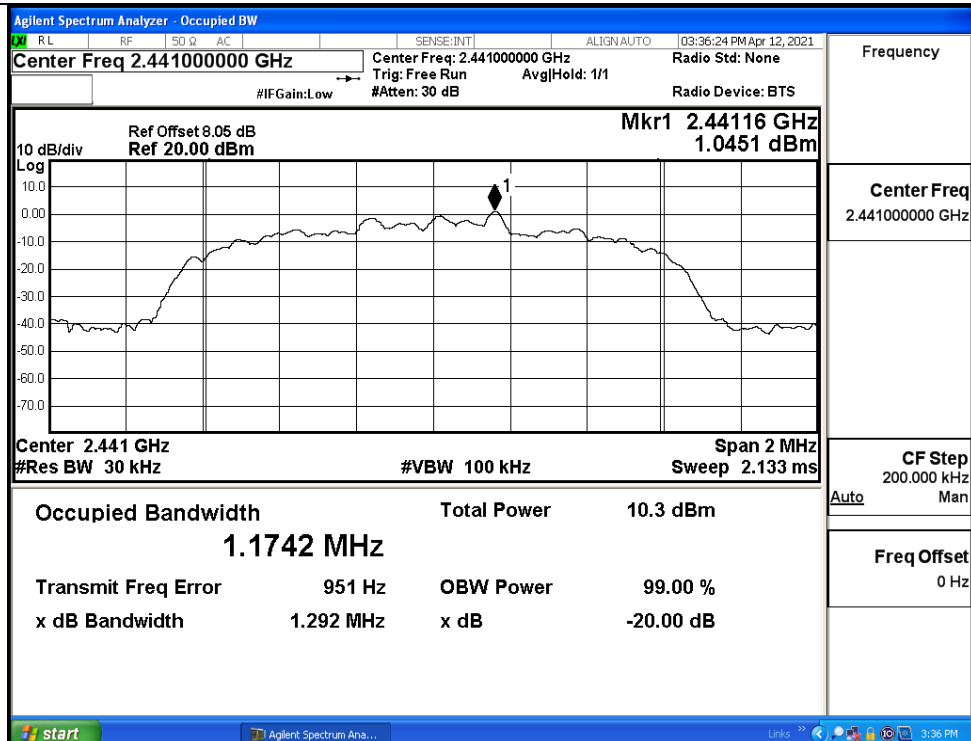
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

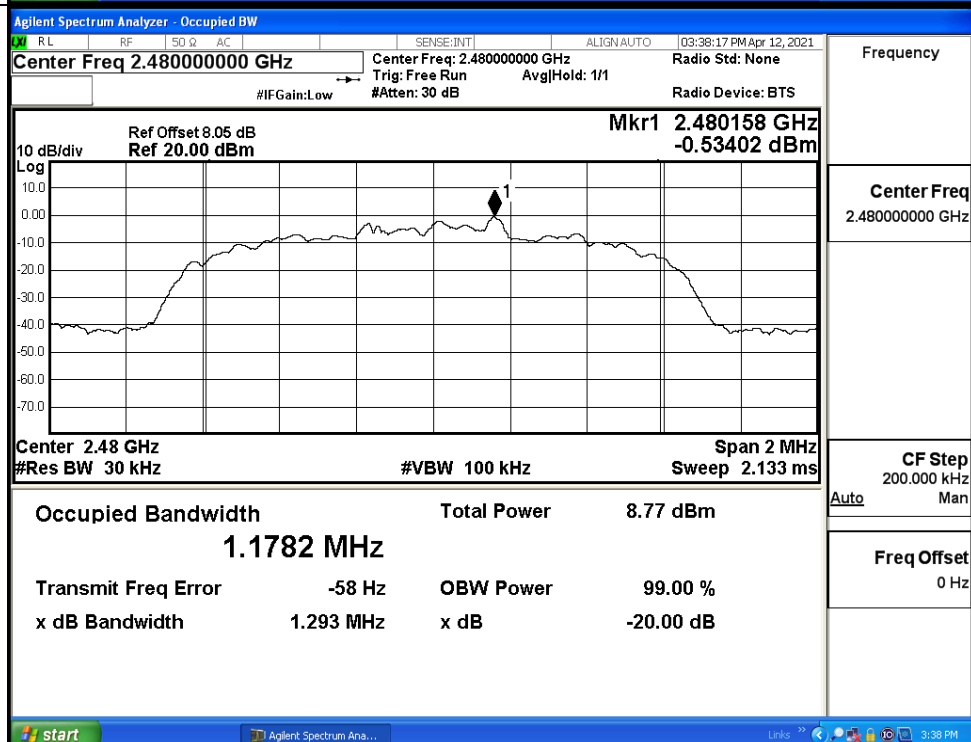
8DPSK/LCH



8DPSK/MCH



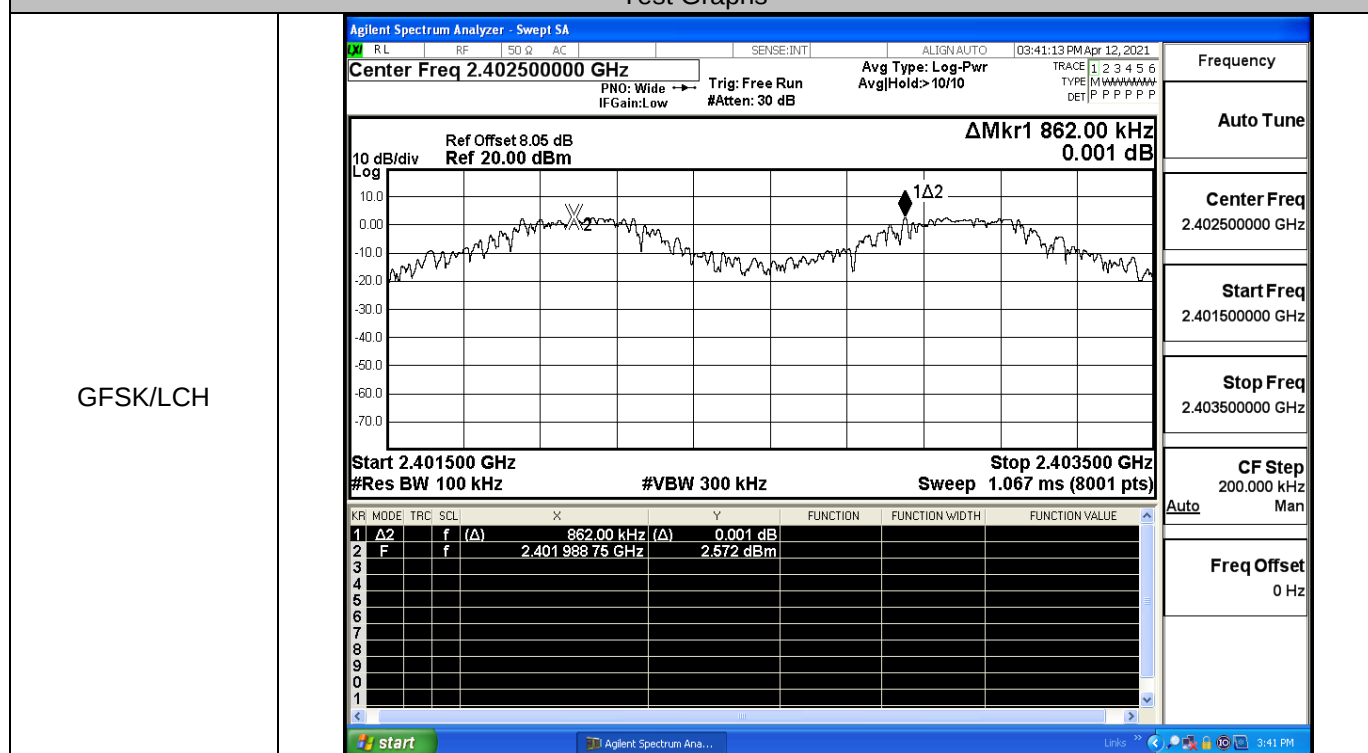
8DPSK/HCH



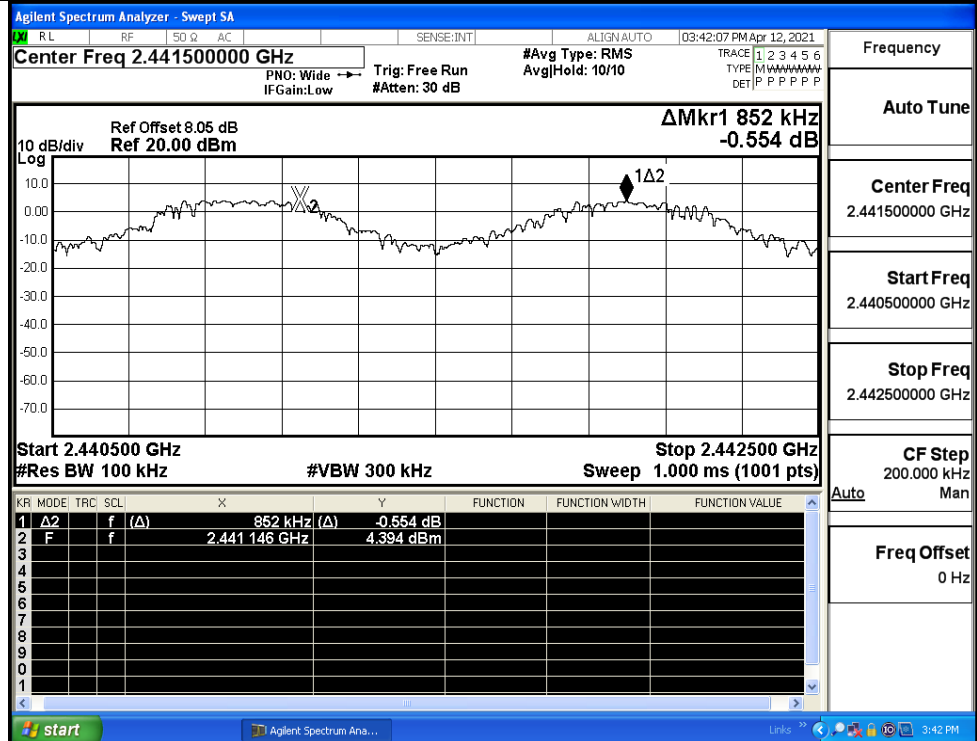
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.862	0.693	PASS
	MCH	0.852	0.693	PASS
	HCH	0.886	0.693	PASS
$\pi/4$ DQPSK	LCH	0.994	0.861	PASS
	MCH	1.064	0.861	PASS
	HCH	1.100	0.861	PASS
8DPSK	LCH	1.046	0.862	PASS
	MCH	1.292	0.862	PASS
	HCH	1.216	0.862	PASS

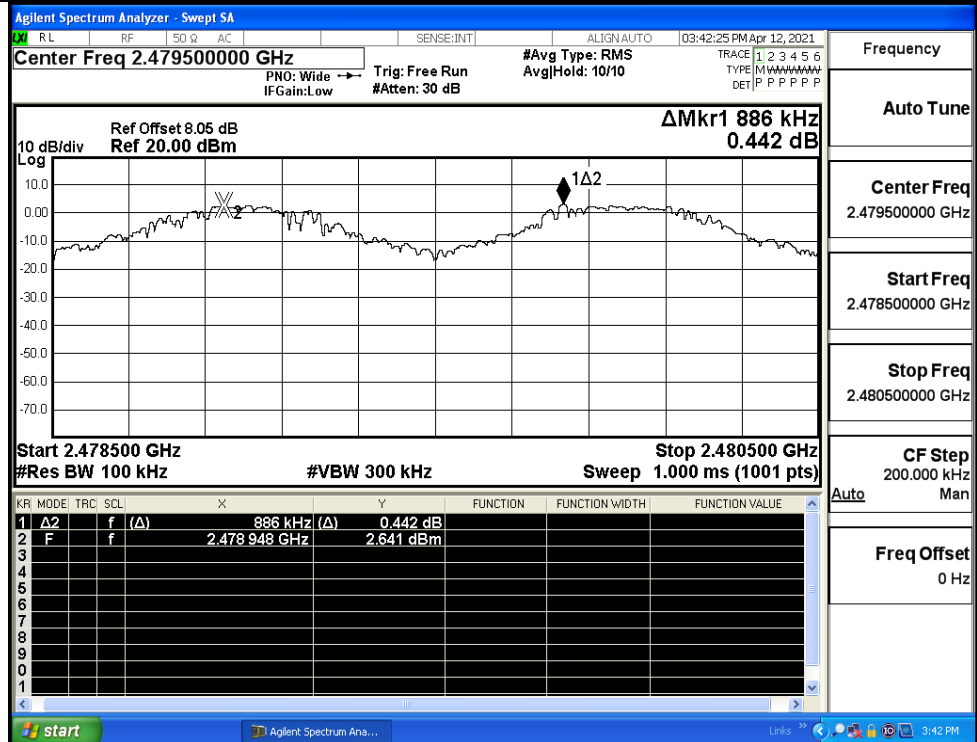
Test Graphs

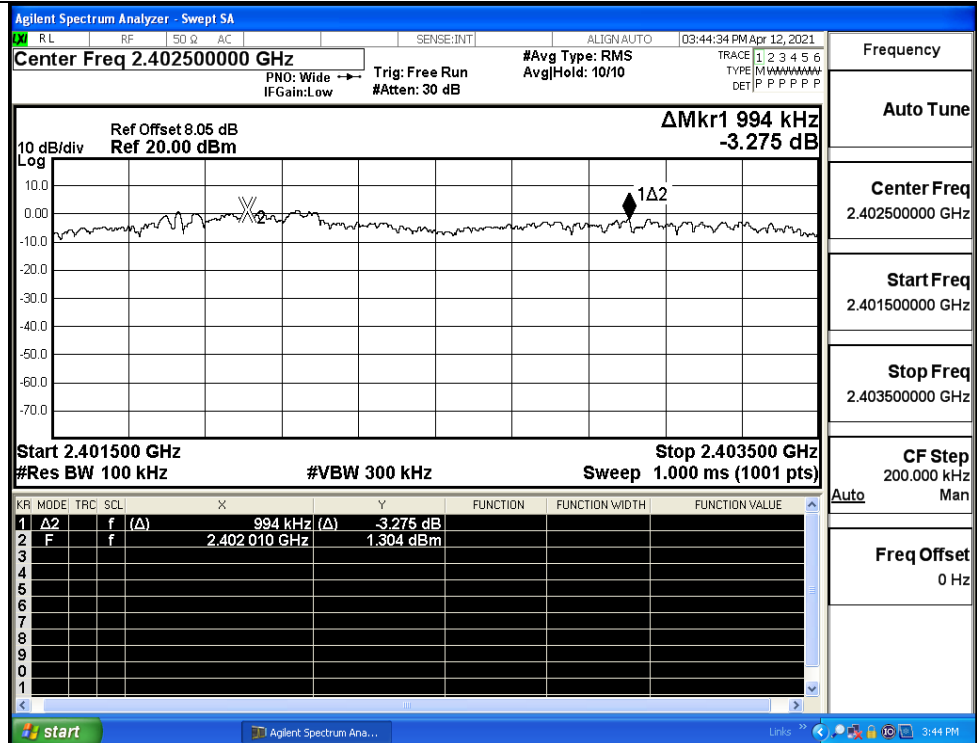
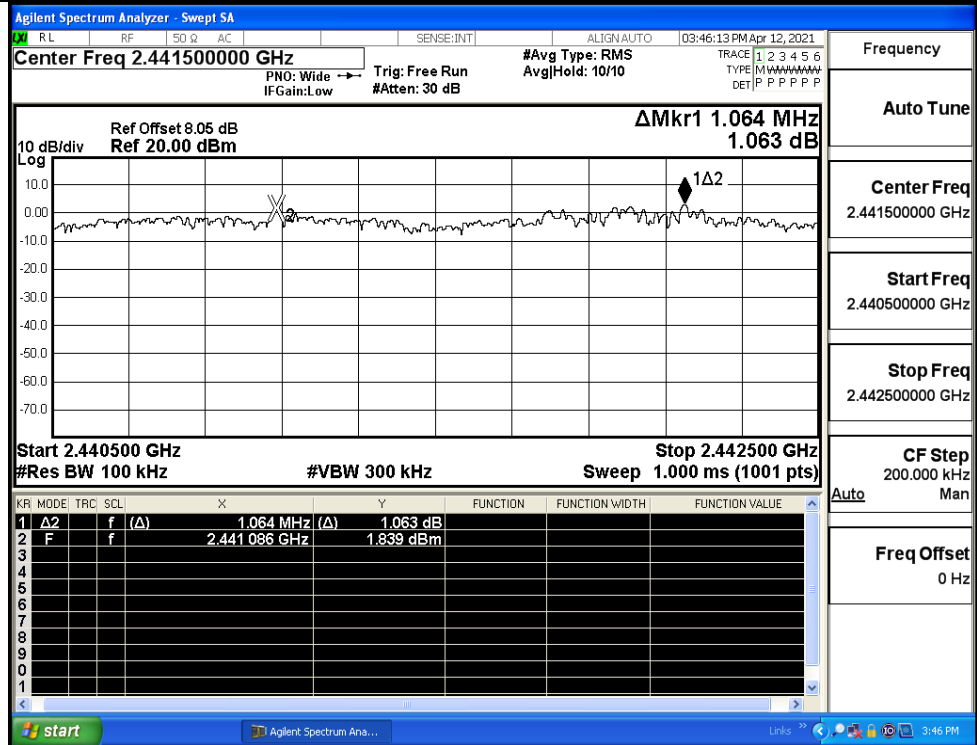


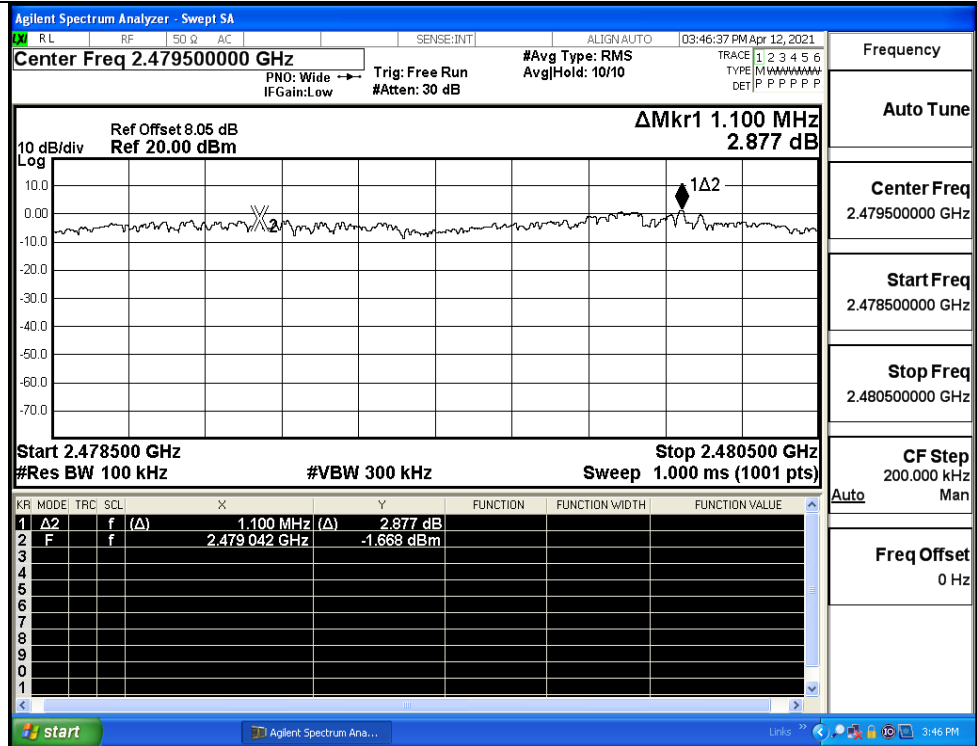
GFSK/MCH



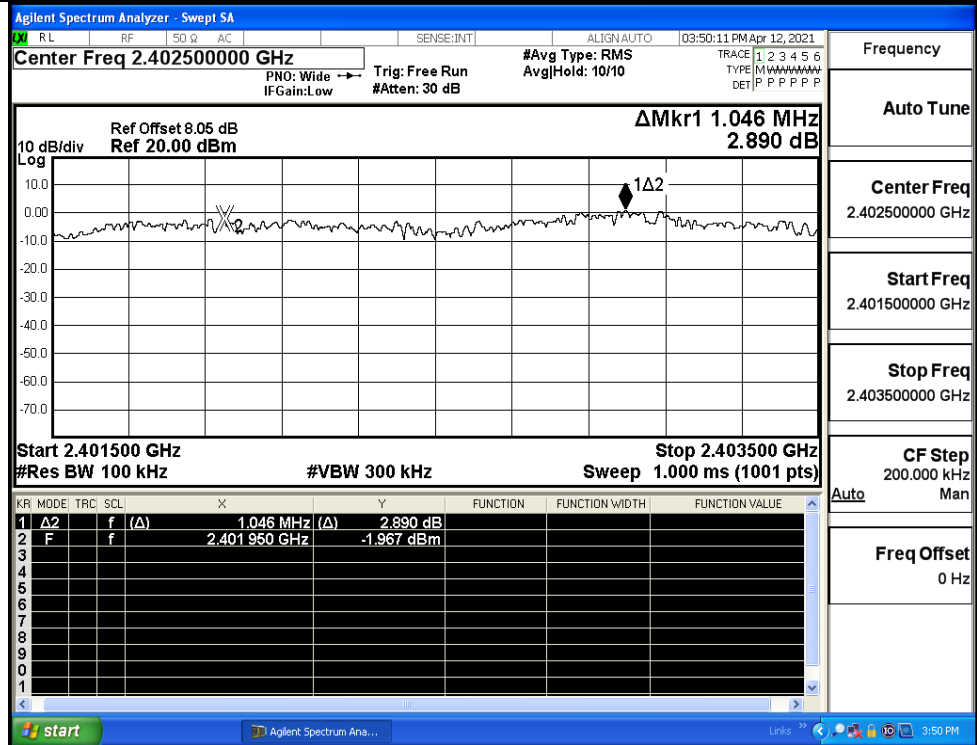
GFSK/HCH



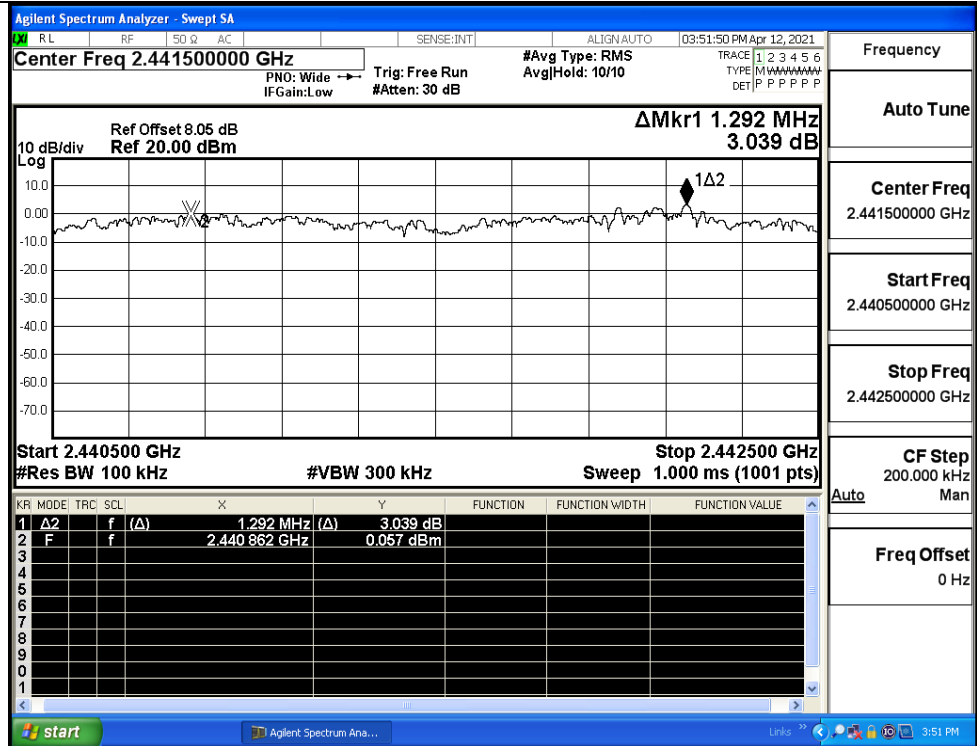
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

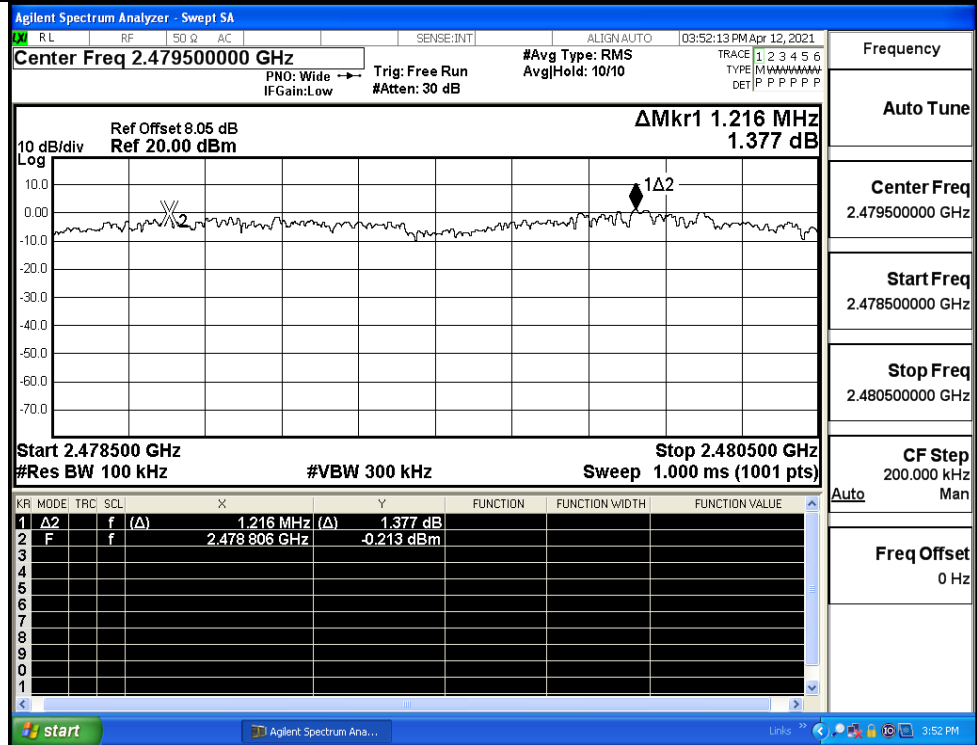
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

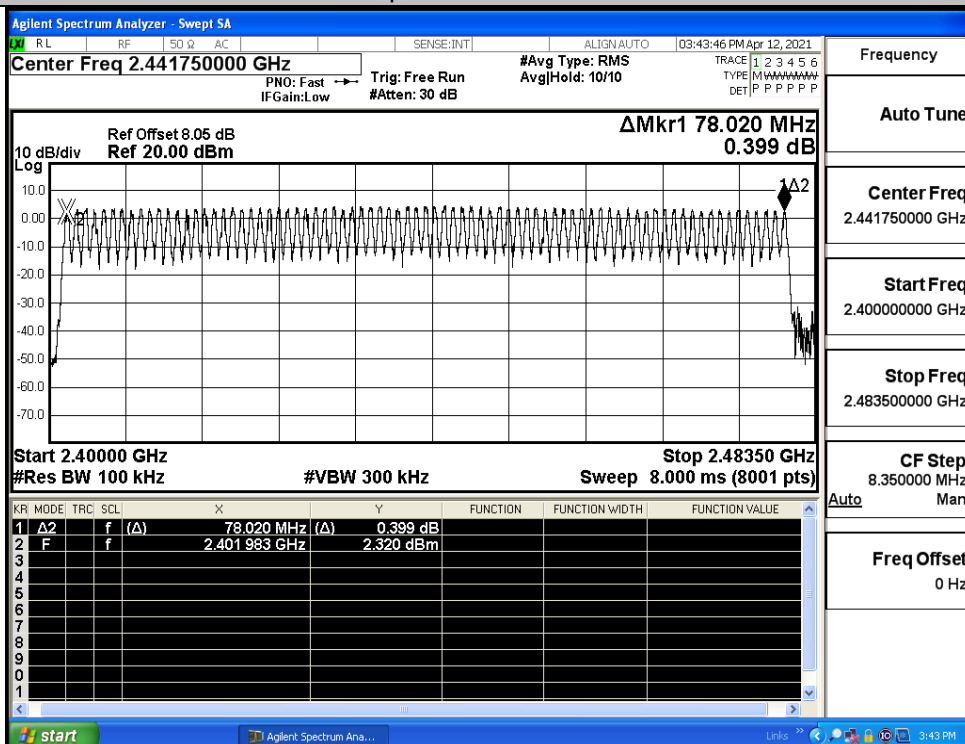
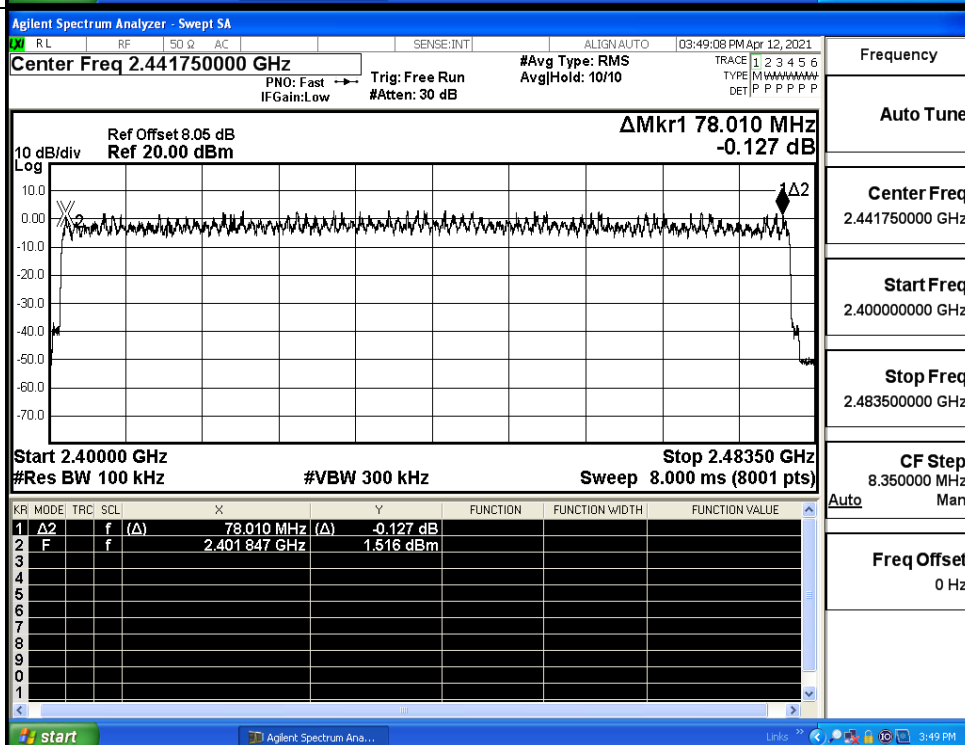


A.4 Hopping Channel Number

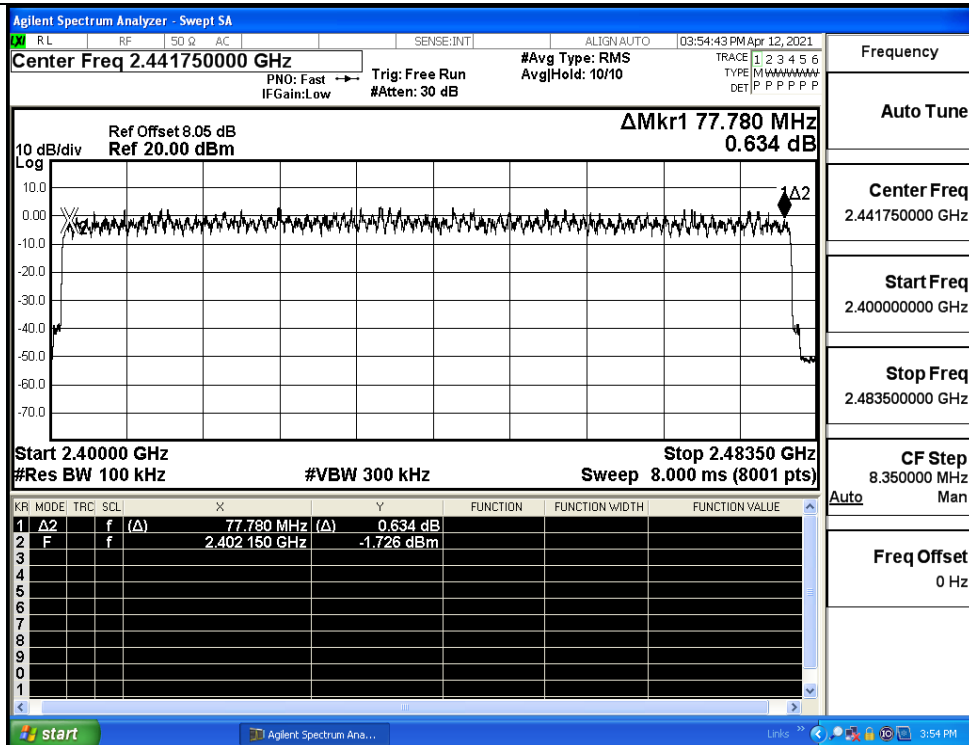
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS
8DPSK	Hop	79	≥ 15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

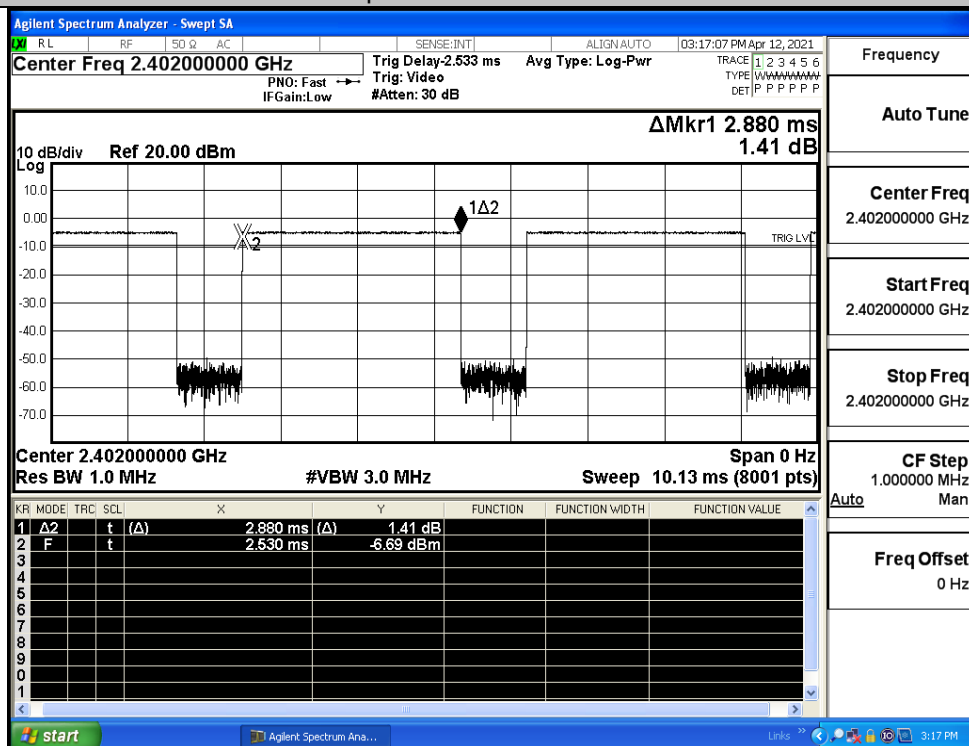


A.5 Dwell Time

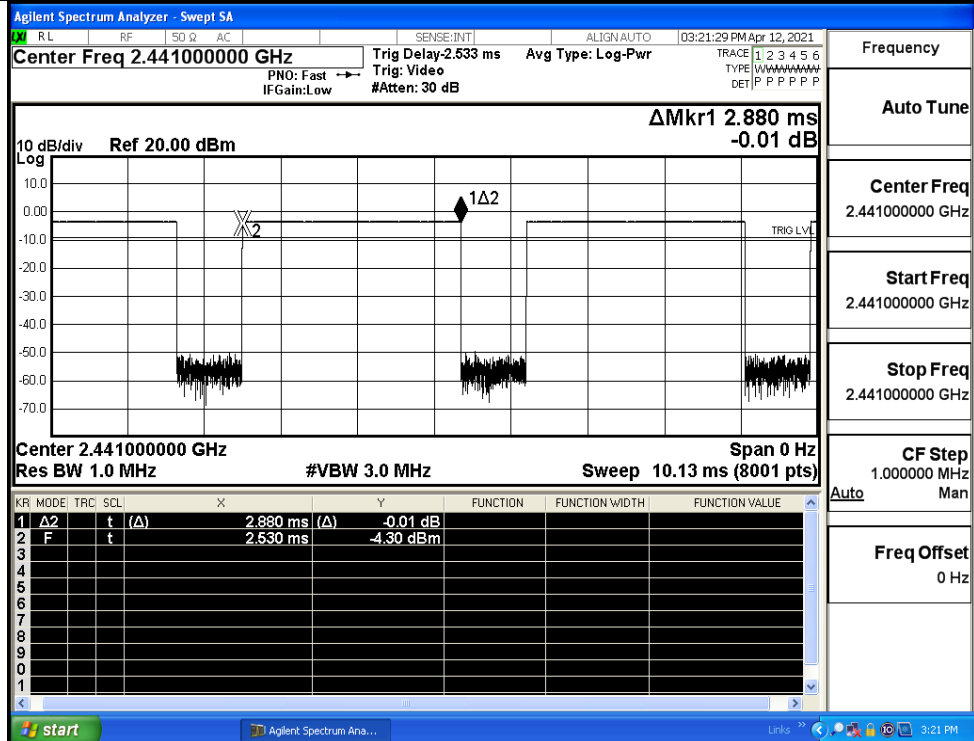
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

Test Graphs

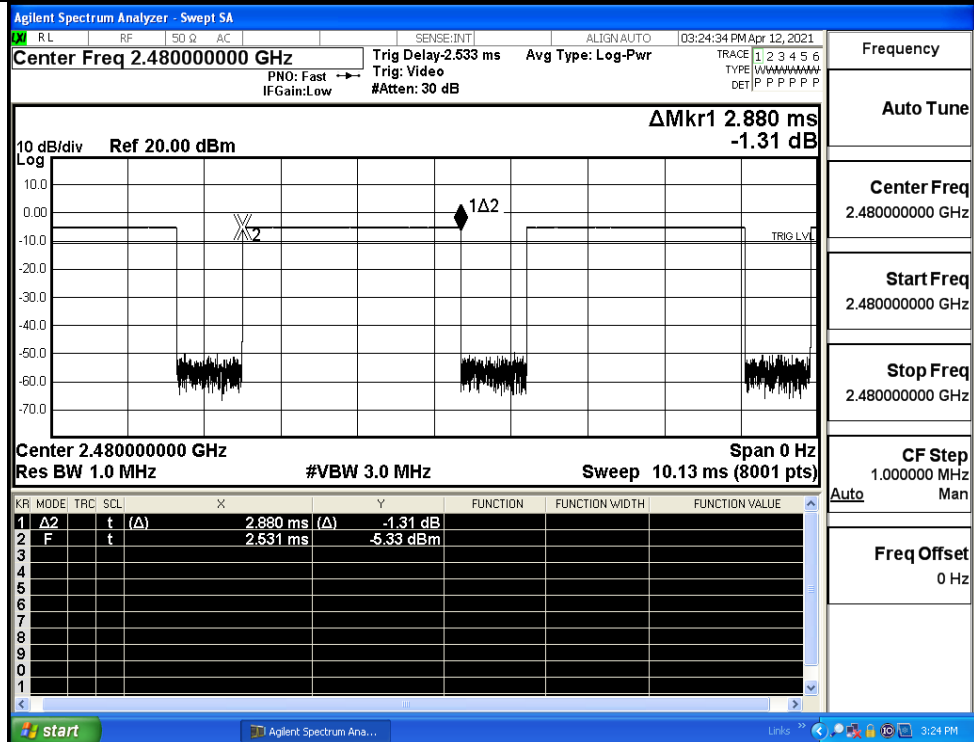
GFSK_DH5/LCH



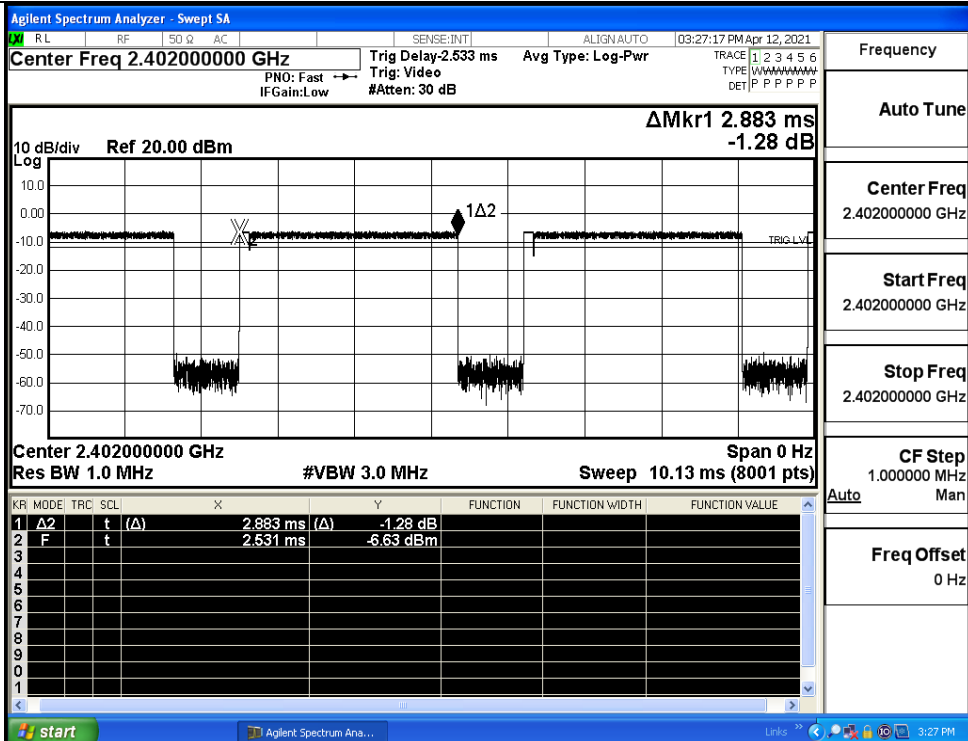
GFSK_DH5/MCH



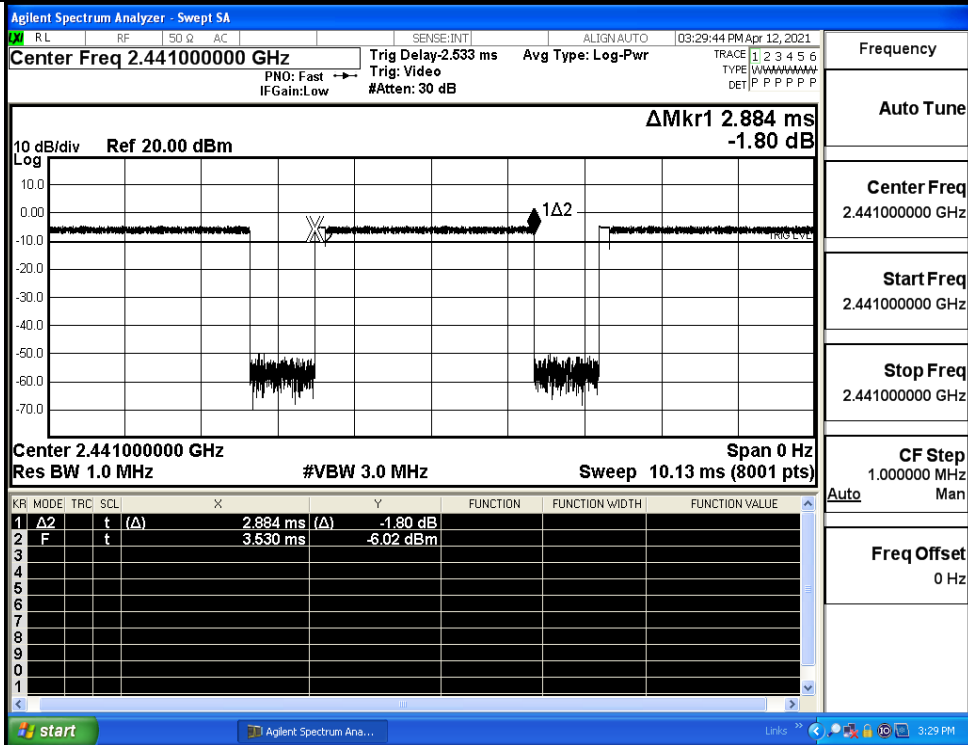
GFSK_DH5/HCH



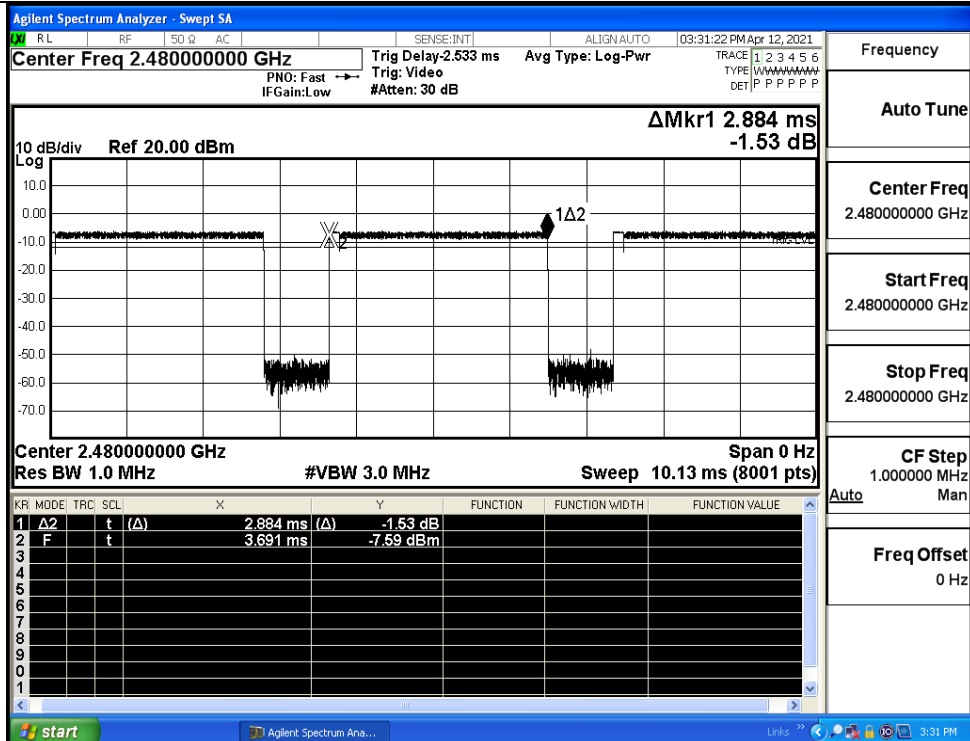
$\pi/4$ DQPSK
_2DH5/LCH



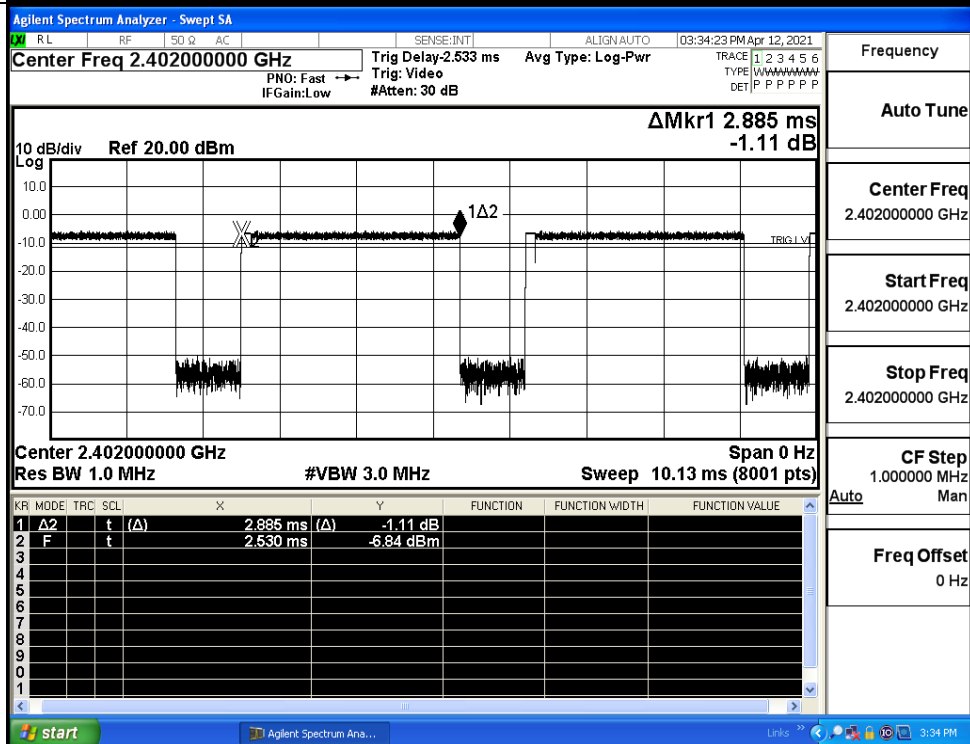
$\pi/4$ DQPSK
_2DH5/MCH



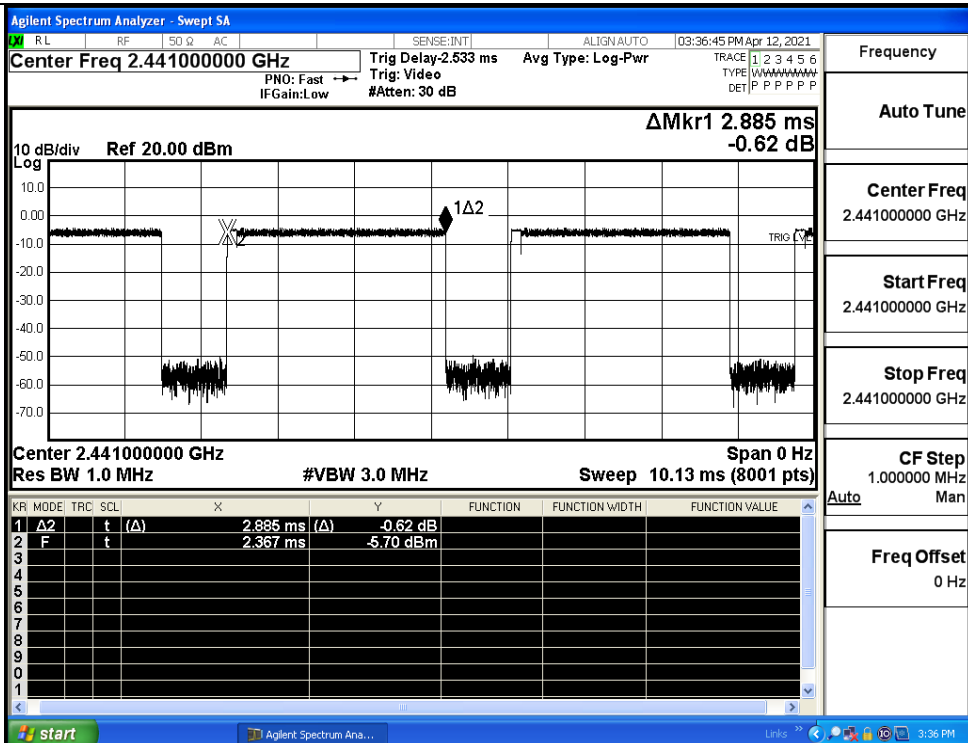
$\pi/4$ DQPSK
_2DH5/HCH



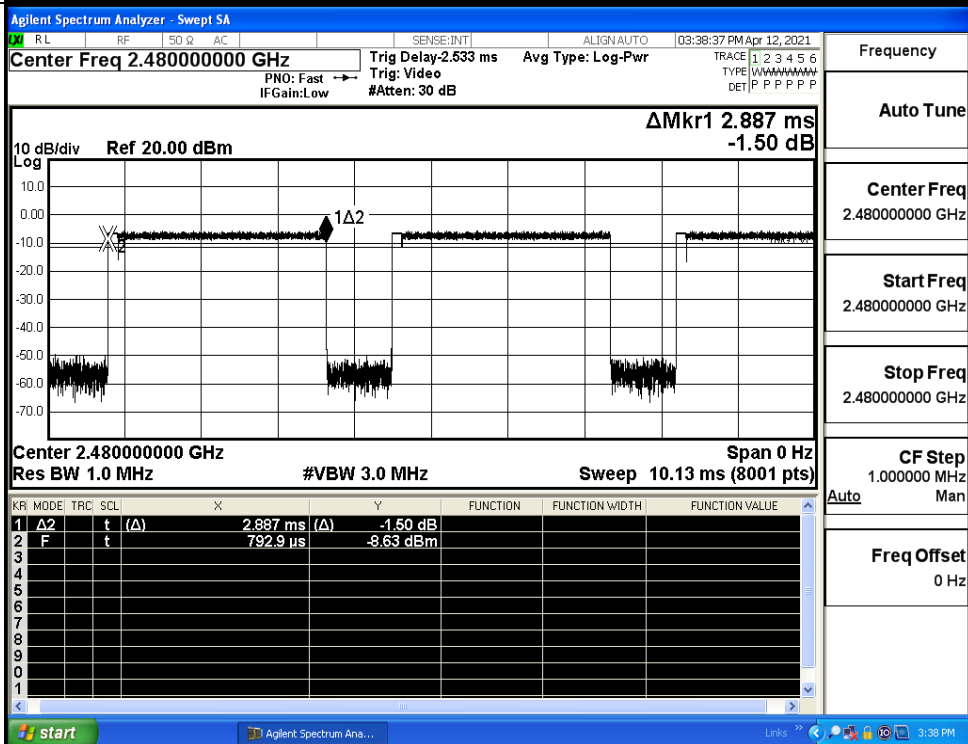
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



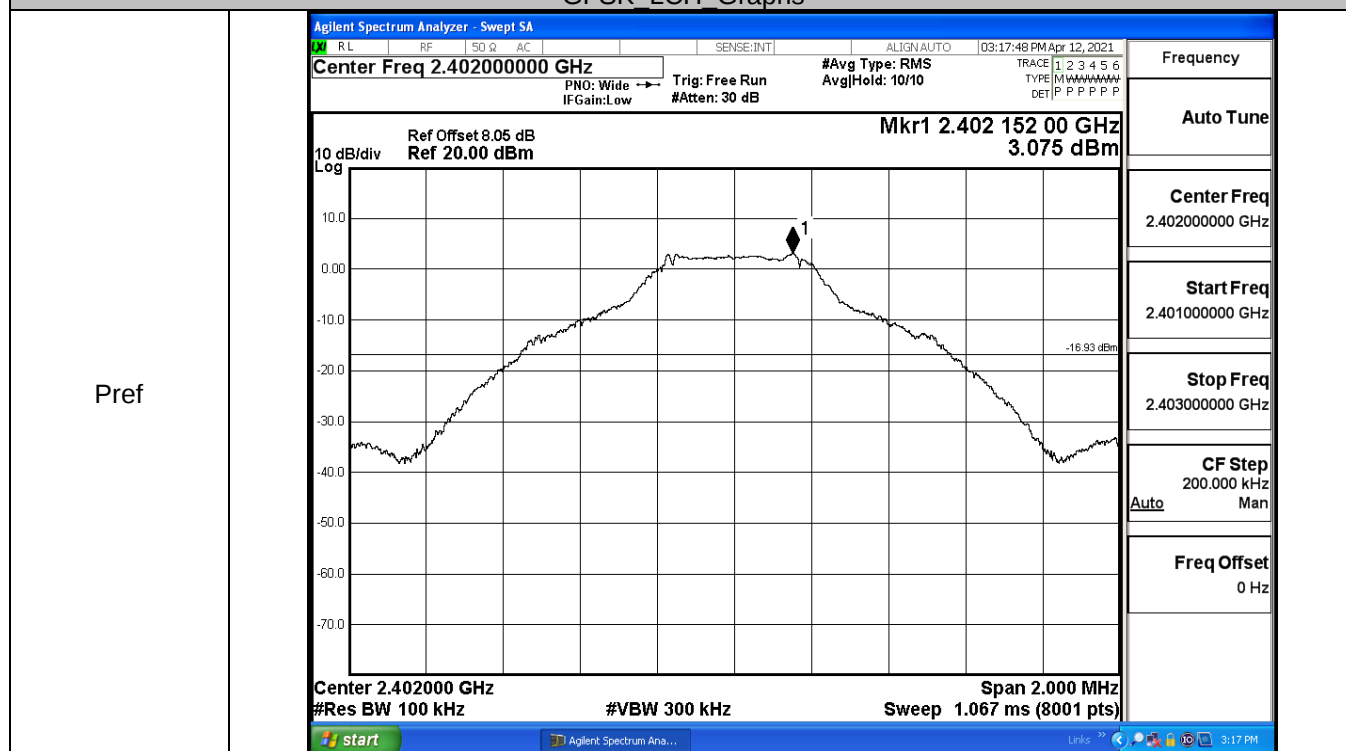
8DPSK_3DH5/HCH



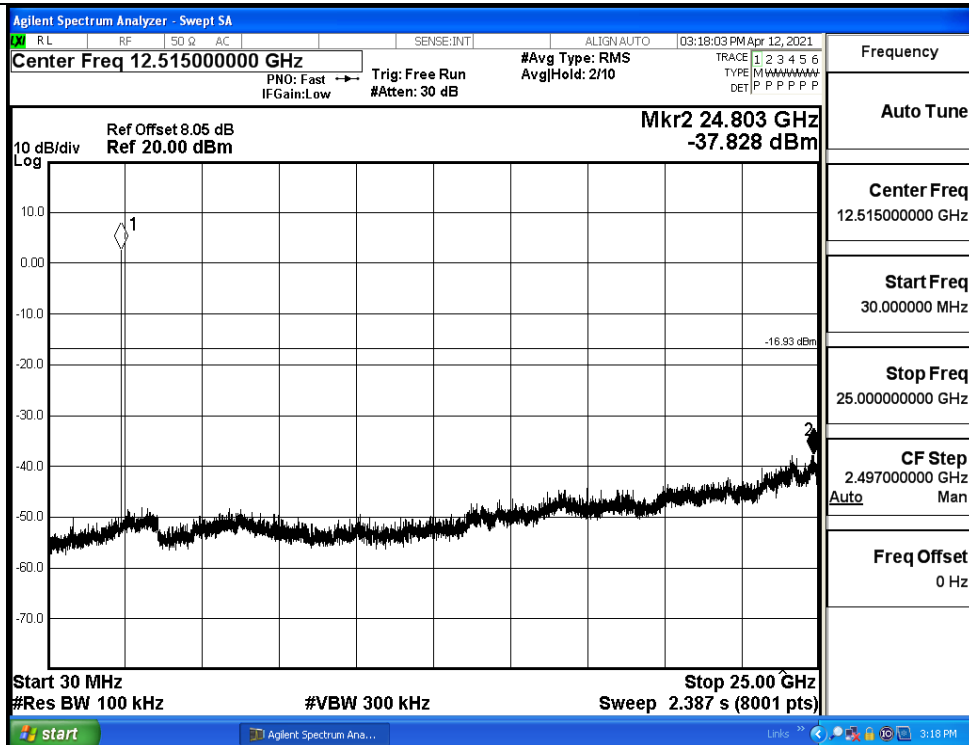
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.075	-37.828	-16.925	PASS
	MCH	4.565	-36.943	-15.435	PASS
	HCH	2.991	-37.805	-17.009	PASS
$\pi/4$ DQPSK	LCH	1.523	-37.468	-18.477	PASS
	MCH	2.541	-37.431	-17.459	PASS
	HCH	0.997	-37.612	-19.003	PASS
8DPSK	LCH	1.638	-36.664	-18.362	PASS
	MCH	3.119	-37.615	-16.881	PASS
	HCH	1.389	-38.021	-18.611	PASS

GFSK LCH Graphs

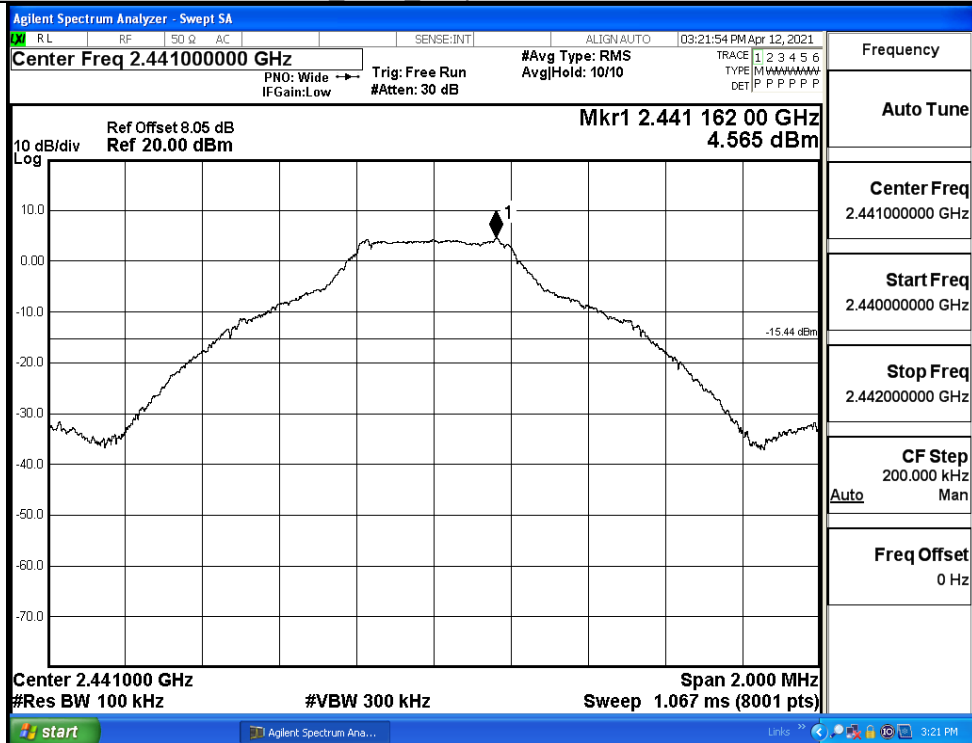


Puw



GFSK_MCH_Graphs

Pref

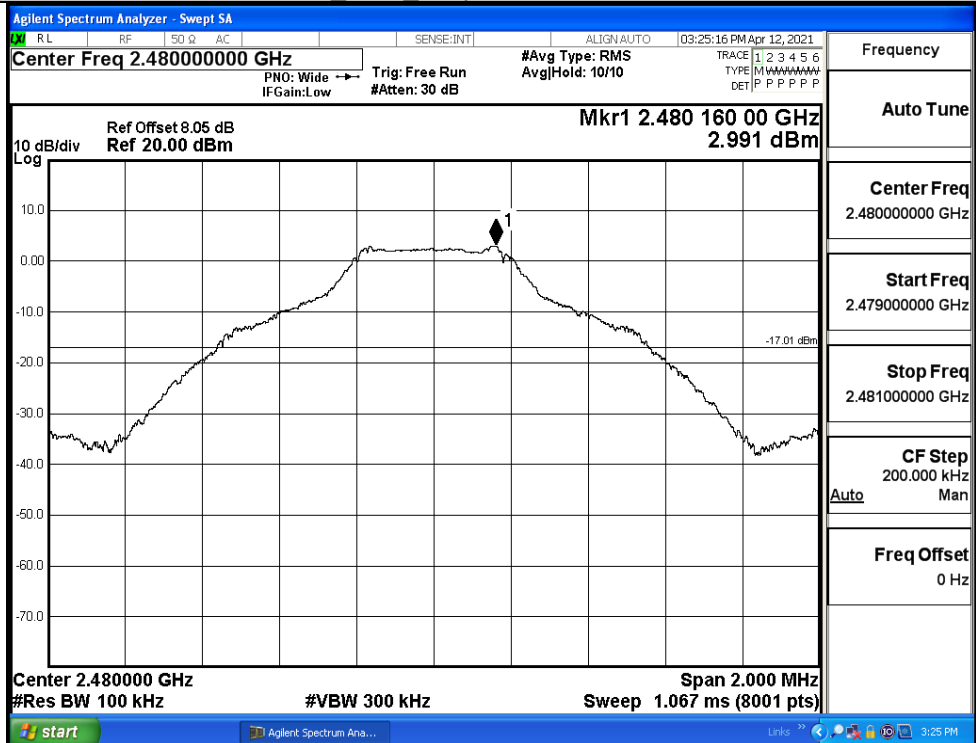


Puw

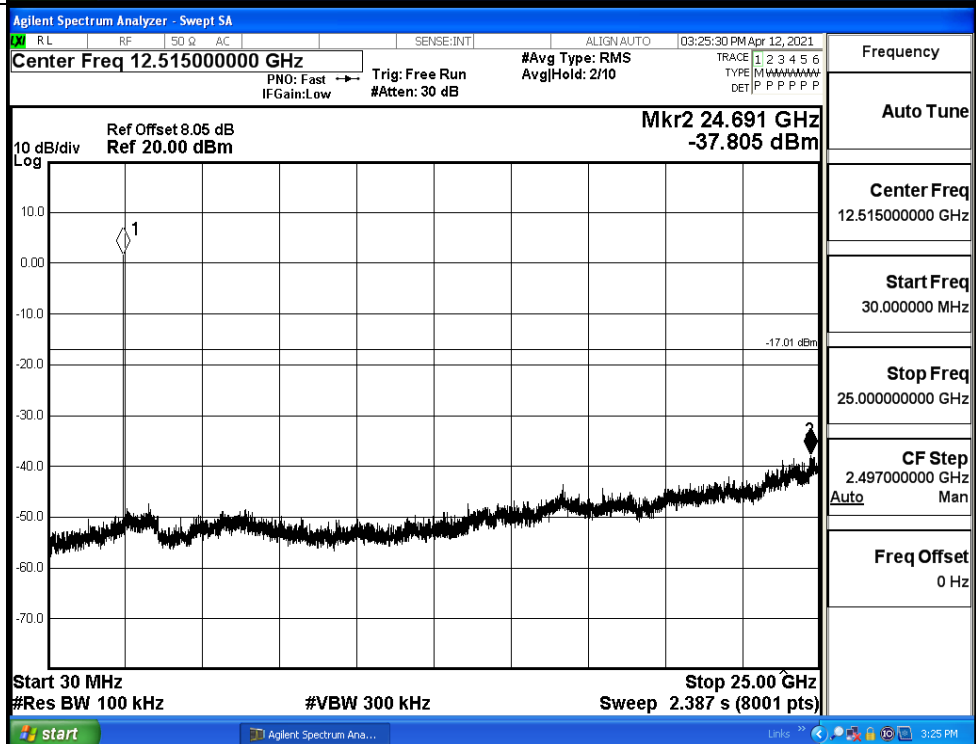


GFSK_HCH_Graphs

Pref

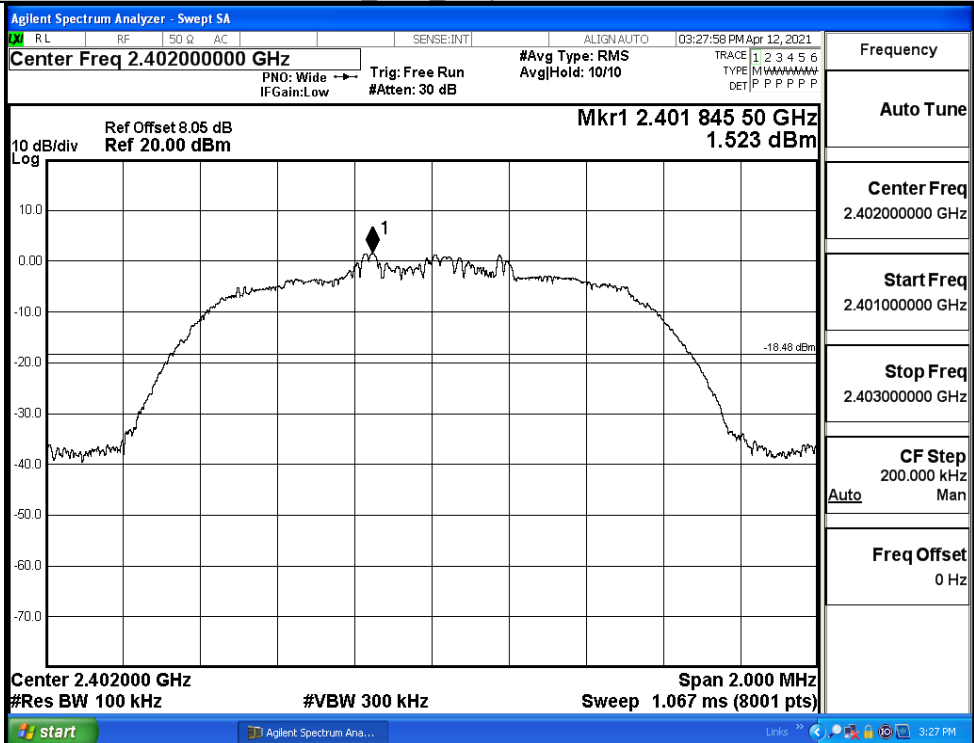


Puw

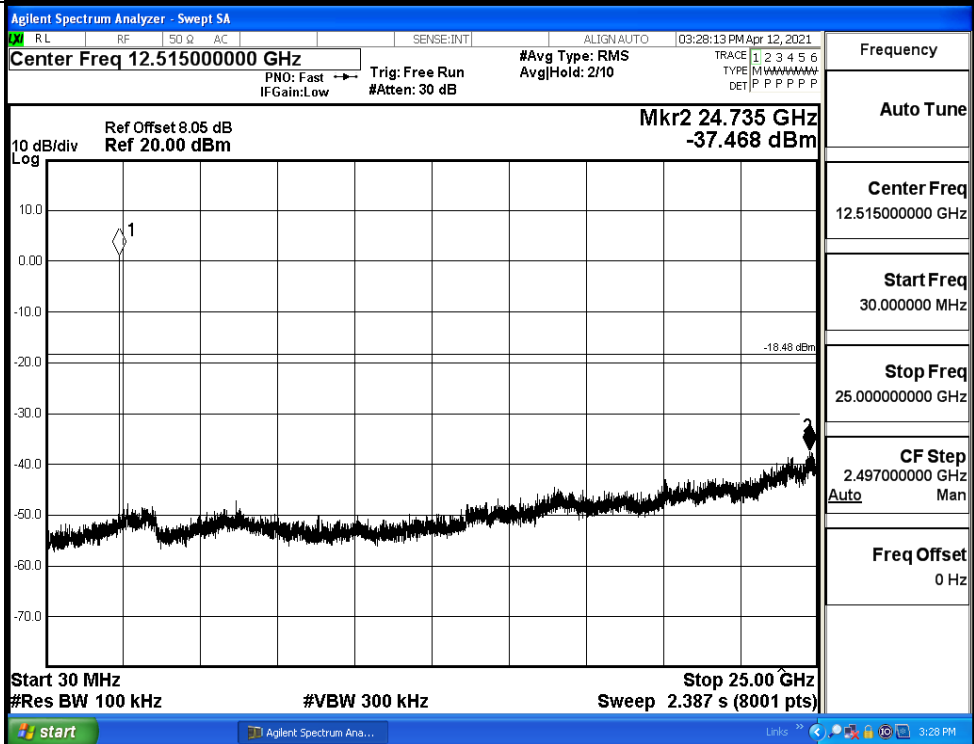


$\pi/4$ DQPSK_LCH_Graphs

Pref

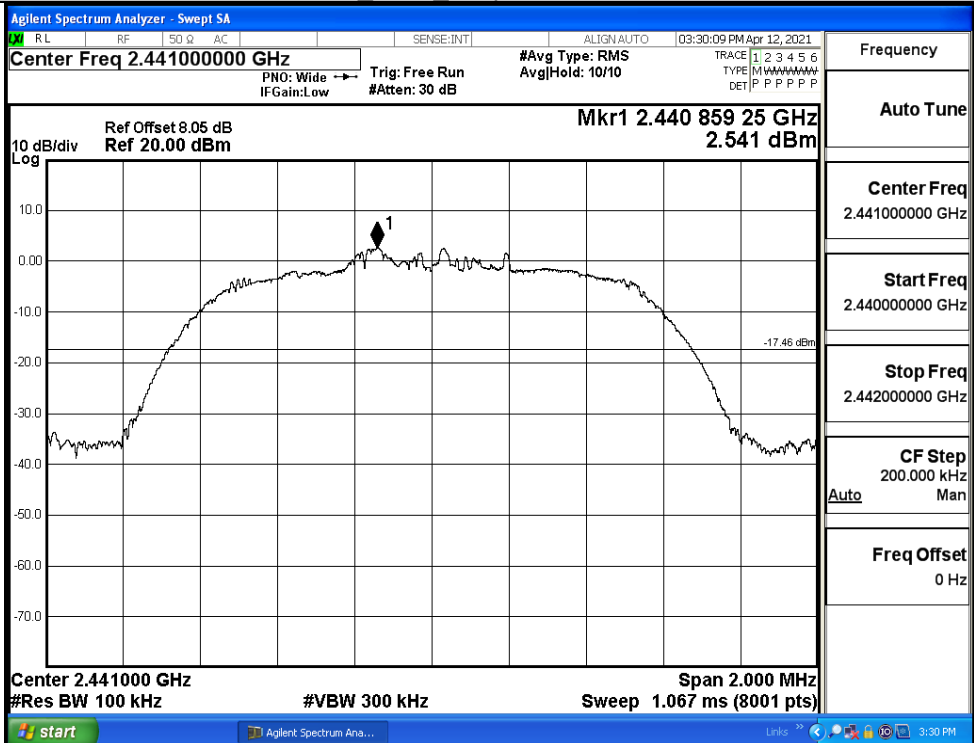


Puw

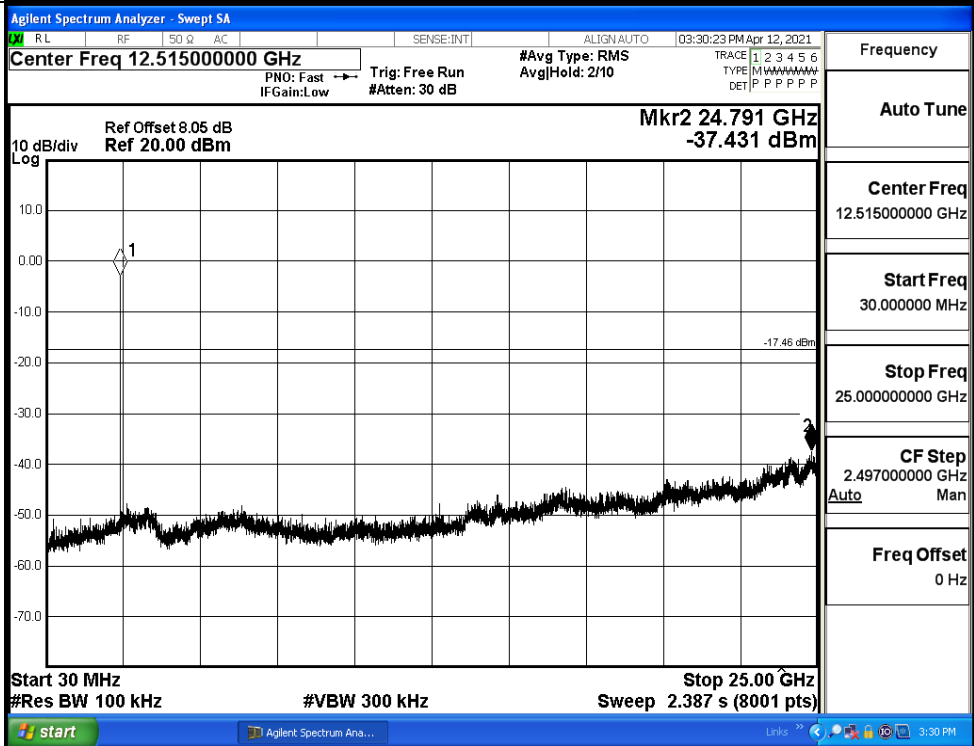


π /4DQPSK_MCH_Graphs

Pref

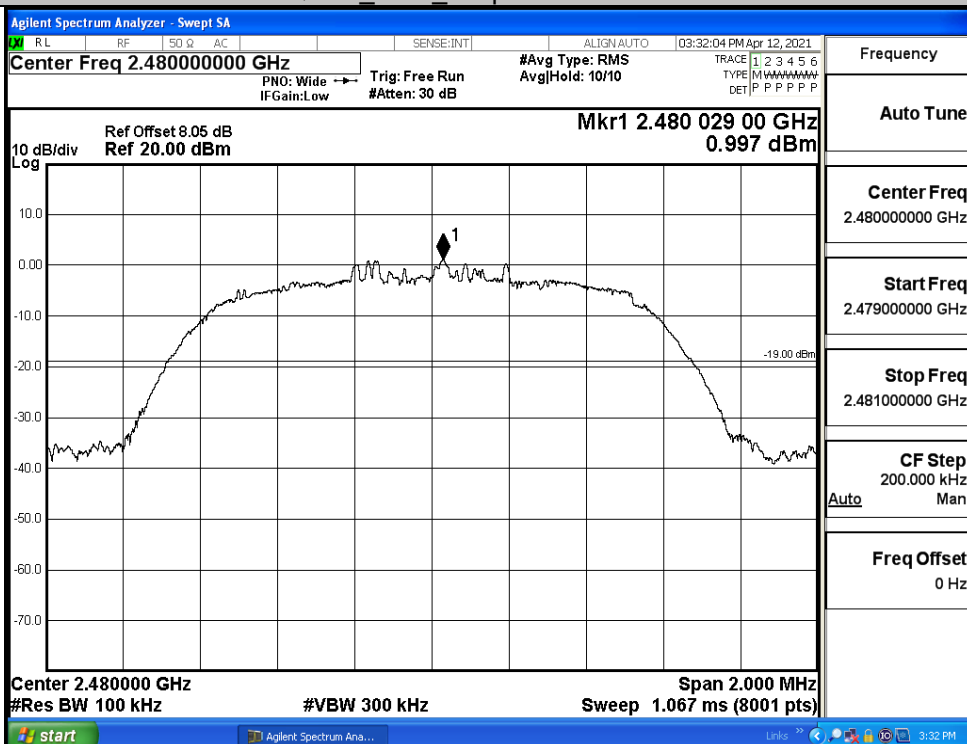


Puw

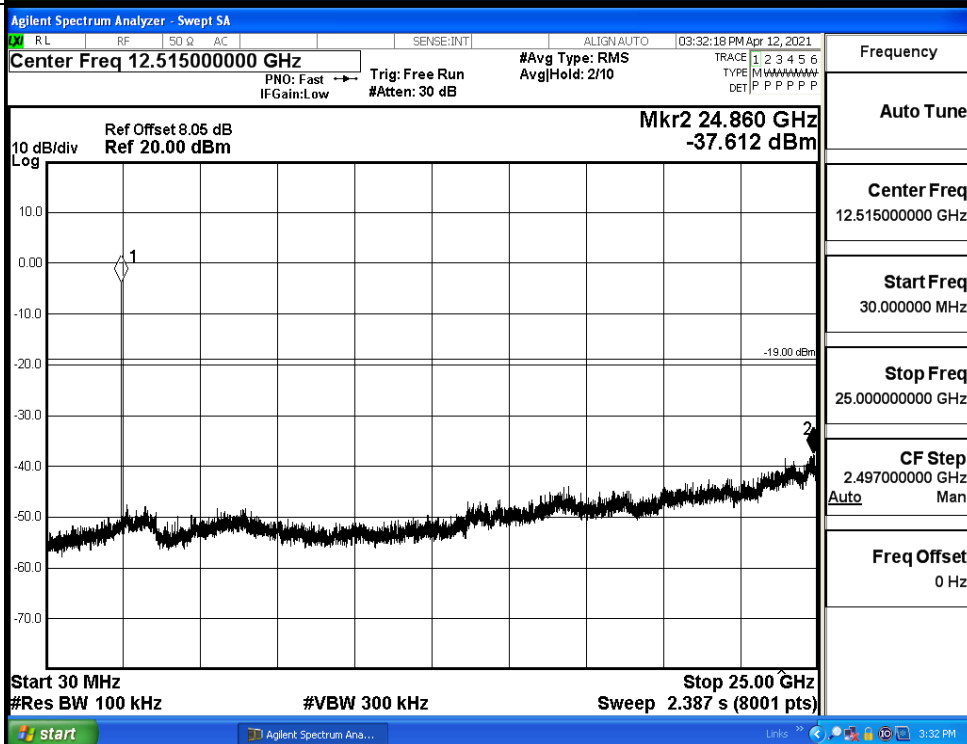


$\pi/4$ DQPSK_HCH_Graphs

Pref

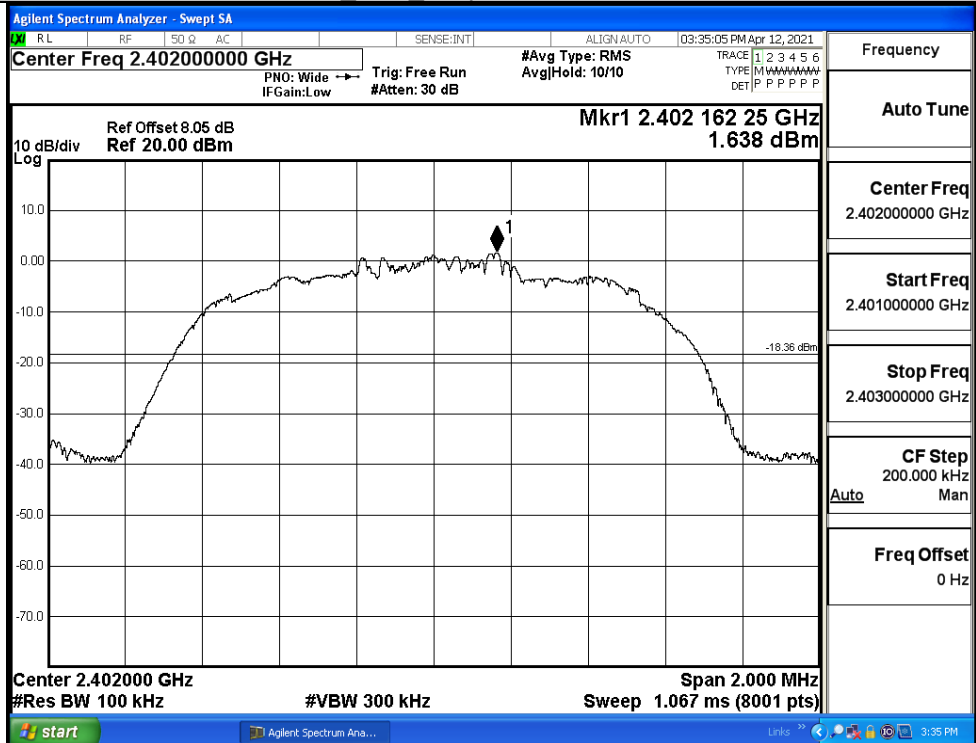


Puw

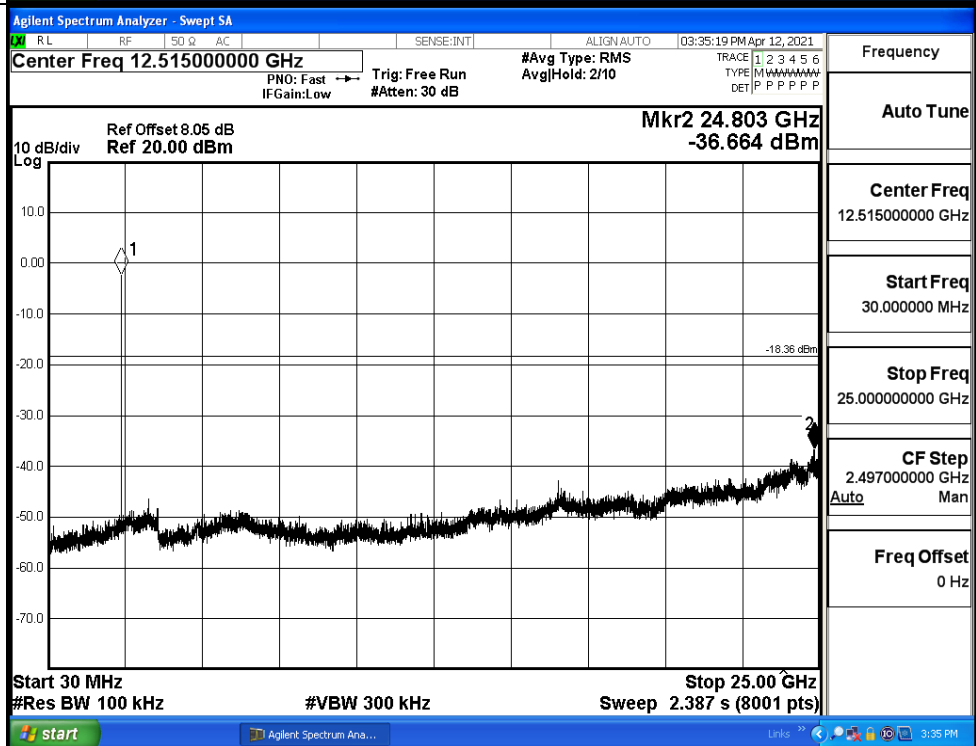


8DPSK_LCH_Graphs

Pref

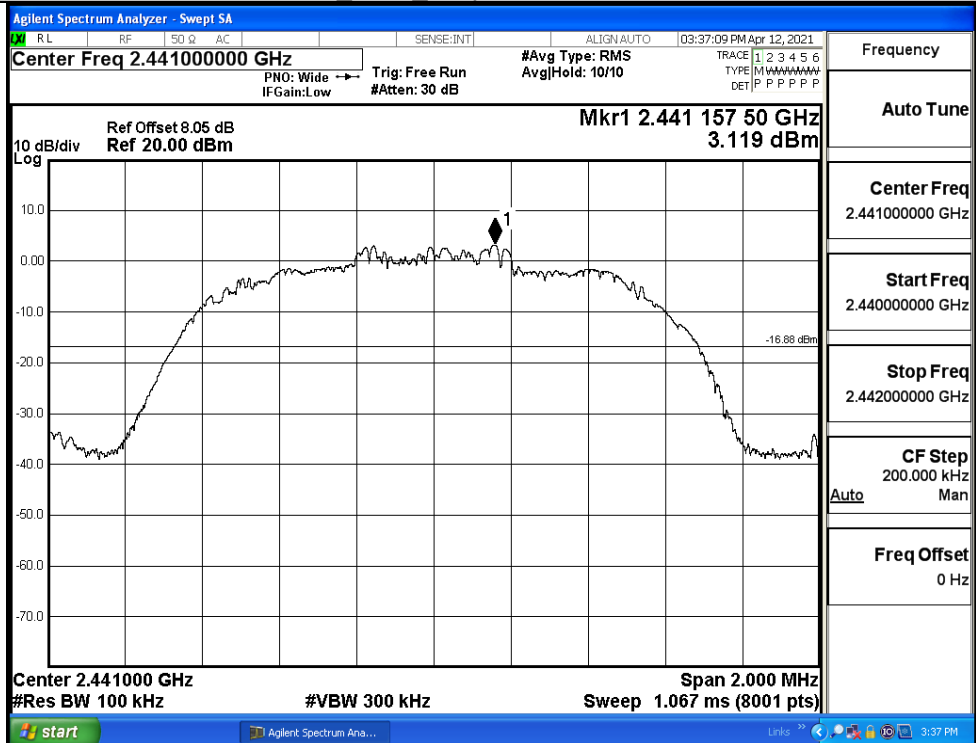


Puw

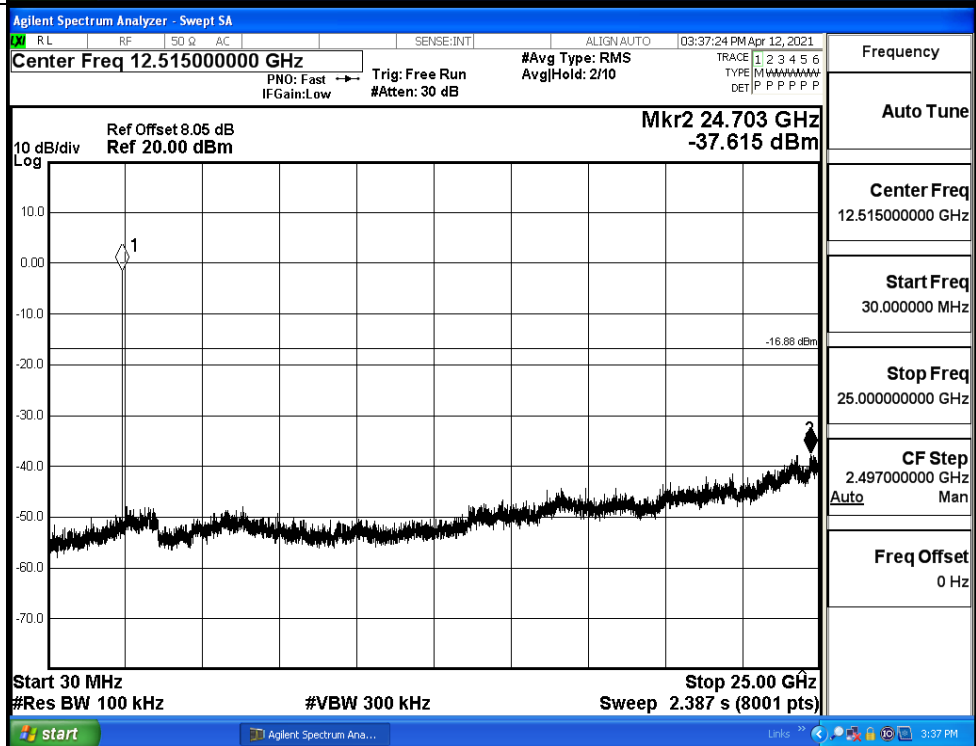


8DPSK_MCH_Graphs

Pref

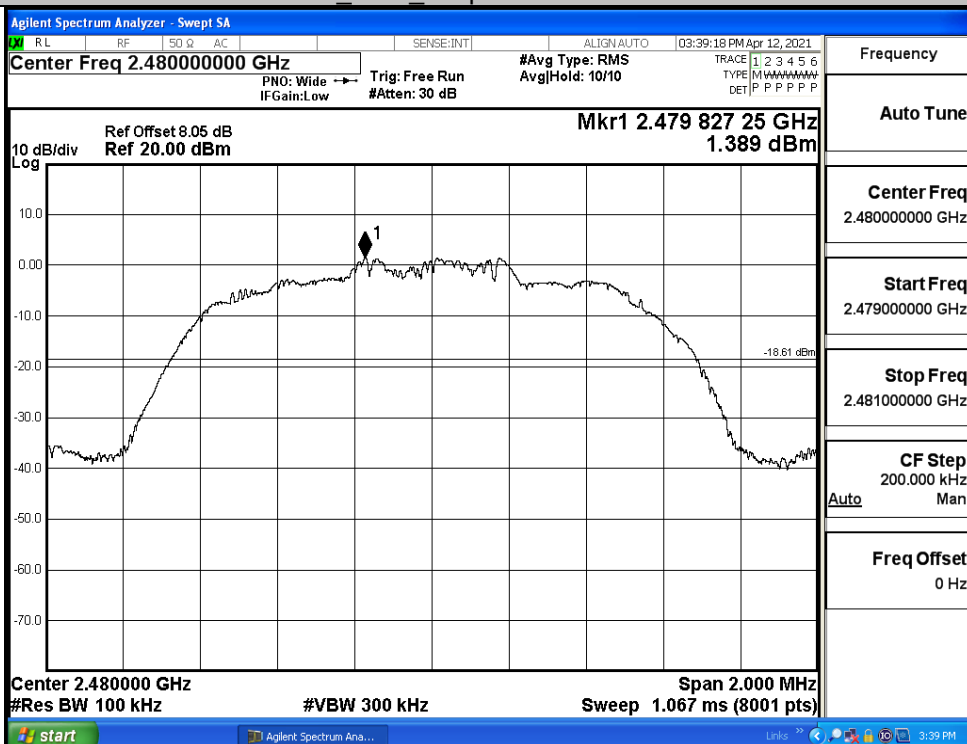


Puw



8DPSK_HCH_Graphs

Pref



Puw

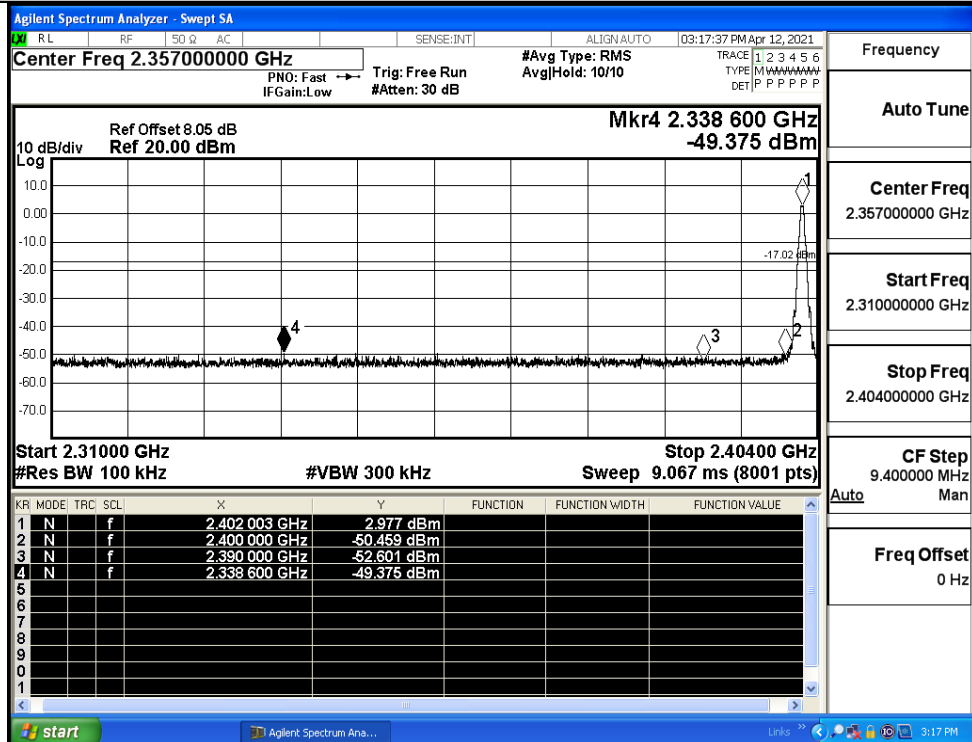


A.7 Band-edge for RF Conducted Emissions

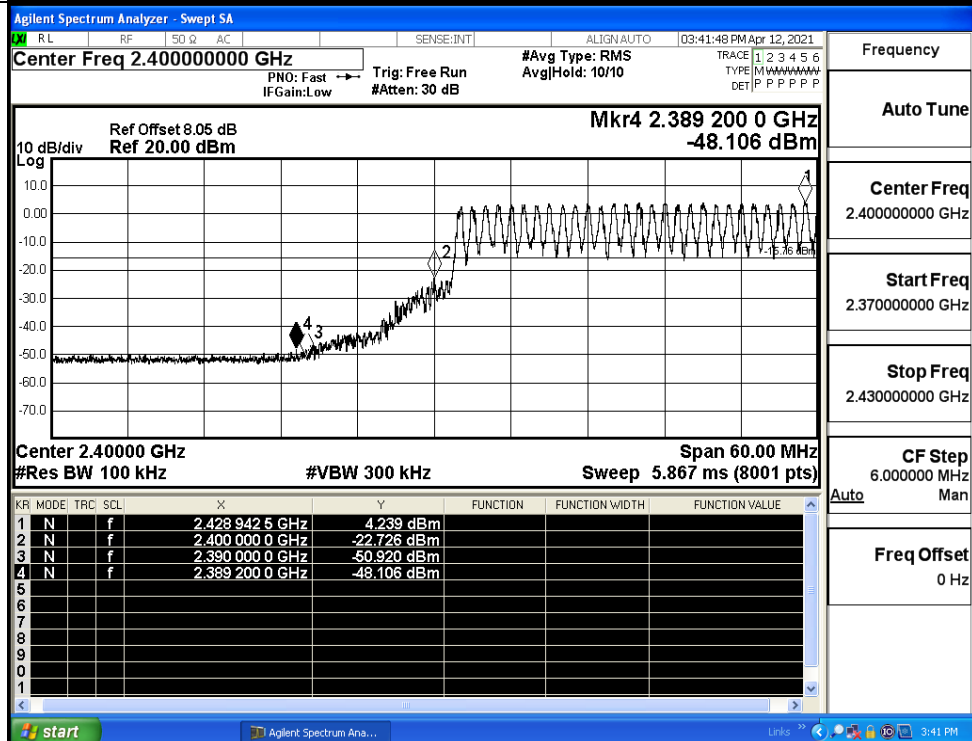
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	2.977	Off	-49.375	-17.02	PASS
			4.239	On	-48.106	-15.76	PASS
	HCH	2480	3.156	Off	-47.857	-16.84	PASS
			3.788	On	-48.916	-16.21	PASS
$\pi/4$ DQPSK	LCH	2402	1.683	Off	-49.548	-18.32	PASS
			2.464	On	-48.515	-17.54	PASS
	HCH	2480	1.718	Off	-49.353	-18.28	PASS
			2.109	On	-48.354	-17.89	PASS
8DPSK	LCH	2402	1.427	Off	-49.194	-18.57	PASS
			3.094	On	-49.329	-16.91	PASS
	HCH	2480	1.688	Off	-48.793	-18.31	PASS
			2.448	On	-48.339	-17.55	PASS

Test Graphs

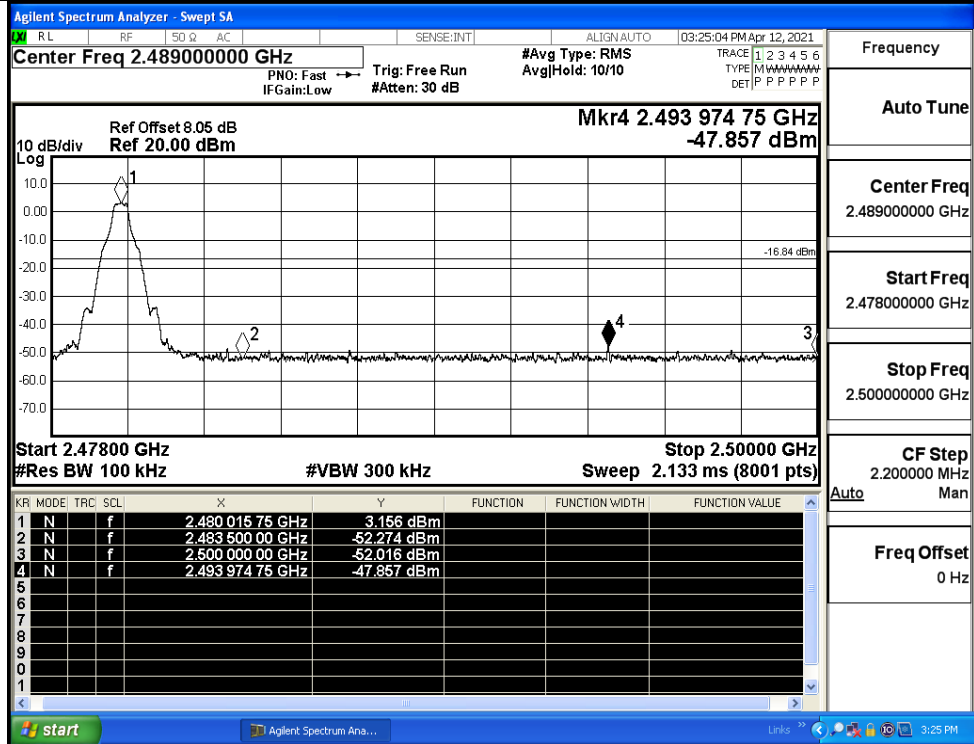
GFSK/LCH/No Hop



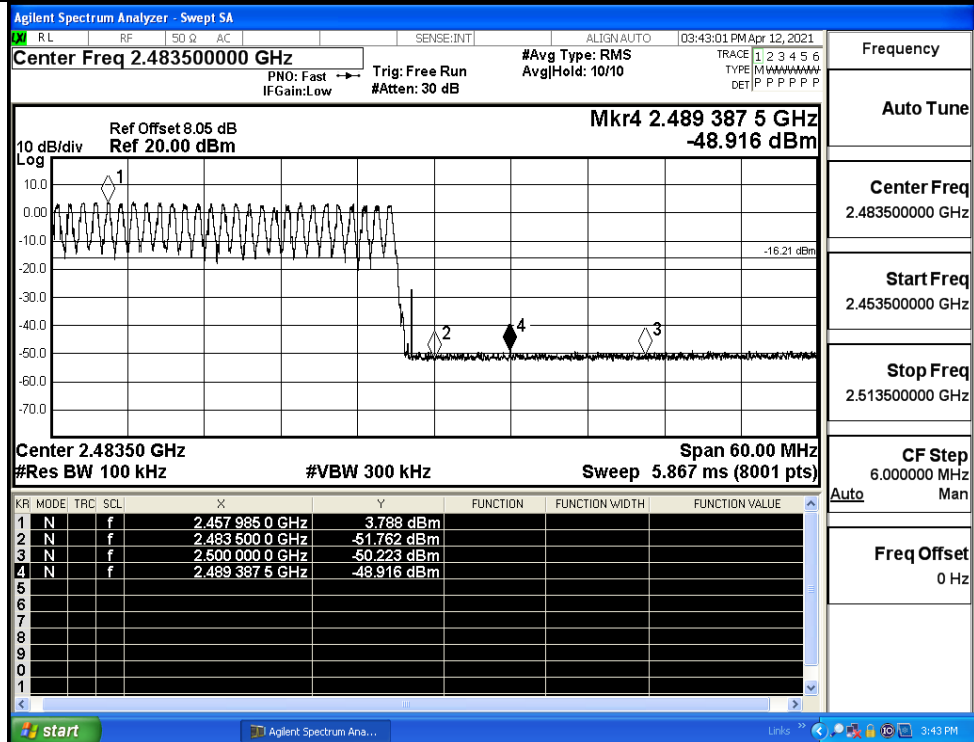
GFSK/LCH/Hop



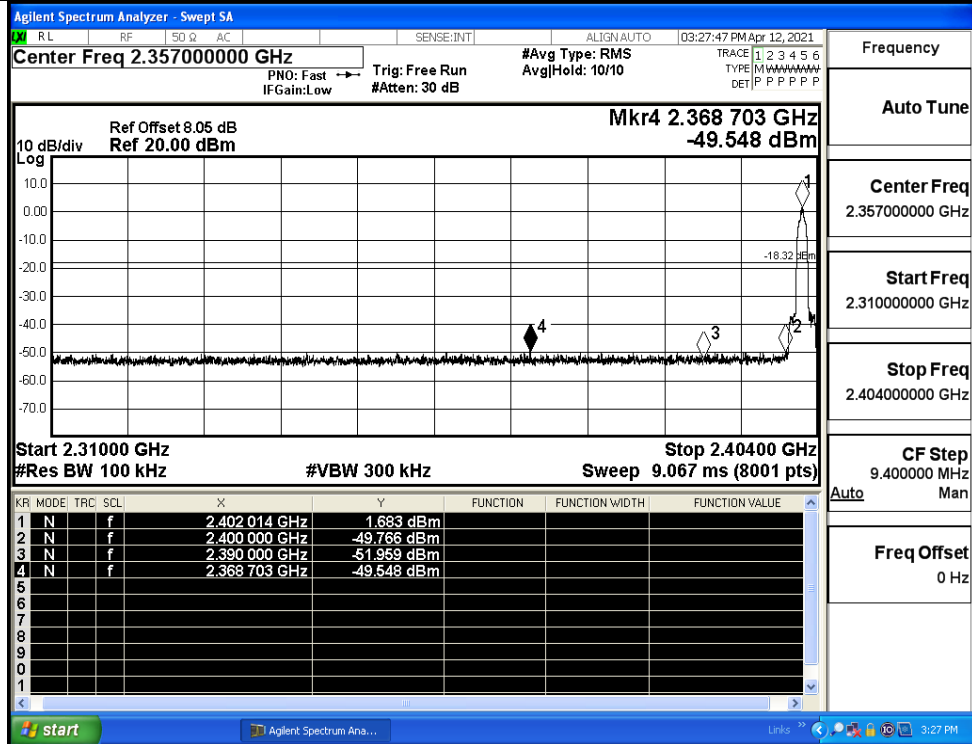
GFSK/HCH/No Hop



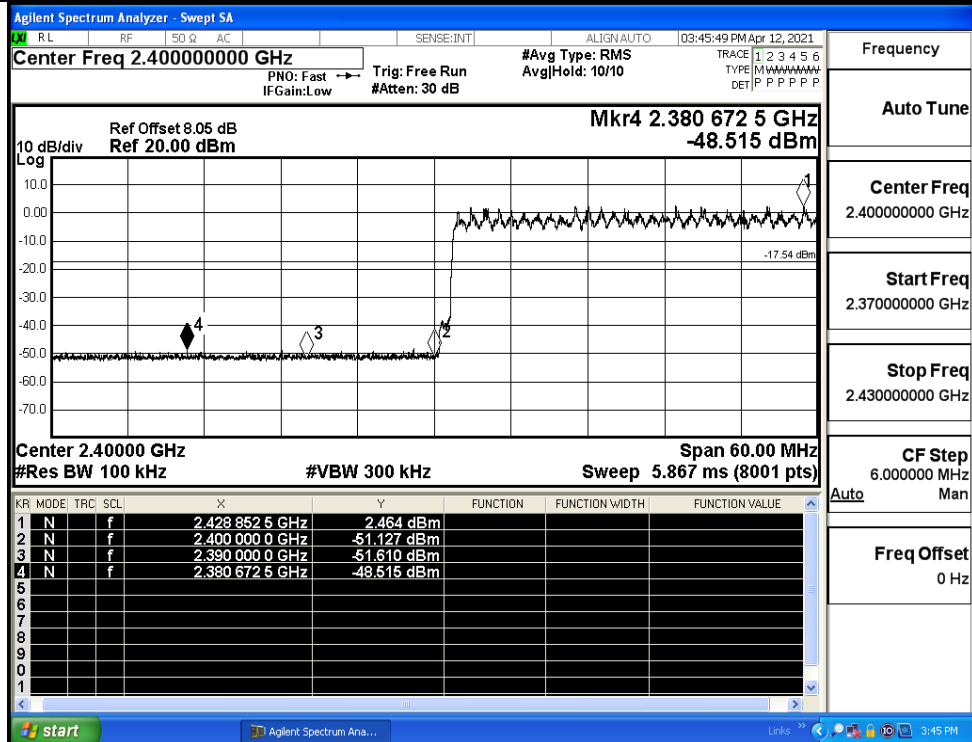
GFSK/HCH/Hop



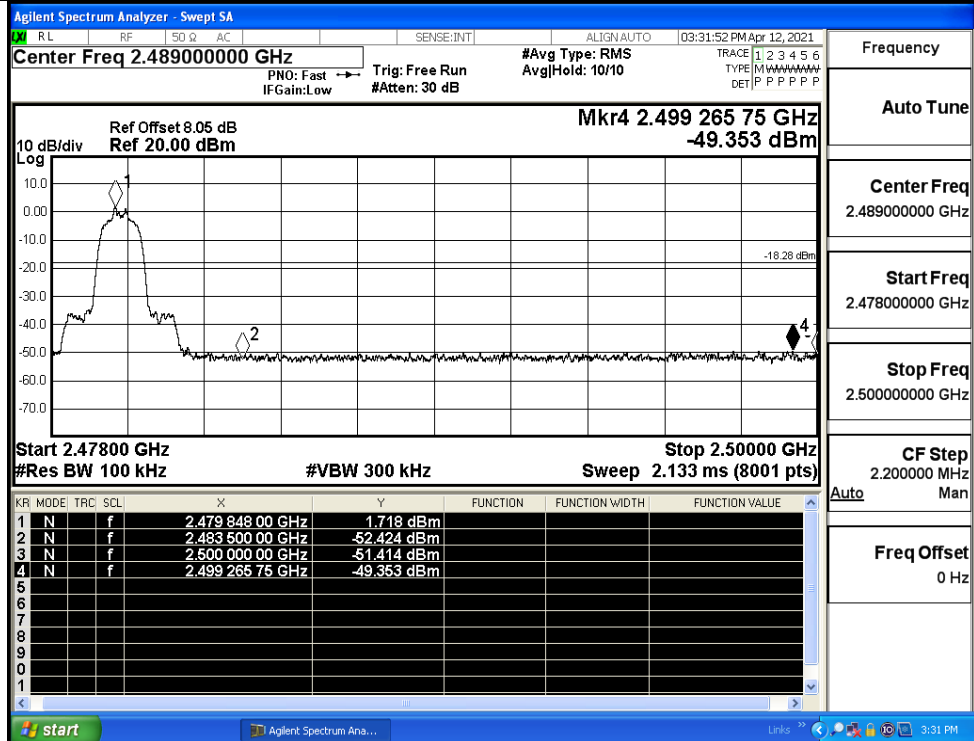
$\pi/4$ DQPSK/LCH/No
Hop



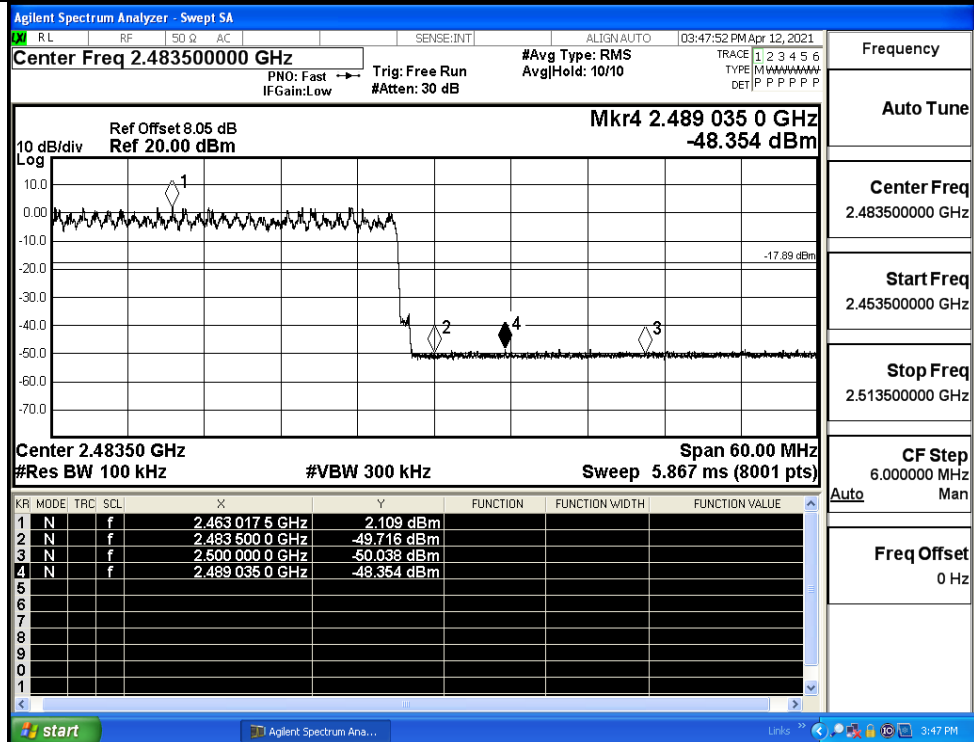
$\pi/4$ DQPSK/LCH/Hop



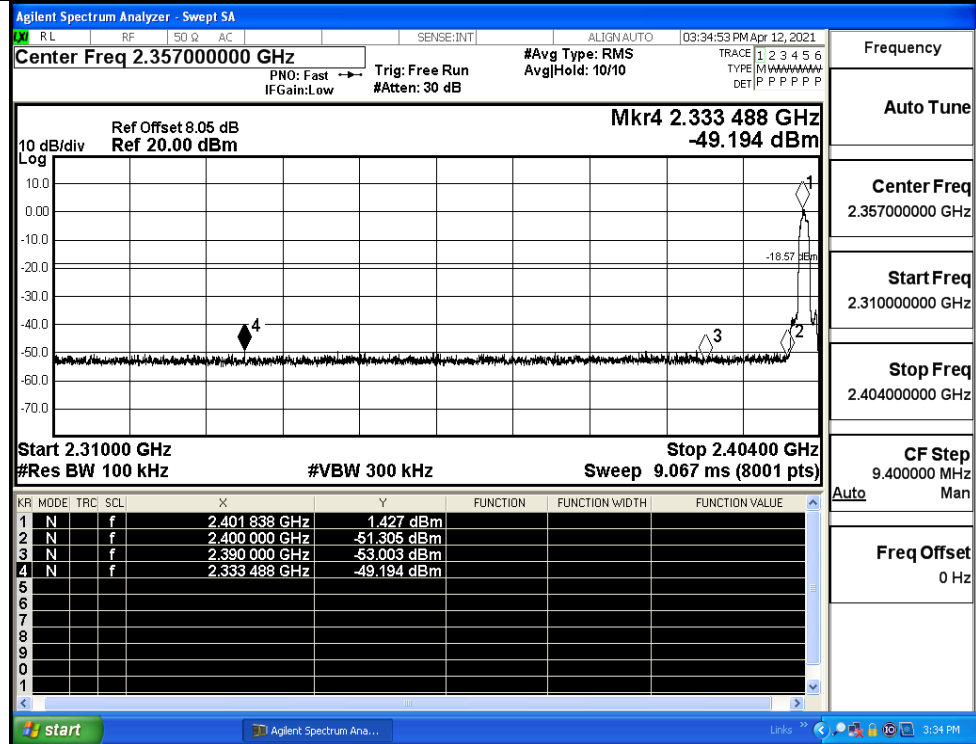
$\pi/4$ DQPSK/HCH/No
Hop



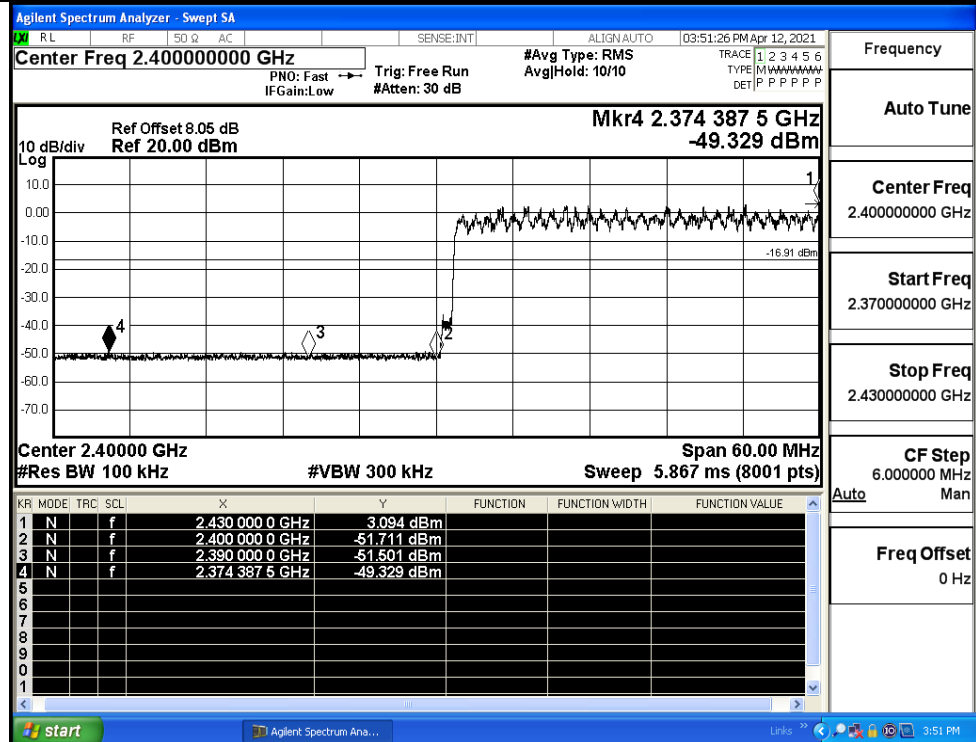
$\pi/4$ DQPSK/HCH/Hop



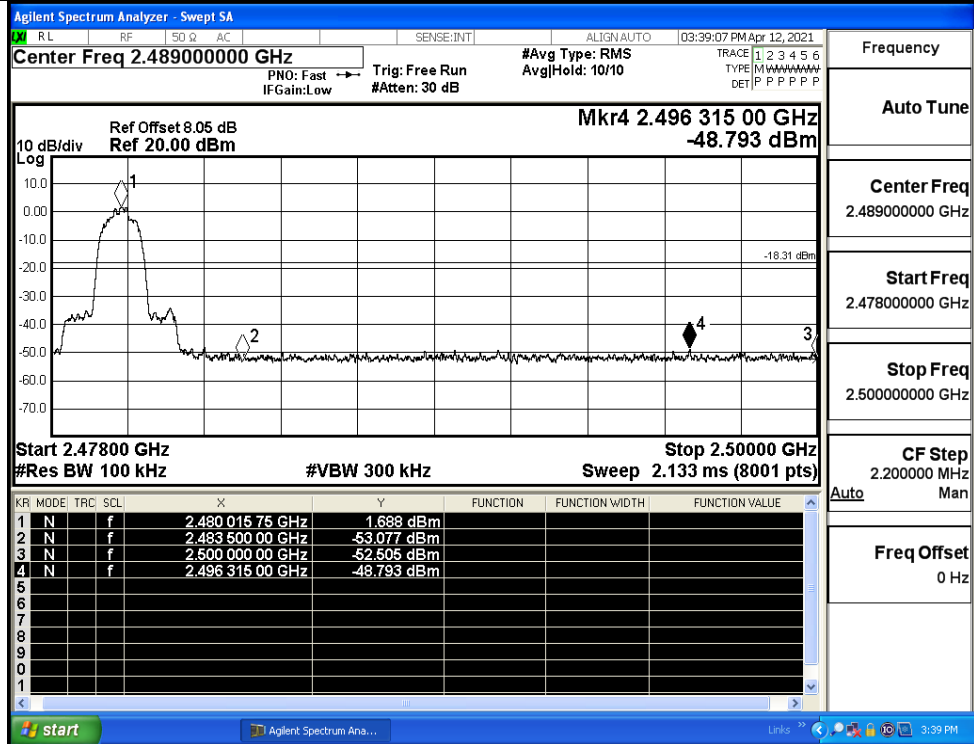
8DPSK/LCH/No Hop



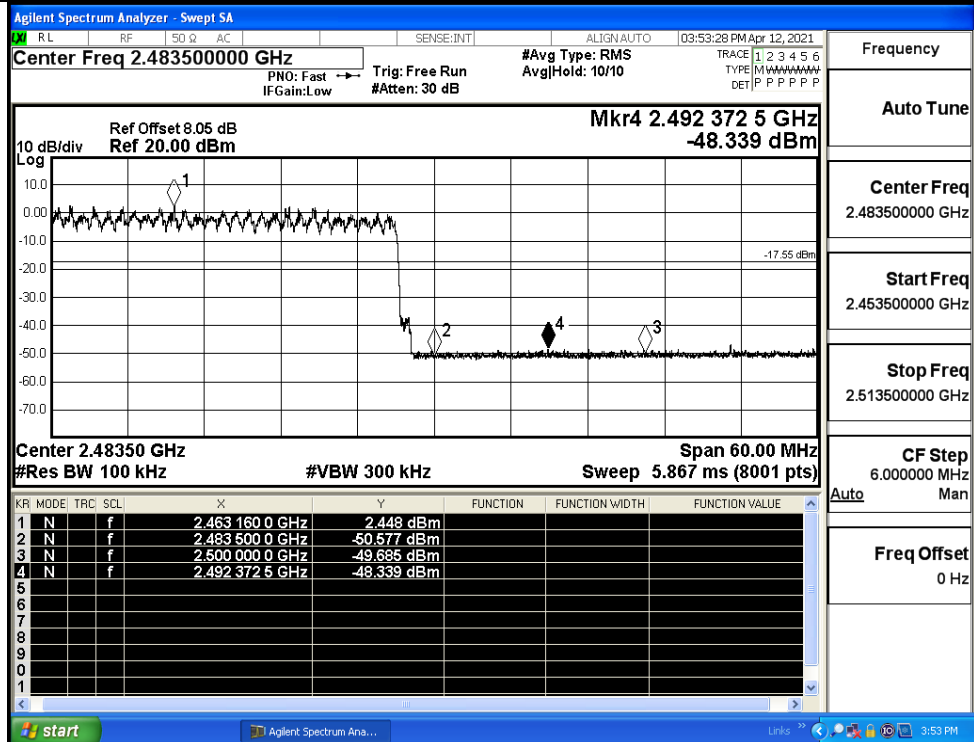
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



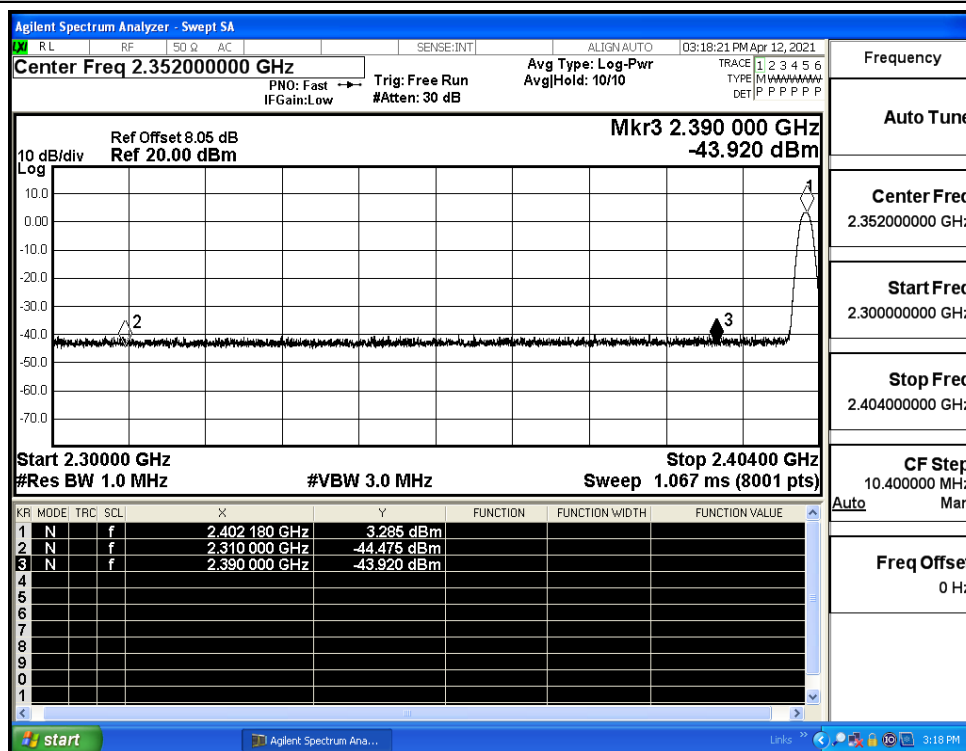
8DPSK/HCH/Hop



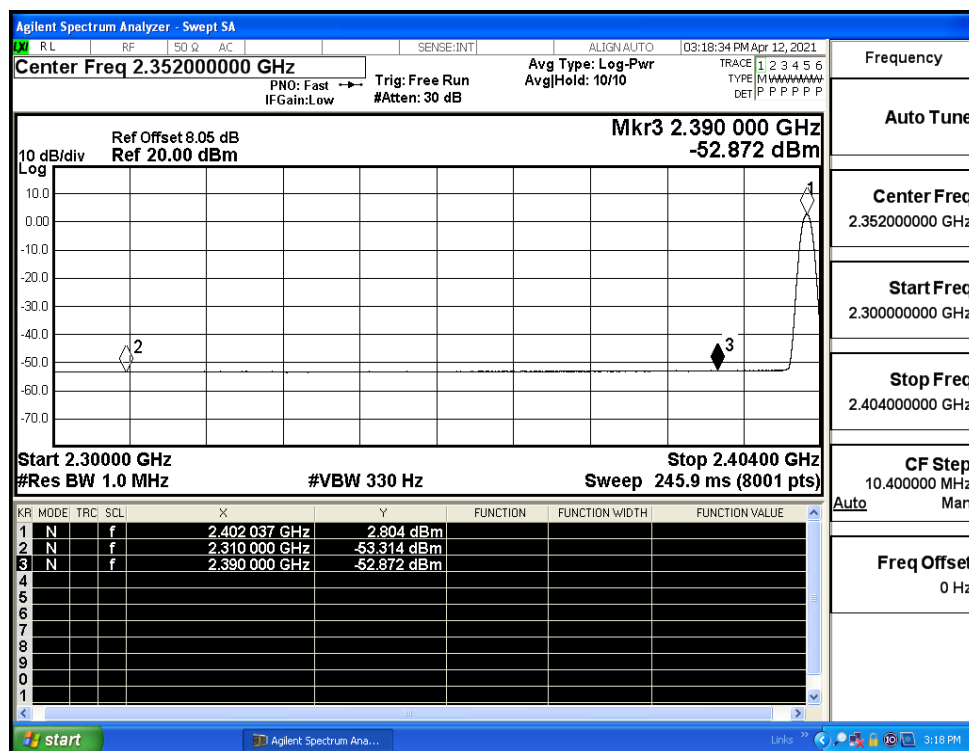
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.48	4.2	0	54.95	PEAK	74	PASS
	Off	2310.0	-53.31	4.2	0	46.12	AV	54	PASS
	Off	2390.0	-43.92	4.2	0	55.51	PEAK	74	PASS
	Off	2390.0	-52.87	4.2	0	46.56	AV	54	PASS
	Off	2483.5	-43.88	4.2	0	55.55	PEAK	74	PASS
	Off	2483.5	-52.40	4.2	0	47.03	AV	54	PASS
	Off	2500.0	-42.49	4.2	0	56.94	PEAK	74	PASS
	Off	2500.0	-52.32	4.2	0	47.11	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-42.58	4.2	0	56.85	PEAK	74	PASS
	Off	2310.0	-53.34	4.2	0	46.09	AV	54	PASS
	Off	2390.0	-43.50	4.2	0	55.93	PEAK	74	PASS
	Off	2390.0	-52.84	4.2	0	46.59	AV	54	PASS
	Off	2483.5	-41.54	4.2	0	57.89	PEAK	74	PASS
	Off	2483.5	-52.33	4.2	0	47.10	AV	54	PASS
	Off	2500.0	-42.56	4.2	0	56.87	PEAK	74	PASS
	Off	2500.0	-52.30	4.2	0	47.13	AV	54	PASS
8DPSK	Off	2310.0	-41.54	4.2	0	57.89	PEAK	74	PASS
	Off	2310.0	-53.30	4.2	0	46.13	AV	54	PASS
	Off	2390.0	-42.16	4.2	0	57.27	PEAK	74	PASS
	Off	2390.0	-52.89	4.2	0	46.54	AV	54	PASS
	Off	2483.5	-42.84	4.2	0	56.59	PEAK	74	PASS
	Off	2483.5	-52.36	4.2	0	47.07	AV	54	PASS
	Off	2500.0	-42.13	4.2	0	57.30	PEAK	74	PASS
	Off	2500.0	-52.32	4.2	0	47.11	AV	54	PASS

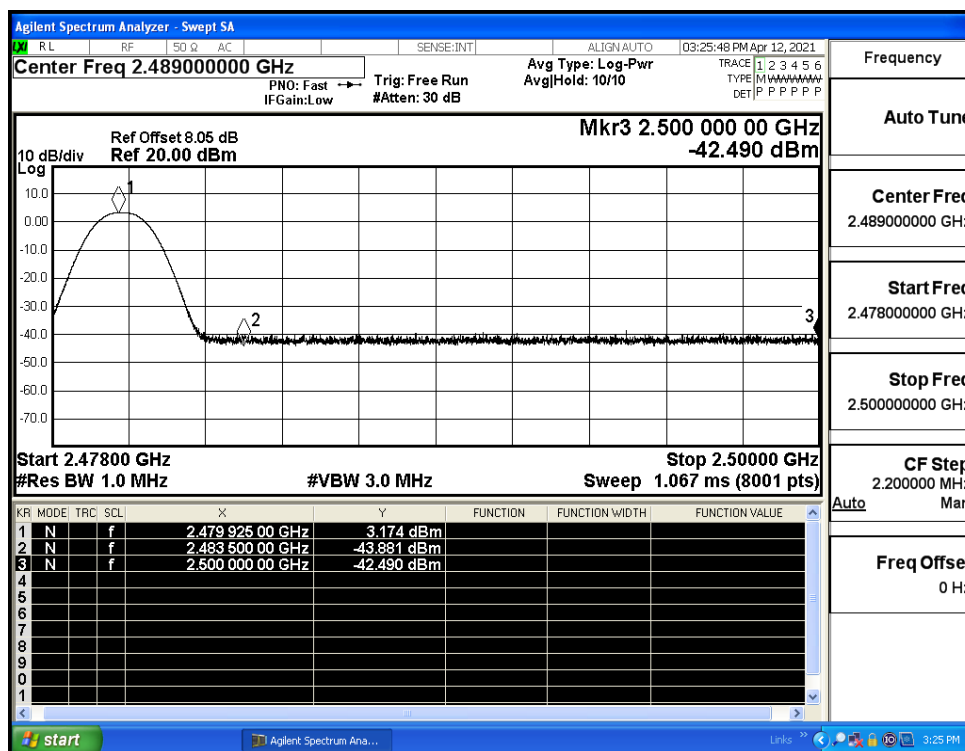
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



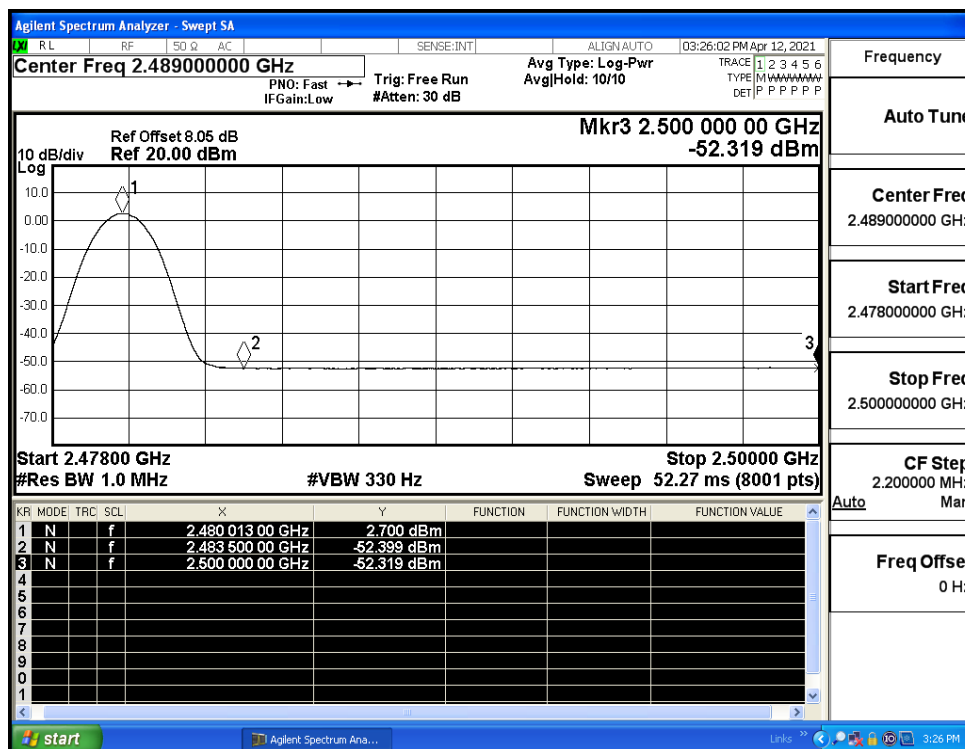
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

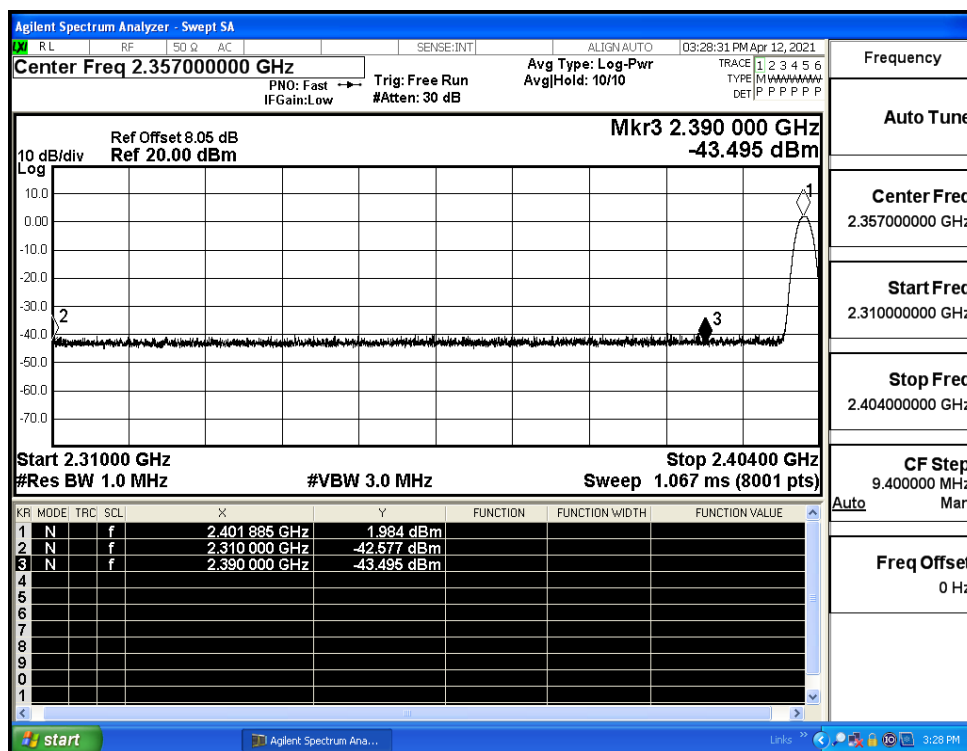
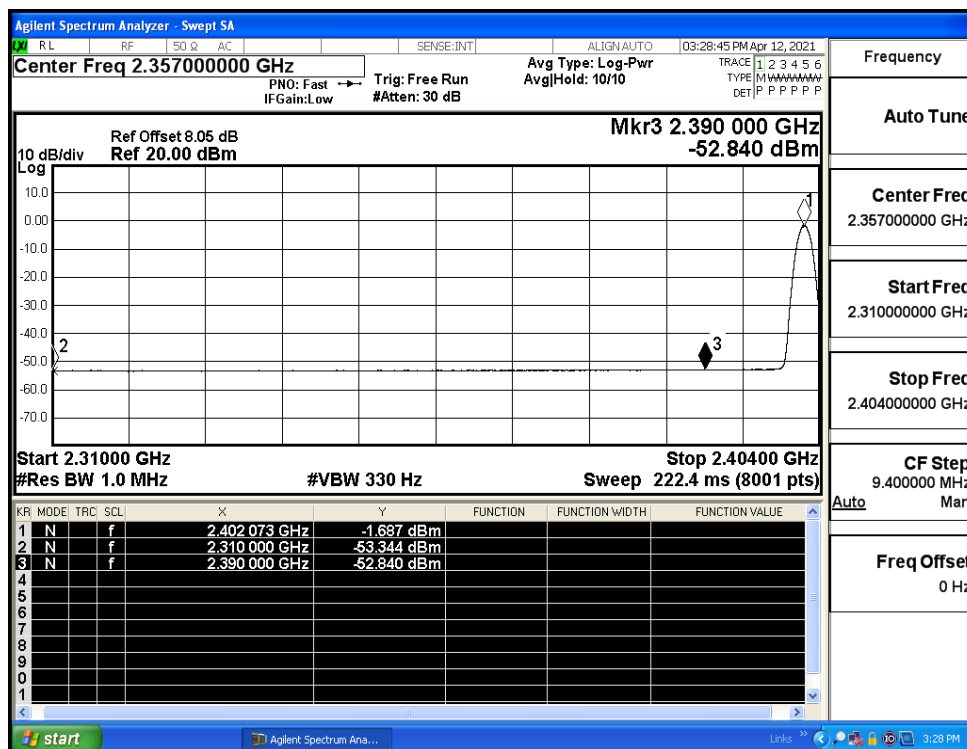


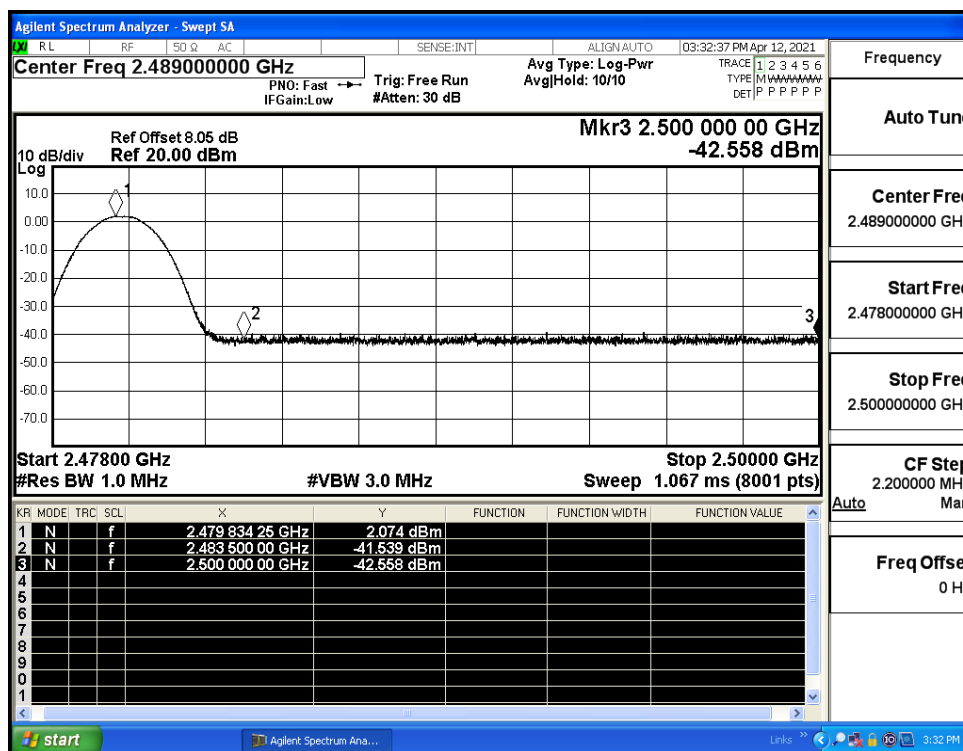
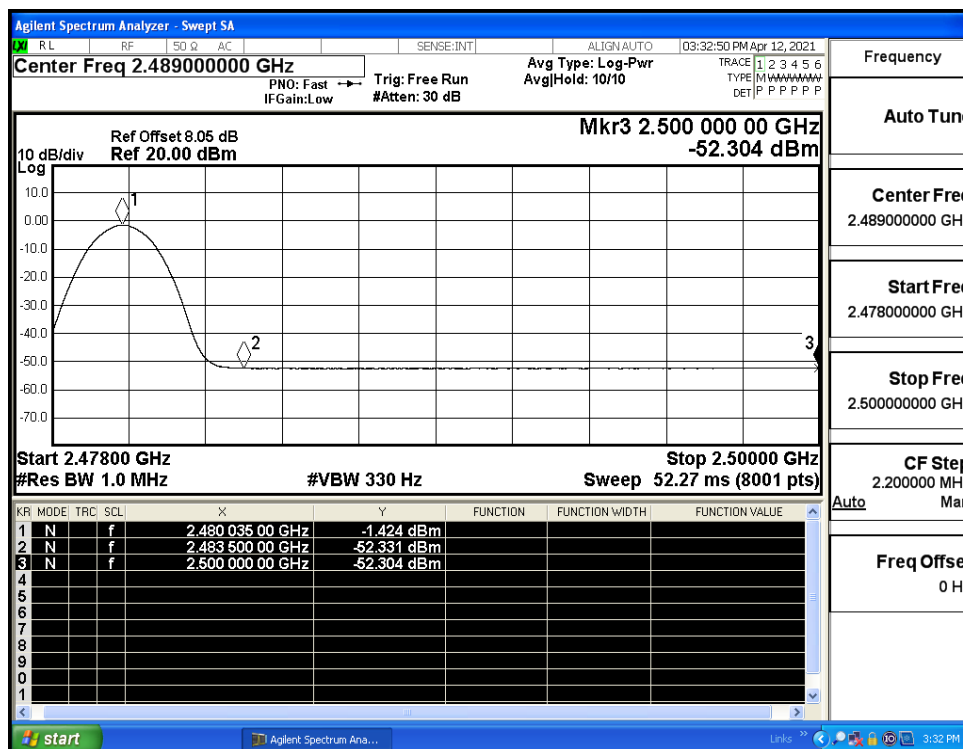
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



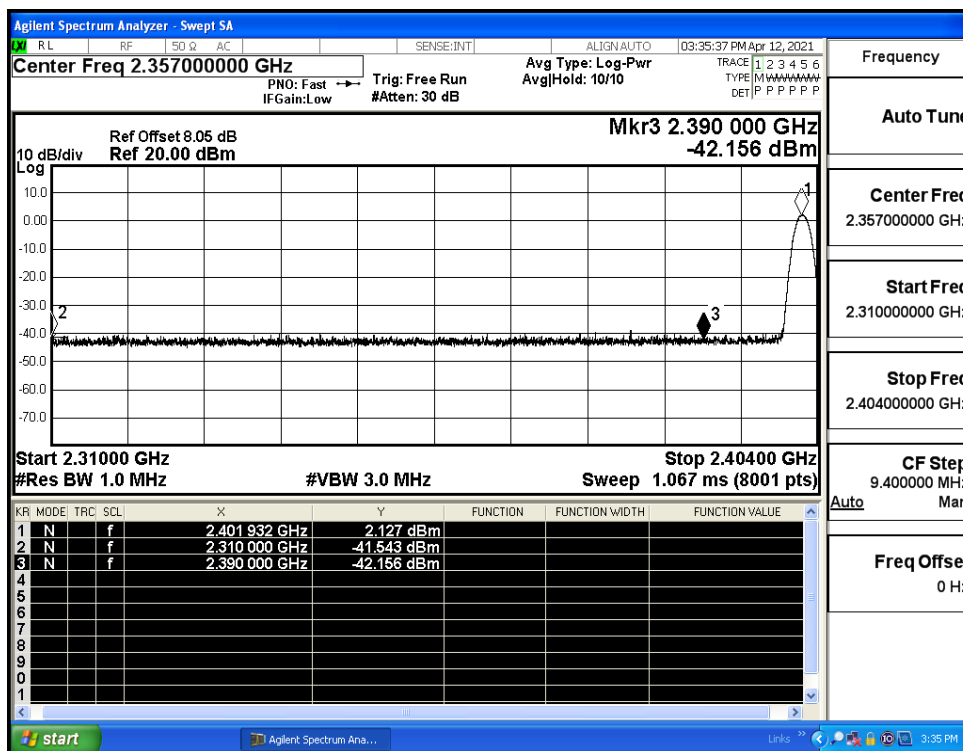
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



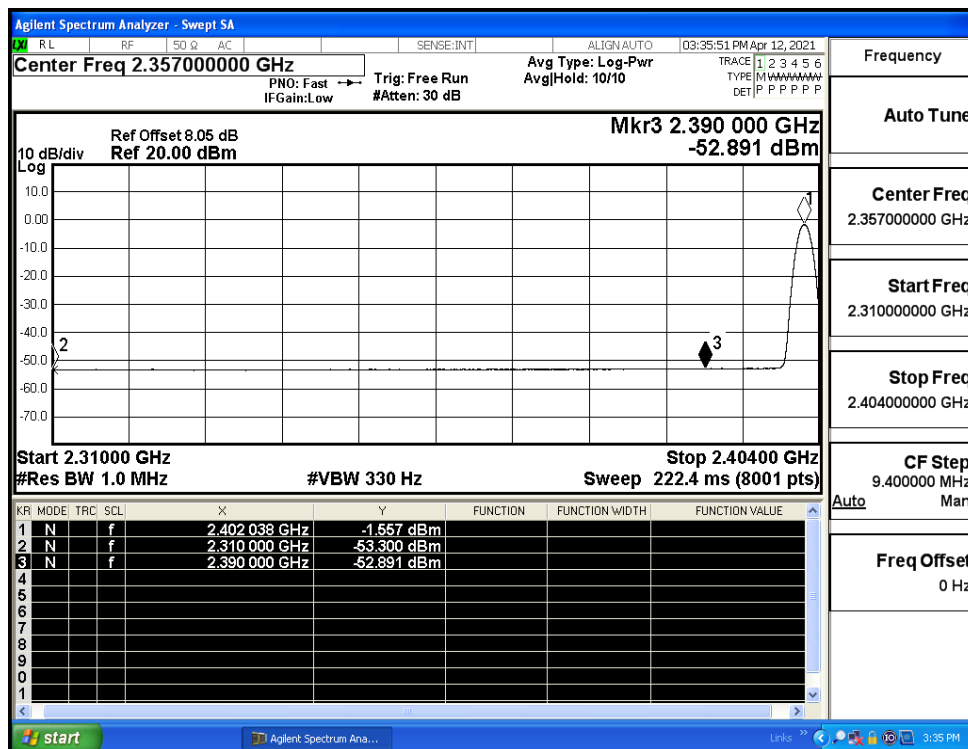
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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

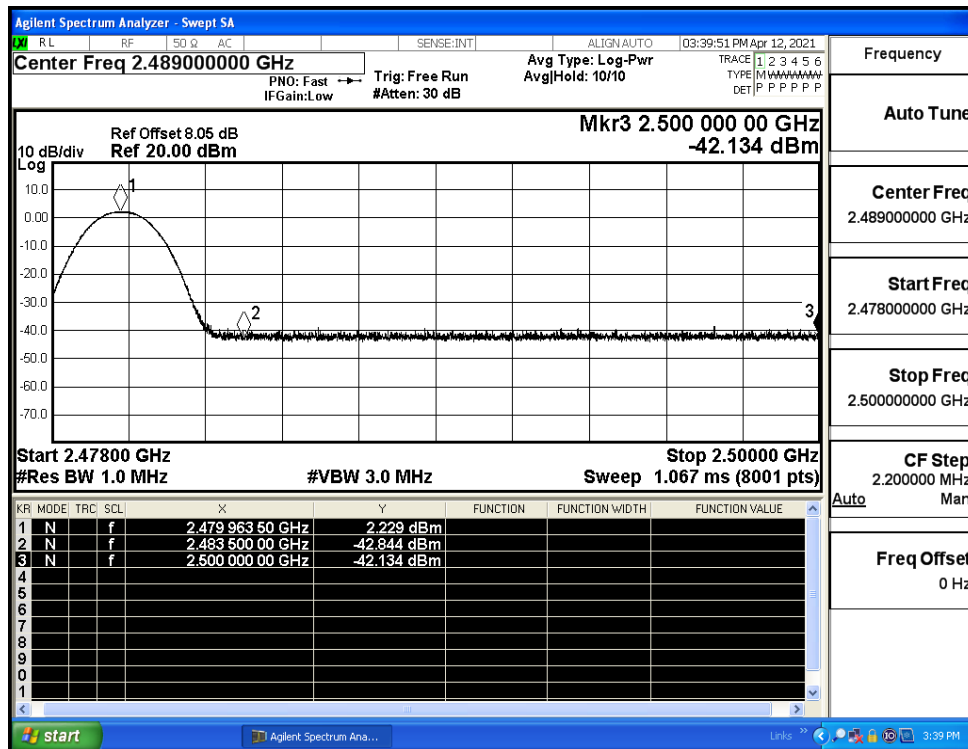
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

