

Appendix A

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

Product Name: Urbanista Miami

Trade Mark: Urbanista

Test Model: Urbanista Miami

Environmental Conditions

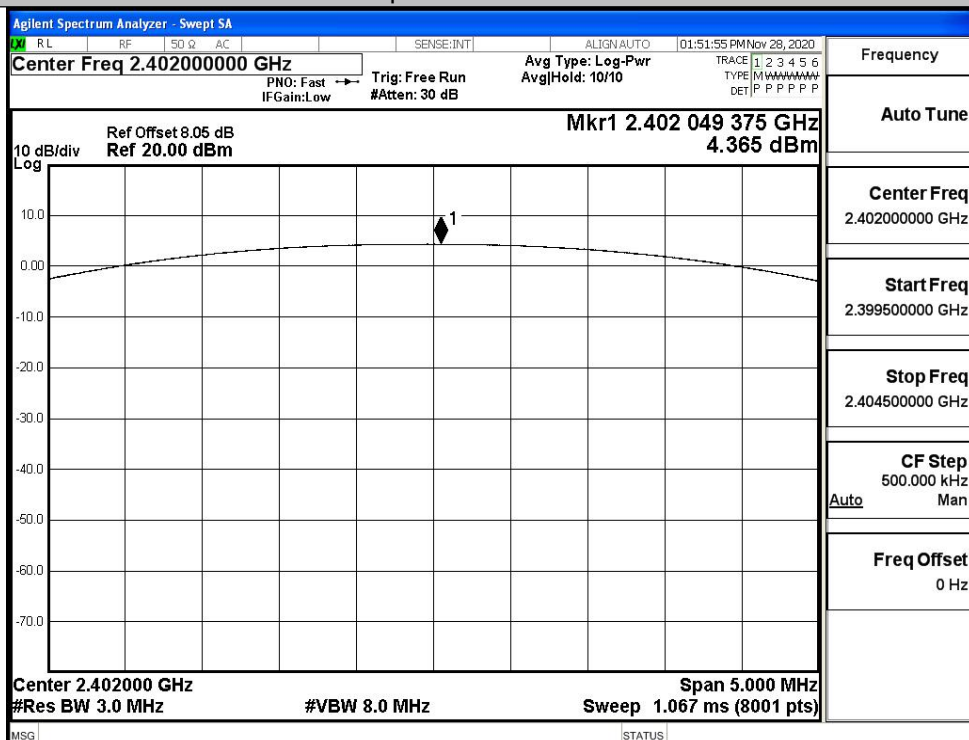
Temperature:	22.3° C
Relative Humidity:	53.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

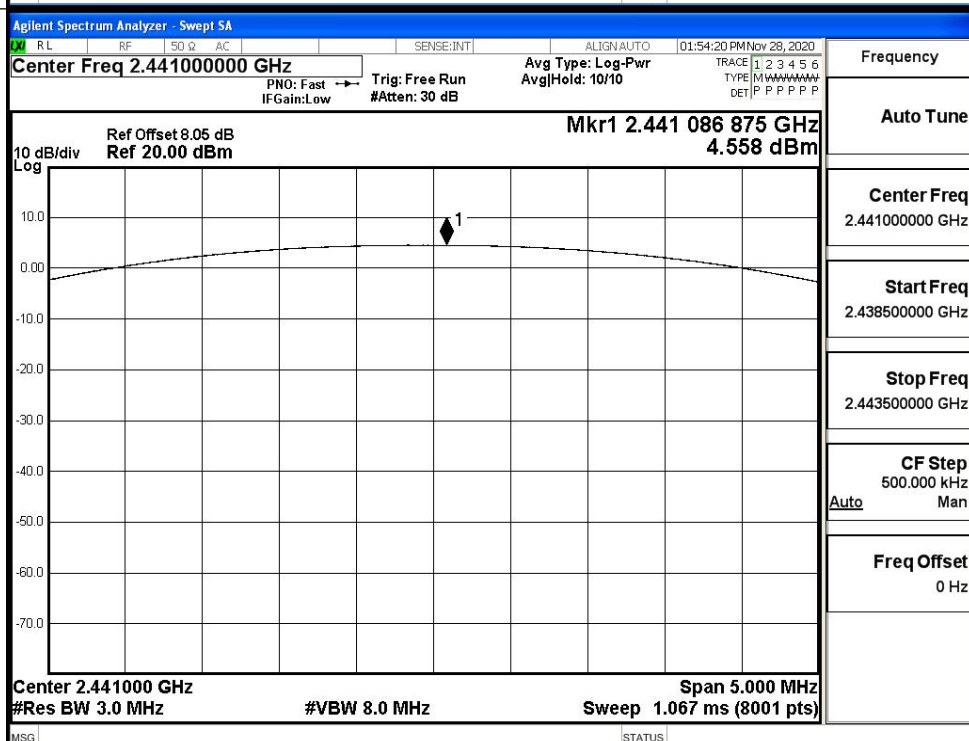
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	4.365	21	PASS
	MCH	4.558	21	PASS
	HCH	4.053	21	PASS
$\pi/4$ DQPSK	LCH	4.295	21	PASS
	MCH	4.519	21	PASS
	HCH	4.031	21	PASS
8DPSK	LCH	4.281	21	PASS
	MCH	4.519	21	PASS
	HCH	4.126	21	PASS

Test Graphs

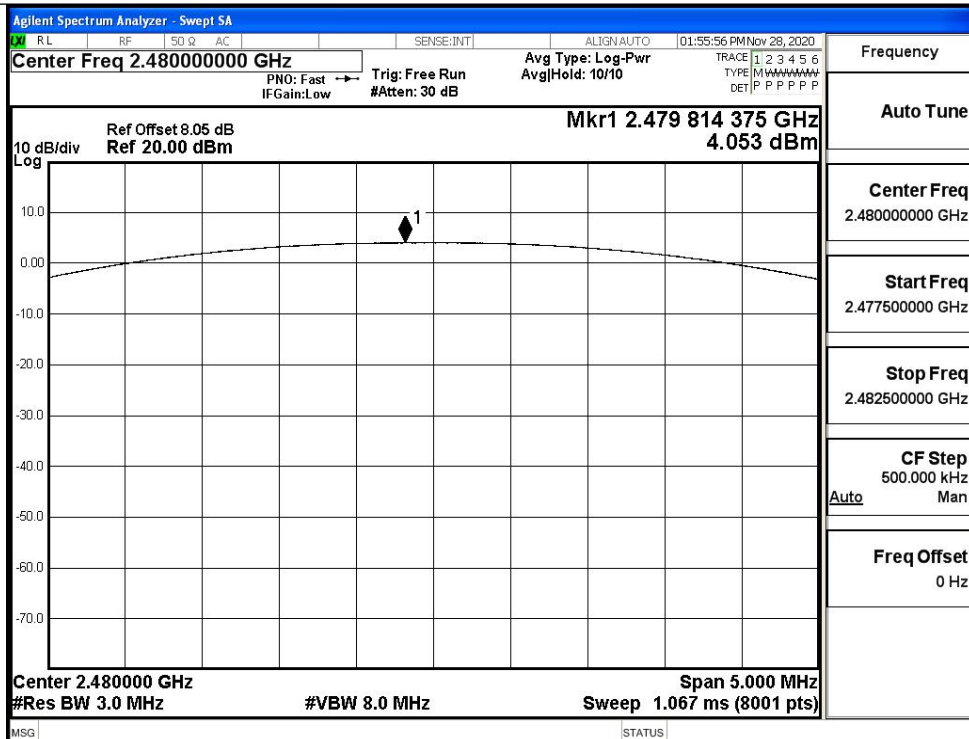
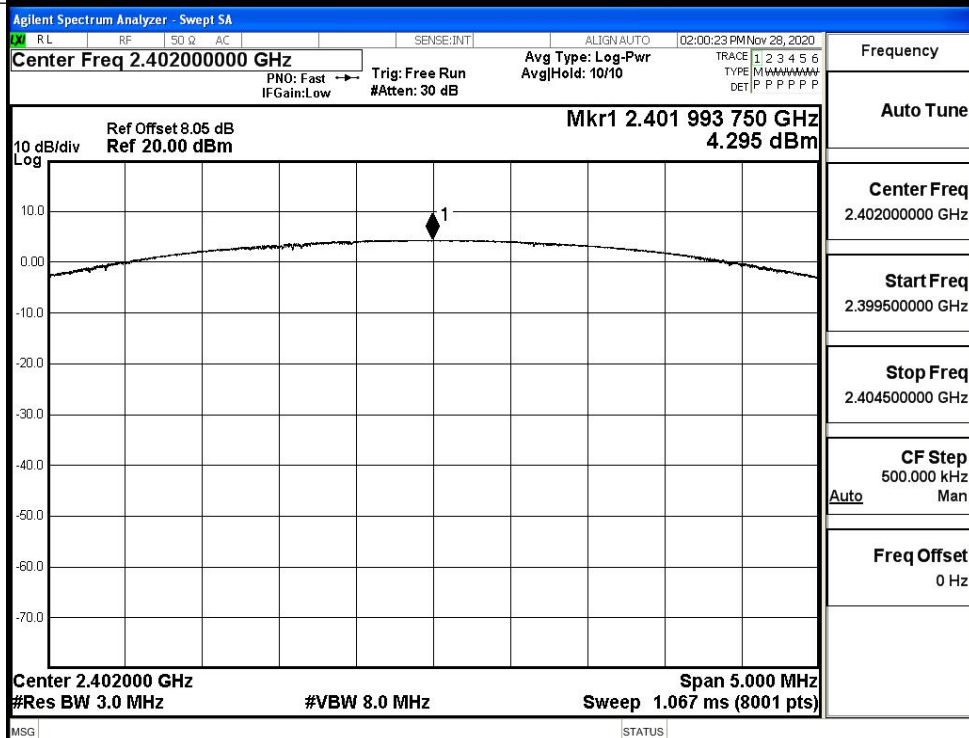
GFSK/LCH

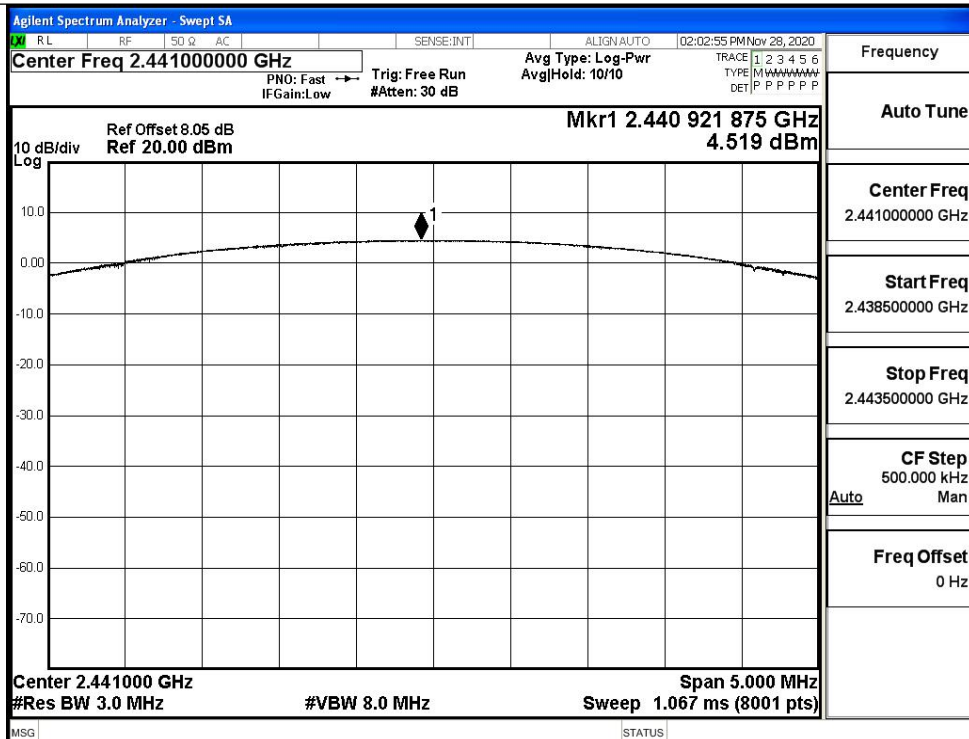
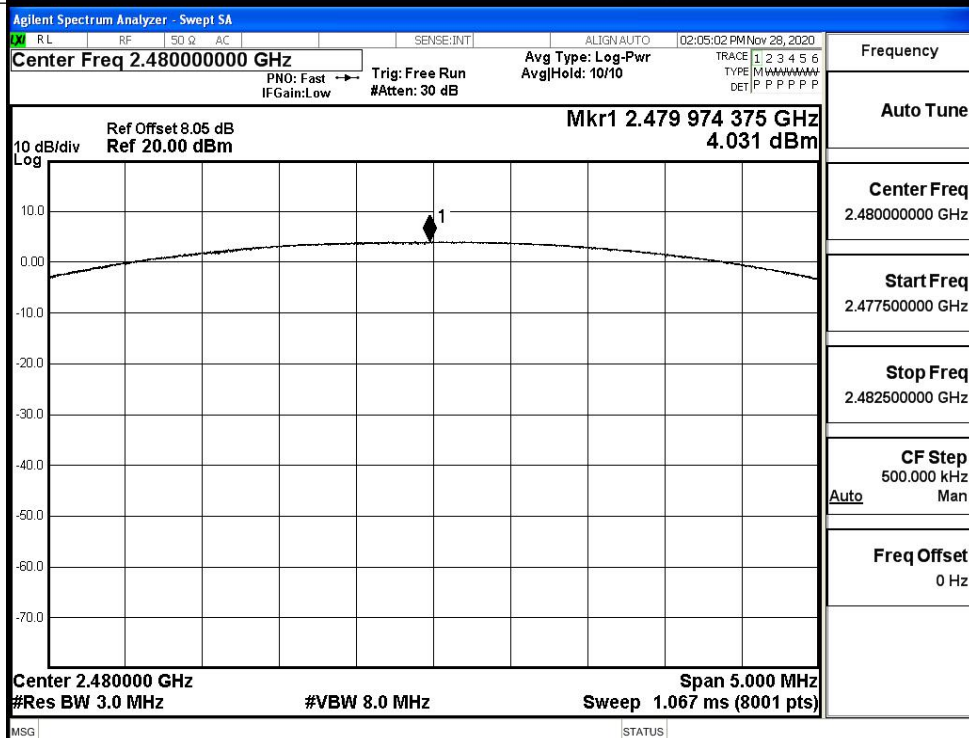


GFSK/MCH

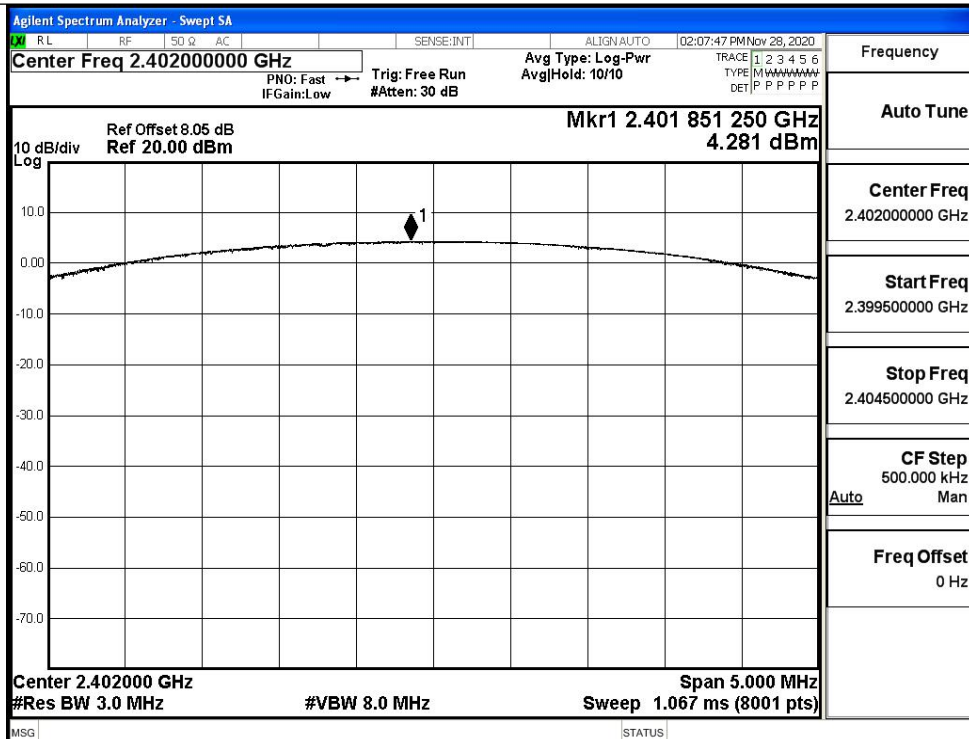


GFSK/HCH

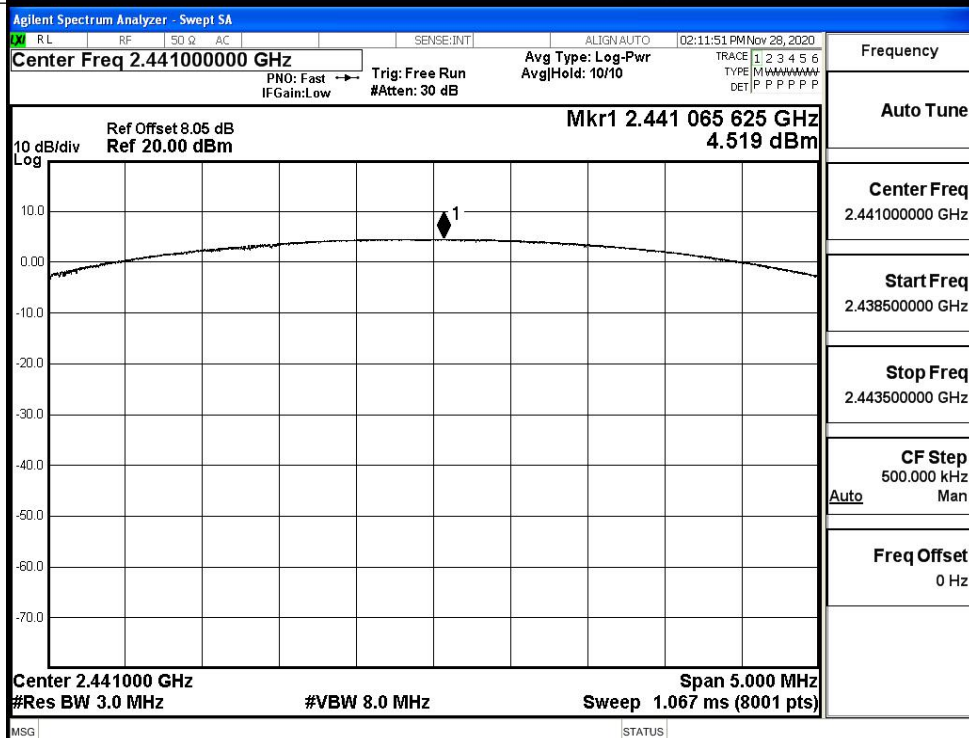
 π /4DQPSK/LCH

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

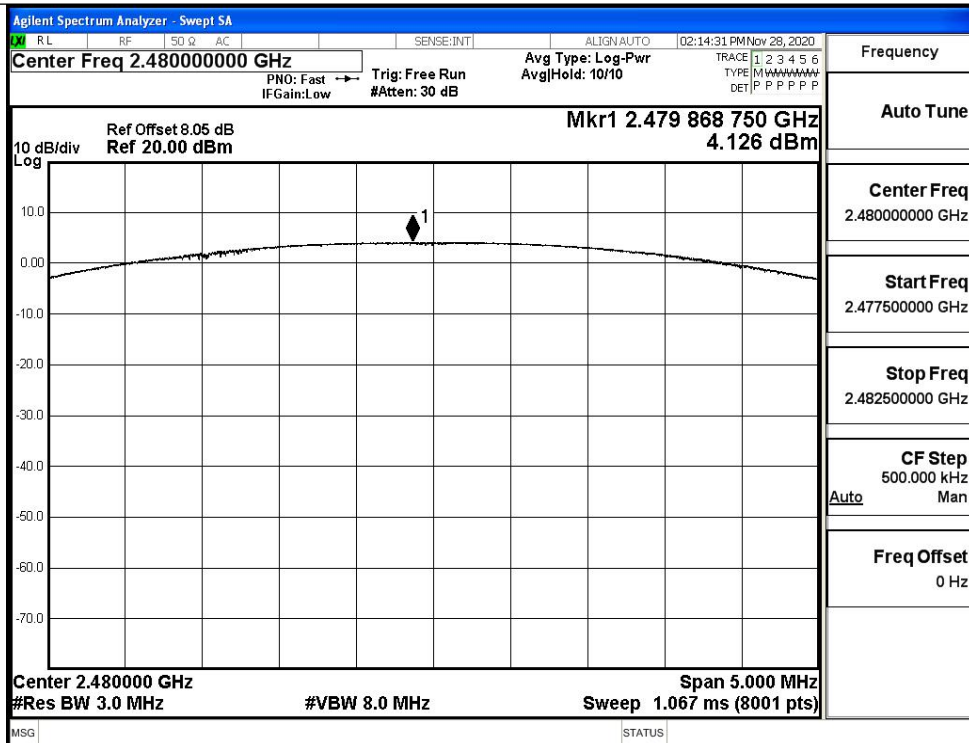
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

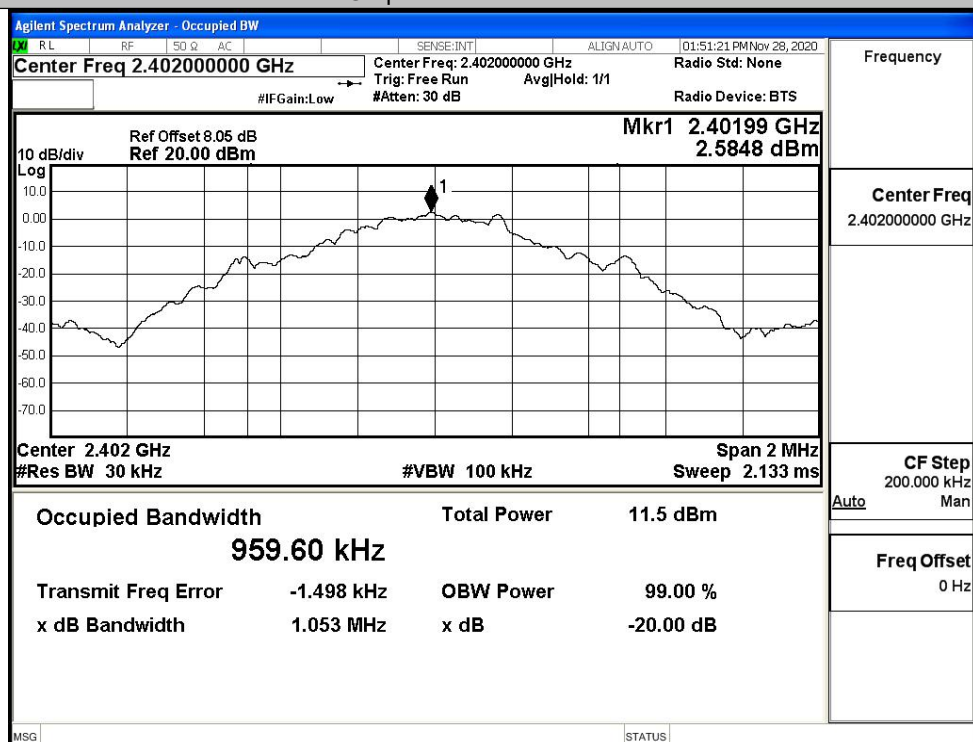


A.2 20dB Bandwidth

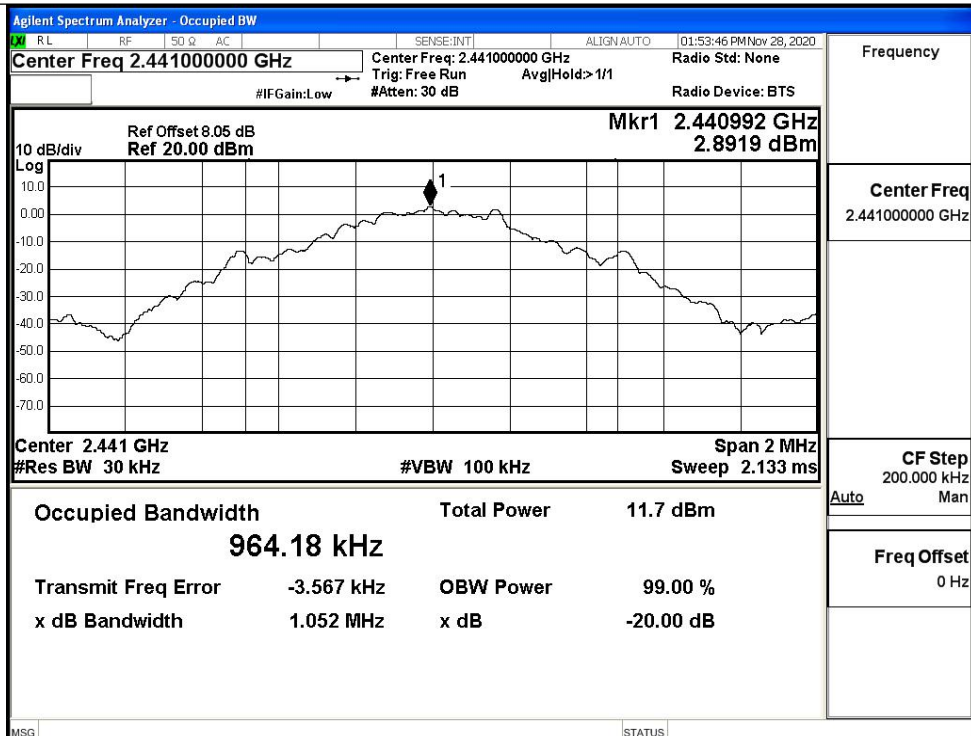
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.053	Not Specified	PASS
	MCH	1.052	Not Specified	PASS
	HCH	1.053	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.192	Not Specified	PASS
	MCH	1.191	Not Specified	PASS
	HCH	1.190	Not Specified	PASS
8DPSK	LCH	1.237	Not Specified	PASS
	MCH	1.235	Not Specified	PASS
	HCH	1.237	Not Specified	PASS

Test Graphs

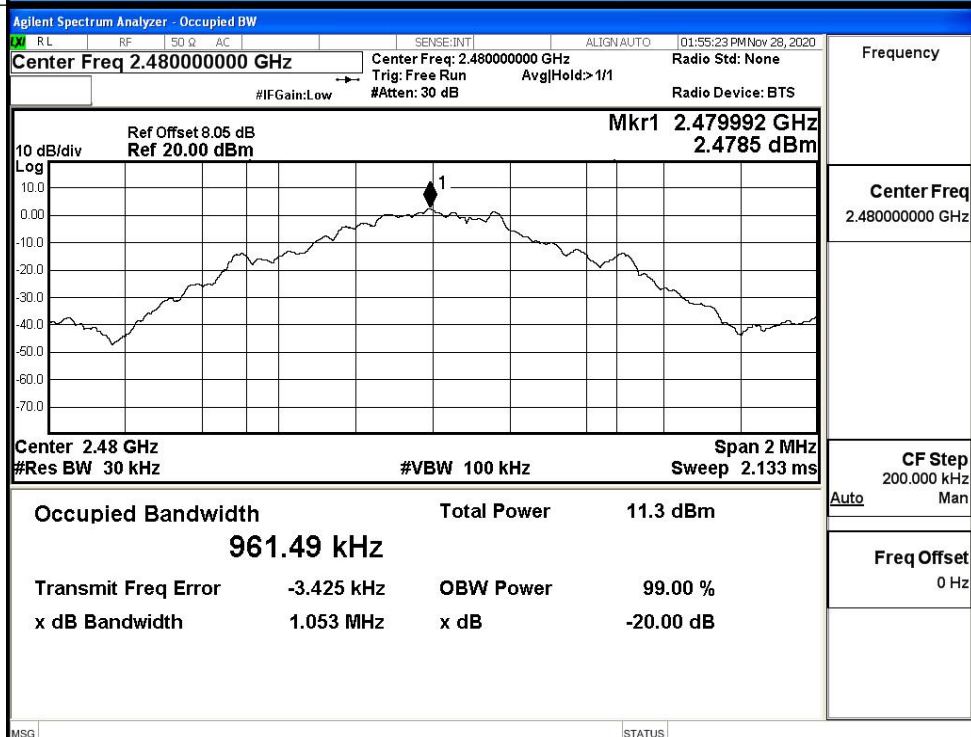
GFSK/LCH

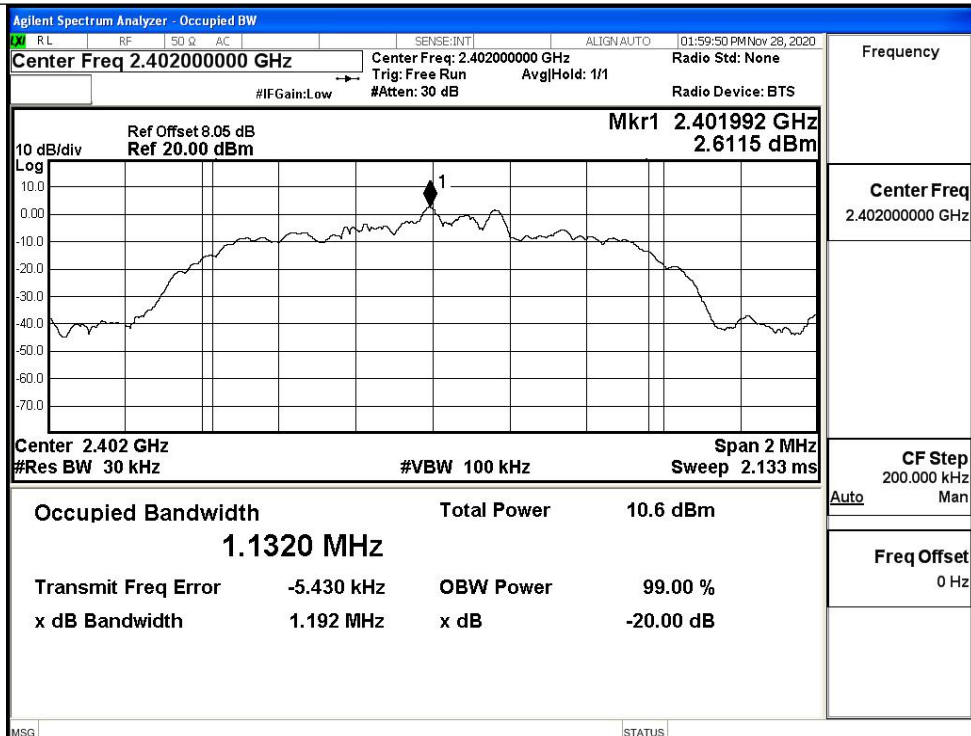
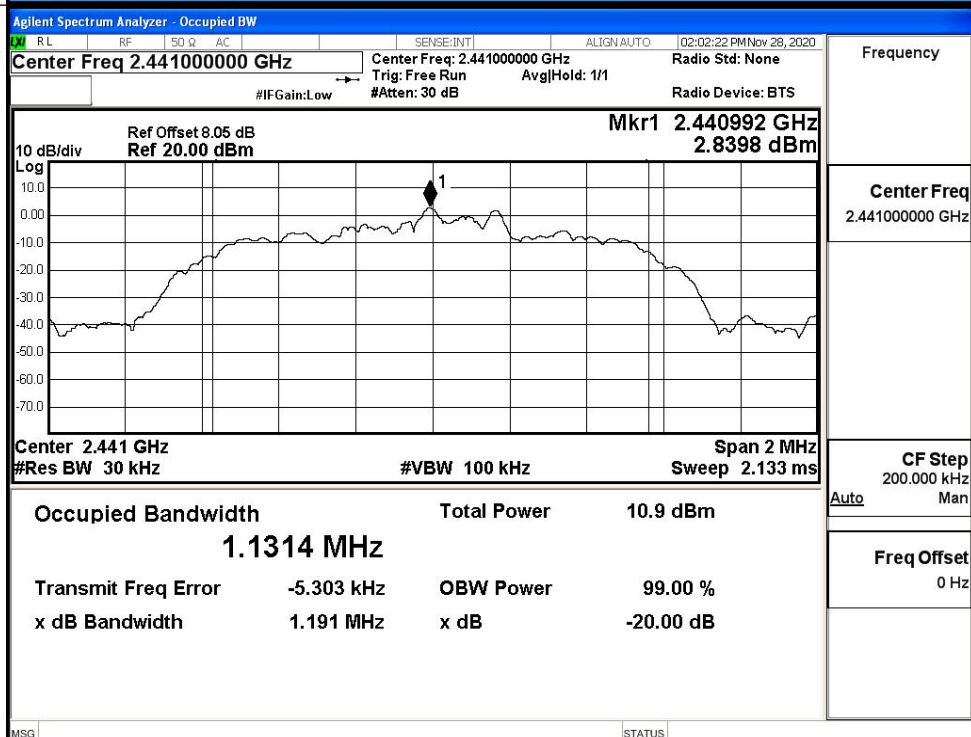


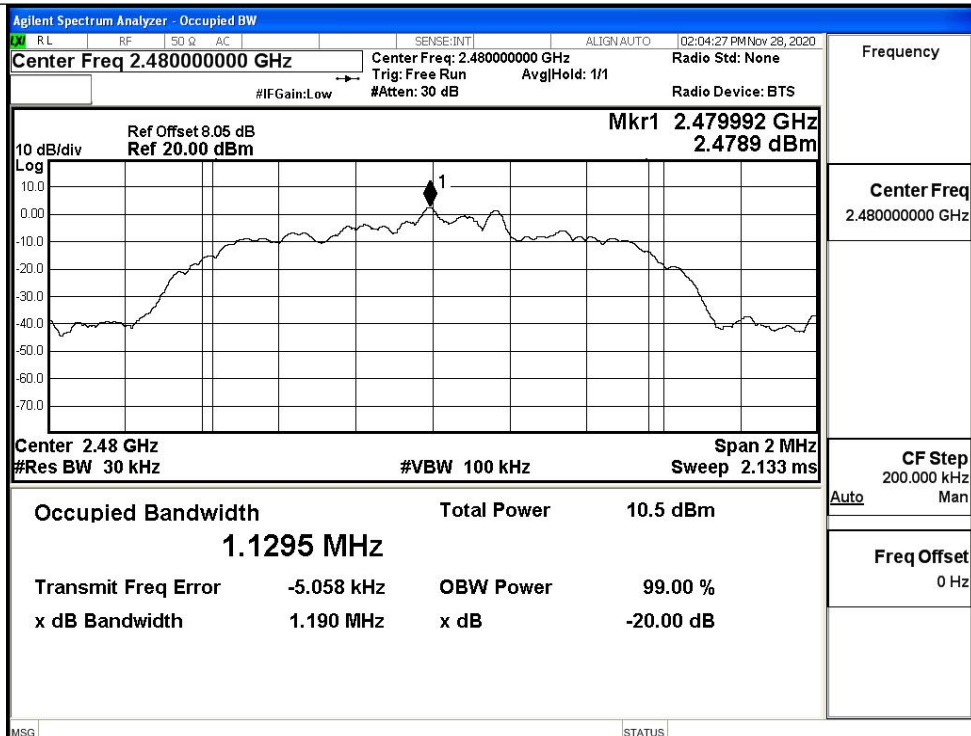
GFSK/MCH



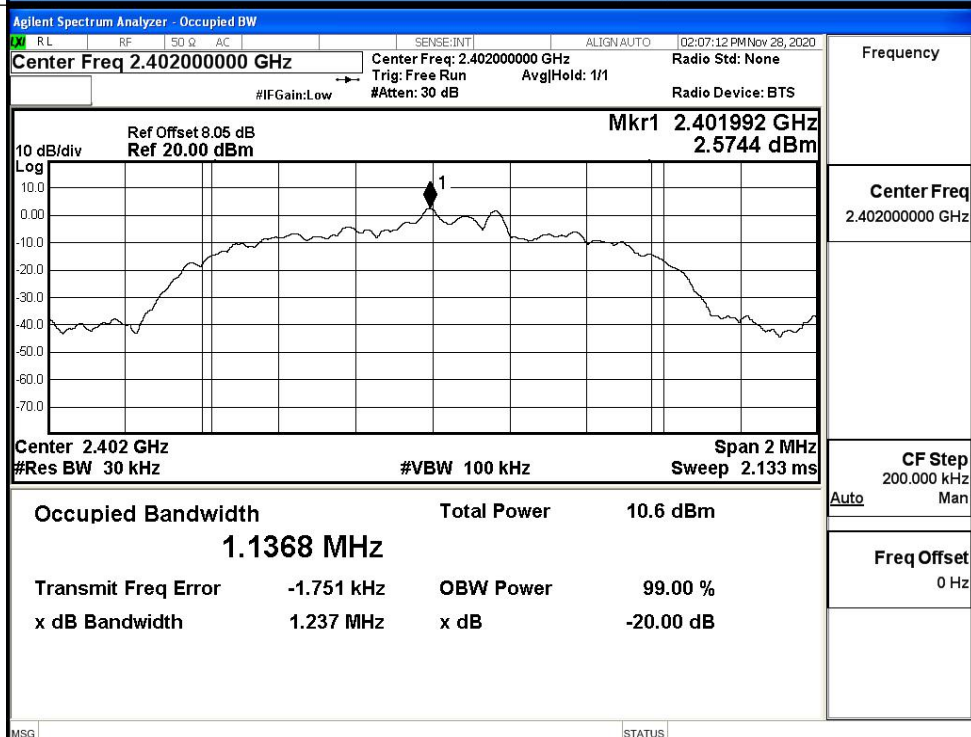
GFSK/HCH



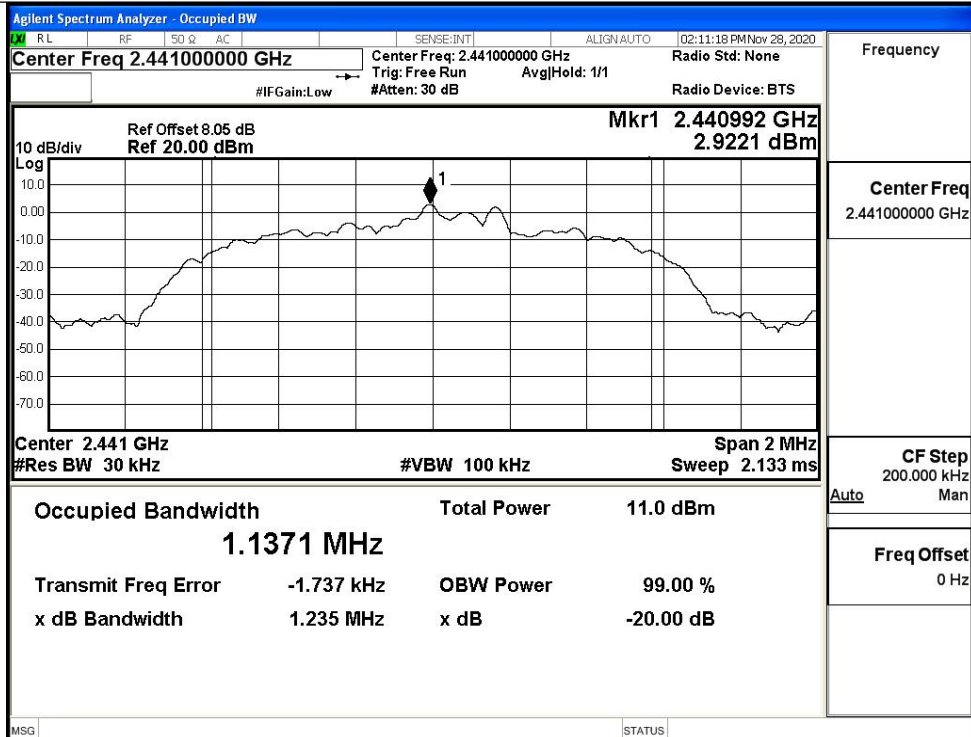
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

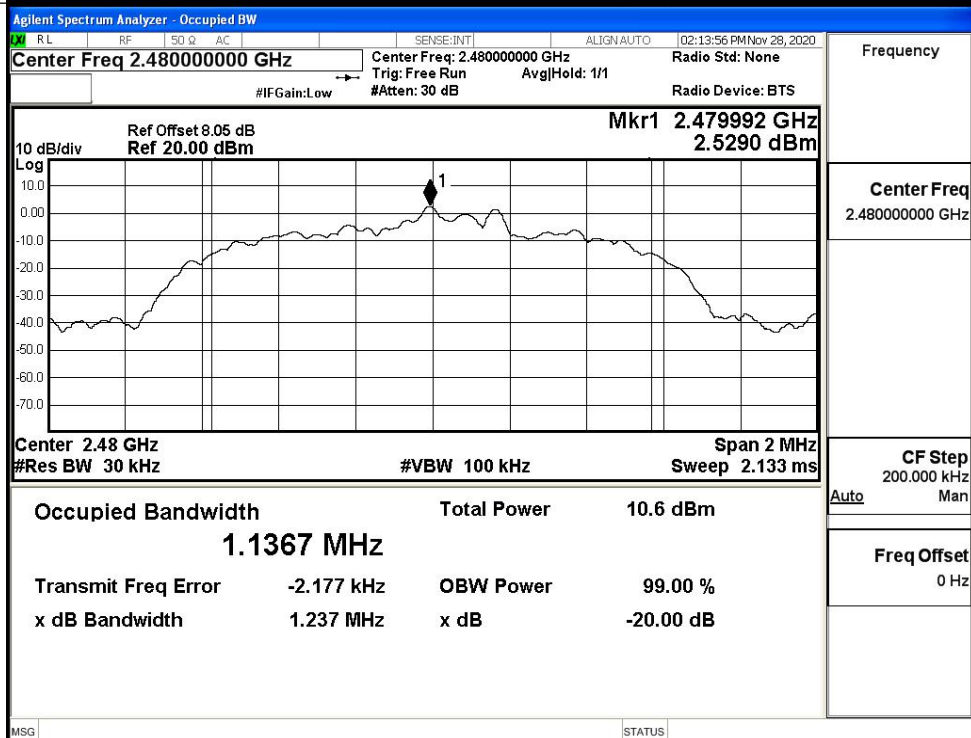
8DPSK/LCH



8DPSK/MCH



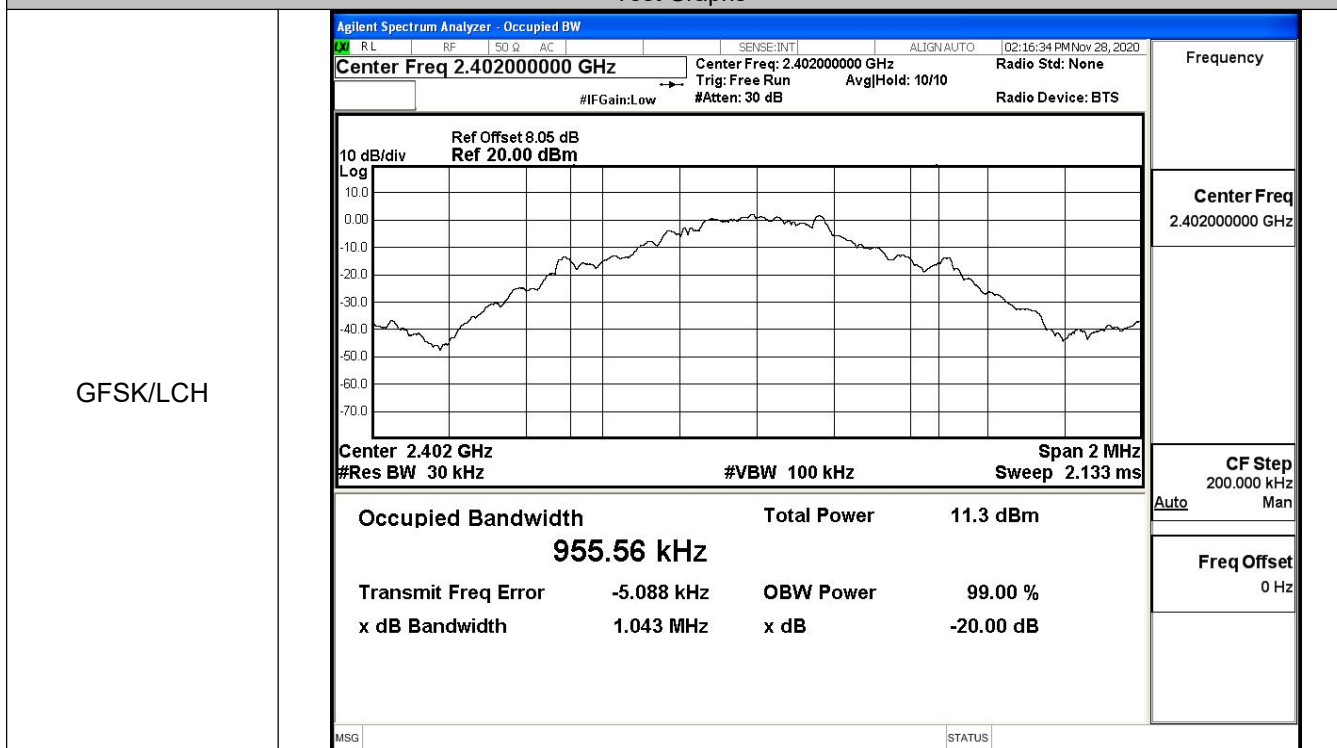
8DPSK/HCH



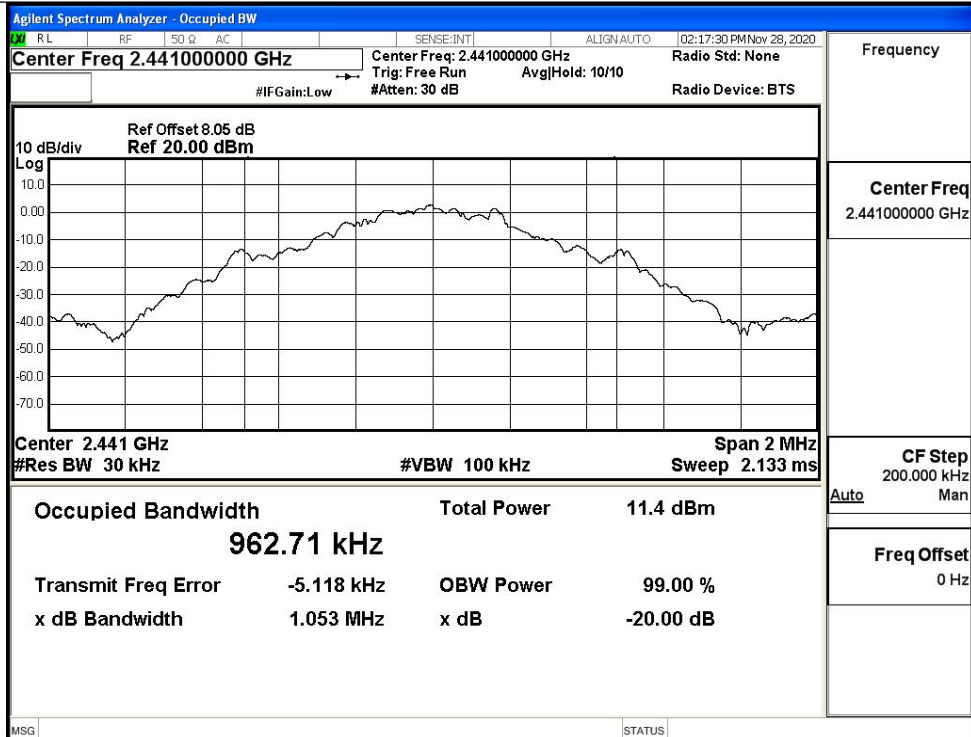
A.3 Occupied Bandwidth

Mode	Channel.	Occupied Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.95556	Not Specified	PASS
	MCH	0.96271	Not Specified	PASS
	HCH	0.95156	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.1327	Not Specified	PASS
	MCH	1.1294	Not Specified	PASS
	HCH	1.1295	Not Specified	PASS
8DPSK	LCH	1.1368	Not Specified	PASS
	MCH	1.1396	Not Specified	PASS
	HCH	1.1420	Not Specified	PASS

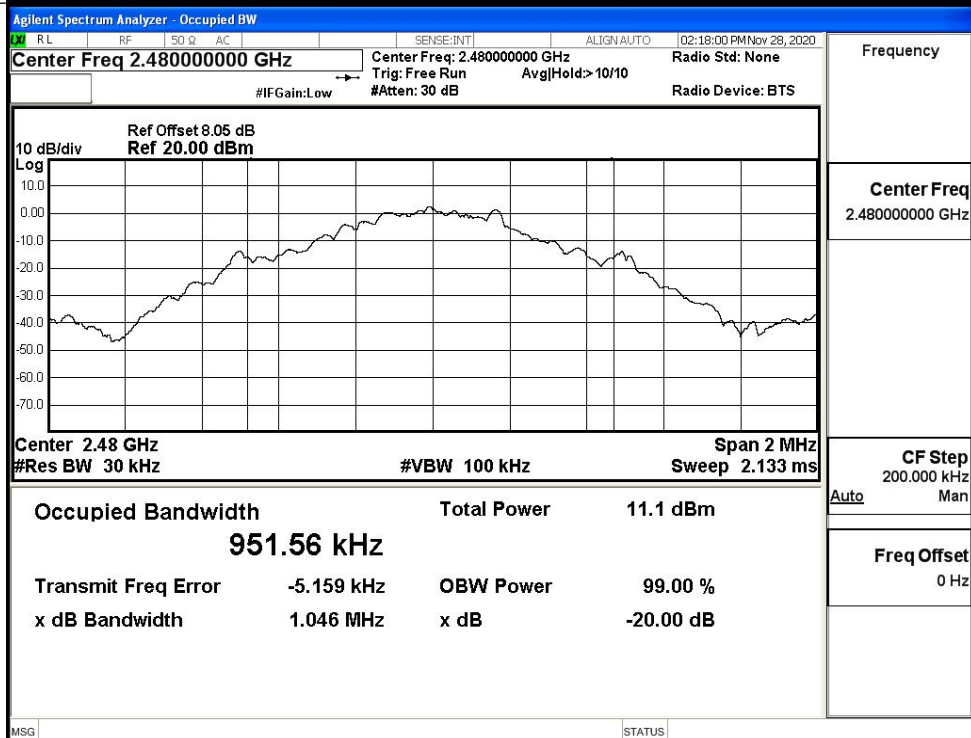
Test Graphs

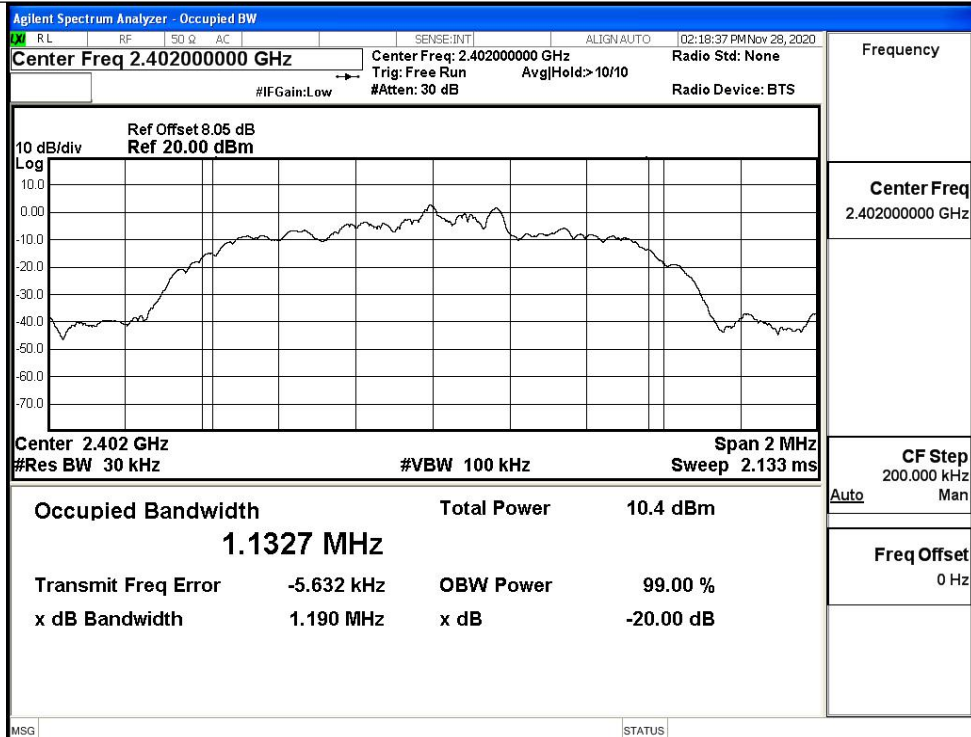


GFSK/MCH



GFSK/HCH

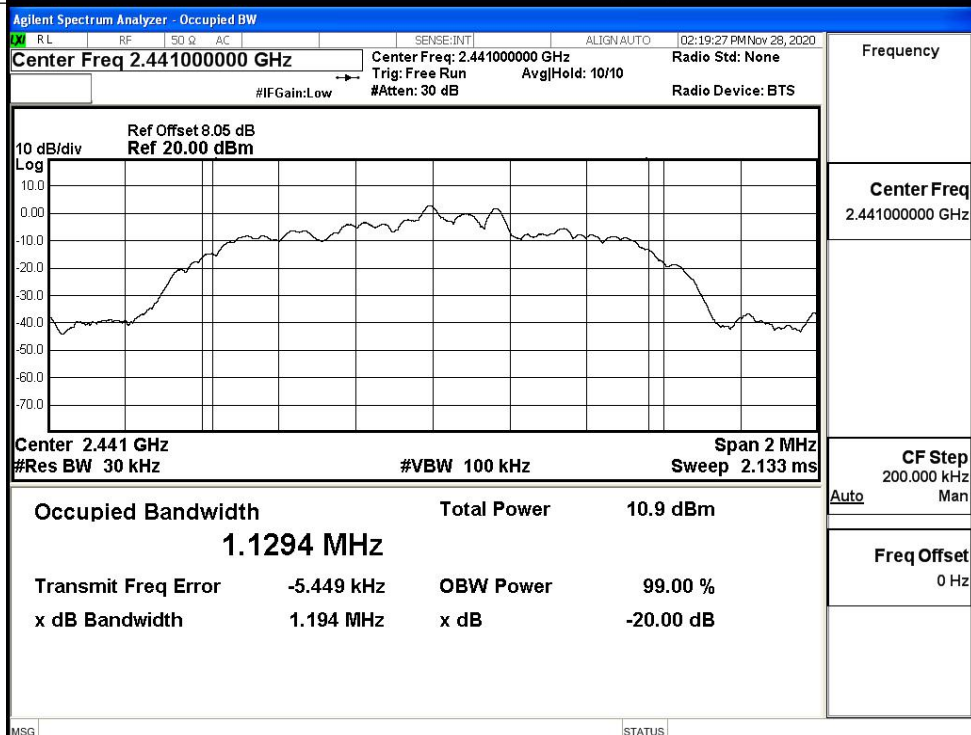


$\pi/4$ DQPSK/LCH

Frequency

Center Freq
2.40200000 GHzCF Step
200.000 kHz
Man

Auto

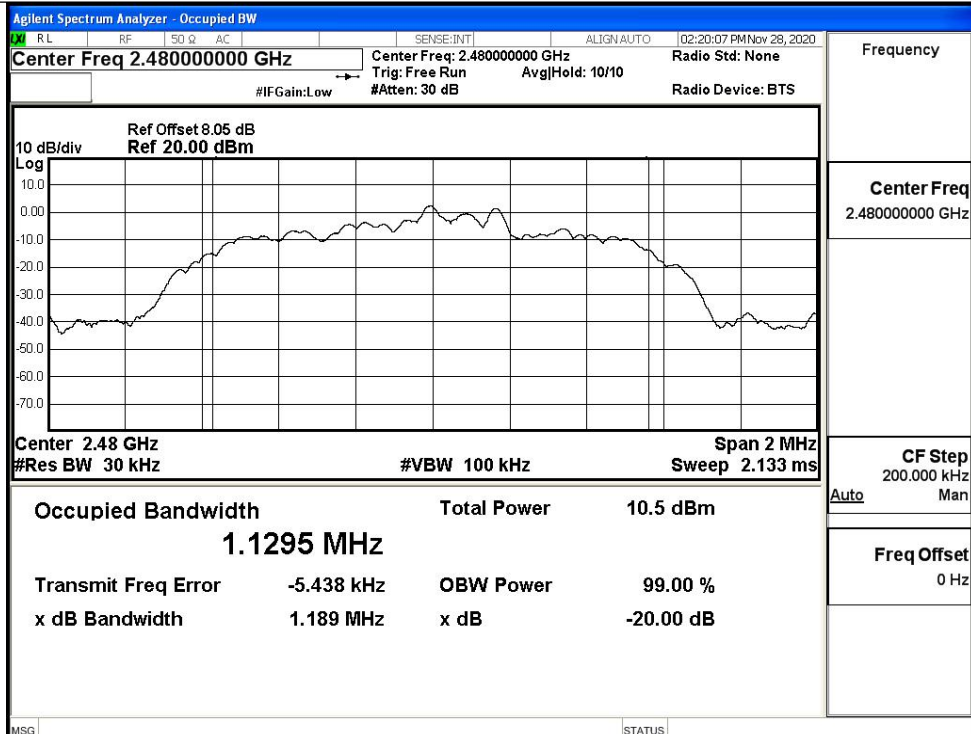
Freq Offset
0 Hz $\pi/4$ DQPSK/MCH

Frequency

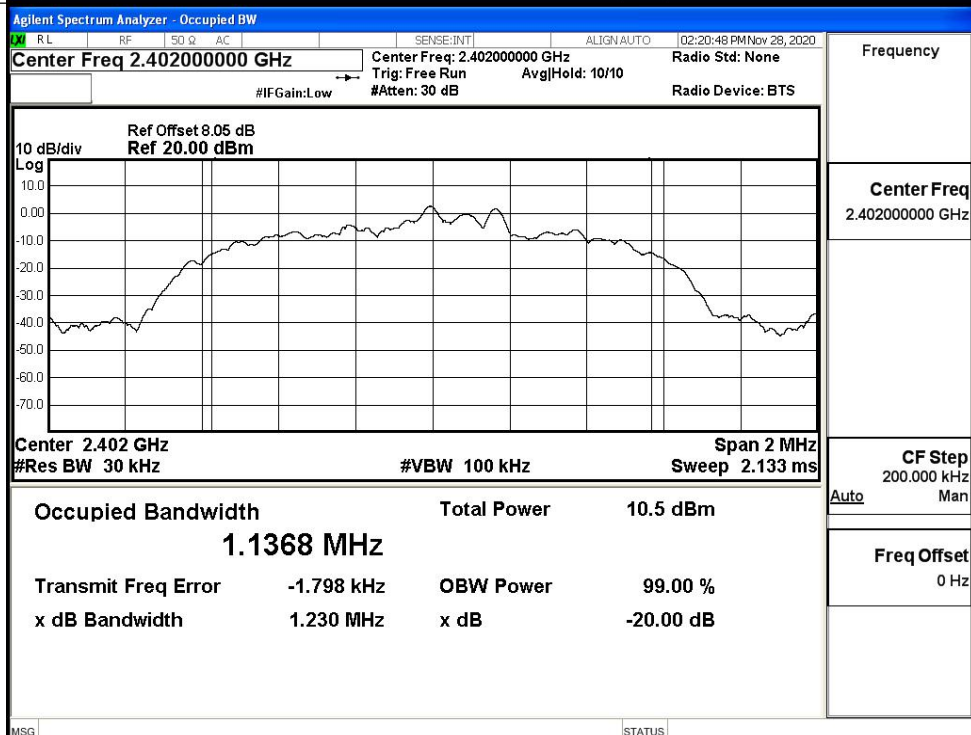
Center Freq
2.44100000 GHzCF Step
200.000 kHz
Man

Auto

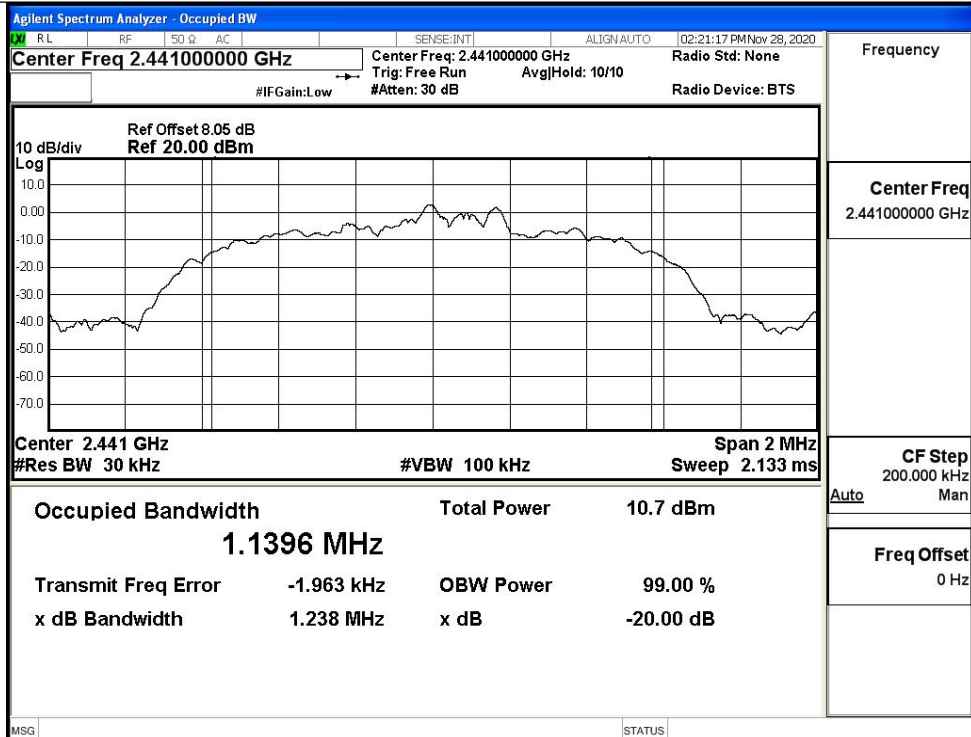
Freq Offset
0 Hz

$\pi/4$ DQPSK/HCH

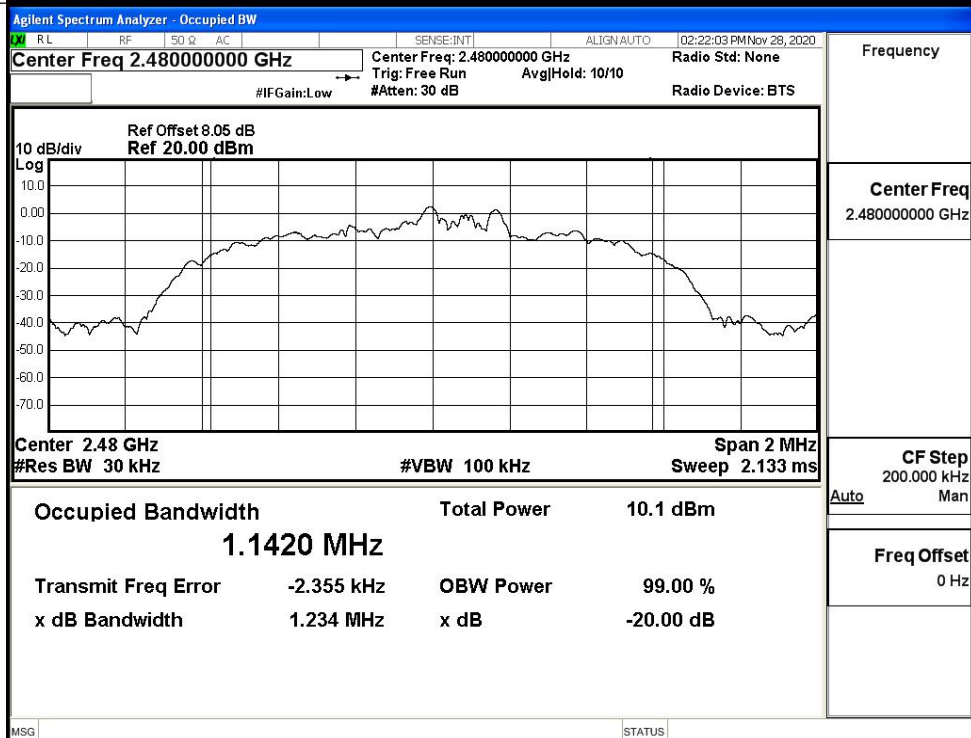
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

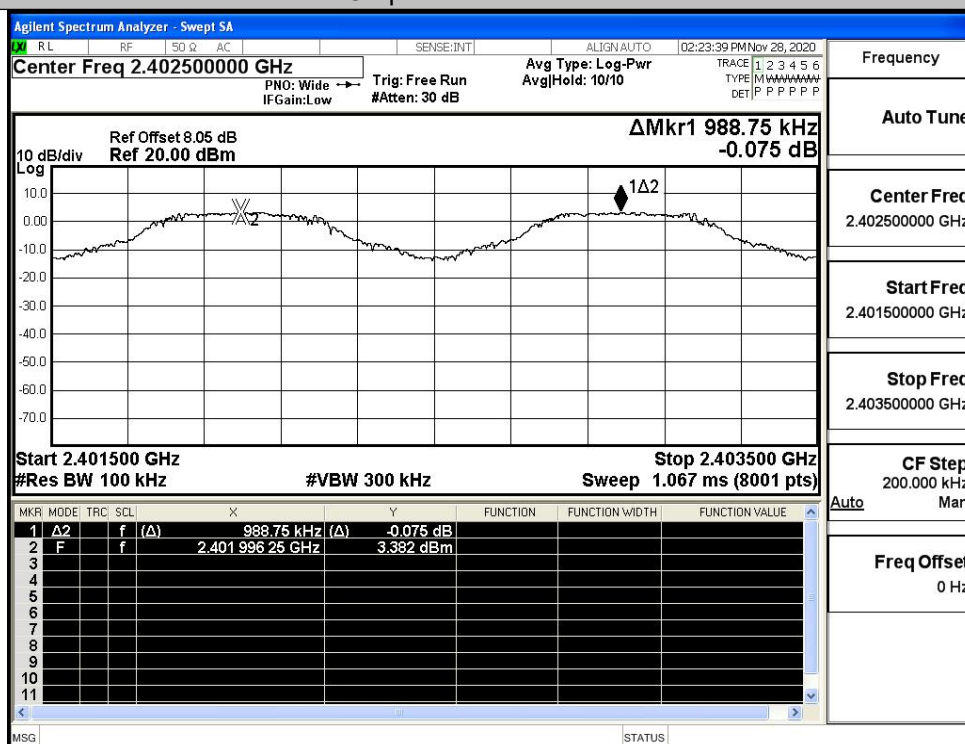


A.4 Carrier Frequency Separation

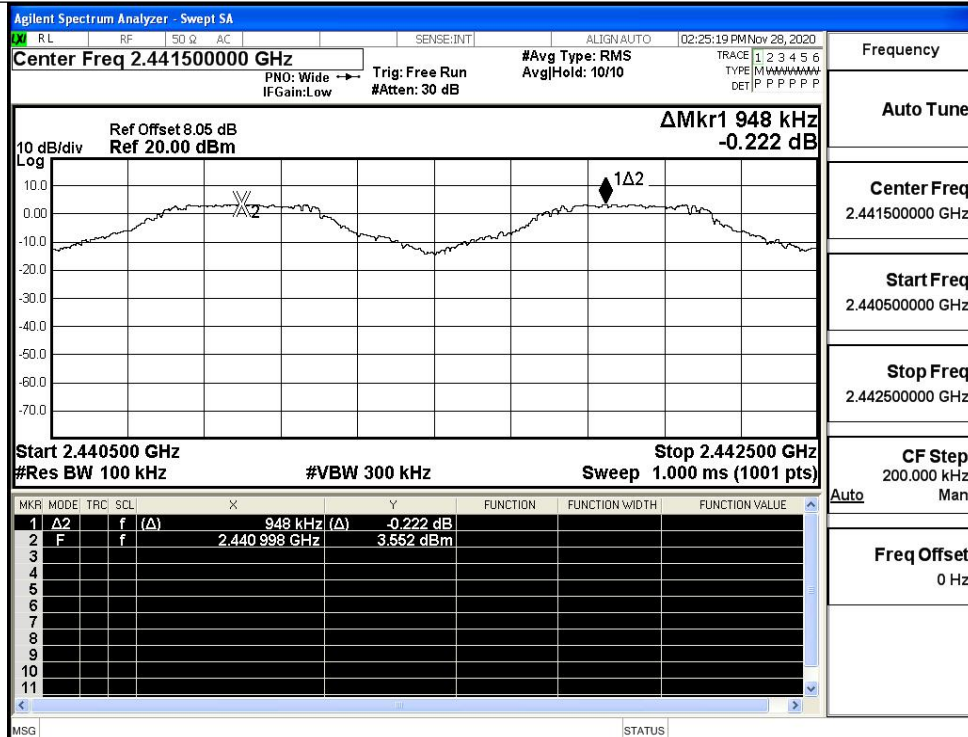
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.989	0.702	PASS
	MCH	0.948	0.702	PASS
	HCH	0.998	0.702	PASS
$\pi/4$ DQPSK	LCH	0.838	0.795	PASS
	MCH	0.858	0.795	PASS
	HCH	1.004	0.795	PASS
8DPSK	LCH	1.012	0.825	PASS
	MCH	1.146	0.825	PASS
	HCH	0.858	0.825	PASS

Test Graphs

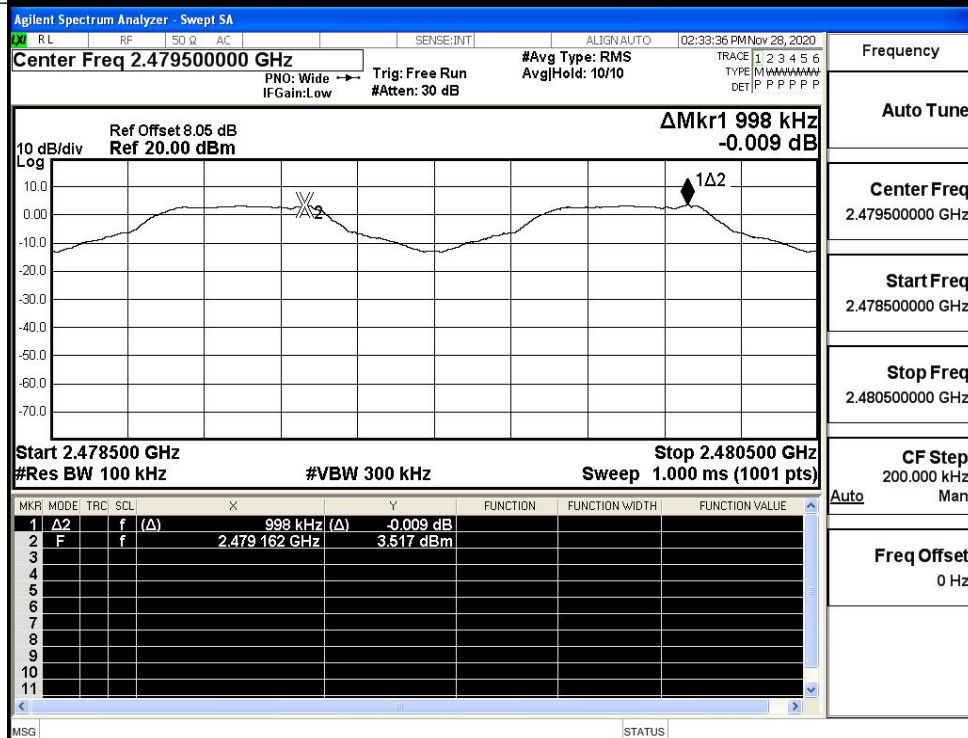
GFSK/LCH

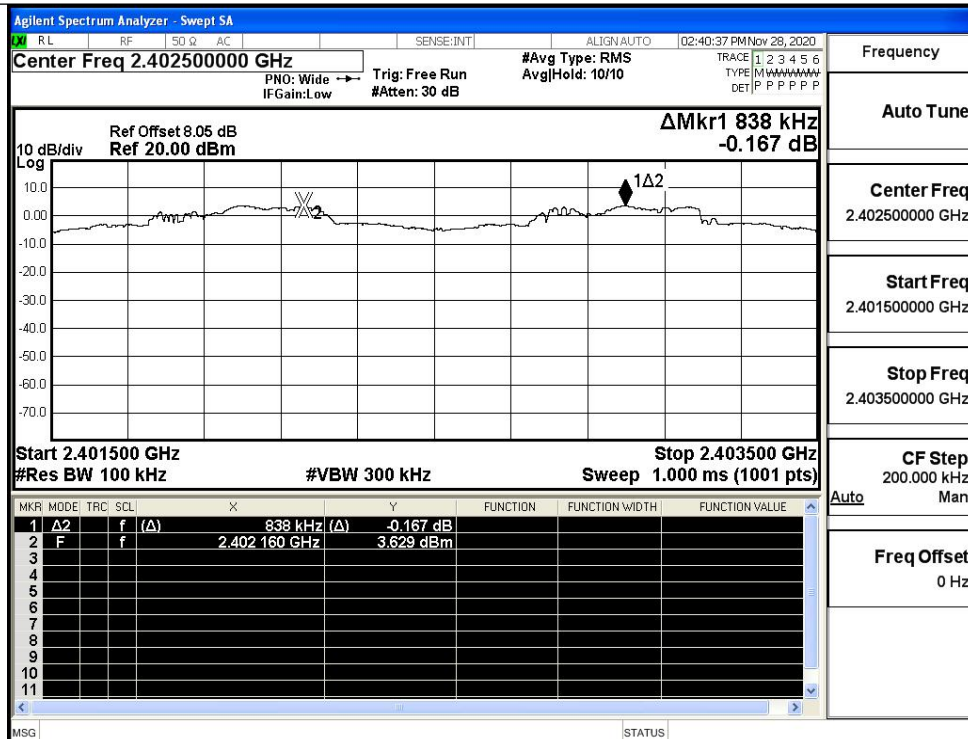
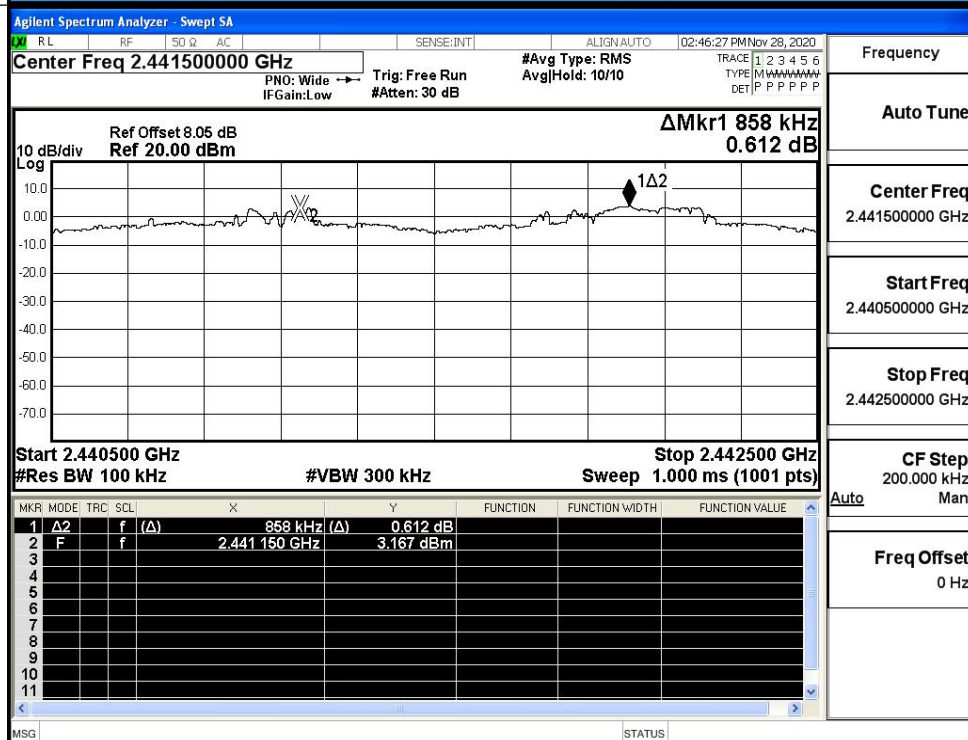


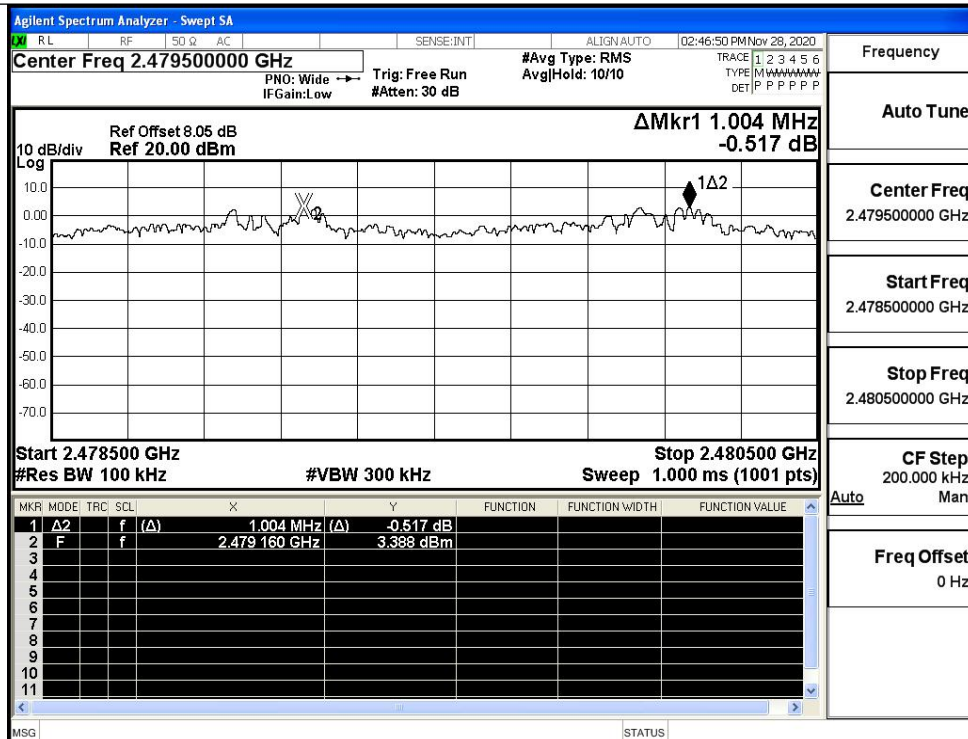
GFSK/MCH



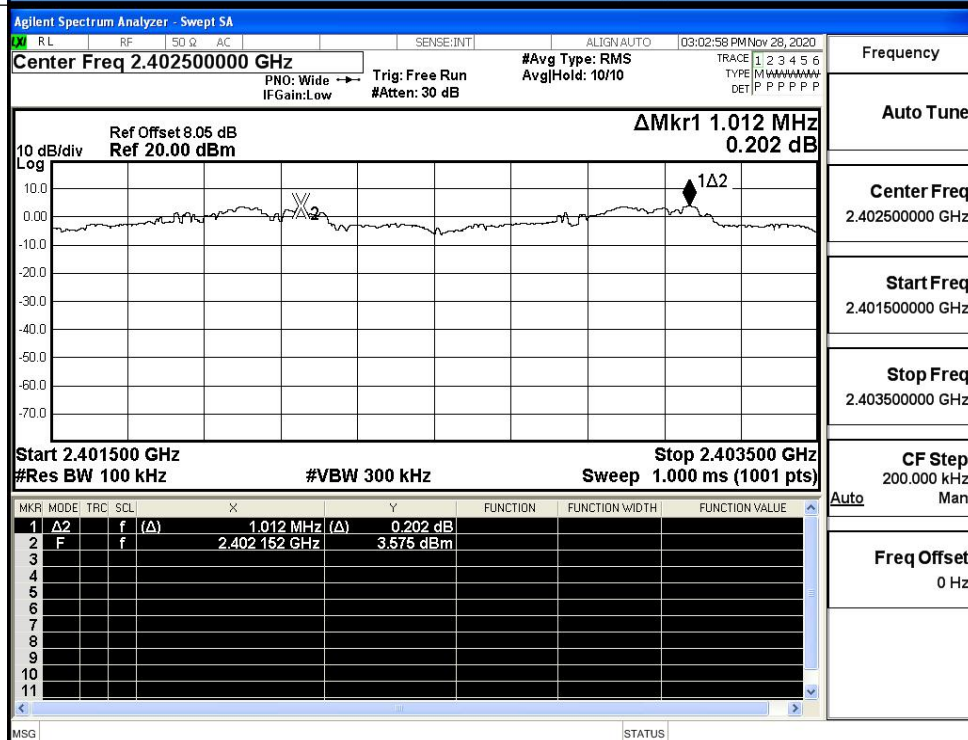
GFSK/HCH



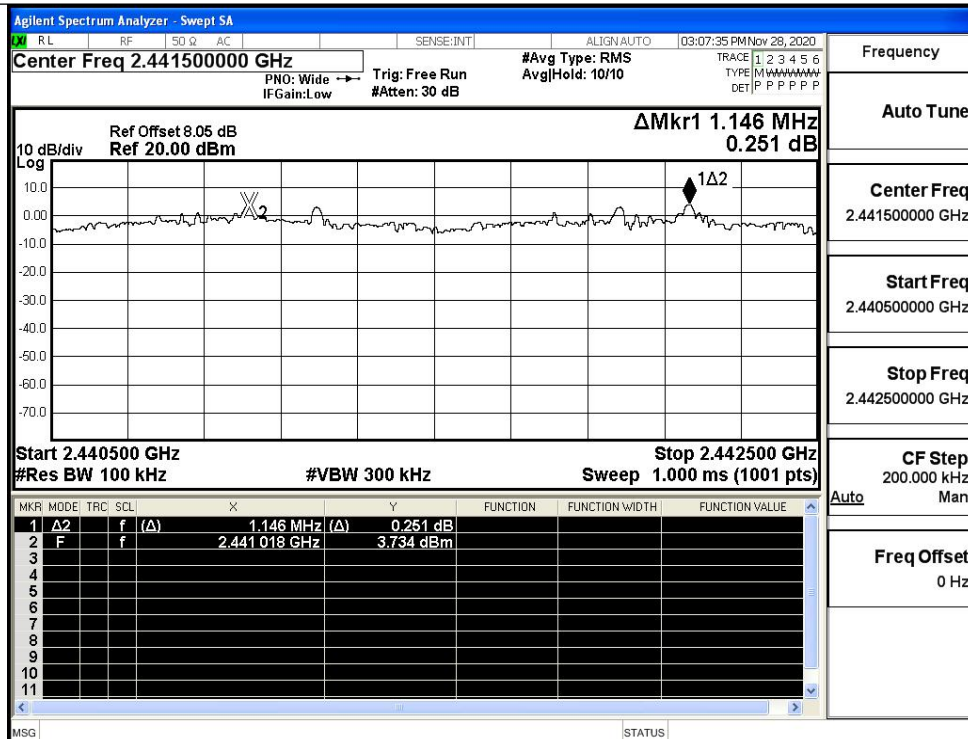
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

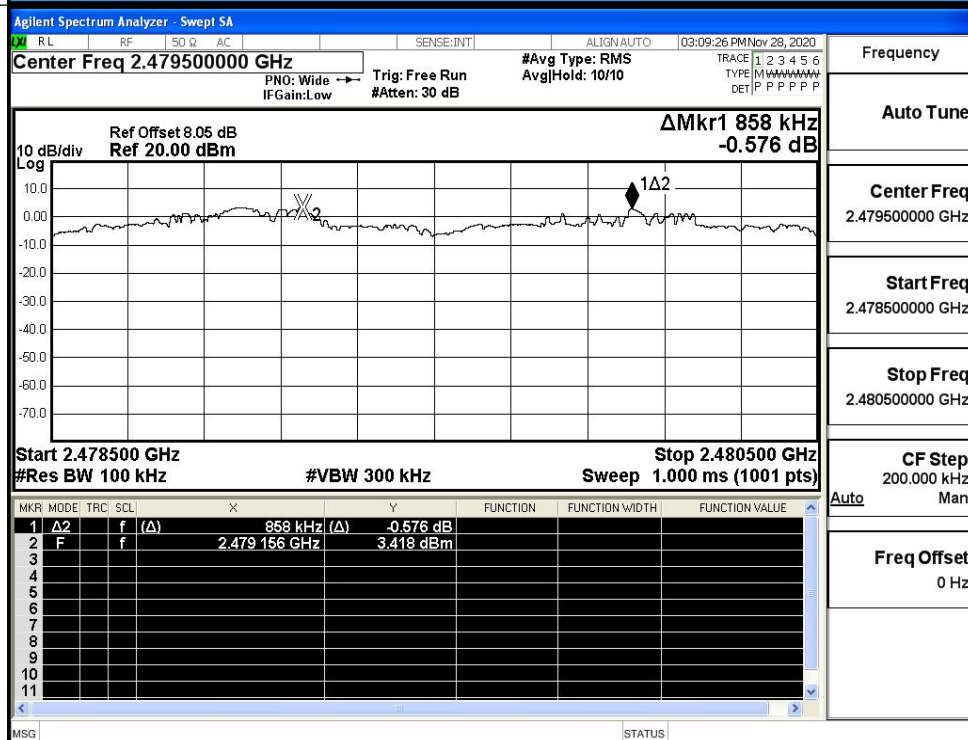
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

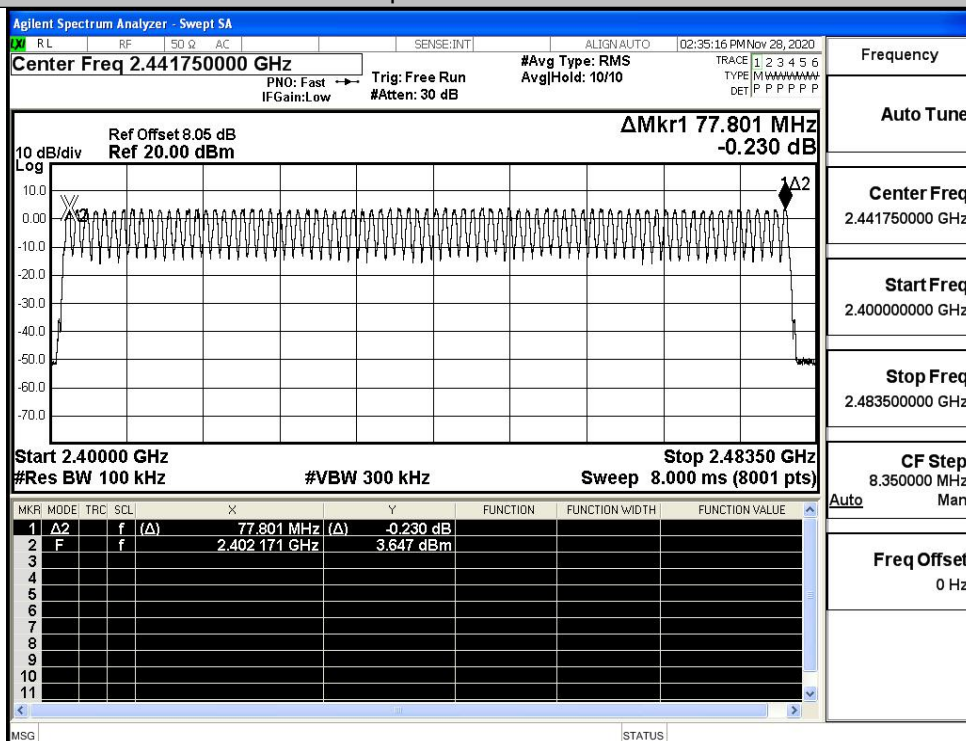


A.5 Hopping Channel Number

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

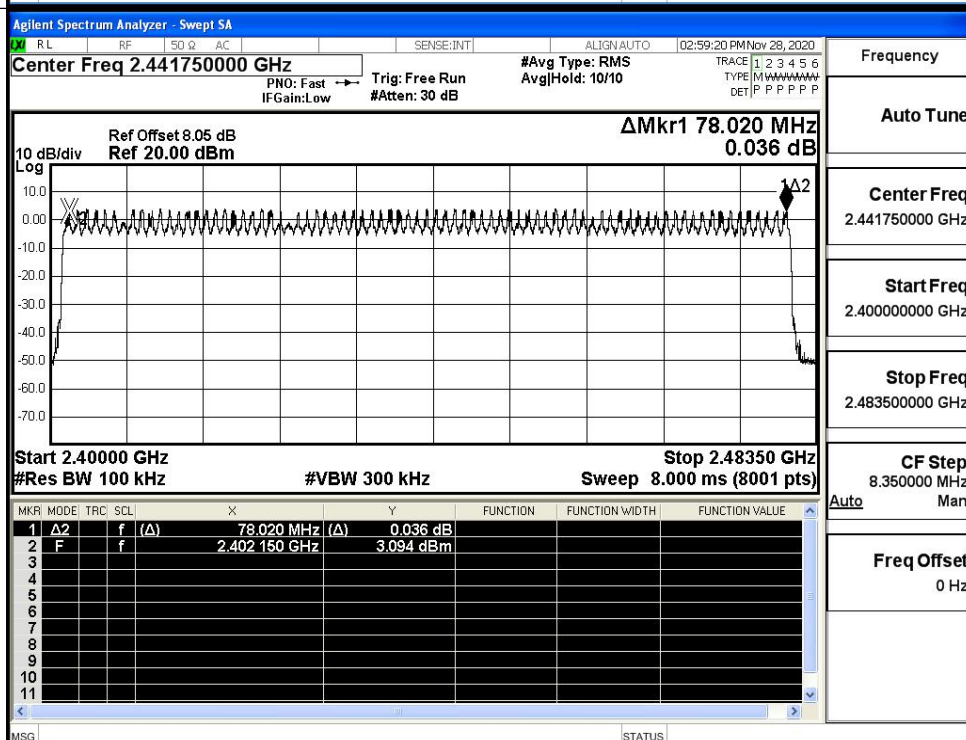
Test Graphs

GFSK/Hop



Frequency

Auto Tune

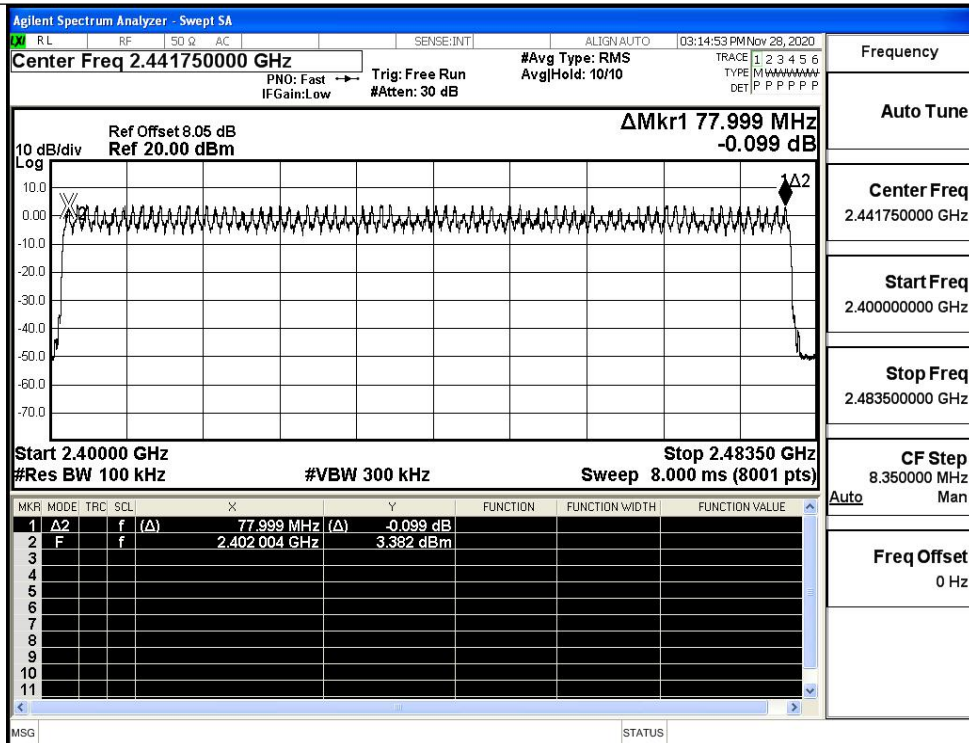
Center Freq
2.441750000 GHzStart Freq
2.400000000 GHzStop Freq
2.483500000 GHzCF Step
8.350000 MHz
ManFreq Offset
0 Hz $\pi/4$ DQPSK/Hop

Frequency

Auto Tune

Center Freq
2.441750000 GHzStart Freq
2.400000000 GHzStop Freq
2.483500000 GHzCF Step
8.350000 MHz
ManFreq Offset
0 Hz

8DPSK/Hop

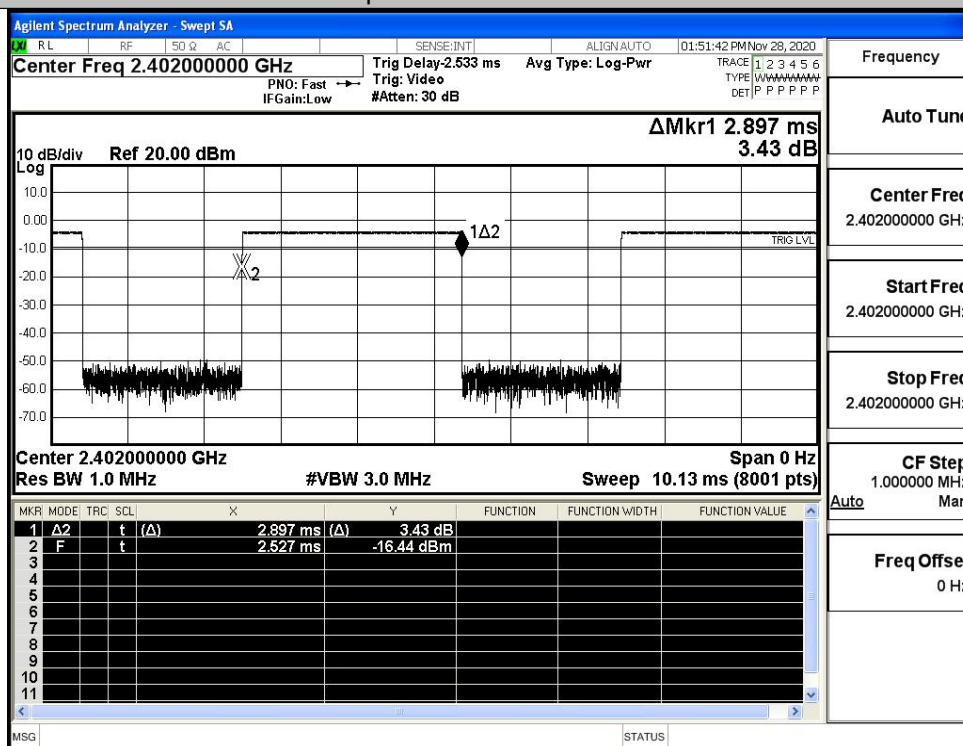


A.6 Dwell Time

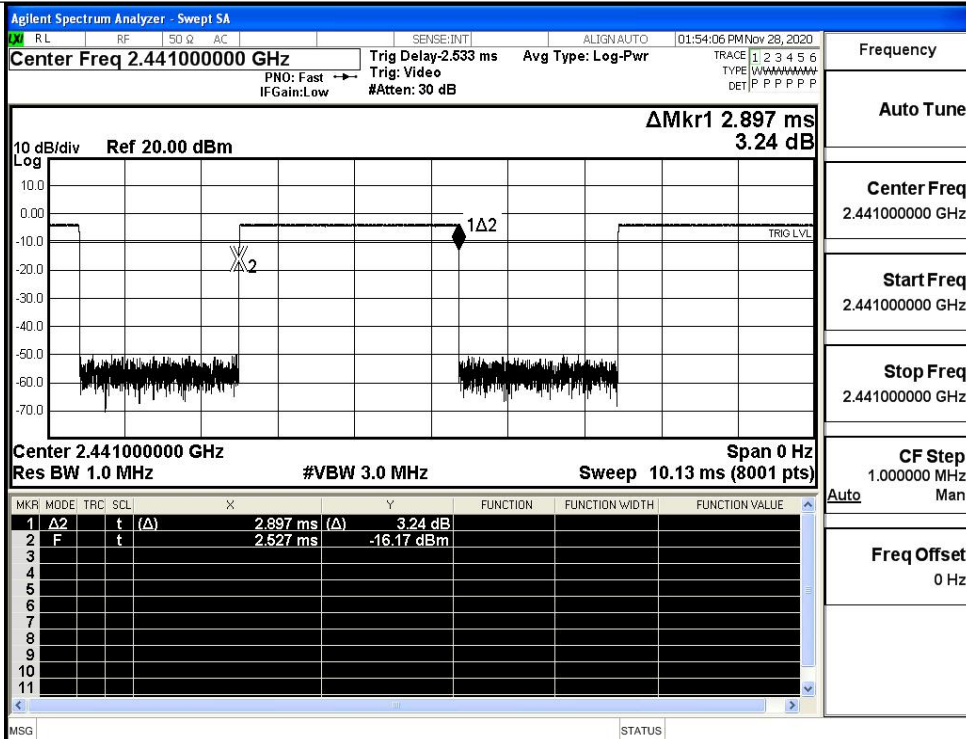
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.9	106.7	0.309	0.4	PASS
	DH5	MCH	2.9	106.7	0.309	0.4	PASS
	DH5	HCH	2.9	106.7	0.309	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.9	106.7	0.309	0.4	PASS
	2DH5	MCH	2.9	106.7	0.309	0.4	PASS
	2DH5	HCH	2.9	106.7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

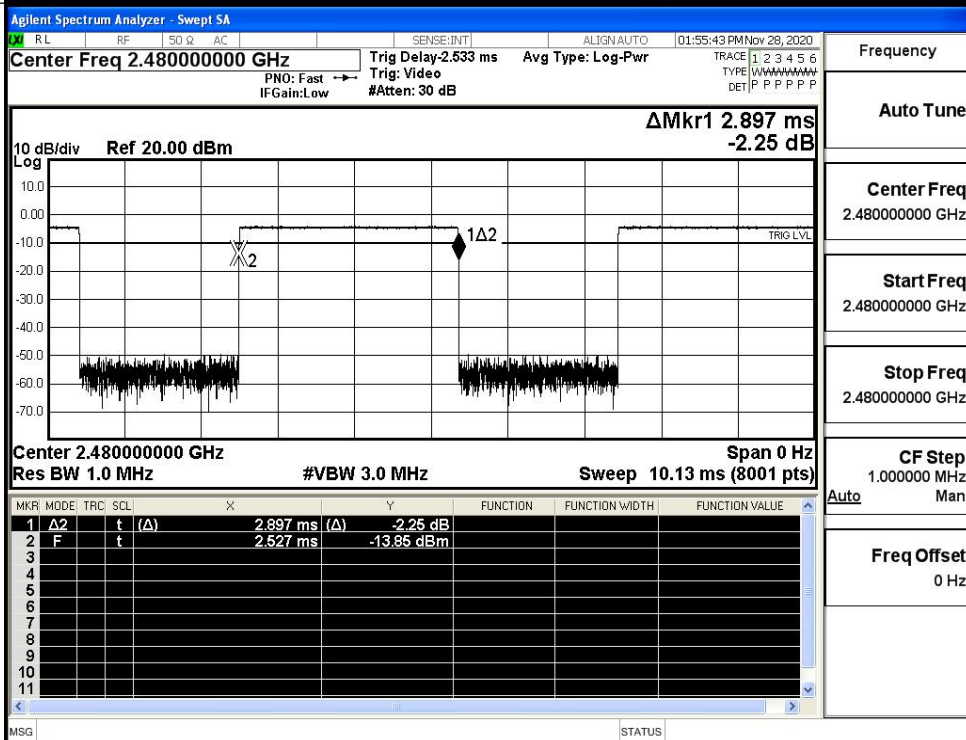
GFSK_DH5/LCH



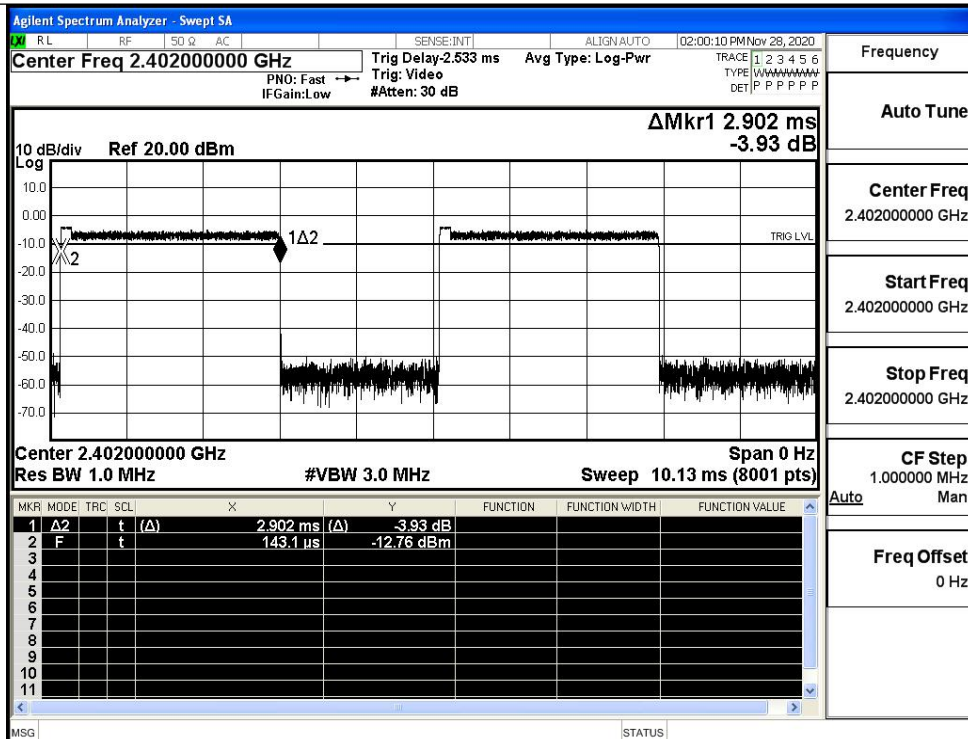
GFSK_DH5/MCH



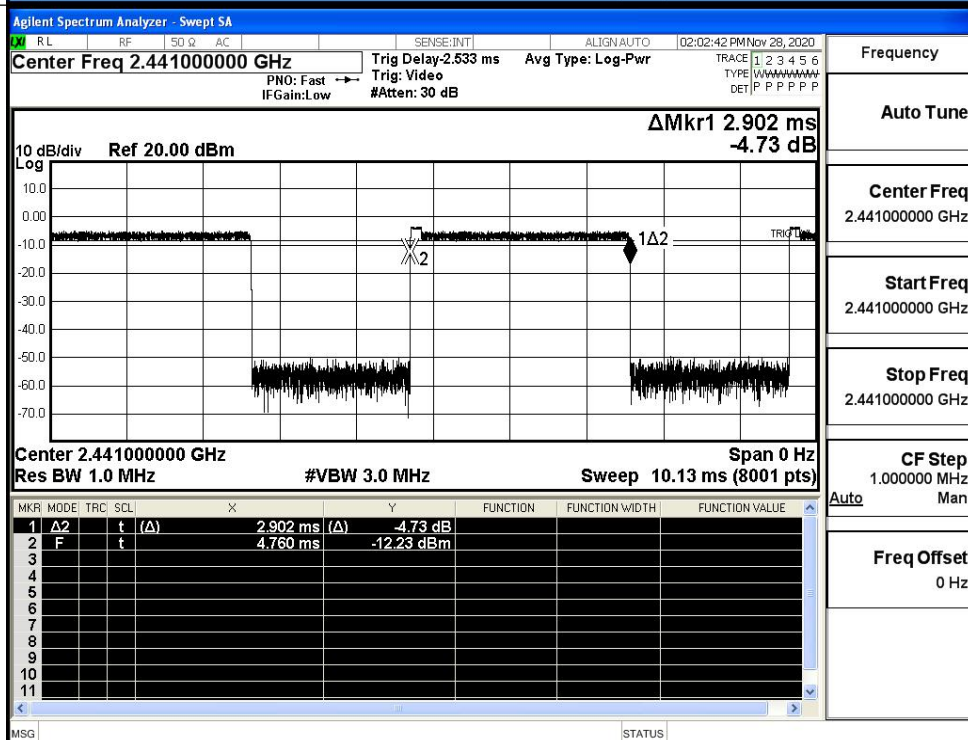
GFSK_DH5/HCH



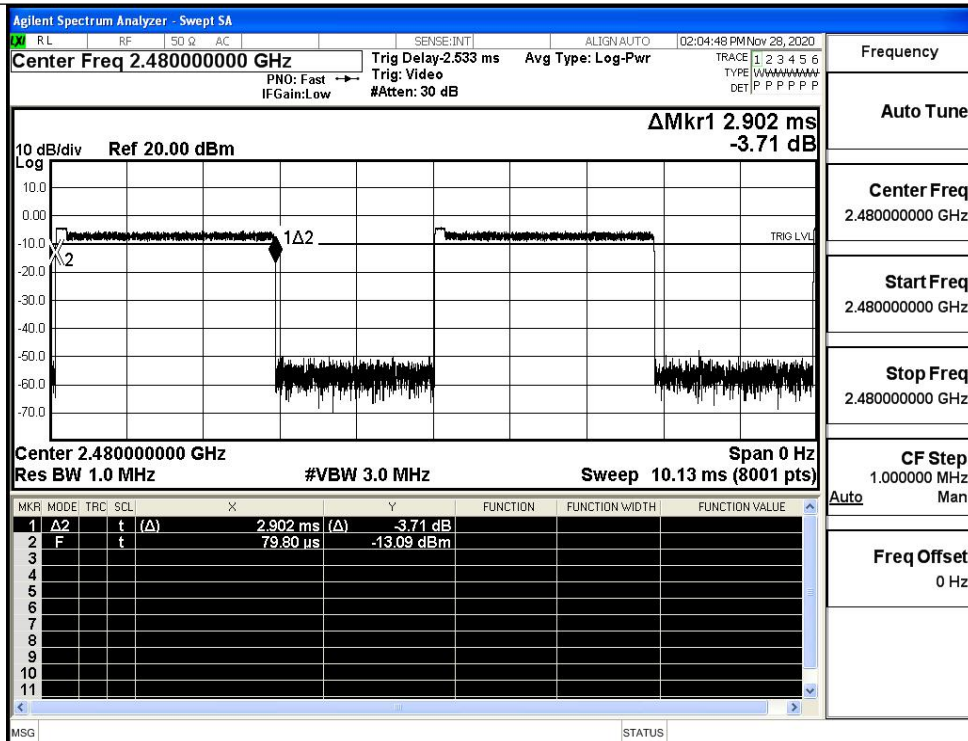
$\pi/4$ DQPSK
_2DH5/LCH



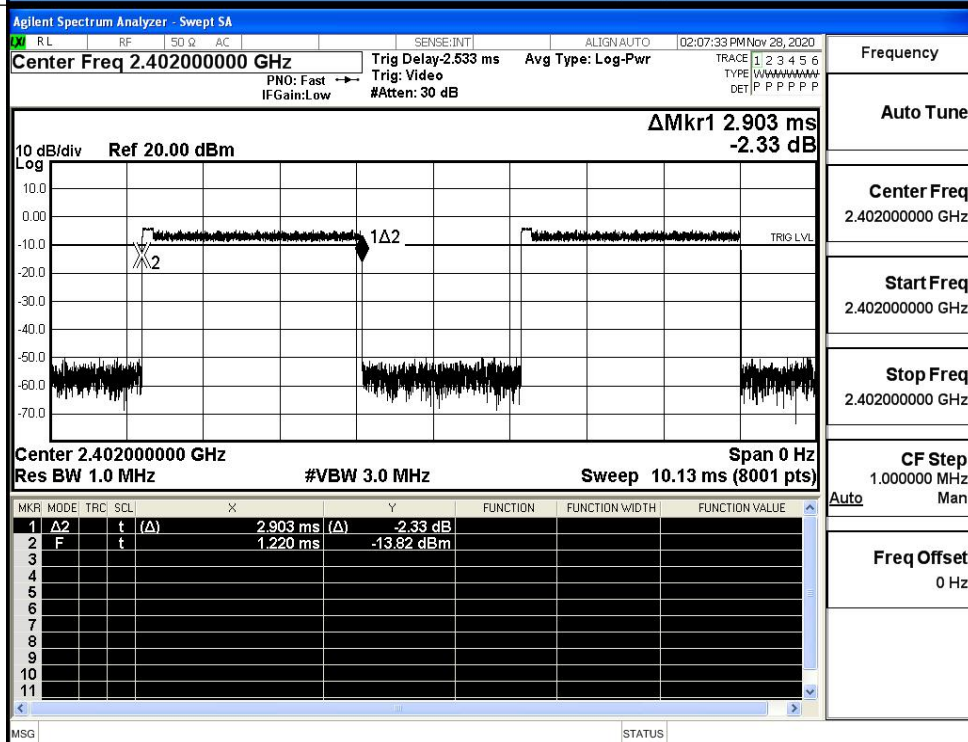
$\pi/4$ DQPSK
_2DH5/MCH



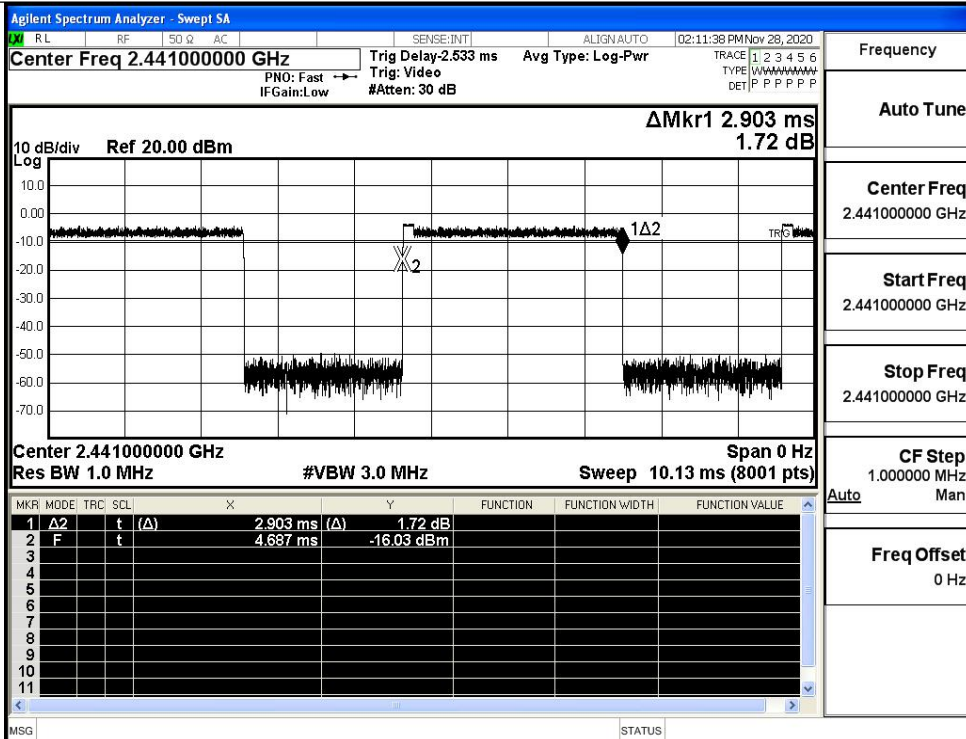
$\pi/4$ DQPSK
_2DH5/HCH



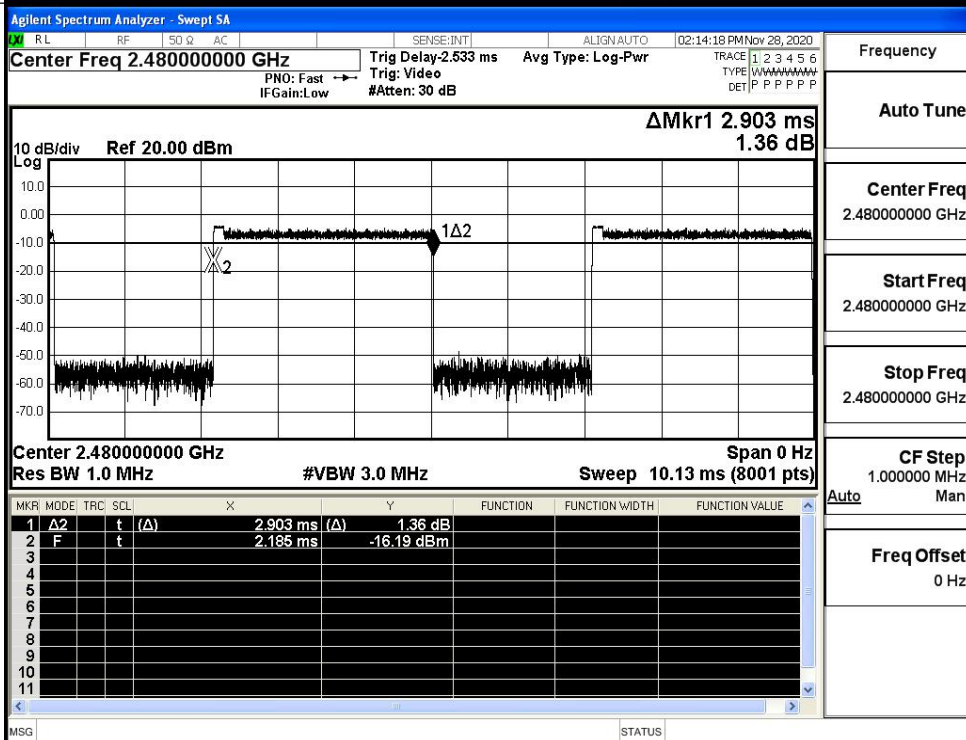
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

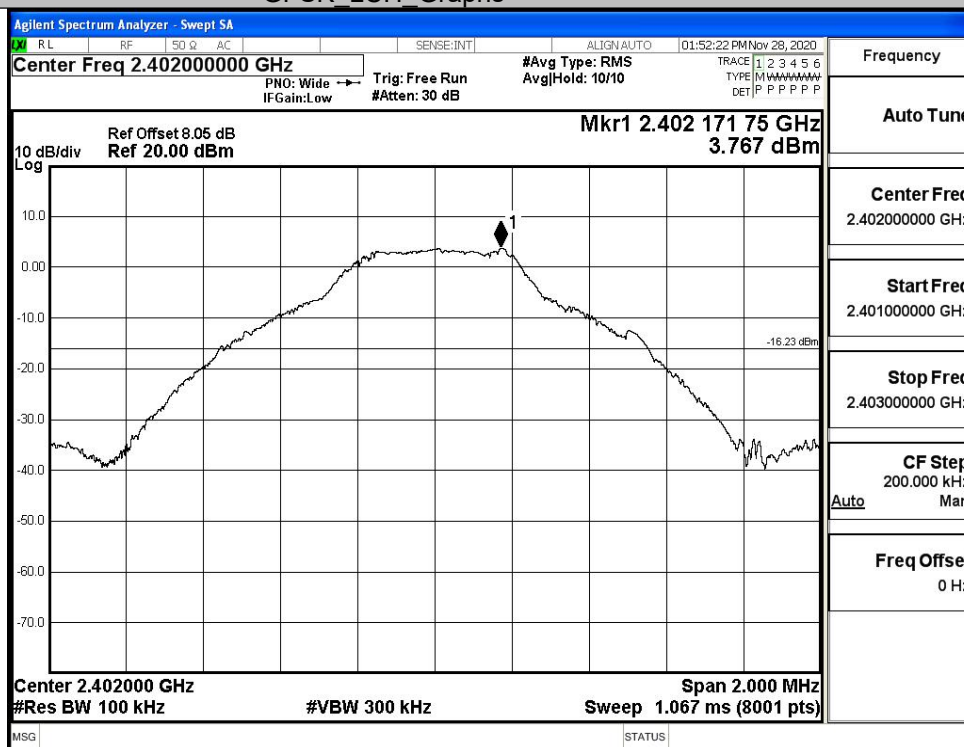


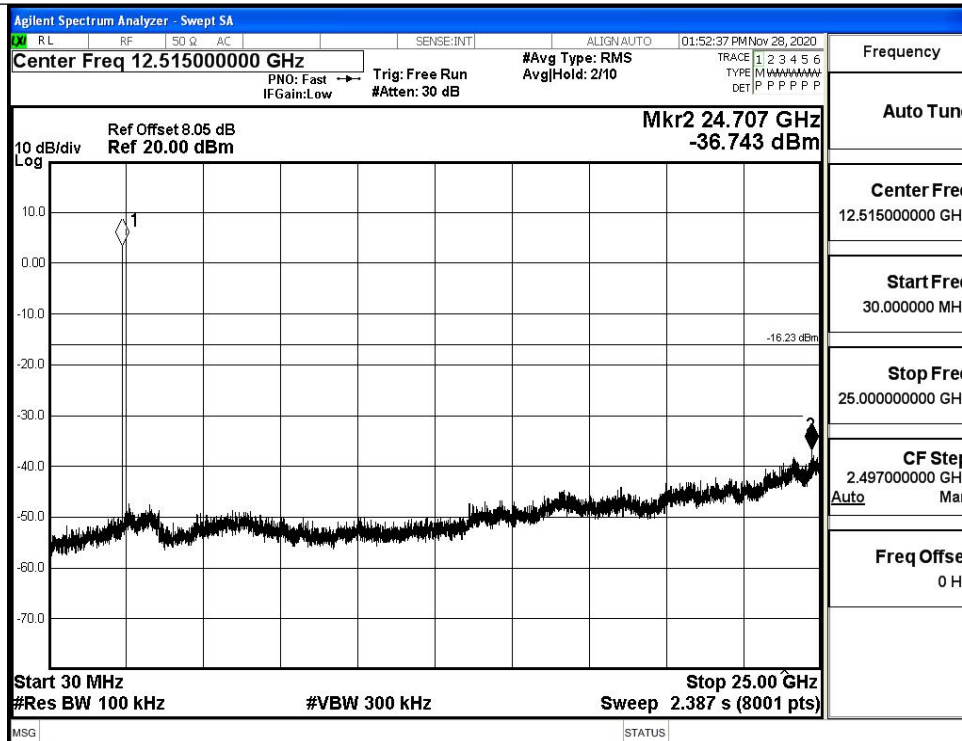
A.7 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.767	-36.743	-16.233	PASS
	MCH	4.007	-36.986	-15.993	PASS
	HCH	3.361	-38.265	-16.639	PASS
$\pi/4$ DQPSK	LCH	3.458	-37.520	-16.542	PASS
	MCH	3.83	-36.614	-16.170	PASS
	HCH	3.319	-38.027	-16.681	PASS
8DPSK	LCH	3.419	-37.723	-16.581	PASS
	MCH	3.446	-36.765	-16.554	PASS
	HCH	3.669	-37.456	-16.331	PASS

GFSK LCH Graphs

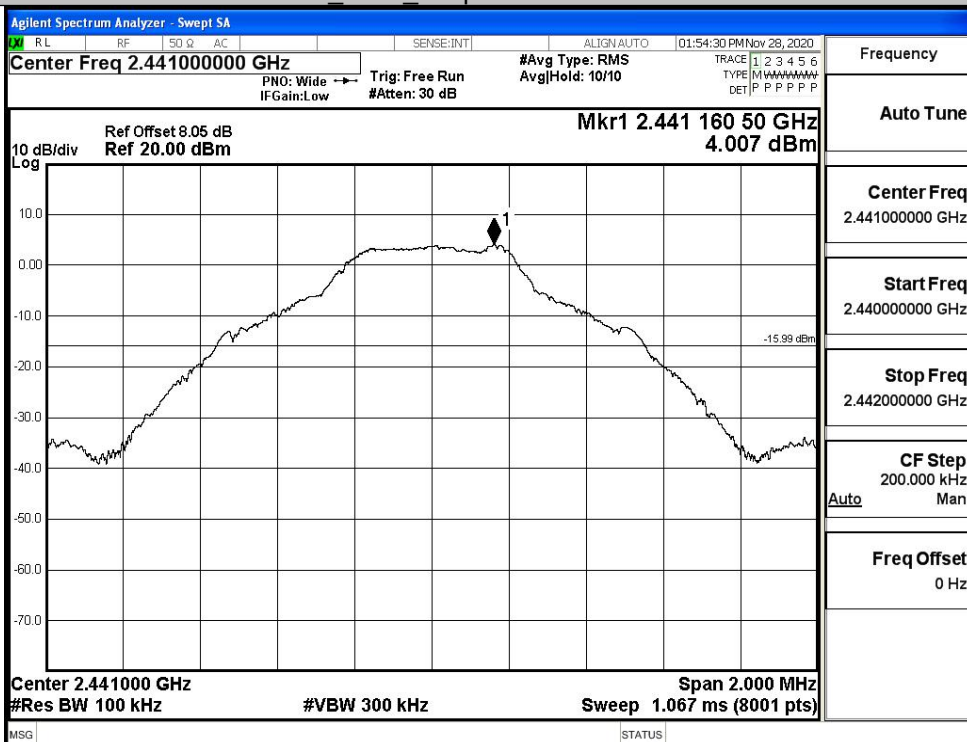
Pref



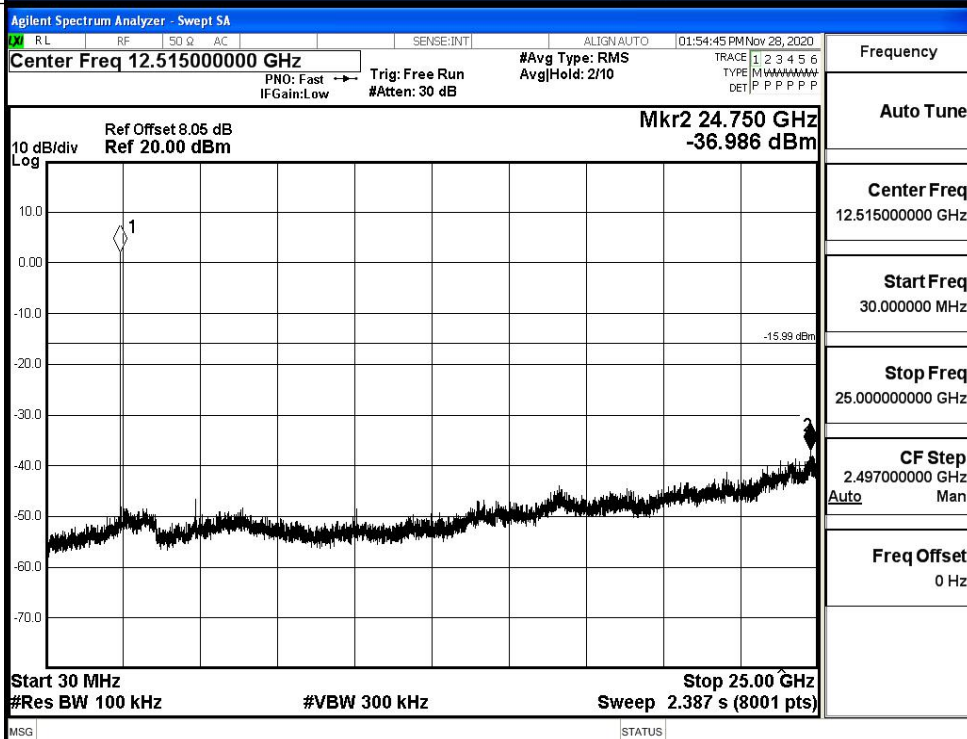


GFSK_MCH_Graphs

Pref

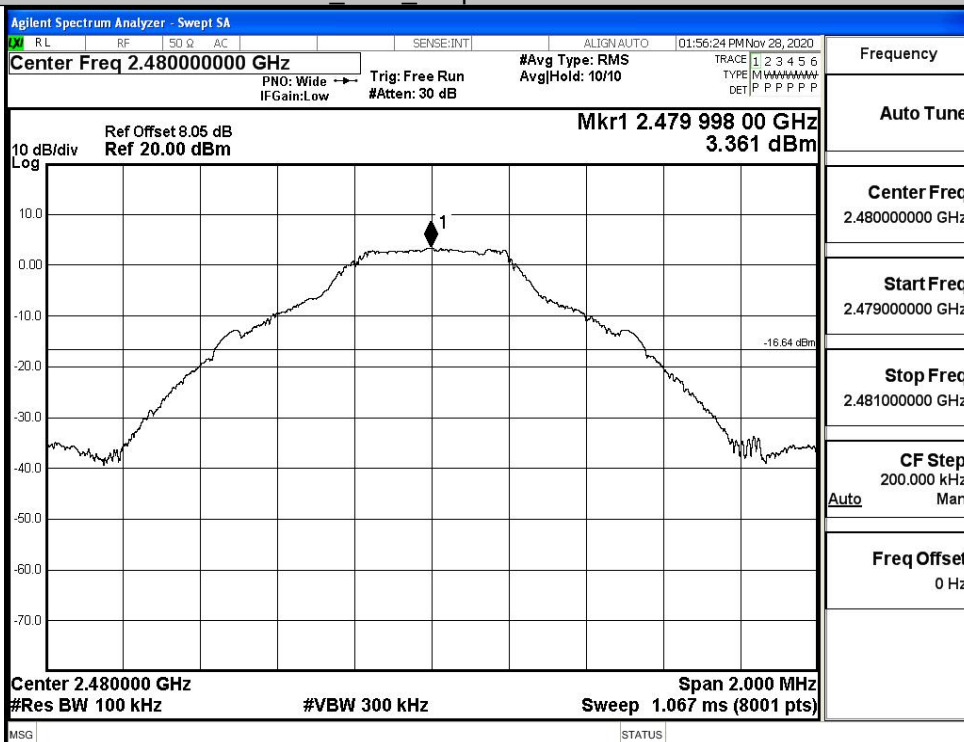


Puw

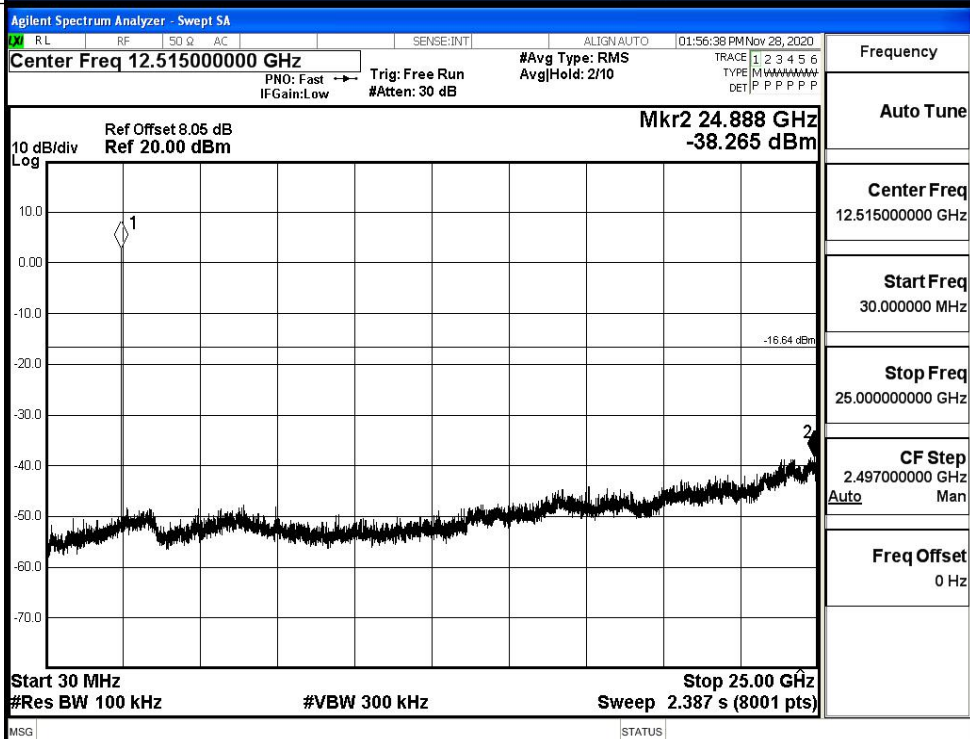


GFSK HCH_Graphs

Pref

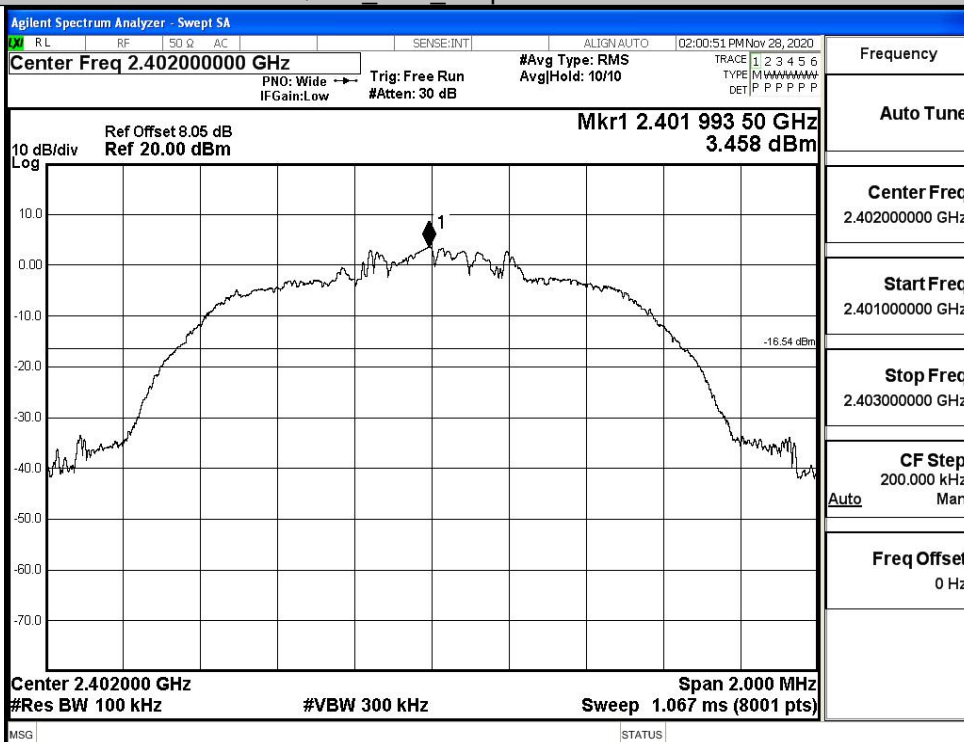


Puw

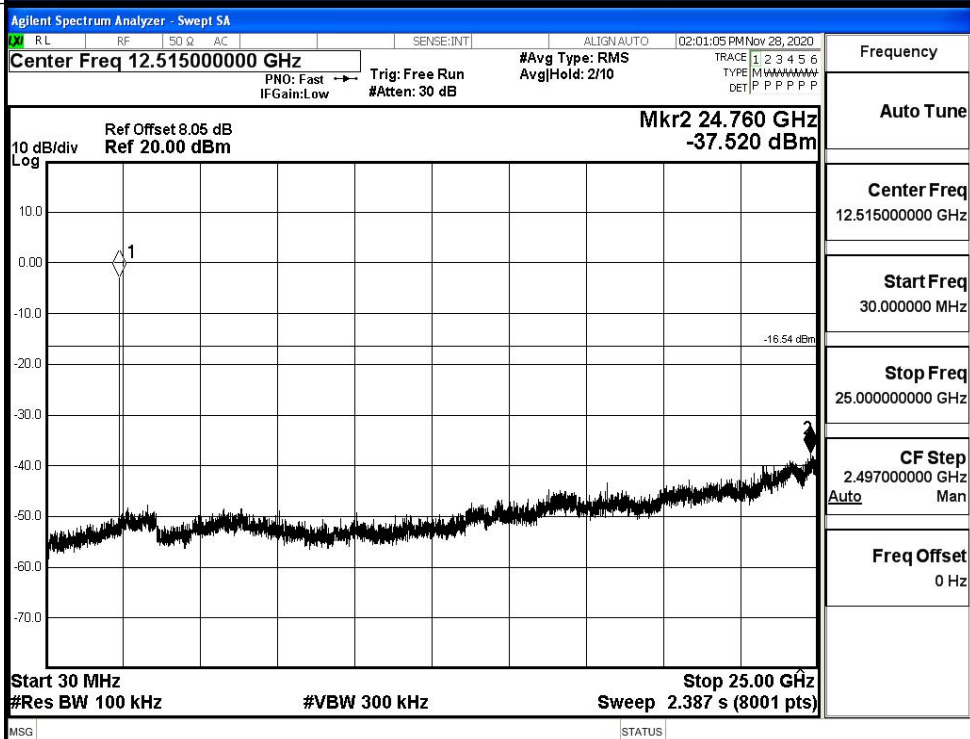


π /4DQPSK_LCH_Graphs

Pref

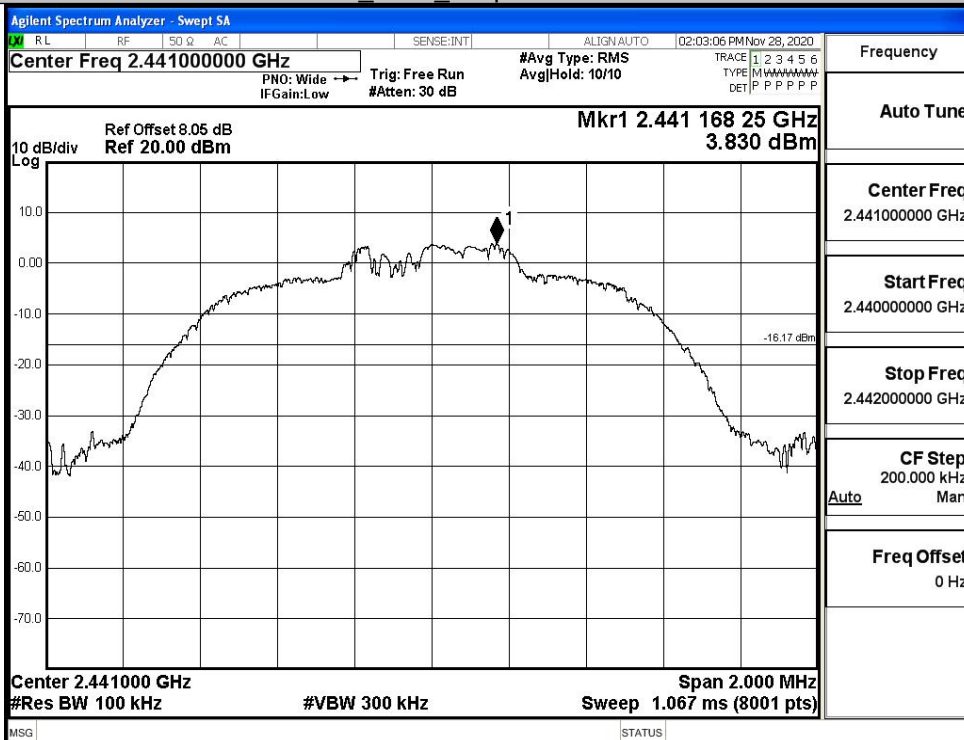


Puw

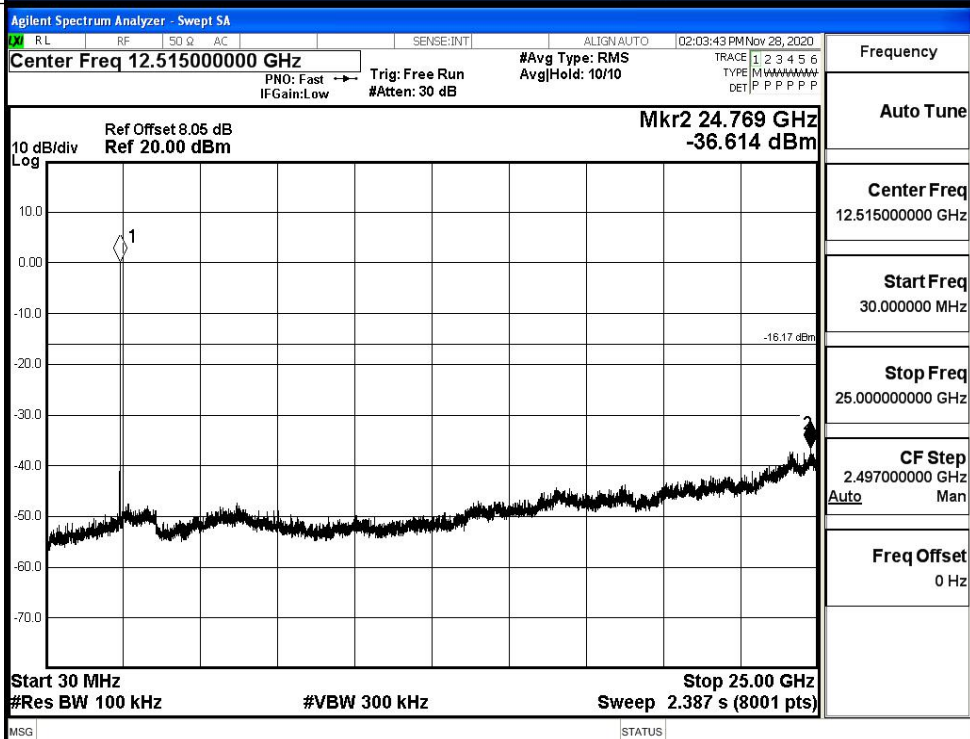


π /4DQPSK_MCH_Graphs

Pref

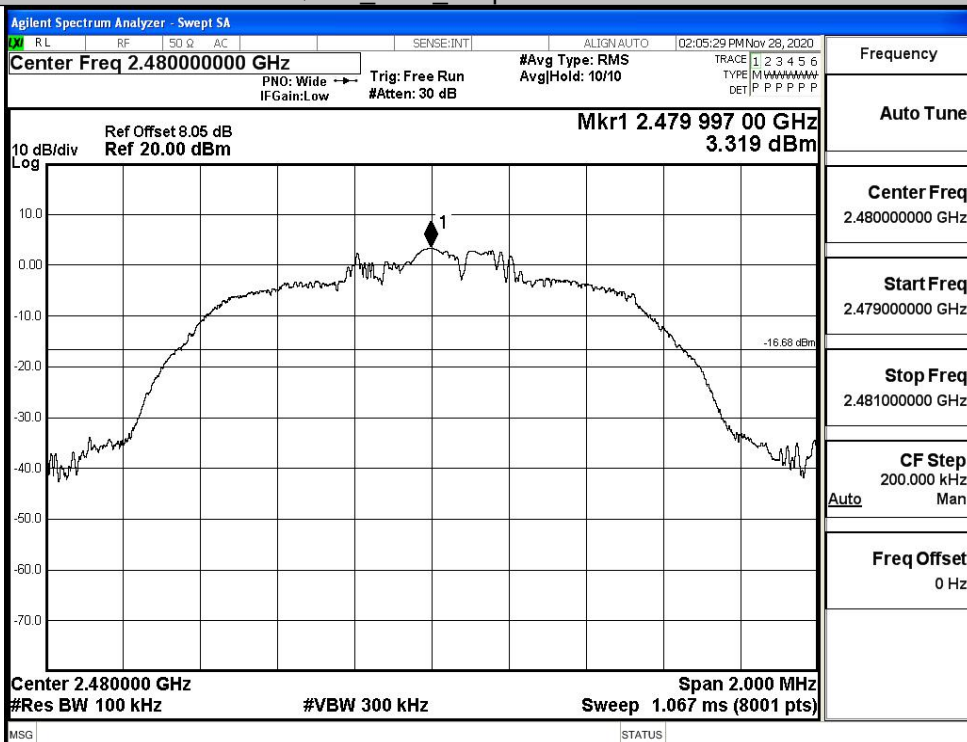


Puw

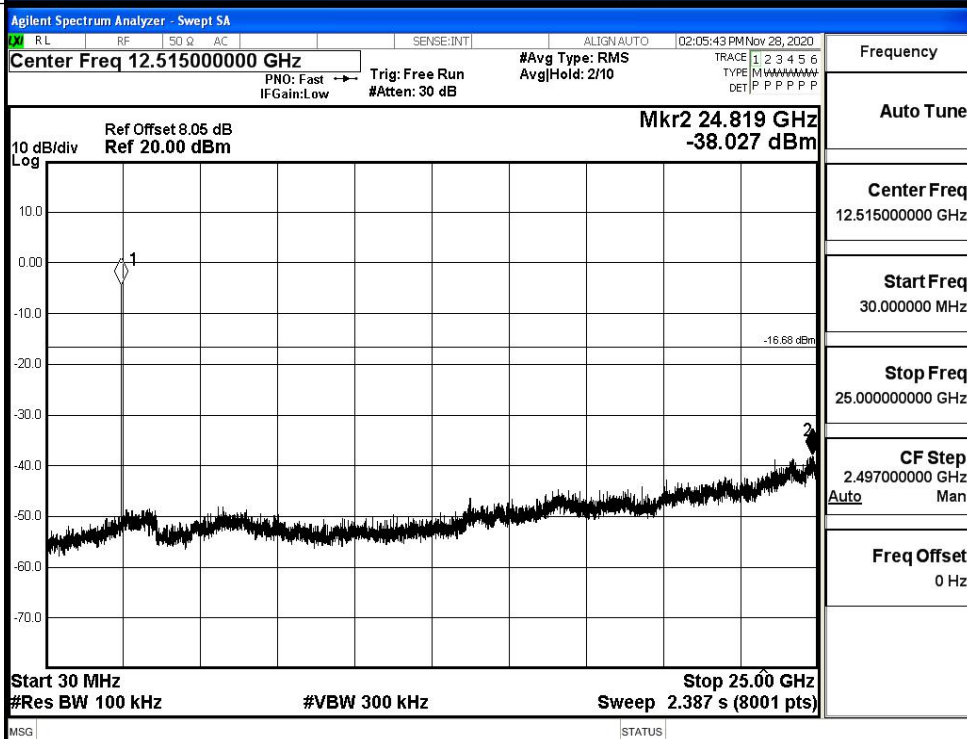


π /4DQPSK_HCH_Graphs

Pref

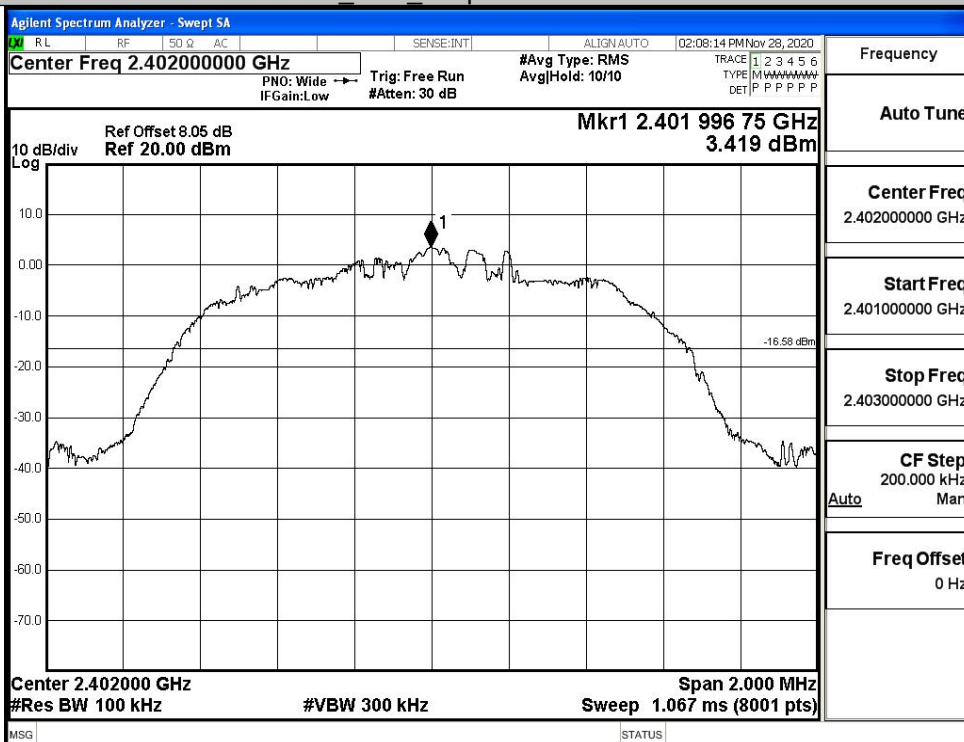


Puw

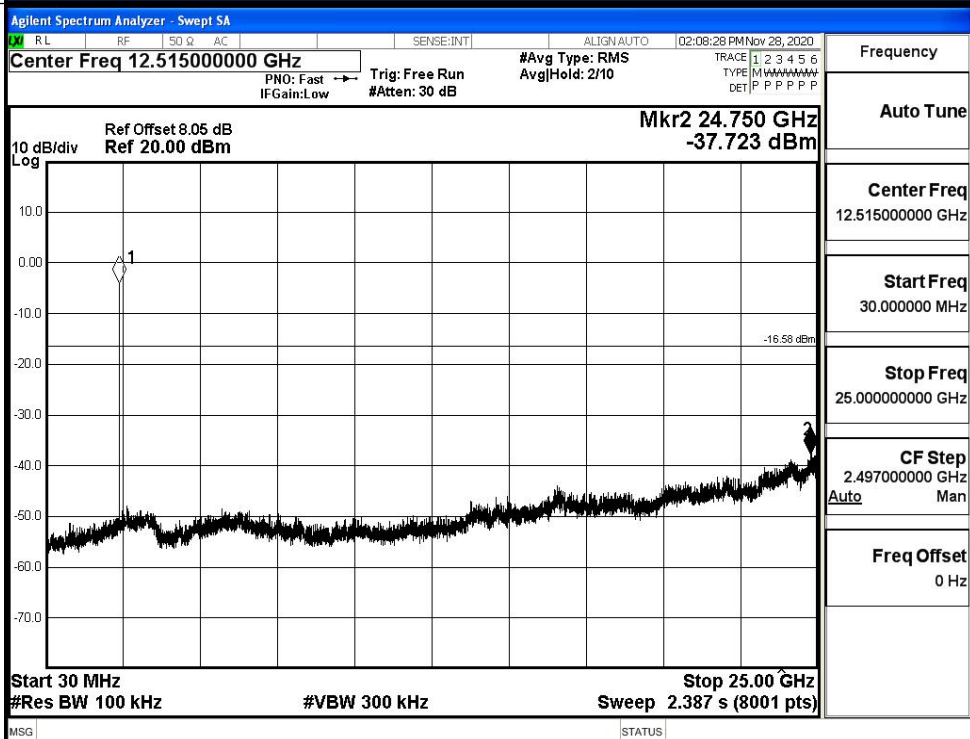


8DPSK_LCH_Graphs

Pref

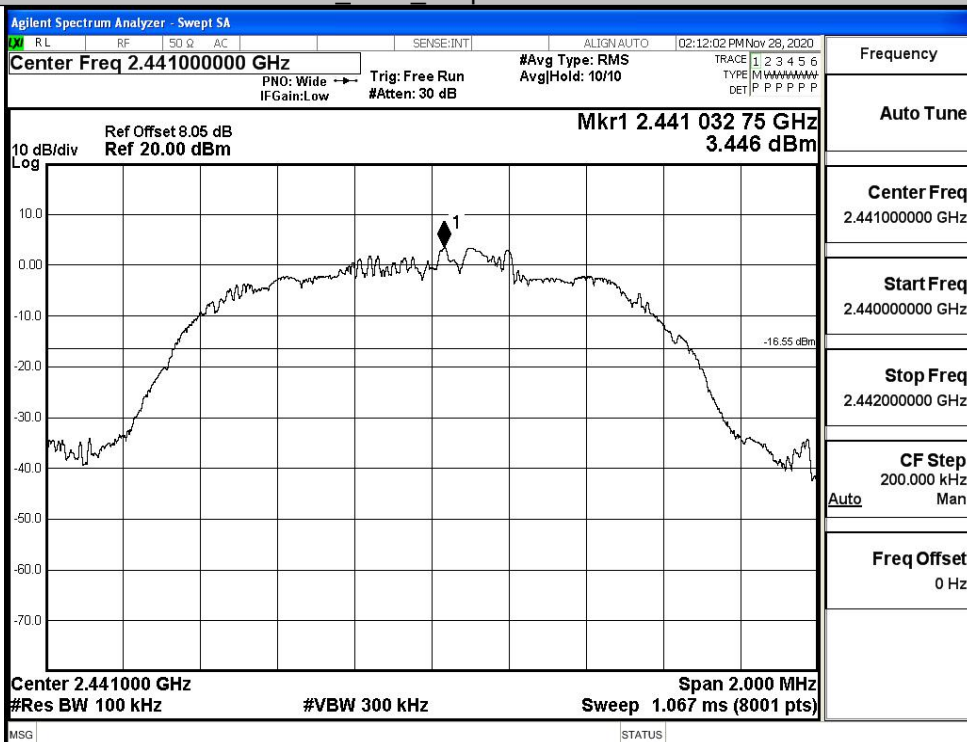


Puw

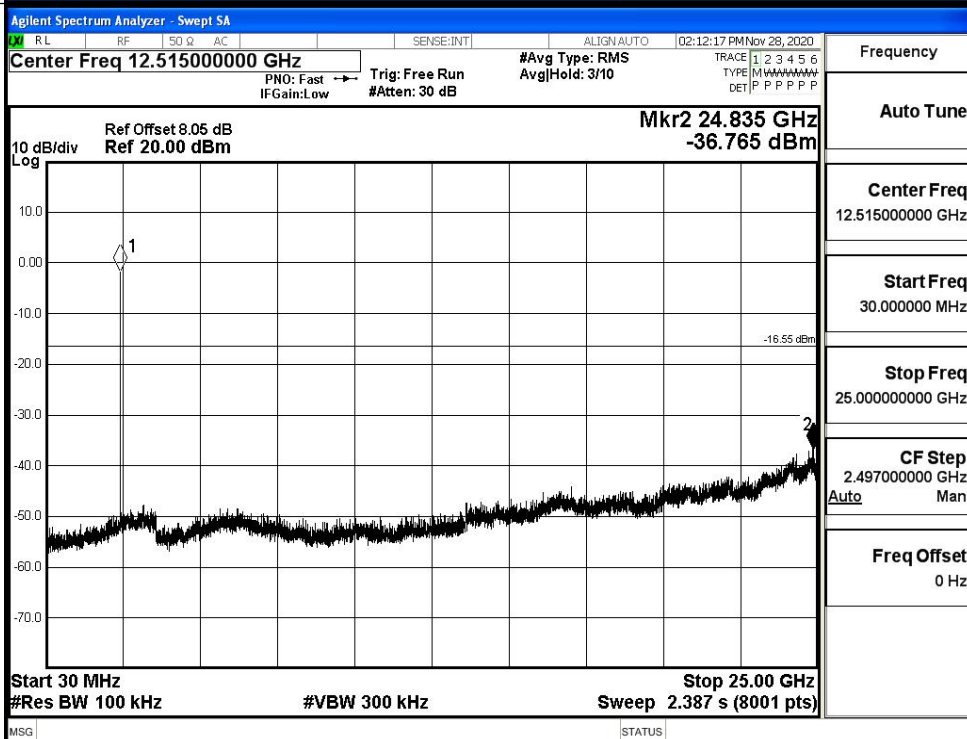


8DPSK_MCH_Graphs

Pref

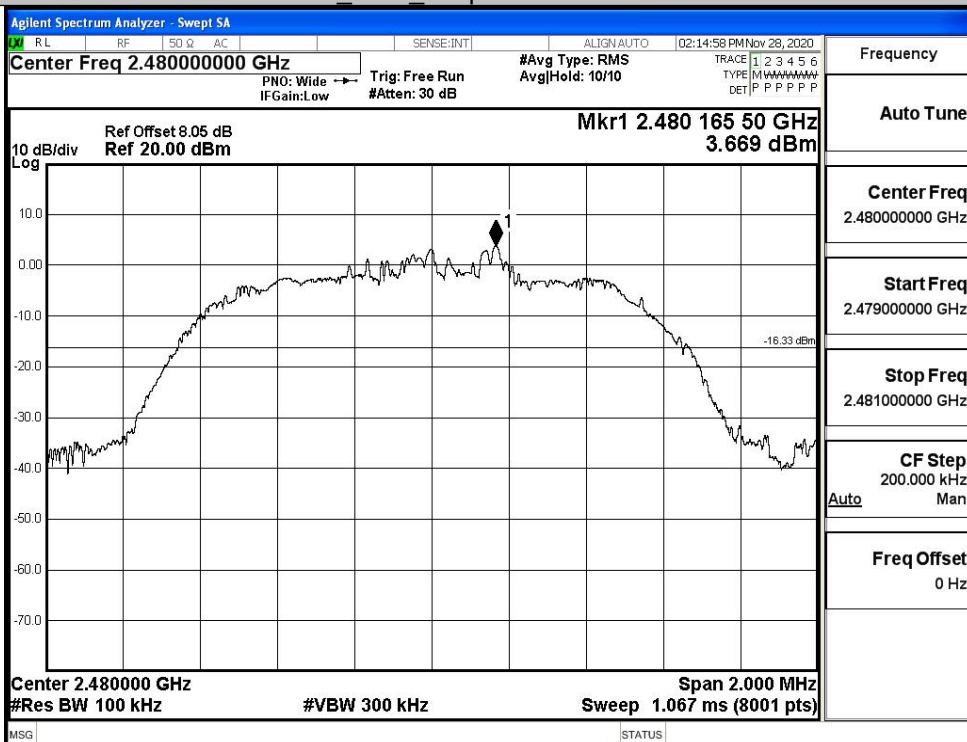


Puw

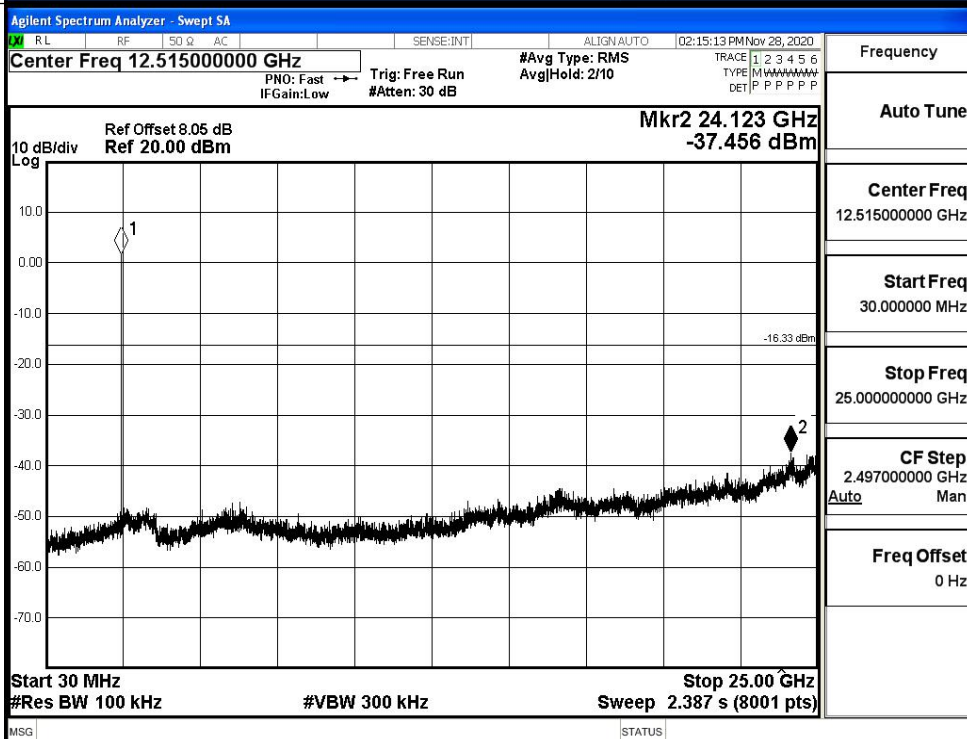


8DPSK_HCH_Graphs

Pref



Puw

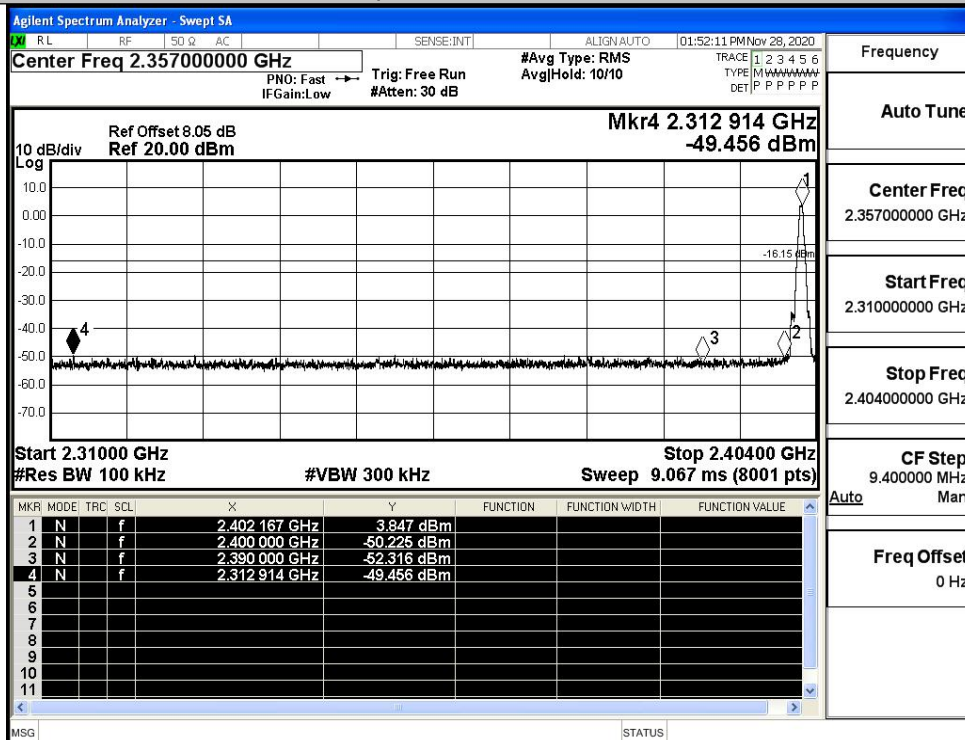


A.8 Band-edge for RF Conducted Emissions

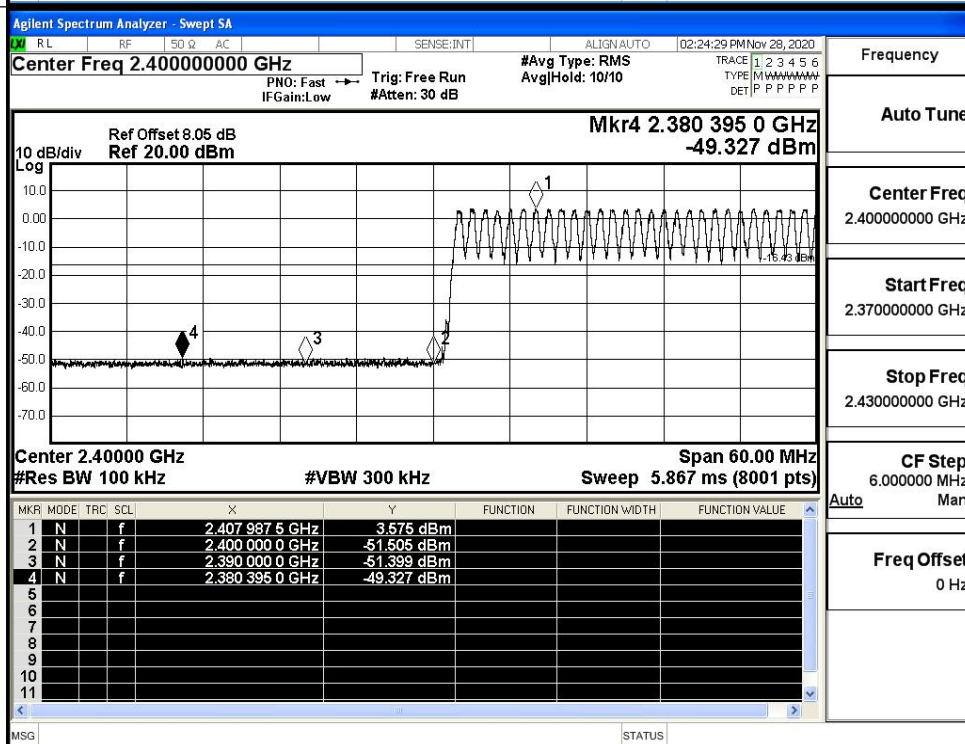
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	3.847	Off	-49.456	-16.15	PASS
			3.575	On	-49.327	-16.43	PASS
	HCH	2480	3.527	Off	-48.869	-16.47	PASS
			3.786	On	-48.613	-16.21	PASS
$\pi/4$ DQPSK	LCH	2402	3.772	Off	-48.766	-16.23	PASS
			3.882	On	-48.915	-16.12	PASS
	HCH	2480	3.396	Off	-48.527	-16.6	PASS
			3.762	On	-48.067	-16.24	PASS
8DPSK	LCH	2402	3.842	Off	-49.667	-16.16	PASS
			3.836	On	-48.715	-16.16	PASS
	HCH	2480	3.751	Off	-48.678	-16.25	PASS
			3.773	On	-47.062	-16.23	PASS

Test Graphs

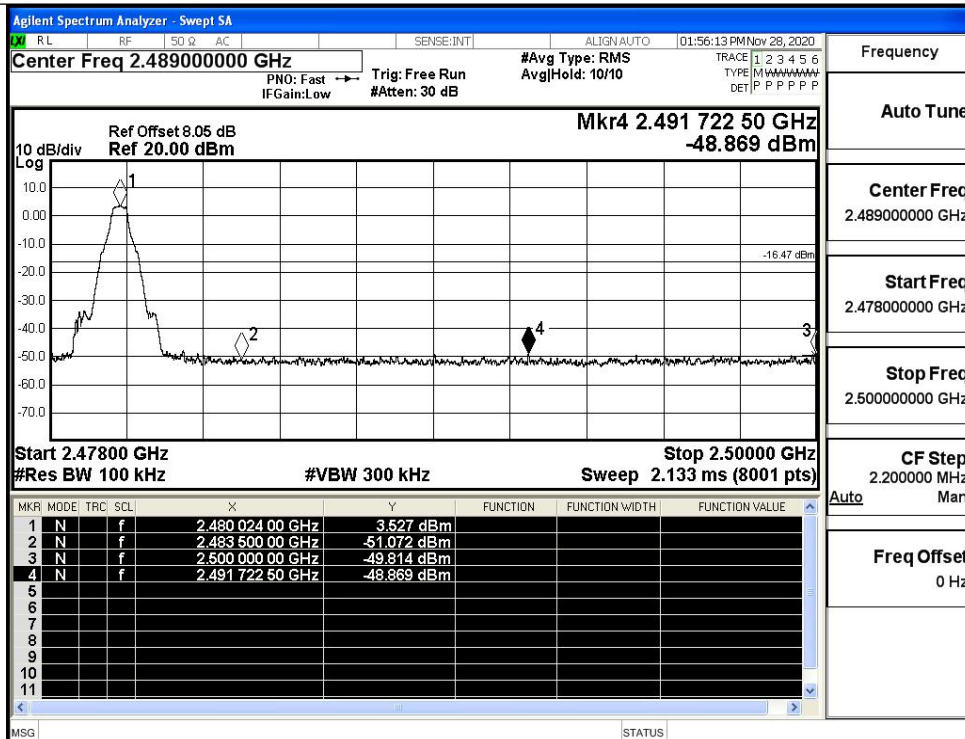
GFSK/LCH/No Hop



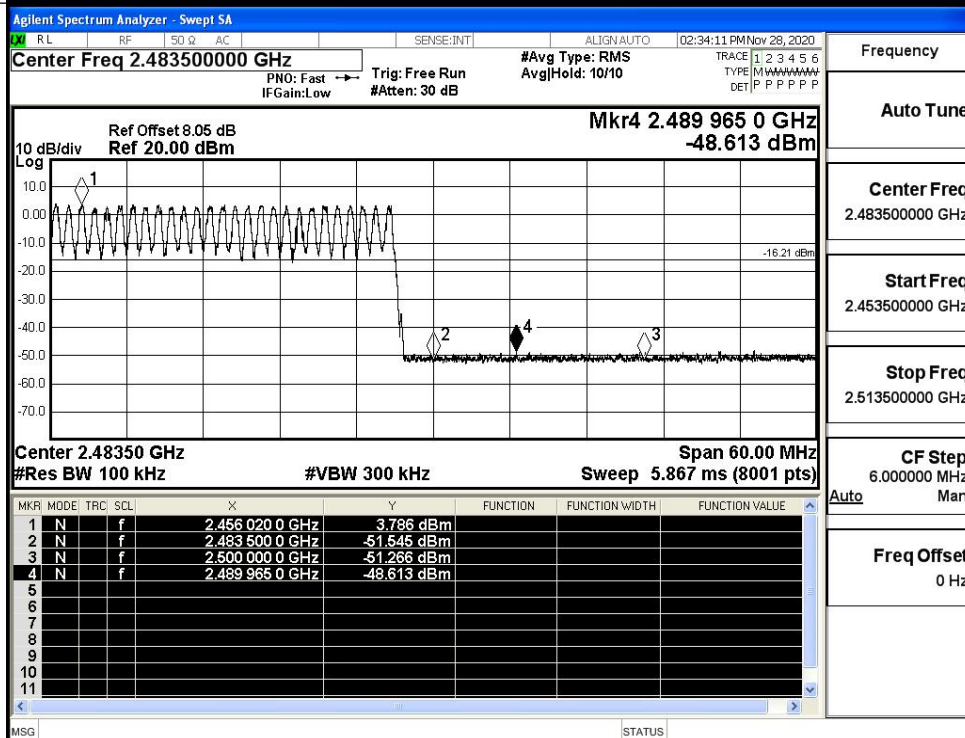
GFSK/LCH/Hop



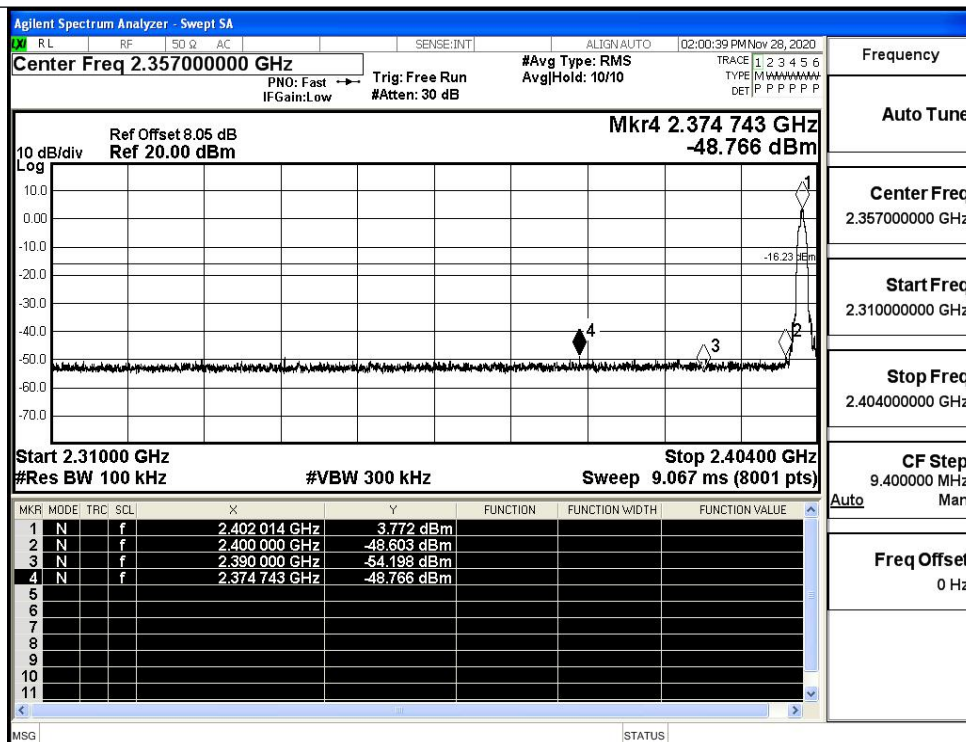
GFSK/HCH/No Hop



GFSK/HCH/Hop



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

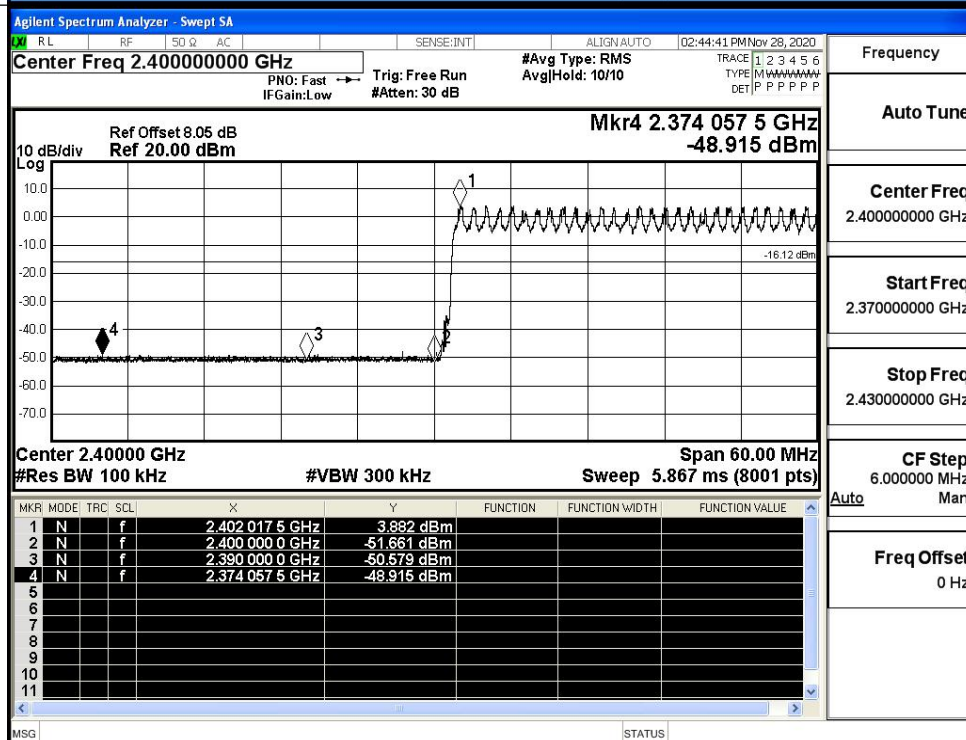


Frequency

Auto Tune

Center Freq
2.357000000 GHzStart Freq
2.310000000 GHzStop Freq
2.404000000 GHzCF Step
9.400000 MHz
Auto ManFreq Offset
0 Hz

$\pi/4$ DQPSK/LCH/Hop

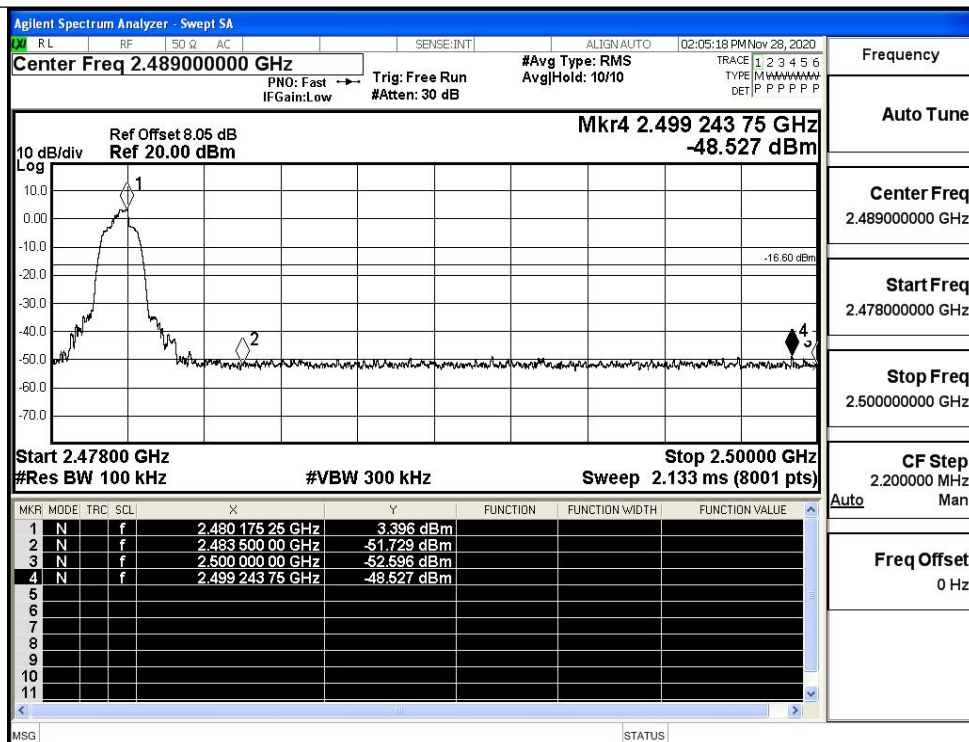


Frequency

Auto Tune

Center Freq
2.400000000 GHzStart Freq
2.370000000 GHzStop Freq
2.430000000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

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

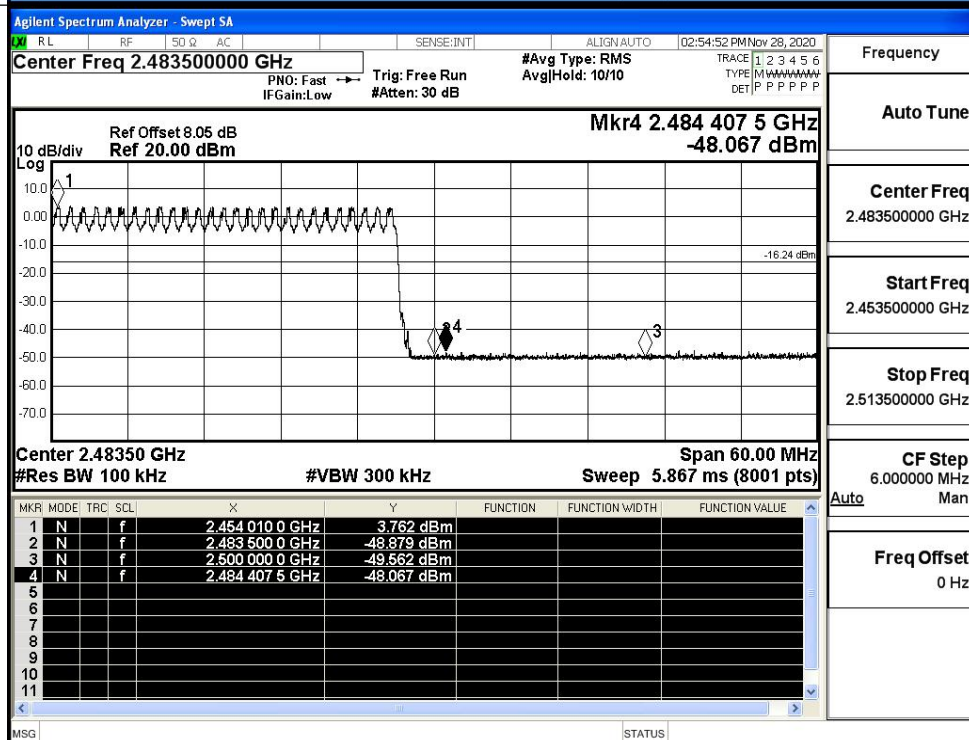


Frequency

Auto Tune

Center Freq
2.489000000 GHzStart Freq
2.478000000 GHzStop Freq
2.500000000 GHzCF Step
2.200000 MHz
Auto ManFreq Offset
0 Hz

$\pi/4$ DQPSK/HCH/Hop

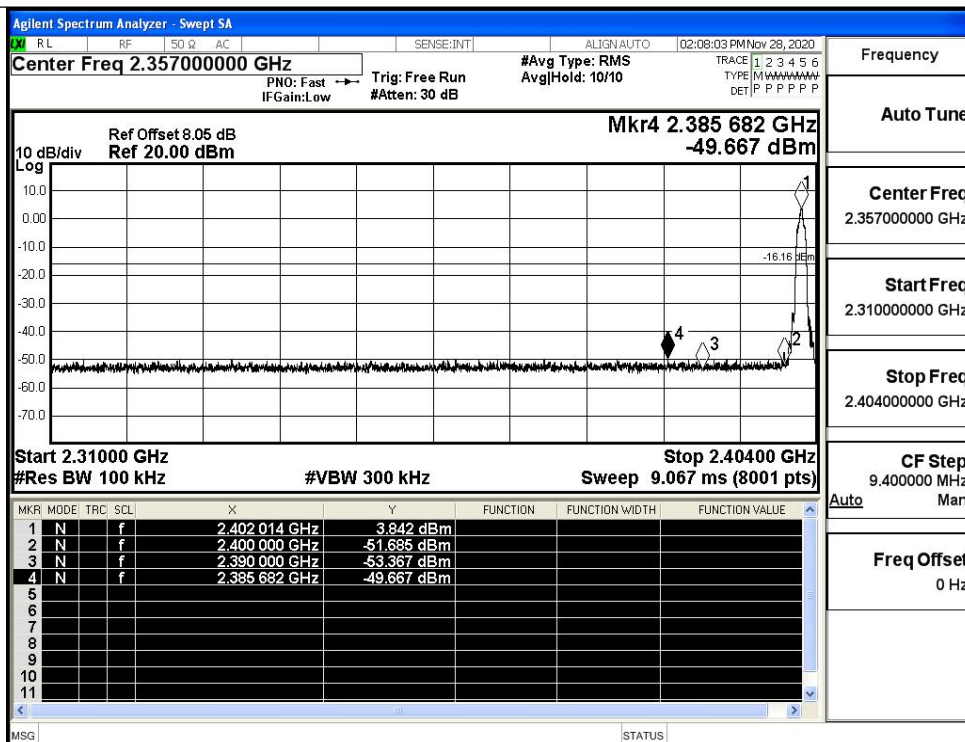


Frequency

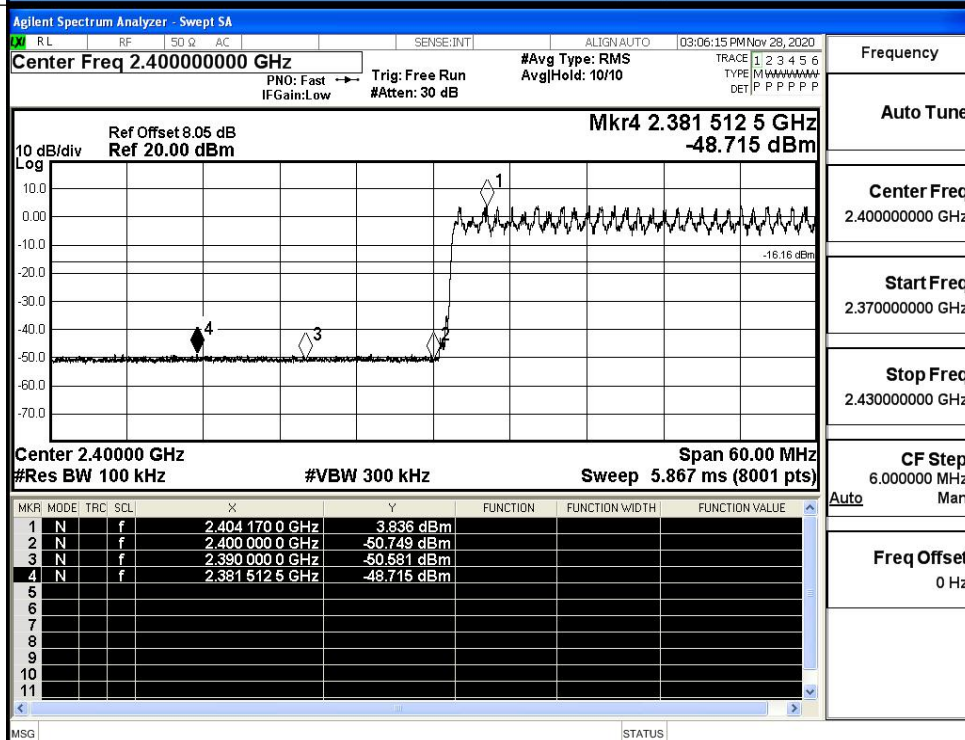
Auto Tune

Center Freq
2.483500000 GHzStart Freq
2.453500000 GHzStop Freq
2.513500000 GHzCF Step
6.000000 MHz
Auto ManFreq Offset
0 Hz

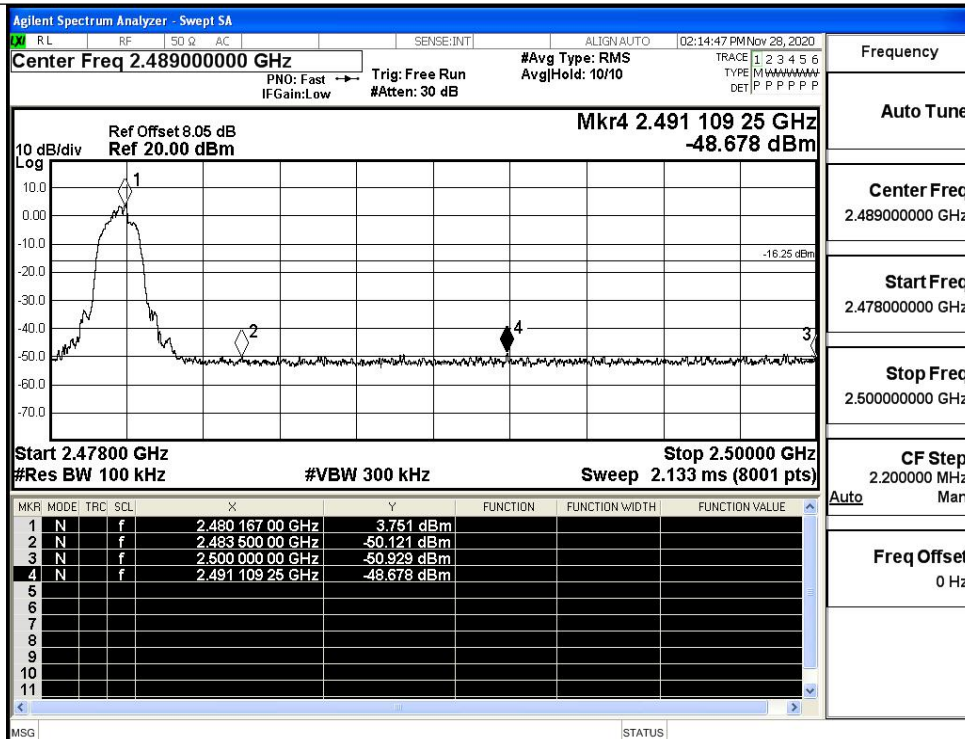
8DPSK/LCH/No Hop



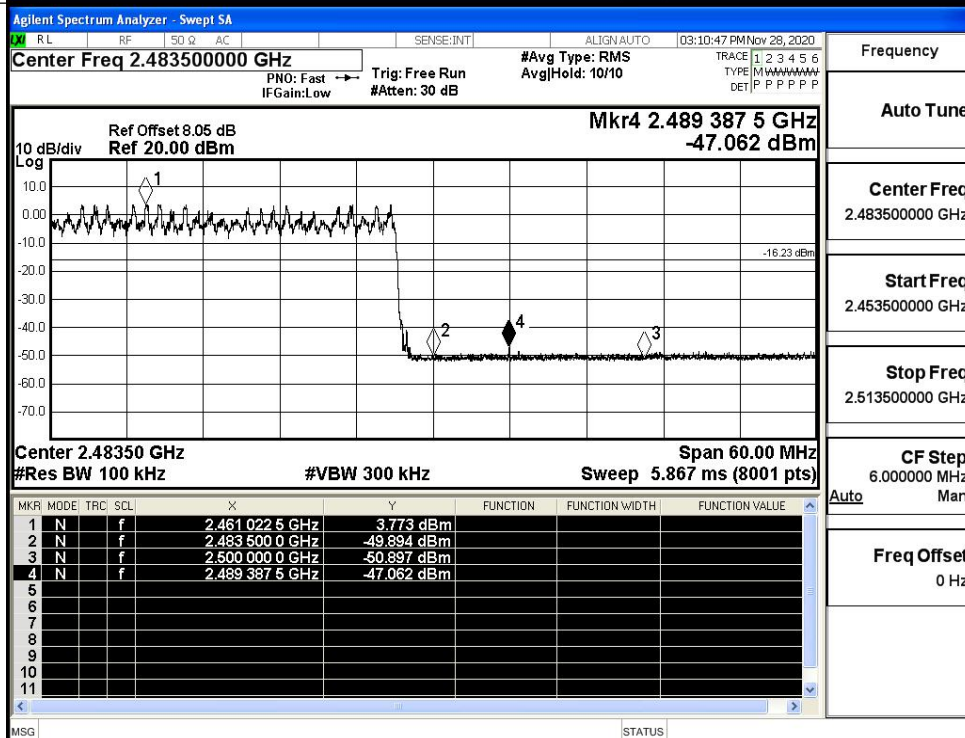
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



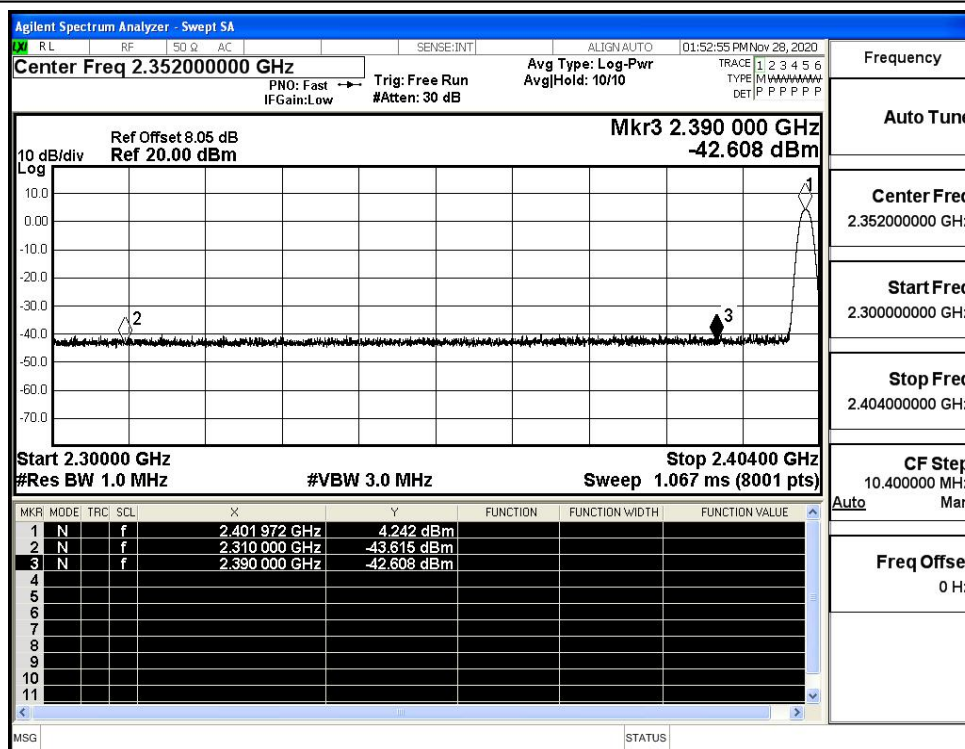
8DPSK/HCH/Hop



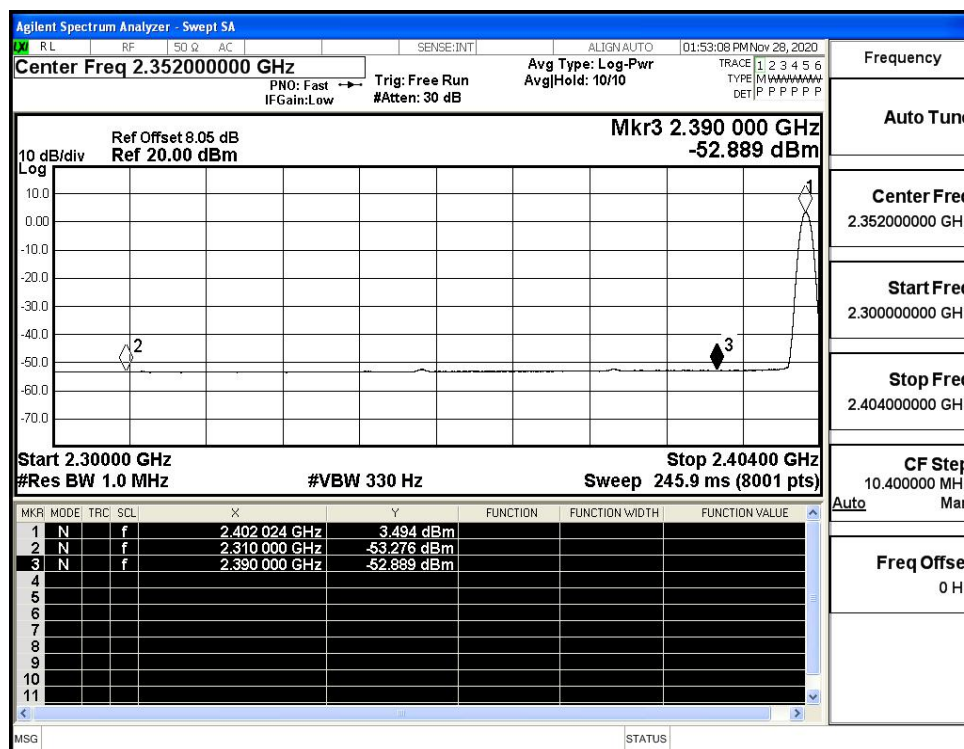
A.9 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-43.62	2.0	0	51.64	PEAK	74	PASS
	Off	2310.0	-53.28	2.0	0	41.98	AV	54	PASS
	Off	2390.0	-42.61	2.0	0	52.65	PEAK	74	PASS
	Off	2390.0	-52.89	2.0	0	42.37	AV	54	PASS
	Off	2483.5	-41.04	2.0	0	54.22	PEAK	74	PASS
	Off	2483.5	-52.15	2.0	0	43.11	AV	54	PASS
	Off	2500.0	-41.19	2.0	0	54.07	PEAK	74	PASS
	Off	2500.0	-52.29	2.0	0	42.97	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-42.43	2.0	0	52.83	PEAK	74	PASS
	Off	2310.0	-53.40	2.0	0	41.86	AV	54	PASS
	Off	2390.0	-42.69	2.0	0	52.56	PEAK	74	PASS
	Off	2390.0	-52.91	2.0	0	42.35	AV	54	PASS
	Off	2483.5	-41.62	2.0	0	53.64	PEAK	74	PASS
	Off	2483.5	-52.25	2.0	0	43.01	AV	54	PASS
	Off	2500.0	-42.73	2.0	0	52.53	PEAK	74	PASS
	Off	2500.0	-52.29	2.0	0	42.97	AV	54	PASS
8DPSK	Off	2310.0	-42.35	2.0	0	52.91	PEAK	74	PASS
	Off	2310.0	-53.28	2.0	0	41.97	AV	54	PASS
	Off	2390.0	-41.97	2.0	0	53.29	PEAK	74	PASS
	Off	2390.0	-52.76	2.0	0	42.50	AV	54	PASS
	Off	2483.5	-40.20	2.0	0	55.06	PEAK	74	PASS
	Off	2483.5	-52.32	2.0	0	42.94	AV	54	PASS
	Off	2500.0	-40.04	2.0	0	55.22	PEAK	74	PASS
	Off	2500.0	-52.24	2.0	0	43.02	AV	54	PASS

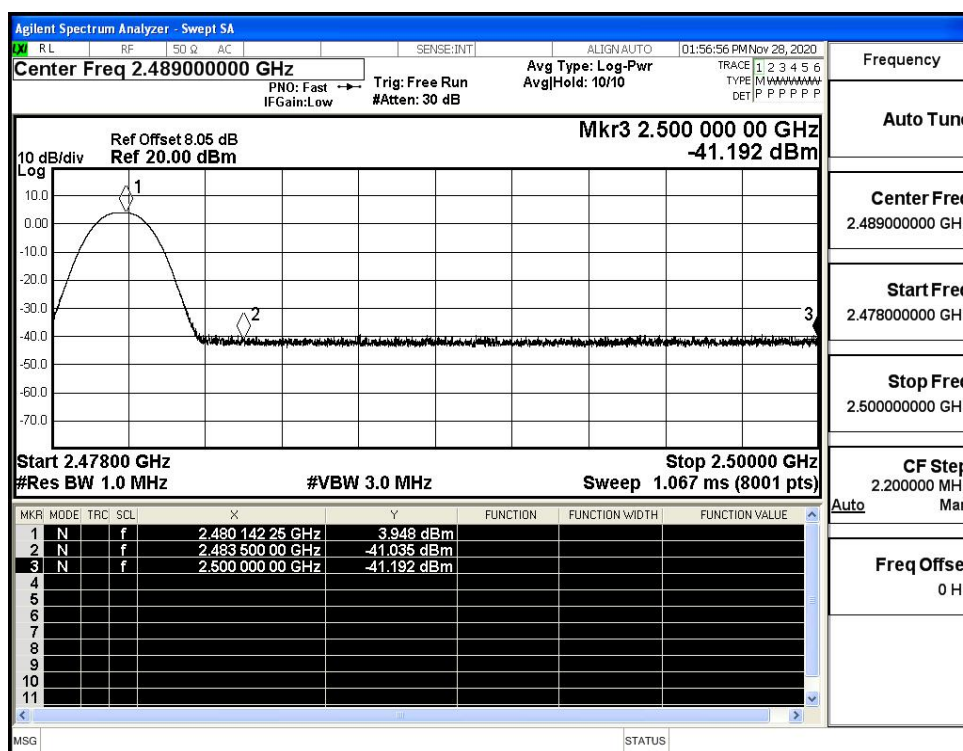
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



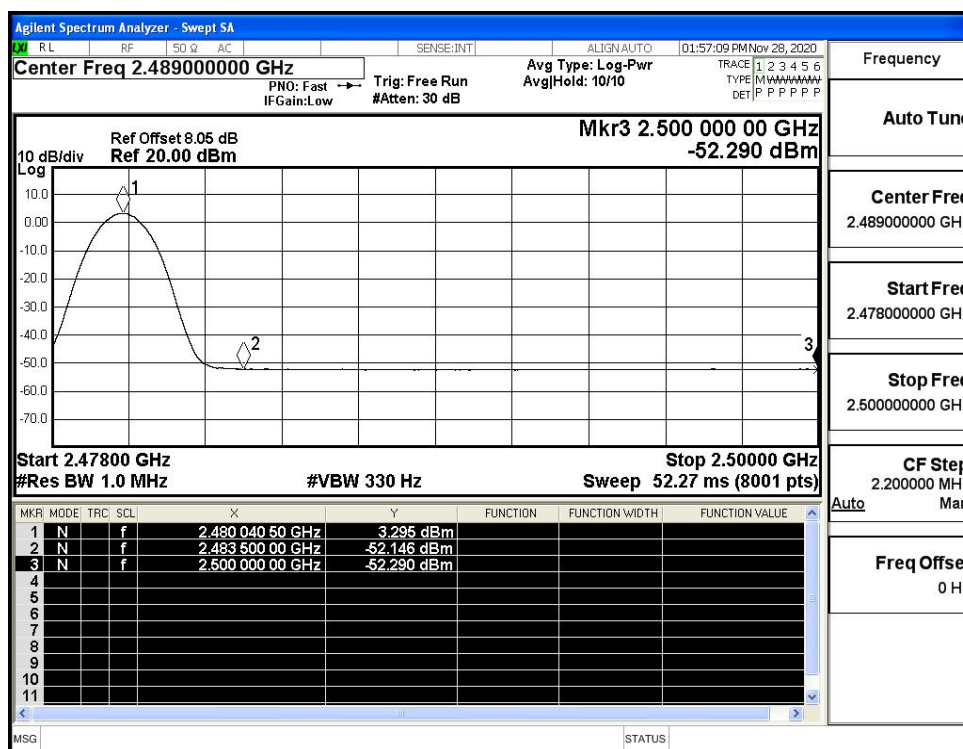
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

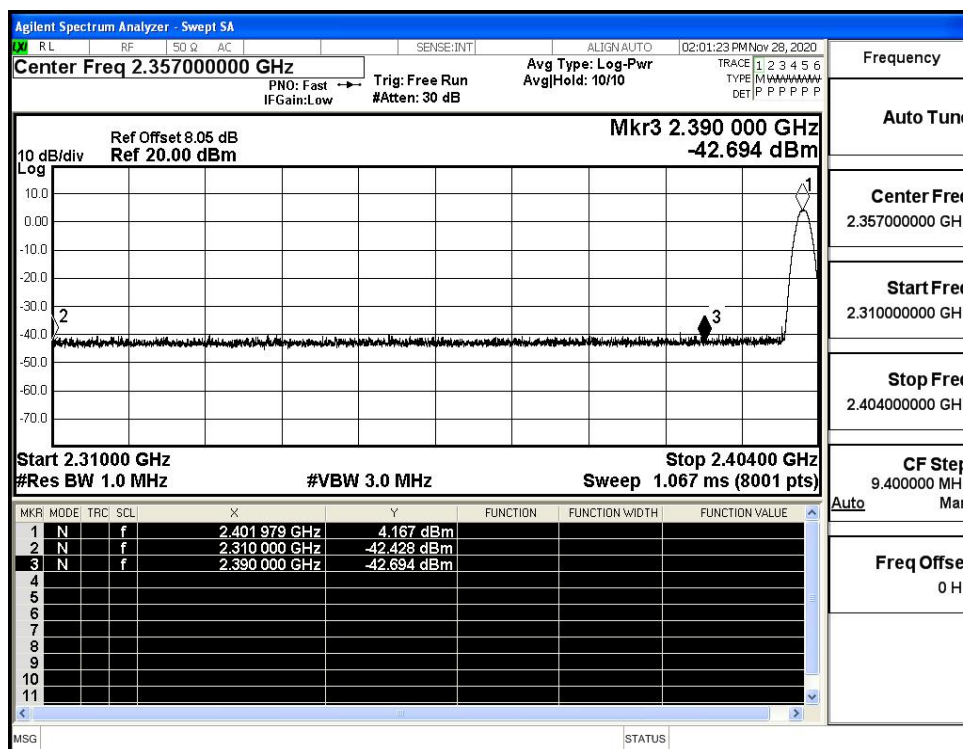
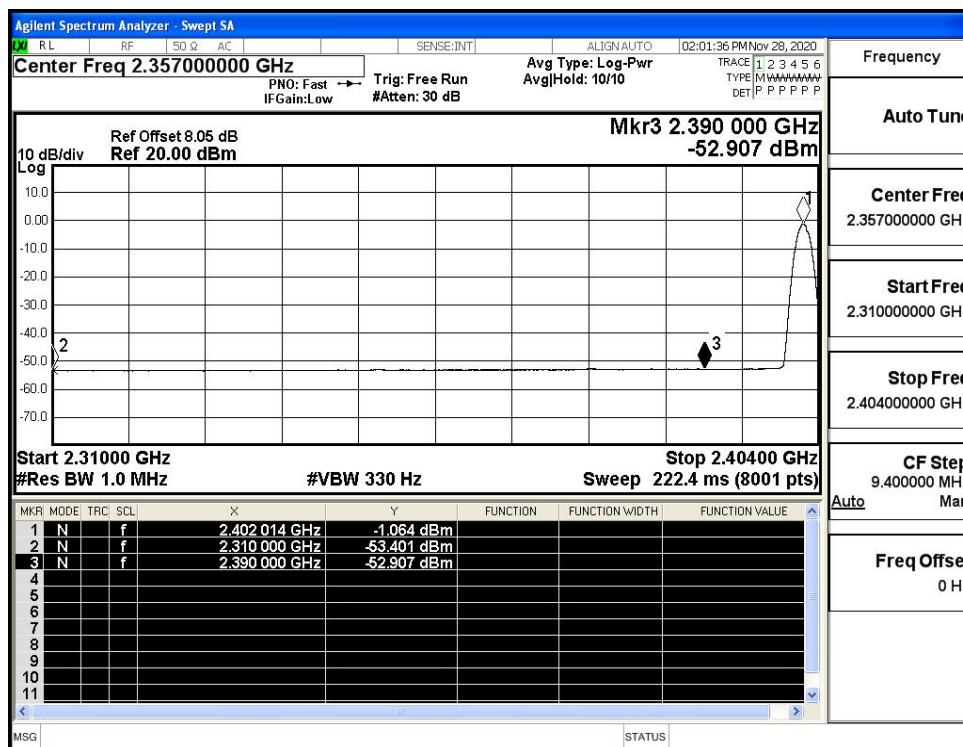


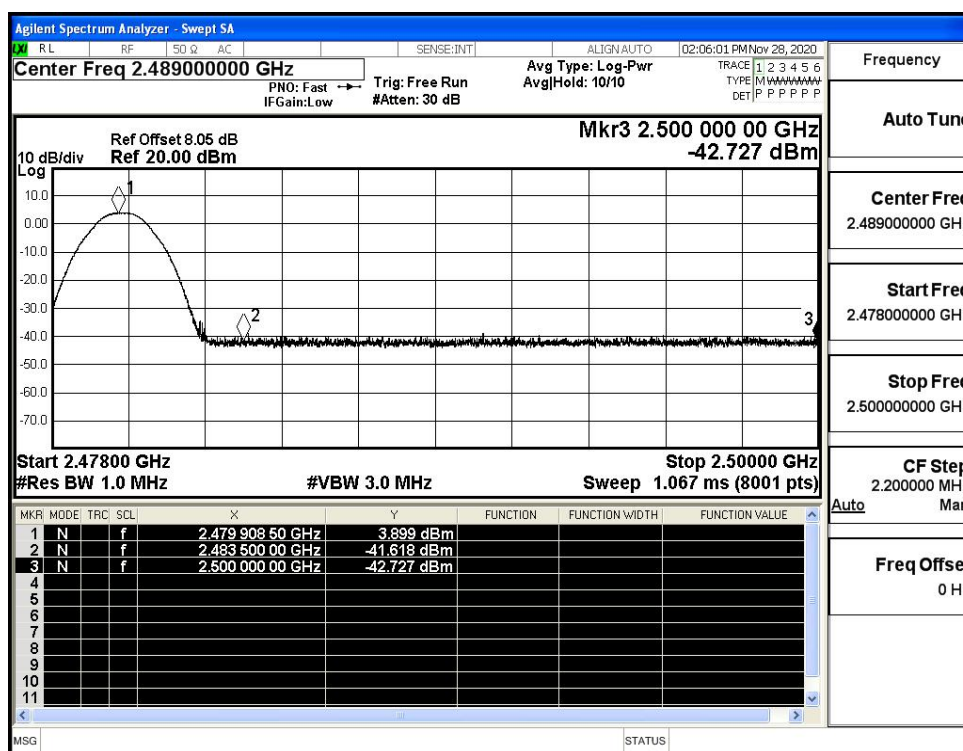
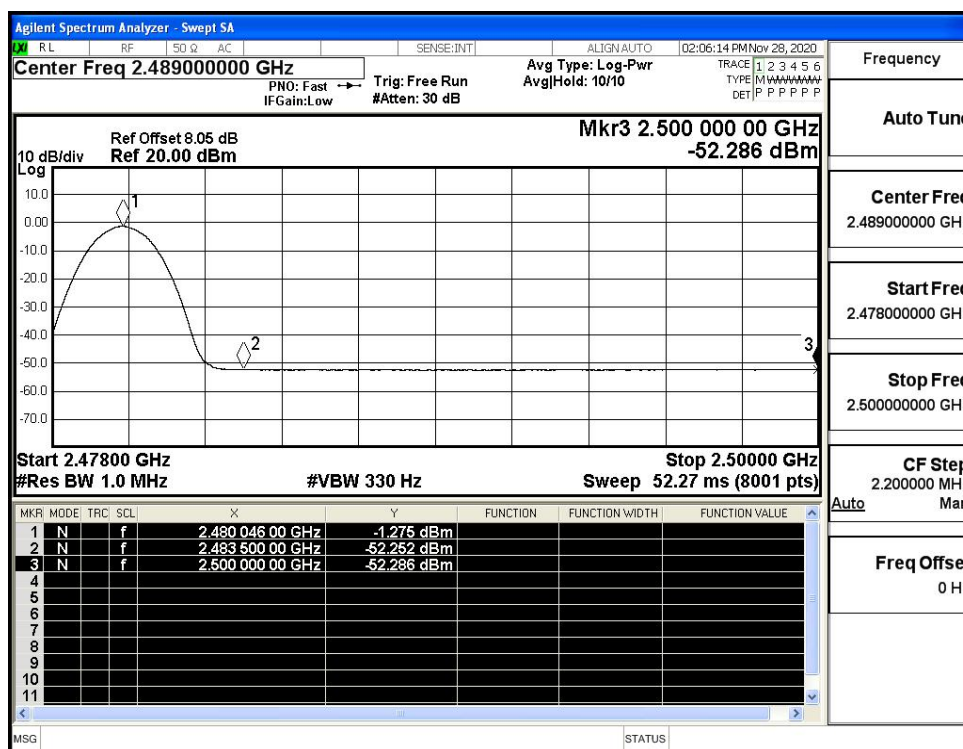
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



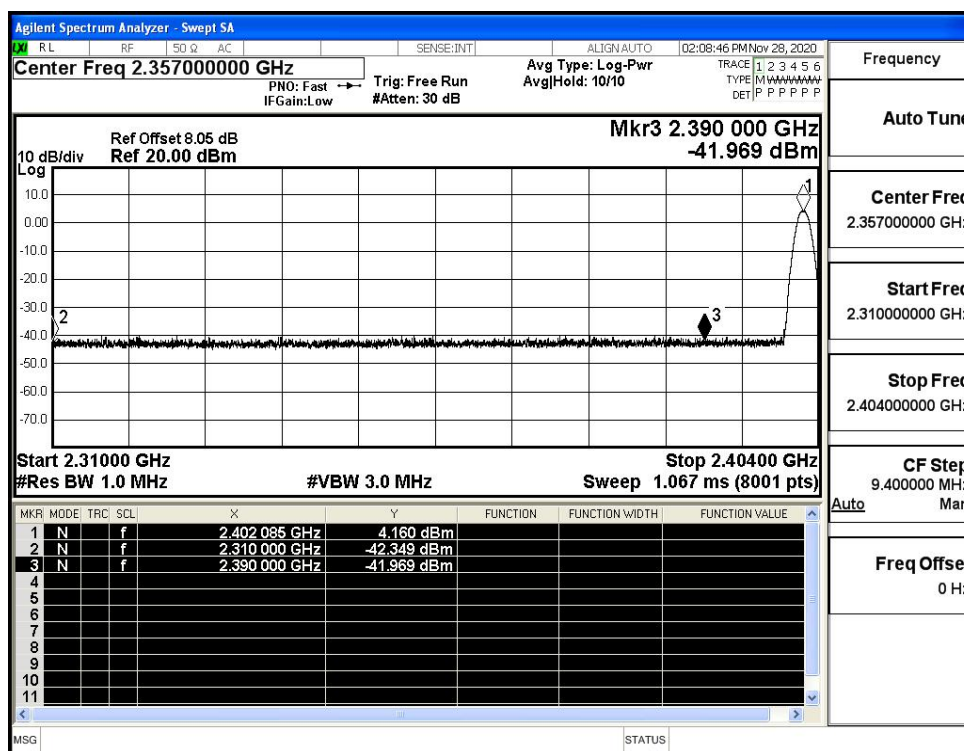
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



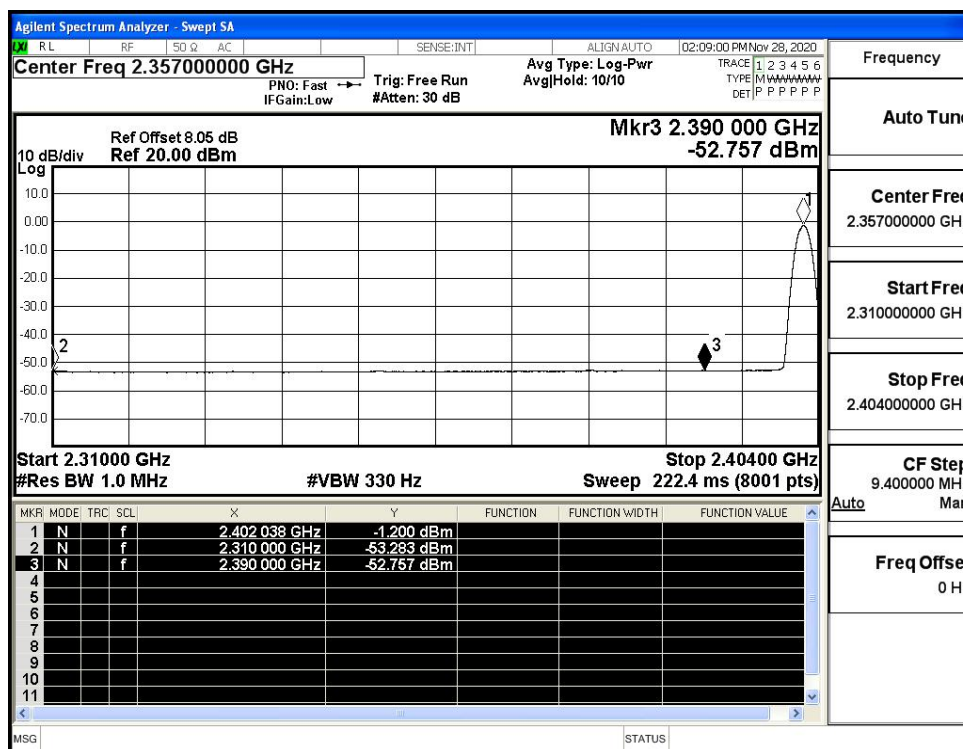
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

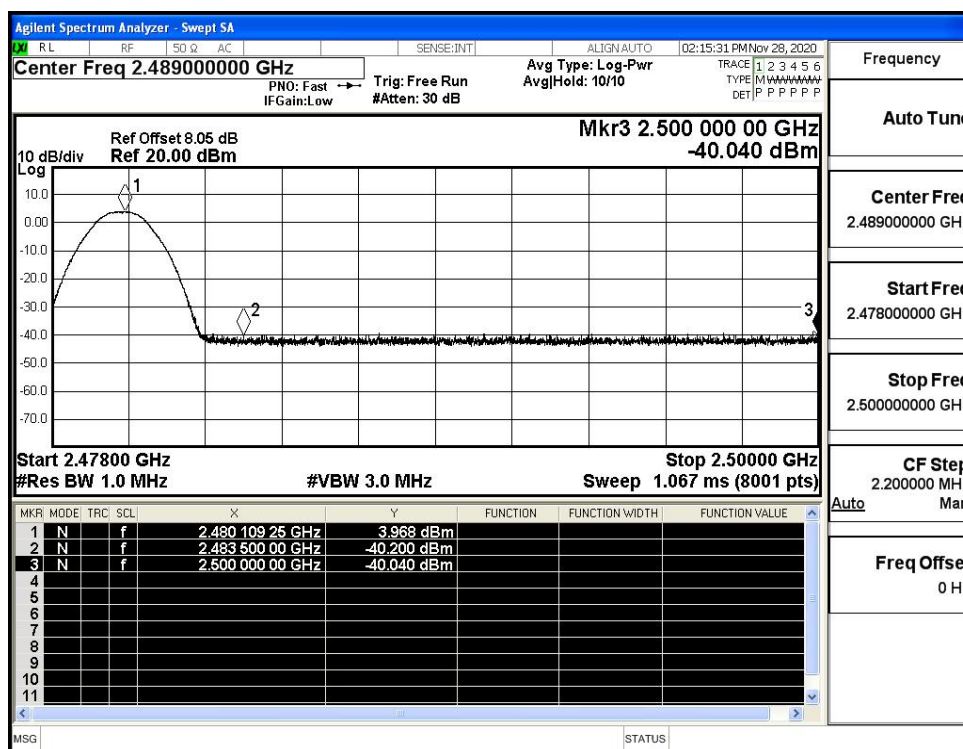
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

