

Appendix A

RF Test Data for BT V4.1(BDR/EDR) (Conducted Measurement)

Product Name: Tablet PC

Trade Mark: Motumation

Test Model: MTab8

Environmental Conditions

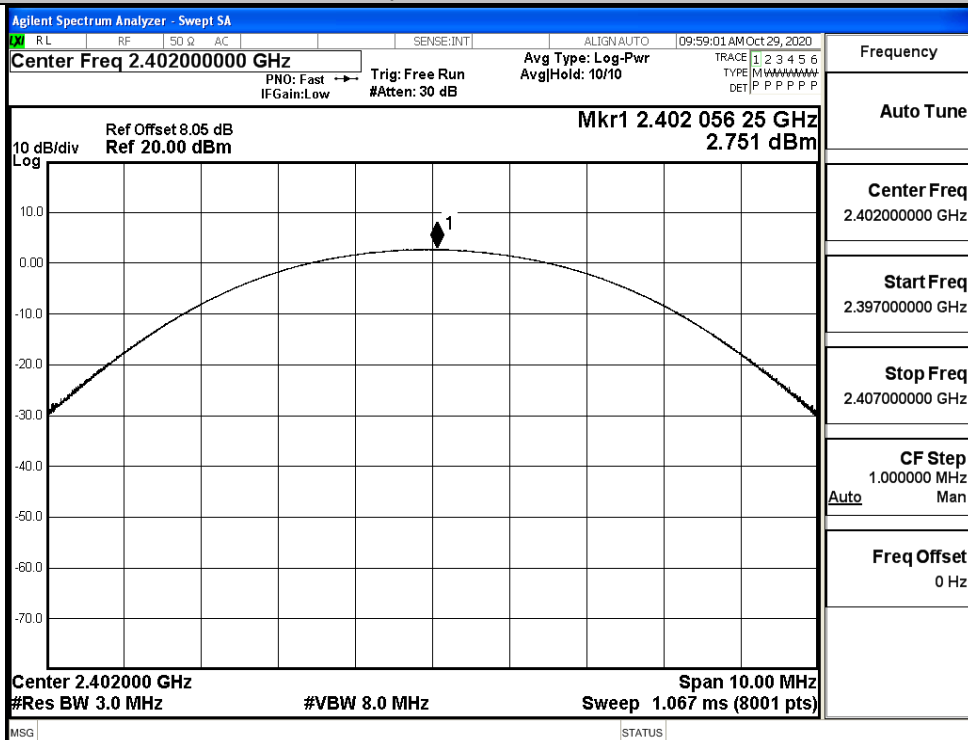
Temperature:	24.1 ° C
Relative Humidity:	54.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

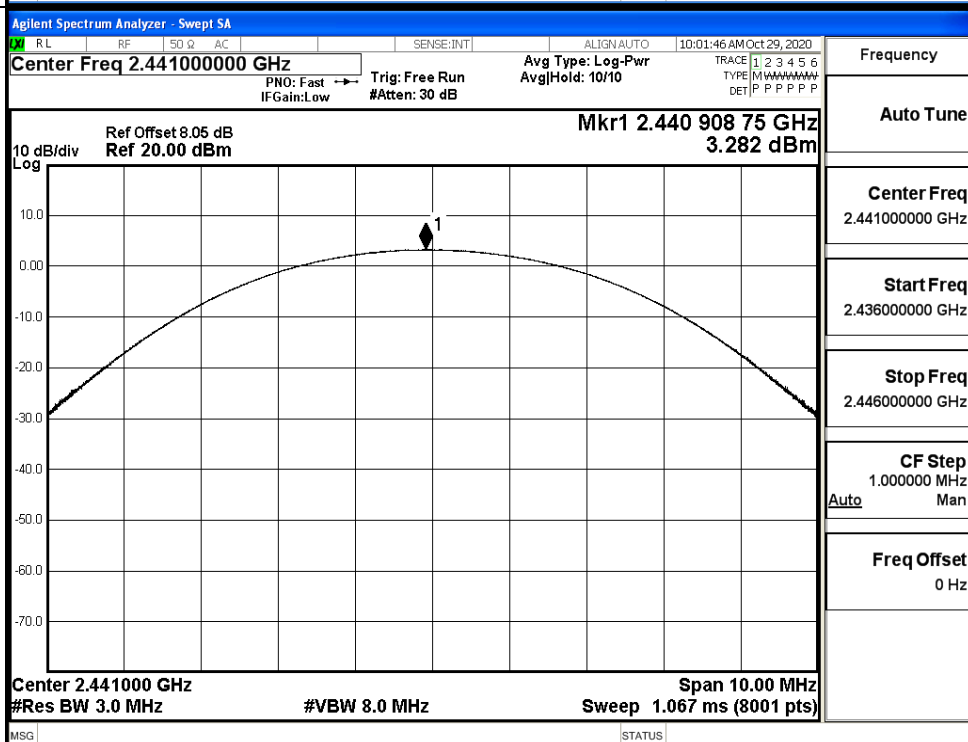
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.751	21	PASS
	MCH	3.282	21	PASS
	HCH	3.229	21	PASS
$\pi/4$ DQPSK	LCH	1.816	21	PASS
	MCH	3.453	21	PASS
	HCH	3.393	21	PASS
8DPSK	LCH	1.683	21	PASS
	MCH	3.280	21	PASS
	HCH	3.220	21	PASS

Test Graphs

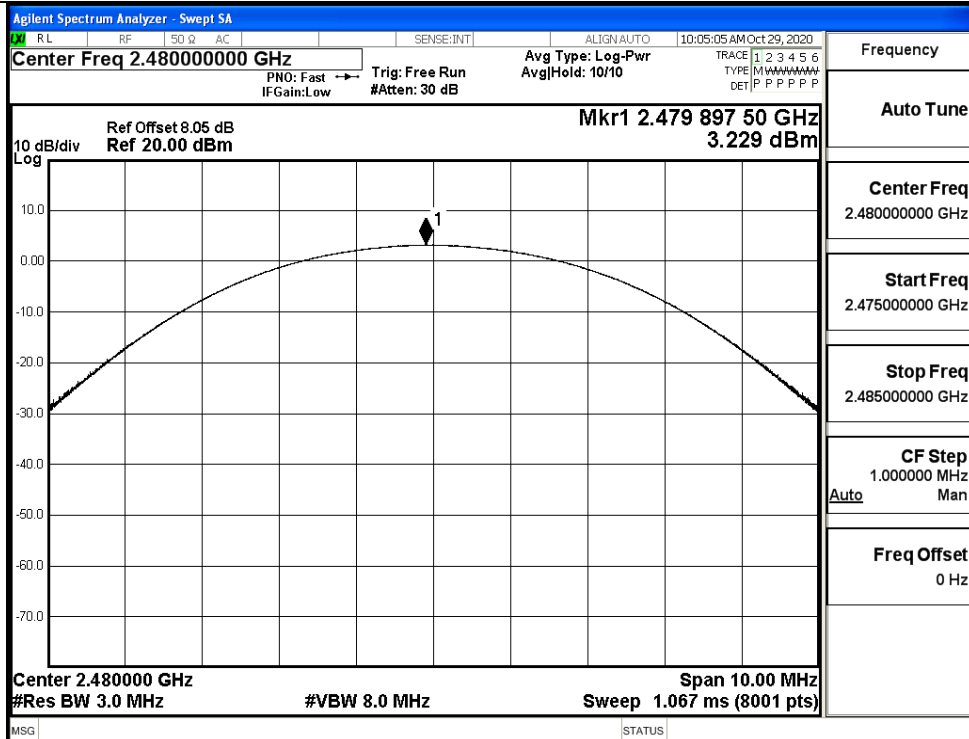
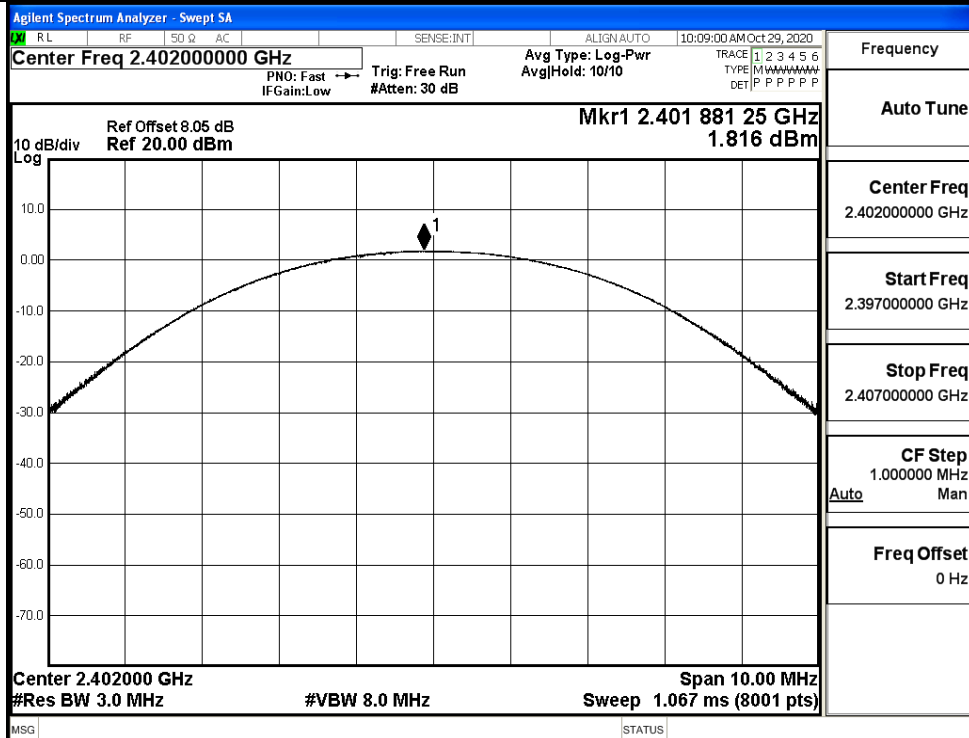
GFSK/LCH

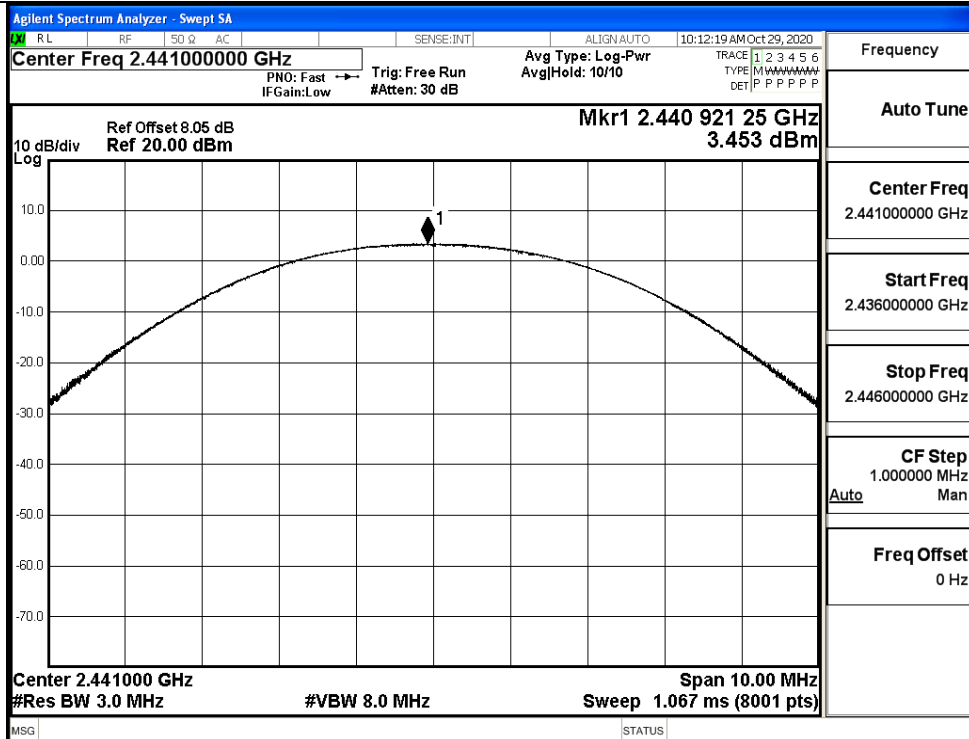
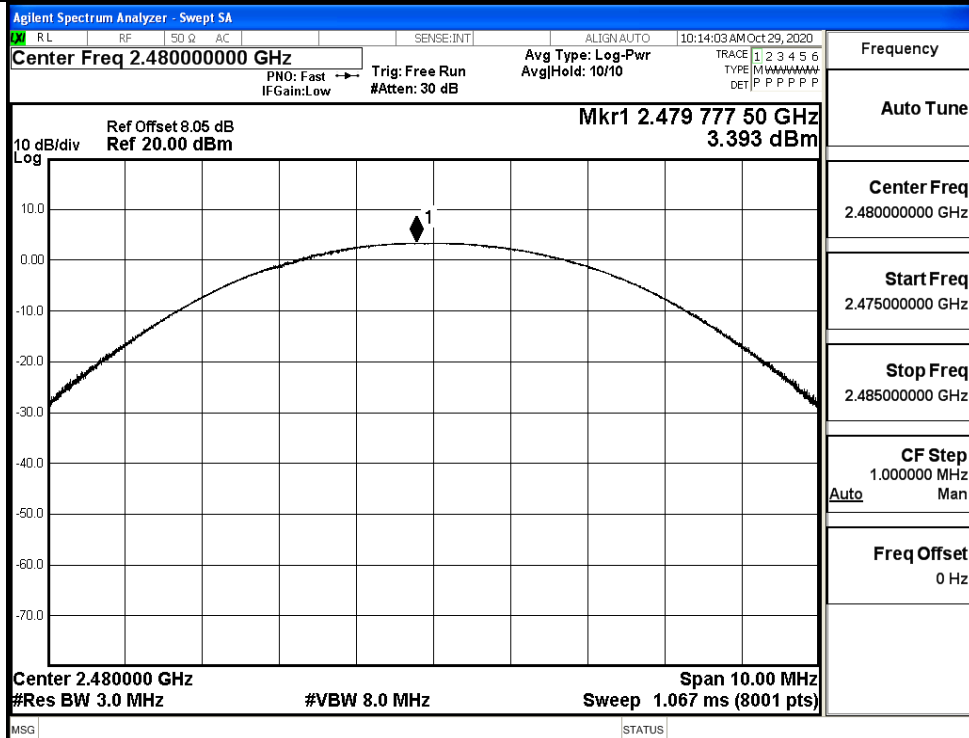


GFSK/MCH

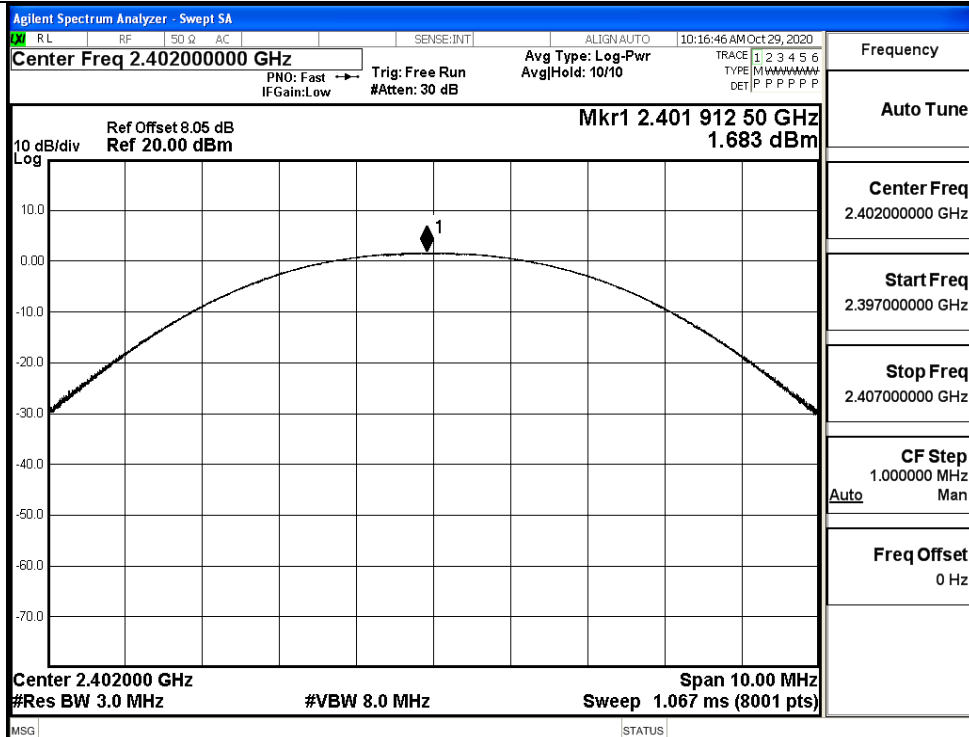


GFSK/HCH

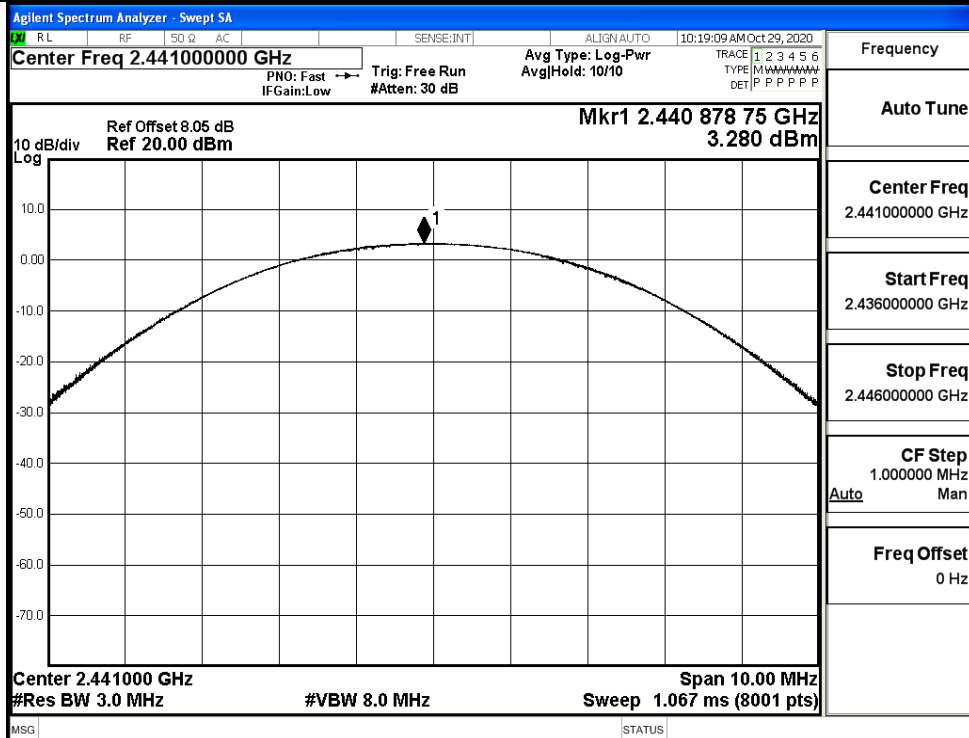
 π /4DQPSK/LCH

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

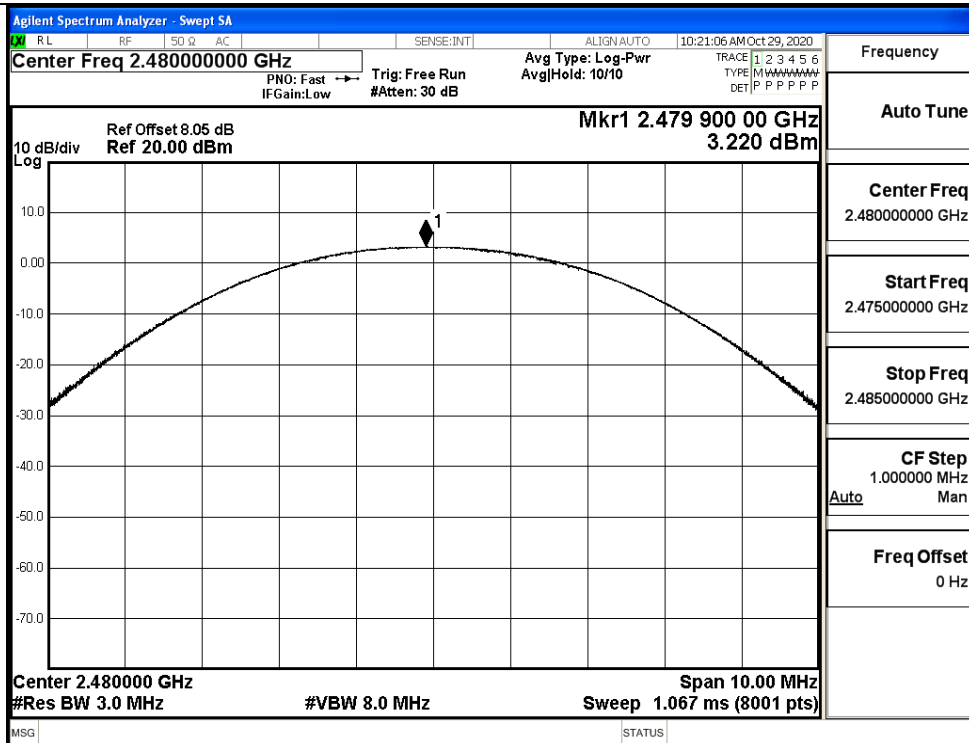
8DPSK/LCH



8DPSK/MCH



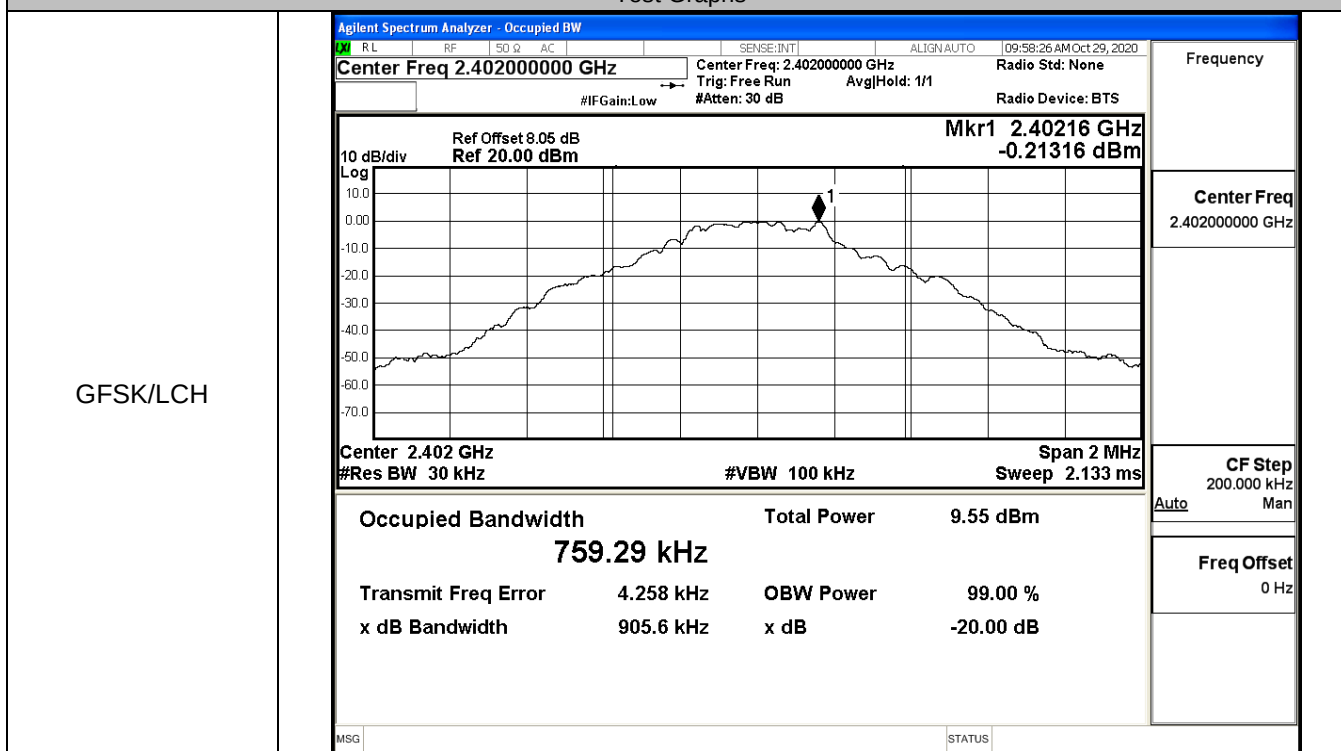
8DPSK/HCH



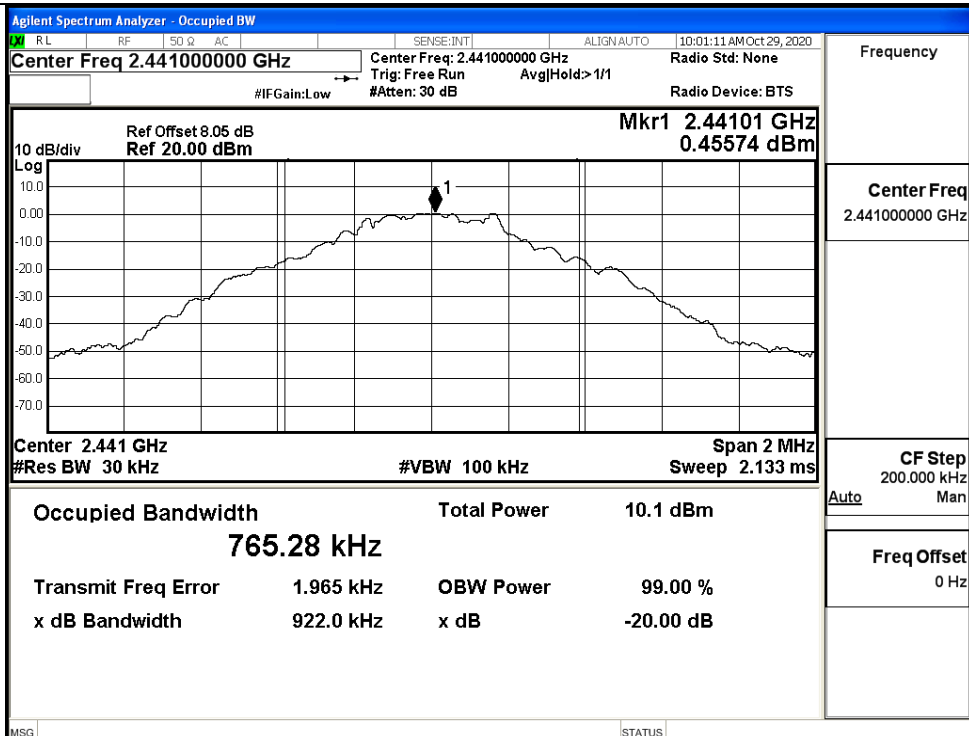
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9056	Not Specified	PASS
	MCH	0.9220	Not Specified	PASS
	HCH	0.9142	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.275	Not Specified	PASS
	MCH	1.281	Not Specified	PASS
	HCH	1.281	Not Specified	PASS
8DPSK	LCH	1.272	Not Specified	PASS
	MCH	1.285	Not Specified	PASS
	HCH	1.286	Not Specified	PASS

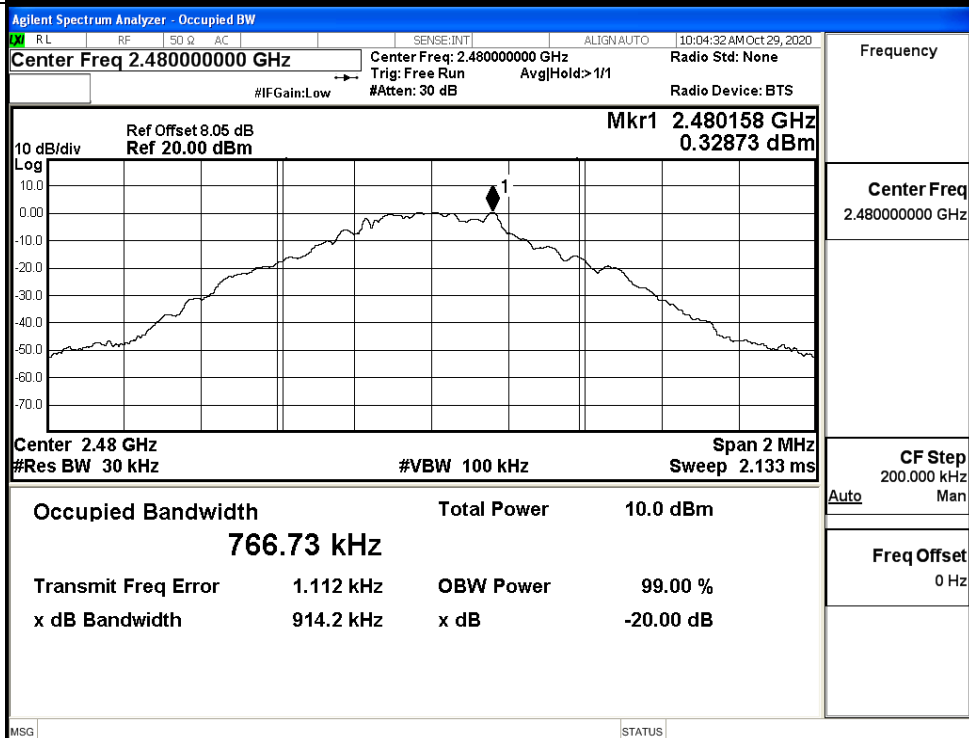
Test Graphs

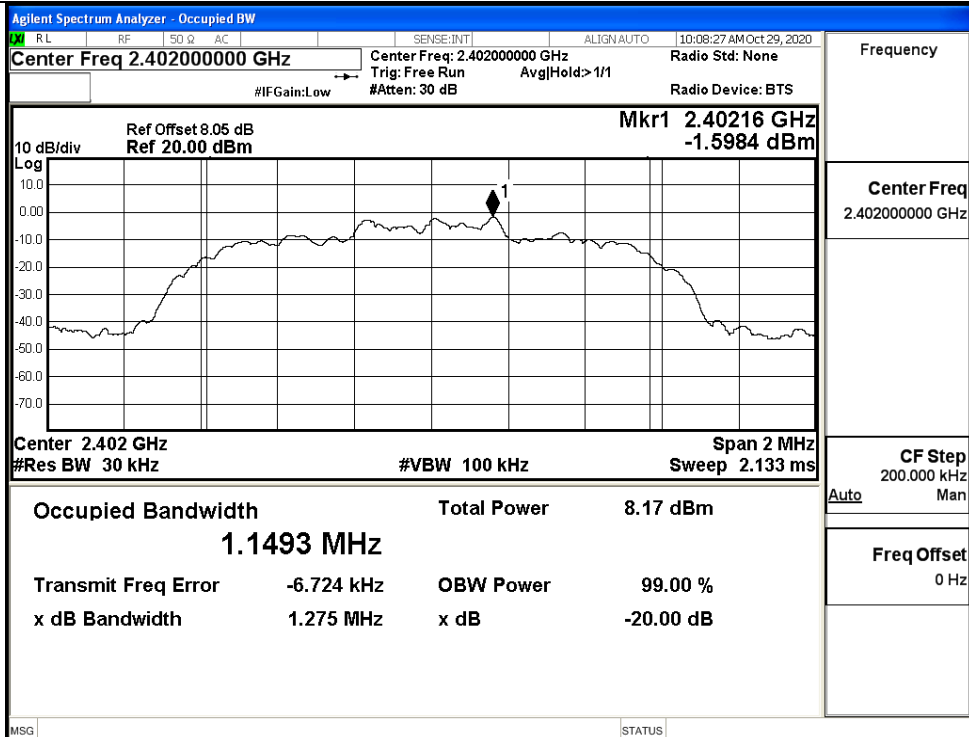
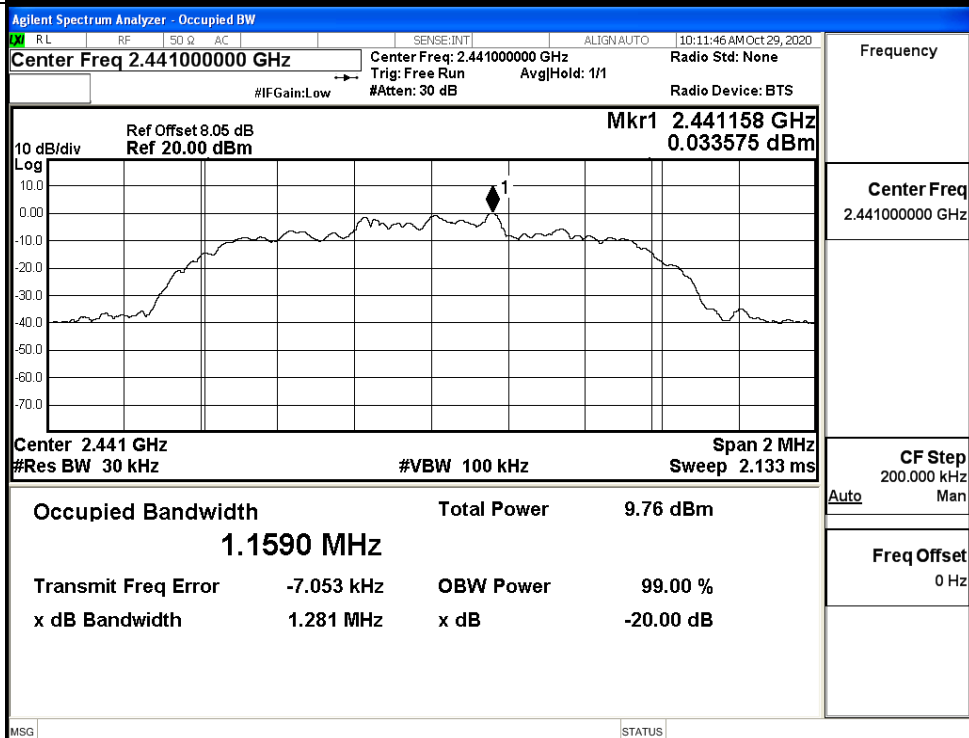


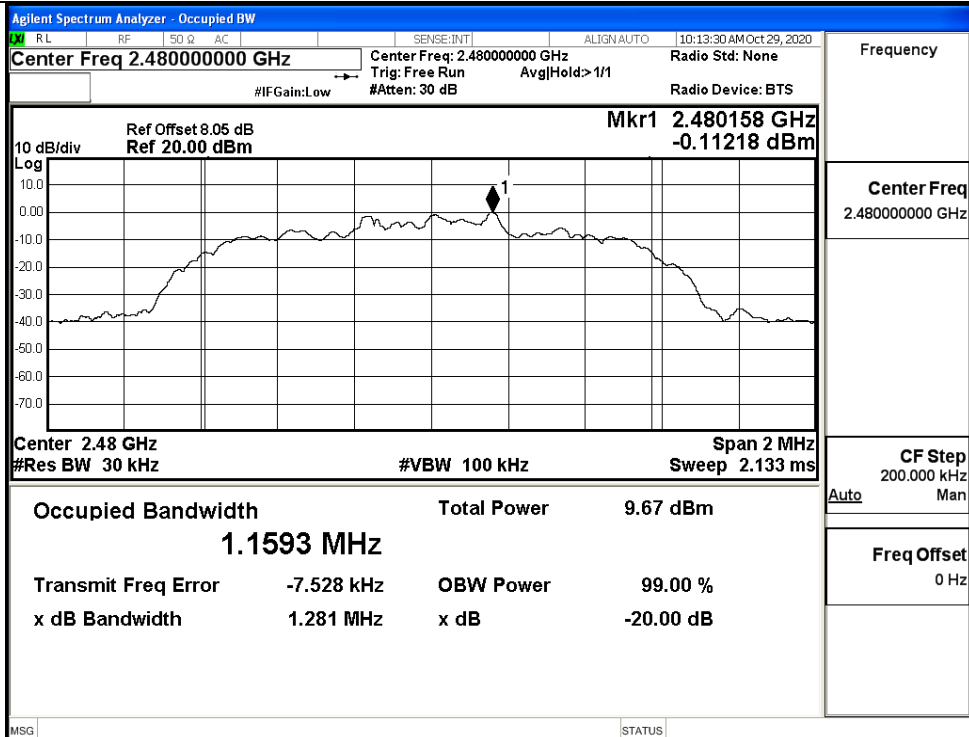
GFSK/MCH



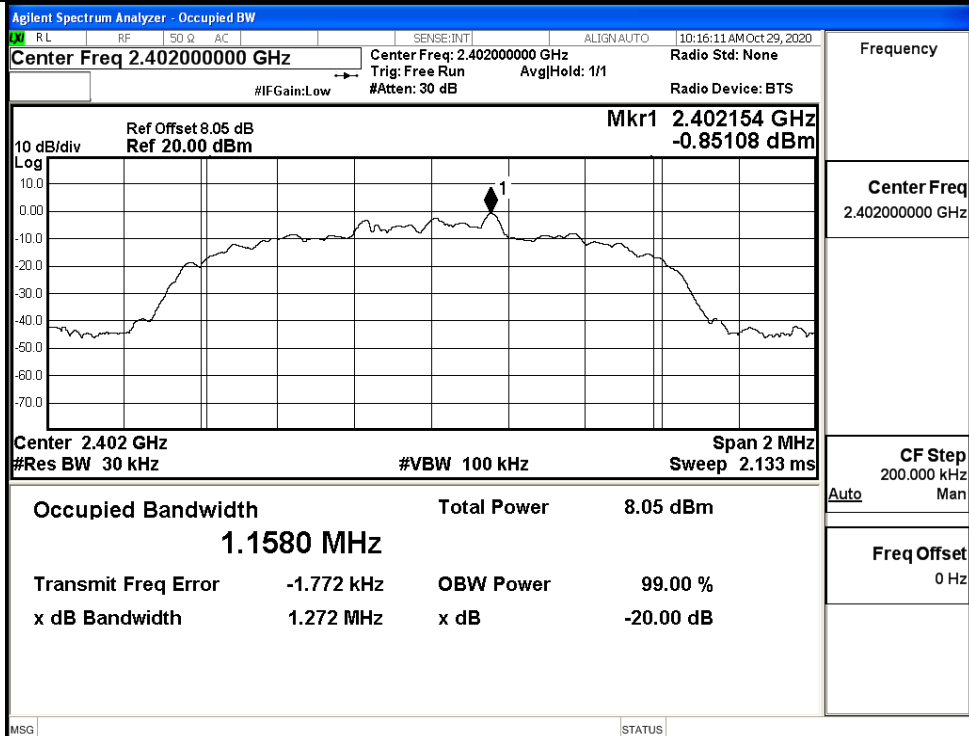
GFSK/HCH



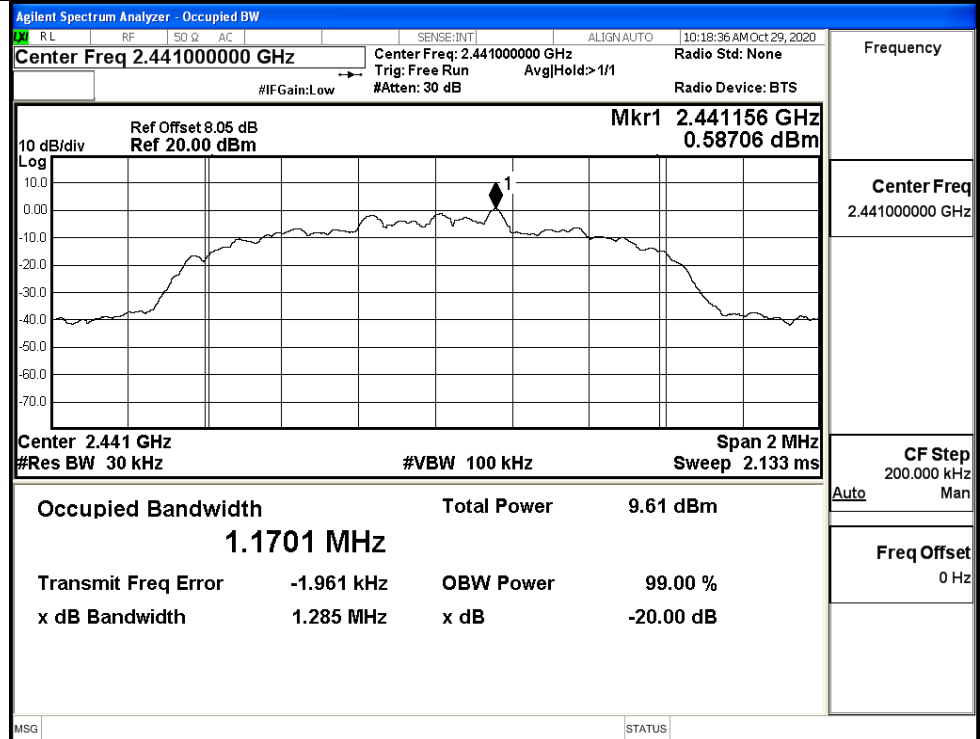
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

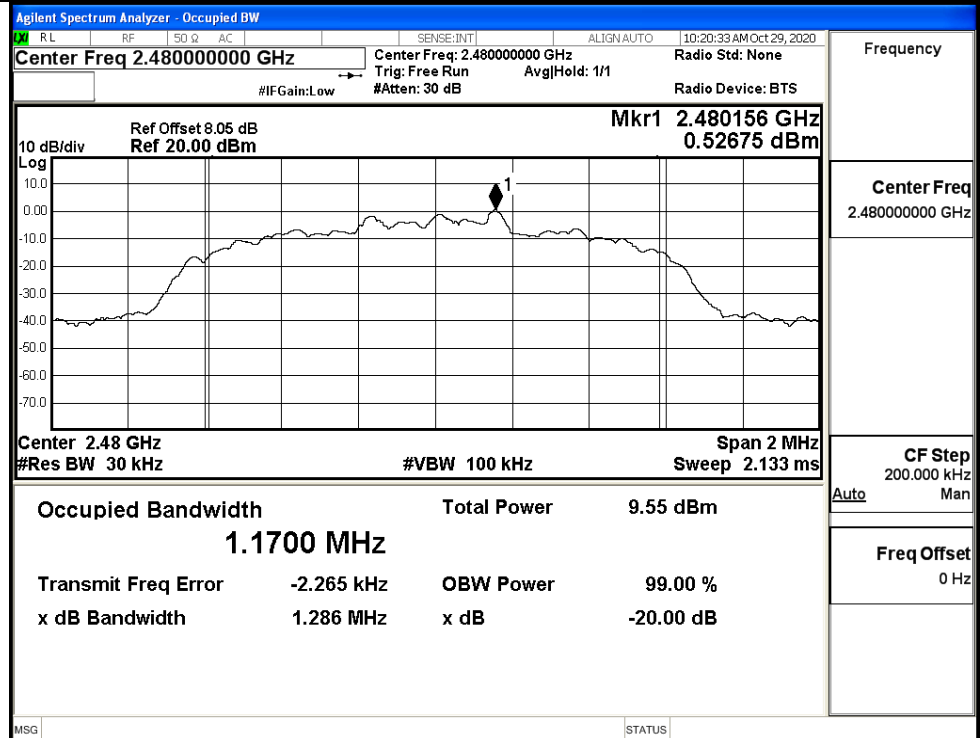
8DPSK/LCH



8DPSK/MCH



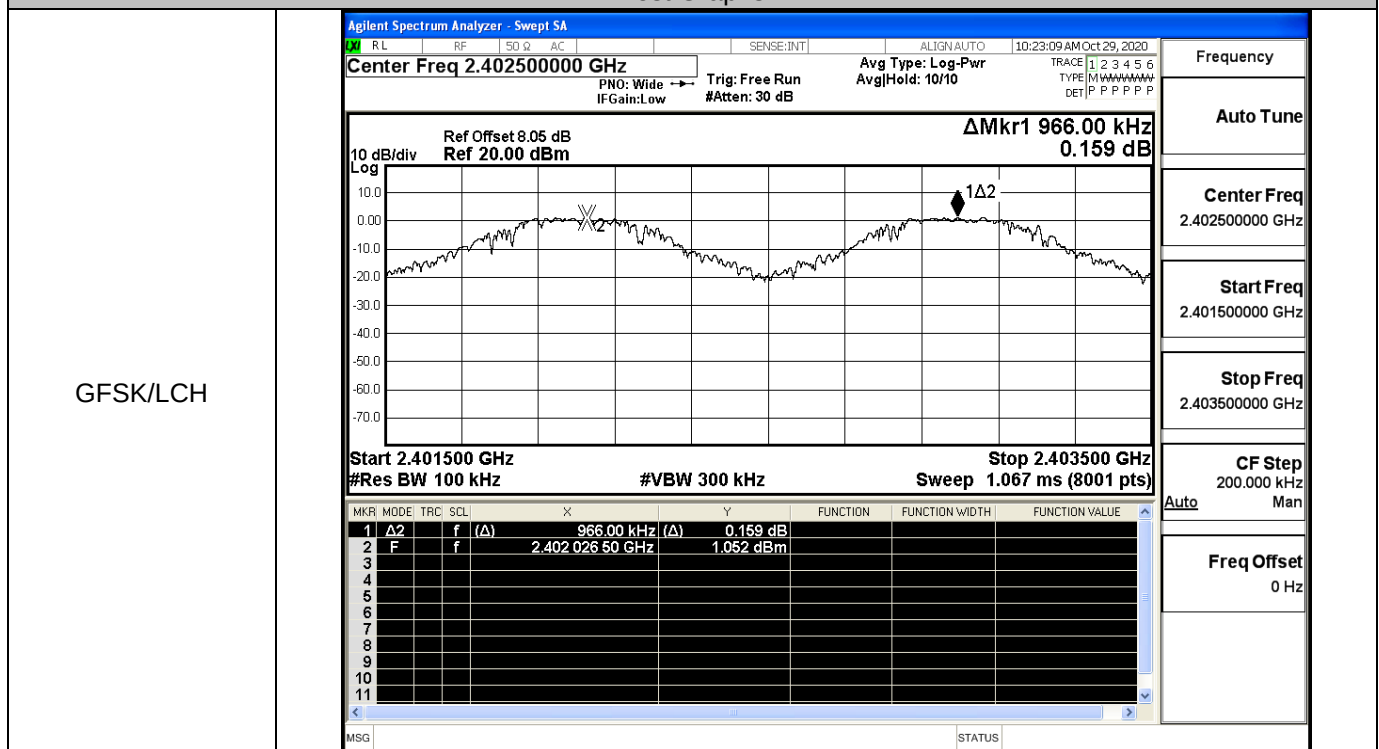
8DPSK/HCH



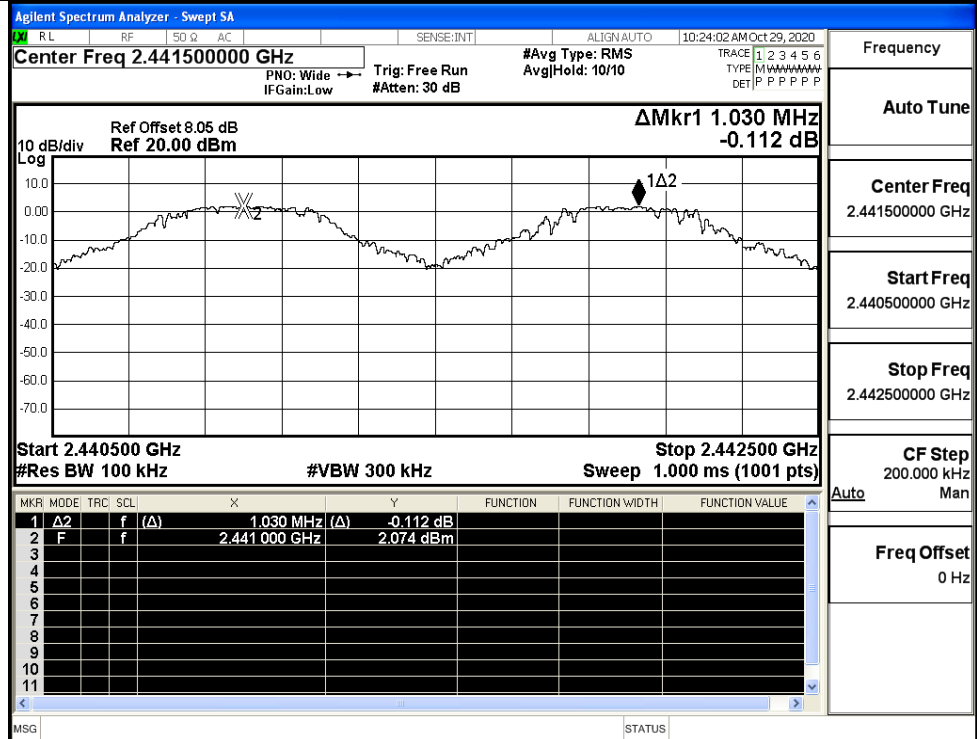
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.966	0.615	PASS
	MCH	1.030	0.615	PASS
	HCH	0.846	0.615	PASS
$\pi/4$ DQPSK	LCH	1.228	0.854	PASS
	MCH	1.040	0.854	PASS
	HCH	0.884	0.854	PASS
8DPSK	LCH	1.190	0.857	PASS
	MCH	0.962	0.857	PASS
	HCH	1.104	0.857	PASS

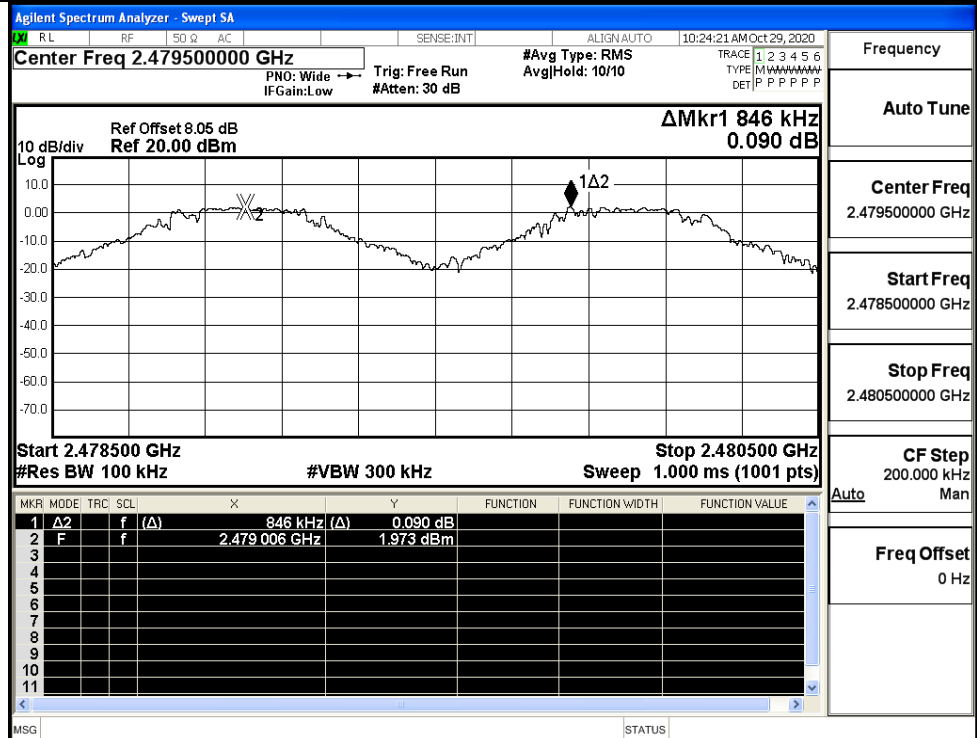
Test Graphs

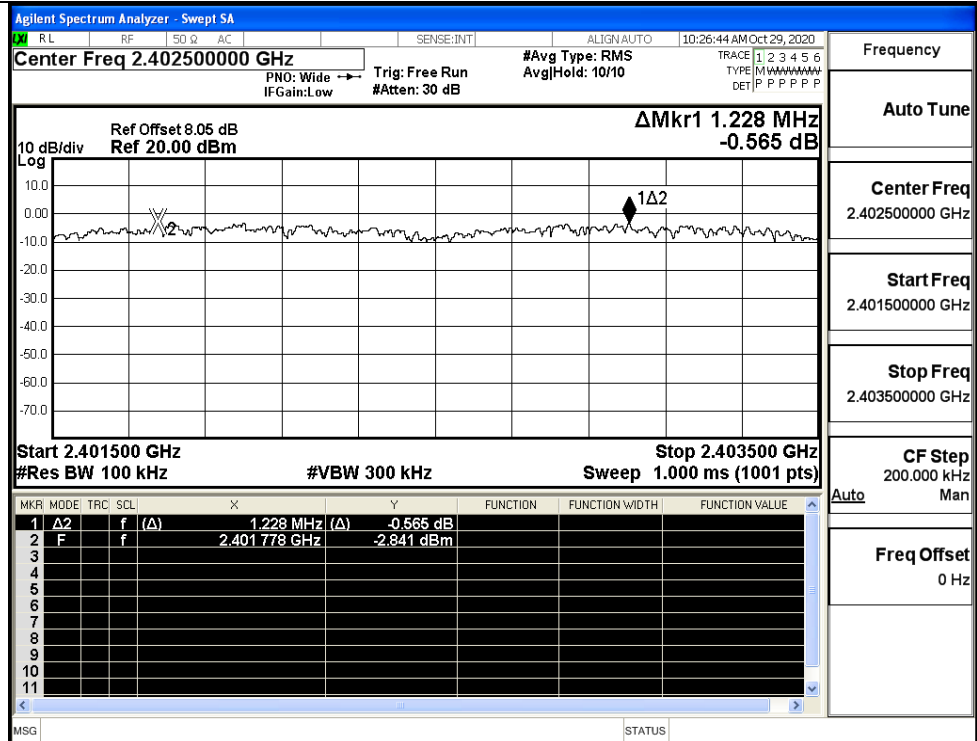
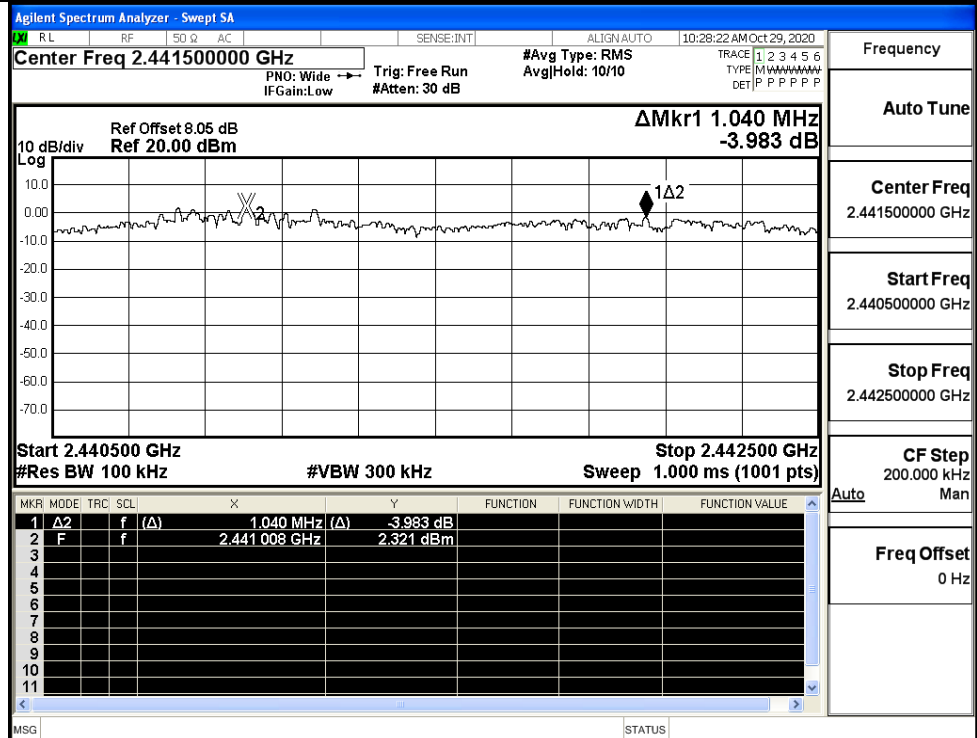


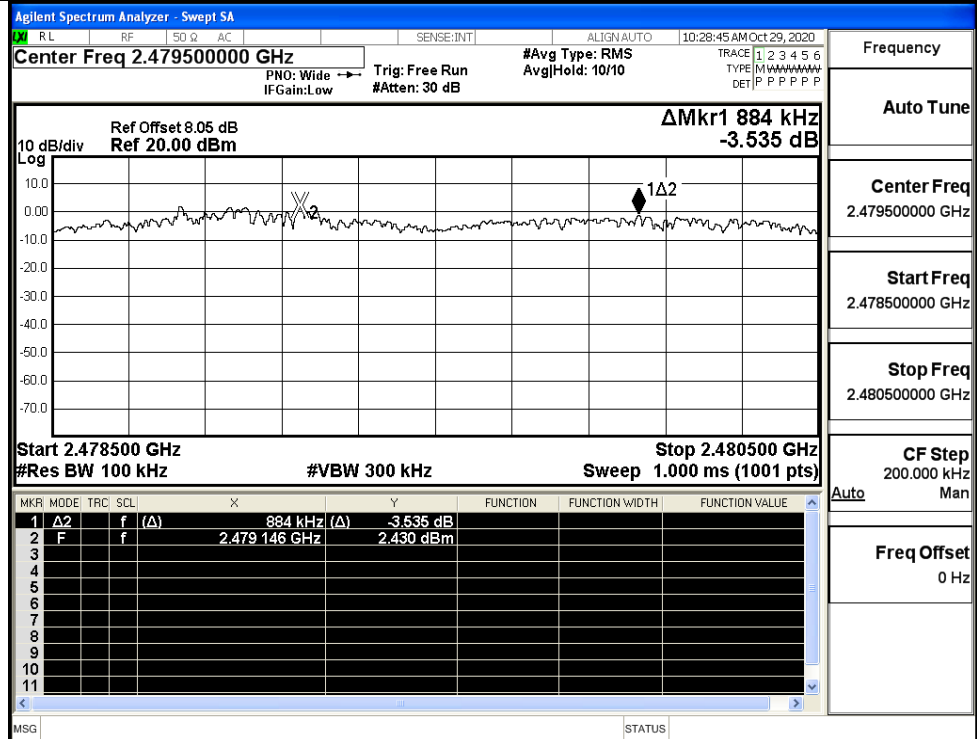
GFSK/MCH



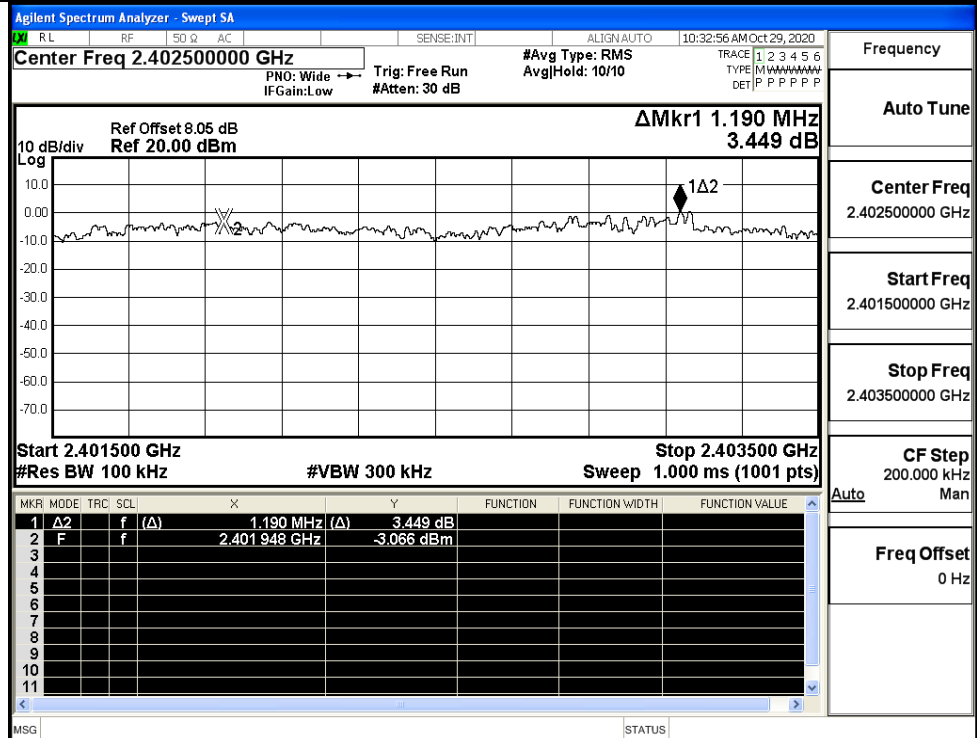
GFSK/HCH



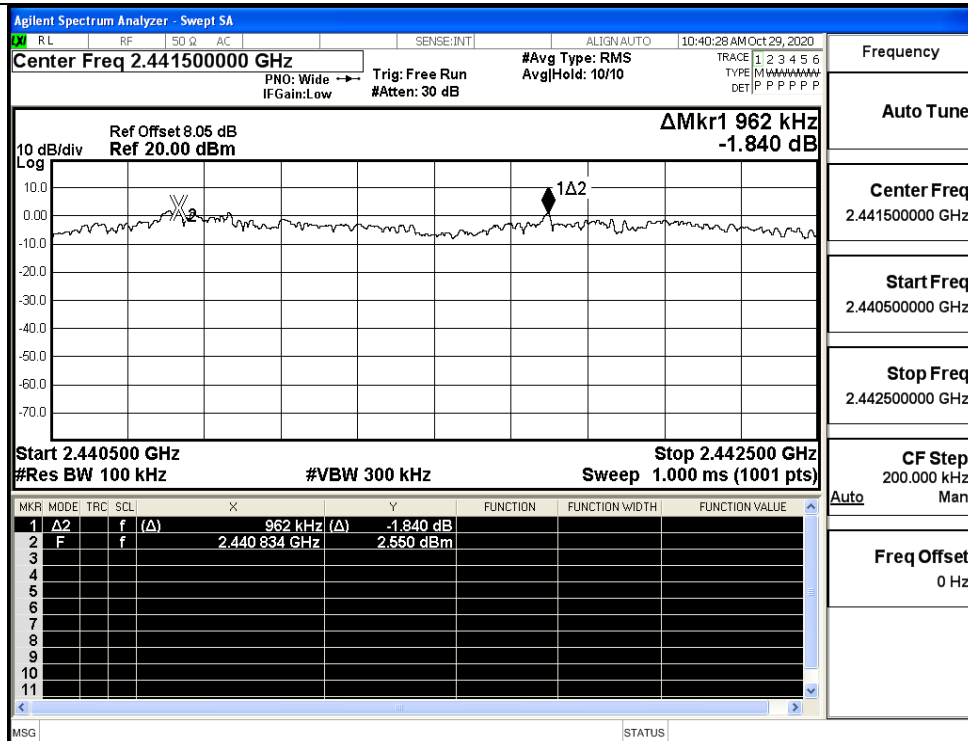
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

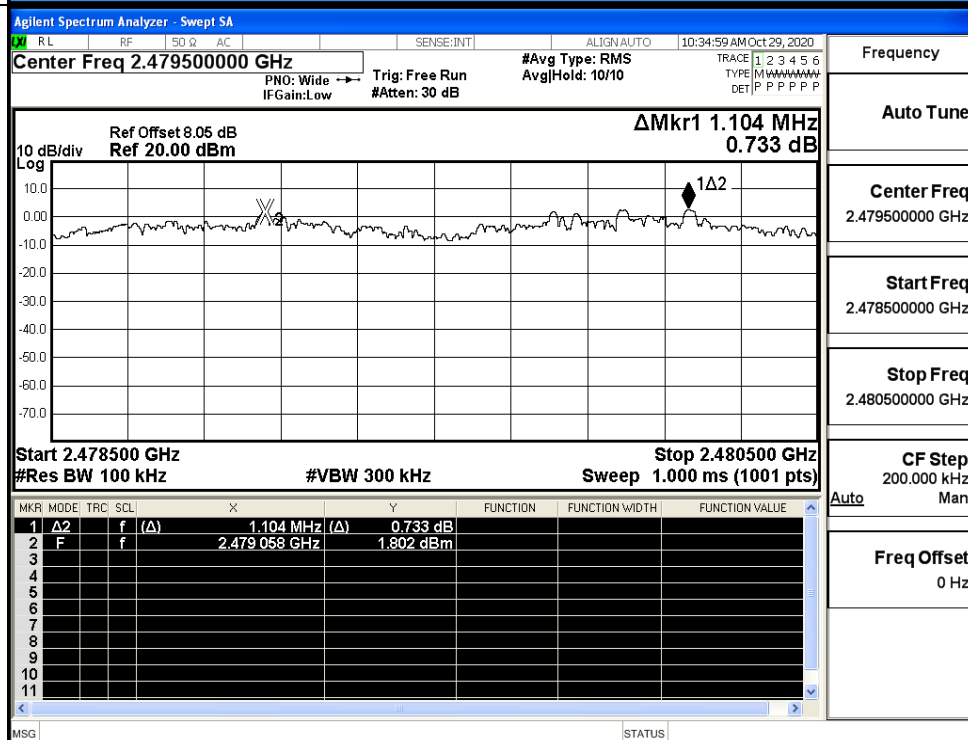
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

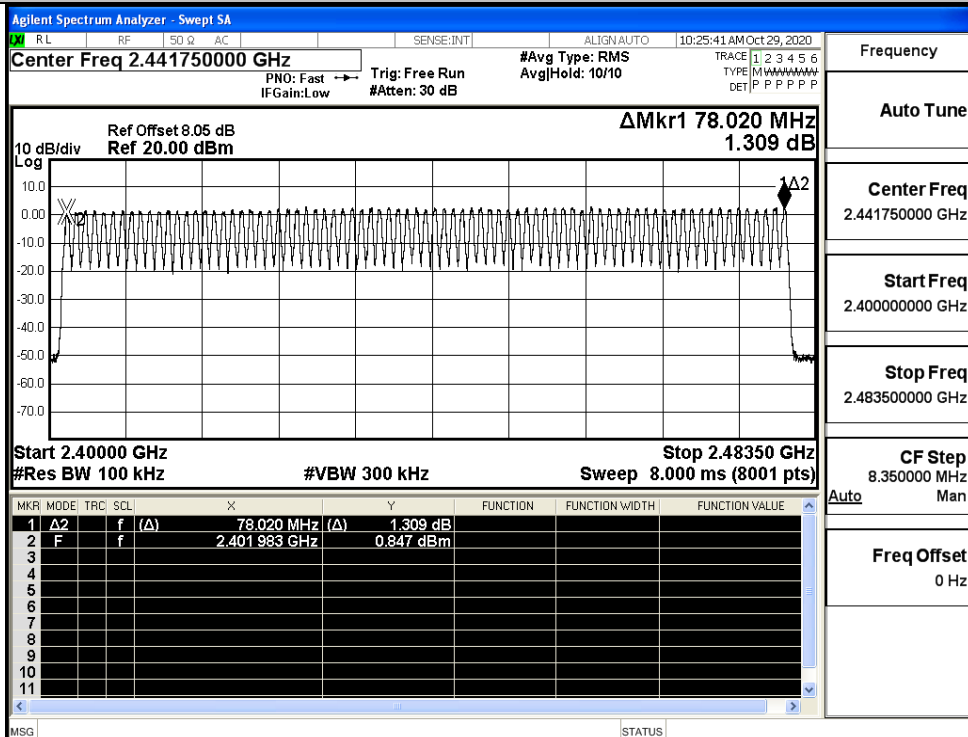
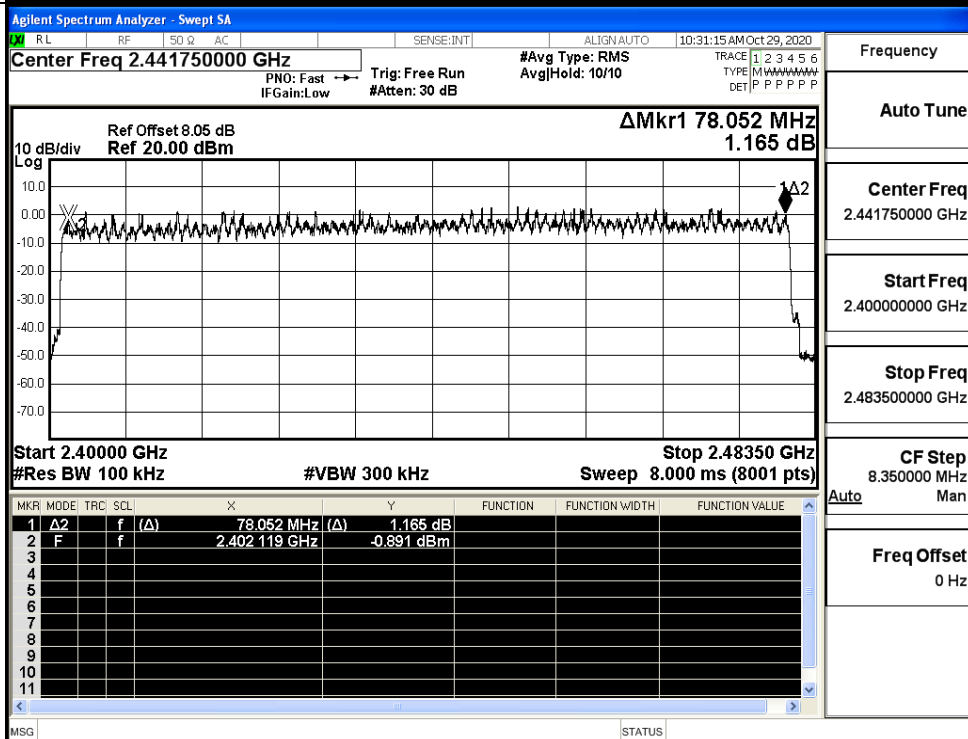


A.4 Hopping Channel Number

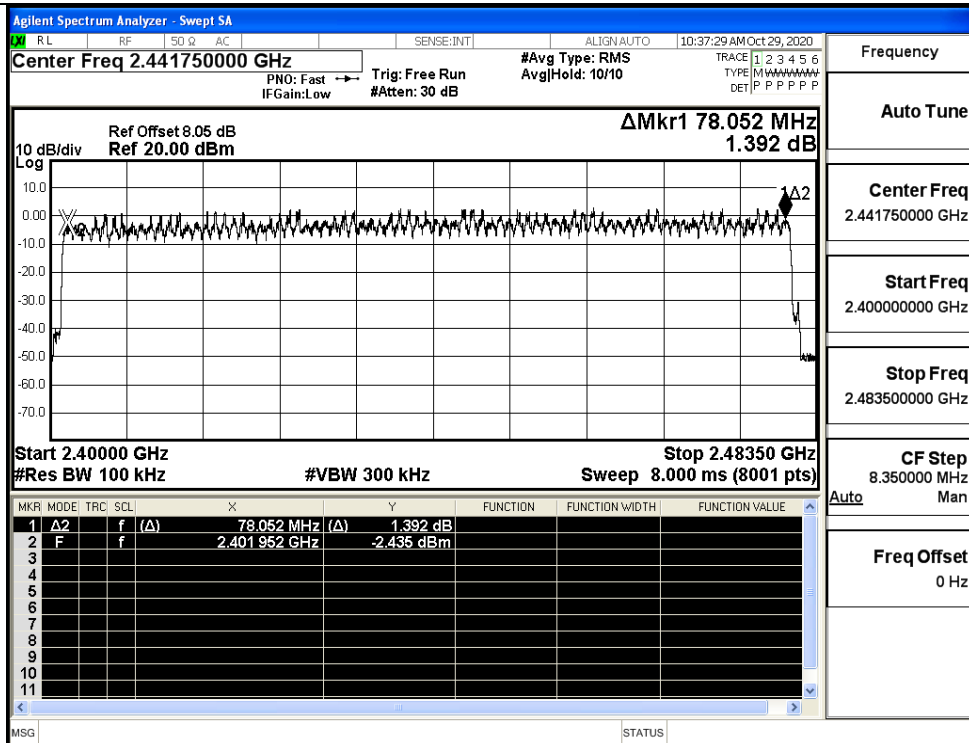
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

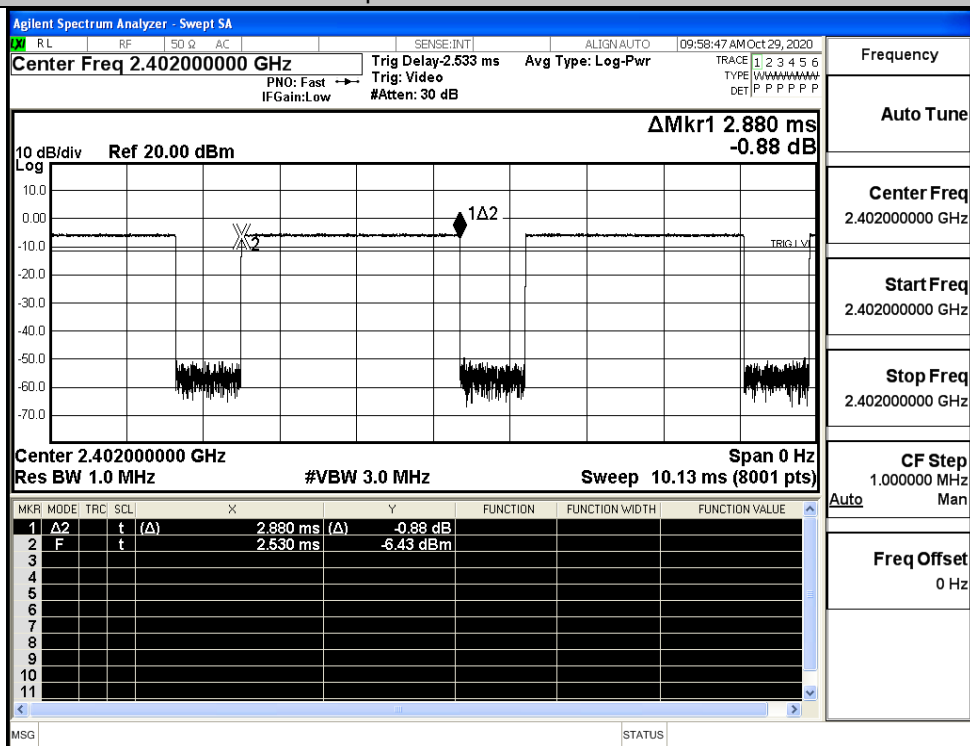


A.5 Dwell Time

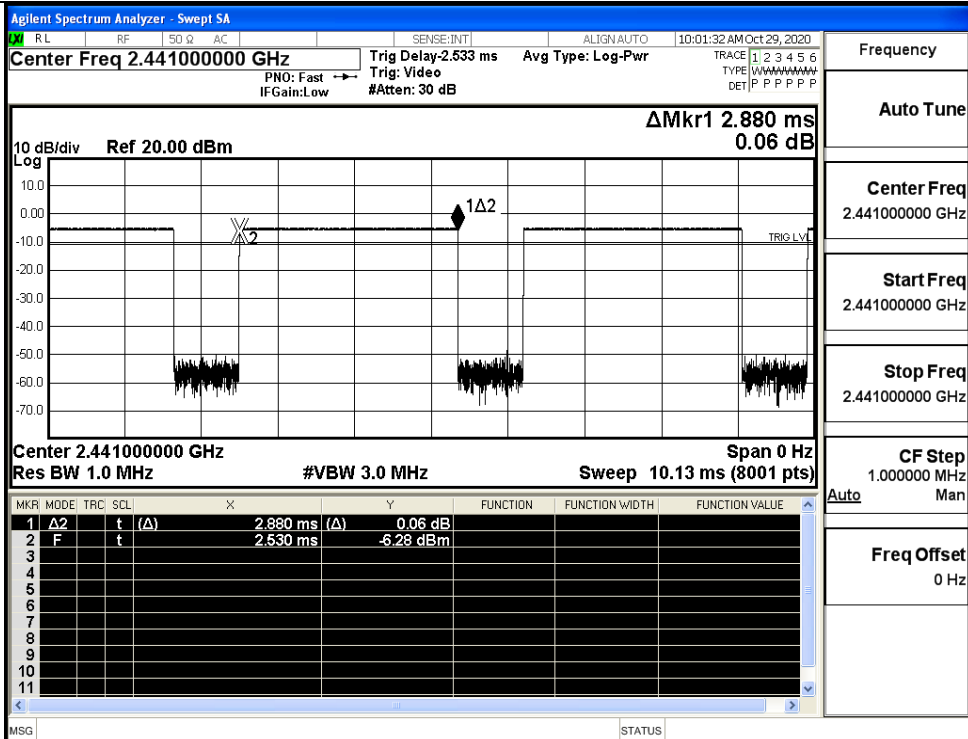
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.880	106.7	0.307	0.4	PASS
	DH5	MCH	2.880	106.7	0.307	0.4	PASS
	DH5	HCH	2.880	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	1.524	106.7	0.163	0.4	PASS
	2DH5	MCH	1.524	106.7	0.163	0.4	PASS
	2DH5	HCH	1.523	106.7	0.163	0.4	PASS
8DPSK	3DH5	LCH	2.885	106.7	0.308	0.4	PASS
	3DH5	MCH	2.885	106.7	0.308	0.4	PASS
	3DH5	HCH	2.885	106.7	0.308	0.4	PASS

Test Graphs

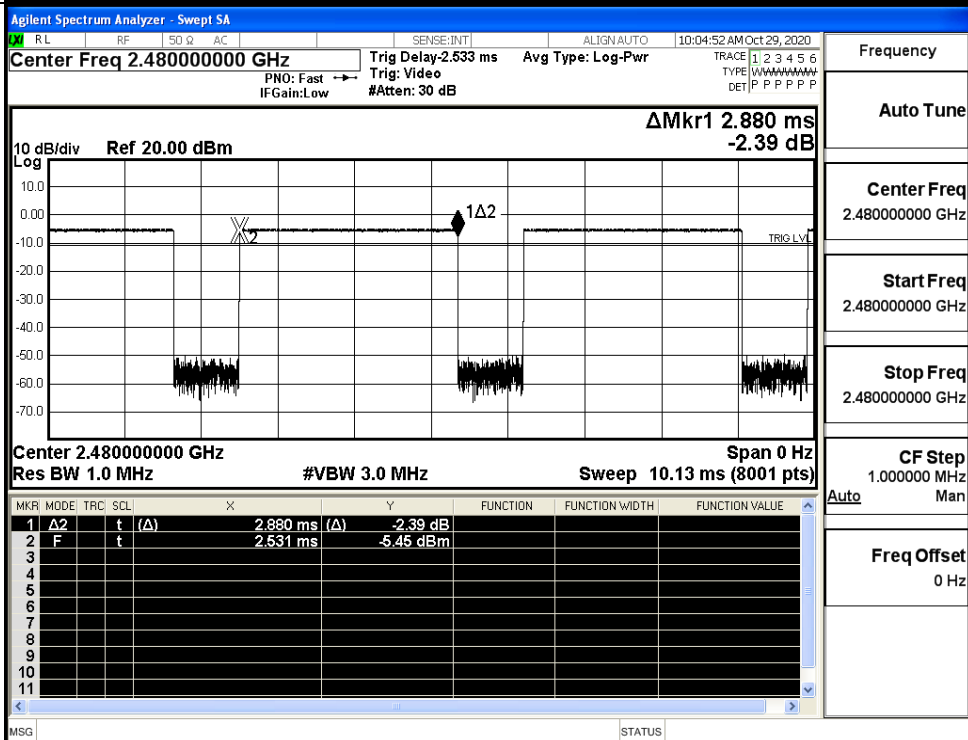
GFSK_DH5/LCH



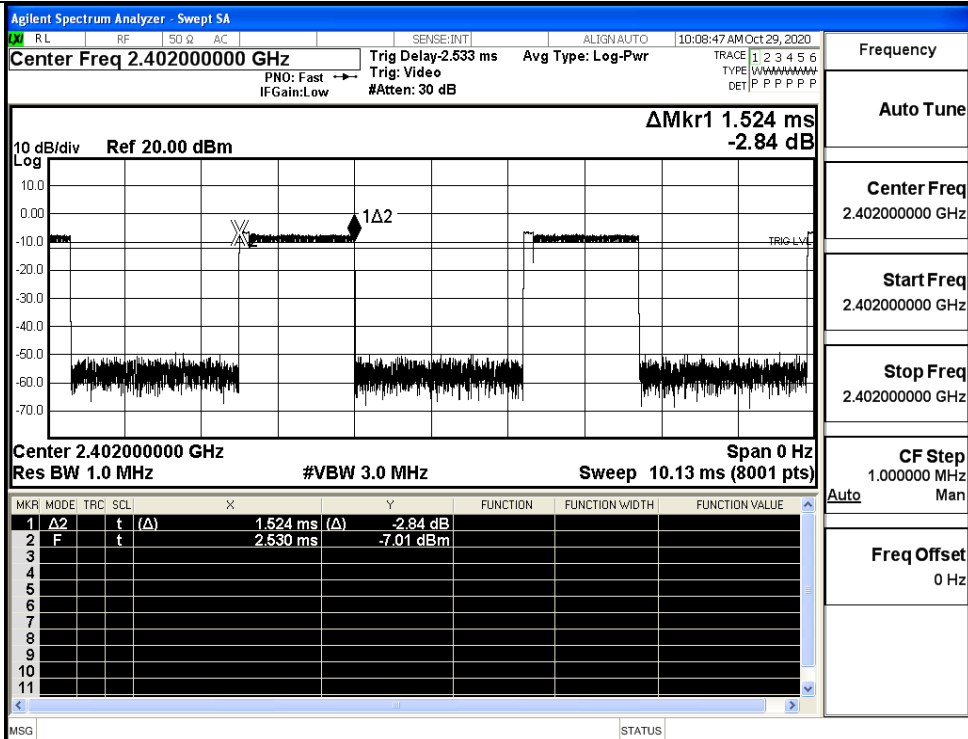
GFSK_DH5/MCH



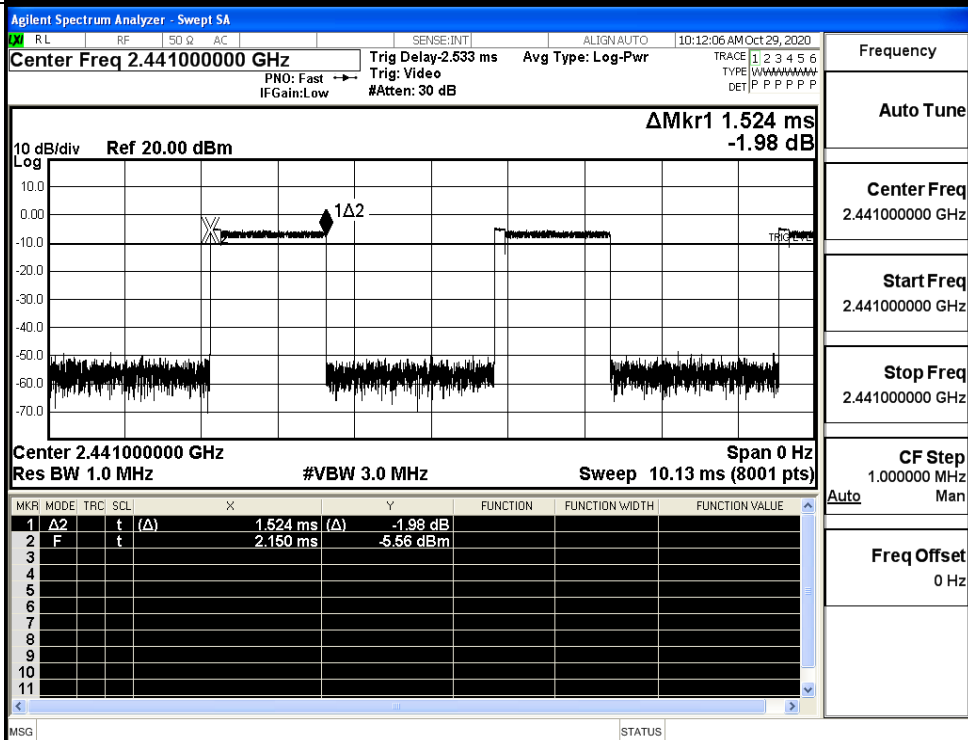
GFSK_DH5/HCH



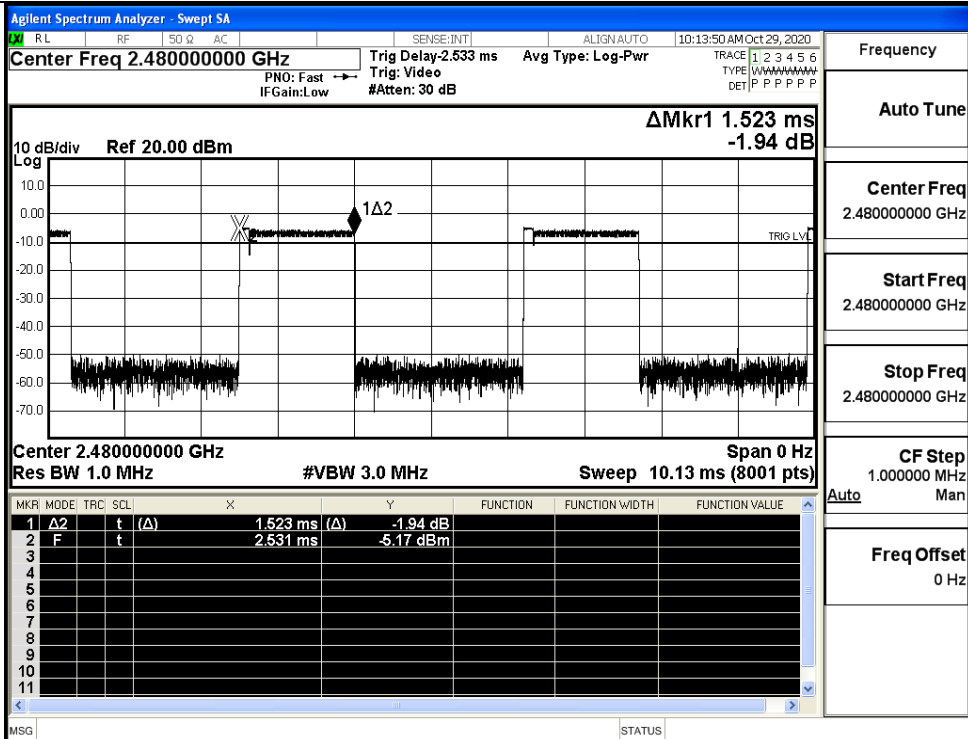
$\pi/4$ DQPSK
_2DH5/LCH



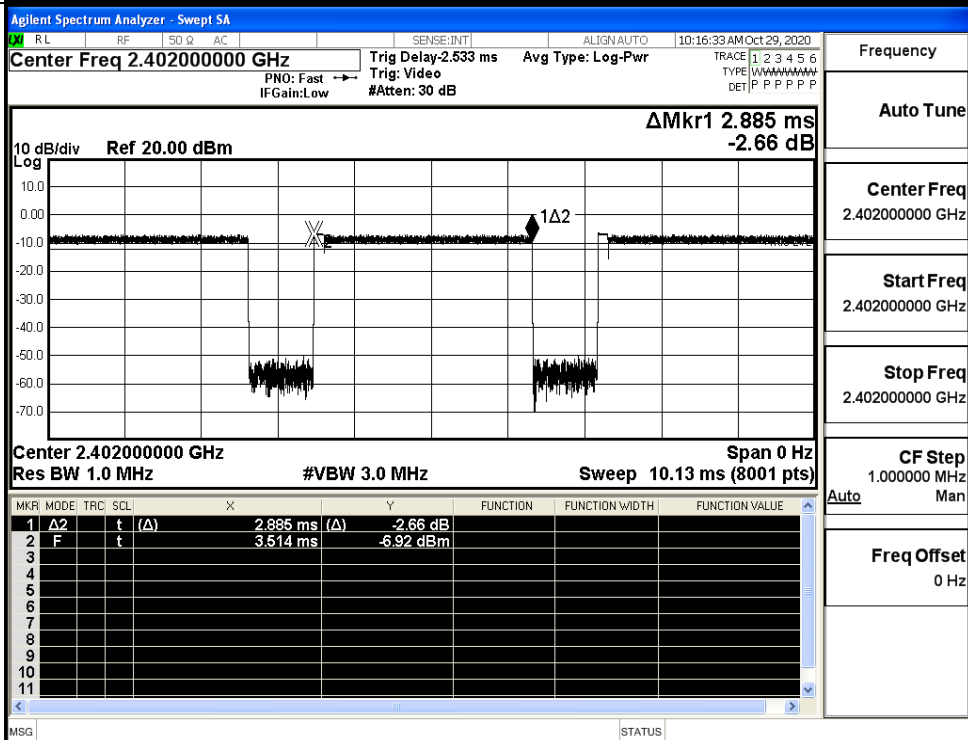
$\pi/4$ DQPSK
_2DH5/MCH



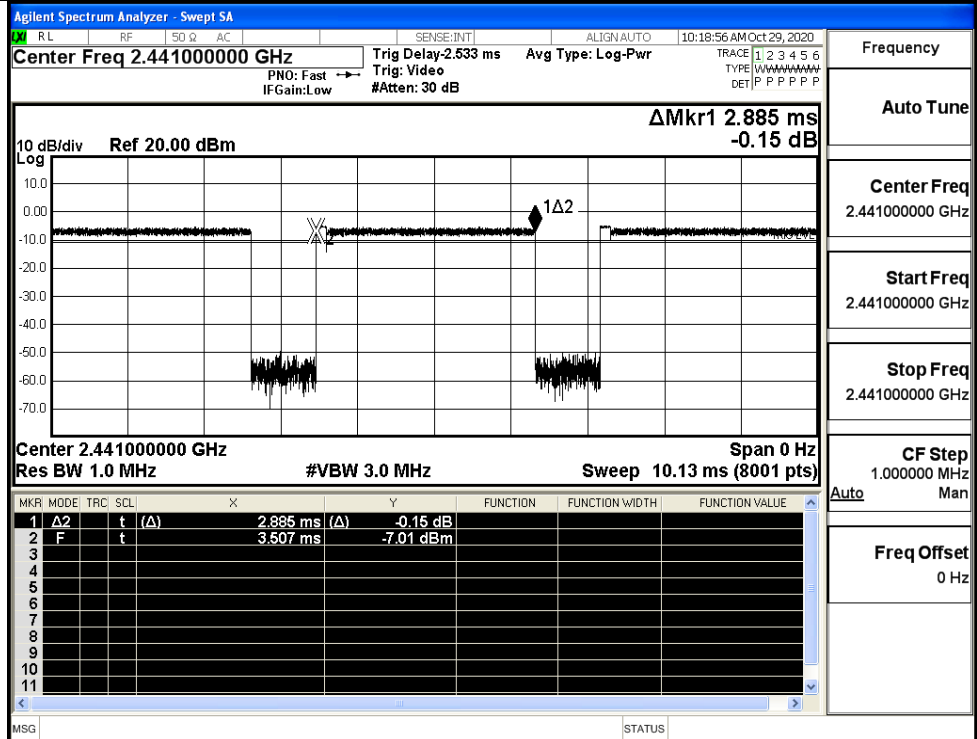
$\pi/4$ DQPSK
_2DH5/HCH



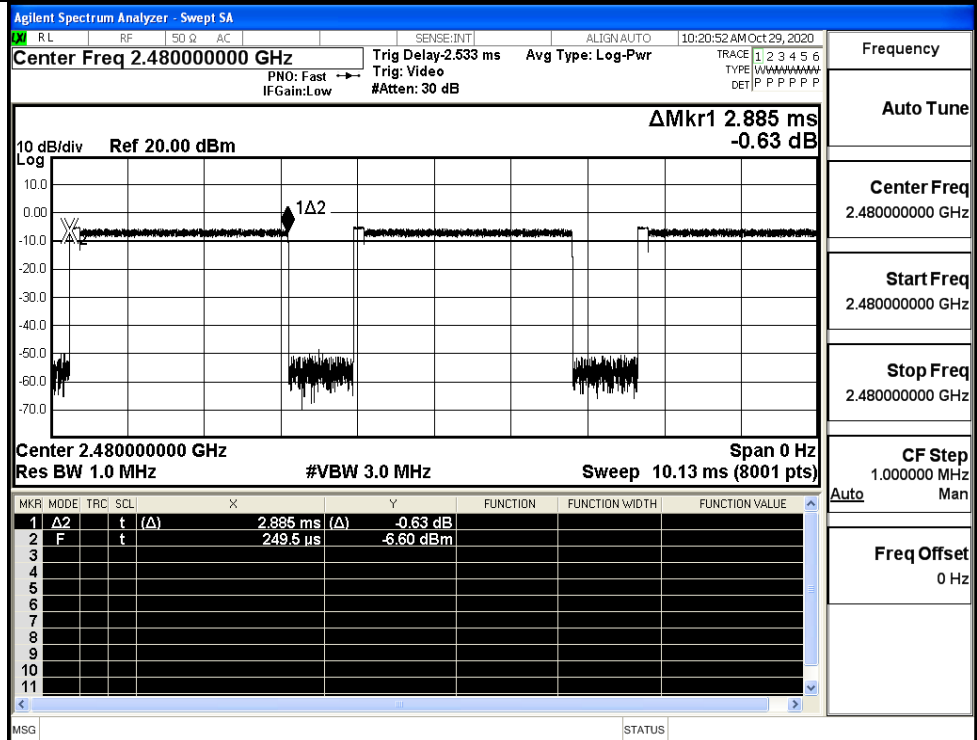
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



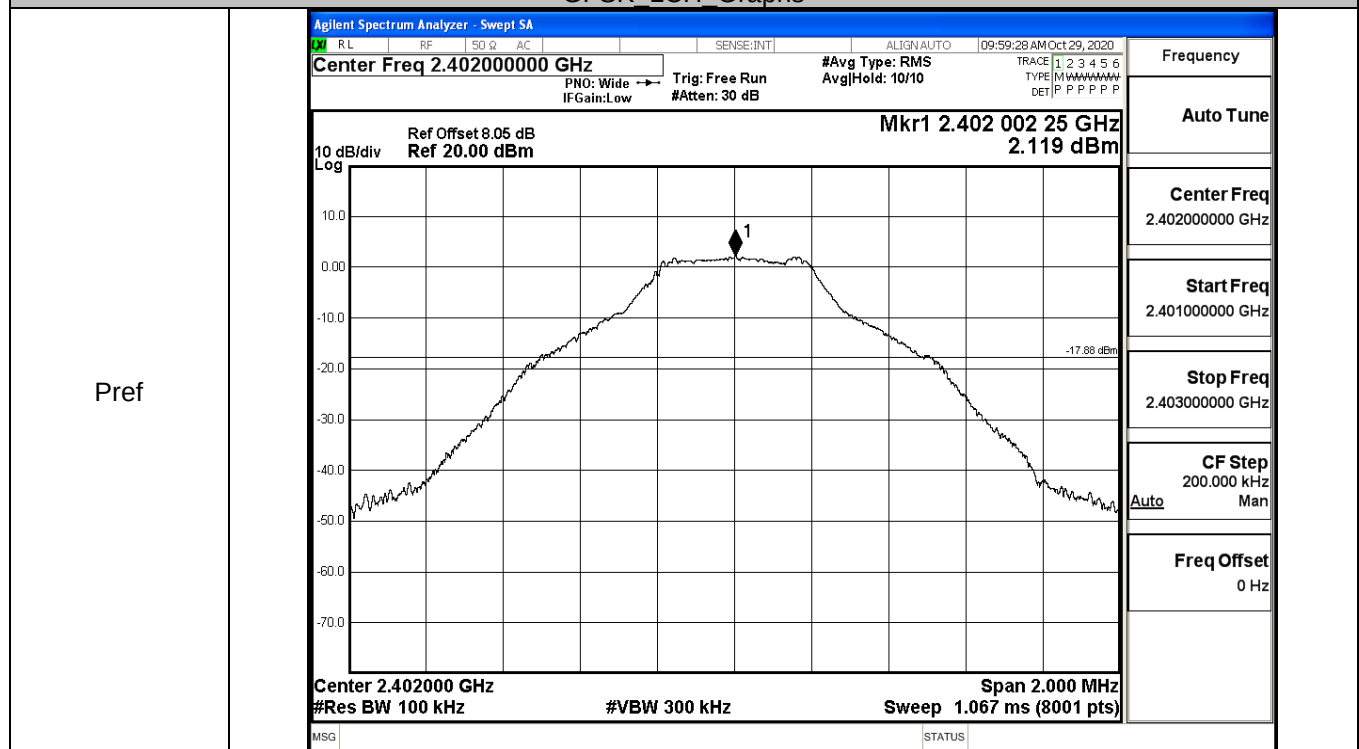
8DPSK_3DH5/HCH



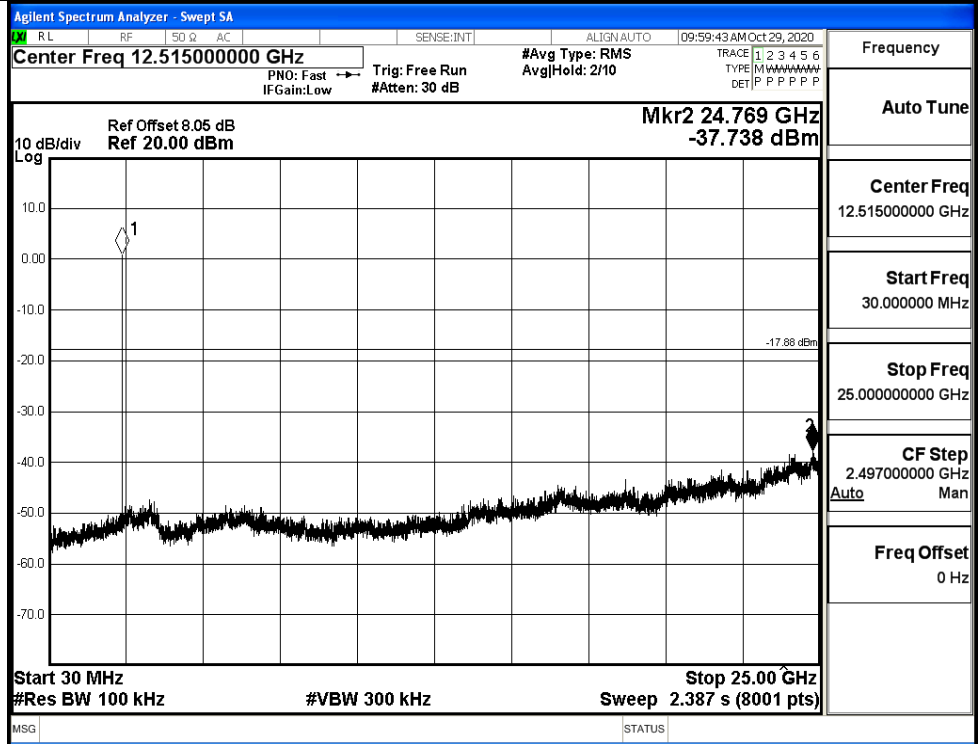
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.119	-37.738	-17.881	PASS
	MCH	2.564	-37.496	-17.436	PASS
	HCH	2.39	-37.872	-17.610	PASS
$\pi/4$ DQPSK	LCH	0.649	-37.774	-19.351	PASS
	MCH	2.707	-37.277	-17.293	PASS
	HCH	2.792	-37.162	-17.208	PASS
8DPSK	LCH	1.215	-38.515	-18.785	PASS
	MCH	2.652	-37.172	-17.348	PASS
	HCH	2.462	-37.411	-17.538	PASS

GFSK LCH Graphs

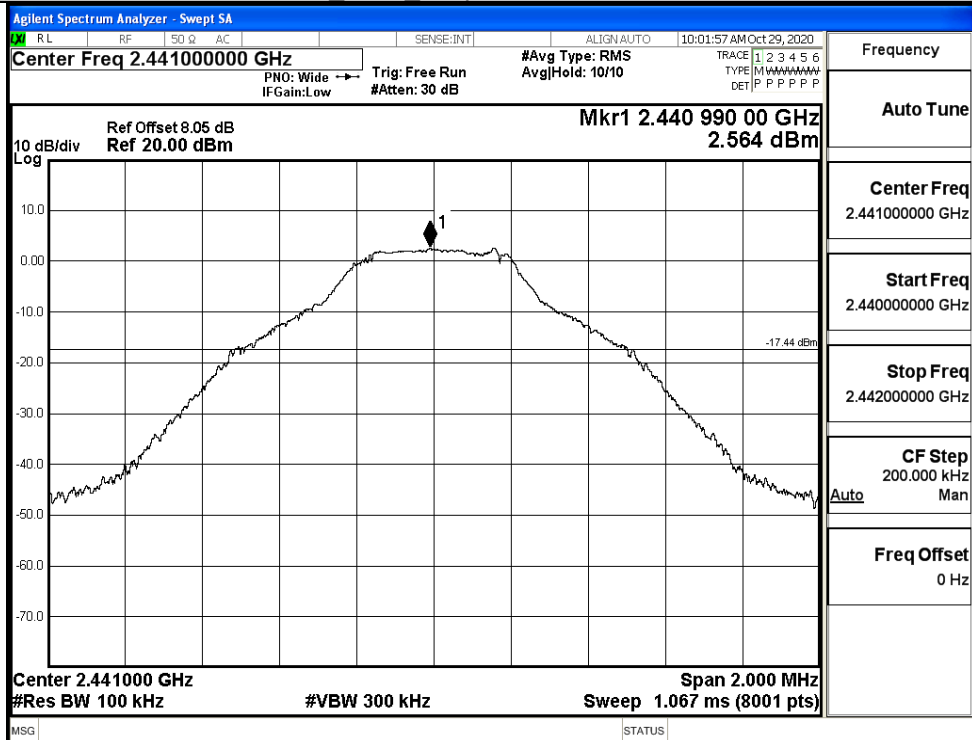


Puw

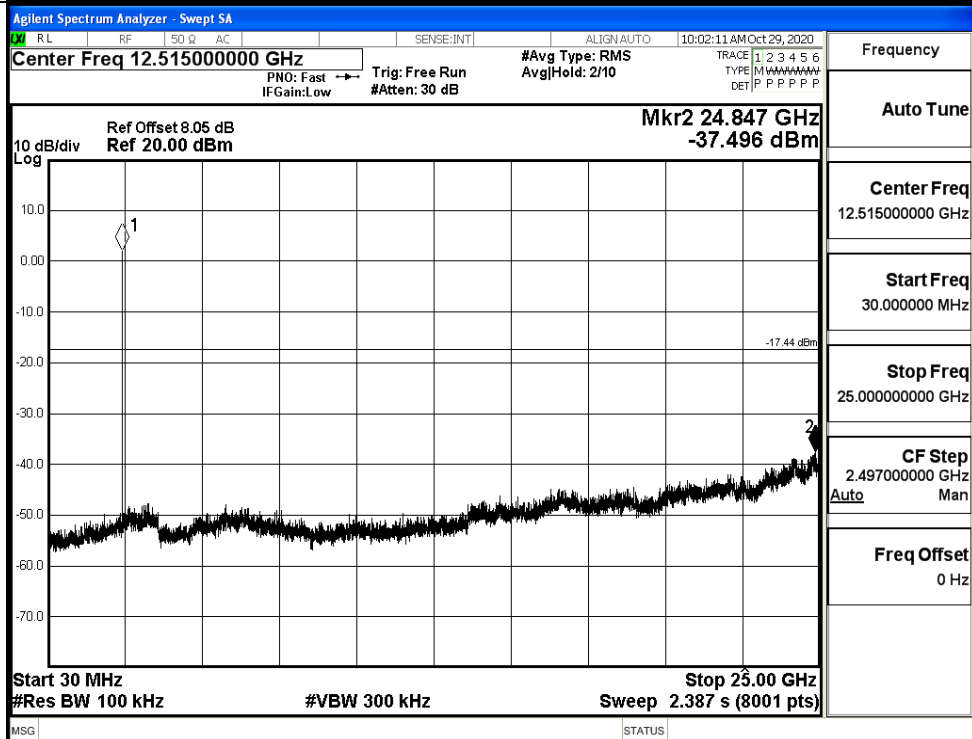


GFSK_MCH_Graphs

Pref

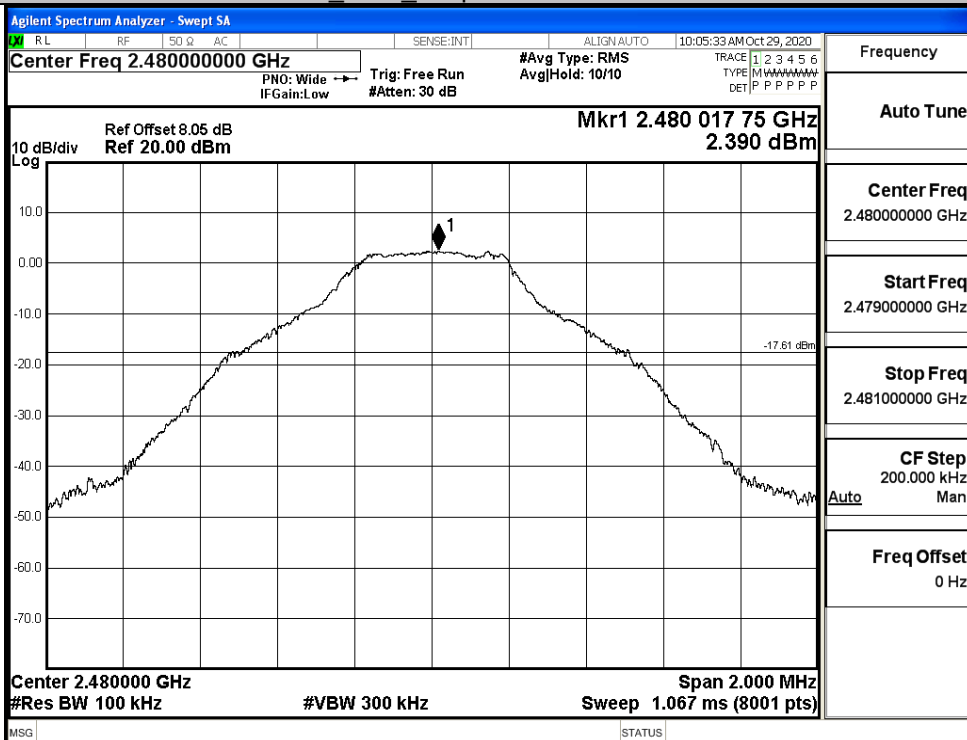


Puw

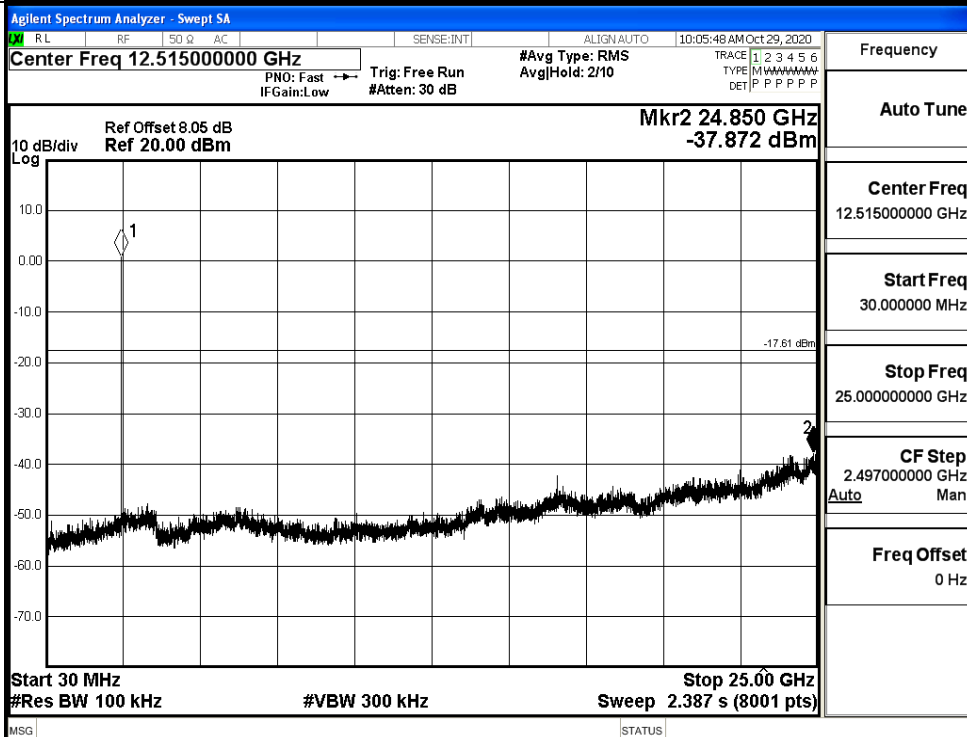


GFSK HCH_Graphs

Pref

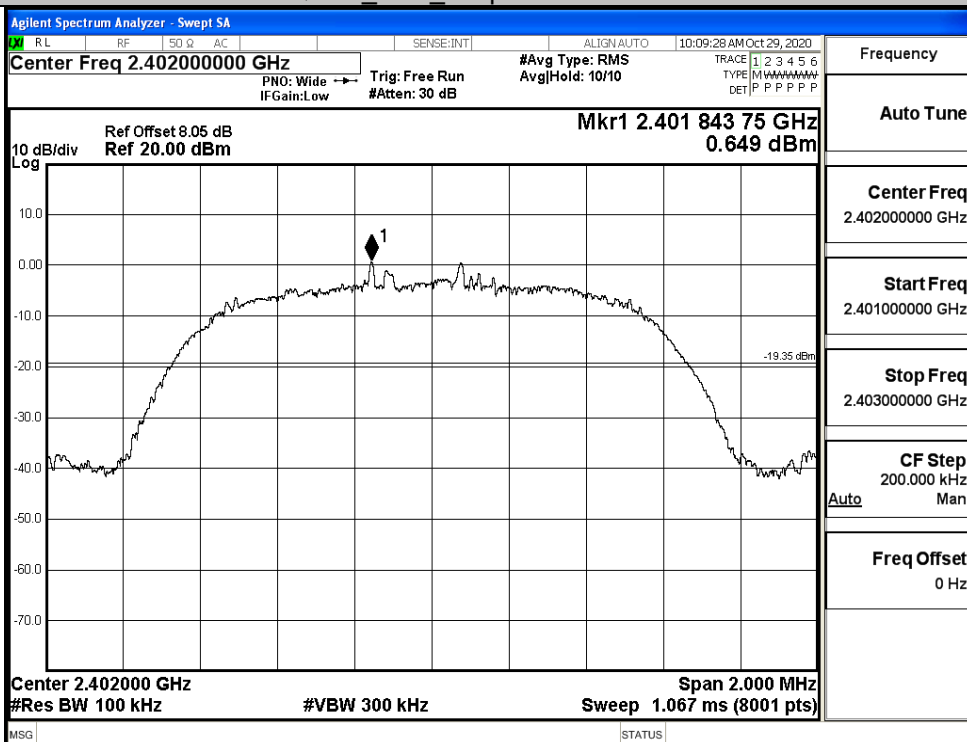


Puw

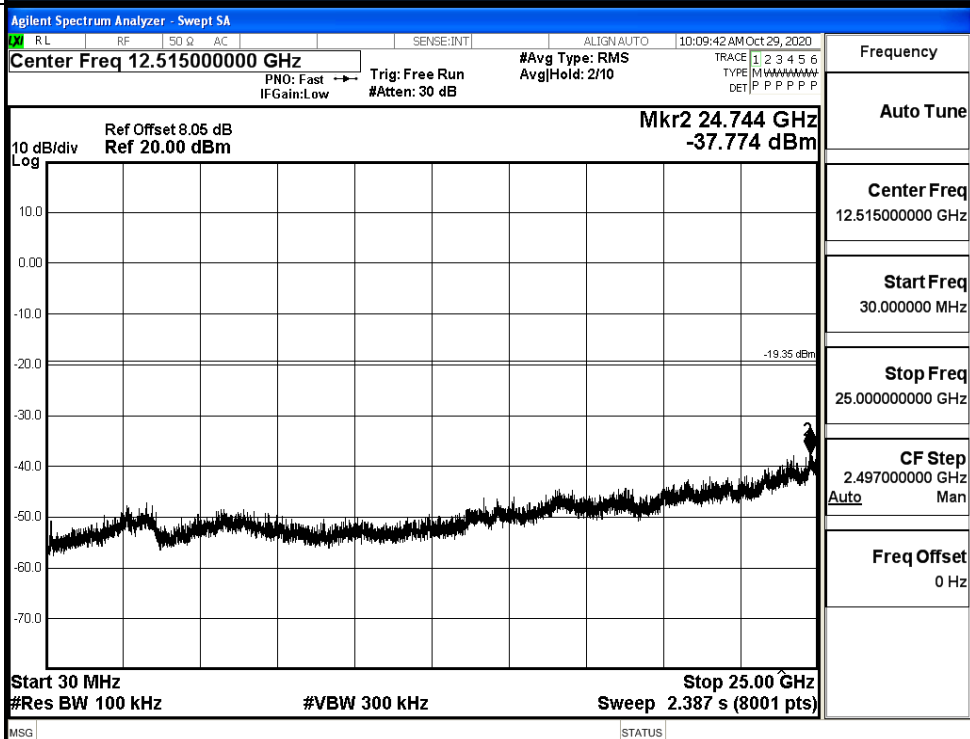


$\pi/4$ DQPSK_LCH_Graphs

Pref

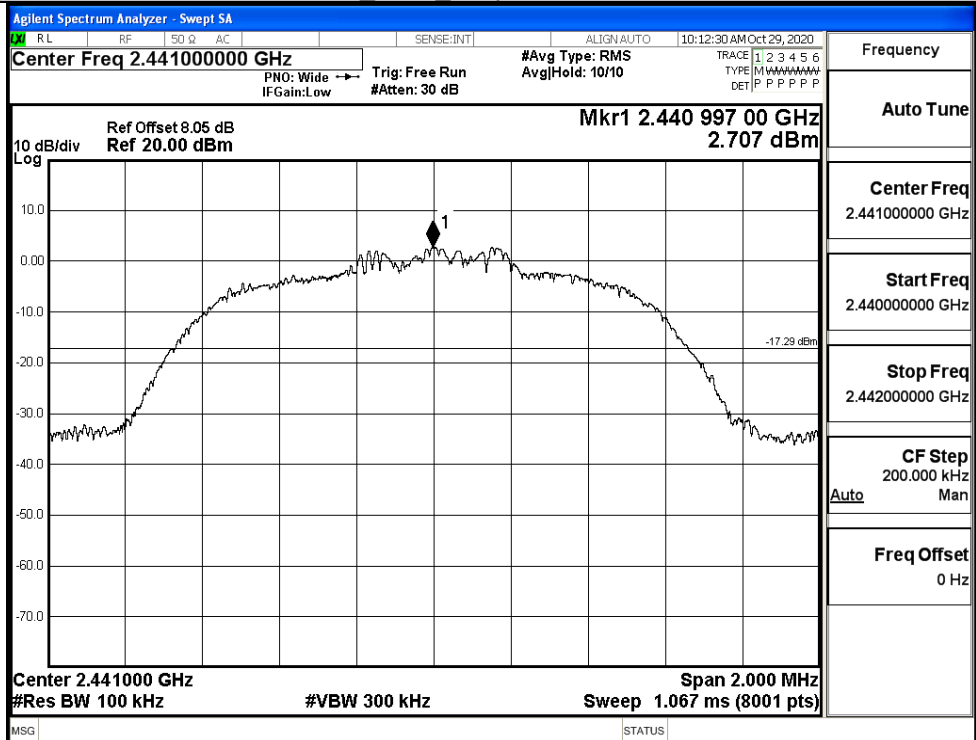


Puw

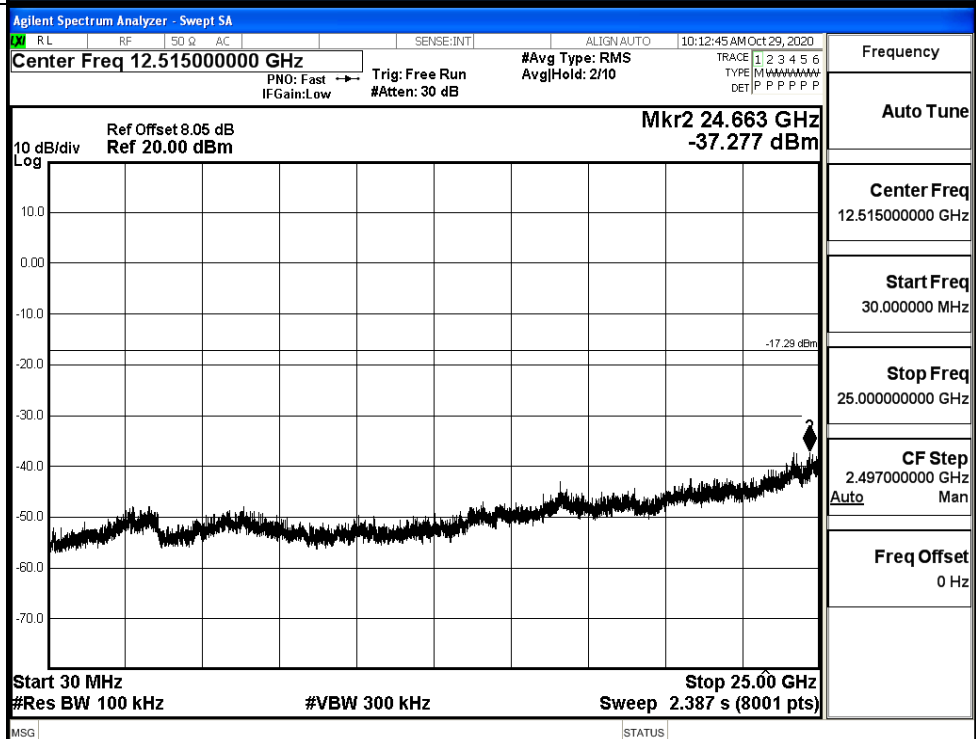


π /4DQPSK_MCH_Graphs

Pref

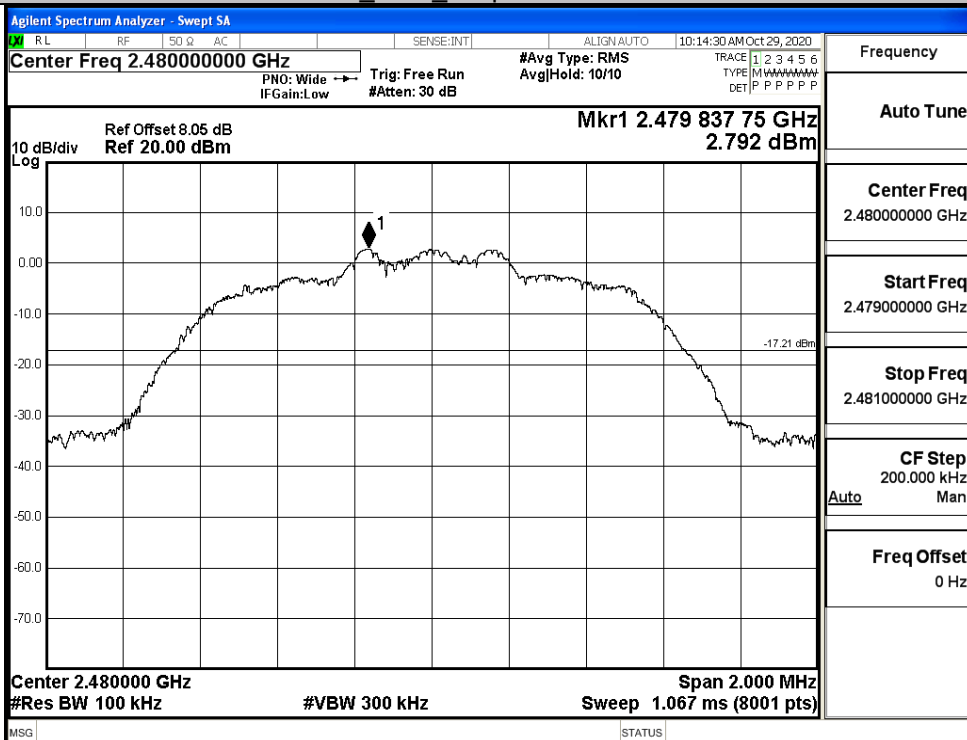


Puw

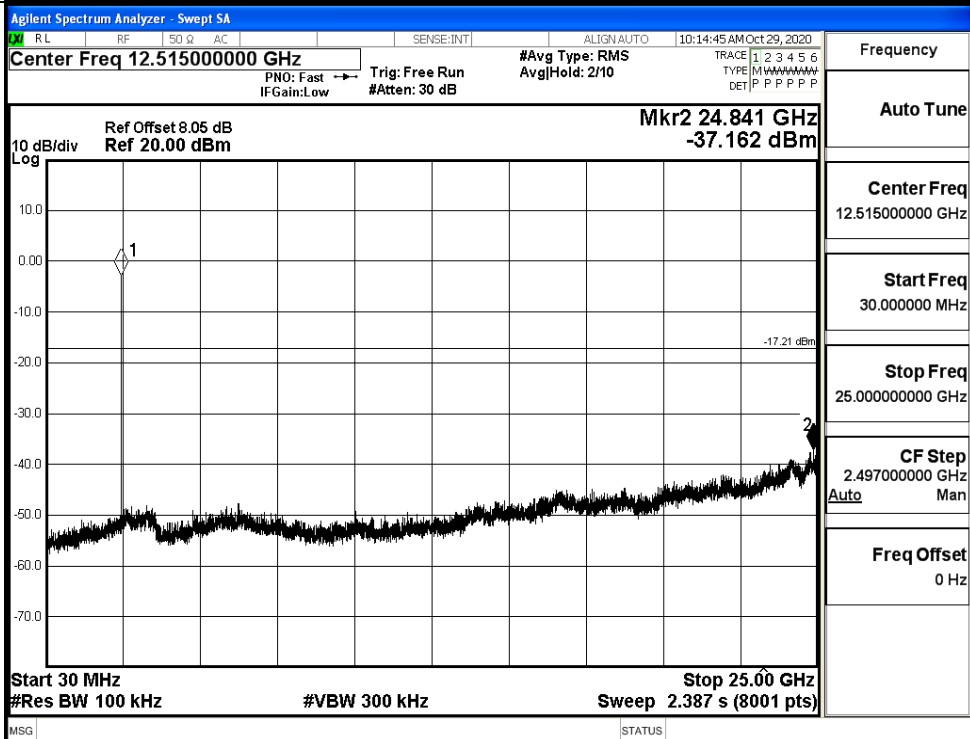


π /4DQPSK_HCH_Graphs

Pref

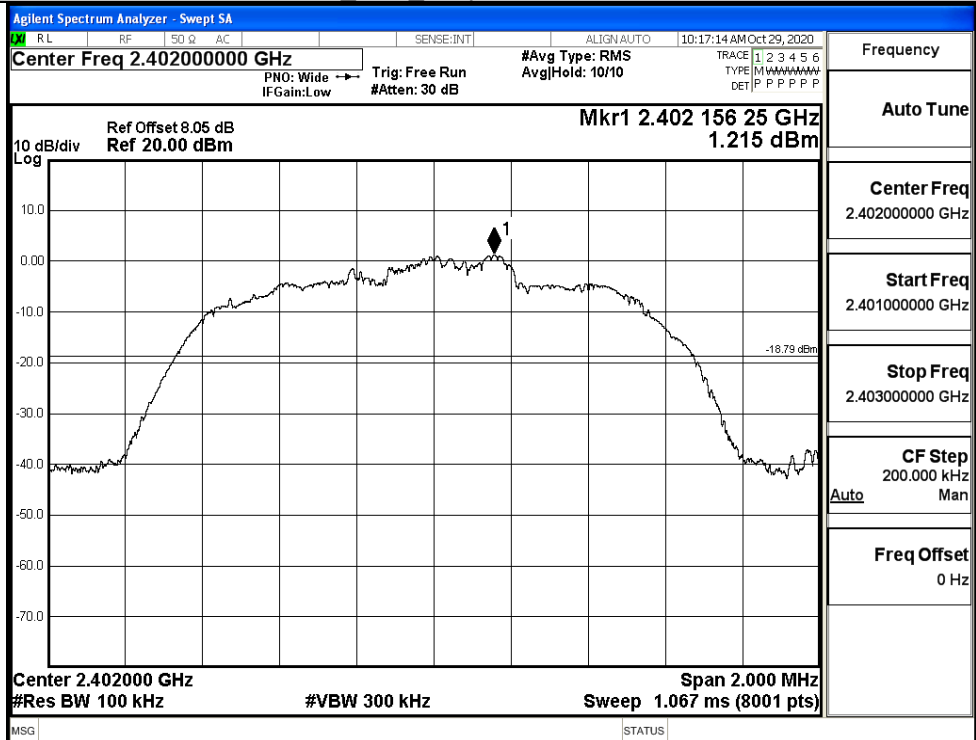


Puw

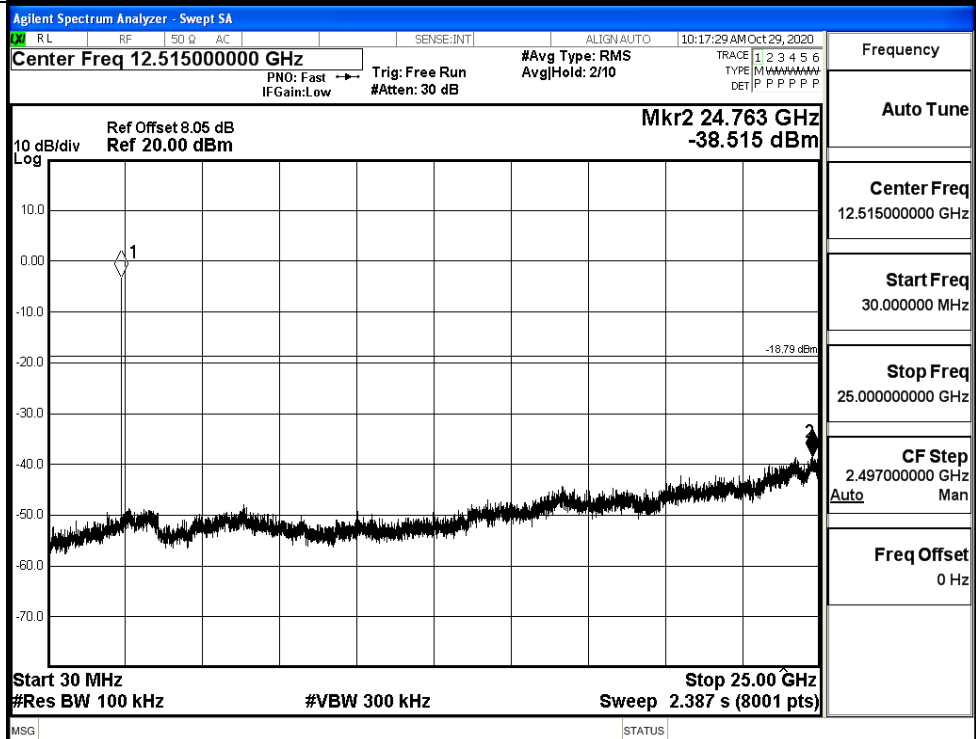


8DPSK_LCH_Graphs

Pref

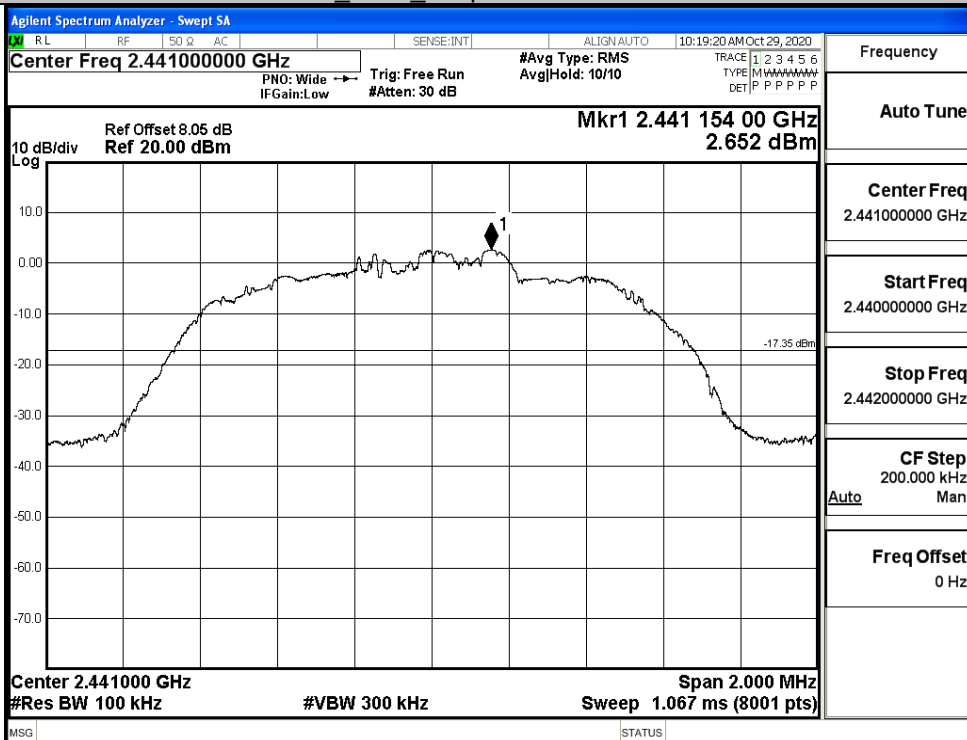


Puw

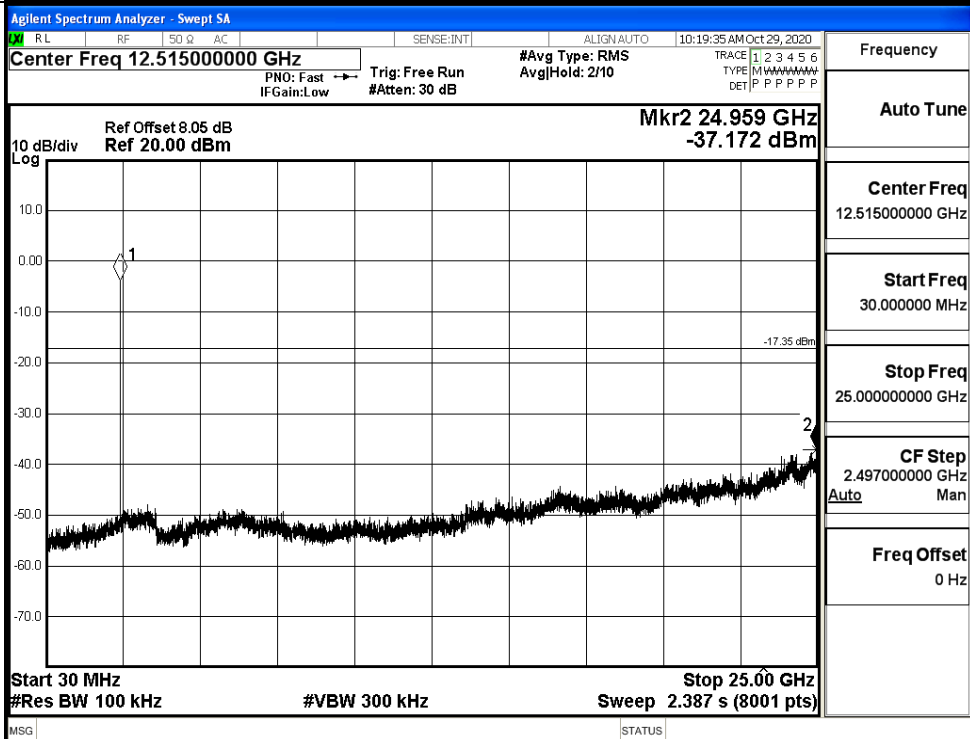


8DPSK_MCH_Graphs

Pref

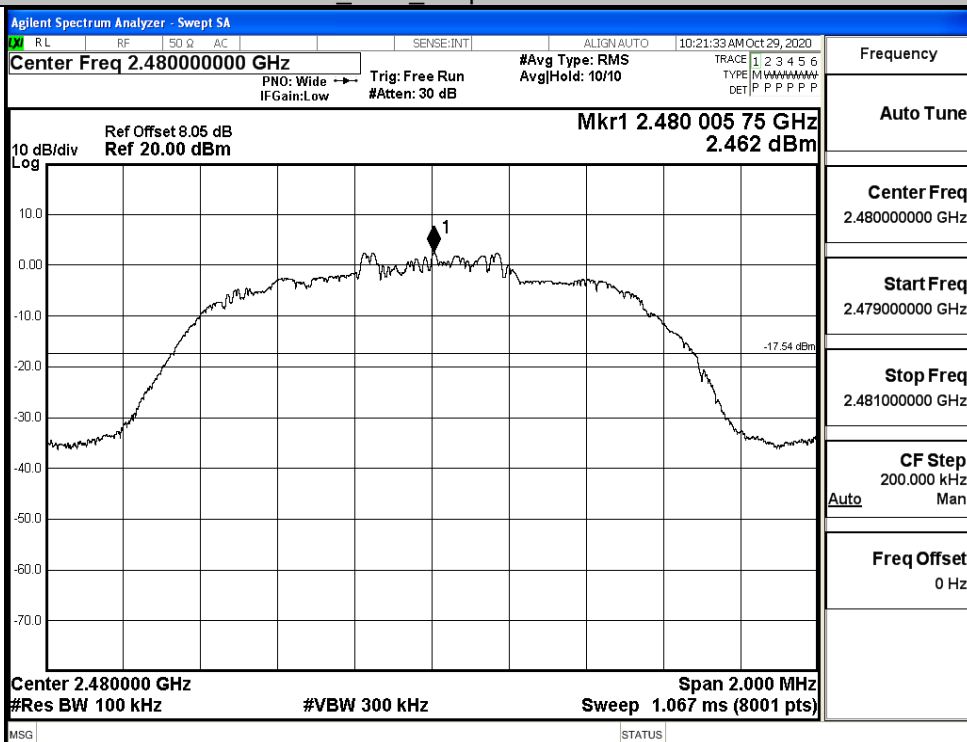


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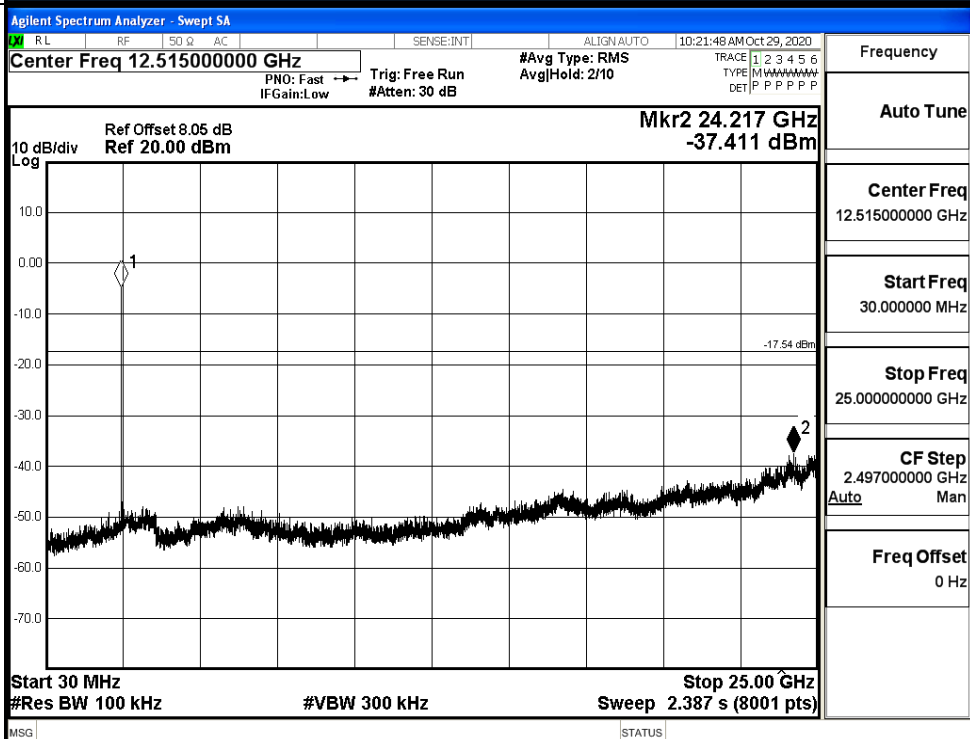


8DPSK_HCH_Graphs

Pref



Puw

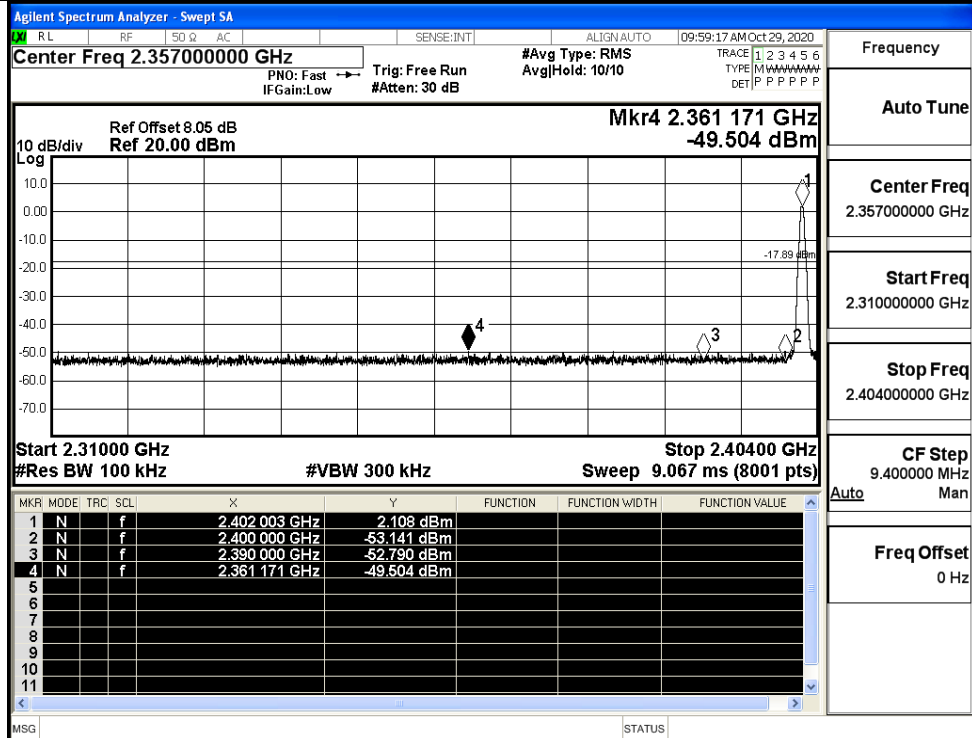


A.7 Band-edge for RF Conducted Emissions

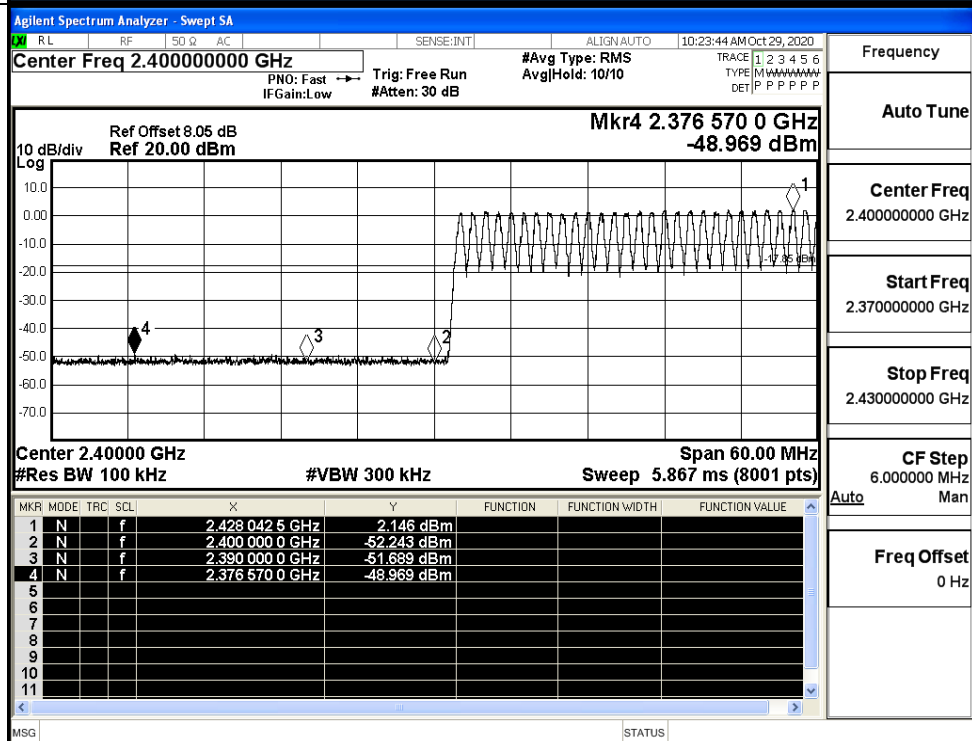
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	2.108	Off	-49.504	-17.89	PASS
			2.146	On	-48.969	-17.85	PASS
	HCH	2480	2.753	Off	-48.303	-17.25	PASS
			2.962	On	-47.956	-17.04	PASS
$\pi/4$ DQPSK	LCH	2402	1.391	Off	-48.843	-18.61	PASS
			1.310	On	-48.376	-18.69	PASS
	HCH	2480	2.835	Off	-48.733	-17.17	PASS
			2.914	On	-47.974	-17.09	PASS
8DPSK	LCH	2402	-0.185	Off	-49.655	-20.19	PASS
			1.911	On	-48.567	-18.09	PASS
	HCH	2480	2.276	Off	-49.116	-17.72	PASS
			2.907	On	-48.262	-17.09	PASS

Test Graphs

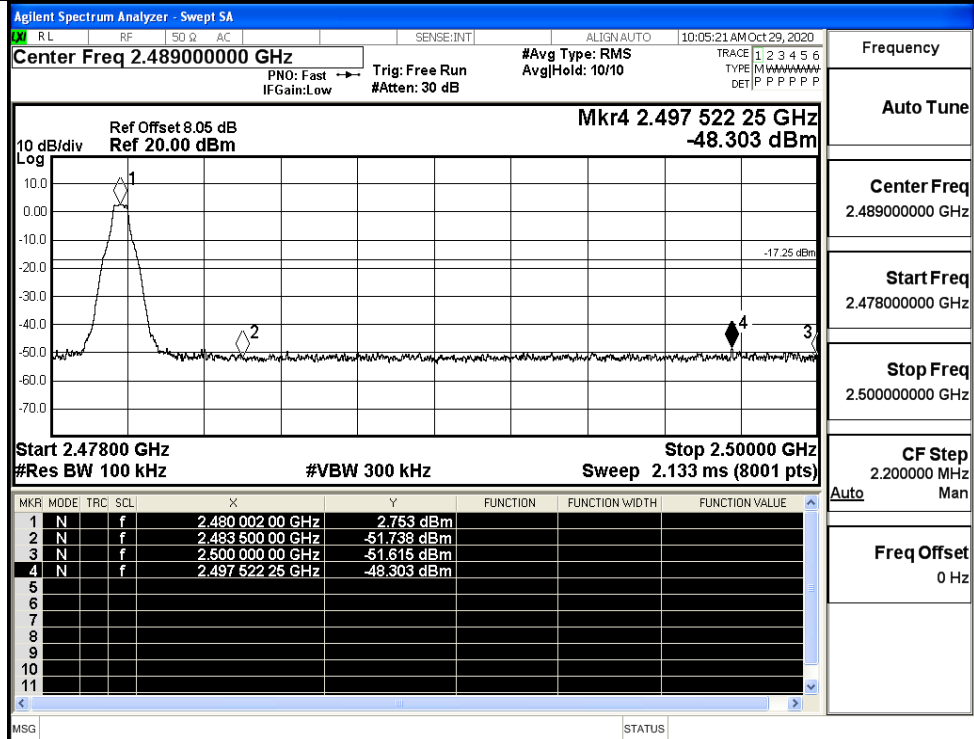
GFSK/LCH/No Hop



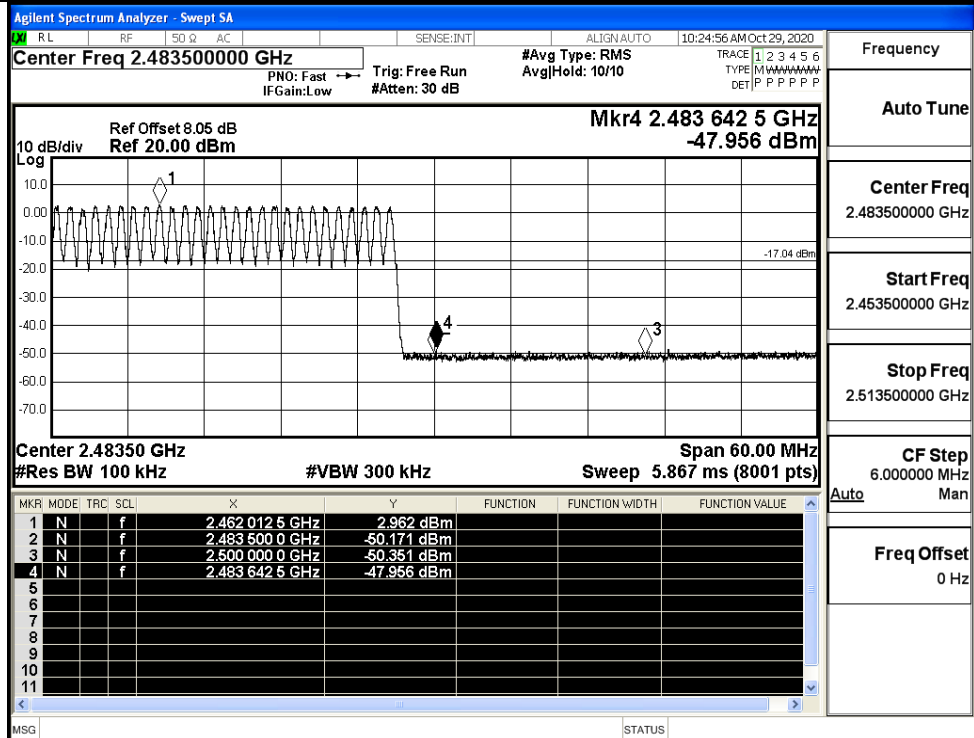
GFSK/LCH/Hop



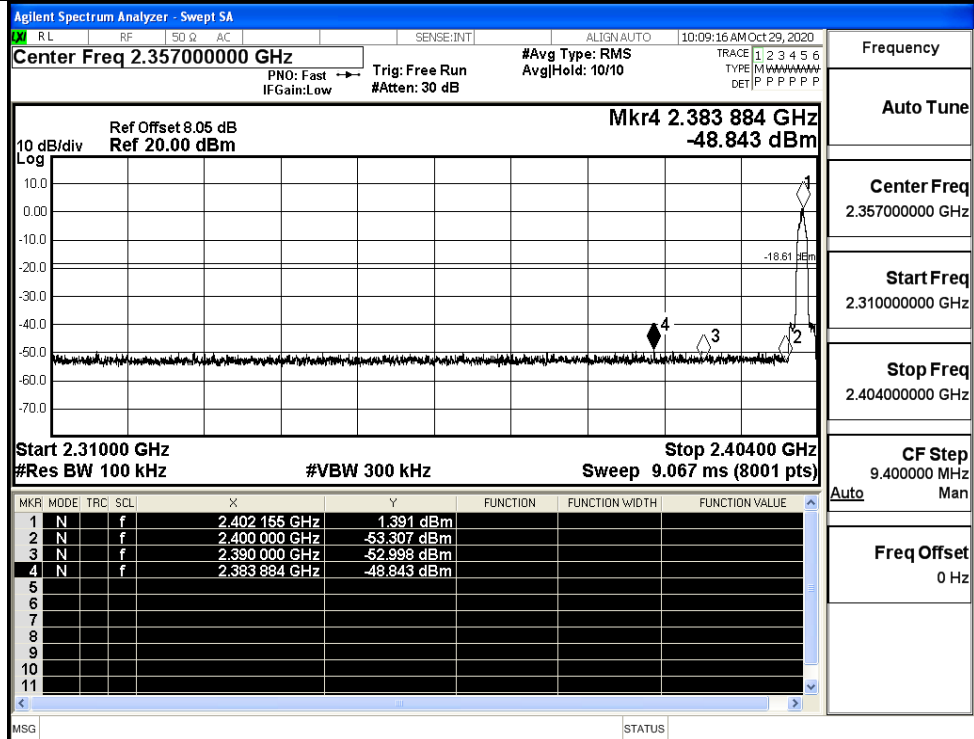
GFSK/HCH/No Hop



GFSK/HCH/Hop



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

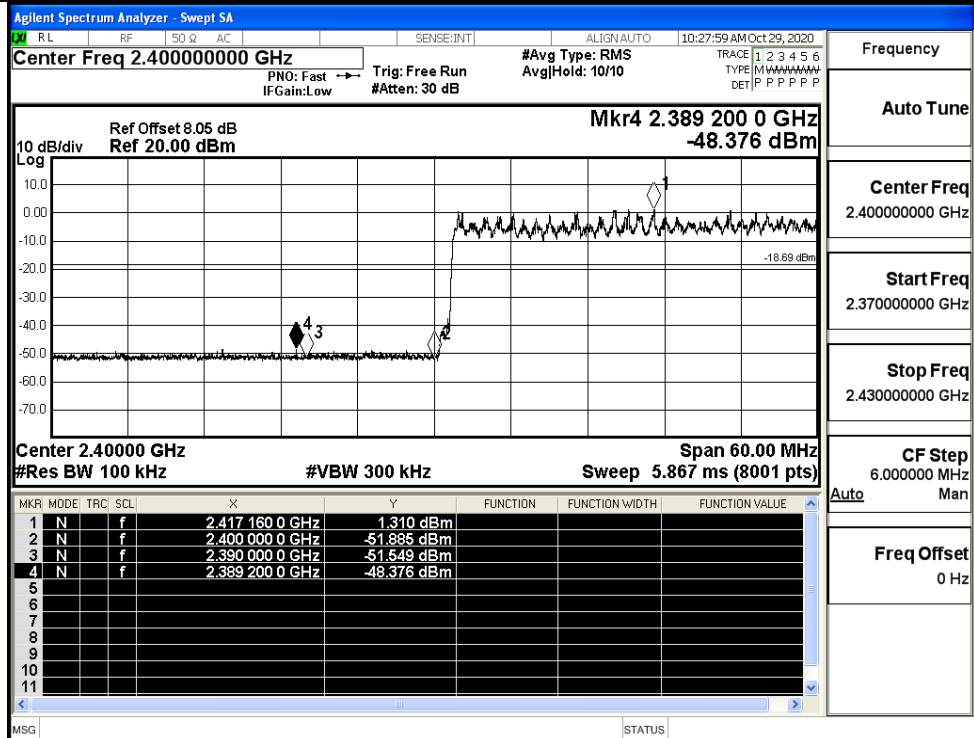


Frequency

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

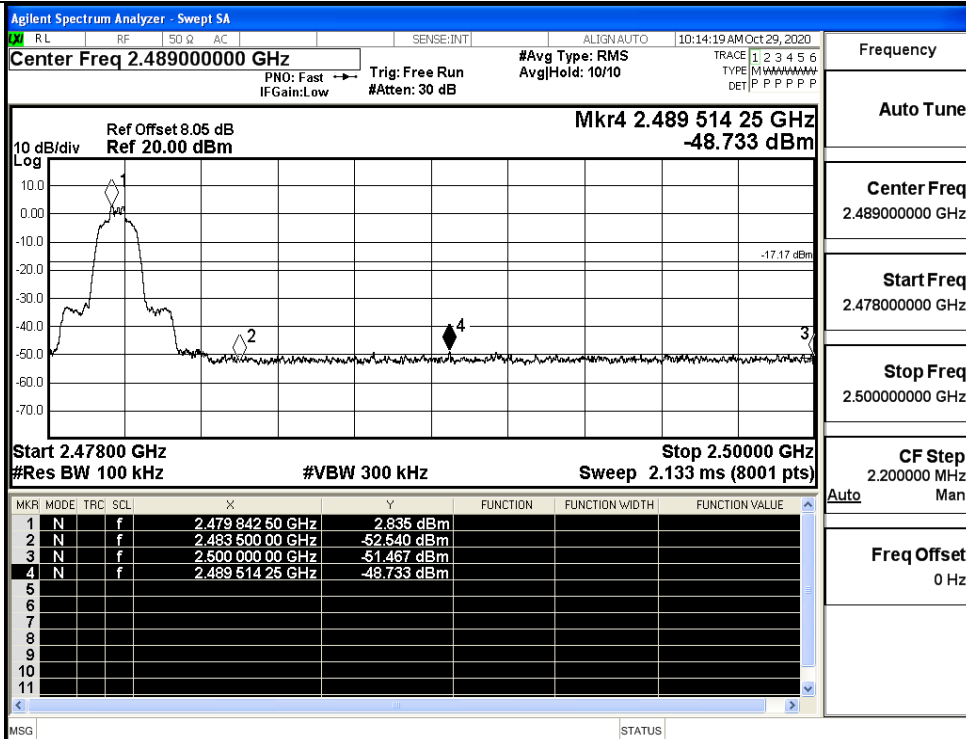


Frequency

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

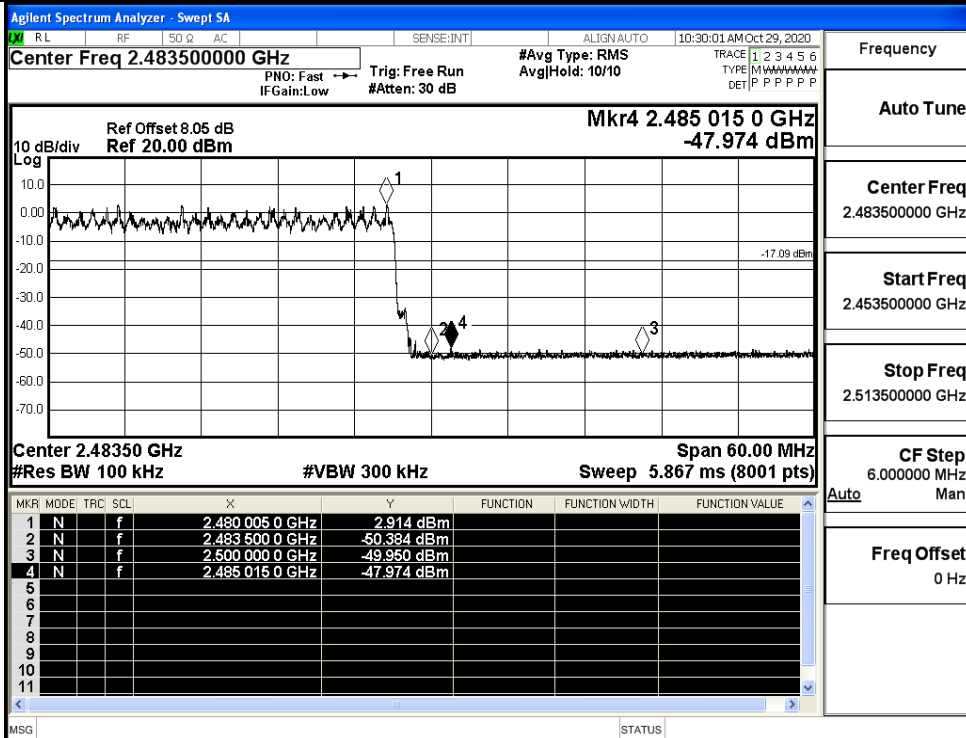


Frequency

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

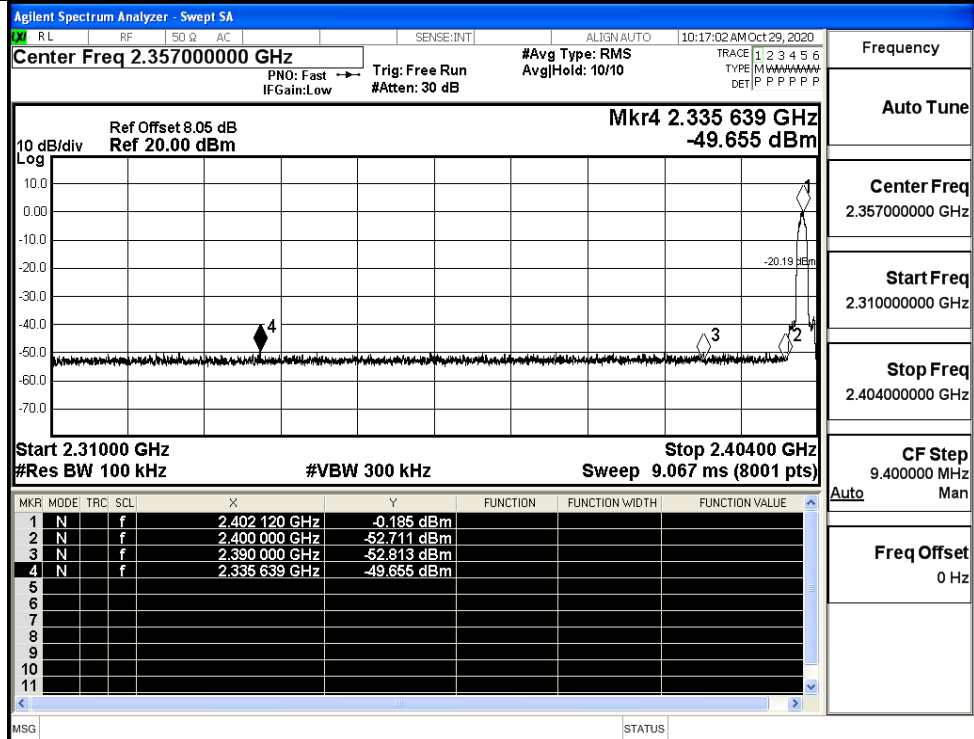


Frequency

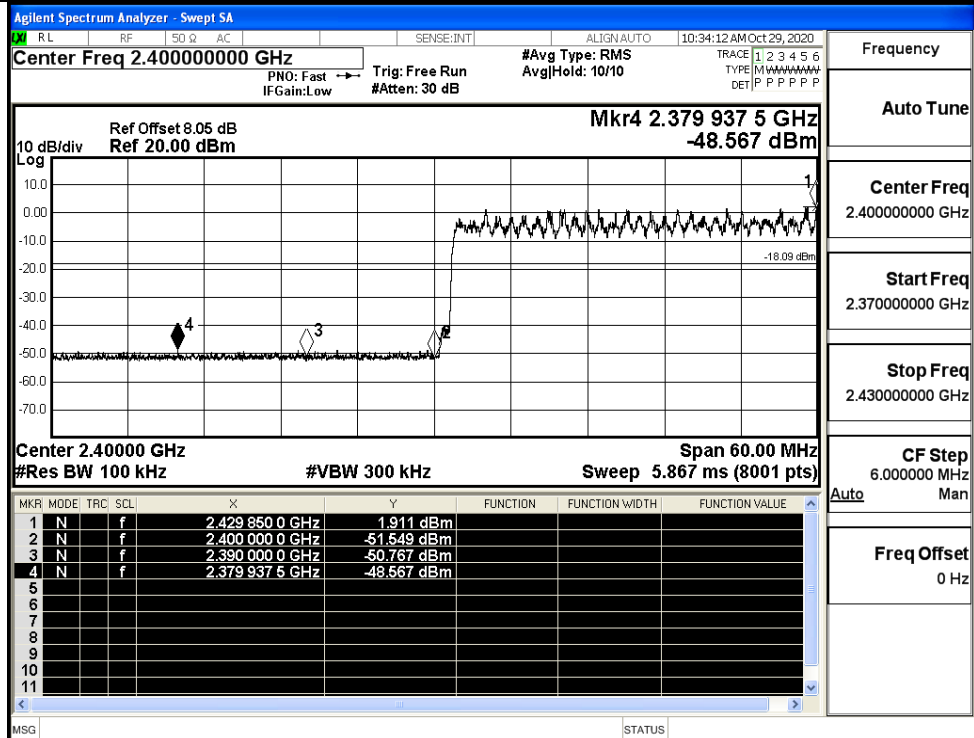
Auto Tune

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

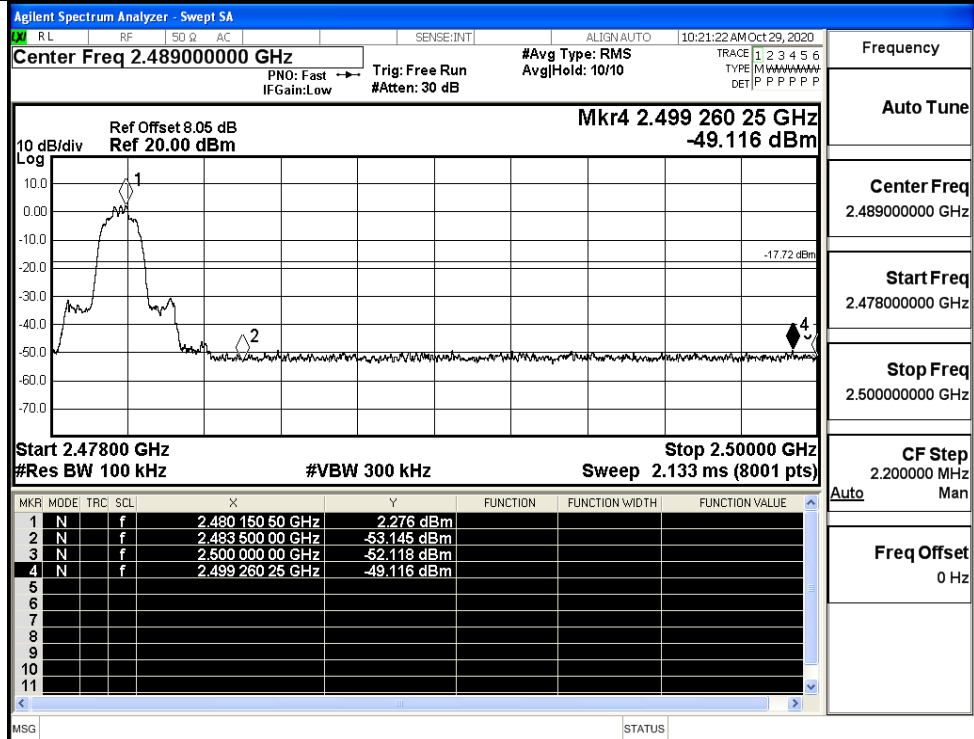
8DPSK/LCH/No Hop



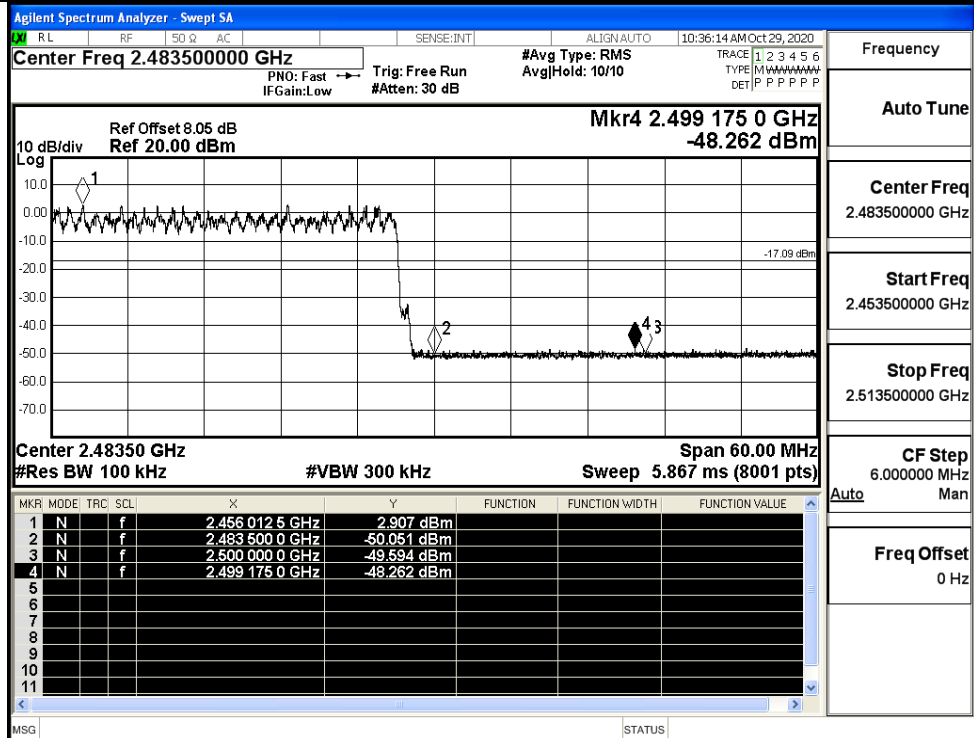
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



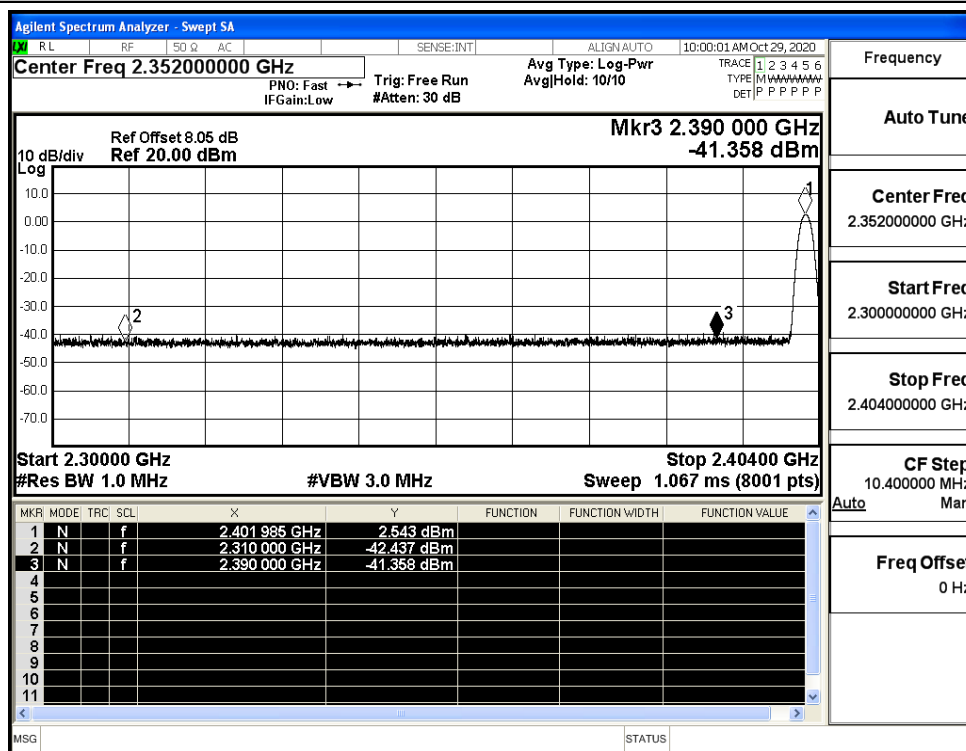
8DPSK/HCH/Hop



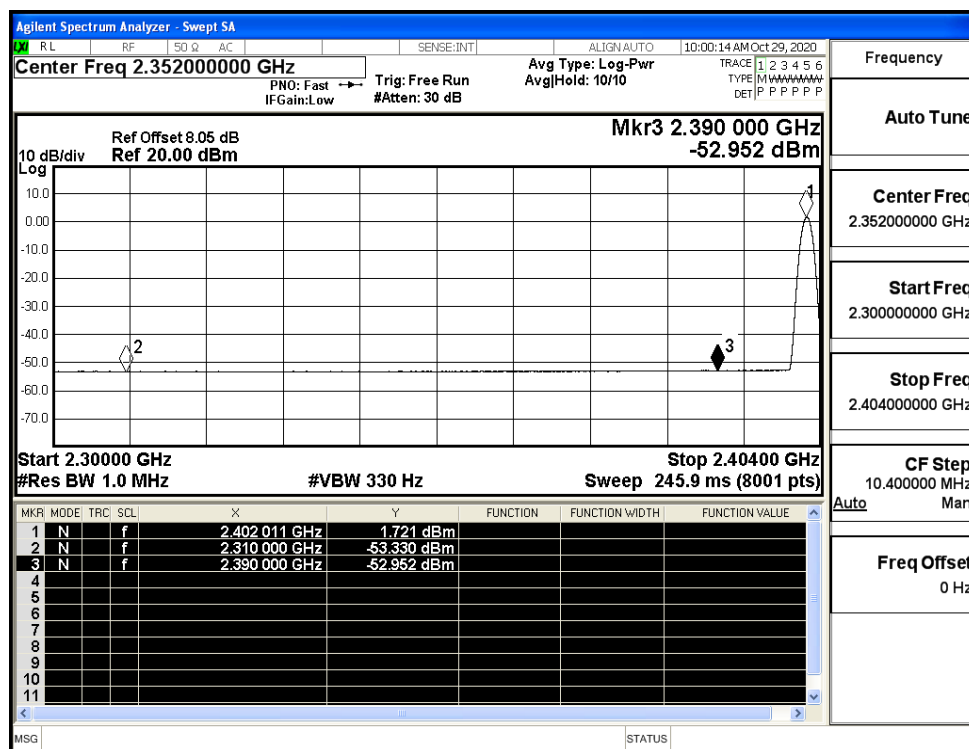
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.44	2.0	0	52.82	PEAK	74	PASS
	Off	2310.0	-53.33	2.0	0	41.93	AV	54	PASS
	Off	2390.0	-41.36	2.0	0	53.90	PEAK	74	PASS
	Off	2390.0	-52.95	2.0	0	42.31	AV	54	PASS
	Off	2483.5	-41.31	2.0	0	53.95	PEAK	74	PASS
	Off	2483.5	-52.30	2.0	0	42.96	AV	54	PASS
	Off	2500.0	-41.84	2.0	0	53.42	PEAK	74	PASS
	Off	2500.0	-52.11	2.0	0	43.15	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.43	2.0	0	51.83	PEAK	74	PASS
	Off	2310.0	-53.16	2.0	0	42.10	AV	54	PASS
	Off	2390.0	-42.94	2.0	0	52.31	PEAK	74	PASS
	Off	2390.0	-52.83	2.0	0	42.42	AV	54	PASS
	Off	2483.5	-42.60	2.0	0	52.65	PEAK	74	PASS
	Off	2483.5	-52.35	2.0	0	42.91	AV	54	PASS
	Off	2500.0	-42.83	2.0	0	52.43	PEAK	74	PASS
	Off	2500.0	-52.37	2.0	0	42.89	AV	54	PASS
8DPSK	Off	2310.0	-42.62	2.0	0	52.64	PEAK	74	PASS
	Off	2310.0	-53.30	2.0	0	41.96	AV	54	PASS
	Off	2390.0	-42.97	2.0	0	52.29	PEAK	74	PASS
	Off	2390.0	-52.97	2.0	0	42.29	AV	54	PASS
	Off	2483.5	-41.69	2.0	0	53.57	PEAK	74	PASS
	Off	2483.5	-52.28	2.0	0	42.97	AV	54	PASS
	Off	2500.0	-40.79	2.0	0	54.46	PEAK	74	PASS
	Off	2500.0	-52.26	2.0	0	43.00	AV	54	PASS

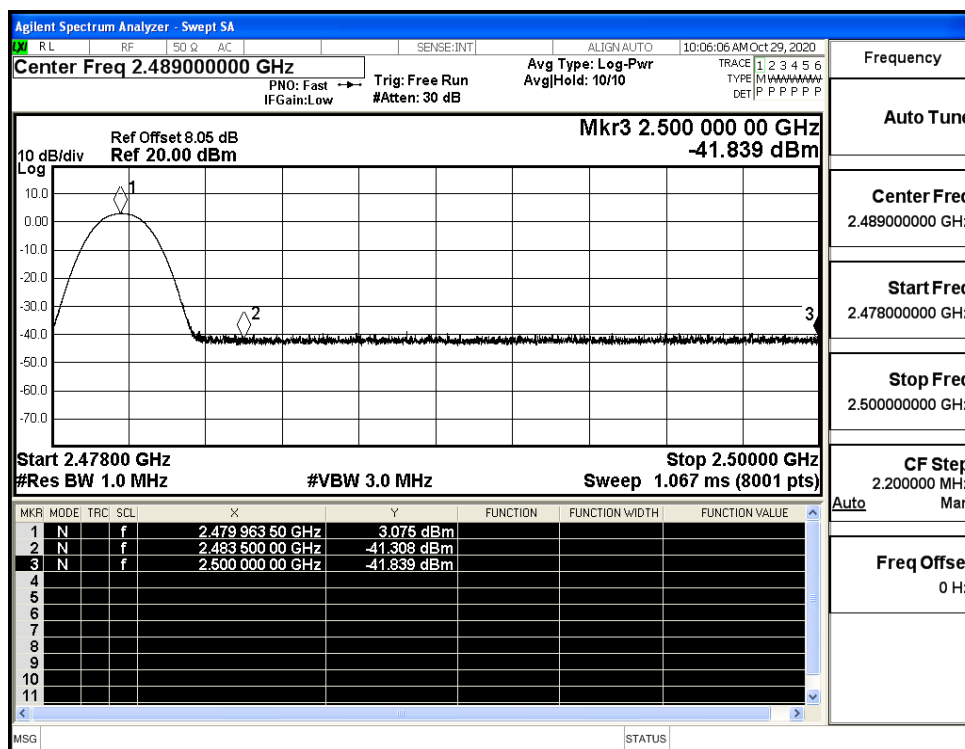
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



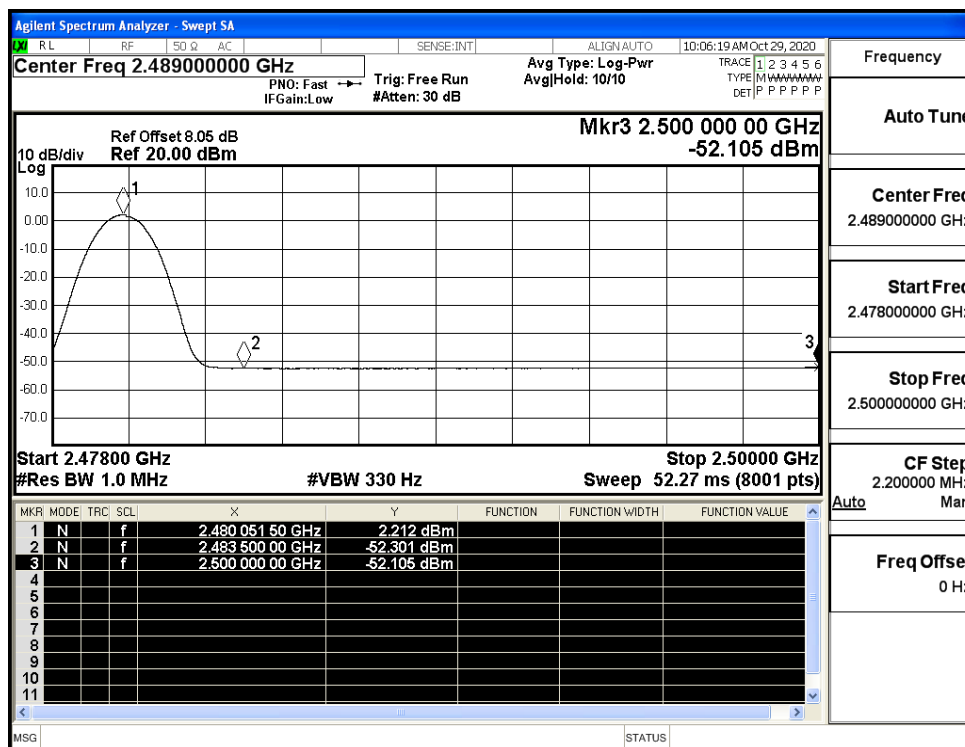
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

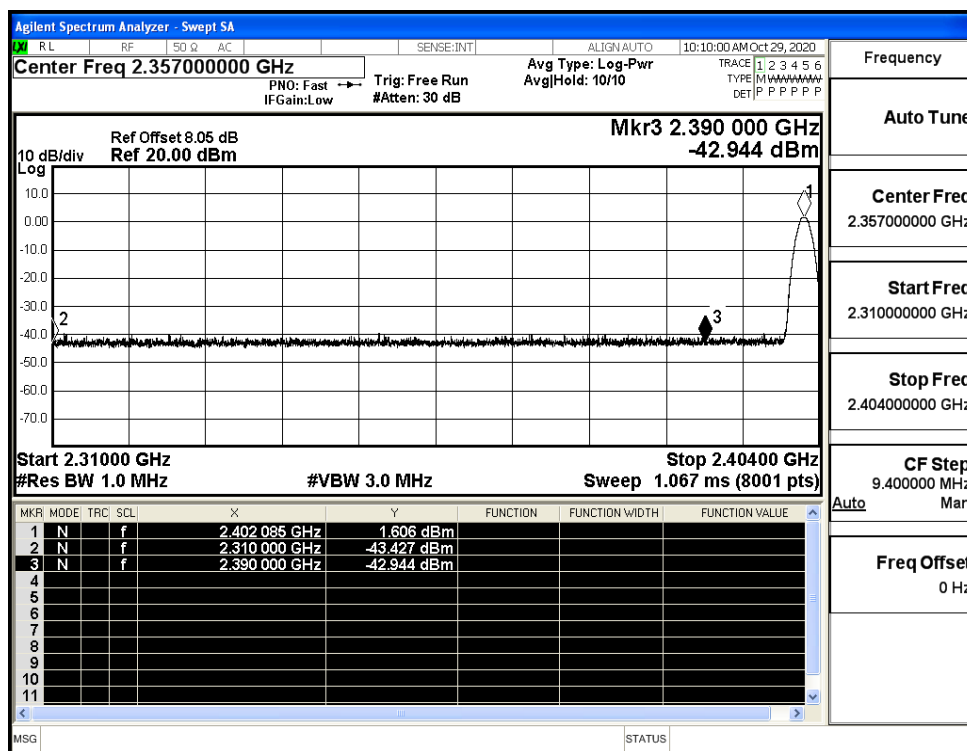
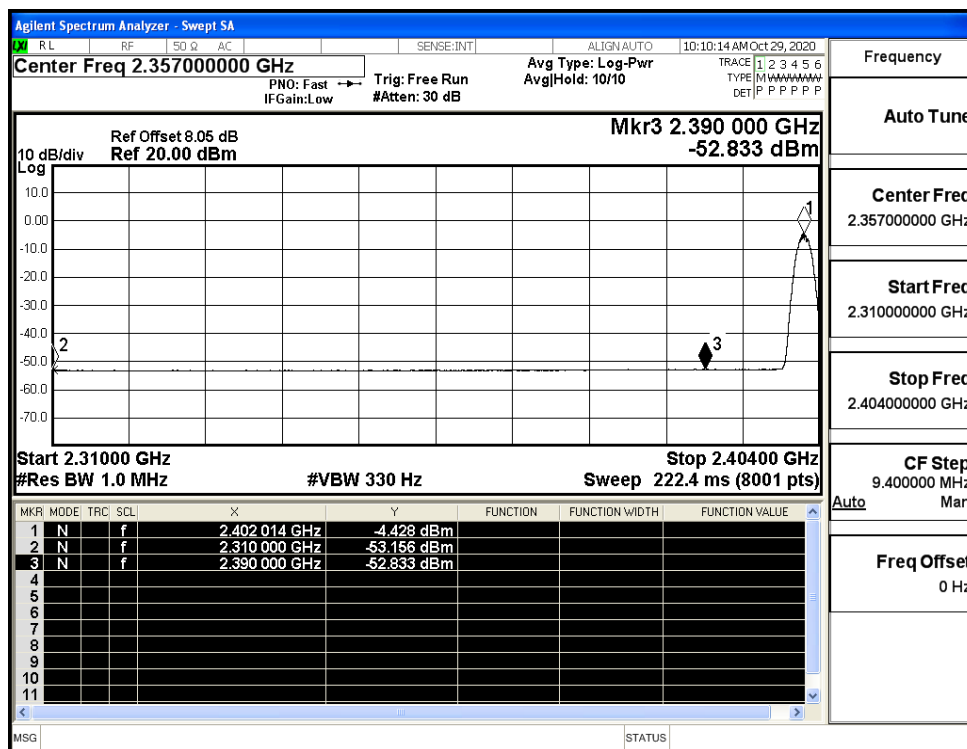


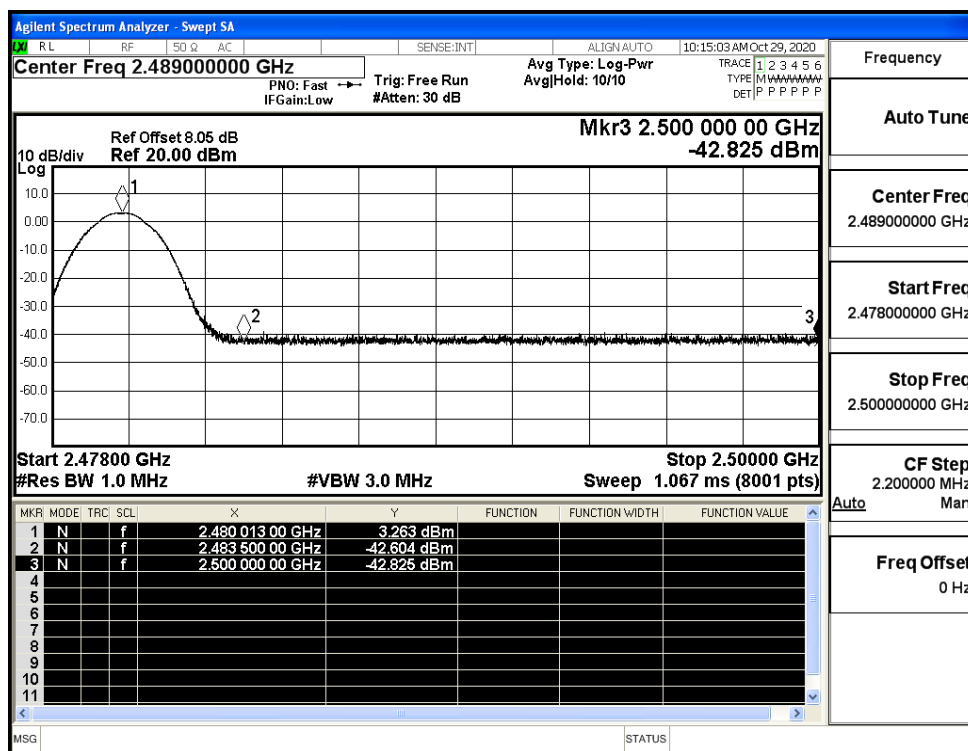
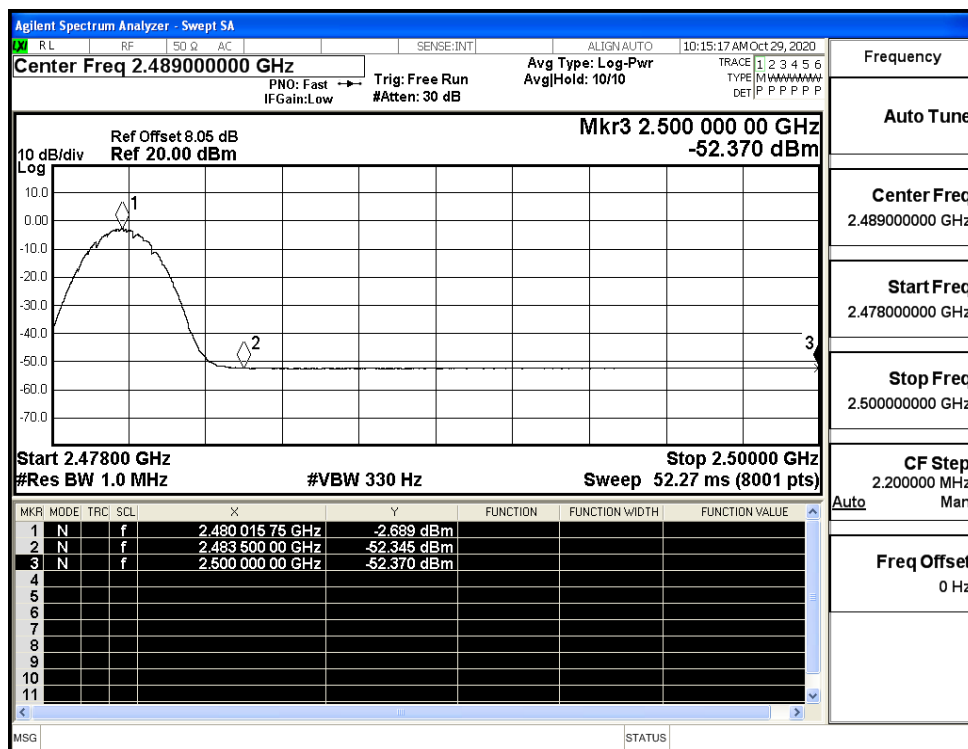
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



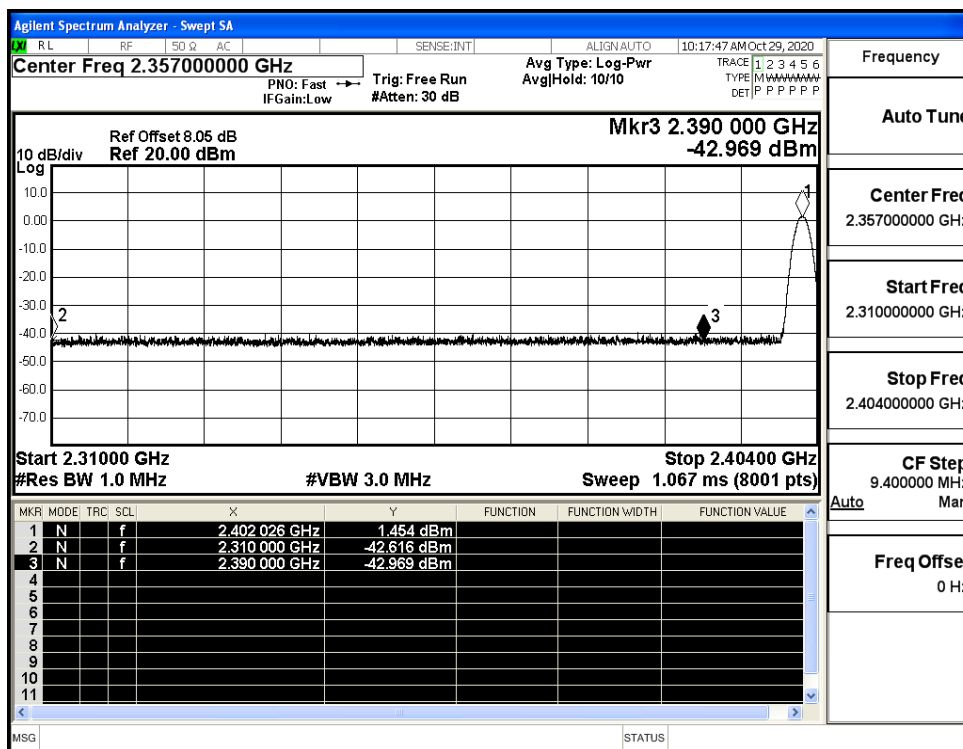
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



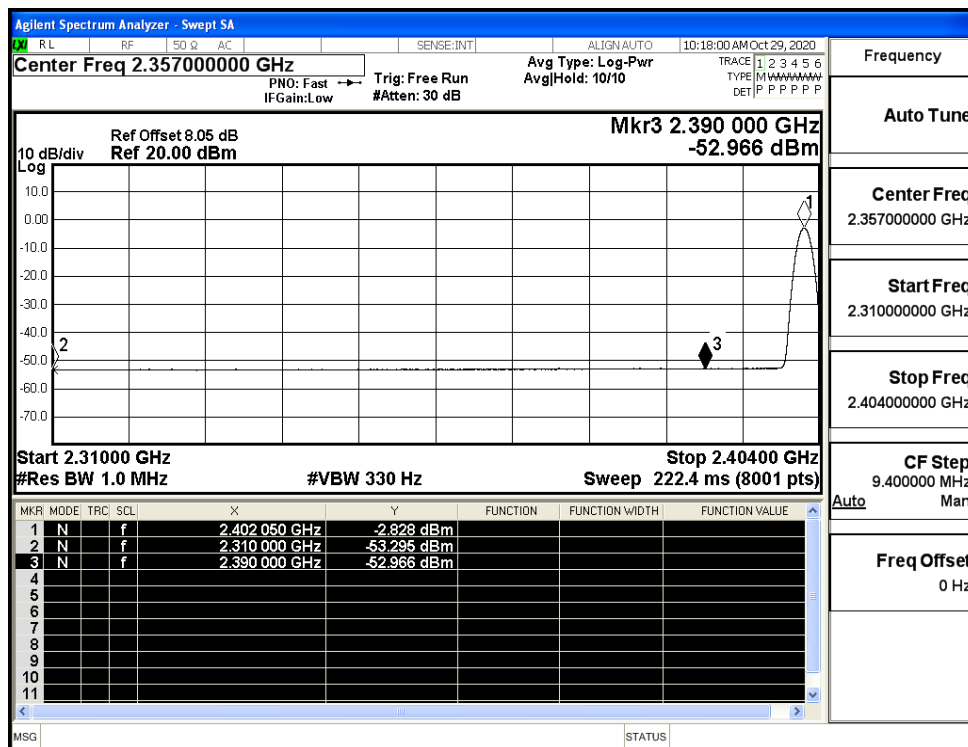
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

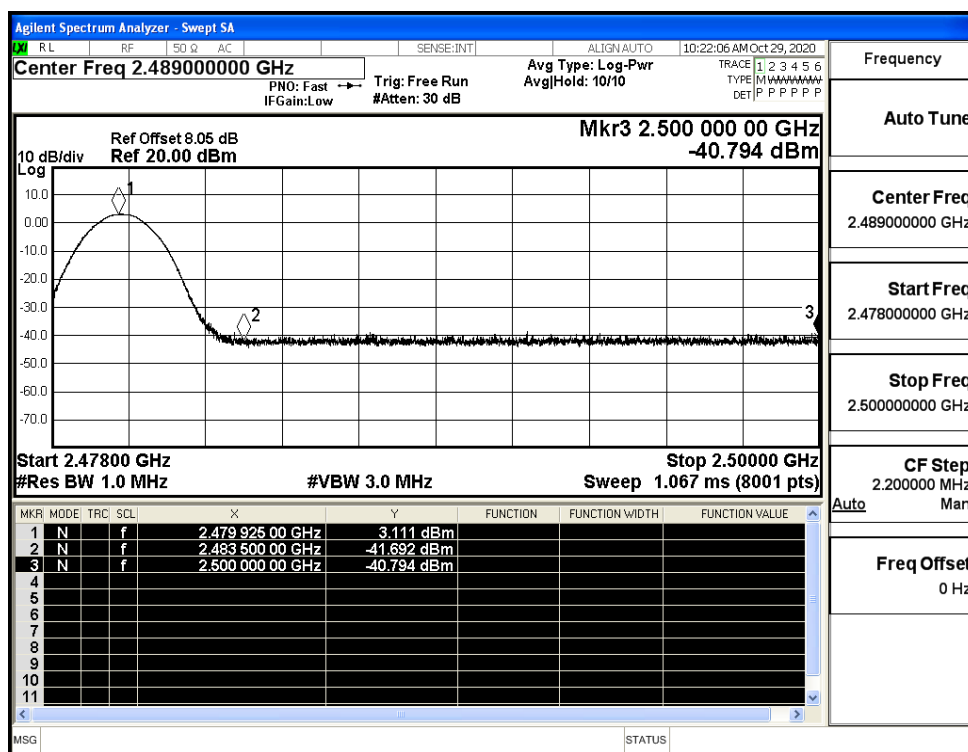
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

