

Appendix A

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

Product Name: Mobile Radio

Trade Mark: ANYSECU

Test Model: W2PLUS

Environmental Conditions

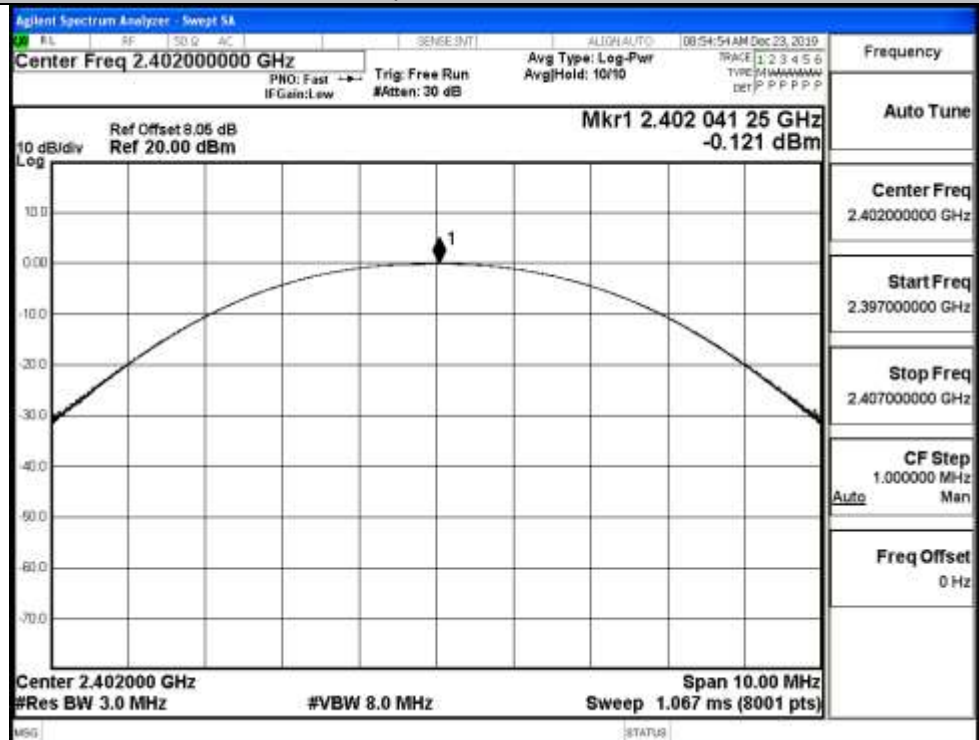
Temperature:	23.8 ° C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

A.1 Maximum Conducted Peak Output Power

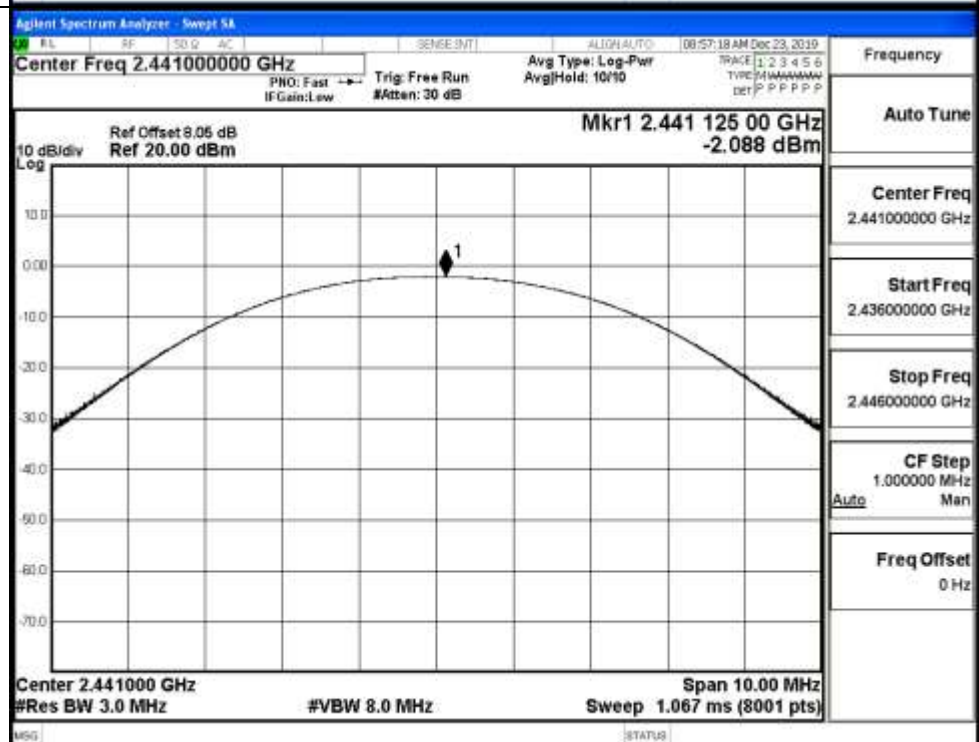
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.121	21	PASS
	MCH	-2.088	21	PASS
	HCH	-0.750	21	PASS
$\pi/4$ DQPSK	LCH	-0.849	21	PASS
	MCH	-2.650	21	PASS
	HCH	-1.544	21	PASS
8DPSK	LCH	-0.623	21	PASS
	MCH	-2.477	21	PASS
	HCH	-1.293	21	PASS

Test Graphs

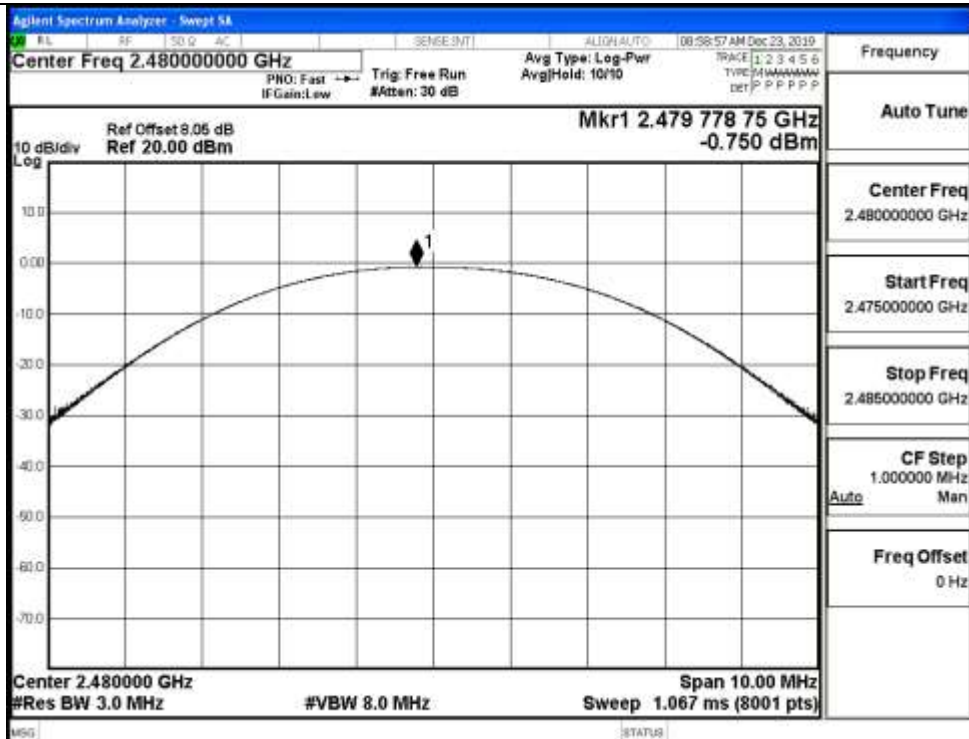
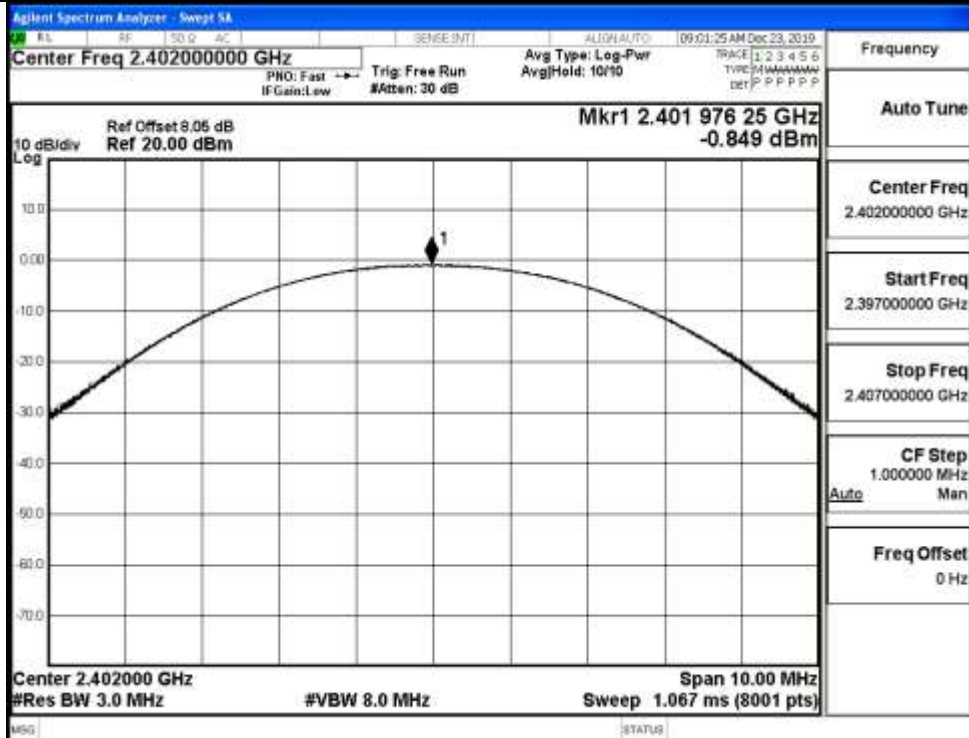
GFSK/LCH

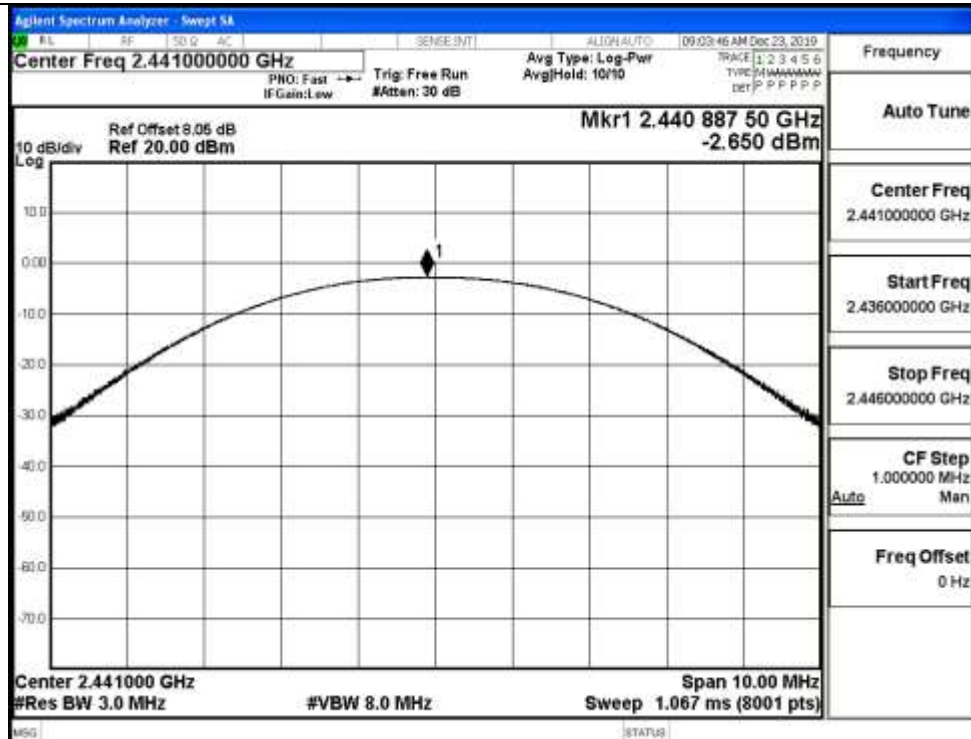
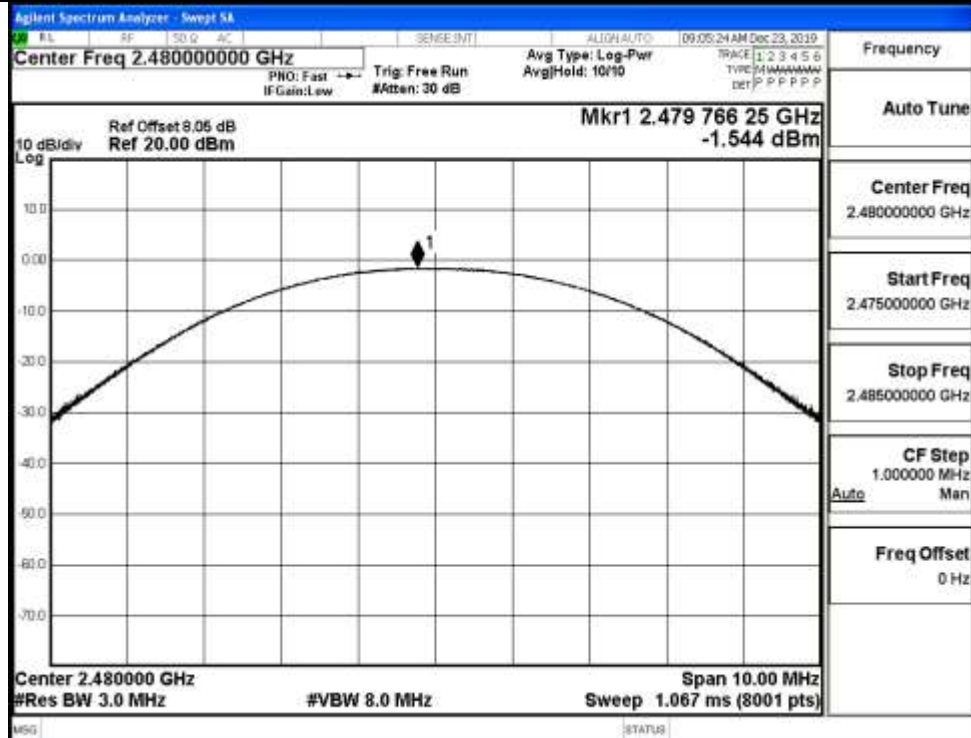


GFSK/MCH

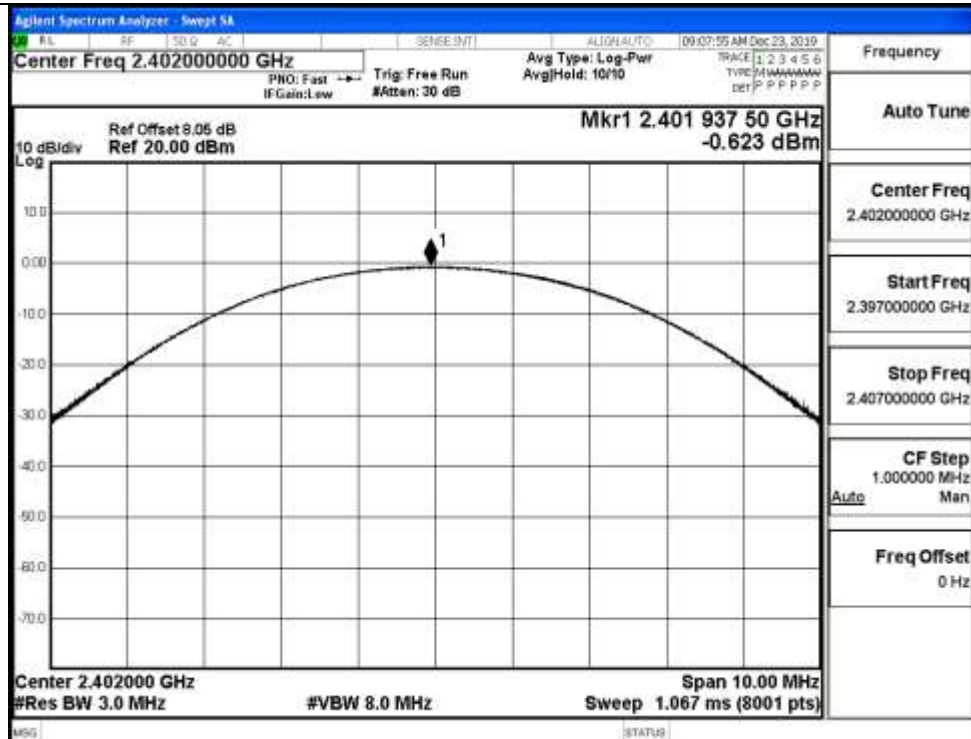


GFSK/HCH

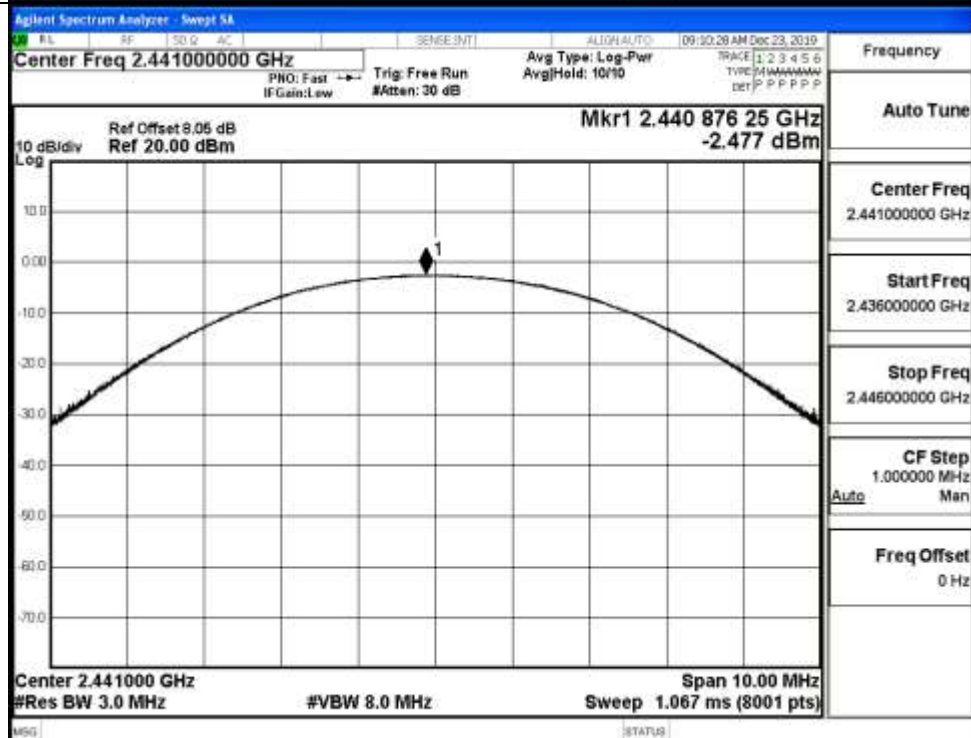
 $\pi/4$ DQPSK/LCH

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

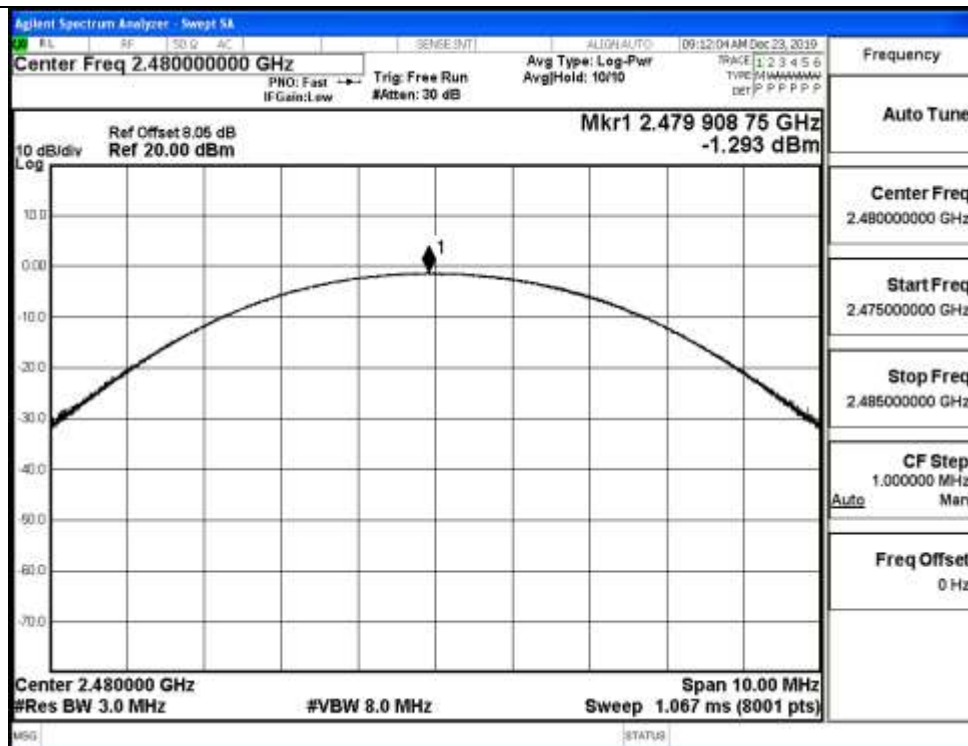
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

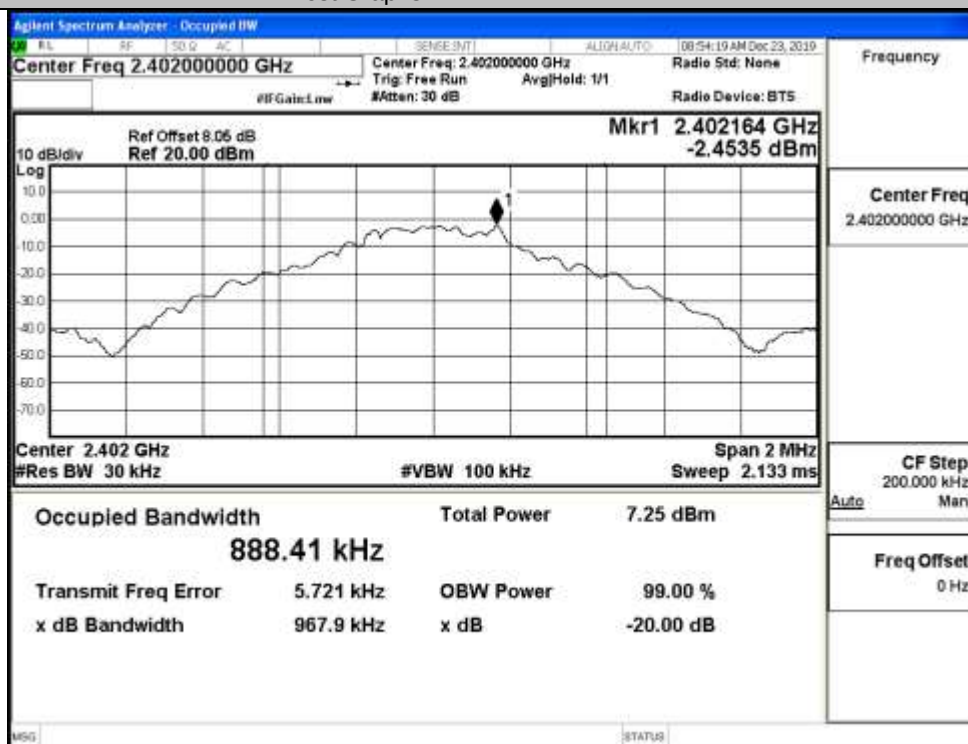


A.2 20dB Bandwidth

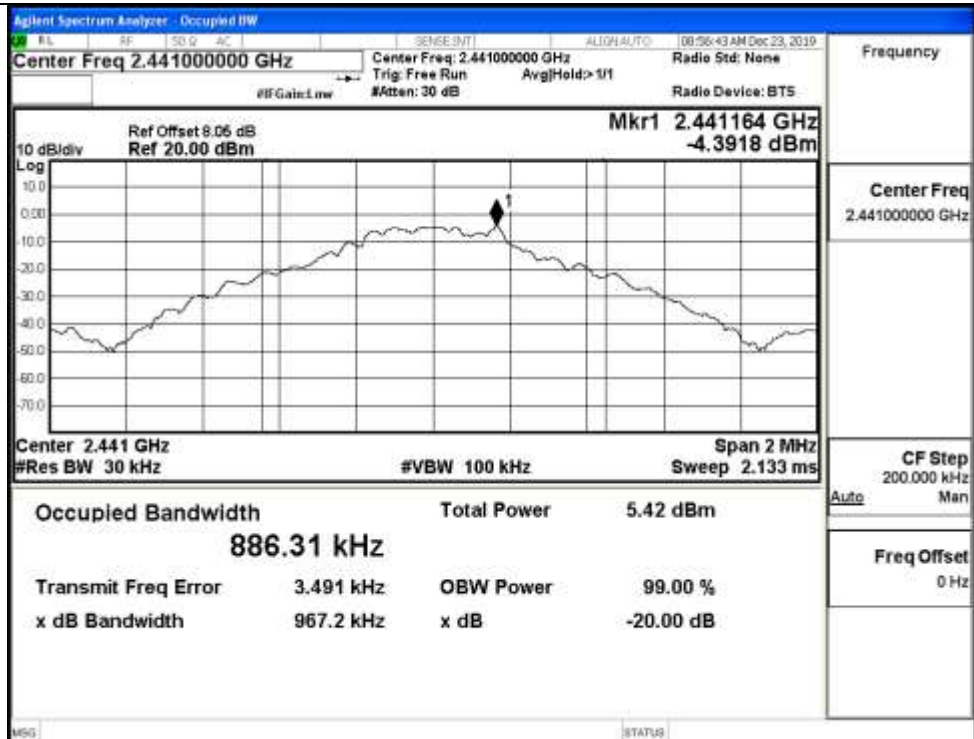
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9679	Not Specified	PASS
	MCH	0.9672	Not Specified	PASS
	HCH	1.032	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.291	Not Specified	PASS
	MCH	1.308	Not Specified	PASS
	HCH	1.289	Not Specified	PASS
8DPSK	LCH	1.292	Not Specified	PASS
	MCH	1.298	Not Specified	PASS
	HCH	1.297	Not Specified	PASS

Test Graphs

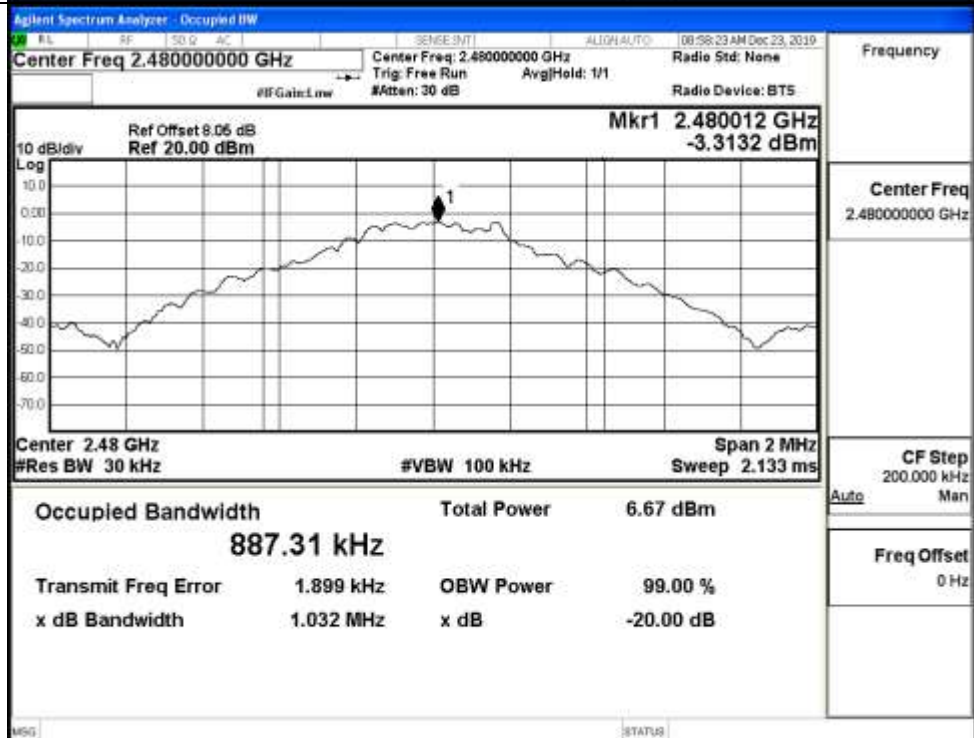
GFSK/LCH

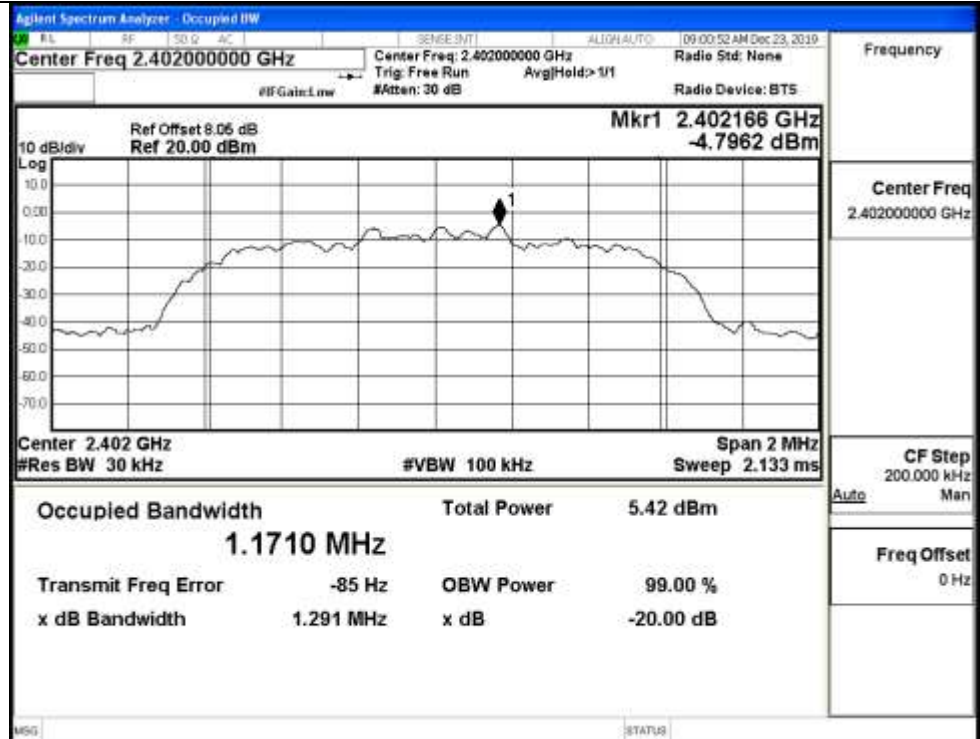
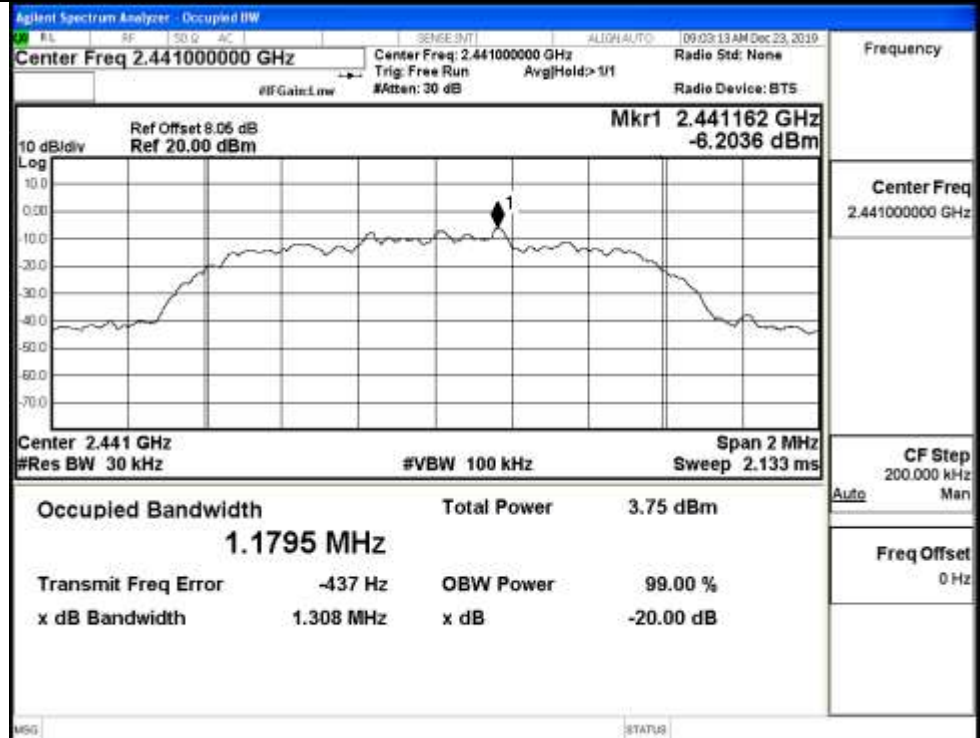


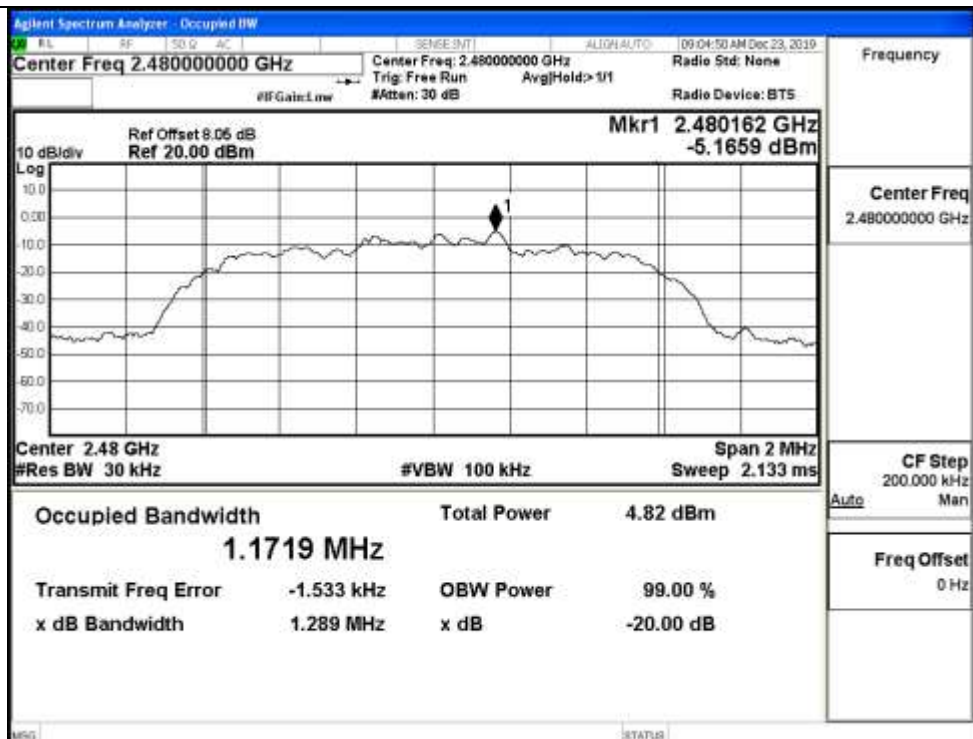
GFSK/MCH



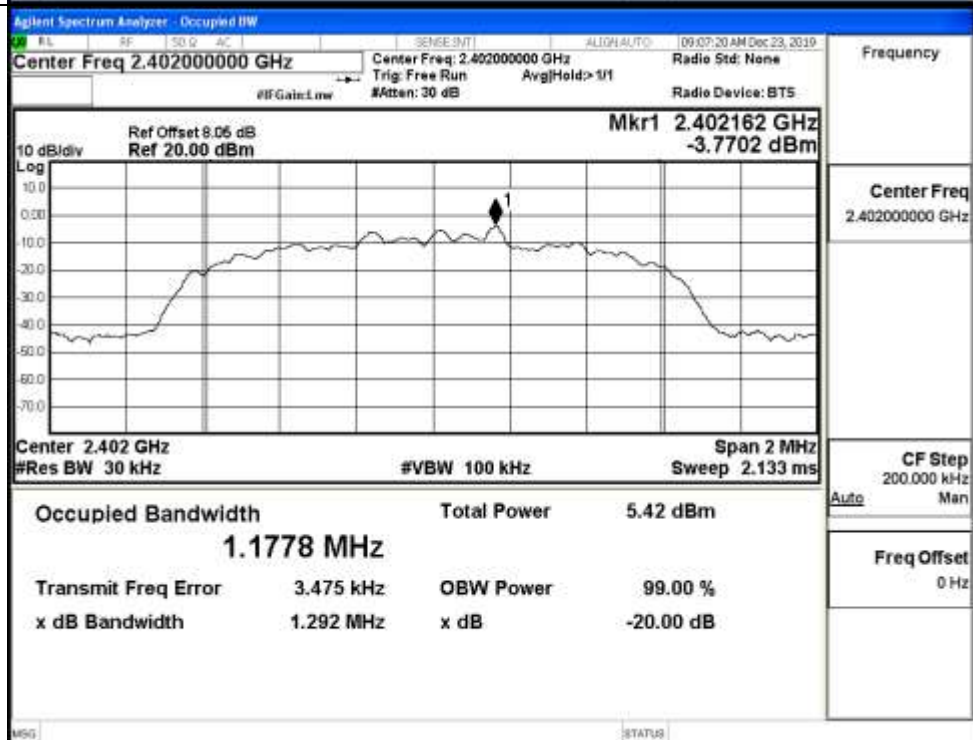
GFSK/HCH



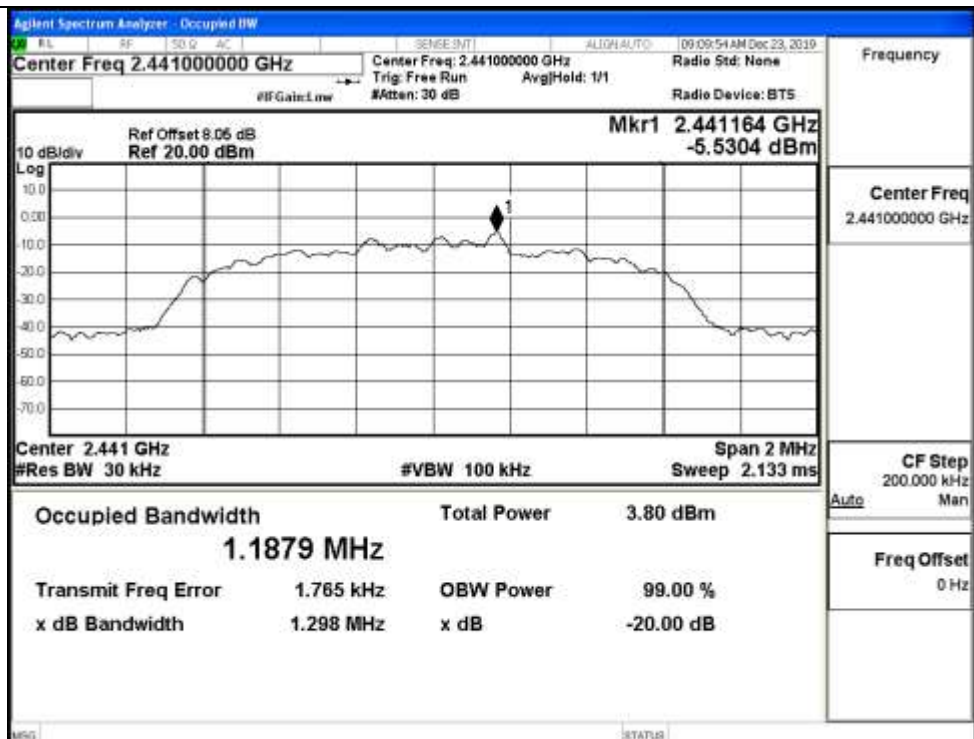
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

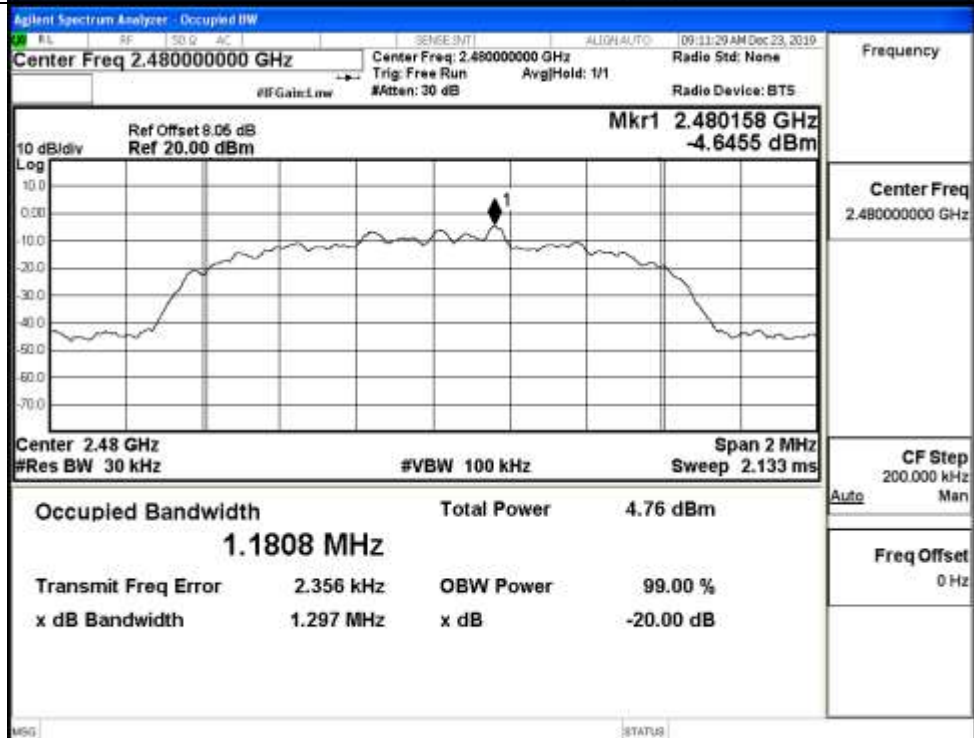
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

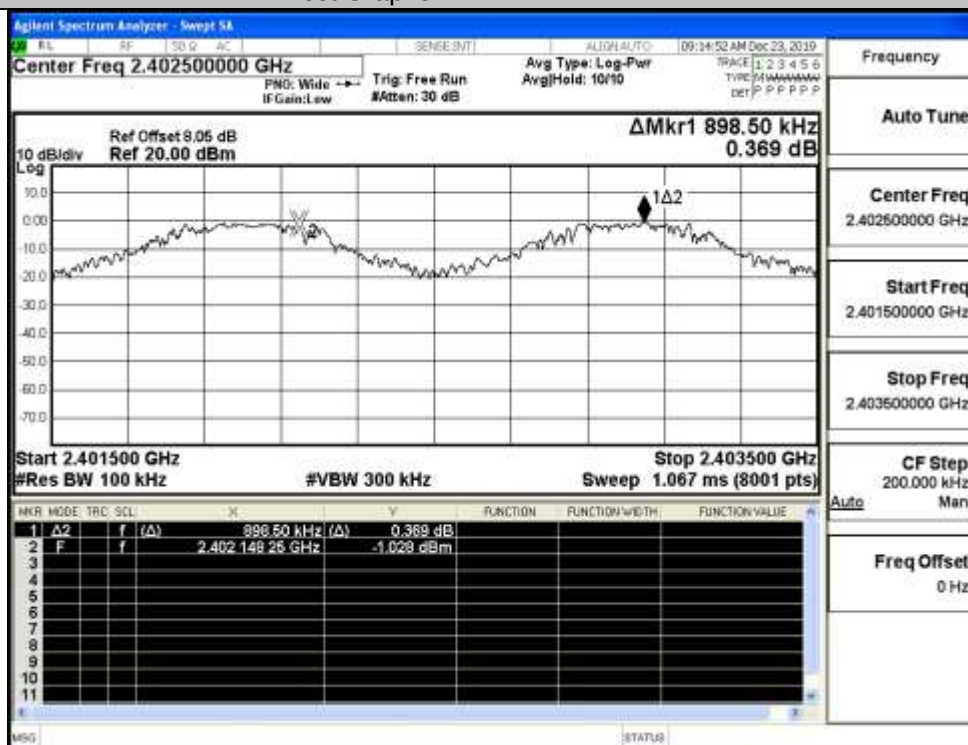


A.3 Carrier Frequency Separation

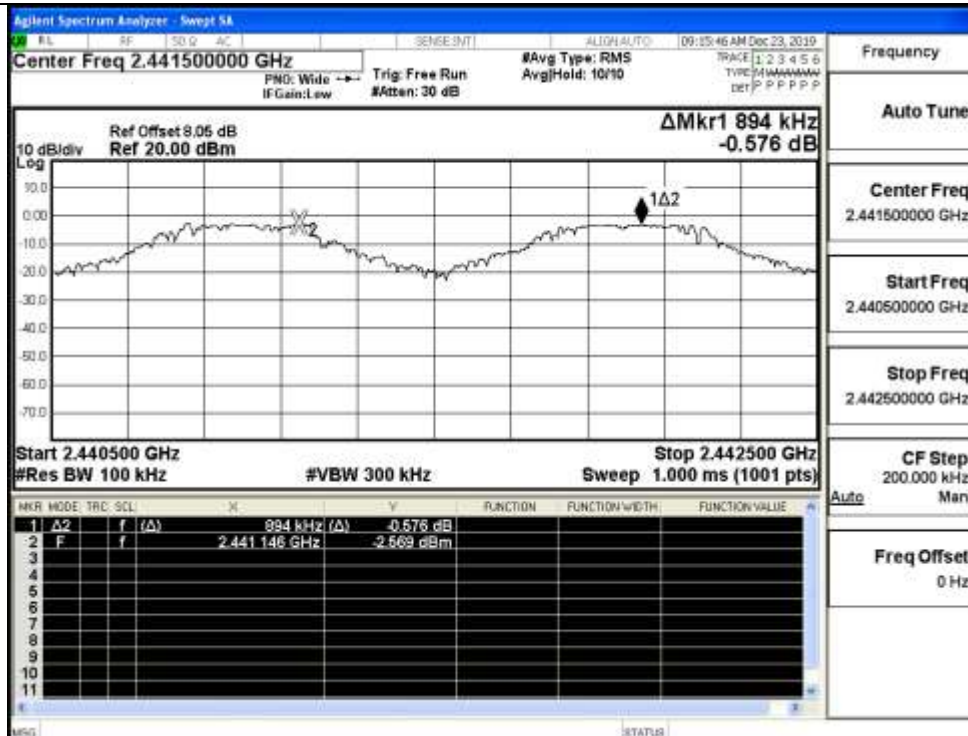
Mode	Channel	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.898	0.688	PASS
	MCH	0.894	0.688	PASS
	HCH	1.150	0.688	PASS
$\pi/4$ DQPSK	LCH	1.326	0.872	PASS
	MCH	0.880	0.872	PASS
	HCH	0.876	0.872	PASS
8DPSK	LCH	0.942	0.865	PASS
	MCH	0.886	0.865	PASS
	HCH	1.298	0.865	PASS

Test Graphs

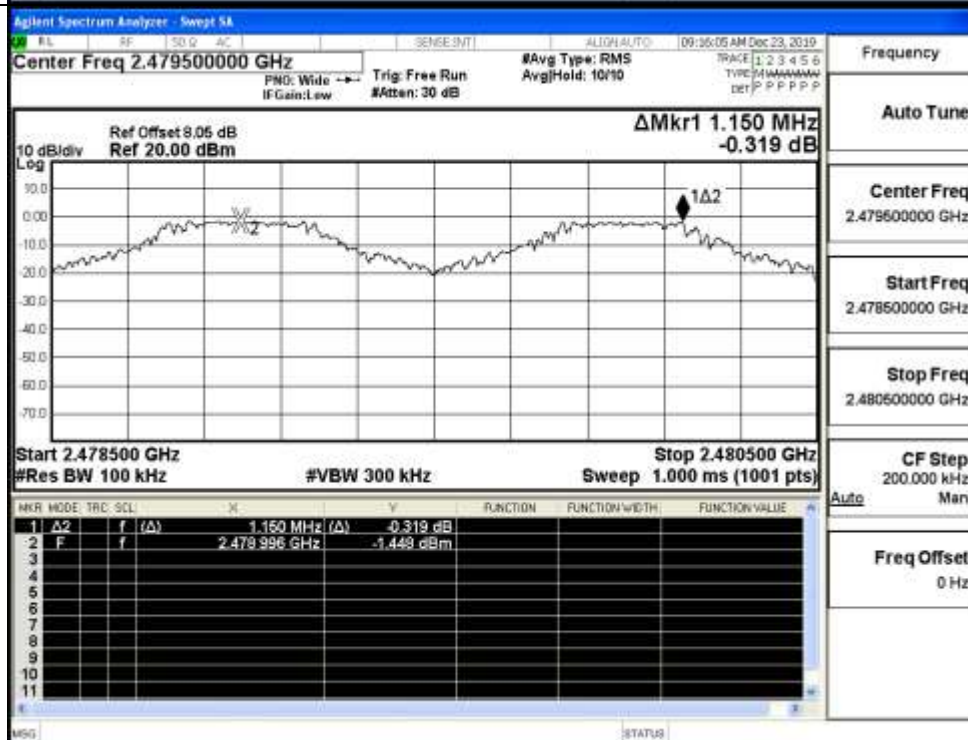
GFSK/LCH

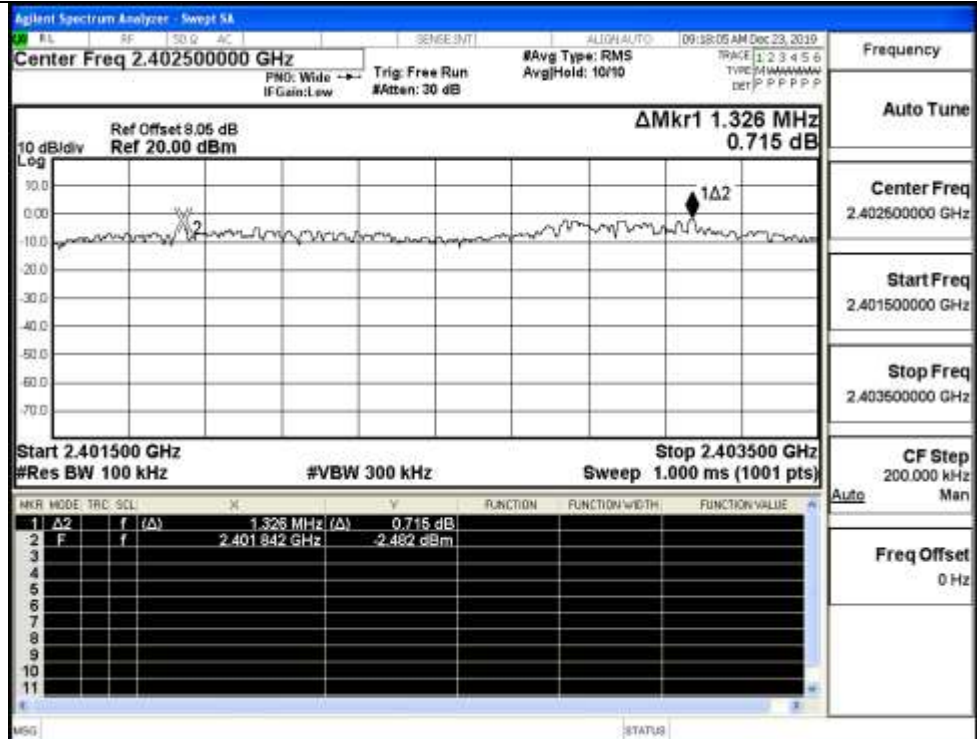
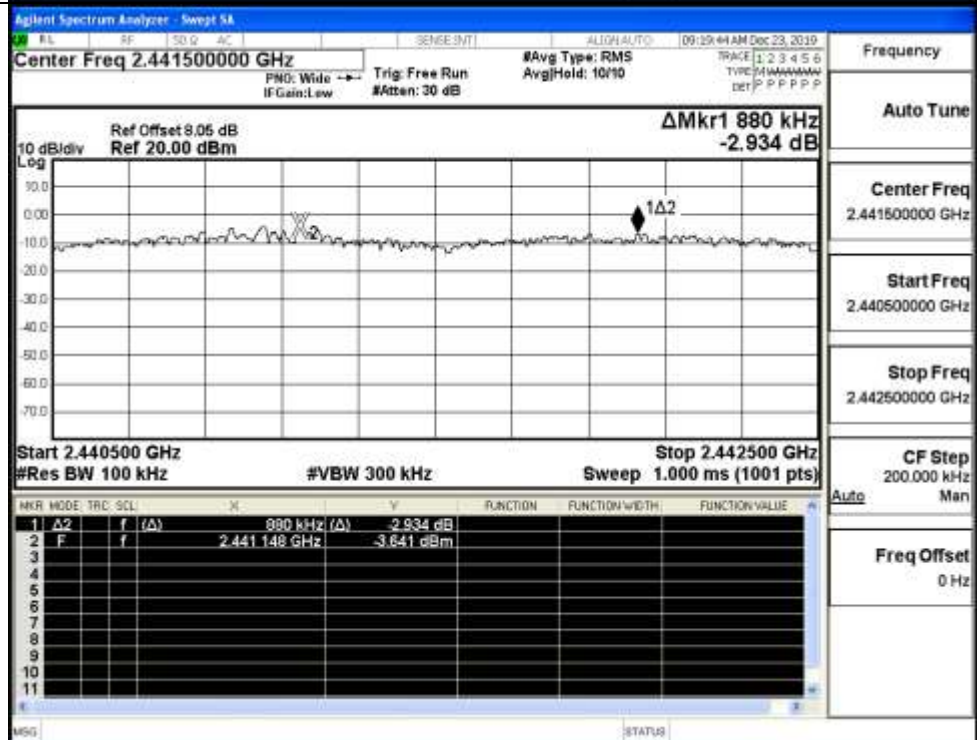


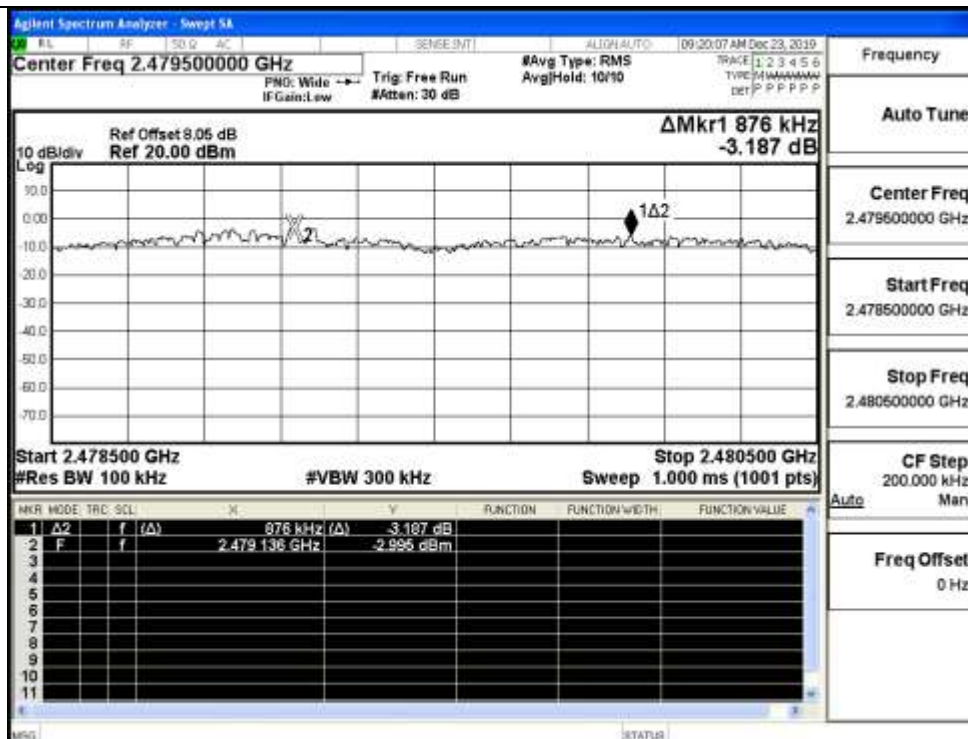
GFSK/MCH



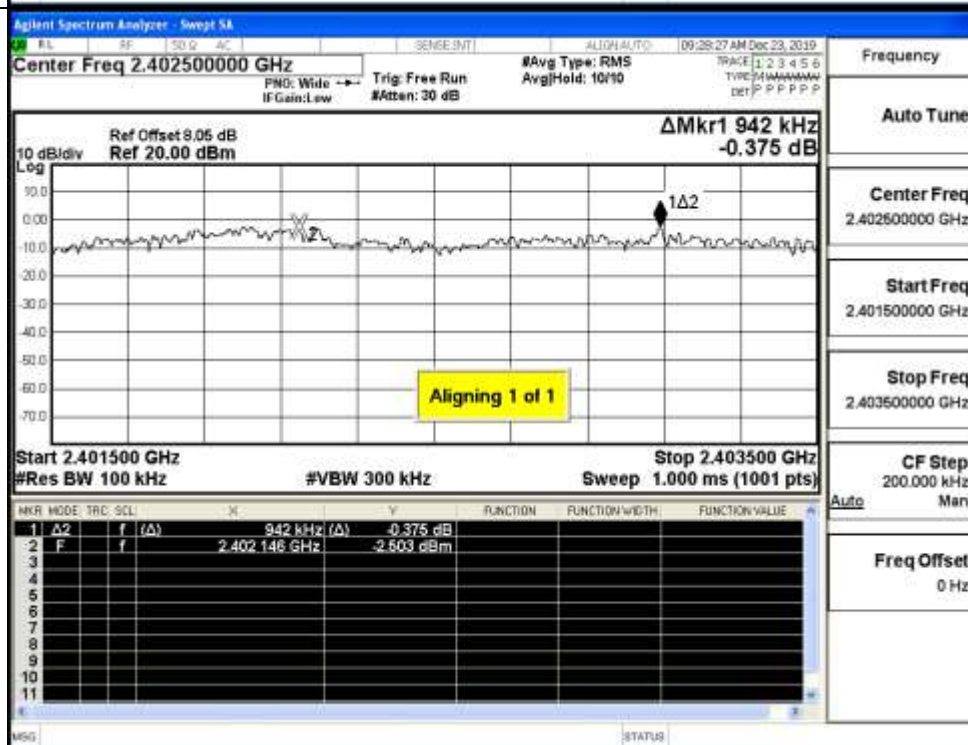
GFSK/HCH



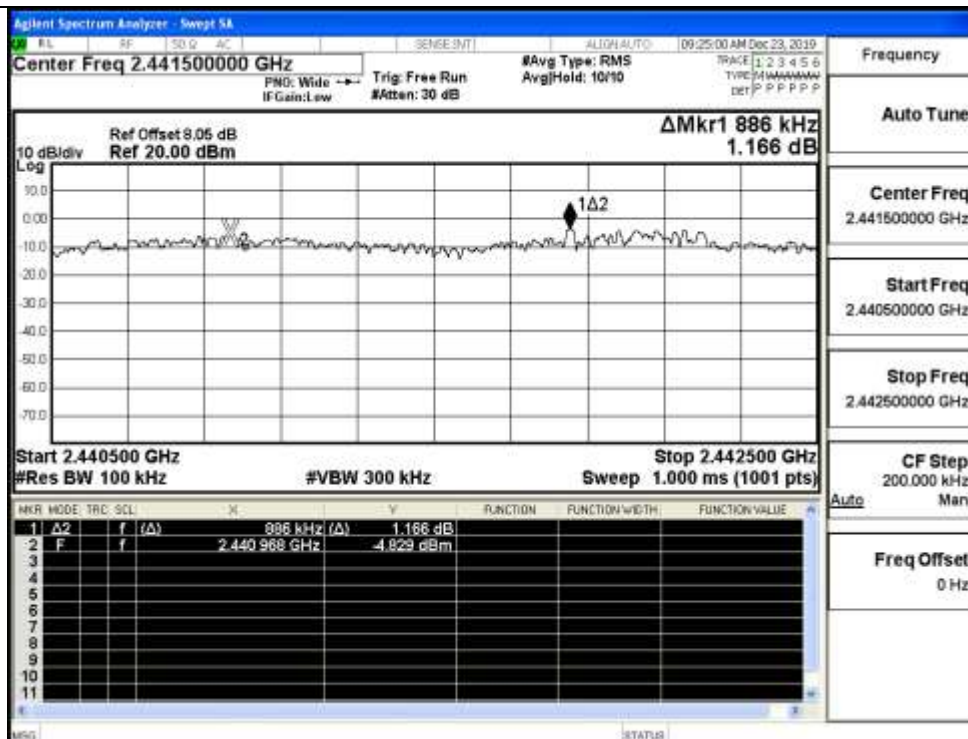
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

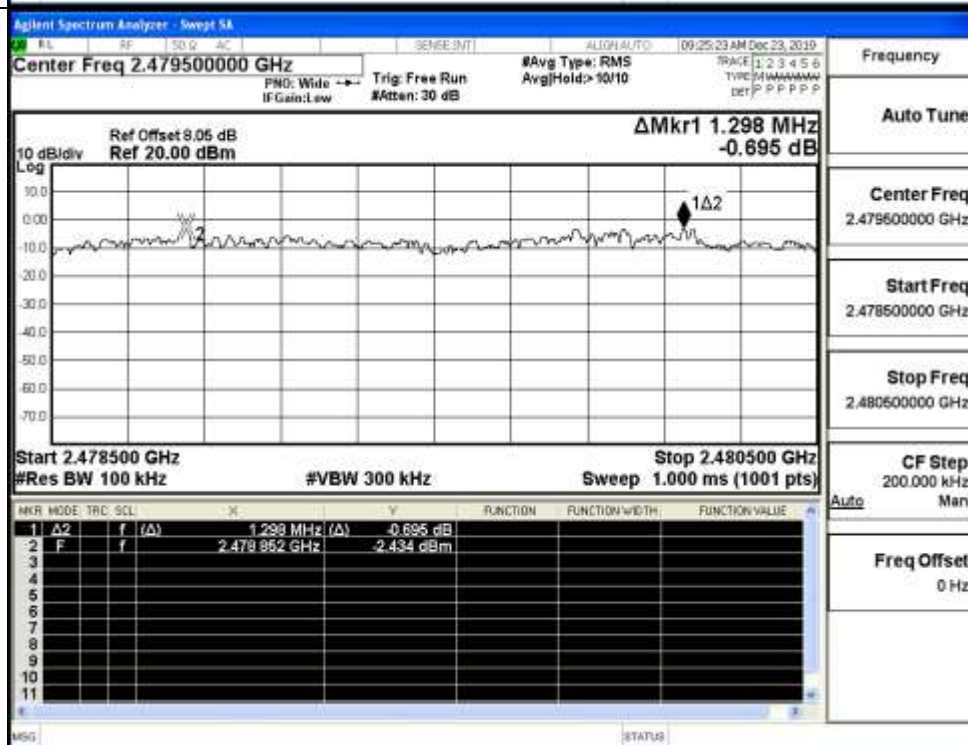
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

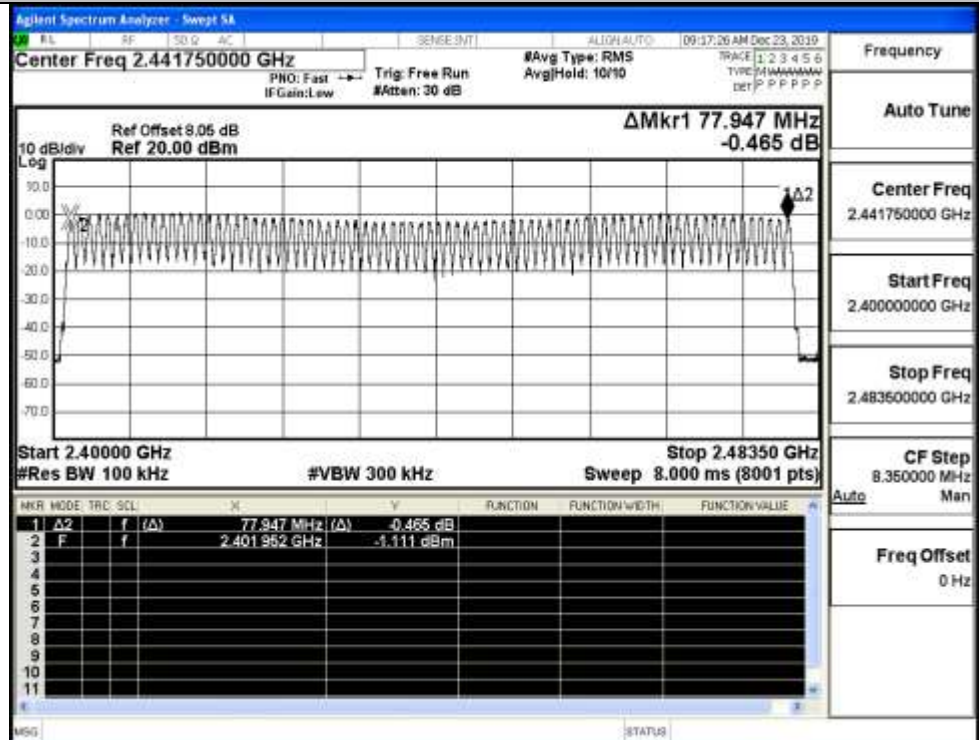
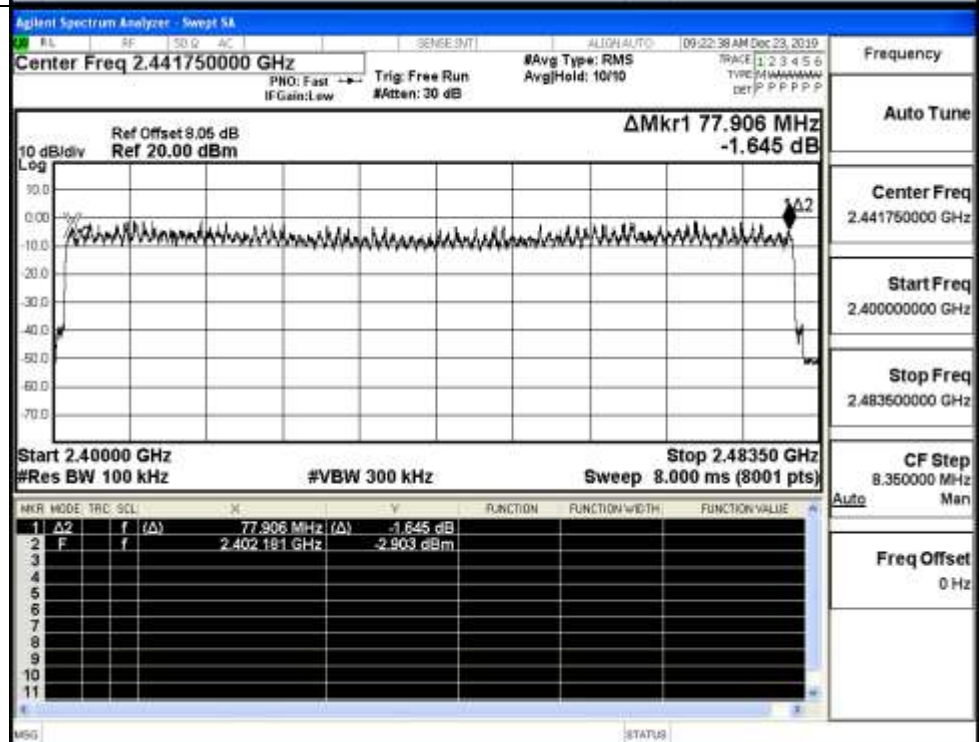


A.4 Hopping Channel Number

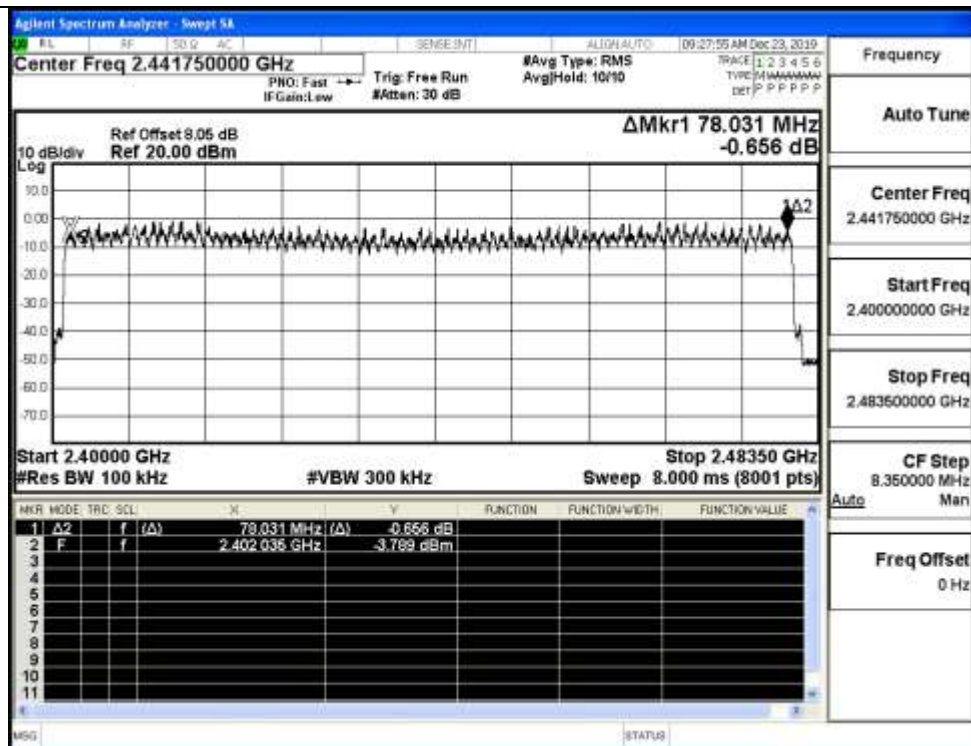
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
$\pi/4$ DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

GFSK/Hop

 $\pi/4$ DQPSK/Hop

8DPSK/Hop

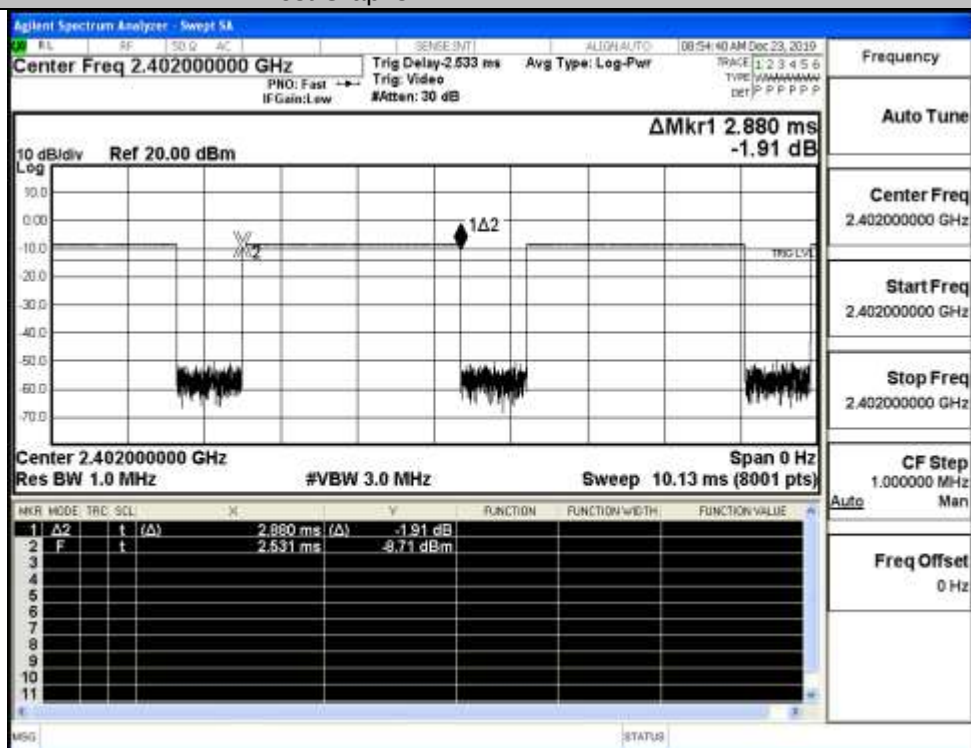


A.5 Dwell Time

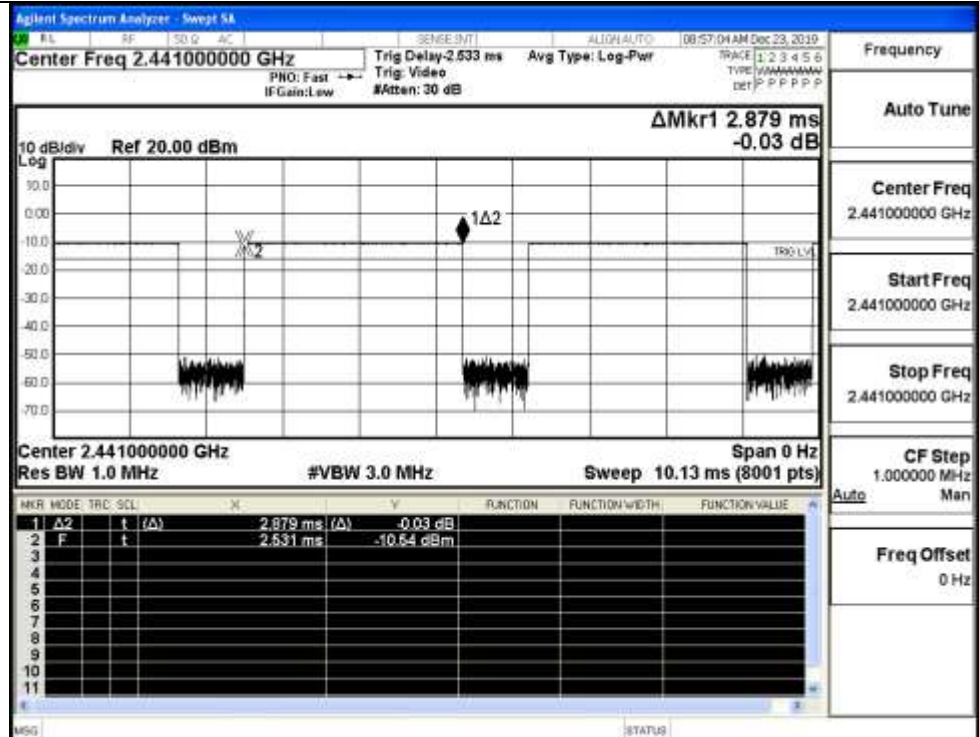
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	106.7	0.307	0.4	PASS
	DH5	MCH	2.88	106.7	0.307	0.4	PASS
	DH5	HCH	2.88	106.7	0.307	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.88	106.7	0.307	0.4	PASS
	2DH5	MCH	2.88	106.7	0.307	0.4	PASS
	2DH5	HCH	2.88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

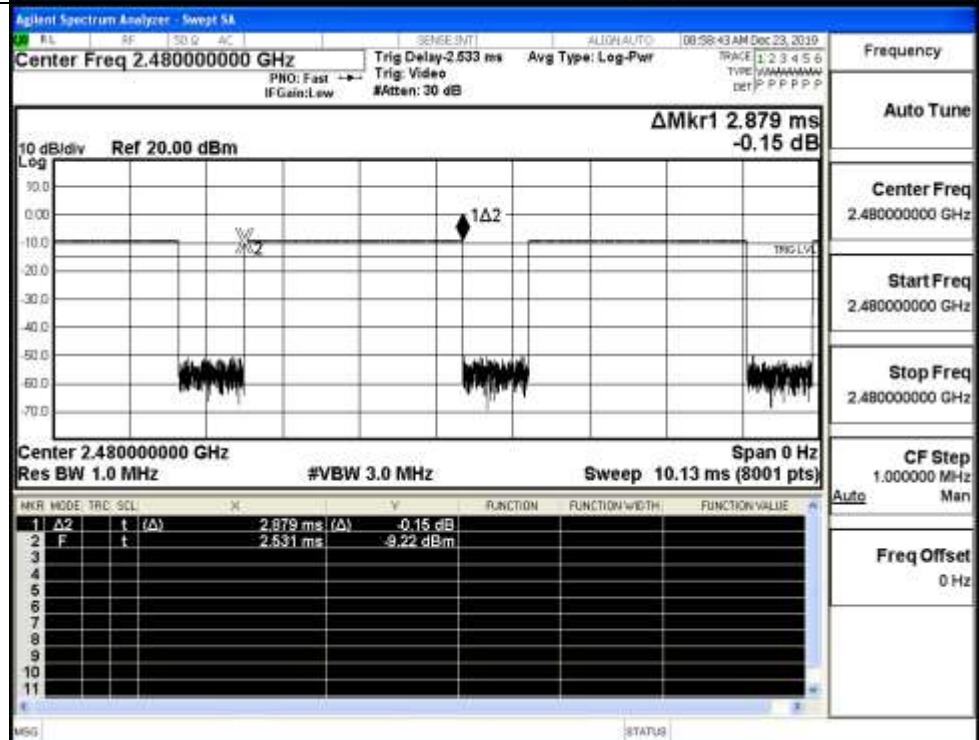
GFSK_DH5/LCH



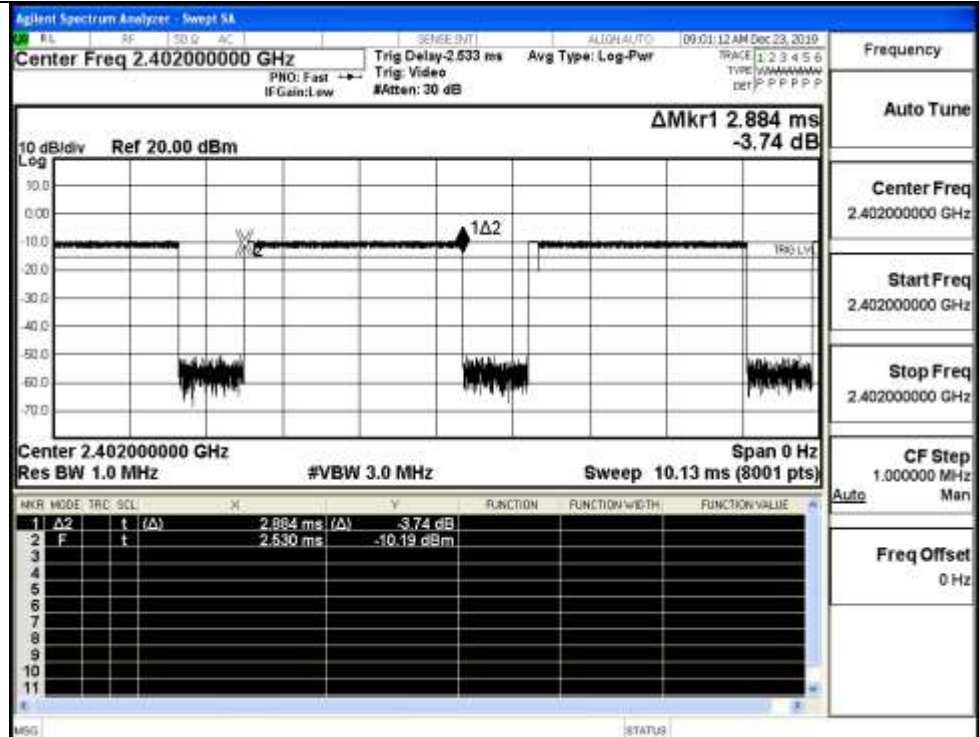
GFSK_DH5/MCH



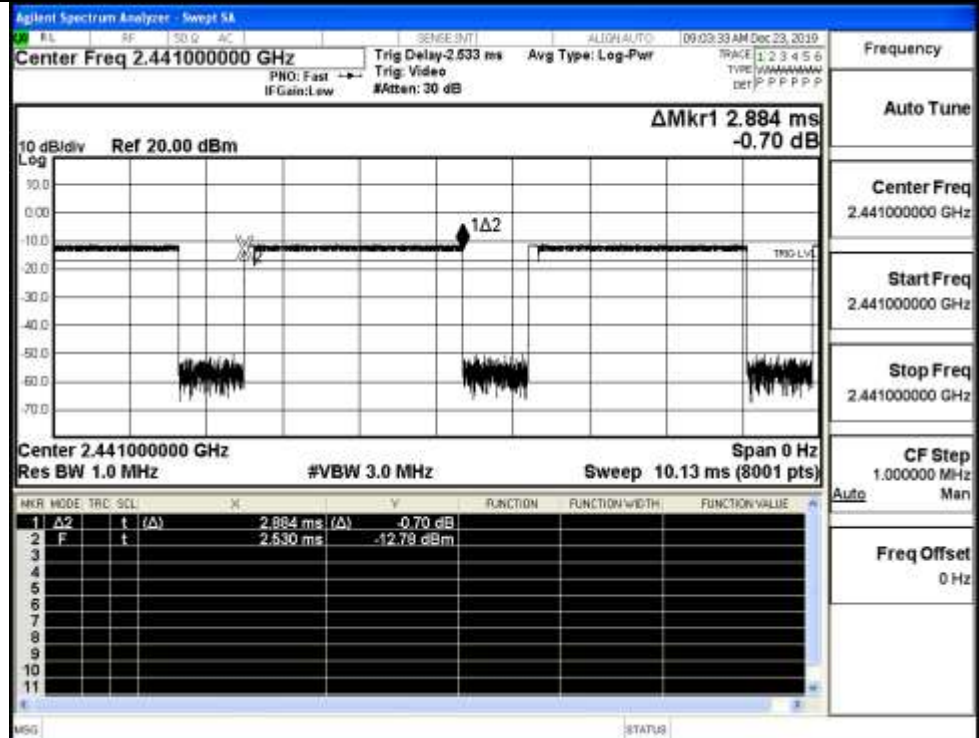
GFSK_DH5/HCH



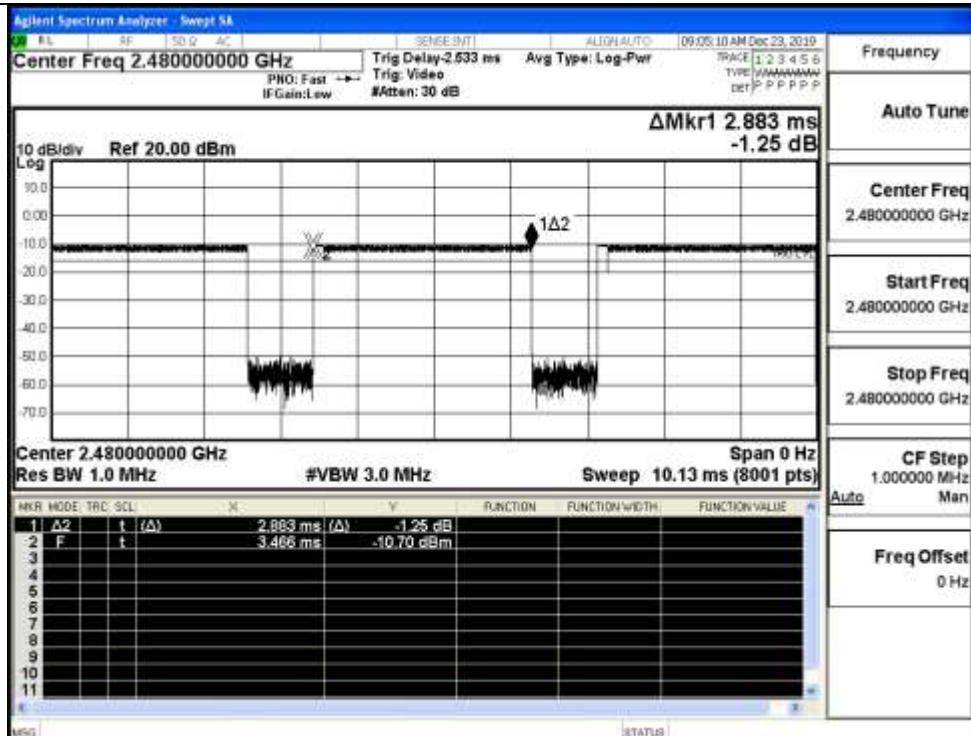
$\pi/4$ DQPSK
_2DH5/LCH



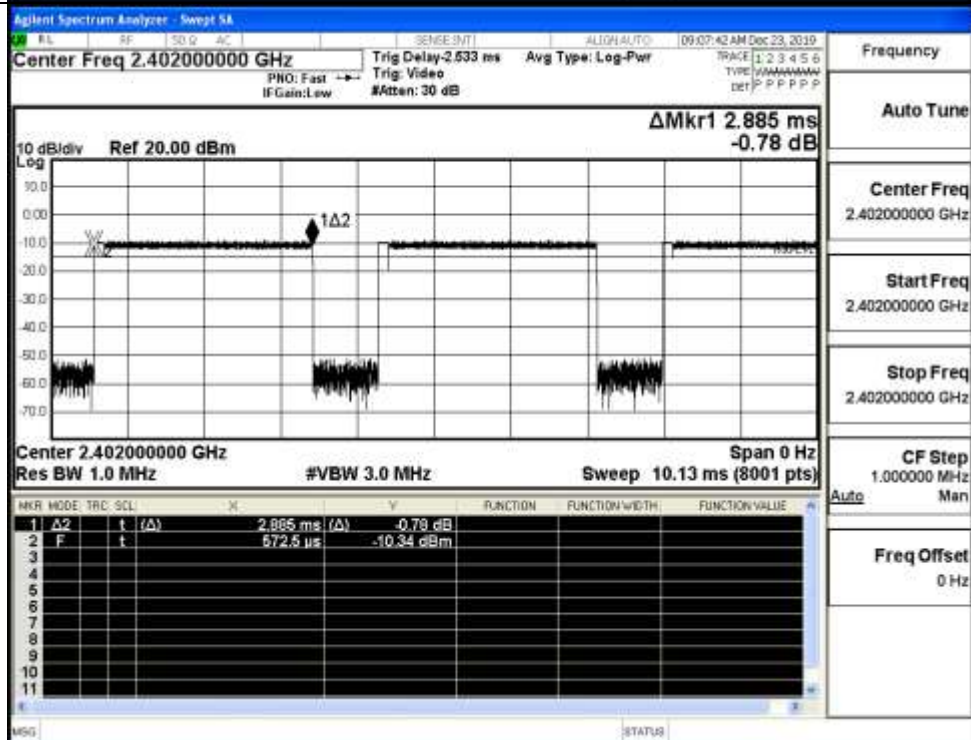
$\pi/4$ DQPSK
_2DH5/MCH



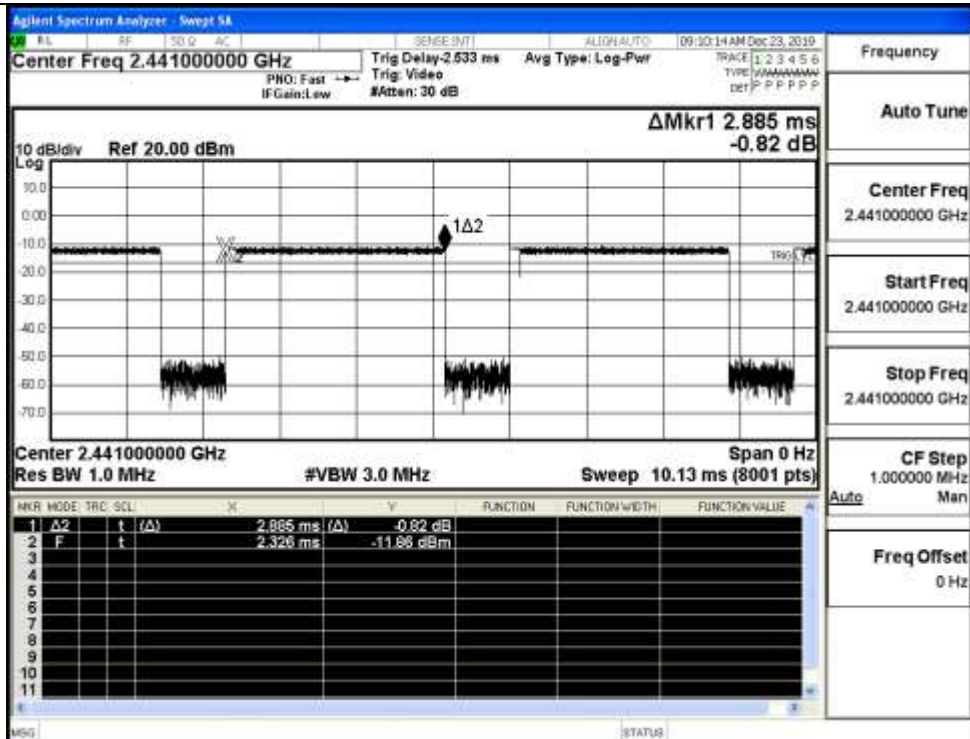
$\pi/4$ DQPSK
_2DH5/HCH



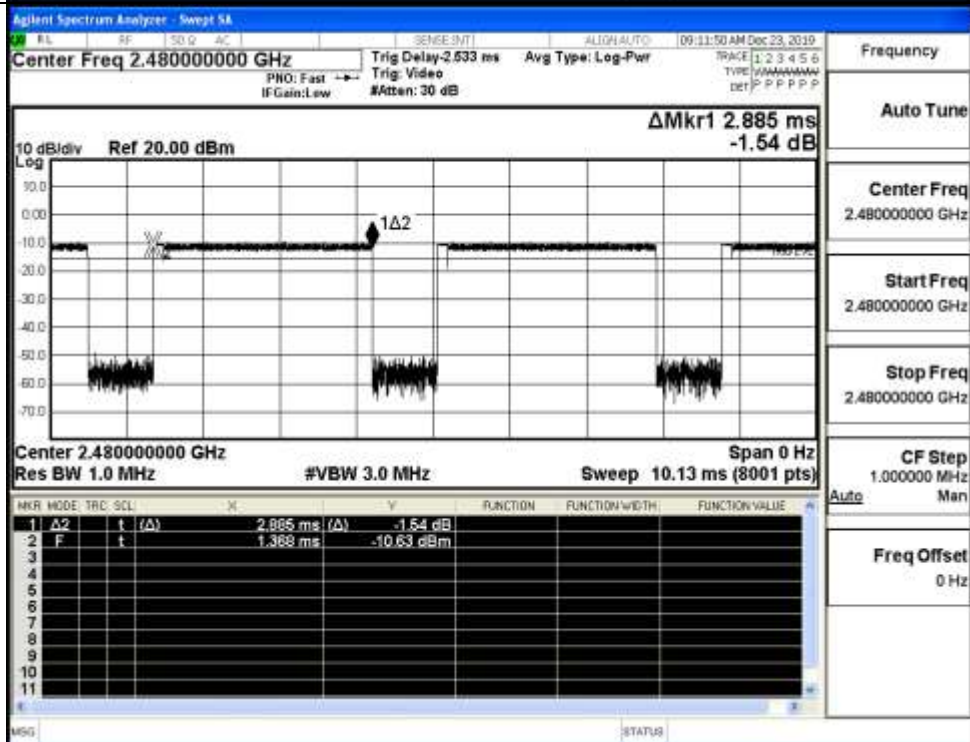
8DPSK_3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

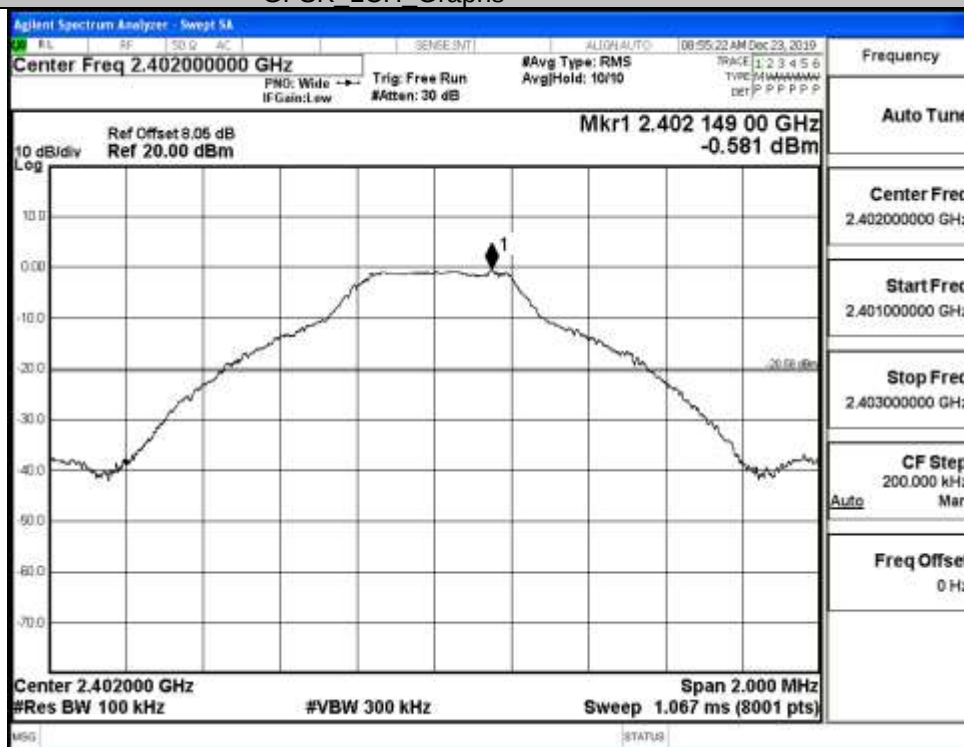


A.6 RF Conducted Spurious Emissions

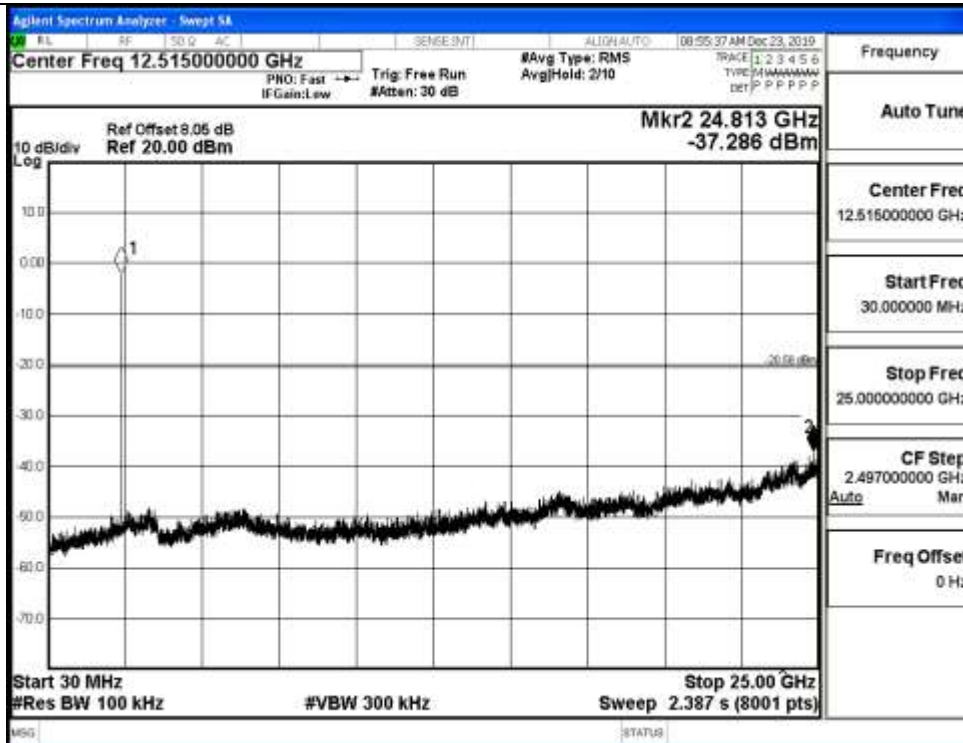
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.581	-37.286	-20.581	PASS
	MCH	-2.842	-38.169	-22.842	PASS
	HCH	-1.24	-37.561	-21.240	PASS
$\pi/4$ DQPSK	LCH	-1.837	-38.091	-21.837	PASS
	MCH	-3.567	-37.208	-23.567	PASS
	HCH	-2.352	-37.686	-22.352	PASS
8DPSK	LCH	-2.084	-37.436	-22.084	PASS
	MCH	-3.383	-38.044	-23.383	PASS
	HCH	-2.484	-38.221	-22.484	PASS

GFSK LCH Graphs

Pref

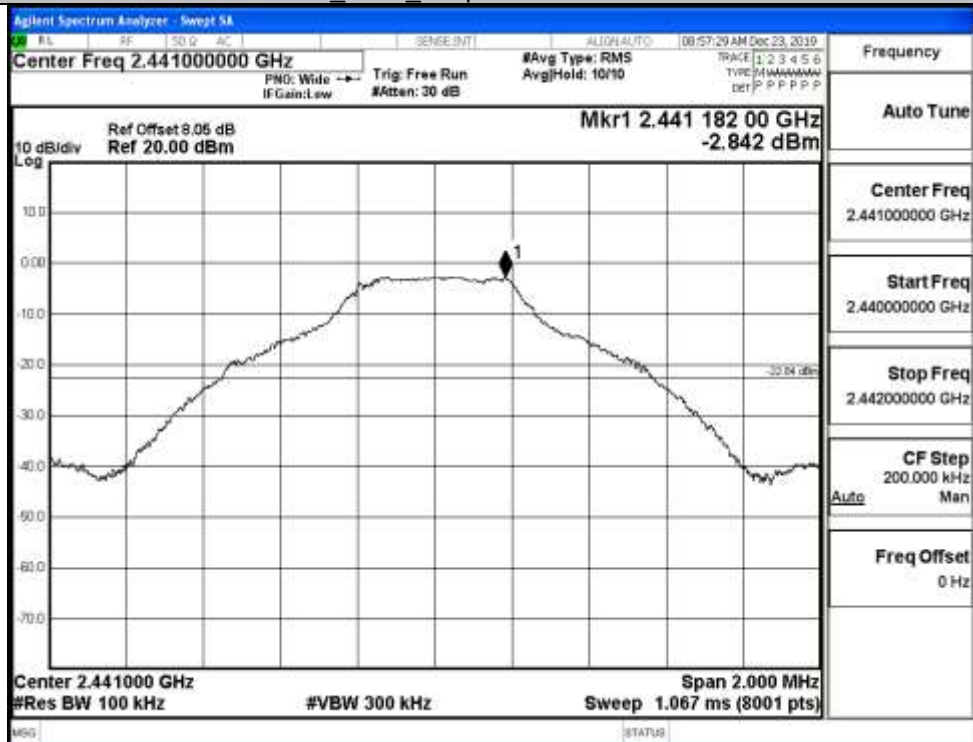


Puw

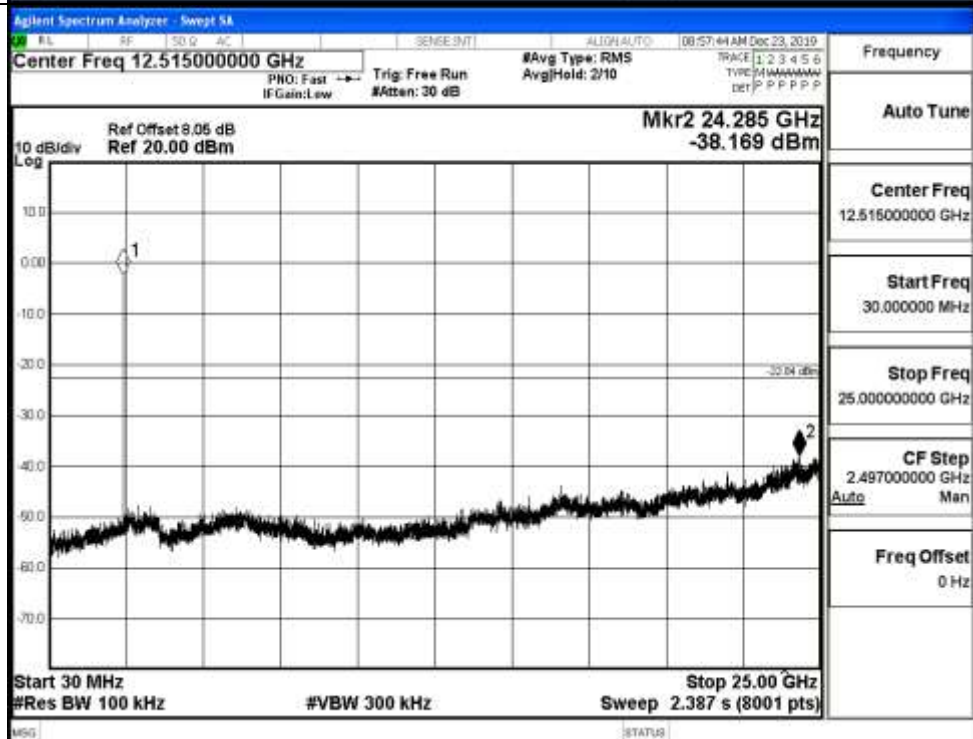


GFSK_MCH_Graphs

Pref

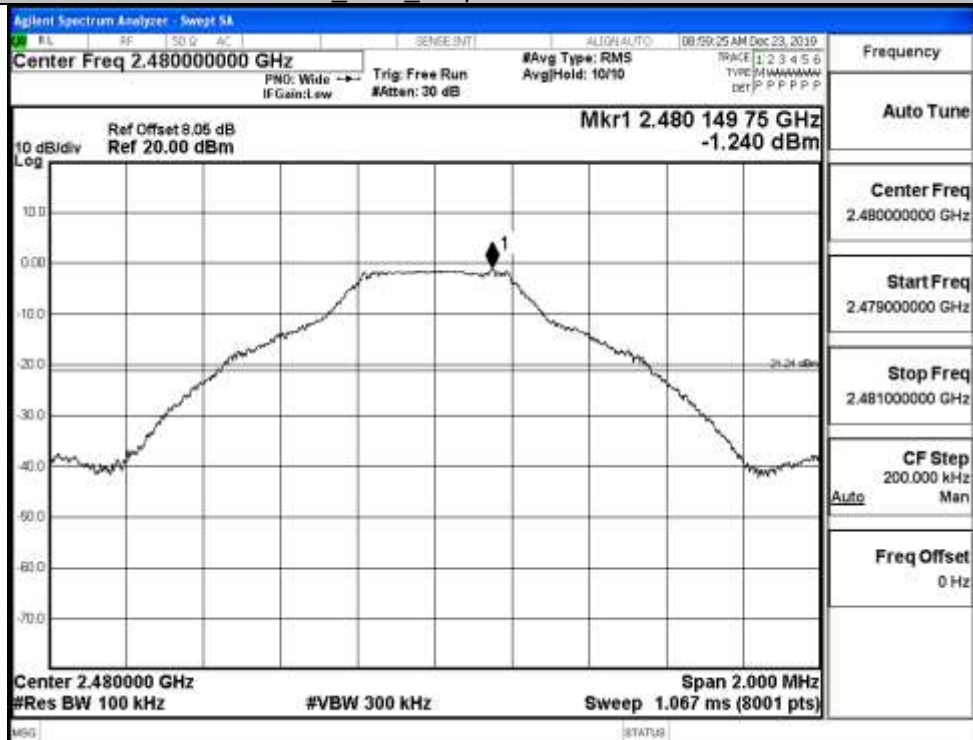


Puw

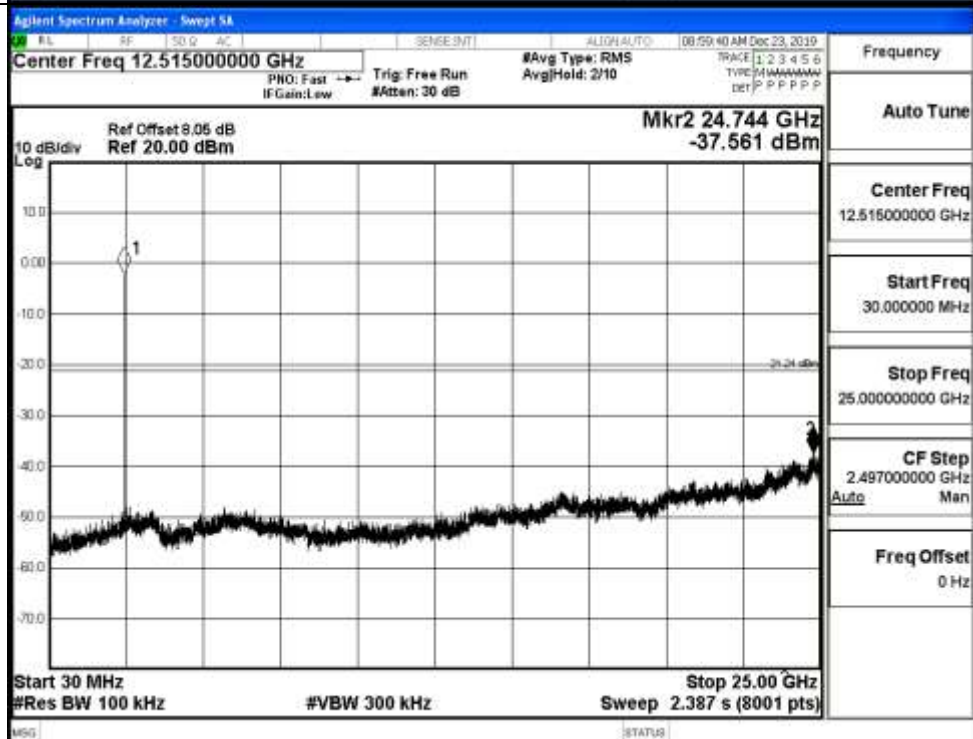


GFSK_HCH_Graphs

Pref

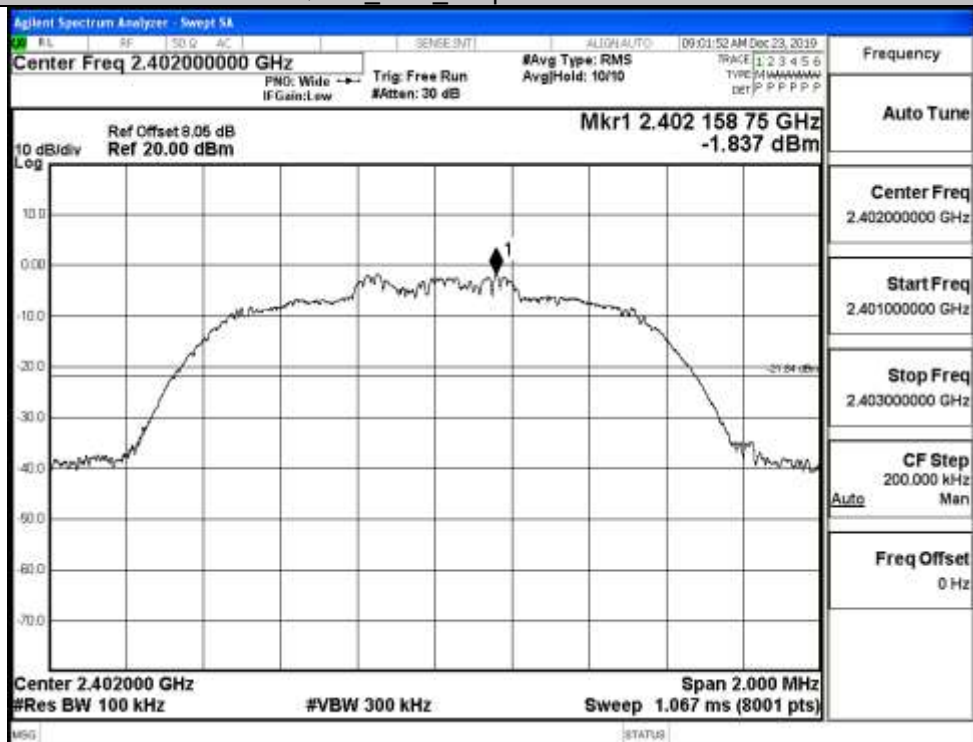


Puw

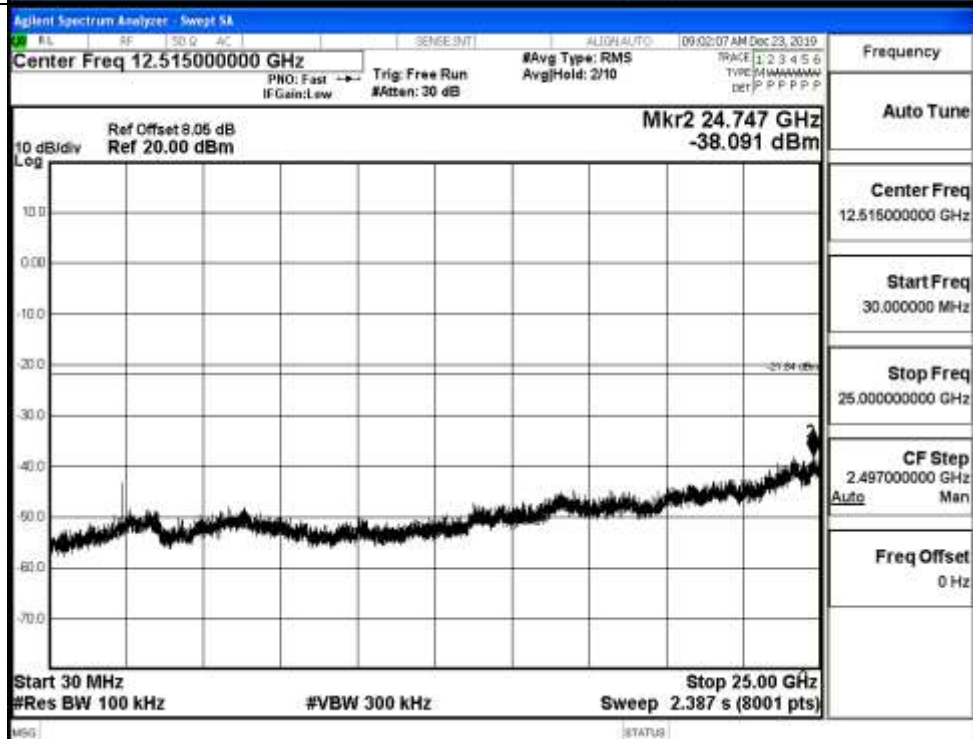


$\pi/4$ DQPSK_LCH_Graphs

Pref

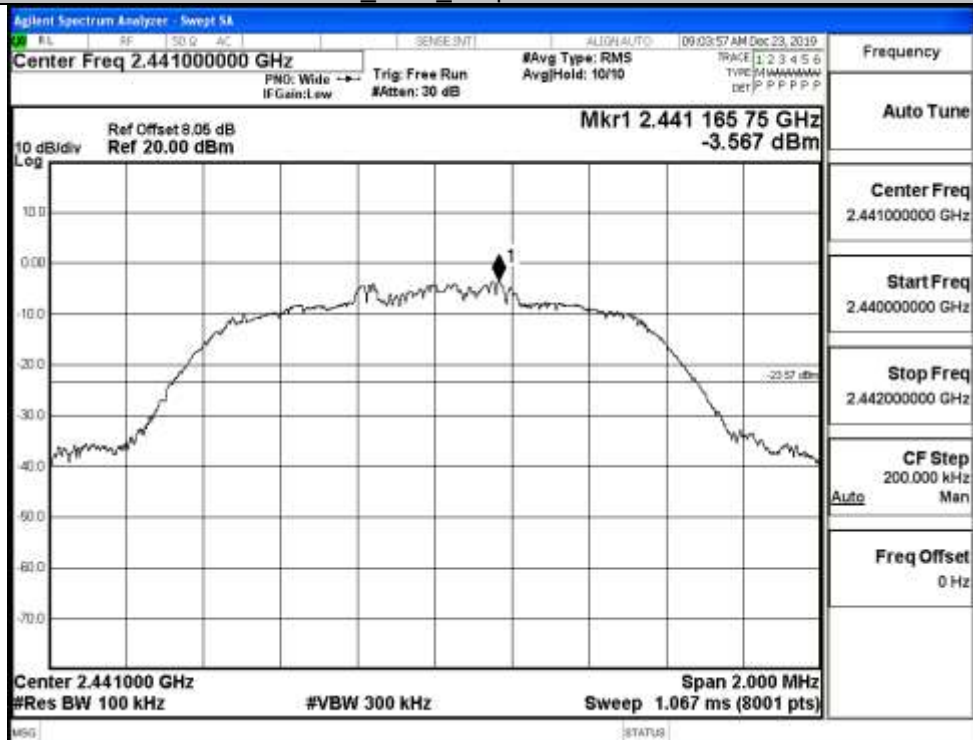


Puw

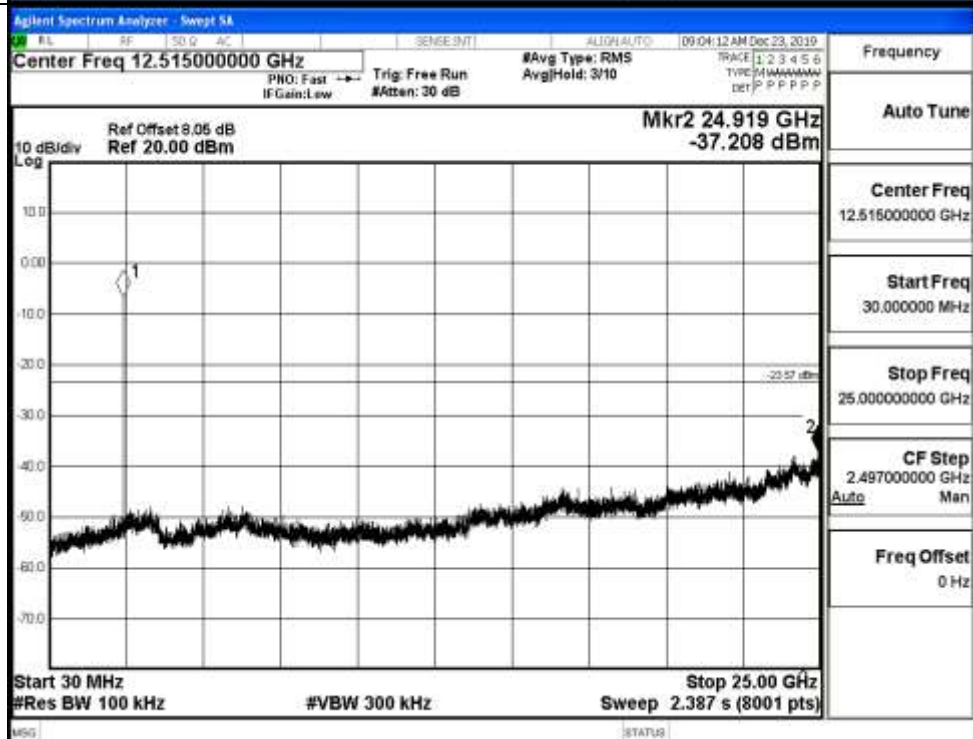


$\pi/4$ DQPSK_MCH_Graphs

Pref

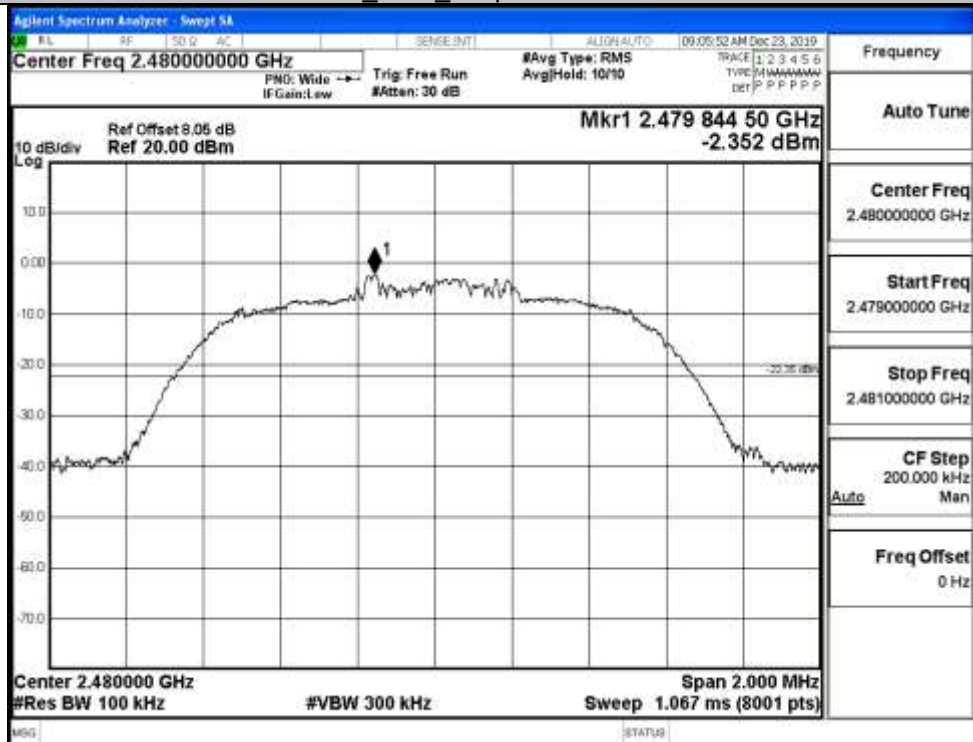


Puw

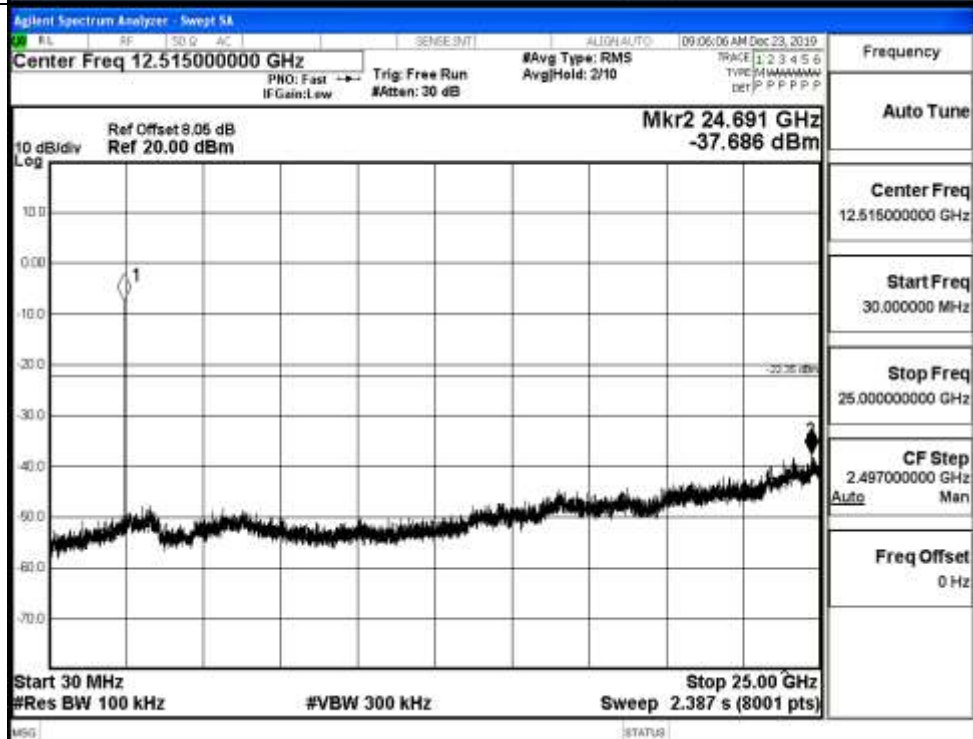


$\pi/4$ DQPSK_HCH_Graphs

Pref

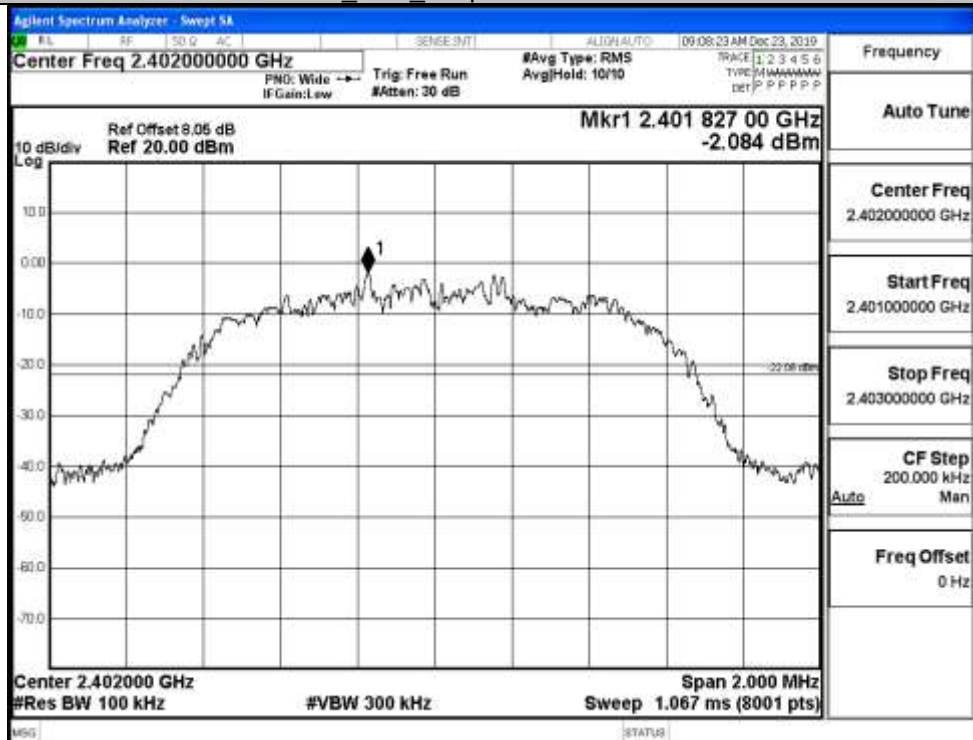


Puw

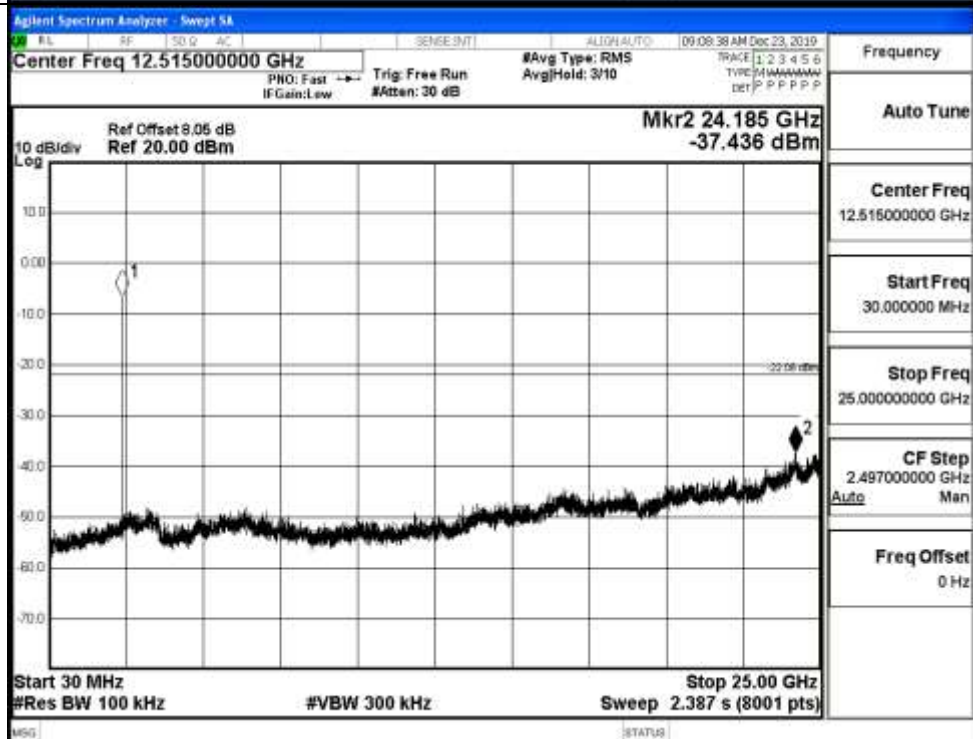


8DPSK_LCH_Graphs

Pref

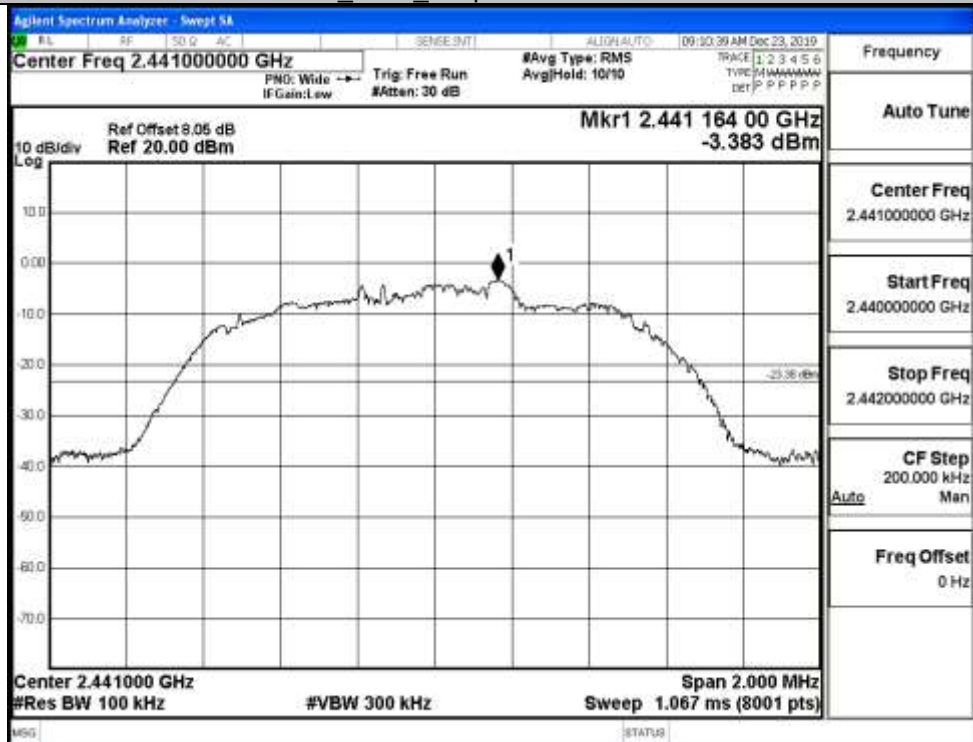


Puw

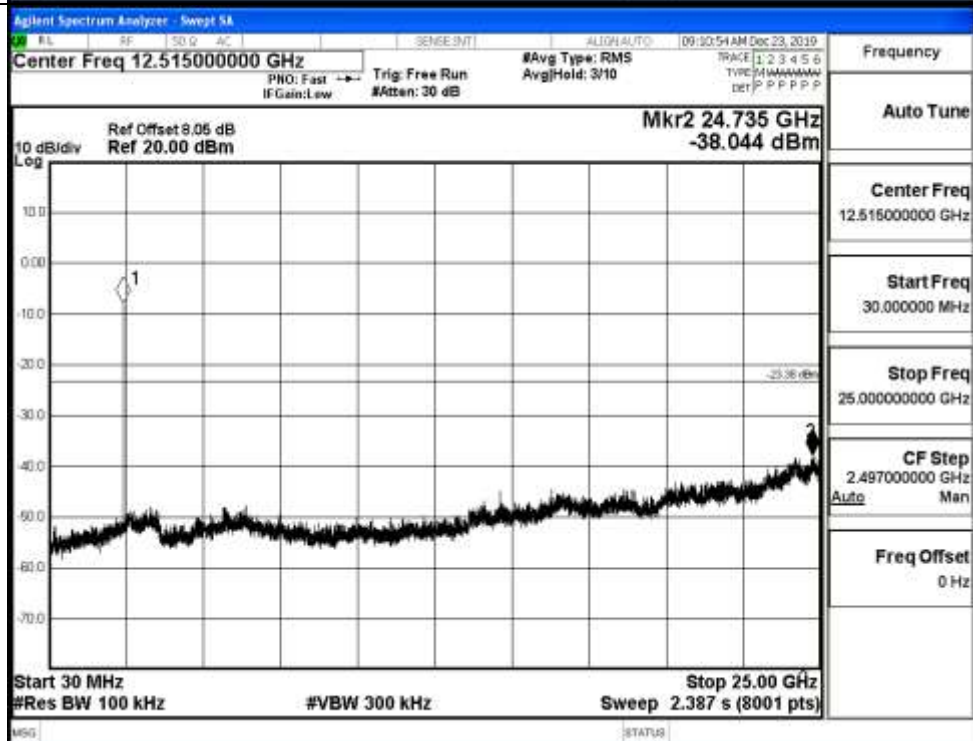


8DPSK_MCH_Graphs

Pref

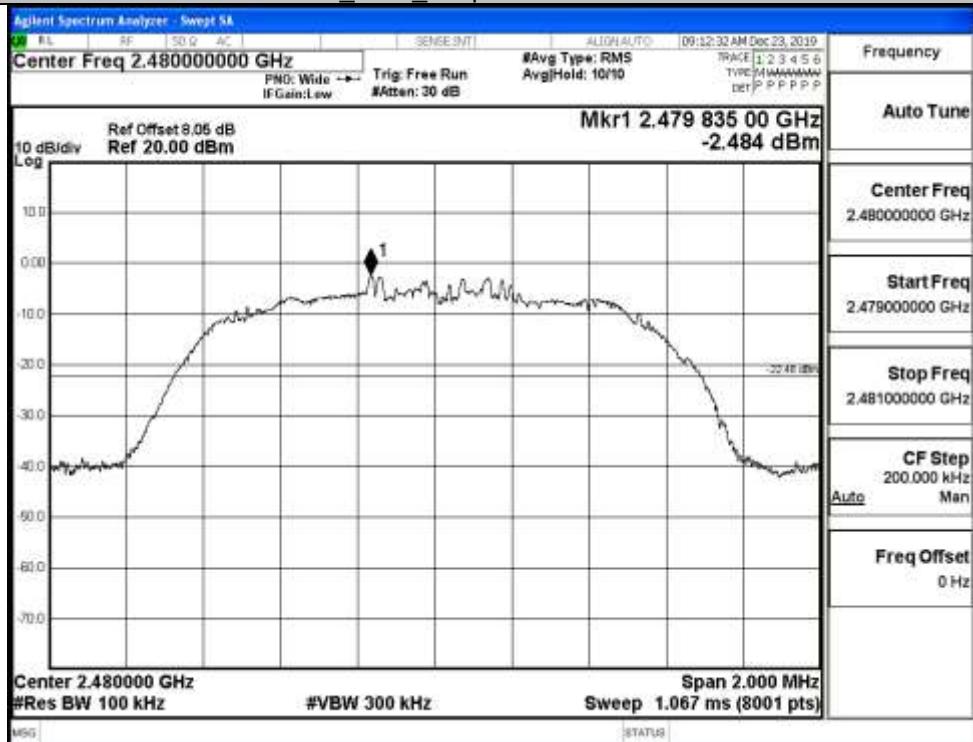


Puw

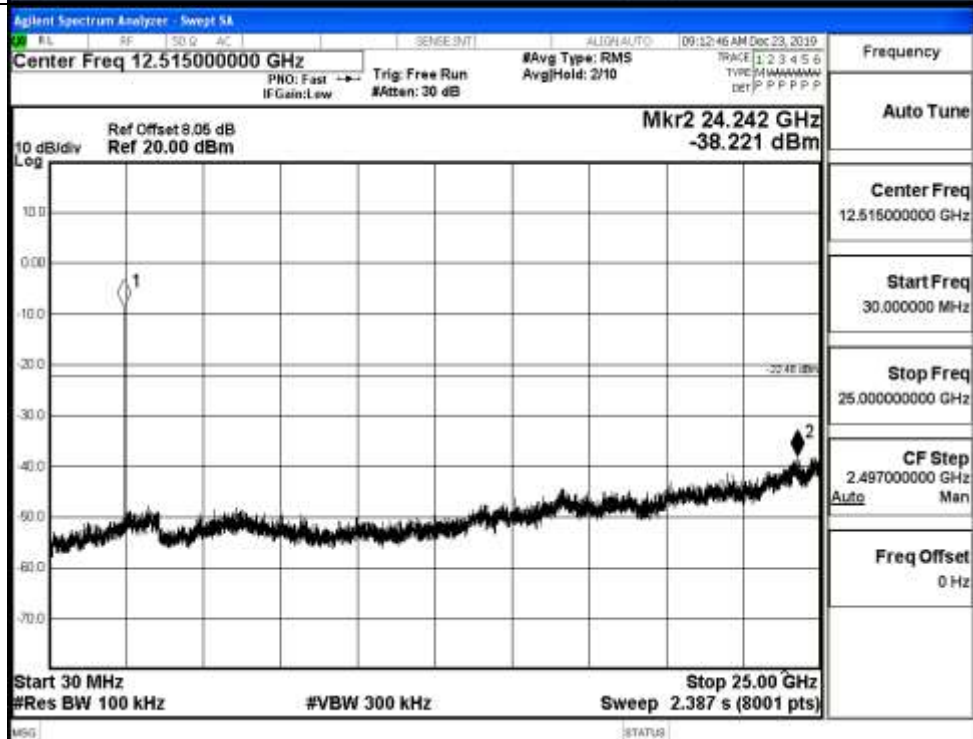


8DPSK_HCH_Graphs

Pref



Puw

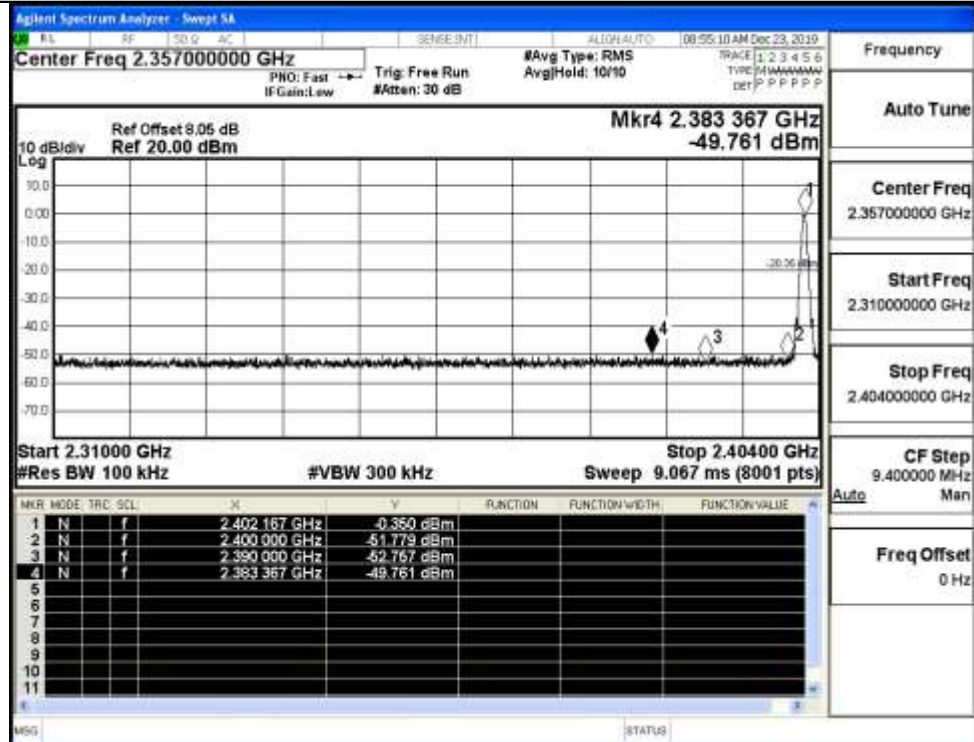


A.7 Band-edge for RF Conducted Emissions

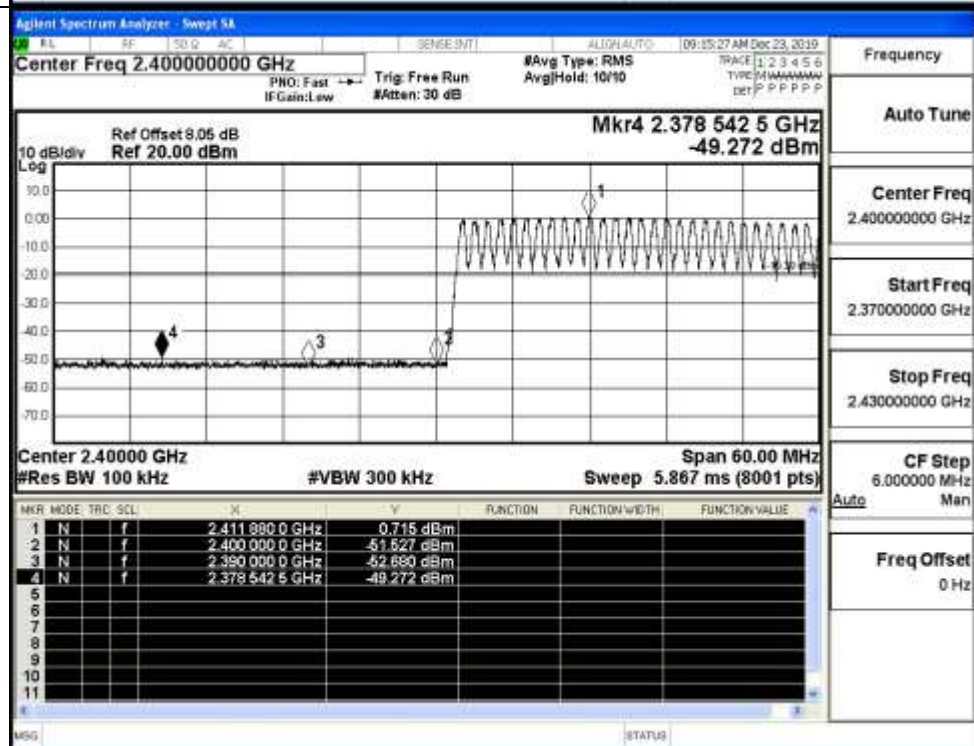
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-0.350	Off	-49.761	-20.35	PASS
			0.715	On	-49.272	-19.29	PASS
	HCH	2480	-1.109	Off	-49.043	-21.11	PASS
			0.280	On	-48.834	-19.72	PASS
$\pi/4$ DQPSK	LCH	2402	-2.154	Off	-49.058	-22.15	PASS
			-0.743	On	-48.619	-20.74	PASS
	HCH	2480	-2.263	Off	-48.414	-22.26	PASS
			-1.219	On	-48.528	-21.22	PASS
8DPSK	LCH	2402	-1.754	Off	-49.197	-21.75	PASS
			-0.748	On	-49.476	-20.75	PASS
	HCH	2480	-2.530	Off	-49.559	-22.53	PASS
			-1.202	On	-48.356	-21.2	PASS

Test Graphs

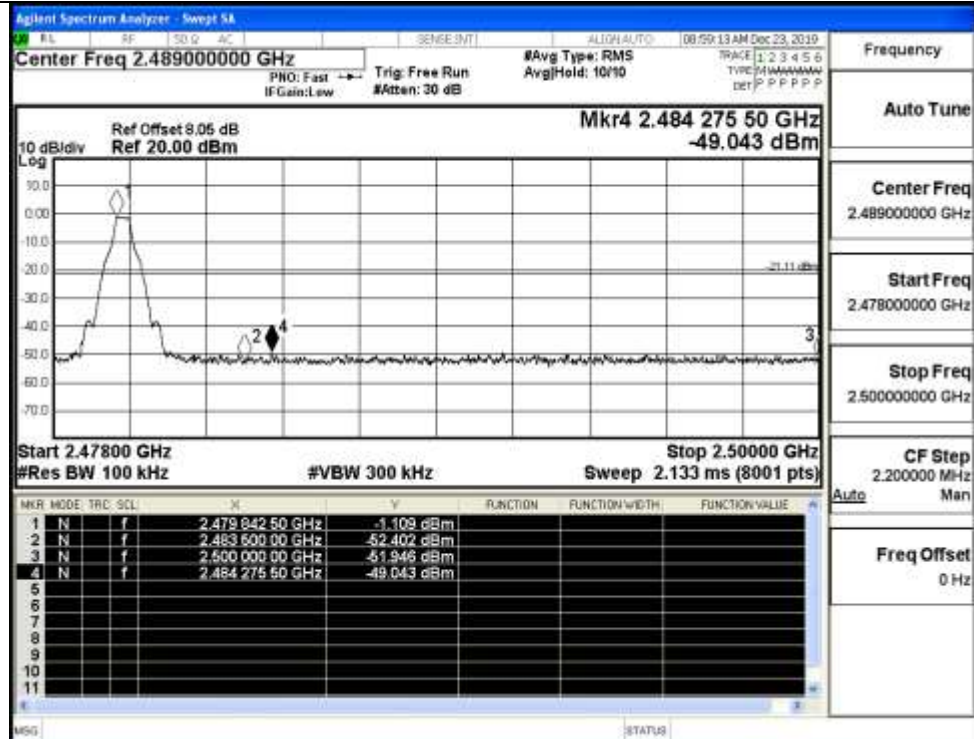
GFSK/LCH/No Hop



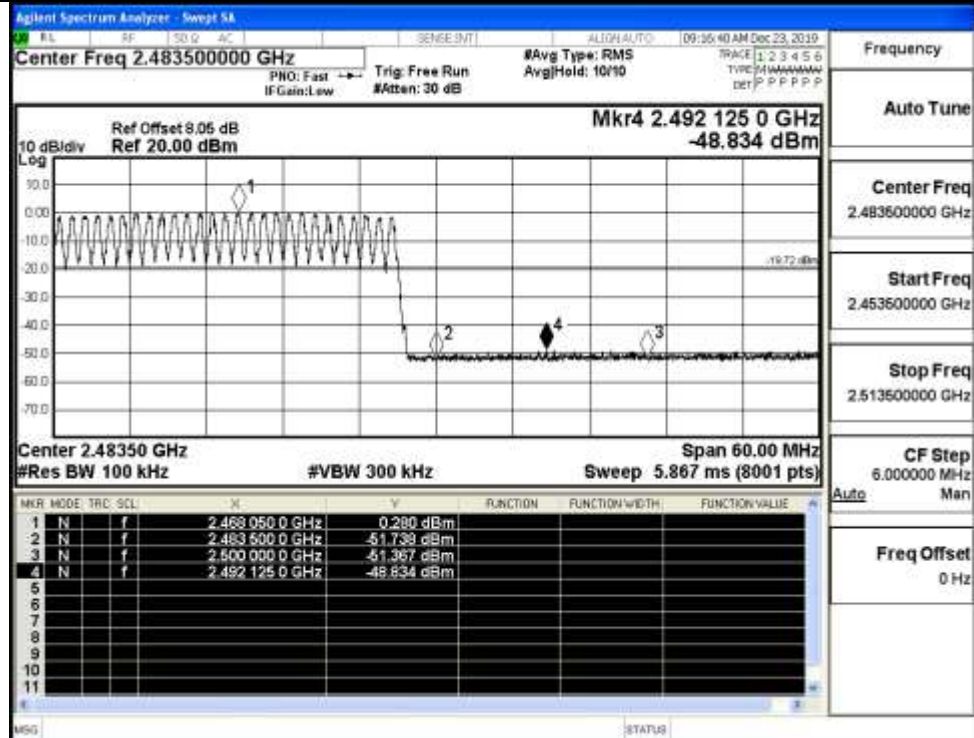
GFSK/LCH/Hop



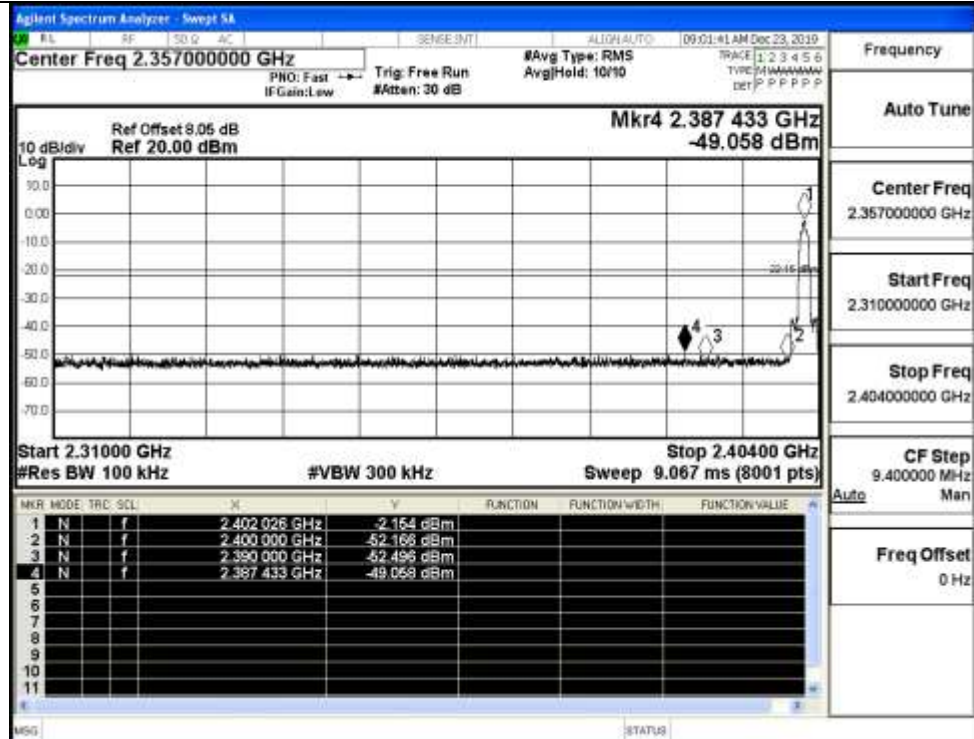
GFSK/HCH/No Hop



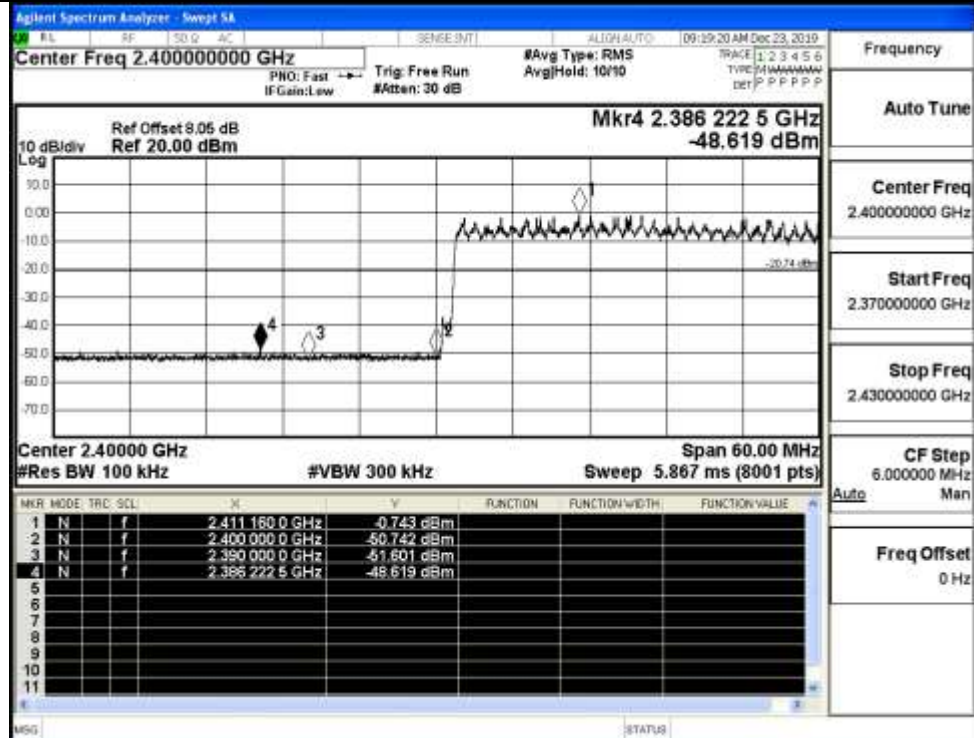
GFSK/HCH/Hop



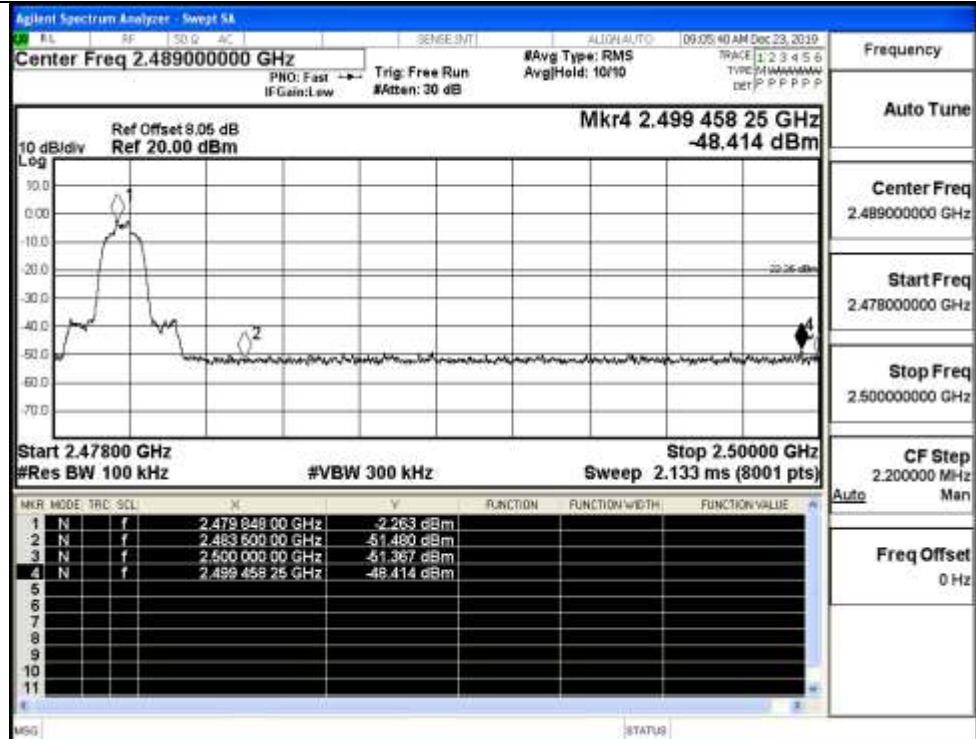
$\pi/4$ DQPSK/LCH/No
Hop



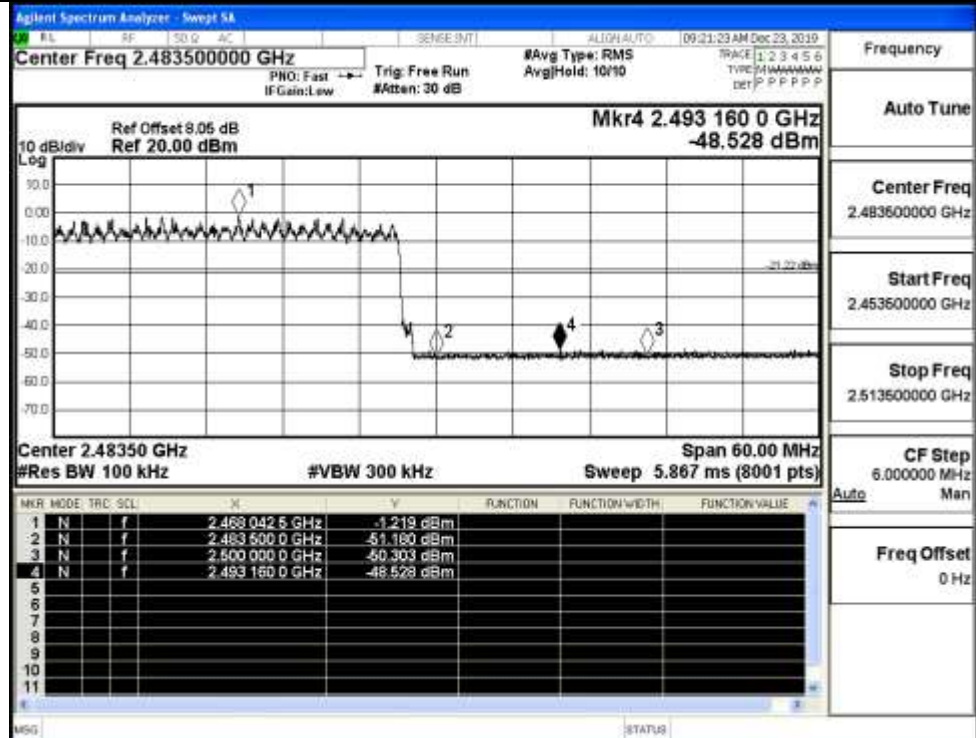
$\pi/4$ DQPSK/LCH/Hop



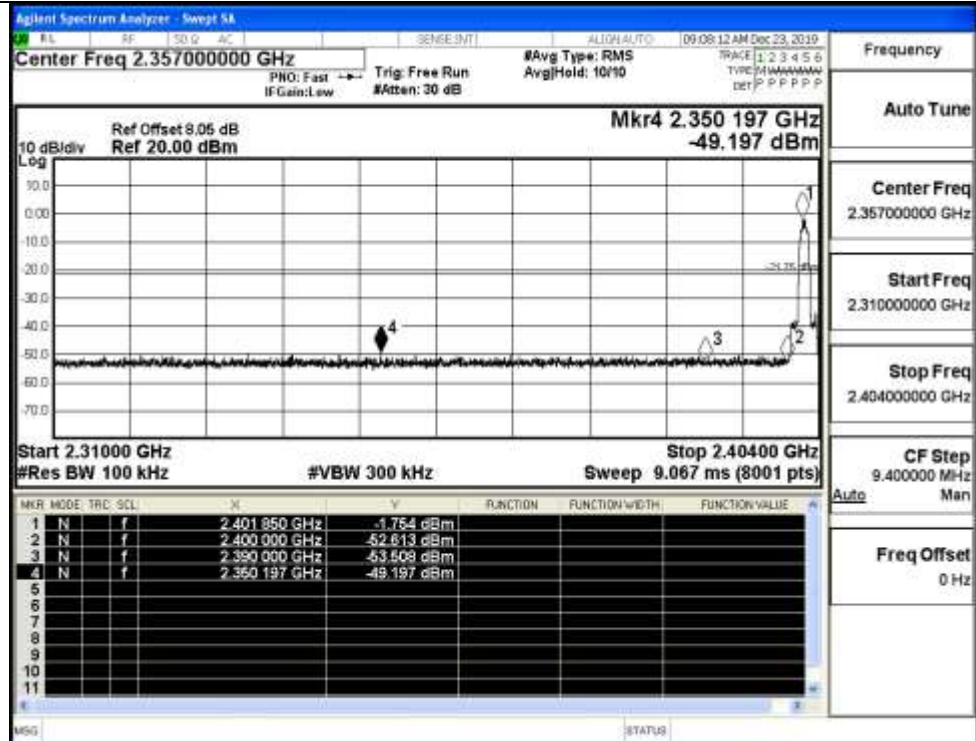
$\pi/4$ DQPSK/HCH/No
Hop



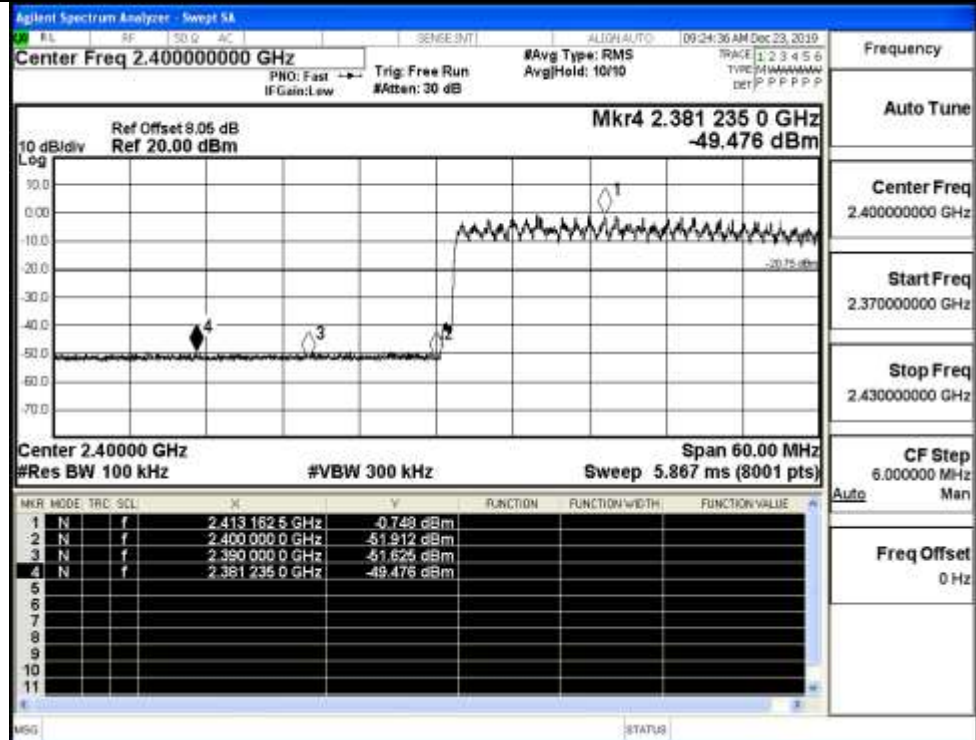
$\pi/4$ DQPSK/HCH/Hop



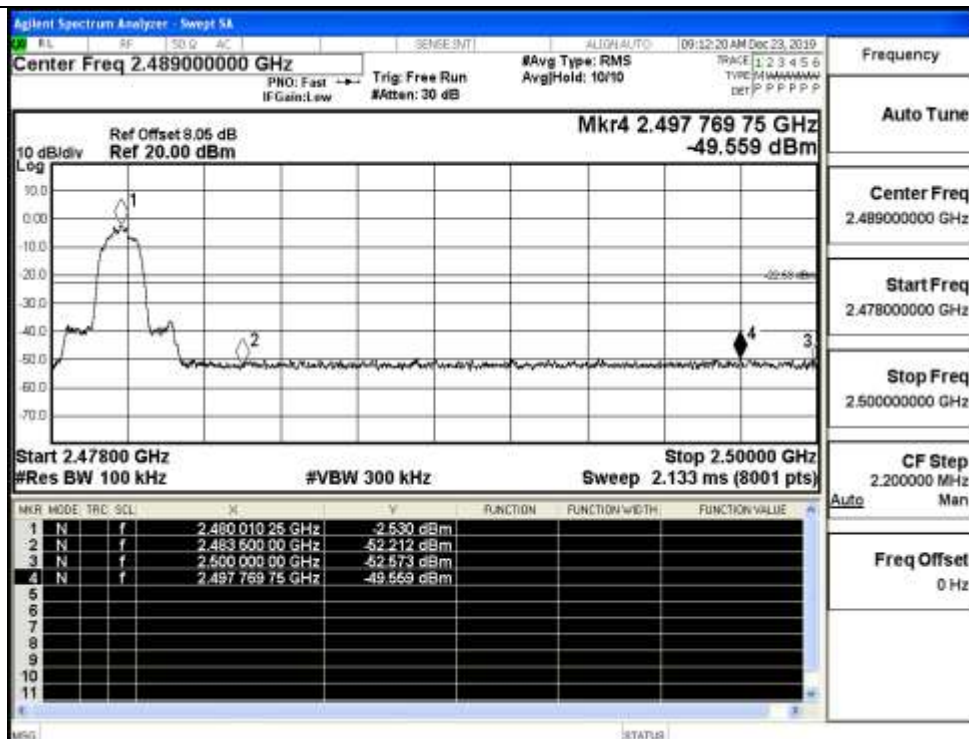
8DPSK/LCH/No Hop



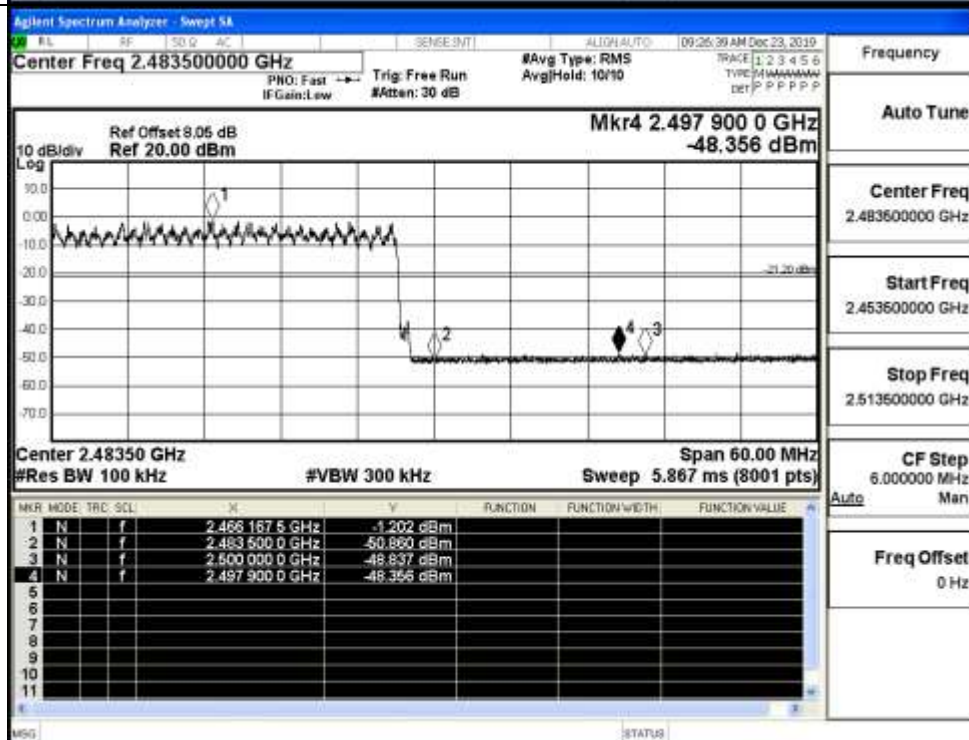
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



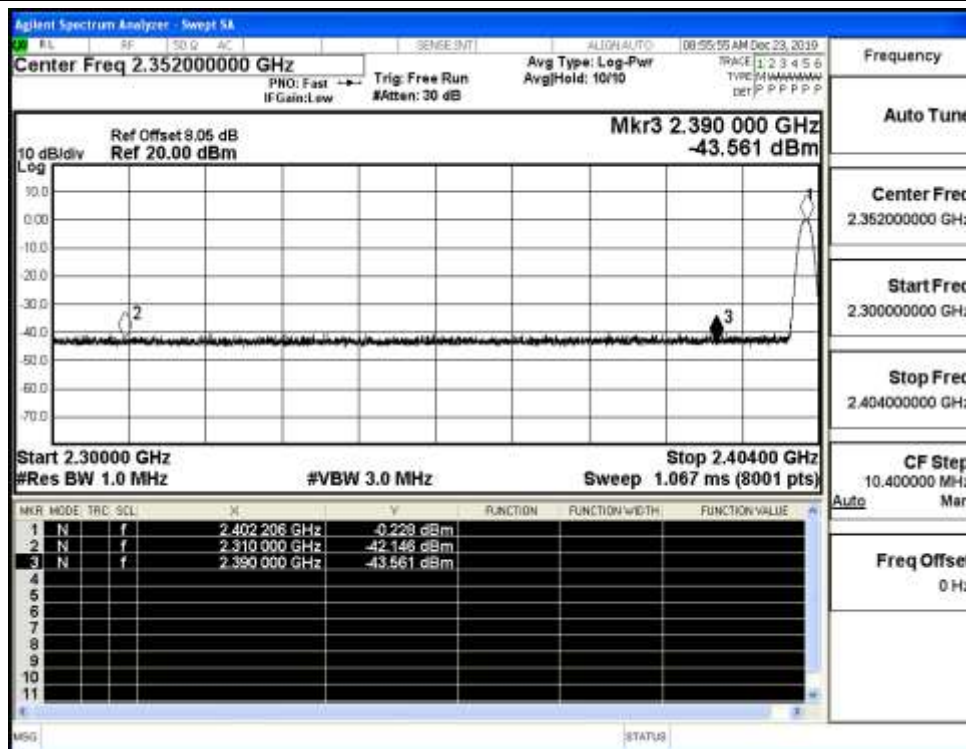
8DPSK/HCH/Hop



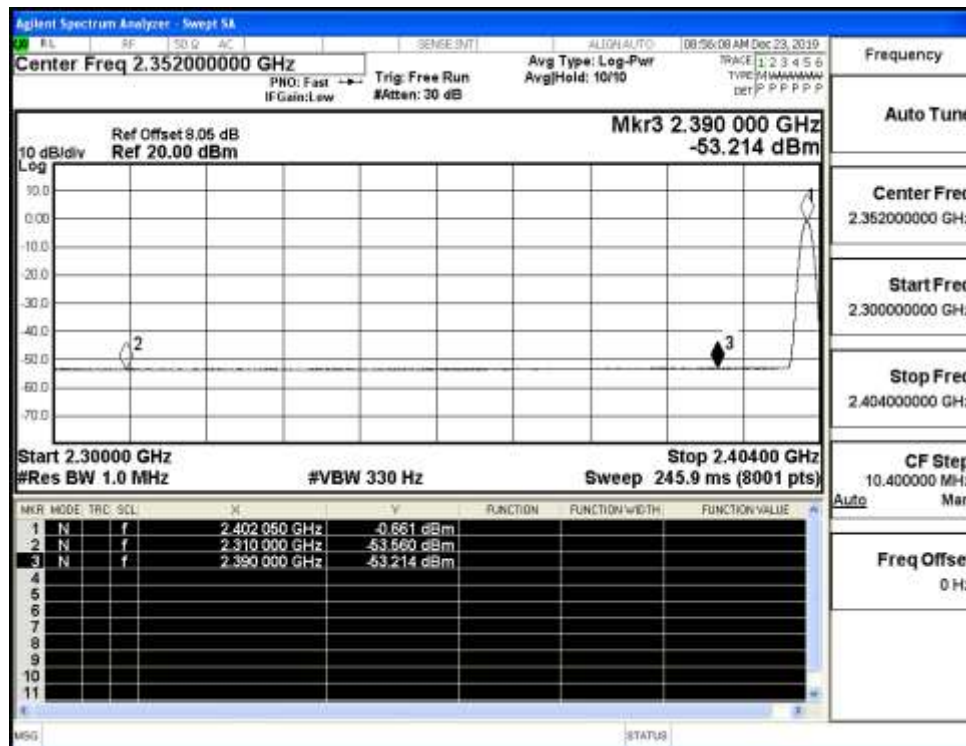
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.15	2.0	0	55.11	PEAK	74	PASS
	Off	2310.0	-53.56	2.0	0	43.70	AV	54	PASS
	Off	2390.0	-43.56	2.0	0	53.70	PEAK	74	PASS
	Off	2390.0	-53.21	2.0	0	44.04	AV	54	PASS
	Off	2483.5	-43.44	2.0	0	53.82	PEAK	74	PASS
	Off	2483.5	-52.49	2.0	0	44.77	AV	54	PASS
	Off	2500.0	-42.70	2.0	0	54.55	PEAK	74	PASS
	Off	2500.0	-52.37	2.0	0	44.89	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-42.40	2.0	0	54.86	PEAK	74	PASS
	Off	2310.0	-53.53	2.0	0	43.73	AV	54	PASS
	Off	2390.0	-43.40	2.0	0	53.85	PEAK	74	PASS
	Off	2390.0	-53.09	2.0	0	44.17	AV	54	PASS
	Off	2483.5	-42.43	2.0	0	54.83	PEAK	74	PASS
	Off	2483.5	-52.57	2.0	0	44.69	AV	54	PASS
	Off	2500.0	-43.37	2.0	0	53.89	PEAK	74	PASS
	Off	2500.0	-52.46	2.0	0	44.80	AV	54	PASS
8DPSK	Off	2310.0	-43.53	2.0	0	53.73	PEAK	74	PASS
	Off	2310.0	-53.37	2.0	0	43.88	AV	54	PASS
	Off	2390.0	-41.17	2.0	0	56.09	PEAK	74	PASS
	Off	2390.0	-53.01	2.0	0	44.25	AV	54	PASS
	Off	2483.5	-40.74	2.0	0	56.52	PEAK	74	PASS
	Off	2483.5	-52.63	2.0	0	44.63	AV	54	PASS
	Off	2500.0	-41.62	2.0	0	55.63	PEAK	74	PASS
	Off	2500.0	-52.46	2.0	0	44.80	AV	54	PASS

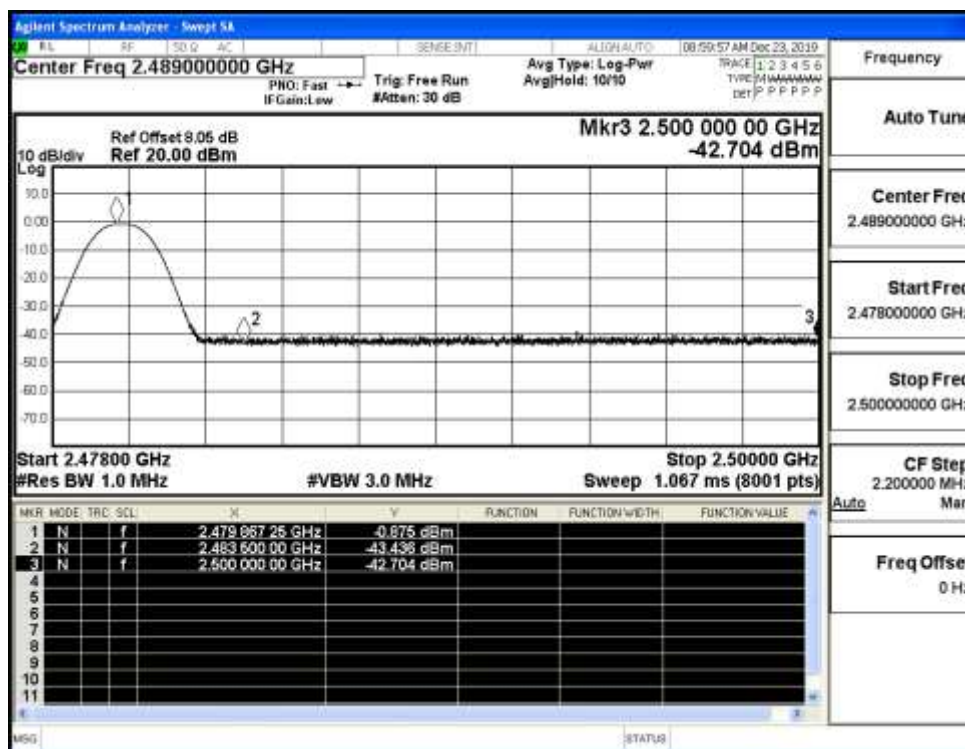
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



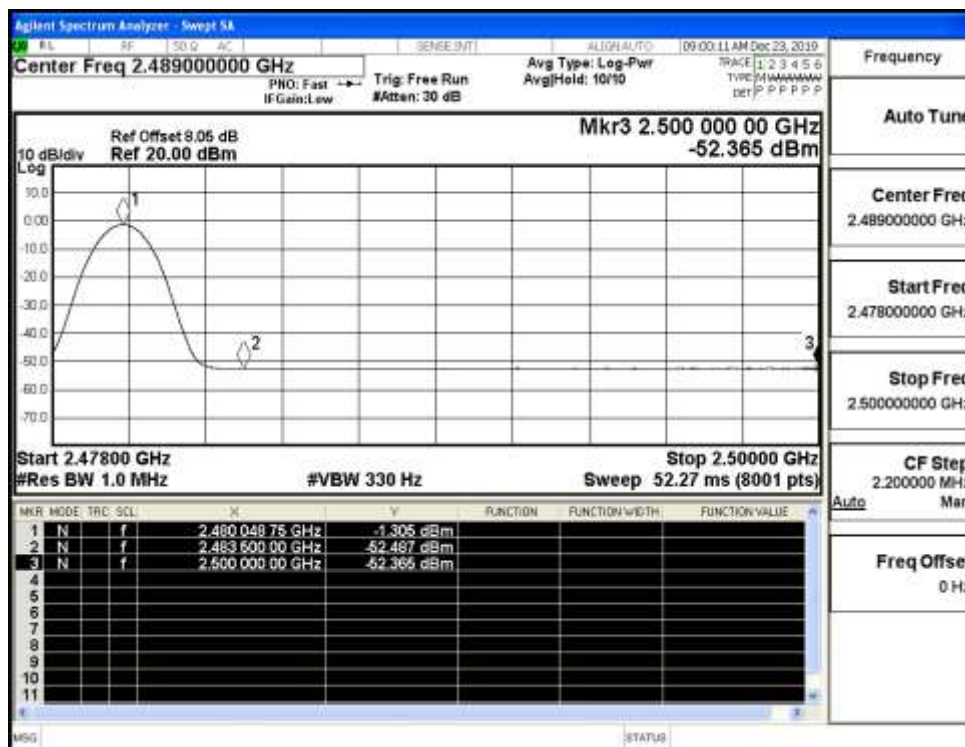
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

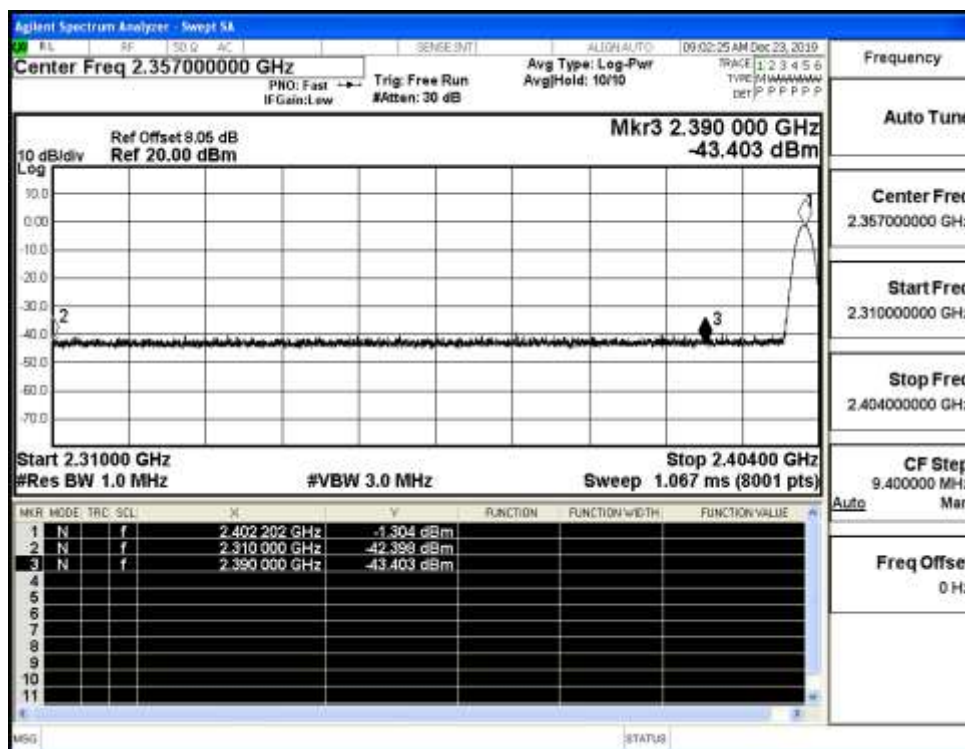
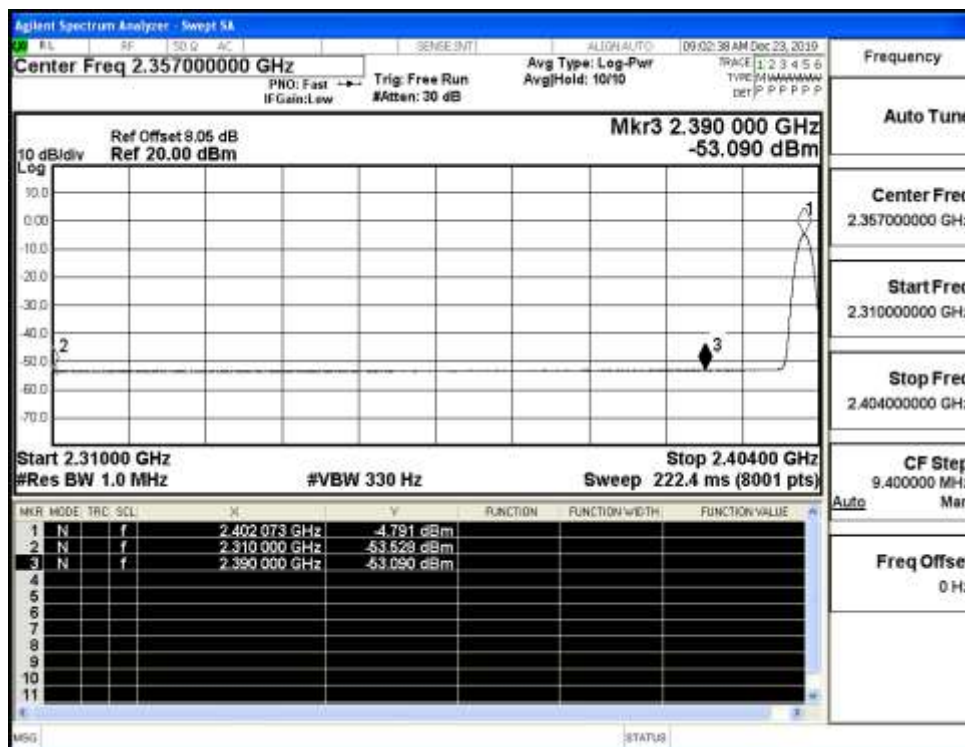


Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)

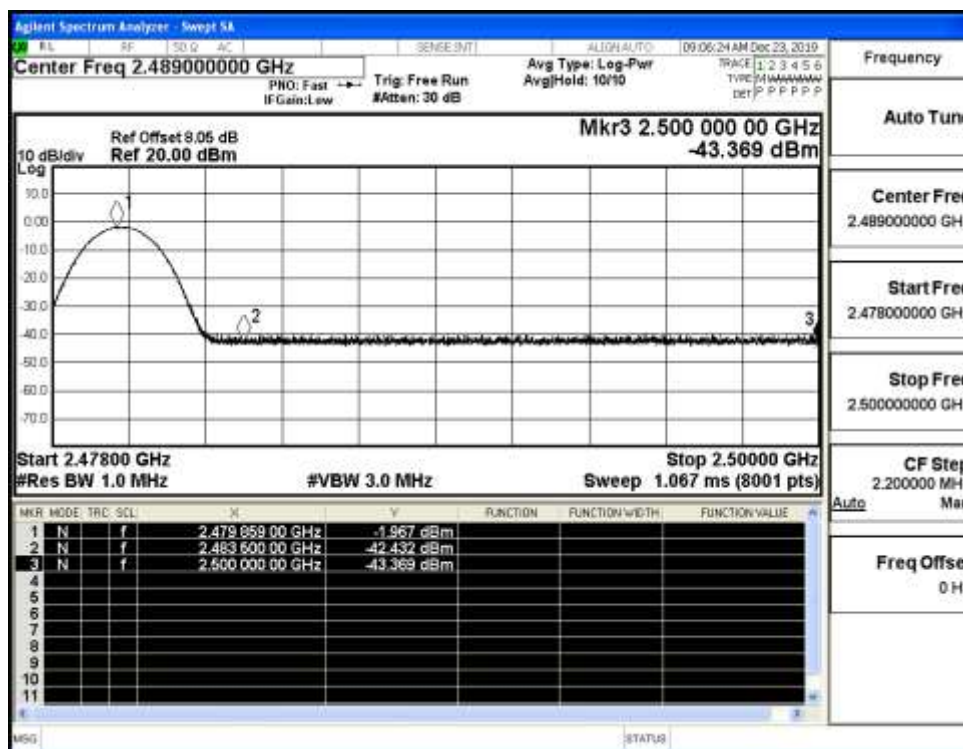


Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)

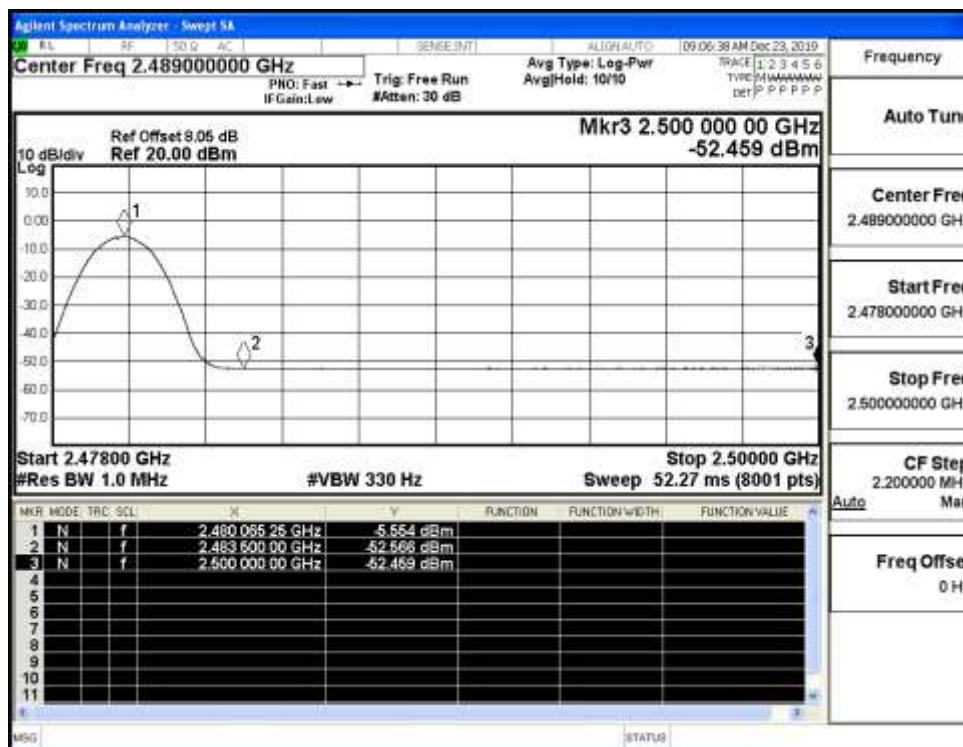


Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

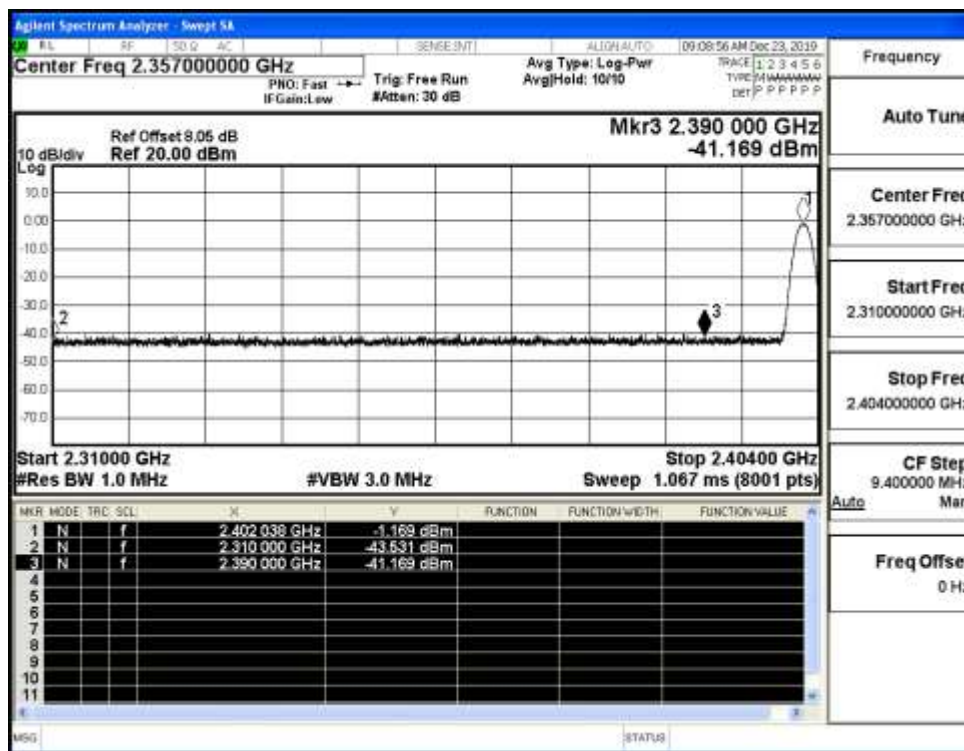
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



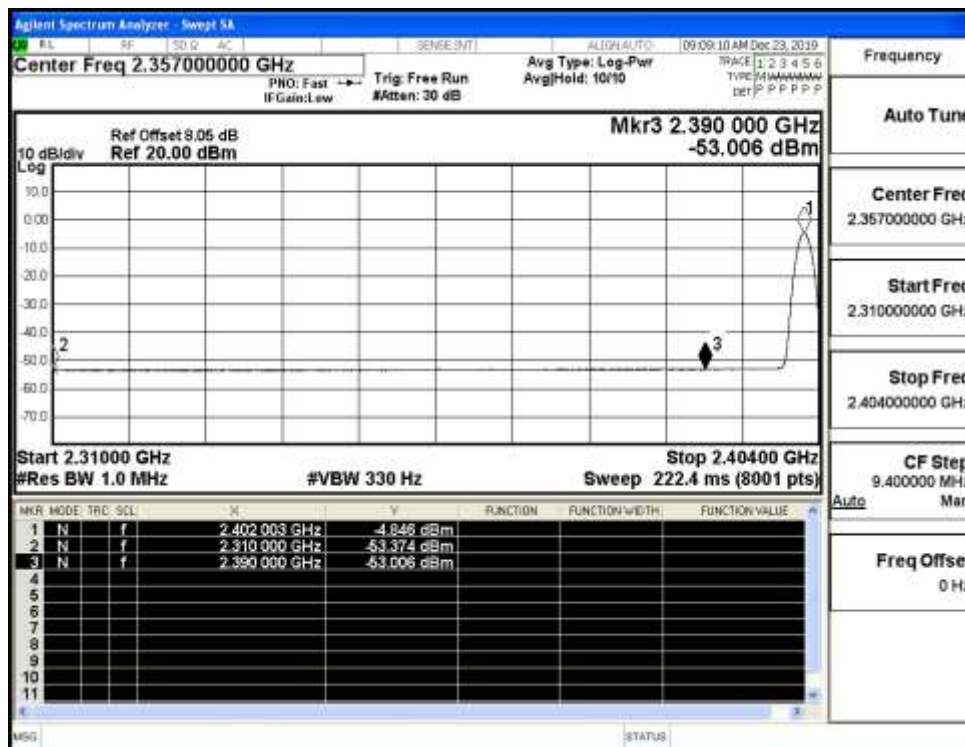
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



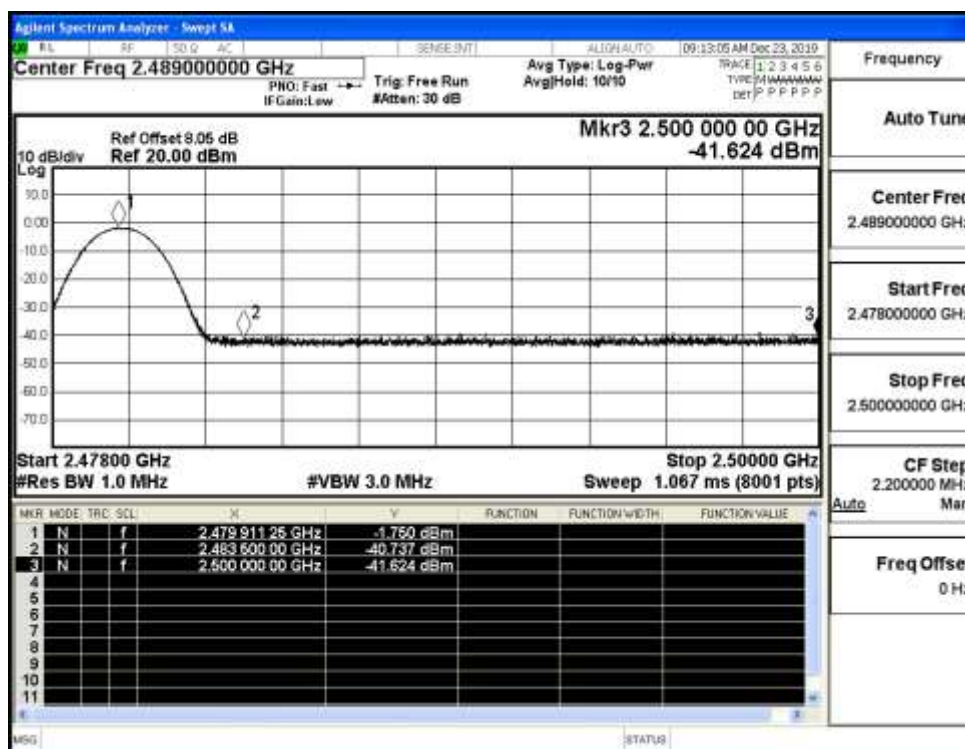
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

