

Appendix A

RF Test Data for BT V4.2 (BDR/EDR) (Conducted Measurement)

Product Name: Wireless Headsets

Trade Mark: GUANGPONE

Test Model: Q1

Environmental Conditions

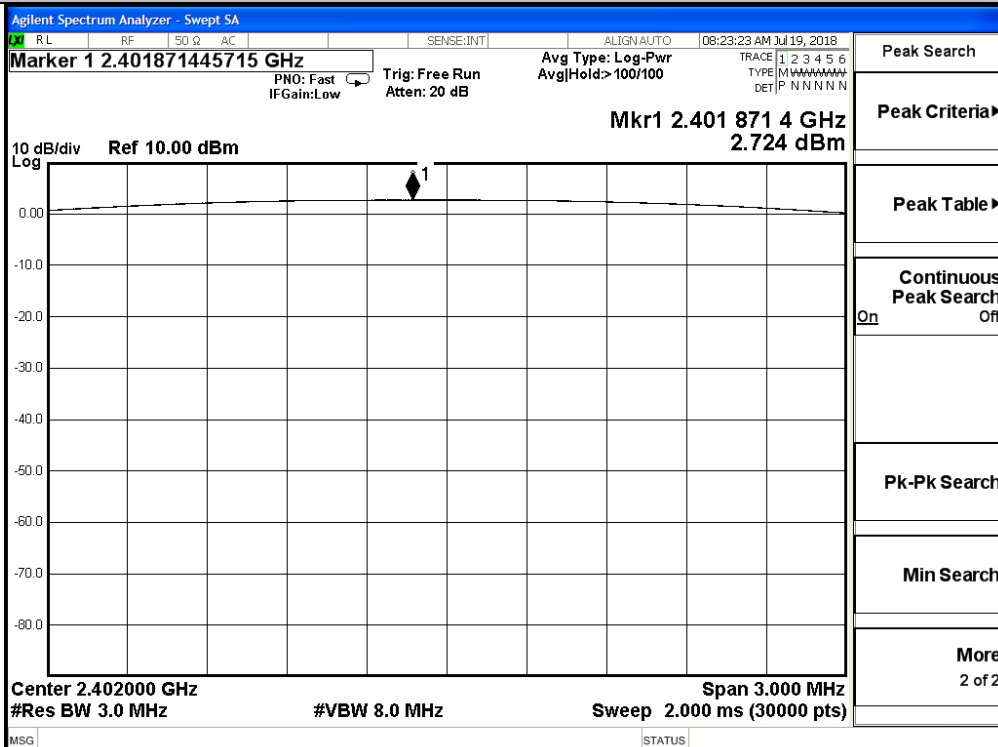
Temperature:	23.5 ° C
Relative Humidity:	53.1%
ATM Pressure:	100.0 kPa
Test Engineer:	WANGCHUANG
Supervised by:	Jayden.Zhuo

A.1 Maximum Conducted Peak Output Power

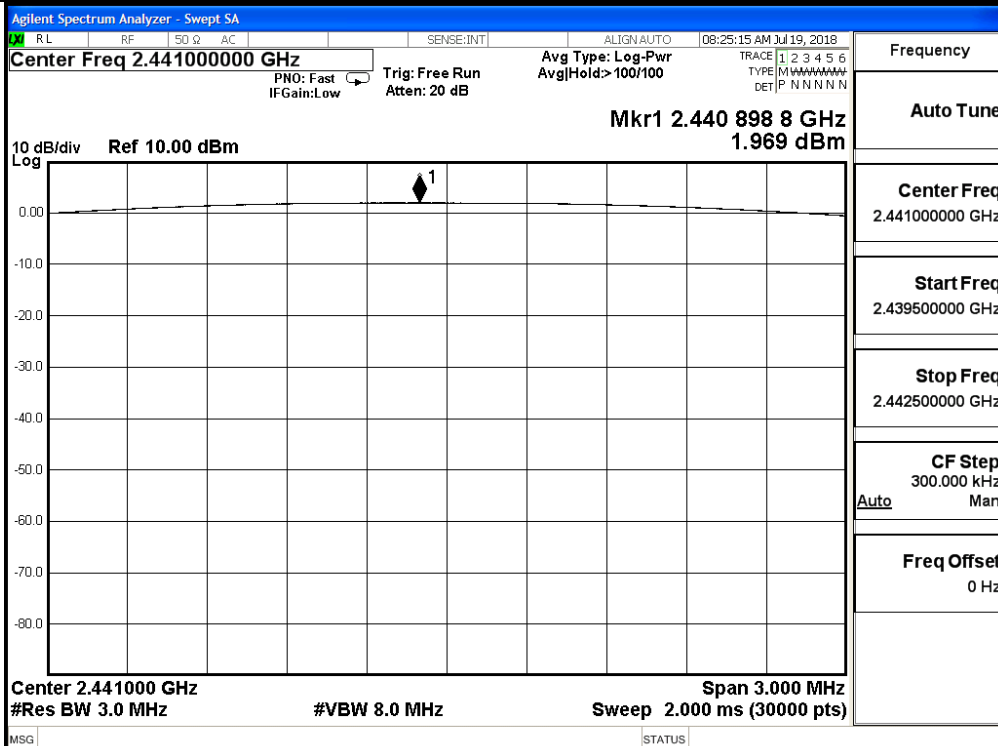
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.724	21	PASS
	MCH	1.969	21	PASS
	HCH	0.476	21	PASS
$\pi/4$ DQPSK	LCH	1.631	21	PASS
	MCH	1.111	21	PASS
	HCH	-0.298	21	PASS
8DPSK	LCH	1.880	21	PASS
	MCH	1.328	21	PASS
	HCH	-0.061	21	PASS

Test Graphs

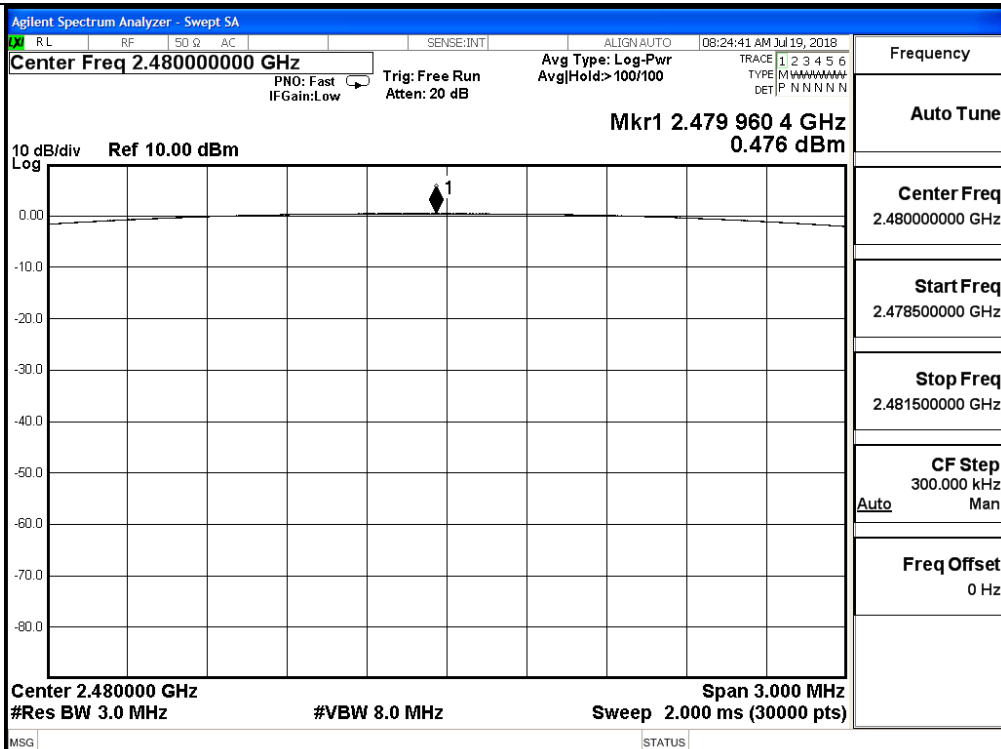
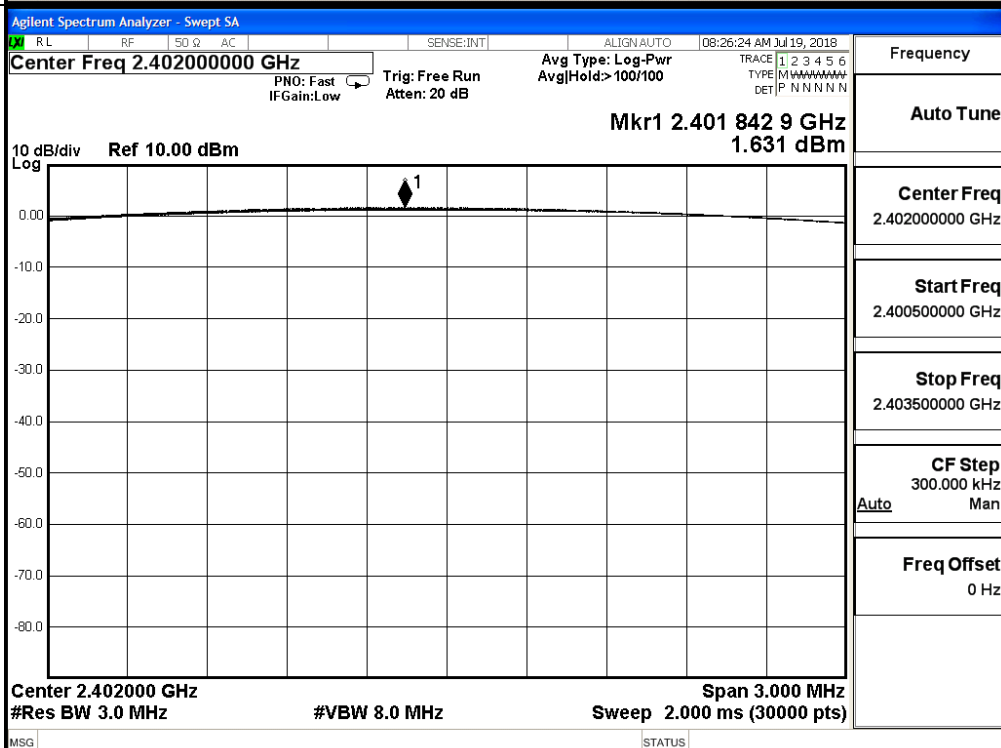
GFSK/LCH

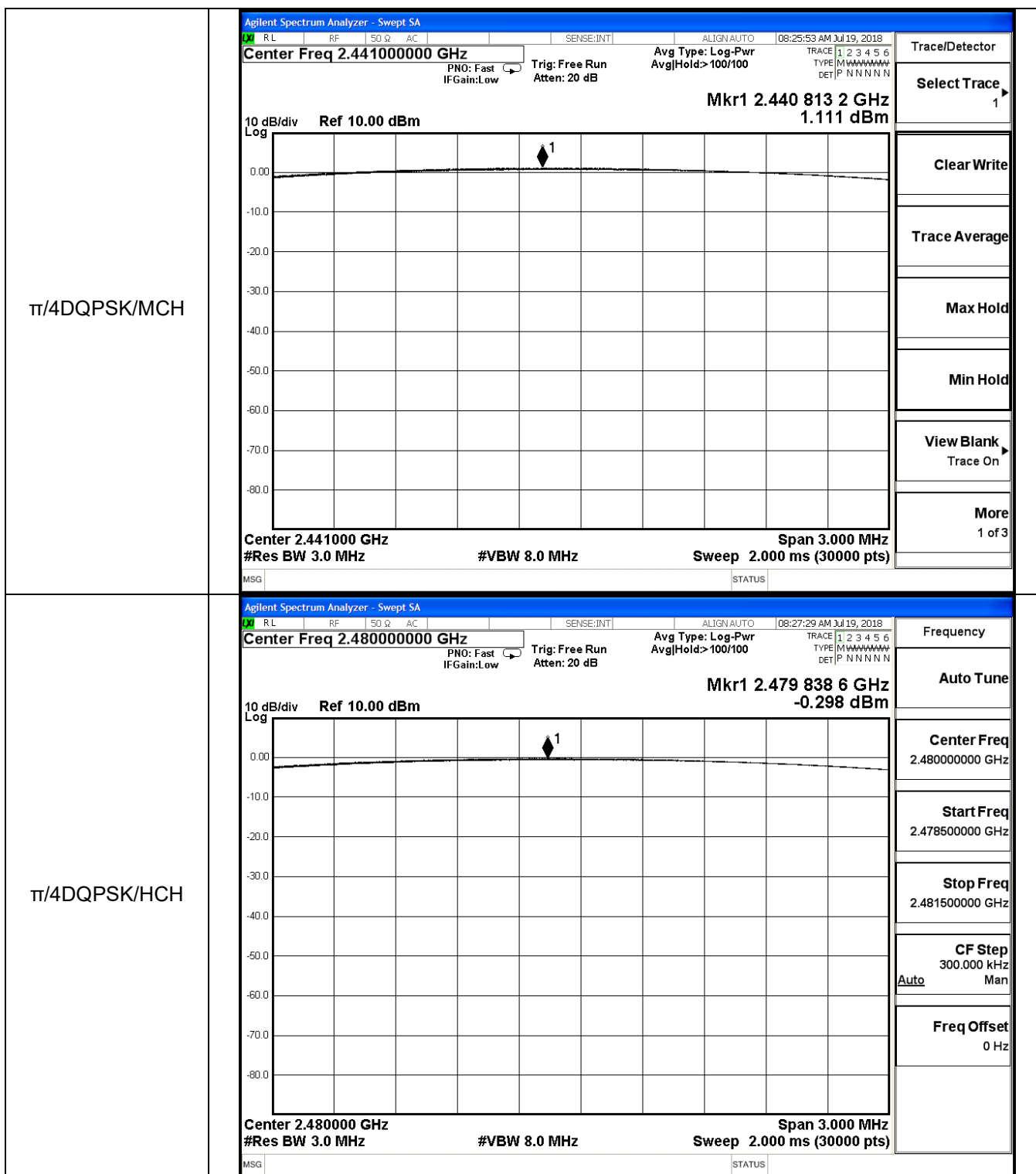


GFSK/MCH

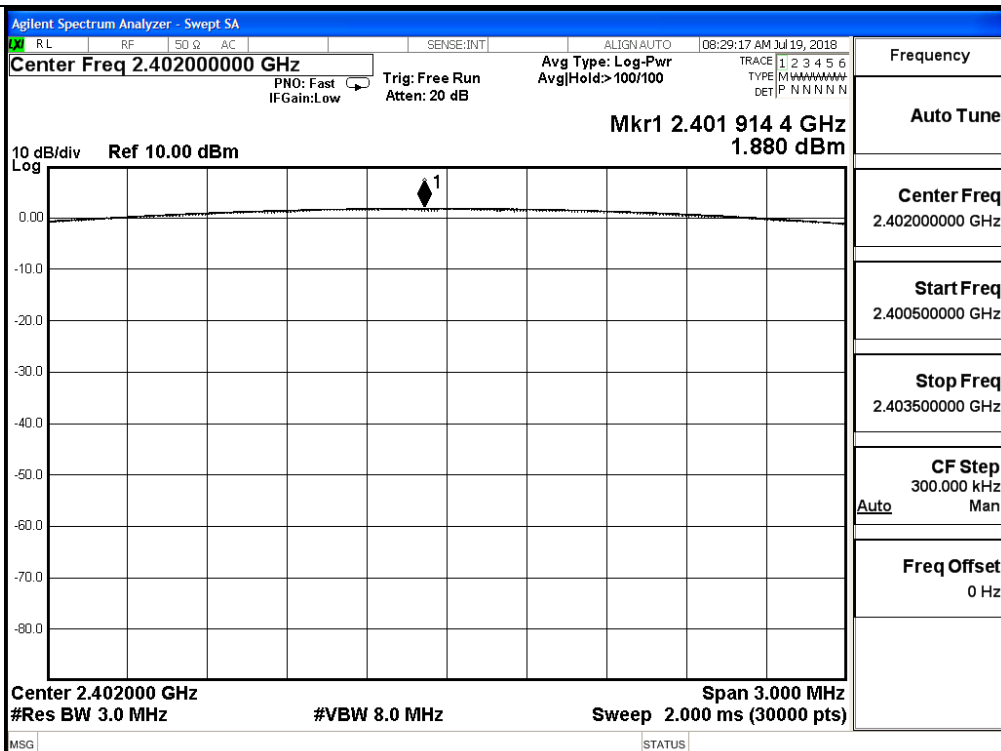


GFSK/HCH

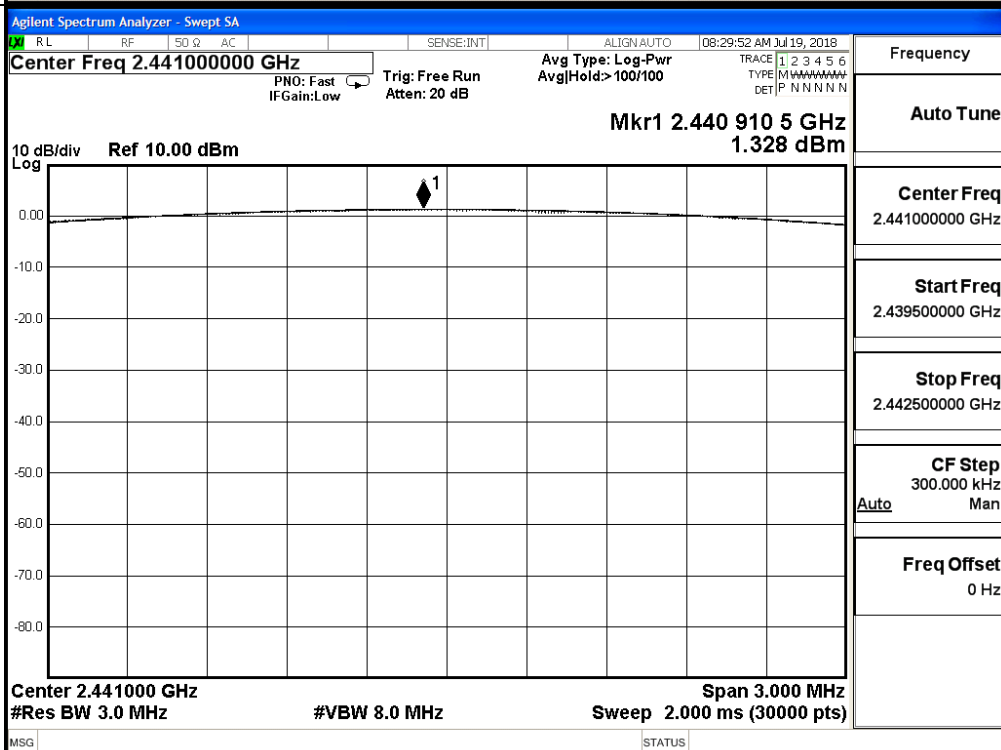
 π /4DQPSK/LCH



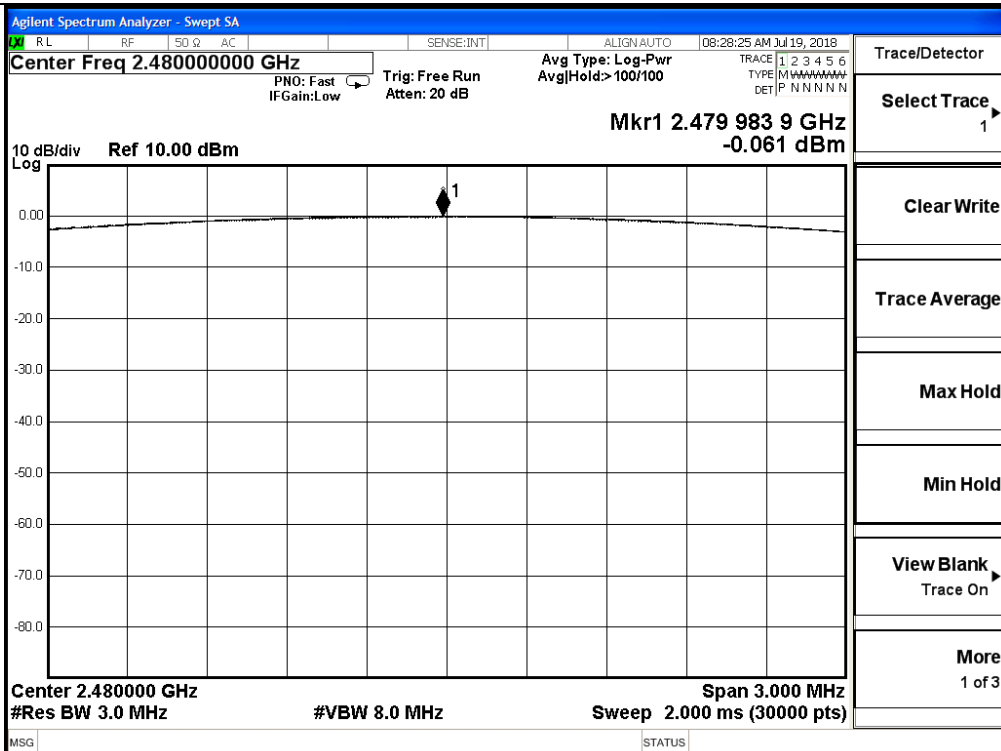
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

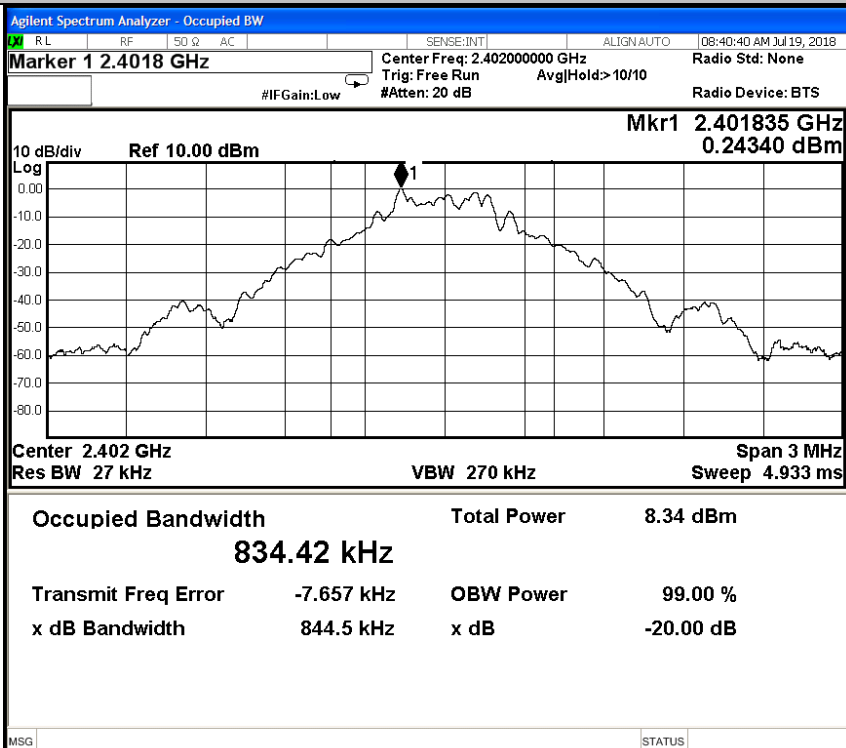


A.2 99% and 20dB Bandwidth

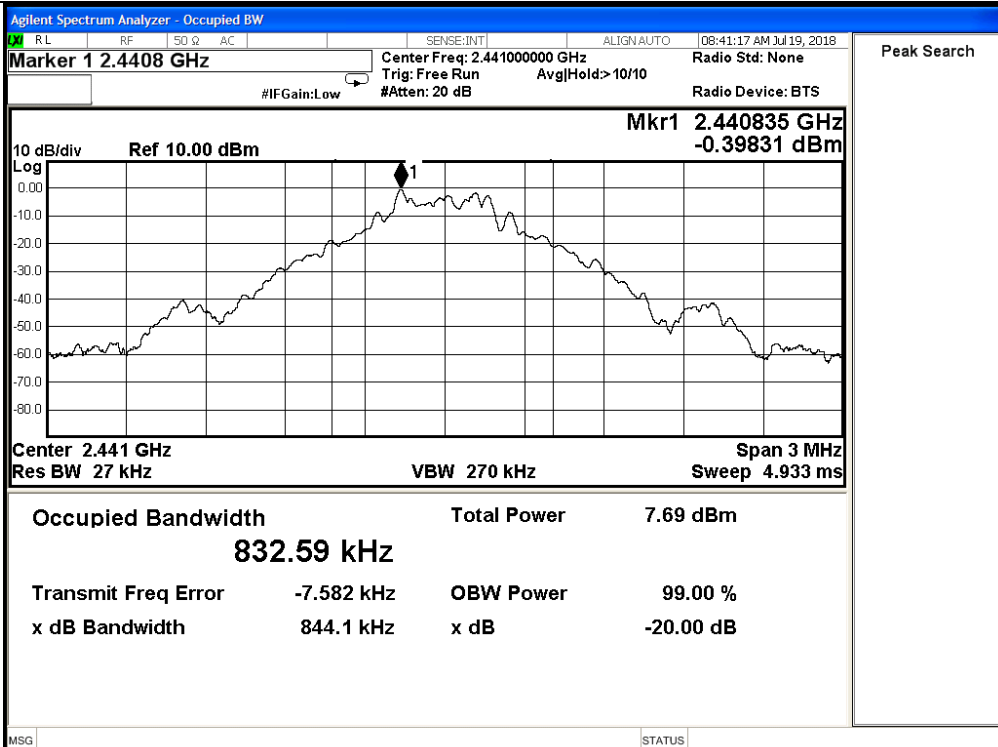
Mode	Channel.	99% Occupied Bandwidth (MHz)	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.83442	0.8445	Not Specified	PASS
	MCH	0.83259	0.8441	Not Specified	PASS
	HCH	0.83383	0.8450	Not Specified	PASS
π /4DQPSK	LCH	1.1568	1.2020	Not Specified	PASS
	MCH	1.1793	1.2010	Not Specified	PASS
	HCH	1.1789	1.2030	Not Specified	PASS
8DPSK	LCH	1.1250	1.2740	Not Specified	PASS
	MCH	1.1298	1.2750	Not Specified	PASS
	HCH	1.1336	1.2760	Not Specified	PASS

Test Graphs

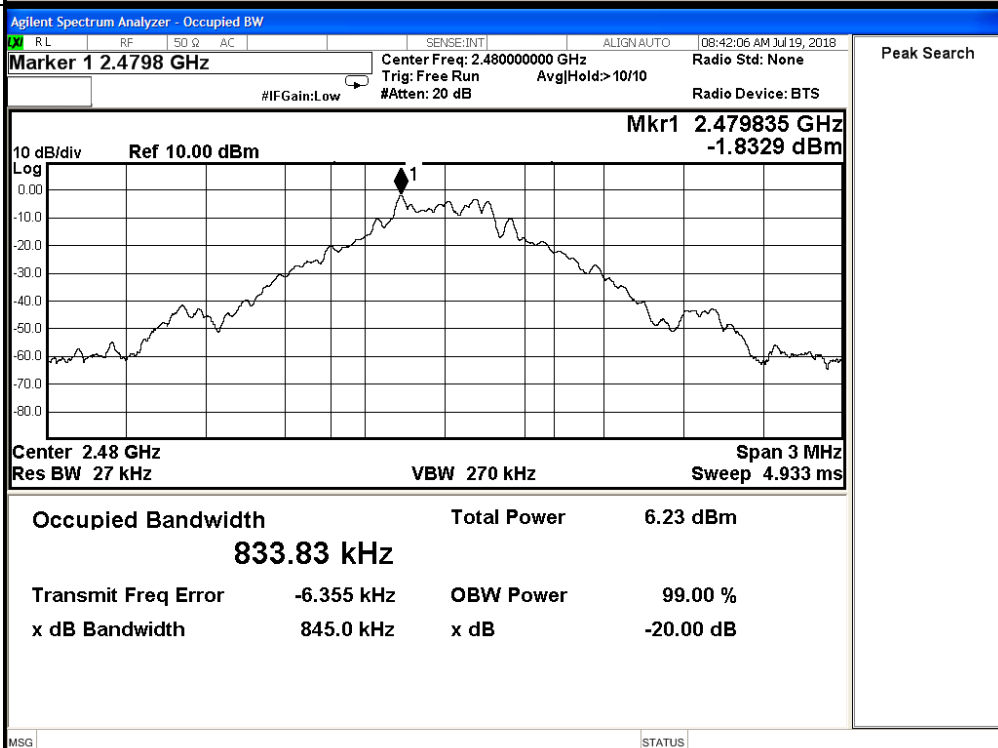
GFSK/LCH

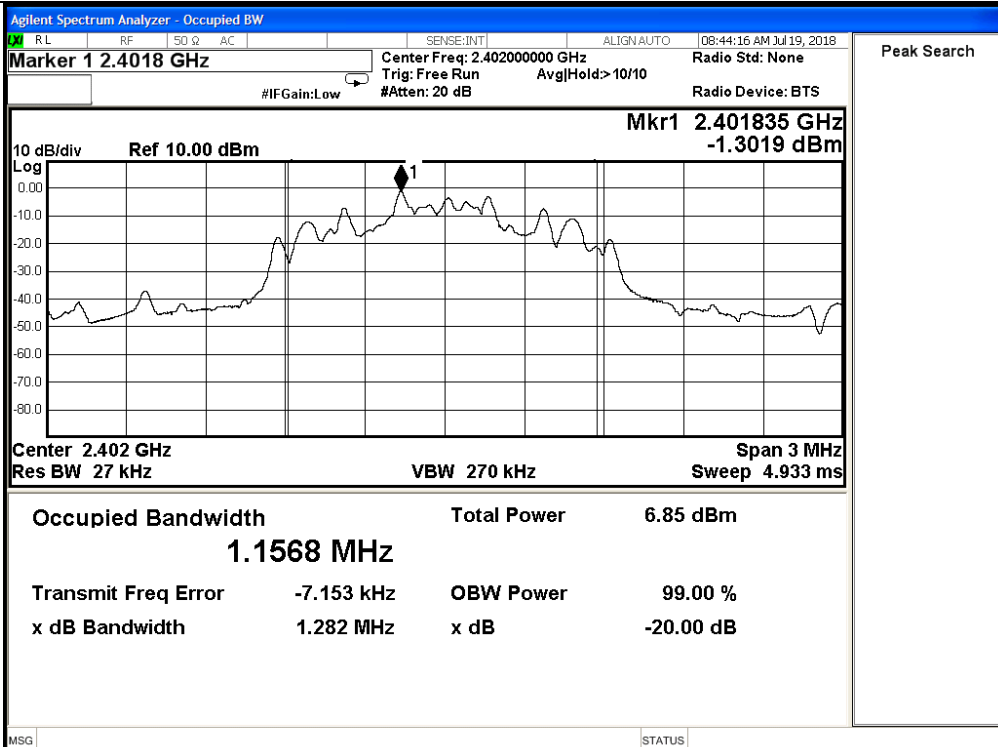
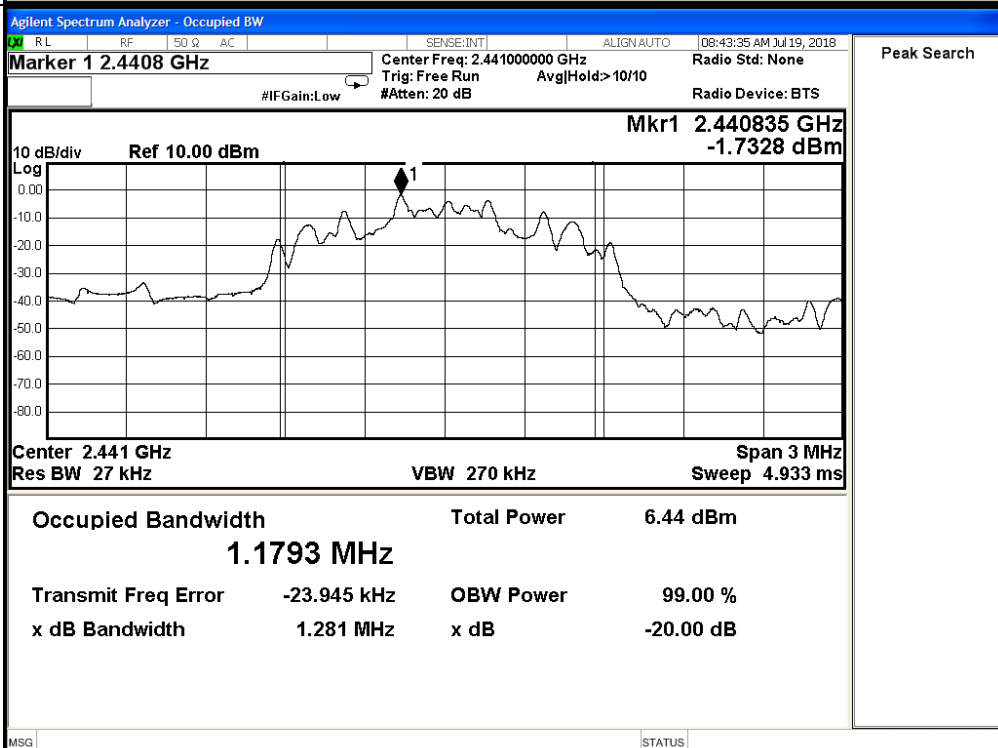


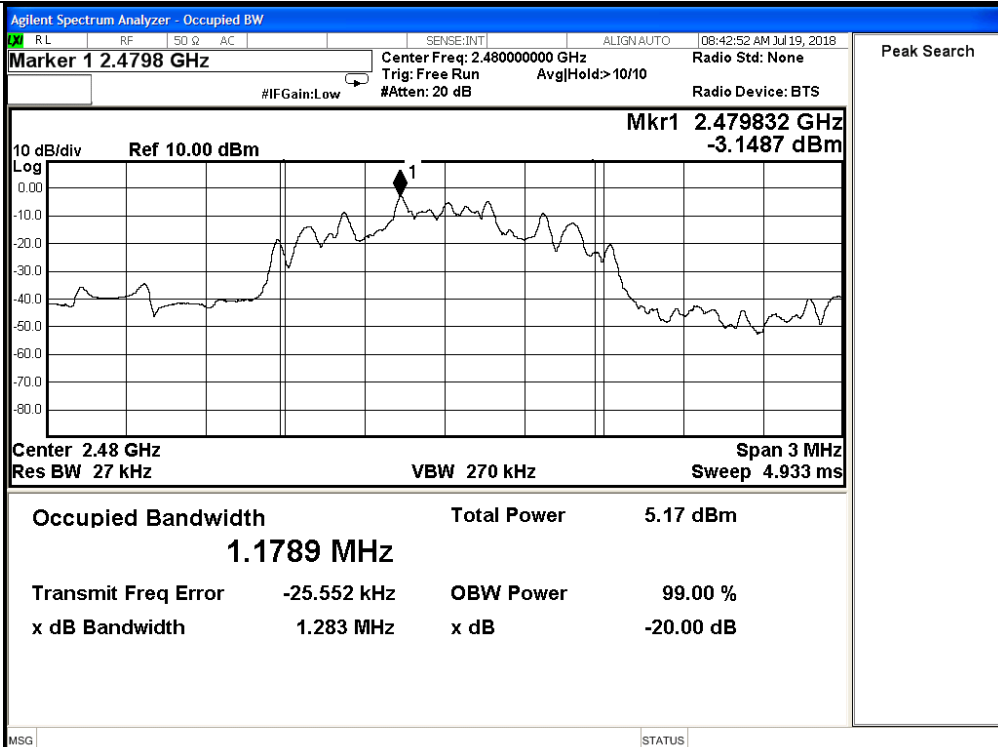
GFSK/MCH



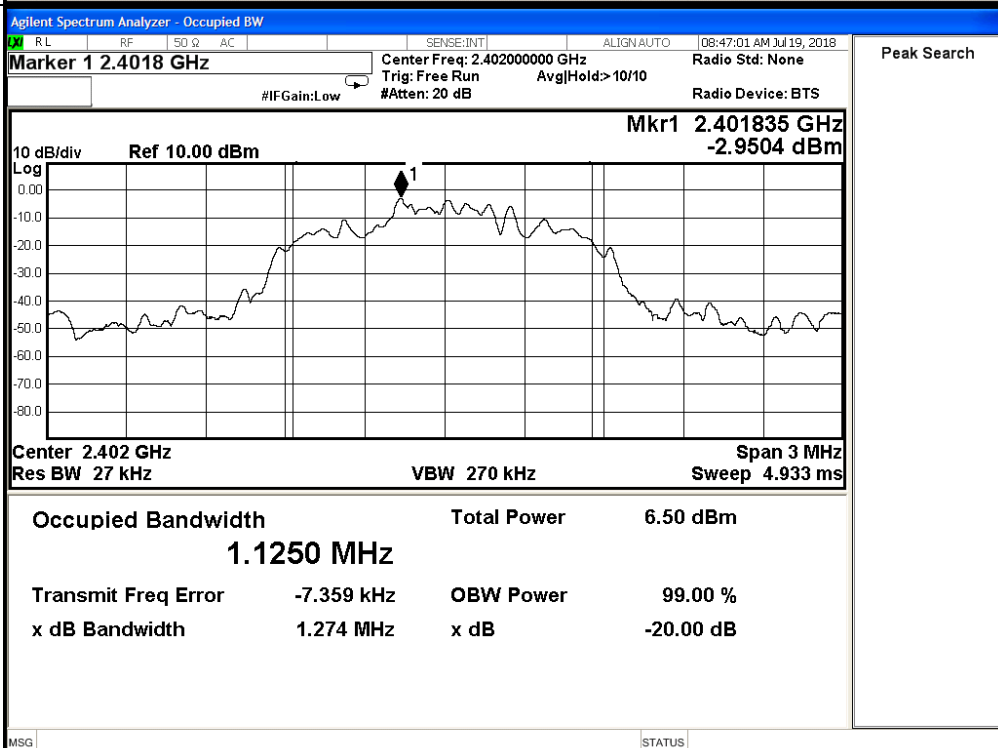
GFSK/HCH



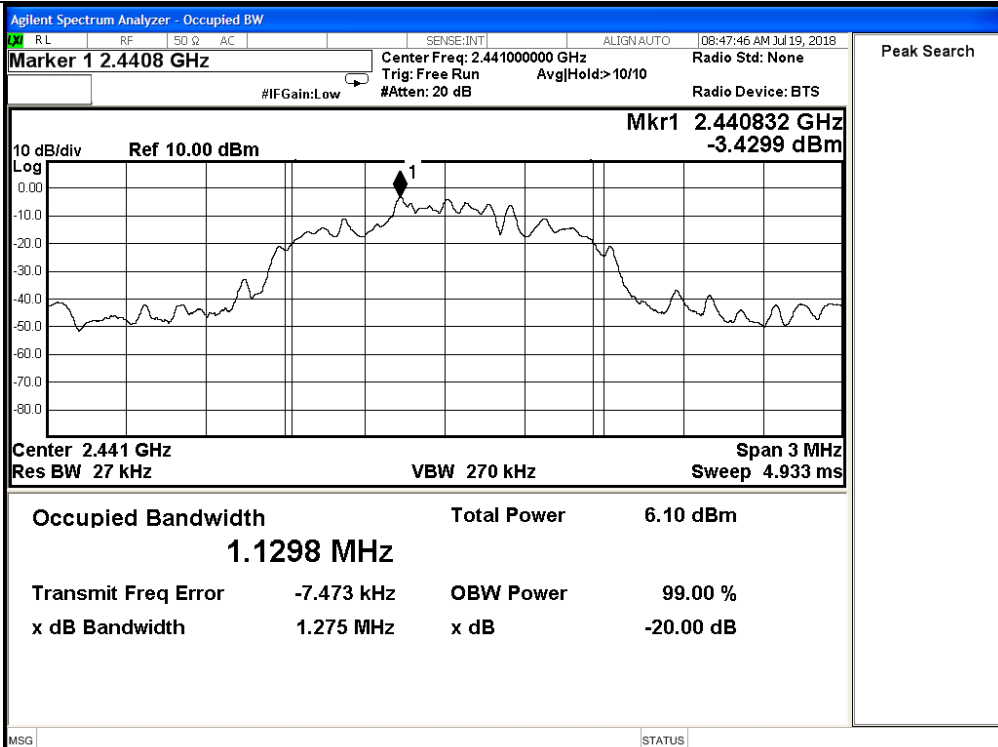
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

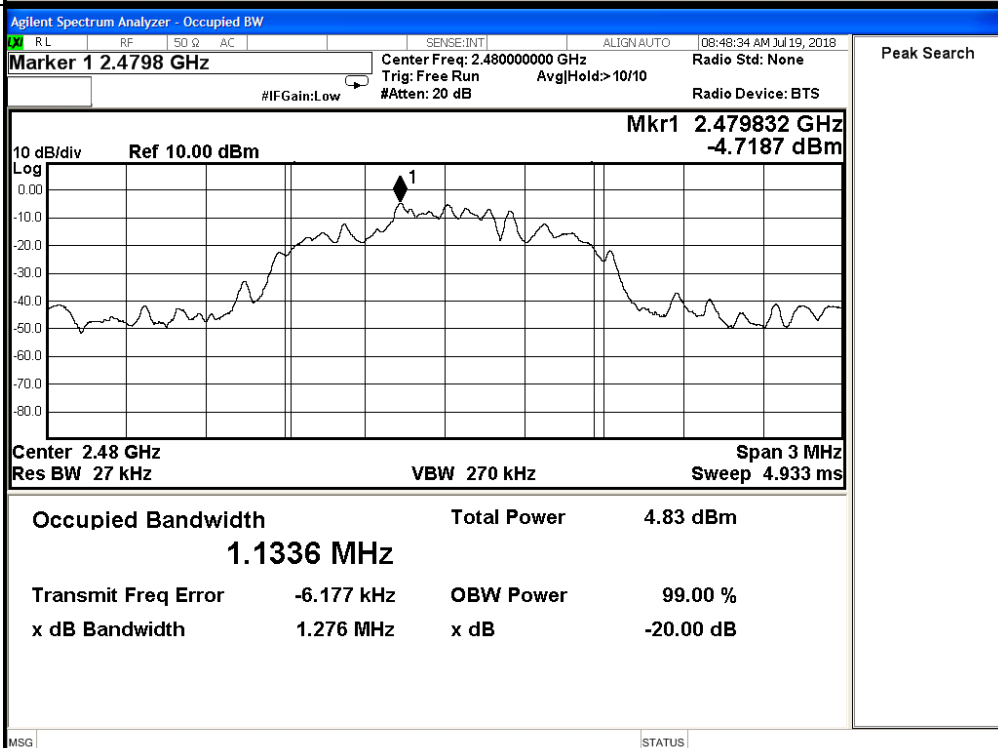
8DPSK/LCH



8DPSK/MCH



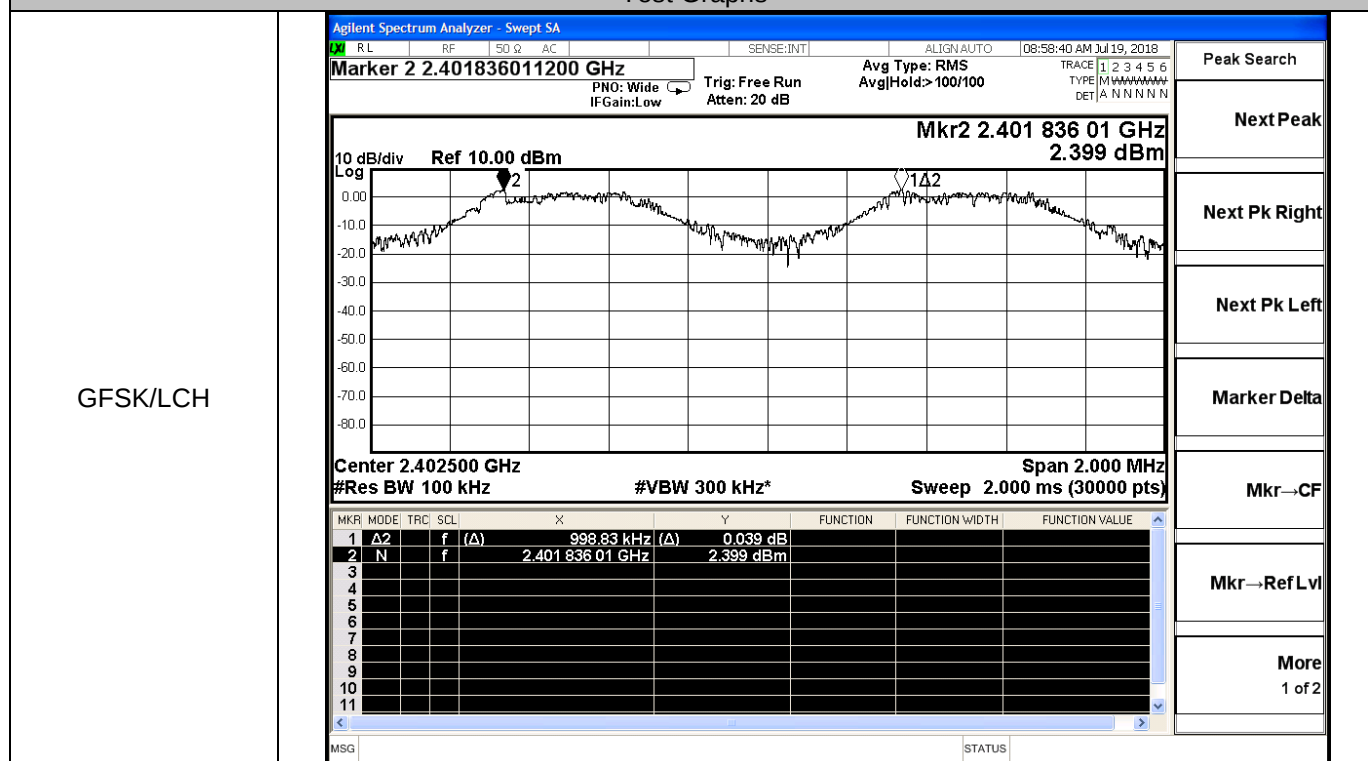
8DPSK/HCH



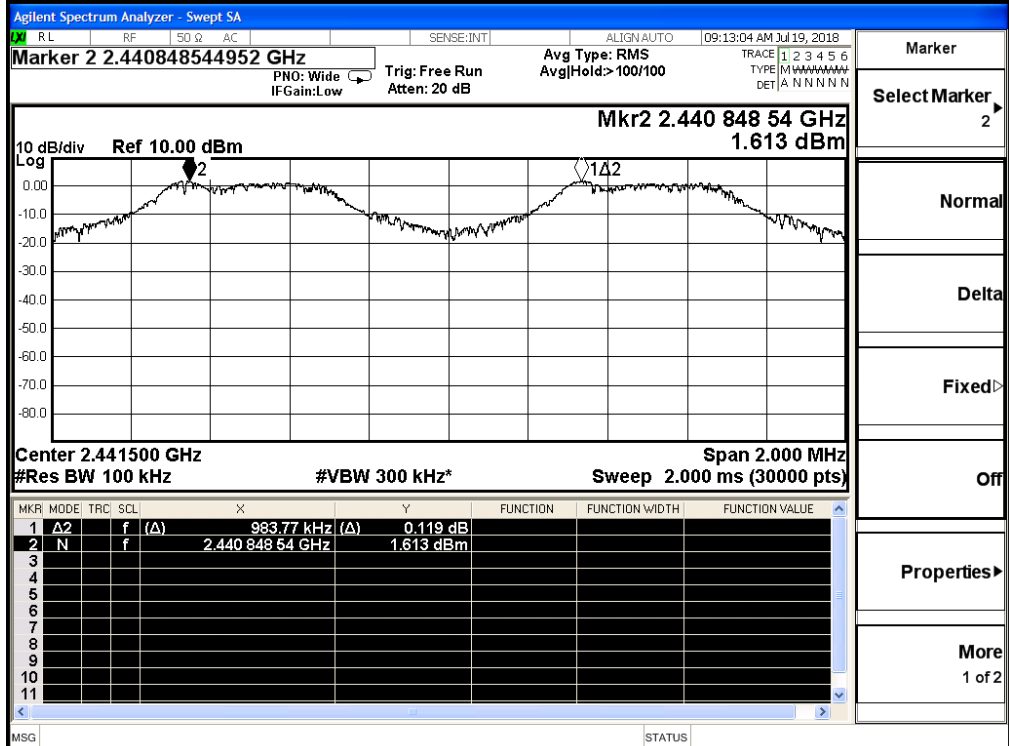
A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz] 2/3*20dB Bandwidth	Verdict
GFSK	LCH	0.999	0.563	PASS
	MCH	0.984	0.563	PASS
	HCH	1.029	0.563	PASS
π /4DQPSK	LCH	0.993	0.801	PASS
	MCH	0.996	0.801	PASS
	HCH	0.988	0.802	PASS
8DPSK	LCH	1.009	0.849	PASS
	MCH	0.994	0.850	PASS
	HCH	1.016	0.851	PASS

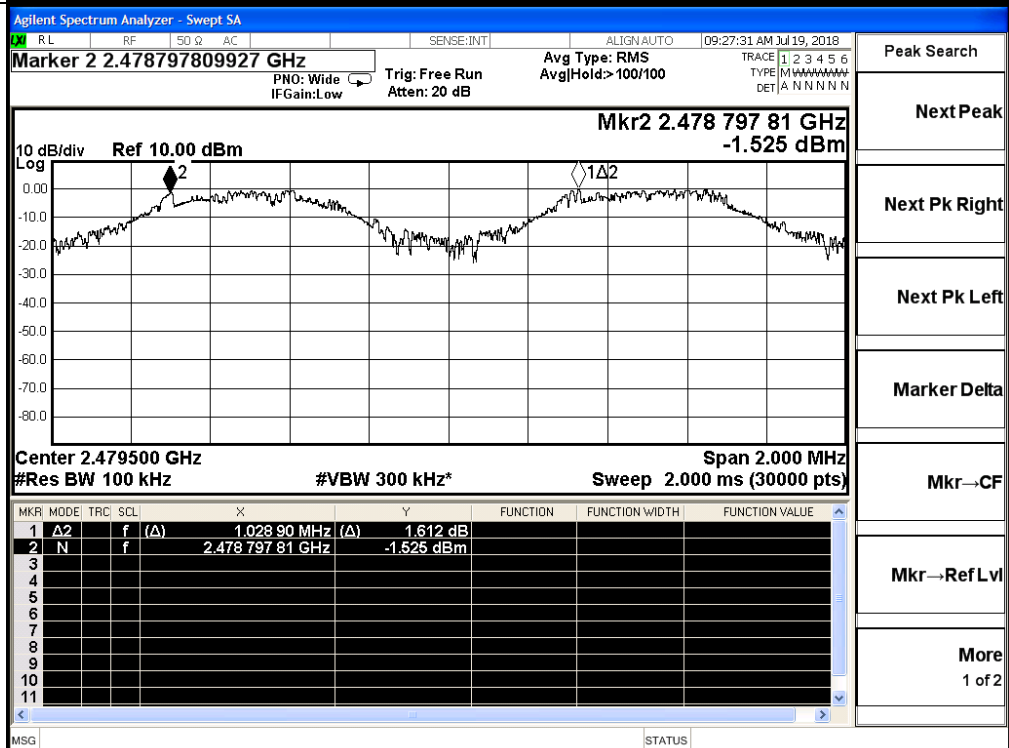
Test Graphs

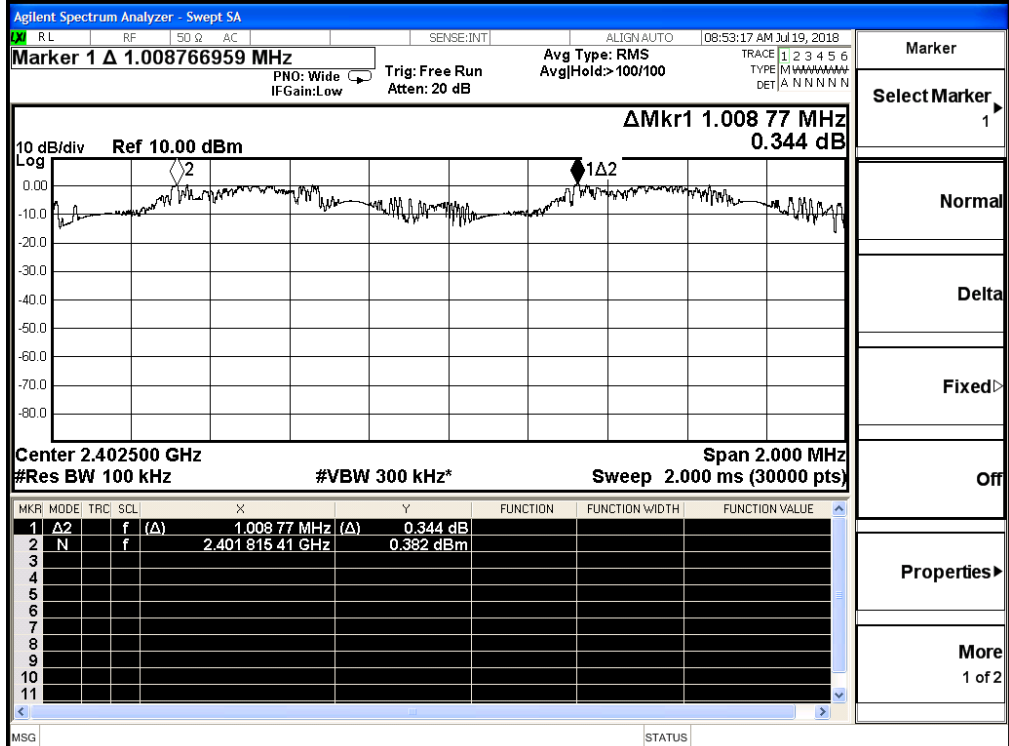
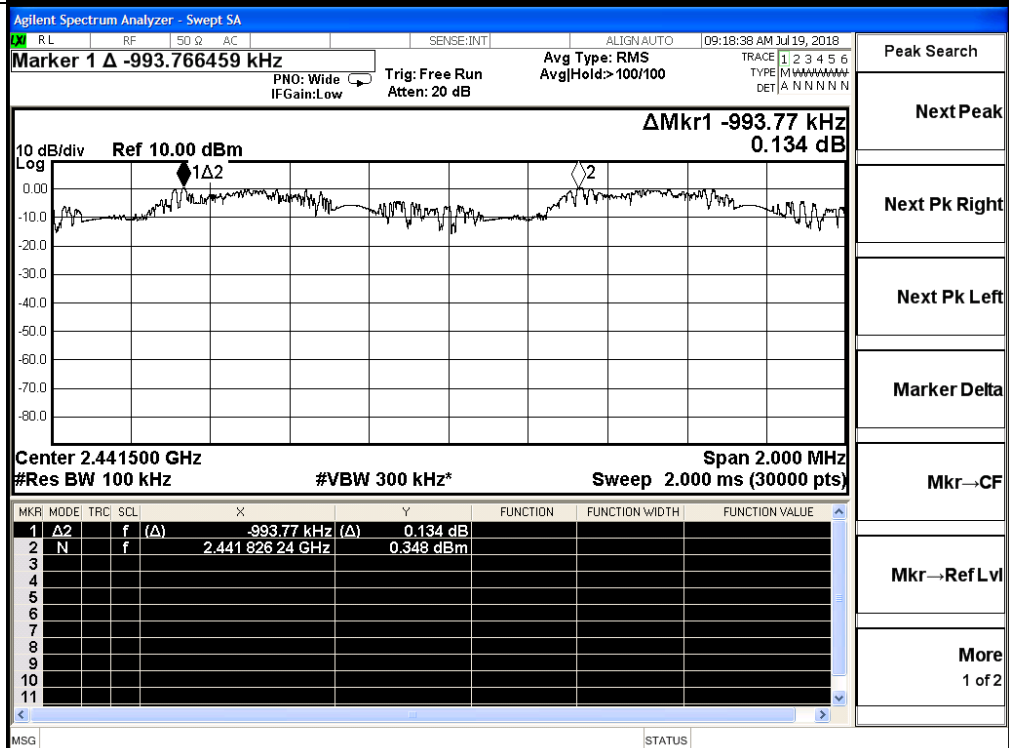


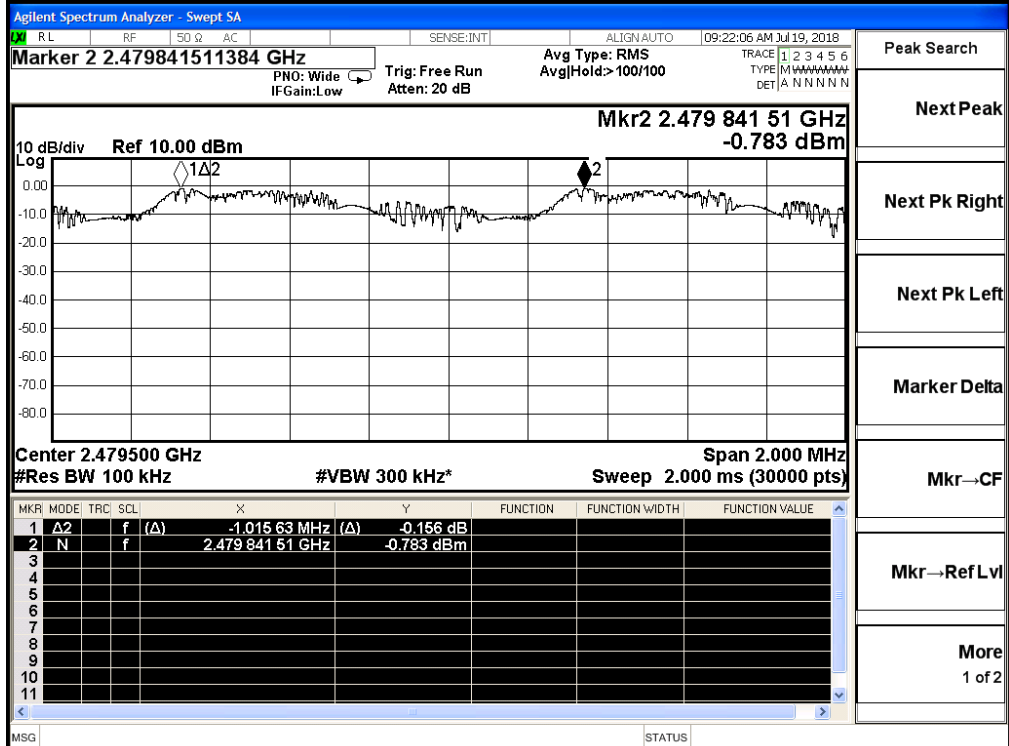
GFSK/MCH



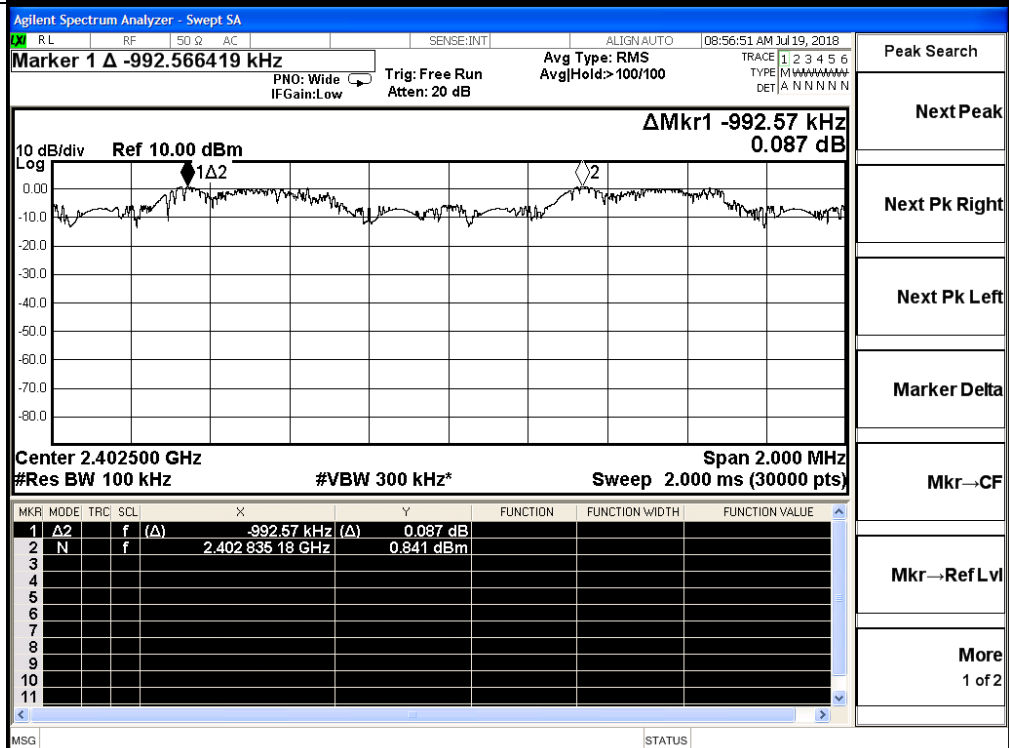
GFSK/HCH



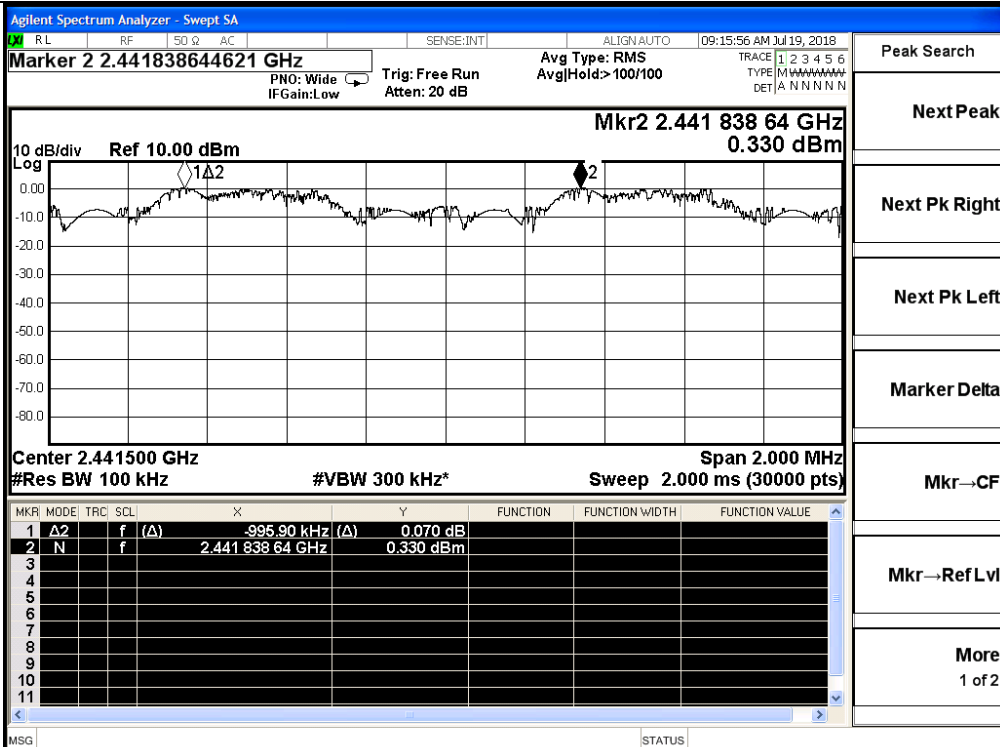
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

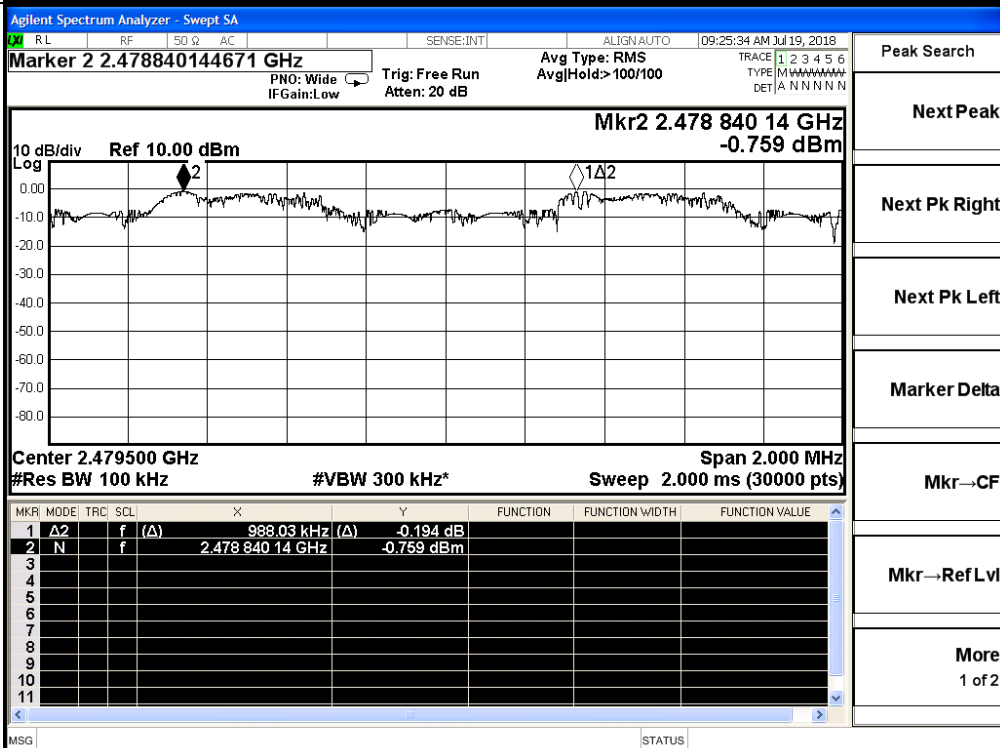
8DPSK/LCH

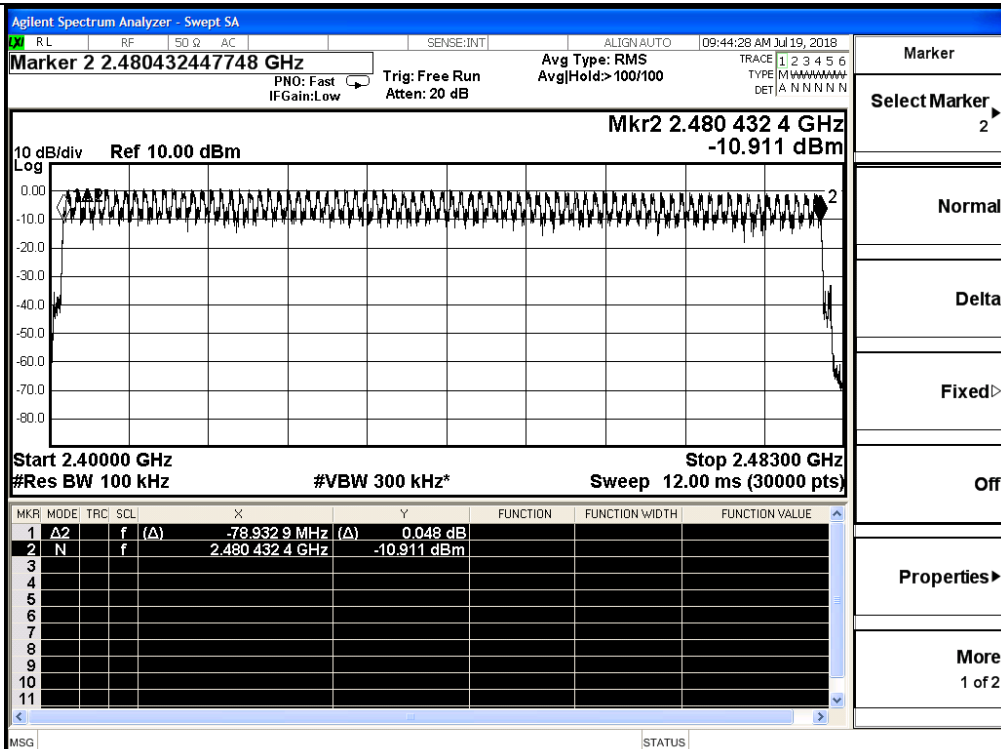


8DPSK/MCH

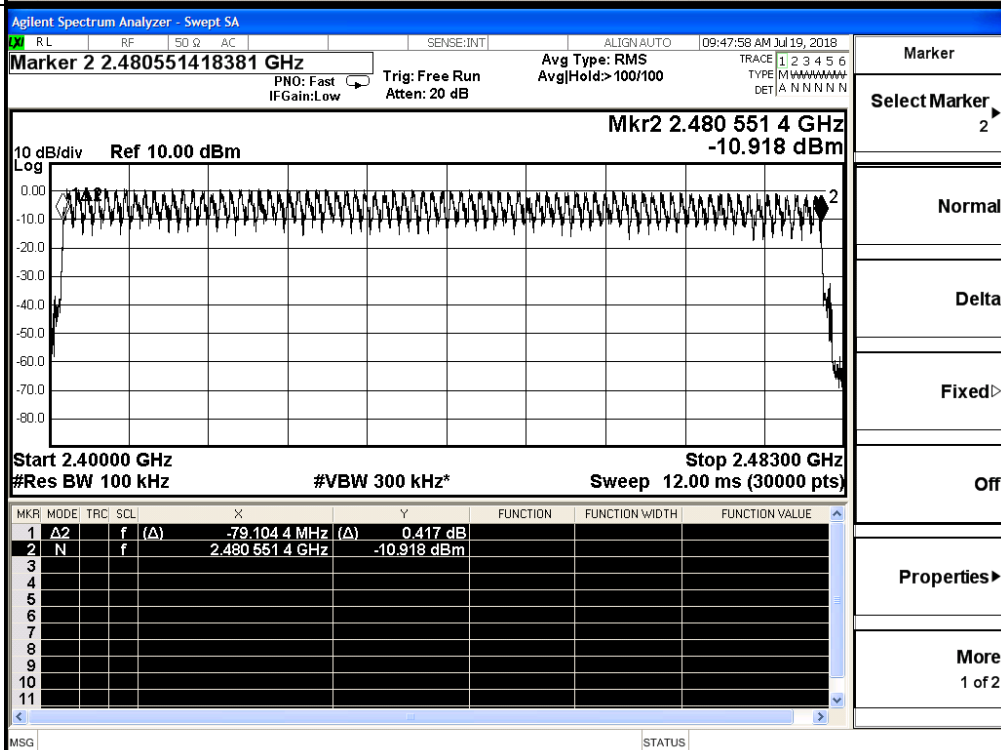


8DPSK/HCH



$\pi/4$ DQPSK/Hop

8DPSK/Hop

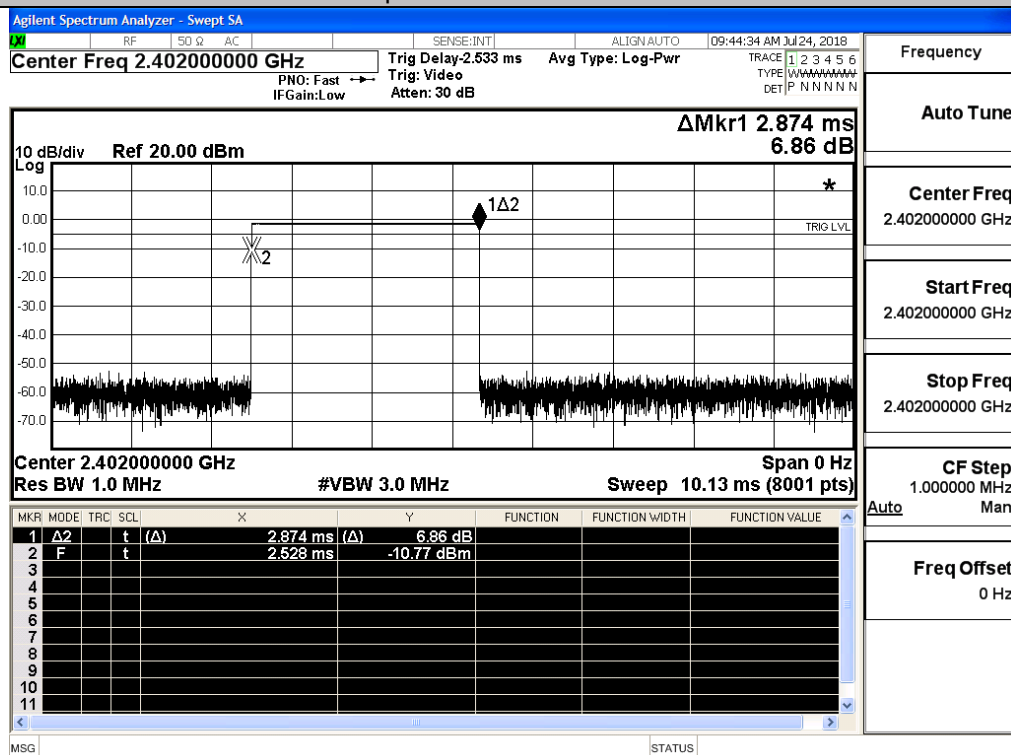


A.5 Dwell Time

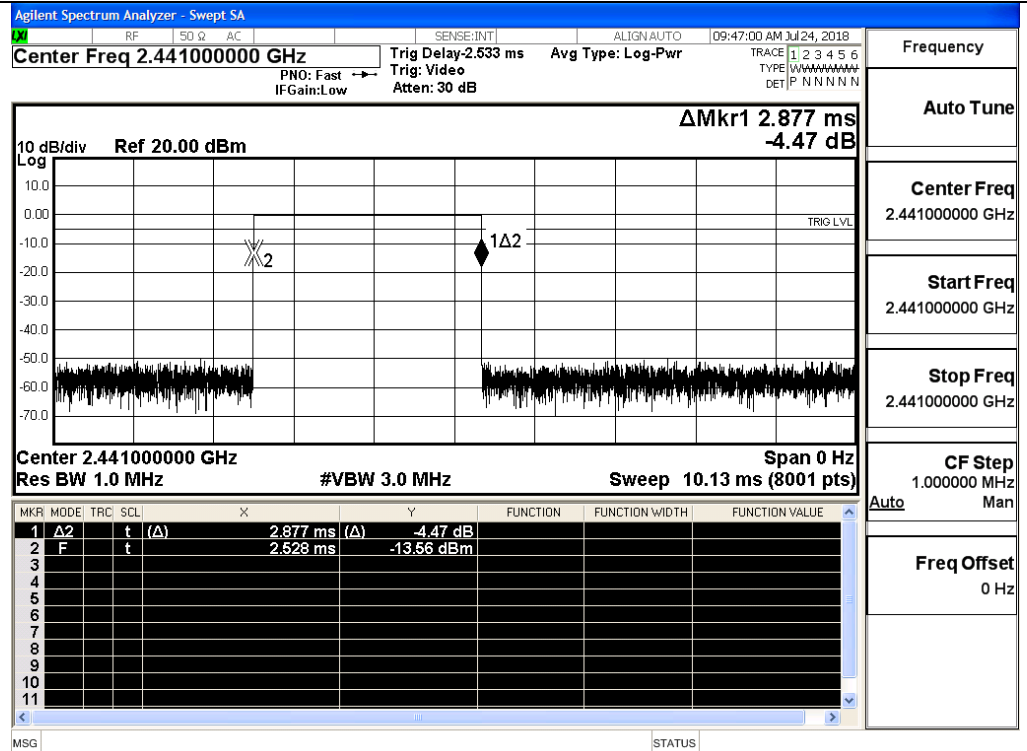
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.9	106.7	0.309	0.4	PASS
	DH5	MCH	2.9	106.7	0.309	0.4	PASS
	DH5	HCH	2.9	106.7	0.309	0.4	PASS
$\pi/4$ DQPSK	2DH5	LCH	2.9	106.7	0.309	0.4	PASS
	2DH5	MCH	2.9	106.7	0.309	0.4	PASS
	2DH5	HCH	2.9	106.7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

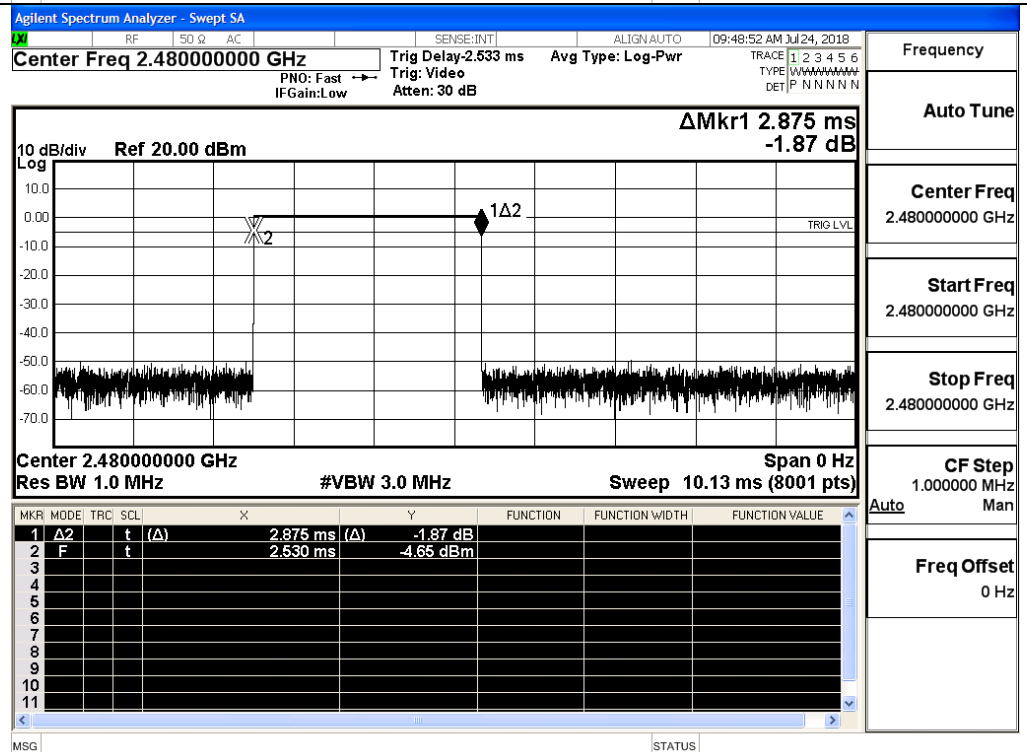
GFSK_DH5/LCH

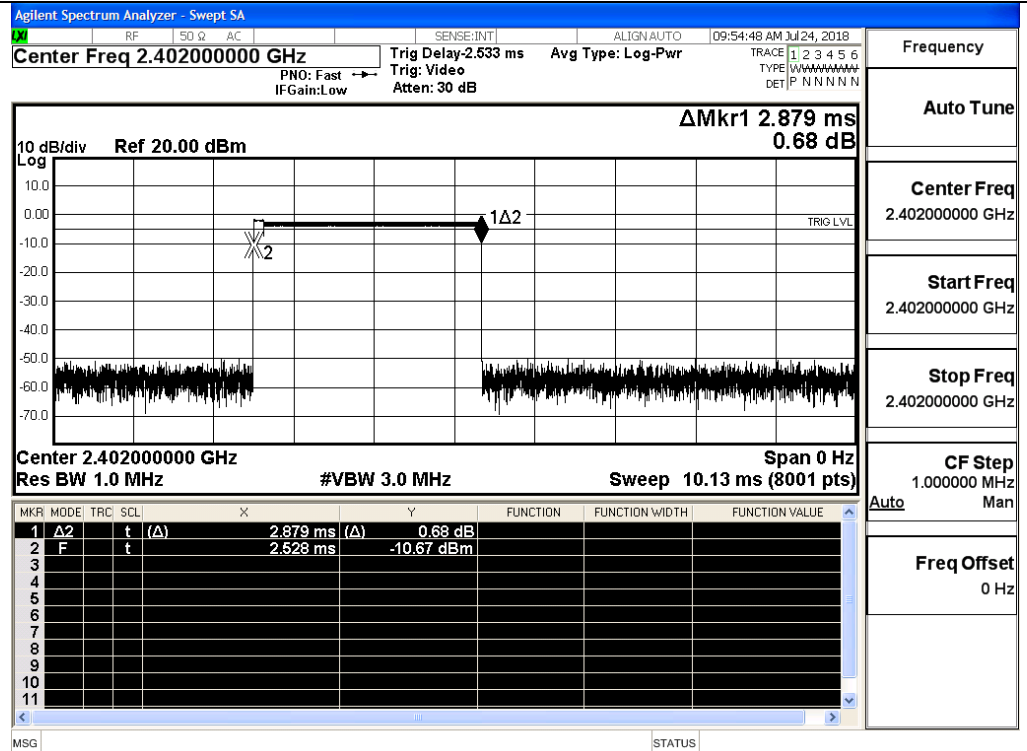
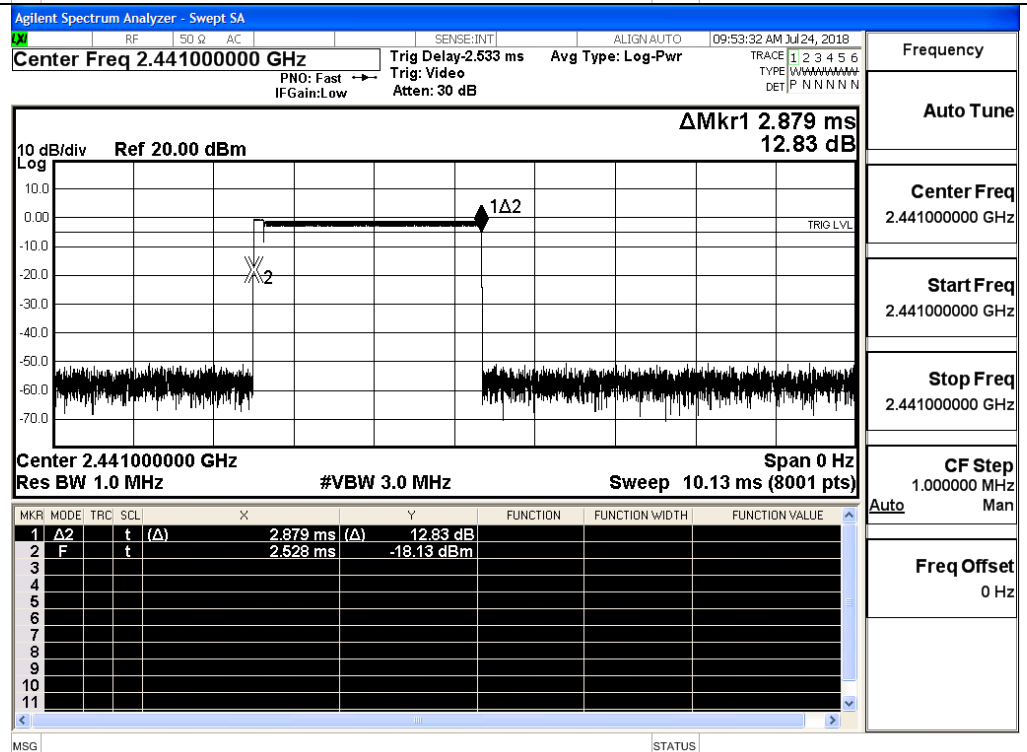


GFSK_DH5/MCH

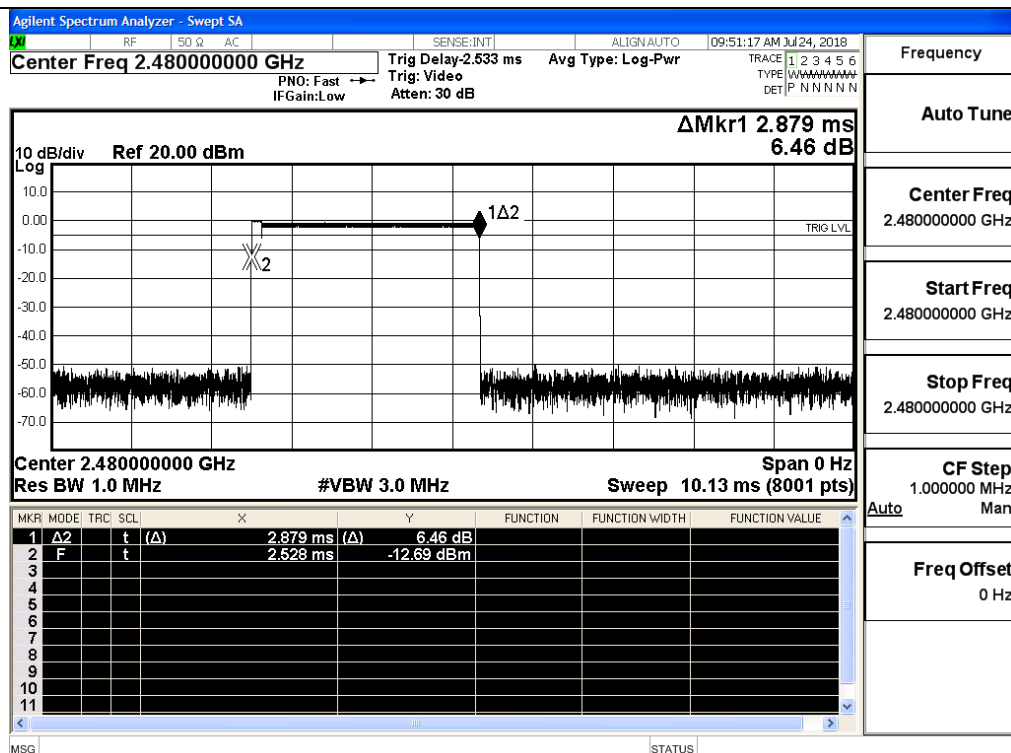


GFSK_DH5/HCH

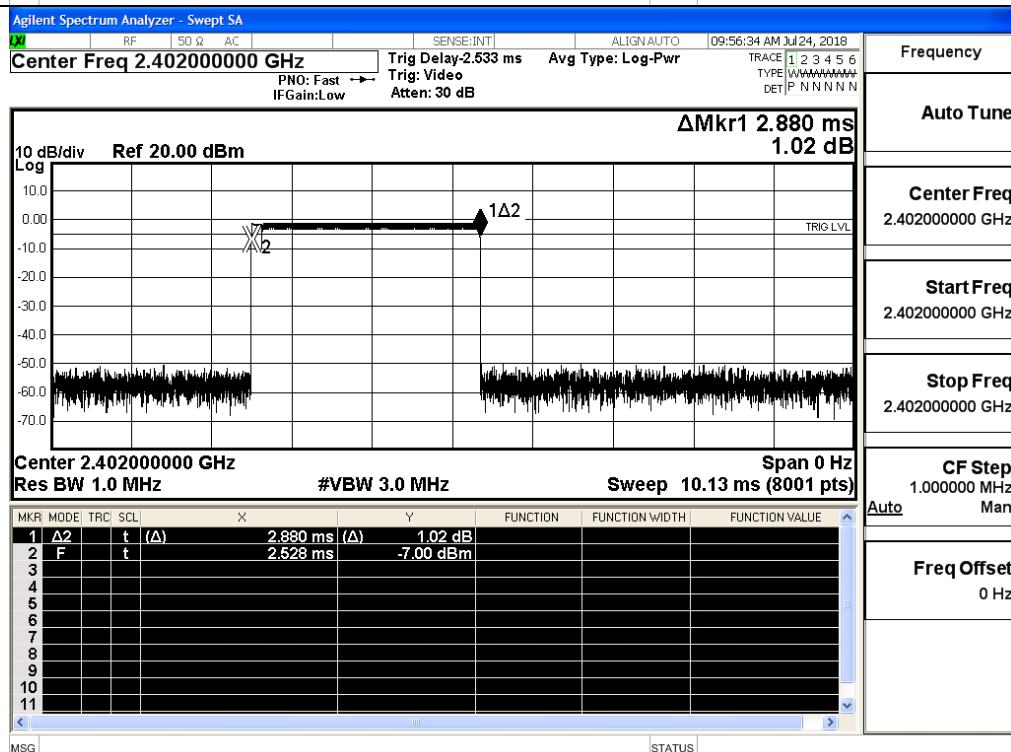


$\pi/4$ DQPSK
_2DH5/LCH $\pi/4$ DQPSK
_2DH5/MCH

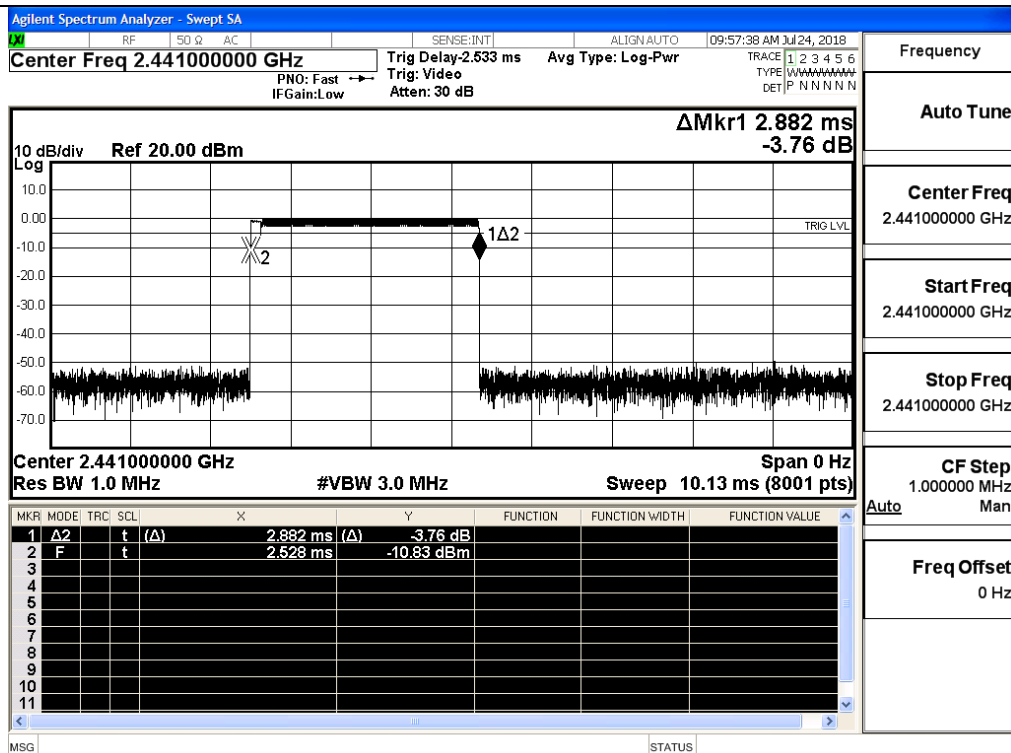
$\pi/4$ DQPSK
_2DH5/HCH



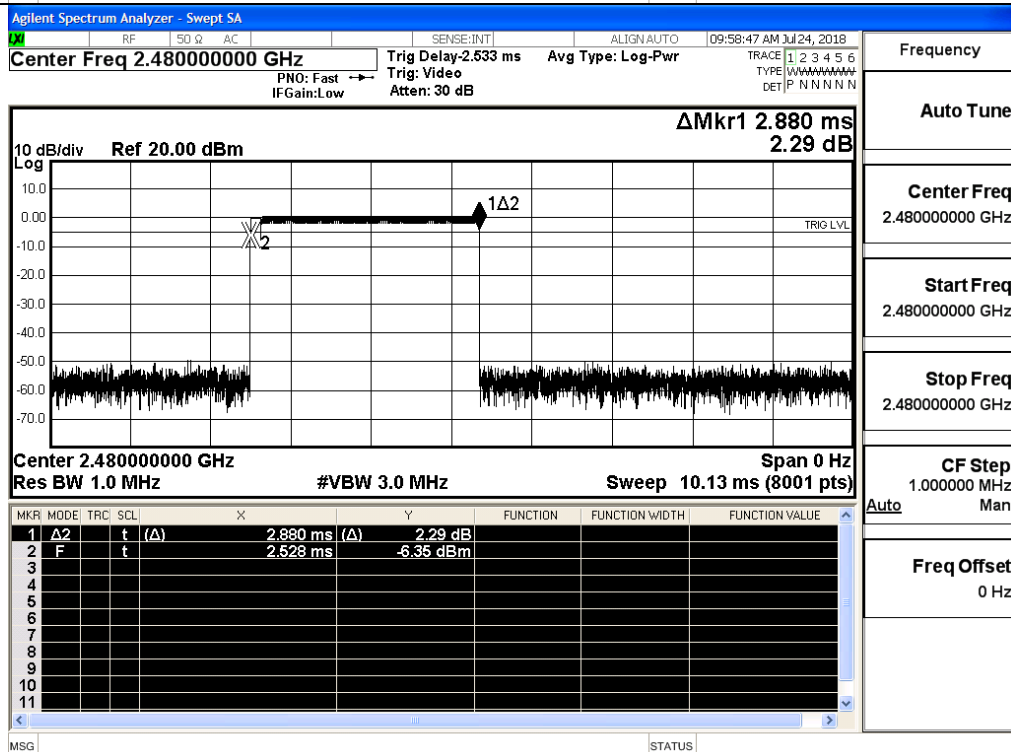
8DPSK _3DH5/LCH



8DPSK_3DH5/MCH



8DPSK_3DH5/HCH

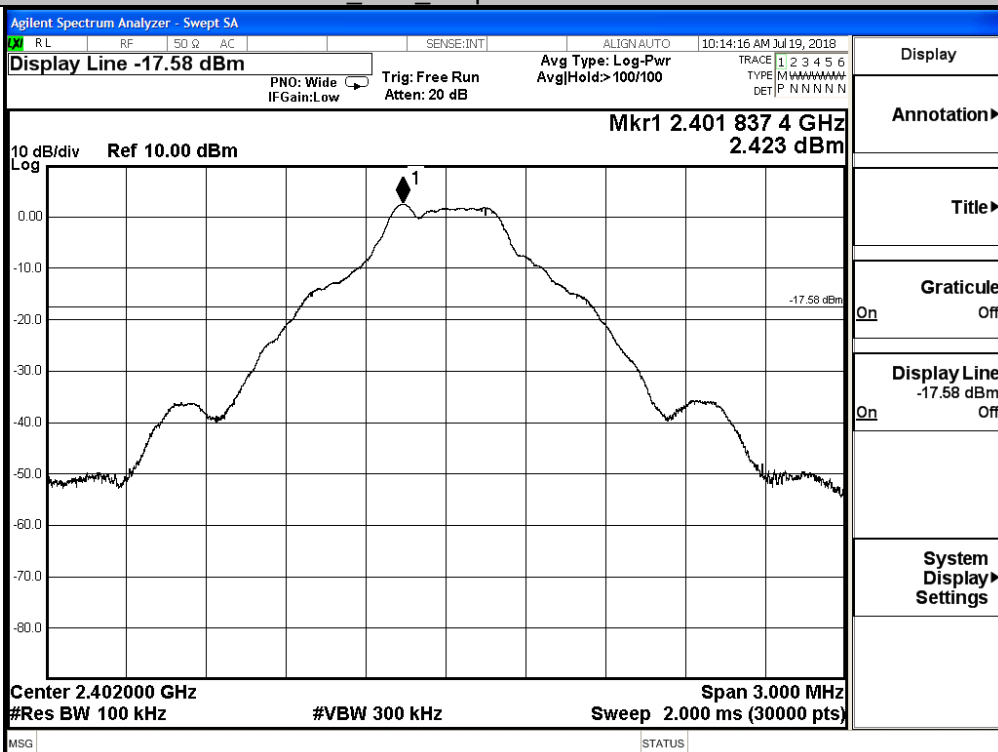


A.6 RF Conducted Spurious Emissions

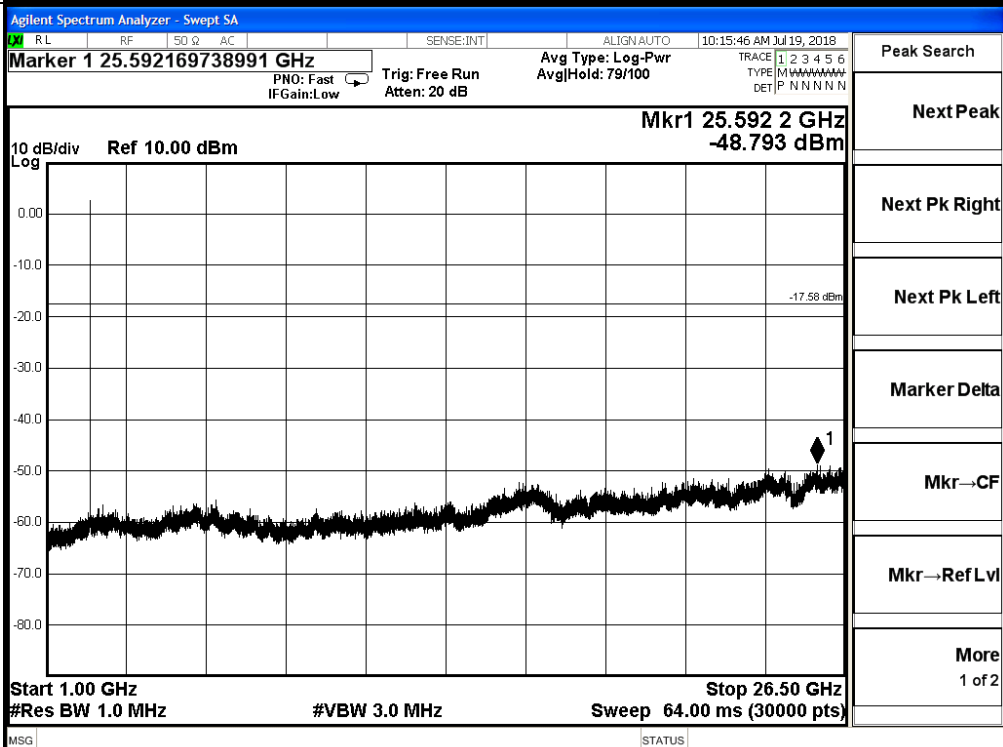
Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2.423	-48.793	-17.577	PASS
	MCH	1.845	-49.682	-18.155	PASS
	HCH	0.315	-49.899	-19.685	PASS
$\pi/4$ DQPSK	LCH	0.946	-50.371	-19.054	PASS
	MCH	0.493	-49.721	-19.507	PASS
	HCH	-0.739	-49.502	-20.739	PASS
8DPSK	LCH	0.919	-50.333	-19.081	PASS
	MCH	0.543	-49.913	-19.457	PASS
	HCH	-0.787	-50.263	-20.787	PASS

GFSK LCH Graphs

Pref

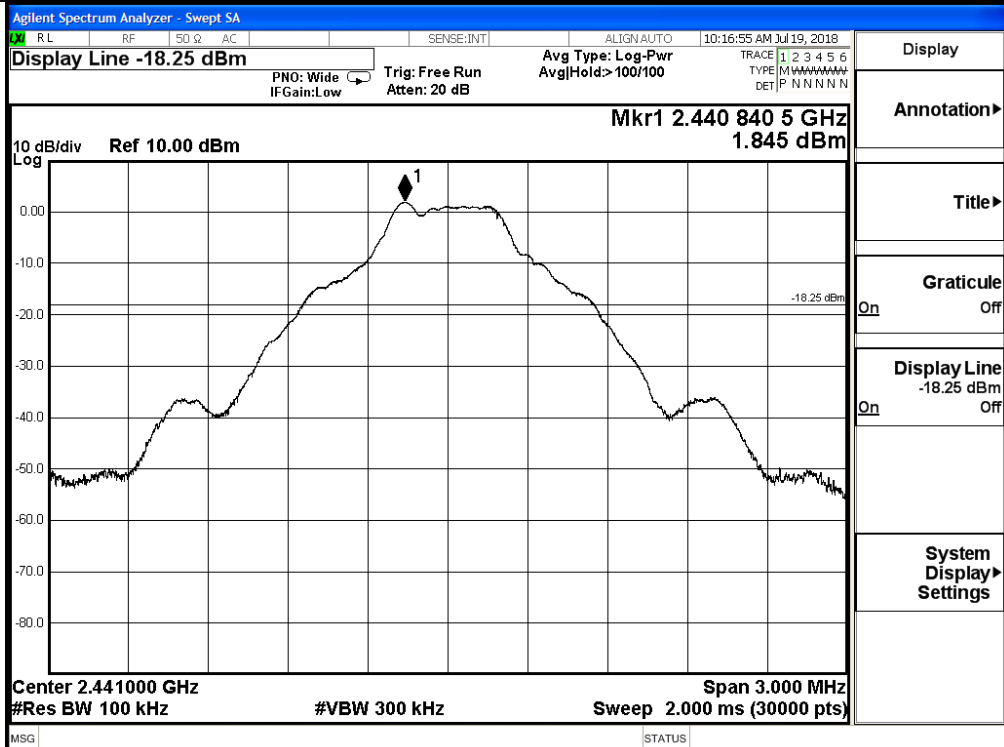


Puw

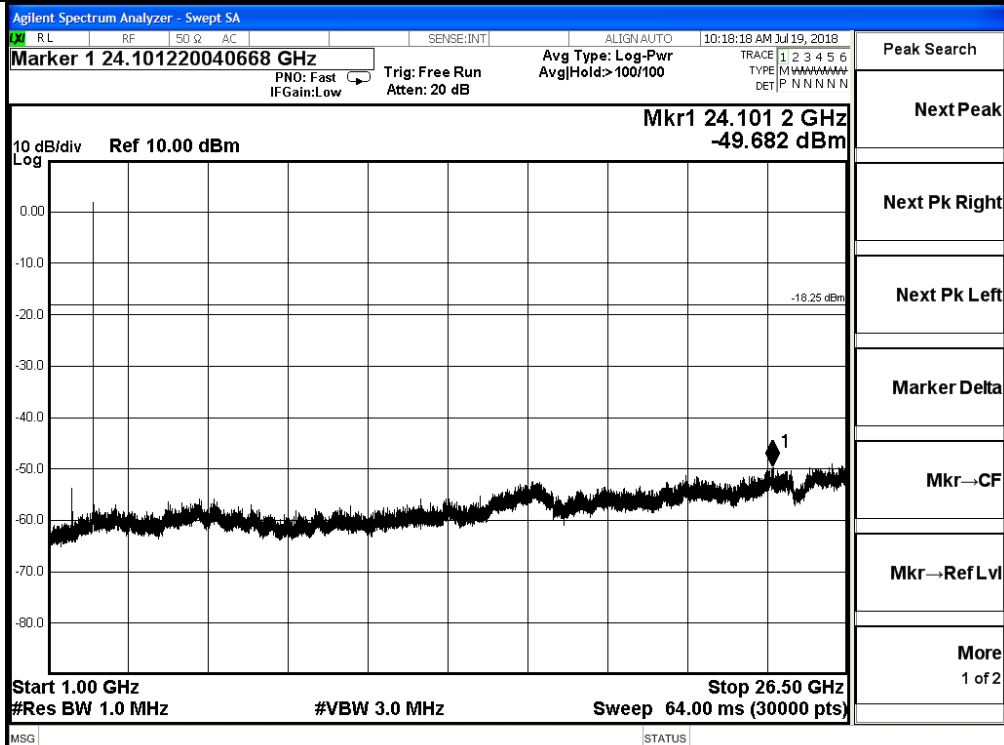


GFSK_MCH_Graphs

Pref

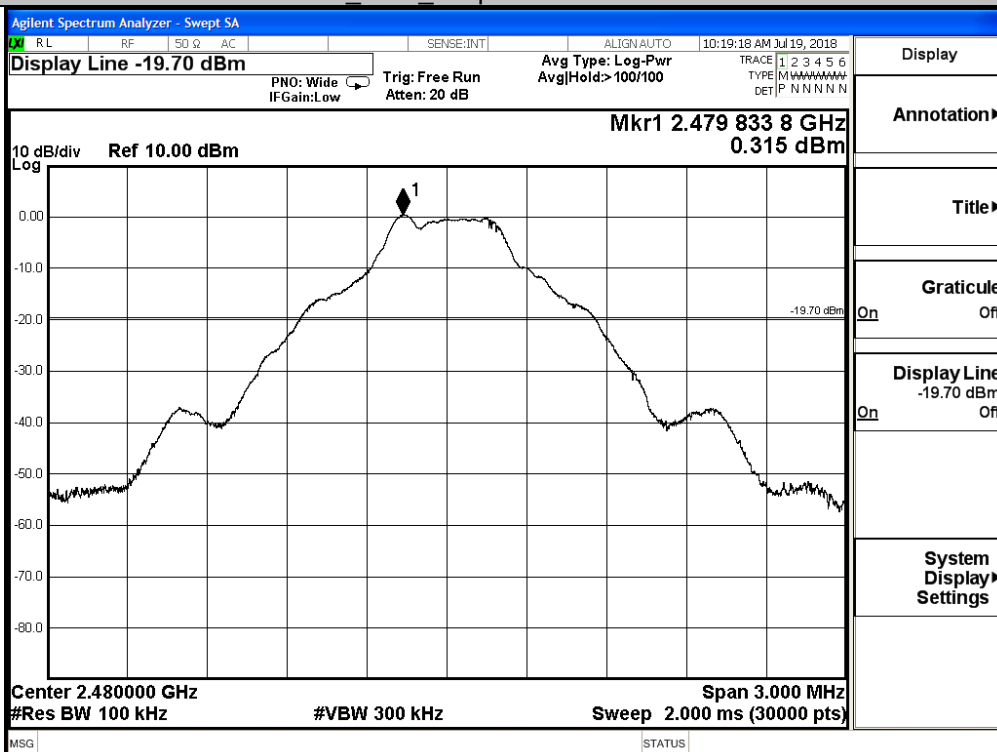


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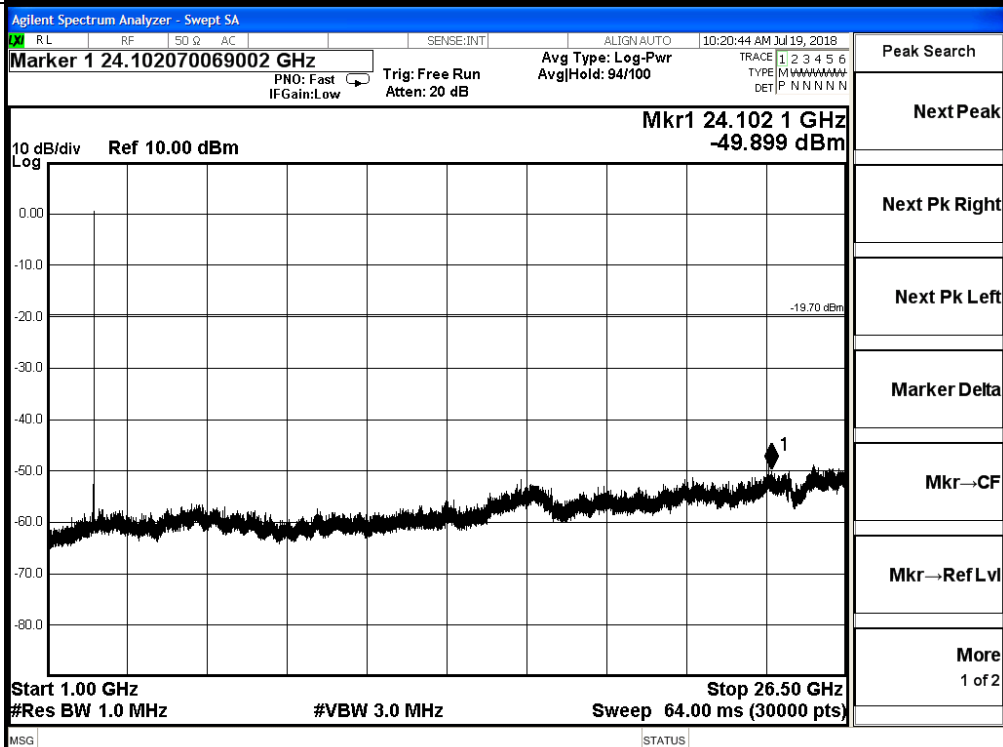


GFSK_HCH_Graphs

Pref

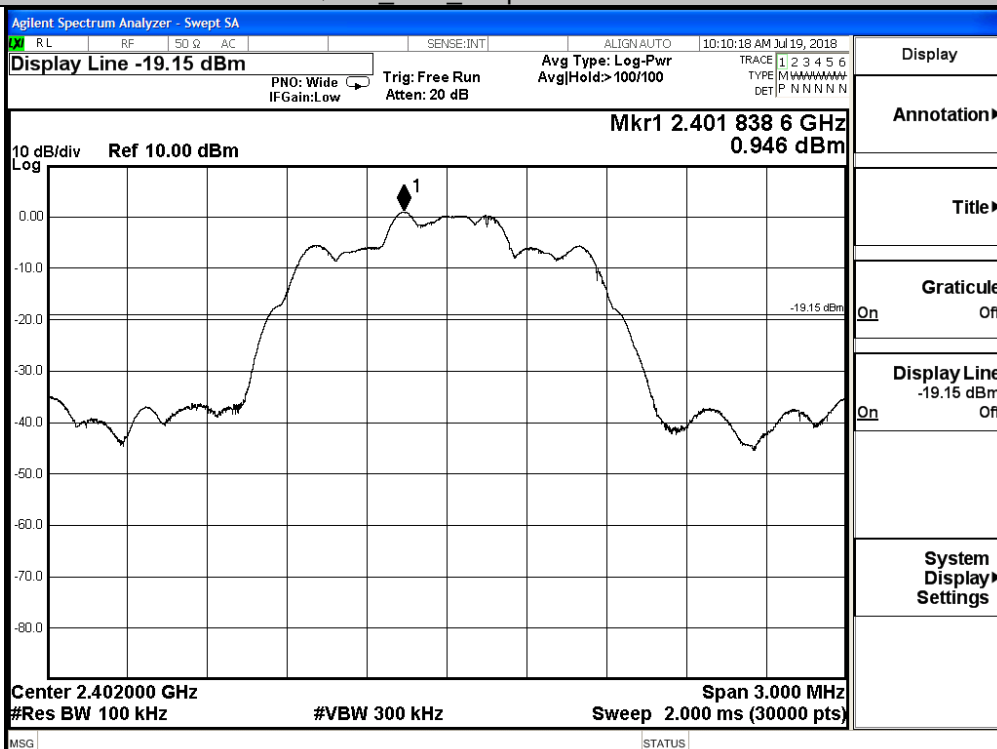


Puw

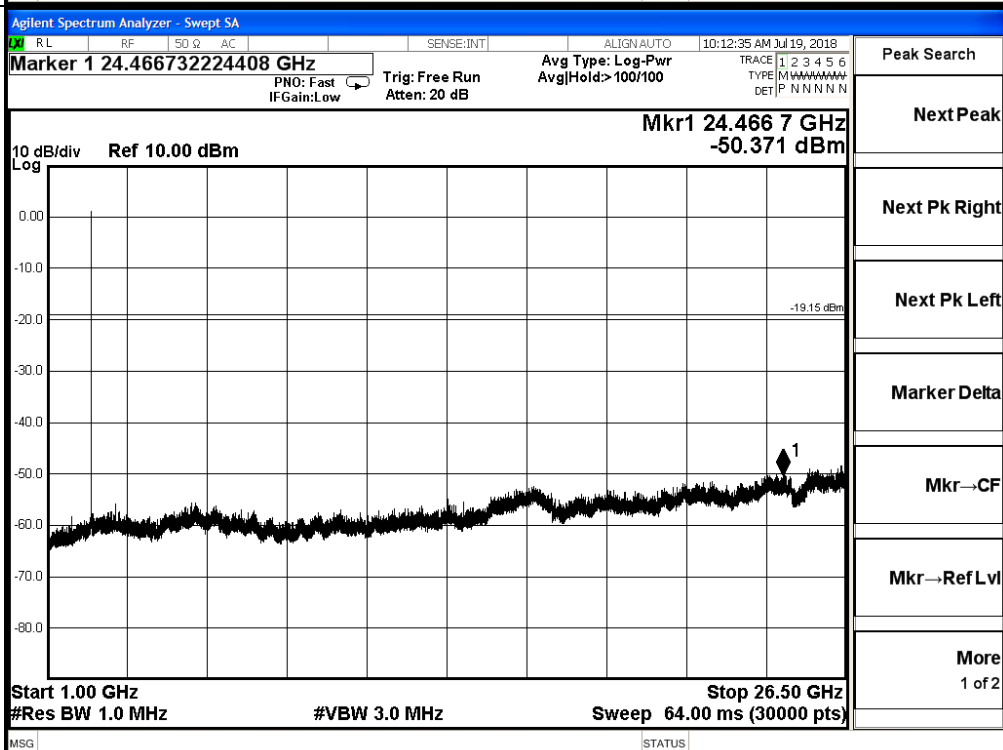


$\pi/4$ DQPSK LCH_Graphs

Pref

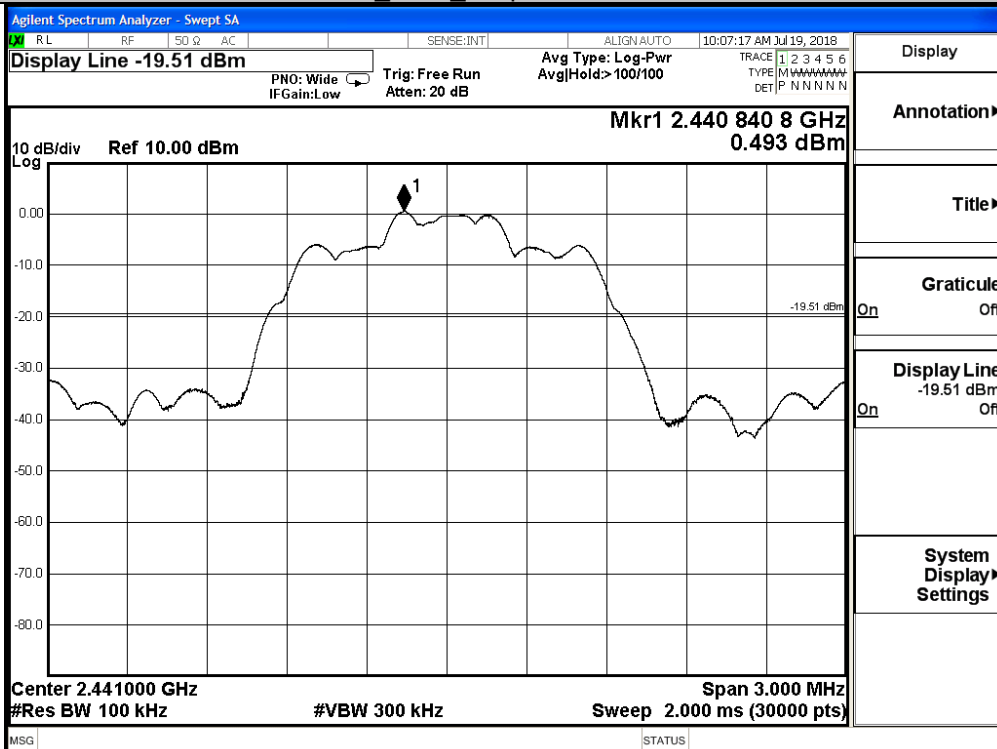


Puw

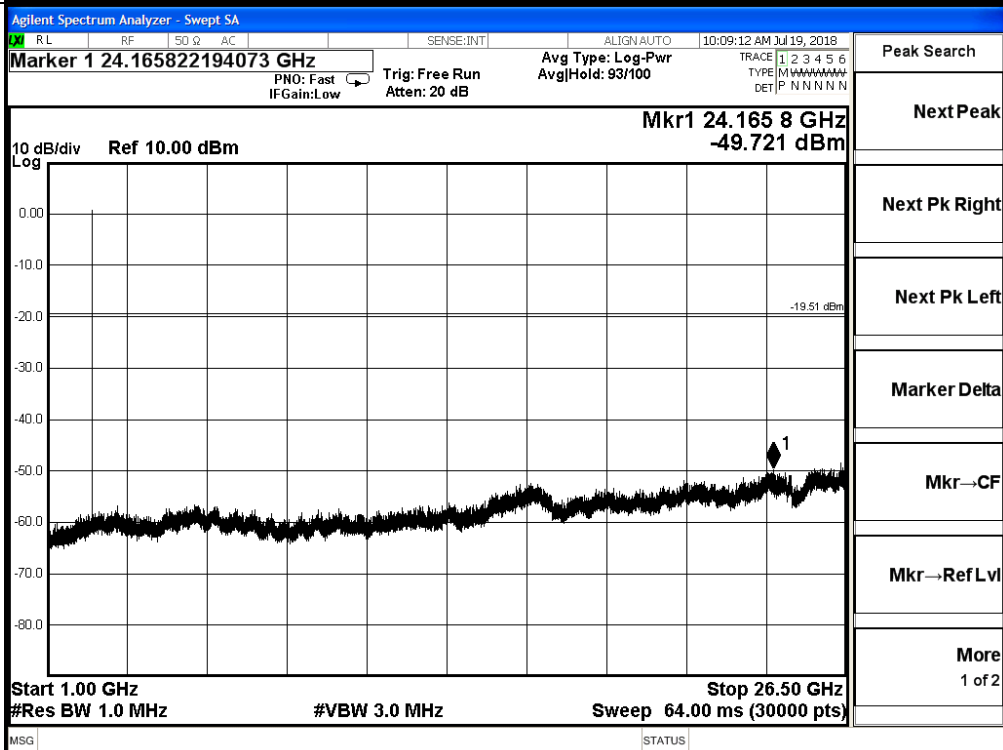


π /4DQPSK MCH Graphs

Pref

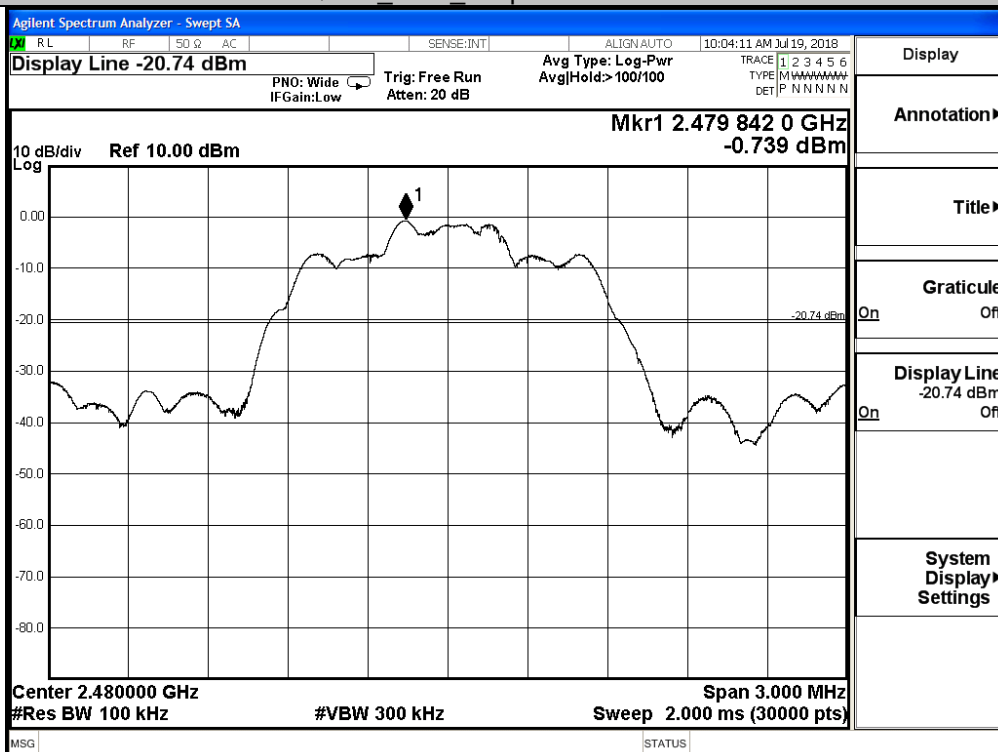


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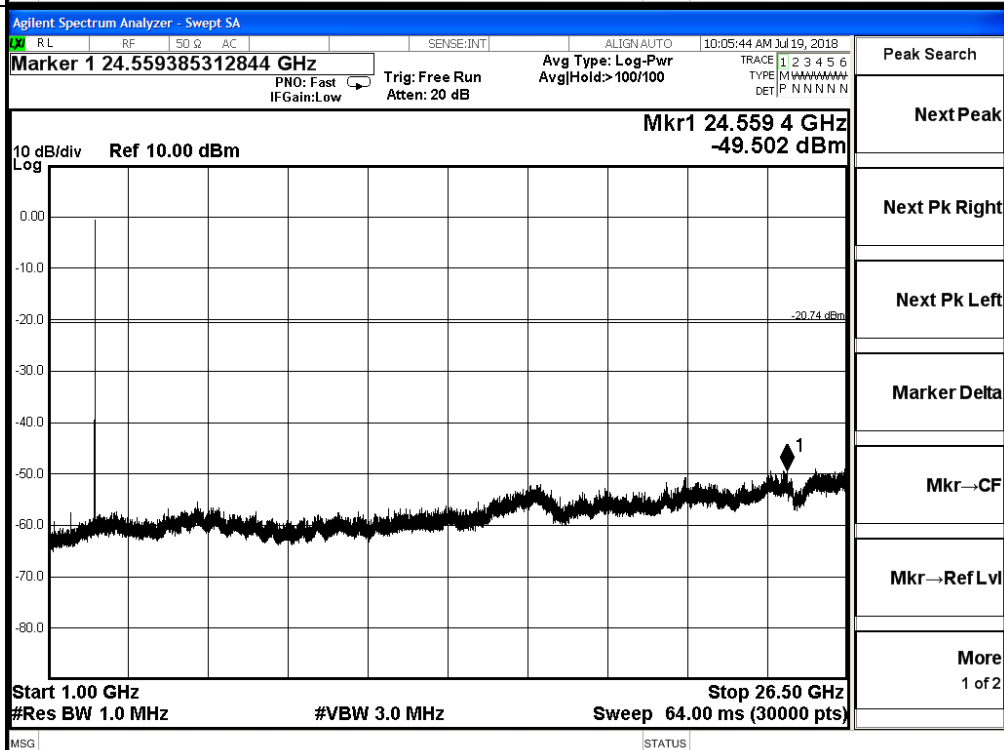


$\pi/4$ DQPSK HCH Graphs

Pref

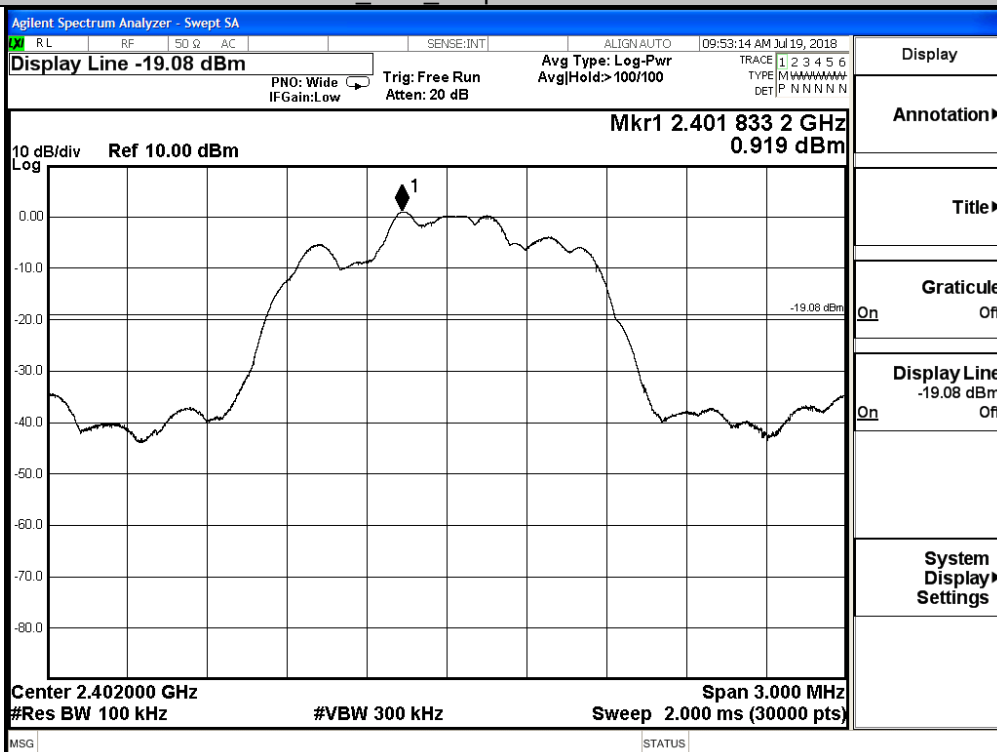


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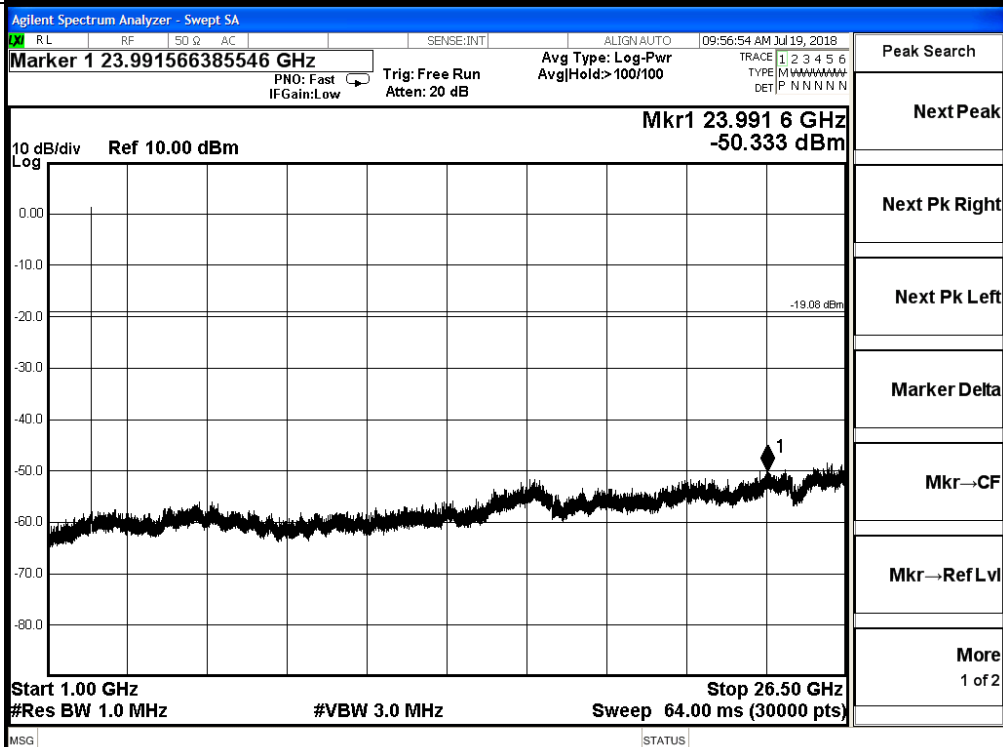


8DPSK_LCH_Graphs

Pref

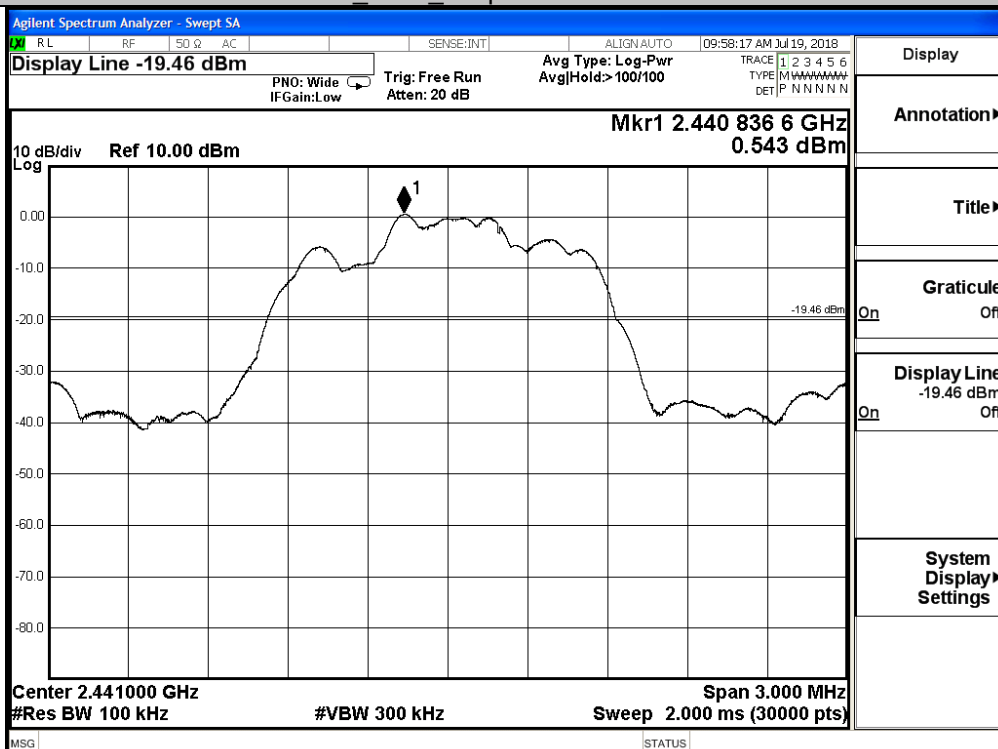


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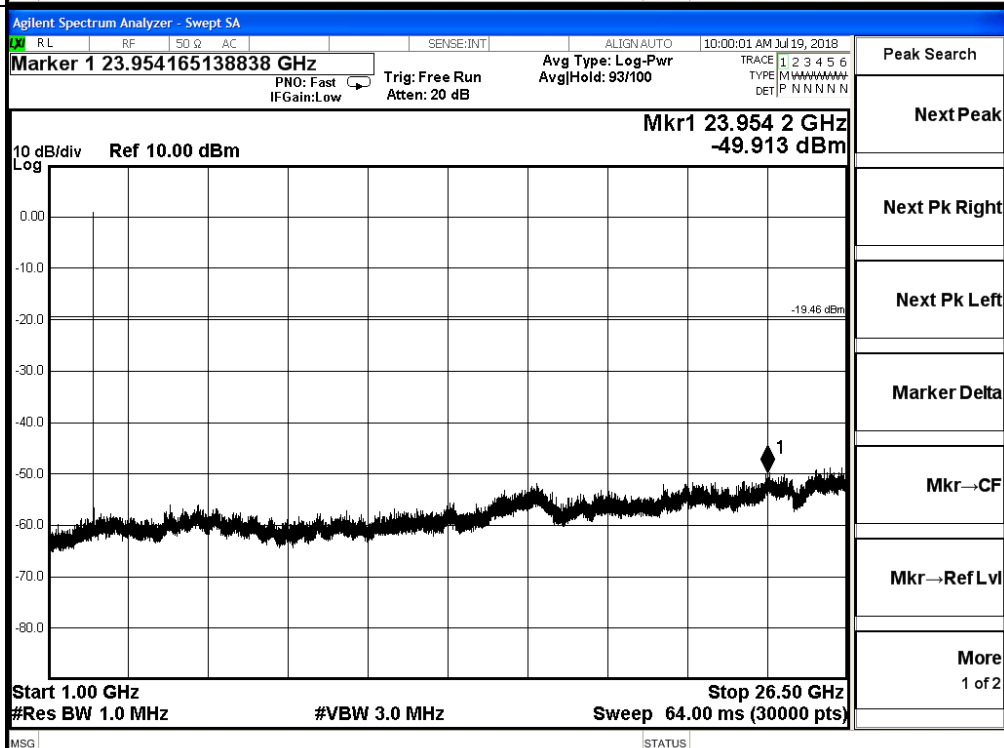


8DPSK MCH_Graphs

Pref

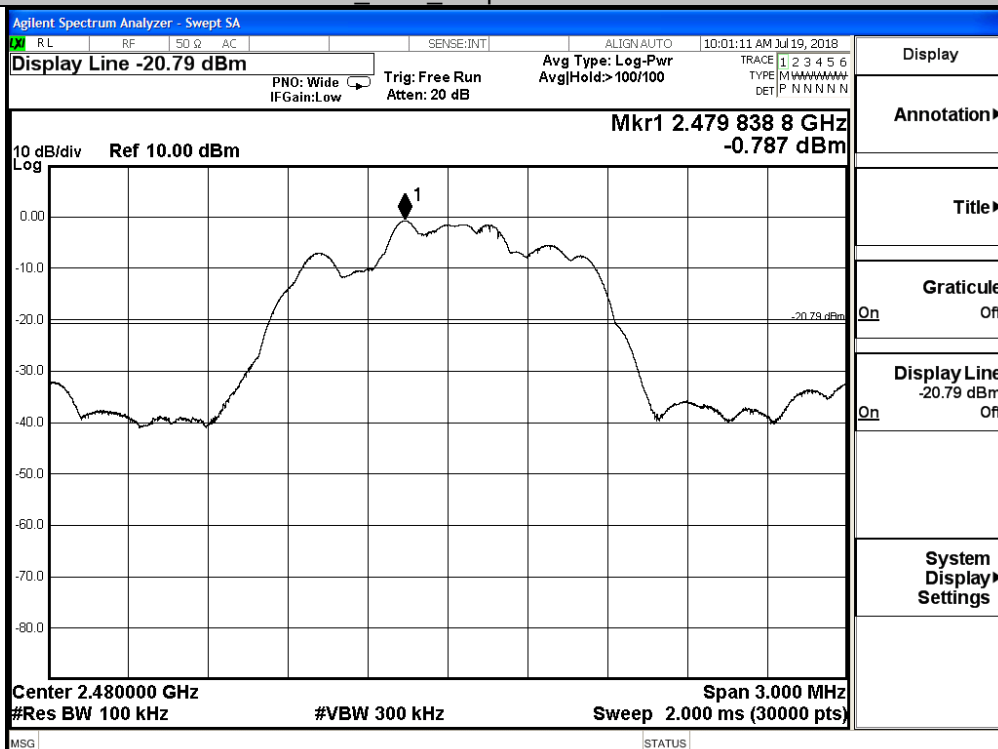


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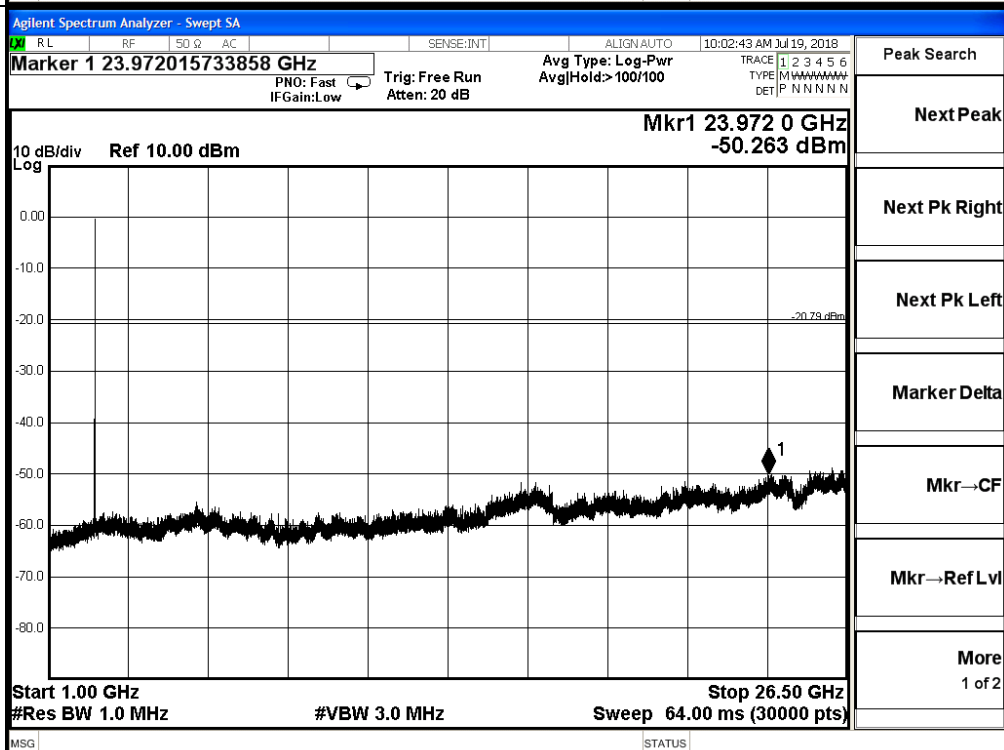


8DPSK_HCH_Graphs

Pref



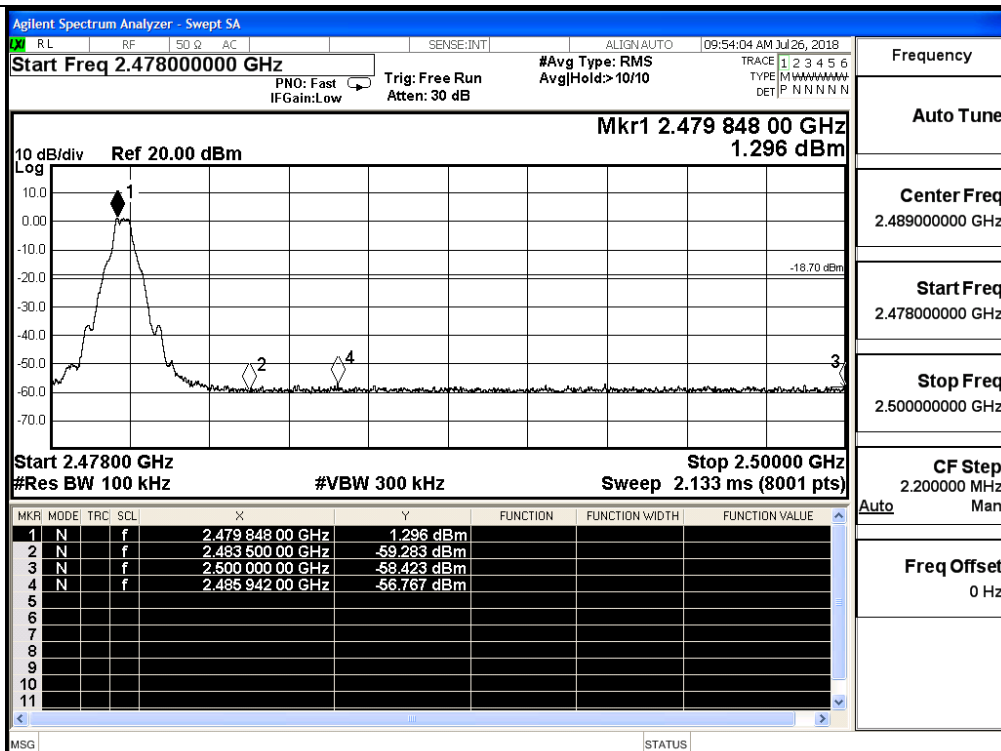
Puw



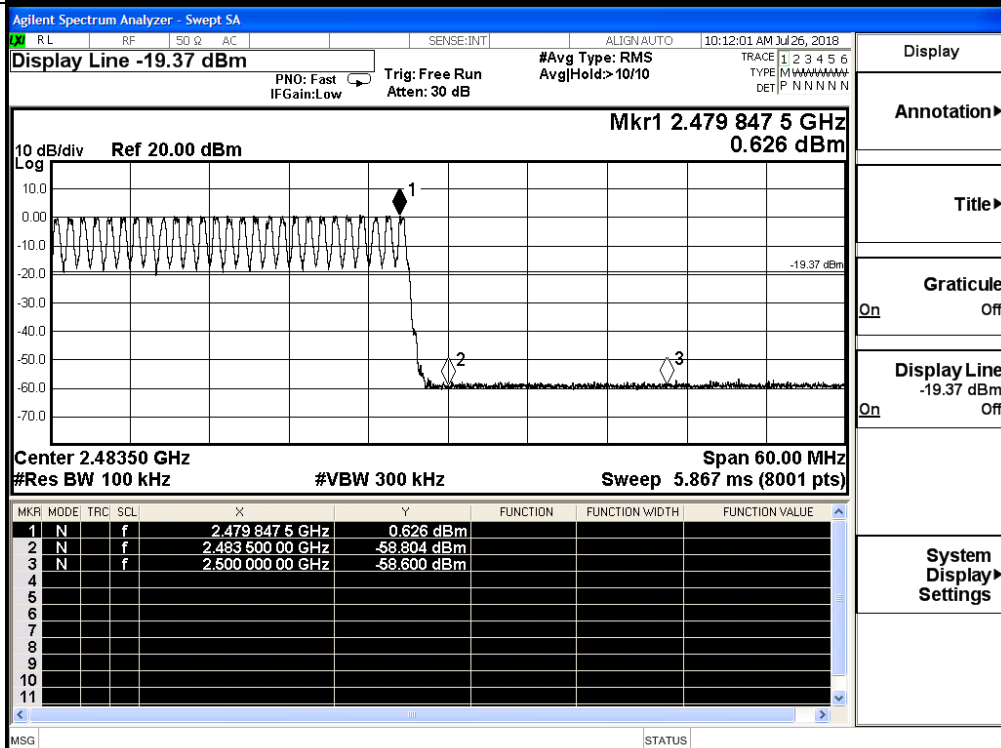
A.7 Band-edge for RF Conducted Emissions

Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-0.658	Off	-57.177	-20.658	PASS
			-0.755	On	-56.527	-20.755	PASS
	HCH	2480	1.296	Off	-56.767	-18.704	PASS
			0.626	On	-58.600	-19.374	PASS
π /4DQPSK	LCH	2402	-1.566	Off	-58.241	-21.566	PASS
			-1.496	On	-57.900	-21.496	PASS
	HCH	2480	0.029	Off	-57.165	-19.971	PASS
			-0.661	On	-59.563	-20.661	PASS
8DPSK	LCH	2402	-1.516	Off	-58.410	-21.516	PASS
			-1.618	On	-57.338	-21.618	PASS
	HCH	2480	-0.197	Off	-57.576	-20.197	PASS
			-0.480	On	-58.139	-20.480	PASS

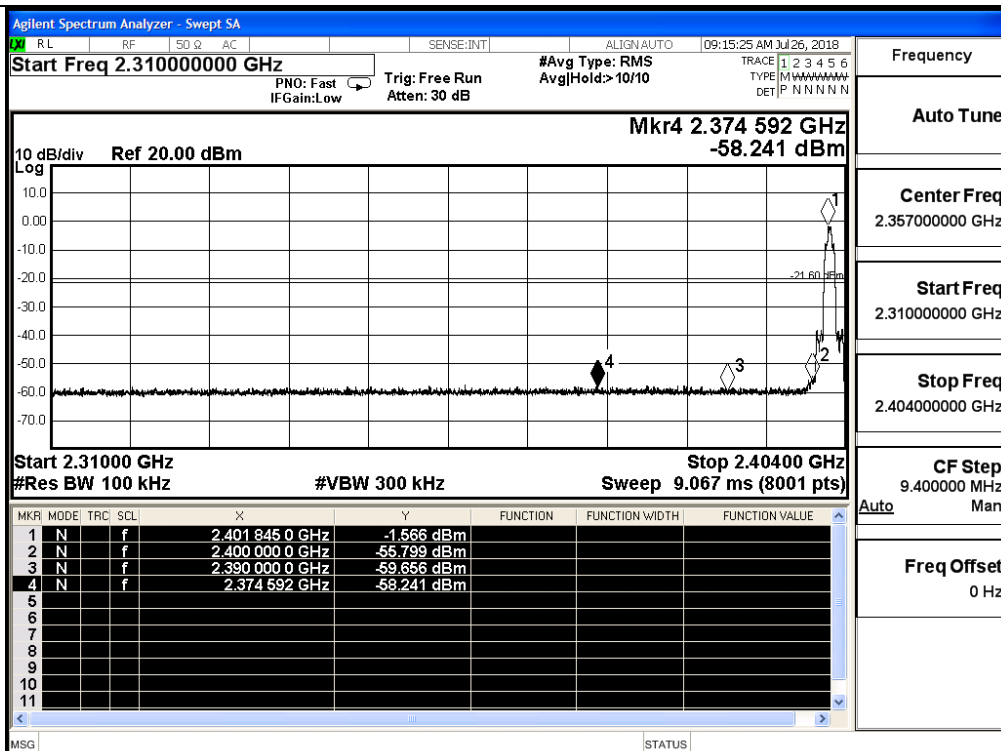
GFSK/HCH/No Hop



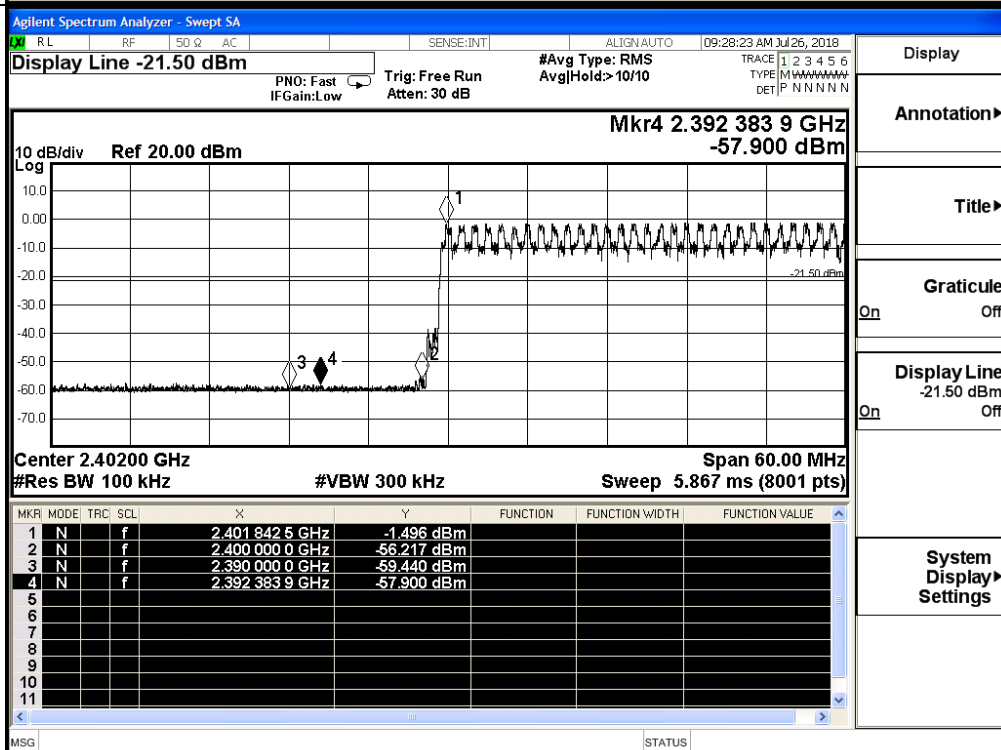
GFSK/HCH/Hop



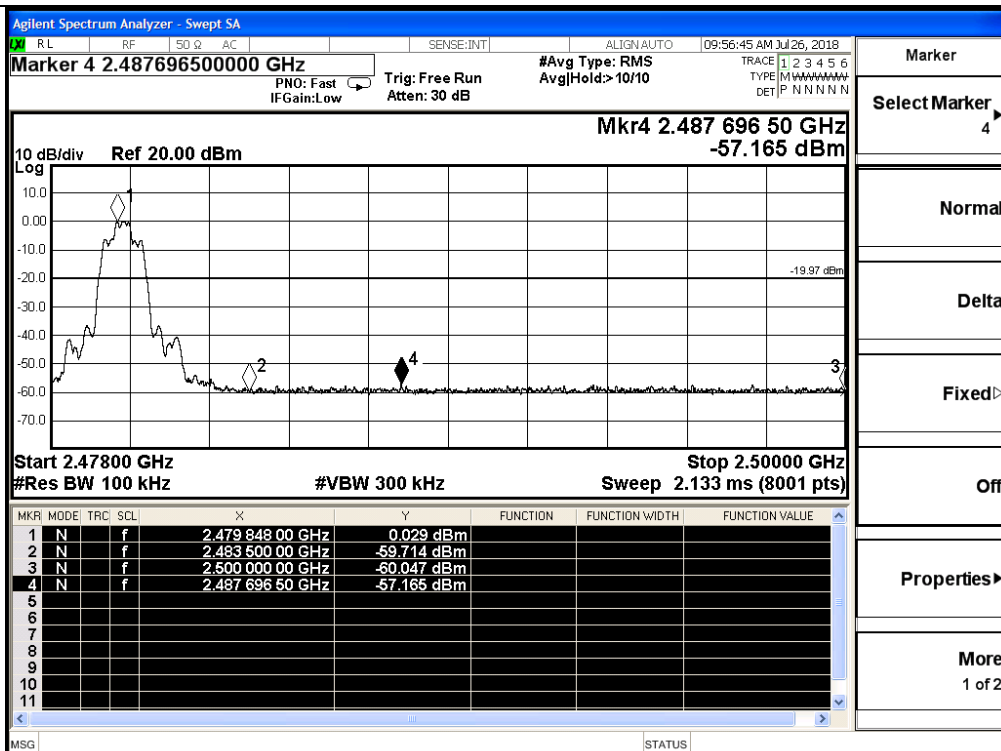
$\pi/4$ DQPSK/LCH/No
Hop



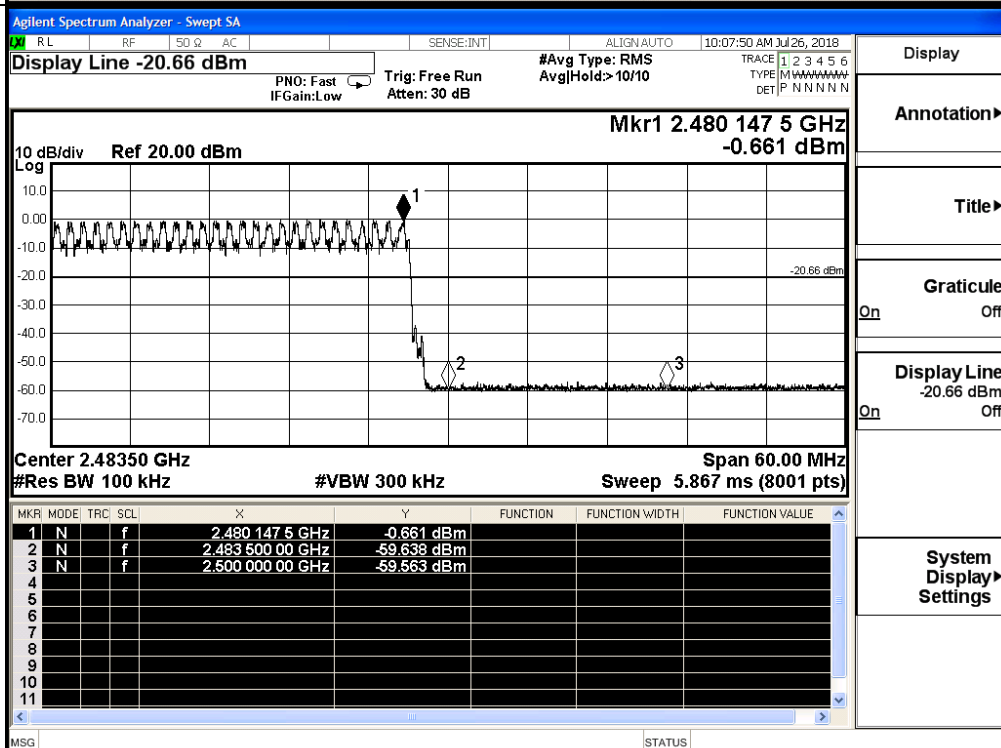
$\pi/4$ DQPSK/LCH/Hop



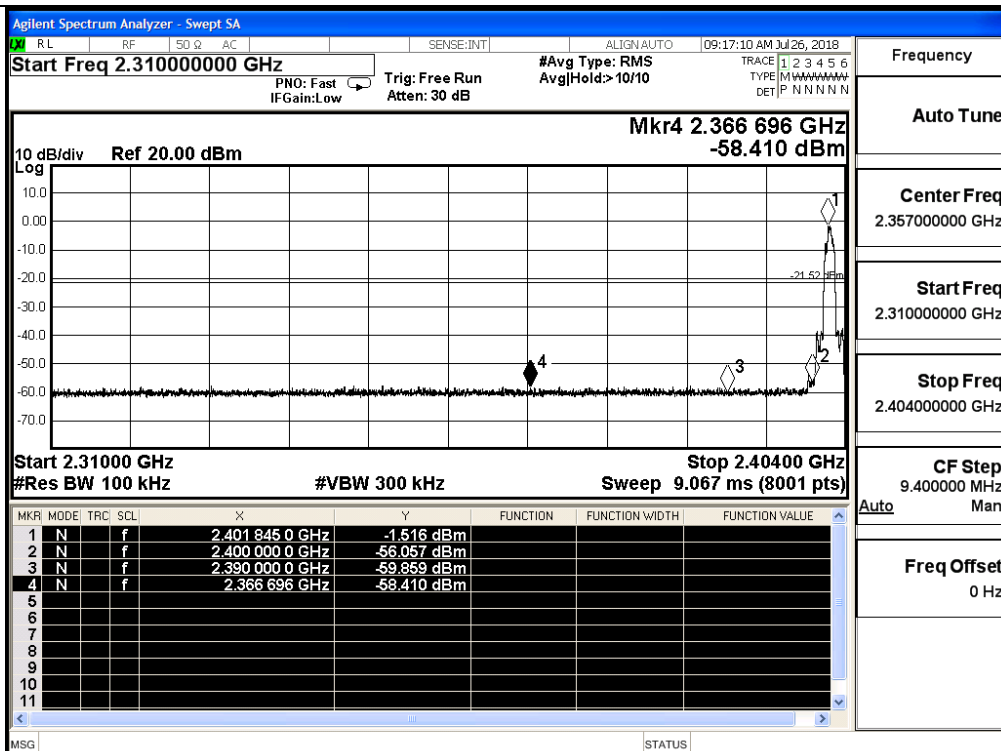
$\pi/4$ DQPSK/HCH/No
Hop



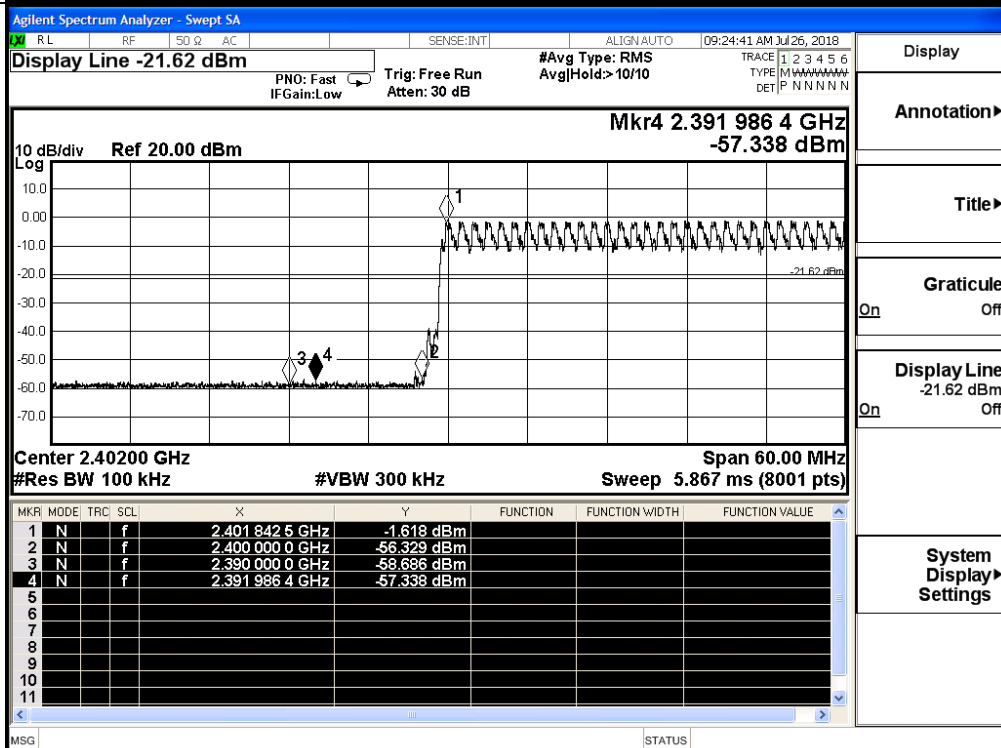
$\pi/4$ DQPSK/HCH/Hop



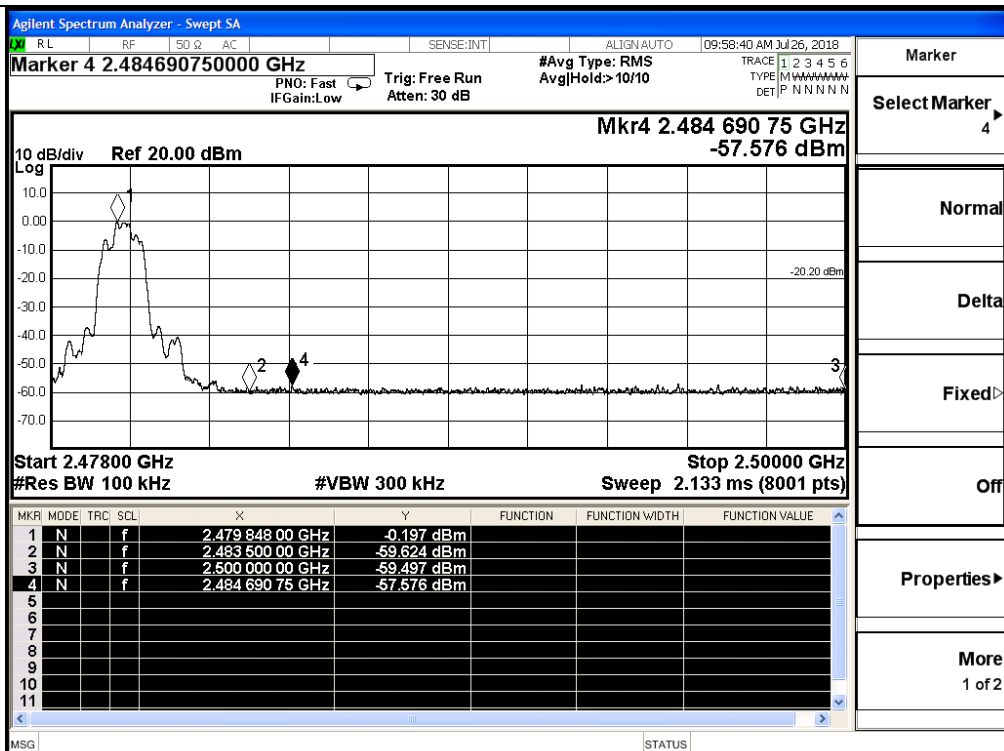
8DPSK/LCH/No Hop



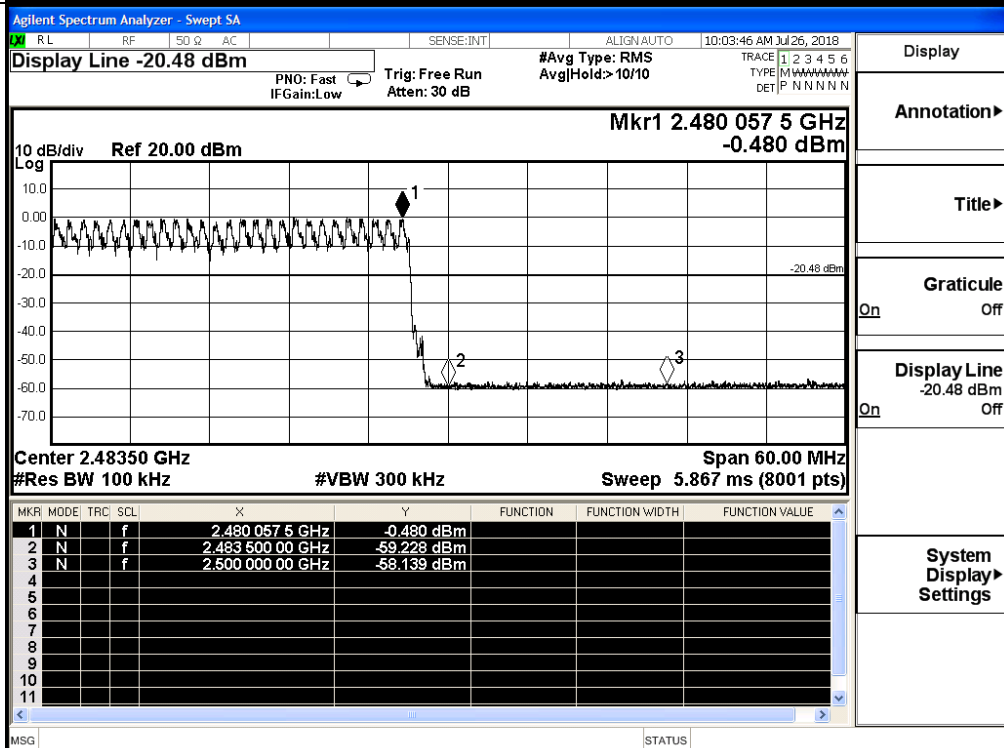
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



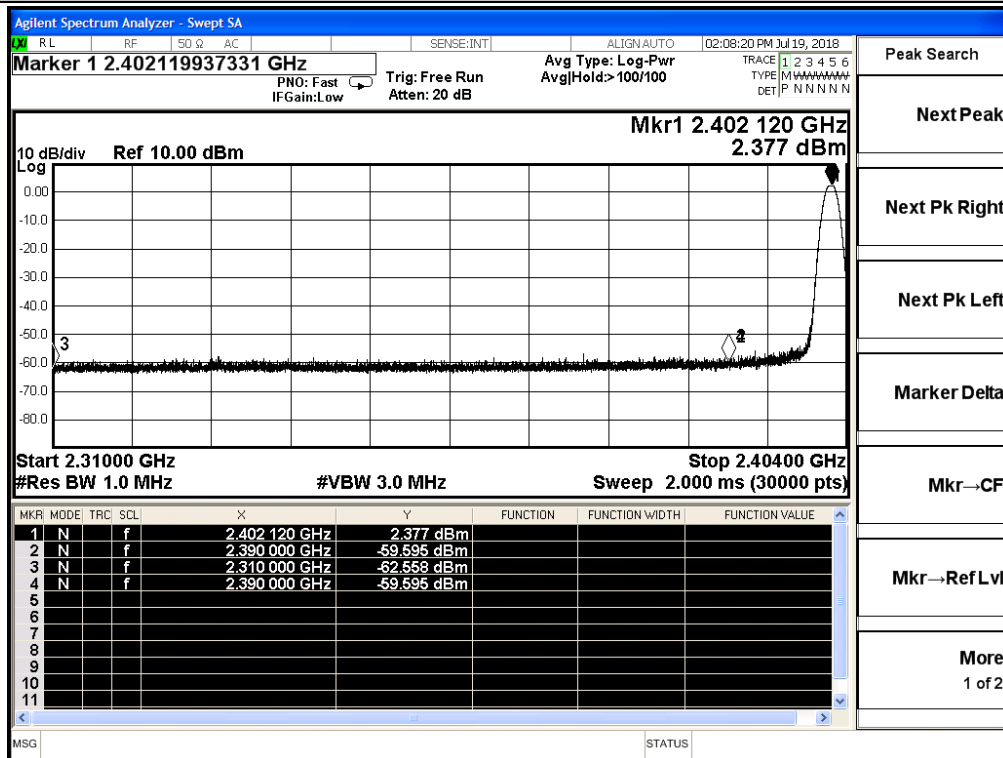
8DPSK/HCH/Hop



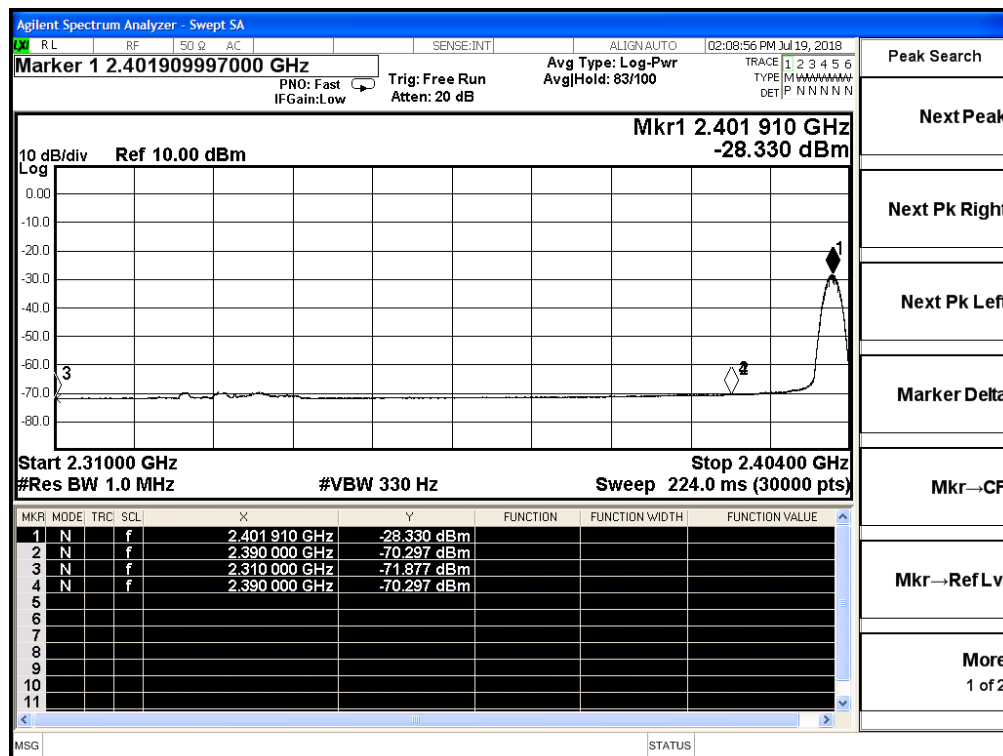
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-62.558	2.0	0	34.70	PEAK	74	PASS
	Off	2310.0	-71.877	2.0	0	25.38	AV	54	PASS
	Off	2390.0	-59.595	2.0	0	37.67	PEAK	74	PASS
	Off	2390.0	-70.297	2.0	0	26.96	AV	54	PASS
	Off	2483.5	-58.094	2.0	0	39.17	PEAK	74	PASS
	Off	2483.5	-69.224	2.0	0	28.04	AV	54	PASS
	Off	2500.0	-59.943	2.0	0	37.32	PEAK	74	PASS
	Off	2500.0	-70.909	2.0	0	26.35	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-59.878	2.0	0	37.38	PEAK	74	PASS
	Off	2310.0	-71.955	2.0	0	25.31	AV	54	PASS
	Off	2390.0	-58.363	2.0	0	38.90	PEAK	74	PASS
	Off	2390.0	-70.337	2.0	0	26.92	AV	54	PASS
	Off	2483.5	-56.386	2.0	0	40.87	PEAK	74	PASS
	Off	2483.5	-60.052	2.0	0	37.21	AV	54	PASS
	Off	2500.0	-58.213	2.0	0	39.05	PEAK	74	PASS
	Off	2500.0	-70.984	2.0	0	26.28	AV	54	PASS
8DPSK	Off	2310.0	-62.636	2.0	0	34.62	PEAK	74	PASS
	Off	2310.0	-71.864	2.0	0	25.40	AV	54	PASS
	Off	2390.0	-60.116	2.0	0	37.14	PEAK	74	PASS
	Off	2390.0	-70.841	2.0	0	26.42	AV	54	PASS
	Off	2483.5	-56.257	2.0	0	41.00	PEAK	74	PASS
	Off	2483.5	-69.642	2.0	0	27.62	AV	54	PASS
	Off	2500.0	-60.782	2.0	0	36.48	PEAK	74	PASS
	Off	2500.0	-71.642	2.0	0	25.62	AV	54	PASS

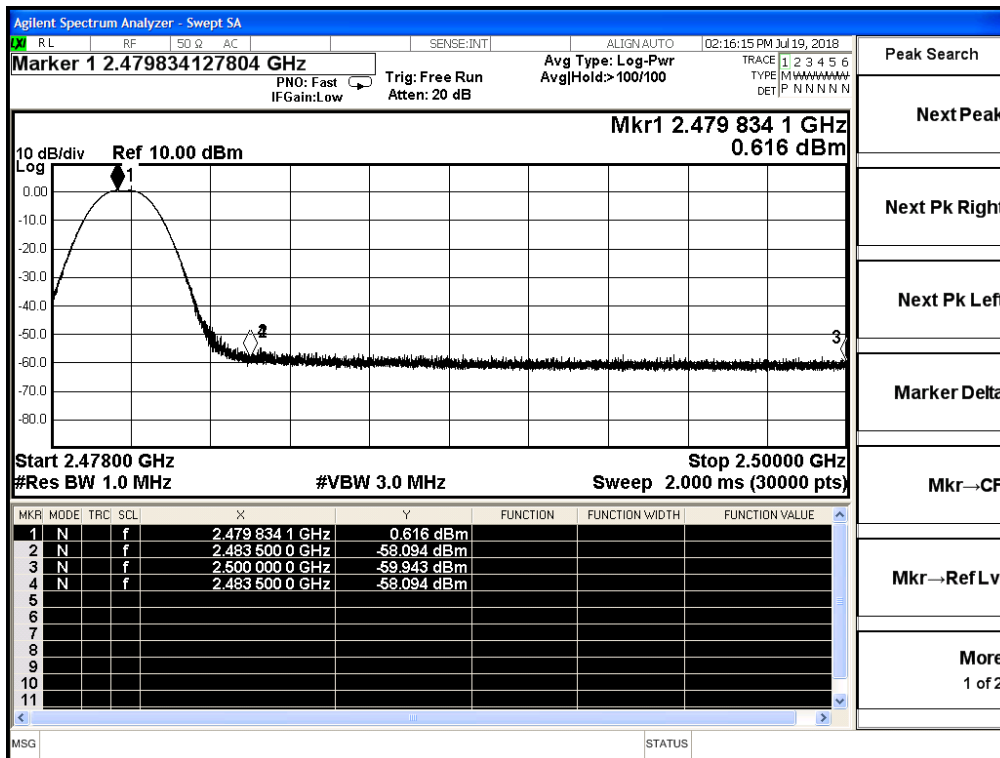
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



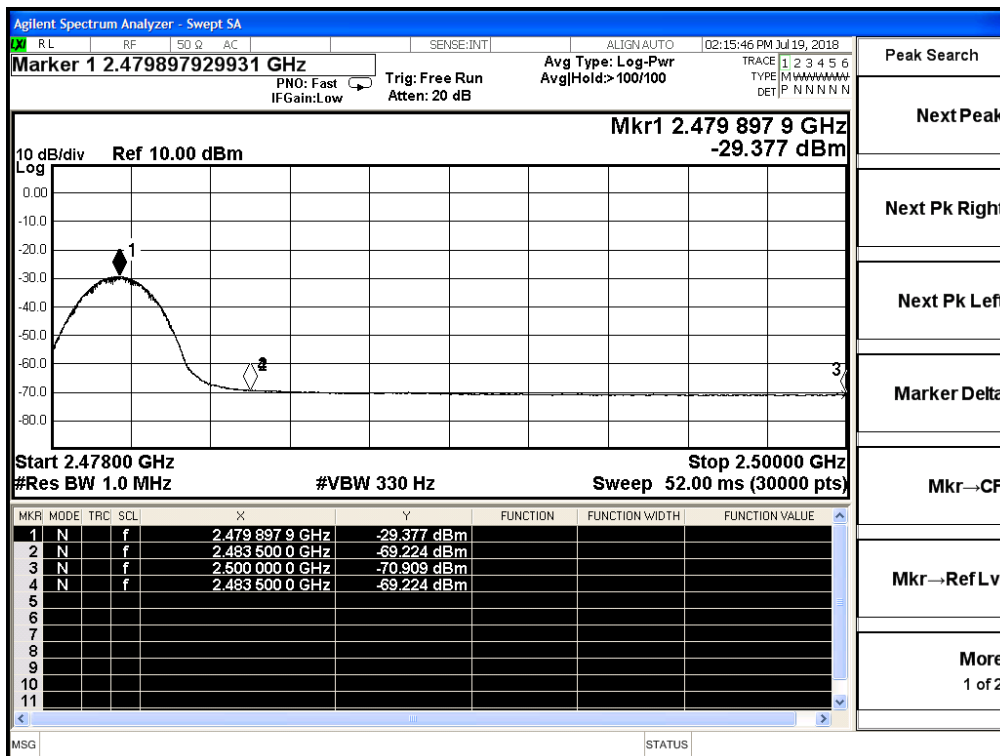
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)

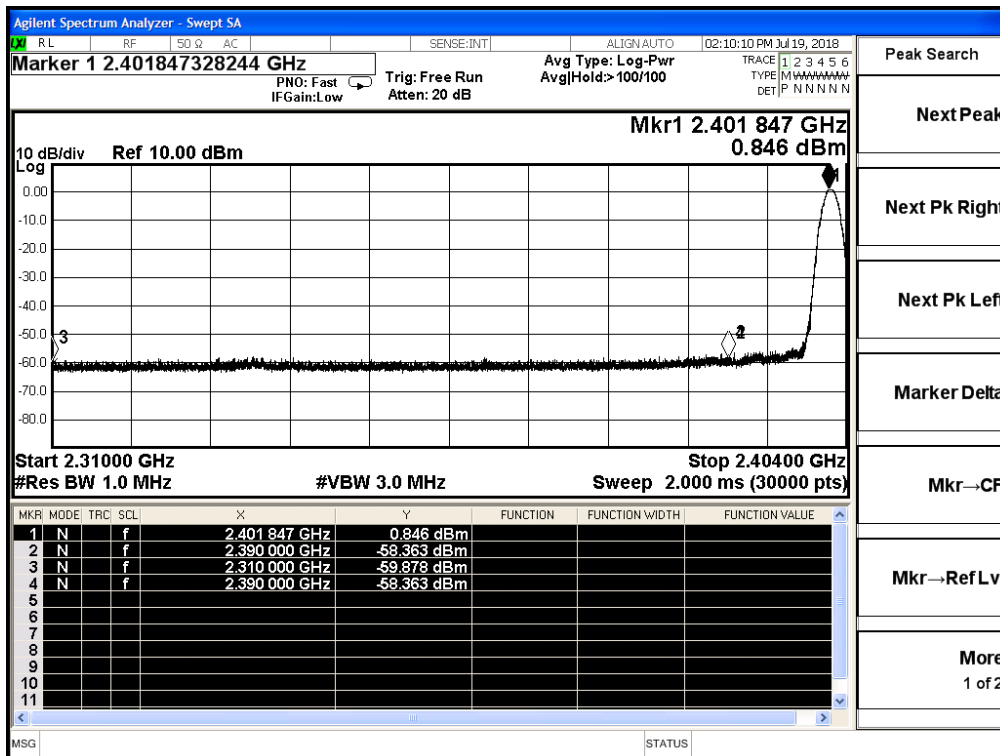
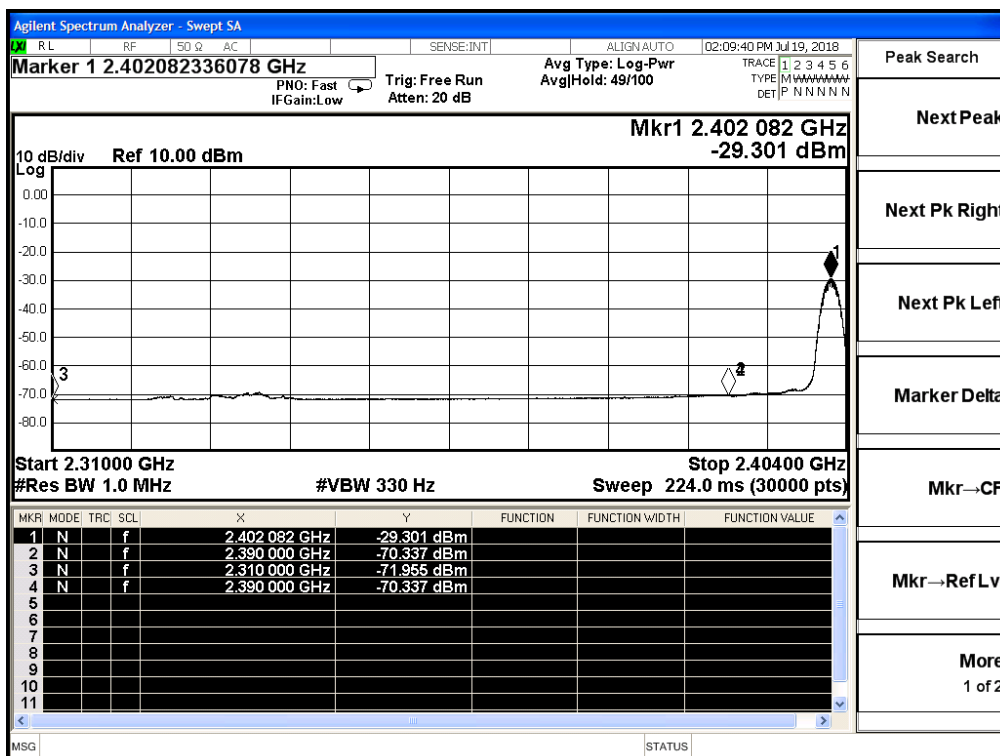


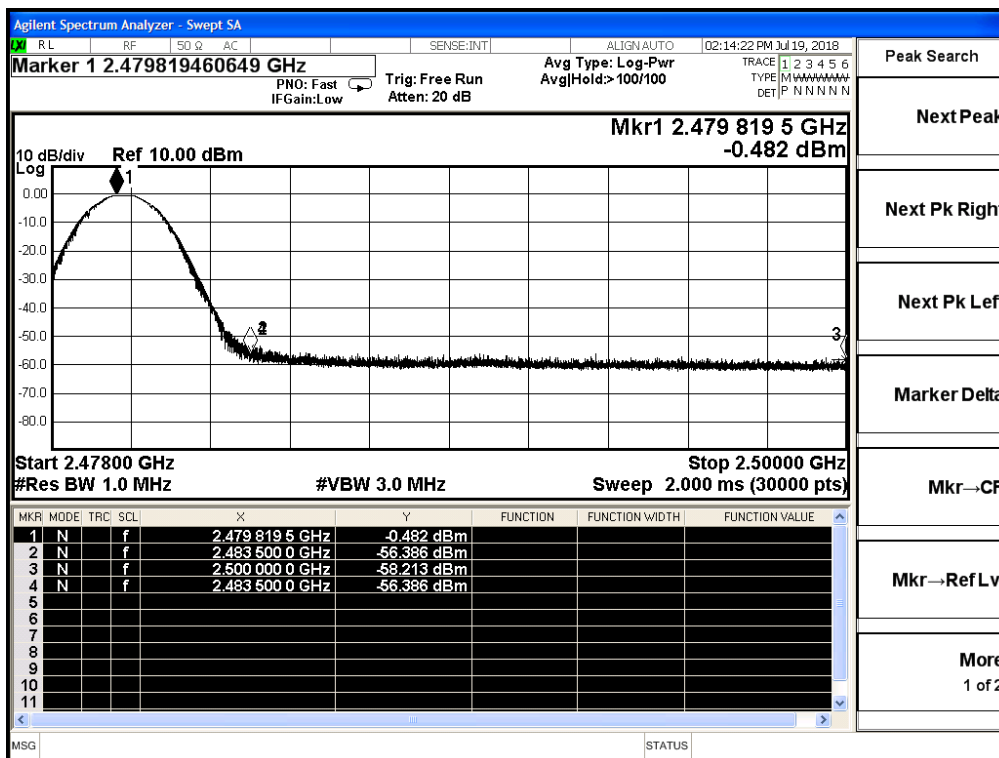
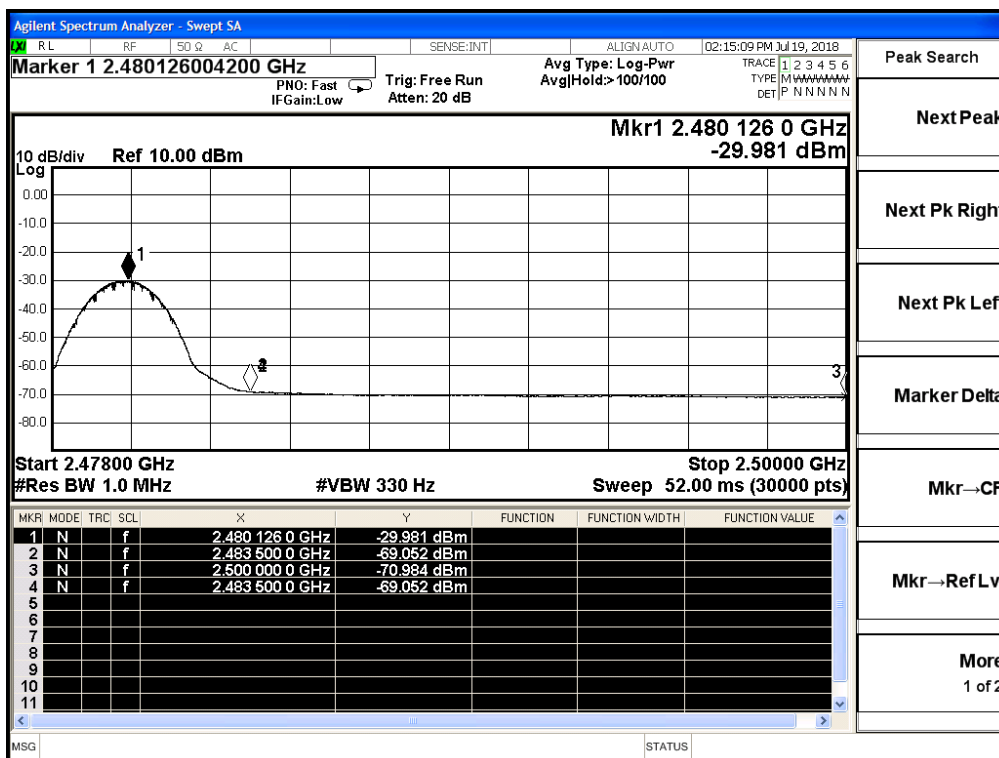
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



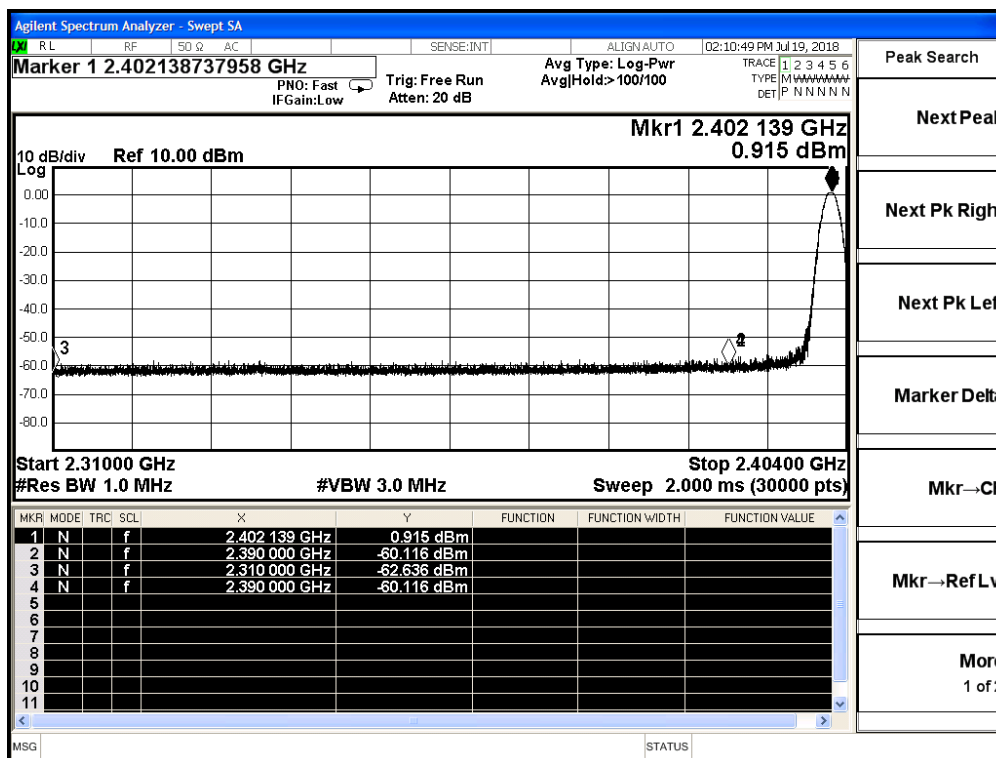
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



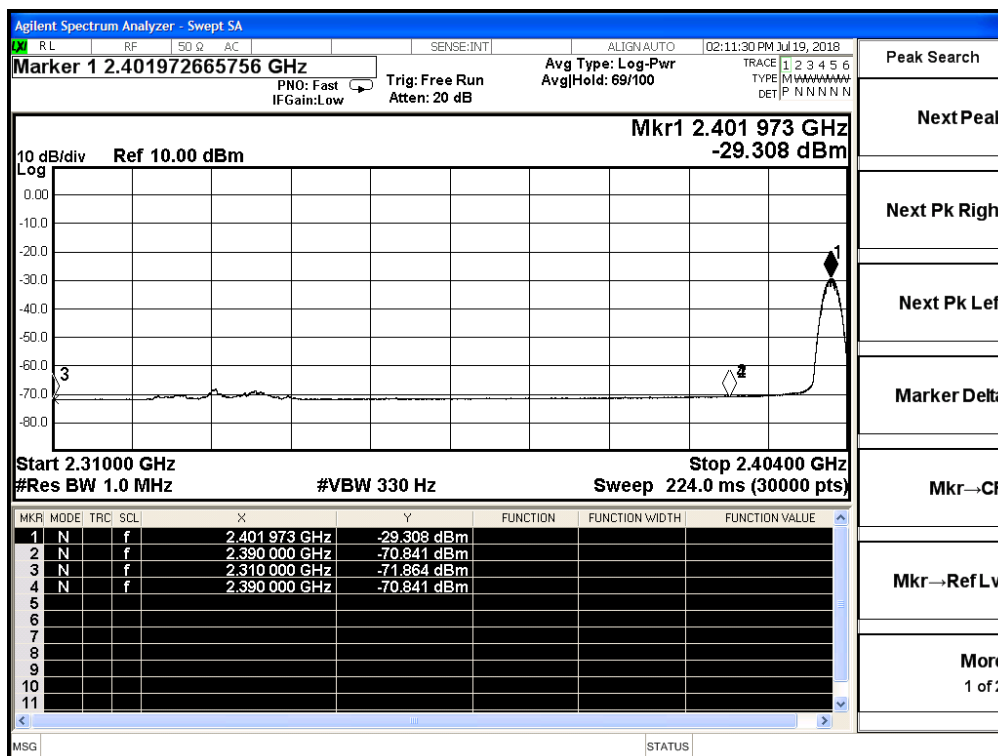
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

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)

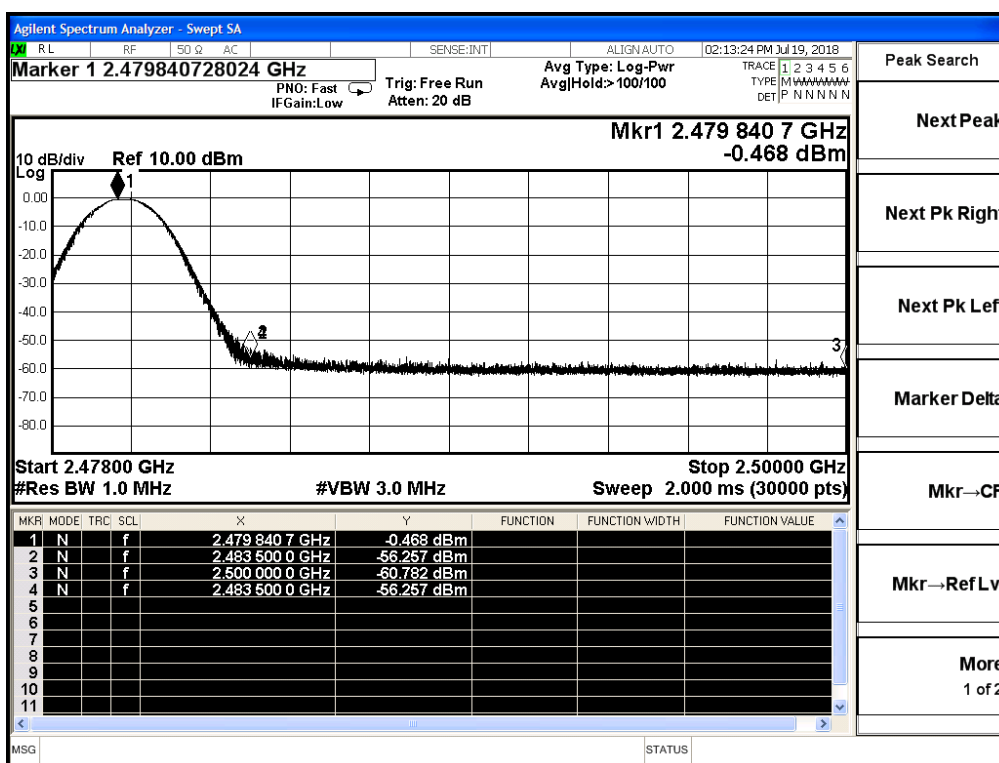
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

