

Appendix A

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

Product Name: Non-Subscription 7 inch Tablet

Trade Mark: N/A

Test Model: TAB-T103A

Environmental Conditions

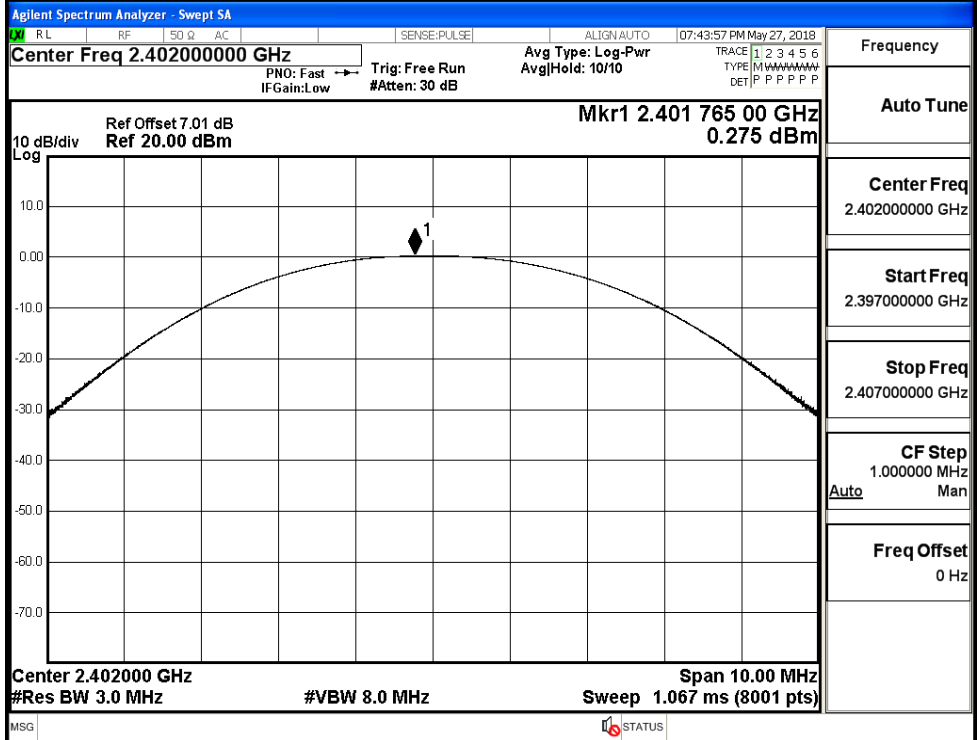
Temperature:	24.3°C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Wilson Hong
Supervised by:	Jayden.Zhuo

A.1 Maxmum Conducted Peak Output Power

Mode	Channel.	Conducted Peak Power [dBm]	Conducted Average Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.275	-0.525	30	PASS
	MCH	0.142	-0.858	30	PASS
	HCH	0.445	-0.455	30	PASS
$\pi/4$ DQPSK	LCH	0.020	-0.780	21	PASS
	MCH	-0.024	-0.724	21	PASS
	HCH	0.228	-0.572	21	PASS
8DPSK	LCH	0.168	-0.532	21	PASS
	MCH	0.194	-0.506	21	PASS
	HCH	0.484	-0.416	21	PASS

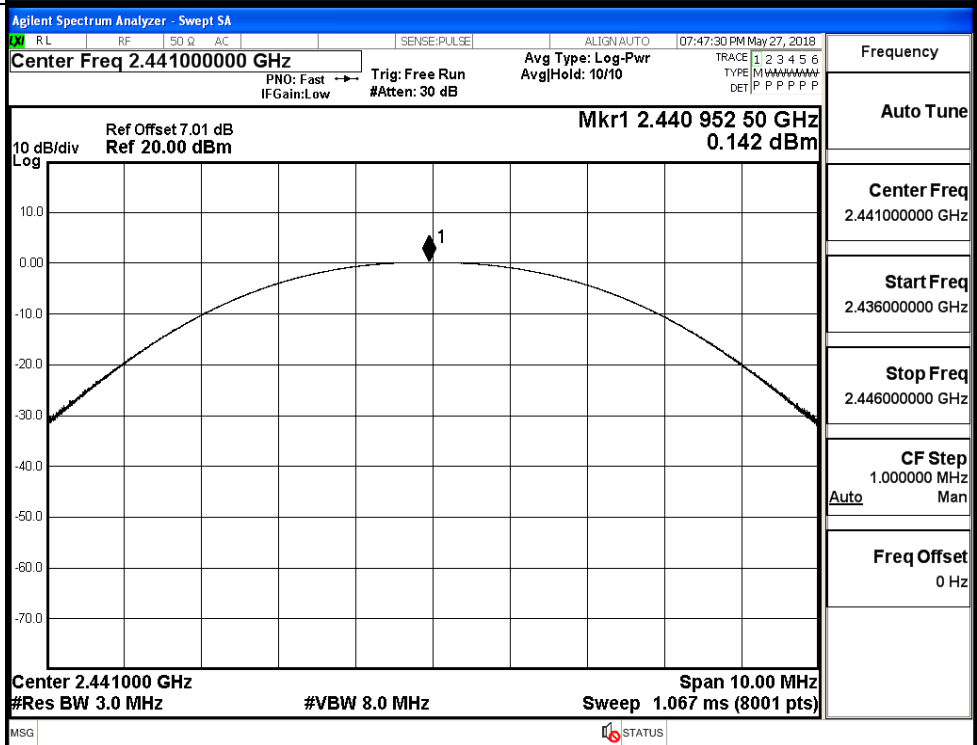
Test Graphs

GFSK/LCH



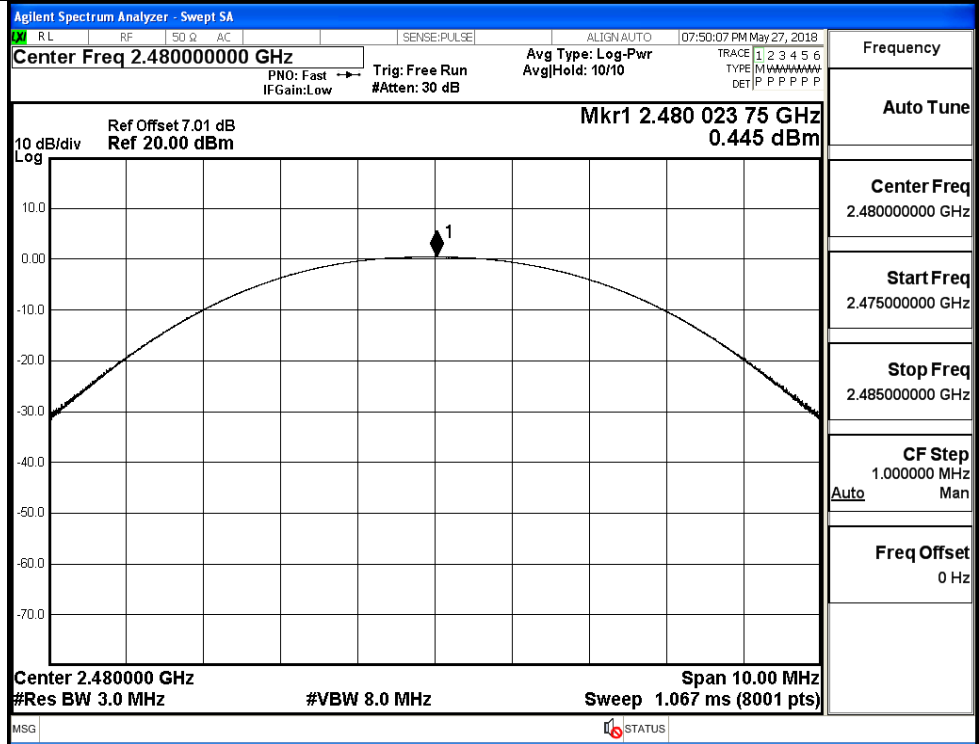
Frequency	
Auto Tune	
Center Freq	2.40200000 GHz
Start Freq	2.397000000 GHz
Stop Freq	2.407000000 GHz
CF Step	1.000000 MHz
	Auto Man
Freq Offset	0 Hz

GFSK/MCH

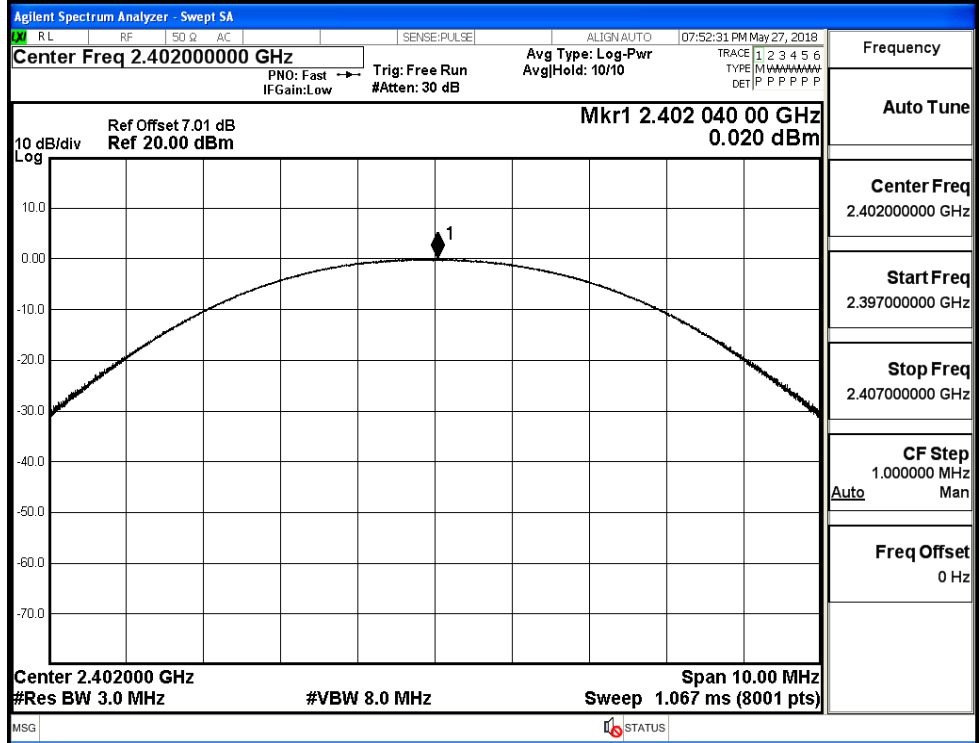


Frequency	
Auto Tune	
Center Freq	2.44100000 GHz
Start Freq	2.436000000 GHz
Stop Freq	2.446000000 GHz
CF Step	1.000000 MHz
	Auto Man
Freq Offset	0 Hz

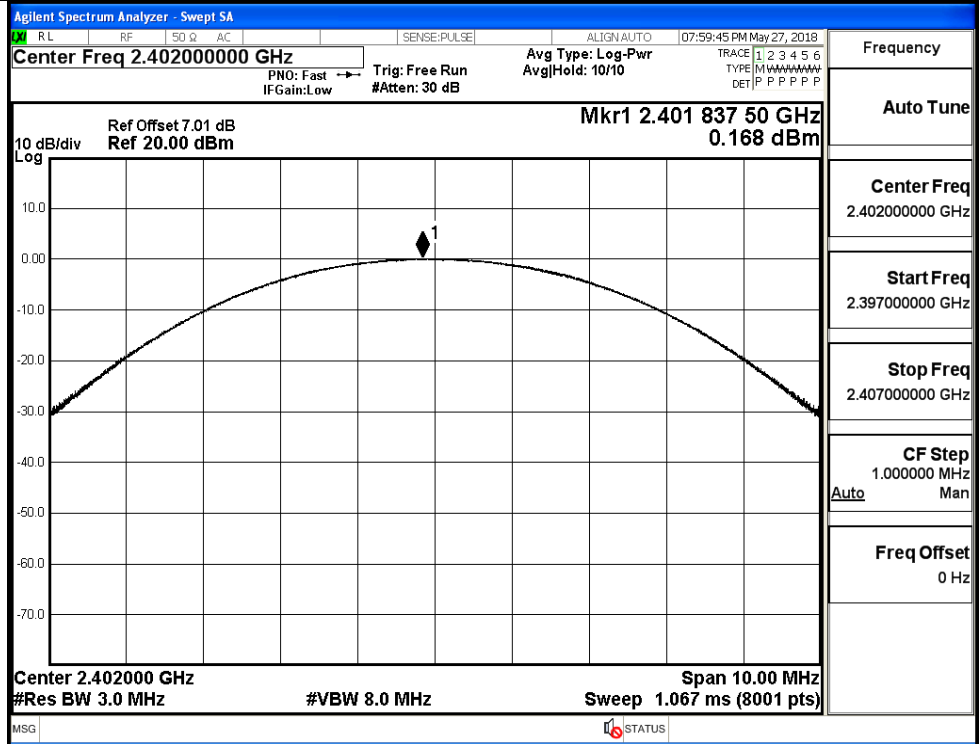
GFSK/HCH



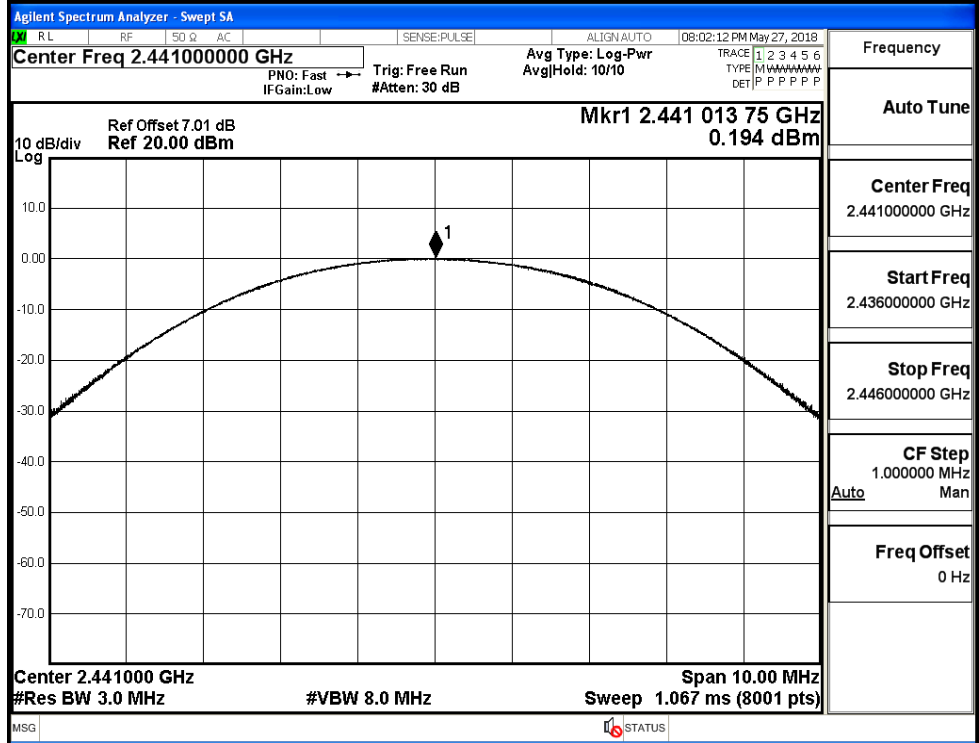
π /4DQPSK/LCH



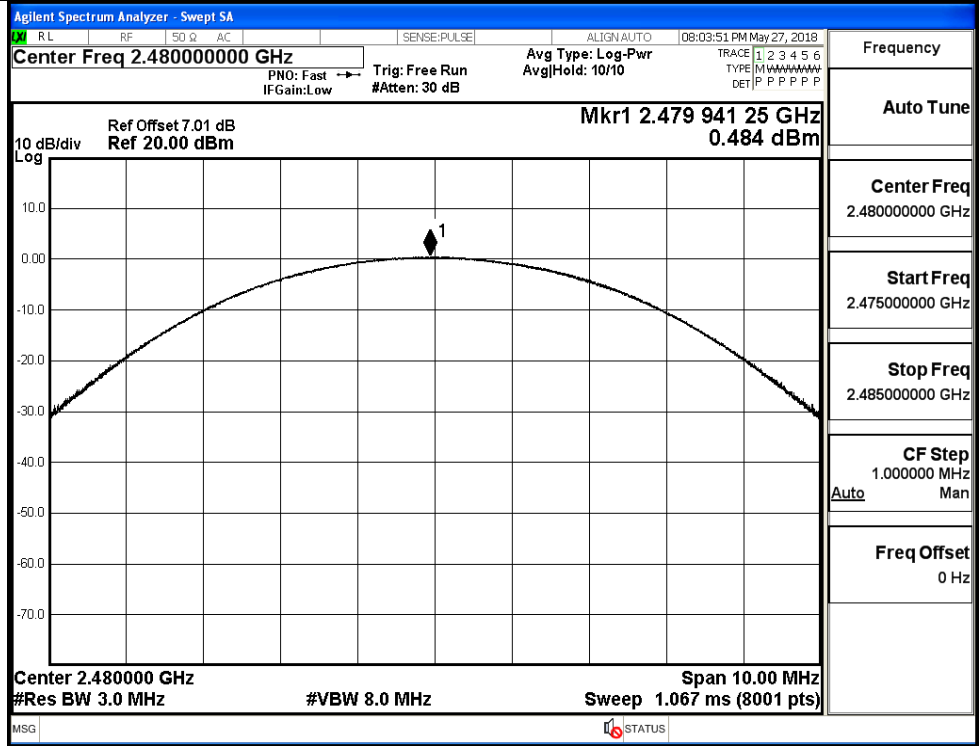
8DPSK/LCH



8DPSK/MCH

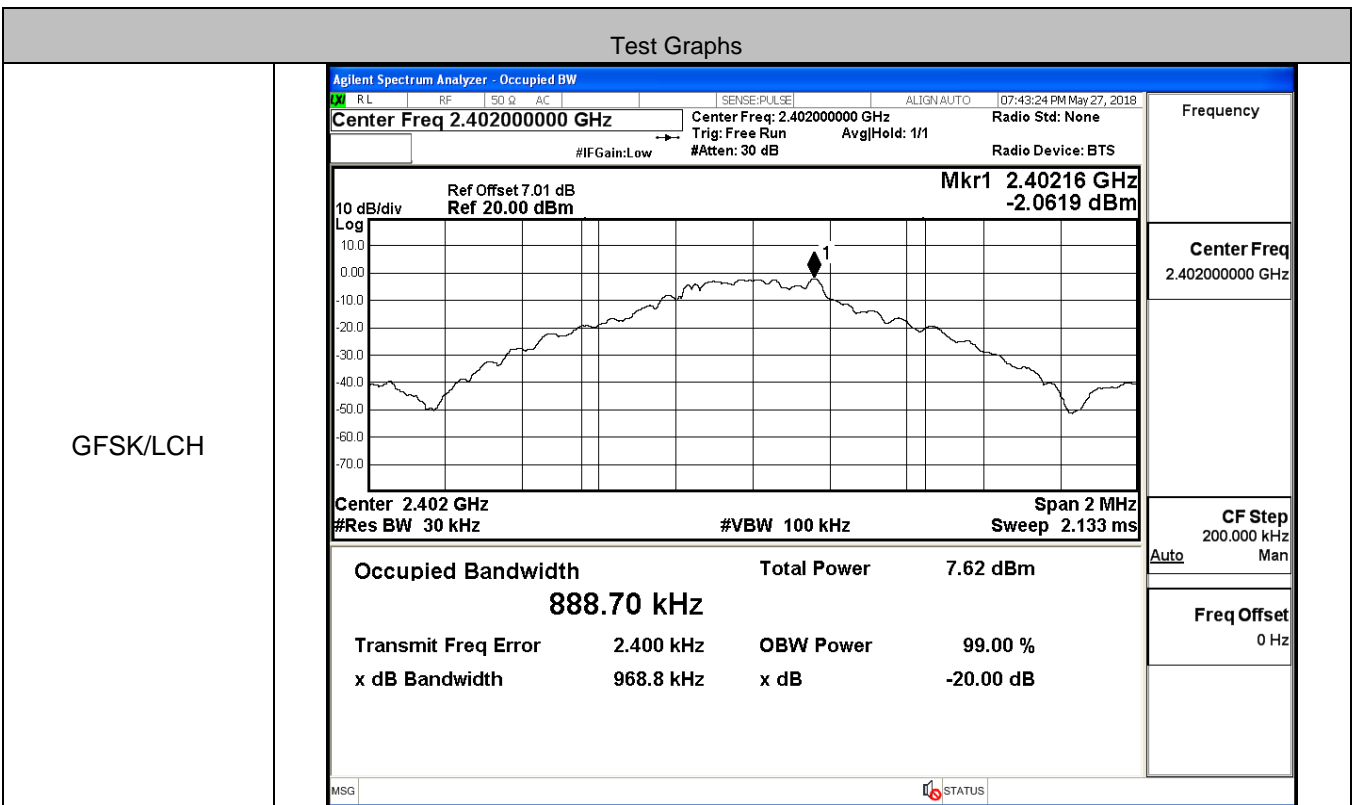


8DPSK/HCH

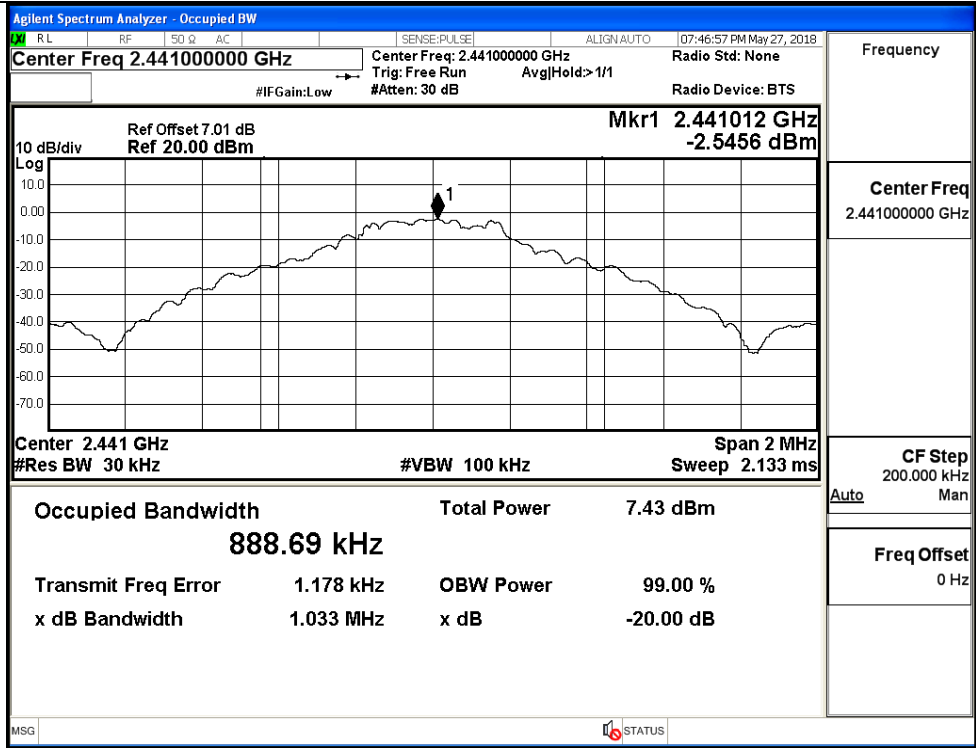


A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.9688	Not Specified	PASS
	MCH	1.033	Not Specified	PASS
	HCH	0.9667	Not Specified	PASS
$\pi/4$ DQPSK	LCH	1.290	Not Specified	PASS
	MCH	1.288	Not Specified	PASS
	HCH	1.287	Not Specified	PASS
8DPSK	LCH	1.295	Not Specified	PASS
	MCH	1.289	Not Specified	PASS
	HCH	1.292	Not Specified	PASS

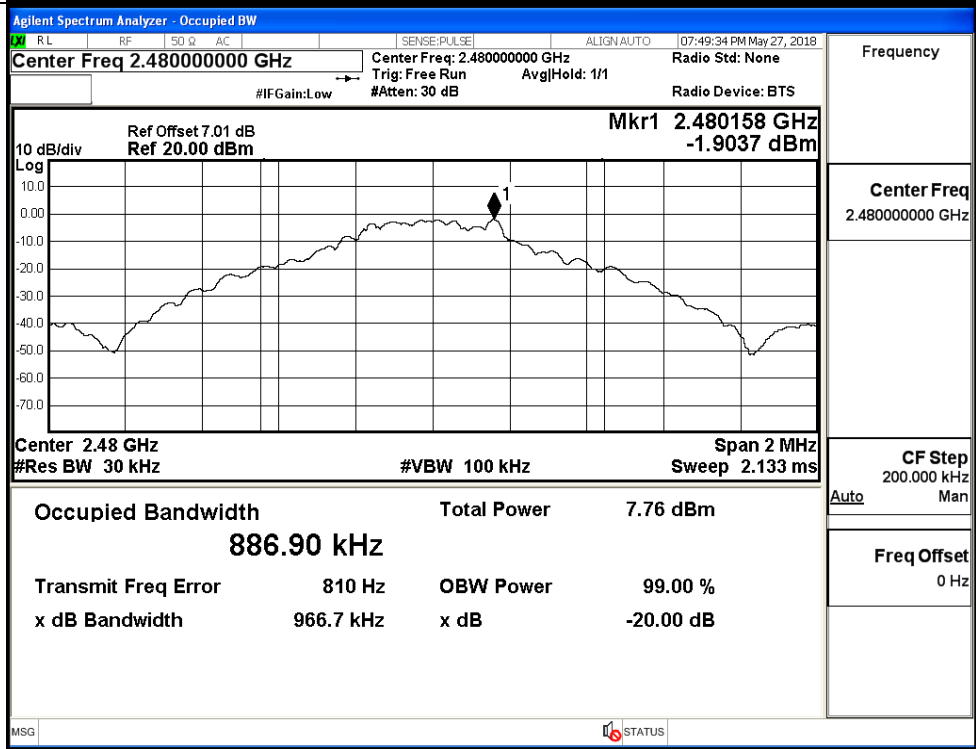


GFSK/MCH



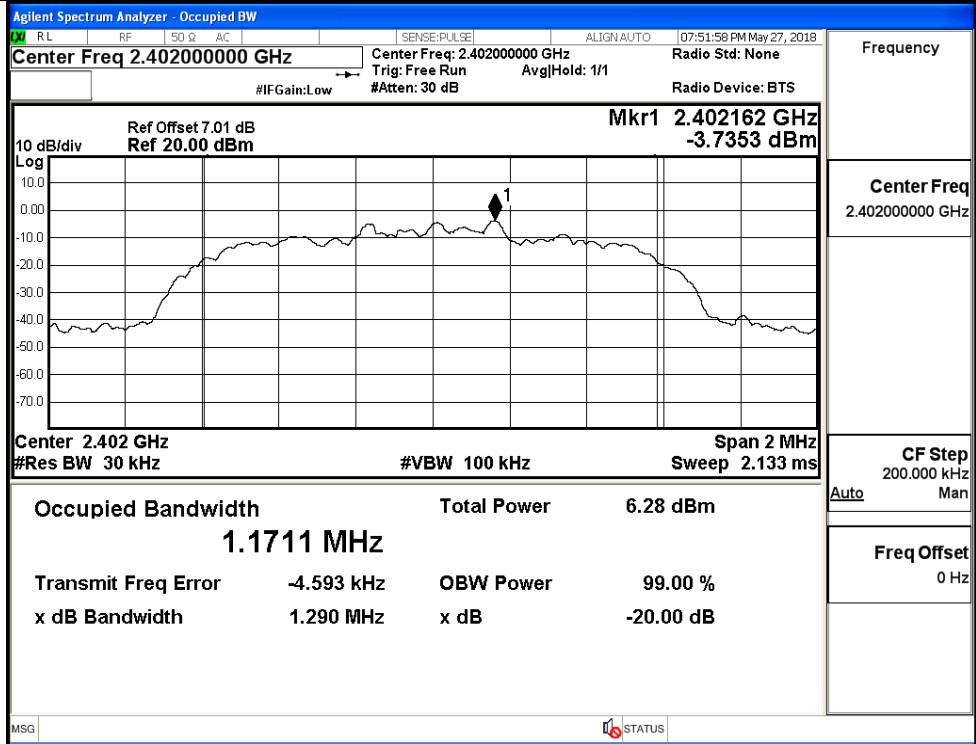
Frequency	2.441000000 GHz
Center Freq	2.441000000 GHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz

GFSK/HCH

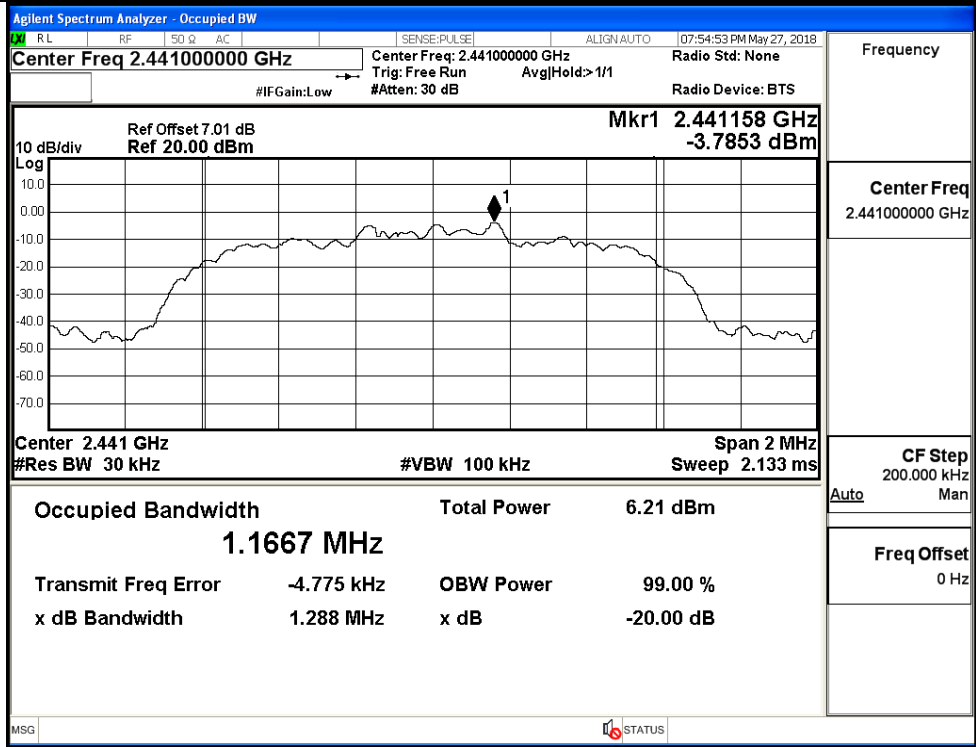


Frequency	2.480000000 GHz
Center Freq	2.480000000 GHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz

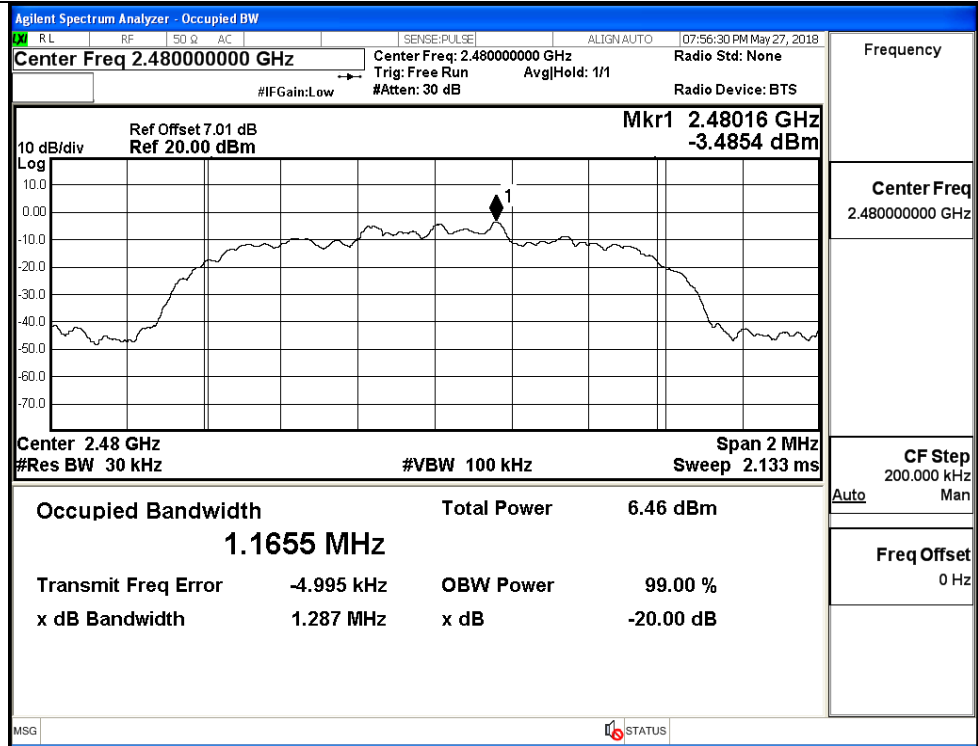
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH

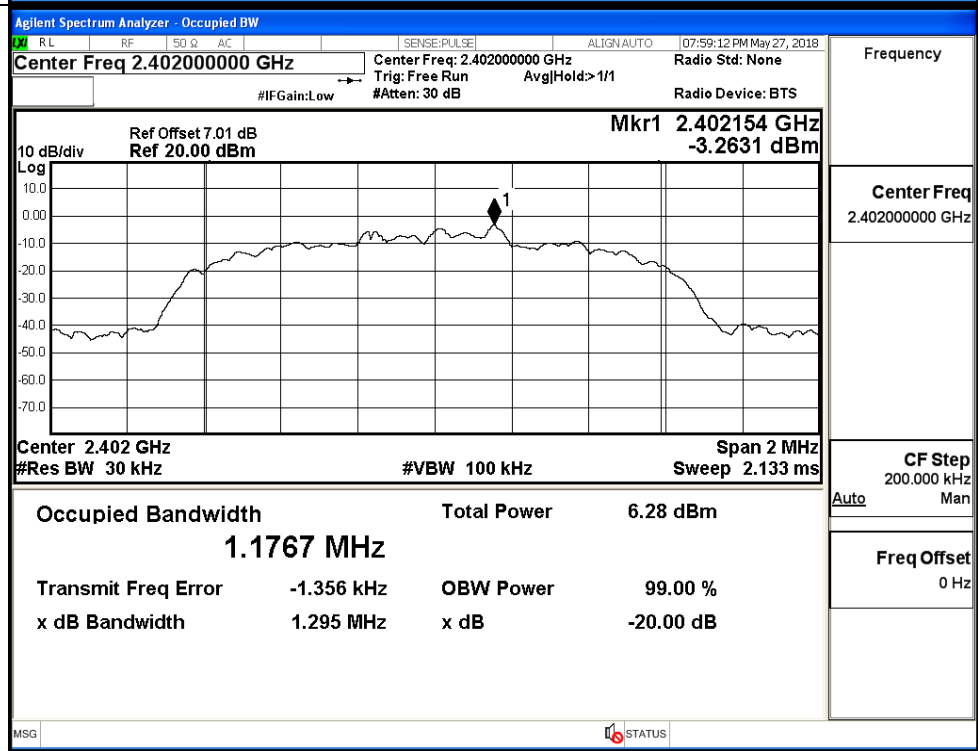


$\pi/4$ DQPSK/HCH



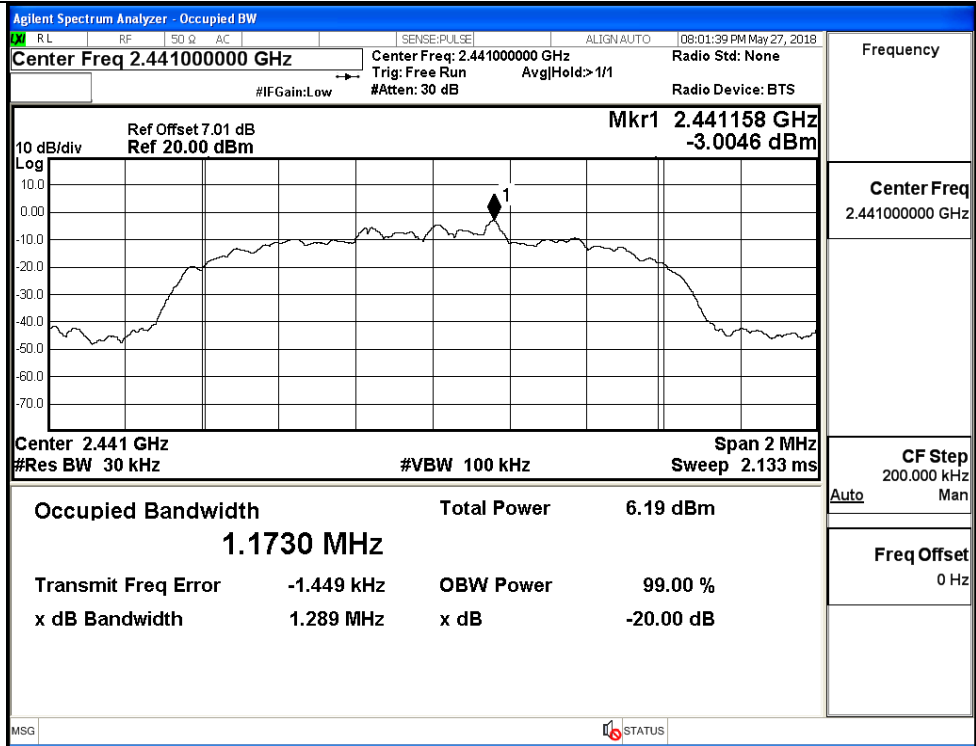
Frequency	2.48000000 GHz
Center Freq	2.48000000 GHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz

8DPSK/LCH

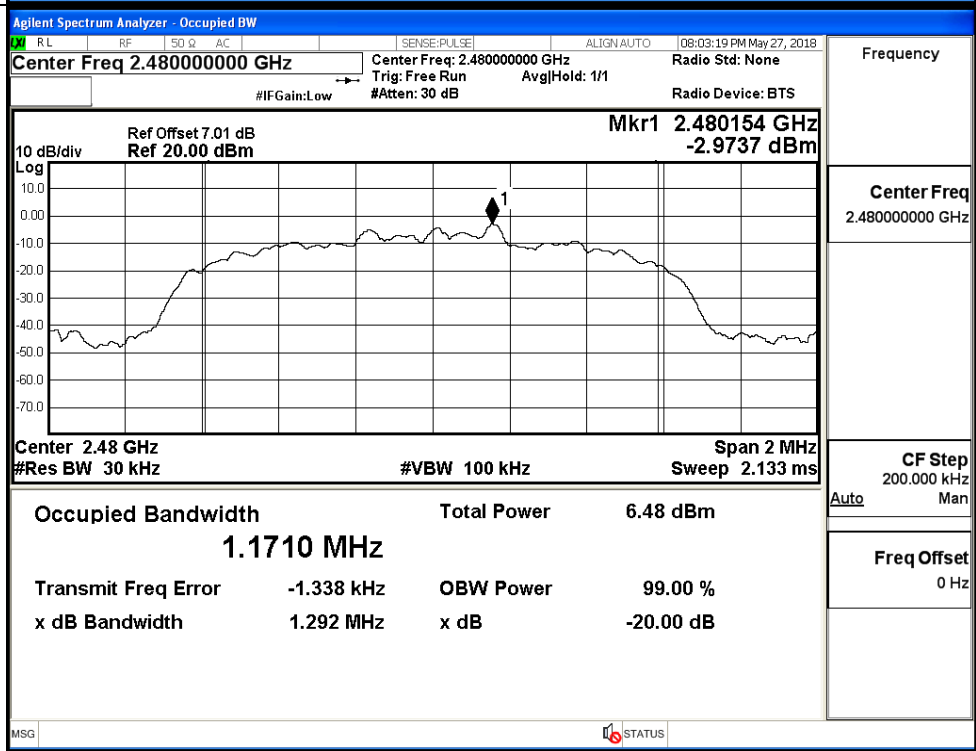


Frequency	2.40200000 GHz
Center Freq	2.40200000 GHz
CF Step	200.000 kHz
Auto	Man
Freq Offset	0 Hz

8DPSK/MCH



8DPSK/HCH



A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.004	0.689	PASS
	MCH	0.948	0.689	PASS
	HCH	1.304	0.689	PASS
π/4DQPSK	LCH	1.000	0.860	PASS
	MCH	1.024	0.860	PASS
	HCH	0.878	0.860	PASS
8DPSK	LCH	1.226	0.863	PASS
	MCH	1.208	0.863	PASS
	HCH	0.928	0.863	PASS

Test Graphs

GFSK/LCH

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.402500000 GHz

Ref Offset 7.01 dB
Ref 20.00 dBm

ΔMkr1 1.004 00 MHz
0.584 dB

Start 2.401500 GHz
#Res BW 100 kHz

Stop 2.403500 GHz
#VBW 300 kHz
Sweep 1.067 ms (8001 pts)

MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	Δ2	f	(Δ)	1.004 00 MHz (Δ)	0.584 dB			
2	F	f		2.402 145 00 GHz	-0.655 dBm			
3								
4								
5								
6								
7								
8								
9								
10								
11								

Frequency

Auto Tune

Center Freq
2.402500000 GHz

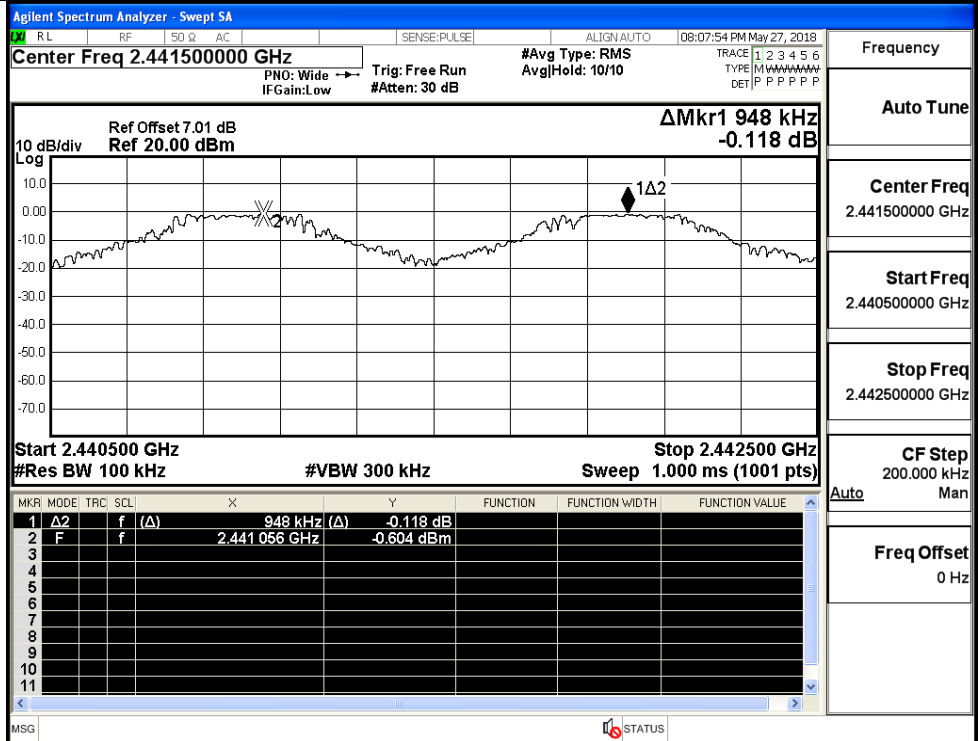
Start Freq
2.401500000 GHz

Stop Freq
2.403500000 GHz

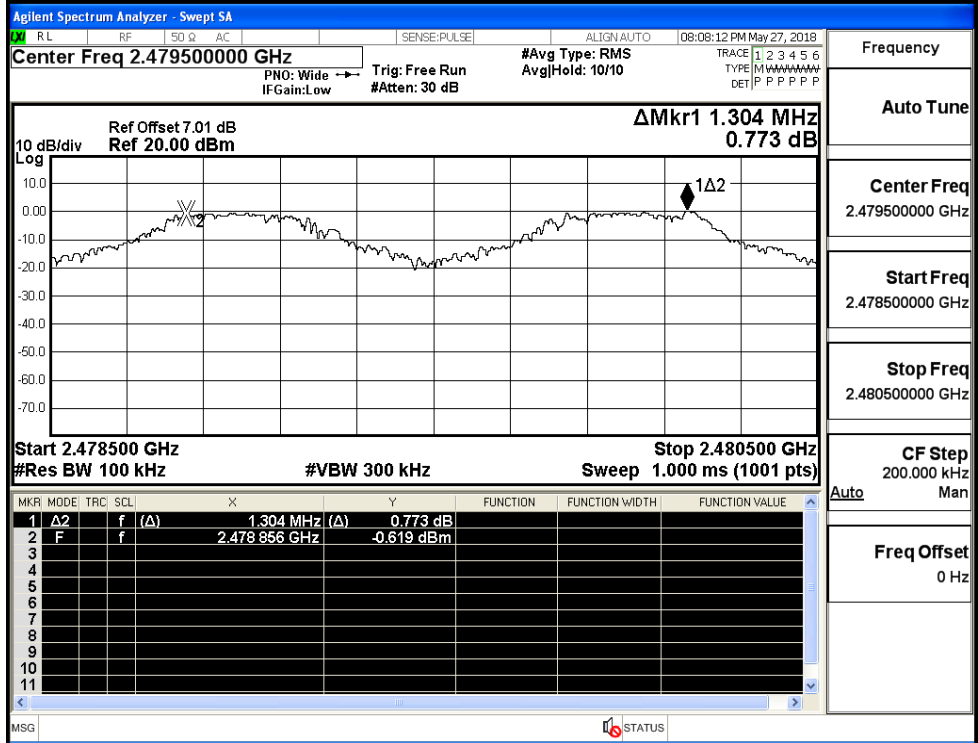
CF Step
200.000 kHz
Auto Man

Freq Offset
0 Hz

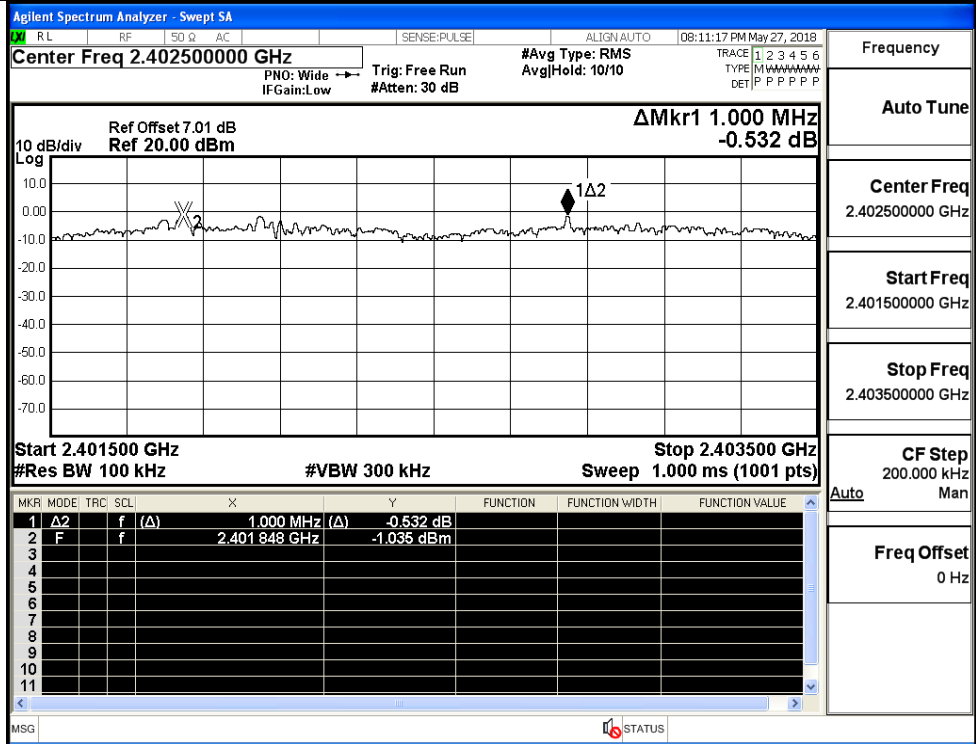
GFSK/MCH



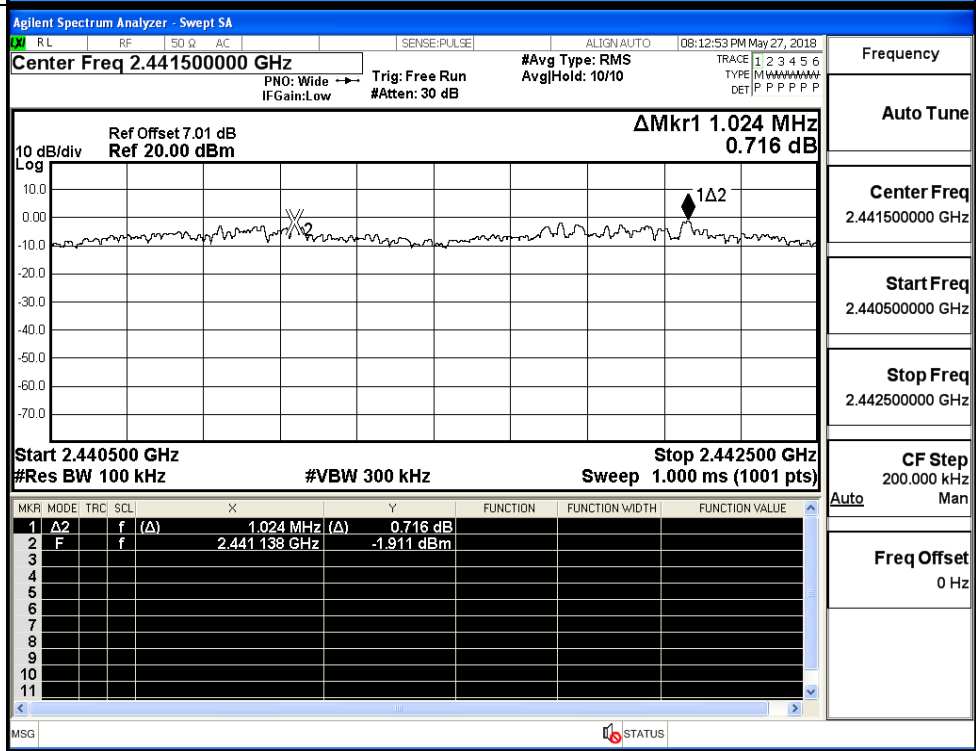
GFSK/HCH



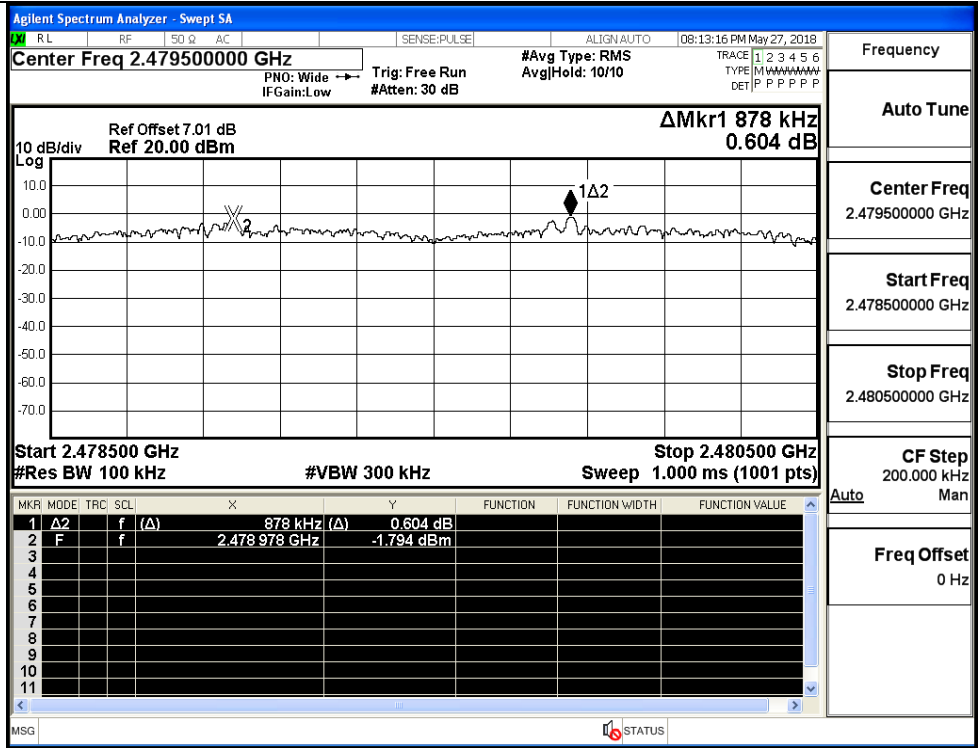
π /4DQPSK/LCH



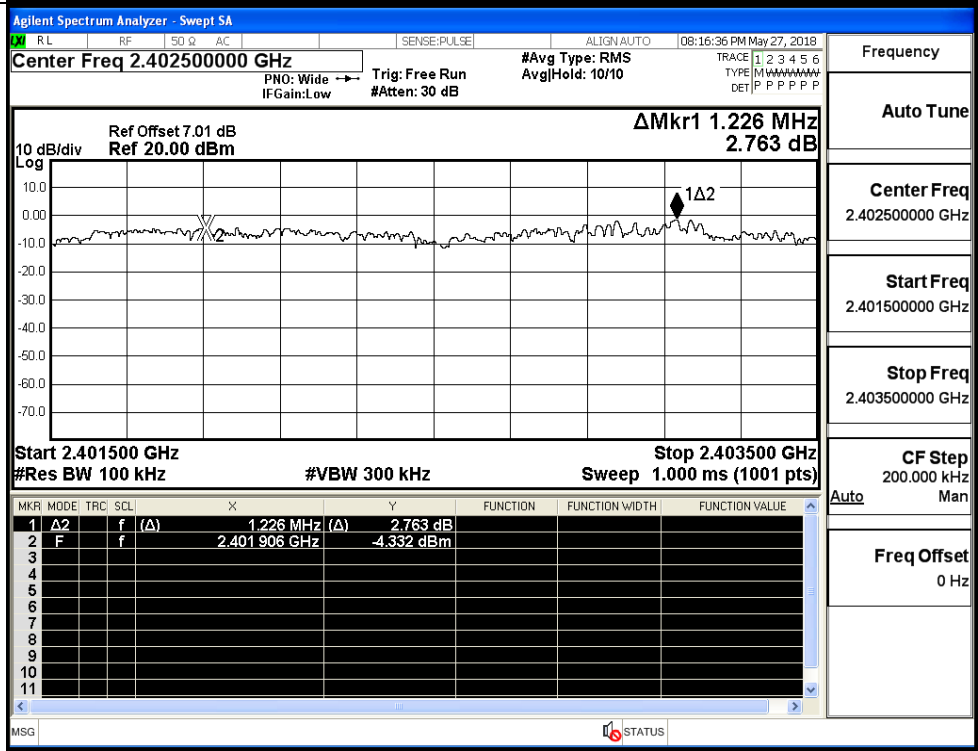
π /4DQPSK/MCH

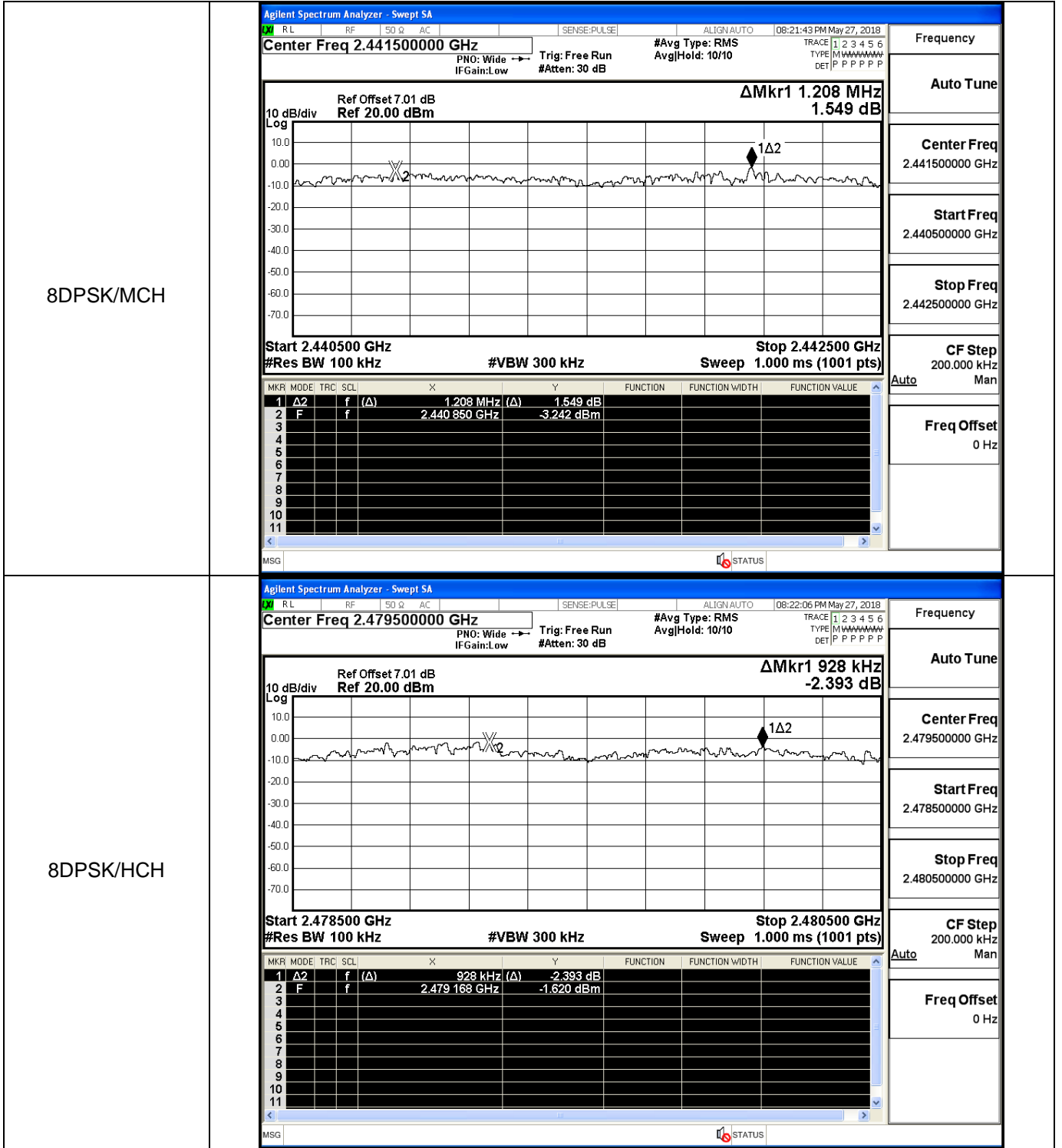


π/4DQPSK/HCH



8DPSK/LCH



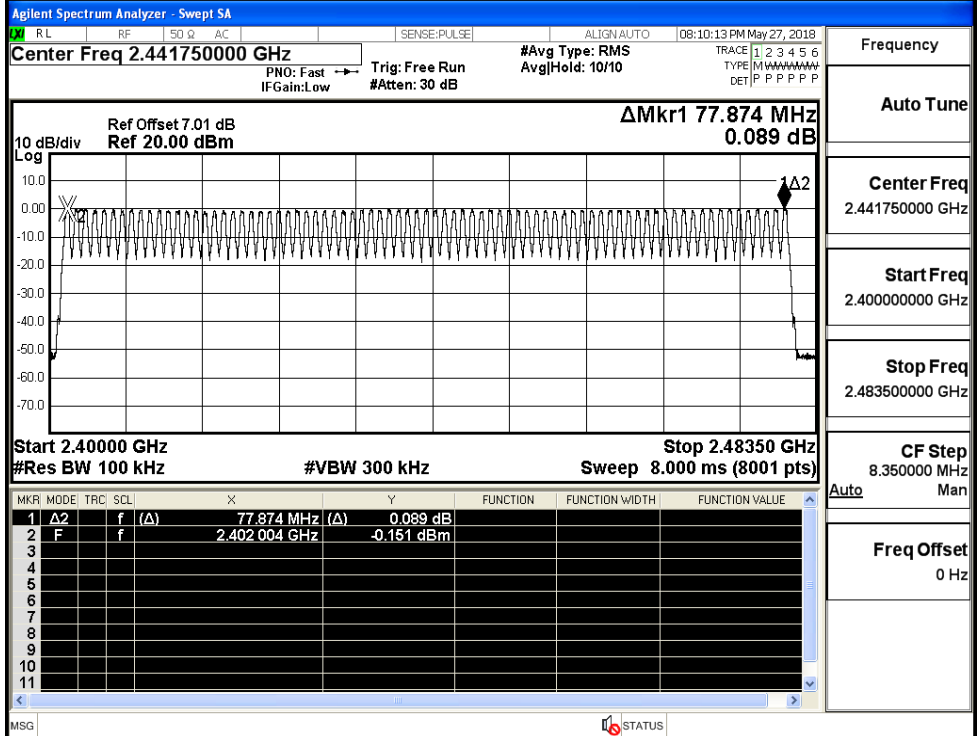


A.4 Hopping Channel Number

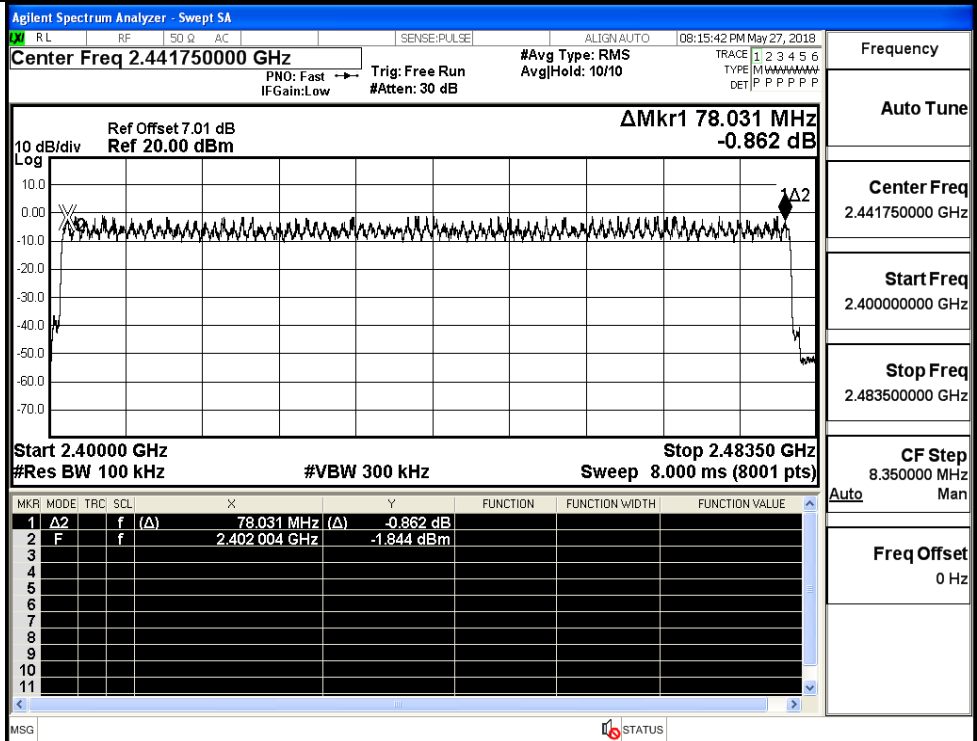
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
π/4DQPSK	Hop	79	>=15	PASS
8DPSK	Hop	79	>=15	PASS

Test Graphs

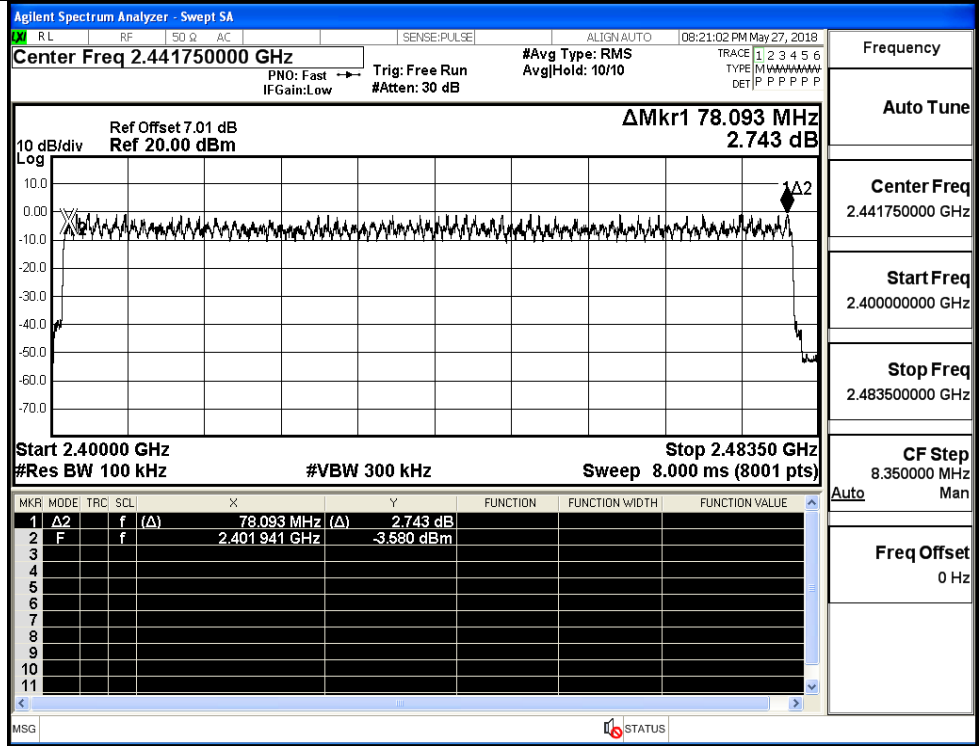
GFSK/Hop



π/4DQPSK/Hop

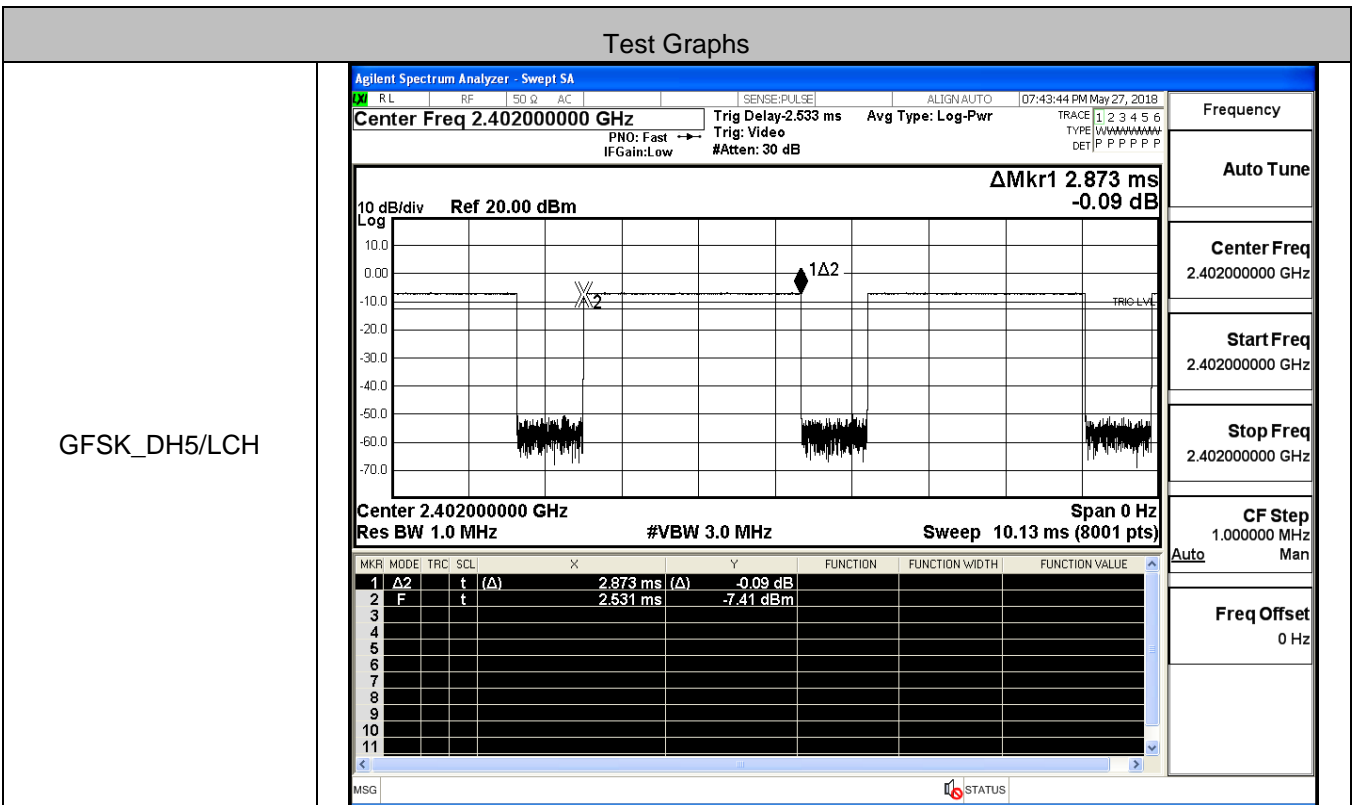


8DPSK/Hop

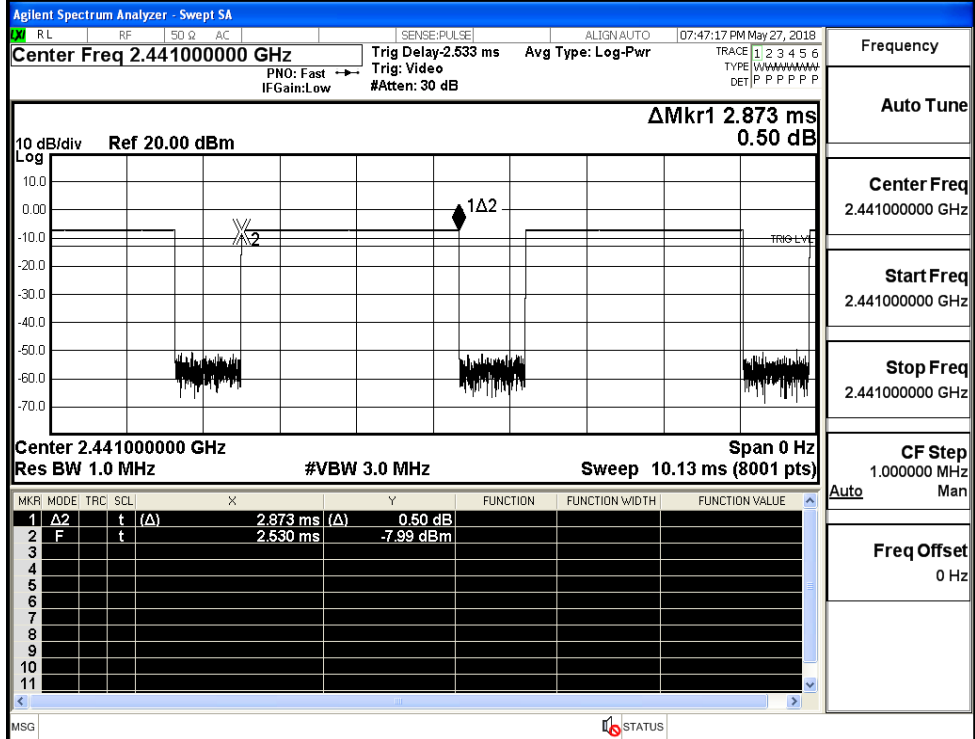


A.5 Dwell Time

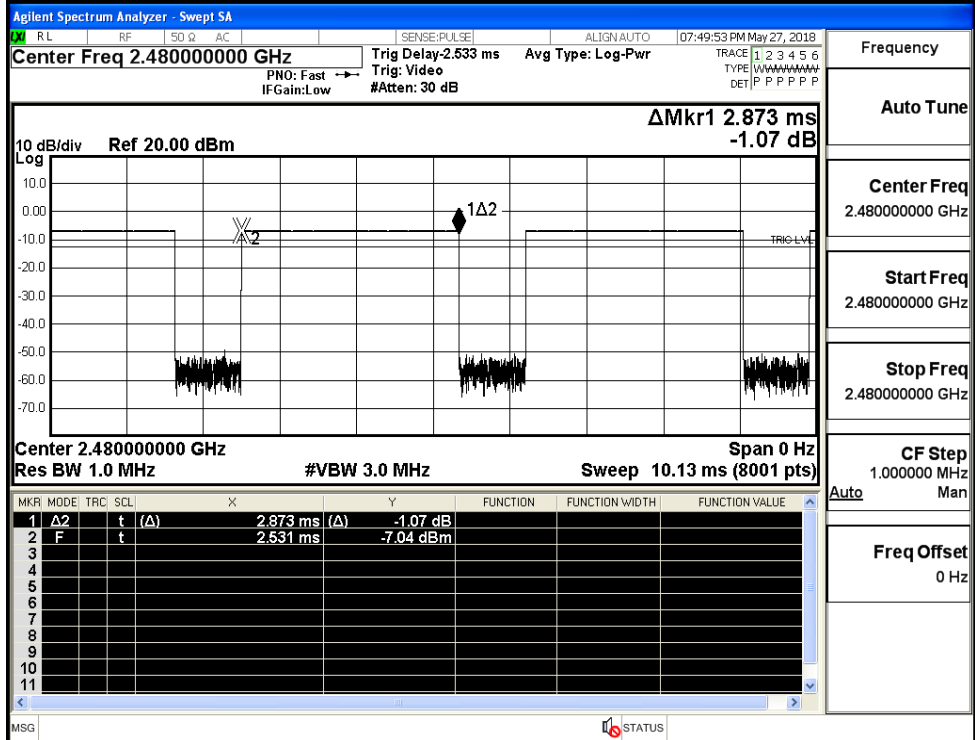
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.87	106.7	0.306	0.4	PASS
	DH5	MCH	2.87	106.7	0.306	0.4	PASS
	DH5	HCH	2.87	106.7	0.306	0.4	PASS
π/4DQPSK	2DH5	LCH	2.87	106.7	0.302	0.4	PASS
	2DH5	MCH	2.87	106.7	0.302	0.4	PASS
	2DH5	HCH	2.87	106.7	0.302	0.4	PASS
8DPSK	3DH5	LCH	2.87	106.7	0.307	0.4	PASS
	3DH5	MCH	2.87	106.7	0.307	0.4	PASS
	3DH5	HCH	2.87	106.7	0.307	0.4	PASS



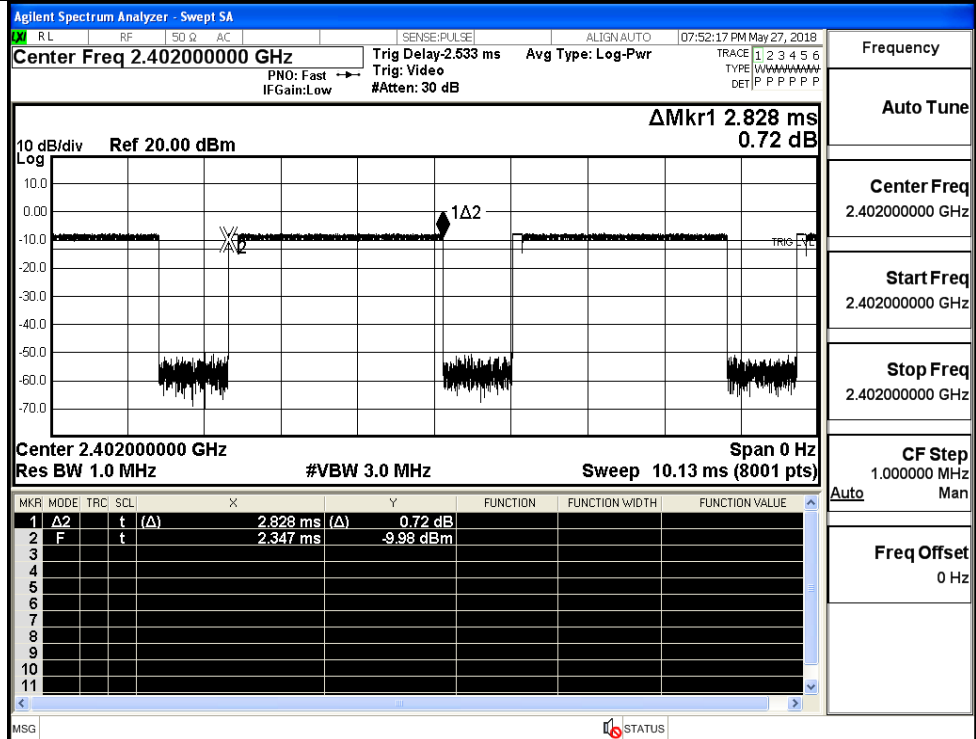
GFSK_DH5/MCH



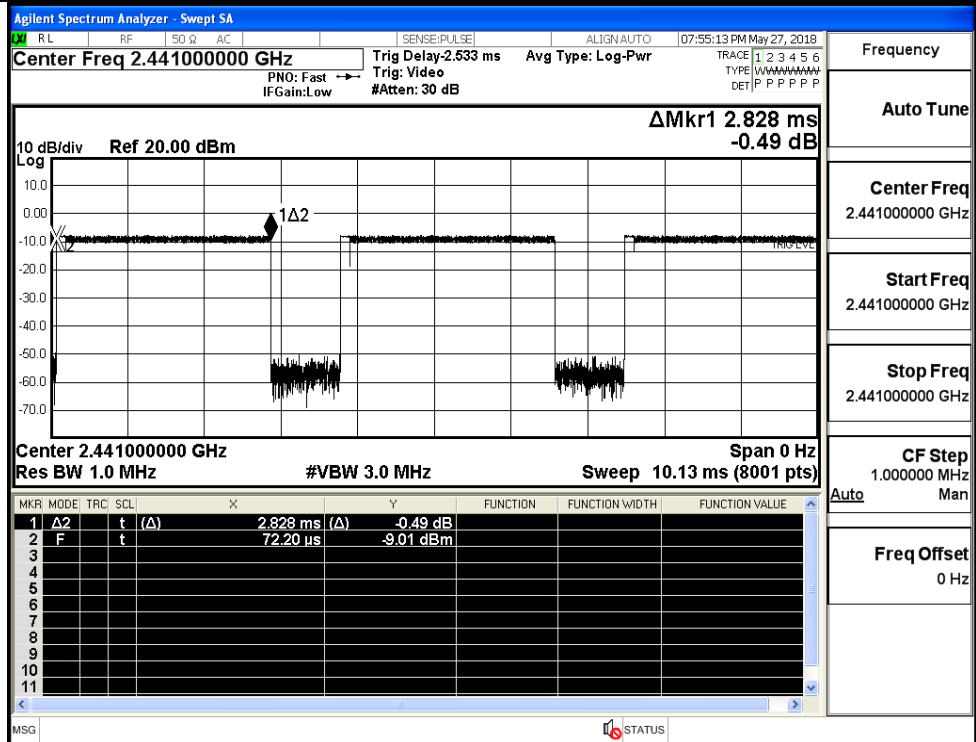
GFSK_DH5/HCH



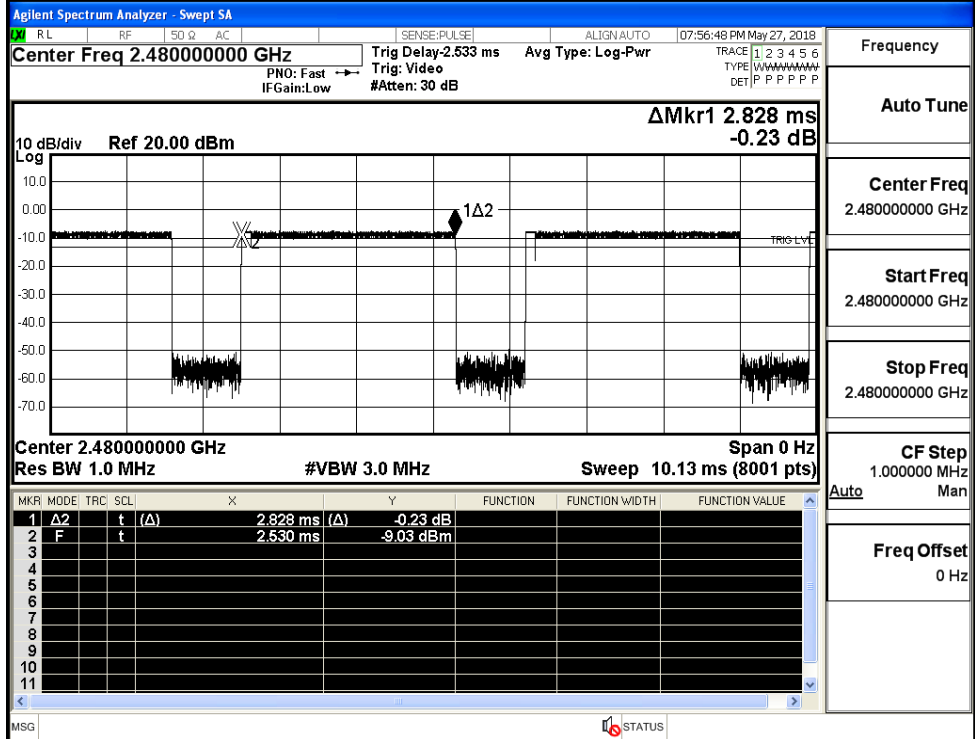
$\pi/4$ DQPSK
_2DH5/LCH



$\pi/4$ DQPSK
_2DH5/MCH

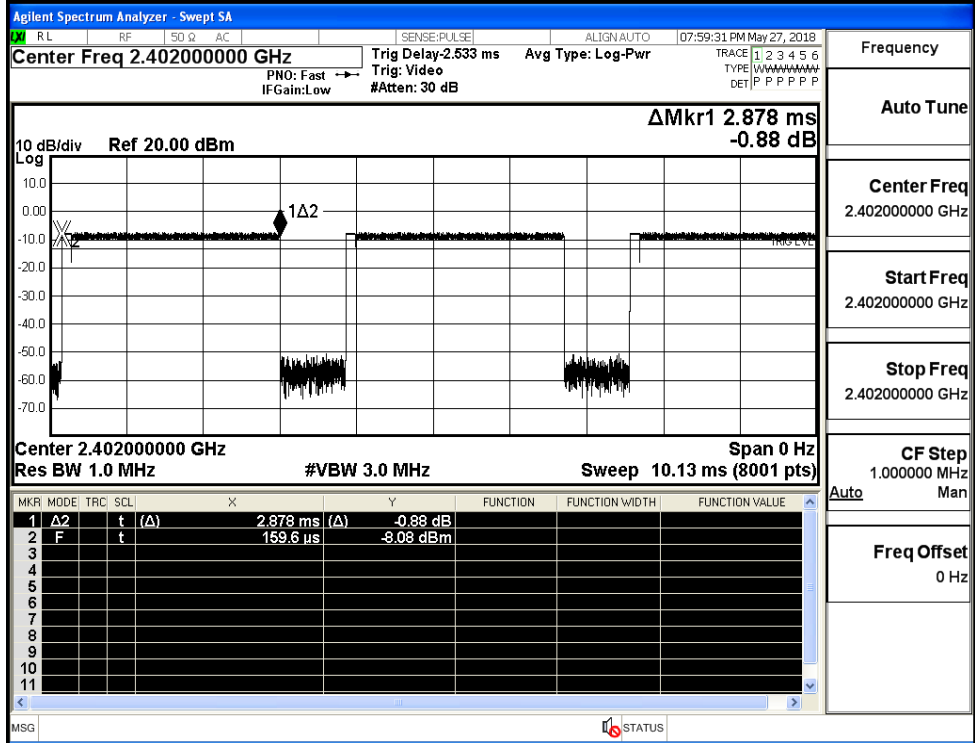


$\pi/4$ DQPSK
_2DH5/HCH



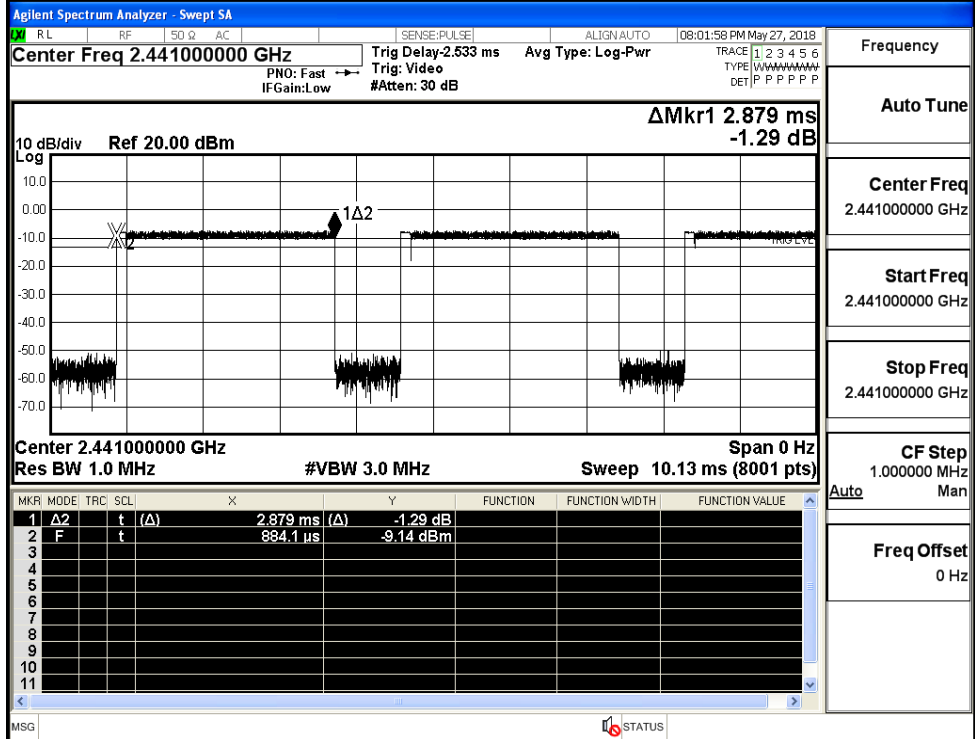
Frequency	
Auto Tune	
Center Freq	2.48000000 GHz
Start Freq	2.480000000 GHz
Stop Freq	2.480000000 GHz
CF Step	1.000000 MHz
Auto	Man
Freq Offset	0 Hz

8DPSK_3DH5/LCH



Frequency	
Auto Tune	
Center Freq	2.40200000 GHz
Start Freq	2.402000000 GHz
Stop Freq	2.402000000 GHz
CF Step	1.000000 MHz
Auto	Man
Freq Offset	0 Hz

8DPSK_3DH5/MCH



Frequency

Auto Tune

Center Freq 2.441000000 GHz

Start Freq 2.441000000 GHz

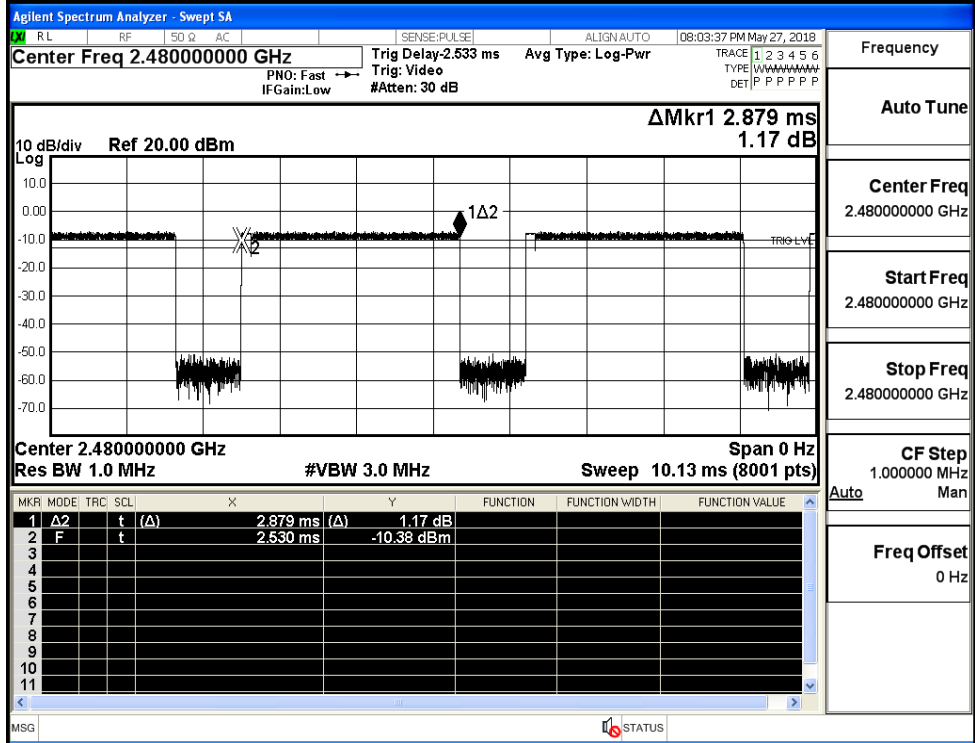
Stop Freq 2.441000000 GHz

CF Step 1.000000 MHz

Auto Man

Freq Offset 0 Hz

8DPSK_3DH5/HCH



Frequency

Auto Tune

Center Freq 2.480000000 GHz

Start Freq 2.480000000 GHz

Stop Freq 2.480000000 GHz

CF Step 1.000000 MHz

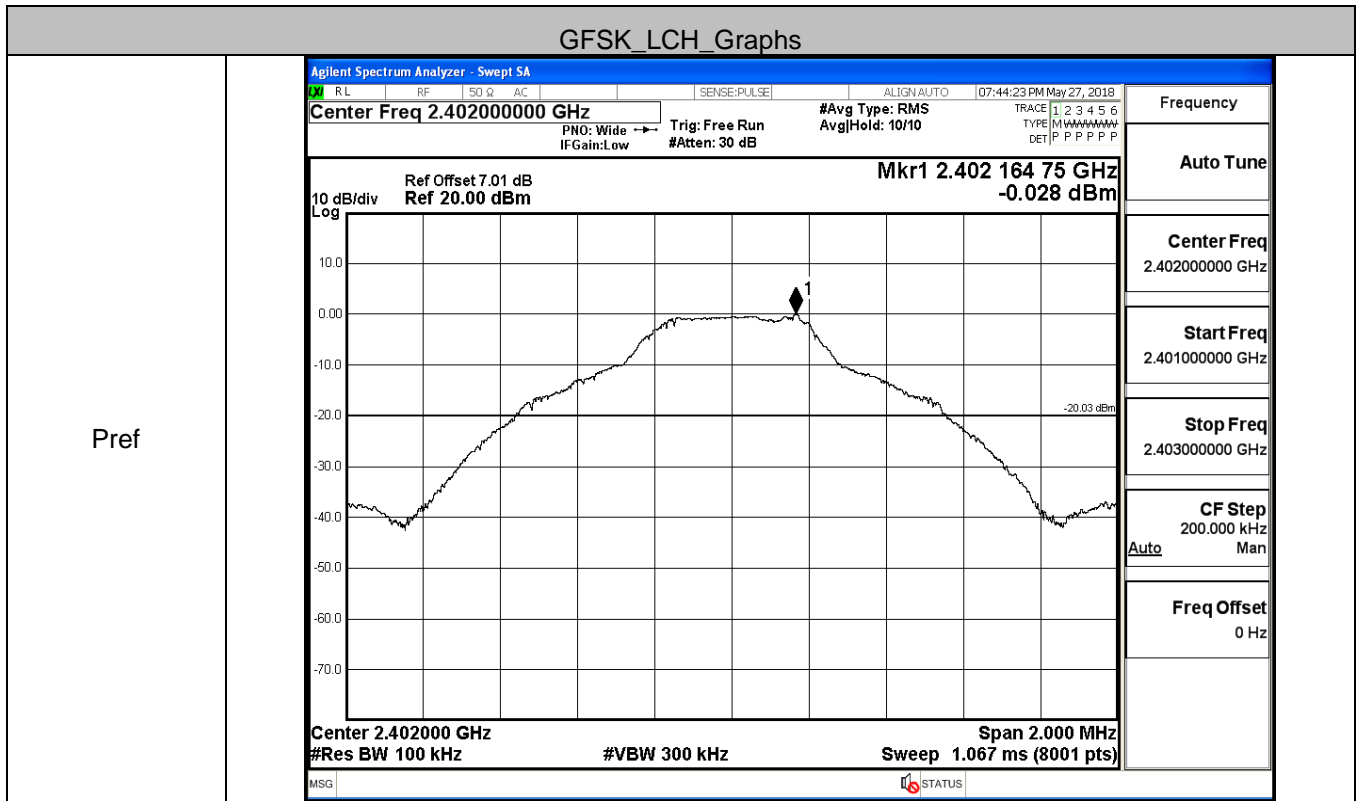
Auto Man

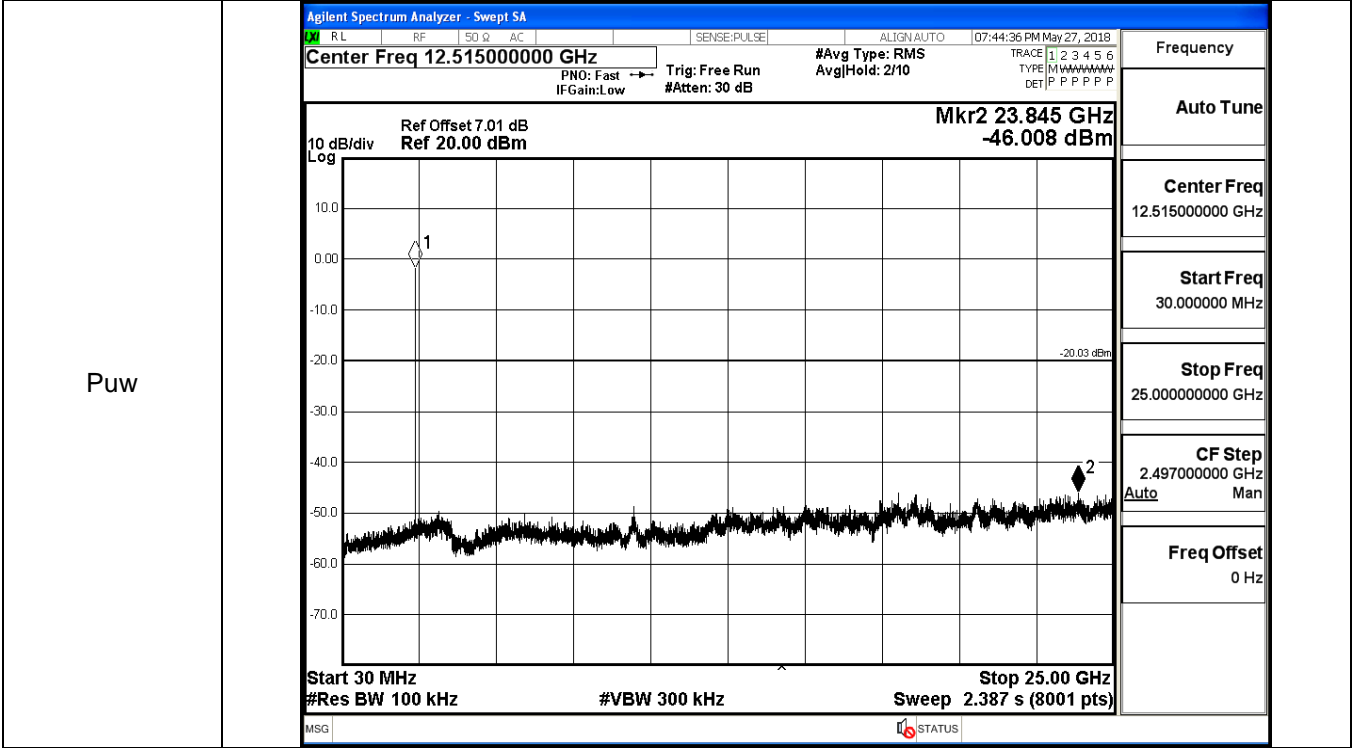
Freq Offset 0 Hz

A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.028	-46.008	-20.028	PASS
	MCH	-0.107	-44.863	-20.107	PASS
	HCH	0.146	-45.569	-19.854	PASS
$\pi/4$ DQPSK	LCH	-1.096	-45.832	-21.096	PASS
	MCH	-1.34	-45.695	-21.340	PASS
	HCH	-0.838	-45.981	-20.838	PASS
8DPSK	LCH	-0.907	-45.961	-20.907	PASS
	MCH	-0.923	-46.400	-20.923	PASS
	HCH	-1.39	-45.352	-21.390	PASS

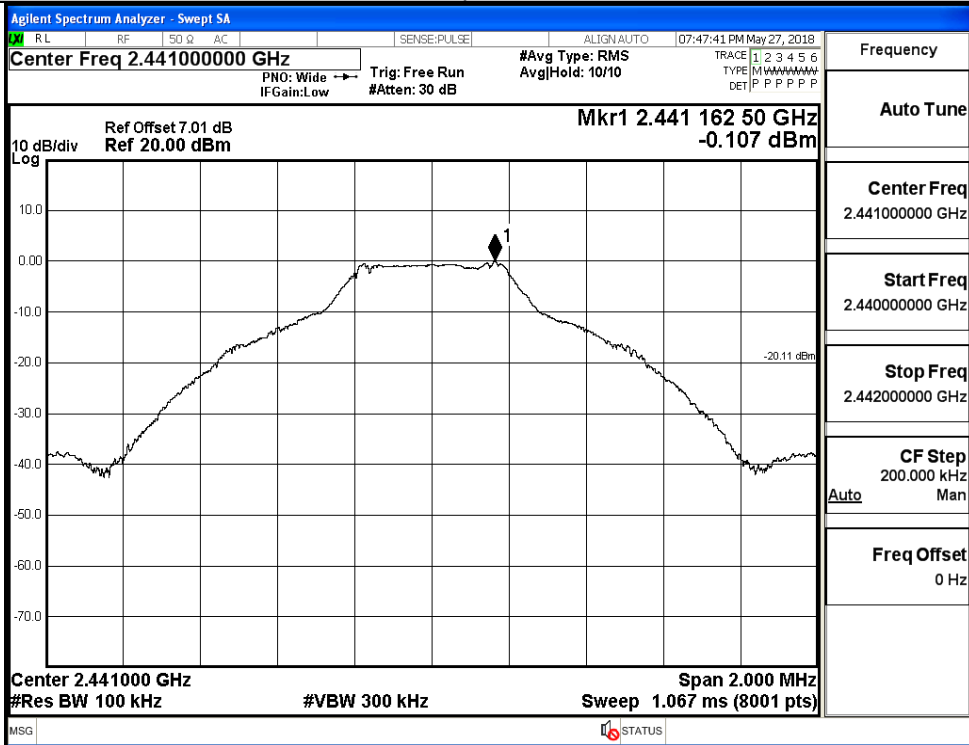
GFSK_LCH_Graphs



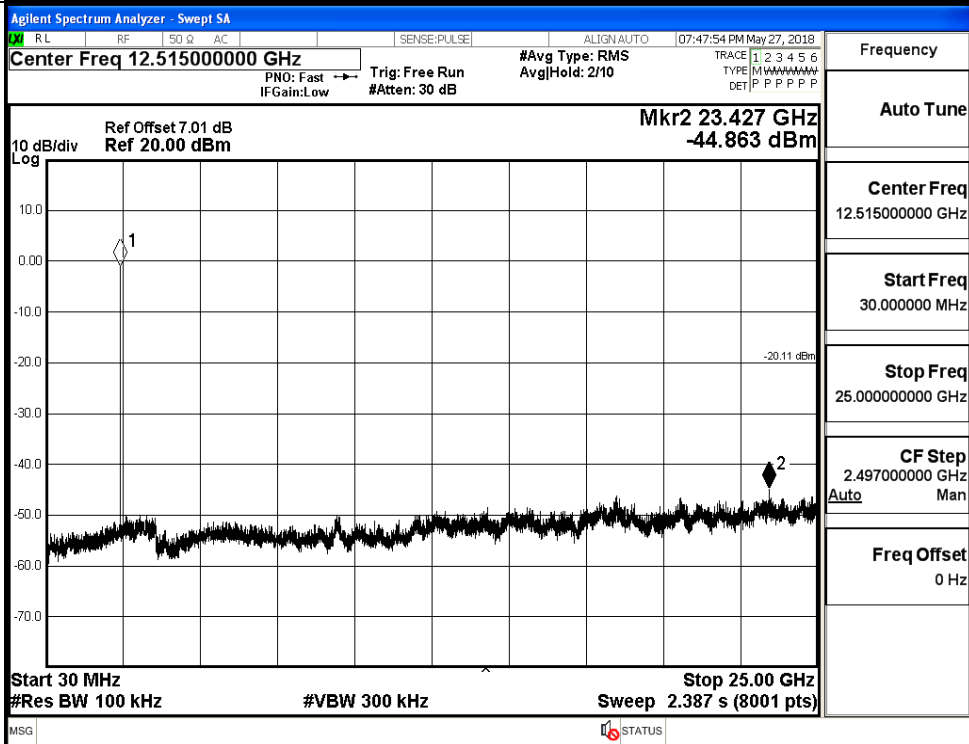


GFSK_MCH_Graphs

Pref

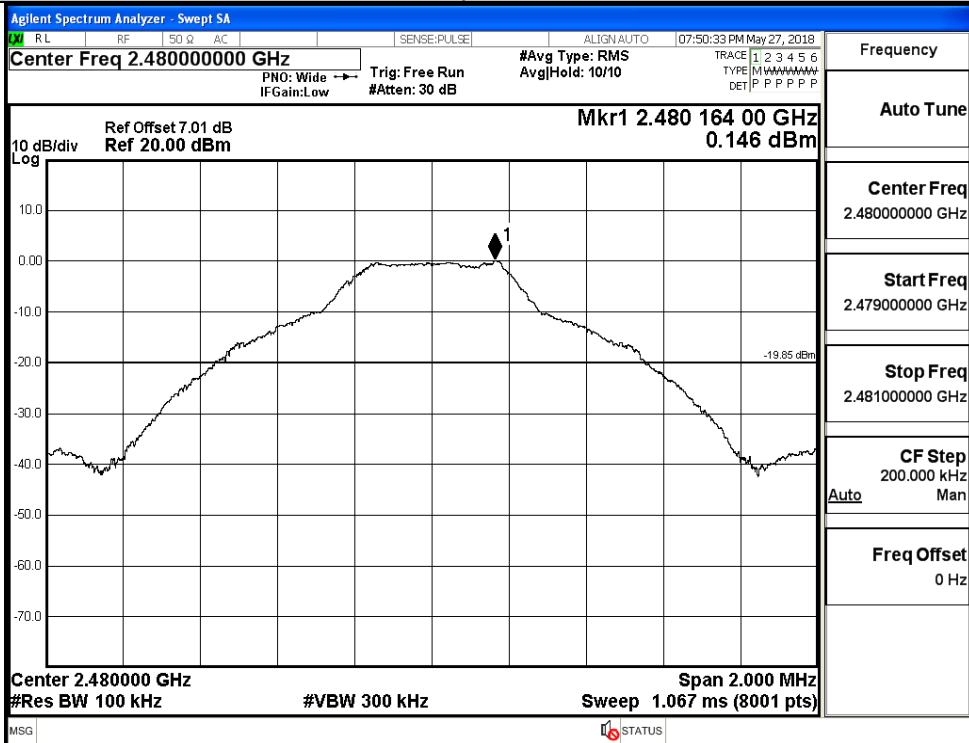


Puw

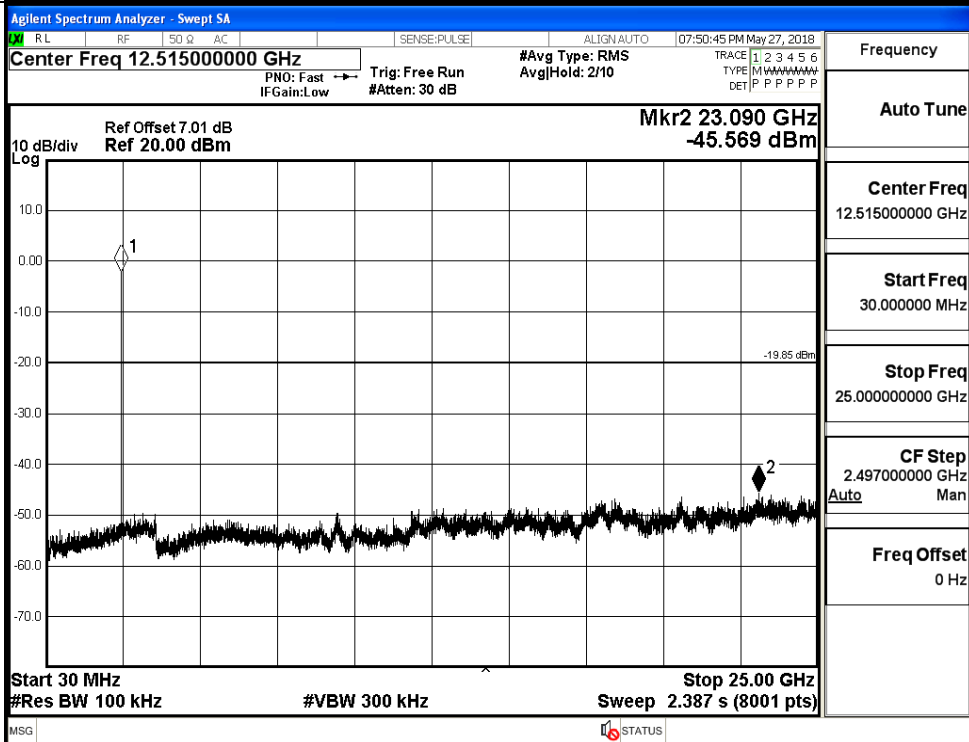


GFSK_HCH_Graphs

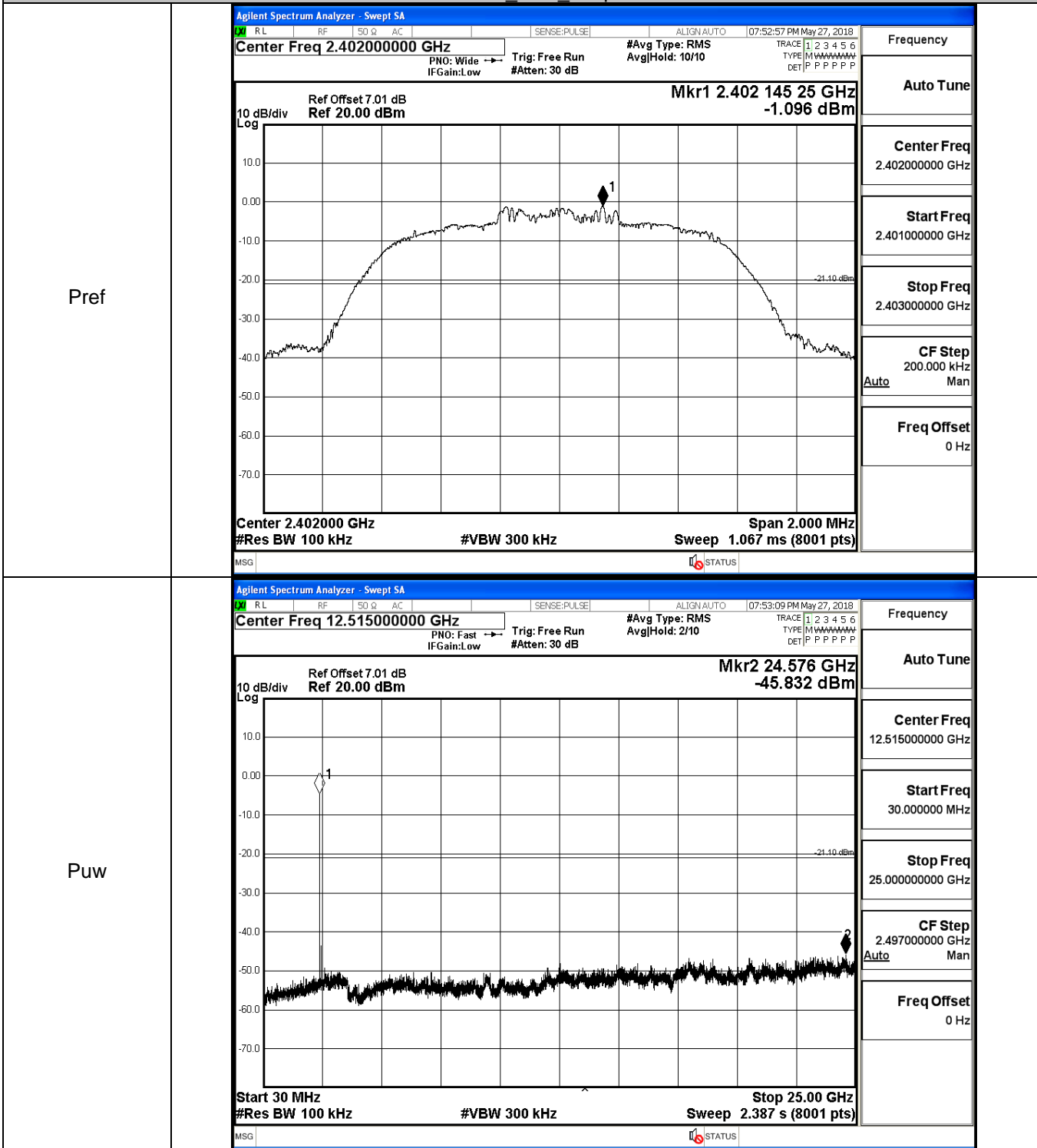
Pref



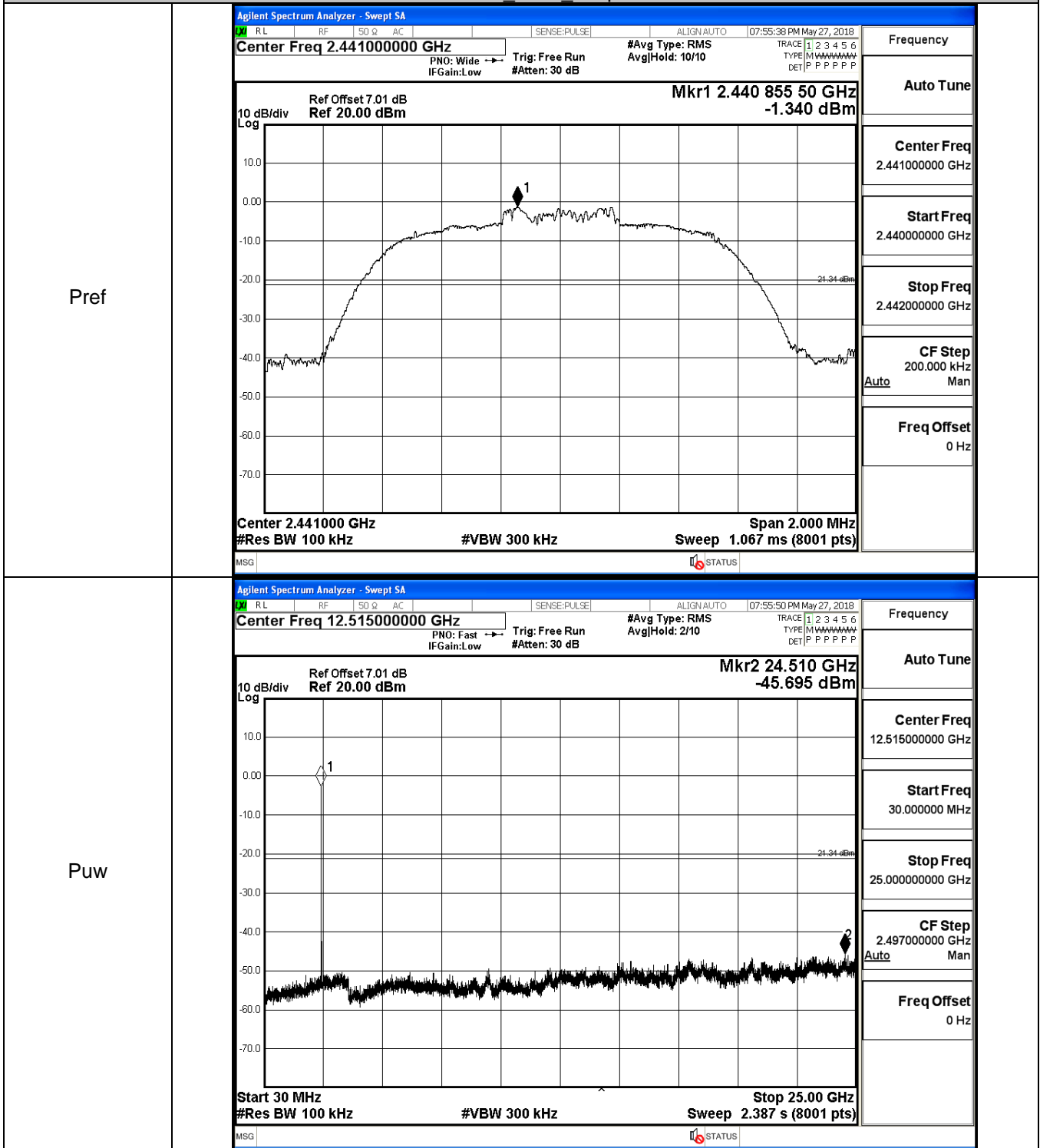
Puw



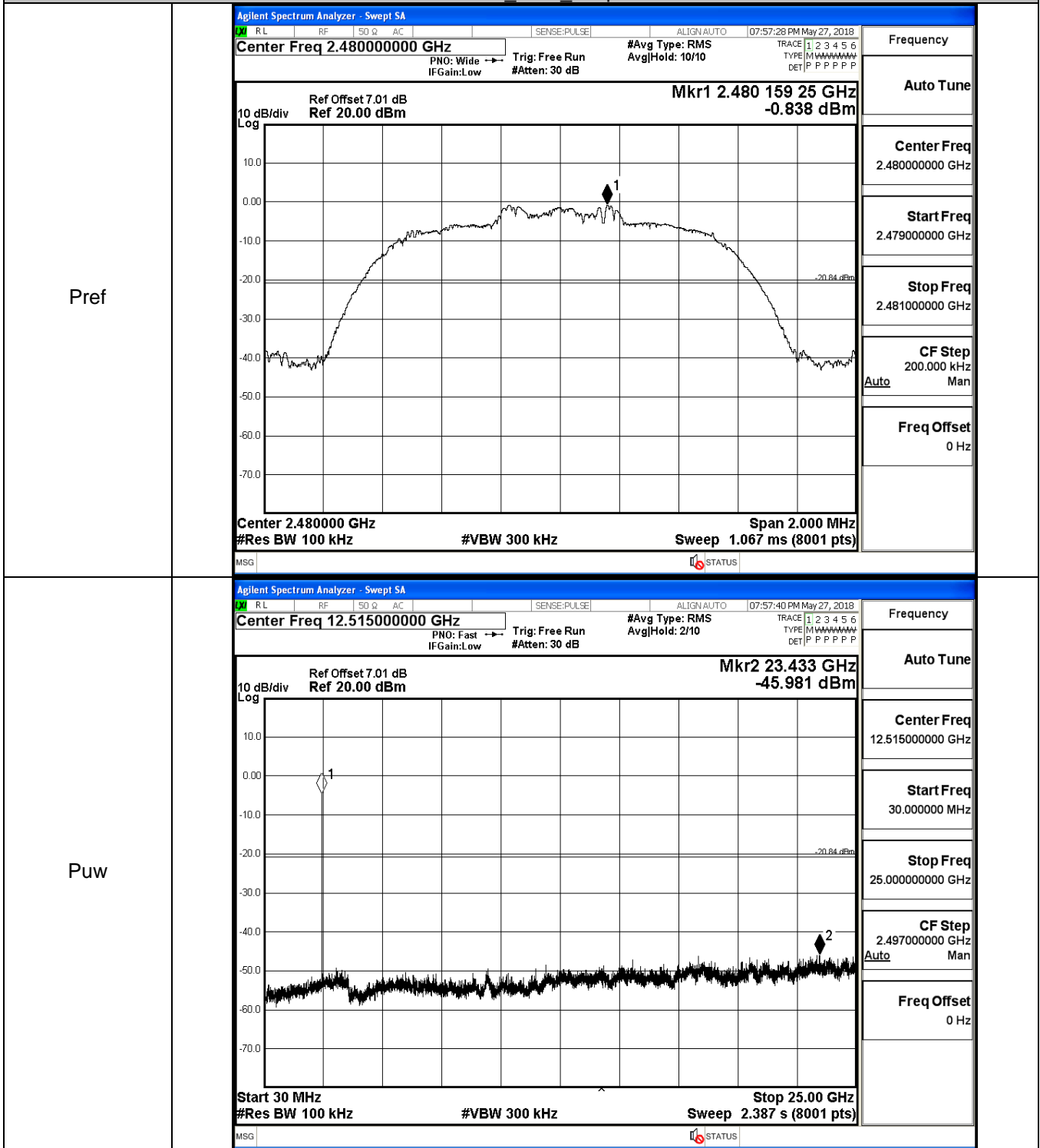
$\pi/4$ DQPSK LCH_Graphs



$\pi/4$ DQPSK_MCH_Graphs

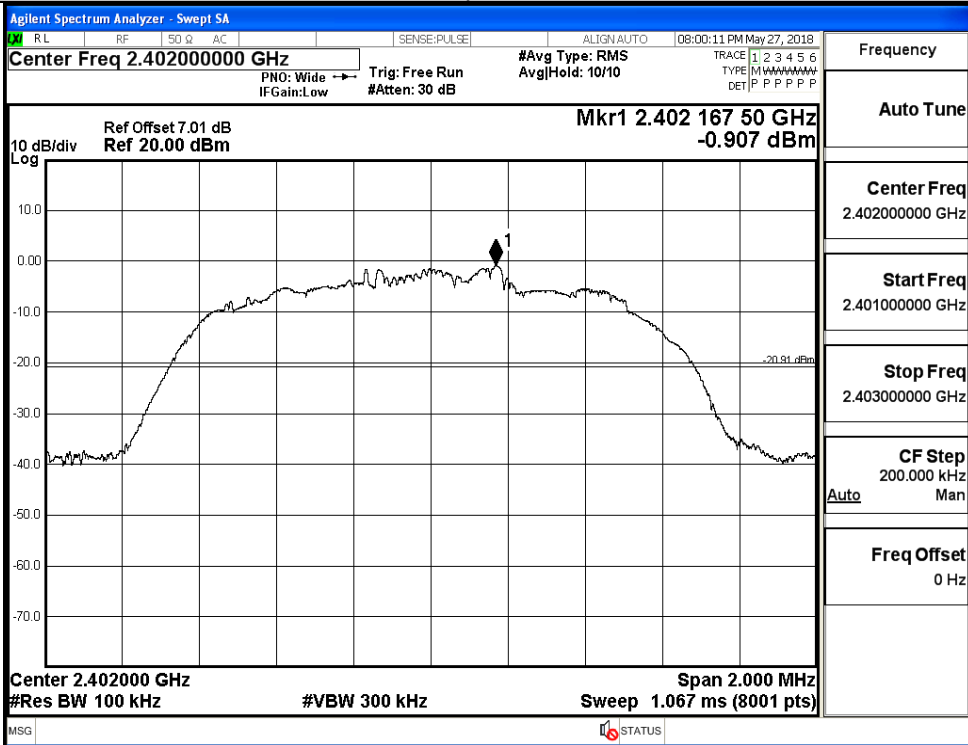


$\pi/4$ DQPSK_HCH_Graphs

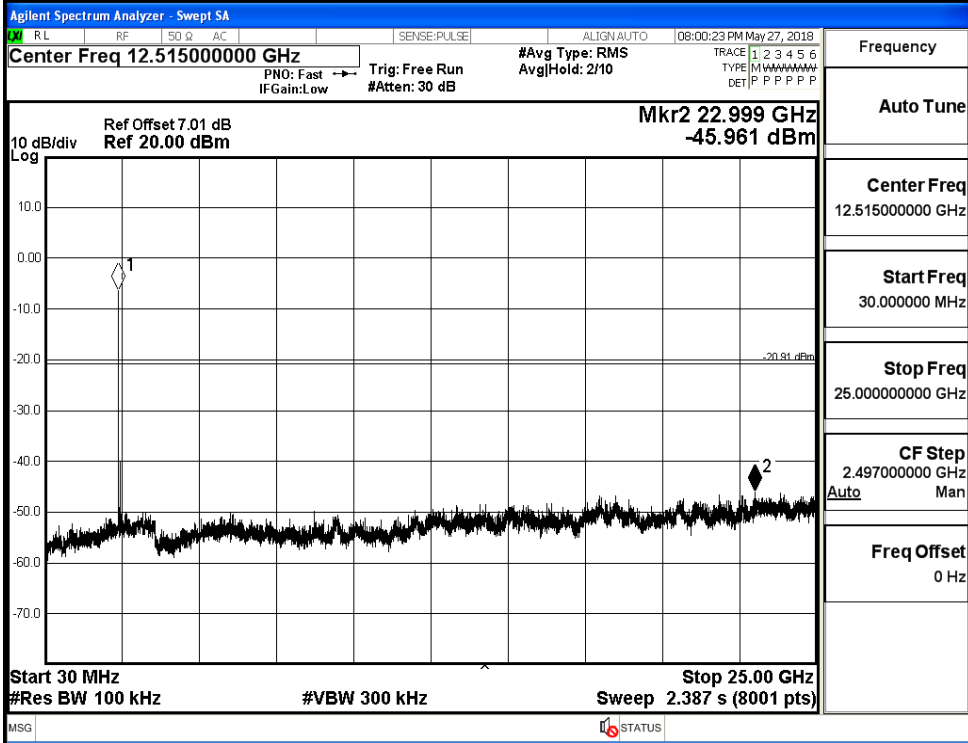


8DPSK_LCH_Graphs

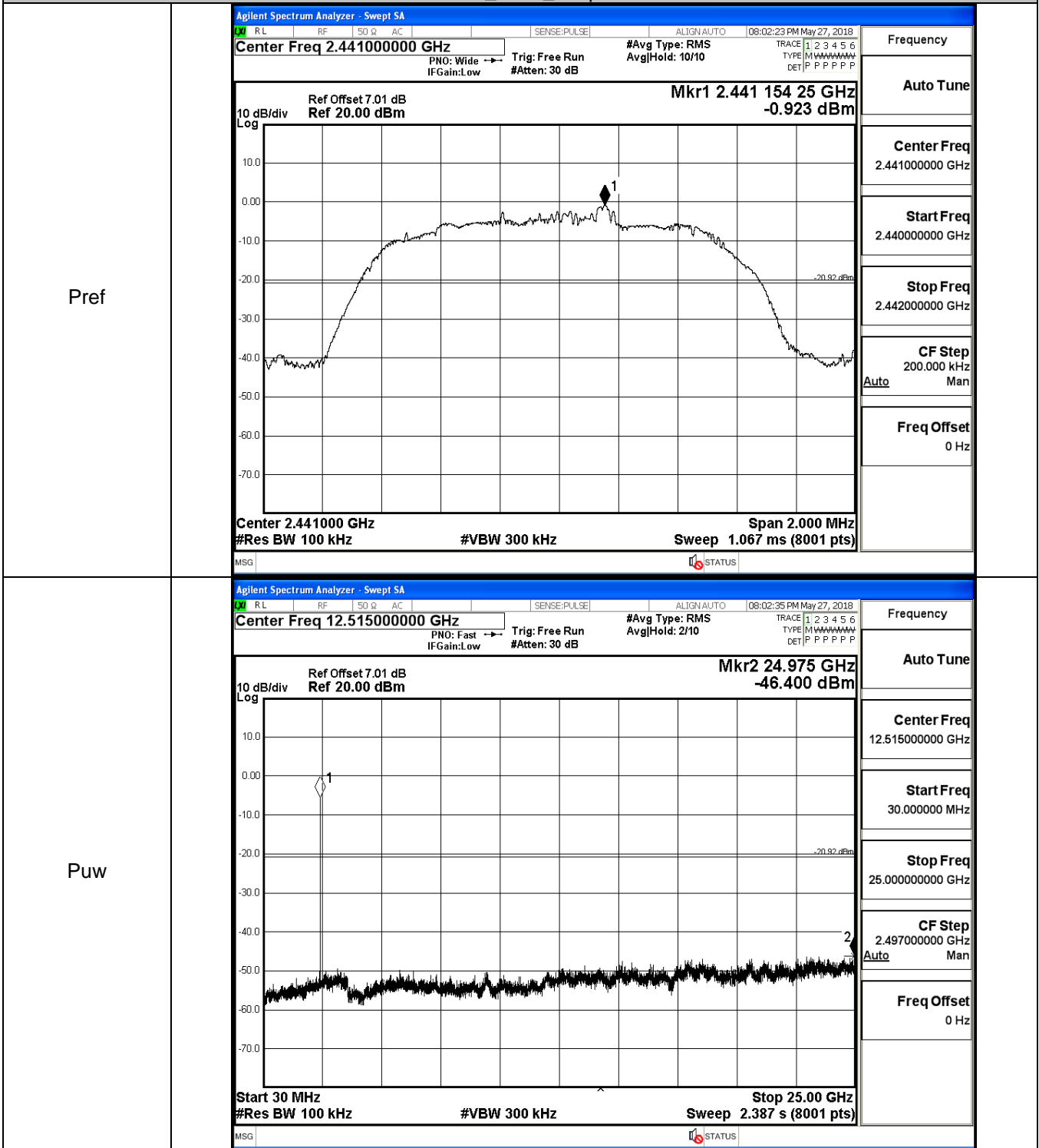
Pref



Puw

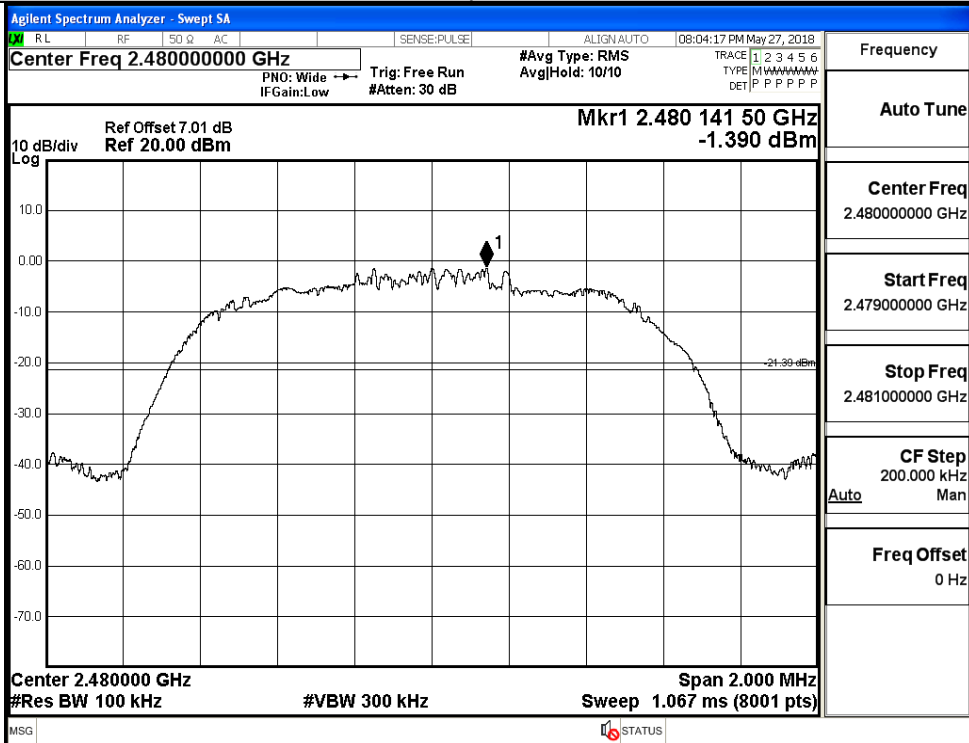


8DPSK_MCH_Graphs

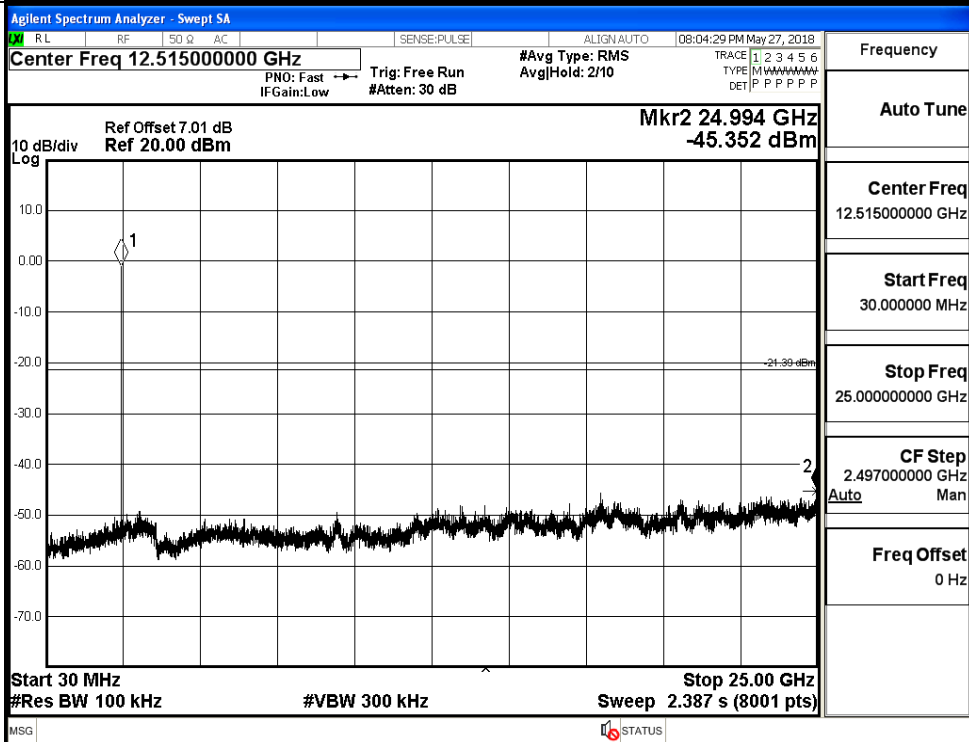


8DPSK_HCH_Graphs

Pref



Puw

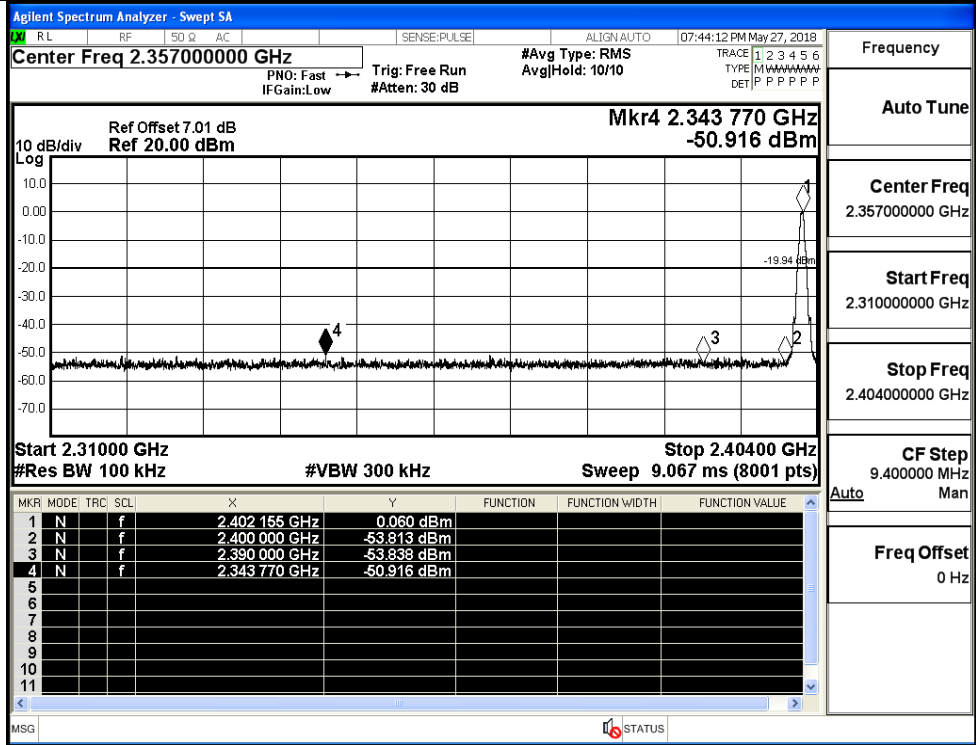


A.7 Band-edge for RF Conducted Emissions

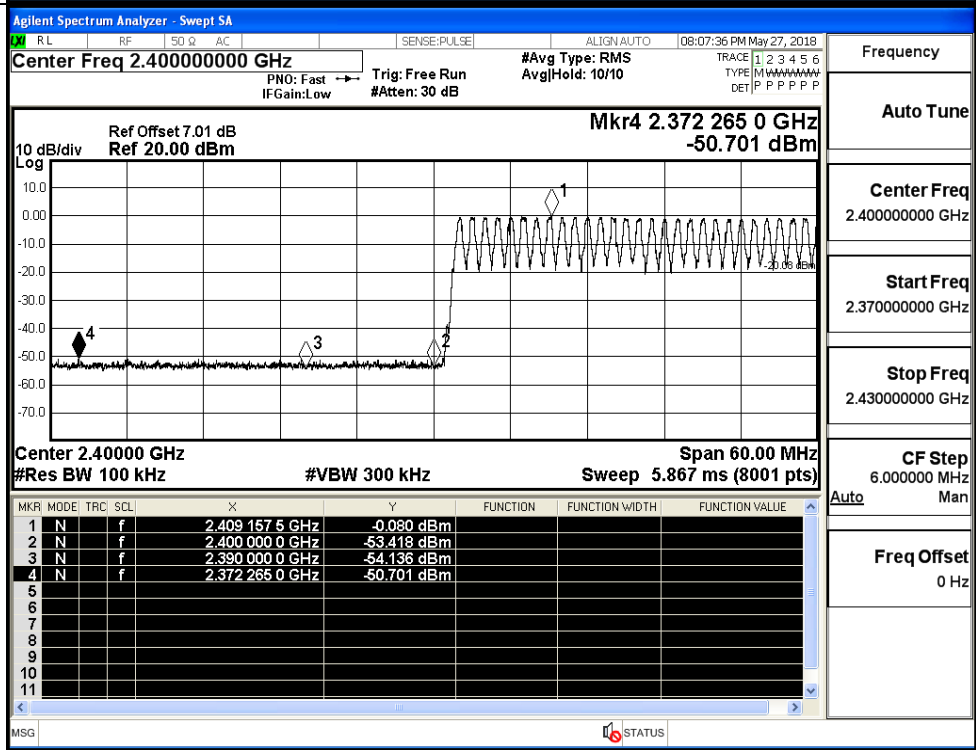
Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	0.060	Off	-50.916	-19.94	PASS
			-0.080	On	-50.701	-20.08	PASS
	HCH	2480	0.122	Off	-50.465	-19.88	PASS
			-0.003	On	-50.549	-20	PASS
$\pi/4$ DQPSK	LCH	2402	-1.044	Off	-50.837	-21.04	PASS
			-1.013	On	-50.769	-21.01	PASS
	HCH	2480	-0.831	Off	-50.037	-20.83	PASS
			-1.128	On	-49.355	-21.13	PASS
8DPSK	LCH	2402	-0.915	Off	-50.911	-20.92	PASS
			-0.837	On	-50.644	-20.84	PASS
	HCH	2480	-0.840	Off	-50.243	-20.84	PASS
			-0.657	On	-50.152	-20.66	PASS

Test Graphs

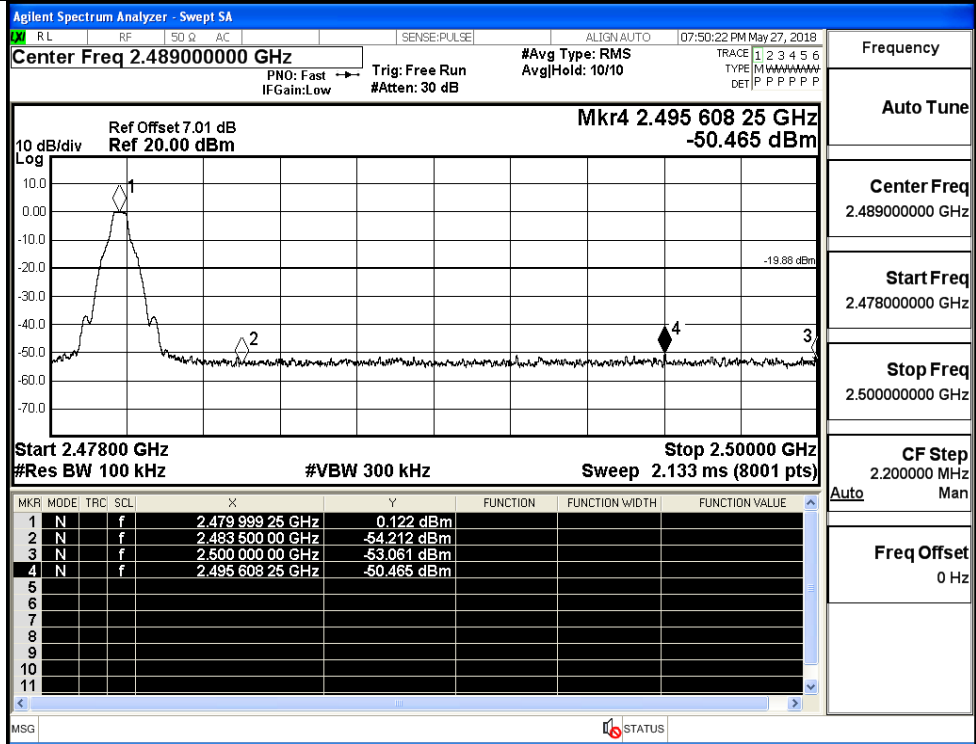
GFSK/LCH/No Hop



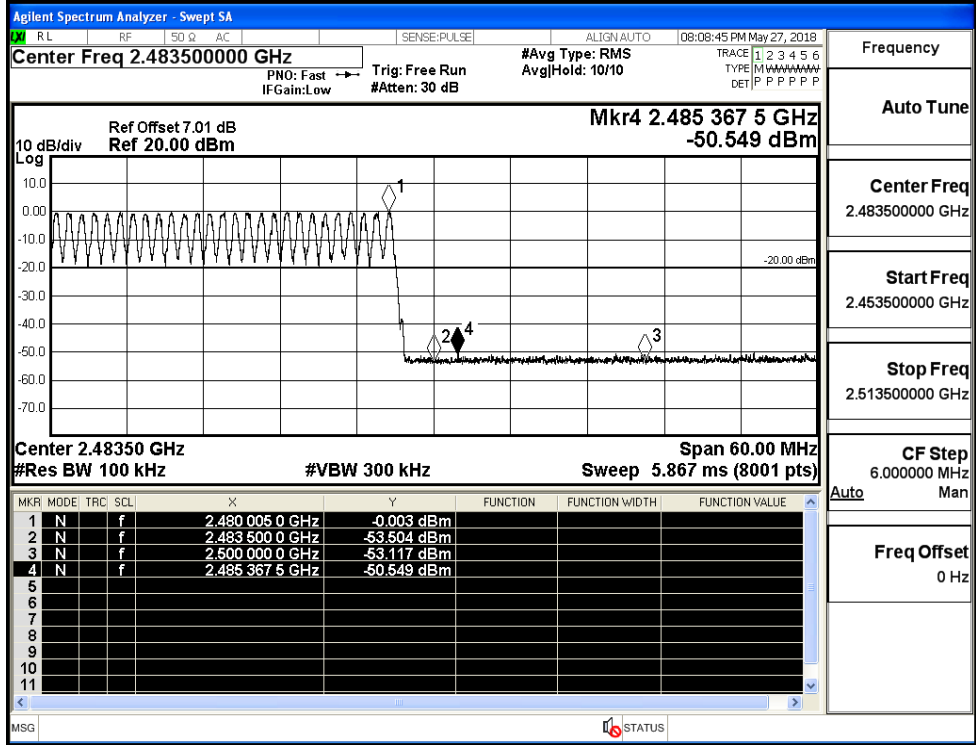
GFSK/LCH/Hop



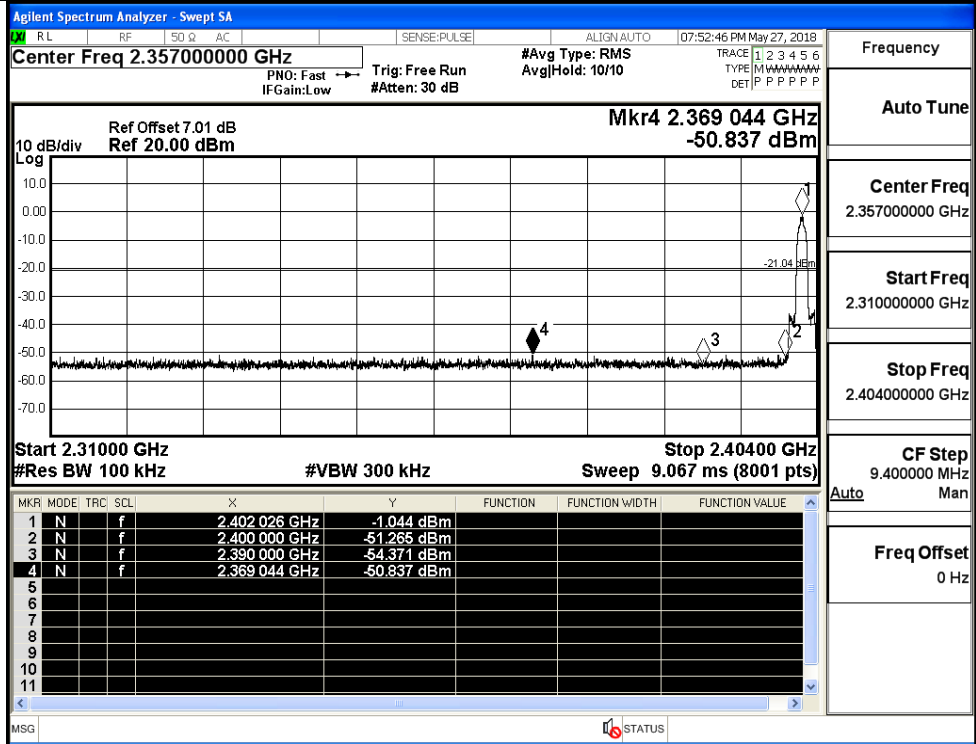
GFSK/HCH/No Hop



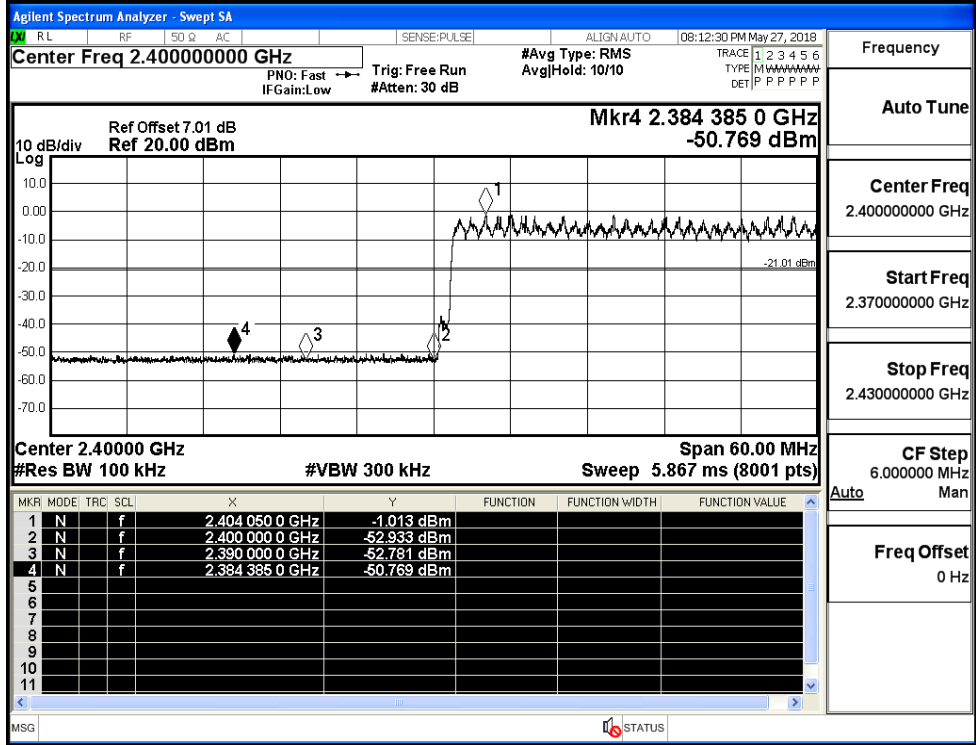
GFSK/HCH/Hop



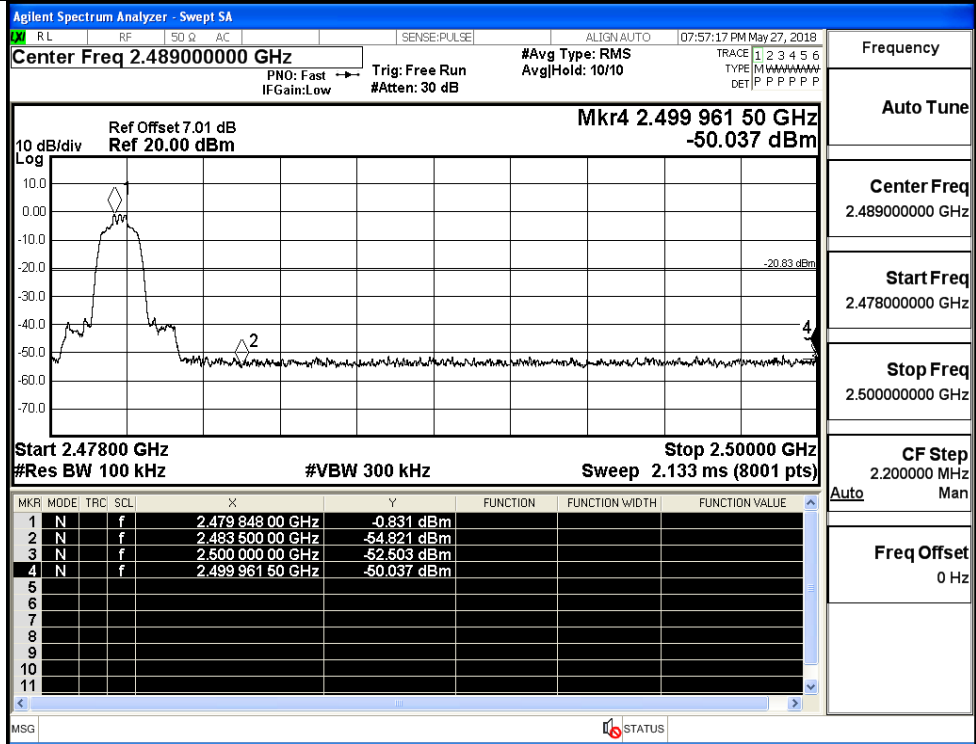
$\pi/4$ DQPSK/LCH/No
Hop



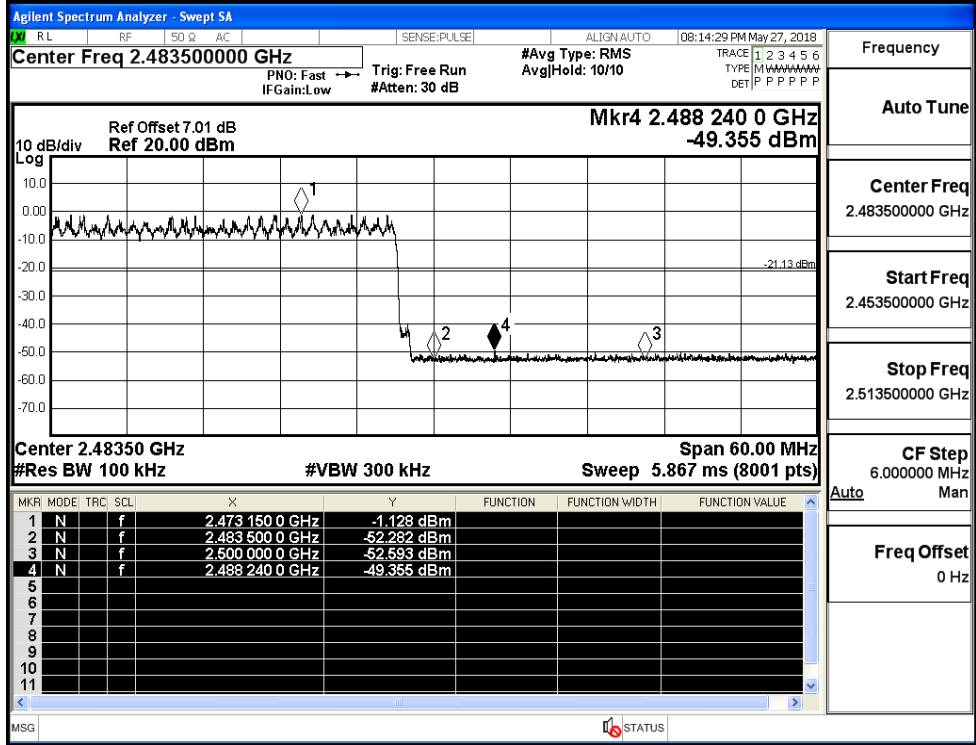
$\pi/4$ DQPSK/LCH/Hop



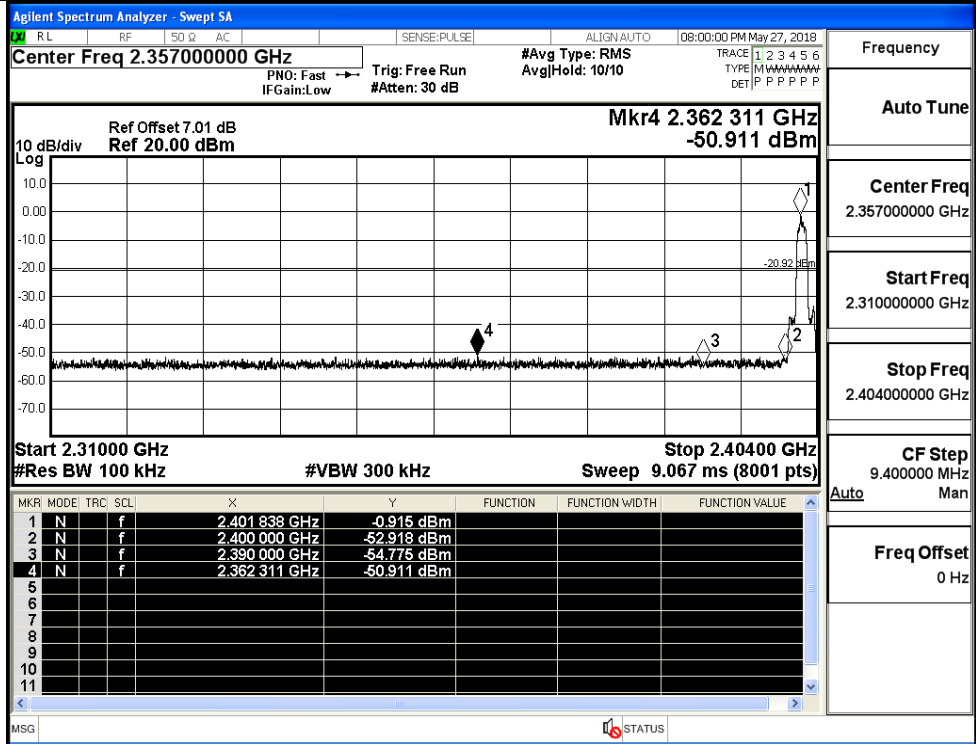
$\pi/4$ DQPSK/HCH/No
Hop



$\pi/4$ DQPSK/HCH/Hop

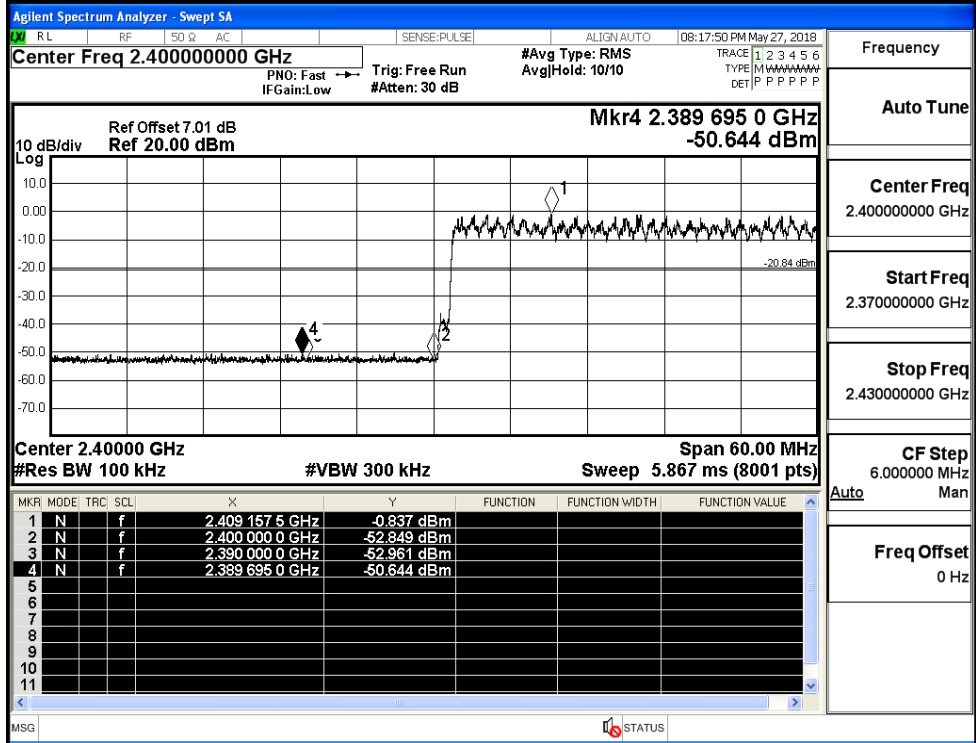


8DPSK/LCH/No Hop



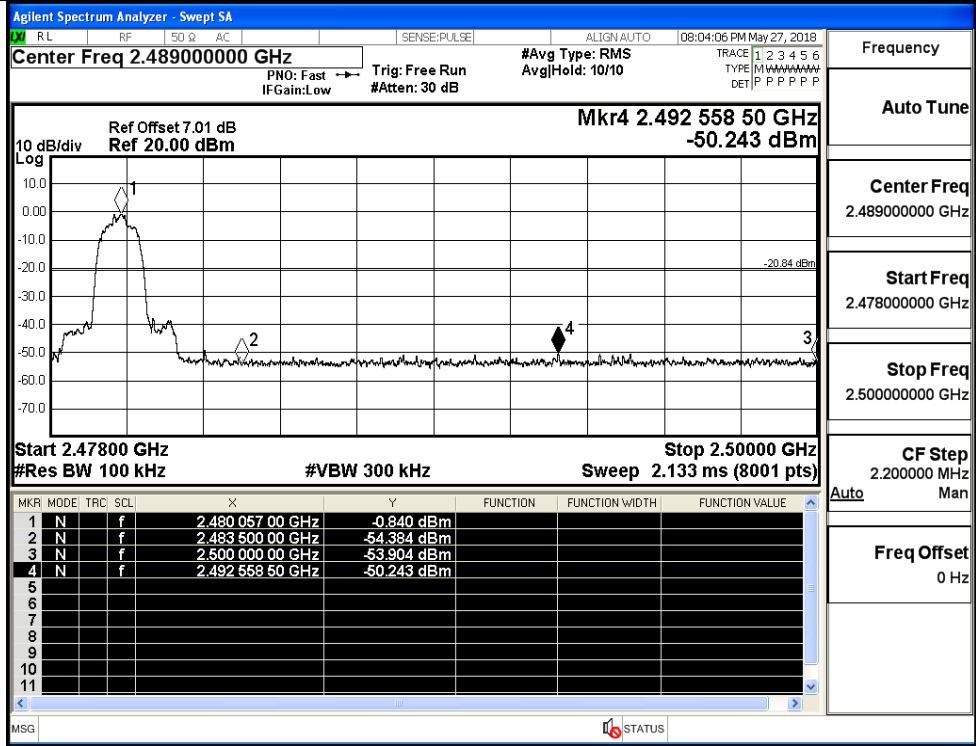
Frequency
Auto Tune
Center Freq
2.357000000 GHz
Start Freq
2.310000000 GHz
Stop Freq
2.404000000 GHz
CF Step
9.400000 MHz
Auto Man
Freq Offset
0 Hz

8DPSK/LCH/Hop



Frequency
Auto Tune
Center Freq
2.400000000 GHz
Start Freq
2.370000000 GHz
Stop Freq
2.430000000 GHz
CF Step
6.000000 MHz
Auto Man
Freq Offset
0 Hz

8DPSK/HCH/No Hop



Frequency

Auto Tune

Center Freq
2.489000000 GHz

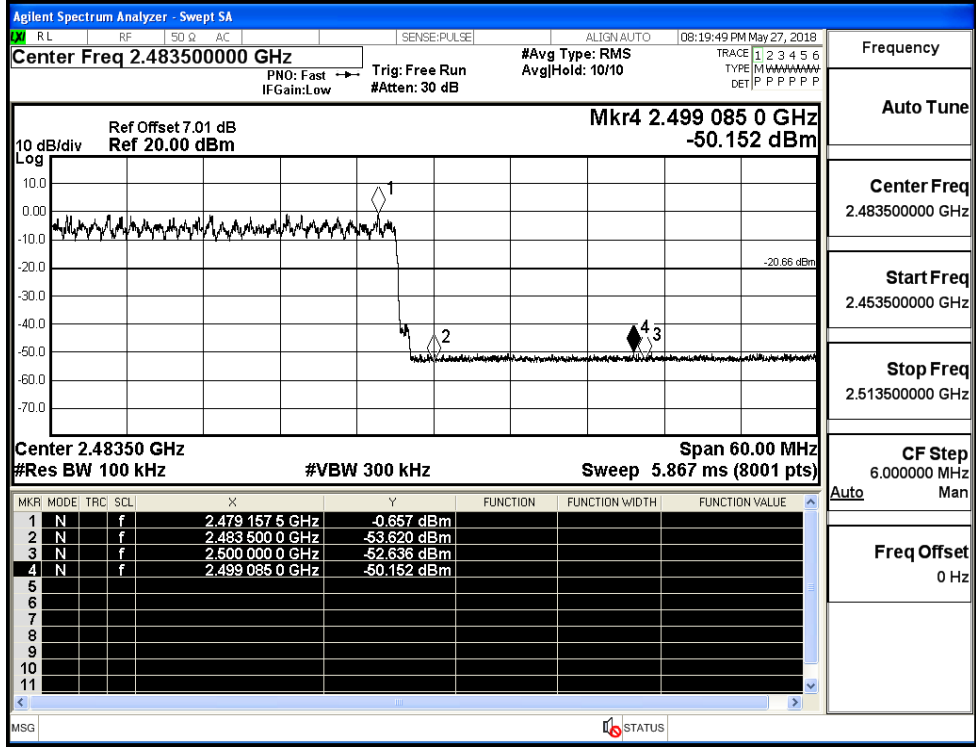
Start Freq
2.478000000 GHz

Stop Freq
2.500000000 GHz

CF Step
2.200000 MHz
Auto Man

Freq Offset
0 Hz

8DPSK/HCH/Hop



Frequency

Auto Tune

Center Freq
2.483500000 GHz

Start Freq
2.453500000 GHz

Stop Freq
2.513500000 GHz

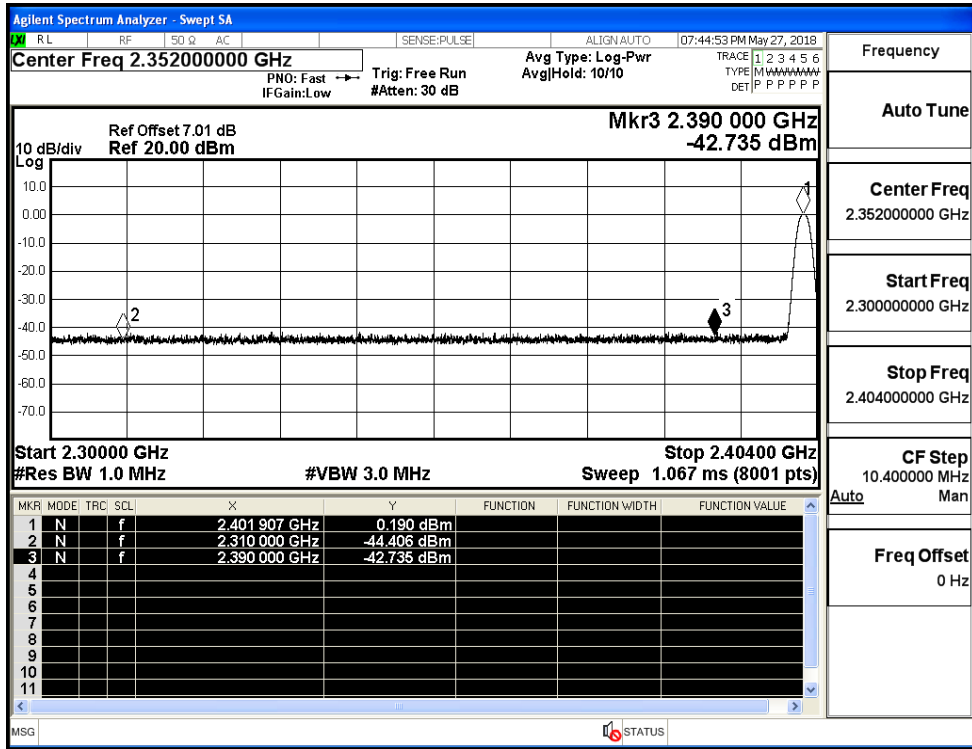
CF Step
6.000000 MHz
Auto Man

Freq Offset
0 Hz

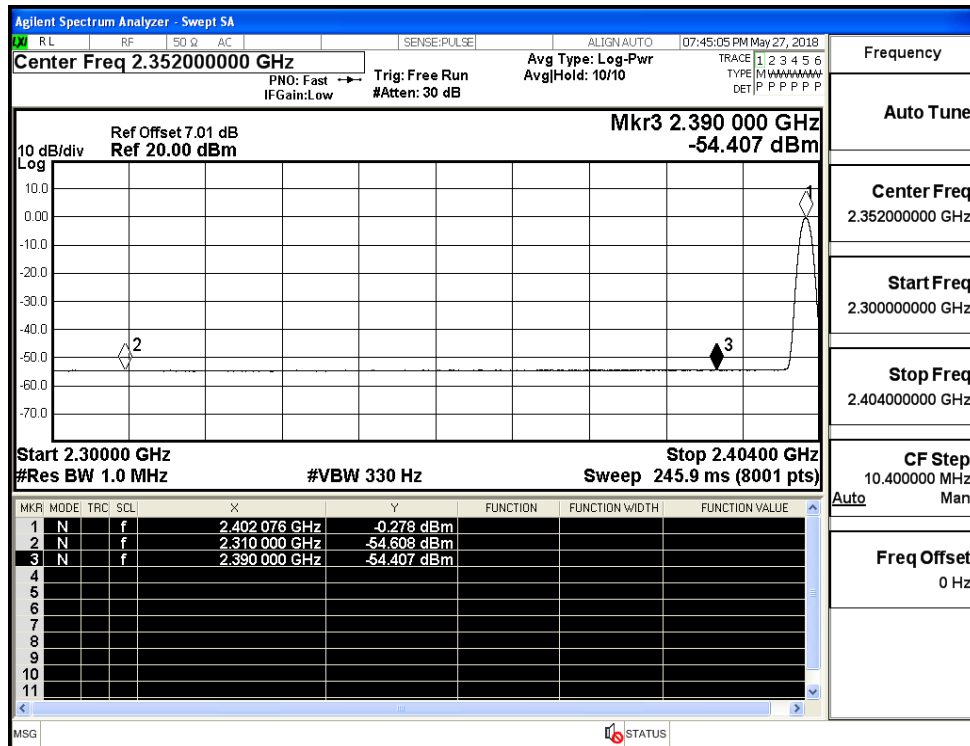
A.8 Restrict-band band-edge measurements

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.41	2.0	0	52.85	PEAK	74	PASS
	Off	2310.0	-54.61	2.0	0	42.65	AV	54	PASS
	Off	2390.0	-42.74	2.0	0	54.52	PEAK	74	PASS
	Off	2390.0	-54.41	2.0	0	42.85	AV	54	PASS
	Off	2483.5	-44.58	2.0	0	52.68	PEAK	74	PASS
	Off	2483.5	-54.12	2.0	0	43.14	AV	54	PASS
	Off	2500.0	-44.00	2.0	0	53.26	PEAK	74	PASS
	Off	2500.0	-54.03	2.0	0	43.23	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-43.92	2.0	0	53.34	PEAK	74	PASS
	Off	2310.0	-54.75	2.0	0	42.51	AV	54	PASS
	Off	2390.0	-44.77	2.0	0	52.49	PEAK	74	PASS
	Off	2390.0	-54.39	2.0	0	42.87	AV	54	PASS
	Off	2483.5	-43.36	2.0	0	53.90	PEAK	74	PASS
	Off	2483.5	-54.07	2.0	0	43.19	AV	54	PASS
	Off	2500.0	-44.54	2.0	0	52.72	PEAK	74	PASS
	Off	2500.0	-54.07	2.0	0	43.19	AV	54	PASS
8DPSK	Off	2310.0	-45.61	2.0	0	51.65	PEAK	74	PASS
	Off	2310.0	-54.75	2.0	0	42.51	AV	54	PASS
	Off	2390.0	-44.73	2.0	0	52.53	PEAK	74	PASS
	Off	2390.0	-54.43	2.0	0	42.83	AV	54	PASS
	Off	2483.5	-44.19	2.0	0	53.07	PEAK	74	PASS
	Off	2483.5	-54.07	2.0	0	43.19	AV	54	PASS
	Off	2500.0	-44.02	2.0	0	53.24	PEAK	74	PASS
	Off	2500.0	-54.05	2.0	0	43.21	AV	54	PASS

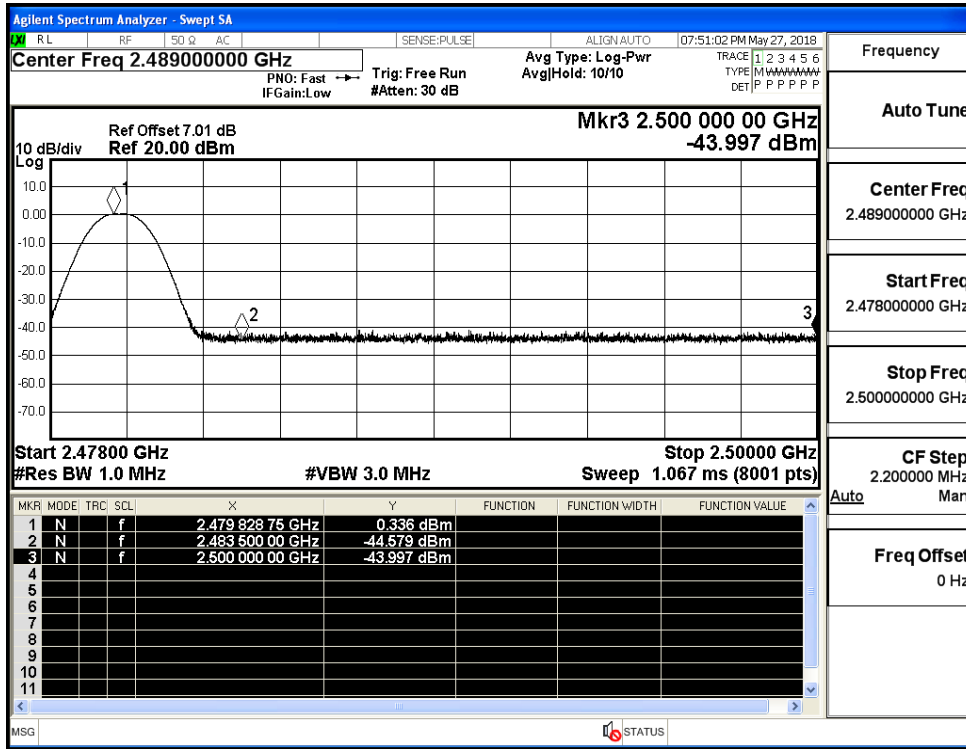
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



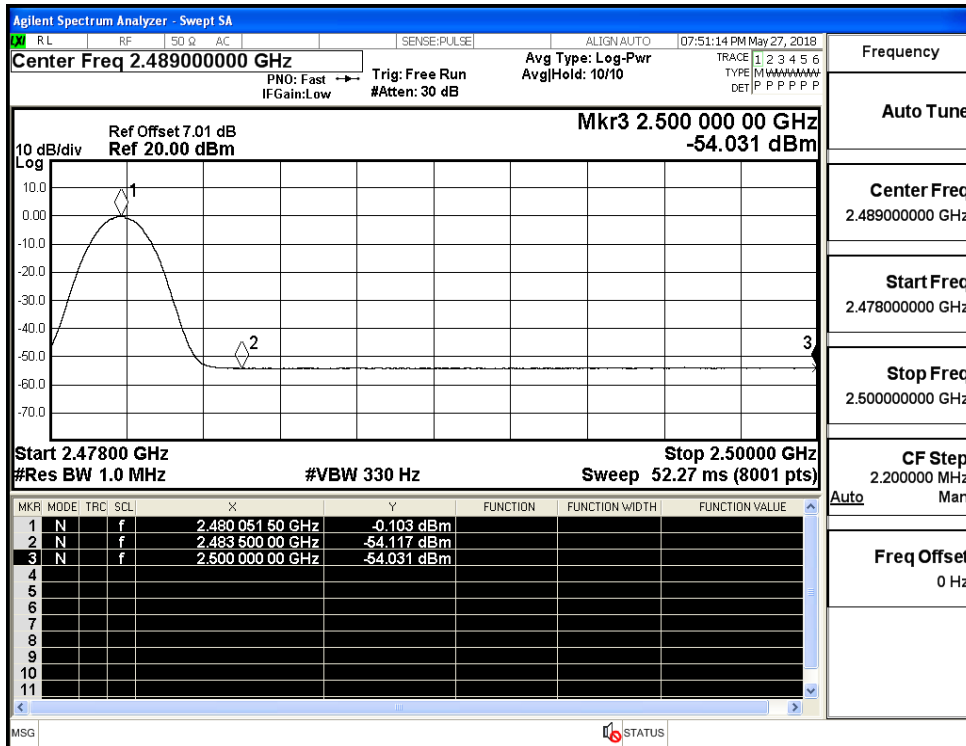
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)



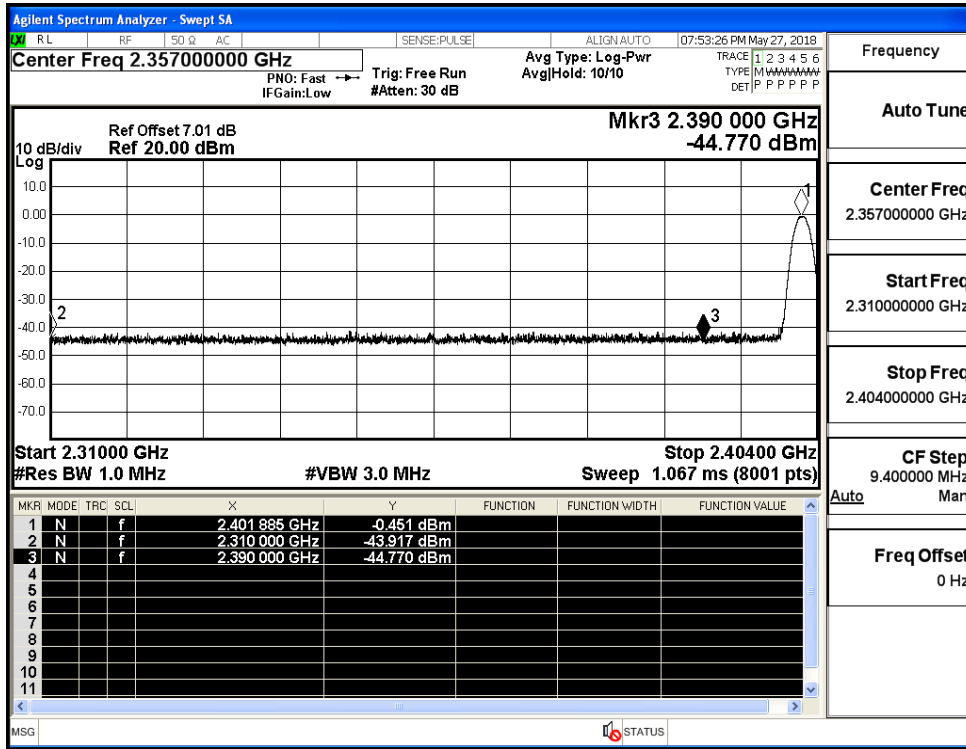
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



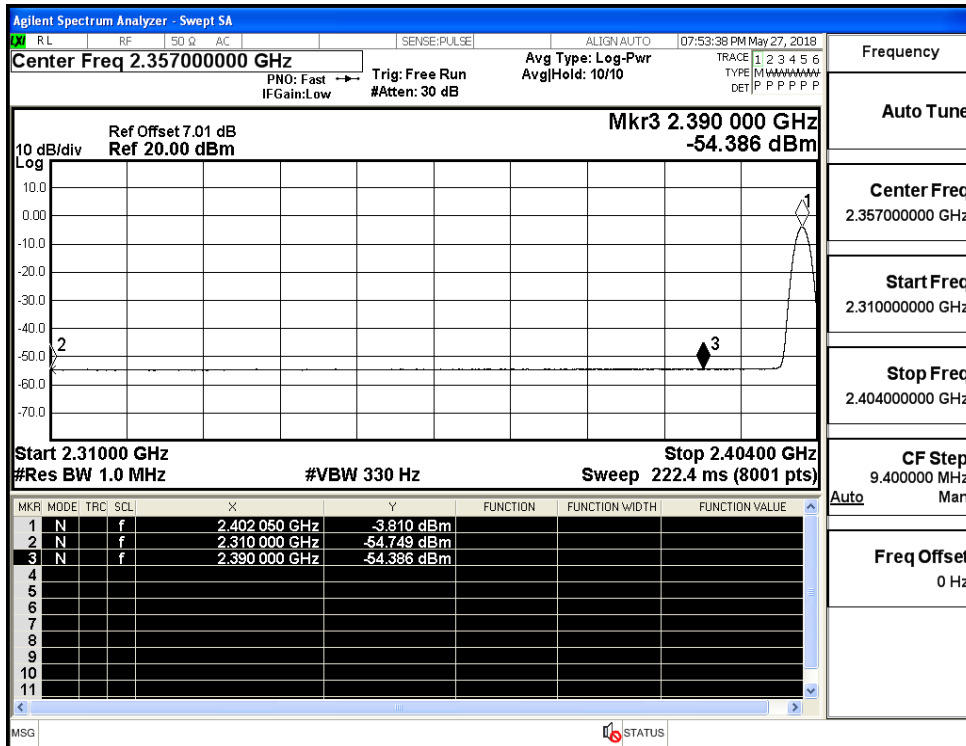
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



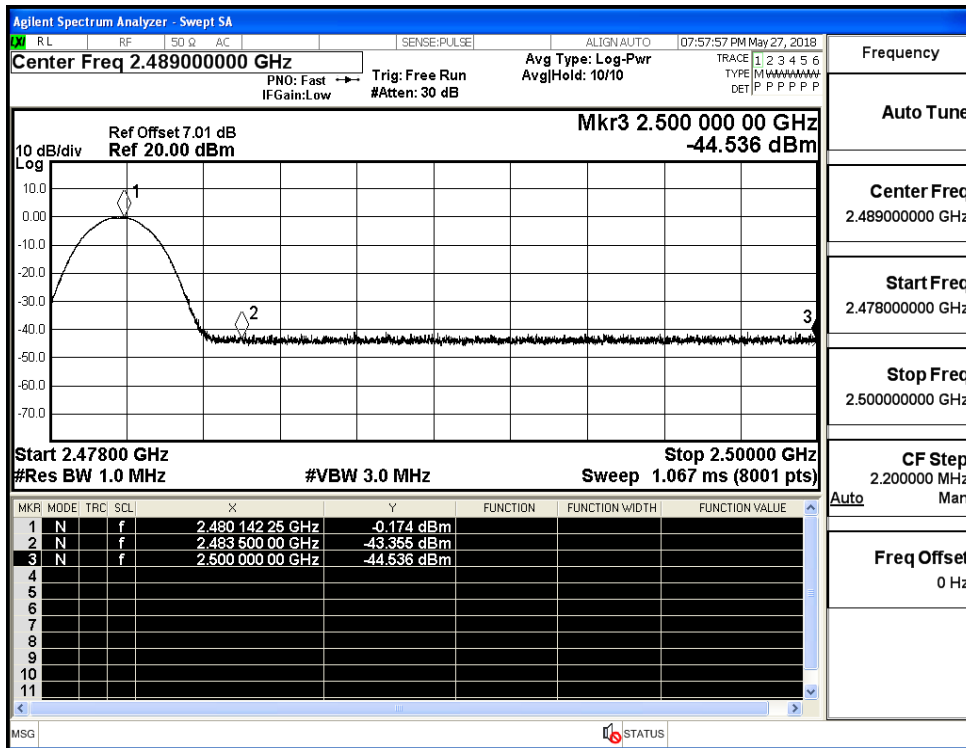
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)



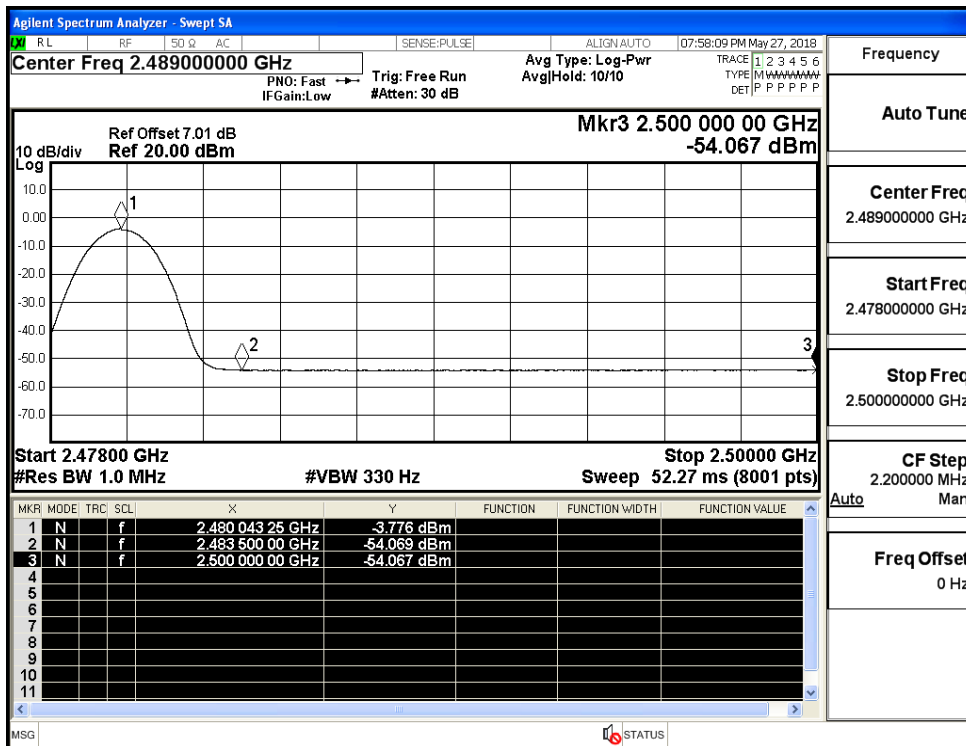
Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)



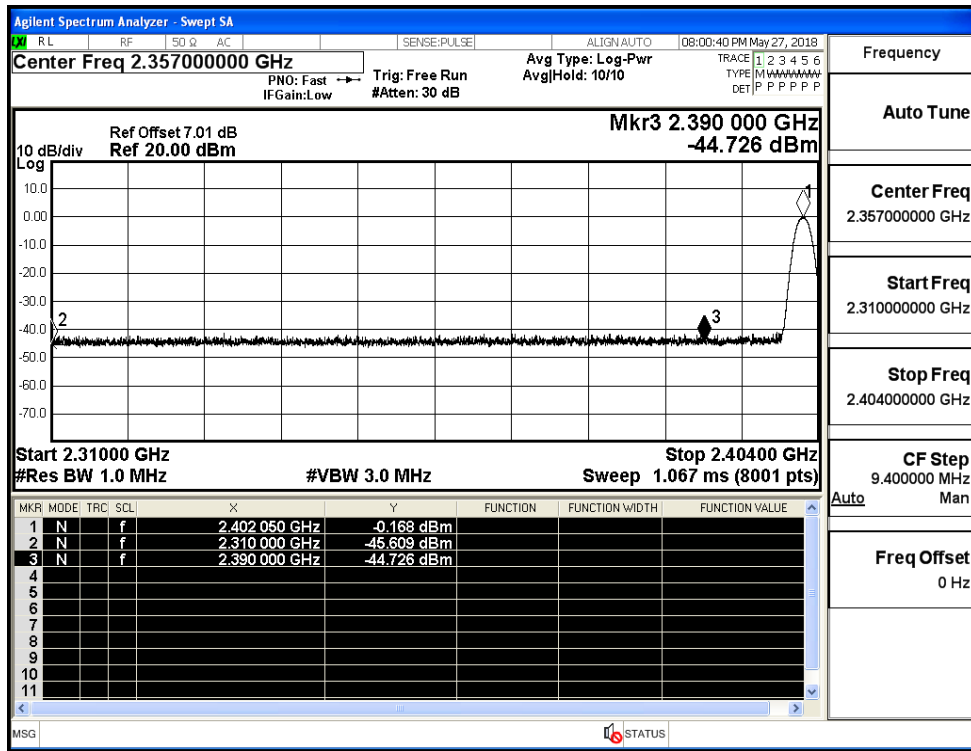
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



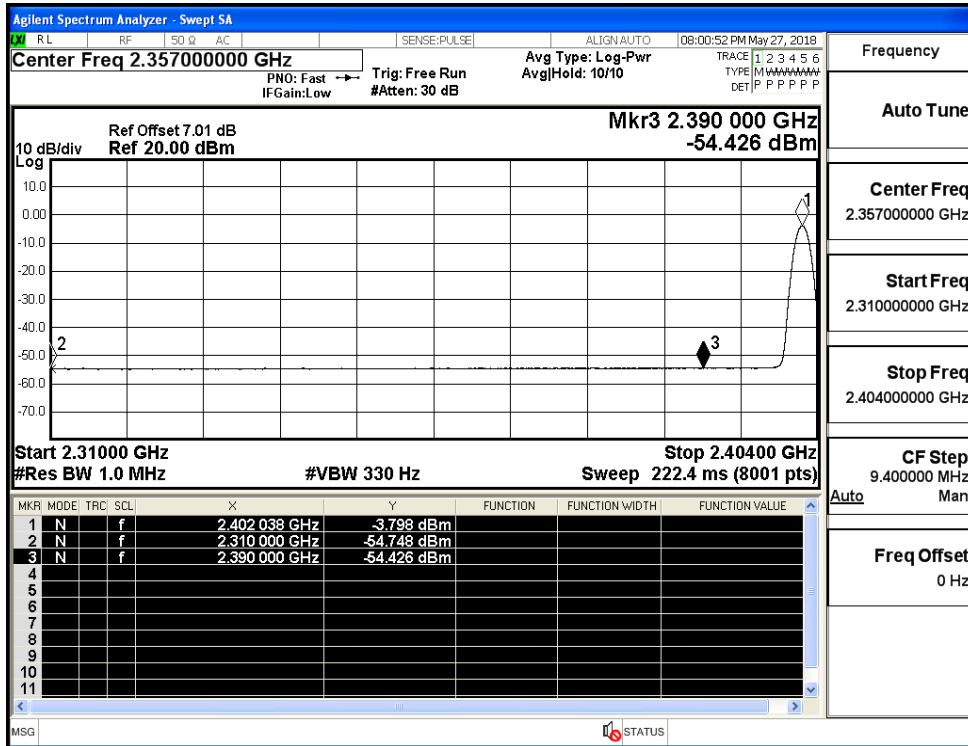
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



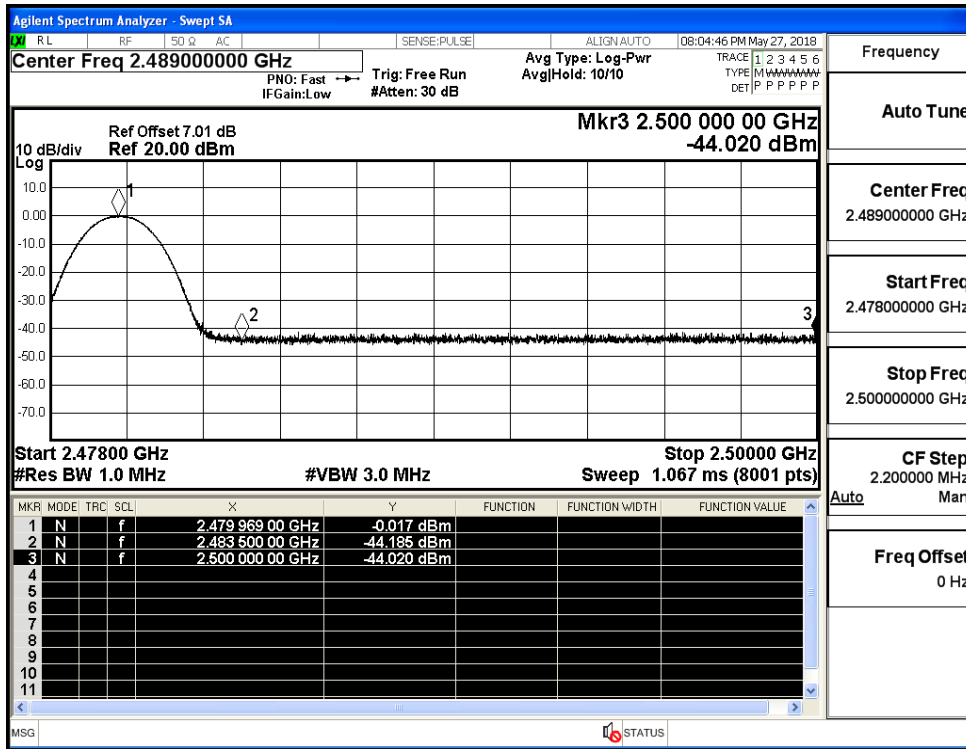
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

