Appendix A

RF Test Data for BT V2.1 (BDR/EDR) (Conducted Measurement)

Product Name: 2G Mobilephone
Trade Mark: GOL
Test Model: X

## Environmental Conditions

Temperature:	23.8 °C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina.Xu
Supervised by:	Tom.Liu

A.1 Maximum Conducted Peak Output Power

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.005	21	PASS
GFSK	MCH	0.696	21	PASS
GFSK	HCH	0.371	21	PASS
π/4DQPSK	LCH	-0.549	21	PASS
π/4DQPSK	MCH	0.026	21	PASS
π/4DQPSK	HCH	-0.458	21	PASS
8DPSK	LCH	-0.476	21	PASS
8DPSK	MCH	0.164	21	PASS
8DPSK	HCH	-0.297	21	PASS

Test Graphs

GFSK/LCH	
GFSK/MCH	
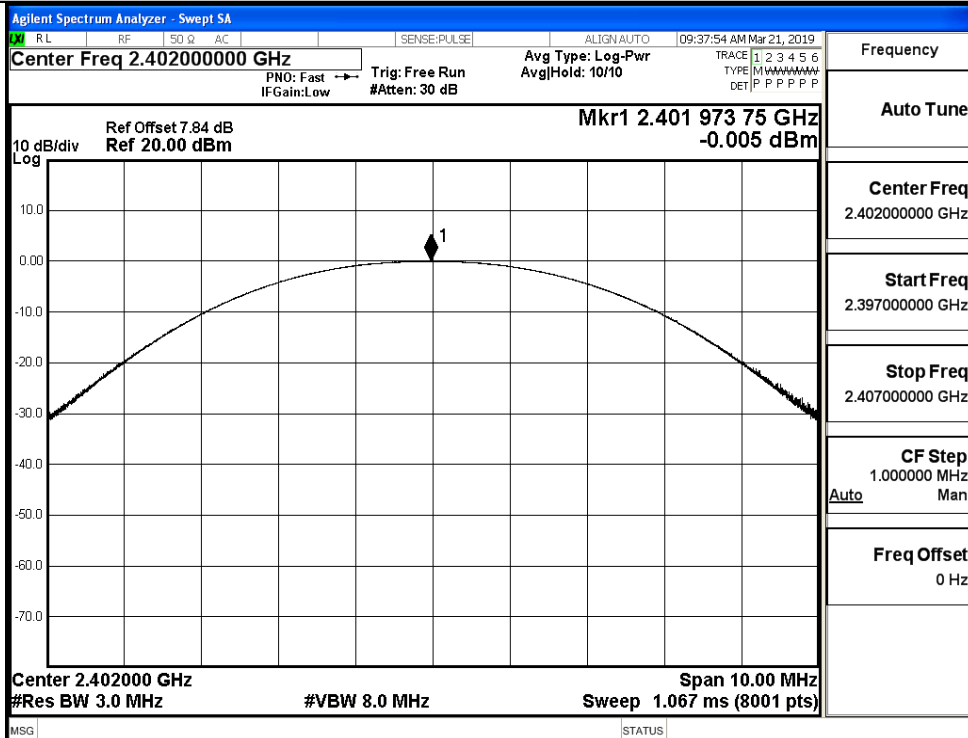
GFSK/HCH	
π/4DQPSK/LCH	
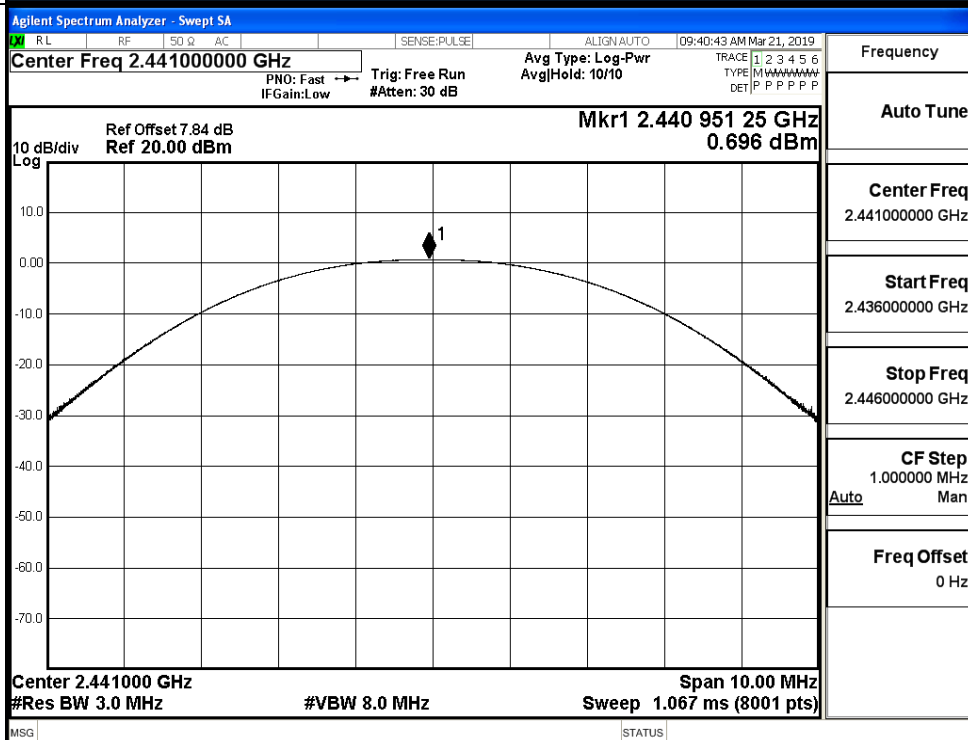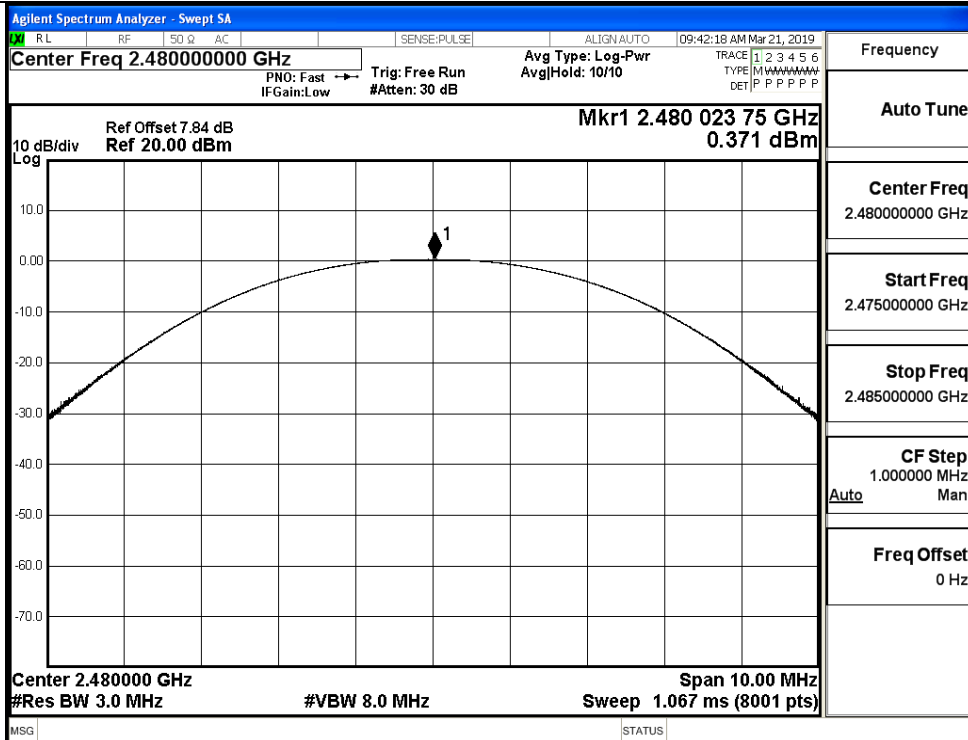
π/4DQPSK/MCH	
π/4DQPSK/HCH	
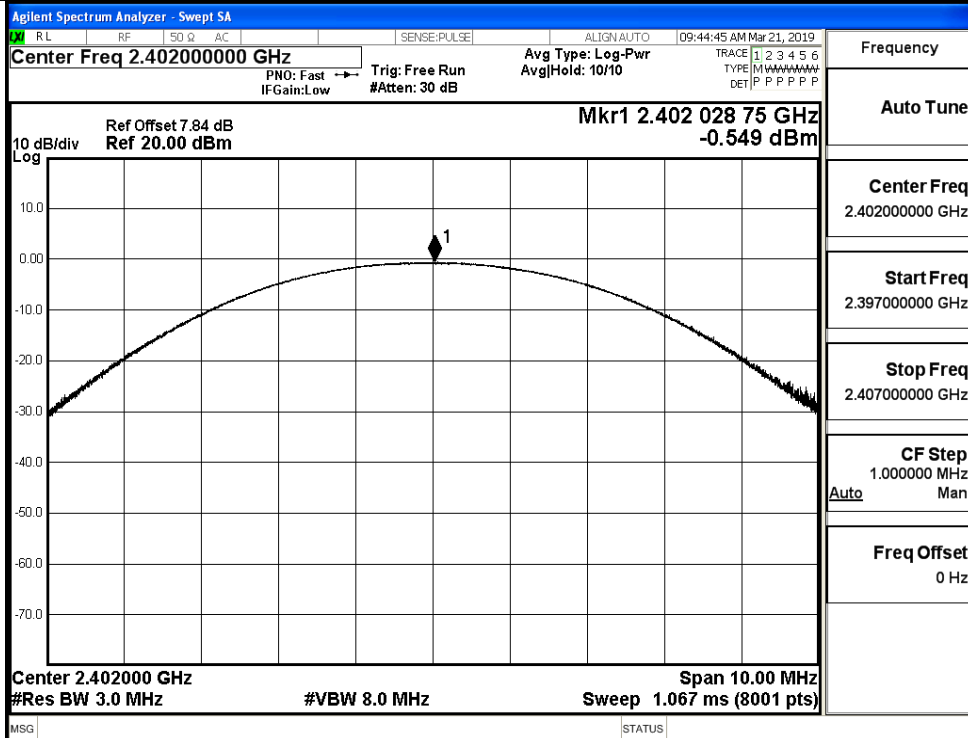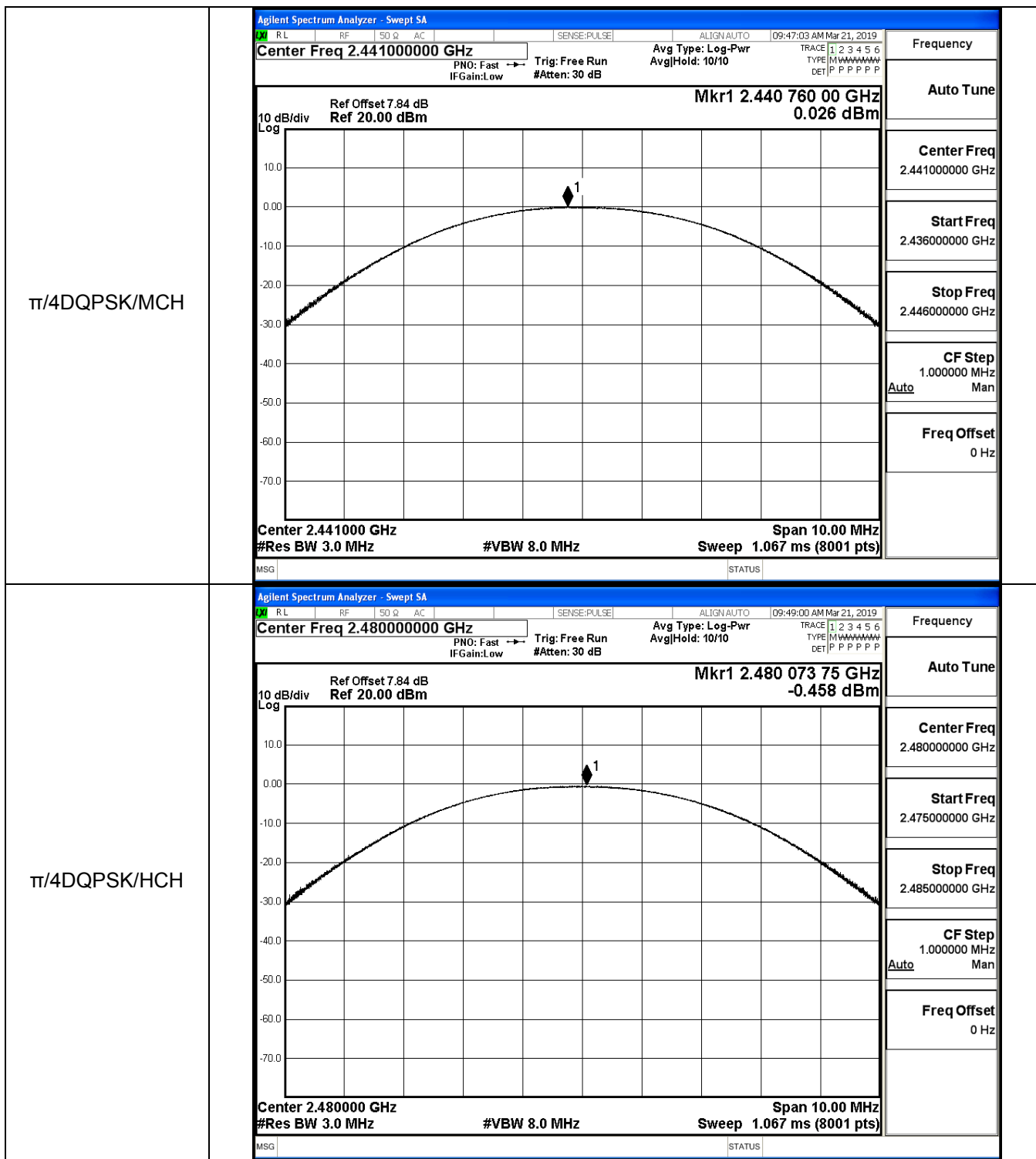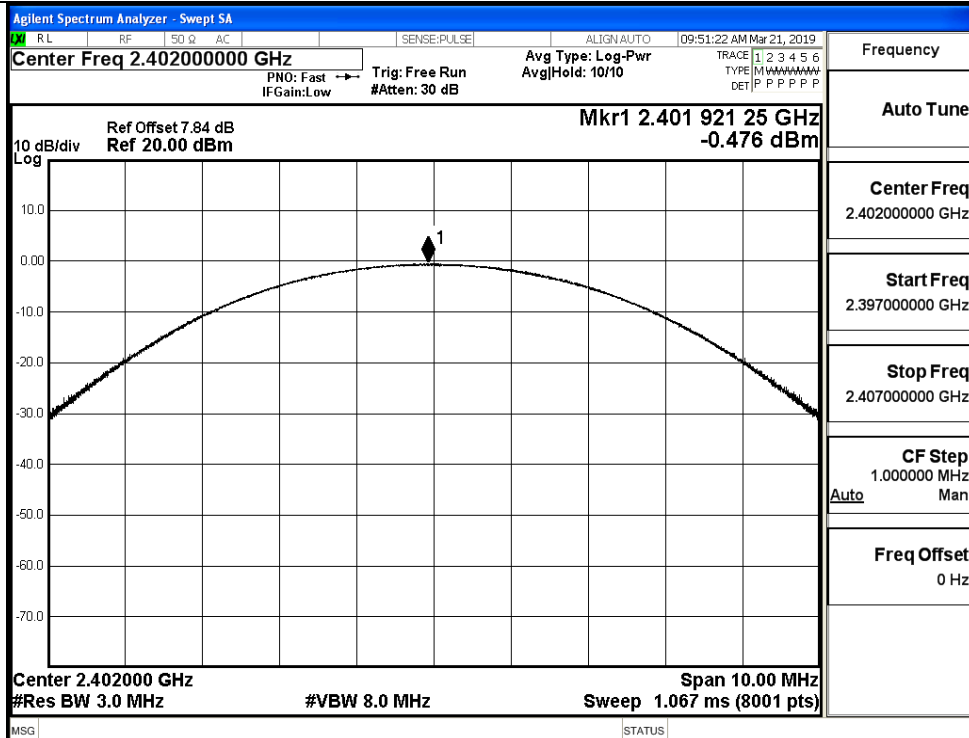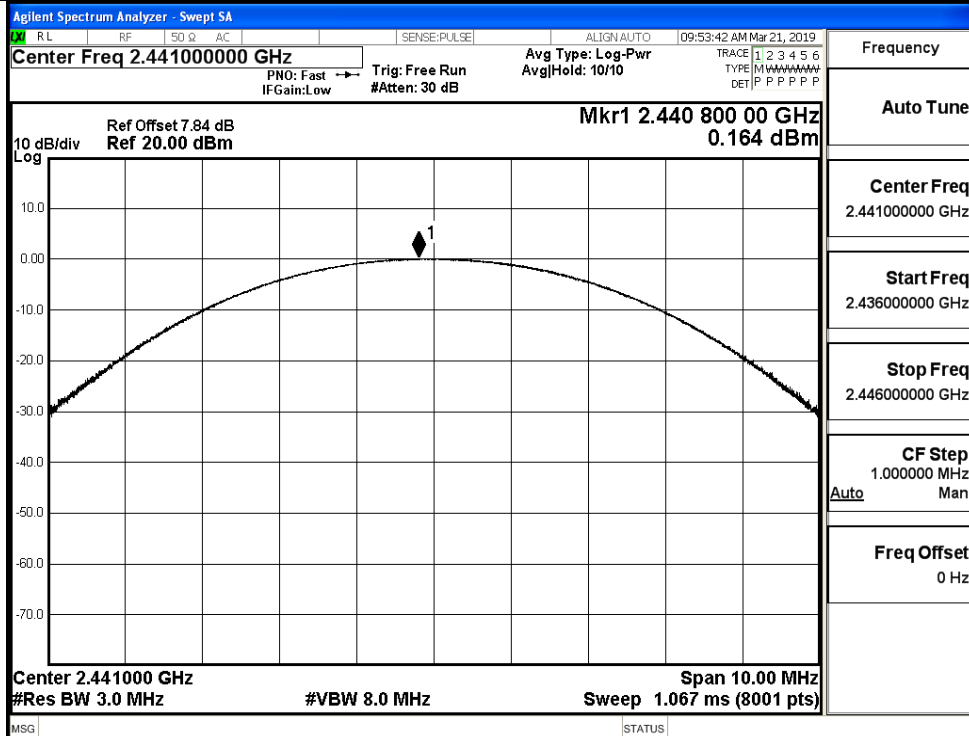
8DPSK/LCH	
8DPSK/MCH	

8DPSK/HCH
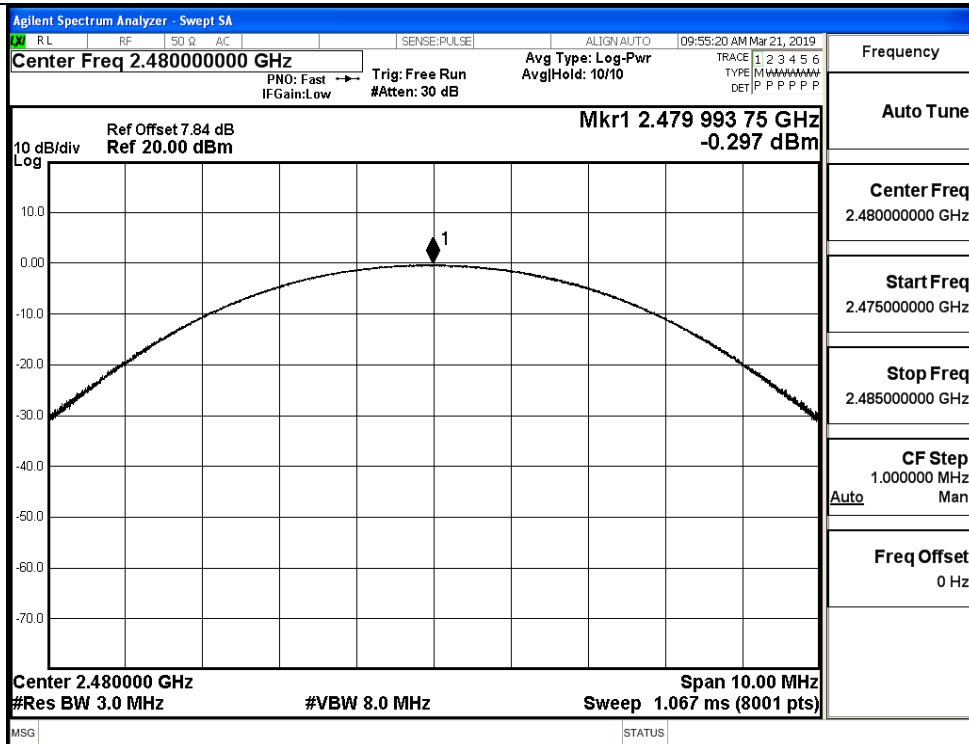
A.2 20dB Bandwidth

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.032	Not Specified	PASS
	MCH	0.9681	Not Specified	PASS
	HCH	1.035	Not Specified	PASS
π/4DQPSK	LCH	1.295	Not Specified	PASS
	MCH	1.309	Not Specified	PASS
	HCH	1.305	Not Specified	PASS
8DPSK	LCH	1.297	Not Specified	PASS
	MCH	1.305	Not Specified	PASS
	HCH	1.298	Not Specified	PASS

Test Graphs	
GFSK/LCH	

| GFSK/MCH | Agilent Spectrum Analyzer - Occupied BW

Center Freq 2.441000000 GHz
Center Freq: 2.441000000 GHz   Radio Std: None
Trig: Free Run   Avg\|Hold:>1/1
#IFGain:Low   #Atten: 30 dB   Radio Device: BTS

Ref Offset 7.84 dB
10 dB/div   Ref 20.00 dBm   Mkr1 2.441162 GHz   -1.5764 dBm

Center 2.441 GHz   Span 2 MHz
#Res BW 30 kHz   #VBW 100 kHz   Sweep 2.133 ms

Occupied Bandwidth   Total Power   8.08 dBm
894.23 kHz
Transmit Freq Error   4.727 kHz   OBW Power   99.00 %
x dB Bandwidth   968.1 kHz   x dB   -20.00 dB | Frequency

Center Freq
2.441000000 GHz

CF Step
200.000 kHz
Auto   Man

Freq Offset
0 Hz |
| GFSK/HCH | Agilent Spectrum Analyzer - Occupied BW

Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz   Radio Std: None
Trig: Free Run   Avg\|Hold:>1/1
#IFGain:Low   #Atten: 30 dB   Radio Device: BTS

Ref Offset 7.84 dB
10 dB/div   Ref 20.00 dBm   Mkr1 2.480014 GHz   -2.2561 dBm

Center 2.48 GHz   Span 2 MHz
#Res BW 30 kHz   #VBW 100 kHz   Sweep 2.133 ms

Occupied Bandwidth   Total Power   7.69 dBm
899.36 kHz
Transmit Freq Error   4.999 kHz   OBW Power   99.00 %
x dB Bandwidth   1.035 MHz   x dB   -20.00 dB | Frequency

Center Freq
2.480000000 GHz

CF Step
200.000 kHz
Auto   Man

Freq Offset
0 Hz |

π/4DQPSK/LCH	
π/4DQPSK/MCH	

π/4DQPSK/HCH	
8DPSK/LCH	

8DPSK/MCH	
8DPSK/HCH	

A.3 Carrier Frequency Separation

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	LCH	1.193	0.690	PASS
	MCH	0.988	0.690	PASS
	HCH	0.910	0.690	PASS
π/4DQPSK	LCH	1.112	0.873	PASS
	MCH	0.874	0.873	PASS
	HCH	1.184	0.873	PASS
8DPSK	LCH	1.214	0.870	PASS
	MCH	0.980	0.870	PASS
	HCH	0.982	0.870	PASS

Test Graphs	
GFSK/LCH	
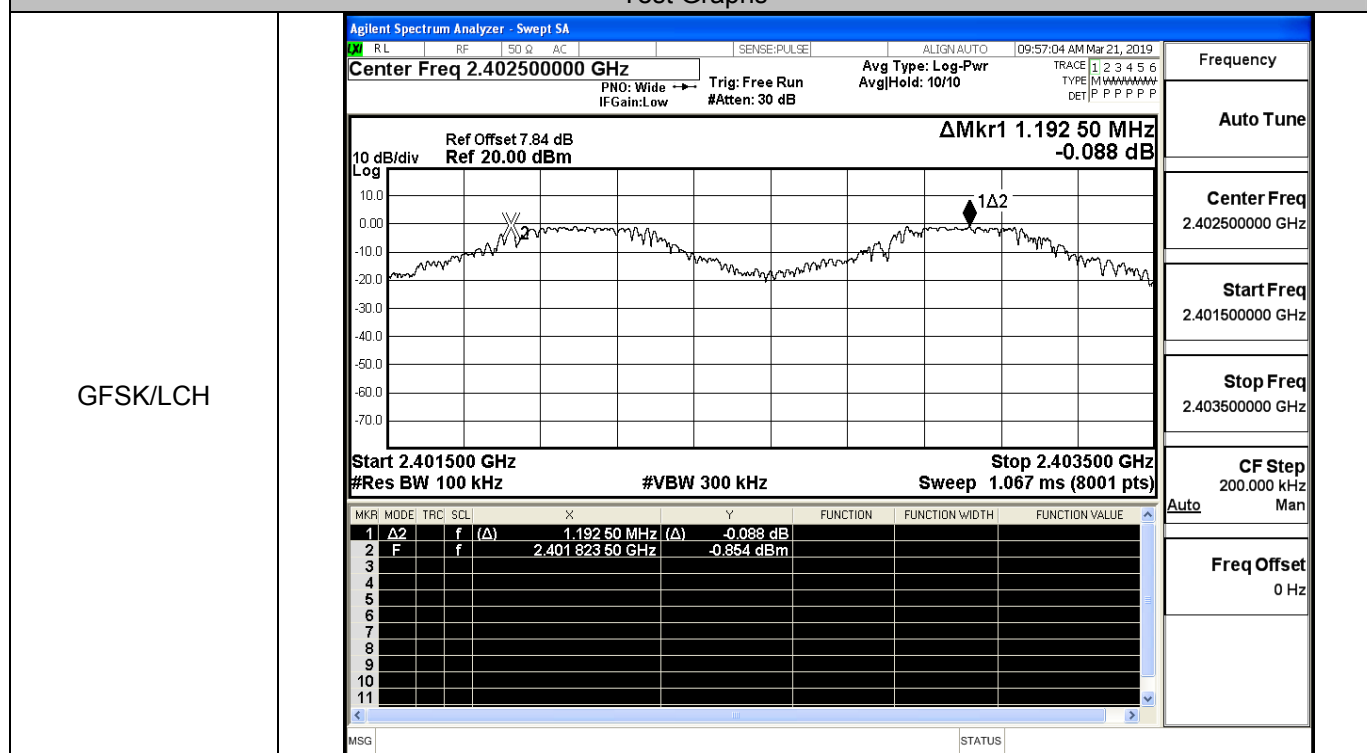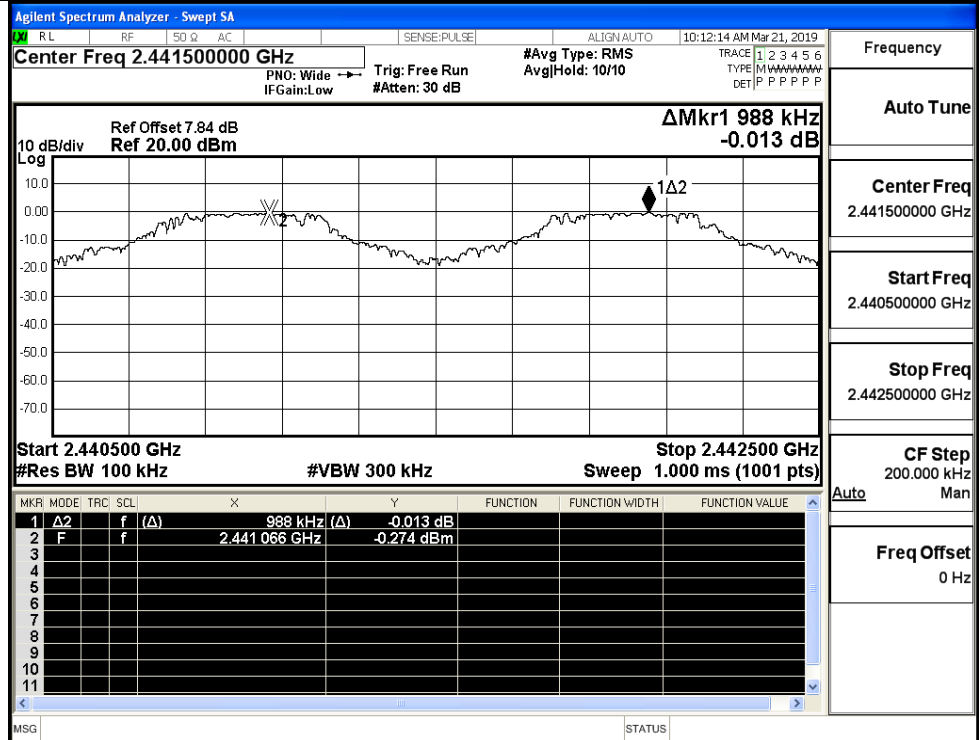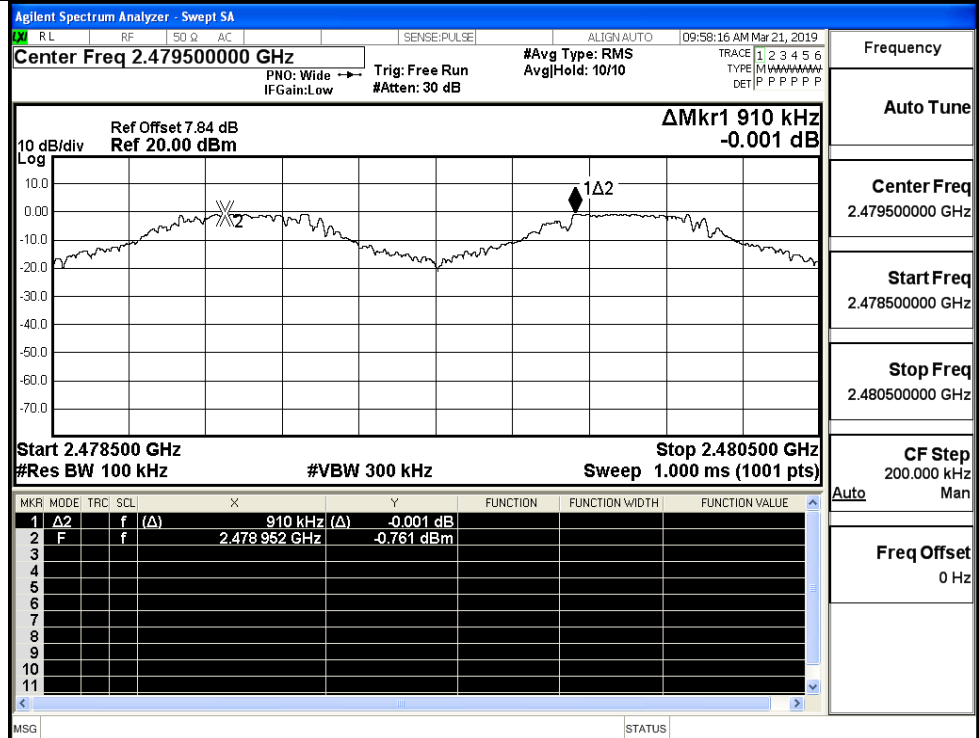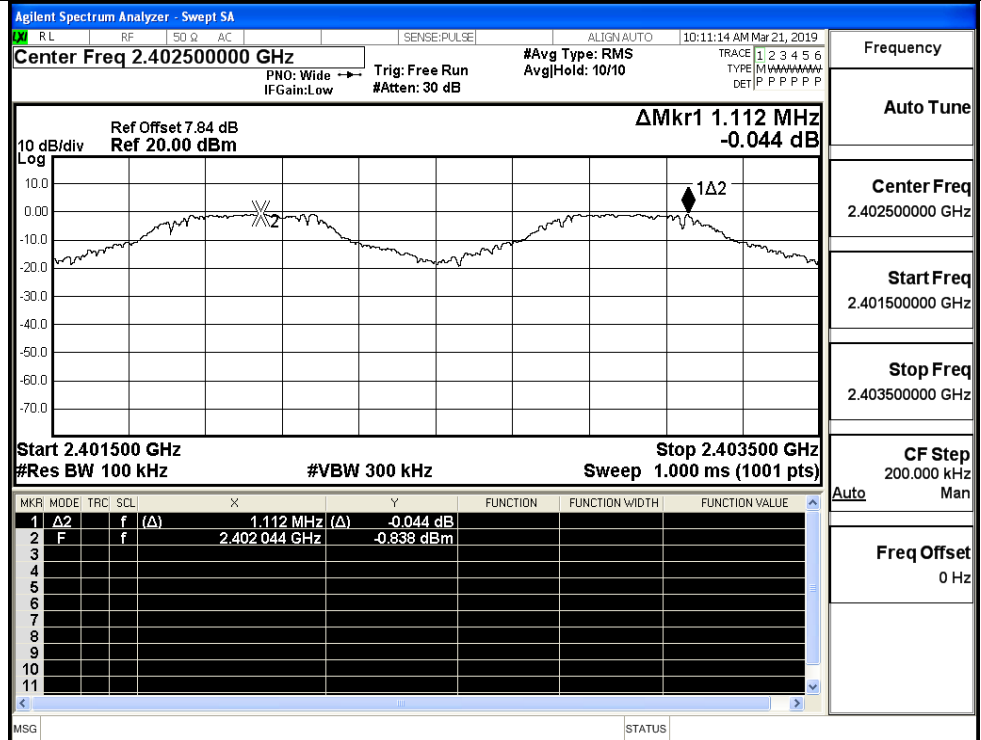
GFSK/MCH	
GFSK/HCH	
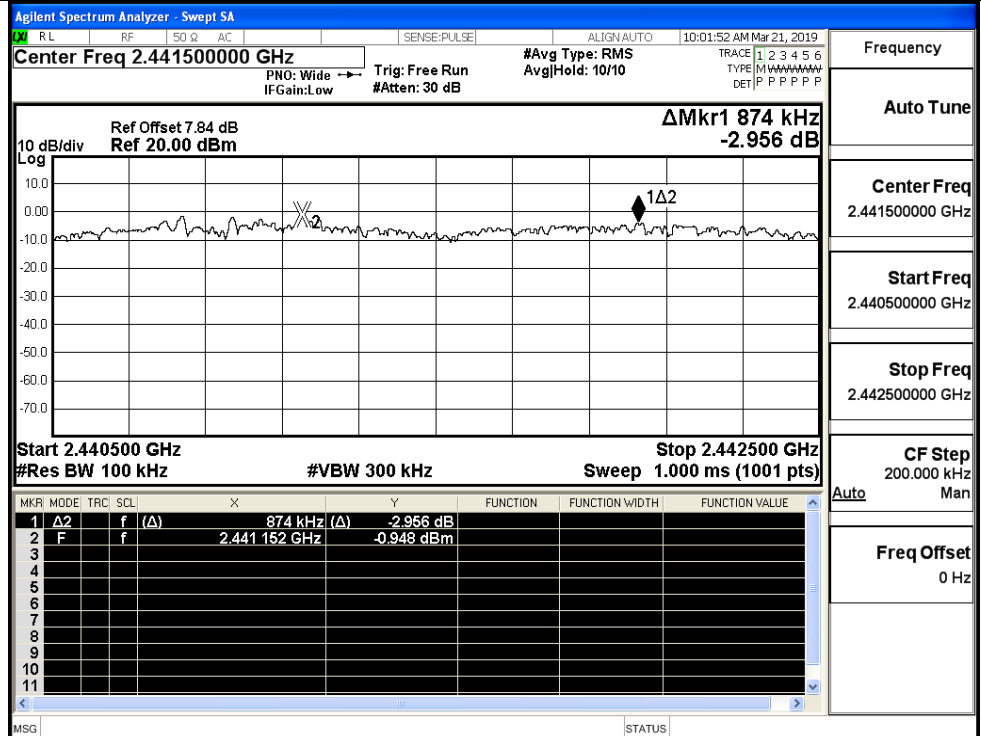
π/4DQPSK/LCH	
π/4DQPSK/MCH	

π/4DQPSK/HCH	
8DPSK/LCH	
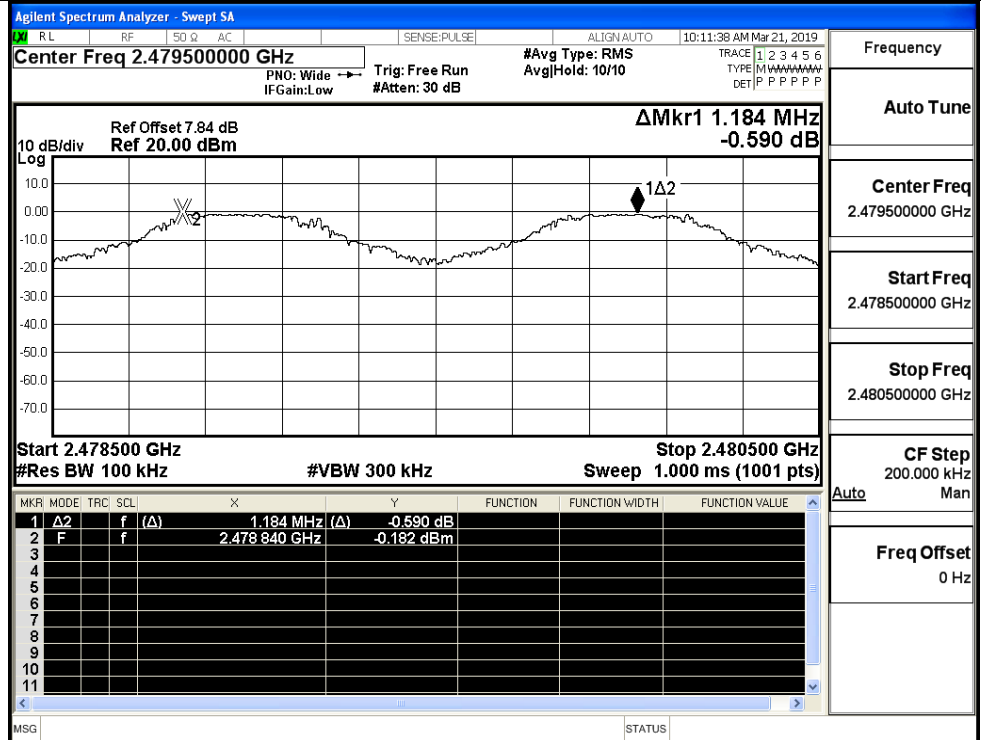
8DPSK/MCH	
8DPSK/HCH	
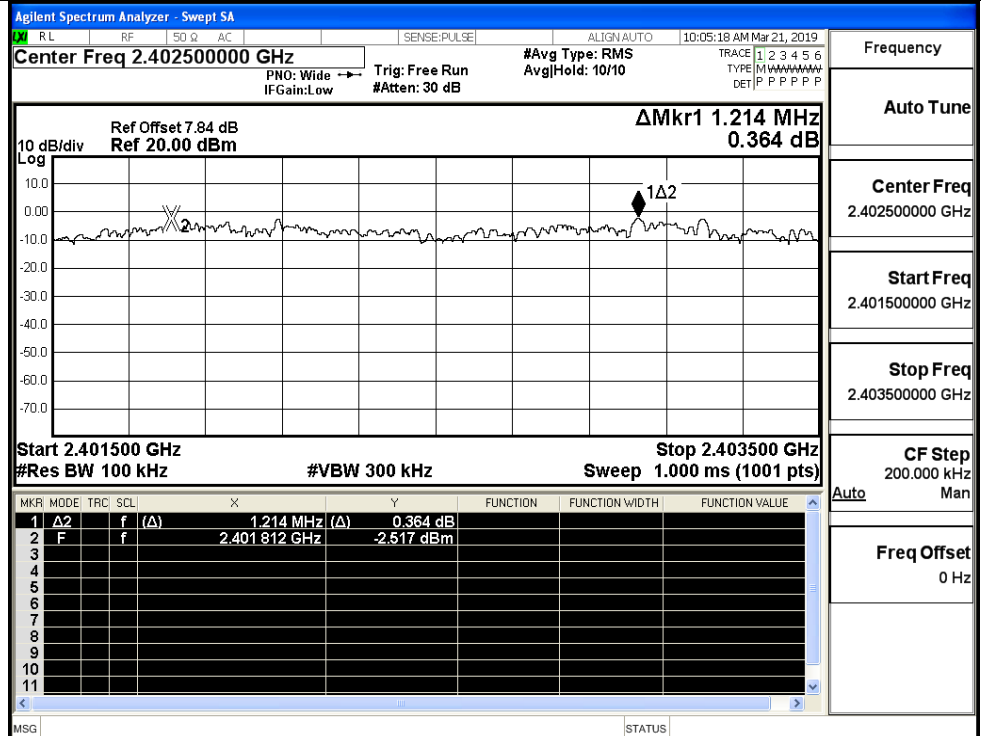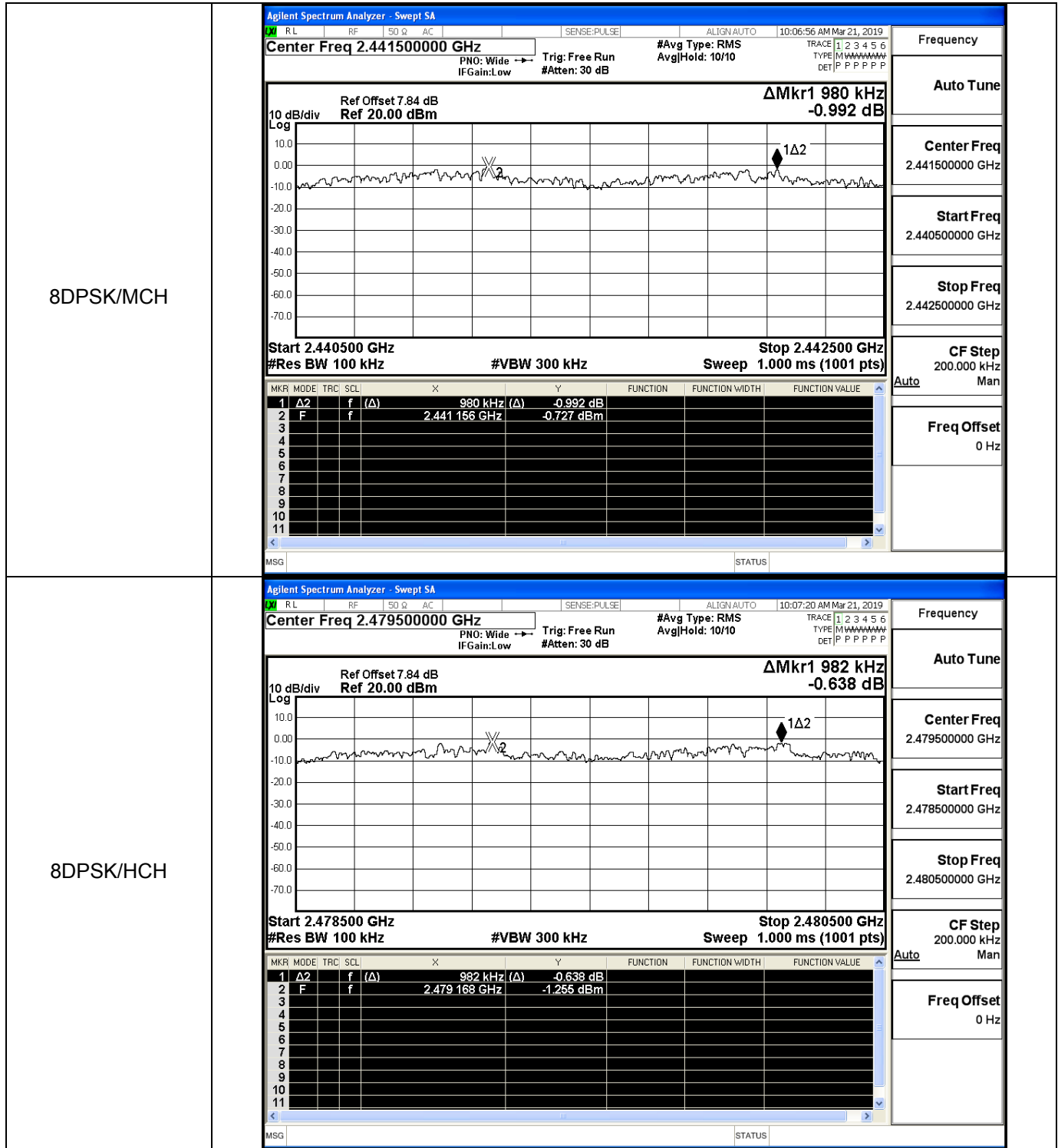
A.4 Hopping Channel Number

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

Test Graphs
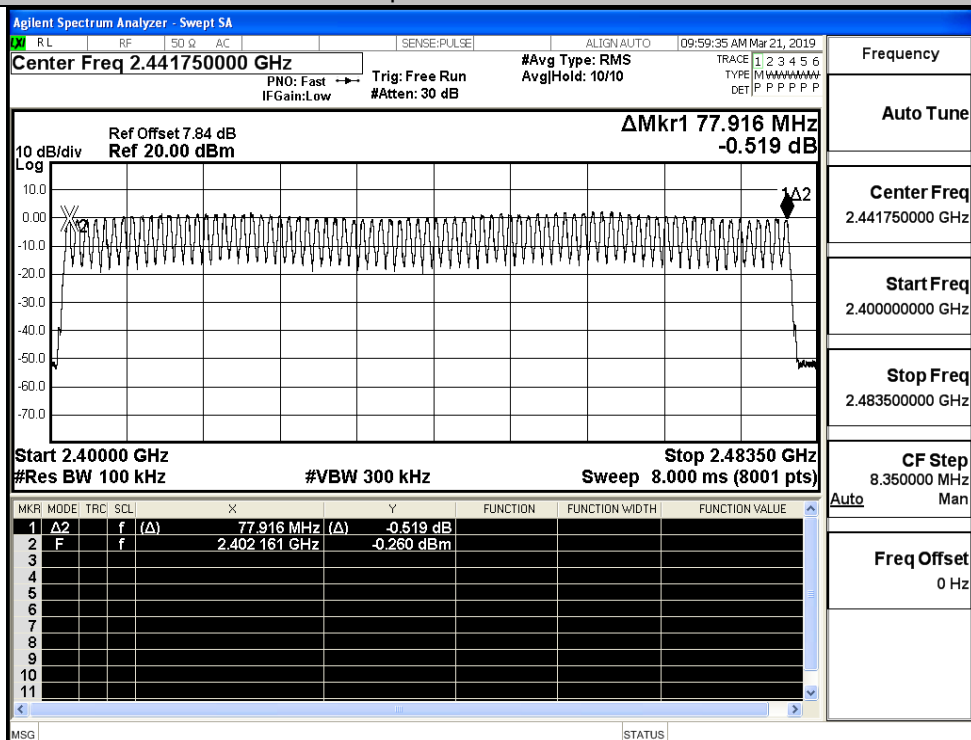
GFSK/Hop	
π/4DQPSK/Hop	
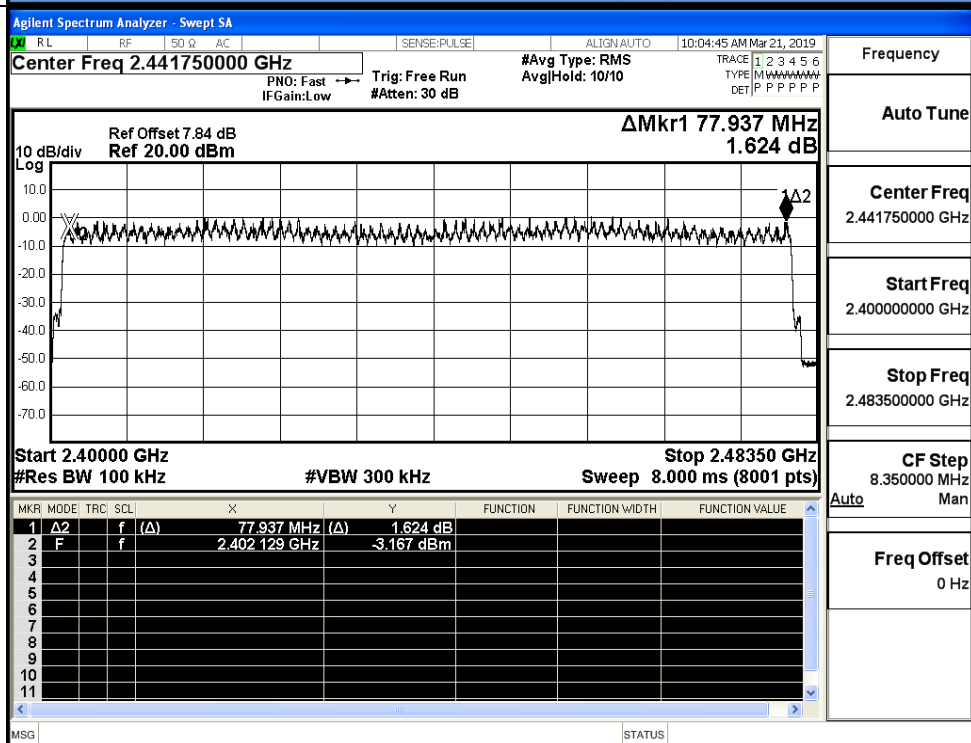
8DPSK/Hop
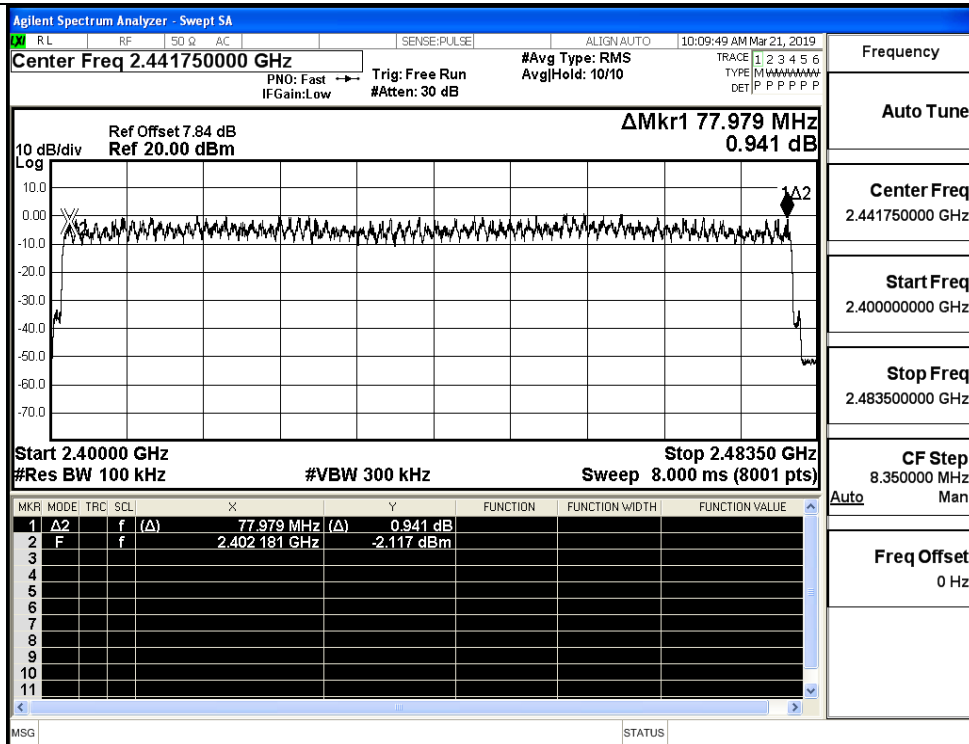
A.5 Dwell Time

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	LCH	2.88	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
π/4DQPSK	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	
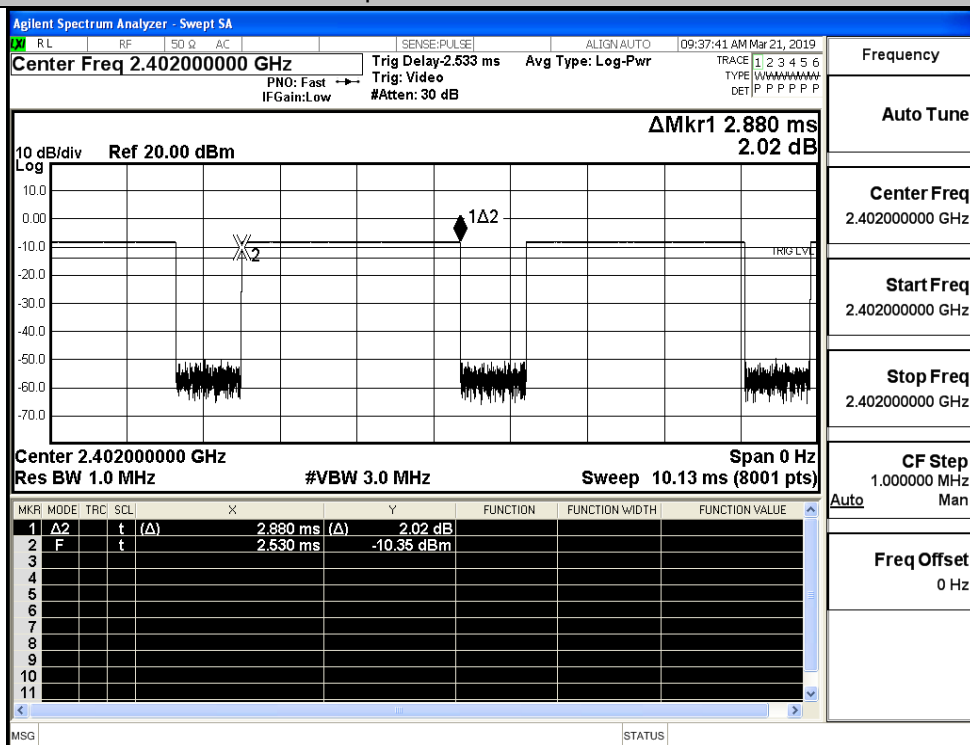
GFSK_DH5/MCH	
GFSK_DH5/HCH	
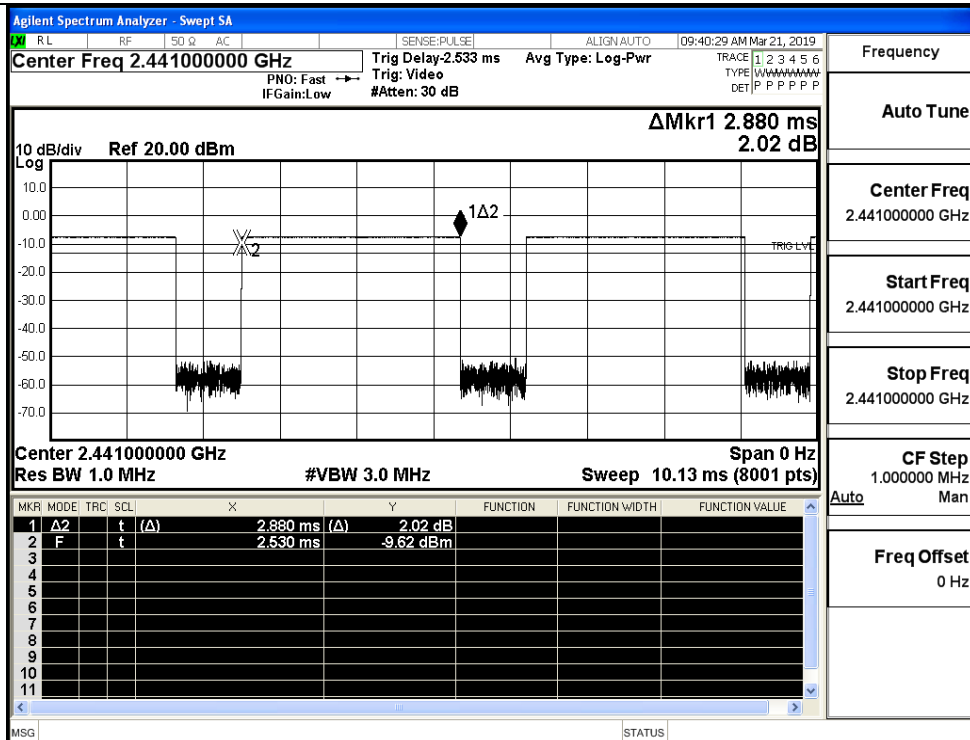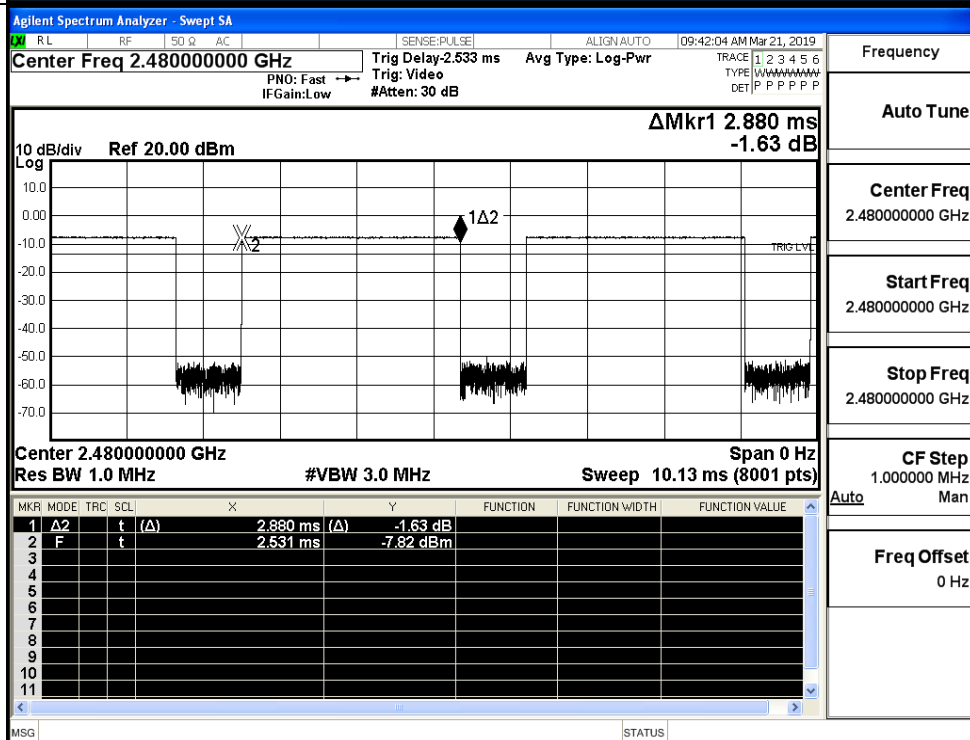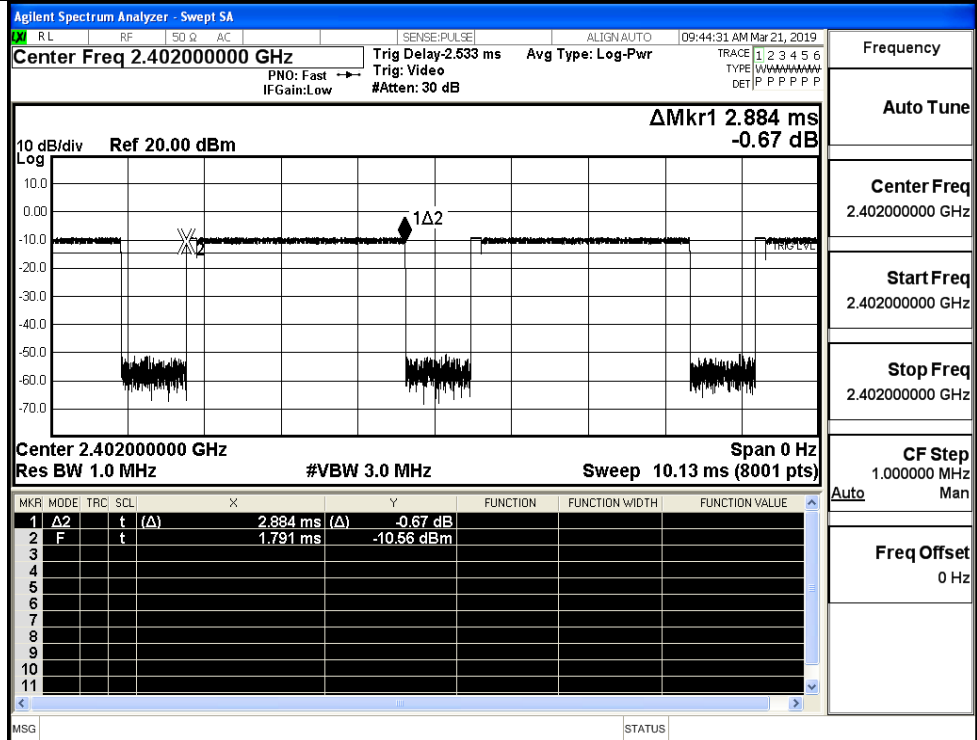
π/4DQPSK _2DH5/LCH	
π/4DQPSK _2DH5/MCH	
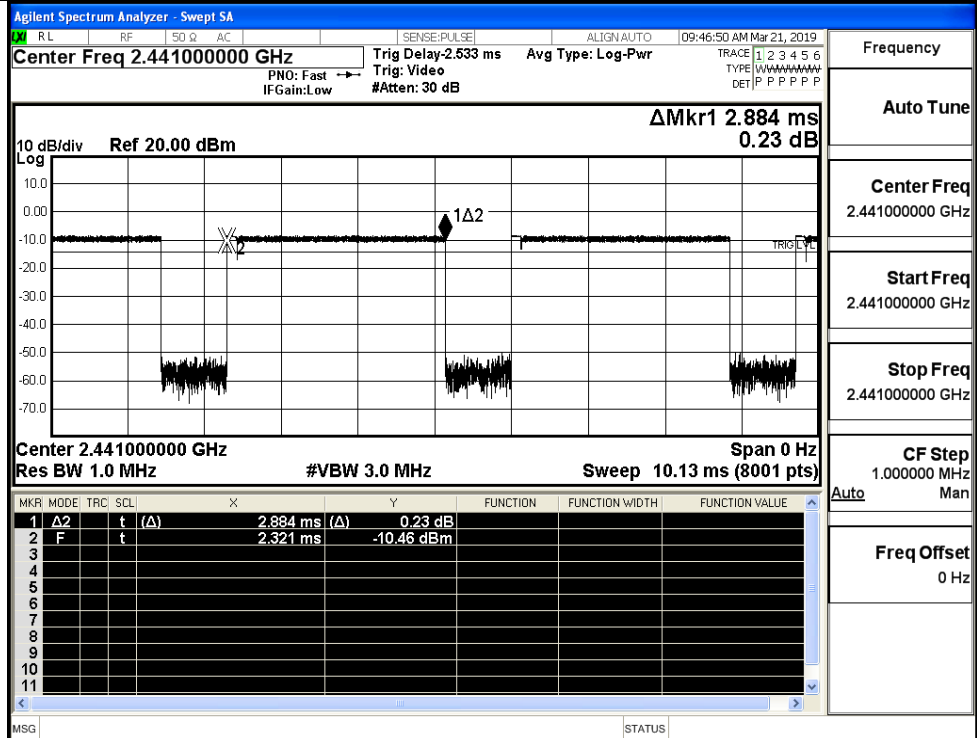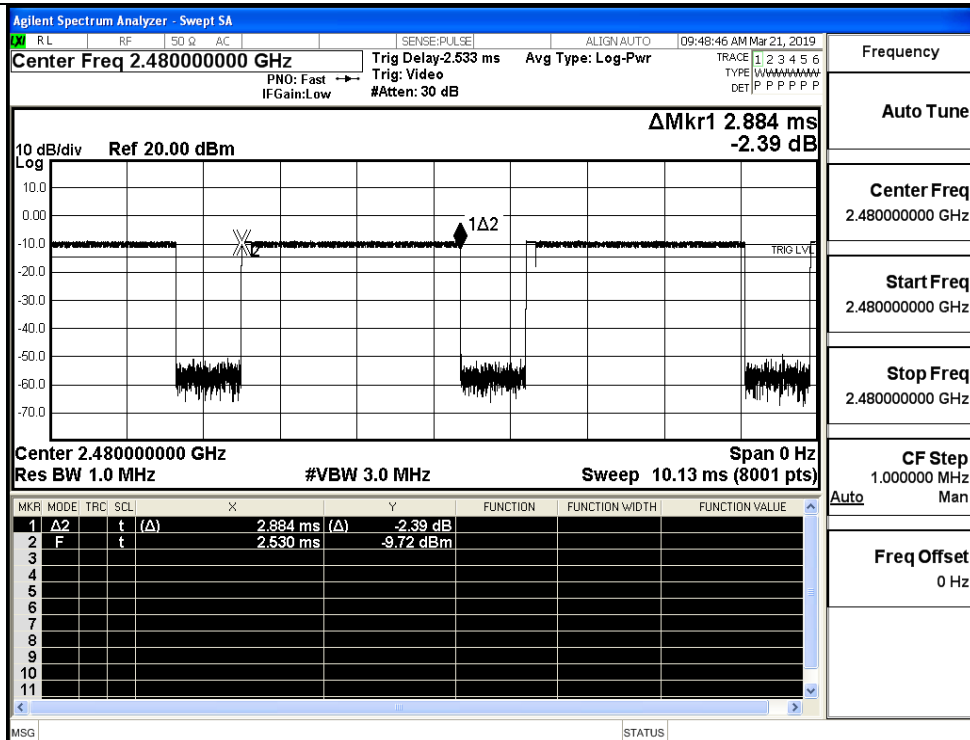
| π/4DQPSK _2DH5/HCH | |
| 8DPSK _3DH5/LCH | |
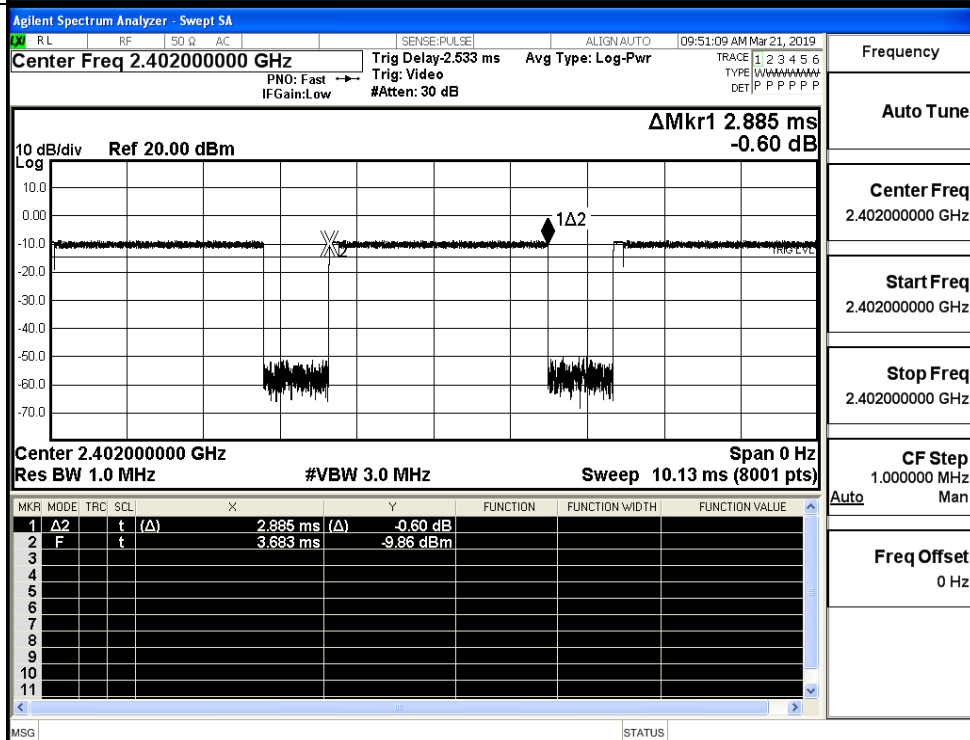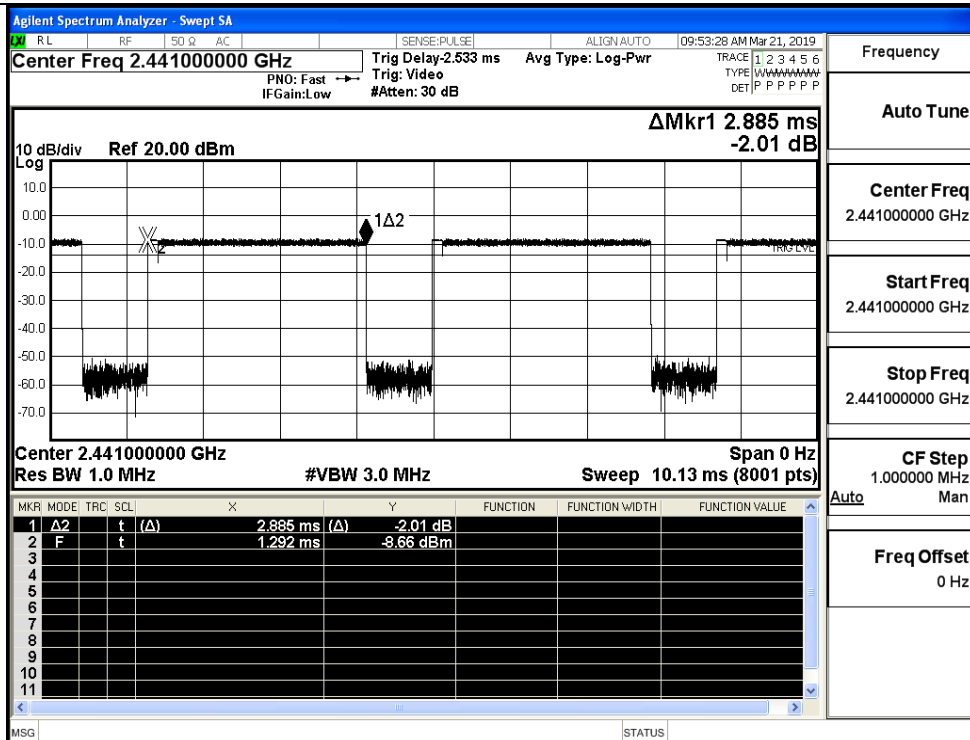
8DPSK _3DH5/MCH	
8DPSK _3DH5/HCH	
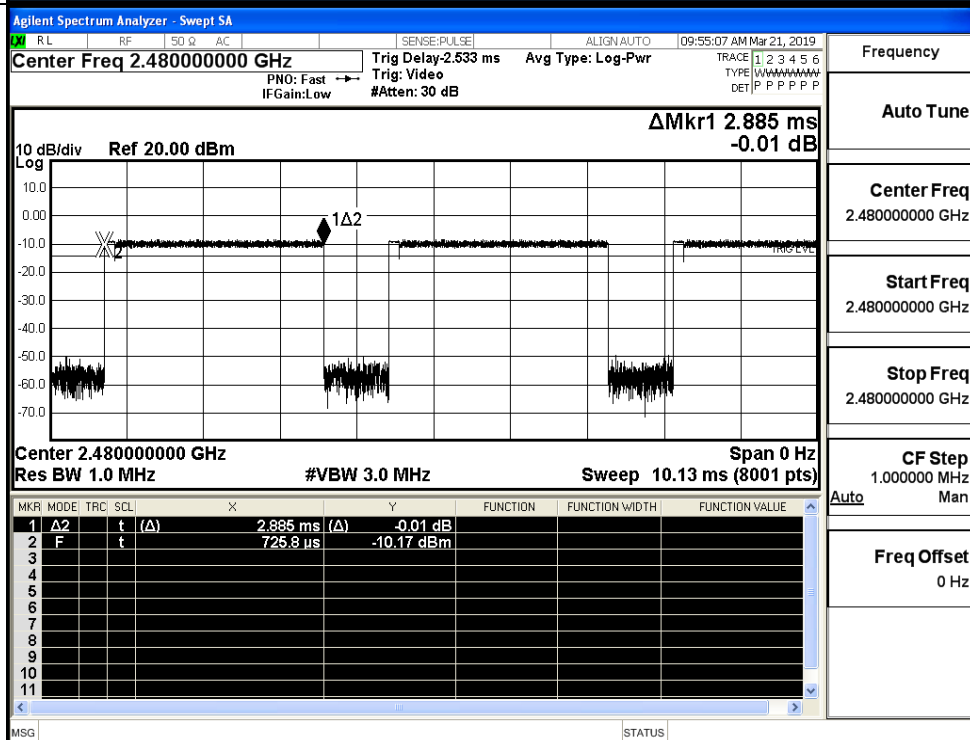
A.6 RF Conducted Spurious Emissions

Mode	Channel	Pref [dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.27	-44.638	-20.270	PASS
	MCH	-0.011	-44.530	-20.011	PASS
	HCH	0.148	-44.436	-19.852	PASS
π/4DQPSK	LCH	-1.552	-44.754	-21.552	PASS
	MCH	-0.704	-45.234	-20.704	PASS
	HCH	-1.238	-44.907	-21.238	PASS
8DPSK	LCH	-2.033	-44.756	-22.033	PASS
	MCH	-0.706	-44.263	-20.706	PASS
	HCH	-1.215	-44.773	-21.215	PASS

GFSK_LCH_Graphs	
Pref	

Puw
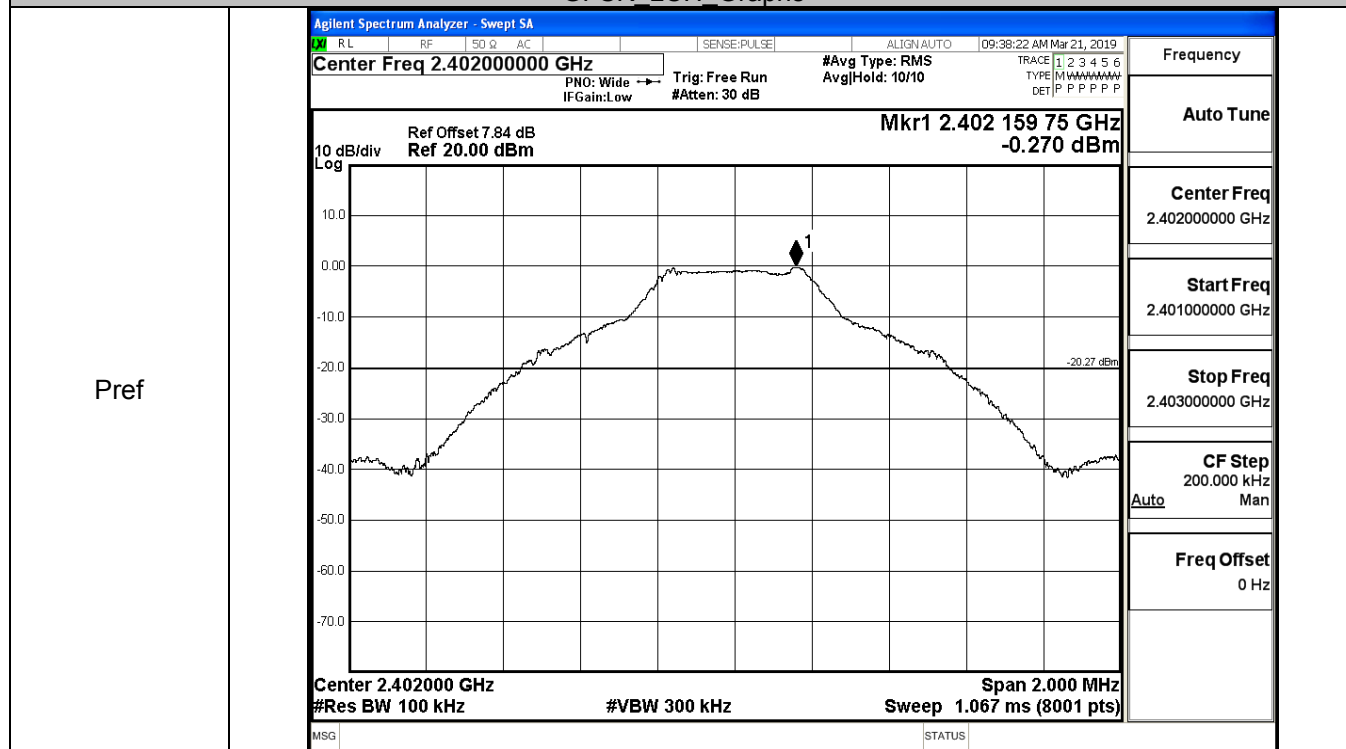
GFSK_MCH_Graphs	
Pref	
Puw	
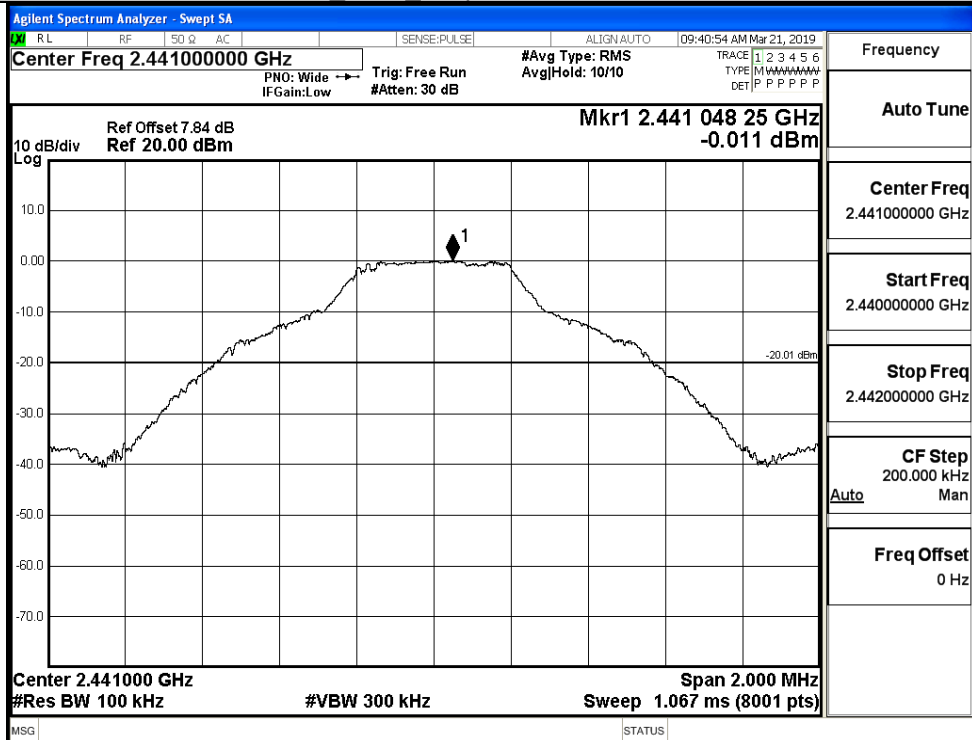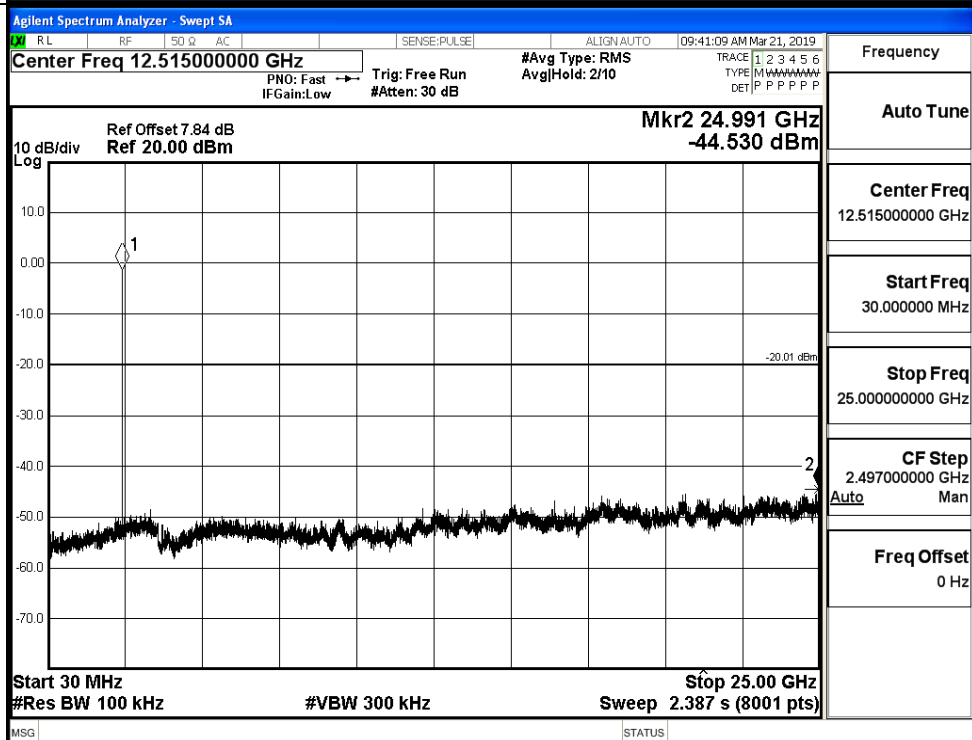
GFSK_HCH_Graphs

Pref	
Puw	
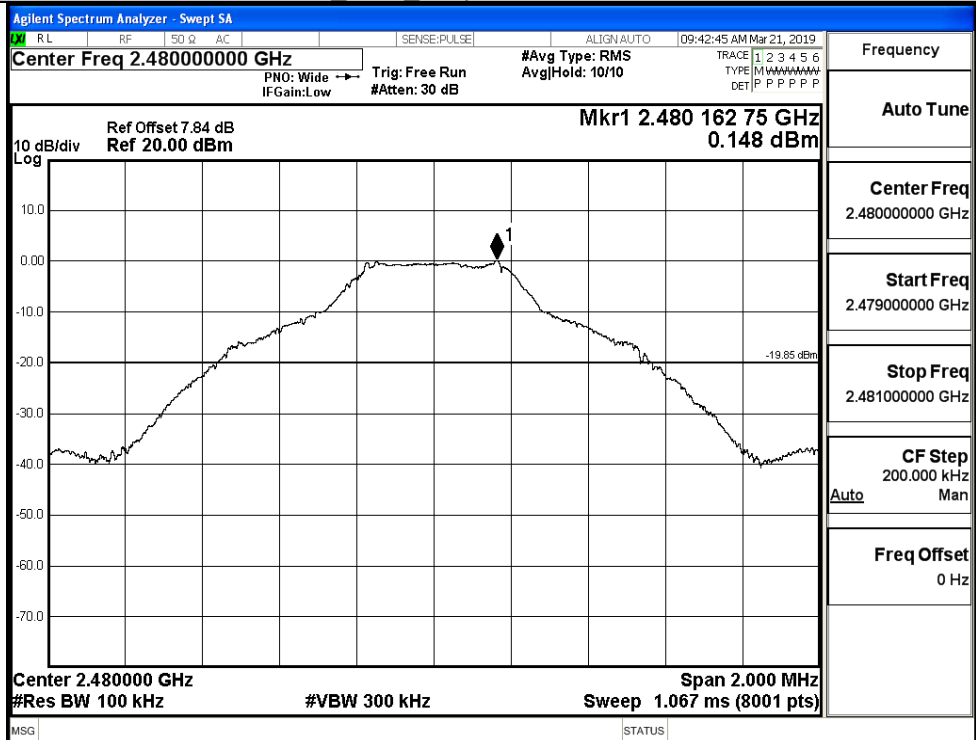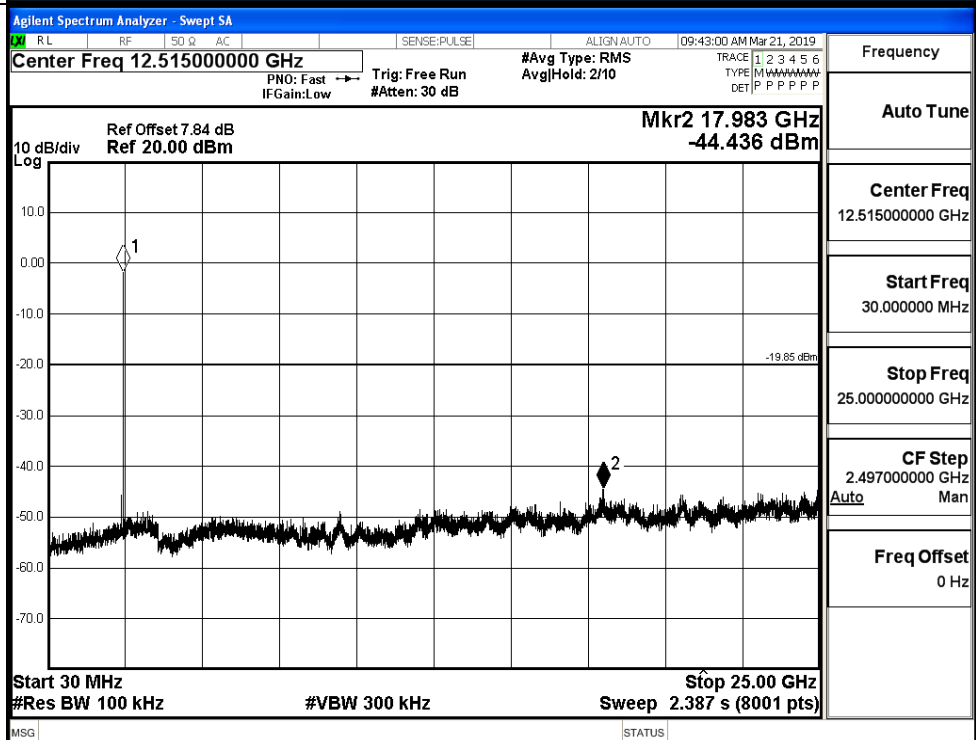
π/4DQPSK_LCH_Graphs	
Pref	
Puw	
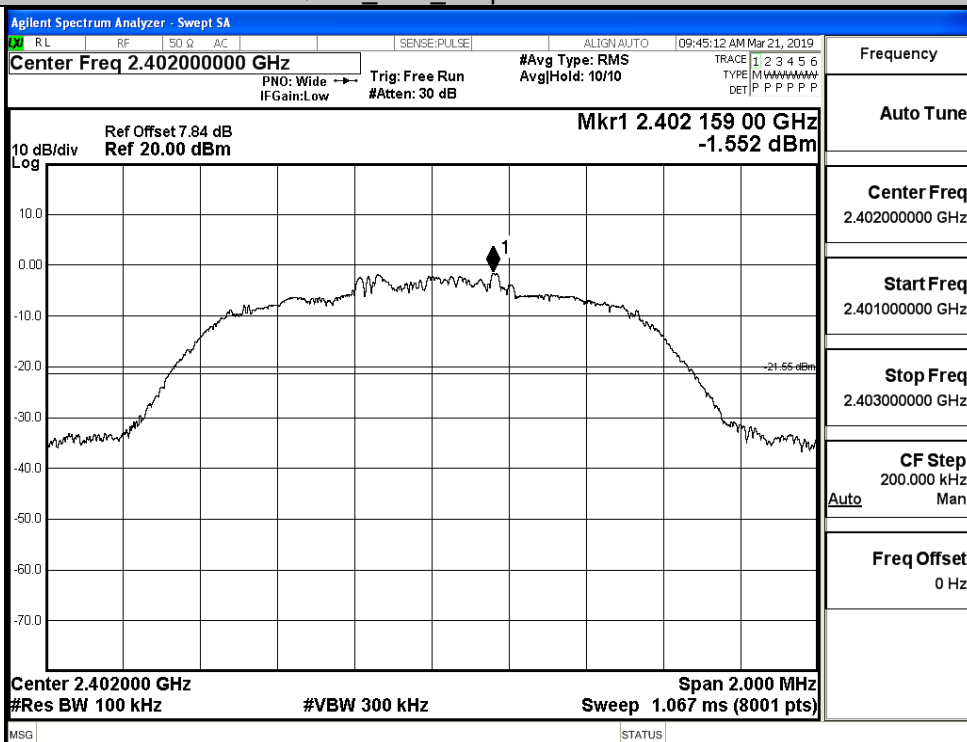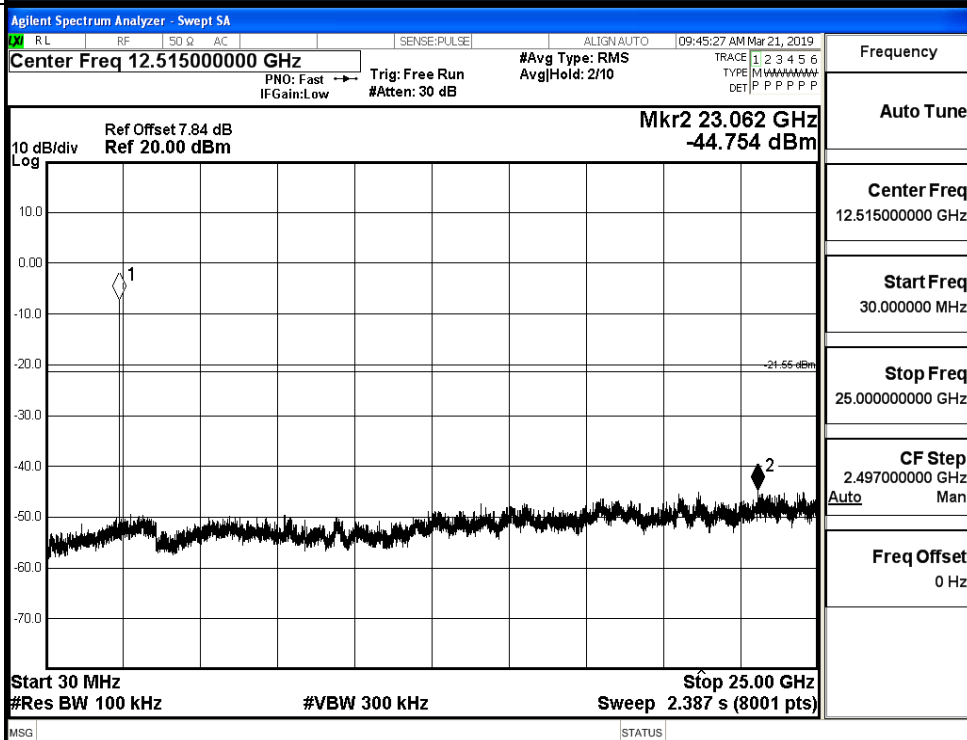
π/4DQPSK_MCH_Graphs

Pref	
Puw	
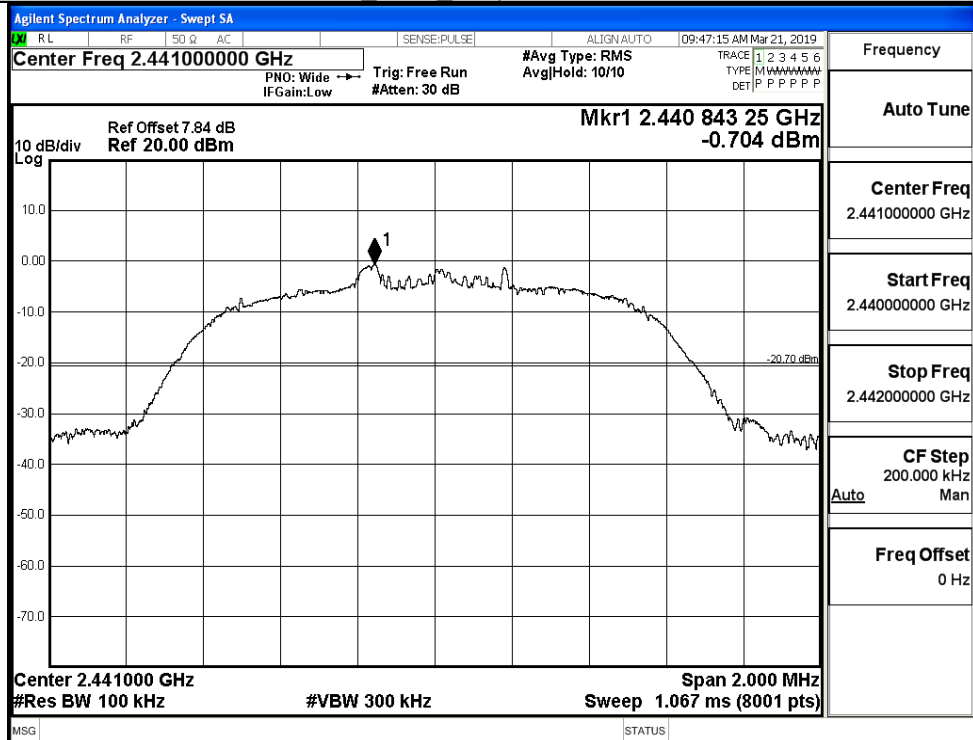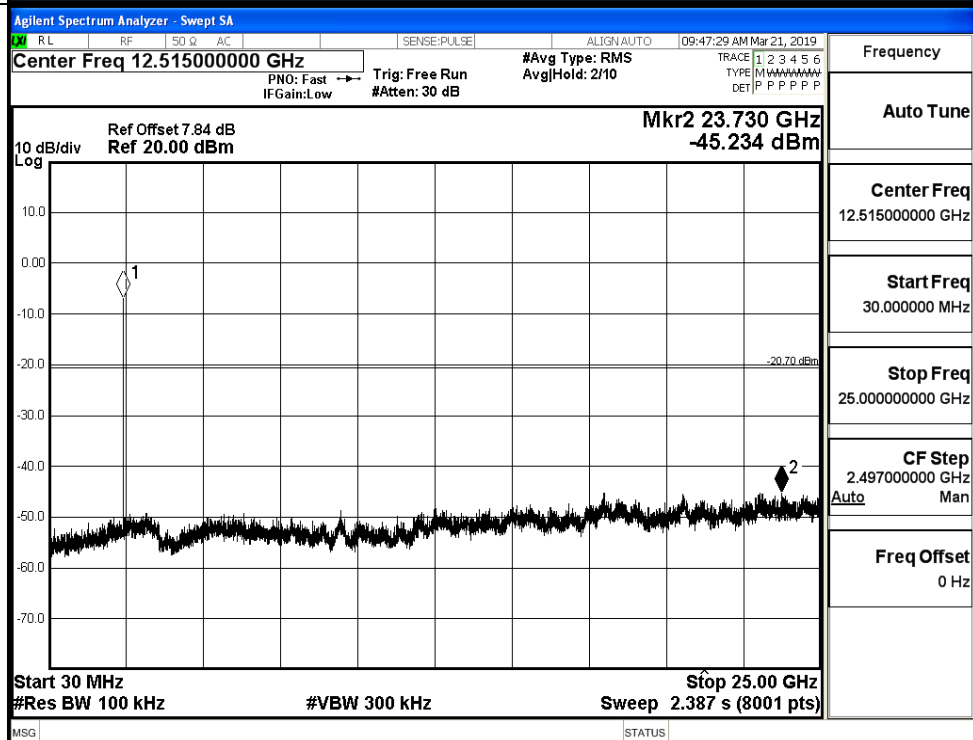
π/4DQPSK_HCH_Graphs
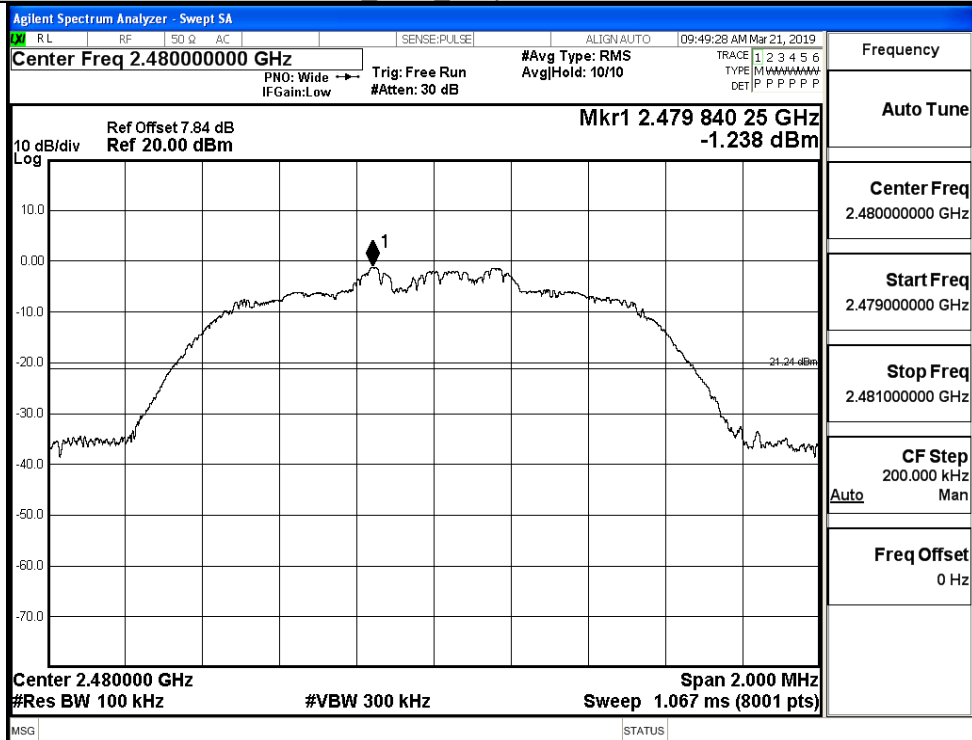
Pref	
Puw	
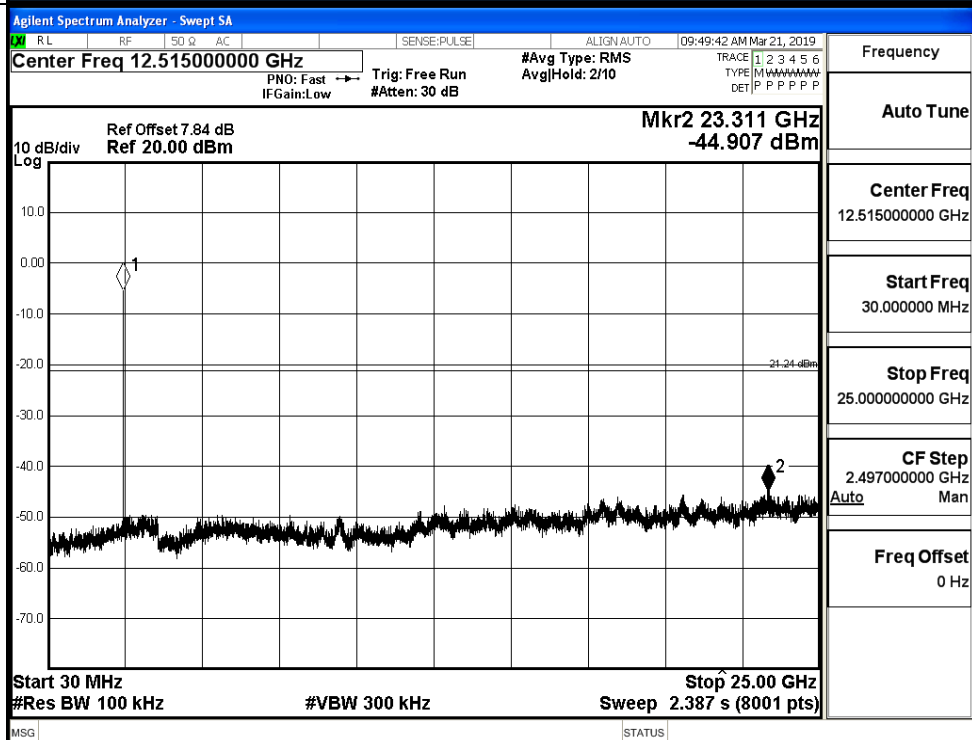
8DPSK_LCH_Graphs
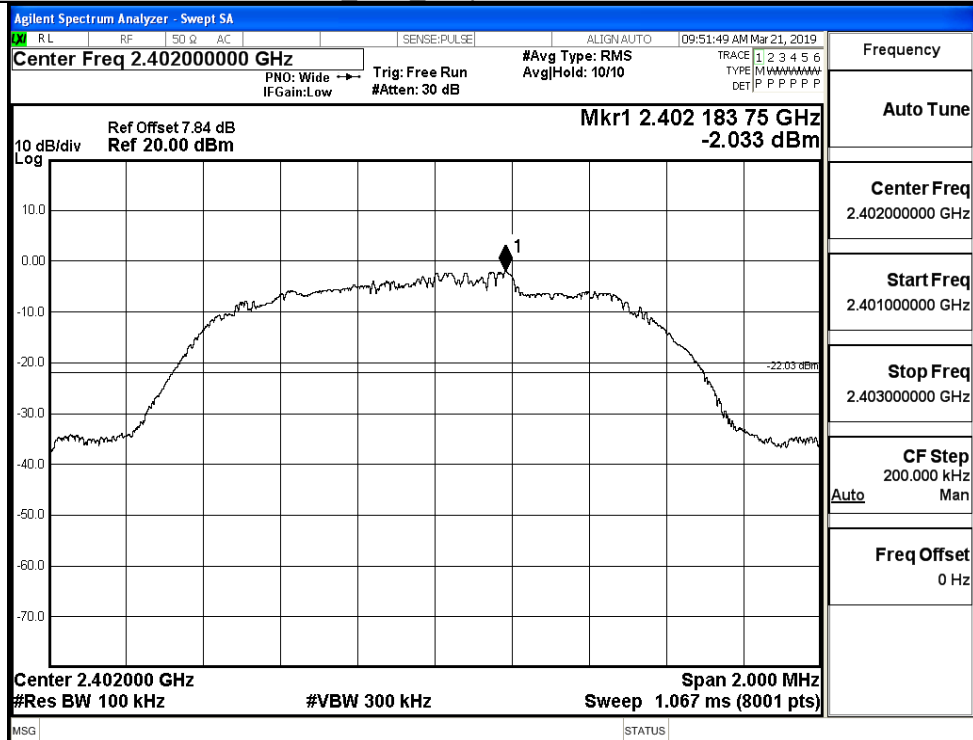
Pref	
Puw	
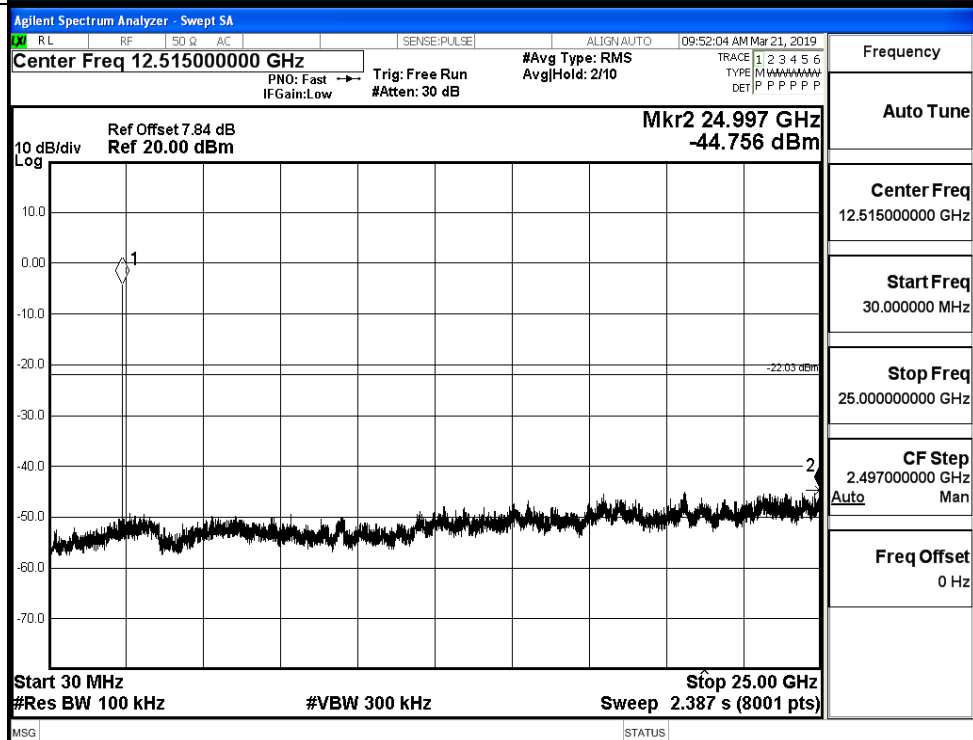
8DPSK_MCH_Graphs
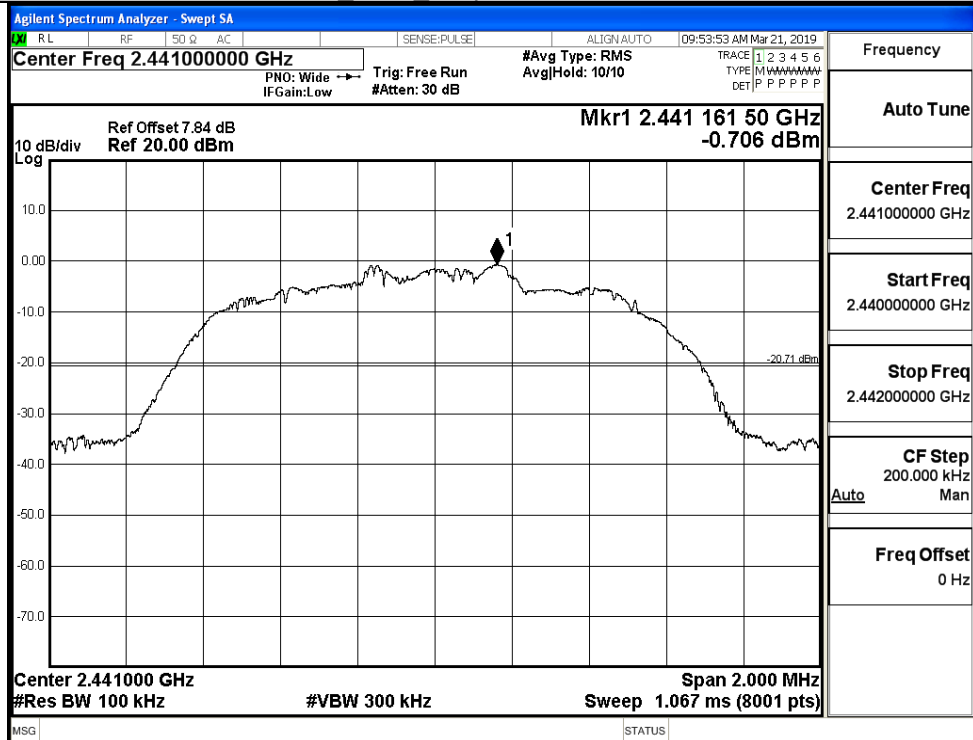
Pref	
Puw	
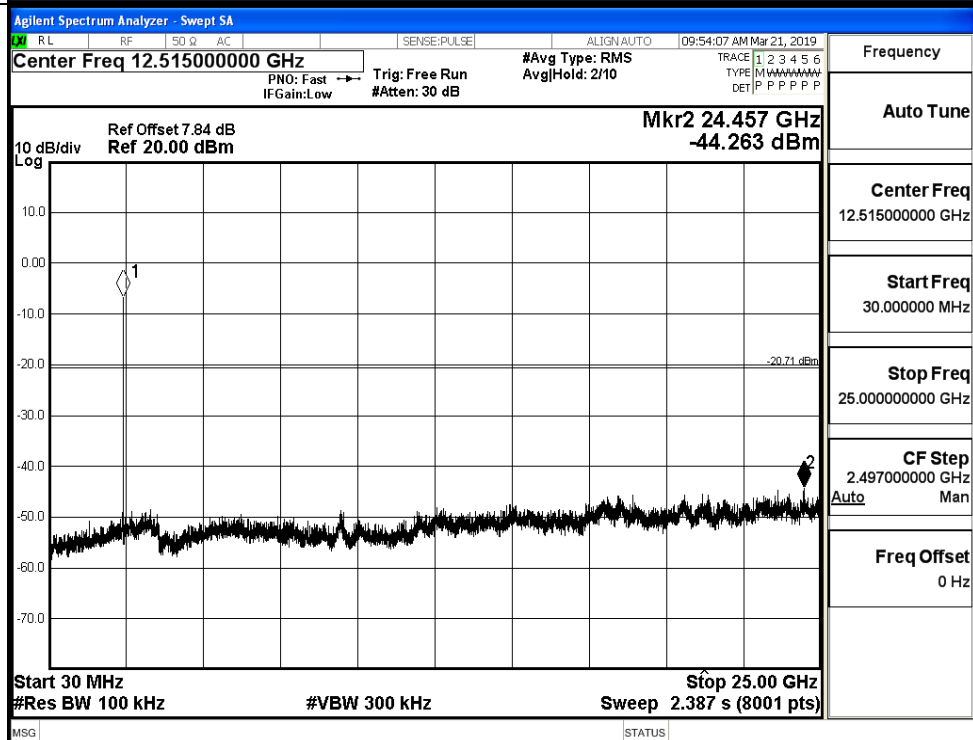
8DPSK_HCH_Graphs
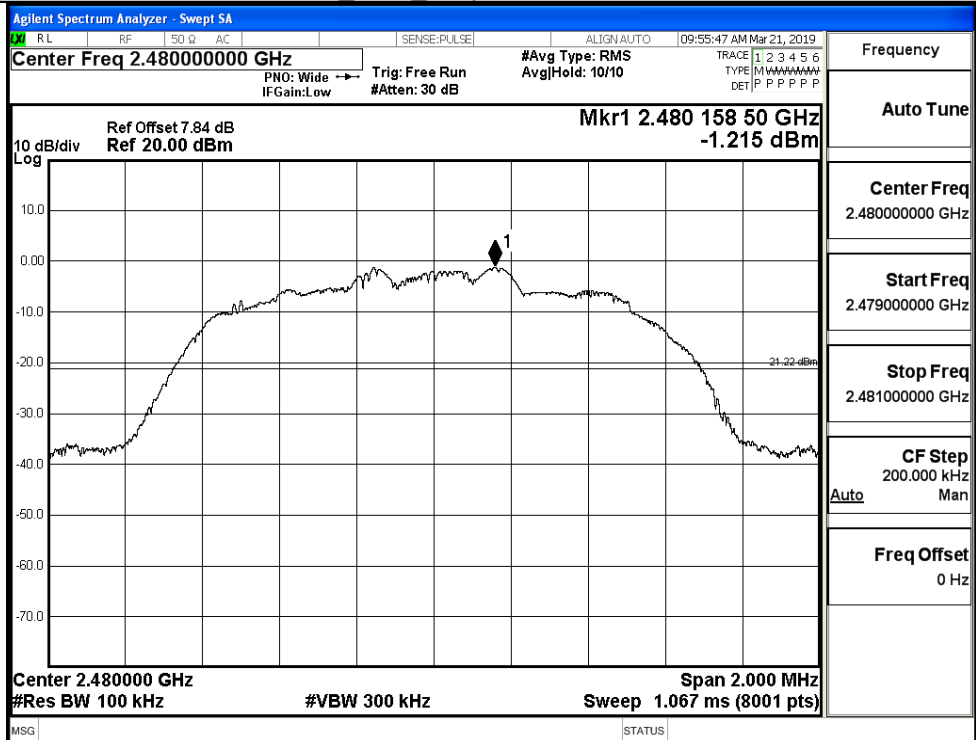
Pref	
Puw	

A.7 Band-edge for RF Conducted Emissions

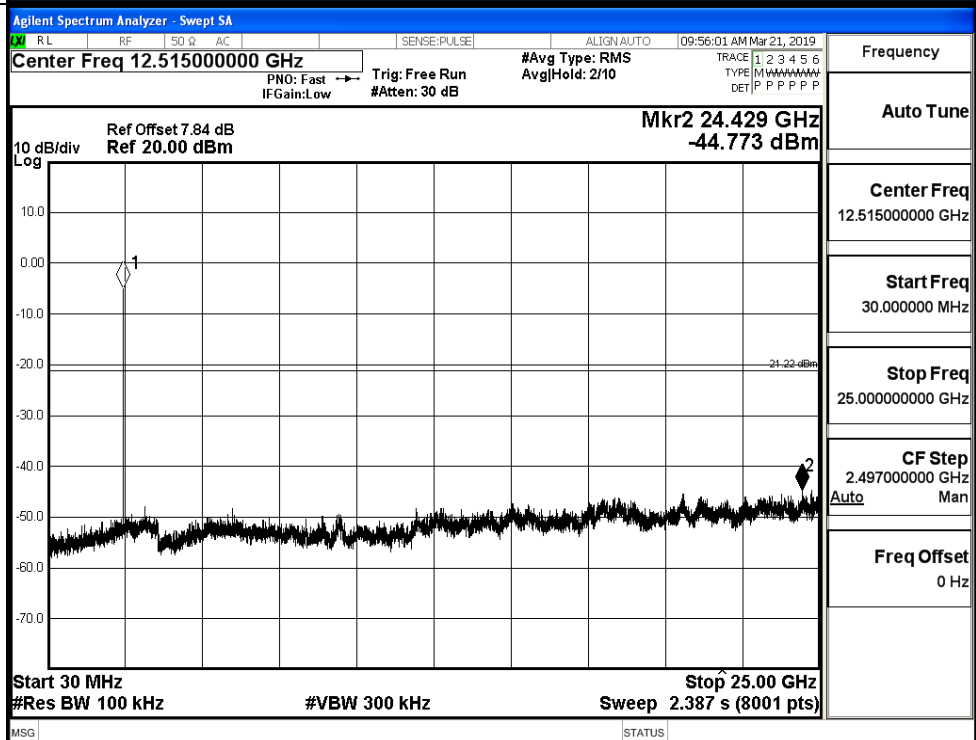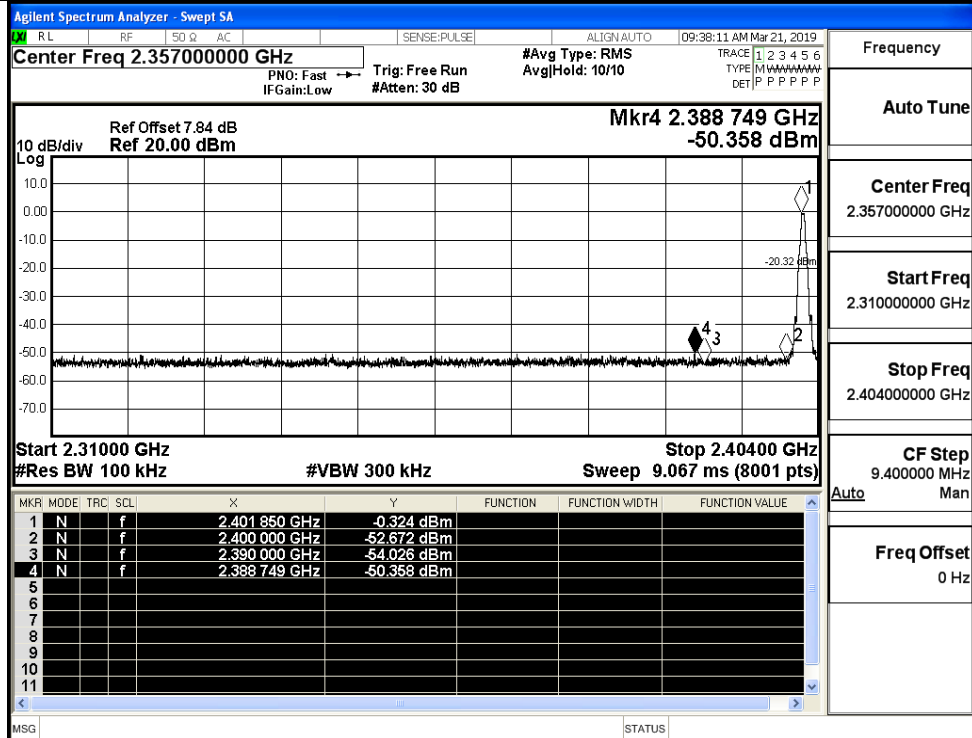| Mode	Channel	Carrier Frequency [MHz]	Carrier Power [dBm]	Frequency Hopping	Max Spurious Level [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2402	-0.324	Off	-50.358	-20.32	PASS
			1.963	On	-50.307	-18.04	PASS
	HCH	2480	0.181	Off	-50.001	-19.82	PASS
			2.209	On	-49.638	-17.79	PASS
π/4DQPSK	LCH	2402	-1.430	Off	-50.636	-21.43	PASS
			0.601	On	-49.370	-19.4	PASS
	HCH	2480	-1.221	Off	-49.399	-21.22	PASS
			0.836	On	-49.435	-19.16	PASS
8DPSK	LCH	2402	-1.376	Off	-50.058	-21.38	PASS
			0.408	On	-49.289	-19.59	PASS
	HCH	2480	-1.112	Off	-49.419	-21.11	PASS
			0.953	On	-49.200	-19.05	PASS

Test Graphs	
GFSK/LCH/No Hop	
GFSK/LCH/Hop	
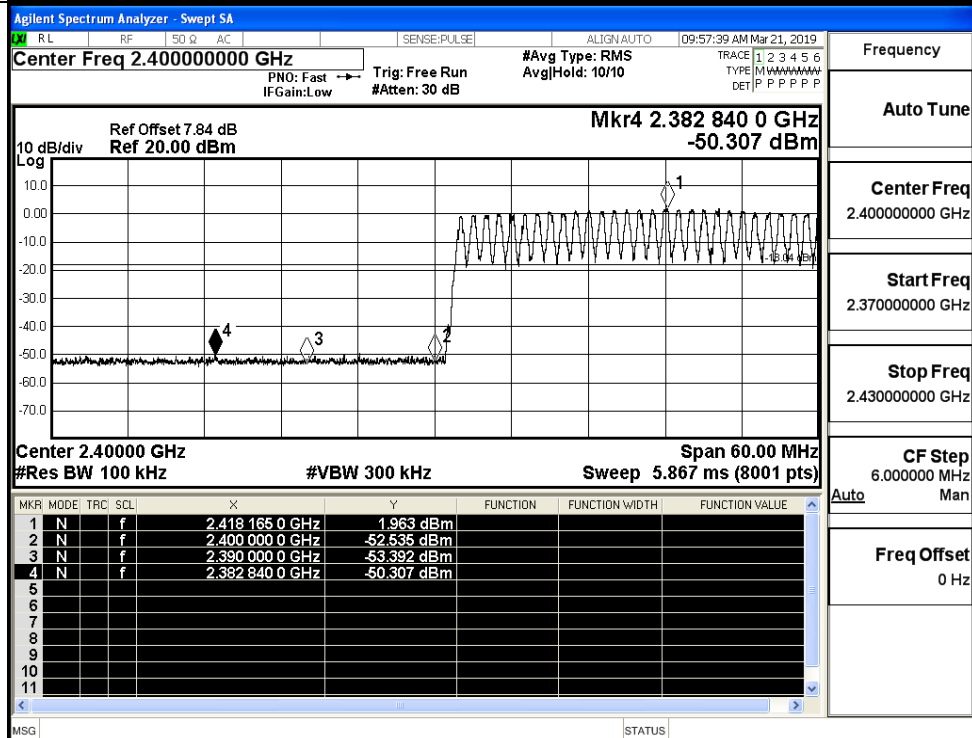
GFSK/HCH/No Hop	
GFSK/HCH/Hop	
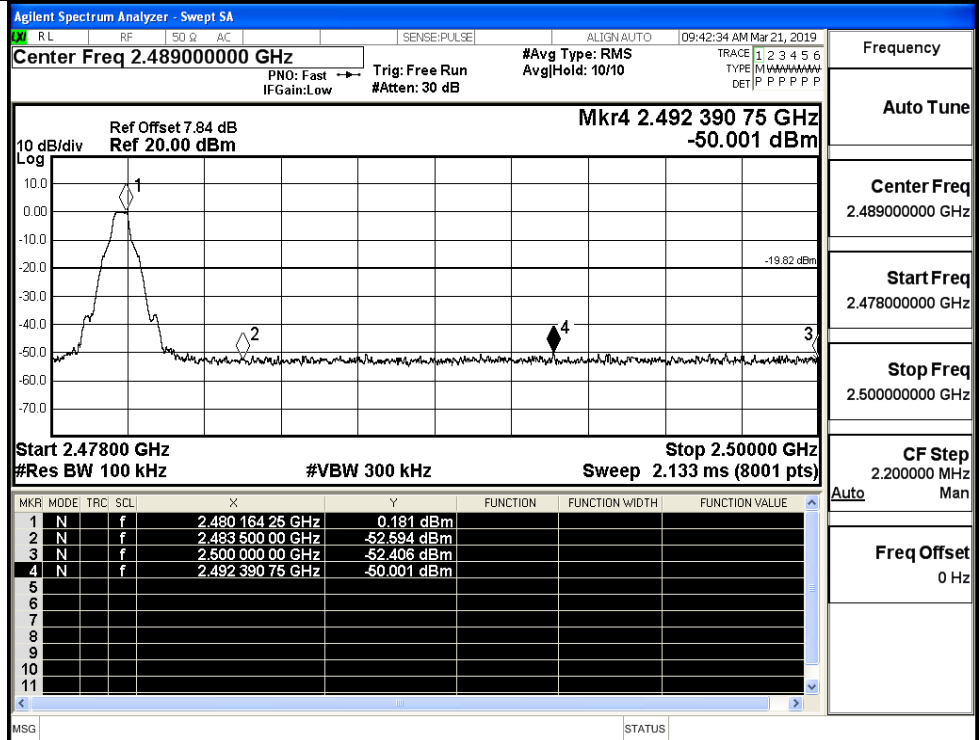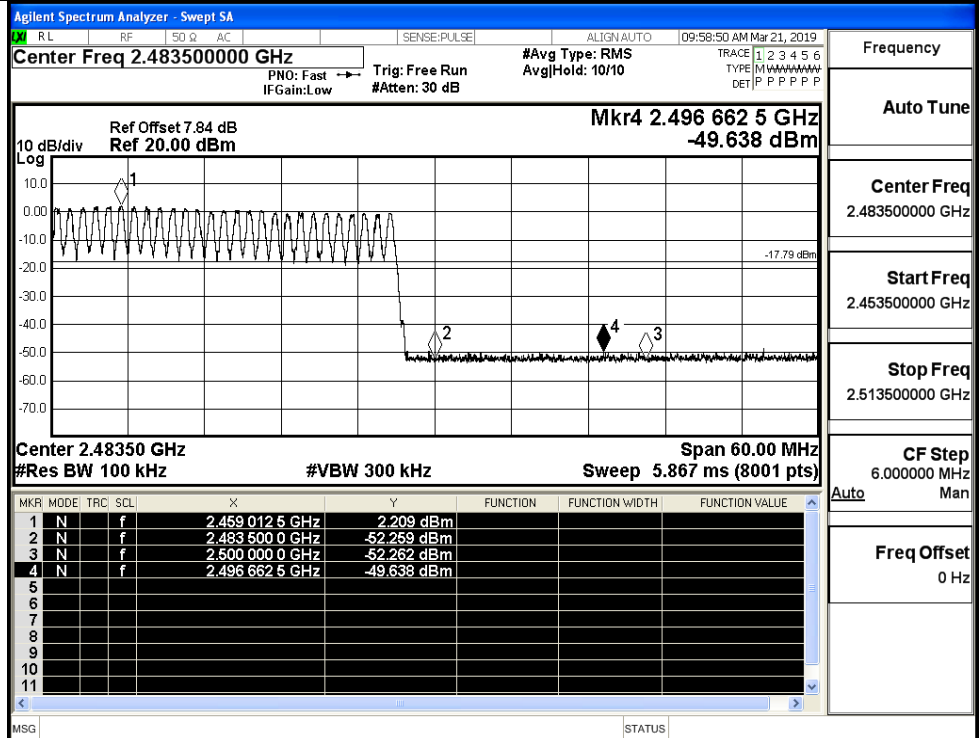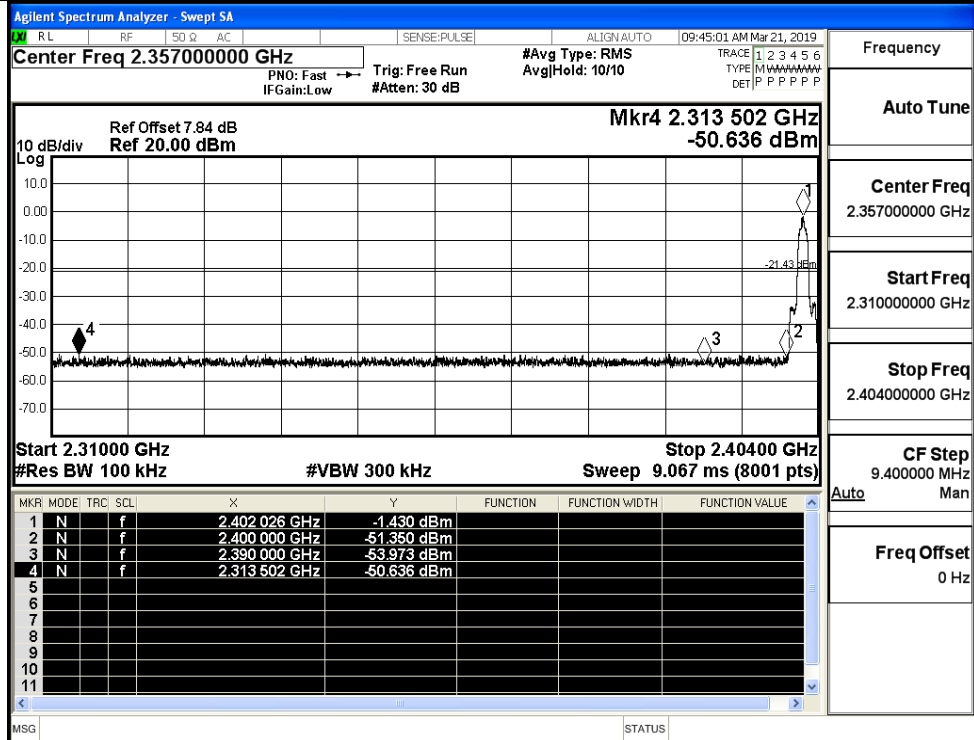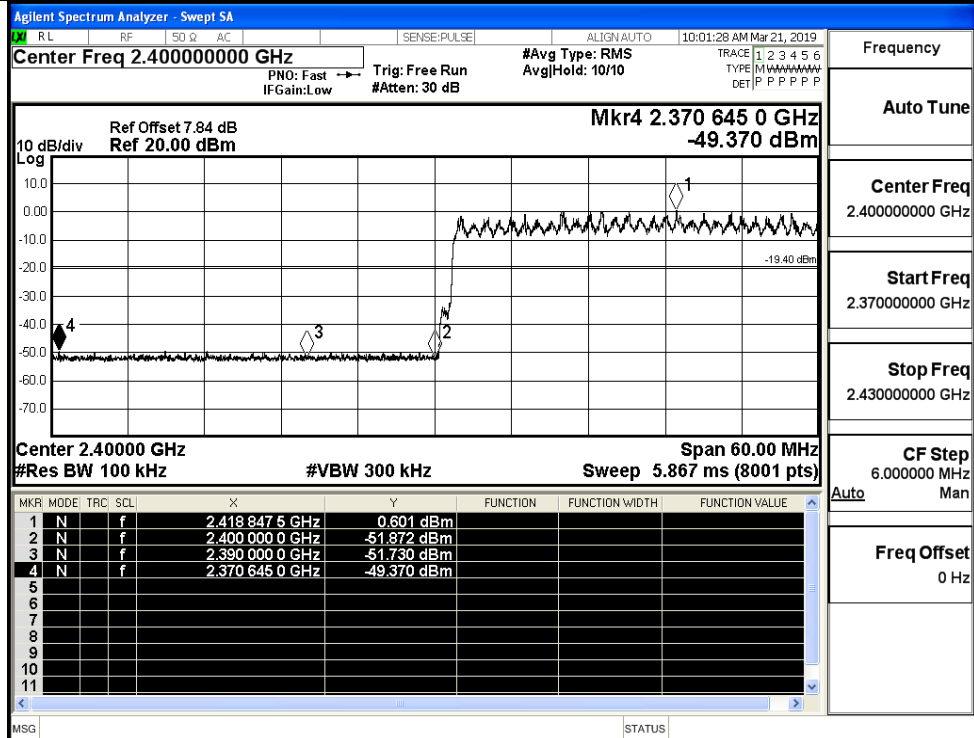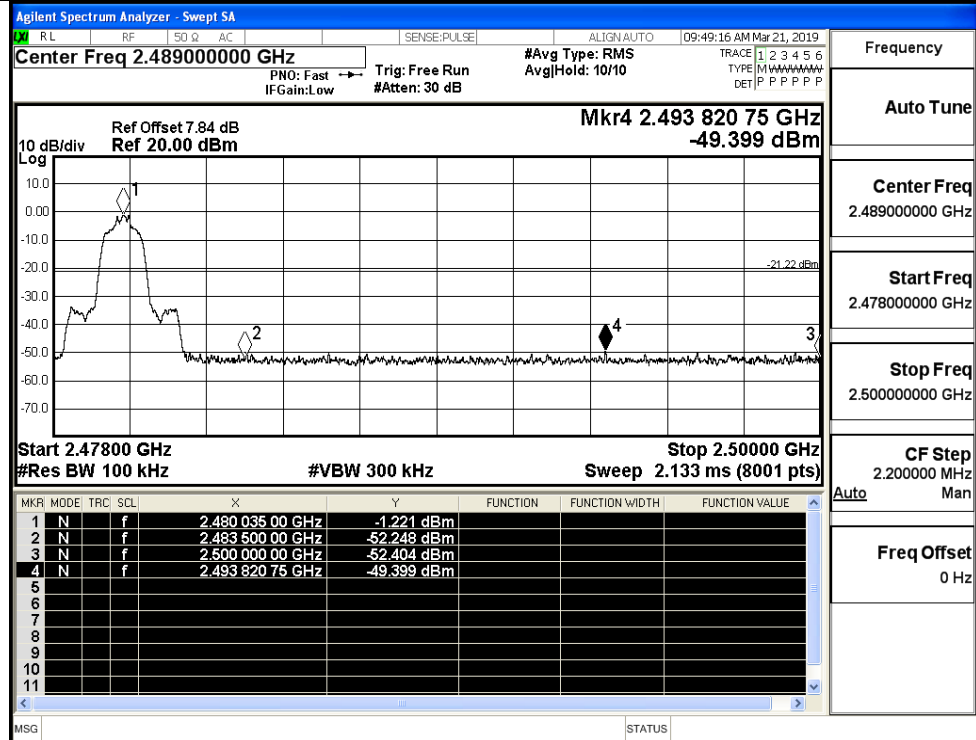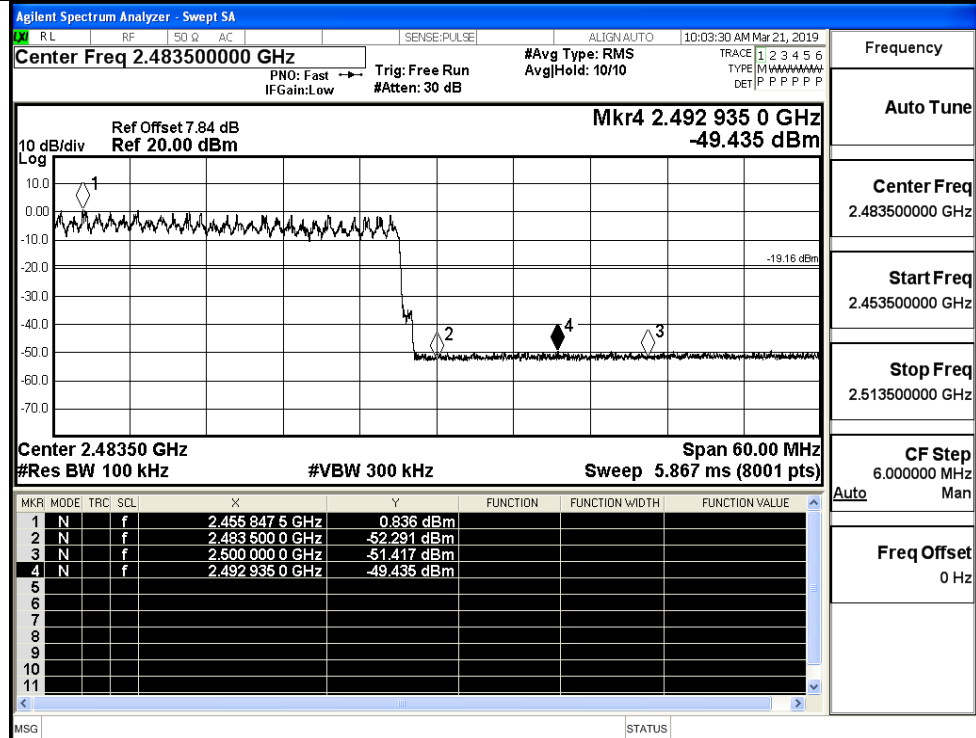
π/4DQPSK/LCH/No Hop	
π/4DQPSK/LCH/Hop	

π/4DQPSK/HCH/No Hop	
π/4DQPSK/HCH/Hop	
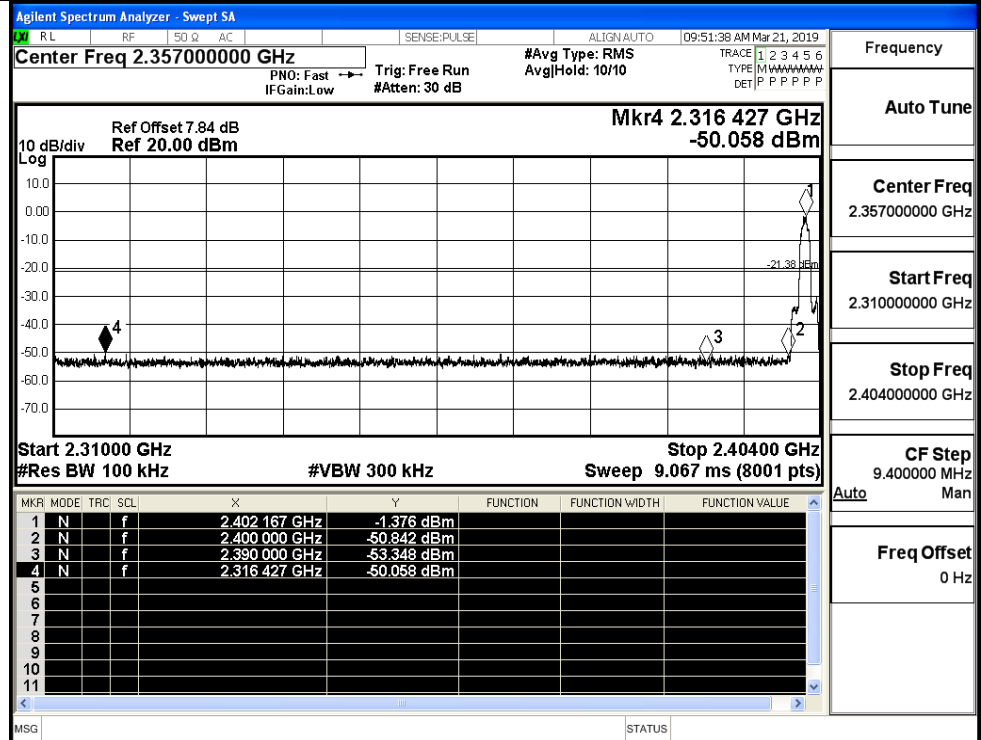
8DPSK/LCH/No Hop	
8DPSK/LCH/Hop	
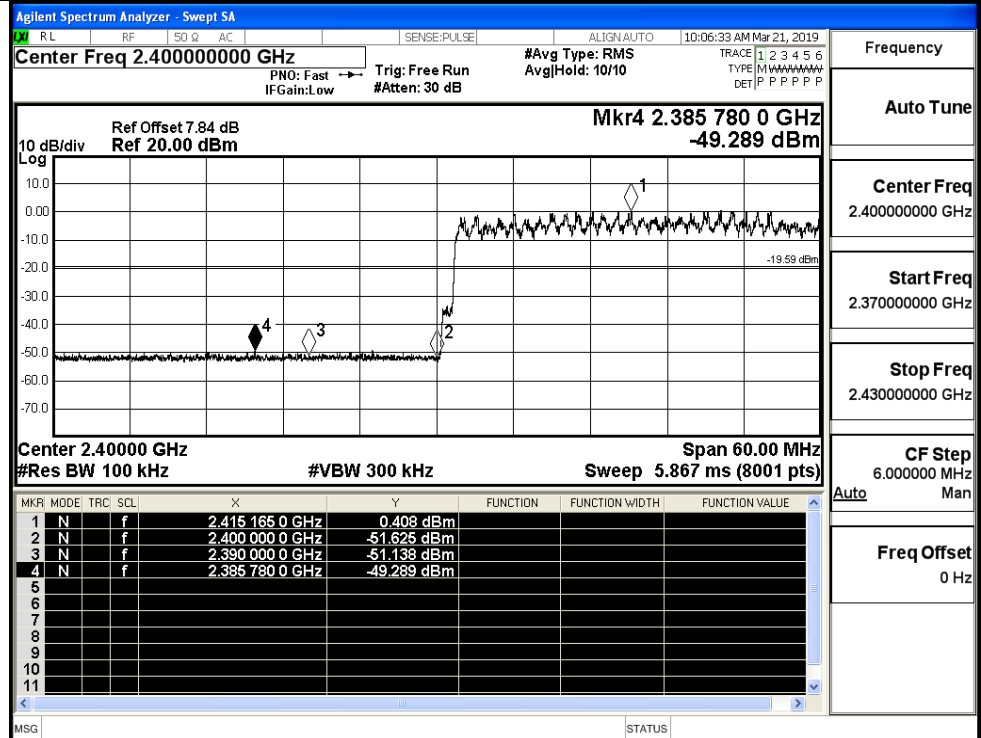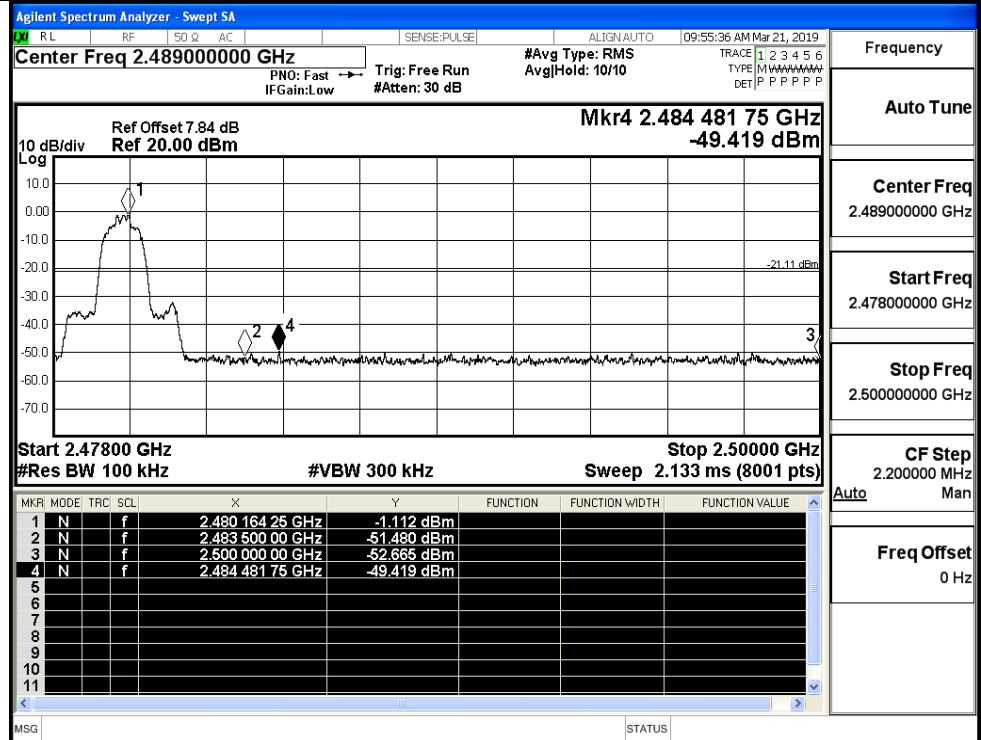
| 8DPSK/HCH/No Hop | |
| 8DPSK/HCH/Hop | |
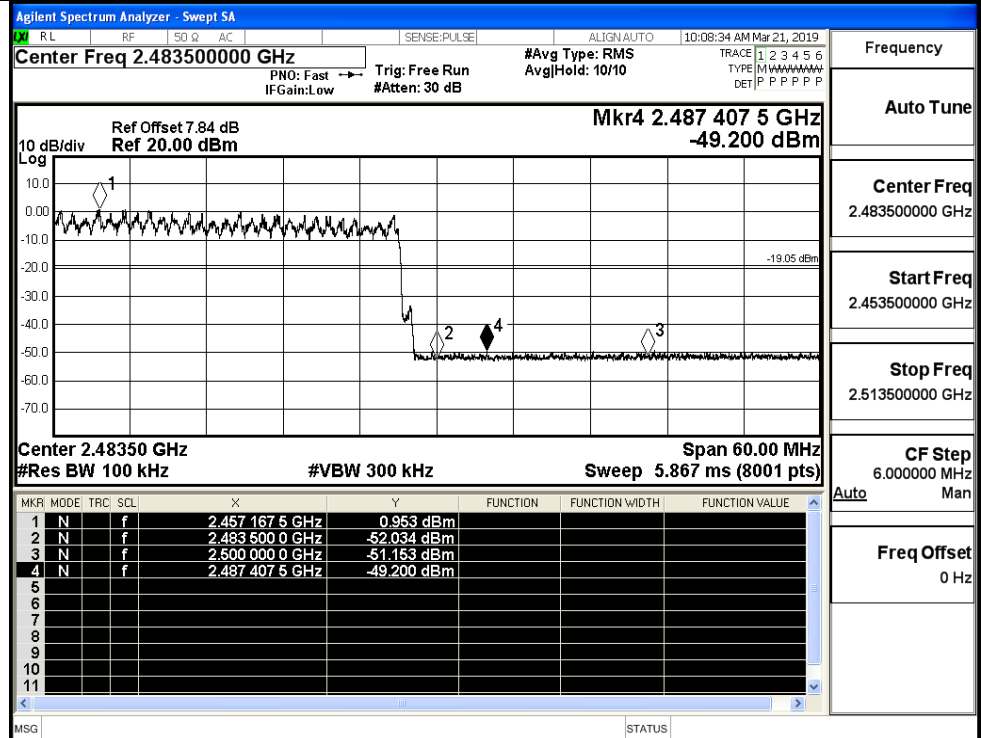
A.8 Restrict-band band-edge measurements

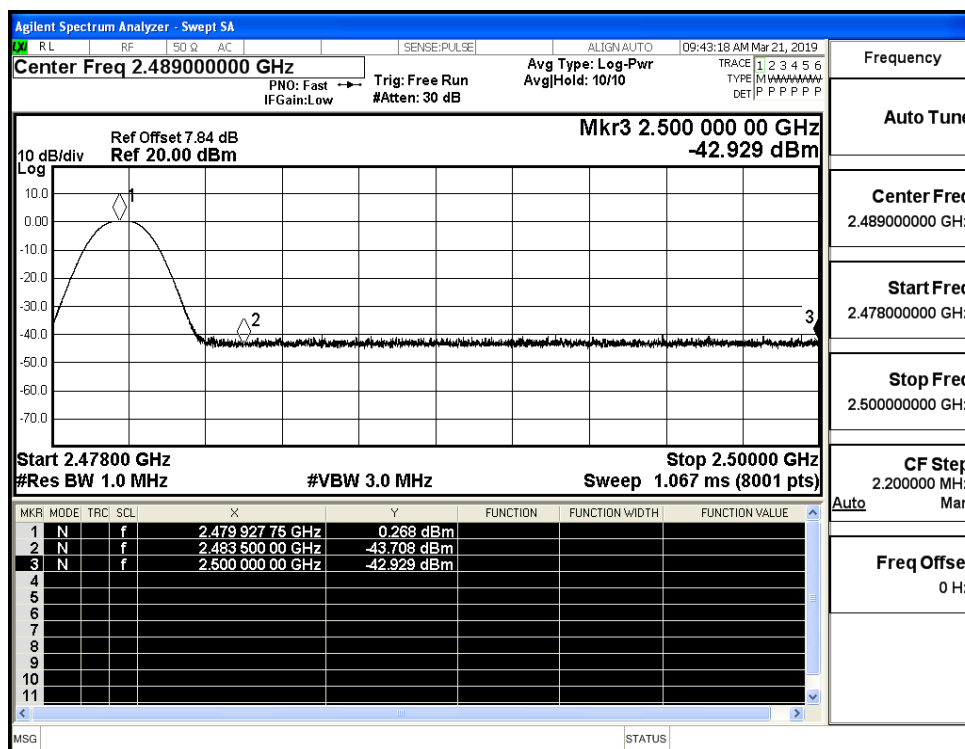| Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-44.72	2.0	0	52.53	PEAK	74	PASS
	Off	2310.0	-53.90	2.0	0	43.35	AV	54	PASS
	Off	2390.0	-43.01	2.0	0	54.25	PEAK	74	PASS
	Off	2390.0	-53.70	2.0	0	43.56	AV	54	PASS
	Off	2483.5	-43.71	2.0	0	53.55	PEAK	74	PASS
	Off	2483.5	-53.41	2.0	0	43.85	AV	54	PASS
	Off	2500.0	-42.93	2.0	0	54.33	PEAK	74	PASS
	Off	2500.0	-53.15	2.0	0	44.10	AV	54	PASS
π/4DQPSK	Off	2310.0	-43.48	2.0	0	53.78	PEAK	74	PASS
	Off	2310.0	-53.85	2.0	0	43.41	AV	54	PASS
	Off	2390.0	-43.74	2.0	0	53.52	PEAK	74	PASS
	Off	2390.0	-53.70	2.0	0	43.56	AV	54	PASS
	Off	2483.5	-43.04	2.0	0	54.22	PEAK	74	PASS
	Off	2483.5	-53.26	2.0	0	44.00	AV	54	PASS
	Off	2500.0	-43.82	2.0	0	53.44	PEAK	74	PASS
	Off	2500.0	-53.28	2.0	0	43.98	AV	54	PASS
8DPSK	Off	2310.0	-44.16	2.0	0	53.10	PEAK	74	PASS
	Off	2310.0	-53.94	2.0	0	43.32	AV	54	PASS
	Off	2390.0	-44.52	2.0	0	52.74	PEAK	74	PASS
	Off	2390.0	-53.64	2.0	0	43.62	AV	54	PASS
	Off	2483.5	-43.78	2.0	0	53.48	PEAK	74	PASS
	Off	2483.5	-53.27	2.0	0	43.99	AV	54	PASS
	Off	2500.0	-42.93	2.0	0	54.33	PEAK	74	PASS
	Off	2500.0	-53.28	2.0	0	43.98	AV	54	PASS

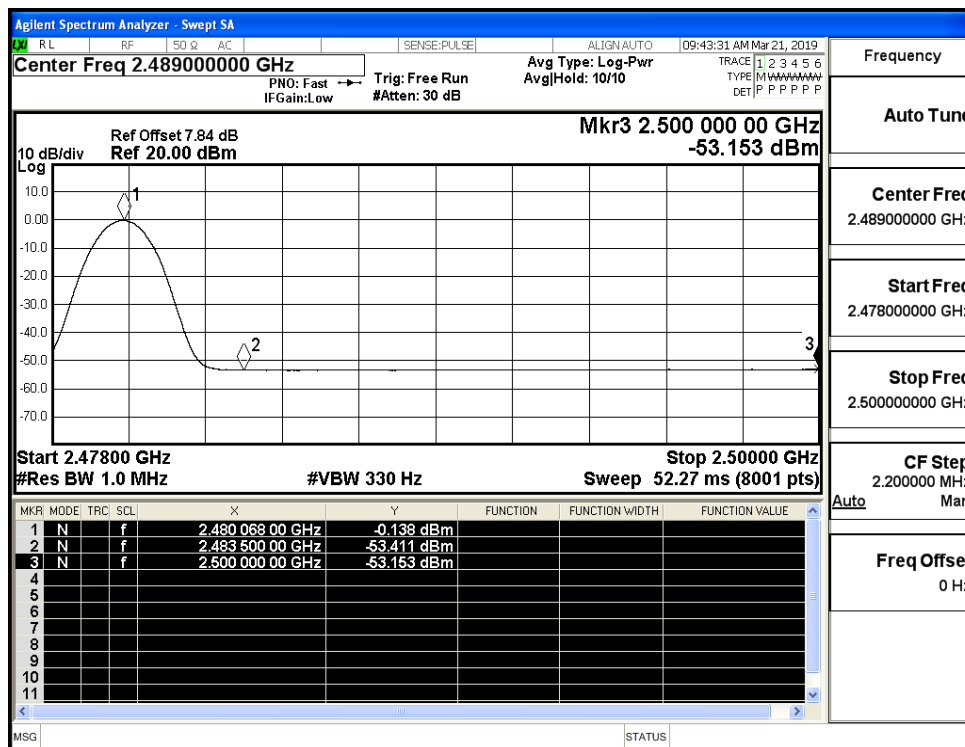## Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)
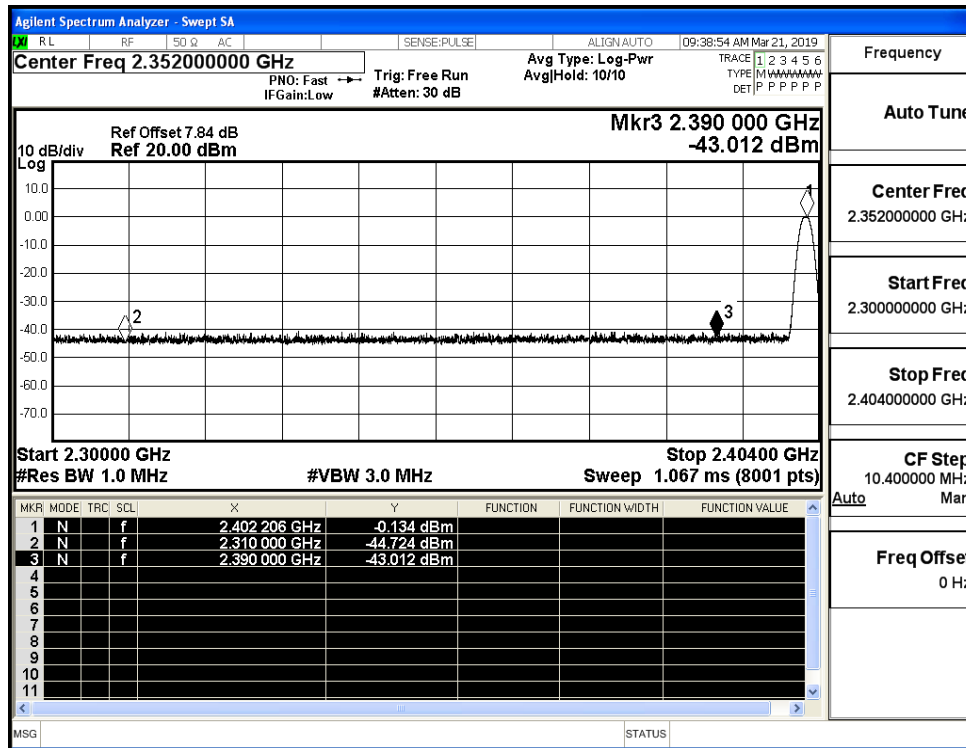
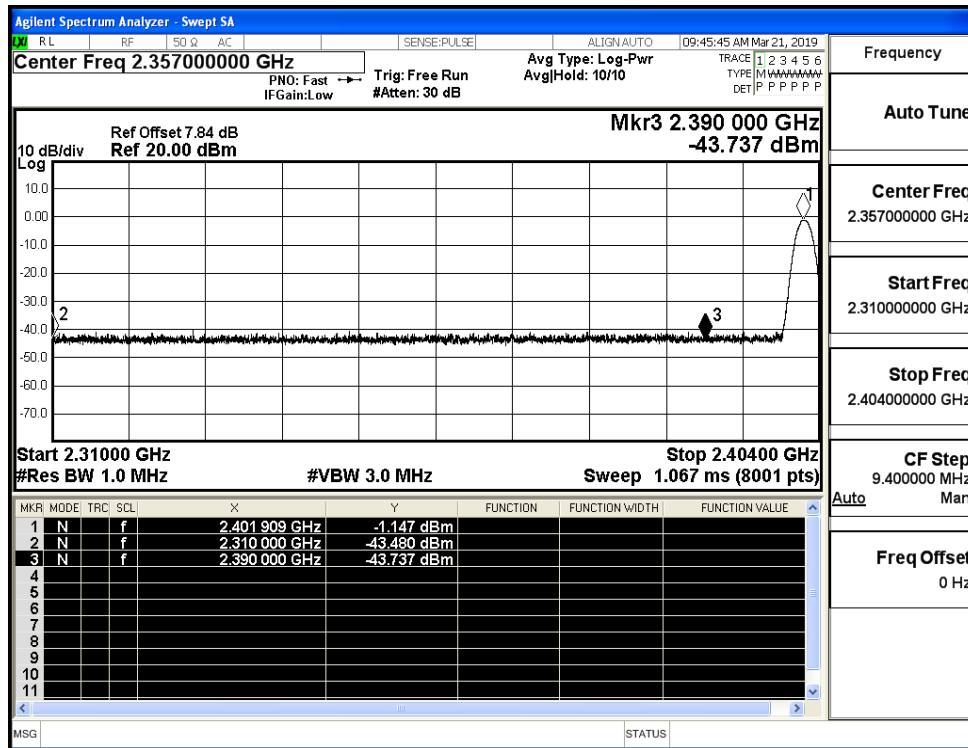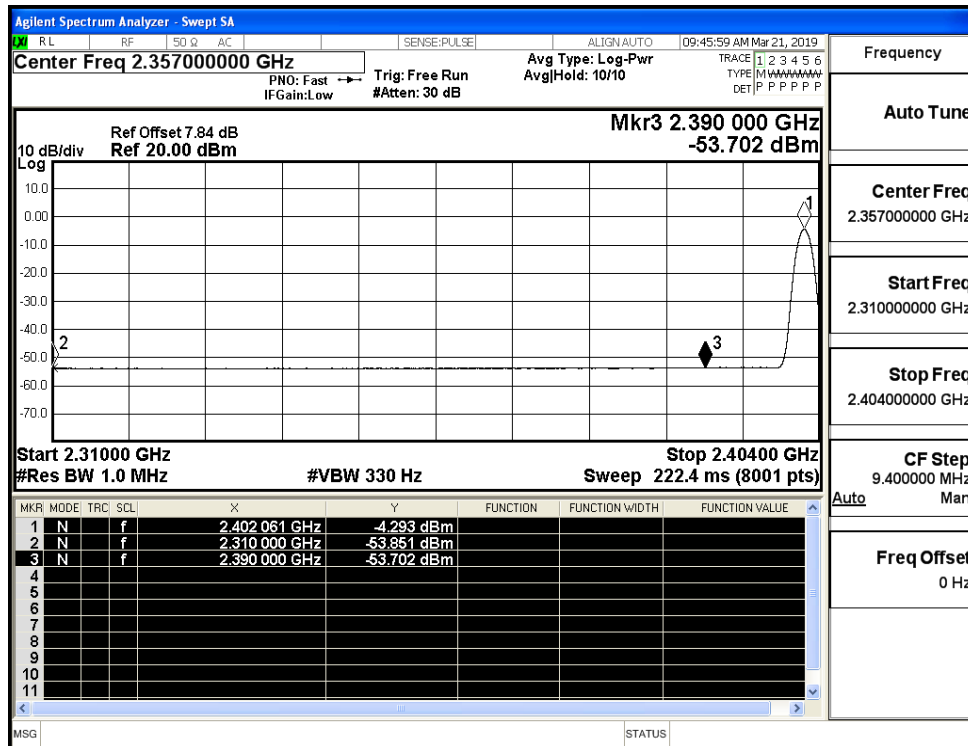## Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)
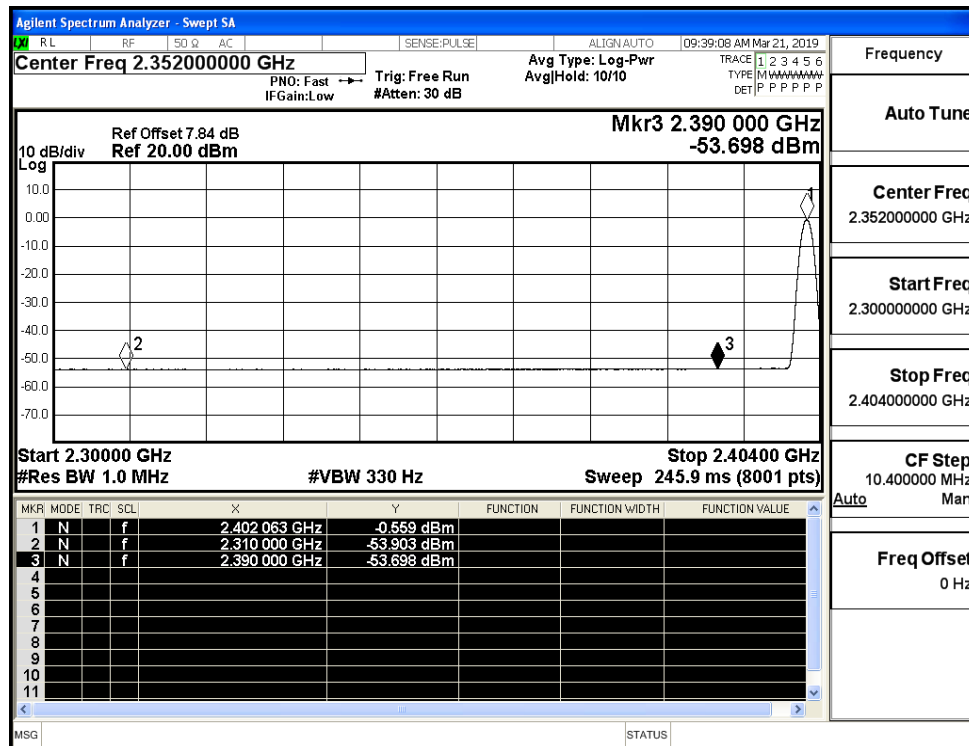
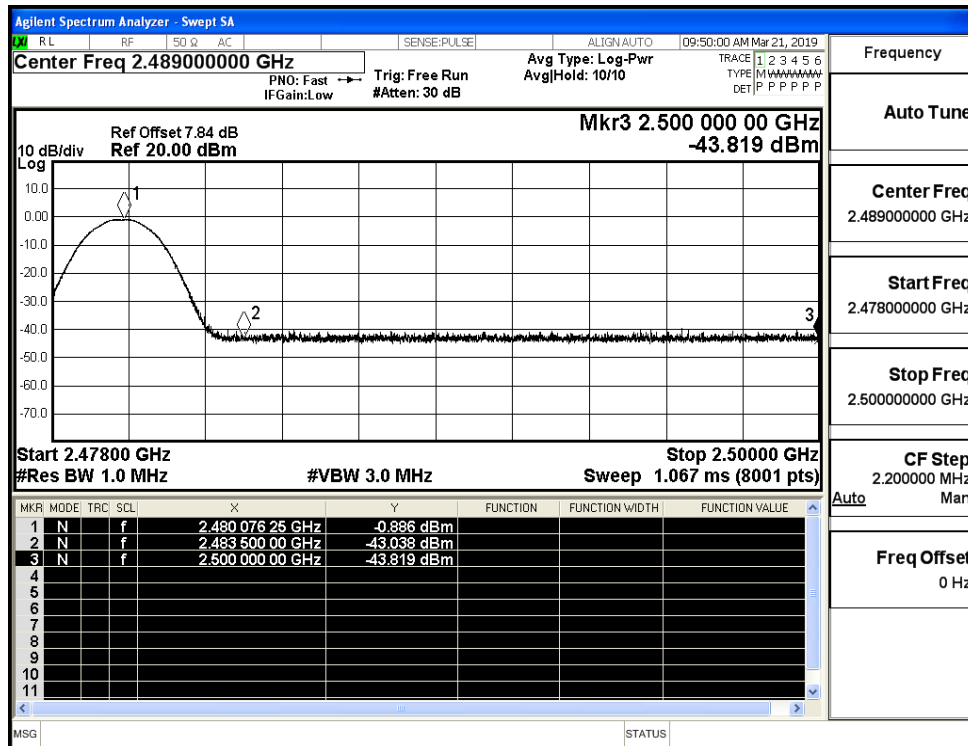| Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel) |
| --- |

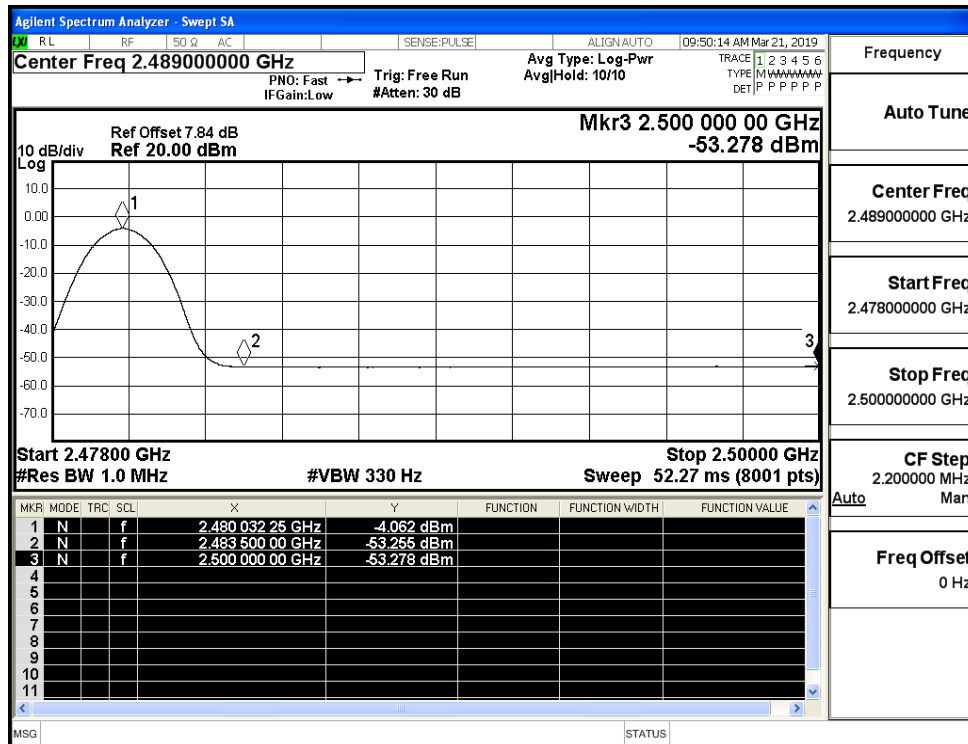| Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel) |
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Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)

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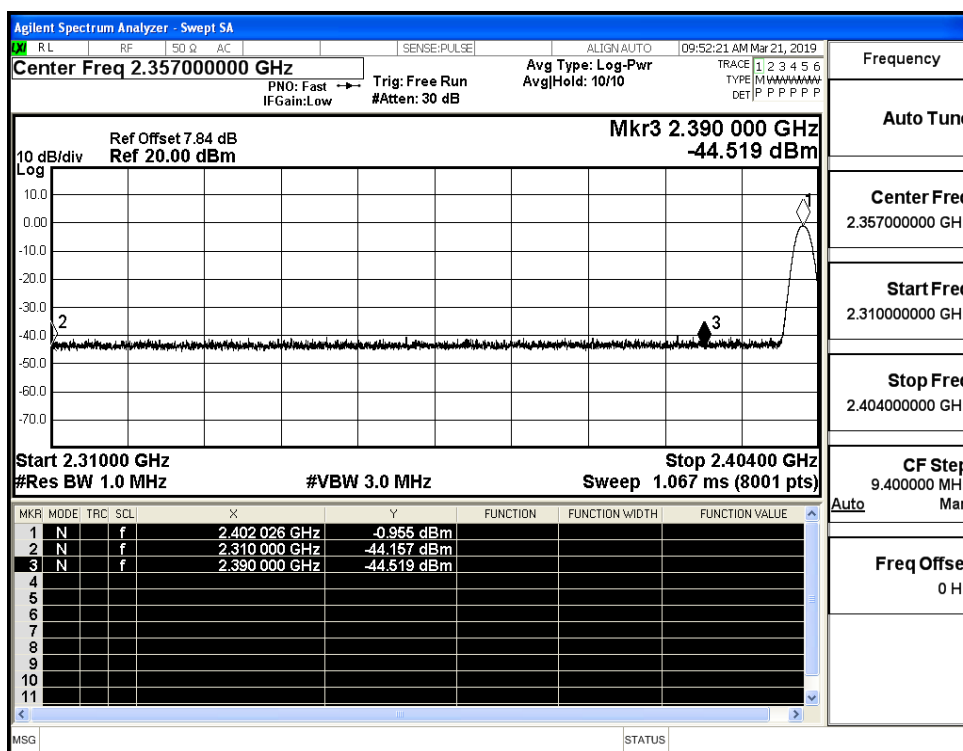
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)
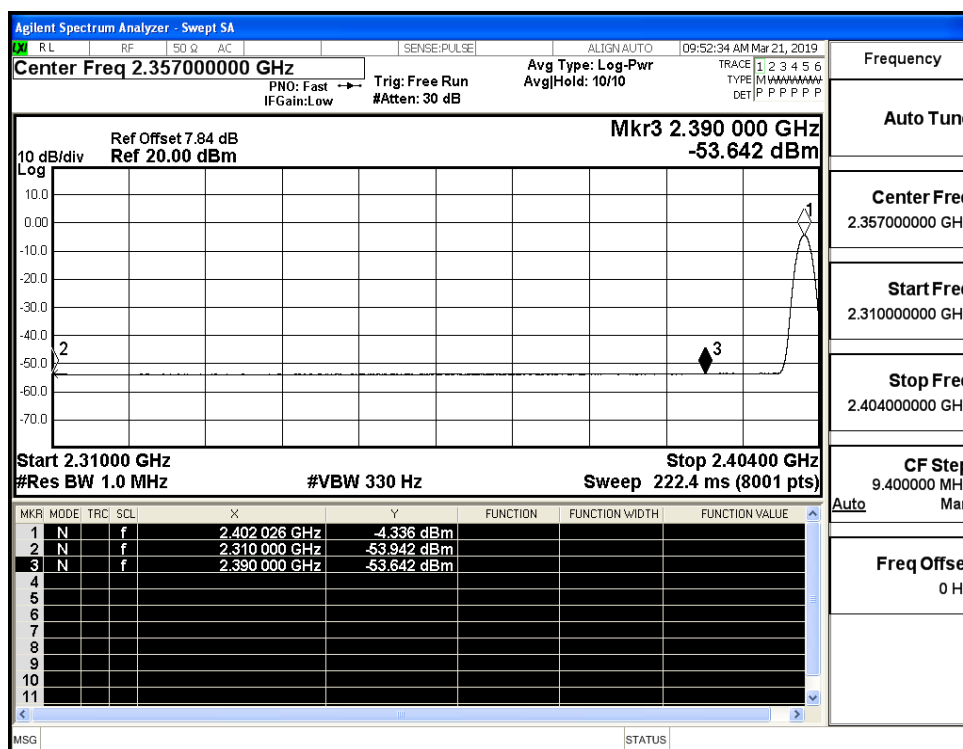

Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)
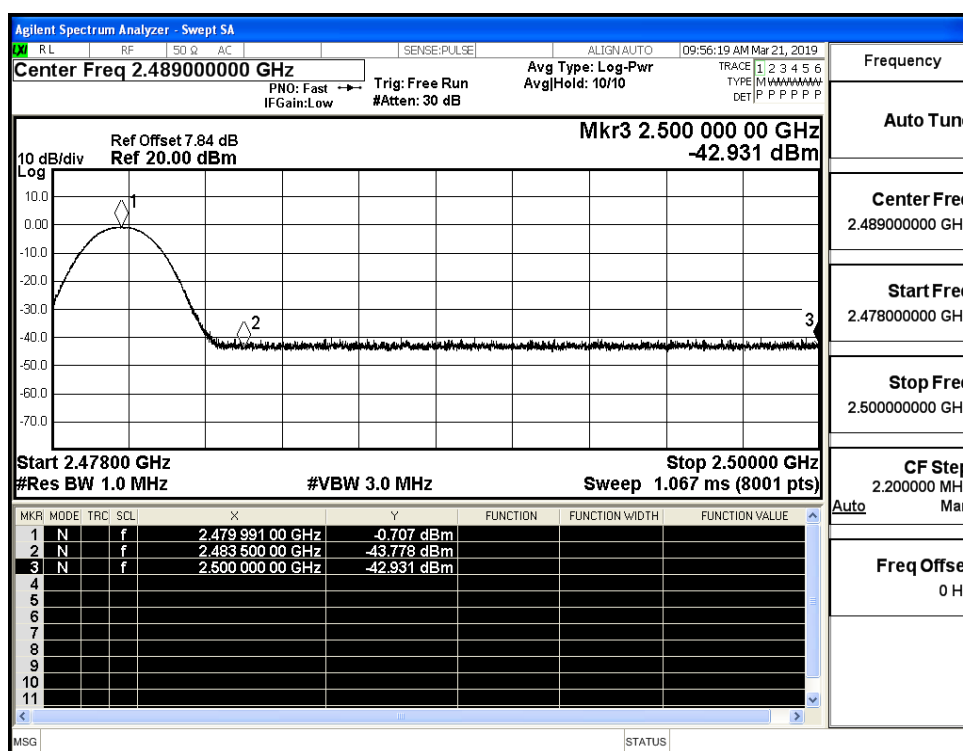
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)

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)