

Appendix A

RF Test Data for BT 2.1+EDR (Conducted Measurement)

Product Name: **Feature phone**

Trade Mark: **KENXINDA (Ken mobile)**

Test Model: **K6700**

Environmental Conditions

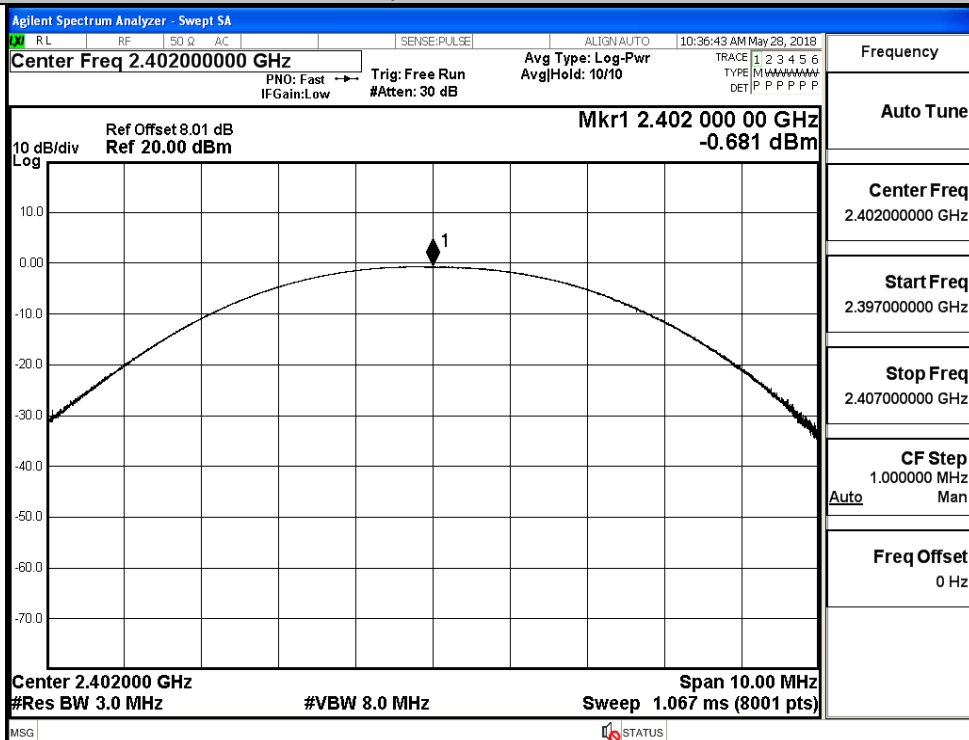
| | |
|--------------------|-------------|
| Temperature: | 24.3 ° C |
| Relative Humidity: | 53.1% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Jayden.Zhuo |
| Supervised by: | Dick.Su |

A.1 Maximum Conducted Peak Output Power

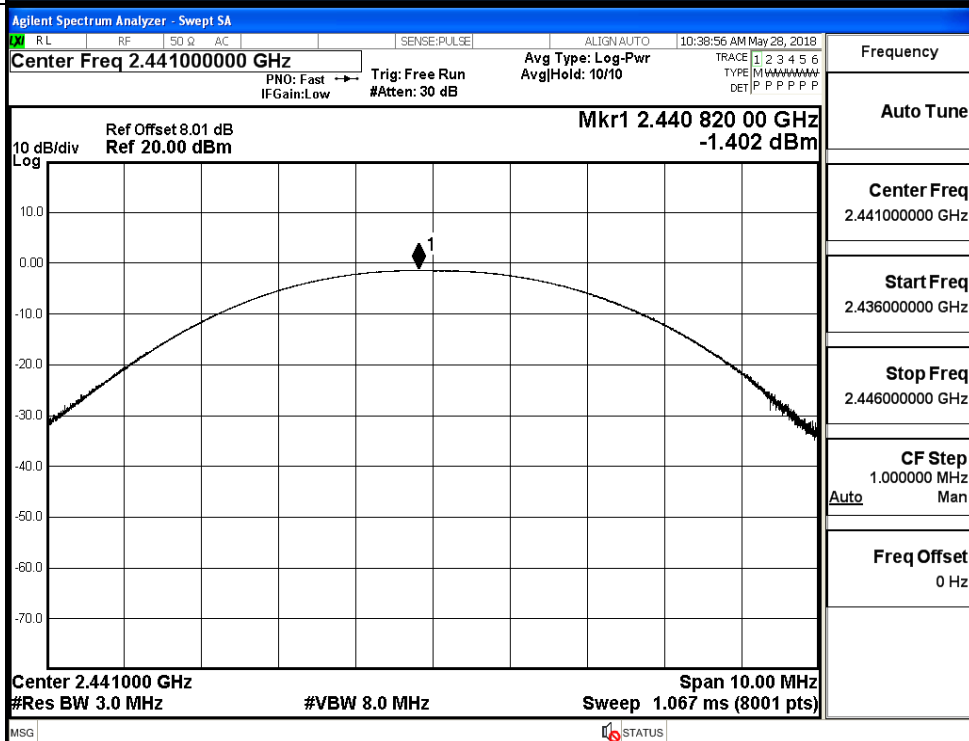
| Mode | Chan nel. | Maximum Peak Output Power [dBm] | Maximum Average Output Power [dBm] | Limit [dBm] | Verdict |
|---------------|--------------|---------------------------------------|---|-------------|---------|
| GFSK | LCH | -0.681 | -0.791 | 30 | PASS |
| | MCH | -1.402 | -1.513 | 30 | PASS |
| | HCH | -1.391 | -1.480 | 30 | PASS |
| $\pi/4$ DQPSK | LCH | -1.460 | -1.553 | 21 | PASS |
| | MCH | -2.019 | -2.264 | 21 | PASS |
| | HCH | -2.089 | -2.251 | 21 | PASS |
| 8DPSK | LCH | -1.251 | -1.409 | 21 | PASS |
| | MCH | -1.842 | -1.914 | 21 | PASS |
| | HCH | -1.877 | -1.970 | 21 | PASS |

Test Graphs

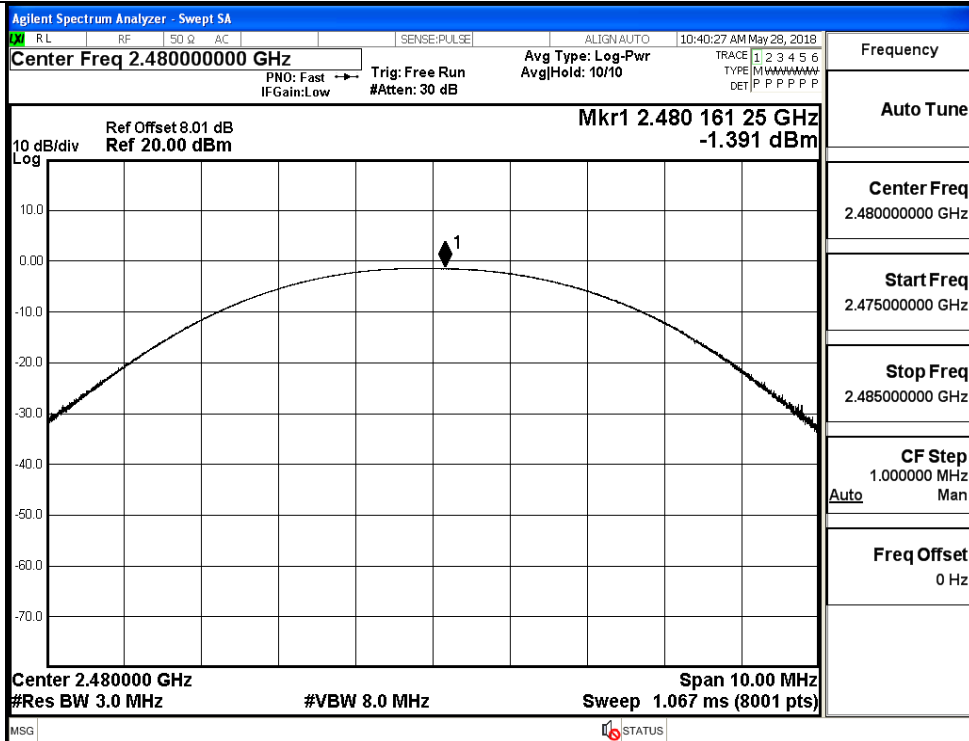
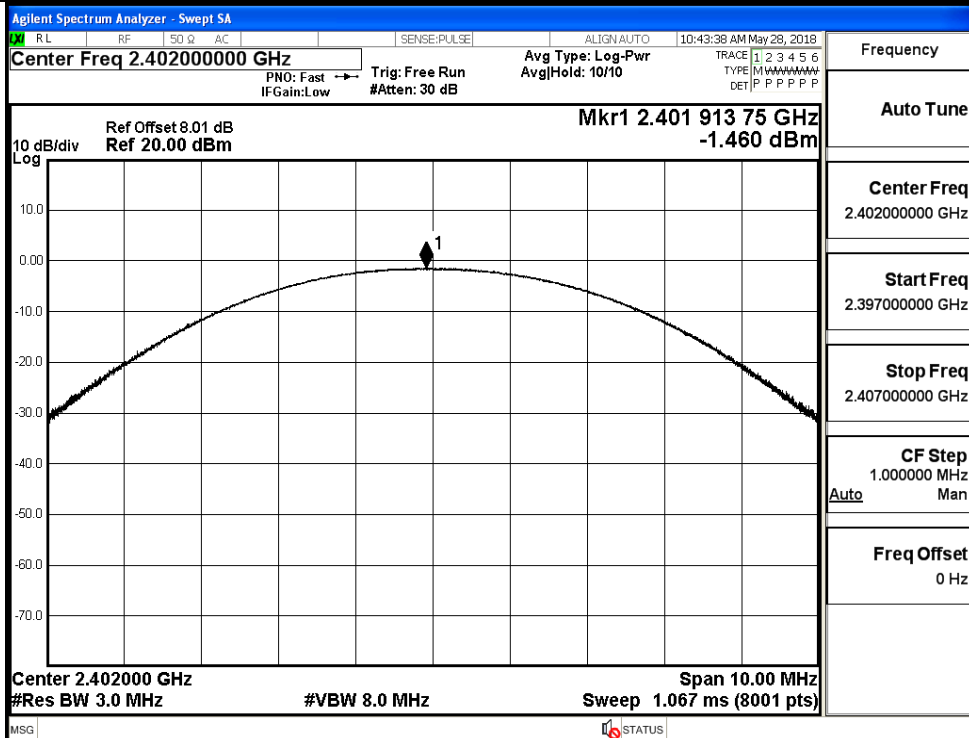
GFSK/LCH

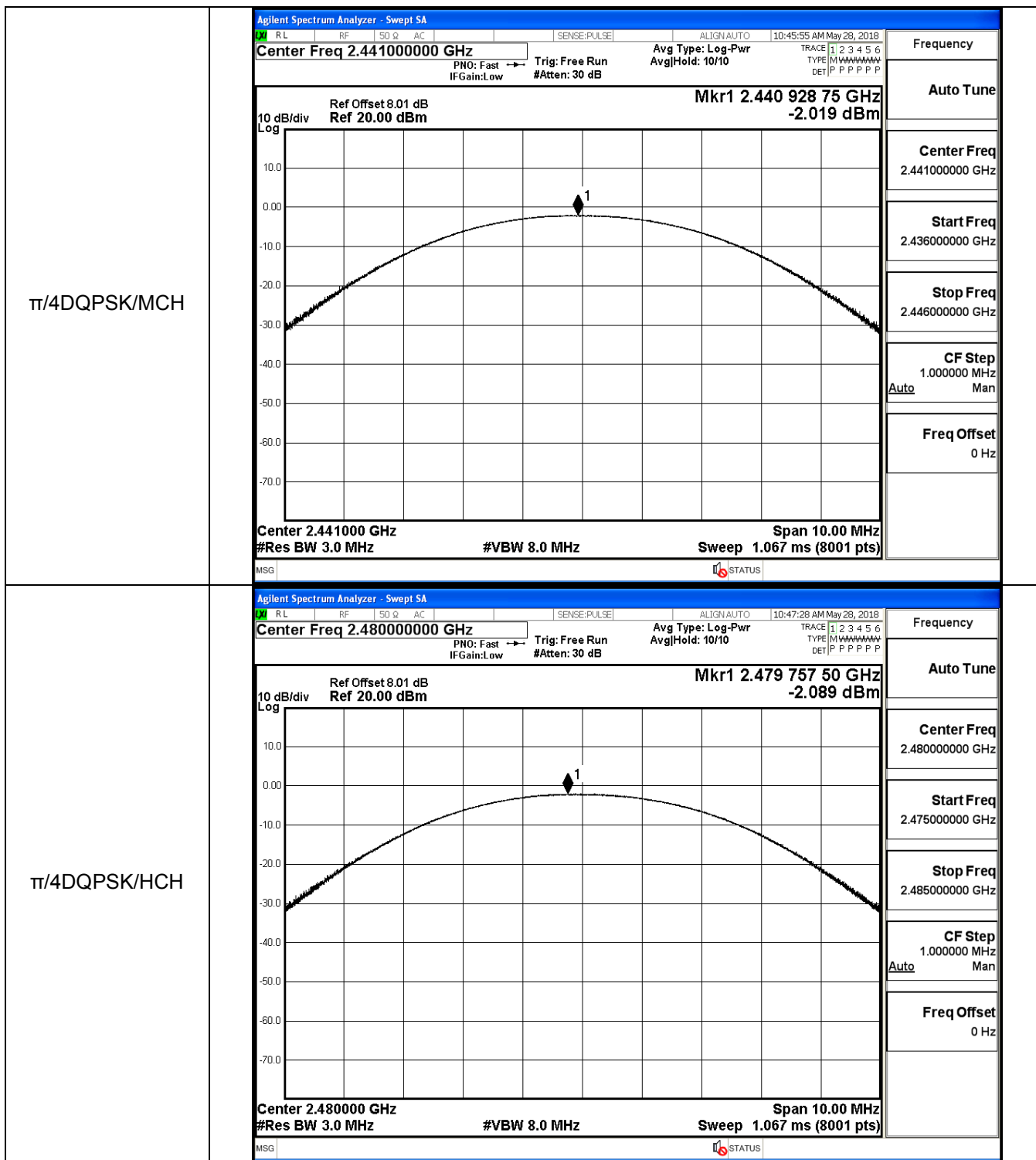


GFSK/MCH

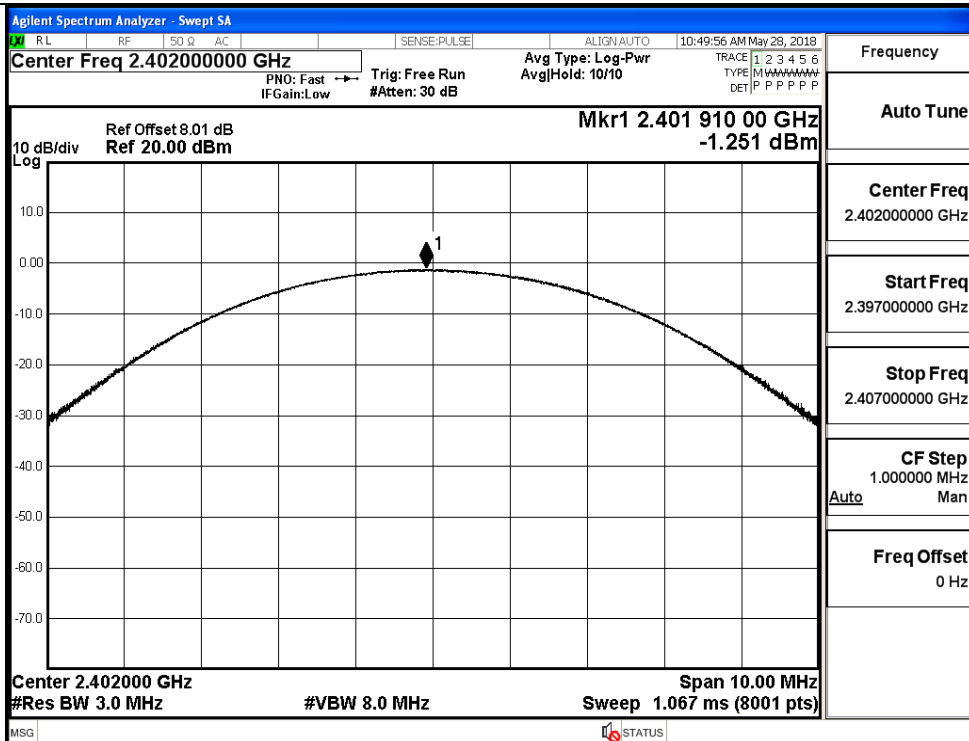


GFSK/HCH

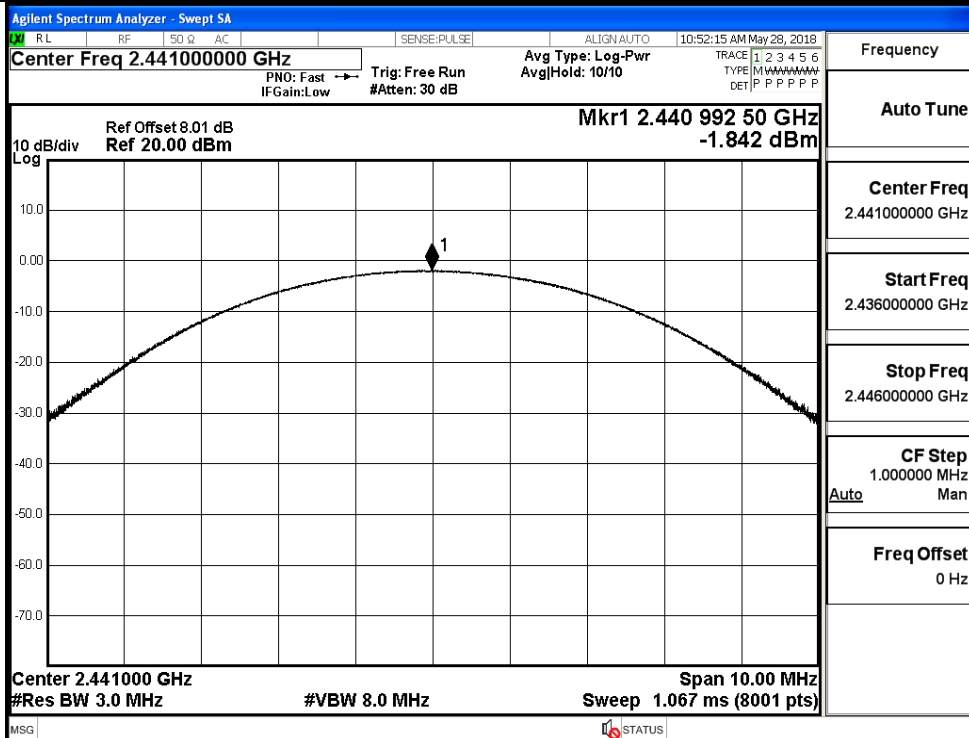
 π /4DQPSK/LCH



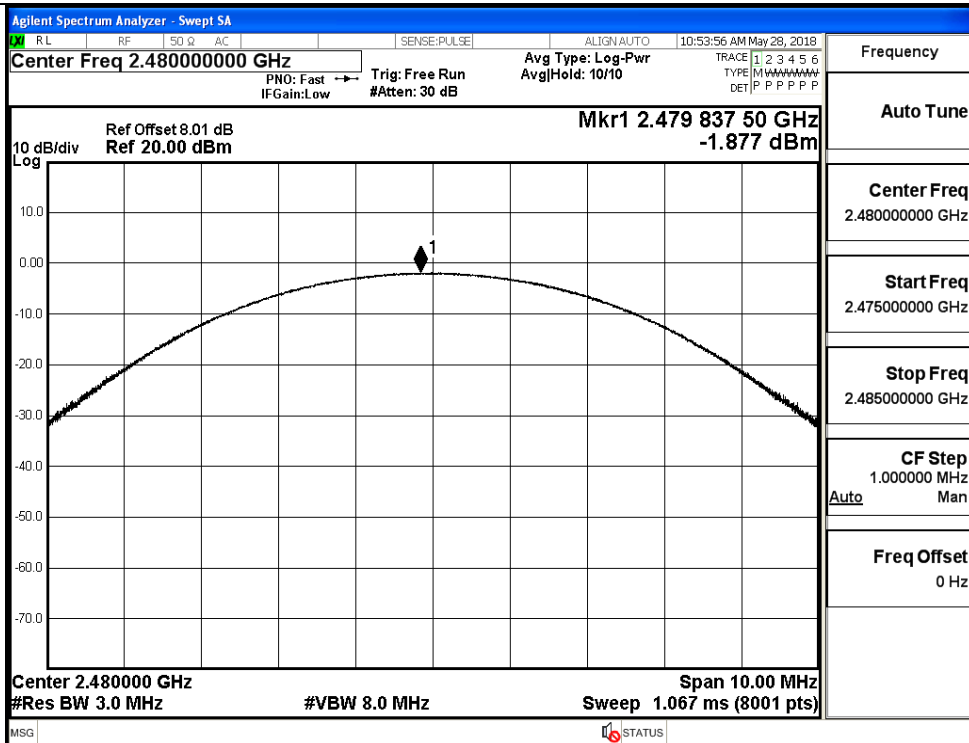
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

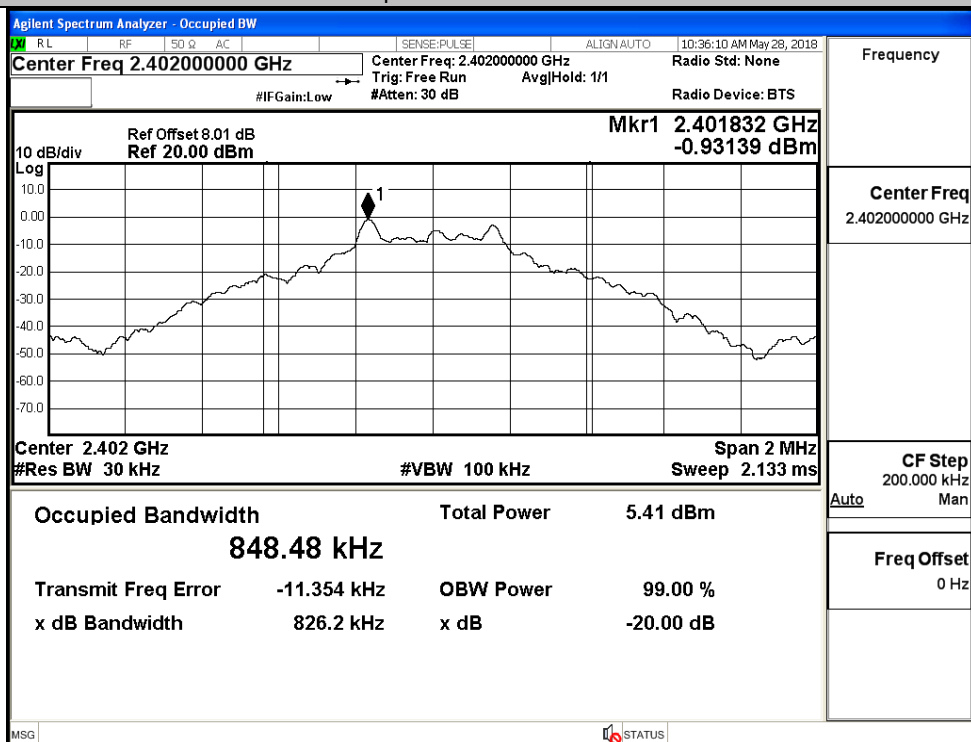


A.2 20dB Bandwidth

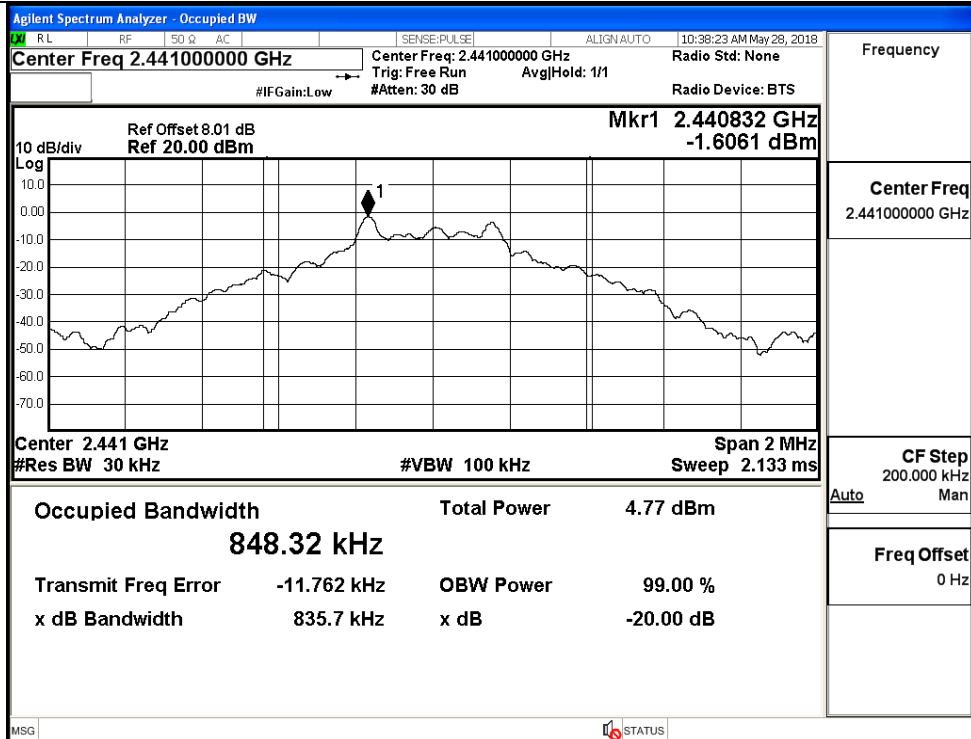
| Mode | Channel. | 20dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|---------------|----------|----------------------|---------------|---------|
| GFSK | LCH | 0.8262 | Not Specified | PASS |
| | MCH | 0.8357 | Not Specified | PASS |
| | HCH | 0.8404 | Not Specified | PASS |
| $\pi/4$ DQPSK | LCH | 1.290 | Not Specified | PASS |
| | MCH | 1.293 | Not Specified | PASS |
| | HCH | 1.292 | Not Specified | PASS |
| 8DPSK | LCH | 1.296 | Not Specified | PASS |
| | MCH | 1.300 | Not Specified | PASS |
| | HCH | 1.299 | Not Specified | PASS |

Test Graphs

GFSK/LCH



GFSK/MCH



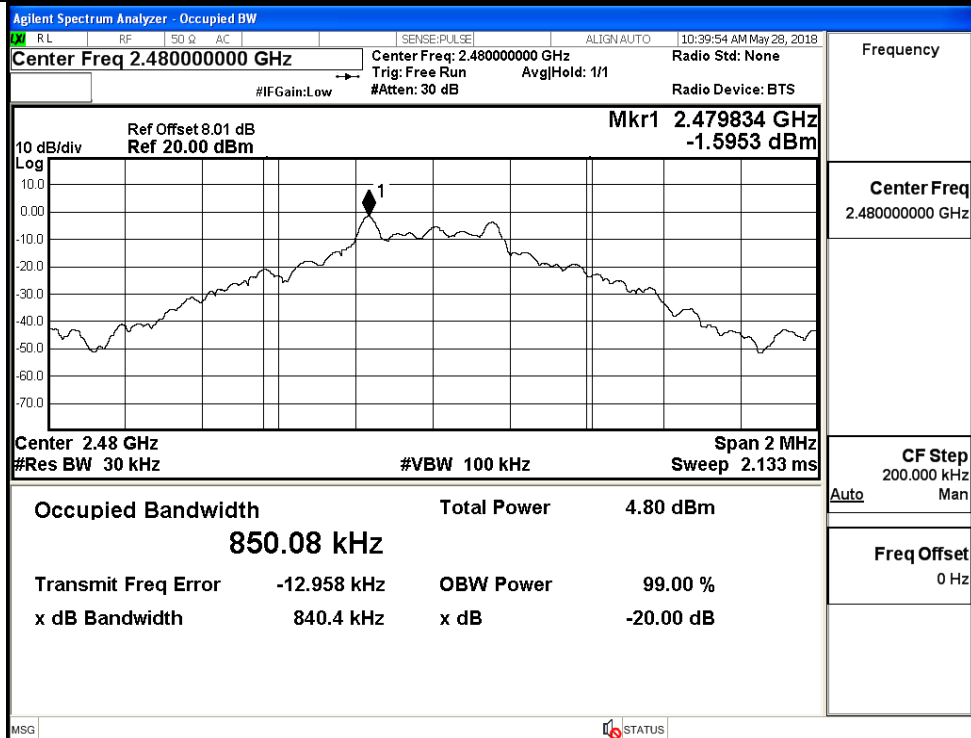
Frequency

Center Freq
2.441000000 GHzCF Step
200.000 kHz
Man

Auto

Freq Offset
0 Hz

GFSK/HCH

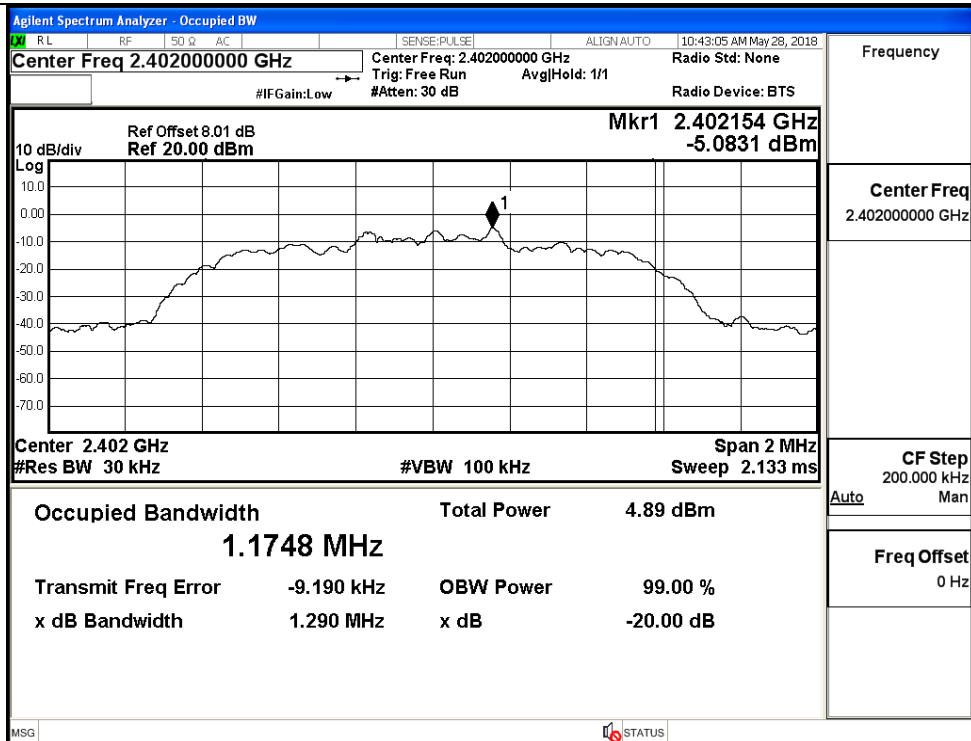
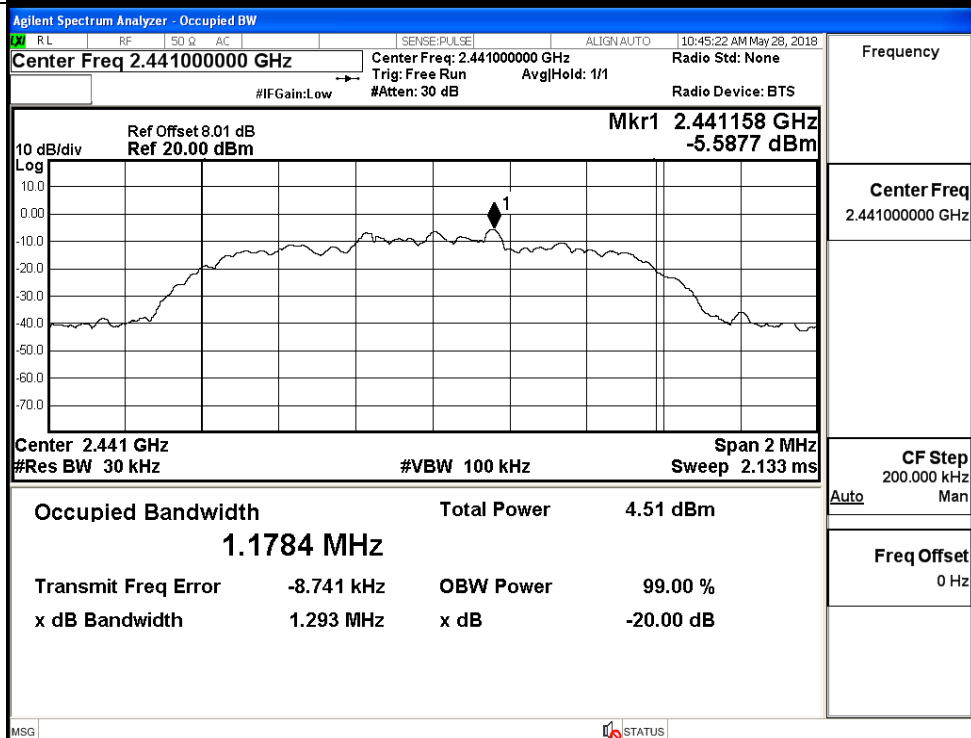


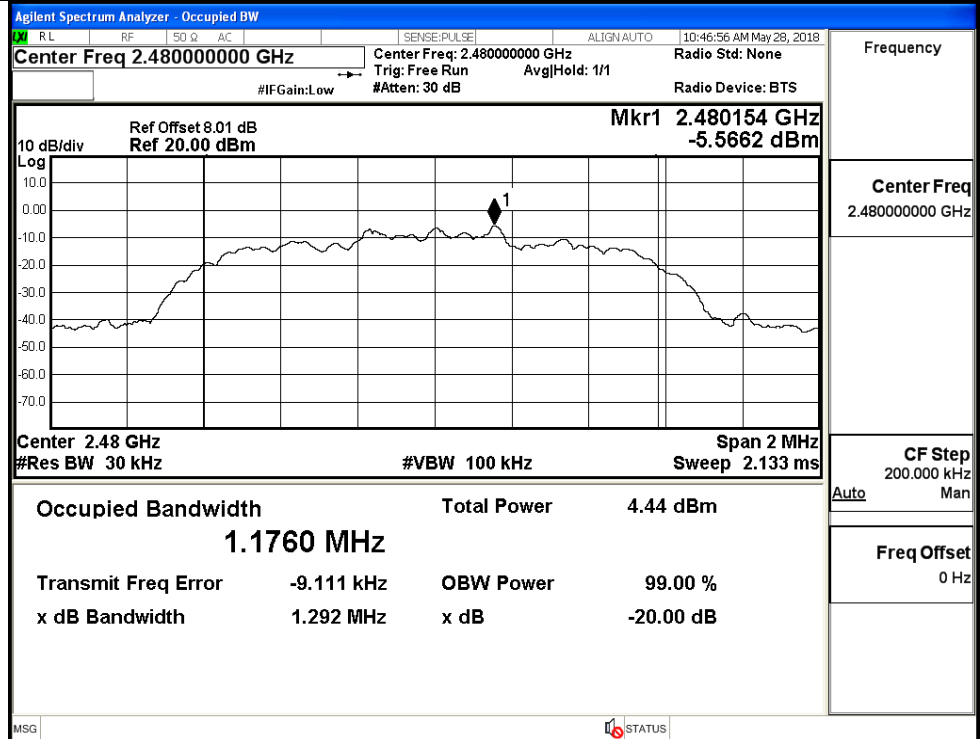
Frequency

Center Freq
2.480000000 GHzCF Step
200.000 kHz
Man

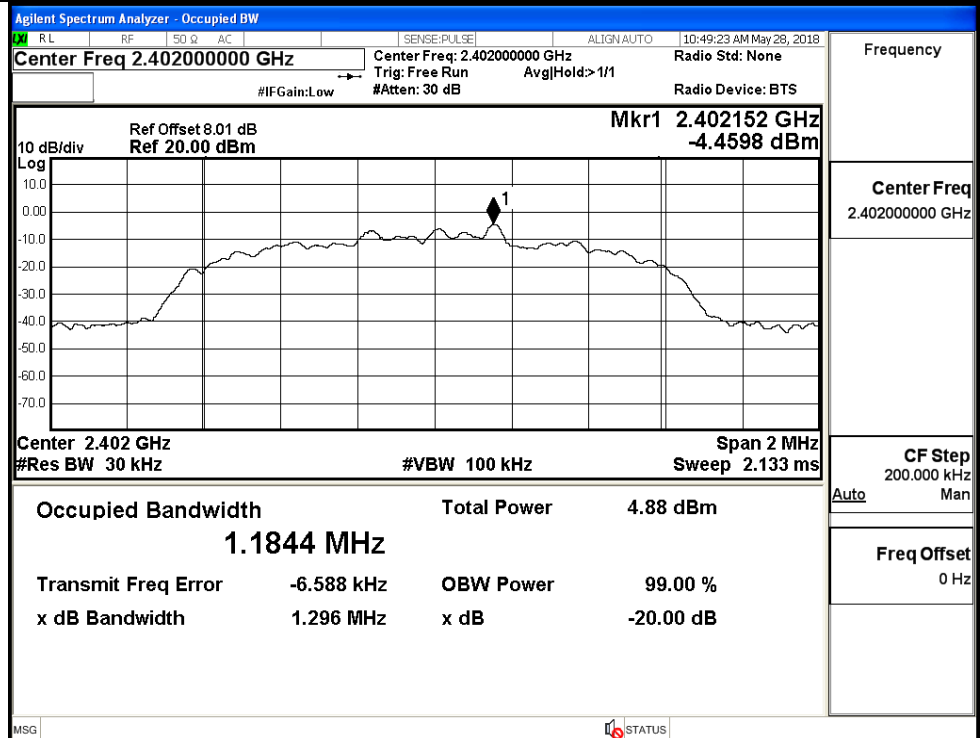
Auto

Freq Offset
0 Hz

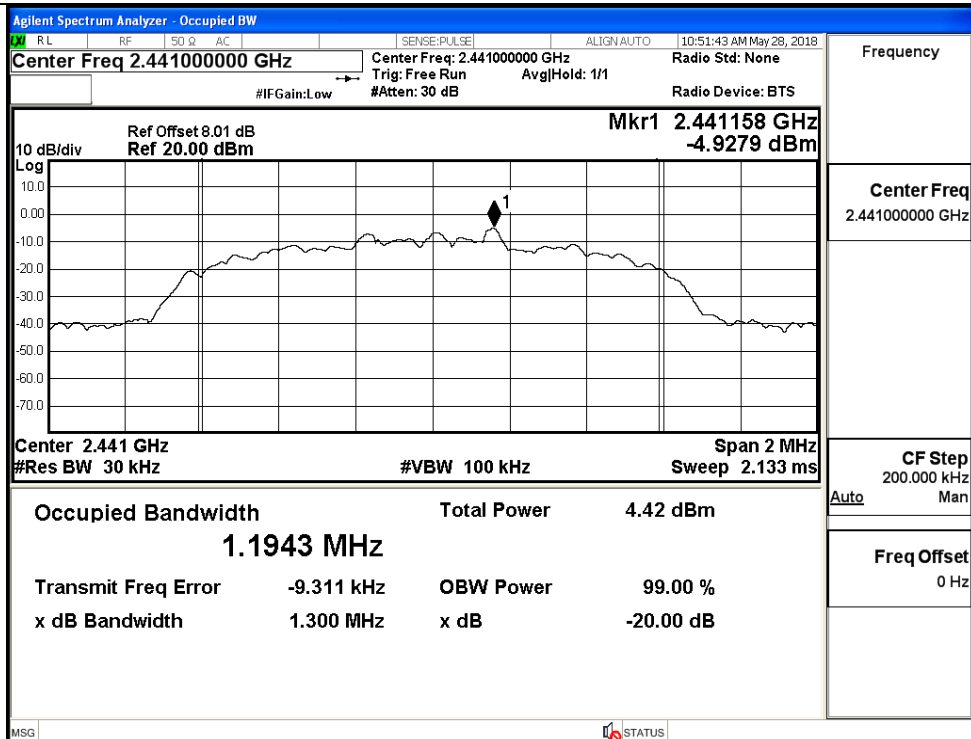
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

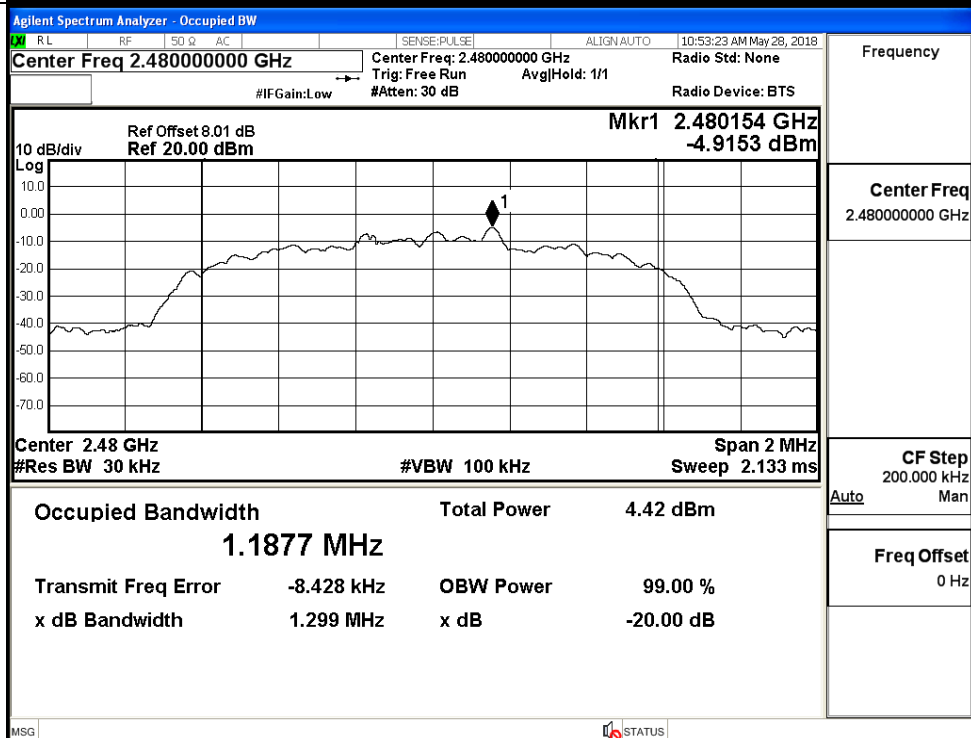
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

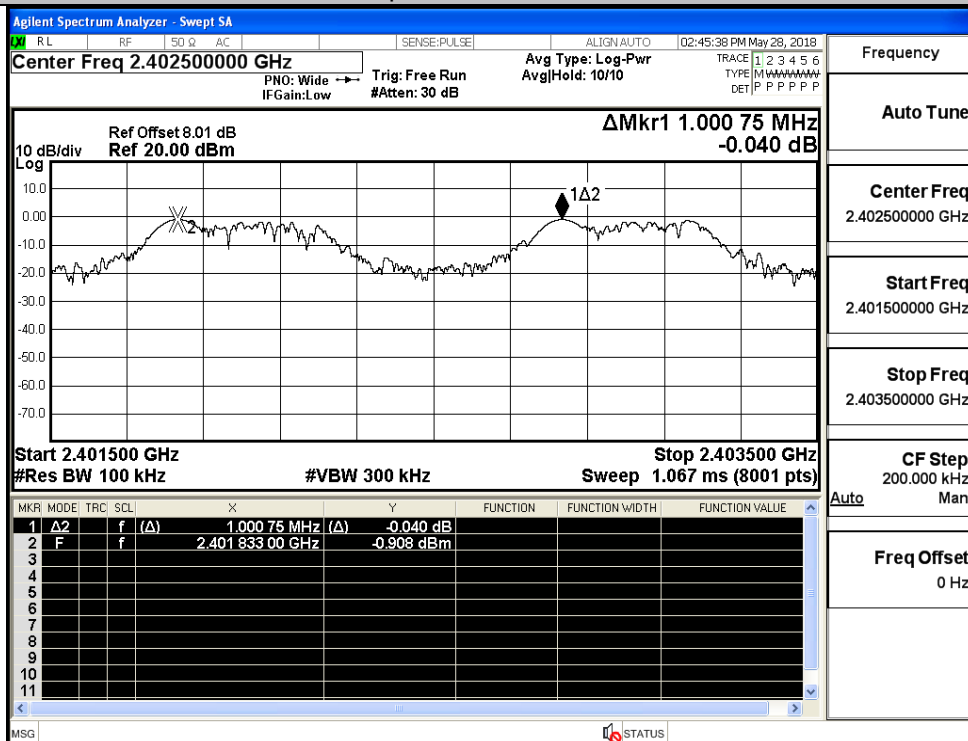


A.3 Carrier Frequency Separation

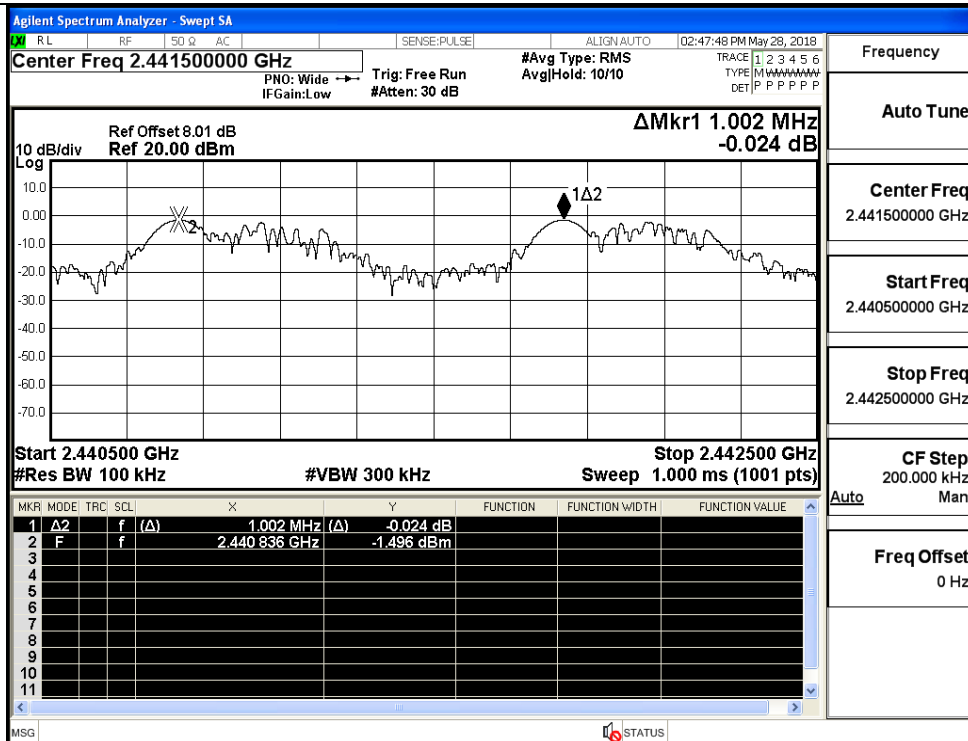
| Mode | Channel. | Carrier Frequency Separation [MHz] | Limit [MHz] | Verdict |
|---------------|----------|------------------------------------|-------------|---------|
| GFSK | LCH | 1.001 | 0.560 | PASS |
| | MCH | 1.002 | 0.560 | PASS |
| | HCH | 1.000 | 0.560 | PASS |
| $\pi/4$ DQPSK | LCH | 1.004 | 0.862 | PASS |
| | MCH | 1.008 | 0.862 | PASS |
| | HCH | 1.320 | 0.862 | PASS |
| 8DPSK | LCH | 0.900 | 0.867 | PASS |
| | MCH | 1.336 | 0.867 | PASS |
| | HCH | 1.014 | 0.867 | PASS |

Test Graphs

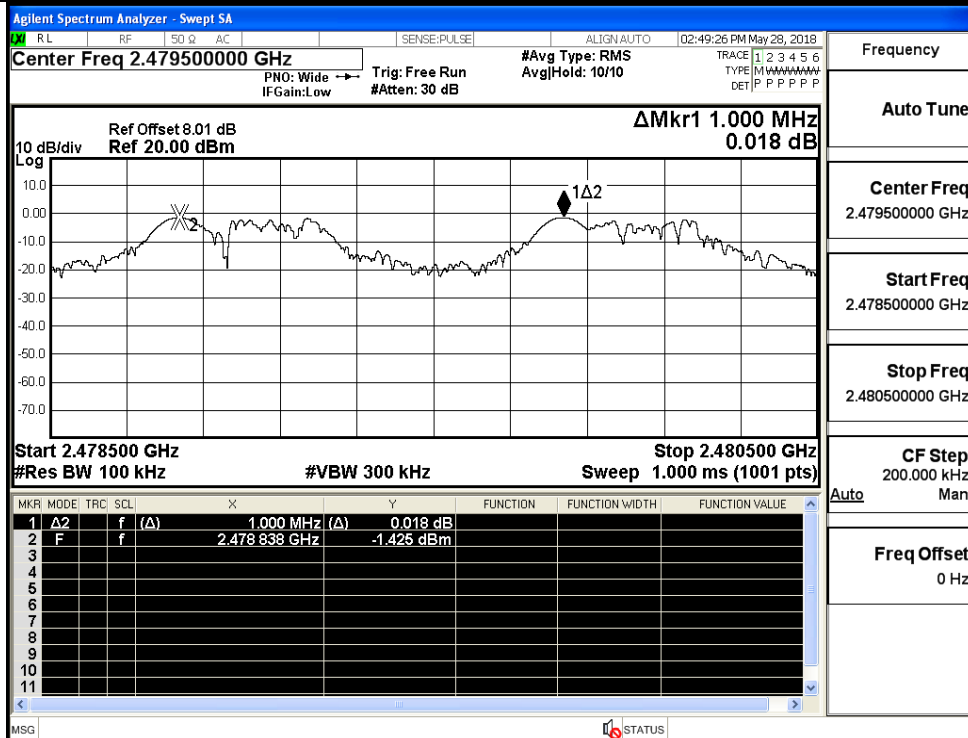
GFSK/LCH

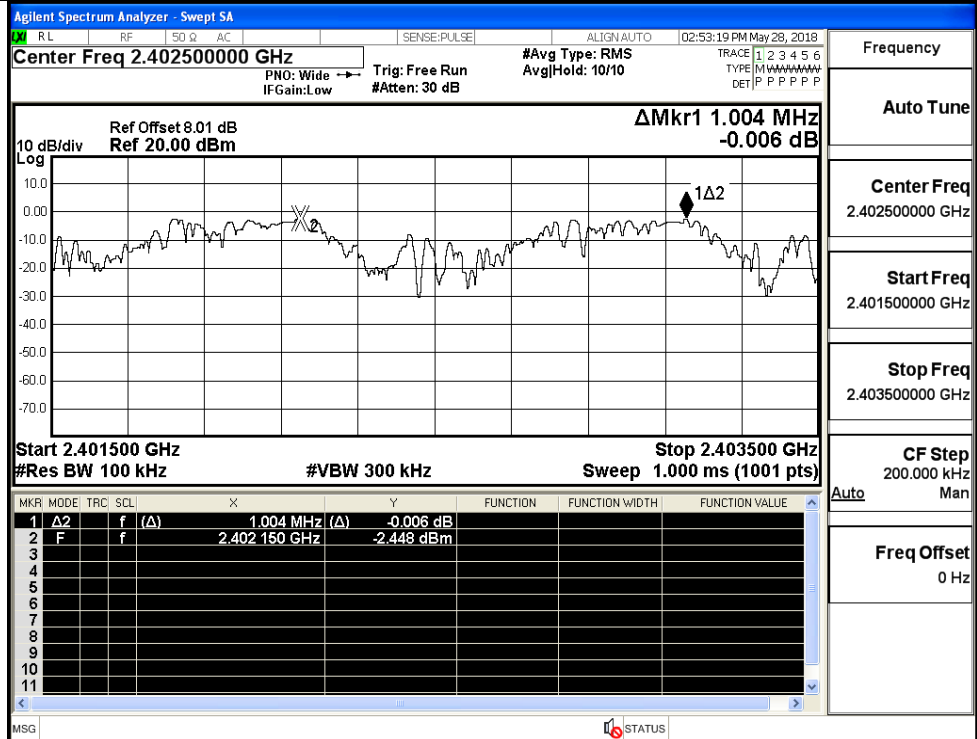
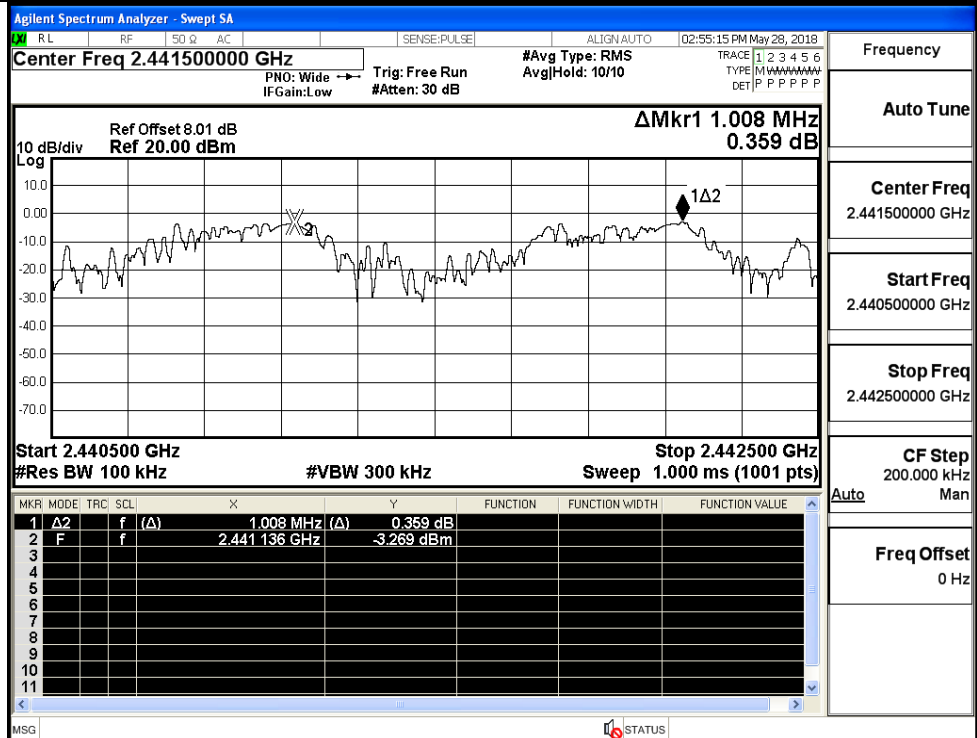


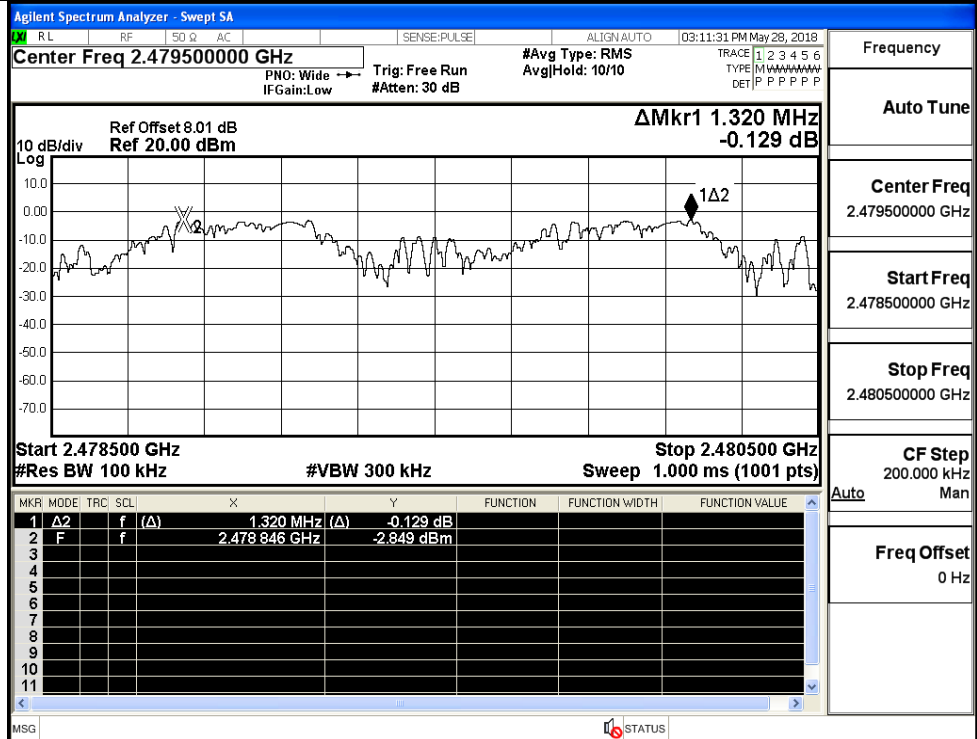
GFSK/MCH



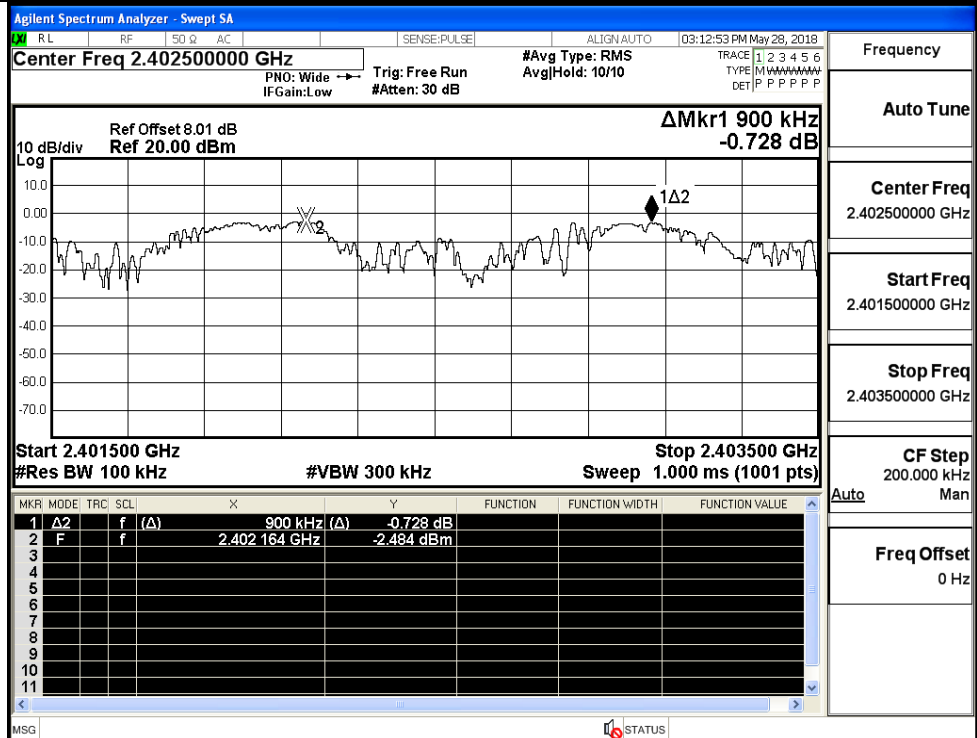
GFSK/HCH



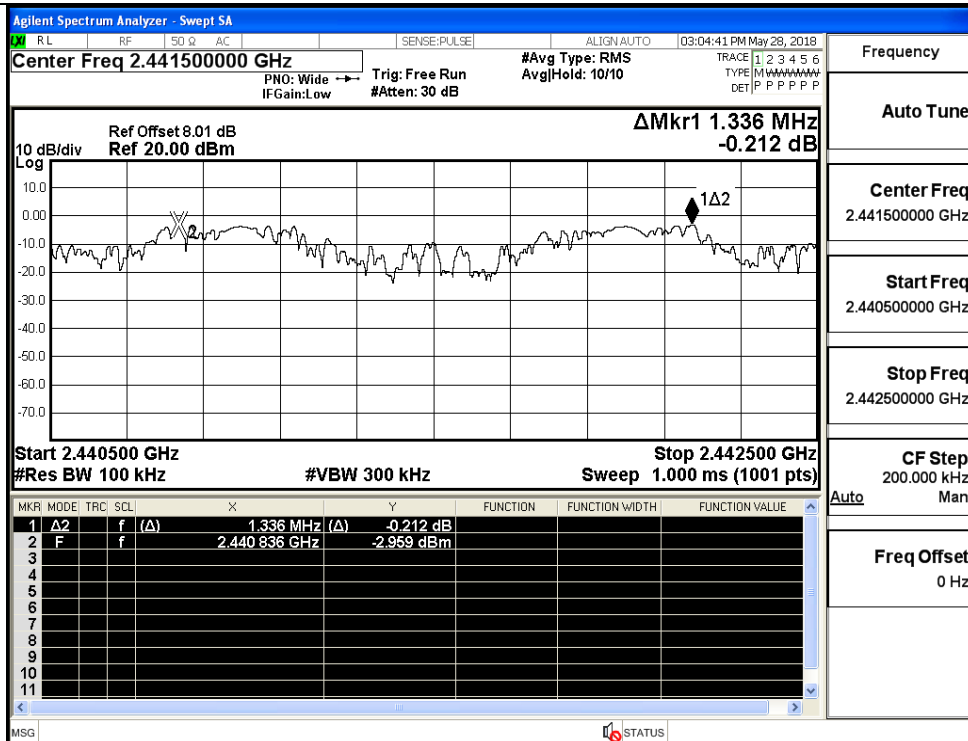
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

8DPSK/LCH



8DPSK/MCH



Frequency

Auto Tune

Center Freq
2.441500000 GHz

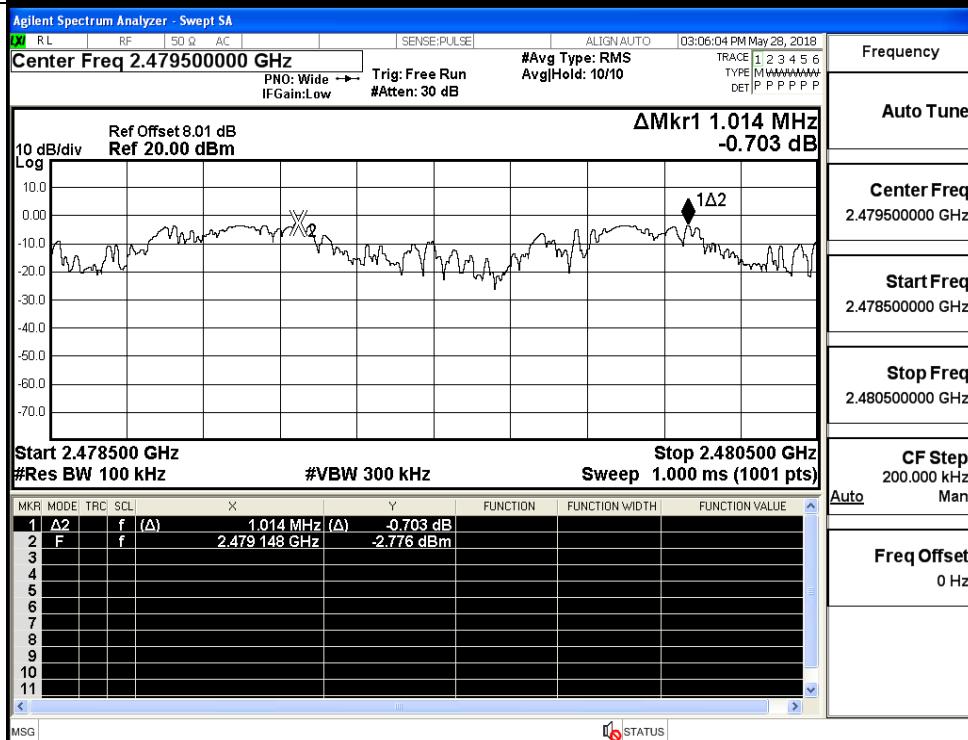
Start Freq
2.440500000 GHz

Stop Freq
2.442500000 GHz

CF Step
200.000 kHz
Man

Freq Offset
0 Hz

8DPSK/HCH



Frequency

Auto Tune

Center Freq
2.479500000 GHz

Start Freq
2.478500000 GHz

Stop Freq
2.480500000 GHz

CF Step
200.000 kHz
Man

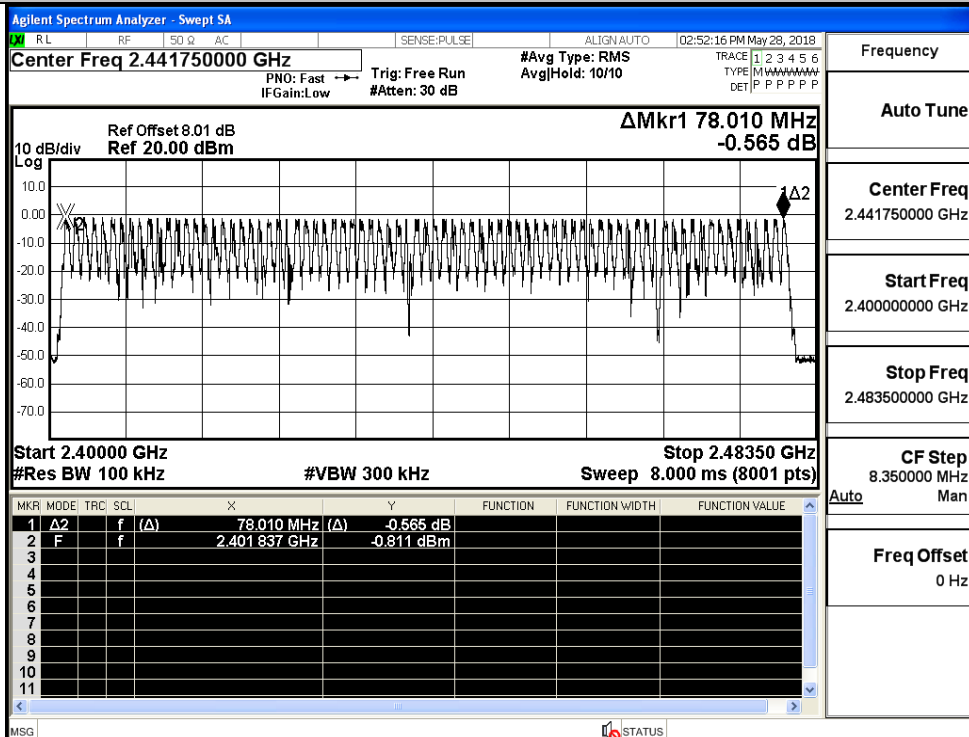
Freq Offset
0 Hz

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 |

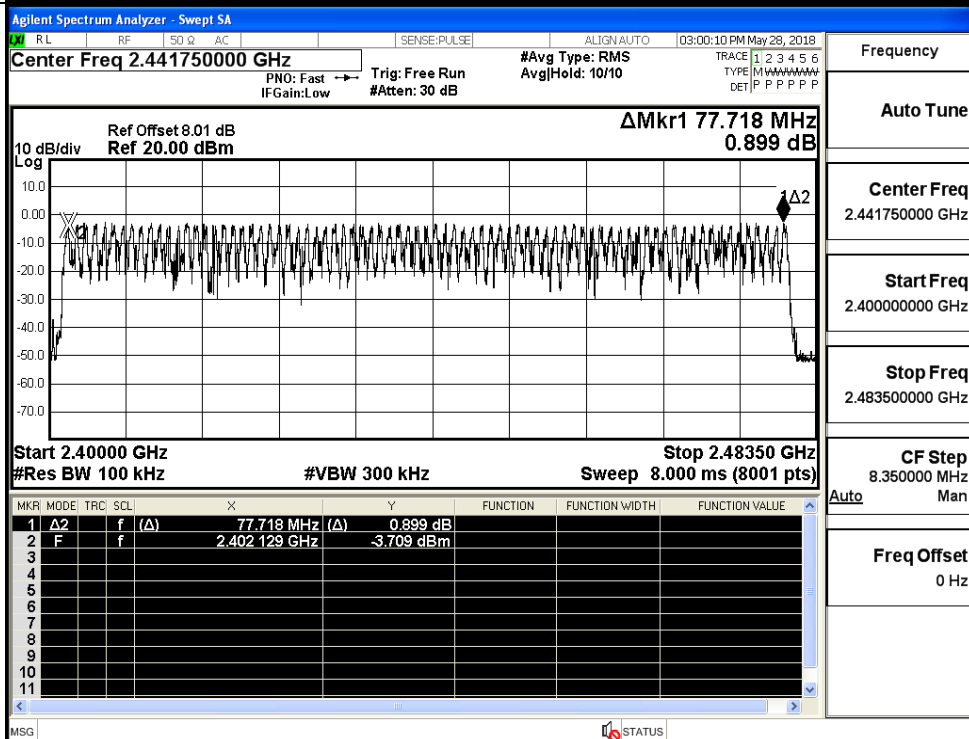
Test Graphs

GFSK/Hop



Frequency

Auto Tune

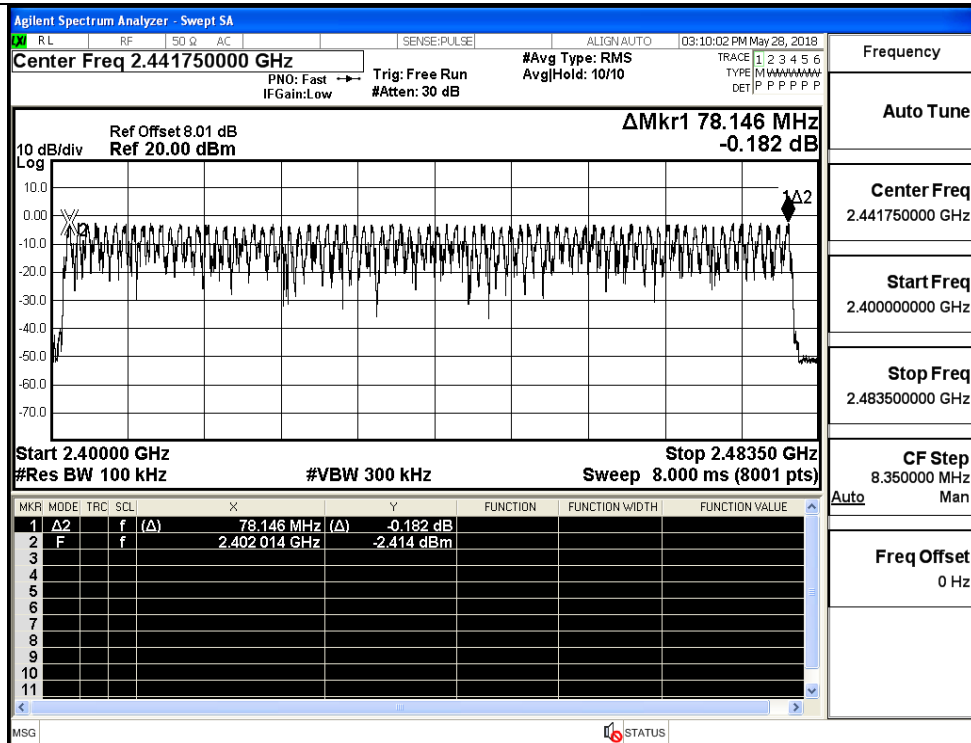
Center Freq
2.441750000 GHzStart Freq
2.400000000 GHzStop Freq
2.483500000 GHzCF Step
8.350000 MHzFreq Offset
0 Hz $\pi/4$ DQPSK/Hop

Frequency

Auto Tune

Center Freq
2.441750000 GHzStart Freq
2.400000000 GHzStop Freq
2.483500000 GHzCF Step
8.350000 MHzFreq Offset
0 Hz

8DPSK/Hop

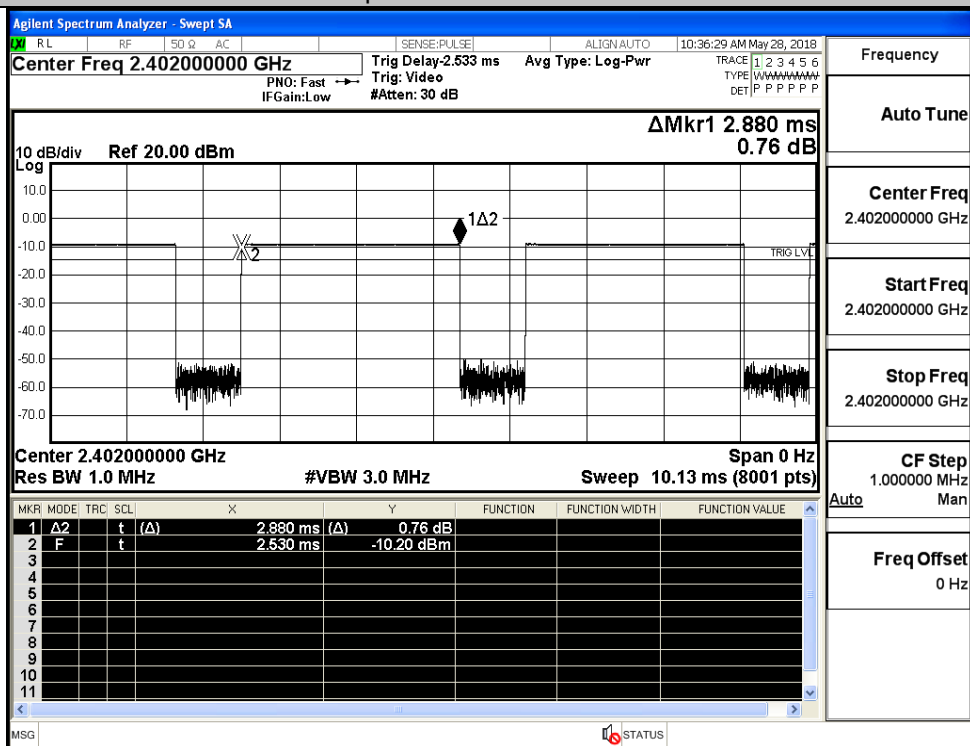


A.5 Dwell Time

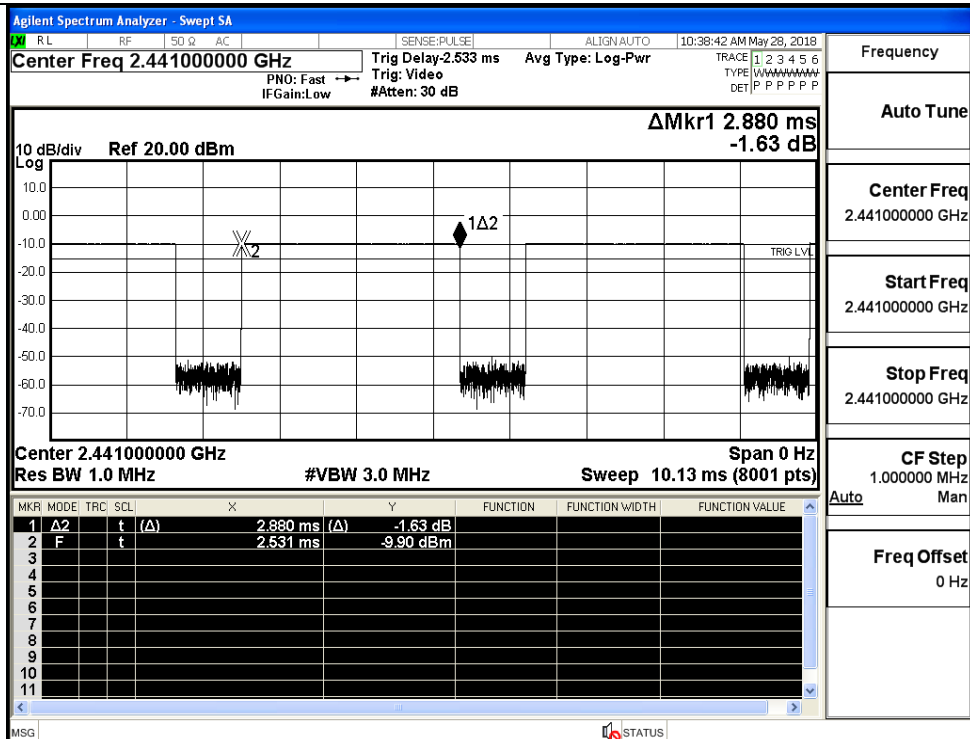
| Mode | Packet | Channel | Burst Width [ms/hop/ch] | Total Hops[hop*ch] | Dwell Time[s] | Limit [s] | Verdict |
|---------------|--------|---------|----------------------------|-----------------------|---------------|-----------|---------|
| GFSK | DH5 | LCH | 2.88 | 106.7 | 0.307 | 0.4 | PASS |
| | 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 | 0.302 | 0.4 | PASS |
| | 2DH5 | MCH | 2.88 | 106.7 | 0.302 | 0.4 | PASS |
| | 2DH5 | HCH | 2.88 | 106.7 | 0.302 | 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

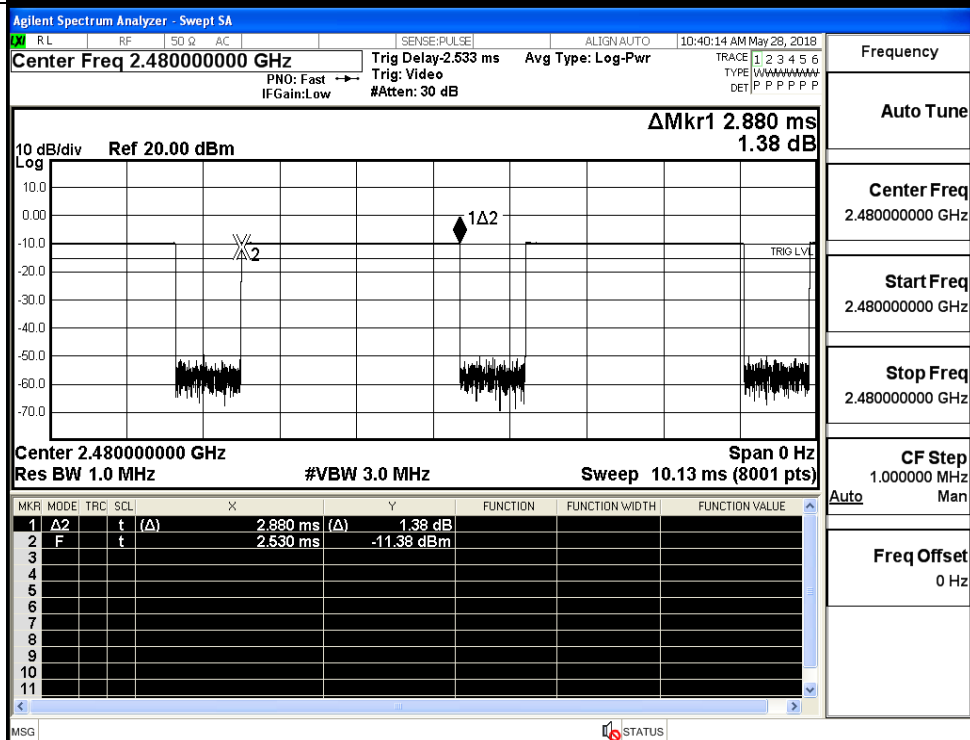
GFSK_DH5/LCH



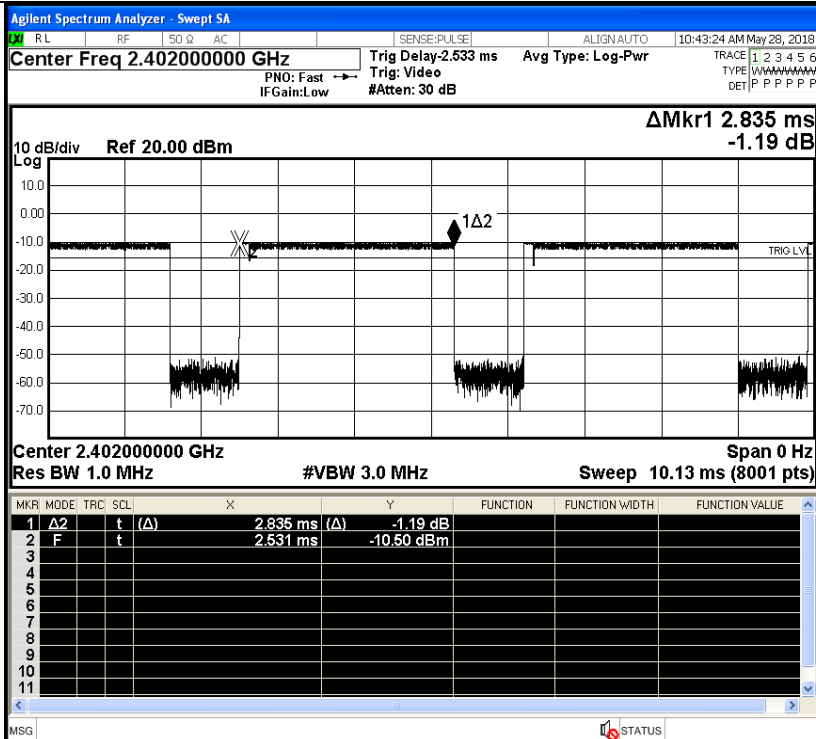
GFSK_DH5/MCH



GFSK_DH5/HCH



$\pi/4$ DQPSK
_2DH5/LCH

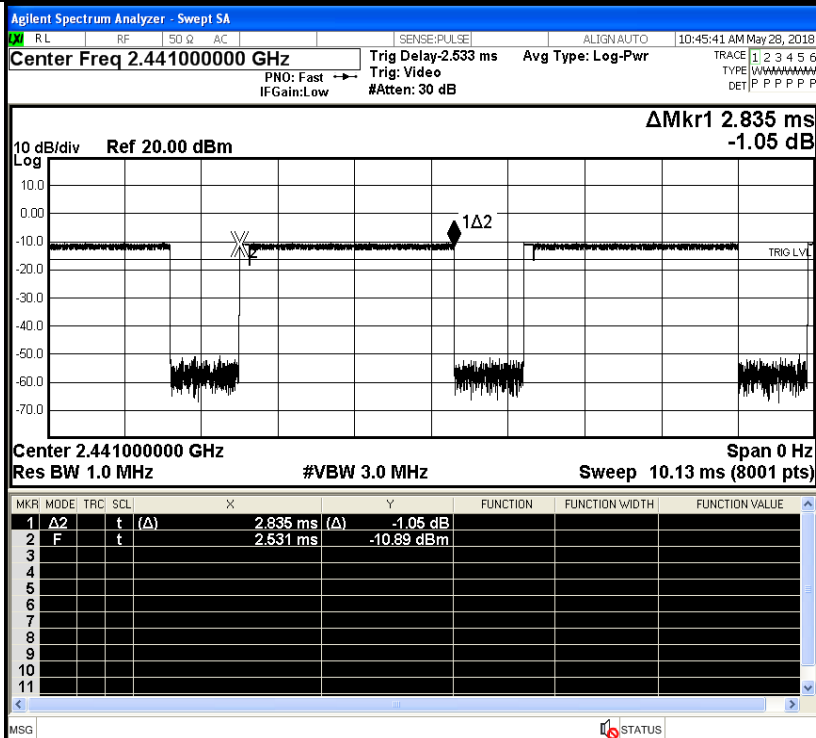


Frequency

Auto Tune

Center Freq
2.402000000 GHzStart Freq
2.402000000 GHzStop Freq
2.402000000 GHzCF Step
1.000000 MHz
Auto ManFreq Offset
0 Hz

$\pi/4$ DQPSK
_2DH5/MCH

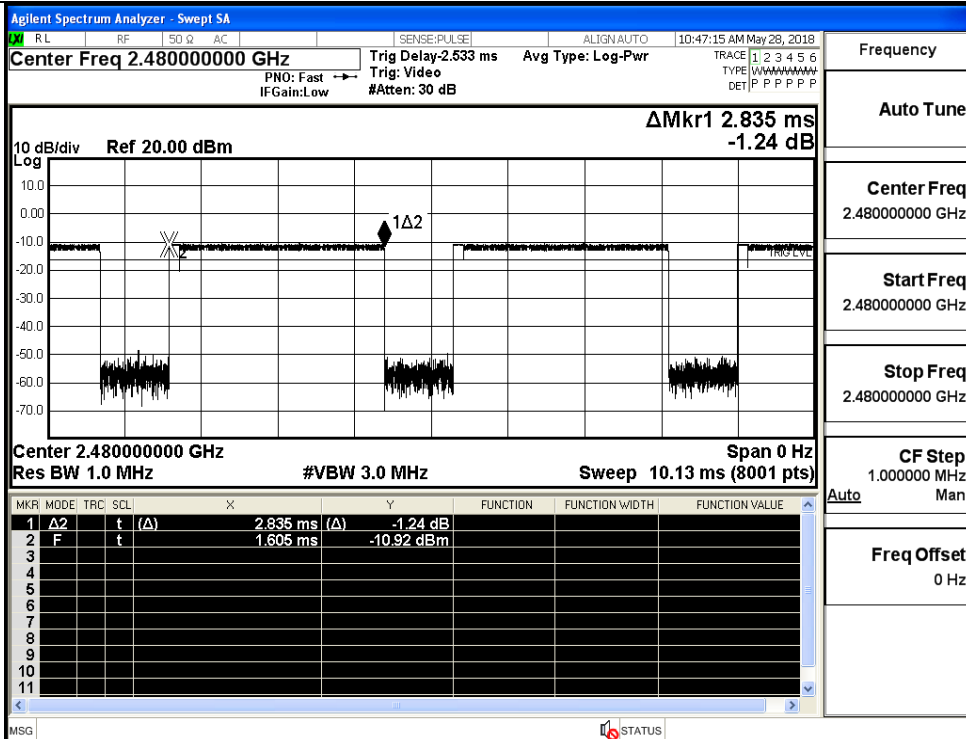


Frequency

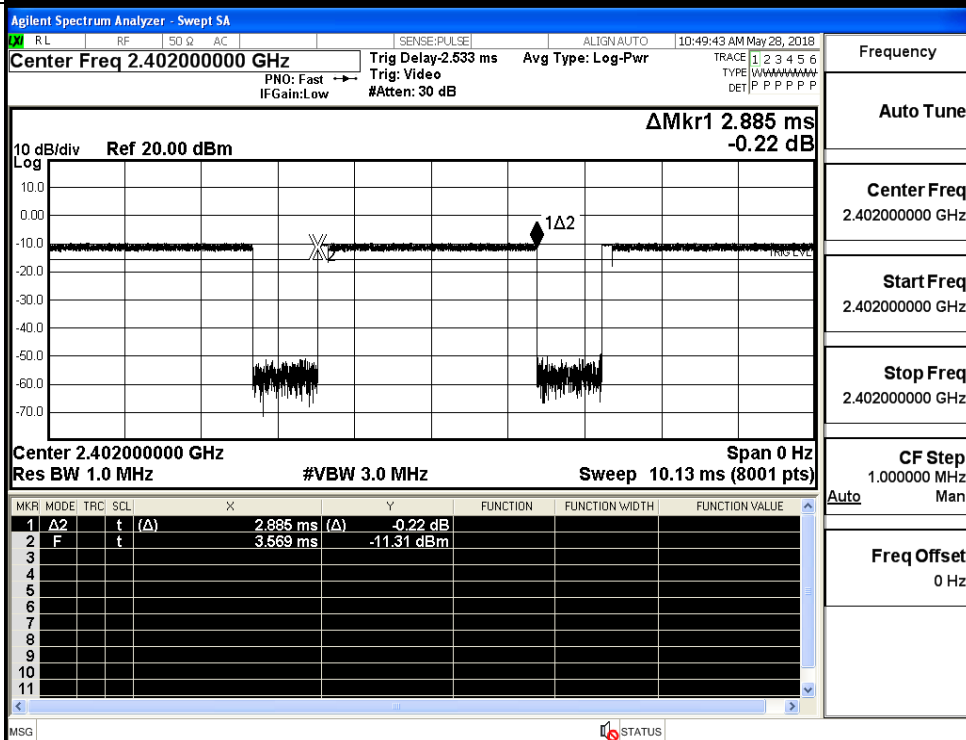
Auto Tune

Center Freq
2.441000000 GHzStart Freq
2.441000000 GHzStop Freq
2.441000000 GHzCF Step
1.000000 MHz
Auto ManFreq Offset
0 Hz

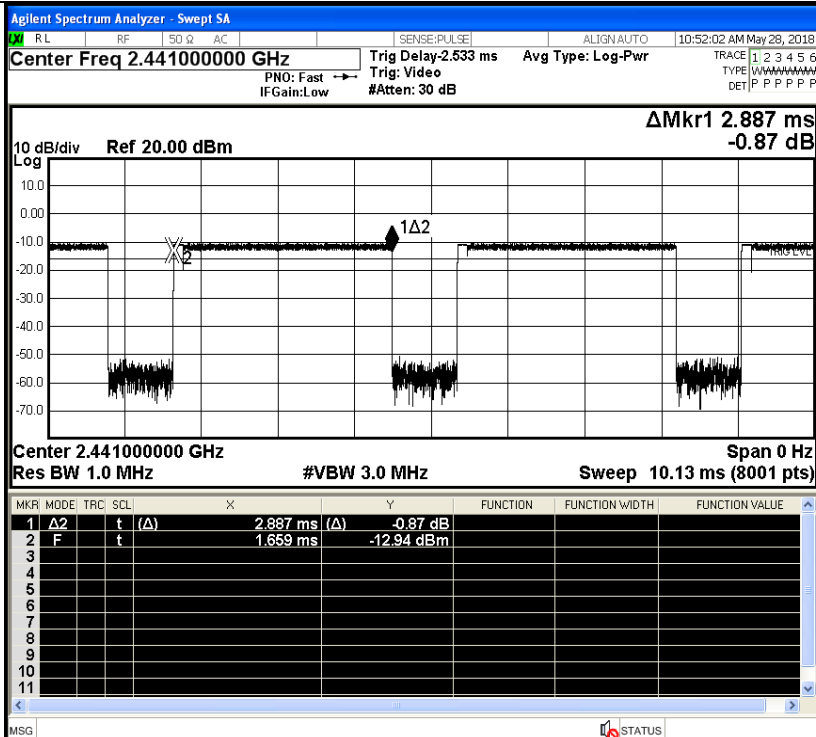
$\pi/4$ DQPSK
_2DH5/HCH



8DPSK _3DH5/LCH



8DPSK_3DH5/MCH

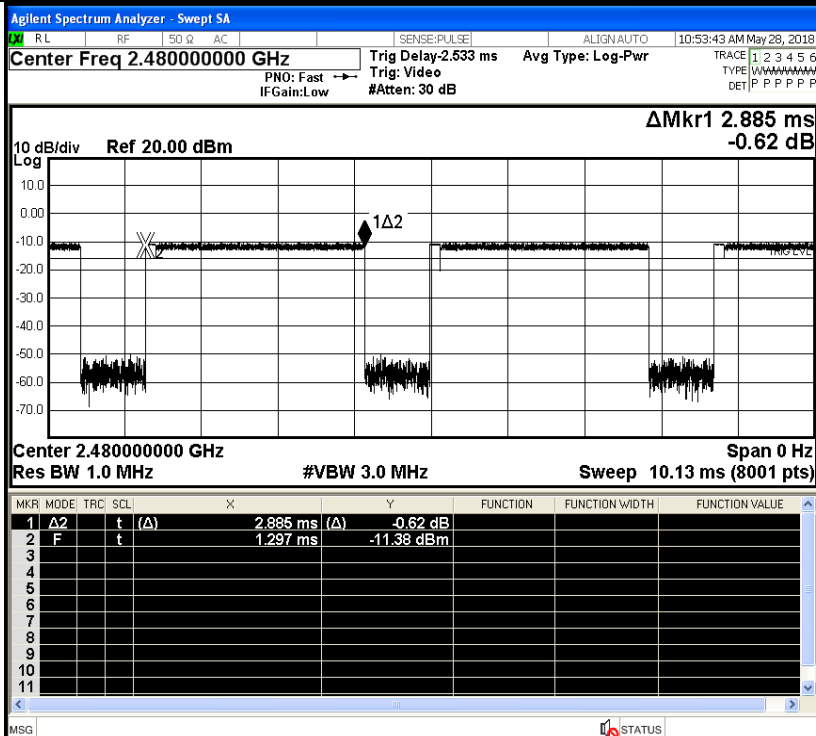


Frequency

Auto Tune

Center Freq
2.441000000 GHzStart Freq
2.441000000 GHzStop Freq
2.441000000 GHzCF Step
1.000000 MHz
Auto ManFreq Offset
0 Hz

8DPSK_3DH5/HCH



Frequency

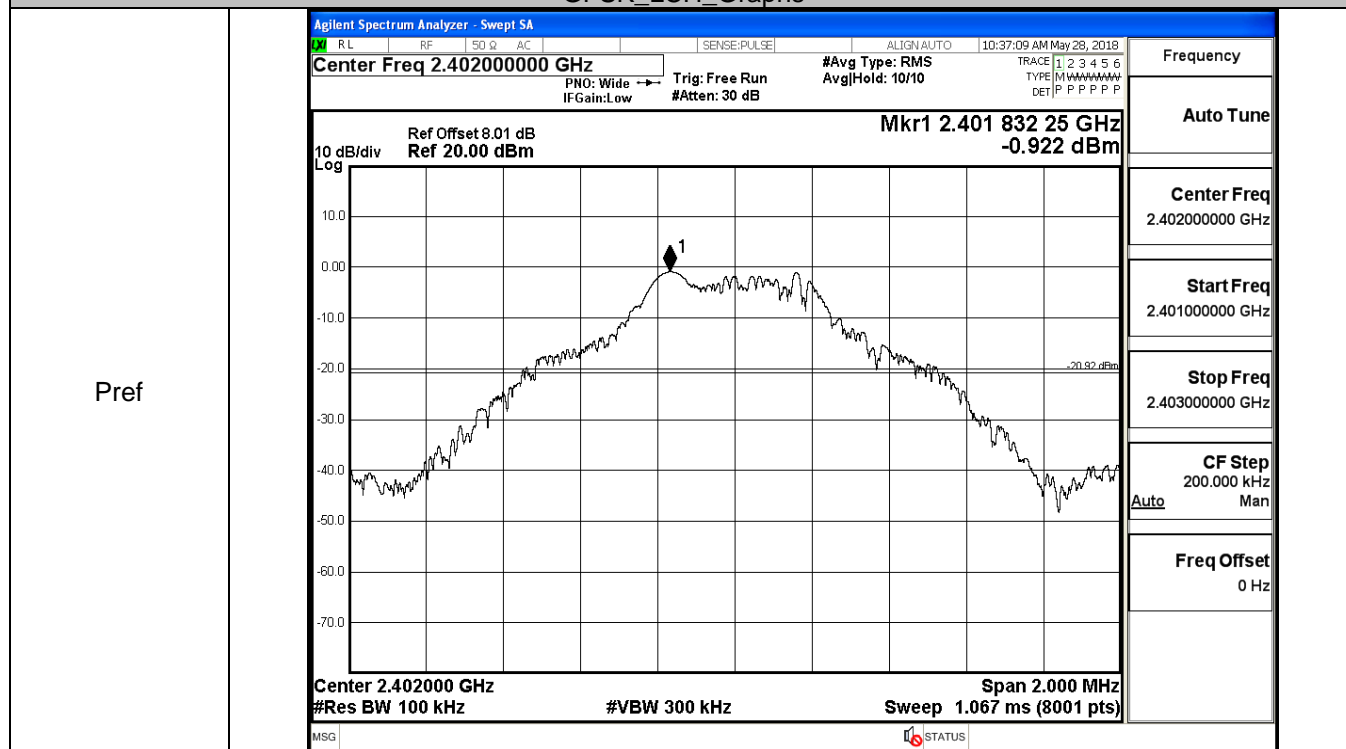
Auto Tune

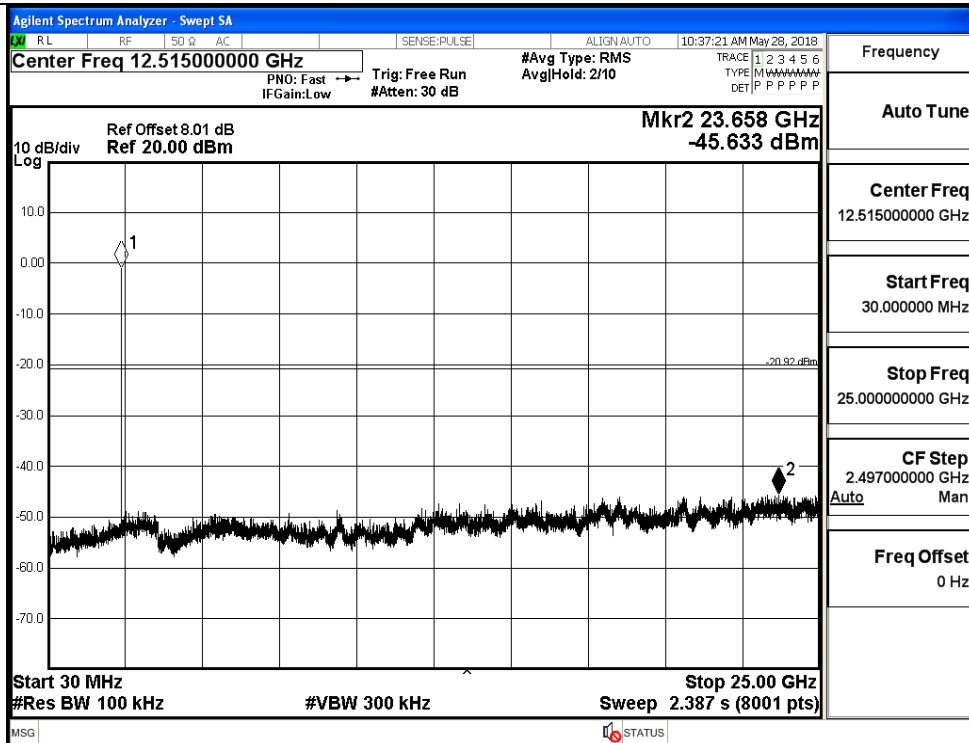
Center Freq
2.480000000 GHzStart Freq
2.480000000 GHzStop Freq
2.480000000 GHzCF Step
1.000000 MHz
Auto ManFreq Offset
0 Hz

A.6 RF Conducted Spurious Emissions

| Mode | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| GFSK | LCH | -0.922 | -45.633 | -20.922 | PASS |
| | MCH | -1.616 | -44.334 | -21.616 | PASS |
| | HCH | -1.606 | -45.121 | -21.606 | PASS |
| $\pi/4$ DQPSK | LCH | -2.35 | -44.144 | -22.350 | PASS |
| | MCH | -2.971 | -44.963 | -22.971 | PASS |
| | HCH | -2.96 | -43.987 | -22.960 | PASS |
| 8DPSK | LCH | -2.296 | -43.453 | -22.296 | PASS |
| | MCH | -2.774 | -43.525 | -22.774 | PASS |
| | HCH | -2.814 | -45.306 | -22.814 | PASS |

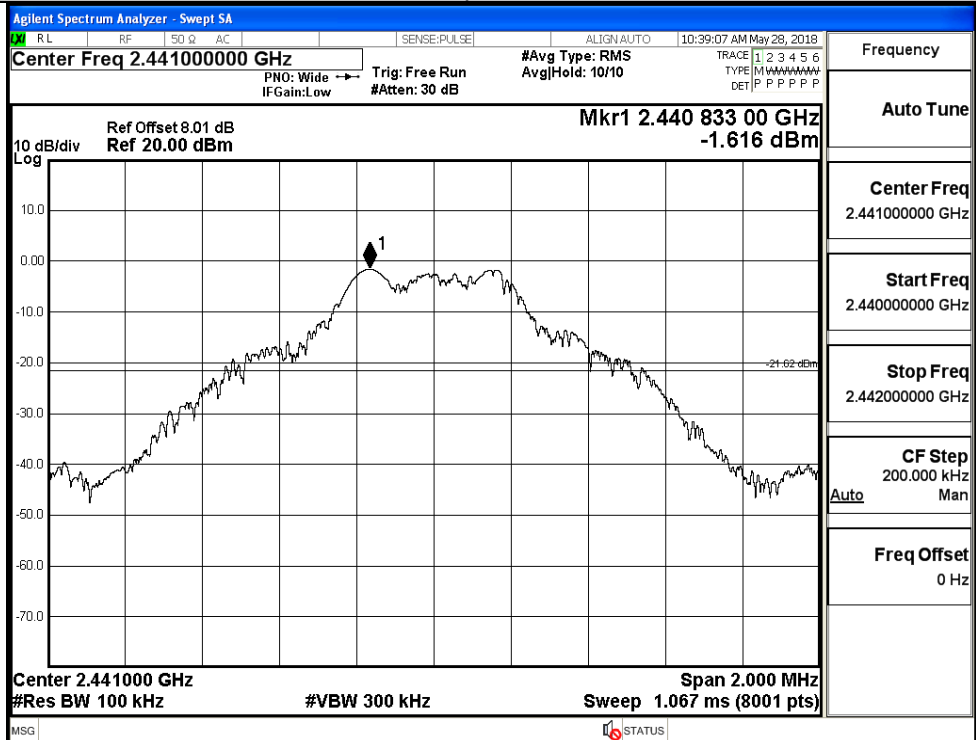
GFSK_LCH_Graphs



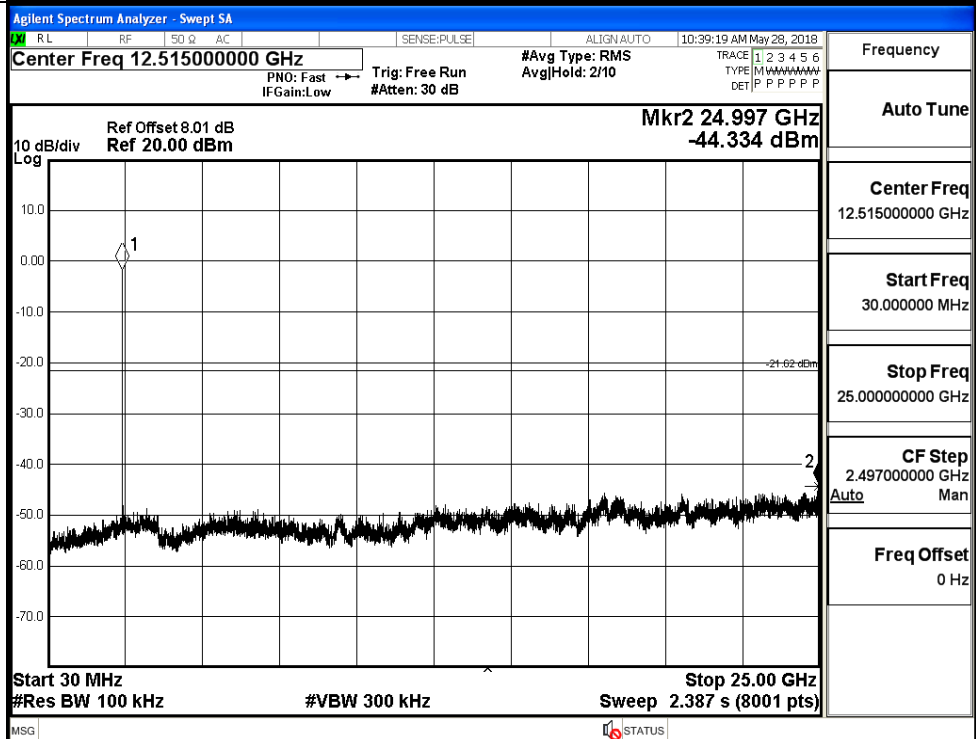


GFSK_MCH_Graphs

Pref

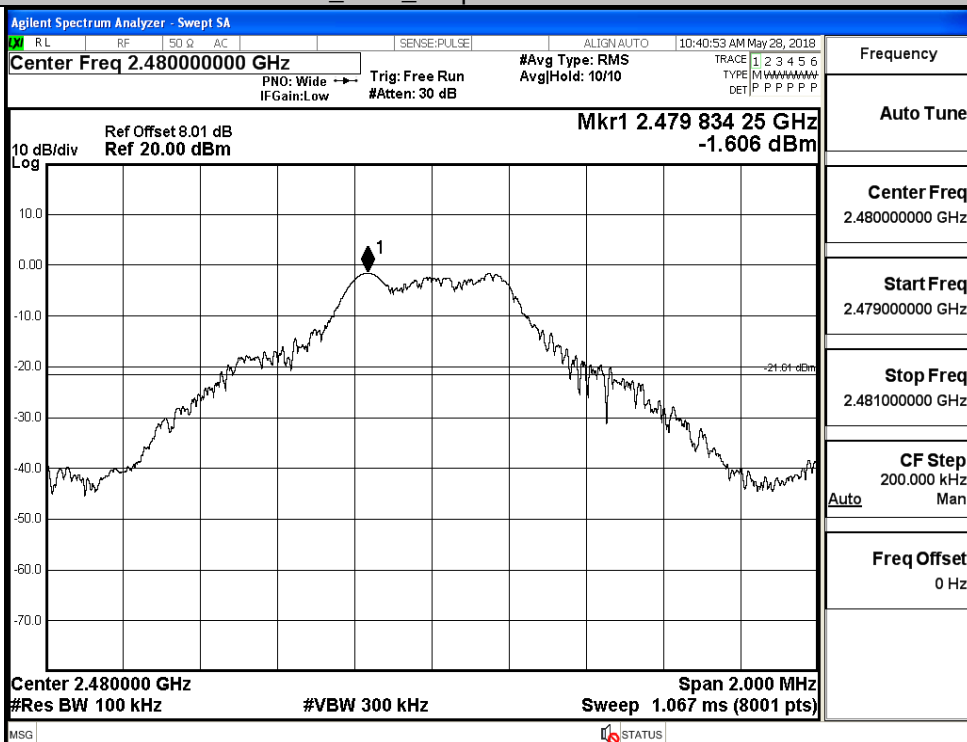


Puw

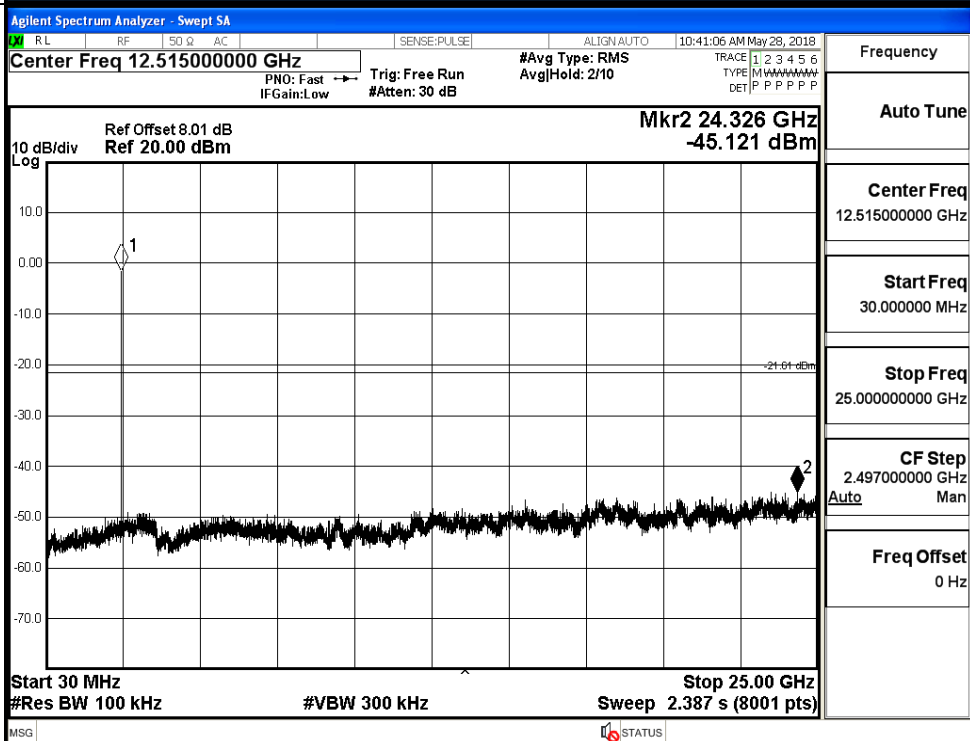


GFSK_HCH_Graphs

Pref

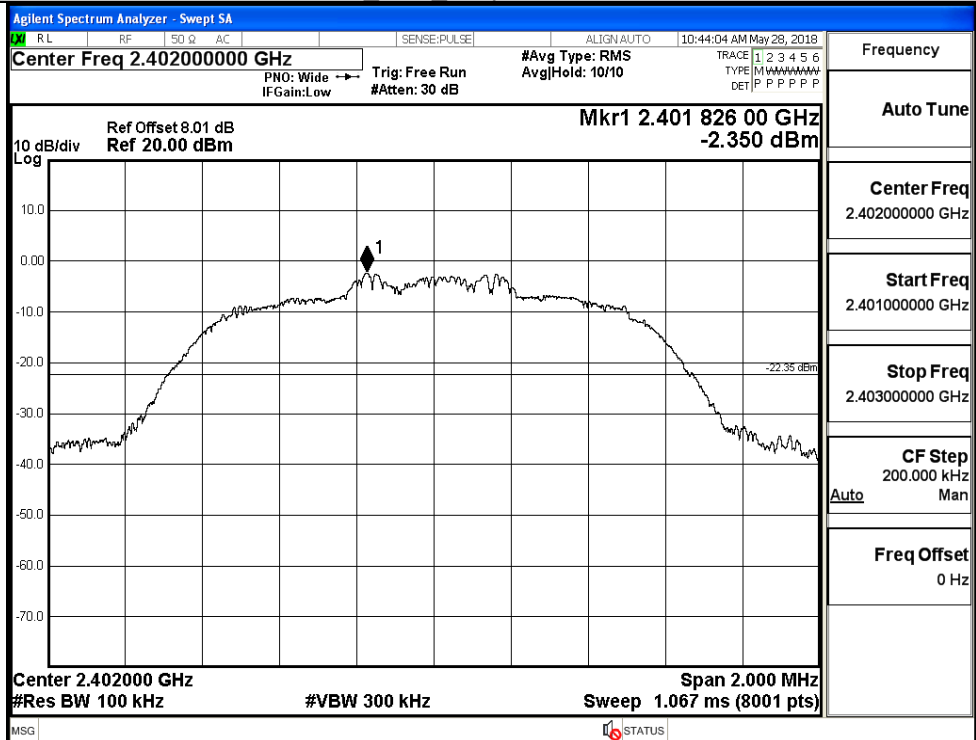


Puw

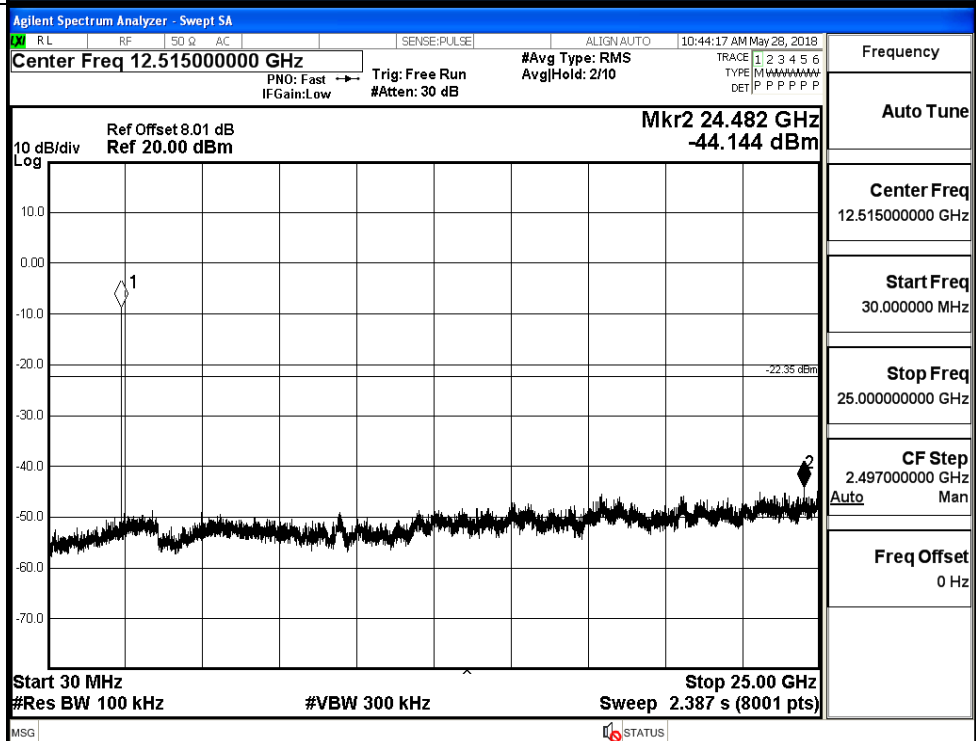


$\pi/4$ DQPSK_LCH_Graphs

Pref

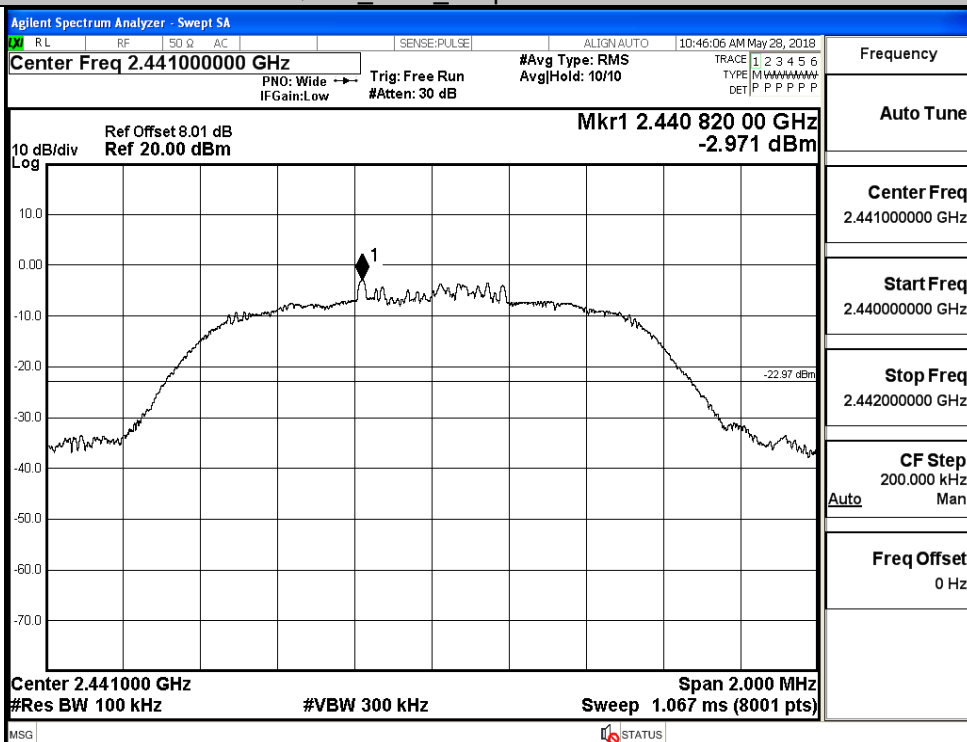


Puw

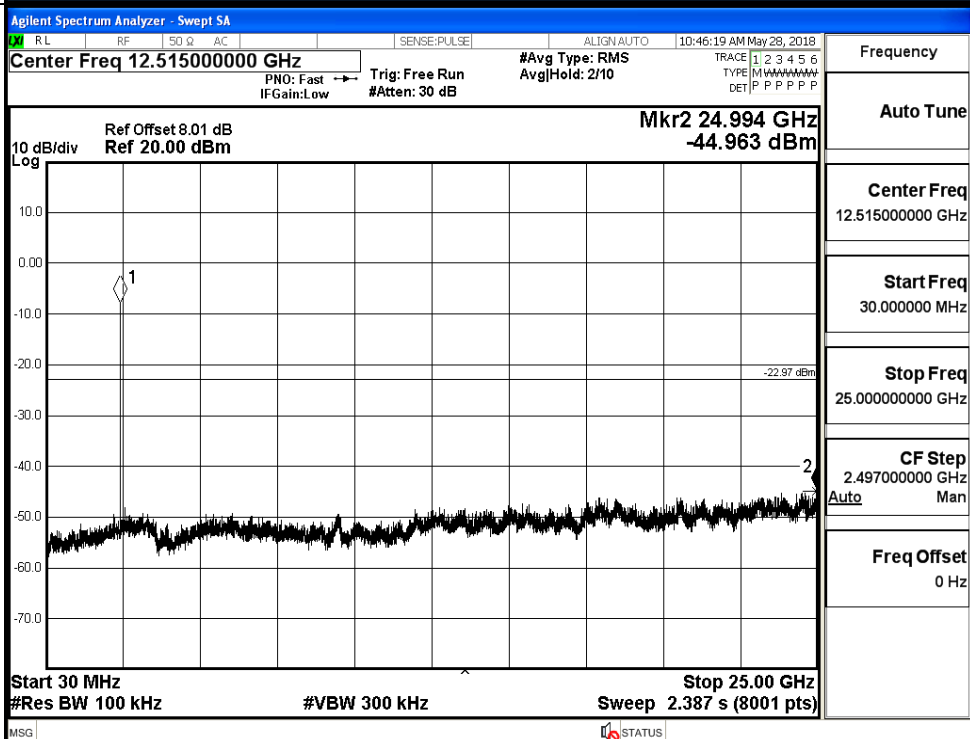


$\pi/4$ DQPSK_MCH_Graphs

Pref

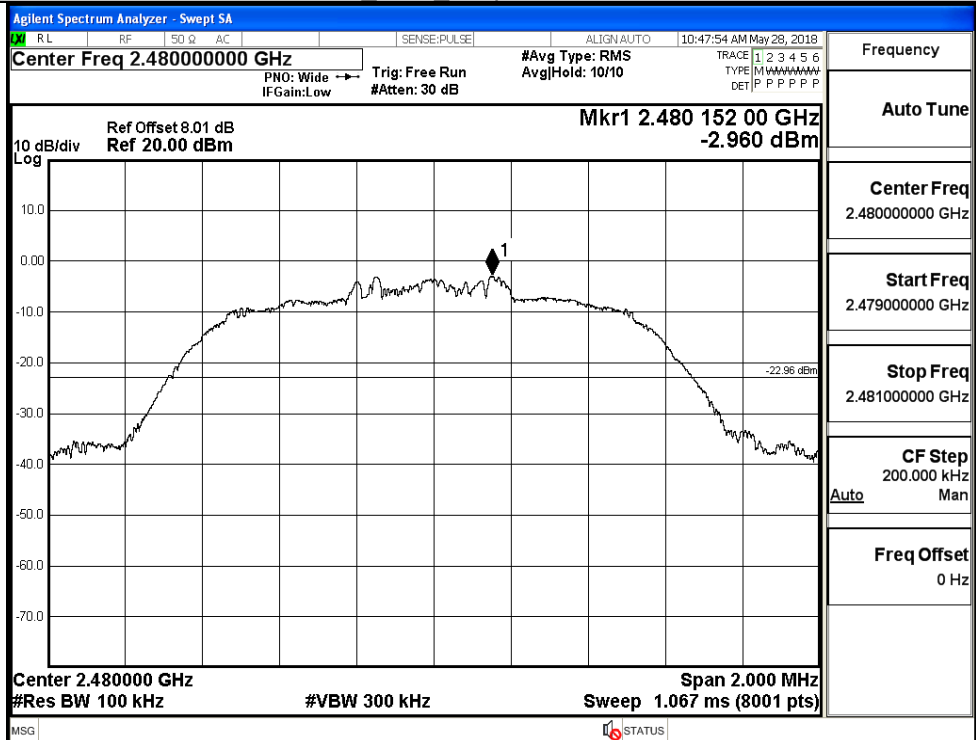


Puw

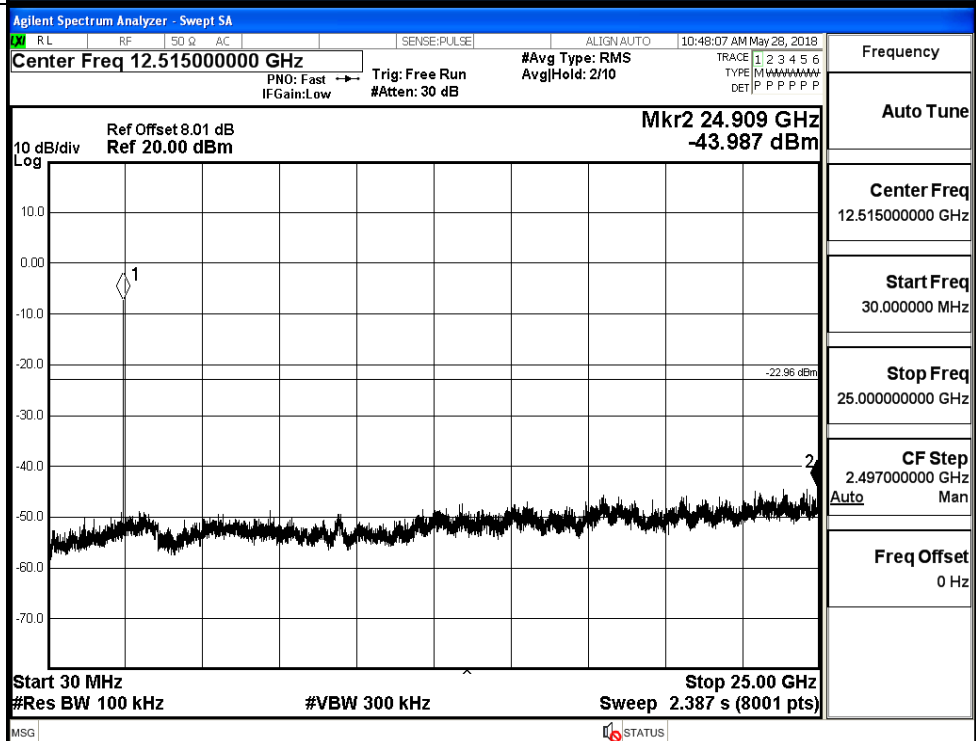


$\pi/4$ DQPSK_HCH_Graphs

Pref

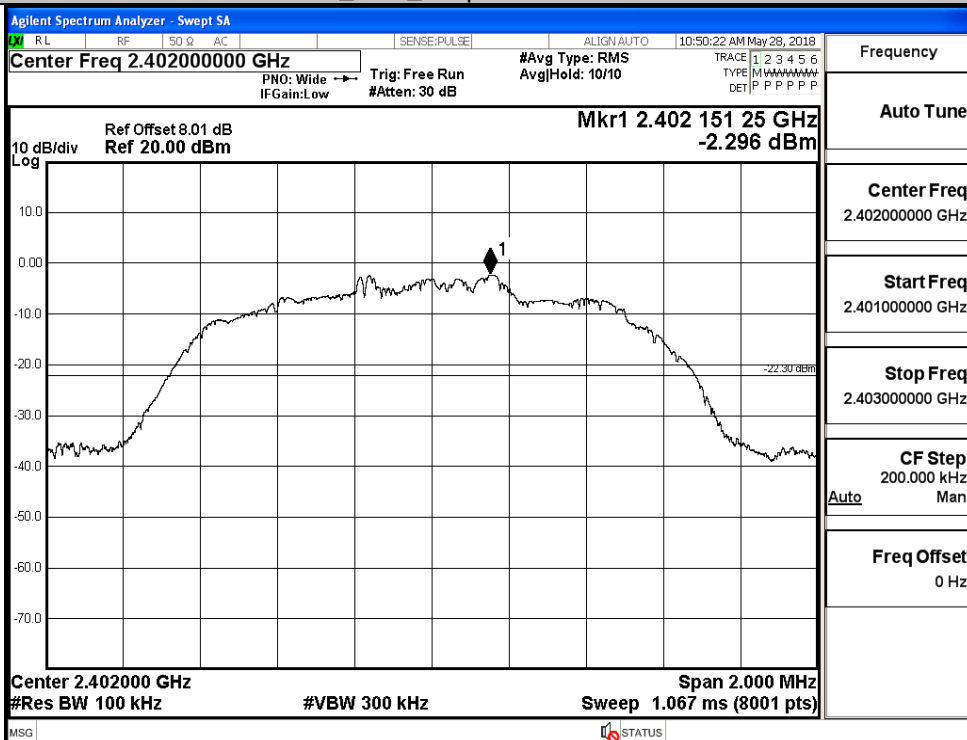


Puw

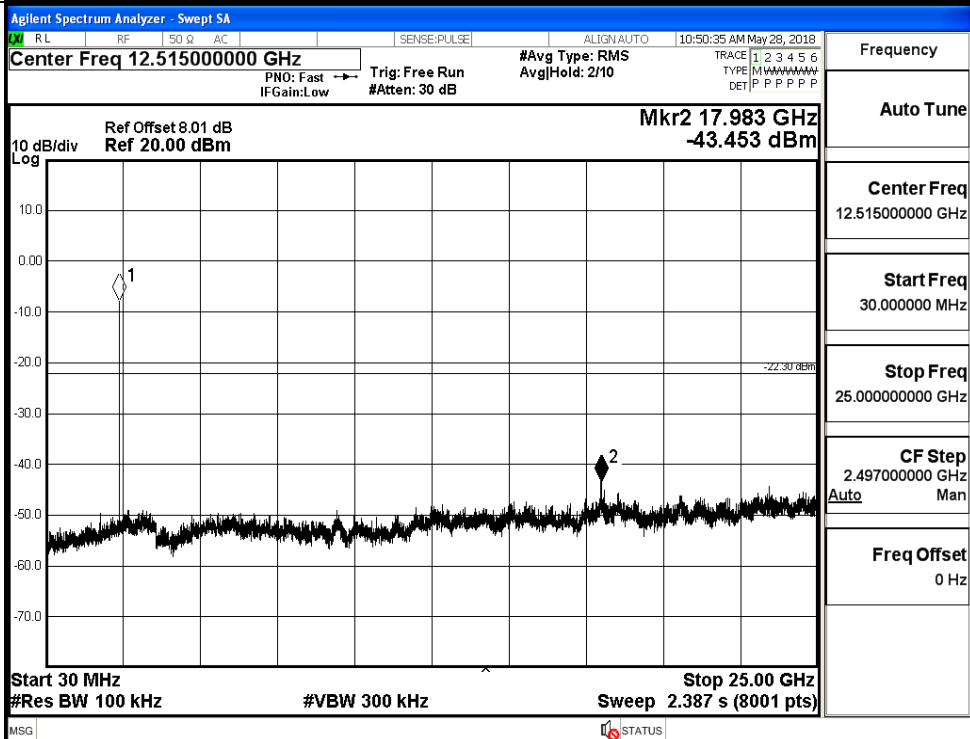


8DPSK_LCH_Graphs

Pref

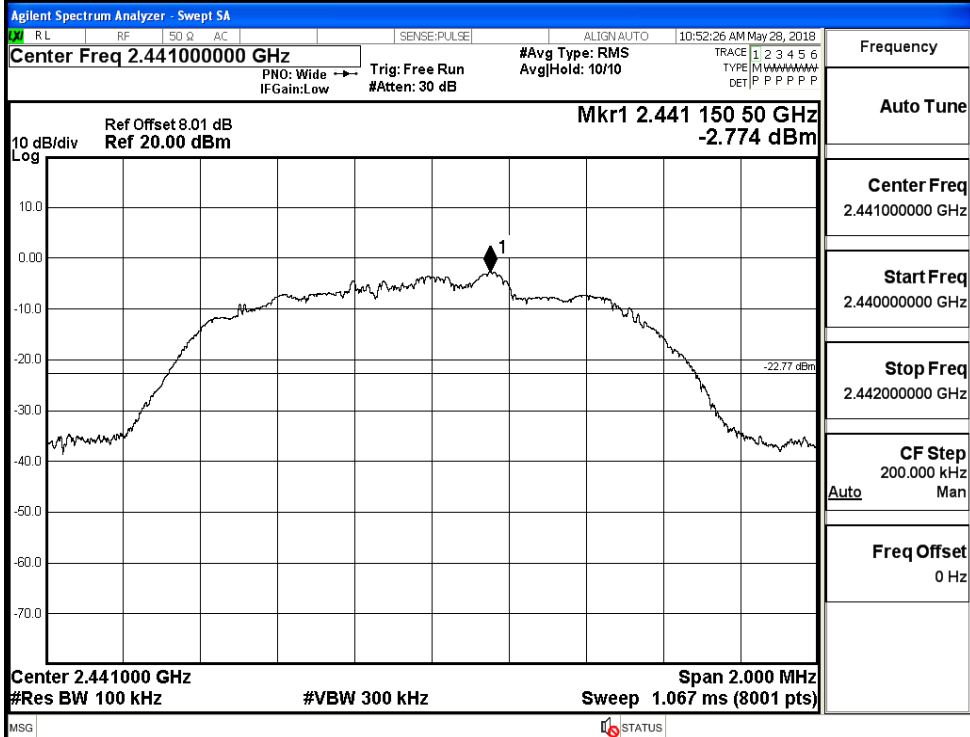


Puw

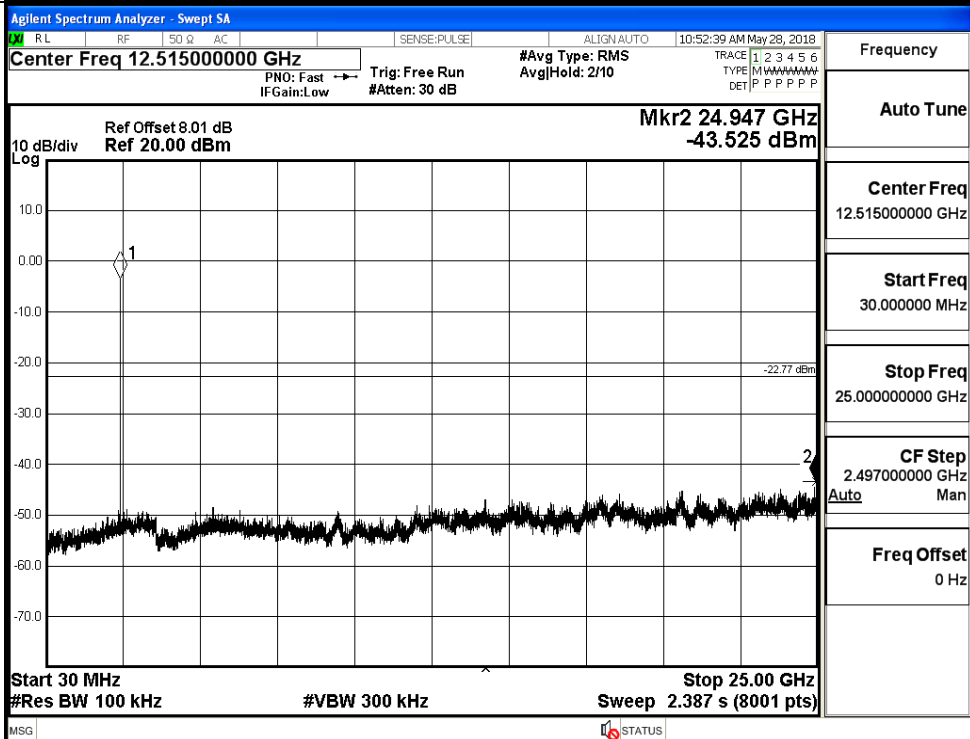


8DPSK_MCH_Graphs

Pref

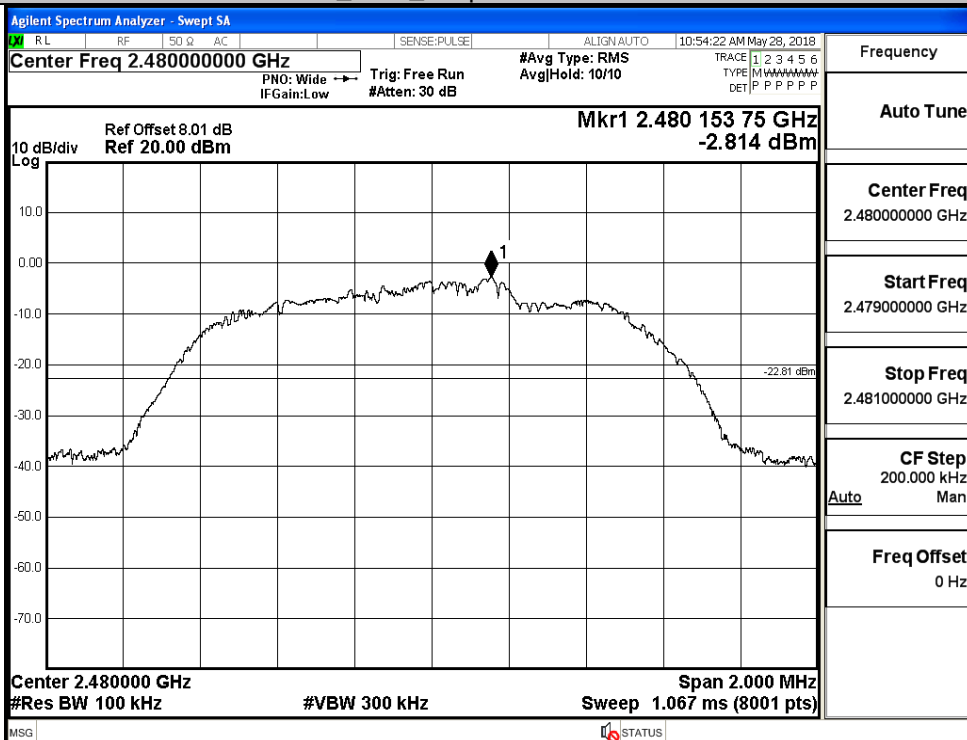


Puw

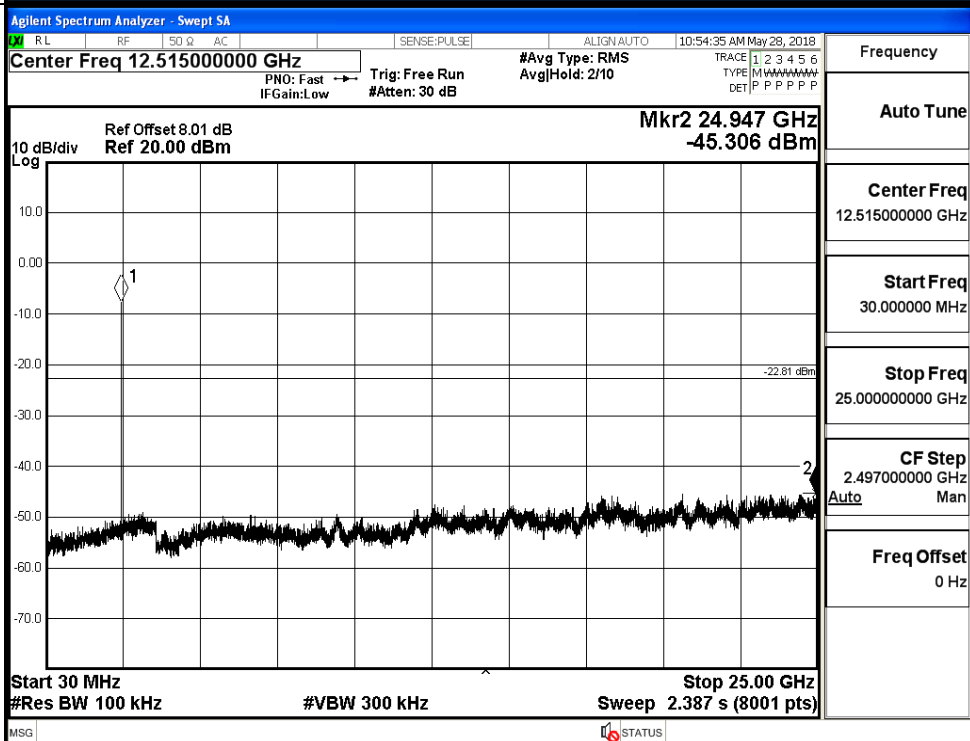


8DPSK_HCH_Graphs

Pref



Puw

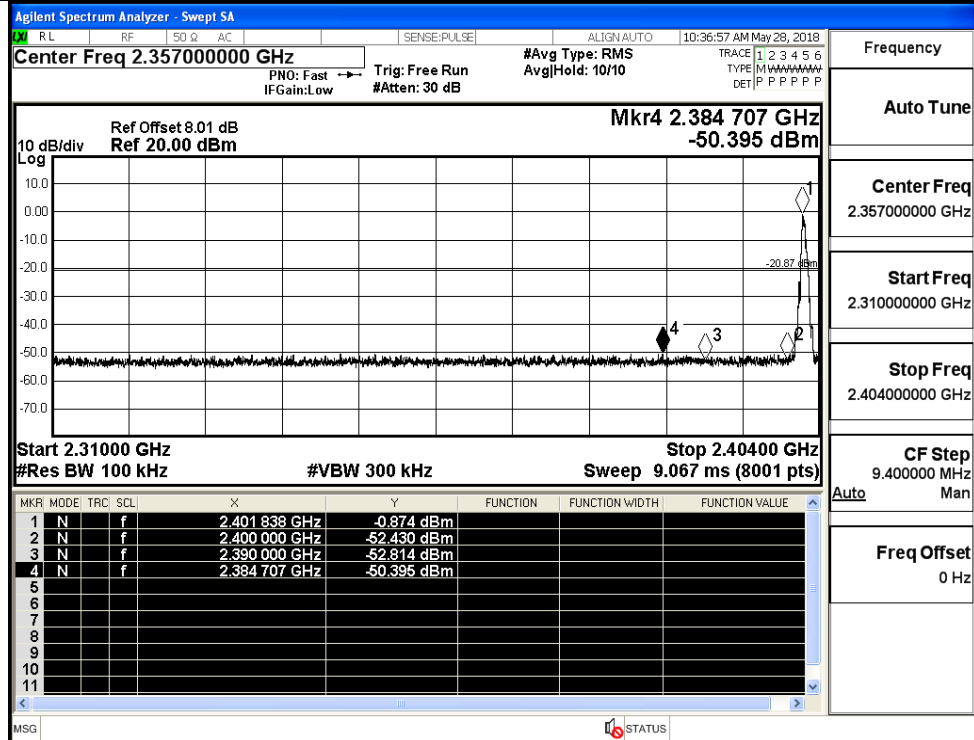


A.7 Band-edge for RF Conducted Emissions

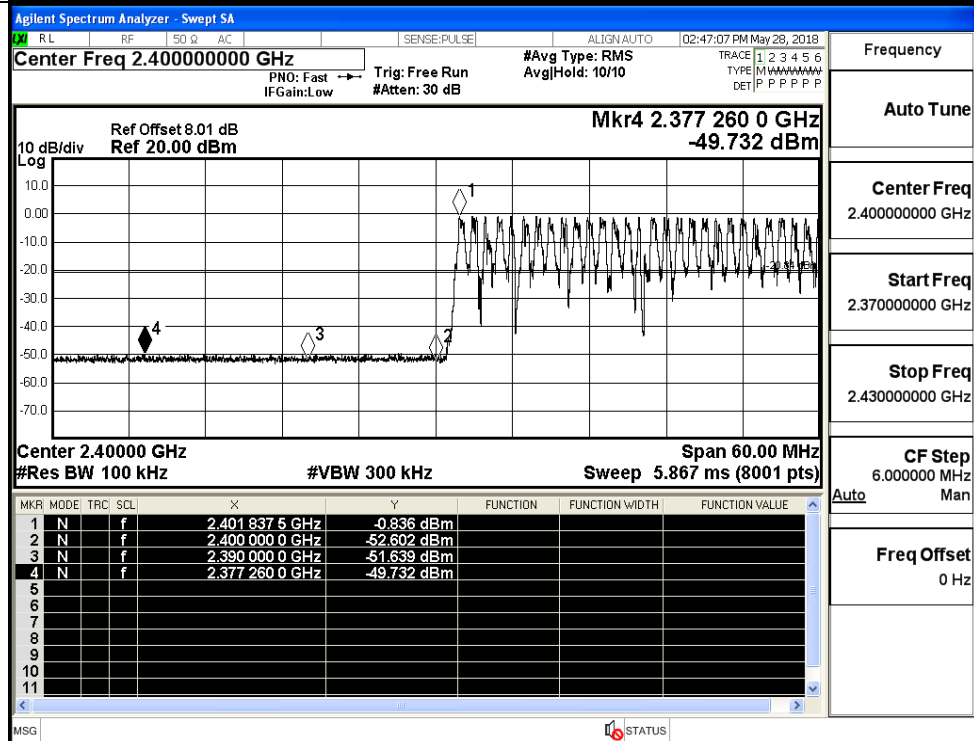
| Mode | Channel | Carrier Frequency [MHz] | Carrier Power [dBm] | Frequency Hopping | Max Spurious Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|-------------------------|---------------------|-------------------|--------------------------|-------------|---------|
| GFSK | LCH | 2402 | -0.874 | Off | -50.395 | -20.87 | PASS |
| | | | -0.836 | On | -49.732 | -20.84 | PASS |
| | HCH | 2480 | -1.551 | Off | -49.819 | -21.55 | PASS |
| | | | -1.397 | On | -49.550 | -21.4 | PASS |
| $\pi/4$ DQPSK | LCH | 2402 | -2.678 | Off | -49.835 | -22.68 | PASS |
| | | | -2.542 | On | -49.337 | -22.54 | PASS |
| | HCH | 2480 | -2.825 | Off | -49.863 | -22.83 | PASS |
| | | | -3.131 | On | -49.180 | -23.13 | PASS |
| 8DPSK | LCH | 2402 | -2.970 | Off | -49.689 | -22.97 | PASS |
| | | | -2.429 | On | -49.205 | -22.43 | PASS |
| | HCH | 2480 | -3.095 | Off | -49.621 | -23.1 | PASS |
| | | | -2.764 | On | -48.716 | -22.76 | PASS |

Test Graphs

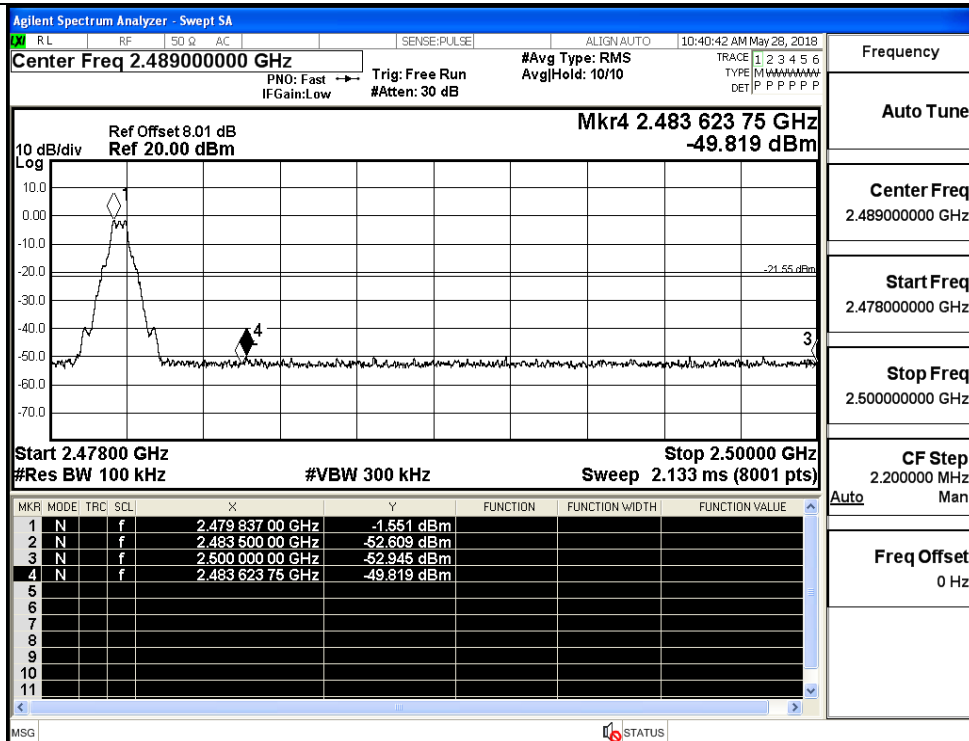
GFSK/LCH/No Hop



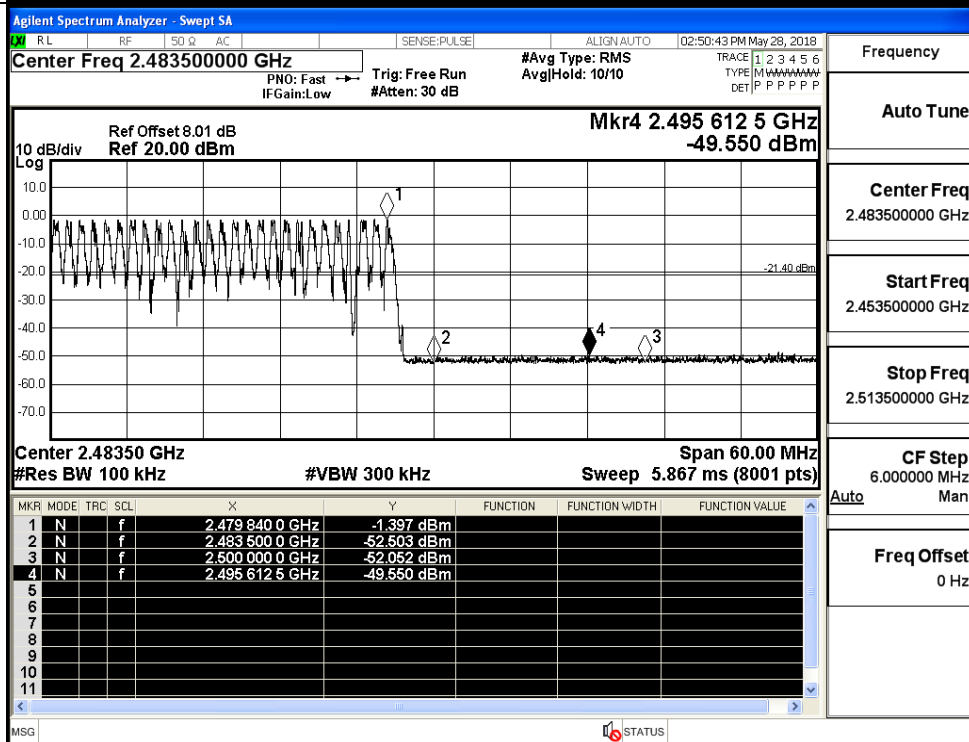
GFSK/LCH/Hop



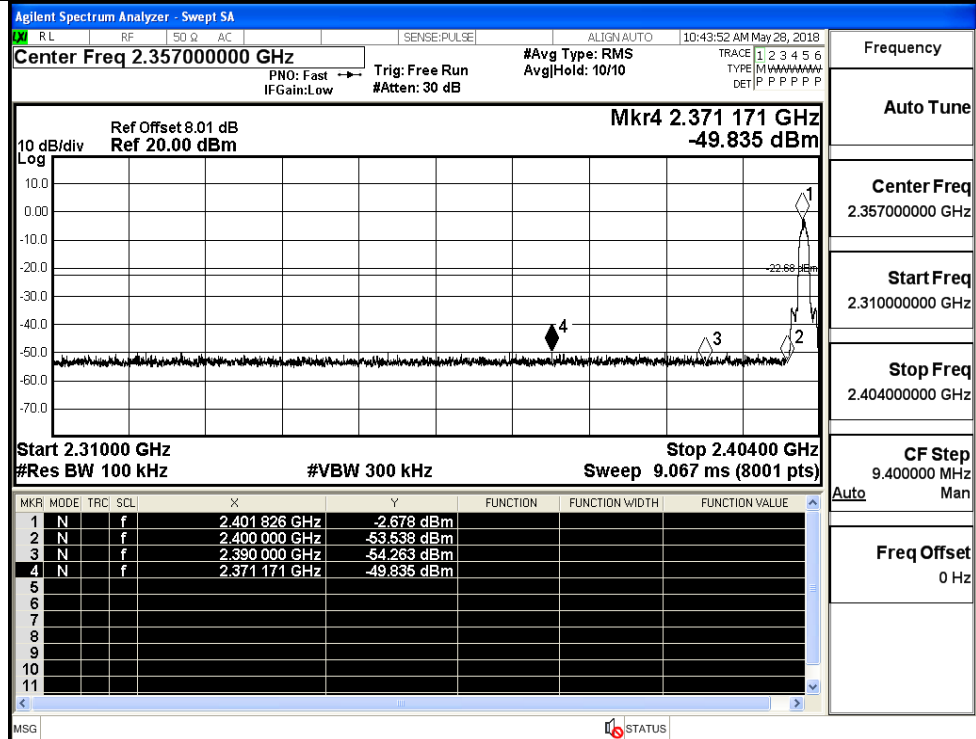
GFSK/HCH/No Hop



GFSK/HCH/Hop



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



Frequency

Auto Tune

Center Freq
2.357000000 GHz

Start Freq
2.310000000 GHz

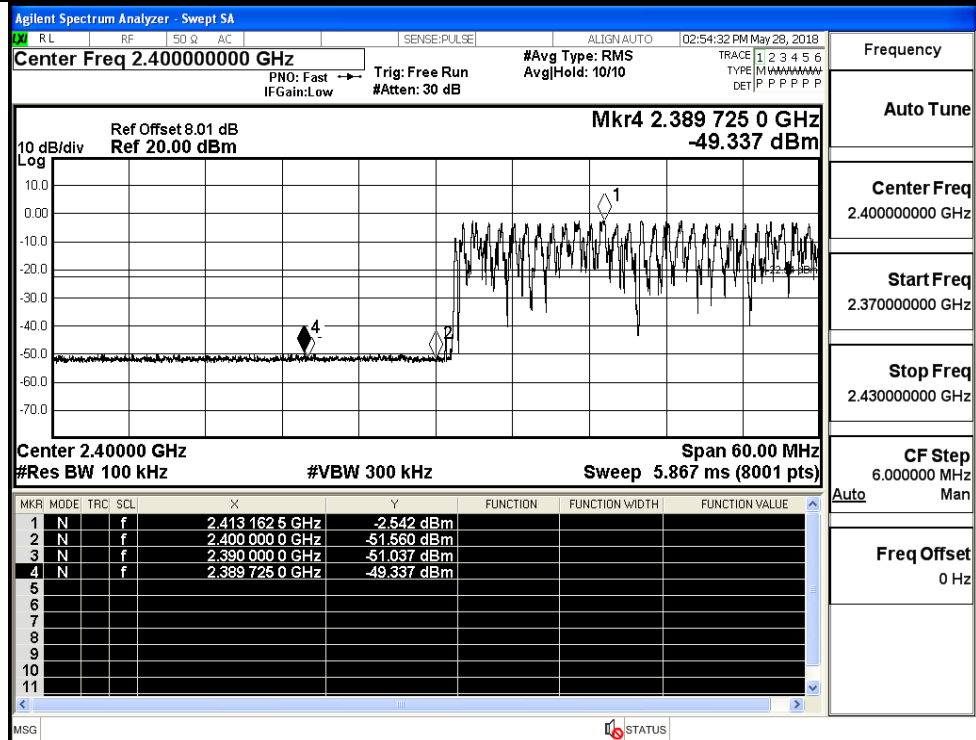
Stop Freq
2.404000000 GHz

CF Step
9.400000 MHz

Auto Man

Freq Offset
0 Hz

$\pi/4$ DQPSK/LCH/Hop



Frequency

Auto Tune

Center Freq
2.400000000 GHz

Start Freq
2.370000000 GHz

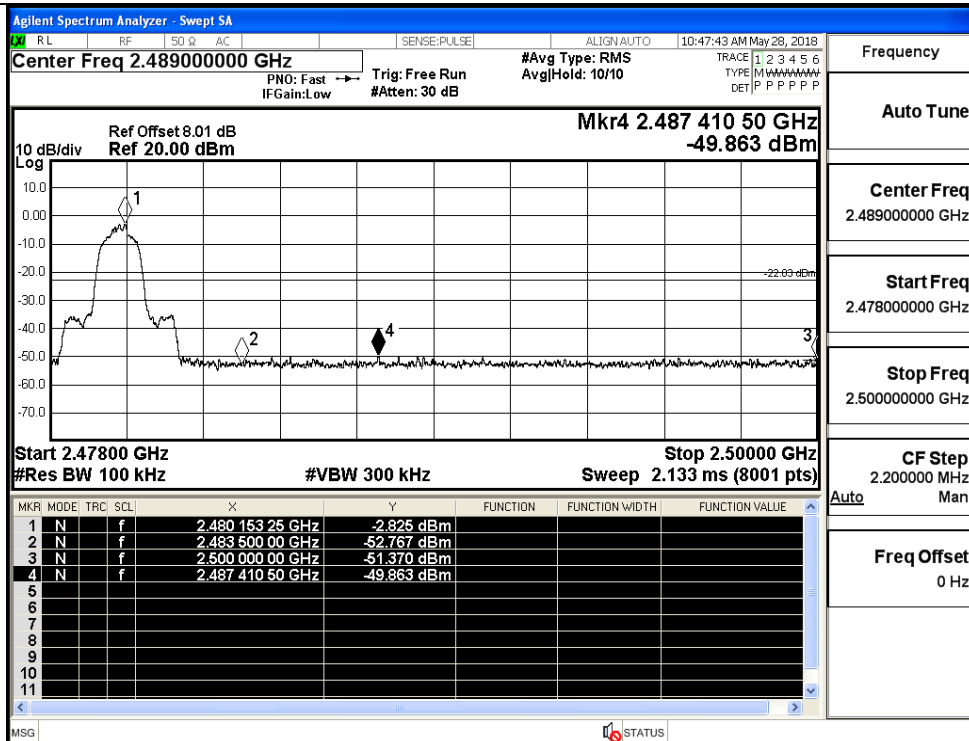
Stop Freq
2.430000000 GHz

CF Step
6.000000 MHz

Auto Man

Freq Offset
0 Hz

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

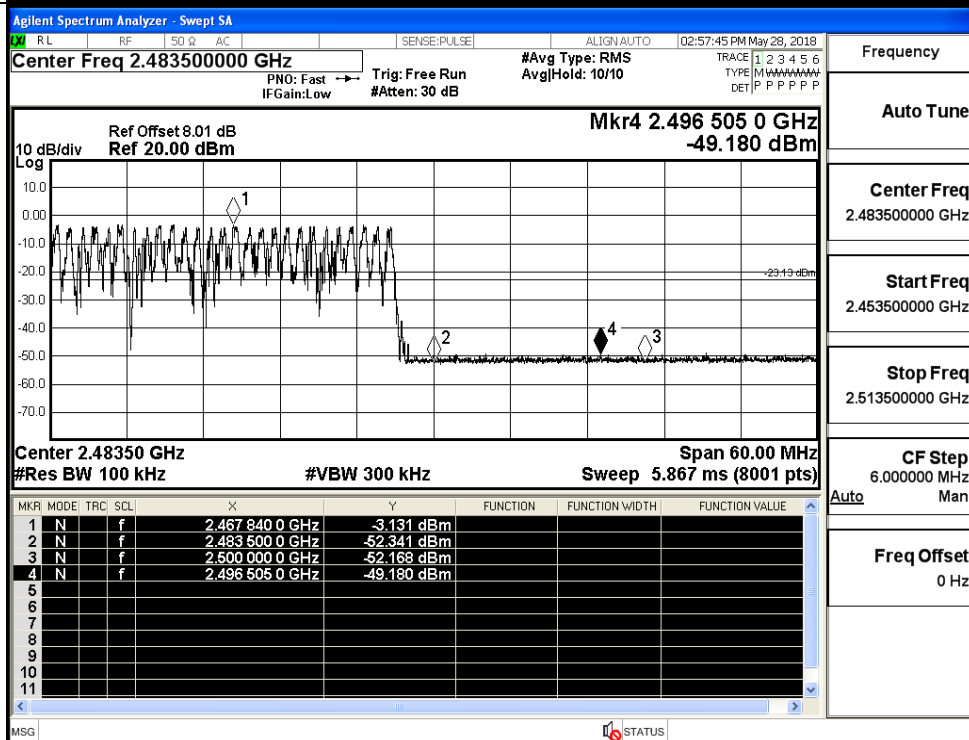


Frequency

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

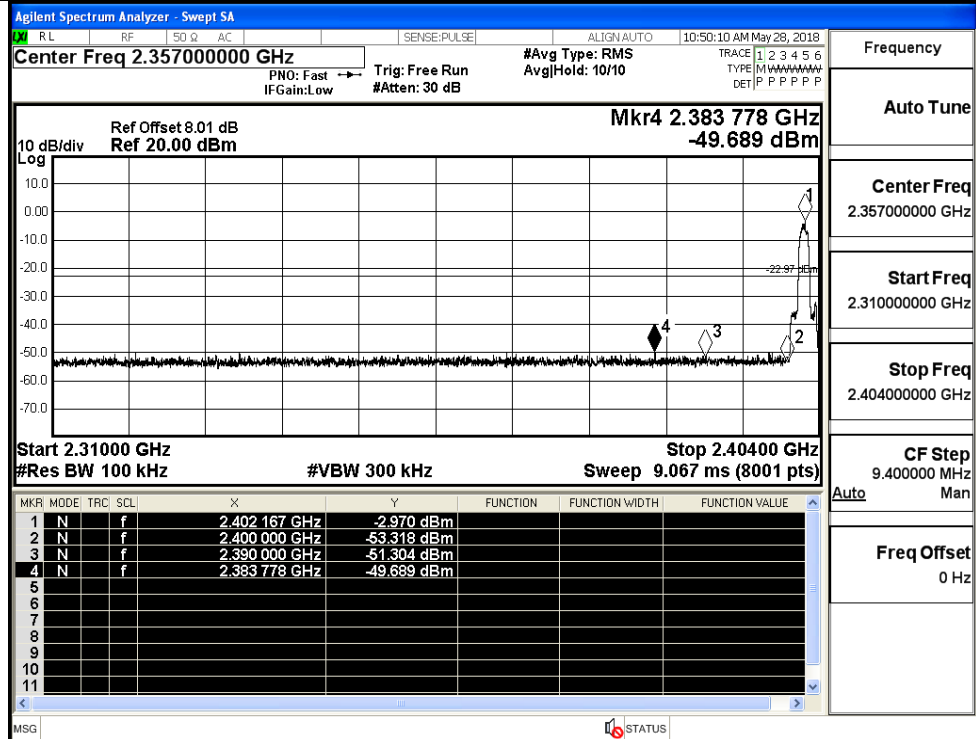


Frequency

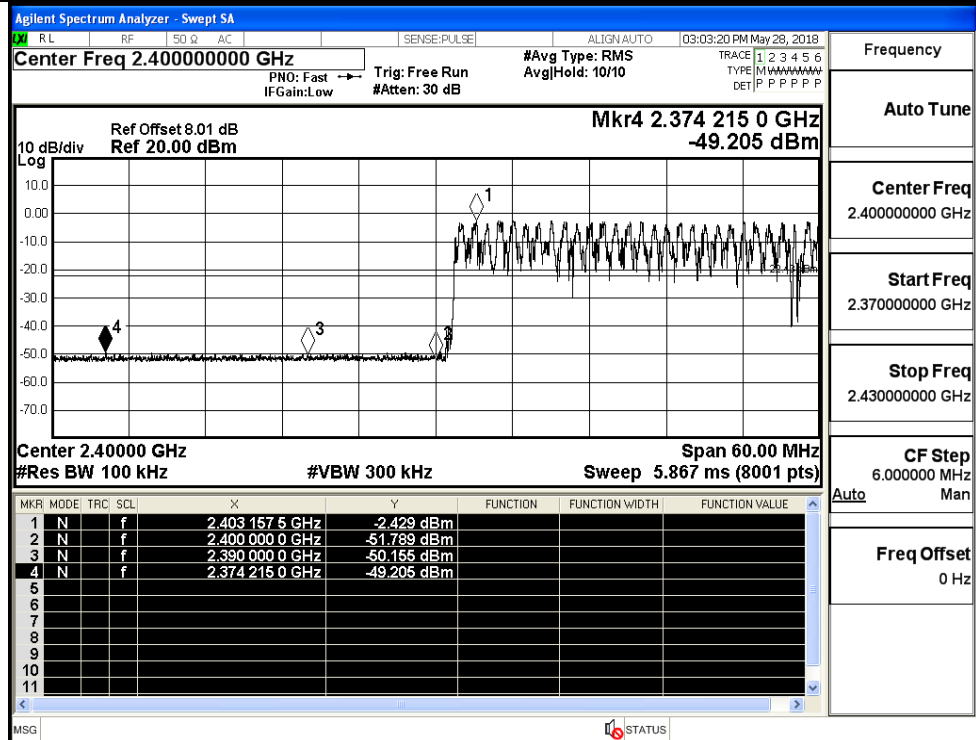
Auto Tune

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

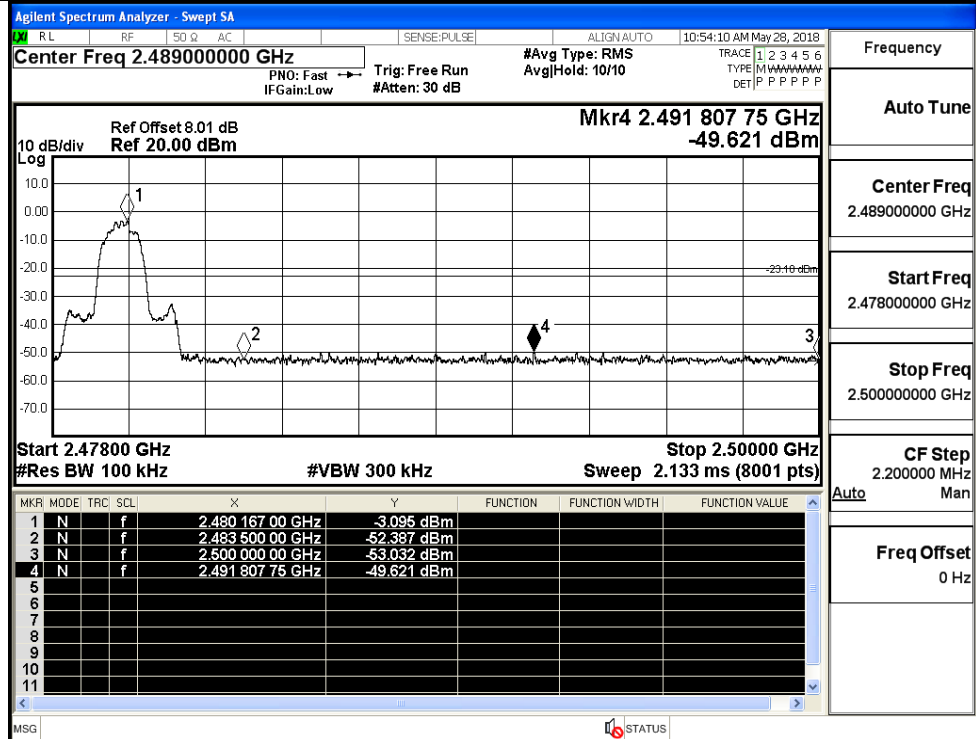
8DPSK/LCH/No Hop



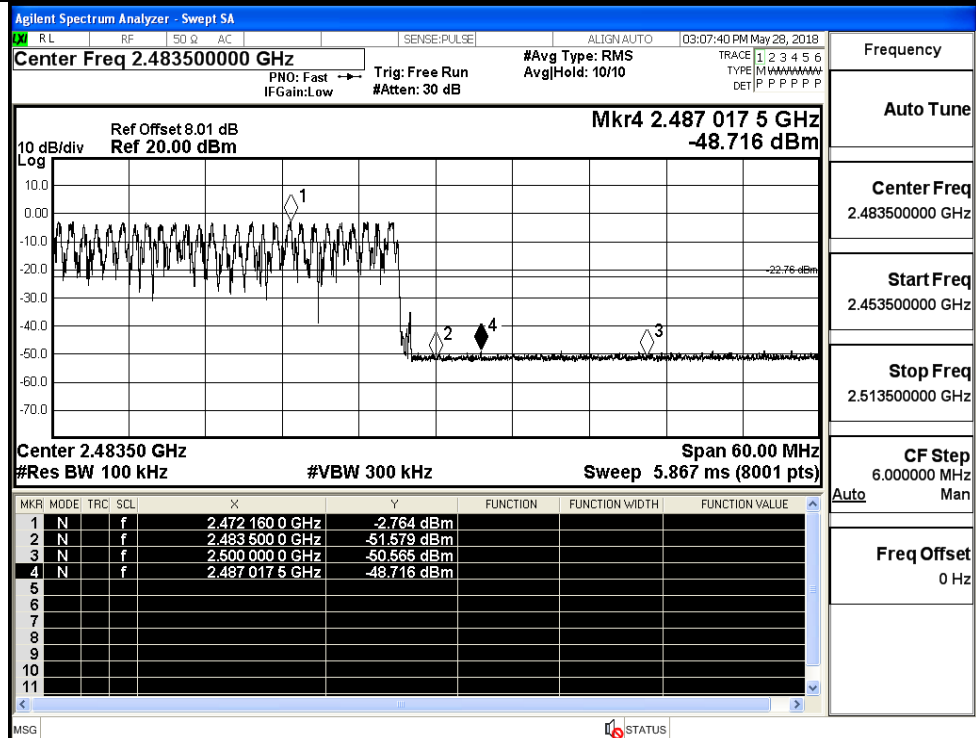
8DPSK/LCH/Hop



8DPSK/HCH/No Hop



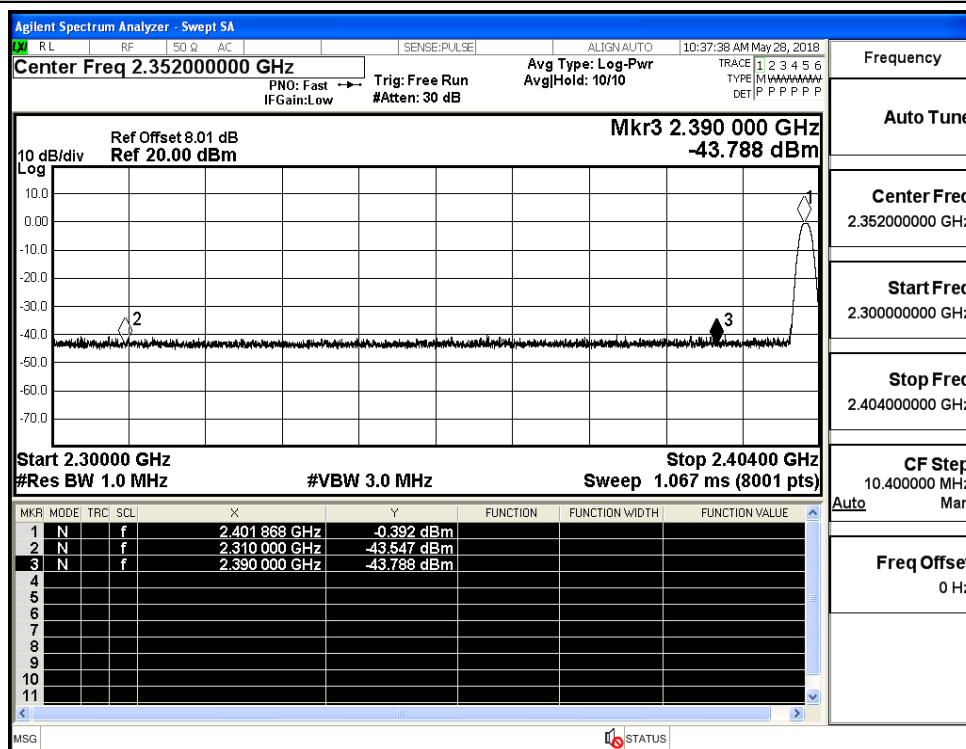
8DPSK/HCH/Hop



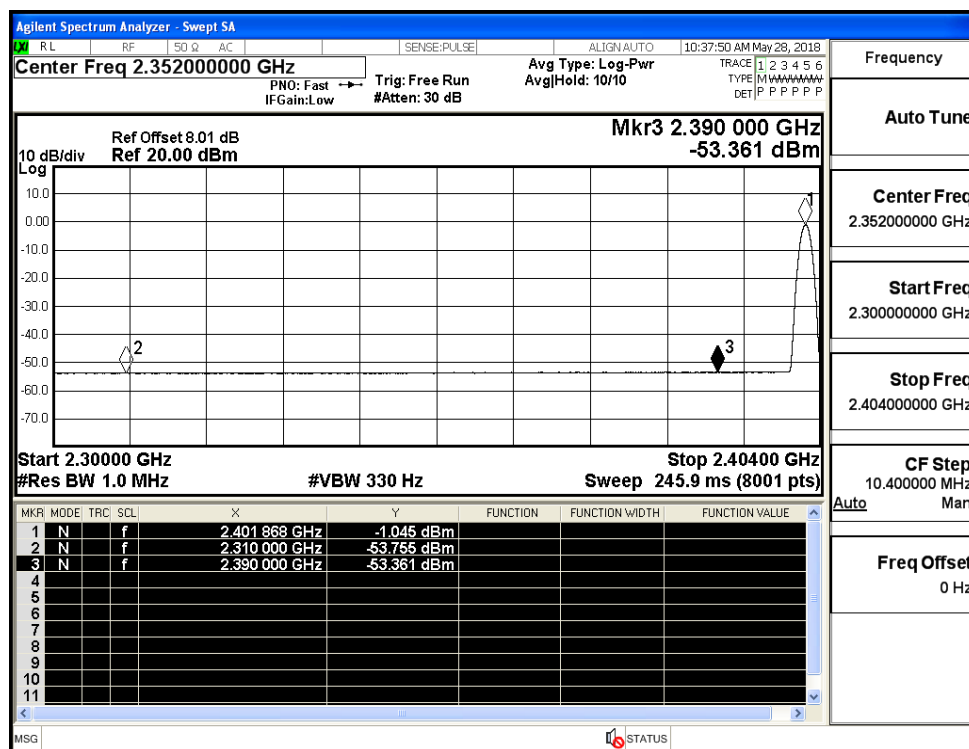
A.8 Restrict-band band-edge measurements

| Test Mode | Hopping | Freq. | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|---------------|---------|--------|-------------|------|---------------|------------|----------|----------------|---------|
| GFSK | Off | 2310.0 | -43.55 | 2.0 | 0 | 53.71 | PEAK | 74 | PASS |
| | Off | 2310.0 | -53.76 | 2.0 | 0 | 43.50 | AV | 54 | PASS |
| | Off | 2390.0 | -43.79 | 2.0 | 0 | 53.47 | PEAK | 74 | PASS |
| | Off | 2390.0 | -53.36 | 2.0 | 0 | 43.90 | AV | 54 | PASS |
| | Off | 2483.5 | -42.60 | 2.0 | 0 | 54.65 | PEAK | 74 | PASS |
| | Off | 2483.5 | -53.23 | 2.0 | 0 | 44.03 | AV | 54 | PASS |
| | Off | 2500.0 | -43.88 | 2.0 | 0 | 53.38 | PEAK | 74 | PASS |
| | Off | 2500.0 | -53.16 | 2.0 | 0 | 44.10 | AV | 54 | PASS |
| $\pi/4$ DQPSK | Off | 2310.0 | -42.39 | 2.0 | 0 | 54.87 | PEAK | 74 | PASS |
| | Off | 2310.0 | -53.72 | 2.0 | 0 | 43.54 | AV | 54 | PASS |
| | Off | 2390.0 | -43.25 | 2.0 | 0 | 54.01 | PEAK | 74 | PASS |
| | Off | 2390.0 | -53.46 | 2.0 | 0 | 43.79 | AV | 54 | PASS |
| | Off | 2483.5 | -42.29 | 2.0 | 0 | 54.96 | PEAK | 74 | PASS |
| | Off | 2483.5 | -53.16 | 2.0 | 0 | 44.10 | AV | 54 | PASS |
| | Off | 2500.0 | -42.77 | 2.0 | 0 | 54.49 | PEAK | 74 | PASS |
| | Off | 2500.0 | -53.09 | 2.0 | 0 | 44.16 | AV | 54 | PASS |
| 8DPSK | Off | 2310.0 | -44.01 | 2.0 | 0 | 53.25 | PEAK | 74 | PASS |
| | Off | 2310.0 | -53.81 | 2.0 | 0 | 43.45 | AV | 54 | PASS |
| | Off | 2390.0 | -43.00 | 2.0 | 0 | 54.26 | PEAK | 74 | PASS |
| | Off | 2390.0 | -53.46 | 2.0 | 0 | 43.80 | AV | 54 | PASS |
| | Off | 2483.5 | -42.44 | 2.0 | 0 | 54.82 | PEAK | 74 | PASS |
| | Off | 2483.5 | -53.14 | 2.0 | 0 | 44.12 | AV | 54 | PASS |
| | Off | 2500.0 | -43.60 | 2.0 | 0 | 53.66 | PEAK | 74 | PASS |
| | Off | 2500.0 | -53.08 | 2.0 | 0 | 44.17 | AV | 54 | PASS |

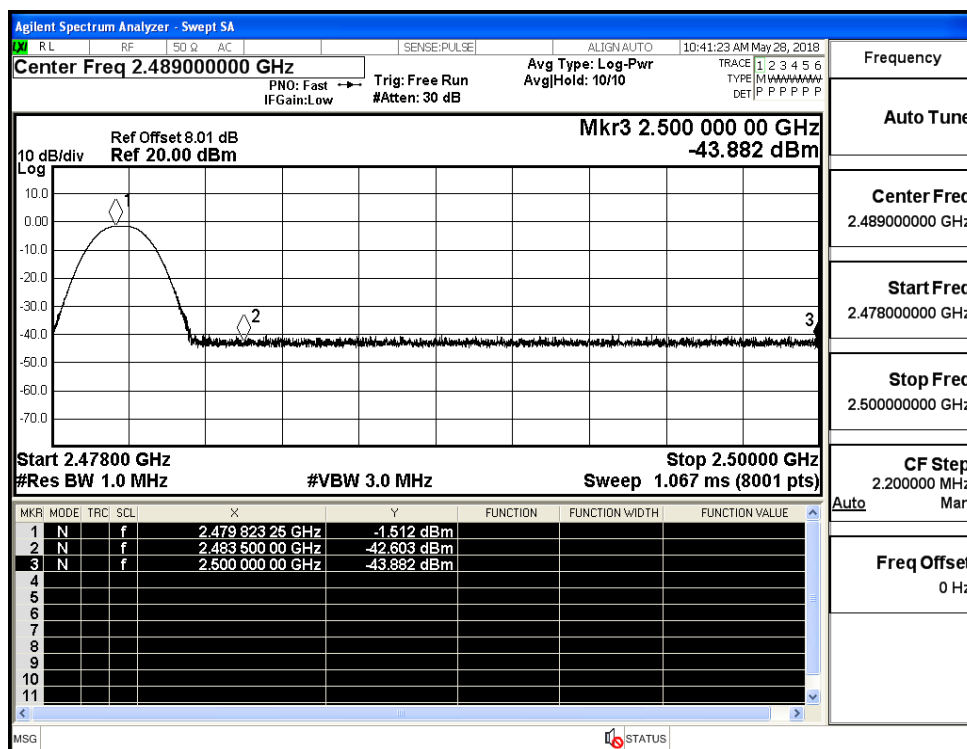
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



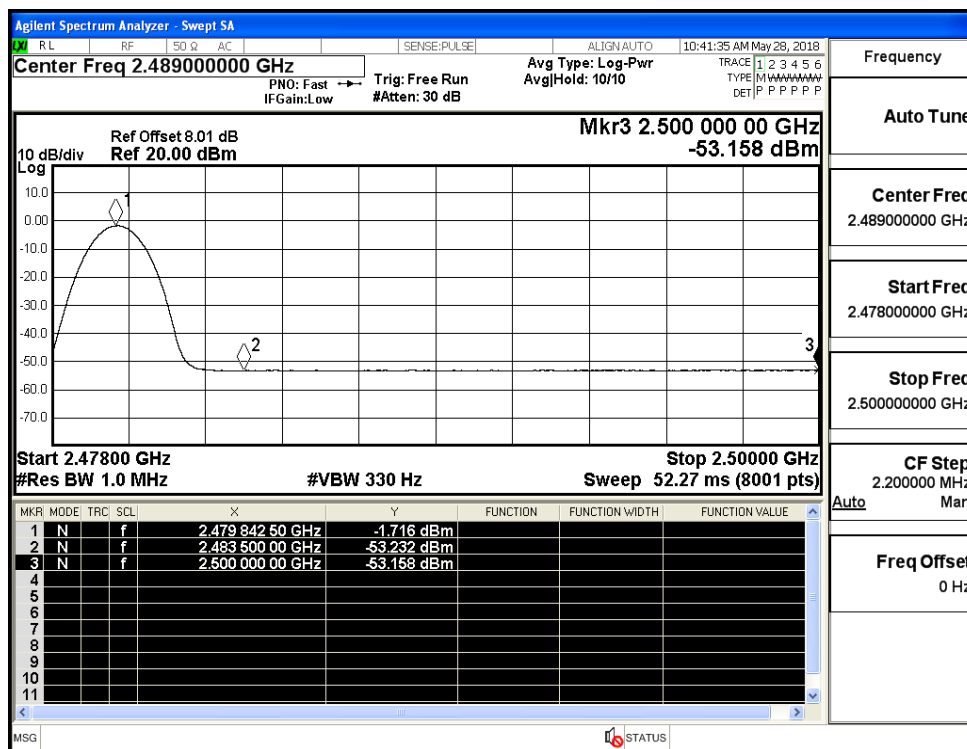
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)

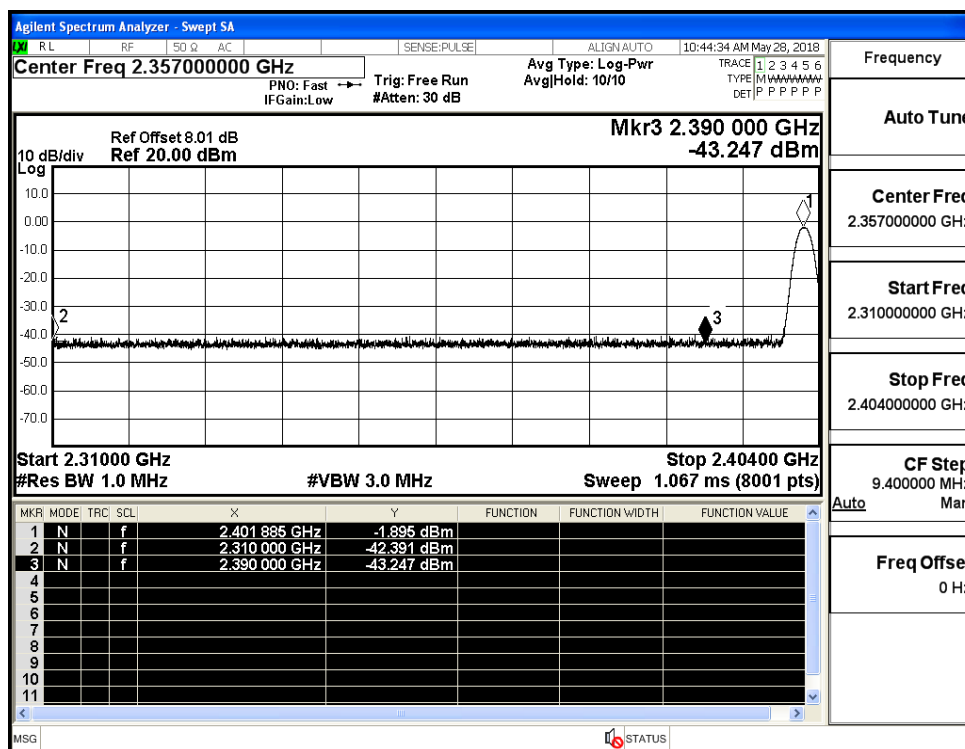
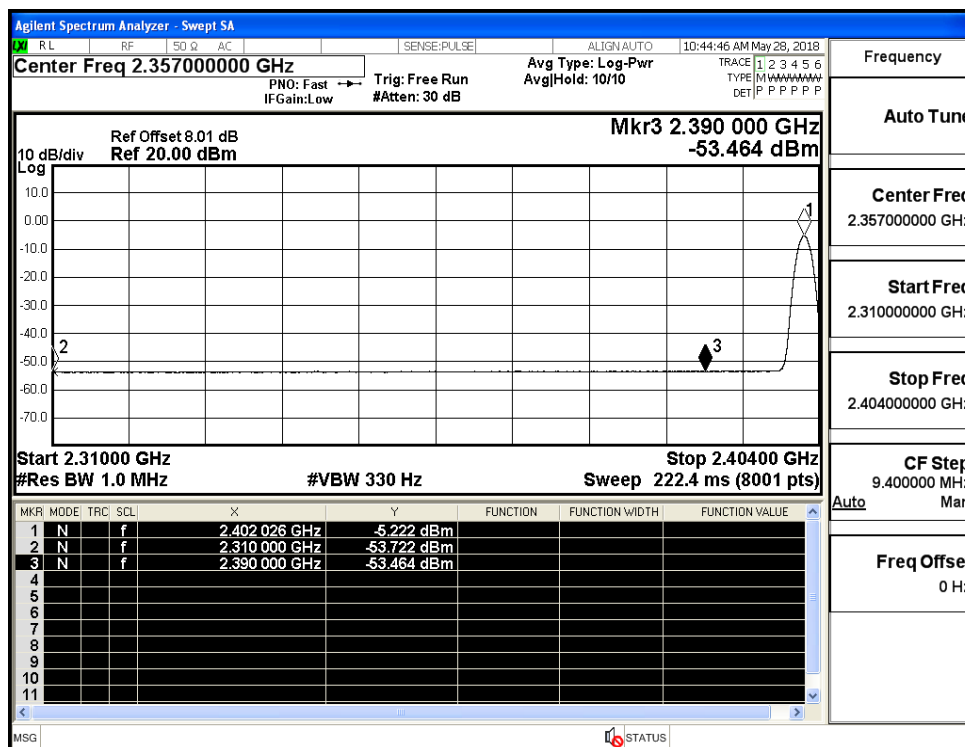


Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)

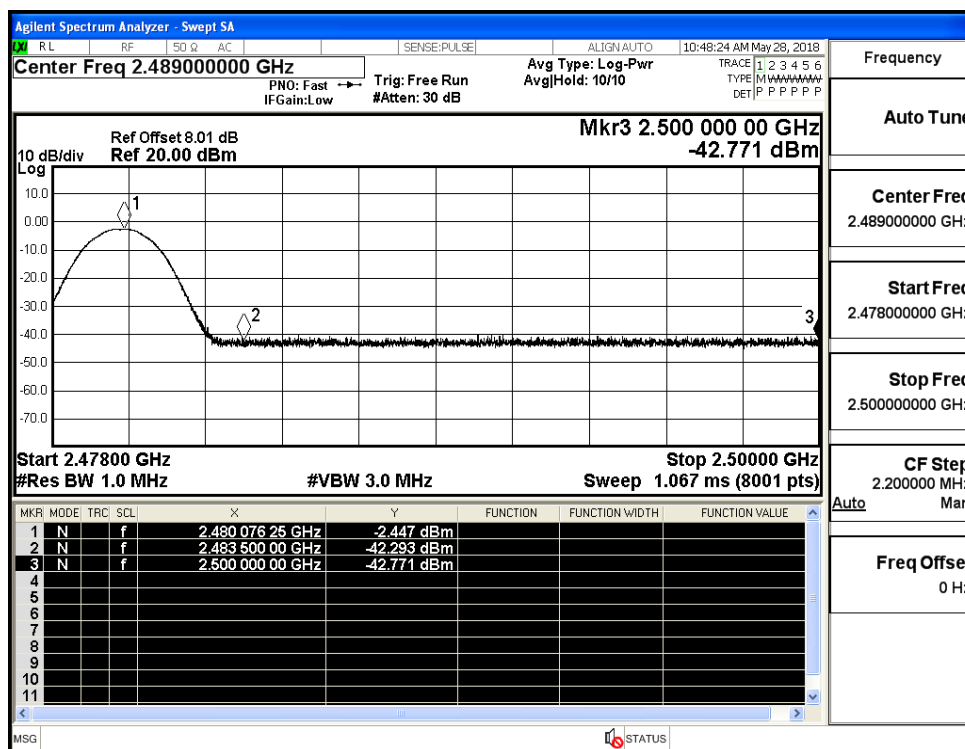


Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)

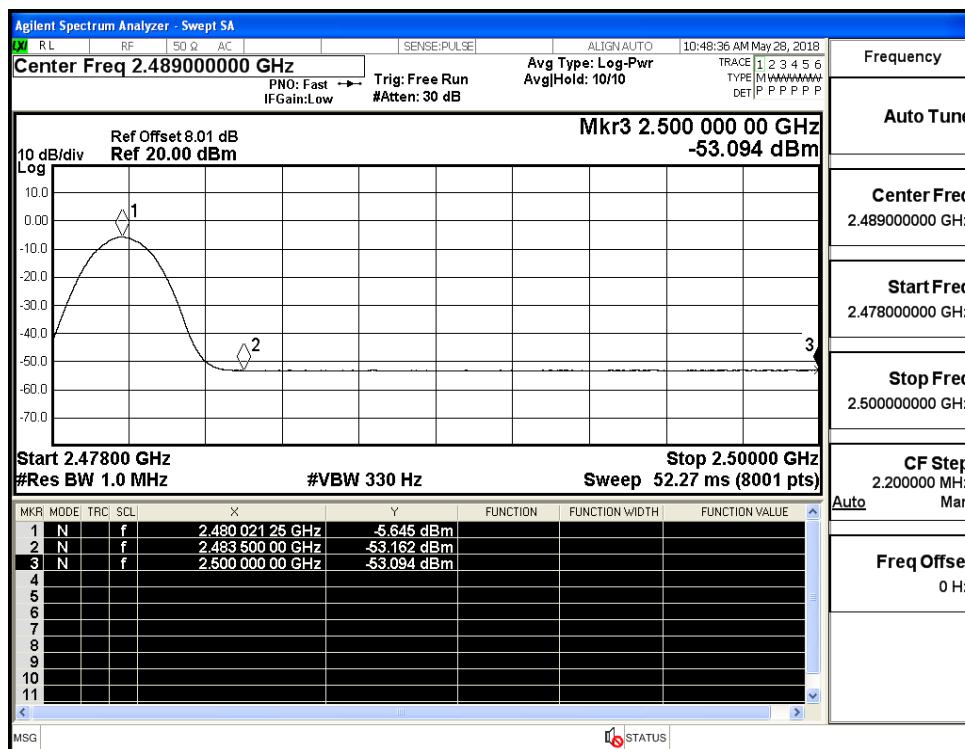


Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_PEAK (Low Channel)Restrict-band band-edge measurements_Hopping Off $\pi/4$ -DQPSK_Average (Low Channel)

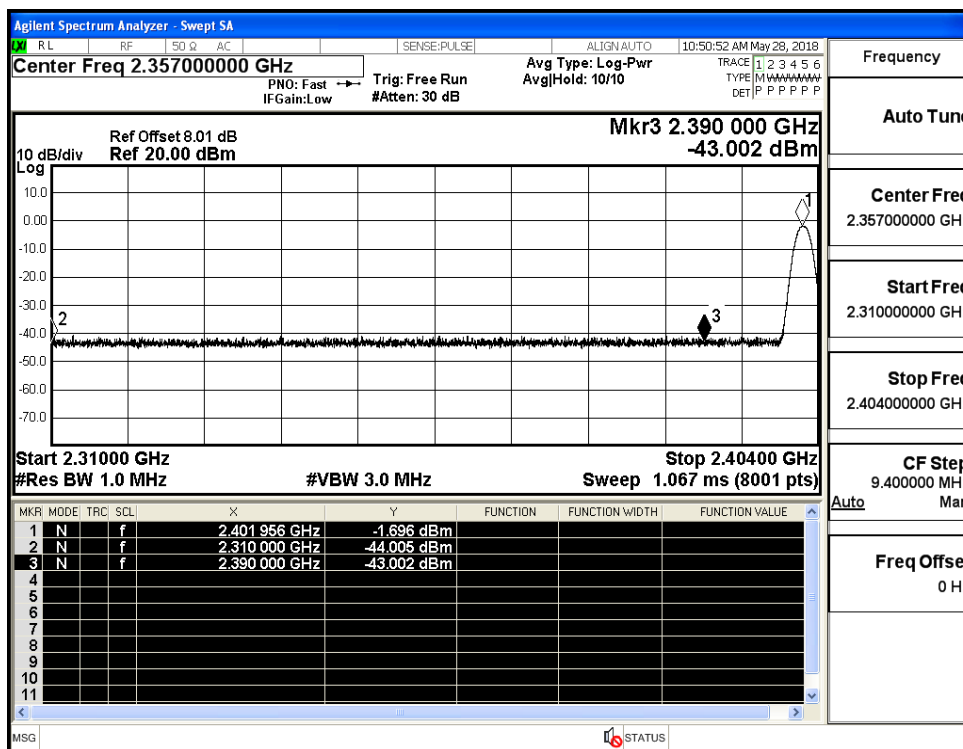
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



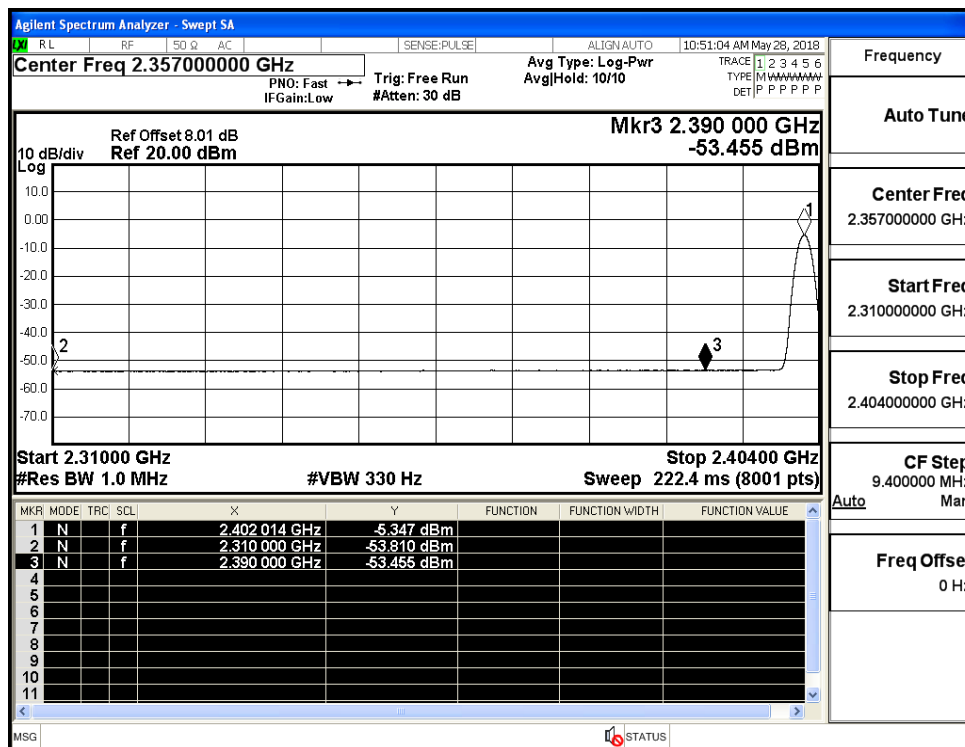
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



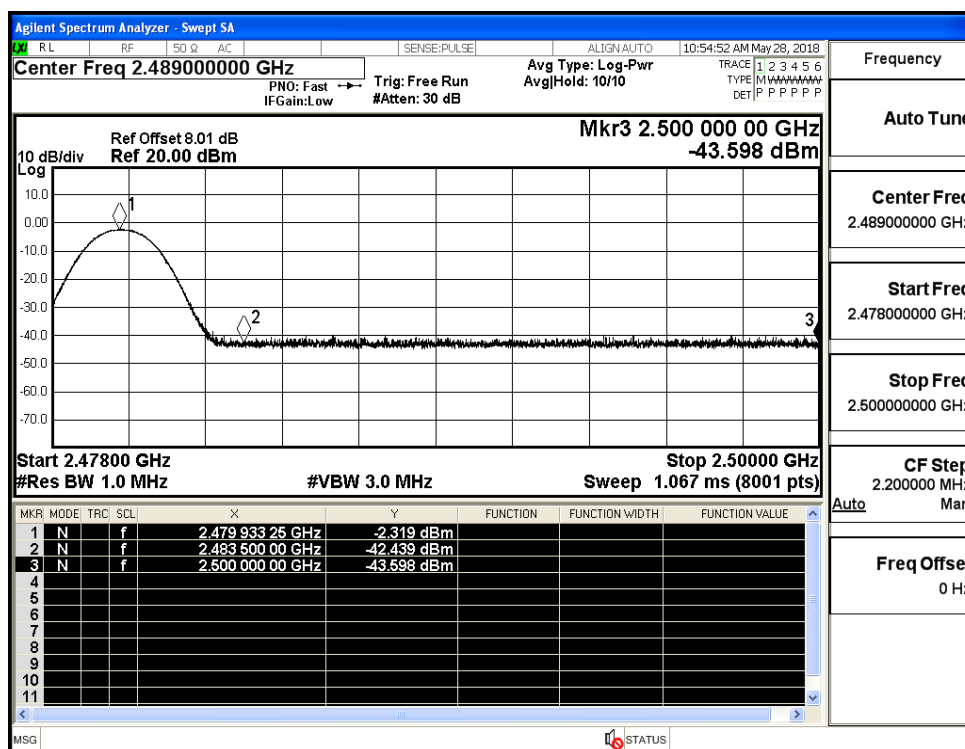
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



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)

