

## Appendix A

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

**Product Name:** 4G Smartphone

**Trade Mark:** Kenxinda, Ken mobile, KXD, E&L, EL

**Test Model:** T50

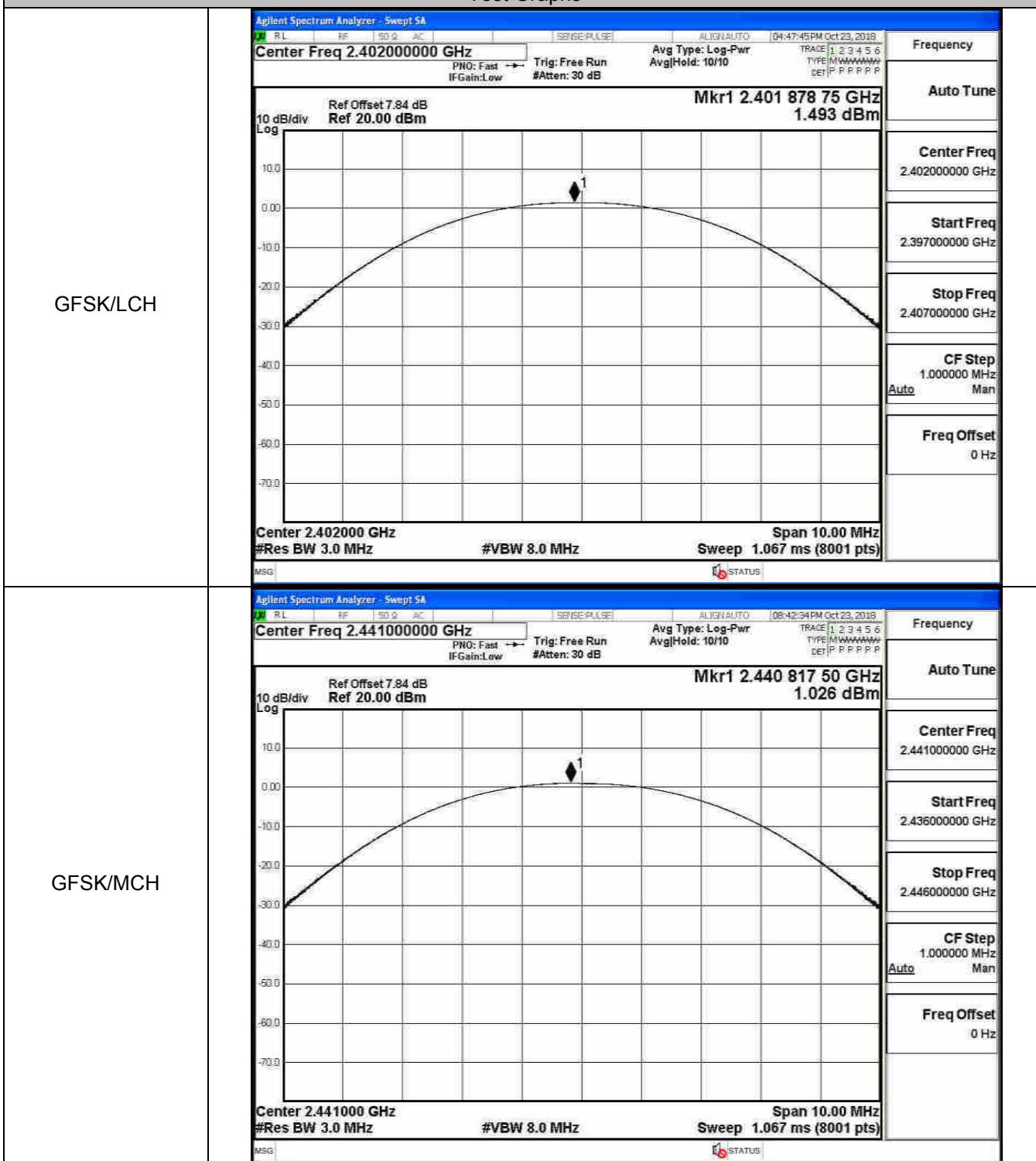
#### Environmental Conditions

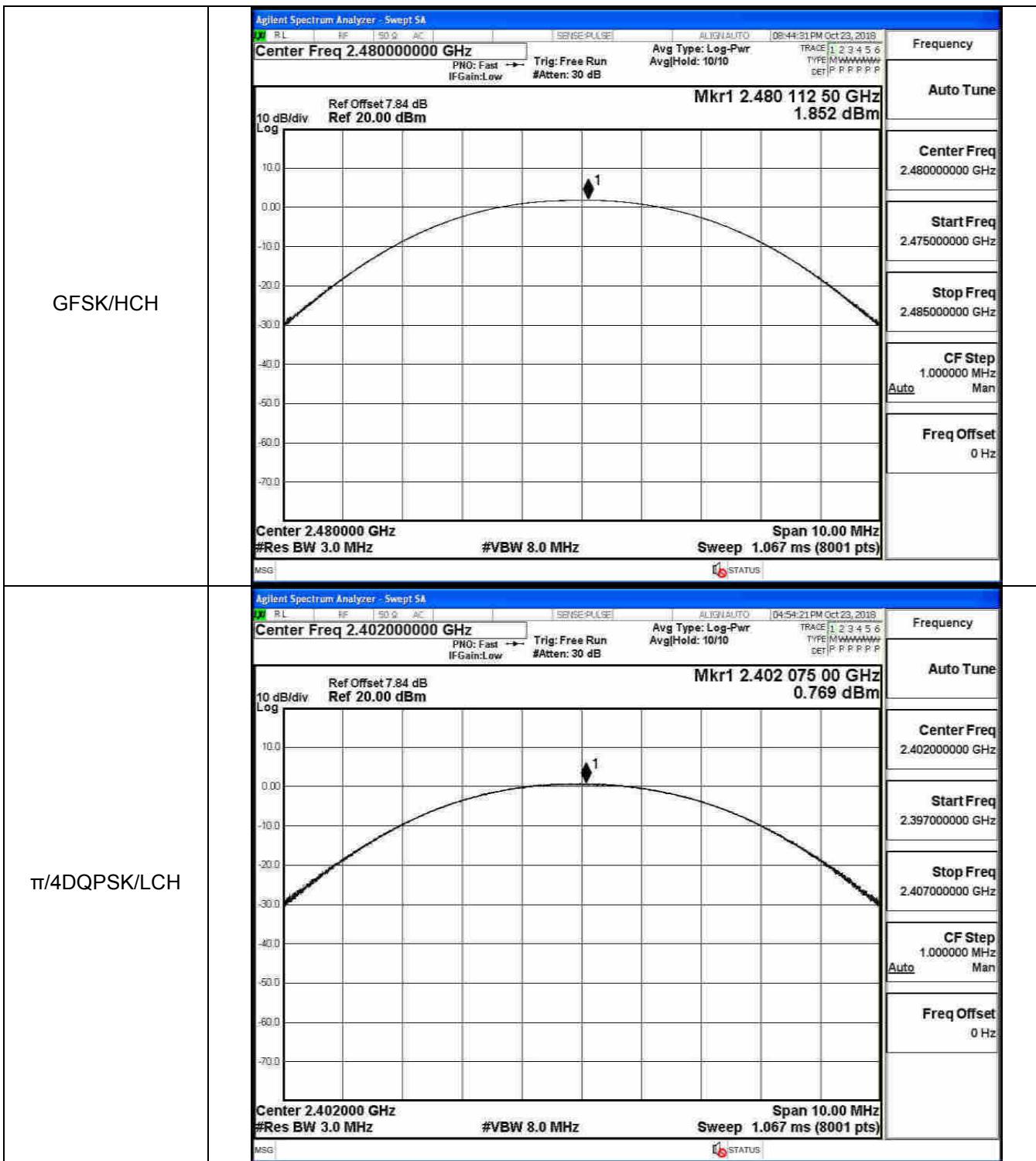
|                    |             |
|--------------------|-------------|
| Temperature:       | 23.4° C     |
| Relative Humidity: | 53.2%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | Tom.Liu     |
| Supervised by:     | Jayden.Zhuo |

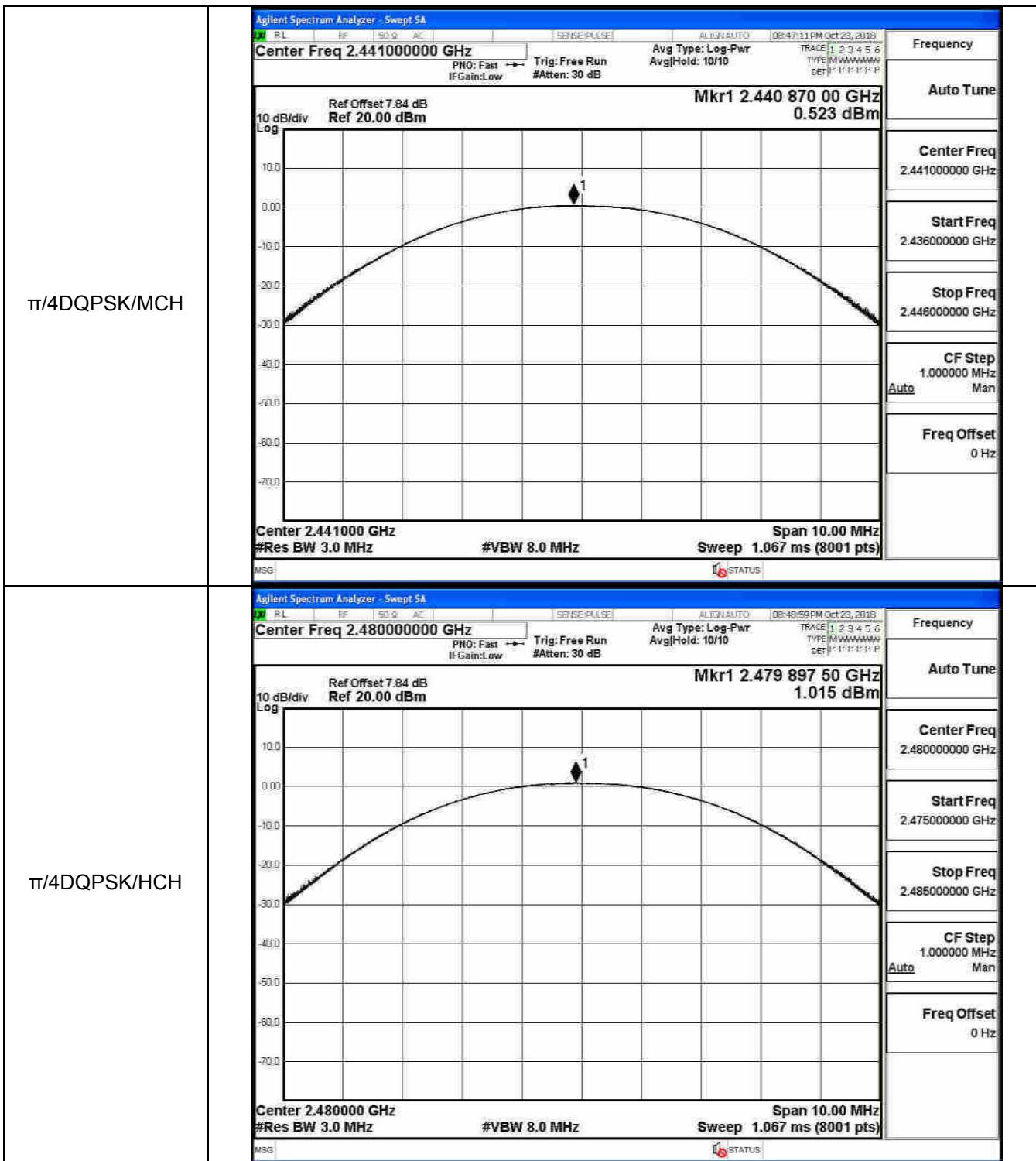
#### A.1 Maximum Conducted Peak Output Power

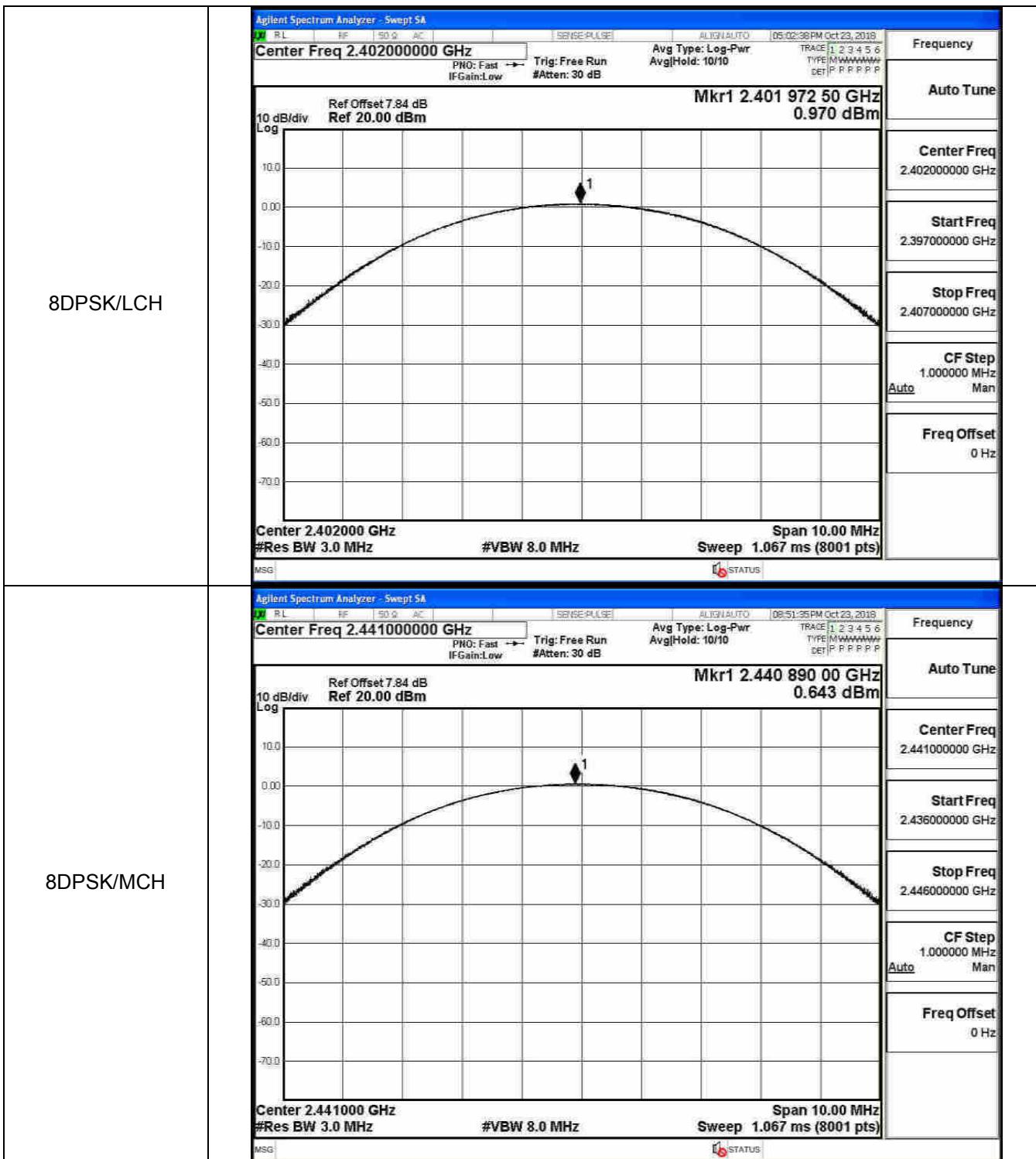
| Mode          | Channel. | Maximum Peak Output Power [dBm] | Limit [dBm] | Verdict |
|---------------|----------|---------------------------------|-------------|---------|
| GFSK          | LCH      | 1.493                           | 21          | PASS    |
|               | MCH      | 1.026                           | 21          | PASS    |
|               | HCH      | 1.852                           | 21          | PASS    |
| $\pi/4$ DQPSK | LCH      | 0.769                           | 21          | PASS    |
|               | MCH      | 0.523                           | 21          | PASS    |
|               | HCH      | 1.015                           | 21          | PASS    |
| 8DPSK         | LCH      | 0.970                           | 21          | PASS    |
|               | MCH      | 0.643                           | 21          | PASS    |
|               | HCH      | 1.048                           | 21          | PASS    |

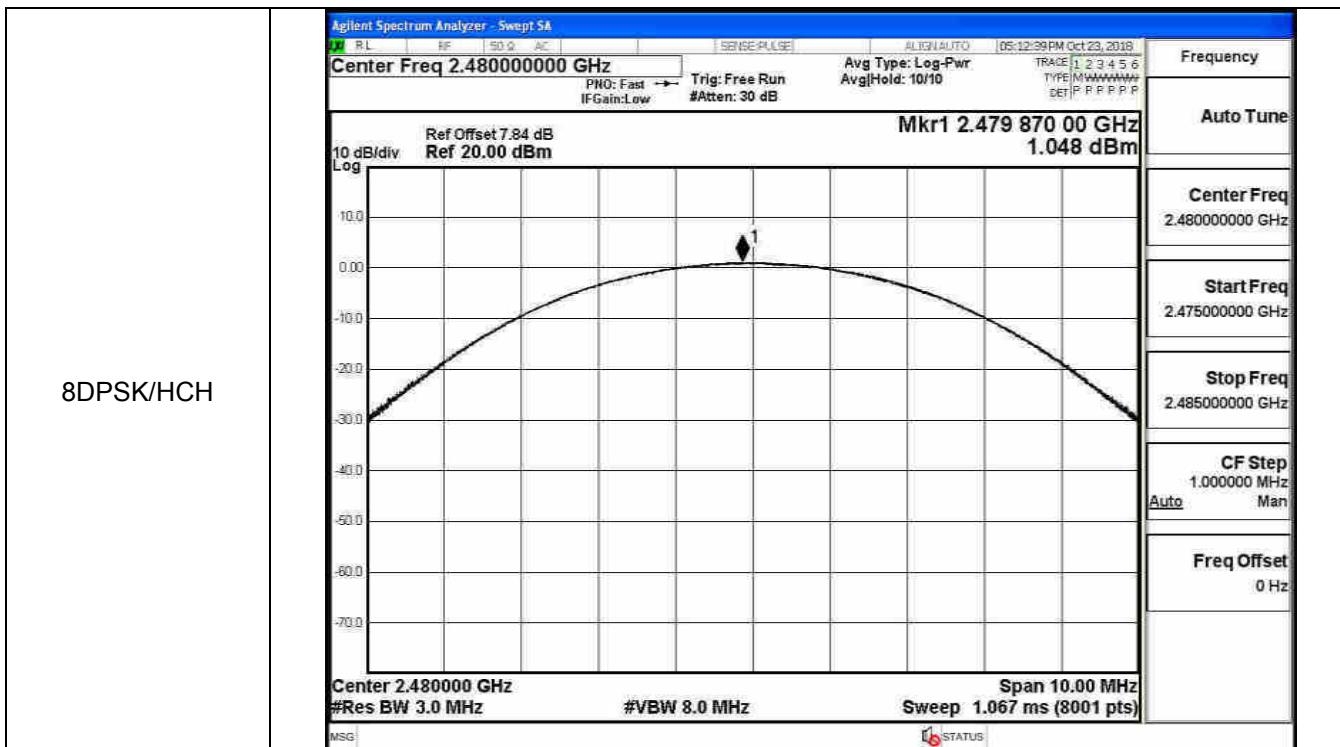
## Test Graphs





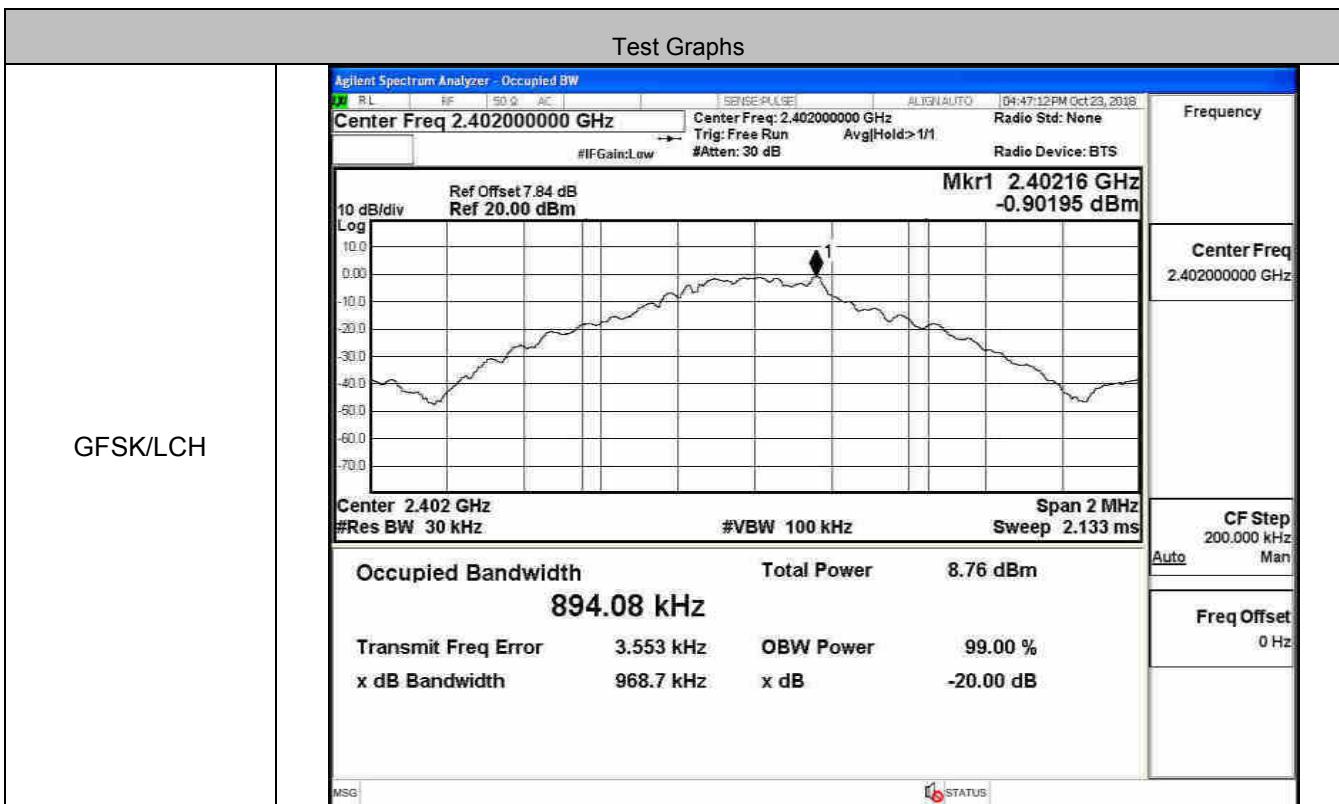


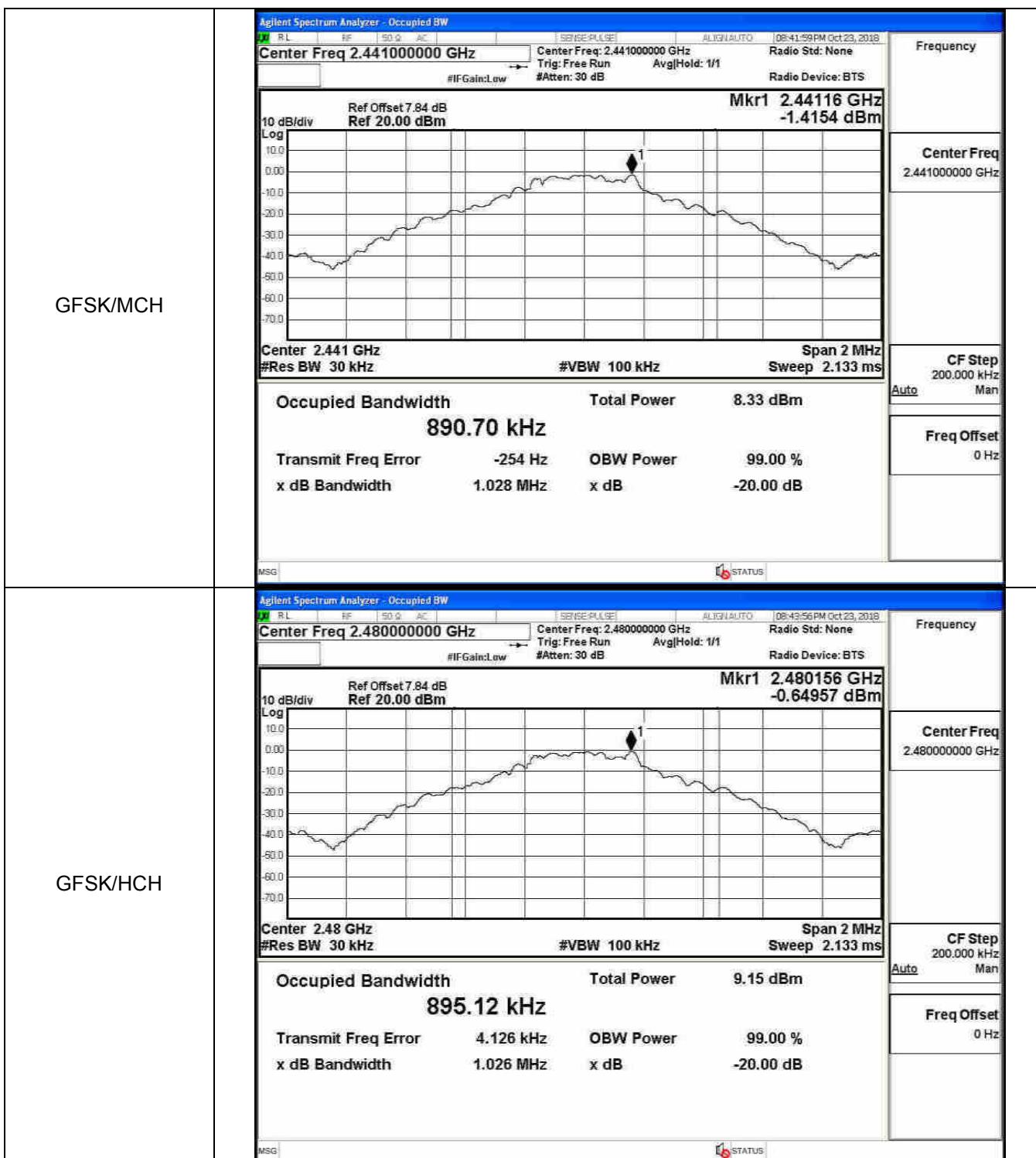


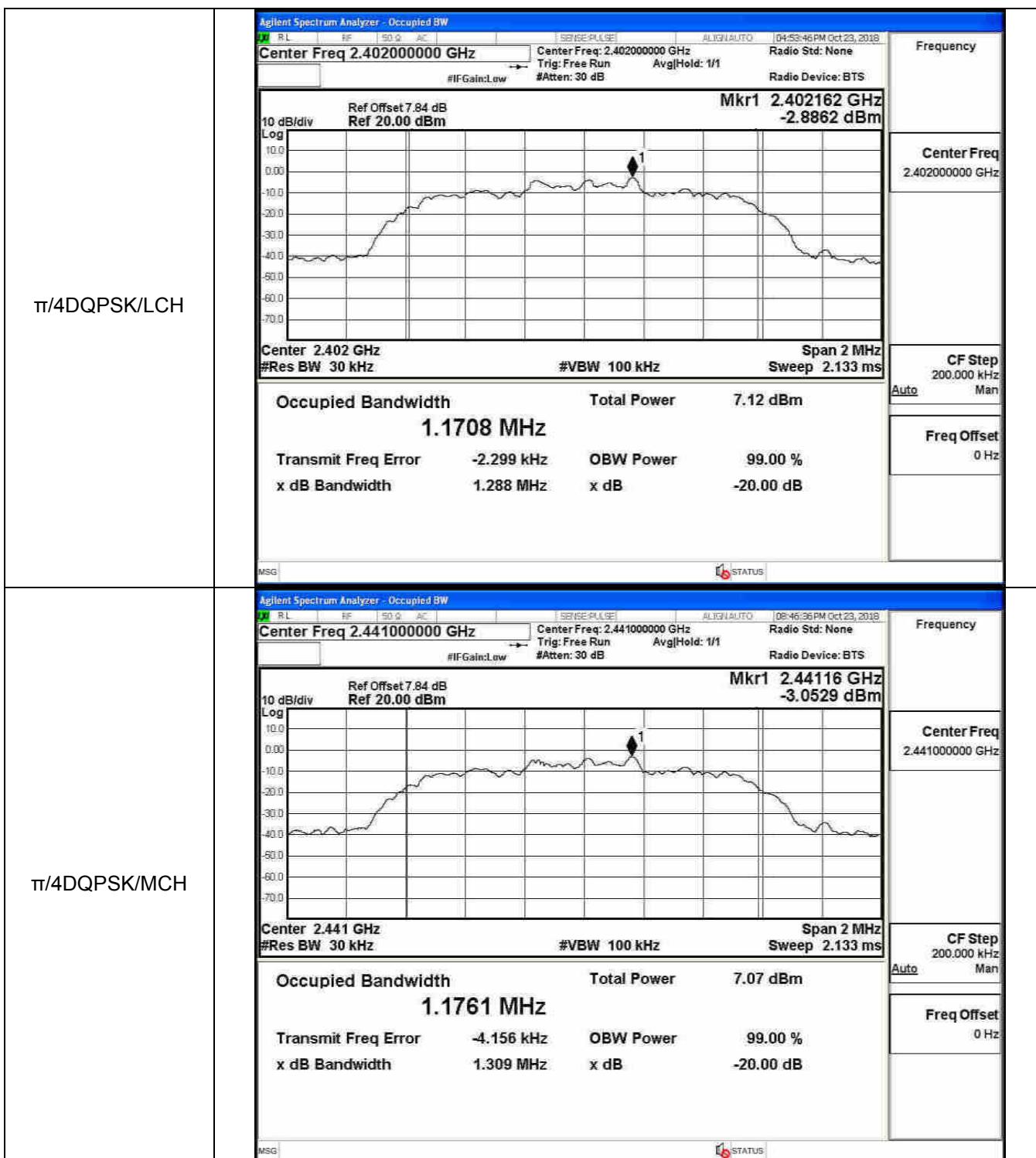


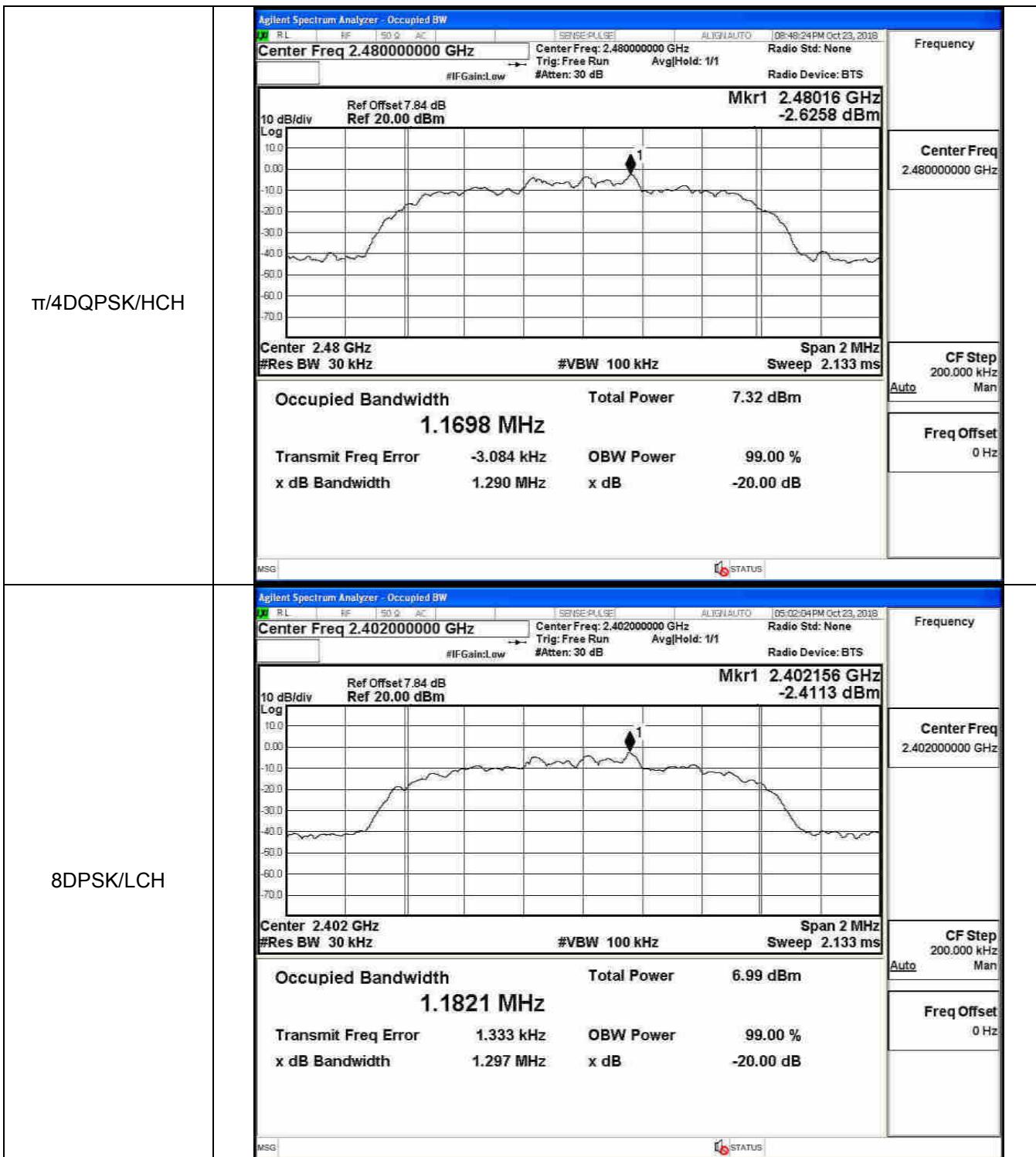
## A.2 20dB Bandwidth

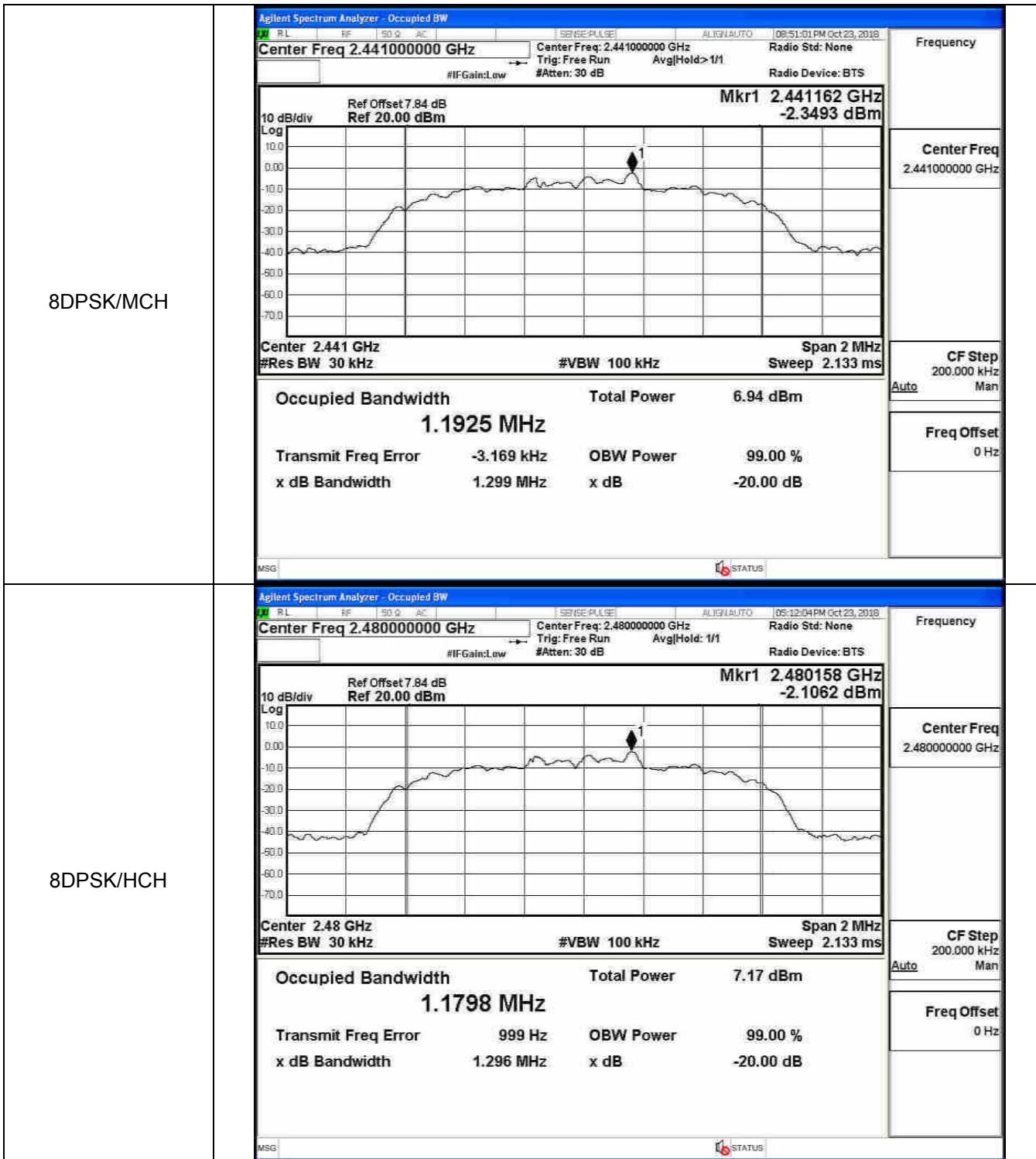
| Mode          | Channel. | 20dB Bandwidth [MHz] | Limit [MHz]   | Verdict |
|---------------|----------|----------------------|---------------|---------|
| GFSK          | LCH      | 0.9687               | Not Specified | PASS    |
|               | MCH      | 1.028                | Not Specified | PASS    |
|               | HCH      | 1.026                | Not Specified | PASS    |
| $\pi/4$ DQPSK | LCH      | 1.288                | Not Specified | PASS    |
|               | MCH      | 1.309                | Not Specified | PASS    |
|               | HCH      | 1.290                | Not Specified | PASS    |
| 8DPSK         | LCH      | 1.297                | Not Specified | PASS    |
|               | MCH      | 1.299                | Not Specified | PASS    |
|               | HCH      | 1.296                | Not Specified | PASS    |





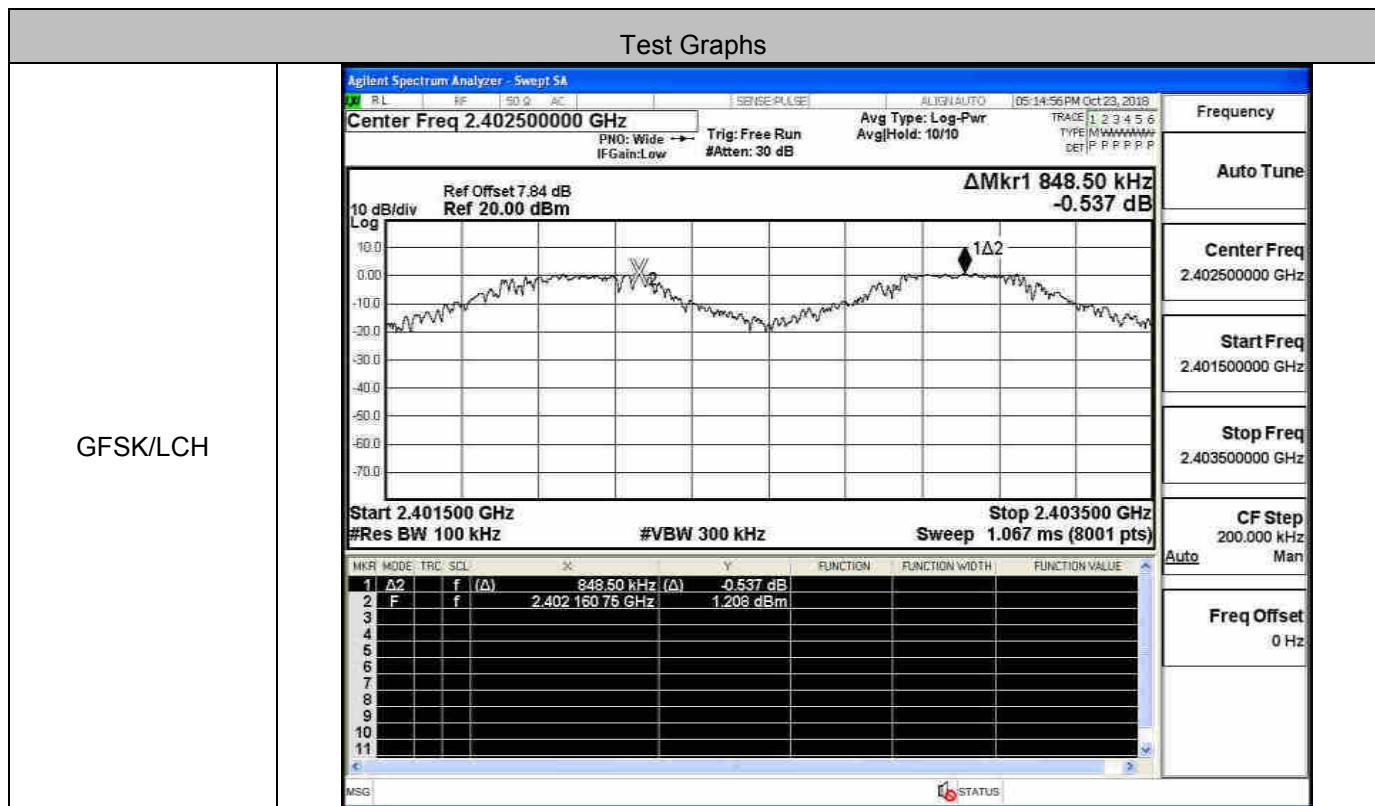


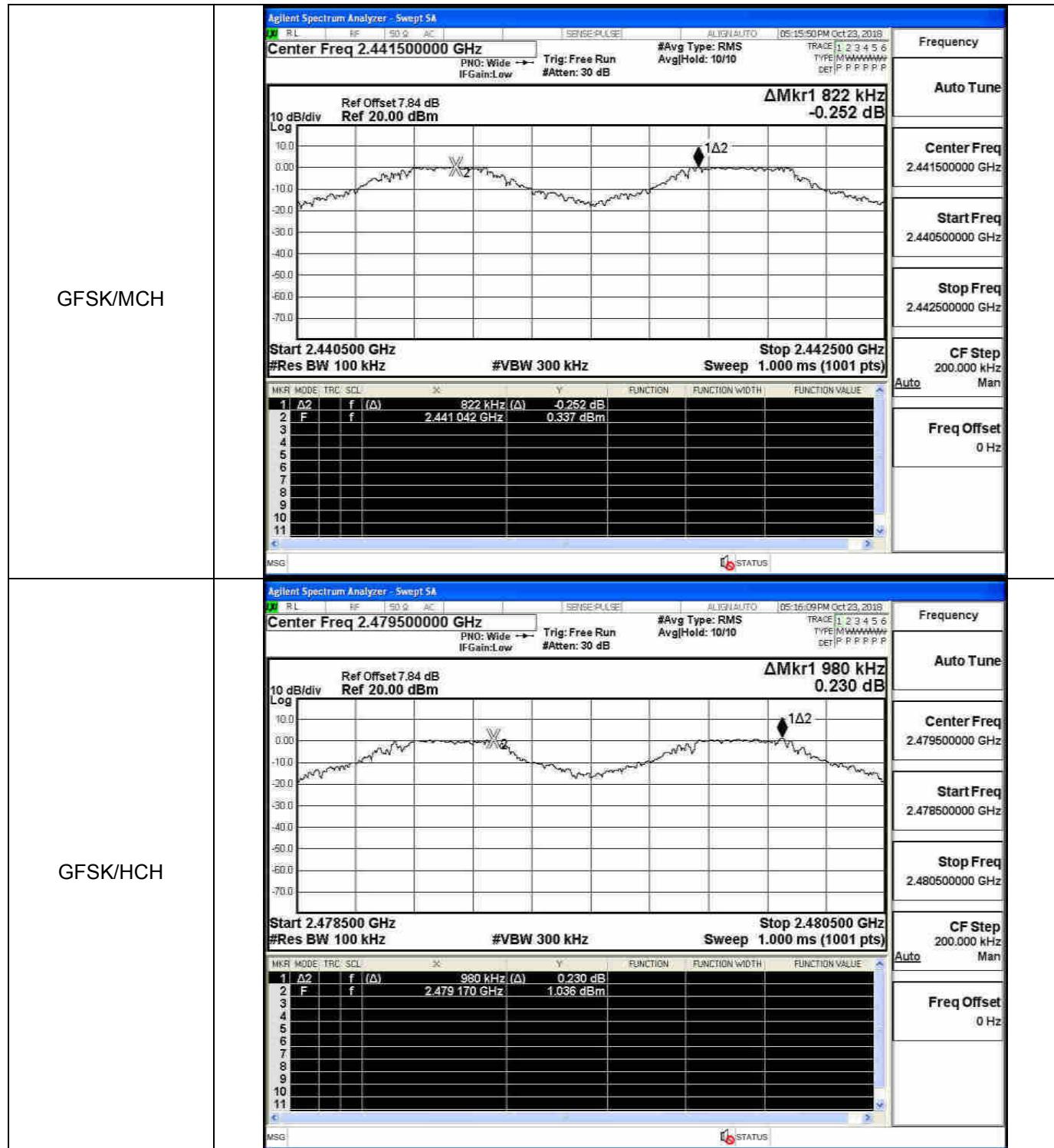


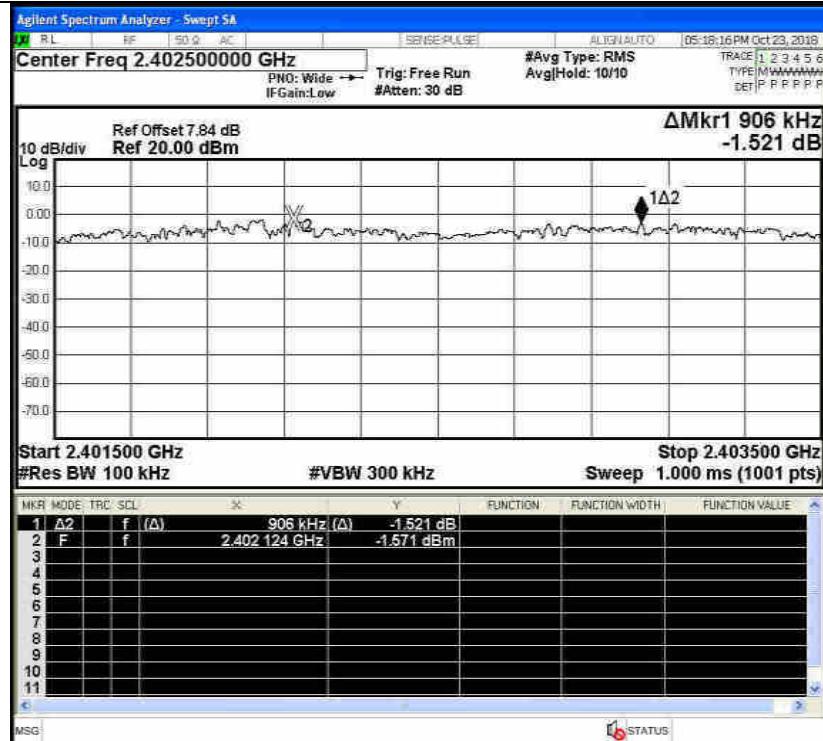
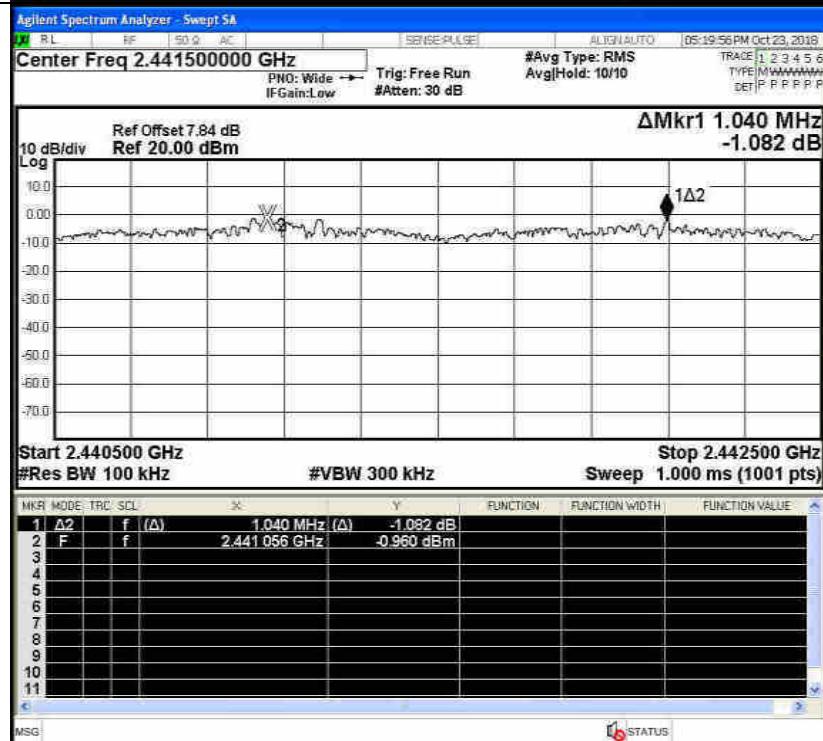


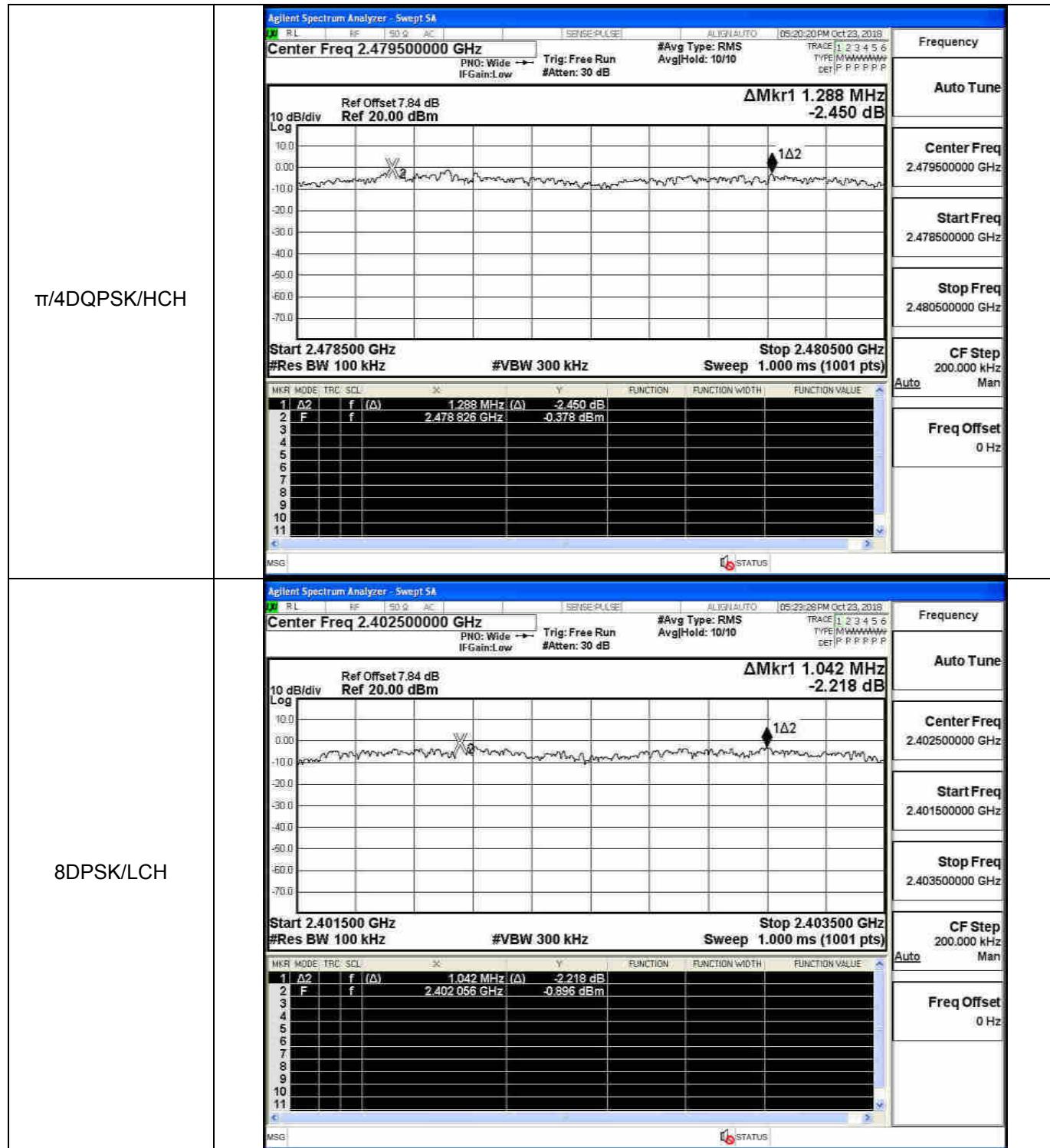
### A.3 Carrier Frequency Separation

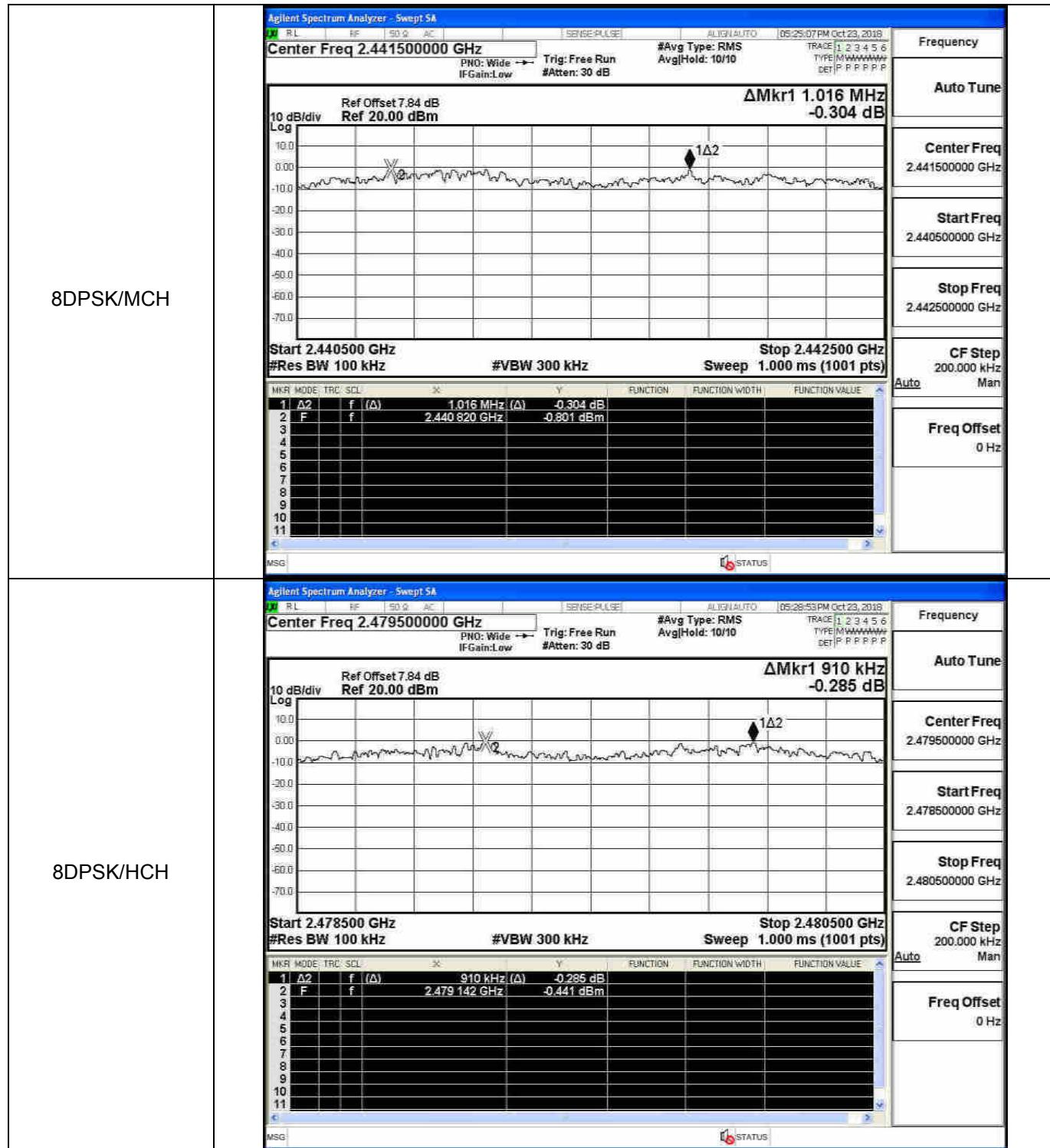
| Mode          | Channel. | Carrier Frequency Separation [MHz] | Limit [MHz] | Verdict |
|---------------|----------|------------------------------------|-------------|---------|
| GFSK          | LCH      | 0.849                              | 0.680       | PASS    |
|               | MCH      | 0.822                              | 0.680       | PASS    |
|               | HCH      | 0.980                              | 0.680       | PASS    |
| $\pi/4$ DQPSK | LCH      | 0.906                              | 0.873       | PASS    |
|               | MCH      | 1.040                              | 0.873       | PASS    |
|               | HCH      | 1.288                              | 0.873       | PASS    |
| 8DPSK         | LCH      | 1.042                              | 0.865       | PASS    |
|               | MCH      | 1.016                              | 0.865       | PASS    |
|               | HCH      | 0.910                              | 0.865       | PASS    |





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



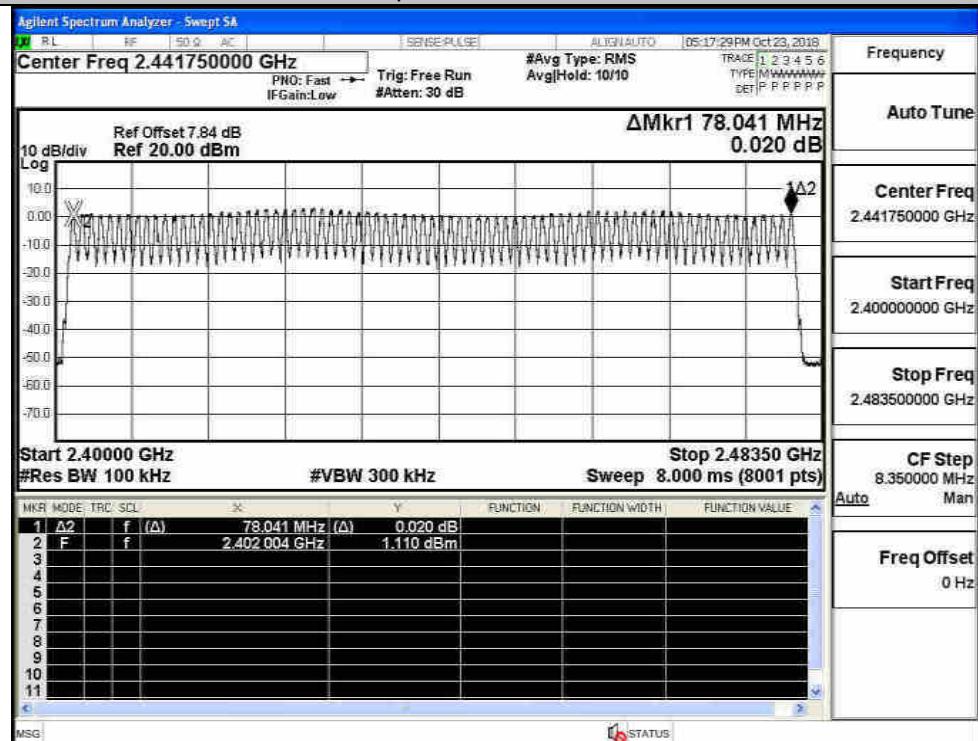


#### A.4 Hopping Channel Number

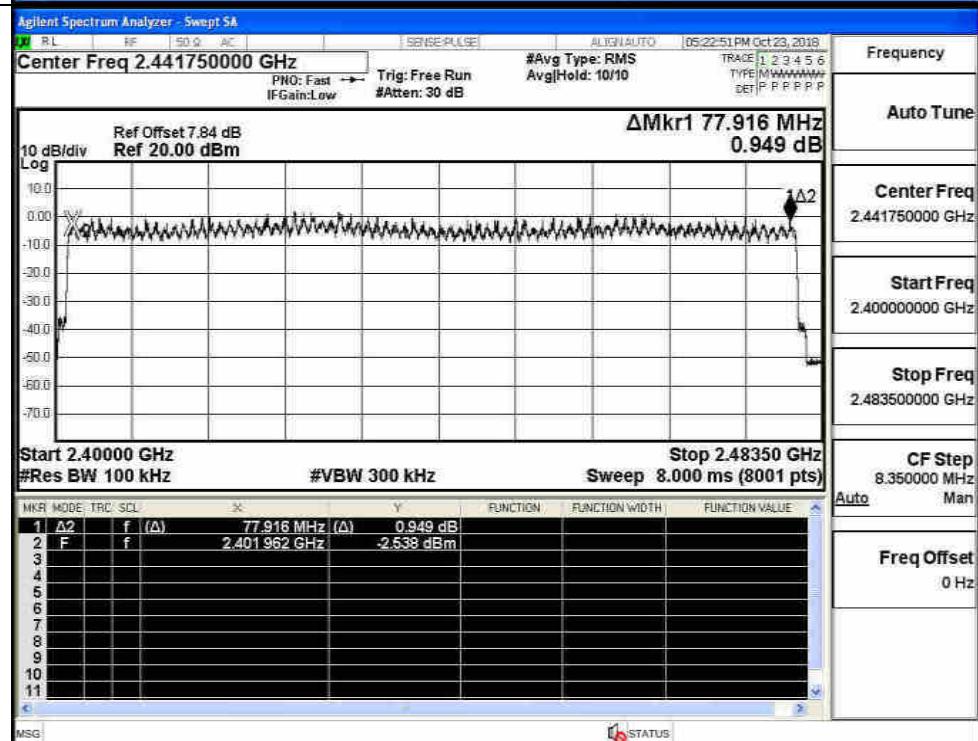
| Mode     | Channel. | Number of Hopping Channel [N] | Limit [N] | Verdict |
|----------|----------|-------------------------------|-----------|---------|
| GFSK     | Hop      | 79                            | >=15      | PASS    |
| π/4DQPSK | Hop      | 79                            | >=15      |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

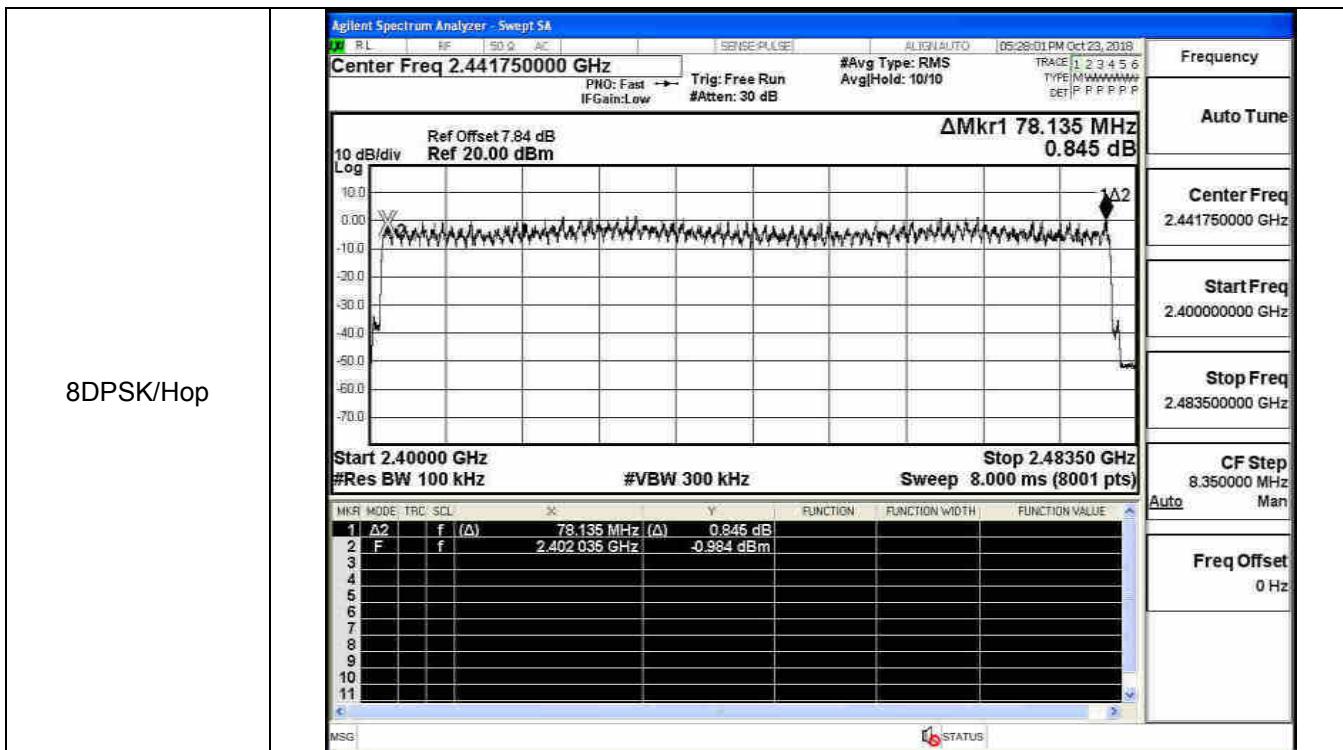
## Test Graphs

GFSK/Hop



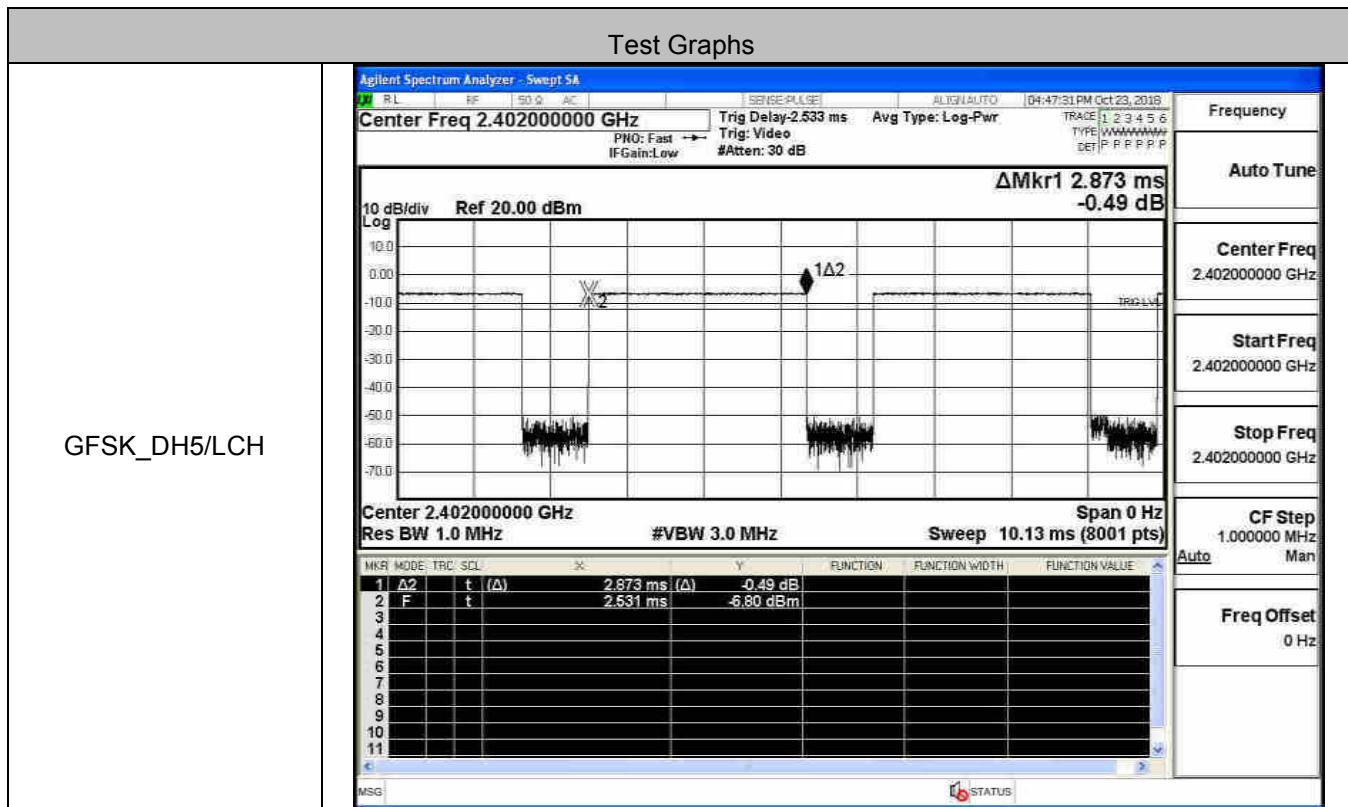
π/4DQPSK/Hop

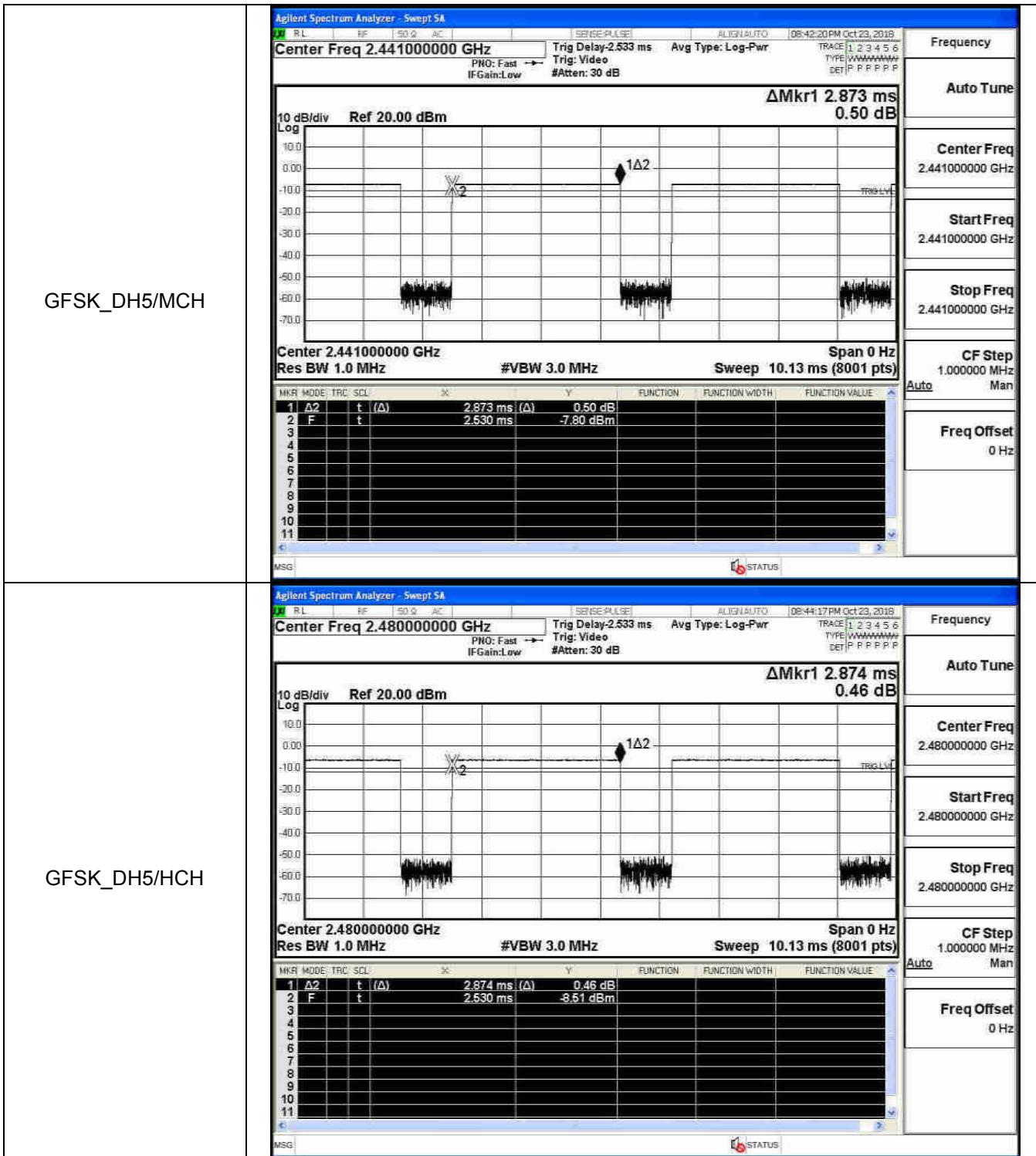




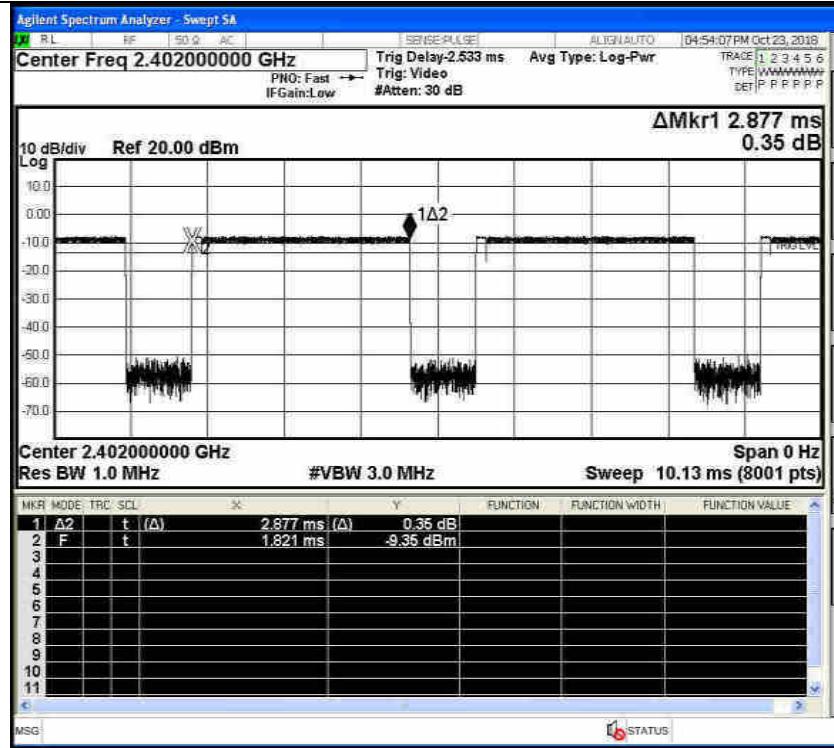
## A.5 Dwell Time

| Mode          | Packet | Channel | Burst Width<br>[ms/hop/ch] | Total<br>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    |
| $\pi/4$ DQPSK | 2DH5   | LCH     | 2.87                       | 106.7                 | 0.307         | 0.4       | PASS    |
|               | 2DH5   | MCH     | 2.87                       | 106.7                 | 0.307         | 0.4       | PASS    |
|               | 2DH5   | HCH     | 2.87                       | 106.7                 | 0.307         | 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    |



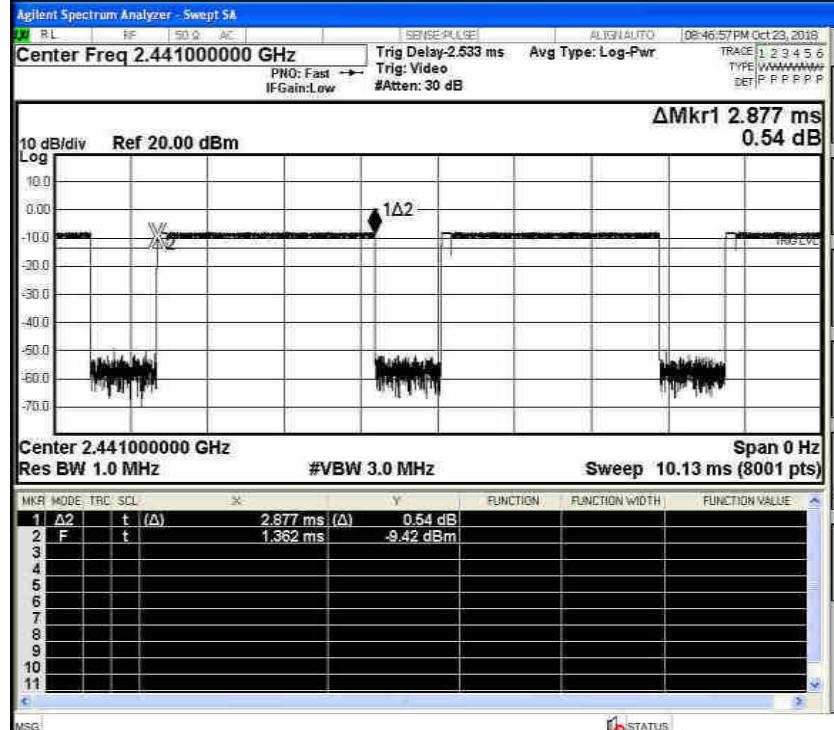


$\pi/4$ DQPSK  
\_2DH5/LCH



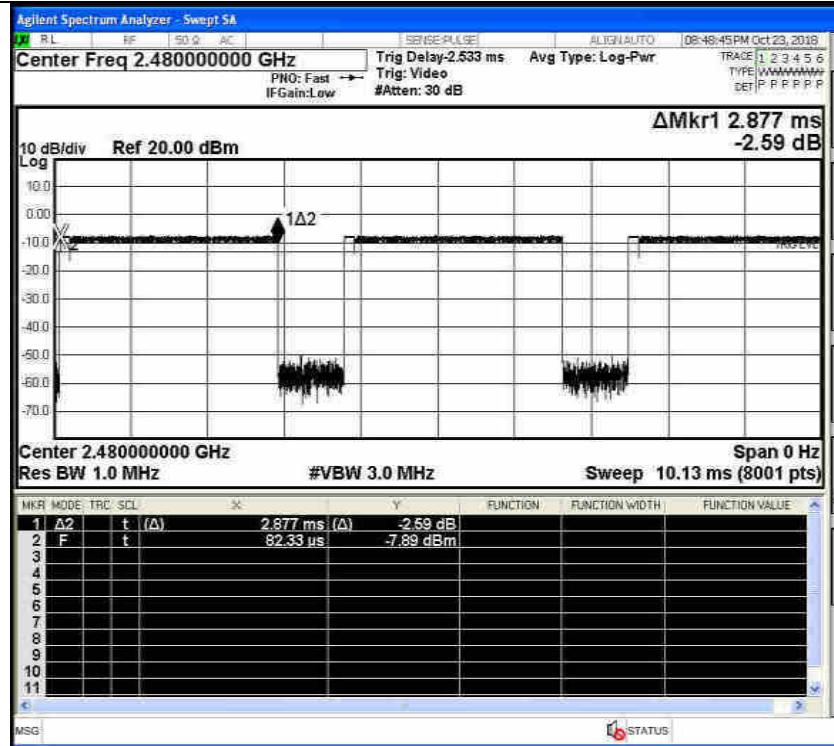
|                 |
|-----------------|
| Frequency       |
| Auto Tune       |
| Center Freq     |
| 2.402000000 GHz |
| Start Freq      |
| 2.402000000 GHz |
| Stop Freq       |
| 2.402000000 GHz |
| CF Step         |
| 1.000000 MHz    |
| Auto Man        |
| Freq Offset     |
| 0 Hz            |

$\pi/4$ DQPSK  
\_2DH5/MCH



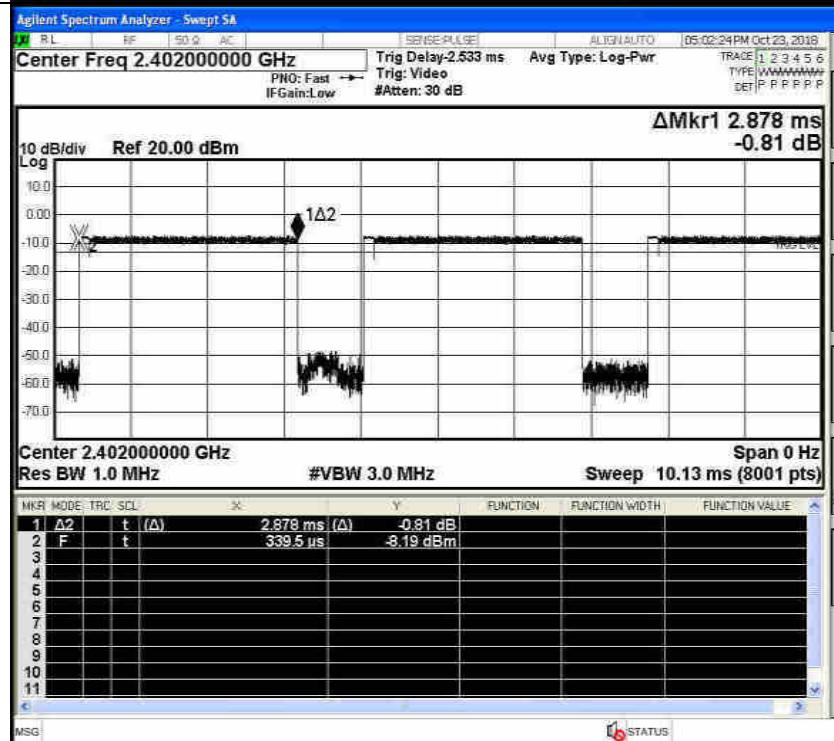
|                 |
|-----------------|
| Frequency       |
| Auto Tune       |
| Center Freq     |
| 2.441000000 GHz |
| Start Freq      |
| 2.441000000 GHz |
| Stop Freq       |
| 2.441000000 GHz |
| CF Step         |
| 1.000000 MHz    |
| Auto Man        |
| Freq Offset     |
| 0 Hz            |

$\pi/4$ DQPSK  
\_2DH5/HCH

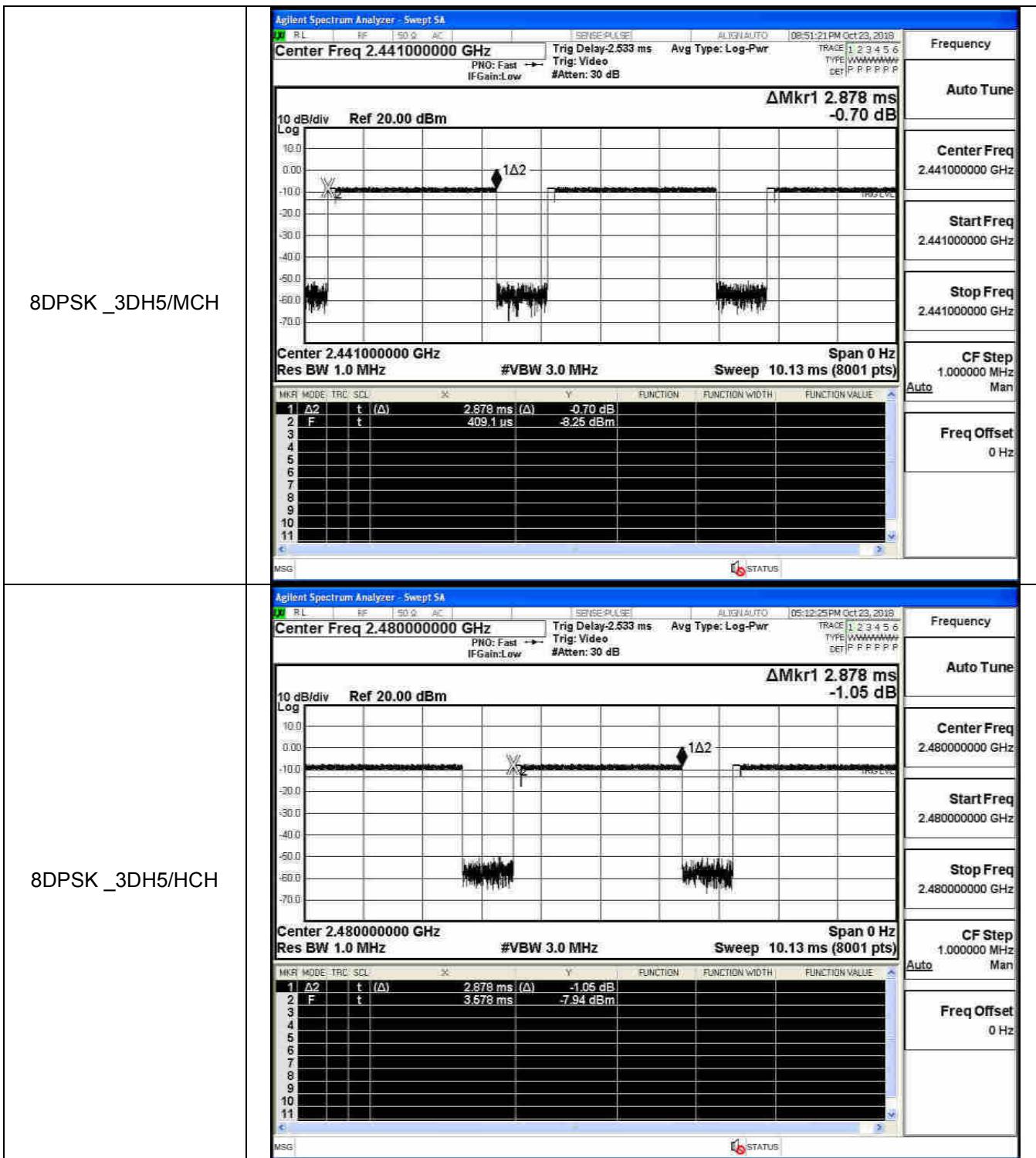


|                 |
|-----------------|
| Frequency       |
| Auto Tune       |
| Center Freq     |
| 2.480000000 GHz |
| Start Freq      |
| 2.480000000 GHz |
| Stop Freq       |
| 2.480000000 GHz |
| CF Step         |
| 1.000000 MHz    |
| Auto            |
| Man             |
| Freq Offset     |
|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

8DPSK \_3DH5/LCH

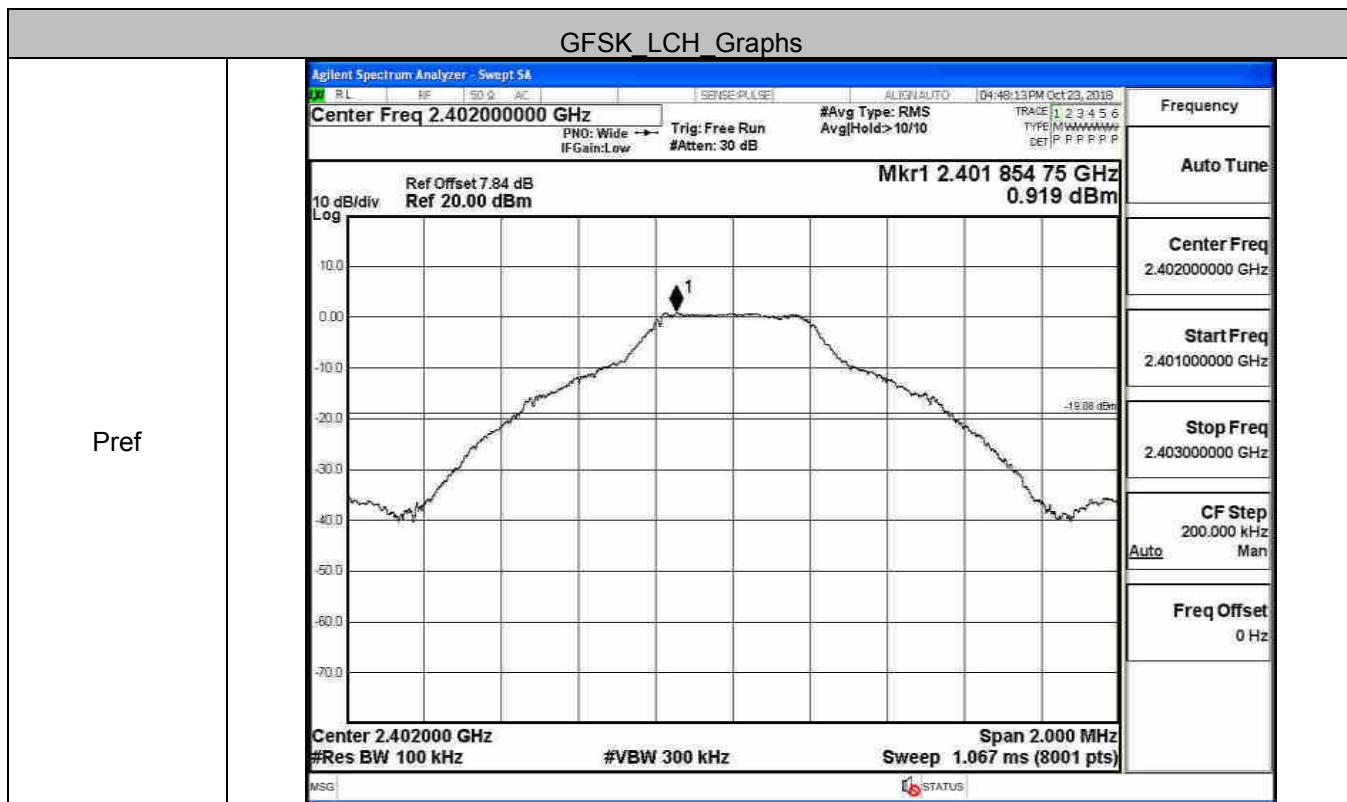


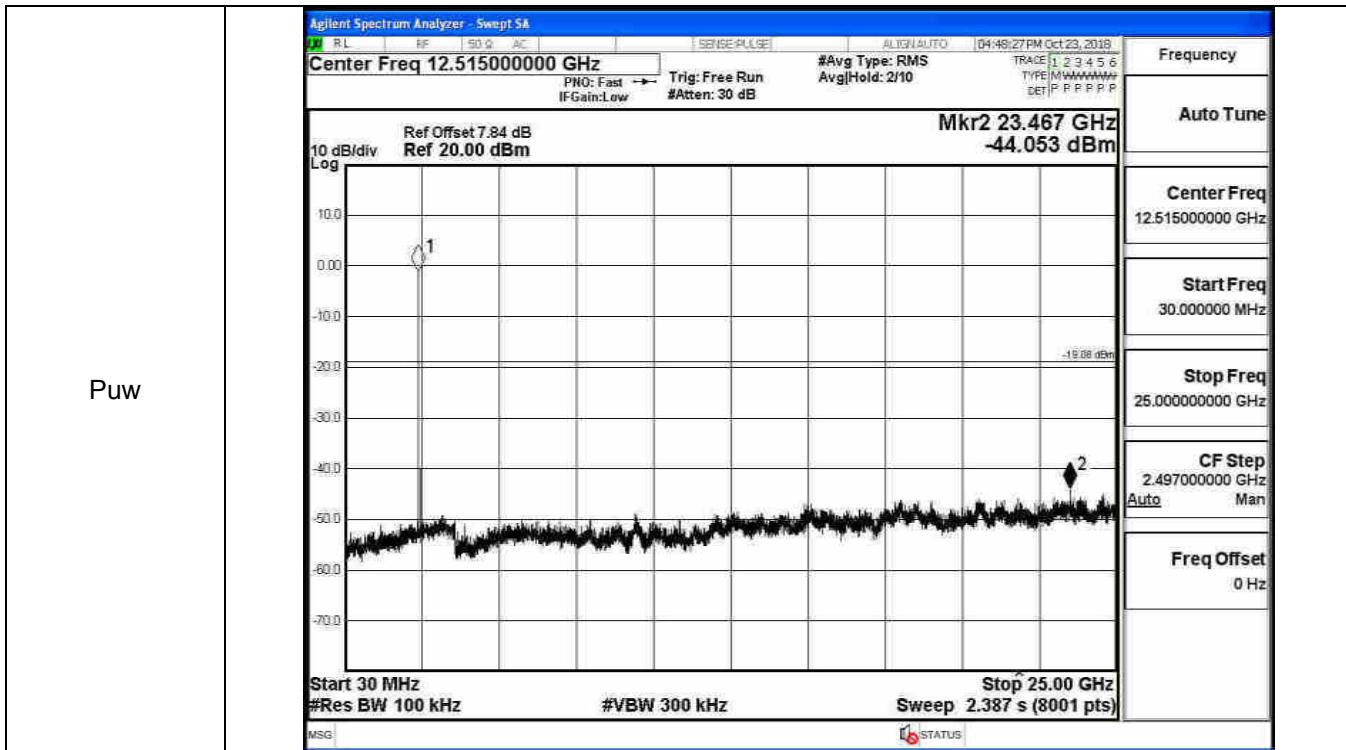
|                 |
|-----------------|
| Frequency       |
| Auto Tune       |
| Center Freq     |
| 2.402000000 GHz |
| Start Freq      |
| 2.402000000 GHz |
| Stop Freq       |
| 2.402000000 GHz |
| CF Step         |
| 1.000000 MHz    |
| Auto            |
| Man             |
| Freq Offset     |
|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

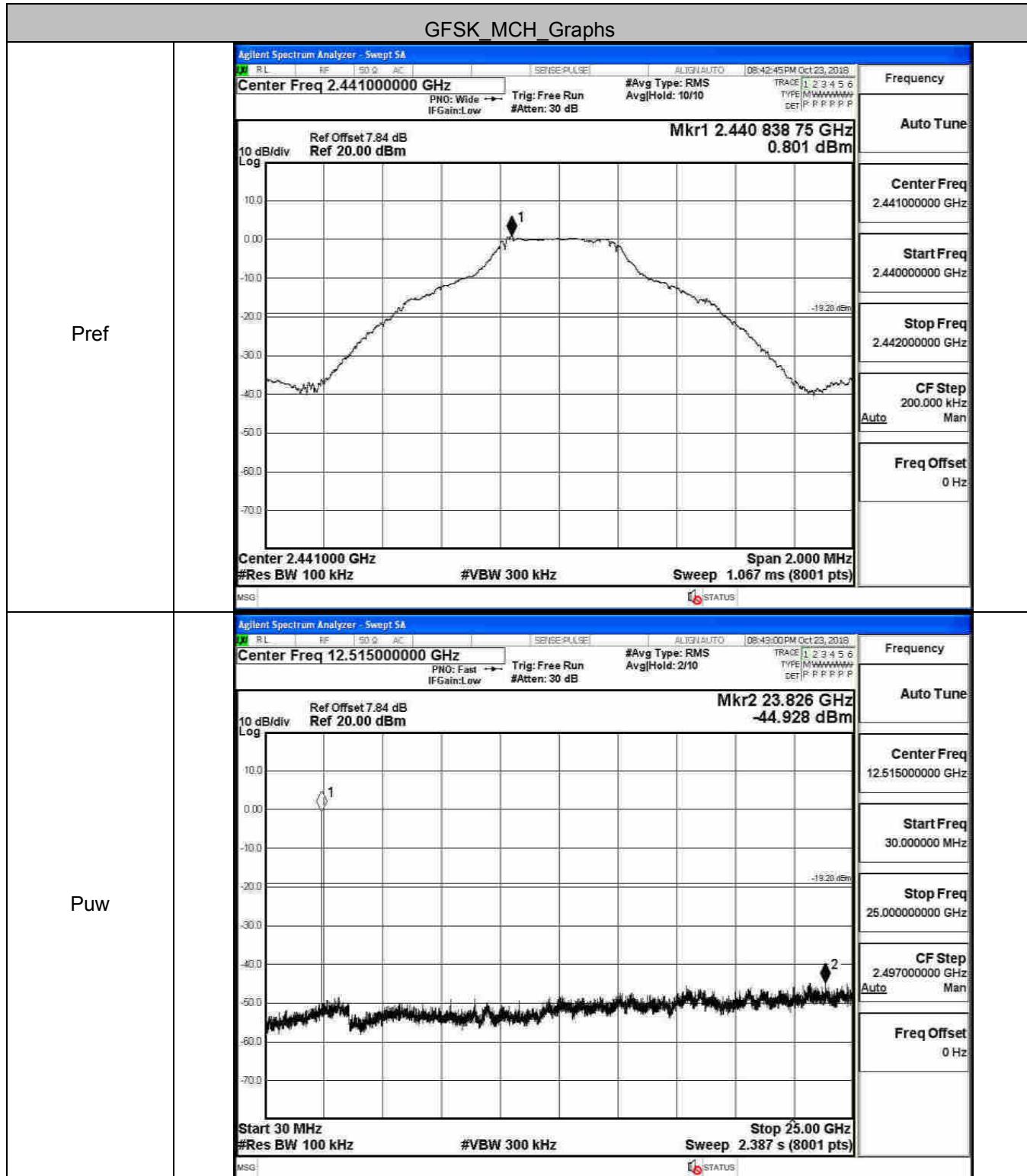


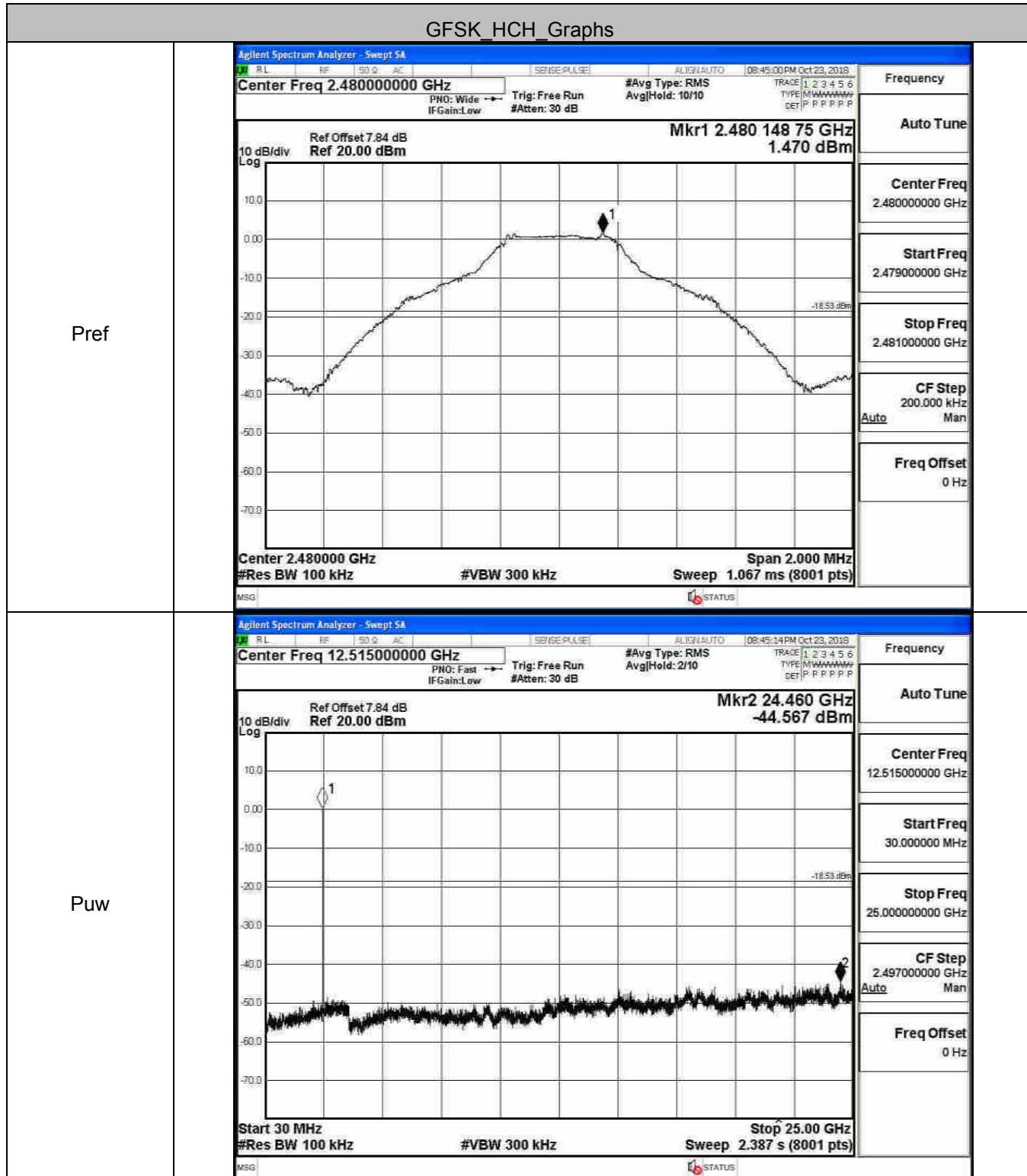
## A.6 RF Conducted Spurious Emissions

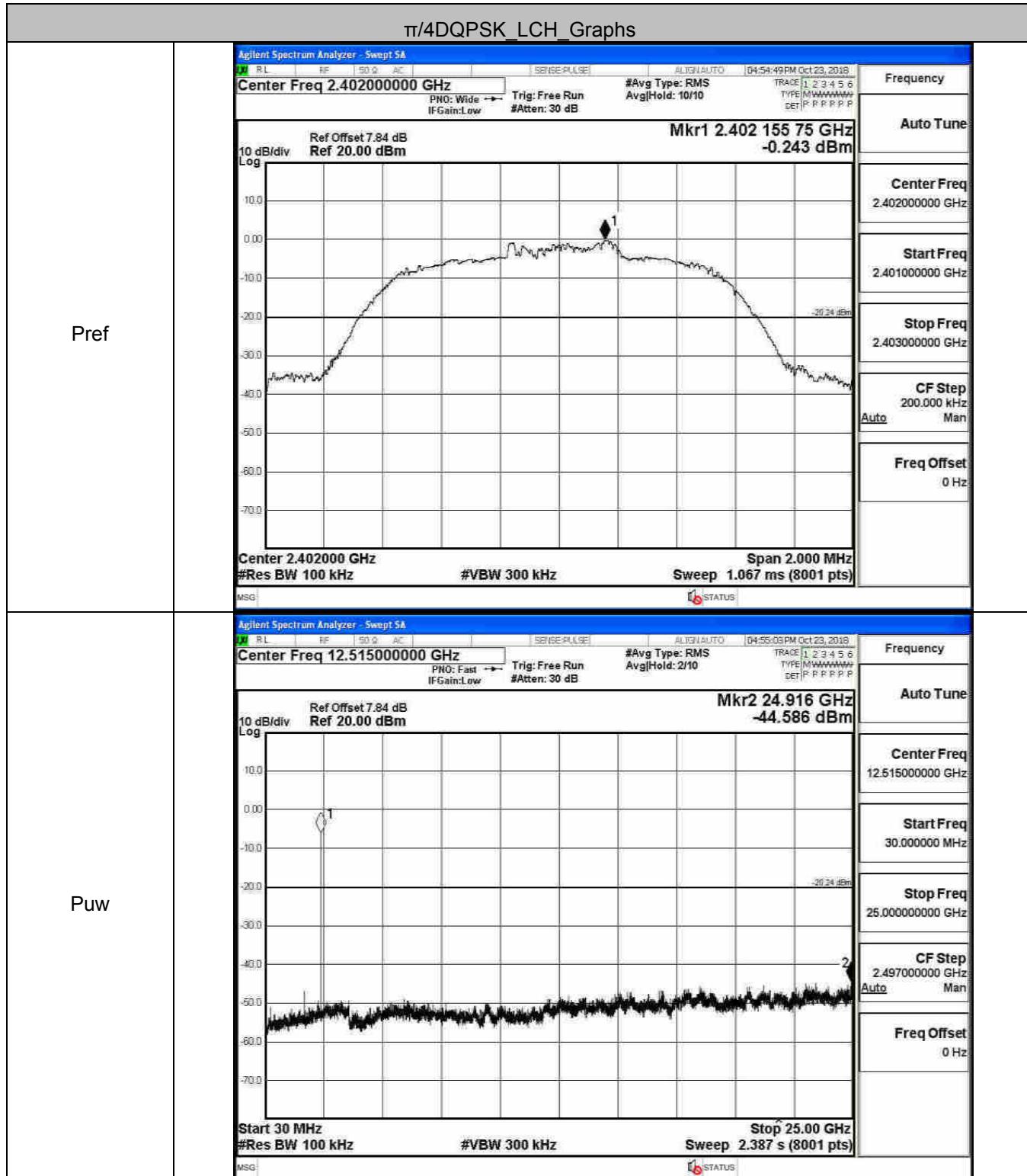
| Mode          | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| GFSK          | LCH     | 0.919      | -44.053          | -19.081     | PASS    |
|               | MCH     | 0.801      | -44.928          | -19.199     | PASS    |
|               | HCH     | 1.47       | -44.567          | -18.530     | PASS    |
| $\pi/4$ DQPSK | LCH     | -0.243     | -44.586          | -20.243     | PASS    |
|               | MCH     | -0.181     | -44.809          | -20.181     | PASS    |
|               | HCH     | 0          | -44.448          | -20.000     | PASS    |
| 8DPSK         | LCH     | -0.126     | -43.317          | -20.126     | PASS    |
|               | MCH     | -0.305     | -45.252          | -20.305     | PASS    |
|               | HCH     | -0.092     | -44.908          | -20.092     | PASS    |

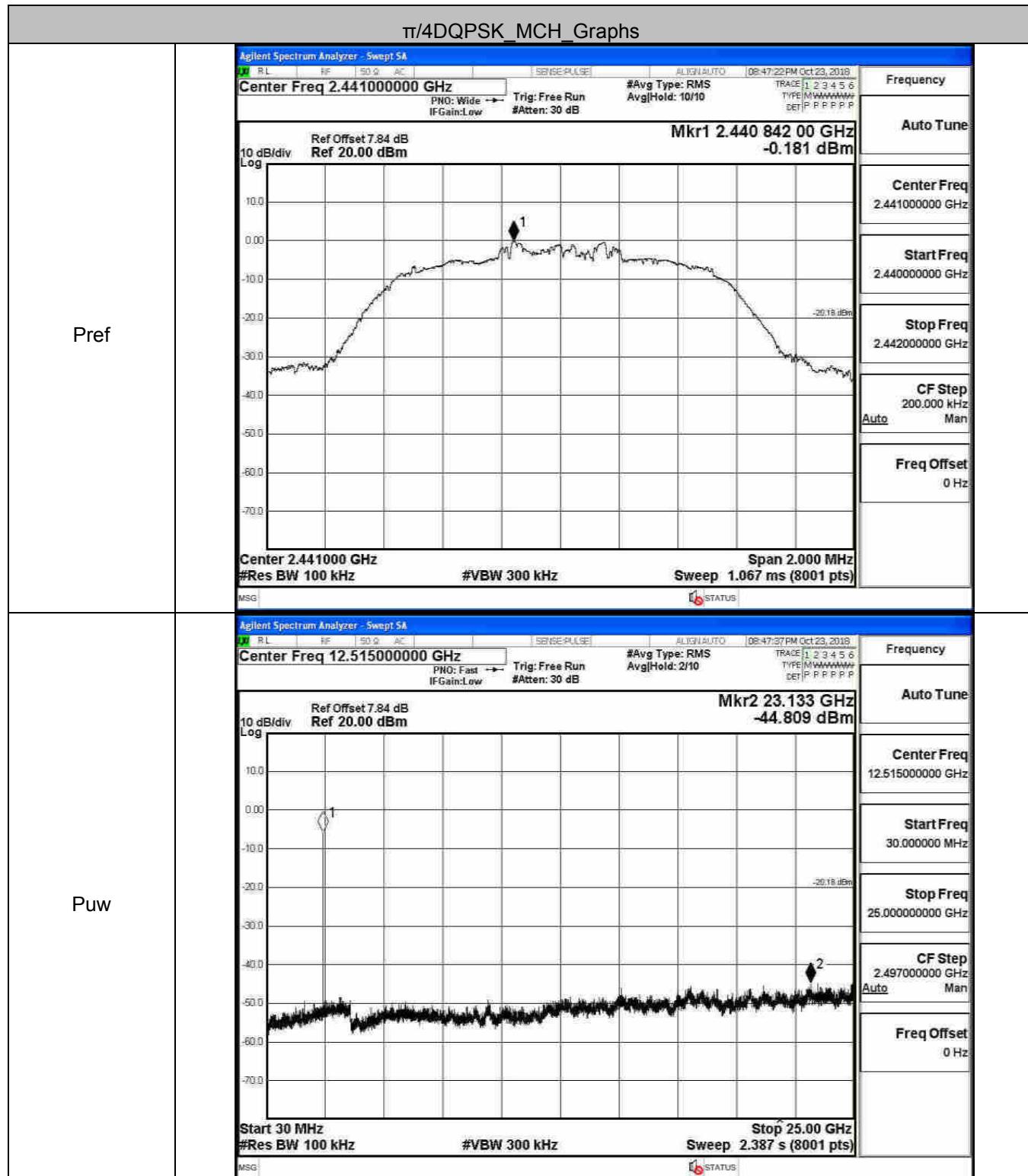


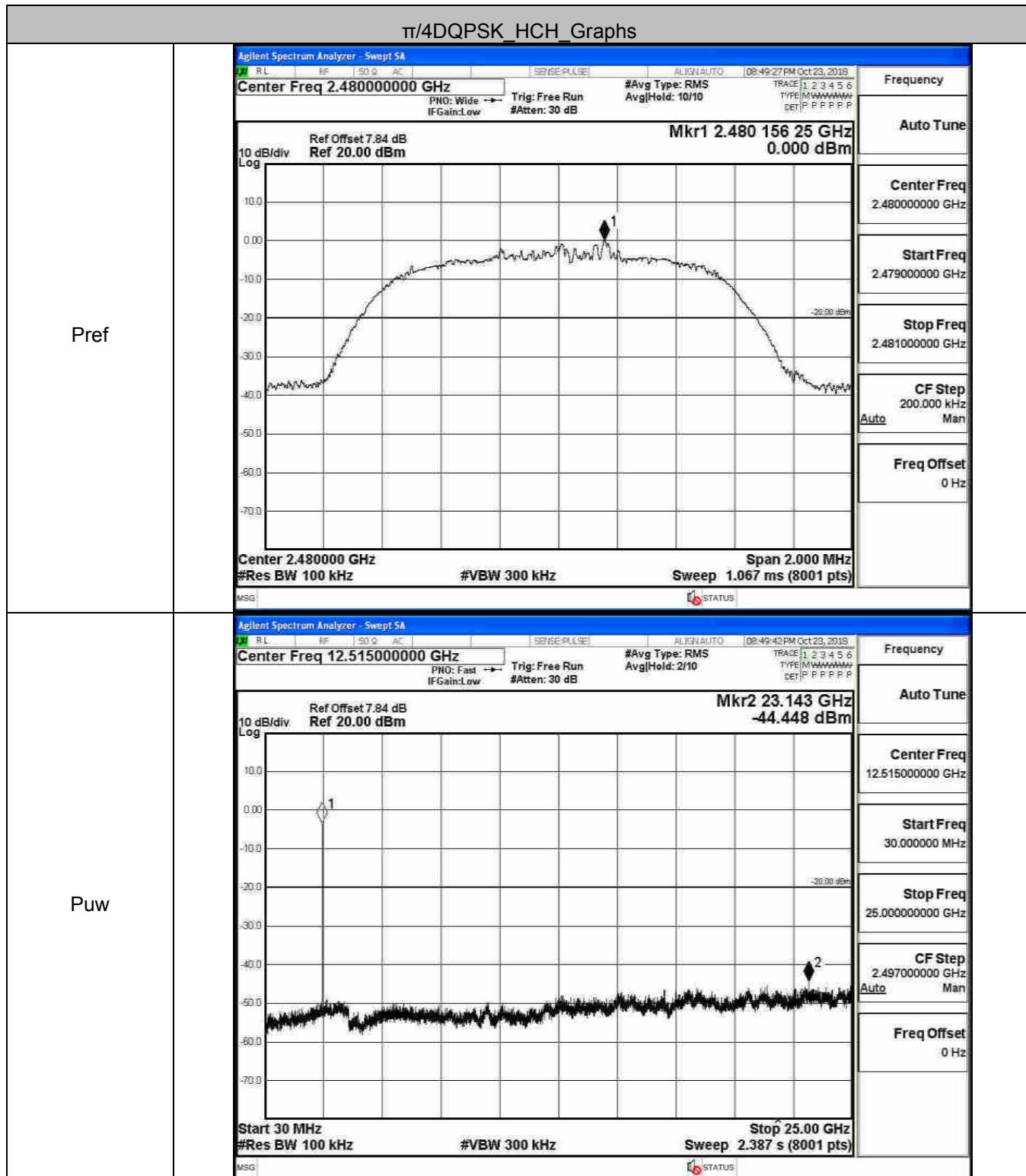


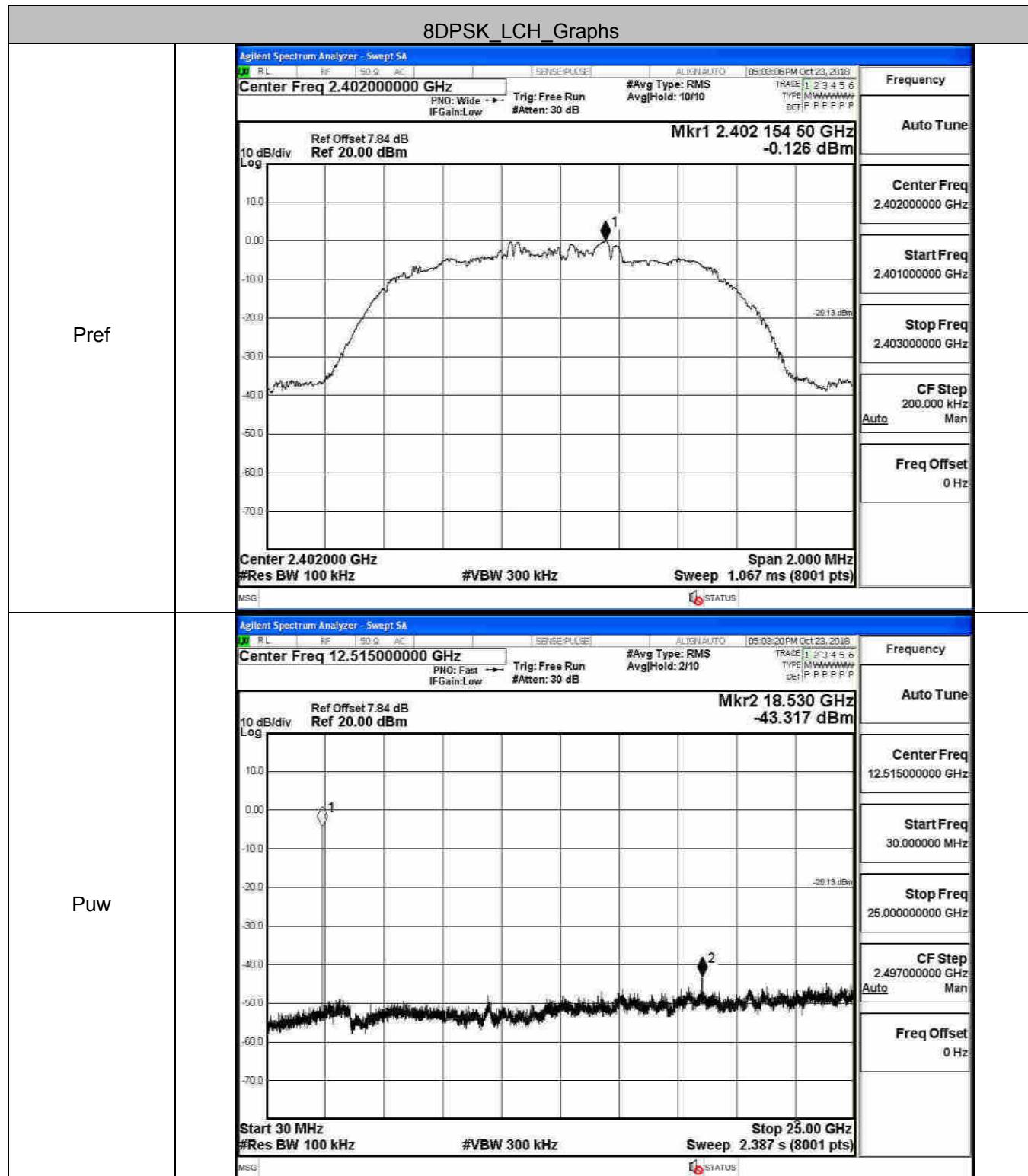


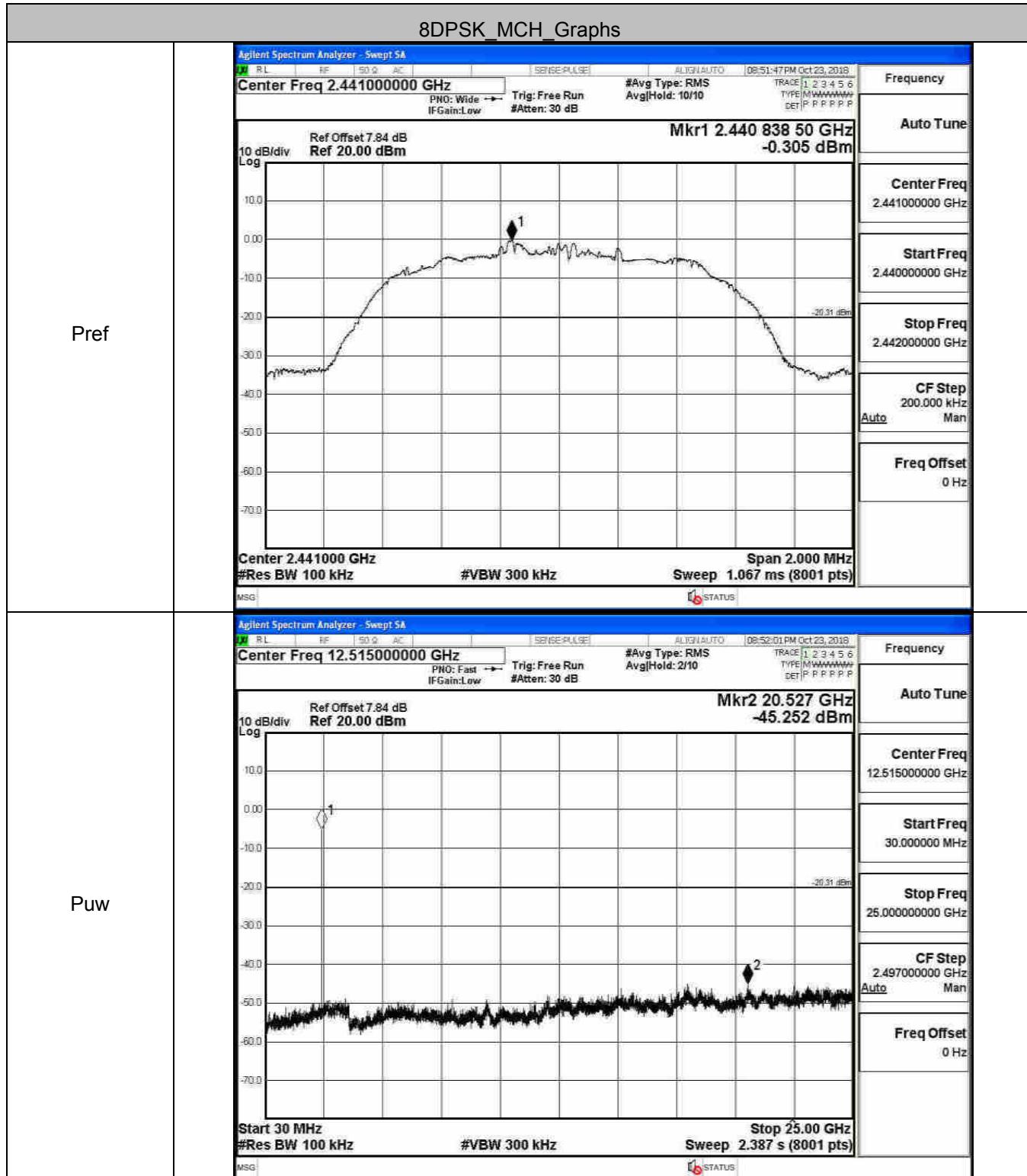


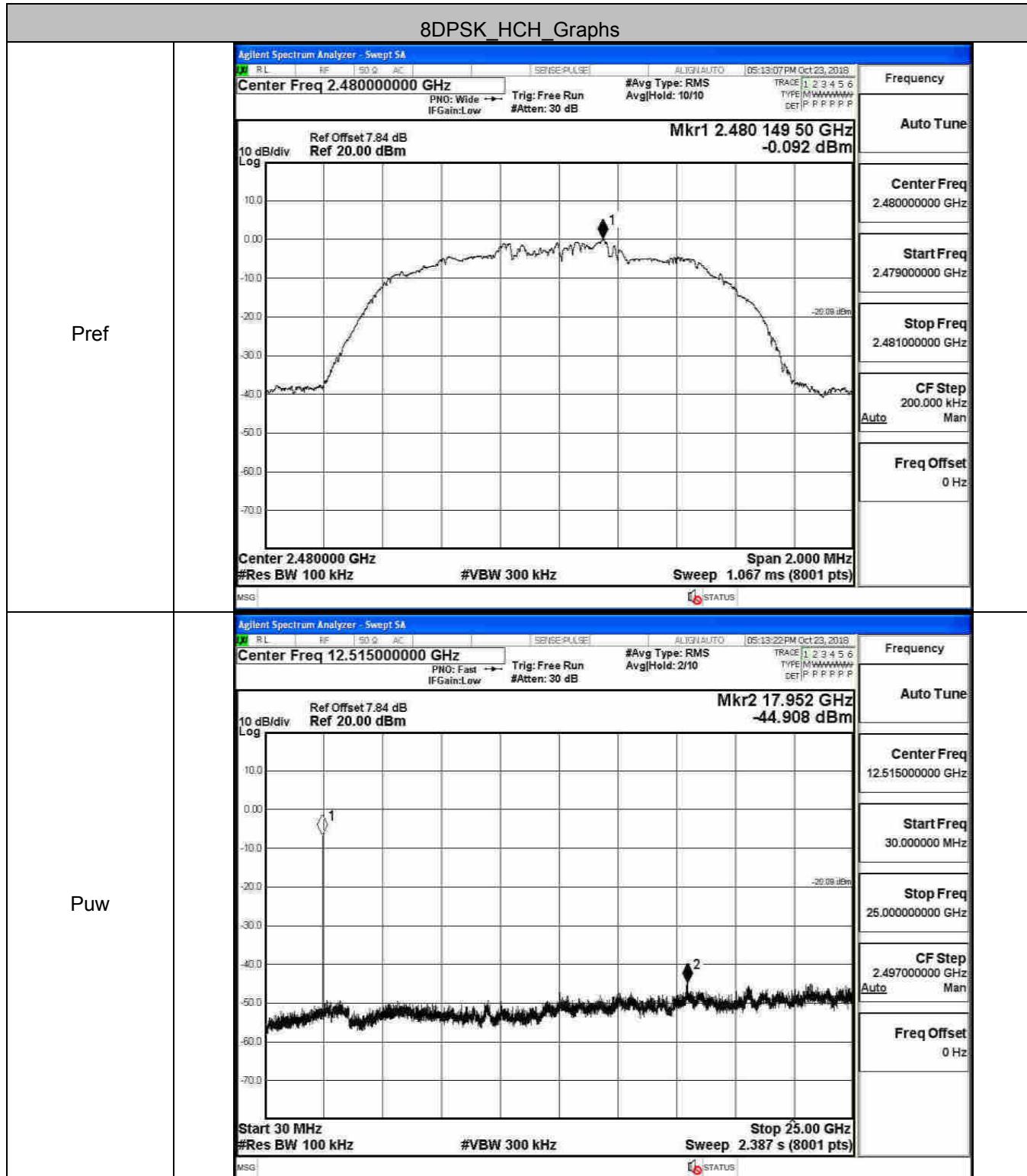










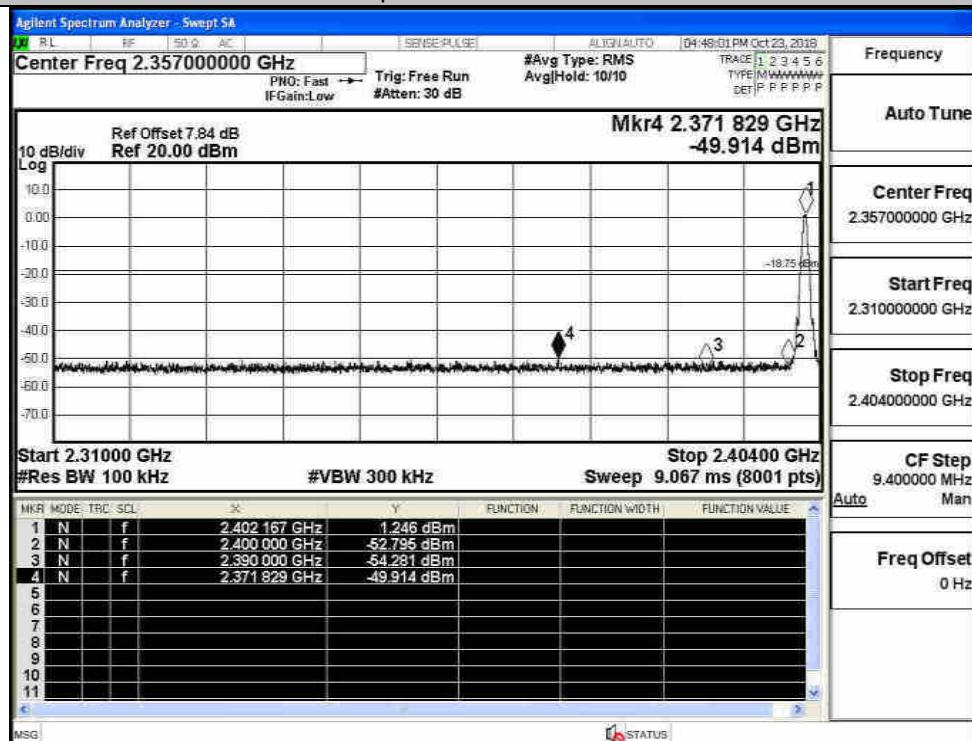


### A.7 Band-edge for RF Conducted Emissions

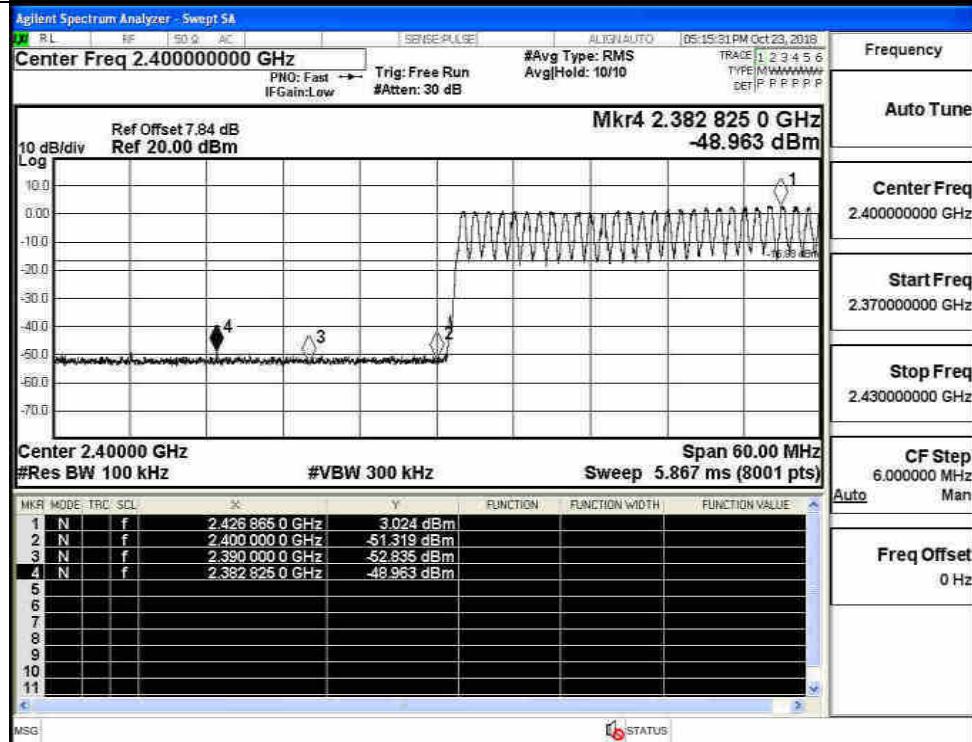
| Mode          | Channel | Carrier Frequency [MHz] | Carrier Power [dBm] | Frequency Hopping | Max Spurious Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|-------------------------|---------------------|-------------------|--------------------------|-------------|---------|
| GFSK          | LCH     | 2402                    | 1.246               | Off               | -49.914                  | -18.75      | PASS    |
|               |         |                         | 3.024               | On                | -48.963                  | -16.98      | PASS    |
|               | HCH     | 2480                    | 1.573               | Off               | -49.773                  | -18.43      | PASS    |
|               |         |                         | 2.557               | On                | -49.463                  | -17.44      | PASS    |
| $\pi/4$ DQPSK | LCH     | 2402                    | -0.078              | Off               | -50.173                  | -20.08      | PASS    |
|               |         |                         | 1.630               | On                | -49.686                  | -18.37      | PASS    |
|               | HCH     | 2480                    | -0.108              | Off               | -50.226                  | -20.11      | PASS    |
|               |         |                         | 1.071               | On                | -49.274                  | -18.93      | PASS    |
| 8DPSK         | LCH     | 2402                    | -0.095              | Off               | -50.442                  | -20.1       | PASS    |
|               |         |                         | 1.508               | On                | -49.651                  | -18.49      | PASS    |
|               | HCH     | 2480                    | 0.076               | Off               | -50.024                  | -19.92      | PASS    |
|               |         |                         | 1.180               | On                | -49.775                  | -18.82      | PASS    |

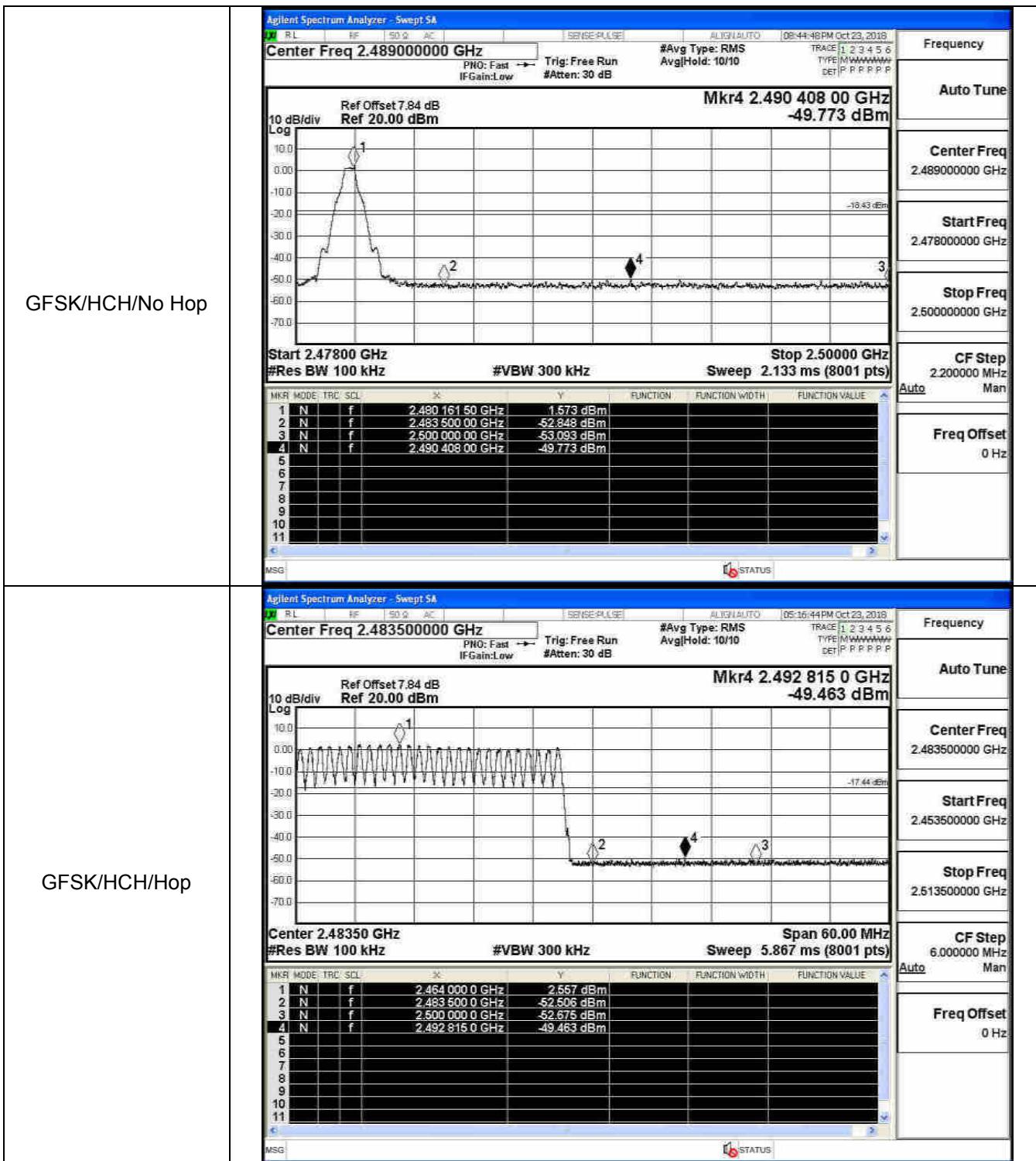
## Test Graphs

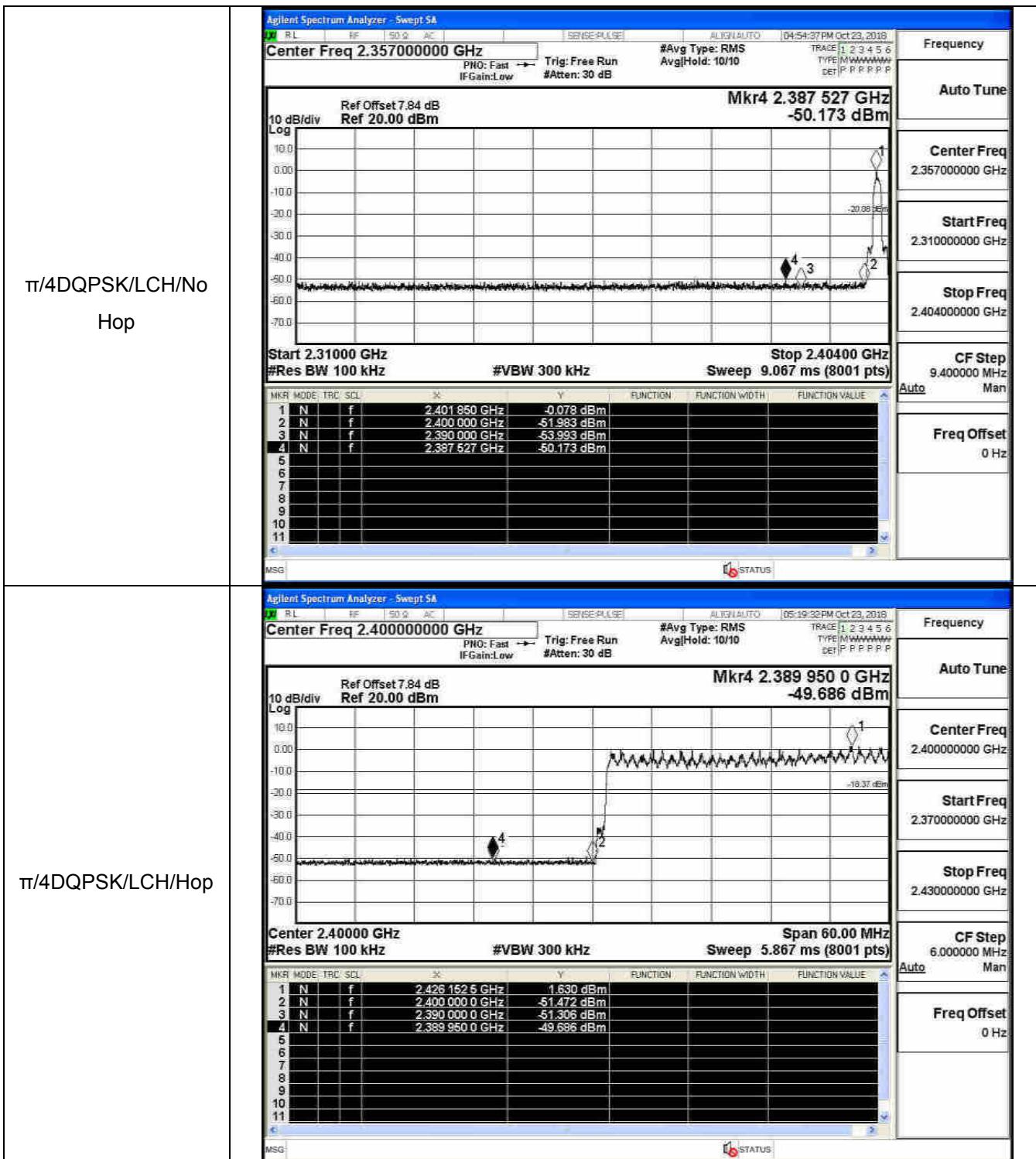
GFSK/LCH/No Hop

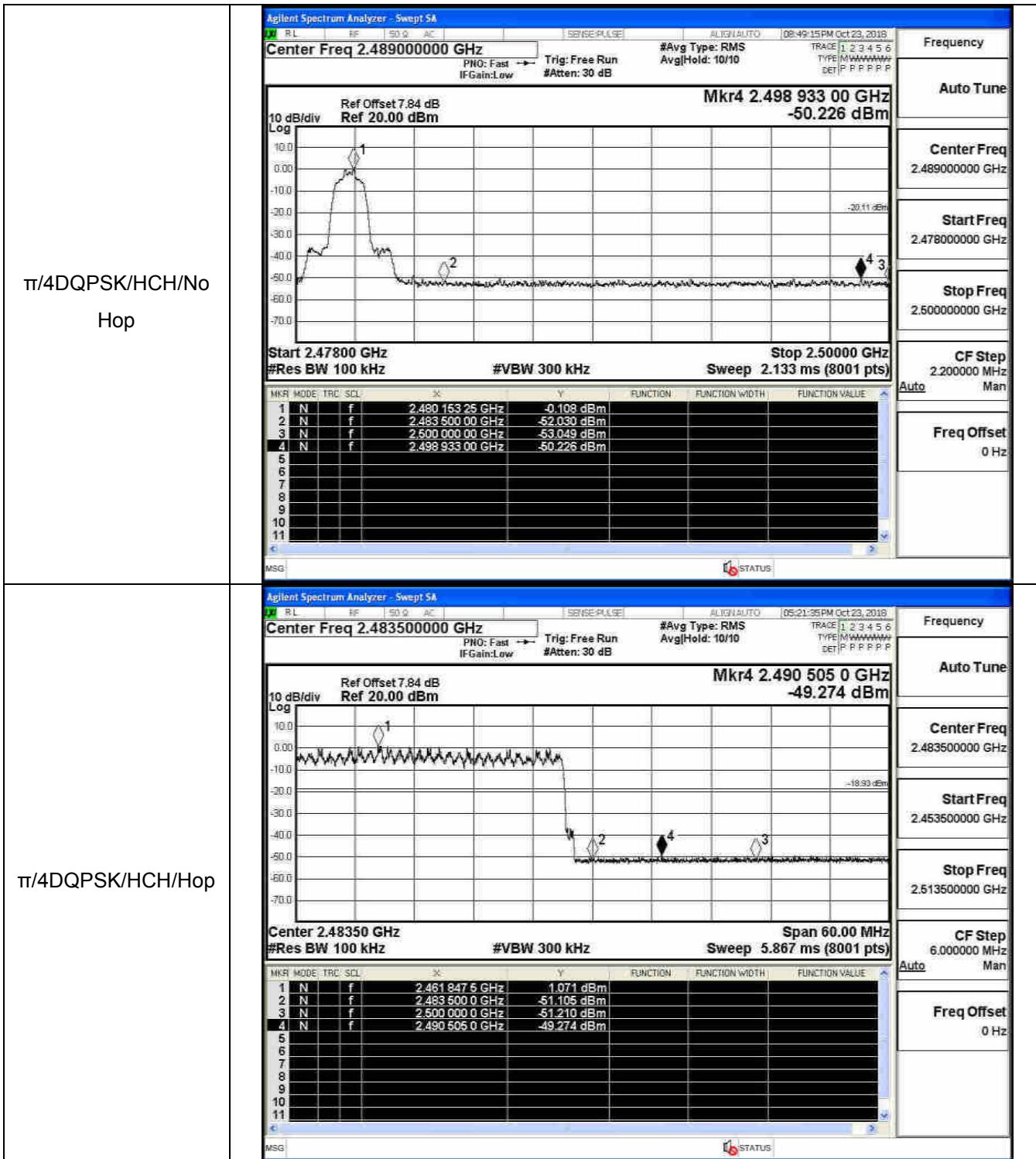


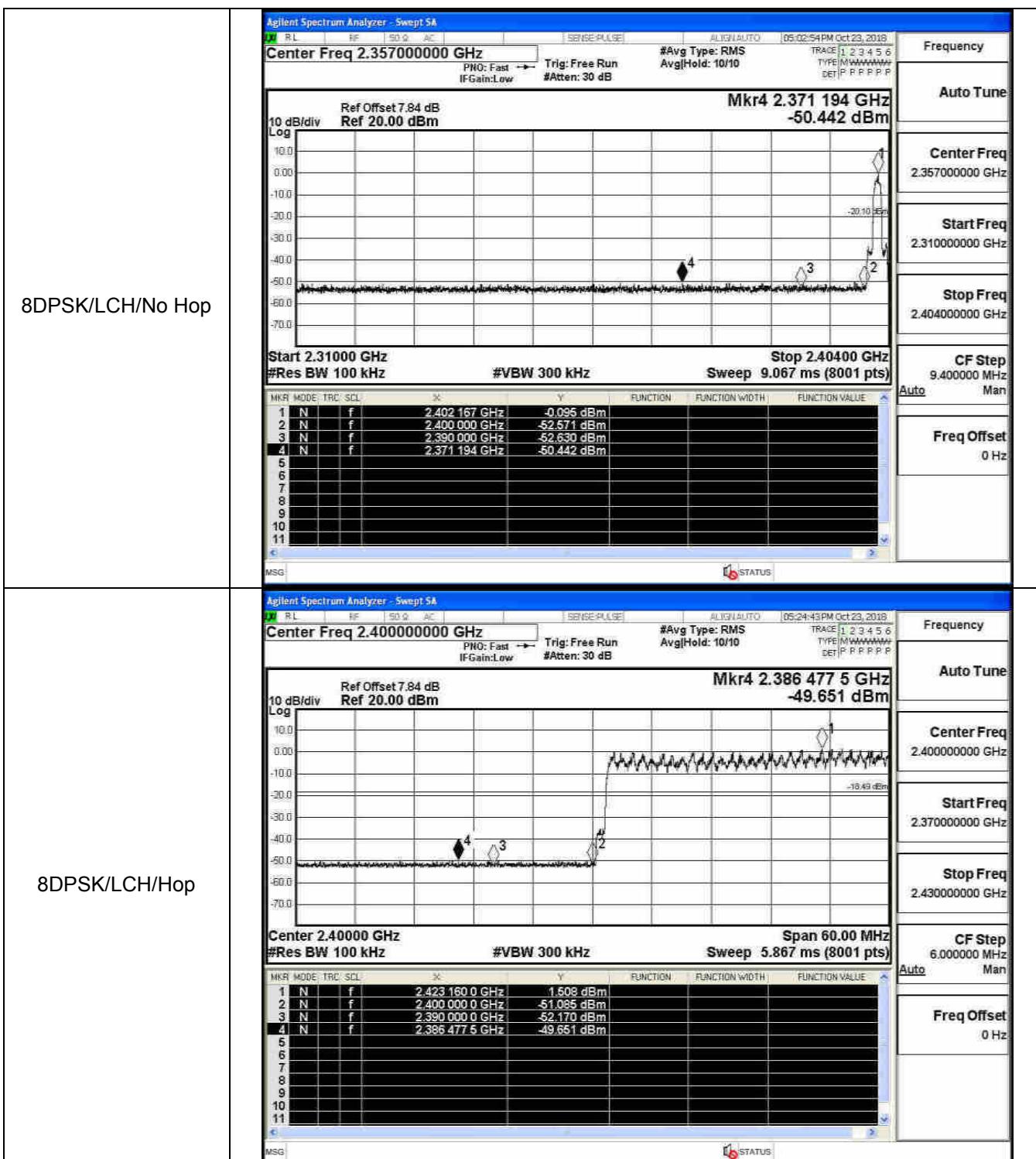
GFSK/LCH/Hop

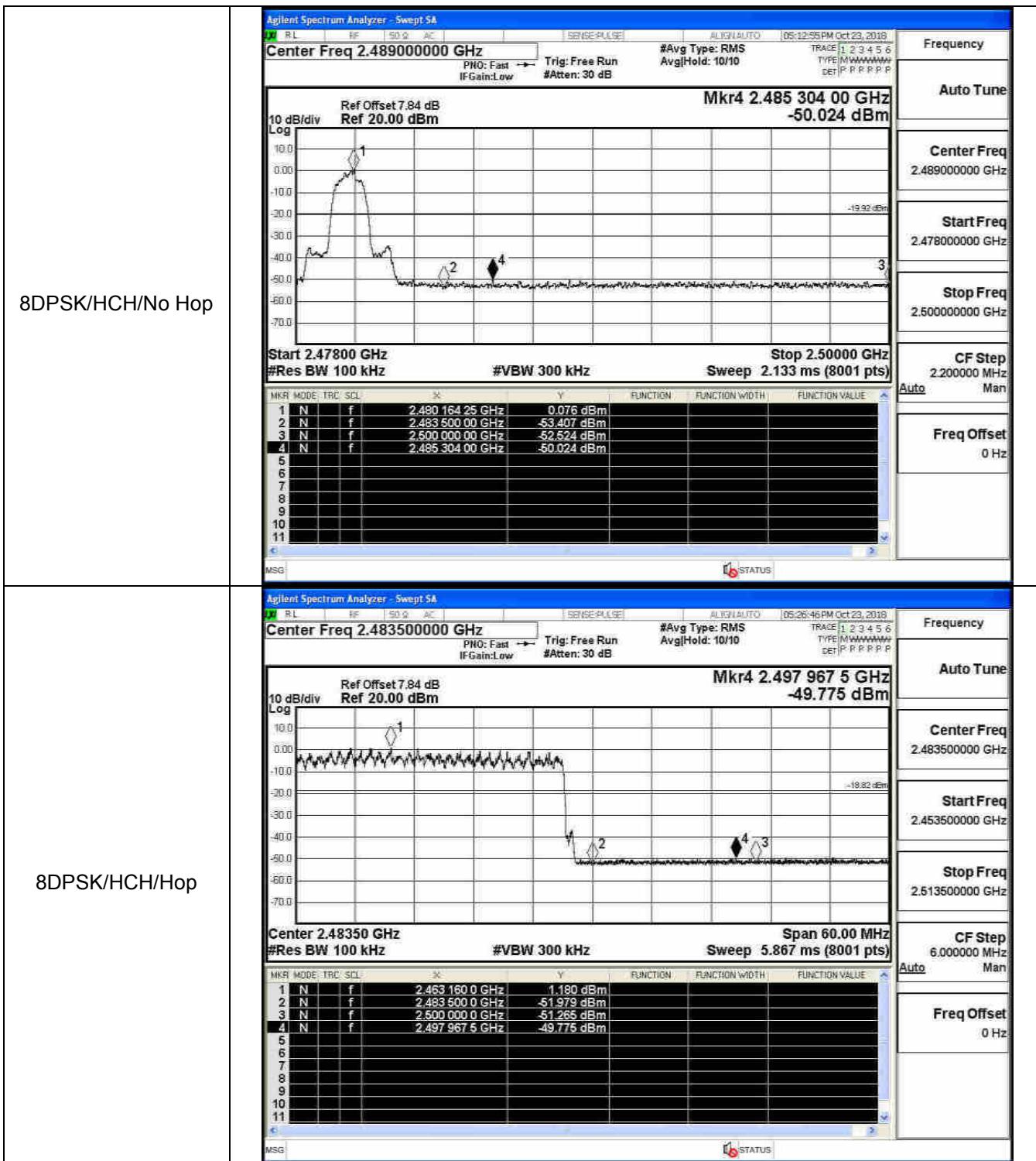








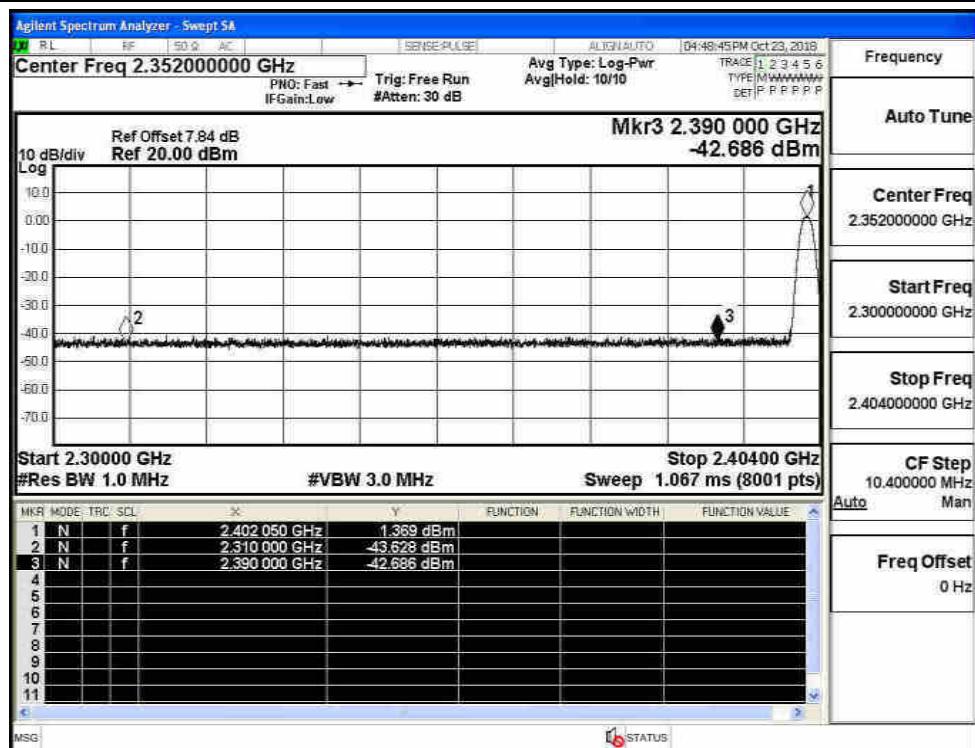




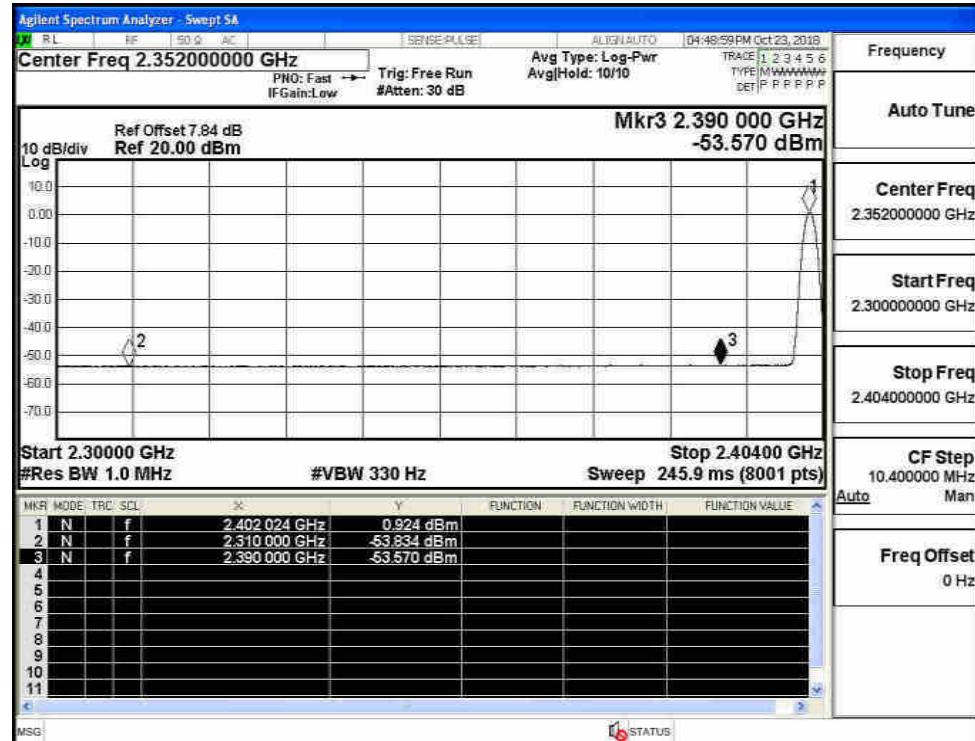
## A.8 Restrict-band band-edge measurements

| Test Mode     | Hopping | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|---------------|---------|--------|-------------|------|---------------|------------|----------|----------------|---------|
| GFSK          | Off     | 2310.0 | -43.63      | 2.0  | 0             | 53.60      | PEAK     | 74             | PASS    |
|               | Off     | 2310.0 | -53.83      | 2.0  | 0             | 43.40      | AV       | 54             | PASS    |
|               | Off     | 2390.0 | -42.69      | 2.0  | 0             | 54.54      | PEAK     | 74             | PASS    |
|               | Off     | 2390.0 | -53.57      | 2.0  | 0             | 43.66      | AV       | 54             | PASS    |
|               | Off     | 2483.5 | -42.78      | 2.0  | 0             | 54.45      | PEAK     | 74             | PASS    |
|               | Off     | 2483.5 | -53.36      | 2.0  | 0             | 43.87      | AV       | 54             | PASS    |
|               | Off     | 2500.0 | -43.69      | 2.0  | 0             | 53.54      | PEAK     | 74             | PASS    |
|               | Off     | 2500.0 | -53.31      | 2.0  | 0             | 43.92      | AV       | 54             | PASS    |
| $\pi/4$ DQPSK | Off     | 2310.0 | -44.89      | 2.0  | 0             | 52.34      | PEAK     | 74             | PASS    |
|               | Off     | 2310.0 | -53.90      | 2.0  | 0             | 43.33      | AV       | 54             | PASS    |
|               | Off     | 2390.0 | -42.54      | 2.0  | 0             | 54.69      | PEAK     | 74             | PASS    |
|               | Off     | 2390.0 | -53.51      | 2.0  | 0             | 43.72      | AV       | 54             | PASS    |
|               | Off     | 2483.5 | -42.31      | 2.0  | 0             | 54.92      | PEAK     | 74             | PASS    |
|               | Off     | 2483.5 | -53.16      | 2.0  | 0             | 44.07      | AV       | 54             | PASS    |
|               | Off     | 2500.0 | -43.63      | 2.0  | 0             | 53.60      | PEAK     | 74             | PASS    |
|               | Off     | 2500.0 | -53.32      | 2.0  | 0             | 43.91      | AV       | 54             | PASS    |
| 8DPSK         | Off     | 2310.0 | -44.24      | 2.0  | 0             | 52.99      | PEAK     | 74             | PASS    |
|               | Off     | 2310.0 | -53.79      | 2.0  | 0             | 43.44      | AV       | 54             | PASS    |
|               | Off     | 2390.0 | -42.93      | 2.0  | 0             | 54.30      | PEAK     | 74             | PASS    |
|               | Off     | 2390.0 | -53.67      | 2.0  | 0             | 43.56      | AV       | 54             | PASS    |
|               | Off     | 2483.5 | -42.97      | 2.0  | 0             | 54.26      | PEAK     | 74             | PASS    |
|               | Off     | 2483.5 | -53.22      | 2.0  | 0             | 44.01      | AV       | 54             | PASS    |
|               | Off     | 2500.0 | -43.36      | 2.0  | 0             | 53.87      | PEAK     | 74             | PASS    |
|               | Off     | 2500.0 | -53.25      | 2.0  | 0             | 43.98      | AV       | 54             | PASS    |

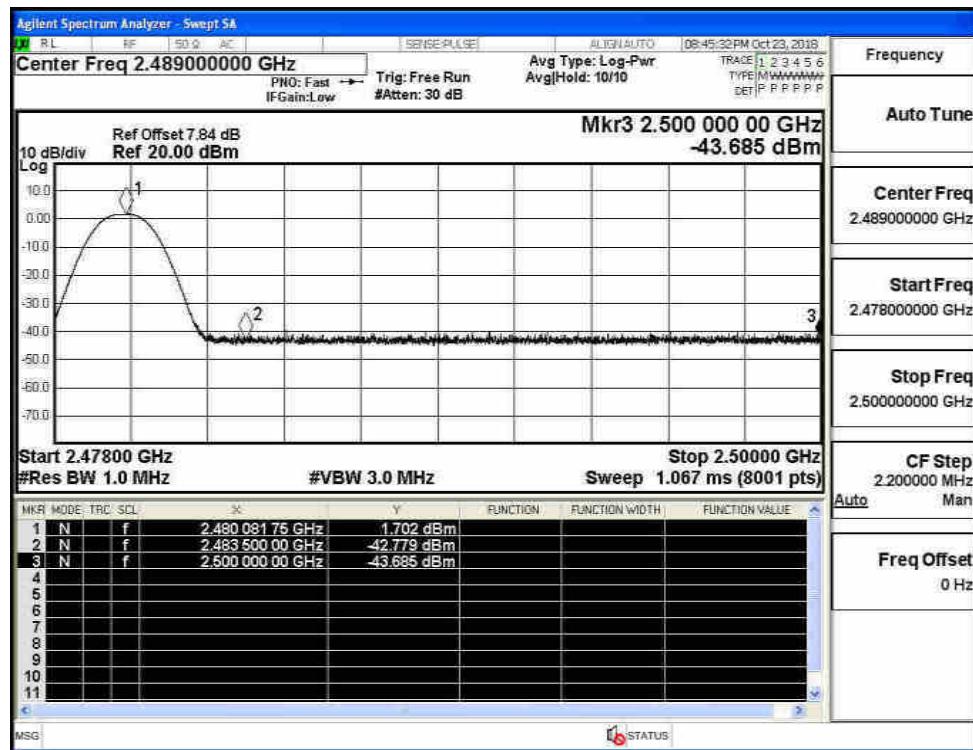
## Restrict-band band-edge measurements\_Hopping Off\_GFSK\_PEAK (Low Channel)



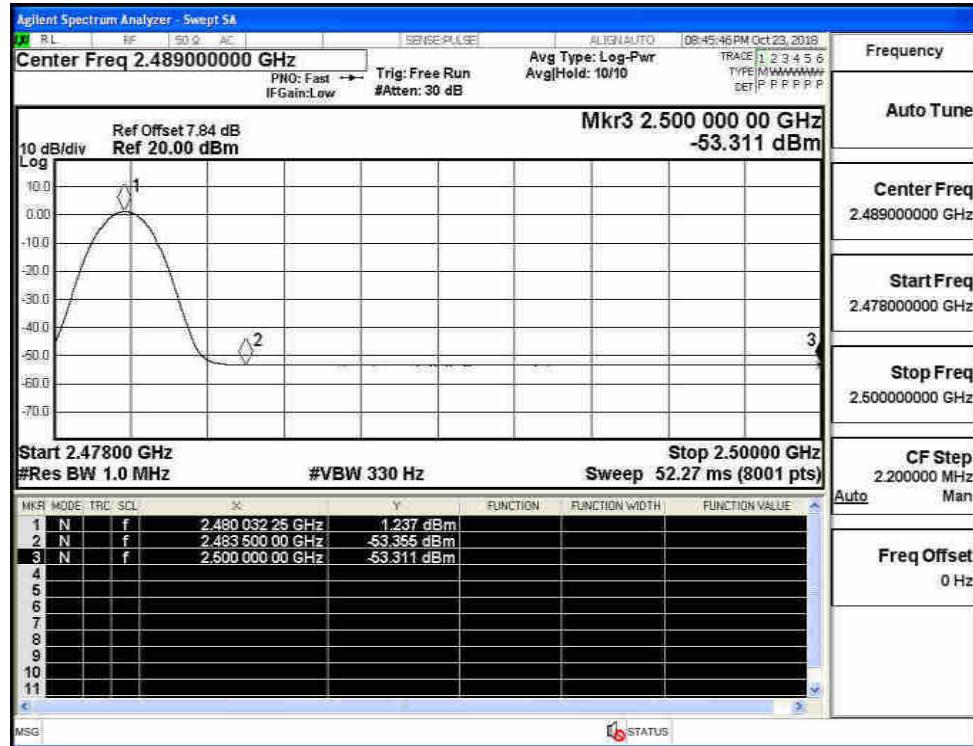
## Restrict-band band-edge measurements\_Hopping Off\_GFSK\_Average (Low Channel)



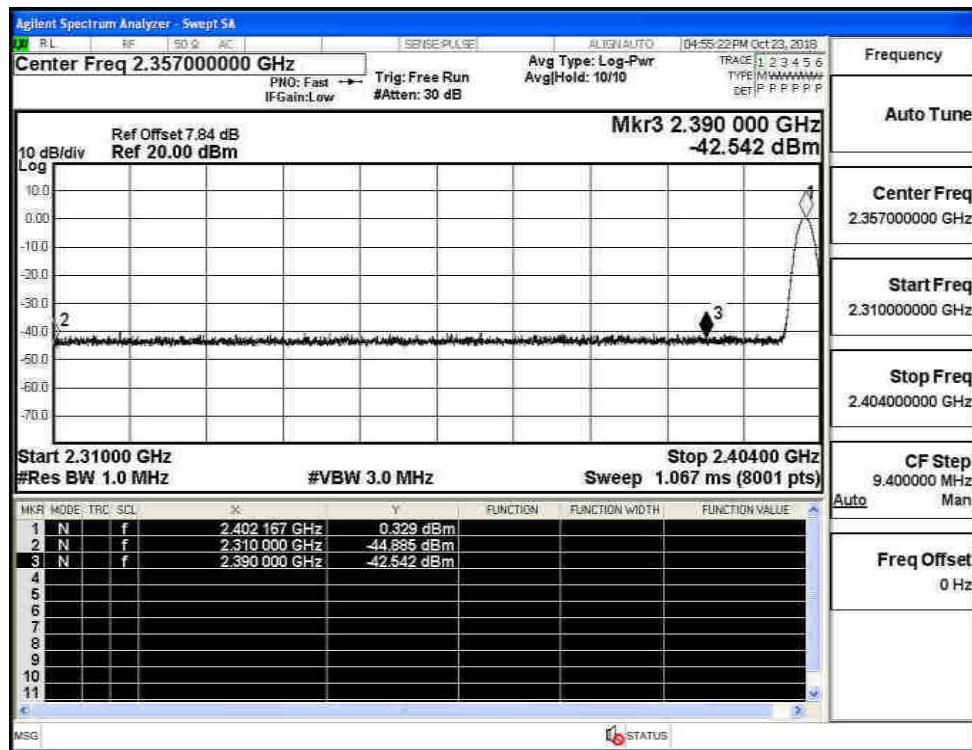
## Restrict-band band-edge measurements\_Hopping Off\_ GFSK\_PEAK (High Channel)



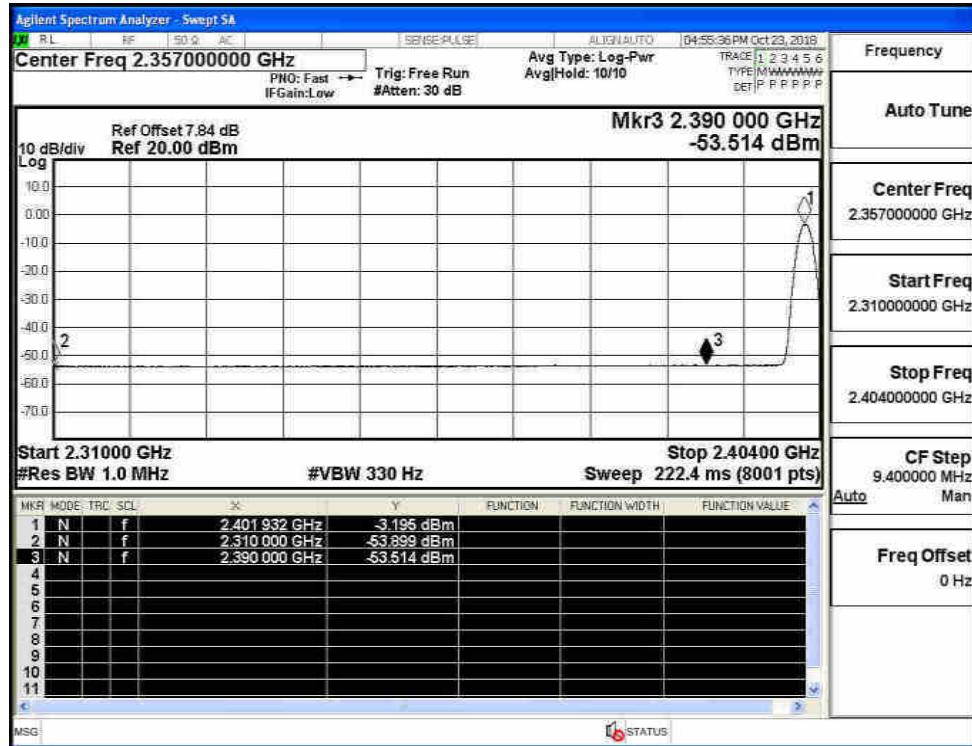
## Restrict-band band-edge measurements\_Hopping Off\_ GFSK\_Average (High Channel)



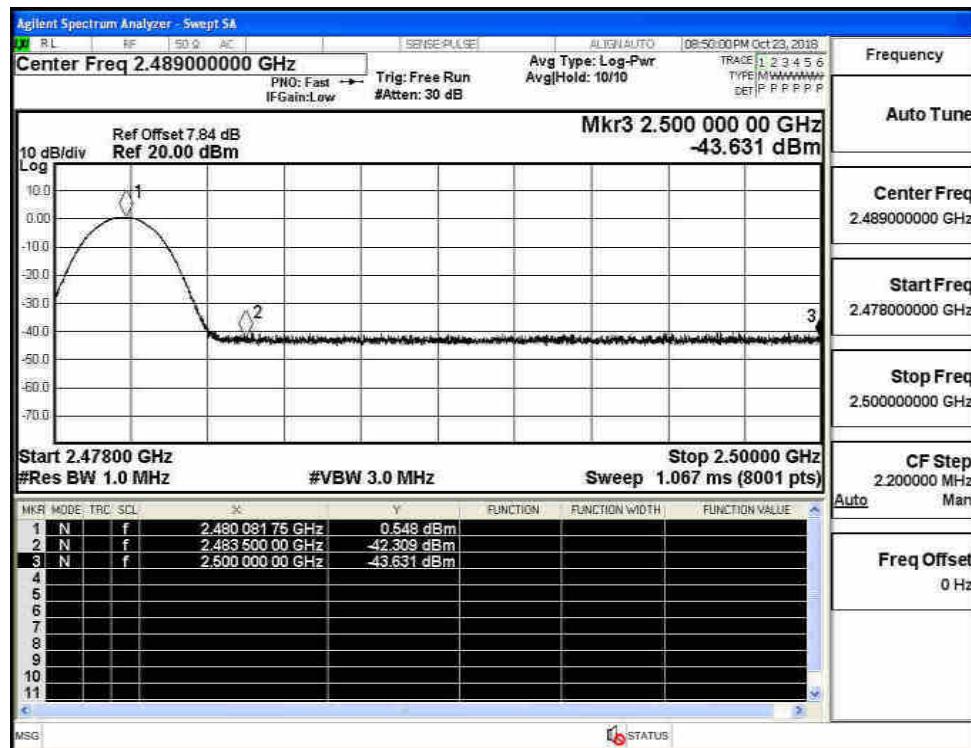
## Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_PEAK (Low Channel)



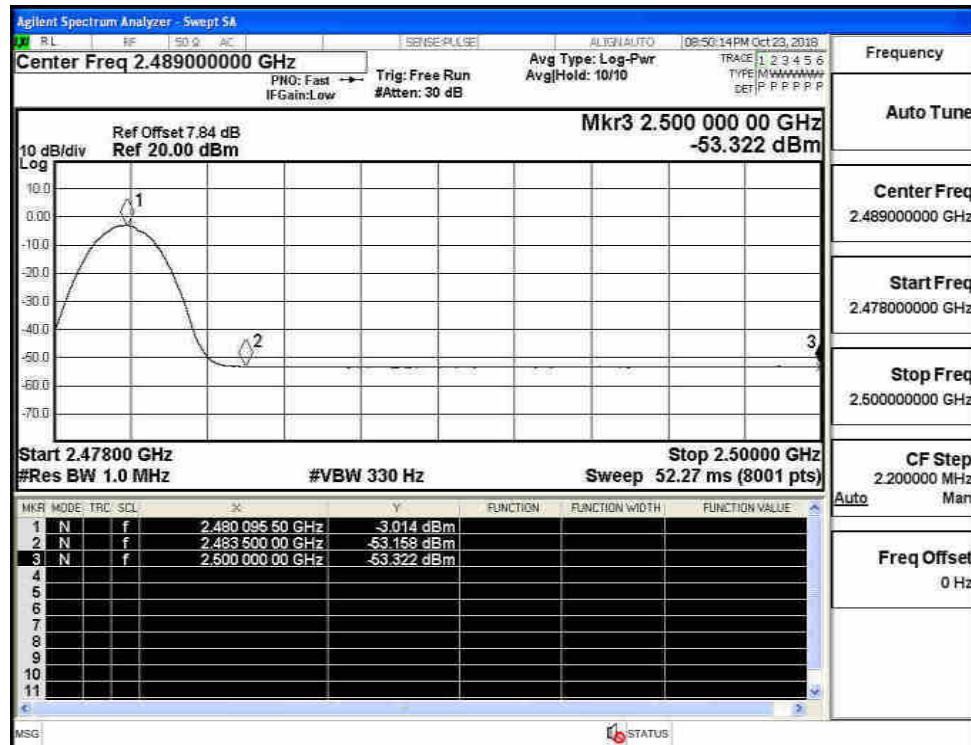
## Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_Average (Low Channel)



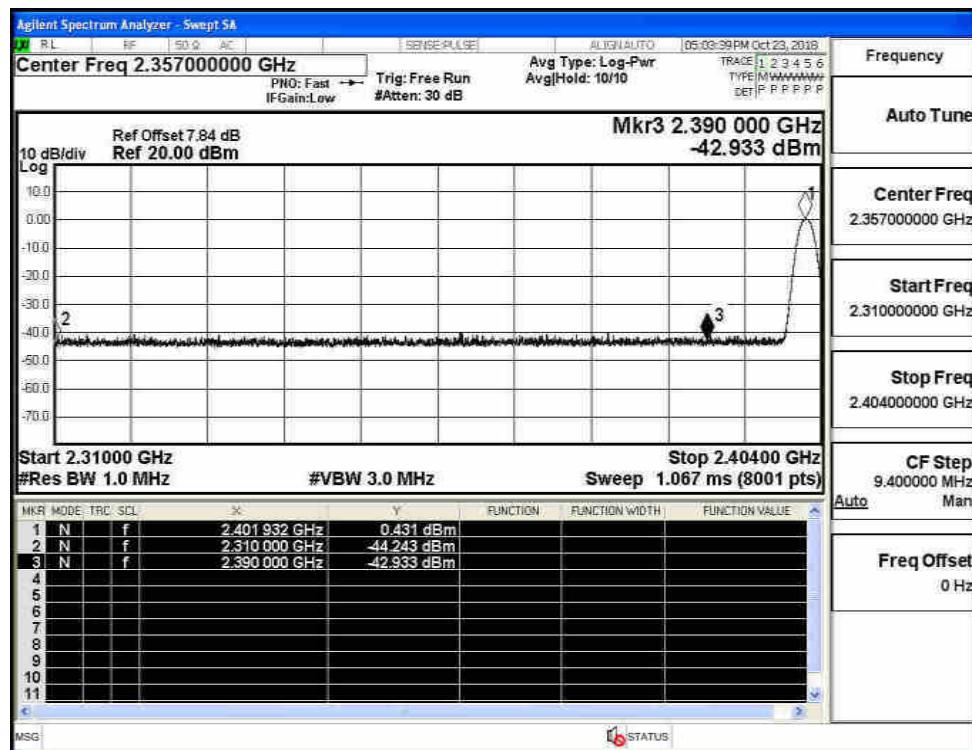
## Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_PEAK (High Channel)



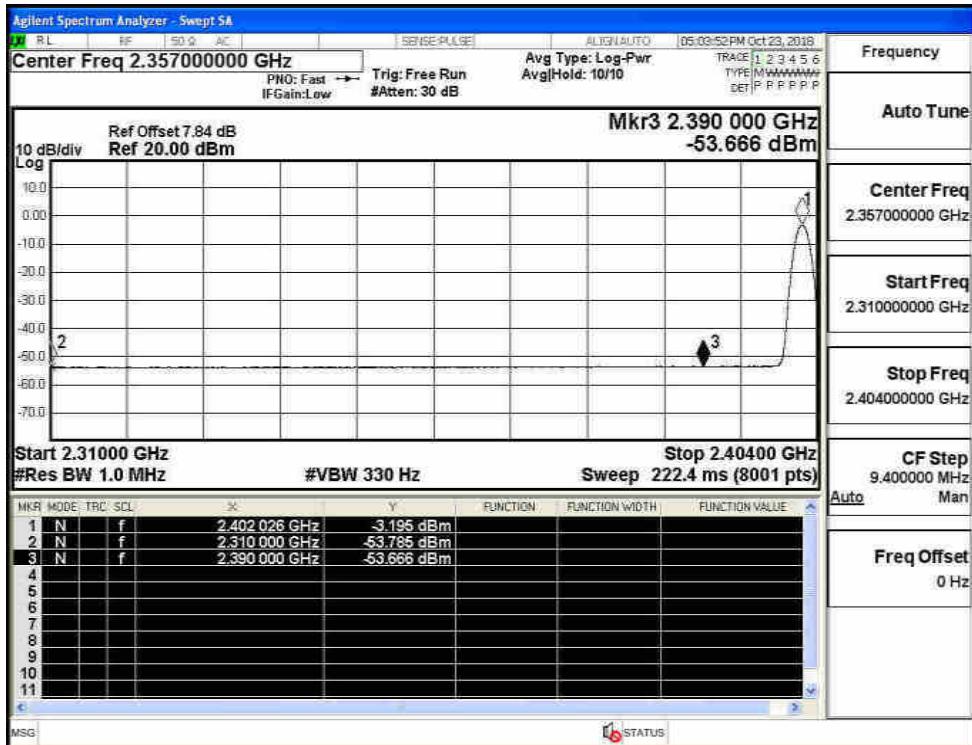
## Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_Average (High Channel)



## 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)

