

## Appendix A

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

Product Name: Bluetooth headphone

Trade Mark: sentry

Test Model: BT940

FCC ID: 2ACP4BT940

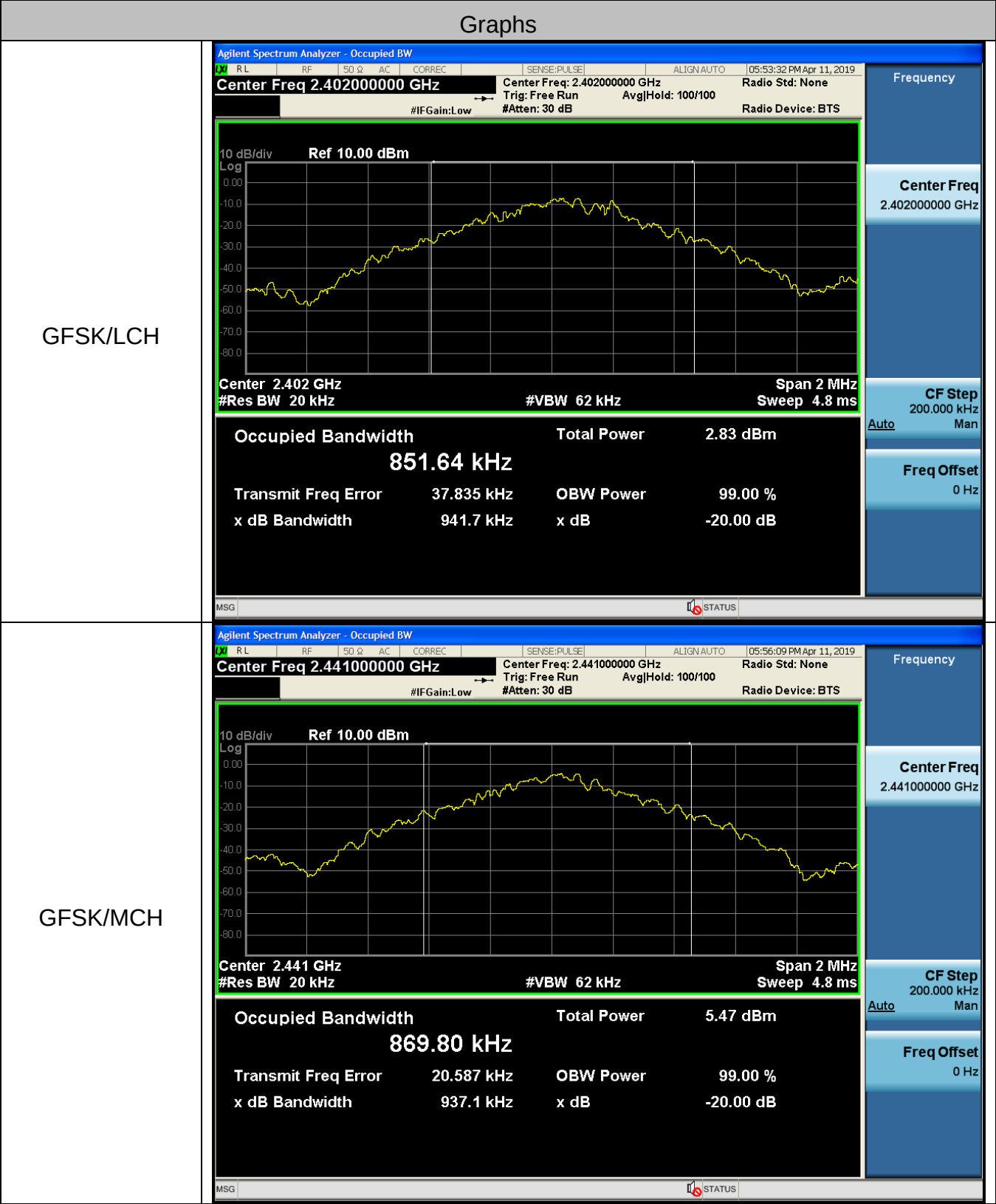
### Environmental Conditions

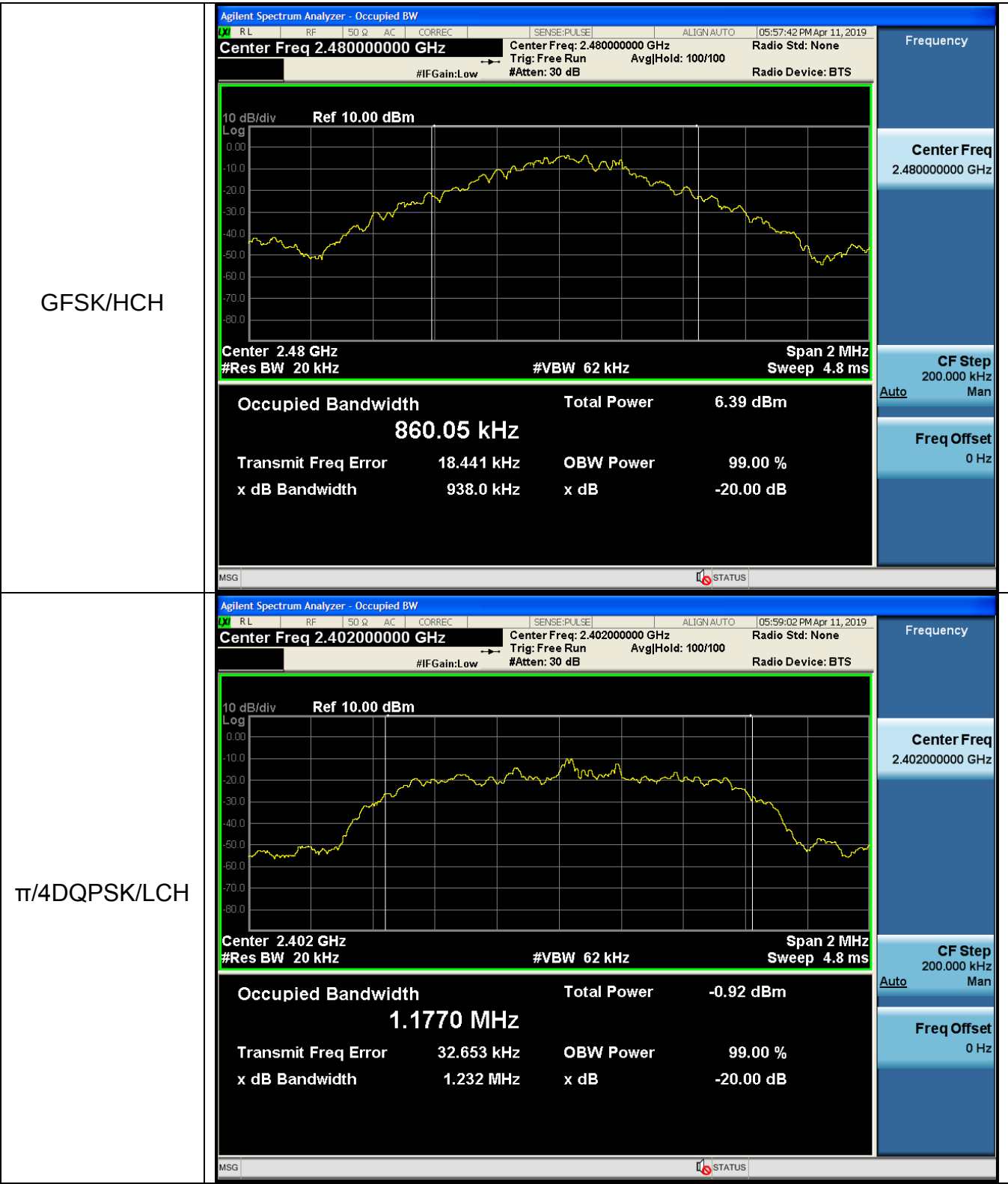
|                    |           |
|--------------------|-----------|
| Temperature:       | 24.7℃     |
| Relative Humidity: | 55%       |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Gary Qian |
| Supervised by:     | Eden Hu   |

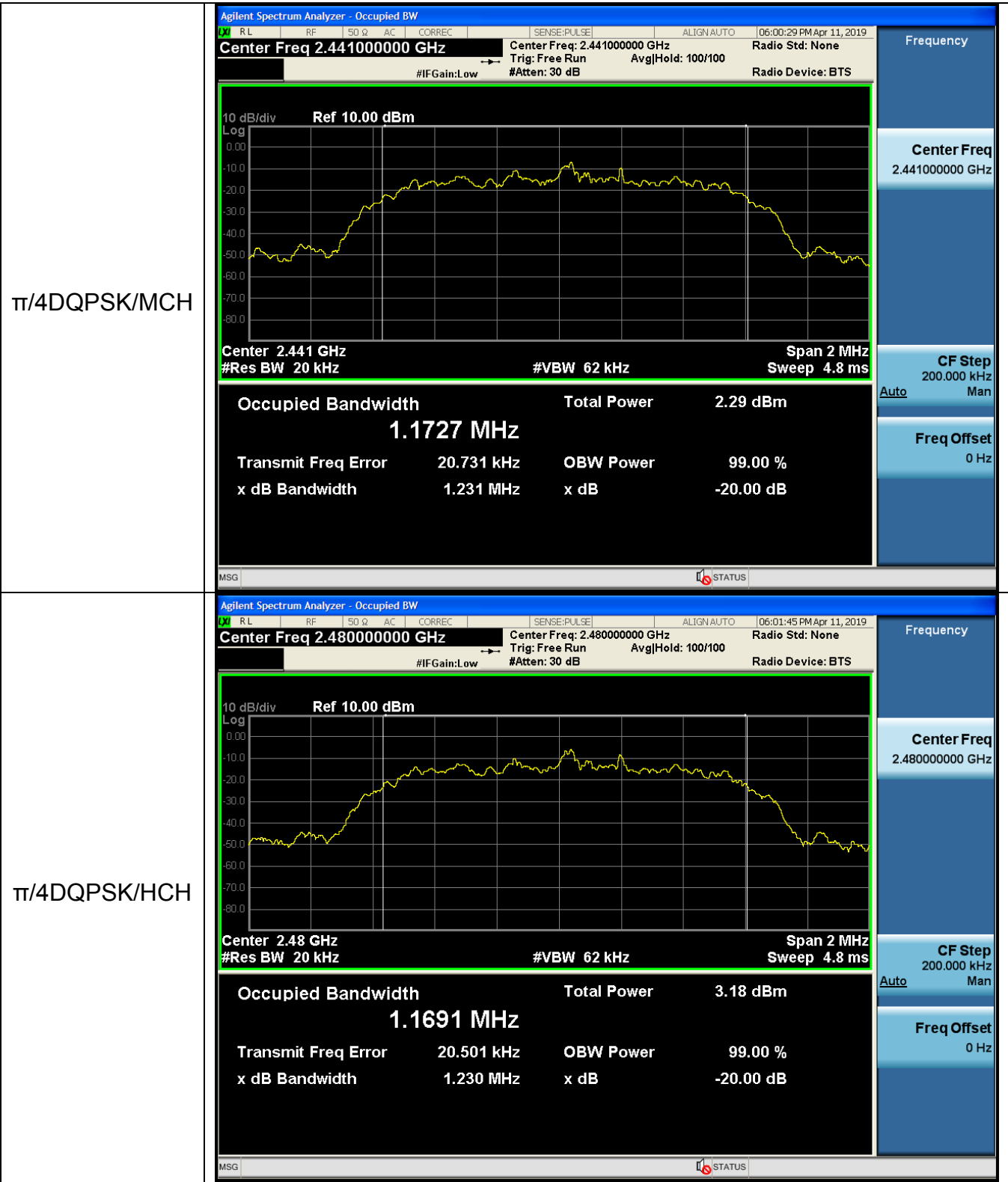
#### A.1 20 dB Bandwidth

| Mode          | Channel. | 20dB Bandwidth [MHz] | Limit(MHz)    | Verdict |
|---------------|----------|----------------------|---------------|---------|
| GFSK          | LCH      | 0.942                | Not Specified | PASS    |
| GFSK          | MCH      | 0.937                | Not Specified | PASS    |
| GFSK          | HCH      | 0.938                | Not Specified | PASS    |
| $\pi/4$ DQPSK | LCH      | 1.232                | Not Specified | PASS    |
| $\pi/4$ DQPSK | MCH      | 1.231                | Not Specified | PASS    |
| $\pi/4$ DQPSK | HCH      | 1.230                | Not Specified | PASS    |

Test Graph



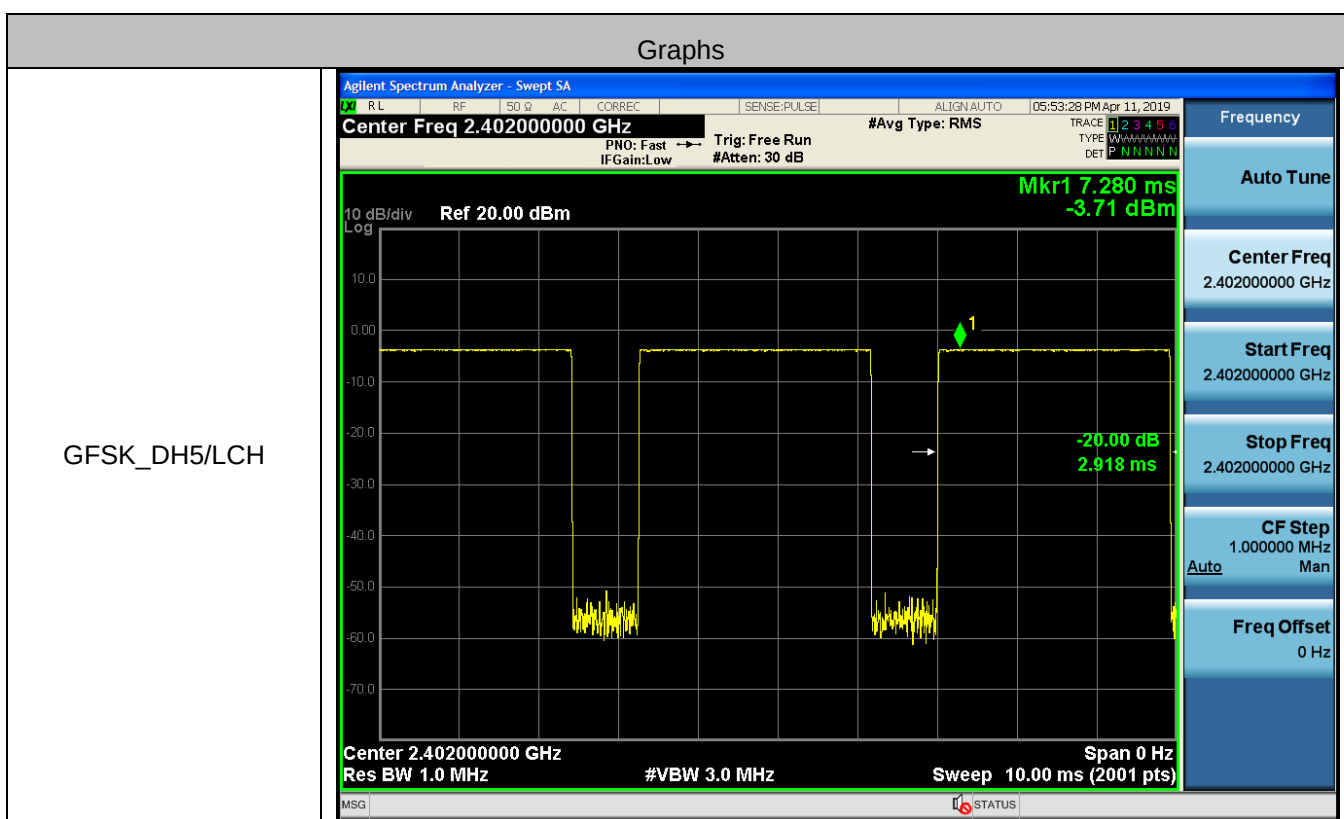


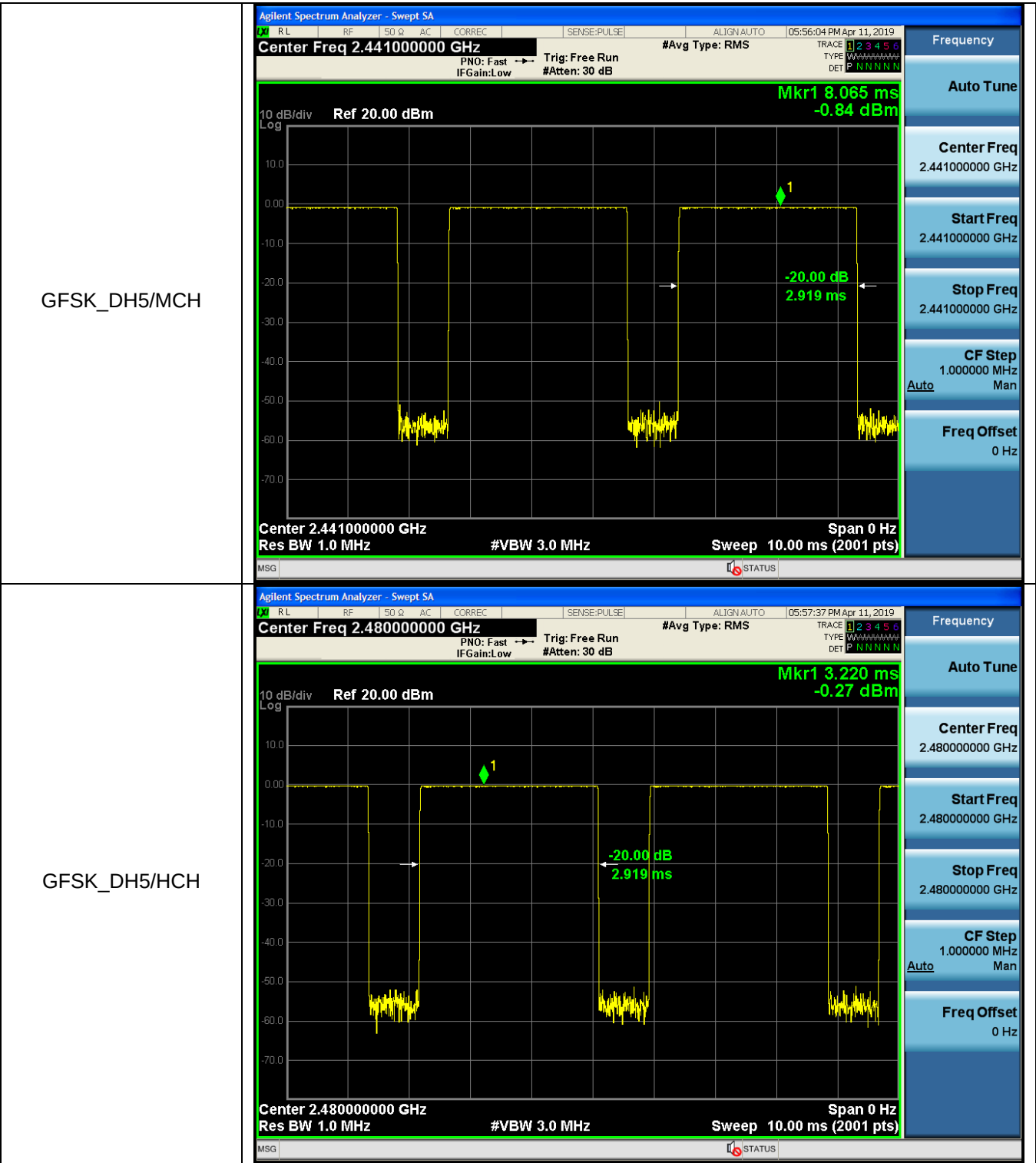


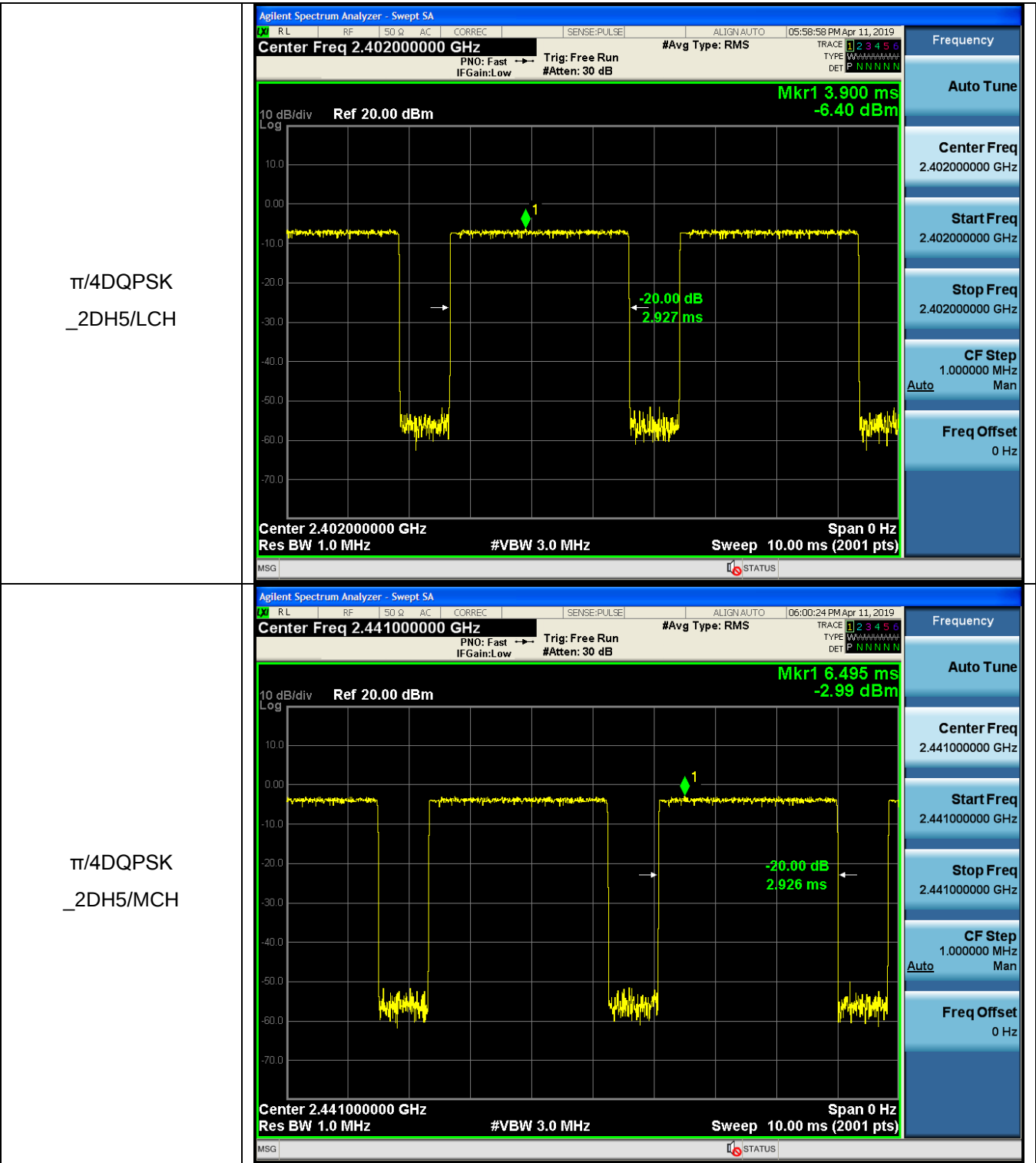
## A.2 Dwell Time

| Mode          | Packet | Channel | Burst Width [s/hop/ch] | Total Hops[hop*ch] | Dwell Time[s] | Limit [s] | Verdict |
|---------------|--------|---------|------------------------|--------------------|---------------|-----------|---------|
| GFSK          | DH5    | LCH     | 0.002918               | 106.7              | 0.311338      | 0.4       | PASS    |
| GFSK          | DH5    | MCH     | 0.002919               | 106.7              | 0.311423      | 0.4       | PASS    |
| GFSK          | DH5    | HCH     | 0.002919               | 106.7              | 0.311447      | 0.4       | PASS    |
| $\pi/4$ DQPSK | 2DH5   | LCH     | 0.002927               | 106.7              | 0.312311      | 0.4       | PASS    |
| $\pi/4$ DQPSK | 2DH5   | MCH     | 0.002926               | 106.7              | 0.312201      | 0.4       | PASS    |
| $\pi/4$ DQPSK | 2DH5   | HCH     | 0.002927               | 106.7              | 0.312312      | 0.4       | PASS    |

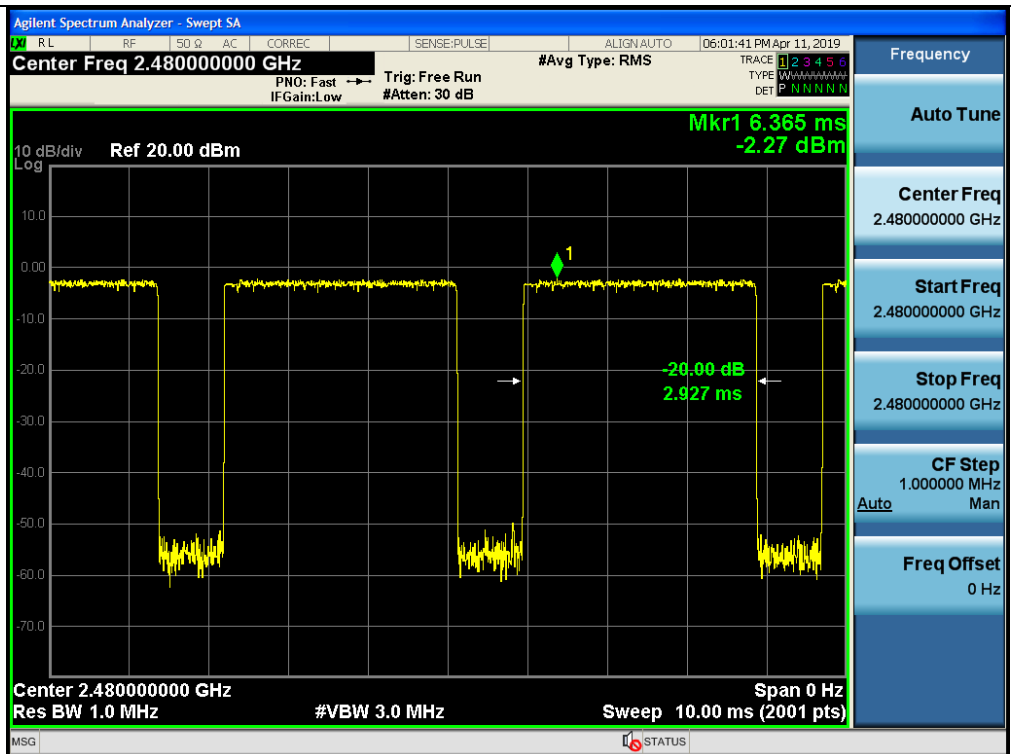
## Test Graph







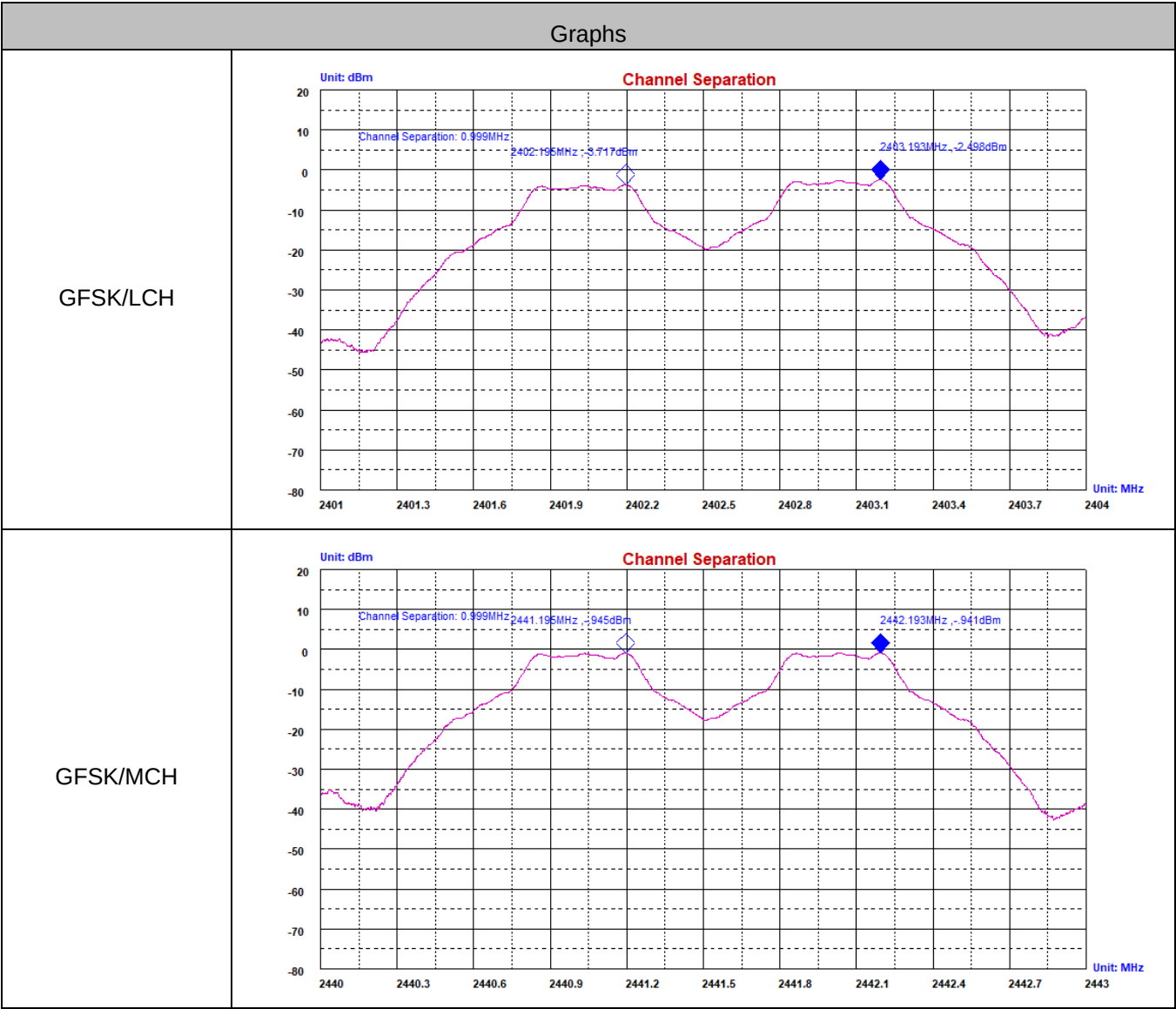
$\pi/4$ DQPSK  
\_2DH5/HCH

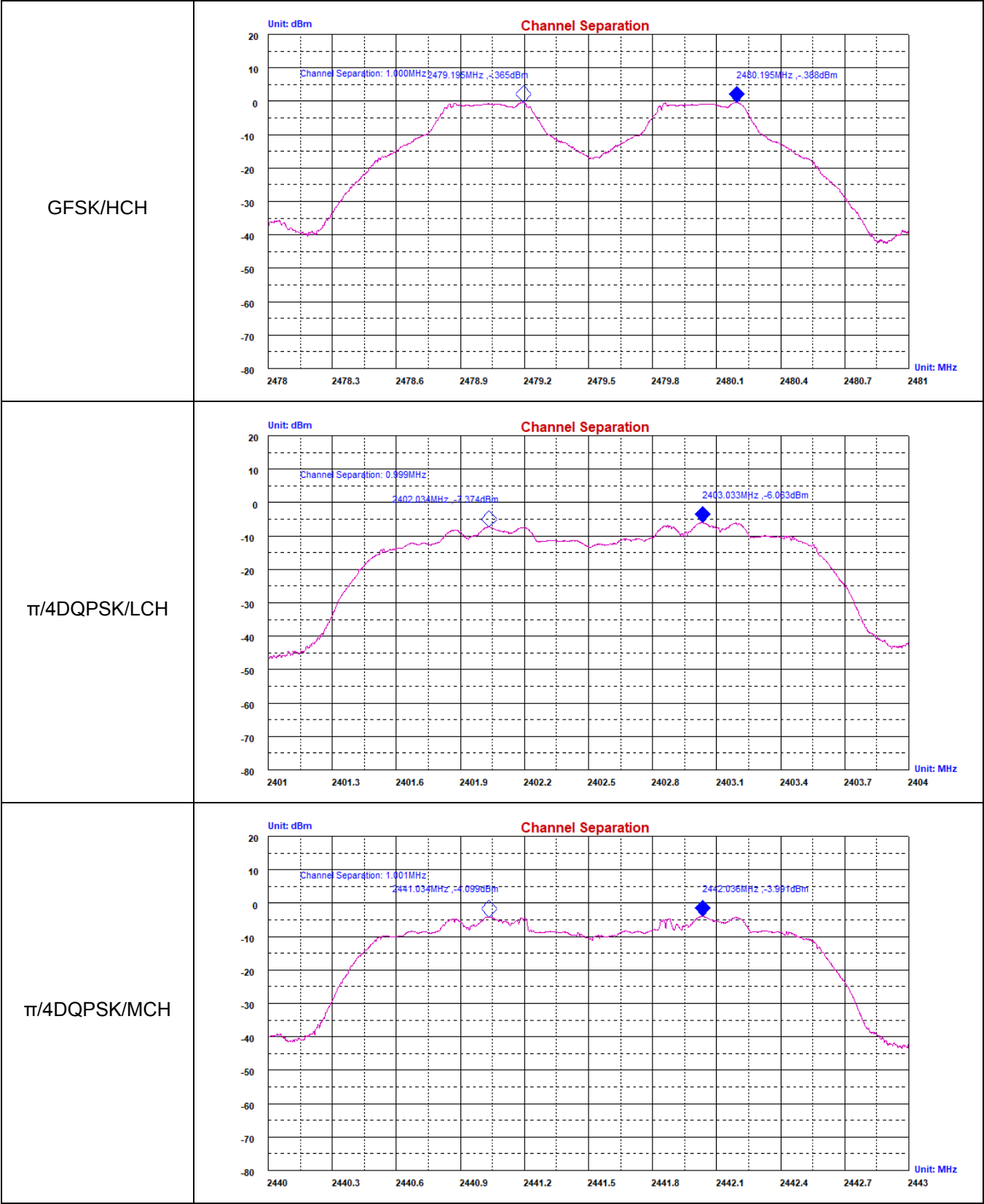


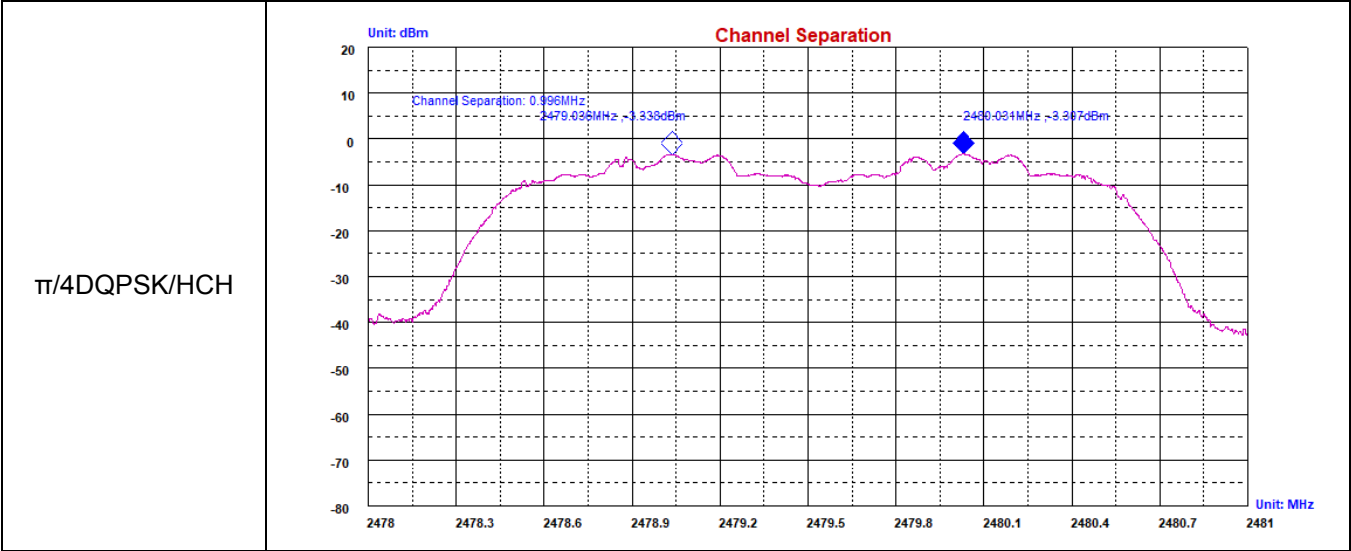
A.3 Carrier Frequency Separation

| Mode          | Channel. | Carrier Frequency Separation<br>[MHz] | Limit<br>[MHz] | Verdict |
|---------------|----------|---------------------------------------|----------------|---------|
| GFSK          | LCH      | 0.999                                 | 0.628          | PASS    |
| GFSK          | MCH      | 0.999                                 | 0.625          | PASS    |
| GFSK          | HCH      | 1.000                                 | 0.625          | PASS    |
| $\pi$ /4DQPSK | LCH      | 0.999                                 | 0.821          | PASS    |
| $\pi$ /4DQPSK | MCH      | 1.001                                 | 0.821          | PASS    |
| $\pi$ /4DQPSK | HCH      | 0.996                                 | 0.820          | PASS    |

Test Graph



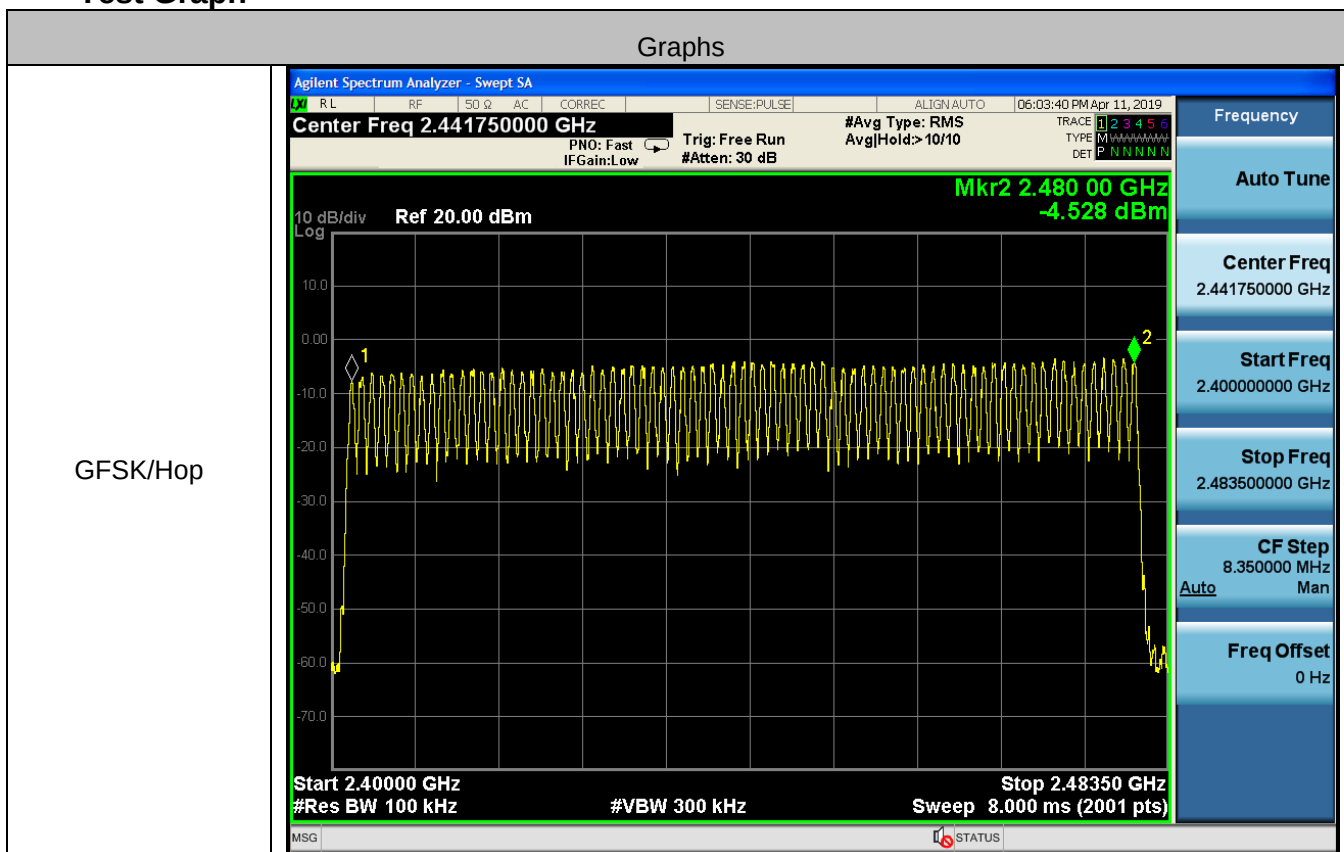




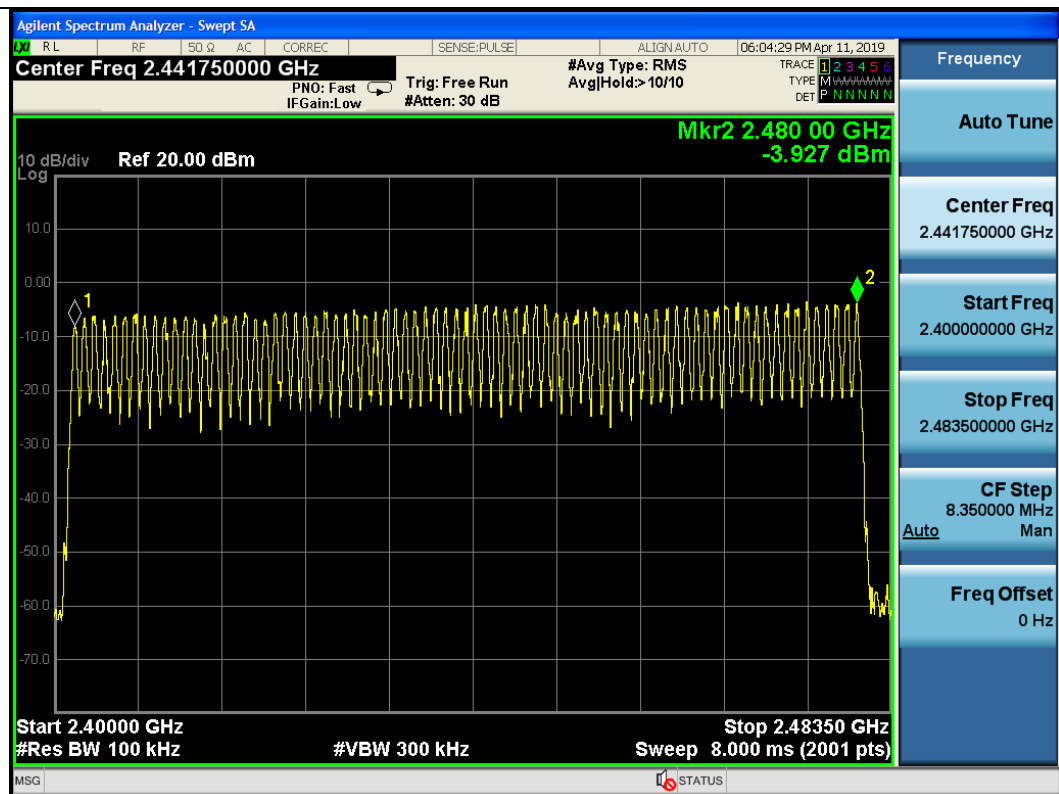
#### A.4 Hopping Channel Number

| Mode          | Channel. | Number of Hopping Channel[N] | Limit[N]  | Verdict |
|---------------|----------|------------------------------|-----------|---------|
| GFSK          | Hop      | 79                           | $\geq 15$ | PASS    |
| $\pi/4$ DQPSK | Hop      | 79                           | $\geq 15$ | PASS    |

## Test Graph



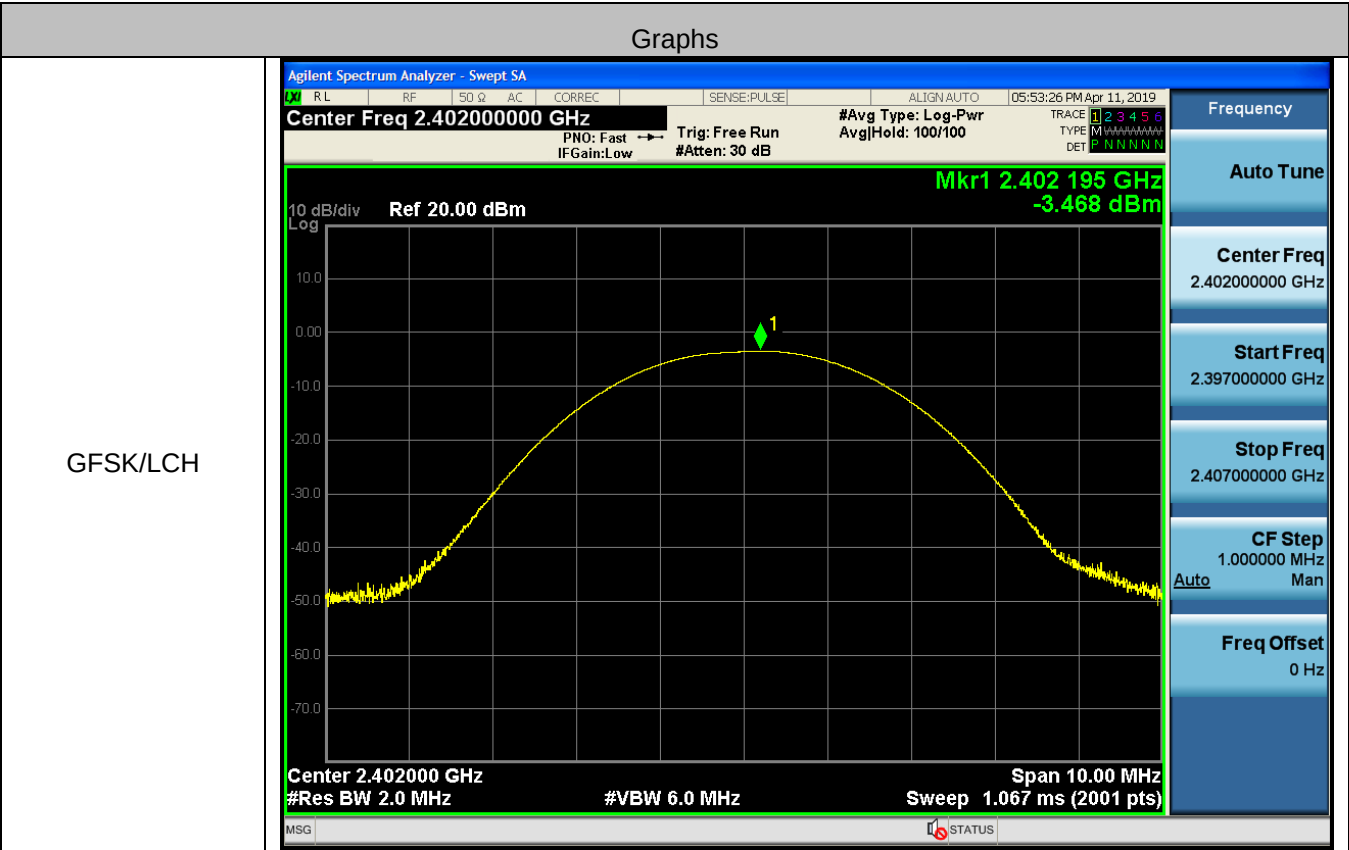
$\pi/4$ DQPSK/Hop

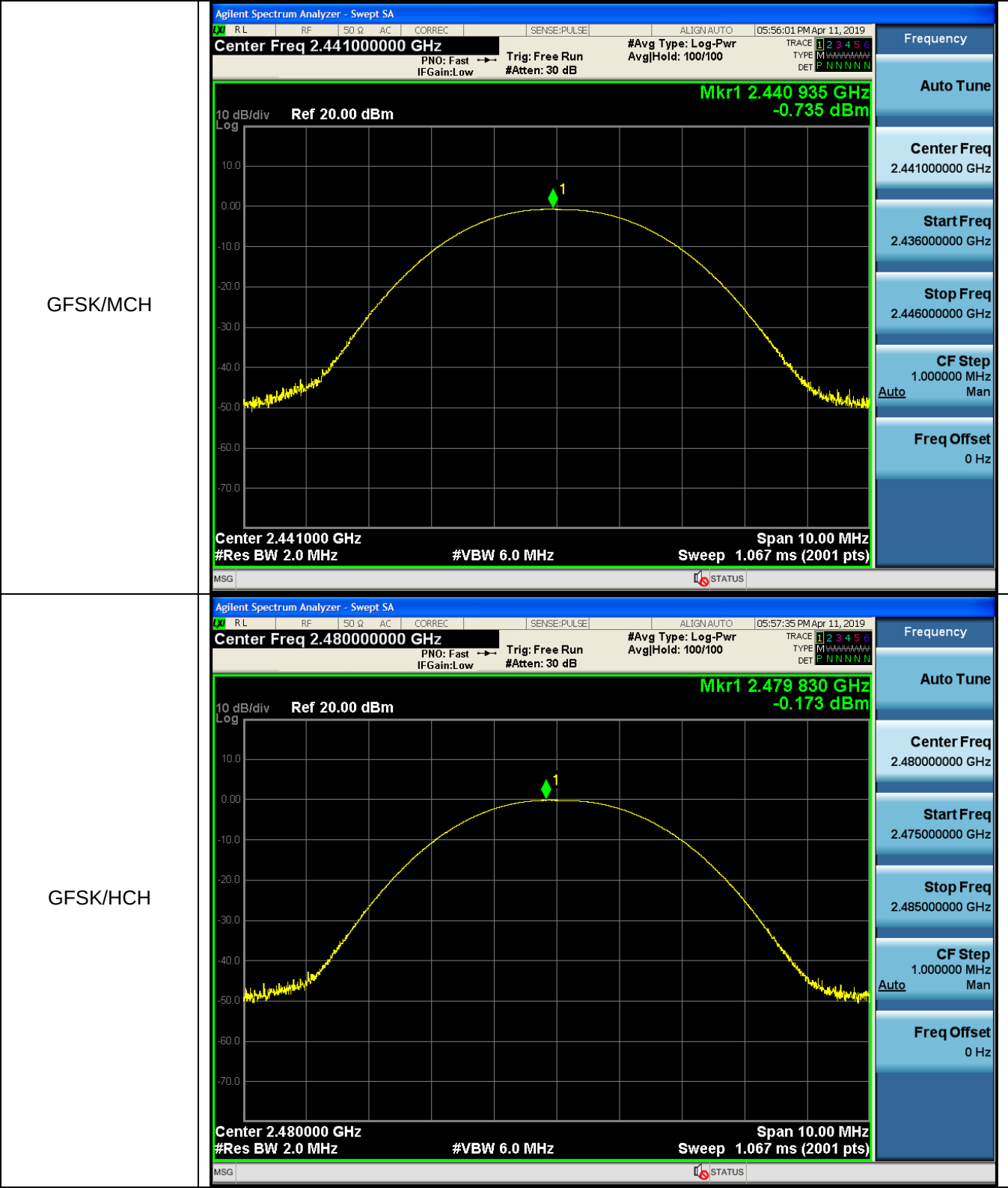


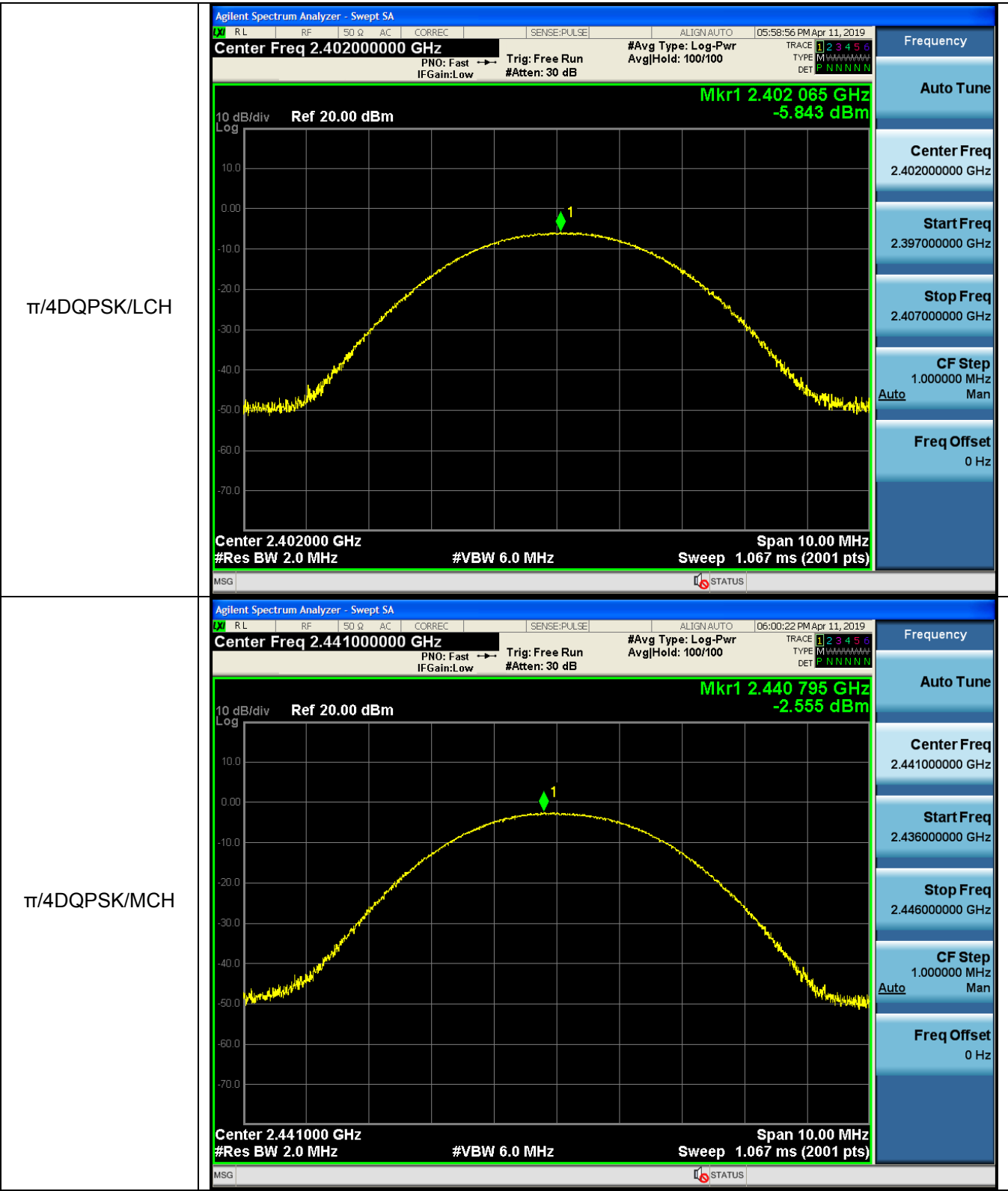
A.5 Conducted Peak Output Power

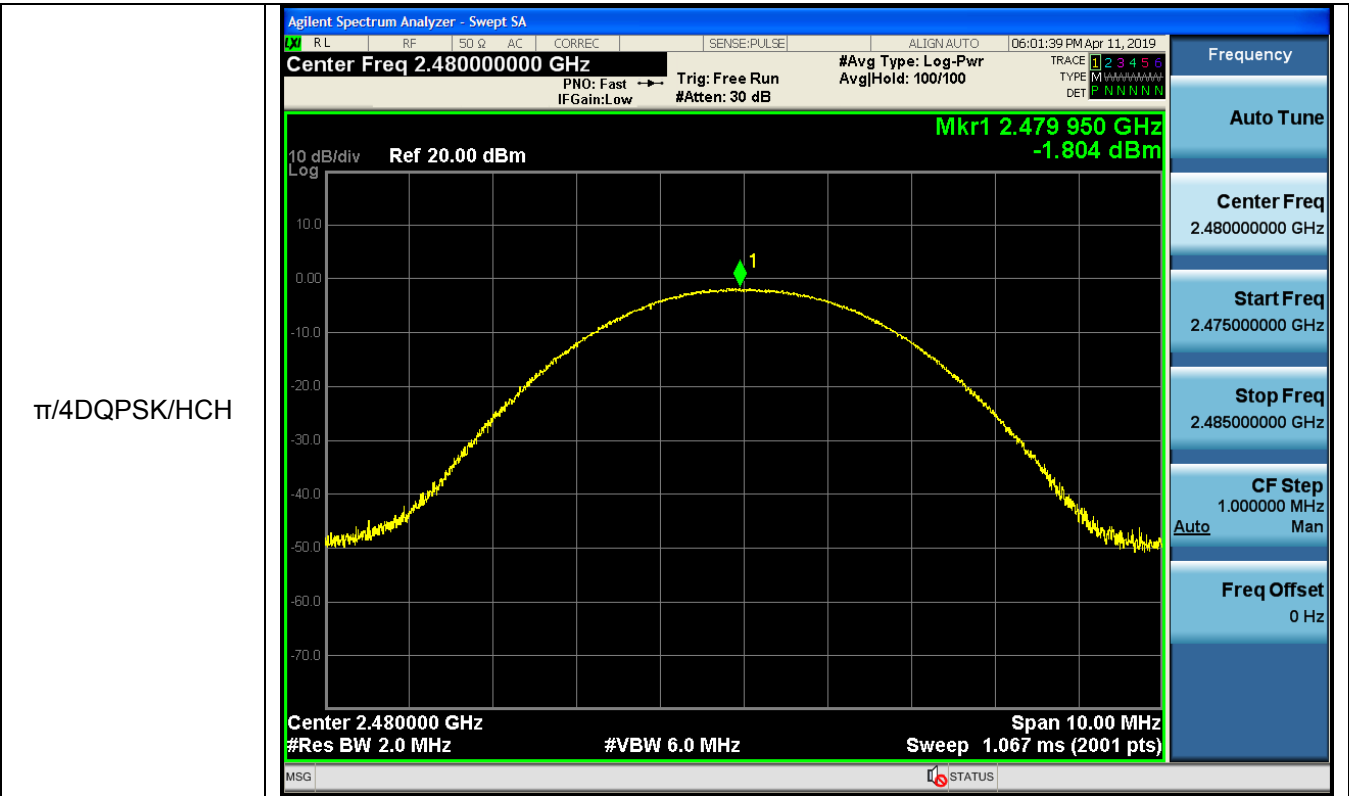
| Mode          | Channel. | Maximum Peak Output Power [dBm] | Limit [dBm] | Verdict |
|---------------|----------|---------------------------------|-------------|---------|
| GFSK          | LCH      | -3.468                          | 21          | PASS    |
| GFSK          | MCH      | -0.735                          | 21          | PASS    |
| GFSK          | HCH      | -0.173                          | 21          | PASS    |
| $\pi/4$ DQPSK | LCH      | -5.843                          | 21          | PASS    |
| $\pi/4$ DQPSK | MCH      | -2.555                          | 21          | PASS    |
| $\pi/4$ DQPSK | HCH      | -1.804                          | 21          | PASS    |

Test Graph







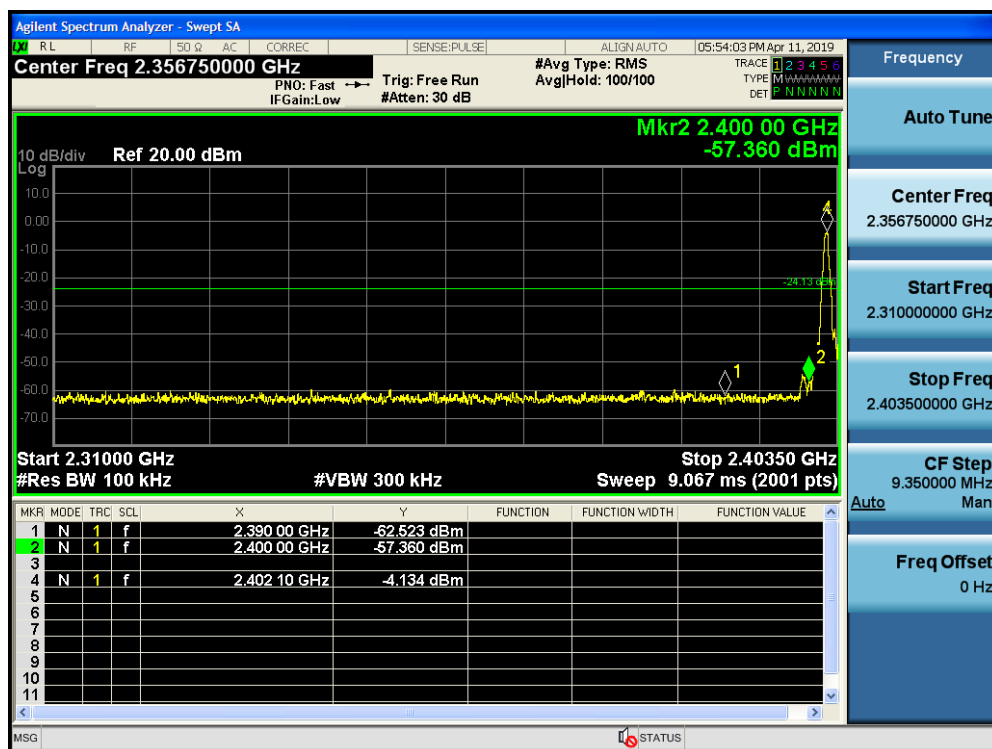


**A.6 Band-edge for RF Conducted Emissions**

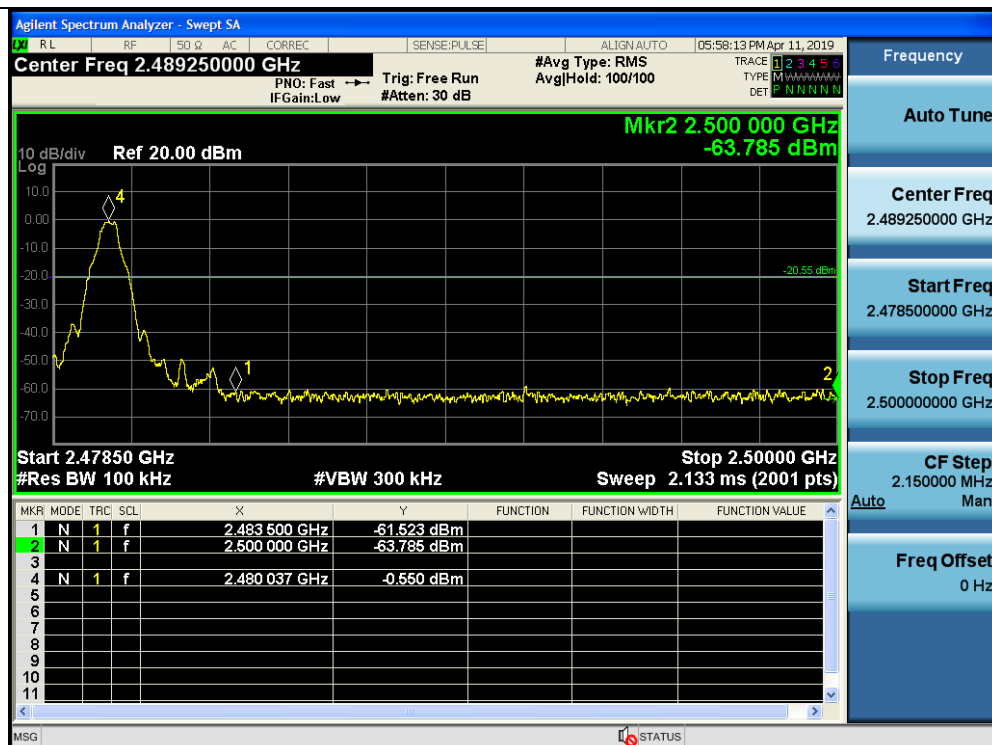
| Type         | Carrier Frequency(MHz) | Frequency(MHz) | Carrier Frequency Power [dBm] | Bandedge Peak(dBm) | Upper limit(dBm) | Conclusion |
|--------------|------------------------|----------------|-------------------------------|--------------------|------------------|------------|
| 1DH5         | 2402                   | 2390           | -4.134                        | -62.52             | -24.134          | Pass       |
| 1DH5         | 2402                   | 2400           | -4.134                        | -57.36             | -24.134          | Pass       |
| 1DH5         | 2480                   | 2483.5         | -0.550                        | -61.52             | -20.550          | Pass       |
| 1DH5         | 2480                   | 2500           | -0.550                        | -63.78             | -20.550          | Pass       |
| 2DH5         | 2402                   | 2390           | -7.439                        | -63.86             | -27.439          | Pass       |
| 2DH5         | 2402                   | 2400           | -7.439                        | -58.84             | -27.439          | Pass       |
| 2DH5         | 2480                   | 2483.5         | -4.282                        | -61.43             | -24.282          | Pass       |
| 2DH5         | 2480                   | 2500           | -4.282                        | -61.00             | -24.282          | Pass       |
| 1DH5-Hopping | 2402                   | 2390           | -5.188                        | -60.75             | -25.188          | Pass       |
| 1DH5-Hopping | 2402                   | 2400           | -5.188                        | -62.40             | -25.188          | Pass       |
| 1DH5-Hopping | 2480                   | 2483.5         | -3.354                        | -60.69             | -23.354          | Pass       |
| 1DH5-Hopping | 2480                   | 2500           | -3.354                        | -56.50             | -23.354          | Pass       |
| 2DH5-Hopping | 2402                   | 2390           | -4.734                        | -61.22             | -24.734          | Pass       |
| 2DH5-Hopping | 2402                   | 2400           | -4.734                        | -60.78             | -24.734          | Pass       |
| 2DH5-Hopping | 2480                   | 2483.5         | -3.487                        | -61.42             | -23.487          | Pass       |
| 2DH5-Hopping | 2480                   | 2500           | -3.487                        | -57.34             | -23.487          | Pass       |

## Graphs

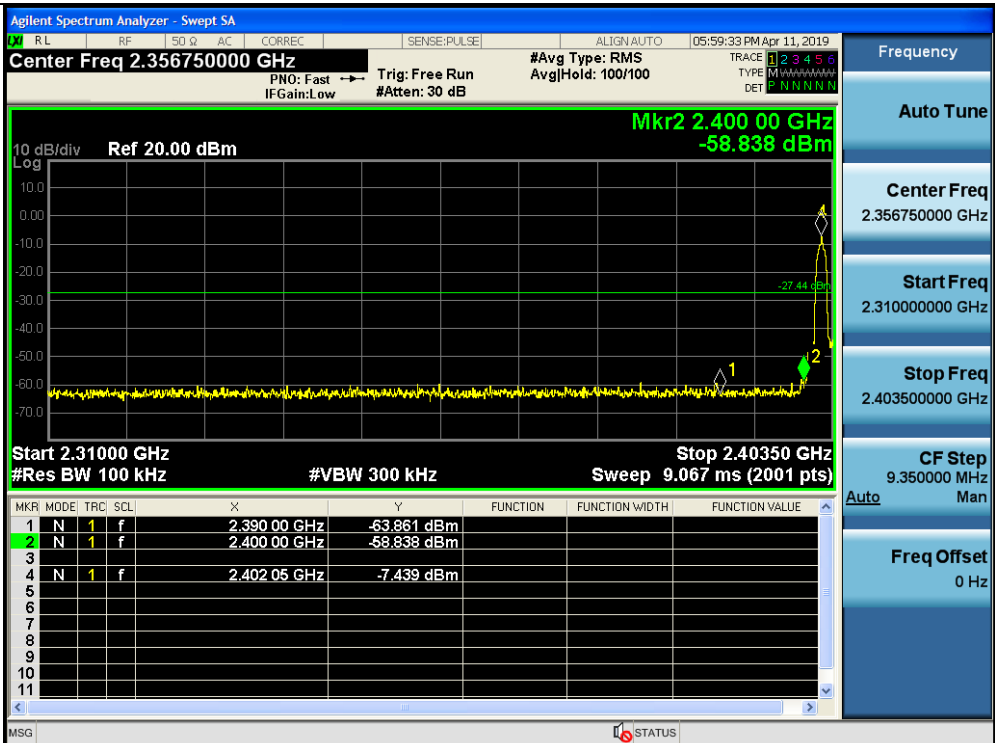
GFSK/LCH/No Hop



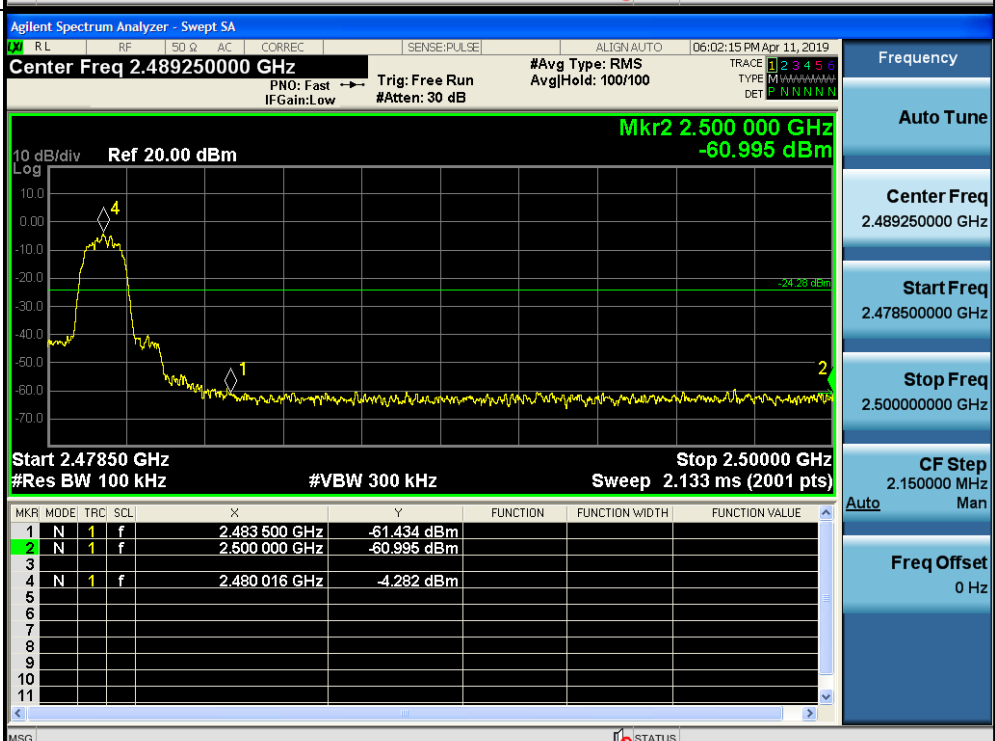
GFSK/HCH/No Hop



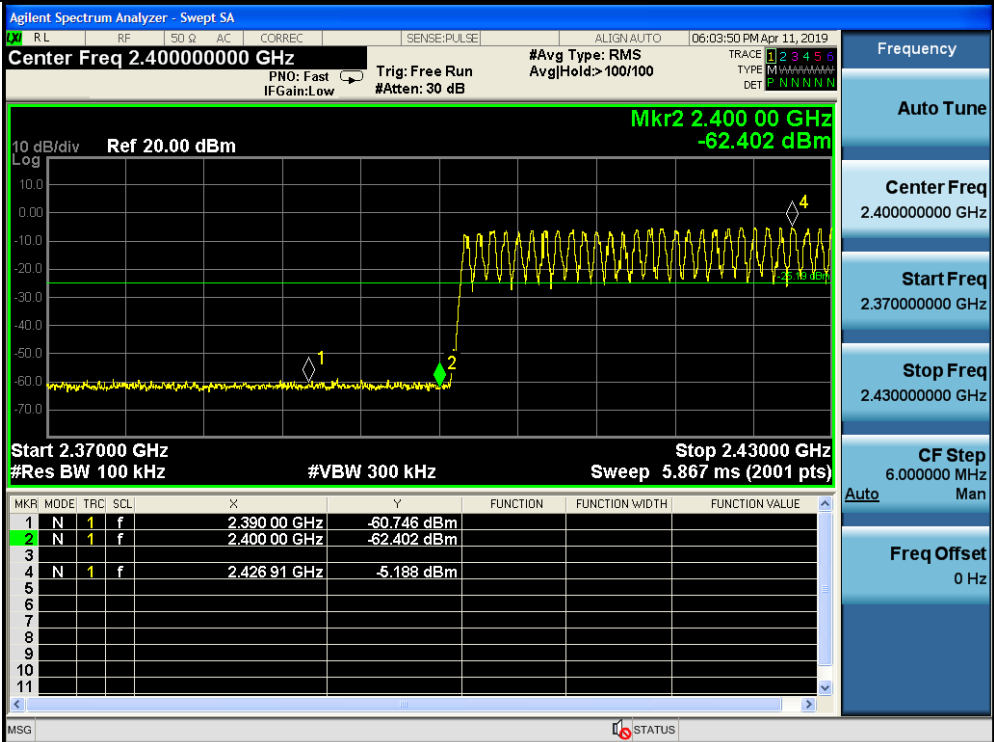
$\pi$  /4DQPSK/LCH/No  
Hop



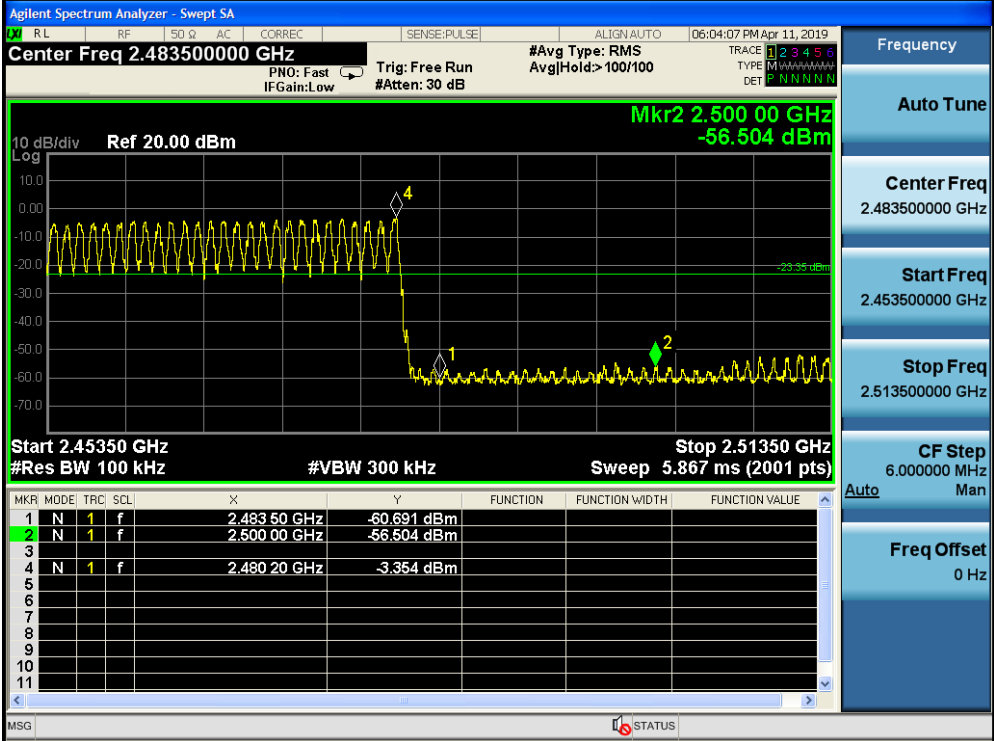
$\pi$  /4DQPSK/HCH/No  
Hop



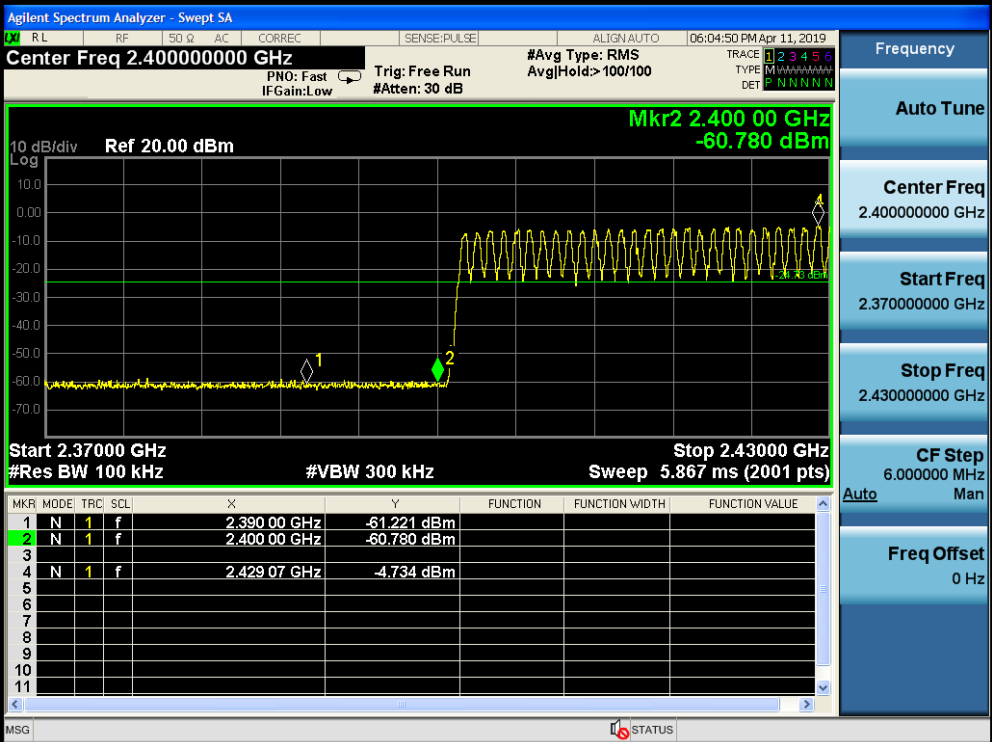
GFSK/LCH/Hop



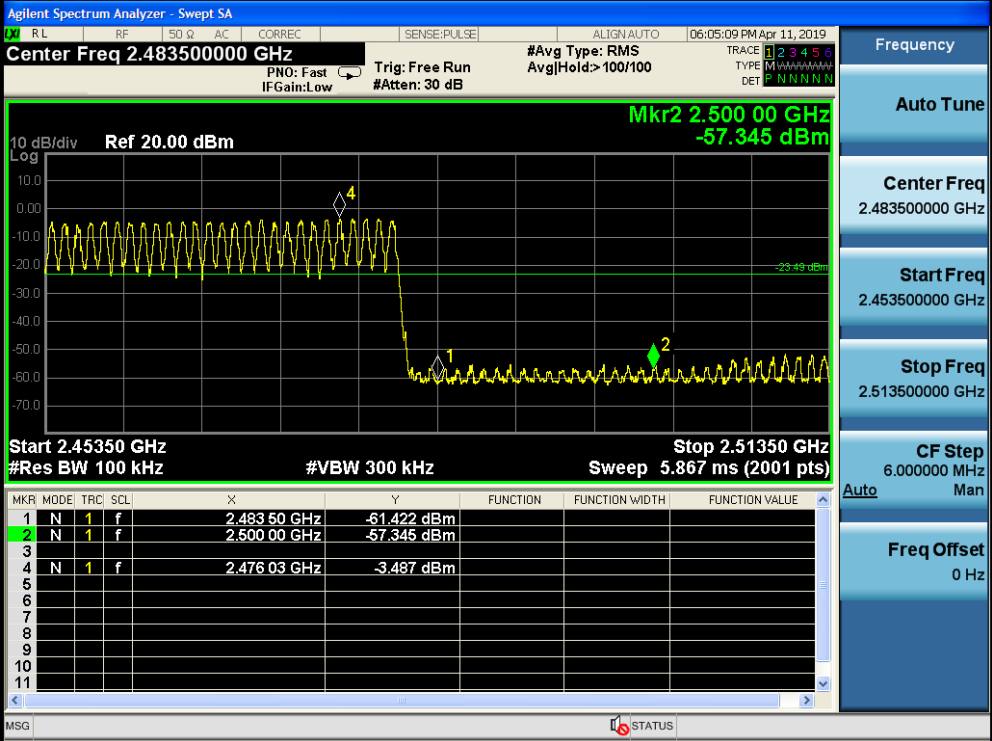
GFSK/HCH/Hop



$\pi$  /4DQPSK/LCH/Hop



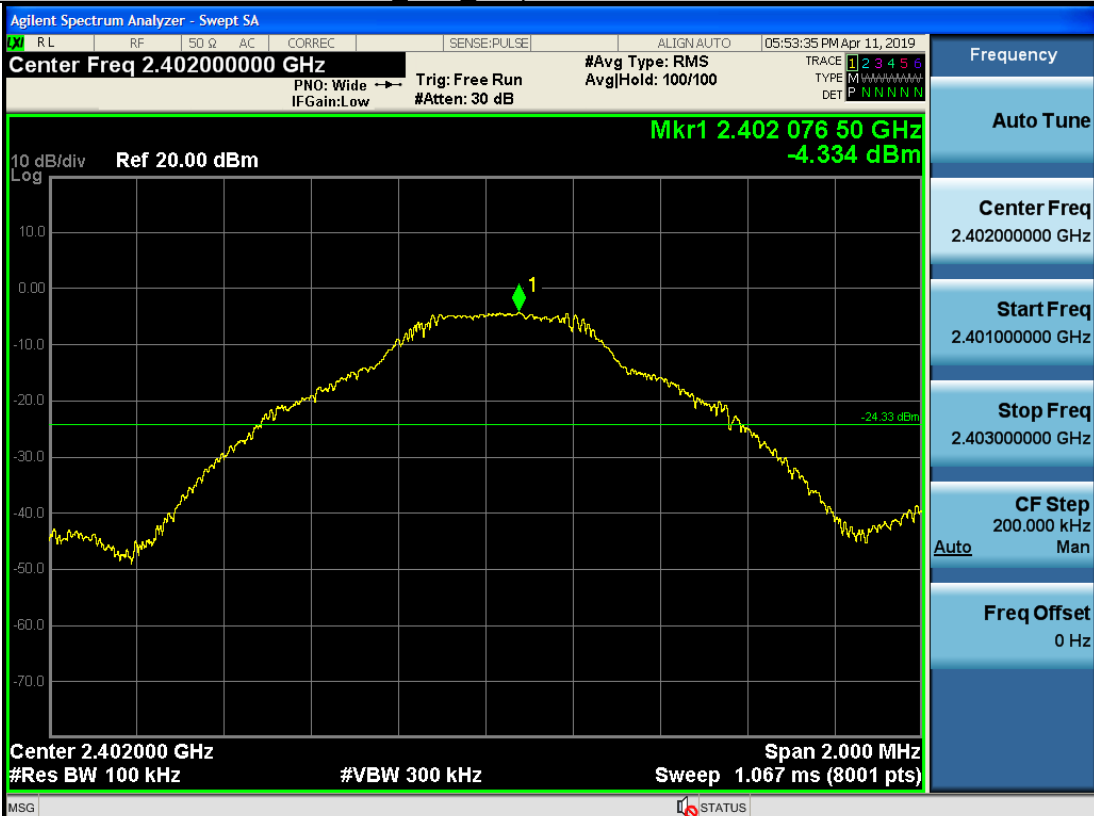
$\pi$  /4DQPSK/HCH/Hop



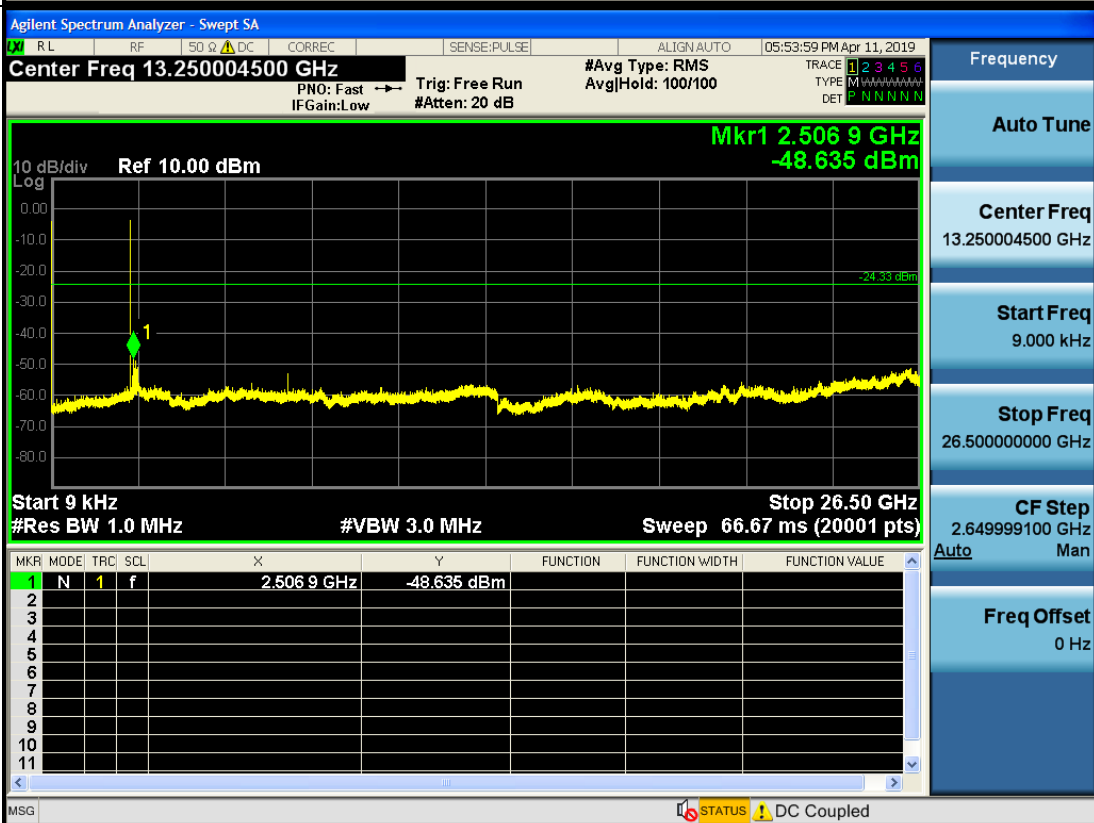
## Test Graph

## GFSK LCH Graphs

Pref



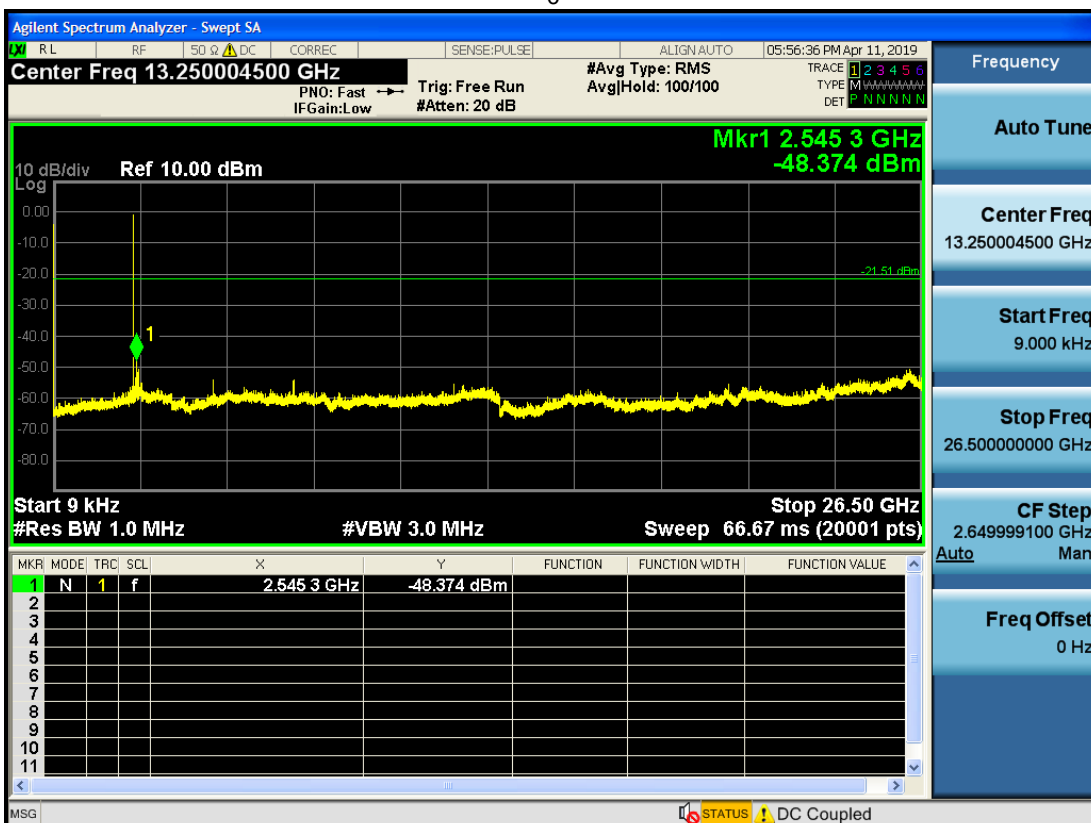
Puw

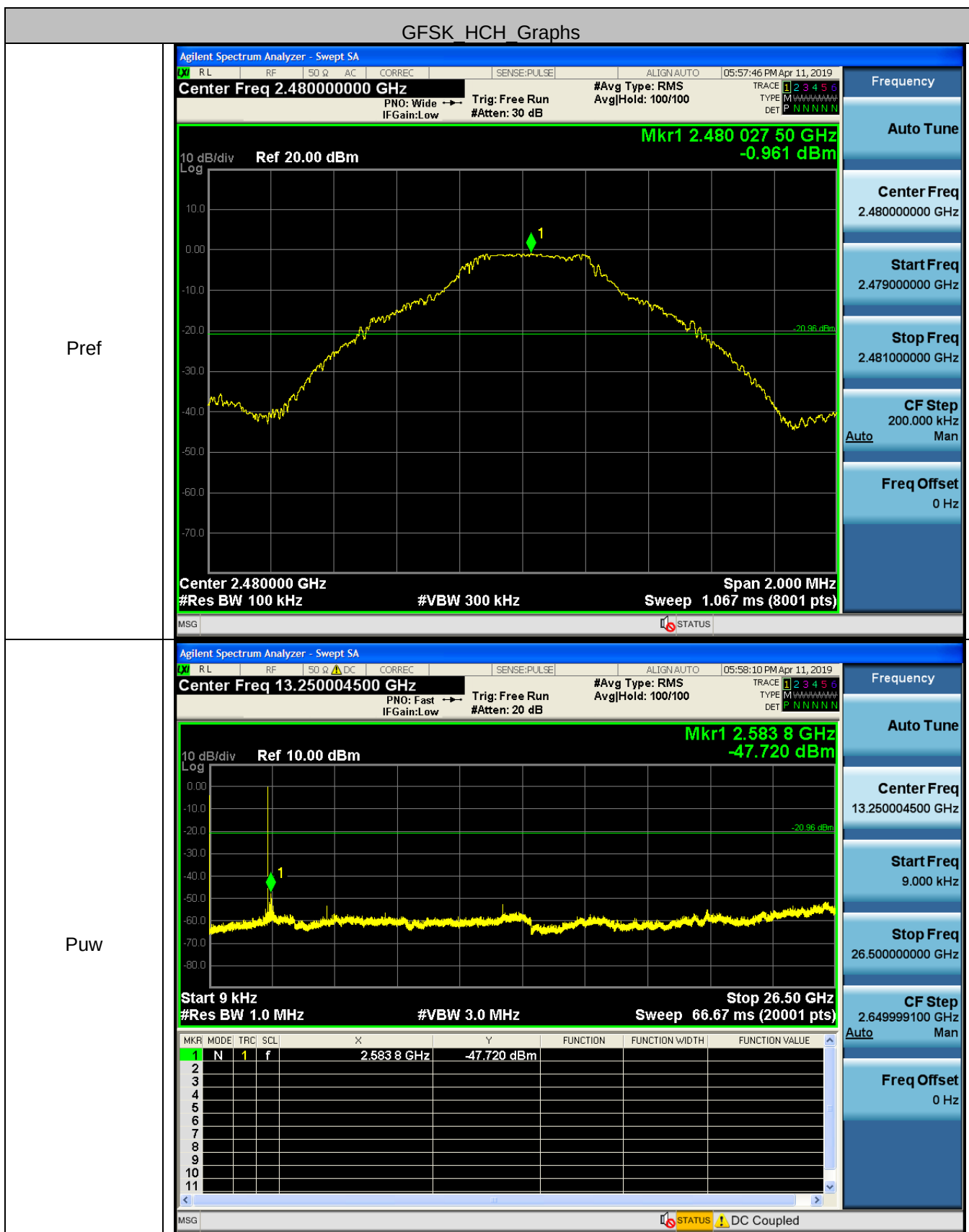


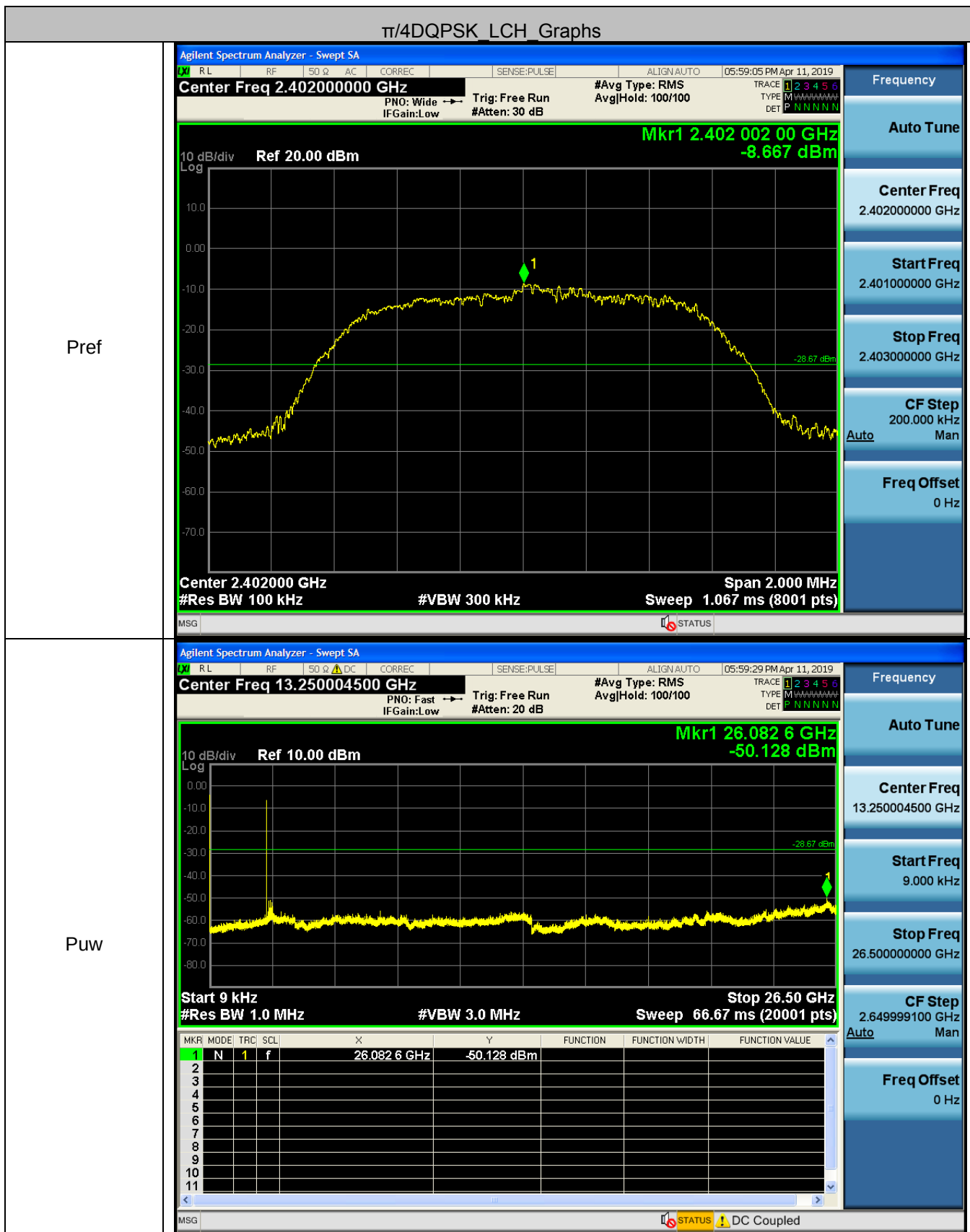
## GFSK MCH Graphs

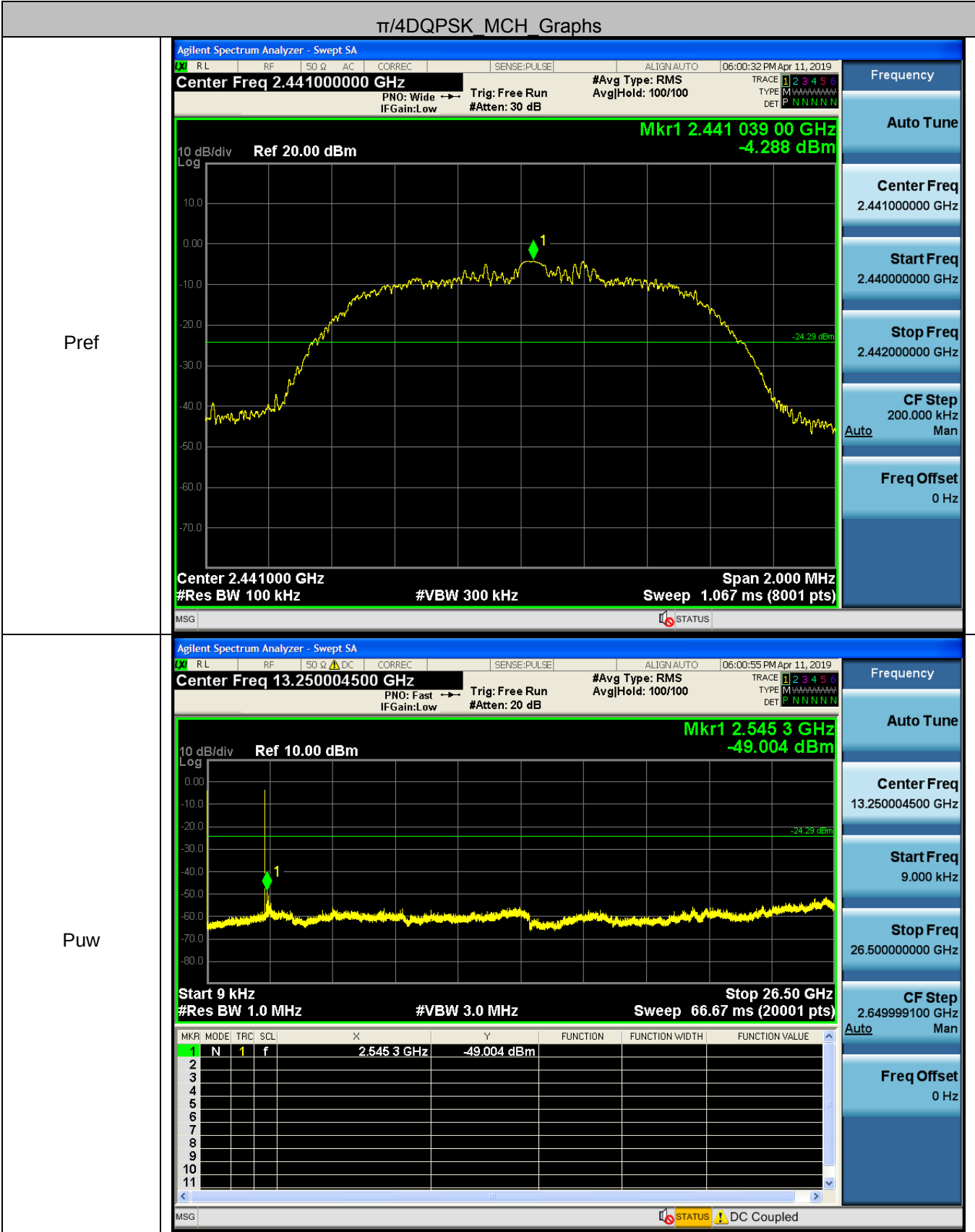


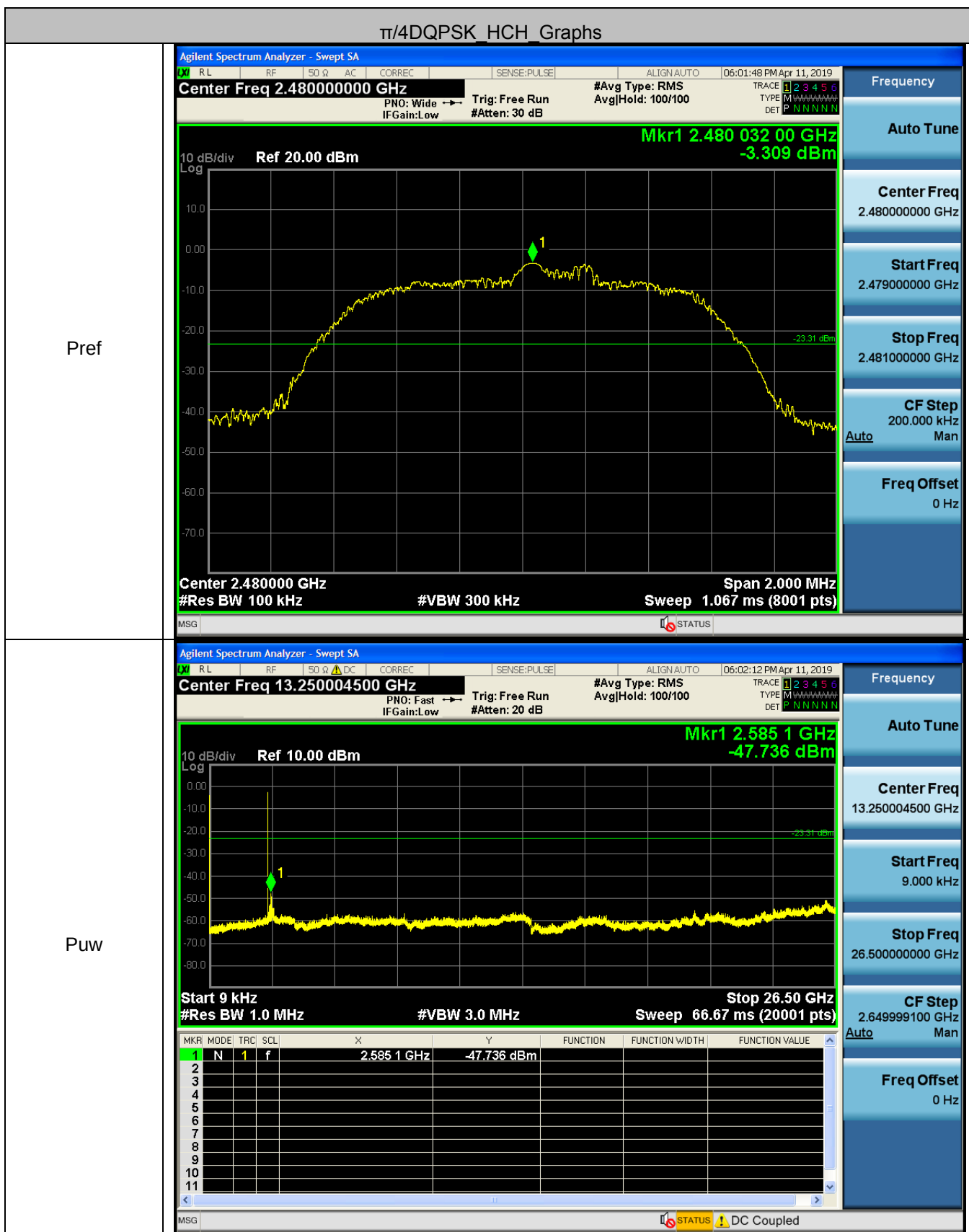
0







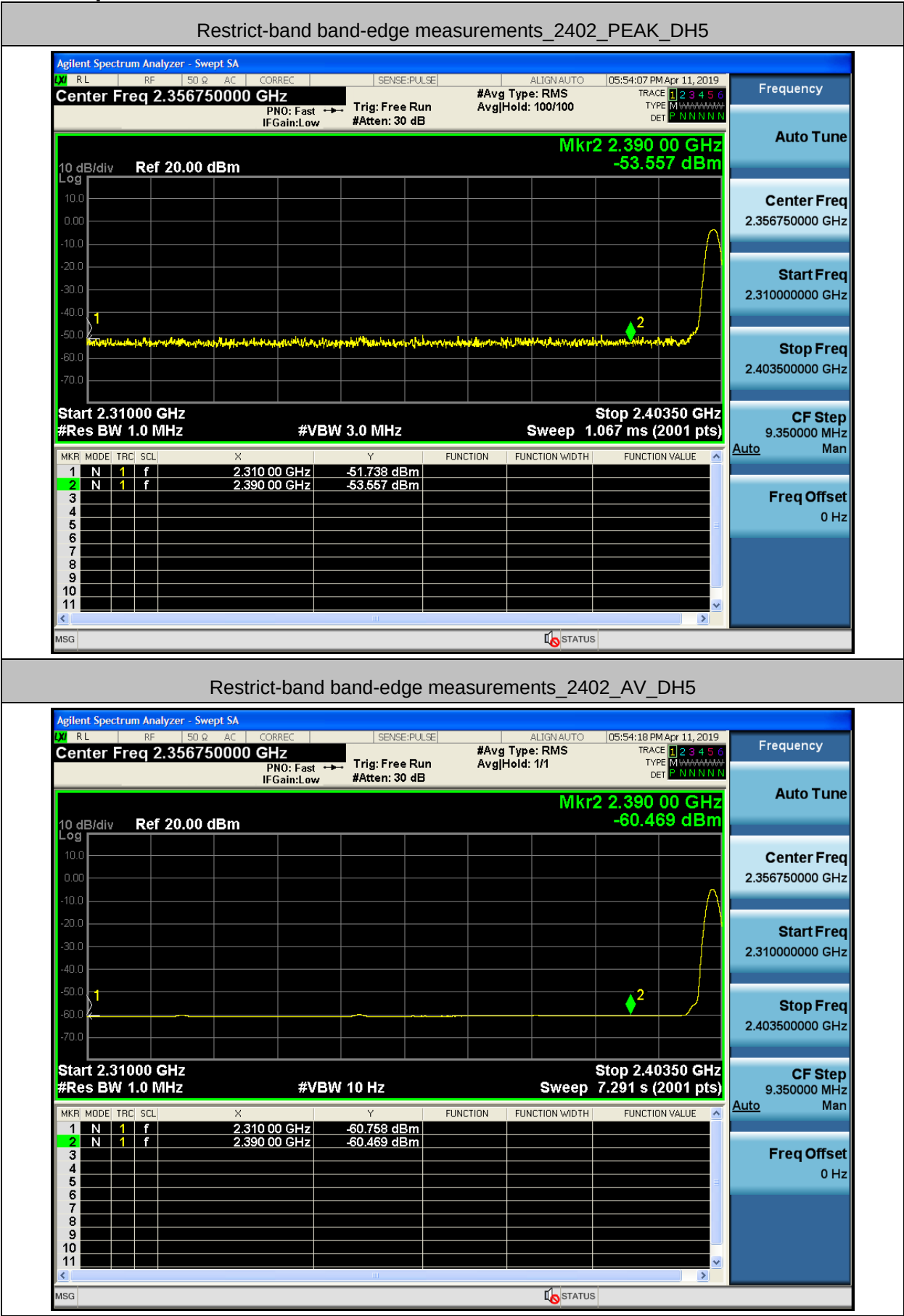




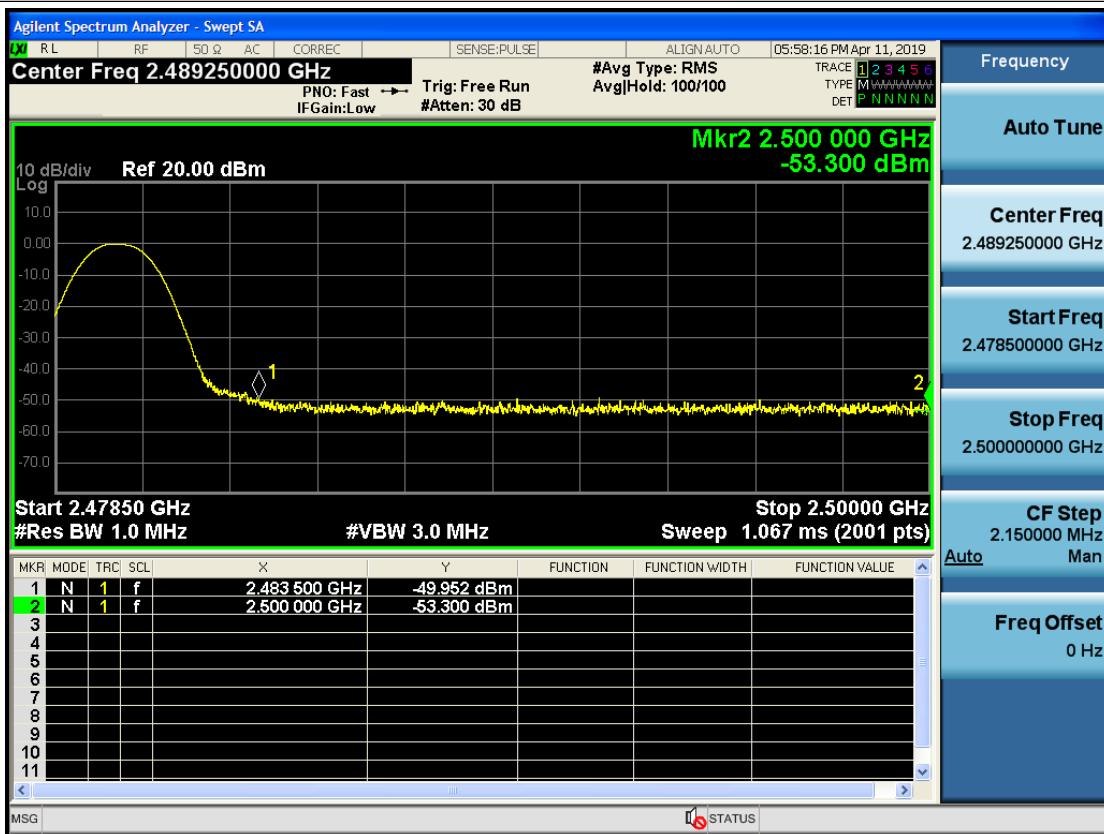
A.8 Restrict-band measurements

| Type | Carrier Frequency (MHz) | Frequency(MHz) | Gain | Ground Factor | Peak Value(dBm) | E [dBuV/m] | Limit [dBuV/m] | Average Value(dBm) | E [dBuV/m] | Limit [dBuV/m] | Conclusion |
|------|-------------------------|----------------|------|---------------|-----------------|------------|----------------|--------------------|------------|----------------|------------|
| 1DH5 | 2402                    | 2310           | 2.00 | 0.00          | -51.74          | 45.46      | 74             | -60.76             | 36.44      | 38.42          | Pass       |
| 1DH5 | 2402                    | 2390           | 2.00 | 0.00          | -53.56          | 43.64      | 74             | -60.47             | 36.73      | 38.85          | Pass       |
| 1DH5 | 2480                    | 2483.5         | 2.00 | 0.00          | -49.95          | 47.25      | 74             | -56.5              | 40.7       | 45.33          | Pass       |
| 1DH5 | 2480                    | 2500           | 2.00 | 0.00          | -53.3           | 43.9       | 74             | -59.92             | 37.28      | 39.58          | Pass       |
| 2DH5 | 2402                    | 2310           | 2.00 | 0.00          | -53.86          | 43.34      | 74             | -60.79             | 36.41      | 38.45          | Pass       |
| 2DH5 | 2402                    | 2390           | 2.00 | 0.00          | -53.34          | 43.86      | 74             | -60.52             | 36.68      | 38.79          | Pass       |
| 2DH5 | 2480                    | 2483.5         | 2.00 | 0.00          | -50.36          | 46.84      | 74             | -57.61             | 39.59      | 43.37          | Pass       |
| 2DH5 | 2480                    | 2500           | 2.00 | 0.00          | -53.33          | 43.87      | 74             | -59.9              | 37.3       | 39.36          | Pass       |

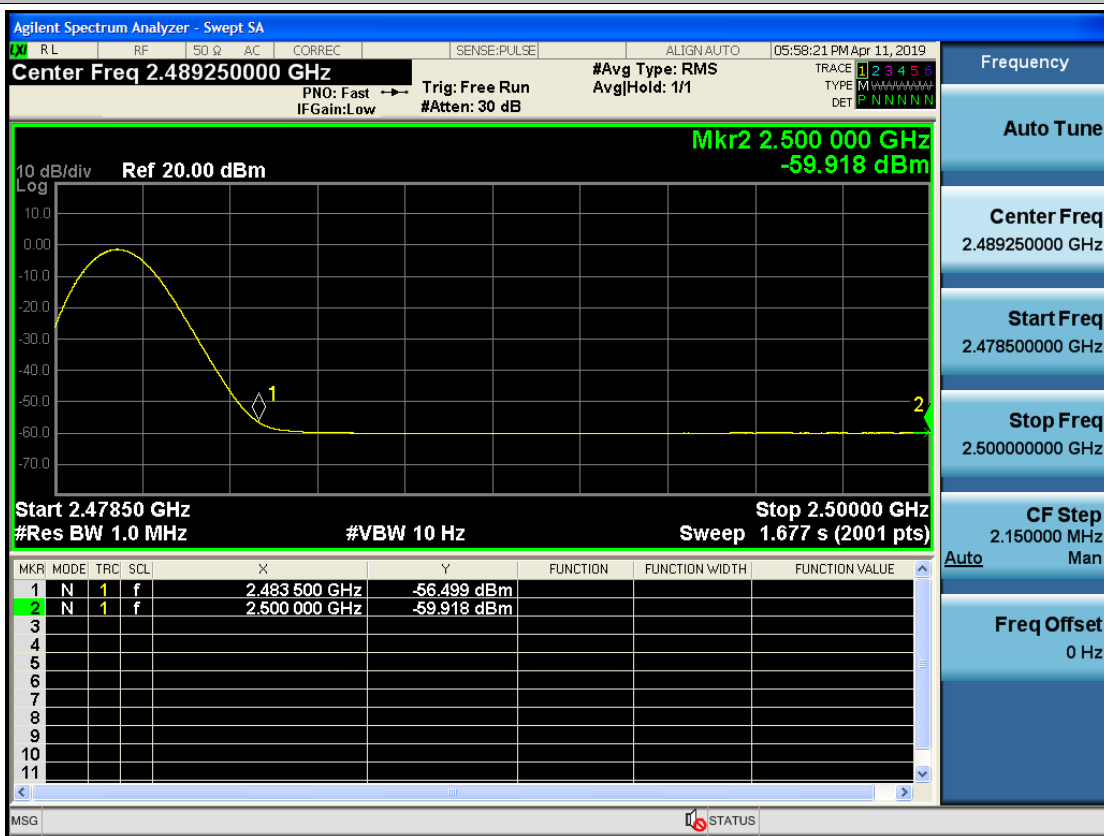
Test Graph



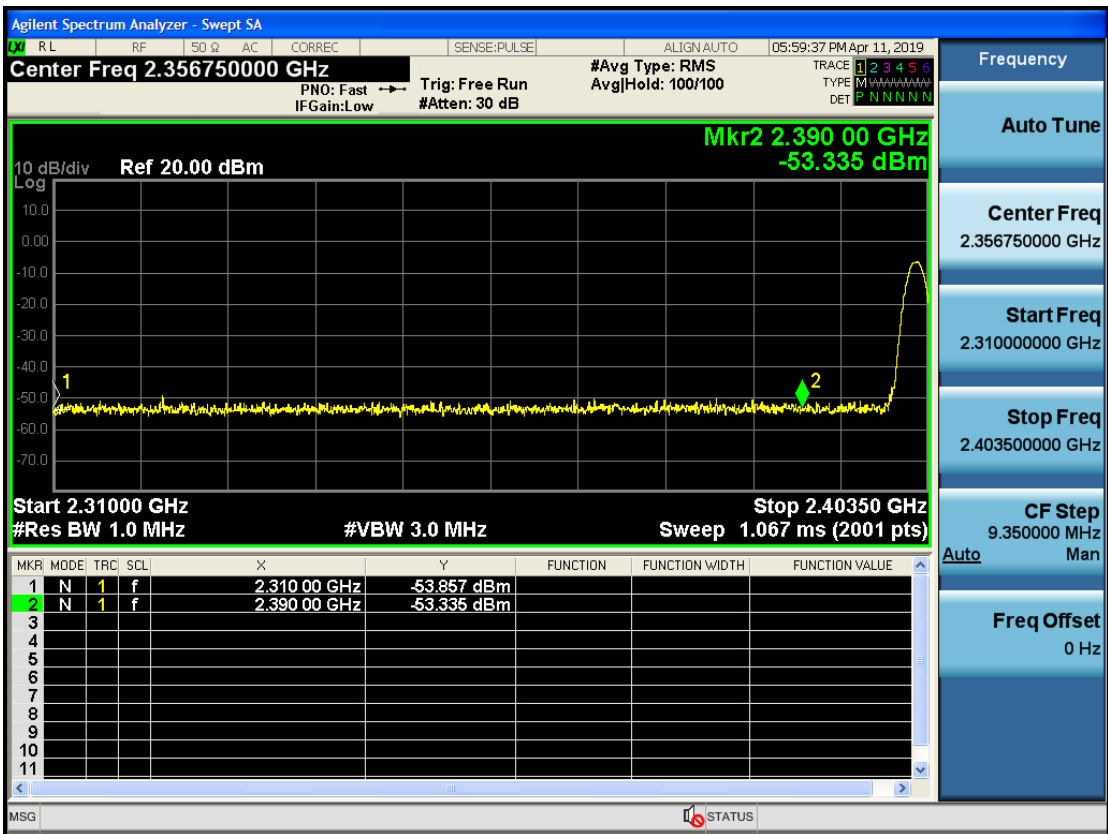
## Restrict-band band-edge measurements 2480 PEAK DH5



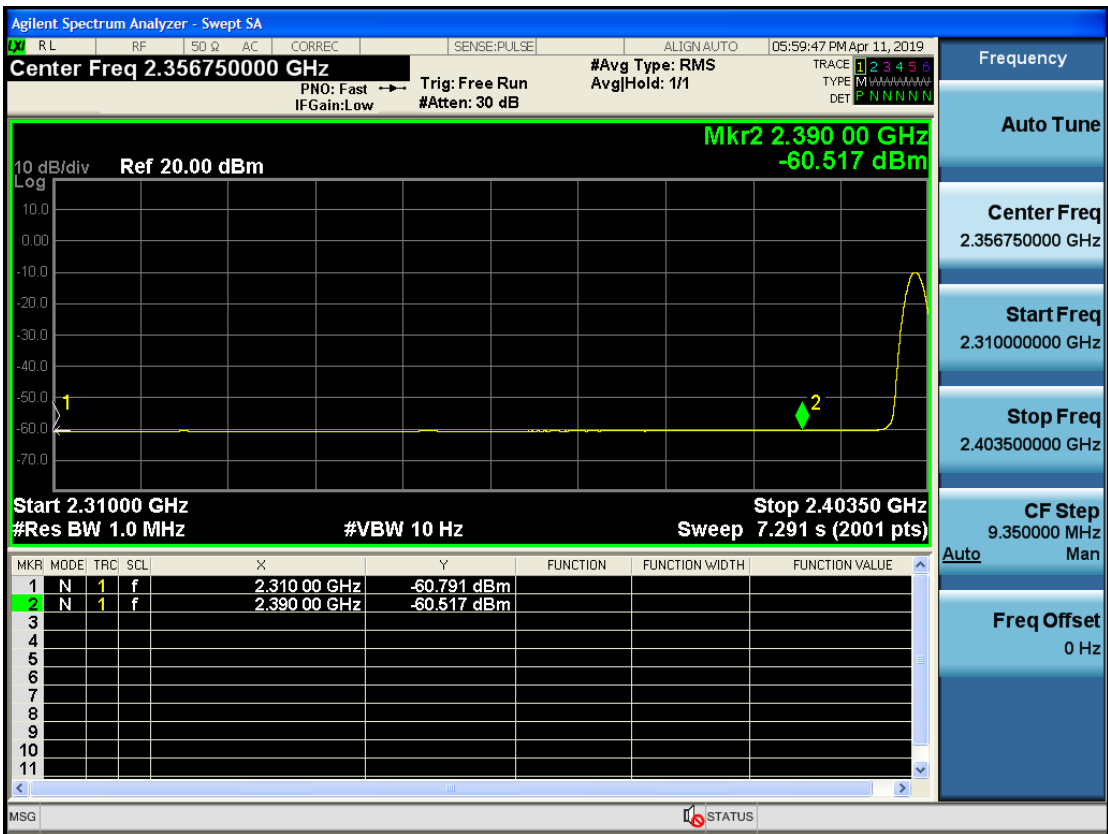
## Restrict-band band-edge measurements\_2480\_AV\_DH5



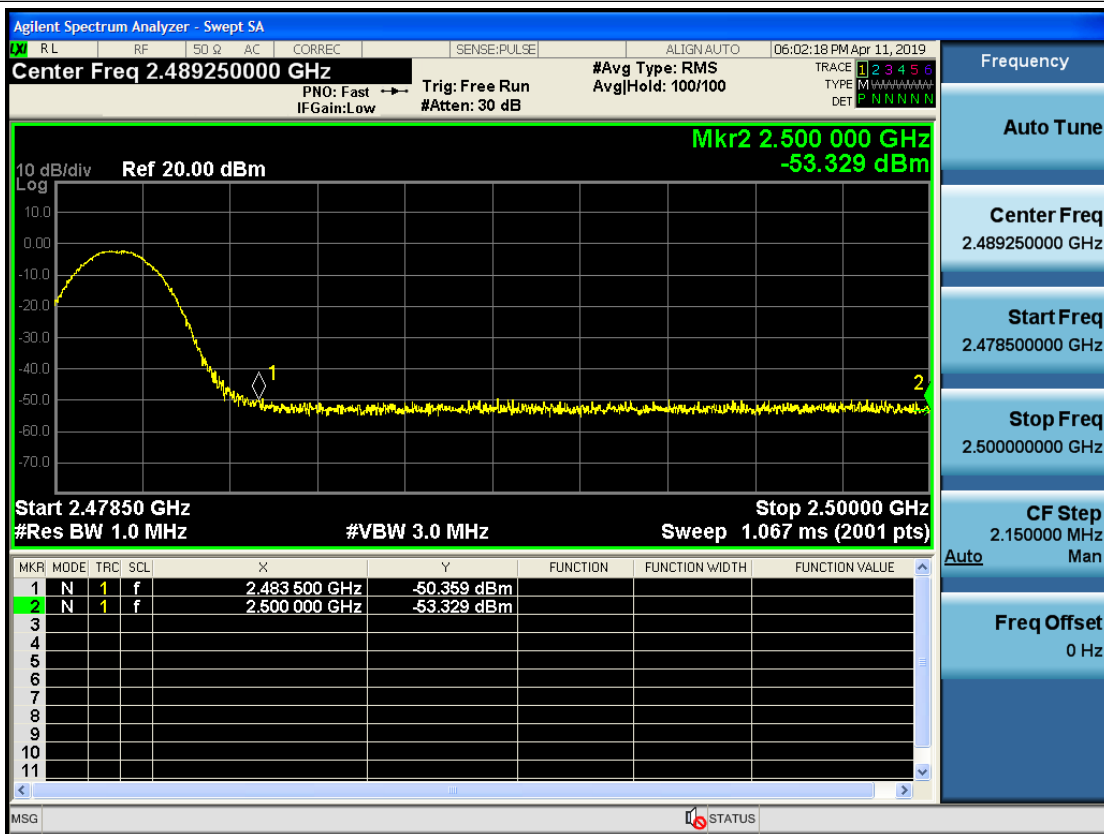
Restrict-band band-edge measurements\_2402\_PEAK\_2DH5



Restrict-band band-edge measurements\_2402\_AV\_2DH5



## Restrict-band band-edge measurements 2480 PEAK 2DH5



## Restrict-band band-edge measurements\_2480\_AV\_2DH5

