

## Appendix A

### RF Test Data for BT V5.0 (BDR/EDR) (Conducted Measurement)

Product Name: J.ANE MUSIC DESK LAMP

Trade Mark: N/A

Test Model: LZ-C1801

#### Environmental Conditions

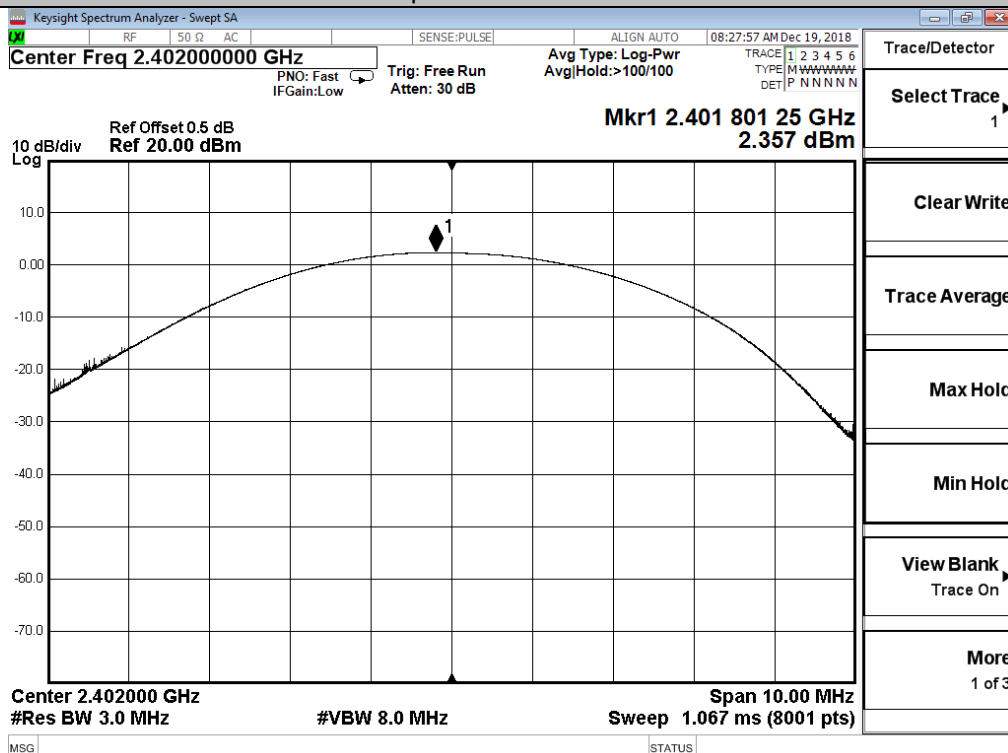
|                    |             |
|--------------------|-------------|
| Temperature:       | 22.3 °C     |
| Relative Humidity: | 52.1%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | Tom Liu     |
| Supervised by:     | Jayden.Zhuo |

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

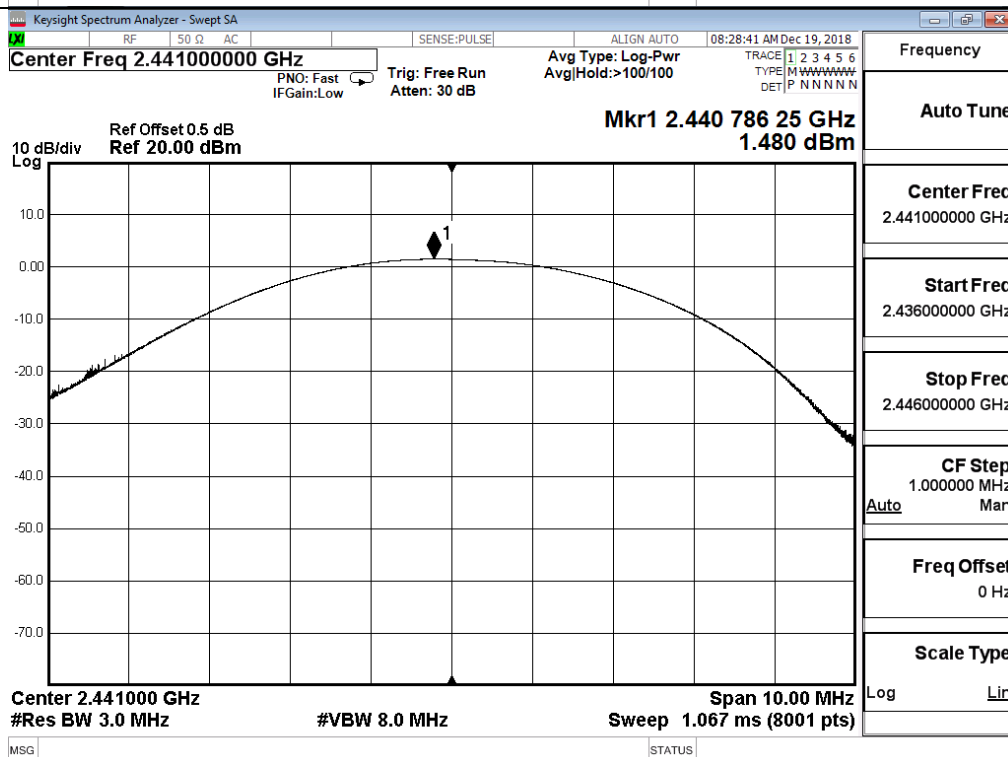
| Mode          | Channel. | Maximum Peak Output Power [dBm] | Limit [dBm] | Verdict |
|---------------|----------|---------------------------------|-------------|---------|
| GFSK          | LCH      | 2.357                           | 21          | PASS    |
|               | MCH      | 1.480                           | 21          | PASS    |
|               | HCH      | 0.866                           | 21          | PASS    |
| $\pi/4$ DQPSK | LCH      | 2.961                           | 21          | PASS    |
|               | MCH      | 2.031                           | 21          | PASS    |
|               | HCH      | 1.490                           | 21          | PASS    |

## Test Graphs

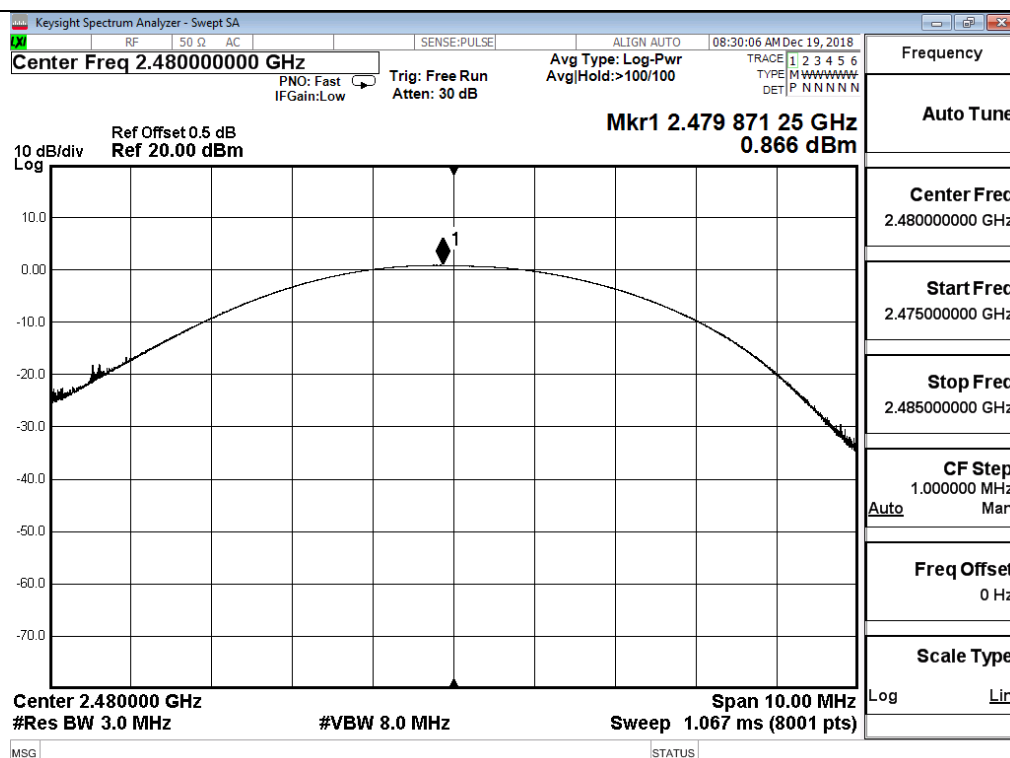
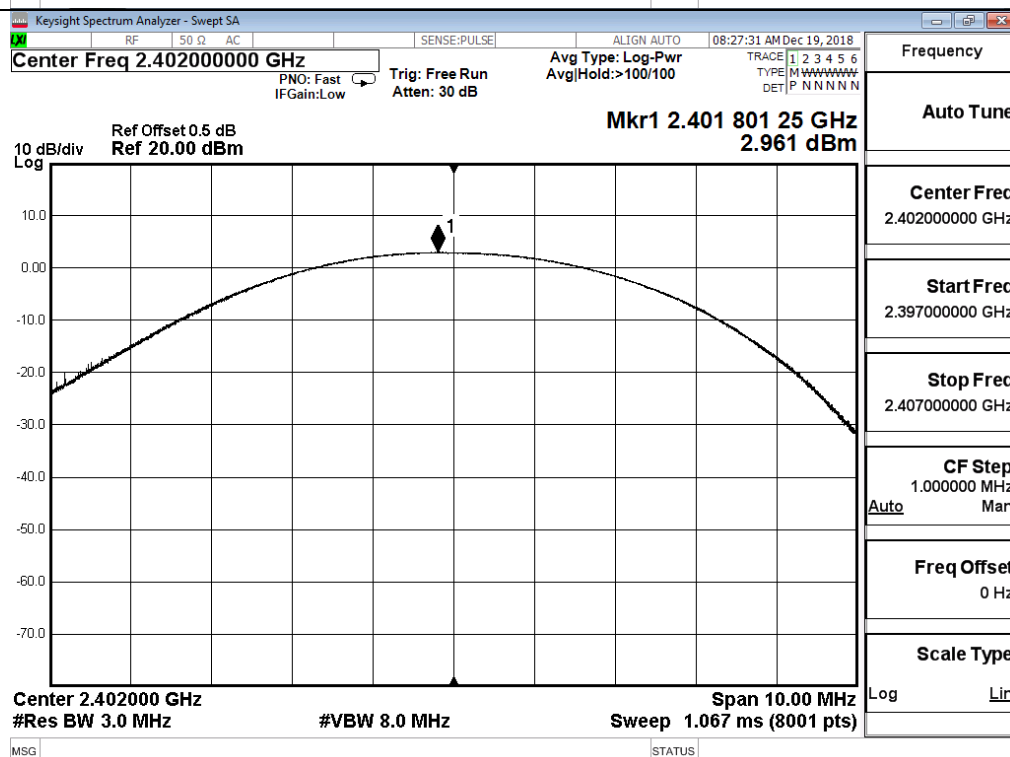
GFSK/LCH

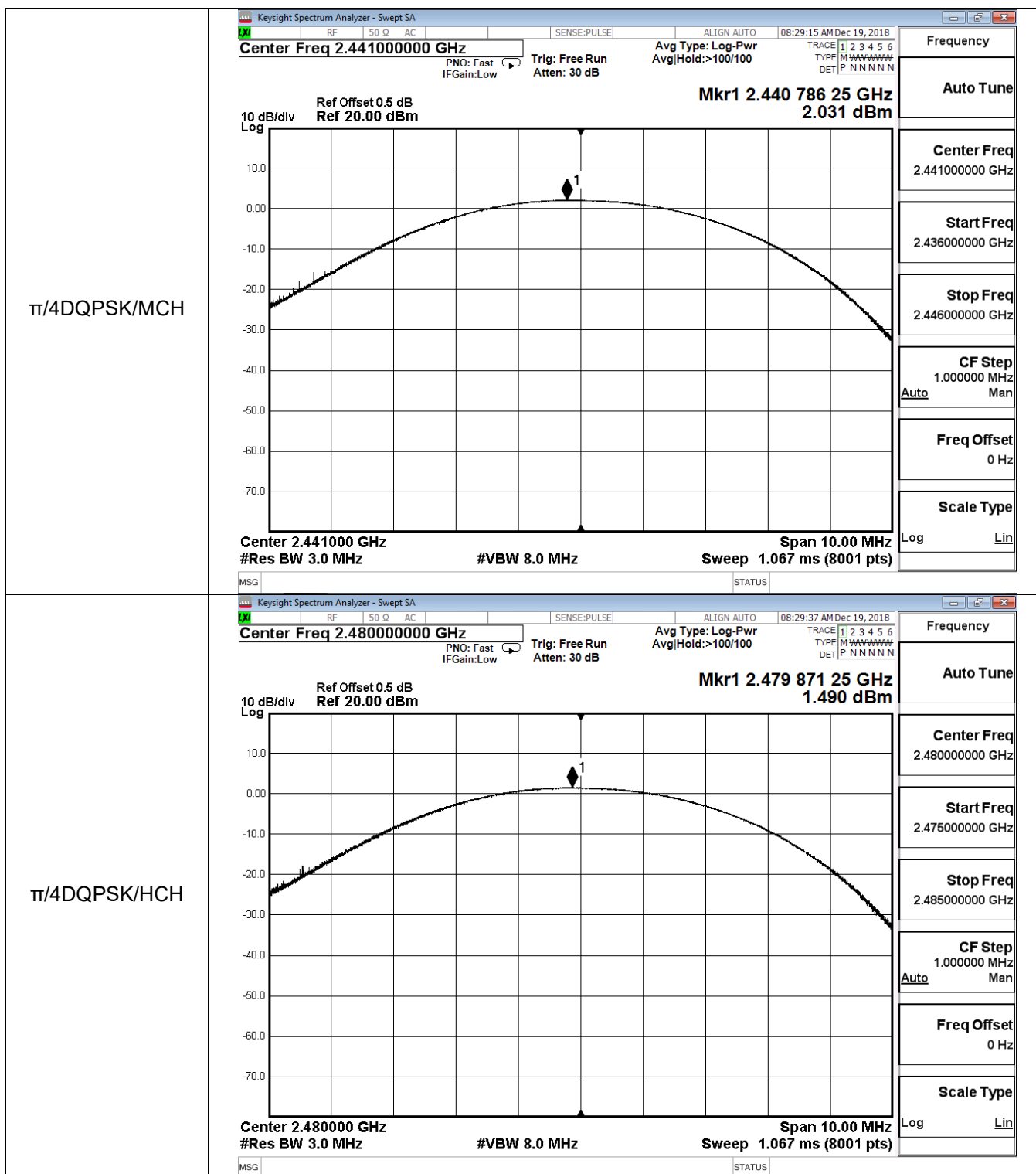


GFSK/MCH



GFSK/HCH

 $\pi$ /4DQPSK/LCH

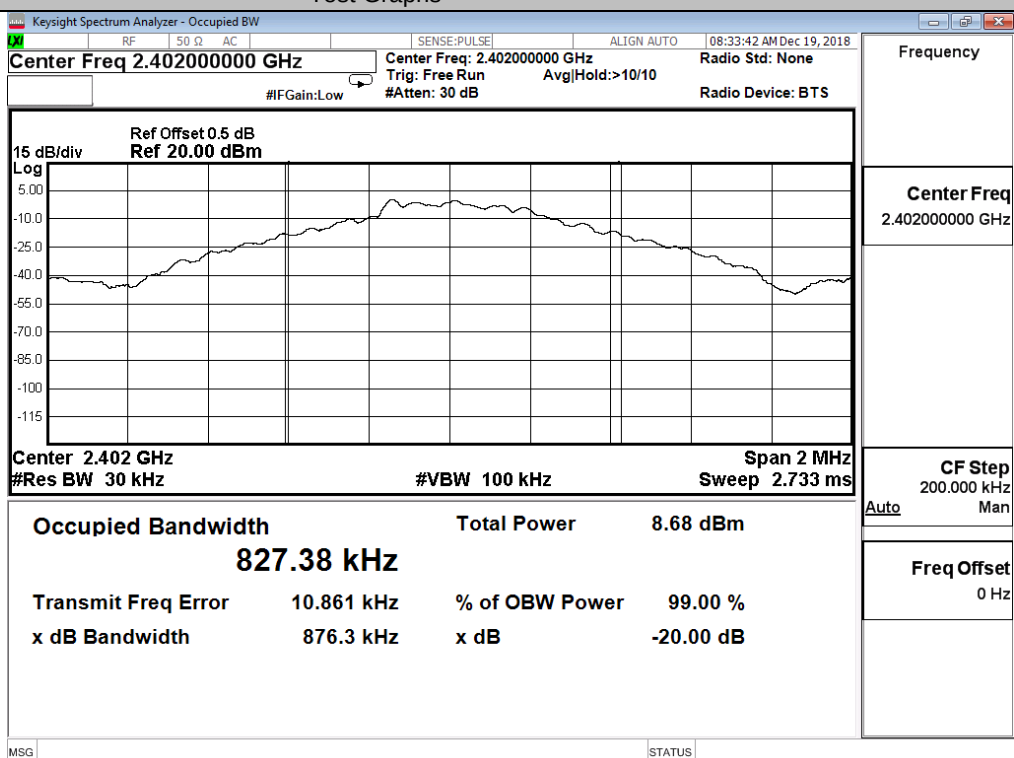


## A.2 99% and 20dB Bandwidth

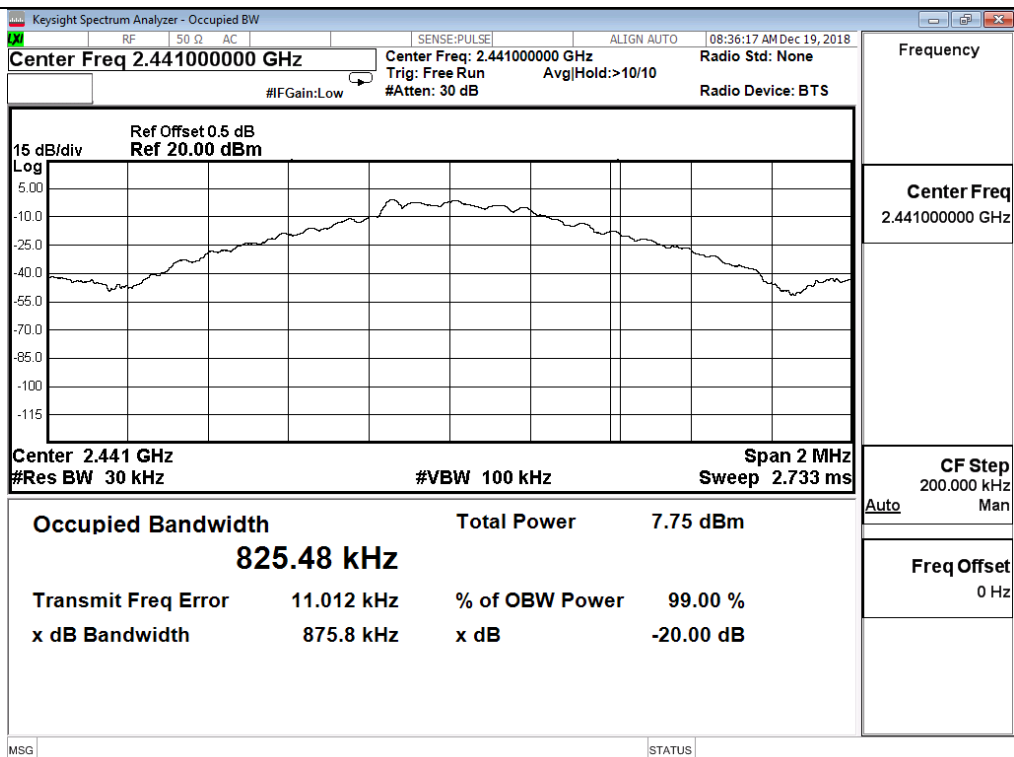
| Mode          | Channel. | 99% Bandwidth (MHz) | 20dB Bandwidth [MHz] | Limit [MHz]   | Verdict |
|---------------|----------|---------------------|----------------------|---------------|---------|
| GFSK          | LCH      | 0.82738             | 0.8763               | Not Specified | PASS    |
|               | MCH      | 0.82548             | 0.8758               | Not Specified | PASS    |
|               | HCH      | 0.82336             | 0.8732               | Not Specified | PASS    |
| $\pi/4$ DQPSK | LCH      | 1.1680              | 1.255                | Not Specified | PASS    |
|               | MCH      | 1.1671              | 1.228                | Not Specified | PASS    |
|               | HCH      | 1.1669              | 1.229                | Not Specified | PASS    |

Test Graphs

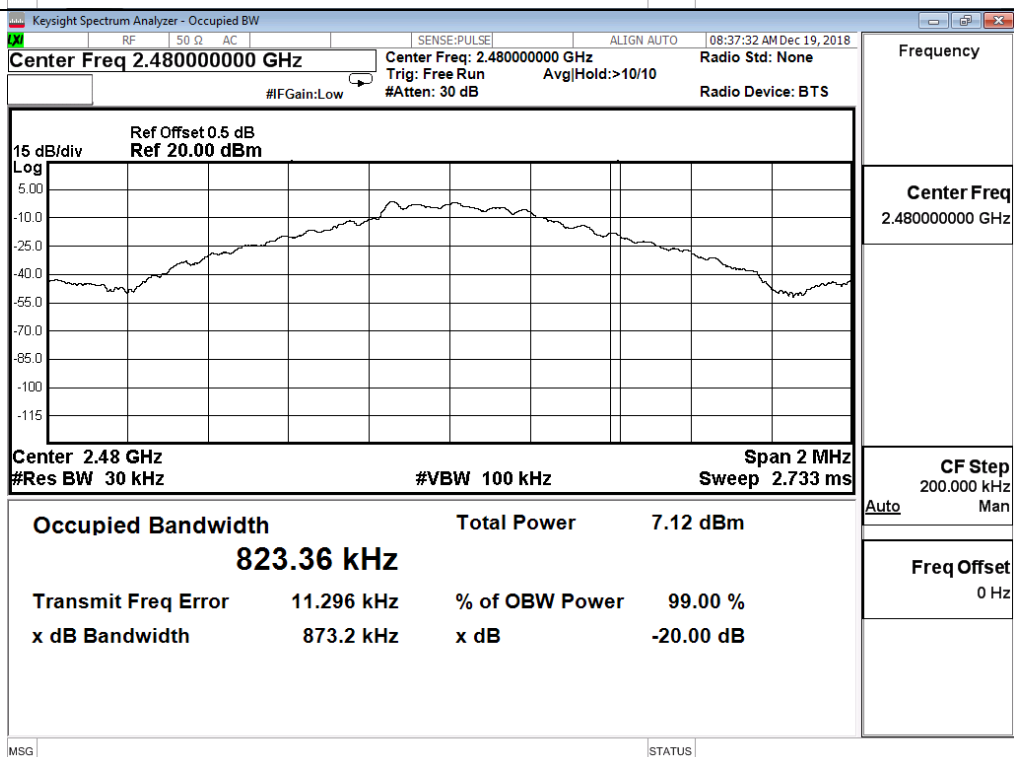
GFSK/LCH

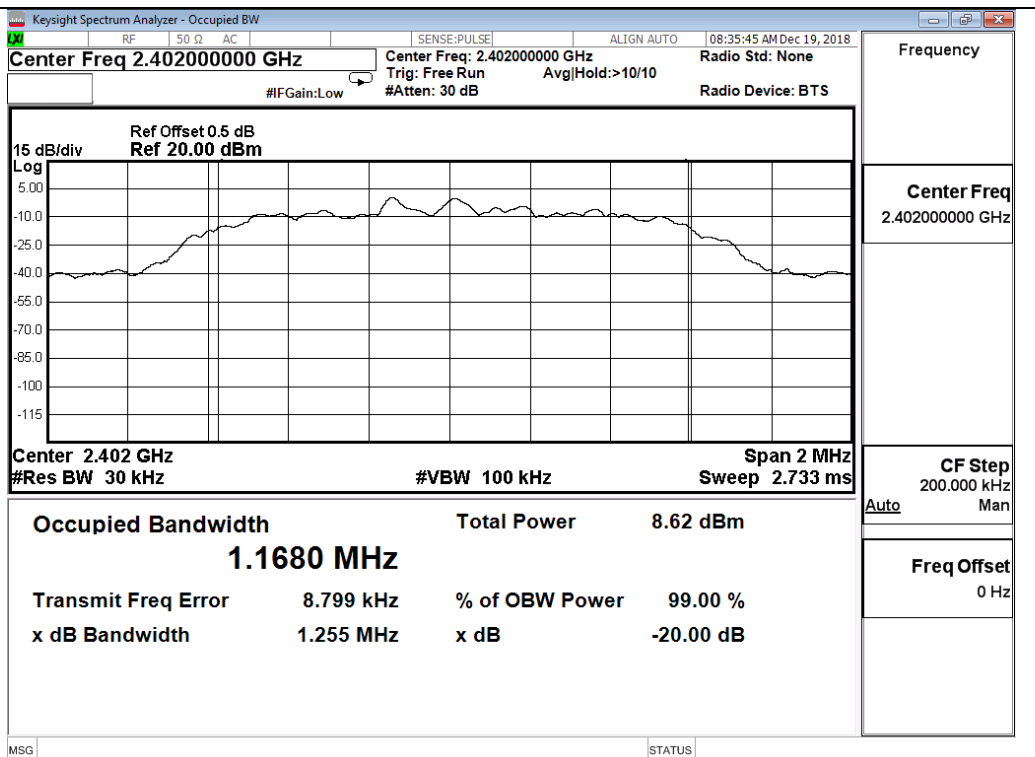
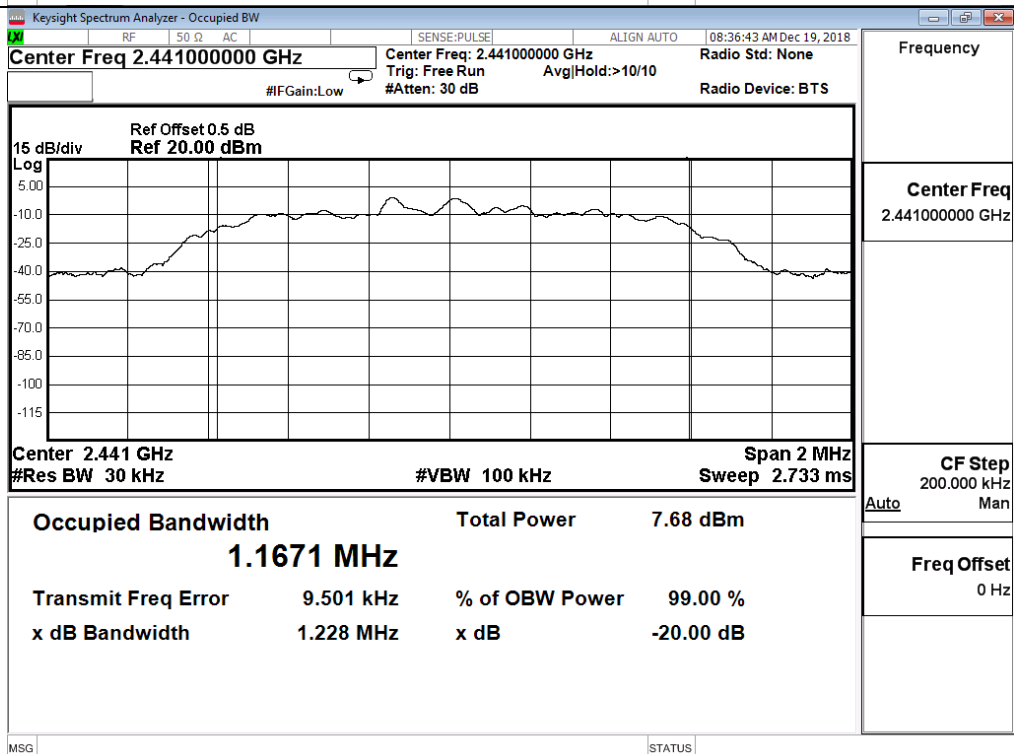


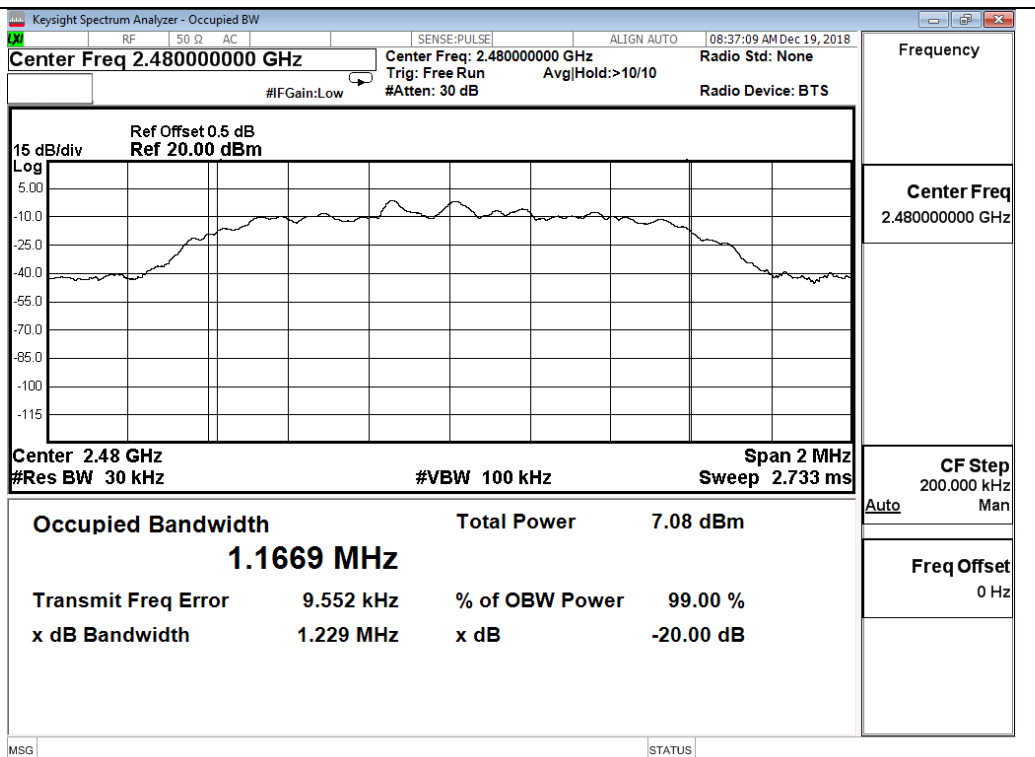
GFSK/MCH



GFSK/HCH



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

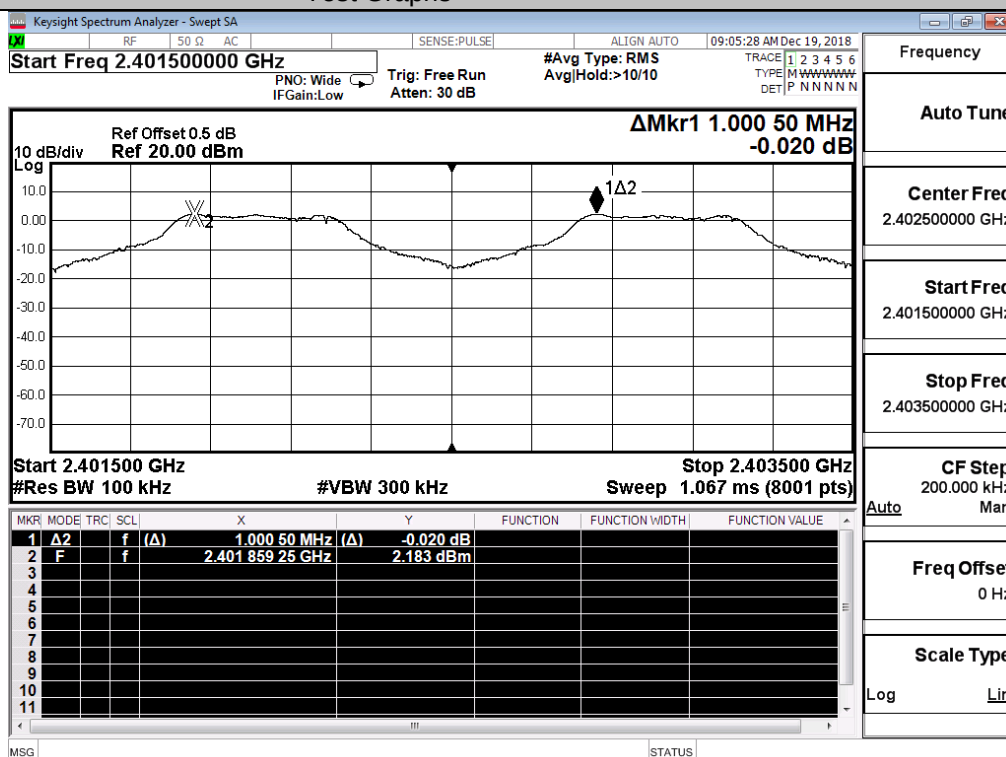
$\pi/4$ DQPSK/HCH

## A.3 Carrier Frequency Separation

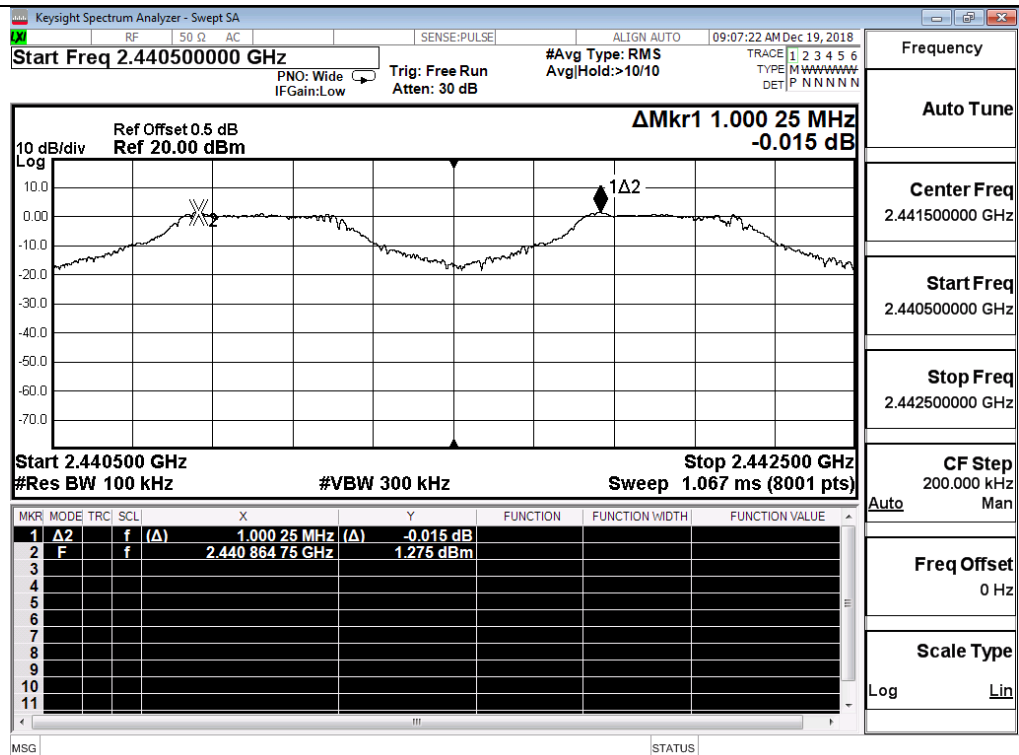
| Mode          | Channel. | Carrier Frequency Separation [MHz] | Limit [MHz] | Verdict |
|---------------|----------|------------------------------------|-------------|---------|
| GFSK          | LCH      | 1.001                              | 0.5842      | PASS    |
|               | MCH      | 1.000                              | 0.5839      | PASS    |
|               | HCH      | 0.998                              | 0.5821      | PASS    |
| $\pi$ /4DQPSK | LCH      | 1.000                              | 0.837       | PASS    |
|               | MCH      | 1.001                              | 0.819       | PASS    |
|               | HCH      | 1.000                              | 0.819       | PASS    |

## Test Graphs

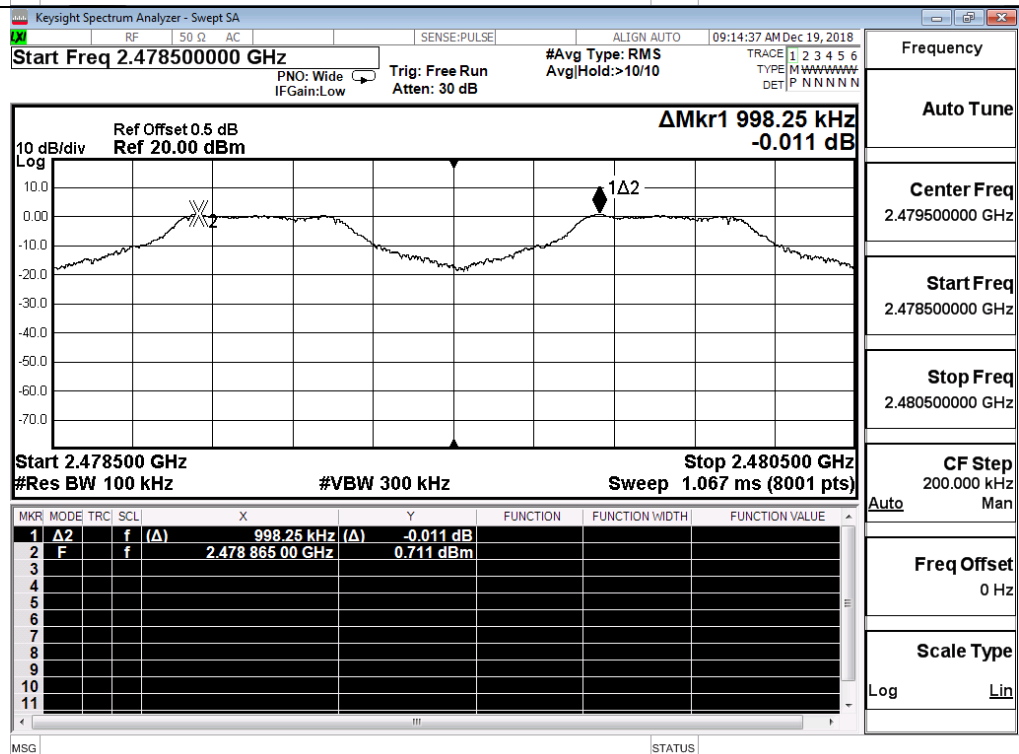
GFSK/LCH

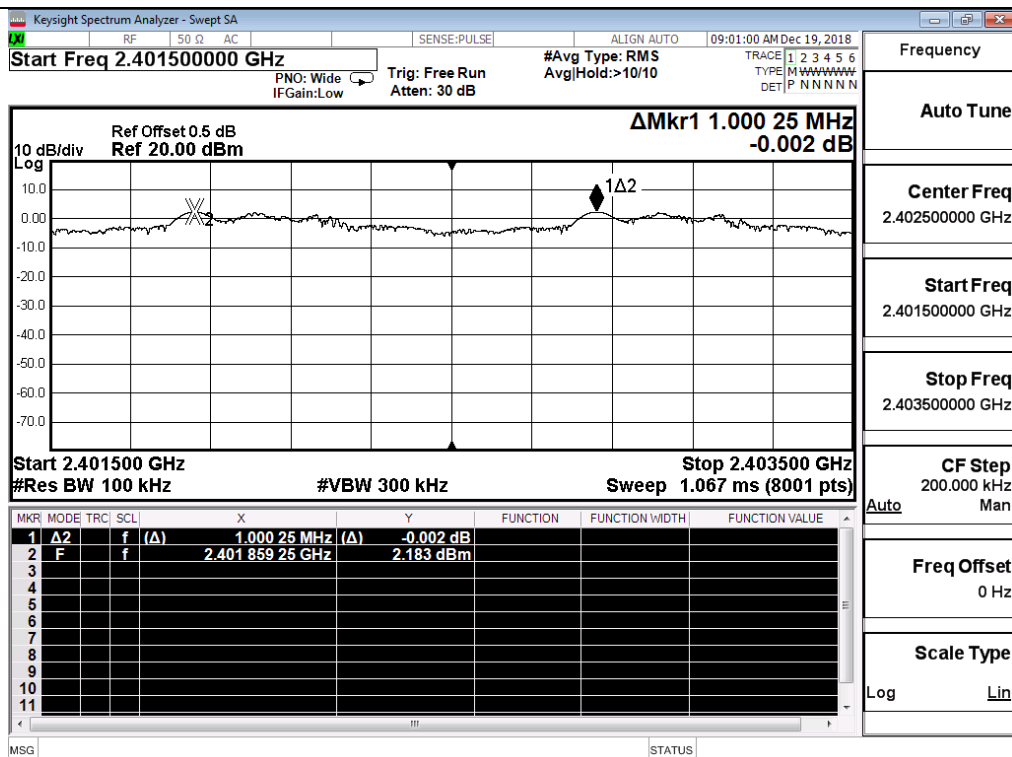
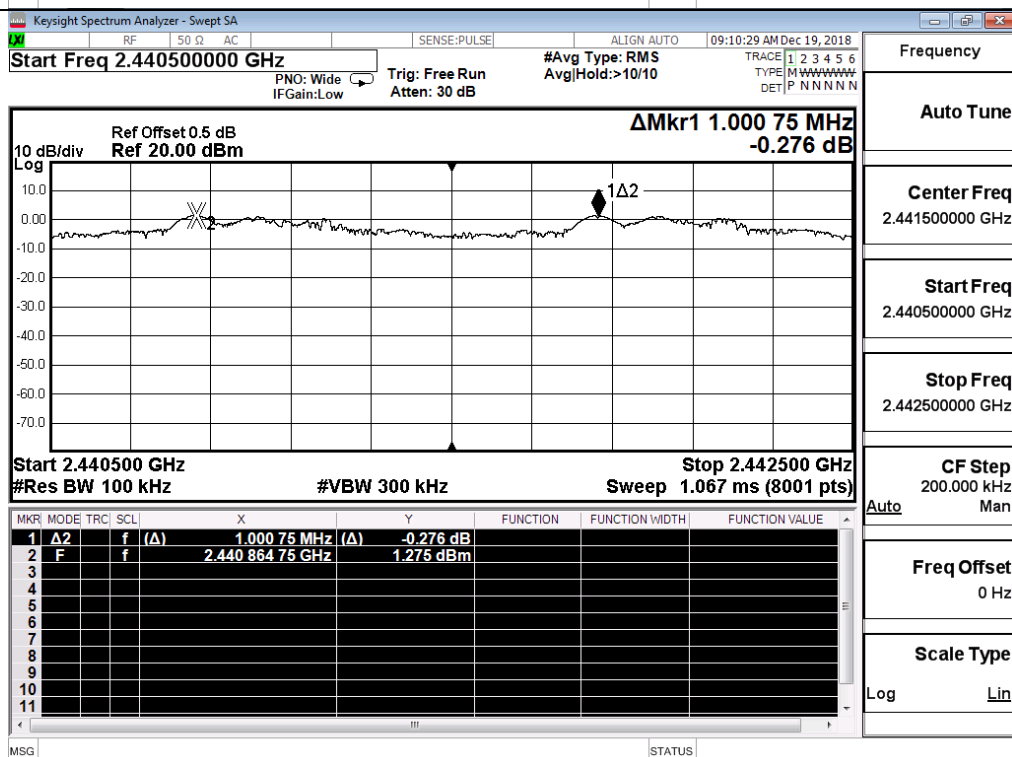


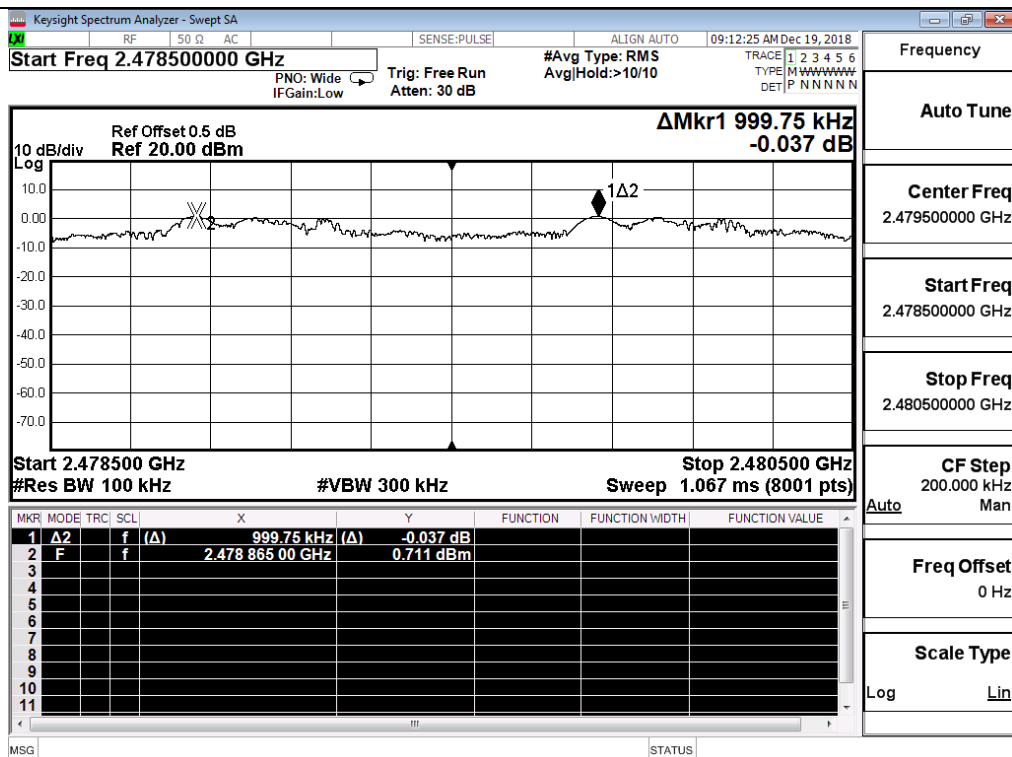
GFSK/MCH



GFSK/HCH

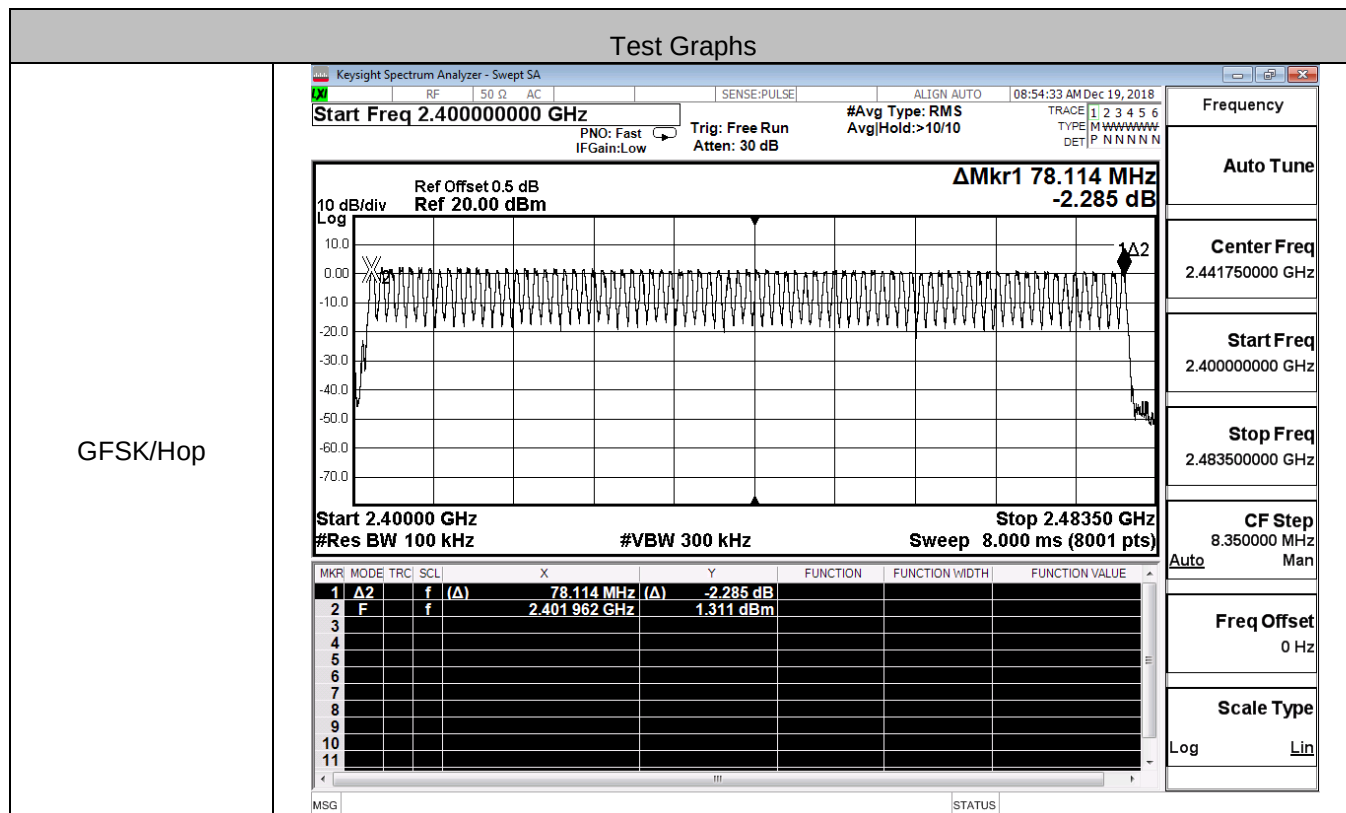


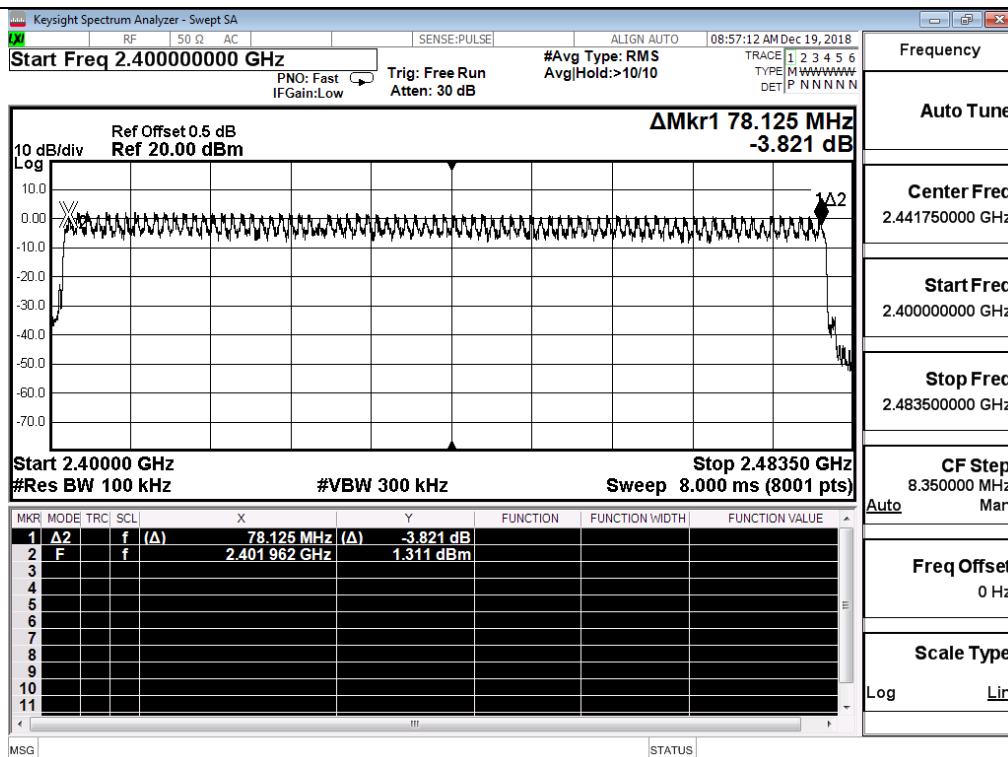
$\pi/4$ DQPSK/LCH $\pi/4$ DQPSK/MCH

$\pi/4$ DQPSK/HCH

## 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    |



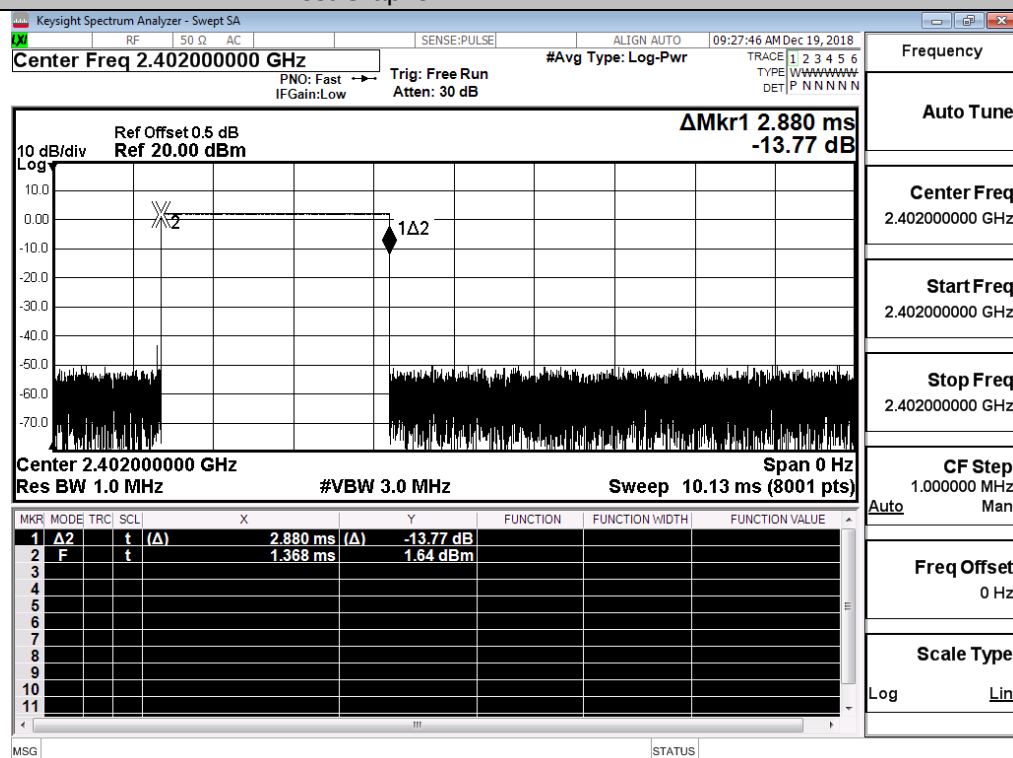
$\pi/4$ DQPSK/Hop

## A.5 Dwell Time

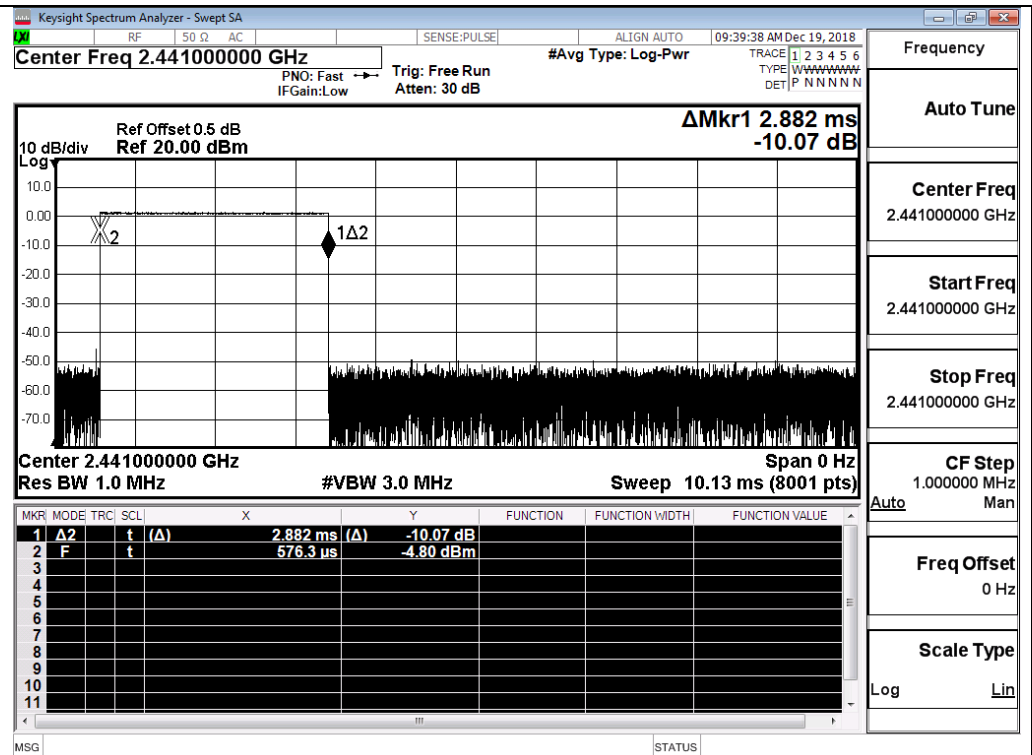
| Mode          | Packet | Channel | Burst Width<br>[ms/hop/ch] | Total<br>Hops[hop*ch] | Dwell Time[s] | Limit [s] | Verdict |
|---------------|--------|---------|----------------------------|-----------------------|---------------|-----------|---------|
| GFSK          | DH5    | LCH     | 2.88                       | 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     | 2.89                       | 106.7                 | 0.308         | 0.4       | PASS    |
|               | 2DH5   | MCH     | 2.89                       | 106.7                 | 0.308         | 0.4       | PASS    |
|               | 2DH5   | HCH     | 2.88                       | 106.7                 | 0.307         | 0.4       | PASS    |

## Test Graphs

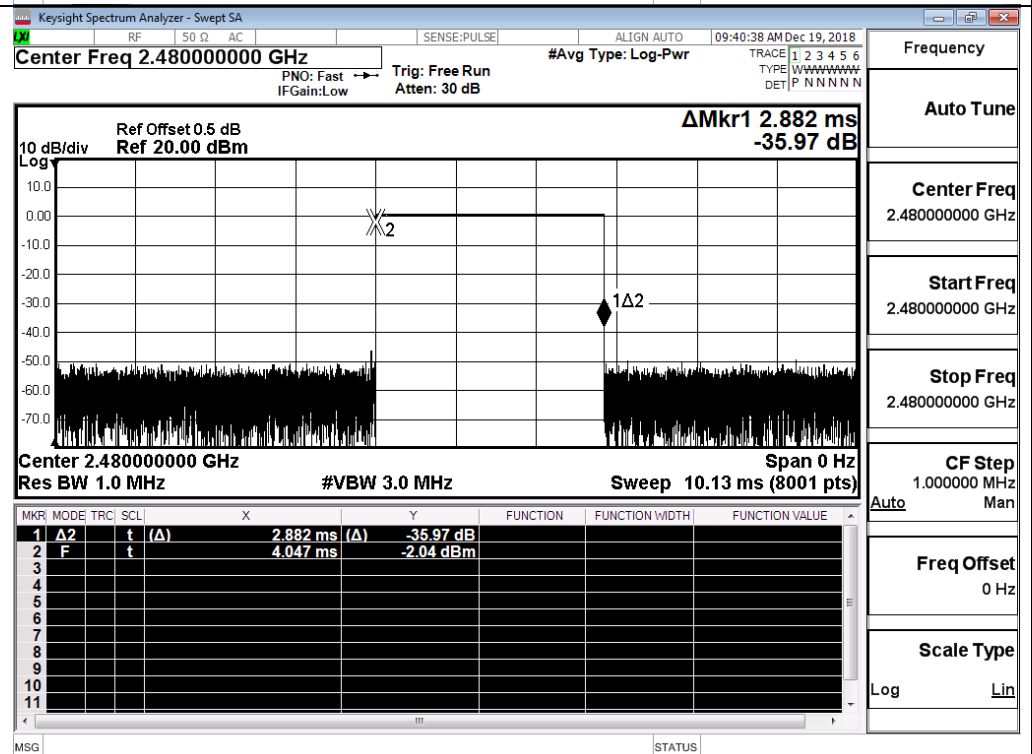
GFSK\_DH5/LCH



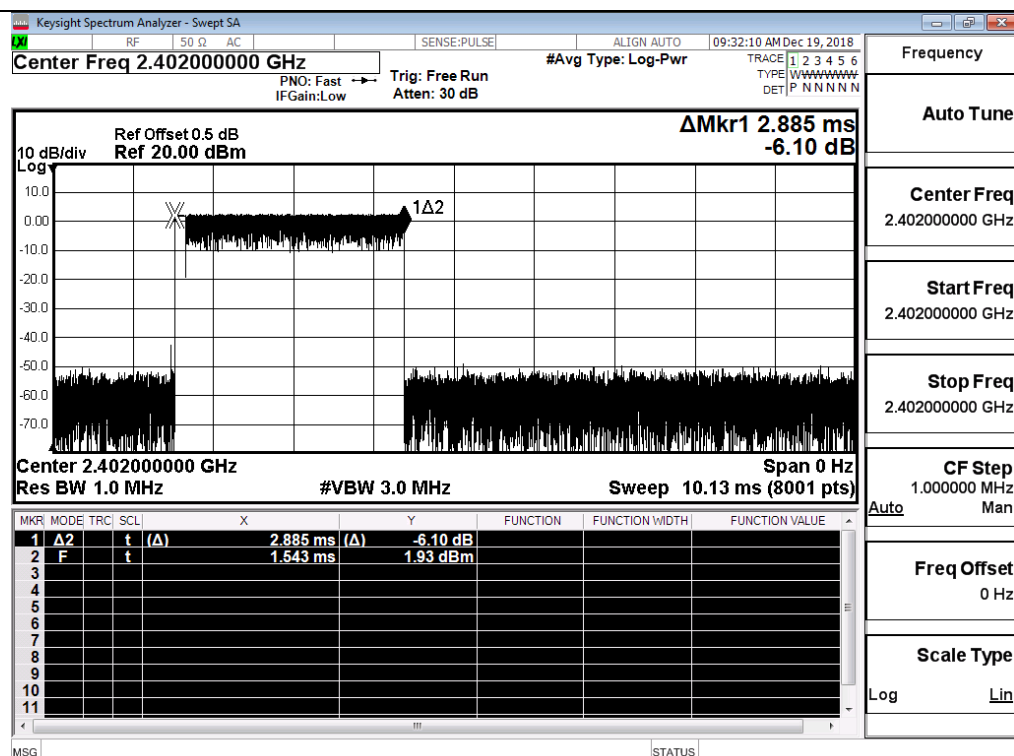
GFSK\_DH5/MCH



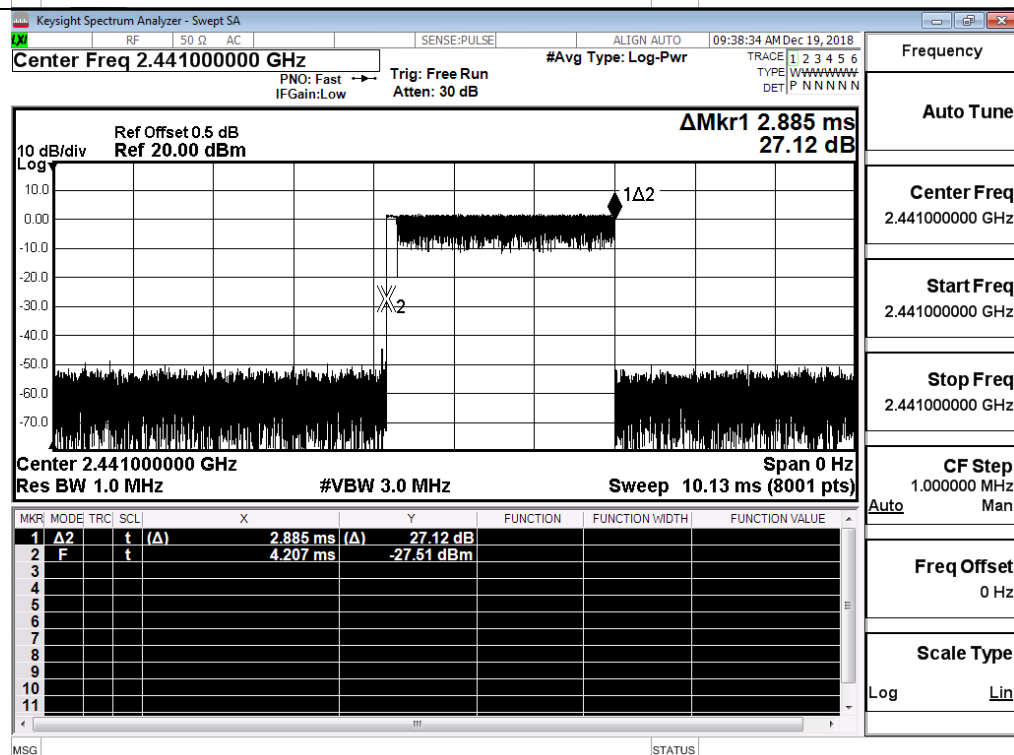
GFSK\_DH5/HCH



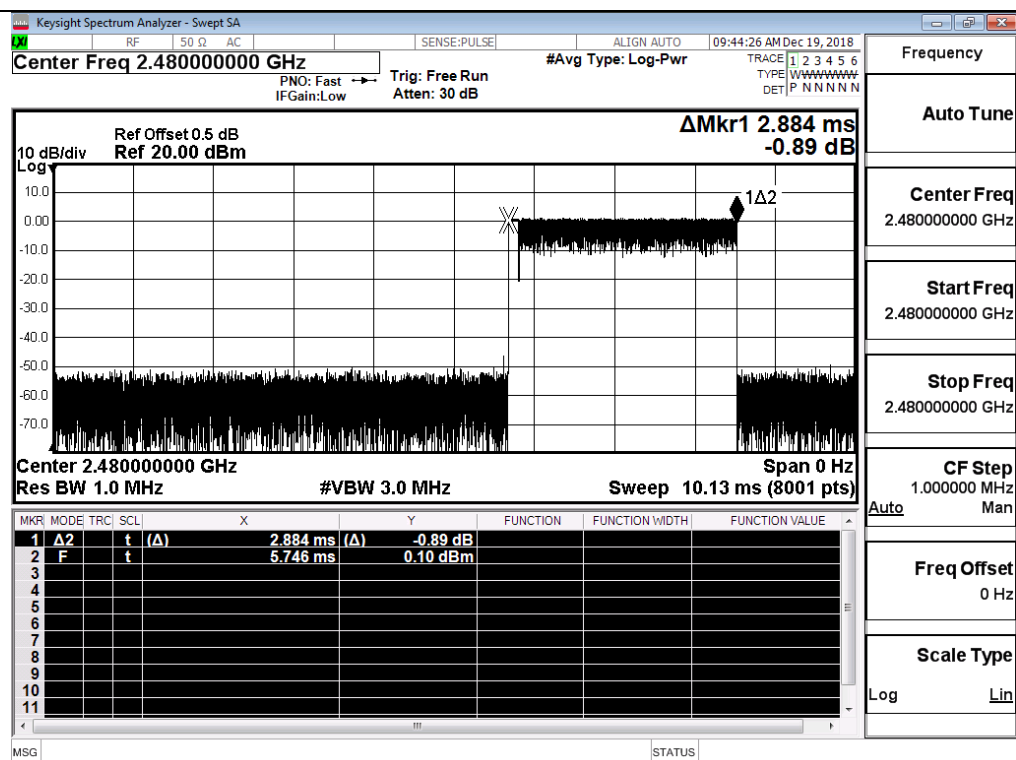
$\pi/4$ DQPSK  
\_2DH5/LCH



$\pi/4$ DQPSK  
\_2DH5/MCH



$\pi/4$ DQPSK  
\_2DH5/HCH

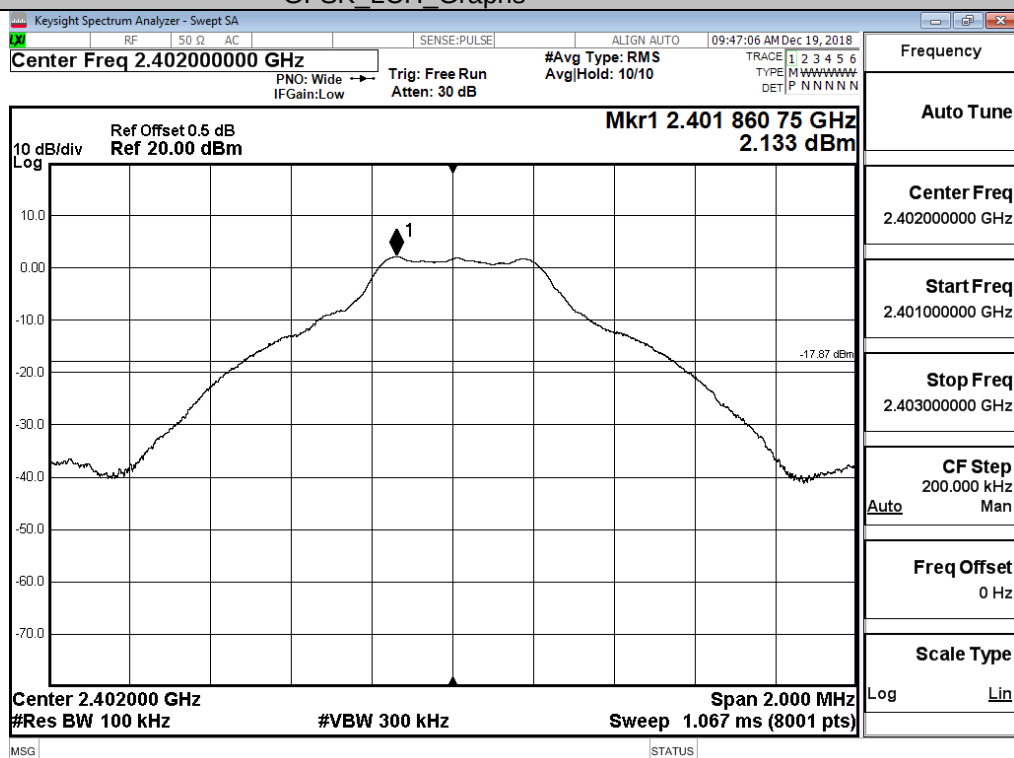


**A.6 RF Conducted Spurious Emissions**

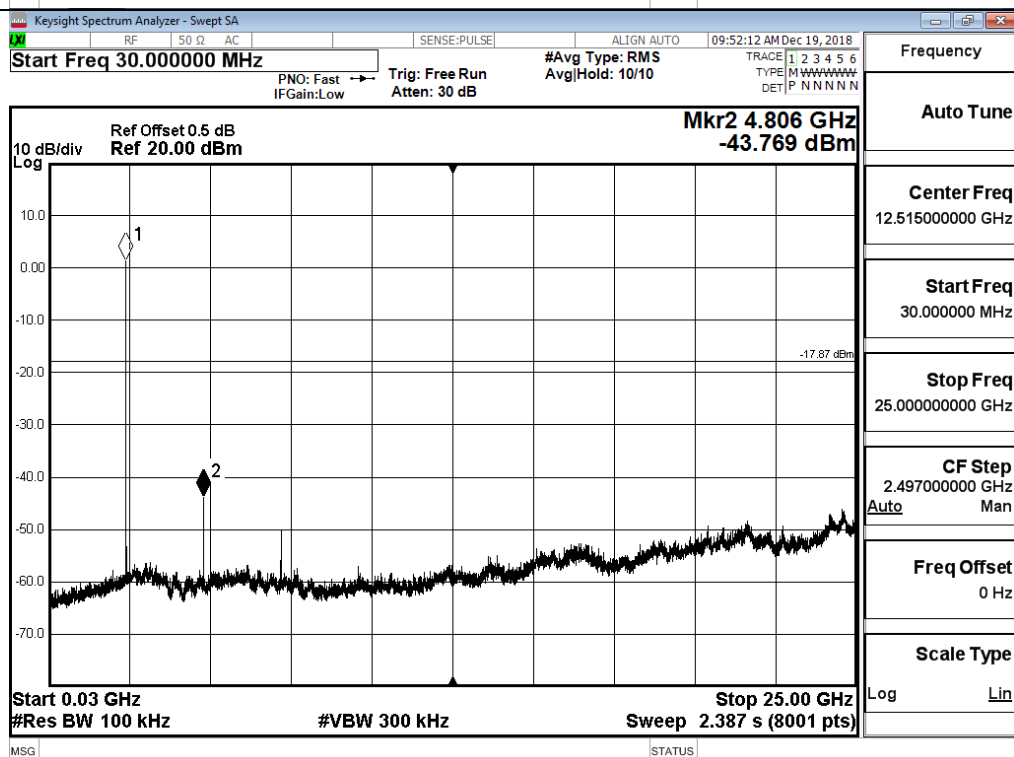
| Mode          | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| GFSK          | LCH     | 2.133      | -43.769          | -17.87      | PASS    |
|               | MCH     | 1.276      | -45.693          | -18.72      | PASS    |
|               | HCH     | 0.641      | -44.640          | -19.36      | PASS    |
| $\pi/4$ DQPSK | LCH     | 2.143      | -46.237          | -17.86      | PASS    |
|               | MCH     | 1.299      | -46.617          | -18.70      | PASS    |
|               | HCH     | 0.666      | -40.833          | -19.33      | PASS    |

## GFSK LCH Graphs

Pref

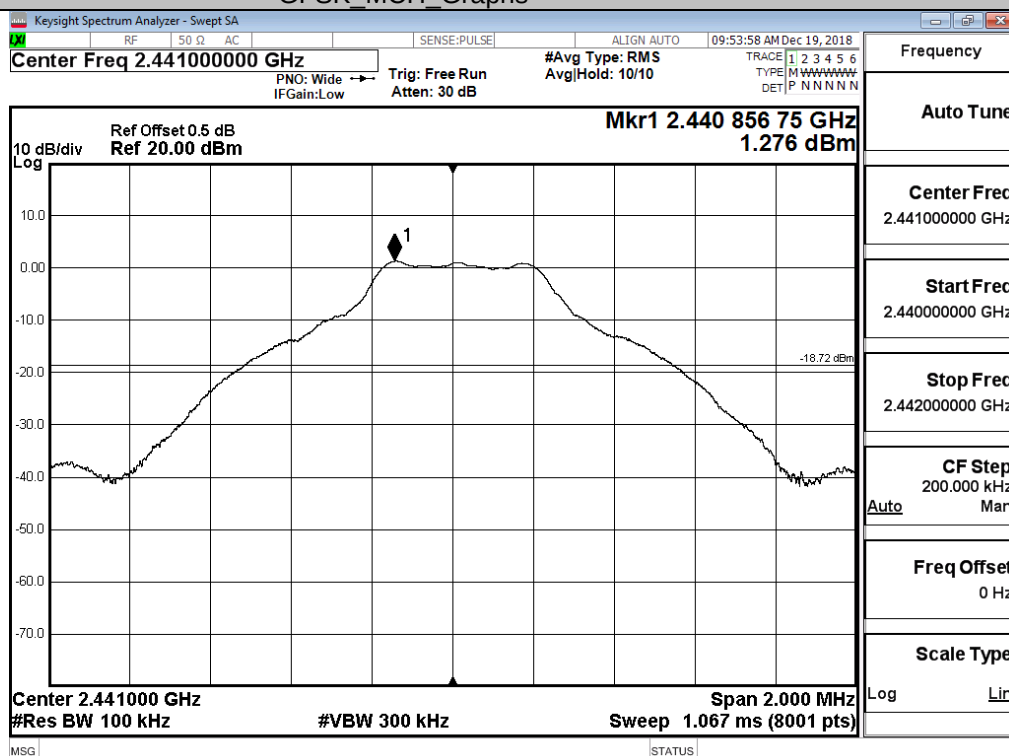


Puw

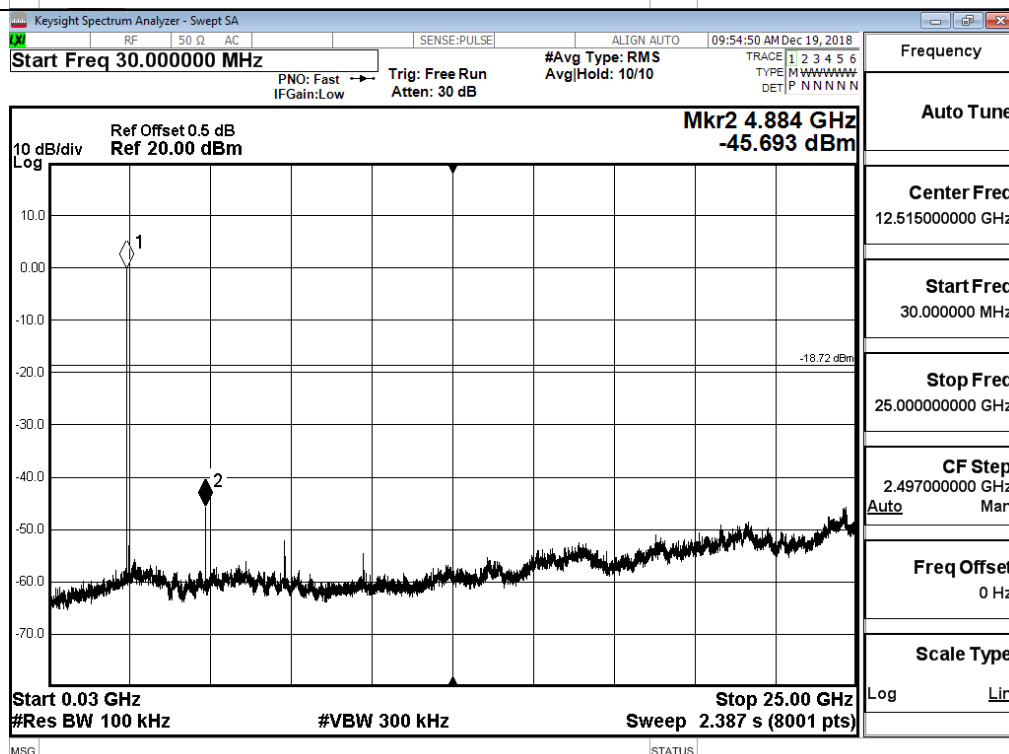


## GFSK\_MCH\_Graphs

Pref

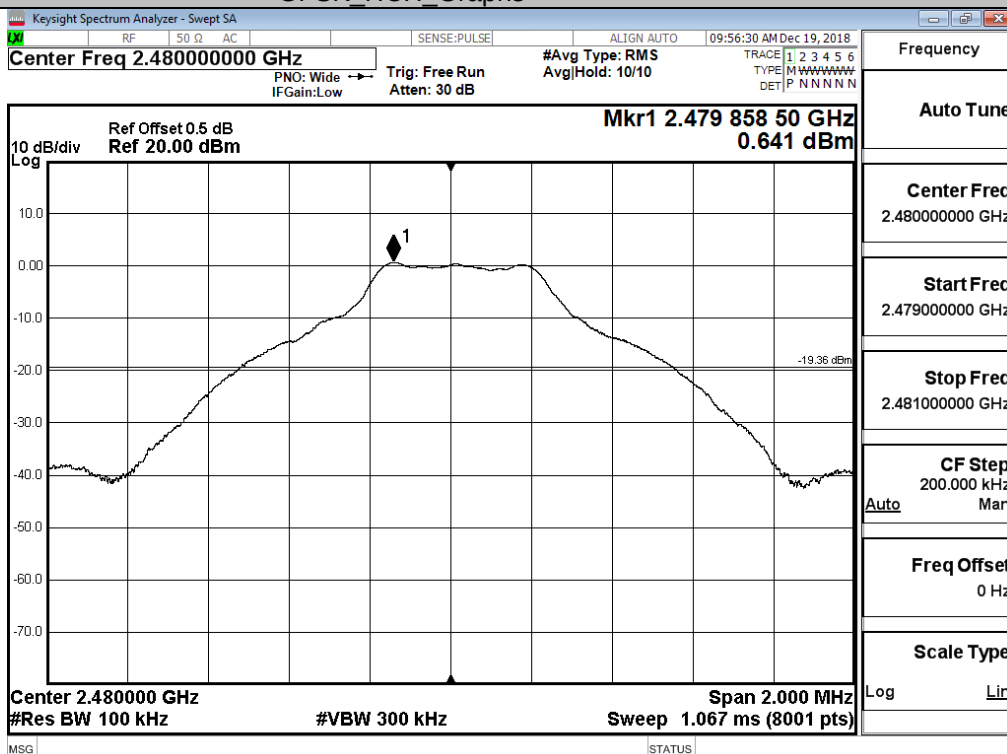


Puw

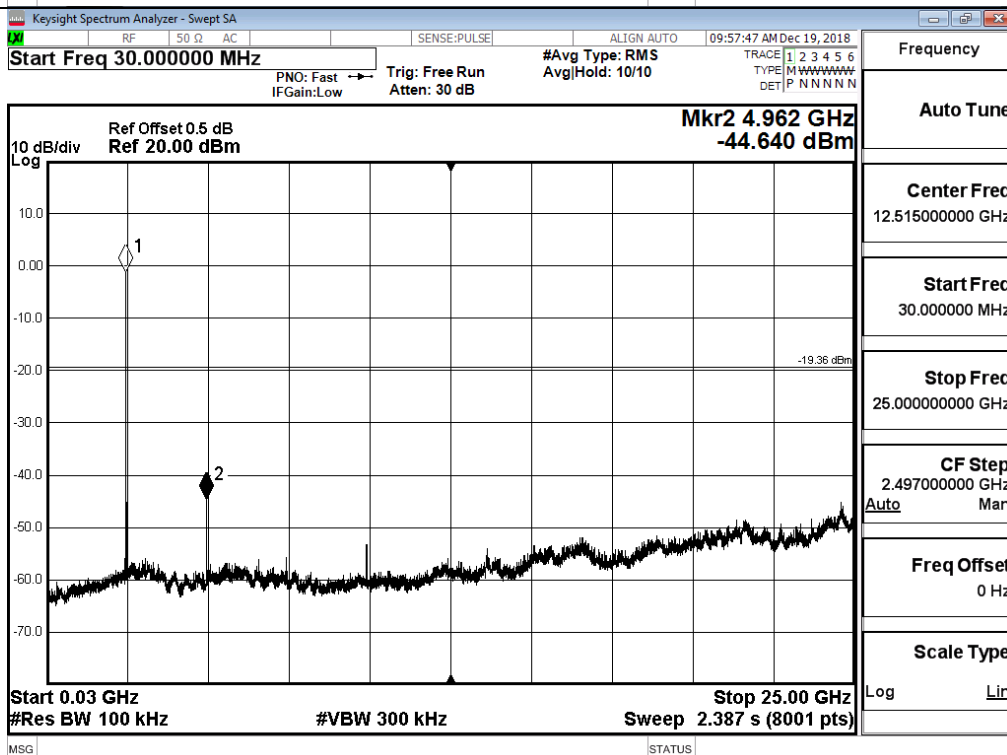


## GFSK\_HCH\_Graphs

Pref

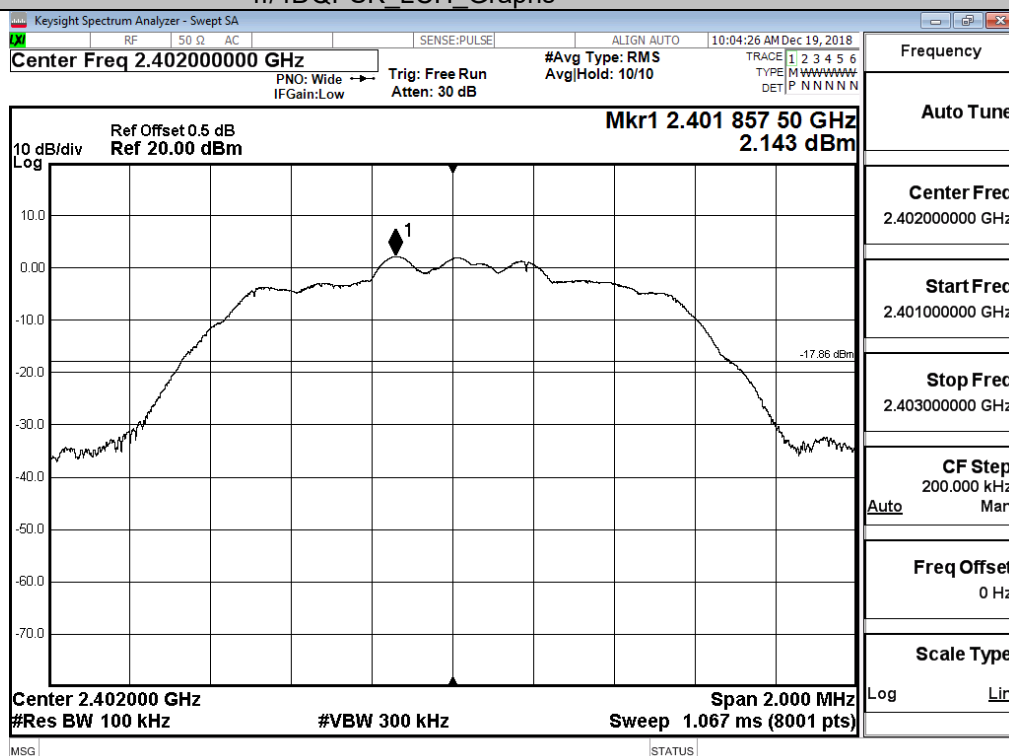


Puw

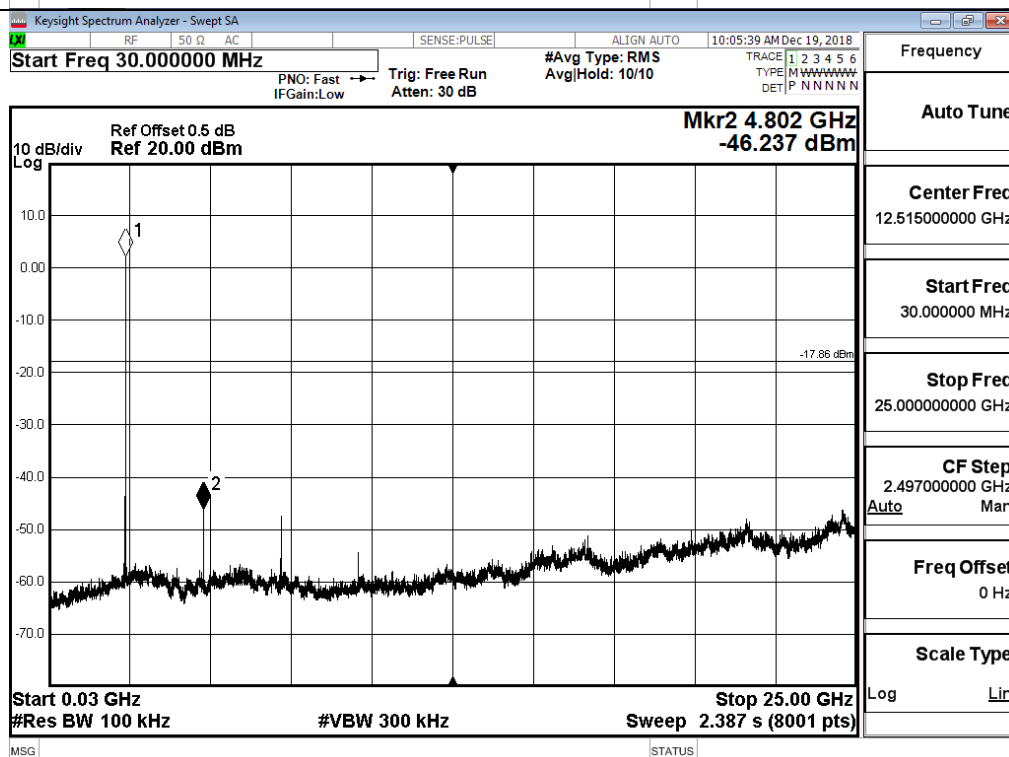


$\pi/4$ DQPSK LCH\_Graphs

Pref

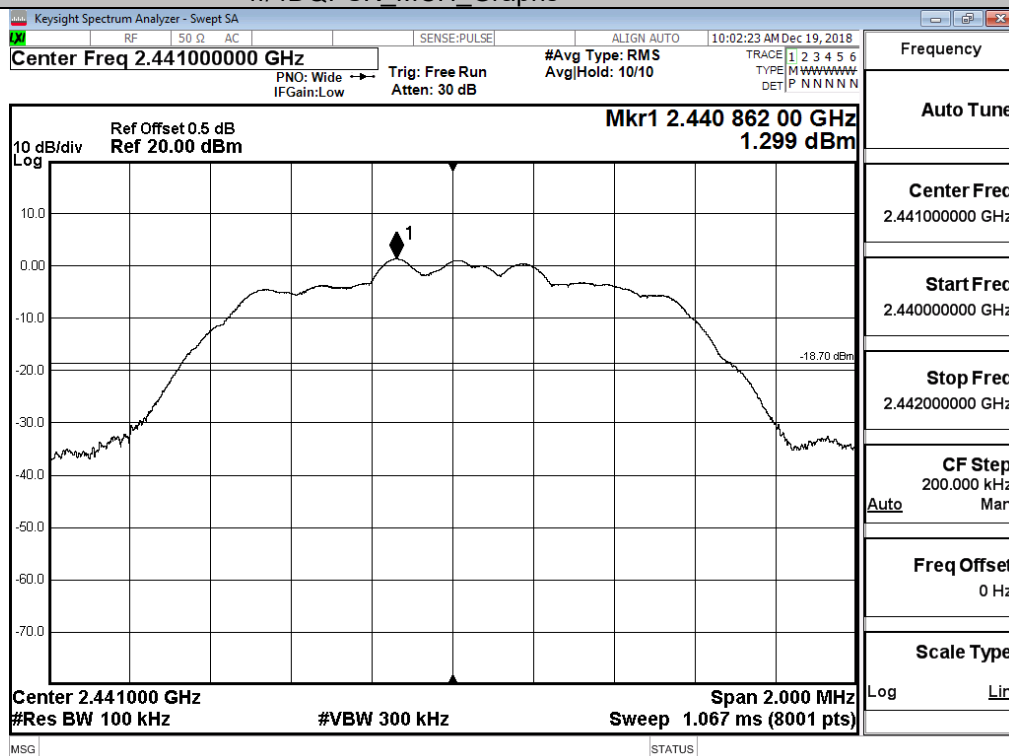


Puw

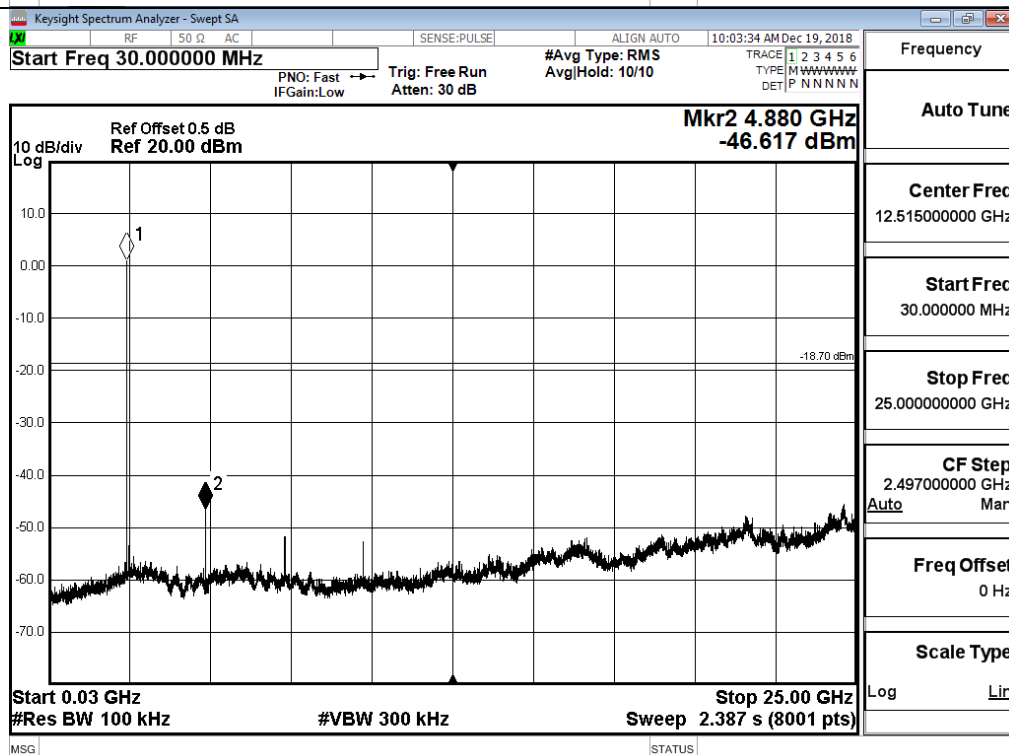


$\pi/4$ DQPSK MCH Graphs

Pref

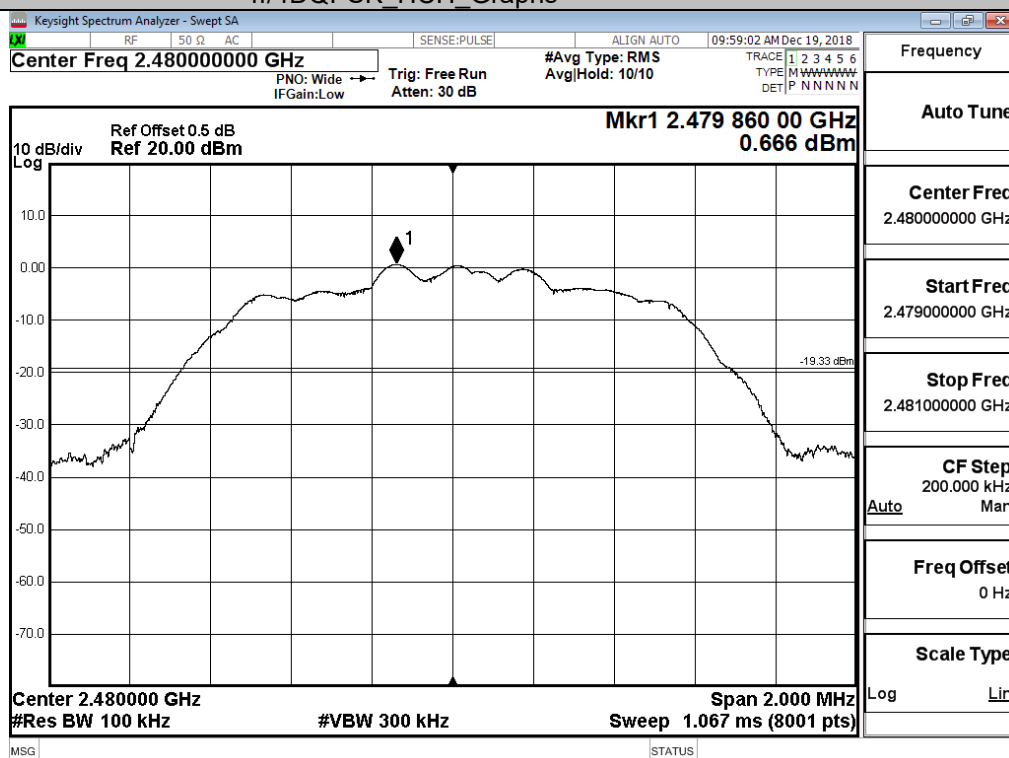


Puw

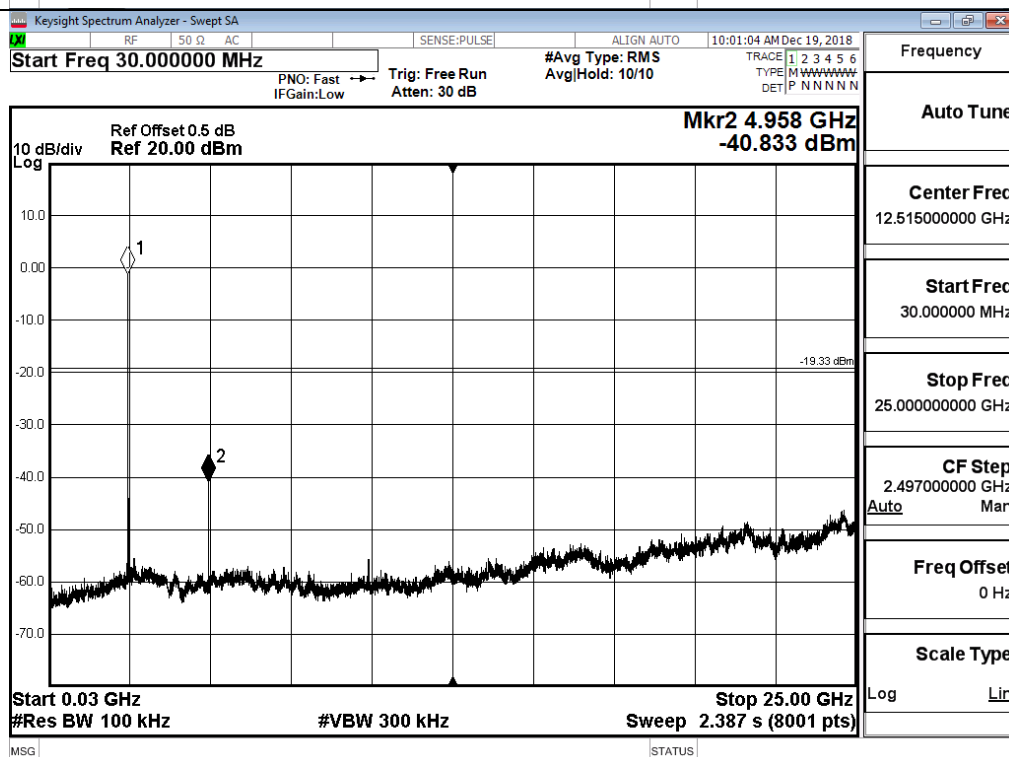


$\pi/4$ DQPSK HCH Graphs

Pref



Puw

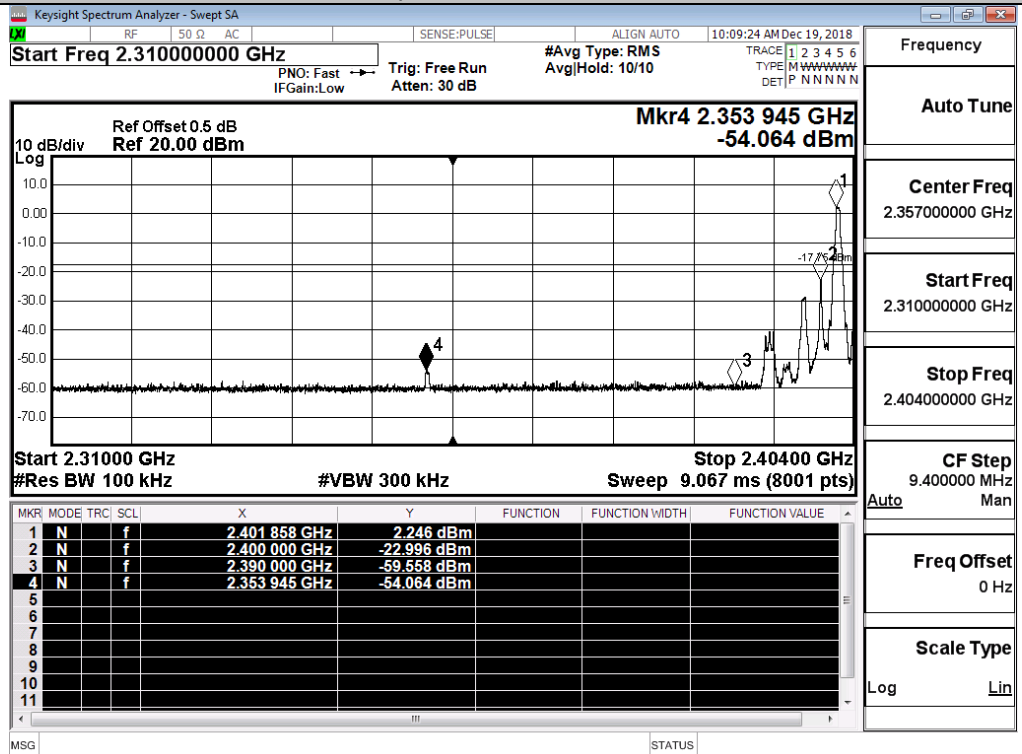


## A.7 Band-edge for RF Conducted Emissions

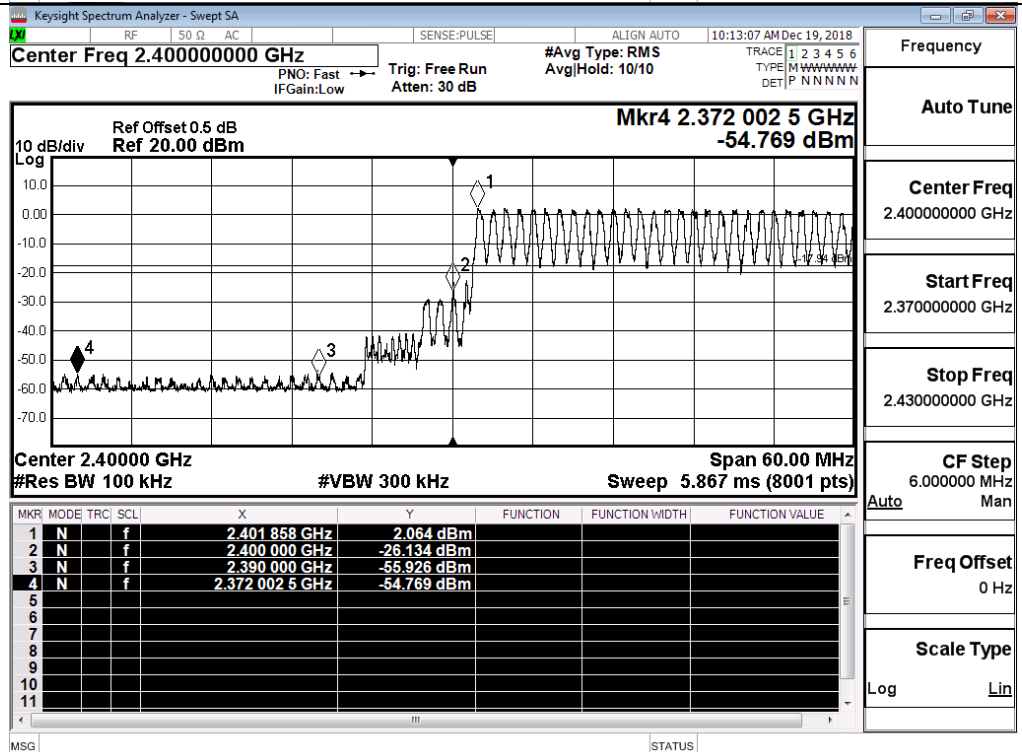
| Mode          | Channel | Carrier Frequency [MHz] | Carrier Power [dBm] | Frequency Hopping | Max Spurious Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|-------------------------|---------------------|-------------------|--------------------------|-------------|---------|
| GFSK          | LCH     | 2402                    | 2.246               | Off               | -54.064                  | -17.75      | PASS    |
|               |         |                         | 2.064               | On                | -54.769                  | -17.94      | PASS    |
|               | HCH     | 2480                    | 0.752               | Off               | -26.924                  | -19.25      | PASS    |
|               |         |                         | 0.114               | On                | -51.869                  | -19.89      | PASS    |
| $\pi/4$ DQPSK | LCH     | 2402                    | 2.165               | Off               | -55.228                  | -17.84      | PASS    |
|               |         |                         | 1.912               | On                | -54.912                  | -18.09      | PASS    |
|               | HCH     | 2480                    | 0.709               | Off               | -26.359                  | -19.29      | PASS    |
|               |         |                         | 0.233               | On                | -51.845                  | -19.77      | PASS    |

## Test Graphs

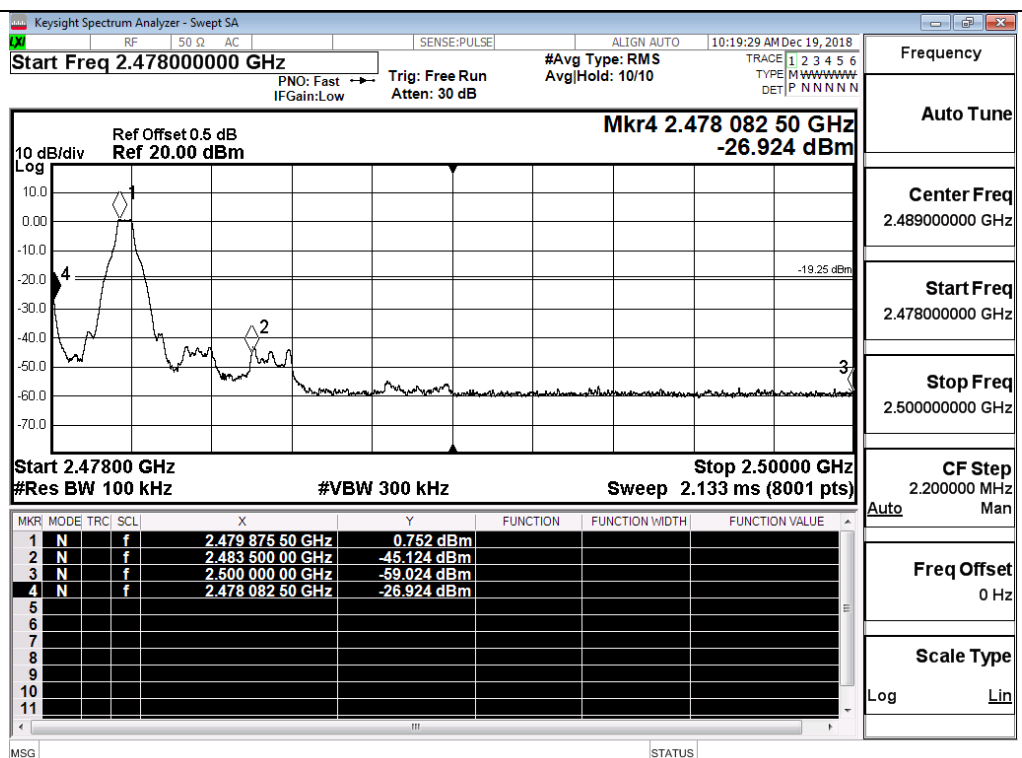
GFSK/LCH/No Hop



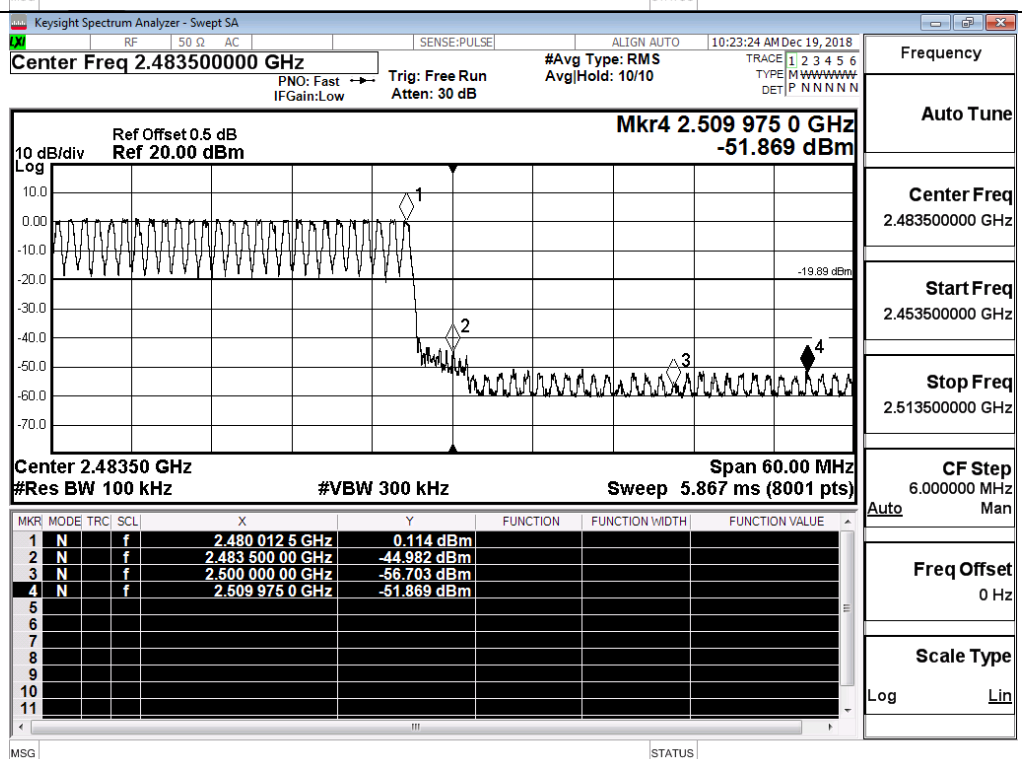
GFSK/LCH/Hop



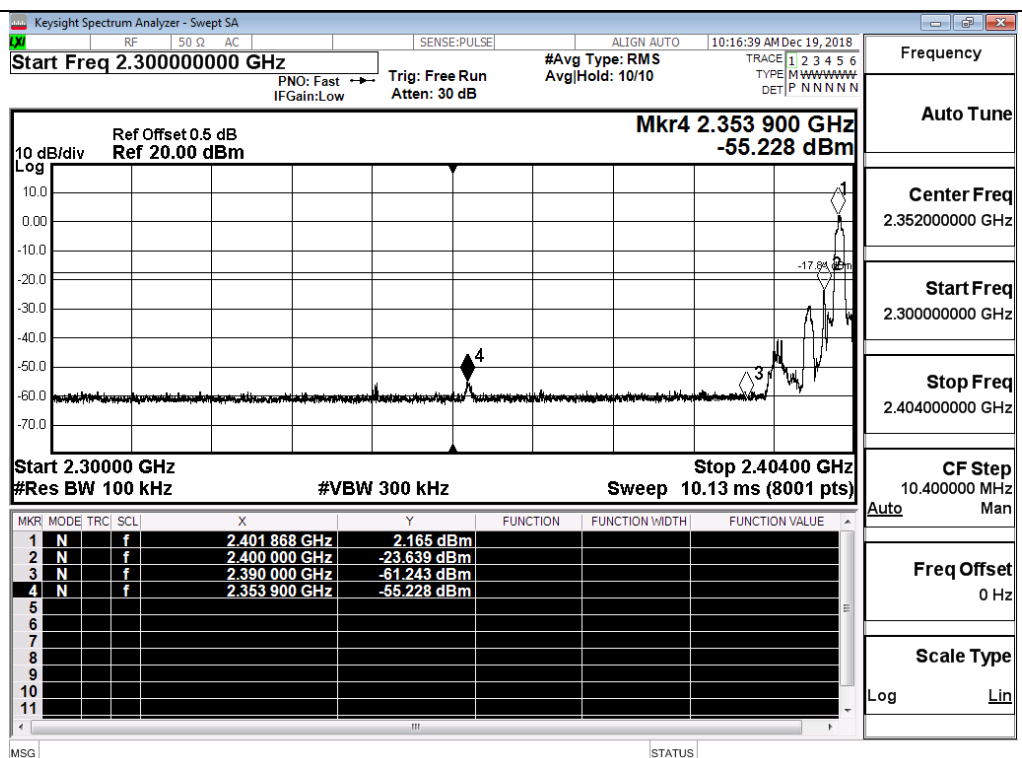
GFSK/HCH/No Hop



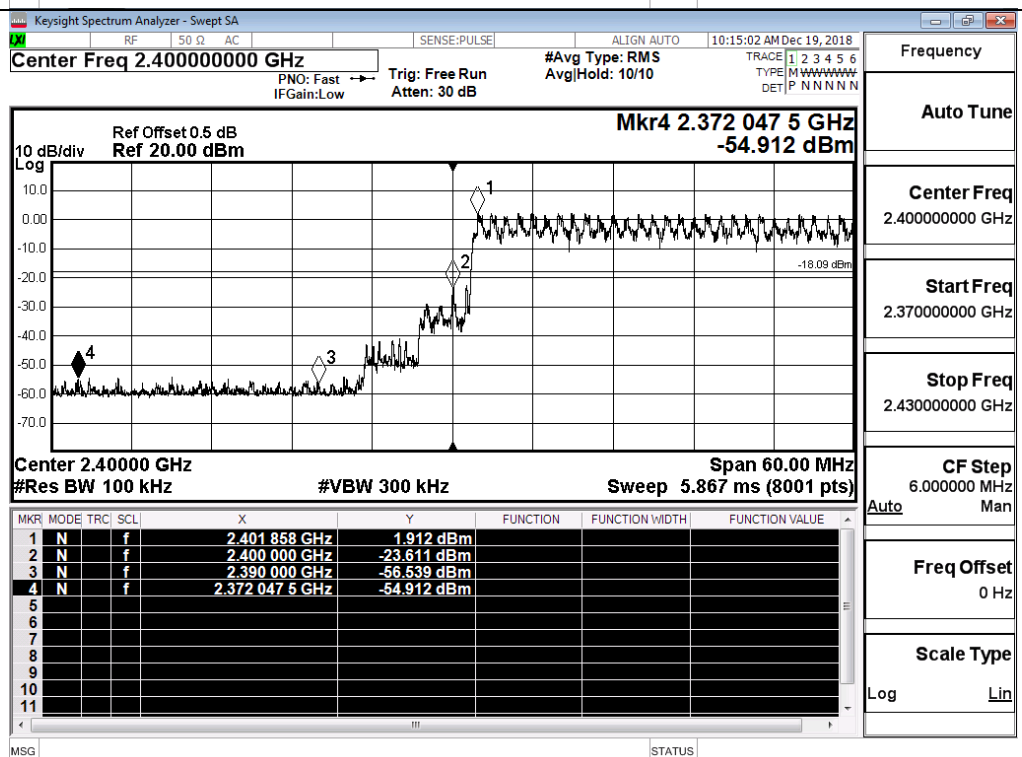
GFSK/HCH/Hop



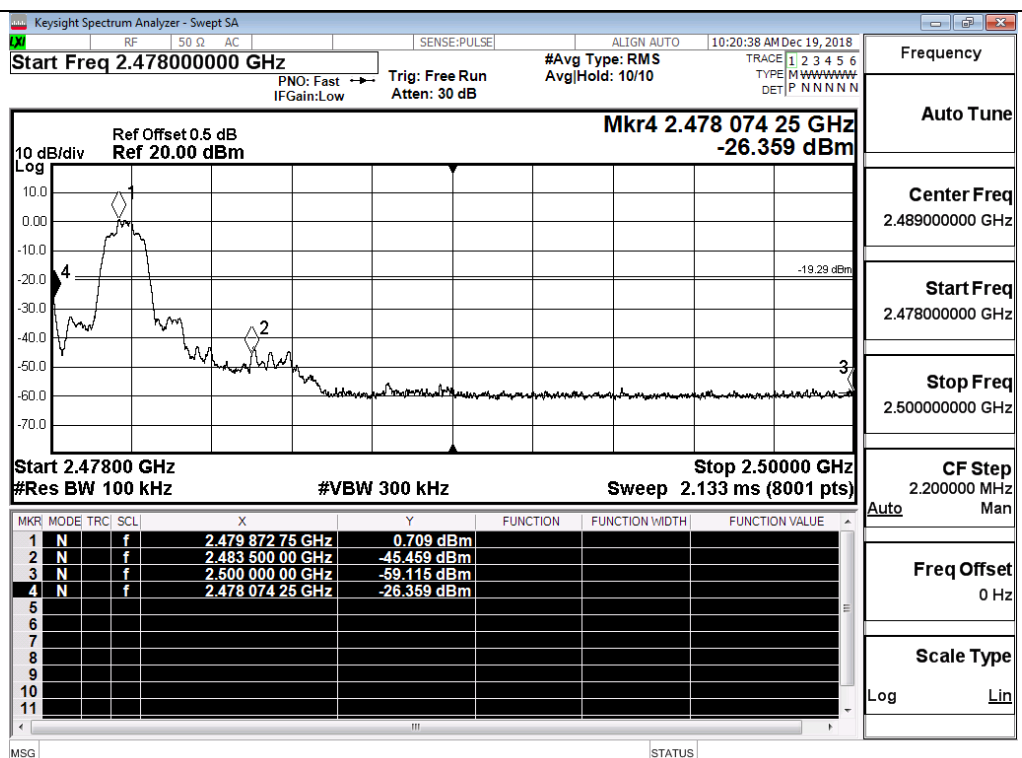
$\pi/4$ DQPSK/LCH/No  
Hop



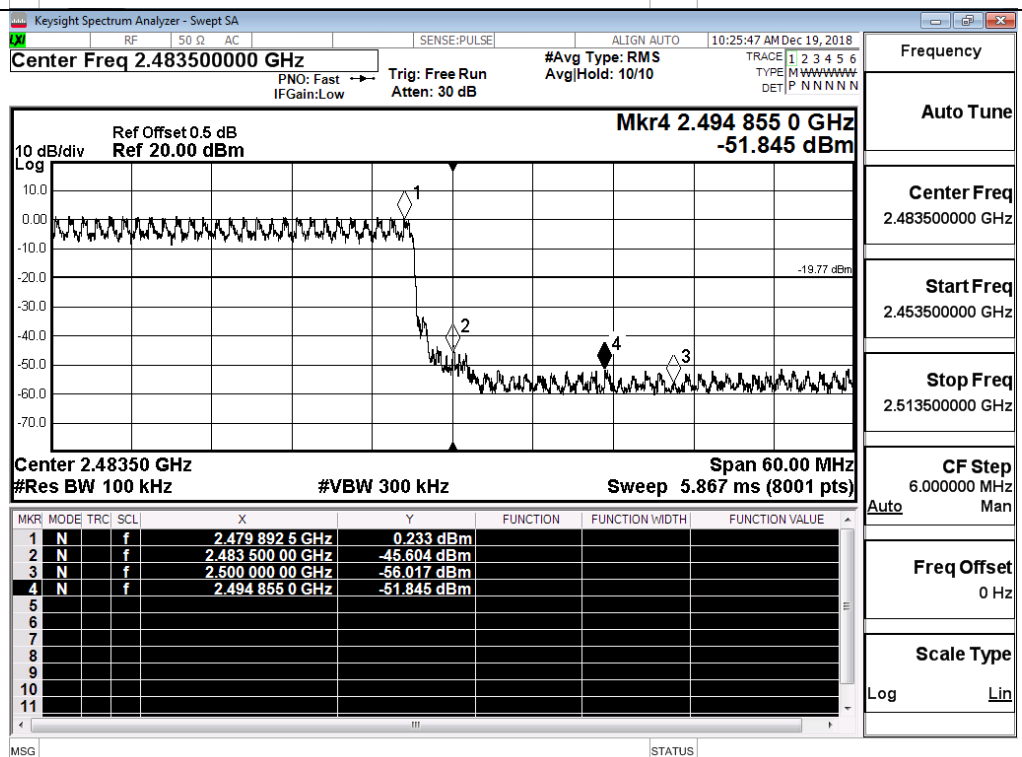
$\pi/4$ DQPSK/LCH/Hop



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



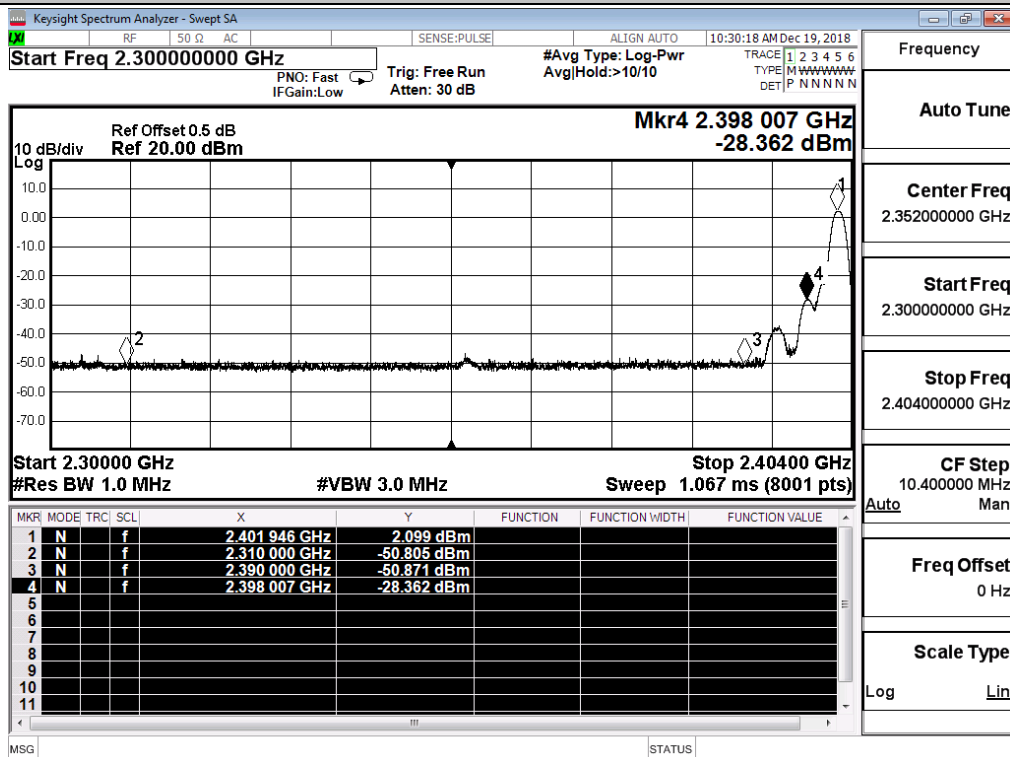
$\pi/4$ DQPSK/HCH/Hop



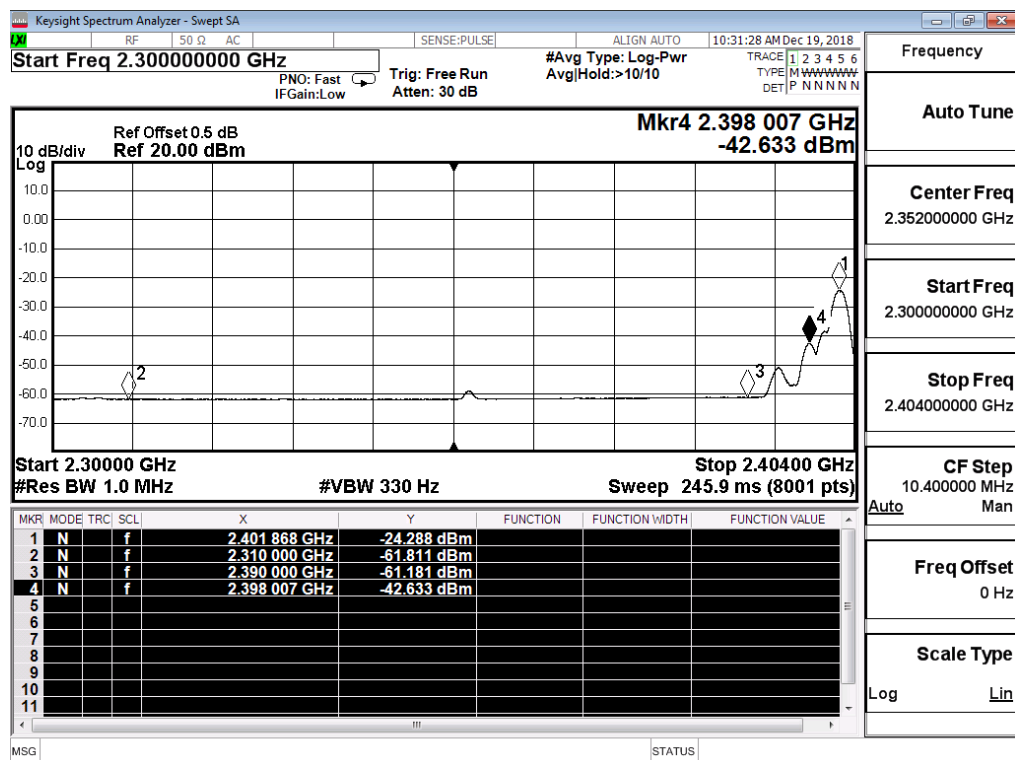
## A.8 Restrict-band band-edge measurements

| Test Mode     | Hopping | Freq.  | Power [dBm] | Gain | Ground Factor | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|---------------|---------|--------|-------------|------|---------------|------------|----------|----------------|---------|
| GFSK          | Off     | 2310.0 | -50.805     | 2.0  | 0             | 46.46      | PEAK     | 74             | PASS    |
|               | Off     | 2310.0 | -61.811     | 2.0  | 0             | 35.45      | AV       | 54             | PASS    |
|               | Off     | 2390.0 | -50.871     | 2.0  | 0             | 46.39      | PEAK     | 74             | PASS    |
|               | Off     | 2390.0 | -61.181     | 2.0  | 0             | 36.08      | AV       | 54             | PASS    |
|               | Off     | 2483.5 | -41.114     | 2.0  | 0             | 56.15      | PEAK     | 74             | PASS    |
|               | Off     | 2483.5 | -53.242     | 2.0  | 0             | 44.02      | AV       | 54             | PASS    |
|               | Off     | 2500.0 | -49.321     | 2.0  | 0             | 47.94      | PEAK     | 74             | PASS    |
|               | Off     | 2500.0 | -60.994     | 2.0  | 0             | 36.27      | AV       | 54             | PASS    |
| $\pi/4$ DQPSK | Off     | 2310.0 | -50.040     | 2.0  | 0             | 47.22      | PEAK     | 74             | PASS    |
|               | Off     | 2310.0 | -61.843     | 2.0  | 0             | 35.42      | AV       | 54             | PASS    |
|               | Off     | 2390.0 | -49.704     | 2.0  | 0             | 47.56      | PEAK     | 74             | PASS    |
|               | Off     | 2390.0 | -61.245     | 2.0  | 0             | 36.02      | AV       | 54             | PASS    |
|               | Off     | 2483.5 | -40.491     | 2.0  | 0             | 56.77      | PEAK     | 74             | PASS    |
|               | Off     | 2483.5 | -54.315     | 2.0  | 0             | 42.95      | AV       | 54             | PASS    |
|               | Off     | 2500.0 | -50.536     | 2.0  | 0             | 46.72      | PEAK     | 74             | PASS    |
|               | Off     | 2500.0 | -60.968     | 2.0  | 0             | 36.29      | AV       | 54             | PASS    |

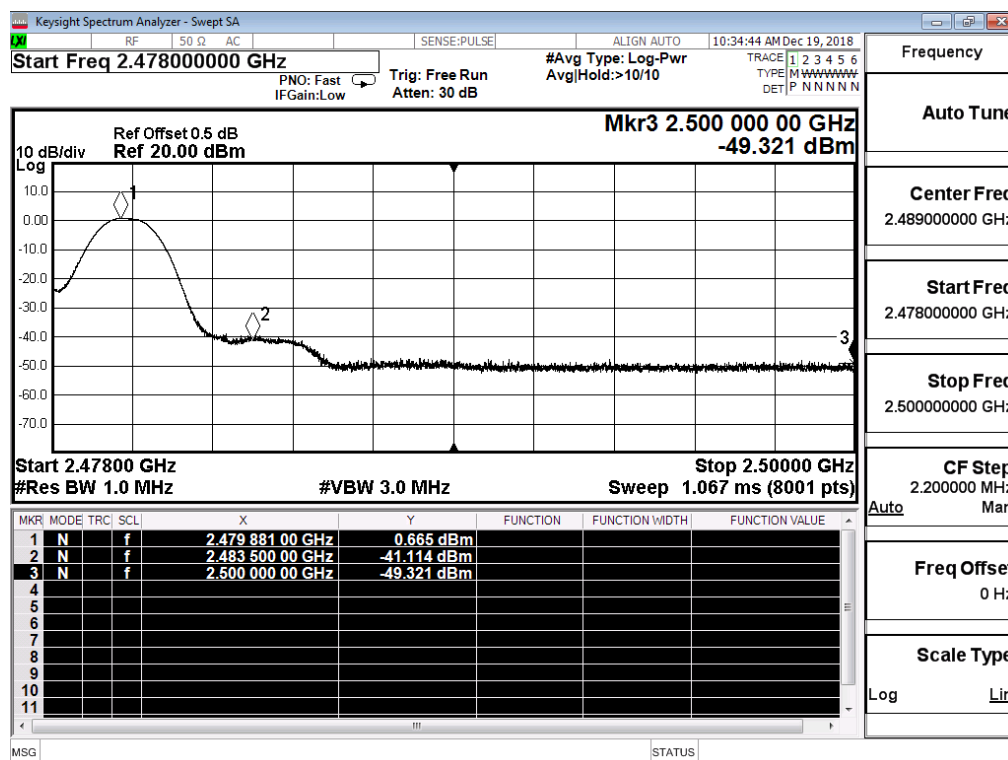
## Restrict-band band-edge measurements\_Hopping Off\_GFSK\_PEAK (Low Channel)



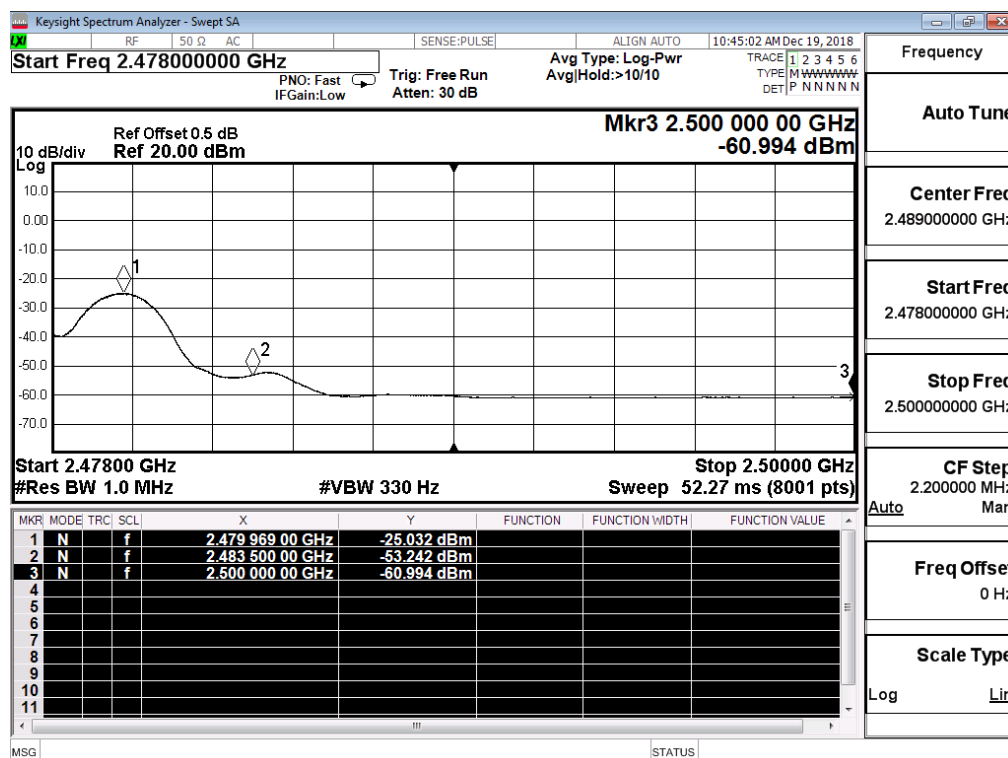
## Restrict-band band-edge measurements\_Hopping Off\_GFSK\_Average (Low Channel)

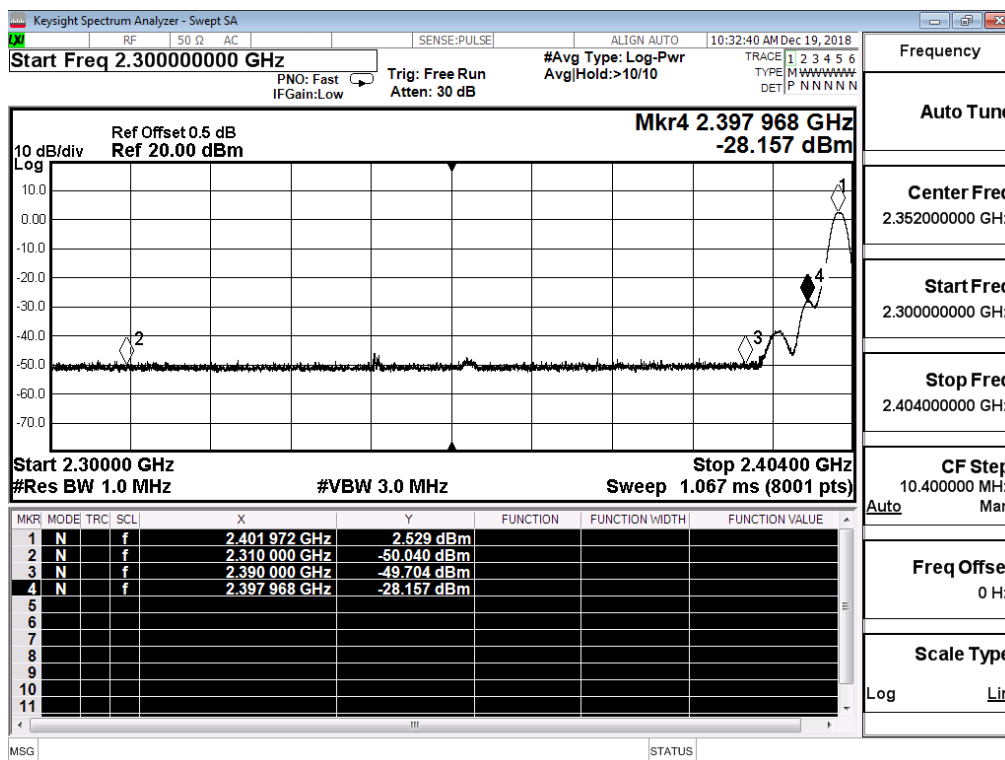
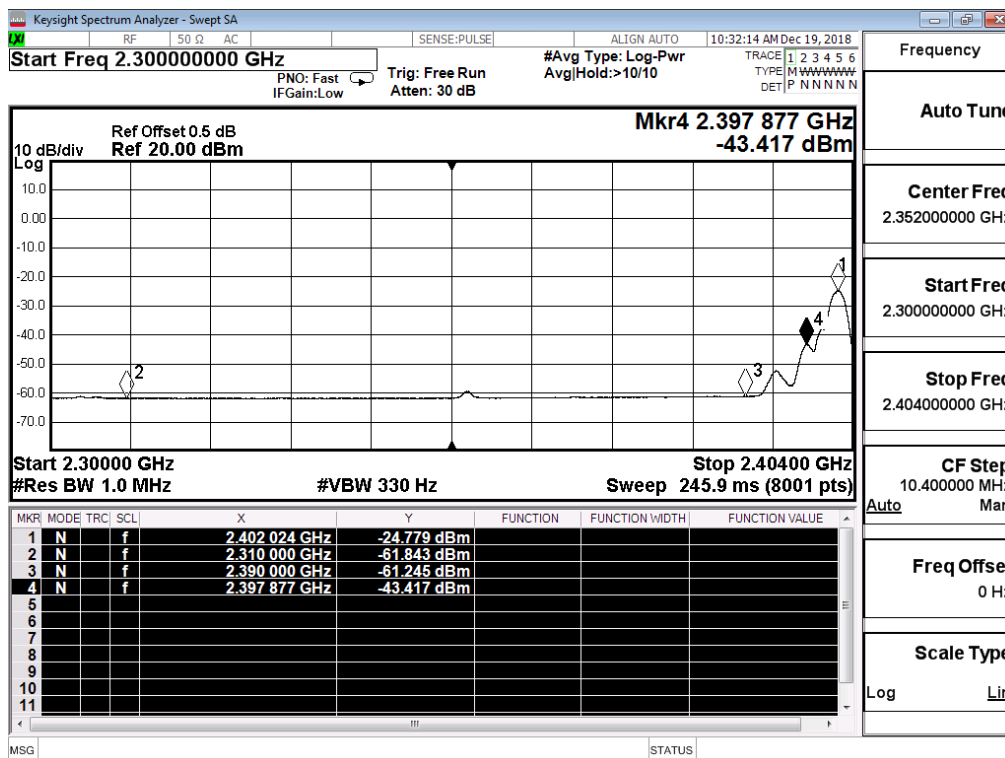


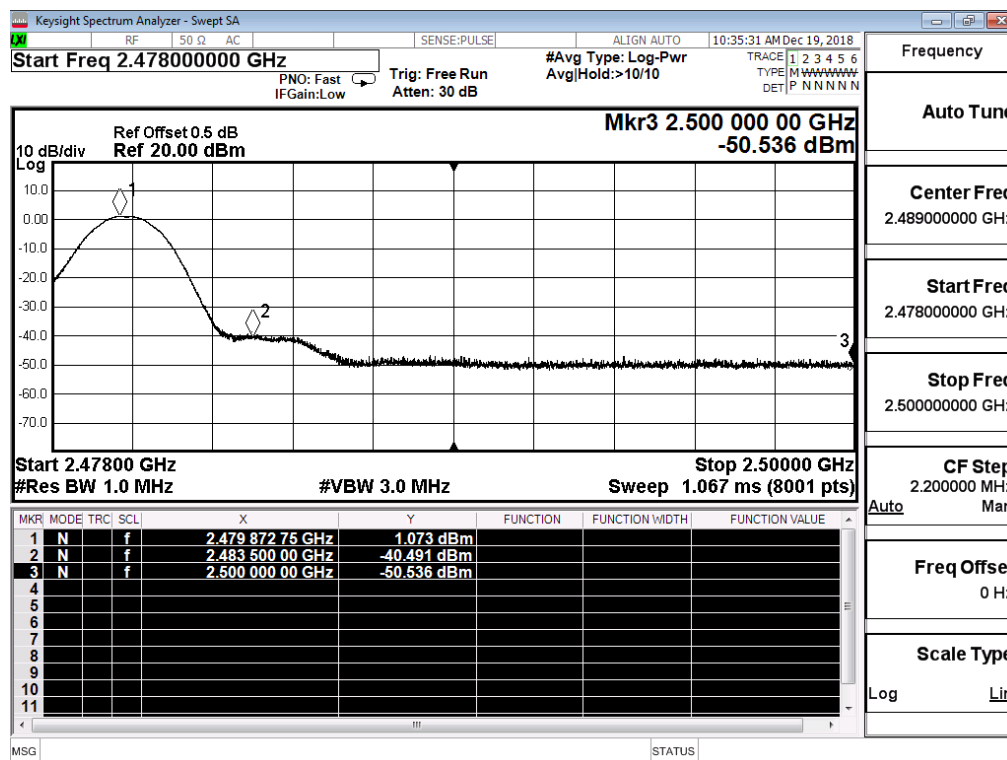
## Restrict-band band-edge measurements\_Hopping Off\_ GFSK\_PEAK (High Channel)



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