

## Appendix A

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

Product Name: TRUE WIRELESS LED PARTY SPEAKER

Trade Mark: Soundlogic XT

Test Model: 21426

#### Environmental Conditions

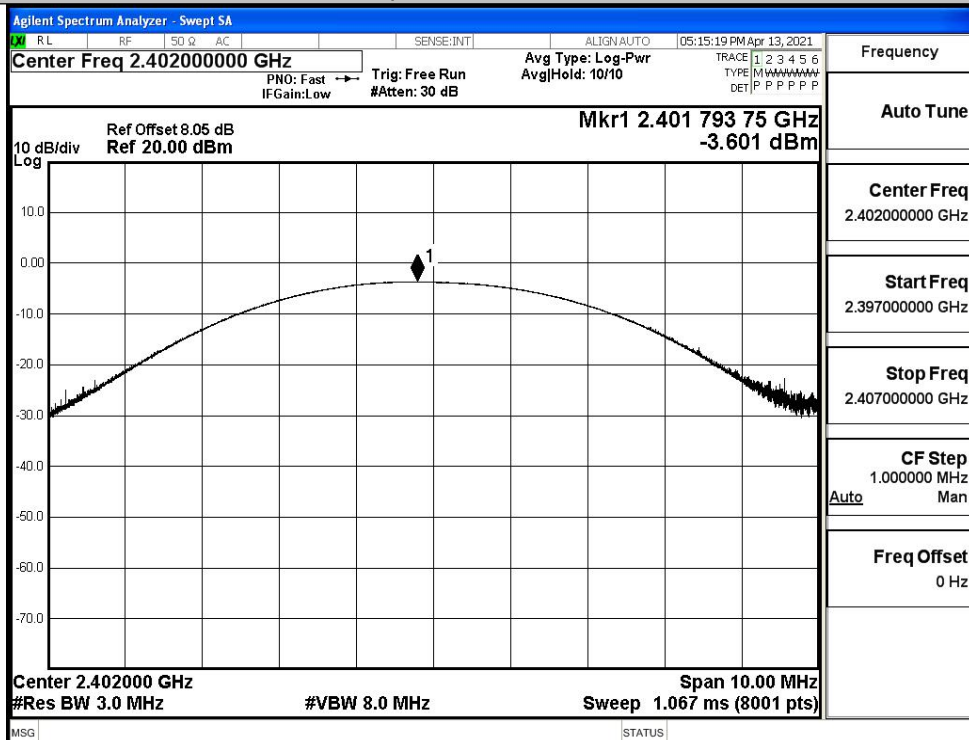
|                    |           |
|--------------------|-----------|
| Temperature:       | 24.6° C   |
| Relative Humidity: | 54.1%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Kay Hu    |
| Supervised by:     | Li Huan   |

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

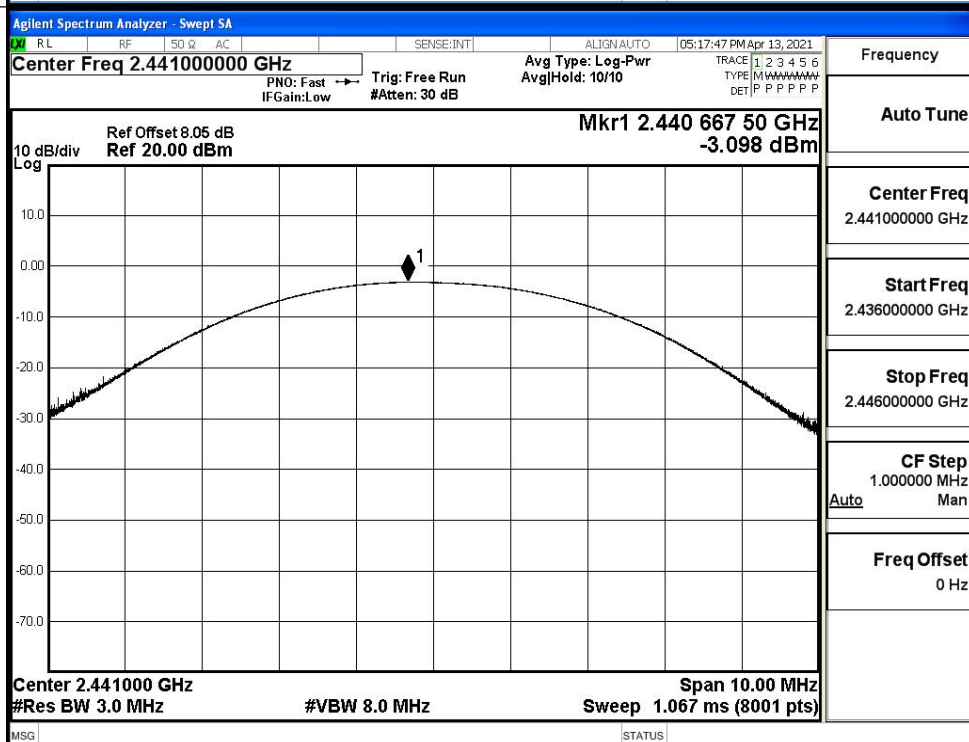
| Mode          | Channel. | Maximum Peak Output Power [dBm] | Limit [dBm] | Verdict |
|---------------|----------|---------------------------------|-------------|---------|
| GFSK          | LCH      | -3.601                          | 21          | PASS    |
|               | MCH      | -3.098                          | 21          | PASS    |
|               | HCH      | -2.332                          | 21          | PASS    |
| $\pi/4$ DQPSK | LCH      | -2.878                          | 21          | PASS    |
|               | MCH      | -2.352                          | 21          | PASS    |
|               | HCH      | -1.666                          | 21          | PASS    |

## Test Graphs

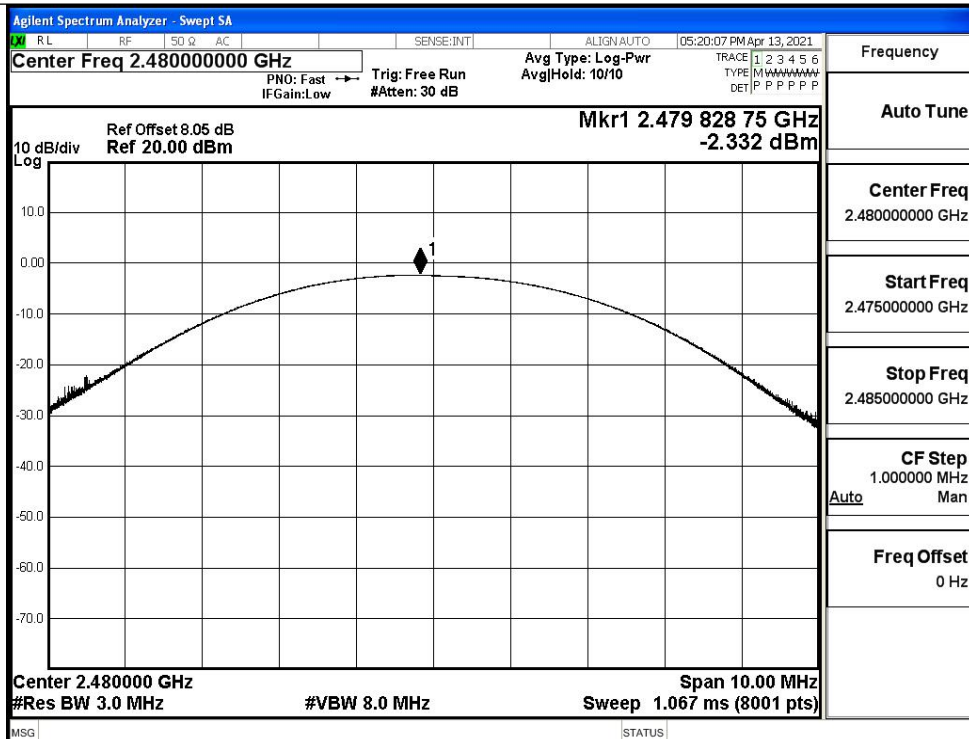
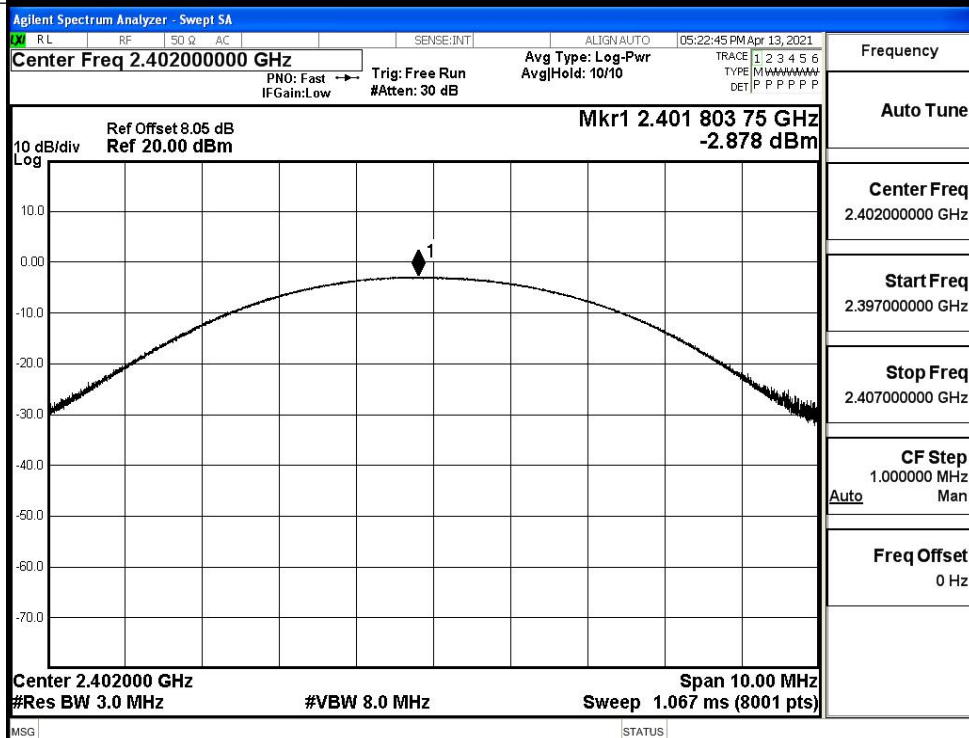
GFSK/LCH

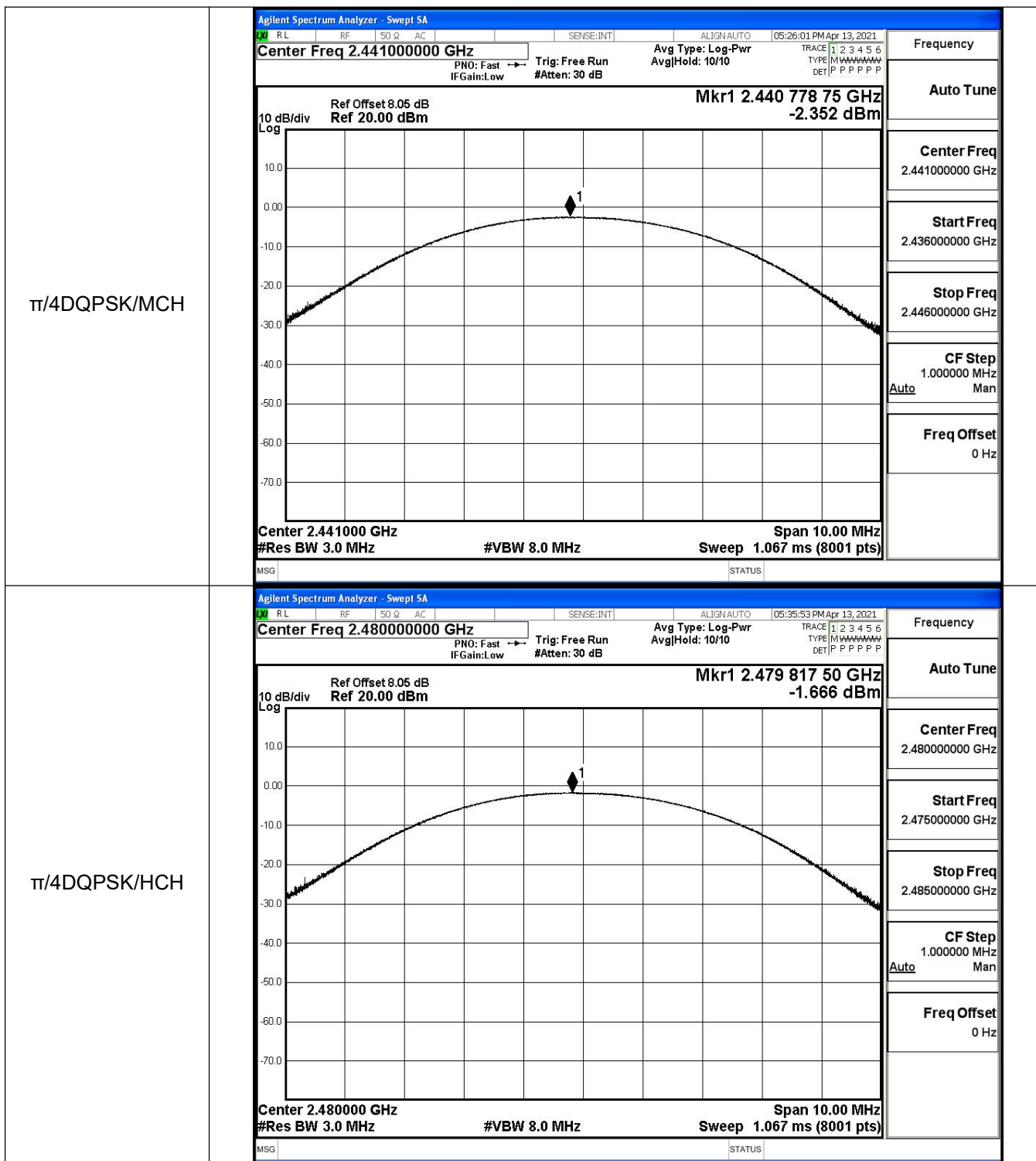


GFSK/MCH



GFSK/HCH

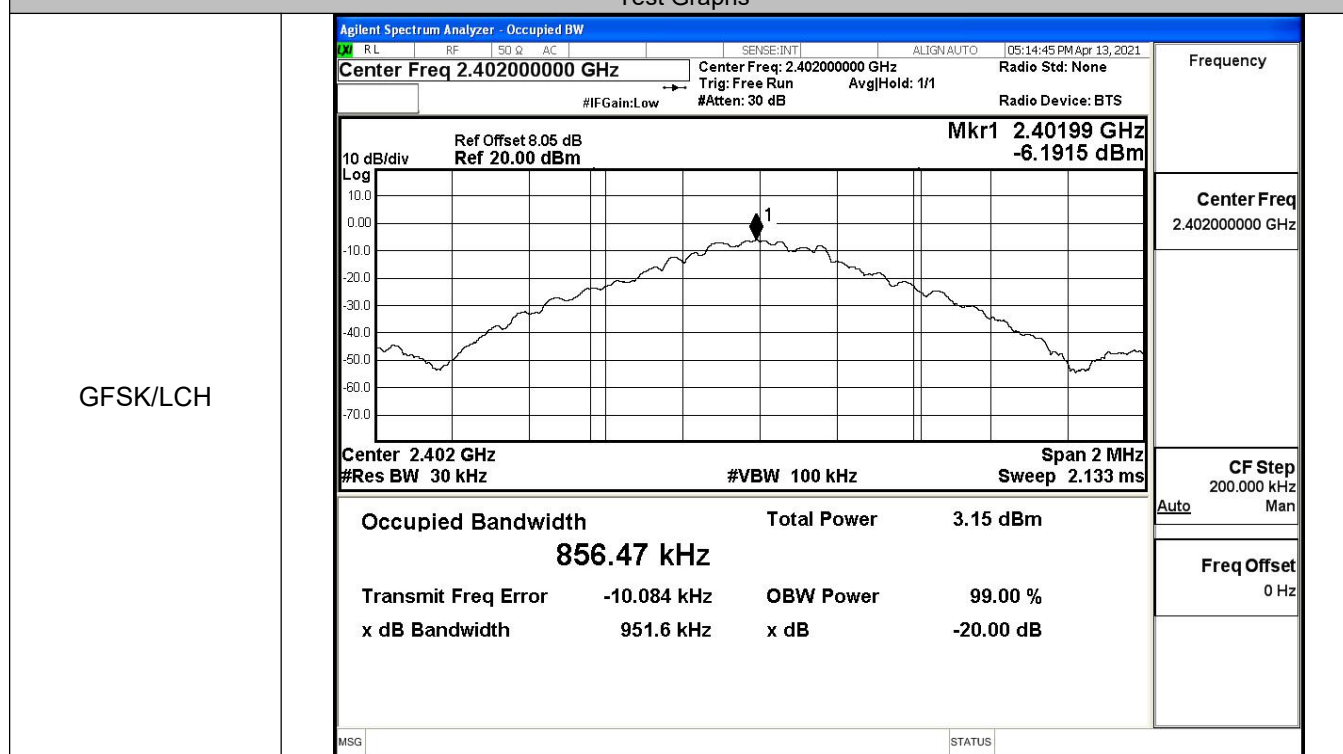
 $\pi$ /4DQPSK/LCH



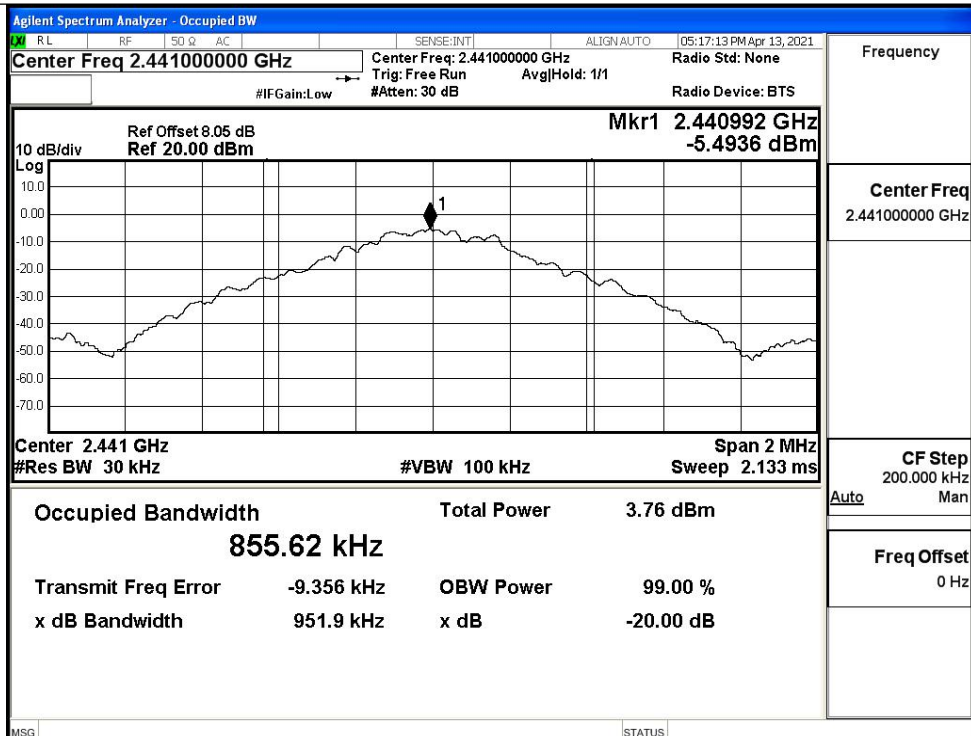
## A.2 20dB Bandwidth

| Mode          | Channel. | 20dB Bandwidth [MHz] | Limit [MHz]   | Verdict |
|---------------|----------|----------------------|---------------|---------|
| GFSK          | LCH      | 0.9516               | Not Specified | PASS    |
|               | MCH      | 0.9519               | Not Specified | PASS    |
|               | HCH      | 0.9525               | Not Specified | PASS    |
| $\pi/4$ DQPSK | LCH      | 1.311                | Not Specified | PASS    |
|               | MCH      | 1.311                | Not Specified | PASS    |
|               | HCH      | 1.310                | Not Specified | PASS    |

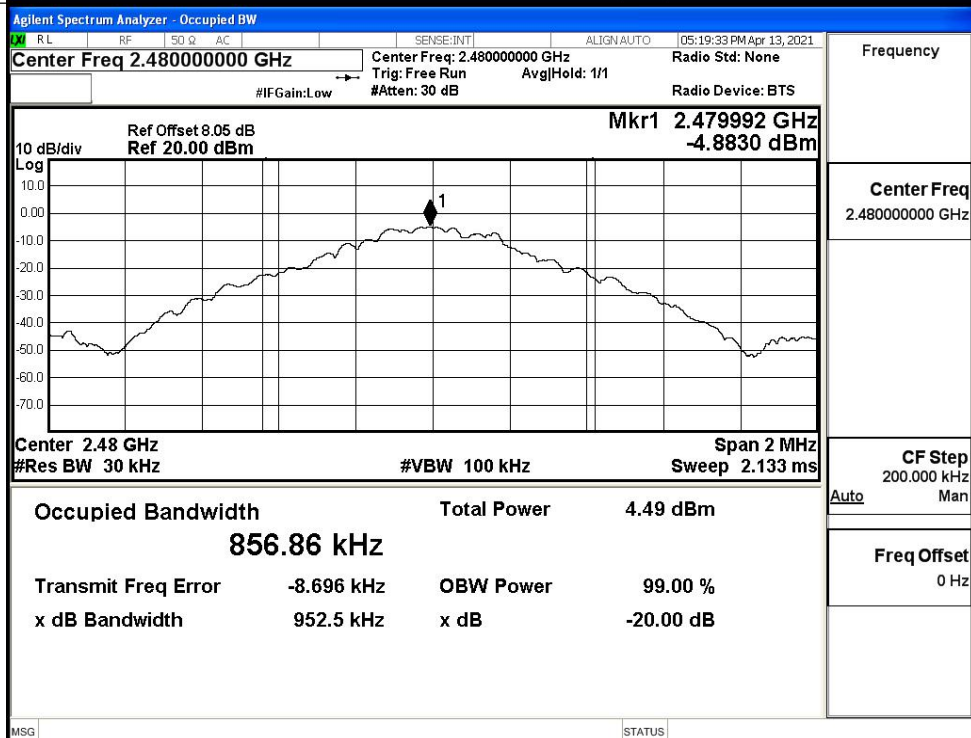
Test Graphs

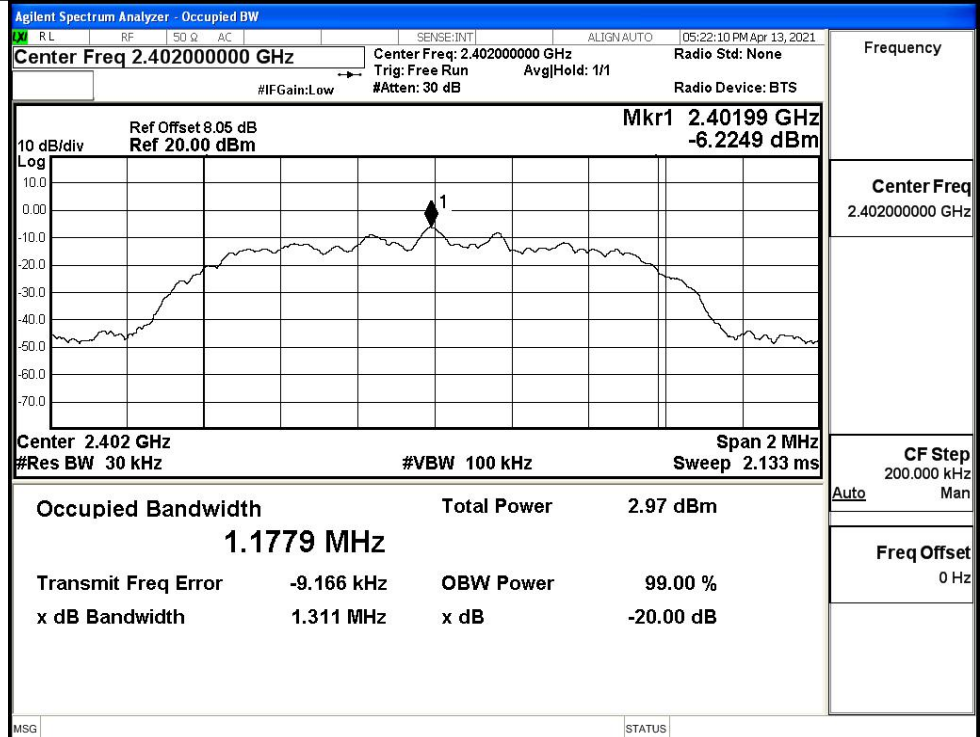
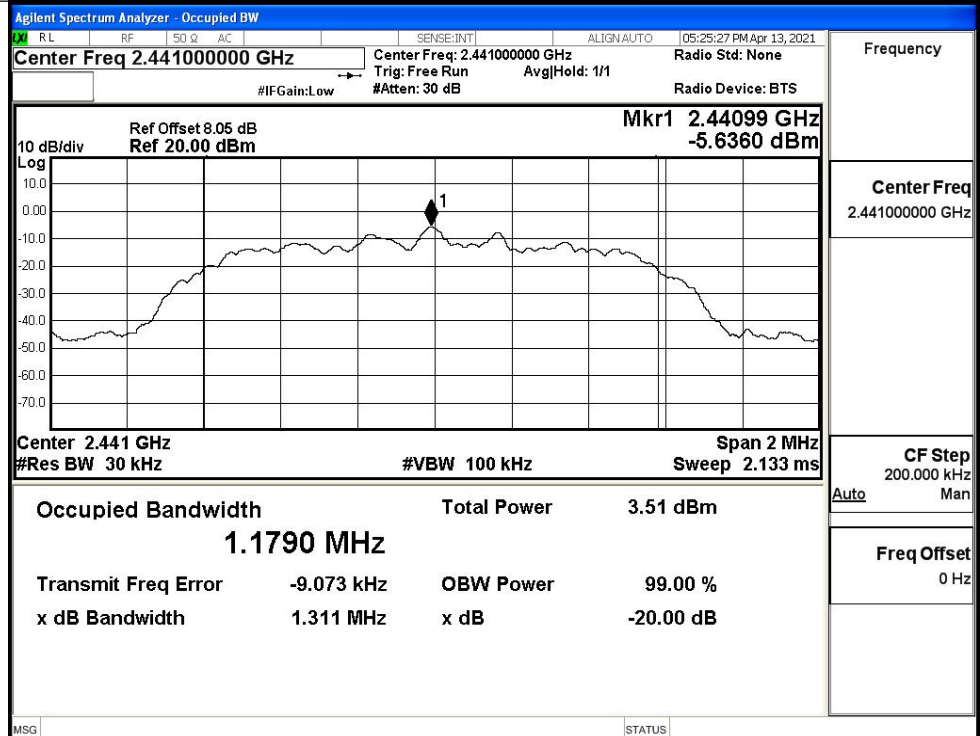


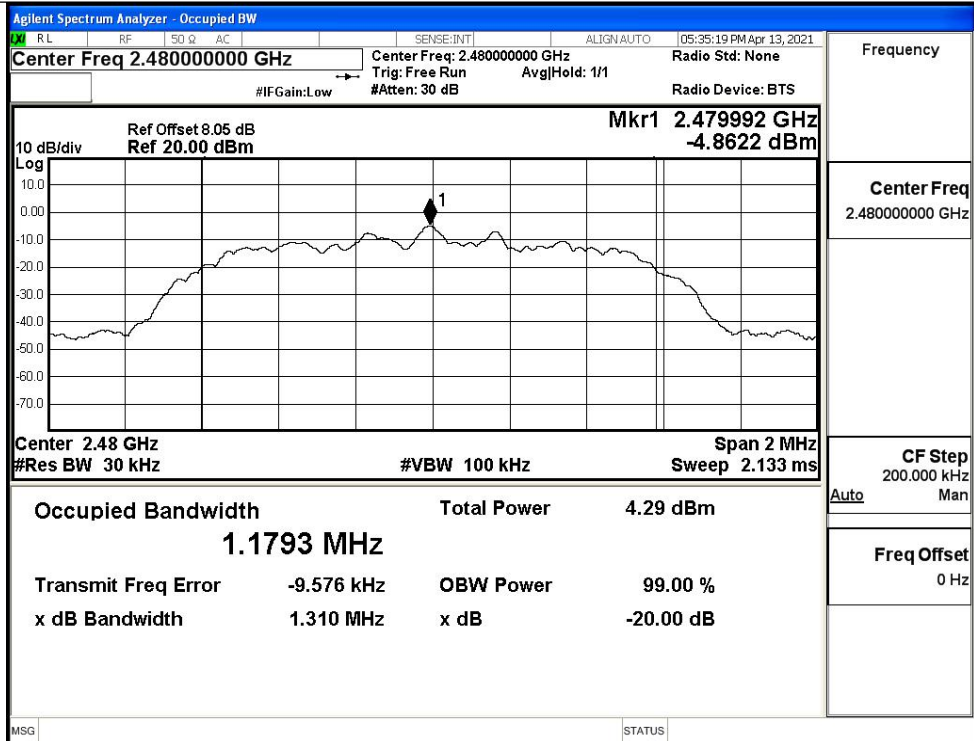
GFSK/MCH



GFSK/HCH



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

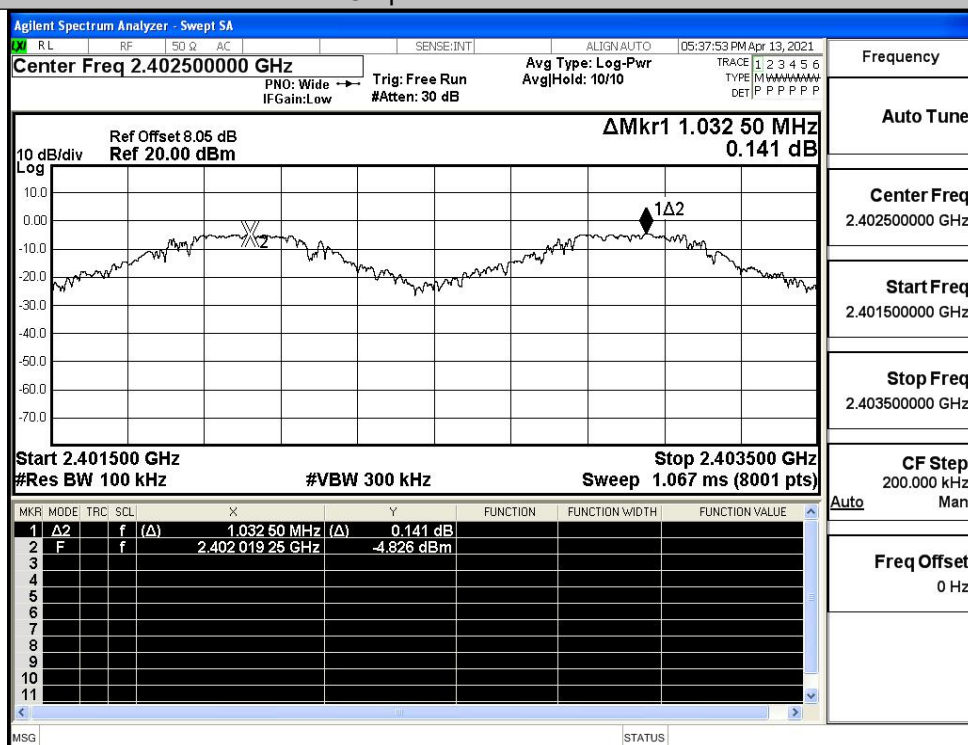
$\pi/4$ DQPSK/HCH

### A.3 Carrier Frequency Separation

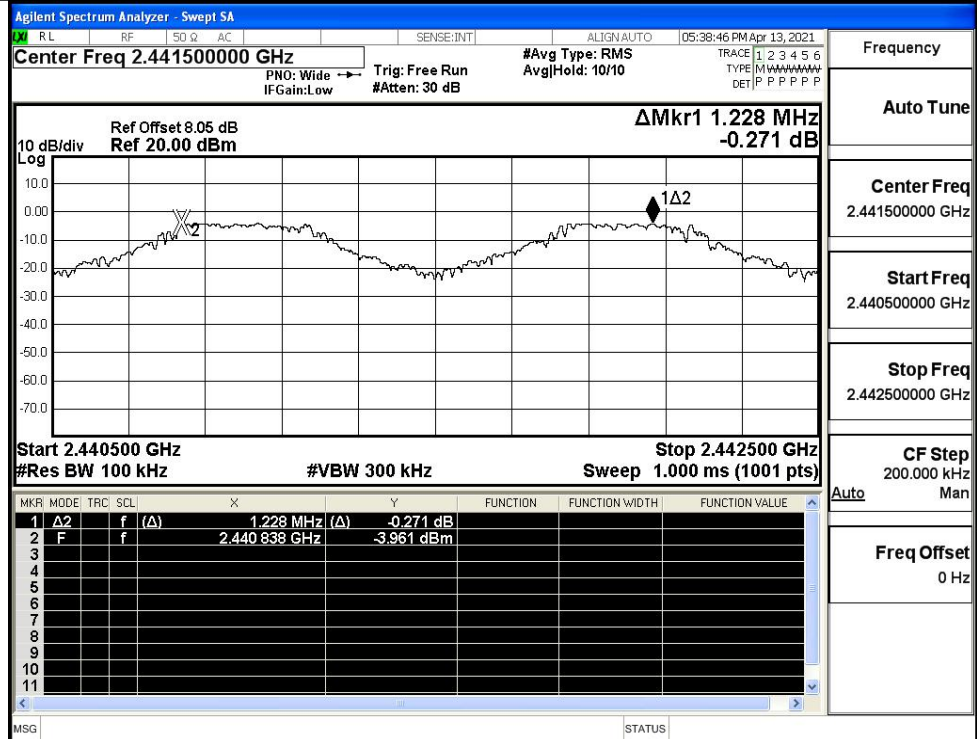
| Mode          | Channel. | Carrier Frequency Separation [MHz] | Limit [MHz] | Verdict |
|---------------|----------|------------------------------------|-------------|---------|
| GFSK          | LCH      | 1.033                              | 0.635       | PASS    |
|               | MCH      | 1.228                              | 0.635       | PASS    |
|               | HCH      | 1.118                              | 0.635       | PASS    |
| $\pi/4$ DQPSK | LCH      | 0.880                              | 0.874       | PASS    |
|               | MCH      | 1.168                              | 0.874       | PASS    |
|               | HCH      | 1.012                              | 0.874       | PASS    |

#### Test Graphs

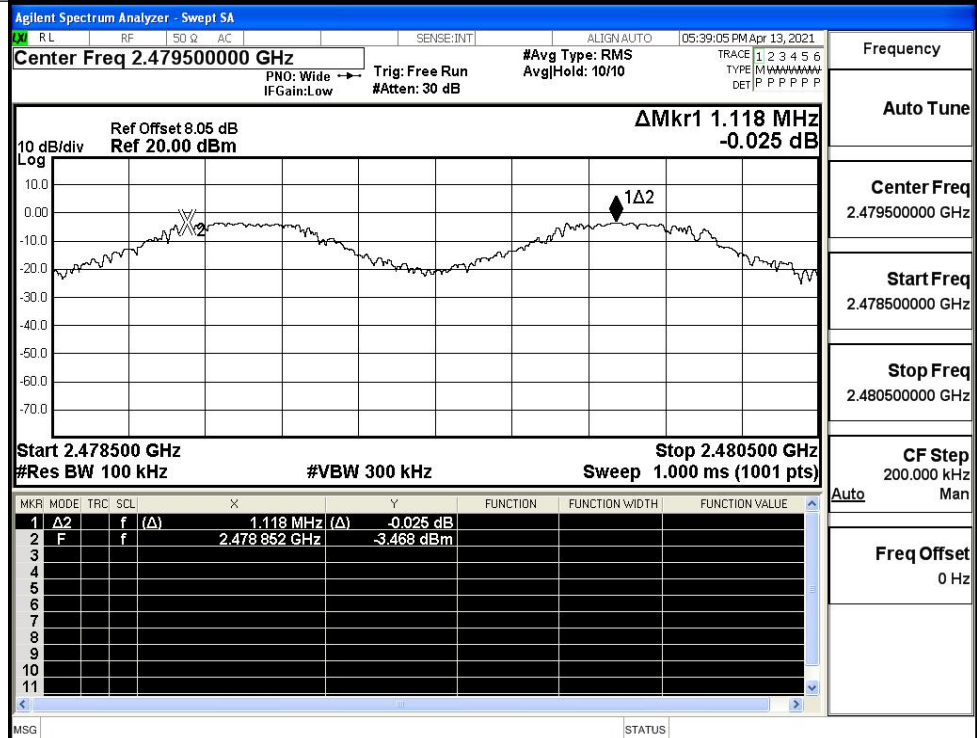
GFSK/LCH

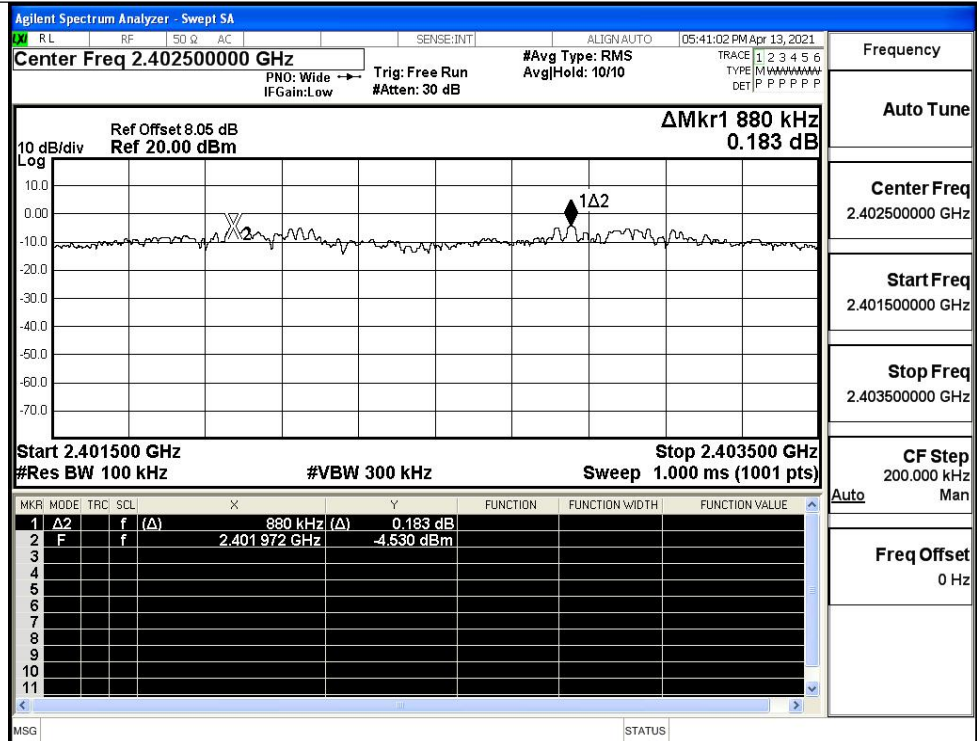
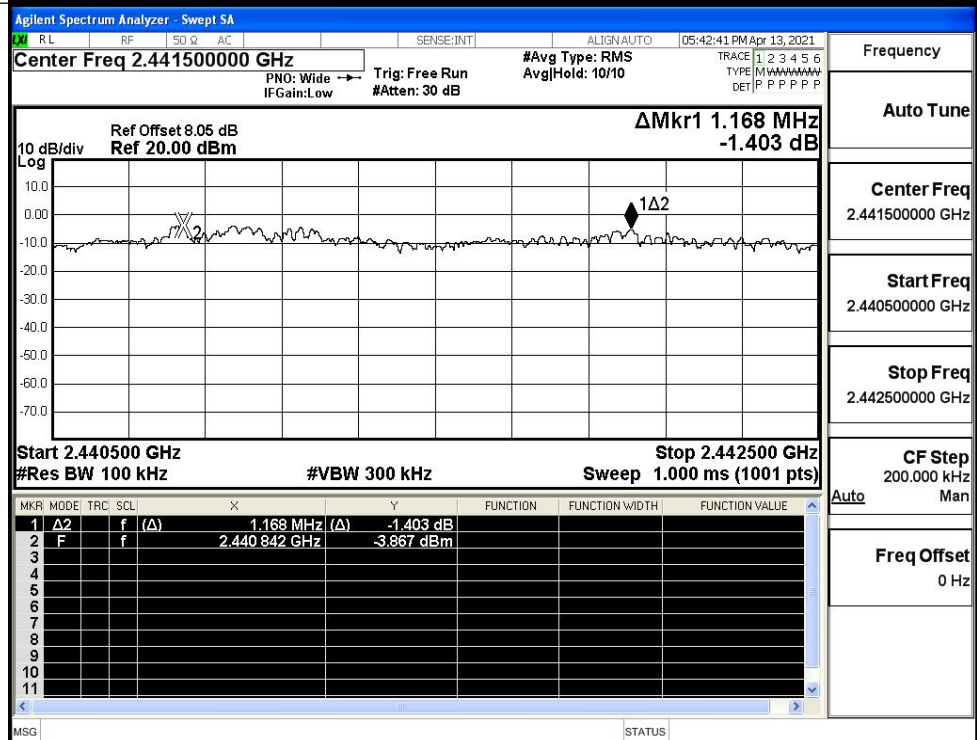


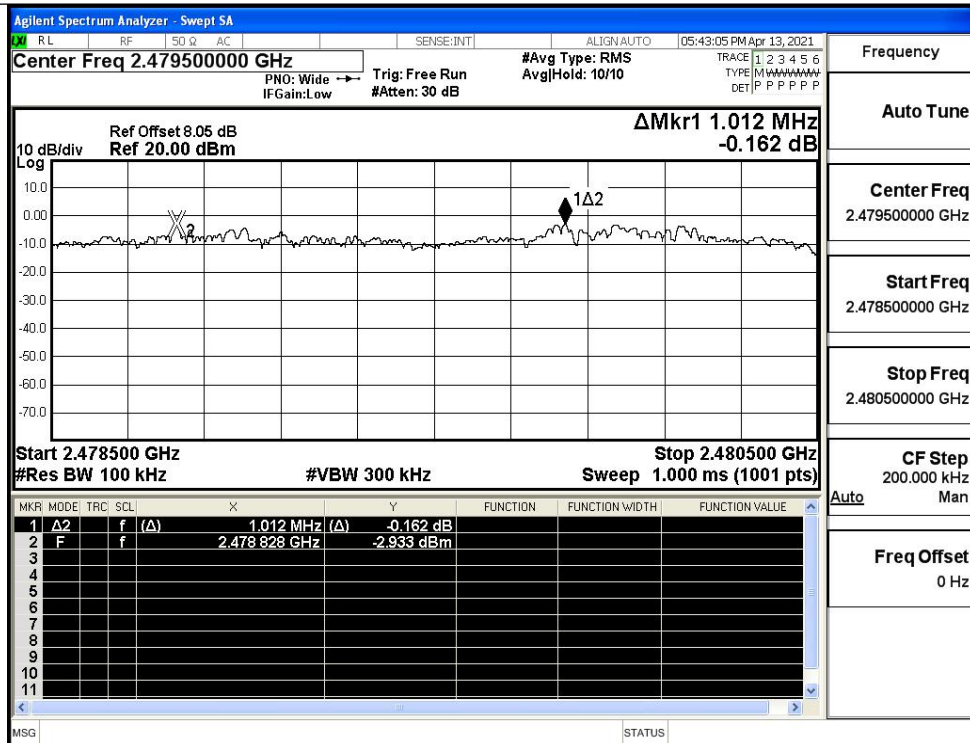
GFSK/MCH



GFSK/HCH



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

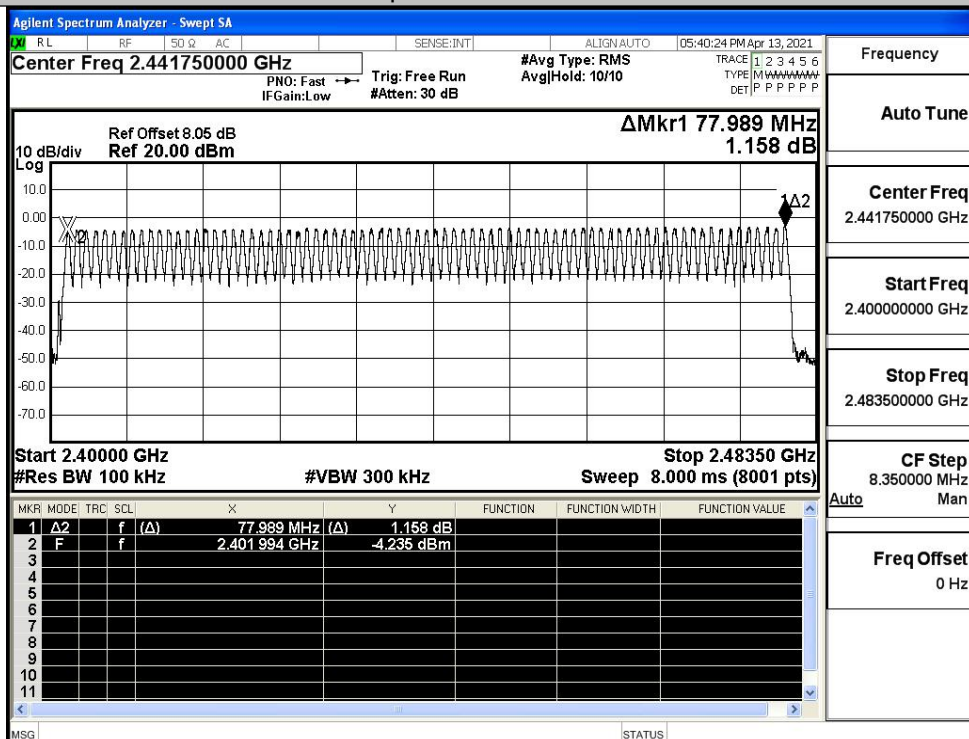
$\pi/4$ DQPSK/HCH

## A.4 Hopping Channel Number

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

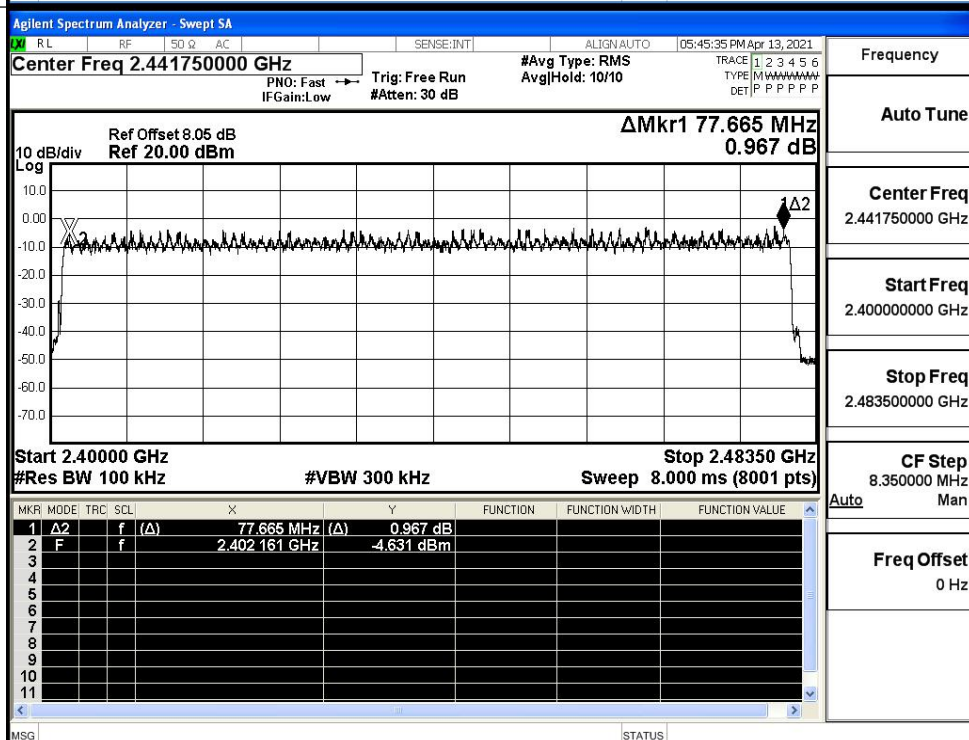
### Test Graphs

GFSK/Hop



Frequency

Auto Tune

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

Frequency

Auto Tune

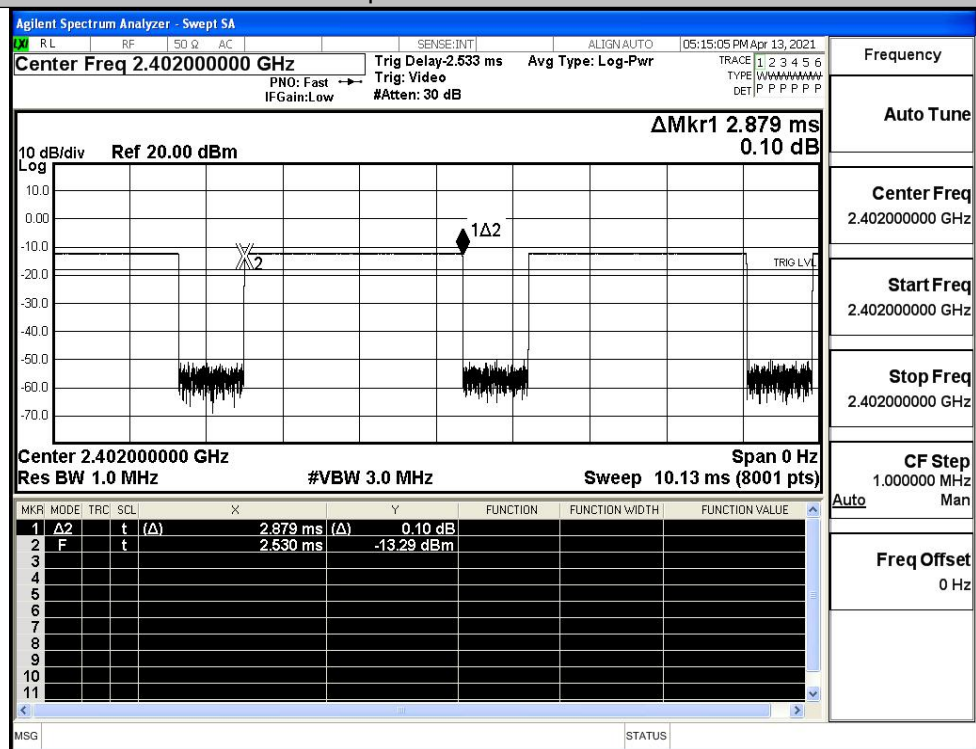
Center Freq  
2.441750000 GHzStart Freq  
2.400000000 GHzStop Freq  
2.483500000 GHzCF Step  
8.350000 MHz  
ManFreq Offset  
0 Hz

## A.5 Dwell Time

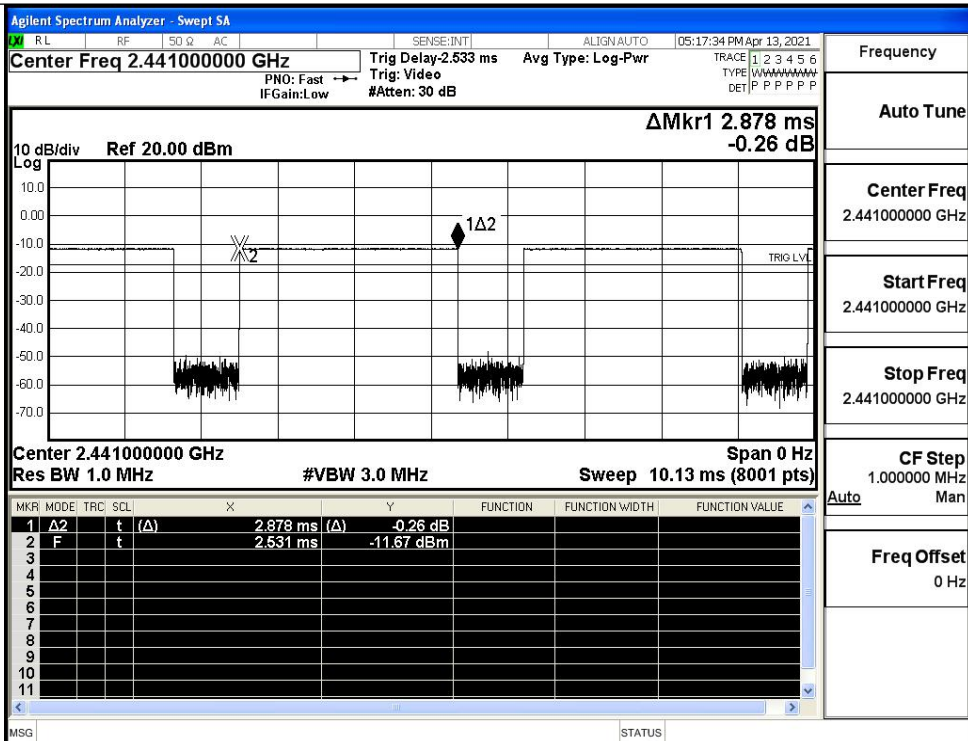
| Mode          | Packet | Channel | Burst Width<br>[ms/hop/ch] | Total<br>Hops[hop*ch] | Dwell Time[s] | Limit [s] | Verdict |
|---------------|--------|---------|----------------------------|-----------------------|---------------|-----------|---------|
| GFSK          | DH5    | LCH     | 2.88                       | 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     | 2.88                       | 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    |

### Test Graphs

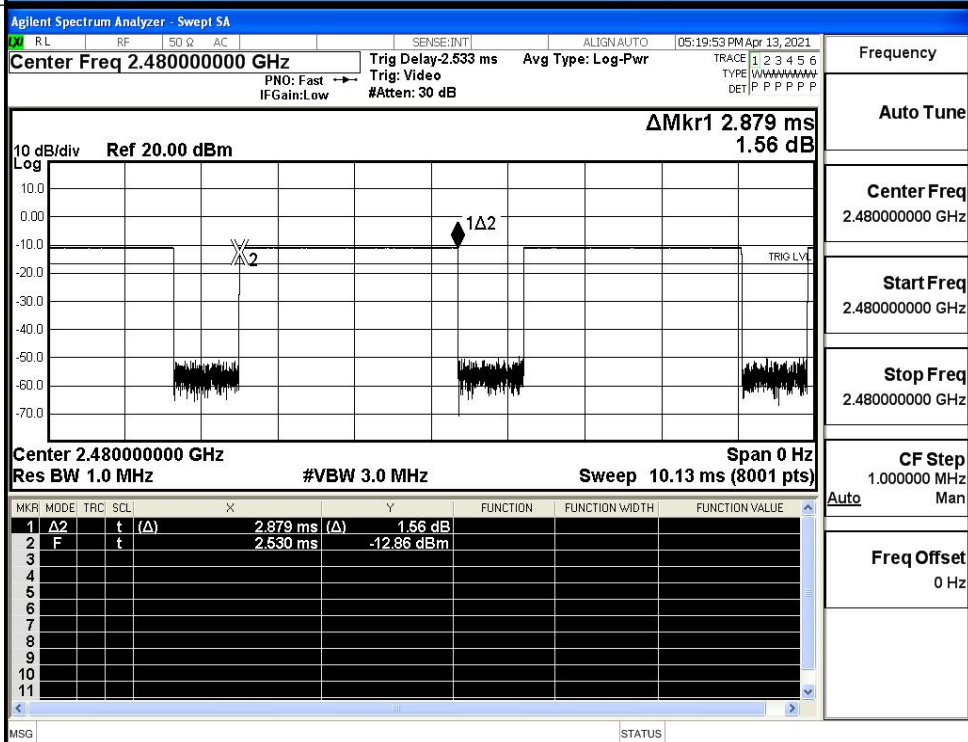
GFSK\_DH5/LCH



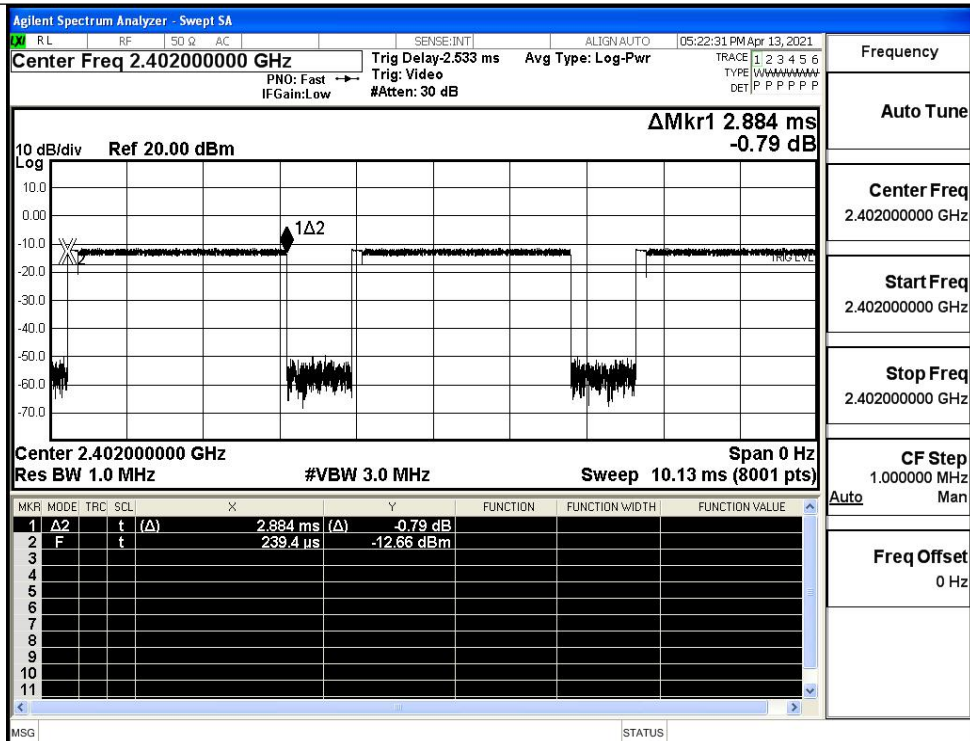
GFSK\_DH5/MCH



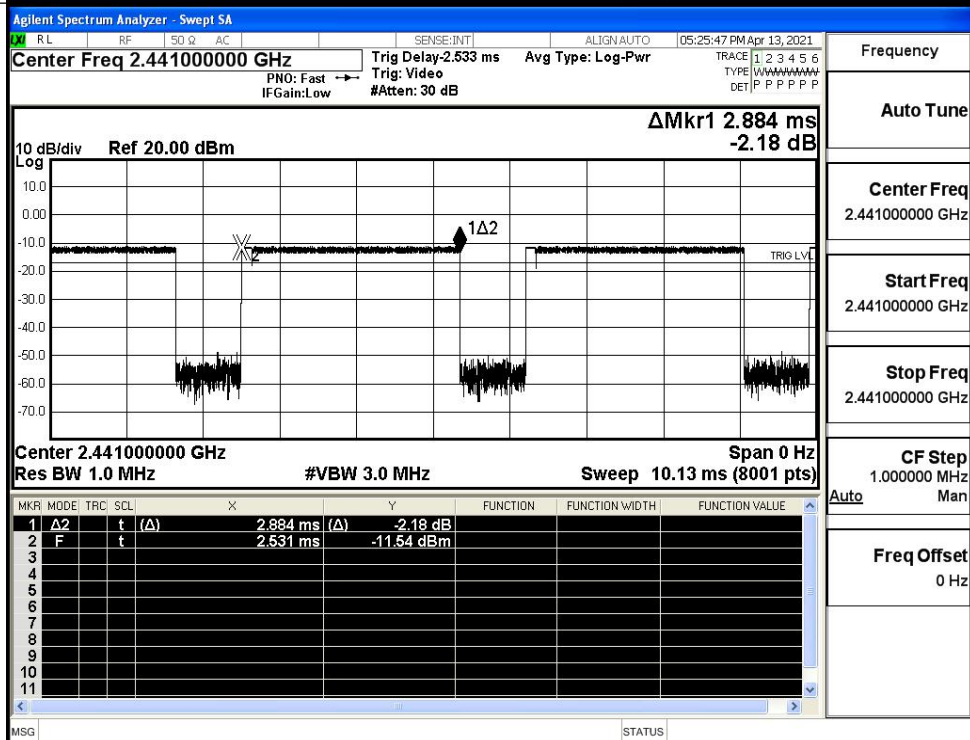
GFSK\_DH5/HCH



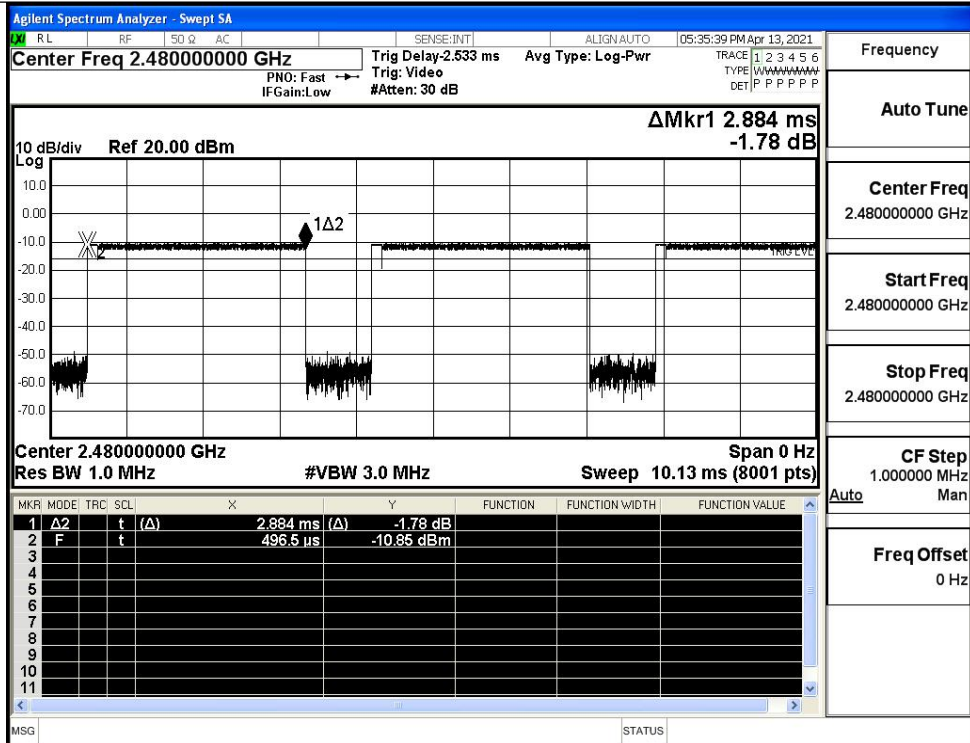
$\pi/4$ DQPSK  
\_2DH5/LCH



$\pi/4$ DQPSK  
\_2DH5/MCH



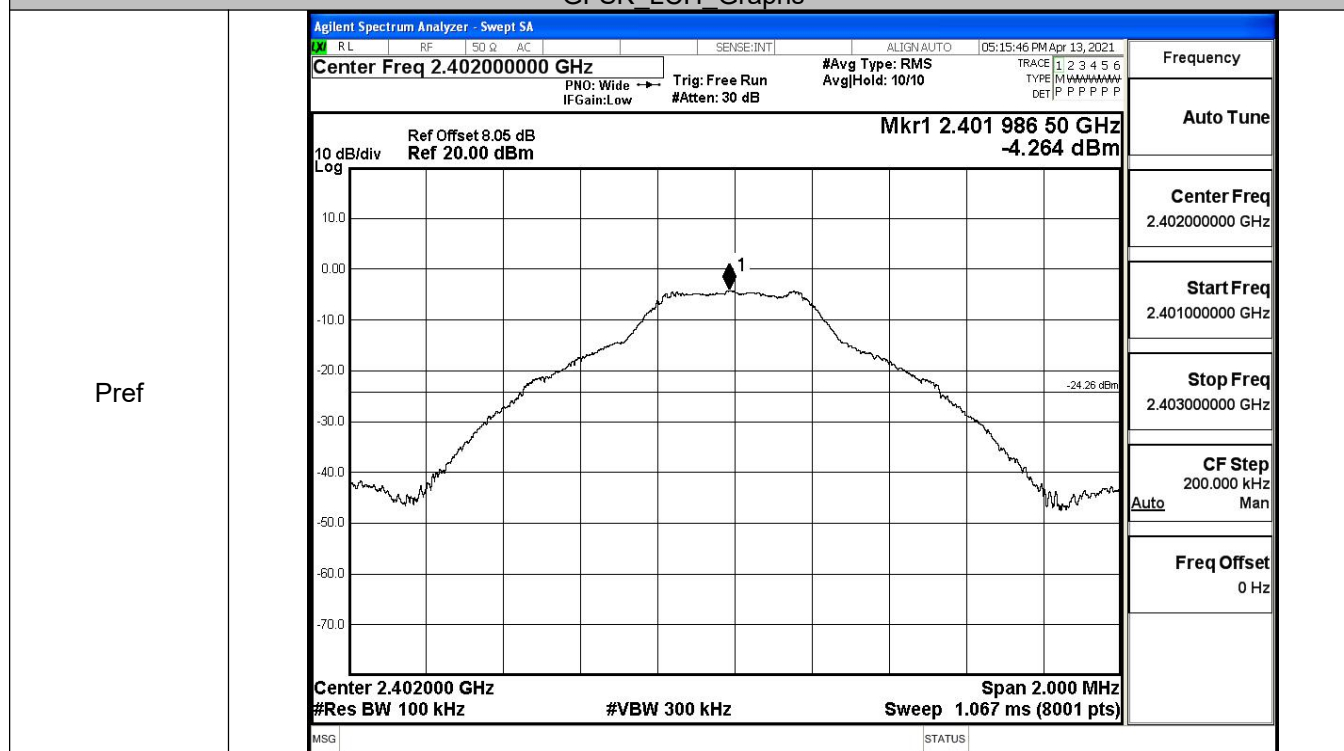
$\pi/4$ DQPSK  
\_2DH5/HCH



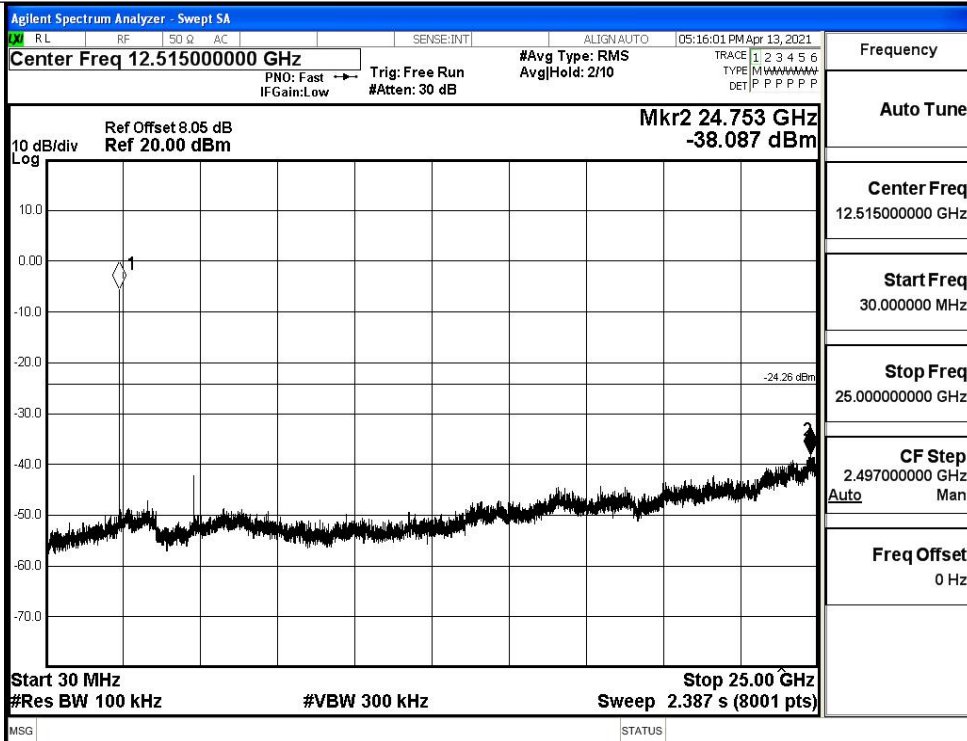
## A.6 RF Conducted Spurious Emissions

| Mode          | Channel | Pref [dBm] | Max. Level [dBm] | Limit [dBm] | Verdict |
|---------------|---------|------------|------------------|-------------|---------|
| GFSK          | LCH     | -4.264     | -38.087          | -24.264     | PASS    |
|               | MCH     | -3.973     | -37.036          | -23.973     | PASS    |
|               | HCH     | -3.193     | -38.368          | -23.193     | PASS    |
| $\pi/4$ DQPSK | LCH     | -4.272     | -37.169          | -24.272     | PASS    |
|               | MCH     | -3.555     | -37.196          | -23.555     | PASS    |
|               | HCH     | -3.055     | -38.035          | -23.055     | PASS    |

GFSK LCH Graphs

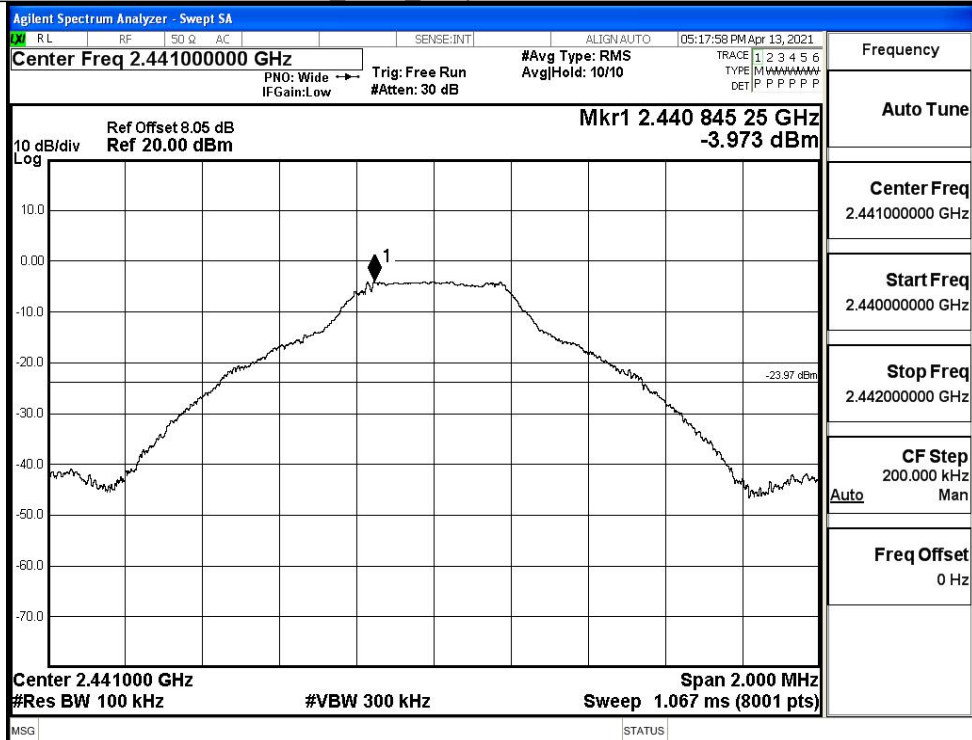


Puw

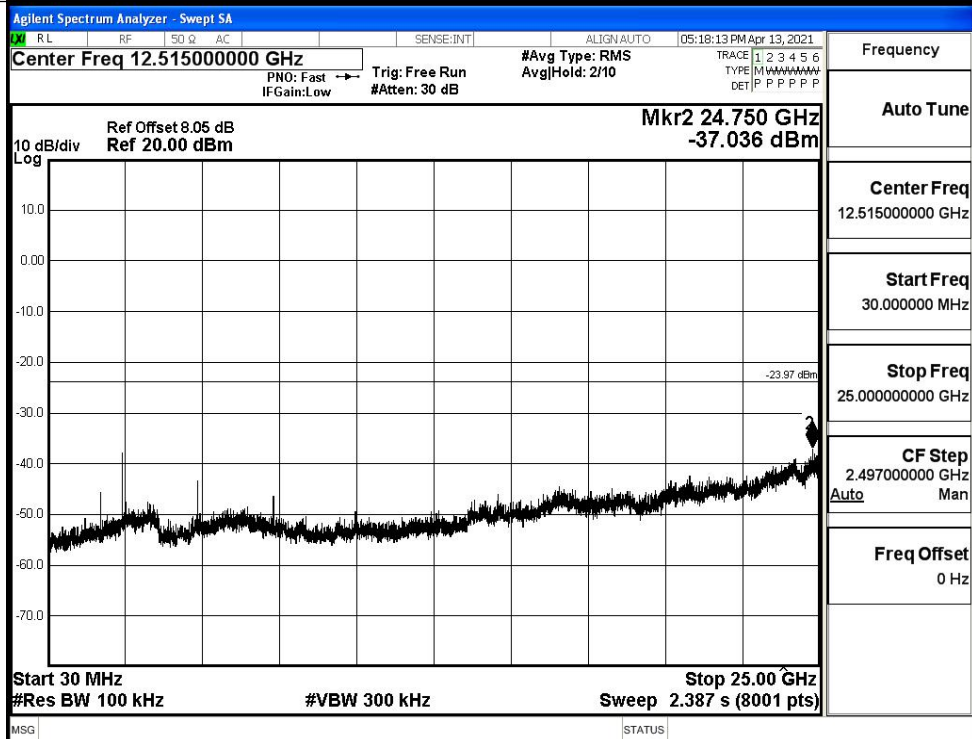


## GFSK MCH\_Graphs

Pref

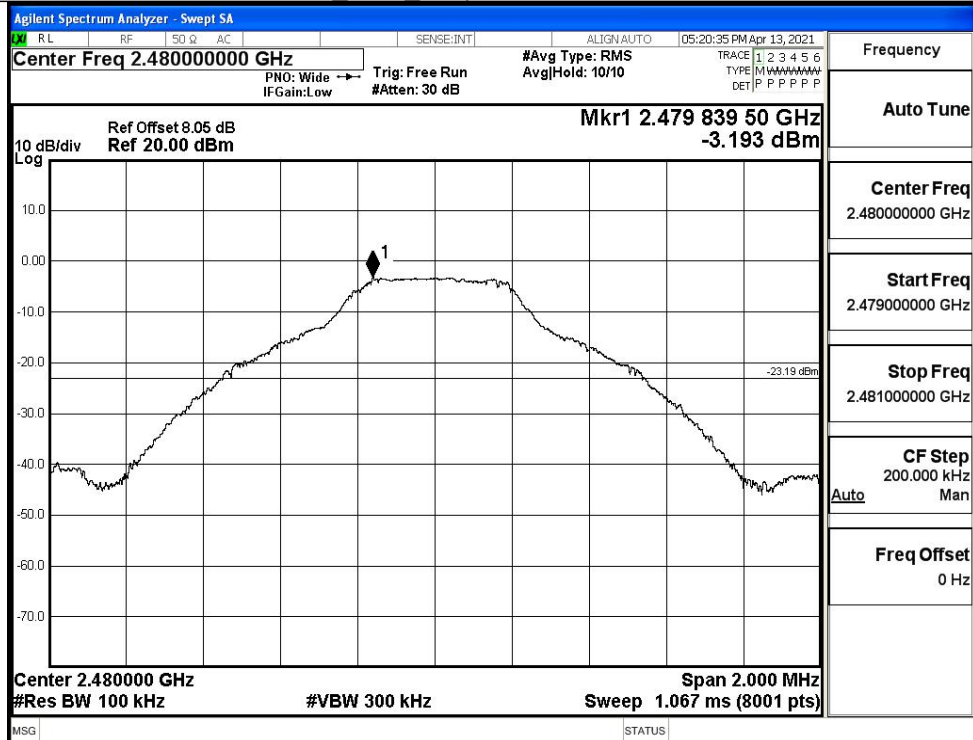


Puw

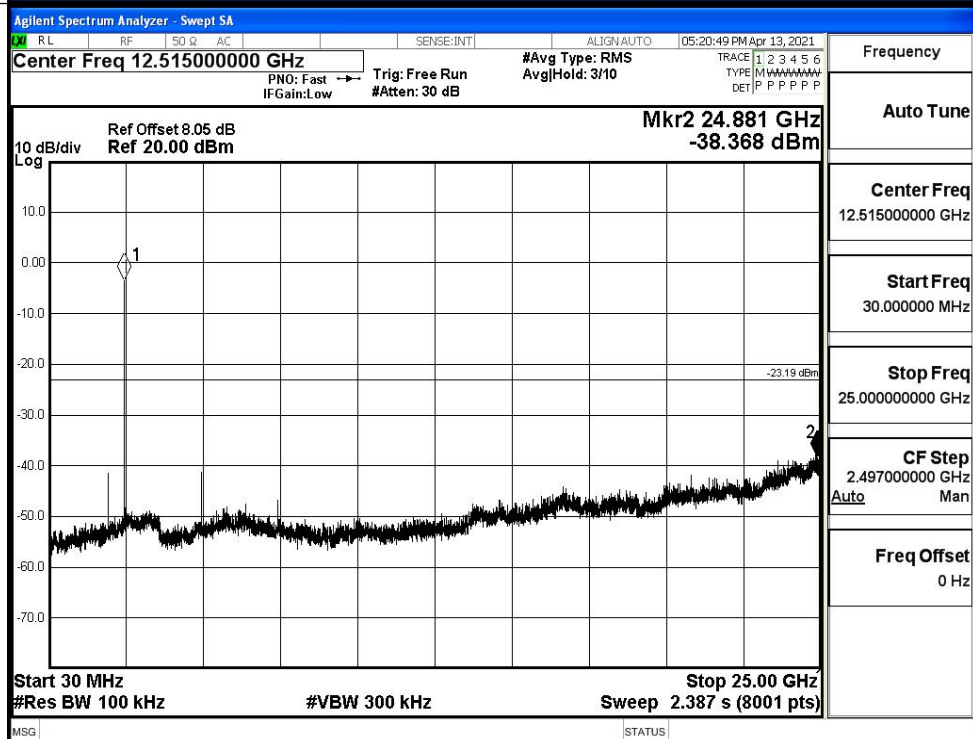


## GFSK HCH\_Graphs

Pref

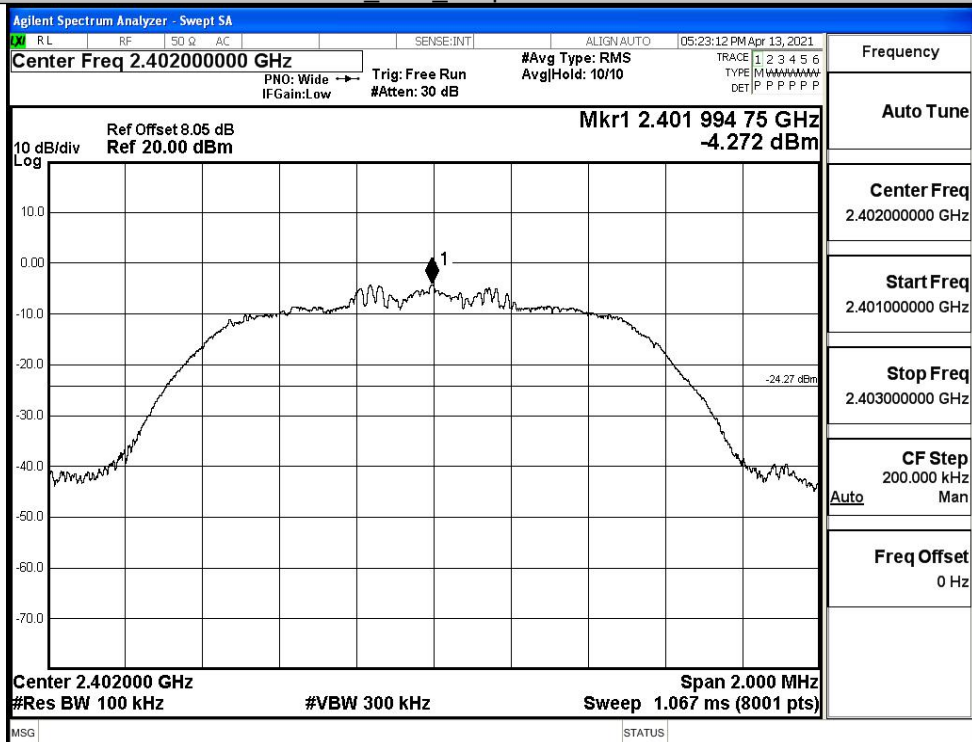


Puw

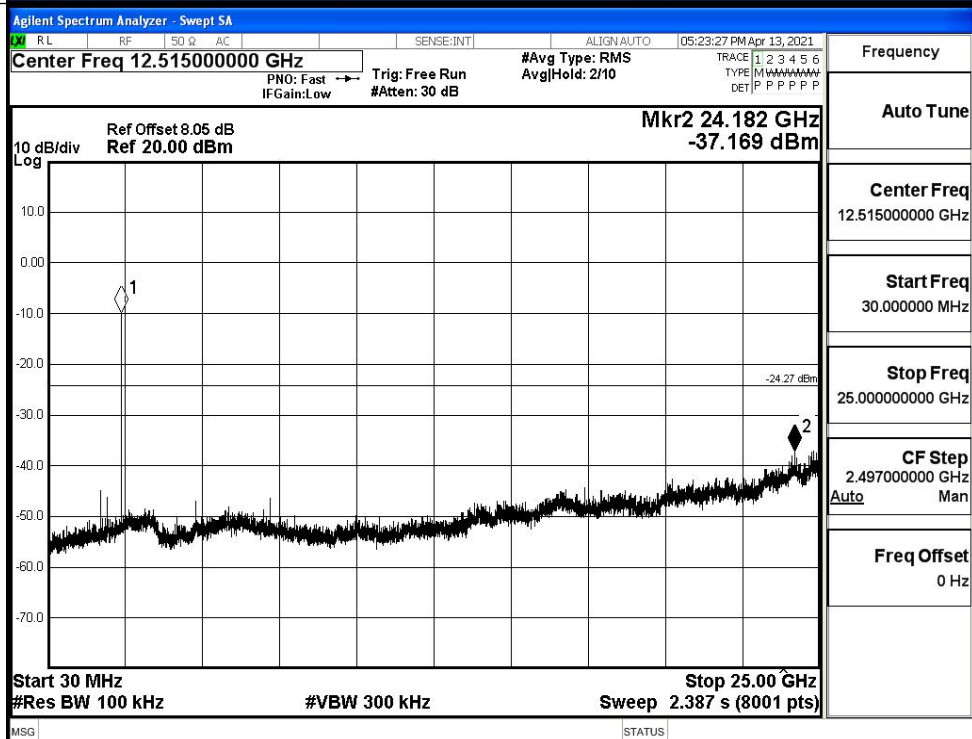


$\pi/4$ DQPSK LCH\_Graphs

Pref

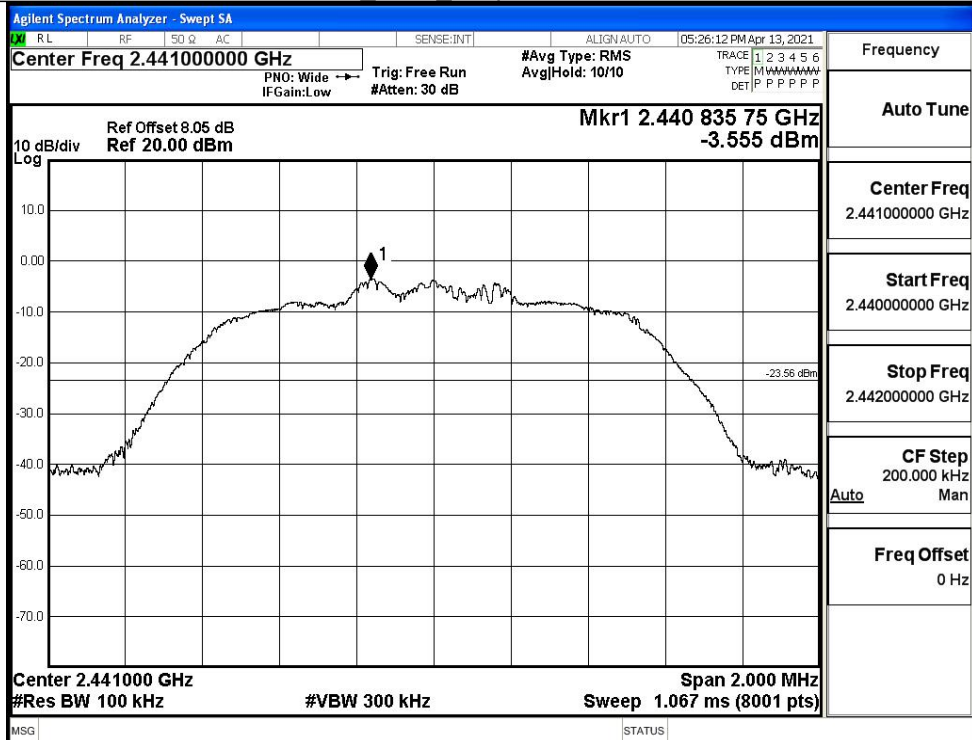


Puw



$\pi/4$ DQPSK\_MCH\_Graphs

Pref



Puw

