



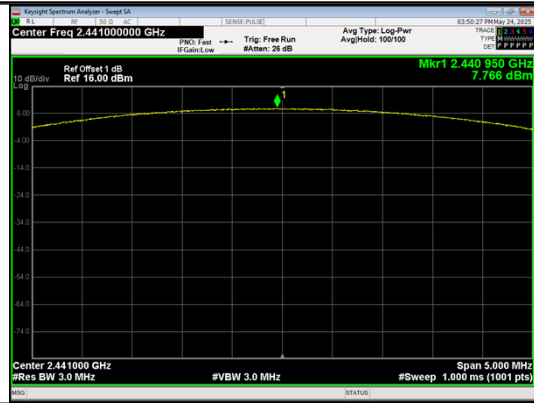
## Conducted Output Power

### Test Result

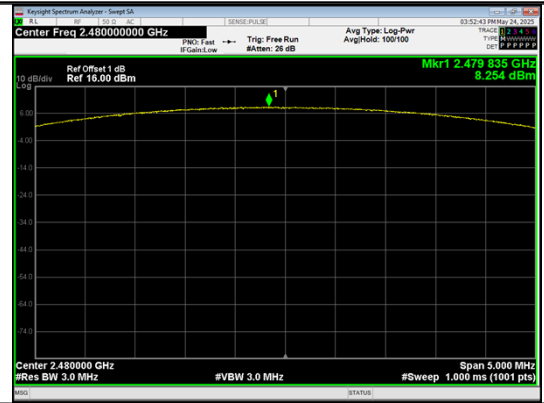
| Modulation    | Packet Type | Channel | Peak Output Power (dBm) | Peak Output Power (mW) | Limit (dBm) | Result |
|---------------|-------------|---------|-------------------------|------------------------|-------------|--------|
| GFSK          | DH5         | 0       | 5.64                    | 3.67                   | ≤30         | PASS   |
|               |             | 39      | 6.83                    | 4.82                   |             | PASS   |
|               |             | 78      | 7.30                    | 5.37                   |             | PASS   |
| $\pi/4$ DQPSK | 2-DH5       | 0       | 6.76                    | 4.75                   | ≤20.97      | PASS   |
|               |             | 39      | 7.77                    | 5.98                   |             | PASS   |
|               |             | 78      | 8.25                    | 6.69                   |             | PASS   |
| 8DPSK         | 3-DH5       | 0       | 7.37                    | 5.46                   |             | PASS   |
|               |             | 39      | 8.20                    | 6.61                   |             | PASS   |
|               |             | 78      | 8.68                    | 7.37                   |             | PASS   |

### Test Graphs

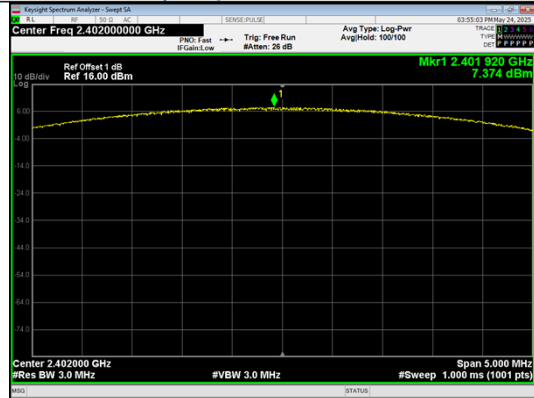




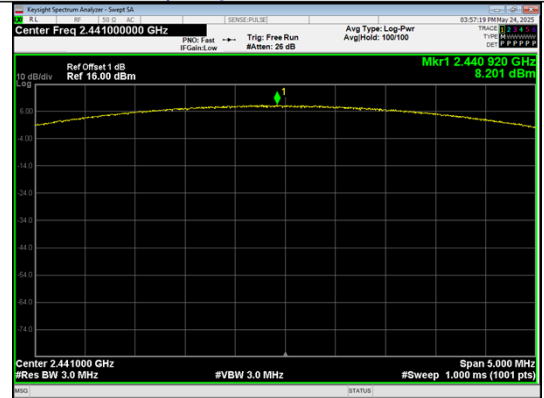
Peak Output Power  
 $\pi/4$ DQPSK\_Channel 39



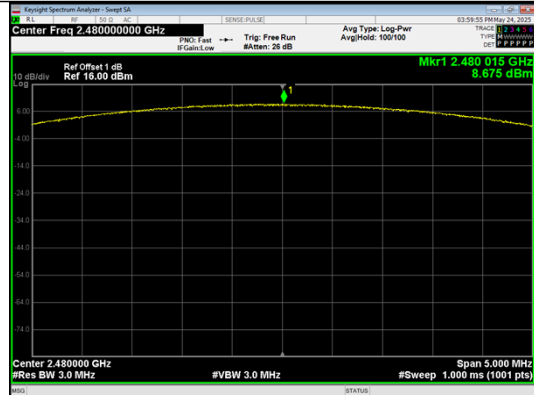
Peak Output Power  
 $\pi/4$ DQPSK\_Channel 78



Peak Output Power  
8DPSK\_Channel 0



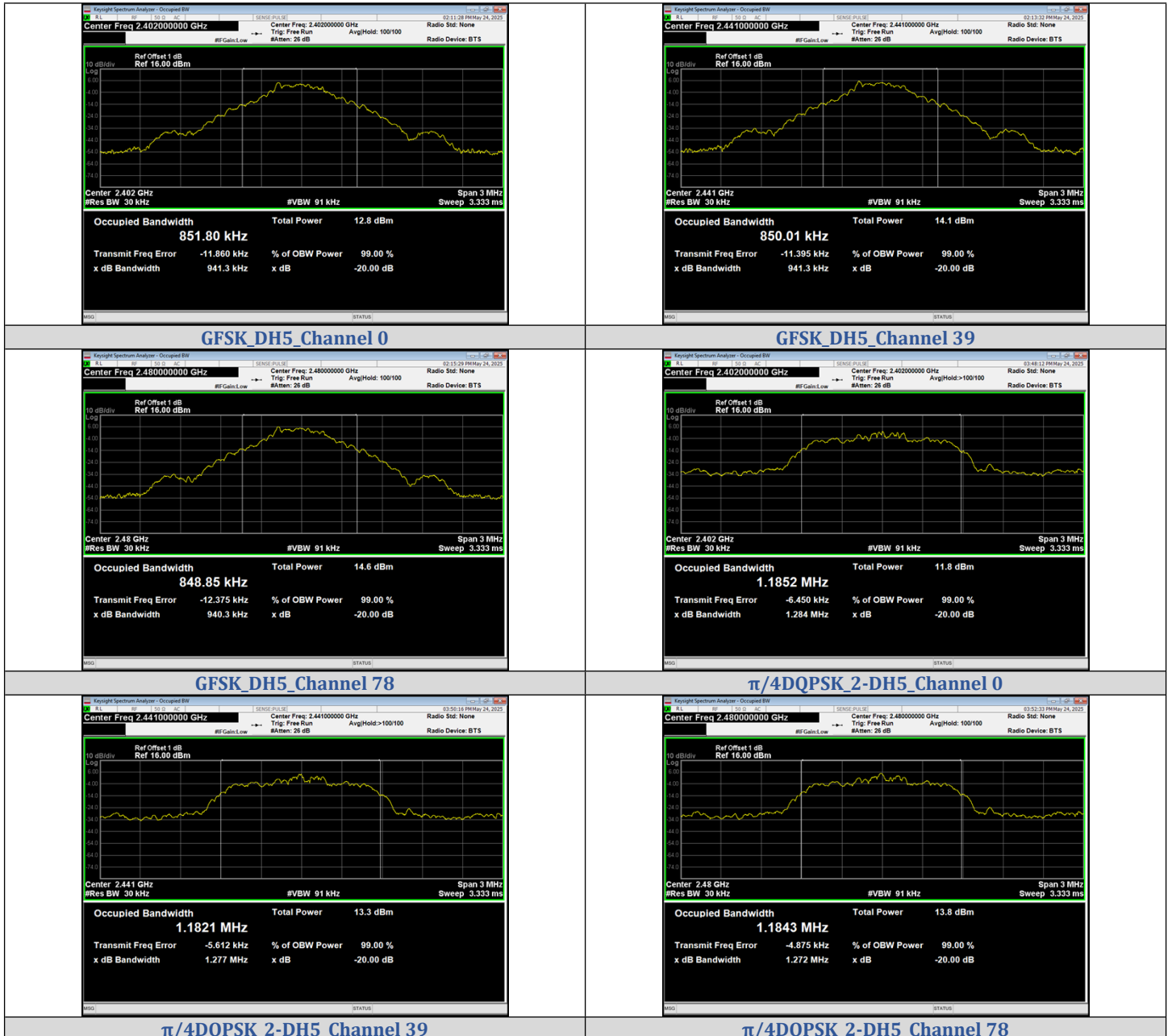
Peak Output Power  
8DPSK\_Channel 39

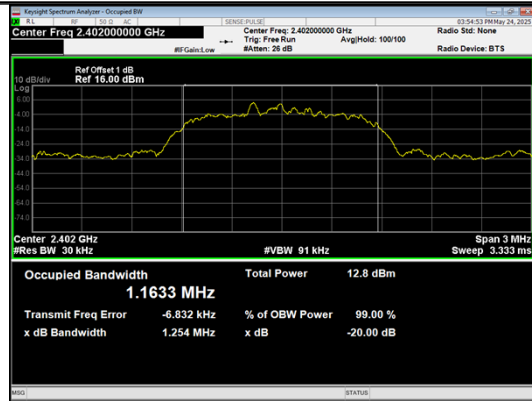


Peak Output Power  
8DPSK\_Channel 78

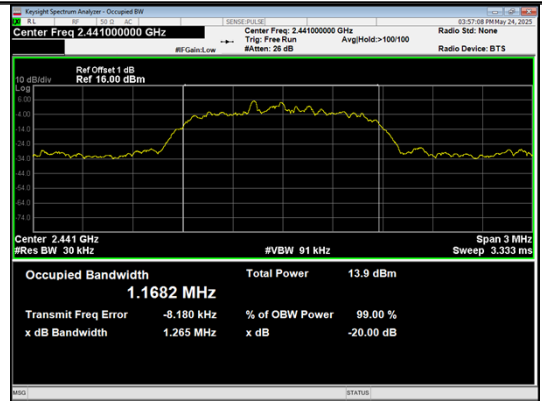
**20dB Bandwidth****Test Result**

| Modulation    | Channel | Center Frequency (MHz) | 20 dB Bandwidth (MHz) |
|---------------|---------|------------------------|-----------------------|
| GFSK          | 0       | 2402 MHz               | 0.9413                |
|               | 39      | 2441 MHz               | 0.9413                |
|               | 78      | 2480 MHz               | 0.9403                |
| $\pi/4$ DQPSK | 0       | 2402 MHz               | 1.284                 |
|               | 39      | 2441 MHz               | 1.277                 |
|               | 78      | 2480 MHz               | 1.272                 |
| 8DPSK         | 0       | 2402 MHz               | 1.254                 |
|               | 39      | 2441 MHz               | 1.265                 |
|               | 78      | 2480 MHz               | 1.263                 |

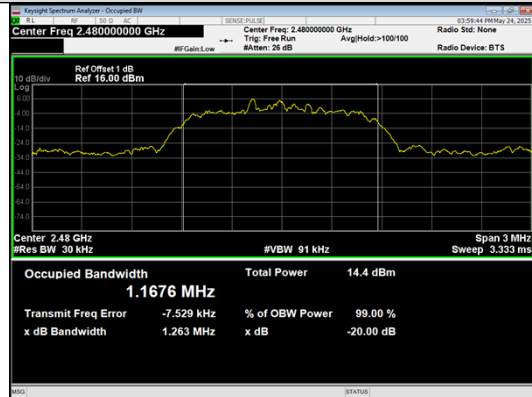
**Test Graphs**



8DPSK\_3-DH5\_Channel 0



8DPSK\_3-DH5\_Channel 39



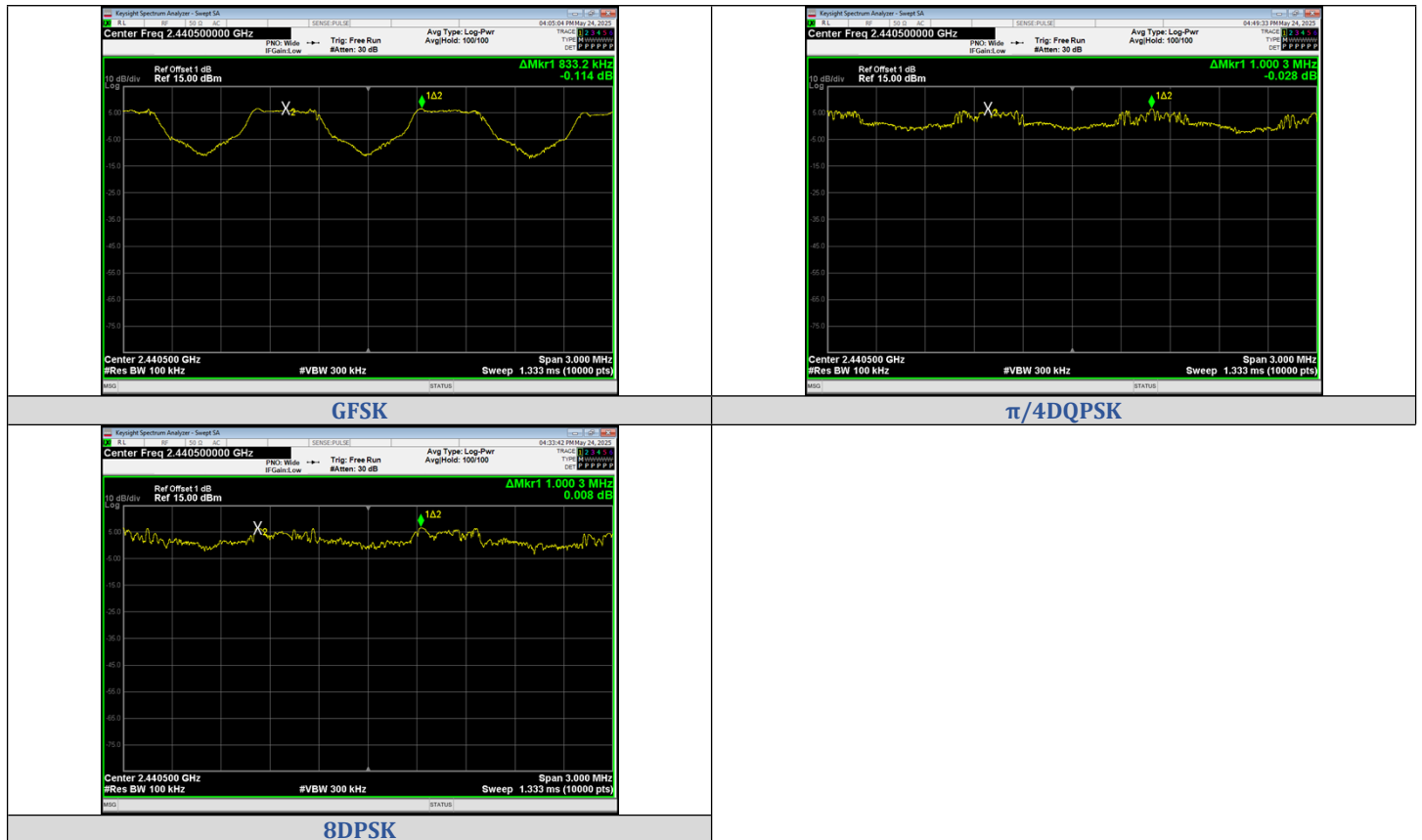
8DPSK\_3-DH5\_Channel 78

## Carrier Frequencies Separation

### Test Result

| Modulation    | Packet | Left Center frequency (MHz) | Right Center frequency (MHz) | Hopping Frequency Separation (MHz) | Limit (MHz) | Result |
|---------------|--------|-----------------------------|------------------------------|------------------------------------|-------------|--------|
| GFSK          | DH5    | 2439.9946                   | 2440.8278                    | 0.8332                             | 0.628       | PASS   |
| $\pi/4$ DQPSK | 2-DH5  | 2439.9844                   | 2440.9847                    | 1.0003                             | 0.856       | PASS   |
| 8DPSK         | 3-DH5  | 2439.8239                   | 2440.8242                    | 1.0003                             | 0.843       | PASS   |

### Test Graphs

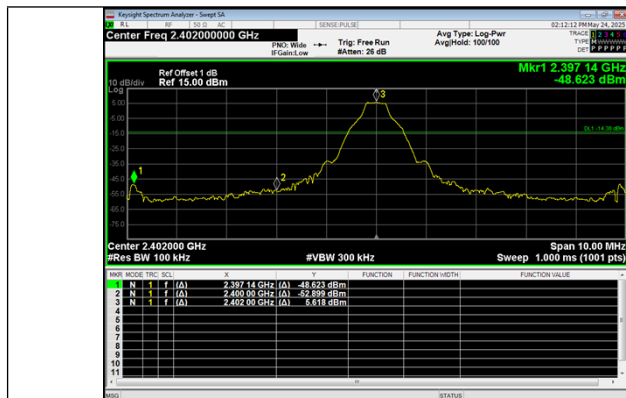
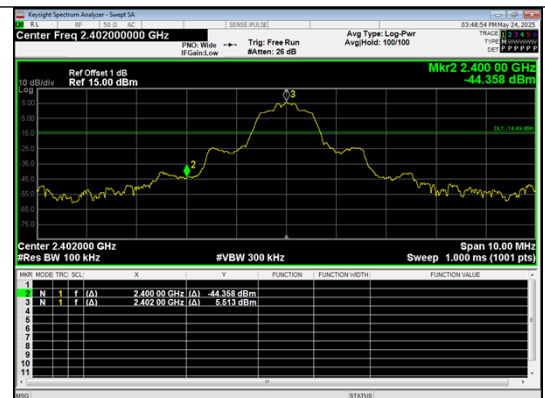


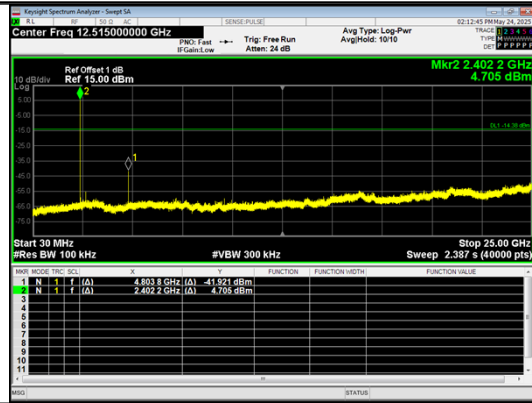
**Conducted Out Of Band Emission****Test Result****Non-Hopping**

| Modulation    | Packet | Channel | OOB Emission Frequency (MHz) | OOB Emission Level (dBm) | Limit (dBm) | Over Limit (dB) | Result |
|---------------|--------|---------|------------------------------|--------------------------|-------------|-----------------|--------|
| GFSK          | DH5    | 0       | 2397.14                      | -48.623                  | -14.38      | -34.243         | PASS   |
|               |        |         | 2400.00                      | -52.899                  | -14.38      | -38.519         | PASS   |
|               |        |         | 4803.80                      | -41.921                  | -14.38      | -27.541         | PASS   |
|               |        | 39      | 4881.79                      | -42.971                  | -13.25      | -29.721         | PASS   |
|               |        |         | 2483.50                      | -54.740                  | -12.7       | -42.040         | PASS   |
|               |        |         | 4959.83                      | -40.644                  | -12.7       | -27.944         | PASS   |
| $\pi/4$ DQPSK | 2-DH5  | 0       | 2400.00                      | -44.358                  | -14.49      | -29.868         | PASS   |
|               |        |         | 4803.76                      | -45.428                  | -14.49      | -30.938         | PASS   |
|               |        | 39      | 4882.42                      | -43.735                  | -13.41      | -30.325         | PASS   |
|               |        |         | 2483.50                      | -51.160                  | -12.63      | -38.530         | PASS   |
|               |        | 78      | 4959.83                      | -43.889                  | -12.63      | -31.258         | PASS   |
|               |        |         | 2483.50                      | -39.821                  | -12.7       | -27.121         | PASS   |
| 8DPSK         | 3-DH5  | 0       | 2400.00                      | -37.948                  | -14.37      | -23.578         | PASS   |
|               |        |         | 24953.8                      | -49.236                  | -14.37      | -34.866         | PASS   |
|               |        | 39      | 4881.79                      | -48.748                  | -13.24      | -35.508         | PASS   |
|               |        |         | 2483.50                      | -39.821                  | -12.7       | -27.121         | PASS   |
|               |        | 78      | 24438.8                      | -49.345                  | -12.7       | -36.645         | PASS   |
|               |        |         | 2483.50                      | -39.821                  | -12.7       | -27.121         | PASS   |

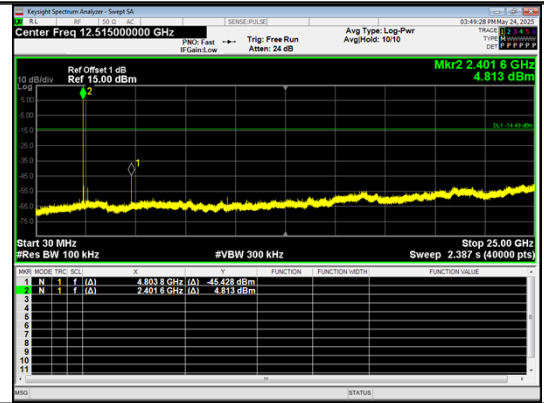
**Hopping**

| Modulation    | Packet | Channel | OOB<br>Emission<br>Frequency<br>(MHz) | OOB<br>Emission<br>Level<br>(dBm) | Limit<br>(dBm) | Over Limit<br>(dB) | Result |  |
|---------------|--------|---------|---------------------------------------|-----------------------------------|----------------|--------------------|--------|--|
| GFSK          | DH5    | Hopping | 2398.13                               | -50.472                           | -14.47         | -36.002            | PASS   |  |
|               |        |         | 2400.00                               | -53.090                           | -14.47         | -38.620            | PASS   |  |
|               |        |         | 2483.50                               | -57.002                           | -12.97         | -44.032            | PASS   |  |
| $\pi/4$ DQPSK | 2-DH5  |         | 2400.00                               | -44.275                           | -14.34         | -29.935            | PASS   |  |
|               |        |         | 2483.50                               | -49.583                           | -13.18         | -36.403            | PASS   |  |
| 8DPSK         | 3-DH5  |         | 2400.00                               | -38.260                           | -14.38         | -23.880            | PASS   |  |
|               |        |         | 2483.50                               | -48.111                           | -12.91         | -35.201            | PASS   |  |

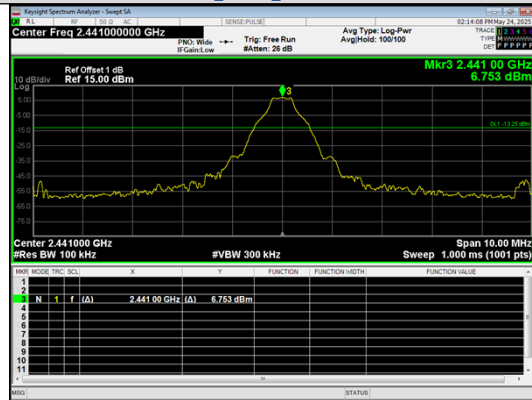
**Test Graphs****Out Of Band Emission  
GFSK\_DH5\_Channel 0****Out Of Band Emission  
 $\pi/4$ DQPSK\_2-DH5\_Channel 0**



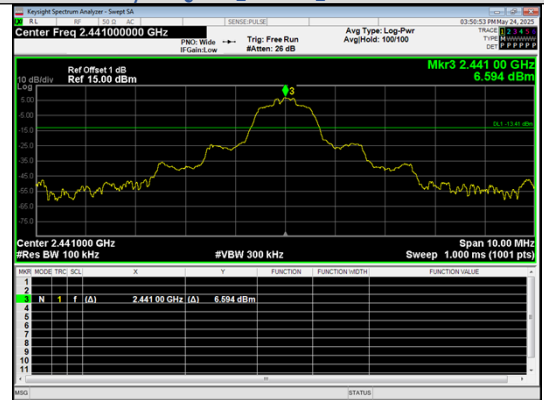
30.0 MHz - 25000.0 MHz  
GFSK\_DH5\_Channel 0



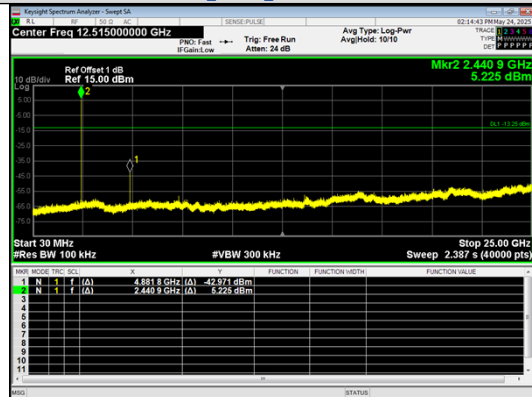
30.0 MHz - 25000.0 MHz  
 $\pi/4$ DQPSK\_2-DH5\_Channel 0



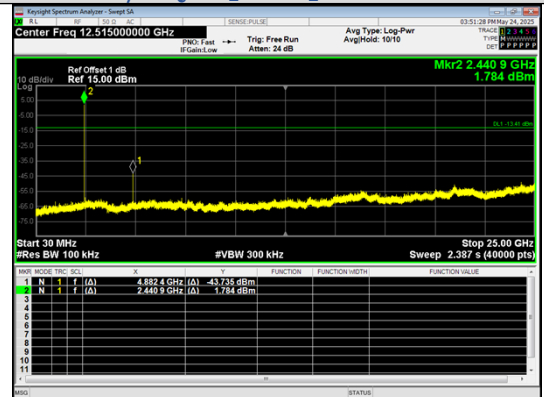
Out Of Band Emission  
GFSK\_DH5\_Channel 39



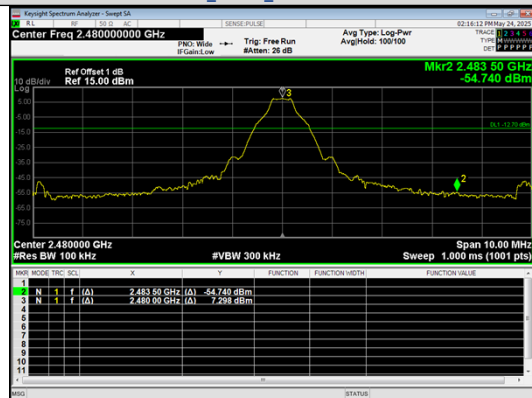
Out Of Band Emission  
 $\pi/4$ DQPSK\_2-DH5\_Channel 39



30.0 MHz - 25000.0 MHz  
GFSK\_DH5\_Channel 39



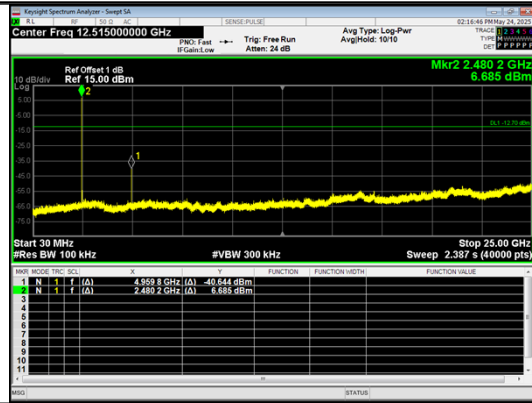
30.0 MHz - 25000.0 MHz  
 $\pi/4$ DQPSK\_2-DH5\_Channel 39



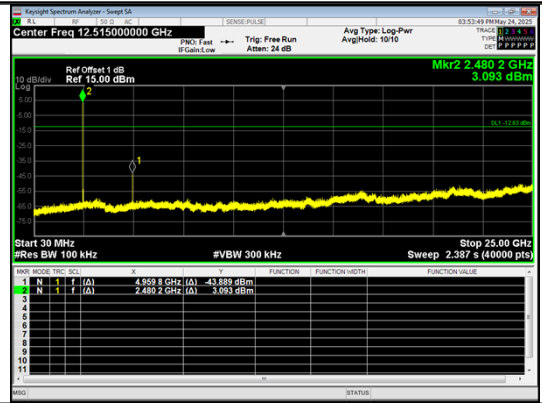
Out Of Band Emission  
GFSK\_DH5\_Channel 78



Out Of Band Emission  
 $\pi/4$ DQPSK\_2-DH5\_Channel 78



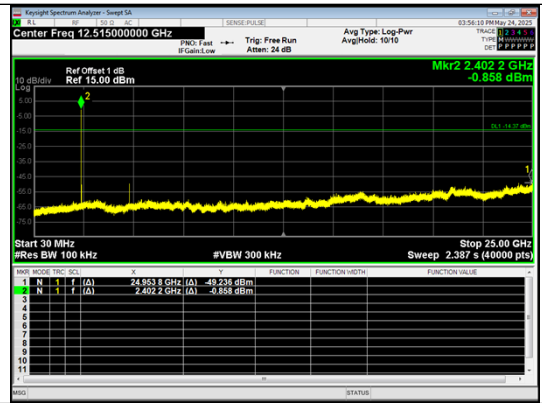
30.0 MHz - 25000.0 MHz  
GFSK\_DH5\_Channel 78



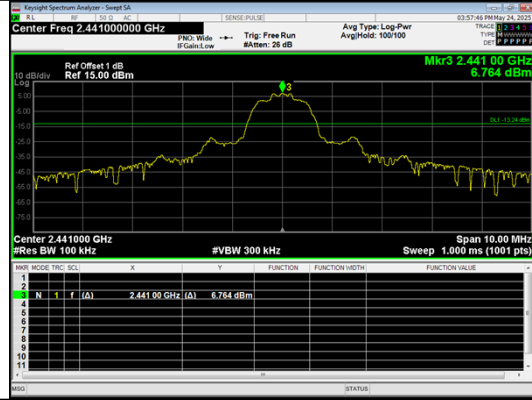
30.0 MHz - 25000.0 MHz  
 $\pi/4$ DQPSK\_2-DH5\_Channel 78



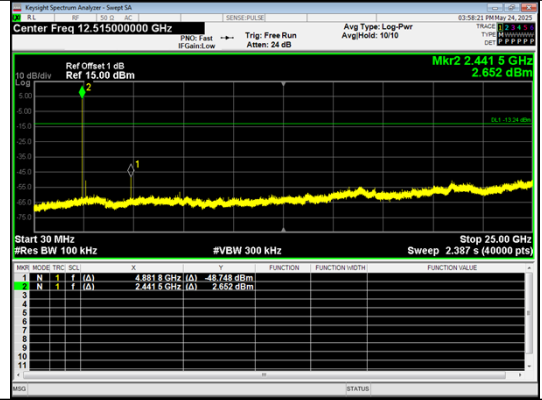
Out Of Band Emission  
8DPSK\_3-DH5\_Channel 0



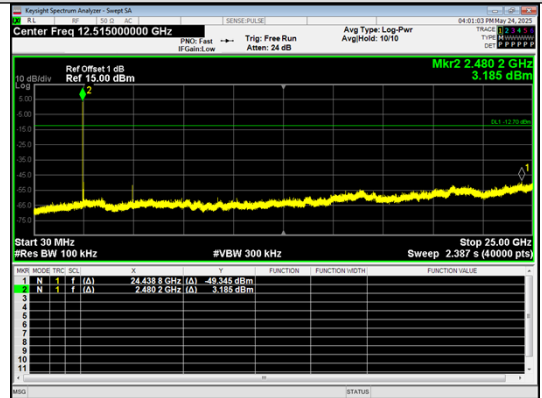
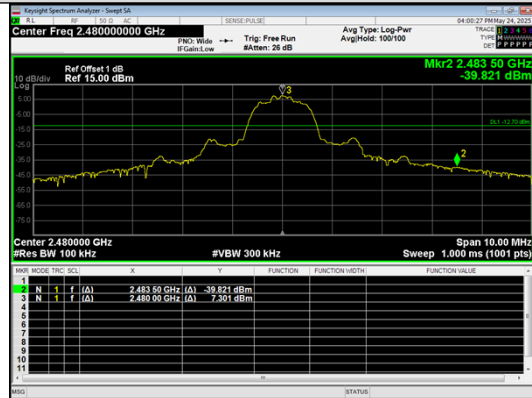
30.0 MHz - 25000.0 MHz  
8DPSK\_3-DH5\_Channel 0



Out Of Band Emission  
8DPSK\_3-DH5\_Channel 39

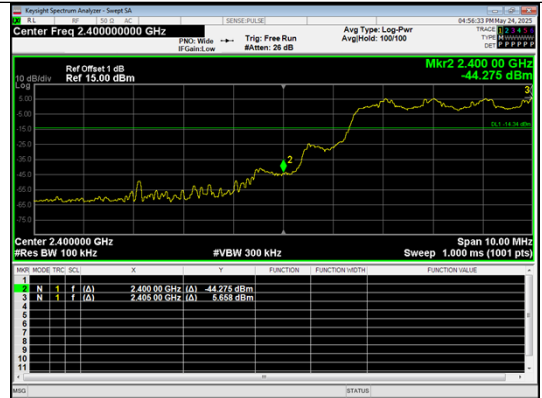
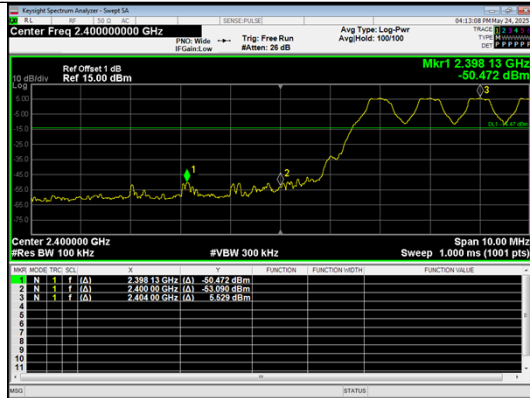


30.0 MHz - 25000.0 MHz  
8DPSK\_3-DH5\_Channel 39



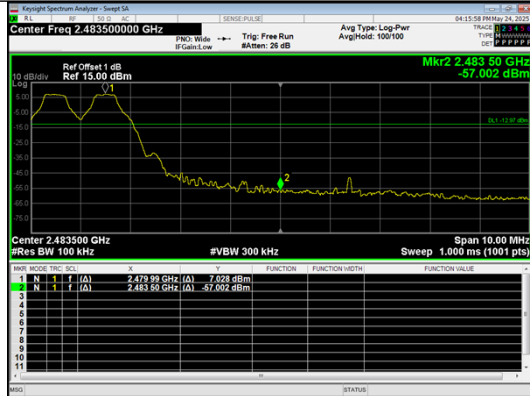
### Out Of Band Emission 8DPSK\_3-DH5\_Channel 78

### 30.0 MHz - 25000.0 MHz 8DPSK\_3-DH5\_Channel 78



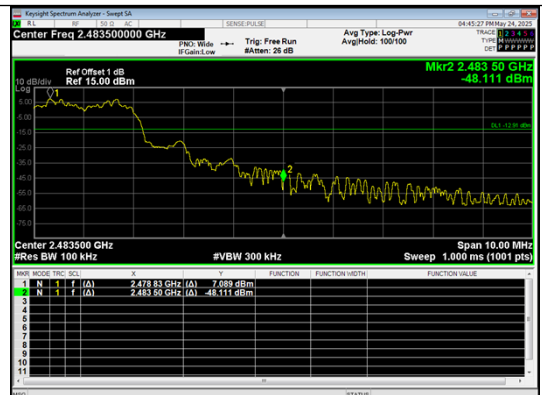
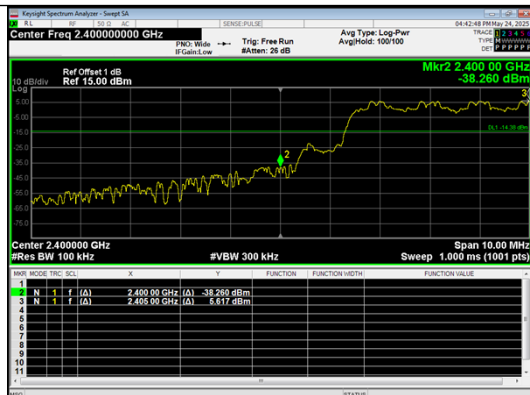
### Out Of Band Emission(Left) GFSK\_DH5\_Channel Hopping

### Out Of Band Emission(Left) $\pi/4$ DQPSK\_2-DH5\_Channel Hopping



### Out Of Band Emission(Right) GFSK\_DH5\_Channel Hopping

### Out Of Band Emission(Right) $\pi/4$ DQPSK\_2-DH5\_Channel Hopping



### Out Of Band Emission(Left) 8DPSK\_3-DH5\_Channel Hopping

### Out Of Band Emission(Right) 8DPSK\_3-DH5\_Channel Hopping



## Duty Cycle Test Result

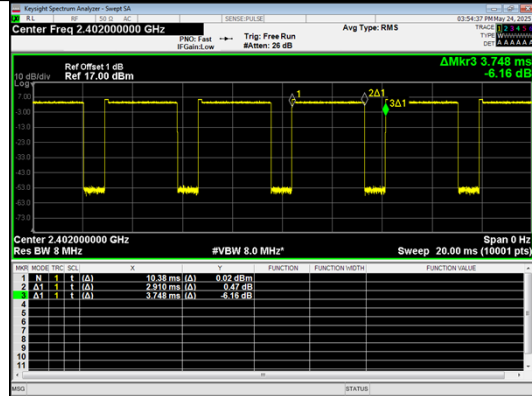
| Modulation    | Packets | Channel | On Time (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle (linear) | Duty Cycle Factor (dB) | 1/T    |
|---------------|---------|---------|--------------|-------------|----------------|---------------------|------------------------|--------|
| GFSK          | DH5     | 0       | 2.900        | 3.748       | 77.37          | 0.7737              | 1.1143                 | 0.3448 |
|               |         | 39      | 2.902        | 3.748       | 77.43          | 0.7743              | 1.1109                 | 0.3446 |
|               |         | 78      | 2.902        | 3.748       | 77.43          | 0.7743              | 1.1109                 | 0.3446 |
| $\pi/4$ DQPSK | 2-DH5   | 0       | 2.908        | 3.748       | 77.59          | 0.7759              | 1.1019                 | 0.3439 |
|               |         | 39      | 2.906        | 3.748       | 77.53          | 0.7753              | 1.1053                 | 0.3441 |
|               |         | 78      | 2.908        | 3.748       | 77.59          | 0.7759              | 1.1019                 | 0.3439 |
| 8DPSK         | 3-DH5   | 0       | 2.910        | 3.748       | 77.64          | 0.7764              | 1.0991                 | 0.3436 |
|               |         | 39      | 2.910        | 3.748       | 77.64          | 0.7764              | 1.0991                 | 0.3436 |
|               |         | 78      | 2.910        | 3.748       | 77.64          | 0.7764              | 1.0991                 | 0.3436 |

## Test Graphs

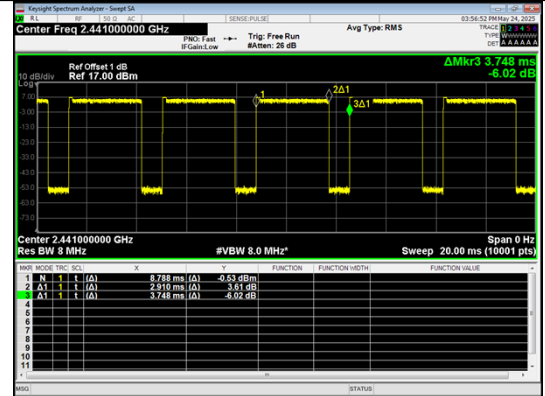




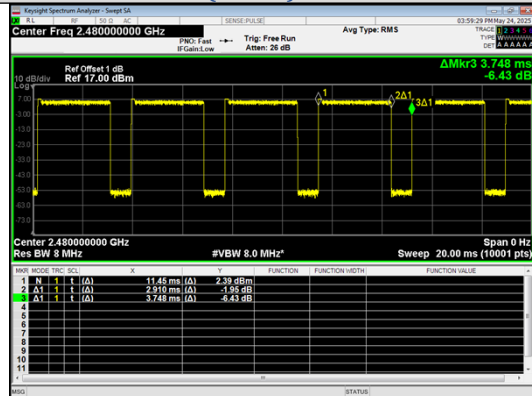
$\pi/4$ DQPSK(2-DH5)\_Channel 39



$\pi/4$ DQPSK(2-DH5)\_Channel 78



8DPSK(3-DH5)\_Channel 0



8DPSK(3-DH5)\_Channel 39

8DPSK(3-DH5)\_Channel 78

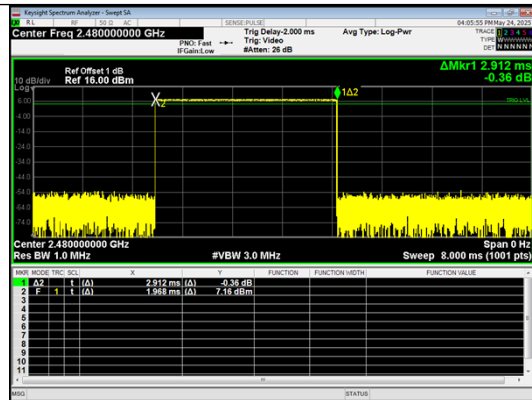
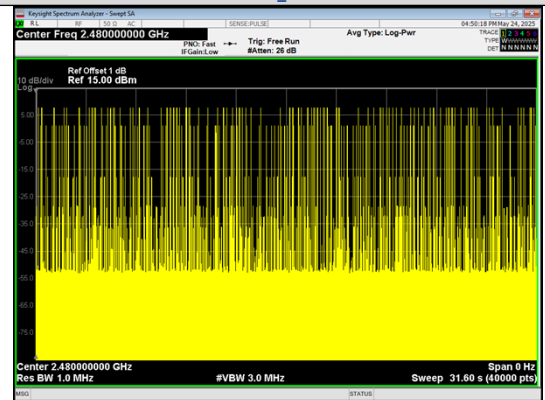
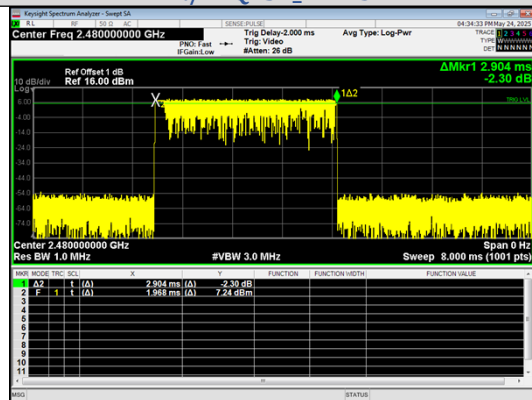
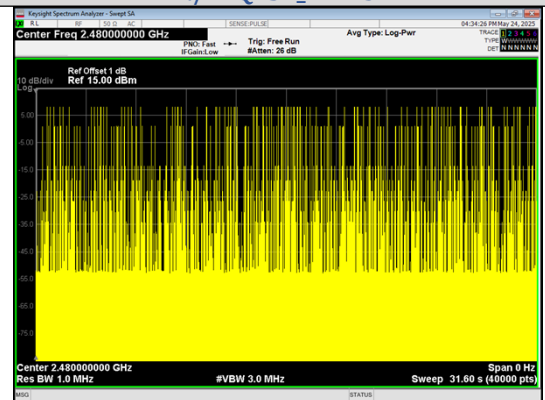


## Dwell Time

## Test Result

| Modulation    | Packet | Channel           | Pulse Width (ms) | Number of Pulses in 31.6 seconds | Dwell Time (ms) | Limit (ms) | Result |
|---------------|--------|-------------------|------------------|----------------------------------|-----------------|------------|--------|
| GFSK          | DH5    | CH78<br>(2480MHz) | 2.912            | 94                               | 273.73          | < 400      | PASS   |
| $\pi/4$ DQPSK | 2-DH5  |                   | 2.896            | 111                              | 321.46          |            | PASS   |
| 8DPSK         | 3-DH5  |                   | 2.904            | 98                               | 284.59          |            | PASS   |

## Test Graphs

Pulse Width  
GFSK\_DH5Number of Pulses in 31.6 seconds  
GFSK\_DH5Pulse Width  
 $\pi/4$ DQPSK\_2-DH5Number of Pulses in 31.6 seconds  
 $\pi/4$ DQPSK\_2-DH5Pulse Width  
8DPSK\_3-DH5Number of Pulses in 31.6 seconds  
8DPSK\_3-DH5



## Number Of Hopping Channel

### Test Result

| Modulation    | Packet | Number of Hopping Channel | Limit | Result |
|---------------|--------|---------------------------|-------|--------|
| GFSK          | DH5    | 79                        | 15    | PASS   |
| $\pi/4$ DQPSK | 2-DH5  | 79                        | 15    | PASS   |
| 8DPSK         | 3-DH5  | 79                        | 15    | PASS   |

### Test Graphs

