

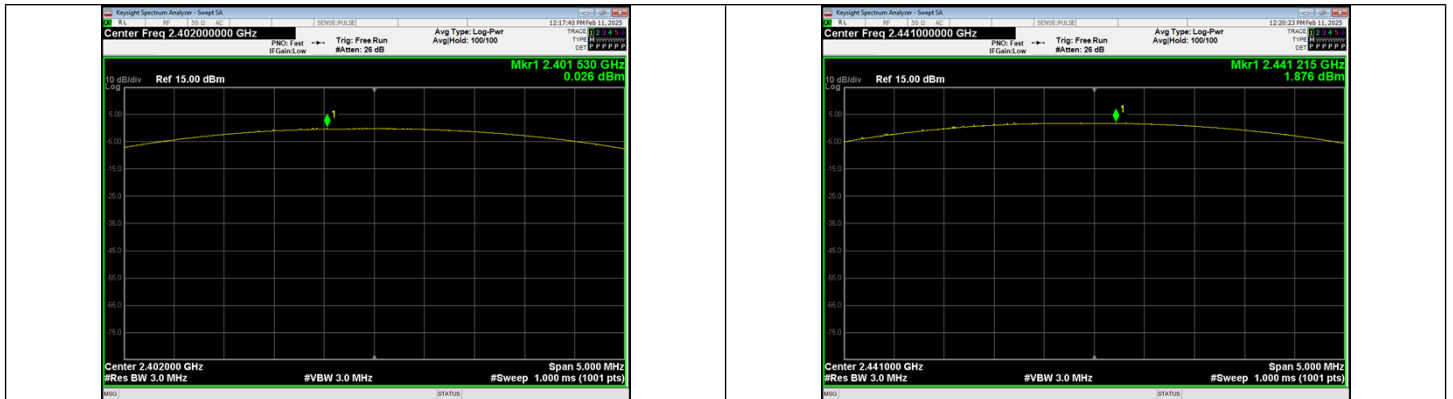
## Conducted Output Power

### Test Result

| Modulation    | Packet Type | Channel | Peak Output Power (dBm) | Peak Output Power (mW) | Max. Avg. Power (dBm) | Limit (dBm) | Result |
|---------------|-------------|---------|-------------------------|------------------------|-----------------------|-------------|--------|
| GFSK          | DH5         | 0       | 0.026                   | 1.006                  | None                  | ≤30         | PASS   |
|               |             | 39      | 1.876                   | 1.540                  | None                  |             | PASS   |
|               |             | 78      | 2.895                   | 1.948                  | None                  |             | PASS   |
| $\pi/4$ DQPSK | 2-DH5       | 0       | 1.836                   | 1.526                  | None                  | ≤20.97      | PASS   |
|               |             | 39      | 3.603                   | 2.292                  | None                  |             | PASS   |
|               |             | 78      | 4.196                   | 2.628                  | None                  |             | PASS   |
| 8DPSK         | 3-DH5       | 0       | 1.337                   | 1.361                  | None                  |             | PASS   |
|               |             | 39      | 3.196                   | 2.087                  | None                  |             | PASS   |
|               |             | 78      | 4.021                   | 2.524                  | None                  |             | PASS   |

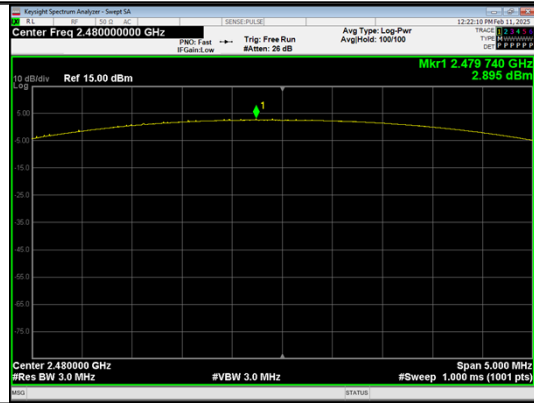
| Modulation    | Packet Type | Channel | Peak Output Power (dBm) | Peak Power Limit (dBm) | ISED EIRP (dBm) | ISED EIRP Limit (dBm) | Max. Avg. Power (dBm) | Result |
|---------------|-------------|---------|-------------------------|------------------------|-----------------|-----------------------|-----------------------|--------|
| GFSK          | DH5         | 0       | 0.026                   | ≤30                    | 0.026           | ≤36.02                | None                  | PASS   |
|               |             | 39      | 1.876                   | ≤30                    | 1.876           | ≤36.02                | None                  | PASS   |
|               |             | 78      | 2.895                   | ≤30                    | 2.895           | ≤36.02                | None                  | PASS   |
| $\pi/4$ DQPSK | 2-DH5       | 0       | 1.836                   | ≤20.97                 | 1.836           | ≤36.02                | None                  | PASS   |
|               |             | 39      | 3.603                   | ≤20.97                 | 3.603           | ≤36.02                | None                  | PASS   |
|               |             | 78      | 4.196                   | ≤20.97                 | 4.196           | ≤36.02                | None                  | PASS   |
| 8DPSK         | 3-DH5       | 0       | 1.337                   | ≤20.97                 | 1.337           | ≤36.02                | None                  | PASS   |
|               |             | 39      | 3.196                   | ≤20.97                 | 3.196           | ≤36.02                | None                  | PASS   |
|               |             | 78      | 4.021                   | ≤20.97                 | 4.021           | ≤36.02                | None                  | PASS   |

### Test Graphs

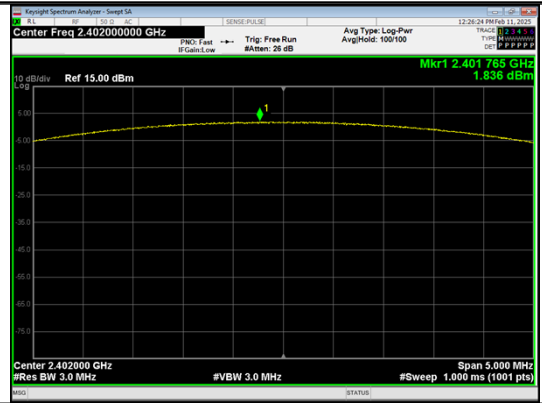


Peak Output Power  
GFSK\_Channel 0

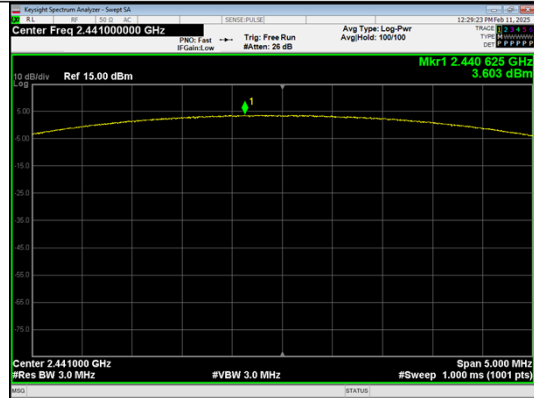
Peak Output Power  
GFSK\_Channel 39



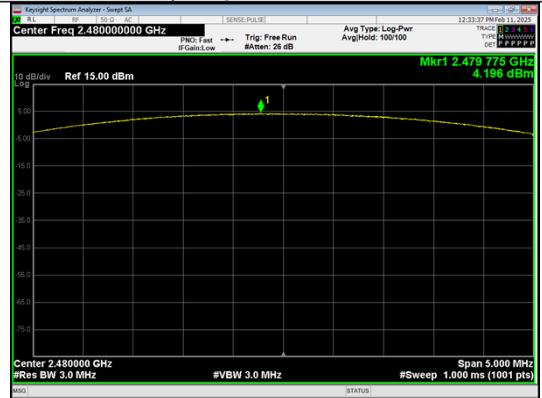
Peak Output Power  
GFSK\_Channel 78



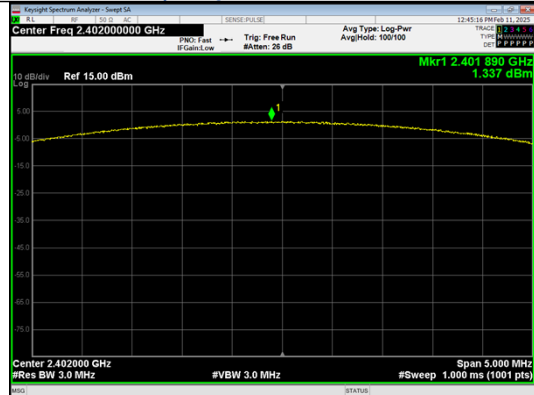
Peak Output Power  
 $\pi/4$ DQPSK\_Channel 0



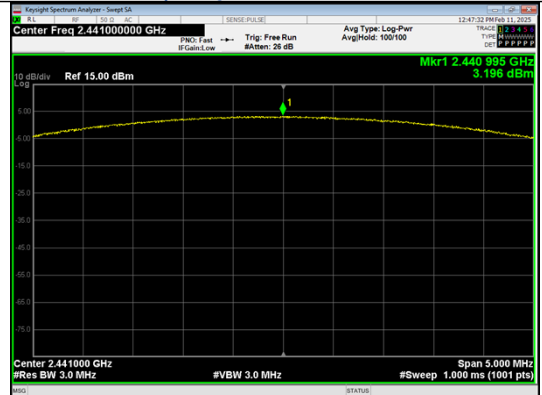
Peak Output Power  
 $\pi/4$ DQPSK\_Channel 39



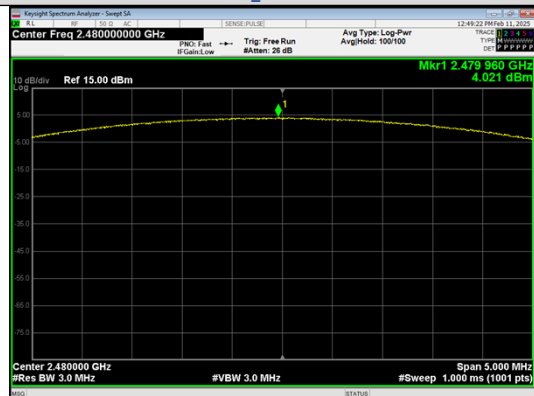
Peak Output Power  
 $\pi/4$ DQPSK\_Channel 78



Peak Output Power  
8DPSK\_Channel 0



Peak Output Power  
8DPSK\_Channel 39



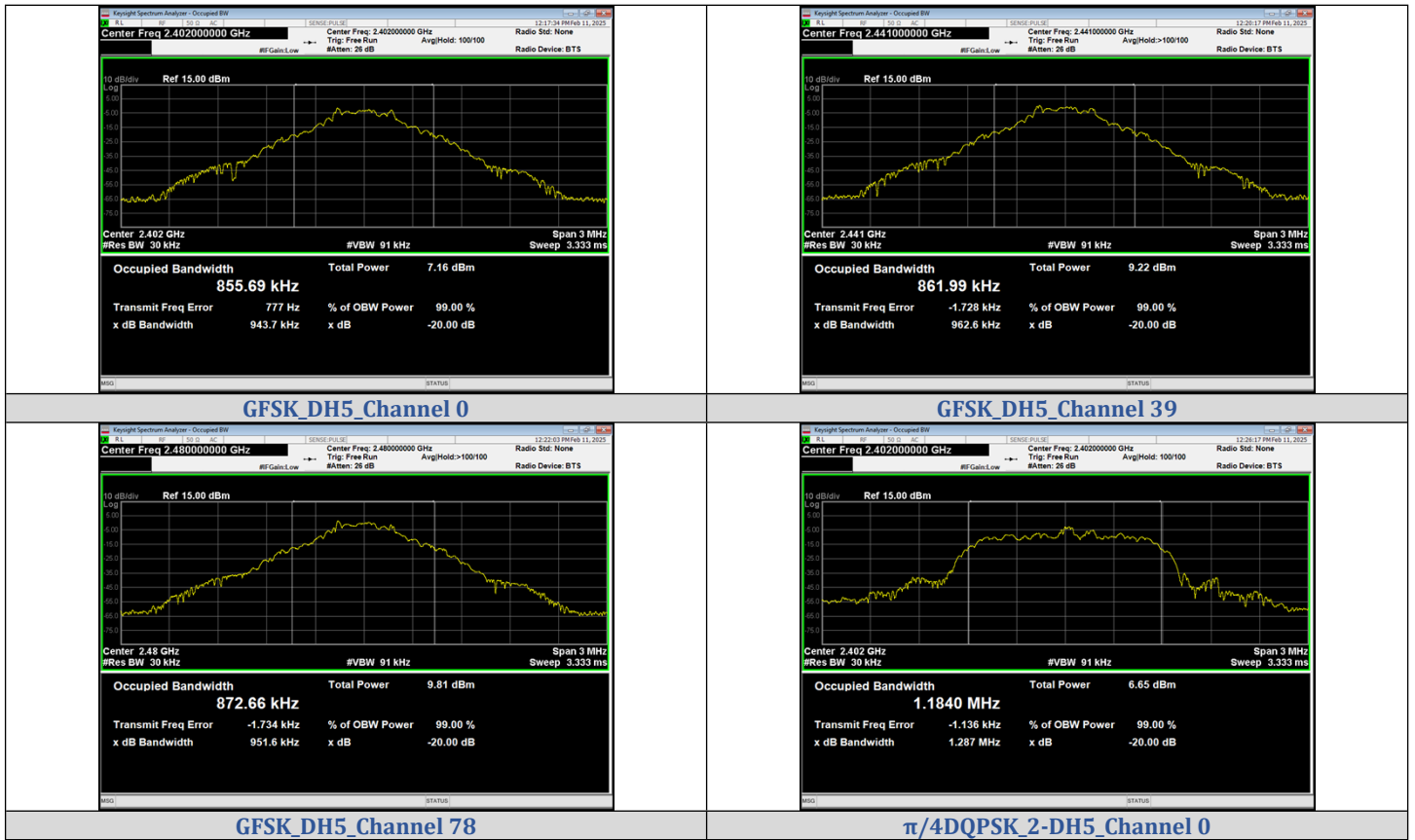
Peak Output Power  
8DPSK\_Channel 78

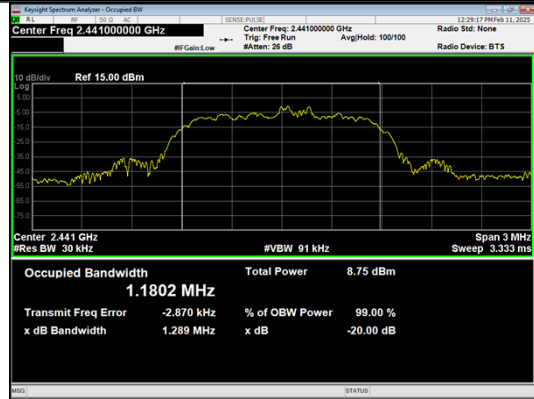
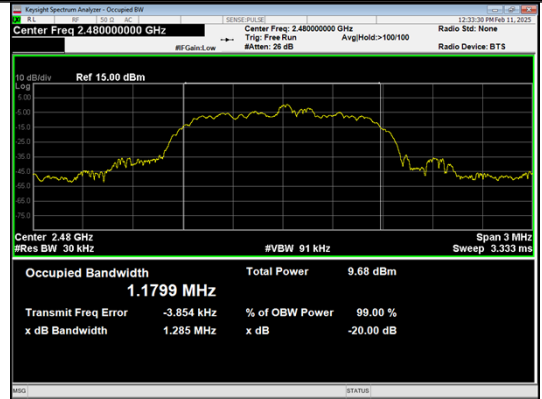
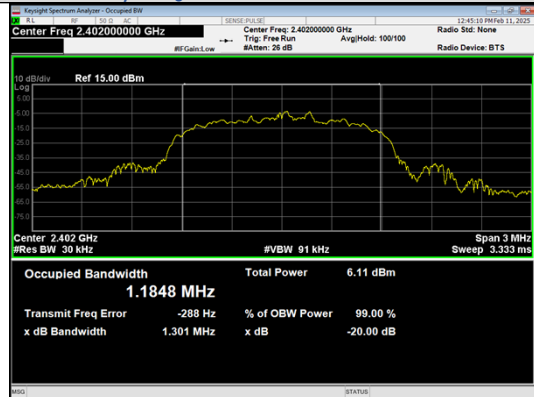
## 20dB Bandwidth

### Test Result

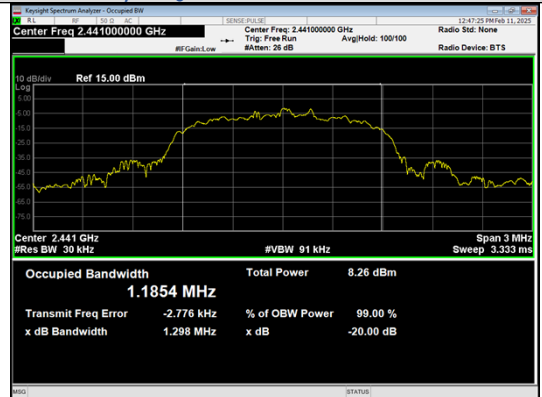
| Modulation    | Channel | Center Frequency (MHz) | 20 dB Bandwidth (MHz) |
|---------------|---------|------------------------|-----------------------|
| GFSK          | 0       | 2402 MHz               | 0.9437                |
|               | 39      | 2441 MHz               | 0.9626                |
|               | 78      | 2480 MHz               | 0.9516                |
| $\pi/4$ DQPSK | 0       | 2402 MHz               | 1.287                 |
|               | 39      | 2441 MHz               | 1.289                 |
|               | 78      | 2480 MHz               | 1.285                 |
| 8DPSK         | 0       | 2402 MHz               | 1.301                 |
|               | 39      | 2441 MHz               | 1.298                 |
|               | 78      | 2480 MHz               | 1.302                 |

### Test Graphs

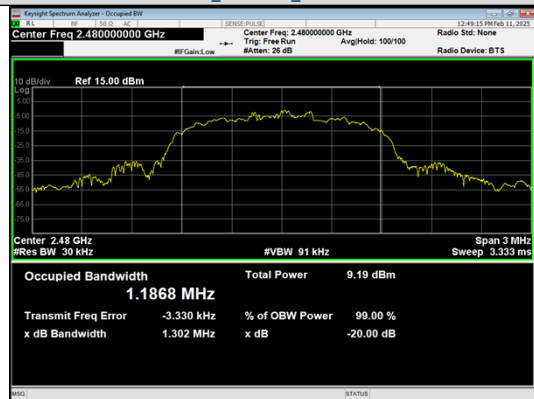



 $\pi/4$ DQPSK 2-DH5\_Channel 39

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


8DPSK\_3-DH5\_Channel 0



8DPSK\_3-DH5\_Channel 78



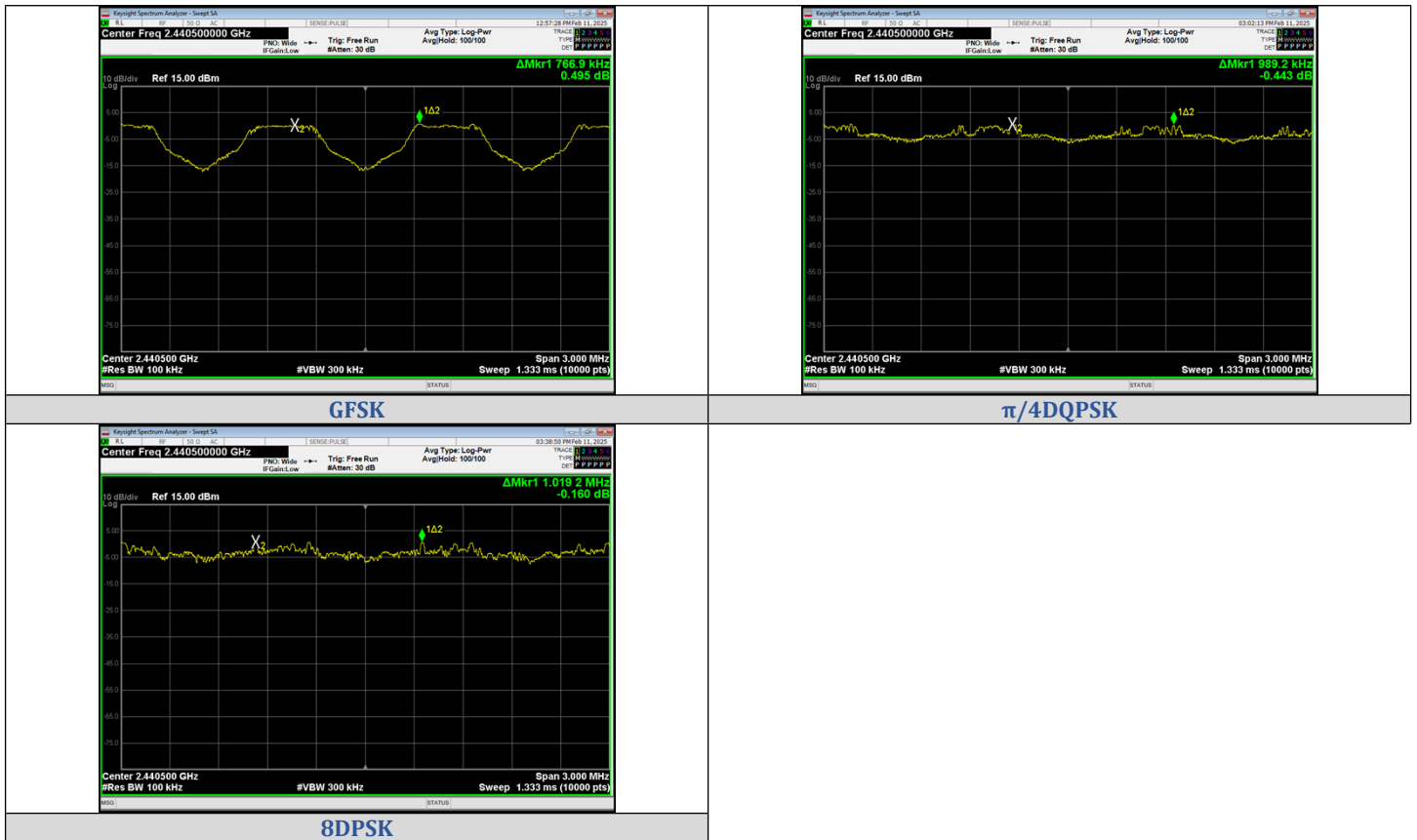
8DPSK\_3-DH5\_Channel 78

## Carrier Frequencies Separation

### Test Result

| Modulation    | Packet | Left Center frequency (MHz) | Right Center frequency (MHz) | Hopping Frequency Separation (MHz) | Limit (MHz) | Result |
|---------------|--------|-----------------------------|------------------------------|------------------------------------|-------------|--------|
| GFSK          | DH5    | 2440.0663                   | 2440.8332                    | 0.7669                             | 0.634       | PASS   |
| $\pi/4$ DQPSK | 2-DH5  | 2440.1584                   | 2441.1476                    | 0.9892                             | 0.857       | PASS   |
| 8DPSK         | 3-DH5  | 2439.8281                   | 2440.8473                    | 1.0192                             | 0.868       | PASS   |

### Test Graphs



## Conducted Out Of Band Emission

### Test Result

#### Non-Hopping

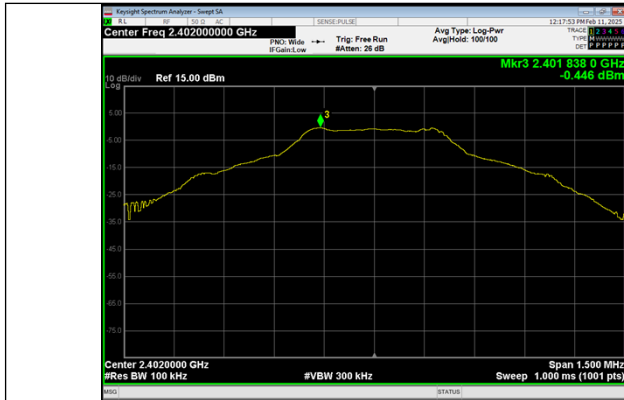
| Modulation    | Packet | Channel | OOB Emission Frequency (MHz) | OOB Emission Level (dBm) | Limit (dBm) | Over Limit (dB) | Result |
|---------------|--------|---------|------------------------------|--------------------------|-------------|-----------------|--------|
| GFSK          | DH5    | 0       | 2398.90                      | -55.482                  | -20.45      | -35.032         | PASS   |
|               |        |         | 2400.00                      | -56.294                  | -20.45      | -35.844         | PASS   |
|               |        |         | 4803.10                      | -63.351                  | -20.45      | -42.901         | PASS   |
|               |        |         | 7205.30                      | -61.818                  | -20.45      | -41.368         | PASS   |
|               |        |         | 9608.70                      | -65.380                  | -20.45      | -44.930         | PASS   |
|               |        |         | 24966.9                      | -49.022                  | -20.45      | -28.572         | PASS   |
|               |        | 39      | 4881.79                      | -63.605                  | -18.39      | -45.215         | PASS   |
|               |        |         | 7323.92                      | -62.861                  | -18.39      | -44.471         | PASS   |
|               |        |         | 9764.17                      | -64.428                  | -18.39      | -46.038         | PASS   |
|               |        |         | 24752.2                      | -49.104                  | -18.39      | -30.714         | PASS   |
|               |        | 78      | 1746.73                      | -40.818                  | -17.58      | -23.238         | PASS   |
|               |        |         | 2483.50                      | -55.634                  | -17.58      | -38.054         | PASS   |
|               |        |         | 4960.45                      | -63.701                  | -17.58      | -46.121         | PASS   |
|               |        |         | 7440.03                      | -62.770                  | -17.58      | -45.190         | PASS   |
|               |        |         | 9920.24                      | -64.767                  | -17.58      | -47.187         | PASS   |
| $\pi/4$ DQPSK | 2-DH5  | 0       | 2400.00                      | -55.227                  | -20.37      | -34.857         | PASS   |
|               |        |         | 4804.38                      | -61.648                  | -20.37      | -41.278         | PASS   |
|               |        |         | 7206.56                      | -61.428                  | -20.37      | -41.058         | PASS   |
|               |        |         | 9608.73                      | -63.526                  | -20.37      | -43.156         | PASS   |
|               |        |         | 24986.9                      | -49.096                  | -20.37      | -28.726         | PASS   |
|               |        | 39      | 1754.85                      | -47.590                  | -18.48      | -29.110         | PASS   |
|               |        |         | 4882.42                      | -62.628                  | -18.48      | -44.148         | PASS   |
|               |        |         | 7322.05                      | -63.037                  | -18.48      | -44.557         | PASS   |
|               |        |         | 9764.17                      | -64.498                  | -18.48      | -46.017         | PASS   |
|               |        | 78      | 2483.50                      | -56.755                  | -17.73      | -39.025         | PASS   |
|               |        |         | 4959.20                      | -62.634                  | -17.73      | -44.904         | PASS   |
|               |        |         | 7440.66                      | -64.595                  | -17.73      | -46.865         | PASS   |
|               |        |         | 9920.86                      | -64.642                  | -17.73      | -46.912         | PASS   |
|               |        |         | 24717.8                      | -49.480                  | -17.73      | -31.750         | PASS   |
| 8DPSK         | 3-DH5  | 0       | 2398.52                      | -59.498                  | -21.24      | -38.258         | PASS   |
|               |        |         | 2400.00                      | -60.651                  | -21.24      | -39.411         | PASS   |
|               |        |         | 4804.40                      | -63.225                  | -21.24      | -41.986         | PASS   |
|               |        |         | 7206.60                      | -62.386                  | -21.24      | -41.146         | PASS   |
|               |        |         | 9608.70                      | -63.750                  | -21.24      | -42.510         | PASS   |
|               |        |         | 24980.0                      | -48.873                  | -21.24      | -27.633         | PASS   |
|               |        | 39      | 4881.79                      | -63.388                  | -19.21      | -44.178         | PASS   |
|               |        |         | 7322.05                      | -62.207                  | -19.21      | -42.997         | PASS   |
|               |        |         | 9764.80                      | -64.684                  | -19.21      | -45.474         | PASS   |
|               |        |         | 24850.8                      | -48.894                  | -19.21      | -29.684         | PASS   |
|               |        | 78      | 2483.50                      | -58.381                  | -18.12      | -40.261         | PASS   |
|               |        |         | 4960.45                      | -62.428                  | -18.12      | -44.308         | PASS   |
|               |        |         | 7440.66                      | -63.135                  | -18.12      | -45.014         | PASS   |
|               |        |         | 9919.62                      | -61.685                  | -18.12      | -43.565         | PASS   |
|               |        |         | 24928.8                      | -49.077                  | -18.12      | -30.957         | PASS   |

#### Hopping

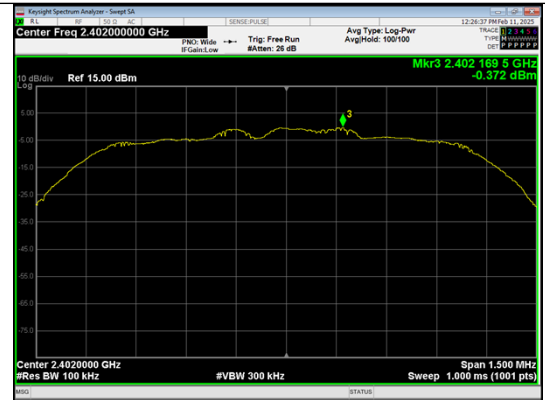
| Modulation | Packet | Channel | OOB Emission Frequency (MHz) | OOB Emission Level (dBm) | Limit (dBm) | Over Limit (dB) | Result |
|------------|--------|---------|------------------------------|--------------------------|-------------|-----------------|--------|
|------------|--------|---------|------------------------------|--------------------------|-------------|-----------------|--------|

|               |       |         |         |         |        |         |      |
|---------------|-------|---------|---------|---------|--------|---------|------|
| GFSK          | DH5   | Hopping | 2396.70 | -61.570 | -20.95 | -40.620 | PASS |
|               |       |         | 2400.00 | -62.028 | -20.95 | -41.078 | PASS |
|               |       |         | 2483.50 | -63.029 | -17.9  | -45.129 | PASS |
| $\pi/4$ DQPSK | 2-DH5 |         | 2398.76 | -60.760 | -20.86 | -39.900 | PASS |
|               |       |         | 2400.00 | -61.051 | -20.86 | -40.191 | PASS |
|               |       |         | 2483.50 | -62.283 | -17.9  | -44.383 | PASS |
| 8DPSK         | 3-DH5 |         | 2398.84 | -59.382 | -21.0  | -38.382 | PASS |
|               |       |         | 2400.00 | -60.200 | -21.0  | -39.200 | PASS |
|               |       |         | 2483.50 | -57.384 | -18.07 | -39.314 | PASS |

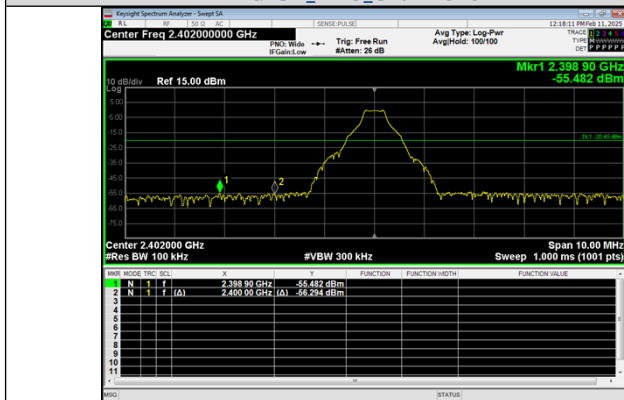
## Test Graphs



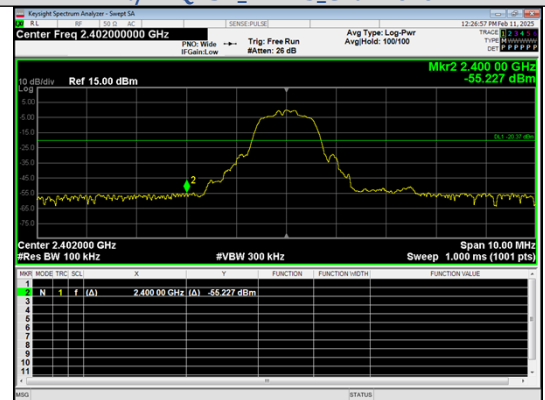
**In-Band Reference Level  
GFSK\_DH5\_Channel 0**



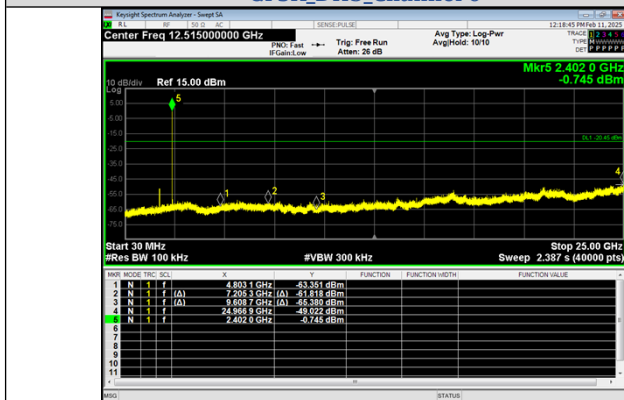
**In-Band Reference Level  
 $\pi/4$ DQPSK\_2-DH5\_Channel 0**



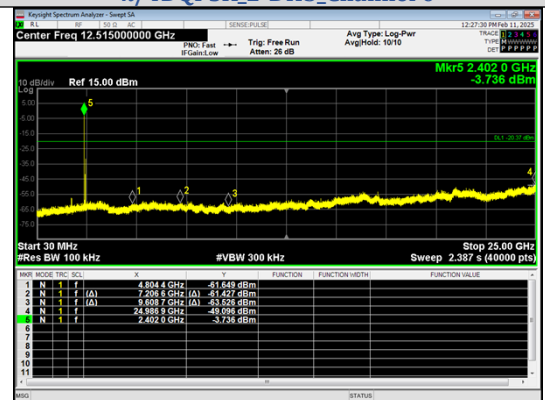
**Out Of Band Emission  
GFSK\_DH5\_Channel 0**



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



**30.0 MHz - 25000.0 MHz  
GFSK\_DH5\_Channel 0**



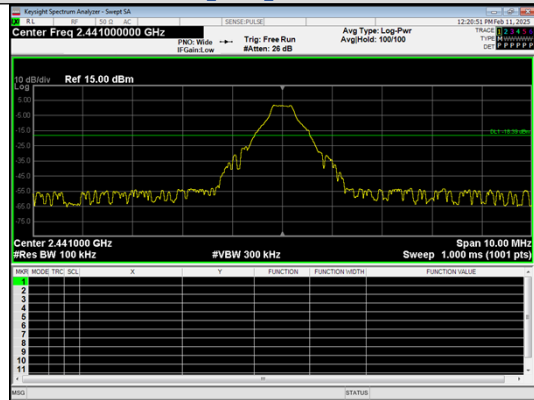
**30.0 MHz - 25000.0 MHz  
 $\pi/4$ DQPSK\_2-DH5\_Channel 0**



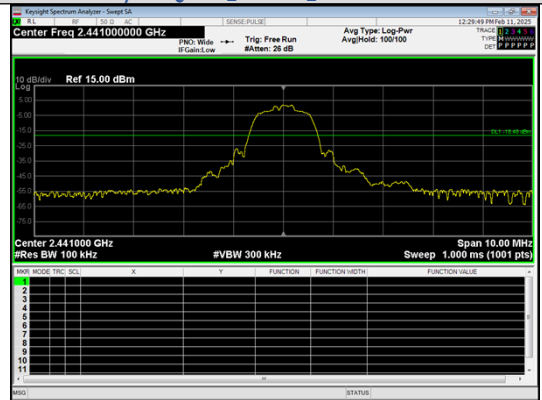
In-Band Reference Level  
GFSK\_DH5\_Channel 39



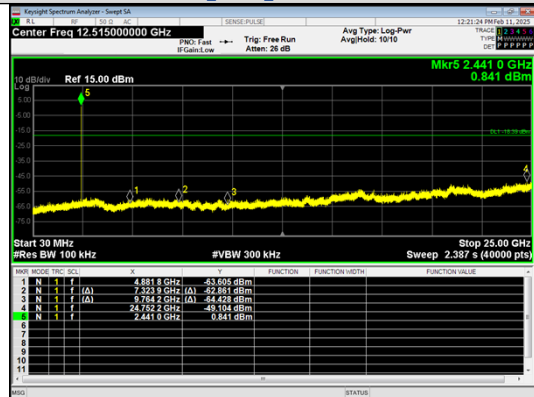
In-Band Reference Level  
 $\pi/4$ DQPSK\_2-DH5\_Channel 39



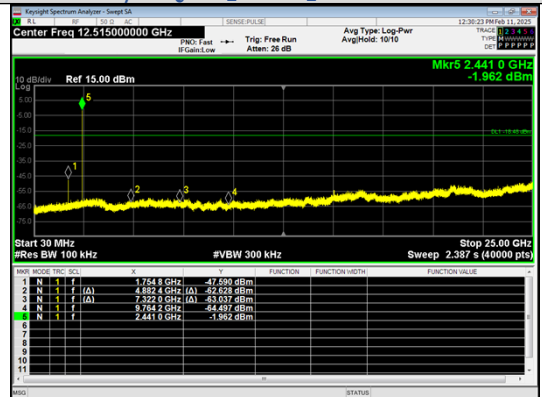
Out Of Band Emission  
GFSK\_DH5\_Channel 39



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



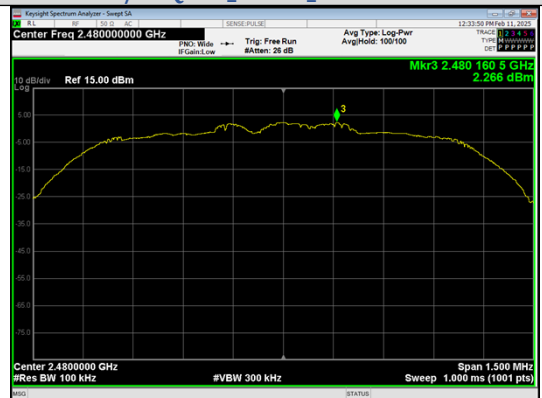
30.0 MHz - 25000.0 MHz  
GFSK\_DH5\_Channel 39



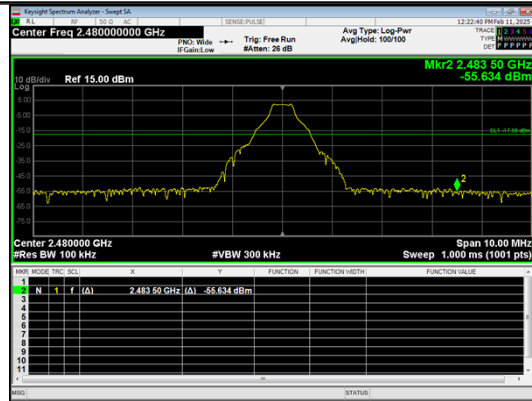
30.0 MHz - 25000.0 MHz  
 $\pi/4$ DQPSK\_2-DH5\_Channel 39



In-Band Reference Level  
GFSK\_DH5\_Channel 78



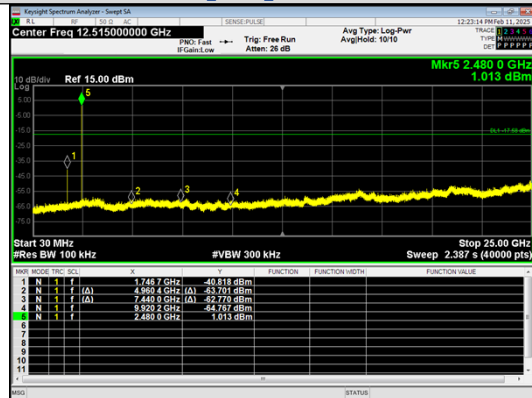
In-Band Reference Level  
 $\pi/4$ DQPSK\_2-DH5\_Channel 78



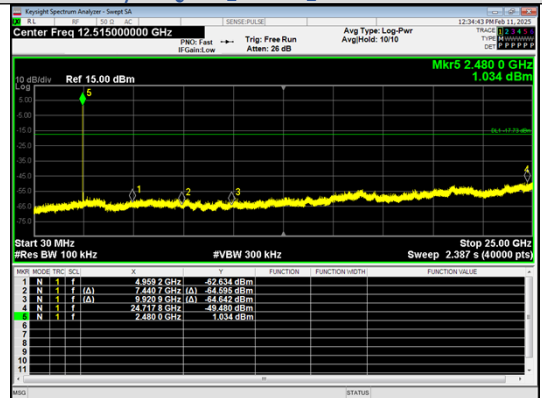
Out Of Band Emission  
GFSK\_DH5\_Channel 78



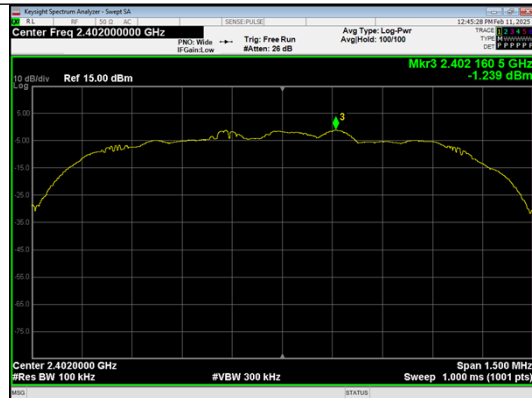
Out Of Band Emission  
 $\pi/4$ DQPSK\_2-DH5\_Channel 78



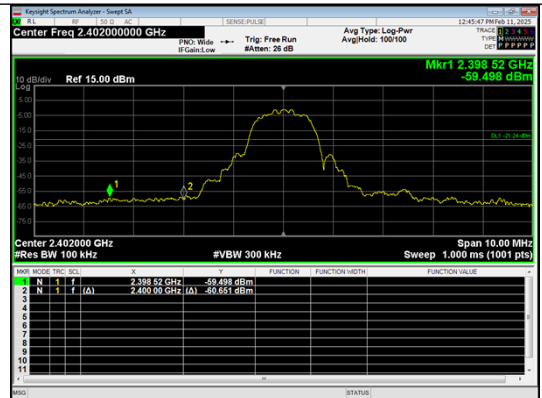
30.0 MHz - 25000.0 MHz  
GFSK\_DH5\_Channel 78



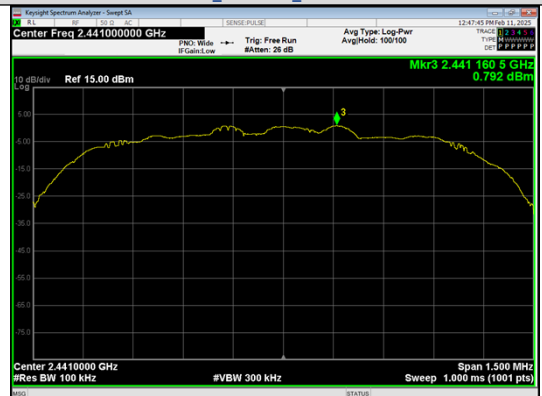
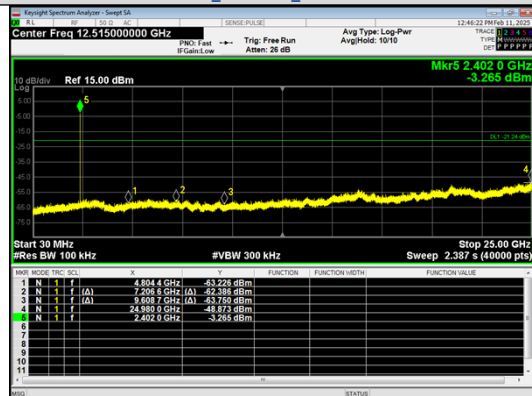
30.0 MHz - 25000.0 MHz  
 $\pi/4$ DQPSK\_2-DH5\_Channel 78



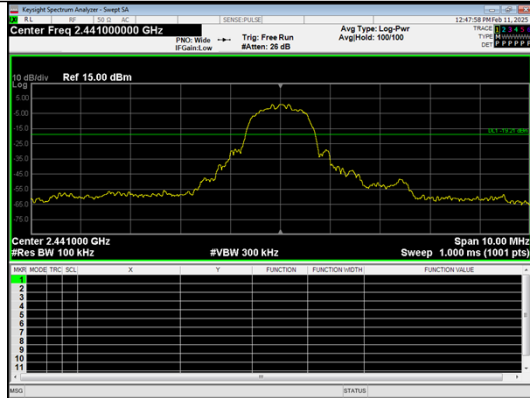
In-Band Reference Level  
8DPSK\_3-DH5\_Channel 0



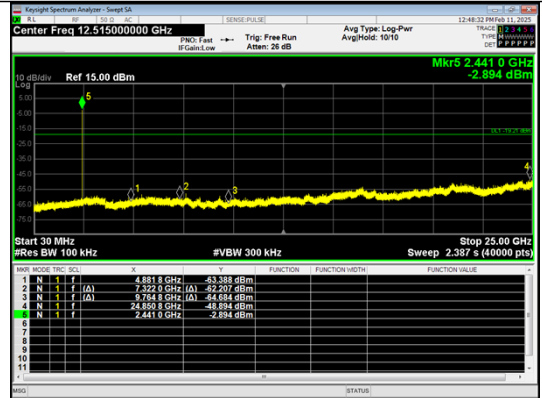
Out Of Band Emission  
8DPSK\_3-DH5\_Channel 0



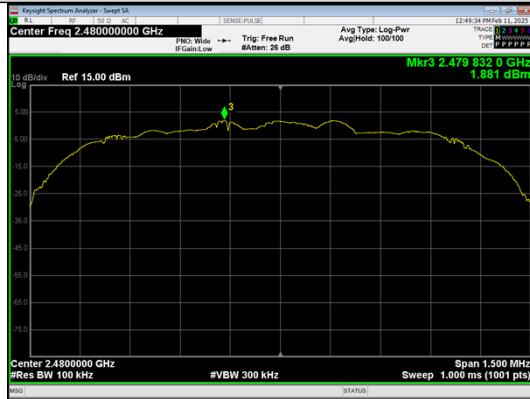
### 30.0 MHz - 25000.0 MHz 8DPSK\_3-DH5\_Channel 0



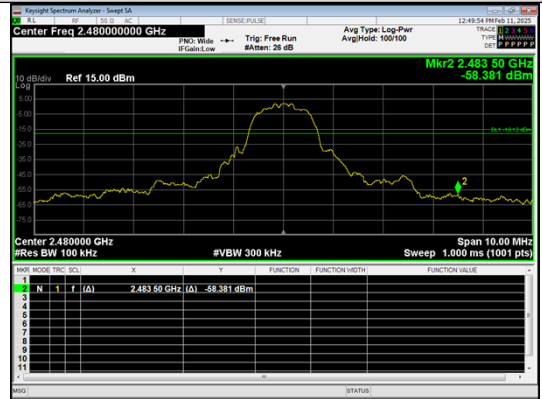
### In-Band Reference Level 8DPSK\_3-DH5\_Channel 39



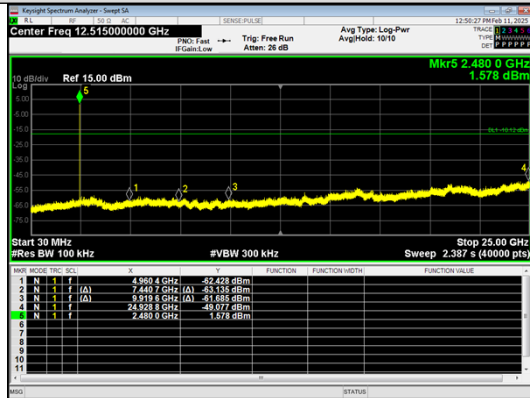
### Out Of Band Emission 8DPSK\_3-DH5\_Channel 39



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

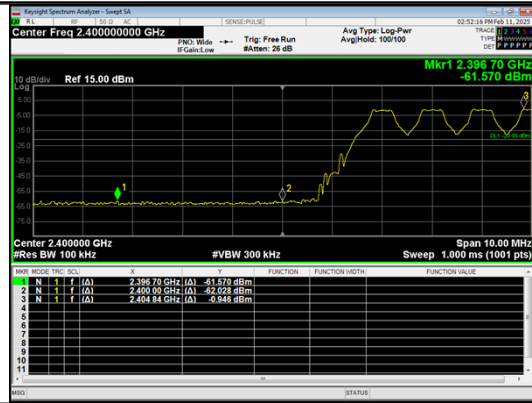


### In-Band Reference Level 8DPSK\_3-DH5\_Channel 78

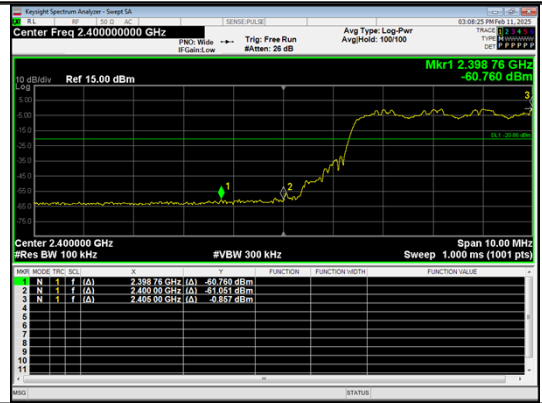


### Out Of Band Emission 8DPSK\_3-DH5\_Channel 78

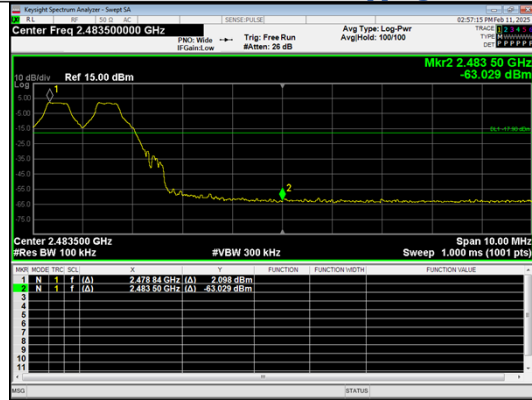
### 30.0 MHz - 25000.0 MHz 8DPSK\_3-DH5\_Channel 78



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



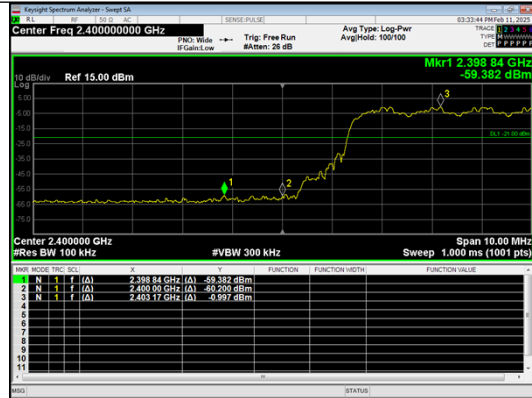
Out Of Band Emission(Left)  
 $\pi/4$ DQPSK\_2-DH5\_Channel Hopping



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

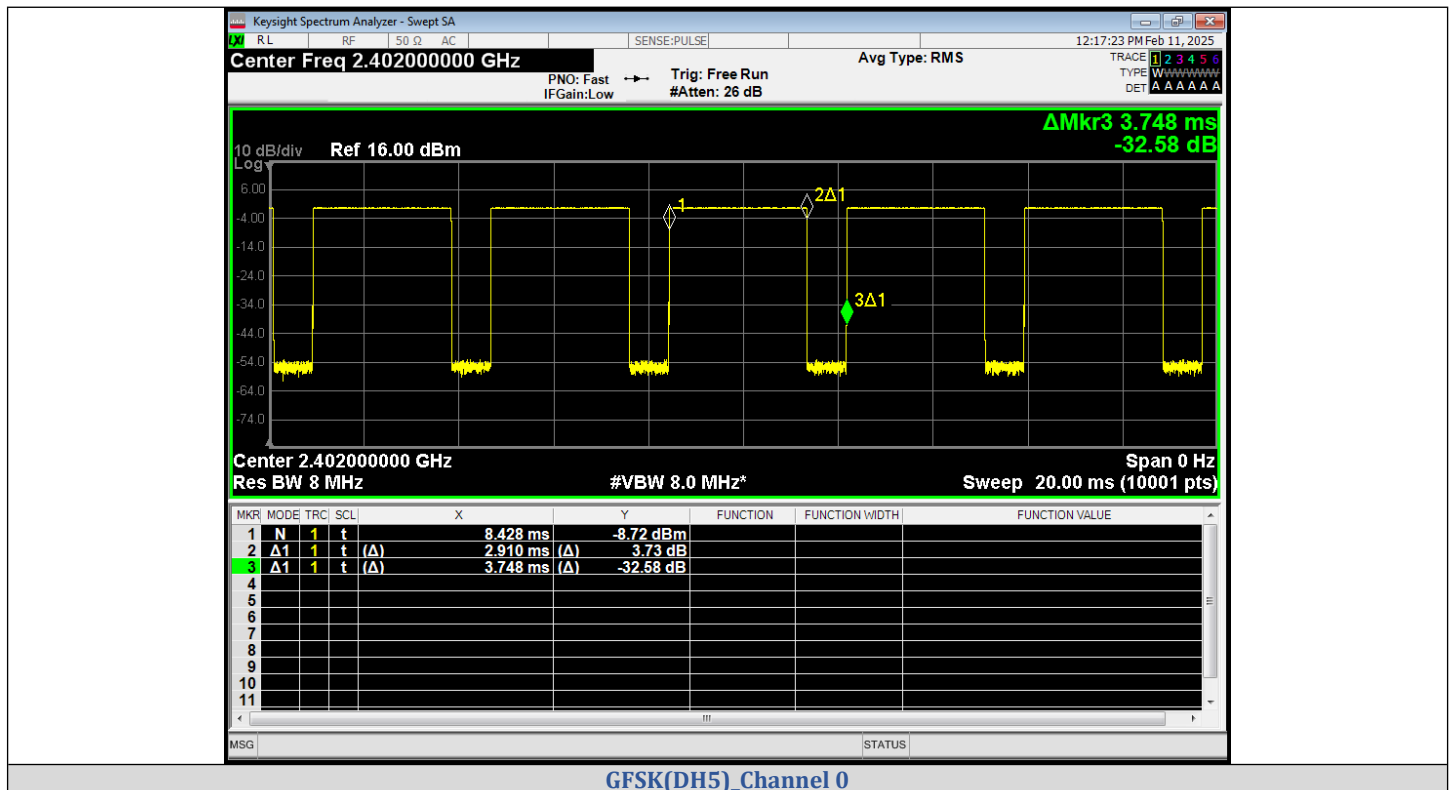


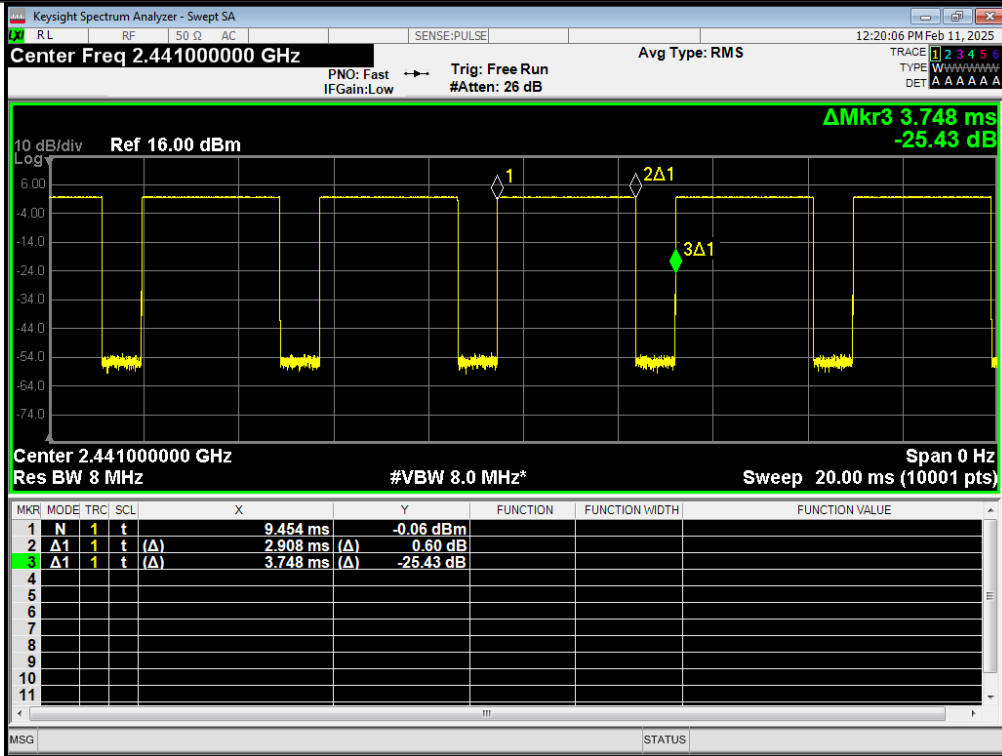
## Duty Cycle

### Test Result

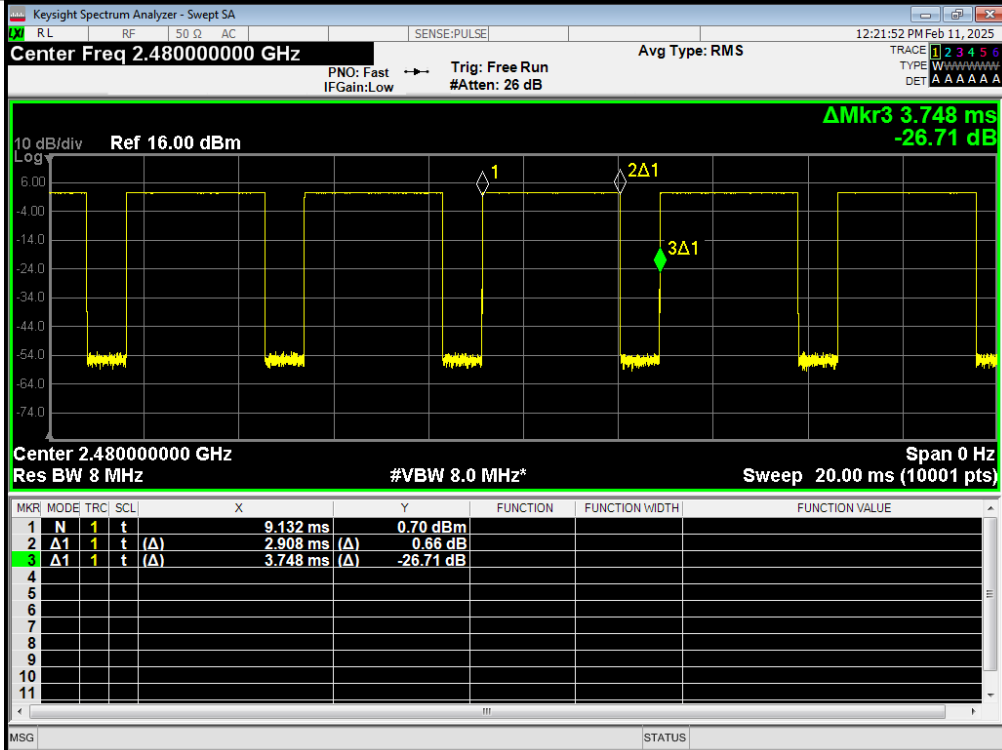
| Modulation    | Packets | Channel | On Time (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle (linear) | Duty Cycle Factor (dB) |
|---------------|---------|---------|--------------|-------------|----------------|---------------------|------------------------|
| GFSK          | DH5     | 0       | 2.910        | 3.748       | 77.64          | 0.7764              | 1.0991                 |
|               |         | 39      | 2.908        | 3.748       | 77.59          | 0.7759              | 1.1019                 |
|               |         | 78      | 2.908        | 3.748       | 77.59          | 0.7759              | 1.1019                 |
| $\pi/4$ DQPSK | 2-DH5   | 0       | 2.899        | 3.749       | 77.31          | 0.7731              | 1.1176                 |
|               |         | 39      | 2.897        | 3.748       | 77.30          | 0.7730              | 1.1182                 |
|               |         | 78      | 2.899        | 3.749       | 77.31          | 0.7731              | 1.1176                 |
| 8DPSK         | 3-DH5   | 0       | 2.896        | 3.748       | 77.27          | 0.7727              | 1.1199                 |
|               |         | 39      | 2.896        | 3.748       | 77.27          | 0.7727              | 1.1199                 |
|               |         | 78      | 2.897        | 3.749       | 77.28          | 0.7728              | 1.1193                 |

## Test Graphs

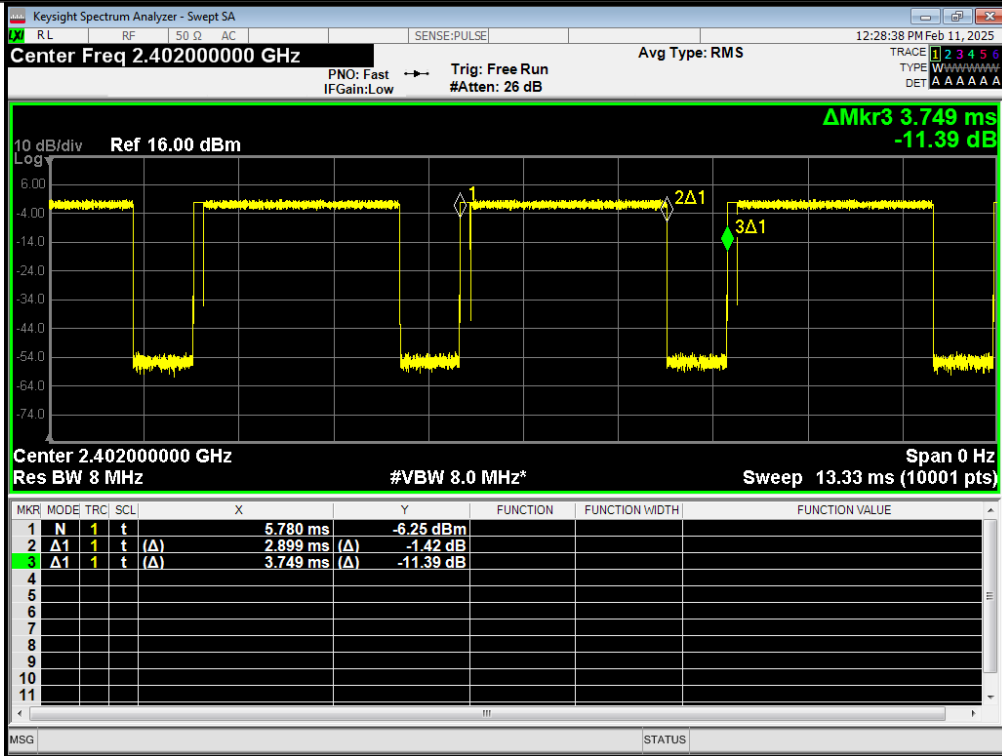




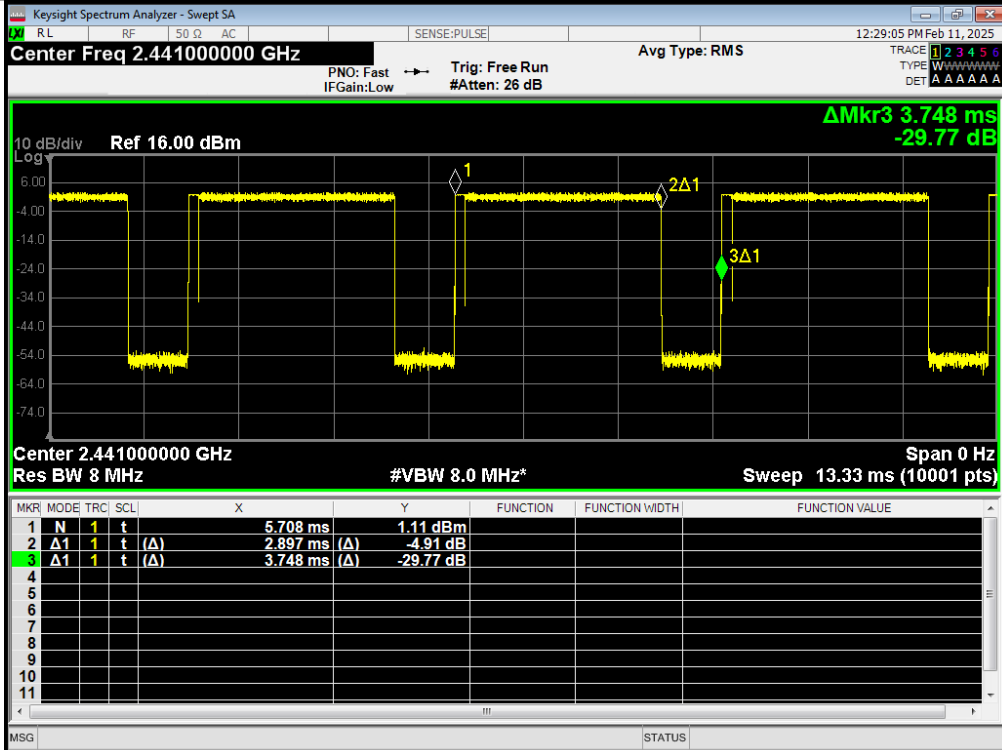
### GFSK(DH5)\_Channel 39



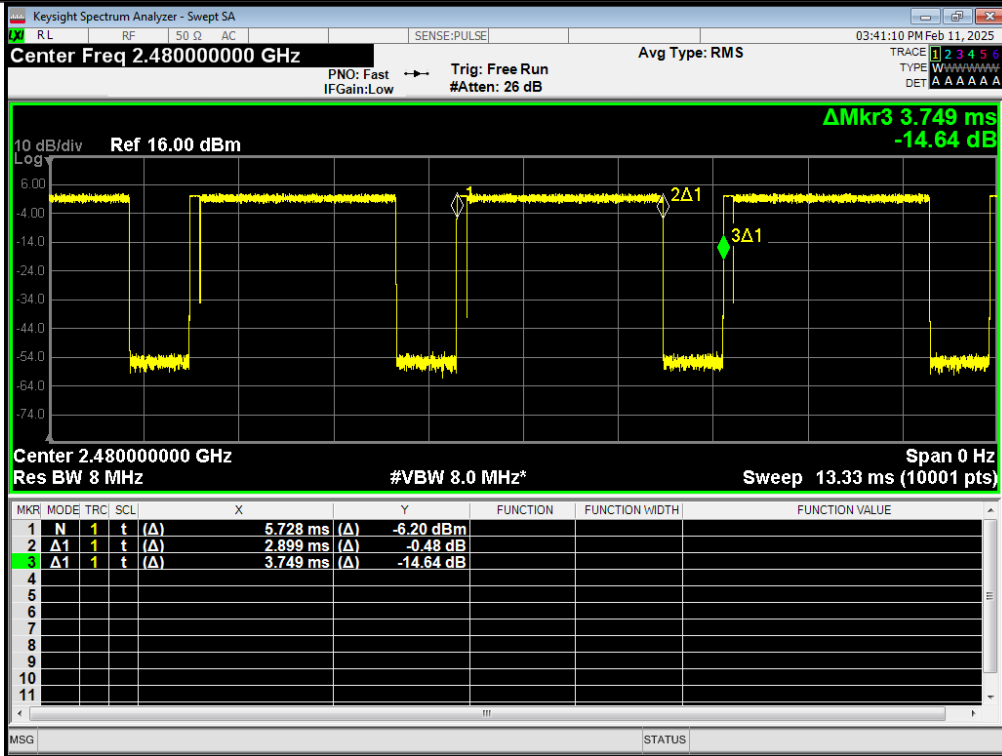
### GFSK(DH5)\_Channel 78



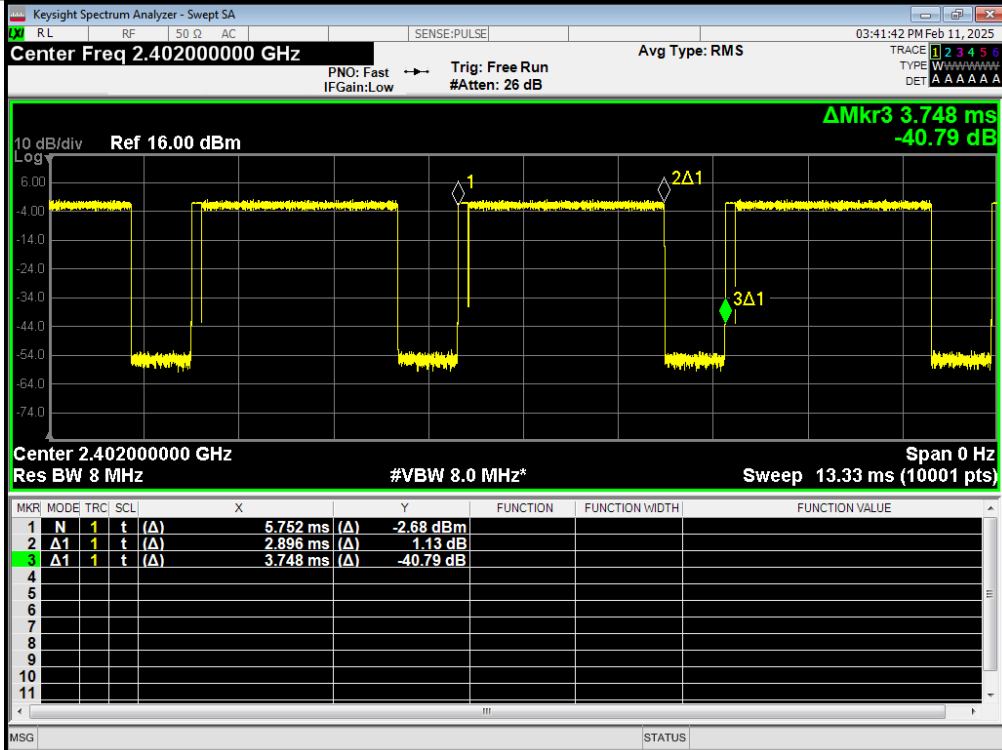
### $\pi/4$ DQPSK(2-DH5)\_Channel 0



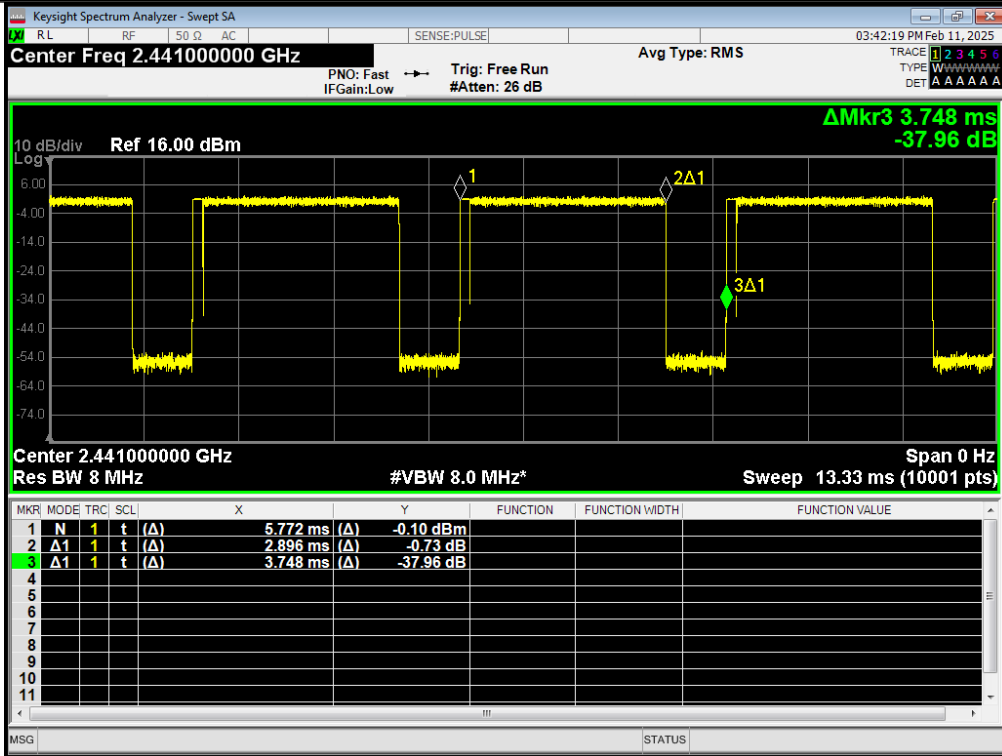
### $\pi/4$ DQPSK(2-DH5)\_Channel 39



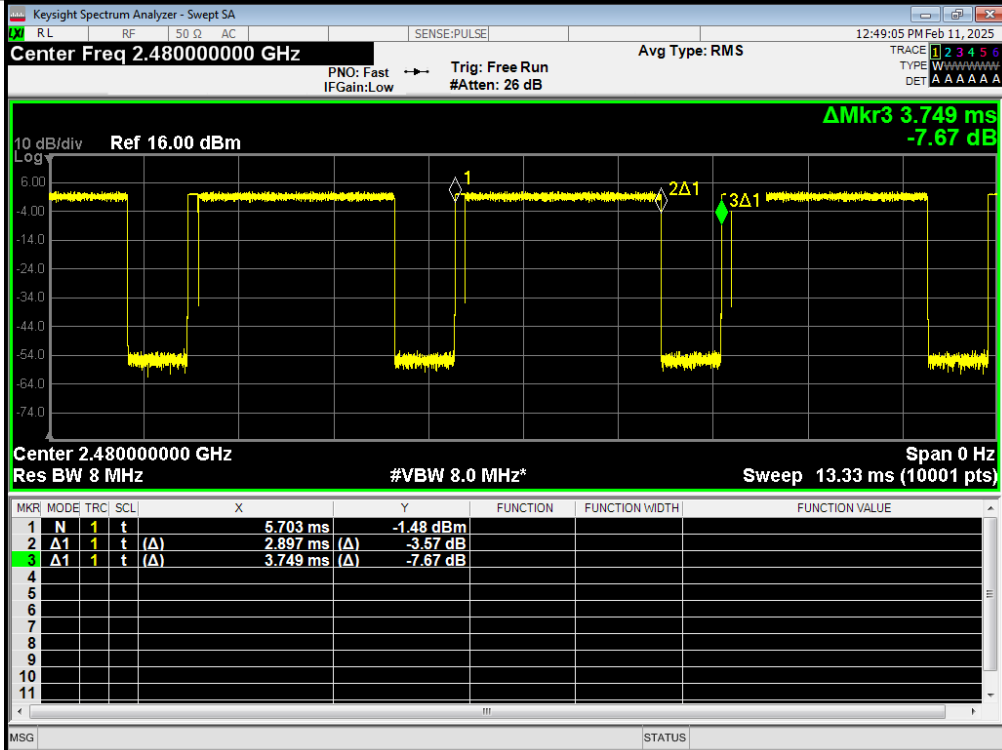
### $\pi/4$ DQPSK(2-DH5)\_Channel 78



### 8DPSK(3-DH5)\_Channel 0



### 8DPSK(3-DH5)\_Channel 39



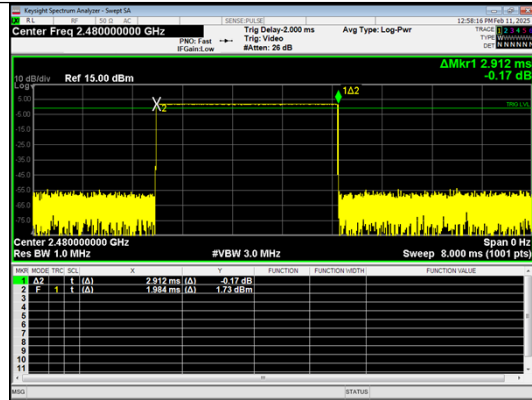
### 8DPSK(3-DH5)\_Channel 78

## Dwell Time

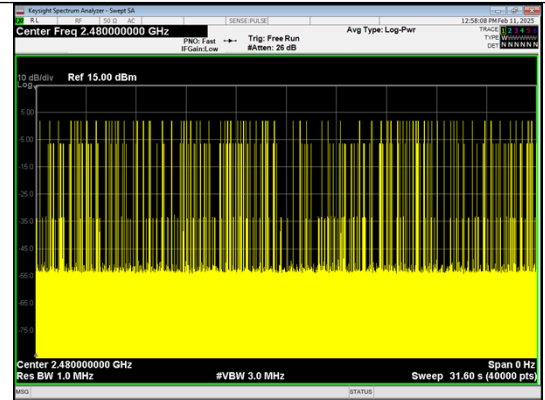
### Test Result

| 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            | 106                              | 308.67          | < 400      | PASS   |
| $\pi/4$ DQPSK | 2-DH5  |                   | 2.896            | 97                               | 280.91          |            | PASS   |
| 8DPSK         | 3-DH5  |                   | 2.896            | 123                              | 356.21          |            | PASS   |

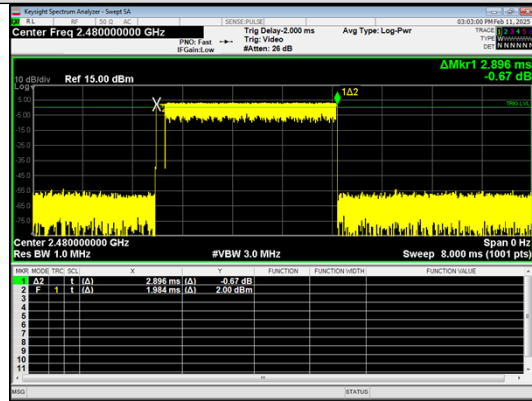
### Test Graphs



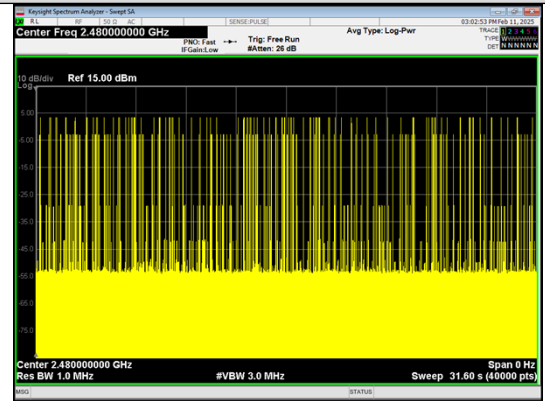
**Pulse Width  
GFSK\_DH5**



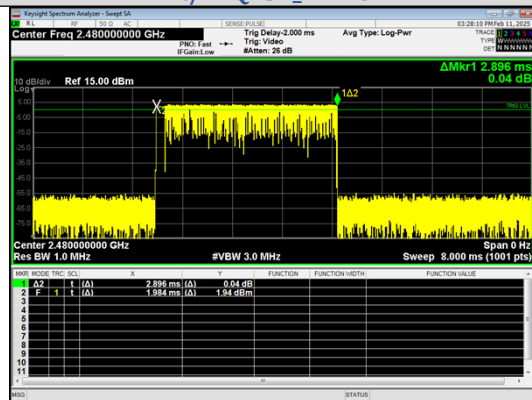
**Number of Pulses in 31.6 seconds  
GFSK\_DH5**



**Pulse Width  
 $\pi/4$ DQPSK\_2-DH5**



**Number of Pulses in 31.6 seconds  
 $\pi/4$ DQPSK\_2-DH5**



**Pulse Width  
8DPSK\_3-DH5**



**Number 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

