



Keyway Testing Technology (Guangdong) Co., Ltd  
21 Floor,Building 6,Dongyi Intelligent Equipment New Energy Vehicle Park,N.30  
of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China

|                         |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|
| <b>E.U.T:</b>           | Sound Column Audio System                                                         |
| <b>Model Number:</b>    | POLAR 8 MK2                                                                       |
| <b>Trade Name:</b>      |  |
| <b>Sample Number:</b>   | 33000261557                                                                       |
| <b>Date of Receipt:</b> | Jan. 11, 2026                                                                     |
| <b>Date of Test:</b>    | Jan. 12, ~ Jan. 28, 2026                                                          |
| <b>FCC ID:</b>          | 2AWA3-POLAR8MK2                                                                   |
| <b>IC:</b>              | 26052-POLAR8MK2                                                                   |

Note: The test data have all been compensated for cable loss, and when measuring the entire 2400-2500MHz, the maximum loss value 7.89 dB.and when measuring the entire 30MHz-25GHz, Input Compensation Coefficient (dB) = Max Cable Loss (dB)



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## A.1 CONDUCTED OUTPUT POWER

### Test Result

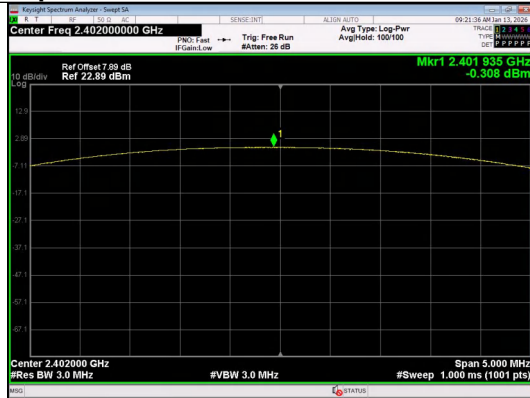
| Modulation | Packet Type | Channel | Peak Output Power (dBm) | Peak Power Limit (dBm) | Gain (dBm) | ISED EIRP (dBm) | ISED EIRP Limit (dBm) | Result |
|------------|-------------|---------|-------------------------|------------------------|------------|-----------------|-----------------------|--------|
| GFSK       | DH1         | 0       | -0.31                   | ≤30                    | -5.31      | -5.62           | ≤36.02                | PASS   |
|            |             | 39      | -1.80                   | ≤30                    | -5.31      | -7.11           | ≤36.02                | PASS   |
|            |             | 78      | -2.40                   | ≤30                    | -5.31      | -7.71           | ≤36.02                | PASS   |
| π/4DQPSK   | 2-DH1       | 0       | 2.04                    | ≤30                    | -5.31      | -3.27           | ≤36.02                | PASS   |
|            |             | 39      | 0.55                    | ≤30                    | -5.31      | -4.76           | ≤36.02                | PASS   |
|            |             | 78      | -0.12                   | ≤30                    | -5.31      | -5.43           | ≤36.02                | PASS   |
| 8DPSK      | 3-DH1       | 0       | 2.62                    | ≤30                    | -5.31      | -2.69           | ≤36.02                | PASS   |
|            |             | 39      | 1.15                    | ≤30                    | -5.31      | -4.16           | ≤36.02                | PASS   |
|            |             | 78      | 0.47                    | ≤30                    | -5.31      | -4.84           | ≤36.02                | PASS   |

Note: ISED EIRP (dBm) =Peak Output Power (dBm) + Gain (dBi)

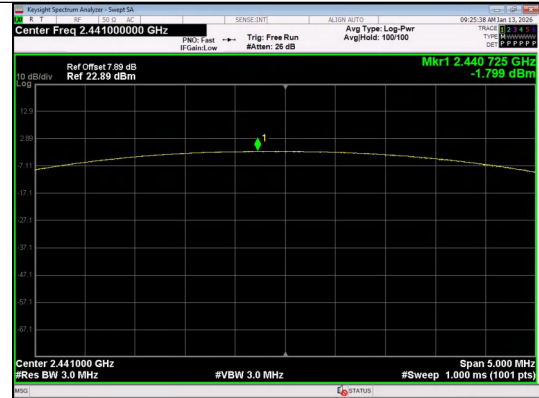


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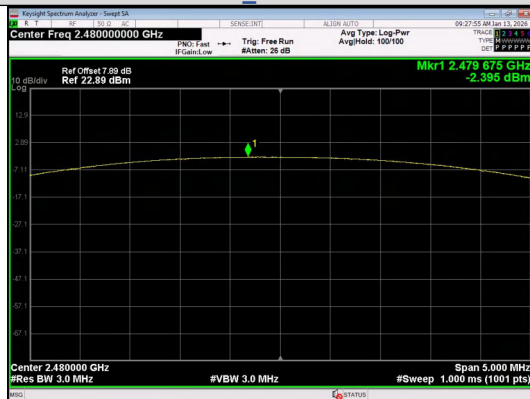
## Test Graphs



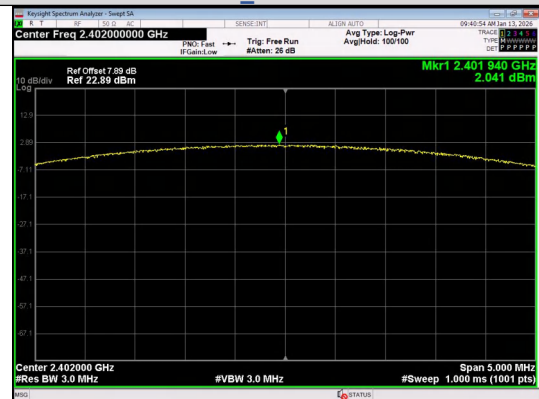
Peak Output Power  
GFSK\_Channel 0



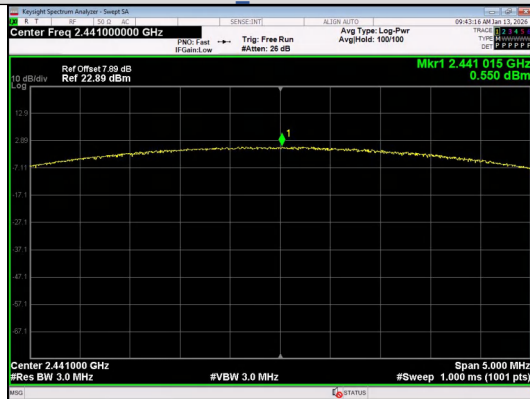
Peak Output Power  
GFSK\_Channel 39



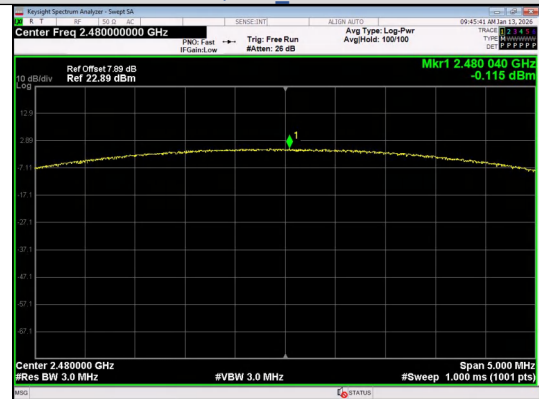
Peak Output Power  
GFSK\_Channel 78



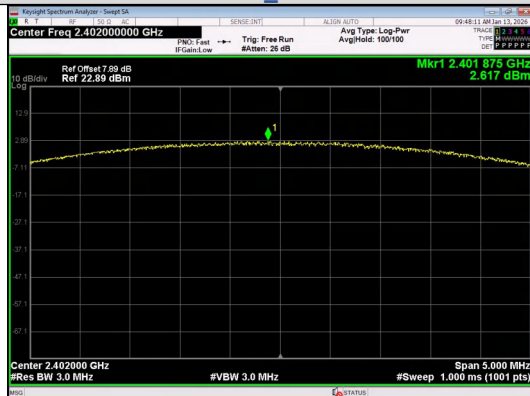
Peak Output Power  
 $\pi/4$ QPSK\_Channel 0



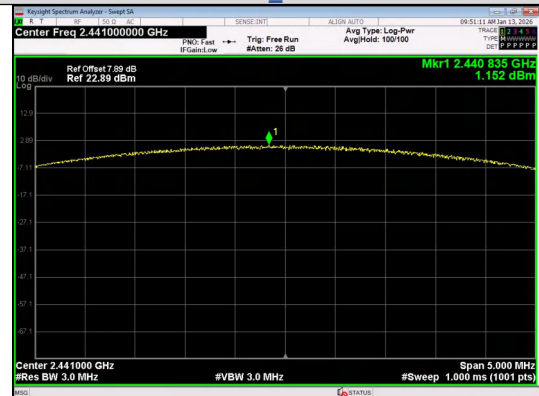
Peak Output Power  
 $\pi/4$ QPSK\_Channel 39



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



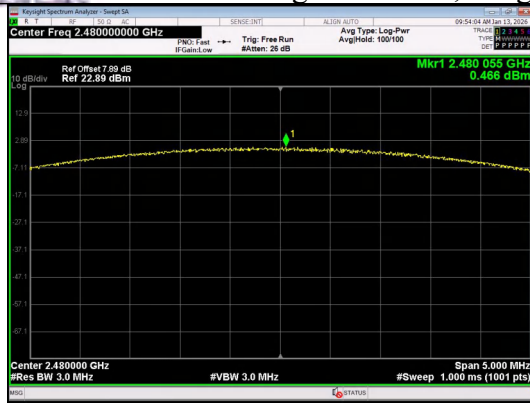
Peak Output Power  
8DPSK\_Channel 0



Peak Output Power  
8DPSK\_Channel 39



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**Peak Output Power**  
**8DPSK\_Channel 78**



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## A.2 99% BANDWIDTH

### Test Result

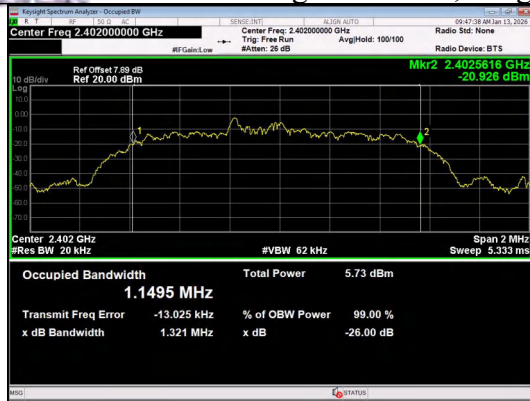
| Modulation    | Channel | Center Frequency (MHz) | 99% BW (MHz) |
|---------------|---------|------------------------|--------------|
| GFSK          | 0       | 2402                   | 0.79606      |
|               | 39      | 2441                   | 0.78192      |
|               | 78      | 2480                   | 0.78339      |
| $\pi$ /4DQPSK | 0       | 2402                   | 1.1592       |
|               | 39      | 2441                   | 1.1546       |
|               | 78      | 2480                   | 1.1633       |
| 8DPSK         | 0       | 2402                   | 1.1495       |
|               | 39      | 2441                   | 1.1474       |
|               | 78      | 2480                   | 1.1452       |

### Test Graphs

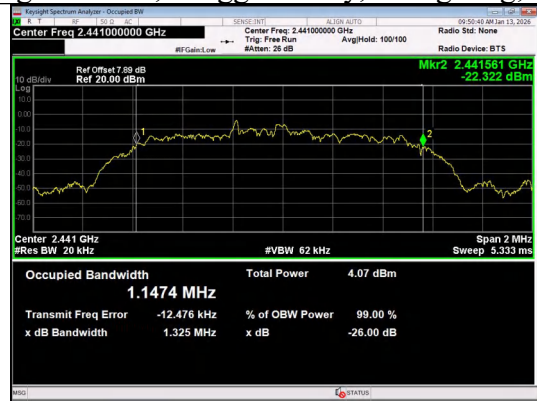




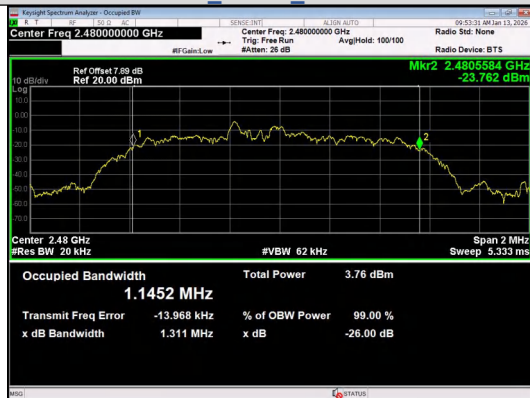
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8DPSK\_3-DH1\_Channel 0



8DPSK\_3-DH1\_Channel 39



8DPSK\_3-DH1\_Channel 78



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## A.3 20DB BANDWIDTH

### Test Result

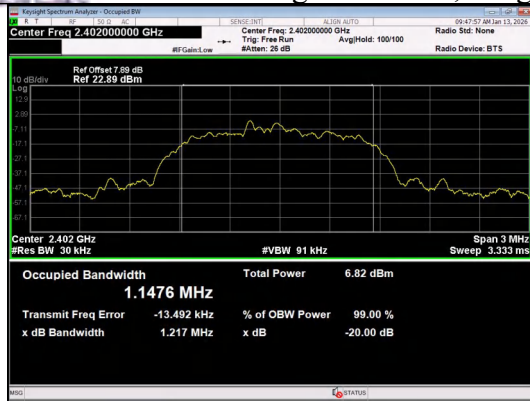
| Modulation    | Channel | Center Frequency (MHz) | 20 dB Bandwidth (MHz) |
|---------------|---------|------------------------|-----------------------|
| GFSK          | 0       | 2402 MHz               | 0.8709                |
|               | 39      | 2441 MHz               | 0.8719                |
|               | 78      | 2480 MHz               | 0.8698                |
| $\pi$ /4DQPSK | 0       | 2402 MHz               | 1.292                 |
|               | 39      | 2441 MHz               | 1.289                 |
|               | 78      | 2480 MHz               | 1.297                 |
| 8DPSK         | 0       | 2402 MHz               | 1.217                 |
|               | 39      | 2441 MHz               | 1.214                 |
|               | 78      | 2480 MHz               | 1.214                 |

### Test Graphs

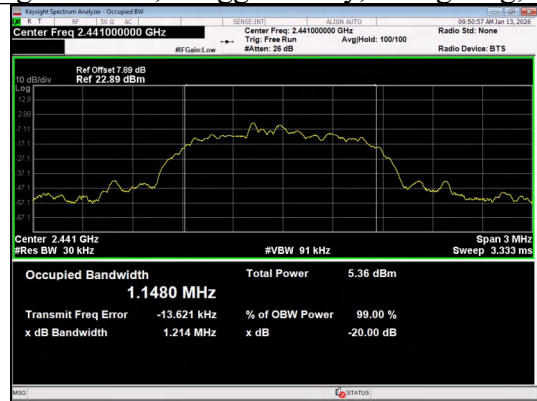




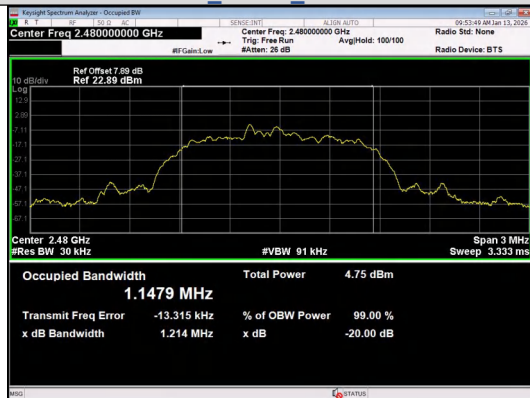
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8DPSK\_3-DH1\_Channel 0



8DPSK\_3-DH1\_Channel 39



8DPSK\_3-DH1\_Channel 78



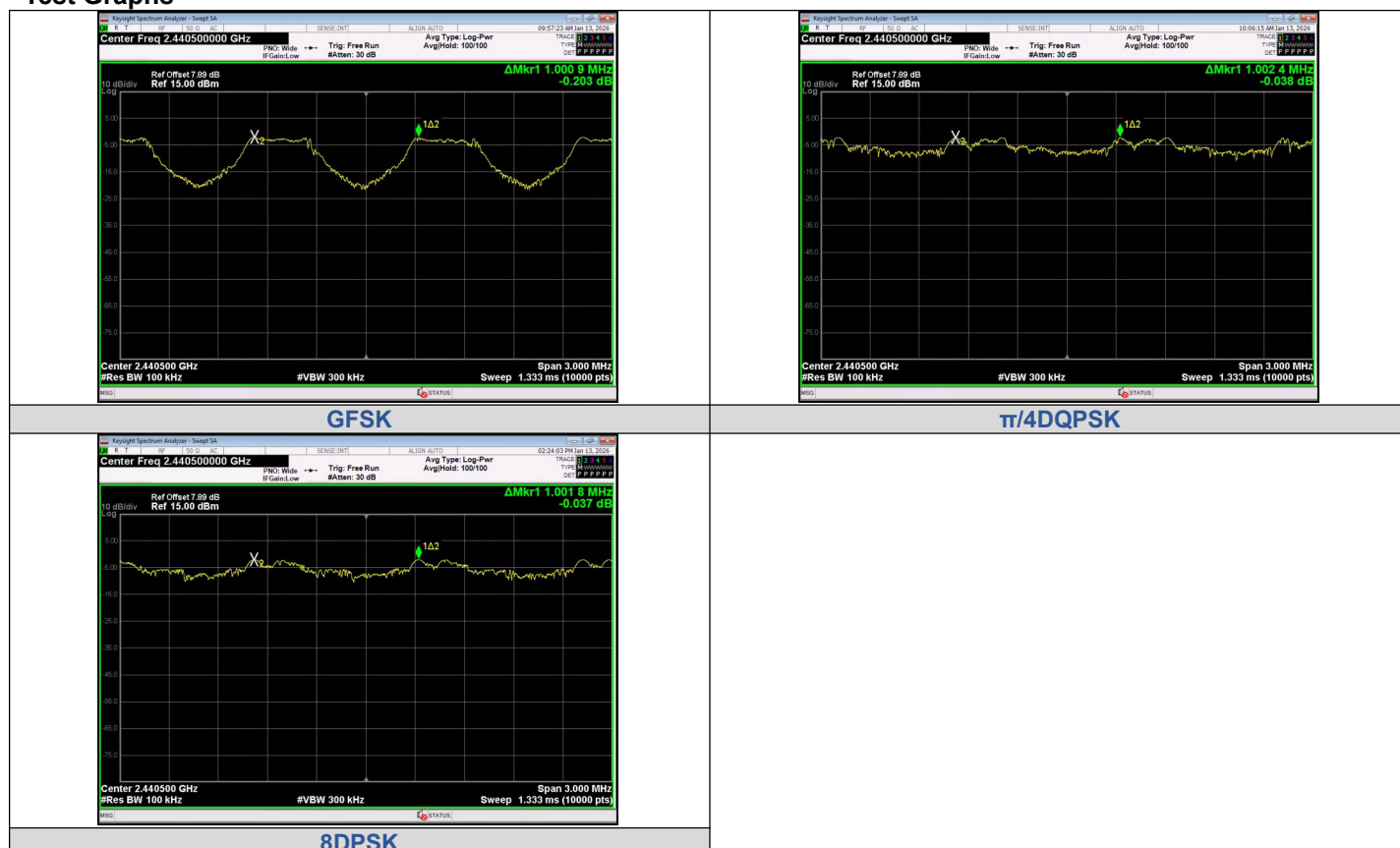
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## A.4 CARRIER FREQUENCIES SEPARATION

### Test Result

| Modulation    | Packet | Left Center frequency (MHz) | Right Center frequency (MHz) | Hopping Frequency Separation (MHz) | Limit (MHz) | Result |
|---------------|--------|-----------------------------|------------------------------|------------------------------------|-------------|--------|
| GFSK          | DH1    | 2439.8203                   | 2440.8212                    | 1.0009                             | 0.581       | PASS   |
| $\pi/4$ DQPSK | 2-DH1  | 2439.8215                   | 2440.8239                    | 1.0024                             | 0.865       | PASS   |
| 8DPSK         | 3-DH1  | 2439.8188                   | 2440.8206                    | 1.0018                             | 0.811       | PASS   |

### Test Graphs





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## A.5 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          | DH1    | 0       | 2400.00                      | -51.327                  | -20.69      | -30.637         | PASS   |
|               |        |         | 21151.4                      | -46.379                  | -20.69      | -25.689         | PASS   |
|               |        | 39      | 21542.8                      | -47.740                  | -22.18      | -25.560         | PASS   |
|               |        |         | 2483.50                      | -56.130                  | -22.78      | -33.350         | PASS   |
|               |        |         | 21152.7                      | -46.885                  | -22.78      | -24.105         | PASS   |
| $\pi/4$ DQPSK | 2-DH1  | 0       | 2400.00                      | -50.771                  | -20.7       | -30.071         | PASS   |
|               |        |         | 21199.5                      | -47.242                  | -20.7       | -26.542         | PASS   |
|               |        | 39      | 21139.5                      | -46.850                  | -22.14      | -24.710         | PASS   |
|               |        |         | 2483.50                      | -55.291                  | -22.68      | -32.611         | PASS   |
|               |        |         | 21168.3                      | -46.645                  | -22.68      | -23.965         | PASS   |
| 8DPSK         | 3-DH1  | 0       | 2400.00                      | -49.233                  | -20.66      | -28.573         | PASS   |
|               |        |         | 21192.0                      | -45.754                  | -20.66      | -25.094         | PASS   |
|               |        | 39      | 21727.6                      | -47.140                  | -22.1       | -25.040         | PASS   |
|               |        |         | 2483.50                      | -57.026                  | -22.65      | -34.376         | PASS   |
|               |        |         | 21559.0                      | -46.855                  | -22.65      | -24.205         | PASS   |

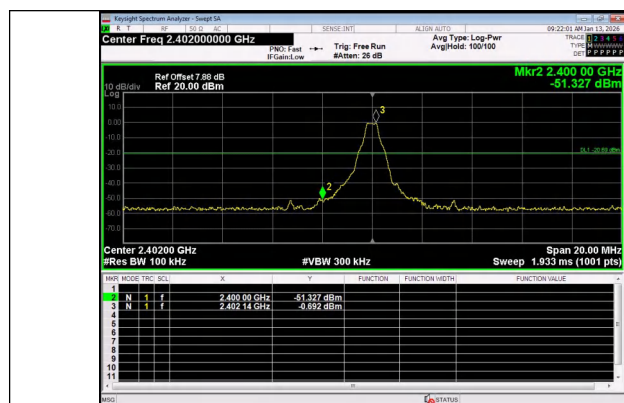
Note: input compensation coefficient (dB)= Cable Loss (dB)

Hopping

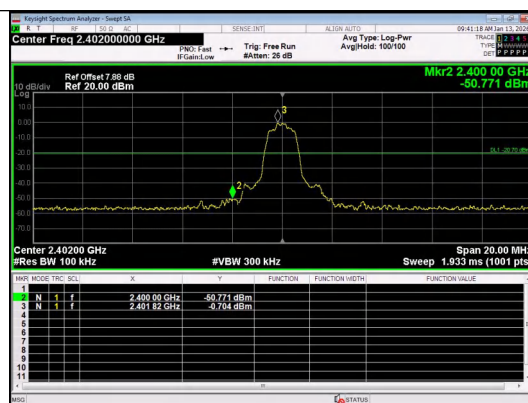
| Hopping       |        |         |                              |                          |             |                 |        |
|---------------|--------|---------|------------------------------|--------------------------|-------------|-----------------|--------|
| Modulation    | Packet | Channel | OOB Emission Frequency (MHz) | OOB Emission Level (dBm) | Limit (dBm) | Over Limit (dB) | Result |
| GFSK          | DH1    | Hopping | 2400.00                      | -53.098                  | -20.49      | -32.608         | PASS   |
|               |        |         | 2483.50                      | -55.948                  | -22.44      | -33.508         | PASS   |
| $\pi/4$ DQPSK | 2-DH1  |         | 2400.00                      | -50.420                  | -20.5       | -29.920         | PASS   |
|               |        |         | 2483.50                      | -54.622                  | -22.44      | -32.182         | PASS   |
| 8DPSK         | 3-DH1  |         | 2400.00                      | -51.338                  | -20.43      | -30.908         | PASS   |
|               |        |         | 2483.50                      | -54.367                  | -22.39      | -31.977         | PASS   |

Note: input compensation coefficient (dB)= Cable Loss (dB)

Test Graphs



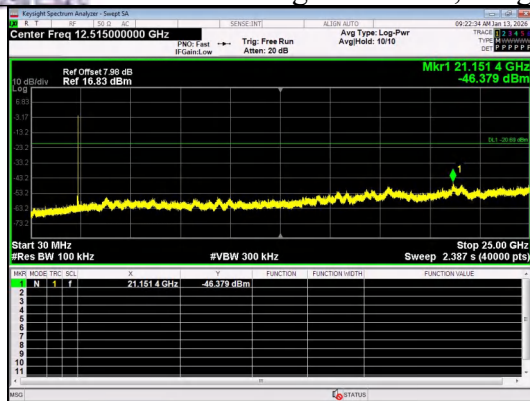
Out Of Band Emission  
GFSK\_DH1\_Channel 0



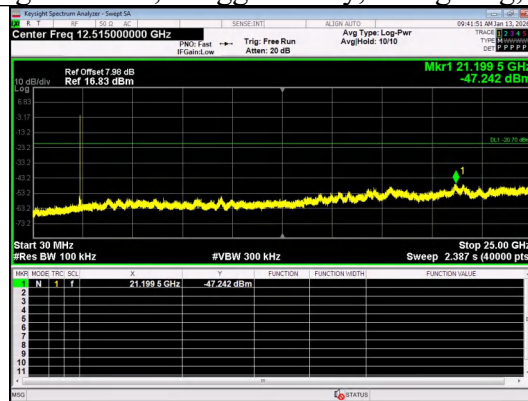
Out Of Band Emission  
 $\pi/4$ DQPSK\_2-DH1\_Channel 0



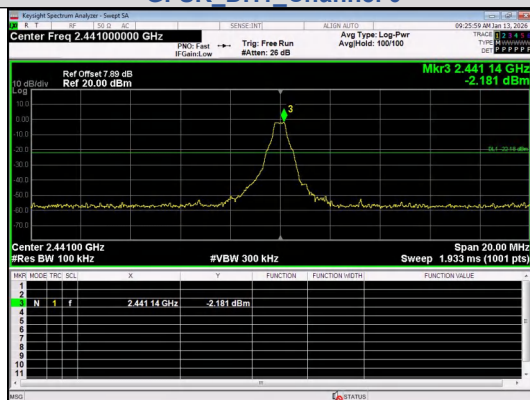
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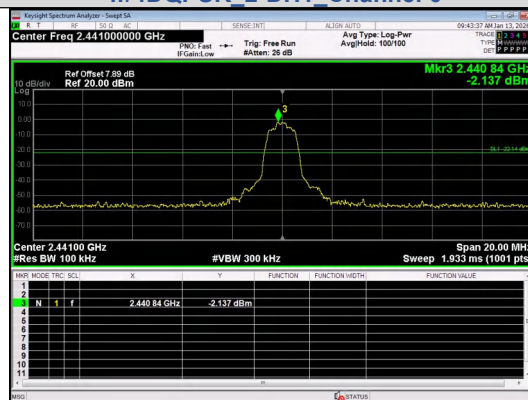
30.0 MHz - 25000.0 MHz  
GFSK\_DH1\_Channel 0



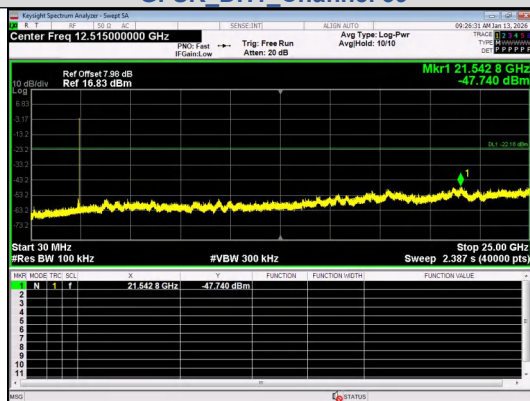
30.0 MHz - 25000.0 MHz  
 $\pi/4$ DQPSK\_2-DH1\_Channel 0



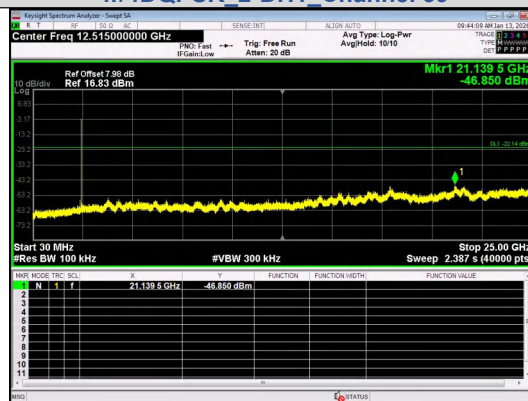
Out Of Band Emission  
GFSK\_DH1\_Channel 39



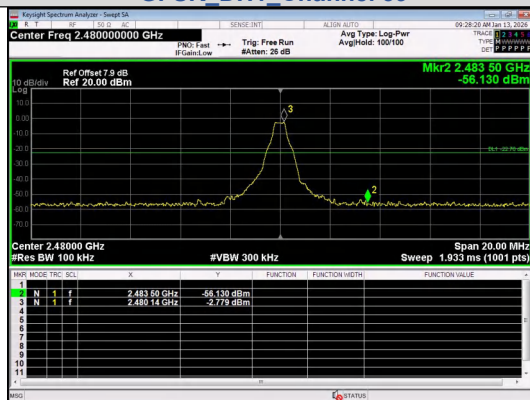
Out Of Band Emission  
 $\pi/4$ DQPSK\_2-DH1\_Channel 39



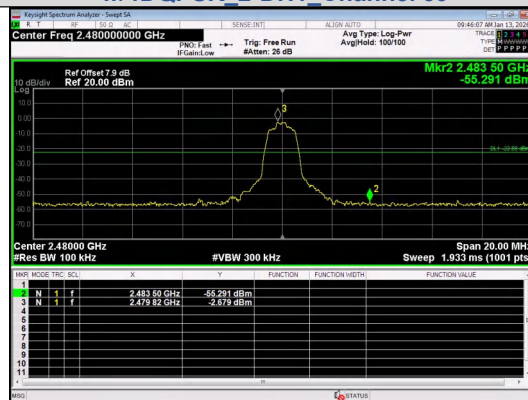
30.0 MHz - 25000.0 MHz  
GFSK\_DH1\_Channel 39



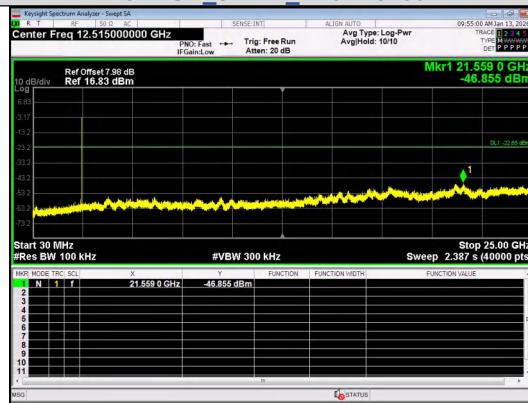
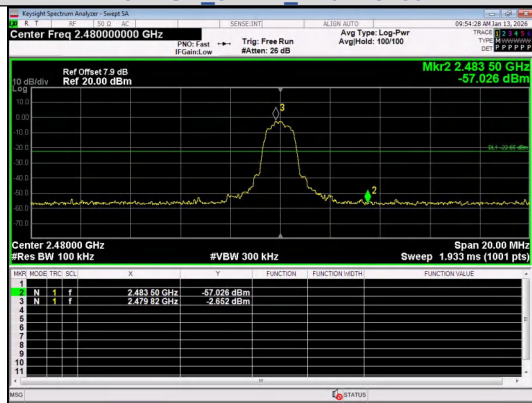
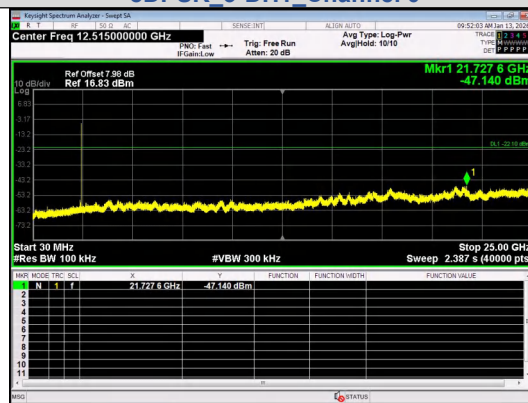
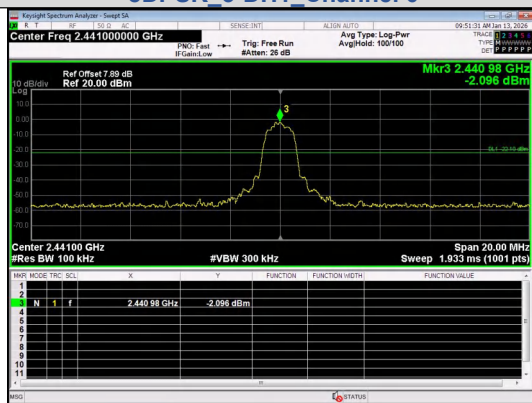
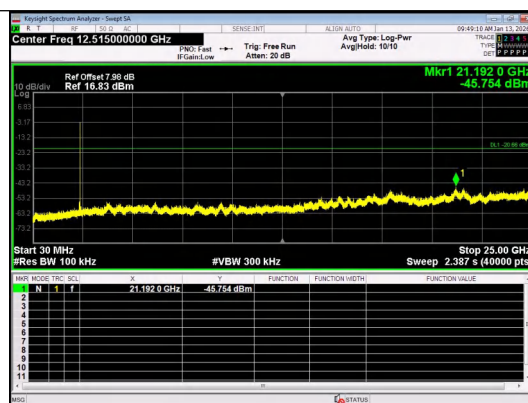
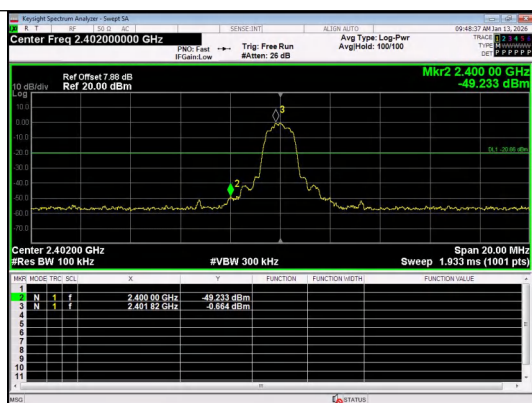
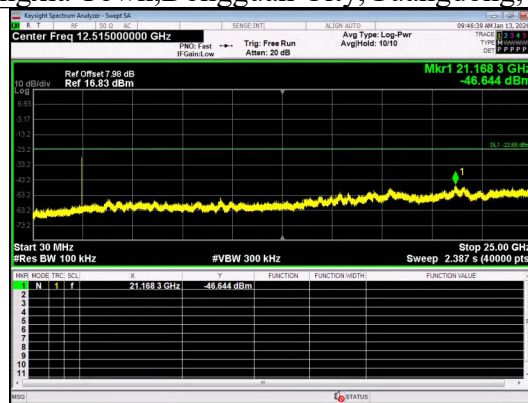
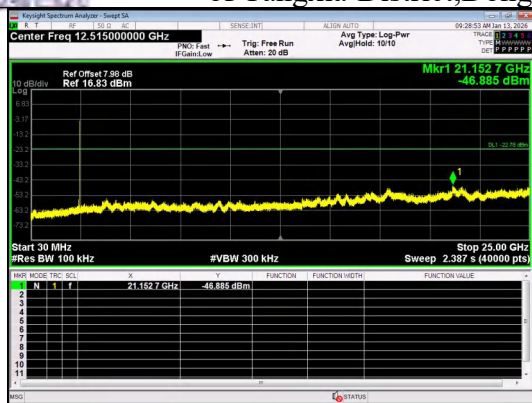
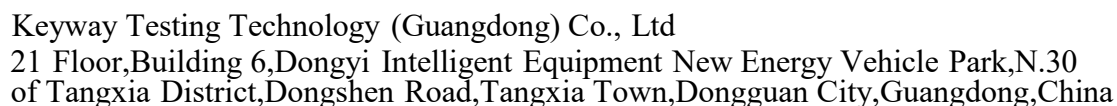
30.0 MHz - 25000.0 MHz  
 $\pi/4$ DQPSK\_2-DH1\_Channel 39

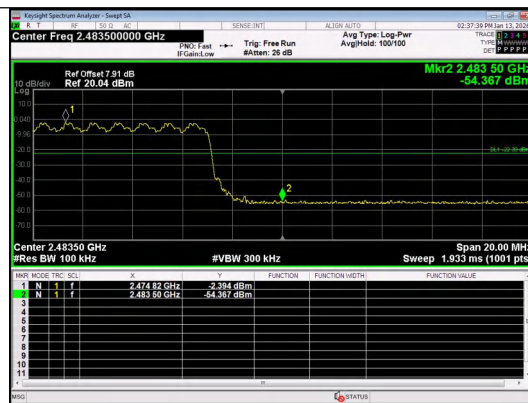
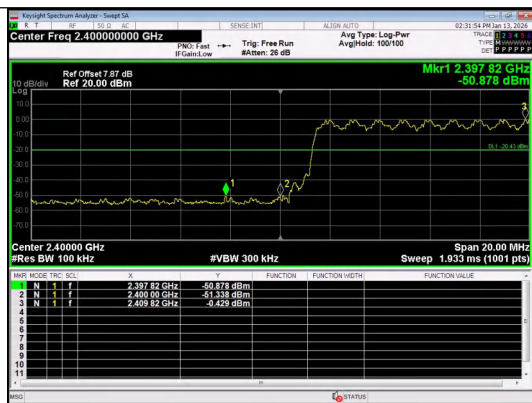
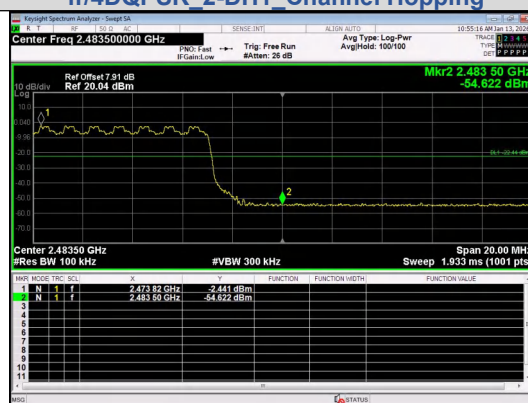
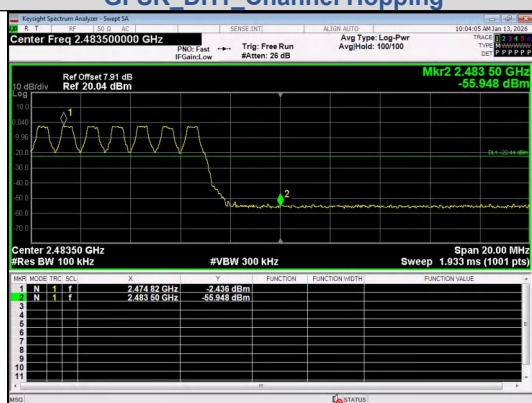
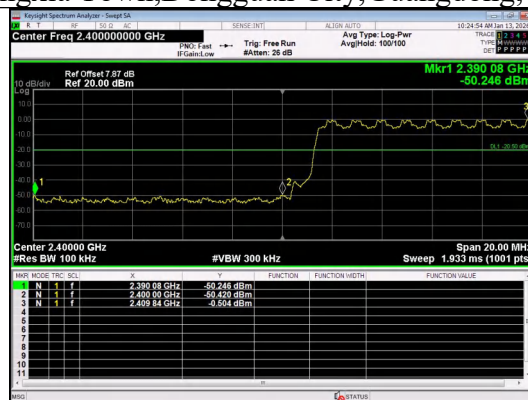
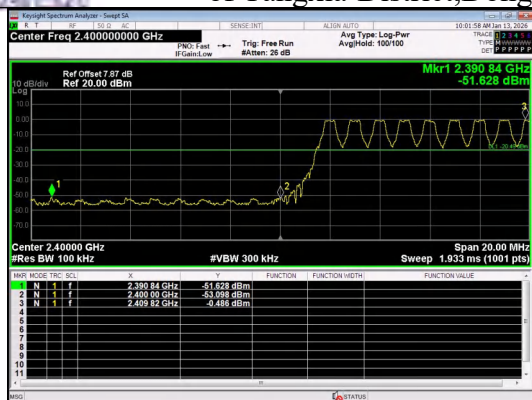
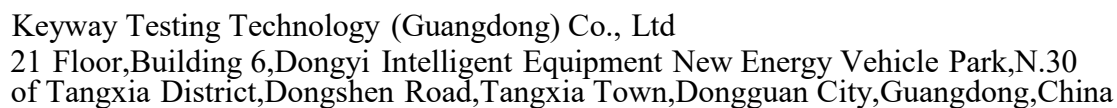


Out Of Band Emission  
GFSK\_DH1\_Channel 78



Out Of Band Emission  
 $\pi/4$ DQPSK\_2-DH1\_Channel 78







## A.6 DUTY CYCLE

### Test Result

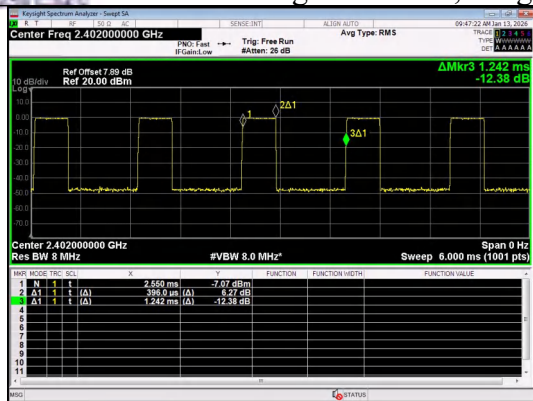
| Modulation    | Packets | Channel | On Time (ms) | Period (ms) | Duty Cycle (%) | Duty Cycle (linear) | Duty Cycle Factor (dB) | 1/T    |
|---------------|---------|---------|--------------|-------------|----------------|---------------------|------------------------|--------|
| GFSK          | DH1     | 0       | 0.388        | 1.250       | 31.06          | 0.3106              | 5.078                  | 2.5773 |
|               |         | 39      | 0.389        | 1.250       | 31.11          | 0.3111              | 5.071                  | 2.5707 |
|               |         | 78      | 0.388        | 1.250       | 31.06          | 0.3106              | 5.078                  | 2.5773 |
| $\pi$ /4DQPSK | 2-DH1   | 0       | 0.396        | 1.242       | 31.88          | 0.3188              | 4.9648                 | 2.5253 |
|               |         | 39      | 0.396        | 1.248       | 31.73          | 0.3173              | 4.9853                 | 2.5253 |
|               |         | 78      | 0.396        | 1.248       | 31.73          | 0.3173              | 4.9853                 | 2.5253 |
| 8DPSK         | 3-DH1   | 0       | 0.396        | 1.242       | 31.88          | 0.3188              | 4.9648                 | 2.5253 |
|               |         | 39      | 0.396        | 1.242       | 31.88          | 0.3188              | 4.9648                 | 2.5253 |
|               |         | 78      | 0.396        | 1.242       | 31.88          | 0.3188              | 4.9648                 | 2.5253 |

### Test Graphs

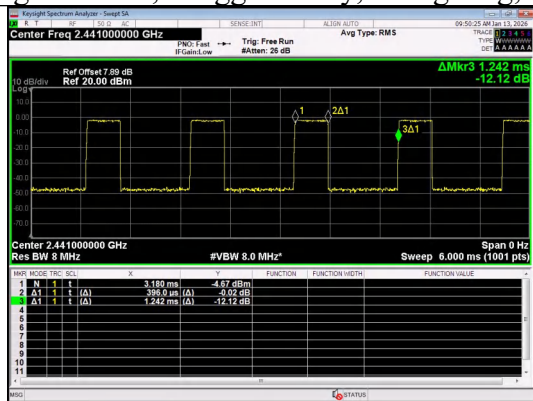




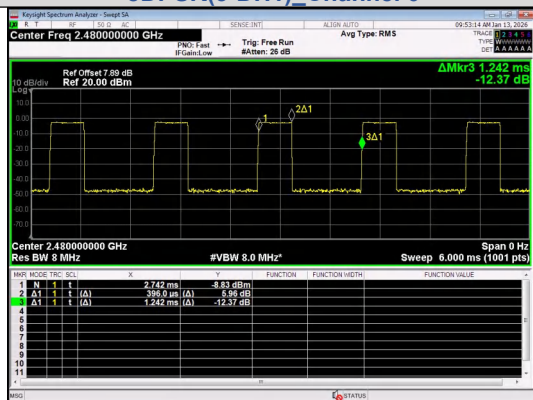
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of Tangxia District,Dongshen Road,Tangxia Town,Dongguan City,Guangdong,China



8DPSK(3-DH1)\_Channel 0



8DPSK(3-DH1)\_Channel 39



8DPSK(3-DH1)\_Channel 78



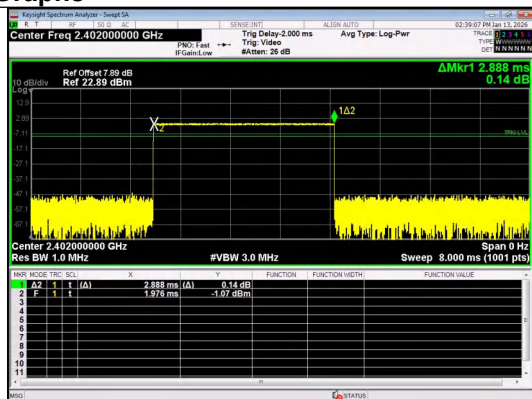
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## A.7 DWELL TIME

### Test Result

| Modulation    | Packet | Channel | Pulse Width (ms) | Number of Pulses in 31.6 seconds | Dwell Time (ms) | Limit (ms) | Result |
|---------------|--------|---------|------------------|----------------------------------|-----------------|------------|--------|
| GFSK          | DH5    | Hopping | 2.888            | 104                              | 300.35          | < 400      | PASS   |
|               | DH5    |         | 2.888            | 111                              | 320.57          |            | PASS   |
|               | DH5    |         | 2.896            | 105                              | 304.08          |            | PASS   |
| $\pi/4$ DQPSK | 2-DH5  |         | 2.896            | 101                              | 292.5           |            | PASS   |
|               | 2-DH5  |         | 2.896            | 120                              | 347.52          |            | PASS   |
|               | 2-DH5  |         | 2.904            | 107                              | 310.73          |            | PASS   |
| 8DPSK         | 3-DH5  |         | 2.904            | 109                              | 316.54          |            | PASS   |
|               | 3-DH5  |         | 2.904            | 94                               | 272.98          |            | PASS   |
|               | 3-DH5  |         | 2.904            | 112                              | 325.25          |            | PASS   |

### Test Graphs



Pulse Width  
GFSK\_DH5



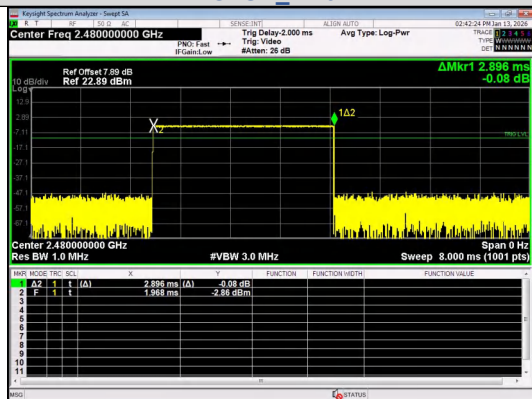
Number of Pulses in 31.6 seconds  
GFSK\_DH5



Pulse Width  
GFSK\_DH5



Number of Pulses in 31.6 seconds  
GFSK\_DH5



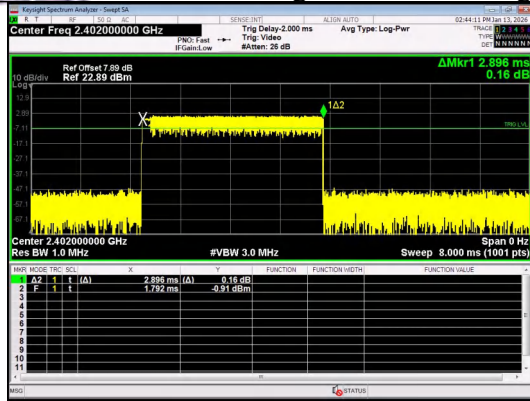
Pulse Width  
GFSK\_DH5



Number of Pulses in 31.6 seconds  
GFSK\_DH5



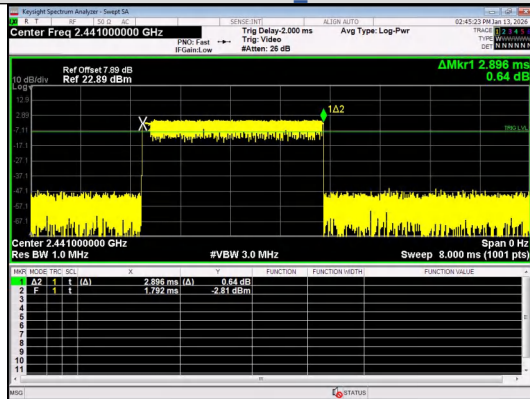
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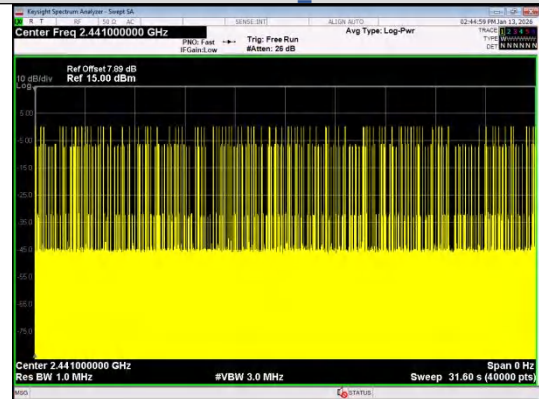
Pulse Width  
 $\pi/4$ DQPSK\_2-DH5



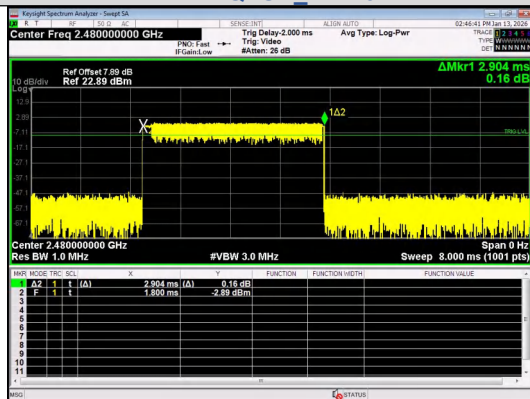
Number of Pulses in 31.6 seconds  
 $\pi/4$ DQPSK\_2-DH5



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



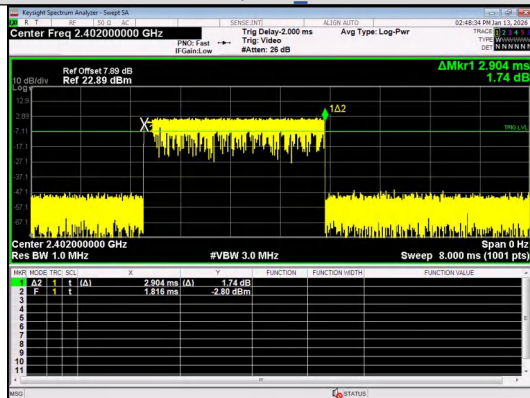
Number of Pulses in 31.6 seconds  
 $\pi/4$ DQPSK\_2-DH5



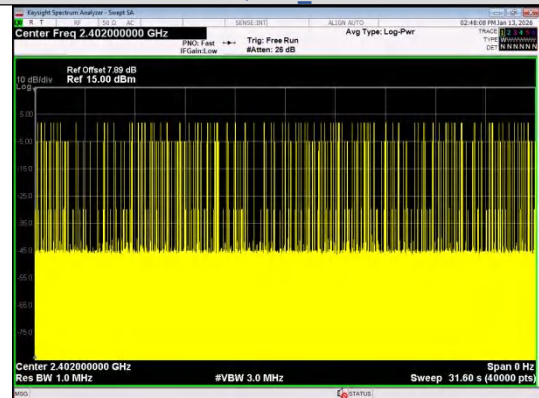
Pulse Width  
 $\pi/4$ DQPSK\_2-DH5



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



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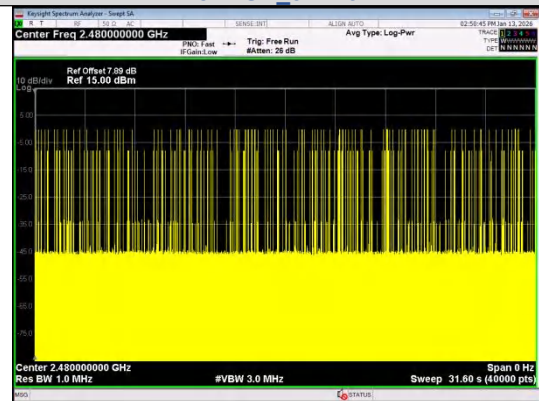
Pulse Width  
8DPSK 3-DH5



Number of Pulses in 31.6 seconds  
8DPSK 3-DH5



Pulse Width  
8DPSK 3-DH5



Number of Pulses in 31.6 seconds  
8DPSK 3-DH5



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## A.8 NUMBER OF HOPPING CHANNEL

### Test Result

| Modulation    | Packet | Number of Hopping Channel | Limit | Result |
|---------------|--------|---------------------------|-------|--------|
| GFSK          | DH1    | 79                        | 15    | PASS   |
| $\pi/4$ DQPSK | 2-DH1  | 79                        | 15    | PASS   |
| 8DPSK         | 3-DH1  | 79                        | 15    | PASS   |

### Test Graphs

