



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>           | Keypad                       |
| <b>Model Number:</b>    | E60                          |
| <b>Trade Name:</b>      | Q ACOUSTICS                  |
| <b>Sample Number:</b>   | 33000254936                  |
| <b>Date of Receipt:</b> | Oct 24, 2025                 |
| <b>Date of Test:</b>    | Oct 24, 2025 ~ Nov. 24, 2025 |
| <b>FCC ID:</b>          | YGM-E60                      |
| <b>IC:</b>              | 21567-E60                    |

## A.1 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       | DH1         | 0       | 1.70                    | 1.48                   | None                  | ≤30         | PASS   |
|            |             | 39      | -0.69                   | 0.85                   | None                  |             | PASS   |
|            |             | 78      | -2.43                   | 0.57                   | None                  |             | PASS   |
| π/4DQPSK   | 2-DH1       | 0       | 1.57                    | 1.44                   | None                  |             | PASS   |
|            |             | 39      | -0.67                   | 0.86                   | None                  |             | PASS   |
|            |             | 78      | -2.47                   | 0.57                   | None                  |             | PASS   |
| 8DPSK      | 3-DH1       | 0       | 1.56                    | 1.43                   | None                  |             | PASS   |
|            |             | 39      | -0.71                   | 0.85                   | None                  |             | PASS   |
|            |             | 78      | -2.47                   | 0.57                   | None                  |             | PASS   |

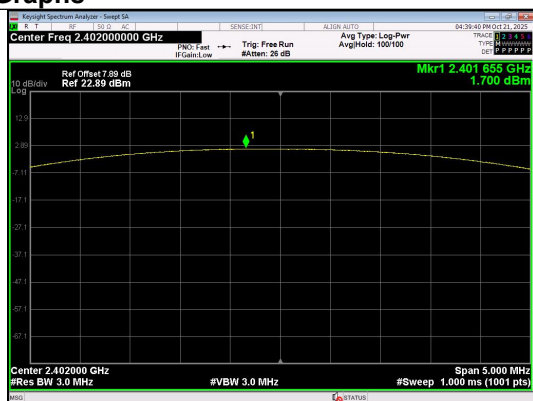
| Modulation | Packet Type | Peak Output Power (dBm) | Peak Power Limit (dBm) | Antenna Gain (dBi) | ISED EIRP (dBm) | ISED EIRP Limit (dBm) | Max. Avg. Power (dBm) | Result |
|------------|-------------|-------------------------|------------------------|--------------------|-----------------|-----------------------|-----------------------|--------|
| GFSK       | DH1         | 1.70                    | ≤30                    | 1.95               | 3.65            | ≤36.02                | None                  | PASS   |
|            |             | -0.69                   | ≤30                    | 1.95               | 1.26            | ≤36.02                | None                  | PASS   |
|            |             | -2.43                   | ≤30                    | 1.95               | -0.48           | ≤36.02                | None                  | PASS   |
| π/4DQPSK   | 2-DH1       | 1.57                    | ≤30                    | 1.95               | 3.52            | ≤36.02                | None                  | PASS   |
|            |             | -0.67                   | ≤30                    | 1.95               | 1.28            | ≤36.02                | None                  | PASS   |
|            |             | -2.47                   | ≤30                    | 1.95               | -0.52           | ≤36.02                | None                  | PASS   |
| 8DPSK      | 3-DH1       | 1.56                    | ≤30                    | 1.95               | 3.51            | ≤36.02                | None                  | PASS   |
|            |             | -0.71                   | ≤30                    | 1.95               | 1.24            | ≤36.02                | None                  | PASS   |
|            |             | -2.47                   | ≤30                    | 1.95               | -0.52           | ≤36.02                | None                  | PASS   |

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

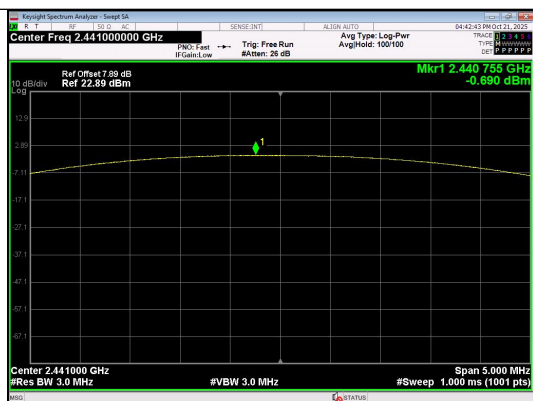


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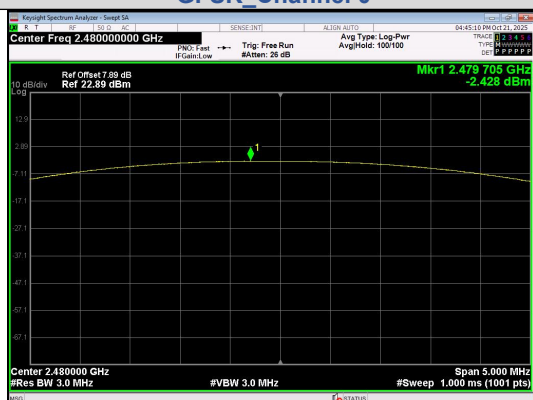
## Test Graphs



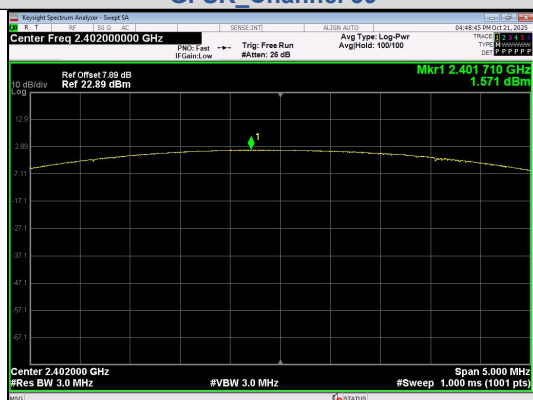
Peak Output Power  
GFSK\_Channel 0



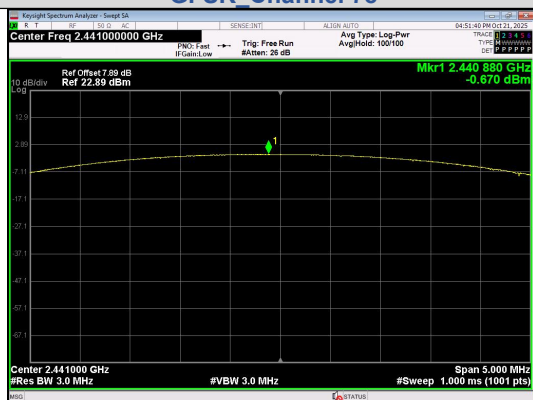
Peak Output Power  
GFSK\_Channel 39



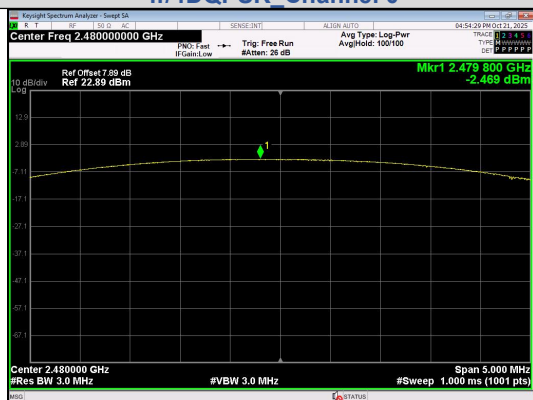
Peak Output Power  
GFSK\_Channel 78



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



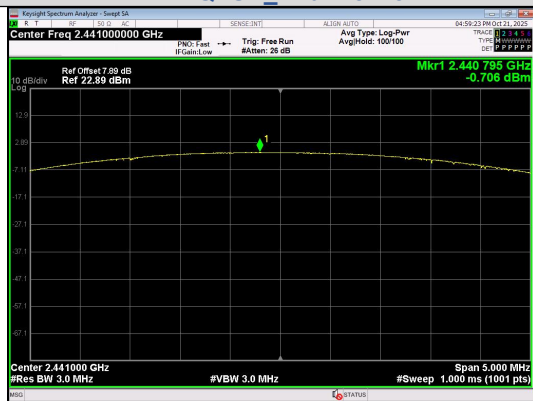
Peak Output Power  
 $\pi/4$ QPSK\_Channel 39



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



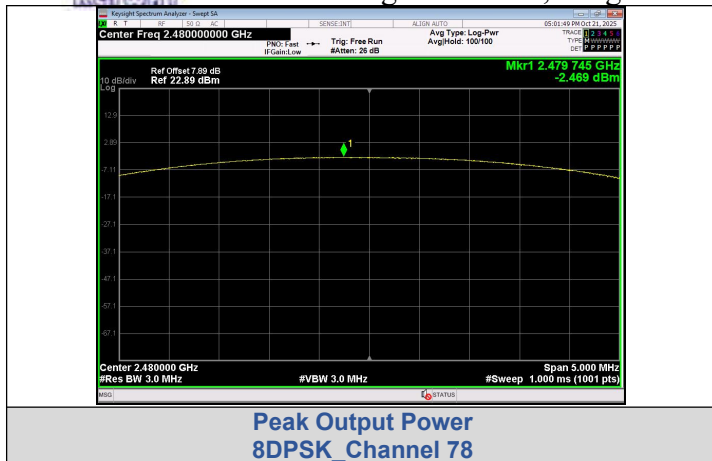
Peak Output Power  
8DPSK\_Channel 0



Peak Output Power  
8DPSK\_Channel 39



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## A.2 99% BANDWIDTH

### Test Result

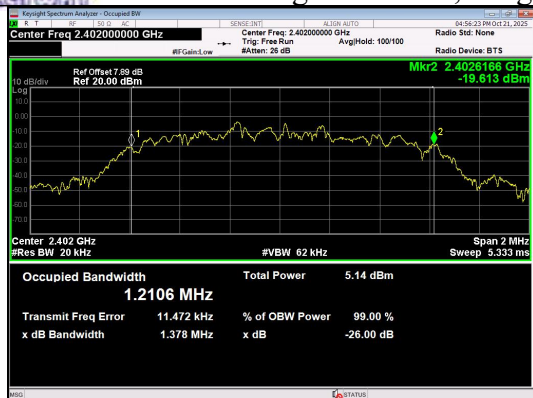
| Modulation    | Channel | Center Frequency (MHz) | 99% BW (MHz) |
|---------------|---------|------------------------|--------------|
| GFSK          | 0       | 2402                   | 0.91606      |
|               | 39      | 2441                   | 0.92103      |
|               | 78      | 2480                   | 0.91469      |
| $\pi$ /4DQPSK | 0       | 2402                   | 1.1779       |
|               | 39      | 2441                   | 1.1421       |
|               | 78      | 2480                   | 1.1770       |
| 8DPSK         | 0       | 2402                   | 1.2106       |
|               | 39      | 2441                   | 1.2092       |
|               | 78      | 2480                   | 1.1907       |

### Test Graphs





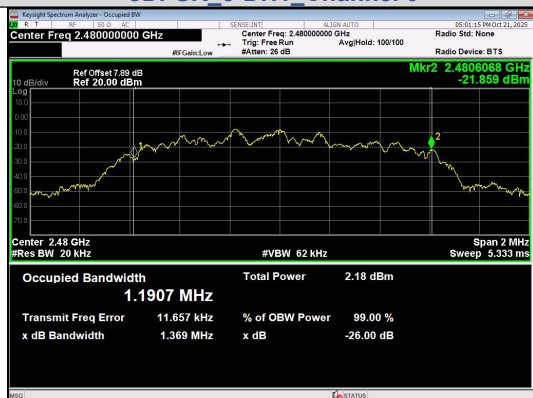
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8DPSK\_3-DH1\_Channel 0



8DPSK\_3-DH1\_Channel 39



8DPSK\_3-DH1\_Channel 78



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## A.3 20DB BANDWIDTH

### Test Result

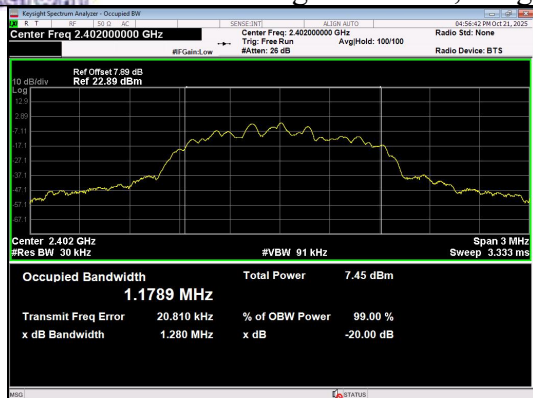
| Modulation    | Channel | Center Frequency (MHz) | 20 dB Bandwidth (MHz) |
|---------------|---------|------------------------|-----------------------|
| GFSK          | 0       | 2402 MHz               | 1.035                 |
|               | 39      | 2441 MHz               | 1.015                 |
|               | 78      | 2480 MHz               | 1.016                 |
| $\pi$ /4DQPSK | 0       | 2402 MHz               | 1.290                 |
|               | 39      | 2441 MHz               | 1.294                 |
|               | 78      | 2480 MHz               | 1.289                 |
| 8DPSK         | 0       | 2402 MHz               | 1.280                 |
|               | 39      | 2441 MHz               | 1.281                 |
|               | 78      | 2480 MHz               | 1.280                 |

### Test Graphs





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8DPSK\_3-DH1\_Channel 0



8DPSK\_3-DH1\_Channel 39



8DPSK\_3-DH1\_Channel 78



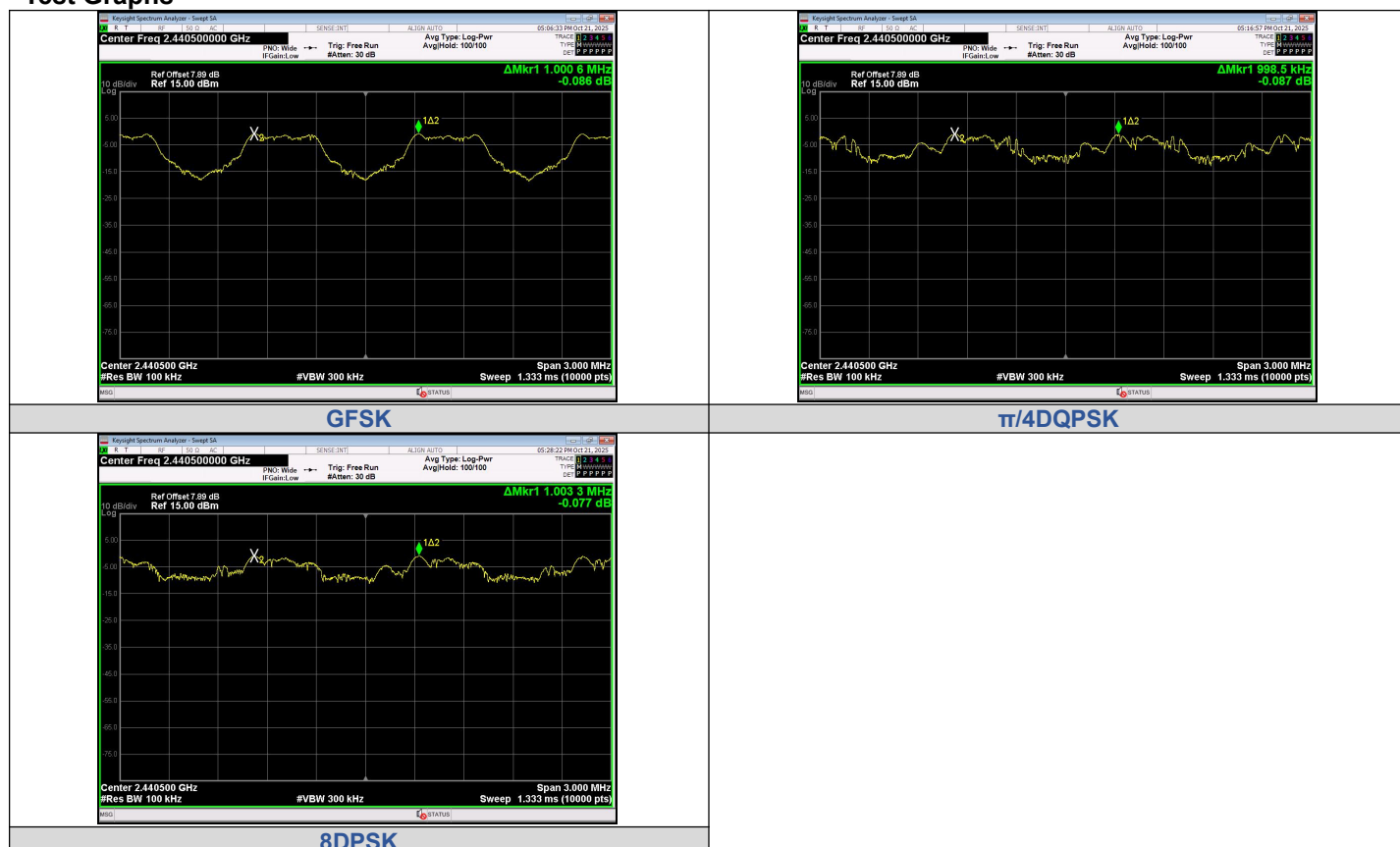
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## A.4 CARRIER FREQUENCIES SEPARATION

### Test Result

| Modulation    | Packet | Left Center frequency (MHz) | Right Center frequency (MHz) | Hopping Frequency Separation (MHz) | Limit (MHz) | Result |
|---------------|--------|-----------------------------|------------------------------|------------------------------------|-------------|--------|
| GFSK          | DH1    | 2439.8215                   | 2440.8221                    | 1.0006                             | 0.69        | PASS   |
| $\pi/4$ DQPSK | 2-DH1  | 2439.8248                   | 2440.8233                    | 0.9985                             | 0.863       | PASS   |
| 8DPSK         | 3-DH1  | 2439.8218                   | 2440.8251                    | 1.0033                             | 0.854       | 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       | 2306.07                      | -46.048                  | -18.52      | -27.528         | PASS   |
|               |        |         | 2400.00                      | -36.668                  | -18.52      | -18.148         | PASS   |
|               |        | 39      | 2345.40                      | -45.437                  | -20.91      | -24.527         | PASS   |
|               |        | 78      | 2336.04                      | -46.321                  | -22.65      | -23.671         | PASS   |
|               |        |         | 2483.50                      | -55.889                  | -22.65      | -33.239         | PASS   |
| $\pi/4$ DQPSK | 2-DH1  | 0       | 2353.52                      | -46.302                  | -18.66      | -27.642         | PASS   |
|               |        |         | 2400.00                      | -36.643                  | -18.66      | -17.983         | PASS   |
|               |        | 39      | 21555.9                      | -46.844                  | -20.95      | -25.894         | PASS   |
|               |        | 78      | 2483.50                      | -55.944                  | -22.66      | -33.284         | PASS   |
|               |        |         | 21175.8                      | -46.763                  | -22.66      | -24.103         | PASS   |
| 8DPSK         | 3-DH1  | 0       | 2306.07                      | -46.286                  | -18.63      | -27.656         | PASS   |
|               |        |         | 2400.00                      | -36.933                  | -18.63      | -18.303         | PASS   |
|               |        | 39      | 21216.3                      | -46.311                  | -20.95      | -25.361         | PASS   |
|               |        | 78      | 2483.50                      | -56.979                  | -22.67      | -34.309         | PASS   |
|               |        |         | 21166.4                      | -46.407                  | -22.67      | -23.737         | PASS   |

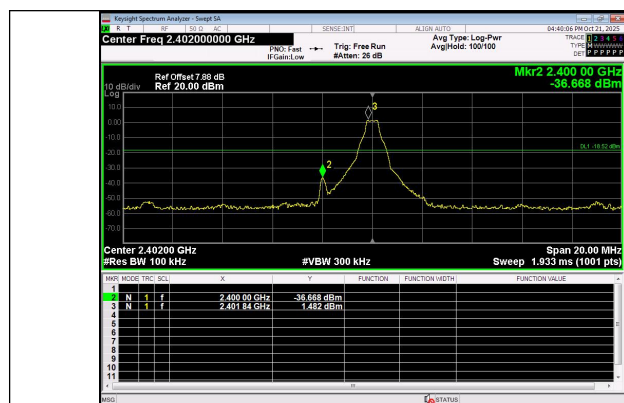
Note: input compensation coefficient (dB)= Cable Loss (dB)

#### Hopping

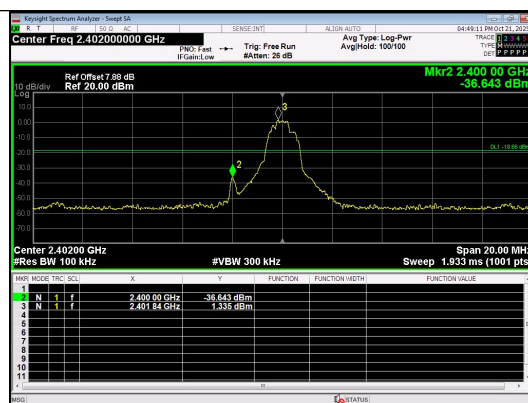
| Hopping       |        |         |                              |                          |             |                 |        |
|---------------|--------|---------|------------------------------|--------------------------|-------------|-----------------|--------|
| Modulation    | Packet | Channel | OOB Emission Frequency (MHz) | OOB Emission Level (dBm) | Limit (dBm) | Over Limit (dB) | Result |
| GFSK          | DH1    | Hopping | 2400.00                      | -36.843                  | -18.68      | -18.163         | PASS   |
|               |        |         | 2483.50                      | -55.381                  | -22.4       | -32.981         | PASS   |
| $\pi/4$ DQPSK | 2-DH1  |         | 2400.00                      | -37.171                  | -18.71      | -18.461         | PASS   |
|               |        |         | 2483.50                      | -53.667                  | -22.44      | -31.227         | PASS   |
| 8DPSK         | 3-DH1  |         | 2400.00                      | -36.720                  | -18.66      | -18.060         | PASS   |
|               |        |         | 2483.50                      | -55.516                  | -22.42      | -33.096         | PASS   |

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

### Test Graphs



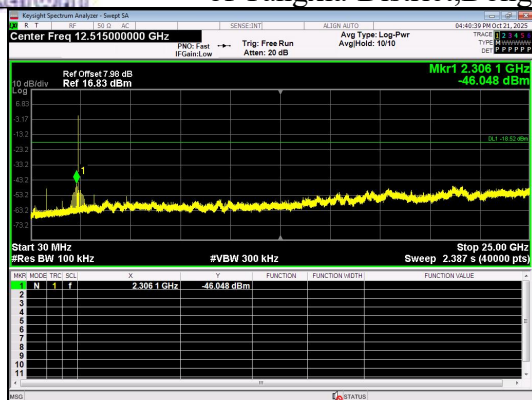
Out Of Band Emission  
GFSK\_DH1\_Channel 0



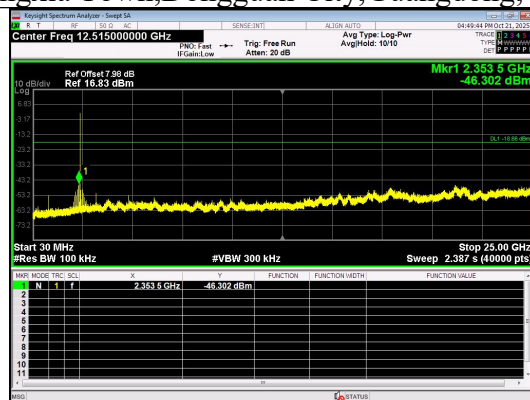
Out Of Band Emission  
 $\pi/4$ DQPSK\_2-DH1\_Channel 0



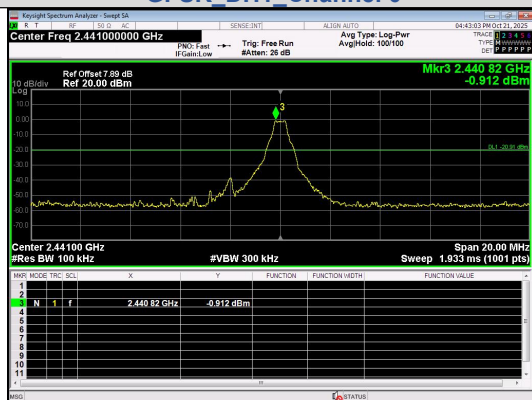
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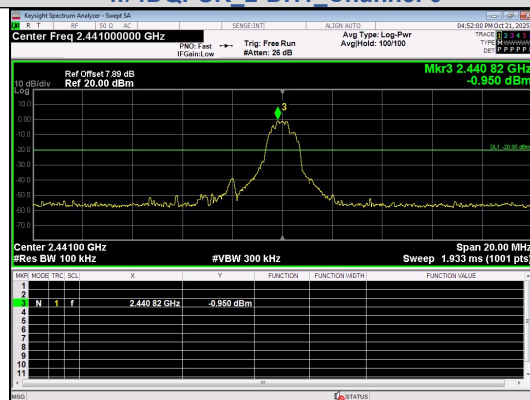
30.0 MHz - 25000.0 MHz  
GFSK\_DH1\_Channel 0



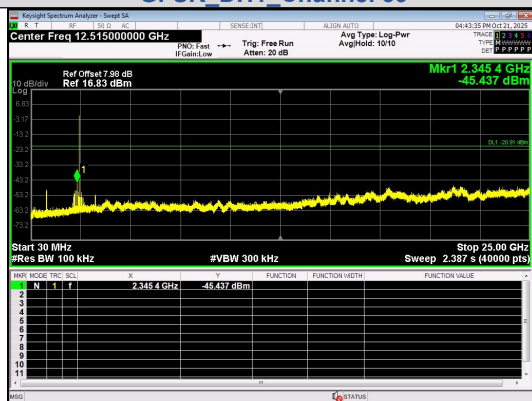
30.0 MHz - 25000.0 MHz  
 $\pi/4$ DQPSK\_2-DH1\_Channel 0



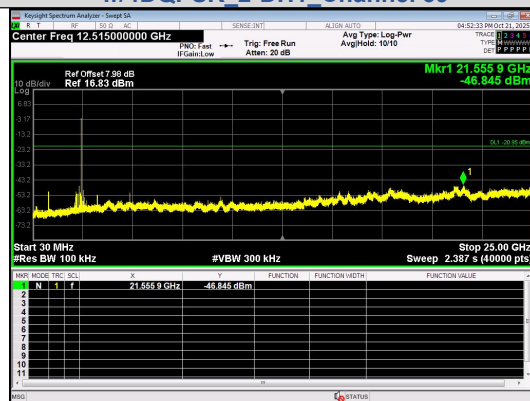
Out Of Band Emission  
GFSK\_DH1\_Channel 39



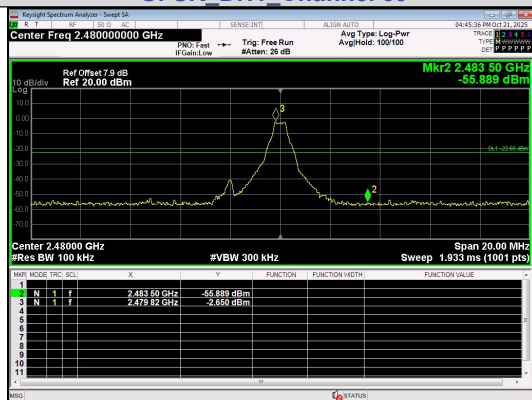
Out Of Band Emission  
 $\pi/4$ DQPSK\_2-DH1\_Channel 39



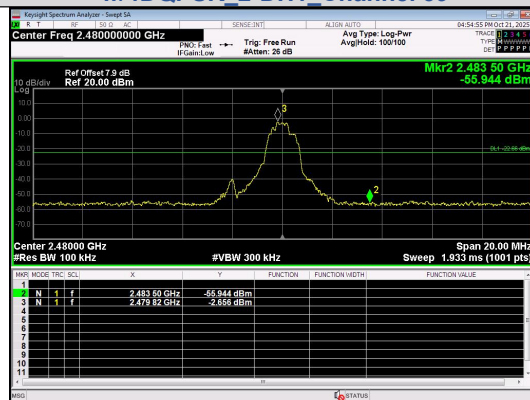
30.0 MHz - 25000.0 MHz  
GFSK\_DH1\_Channel 39



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