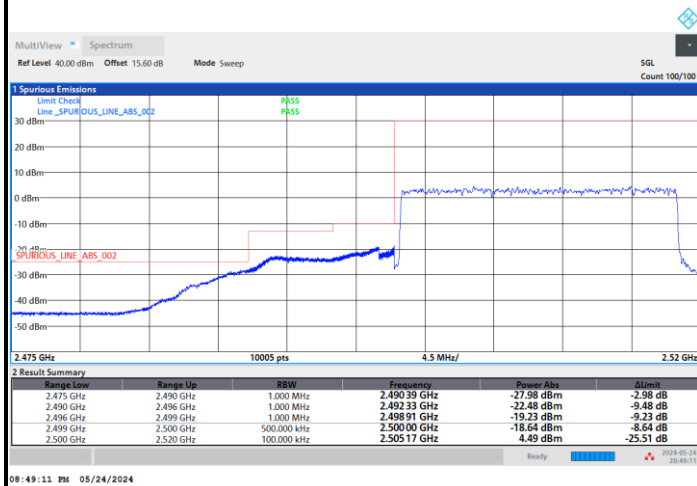


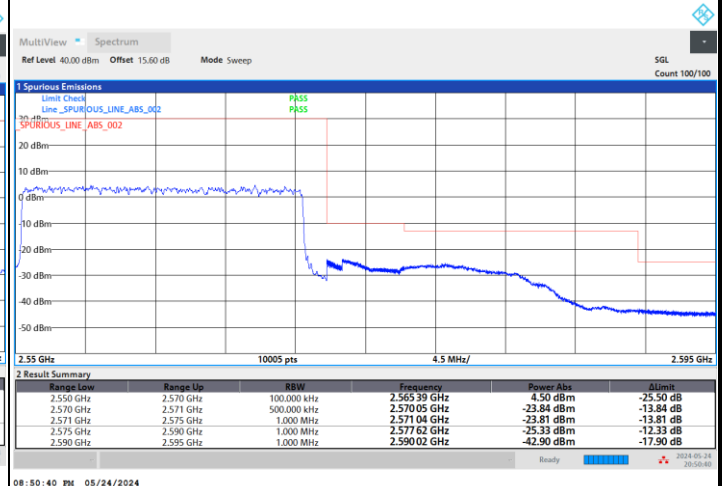


## FR1 n7 / 20MHz / DFT-s-OFDM / PI/2 BPSK

## Lowest Band Edge / Full RB

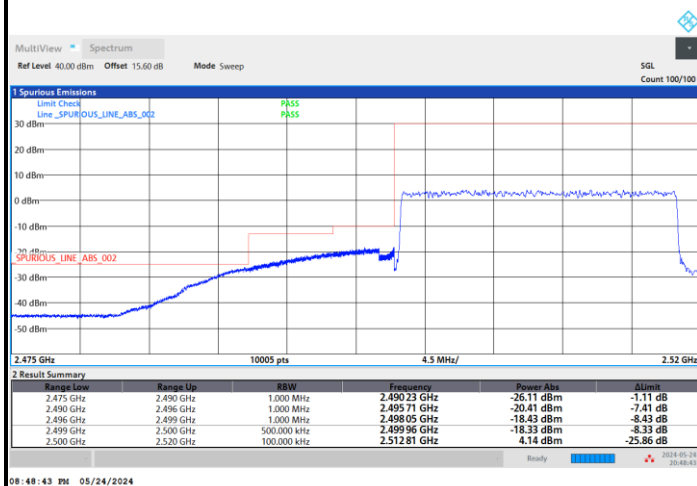


## Highest Band Edge / Full RB

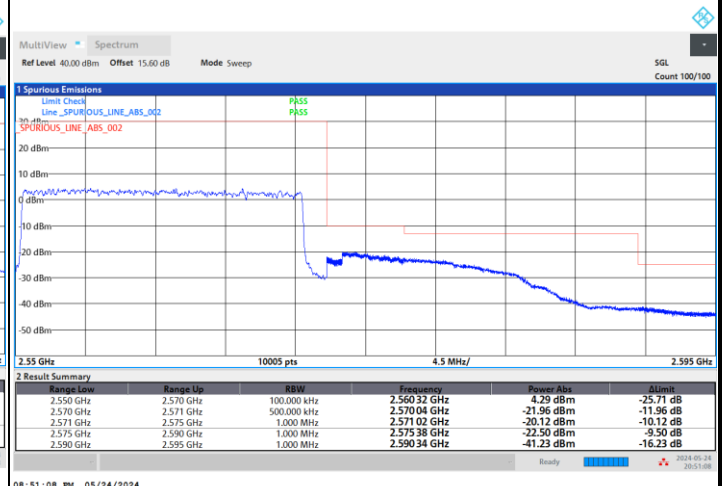


## FR1 n7 / 20MHz / DFT-s-OFDM / QPSK

## Lowest Band Edge / Full RB



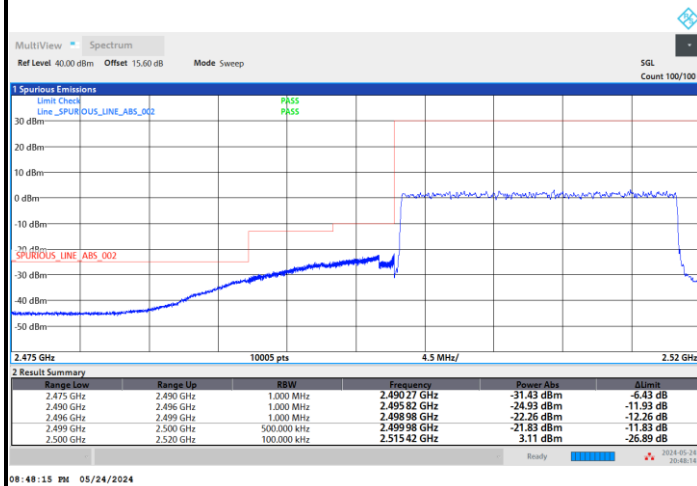
## Highest Band Edge / Full RB



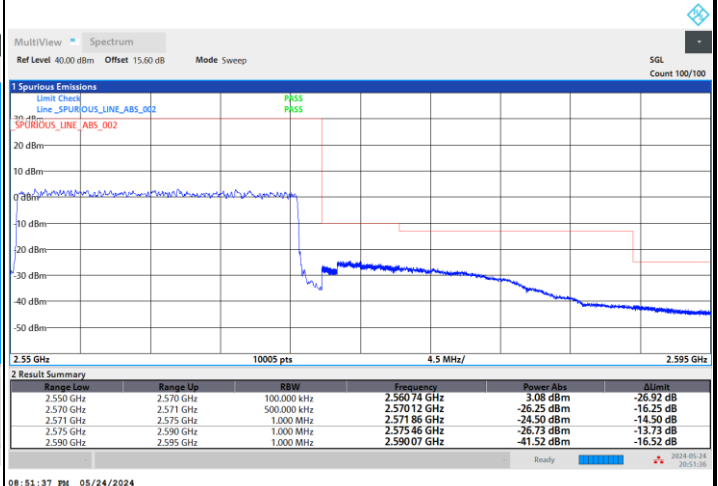


## FR1 n7 / 20MHz / DFT-s-OFDM / 16QAM

## Lowest Band Edge / Full RB

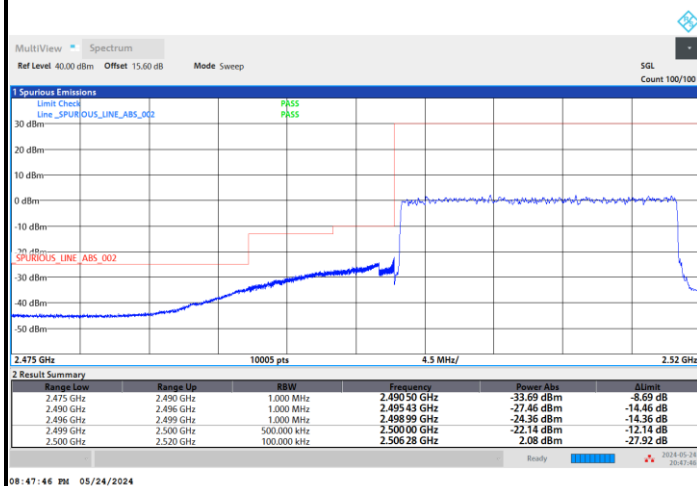


## Highest Band Edge / Full RB

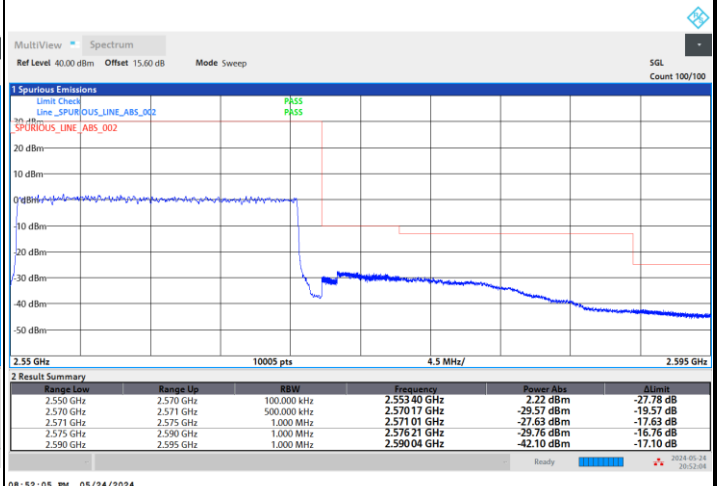


## FR1 n7 / 20MHz / DFT-s-OFDM / 64QAM

## Lowest Band Edge / Full RB



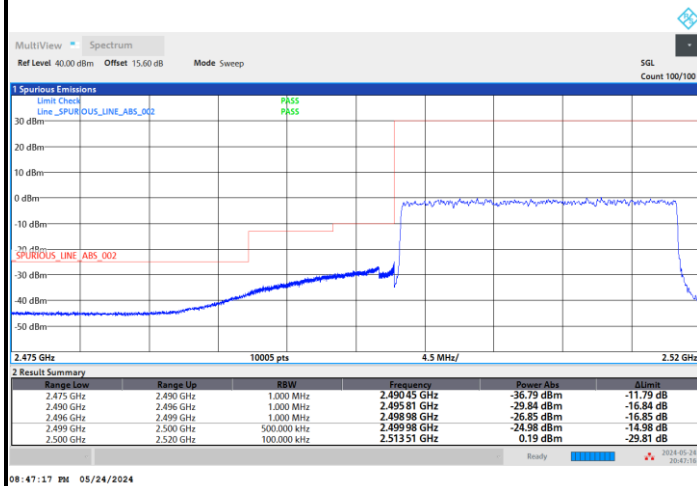
## Highest Band Edge / Full RB



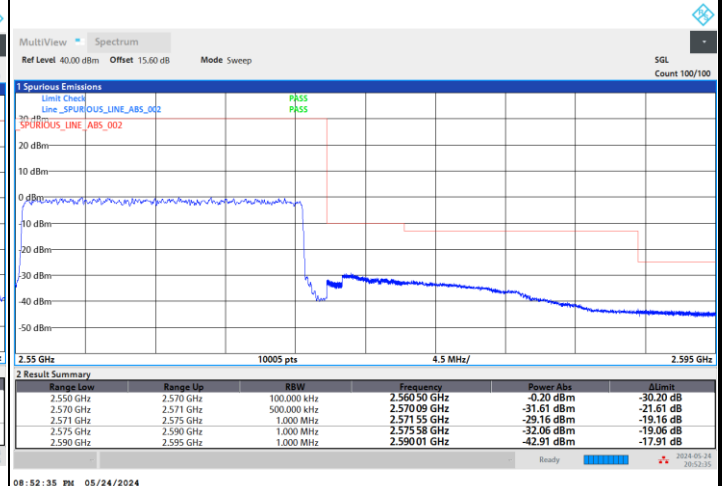


## FR1 n7 / 20MHz / DFT-s-OFDM / 256QAM

## Lowest Band Edge / Full RB

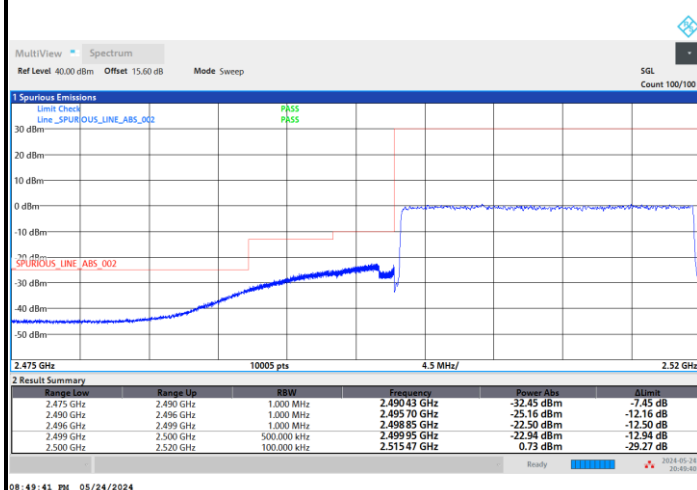


## Highest Band Edge / Full RB

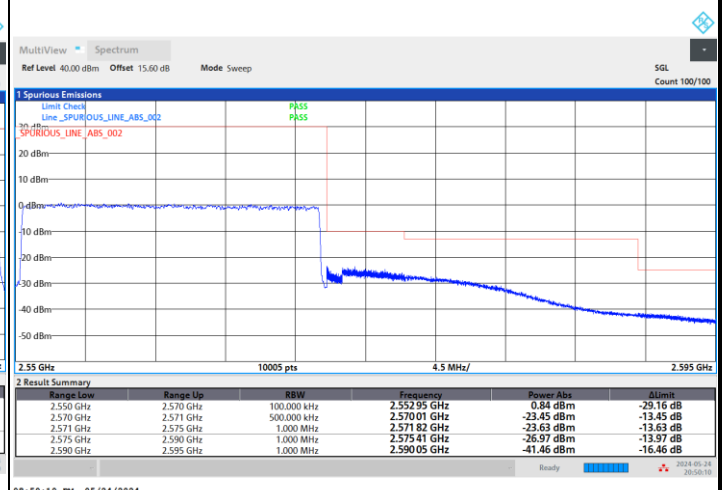


## FR1 n7 / 20MHz / CP OFDM / QPSK / Full RB

## Lowest Band Edge



## Highest Band Edge

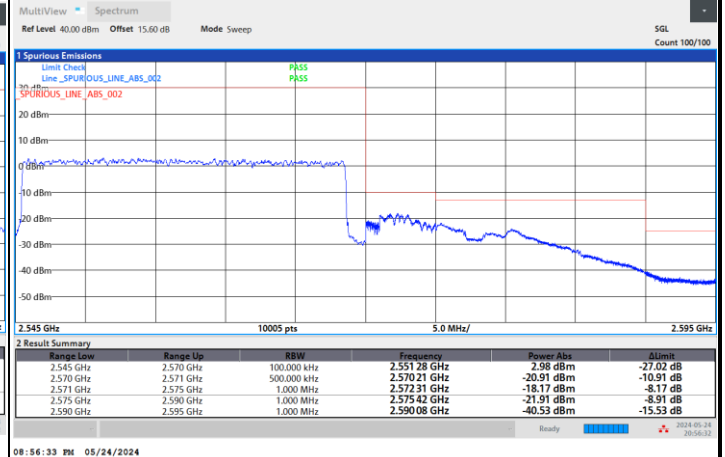
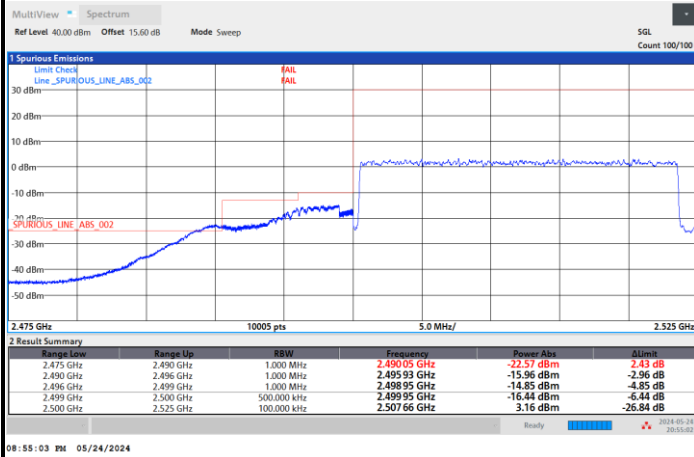




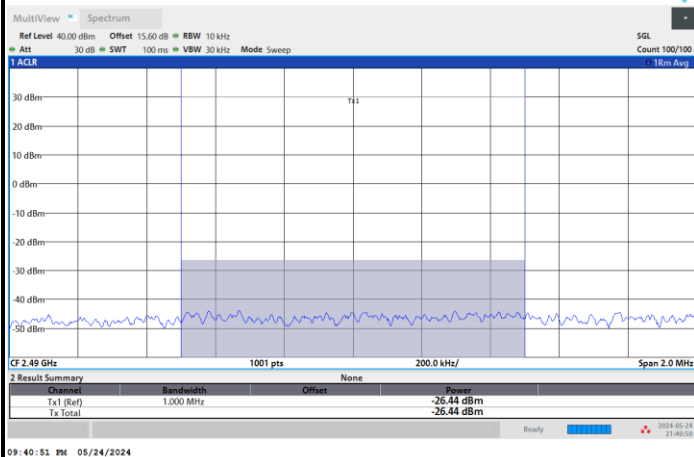
## FR1 n7 / 25MHz / DFT-s-OFDM / PI/2 BPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB



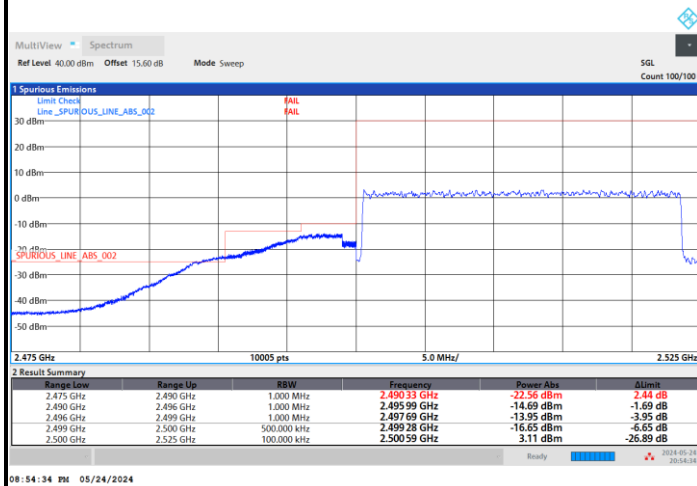
## Channel power -25dBm &gt; -26.44dBm (PASS)



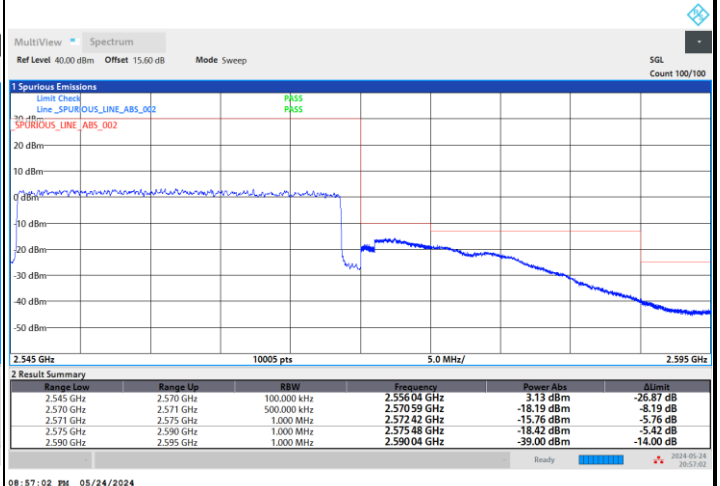


## FR1 n7 / 25MHz / DFT-s-OFDM / QPSK

## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB



## Channel power -25dBm &gt; -25.02dBm (PASS)

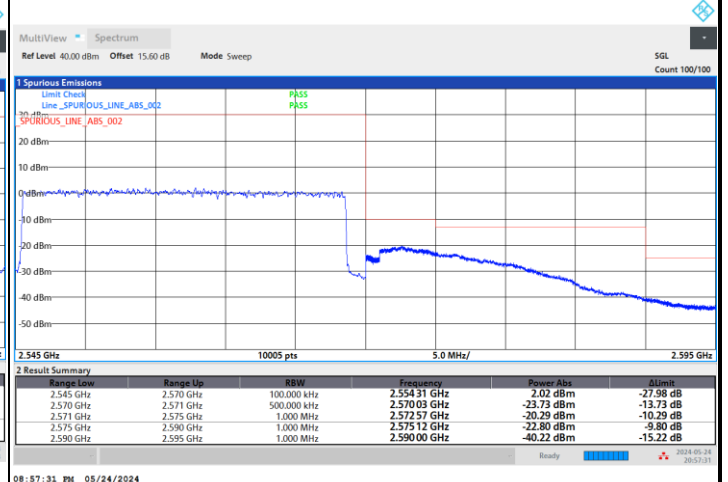
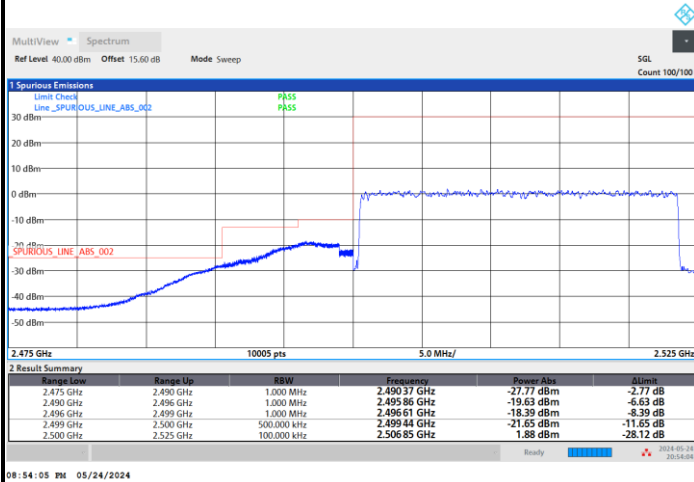




## FR1 n7 / 25MHz / DFT-s-OFDM / 16QAM

## Lowest Band Edge / Full RB

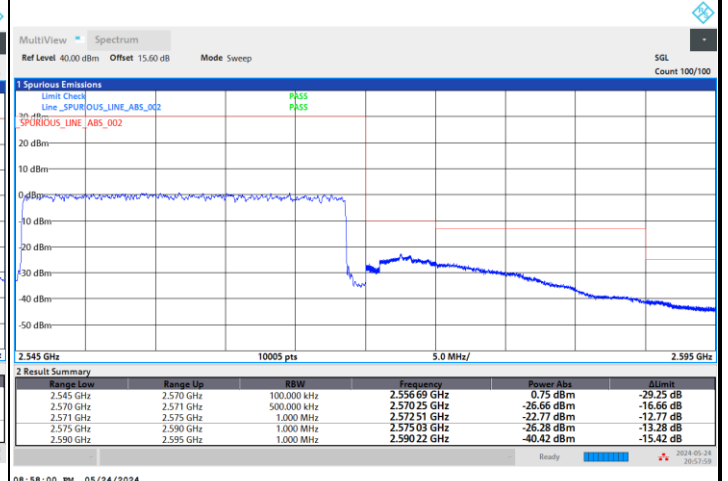
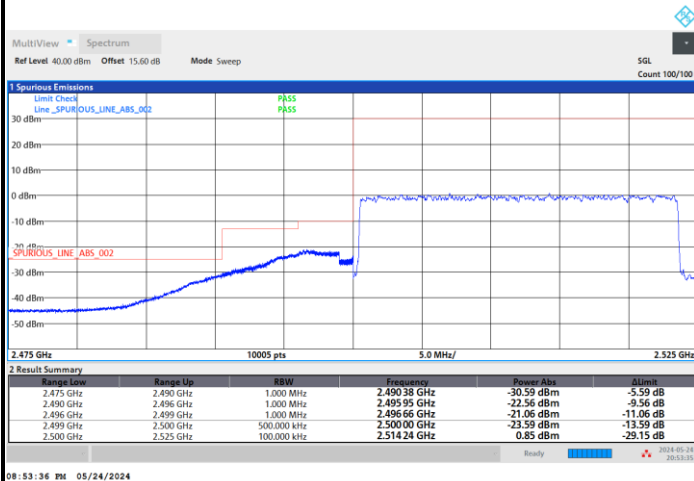
## Highest Band Edge / Full RB



## FR1 n7 / 25MHz / DFT-s-OFDM / 64QAM

## Lowest Band Edge / Full RB

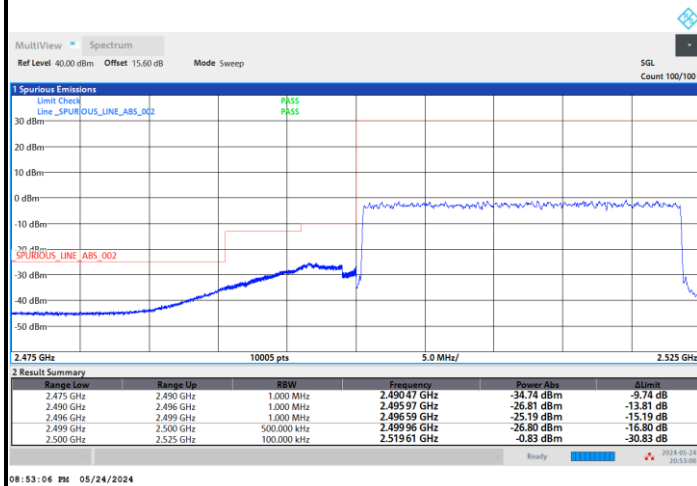
## Highest Band Edge / Full RB



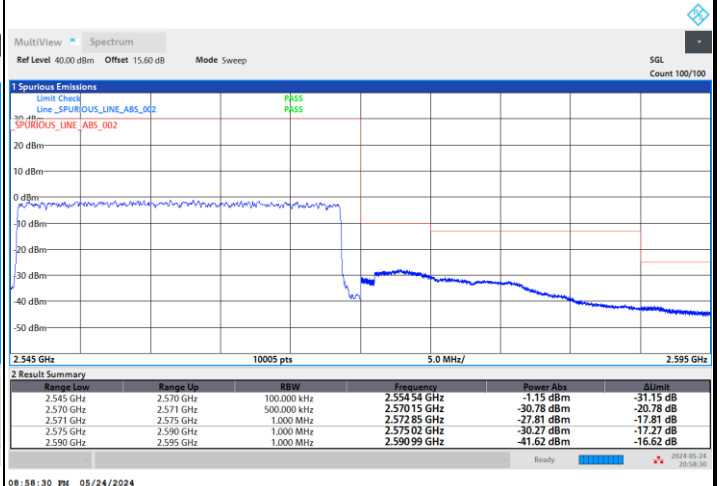


## FR1 n7 / 25MHz / DFT-s-OFDM / 256QAM

## Lowest Band Edge / Full RB

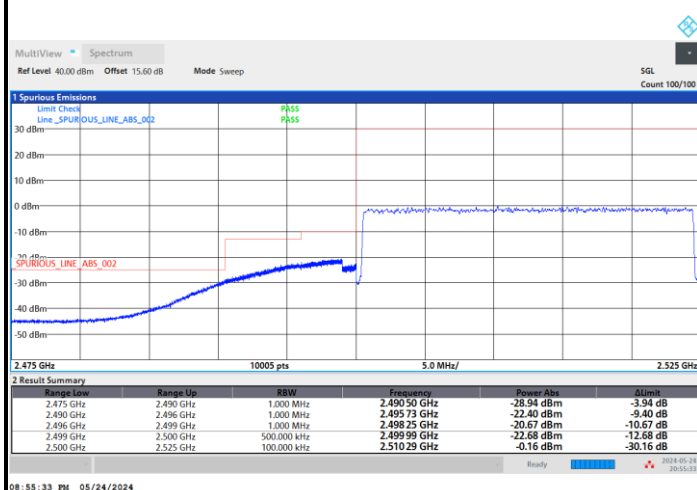


## Highest Band Edge / Full RB

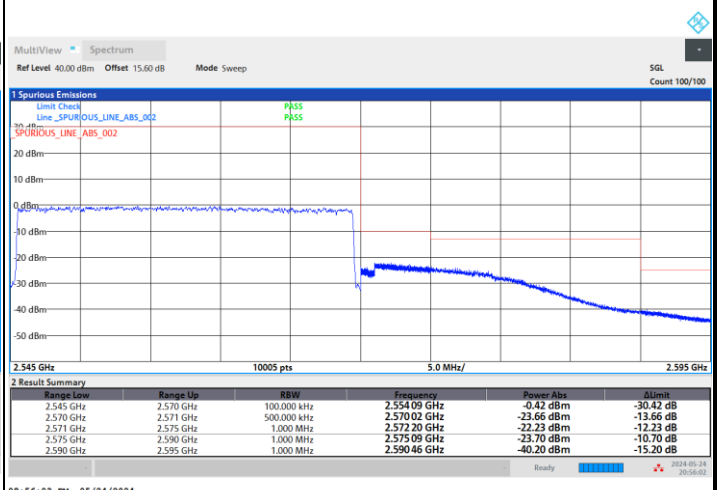


## FR1 n7 / 25MHz / CP OFDM / QPSK / Full RB

## Lowest Band Edge



## Highest Band Edge

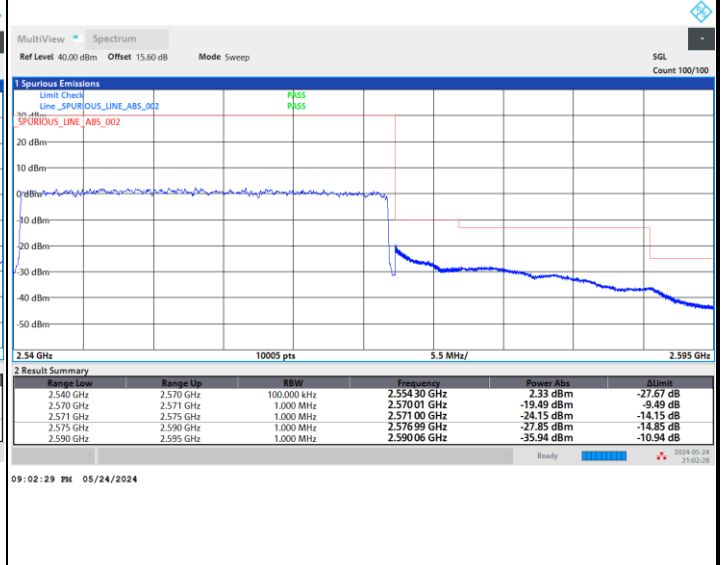
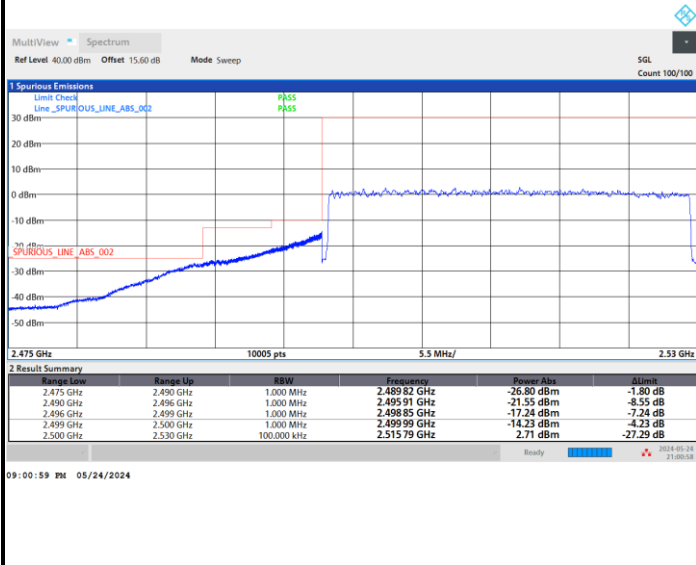




FR1 n7 / 30MHz / DFT-s-OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

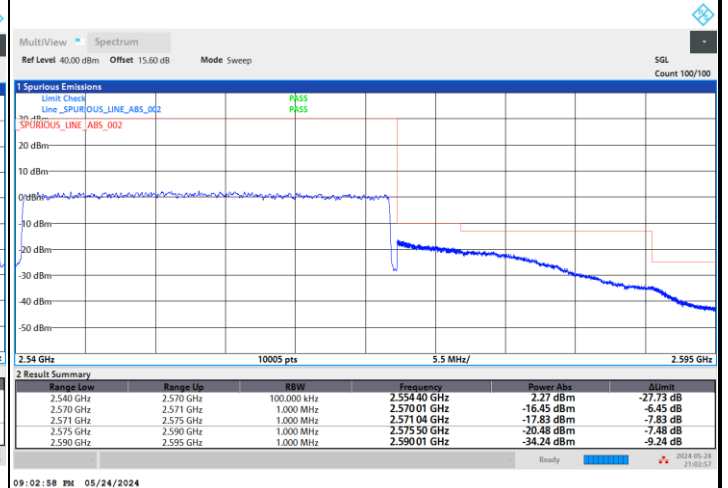
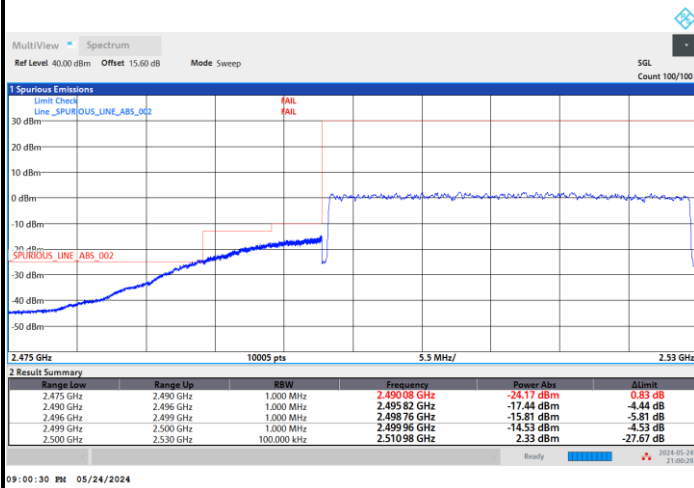




## FR1 n7 / 30MHz / DFT-s-OFDM / QPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB



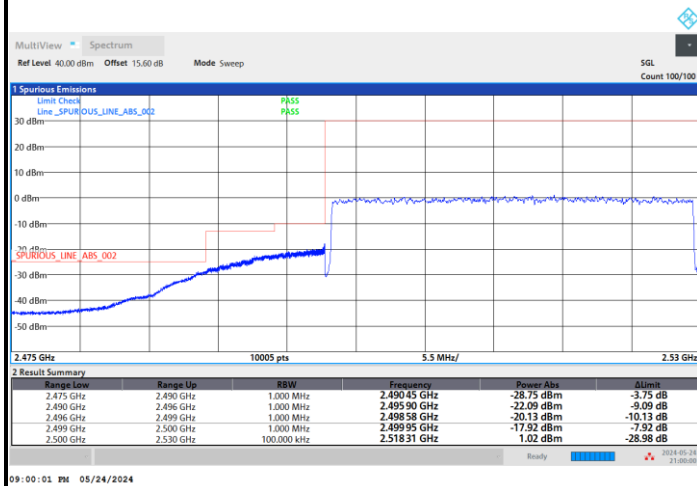
## Channel power -25dBm &gt; -25.44dBm (PASS)



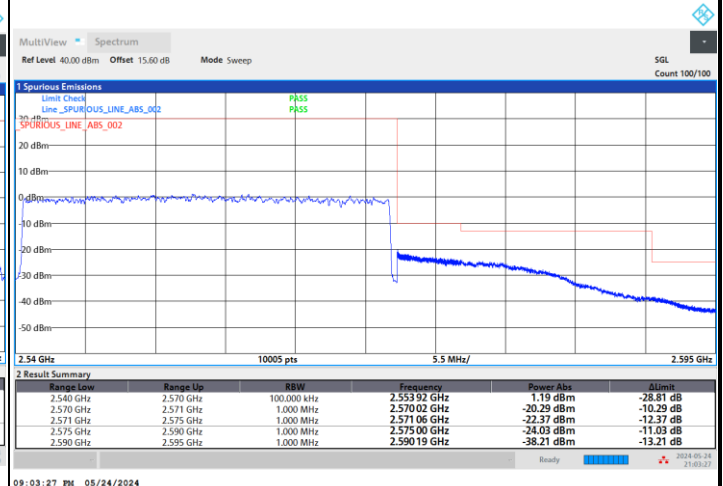


## FR1 n7 / 30MHz / DFT-s-OFDM / 16QAM

## Lowest Band Edge / Full RB

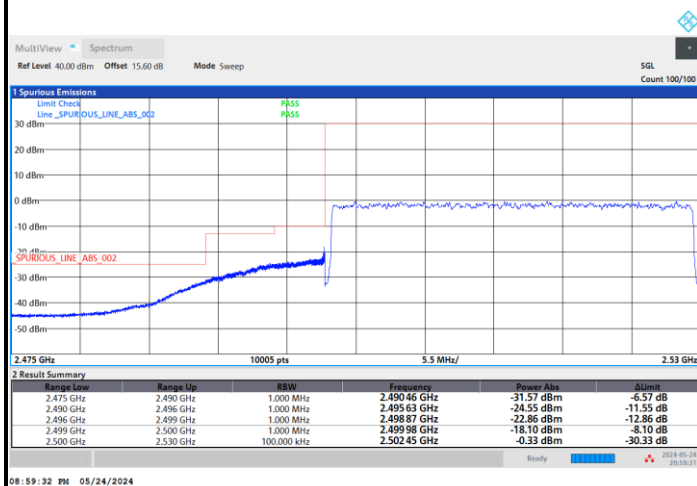


## Highest Band Edge / Full RB

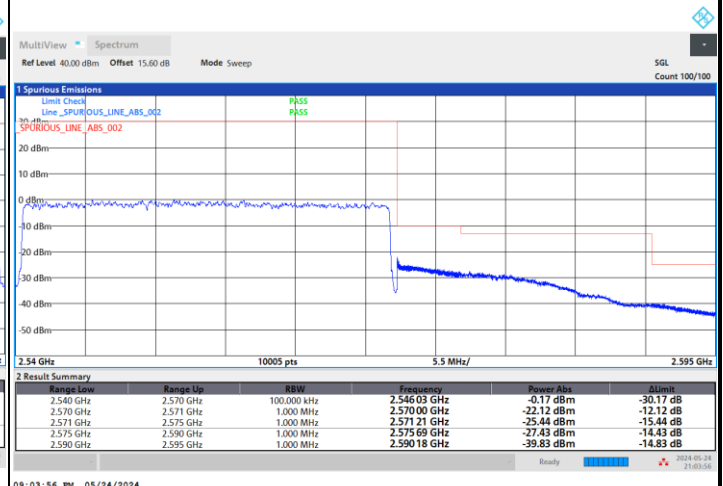


## FR1 n7 / 30MHz / DFT-s-OFDM / 64QAM

## Lowest Band Edge / Full RB



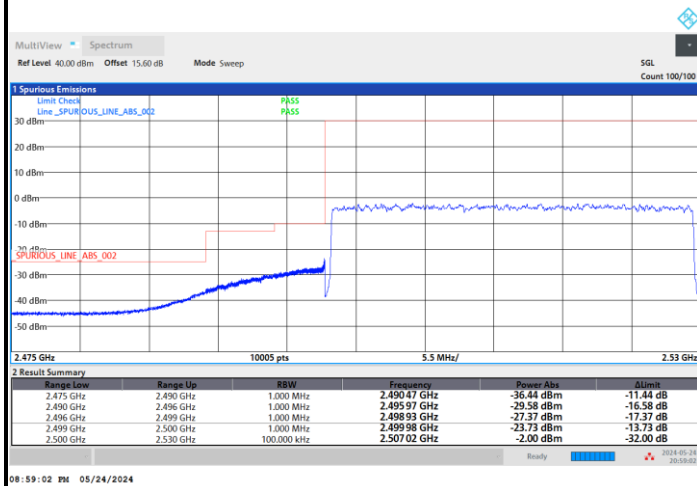
## Highest Band Edge / Full RB



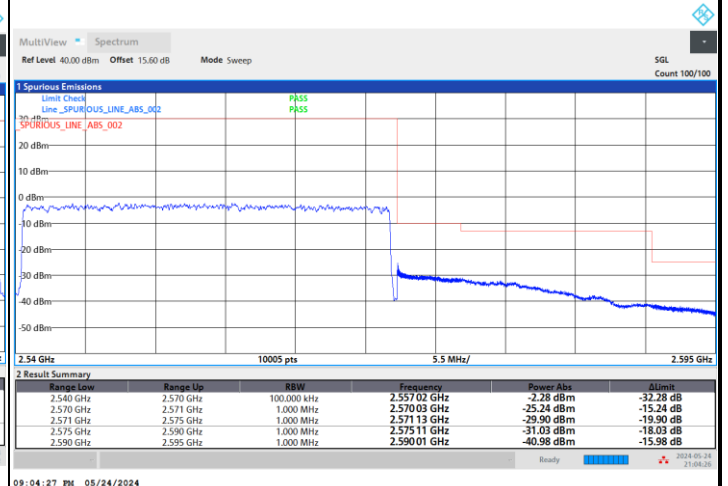


## FR1 n7 / 30MHz / DFT-s-OFDM / 256QAM

## Lowest Band Edge / Full RB

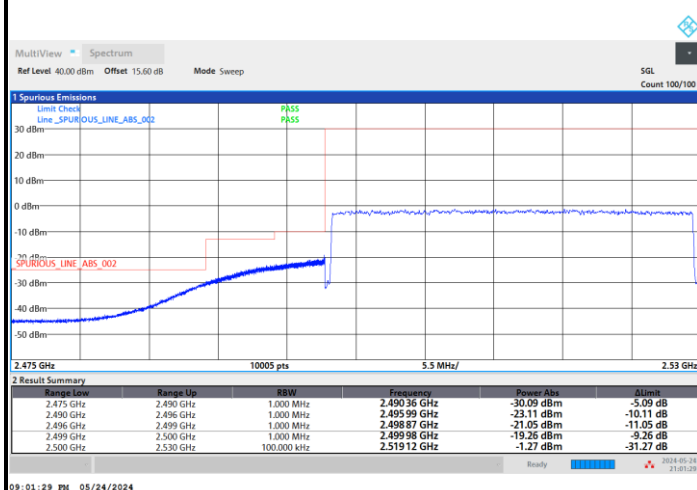


## Highest Band Edge / Full RB

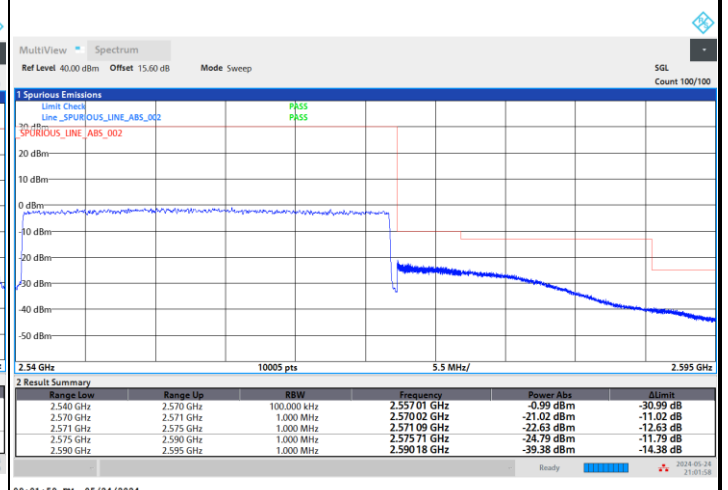


## FR1 n7 / 30MHz / CP OFDM / QPSK / Full RB

## Lowest Band Edge



## Highest Band Edge

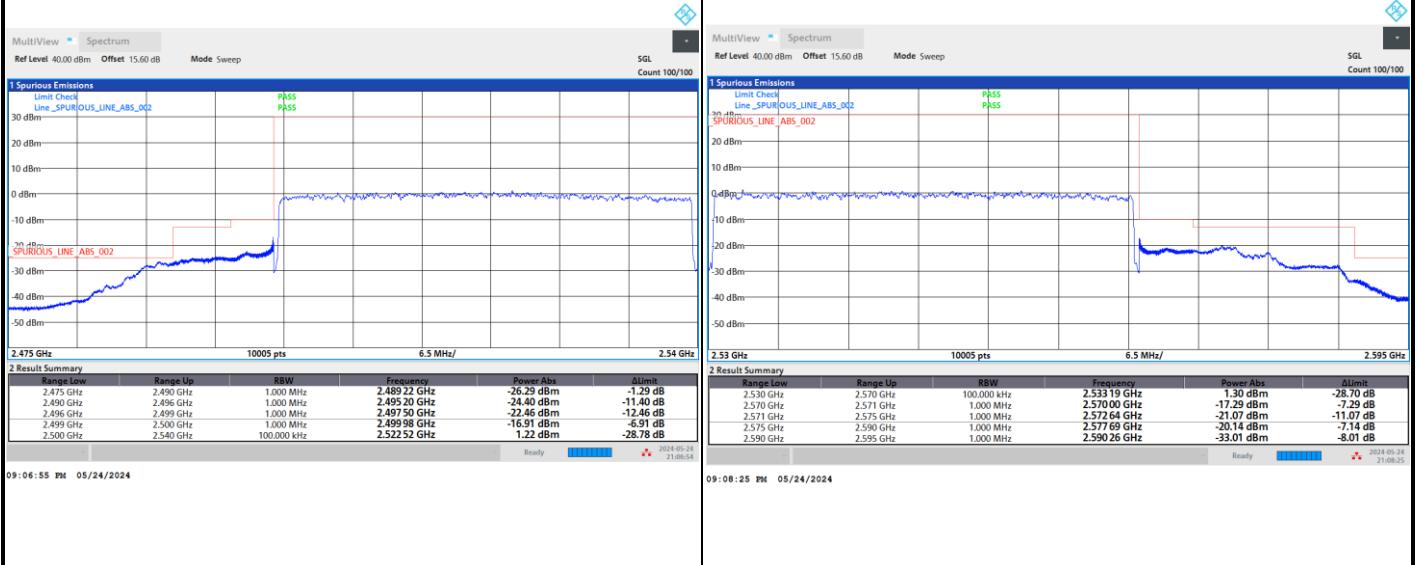




## FR1 n7 / 40MHz / DFT-s-OFDM / PI/2 BPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB

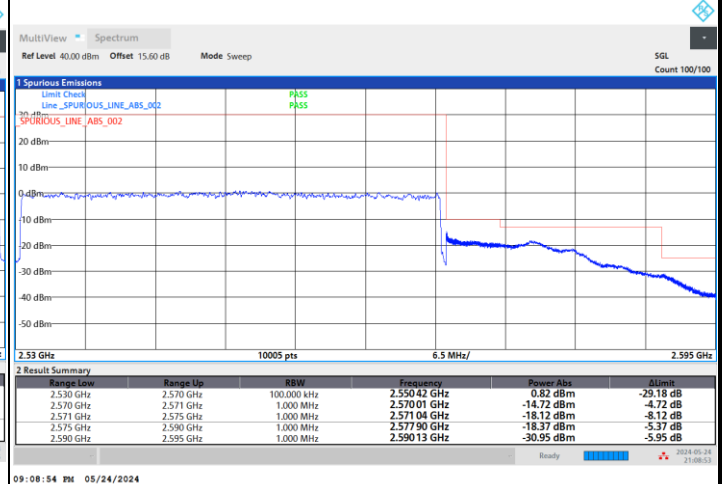
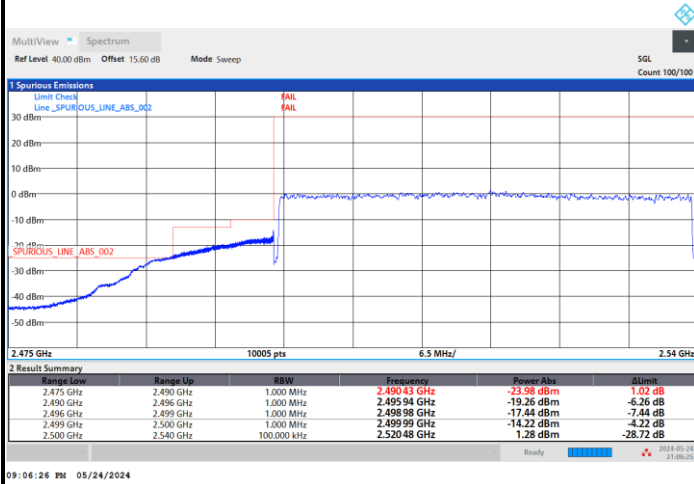




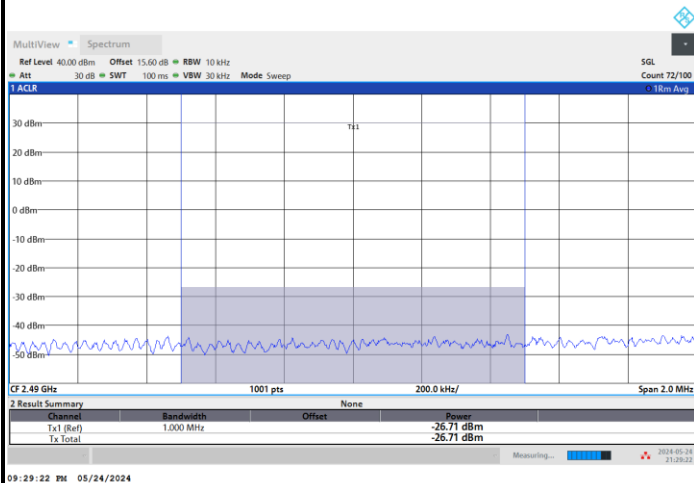
## FR1 n7 / 40MHz / DFT-s-OFDM / QPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB



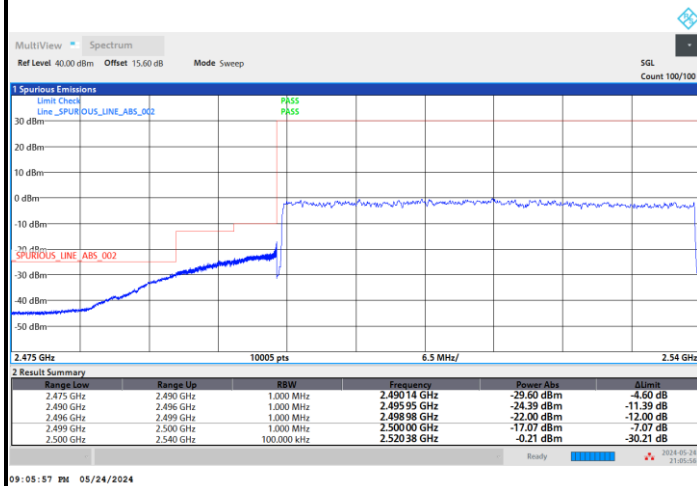
## Channel power -25dBm &gt; -26.71dBm (PASS)



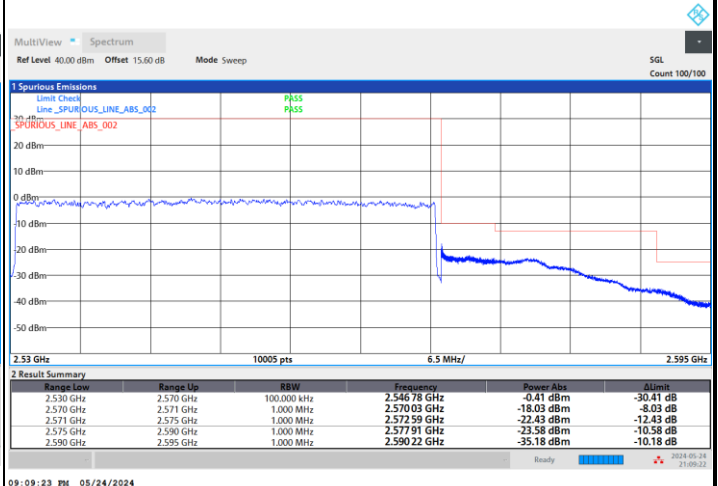


## FR1 n7 / 40MHz / DFT-s-OFDM / 16QAM

## Lowest Band Edge / Full RB

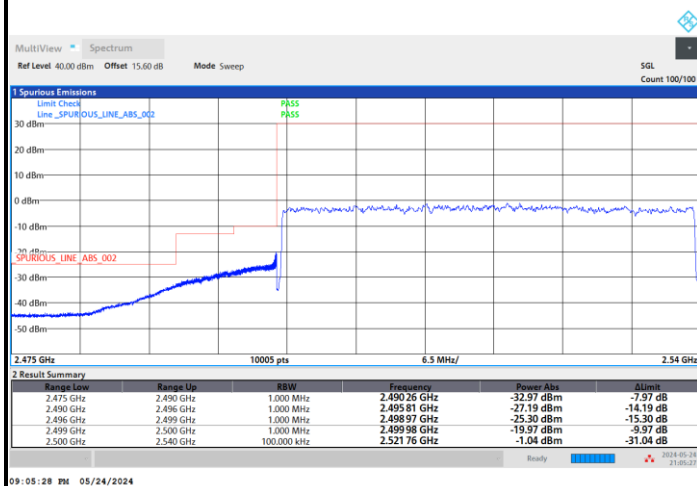


## Highest Band Edge / Full RB

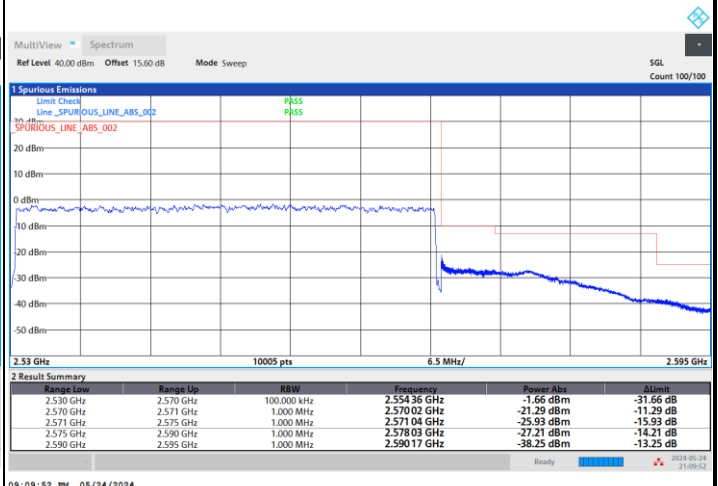


## FR1 n7 / 40MHz / DFT-s-OFDM / 64QAM

## Lowest Band Edge / Full RB



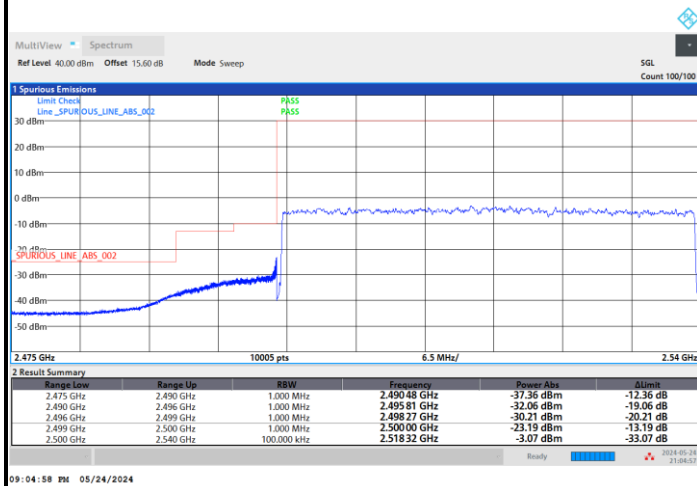
## Highest Band Edge / Full RB



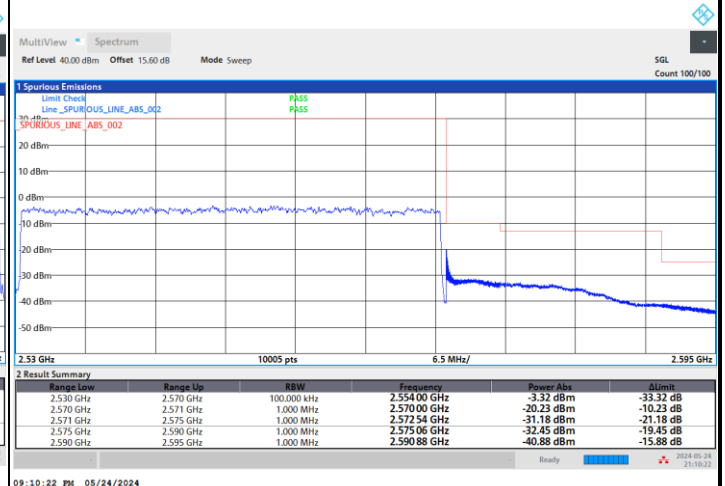


## FR1 n7 / 40MHz / DFT-s-OFDM / 256QAM

## Lowest Band Edge / Full RB

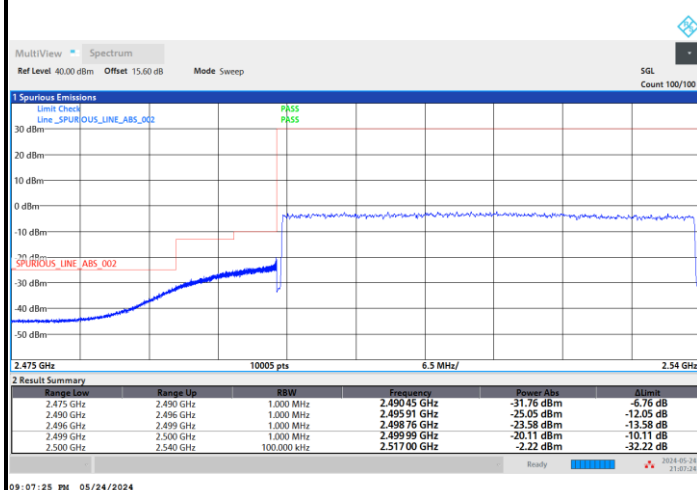


## Highest Band Edge / Full RB

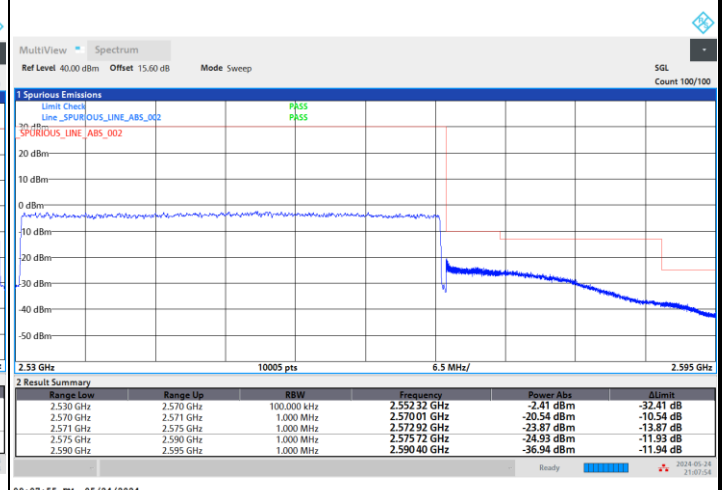


## FR1 n7 / 40MHz / CP OFDM / QPSK / Full RB

## Lowest Band Edge



## Highest Band Edge

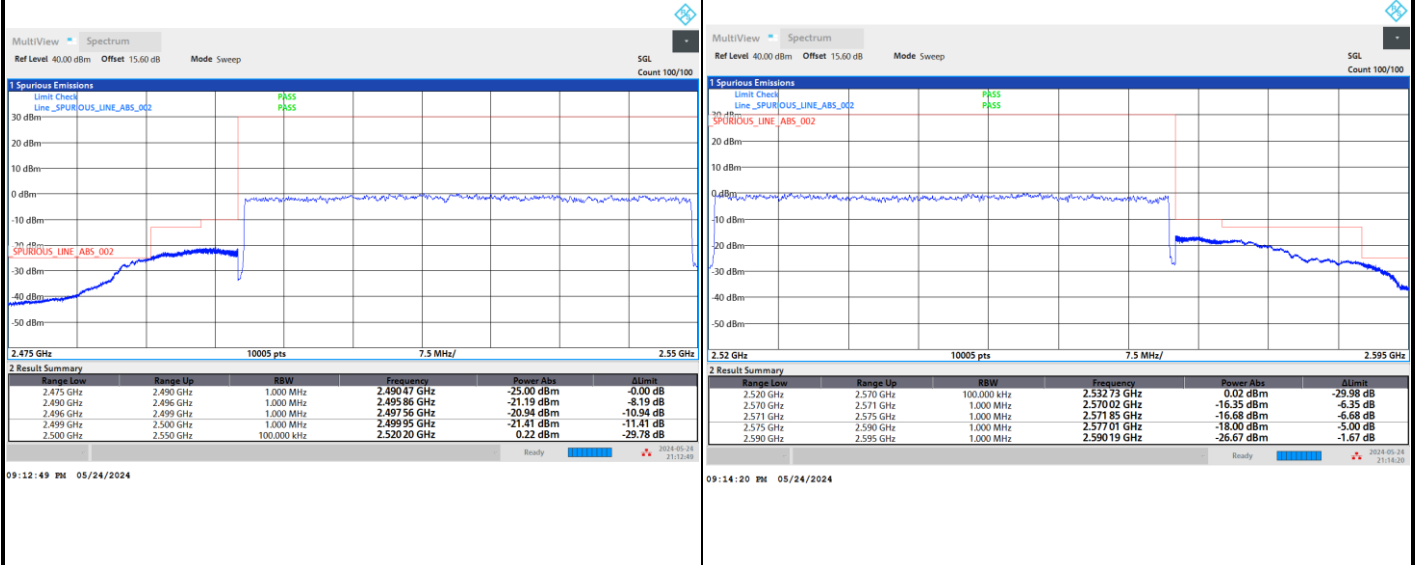




## FR1 n7 / 50MHz / DFT-s-OFDM / PI/2 BPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB

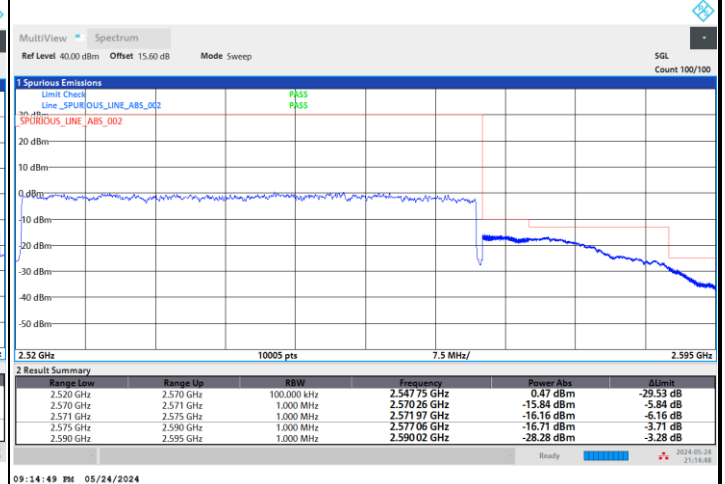
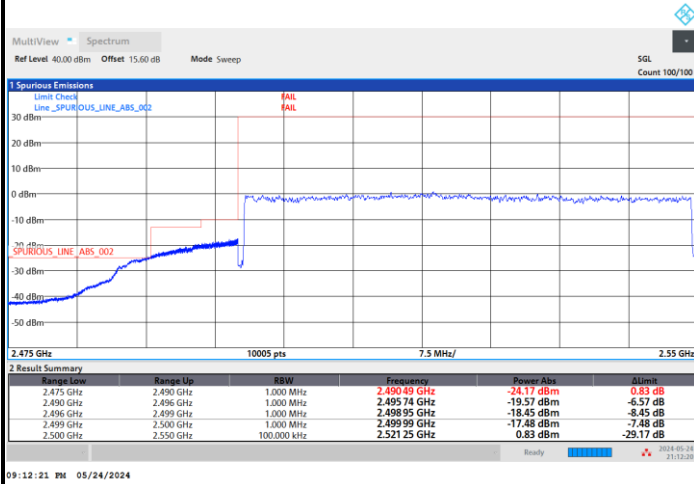




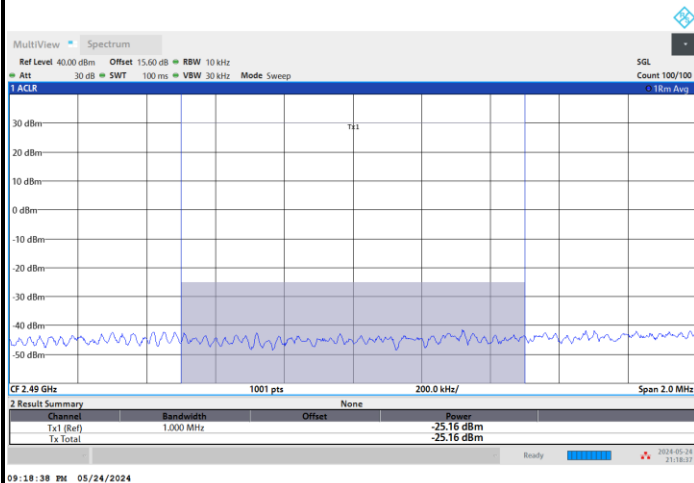
## FR1 n7 / 50MHz / DFT-s-OFDM / QPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB



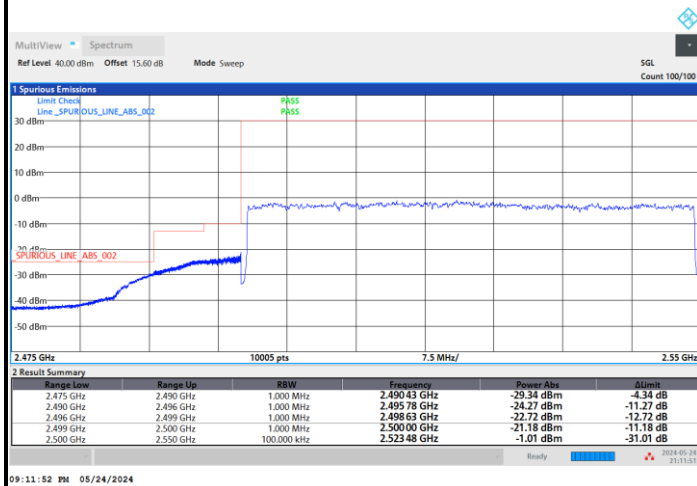
## Channel power -25dBm &gt; -25.16dBm (PASS)



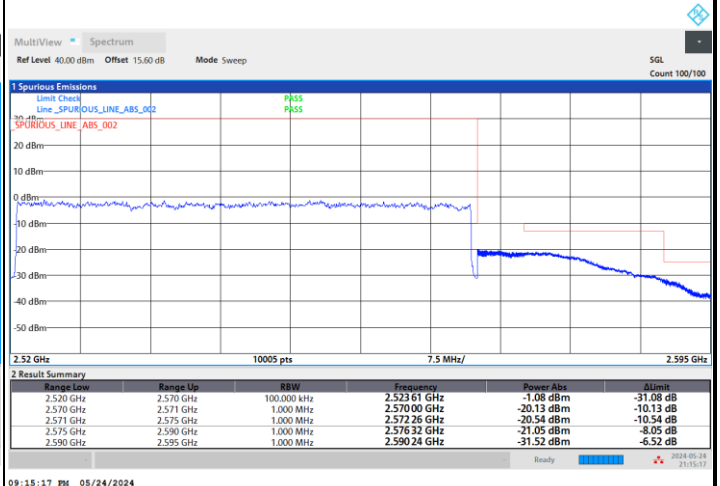


## FR1 n7 / 50MHz / DFT-s-OFDM / 16QAM

## Lowest Band Edge / Full RB

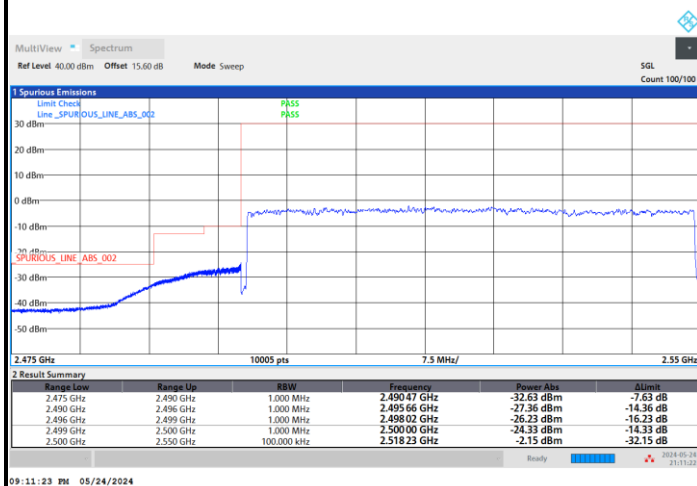


## Highest Band Edge / Full RB

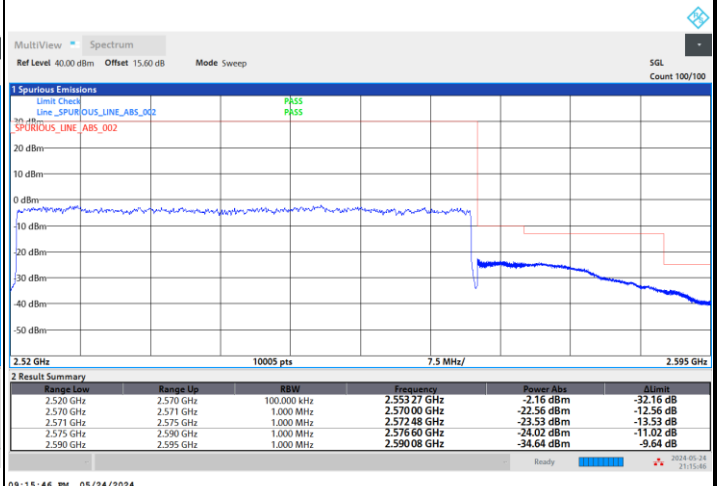


## FR1 n7 / 50MHz / DFT-s-OFDM / 64QAM

## Lowest Band Edge / Full RB



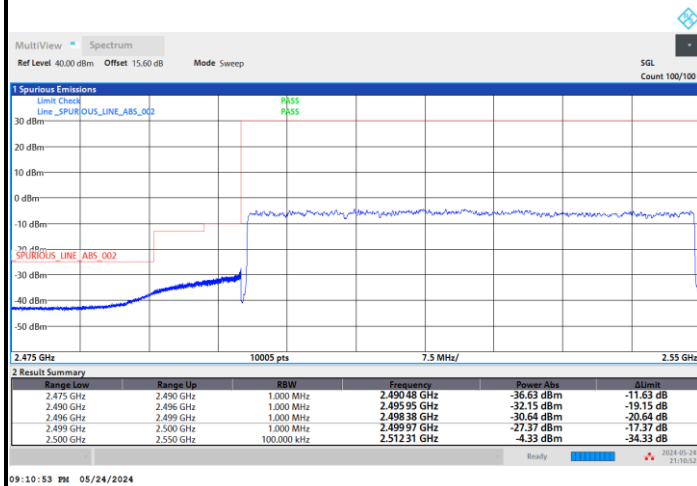
## Highest Band Edge / Full RB



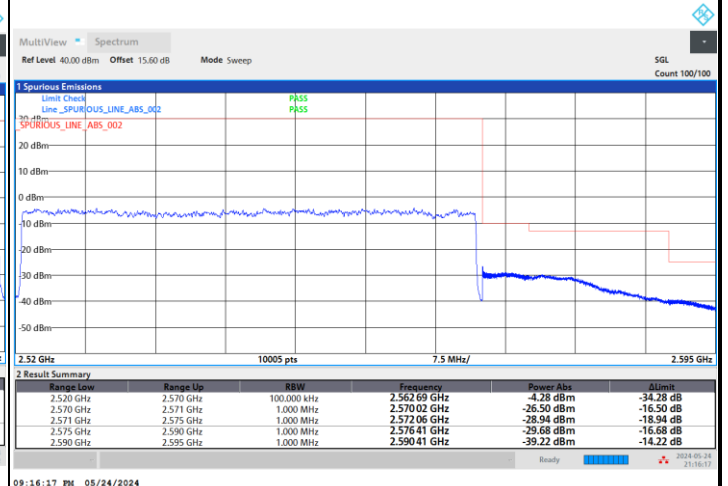


## FR1 n7 / 50MHz / DFT-s-OFDM / 256QAM

## Lowest Band Edge / Full RB

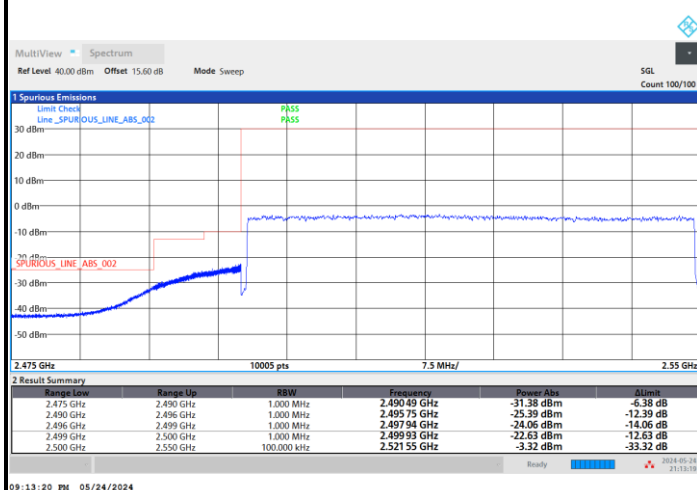


## Highest Band Edge / Full RB

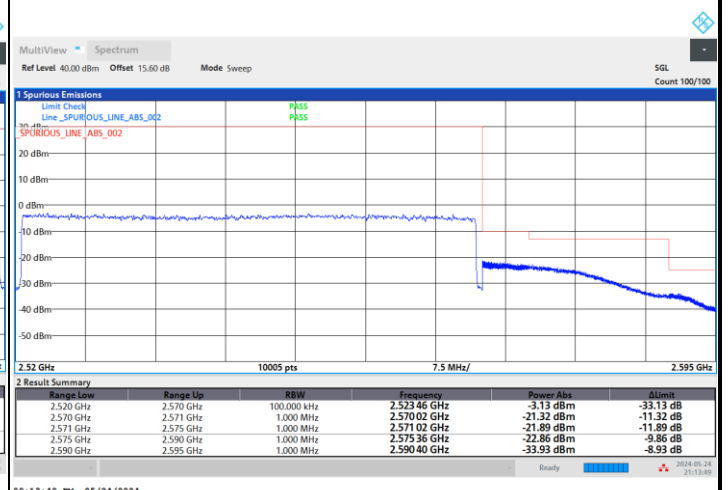


## FR1 n7 / 50MHz / CP OFDM / QPSK / Full RB

## Lowest Band Edge



## Highest Band Edge

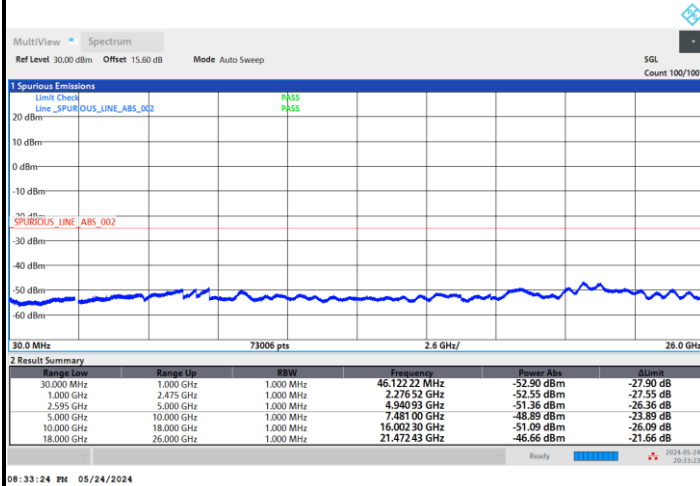




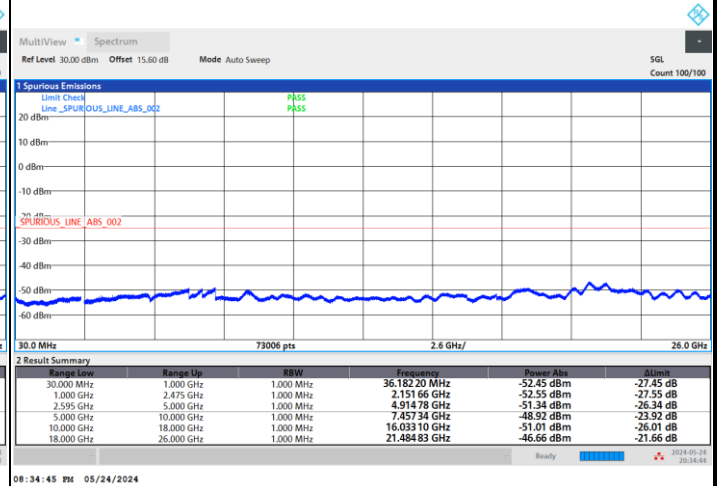
# Conducted Spurious Emission

FR1 n7 / 5MHz / DFT-S OFDM / QPSK / 1RB1

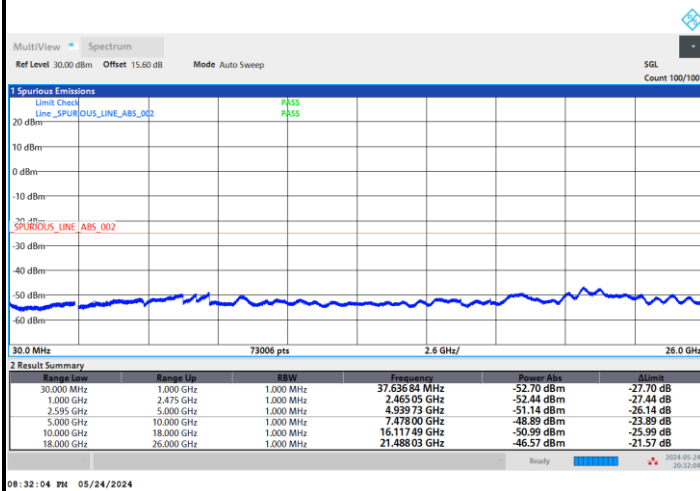
## Lowest Channel



## Middle Channel



## Highest Channel



## Frequency Stability

| Test Conditions     |                   | FR1 n7 (PI/2 BPSK) / Middle Channel | Limit   |
|---------------------|-------------------|-------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 20MHz                            | Note 2. |
|                     |                   | Deviation (ppm)                     | Result  |
| 50                  | Normal Voltage    | 0.0005                              | PASS    |
| 40                  | Normal Voltage    | 0.0012                              |         |
| 30                  | Normal Voltage    | 0.0024                              |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                              |         |
| 10                  | Normal Voltage    | 0.0023                              |         |
| 0                   | Normal Voltage    | 0.0011                              |         |
| -10                 | Normal Voltage    | 0.0005                              |         |
| -20                 | Normal Voltage    | 0.0001                              |         |
| -30                 | Normal Voltage    | 0.0018                              |         |
| 20                  | Maximum Voltage   | 0.0001                              |         |
| 20                  | Normal Voltage    | 0.0000                              |         |
| 20                  | Battery End Point | 0.0027                              |         |

**Note:**

1. Normal Voltage = 3.3 V. ; Battery End Point (BEP) = 3.135 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

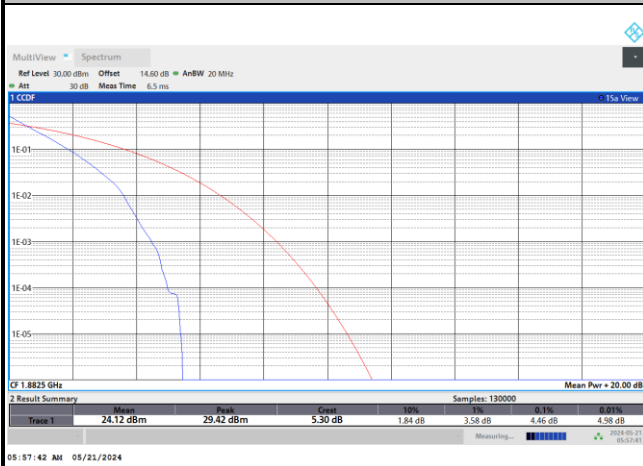
**FR1 n25****Peak-to-Average Ratio**

| Mode      | FR1 n25 / 20MHz / DFT-S OFDM |         |         |         |             |
|-----------|------------------------------|---------|---------|---------|-------------|
| Mod.      | PI/2 BPSK                    | QPSK    | 16QAM   | 64QAM   | Limit: 13dB |
| RB Size   | Full RB                      | Full RB | Full RB | Full RB | Result      |
| Middle CH | 4.46                         | 5.54    | 6.32    | 6.44    | <b>PASS</b> |
| Mode      | FR1 n25 / 20MHz / DFT-S OFDM |         |         |         |             |
| Mod.      | 256QAM                       |         |         |         | Limit: 13dB |
| RB Size   | Full RB                      |         |         |         | Result      |
| Middle CH | 6.64                         |         |         |         | <b>PASS</b> |

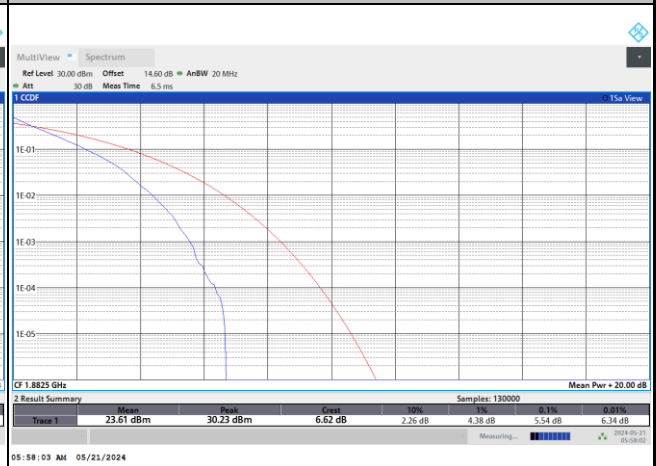


## FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

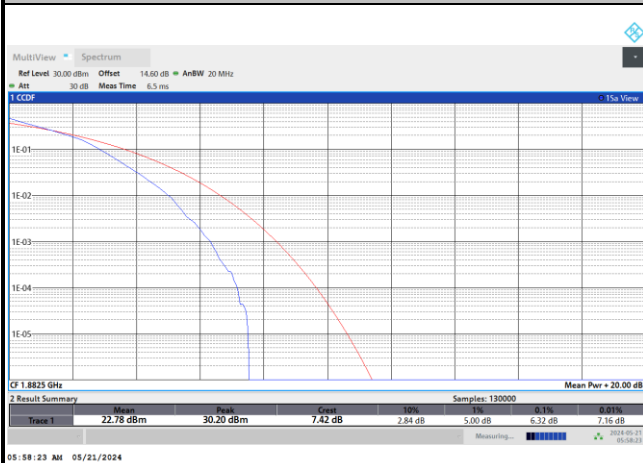
## PI/2 BPSK



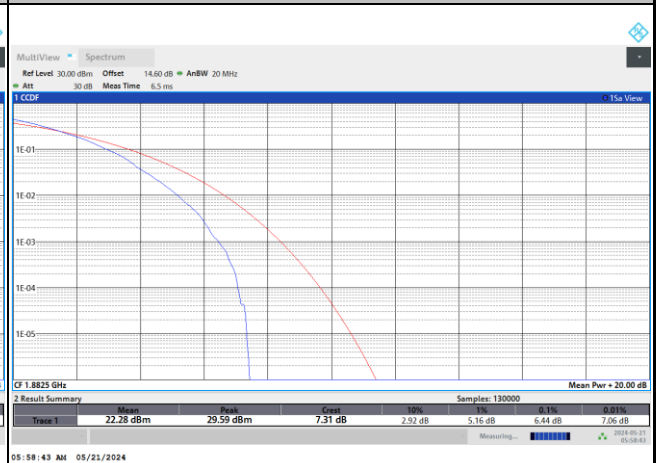
## QPSK



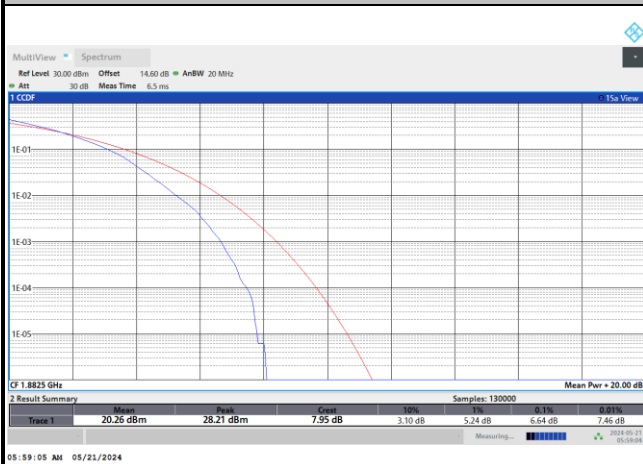
## 16QAM



## 64QAM



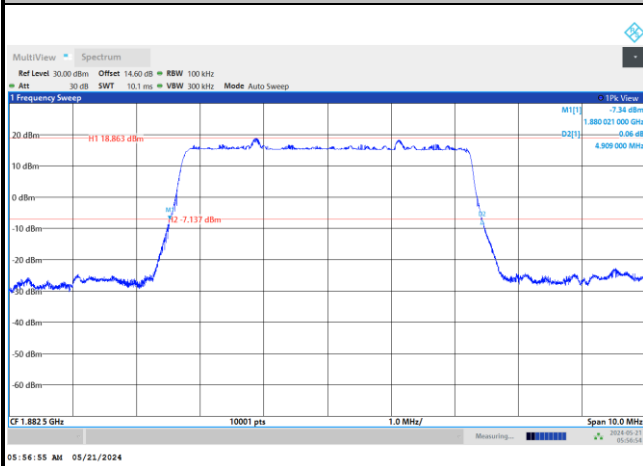
## 256QAM



## 26dB Bandwidth

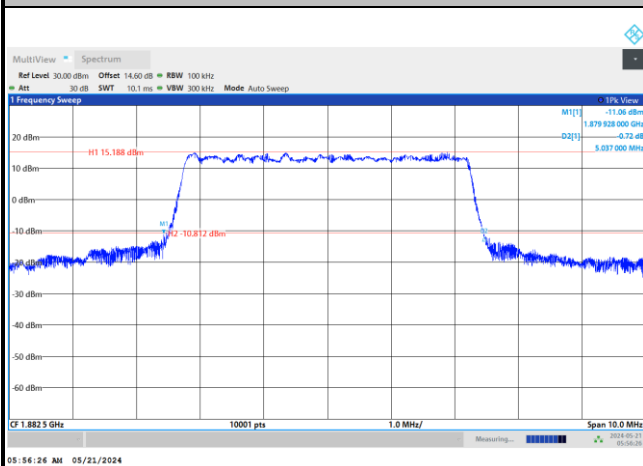
| Mode      | FR1 n25 : 26dB BW(MHz) / DFT-S OFDM |  |           |  |           |  |           |  |
|-----------|-------------------------------------|--|-----------|--|-----------|--|-----------|--|
| BW        | 5MHz                                |  | 10MHz     |  | 15MHz     |  | 20MHz     |  |
| Mod.      | PI/2 BPSK                           |  | PI/2 BPSK |  | PI/2 BPSK |  | PI/2 BPSK |  |
| Middle CH | 4.91                                |  | 9.69      |  | 14.37     |  | 19.55     |  |
| BW        | 25MHz                               |  | 30MHz     |  | 35MHz     |  | 40MHz     |  |
| Mod.      | PI/2 BPSK                           |  | PI/2 BPSK |  | PI/2 BPSK |  | PI/2 BPSK |  |
| Middle CH | 24.45                               |  | 31.01     |  | 35.21     |  | 41.10     |  |
| BW        | 45MHz                               |  |           |  |           |  |           |  |
| Mod.      | PI/2 BPSK                           |  |           |  |           |  |           |  |
| Middle CH | 45.64                               |  |           |  |           |  |           |  |

| Mode      | FR1 n25 : 26dB BW(MHz) / CP OFDM |        |       |        |       |        |       |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|-------|--------|
| BW        | 5MHz                             |        | 10MHz |        | 15MHz |        | 20MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 5.04                             | 4.98   | 10.22 | 10.45  | 15.07 | 15.04  | 20.51 | 20.49  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 4.98                             | 4.96   | 10.11 | 10.04  | 15.05 | 15.03  | 21.26 | 20.52  |
| BW        | 25MHz                            |        | 30MHz |        | 35MHz |        | 45MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 25.25                            | 25.29  | 30.95 | 31.19  | 36.55 | 36.73  | 41.06 | 41.19  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 25.41                            | 25.32  | 31.14 | 31.12  | 36.56 | 36.41  | 41.25 | 41.21  |
| BW        | 45MHz                            |        |       |        |       |        |       |        |
| Mod.      | QPSK                             | 16QAM  |       |        |       |        |       |        |
| Middle CH | 46.24                            | 45.96  |       |        |       |        |       |        |
| Mod.      | 64QAM                            | 256QAM |       |        |       |        |       |        |
| Middle CH | 46.19                            | 46.22  |       |        |       |        |       |        |

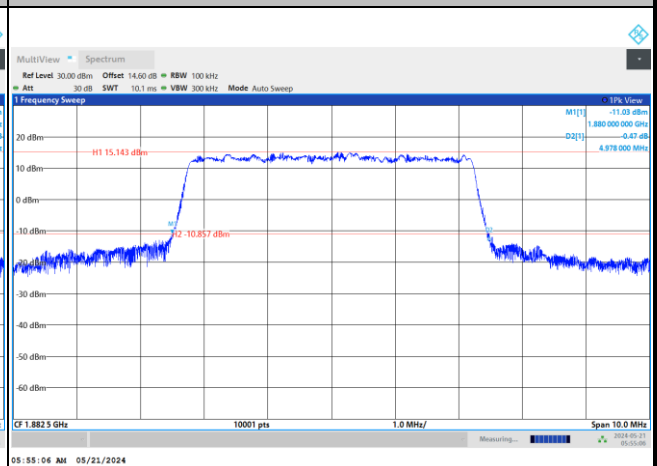
**FR1 n25 / 5MHz / DFT-S OFDM / Middle Channel / Full RB****PI/2 BPSK**

## FR1 n25 / 5MHz / CP OFDM / Middle Channel / Full RB

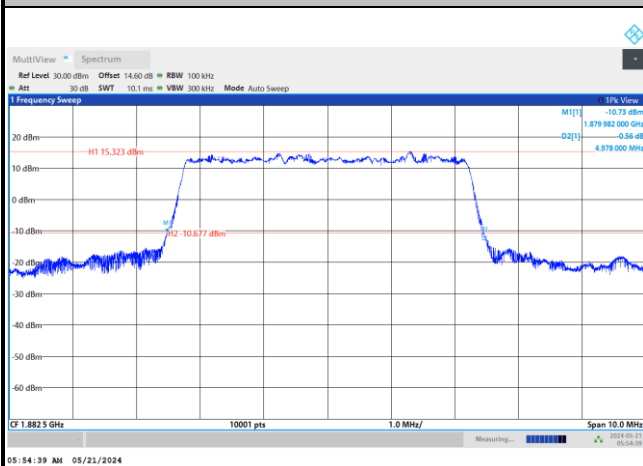
## QPSK



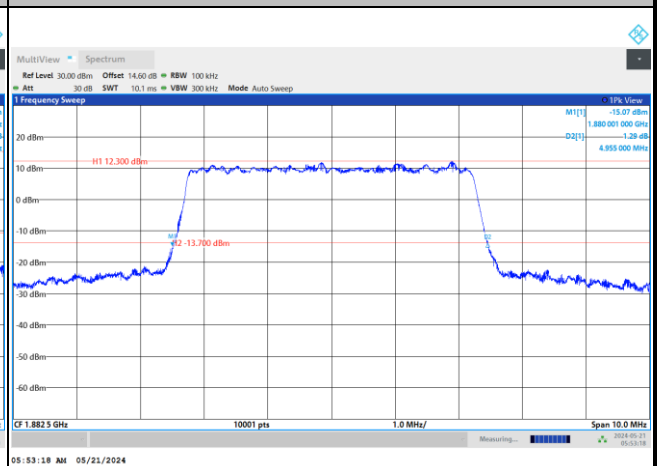
## 16QAM



## 64QAM



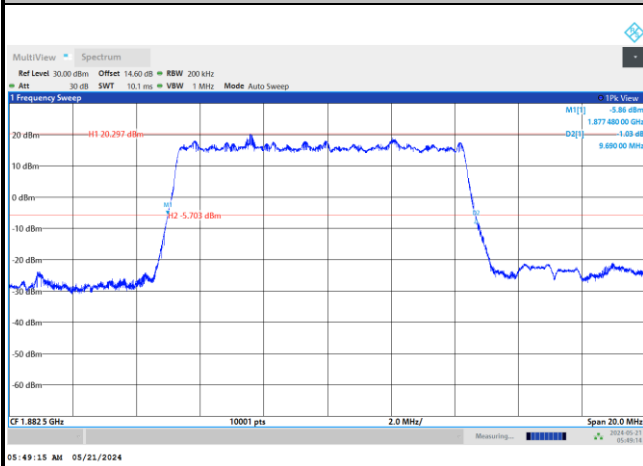
## 256QAM





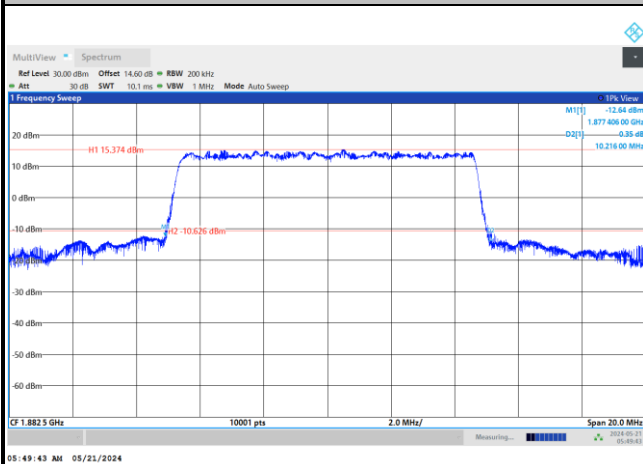
## FR1 n25 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

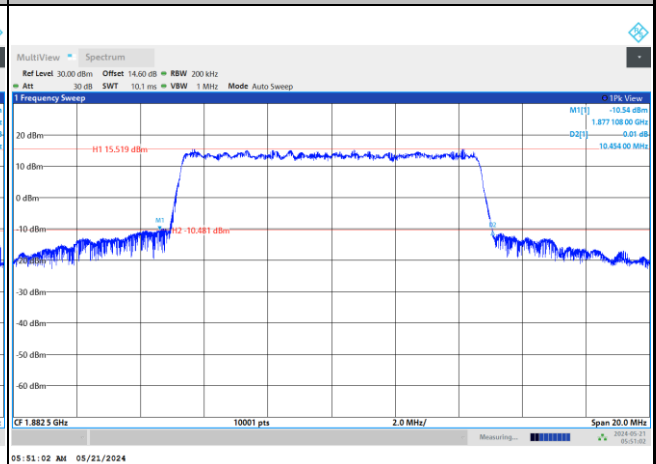


## FR1 n25 / 10MHz / CP OFDM / Middle Channel / Full RB

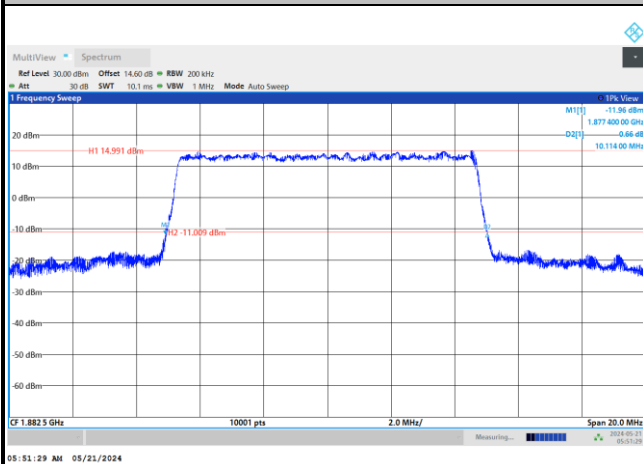
## QPSK



## 16QAM



## 64QAM



## 256QAM

