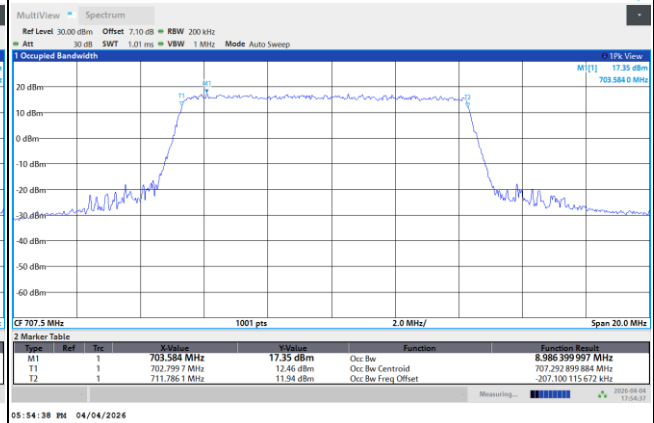
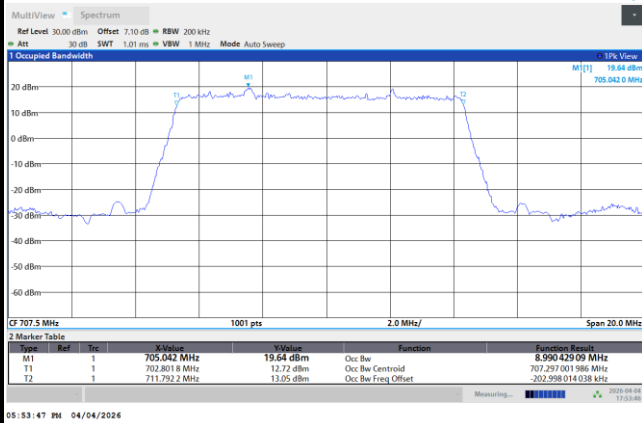




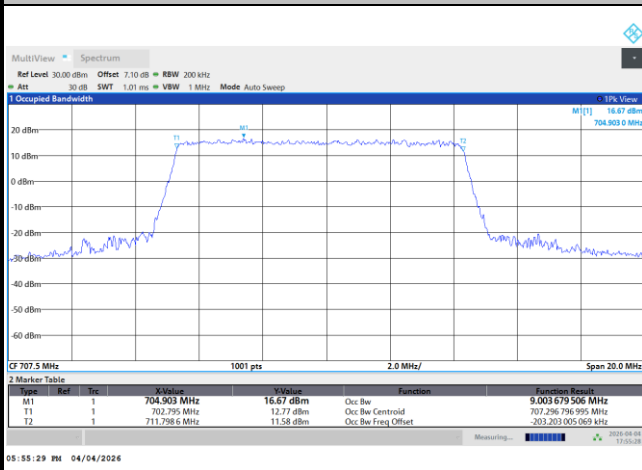
## FR1 n12 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

## QPSK



## 16QAM

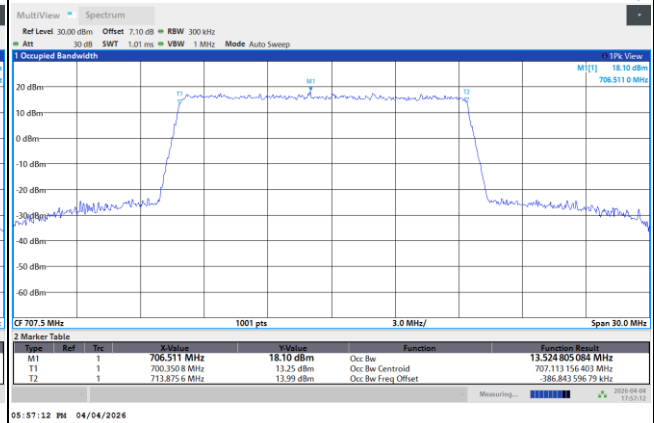
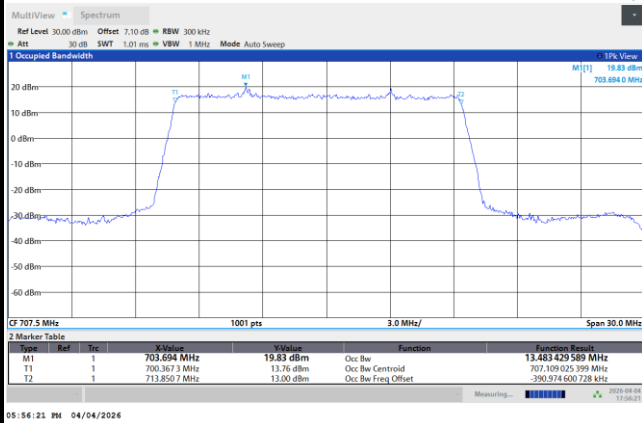




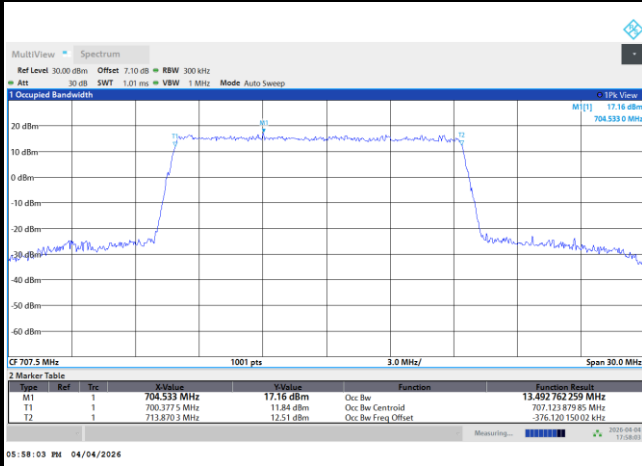
## FR1 n12 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

## QPSK



## 16QAM



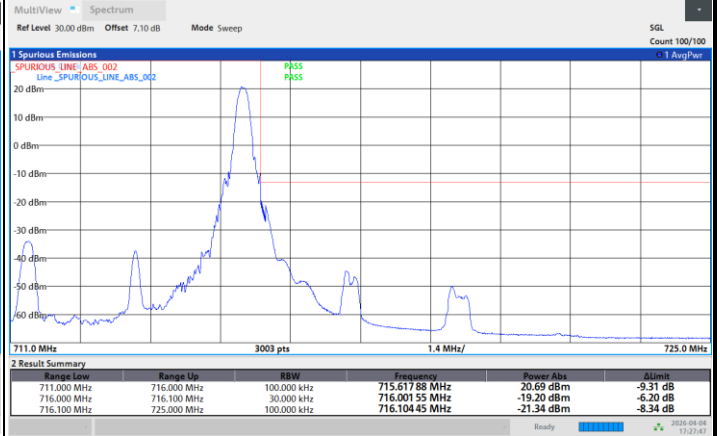
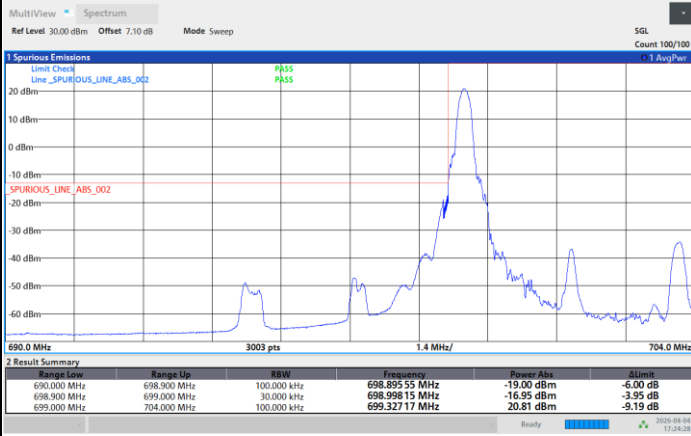


## Conducted Band Edge

## FR1 n12 / 5MHz / DFT-S OFDM / PI/2 BPSK

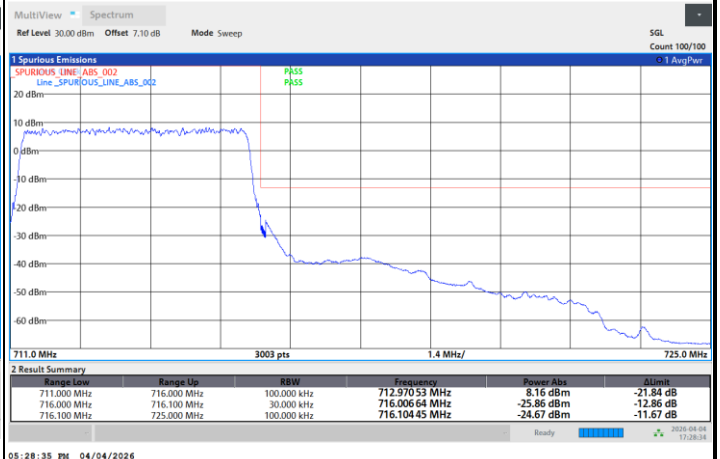
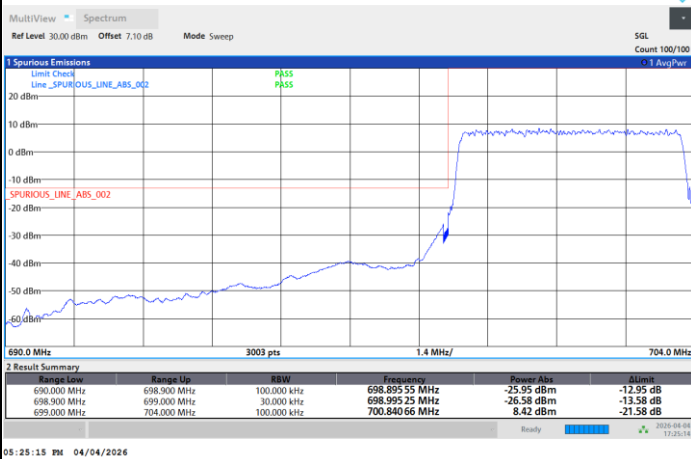
## Lowest Band Edge / 1RB0

## Highest Band Edge / 1RBmax



## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB

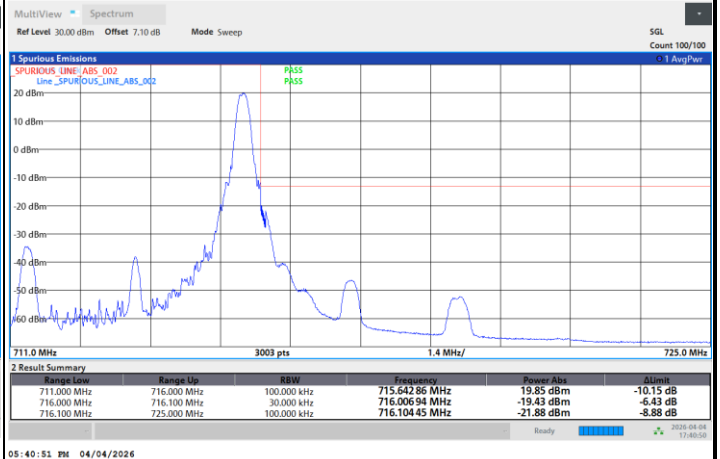
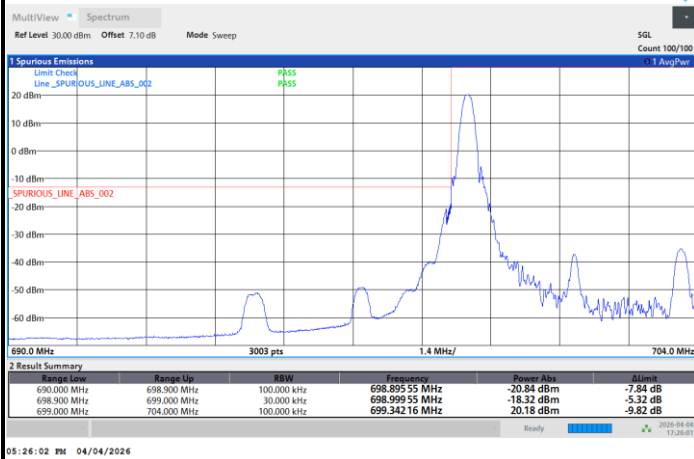




## FR1 n12 / 5MHz / DFT-S OFDM / QPSK

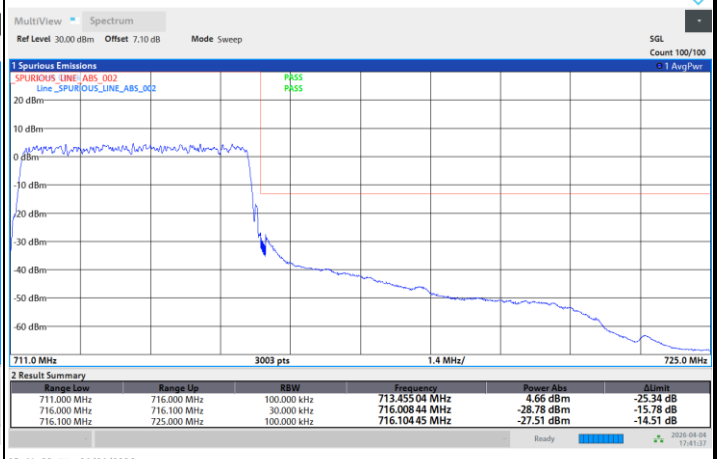
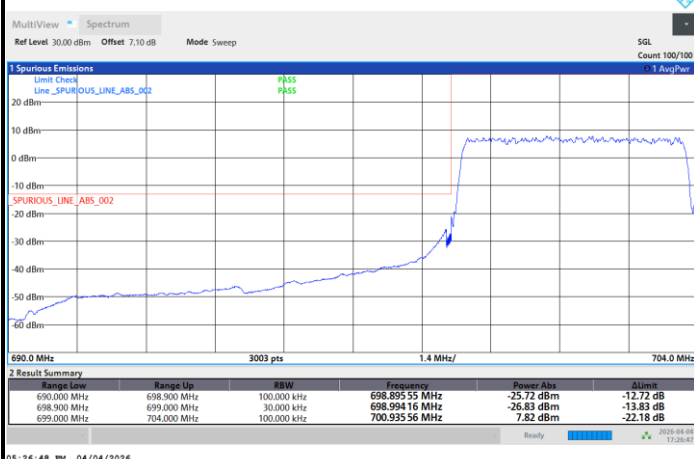
## Lowest Band Edge / 1RB0

## Highest Band Edge / 1RBmax



## Lowest Band Edge / Full RB

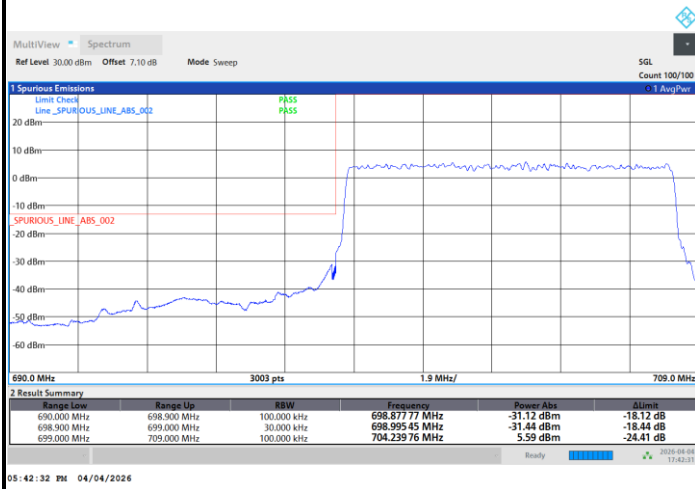
## Highest Band Edge / Full RB



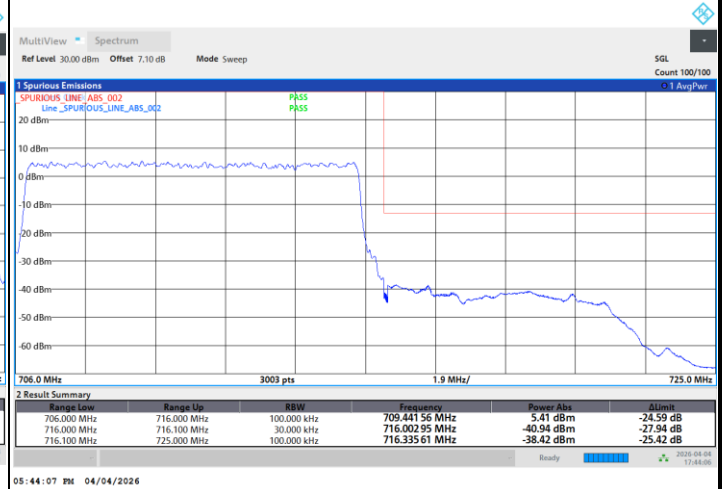


## FR1 n12 / 10MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

## Lowest Band Edge

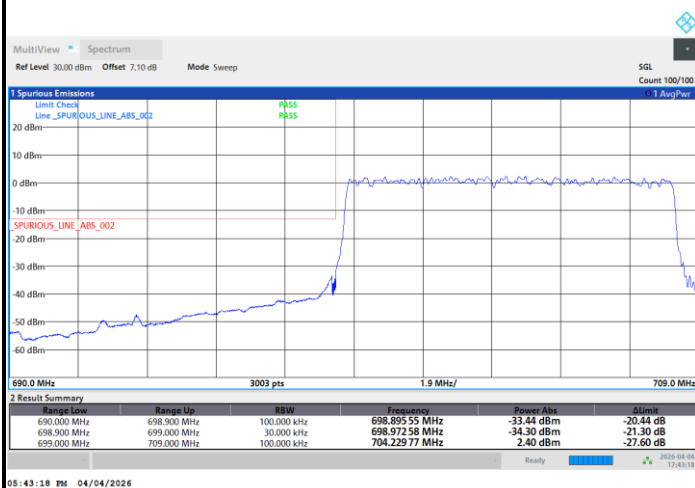


## Highest Band Edge



## FR1 n12 / 10MHz / DFT-s-OFDM / QPSK / Full RB

## Lowest Band Edge



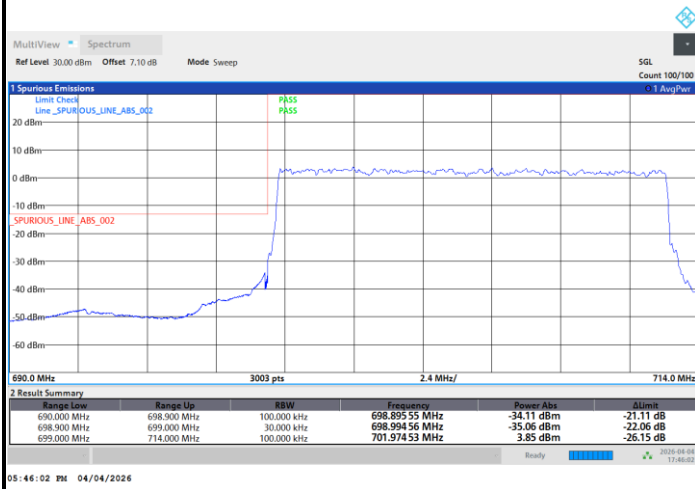
## Highest Band Edge



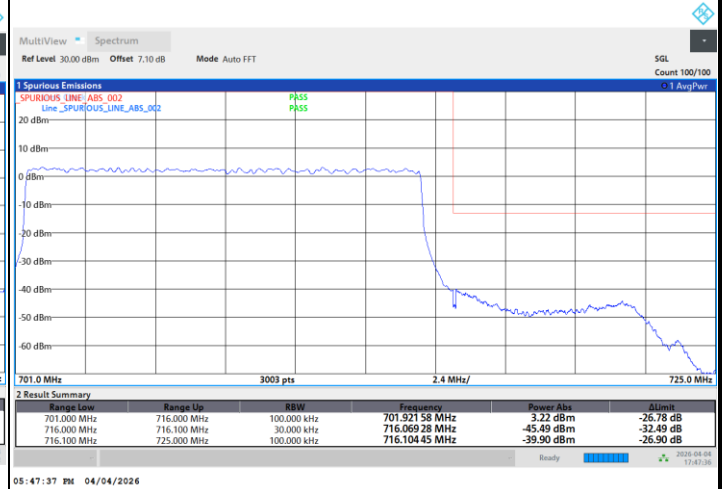


## FR1 n12 / 15MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

## Lowest Band Edge

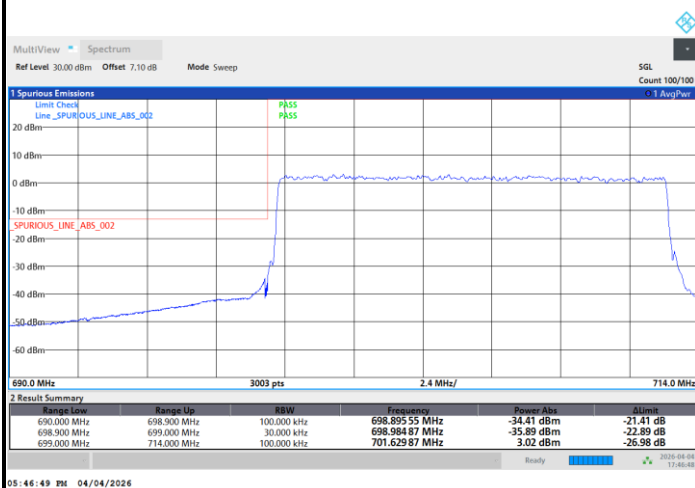


## Highest Band Edge

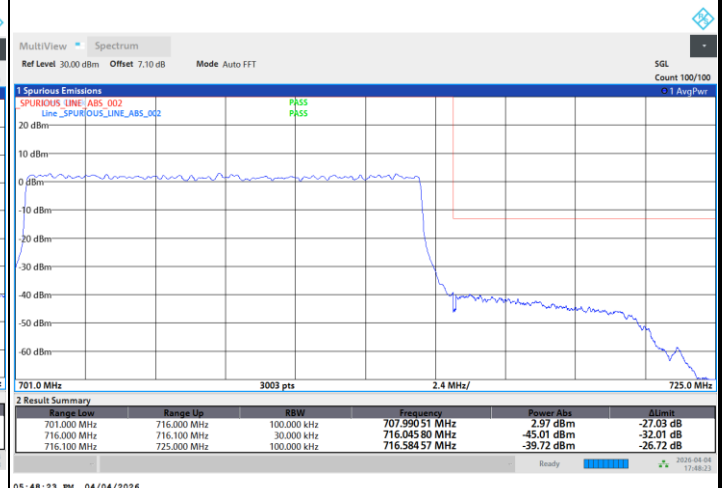


## FR1 n12 / 15MHz / DFT-s-OFDM / QPSK / Full RB

## Lowest Band Edge



## Highest Band Edge

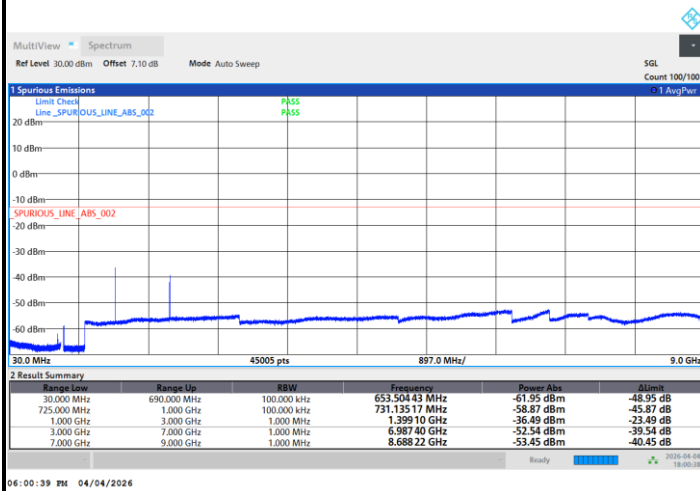




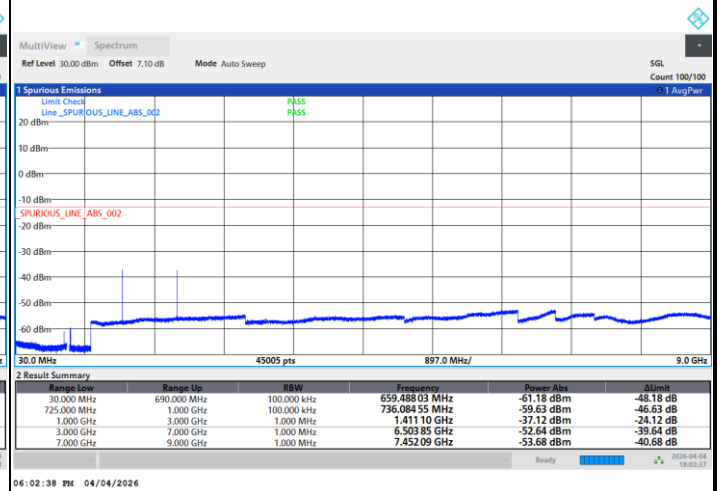
## Conducted Spurious Emission

FR1 n12 / 5MHz / DFT-S OFDM / QPSK / 1RB1

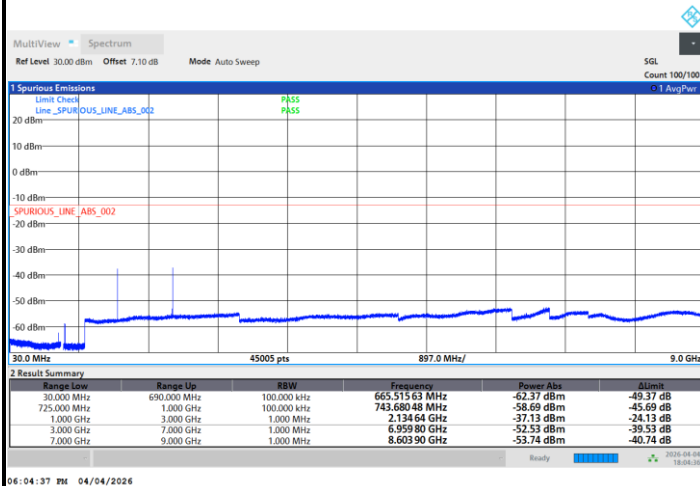
## Lowest Channel



## Middle Channel



## Highest Channel



**Frequency Stability**

| Test Conditions     |                   | FR1 n12 (BPSK) / Middle Channel 10M |                                         |                                             |        |
|---------------------|-------------------|-------------------------------------|-----------------------------------------|---------------------------------------------|--------|
| Temperature<br>(°C) | Voltage<br>(Volt) | Deviation (ppm)                     | Frequency Offset ( $\Delta f$ )<br>(Hz) | Within Authorized<br>Frequency<br>Block(Hz) | Result |
| 50                  | Normal Voltage    | 0.0052                              | -3.7                                    | Yes                                         | PASS   |
| 40                  | Normal Voltage    | 0.0021                              | -1.5                                    | Yes                                         |        |
| 30                  | Normal Voltage    | 0.0085                              | -6                                      | Yes                                         |        |
| 20(Ref.)            | Normal Voltage    | 0.0000                              | 0                                       | Yes                                         |        |
| 10                  | Normal Voltage    | 0.0042                              | -3                                      | Yes                                         |        |
| 0                   | Normal Voltage    | 0.0024                              | 1.7                                     | Yes                                         |        |
| -10                 | Normal Voltage    | 0.0117                              | -8.3                                    | Yes                                         |        |
| -20                 | Normal Voltage    | 0.0030                              | 2.1                                     | Yes                                         |        |
| -30                 | Normal Voltage    | 0.0045                              | 3.2                                     | Yes                                         |        |
| 20                  | Maximum Voltage   | 0.0148                              | 10.5                                    | Yes                                         |        |
| 20                  | Normal Voltage    | 0.0000                              | 0                                       | Yes                                         |        |
| 20                  | Minimum Voltage   | 0.0113                              | -8                                      | Yes                                         |        |

**Note:**

1. Normal Voltage = 4 V. ; Minimum Voltage = 3.8 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.



## FR1 n25

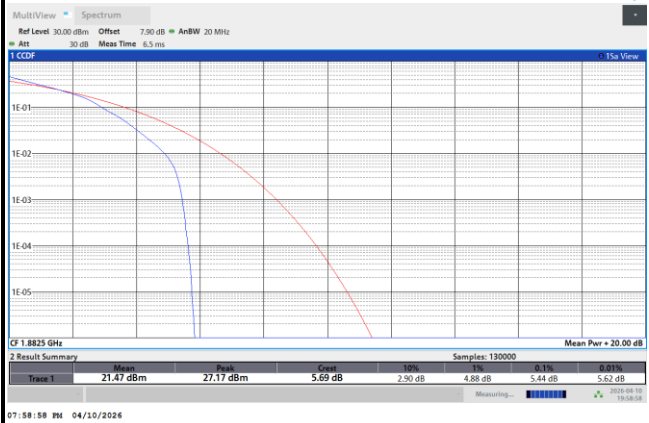
&lt;SISO Mode&gt;

**Peak-to-Average Ratio**

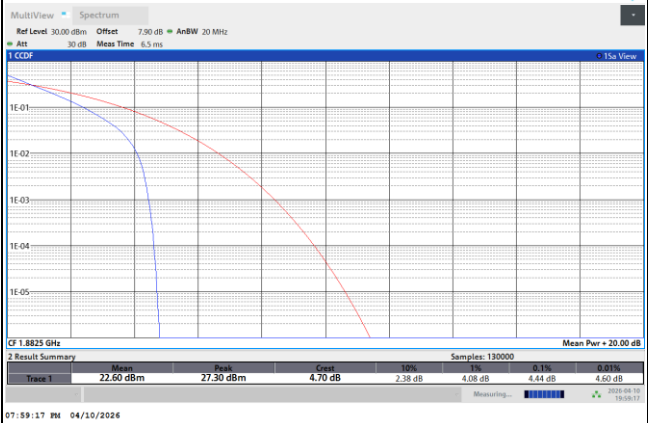
| Mode      | FR1 n25 / 20MHz / DFT-S OFDM |         |         |         |             |
|-----------|------------------------------|---------|---------|---------|-------------|
| Mod.      | PI/2 BPSK                    | QPSK    | 16QAM   | 64QAM   | Limit: 13dB |
| RB Size   | Full RB                      | Full RB | Full RB | Full RB | Result      |
| Middle CH | 5.44                         | 4.44    | 5.44    | 5.86    | <b>PASS</b> |
| Mode      | FR1 n25 / 20MHz / DFT-S OFDM |         |         |         |             |
| Mod.      | 256QAM                       |         |         |         | Limit: 13dB |
| RB Size   | Full RB                      |         |         |         | Result      |
| Middle CH | 6.56                         |         |         |         | <b>PASS</b> |

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

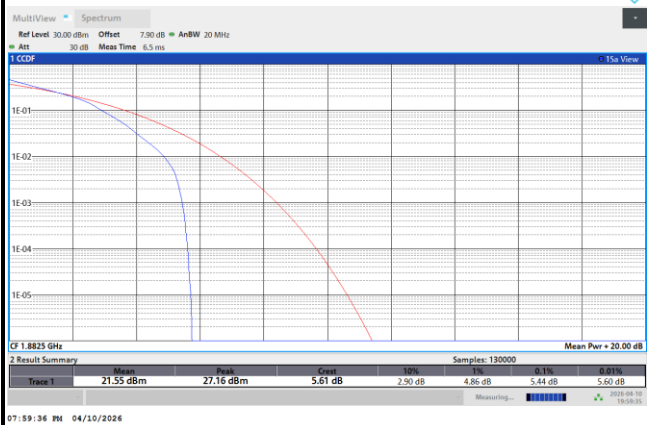
#### PI/2 BPSK



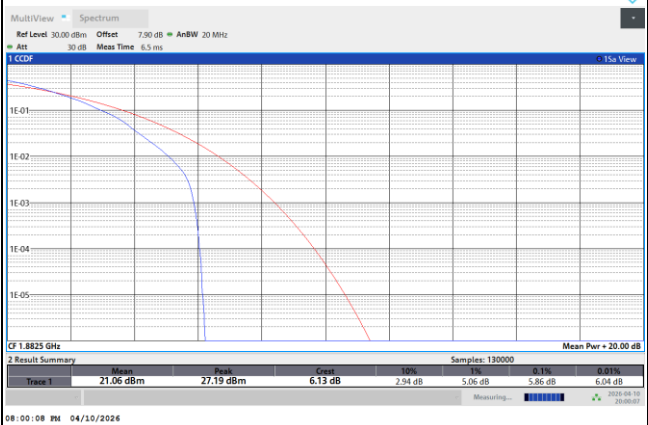
#### QPSK



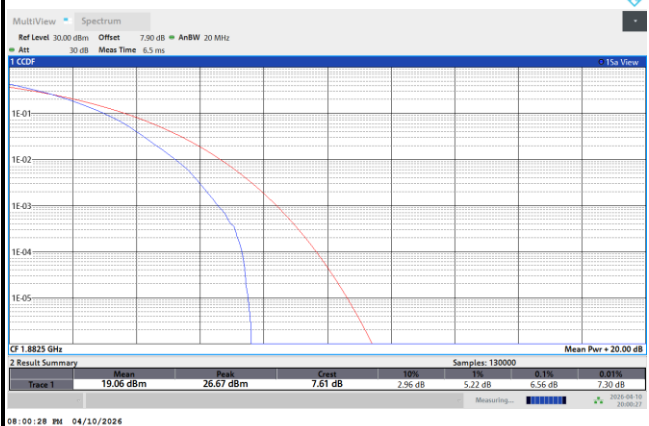
#### 16QAM



#### 64QAM

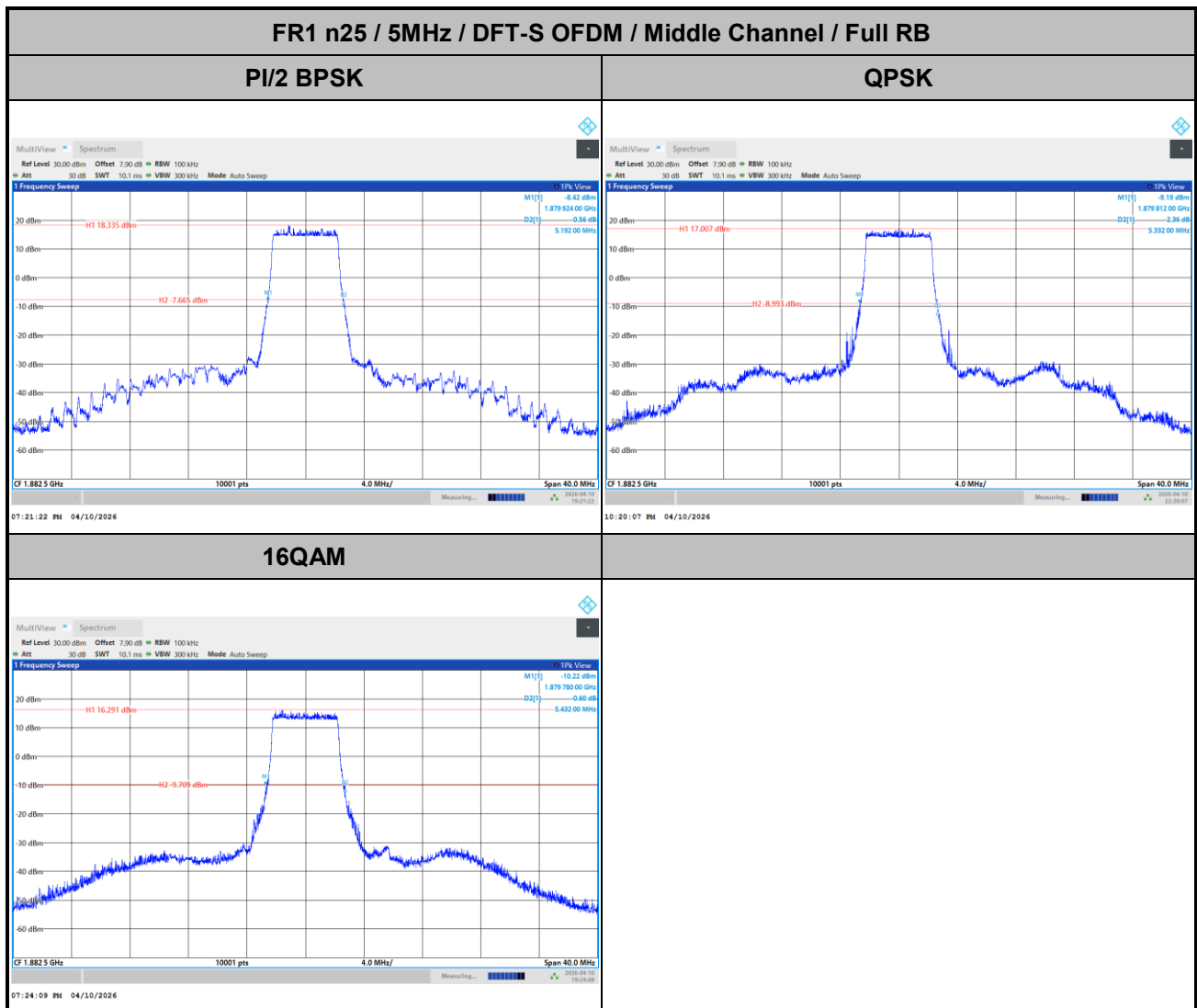


#### 256QAM



**26dB Bandwidth**

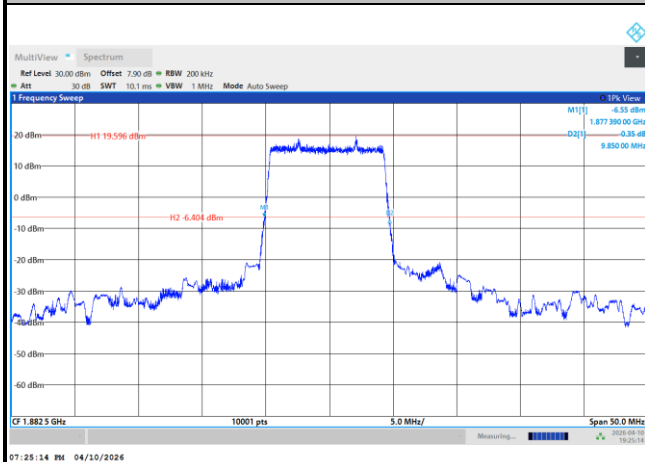
| Mode      | FR1 n25 : 26dB BW(MHz) / DFT-S OFDM |       |           |       |           |       |           |       |
|-----------|-------------------------------------|-------|-----------|-------|-----------|-------|-----------|-------|
| BW        | 5MHz                                |       | 10MHz     |       | 15MHz     |       | 20MHz     |       |
| Mod.      | PI/2 BPSK                           | QPSK  | PI/2 BPSK | QPSK  | PI/2 BPSK | QPSK  | PI/2 BPSK | QPSK  |
| Middle CH | 5.19                                | 5.33  | 9.85      | 9.95  | 14.58     | 14.63 | 19.36     | 19.42 |
| Mod.      | 16QAM                               |       | 16QAM     |       | 16QAM     |       | 16QAM     |       |
| Middle CH | 5.43                                |       | 9.96      |       | 14.58     |       | 19.39     |       |
| BW        | 25MHz                               |       | 30MHz     |       | 40MHz     |       |           |       |
| Mod.      | PI/2 BPSK                           | QPSK  | PI/2 BPSK | QPSK  | PI/2 BPSK | QPSK  |           |       |
| Middle CH | 24.41                               | 24.40 | 31.03     | 31.06 | 40.98     | 41.12 |           |       |
| Mod.      | 16QAM                               |       | 16QAM     |       | 16QAM     |       |           |       |
| Middle CH | 24.33                               |       | 31.03     |       | 41.16     |       |           |       |



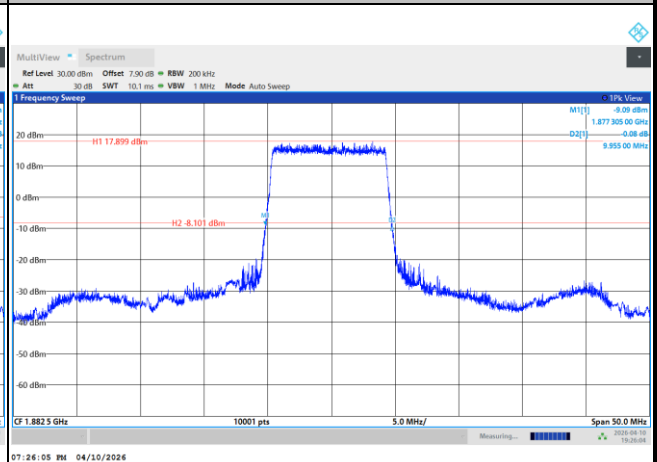


FR1 n25 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

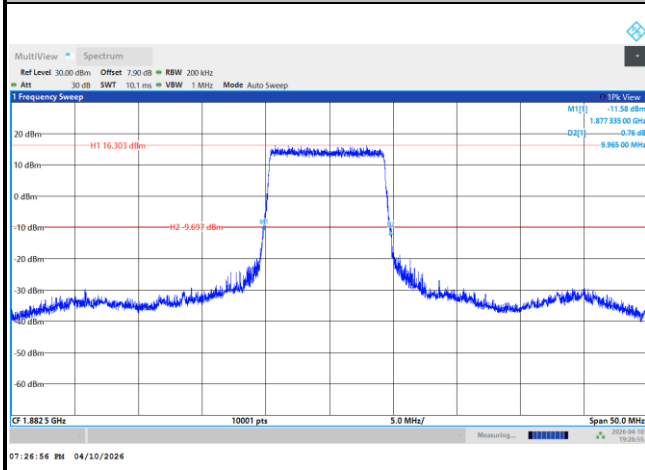
PI/2 BPSK



QPSK



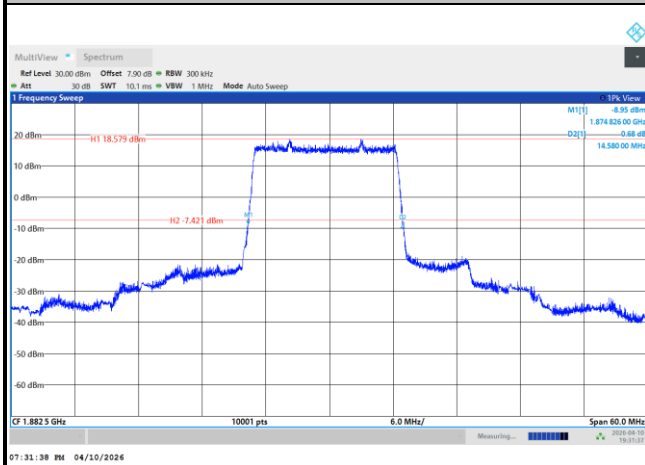
16QAM



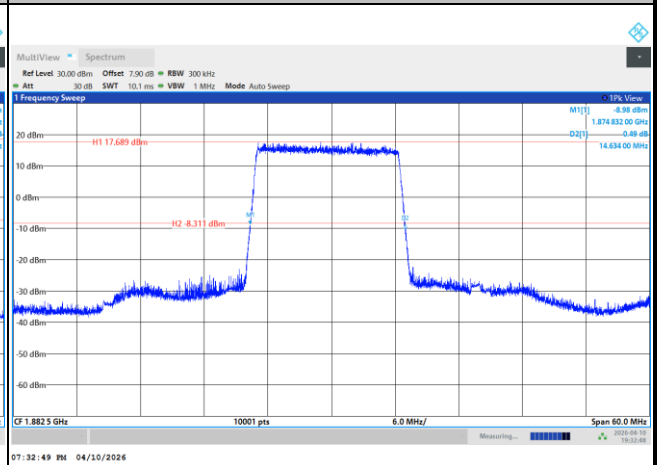


FR1 n25 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

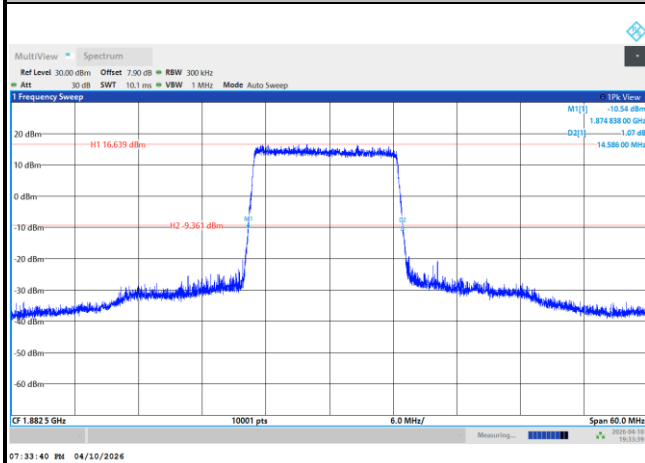
QPSK



QPSK



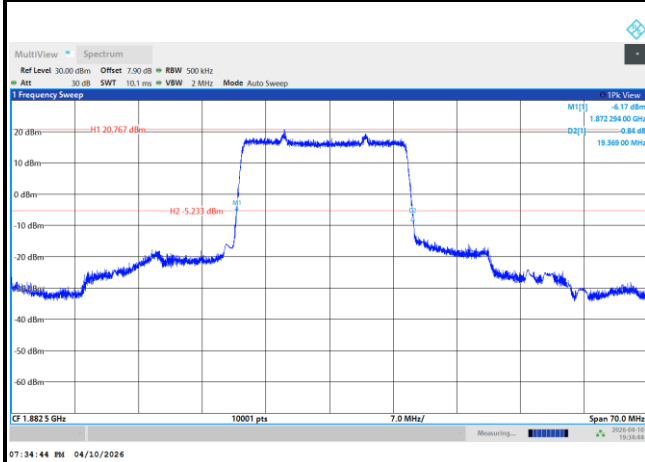
16QAM



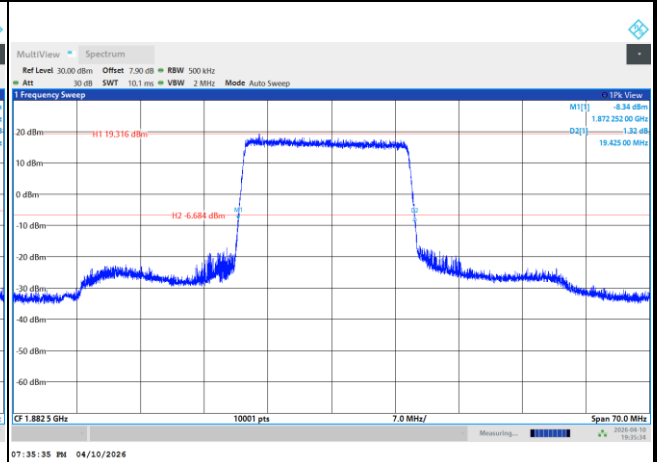


FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

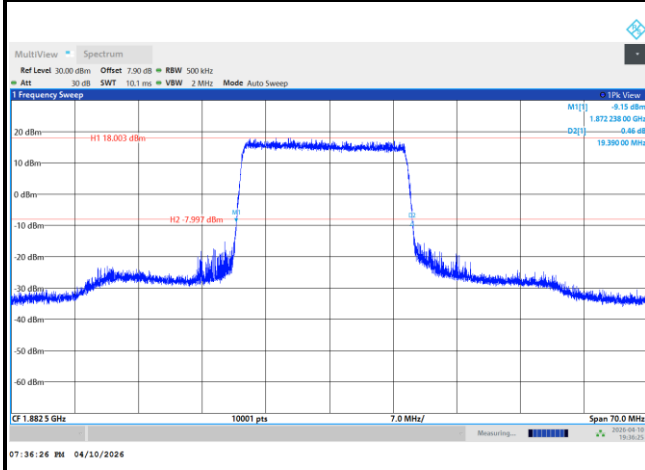
PI/2 BPSK



QPSK



16QAM

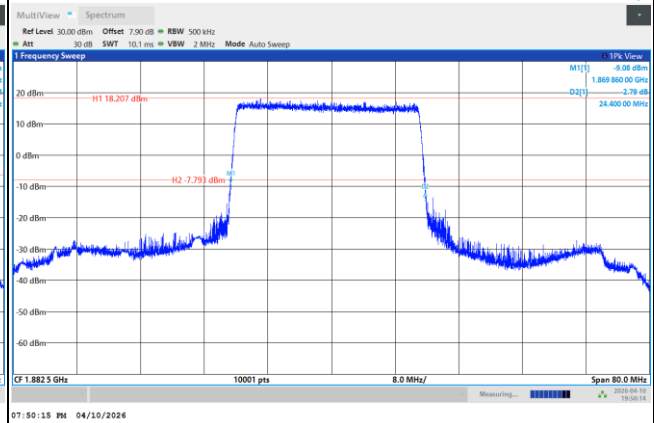
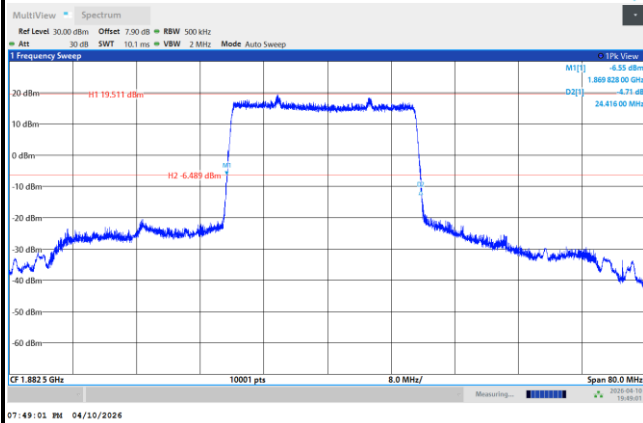




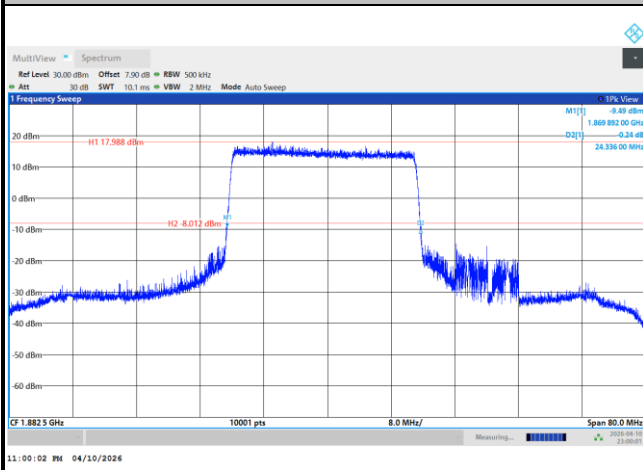
## FR1 n25 / 25MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

## QPSK



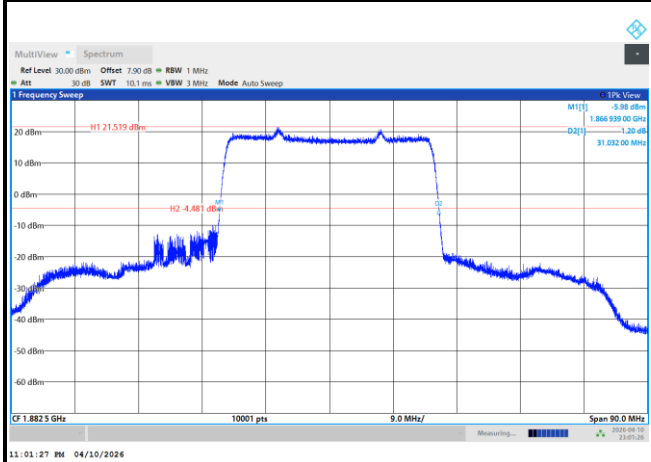
## 16QAM



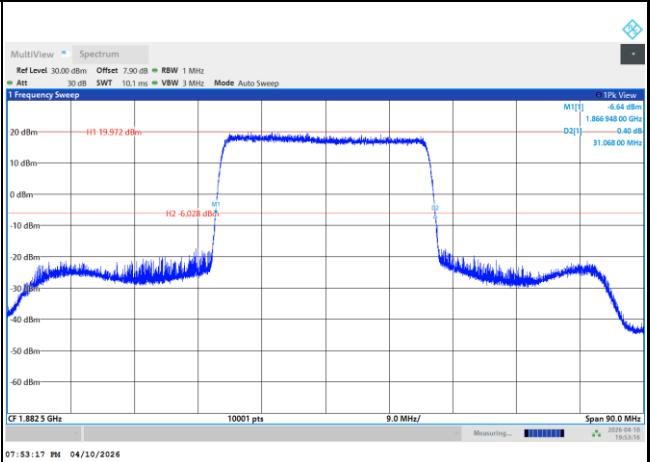


FR1 n25 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

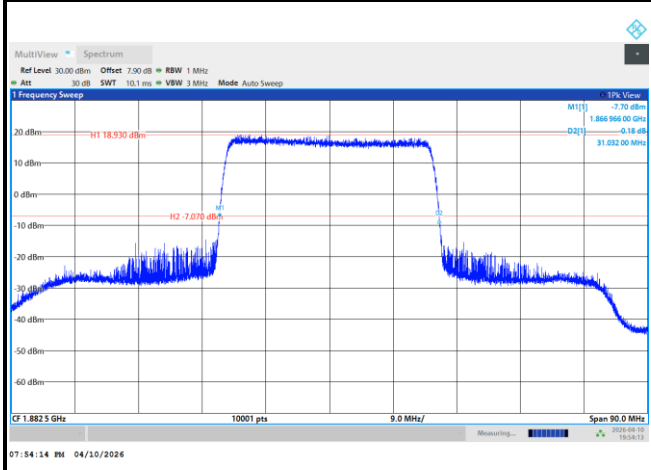
PI/2 BPSK



QPSK



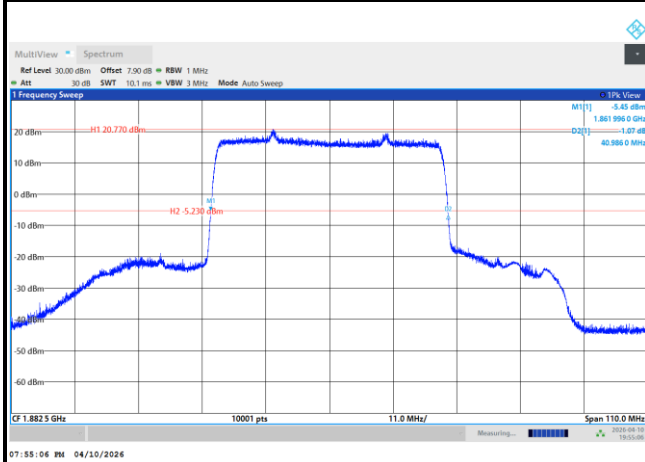
16QAM



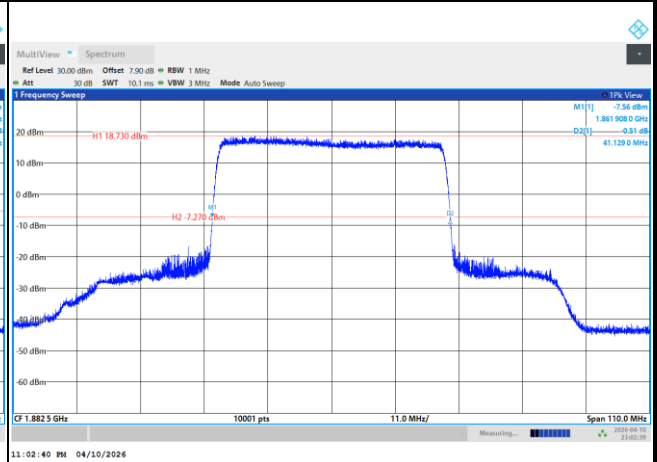


FR1 n25 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

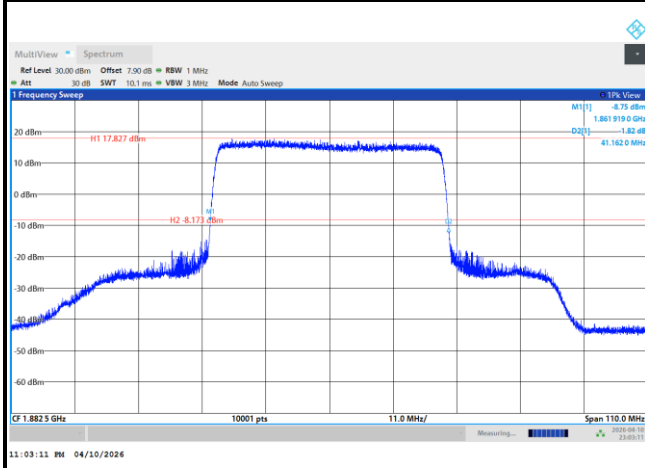
PI/2 BPSK



QPSK



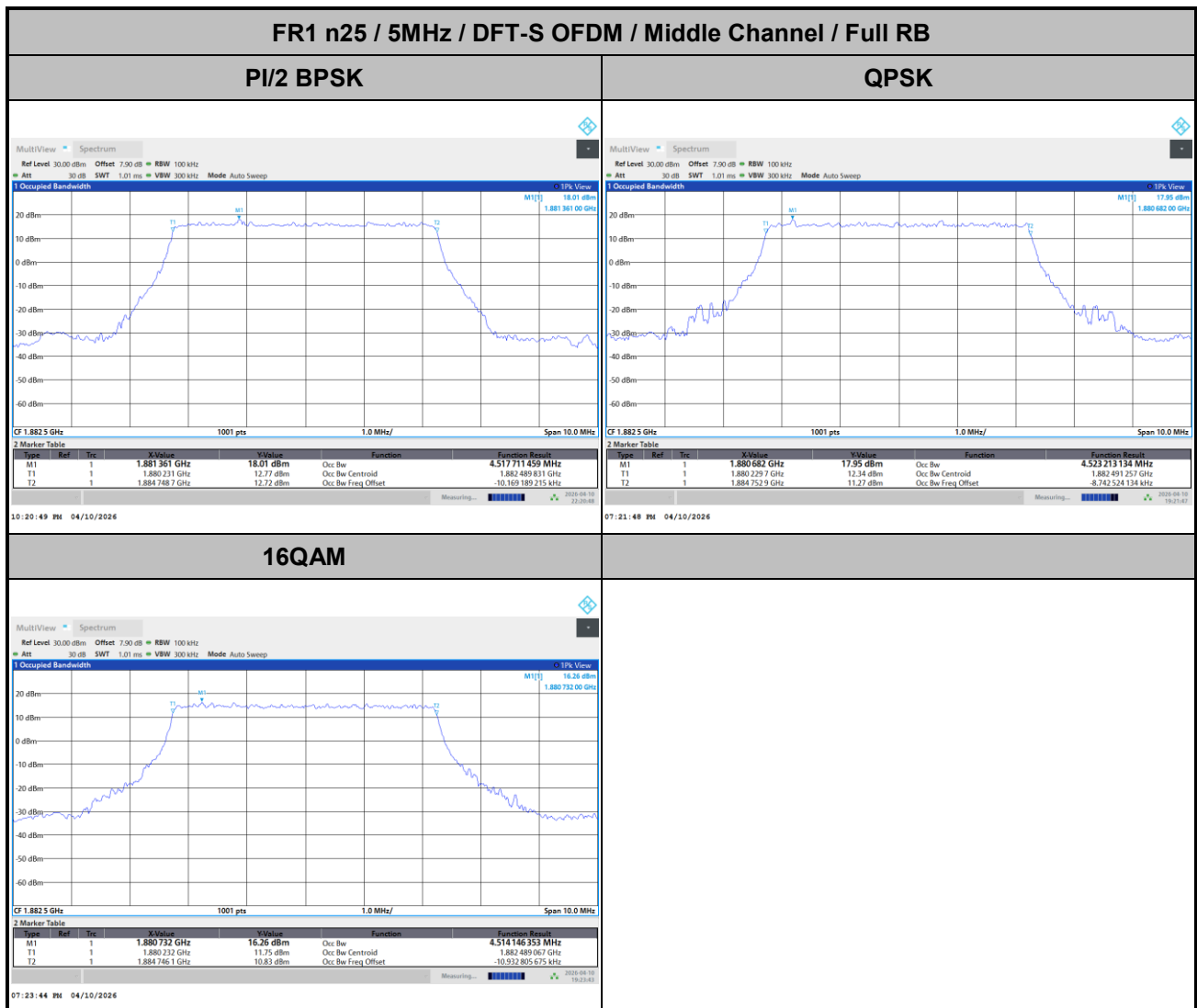
16QAM





## Occupied Bandwidth

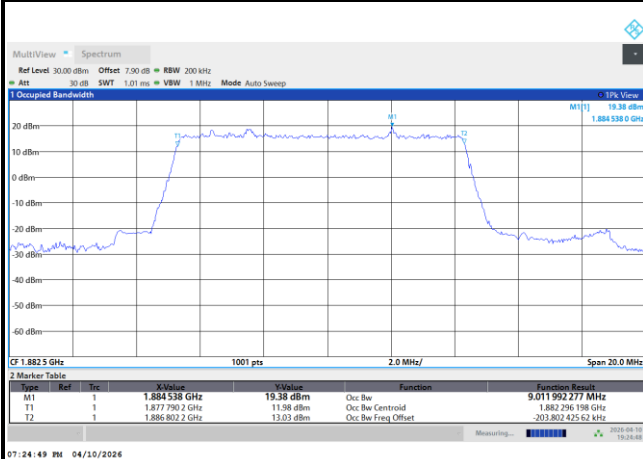
| Mode      | FR1 n25 : 99%OBW(MHz) / DFT-S OFDM |       |           |       |           |       |           |       |
|-----------|------------------------------------|-------|-----------|-------|-----------|-------|-----------|-------|
| BW        | 5MHz                               |       | 10MHz     |       | 15MHz     |       | 20MHz     |       |
| Mod.      | PI/2 BPSK                          | QPSK  | PI/2 BPSK | QPSK  | PI/2 BPSK | QPSK  | PI/2 BPSK | QPSK  |
| Middle CH | 4.51                               | 4.52  | 9.01      | 8.98  | 13.47     | 13.47 | 18.08     | 18.10 |
| Mod.      | 16QAM                              |       | 16QAM     |       | 16QAM     |       | 16QAM     |       |
| Middle CH | 4.51                               |       | 9.00      |       | 13.49     |       | 18.02     |       |
| BW        | 25MHz                              |       | 30MHz     |       | 40MHz     |       |           |       |
| Mod.      | PI/2 BPSK                          | QPSK  | PI/2 BPSK | QPSK  | PI/2 BPSK | QPSK  |           |       |
| Middle CH | 23.03                              | 22.93 | 29.00     | 28.96 | 38.74     | 38.78 |           |       |
| Mod.      | 16QAM                              |       | 16QAM     |       | 16QAM     |       |           |       |
| Middle CH | 22.96                              |       | 28.99     |       | 38.76     |       |           |       |



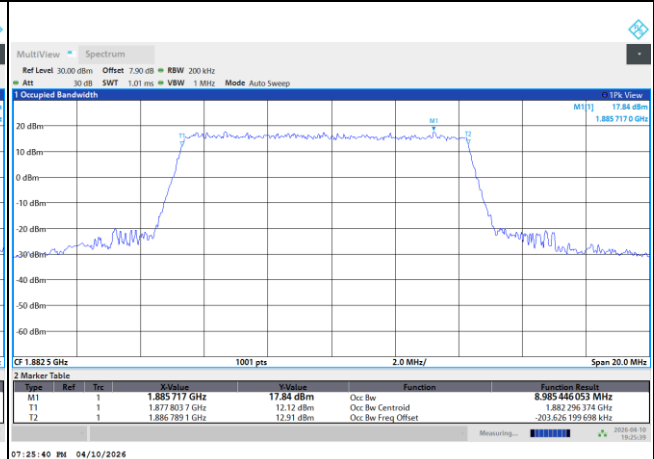


## FR1 n25 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

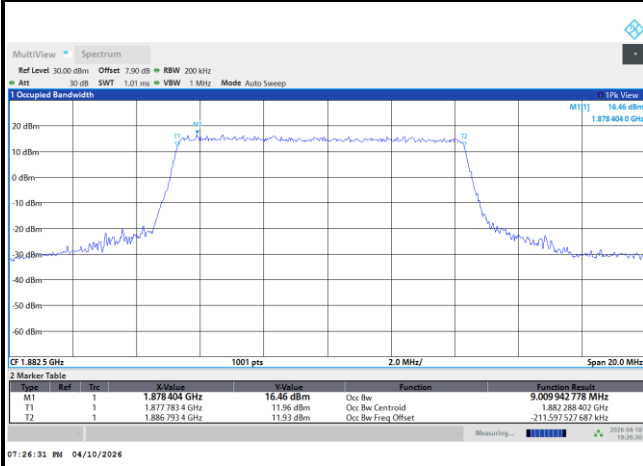
## PI/2 BPSK



## QPSK



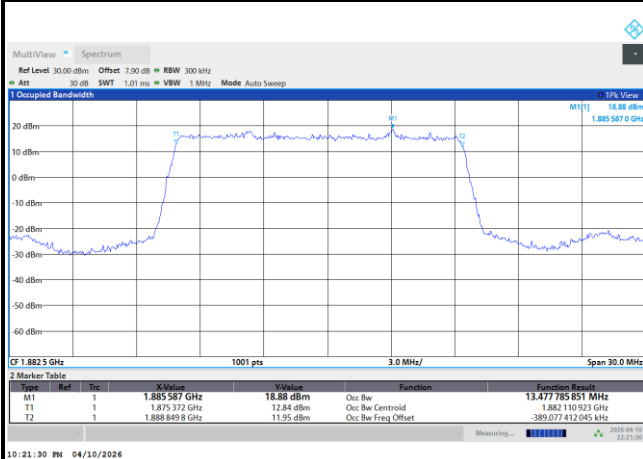
## 16QAM





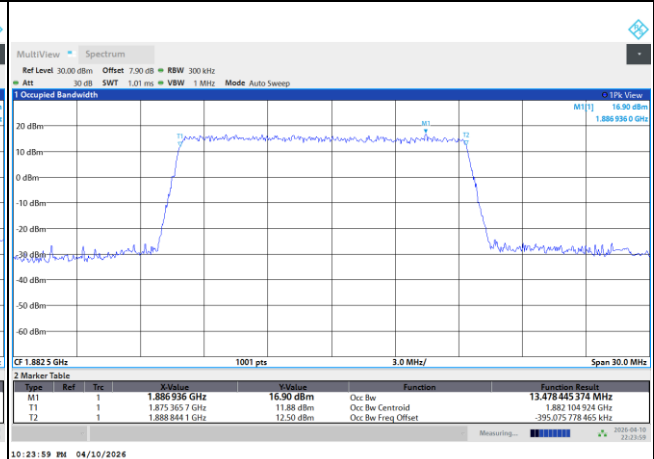
## FR1 n25 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

## QPSK



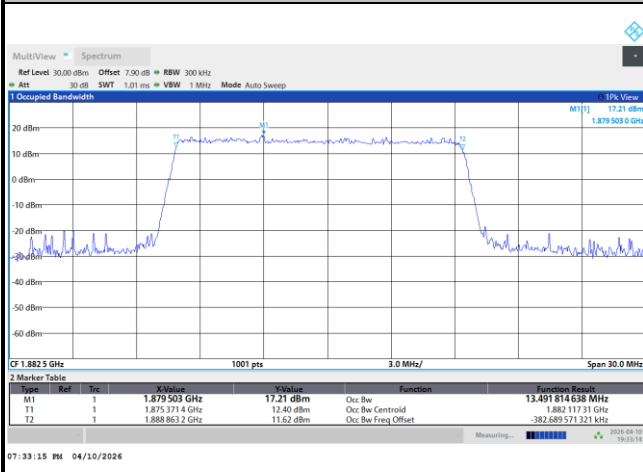
10:21:30 PM 04/10/2026

## QPSK



10:23:59 PM 04/10/2026

## 16QAM

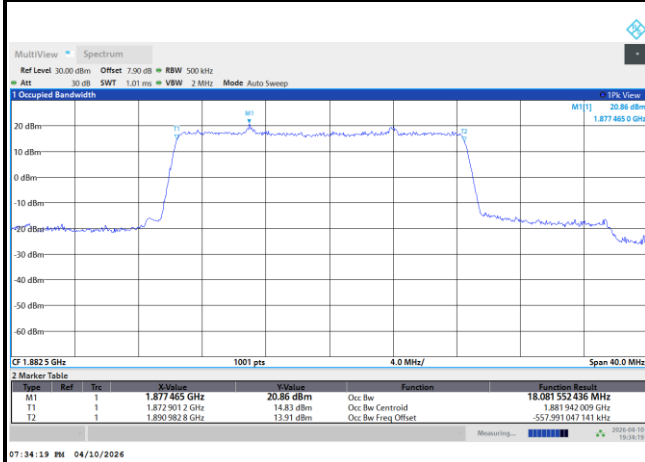


07:33:15 PM 04/10/2026

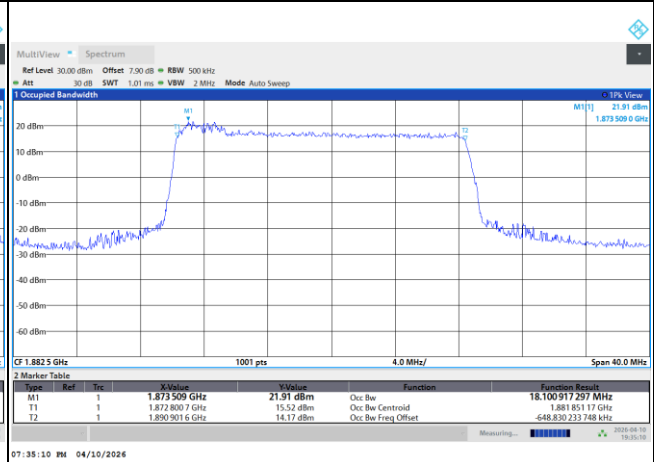


## FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

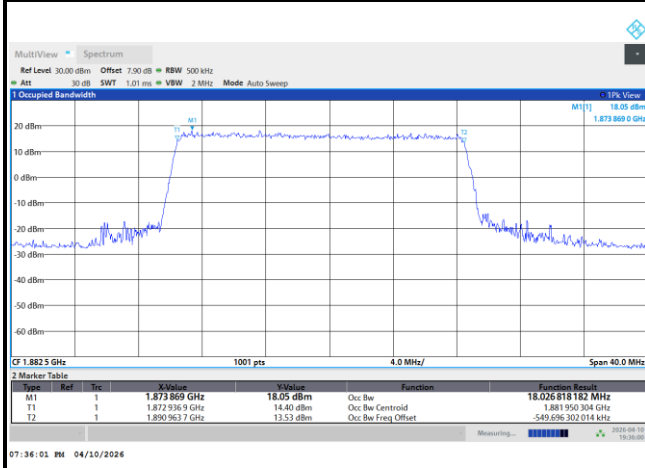
## PI/2 BPSK



## QPSK



## 16QAM

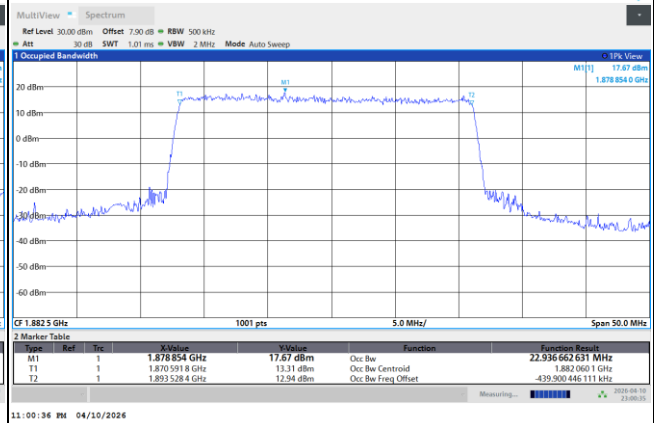
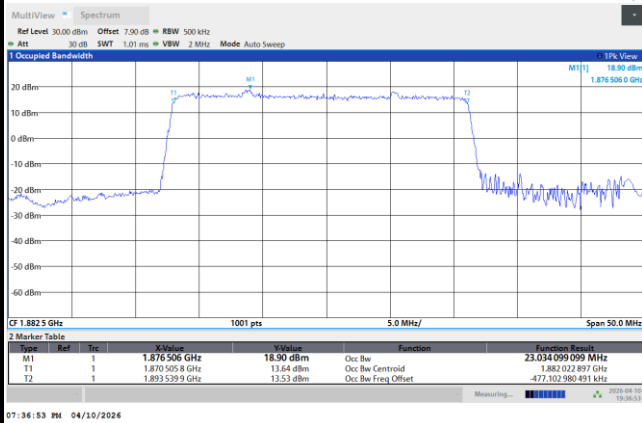




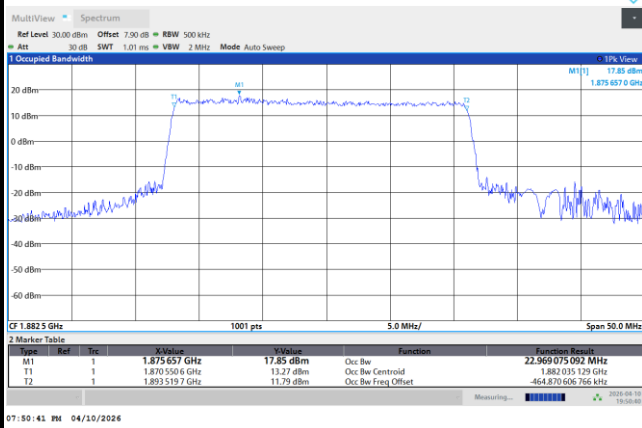
## FR1 n25 / 25MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

## QPSK



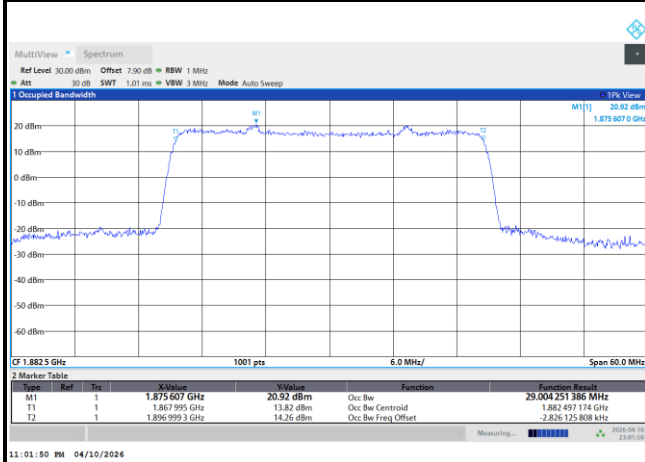
## 16QAM



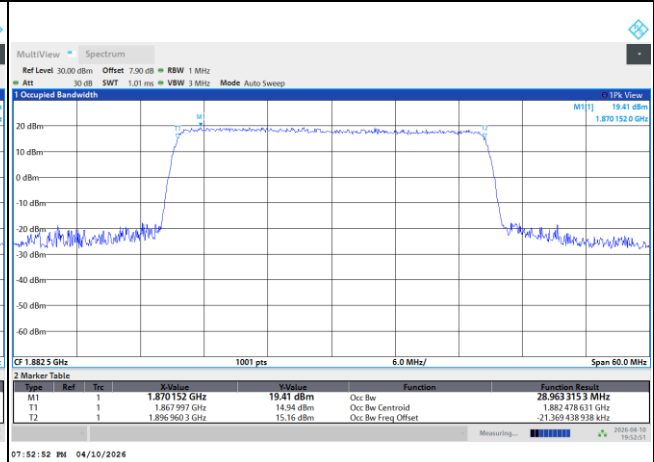


## FR1 n25 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

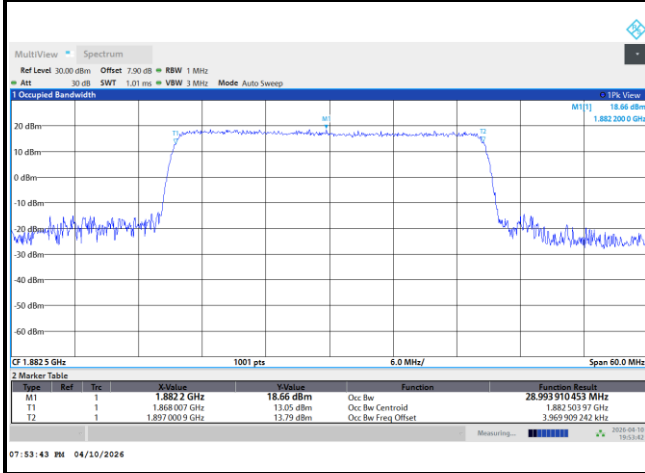
## PI/2 BPSK



## QPSK



## 16QAM

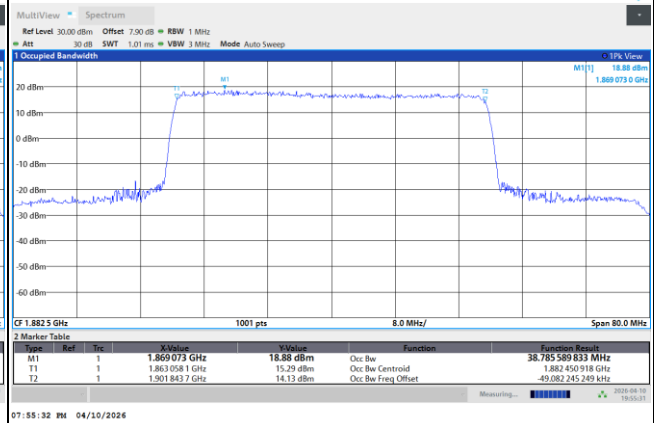
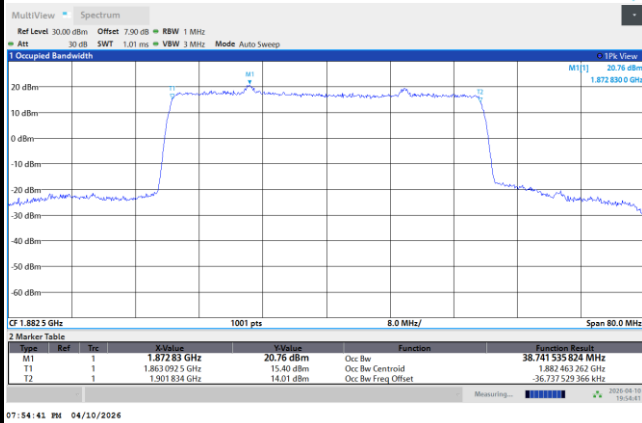




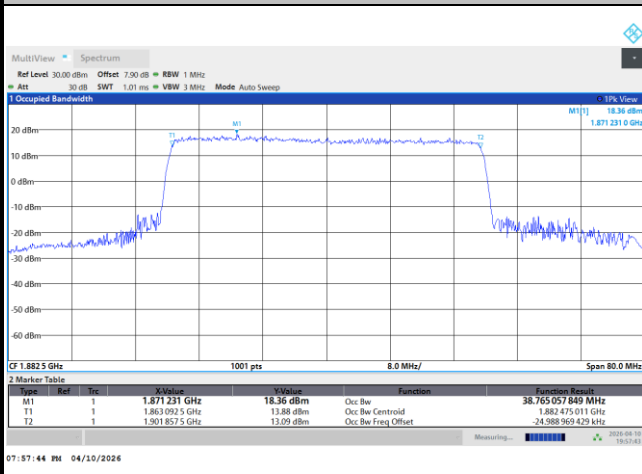
## FR1 n25 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

## QPSK



## 16QAM



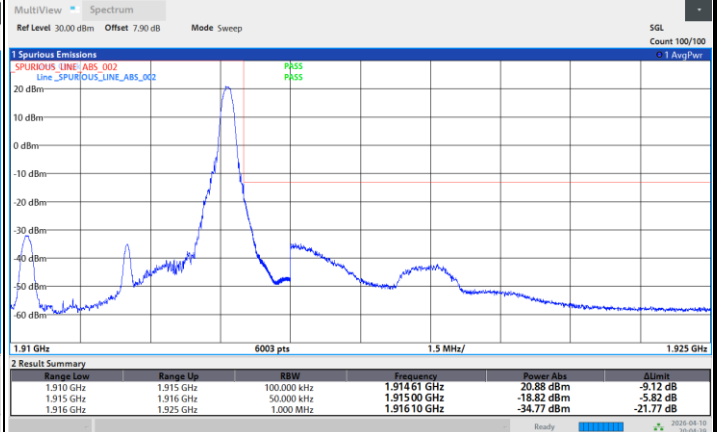
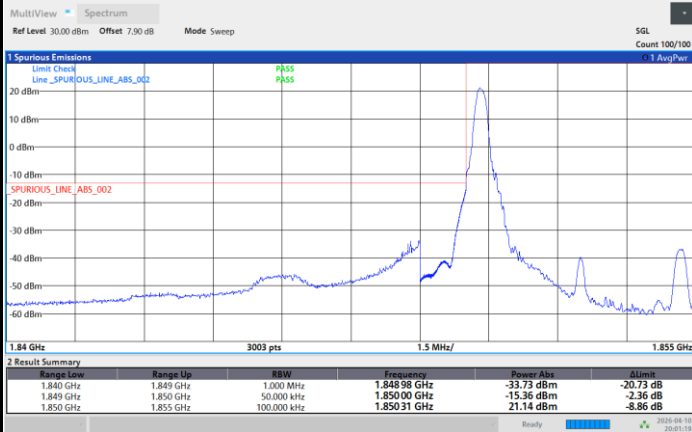


## Conducted Band Edge

## FR1 n25 / 5MHz / DFT-S OFDM / PI/2 BPSK

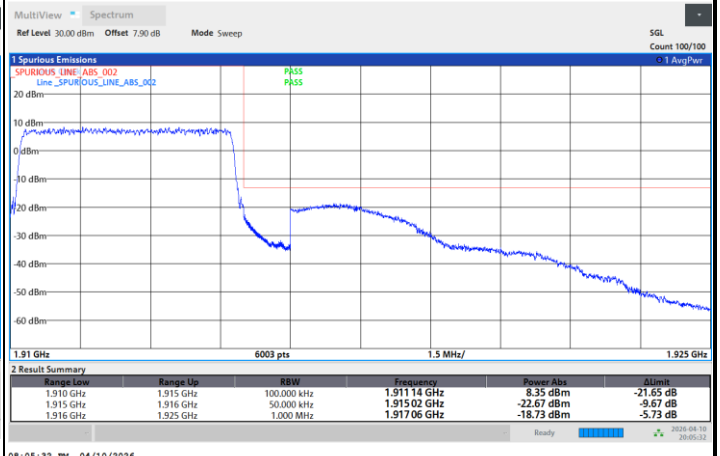
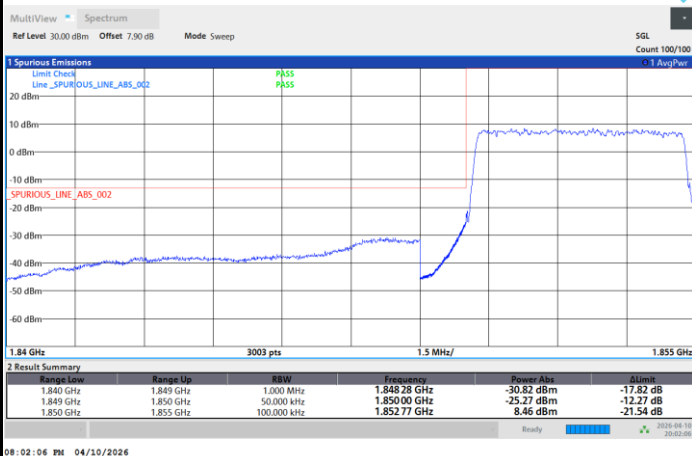
## Lowest Band Edge / 1RB0

## Highest Band Edge / 1RBmax



## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB

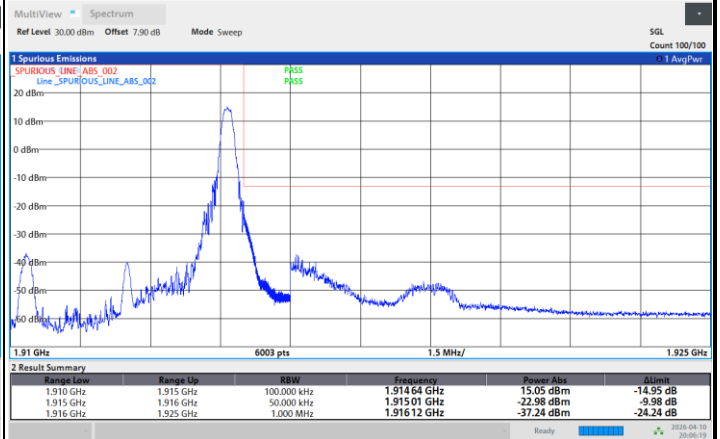
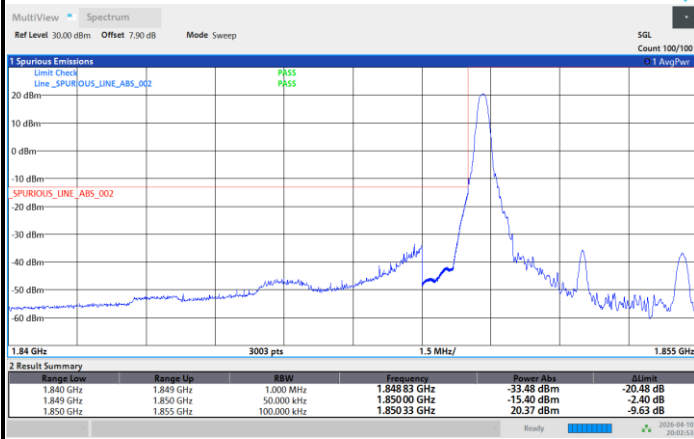




## FR1 n25 / 5MHz / DFT-S OFDM / QPSK

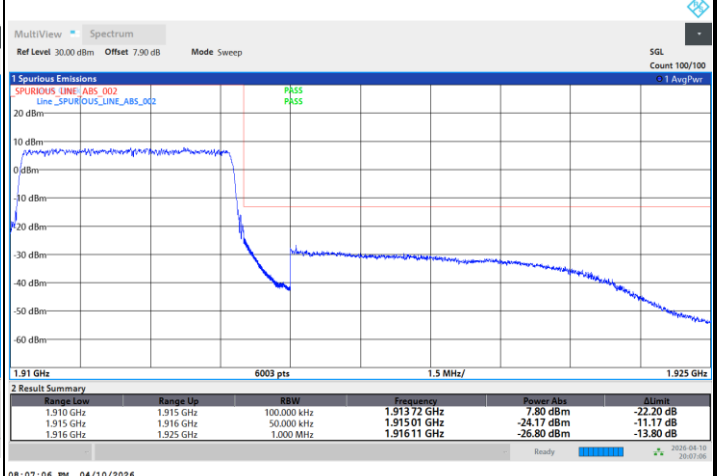
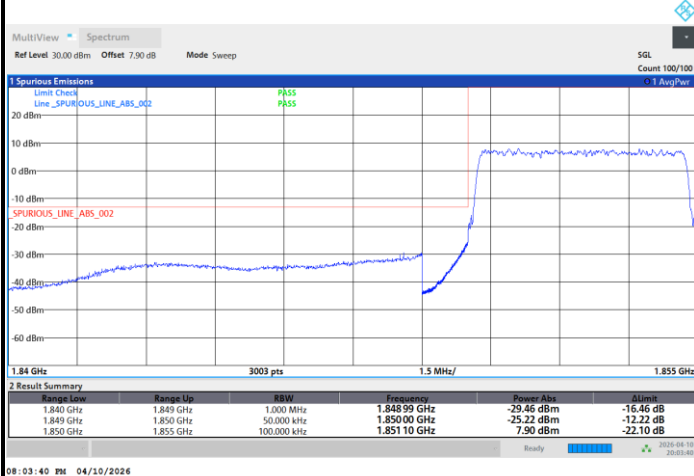
## Lowest Band Edge / 1RB0

## Highest Band Edge / 1RBmax



## Lowest Band Edge / Full RB

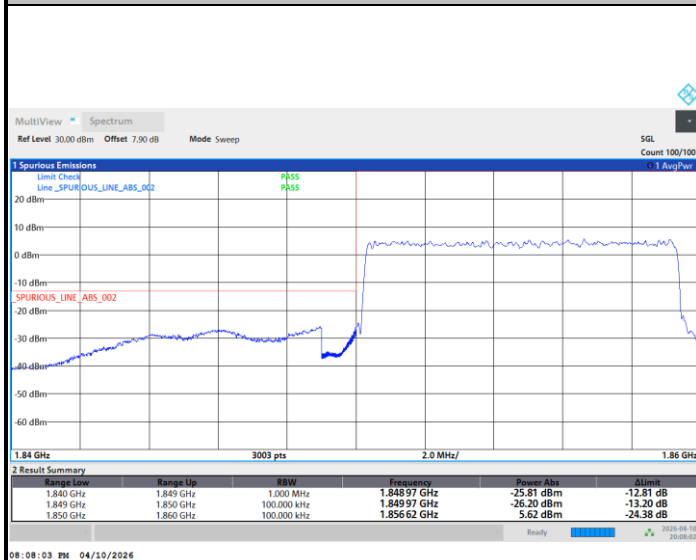
## Highest Band Edge / Full RB



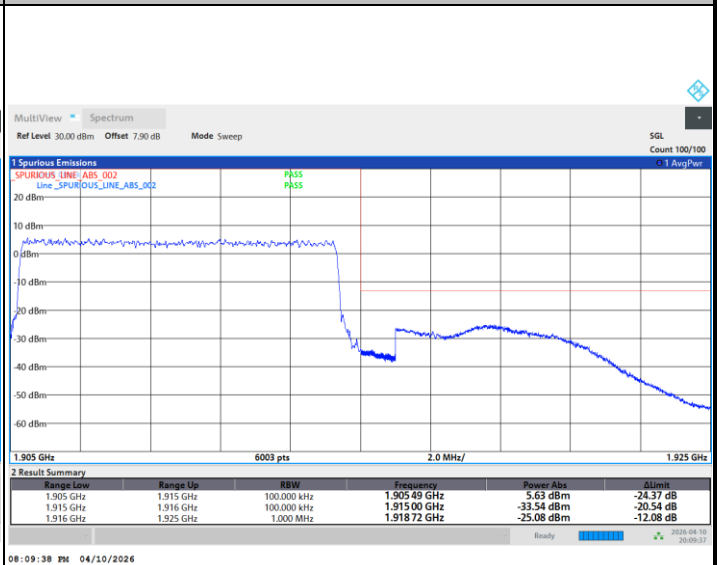


## FR1 n25 / 10MHz / DFT-S OFDM / PI/2 BPSK

## Lowest Band Edge / Full RB

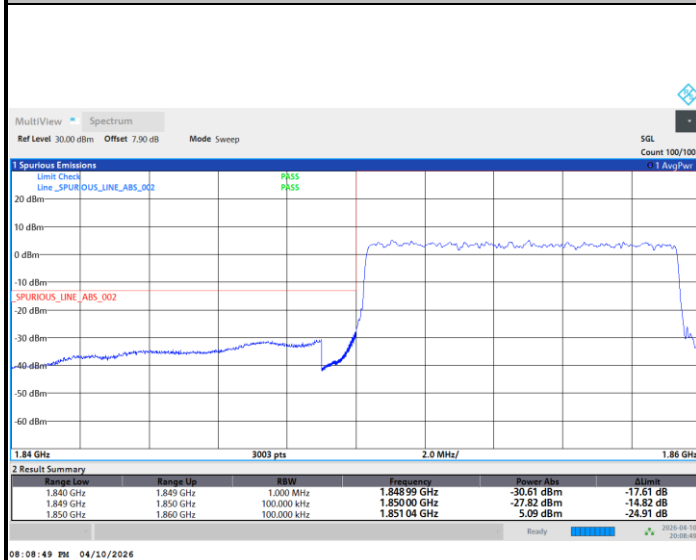


## Highest Band Edge / Full RB

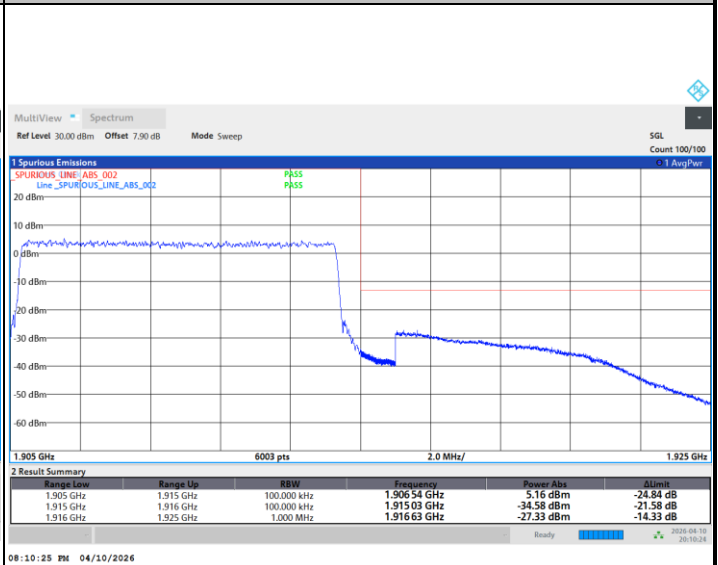


## FR1 n25 / 10MHz / DFT-S OFDM / QPSK

## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

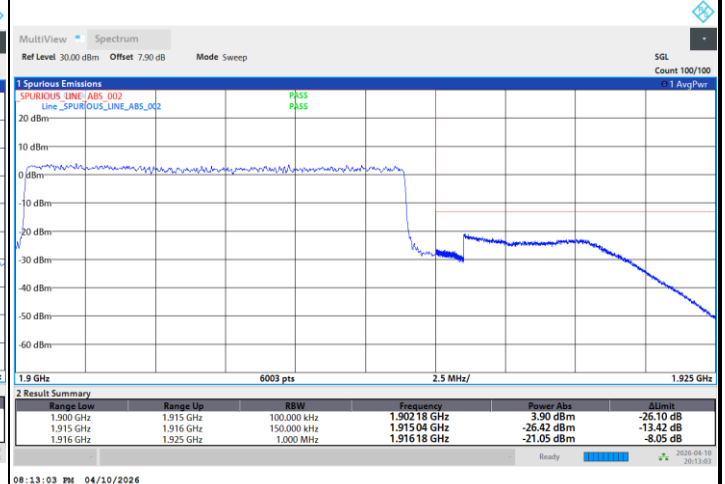
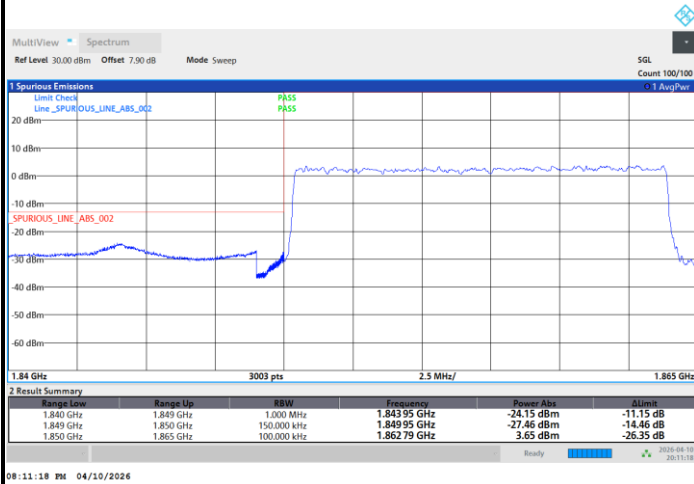




## FR1 n25 / 15MHz / DFT-S OFDM / PI/2 BPSK

## Lowest Band Edge / Full RB

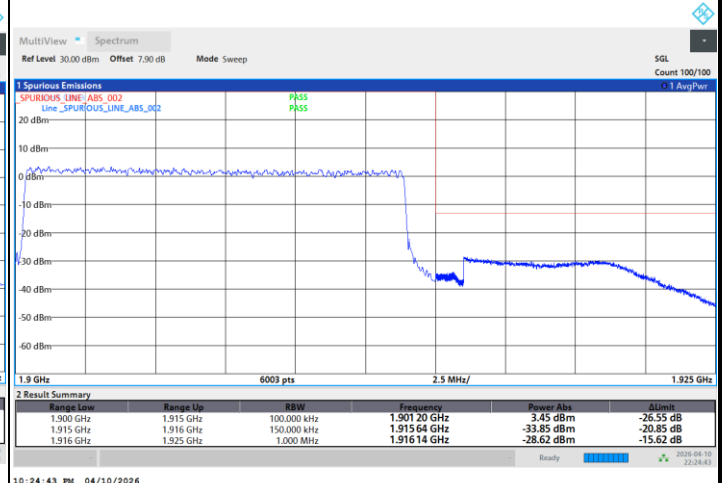
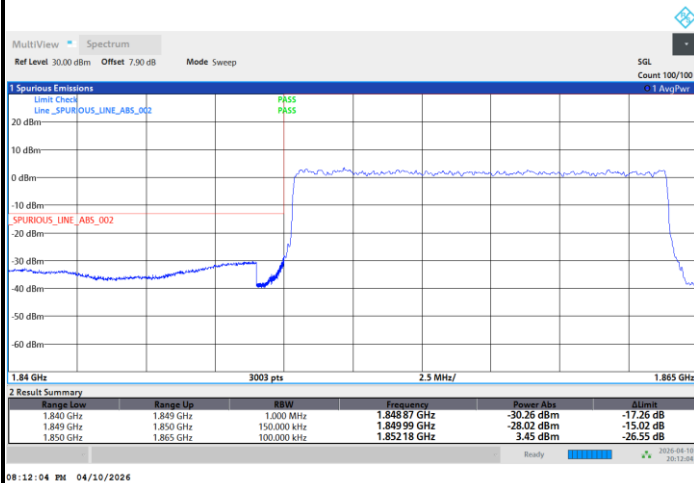
## Highest Band Edge / Full RB



## FR1 n25 / 15MHz / DFT-S OFDM / QPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB

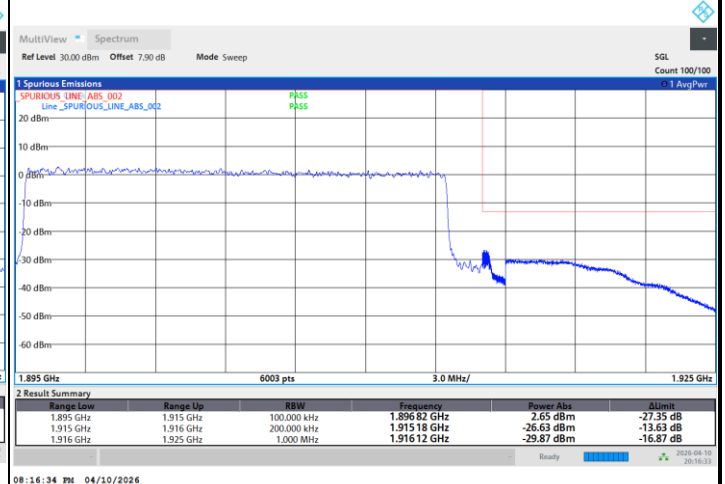
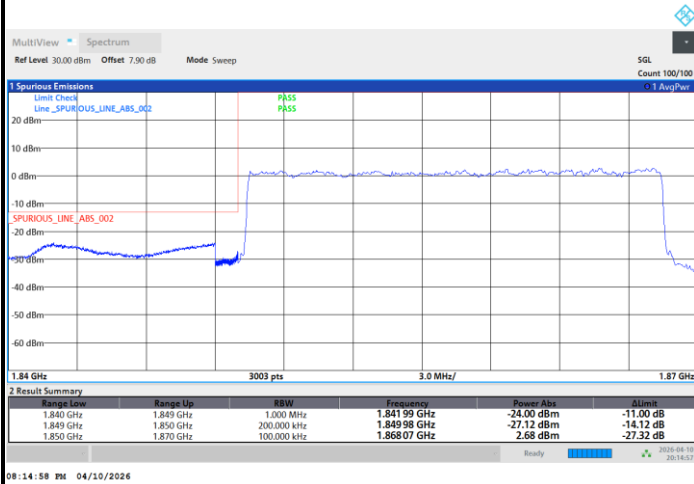




## FR1 n25 / 20MHz / DFT-S OFDM / PI/2 BPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB



## FR1 n25 / 20MHz / DFT-S OFDM / QPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB

