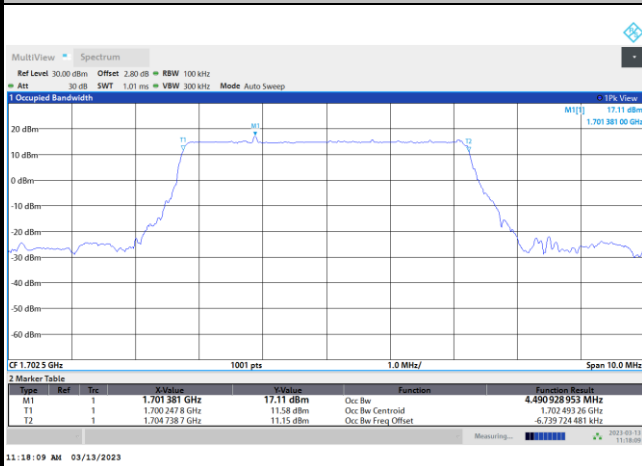


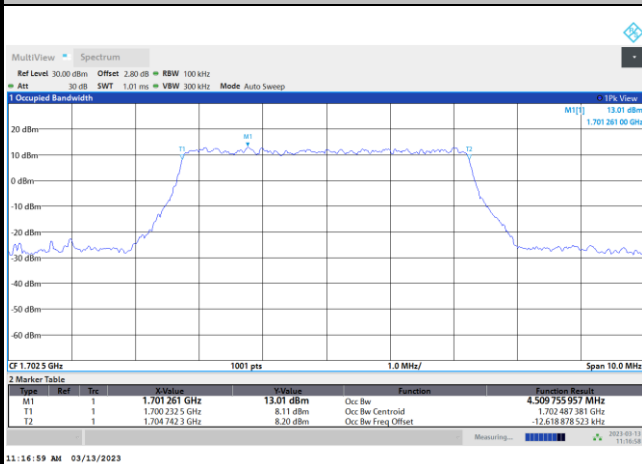
## FR1 n70 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

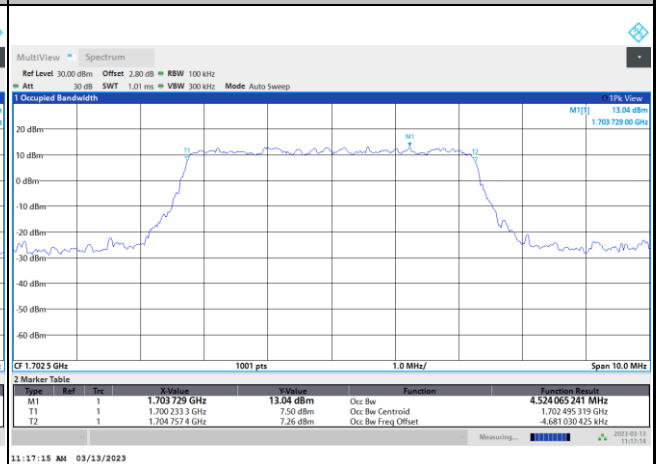


## FR1 n70 / 5MHz / CP OFDM / Middle Channel / Full RB

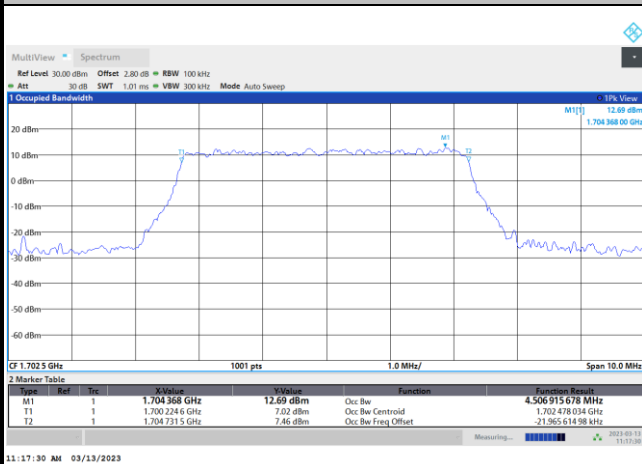
### QPSK



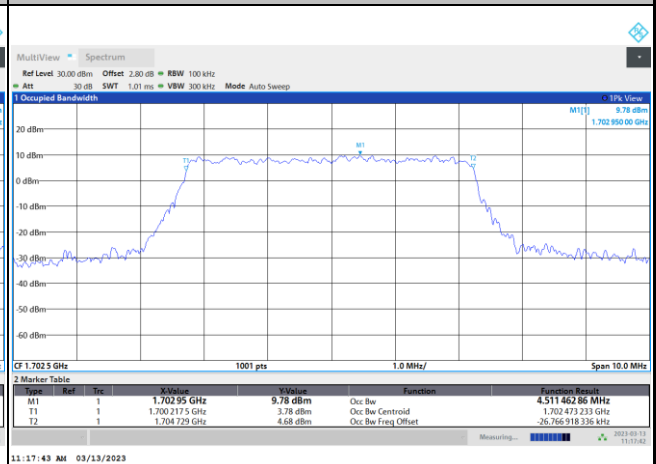
### 16QAM



### 64QAM

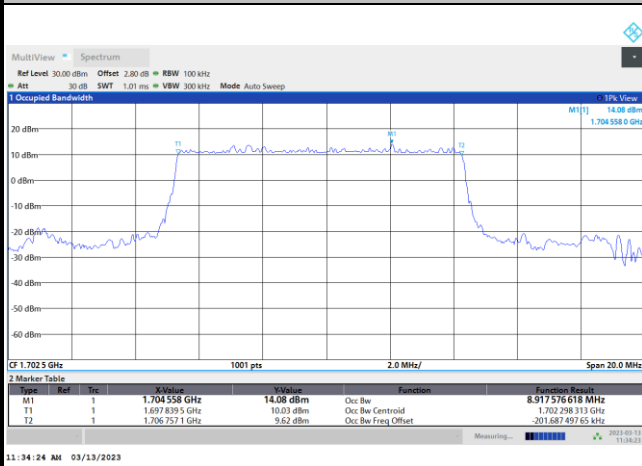


### 256QAM



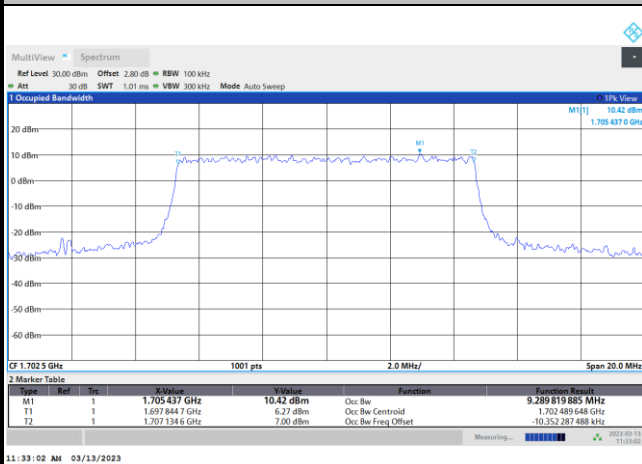
### FR1 n70 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

#### PI/2 BPSK

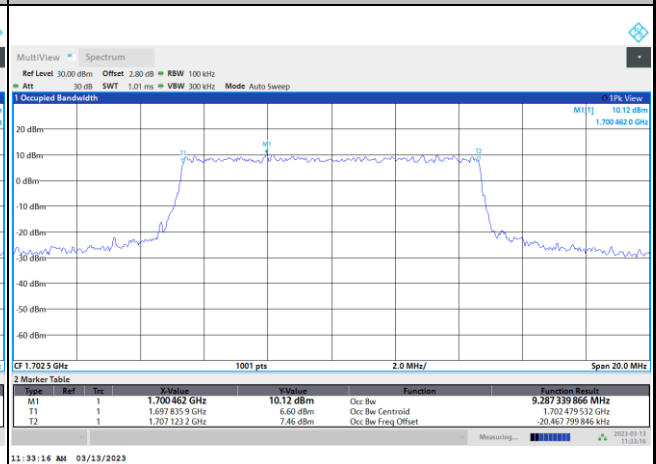


### FR1 n70 / 10MHz / CP OFDM / Middle Channel / Full RB

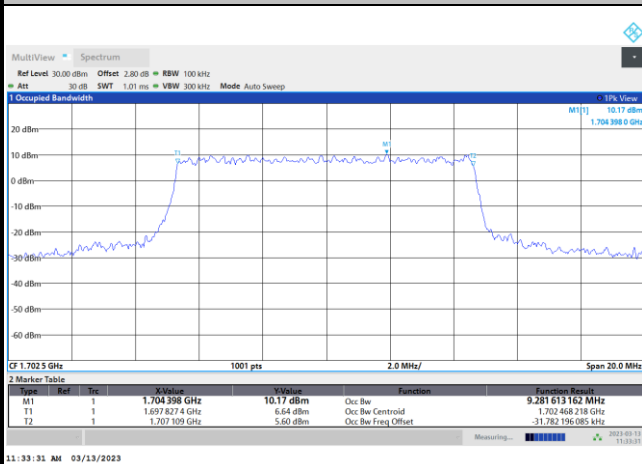
#### QPSK



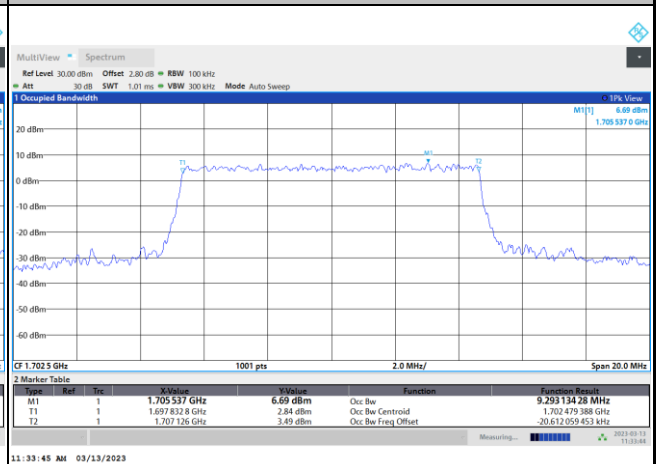
#### 16QAM



#### 64QAM

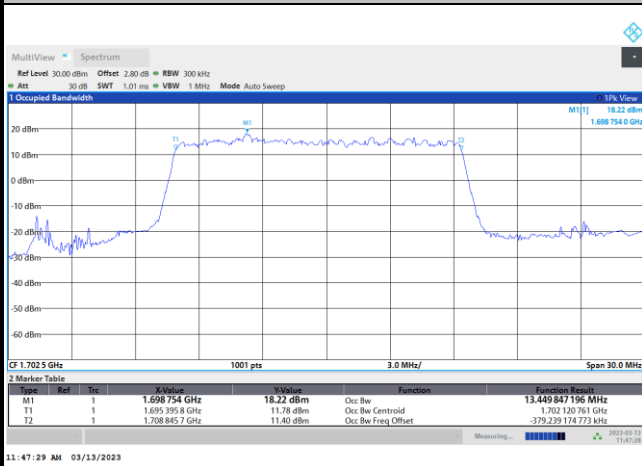


#### 256QAM



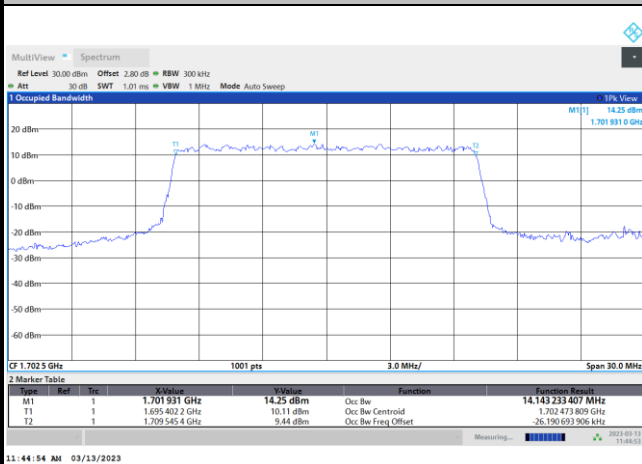
## FR1 n70 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

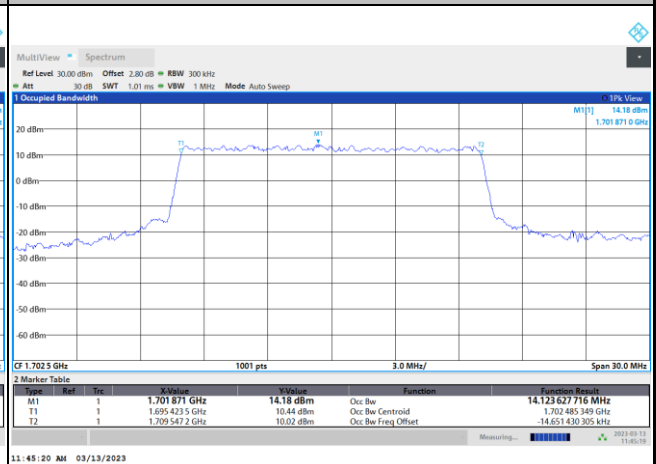


## FR1 n70 / 15MHz / CP OFDM / Middle Channel / Full RB

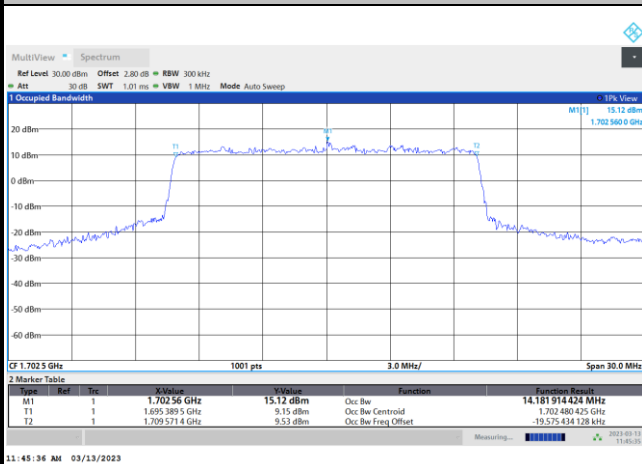
### QPSK



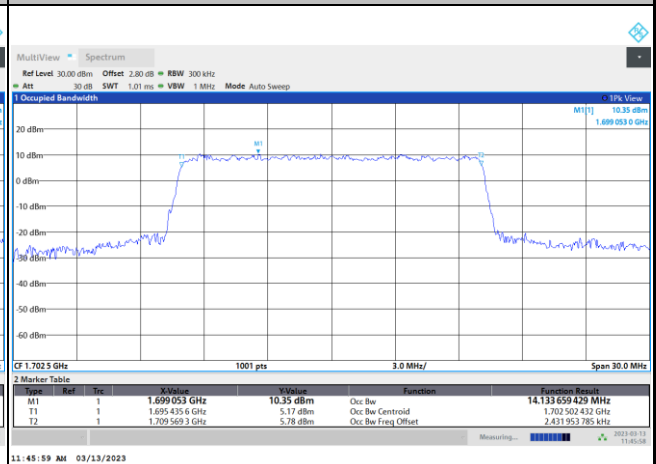
### 16QAM



### 64QAM



### 256QAM



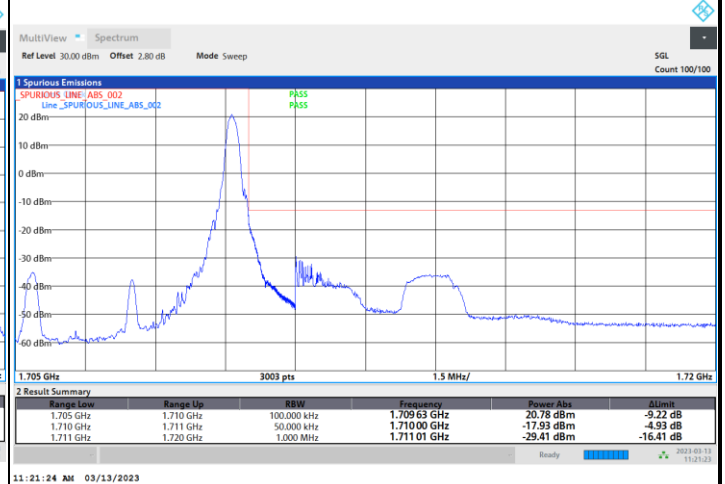
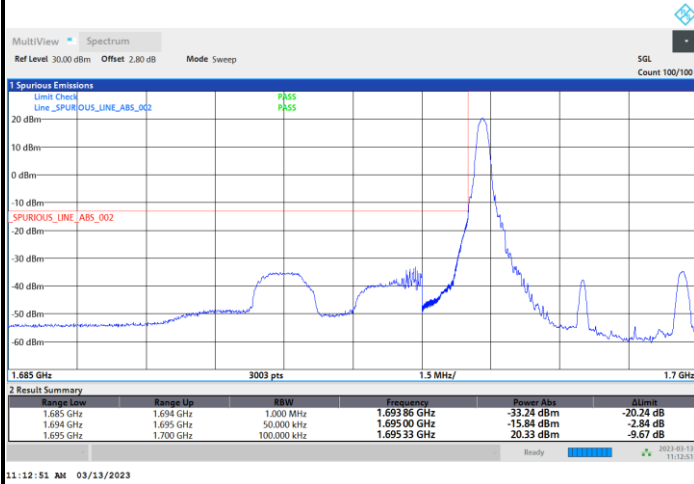


# Conducted Band Edge

FR1 n70 / 5MHz / DFT-S OFDM / PI/2 BPSK

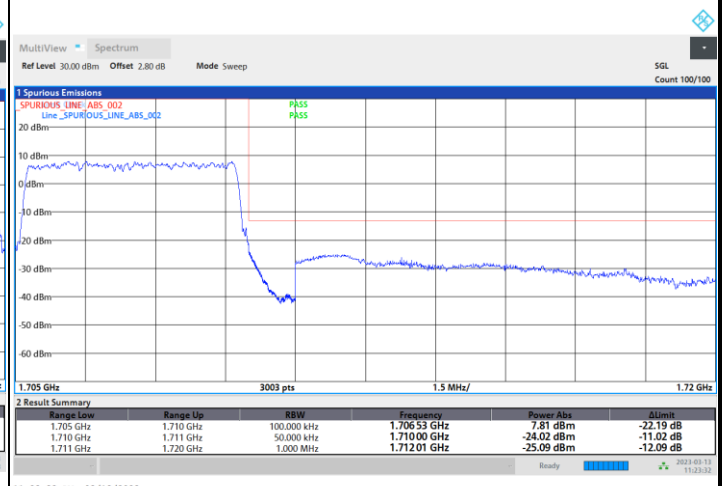
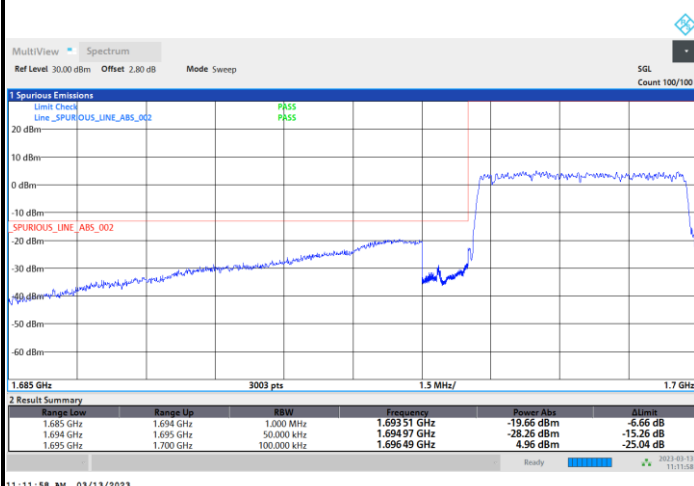
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

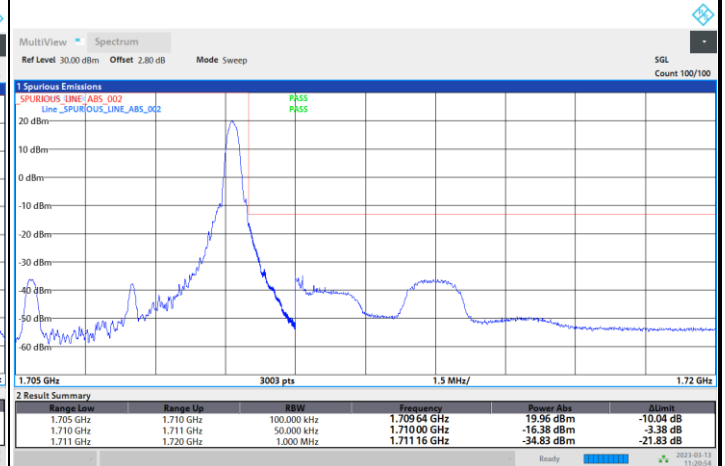
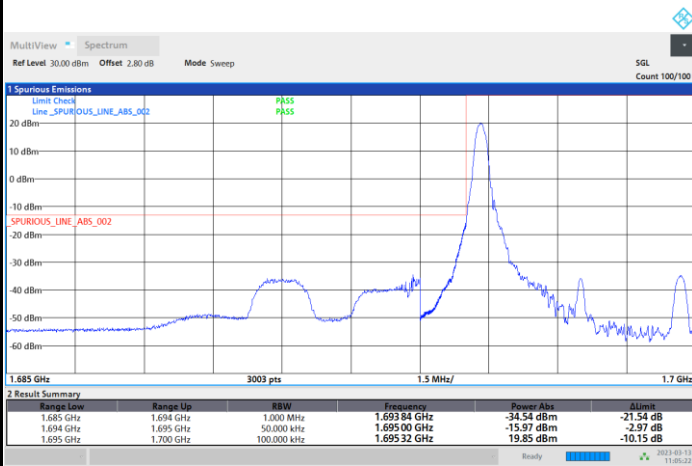




## FR1 n70 / 5MHz / DFT-S OFDM / QPSK

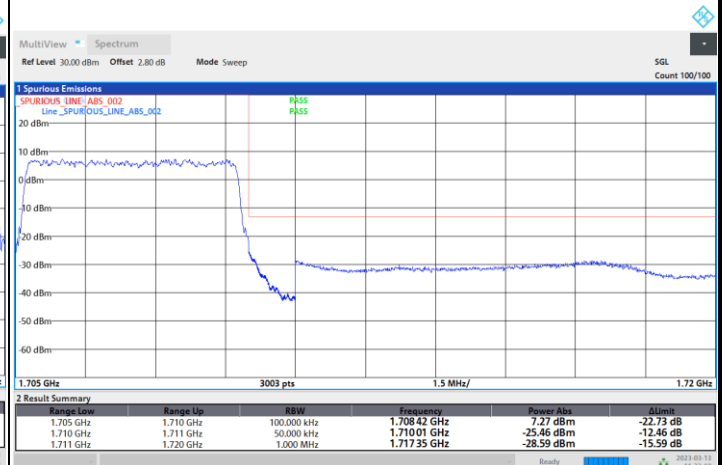
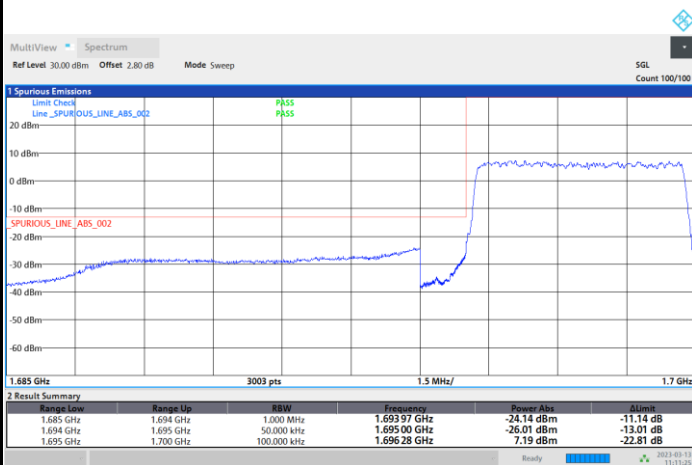
## Lowest Band Edge / 1RB0

## Highest Band Edge / 1RBmax



## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB

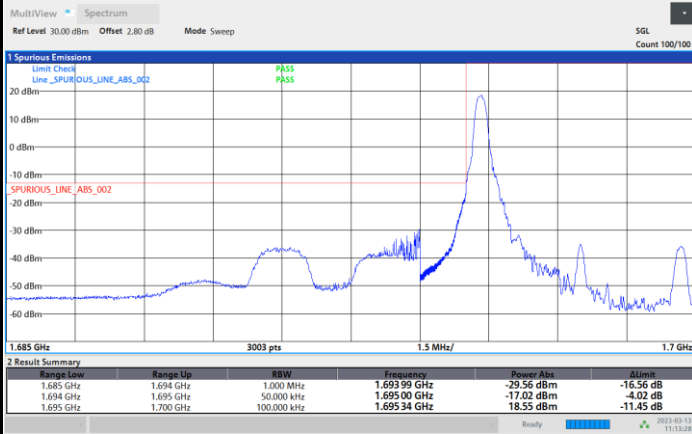




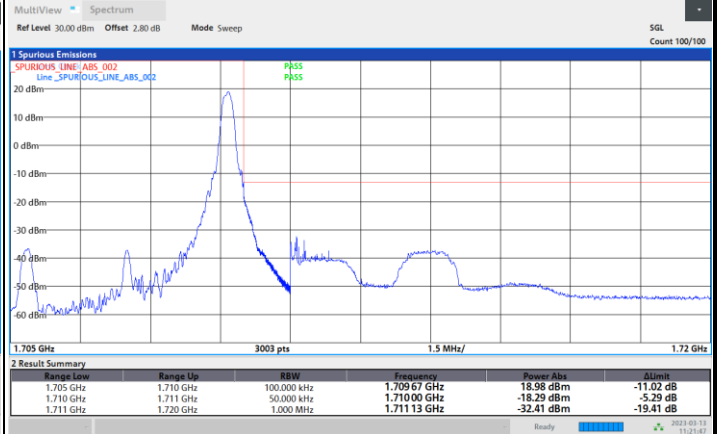
## FR1 n70 / 5MHz / DFT-S OFDM / 16QAM

## Lowest Band Edge / 1RB0

## Highest Band Edge / 1RBmax



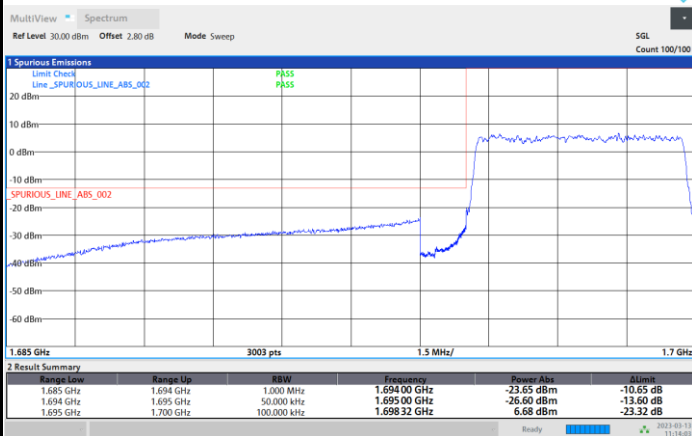
11:13:28 AM 03/13/2023



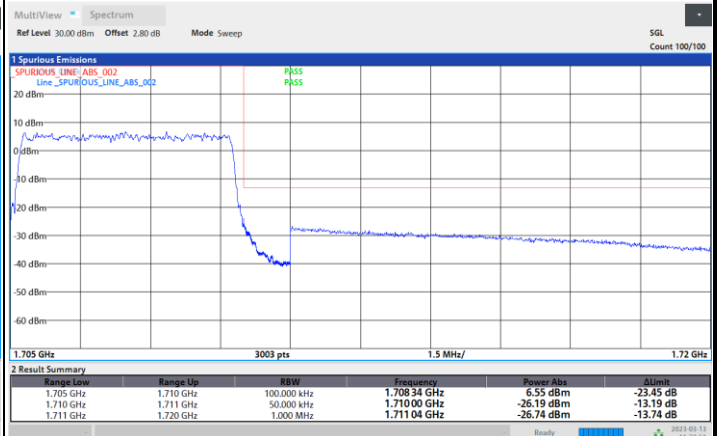
11:21:47 AM 03/13/2023

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB



11:14:03 AM 03/13/2023



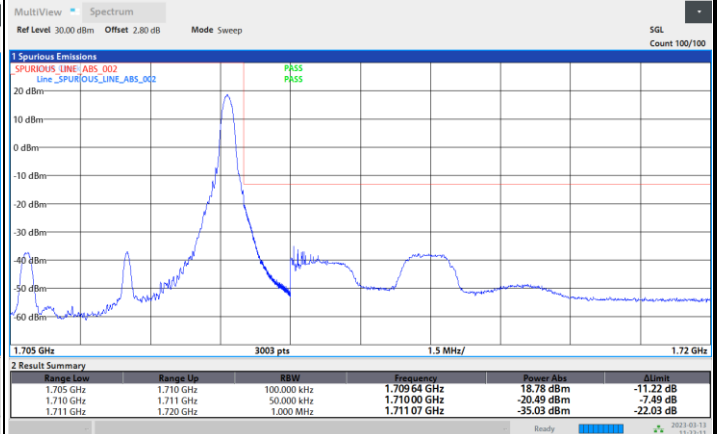
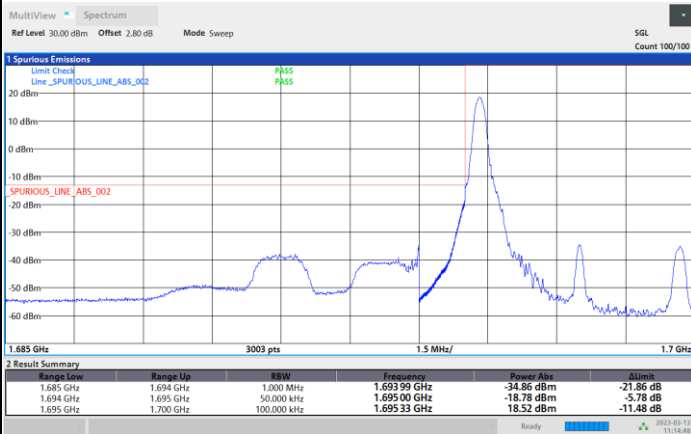
11:22:52 AM 03/13/2023



## FR1 n70 / 5MHz / DFT-S OFDM / 64QAM

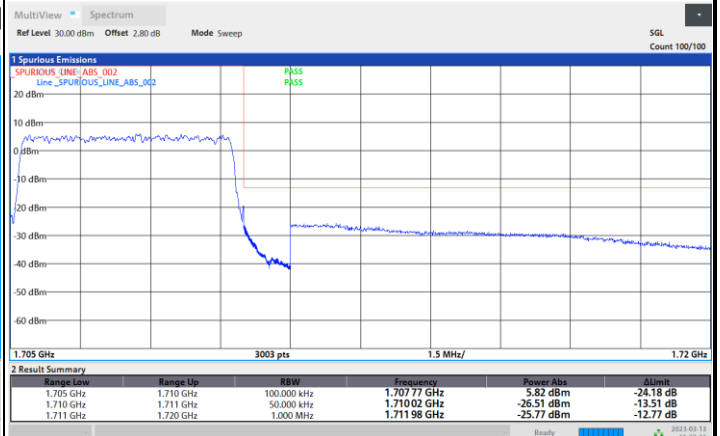
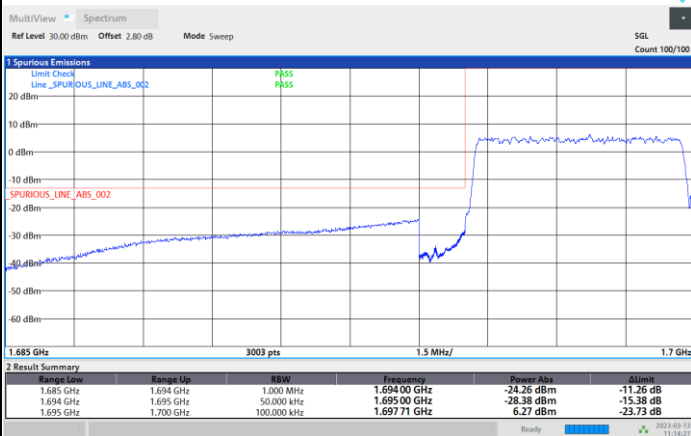
## Lowest Band Edge / 1RB0

## Highest Band Edge / 1RBmax



## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB

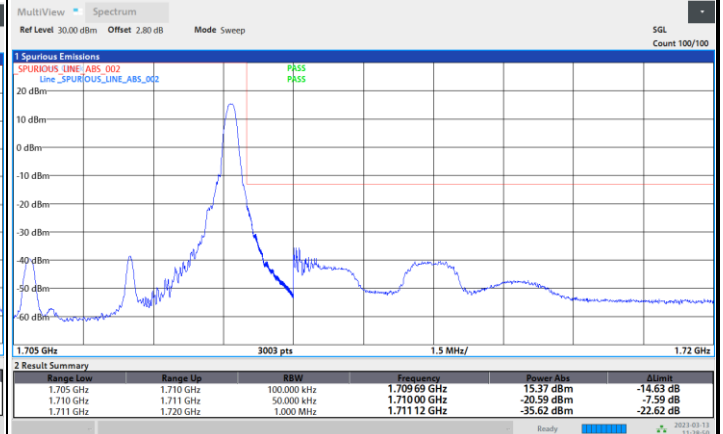
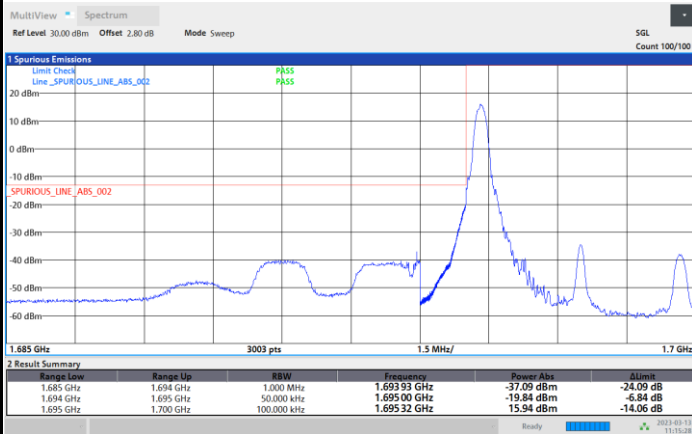




## FR1 n70 / 5MHz / DFT-S OFDM / 256QAM

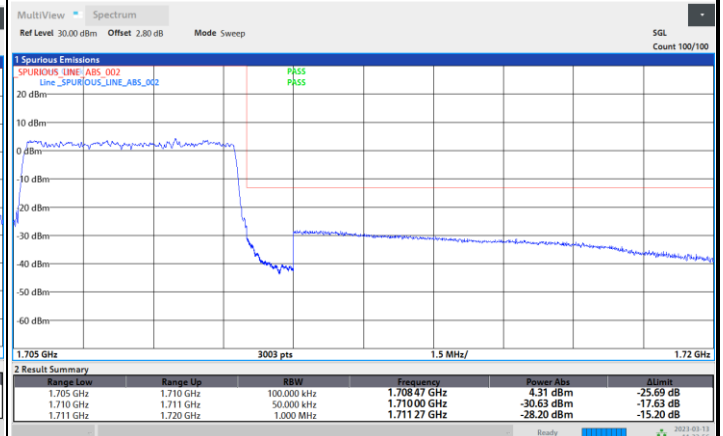
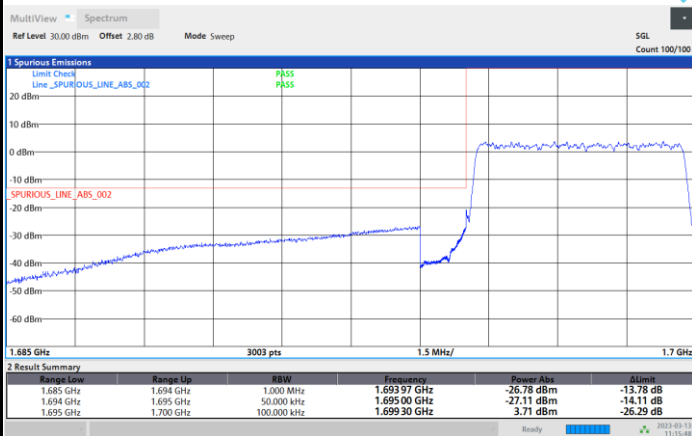
## Lowest Band Edge / 1RB0

## Highest Band Edge / 1RBmax



## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB

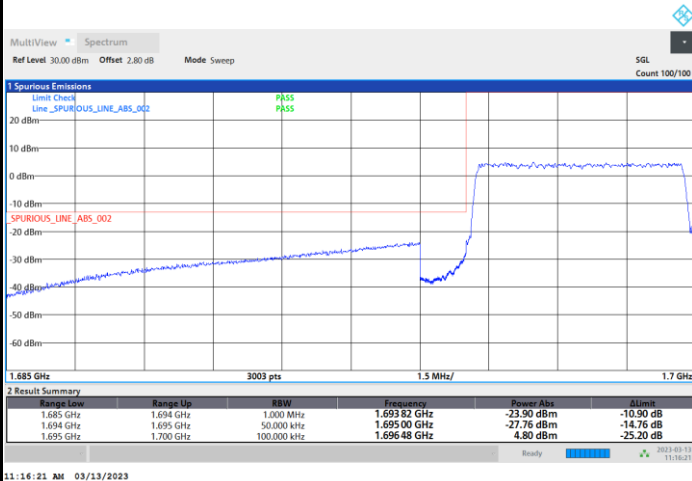




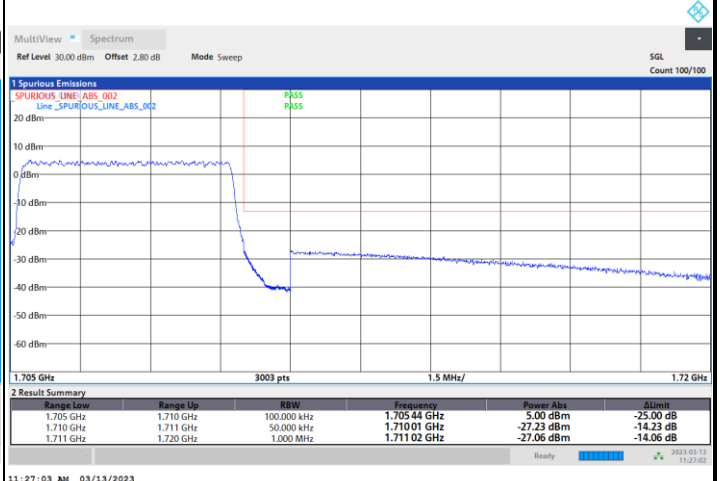
FR1 n70 / 5MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge

Highest Band Edge



11:16:21 AM 03/13/2023

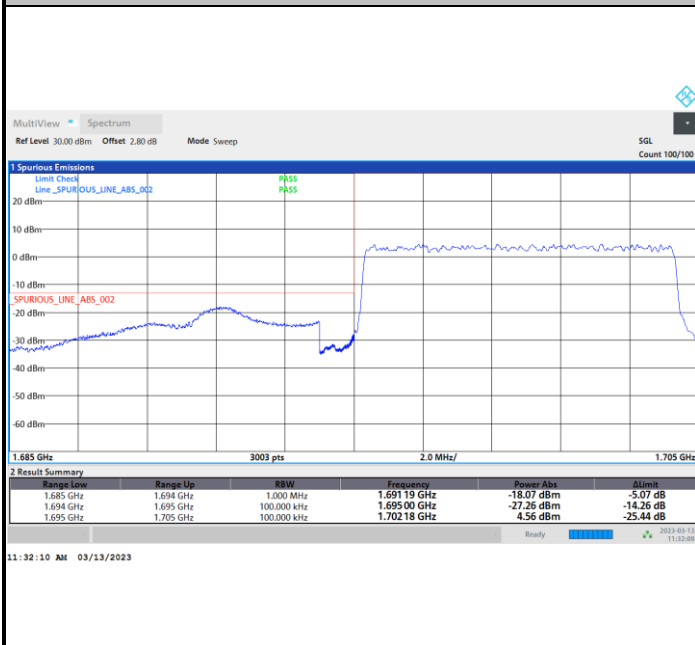


11:27:03 AM 03/13/2023

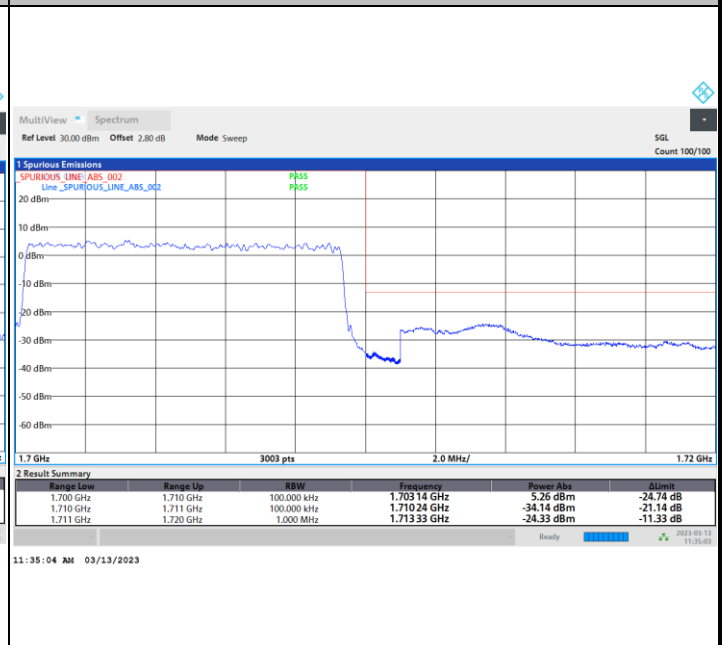


## FR1 n70 / 10MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

## Lowest Band Edge



## Highest Band Edge

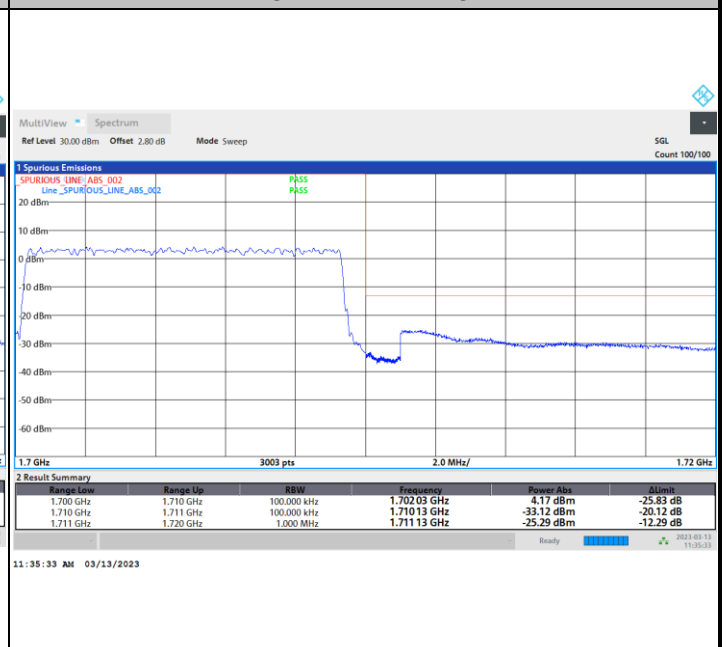


## FR1 n70 / 10MHz / DFT-s-OFDM / QPSK / Full RB

## Lowest Band Edge



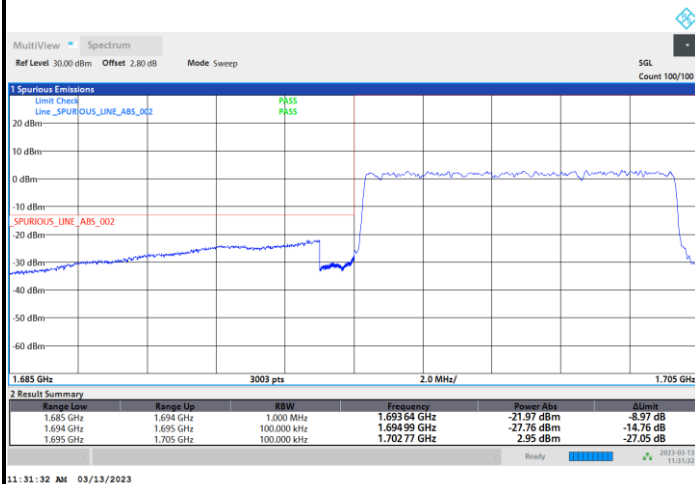
## Highest Band Edge



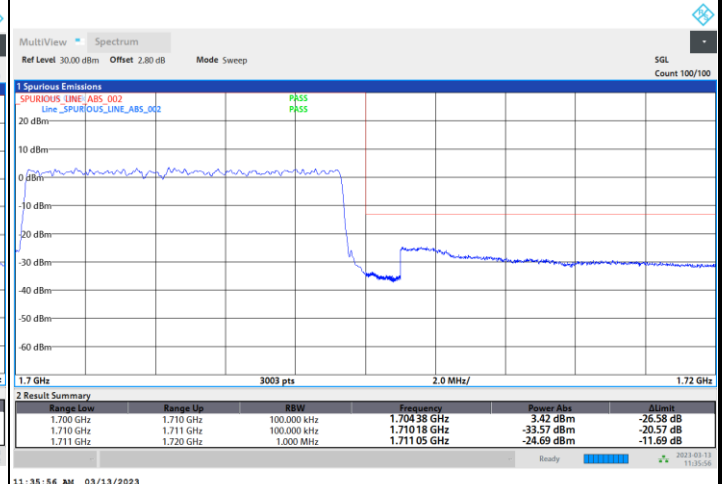


## FR1 n70 / 10MHz / DFT-s-OFDM / 16QAM / Full RB

## Lowest Band Edge

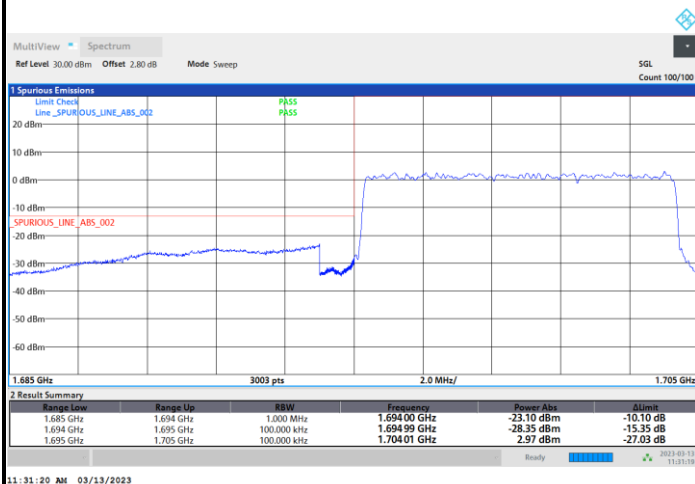


## Highest Band Edge

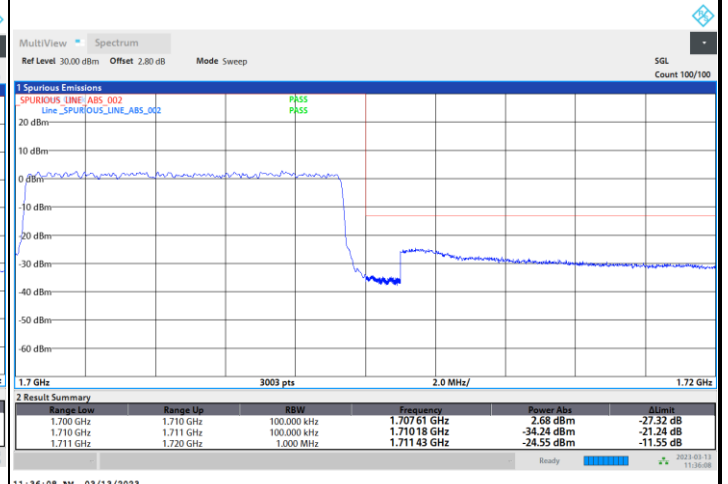


## FR1 n70 / 10MHz / DFT-s-OFDM / 64QAM / Full RB

## Lowest Band Edge



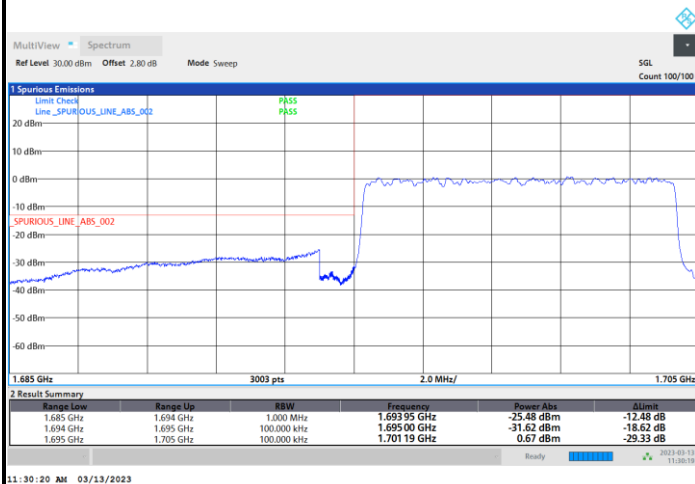
## Highest Band Edge



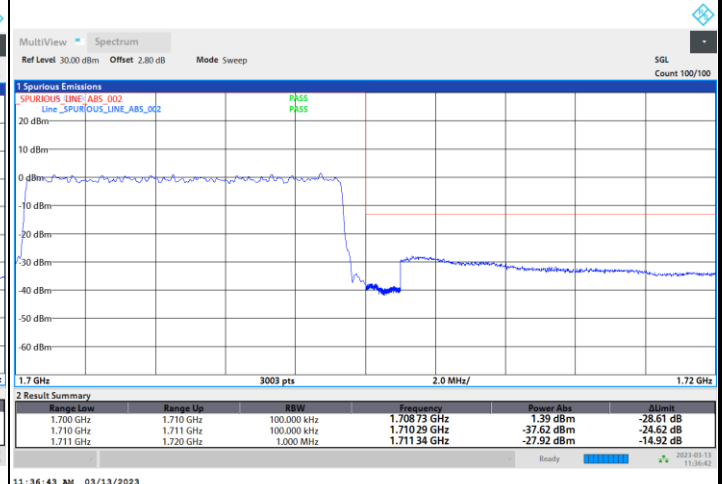


## FR1 n70 / 10MHz / DFT-s-OFDM / 256QAM / Full RB

## Lowest Band Edge

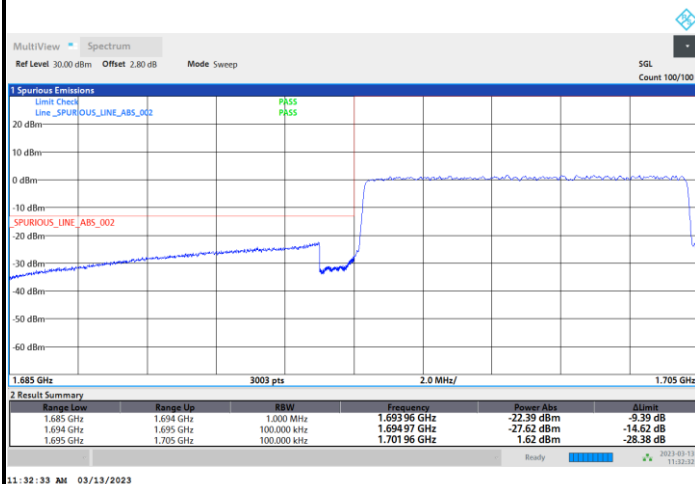


## Highest Band Edge

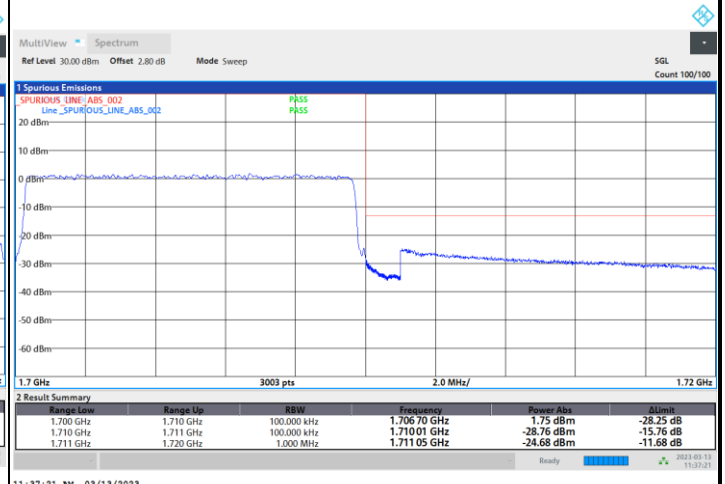


## FR1 n70 / 10MHz / CP OFDM / QPSK / Full RB

## Lowest Band Edge



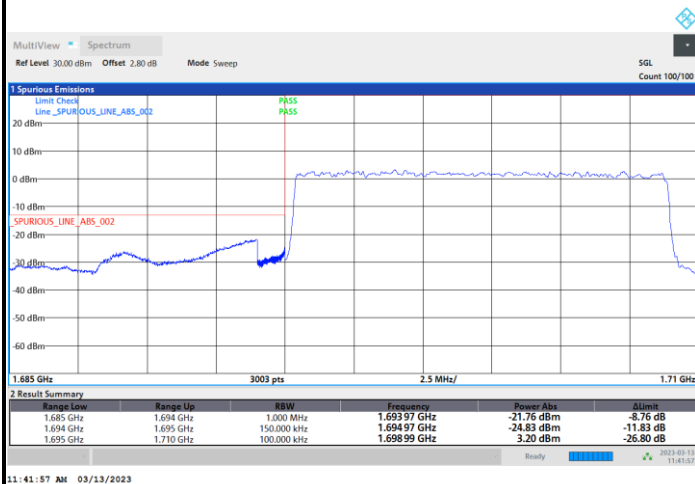
## Highest Band Edge



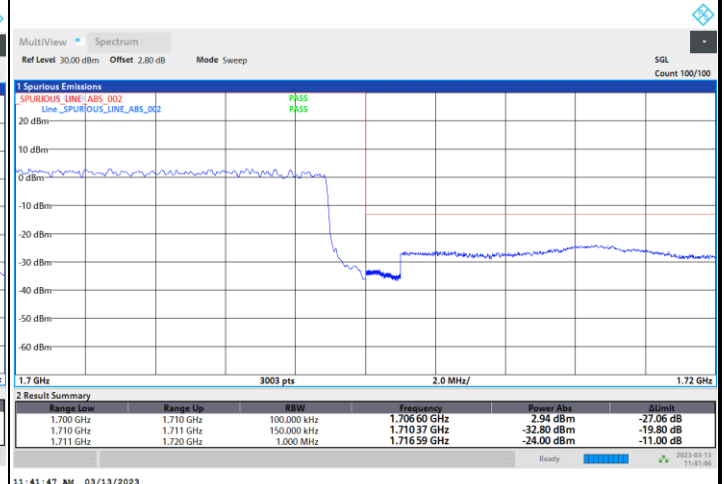


## FR1 n70 / 15MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

## Lowest Band Edge

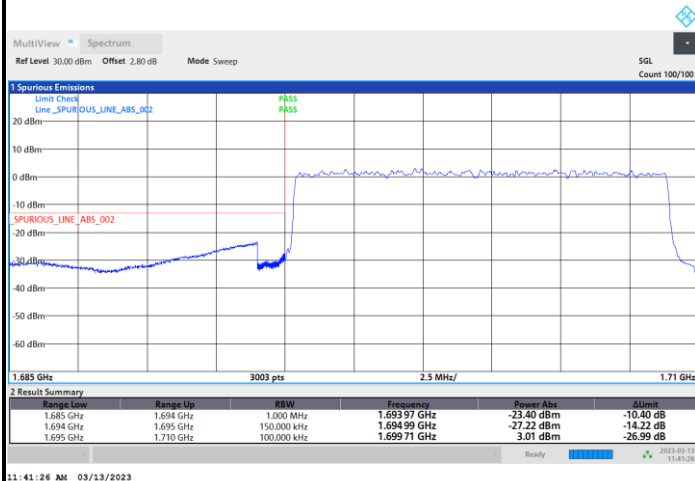


## Highest Band Edge

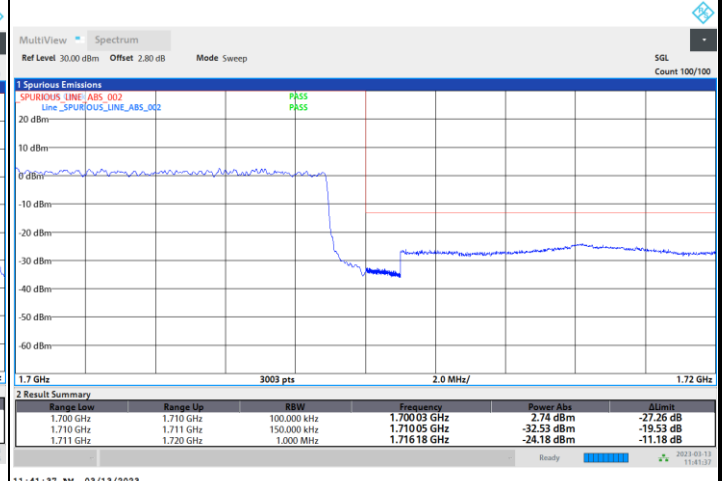


## FR1 n70 / 15MHz / DFT-s-OFDM / QPSK / Full RB

## Lowest Band Edge



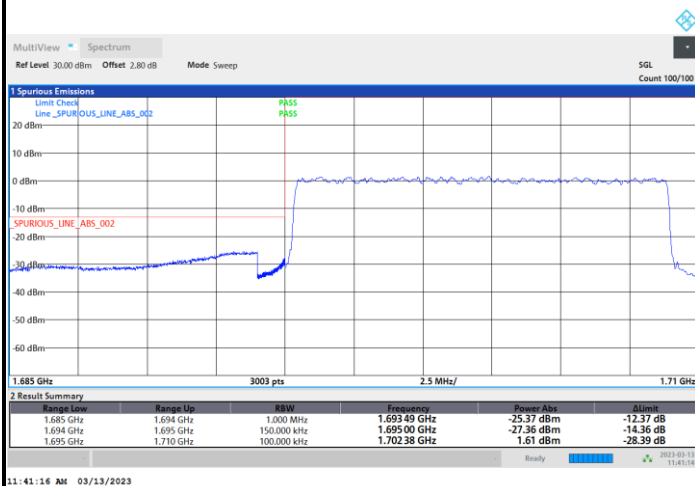
## Highest Band Edge



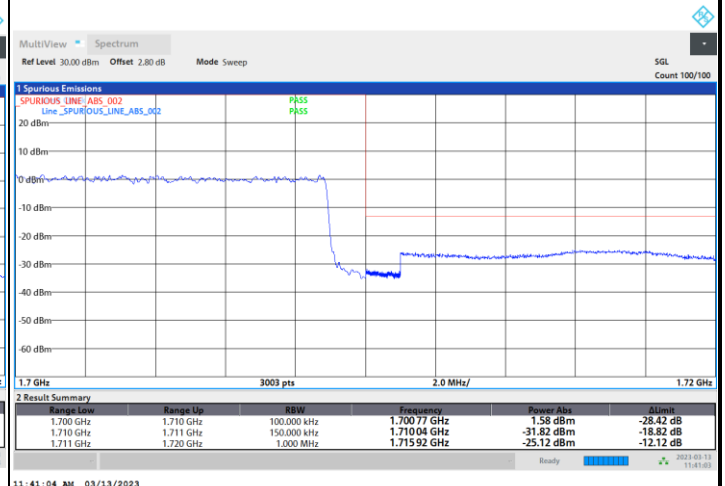


## FR1 n70 / 15MHz / DFT-s-OFDM / 16QAM / Full RB

## Lowest Band Edge

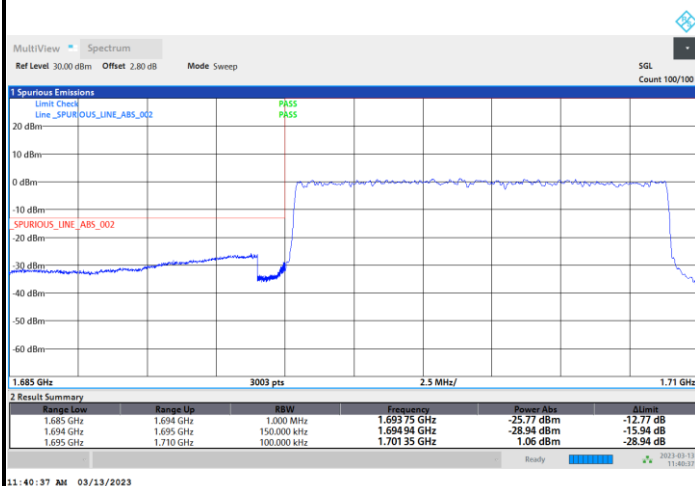


## Highest Band Edge

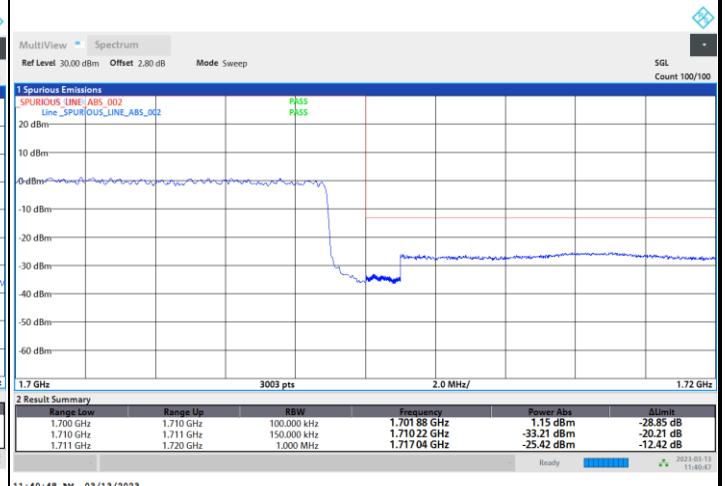


## FR1 n70 / 15MHz / DFT-s-OFDM / 64QAM / Full RB

## Lowest Band Edge



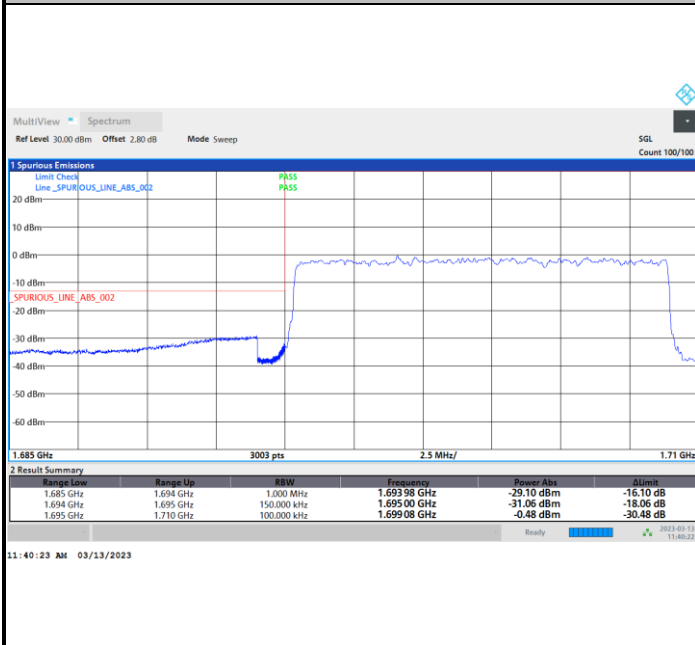
## Highest Band Edge



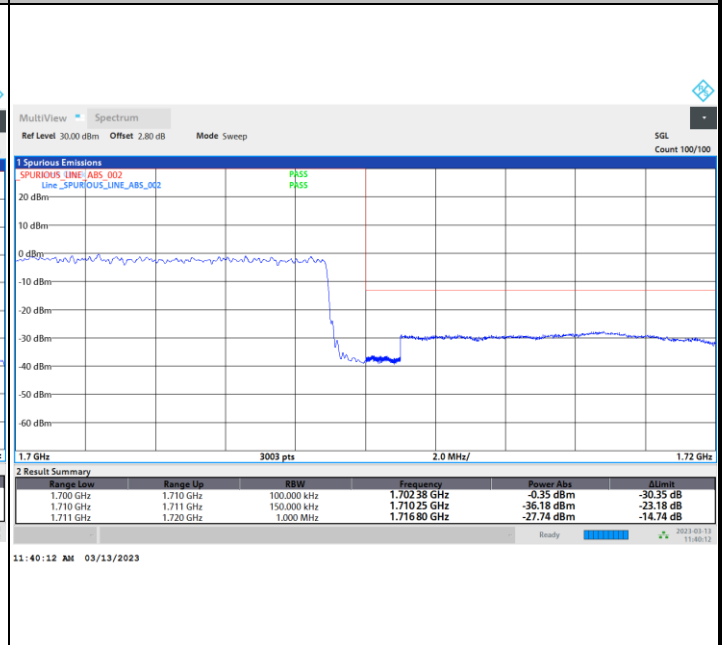


## FR1 n70 / 15MHz / DFT-s-OFDM / 256QAM / Full RB

## Lowest Band Edge

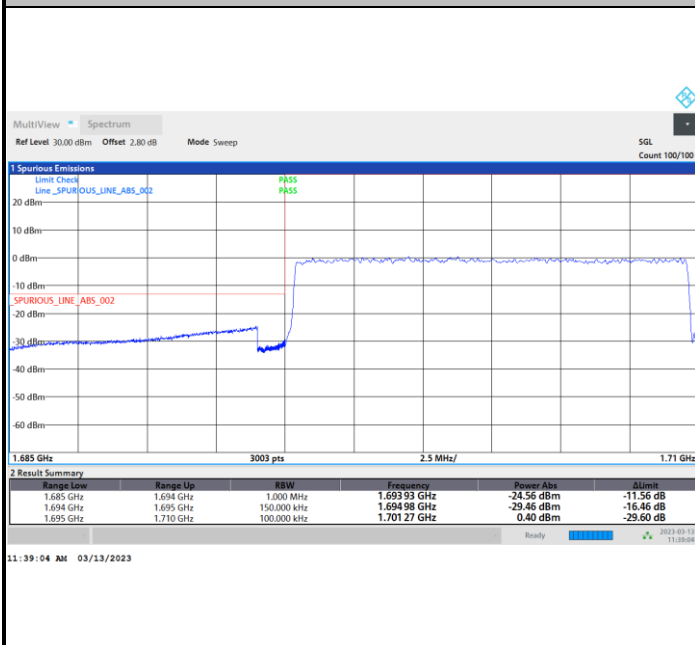


## Highest Band Edge

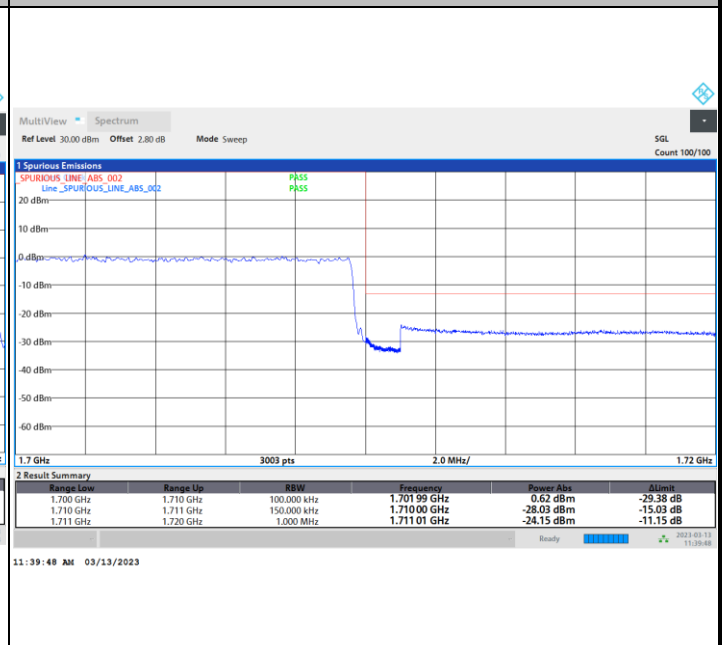


## FR1 n70 / 15MHz / CP OFDM / QPSK / Full RB

## Lowest Band Edge



## Highest Band Edge

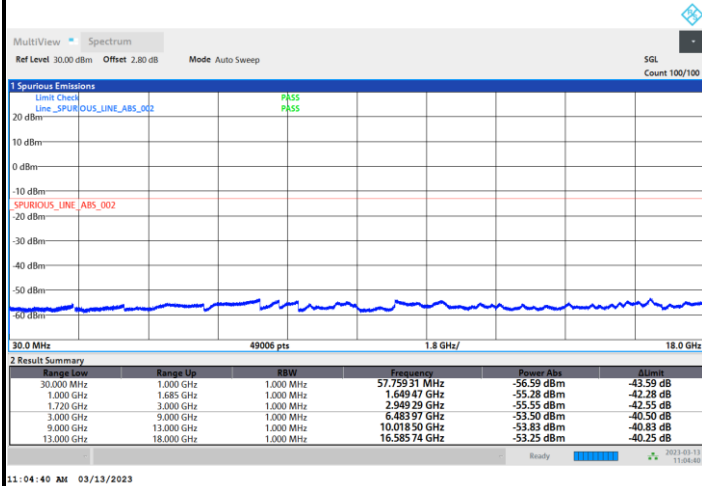




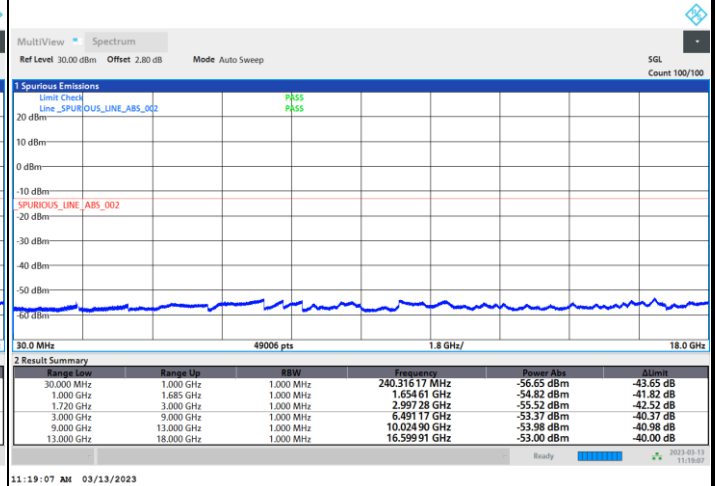
# Conducted Spurious Emission

FR1 n70 / 5MHz / DFT-S OFDM / QPSK / 1RB1

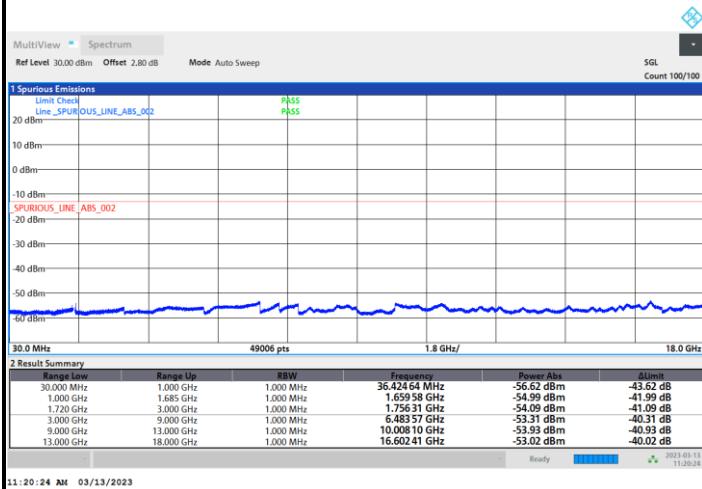
## Lowest Channel



## Middle Channel



## Highest Channel



## Frequency Stability

| Test Conditions     |                   | FR1 n70 (PI/2 BPSK) / Middle Channel | Limit   |
|---------------------|-------------------|--------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 15MHz                             | Note 2. |
|                     |                   | Deviation (ppm)                      | Result  |
| 50                  | Normal Voltage    | 0.0025                               | PASS    |
| 40                  | Normal Voltage    | 0.0172                               |         |
| 30                  | Normal Voltage    | 0.0013                               |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                               |         |
| 10                  | Normal Voltage    | 0.0010                               |         |
| 0                   | Normal Voltage    | 0.0129                               |         |
| -10                 | Normal Voltage    | 0.0120                               |         |
| -20                 | Normal Voltage    | 0.0140                               |         |
| -30                 | Normal Voltage    | 0.0049                               |         |
| 20                  | Maximum Voltage   | 0.0049                               |         |
| 20                  | Normal Voltage    | 0.0000                               |         |
| 20                  | Battery End Point | 0.0057                               |         |

**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.

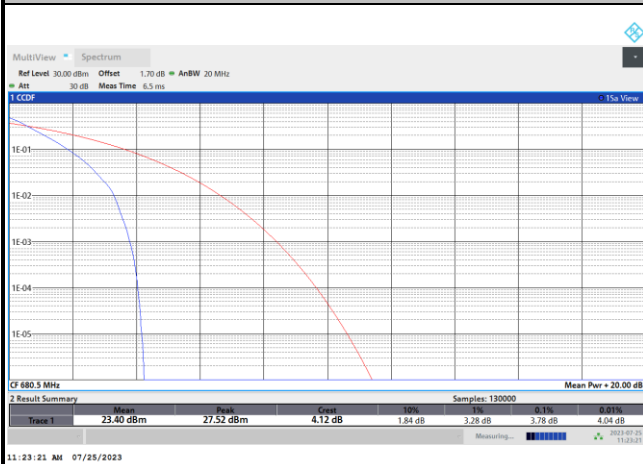
**FR1 n71****Peak-to-Average Ratio**

| Mode      | FR1 n71 / 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 | 3.78                         | 4.54    | 5.46    | 5.92    | <b>PASS</b> |
| Mode      | FR1 n71 / 20MHz / DFT-S OFDM |         |         |         |             |
| Mod.      | 256QAM                       |         |         |         | Limit: 13dB |
| RB Size   | Full RB                      |         |         |         | Result      |
| Middle CH | 6.54                         |         |         |         | <b>PASS</b> |

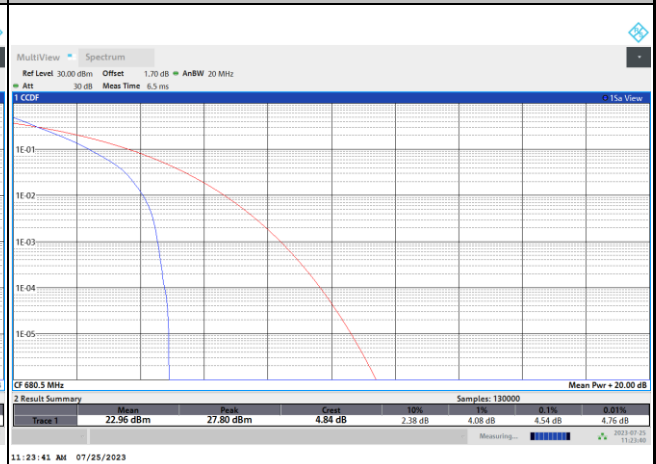


## FR1 n71 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

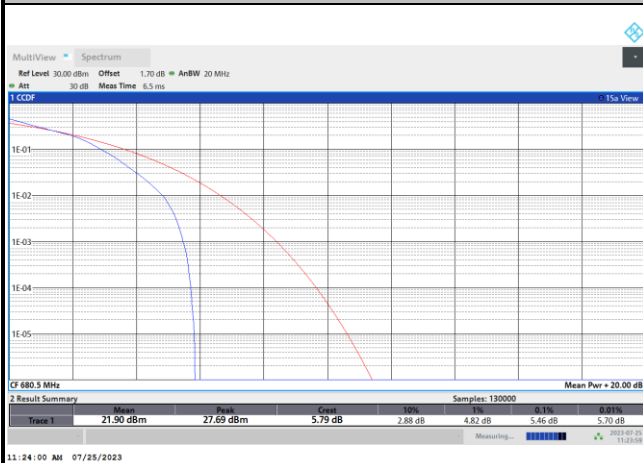
## PI/2 BPSK



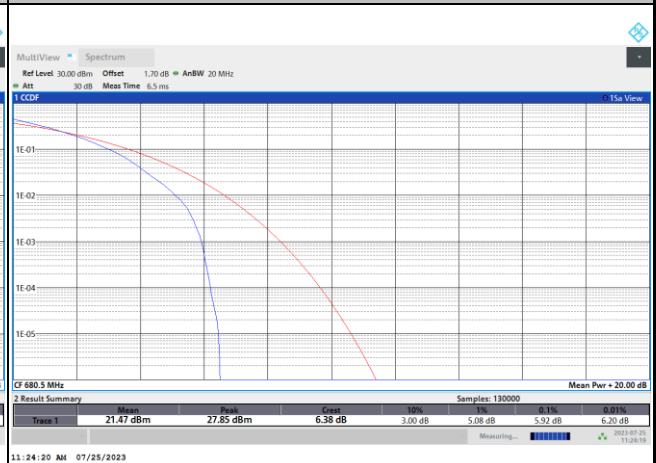
## QPSK



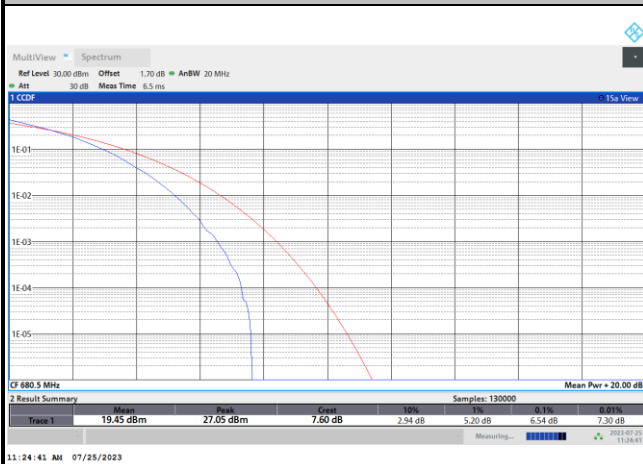
## 16QAM



## 64QAM



## 256QAM



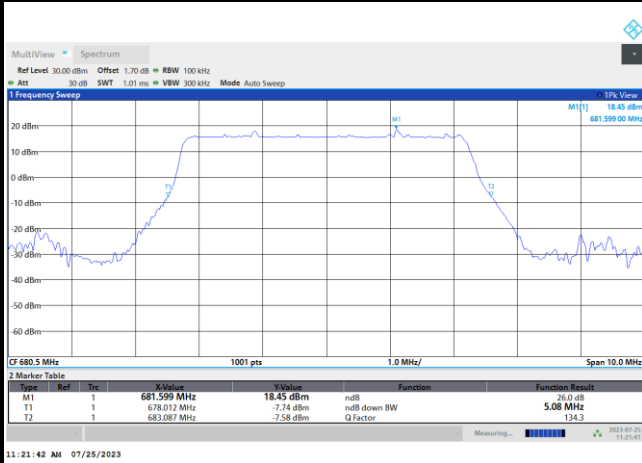
**26dB Bandwidth**

| Mode      | FR1 n71 : 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 | 5.08                                |  | 9.57      |  | 14.57     |  | 18.90     |  |

| Mode      | FR1 n71 : 26dB BW(MHz) / CP OFDM |        |       |        |       |        |       |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|-------|--------|
| BW        | 5MHz                             |        | 10MHz |        | 15MHz |        | 20MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 5.29                             | 5.34   | 10.13 | 10.07  | 15.20 | 15.29  | 20.14 | 20.18  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 5.21                             | 5.28   | 10.09 | 10.11  | 15.35 | 15.23  | 20.18 | 20.18  |

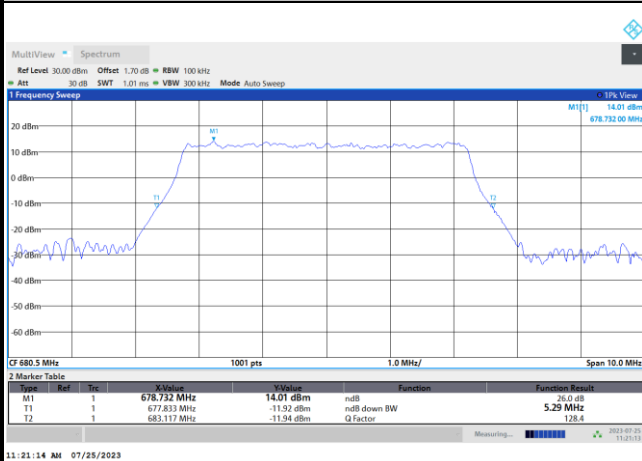
## FR1 n71 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

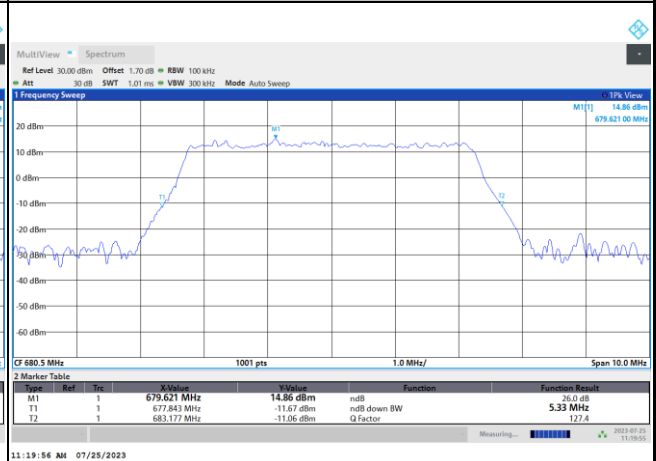


## FR1 n71 / 5MHz / CP OFDM / Middle Channel / Full RB

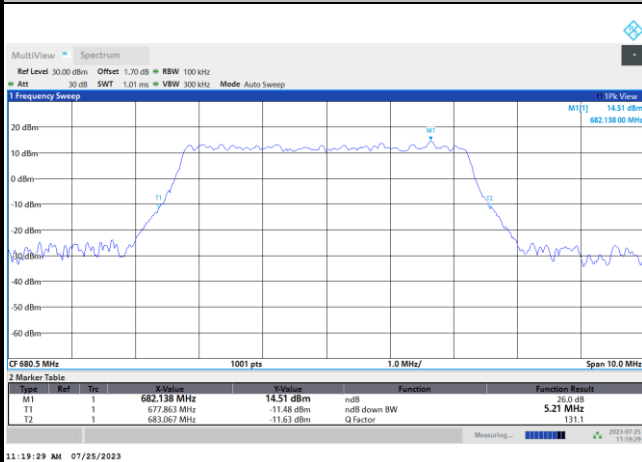
### QPSK



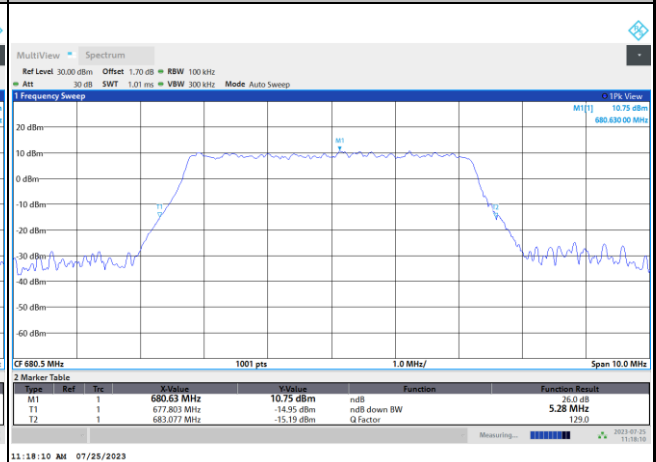
### 16QAM

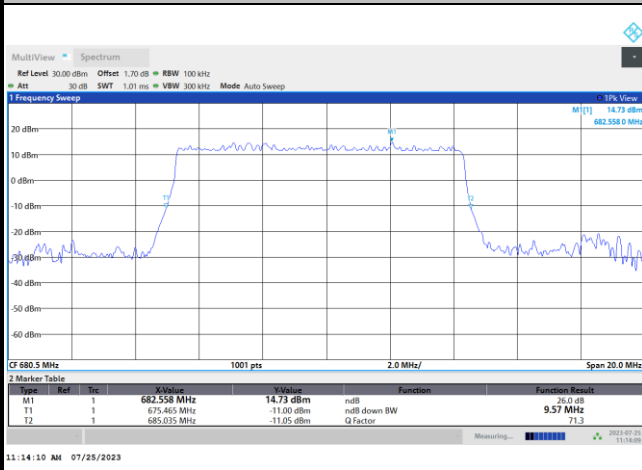
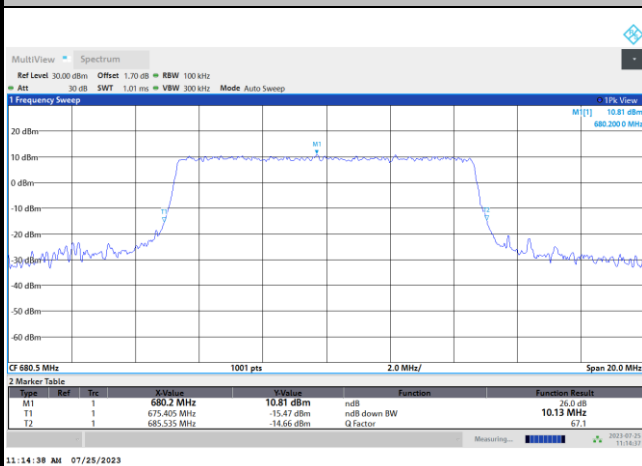
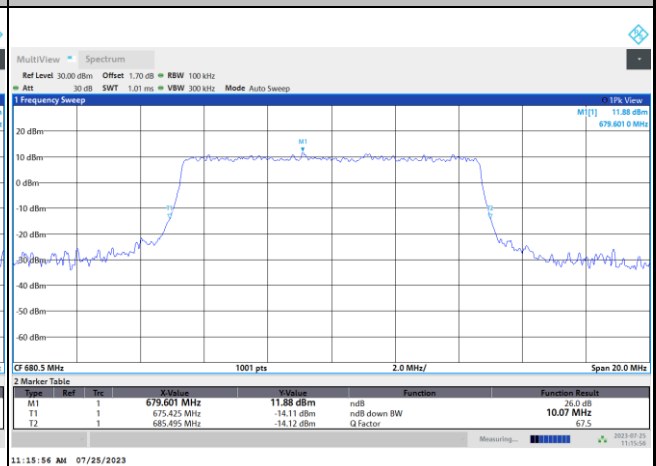
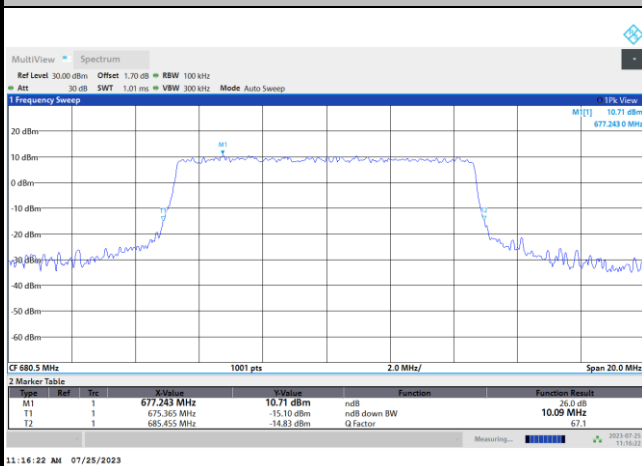
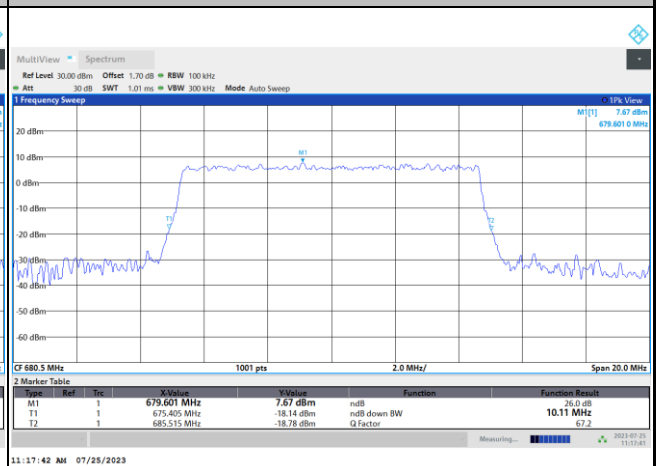


### 64QAM



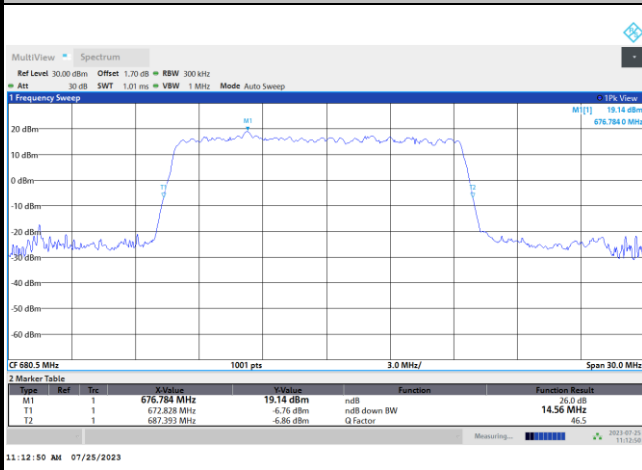
### 256QAM



**FR1 n71 / 10MHz / DFT-S OFDM / Middle Channel / Full RB**
**PI/2 BPSK**

**FR1 n71 / 10MHz / CP OFDM / Middle Channel / Full RB**
**QPSK**

**16QAM**

**64QAM**

**256QAM**


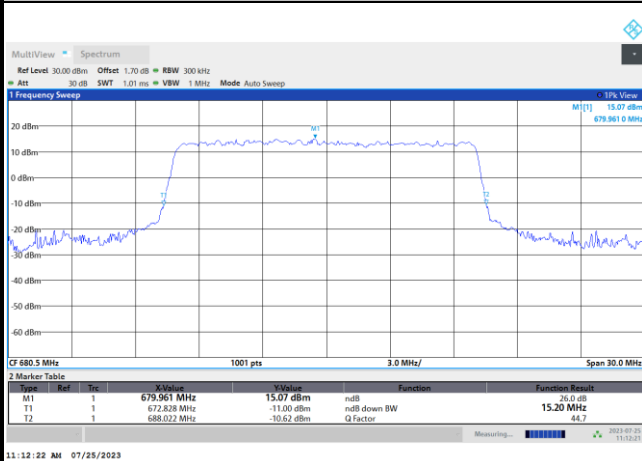
## FR1 n71 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

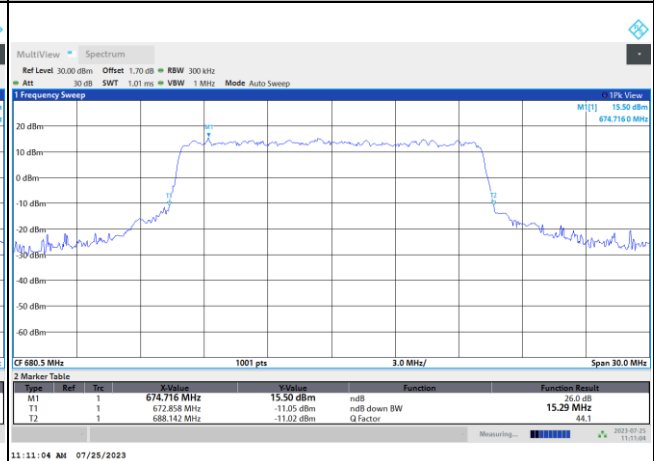


## FR1 n71 / 15MHz / CP OFDM / Middle Channel / Full RB

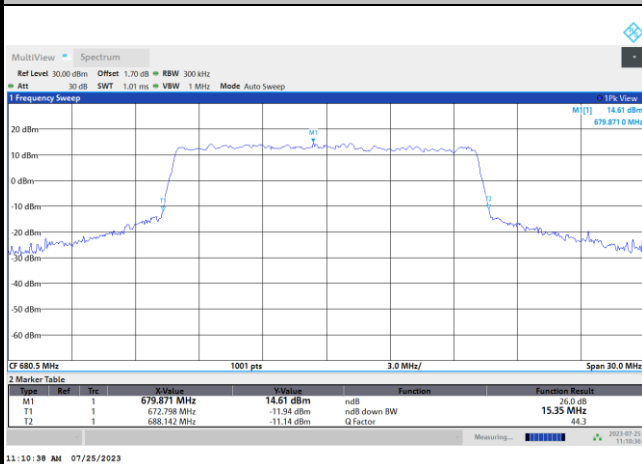
### QPSK



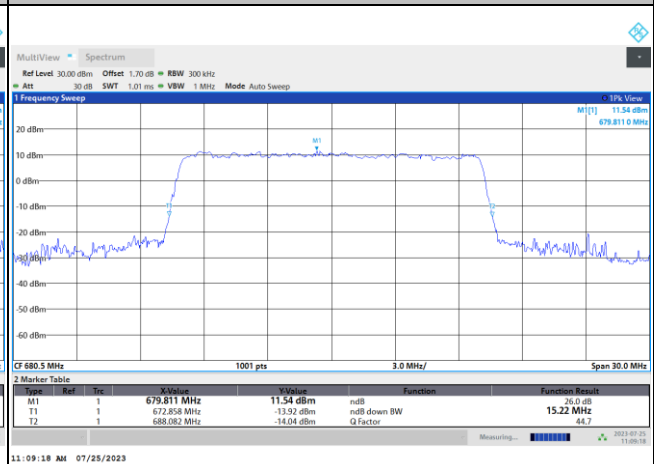
### 16QAM

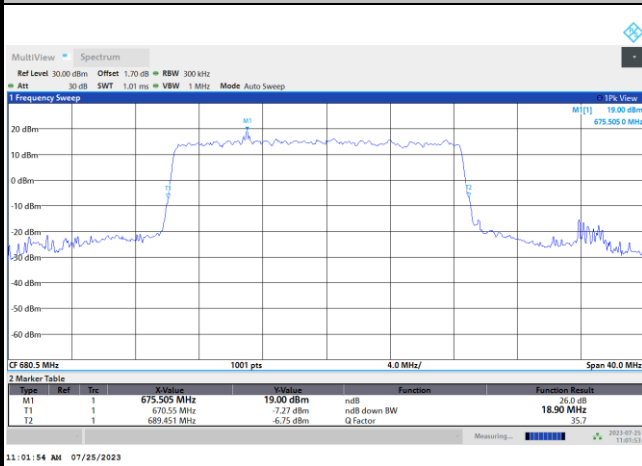
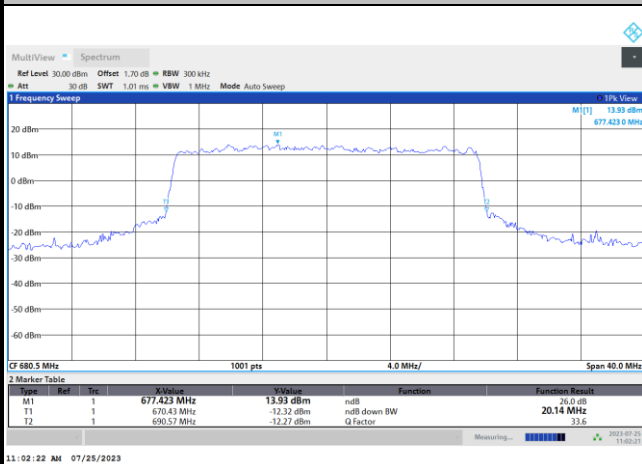
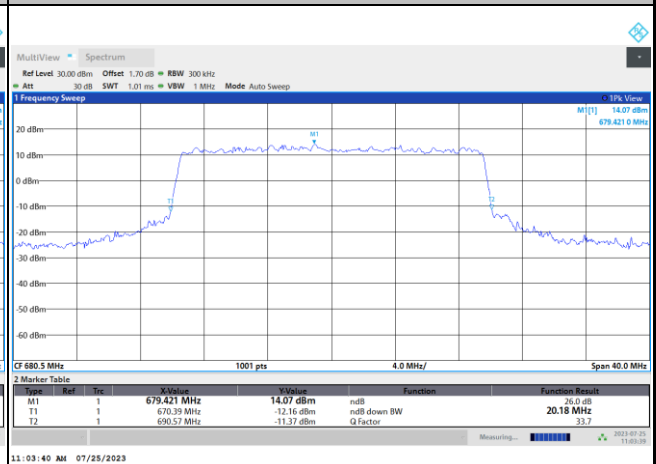
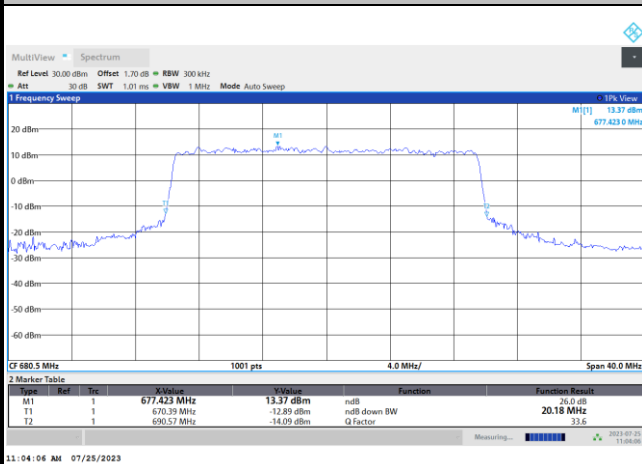
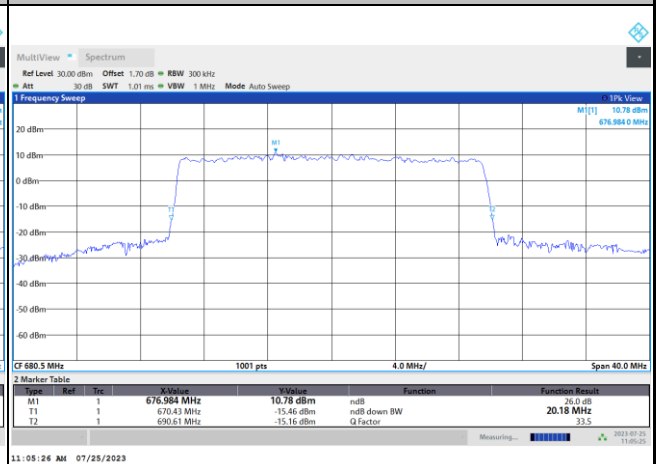


### 64QAM



### 256QAM



**FR1 n71 / 20MHz / DFT-S OFDM / Middle Channel / Full RB**
**PI/2 BPSK**

**FR1 n71 / 20MHz / CP OFDM / Middle Channel / Full RB**
**QPSK**

**16QAM**

**64QAM**

**256QAM**


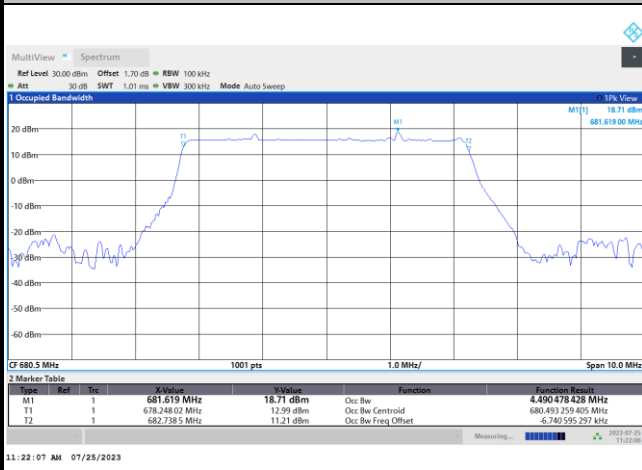
**Occupied Bandwidth**

| Mode      | FR1 n71 : 99%OBW(MHz) / DFT-S OFDM |  |           |  |           |  |           |  |
|-----------|------------------------------------|--|-----------|--|-----------|--|-----------|--|
| BW        | 5MHz                               |  | 10MHz     |  | 15MHz     |  | 20MHz     |  |
| Mod.      | PI/2 BPSK                          |  | PI/2 BPSK |  | PI/2 BPSK |  | PI/2 BPSK |  |
| Middle CH | 4.49                               |  | 8.93      |  | 13.45     |  | 17.86     |  |

| Mode      | FR1 n71 : 99%OBW (MHz) / CP OFDM |        |       |        |       |        |       |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|-------|--------|
| BW        | 5MHz                             |        | 10MHz |        | 15MHz |        | 20MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 4.50                             | 4.56   | 9.28  | 9.27   | 14.11 | 14.14  | 18.90 | 18.93  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 4.51                             | 4.52   | 9.27  | 9.29   | 14.18 | 14.12  | 18.93 | 18.99  |

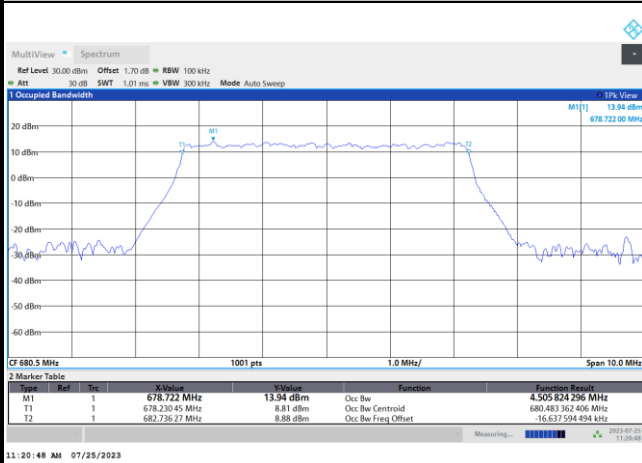
### FR1 n71 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

#### PI/2 BPSK

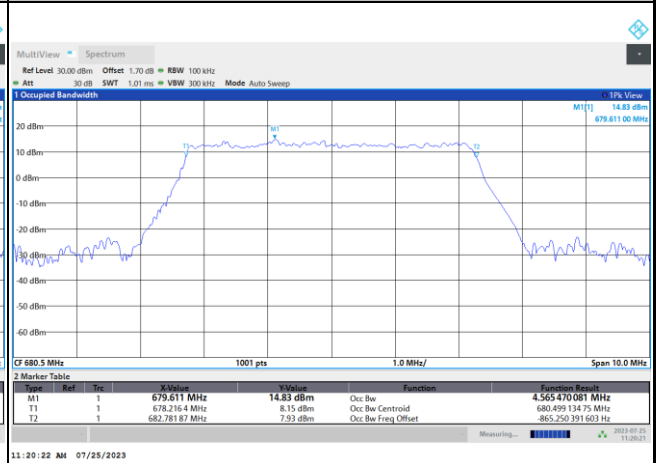


### FR1 n71 / 5MHz / CP OFDM / Middle Channel / Full RB

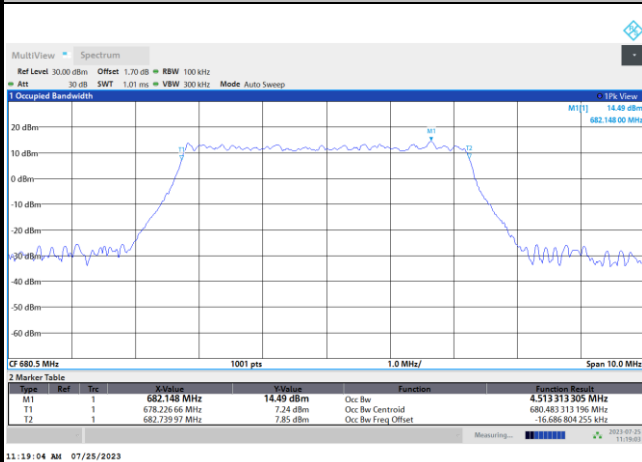
#### QPSK



#### 16QAM



#### 64QAM



#### 256QAM

