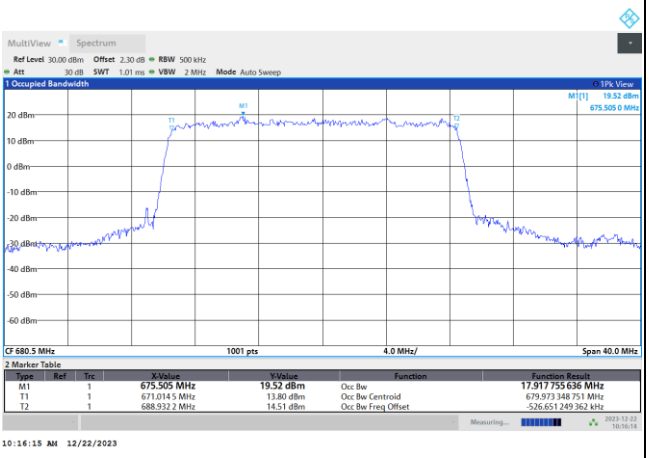
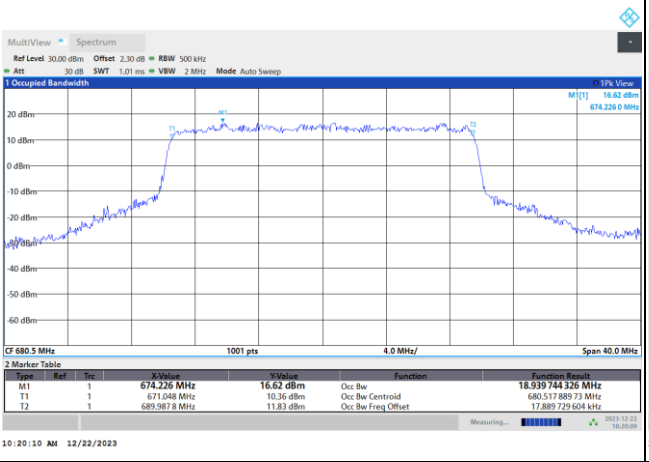
## FR1 n71 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

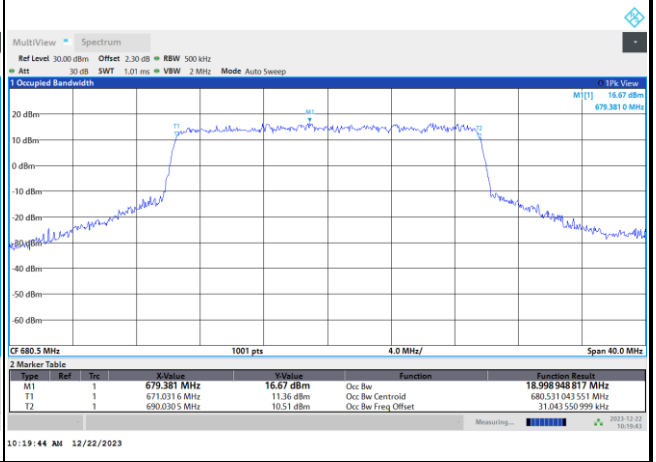



## FR1 n71 / 20MHz / CP OFDM / Middle Channel / Full RB

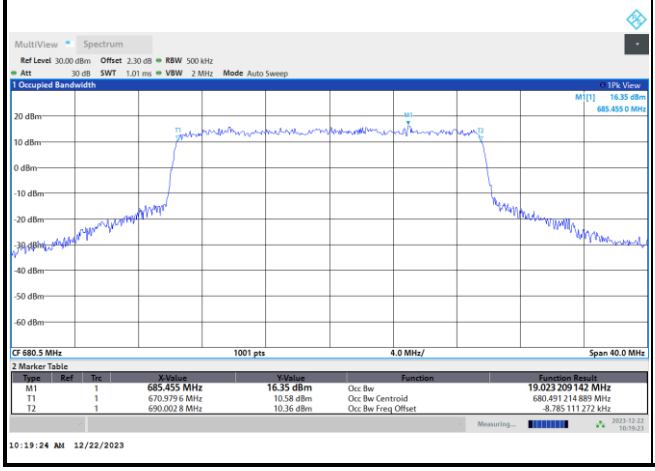
### QPSK



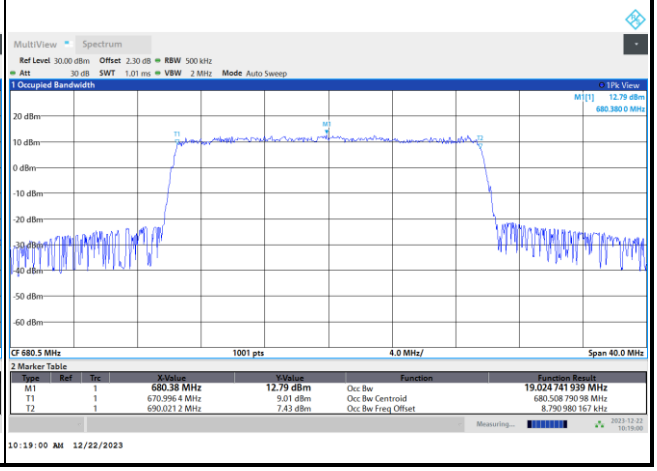

### 16QAM




### 64QAM



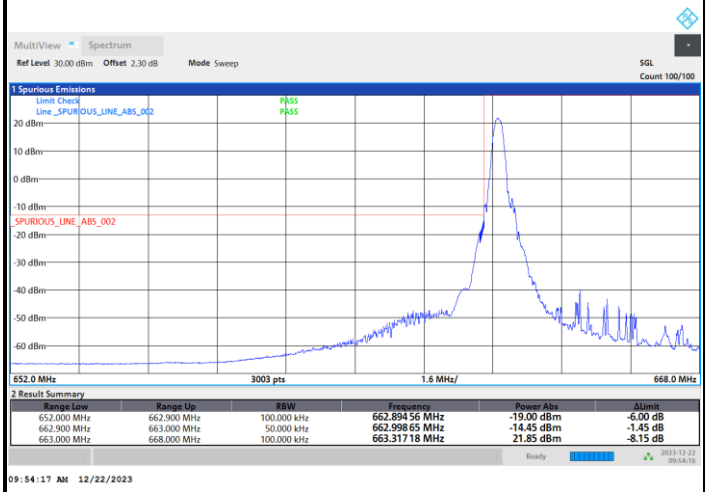

### 256QAM



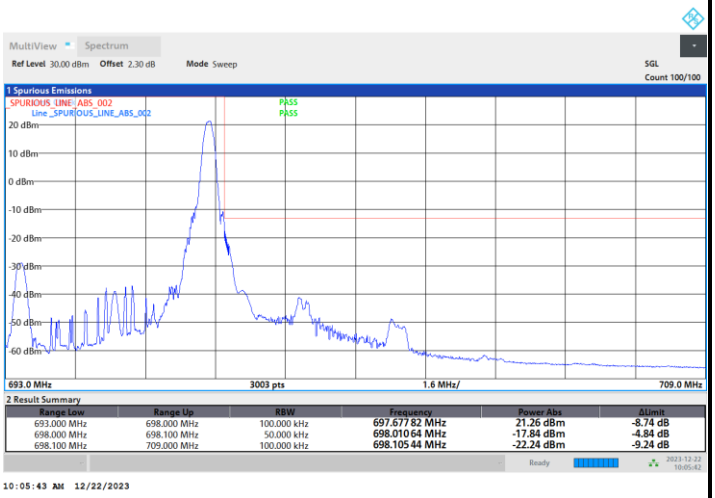
# Conducted Band Edge

## FR1 n71 / 5MHz / DFT-S OFDM / PI/2 BPSK

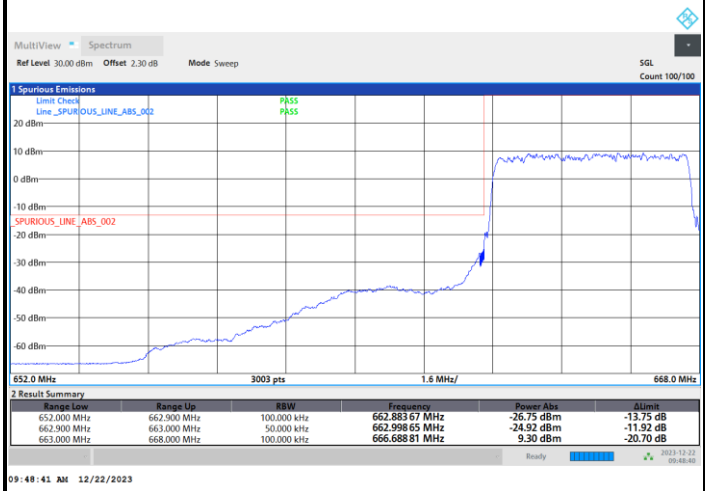
### Lowest Band Edge / 1RB0



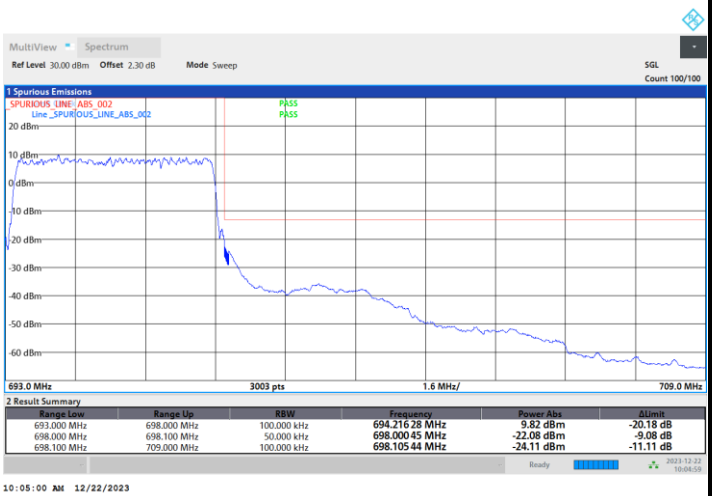

### Highest Band Edge / 1RBmax




### Lowest Band Edge / Full RB

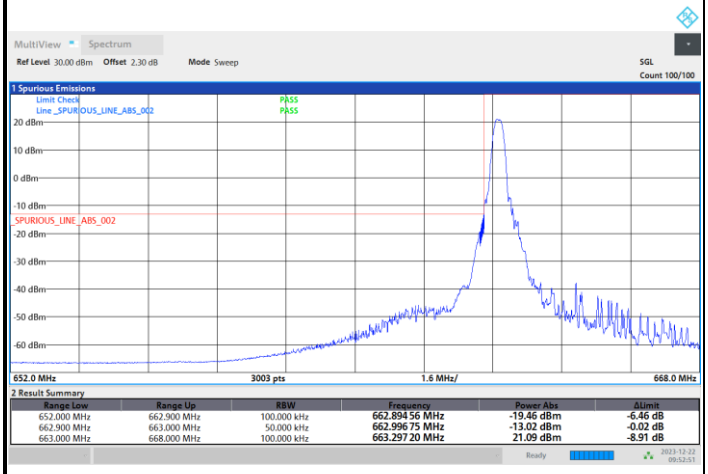



### Highest Band Edge / Full RB

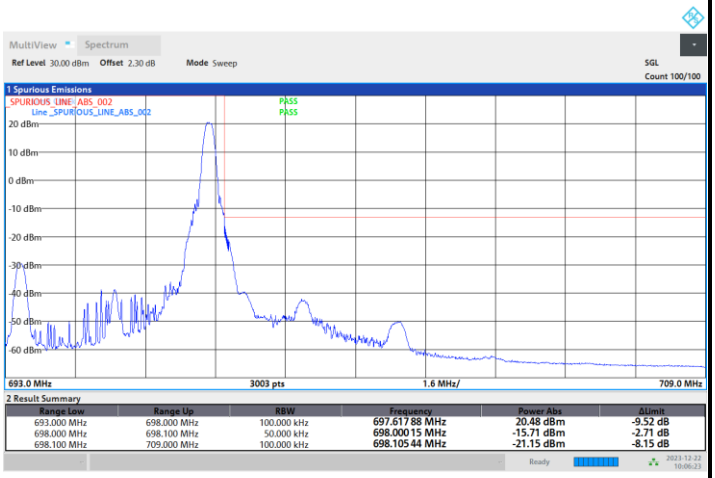


## FR1 n71 / 5MHz / DFT-S OFDM / QPSK

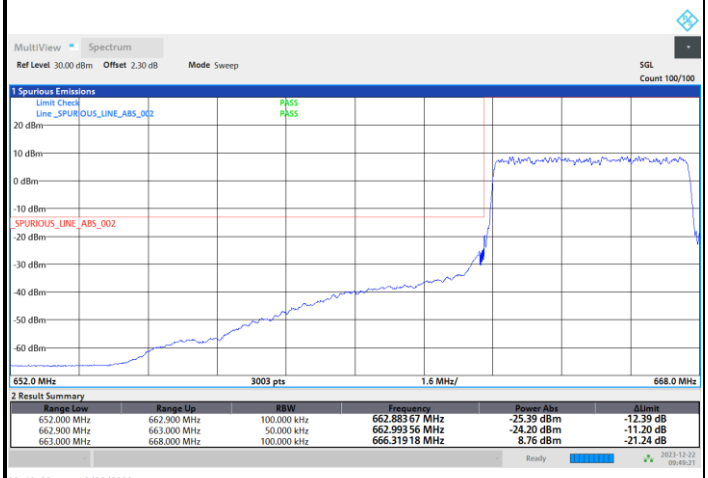
### Lowest Band Edge / 1RB0



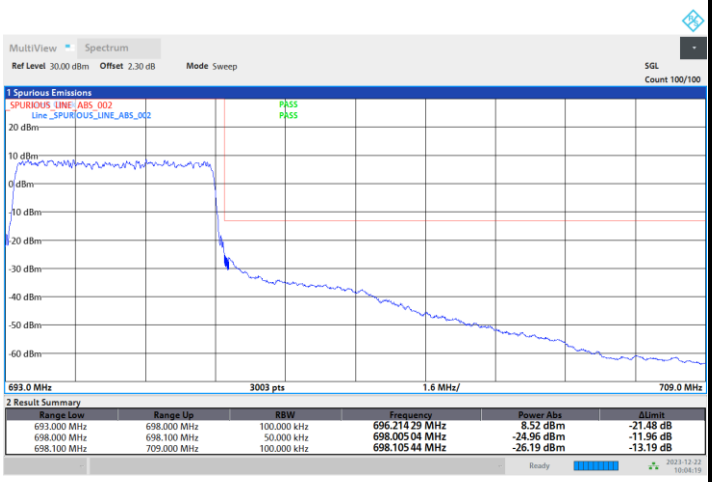

### Highest Band Edge / 1RBmax




### Lowest Band Edge / Full RB

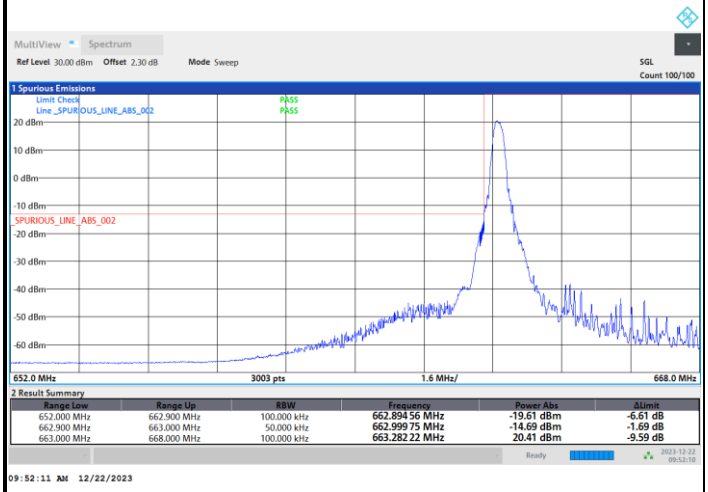



### Highest Band Edge / Full RB

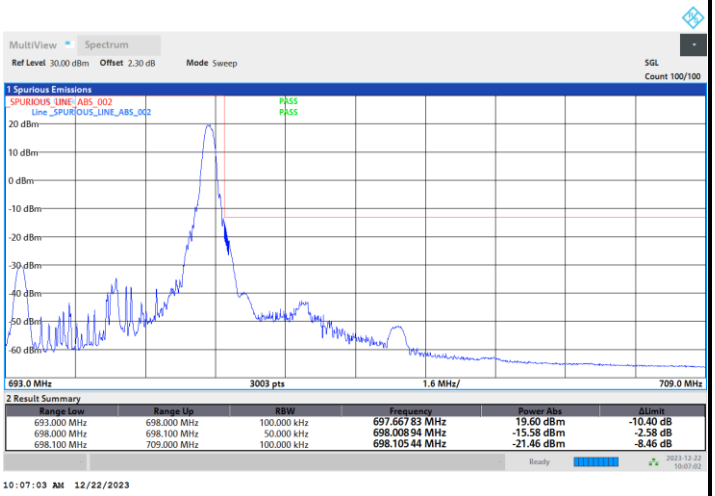


## FR1 n71 / 5MHz / DFT-S OFDM / 16QAM

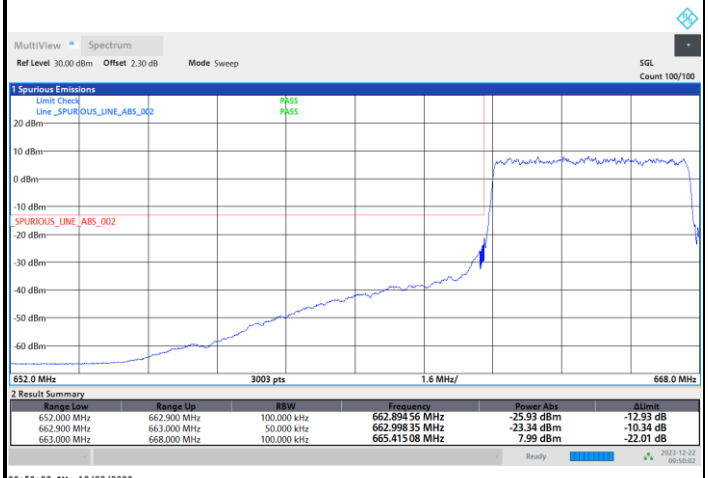
### Lowest Band Edge / 1RB0



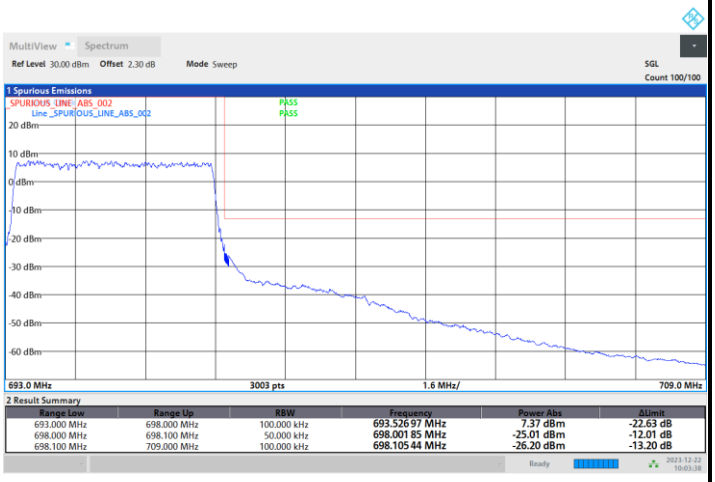

### Highest Band Edge / 1RBmax




### Lowest Band Edge / Full RB

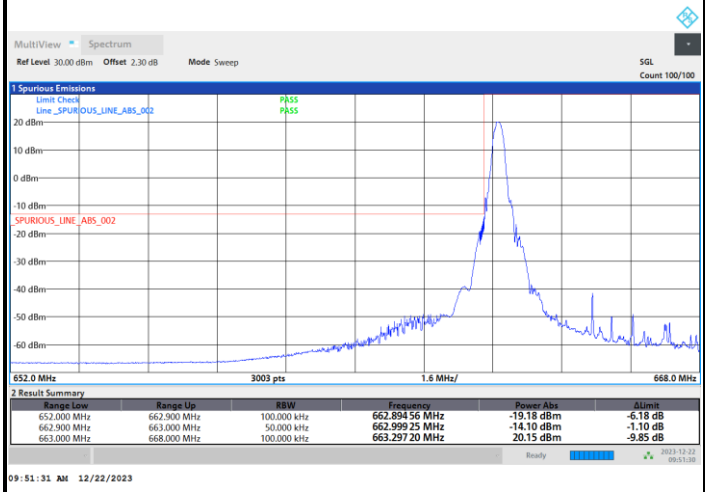



### Highest Band Edge / Full RB

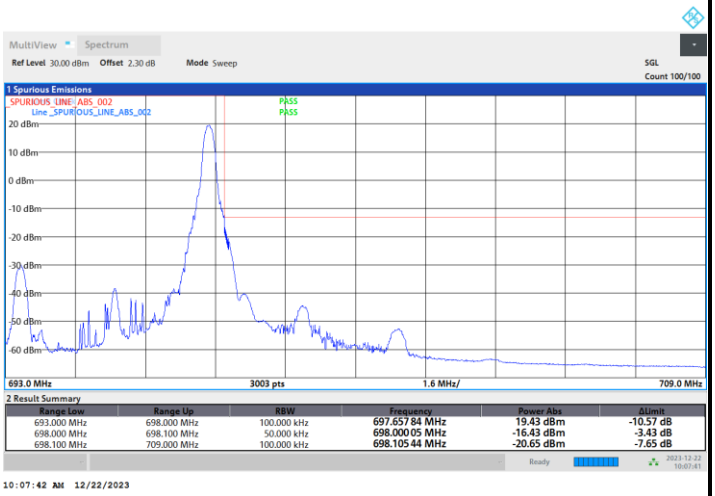


## FR1 n71 / 5MHz / DFT-S OFDM / 64QAM

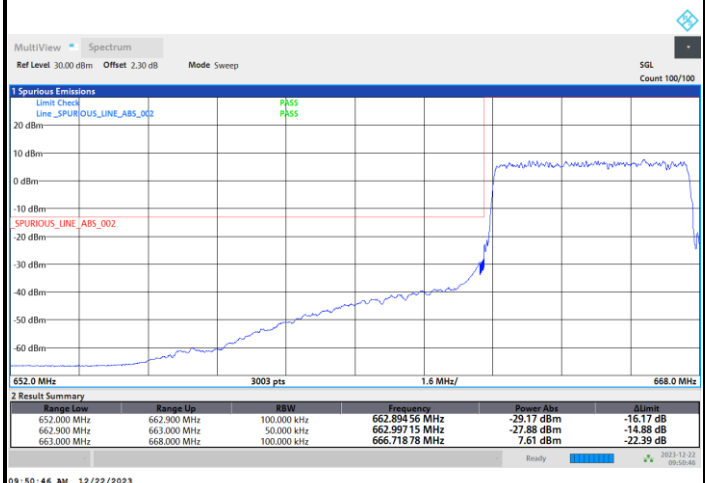
### Lowest Band Edge / 1RB0



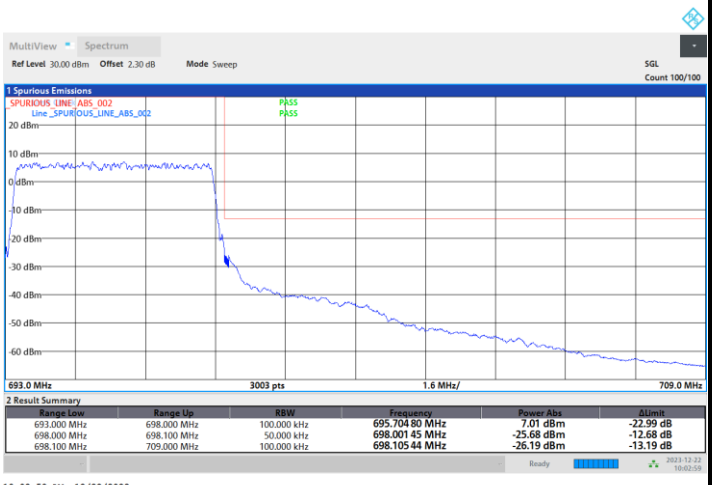

### Highest Band Edge / 1RBmax




### Lowest Band Edge / Full RB

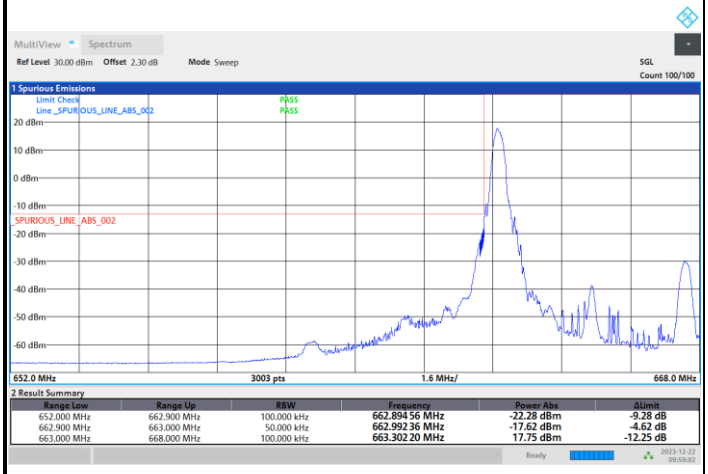



### Highest Band Edge / Full RB

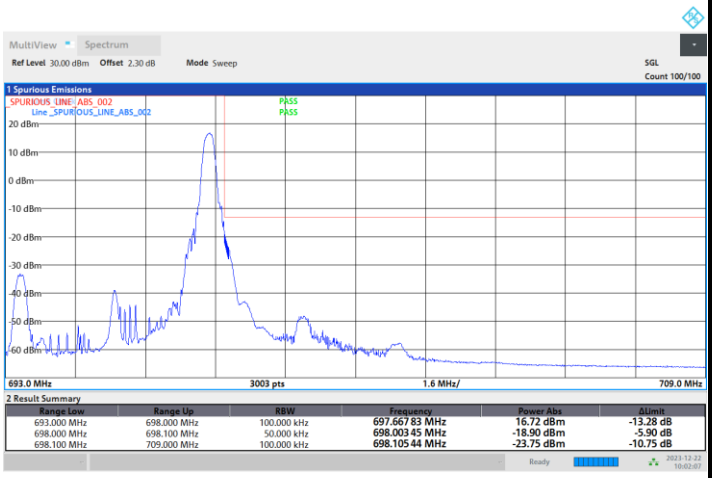


## FR1 n71 / 5MHz / DFT-S OFDM / 256QAM

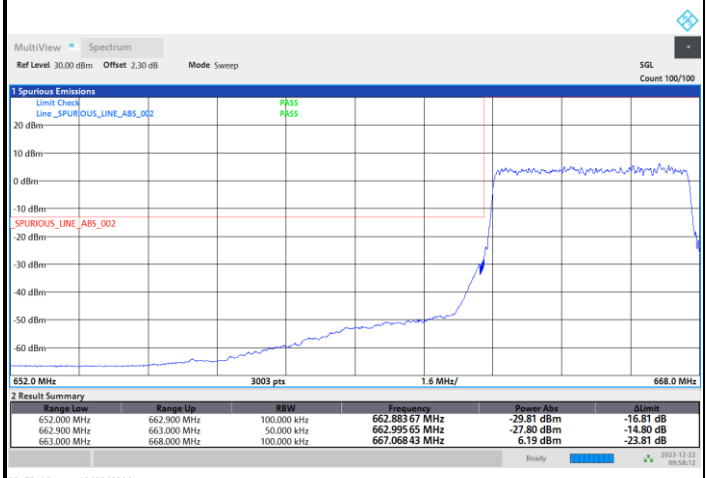
### Lowest Band Edge / 1RB0



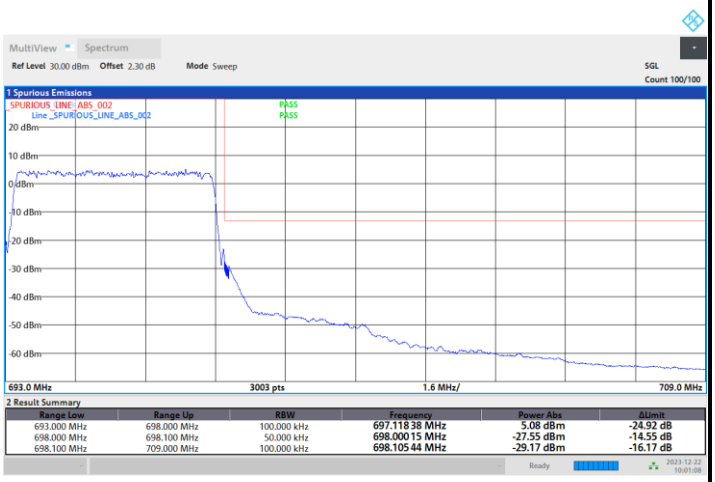

### Highest Band Edge / 1RBmax

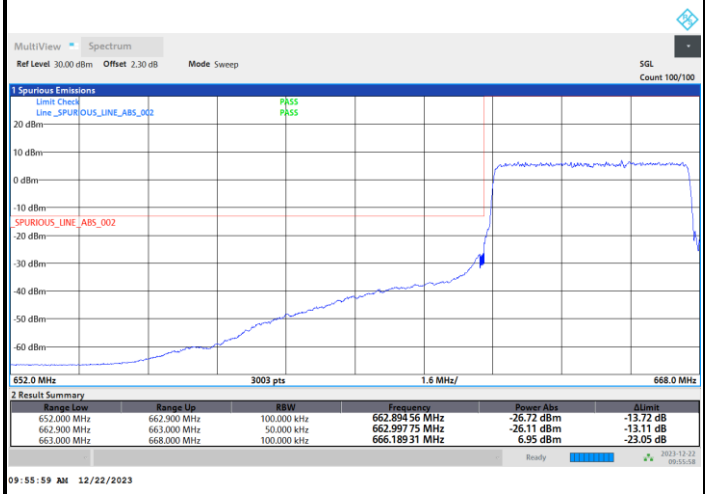
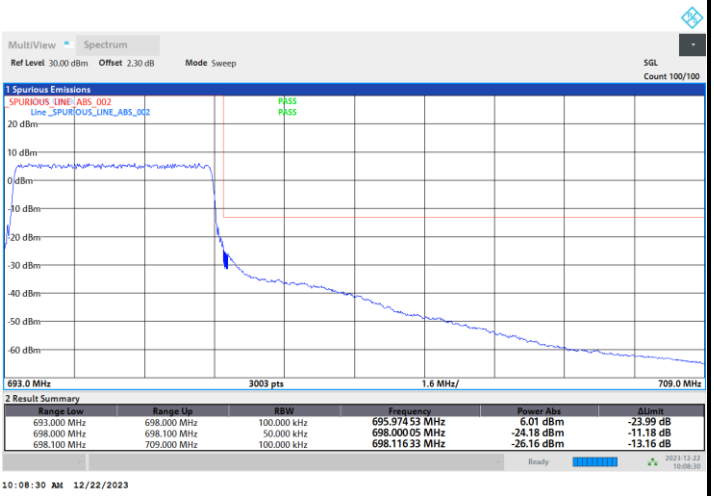



### Lowest Band Edge / Full RB



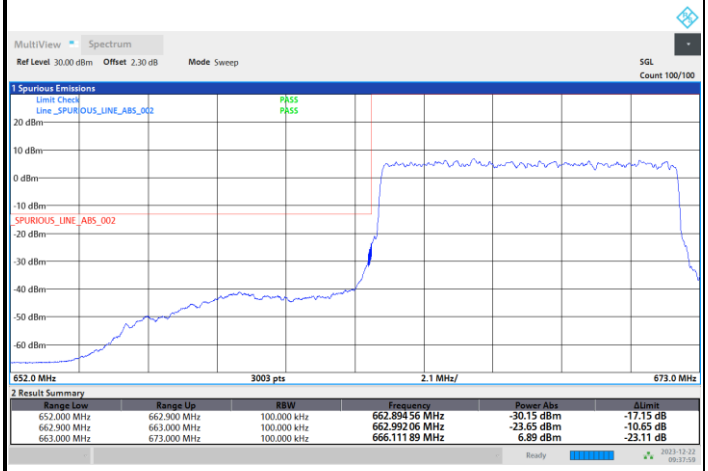

### Highest Band Edge / Full RB



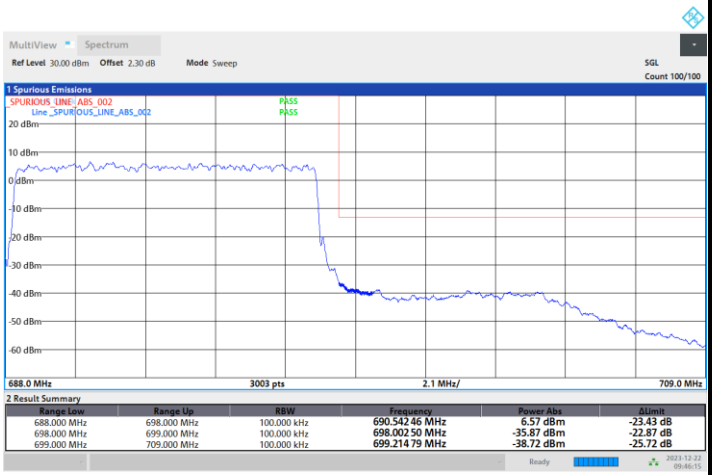
| FR1 n71 / 5MHz / CP OFDM / QPSK / Full RB | |
|---|---|
| **Lowest Band Edge** | **Highest Band Edge** |
|  |  |

## FR1 n71 / 10MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

### Lowest Band Edge

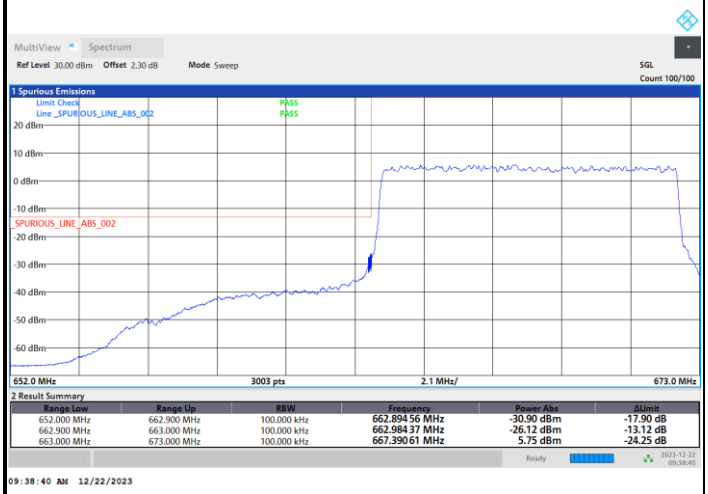



### Highest Band Edge

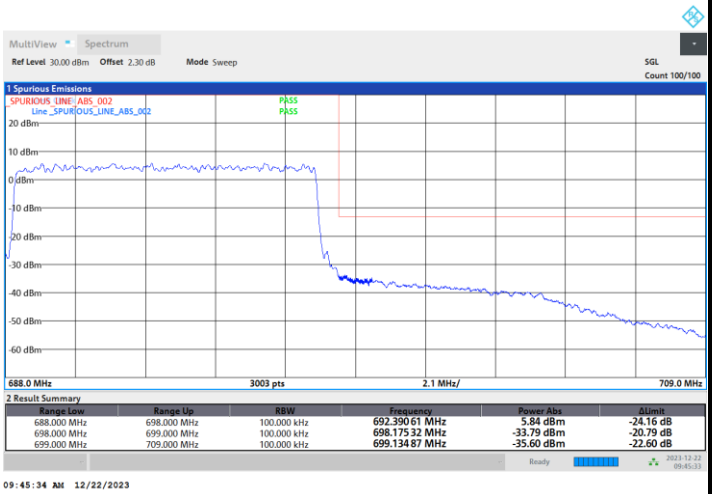



## FR1 n71 / 10MHz / DFT-s-OFDM / QPSK / Full RB

### Lowest Band Edge

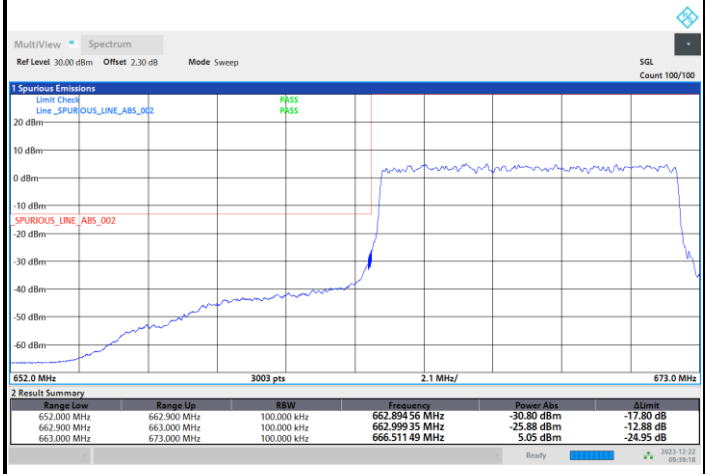



### Highest Band Edge

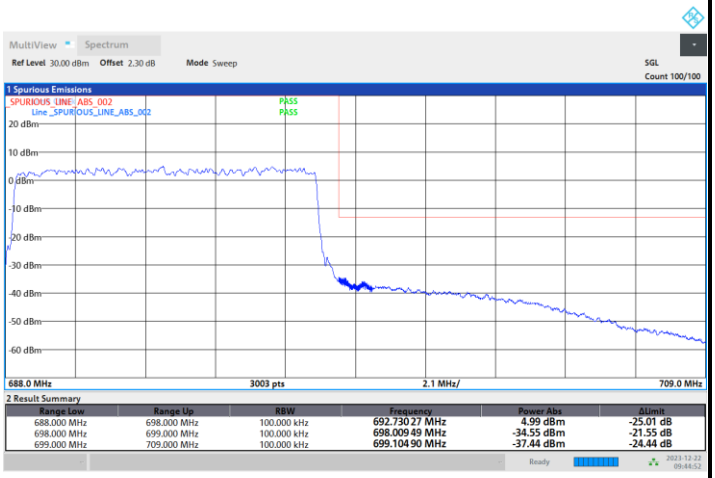


## FR1 n71 / 10MHz / DFT-s-OFDM / 16QAM / Full RB

### Lowest Band Edge

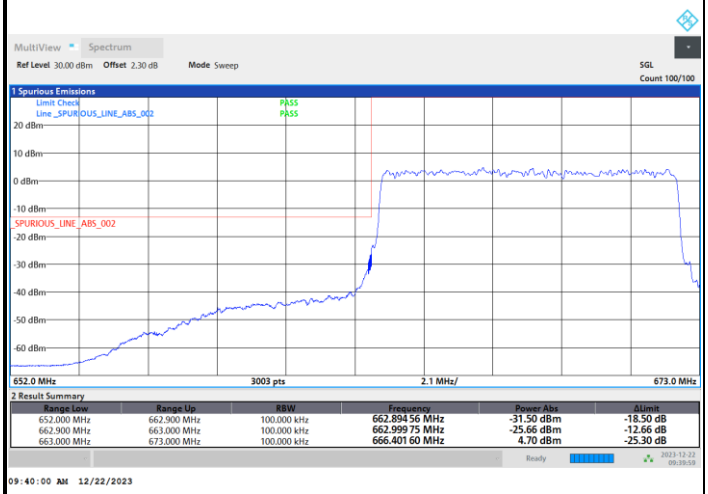



### Highest Band Edge

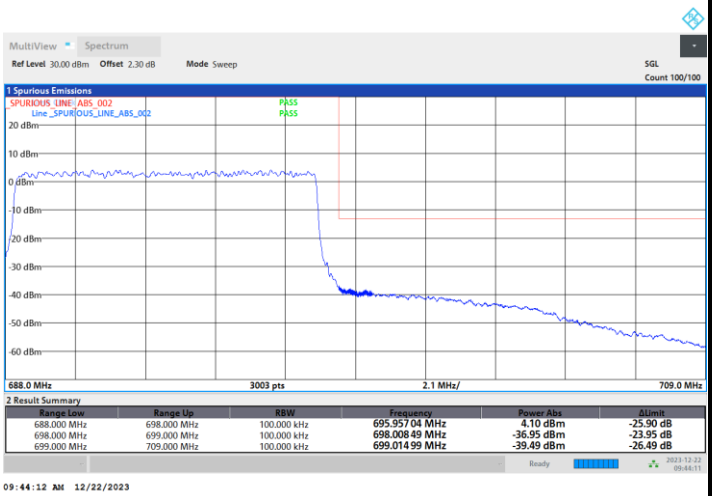



## FR1 n71 / 10MHz / DFT-s-OFDM / 64QAM / Full RB

### Lowest Band Edge

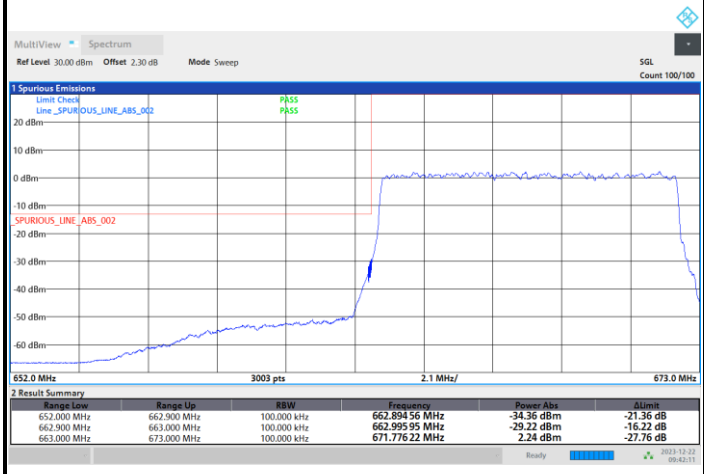



### Highest Band Edge

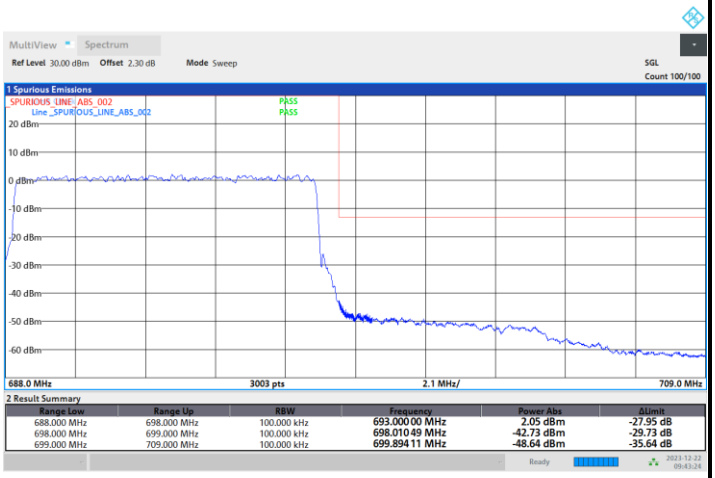


## FR1 n71 / 10MHz / DFT-s-OFDM / 256QAM / Full RB

### Lowest Band Edge

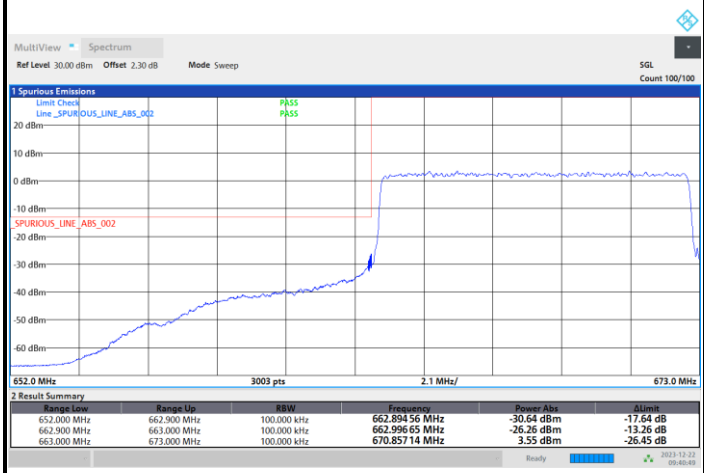



### Highest Band Edge

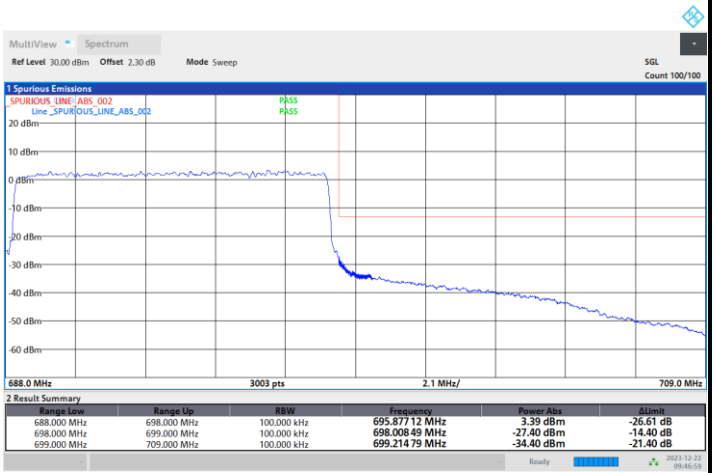


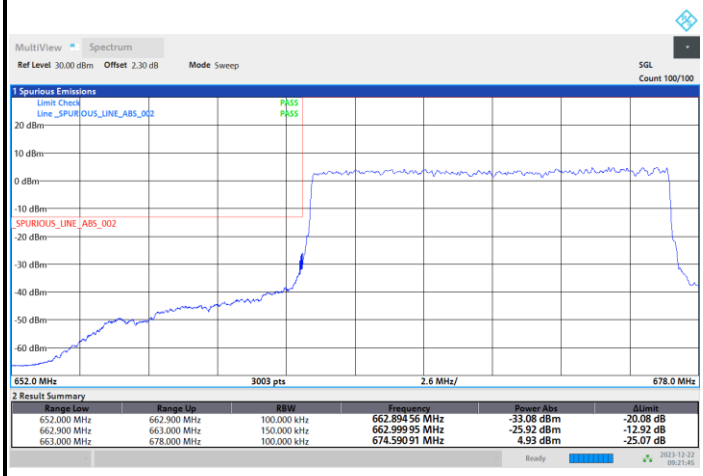
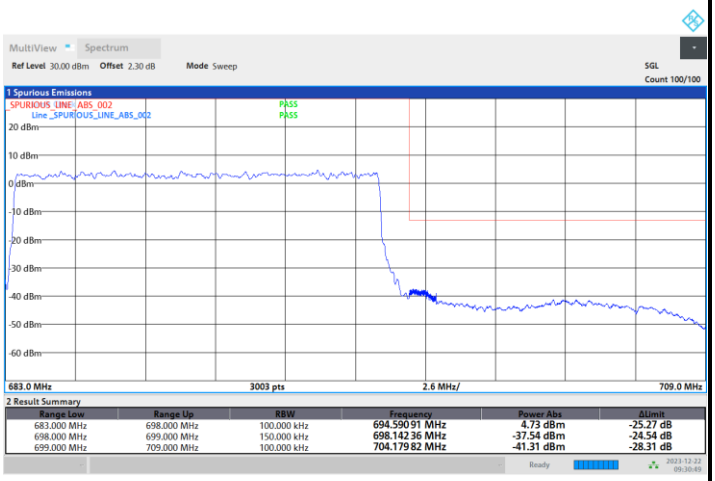

## FR1 n71 / 10MHz / CP OFDM / QPSK / Full RB

### Lowest Band Edge



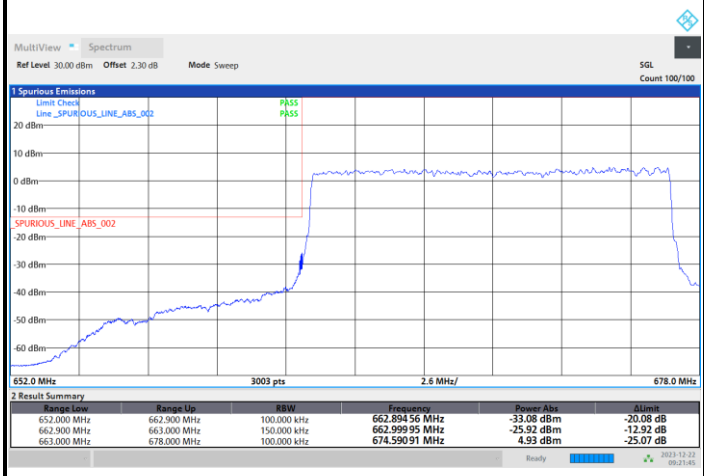
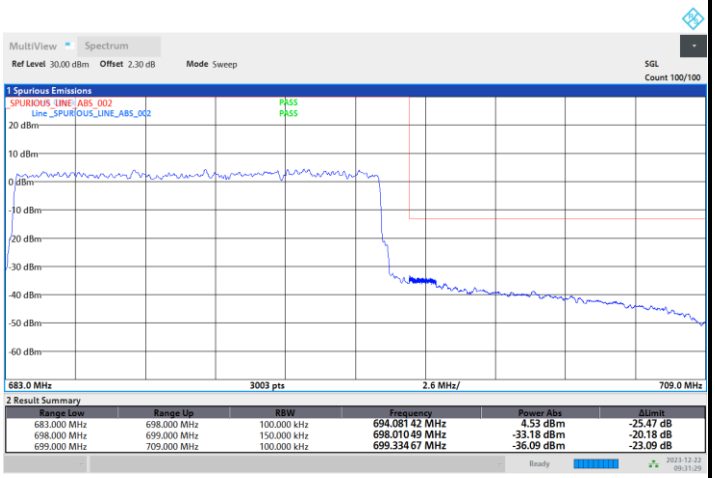

### Highest Band Edge



| FR1 n71 / 15MHz / DFT-s-OFDM / PI/2 BPSK / Full RB | |
|---|---|
| **Lowest Band Edge** | **Highest Band Edge** |
|  |  |

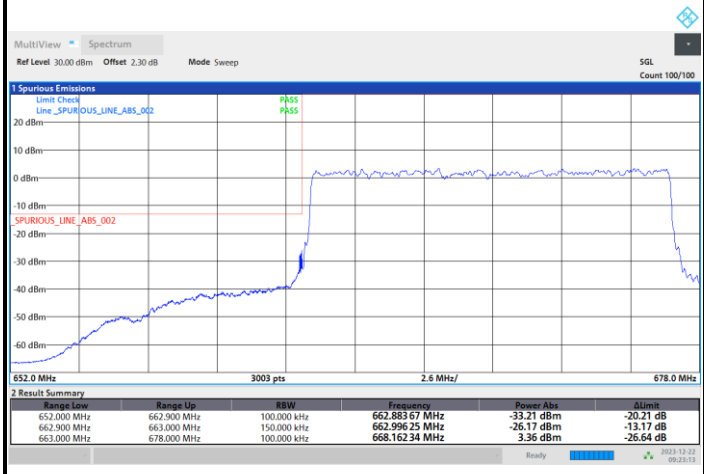




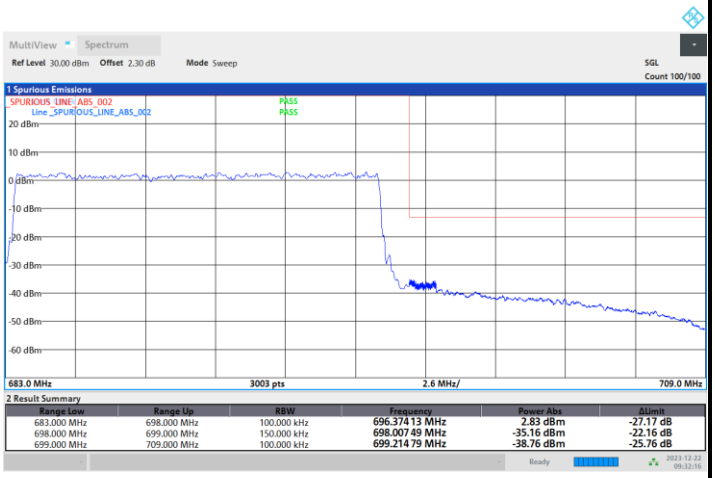
| FR1 n71 / 15MHz / DFT-s-OFDM / QPSK / Full RB | |
|---|---|
| **Lowest Band Edge** | **Highest Band Edge** |
|  |  |

## FR1 n71 / 15MHz / DFT-s-OFDM / 16QAM / Full RB

### Lowest Band Edge

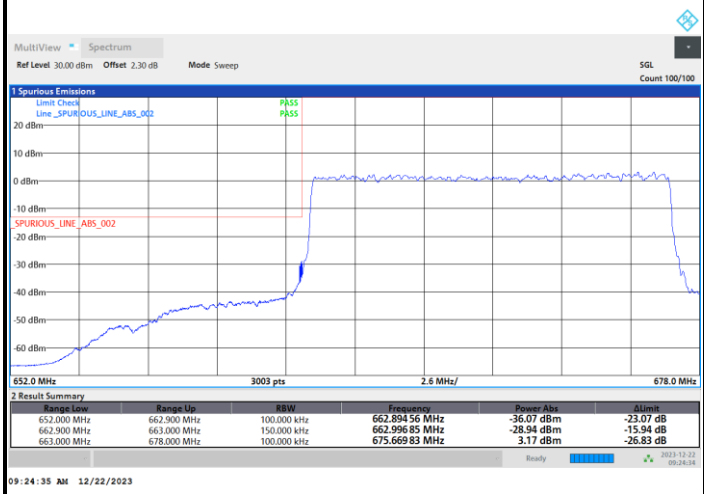



### Highest Band Edge

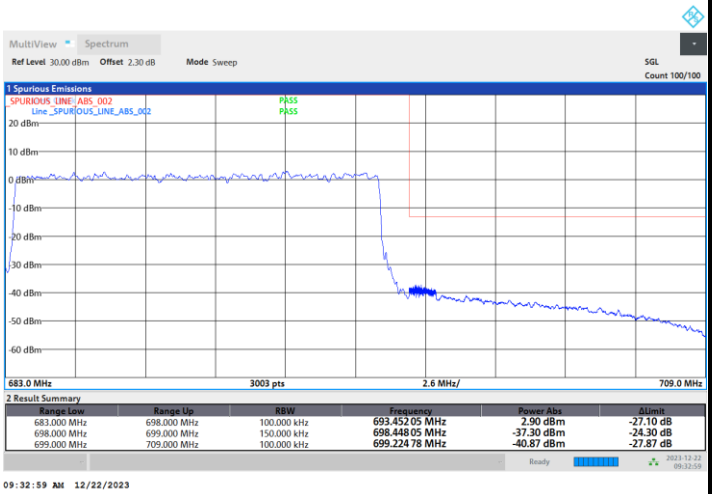



## FR1 n71 / 15MHz / DFT-s-OFDM / 64QAM / Full RB

### Lowest Band Edge

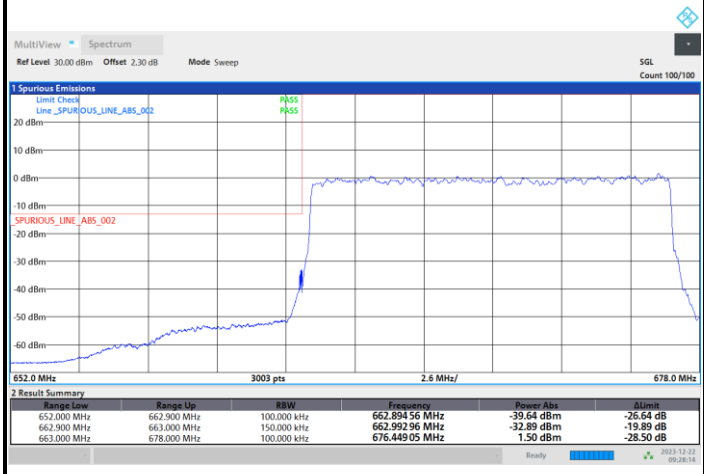



### Highest Band Edge

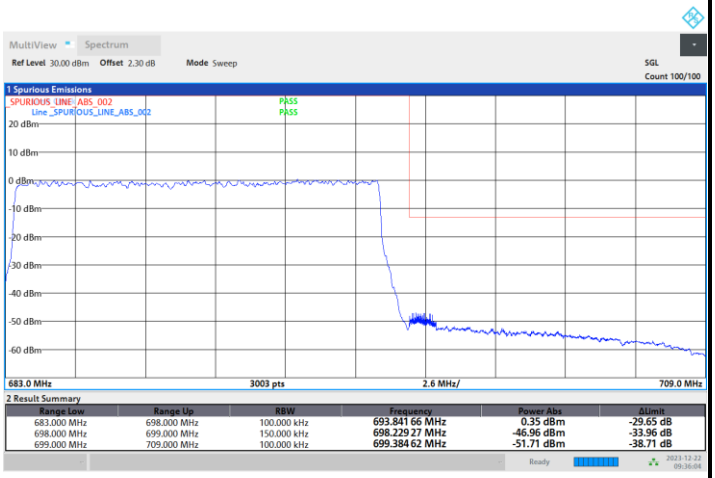


## FR1 n71 / 15MHz / DFT-s-OFDM / 256QAM / Full RB

### Lowest Band Edge

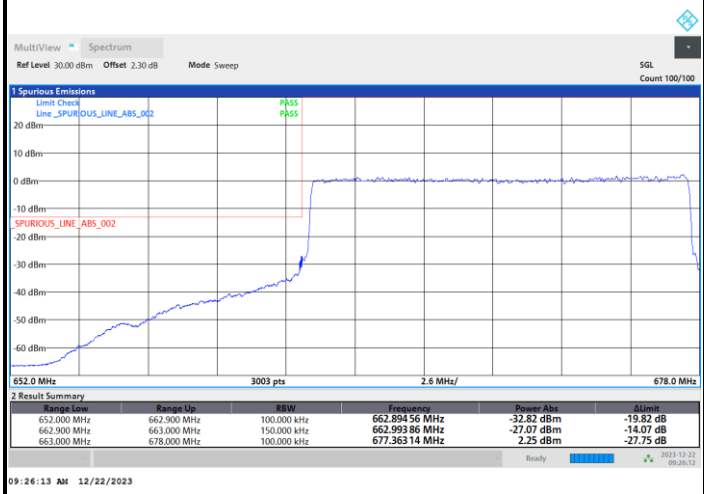



### Highest Band Edge

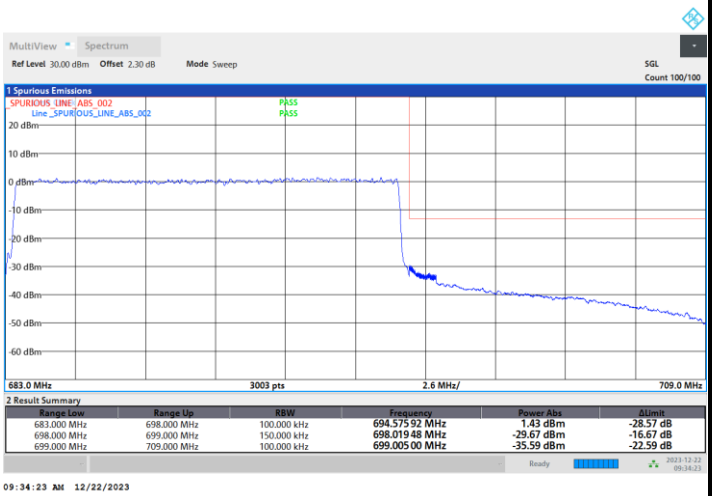



## FR1 n71 / 15MHz / CP OFDM / QPSK / Full RB

### Lowest Band Edge

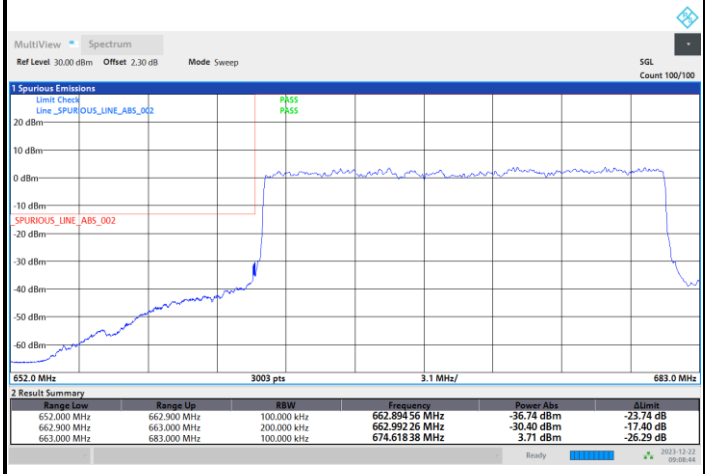



### Highest Band Edge

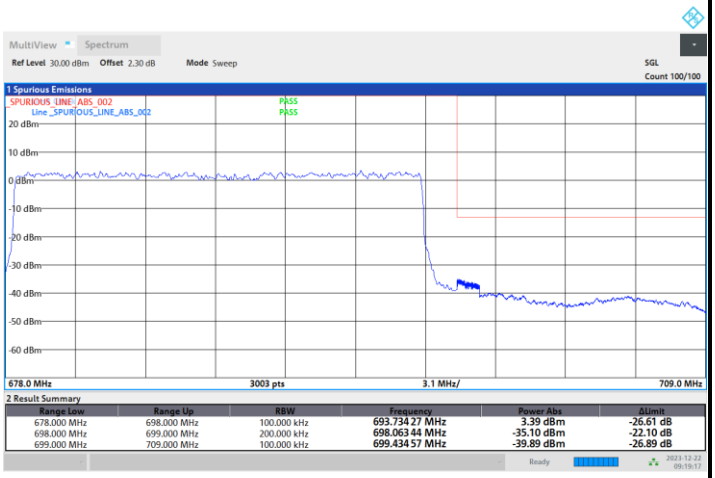


## FR1 n71 / 20MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

### Lowest Band Edge

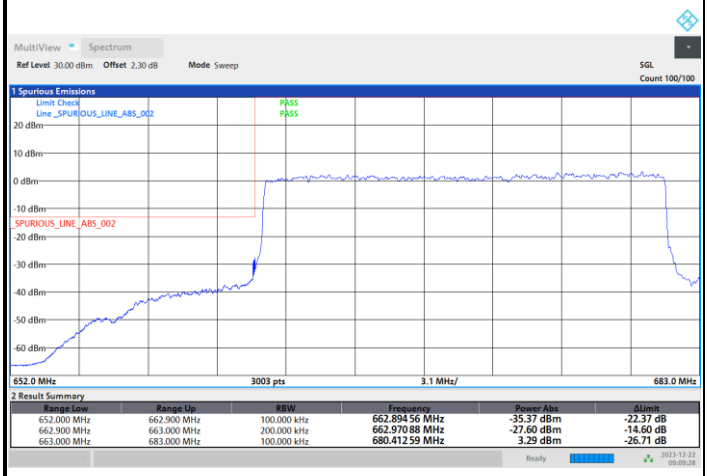



### Highest Band Edge

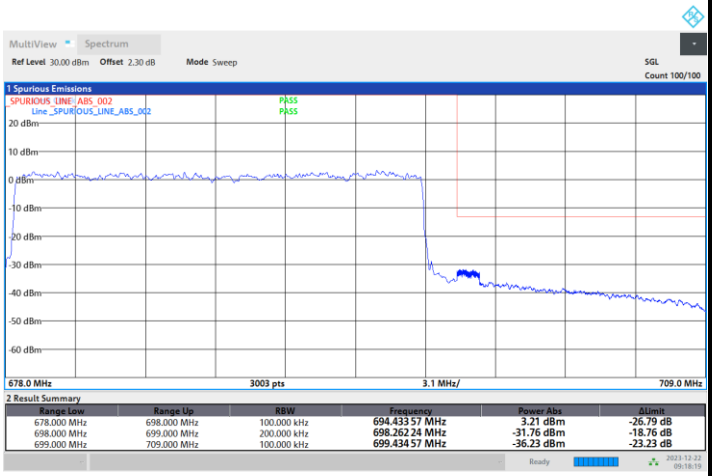



## FR1 n71 / 20MHz / DFT-s-OFDM / QPSK / Full RB

### Lowest Band Edge

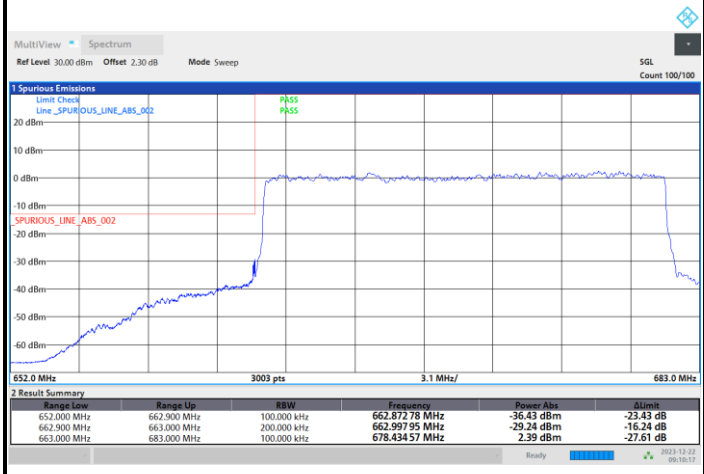



### Highest Band Edge

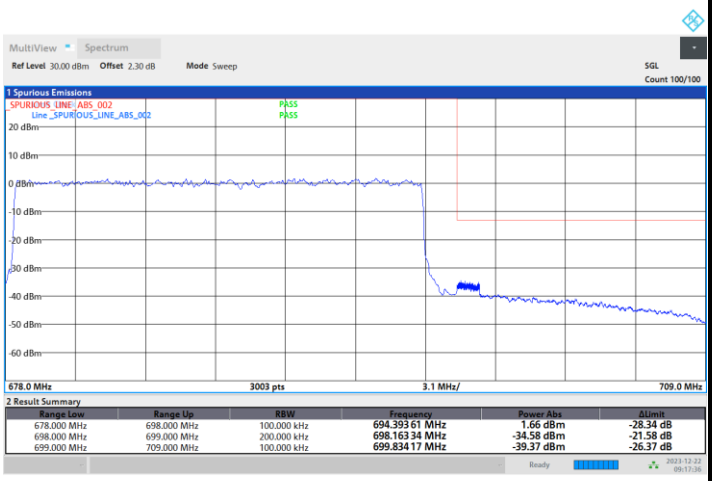


## FR1 n71 / 20MHz / DFT-s-OFDM / 16QAM / Full RB

### Lowest Band Edge

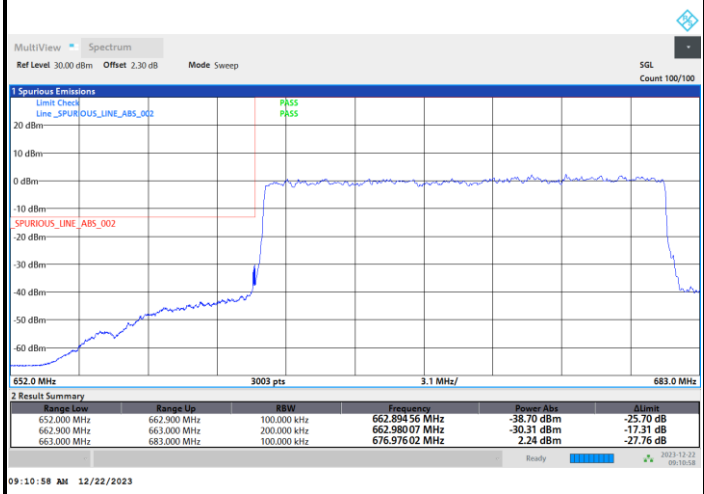



### Highest Band Edge

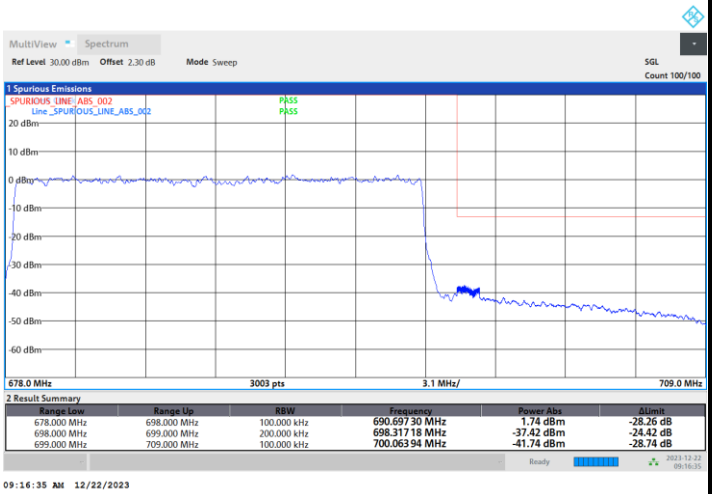



## FR1 n71 / 20MHz / DFT-s-OFDM / 64QAM / Full RB

### Lowest Band Edge

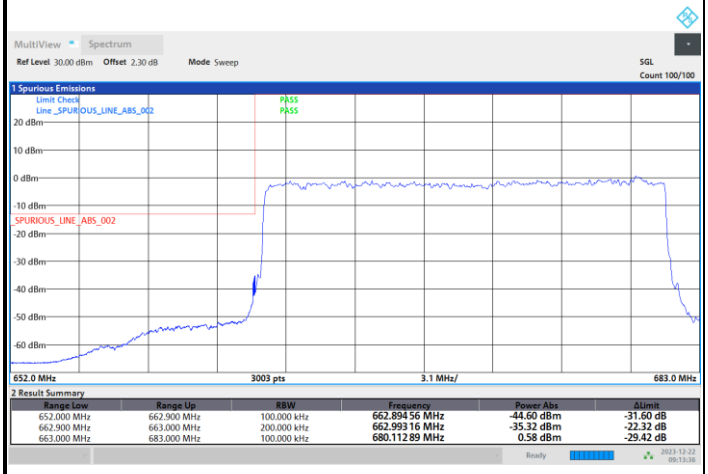



### Highest Band Edge

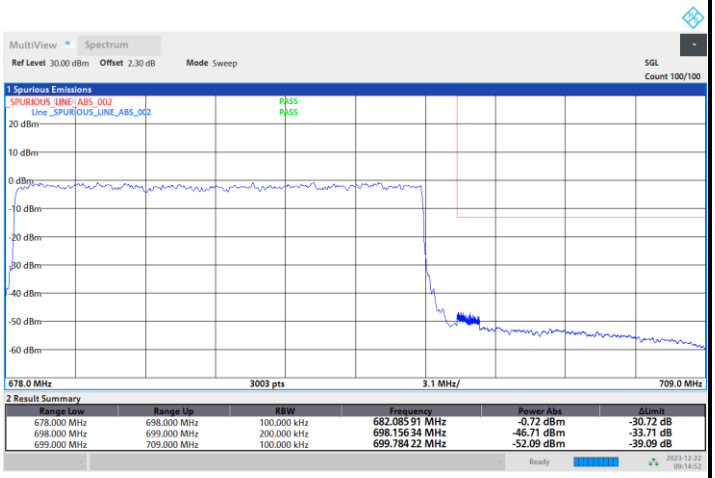


## FR1 n71 / 20MHz / DFT-s-OFDM / 256QAM / Full RB

### Lowest Band Edge

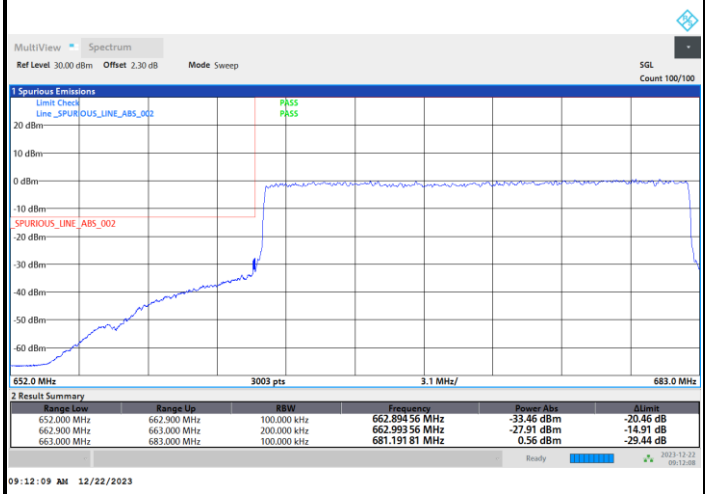



### Highest Band Edge

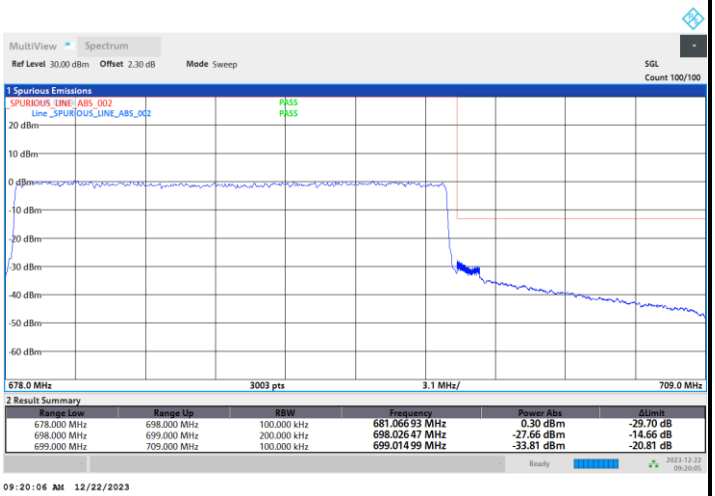



## FR1 n71 / 20MHz / CP OFDM / QPSK / Full RB

### Lowest Band Edge



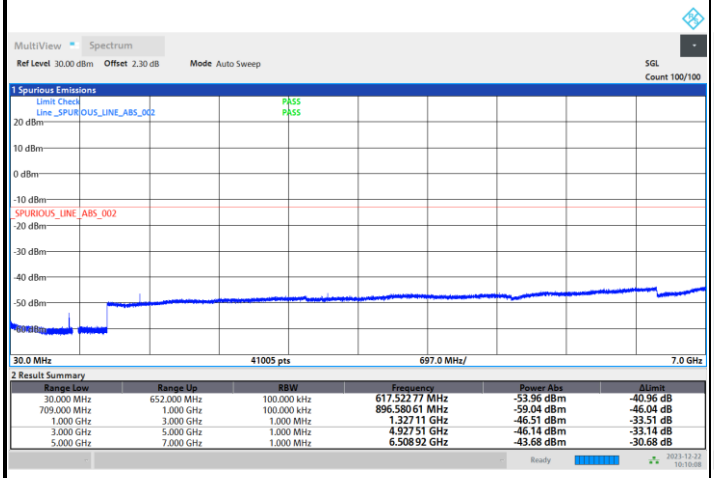

### Highest Band Edge



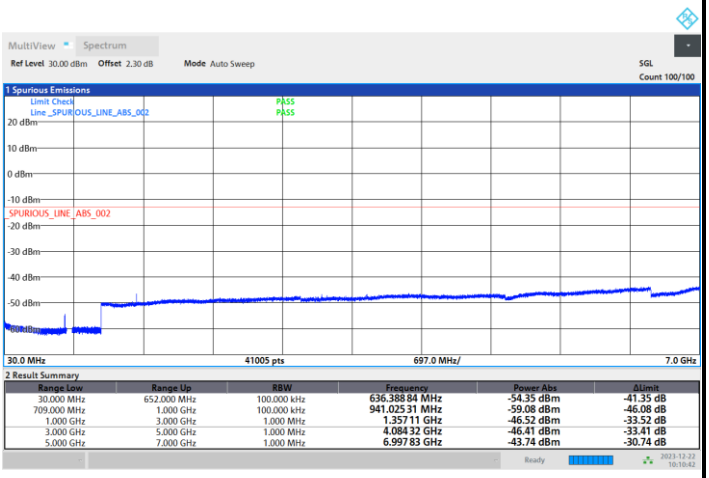
# Conducted Spurious Emission

## FR1 n71 / 5MHz / DFT-S OFDM / QPSK / 1RB1

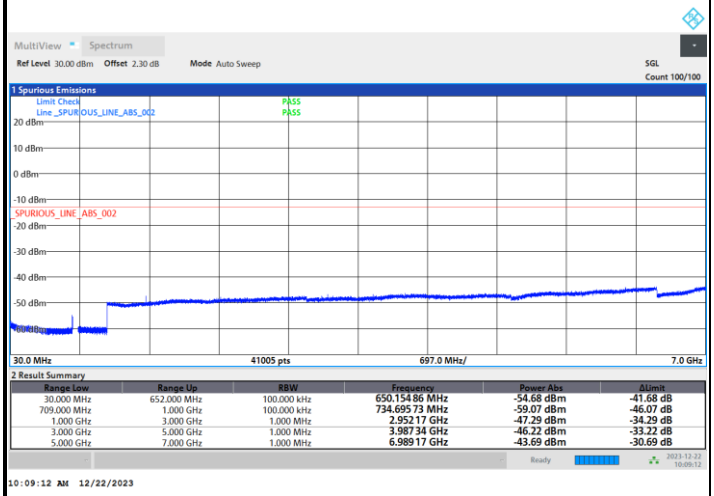
### Lowest Channel




### Middle Channel




### Highest Channel



# Frequency Stability

| Test Conditions | | FR1 n71 (BPSK) / Middle Channel | Limit |
|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | BW 20MHz | 2.5 ppm |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0073 | PASS |
| 40 | Normal Voltage | 0.0010 | |
| 30 | Normal Voltage | 0.0131 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0027 | |
| 0 | Normal Voltage | 0.0014 | |
| -10 | Normal Voltage | 0.0093 | |
| -20 | Normal Voltage | 0.0153 | |
| -30 | Normal Voltage | 0.0192 | |
| 20 | Maximum Voltage | 0.0024 | |
| 20 | Normal Voltage | 0.0021 | |
| 20 | Battery End Point | 0.0075 | |

**Note:**

1. Normal Voltage = 3.8 V.；Battery End Point (BEP) = 3.6 V.；Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

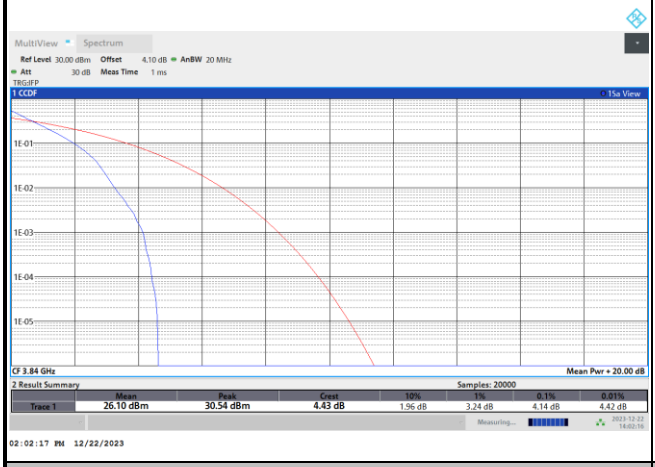
# FR1 n77(Part 27O) SISO ANT8

## Peak-to-Average Ratio

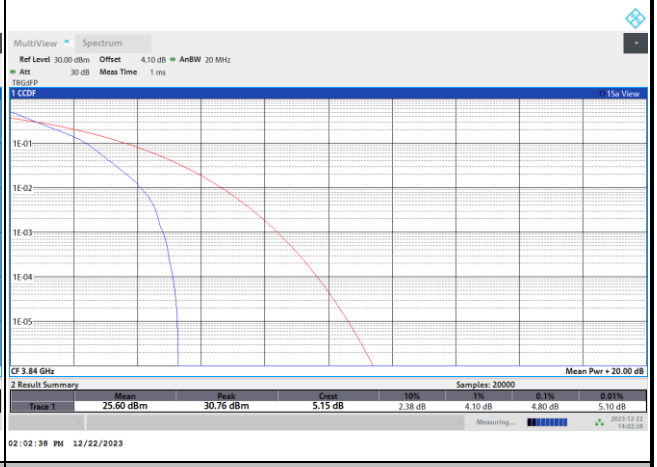
| Mode | FR1 n77 / 20MHz / DFT-S OFDM | | | | |
|---|---|---|---|---|---|
| Mod. | PI/2 BPSK | QPSK | 16QAM | 64QAM | Limit: 13dB |
| RB Size | Full RB | Full RB | Full RB | Full RB | Result |
| Middle CH | 4.14 | 4.80 | 5.70 | 5.94 | PASS |
| Mode | FR1 n77 / 20MHz / DFT-S OFDM | | | | |
| Mod. | 256QAM | | | | Limit: 13dB |
| RB Size | Full RB | | | | Result |
| Middle CH | 6.36 | | | | PASS |

## FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

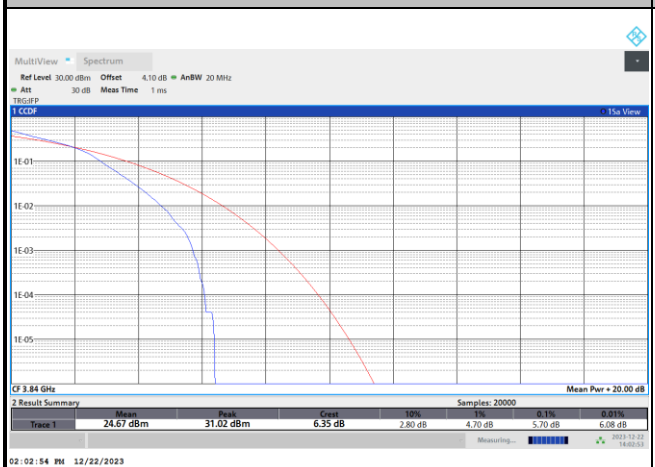
### PI/2 BPSK



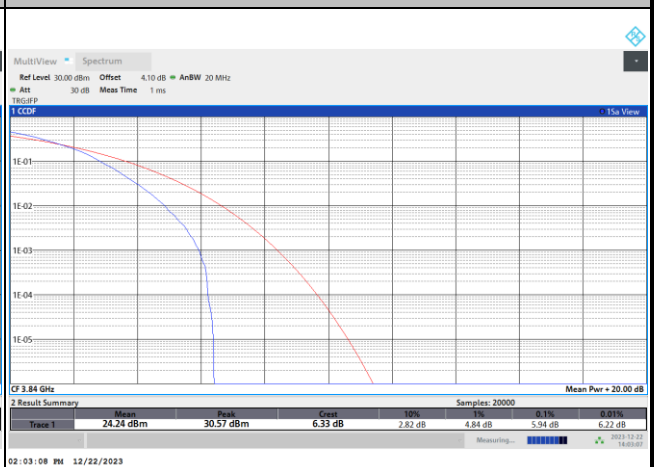

### QPSK



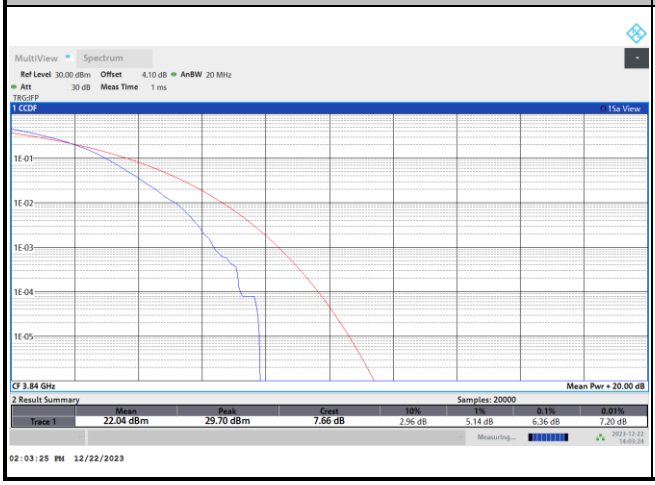

### 16QAM




### 64QAM




### 256QAM



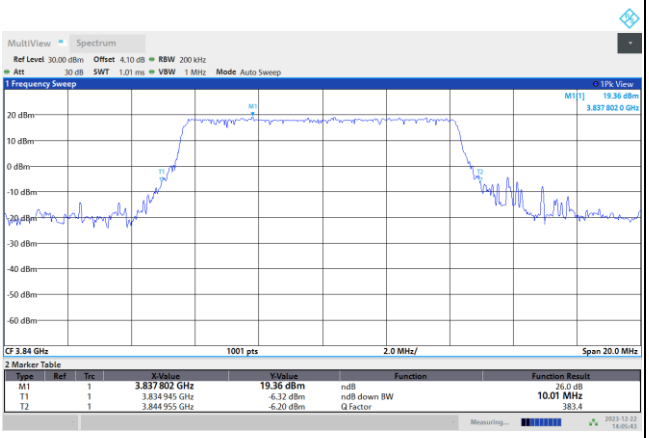
# 26dB Bandwidth

| Mode | FR1 n77 : 26dB BW(MHz) / DFT-S OFDM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BW | 10MHz | 15MHz | 20MHz | 25MHz | 30MHz | 40MHz | 50MHz | 60MHz |
| Mod. | PI/2 BPSK | PI/2 BPSK | PI/2 BPSK | PI/2 BPSK | PI/2 BPSK | PI/2 BPSK | PI/2 BPSK | PI/2 BPSK |
| Middle CH | 10.01 | 14.24 | 19.38 | - | 29.31 | 38.28 | 48.25 | 62.82 |
| BW | 70MHz | 80MHz | 90MHz | 100MHz | | | | |
| Mod. | PI/2 BPSK | PI/2 BPSK | PI/2 BPSK | PI/2 BPSK | | | | |
| Middle CH | 69.23 | 80.08 | 92.07 | 101.30 | | | | |

| Mode | FR1 n77 : 26dB BW(MHz) / CP OFDM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BW | 10MHz | | 15MHz | | 20MHz | | 25MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | 9.69 | 9.47 | 14.78 | 14.65 | 19.90 | 20.06 | - | - |
| Mod. | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 9.85 | 10.13 | 14.96 | 15.04 | 19.86 | 19.70 | - | - |
| BW | 30MHz | | 40MHz | | 50MHz | | 60MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | 30.57 | 30.51 | 40.68 | 40.52 | 50.35 | 50.25 | 62.82 | 62.94 |
| Mod. | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 30.57 | 30.27 | 40.84 | 40.52 | 50.15 | 50.15 | 62.58 | 62.82 |
| BW | 70MHz | | 80MHz | | 90MHz | | 100MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | 72.45 | 72.73 | 80.56 | 80.72 | 92.61 | 92.97 | 102.70 | 102.70 |
| Mod. | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 72.45 | 72.45 | 80.40 | 80.40 | 92.97 | 92.61 | 103.30 | 102.70 |

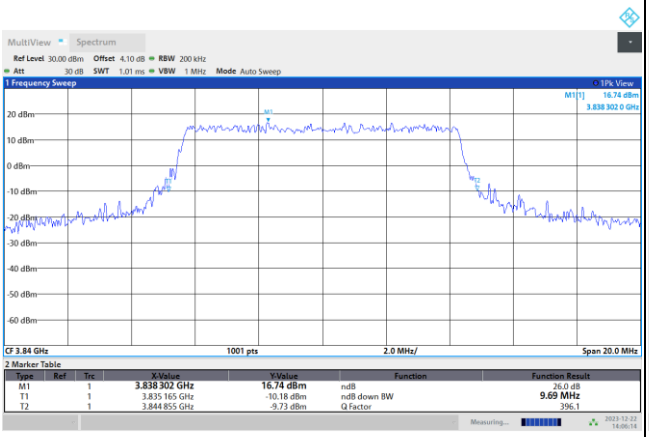
## FR1 n77 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

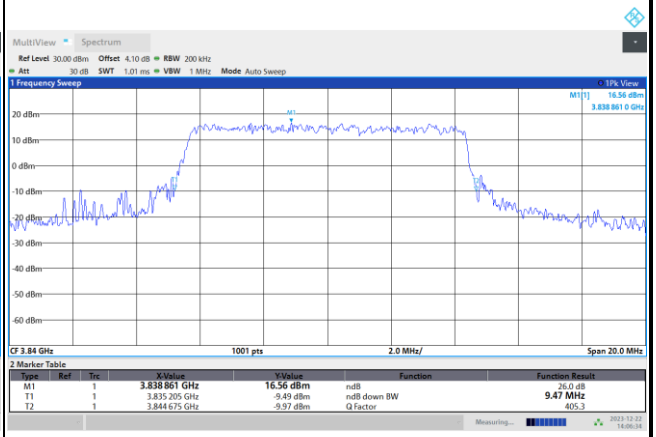



## FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

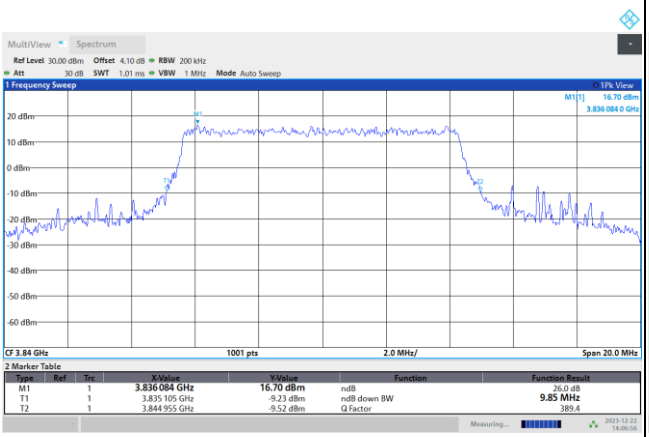
### QPSK



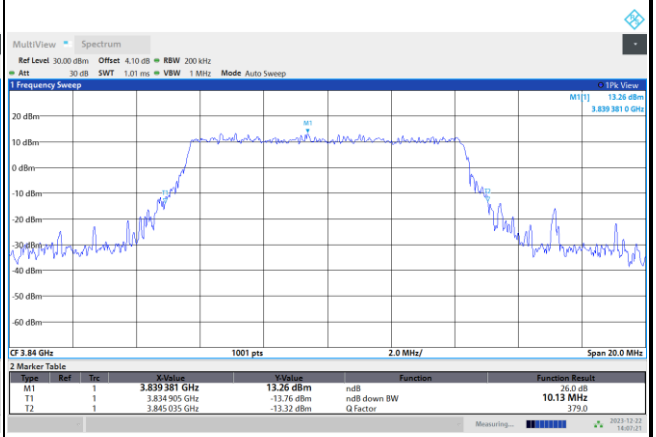

### 16QAM




### 64QAM

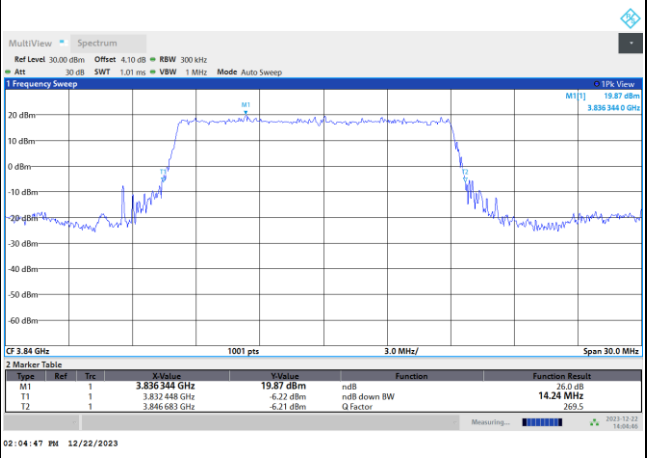



### 256QAM



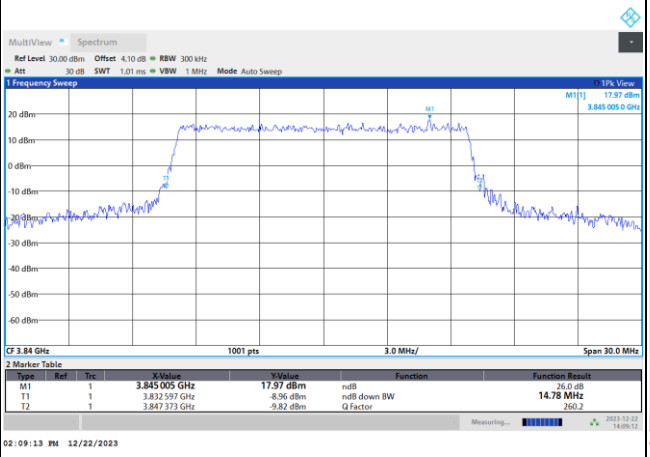
## FR1 n77 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

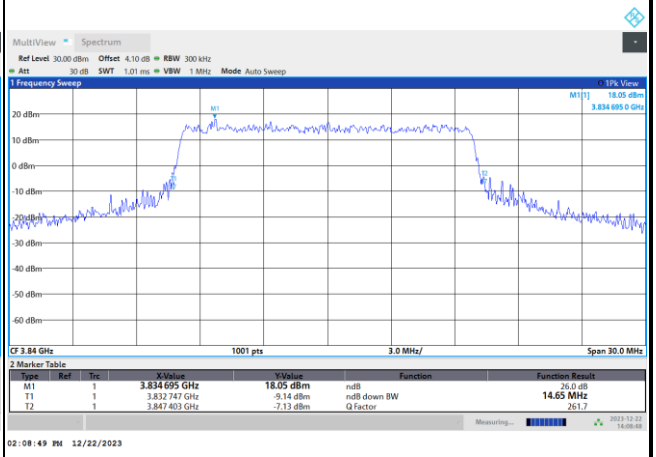



## FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

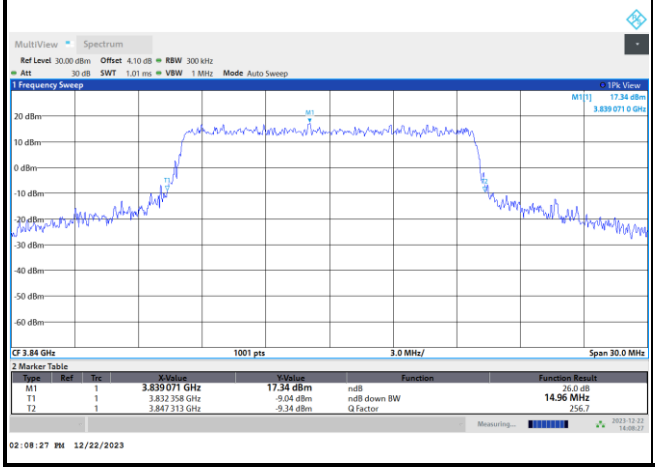
### QPSK



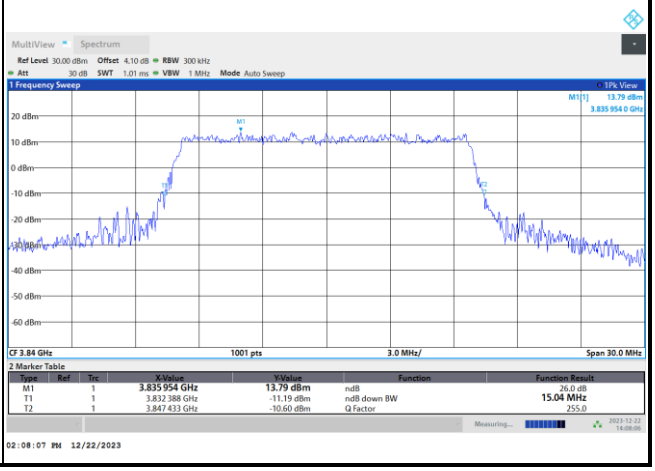

### 16QAM




### 64QAM

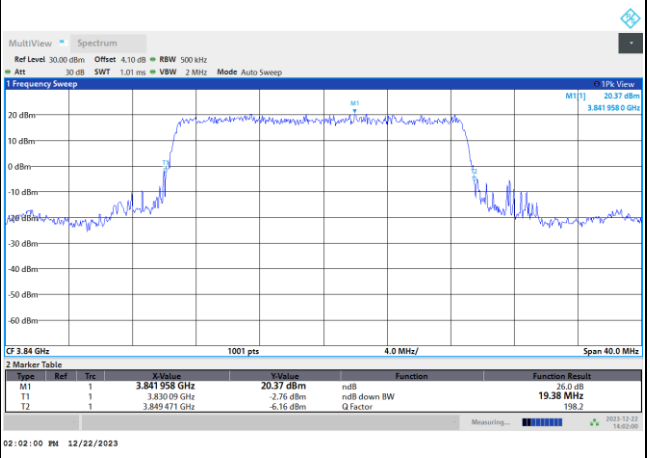



### 256QAM



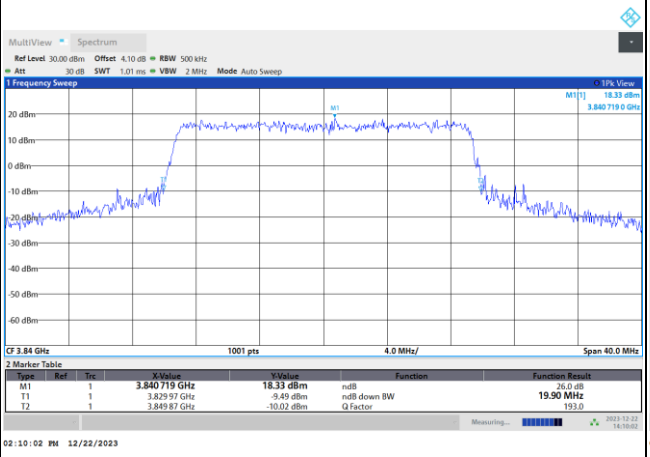
## FR1 n77 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

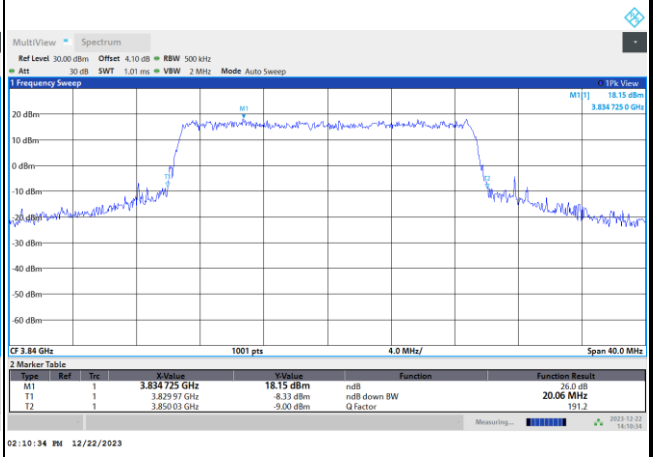



## FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

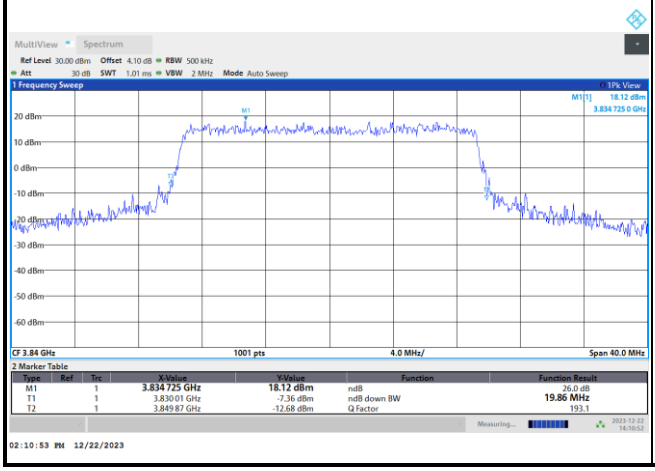
### QPSK



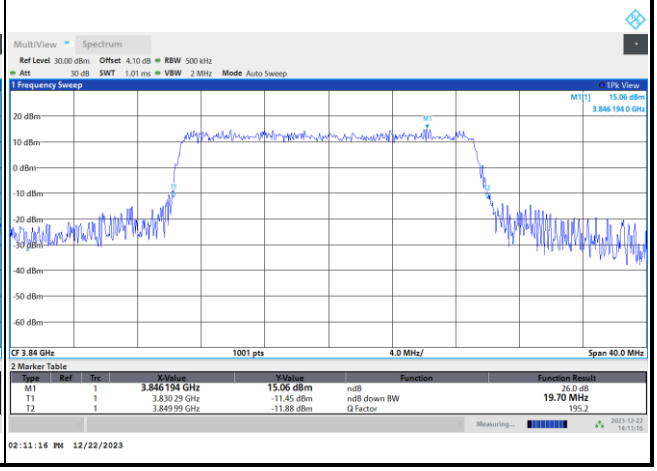

### 16QAM




### 64QAM

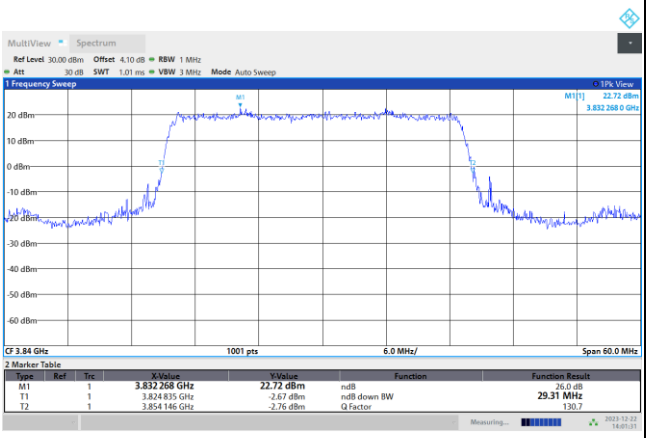



### 256QAM



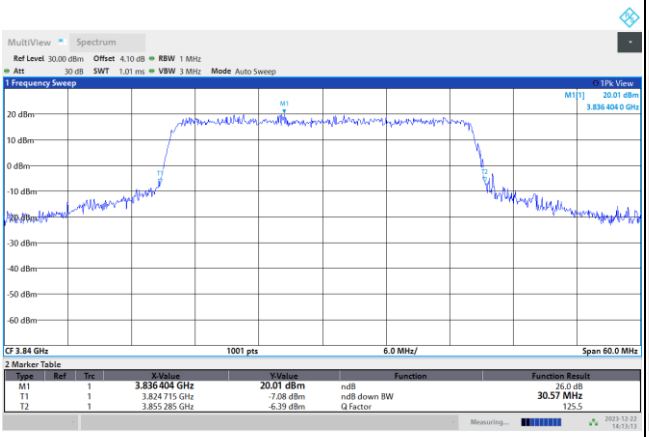
## FR1 n77 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

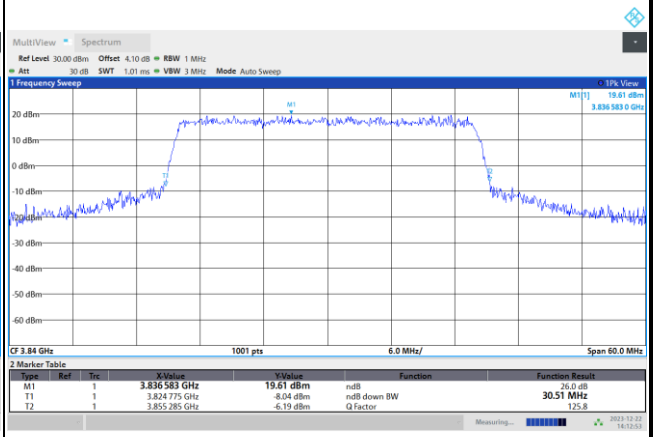



## FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

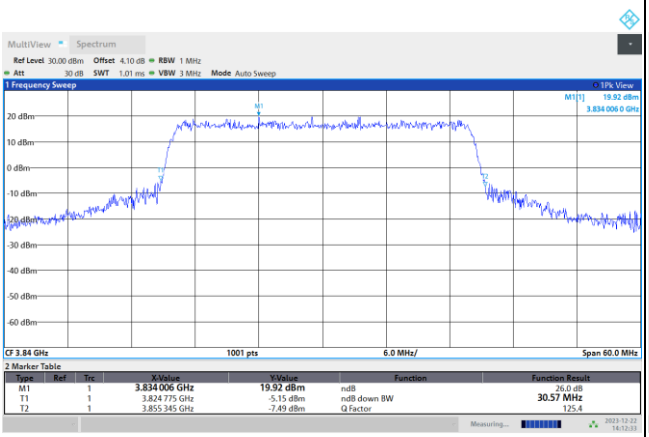
### QPSK

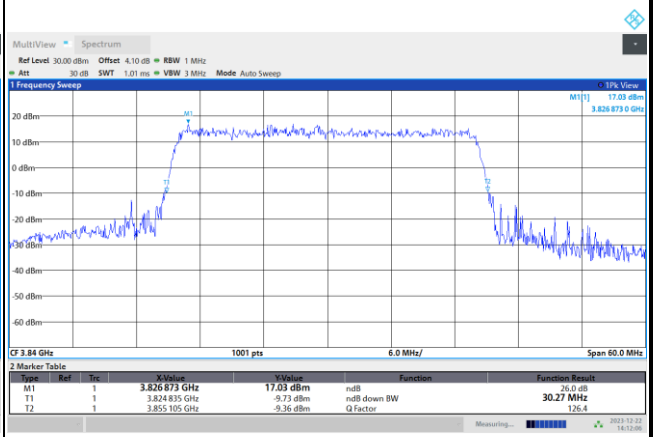



### 16QAM




### 64QAM




### 256QAM