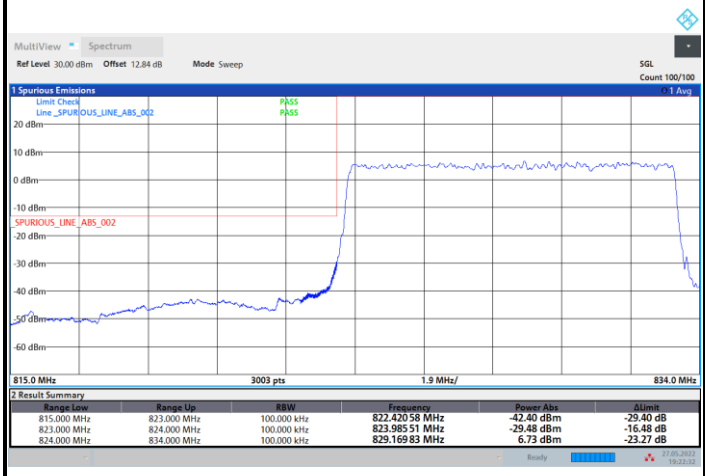
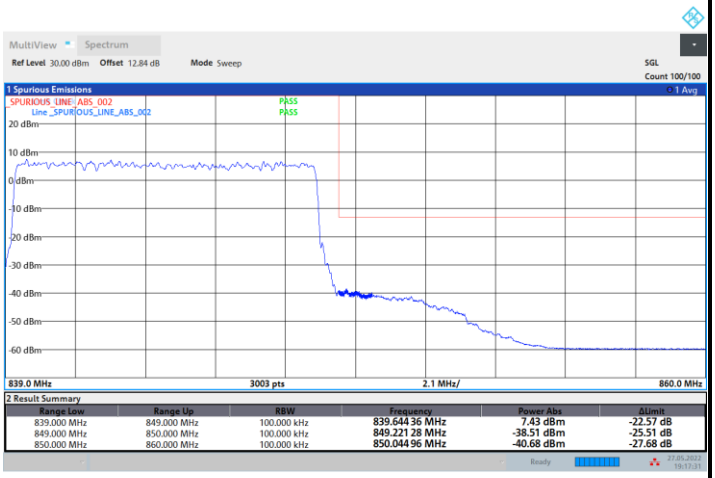
## FR1 n5 / 10MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

### Lowest Band Edge

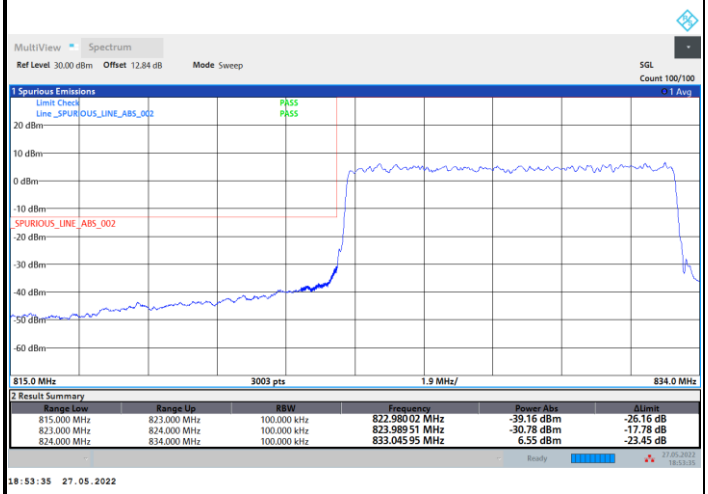



### Highest Band Edge

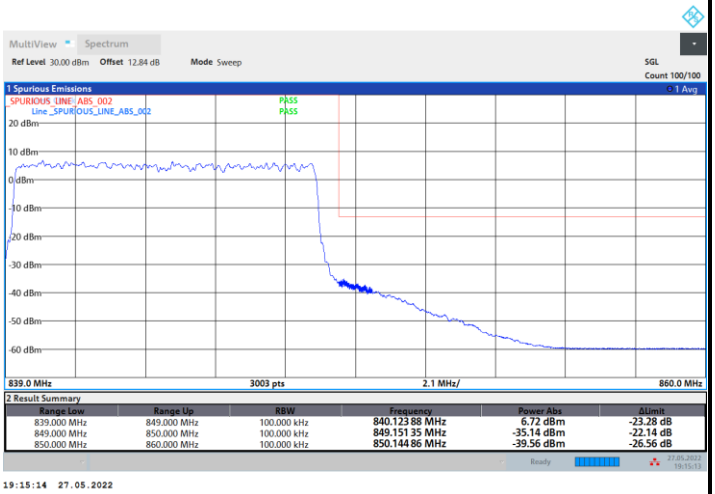


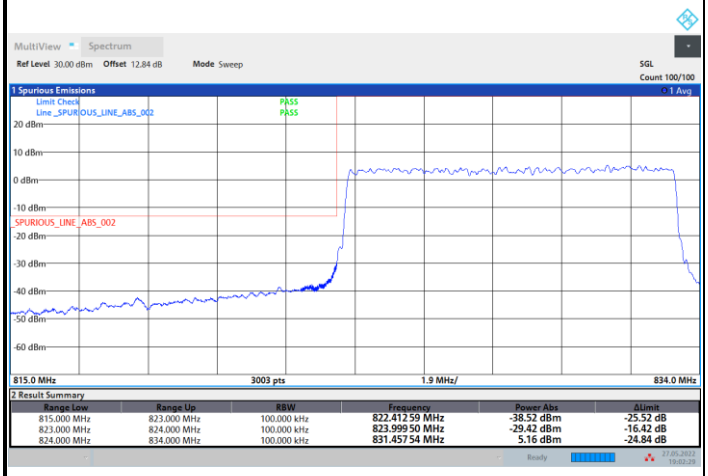
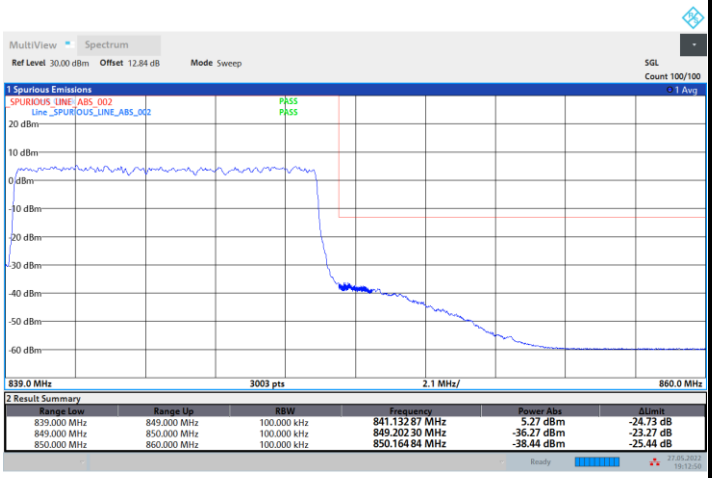

## FR1 n5 / 10MHz / DFT-s-OFDM / QPSK / Full RB

### Lowest Band Edge



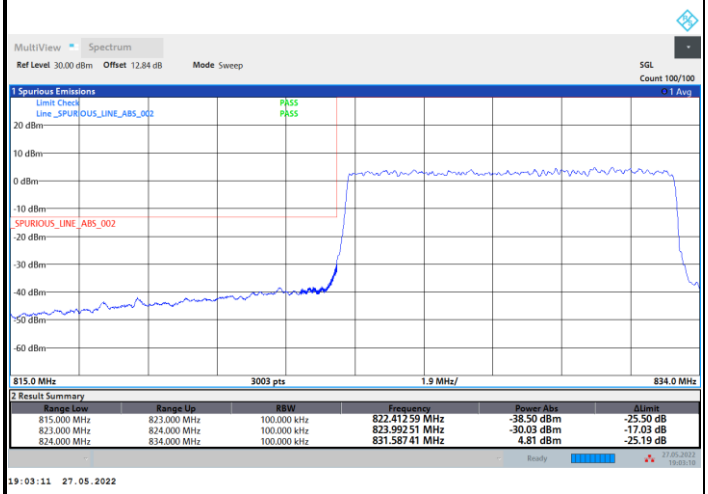
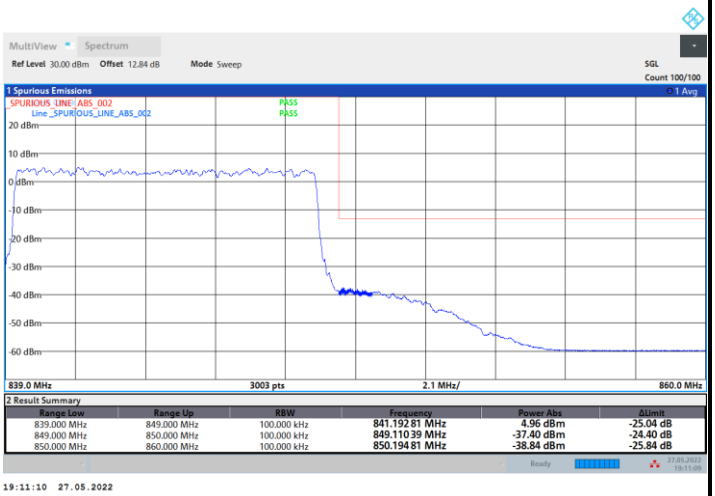

### Highest Band Edge



| FR1 n5 / 10MHz / DFT-s-OFDM / 16QAM / Full RB | |
|---|---|
| **Lowest Band Edge** | **Highest Band Edge** |
|  |  |

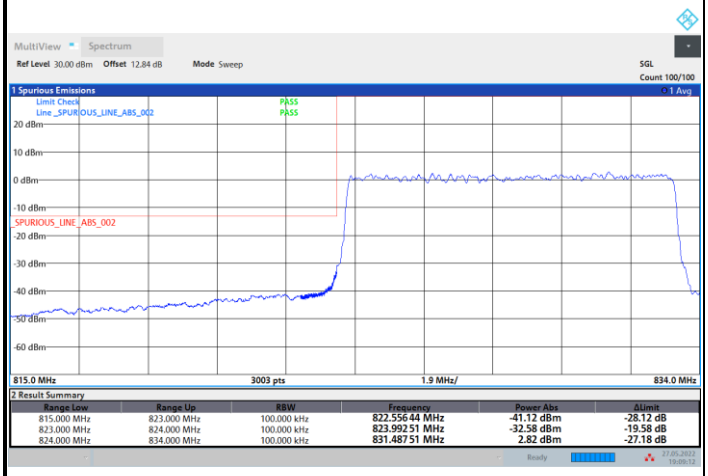




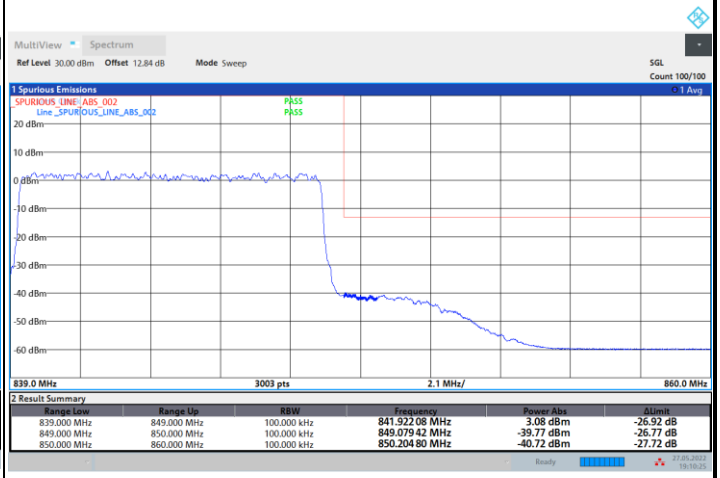
| FR1 n5 / 10MHz / DFT-s-OFDM / 64QAM / Full RB | |
|---|---|
| **Lowest Band Edge** | **Highest Band Edge** |
|  |  |

## FR1 n5 / 10MHz / DFT-s-OFDM / 256QAM / Full RB

### Lowest Band Edge

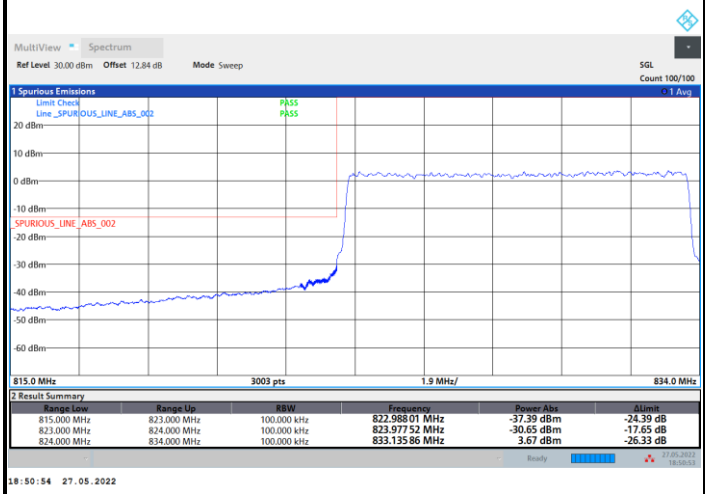



### Highest Band Edge

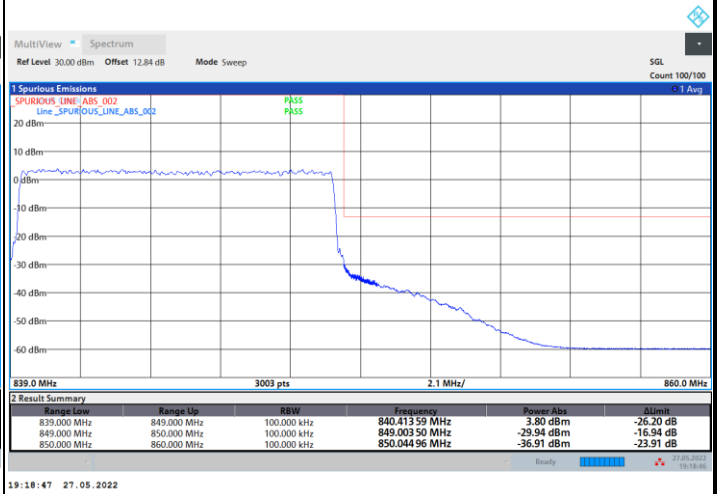



## FR1 n5 / 10MHz / CP OFDM / QPSK / Full RB

### Lowest Band Edge

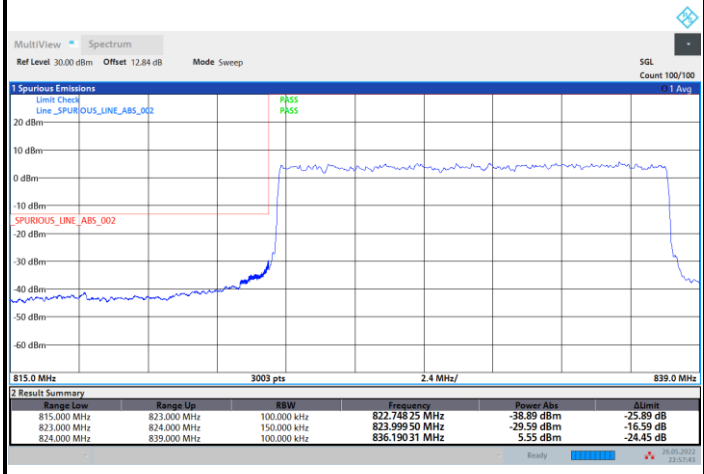



### Highest Band Edge

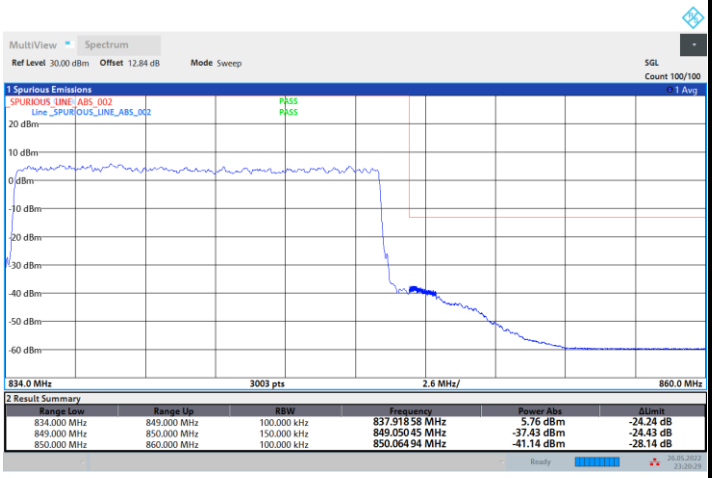


## FR1 n5 / 15MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

### Lowest Band Edge

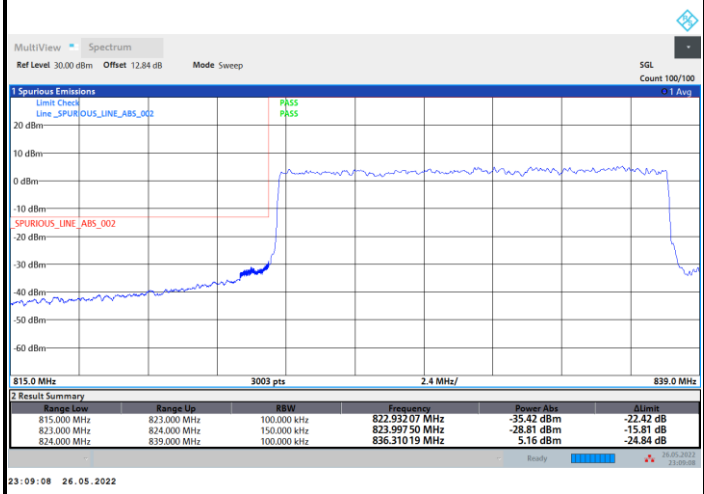



### Highest Band Edge

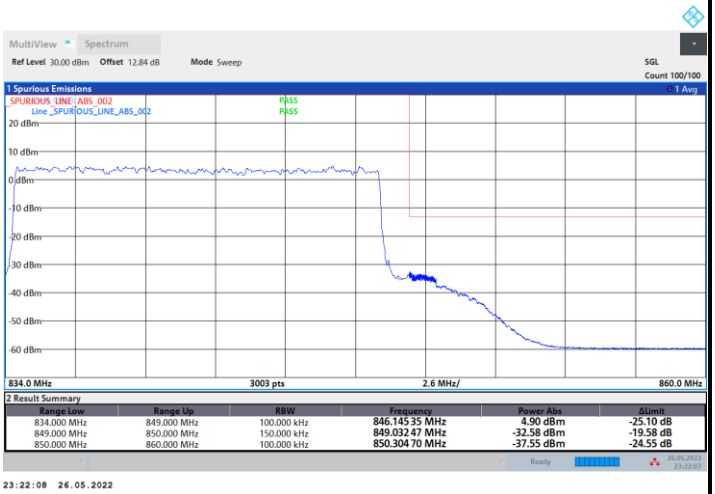



## FR1 n5 / 15MHz / DFT-s-OFDM / QPSK / Full RB

### Lowest Band Edge

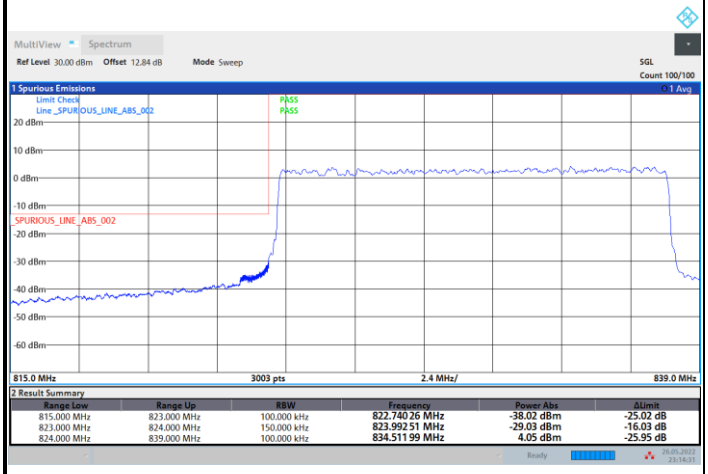



### Highest Band Edge

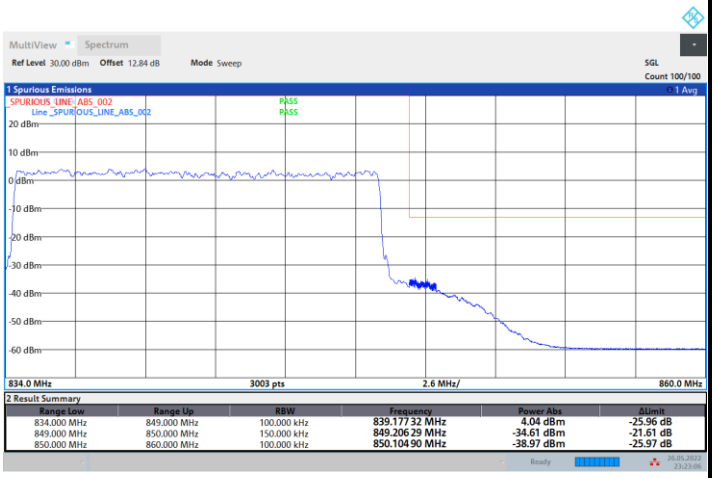


## FR1 n5 / 15MHz / DFT-s-OFDM / 16QAM / Full RB

### Lowest Band Edge

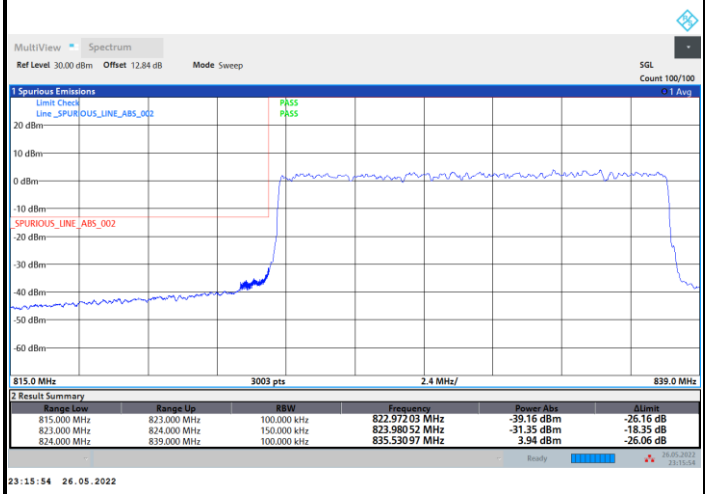



### Highest Band Edge

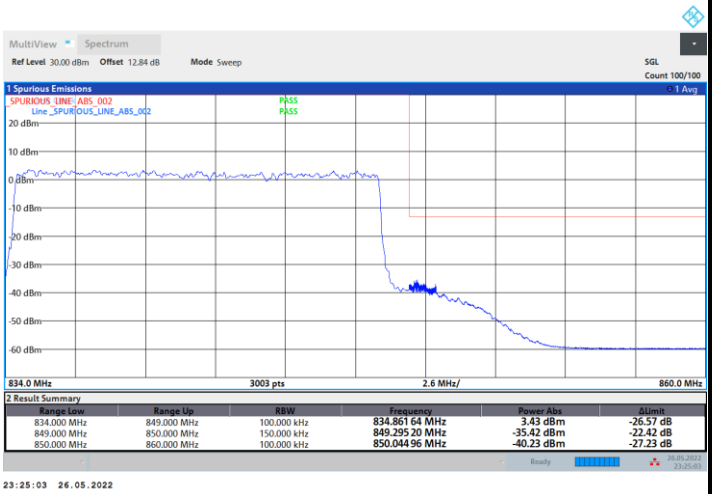



## FR1 n5 / 15MHz / DFT-s-OFDM / 64QAM / Full RB

### Lowest Band Edge

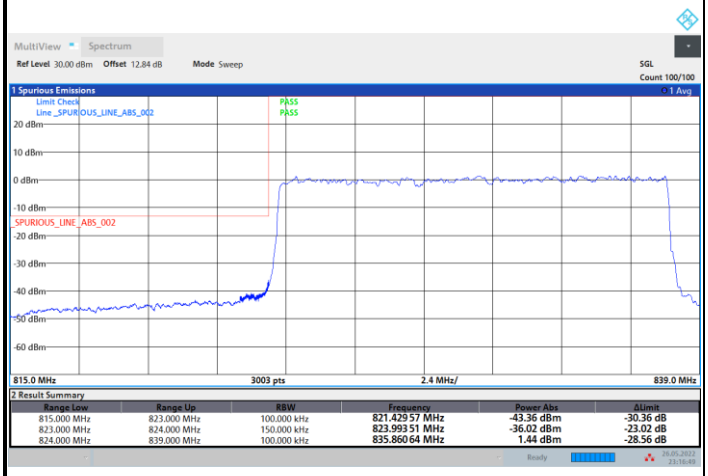



### Highest Band Edge

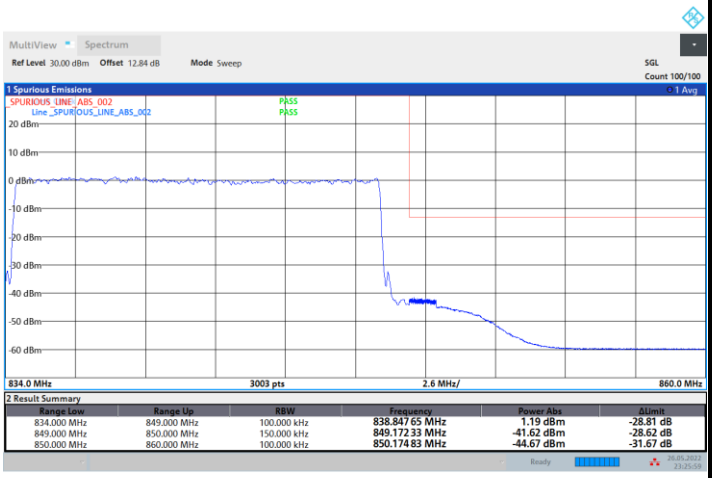


## FR1 n5 / 15MHz / DFT-s-OFDM / 256QAM / Full RB

### Lowest Band Edge

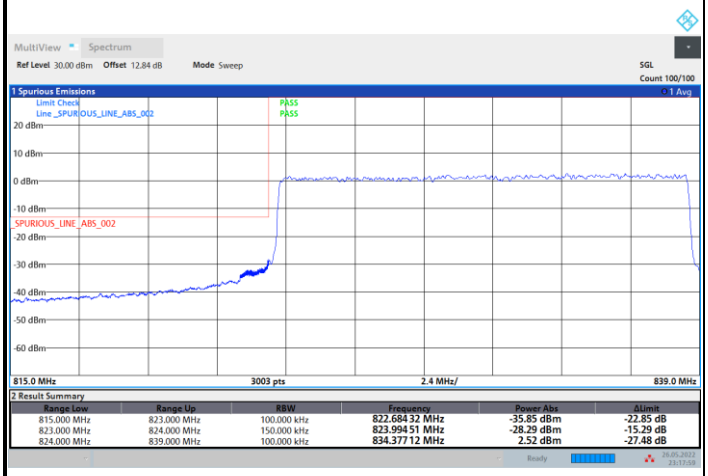



### Highest Band Edge

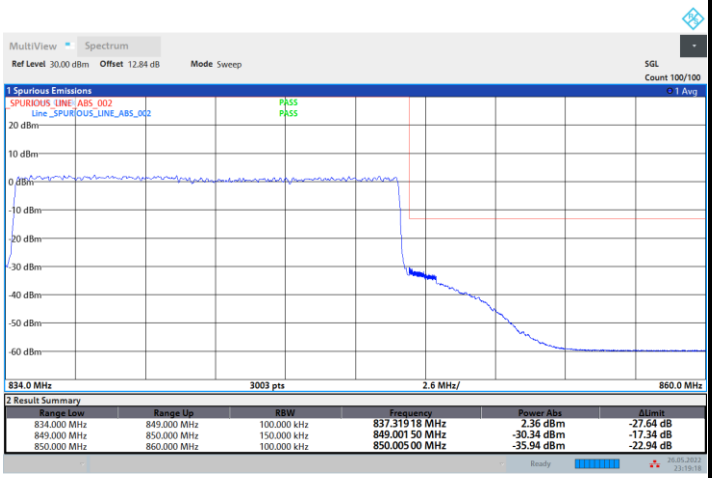



## FR1 n5 / 15MHz / CP OFDM / QPSK / Full RB

### Lowest Band Edge

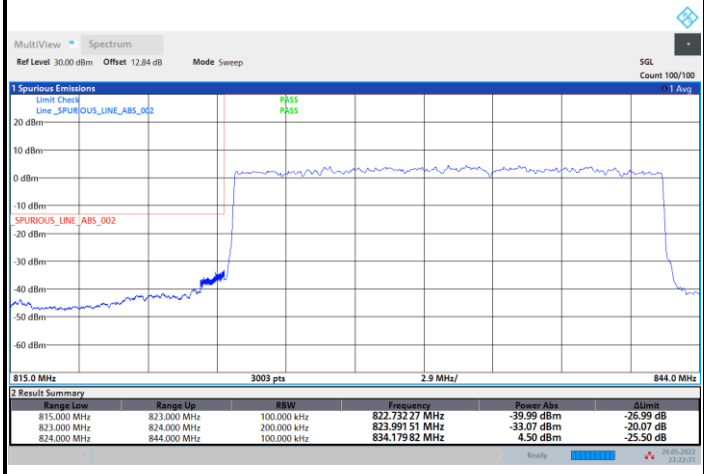



### Highest Band Edge

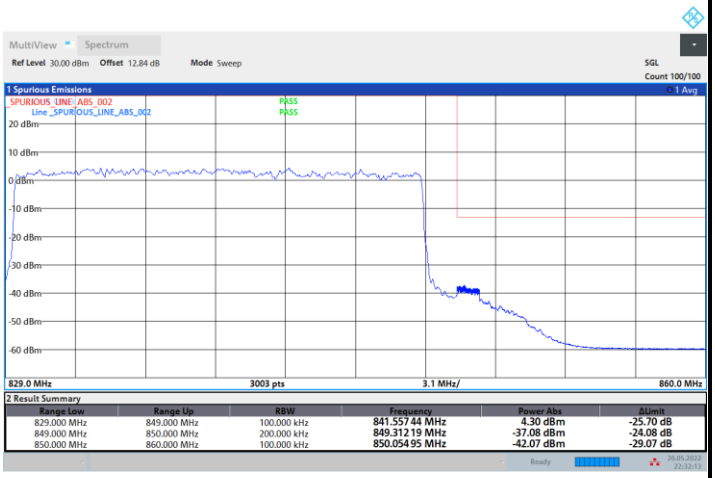


## FR1 n5 / 20MHz / DFT-s-OFDM / PI/2 BPSK / Full RB

### Lowest Band Edge

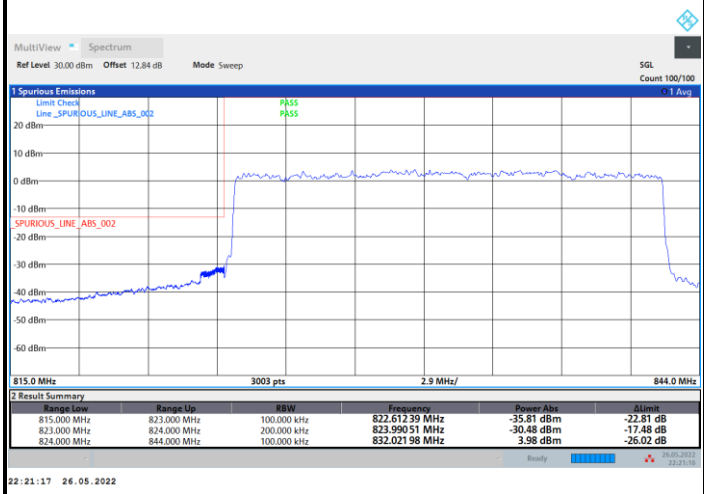



### Highest Band Edge

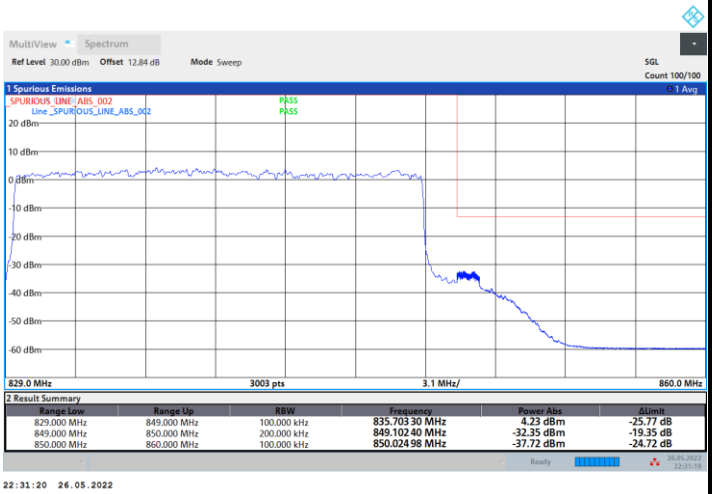


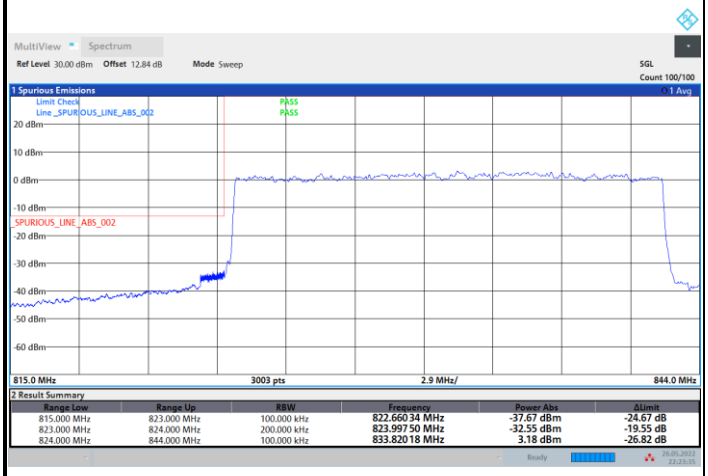
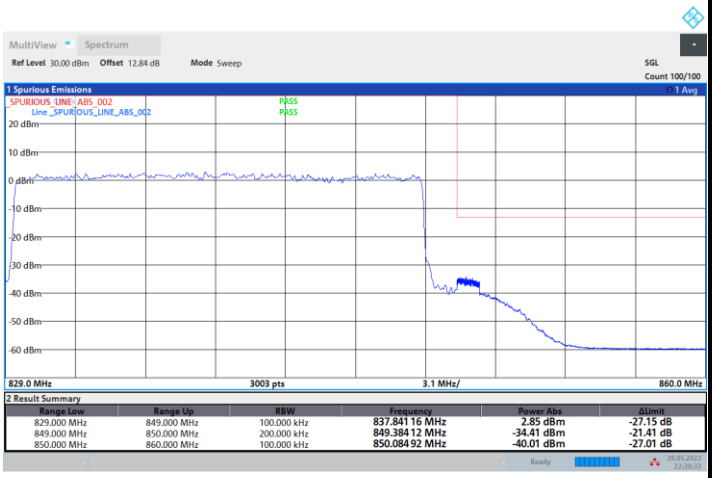

## FR1 n5 / 20MHz / DFT-s-OFDM / QPSK / Full RB

### Lowest Band Edge



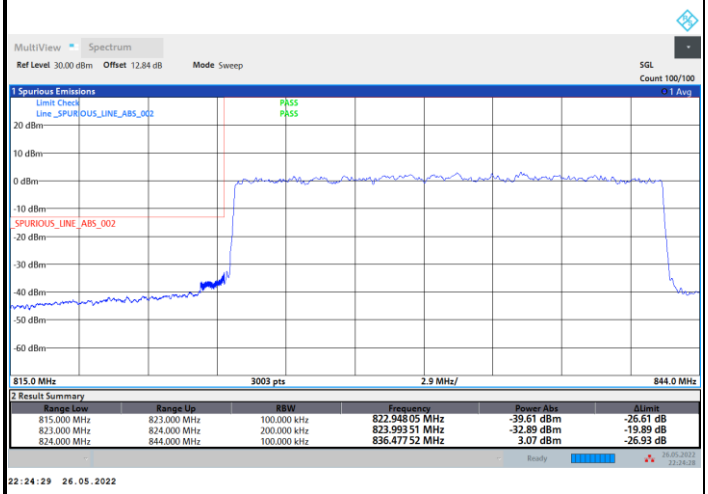
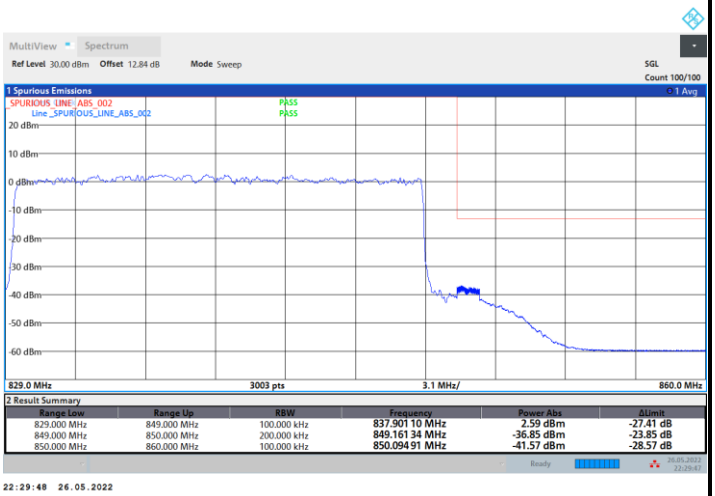

### Highest Band Edge



| FR1 n5 / 20MHz / DFT-s-OFDM / 16QAM / Full RB | |
|---|---|
| **Lowest Band Edge** | **Highest Band Edge** |
|  |  |

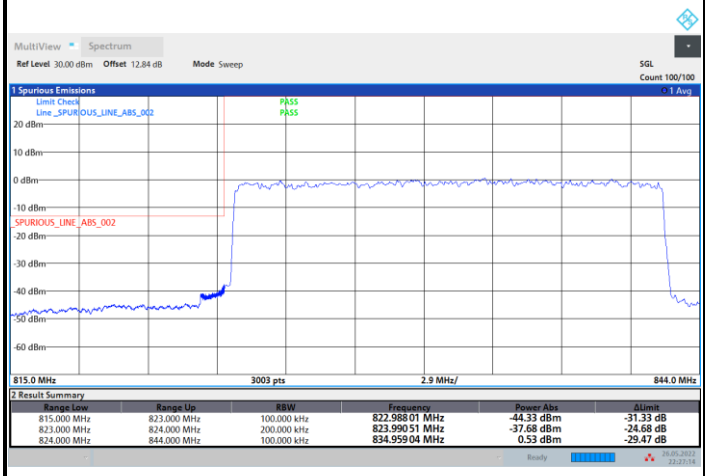




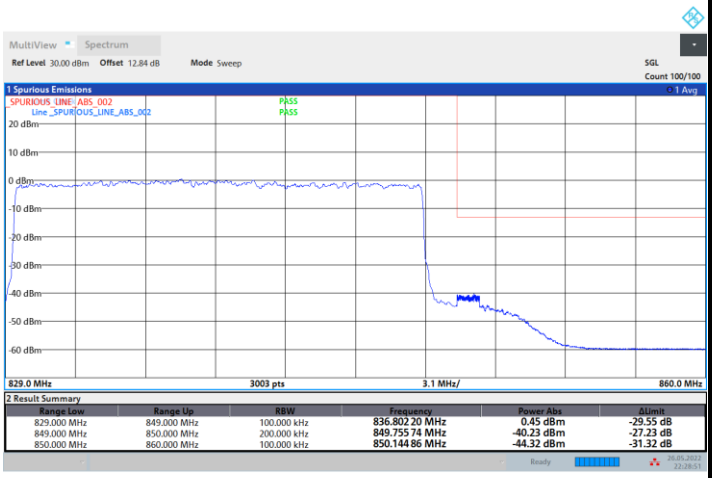
| FR1 n5 / 20MHz / DFT-s-OFDM / 64QAM / Full RB | |
|---|---|
| **Lowest Band Edge** | **Highest Band Edge** |
|  |  |

## FR1 n5 / 20MHz / DFT-s-OFDM / 256QAM / Full RB

### Lowest Band Edge

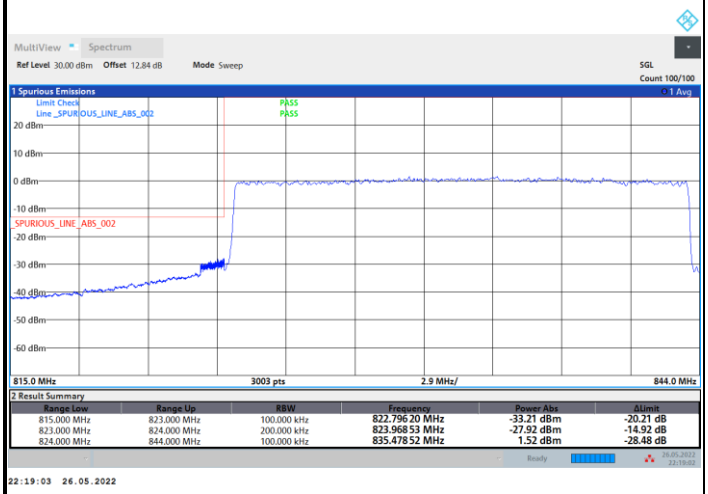



### Highest Band Edge

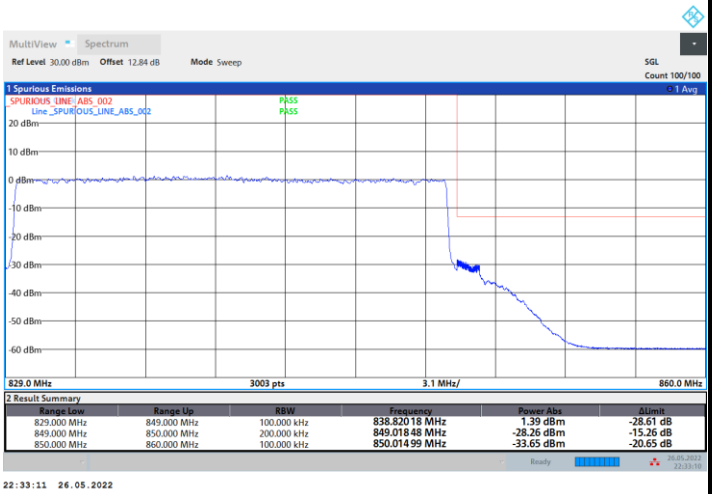



## FR1 n5 / 20MHz / CP OFDM / QPSK / Full RB

### Lowest Band Edge



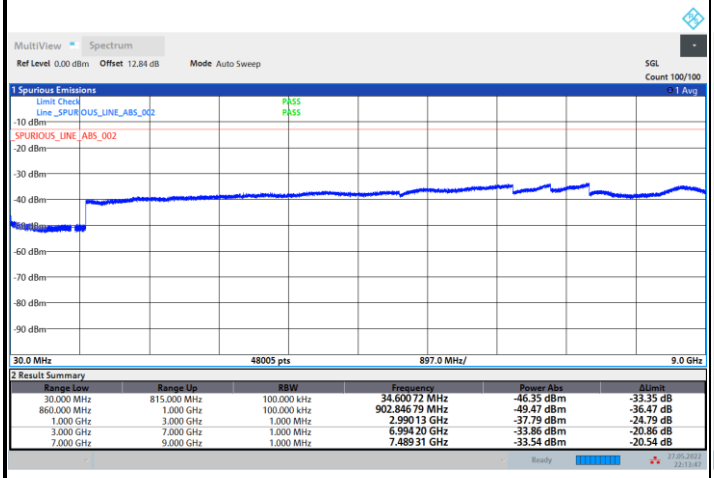

### Highest Band Edge



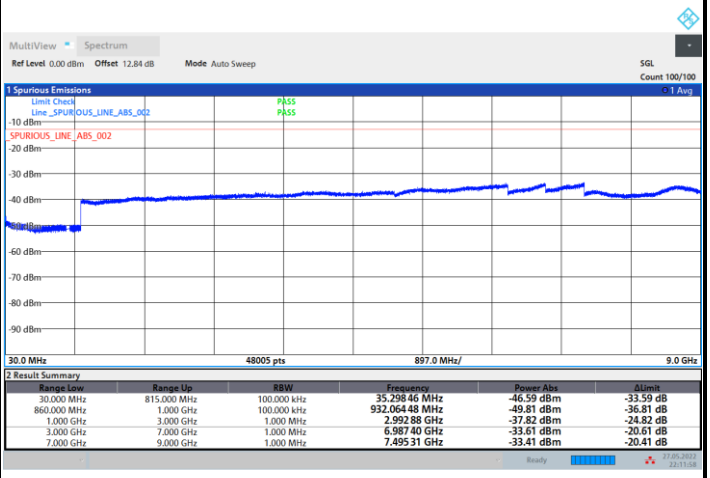
# Conducted Spurious Emission

## FR1 n5 / 5MHz / DFT-S OFDM / QPSK / 1RB1

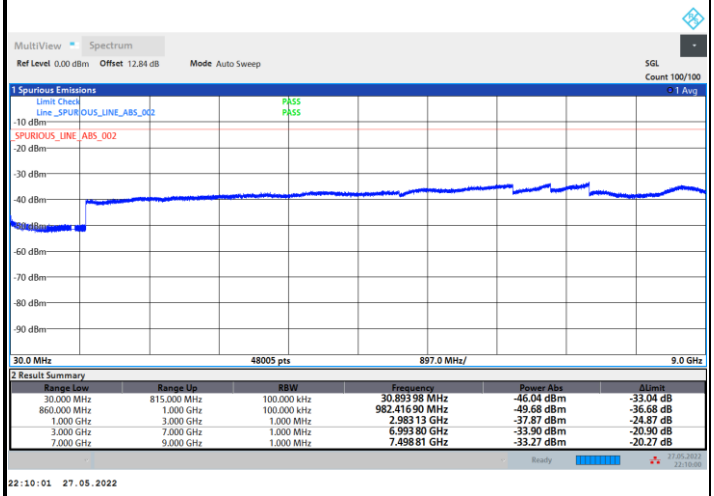
### Lowest Channel




### Middle Channel




### Highest Channel



# Frequency Stability

| Test Conditions | | FR1 n5 (BPSK) / Middle Channel | Limit |
|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | BW 20MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0036 | PASS |
| 40 | Normal Voltage | 0.0047 | |
| 30 | Normal Voltage | 0.0010 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0025 | |
| 0 | Normal Voltage | 0.0078 | |
| -10 | Normal Voltage | 0.0035 | |
| -20 | Normal Voltage | 0.0041 | |
| -30 | Normal Voltage | 0.0054 | |
| 20 | Maximum Voltage | 0.0067 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0017 | |

**Note:**

1. Normal Voltage = 4.05 V.；Battery End Point (BEP) = 3.85 V.；Maximum Voltage = 4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

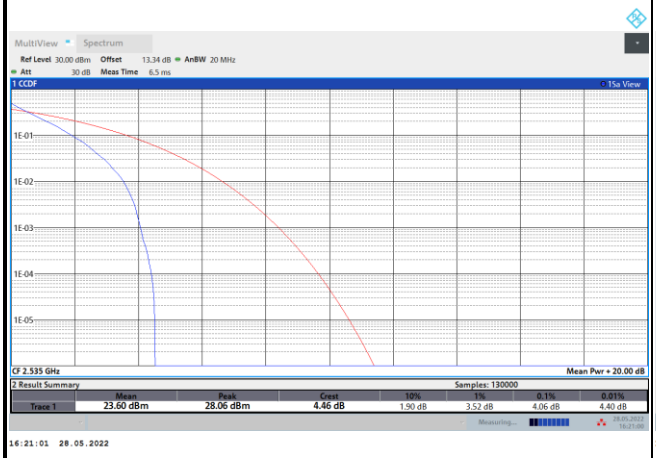
# FR1 n7

## Peak-to-Average Ratio

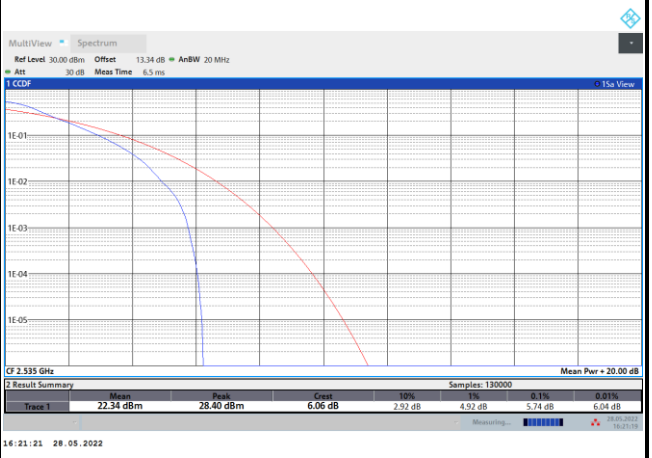
| Mode | FR1 n7 / 20MHz / DFT-S OFDM | | | | |
|---|---|---|---|---|---|
| Mod. | PI/2 BPSK | QPSK | 16QAM | 64QAM | Limit: 13dB |
| RB Size | Full RB | Full RB | Full RB | Full RB | Result |
| Middle CH | 4.06 | 5.74 | 5.72 | 6.20 | PASS |
| Mode | FR1 n7 / 20MHz / DFT-S OFDM | | | | |
| Mod. | 256QAM | | | | Limit: 13dB |
| RB Size | Full RB | | | | Result |
| Middle CH | 7.48 | | | | PASS |

## FR1 n7 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

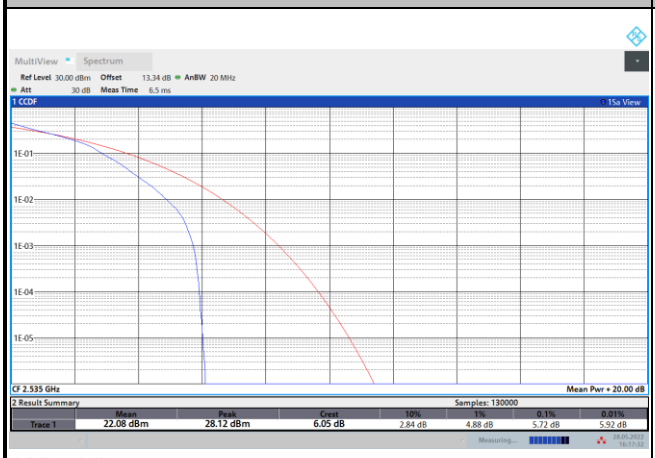
### PI/2 BPSK



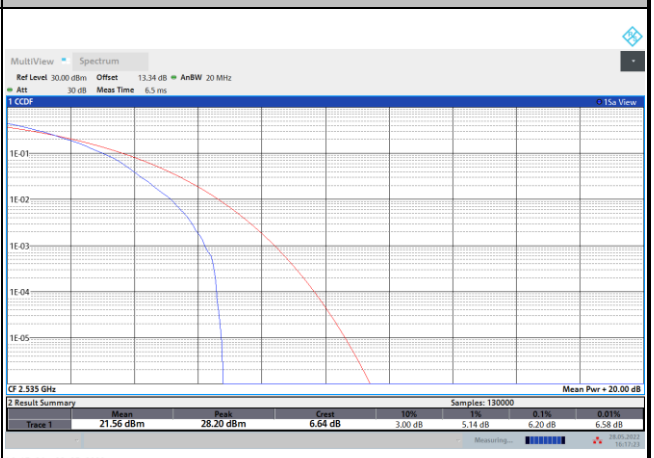

### QPSK



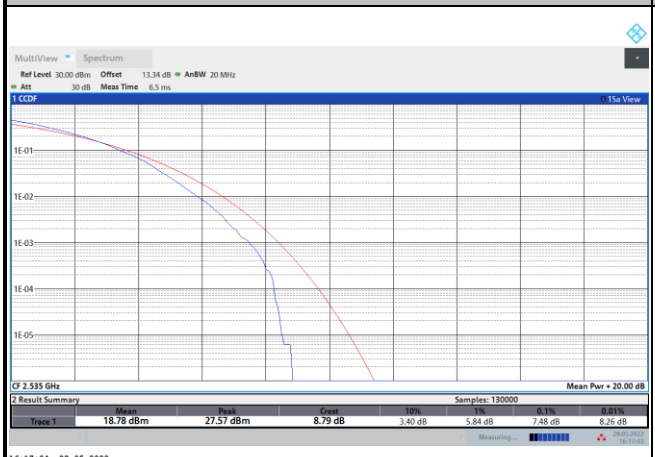

### 16QAM




### 64QAM




### 256QAM



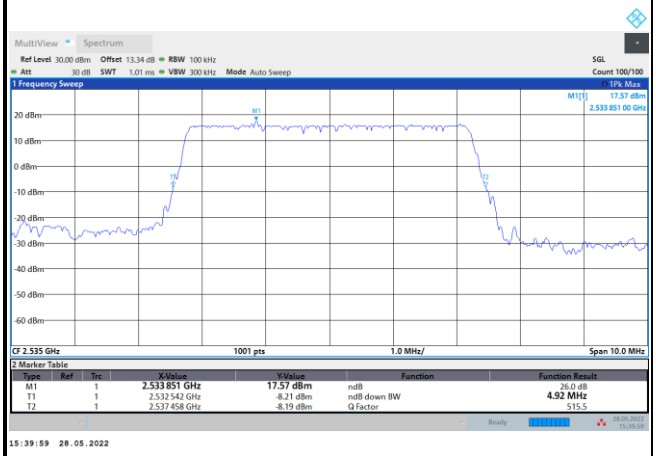
# 26dB Bandwidth

| Mode | FR1 n7 : 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 | 4.92 | | 9.47 | | 14.30 | | 18.78 | |

| Mode | FR1 n7 : 26dB BW(MHz) / CP OFDM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BW | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | 5.00 | 4.97 | 9.95 | 9.91 | 14.93 | 14.99 | 19.90 | 19.82 |
| Mod. | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 4.88 | 4.89 | 9.75 | 9.89 | 14.96 | 14.87 | 19.94 | 19.94 |

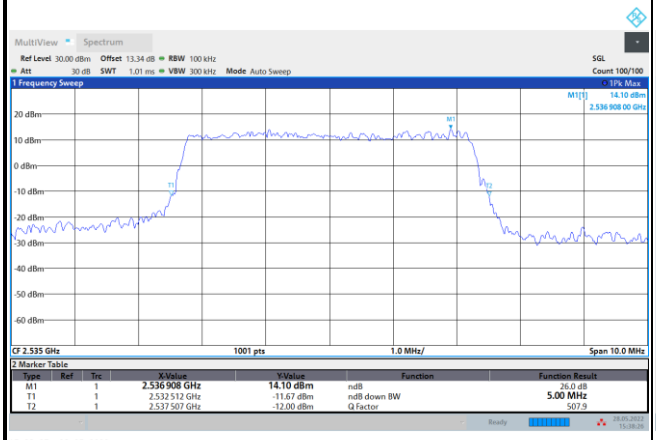
## FR1 n7 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

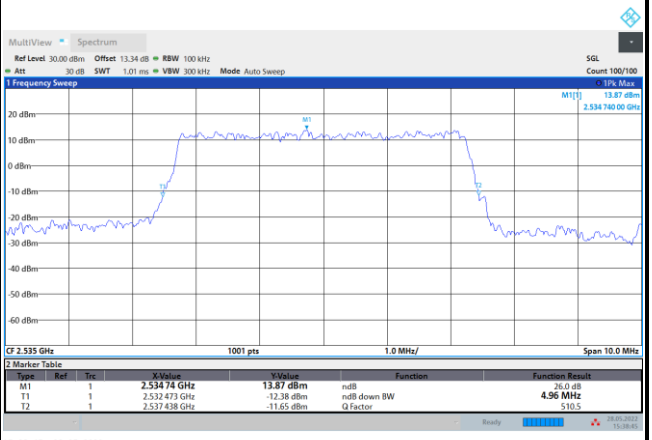



## FR1 n7 / 5MHz / CP OFDM / Middle Channel / Full RB

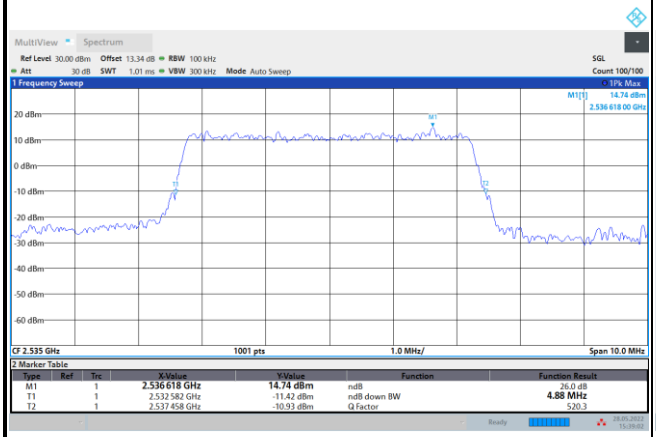
### QPSK



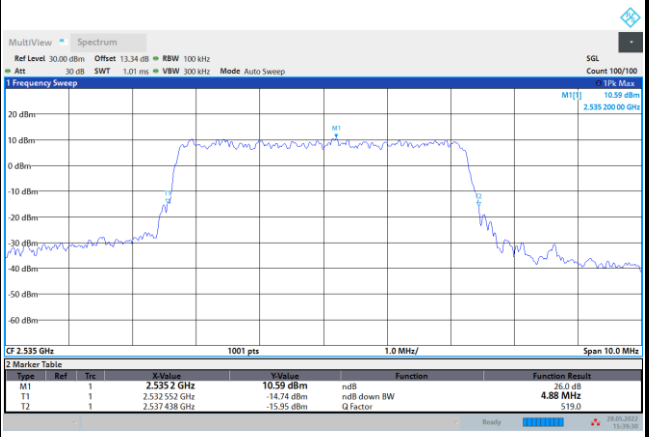

### 16QAM




### 64QAM

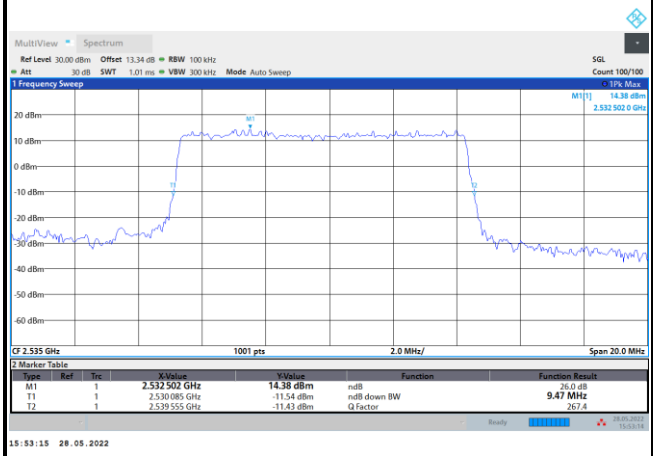



### 256QAM



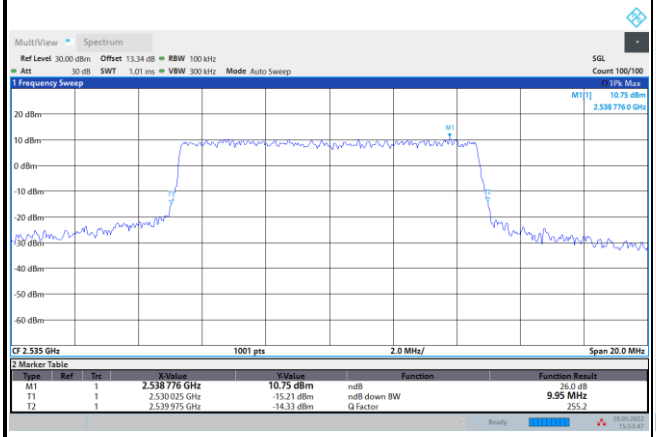
## FR1 n7 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

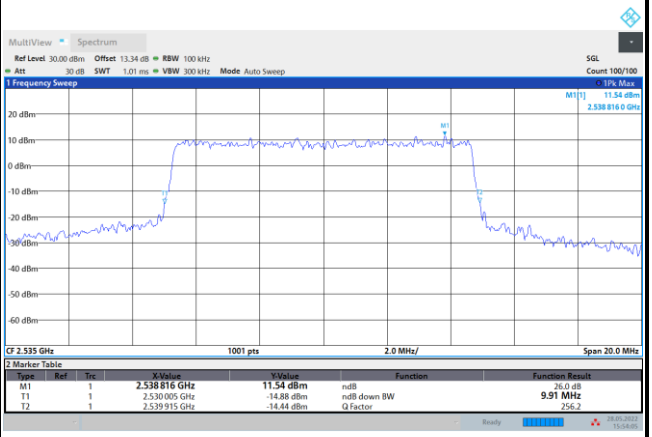



## FR1 n7 / 10MHz / CP OFDM / Middle Channel / Full RB

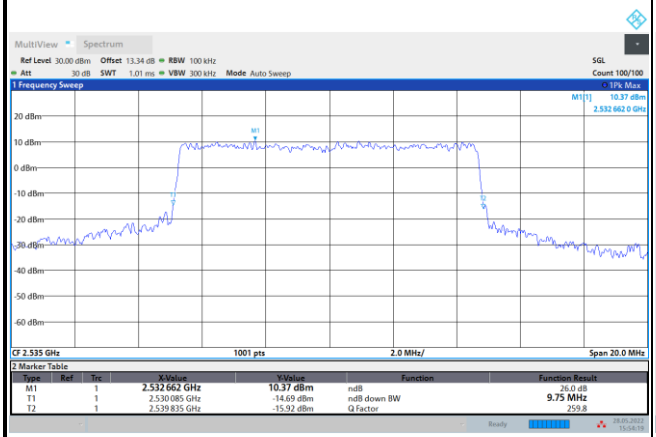
### QPSK



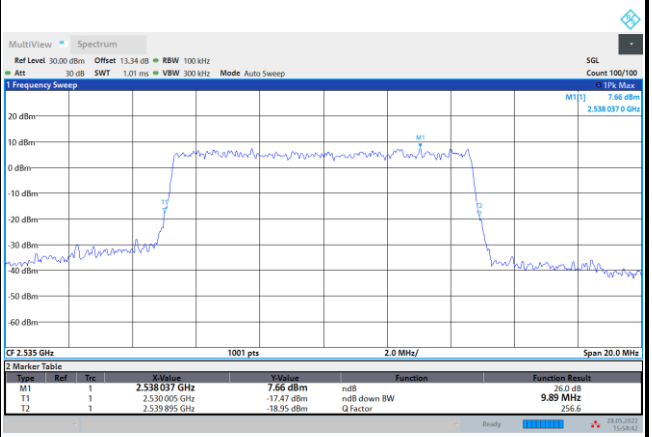

### 16QAM




### 64QAM

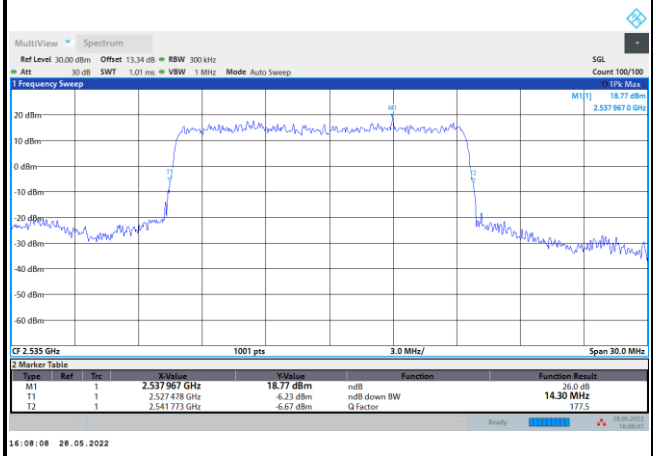



### 256QAM



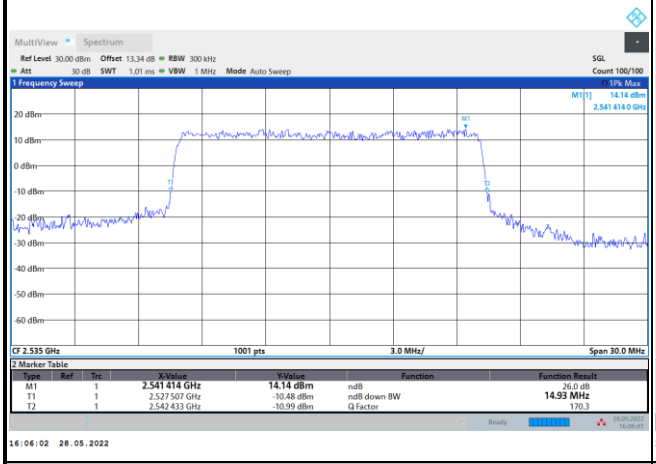
## FR1 n7 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

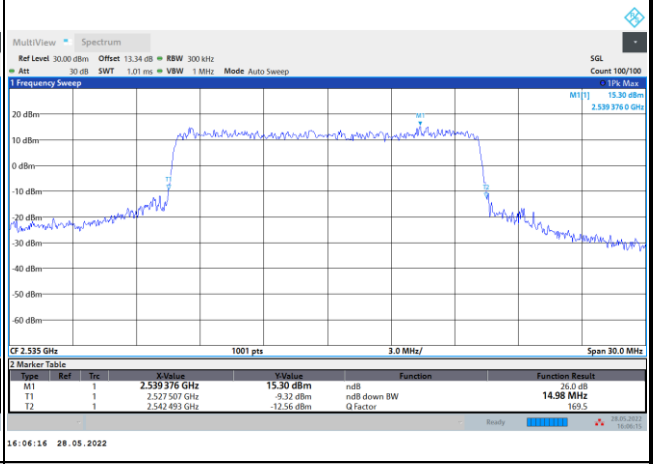



## FR1 n7 / 15MHz / CP OFDM / Middle Channel / Full RB

### QPSK




### 16QAM

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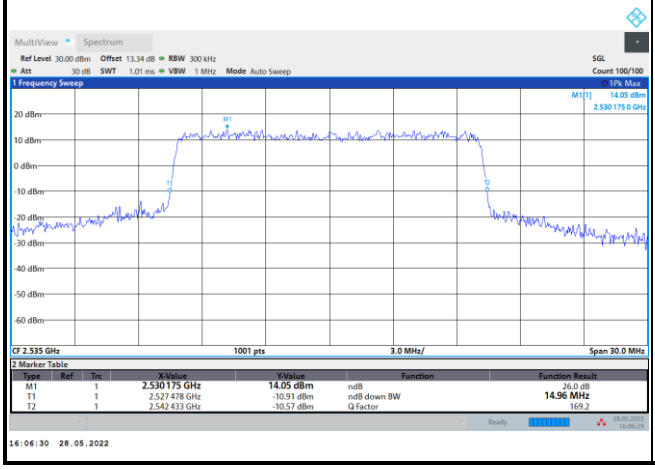
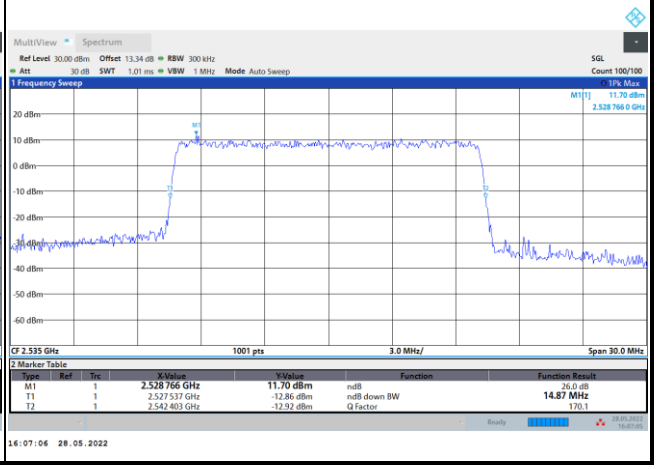
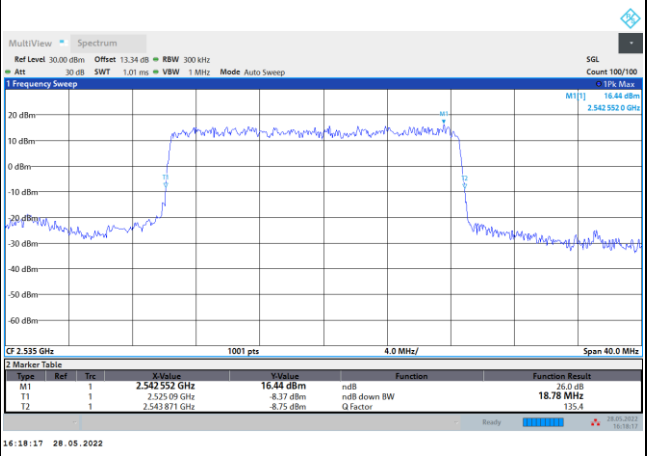



### 256QAM



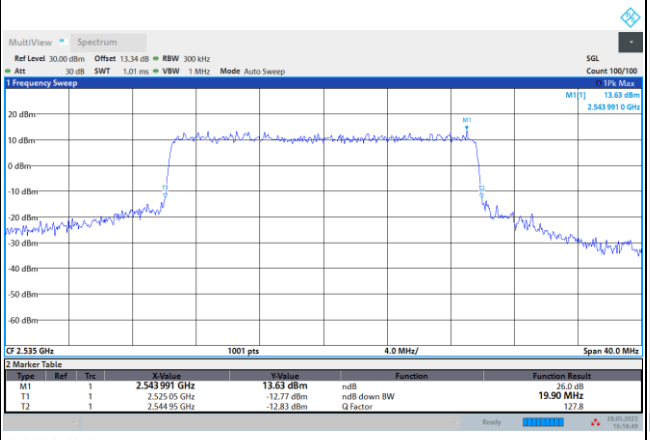
## FR1 n7 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

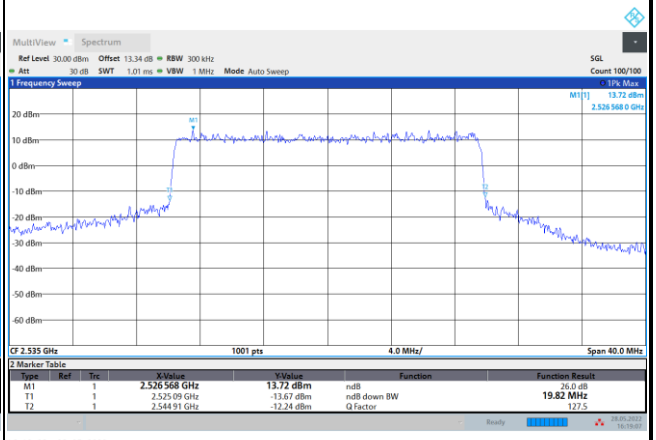



## FR1 n7 / 20MHz / CP OFDM / Middle Channel / Full RB

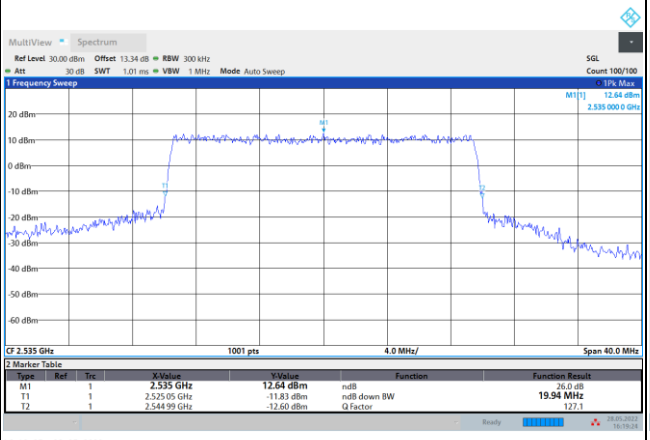
### QPSK



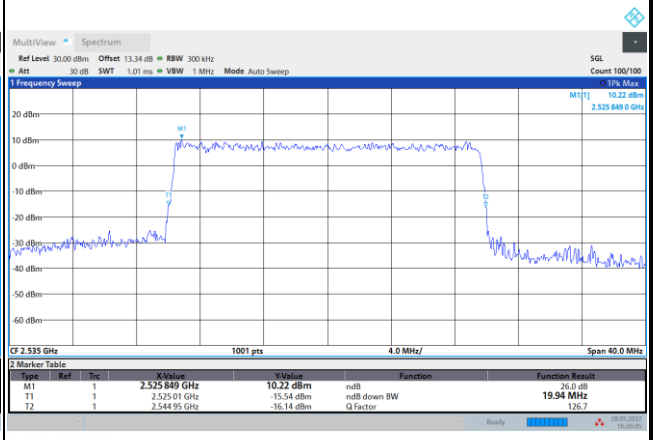

### 16QAM




### 64QAM




### 256QAM



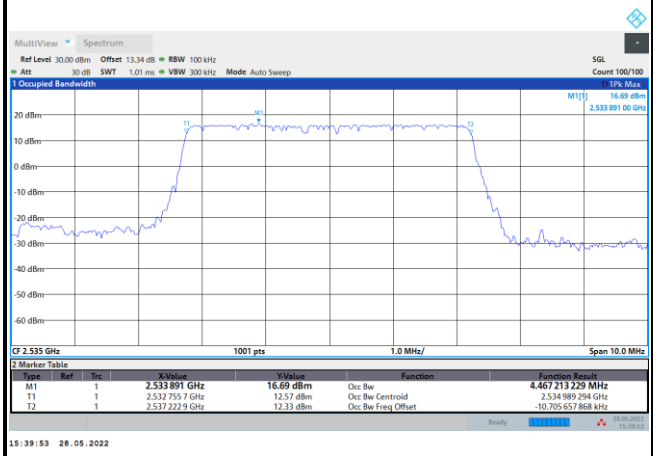
# Occupied Bandwidth

| Mode | FR1 n7 : 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 | 4.46 | | 8.90 | | 13.49 | | 17.95 | |

| Mode | FR1 n7 : 99%OBW (MHz) / CP OFDM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BW | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | 4.49 | 4.52 | 9.28 | 9.27 | 14.14 | 14.16 | 18.92 | 18.98 |
| Mod. | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 4.48 | 4.50 | 9.27 | 9.29 | 14.18 | 14.15 | 18.97 | 18.96 |

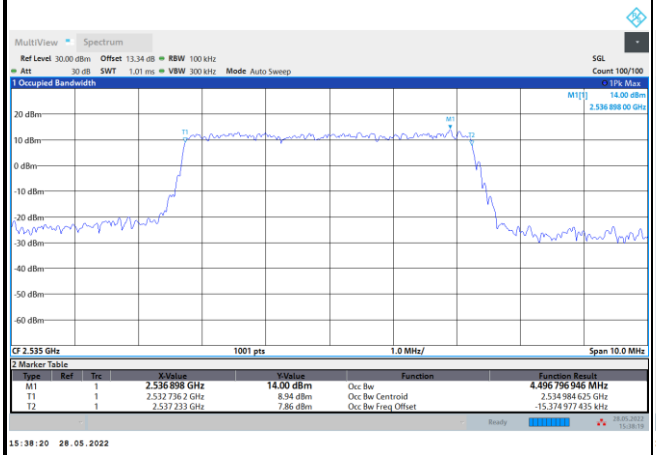
## FR1 n7 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

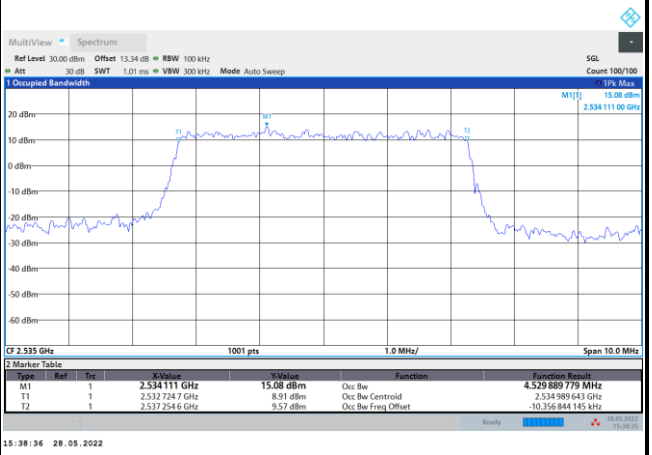



## FR1 n7 / 5MHz / CP OFDM / Middle Channel / Full RB

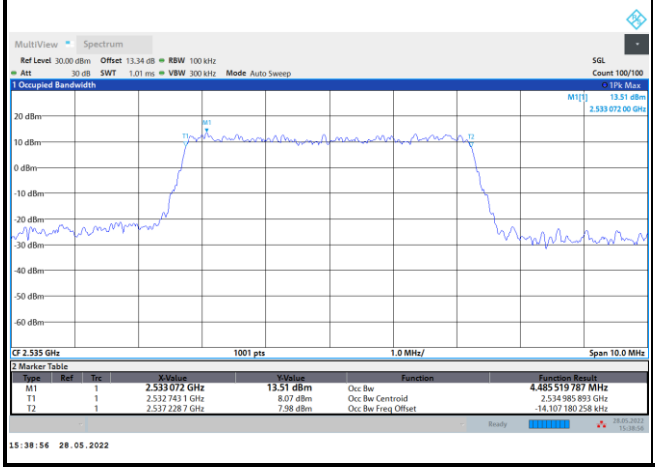
### QPSK



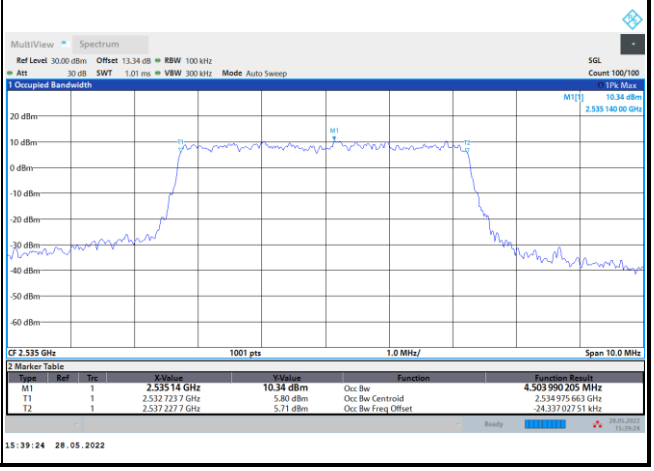

### 16QAM




### 64QAM

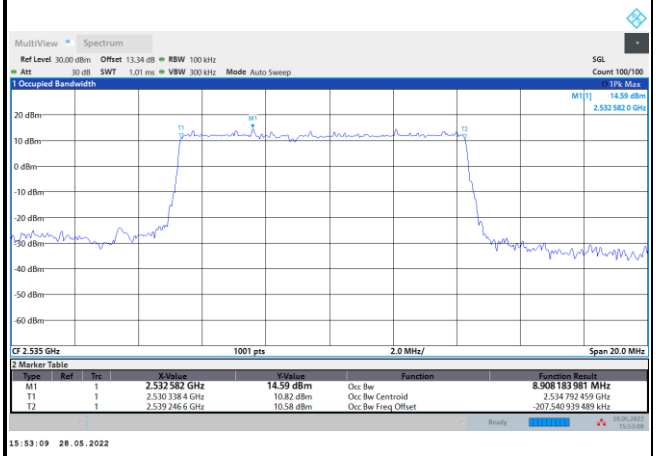



### 256QAM



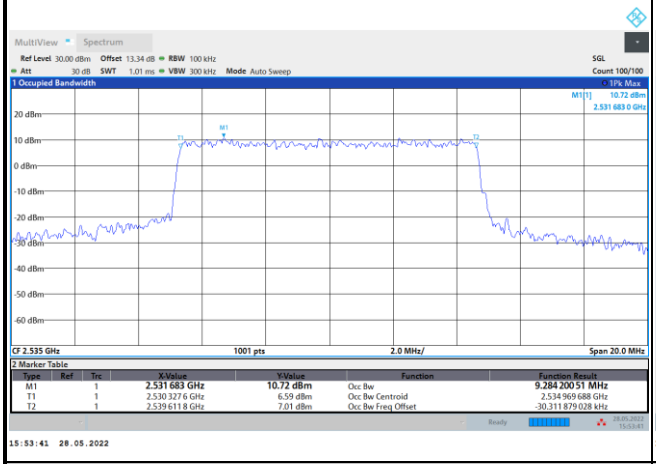
## FR1 n7 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

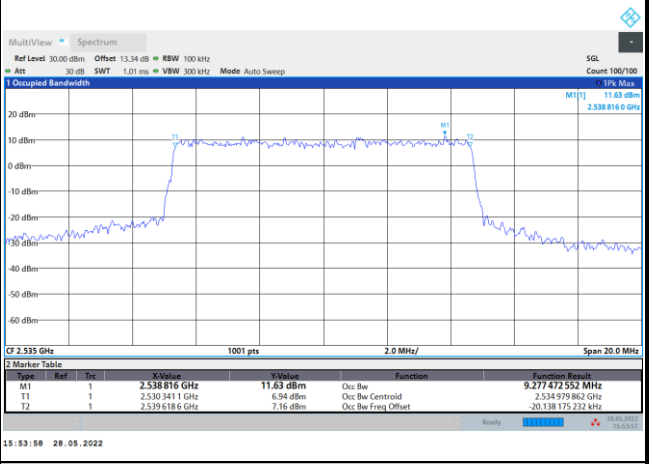



## FR1 n7 / 10MHz / CP OFDM / Middle Channel / Full RB

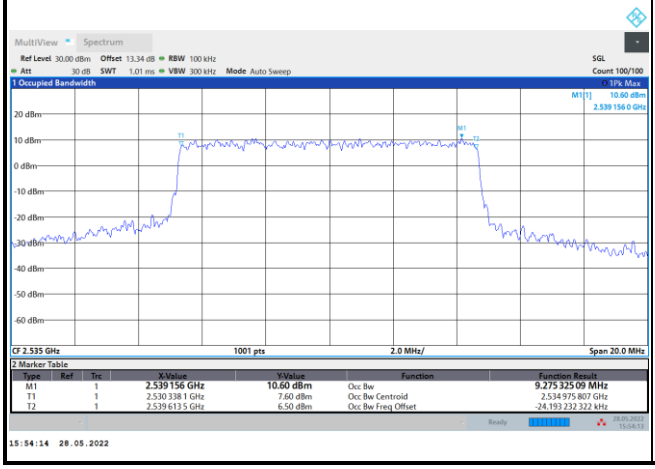
### QPSK



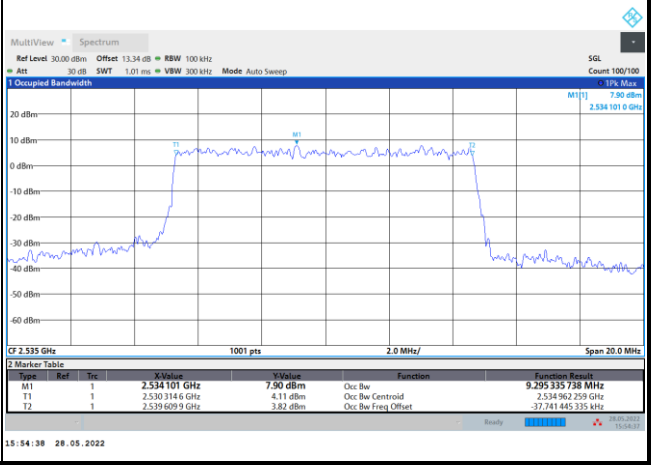

### 16QAM




### 64QAM

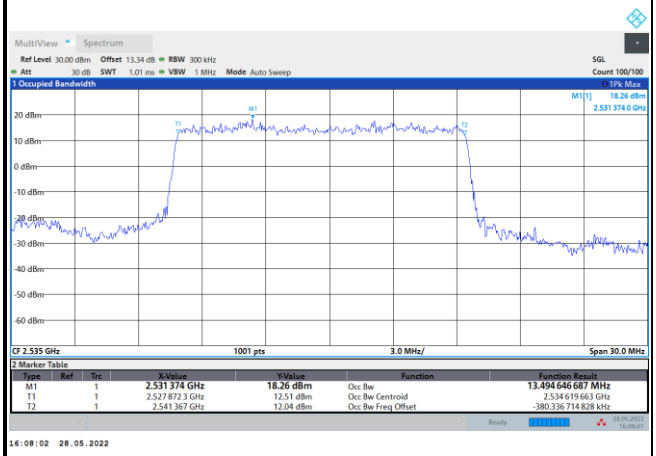



### 256QAM



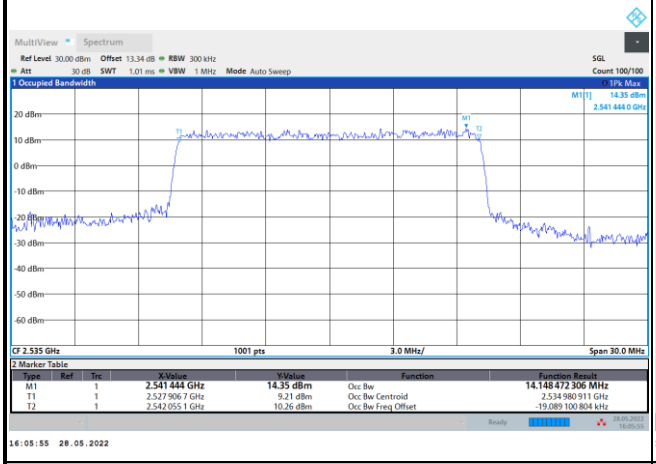
## FR1 n7 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

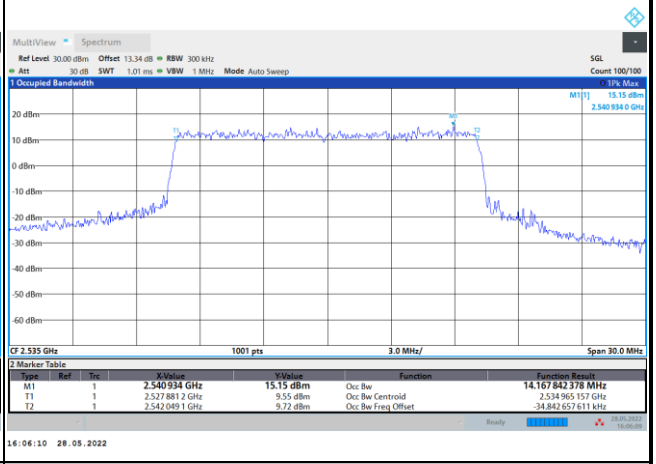



## FR1 n7 / 15MHz / CP OFDM / Middle Channel / Full RB

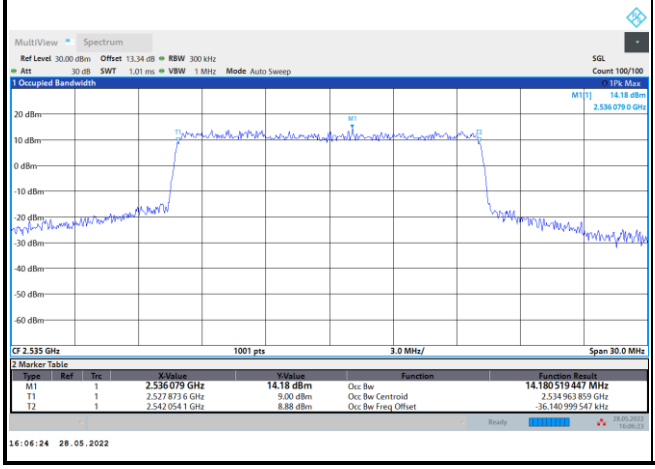
### QPSK



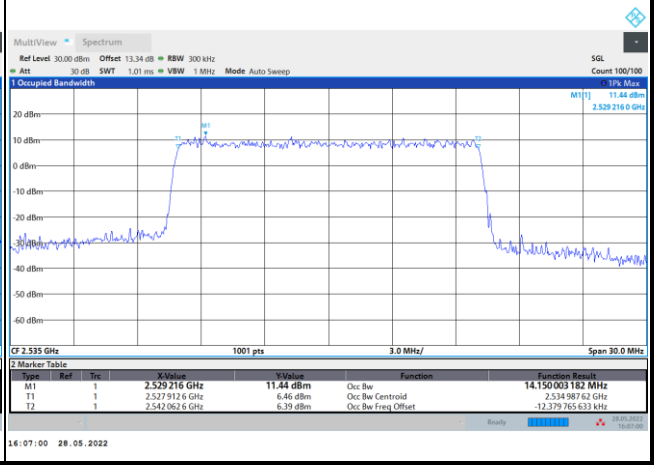

### 16QAM




### 64QAM

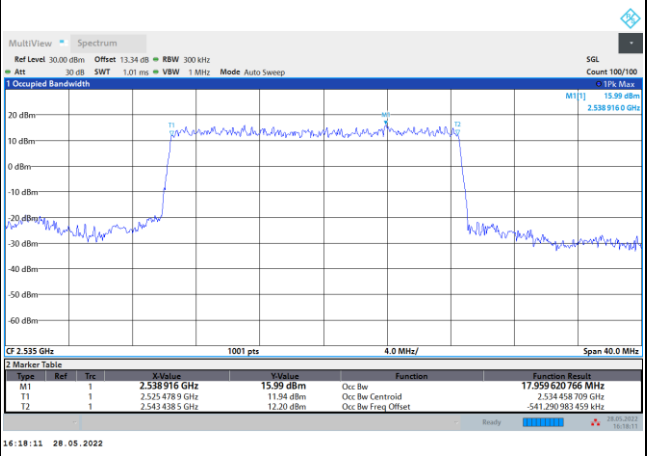



### 256QAM



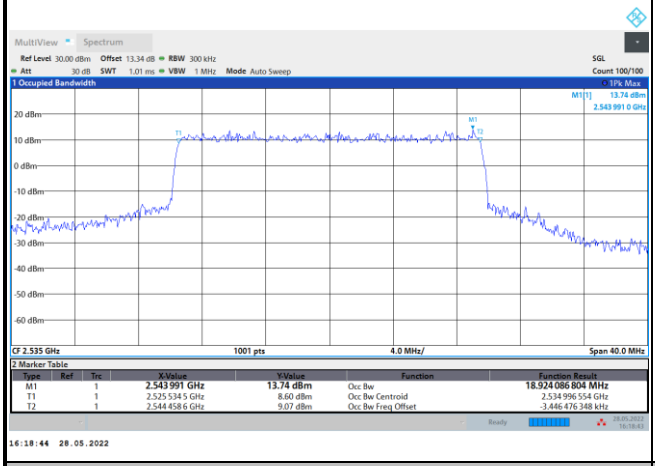
## FR1 n7 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

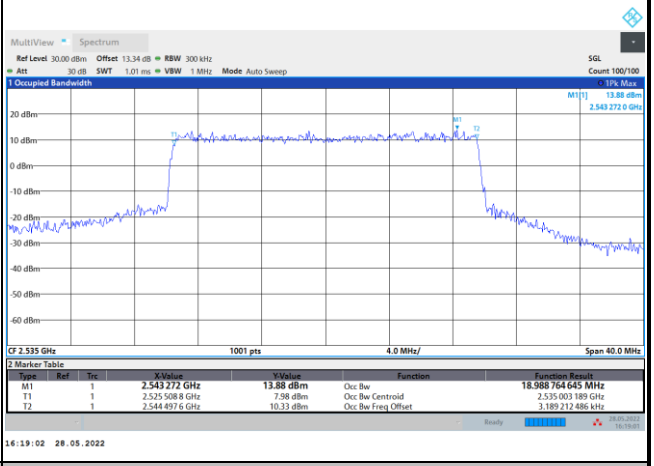



## FR1 n7 / 20MHz / CP OFDM / Middle Channel / Full RB

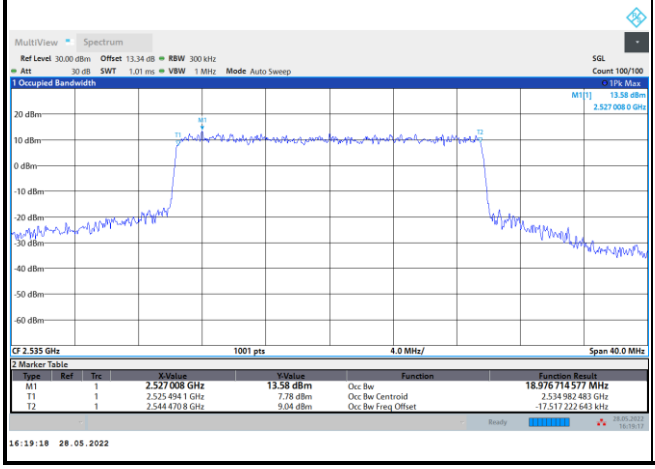
### QPSK



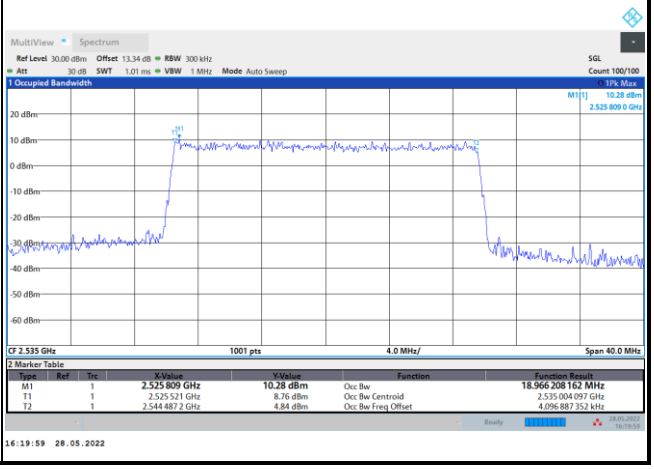

### 16QAM




### 64QAM



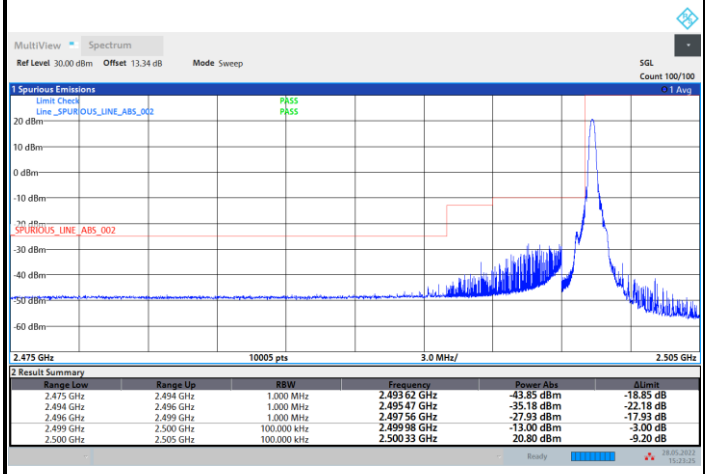

### 256QAM



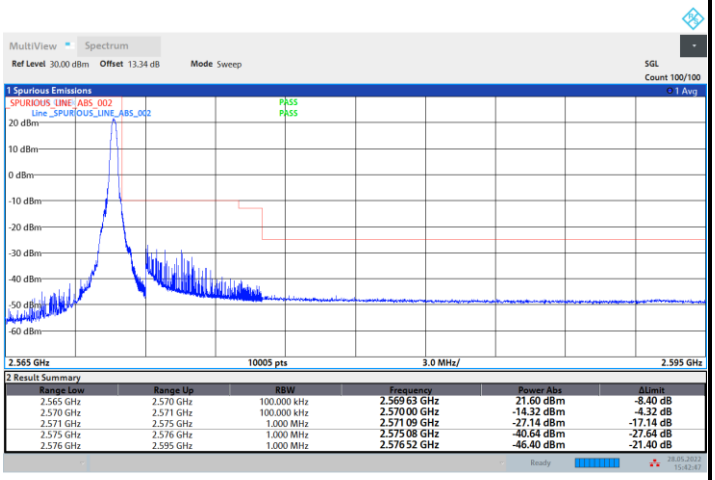
# Conducted Band Edge

## FR1 n7 / 5MHz / DFT-S OFDM / PI/2 BPSK

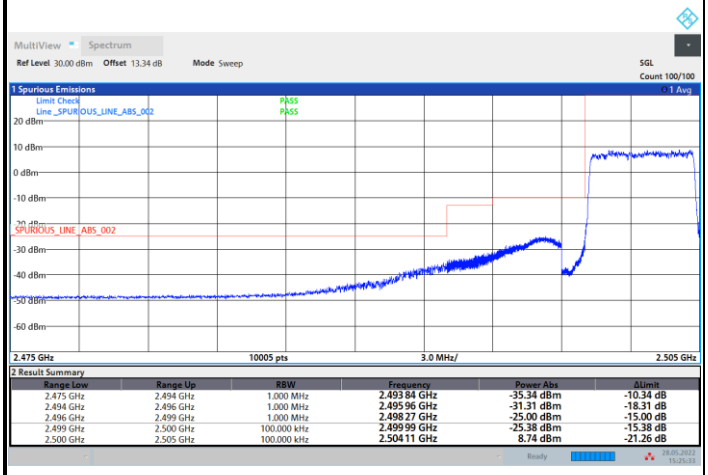
### Lowest Band Edge / 1RB0



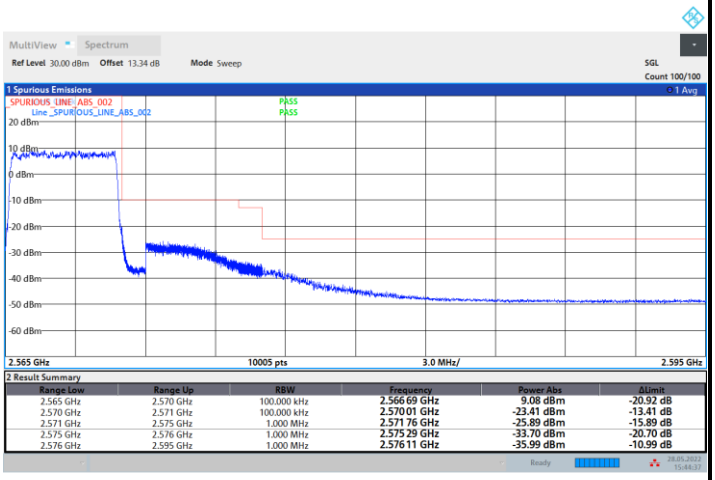

### Highest Band Edge / 1RBmax




### Lowest Band Edge / Full RB

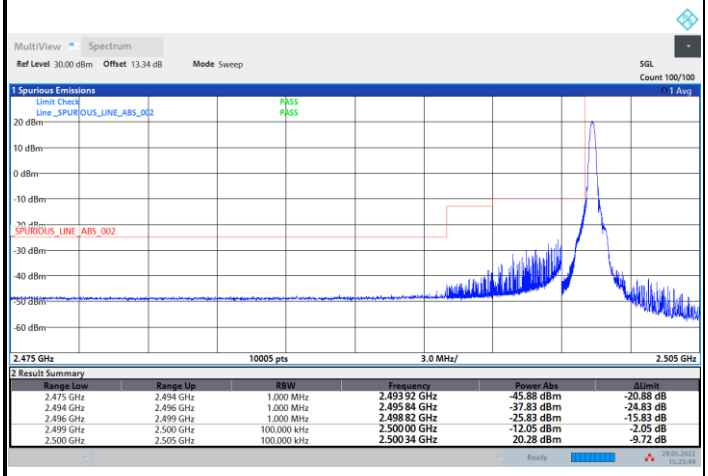



### Highest Band Edge / Full RB

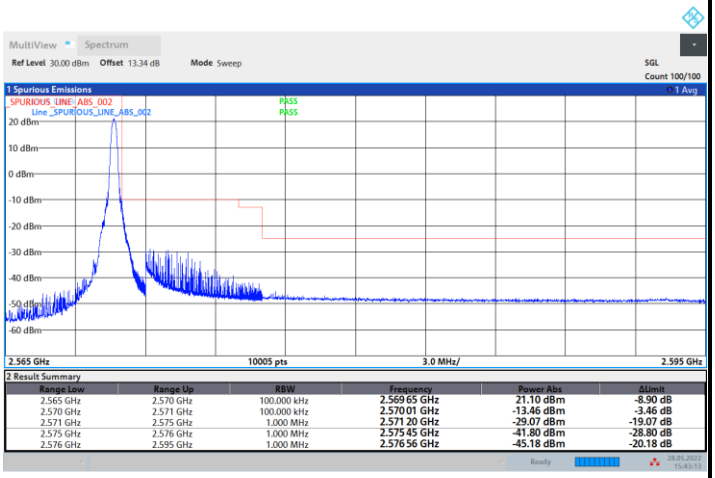


## FR1 n7 / 5MHz / DFT-S OFDM / QPSK

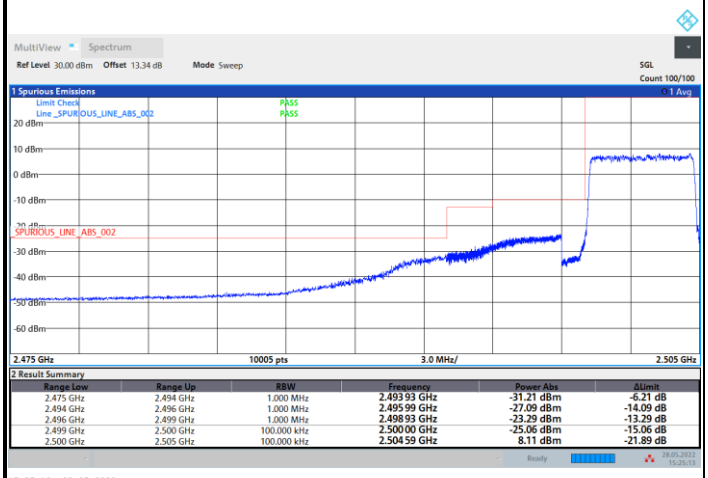
### Lowest Band Edge / 1RB0

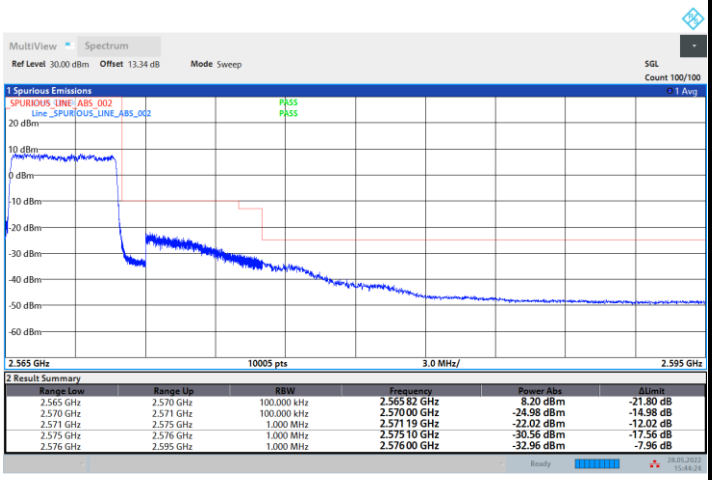



### Highest Band Edge / 1RBmax




### Lowest Band Edge / Full RB




### Highest Band Edge / Full RB