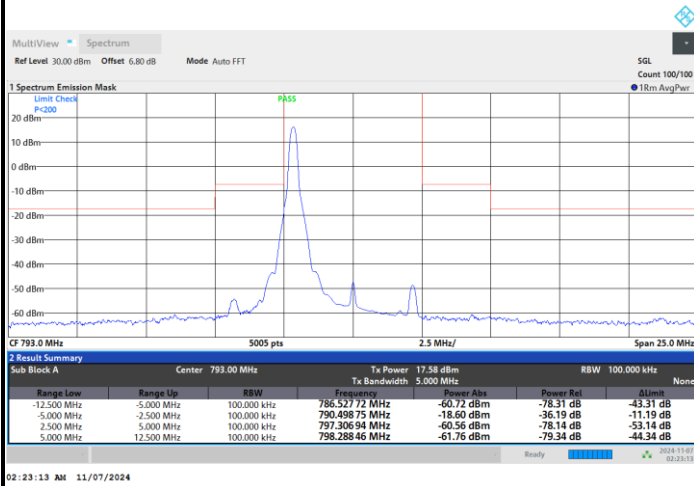




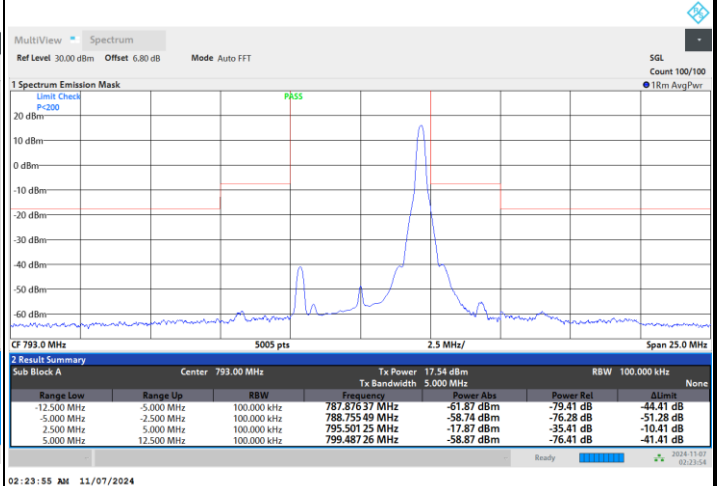
## FR1 n14 / 5MHz / DFT-S OFDM / 256QAM

## Middle Channel

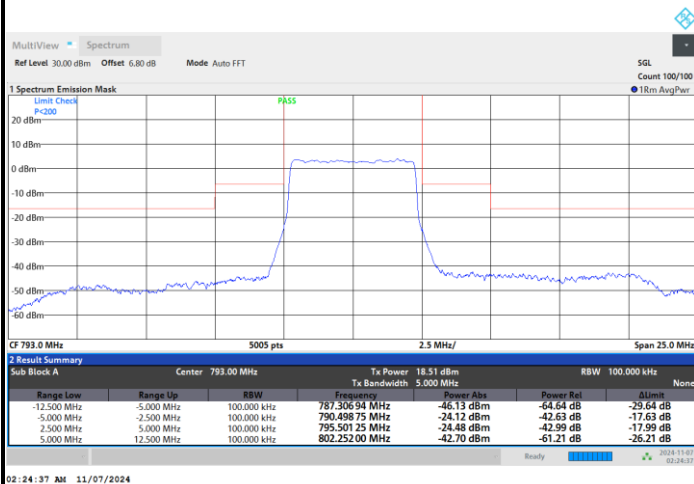
## 1RB0



## 1RBmax



## Full RB

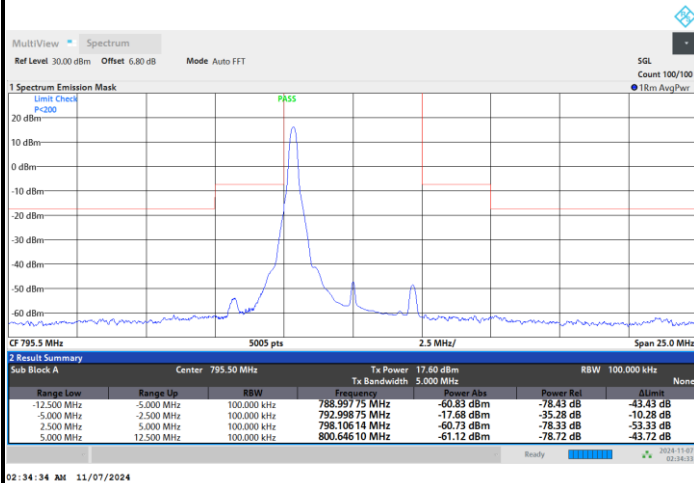




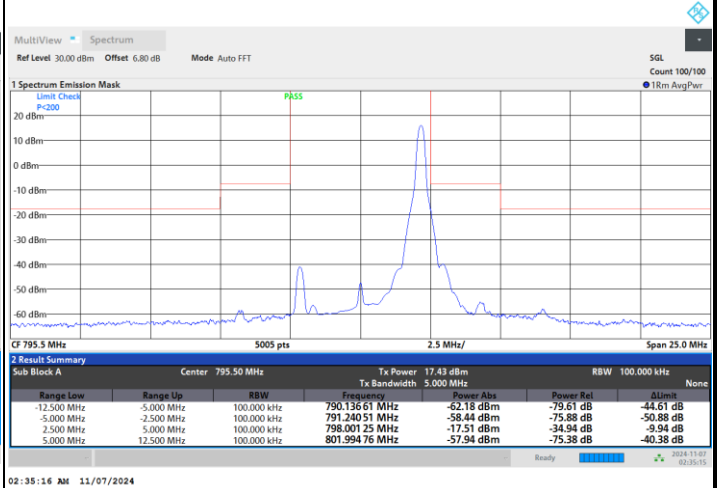
## FR1 n14 / 5MHz / DFT-S OFDM / 256QAM

## Highest Channel

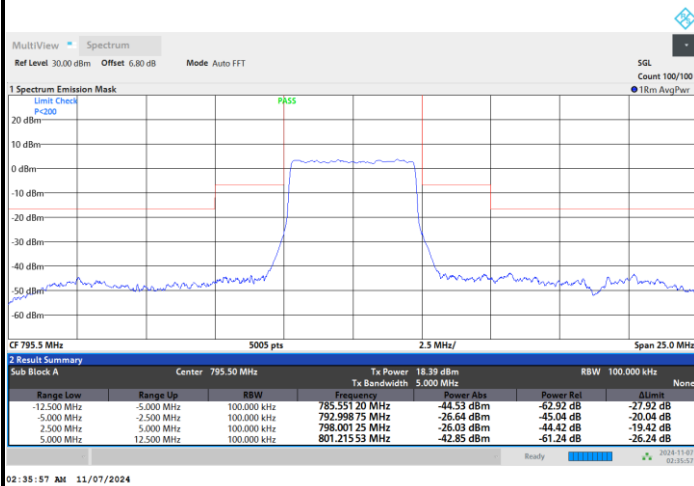
## 1RB0



## 1RBmax



## Full RB

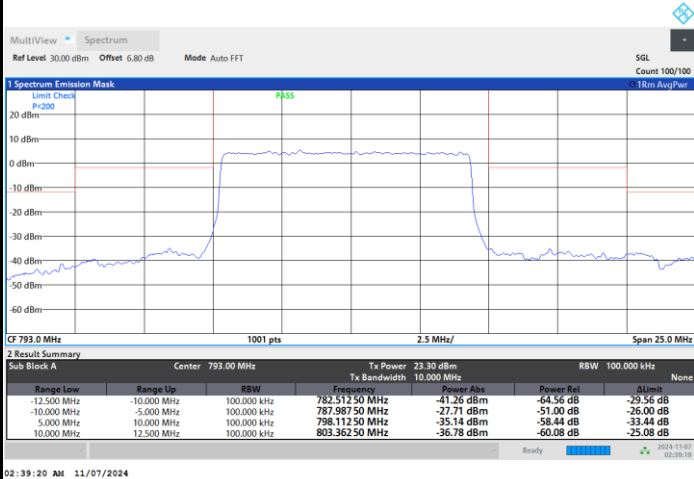




## FR1 n14 / 10MHz / DFT-S OFDM / BPSK

## Middle Channel

## Full RB

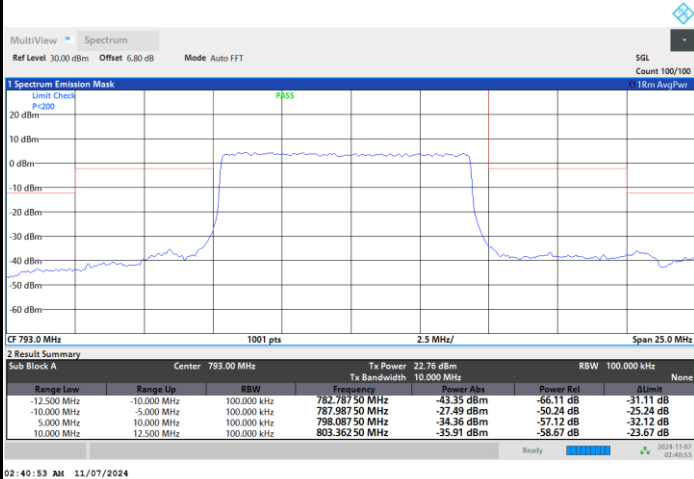




## FR1 n14 / 10MHz / DFT-S OFDM / QPSK

## Middle Channel

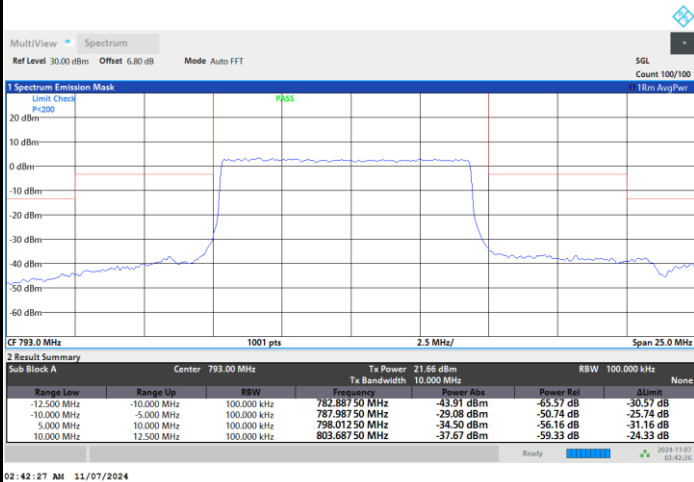
## Full RB



## FR1 n14 / 10MHz / DFT-S OFDM / 16QAM

## Middle Channel

## Full RB

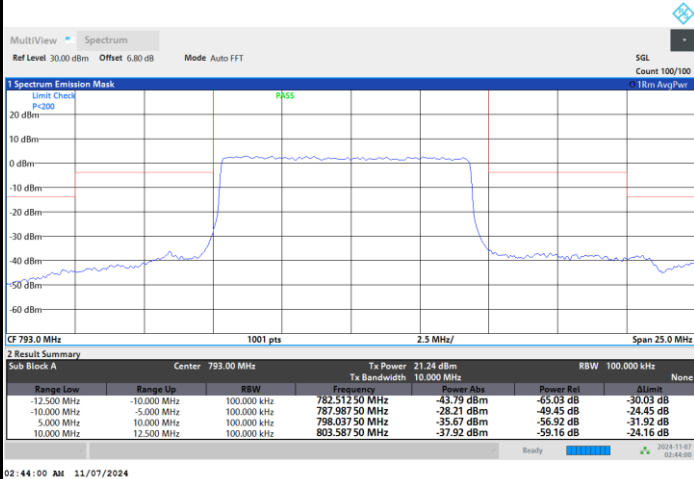




## FR1 n14 / 10MHz / DFT-S OFDM / 64QAM

## Middle Channel

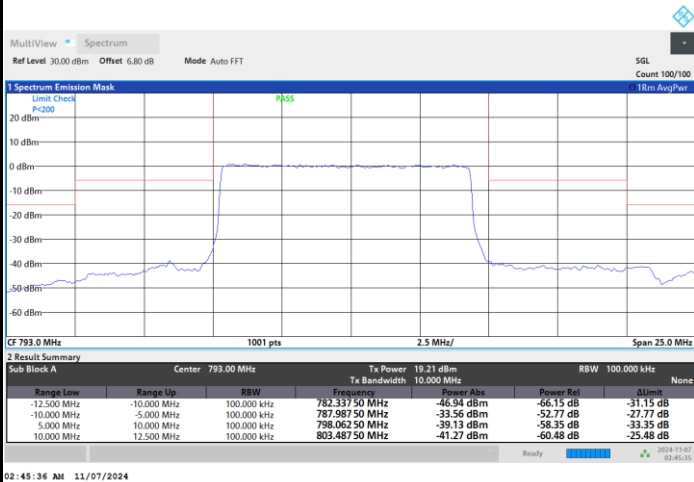
## Full RB



## FR1 n14 / 10MHz / DFT-S OFDM / 256QAM

## Middle Channel

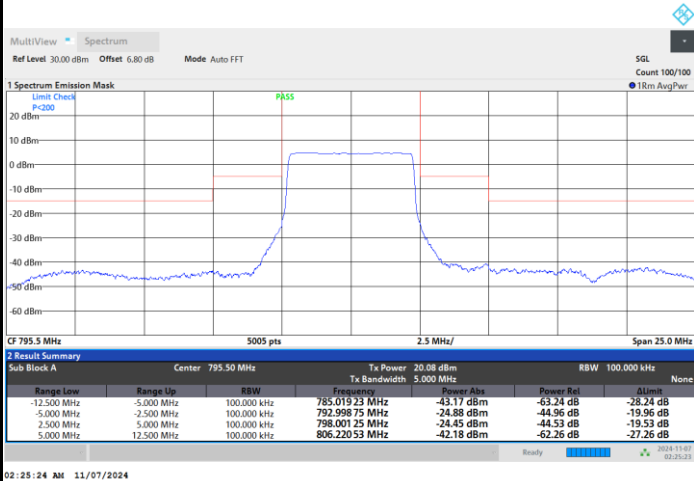
## Full RB





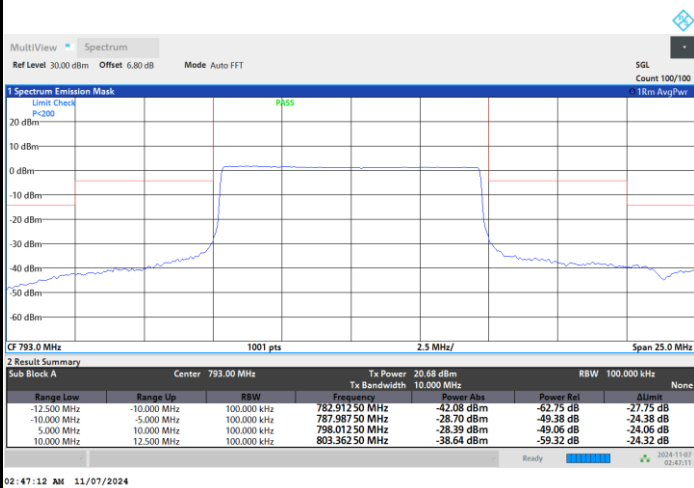
## FR1 n14 / 5MHz / CP OFDM / QPSK / Full RB

## Highest Channel



## FR1 n14 / 10MHz / CP OFDM / QPSK / Full RB

## Middle Channel

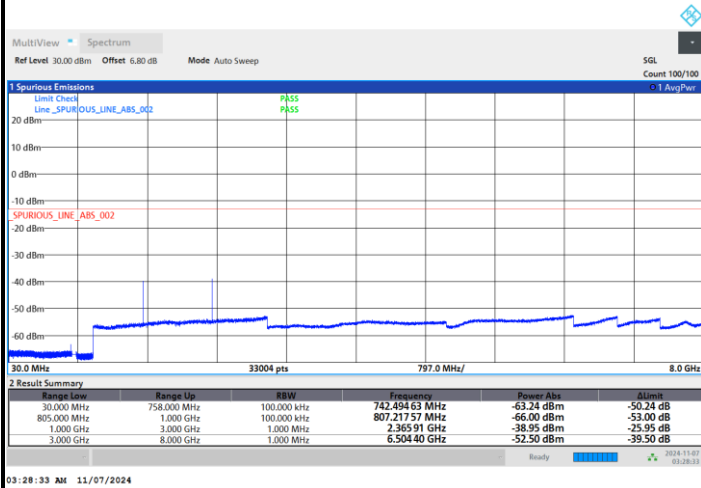




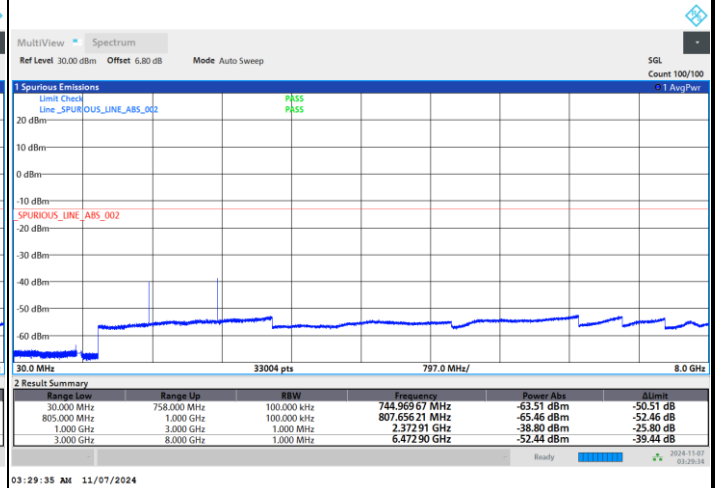
# Conducted Spurious Emission

FR1 n14 / 5MHz / DFT-S OFDM / QPSK / 1RB1

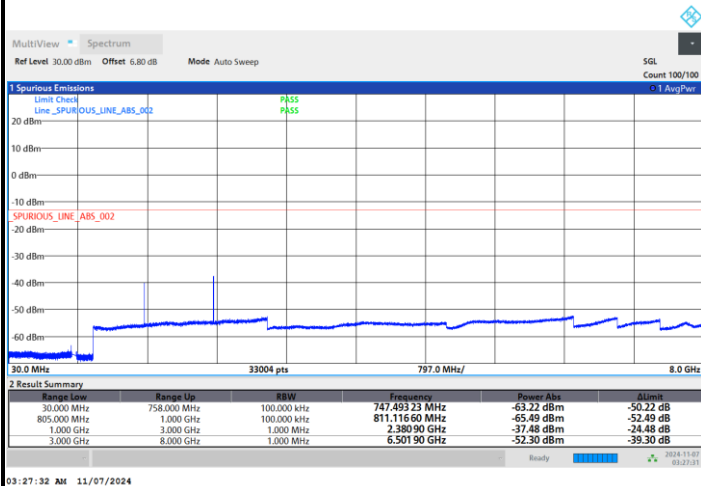
## Lowest Channel



## Middle Channel



## Highest Channel



## Frequency Stability

| Test Conditions     |                   | FR1 n14 (PI/2 BPSK) / Middle Channel | Limit   |
|---------------------|-------------------|--------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 10MHz                             | Note 2. |
|                     |                   | Deviation (ppm)                      | Result  |
| 50                  | Normal Voltage    | 0.0035                               | PASS    |
| 40                  | Normal Voltage    | 0.0045                               |         |
| 30                  | Normal Voltage    | 0.0047                               |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                               |         |
| 10                  | Normal Voltage    | 0.0102                               |         |
| 0                   | Normal Voltage    | 0.0032                               |         |
| -10                 | Normal Voltage    | 0.0071                               |         |
| -20                 | Normal Voltage    | 0.0113                               |         |
| -30                 | Normal Voltage    | 0.0040                               |         |
| 20                  | Maximum Voltage   | 0.0082                               |         |
| 20                  | Normal Voltage    | 0.0000                               |         |
| 20                  | Minimum Voltage   | 0.0053                               |         |

**Note:**

1. Normal Voltage = 3.3 V. ; Minimum Voltage = 3.135 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



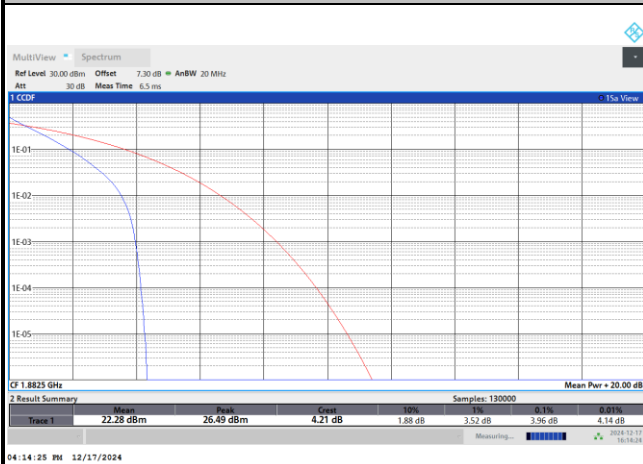
**FR1 n25****<SISO Mode>****Peak-to-Average Ratio**

| 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 | 3.96                         | 4.44    | 5.46    | 5.86    | <b>PASS</b> |
| Mode      | FR1 n25 / 20MHz / DFT-S OFDM |         |         |         |             |
| Mod.      | 256QAM                       |         |         |         | Limit: 13dB |
| RB Size   | Full RB                      |         |         |         | Result      |
| Middle CH | 6.76                         |         |         |         | <b>PASS</b> |

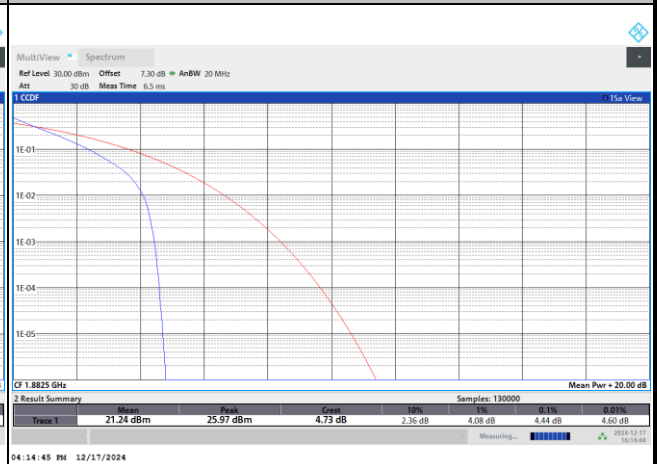


## FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

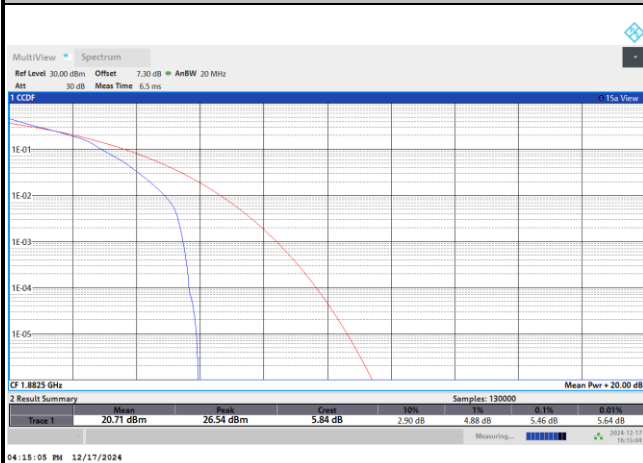
## PI/2 BPSK



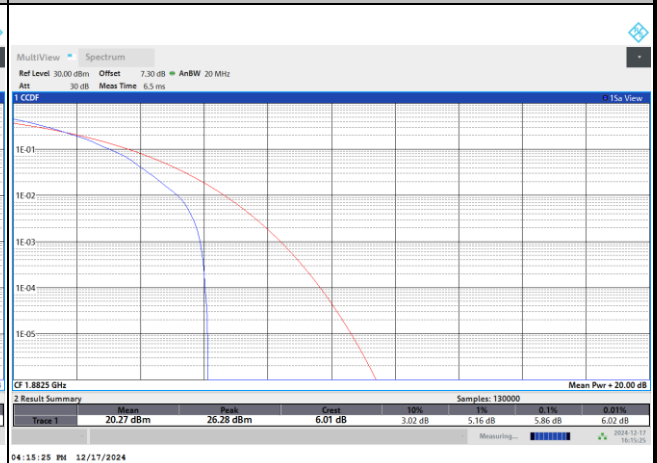
## QPSK



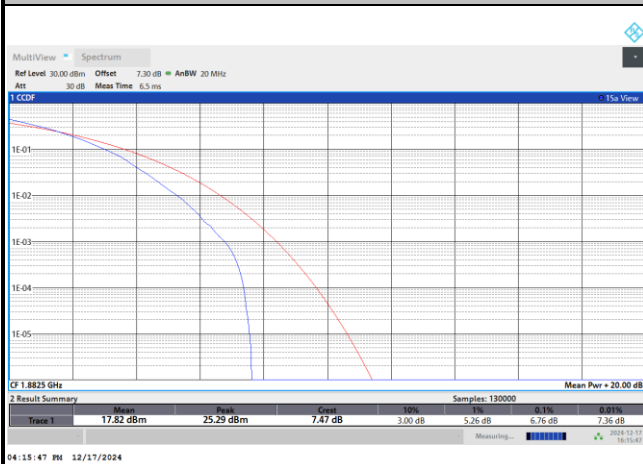
## 16QAM



## 64QAM



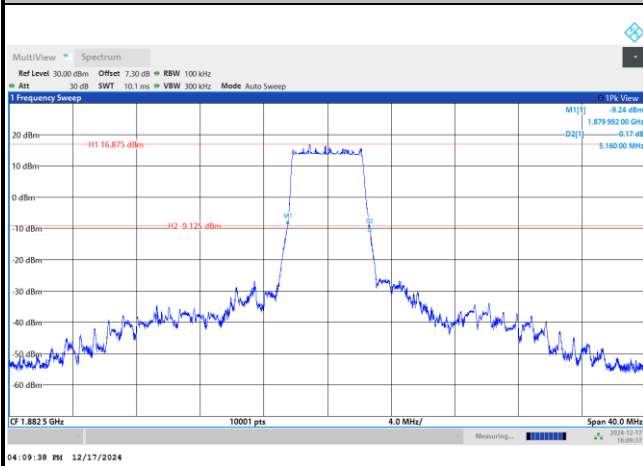
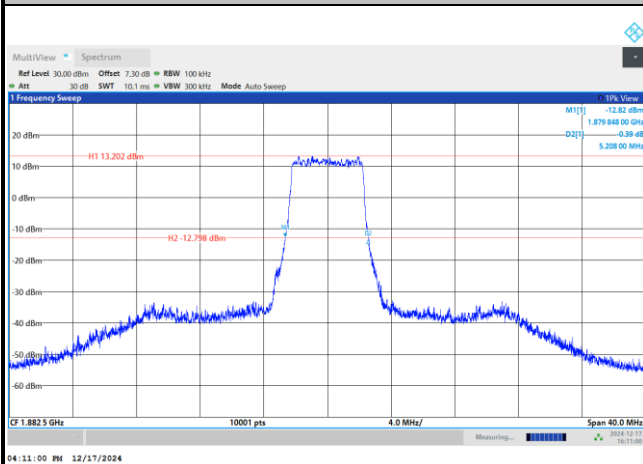
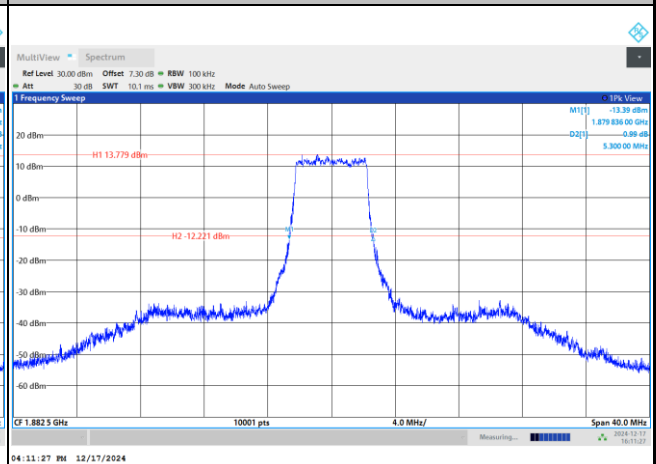
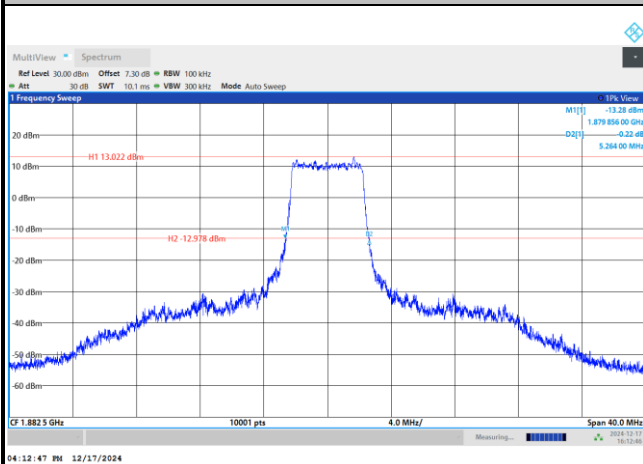
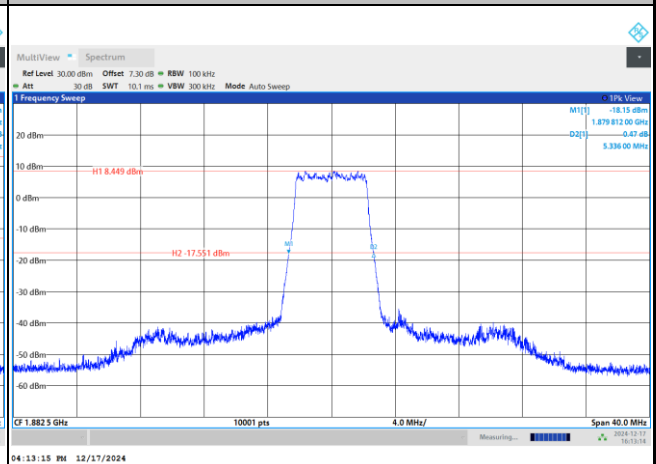
## 256QAM

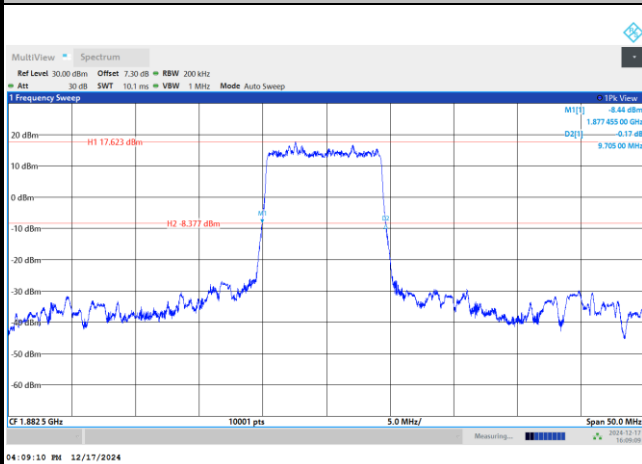
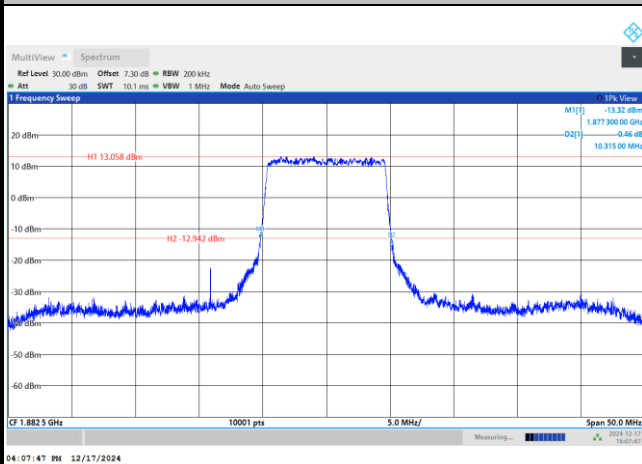
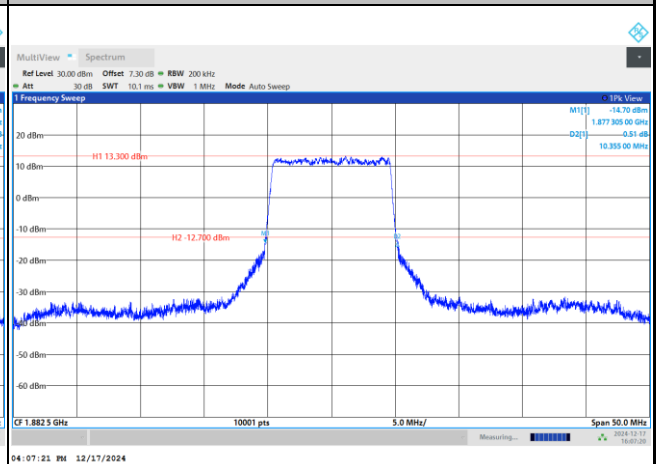
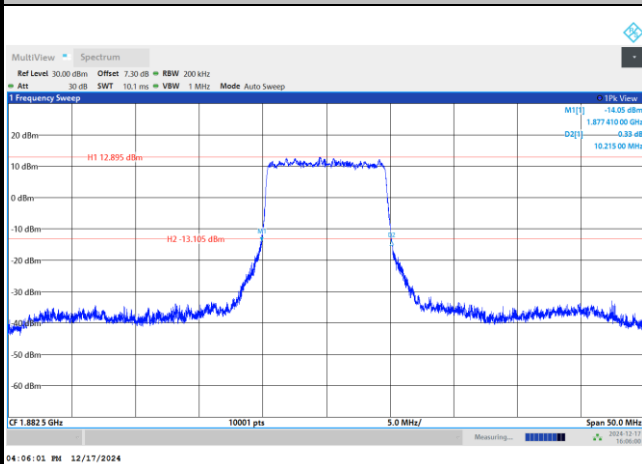
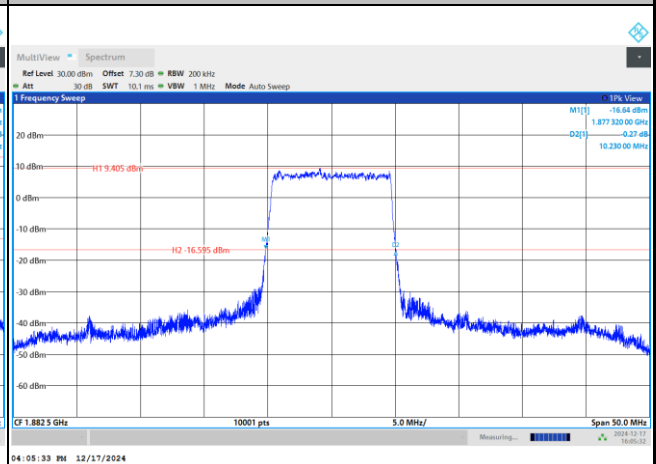


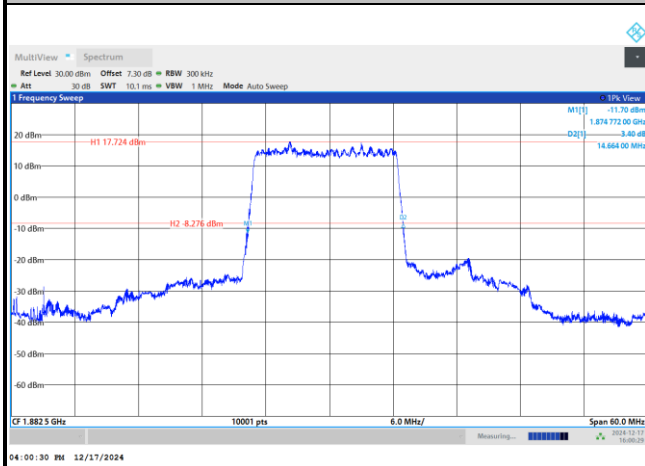
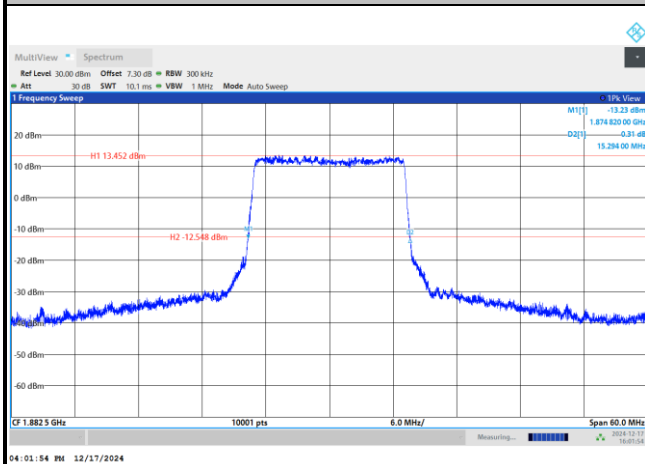
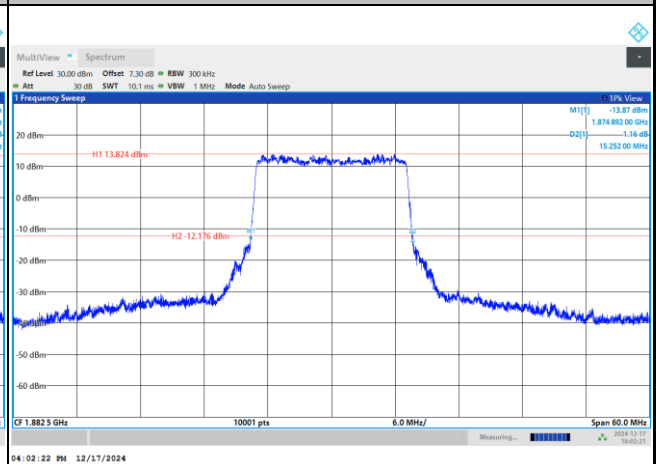
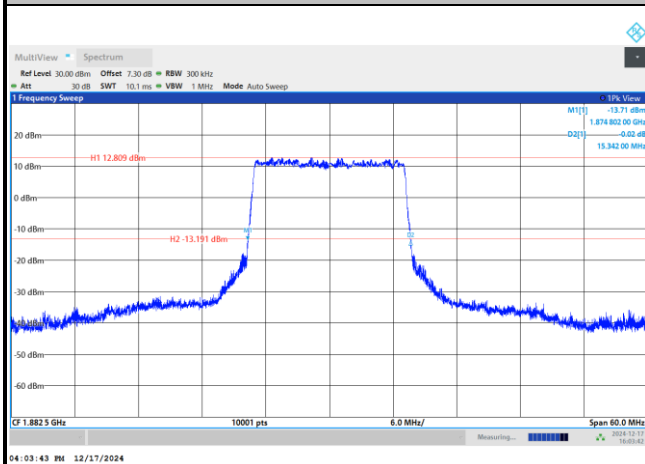
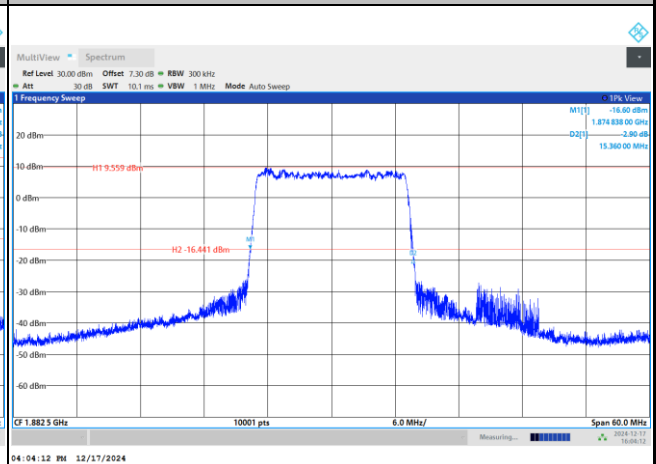
**26dB Bandwidth**

| Mode      | FR1 n25 : 26dB BW(MHz) / DFT-S OFDM |  |           |  |           |  |           |  |
|-----------|-------------------------------------|--|-----------|--|-----------|--|-----------|--|
| BW        | 5MHz                                |  | 10MHz     |  | 15MHz     |  | 20MHz     |  |
| Mod.      | PI/2 BPSK                           |  | PI/2 BPSK |  | PI/2 BPSK |  | PI/2 BPSK |  |
| Middle CH | 5.16                                |  | 9.70      |  | 14.66     |  | 19.31     |  |
| BW        | 25MHz                               |  | 30MHz     |  | 35MHz     |  | 40MHz     |  |
| Mod.      | PI/2 BPSK                           |  | PI/2 BPSK |  | PI/2 BPSK |  | PI/2 BPSK |  |
| Middle CH | 24.39                               |  | 31.06     |  | 34.65     |  | 40.99     |  |

| Mode      | FR1 n25 : 26dB BW(MHz) / CP OFDM |        |       |        |       |        |       |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|-------|--------|
| BW        | 5MHz                             |        | 10MHz |        | 15MHz |        | 20MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 5.20                             | 5.30   | 10.31 | 10.35  | 15.29 | 15.25  | 20.45 | 20.55  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 5.26                             | 5.33   | 10.21 | 10.23  | 15.34 | 15.36  | 20.46 | 20.53  |
| BW        | 25MHz                            |        | 30MHz |        | 35MHz |        | 40MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 25.28                            | 25.27  | 31.19 | 31.34  | 36.17 | 36.24  | 41.20 | 41.20  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 25.40                            | 25.23  | 31.17 | 31.06  | 36.45 | 36.06  | 41.22 | 41.06  |

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

**FR1 n25 / 5MHz / CP OFDM / Middle Channel / Full RB**
**QPSK**

**16QAM**

**64QAM**

**256QAM**


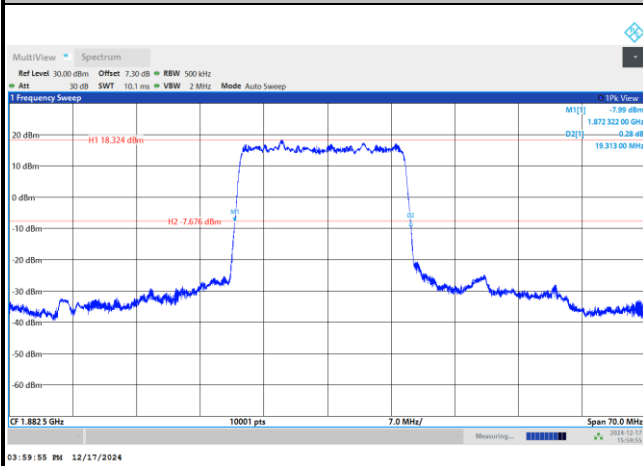
**FR1 n25 / 10MHz / DFT-S OFDM / Middle Channel / Full RB**
**PI/2 BPSK**

**FR1 n25 / 10MHz / CP OFDM / Middle Channel / Full RB**
**QPSK**

**16QAM**

**64QAM**

**256QAM**


**FR1 n25 / 15MHz / DFT-S OFDM / Middle Channel / Full RB**
**PI/2 BPSK**

**FR1 n25 / 15MHz / CP OFDM / Middle Channel / Full RB**
**QPSK**

**16QAM**

**64QAM**

**256QAM**




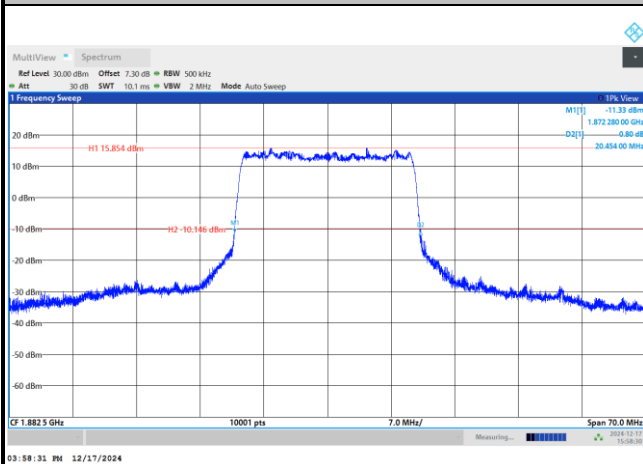
## FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

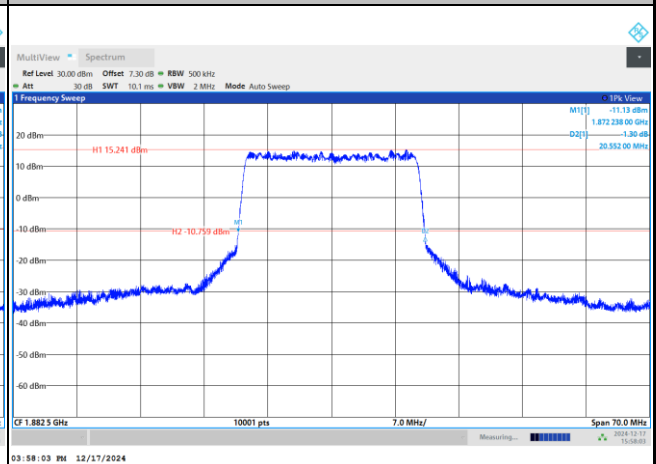


## FR1 n25 / 20MHz / CP OFDM / Middle Channel / Full RB

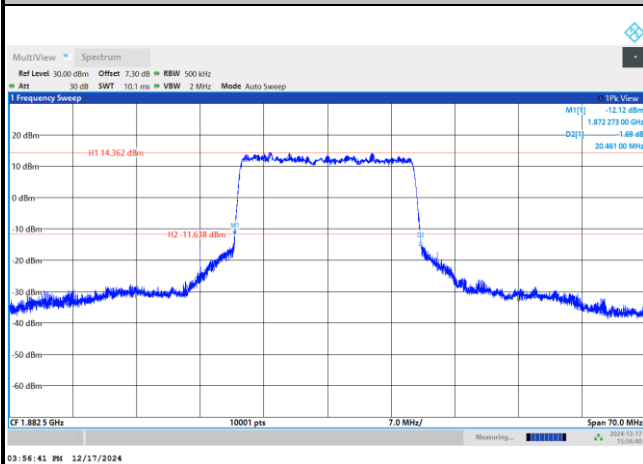
## QPSK



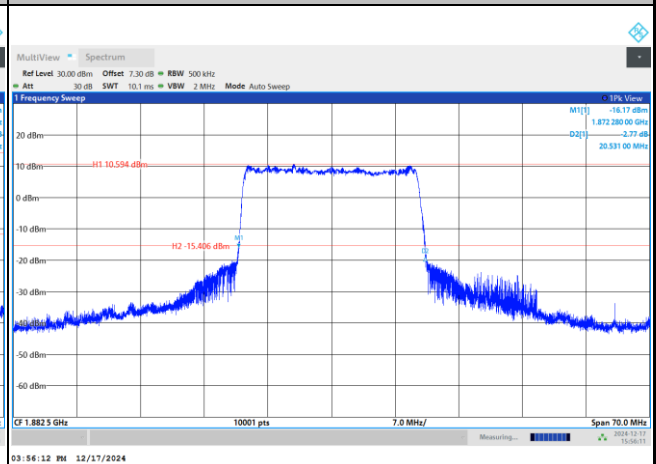
## 16QAM



## 64QAM



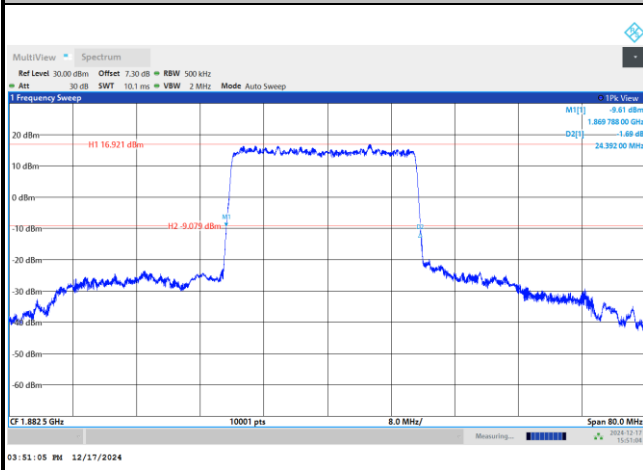
## 256QAM





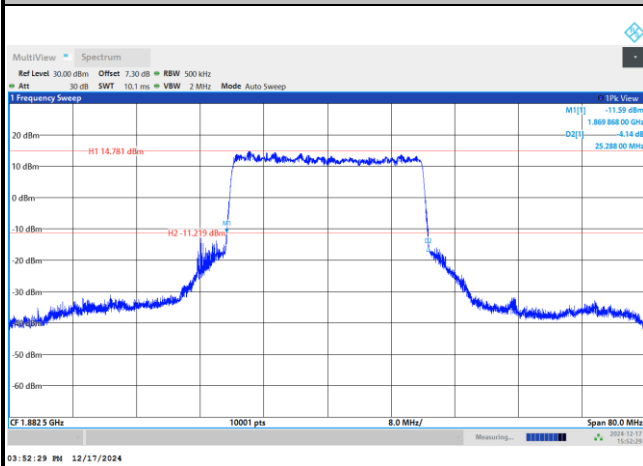
## FR1 n25 / 25MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

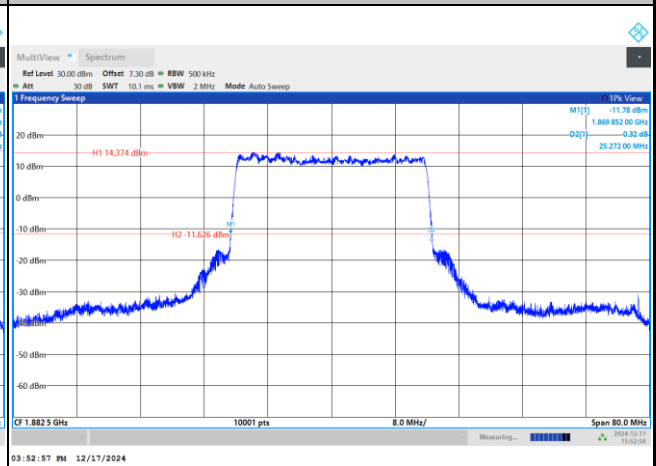


## FR1 n25 / 25MHz / CP OFDM / Middle Channel / Full RB

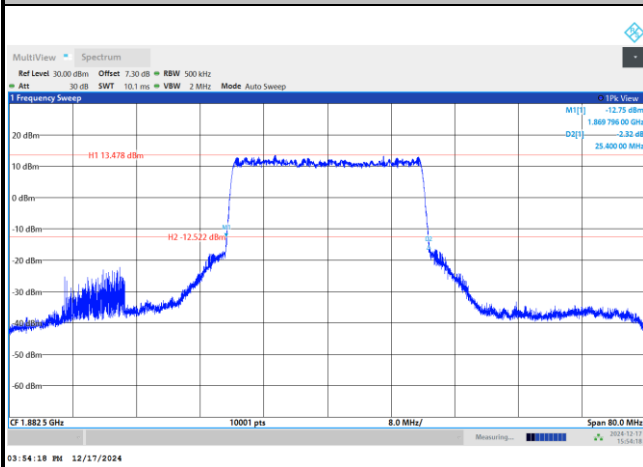
## QPSK



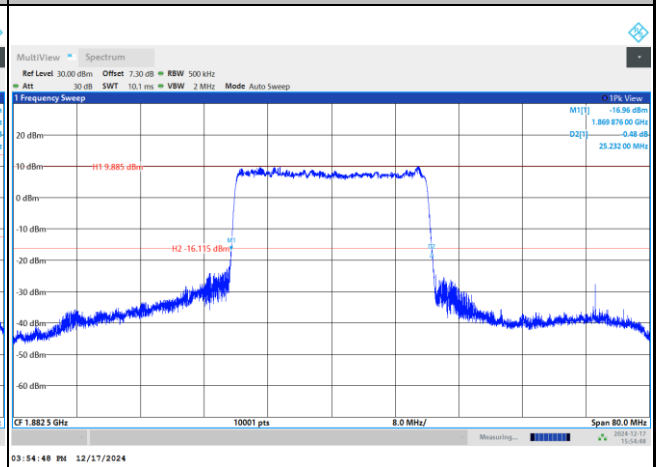
## 16QAM



## 64QAM



## 256QAM

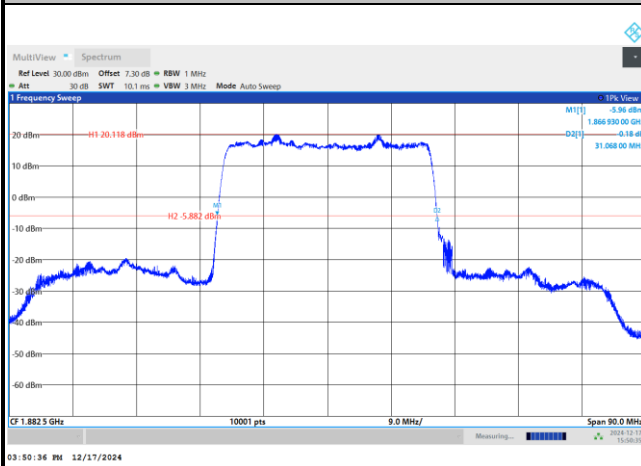






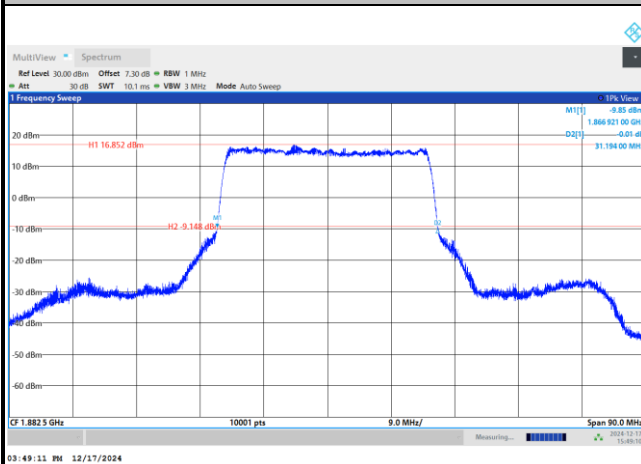
## FR1 n25 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

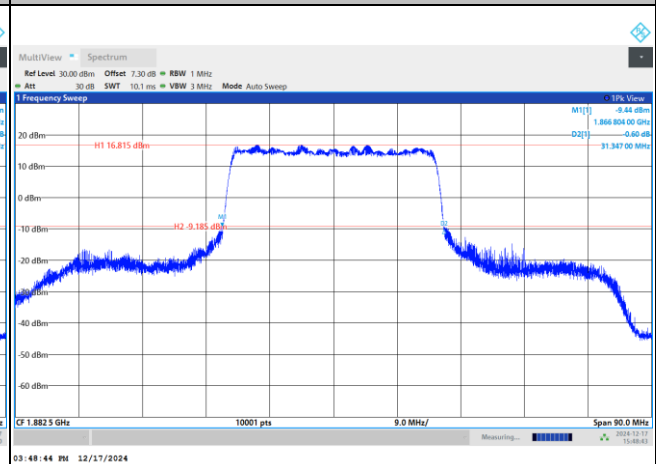


## FR1 n25 / 30MHz / CP OFDM / Middle Channel / Full RB

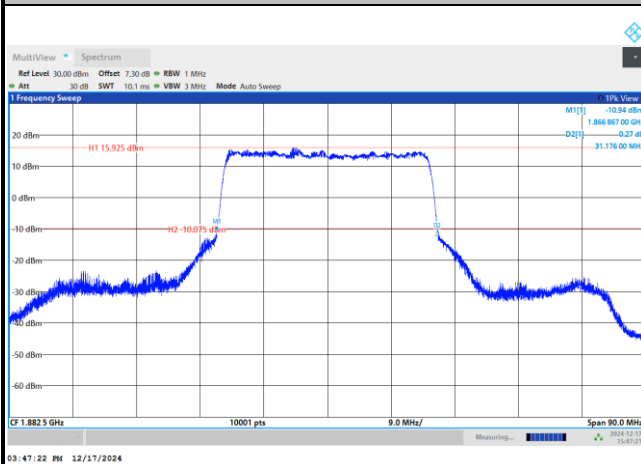
## QPSK



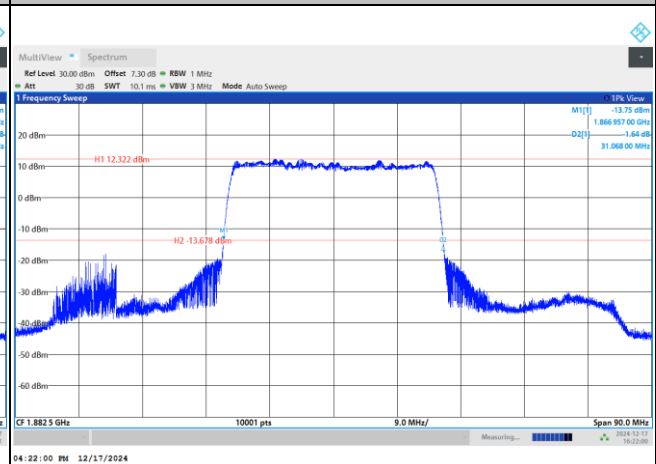
## 16QAM



## 64QAM



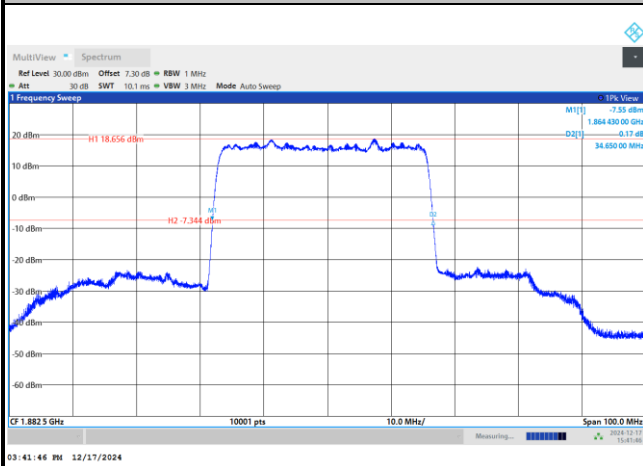
## 256QAM





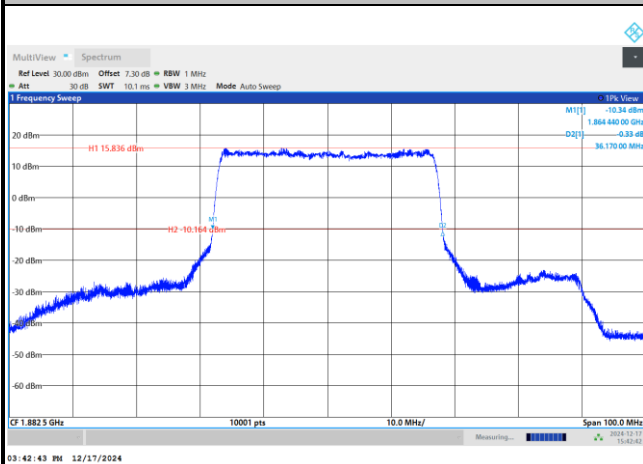
## FR1 n25 / 35MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

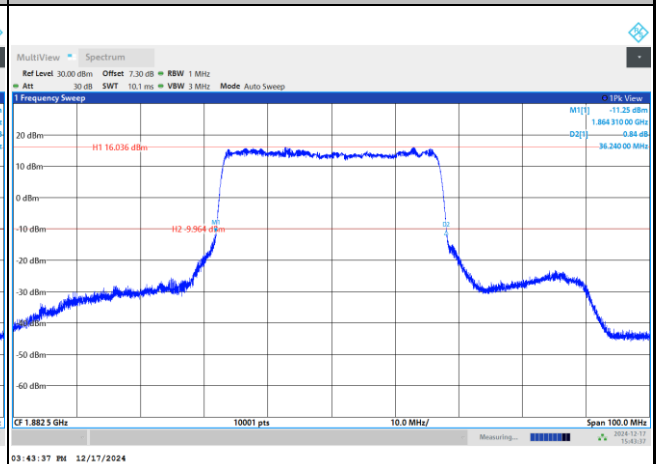


## FR1 n25 / 35MHz / CP OFDM / Middle Channel / Full RB

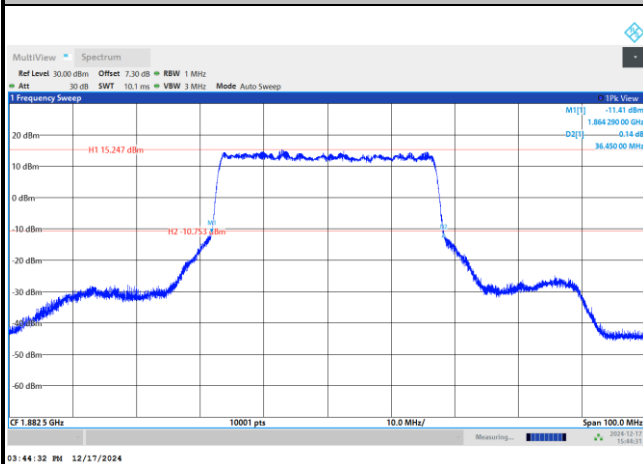
## QPSK



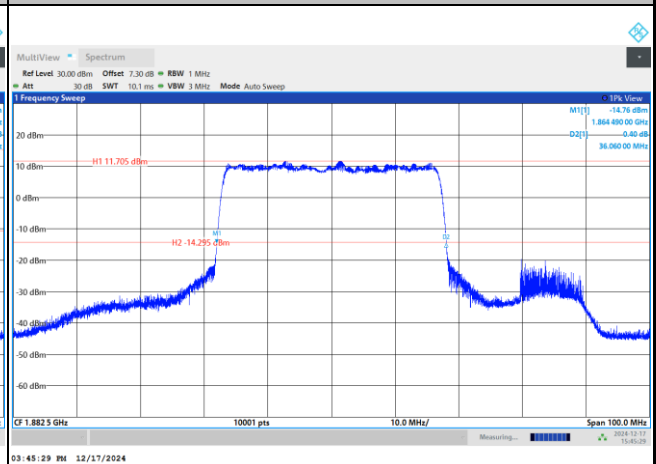
## 16QAM

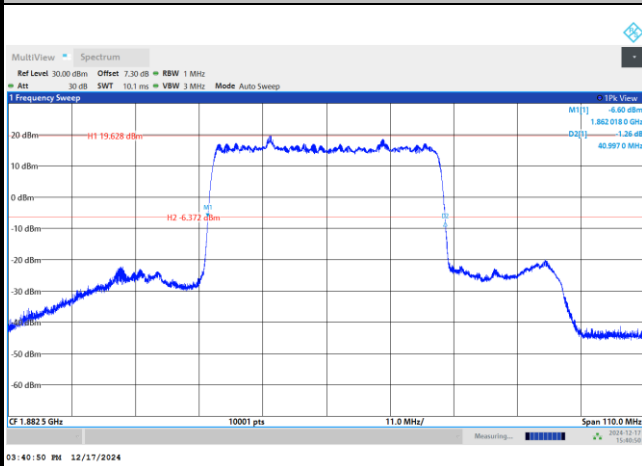
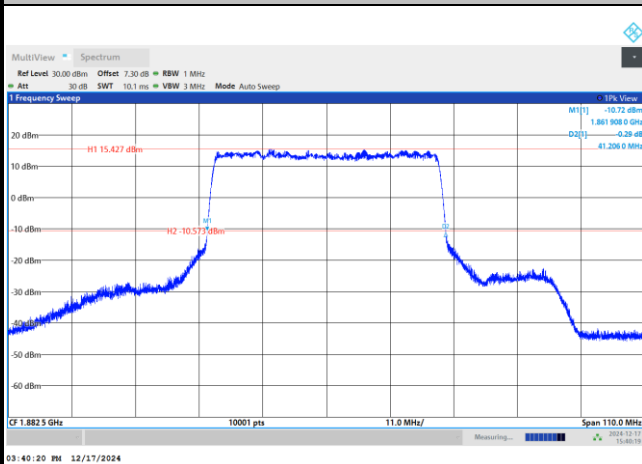
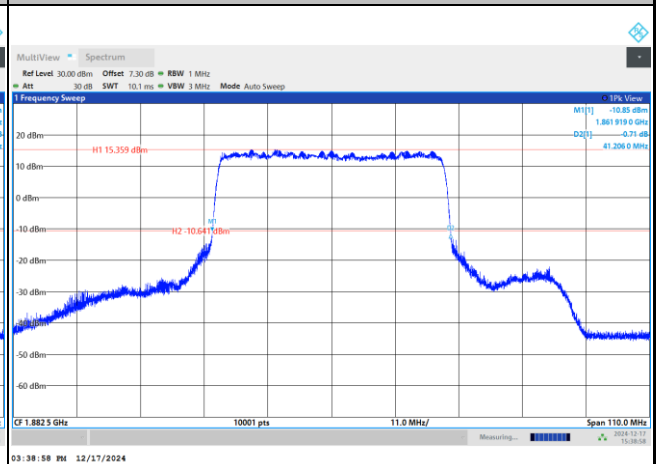
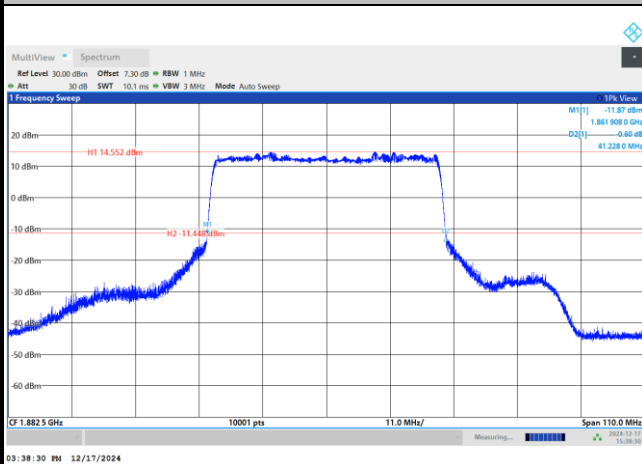
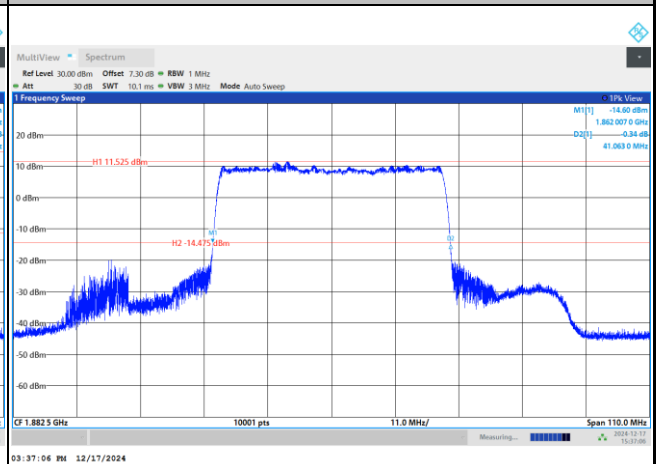


## 64QAM



## 256QAM



**FR1 n25 / 40MHz / DFT-S OFDM / Middle Channel / Full RB**
**PI/2 BPSK**

**FR1 n25 / 40MHz / CP OFDM / Middle Channel / Full RB**
**QPSK**

**16QAM**

**64QAM**

**256QAM**


**Occupied Bandwidth**

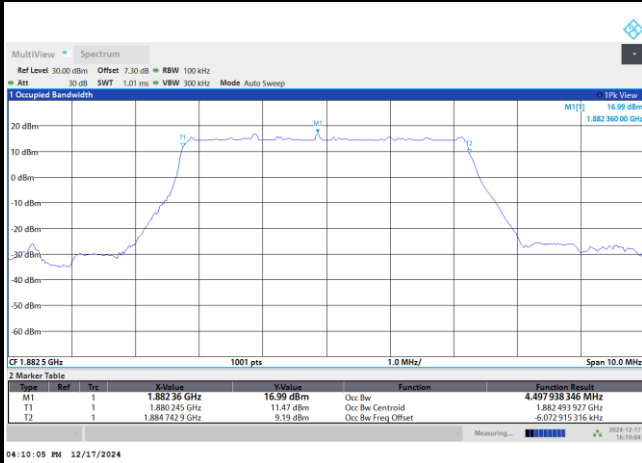
| Mode      | FR1 n25 : 99%OBW(MHz) / DFT-S OFDM |  |           |  |           |  |           |  |
|-----------|------------------------------------|--|-----------|--|-----------|--|-----------|--|
| BW        | 5MHz                               |  | 10MHz     |  | 15MHz     |  | 20MHz     |  |
| Mod.      | PI/2 BPSK                          |  | PI/2 BPSK |  | PI/2 BPSK |  | PI/2 BPSK |  |
| Middle CH | 4.49                               |  | 8.96      |  | 13.47     |  | 18.01     |  |
| BW        | 25MHz                              |  | 30MHz     |  | 35MHz     |  | 40MHz     |  |
| Mod.      | PI/2 BPSK                          |  | PI/2 BPSK |  | PI/2 BPSK |  | PI/2 BPSK |  |
| Middle CH | 22.98                              |  | 28.99     |  | 32.50     |  | 38.70     |  |

| Mode      | FR1 n25 : 99%OBW (MHz) / CP OFDM |        |       |        |       |        |       |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|-------|--------|
| BW        | 5MHz                             |        | 10MHz |        | 15MHz |        | 20MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 4.51                             | 4.53   | 9.32  | 9.32   | 14.15 | 14.17  | 18.99 | 19.06  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 4.52                             | 4.52   | 9.30  | 9.34   | 14.20 | 14.19  | 19.06 | 19.13  |
| BW        | 25MHz                            |        | 30MHz |        | 35MHz |        | 40MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 23.79                            | 23.82  | 28.88 | 28.91  | 33.87 | 33.84  | 38.75 | 38.70  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 23.81                            | 23.83  | 28.89 | 28.85  | 33.90 | 33.83  | 38.92 | 38.68  |



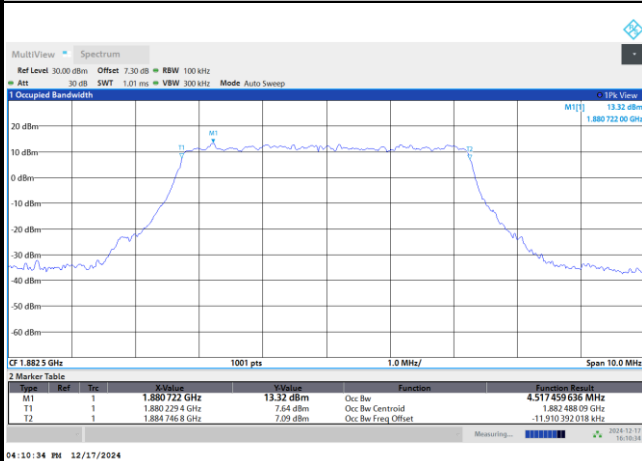
## FR1 n25 / 5MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

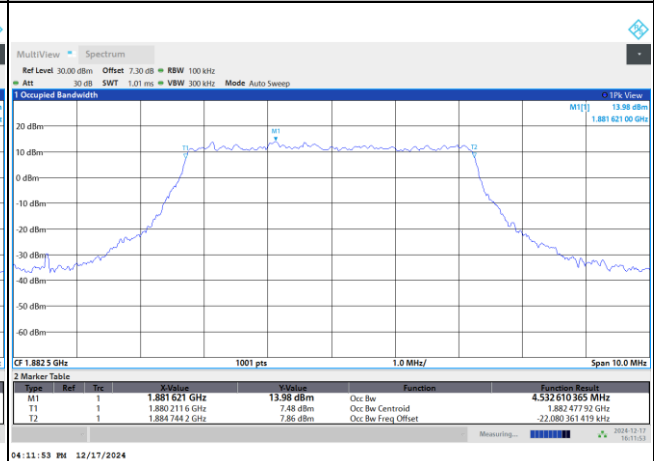


## FR1 n25 / 5MHz / CP OFDM / Middle Channel / Full RB

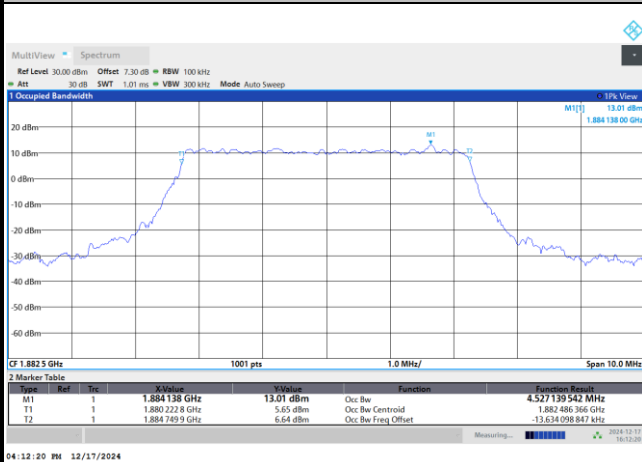
## QPSK



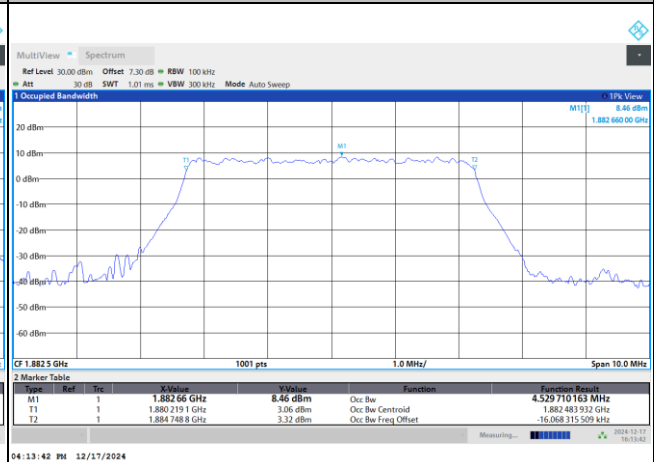
## 16QAM



## 64QAM



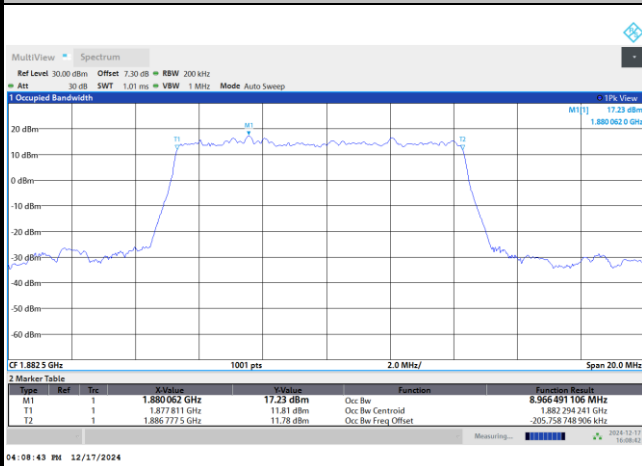
## 256QAM





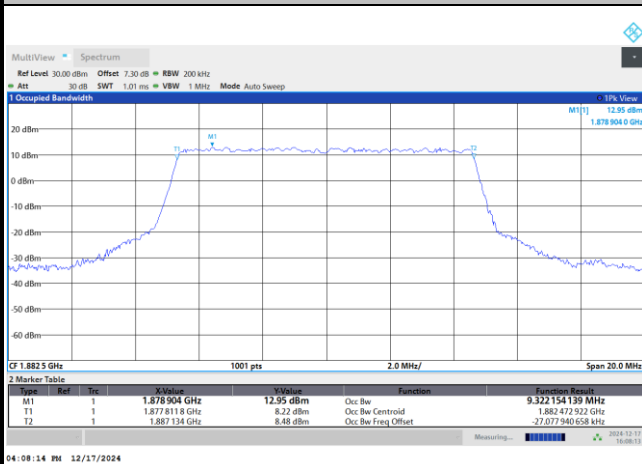
## FR1 n25 / 10MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

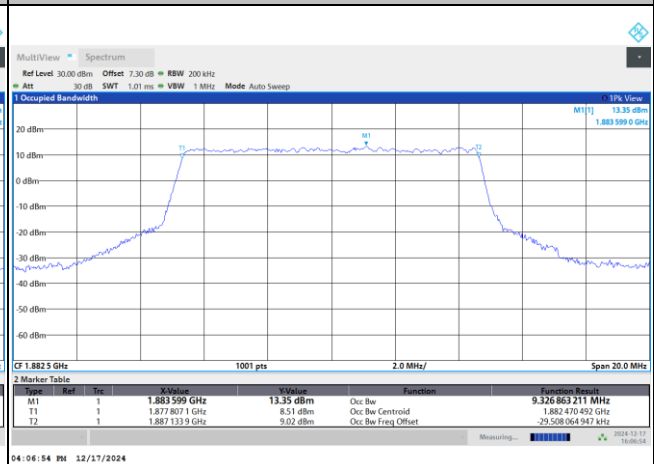


## FR1 n25 / 10MHz / CP OFDM / Middle Channel / Full RB

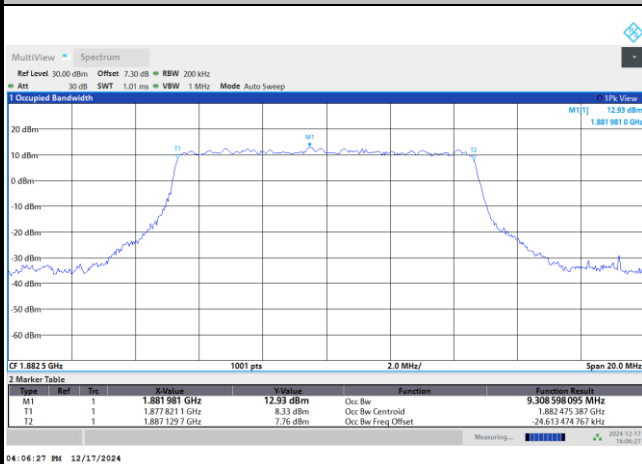
## QPSK



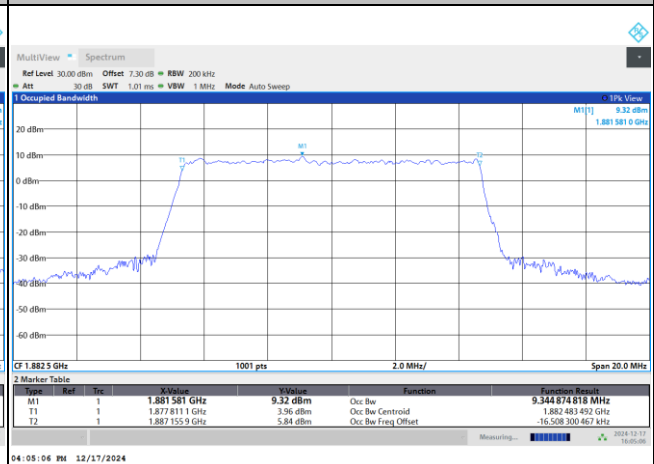
## 16QAM



## 64QAM

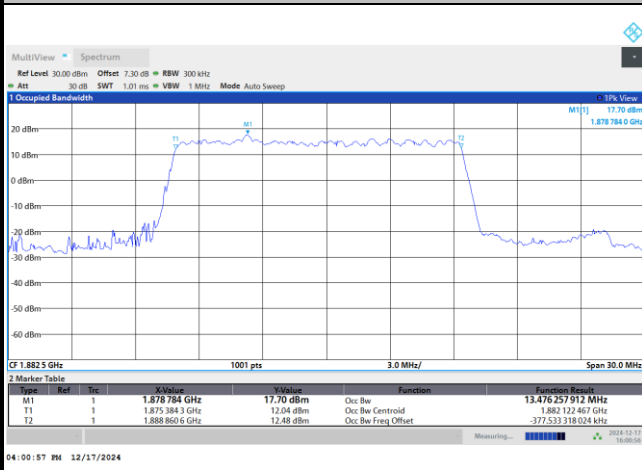


## 256QAM



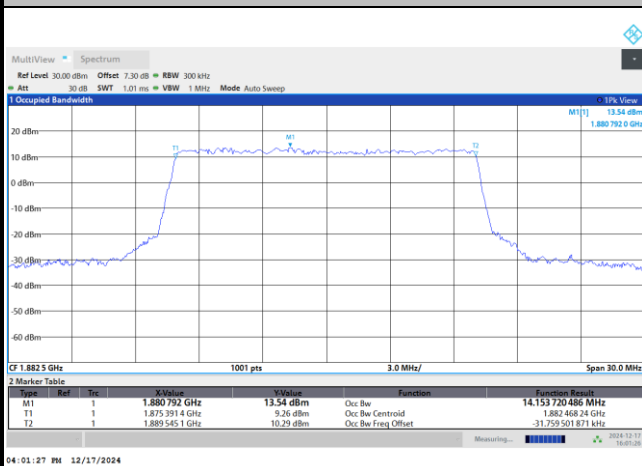
## FR1 n25 / 15MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

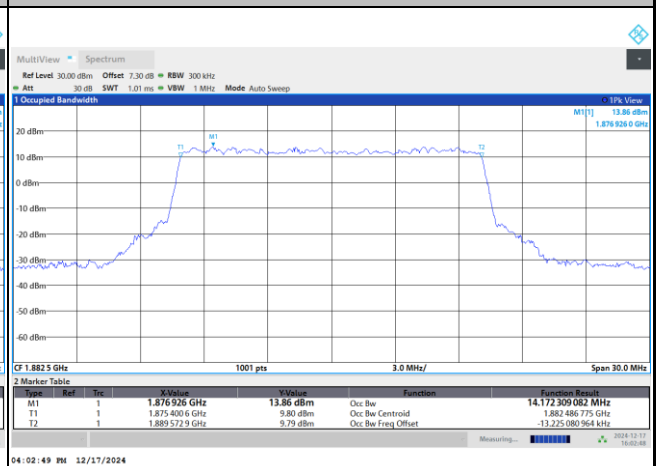


## FR1 n25 / 15MHz / CP OFDM / Middle Channel / Full RB

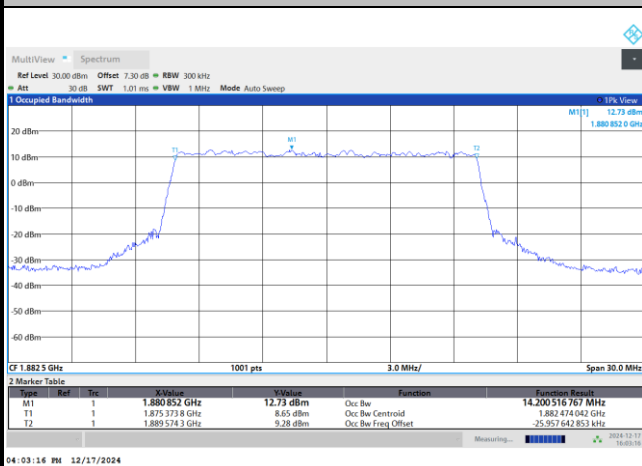
### QPSK



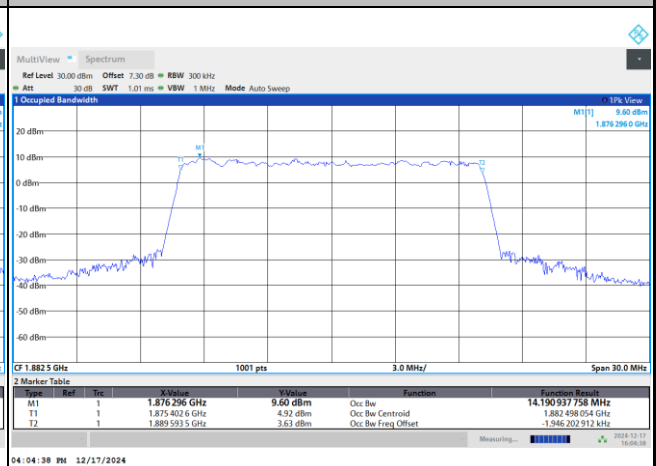
### 16QAM



### 64QAM

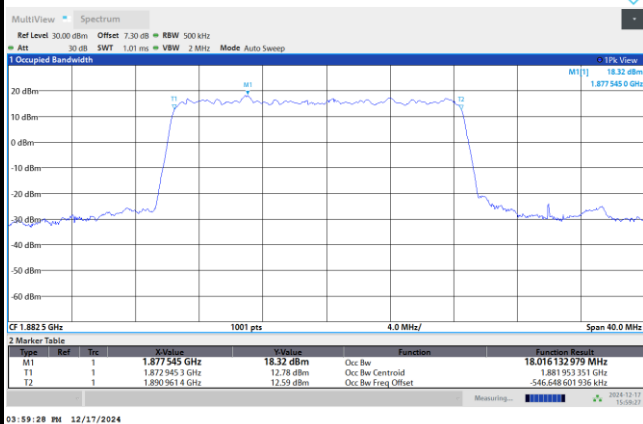


### 256QAM



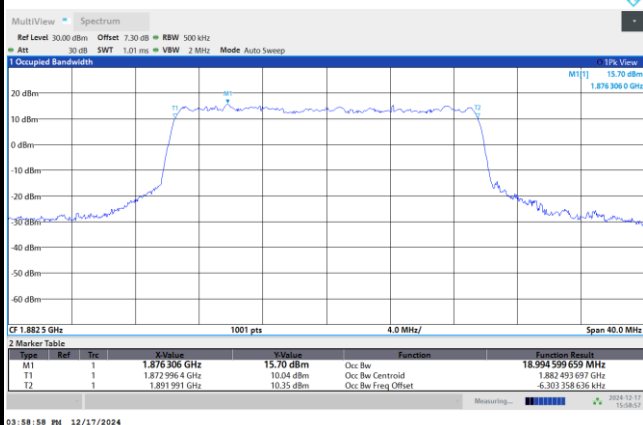
**FR1 n25 / 20MHz / DFT-S OFDM / Middle Channel / Full RB**

## PI/2 BPSK

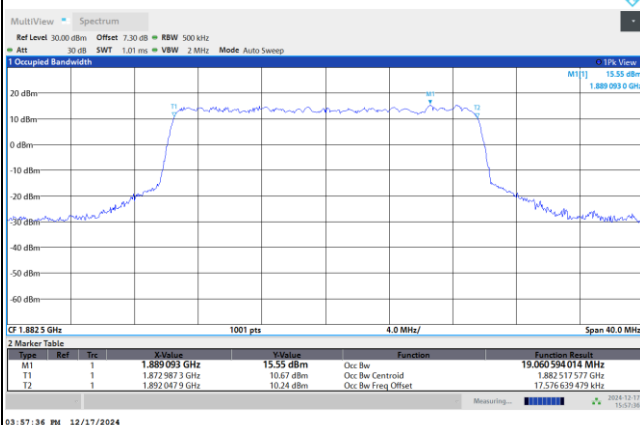


## FR1 n25 / 20MHz / CP OFDM / Middle Channel / Full RB

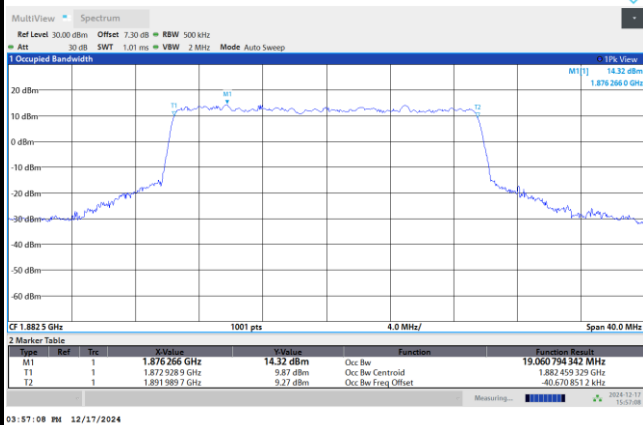
**QPSK**



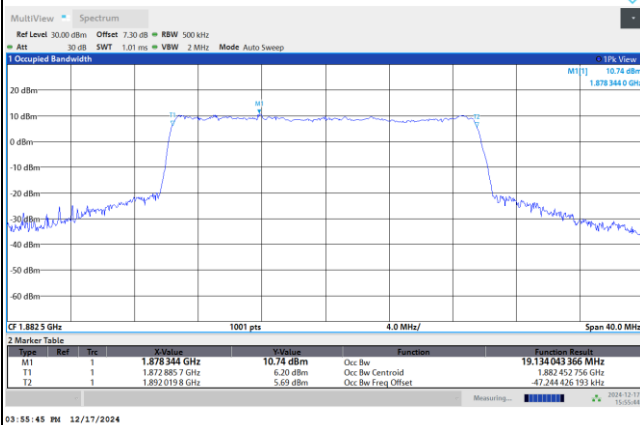
## 16QAM



## 64QAM



## 256QAM

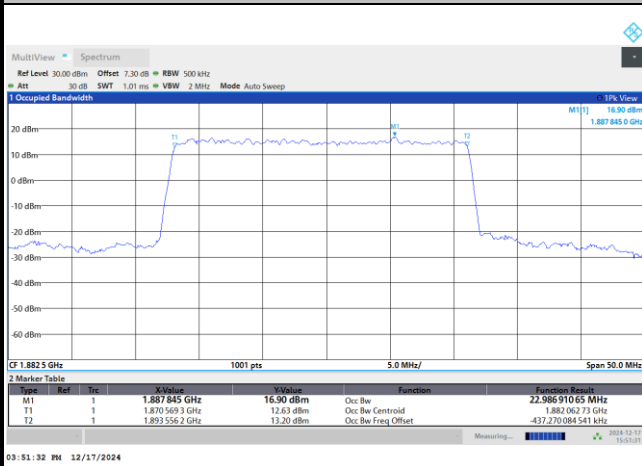






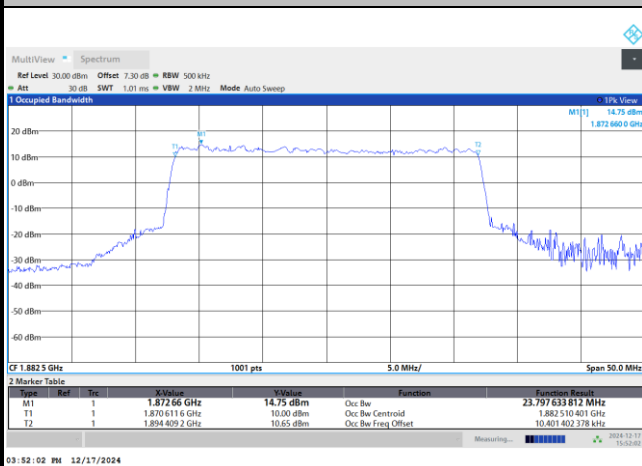
## FR1 n25 / 25MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

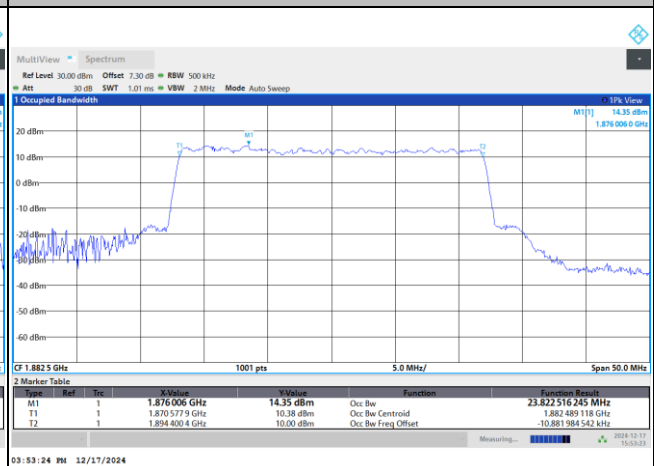


## FR1 n25 / 25MHz / CP OFDM / Middle Channel / Full RB

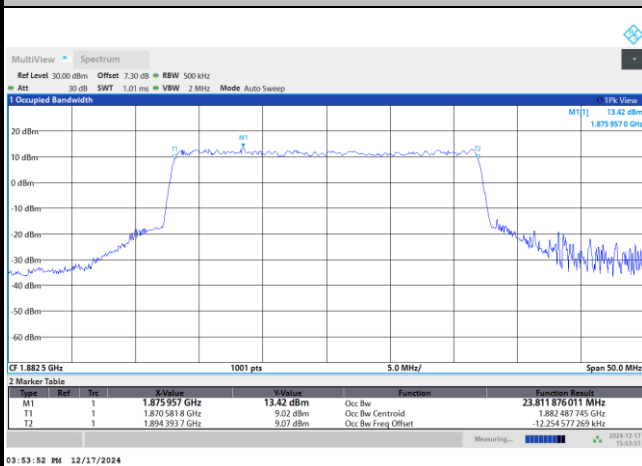
## QPSK



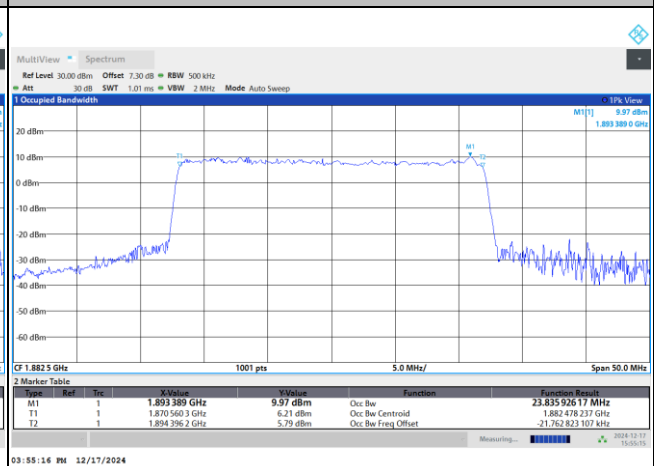
## 16QAM



## 64QAM



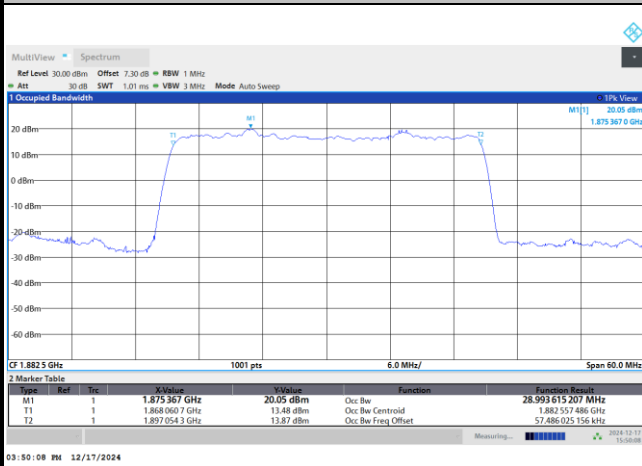
## 256QAM





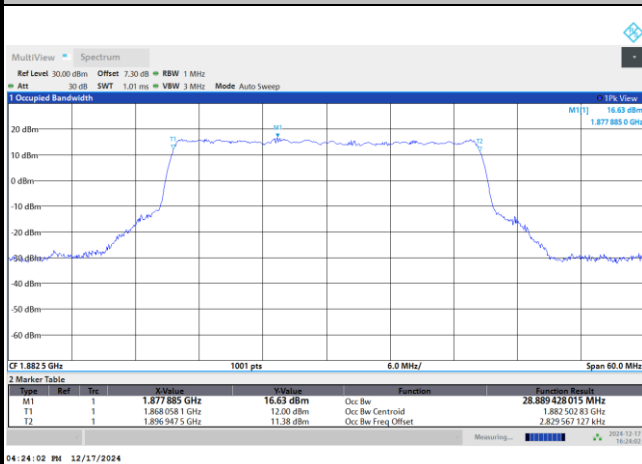
## FR1 n25 / 30MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

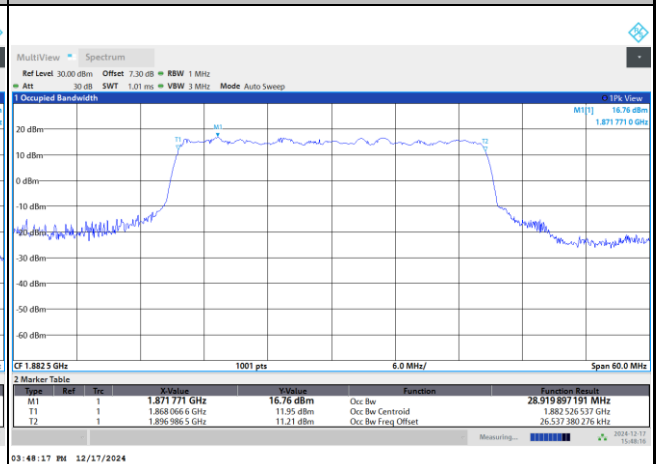


## FR1 n25 / 30MHz / CP OFDM / Middle Channel / Full RB

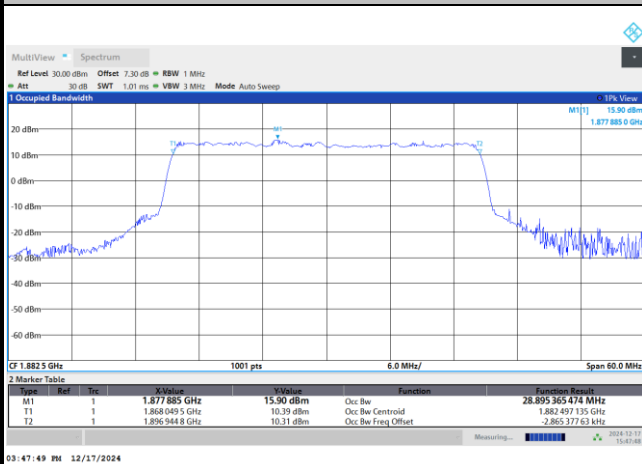
## QPSK



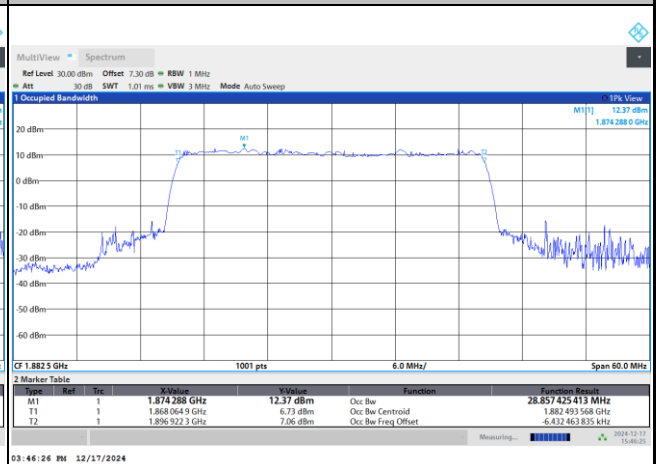
## 16QAM



## 64QAM

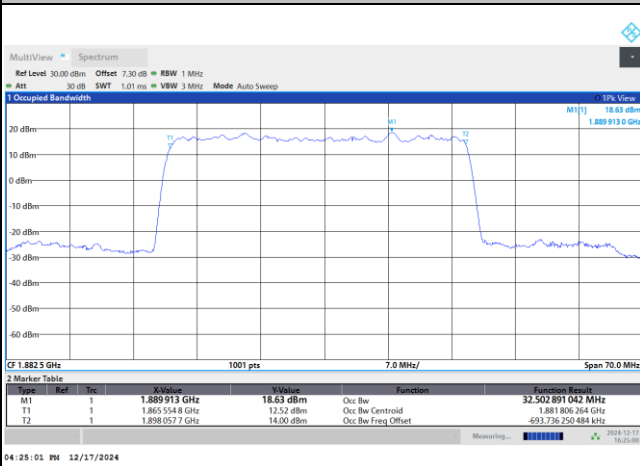


## 256QAM



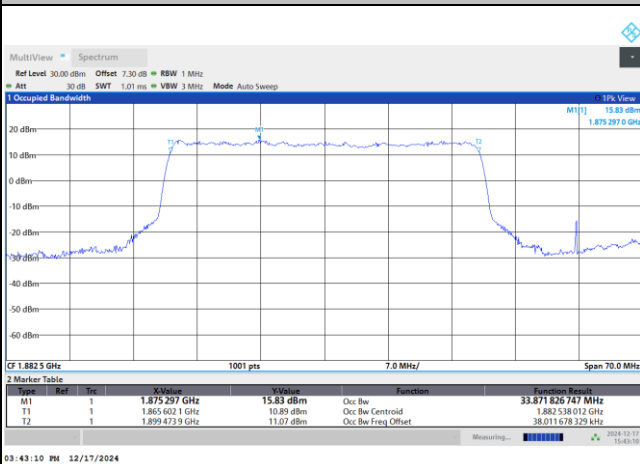
## FR1 n25 / 35MHz / DFT-S OFDM / Middle Channel / Full RB

### PI/2 BPSK

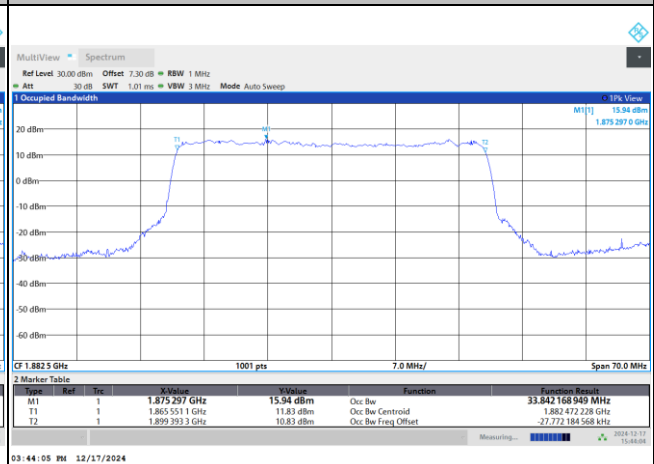


## FR1 n25 / 35MHz / CP OFDM / Middle Channel / Full RB

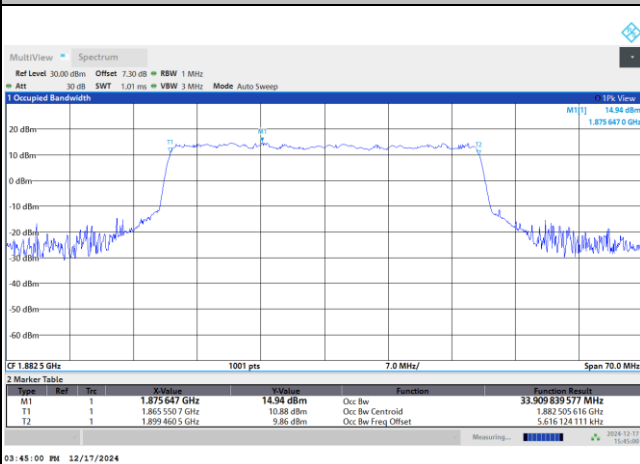
### QPSK



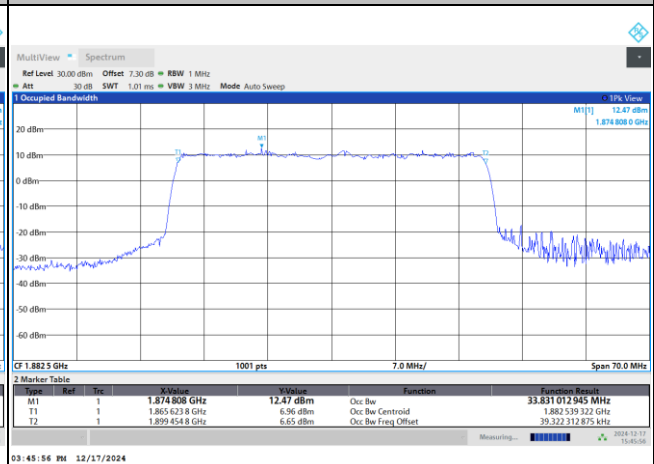
### 16QAM



### 64QAM



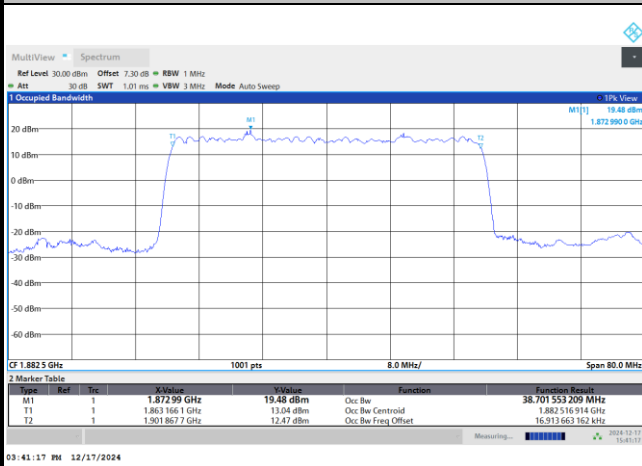
### 256QAM





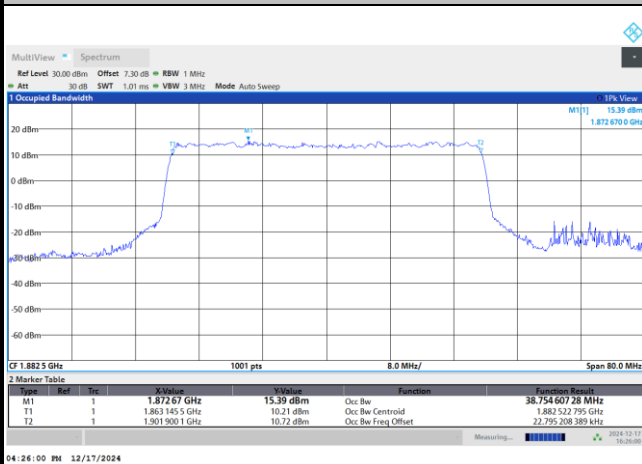
## FR1 n25 / 40MHz / DFT-S OFDM / Middle Channel / Full RB

## PI/2 BPSK

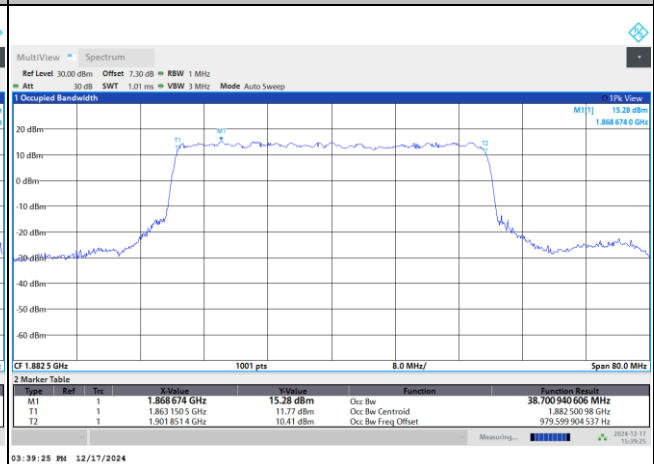


## FR1 n25 / 40MHz / CP OFDM / Middle Channel / Full RB

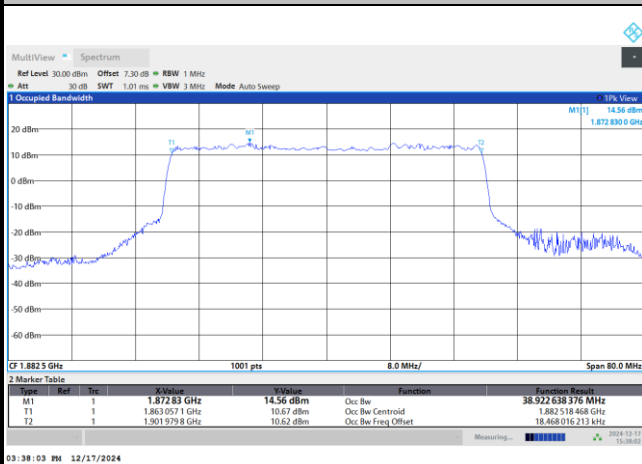
## QPSK



## 16QAM



## 64QAM



## 256QAM

