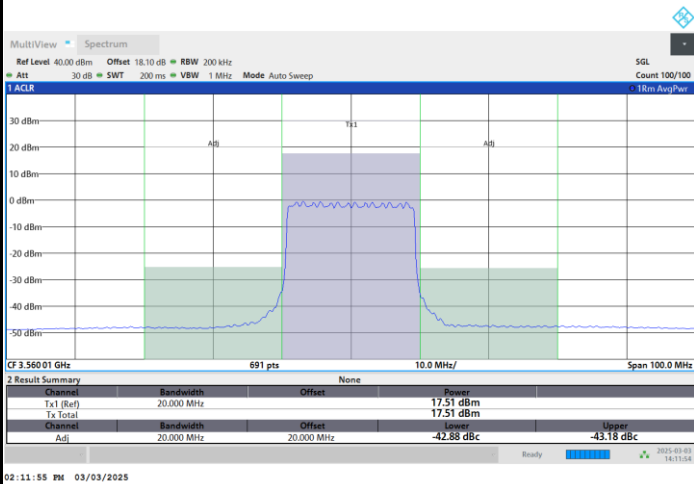




FR1 n48 / 20MHz / CP OFDM / QPSK

Lowest Channel

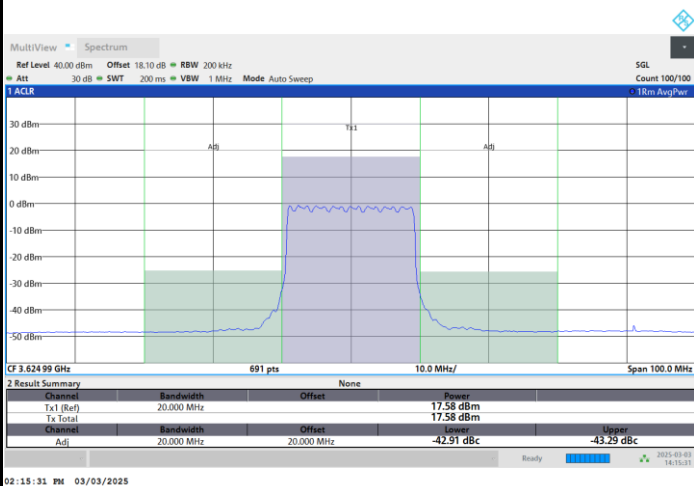
Full RB



FR1 n48 / 20MHz / CP OFDM / QPSK

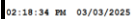
Middle Channel

Full RB





## Full RB



### Lowest Channel

## Full RB

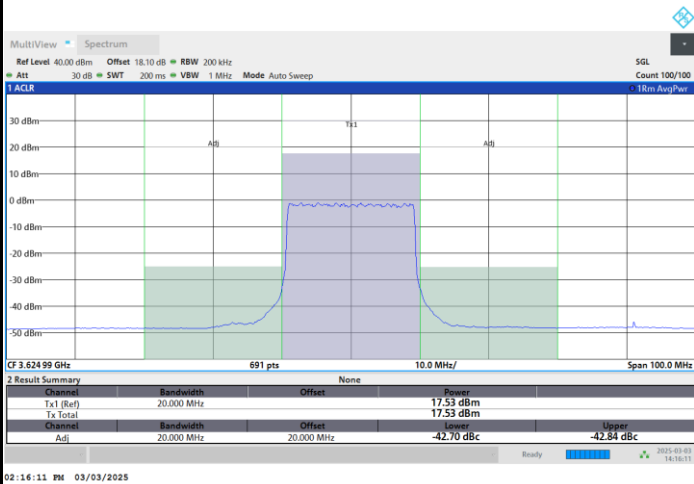




FR1 n48 / 20MHz / CP OFDM / 16QAM

Middle Channel

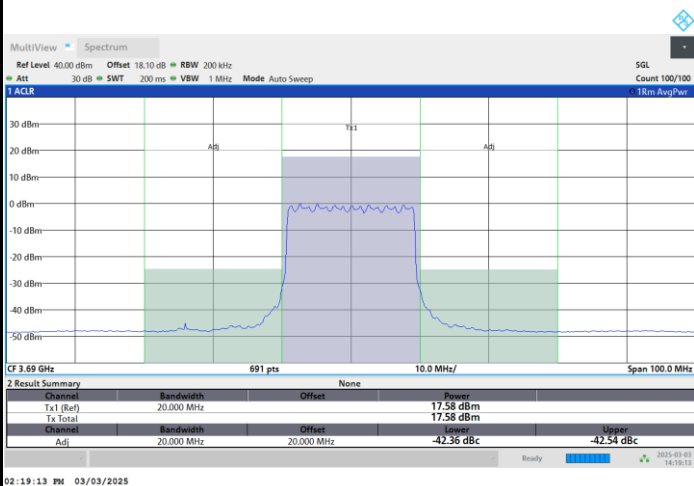
Full RB



FR1 n48 / 20MHz / CP OFDM / 16QAM

Highest Channel

Full RB

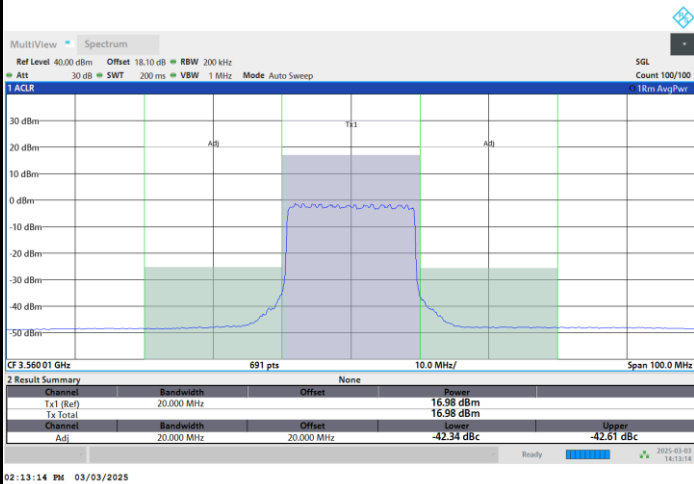




FR1 n48 / 20MHz / CP OFDM / 64QAM

Lowest Channel

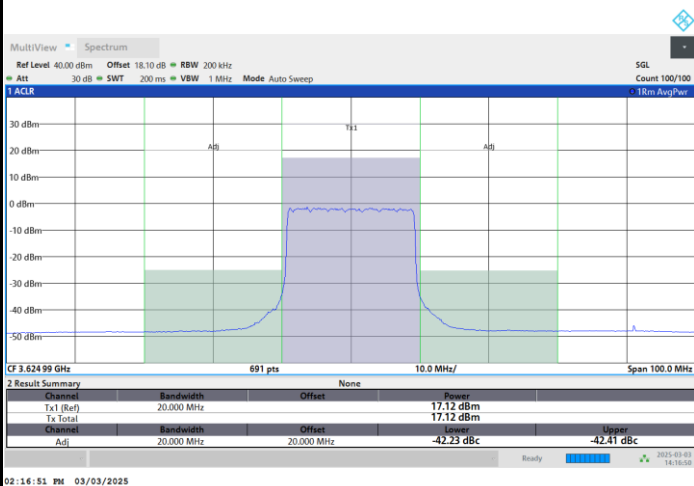
Full RB



FR1 n48 / 20MHz / CP OFDM / 64QAM

Middle Channel

Full RB

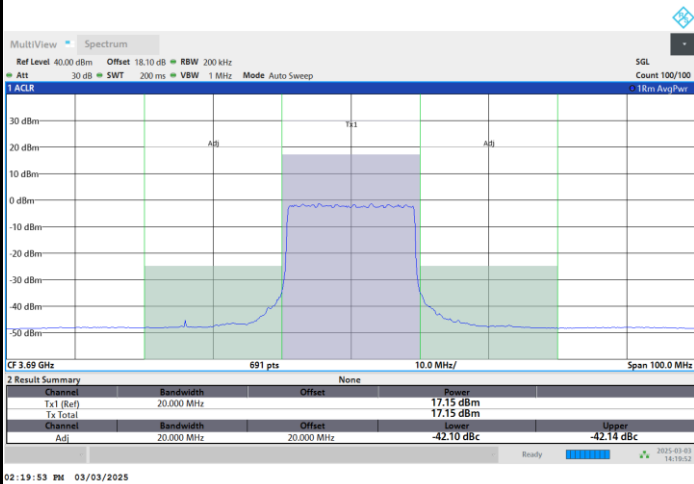




FR1 n48 / 20MHz / CP OFDM / 64QAM

Highest Channel

Full RB



FR1 n48 / 20MHz / CP OFDM / 256QAM

Lowest Channel

Full RB

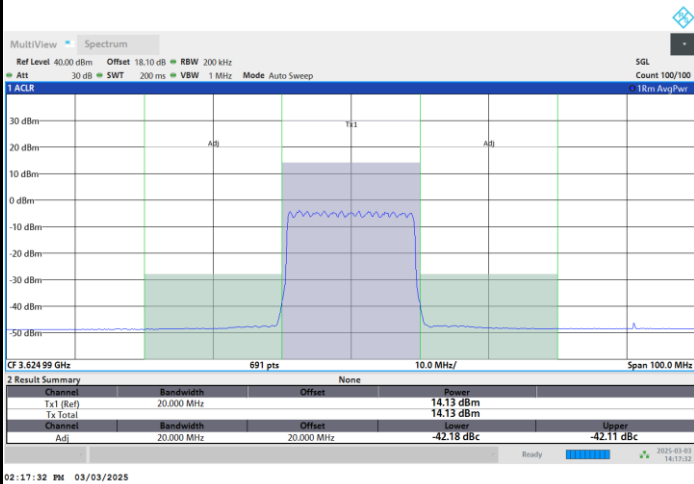




FR1 n48 / 20MHz / CP OFDM / 256QAM

Middle Channel

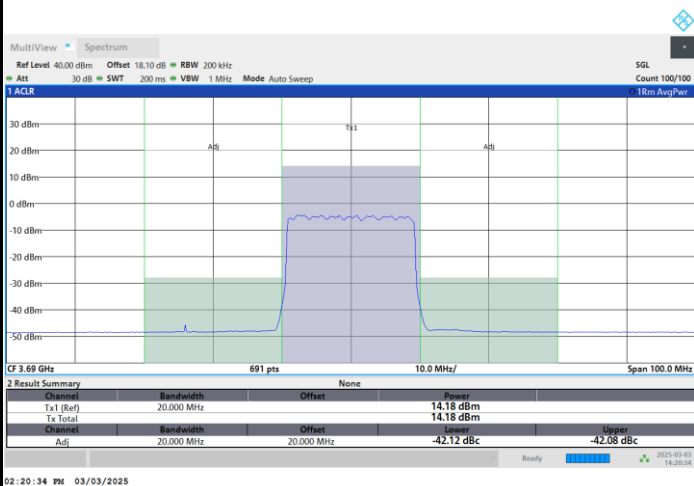
Full RB



FR1 n48 / 20MHz / CP OFDM / 256QAM

Highest Channel

Full RB

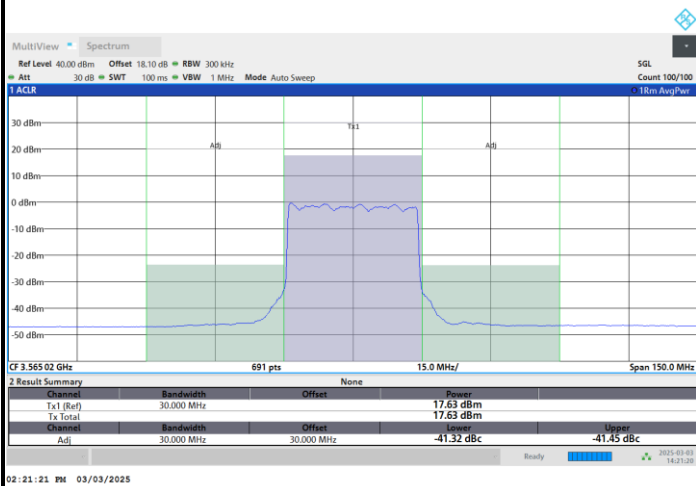




FR1 n48 / 30MHz / CP OFDM / QPSK

Lowest Channel

Full RB



FR1 n48 / 30MHz / CP OFDM / QPSK

Middle Channel

Full RB

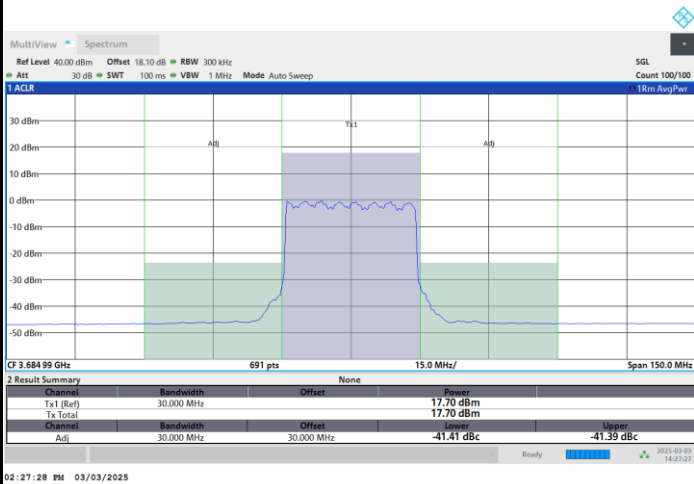




FR1 n48 / 30MHz / CP OFDM / QPSK

Highest Channel

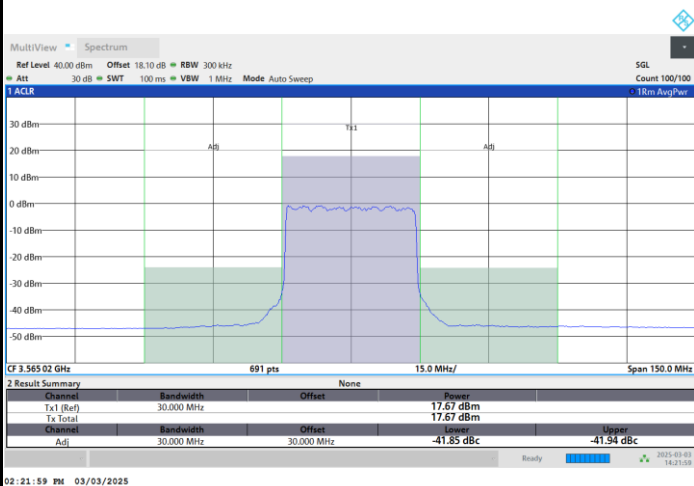
Full RB



FR1 n48 / 30MHz / CP OFDM / 16QAM

Lowest Channel

Full RB

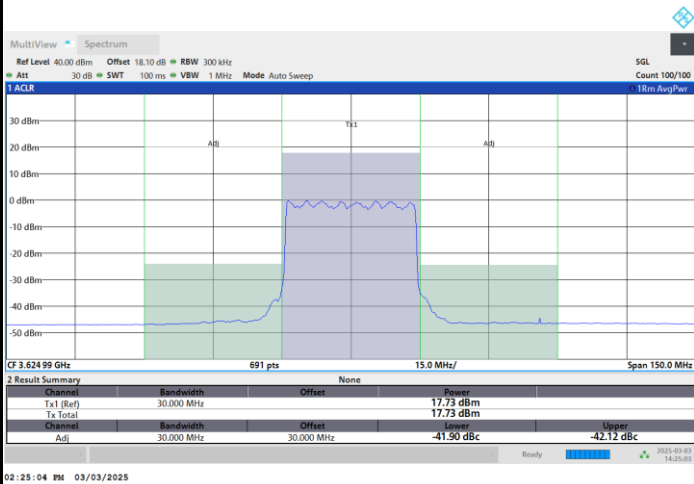




FR1 n48 / 30MHz / CP OFDM / 16QAM

Middle Channel

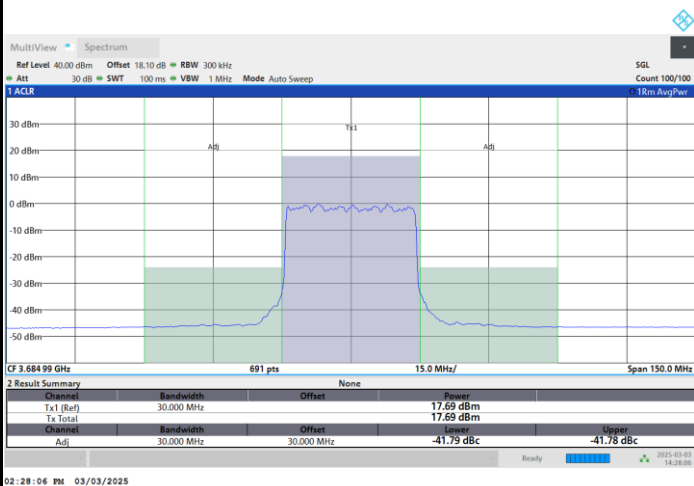
Full RB



FR1 n48 / 30MHz / CP OFDM / 16QAM

Highest Channel

Full RB

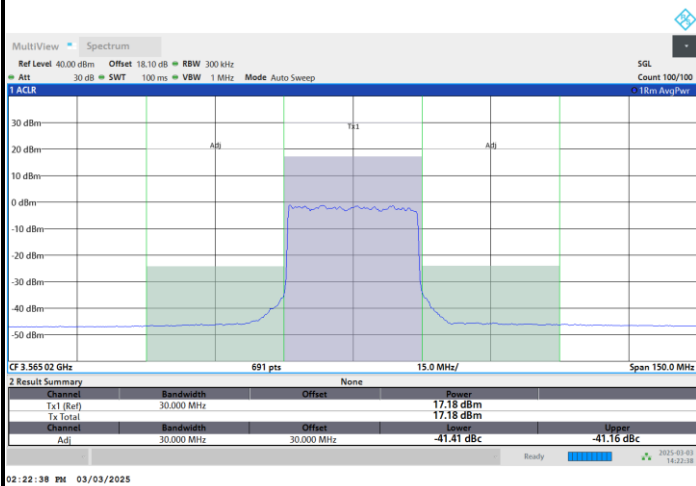




## FR1 n48 / 30MHz / CP OFDM / 64QAM

## Lowest Channel

## Full RB



## FR1 n48 / 30MHz / CP OFDM / 64QAM

## Middle Channel

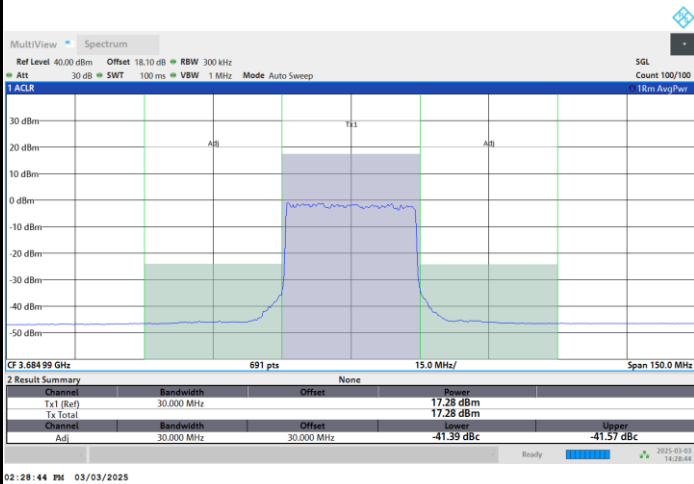
## Full RB



**FR1 n48 / 30MHz / CP OFDM / 64QAM**

### Highest Channel

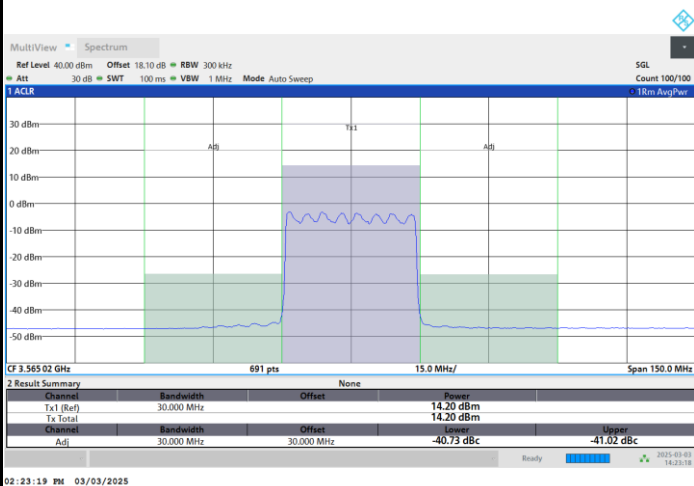
## Full RB



**FR1 n48 / 30MHz / CP OFDM / 256QAM**

### Lowest Channel

## Full RB

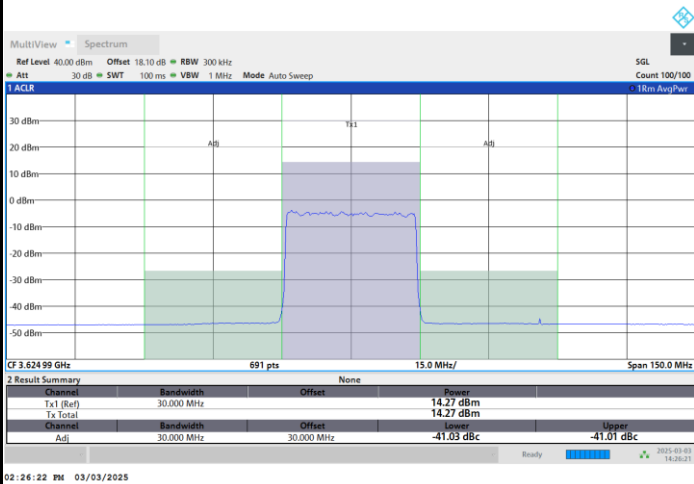




## FR1 n48 / 30MHz / CP OFDM / 256QAM

## Middle Channel

## Full RB



## FR1 n48 / 30MHz / CP OFDM / 256QAM

## Highest Channel

## Full RB

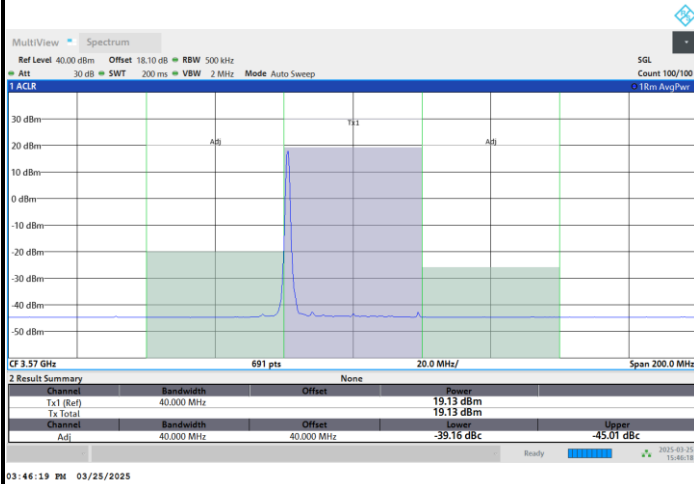




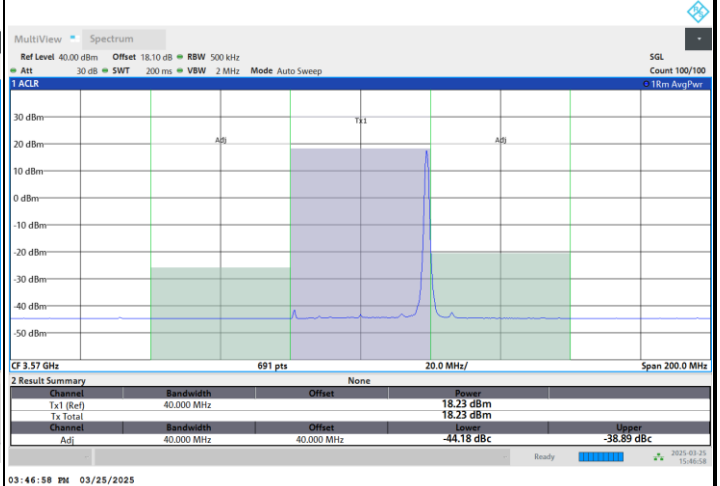
## FR1 n48 / 40MHz / CP OFDM / QPSK

## Lowest Channel

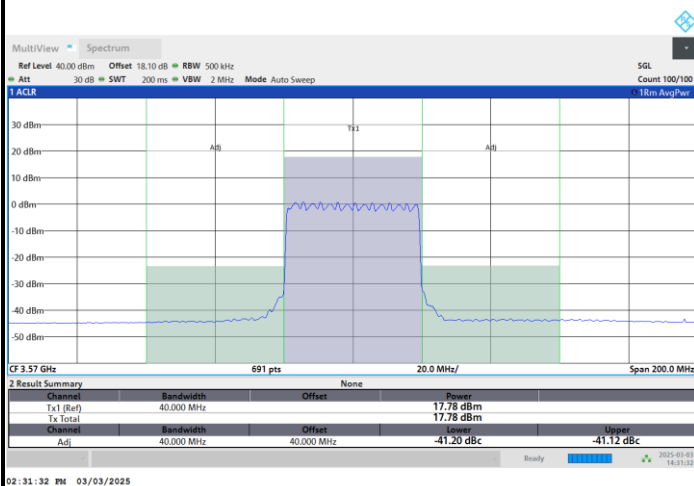
## 1RB0



## 1RBmax



## Full RB

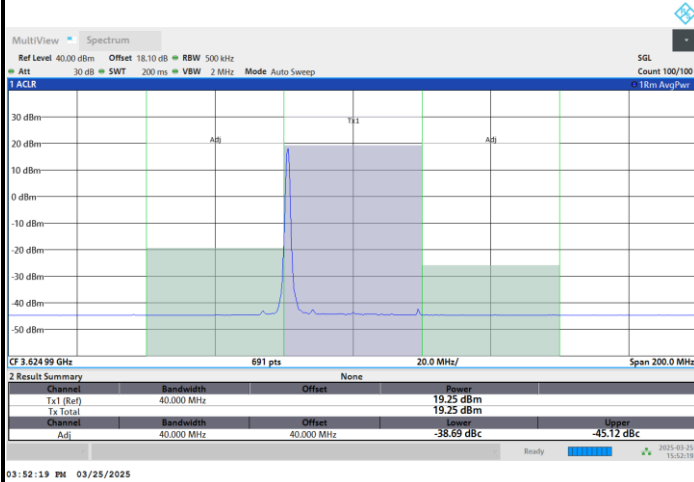




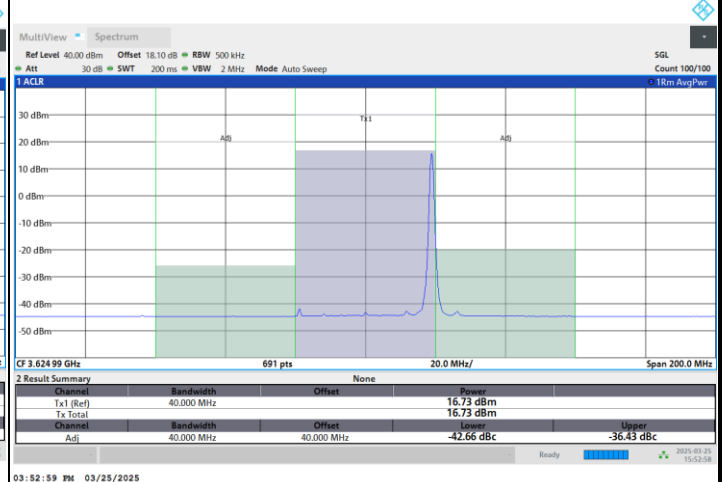
## FR1 n48 / 40MHz / CP OFDM / QPSK

## Middle Channel

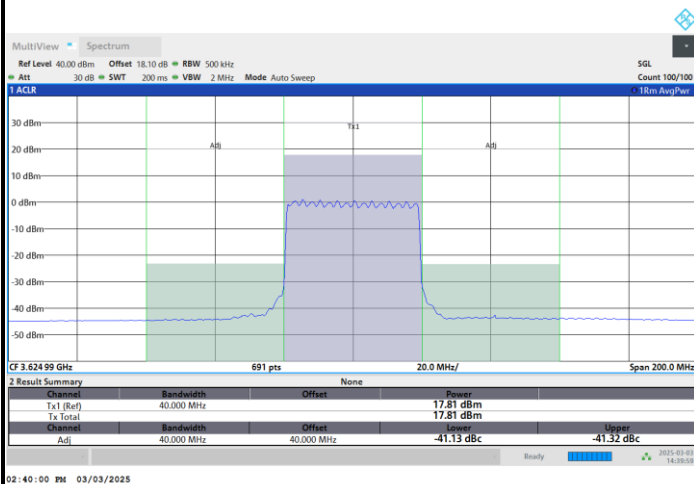
## 1RB0



## 1RBmax



## Full RB

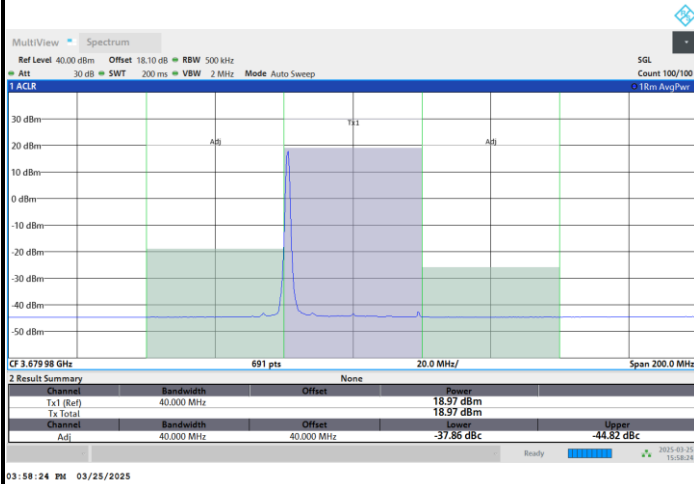




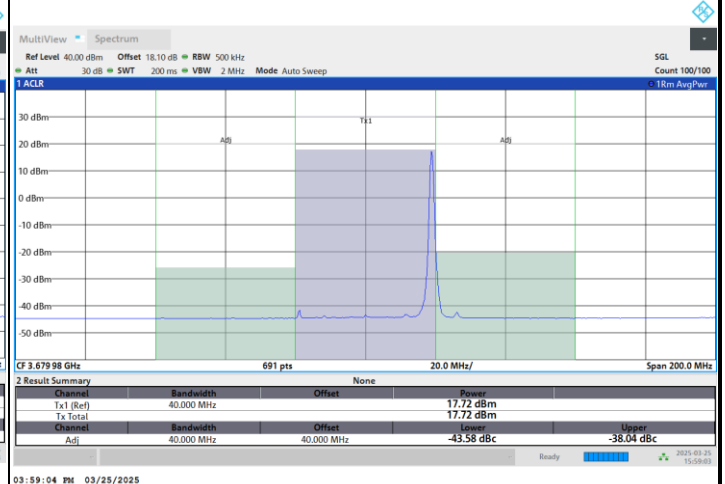
## FR1 n48 / 40MHz / CP OFDM / QPSK

## Highest Channel

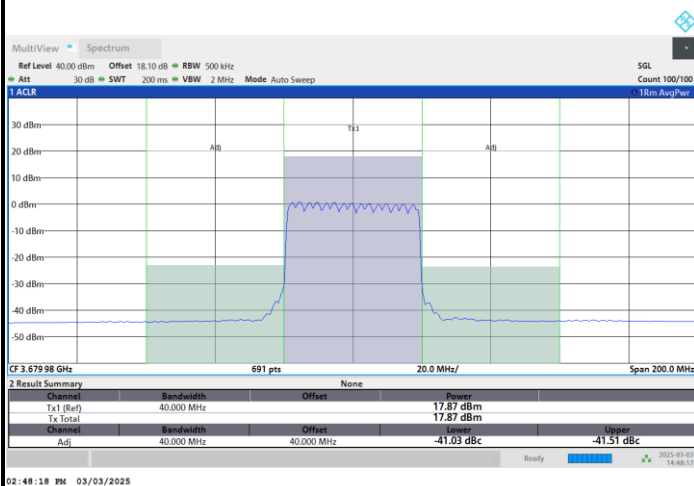
## 1RB0



## 1RBmax



## Full RB

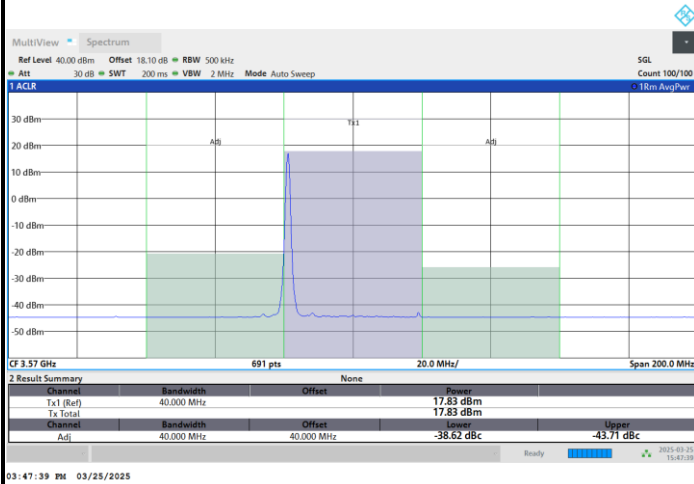




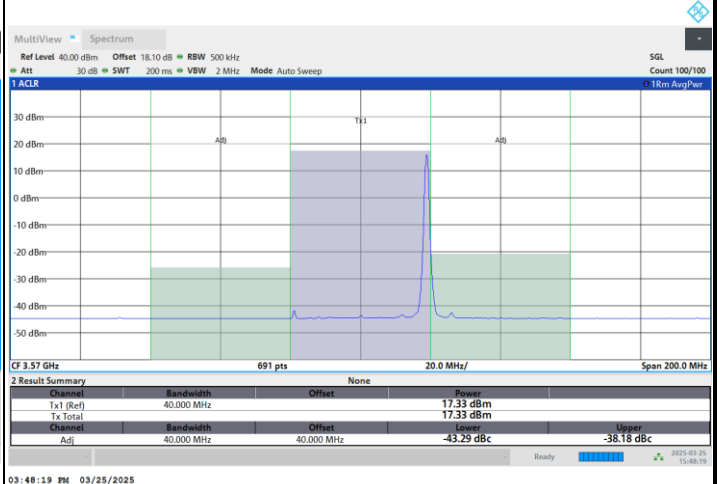
## FR1 n48 / 40MHz / CP OFDM / 16QAM

## Lowest Channel

## 1RB0



## 1RBmax



## Full RB

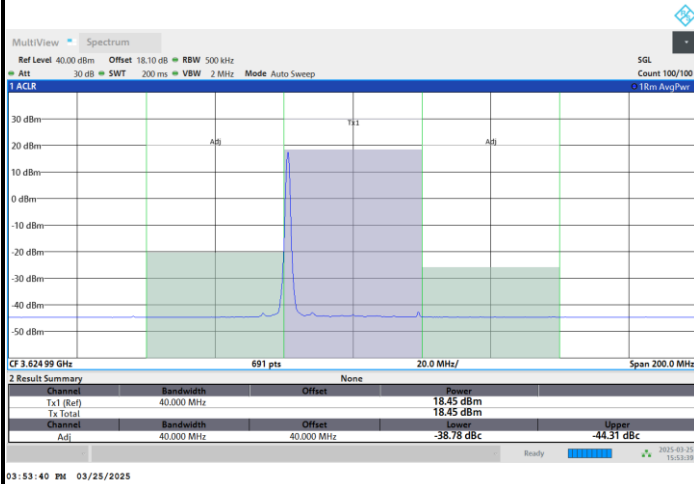




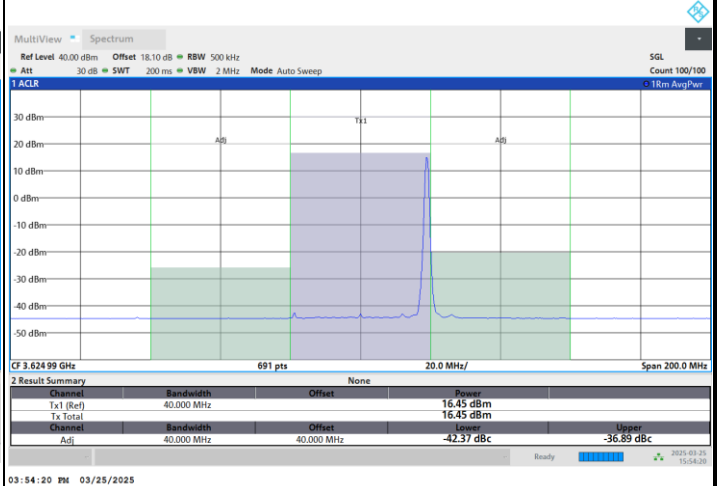
## FR1 n48 / 40MHz / CP OFDM / 16QAM

## Middle Channel

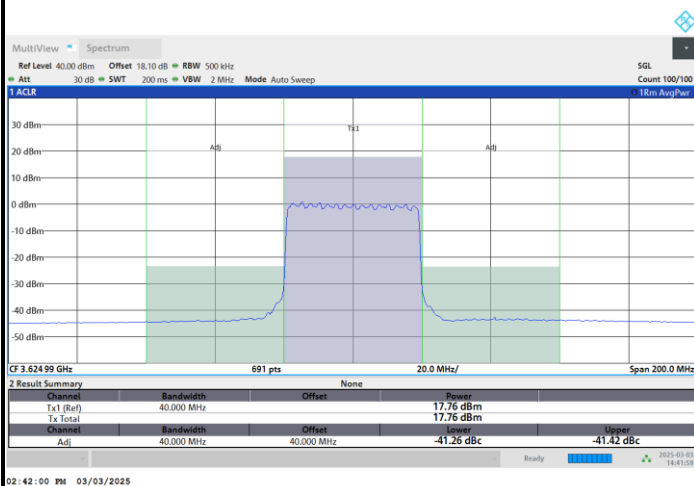
## 1RB0



## 1RBmax



## Full RB

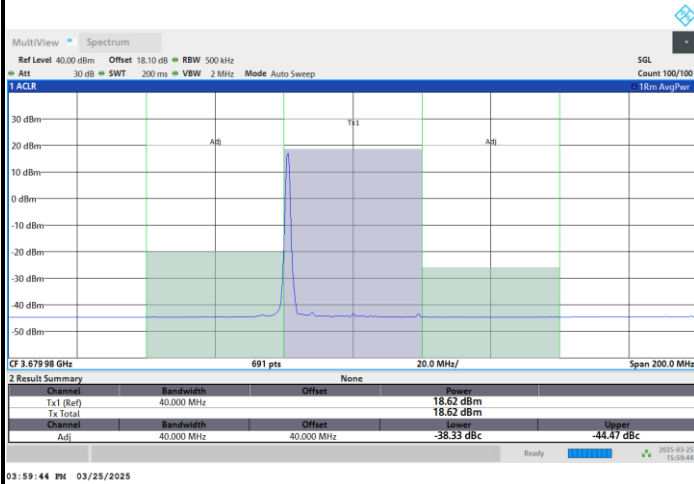




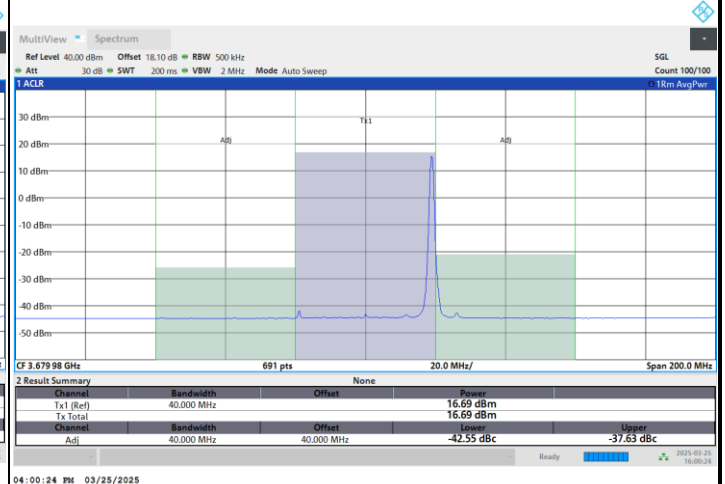
## FR1 n48 / 40MHz / CP OFDM / 16QAM

## Highest Channel

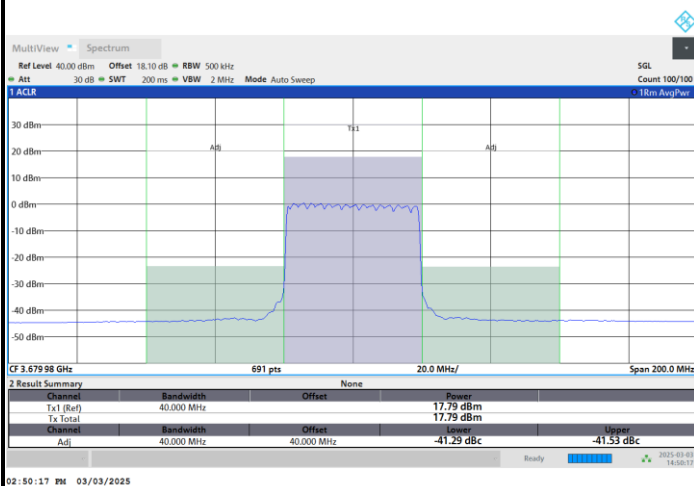
## 1RB0



## 1RBmax



## Full RB

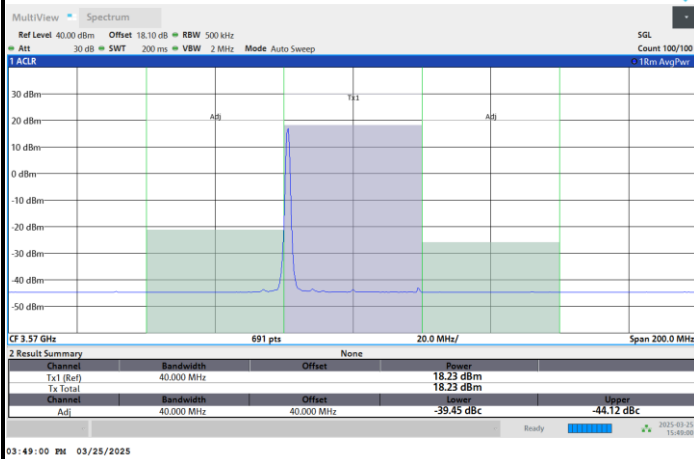




## FR1 n48 / 40MHz / CP OFDM / 64QAM

## Lowest Channel

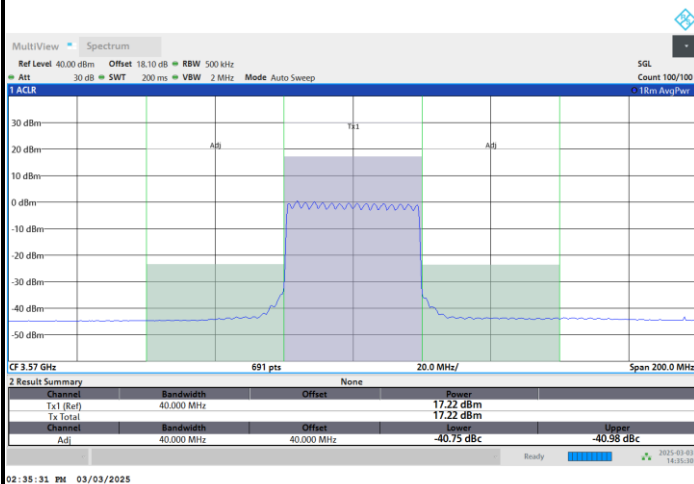
## 1RB0



## 1RBmax



## Full RB

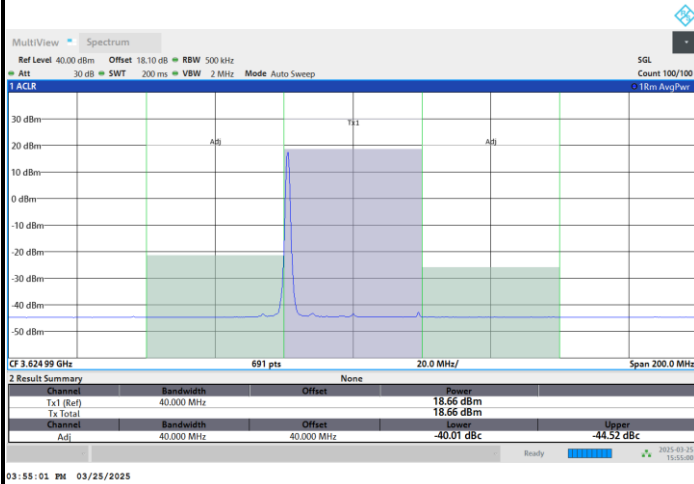




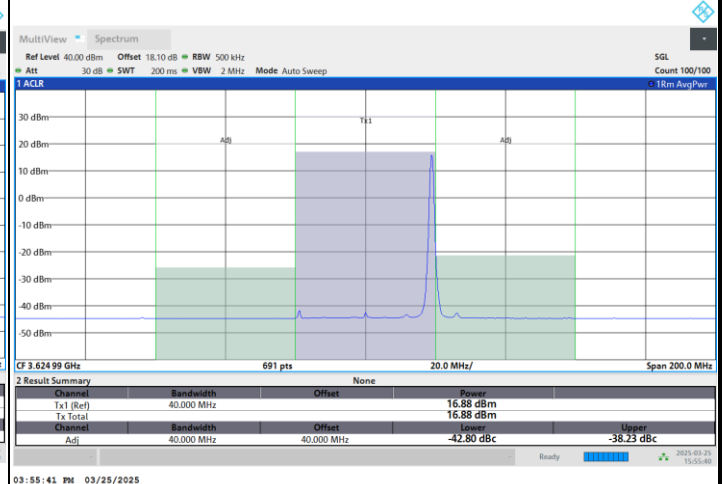
## FR1 n48 / 40MHz / CP OFDM / 64QAM

## Middle Channel

## 1RB0



## 1RBmax



## Full RB

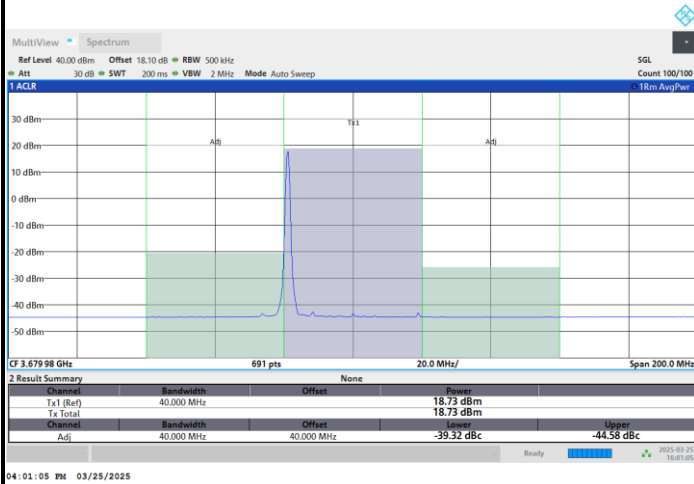




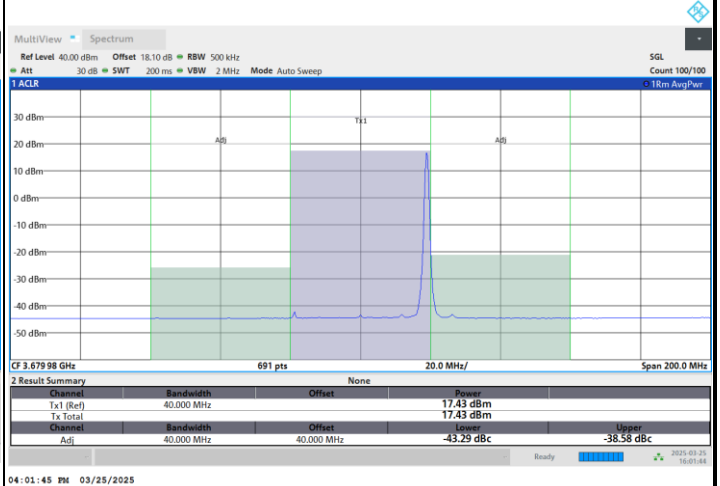
## FR1 n48 / 40MHz / CP OFDM / 64QAM

## Highest Channel

## 1RB0



## 1RBmax



## Full RB

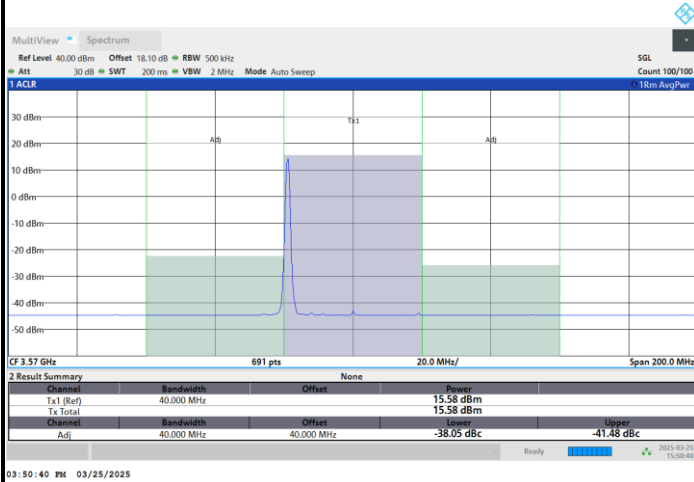




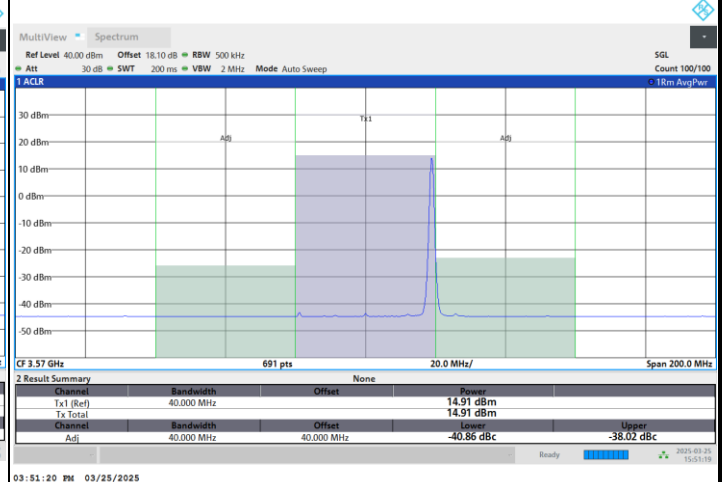
## FR1 n48 / 40MHz / CP OFDM / 256QAM

## Lowest Channel

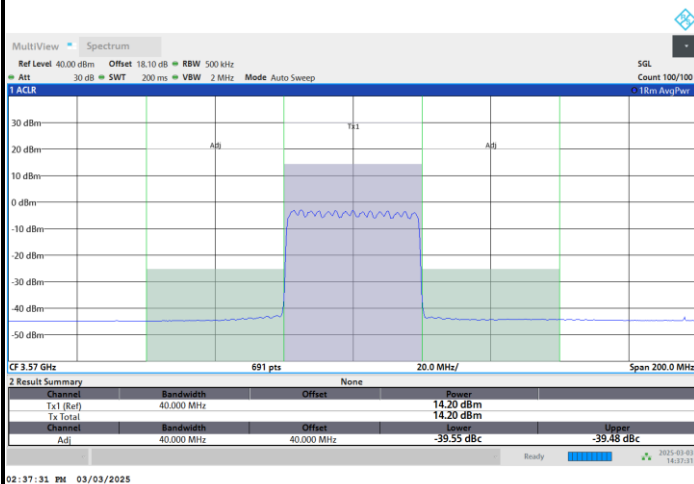
## 1RB0



## 1RBmax



## Full RB

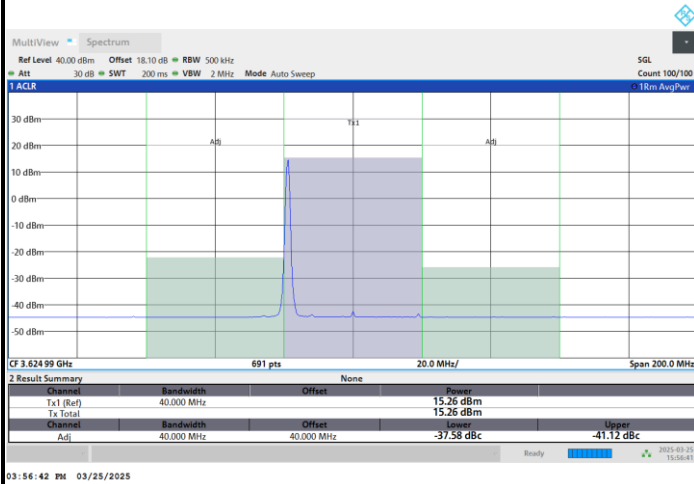




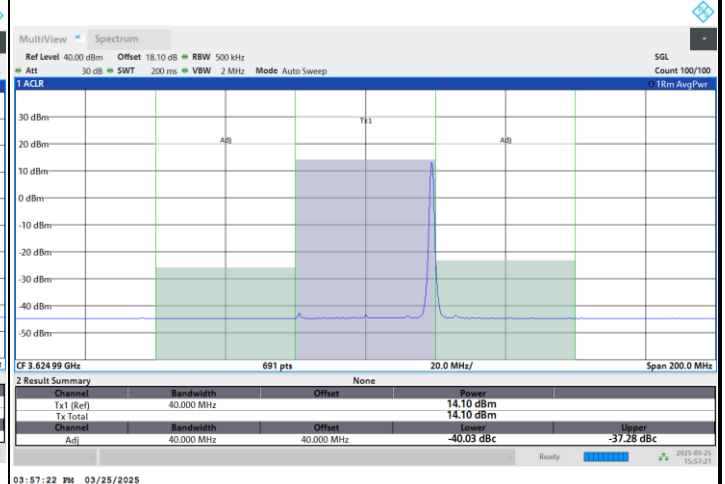
## FR1 n48 / 40MHz / CP OFDM / 256QAM

## Middle Channel

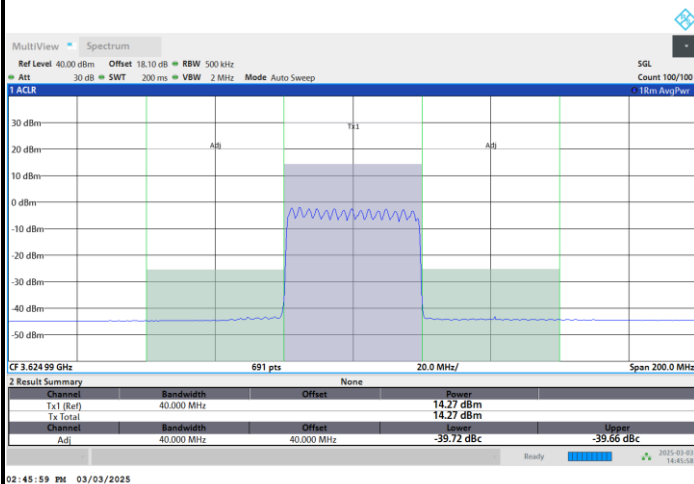
## 1RB0



## 1RBmax



## Full RB

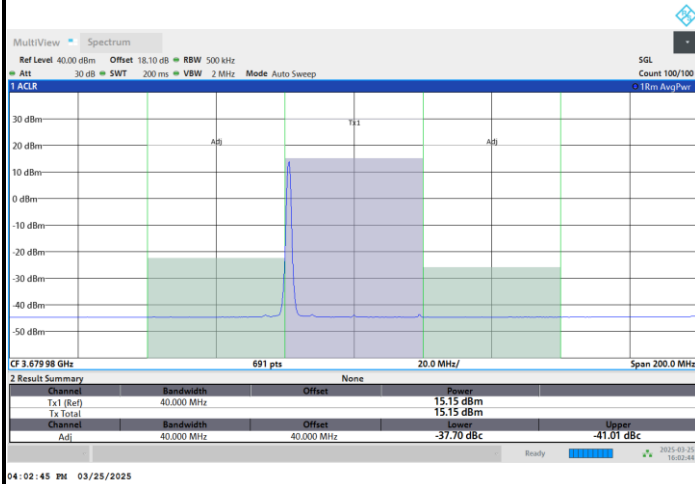




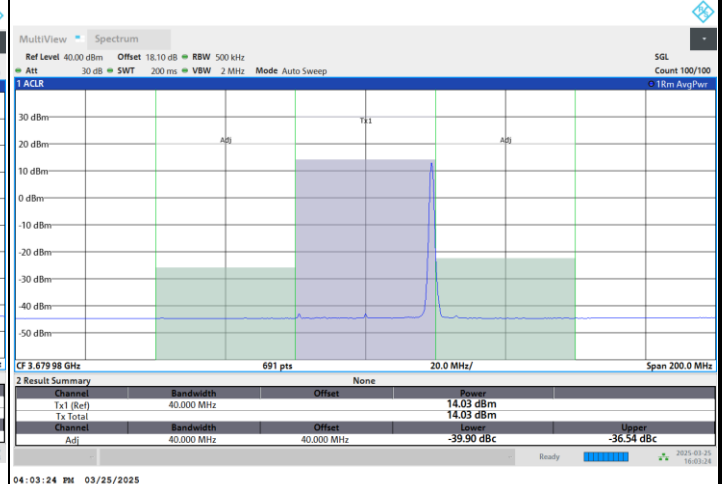
## FR1 n48 / 40MHz / CP OFDM / 256QAM

## Highest Channel

## 1RB0



## 1RBmax



## Full RB

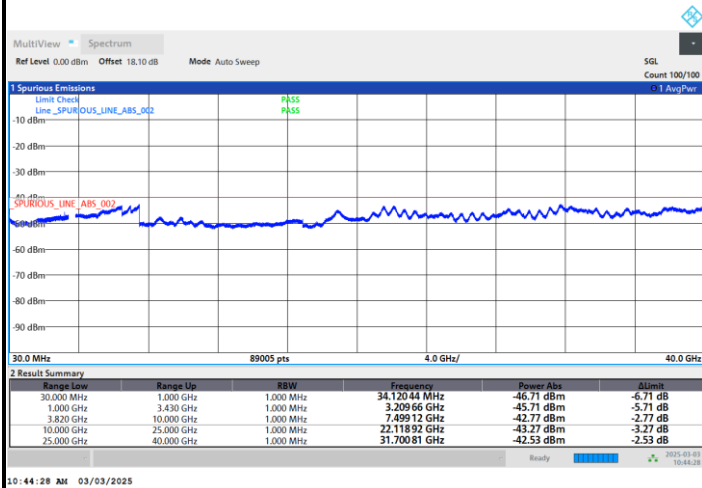




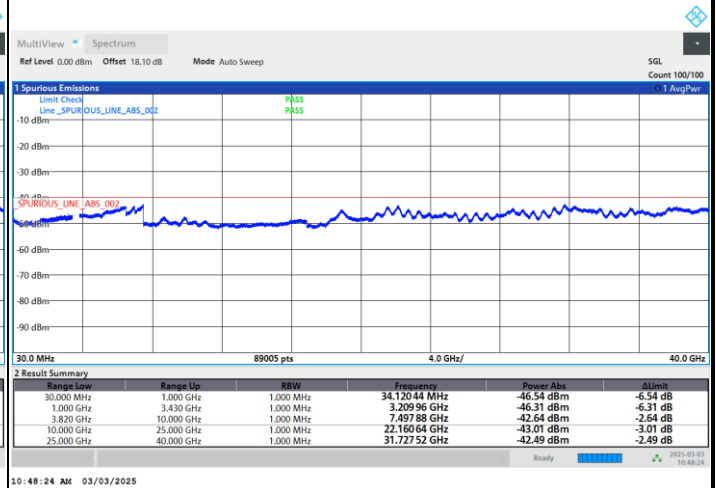
# Conducted Spurious Emission

FR1 n48 / 10MHz / CP OFDM / QPSK / 1RB1

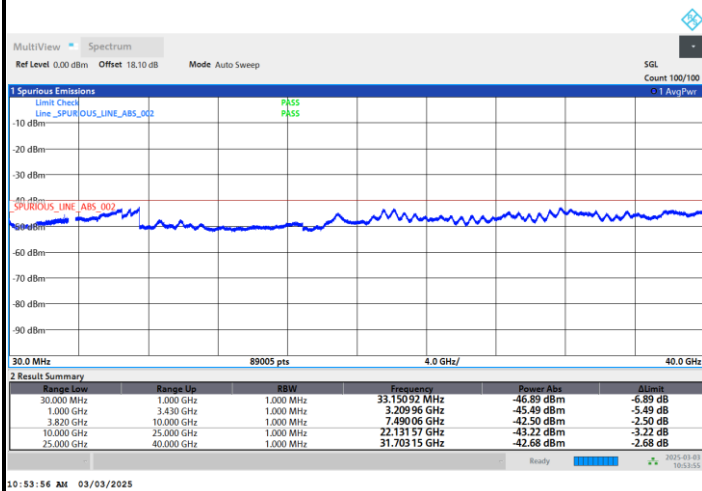
## Lowest Channel



## Middle Channel



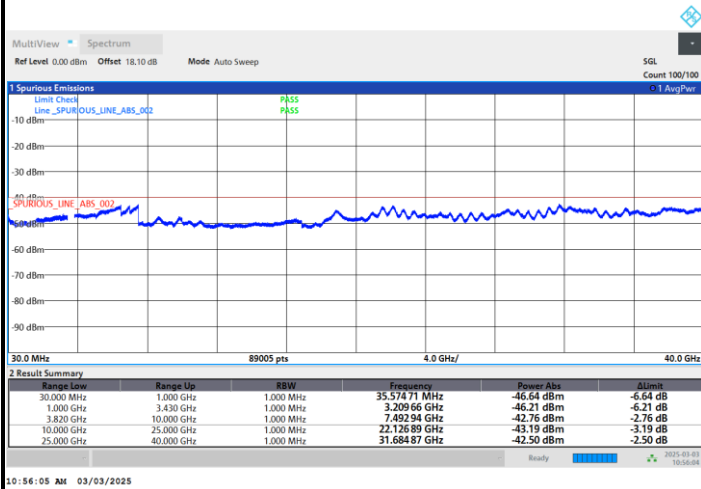
## Highest Channel



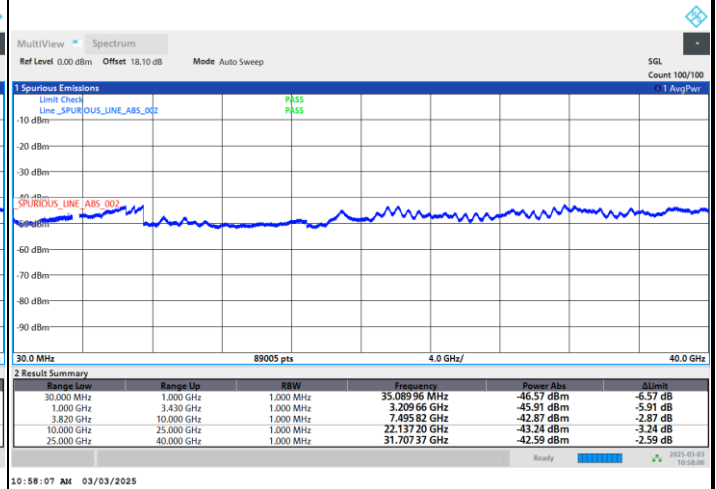


## FR1 n48 / 15MHz / CP OFDM / QPSK / 1RB1

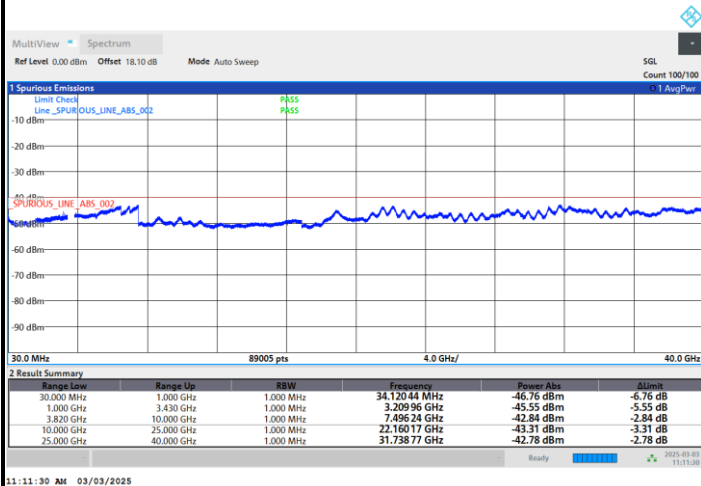
## Lowest Channel



## Middle Channel



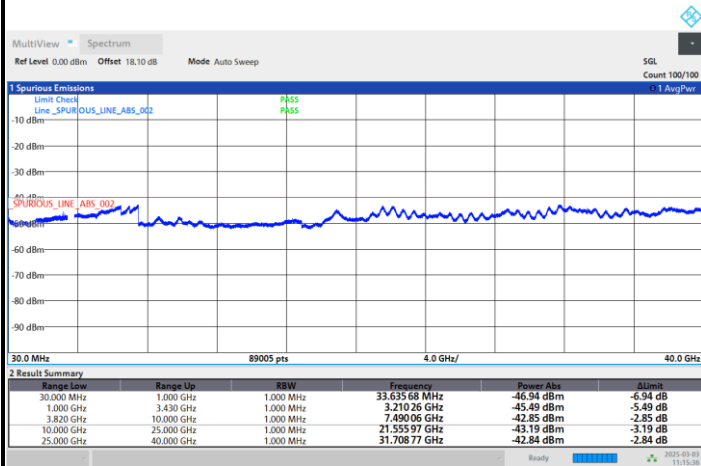
## Highest Channel





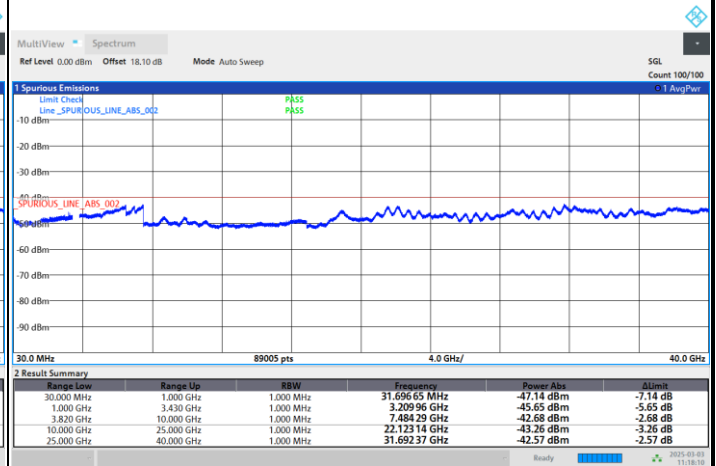
## FR1 n48 / 20MHz / CP OFDM / QPSK / 1RB1

## Lowest Channel



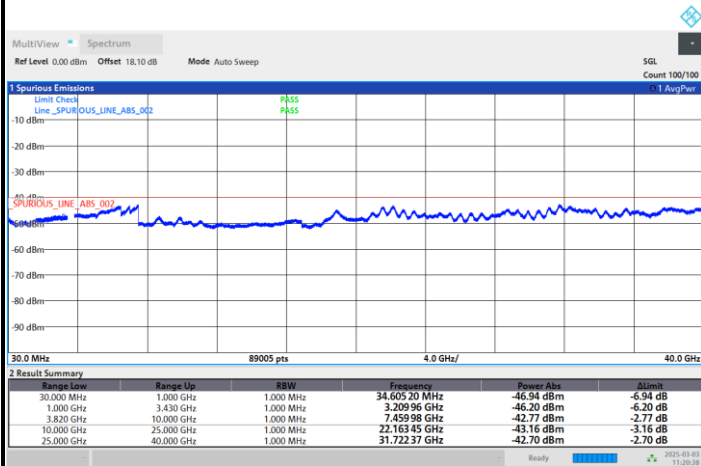
11:15:37 AM 03/03/2025

## Middle Channel



11:19:12 AM 03/03/2025

## Highest Channel

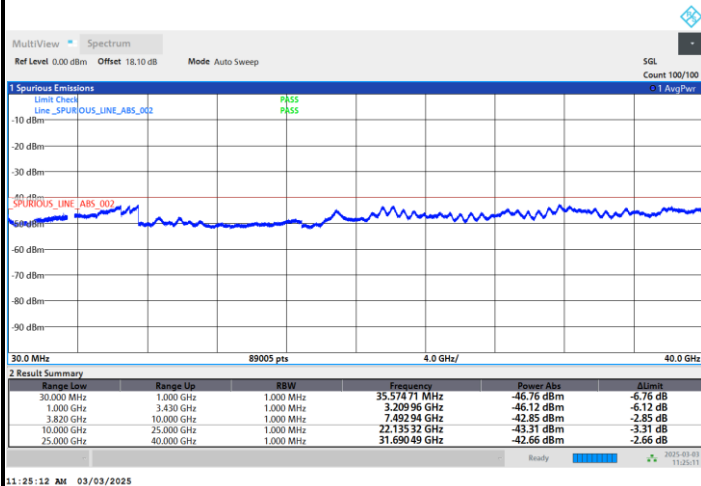


11:20:38 AM 03/03/2025

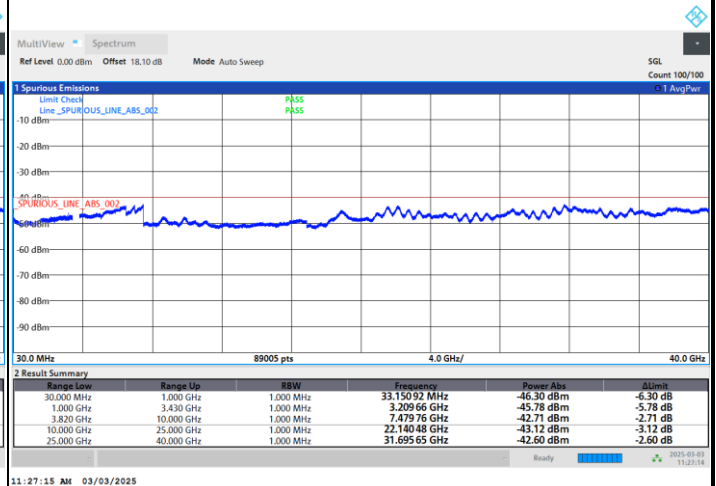


## FR1 n48 / 30MHz / CP OFDM / QPSK / 1RB1

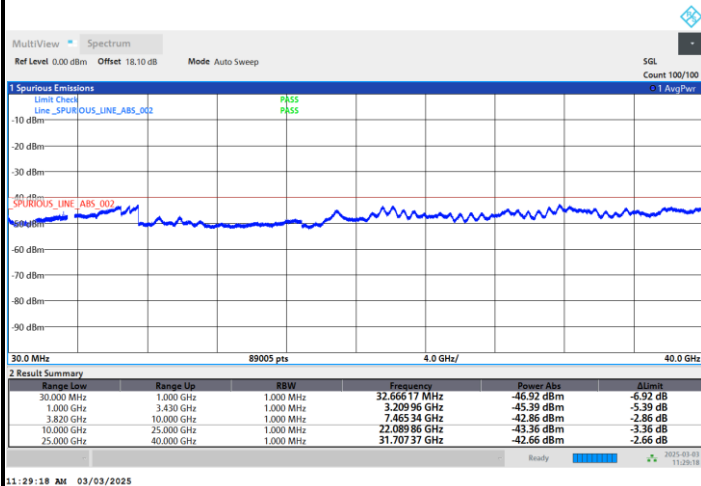
## Lowest Channel



## Middle Channel



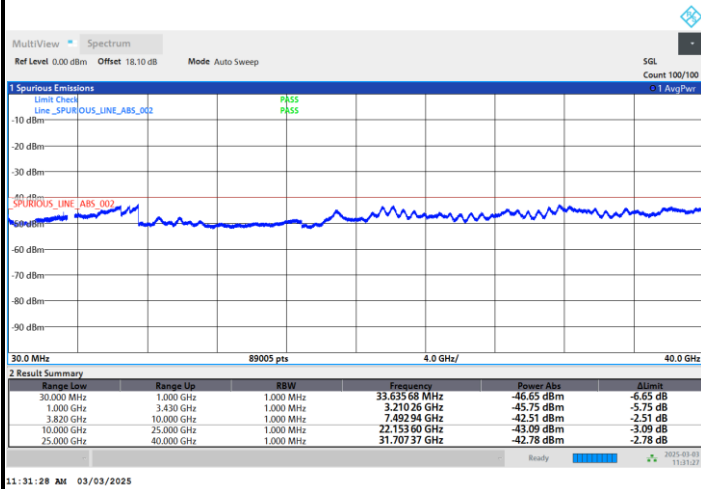
## Highest Channel



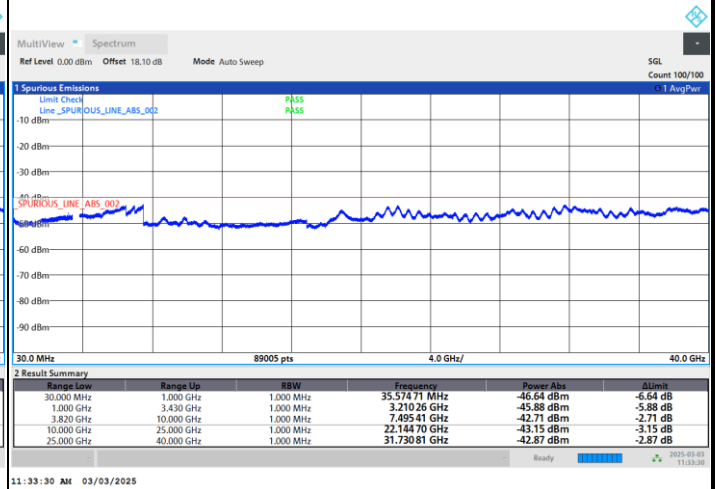


## FR1 n48 / 40MHz / CP OFDM / QPSK / 1RB1

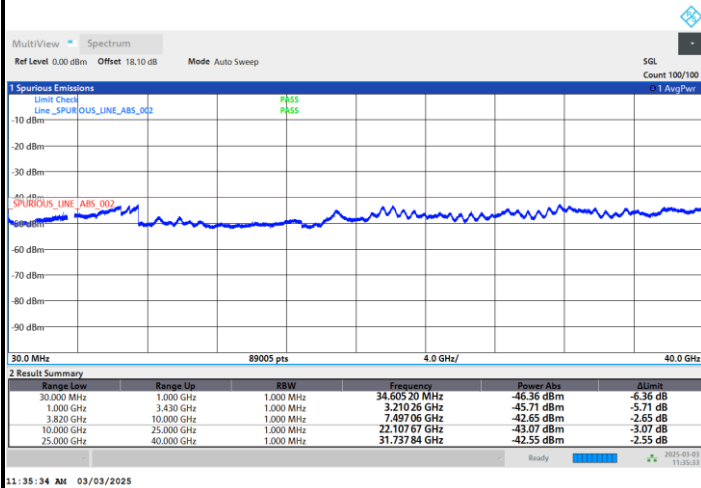
## Lowest Channel



## Middle Channel



## Highest Channel



## Frequency Stability

| Test Conditions     |                   | FR1 n48 (QPSK) / Middle Channel | Limit   |
|---------------------|-------------------|---------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 20MHz                        | Note 2. |
|                     |                   | Deviation (ppm)                 | Result  |
| 50                  | Normal Voltage    | 0.0065                          | PASS    |
| 40                  | Normal Voltage    | 0.0023                          |         |
| 30                  | Normal Voltage    | 0.0072                          |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                          |         |
| 10                  | Normal Voltage    | 0.0035                          |         |
| 0                   | Normal Voltage    | 0.0006                          |         |
| -10                 | Normal Voltage    | 0.0093                          |         |
| -20                 | Normal Voltage    | 0.0051                          |         |
| -30                 | Normal Voltage    | 0.0081                          |         |
| 20                  | Maximum Voltage   | 0.0073                          |         |
| 20                  | Normal Voltage    | 0.0000                          |         |
| 20                  | Minimum Voltage   | 0.0015                          |         |

**Note:**

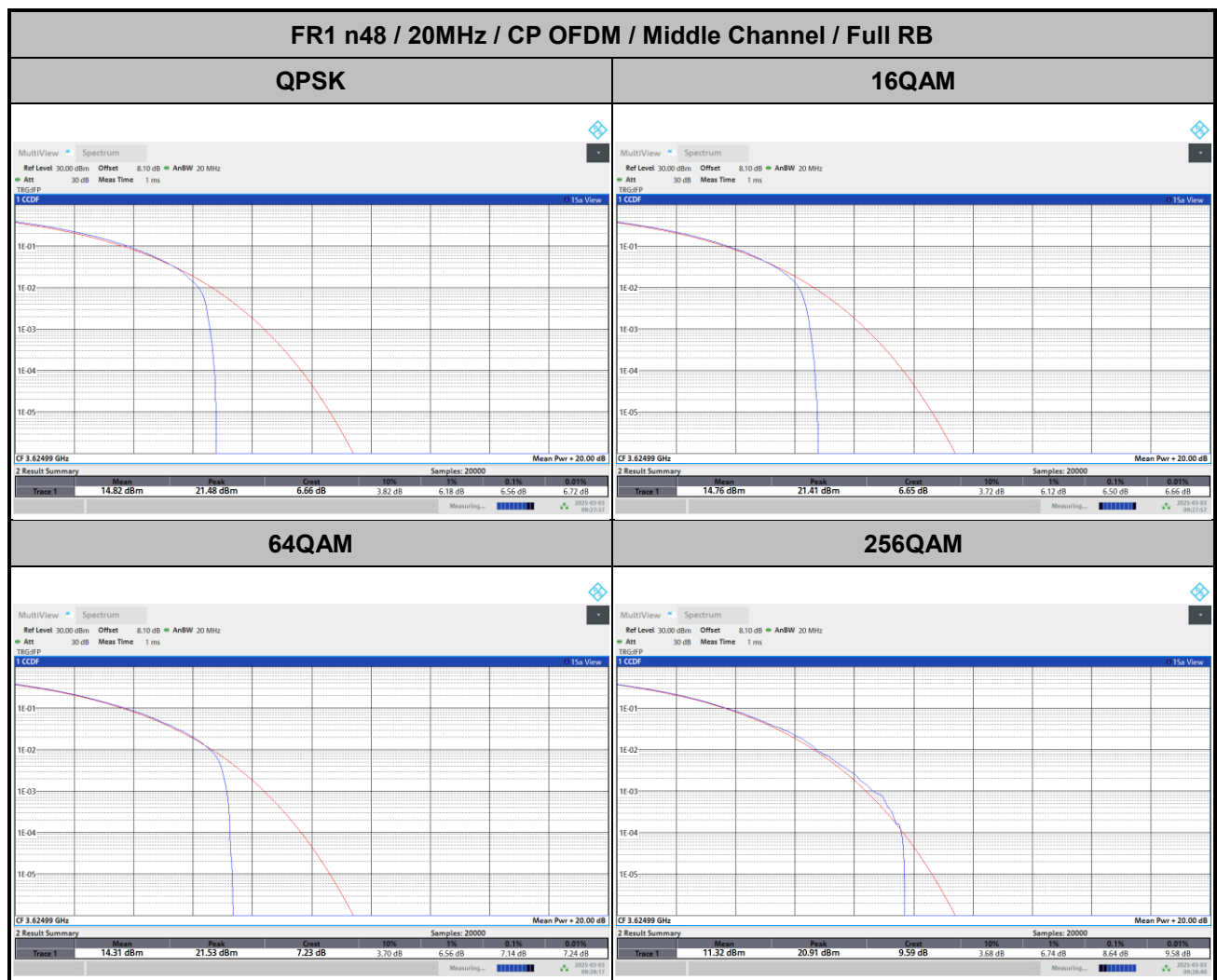
1. Normal Voltage = 3.3 V. ; Minimum Voltage = 3.135 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



FR1 n48  
<MIMO Mode>  
MIMO <Ant. 0+2> (Ant. 2)

Peak-to-Average Ratio

| Mode      | FR1 n48 / 20MHz / CP OFDM |         |         |         |             |
|-----------|---------------------------|---------|---------|---------|-------------|
| Mod.      | QPSK                      | 16QAM   | 64QAM   | 256QAM  | Limit: 13dB |
| RB Size   | Full RB                   | Full RB | Full RB | Full RB | Result      |
| Middle CH | 6.56                      | 6.50    | 7.14    | 8.64    | PASS        |

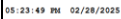
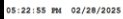


**26dB Bandwidth**

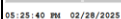
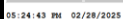
| Mode      | FR1 n48 : 26dB BW(MHz) / CP OFDM |        |       |        |       |        |       |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|-------|--------|
| BW        | 10MHz                            |        | 15MHz |        | 20MHz |        | 30MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 10.20                            | 9.99   | 15.63 | 15.55  | 20.39 | 20.34  | 30.75 | 30.89  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 10.20                            | 10.13  | 15.61 | 15.61  | 20.25 | 20.25  | 30.64 | 30.56  |
| BW        | 40MHz                            |        |       |        |       |        |       |        |
| Mod.      | QPSK                             | 16QAM  |       |        |       |        |       |        |
| Middle CH | 40.50                            | 41.05  |       |        |       |        |       |        |
| Mod.      | 64QAM                            | 256QAM |       |        |       |        |       |        |
| Middle CH | 40.67                            | 40.98  |       |        |       |        |       |        |



## 16QAM



## 256QAM

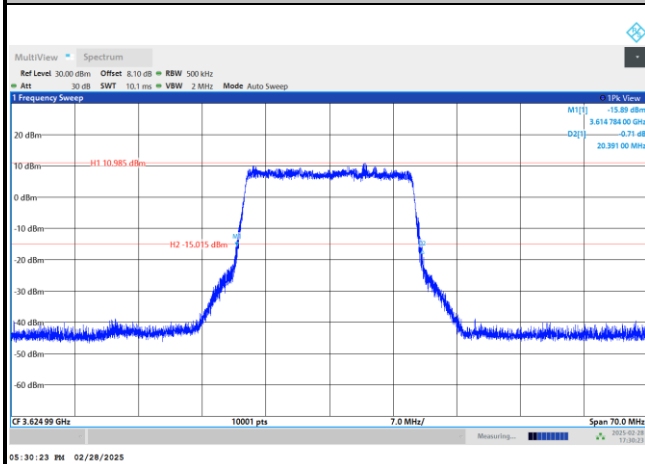




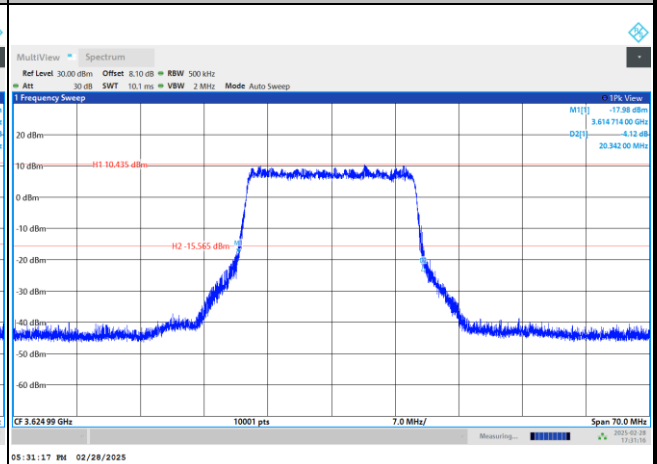


## FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

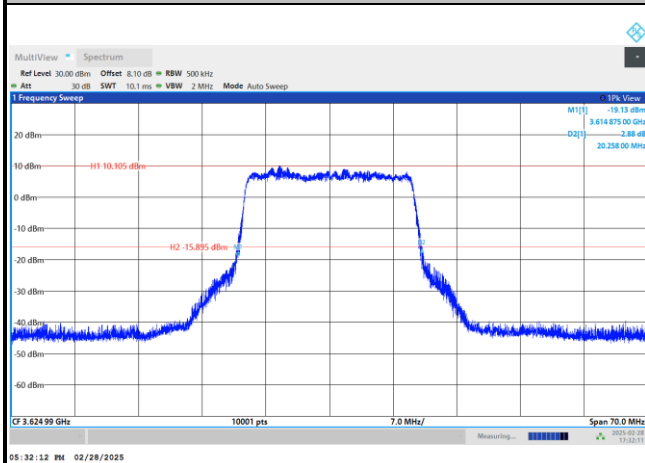
## QPSK



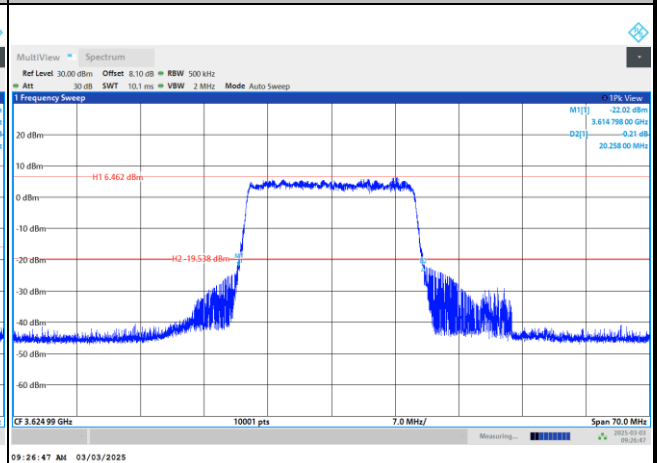
## 16QAM



## 64QAM

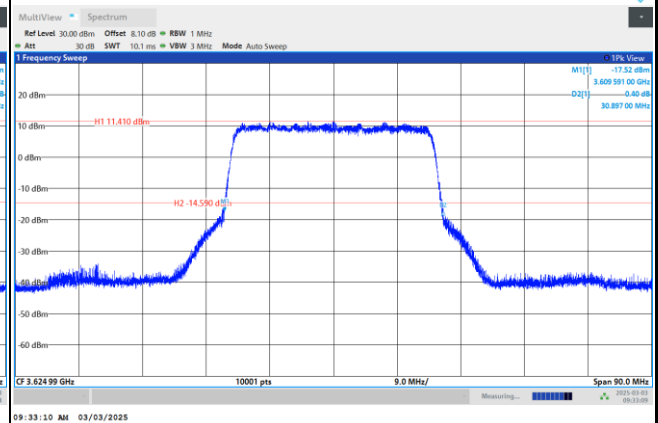


## 256QAM

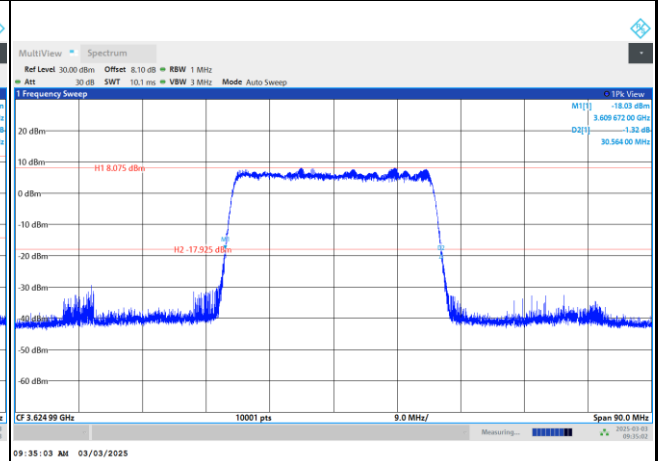




## 16QAM



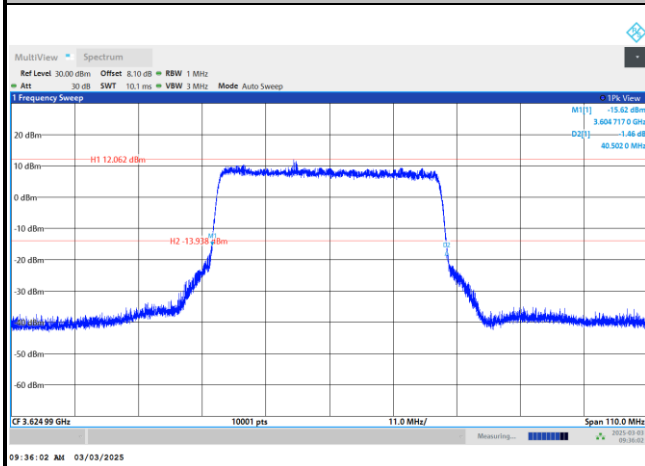
## 256QAM



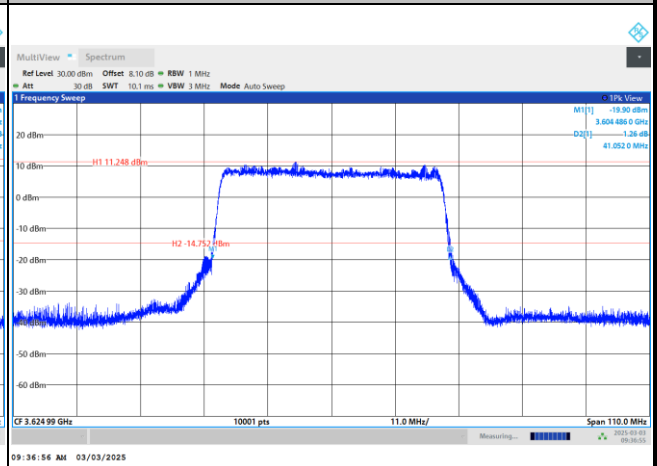


## FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

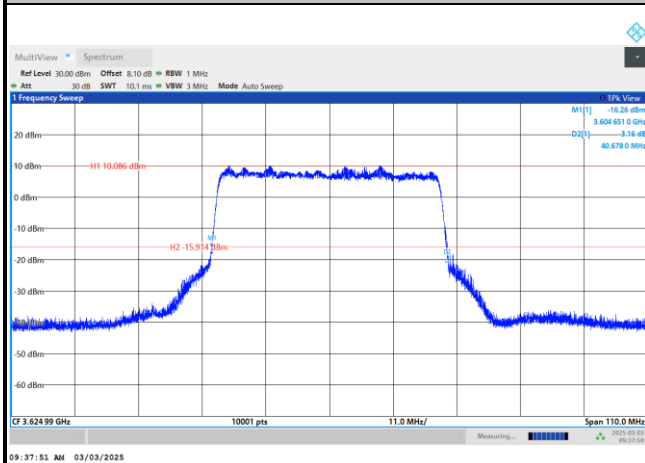
## QPSK



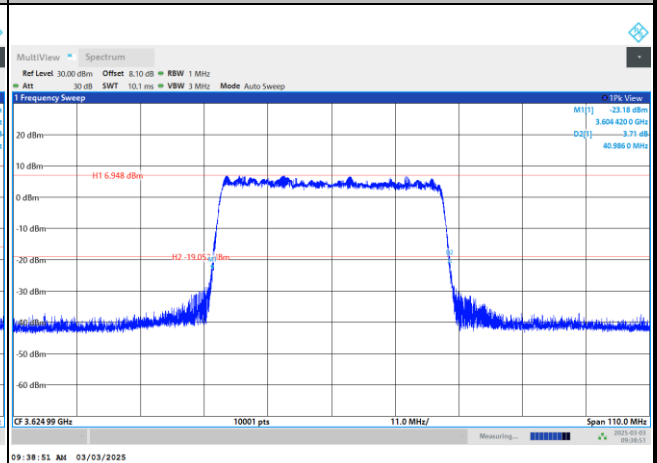
## 16QAM



## 64QAM



## 256QAM



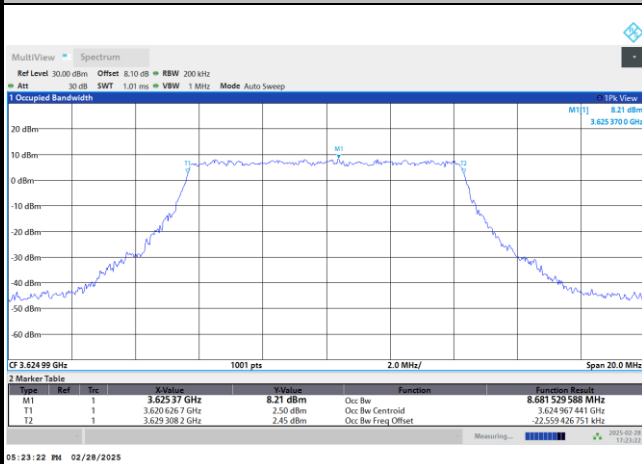
**Occupied Bandwidth**

| Mode      | FR1 n48 : OB BW(MHz) / CP OFDM |        |       |        |       |        |       |        |
|-----------|--------------------------------|--------|-------|--------|-------|--------|-------|--------|
| BW        | 10MHz                          |        | 15MHz |        | 20MHz |        | 30MHz |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  |
| Middle CH | 8.68                           | 8.61   | 13.78 | 13.80  | 18.35 | 18.39  | 28.17 | 28.17  |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 8.67                           | 8.63   | 13.72 | 13.77  | 18.36 | 18.37  | 28.23 | 28.13  |
| BW        | 40MHz                          |        |       |        |       |        |       |        |
| Mod.      | QPSK                           | 16QAM  |       |        |       |        |       |        |
| Middle CH | 38.01                          | 38.07  |       |        |       |        |       |        |
| Mod.      | 64QAM                          | 256QAM |       |        |       |        |       |        |
| Middle CH | 38.01                          | 38.08  |       |        |       |        |       |        |

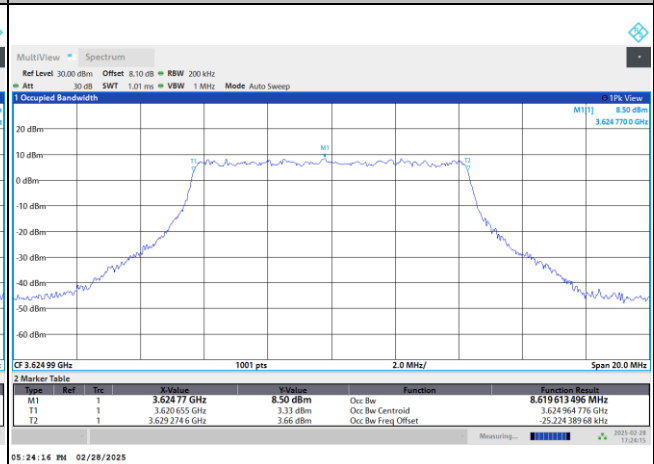


## FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

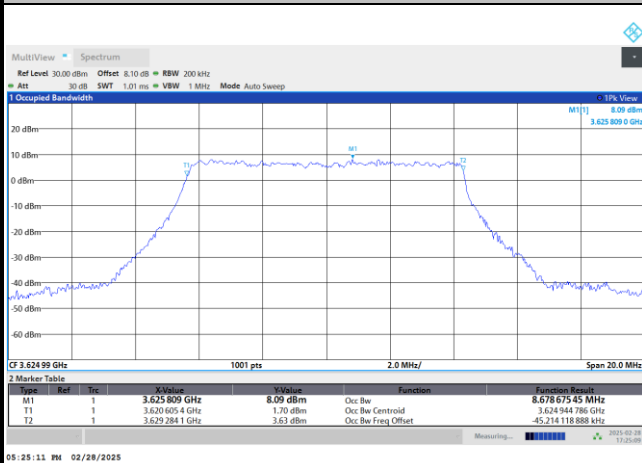
## QPSK



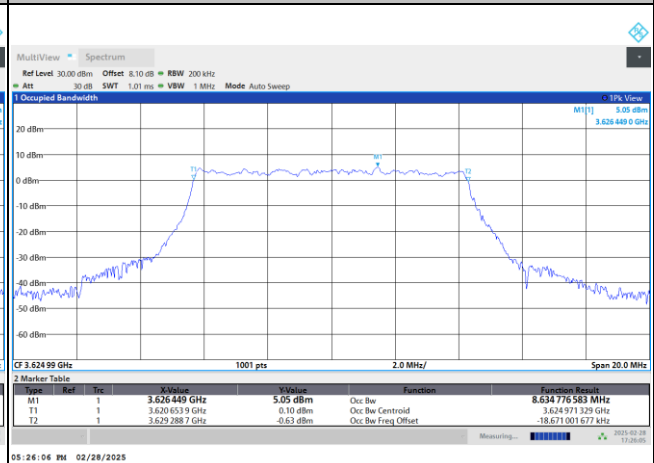
## 16QAM



## 64QAM



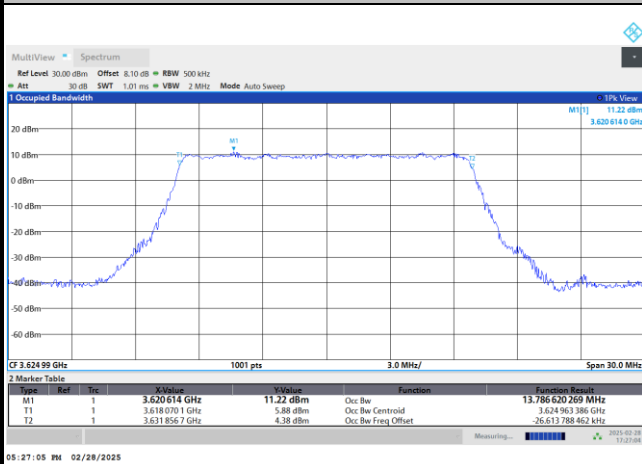
## 256QAM



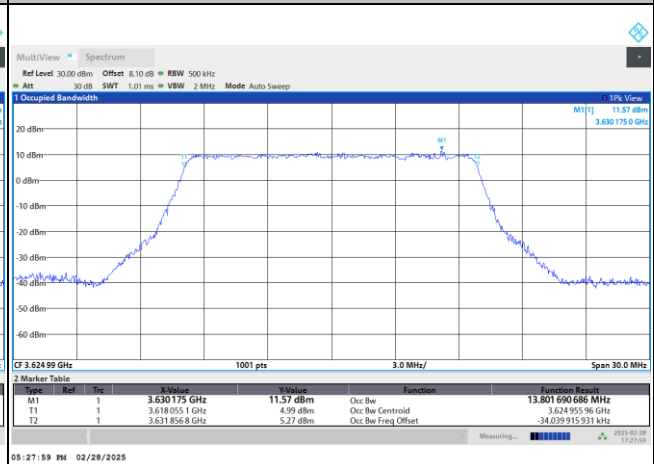


## FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

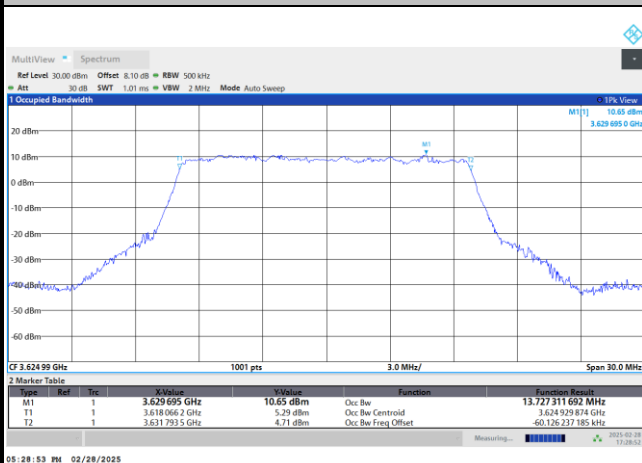
## QPSK



## 16QAM



## 64QAM



## 256QAM

