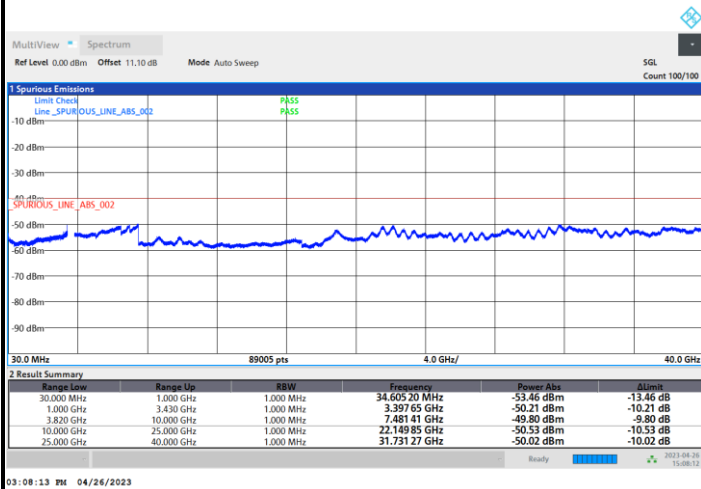


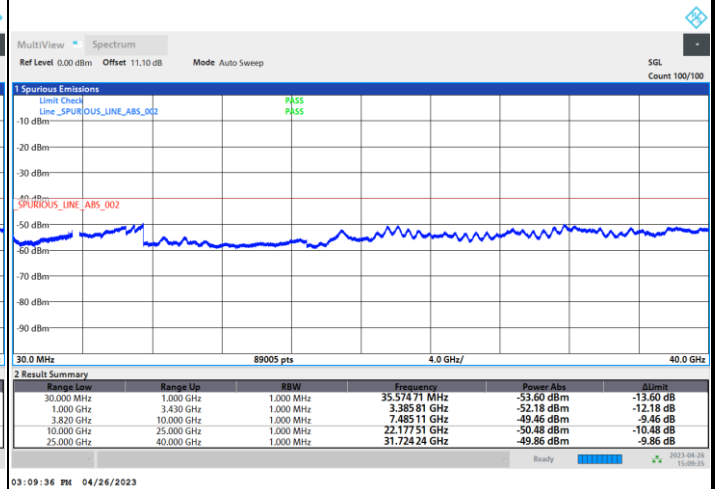


## FR1 n48 / 20MHz / DFT-S OFDM / QPSK / 1RB1

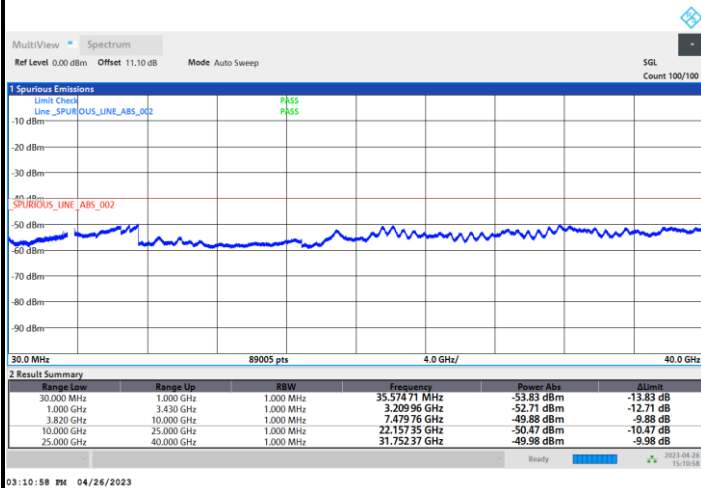
## Lowest Channel



## Middle Channel



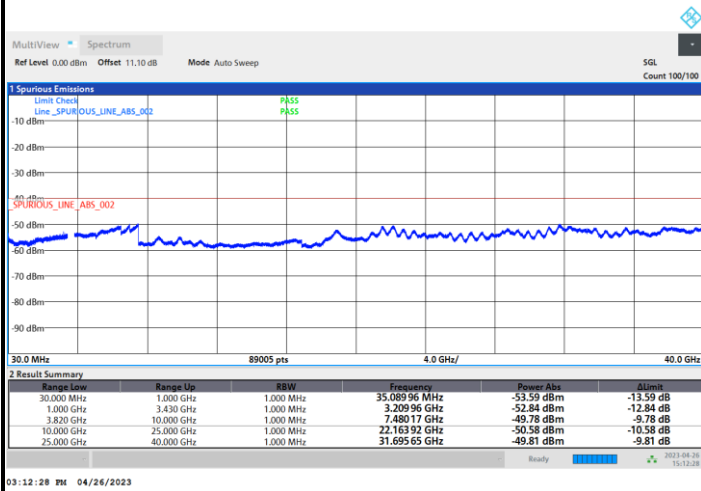
## Highest Channel



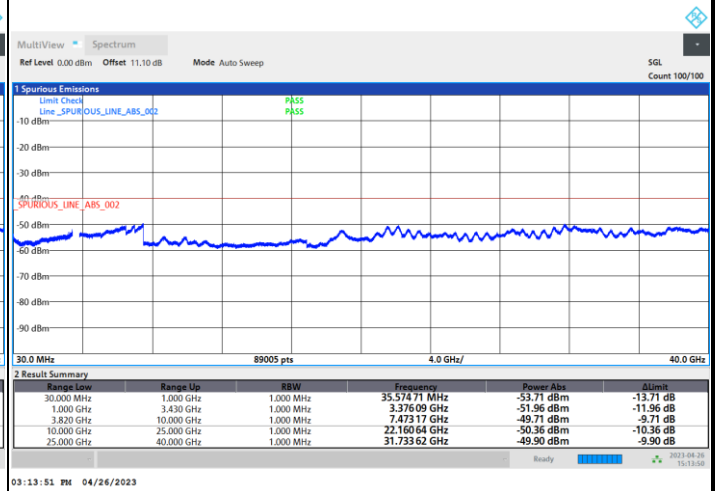


## FR1 n48 / 40MHz / DFT-S OFDM / QPSK / 1RB1

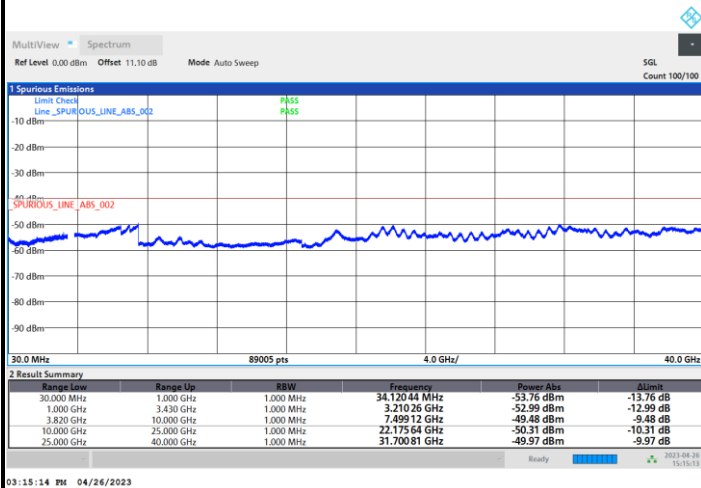
## Lowest Channel



## Middle Channel



## Highest Channel



## Frequency Stability

| Test Conditions     |                   | FR1 n48 (BPSK) / Middle Channel | Limit   |
|---------------------|-------------------|---------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 20MHz                        | Note 2. |
|                     |                   | Deviation (ppm)                 | Result  |
| 50                  | Normal Voltage    | 0.0124                          | PASS    |
| 40                  | Normal Voltage    | 0.0110                          |         |
| 30                  | Normal Voltage    | 0.0078                          |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                          |         |
| 10                  | Normal Voltage    | 0.0131                          |         |
| 0                   | Normal Voltage    | 0.0001                          |         |
| -10                 | Normal Voltage    | 0.0155                          |         |
| -20                 | Normal Voltage    | 0.0061                          |         |
| -30                 | Normal Voltage    | 0.0223                          |         |
| 20                  | Maximum Voltage   | 0.0233                          |         |
| 20                  | Normal Voltage    | 0.0000                          |         |
| 20                  | Battery End Point | 0.0016                          |         |

**Note:**

1. Normal Voltage = 3.89 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

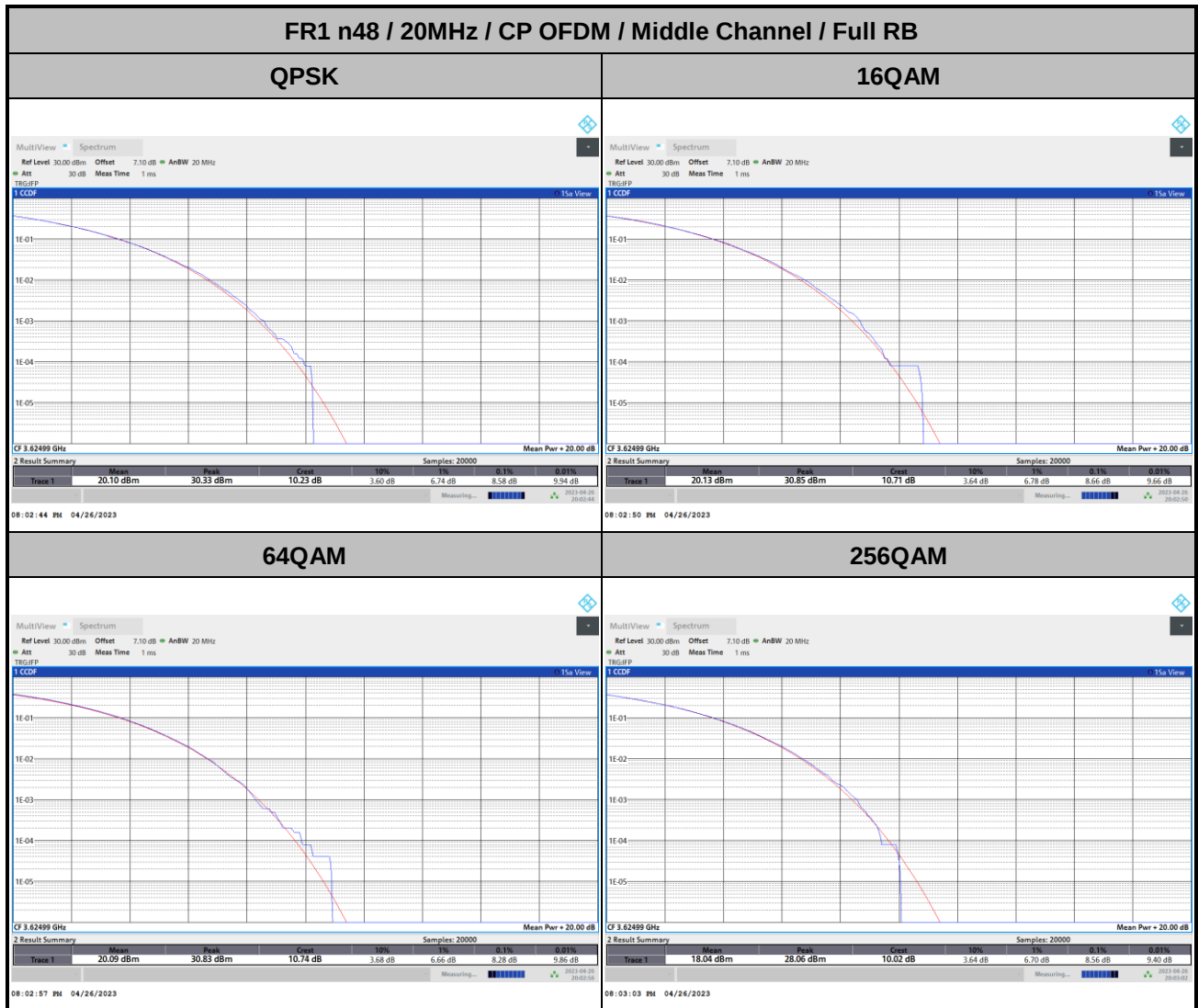


&lt;MIMO Mode&gt;

MIMO &lt;Ant. 6&gt;

**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 | 8.58                      | 8.66    | 8.28    | 8.56    | PASS        |



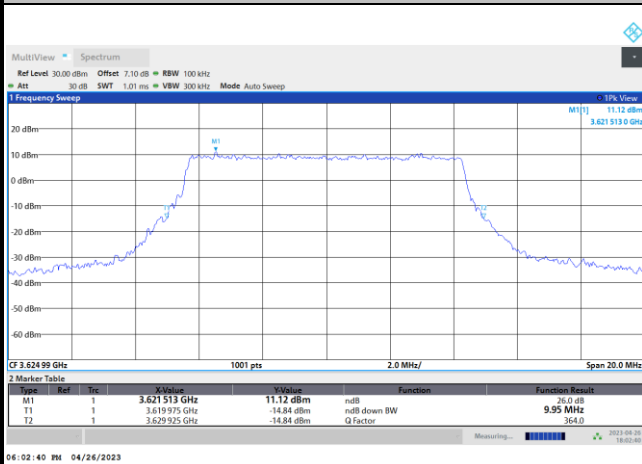
**26dB Bandwidth**

| Mode      | FR1 n48 : 26dB BW(MHz) / CP OFDM |        |       |        |       |        |        |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|--------|--------|
| BW        | 10MHz                            |        | 15MHz |        | 20MHz |        | 25MHz  |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 9.95                             | 9.67   | 15.32 | 14.90  | 19.70 | 19.58  | -      | -      |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 9.67                             | 9.63   | 14.81 | 14.96  | 19.50 | 19.50  | -      | -      |
| BW        | 30MHz                            |        | 40MHz |        | 50MHz |        | 60MHz  |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | -                                | -      | 41.32 | 40.76  | -     | -      | -      | -      |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | -                                | -      | 40.52 | 40.92  | -     | -      | -      | -      |
| BW        | 70MHz                            |        | 80MHz |        | 90MHz |        | 100MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | -                                | -      | -     | -      | -     | -      | -      | -      |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | -                                | -      | -     | -      | -     | -      | -      | -      |

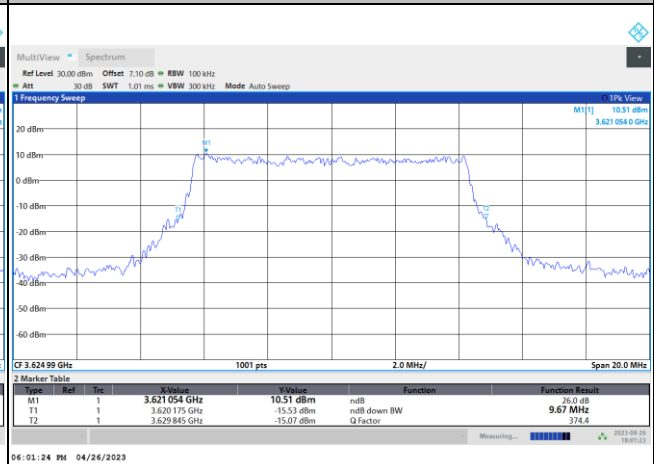


## FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

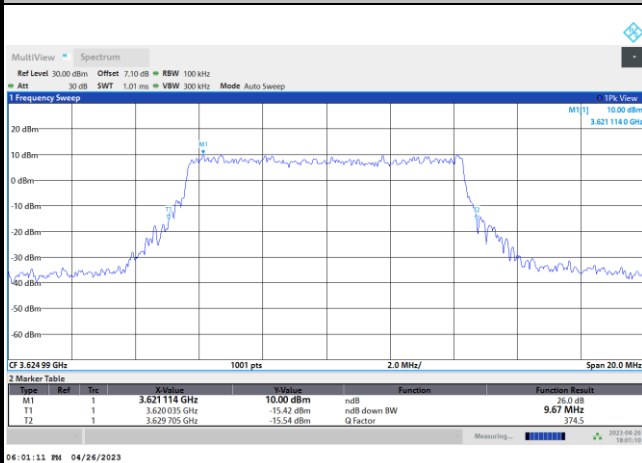
## QPSK



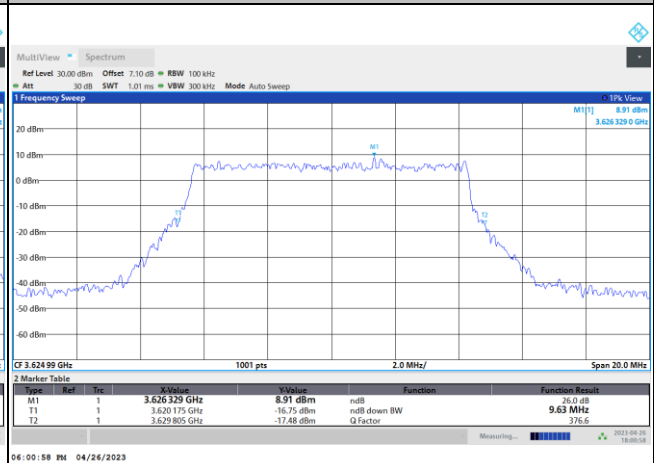
## 16QAM



## 64QAM



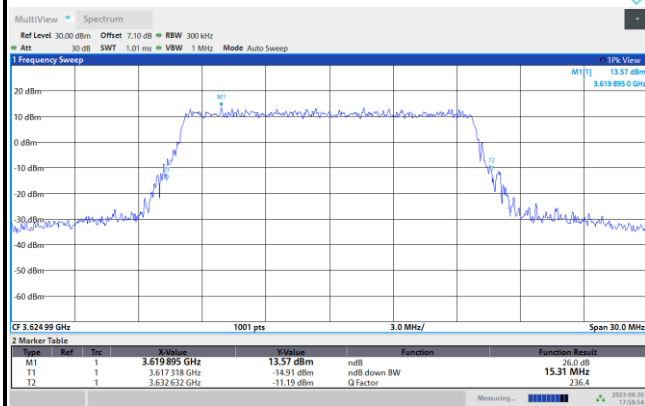
## 256QAM



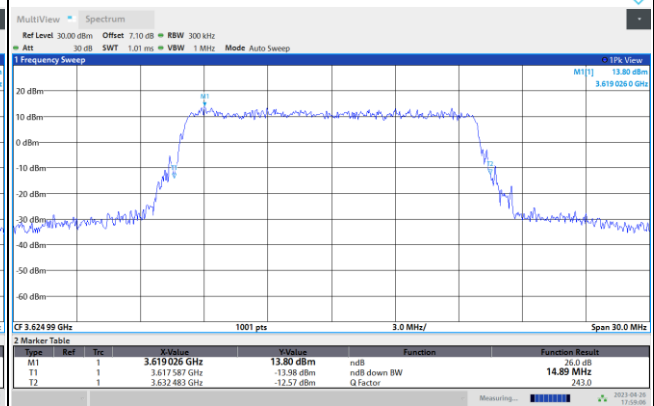


## FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

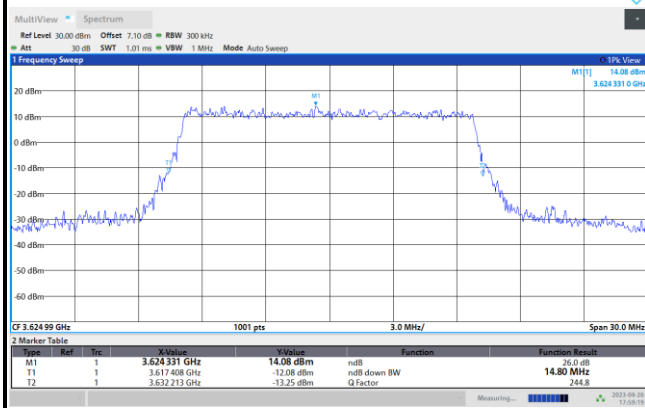
## QPSK



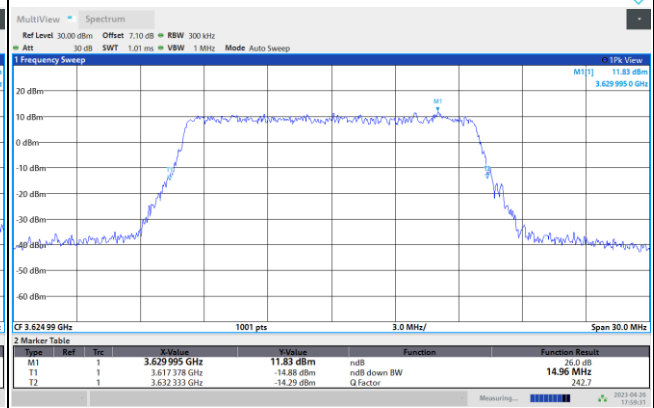
## 16QAM



## 64QAM



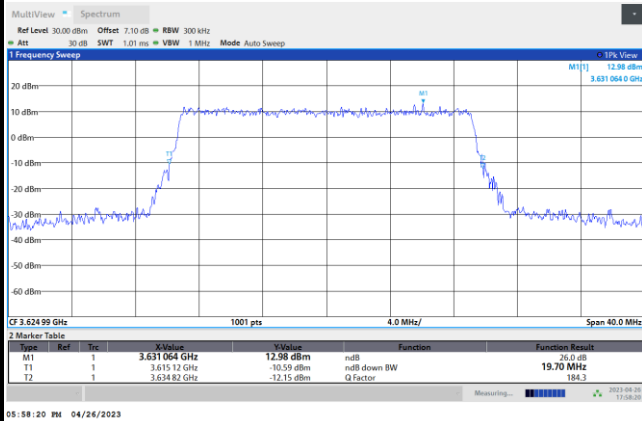
## 256QAM



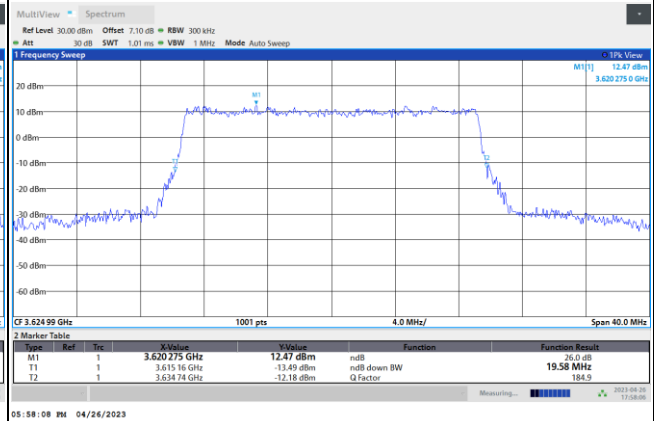


## FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

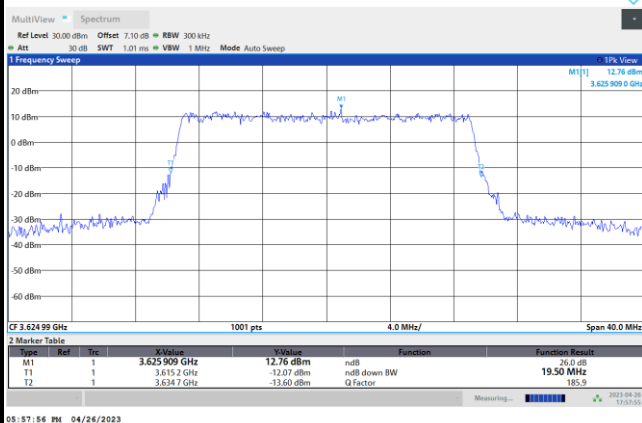
## QPSK



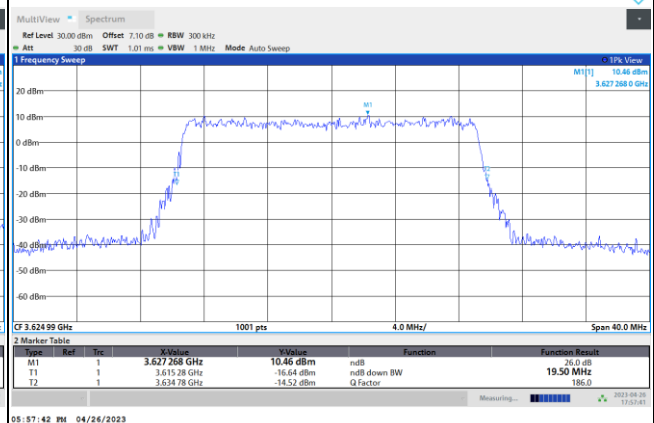
## 16QAM



## 64QAM



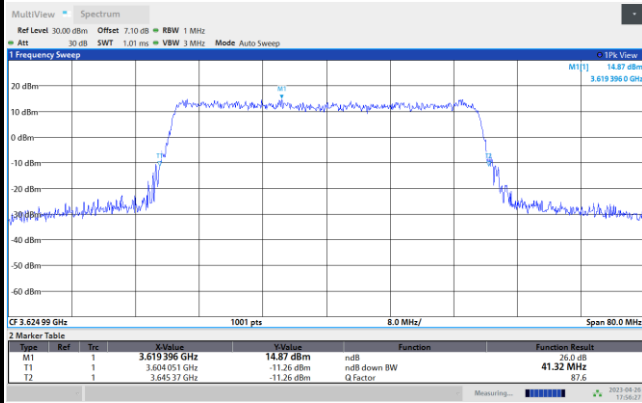
## 256QAM





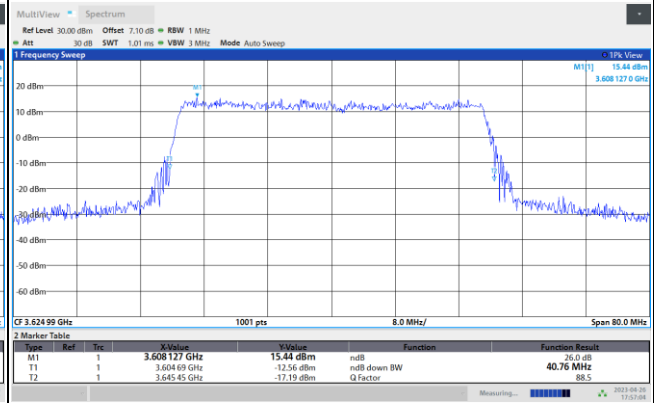
## FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

## QPSK



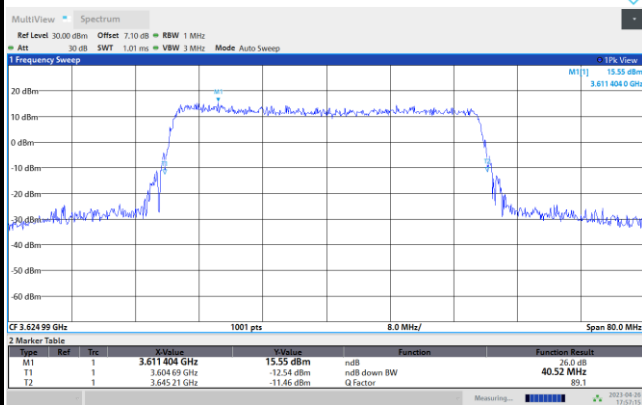
05:56:27 PM 04/26/2023

## 16QAM



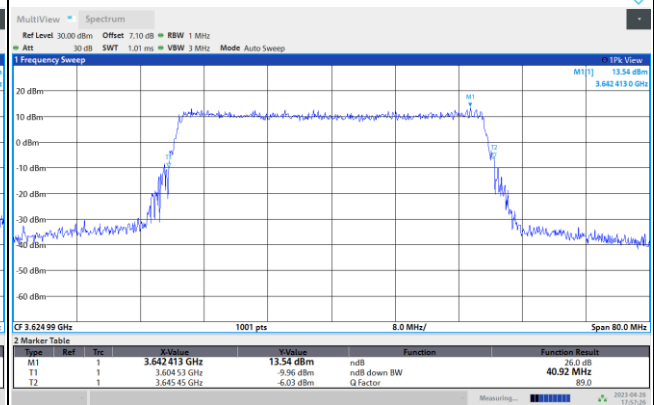
05:57:04 PM 04/26/2023

## 64QAM



05:57:16 PM 04/26/2023

## 256QAM



05:57:27 PM 04/26/2023

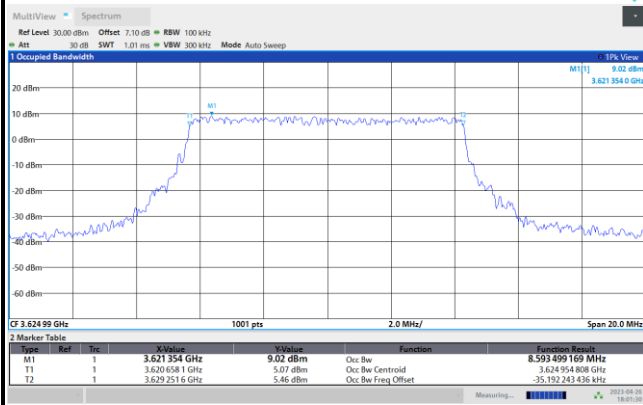
**Occupied Bandwidth**

| Mode      | FR1 n48 : OB BW(MHz) / CP OFDM |        |       |        |       |        |        |        |
|-----------|--------------------------------|--------|-------|--------|-------|--------|--------|--------|
| BW        | 10MHz                          |        | 15MHz |        | 20MHz |        | 25MHz  |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 8.59                           | 8.56   | 13.66 | 13.70  | 18.27 | 18.32  | -      | -      |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 8.61                           | 8.59   | 13.63 | 13.69  | 18.22 | 18.22  | -      | -      |
| BW        | 30MHz                          |        | 40MHz |        | 50MHz |        | 60MHz  |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | -                              | -      | 38.22 | 38.15  | -     | -      | -      | -      |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | -                              | -      | 38.14 | 38.32  | -     | -      | -      | -      |
| BW        | 70MHz                          |        | 80MHz |        | 90MHz |        | 100MHz |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | -                              | -      | -     | -      | -     | -      | -      | -      |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | -                              | -      | -     | -      | -     | -      | -      | -      |

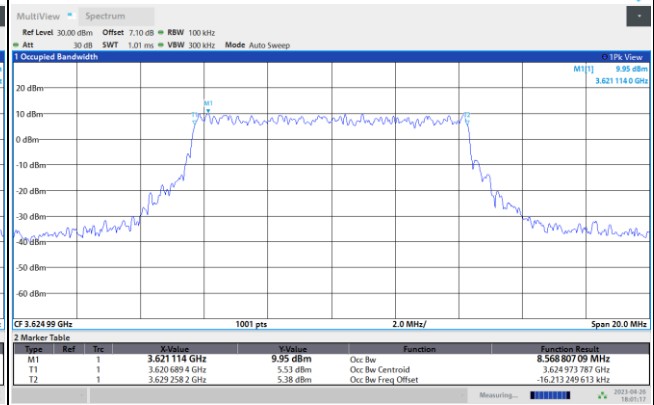


## FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

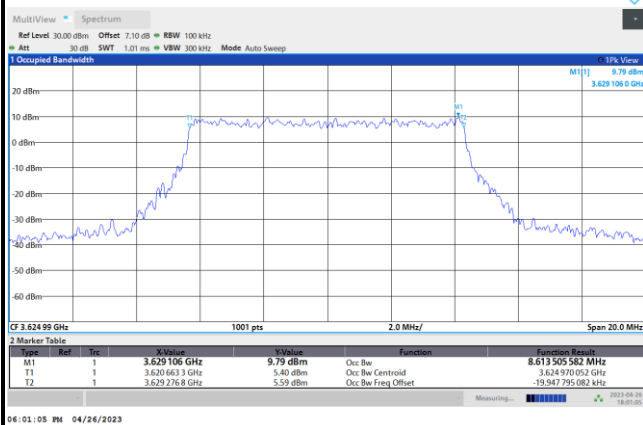
## QPSK



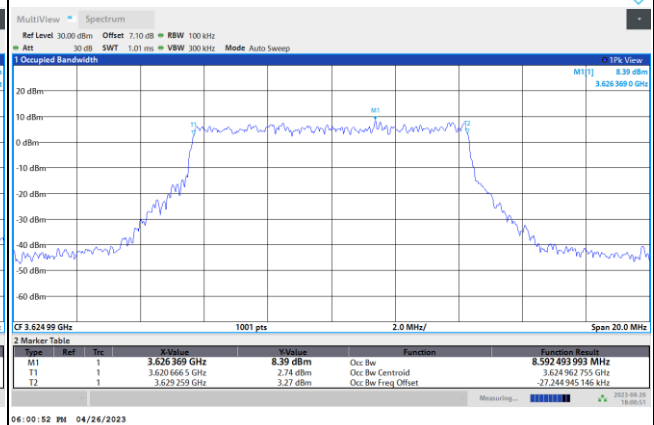
## 16QAM



## 64QAM



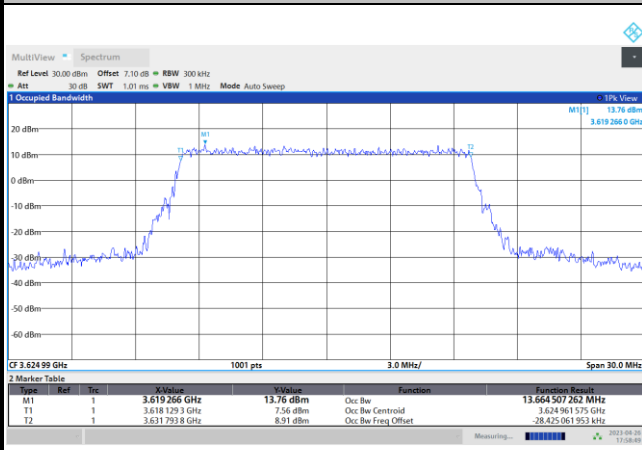
## 256QAM



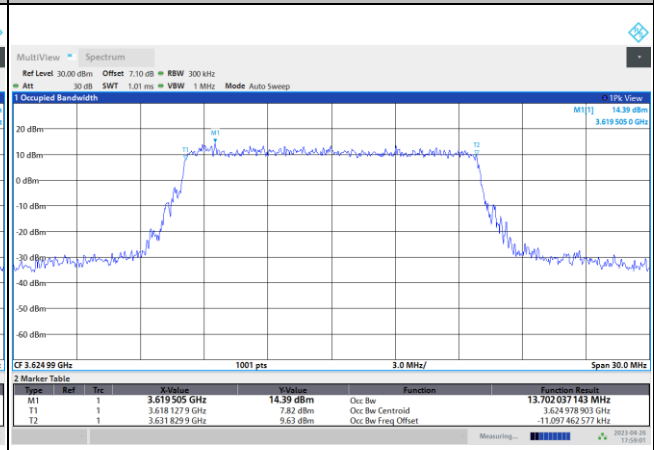


## FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

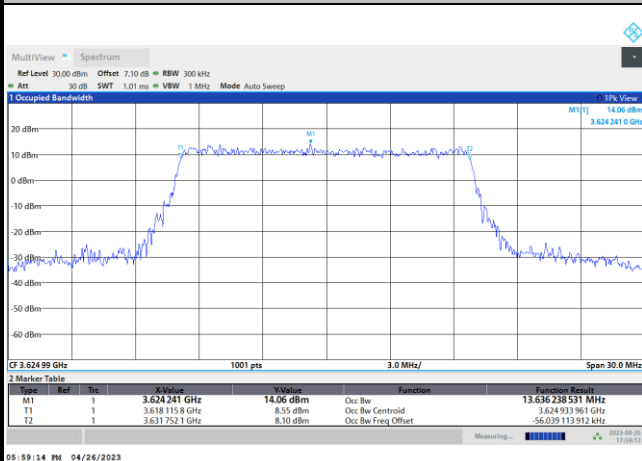
## QPSK



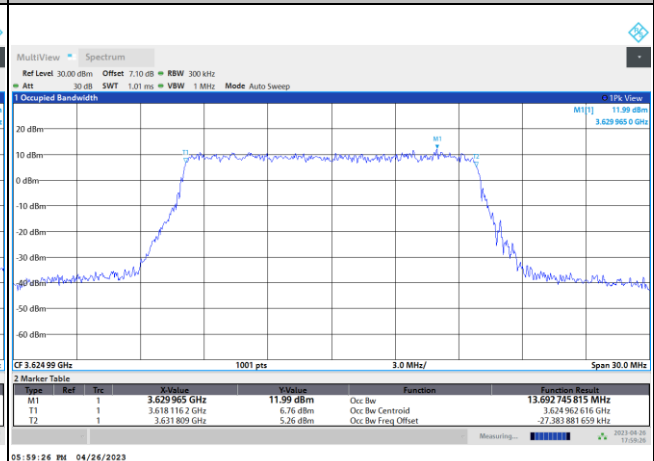
## 16QAM



## 64QAM



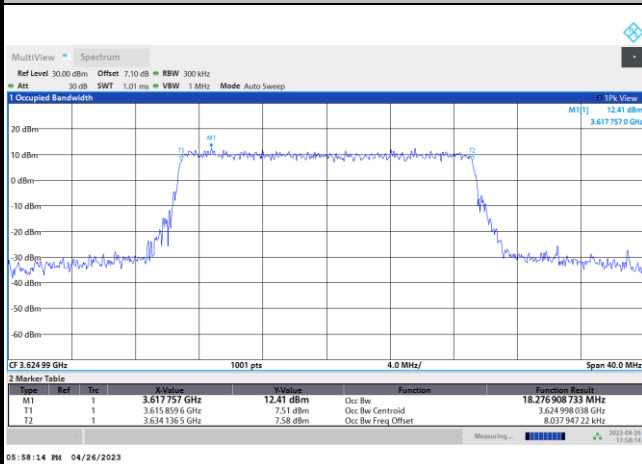
## 256QAM





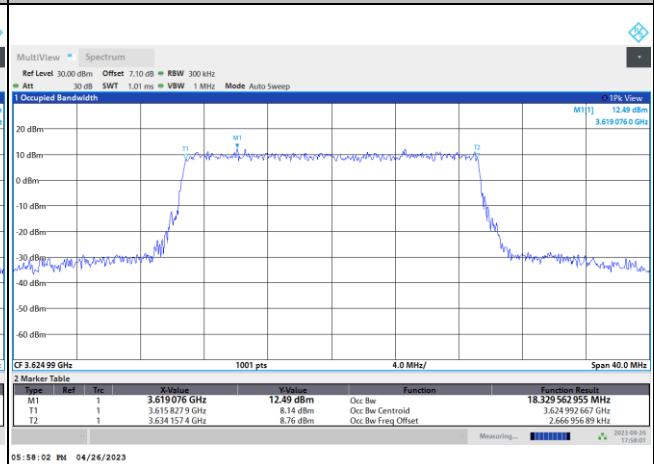
## FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

## QPSK



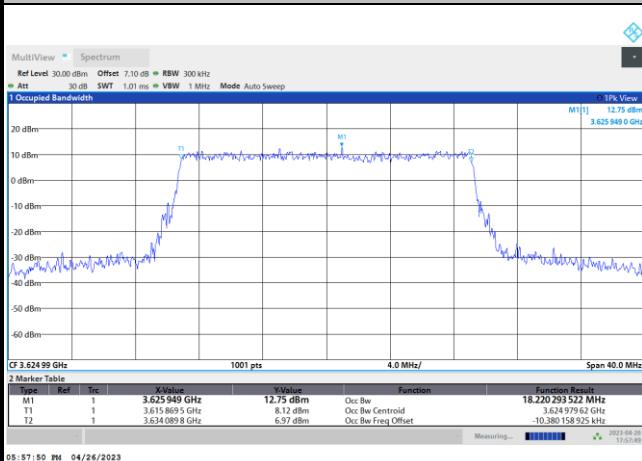
05:58:14 PM 04/26/2023

## 16QAM



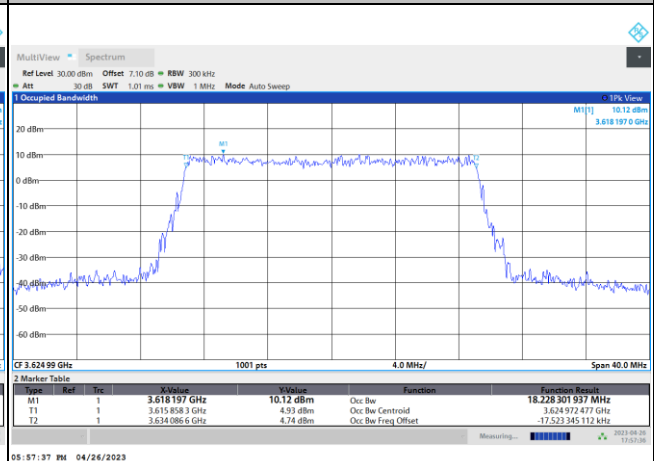
05:58:02 PM 04/26/2023

## 64QAM



05:57:50 PM 04/26/2023

## 256QAM

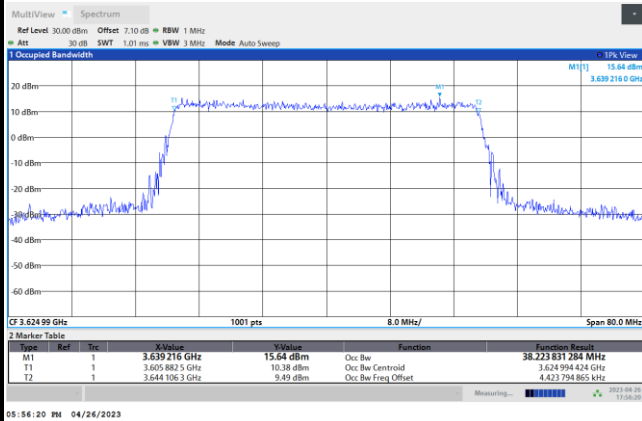


05:57:37 PM 04/26/2023

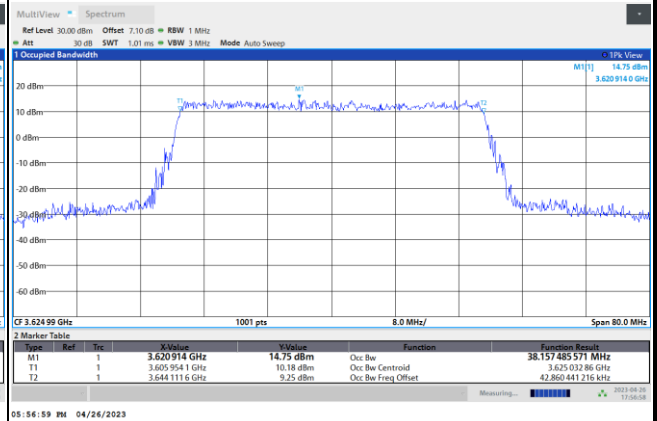


## FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

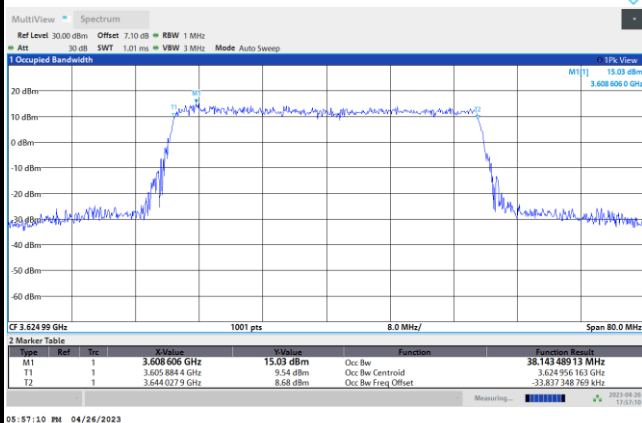
## QPSK



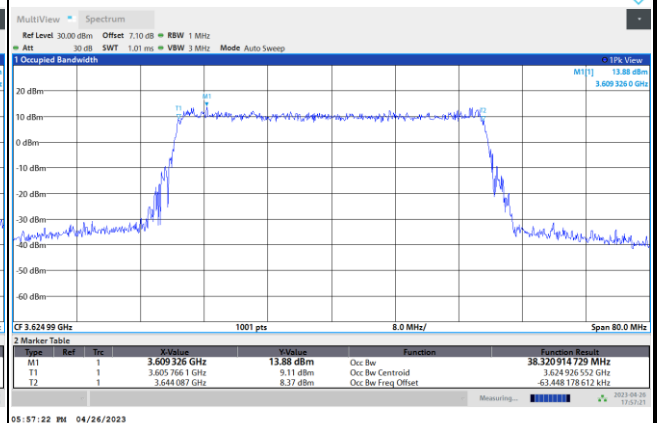
## 16QAM



## 64QAM



## 256QAM



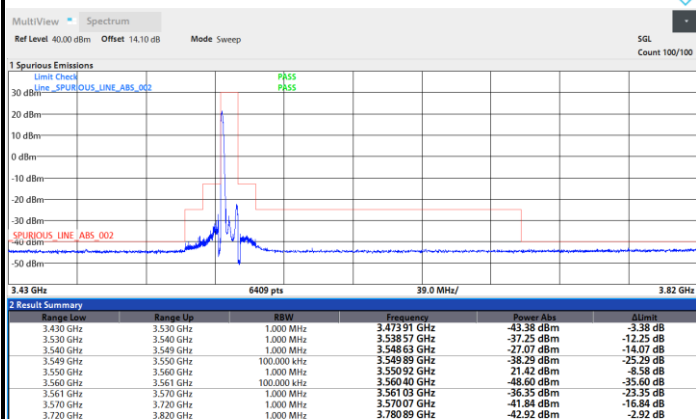
**Unwanted Emission (MASK)**

FR1 n48 / 10MHz / CP OFDM / QPSK

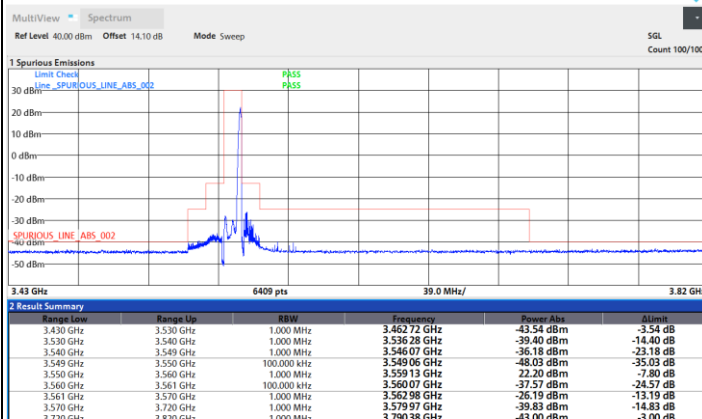
Lowest Channel

1RB0

1RBmax

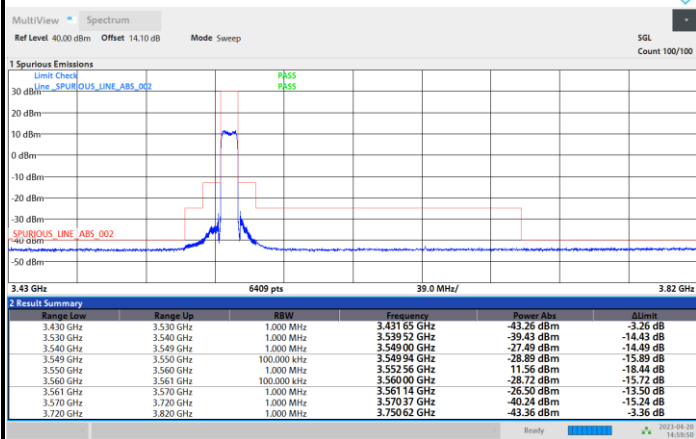


02:58:27 PM 04/20/2023



02:59:09 PM 04/20/2023

Full RB



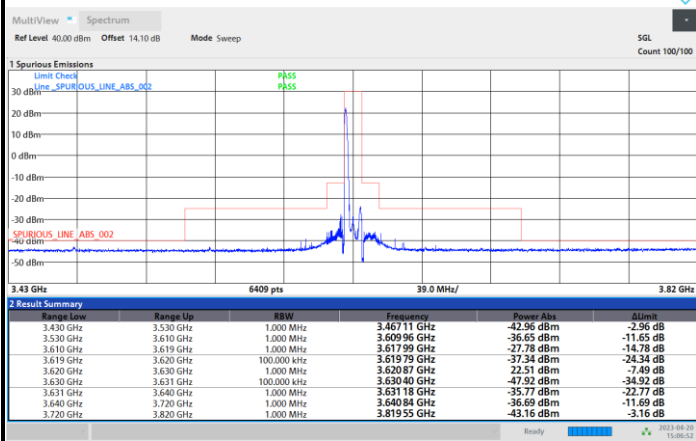
02:59:50 PM 04/20/2023



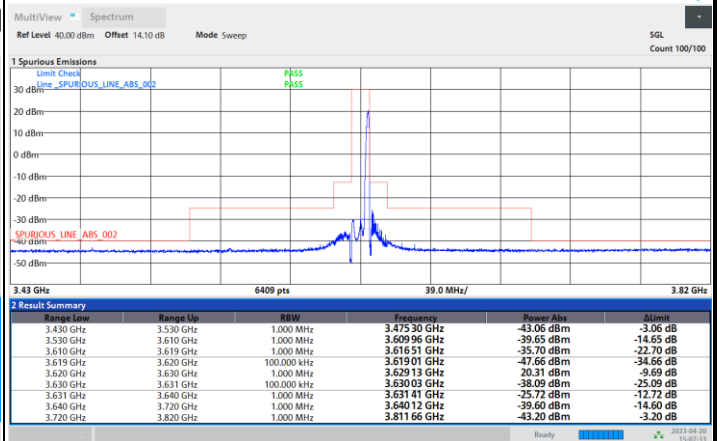
## FR1 n48 / 10MHz / CP OFDM / QPSK

## Middle Channel

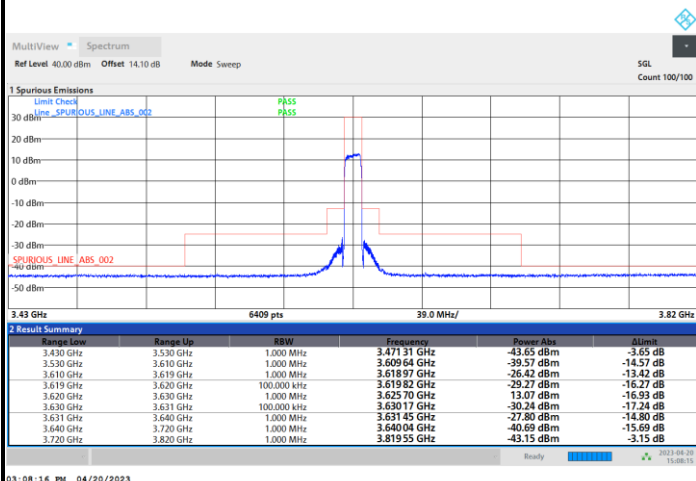
## 1RB0



## 1RBmax



## Full RB

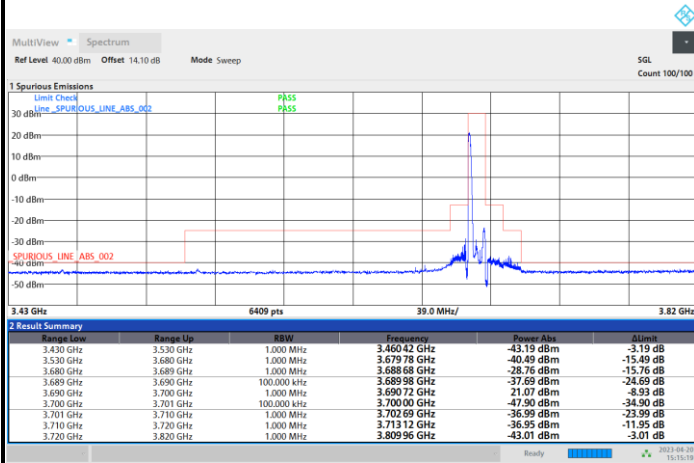




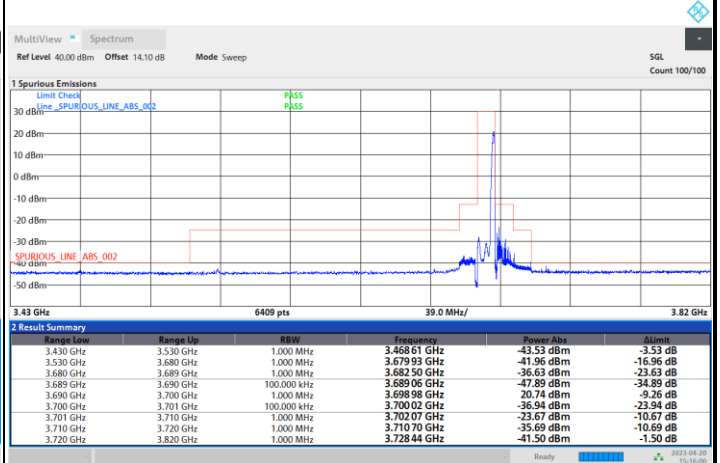
## FR1 n48 / 10MHz / CP OFDM / QPSK

## Highest Channel

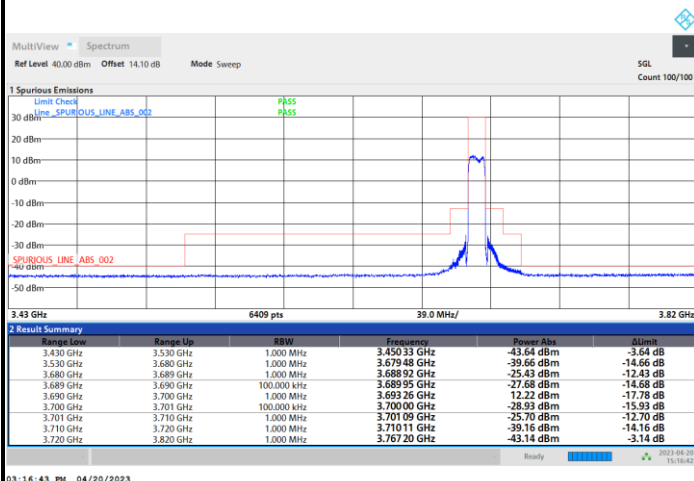
## 1RB0



## 1RBmax



## Full RB

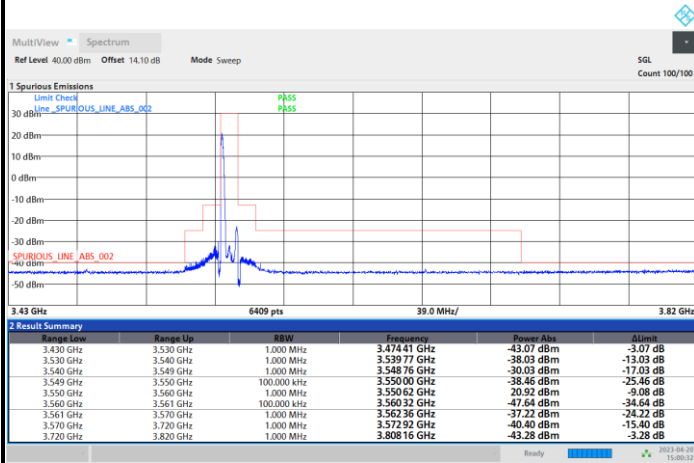




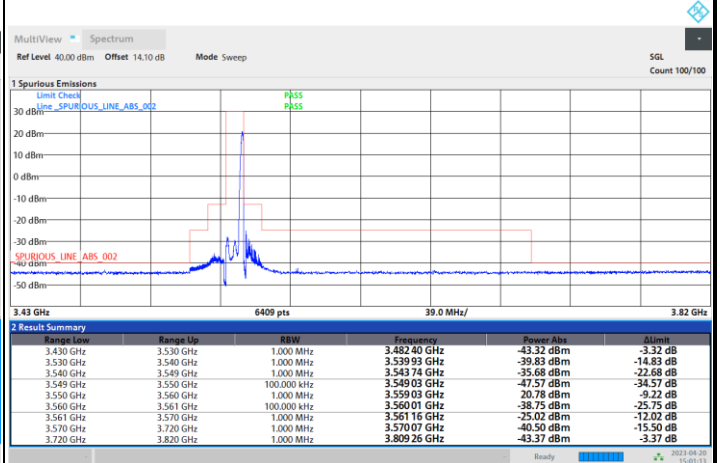
## FR1 n48 / 10MHz / CP OFDM / 16QAM

## Lowest Channel

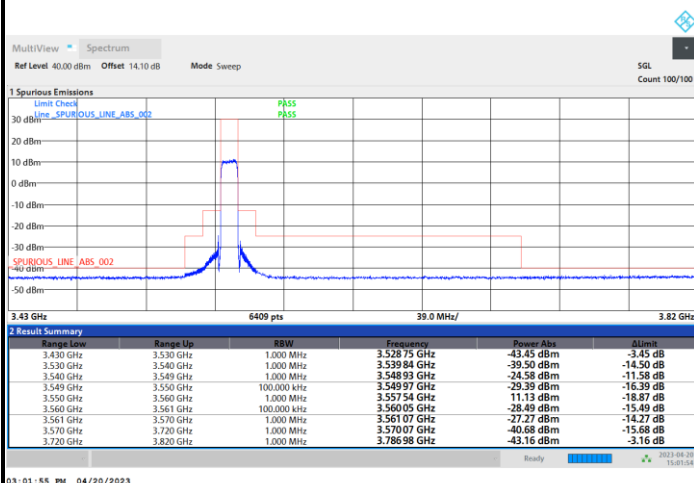
## 1RB0



## 1RBmax



## Full RB



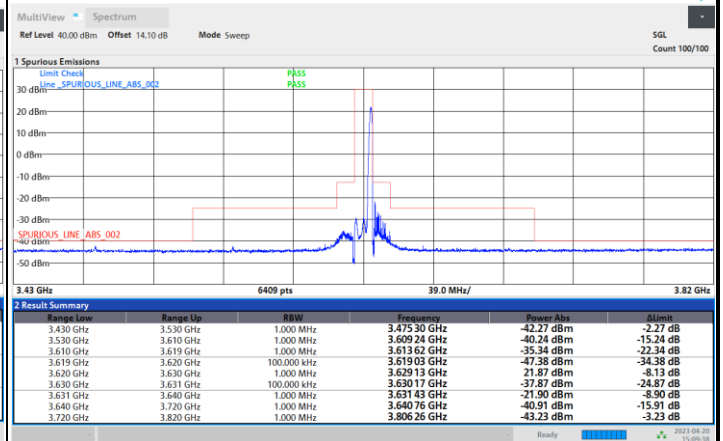
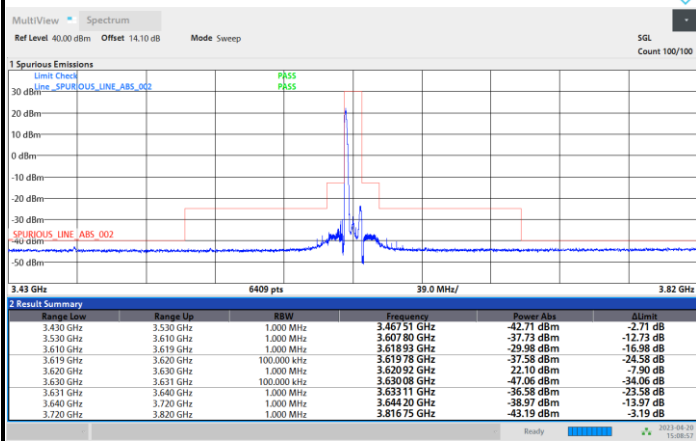


## FR1 n48 / 10MHz / CP OFDM / 16QAM

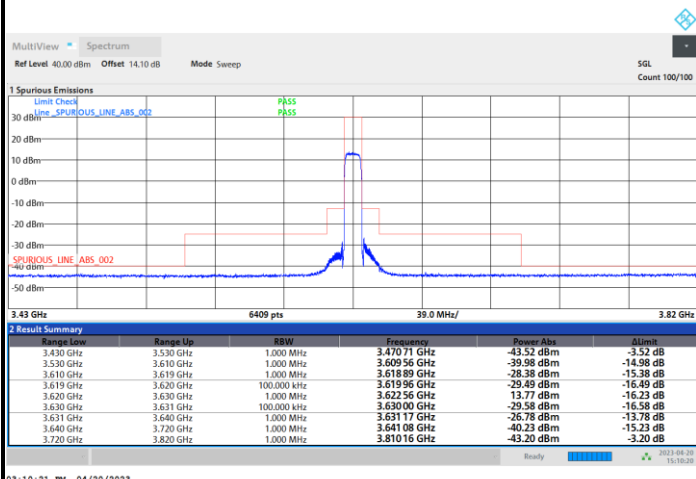
## Middle Channel

## 1RB0

## 1RBmax



## Full RB

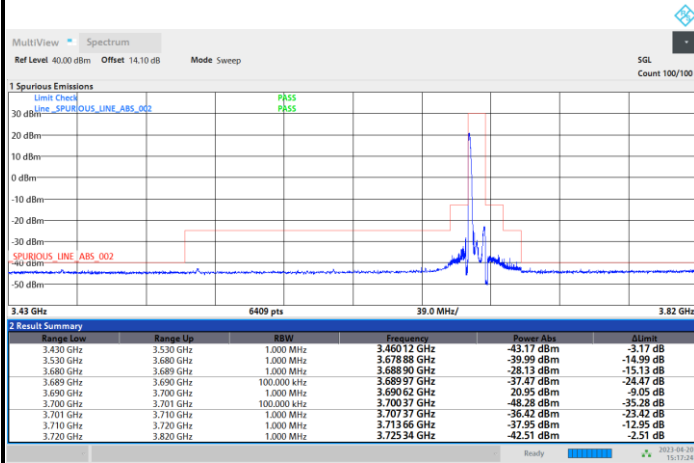




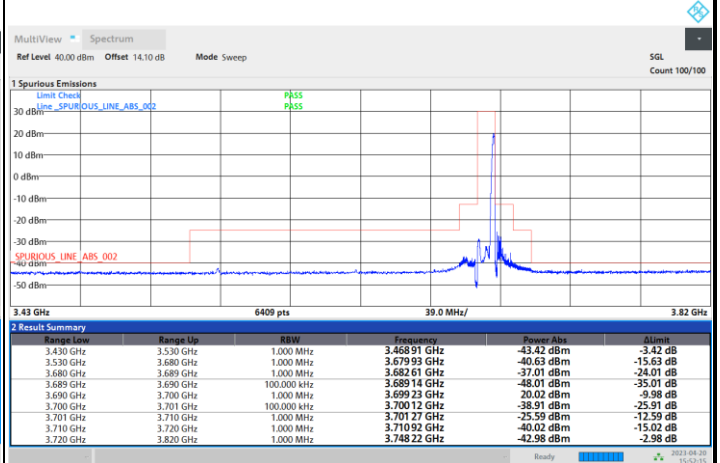
## FR1 n48 / 10MHz / CP OFDM / 16QAM

## Highest Channel

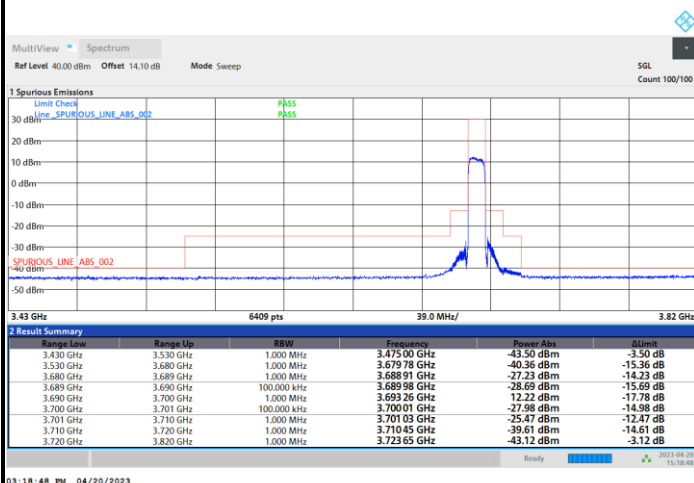
## 1RB0



## 1RBmax



## Full RB

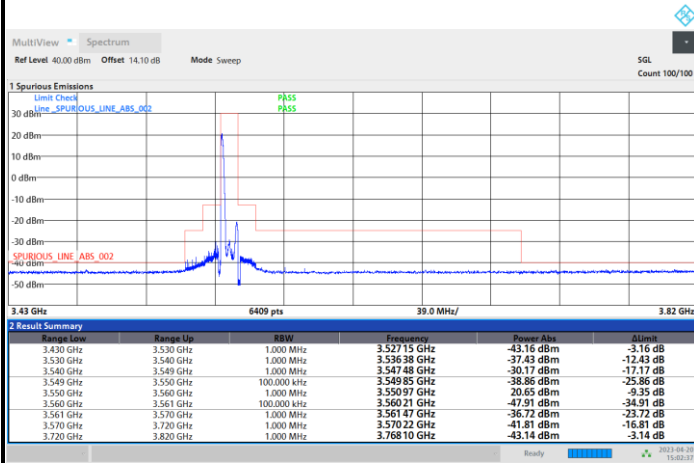




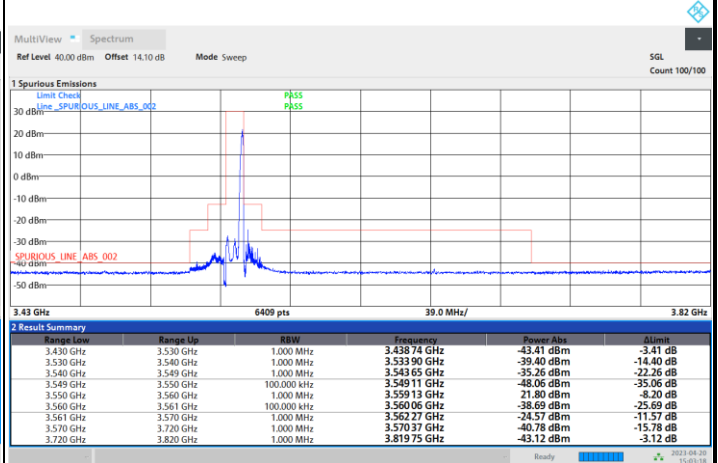
## FR1 n48 / 10MHz / CP OFDM / 64QAM

## Lowest Channel

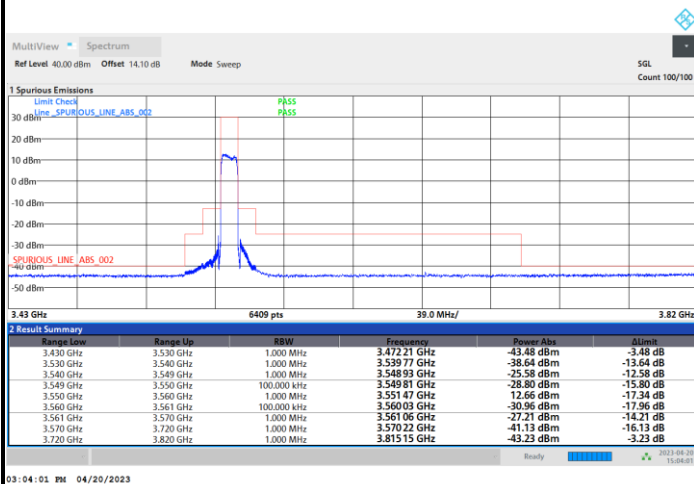
## 1RB0



## 1RBmax



## Full RB



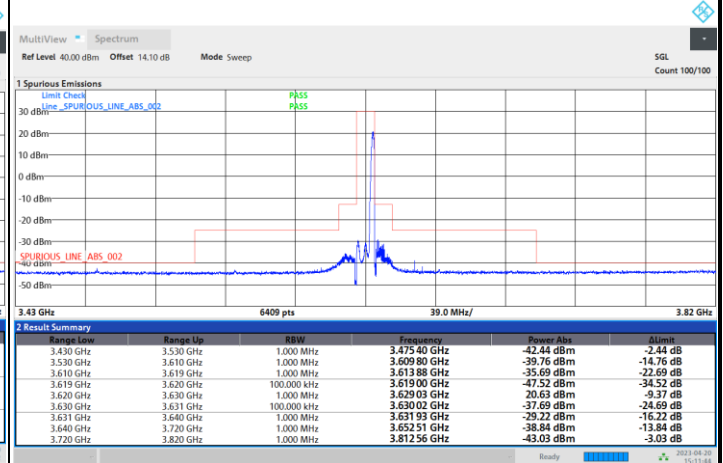
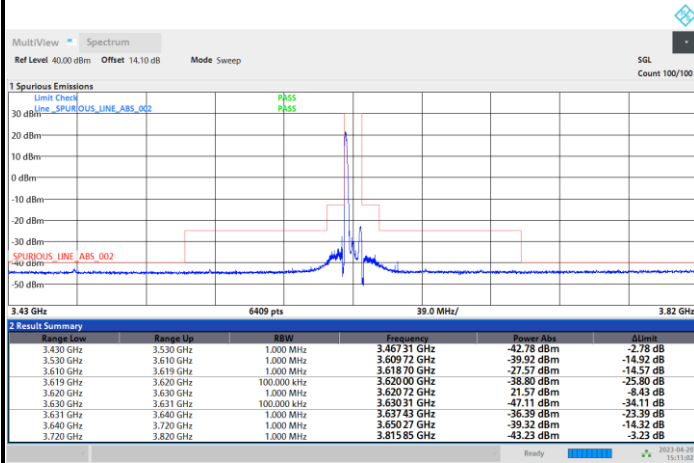


## FR1 n48 / 10MHz / CP OFDM / 64QAM

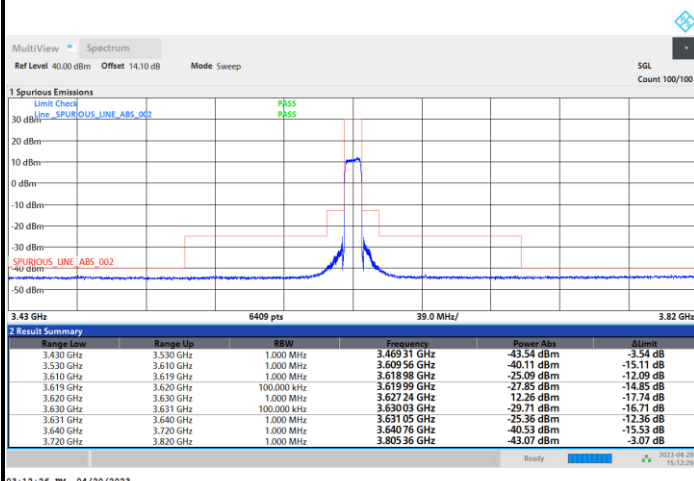
## Middle Channel

## 1RB0

## 1RBmax



## Full RB

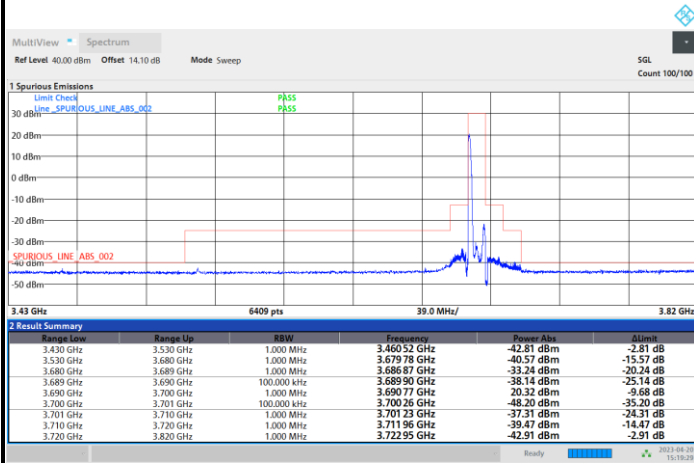




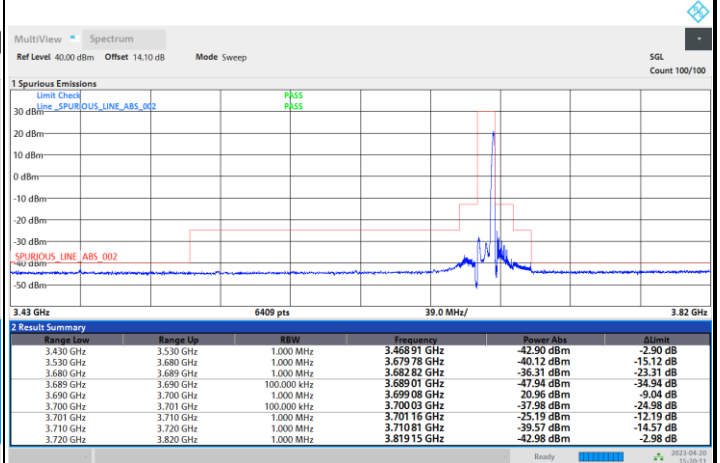
## FR1 n48 / 10MHz / CP OFDM / 64QAM

## Highest Channel

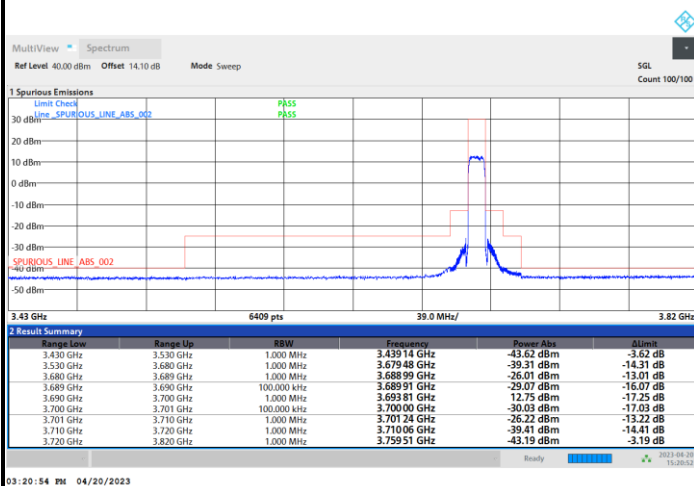
## 1RB0



## 1RBmax



## Full RB

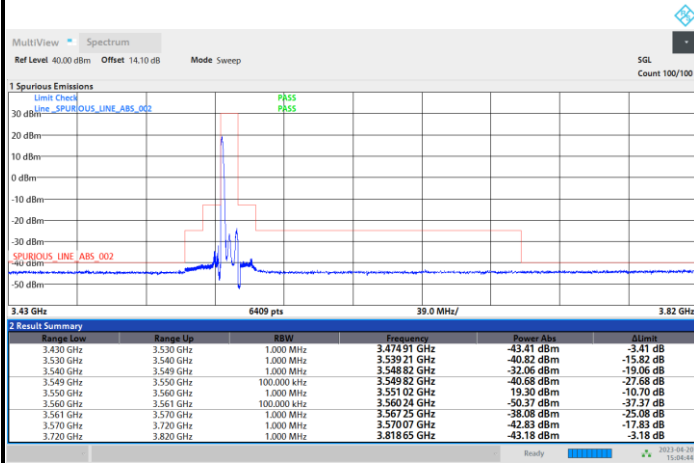




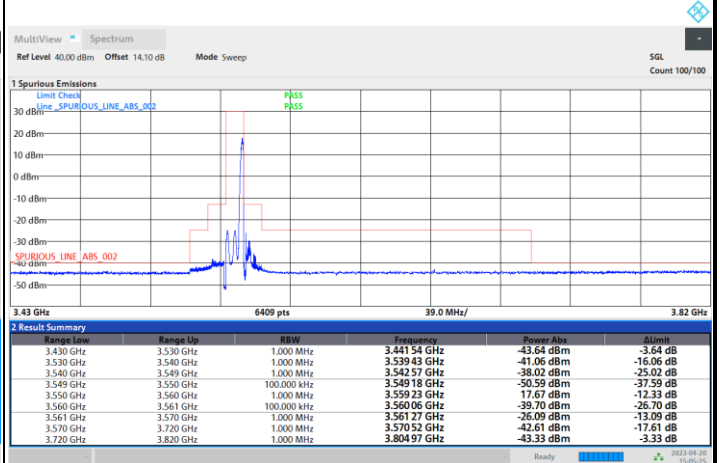
## FR1 n48 / 10MHz / CP OFDM / 256QAM

## Lowest Channel

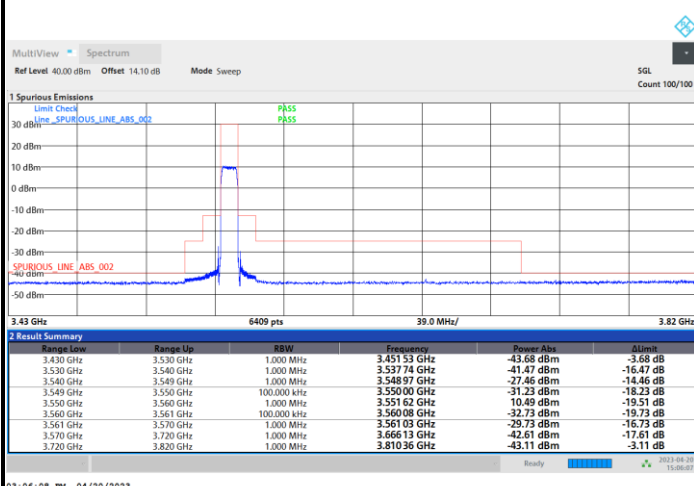
## 1RB0



## 1RBmax



## Full RB



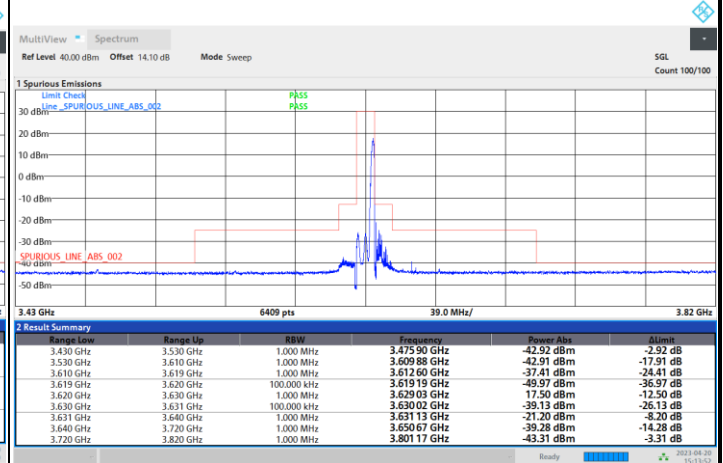
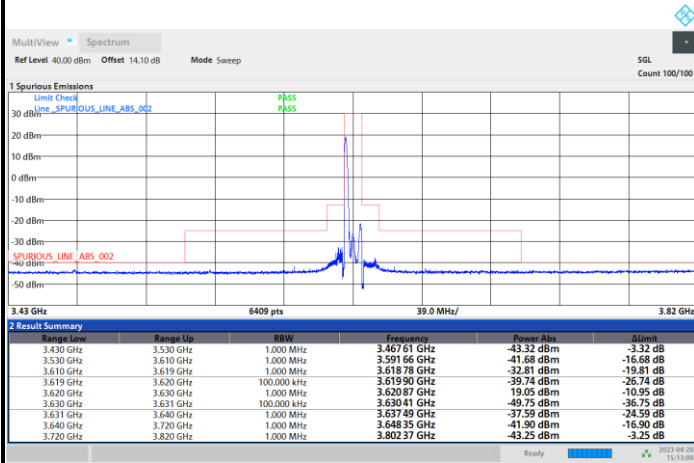


## FR1 n48 / 10MHz / CP OFDM / 256QAM

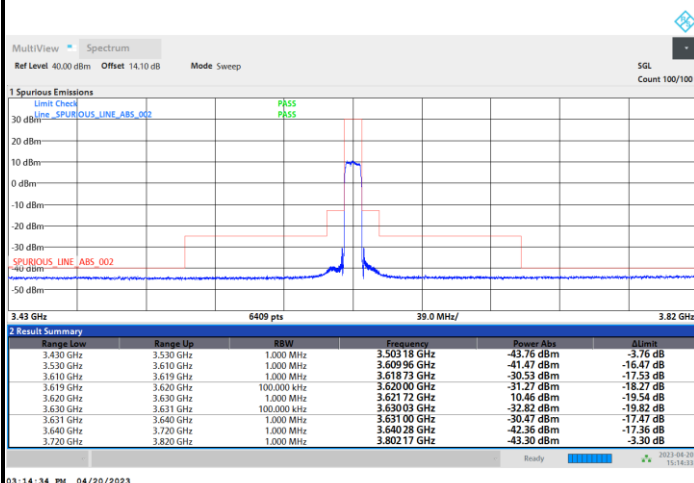
## Middle Channel

## 1RB0

## 1RBmax



## Full RB

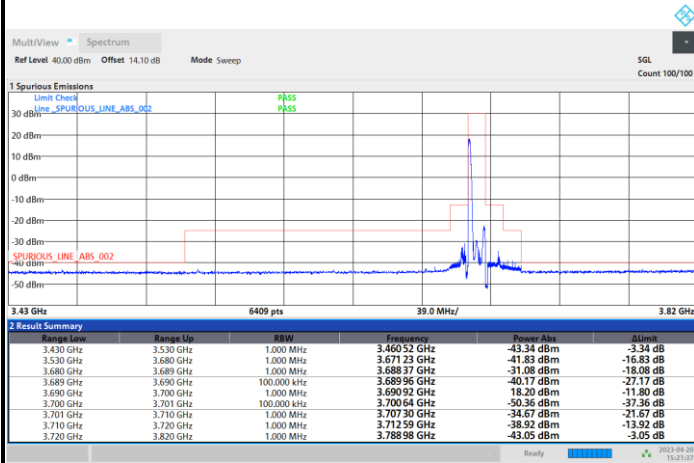




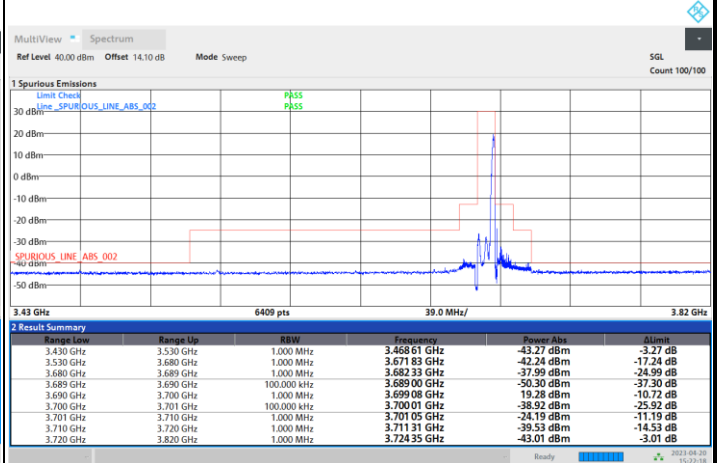
## FR1 n48 / 10MHz / CP OFDM / 256QAM

## Highest Channel

## 1RB0



## 1RBmax



## Full RB

