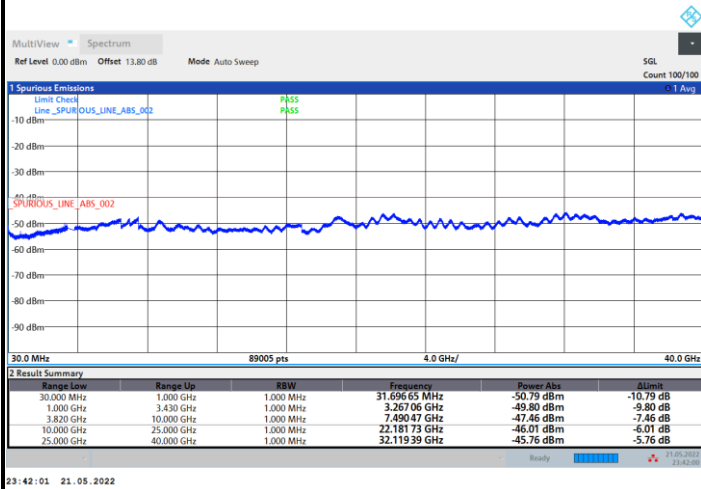


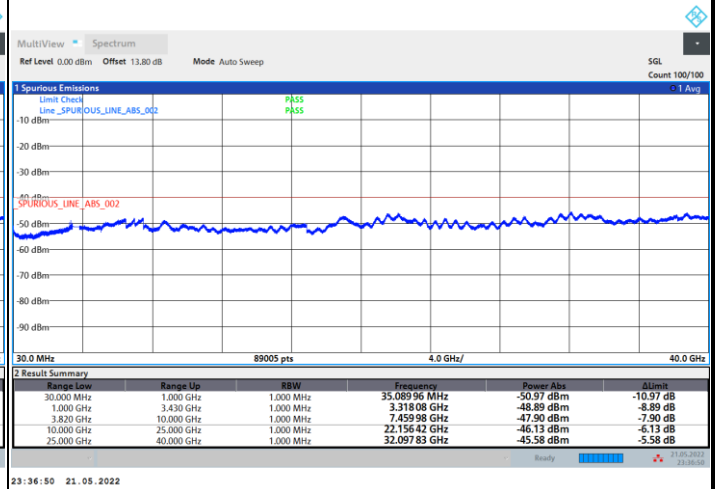


## FR1 n48 / 15MHz / CP OFDM / QPSK / 1RB1

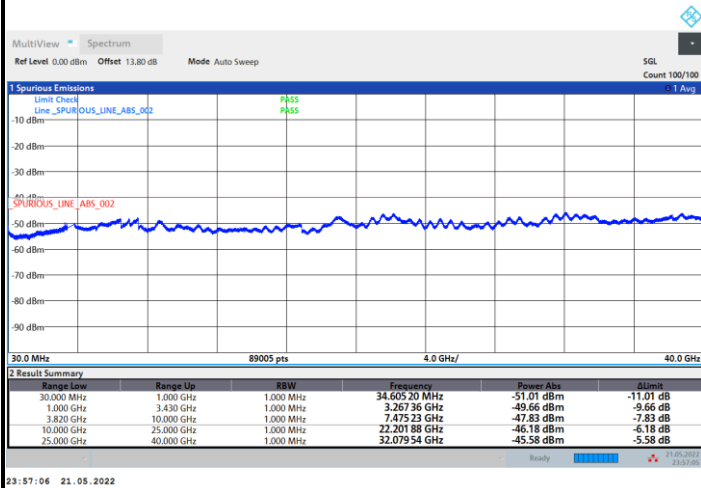
## Lowest Channel



## Middle Channel



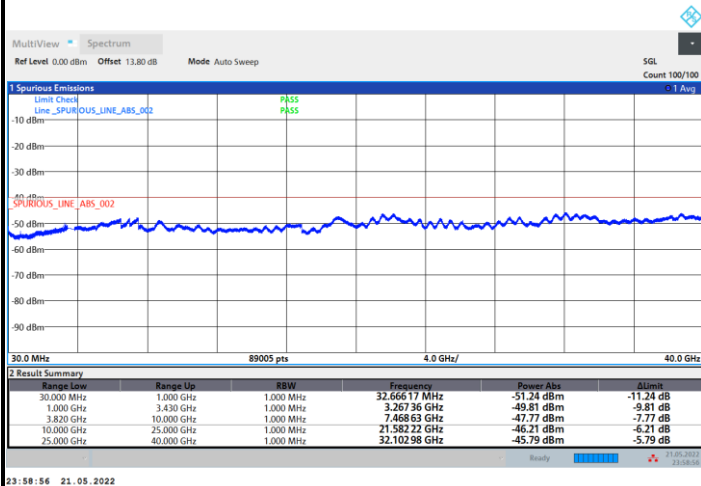
## Highest Channel



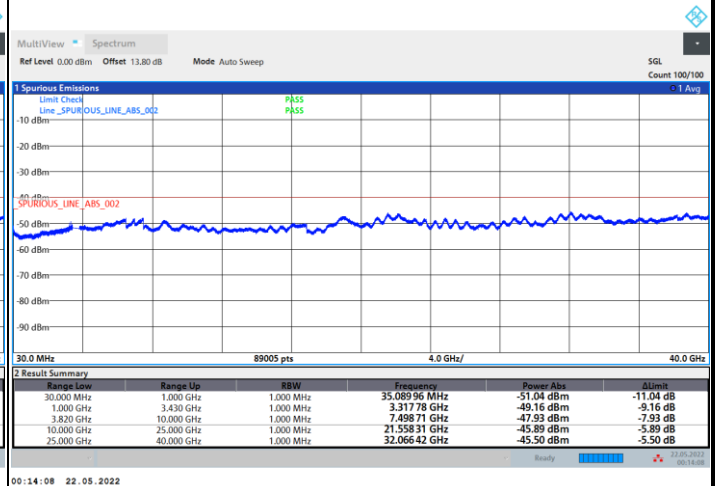


## FR1 n48 / 20MHz / CP OFDM / QPSK / 1RB1

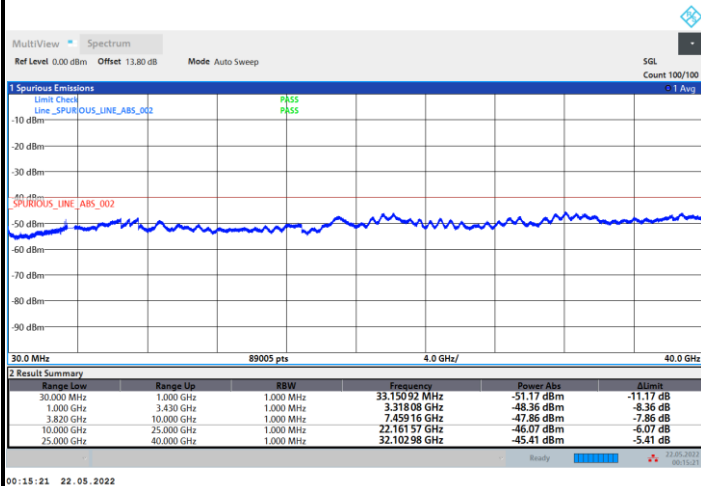
## Lowest Channel



## Middle Channel



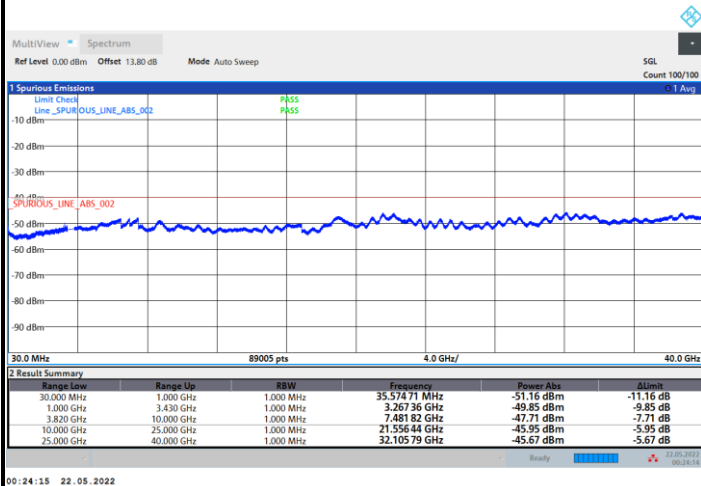
## Highest Channel



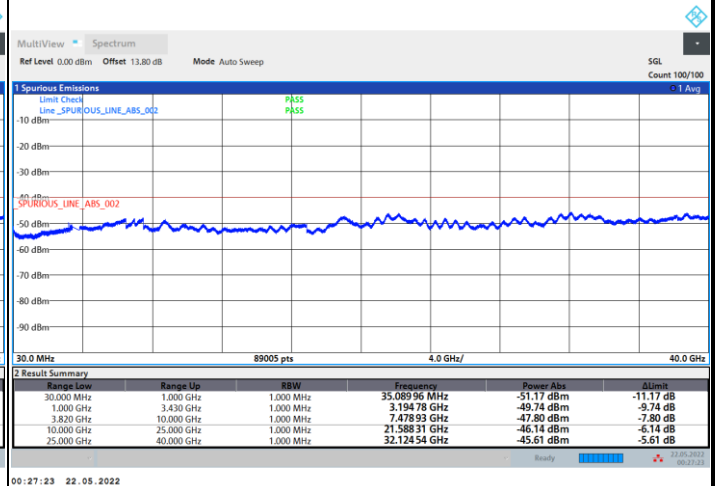


## FR1 n48 / 40MHz / CP OFDM / QPSK / 1RB1

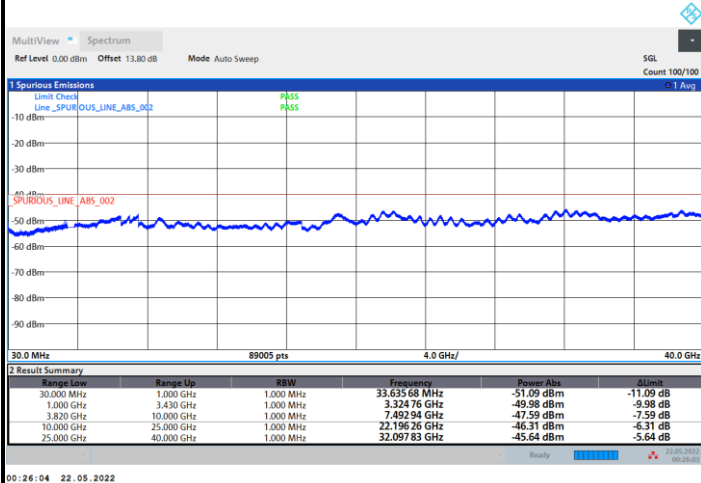
## Lowest Channel



## Middle Channel



## Highest Channel



## Frequency Stability

| Test Conditions     |                   | FR1 n48 (PI/2 BPSK) / Middle Channel | Limit   |
|---------------------|-------------------|--------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 20MHz                             | Note 2. |
|                     |                   | Deviation (ppm)                      | Result  |
| 50                  | Normal Voltage    | 0.0024                               | PASS    |
| 40                  | Normal Voltage    | 0.0035                               |         |
| 30                  | Normal Voltage    | 0.0065                               |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                               |         |
| 10                  | Normal Voltage    | 0.0066                               |         |
| 0                   | Normal Voltage    | 0.0064                               |         |
| -10                 | Normal Voltage    | 0.0052                               |         |
| -20                 | Normal Voltage    | 0.0048                               |         |
| -30                 | Normal Voltage    | 0.0007                               |         |
| 20                  | Maximum Voltage   | 0.0028                               |         |
| 20                  | Normal Voltage    | 0.0000                               |         |
| 20                  | Battery End Point | 0.0026                               |         |

**Note:**

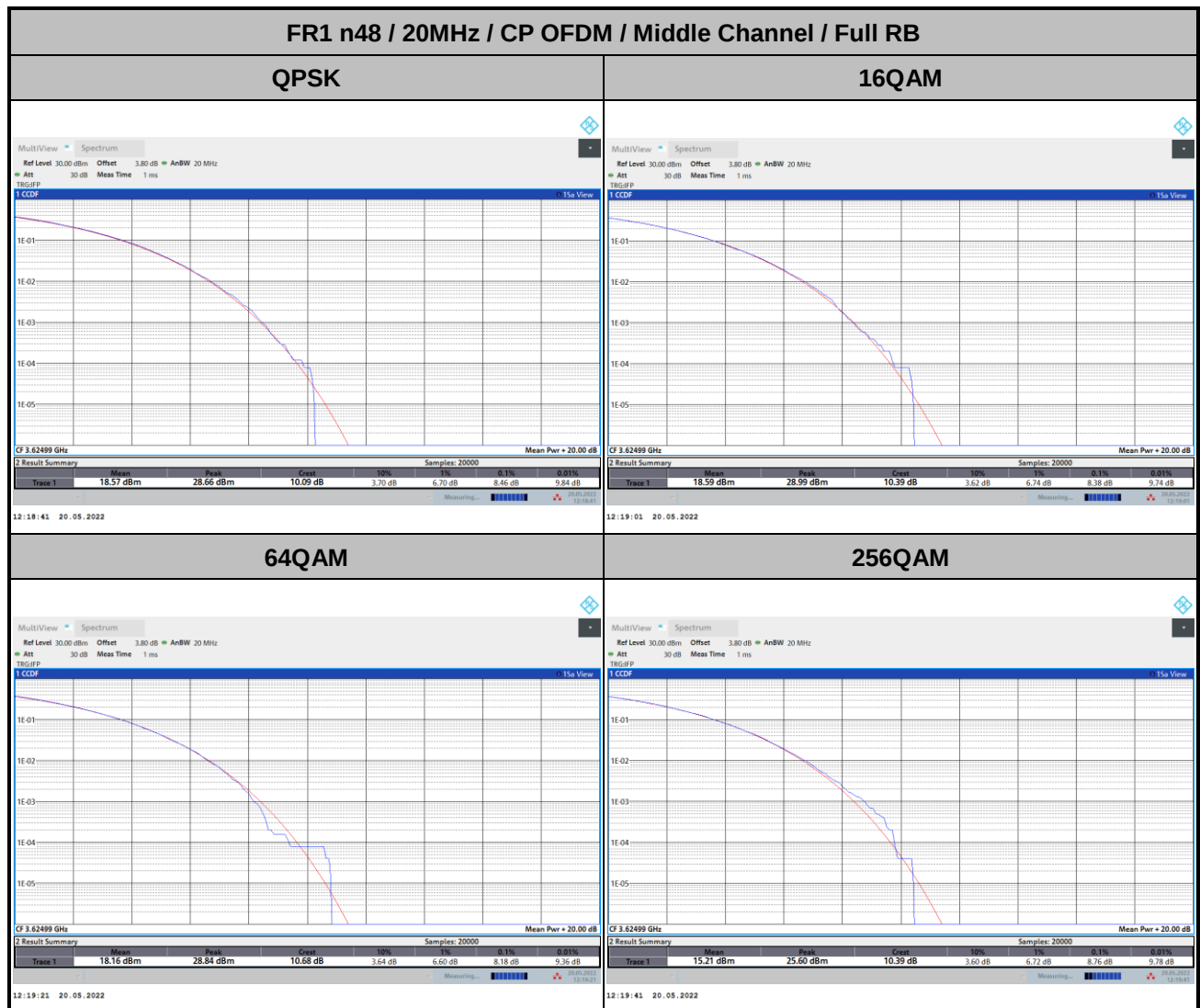
1. Normal Voltage = 3.85 V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage = 4.3 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## MIMO &lt;Ant. 1&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 | 8.46                      | 8.38    | 8.18    | 8.76    | PASS        |



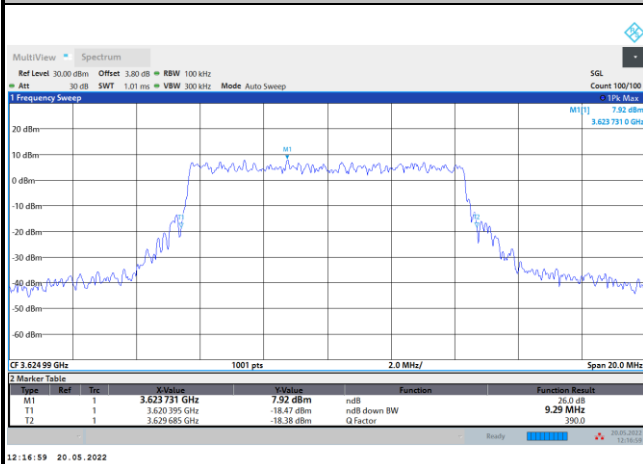
**26dB Bandwidth**

| Mode      | FR1 n48 : 26dB BW(MHz) / CP OFDM |        |       |        |       |        |        |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|--------|--------|
| BW        | 10MHz                            |        | 15MHz |        | 20MHz |        | 25MHz  |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 9.29                             | 9.45   | 14.51 | 14.42  | 19.26 | 19.26  | -      |        |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 9.07                             | 9.15   | 14.60 | 14.48  | 19.34 | 19.10  | -      | -      |
| BW        | 30MHz                            |        | 40MHz |        | 50MHz |        | 60MHz  |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | -                                |        | 40.44 | 40.28  | -     | -      | -      |        |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | -                                | -      | 40.76 | 40.44  | -     | -      | -      | -      |
| 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 | -                                | -      | -     | -      | -     | -      | -      | -      |

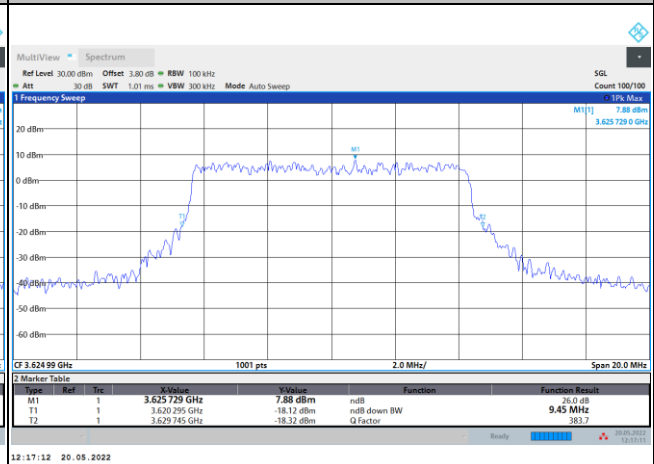


## FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

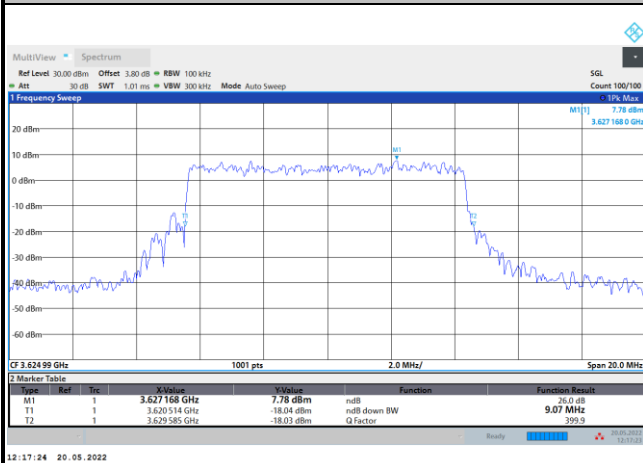
## QPSK



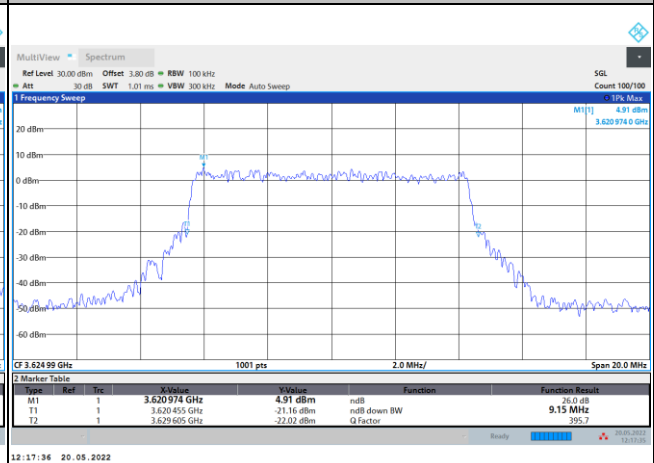
## 16QAM



## 64QAM



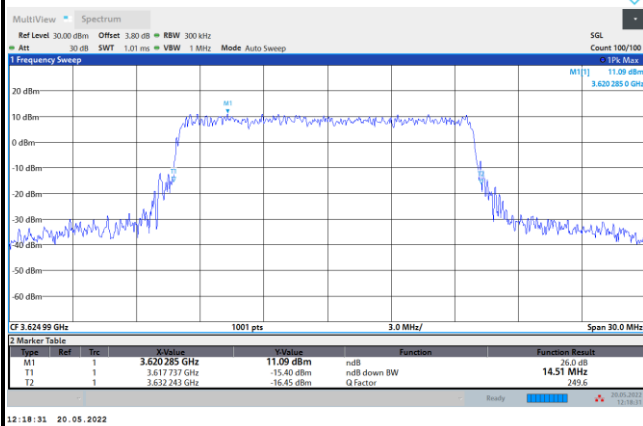
## 256QAM



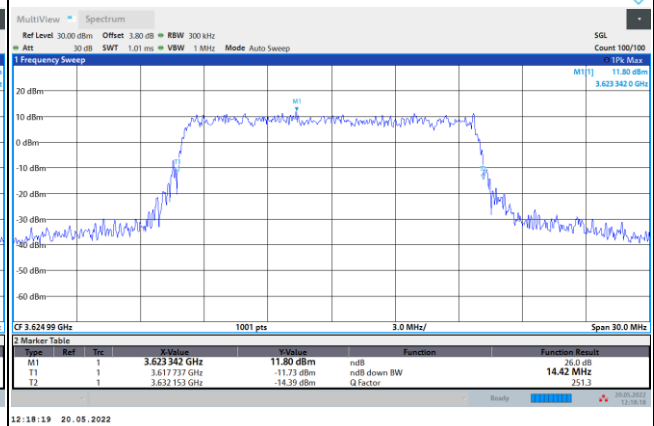


## FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

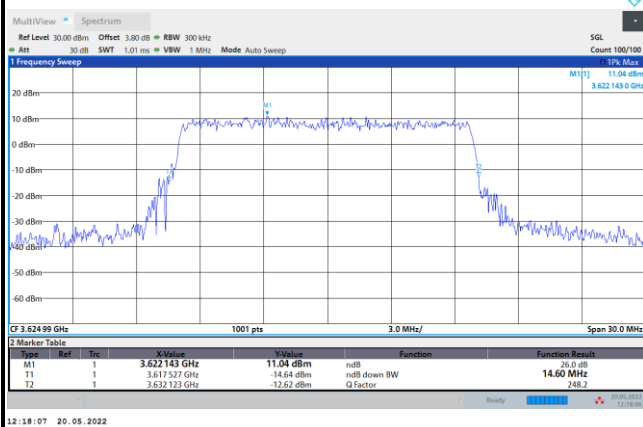
## QPSK



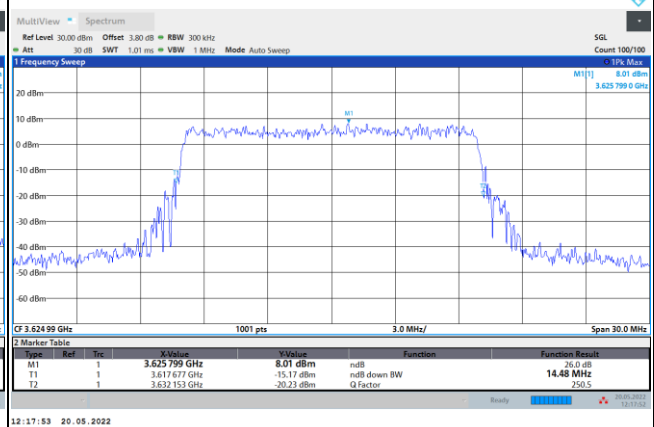
## 16QAM



## 64QAM



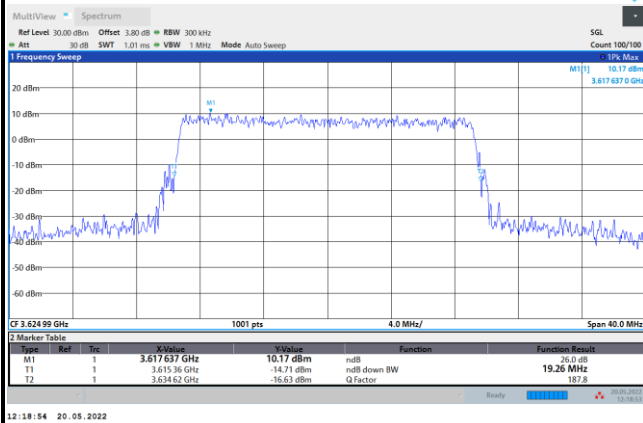
## 256QAM



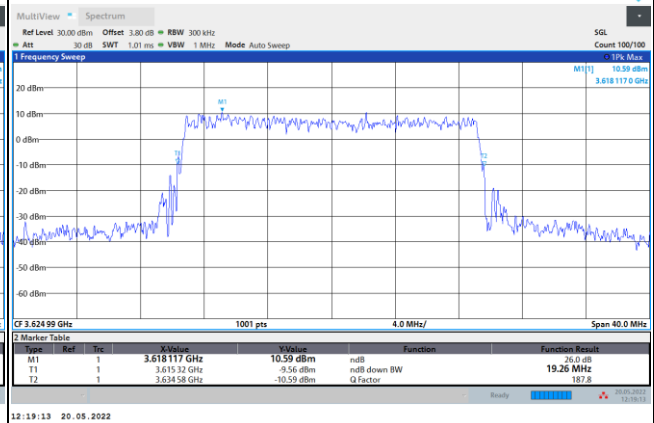


## FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

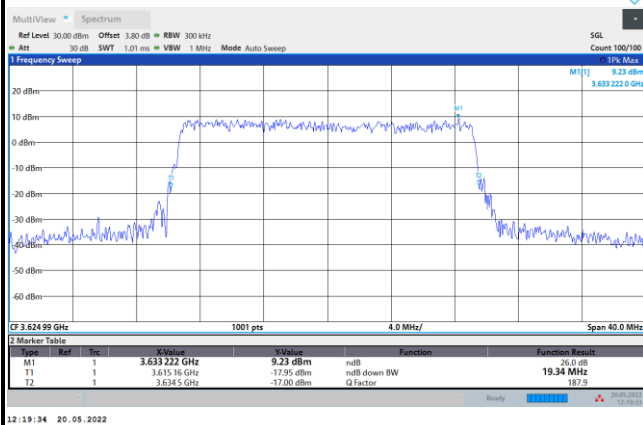
## QPSK



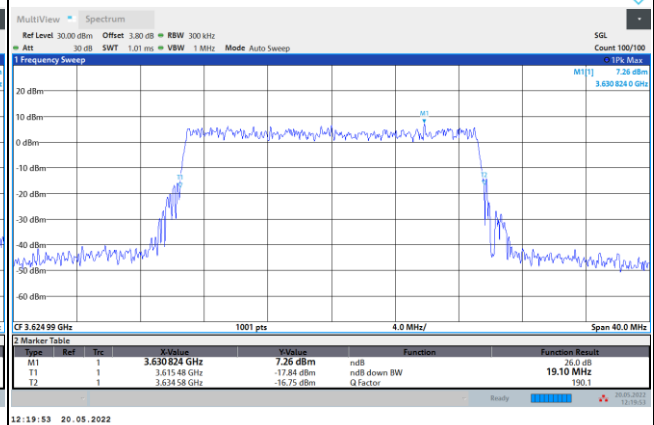
## 16QAM



## 64QAM

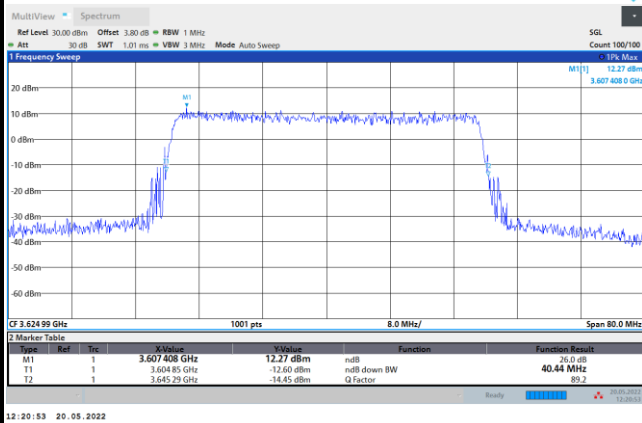


## 256QAM

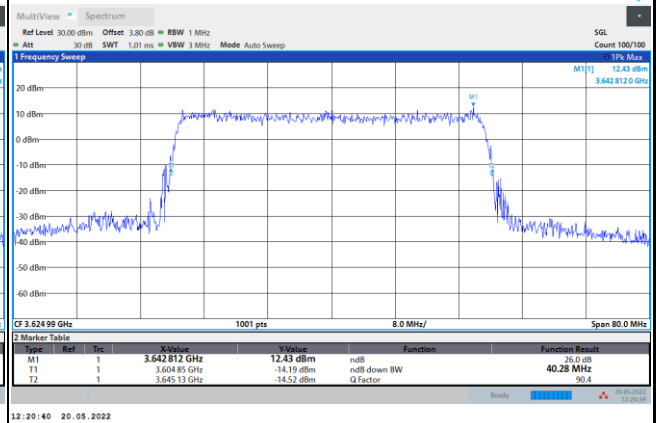


### FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

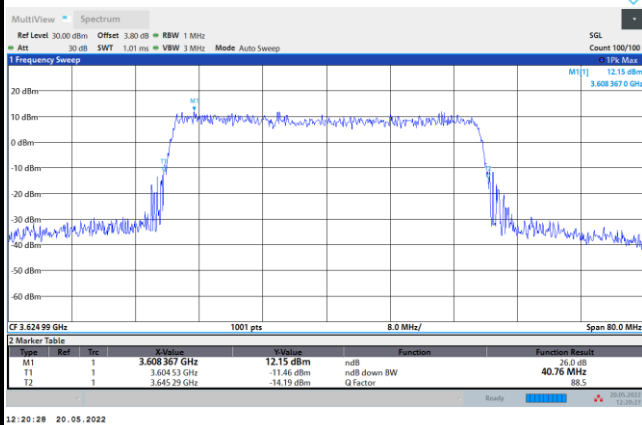
#### QPSK



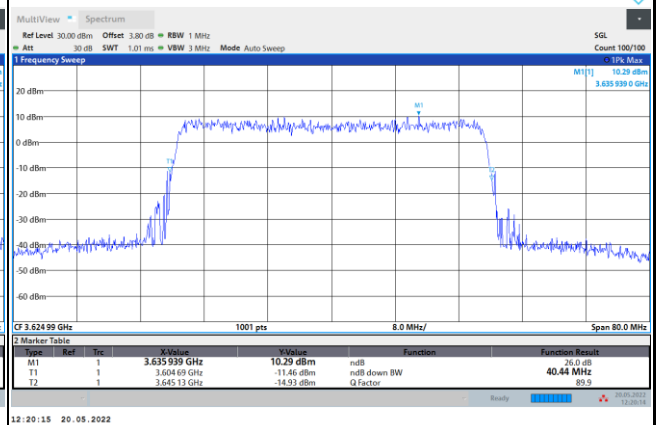
#### 16QAM



#### 64QAM



#### 256QAM



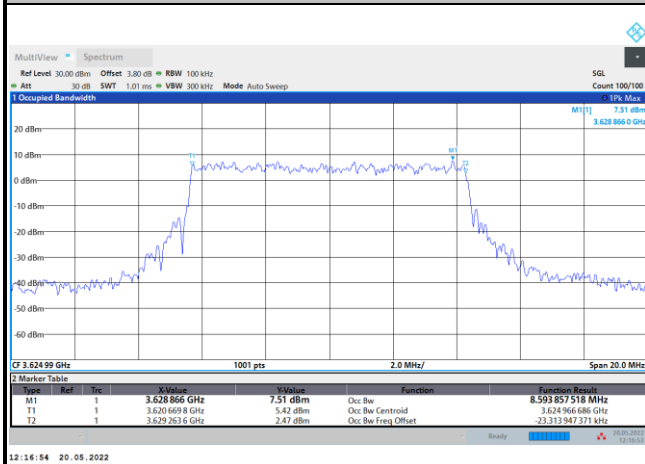
**Occupied Bandwidth**

| 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                           | 8.57   | 13.62 | 13.64  | 18.22 | 18.26  | -      |        |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 8.60                           | 8.60   | 13.57 | 13.59  | 18.18 | 18.27  | -      | -      |
| BW        | 30MHz                          |        | 40MHz |        | 50MHz |        | 60MHz  |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | -                              |        | 38.19 | 38.16  | -     | -      | -      | -      |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | -                              | -      | 38.27 | 38.12  | -     | -      | -      | -      |
| 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 | -                              | -      | -     | -      | -     | -      | -      | -      |

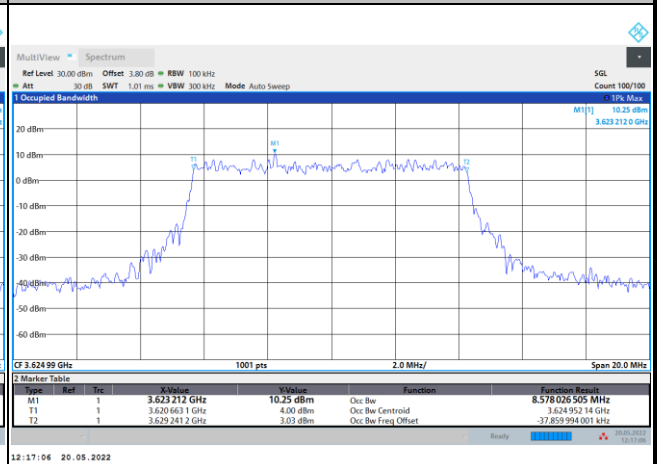


## FR1 n48 / 10MHz / CP OFDM / Middle Channel / Full RB

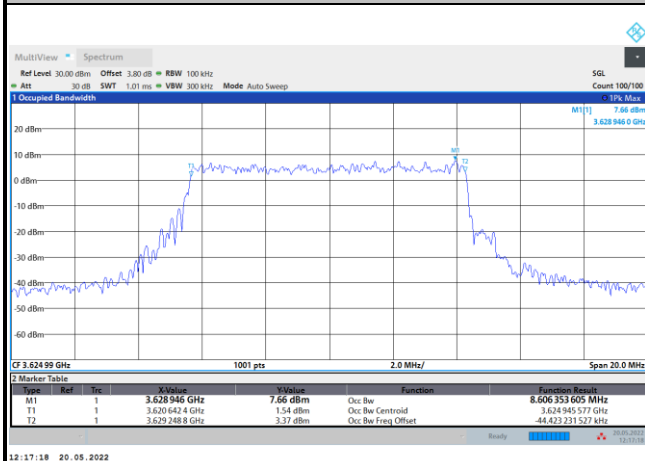
## QPSK



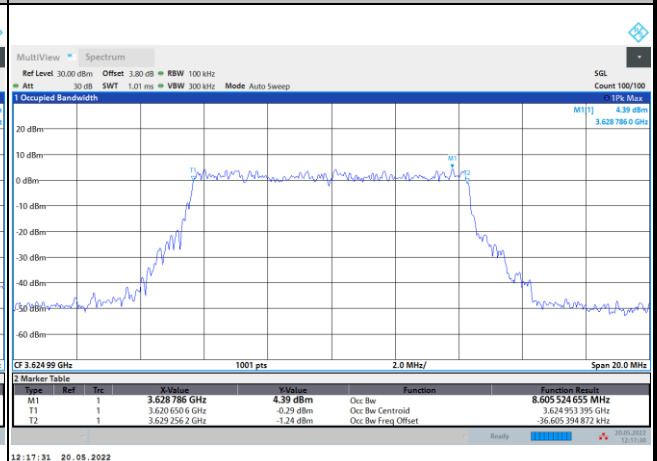
## 16QAM



## 64QAM



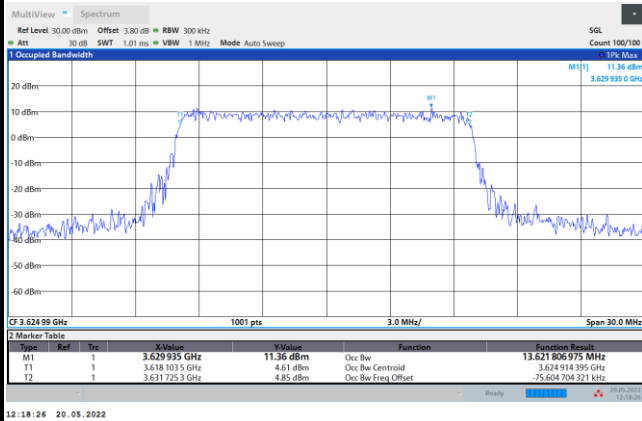
## 256QAM



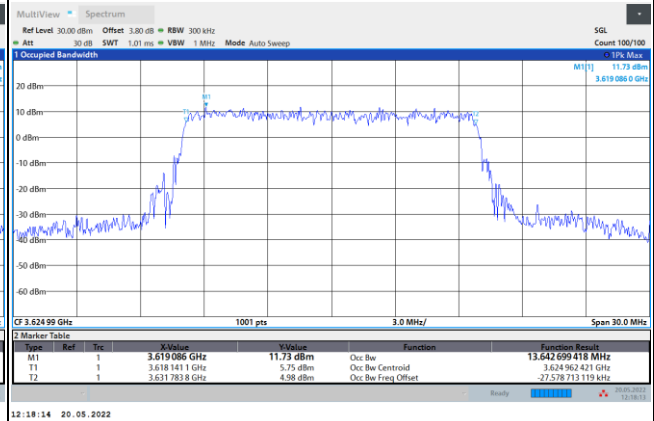


## FR1 n48 / 15MHz / CP OFDM / Middle Channel / Full RB

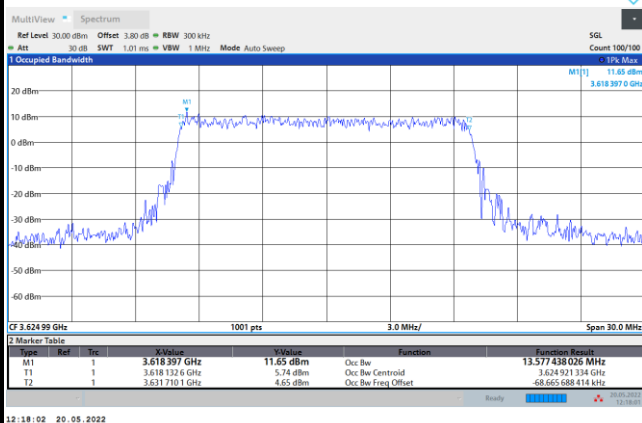
## QPSK



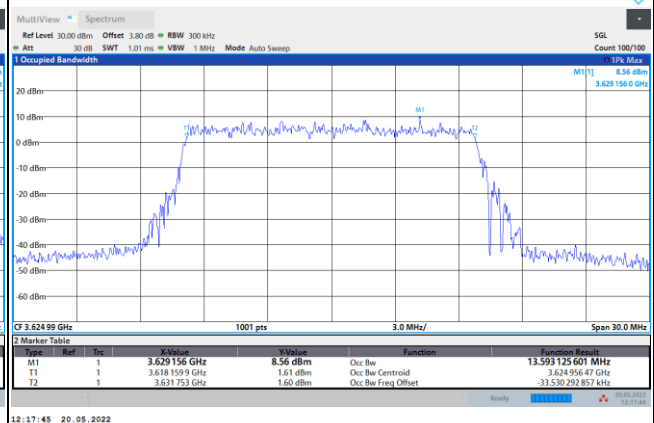
## 16QAM



## 64QAM



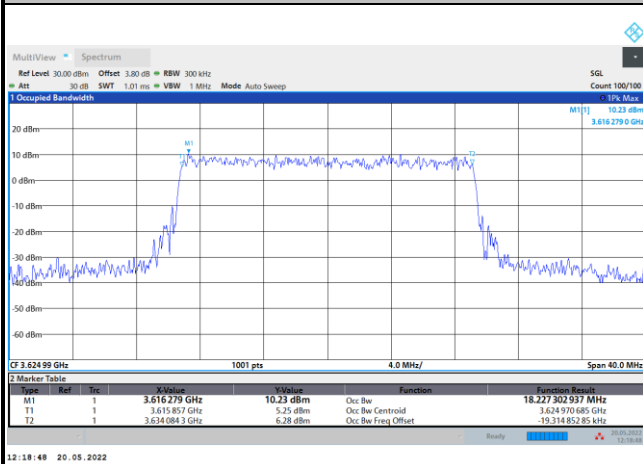
## 256QAM



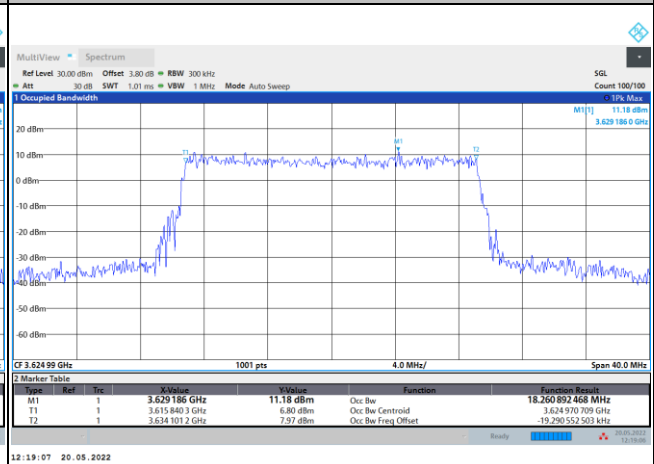


## FR1 n48 / 20MHz / CP OFDM / Middle Channel / Full RB

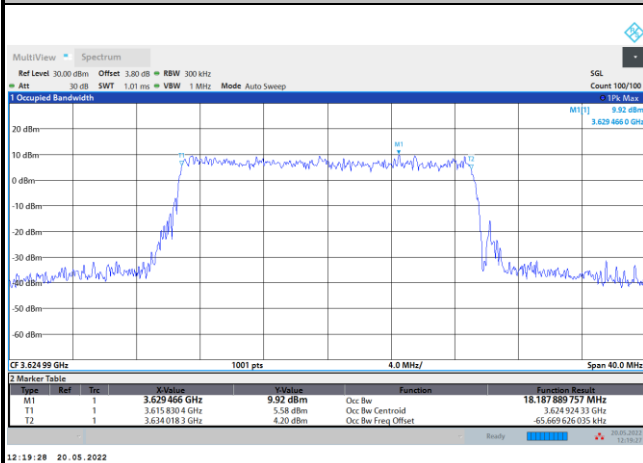
## QPSK



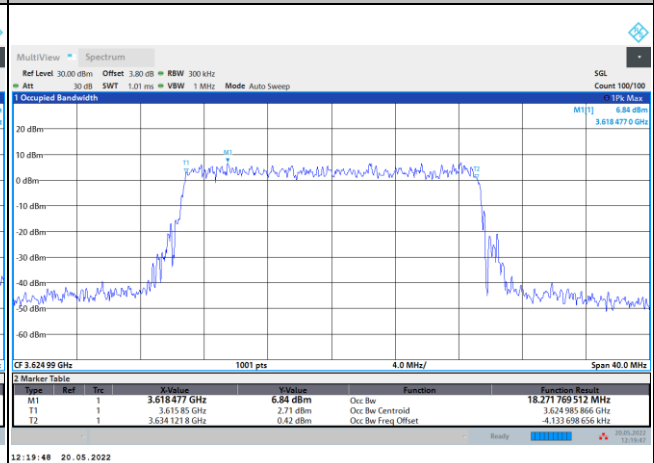
## 16QAM



## 64QAM



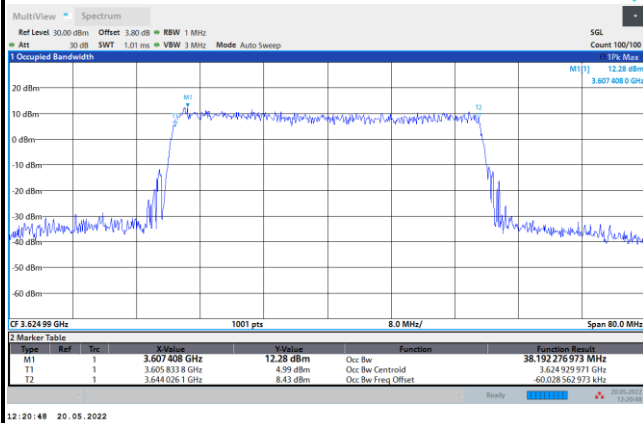
## 256QAM



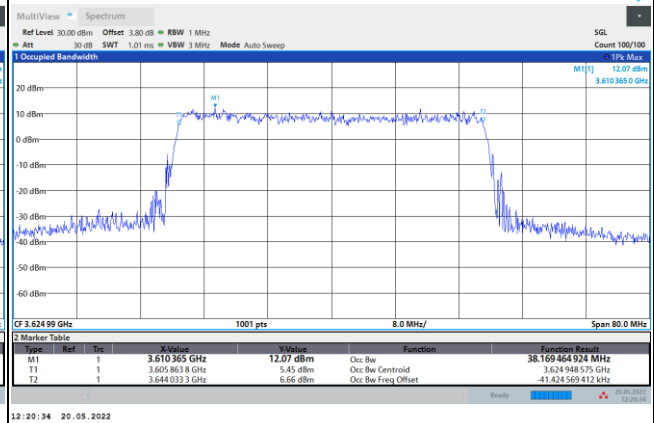


## FR1 n48 / 40MHz / CP OFDM / Middle Channel / Full RB

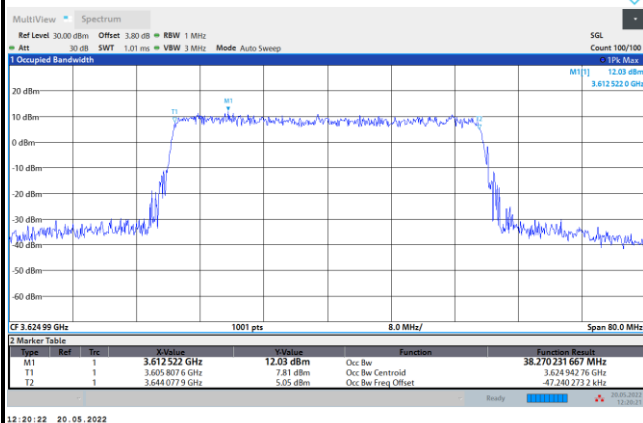
## QPSK



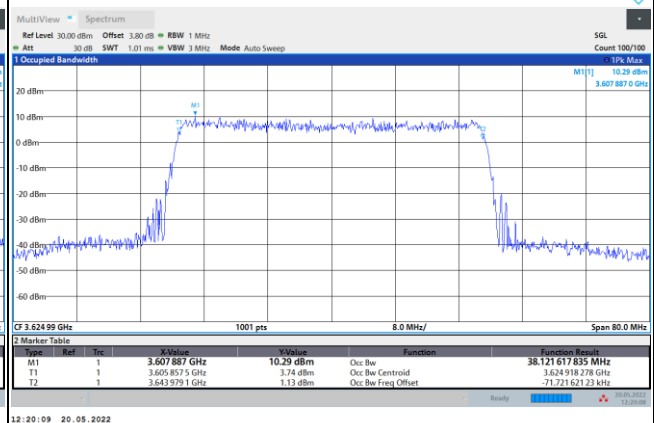
## 16QAM



## 64QAM



## 256QAM





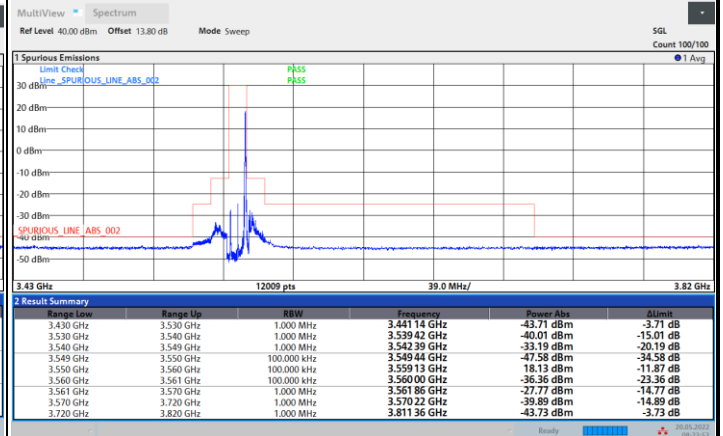
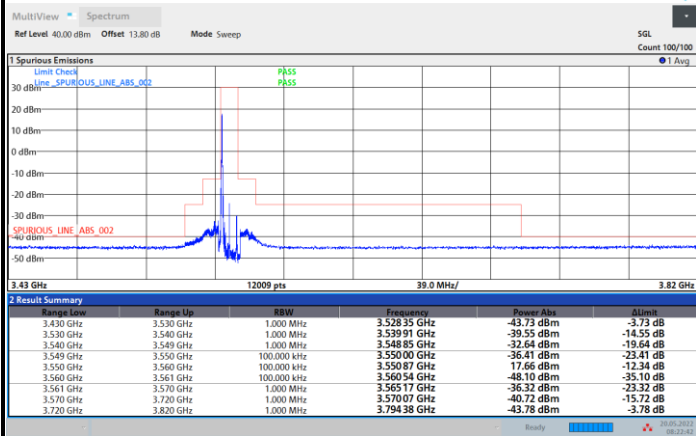
## Unwanted Emission (MASK)

FR1 n48 / 10MHz / CP OFDM / QPSK

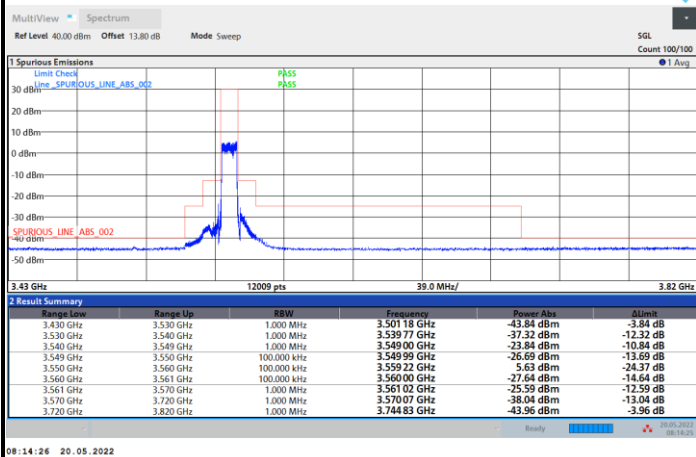
Lowest Channel

1RB0

1RBmax



Full RB



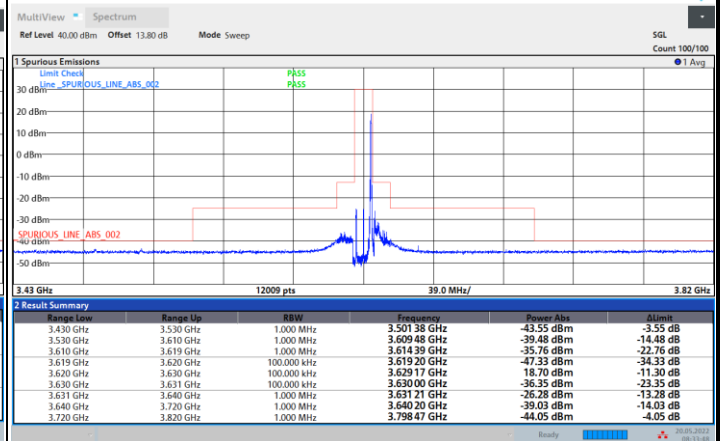
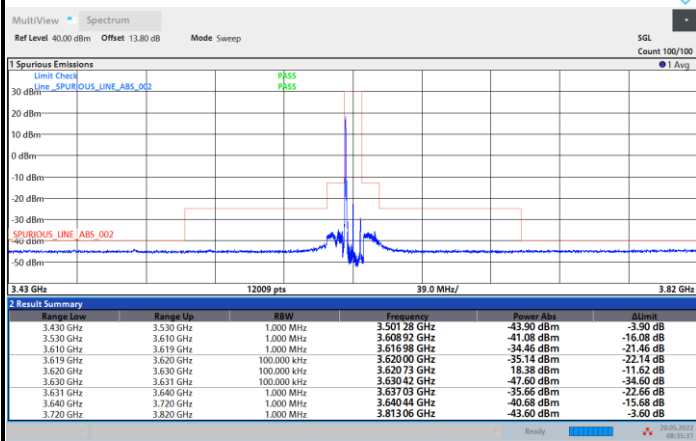


## FR1 n48 / 10MHz / CP OFDM / QPSK

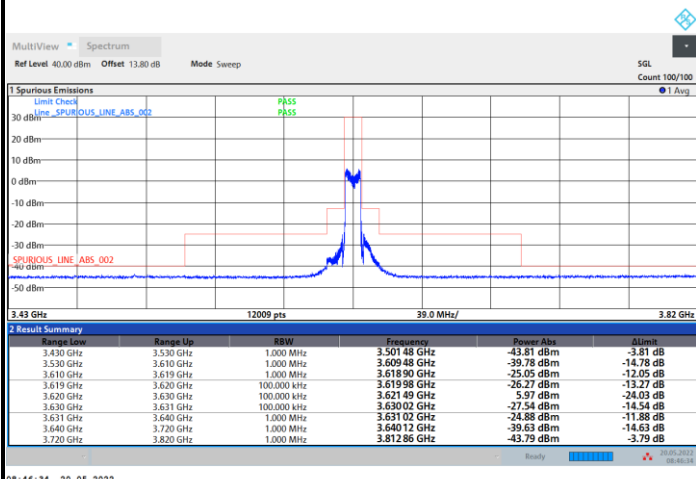
## Middle Channel

## 1RB0

## 1RBmax



## Full RB

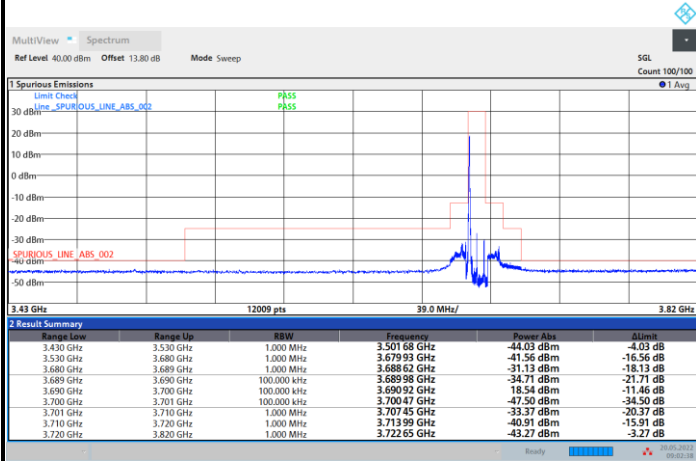




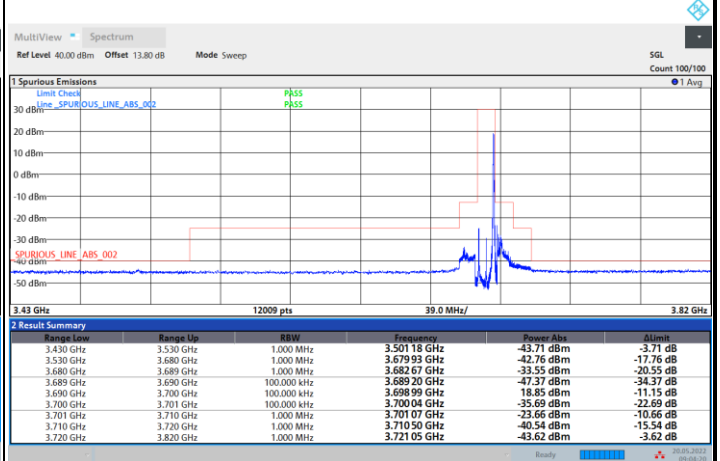
## FR1 n48 / 10MHz / CP OFDM / QPSK

## Highest Channel

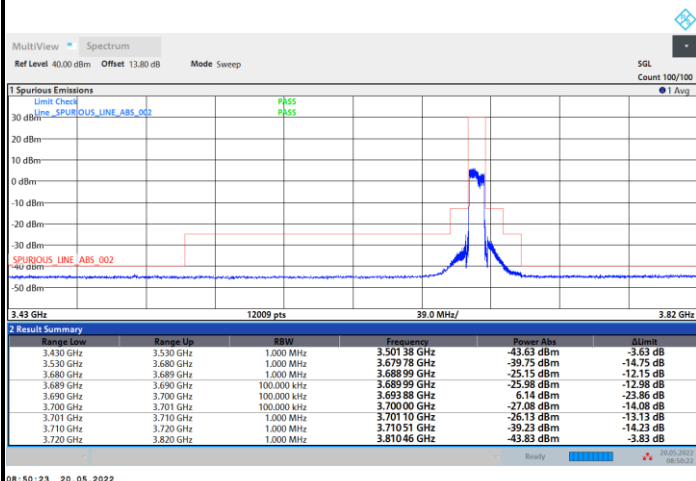
## 1RB0



## 1RBmax



## Full RB



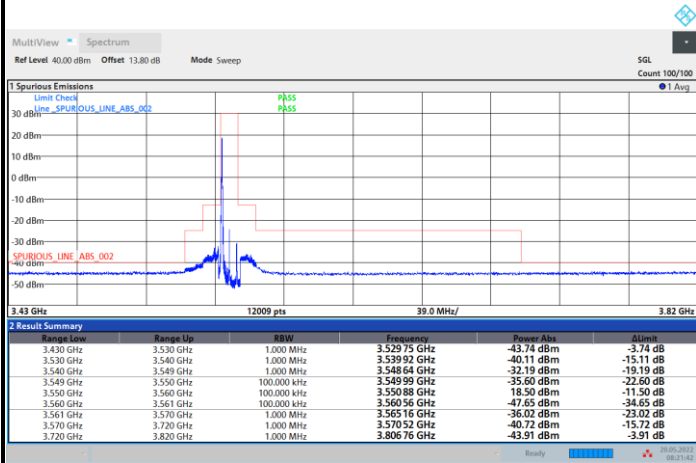


## FR1 n48 / 10MHz / CP OFDM / 16QAM

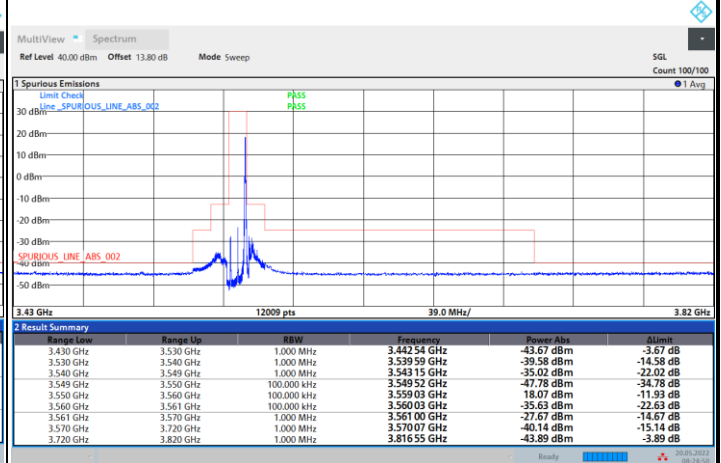
## Lowest Channel

## 1RB0

## 1RBmax

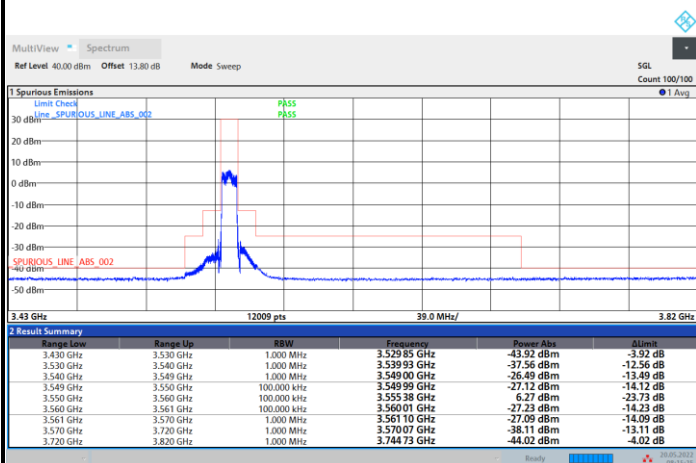


08:21:43 20.05.2022



08:24:50 20.05.2022

## Full RB



08:15:26 20.05.2022

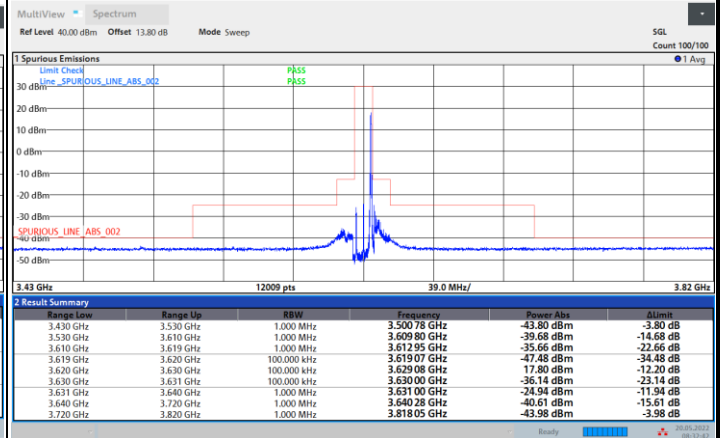
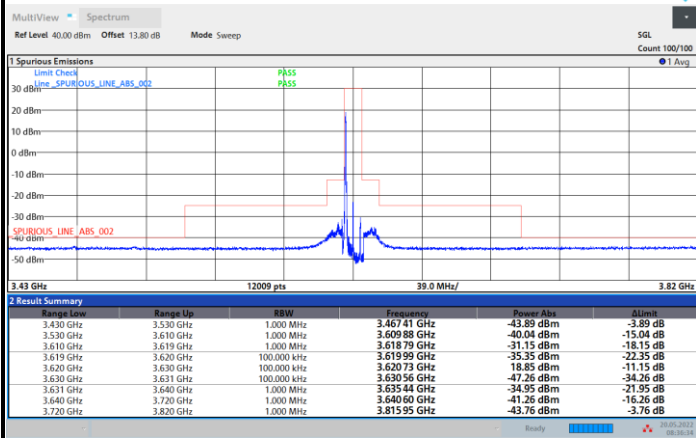


## FR1 n48 / 10MHz / CP OFDM / 16QAM

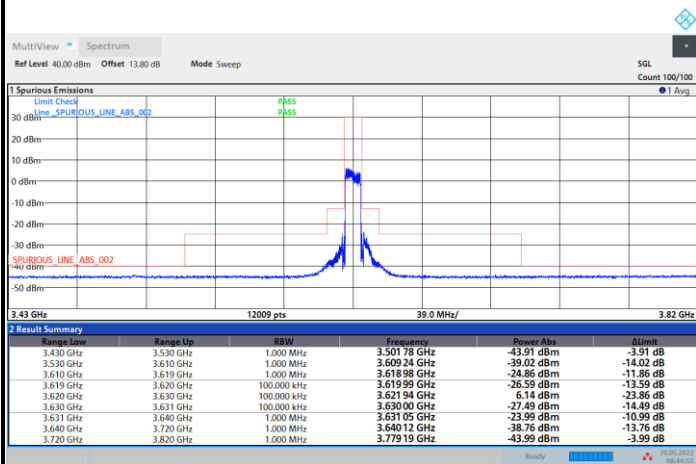
## Middle Channel

## 1RB0

## 1RBmax



## Full RB



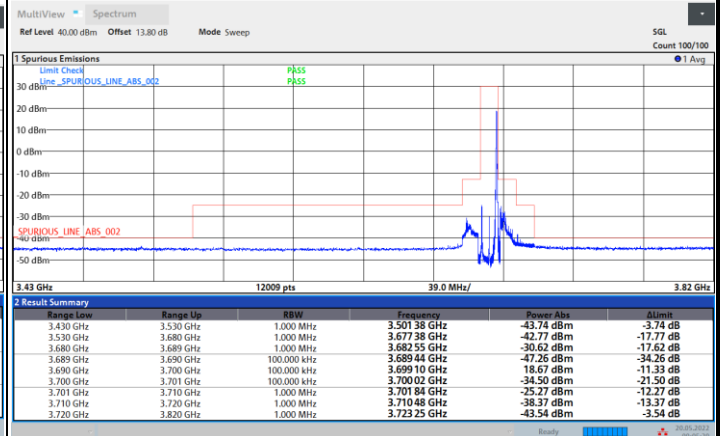
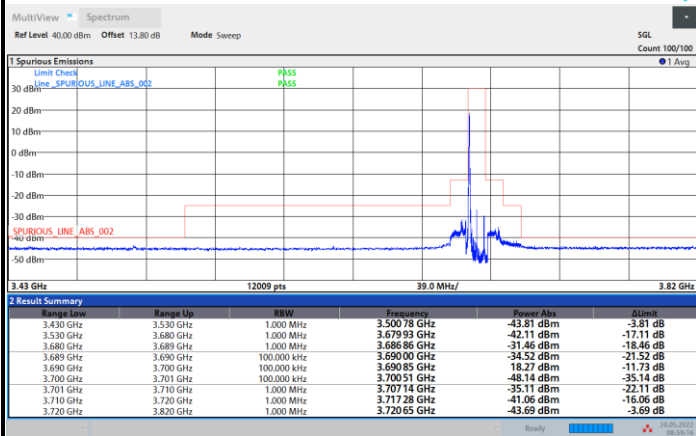


## FR1 n48 / 10MHz / CP OFDM / 16QAM

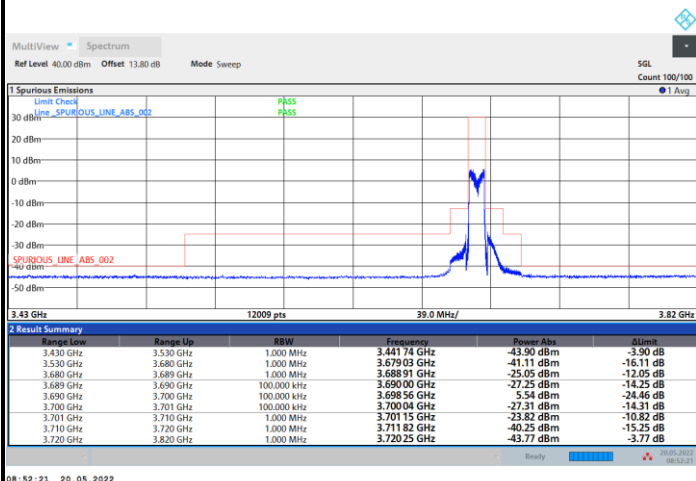
## Highest Channel

## 1RB0

## 1RBmax



## Full RB



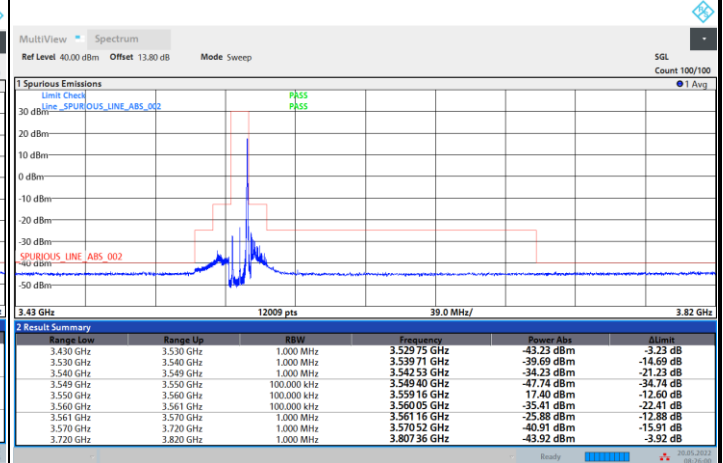
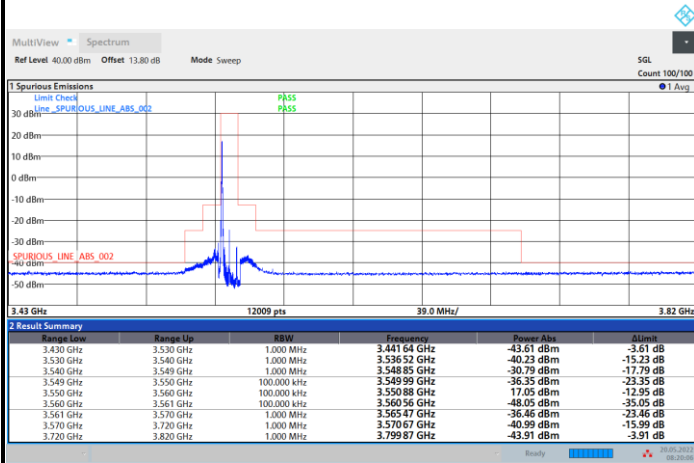


## FR1 n48 / 10MHz / CP OFDM / 64QAM

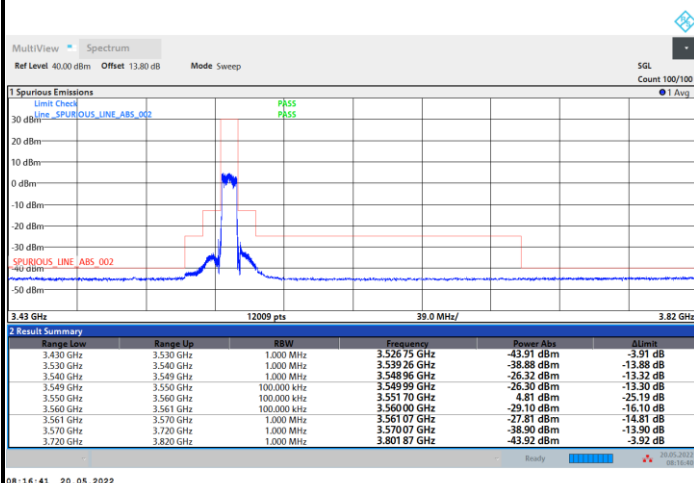
## Lowest Channel

## 1RB0

## 1RBmax



## Full RB



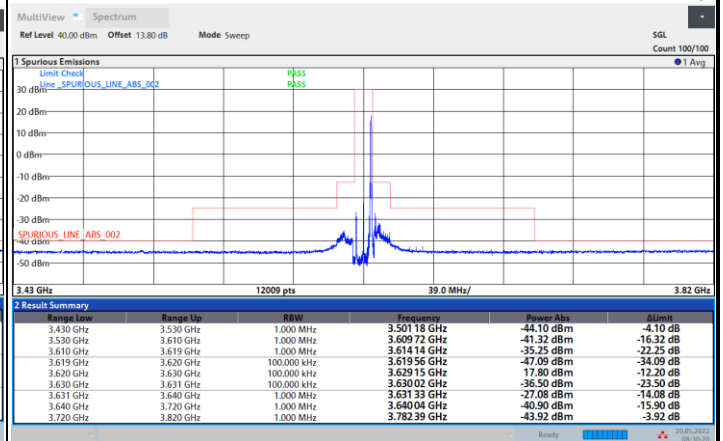
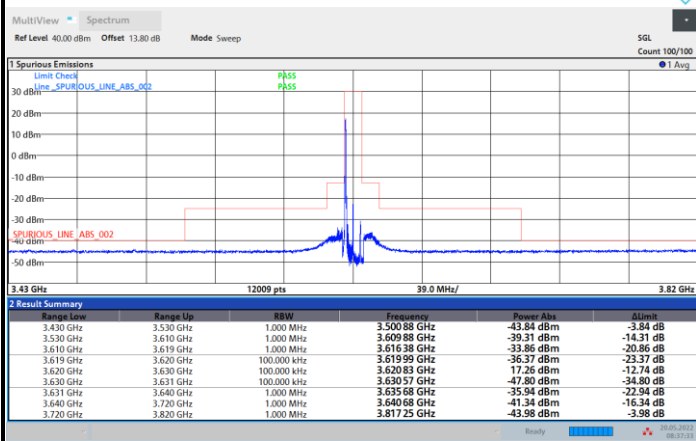


## FR1 n48 / 10MHz / CP OFDM / 64QAM

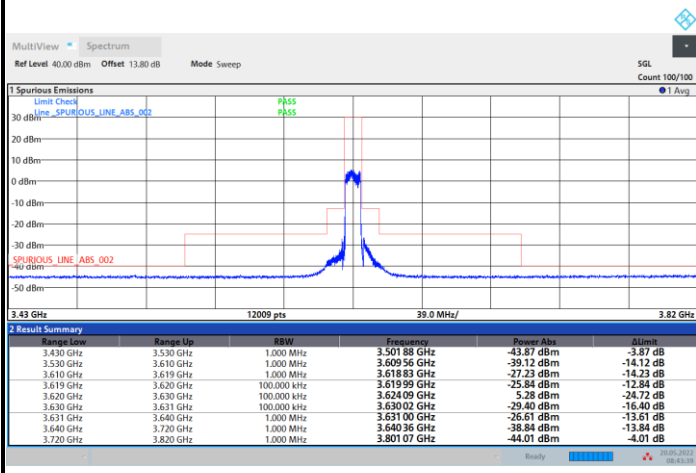
## Middle Channel

## 1RB0

## 1RBmax



## Full RB



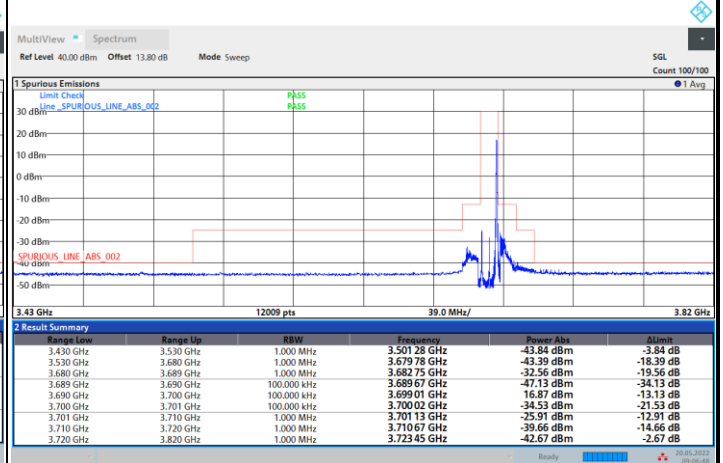
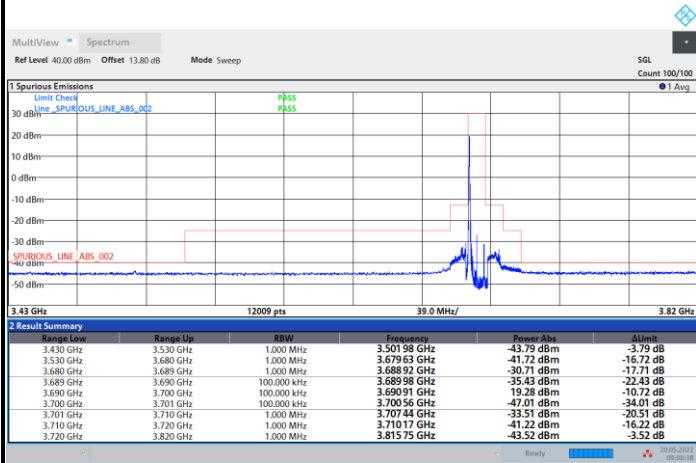


## FR1 n48 / 10MHz / CP OFDM / 64QAM

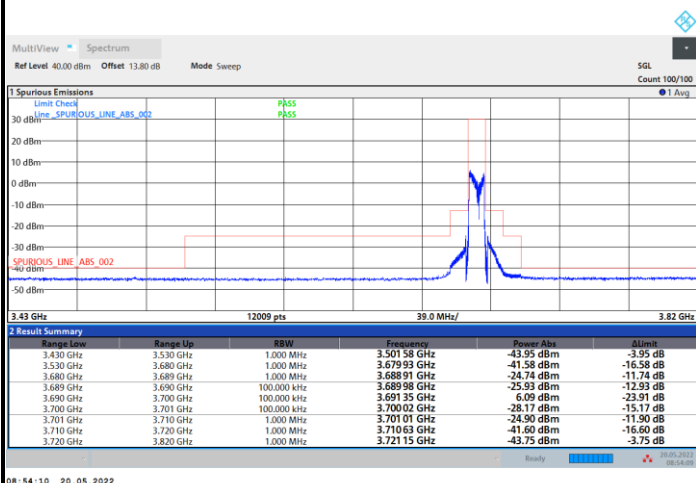
## Highest Channel

## 1RB0

## 1RBmax



## Full RB



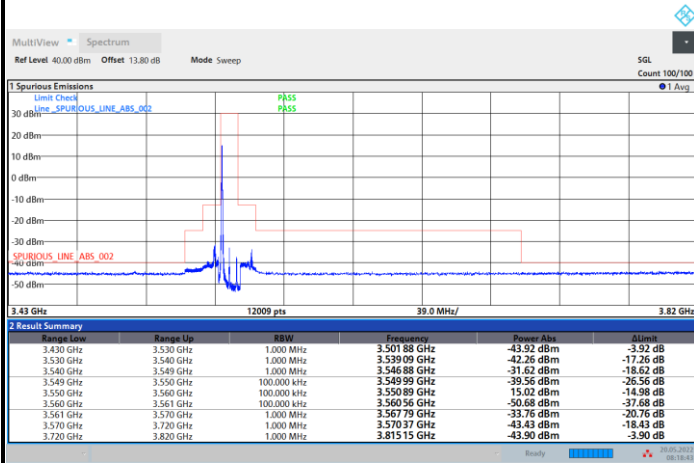


## FR1 n48 / 10MHz / CP OFDM / 256QAM

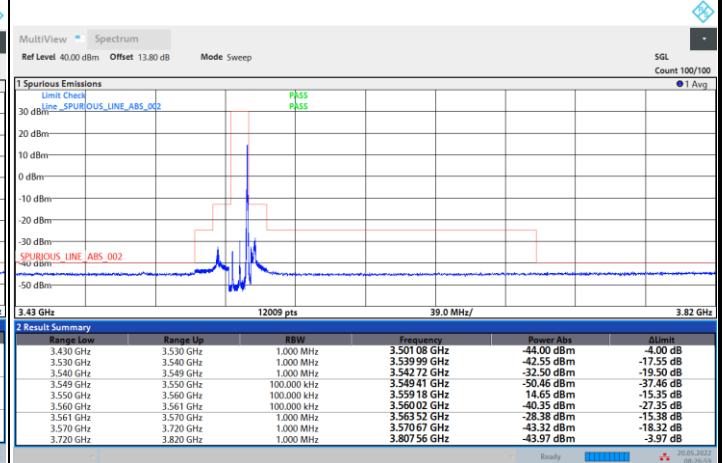
## Lowest Channel

## 1RB0

## 1RBmax

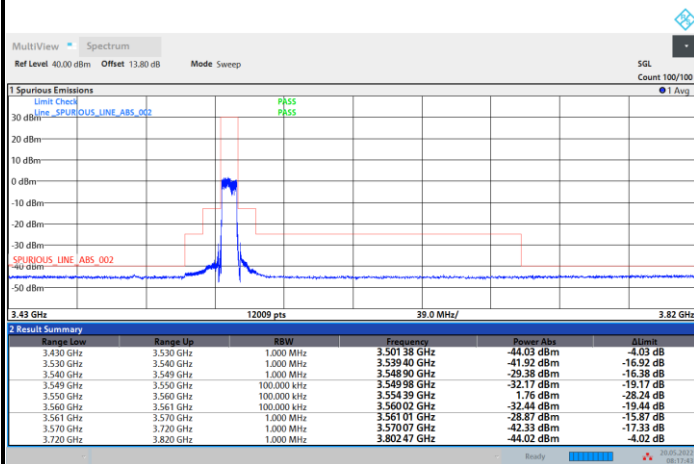


08:18:44 20.05.2022



08:26:59 20.05.2022

## Full RB



08:17:43 20.05.2022

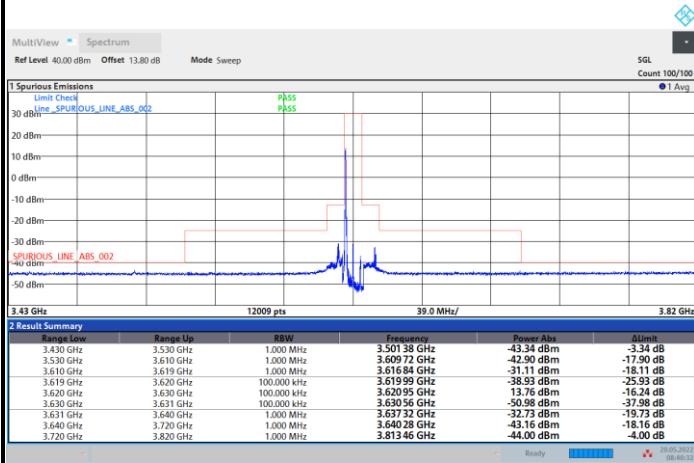


## FR1 n48 / 10MHz / CP OFDM / 256QAM

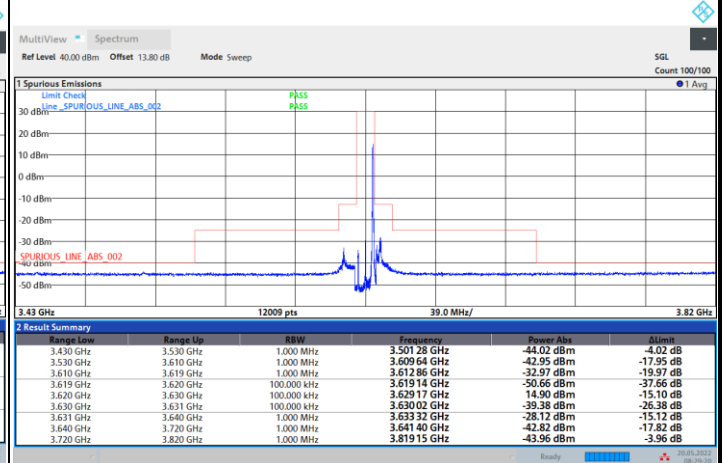
## Middle Channel

## 1RB0

## 1RBmax

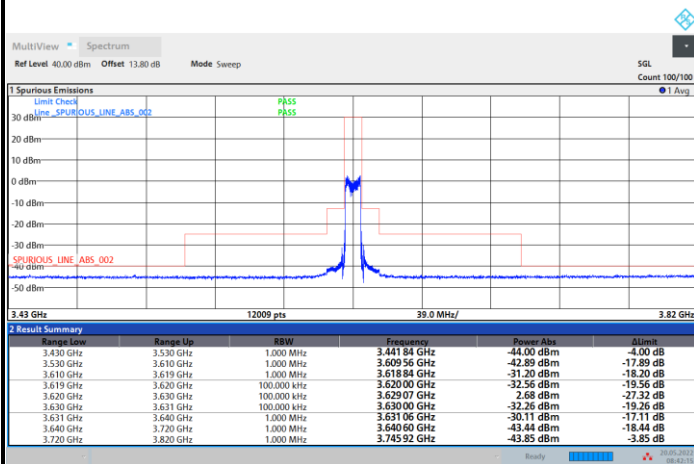


08:40:33 20.05.2022



08:20:21 20.05.2022

## Full RB



08:42:16 20.05.2022