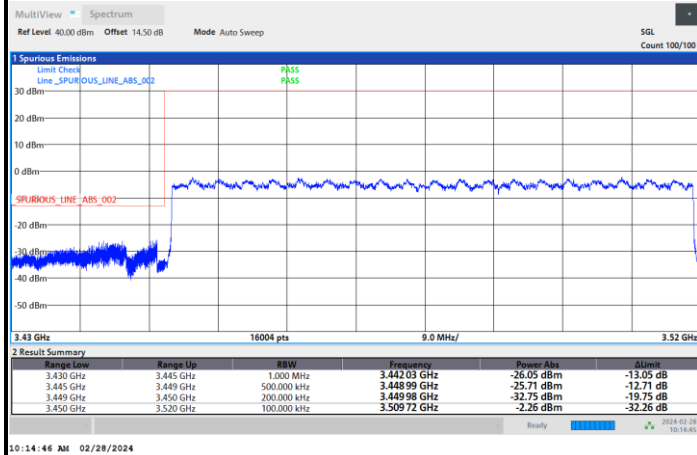


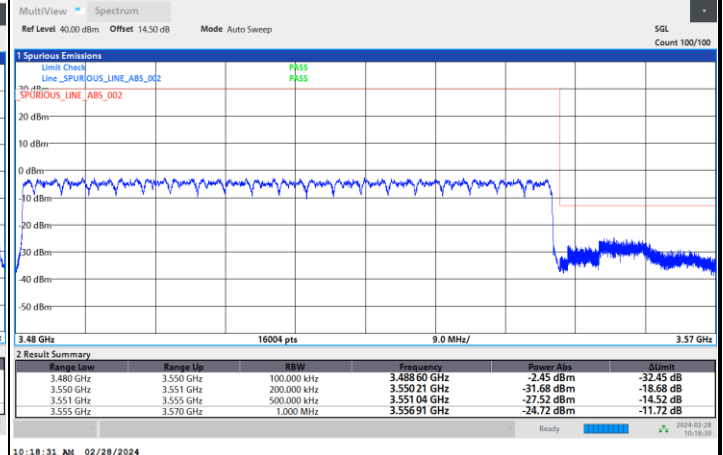


## FR1 n77 / 70MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

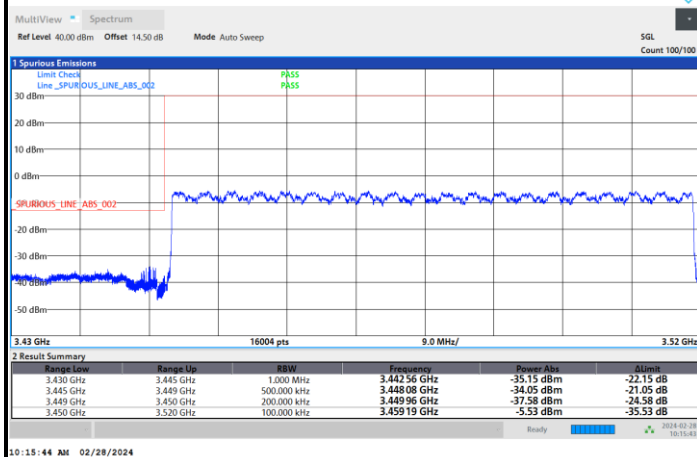


## Highest Band Edge / Full RB

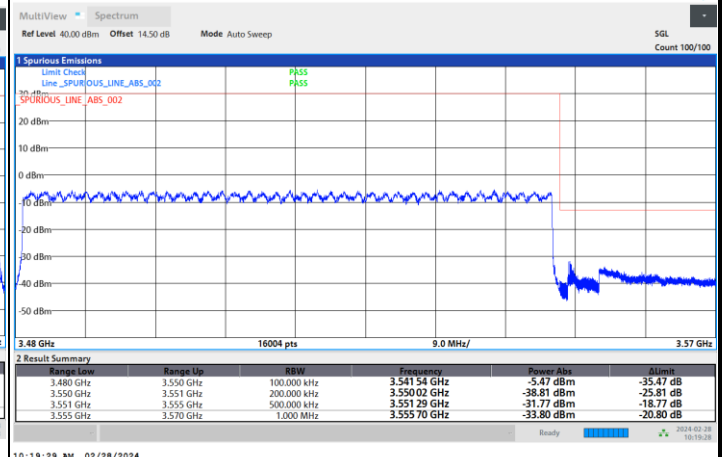


## FR1 n77 / 70MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



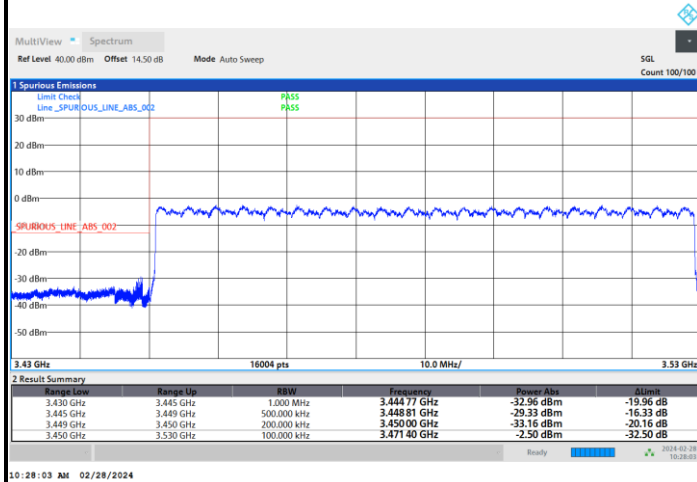
## Highest Band Edge / Full RB



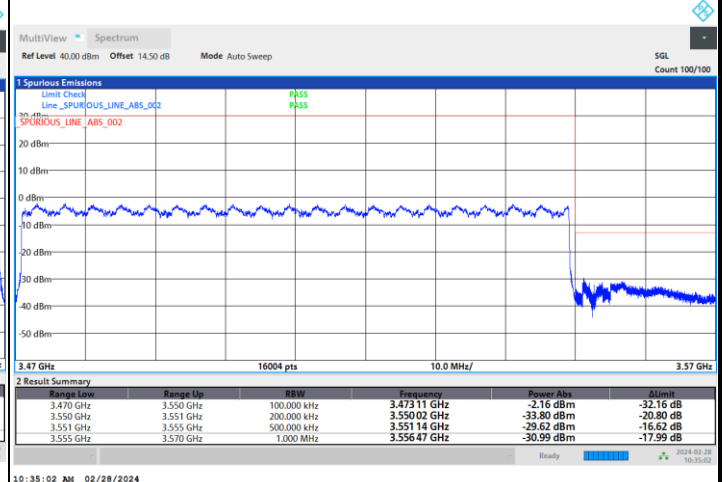


## FR1 n77 / 80MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB

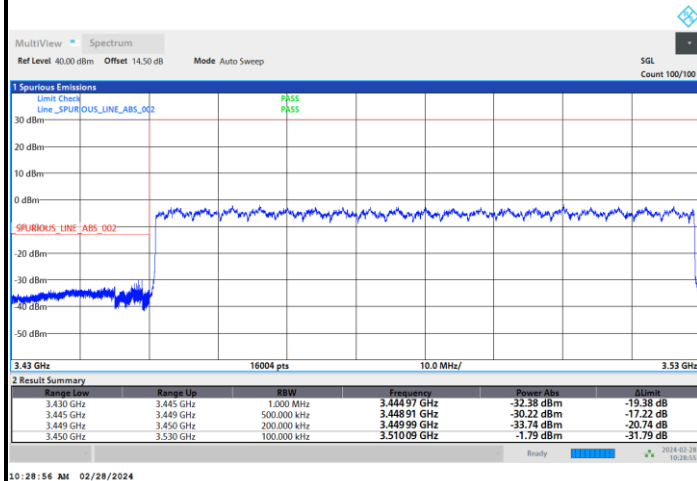


## Highest Band Edge / Full RB

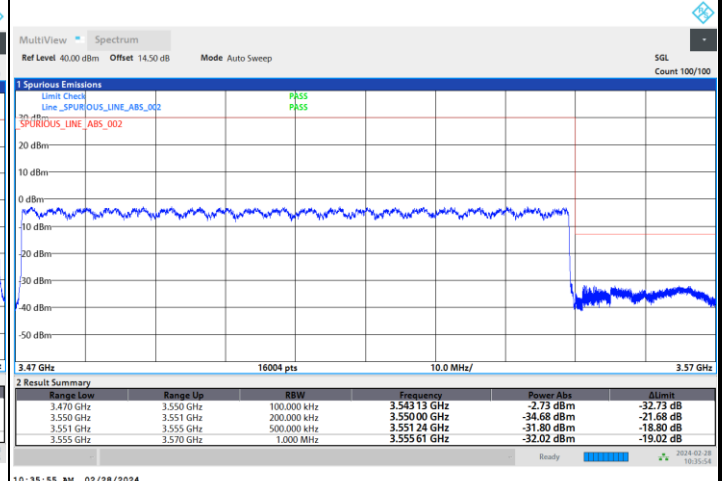


## FR1 n77 / 80MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



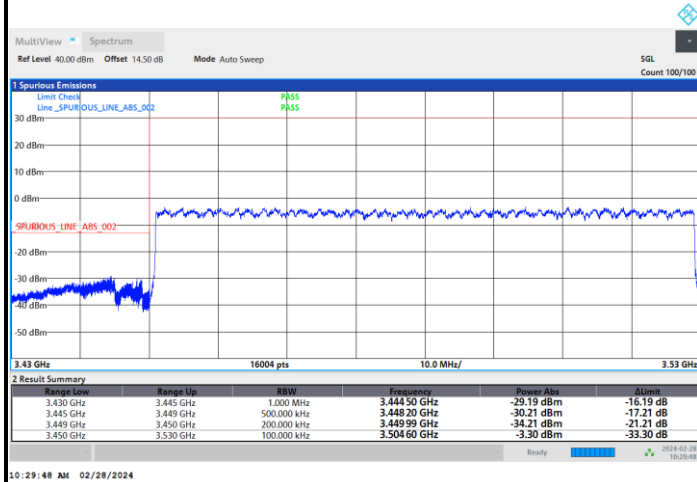
## Highest Band Edge / Full RB



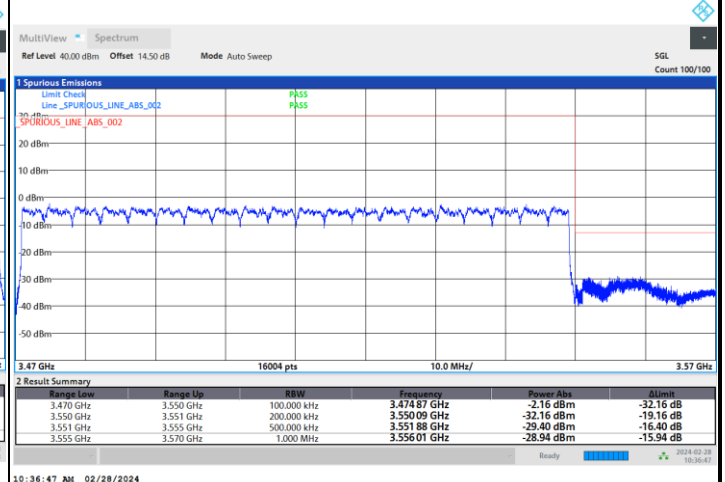


## FR1 n77 / 80MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

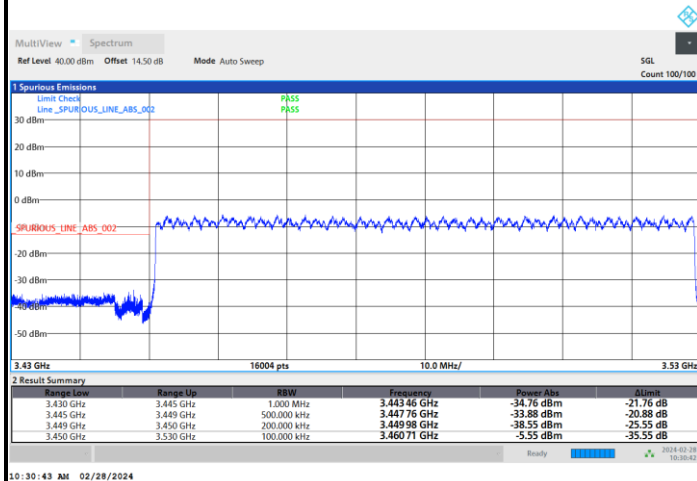


## Highest Band Edge / Full RB

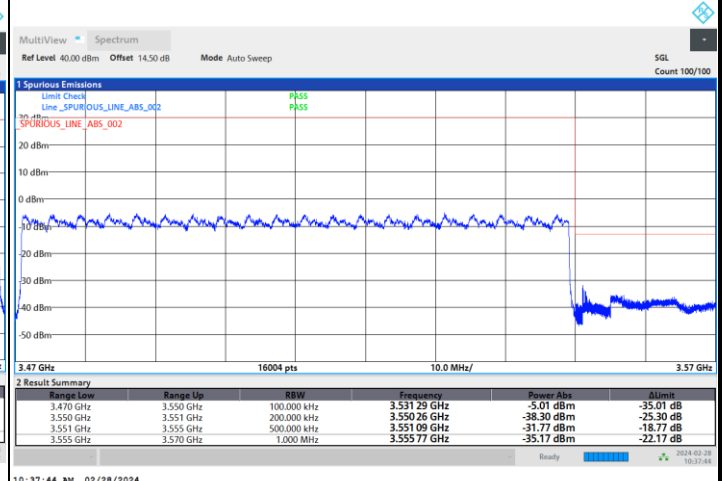


## FR1 n77 / 80MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



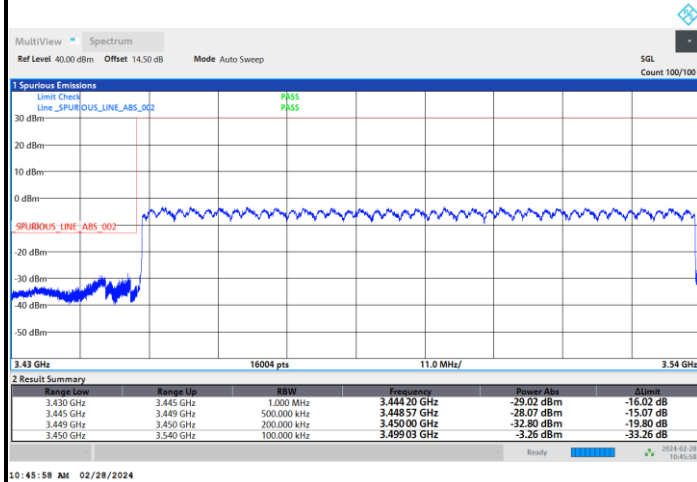
## Highest Band Edge / Full RB



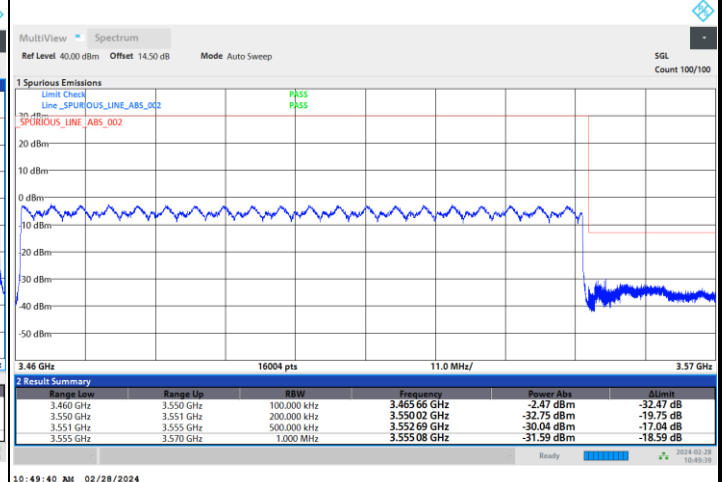


## FR1 n77 / 90MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB

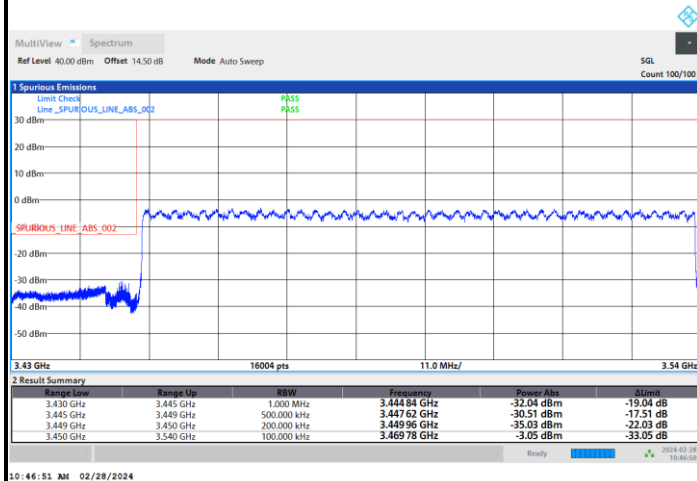


## Highest Band Edge / Full RB

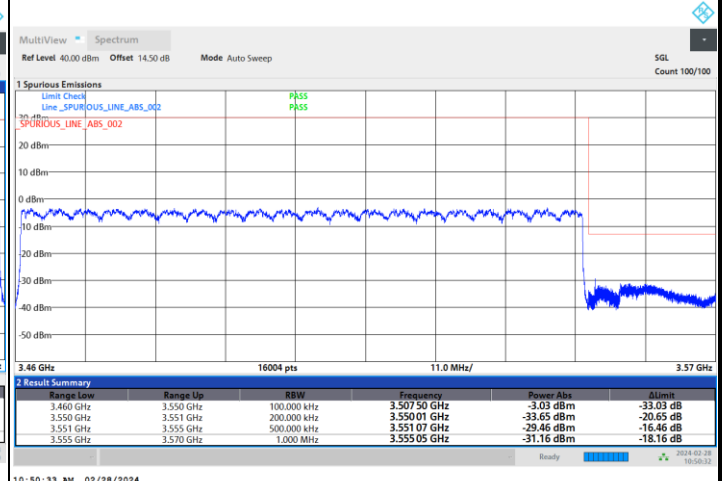


## FR1 n77 / 90MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



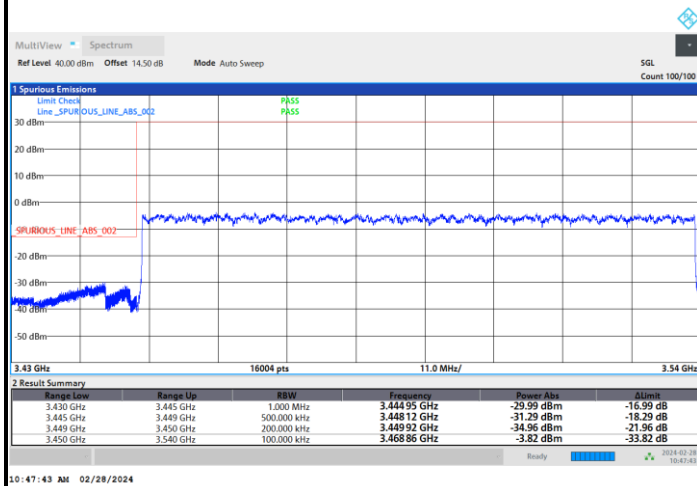
## Highest Band Edge / Full RB



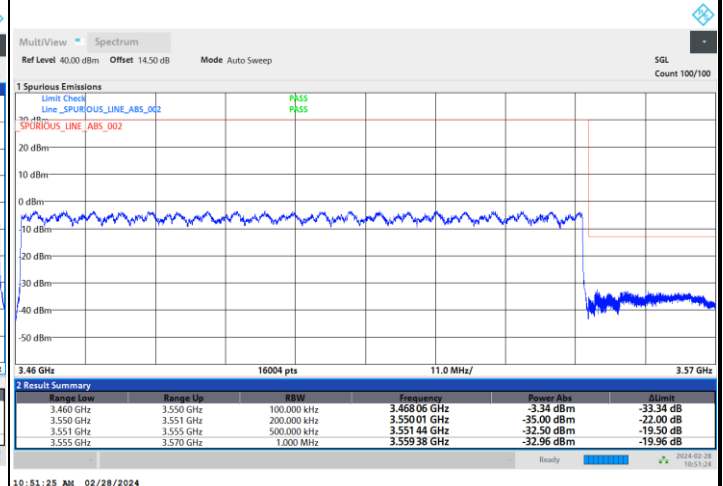


## FR1 n77 / 90MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

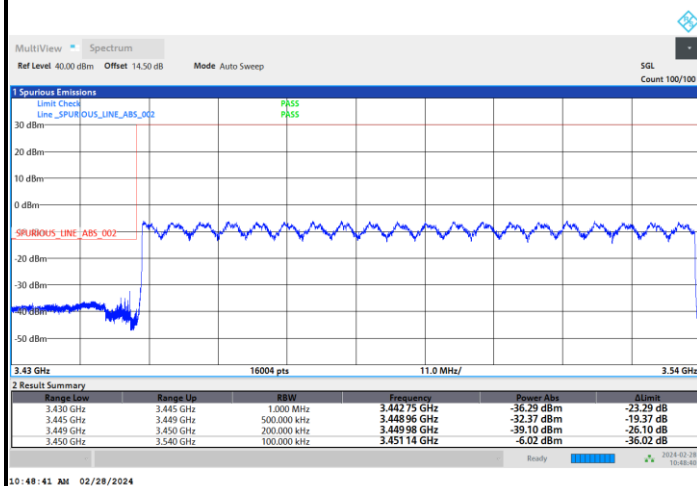


## Highest Band Edge / Full RB

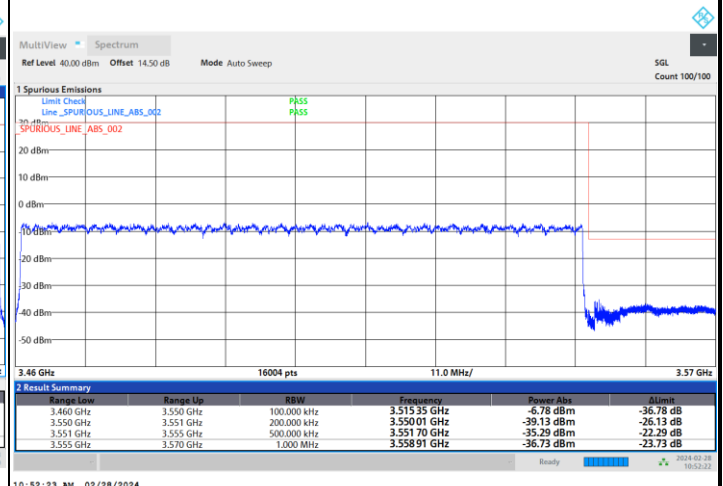


## FR1 n77 / 90MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



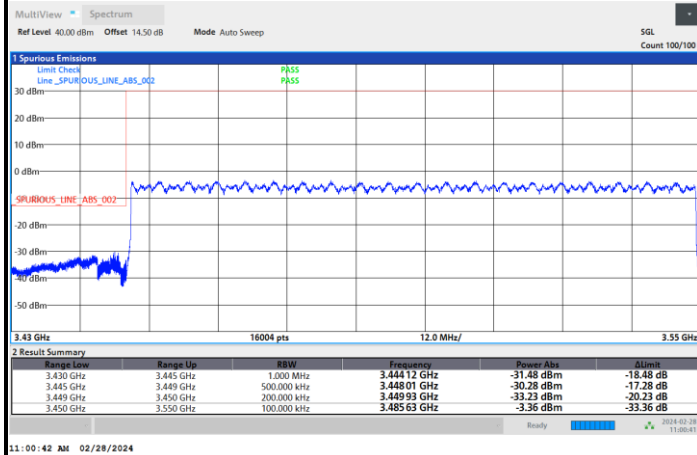
## Highest Band Edge / Full RB



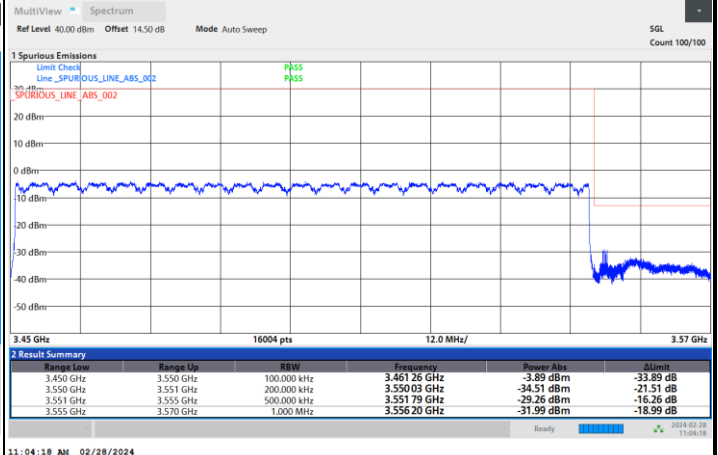


## FR1 n77 / 100MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB

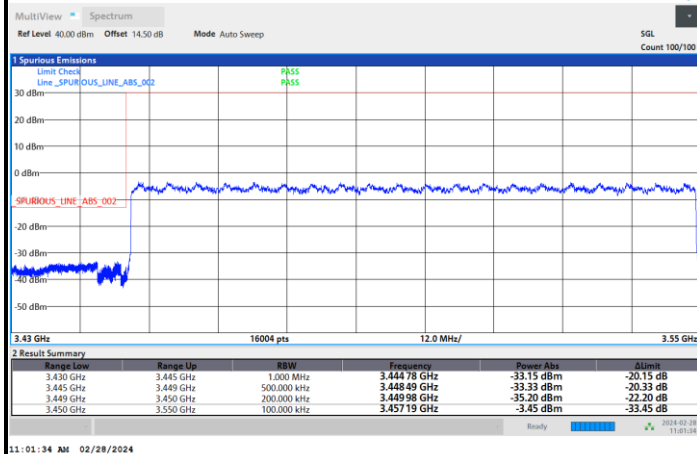


## Highest Band Edge / Full RB

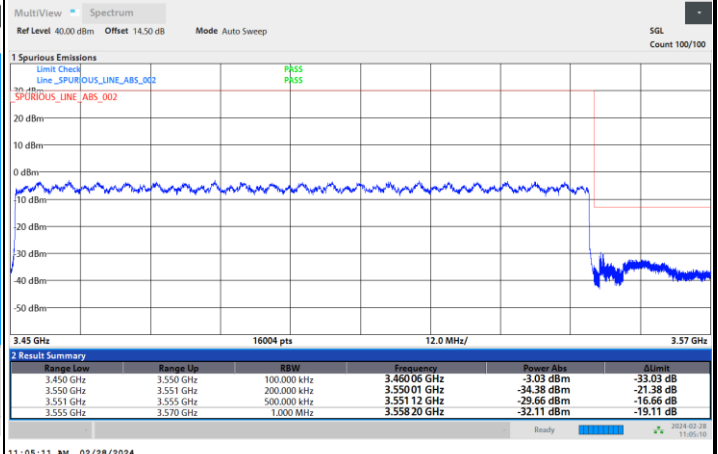


## FR1 n77 / 100MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



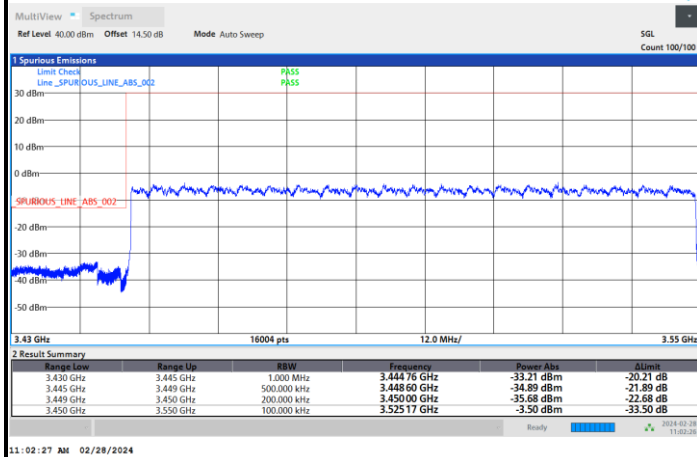
## Highest Band Edge / Full RB



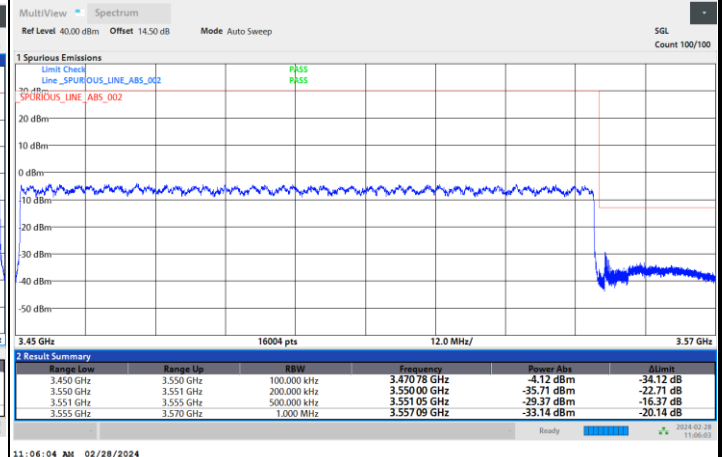


## FR1 n77 / 100MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

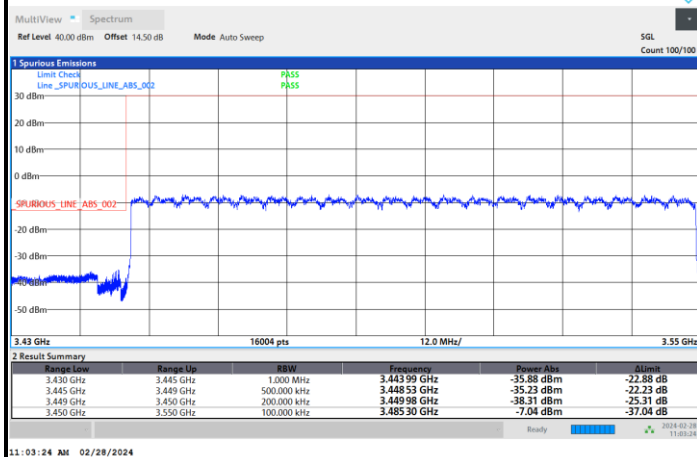


## Highest Band Edge / Full RB

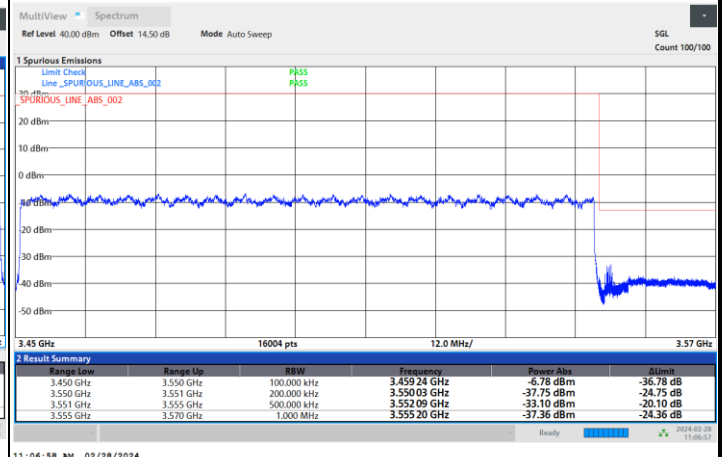


## FR1 n77 / 100MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

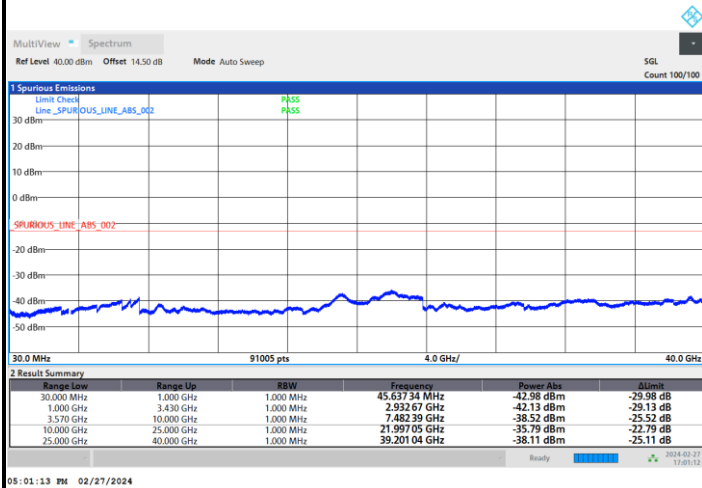




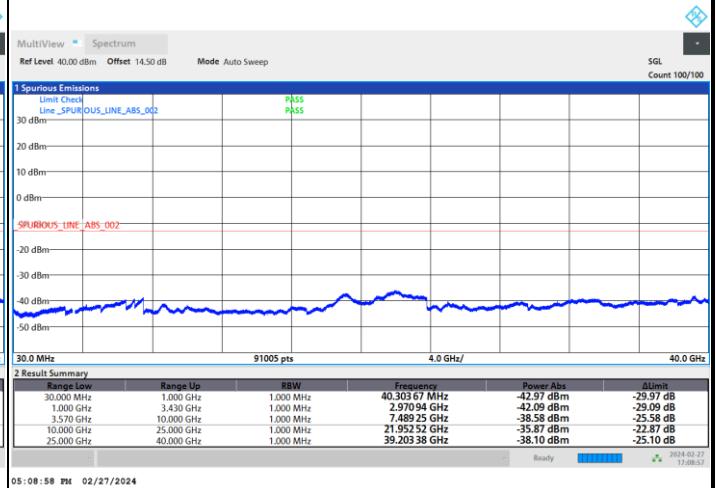
# Conducted Spurious Emission

FR1 n77 / 10MHz / CP OFDM / QPSK / 1RB1

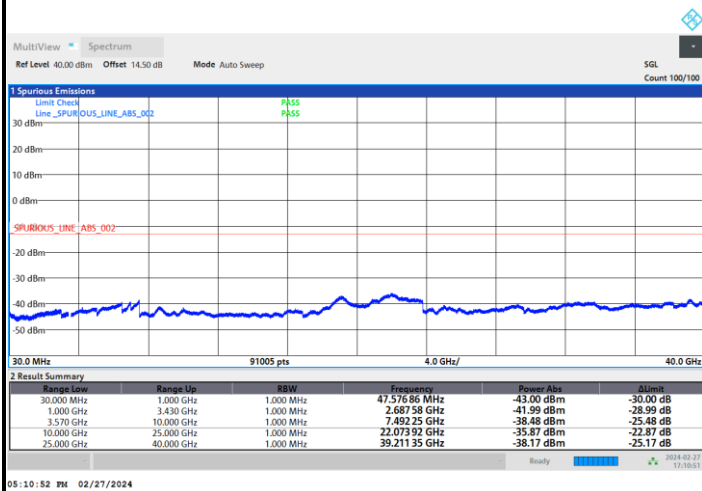
## Lowest Channel



## Middle Channel



## Highest Channel



## Frequency Stability

| Test Conditions     |                   | FR1 n77 (QPSK) / Middle Channel | Limit   |
|---------------------|-------------------|---------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 20MHz                        | Note 2. |
|                     |                   | Deviation (ppm)                 | Result  |
| 50                  | Normal Voltage    | 0.0031                          | PASS    |
| 40                  | Normal Voltage    | 0.0026                          |         |
| 30                  | Normal Voltage    | 0.0007                          |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                          |         |
| 10                  | Normal Voltage    | 0.0009                          |         |
| 0                   | Normal Voltage    | 0.0024                          |         |
| -10                 | Normal Voltage    | 0.0034                          |         |
| -20                 | Normal Voltage    | 0.0003                          |         |
| 20                  | Maximum Voltage   | 0.0007                          |         |
| 20                  | Normal Voltage    | 0.0000                          |         |
| 20                  | Battery End Point | 0.0023                          |         |

**Note:**

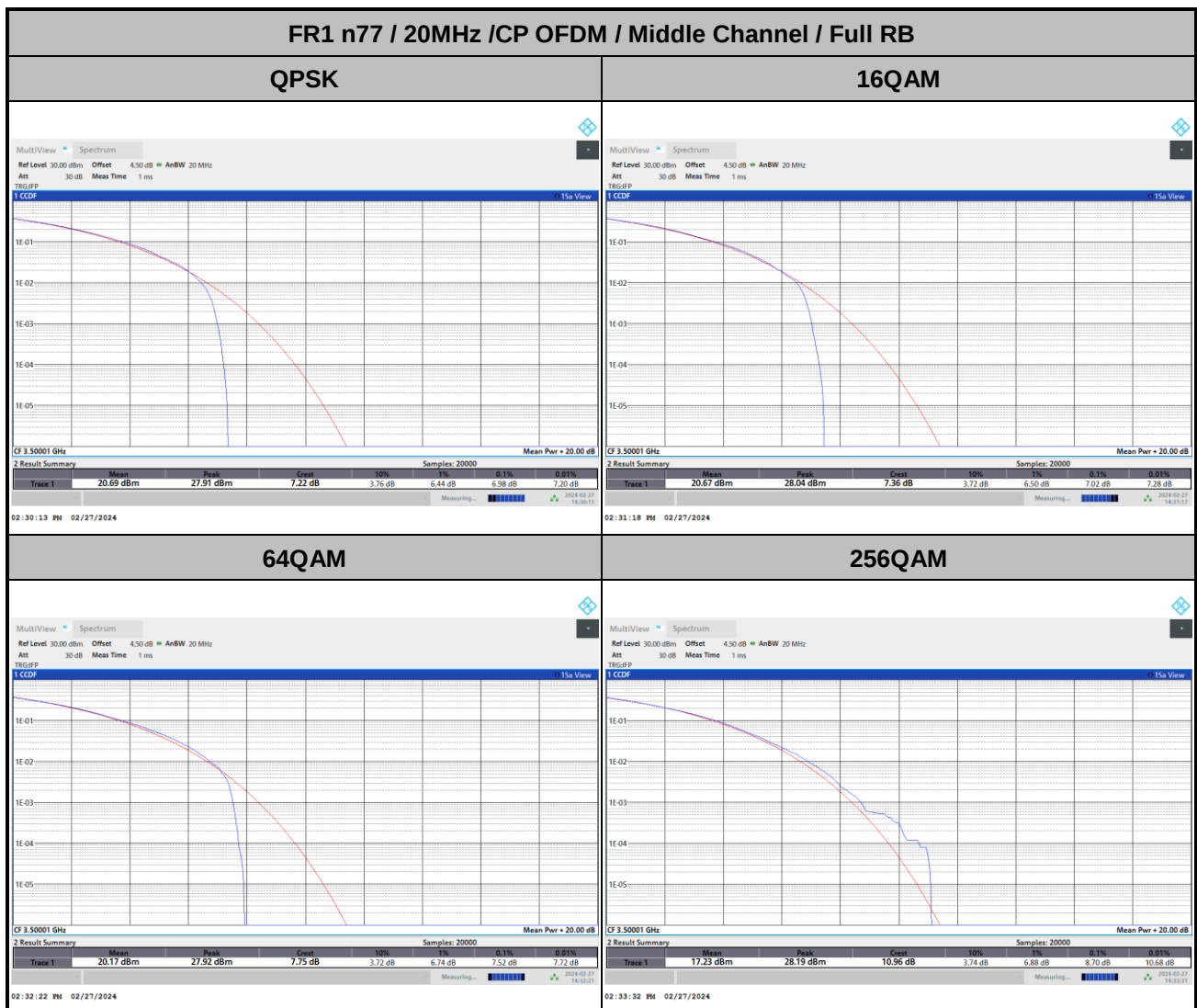
1. Normal Voltage = 3.8 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## FR1 n77(Part 27Q) MIMO ANT9

## Peak-to-Average Ratio

| Mode      | FR1 n77 / 20MHz / CP OFDM |         |         |         |             |
|-----------|---------------------------|---------|---------|---------|-------------|
| Mod.      | QPSK                      | 16QAM   | 64QAM   | 256QAM  | Limit: 13dB |
| RB Size   | Full RB                   | Full RB | Full RB | Full RB | Result      |
| Middle CH | 6.98                      | 7.02    | 7.52    | 8.70    | PASS        |



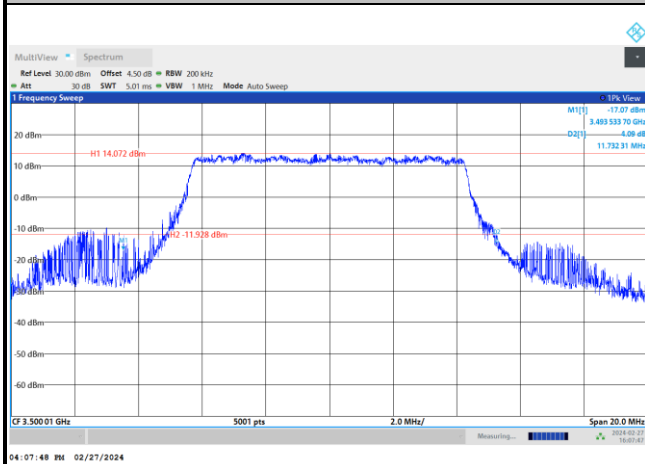
**26dB Bandwidth**

| Mode      | FR1 n77 : 26dB BW(MHz) / CP OFDM |        |       |        |       |        |        |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|--------|--------|
| BW        | 10MHz                            |        | 15MHz |        | 20MHz |        | 25MHz  |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 11.73                            | 11.51  | 18.24 | 16.11  | 24.93 | 23.36  | -      | -      |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 10.75                            | 11.94  | 17.22 | 15.66  | 22.94 | 21.84  | -      | -      |
| BW        | 30MHz                            |        | 40MHz |        | 50MHz |        | 60MHz  |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 34.28                            | 35.68  | 44.59 | 46.21  | 53.66 | 52.40  | 68.50  | 66.85  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 36.00                            | 34.93  | 44.58 | 43.40  | 51.95 | 55.53  | 67.74  | 65.92  |
| BW        | 70MHz                            |        | 80MHz |        | 90MHz |        | 100MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 79.22                            | 76.06  | 84.70 | 84.54  | 99.16 | 95.81  | 106.76 | 103.34 |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 75.68                            | 74.97  | 80.51 | 84.12  | 94.12 | 93.83  | 104.36 | 108.32 |

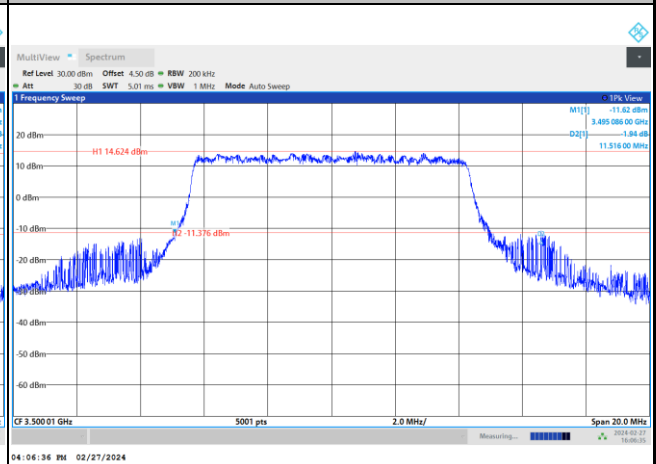


## FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

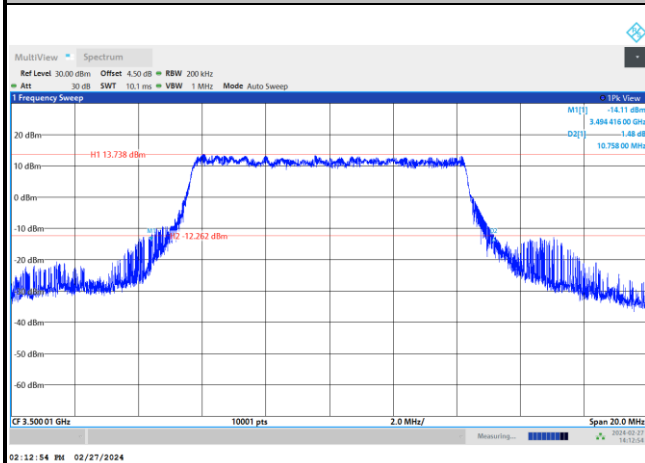
## QPSK



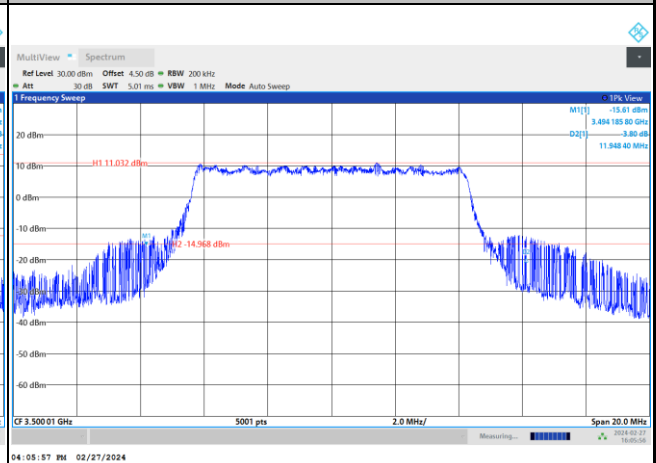
## 16QAM



## 64QAM



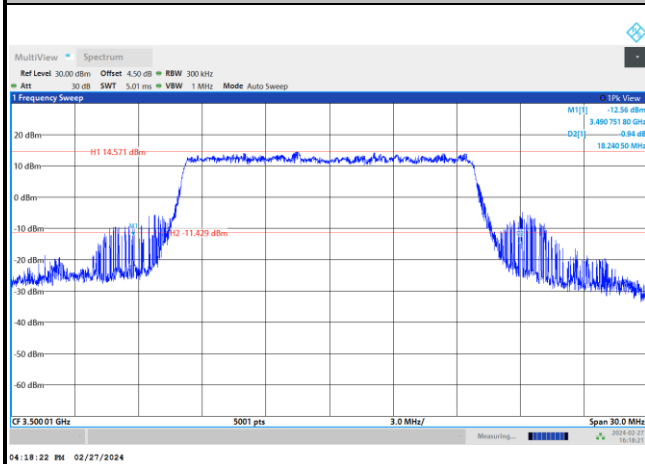
## 256QAM



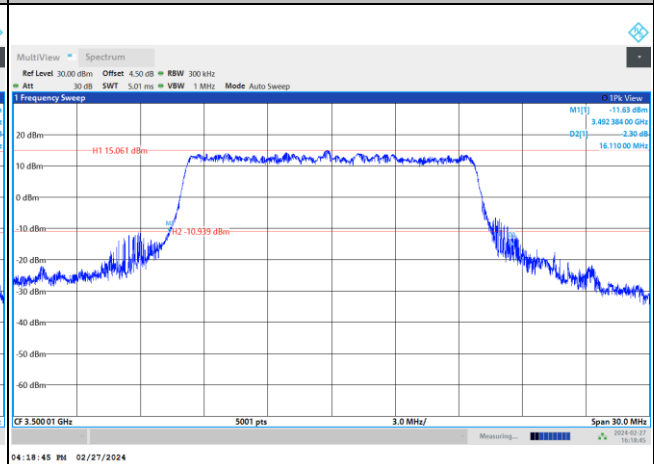


## FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

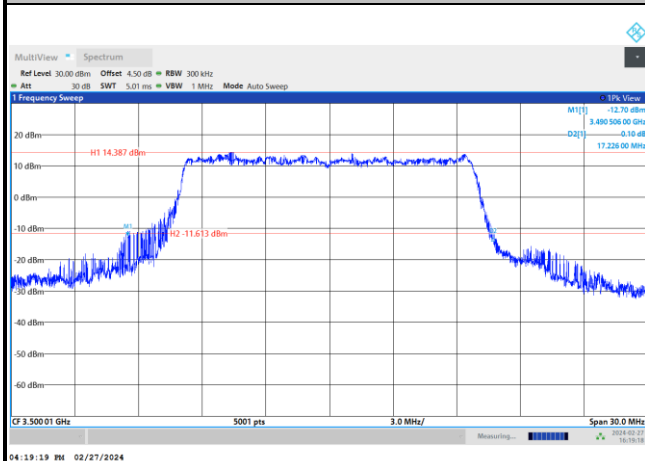
## QPSK



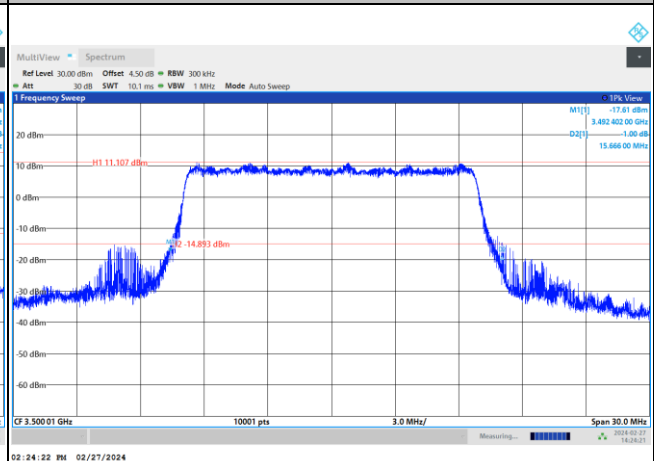
## 16QAM



## 64QAM



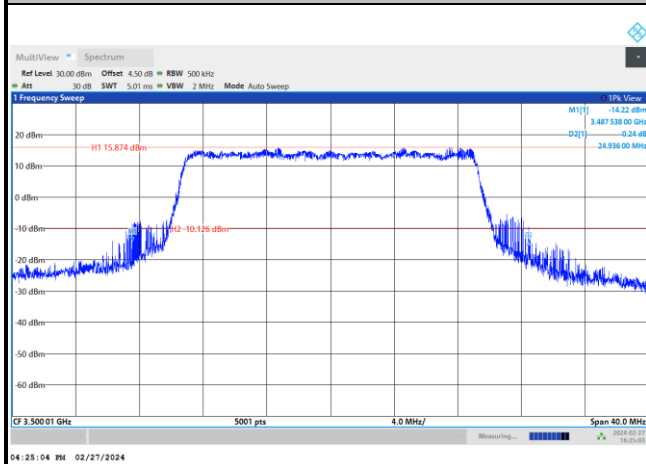
## 256QAM



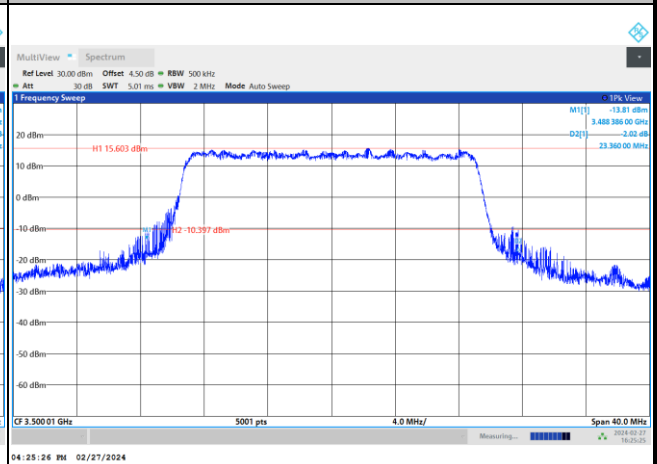


## FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

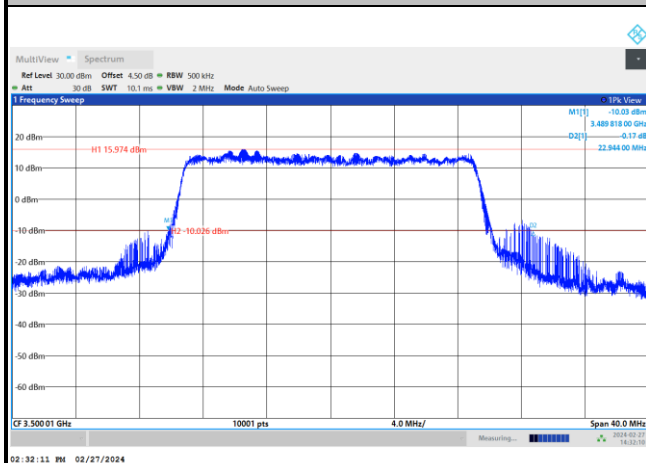
## QPSK



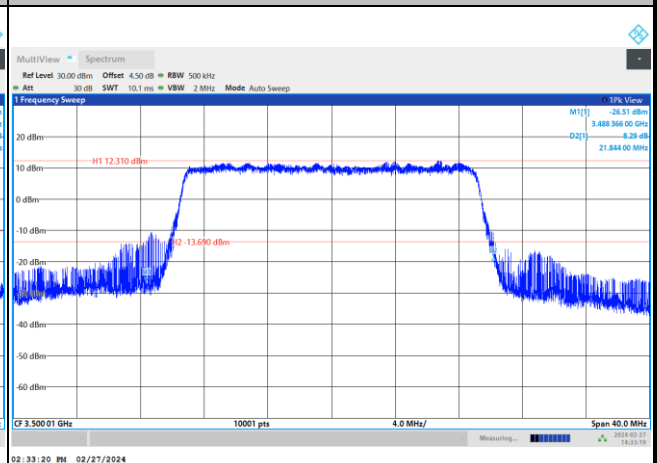
## 16QAM



## 64QAM



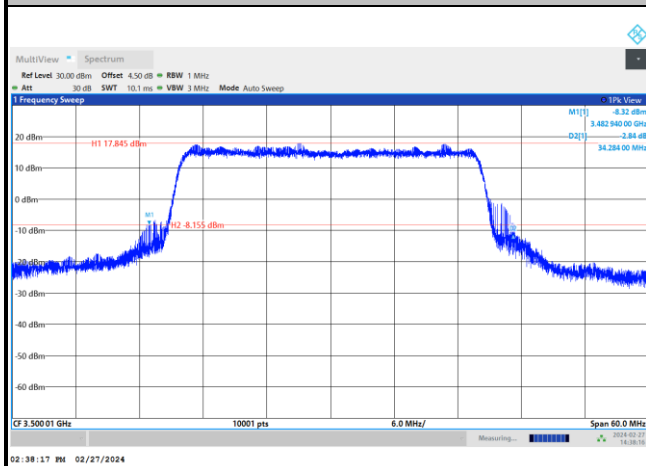
## 256QAM



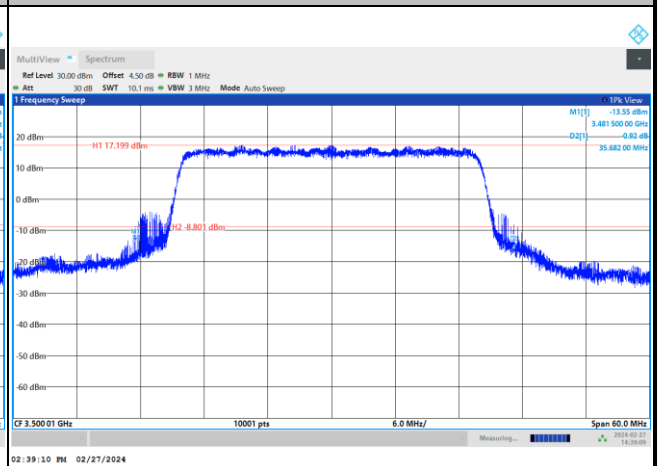


## FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

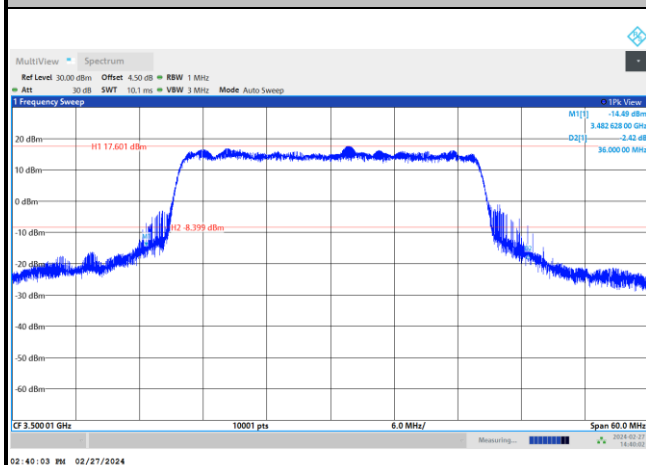
## QPSK



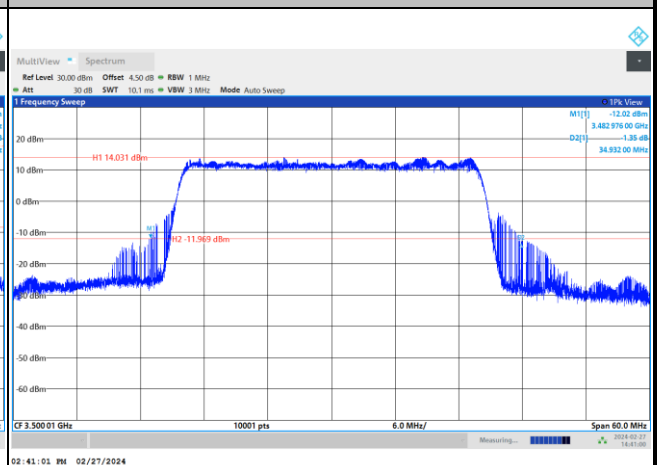
## 16QAM



## 64QAM



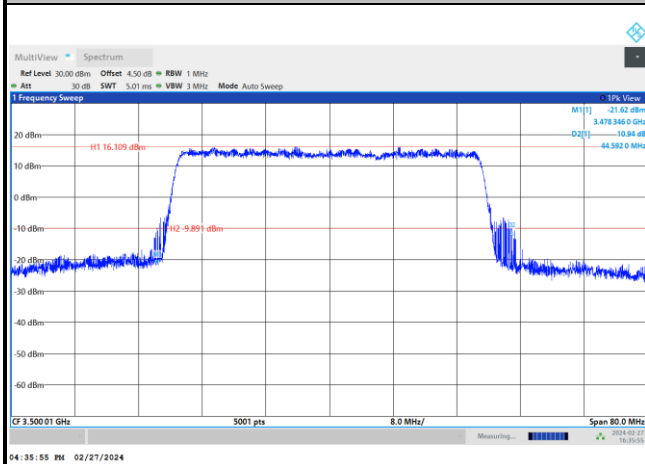
## 256QAM



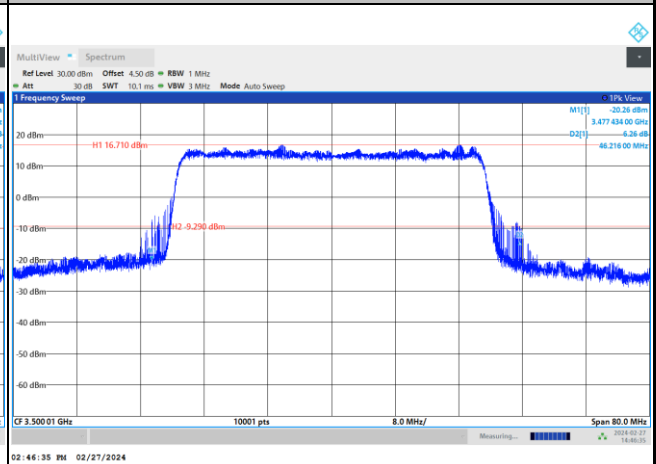


## FR1 n77 / 40MHz / CP OFDM / Middle Channel / Full RB

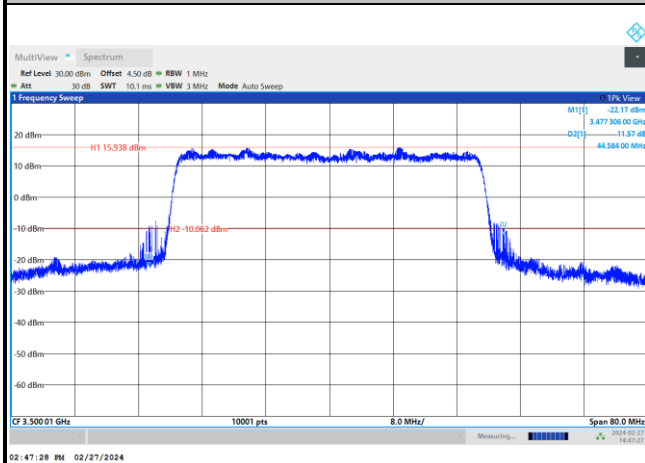
## QPSK



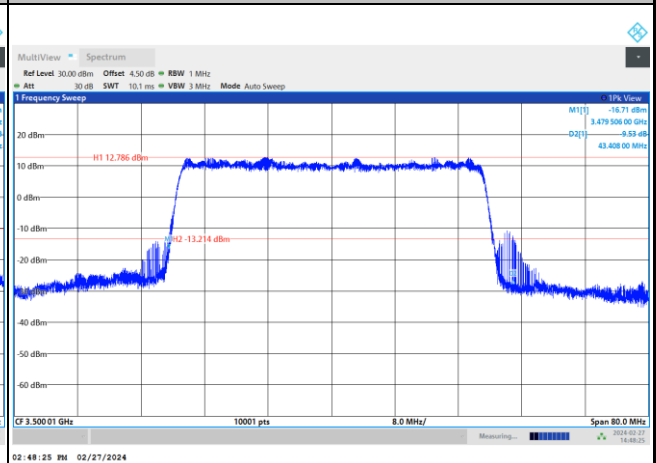
## 16QAM



## 64QAM



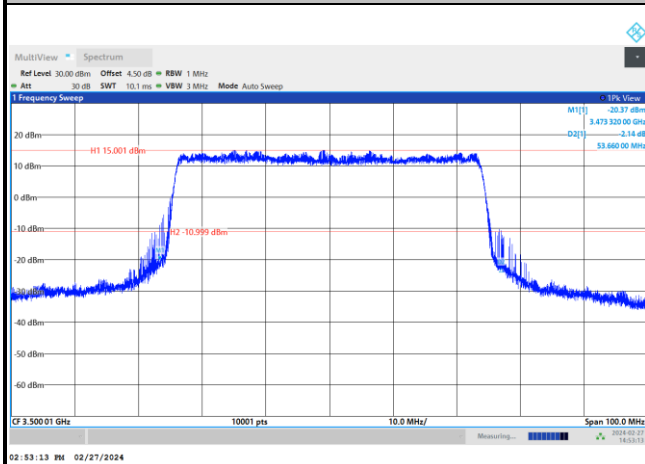
## 256QAM



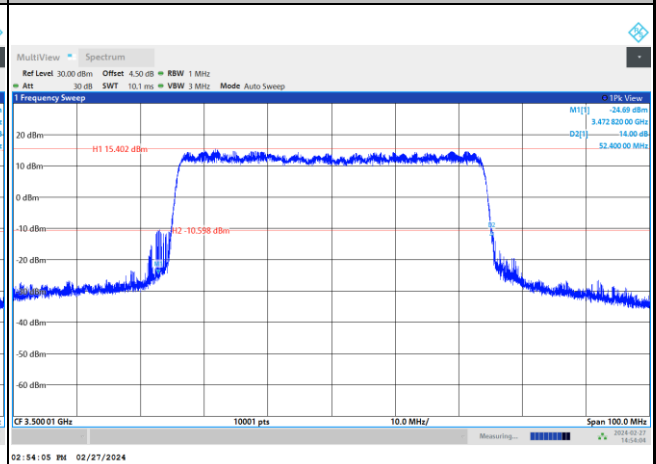


## FR1 n77 / 50MHz / CP OFDM / Middle Channel / Full RB

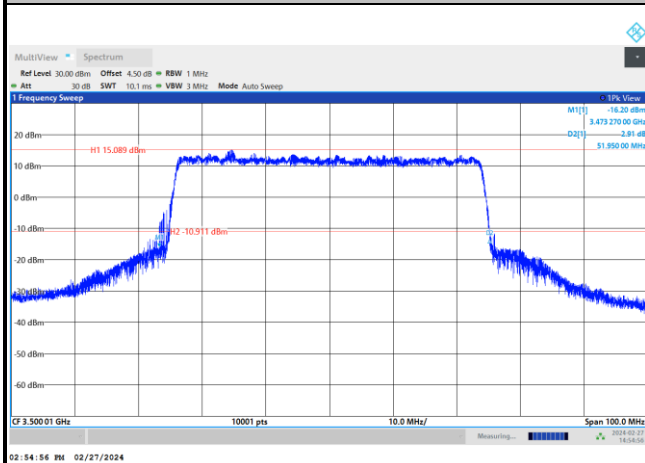
## QPSK



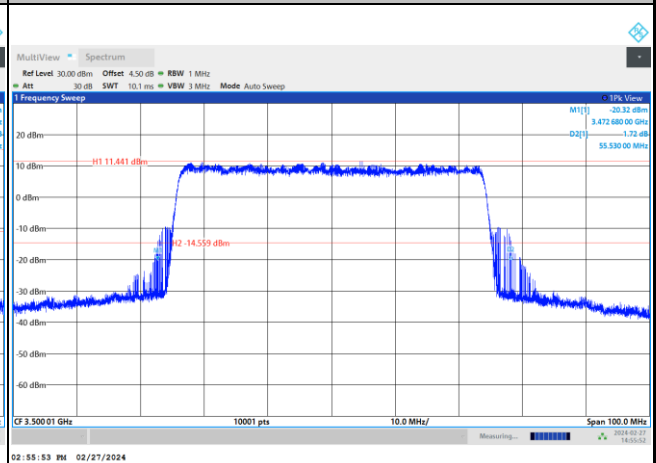
## 16QAM

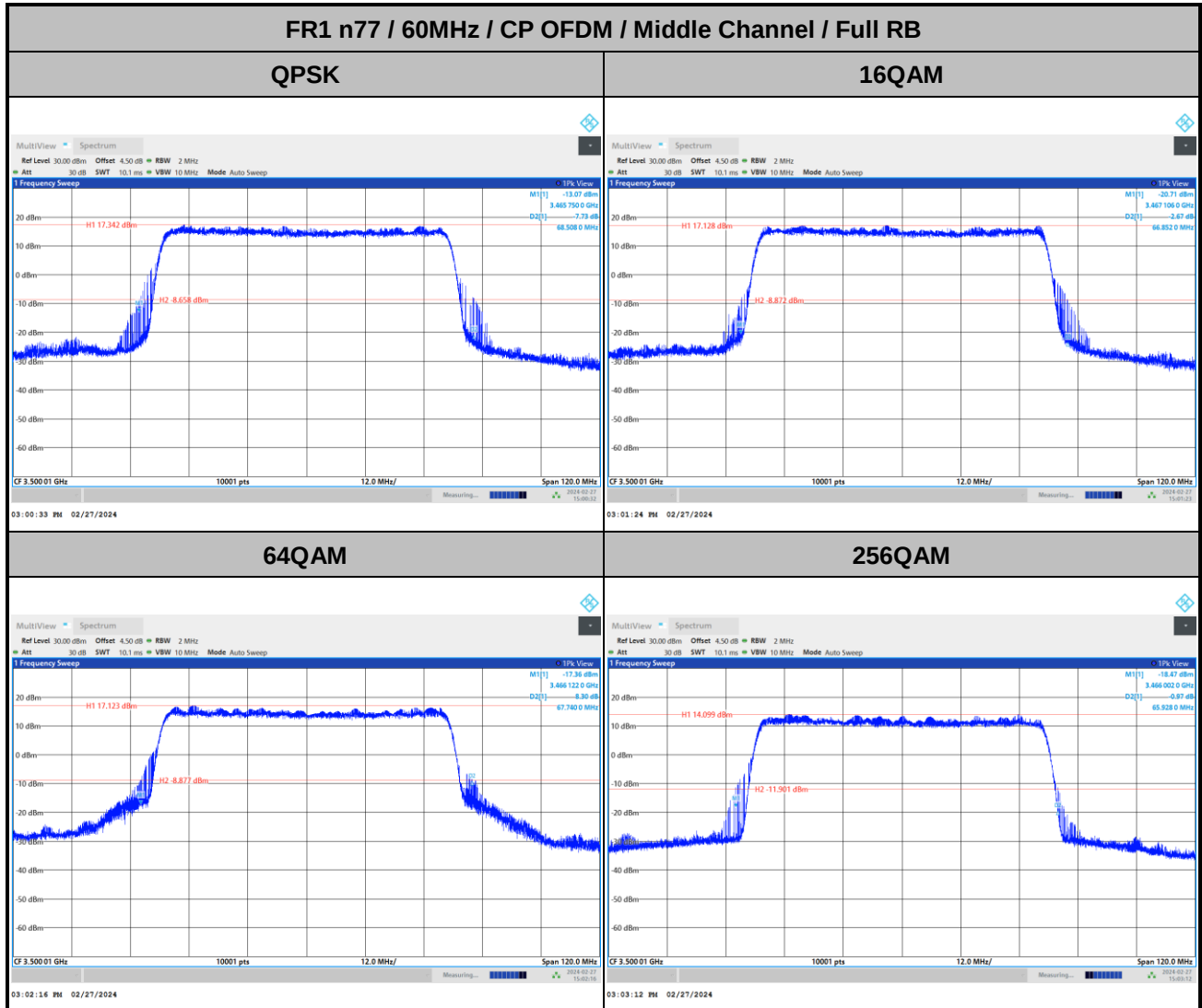


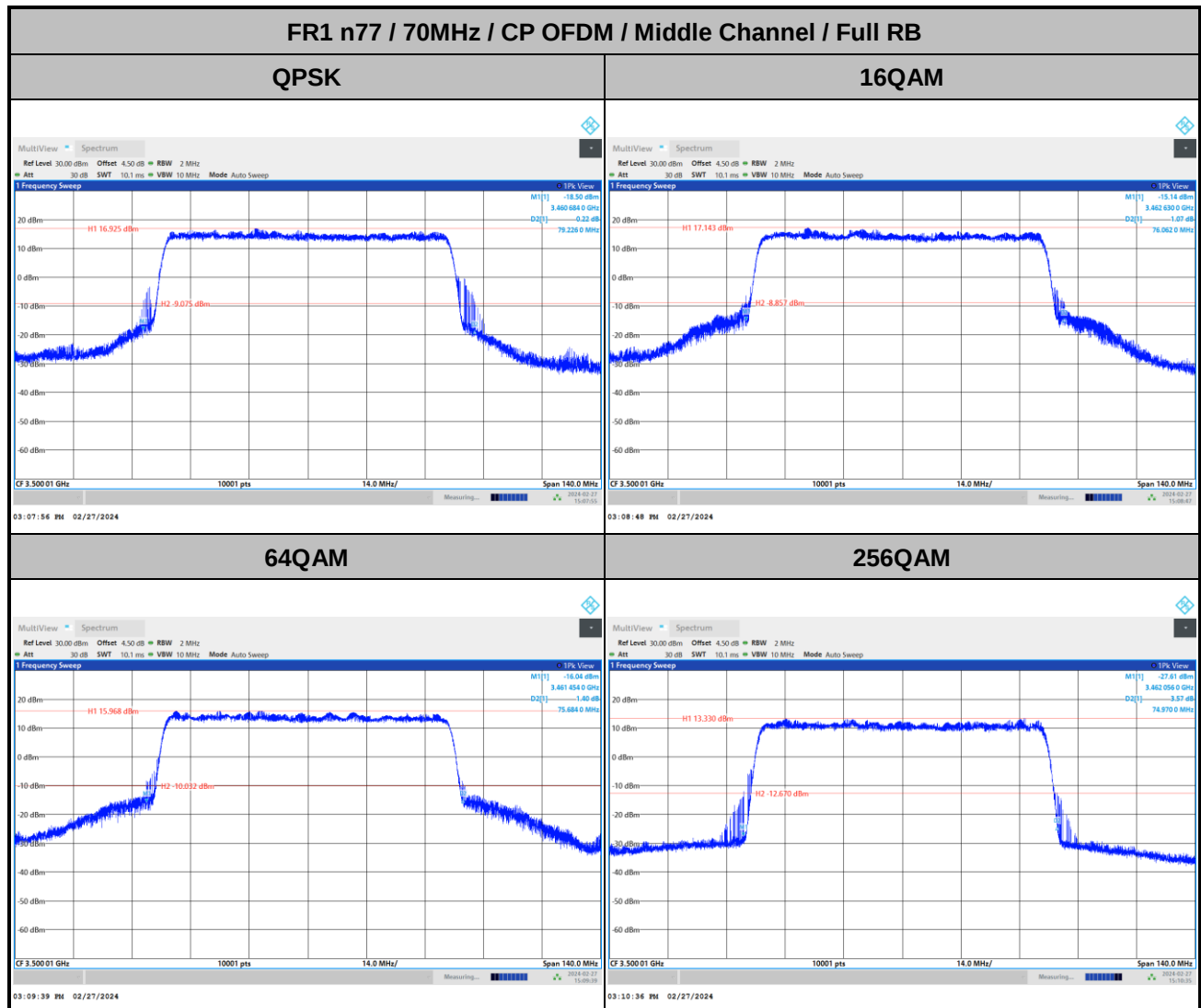
## 64QAM



## 256QAM



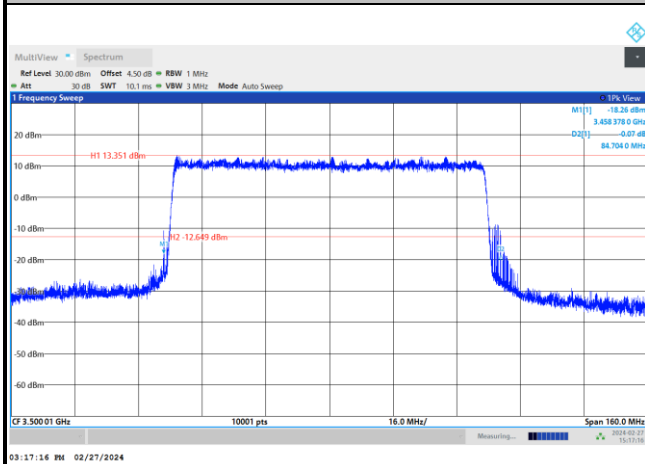




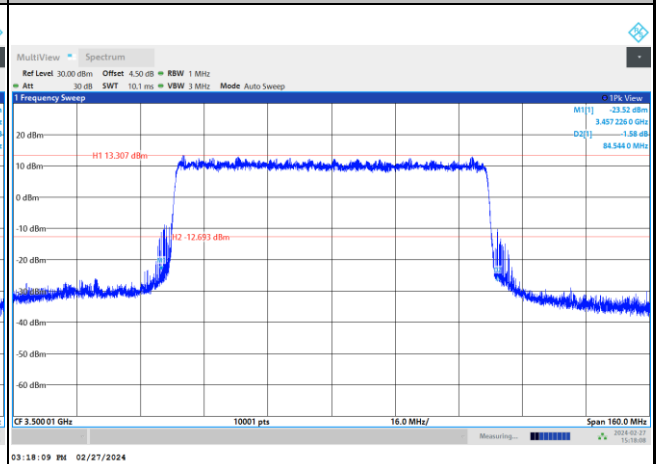


## FR1 n77 / 80MHz / CP OFDM / Middle Channel / Full RB

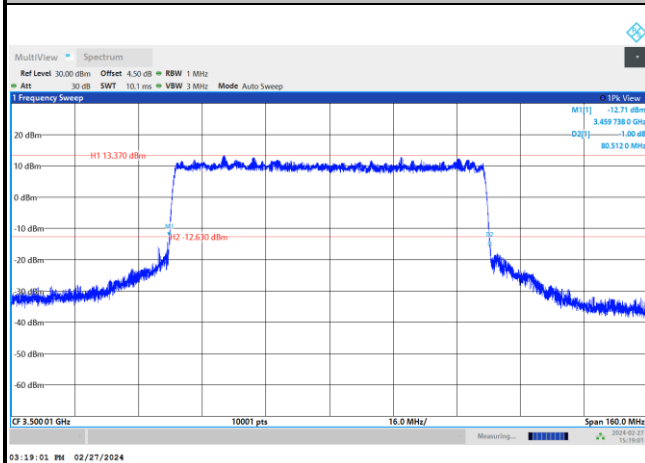
## QPSK



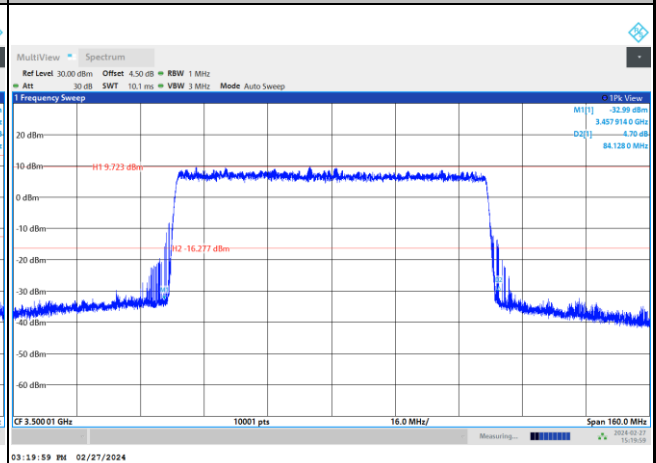
## 16QAM



## 64QAM

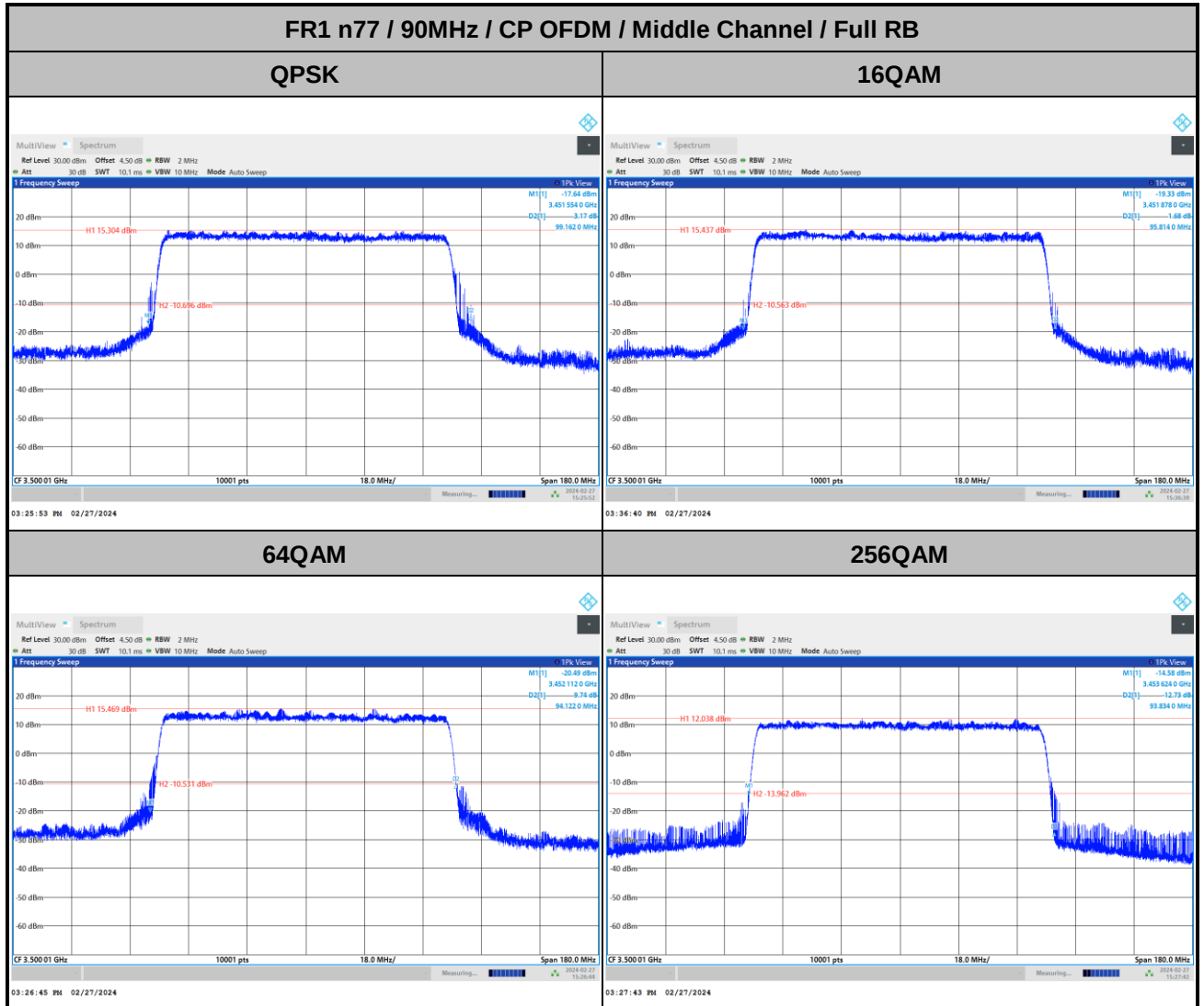


## 256QAM





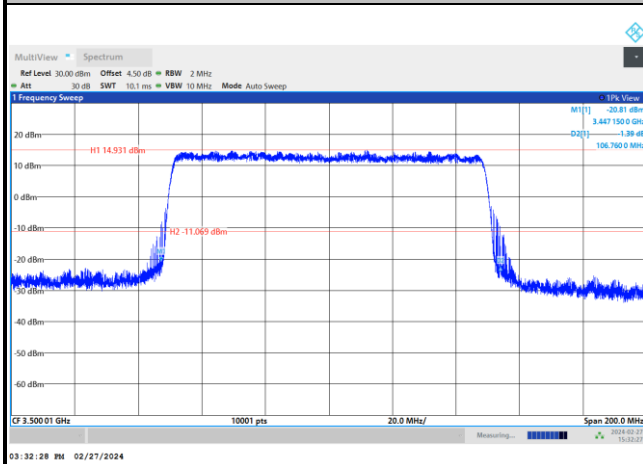
Report No. : FG41111C



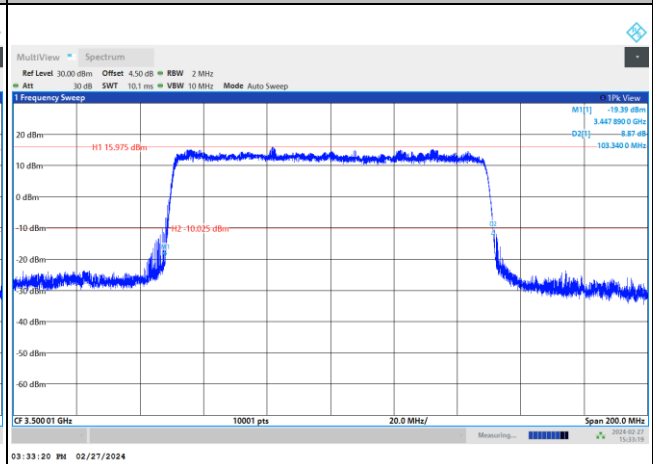


## FR1 n77 / 100MHz / CP OFDM / Middle Channel / Full RB

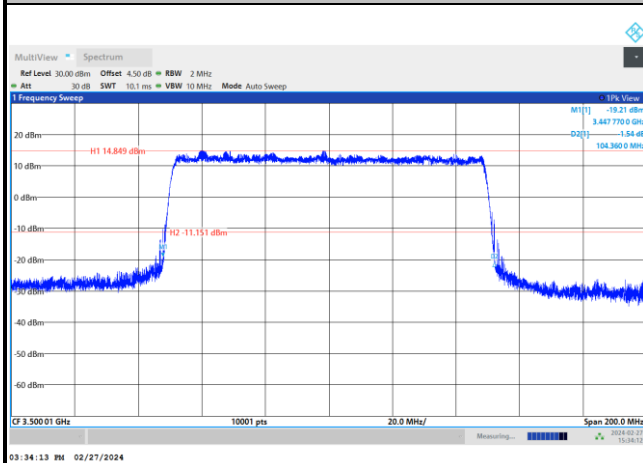
## QPSK



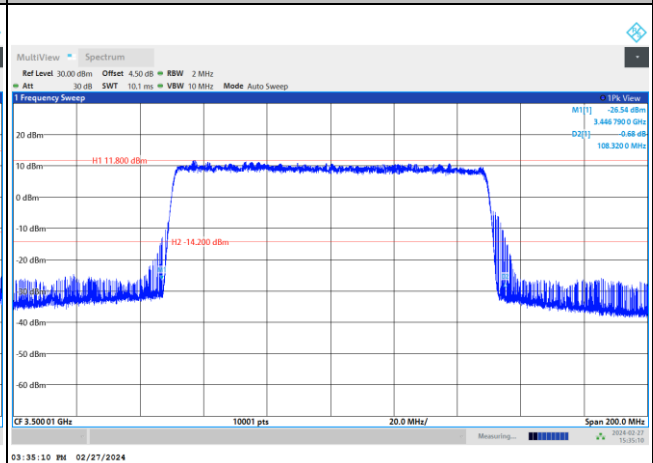
## 16QAM



## 64QAM



## 256QAM



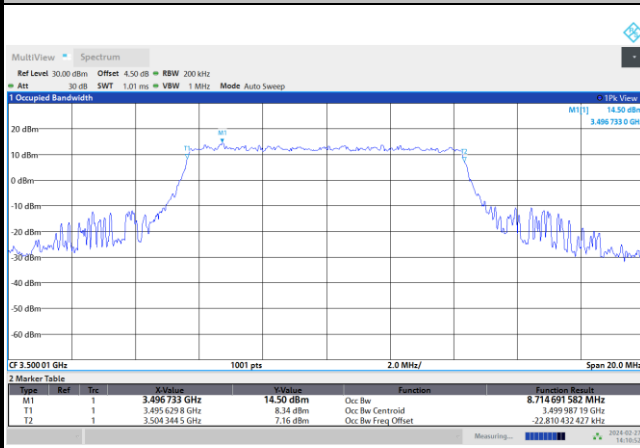
**Occupied Bandwidth**

| Mode      | FR1 n77 : OB BW(MHz) / CP OFDM |        |       |        |       |        |        |        |
|-----------|--------------------------------|--------|-------|--------|-------|--------|--------|--------|
| BW        | 10MHz                          |        | 15MHz |        | 20MHz |        | 25MHz  |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 8.71                           | 8.67   | 13.66 | 13.70  | 18.41 | 18.52  | -      | -      |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 8.63                           | 8.65   | 13.69 | 13.66  | 18.40 | 18.42  | -      | -      |
| BW        | 30MHz                          |        | 40MHz |        | 50MHz |        | 60MHz  |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 28.23                          | 28.25  | 38.23 | 38.12  | 47.65 | 47.61  | 58.73  | 58.54  |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 28.25                          | 28.19  | 38.10 | 38.16  | 47.67 | 47.61  | 58.56  | 58.46  |
| BW        | 70MHz                          |        | 80MHz |        | 90MHz |        | 100MHz |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 67.90                          | 68.07  | 78.02 | 77.81  | 87.89 | 87.90  | 97.52  | 97.71  |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 68.03                          | 68.09  | 78.05 | 77.85  | 87.71 | 87.64  | 97.68  | 97.97  |



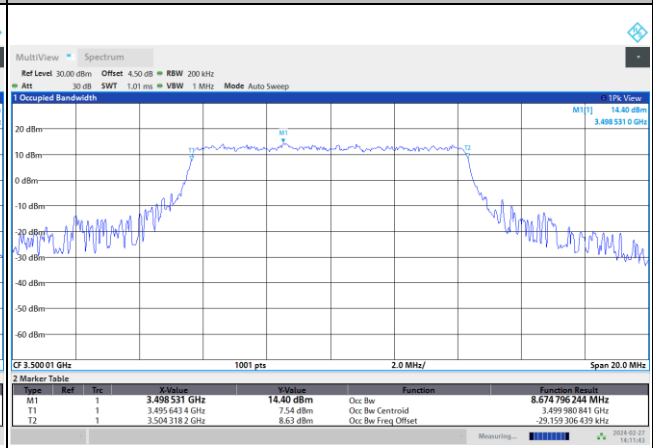
## FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

## QPSK



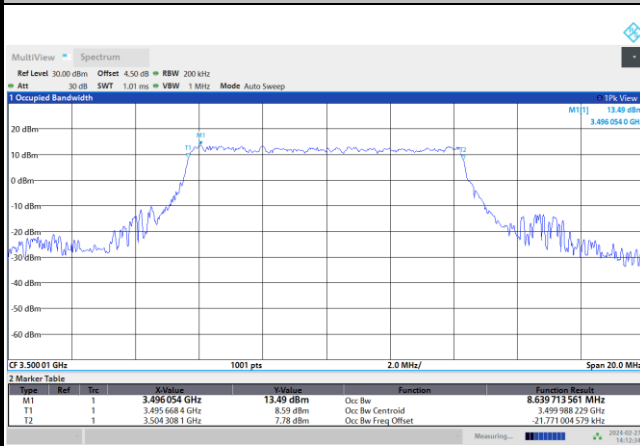
02:10:52 PM 02/27/2024

## 16QAM



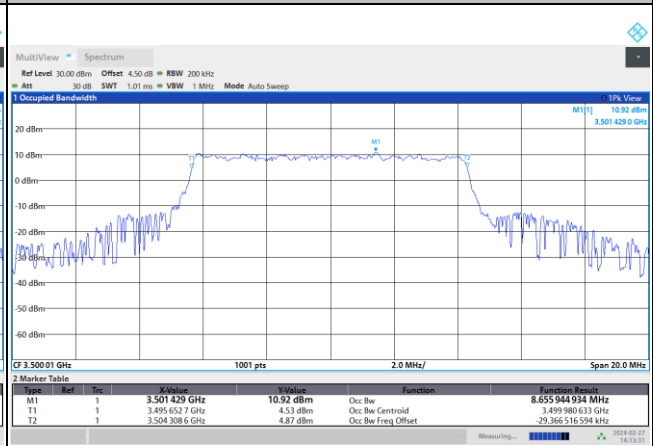
02:11:44 PM 02/27/2024

## 64QAM



02:12:35 PM 02/27/2024

## 256QAM

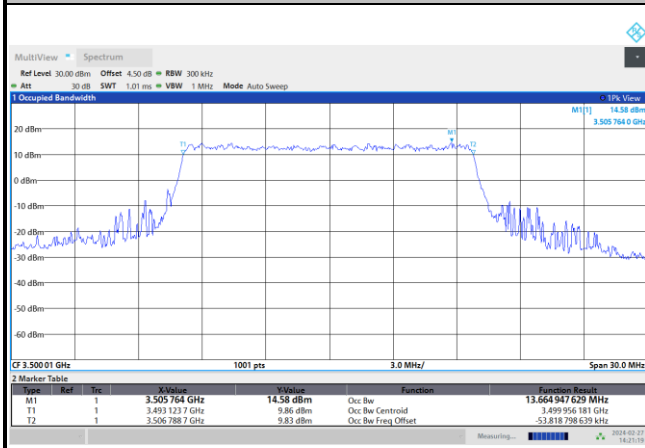


02:13:32 PM 02/27/2024



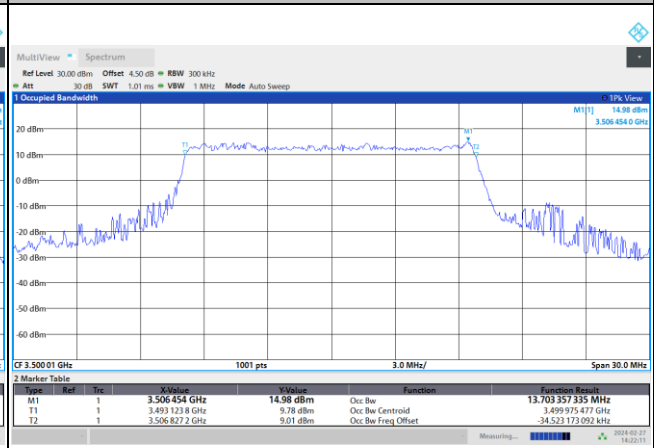
## FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

## QPSK



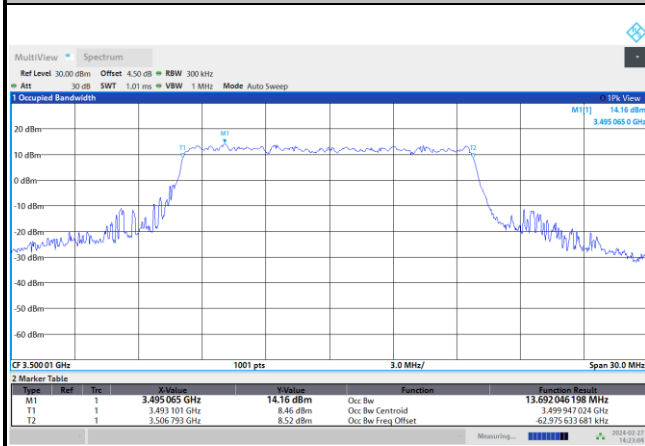
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## 16QAM



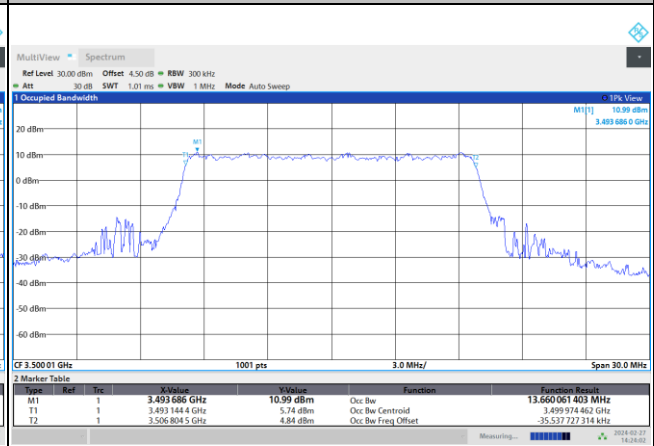
02:22:12 PM 02/27/2024

## 64QAM



02:23:05 PM 02/27/2024

## 256QAM

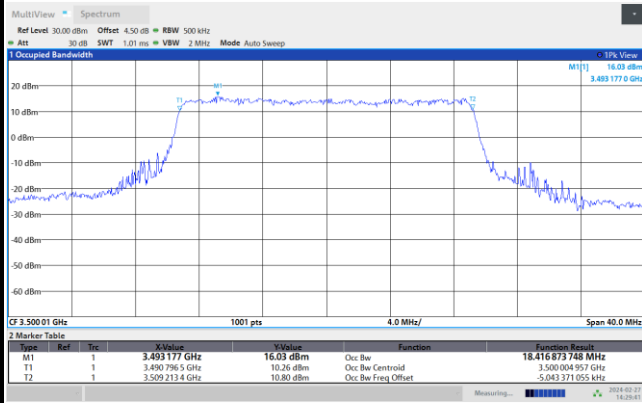


02:24:02 PM 02/27/2024



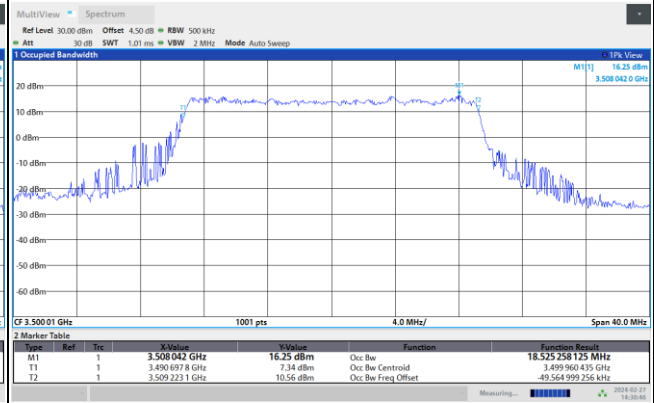
## FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

## QPSK



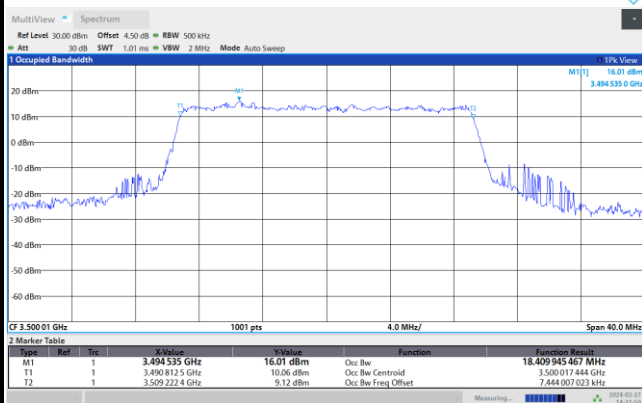
02:29:42 PM 02/27/2024

## 16QAM



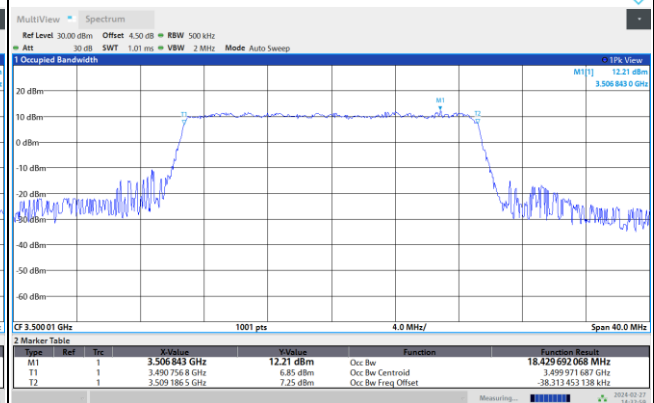
02:30:47 PM 02/27/2024

## 64QAM



02:31:51 PM 02/27/2024

## 256QAM

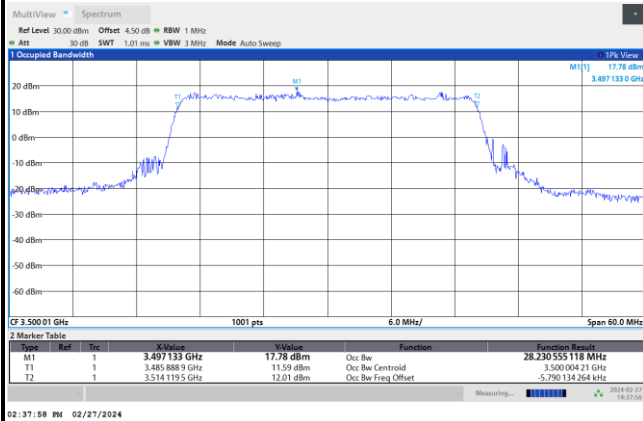


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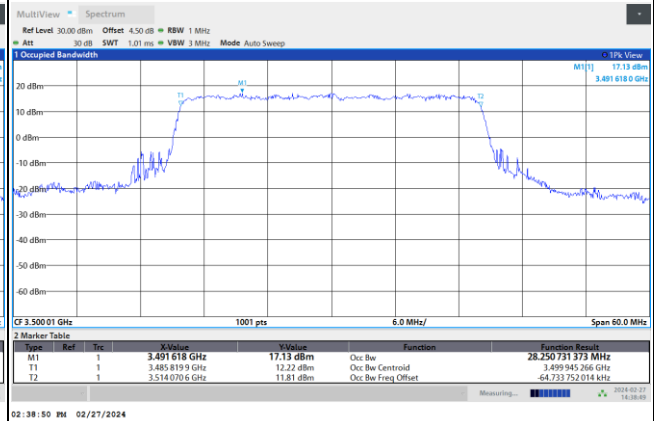


## FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

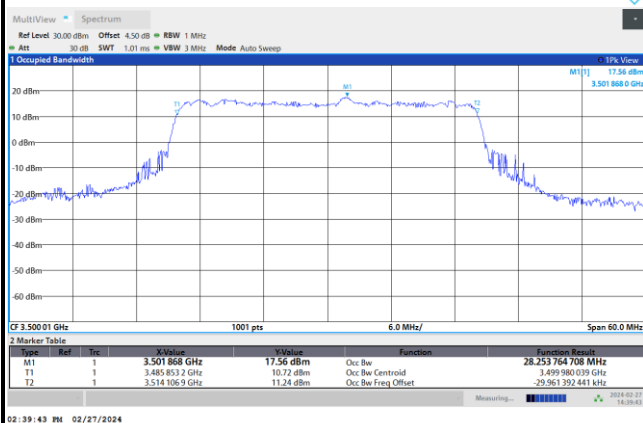
## QPSK



## 16QAM



## 64QAM



## 256QAM

