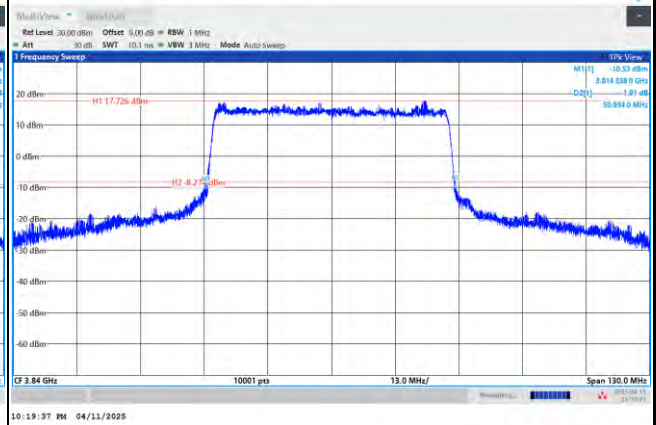
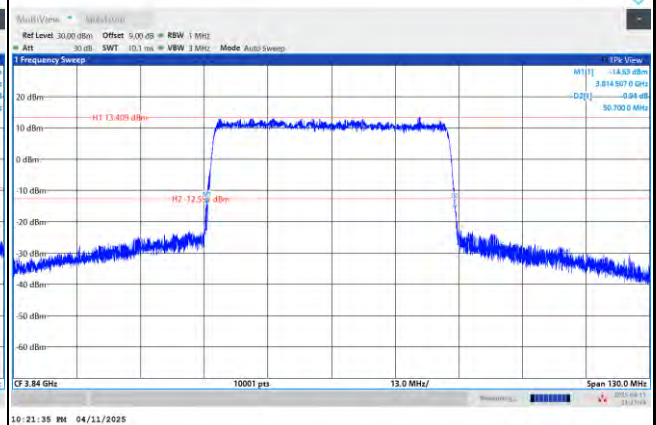


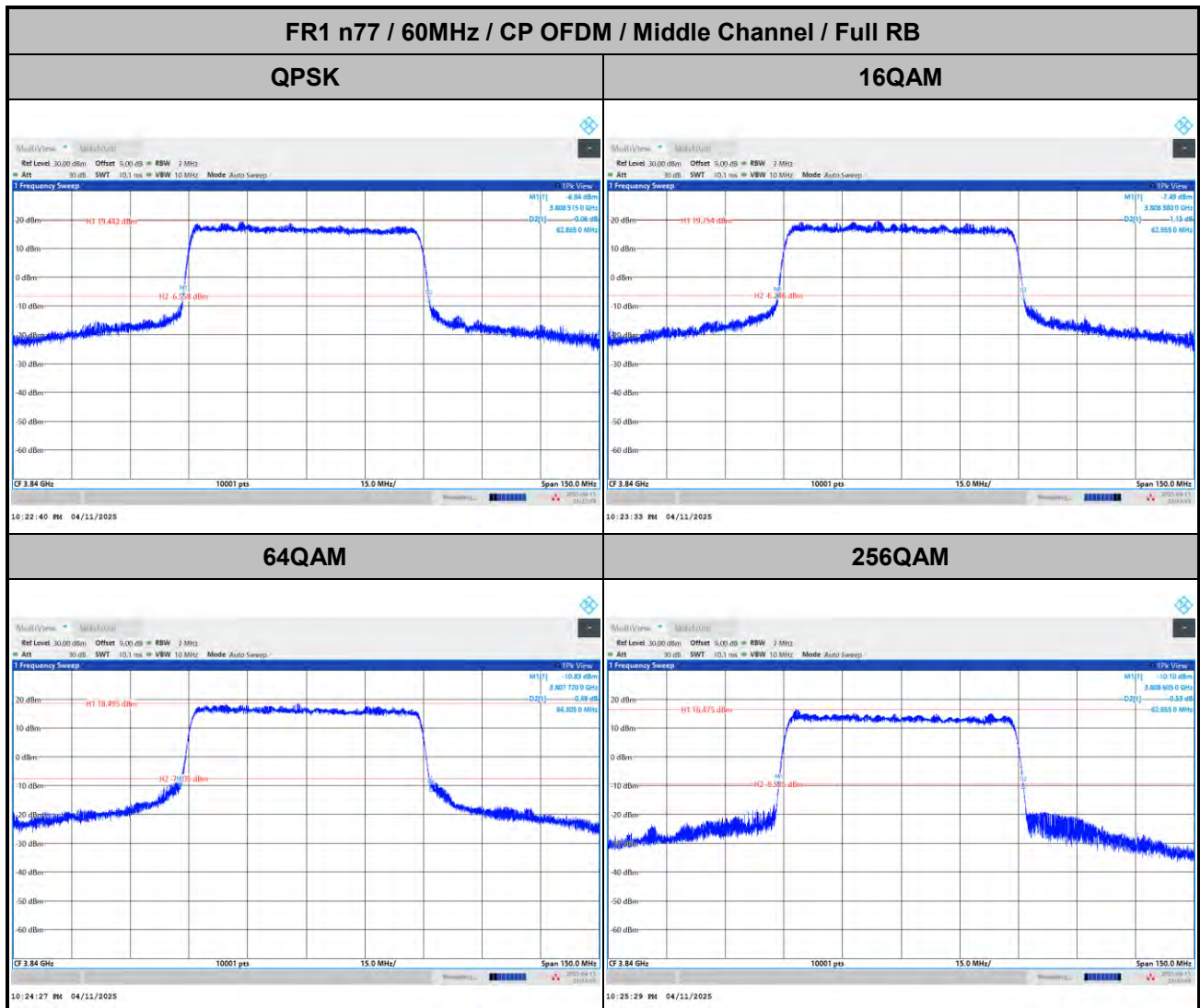
**FR1 n77 / 50MHz / CP OFDM / Middle Channel / Full RB**

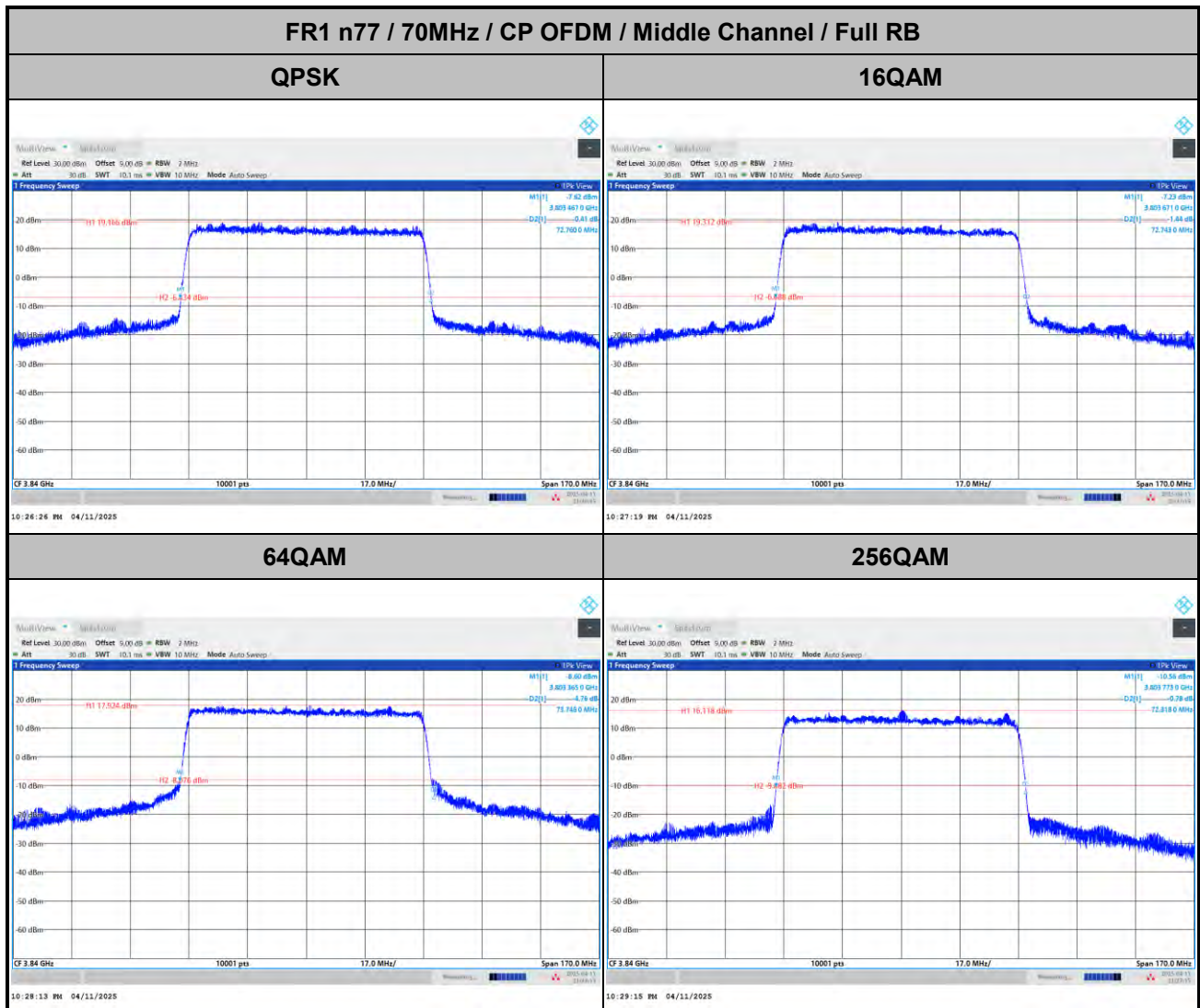
## 16QAM

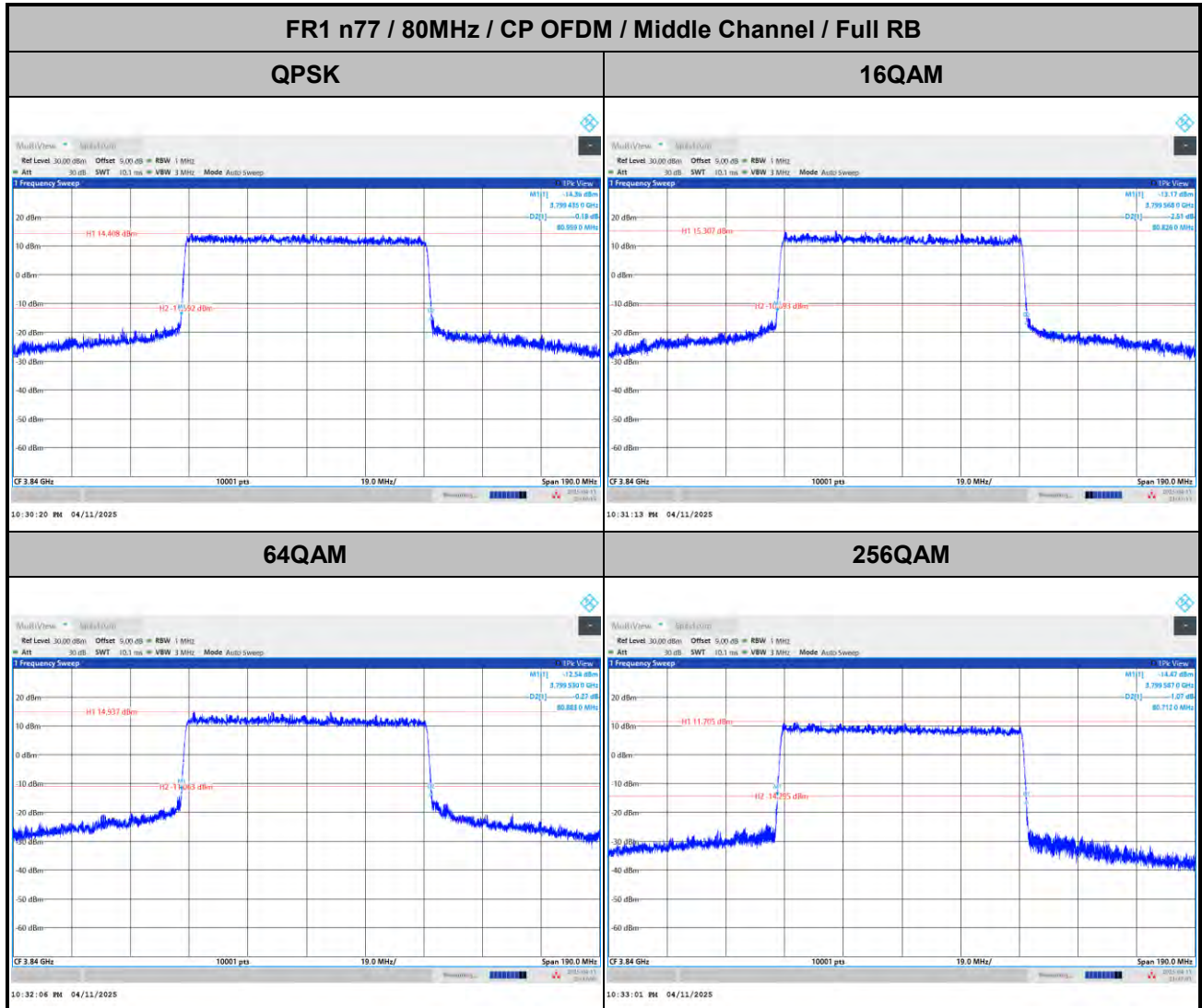


## 256QAM





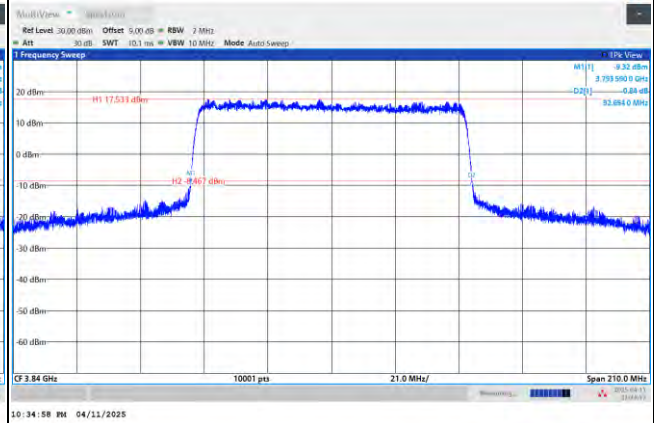




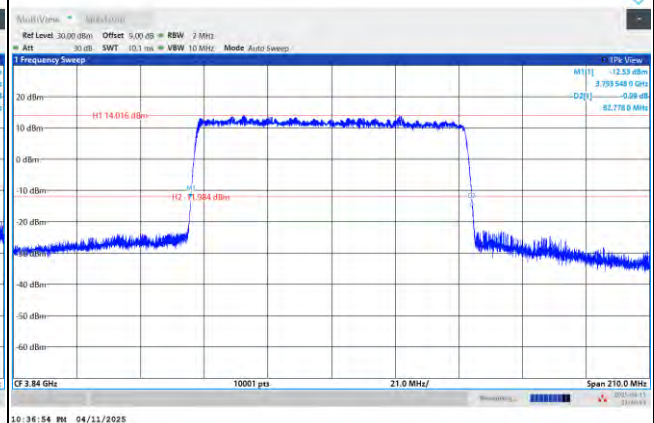


**FR1 n77 / 90MHz / CP OFDM / Middle Channel / Full RB**

## 16QAM



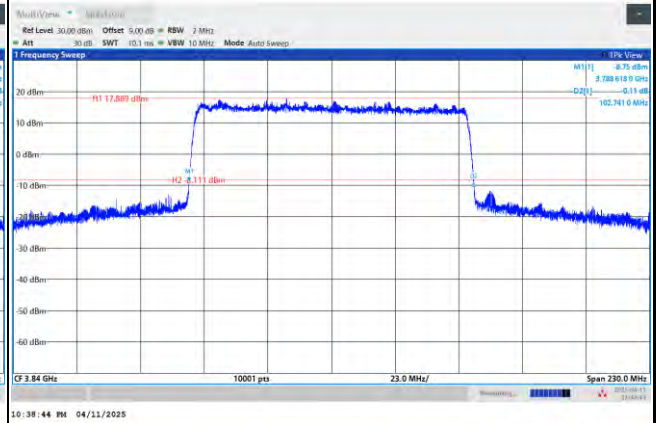
## 256QAM



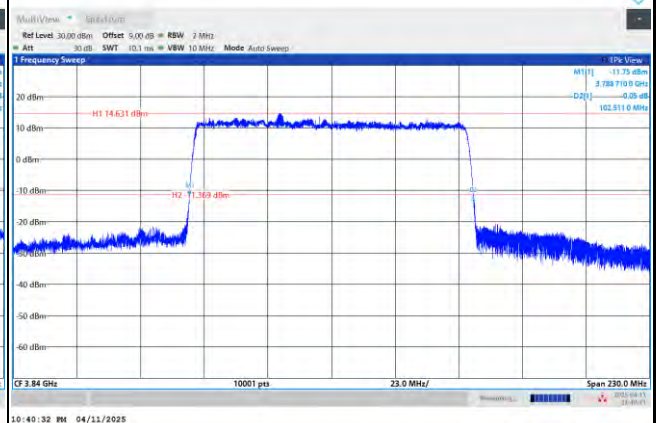


FR1 n77 / 100MHz / CP OFDM / Middle Channel / Full RB

## 16QAM



## 256QAM



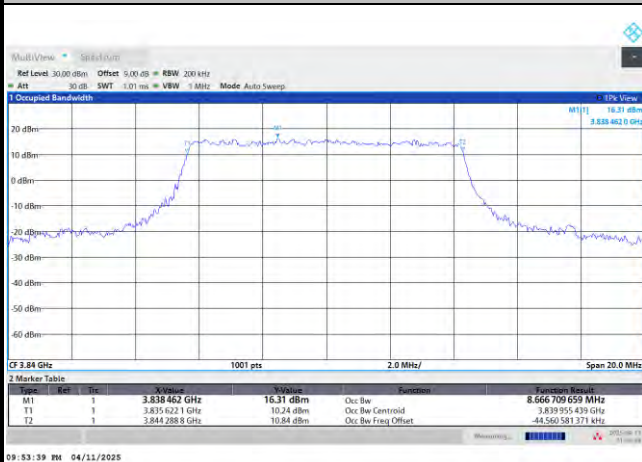
**Occupied Bandwidth**

| Mode      | FR1 n77 : OB BW(MHz) / CP OFDM |        |       |        |       |        |        |        |
|-----------|--------------------------------|--------|-------|--------|-------|--------|--------|--------|
| BW        | 10MHz                          |        | 15MHz |        | 20MHz |        | 25MHz  |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 8.66                           | 8.68   | 13.68 | 13.72  | 18.34 | 18.39  | 23.38  | 23.29  |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 8.64                           | 8.66   | 13.72 | 13.66  | 18.36 | 18.26  | 23.39  | 23.35  |
| BW        | 30MHz                          |        | 40MHz |        | 50MHz |        | 60MHz  |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 28.19                          | 28.35  | 38.02 | 38.15  | 47.70 | 47.65  | 58.66  | 58.48  |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 28.24                          | 28.27  | 38.14 | 38.01  | 47.66 | 47.58  | 58.54  | 58.33  |
| BW        | 70MHz                          |        | 80MHz |        | 90MHz |        | 100MHz |        |
| Mod.      | QPSK                           | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 68.05                          | 67.93  | 77.93 | 77.84  | 87.87 | 87.80  | 97.76  | 97.65  |
| Mod.      | 64QAM                          | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 68.15                          | 67.86  | 77.87 | 78.15  | 88.01 | 88.09  | 97.81  | 97.66  |

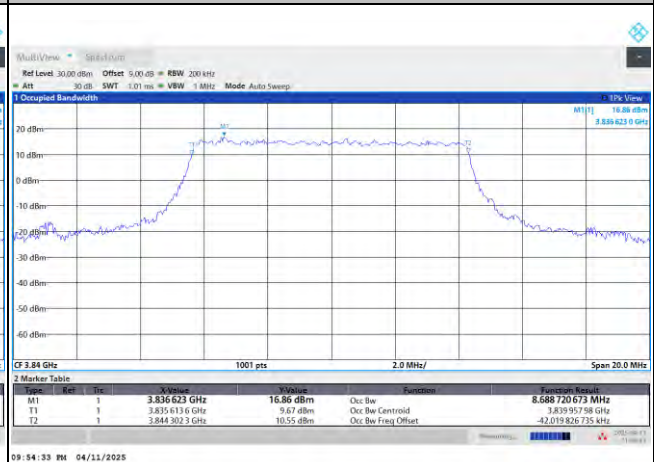


## FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

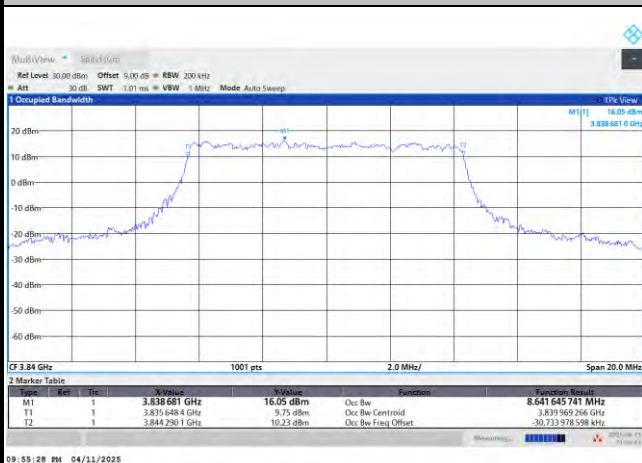
## QPSK



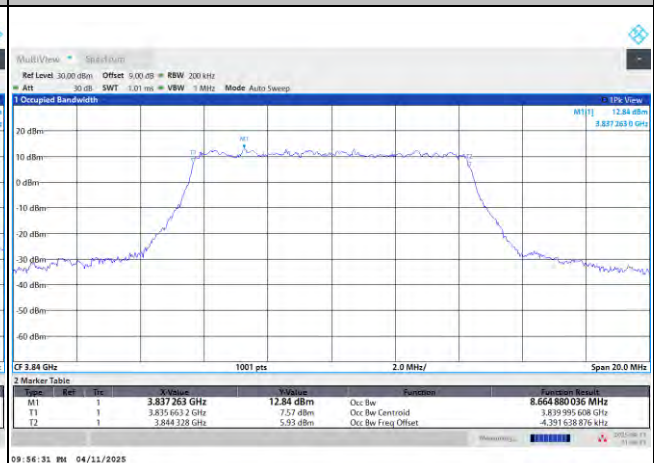
## 16QAM



## 64QAM



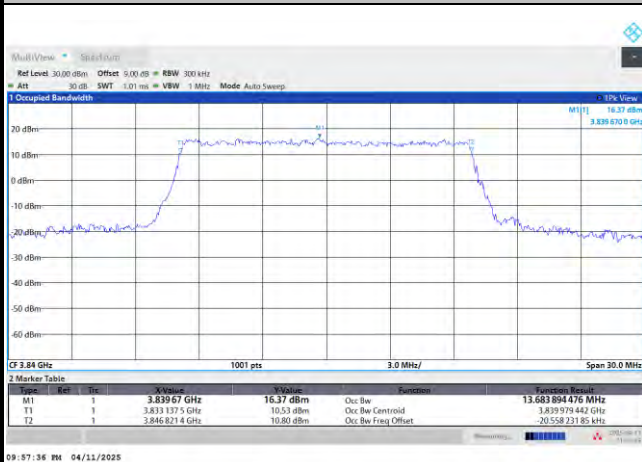
## 256QAM



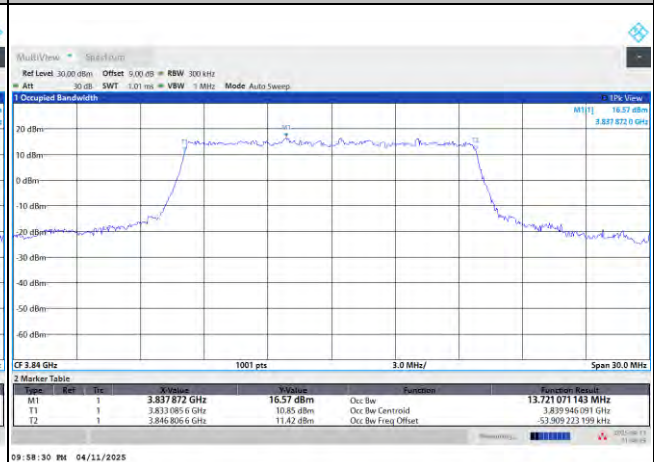


## FR1 n77 / 15MHz / CP OFDM / Middle Channel / Full RB

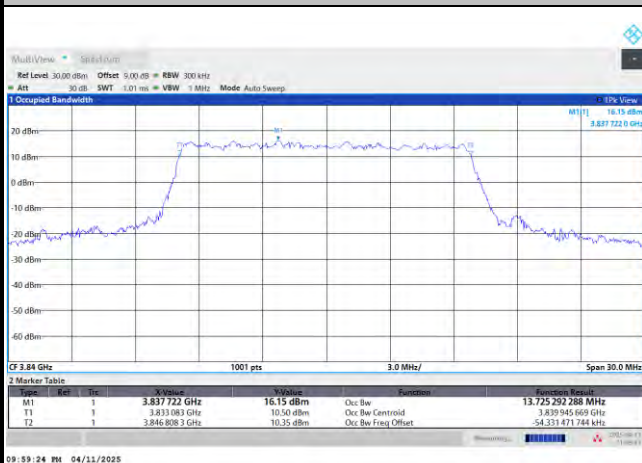
## QPSK



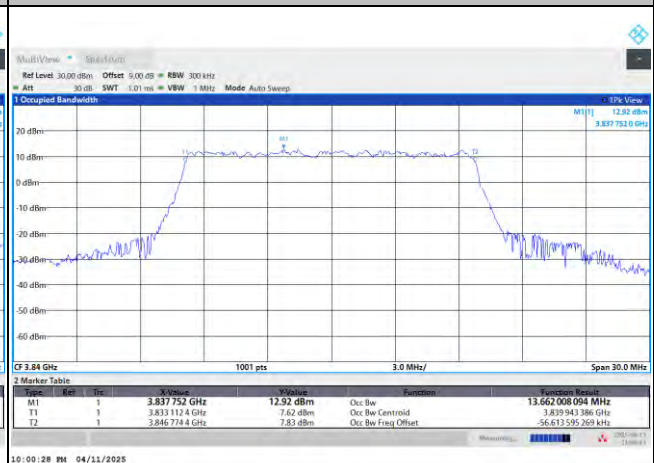
## 16QAM



## 64QAM



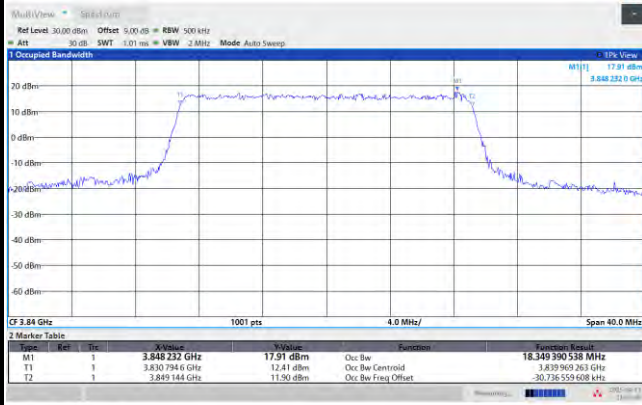
## 256QAM



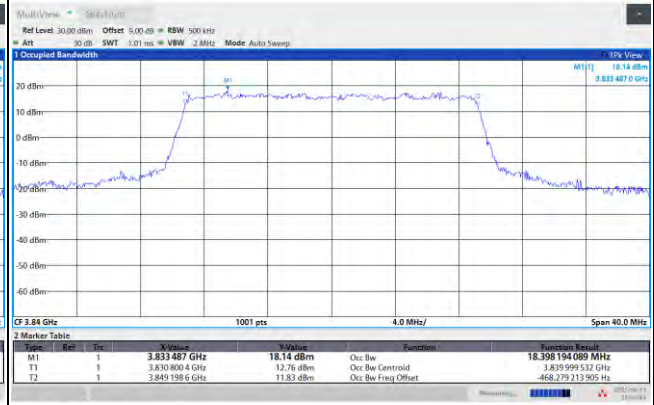


## FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

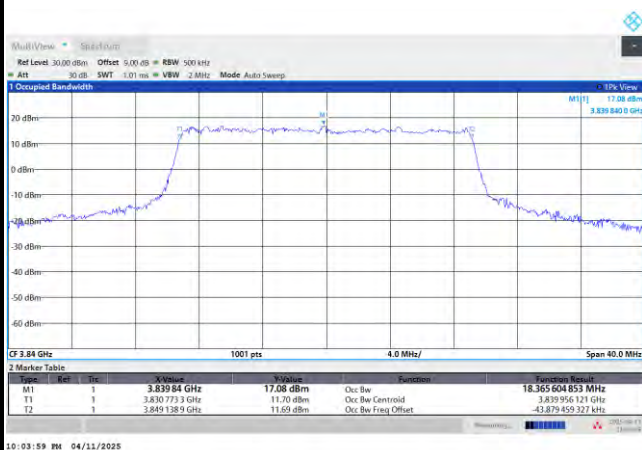
## QPSK



## 16QAM



## 64QAM



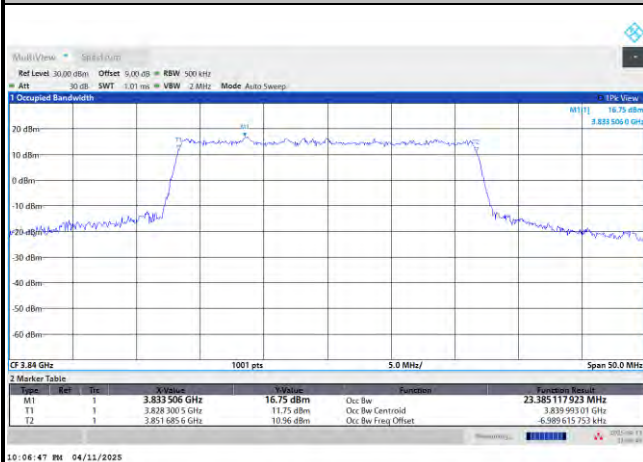
## 256QAM





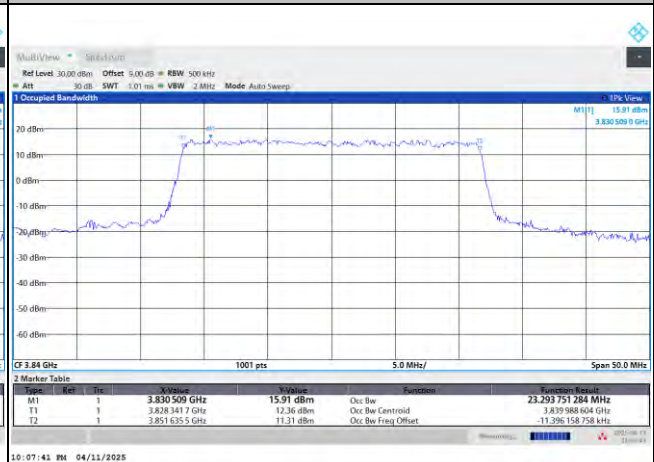
## FR1 n77 / 25MHz / CP OFDM / Middle Channel / Full RB

## QPSK



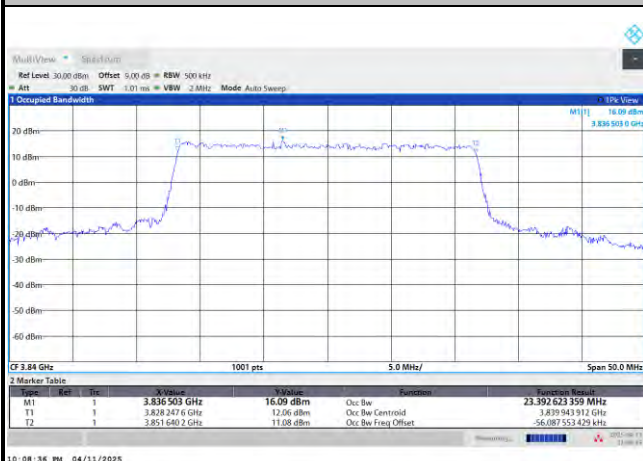
10:06:47 PM 04/11/2025

## 16QAM



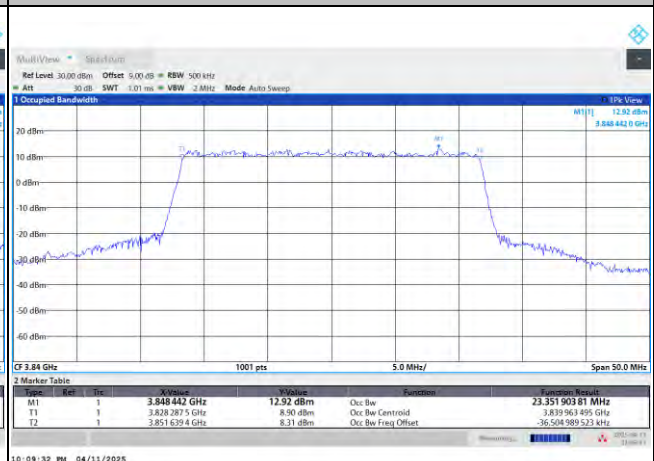
10:07:41 PM 04/11/2025

## 64QAM



10:08:36 PM 04/11/2025

## 256QAM

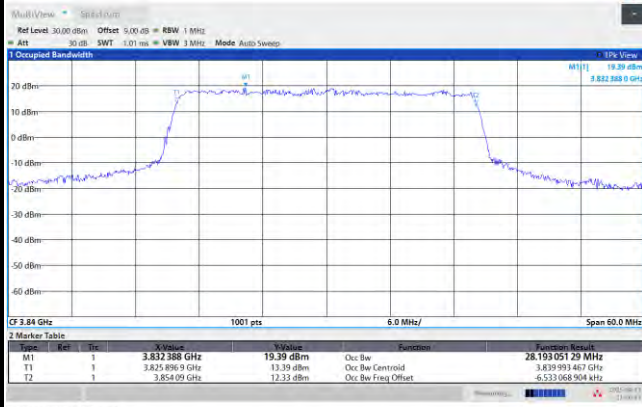


10:09:32 PM 04/11/2025

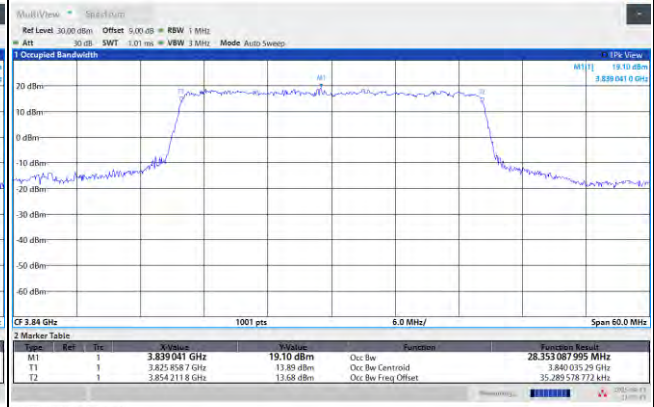


## FR1 n77 / 30MHz / CP OFDM / Middle Channel / Full RB

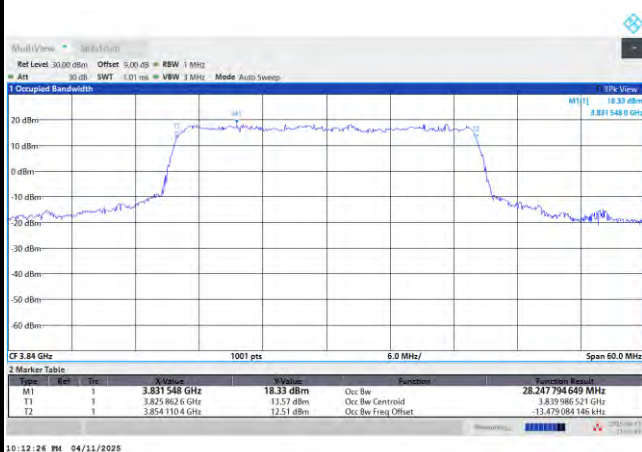
## QPSK



## 16QAM



## 64QAM



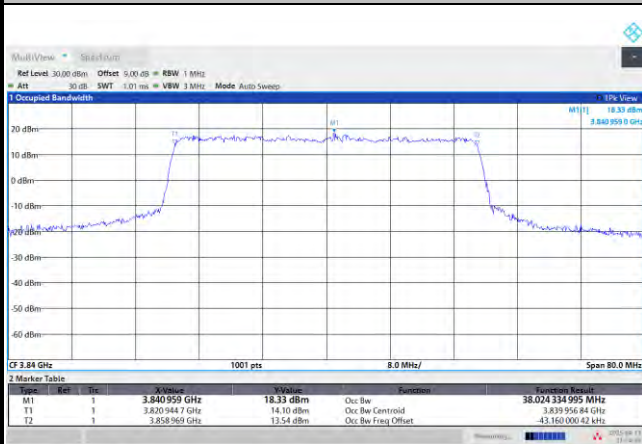
## 256QAM





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

## QPSK



10:14:27 PM 04/11/2025

## 16QAM



10:15:21 PM 04/11/2025

## 64QAM



10:14:15 PM 04/11/2025

## 256QAM



10:17:11 PM 04/11/2025



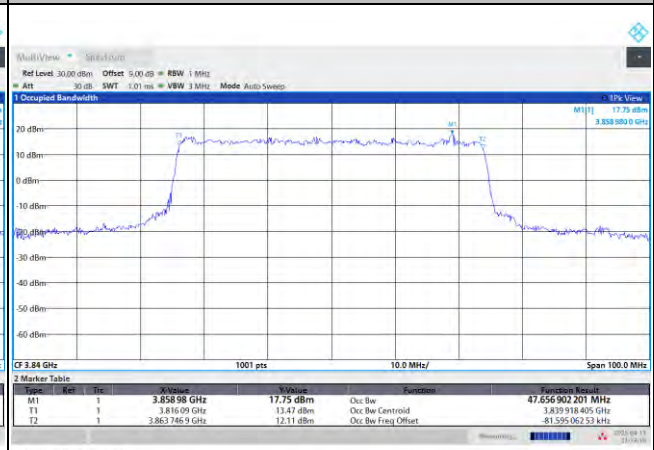
## FR1 n77 / 50MHz / CP OFDM / Middle Channel / Full RB

## QPSK



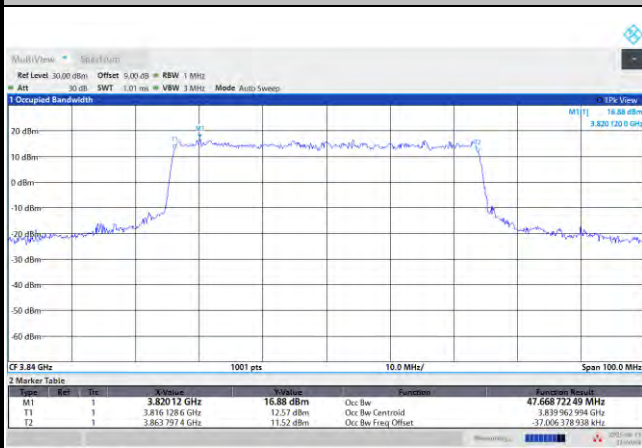
10:18:16 PM 04/11/2025

## 16QAM



10:19:11 PM 04/11/2025

## 64QAM



10:20:05 PM 04/11/2025

## 256QAM

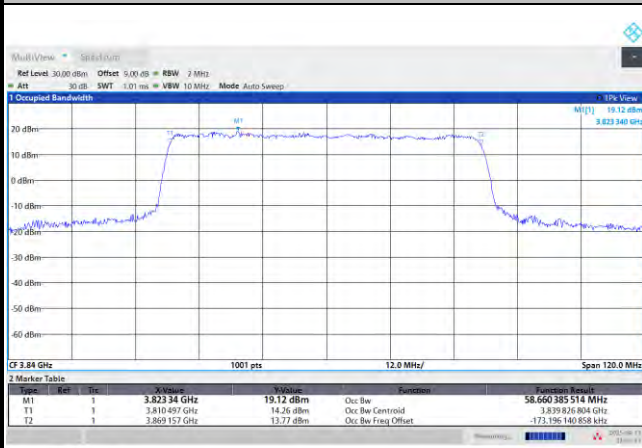


10:21:08 PM 04/11/2025

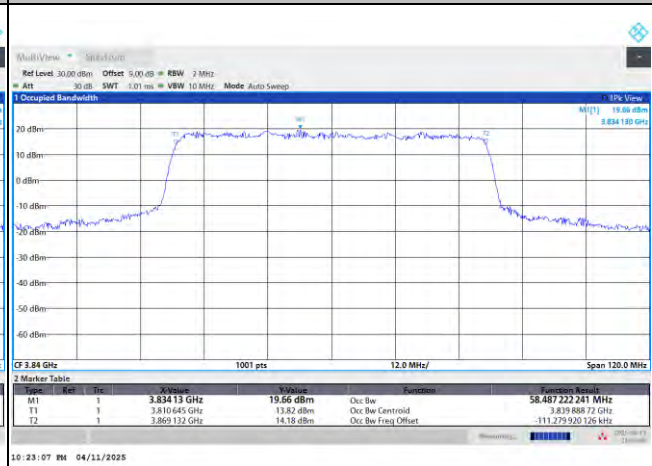


## FR1 n77 / 60MHz / CP OFDM / Middle Channel / Full RB

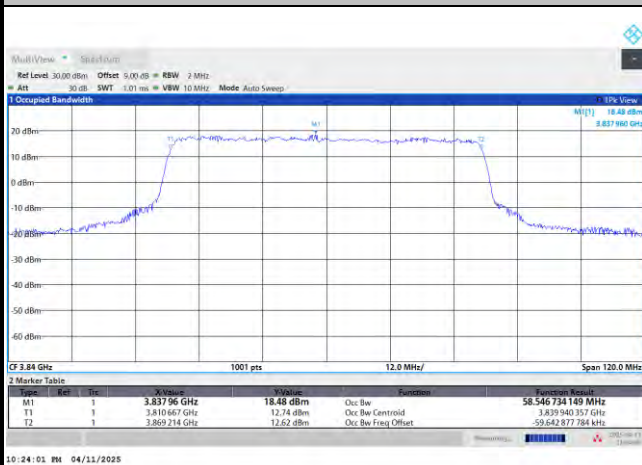
## QPSK



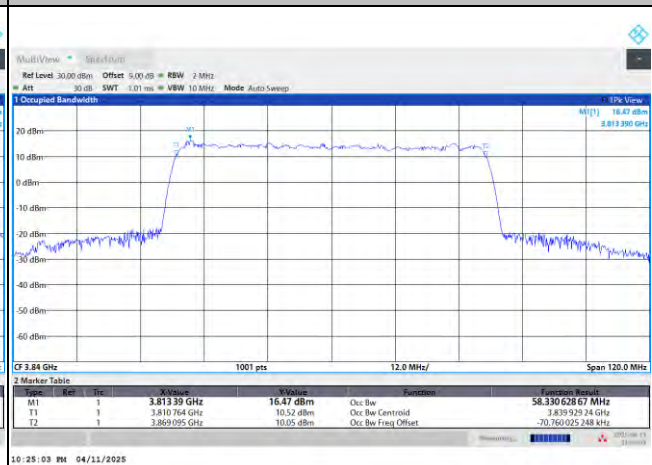
## 16QAM



## 64QAM



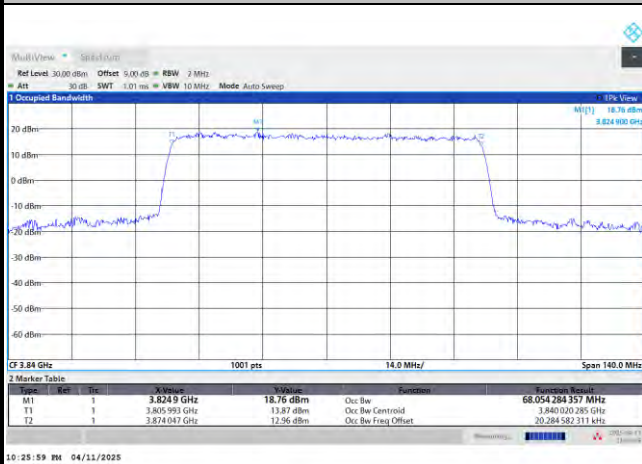
## 256QAM





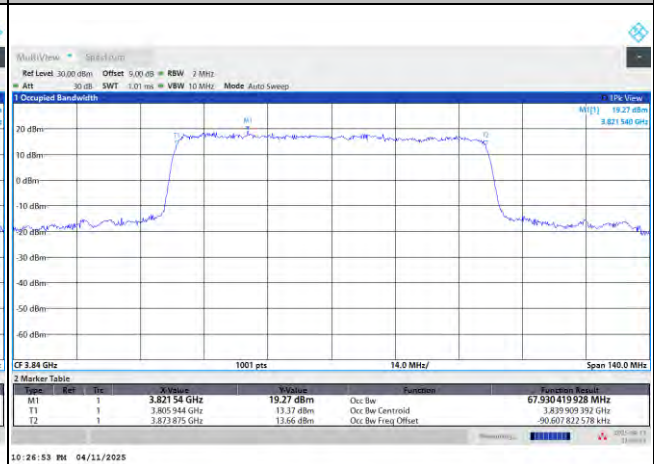
## FR1 n77 / 70MHz / CP OFDM / Middle Channel / Full RB

## QPSK



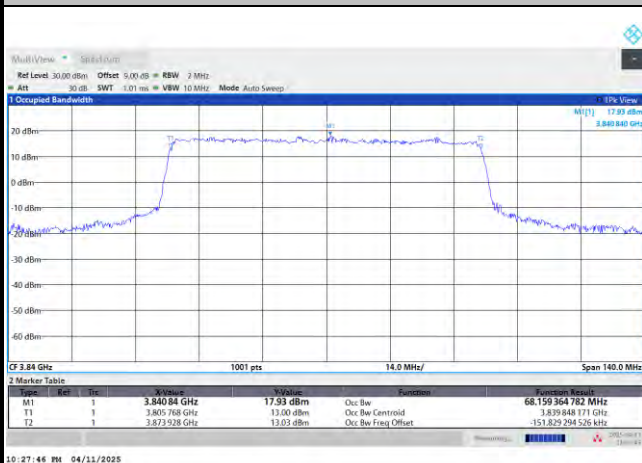
10:25:59 PM 04/11/2025

## 16QAM



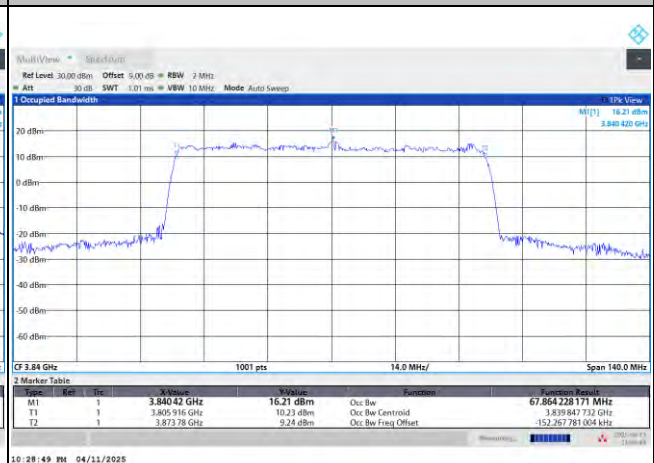
10:26:53 PM 04/11/2025

## 64QAM



10:27:46 PM 04/11/2025

## 256QAM

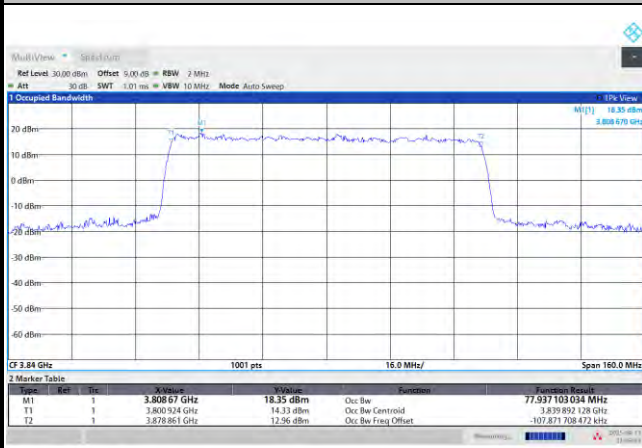


10:28:49 PM 04/11/2025

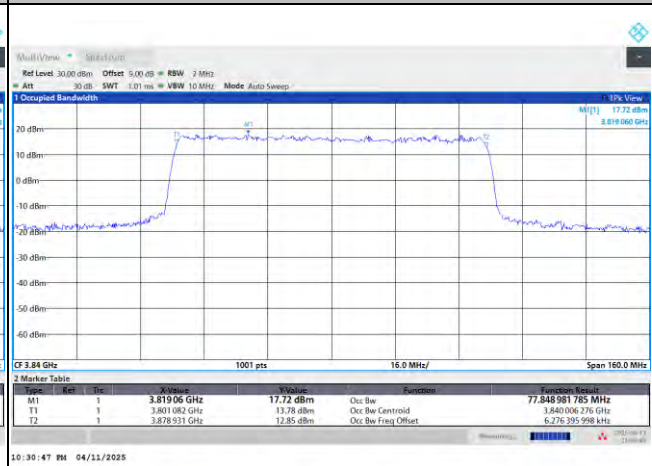


## FR1 n77 / 80MHz / CP OFDM / Middle Channel / Full RB

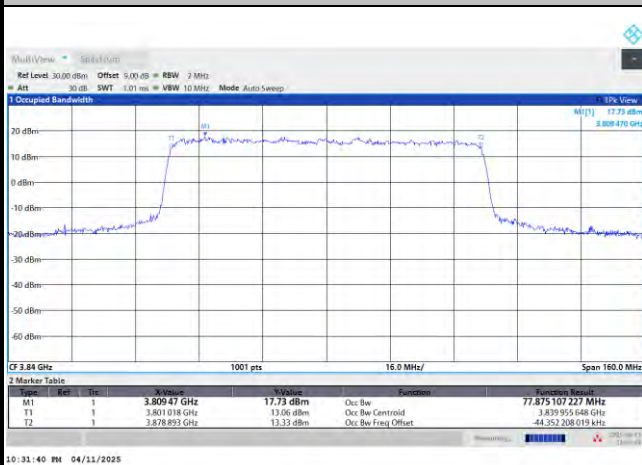
## QPSK



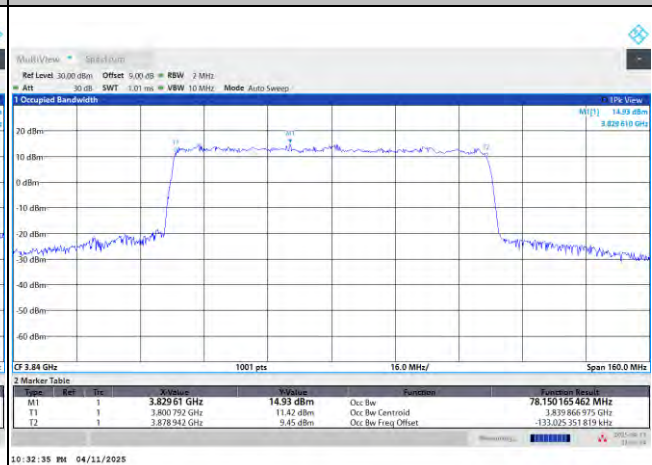
## 16QAM



## 64QAM



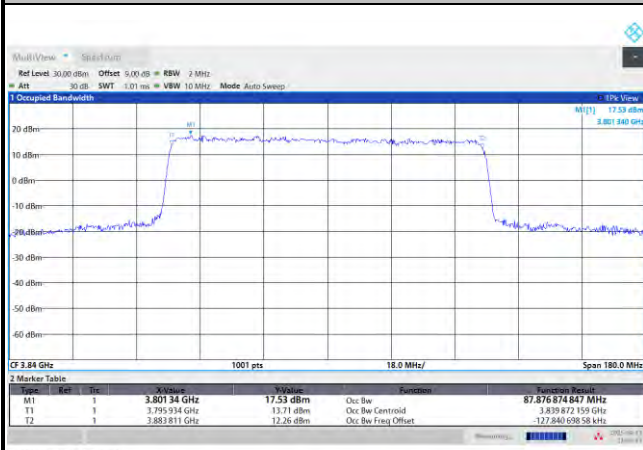
## 256QAM





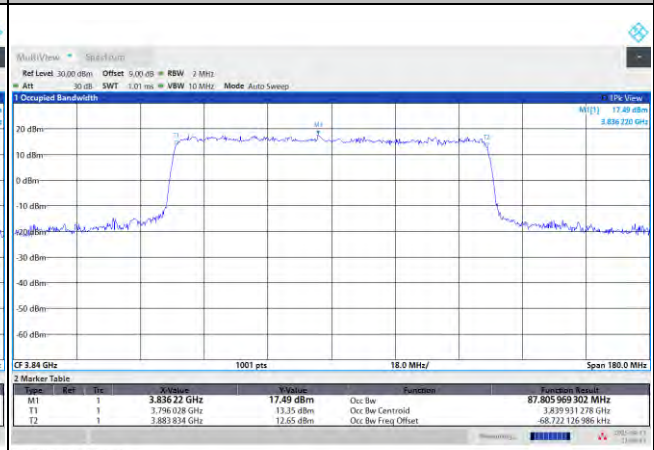
## FR1 n77 / 90MHz / CP OFDM / Middle Channel / Full RB

## QPSK



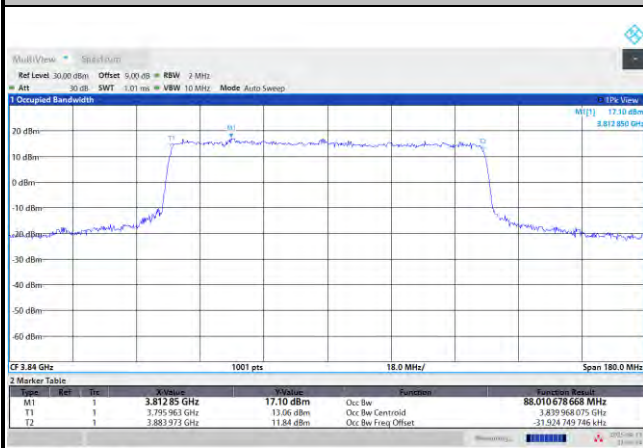
10:33:38 PM 04/11/2025

## 16QAM



10:34:31 PM 04/11/2025

## 64QAM



10:35:25 PM 04/11/2025

## 256QAM

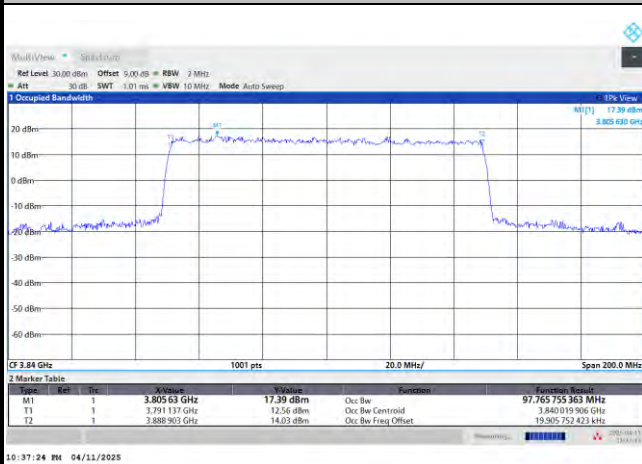


10:36:27 PM 04/11/2025



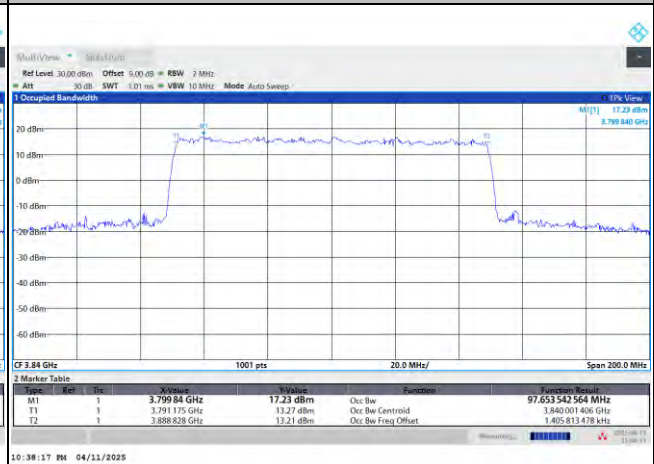
## FR1 n77 / 100MHz / CP OFDM / Middle Channel / Full RB

## QPSK



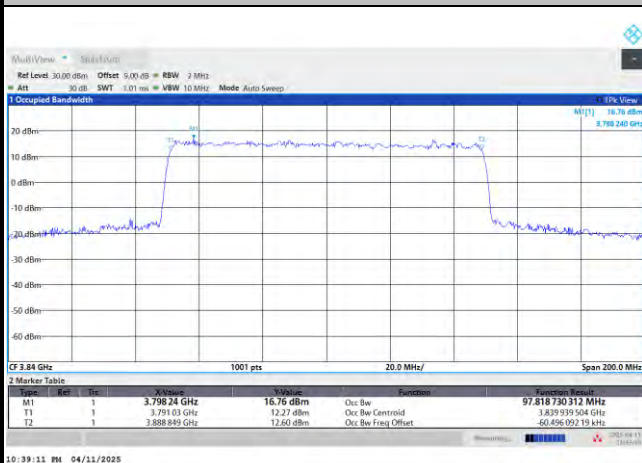
10:37:24 PM 04/11/2025

## 16QAM



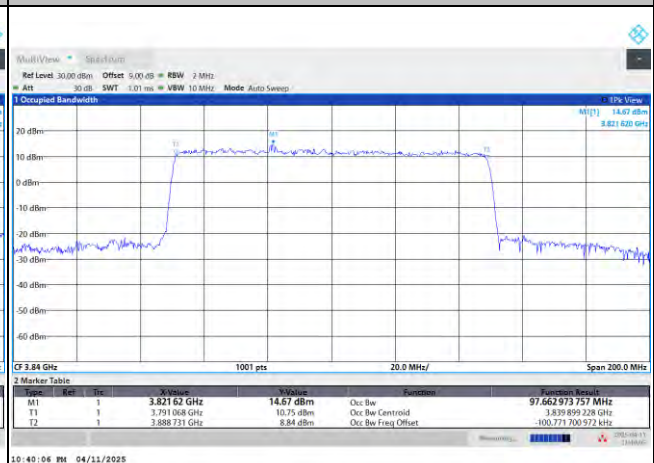
10:38:17 PM 04/11/2025

## 64QAM



10:39:11 PM 04/11/2025

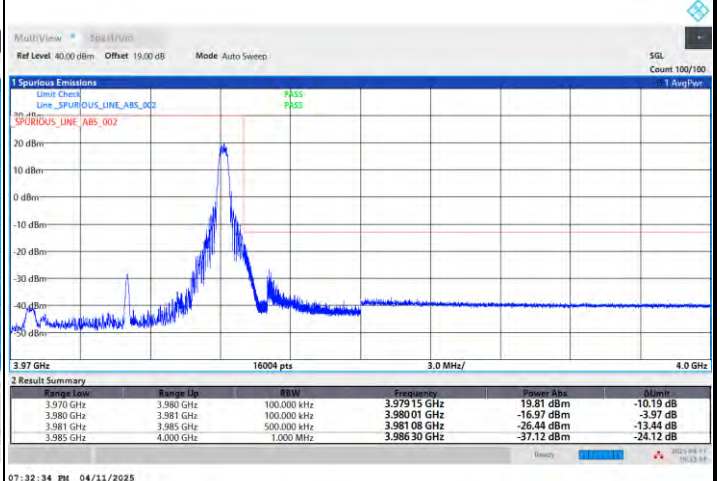
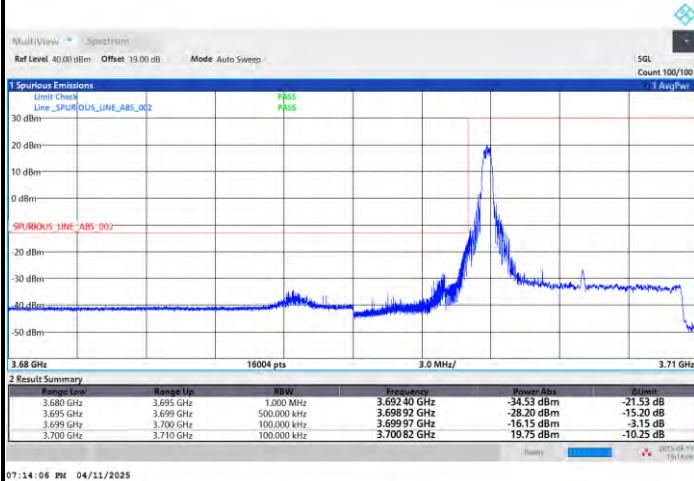
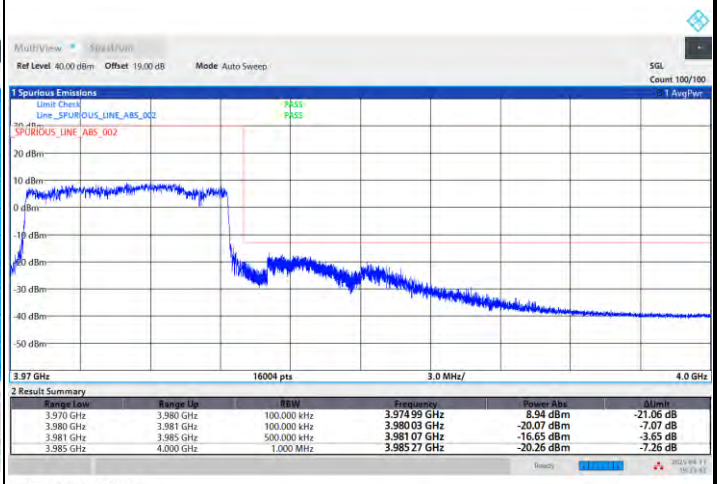
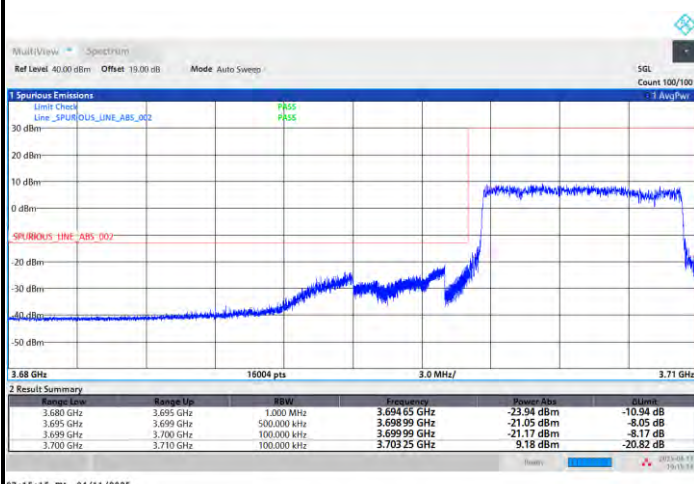
## 256QAM



10:40:06 PM 04/11/2025

**Conducted Band Edge**

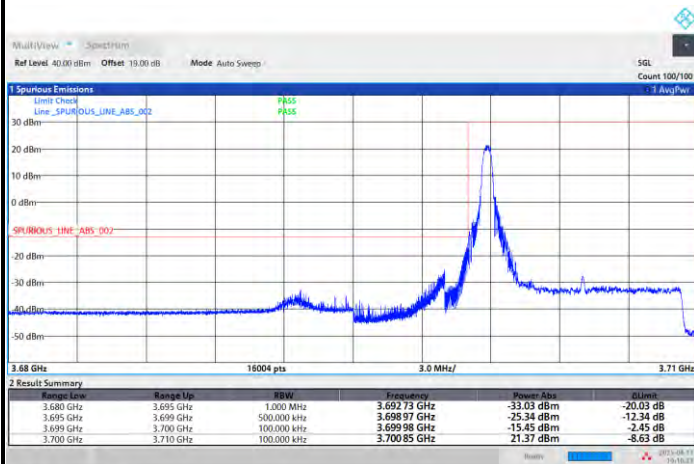
FR1 n77 / 10MHz / CP OFDM / QPSK

**Lowest Band Edge / 1RB0****Highest Band Edge / 1RBmax****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

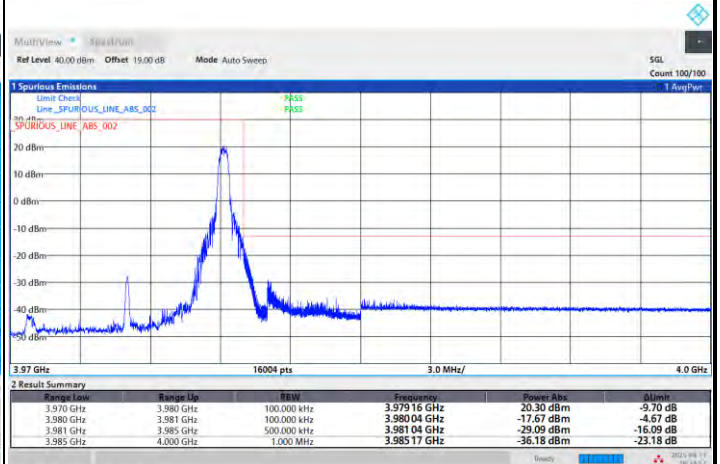


## FR1 n77 / 10MHz / CP OFDM / 16QAM

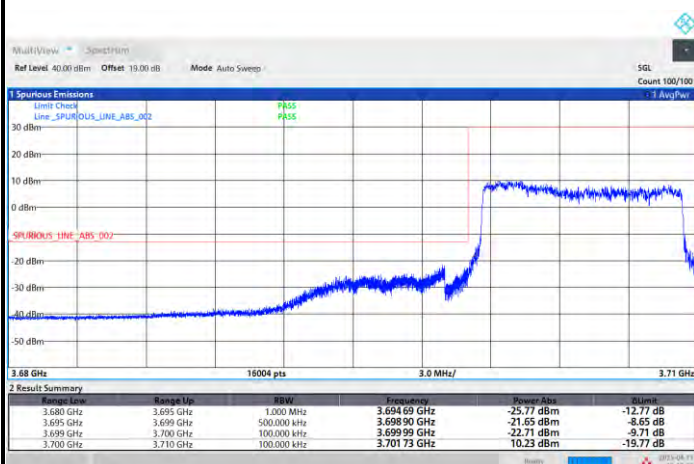
## Lowest Band Edge / 1RB0



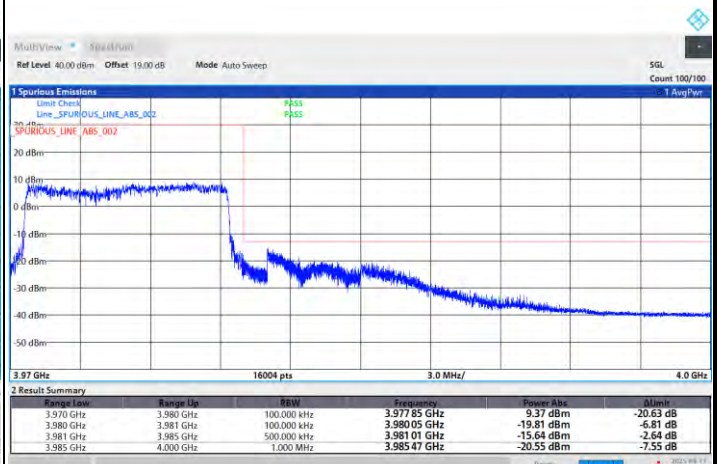
## Highest Band Edge / 1RBmax



## Lowest Band Edge / Full RB



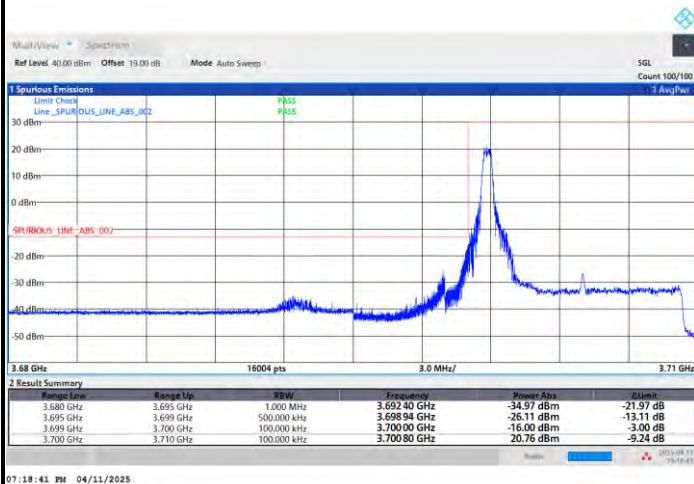
## Highest Band Edge / Full RB



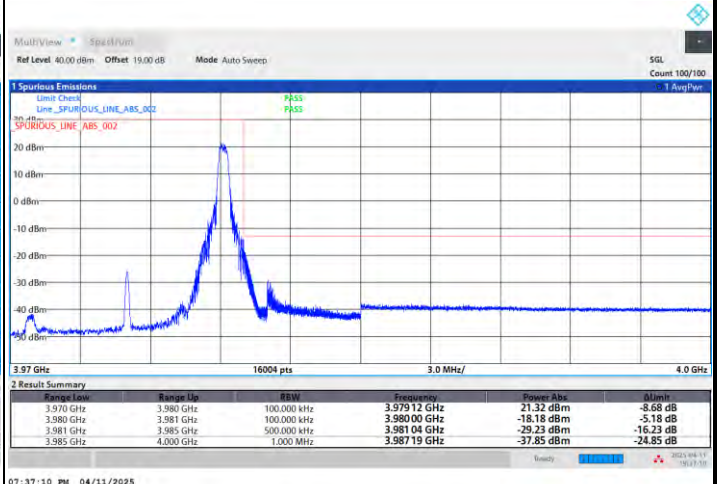


## FR1 n77 / 10MHz / CP OFDM / 64QAM

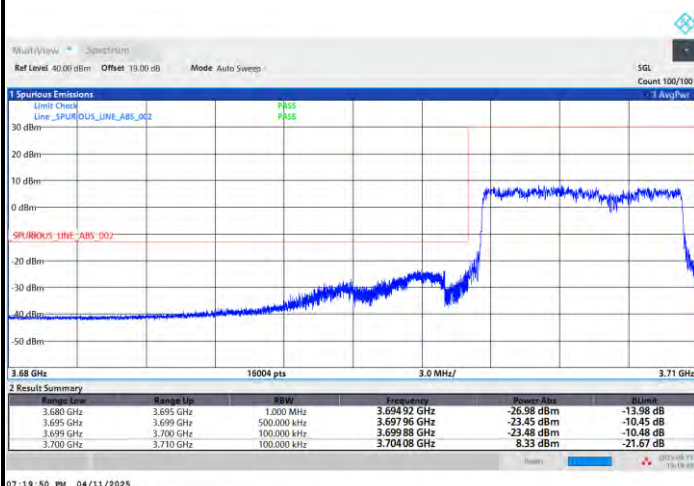
## Lowest Band Edge / 1RB0



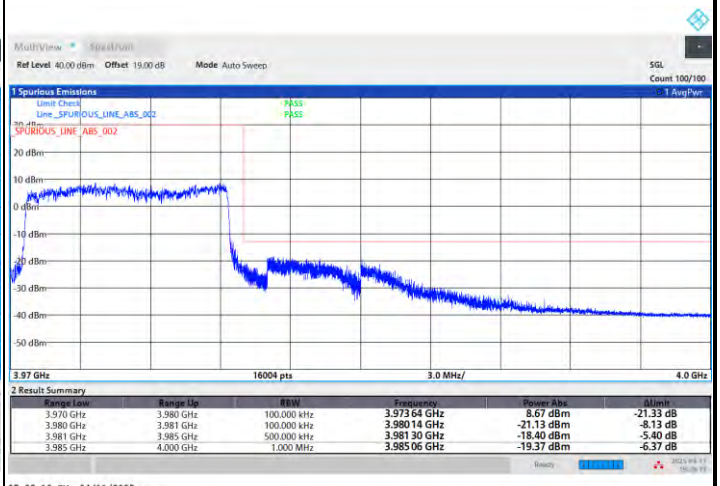
## Highest Band Edge / 1RBmax



## Lowest Band Edge / Full RB



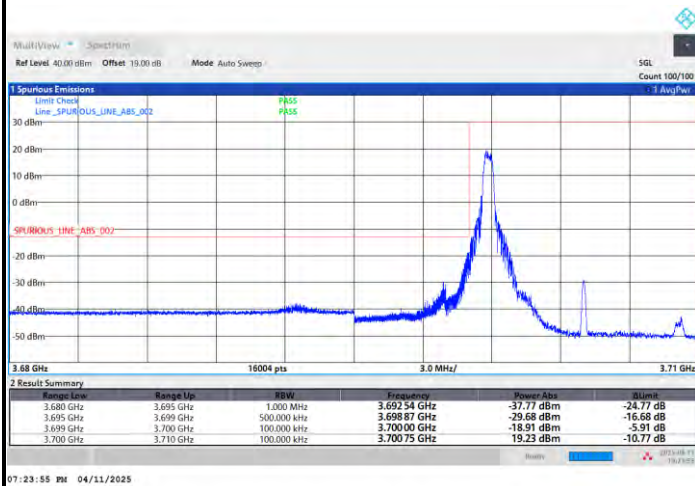
## Highest Band Edge / Full RB



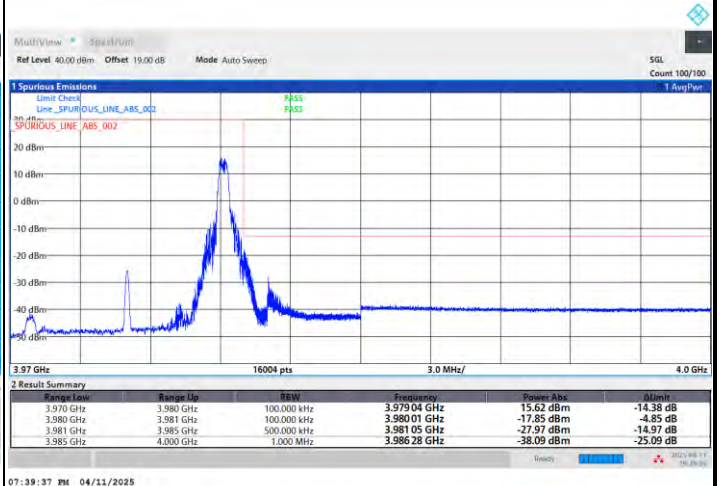


## FR1 n77 / 10MHz / CP OFDM / 256QAM

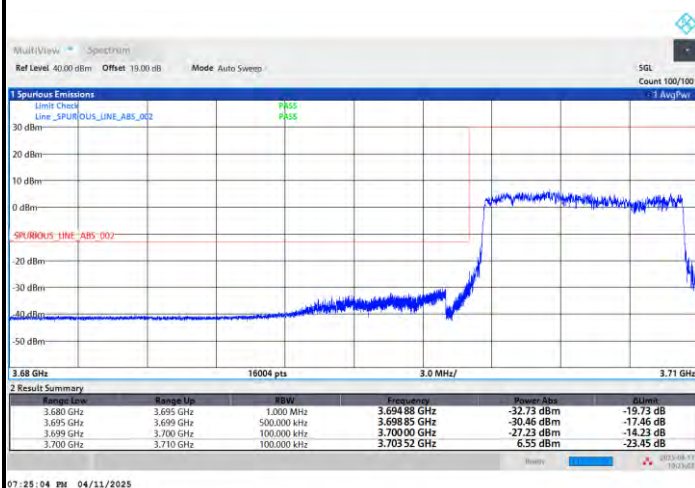
## Lowest Band Edge / 1RB0



## Highest Band Edge / 1RBmax

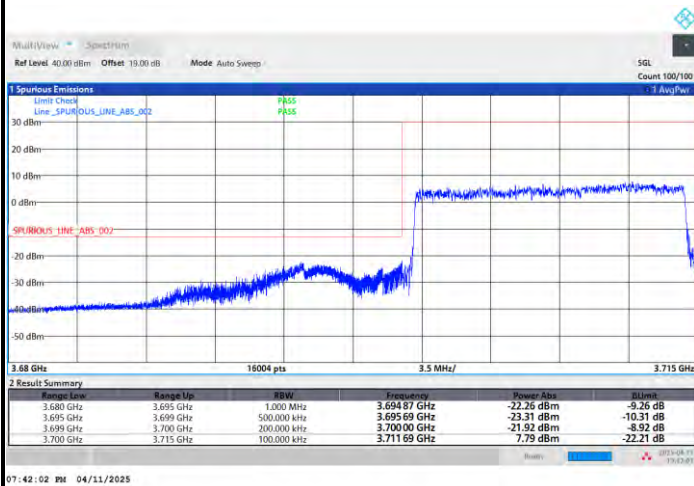


## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

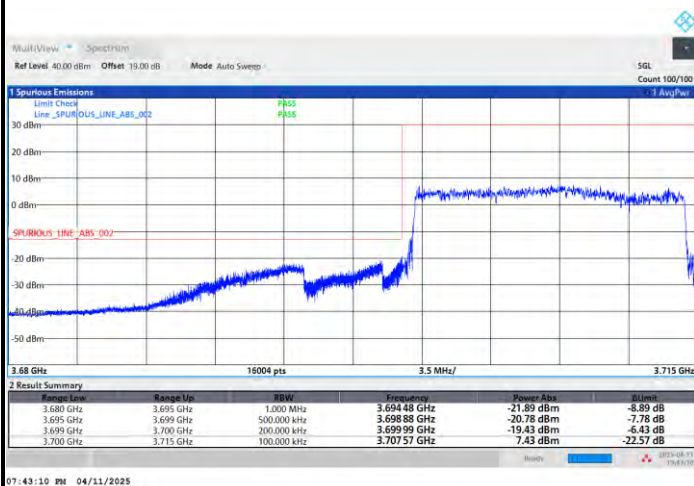


**FR1 n77 / 15MHz / CP OFDM / QPSK****Lowest Band Edge / Full RB**

07:42:02 PM 04/11/2025

**Highest Band Edge / Full RB**

07:46:49 PM 04/11/2025

**FR1 n77 / 15MHz / CP OFDM / 16QAM****Lowest Band Edge / Full RB**

07:43:10 PM 04/11/2025

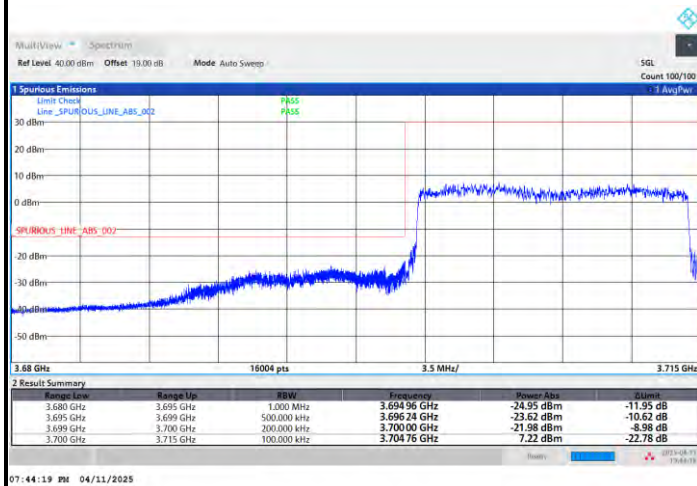
**Highest Band Edge / Full RB**

07:47:57 PM 04/11/2025



## FR1 n77 / 15MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB



07:44:19 PM 04/11/2025

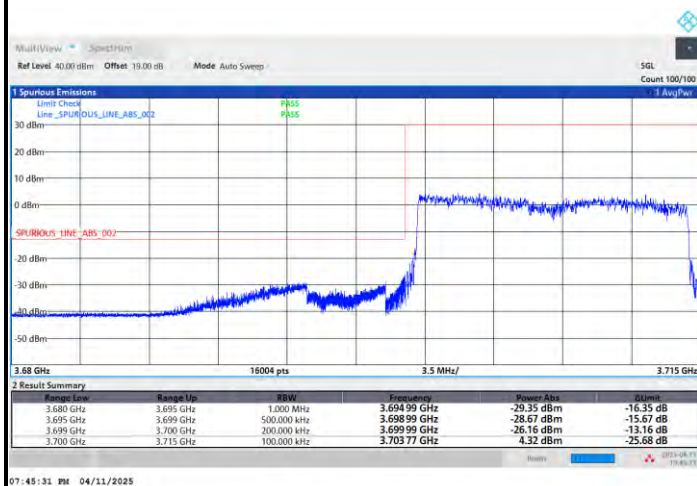
## Highest Band Edge / Full RB



07:49:06 PM 04/11/2025

## FR1 n77 / 15MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



07:45:31 PM 04/11/2025

## Highest Band Edge / Full RB

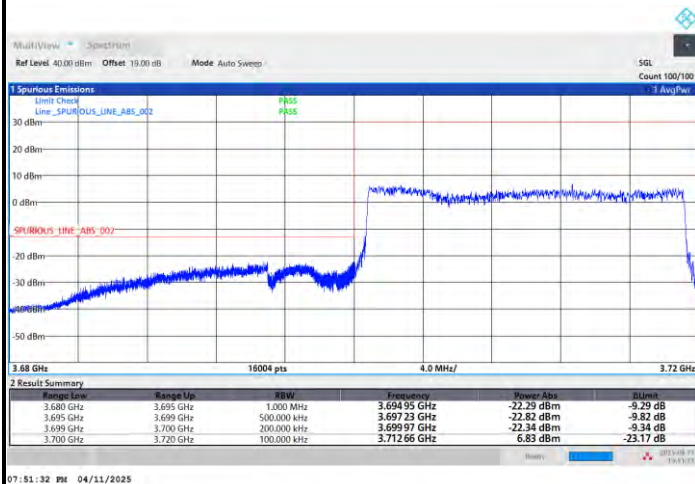


07:50:16 PM 04/11/2025



## FR1 n77 / 20MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB



07:51:32 PM 04/11/2025

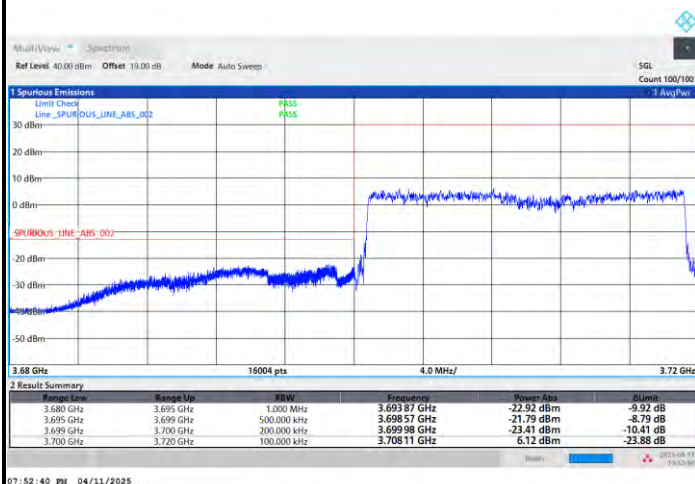
## Highest Band Edge / Full RB



07:56:30 PM 04/11/2025

## FR1 n77 / 20MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



07:52:40 PM 04/11/2025

## Highest Band Edge / Full RB

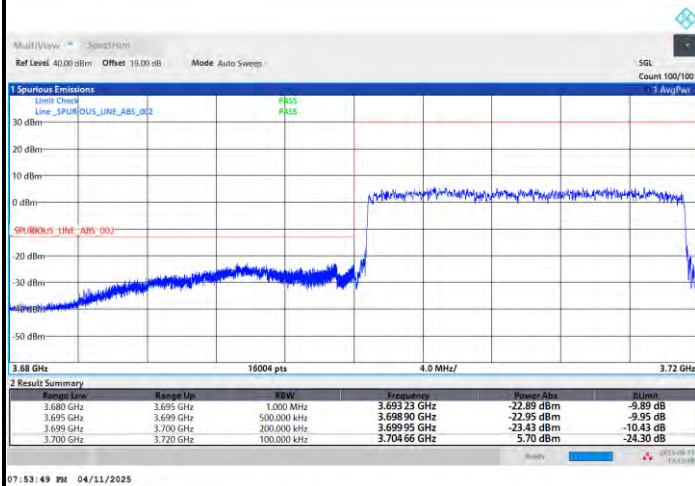


07:57:39 PM 04/11/2025



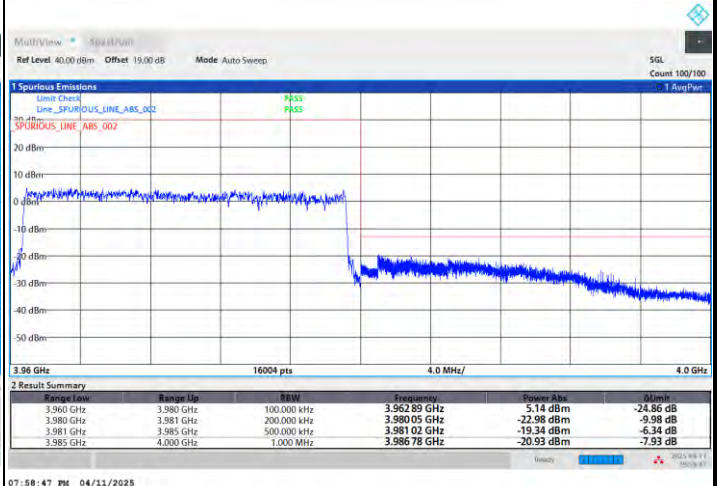
## FR1 n77 / 20MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB



07:53:49 PM 04/11/2025

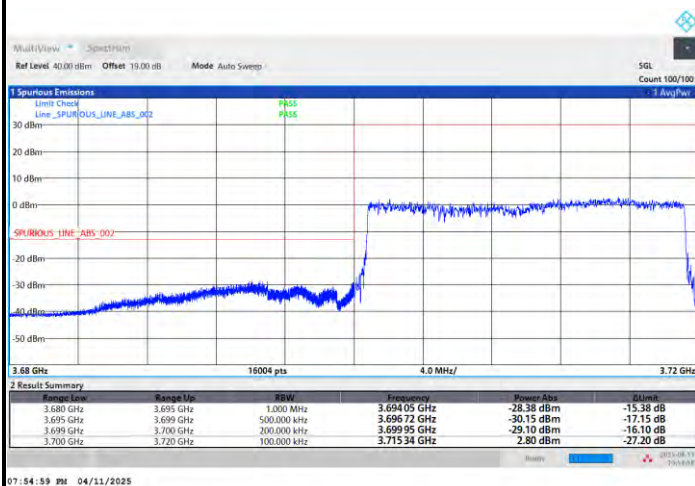
## Highest Band Edge / Full RB



07:58:47 PM 04/11/2025

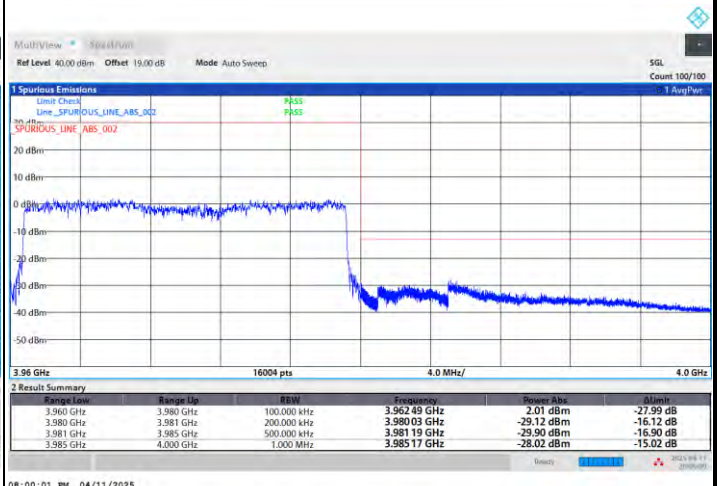
## FR1 n77 / 20MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



07:54:59 PM 04/11/2025

## Highest Band Edge / Full RB



08:00:01 PM 04/11/2025



## FR1 n77 / 25MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB

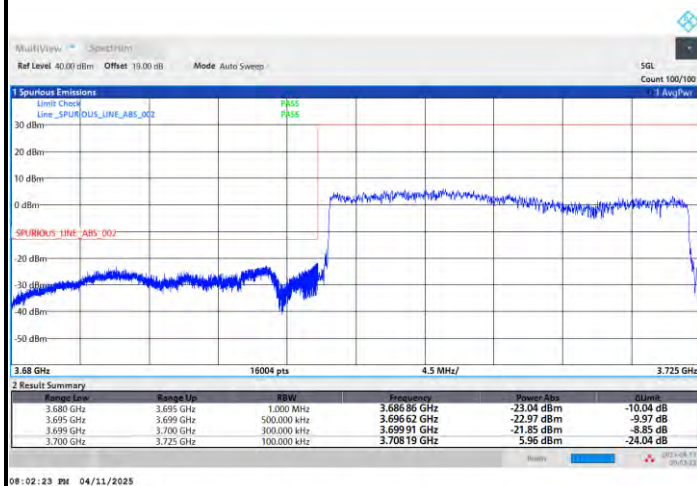


## Highest Band Edge / Full RB

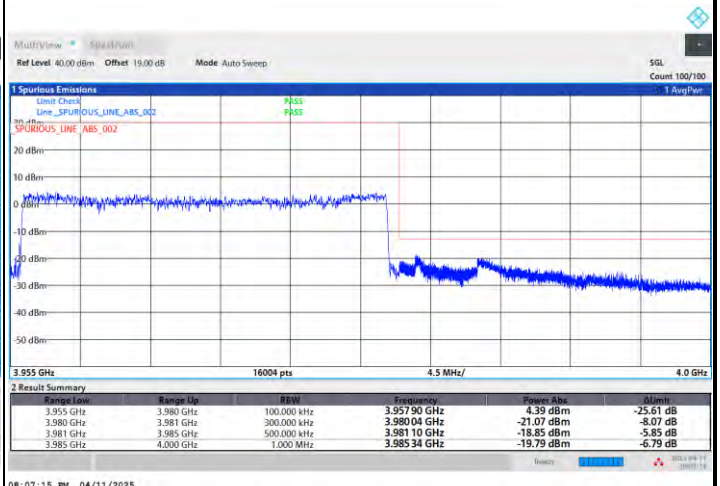


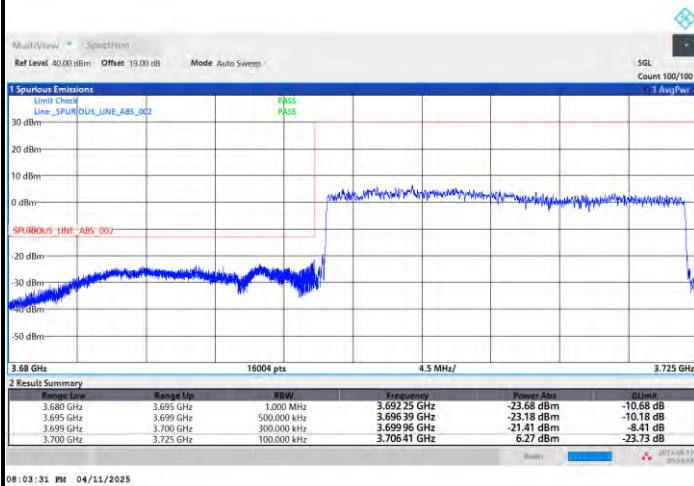
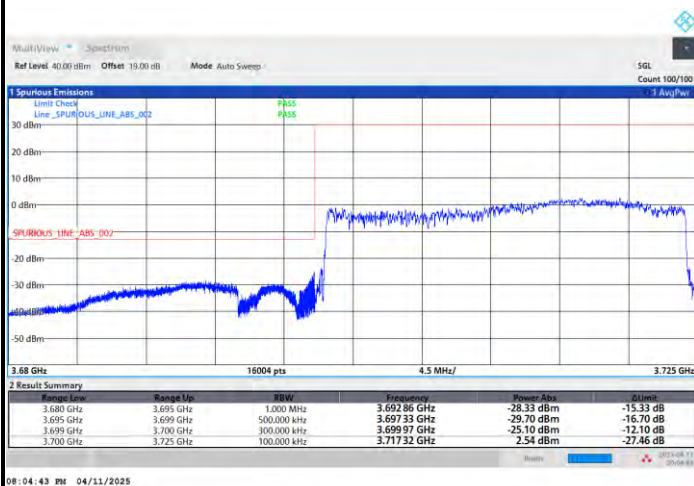
## FR1 n77 / 25MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

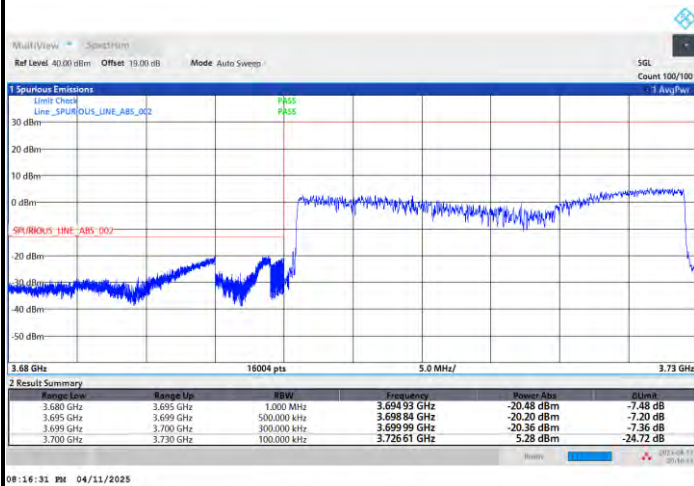


**FR1 n77 / 25MHz / CP OFDM / 64QAM****Lowest Band Edge / Full RB****Highest Band Edge / Full RB****FR1 n77 / 25MHz / CP OFDM / 256QAM****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

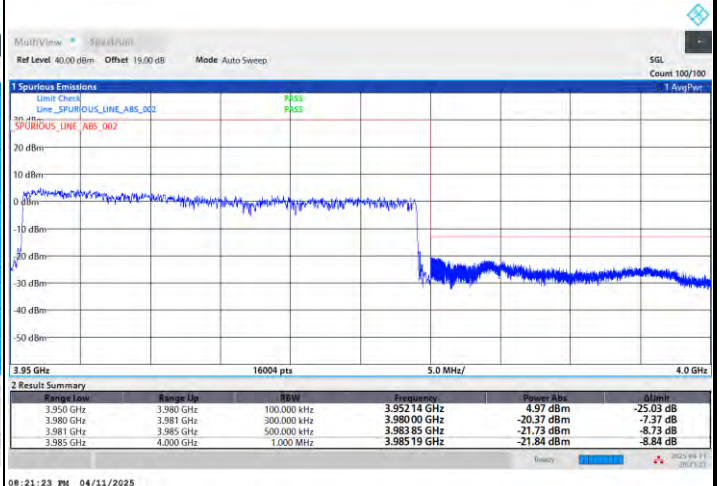


## FR1 n77 / 30MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB

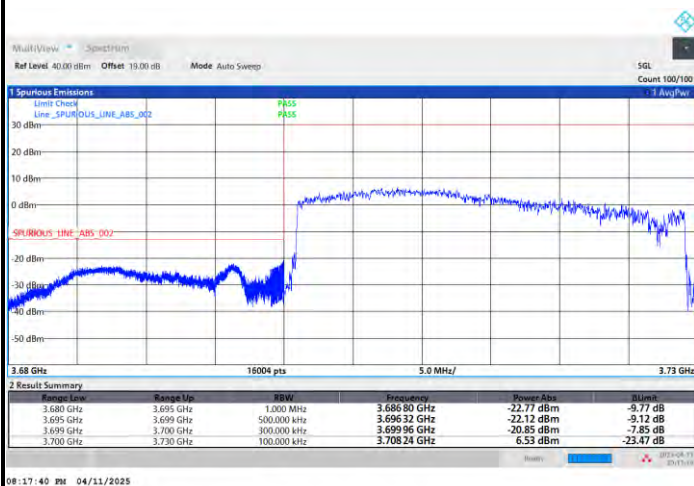


## Highest Band Edge / Full RB

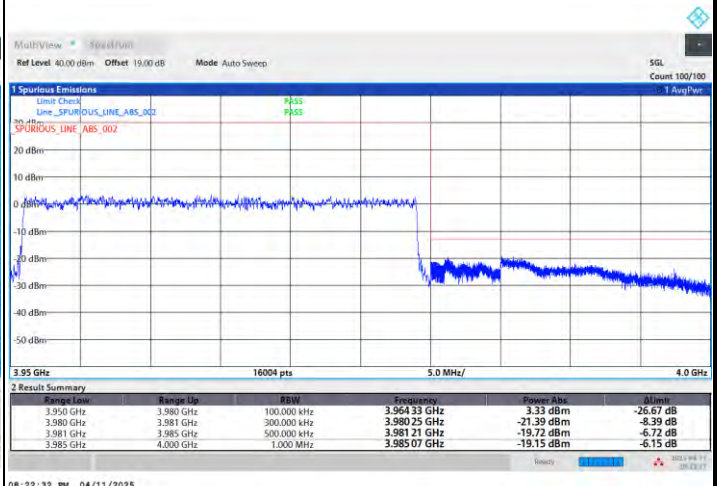


## FR1 n77 / 30MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB





## FR1 n77 / 30MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

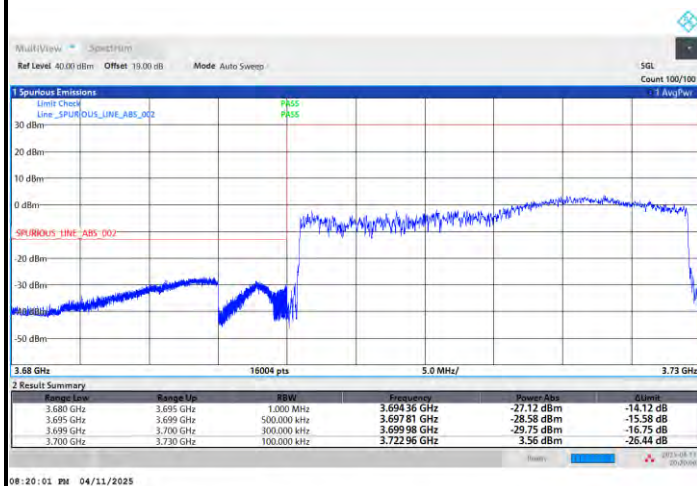


## Highest Band Edge / Full RB



## FR1 n77 / 30MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



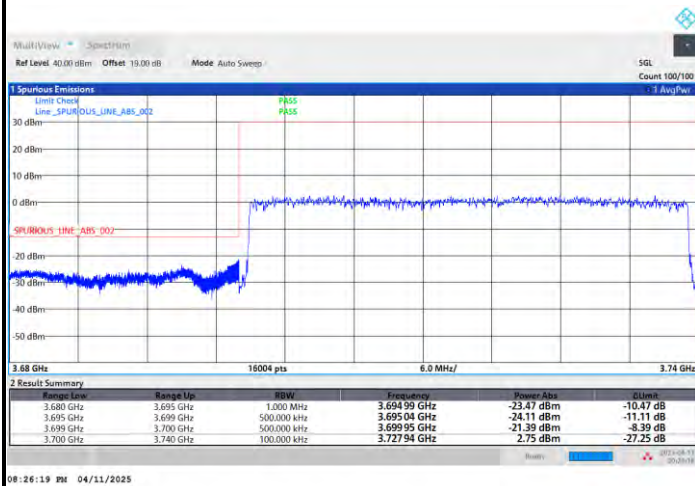
## Highest Band Edge / Full RB





## FR1 n77 / 40MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB

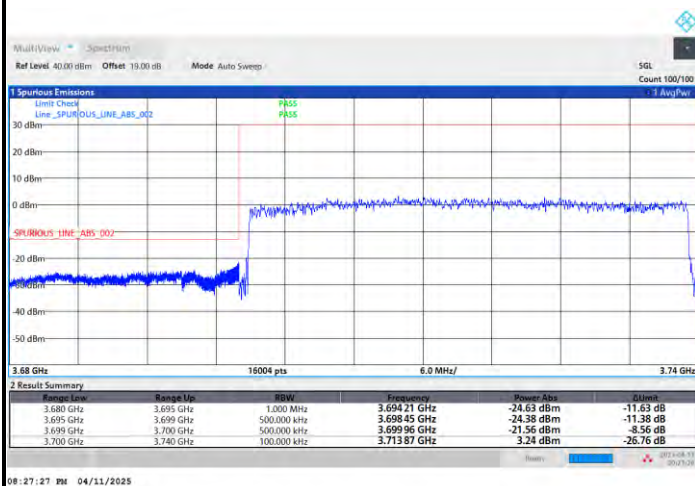


## Highest Band Edge / Full RB

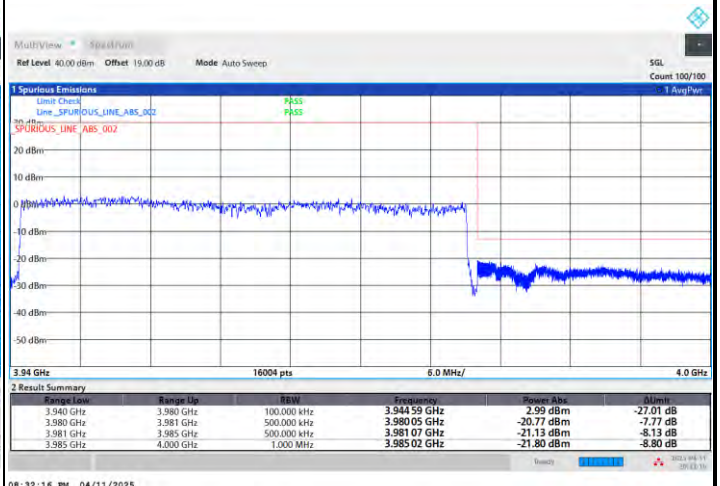


## FR1 n77 / 40MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



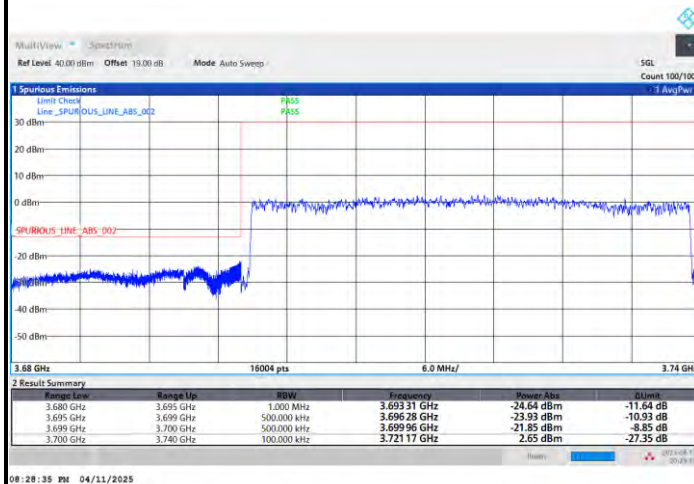
## Highest Band Edge / Full RB





## FR1 n77 / 40MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB



08:28:35 PM 04/11/2025

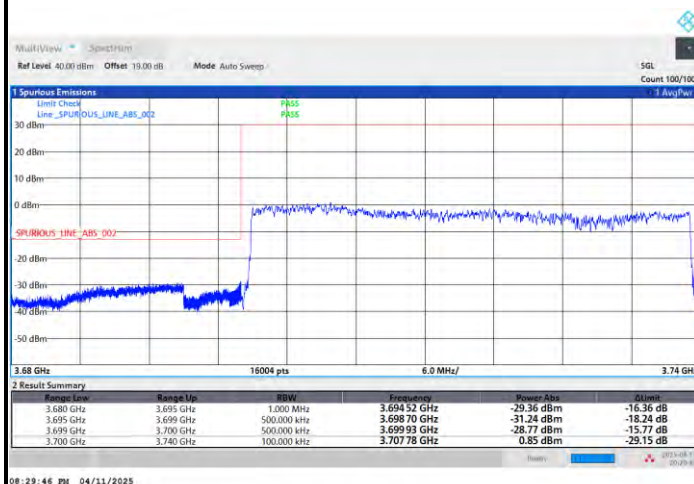
## Highest Band Edge / Full RB



08:33:25 PM 04/11/2025

## FR1 n77 / 40MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



08:29:46 PM 04/11/2025

## Highest Band Edge / Full RB



08:34:35 PM 04/11/2025



## FR1 n77 / 50MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB

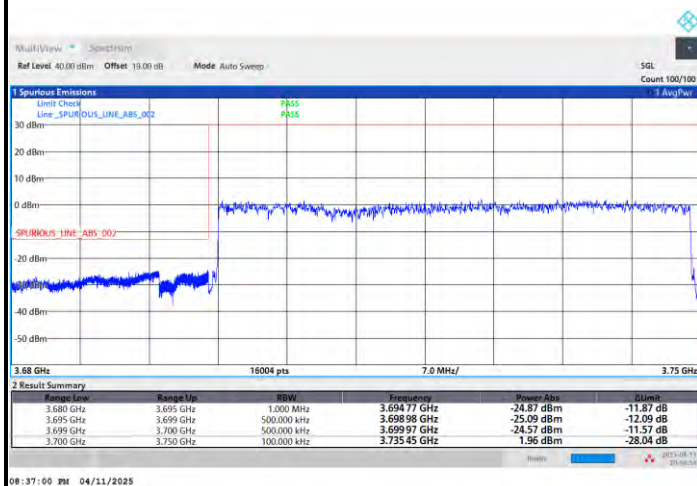


## Highest Band Edge / Full RB

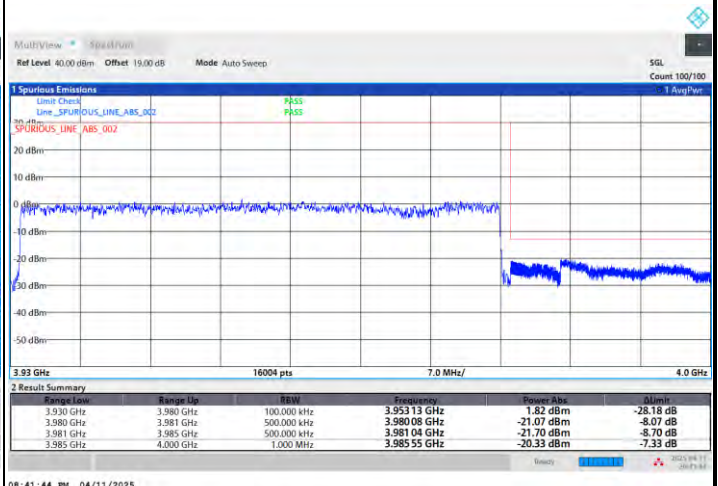


## FR1 n77 / 50MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



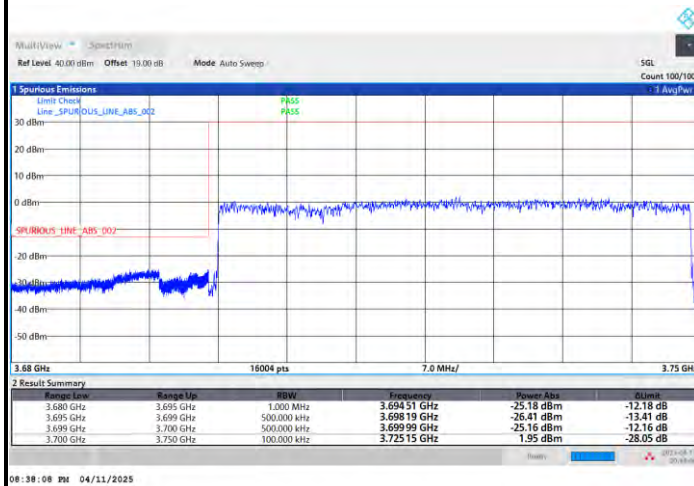
## Highest Band Edge / Full RB



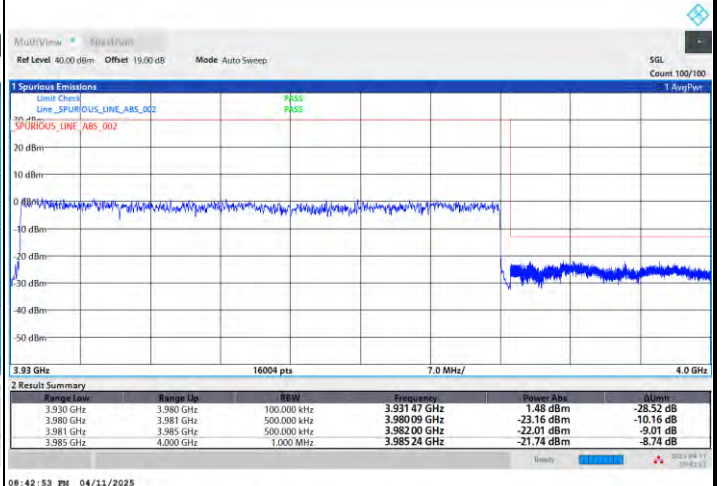


## FR1 n77 / 50MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

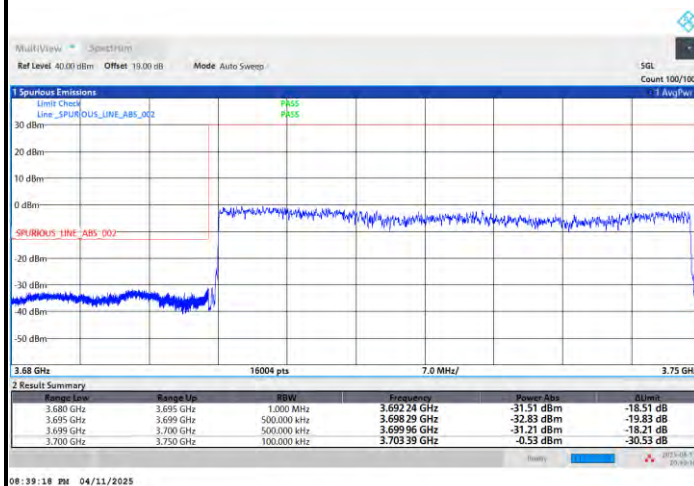


## Highest Band Edge / Full RB

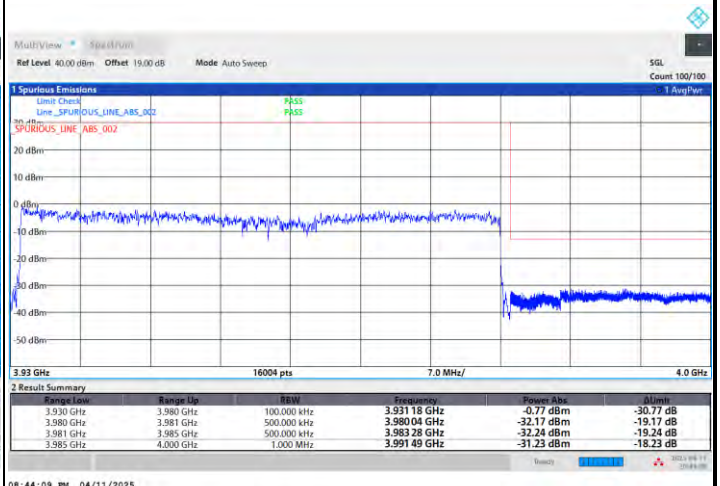


## FR1 n77 / 50MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



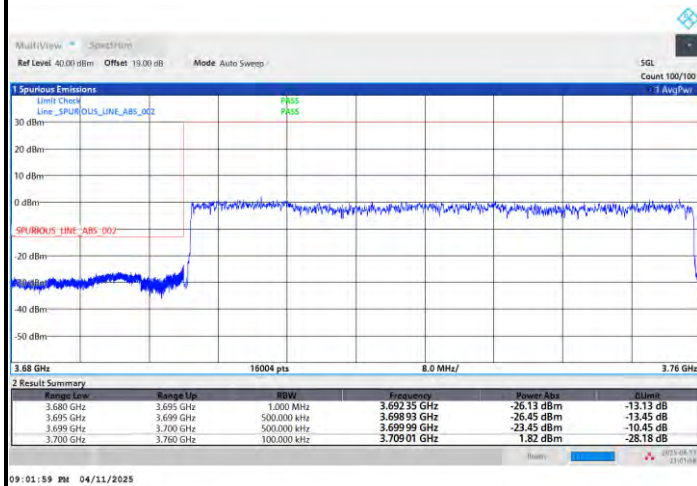
## Highest Band Edge / Full RB





## FR1 n77 / 60MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB



09:01:59 PM 04/11/2025

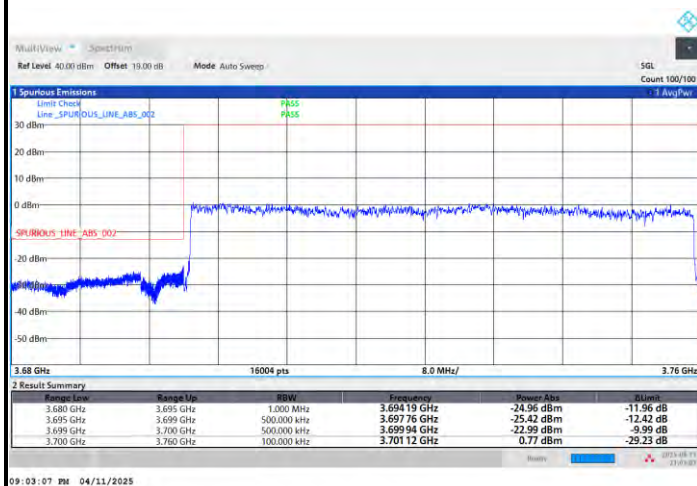
## Highest Band Edge / Full RB



09:06:49 PM 04/11/2025

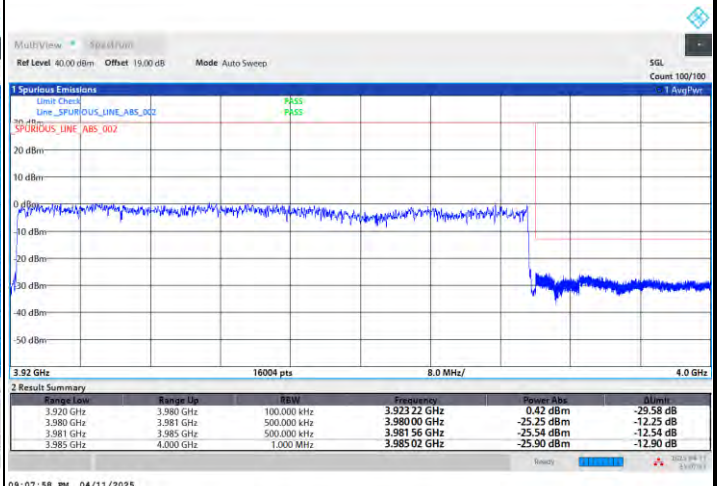
## FR1 n77 / 60MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



09:03:07 PM 04/11/2025

## Highest Band Edge / Full RB



09:07:58 PM 04/11/2025

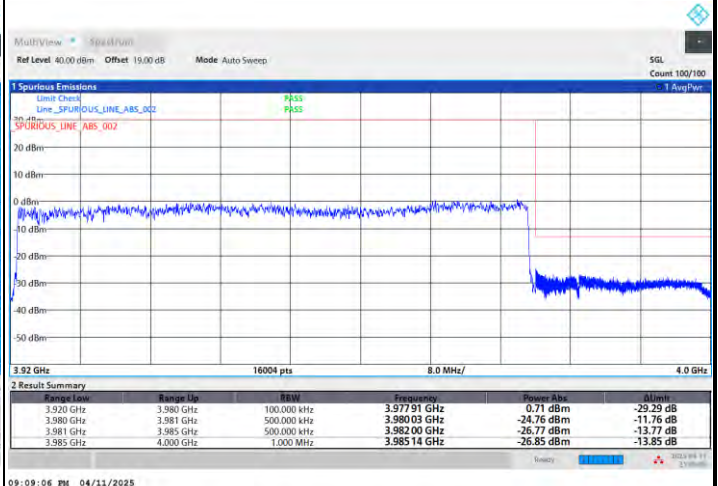


## FR1 n77 / 60MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

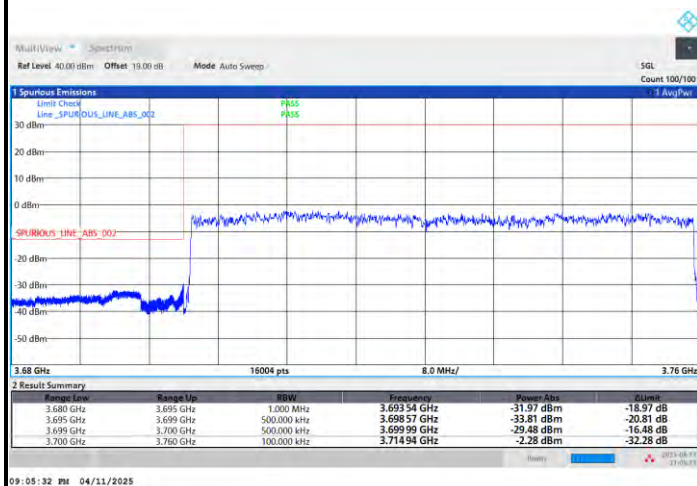


## Highest Band Edge / Full RB



## FR1 n77 / 60MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB





## FR1 n77 / 70MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB

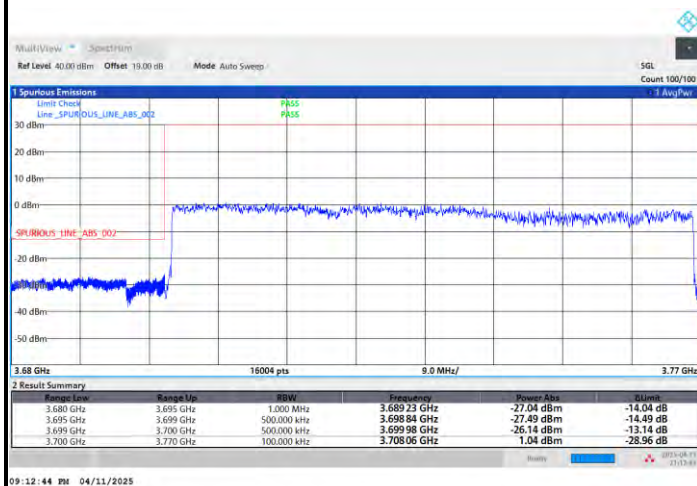


## Highest Band Edge / Full RB

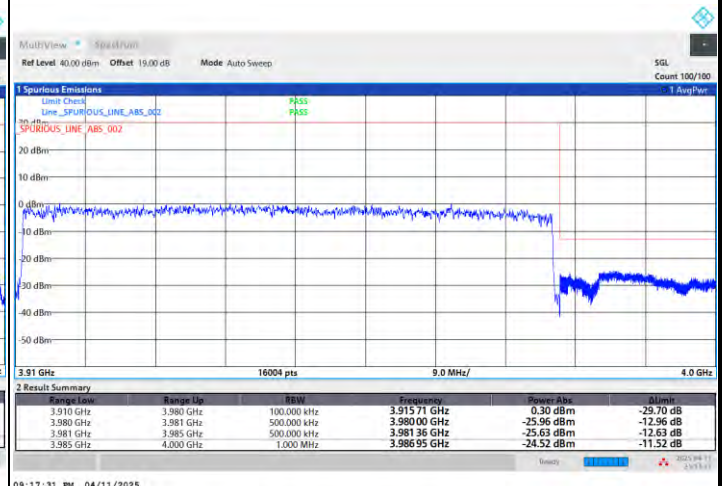


## FR1 n77 / 70MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



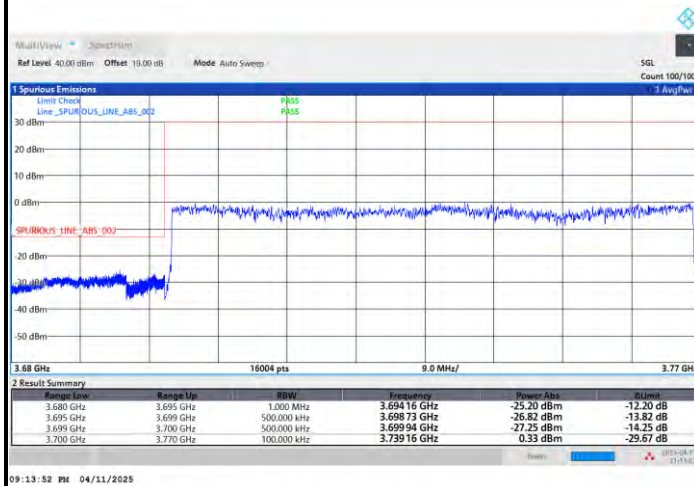
## Highest Band Edge / Full RB



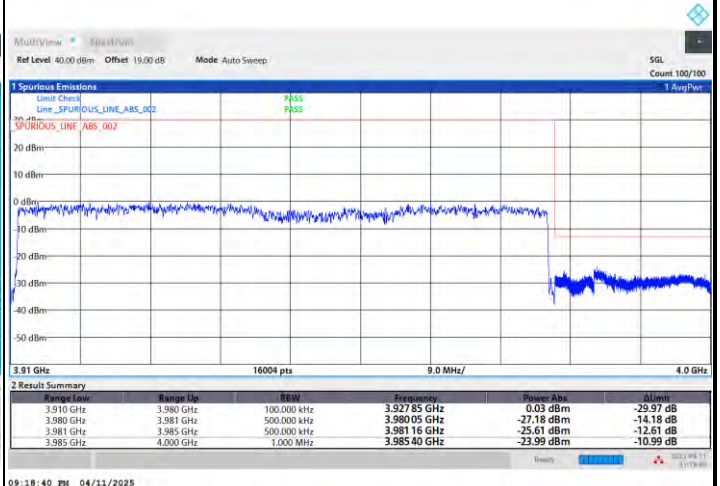


## FR1 n77 / 70MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

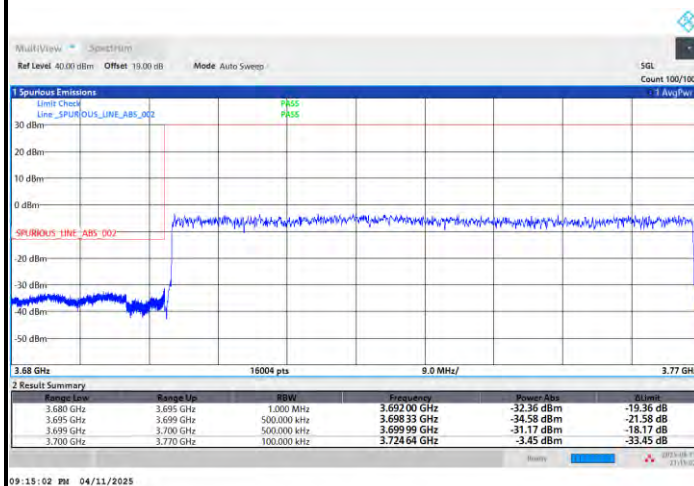


## Highest Band Edge / Full RB

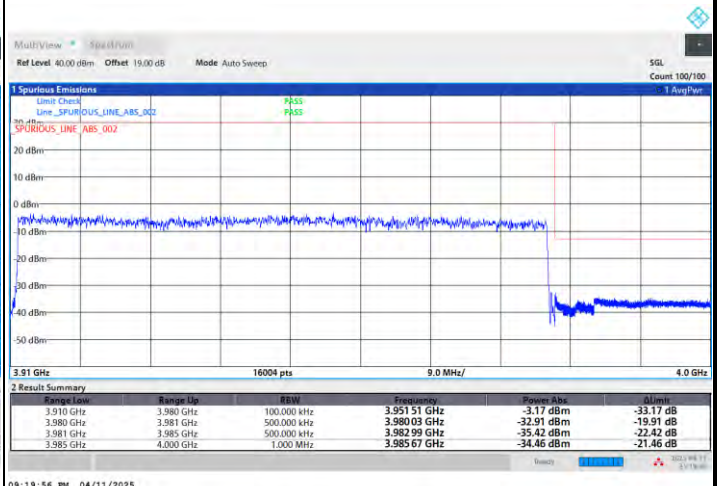


## FR1 n77 / 70MHz / CP OFDM / 256QAM

## 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

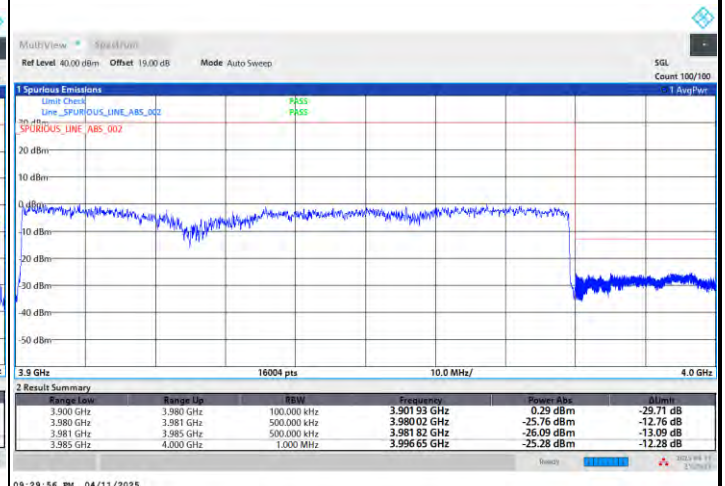


## FR1 n77 / 80MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB



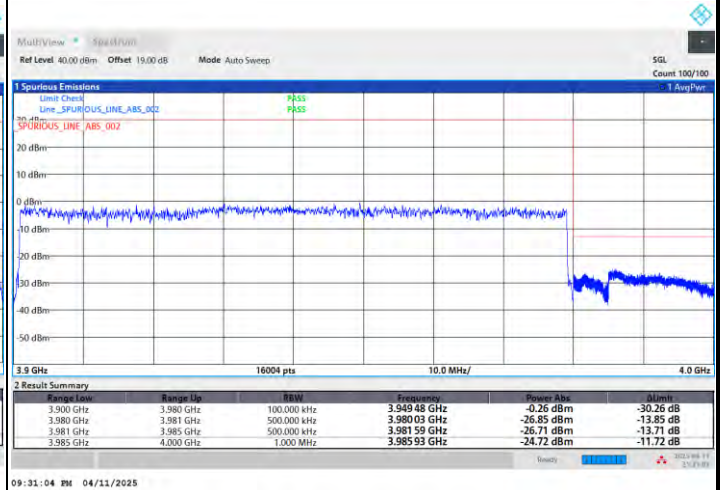


## FR1 n77 / 80MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

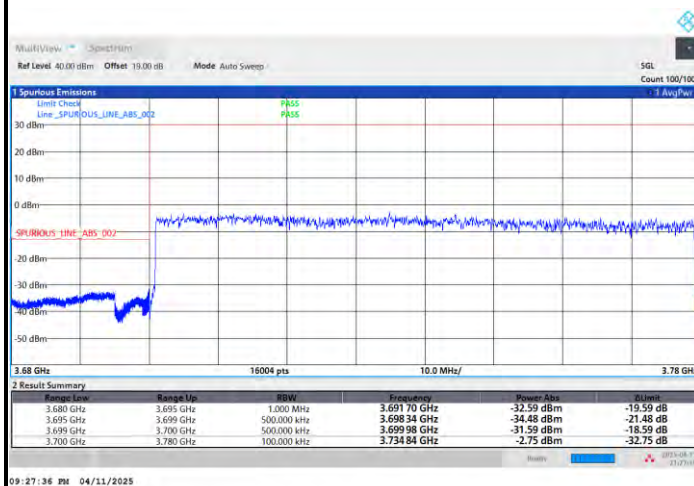


## Highest Band Edge / Full RB

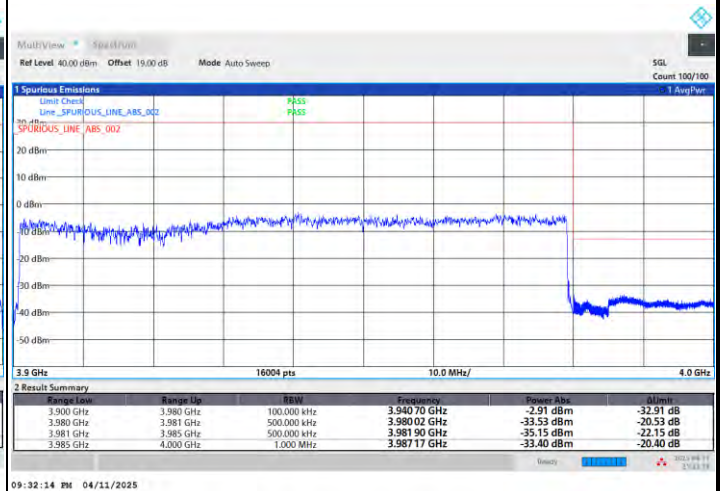


## FR1 n77 / 80MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



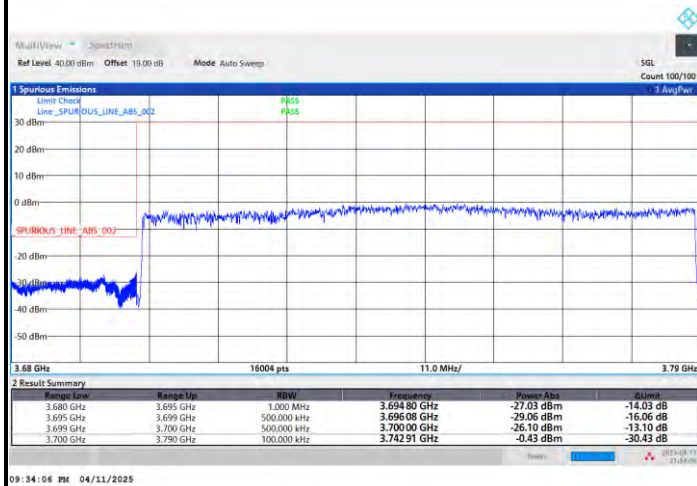
## Highest Band Edge / Full RB





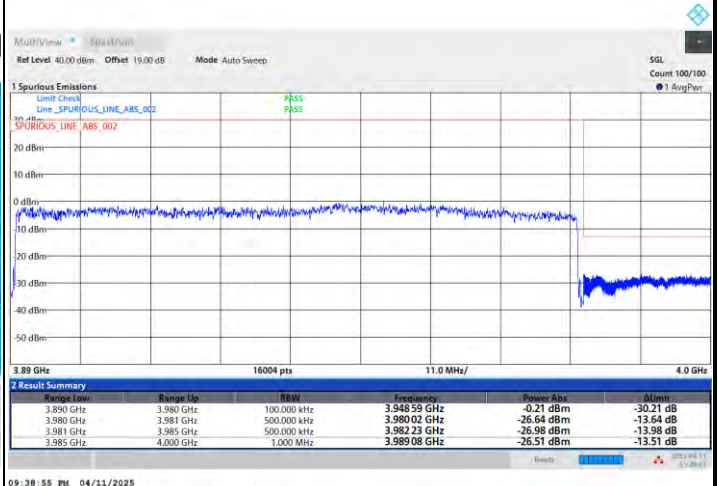
## FR1 n77 / 90MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB



09:34:06 PM 04/11/2025

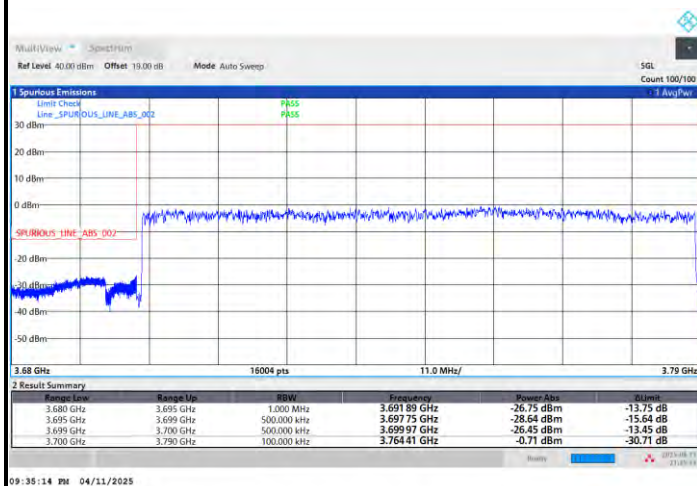
## Highest Band Edge / Full RB



09:38:55 PM 04/11/2025

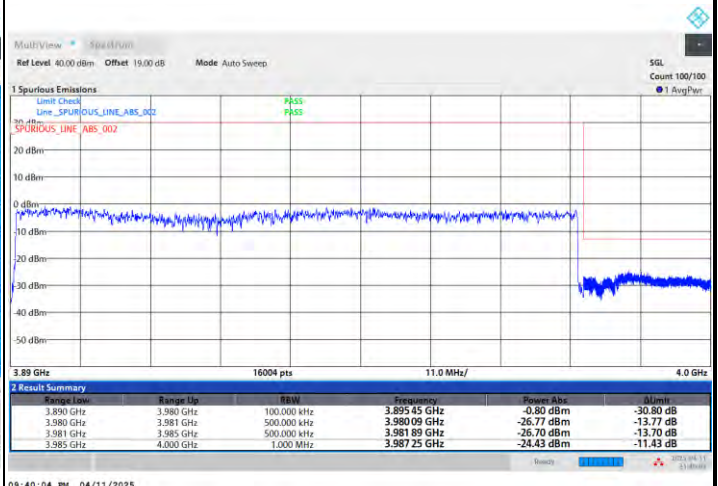
## FR1 n77 / 90MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



09:35:14 PM 04/11/2025

## Highest Band Edge / Full RB

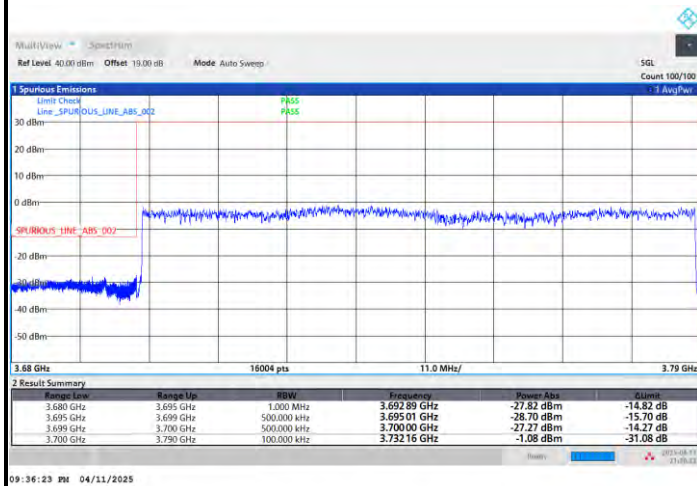


09:40:04 PM 04/11/2025

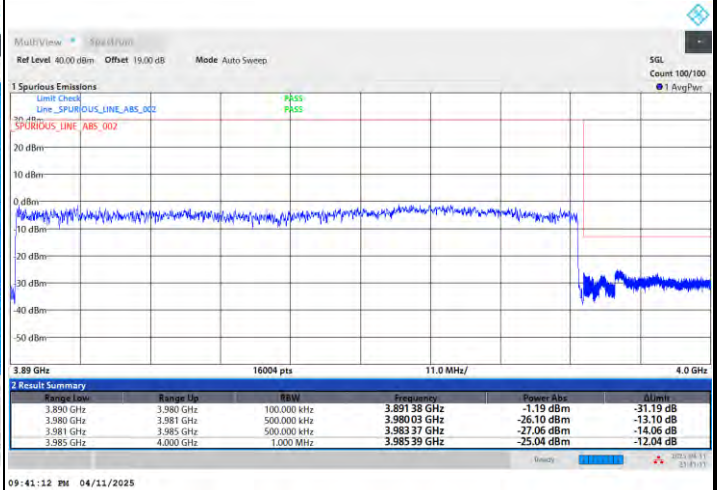


## FR1 n77 / 90MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB

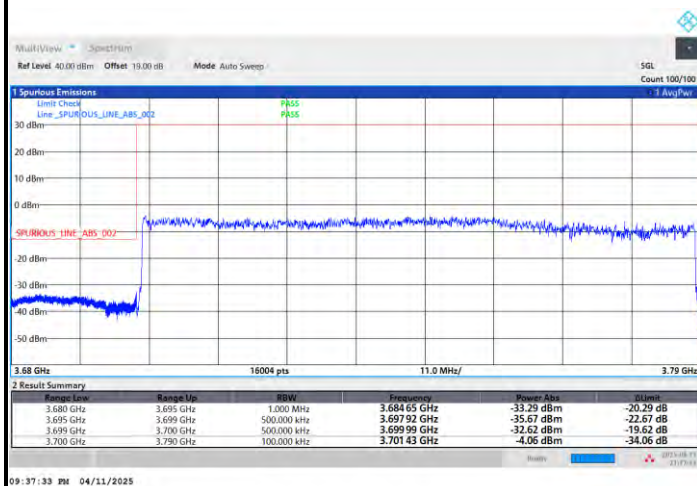


## Highest Band Edge / Full RB

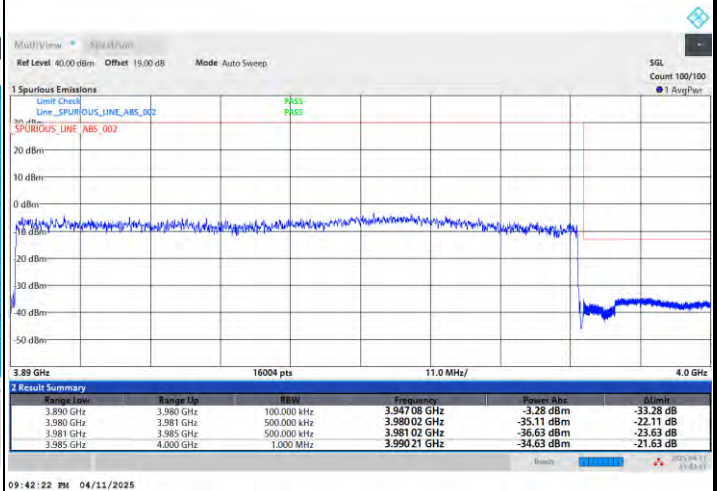


## FR1 n77 / 90MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



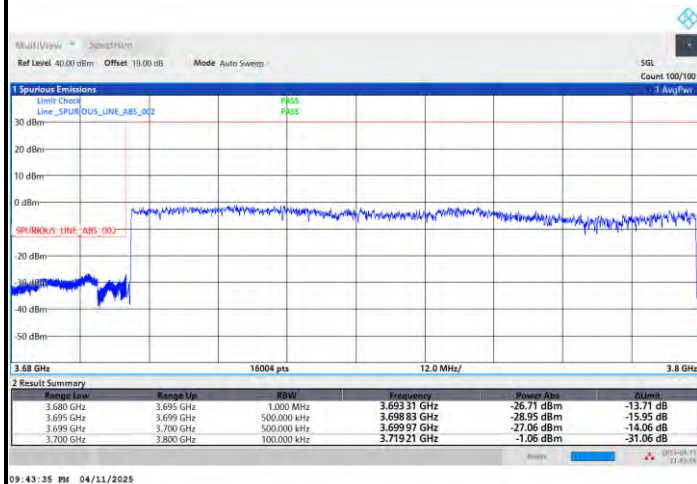
## Highest Band Edge / Full RB





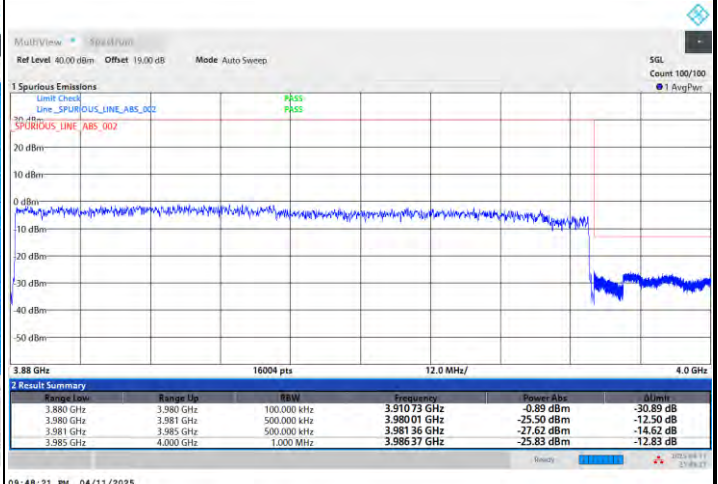
## FR1 n77 / 100MHz / CP OFDM / QPSK

## Lowest Band Edge / Full RB



09:43:35 PM 04/11/2025

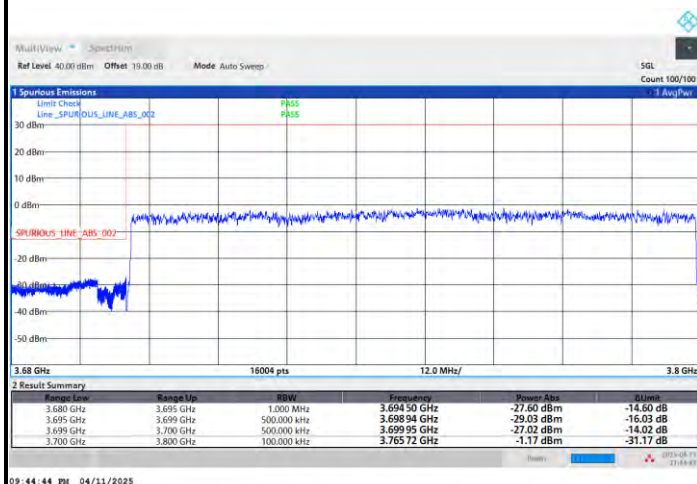
## Highest Band Edge / Full RB



09:48:21 PM 04/11/2025

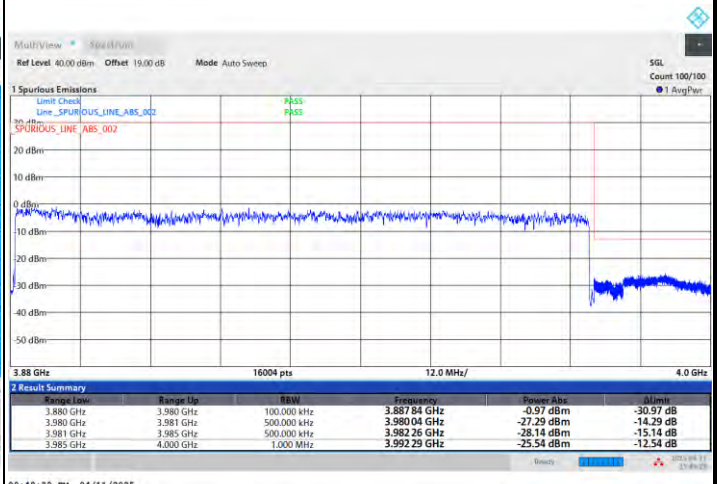
## FR1 n77 / 100MHz / CP OFDM / 16QAM

## Lowest Band Edge / Full RB



09:44:44 PM 04/11/2025

## Highest Band Edge / Full RB



09:49:30 PM 04/11/2025



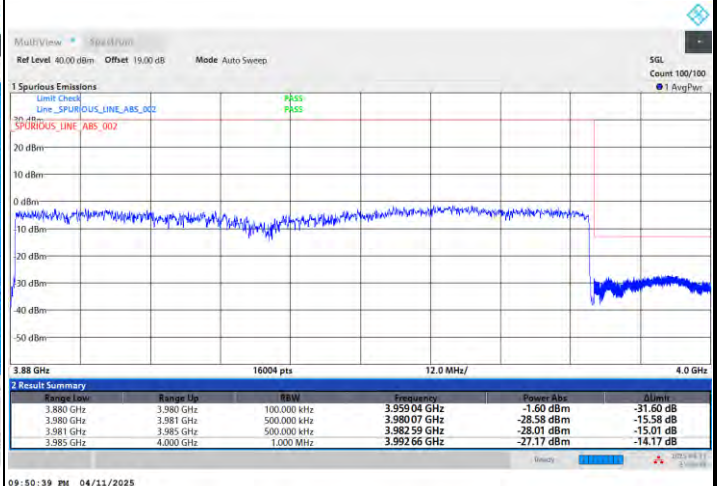
## FR1 n77 / 100MHz / CP OFDM / 64QAM

## Lowest Band Edge / Full RB



09:45:52 PM 04/11/2025

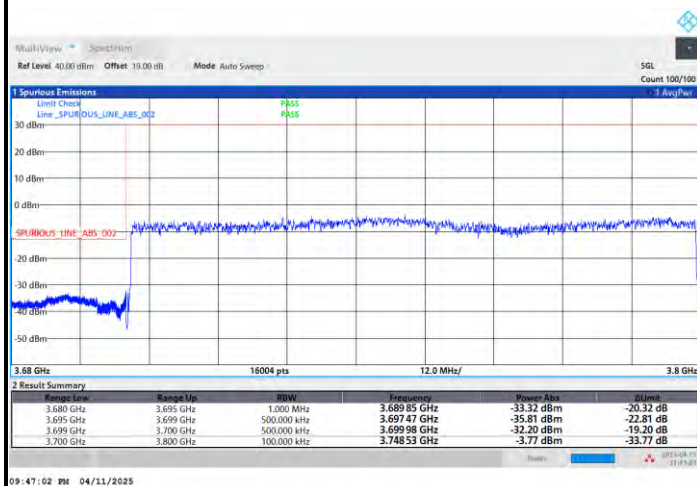
## Highest Band Edge / Full RB



09:50:39 PM 04/11/2025

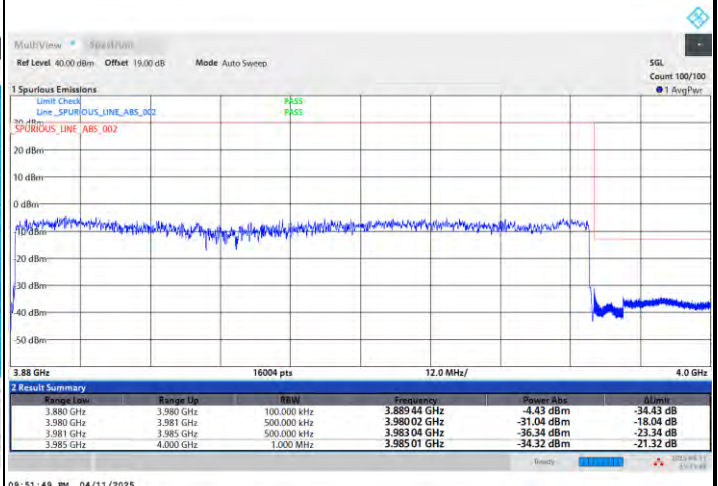
## FR1 n77 / 100MHz / CP OFDM / 256QAM

## Lowest Band Edge / Full RB



09:47:02 PM 04/11/2025

## Highest Band Edge / Full RB



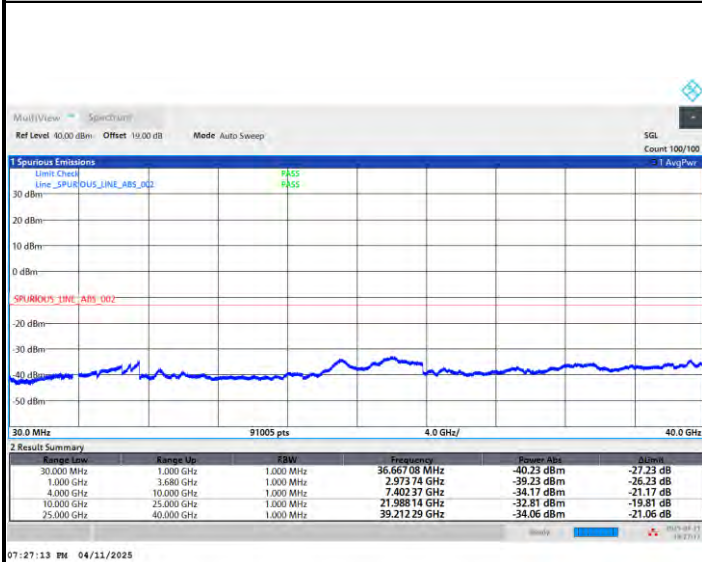
09:51:49 PM 04/11/2025



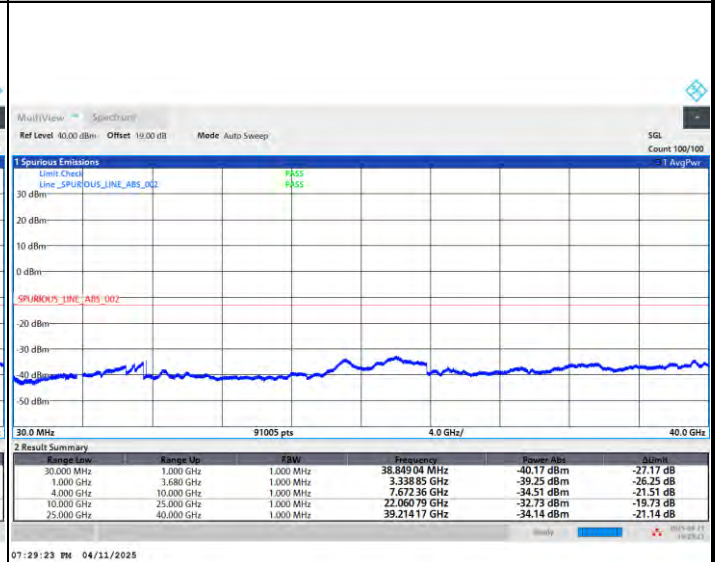
# Conducted Spurious Emission

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

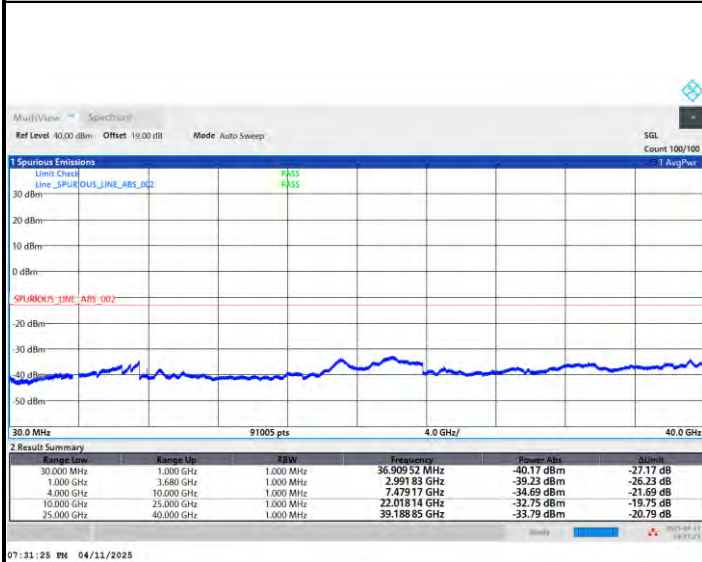
## Lowest Channel



## 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    | 0.0160                          | PASS    |
| 40                  | Normal Voltage    | 0.0154                          |         |
| 30                  | Normal Voltage    | 0.0025                          |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                          |         |
| 10                  | Normal Voltage    | 0.0029                          |         |
| 0                   | Normal Voltage    | 0.0048                          |         |
| -10                 | Normal Voltage    | 0.0034                          |         |
| -20                 | Normal Voltage    | 0.0169                          |         |
| -30                 | Normal Voltage    | 0.0044                          |         |
| 20                  | Maximum Voltage   | 0.0044                          |         |
| 20                  | Normal Voltage    | 0.0000                          |         |
| 20                  | Minimum Voltage   | 0.0223                          |         |

**Note:**

1. Normal Voltage = 3.85 V. ; Minimum Voltage = 3.30 V. ; Maximum Voltage = 4.40 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

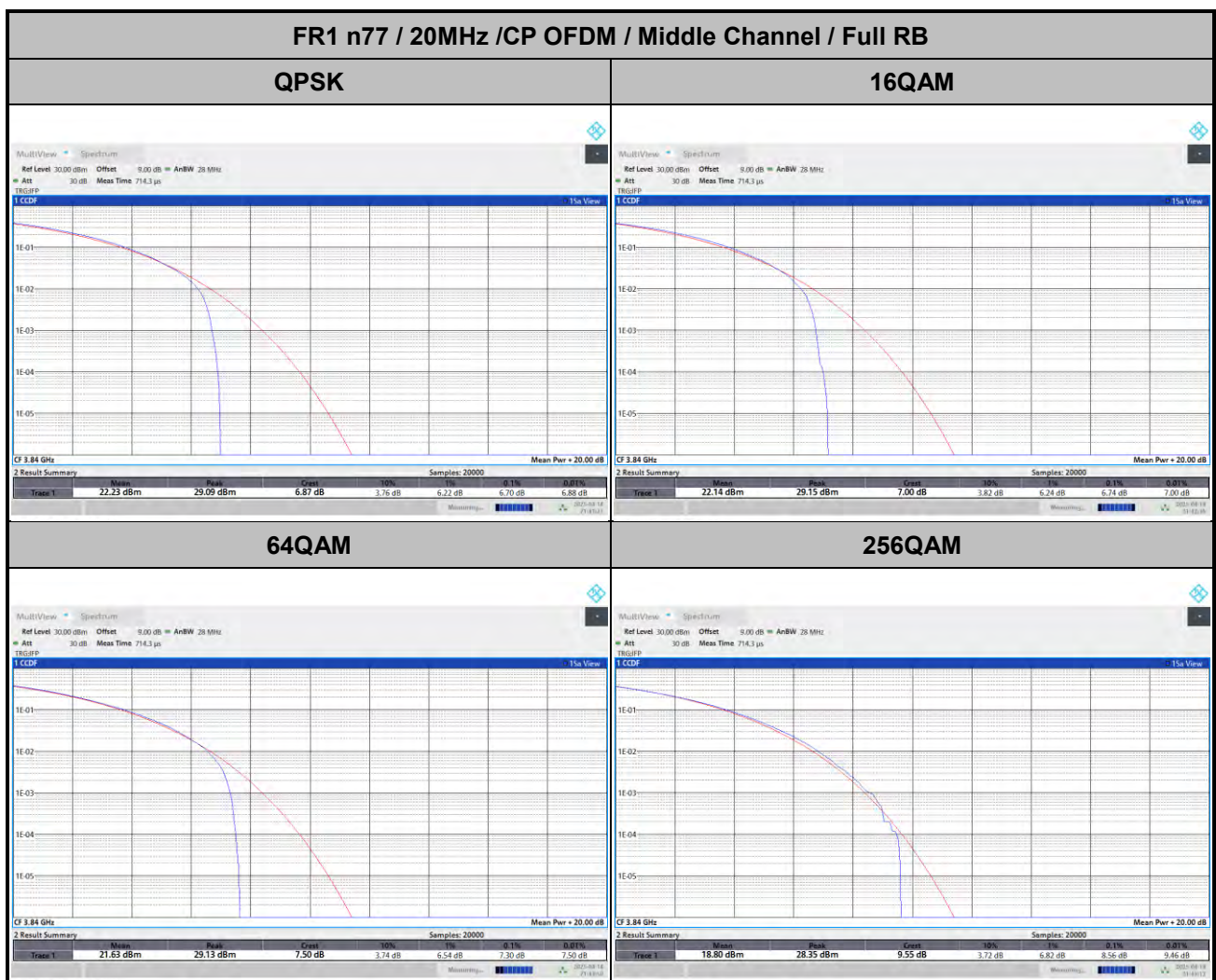


## &lt;MIMO Mode&gt;

## MIMO &lt;Ant. 5+7&gt; (Ant. 7)

## 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 | 6.70                      | 6.74    | 7.30    | 8.56    | PASS        |



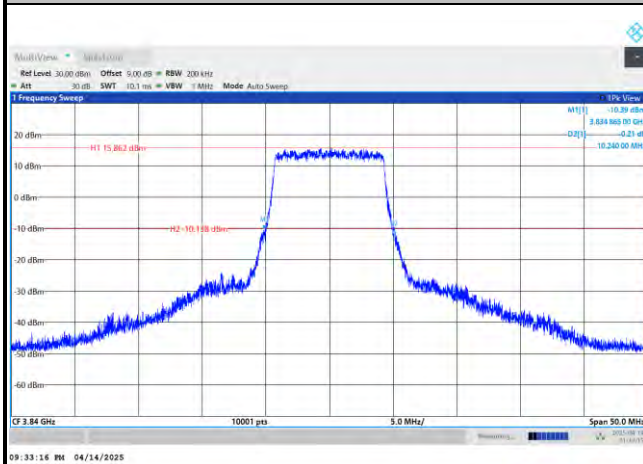
**26dB Bandwidth**

| Mode      | FR1 n77 : 26dB BW(MHz) / CP OFDM |        |       |        |       |        |        |        |
|-----------|----------------------------------|--------|-------|--------|-------|--------|--------|--------|
| BW        | 10MHz                            |        | 15MHz |        | 20MHz |        | 25MHz  |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 10.24                            | 9.96   | 15.35 | 15.09  | 20.35 | 20.30  | 25.34  | 25.33  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 10.03                            | 10.05  | 15.16 | 15.31  | 20.46 | 20.20  | 25.28  | 25.08  |
| BW        | 30MHz                            |        | 40MHz |        | 50MHz |        | 60MHz  |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 30.79                            | 30.72  | 40.76 | 41.04  | 50.76 | 50.42  | 62.77  | 62.91  |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 30.64                            | 30.60  | 40.83 | 40.82  | 50.63 | 50.38  | 62.91  | 63.00  |
| BW        | 70MHz                            |        | 80MHz |        | 90MHz |        | 100MHz |        |
| Mod.      | QPSK                             | 16QAM  | QPSK  | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Middle CH | 72.55                            | 72.45  | 80.86 | 80.73  | 92.58 | 92.75  | 102.67 | 102.76 |
| Mod.      | 64QAM                            | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH | 72.64                            | 72.45  | 80.67 | 80.71  | 92.61 | 92.65  | 102.60 | 102.83 |

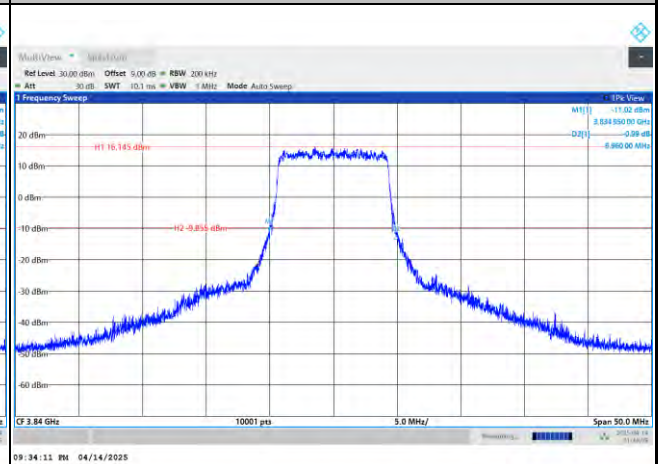


FR1 n77 / 10MHz / CP OFDM / Middle Channel / Full RB

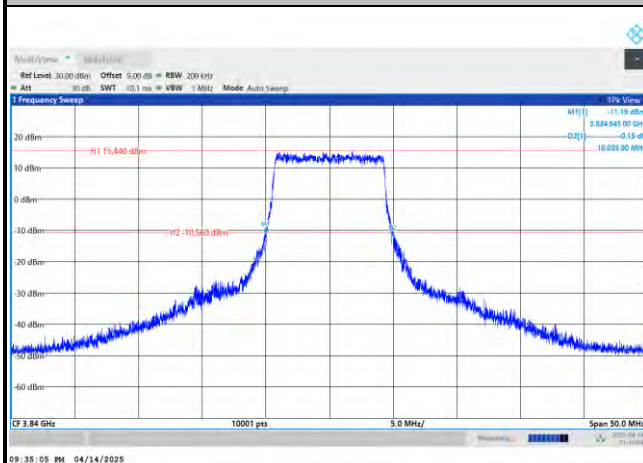
QPSK



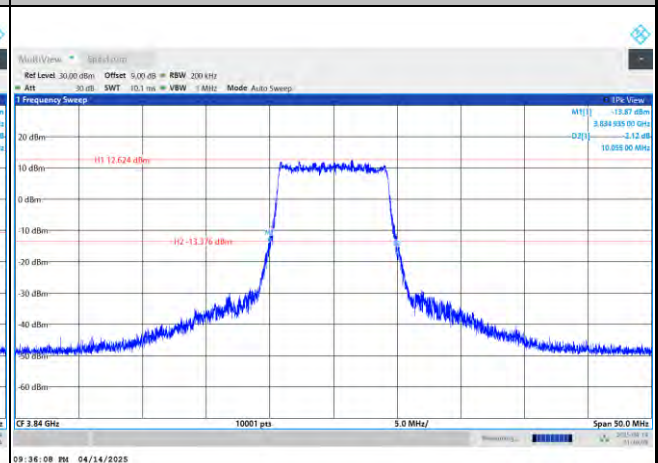
16QAM

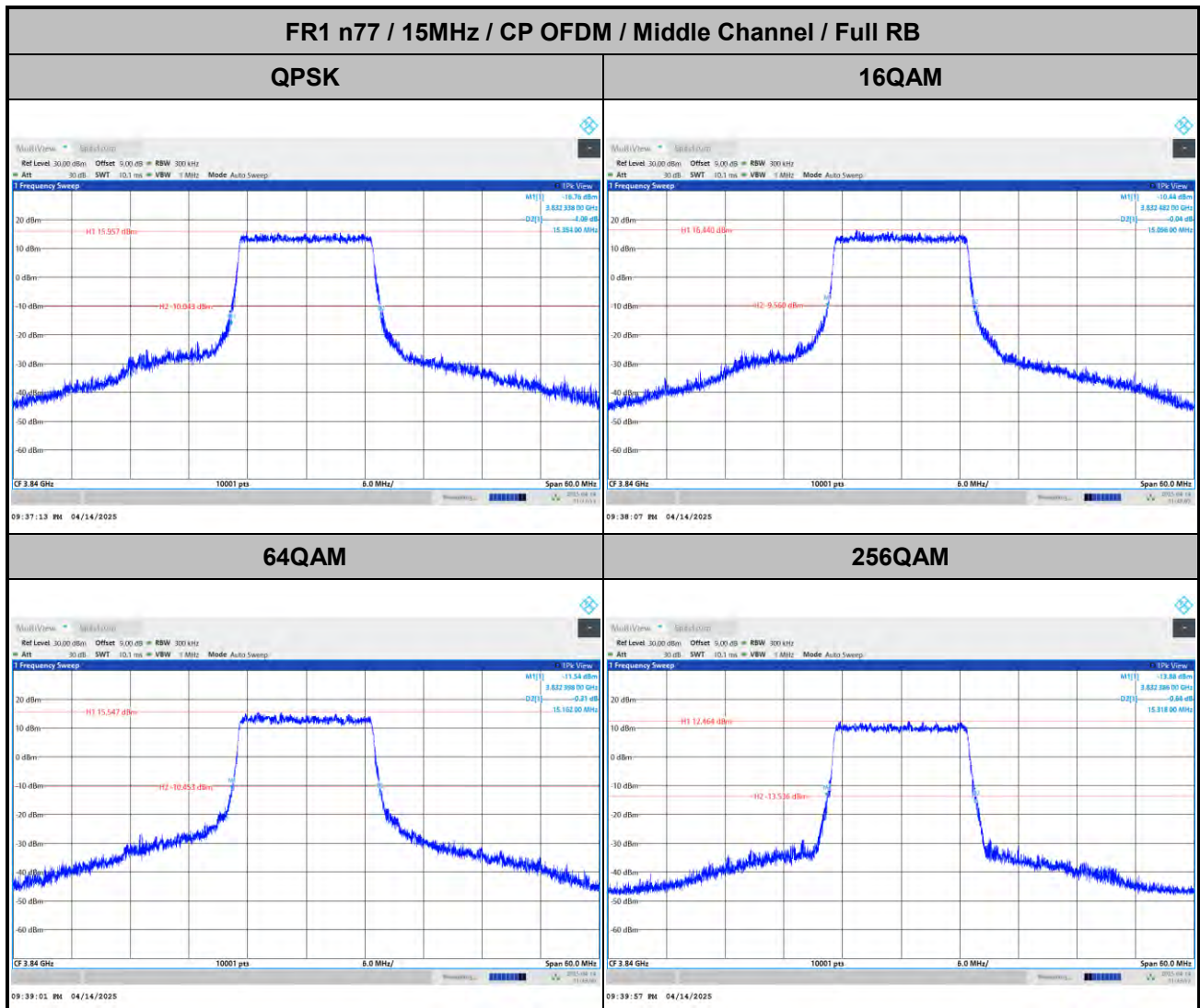


64QAM



256QAM

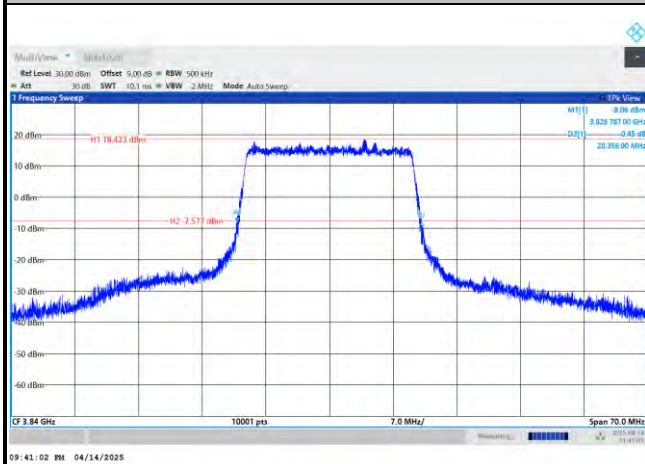




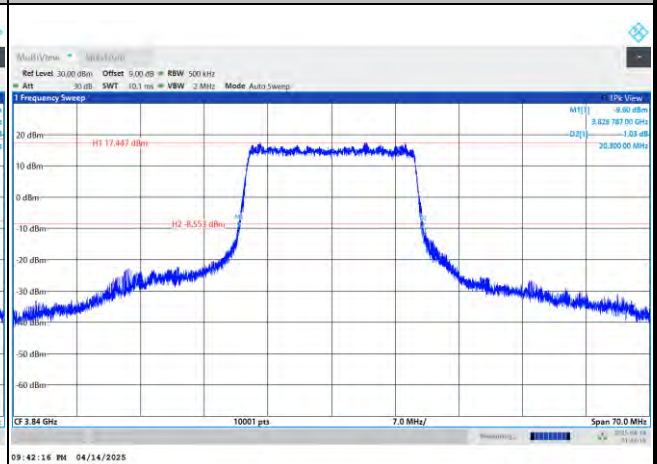


## FR1 n77 / 20MHz / CP OFDM / Middle Channel / Full RB

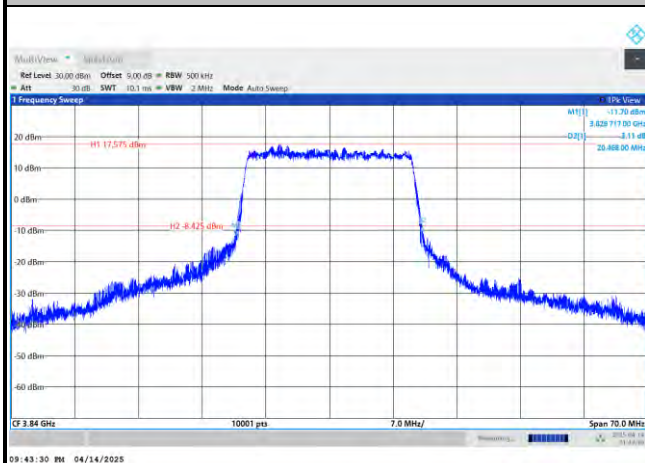
## QPSK



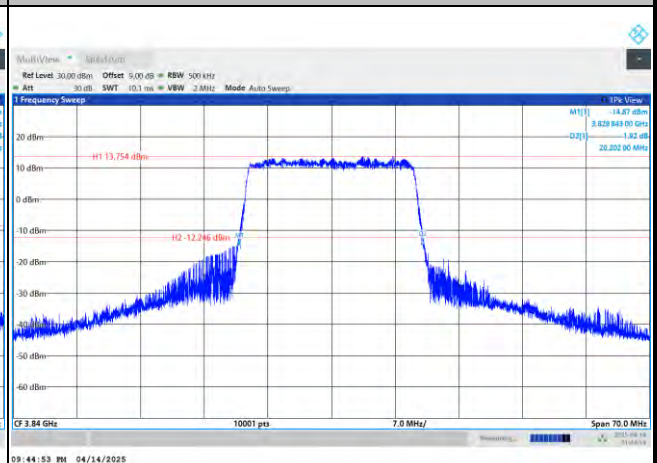
## 16QAM

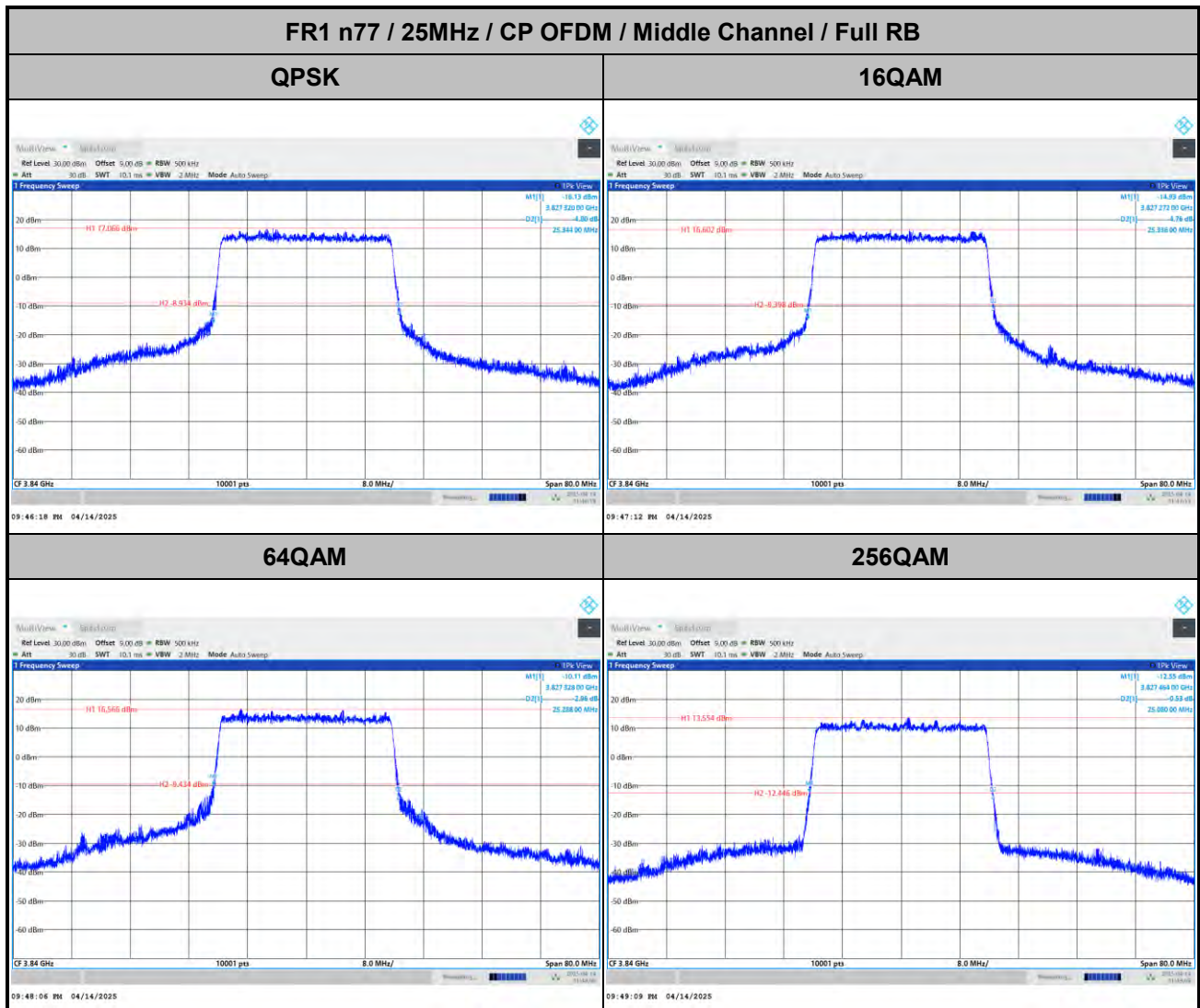


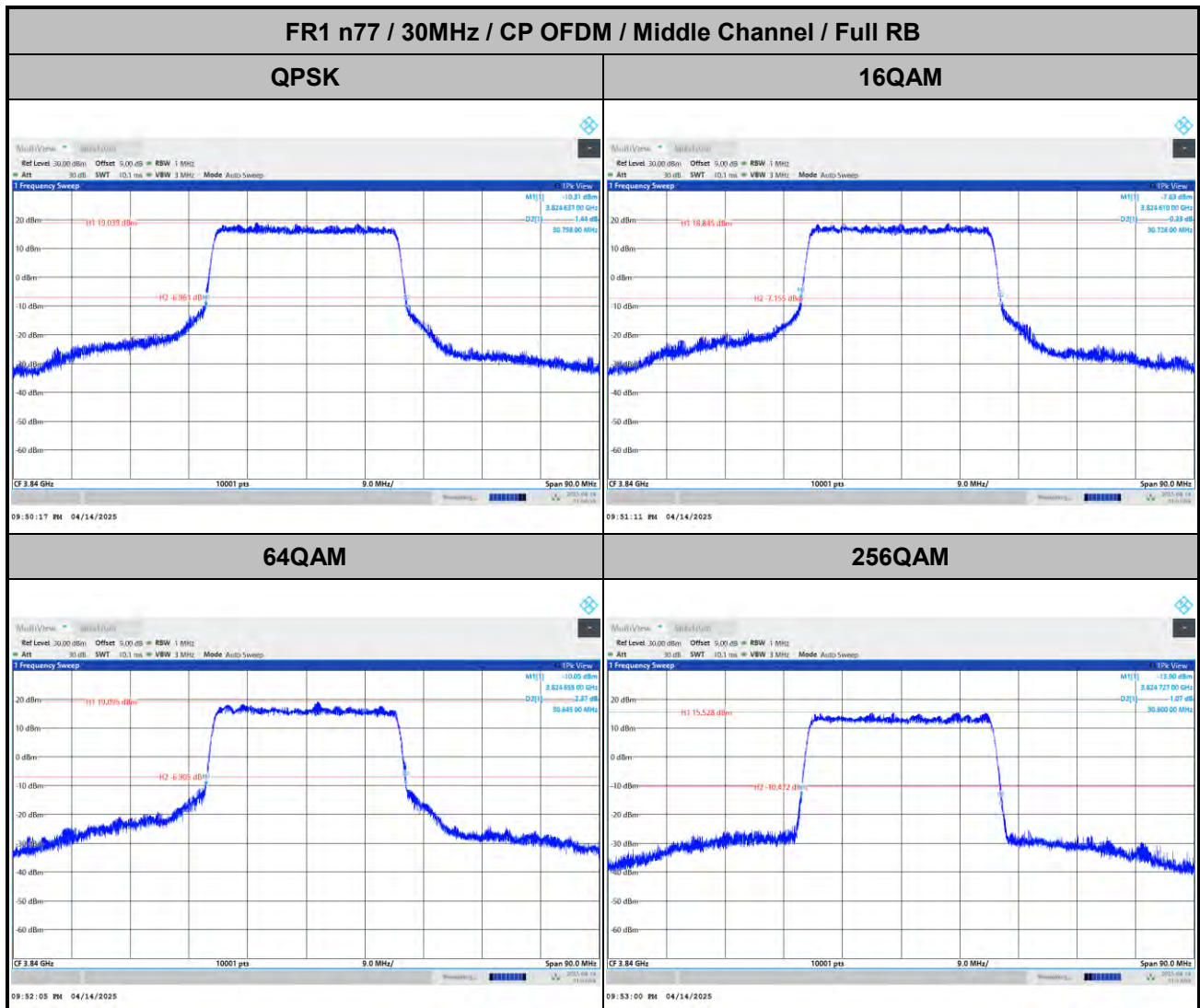
## 64QAM

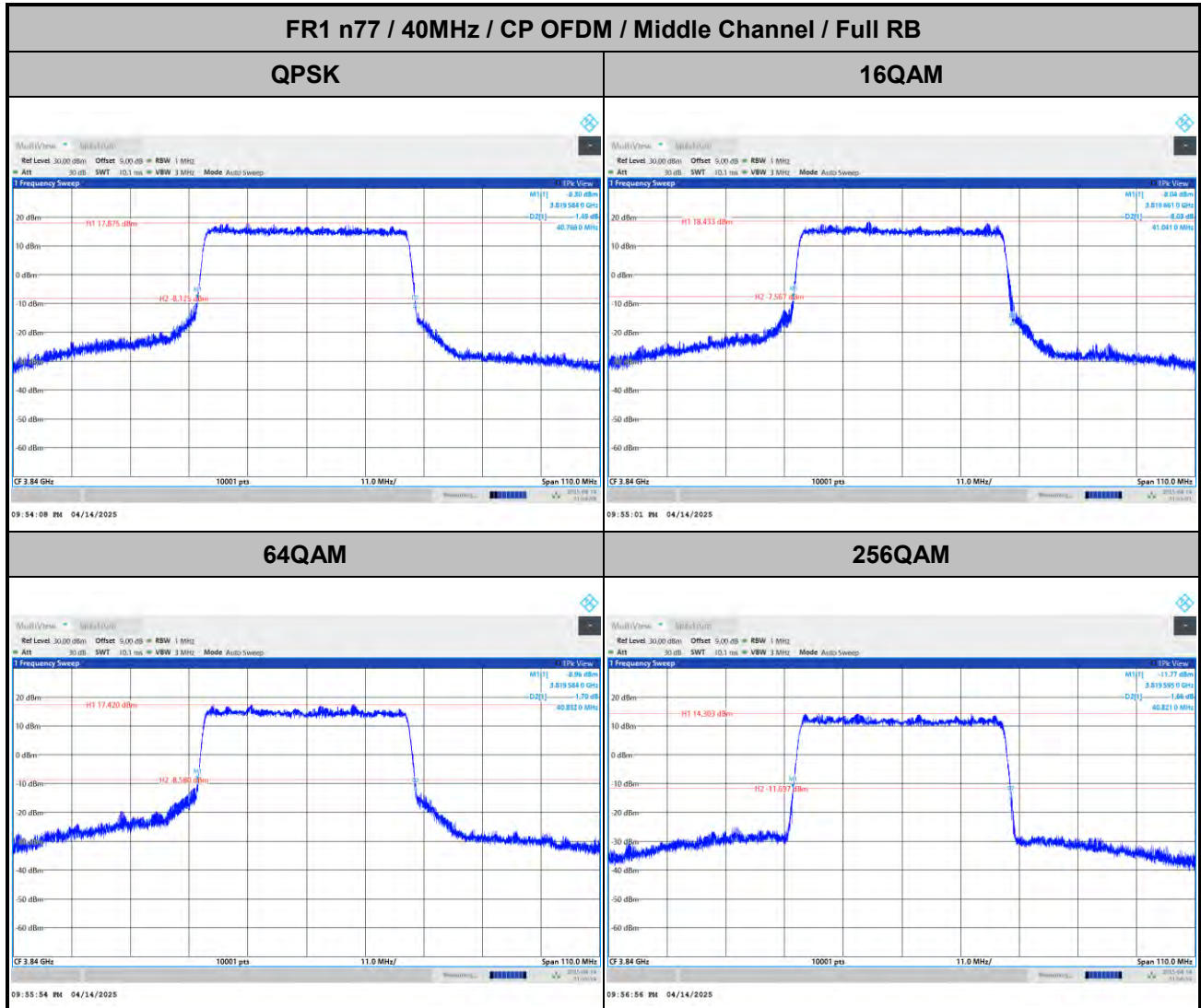


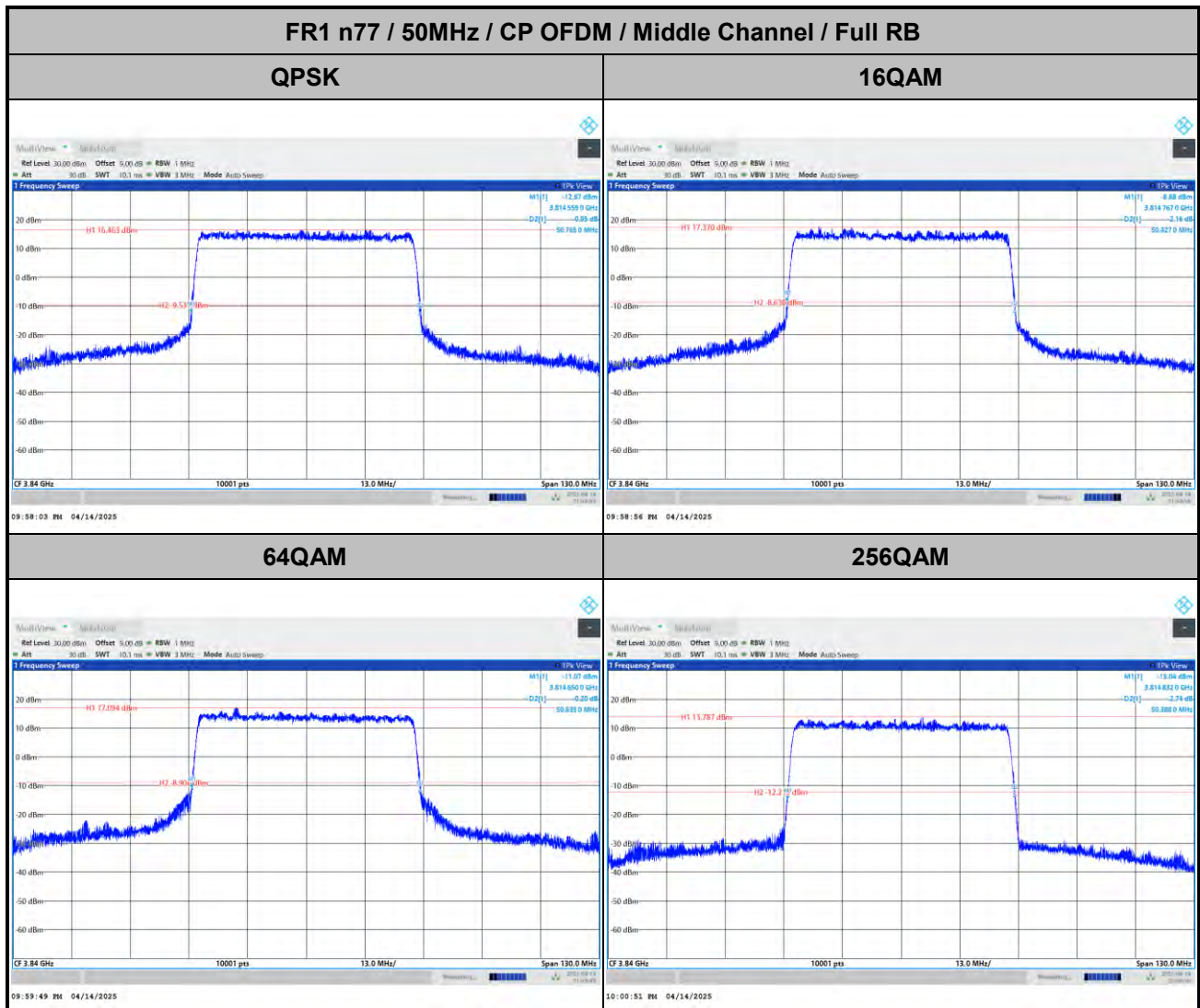
## 256QAM

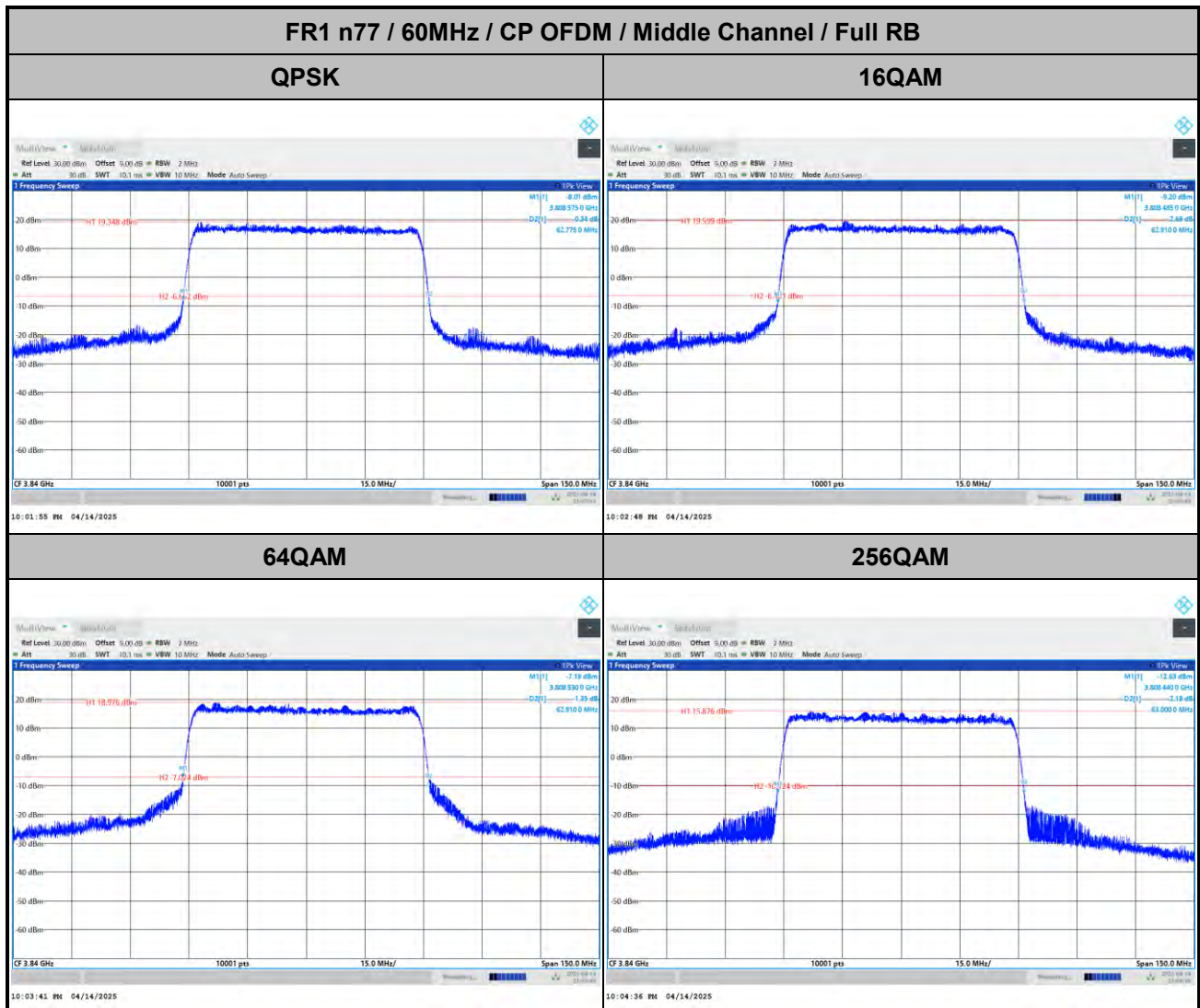














**Report No. : FG4N2547C**

