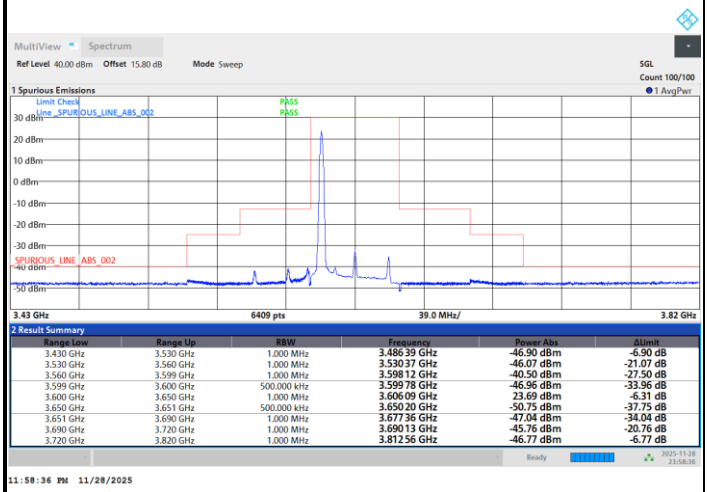
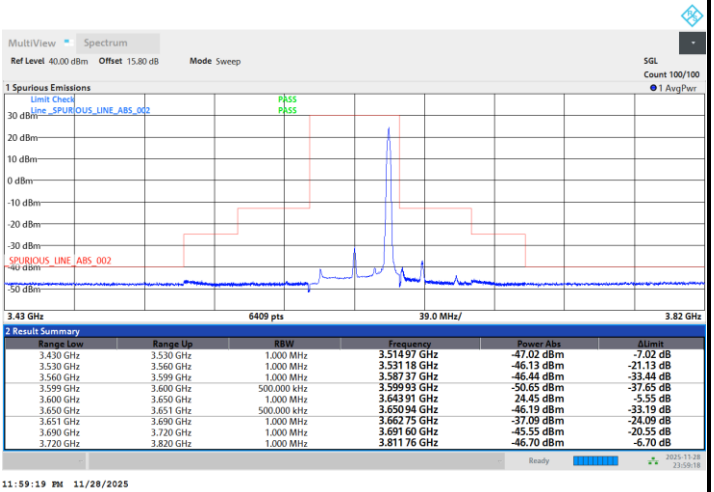
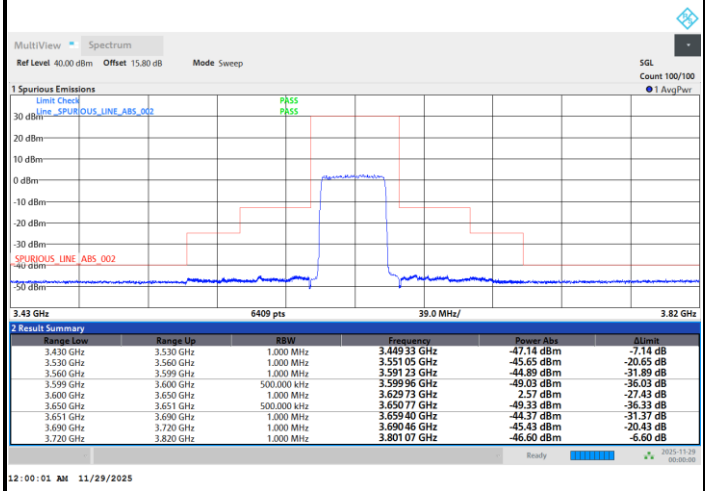
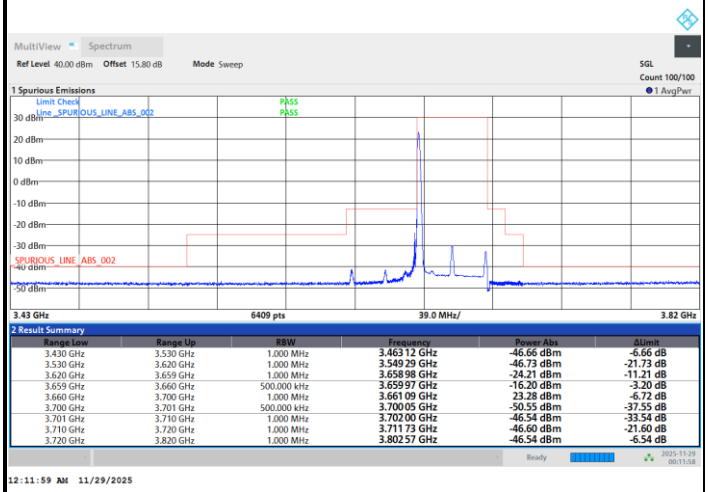
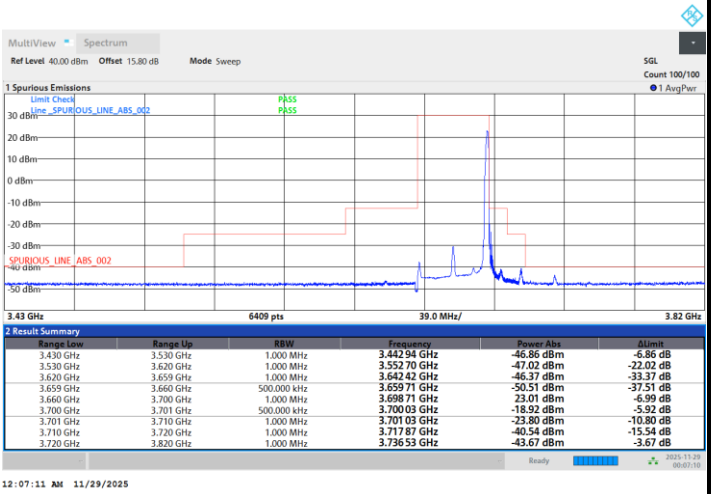
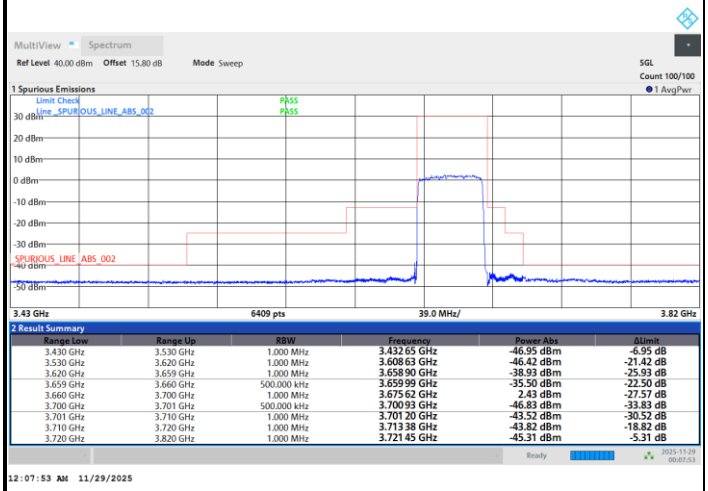
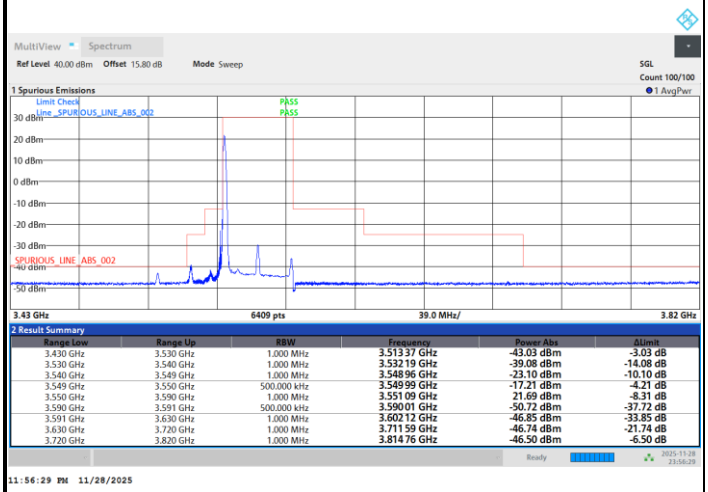
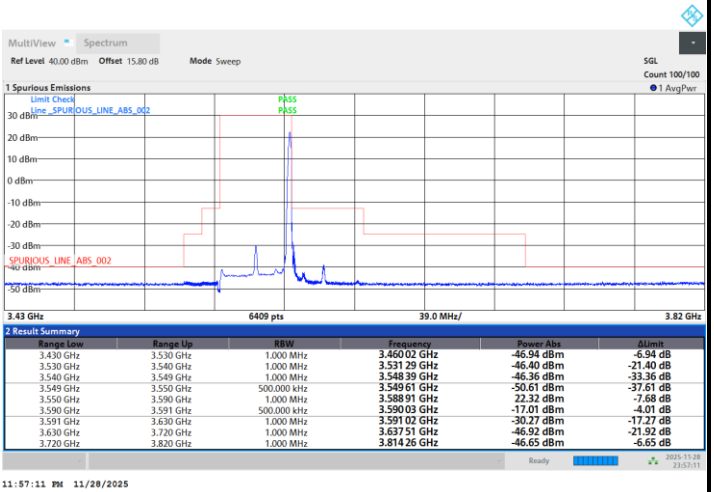
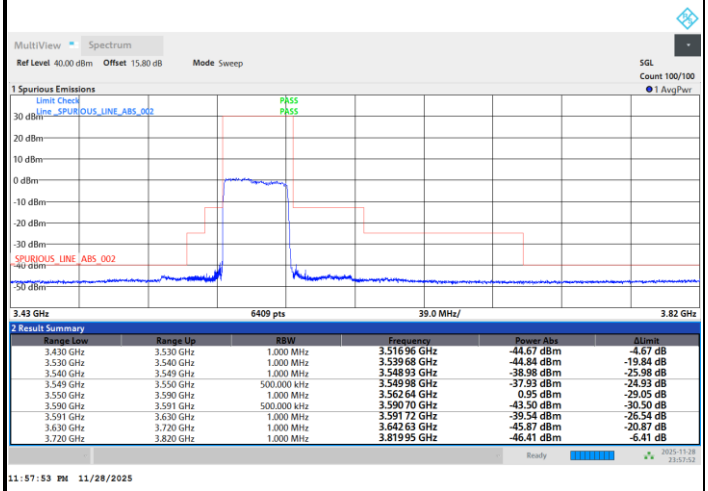
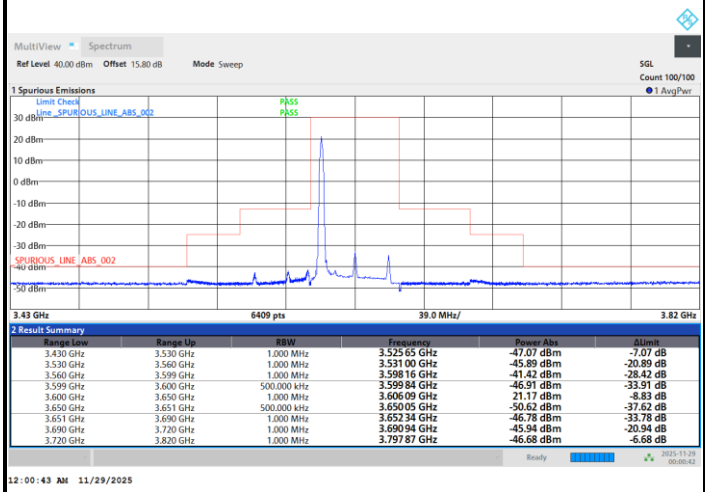
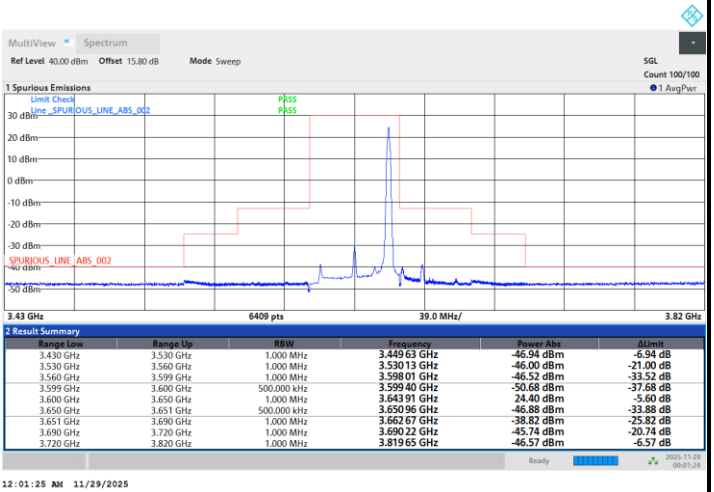
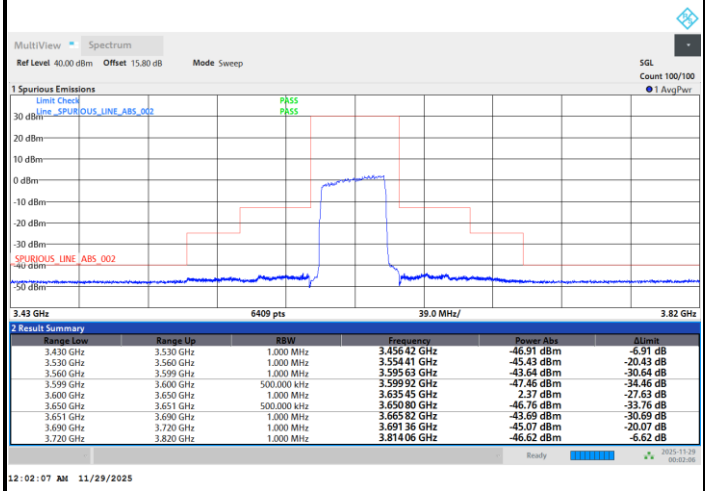
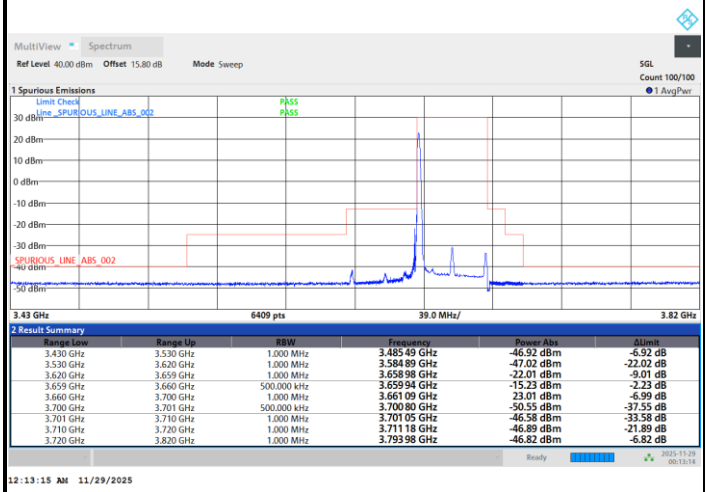
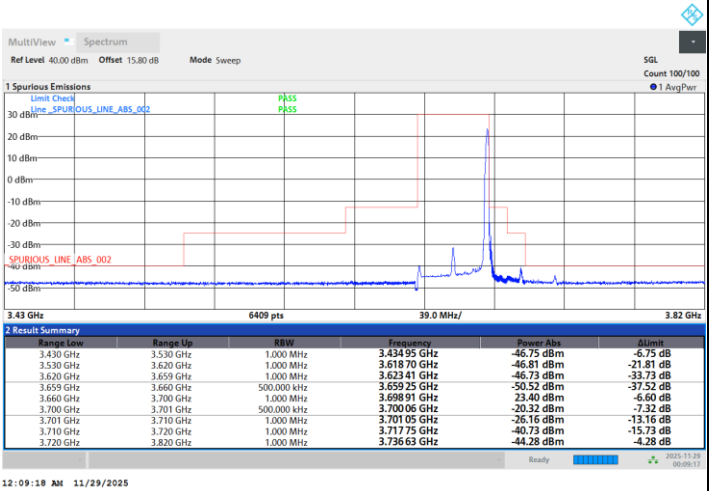
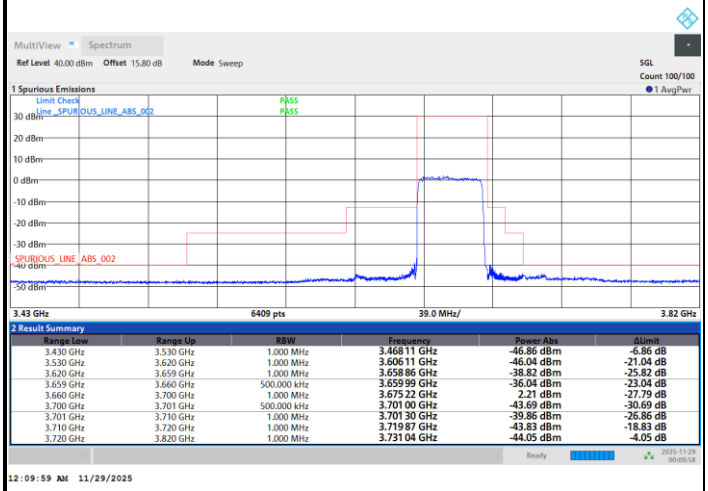
| FR1 n48 / 40MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Middle Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

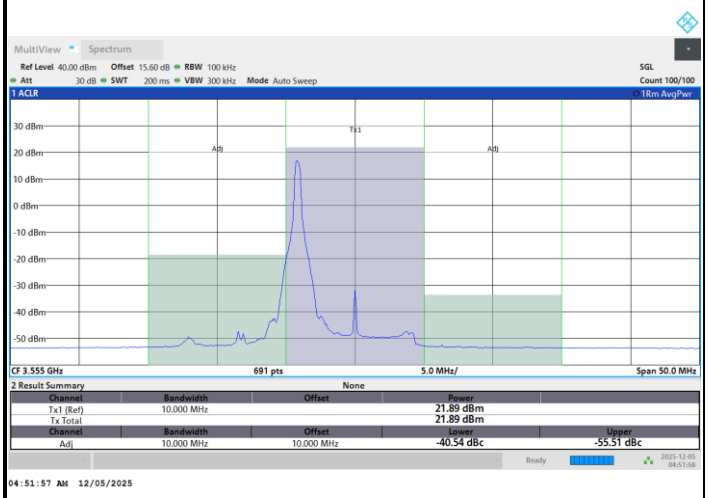
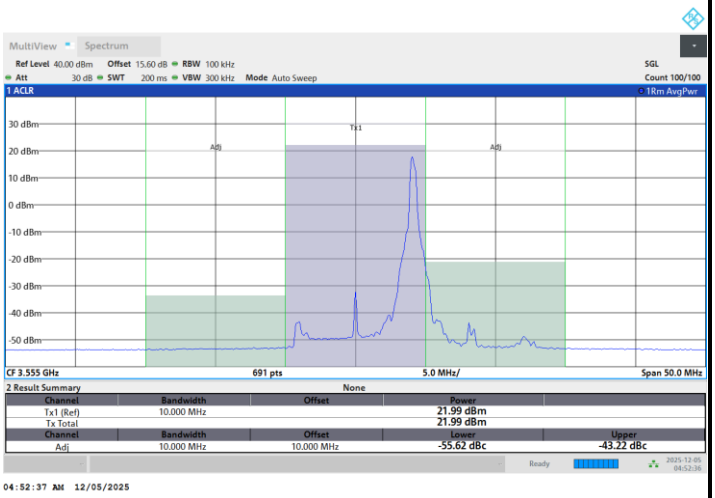
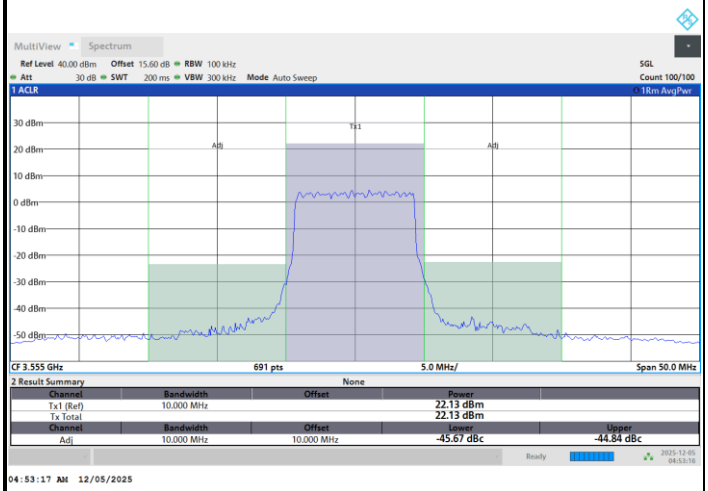
| FR1 n48 / 40MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Highest Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

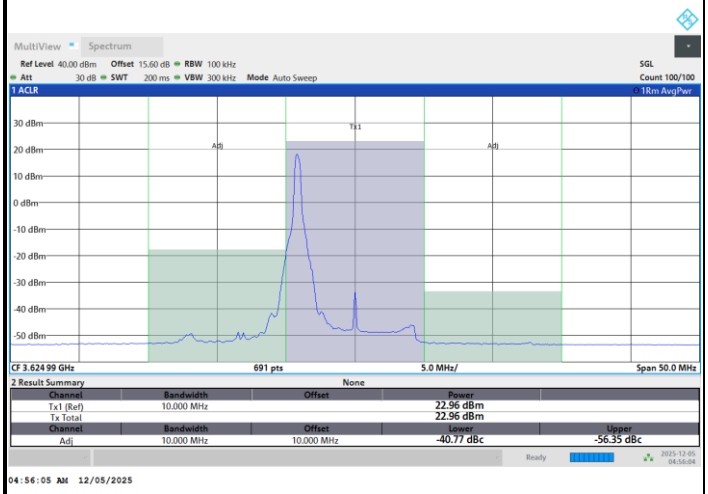
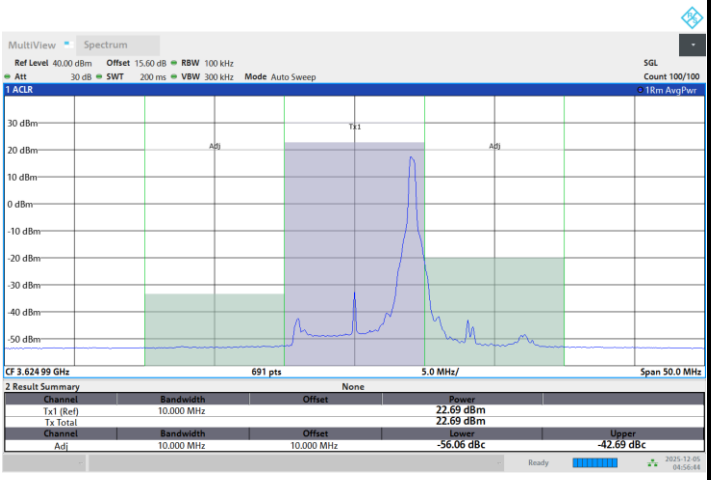
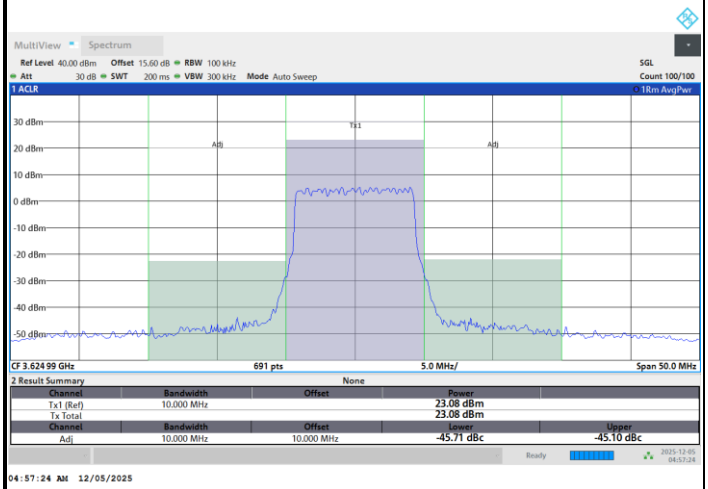
| FR1 n48 / 40MHz / DFT-S OFDM / QPSK | |
|---|---|
| Lowest Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

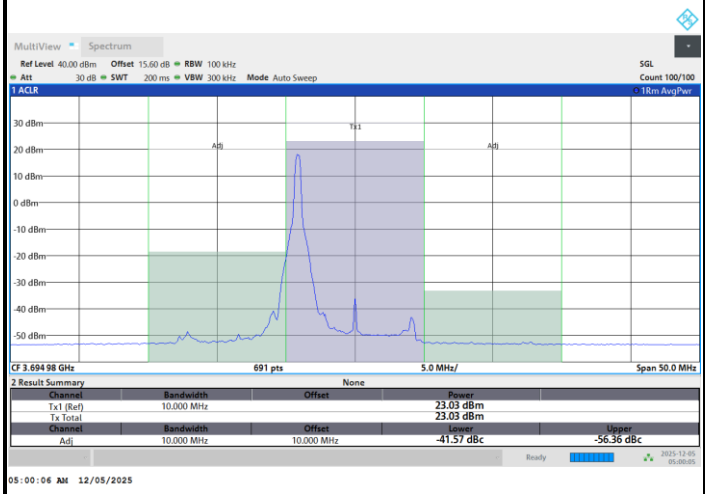
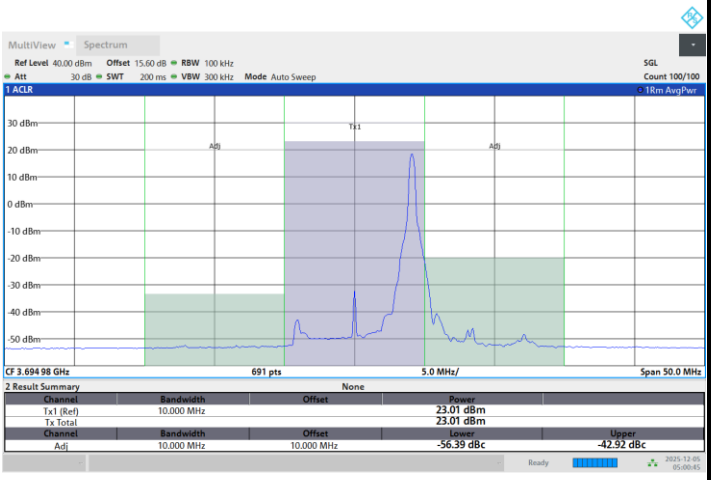
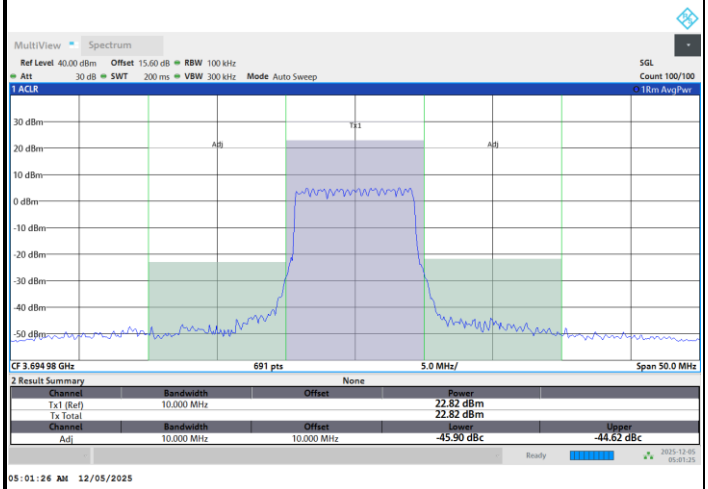
| FR1 n48 / 40MHz / DFT-S OFDM / QPSK | |
|---|---|
| Middle Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

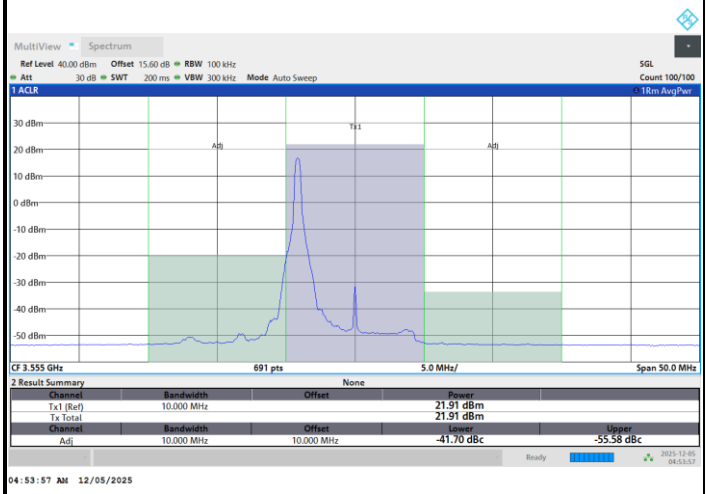
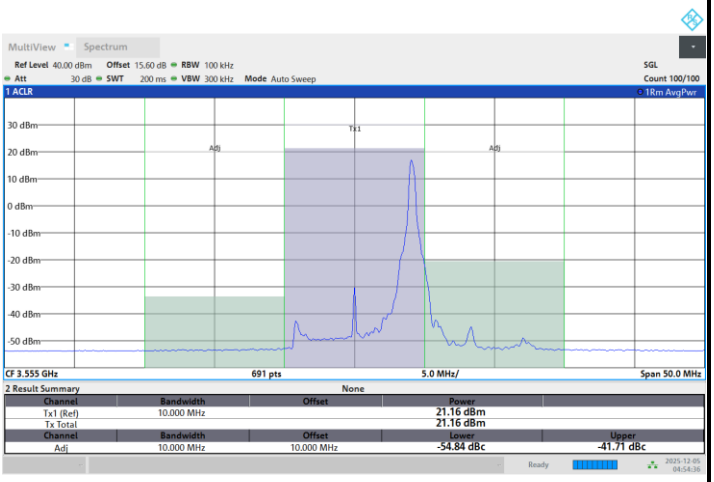
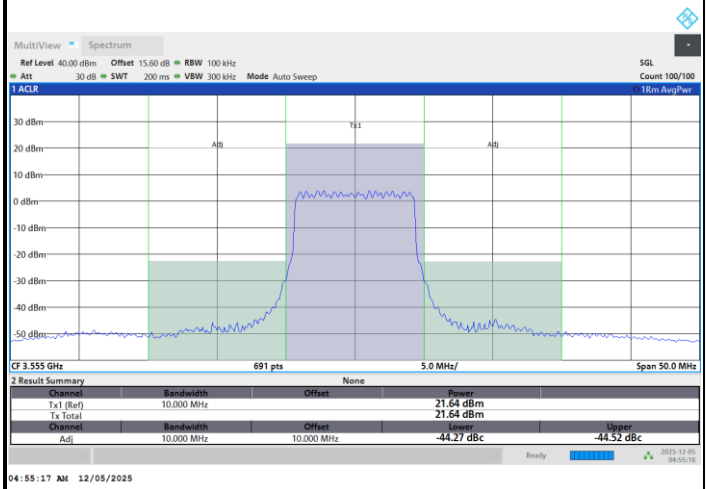
| FR1 n48 / 40MHz / DFT-S OFDM / QPSK | |
|---|---|
| **Highest Channel** | |
| **1RB0** | **1RBmax** |
|  |  |
| **Full RB** | |
|  | |

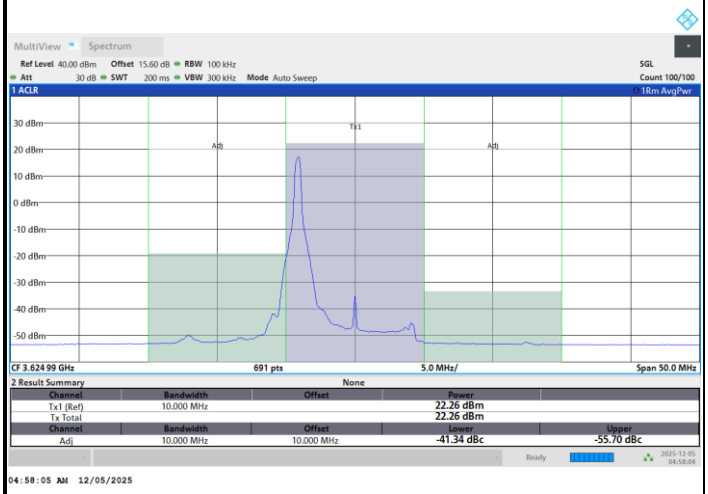
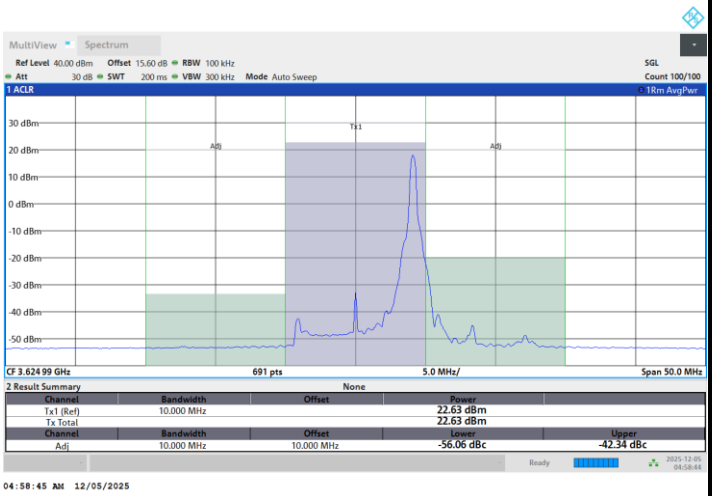
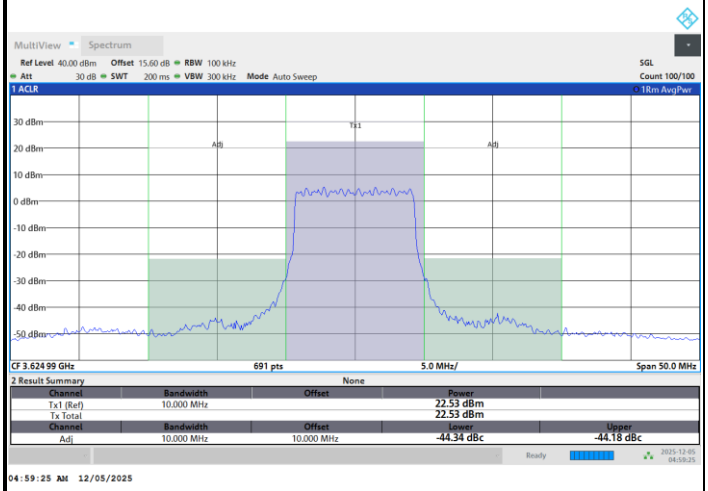
# Adjacent Channel Leakage Ratio (ACLR)

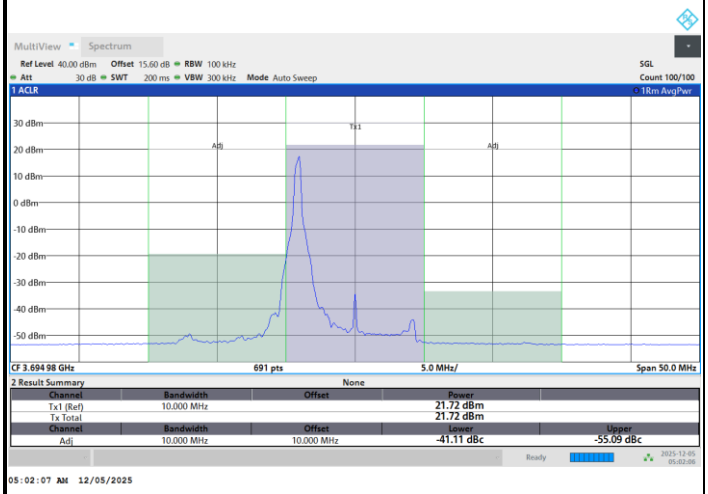
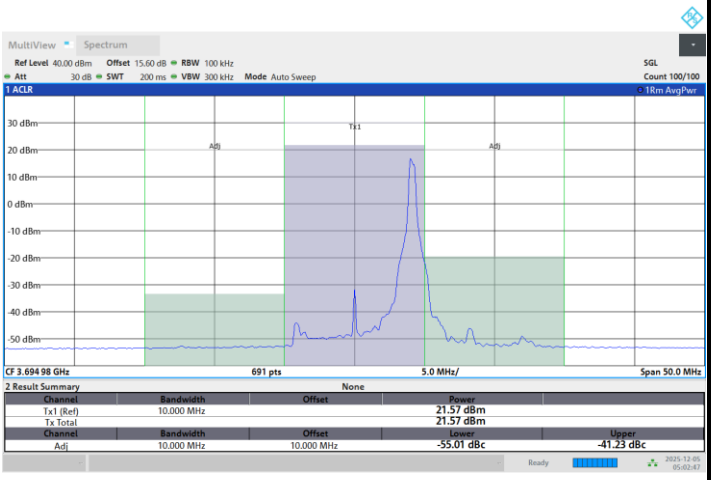
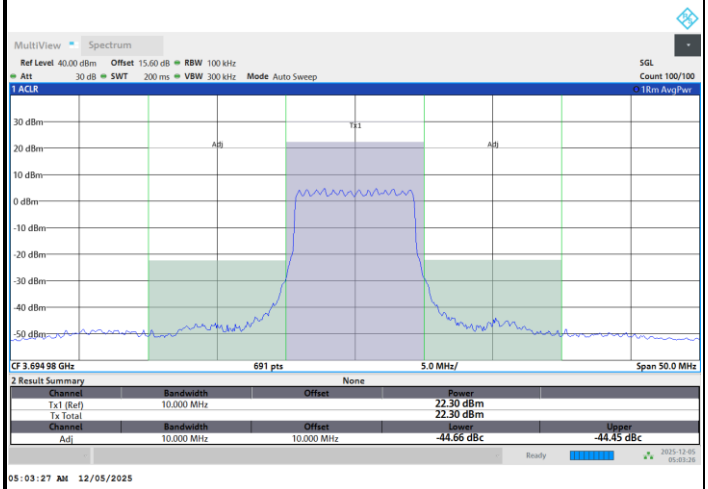
| FR1 n48 / 10MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Lowest Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

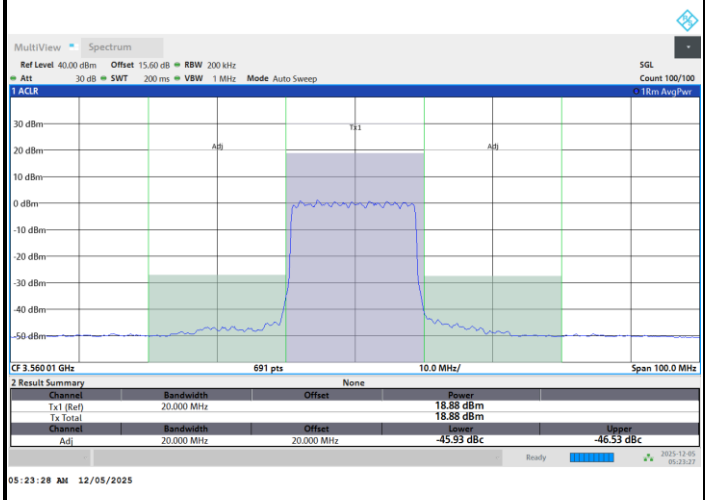
| FR1 n48 / 10MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Middle Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

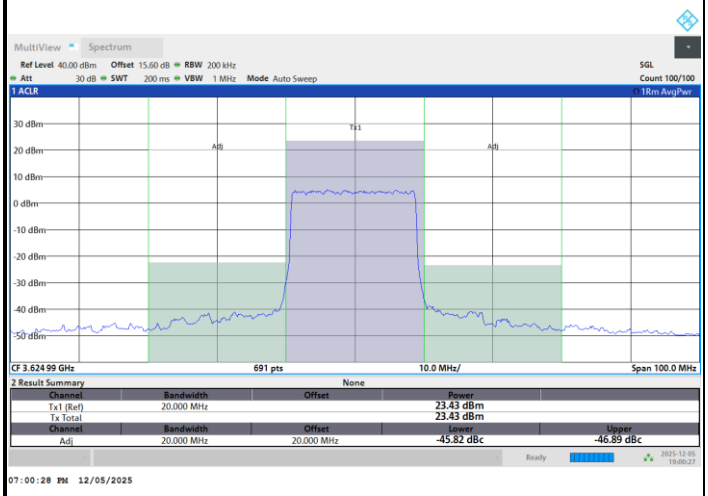
| FR1 n48 / 10MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Highest Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

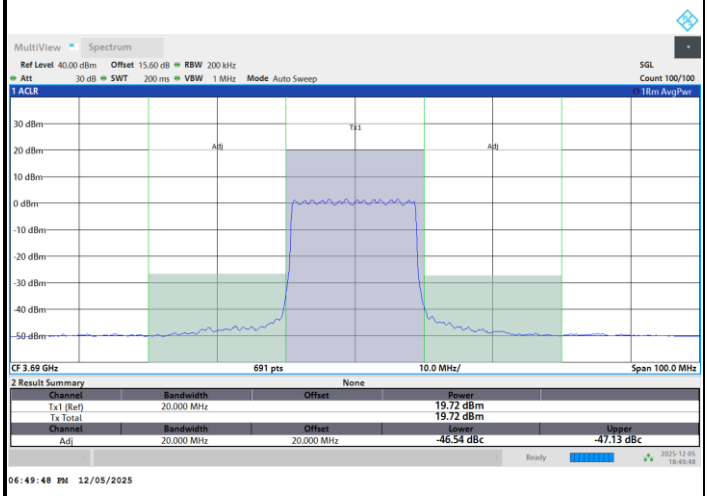
| FR1 n48 / 10MHz / DFT-S OFDM / QPSK | |
|---|---|
| **Lowest Channel** | |
| **1RB0** | **1RBmax** |
|  |  |
| **Full RB** | |
|  | |

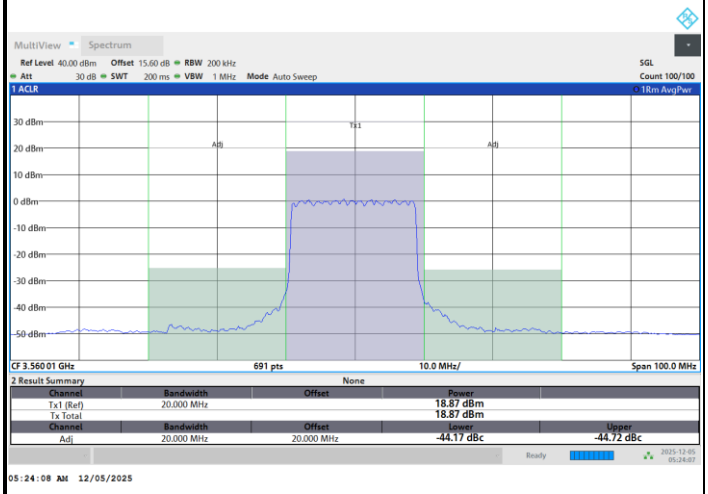
| FR1 n48 / 10MHz / DFT-S OFDM / QPSK | |
|---|---|
| **Middle Channel** | |
| **1RB0** | **1RBmax** |
|  |  |
| **Full RB** | |
|  | |

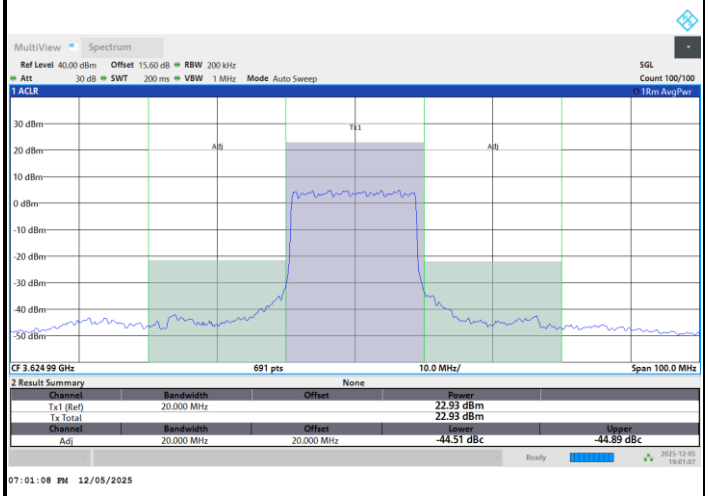
| FR1 n48 / 10MHz / DFT-S OFDM / QPSK | |
|---|---|
| Highest Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

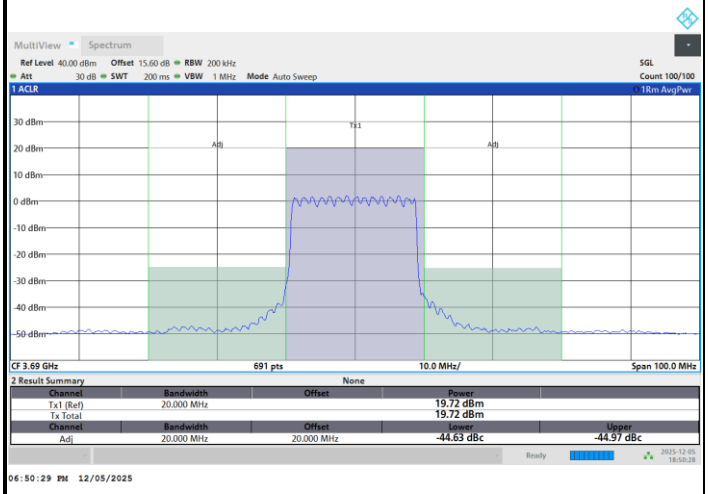
| FR1 n48 / 20MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Lowest Channel | |
| Full RB | |
|  | |

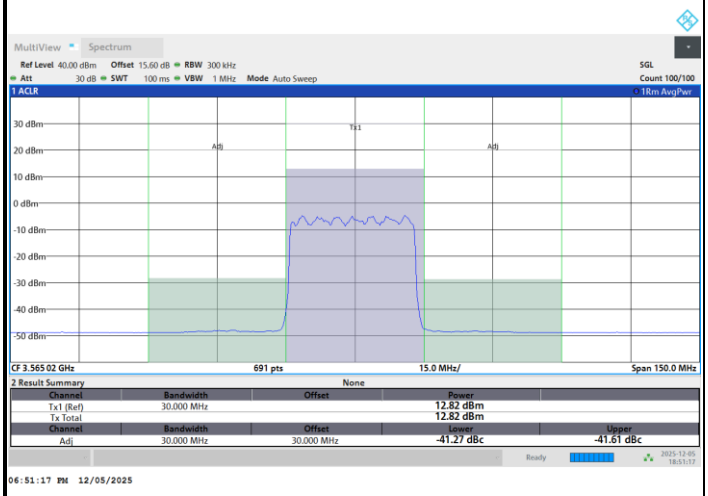
| FR1 n48 / 20MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Middle Channel | |
| Full RB | |
|  | |

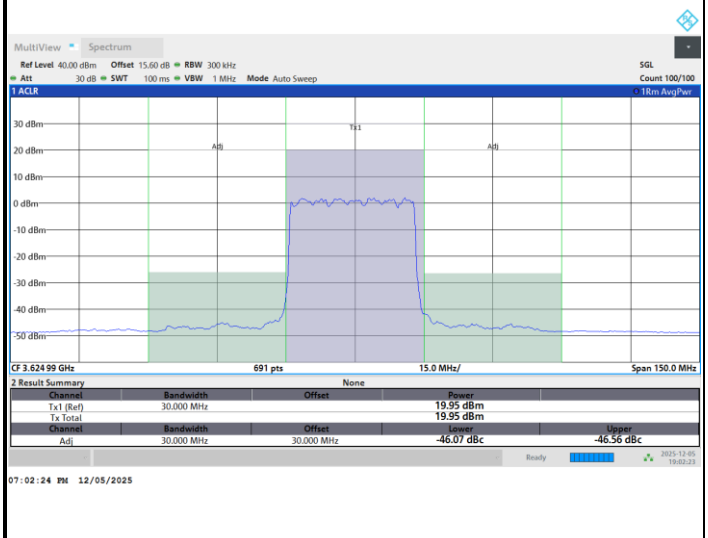
| FR1 n48 / 20MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Highest Channel | |
| Full RB | |
|  | |

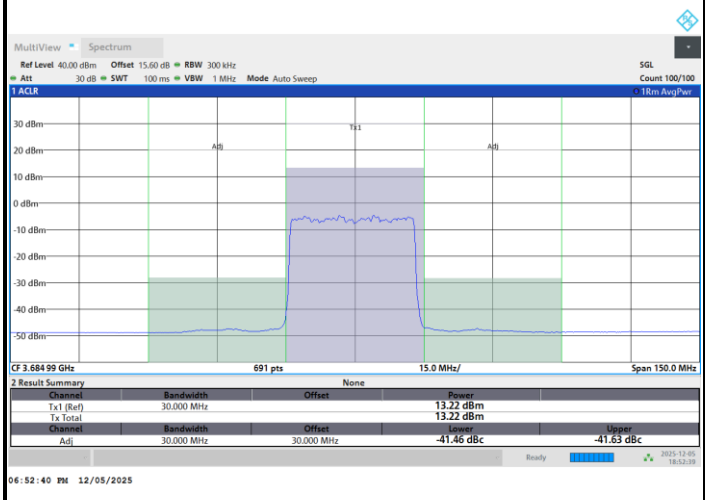
| FR1 n48 / 20MHz / DFT-S OFDM / QPSK | |
|---|---|
| Lowest Channel | |
| Full RB | |
|  | |

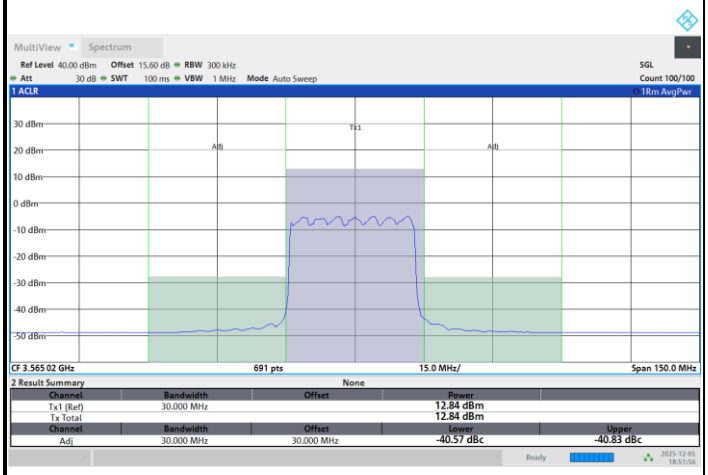
| FR1 n48 / 20MHz / DFT-S OFDM / QPSK | |
|---|---|
| Middle Channel | |
| Full RB | |
|  | |

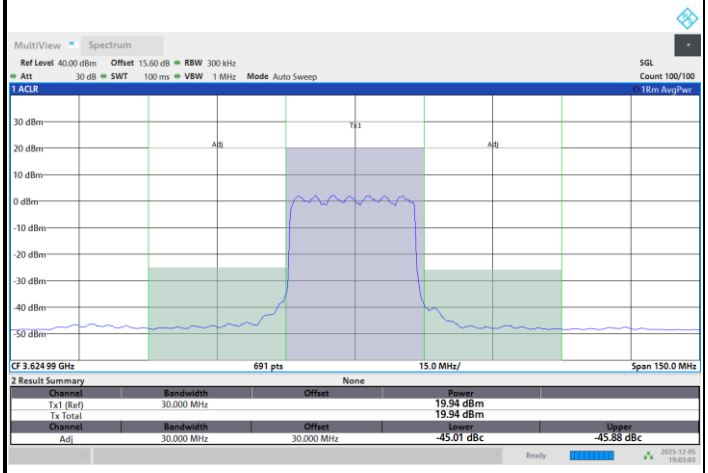
| FR1 n48 / 20MHz / DFT-S OFDM / QPSK | |
|---|---|
| Highest Channel | |
| Full RB | |
|  | |

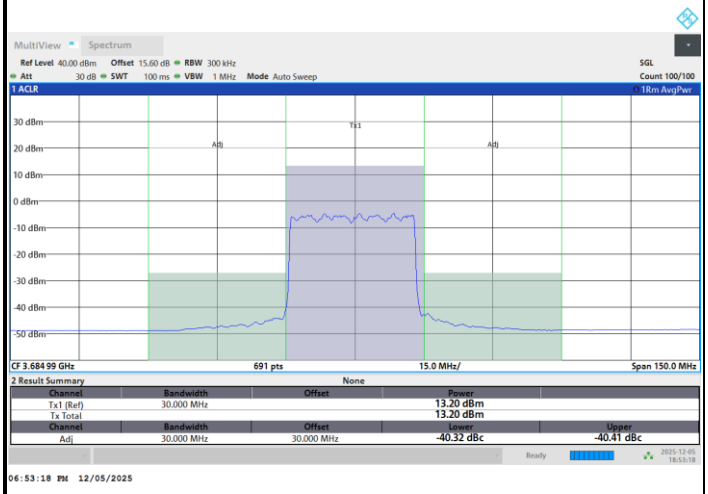
| FR1 n48 / 30MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Lowest Channel | |
| Full RB | |
|  | |

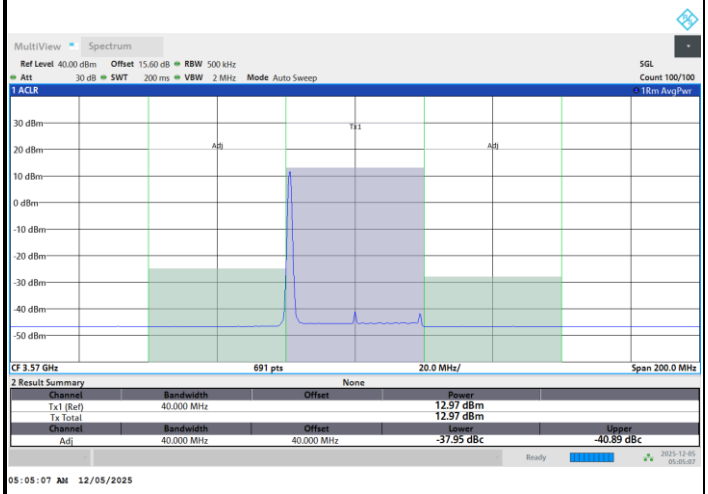
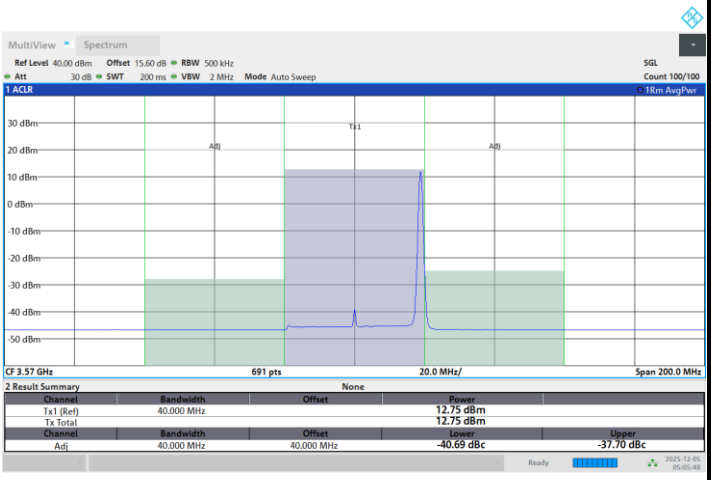
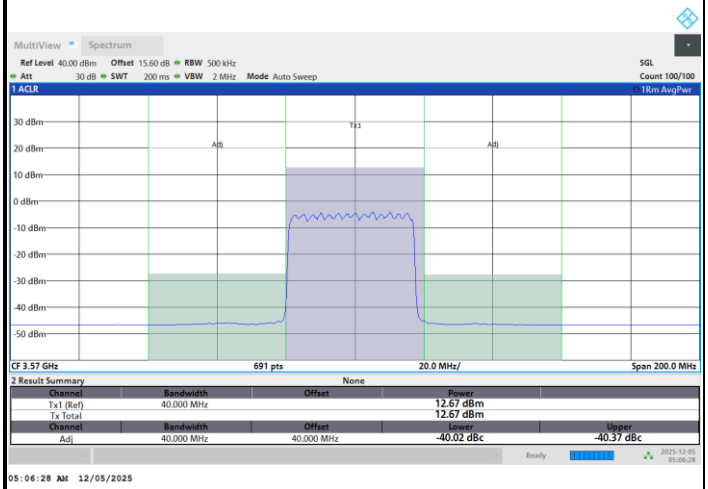
| FR1 n48 / 30MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Middle Channel | |
| Full RB | |
|  | |

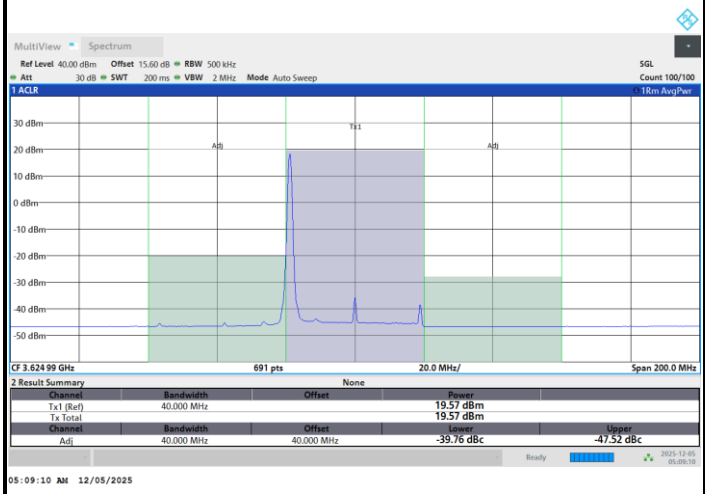
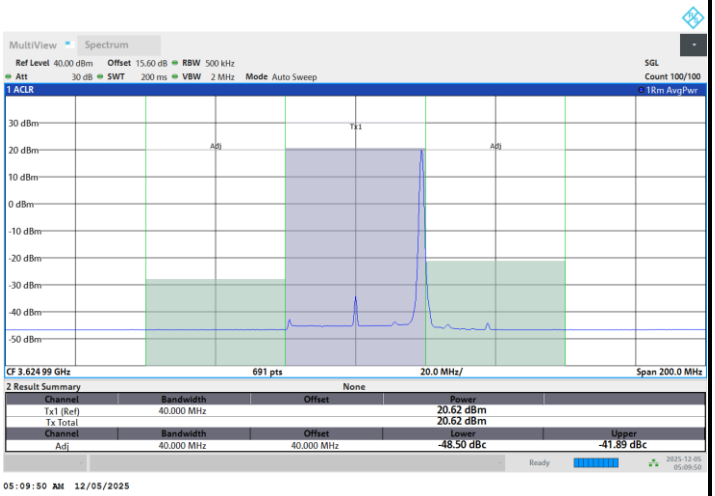
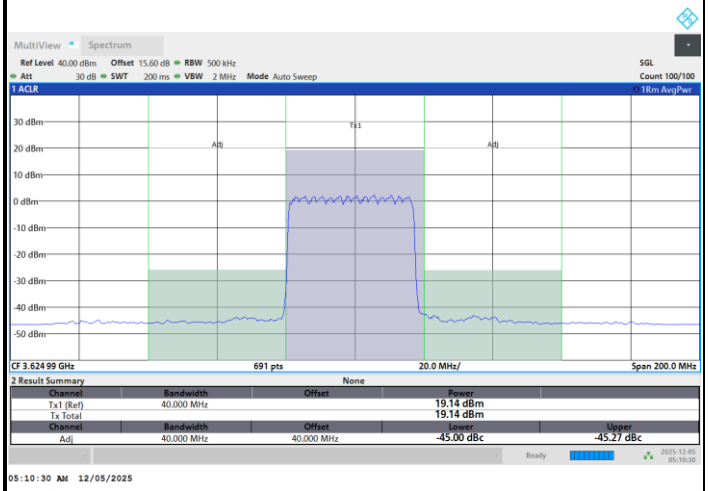
| FR1 n48 / 30MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Highest Channel | |
| Full RB | |
|  | |

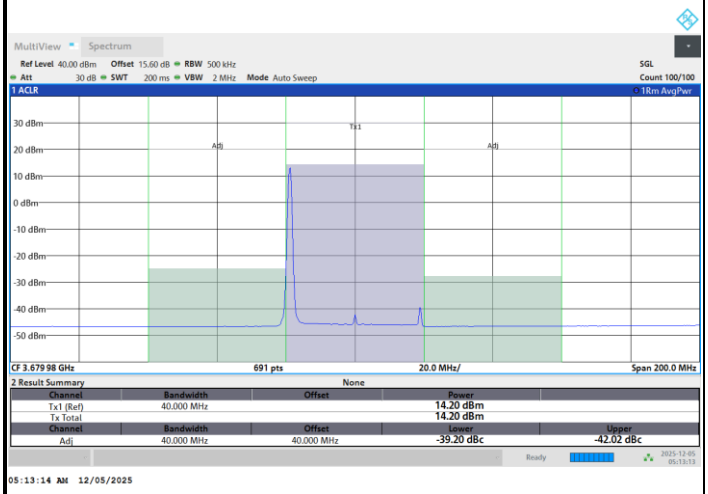
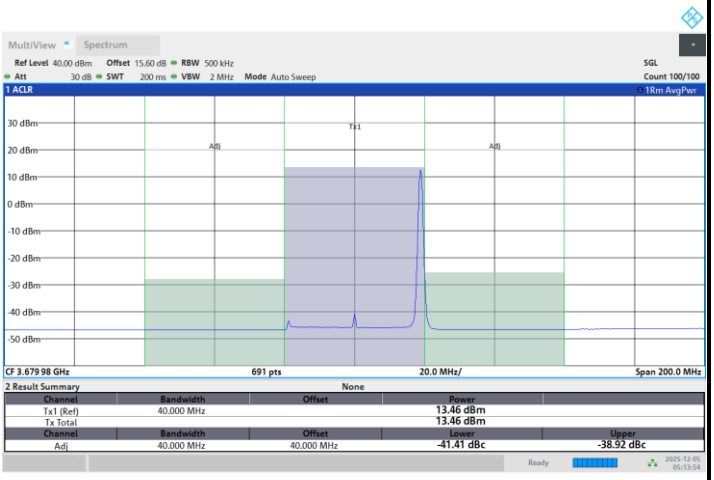
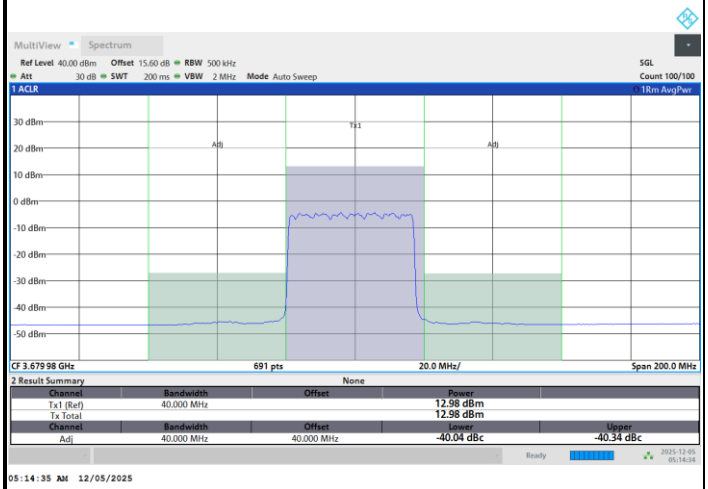
| FR1 n48 / 30MHz / DFT-S OFDM / QPSK | |
|---|---|
| Lowest Channel | |
| Full RB | |
|  | |

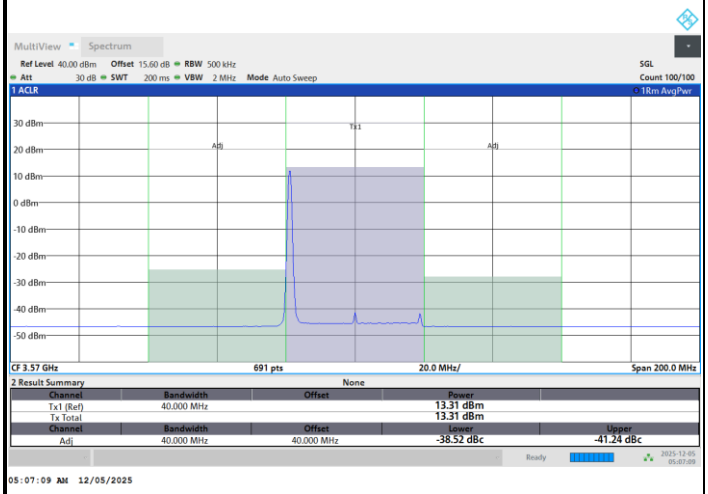
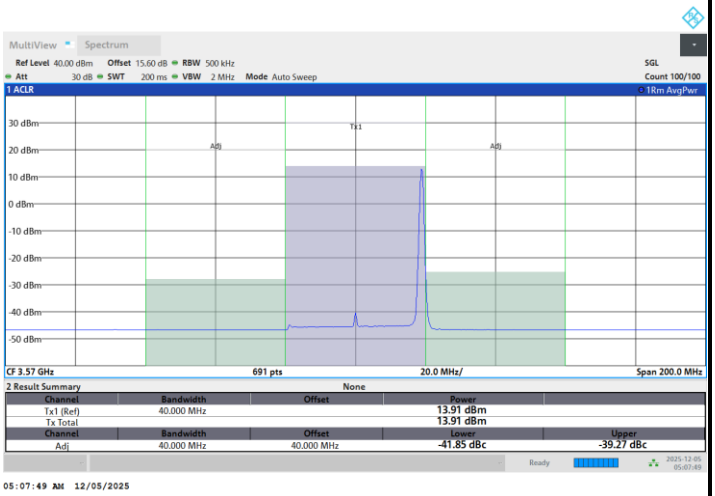
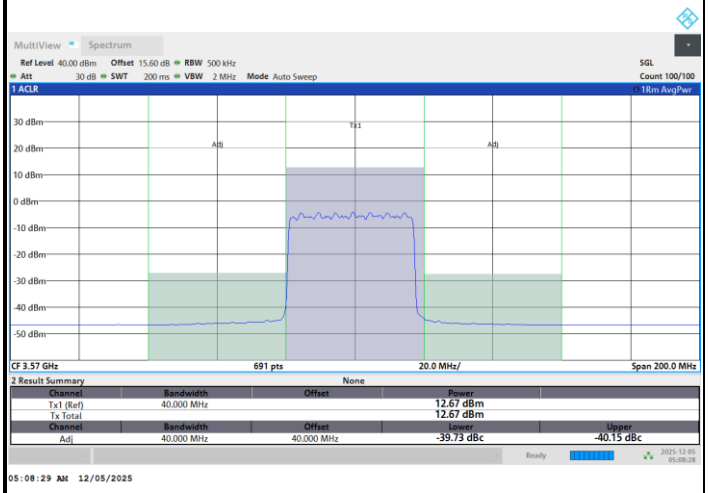
| FR1 n48 / 30MHz / DFT-S OFDM / QPSK | |
|---|---|
| Middle Channel | |
| Full RB | |
|  | |

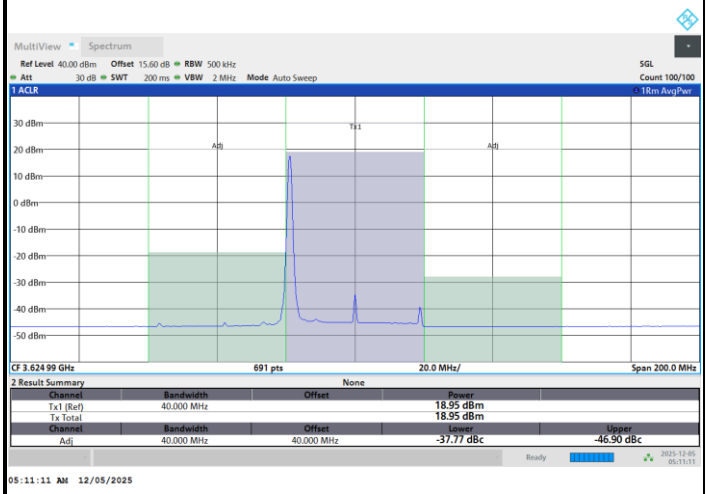
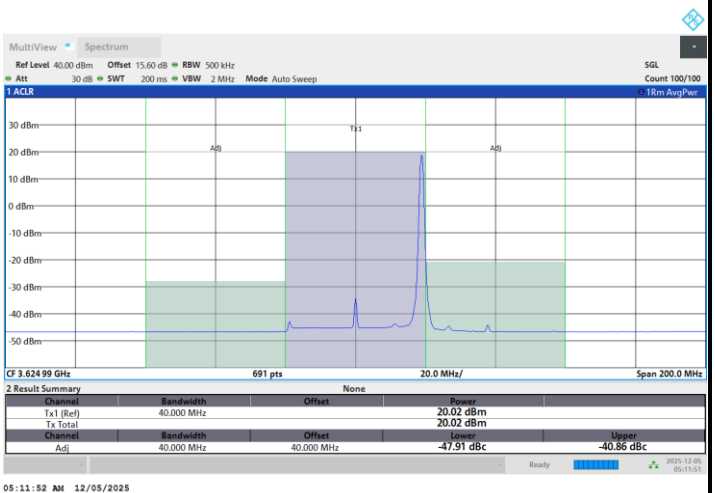
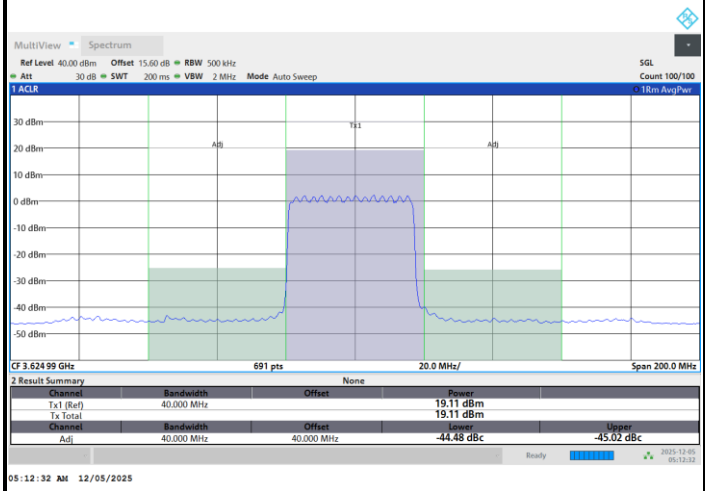
| FR1 n48 / 30MHz / DFT-S OFDM / QPSK | |
|---|---|
| Highest Channel | |
| Full RB | |
|  | |

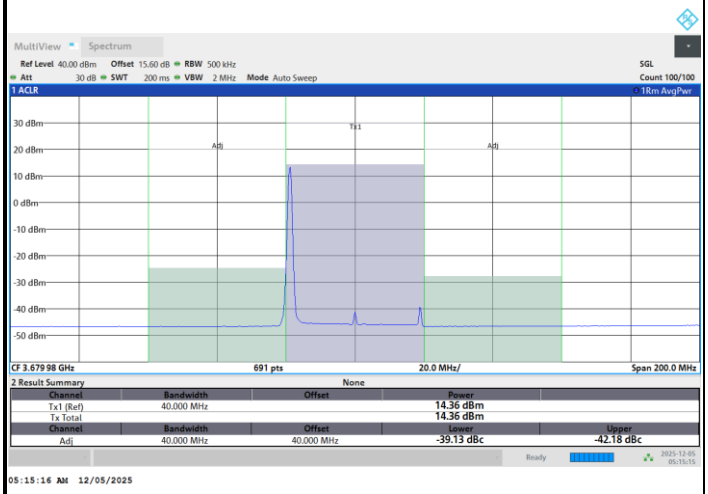
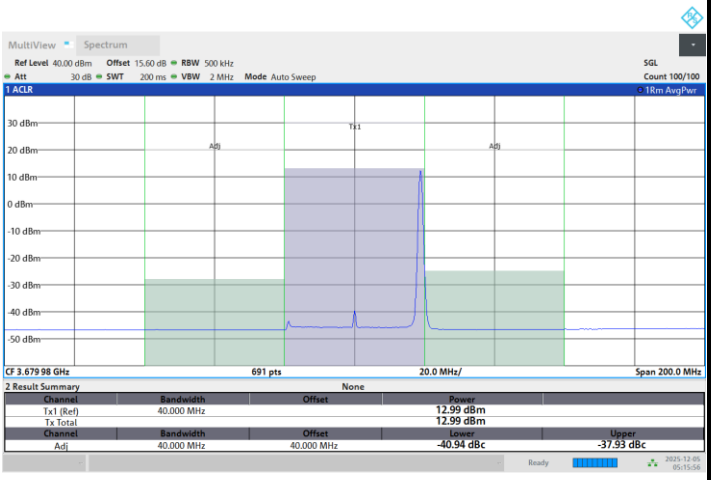
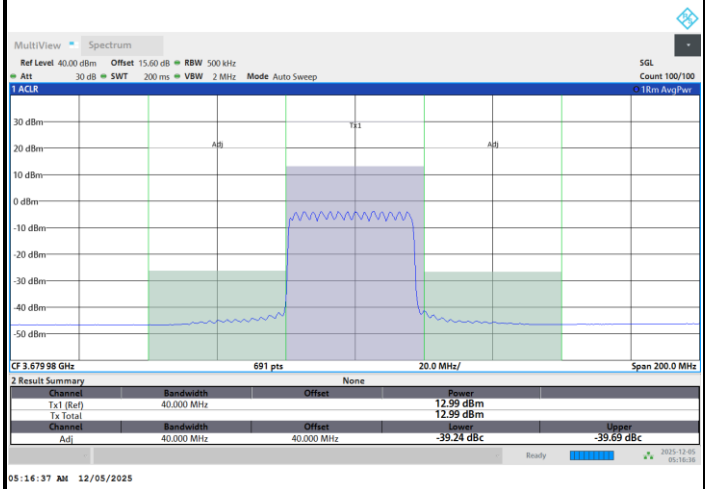
| FR1 n48 / 40MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Lowest Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

| FR1 n48 / 40MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Middle Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

| FR1 n48 / 40MHz / DFT-S OFDM / PI/2 BPSK | |
|---|---|
| Highest Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

| FR1 n48 / 40MHz / DFT-S OFDM / QPSK | |
|---|---|
| Lowest Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

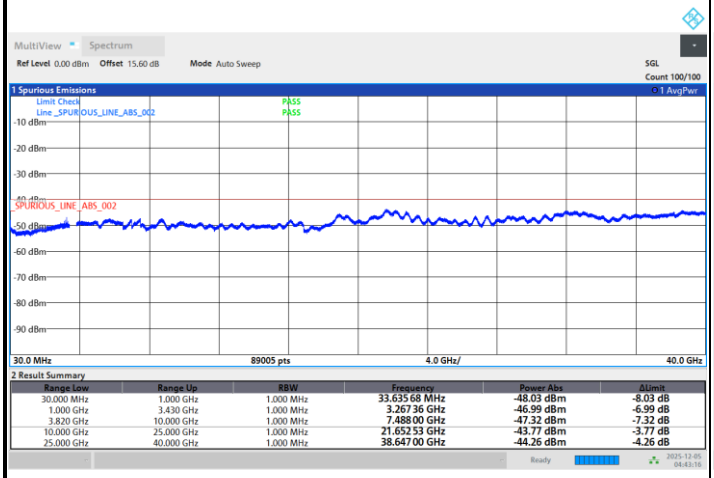
| FR1 n48 / 40MHz / DFT-S OFDM / QPSK | |
|---|---|
| **Middle Channel** | |
| **1RB0** | **1RBmax** |
|  |  |
| **Full RB** | |
|  | |

| FR1 n48 / 40MHz / DFT-S OFDM / QPSK | |
|---|---|
| Highest Channel | |
| 1RB0 | 1RBmax |
|  |  |
| Full RB | |
|  | |

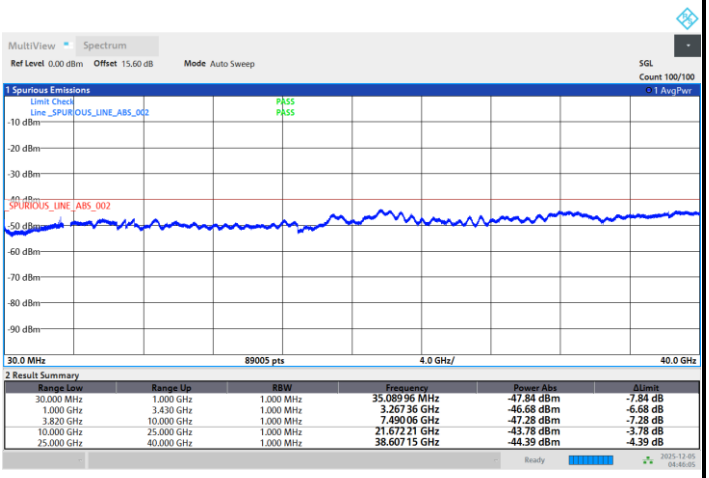
# Conducted Spurious Emission

## FR1 n48 / 10MHz / DFT-S OFDM / QPSK / 1RB1

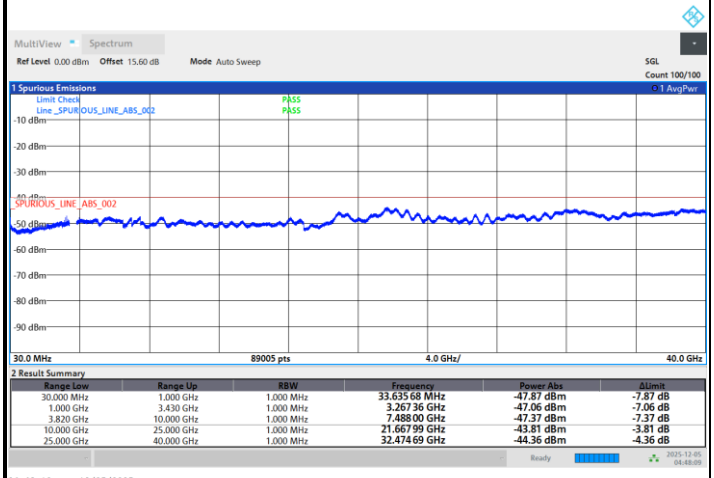
### Lowest Channel




### Middle Channel




### Highest Channel



# Frequency Stability

| Test Conditions | | FR1 n48 (BPSK) / Middle Channel 10M | | | |
|---|---|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | Deviation (ppm) | Frequency Offset (△f) (Hz) | Within Authorized Frequency Block(Hz) | Result |
| 50 | Normal Voltage | 0.0000 | 0.1 | Yes | PASS |
| 40 | Normal Voltage | 0.0005 | 1.7 | Yes | |
| 30 | Normal Voltage | 0.0027 | 9.7 | Yes | |
| 20(Ref.) | Normal Voltage | 0.0000 | 0 | Yes | |
| 10 | Normal Voltage | 0.0011 | -4.1 | Yes | |
| 0 | Normal Voltage | 0.0004 | -1.4 | Yes | |
| -10 | Normal Voltage | 0.0004 | -1.3 | Yes | |
| -20 | Normal Voltage | 0.0024 | 8.8 | Yes | |
| 20 | Maximum Voltage | 0.0028 | 10 | Yes | |
| 20 | Normal Voltage | 0.0000 | 0 | Yes | |
| 20 | Minimum Voltage | 0.0000 | 0 | Yes | |

**Note:**

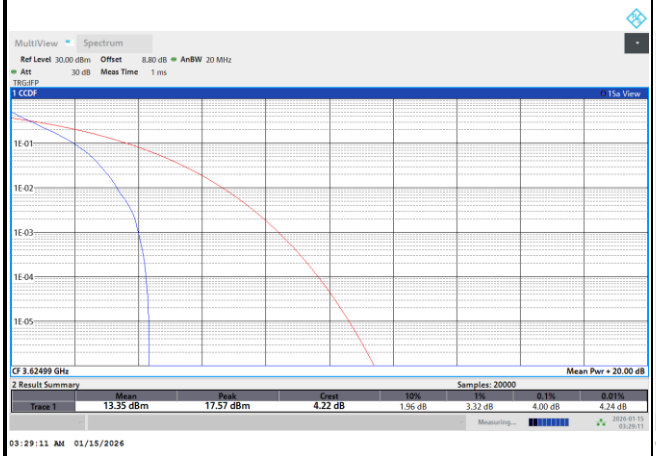
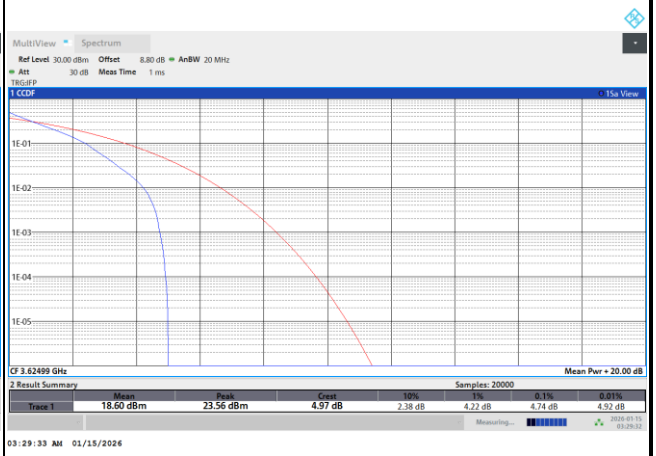
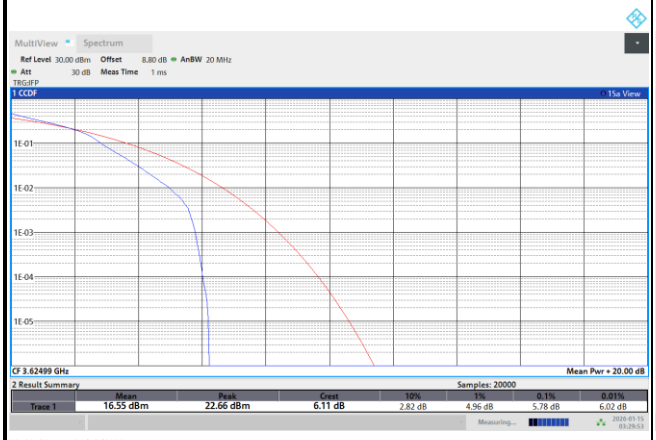
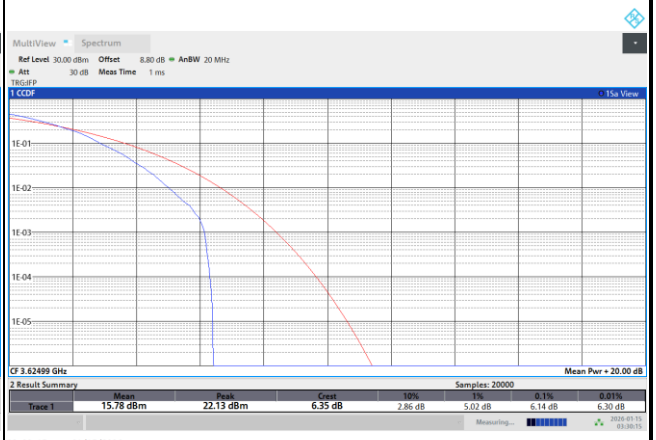
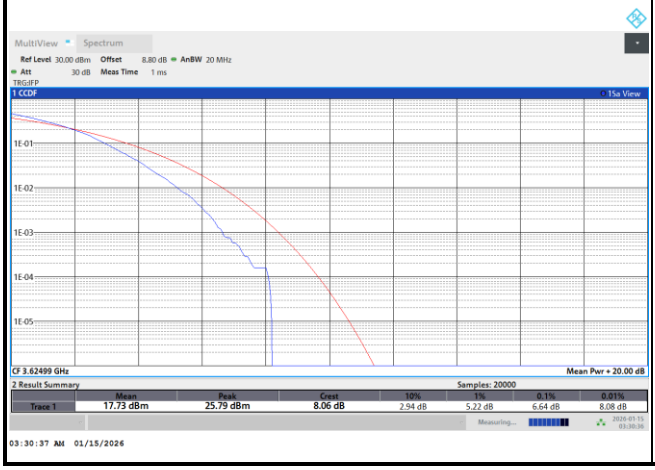
1. Normal Voltage = 3.89 V.；Minimum Voltage = 3.7 V.；Maximum Voltage = 4.28 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.

# FR1 n77_Part96

## <SISO Mode>

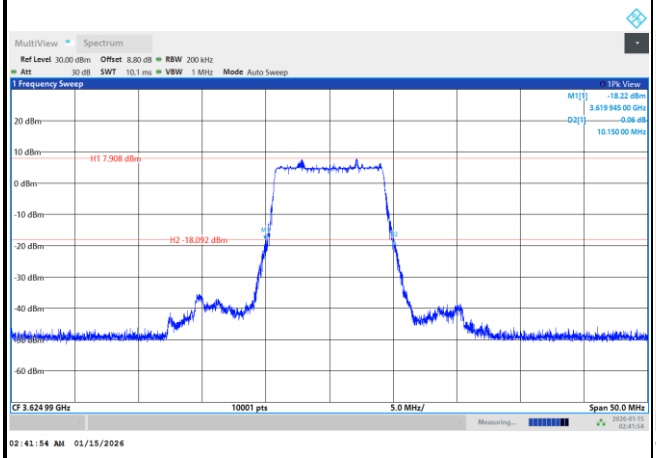
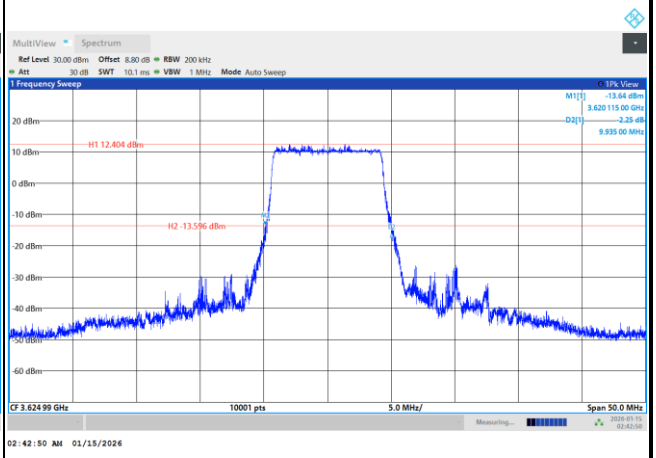
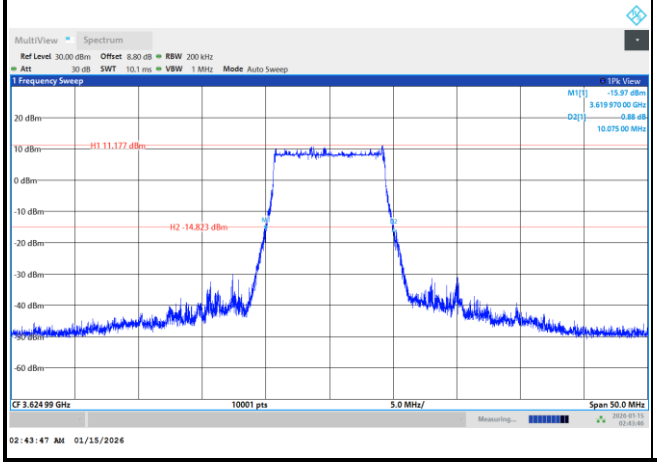
## Peak-to-Average Ratio

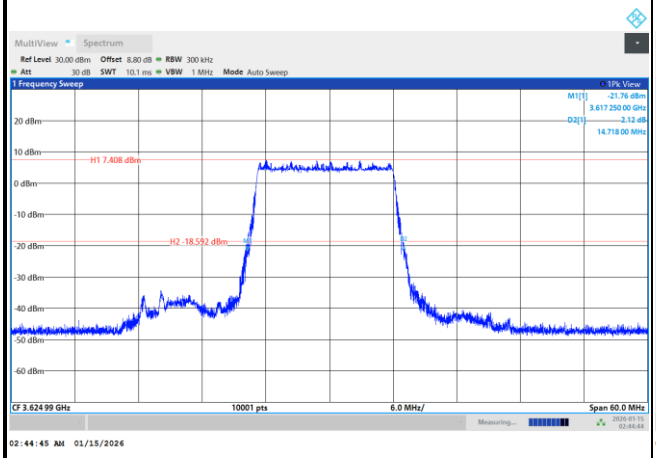
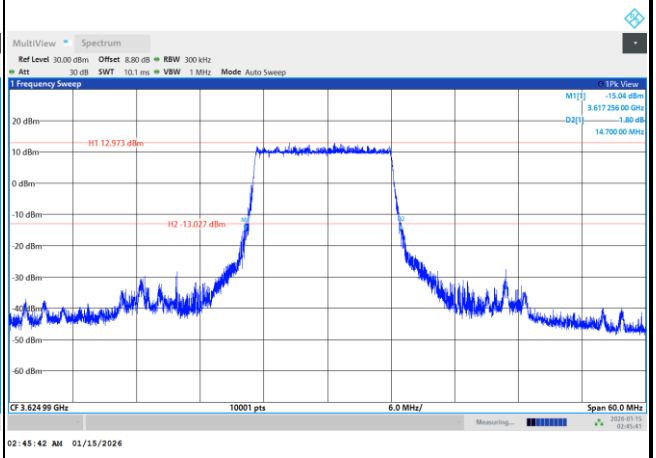
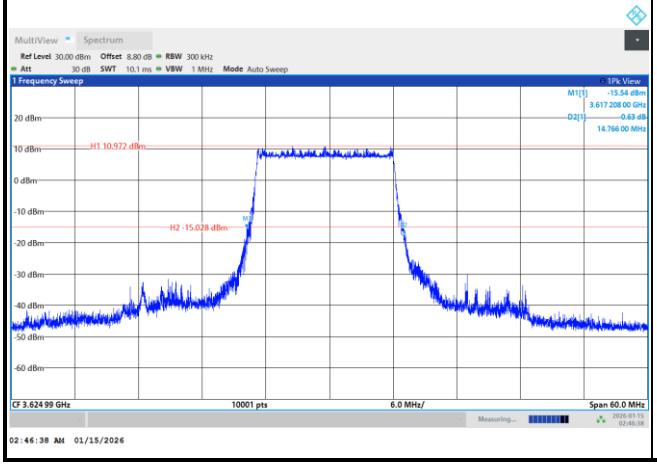
| Mode | FR1 n77 Part96 / 20MHz / DFT-S OFDM | | | | |
|---|---|---|---|---|---|
| Mod. | PI/2 BPSK | QPSK | 16QAM | 64QAM | Limit: 13dB |
| RB Size | Full RB | Full RB | Full RB | Full RB | Result |
| Middle CH | 4.00 | 4.74 | 5.78 | 6.14 | PASS |
| Mode | FR1 n77 Part96 / 20MHz / DFT-S OFDM | | | | |
| Mod. | 256QAM | | | | Limit: 13dB |
| RB Size | Full RB | | | | Result |
| Middle CH | 6.64 | | | | PASS |

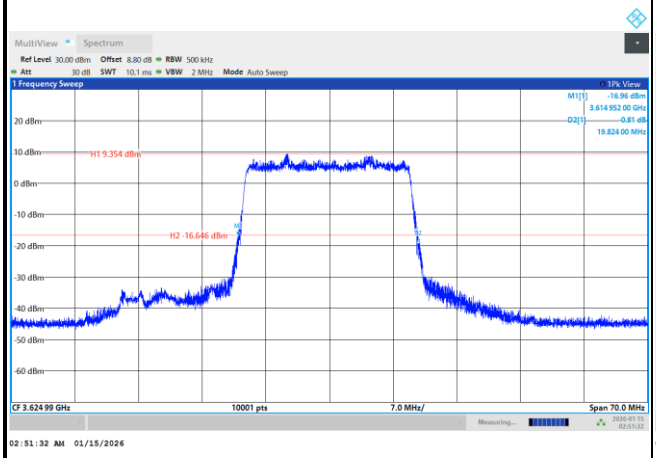
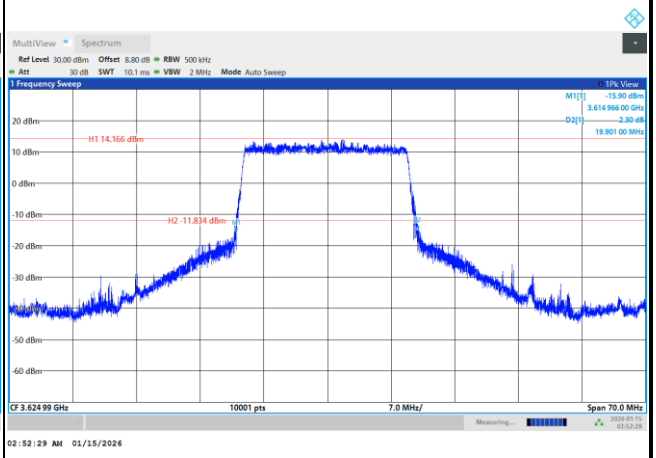
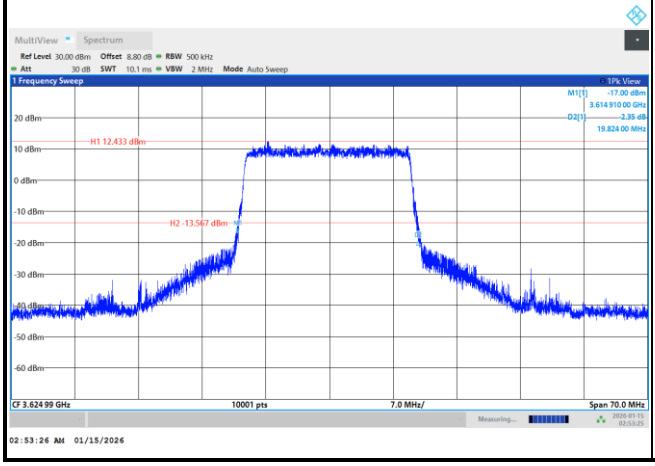
| FR1 n77 Part96 / 20MHz / DFT-S OFDM / Middle Channel / Full RB | |
|---|---|
| PI/2 BPSK | QPSK |
|  |  |
| 16QAM | 64QAM |
|  |  |
| 256QAM | |
|  | |

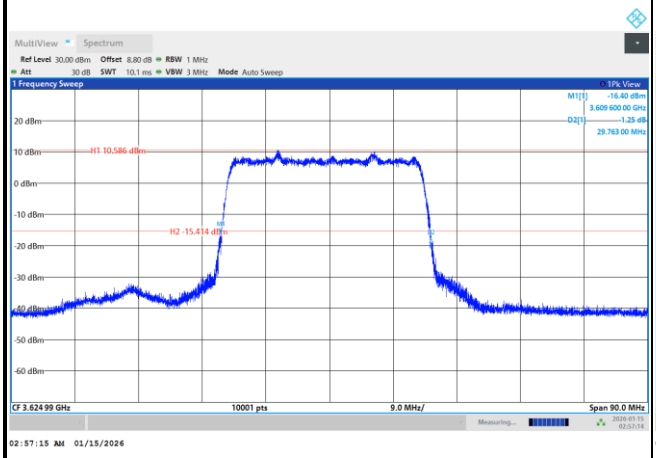
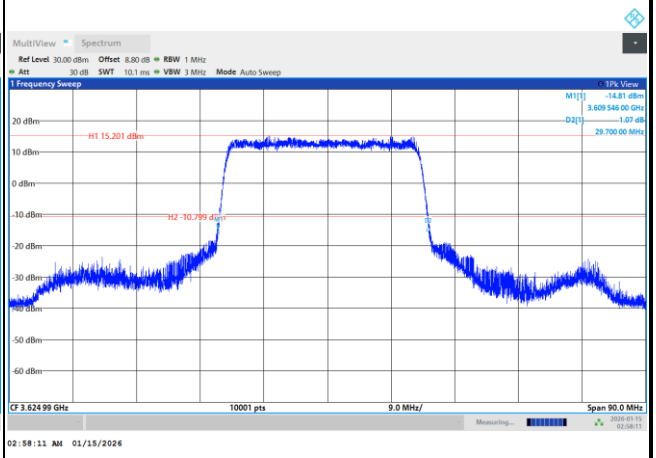
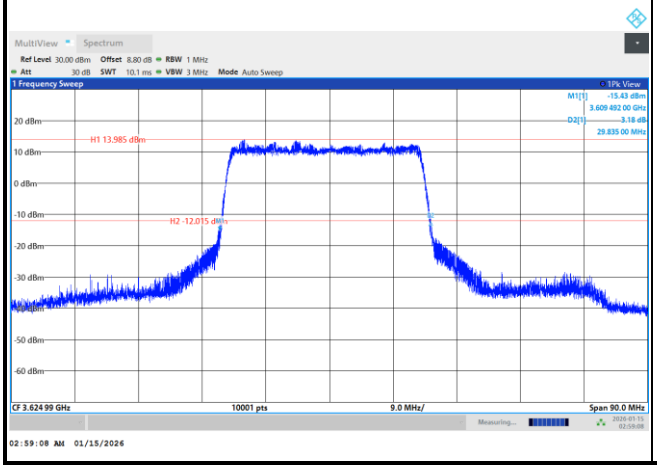
# 26dB Bandwidth

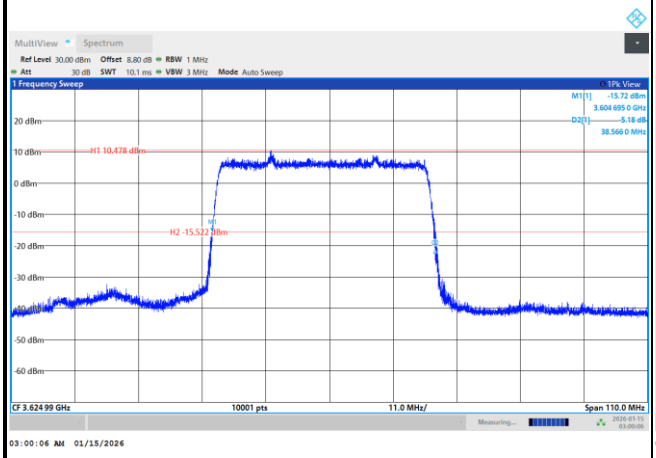
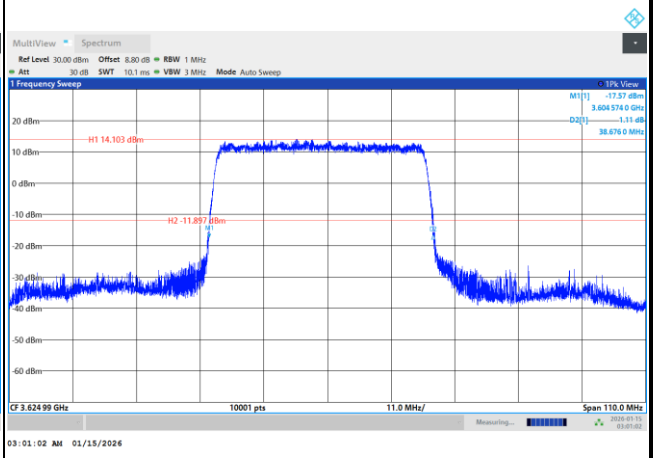
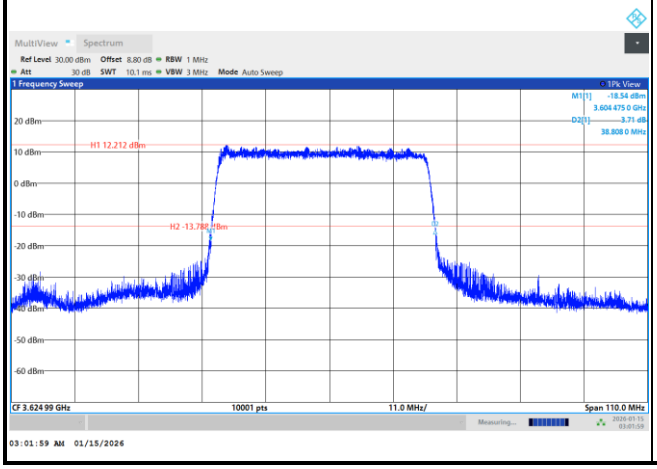
| Mode | FR1 n77 Part96 : 26dB BW(MHz) / DFT-S OFDM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BW | 10MHz | | 15MHz | | 20MHz | | 30MHz | |
| Mod. | PI/2 BPSK | QPSK | PI/2 BPSK | QPSK | PI/2 BPSK | QPSK | PI/2 BPSK | QPSK |
| Middle CH | 10.15 | 9.93 | 14.71 | 14.70 | 19.82 | 19.90 | 29.76 | 29.70 |
| Mod. | 16QAM | | 16QAM | | 16QAM | | 16QAM | |
| Middle CH | 10.07 | | 14.76 | | 19.82 | | 29.83 | |
| BW | 40MHz | | 50MHz | | 60MHz | | 70MHz | |
| Mod. | PI/2 BPSK | QPSK | PI/2 BPSK | QPSK | PI/2 BPSK | QPSK | PI/2 BPSK | QPSK |
| Middle CH | 38.56 | 38.67 | 48.78 | 48.81 | 62.83 | 62.88 | 69.24 | 69.30 |
| Mod. | 16QAM | | 16QAM | | 16QAM | | 16QAM | |
| Middle CH | 38.80 | | 48.43 | | 62.68 | | 69.32 | |
| BW | 80MHz | | 90MHz | | 100MHz | | | |
| Mod. | PI/2 BPSK | QPSK | PI/2 BPSK | QPSK | PI/2 BPSK | QPSK | | |
| Middle CH | 81.87 | 82.13 | 91.70 | 91.93 | 101.72 | 101.70 | | |
| Mod. | 16QAM | | 16QAM | | 16QAM | | | |
| Middle CH | 82.23 | | 92.04 | | 101.84 | | | |

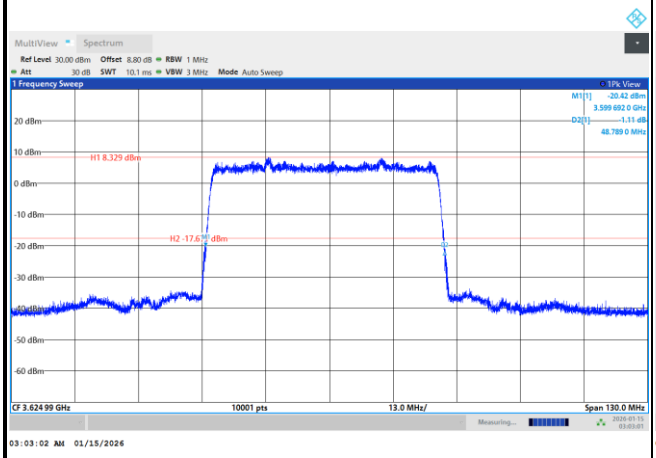
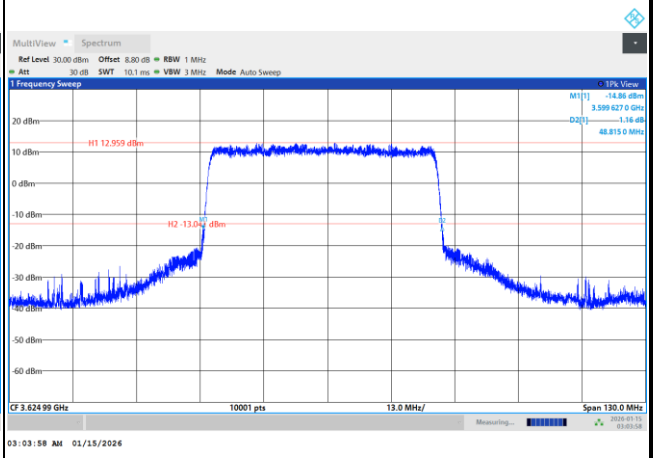
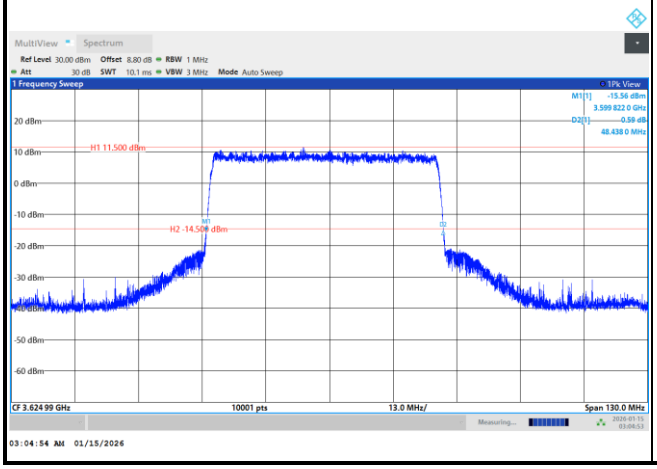
| FR1 n77 Part96 / 10MHz / DFT-S OFDM / Middle Channel / Full RB | |
|---|---|
| PI/2 BPSK | QPSK |
|  |  |
| 16QAM | |
|  | |

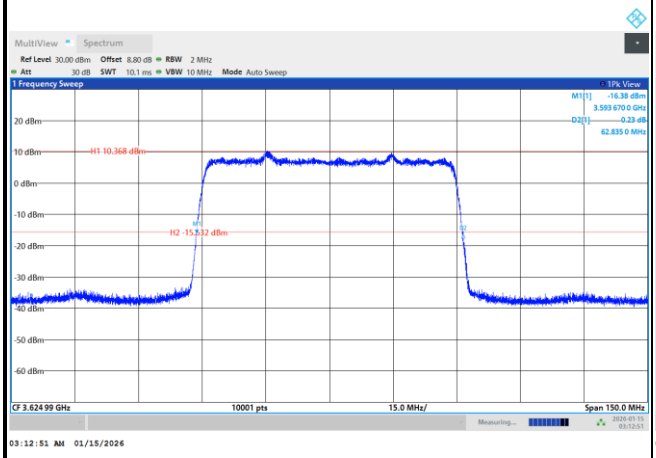
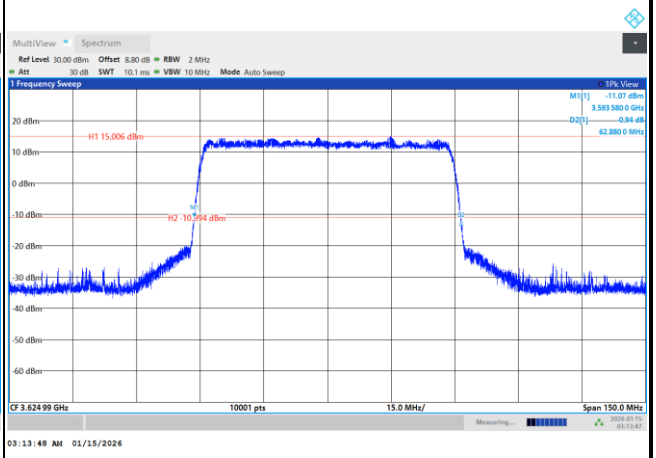
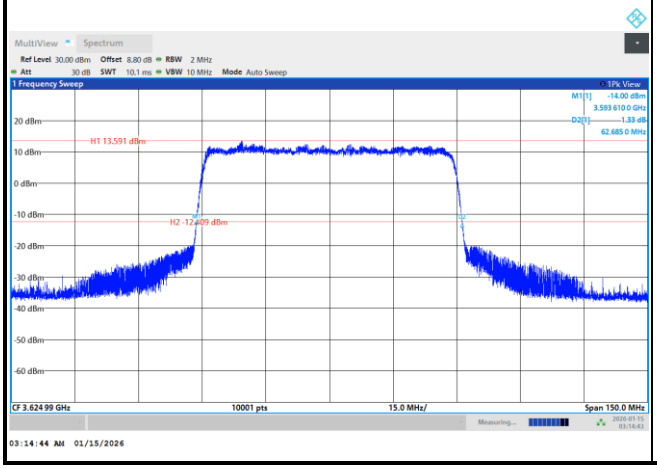
| FR1 n77 Part96 / 15MHz / DFT-S OFDM / Middle Channel / Full RB | |
|---|---|
| PI/2 BPSK | QPSK |
|  |  |
| 16QAM | |
|  | |

| FR1 n77 Part96 / 20MHz / DFT-S OFDM / Middle Channel / Full RB | |
|---|---|
| PI/2 BPSK | QPSK |
|  |  |
| 16QAM | |
|  | |

| FR1 n77 Part96 / 30MHz / DFT-S OFDM / Middle Channel / Full RB | |
|---|---|
| PI/2 BPSK | QPSK |
|  |  |
| 16QAM | |
|  | |

| FR1 n77 Part96 / 40MHz / DFT-S OFDM / Middle Channel / Full RB | |
|---|---|
| PI/2 BPSK | QPSK |
|  |  |
| 16QAM | |
|  | |

| FR1 n77 Part96 / 50MHz / DFT-S OFDM / Middle Channel / Full RB | |
|---|---|
| PI/2 BPSK | QPSK |
|  |  |
| 16QAM | |
|  | |

| FR1 n77 Part96 / 60MHz / DFT-S OFDM / Middle Channel / Full RB | |
|---|---|
| PI/2 BPSK | QPSK |
|  |  |
| 16QAM | |
|  | |