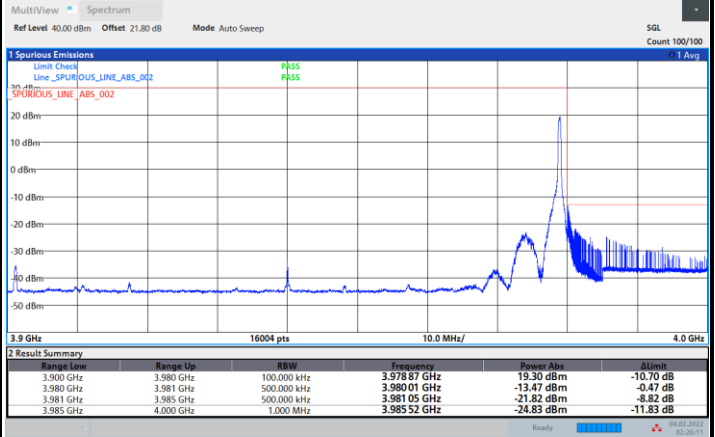
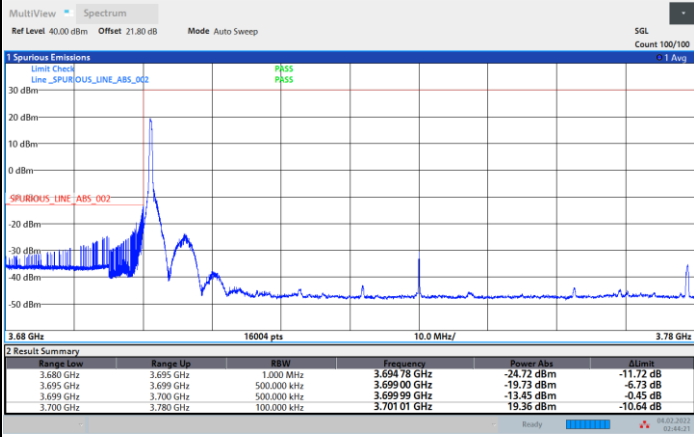




FR1 n77 / 80MHz / DFT-S OFDM / PI/2 BPSK

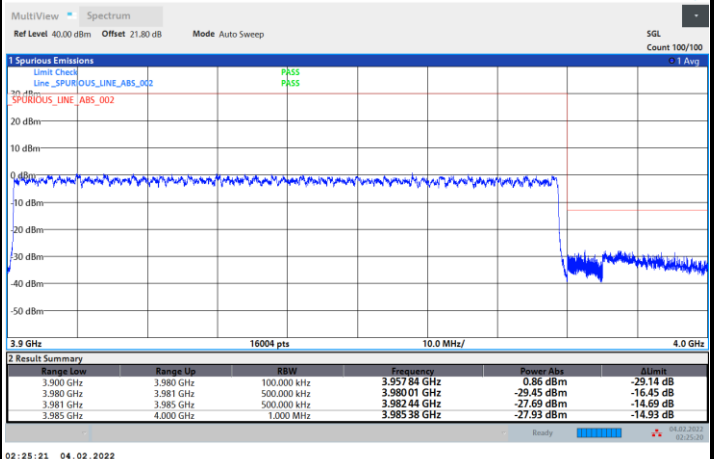
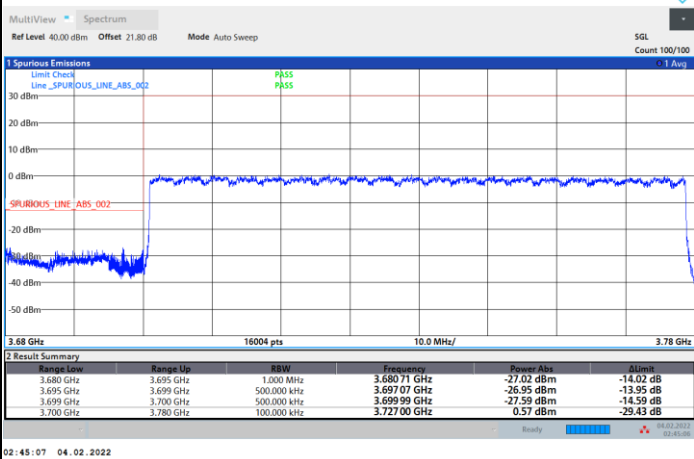
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

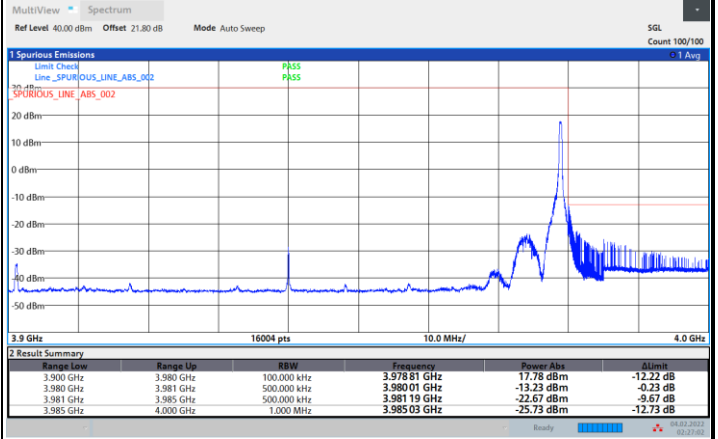
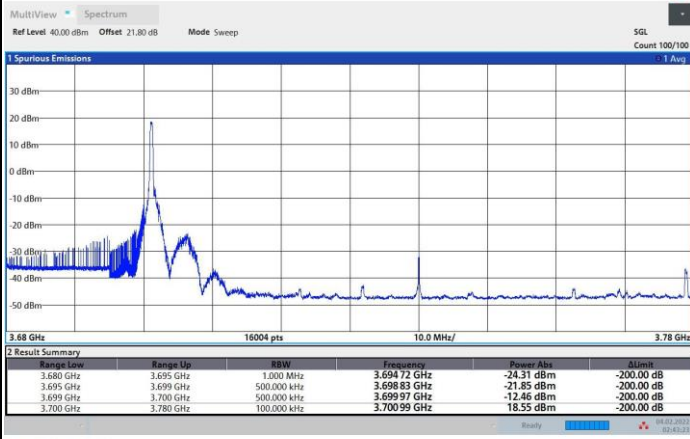




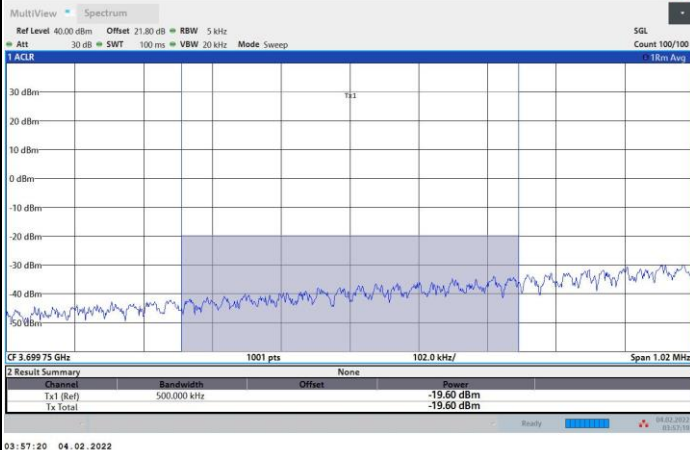
FR1 n77 / 80MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Channel power -13dBm > -19.60dBm (PASS)

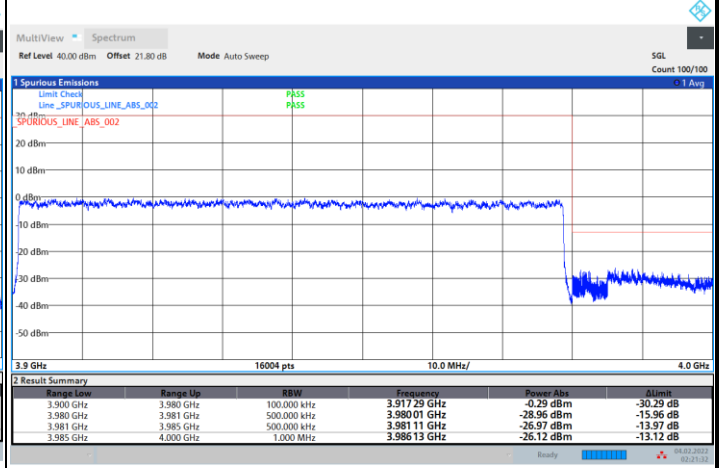
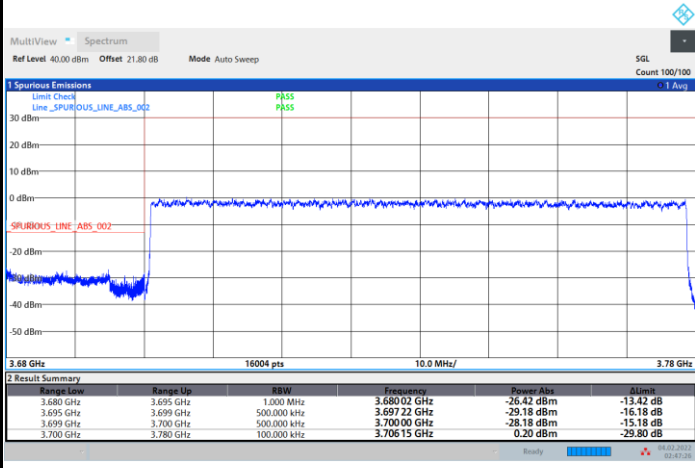




FR1 n77 / 80MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

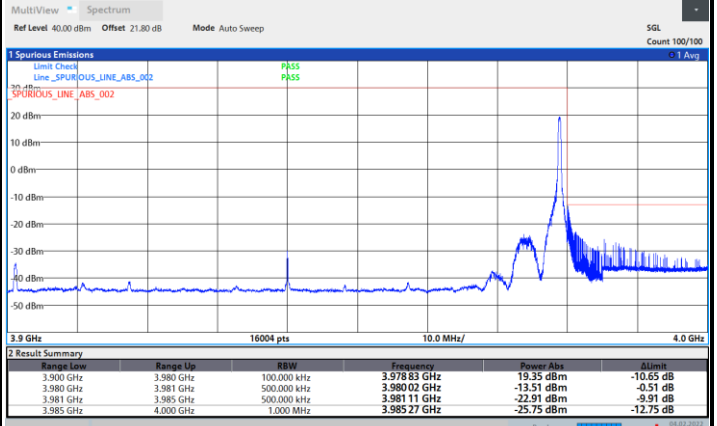
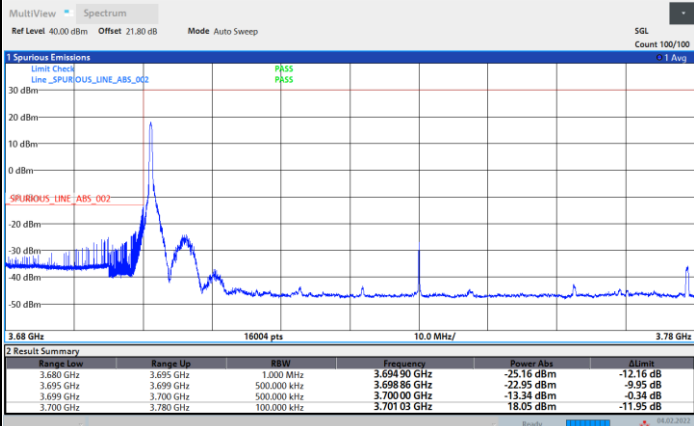




FR1 n77 / 80MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

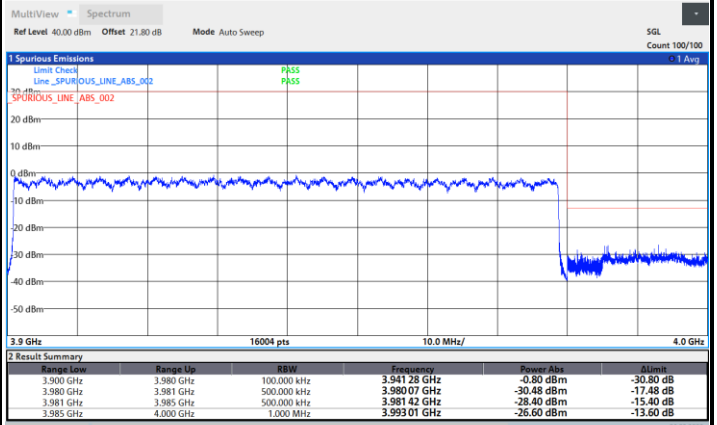
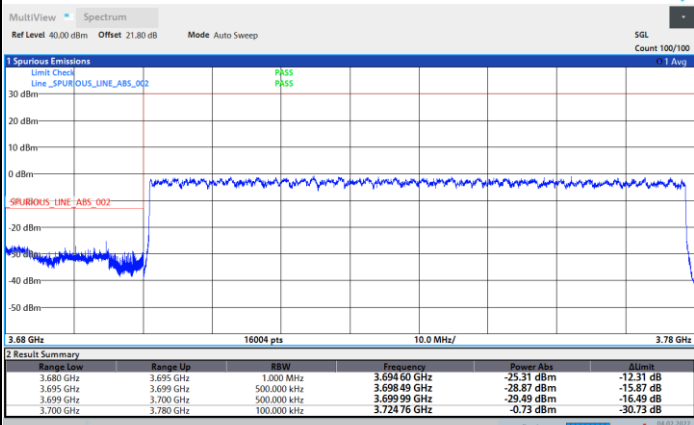


02:41:52 04.02.2022

02:27:41 04.02.2022

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



02:41:13 04.02.2022

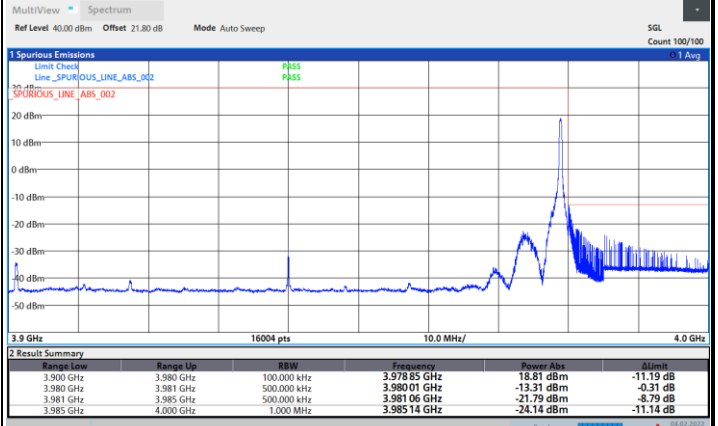
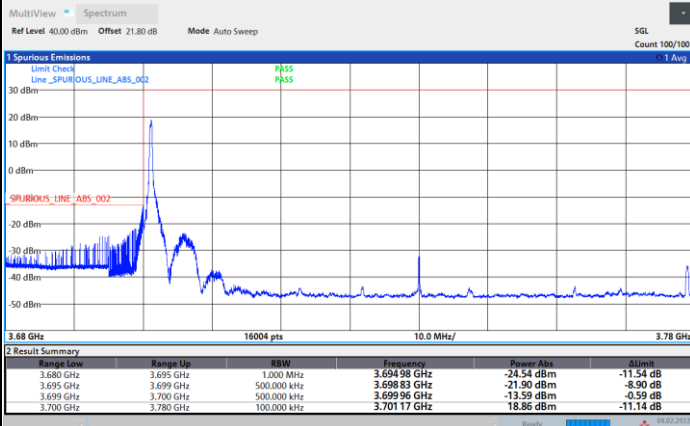
02:19:59 04.02.2022



FR1 n77 / 80MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

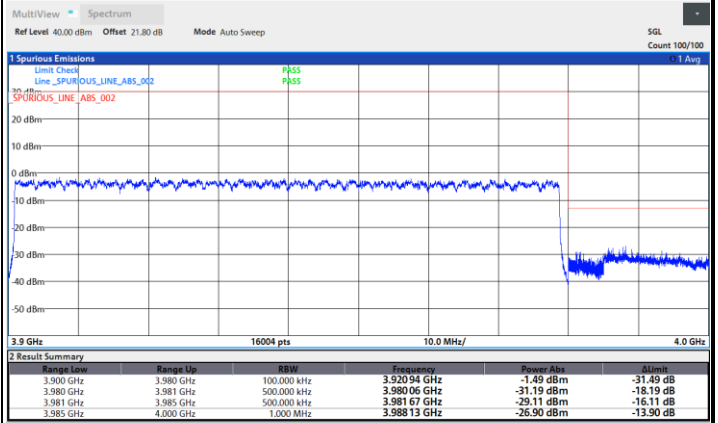
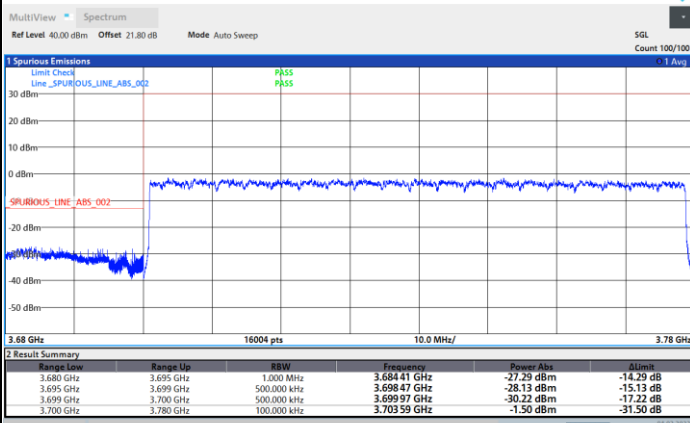


02:39:51 04.02.2022

02:30:51 04.02.2022

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



02:40:32 04.02.2022

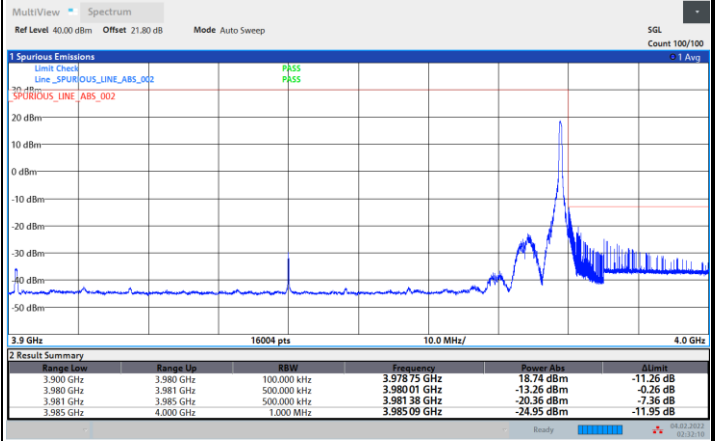
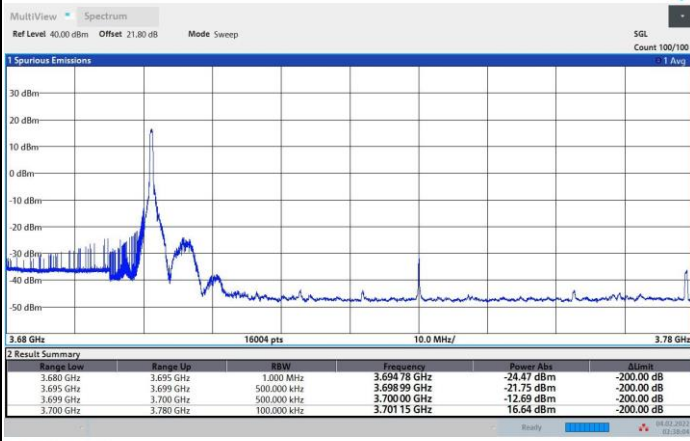
02:19:21 04.02.2022



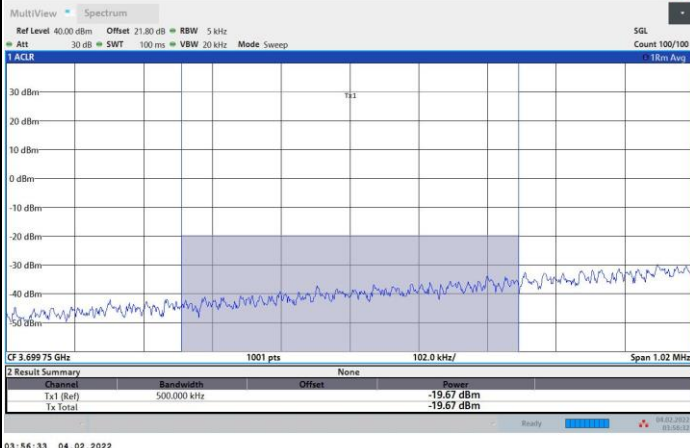
FR1 n77 / 80MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Channel power -13dBm > -19.67dBm (PASS)

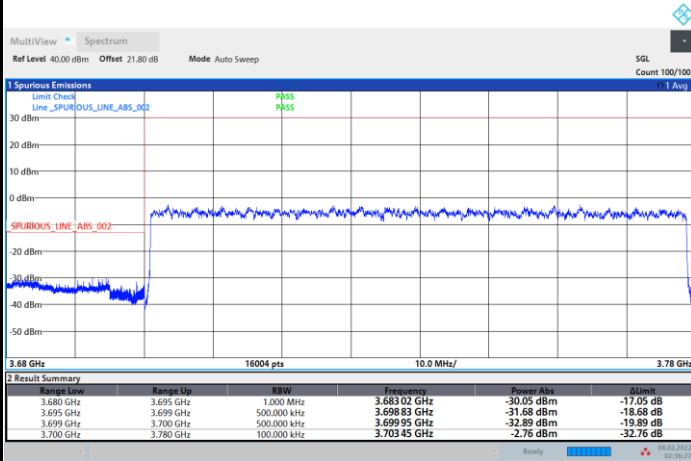




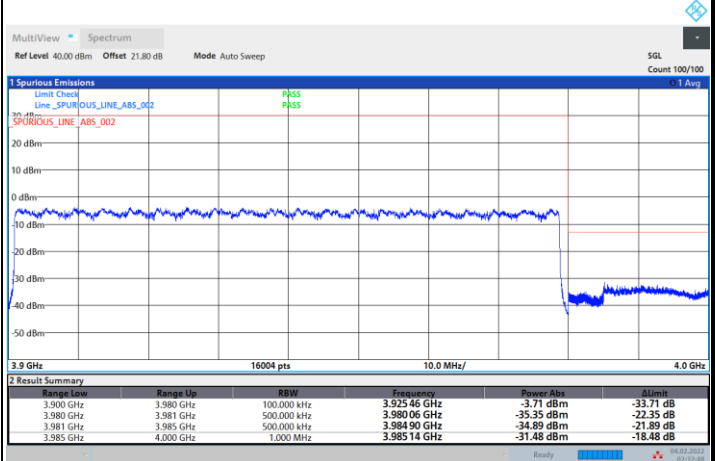
FR1 n77 / 80MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



02:36:27 04.02.2022



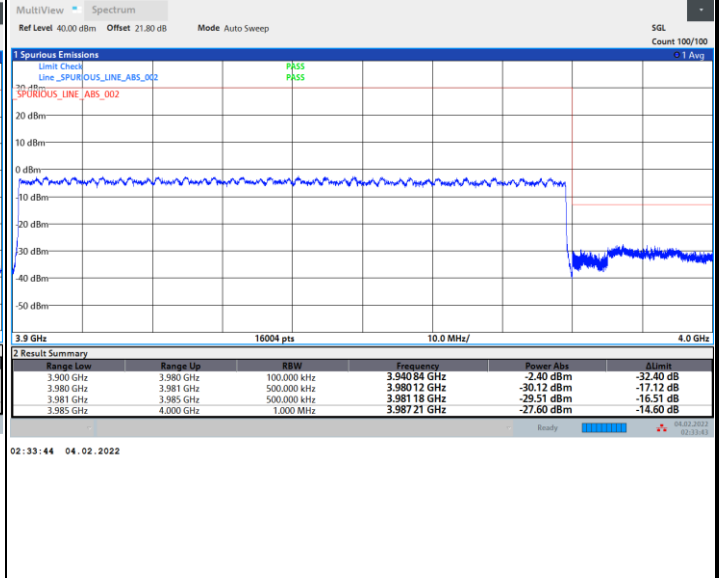
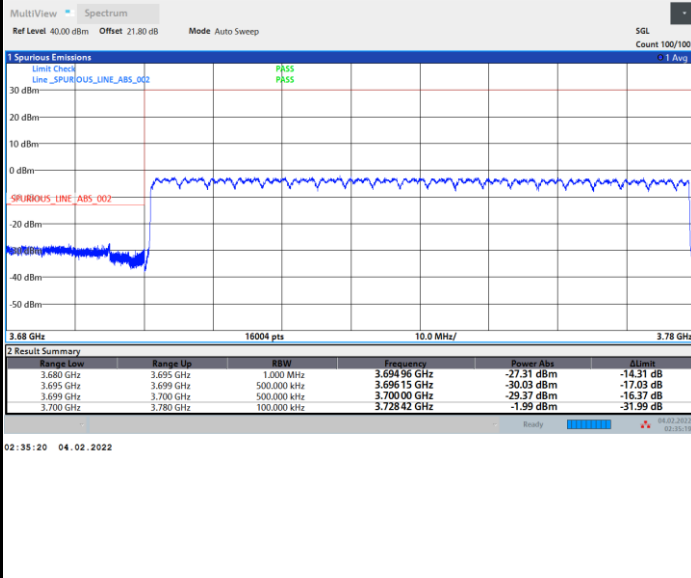
02:32:49 04.02.2022



FR1 n77 / 80MHz / CP OFDM / QPSK / Full RB

Lowest Band Edge

Highest Band Edge

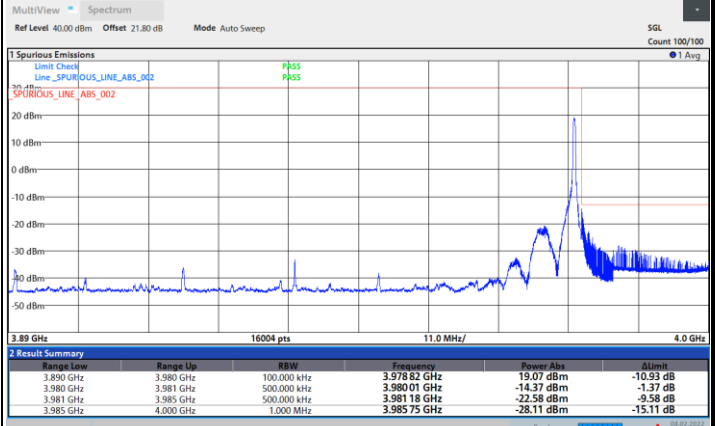
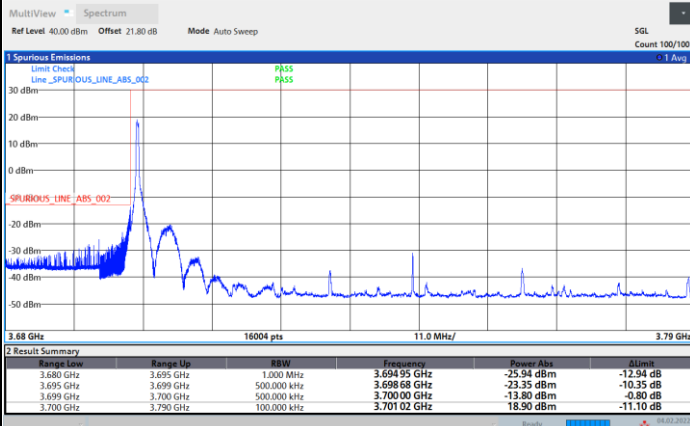




FR1 n77 / 90MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

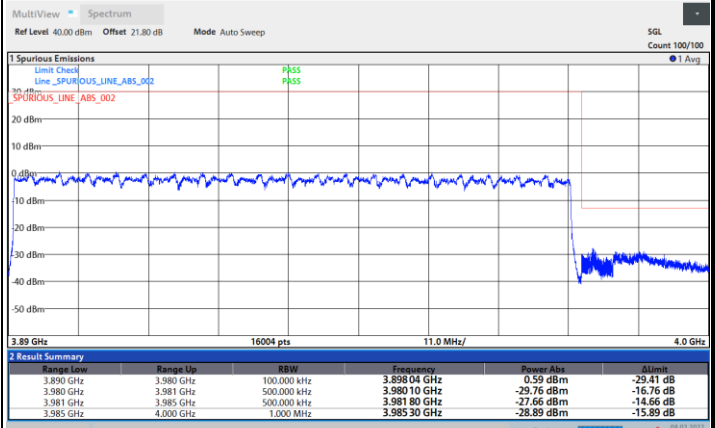
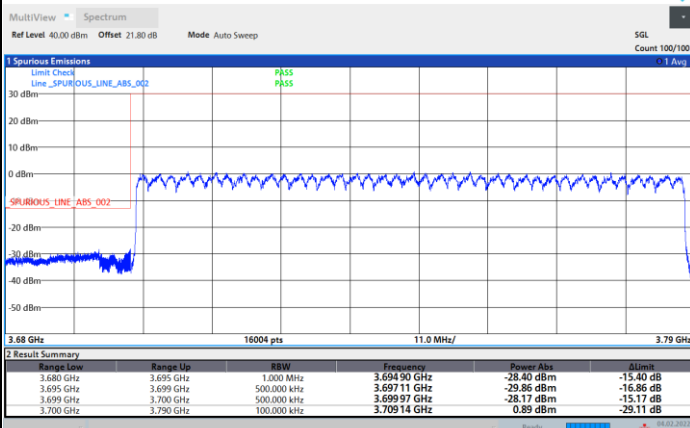


02:49:23 04.02.2022

03:09:22 04.02.2022

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



02:48:33 04.02.2022

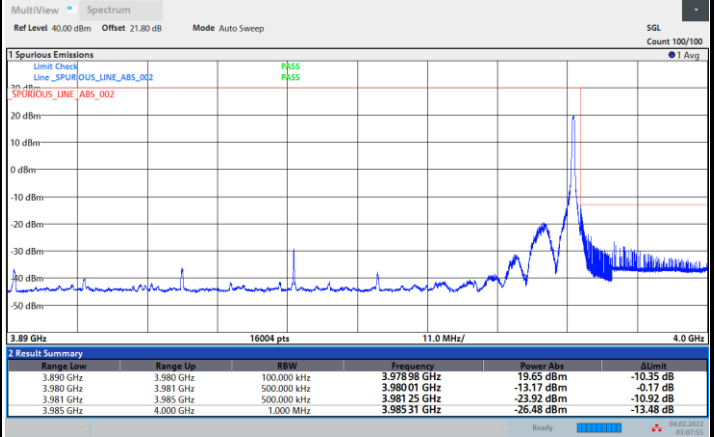
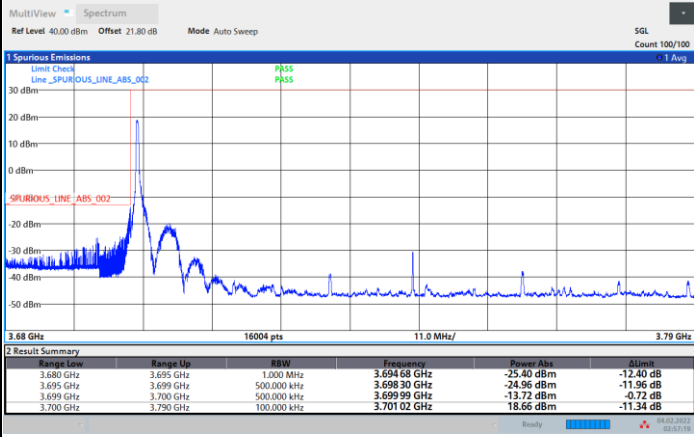
03:10:15 04.02.2022



FR1 n77 / 90MHz / DFT-S OFDM / QPSK

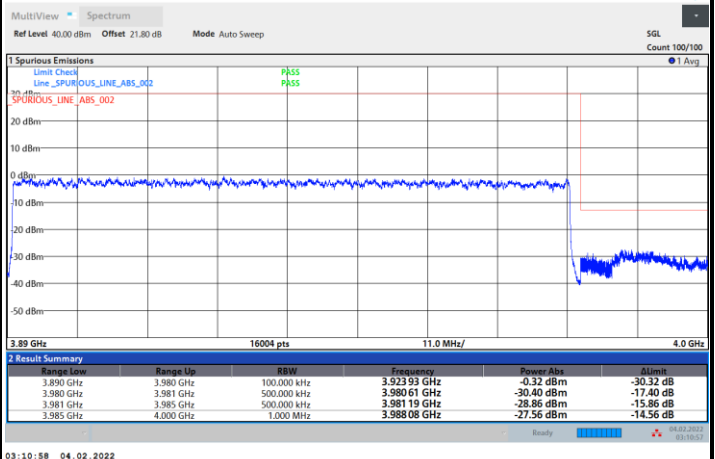
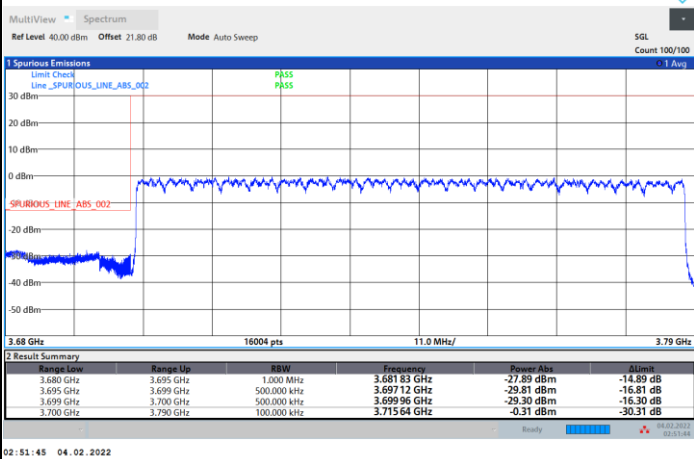
Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB

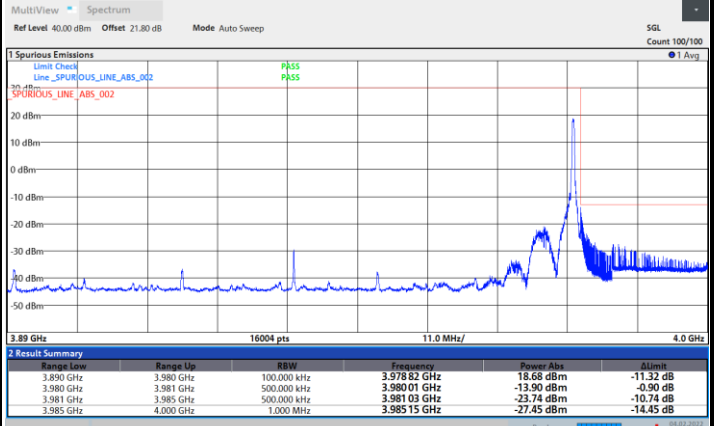
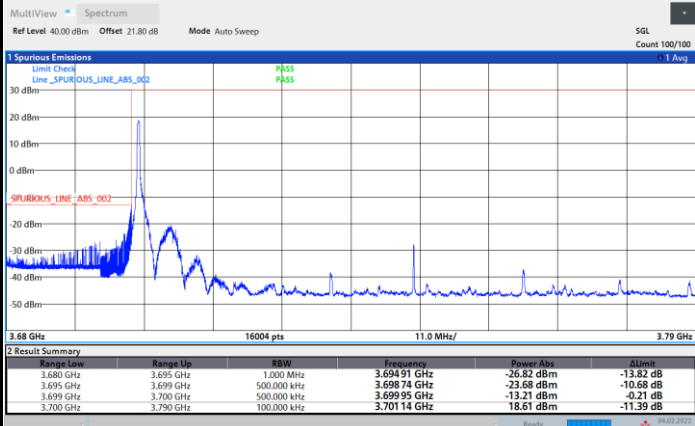




FR1 n77 / 90MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

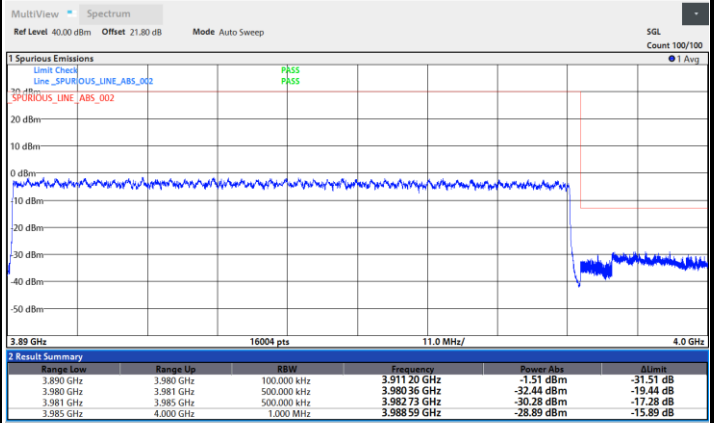
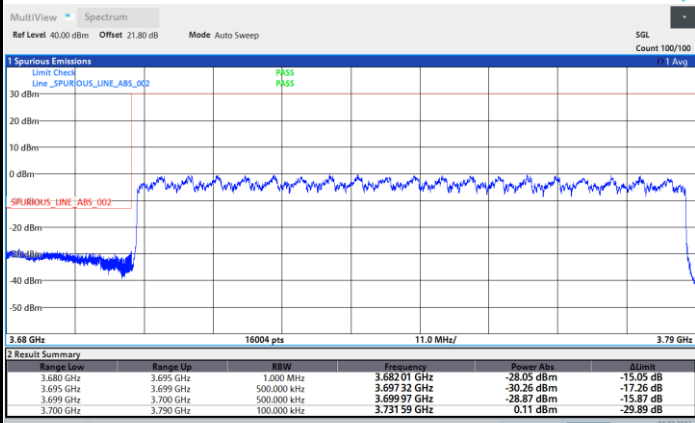


02:54:15 04.02.2022

03:06:38 04.02.2022

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



02:53:31 04.02.2022

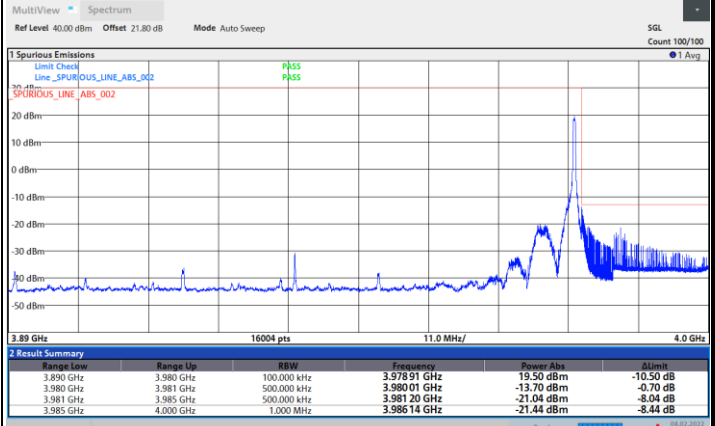
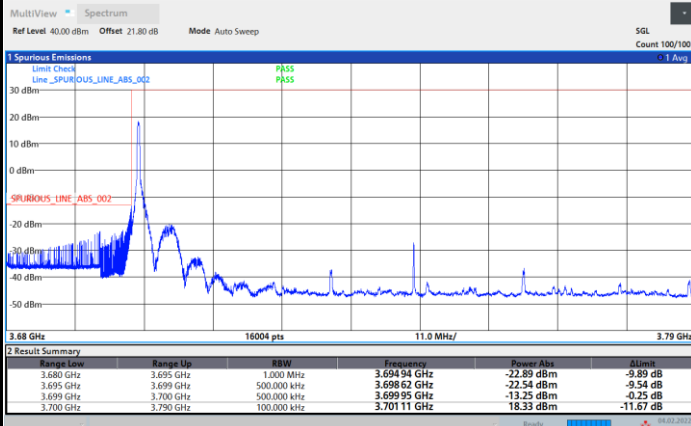
03:11:50 04.02.2022



FR1 n77 / 90MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

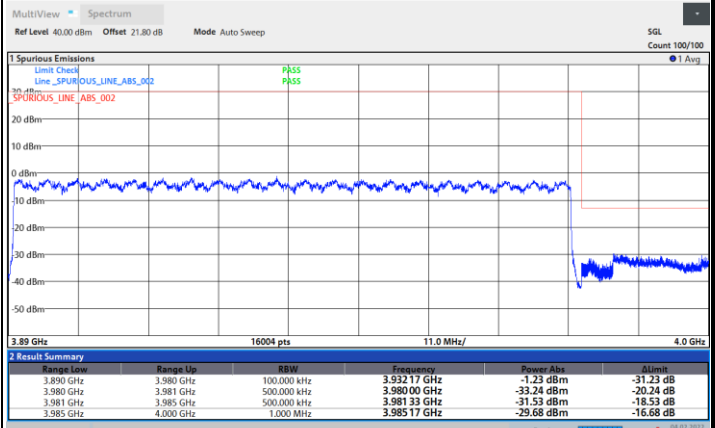
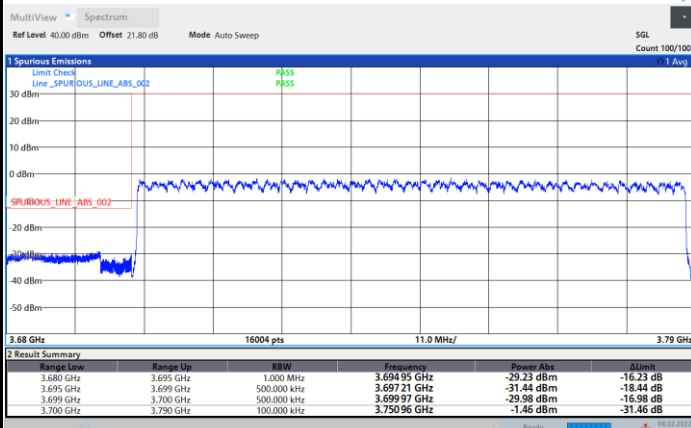


02:58:52 04.02.2022

03:05:55 04.02.2022

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



02:56:24 04.02.2022

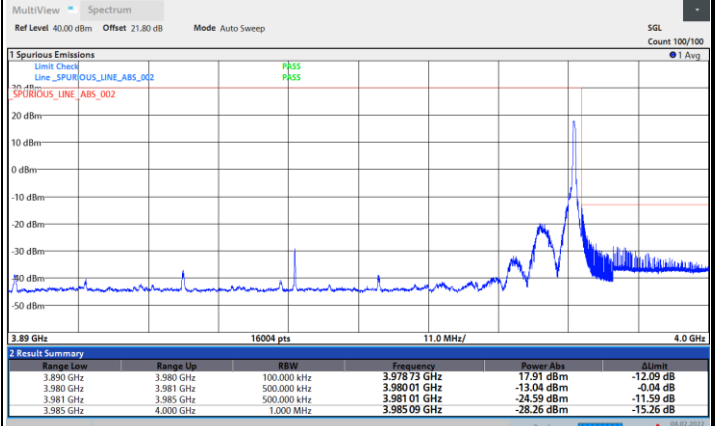
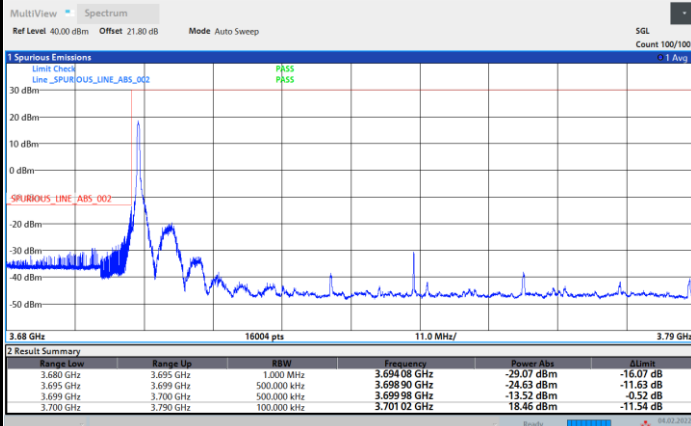
03:12:45 04.02.2022



FR1 n77 / 90MHz / DFT-S OFDM / 256QAM

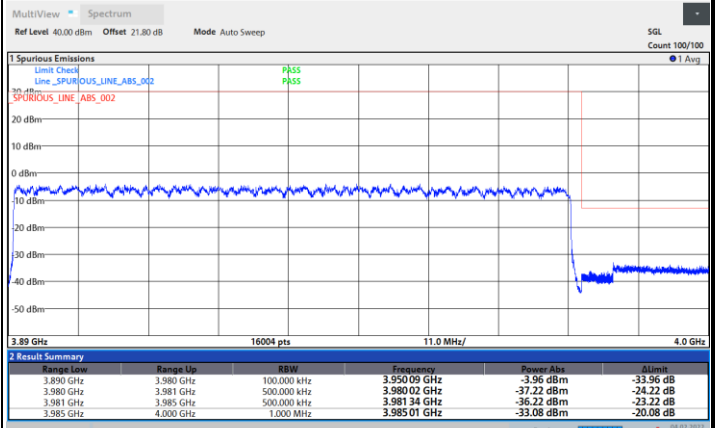
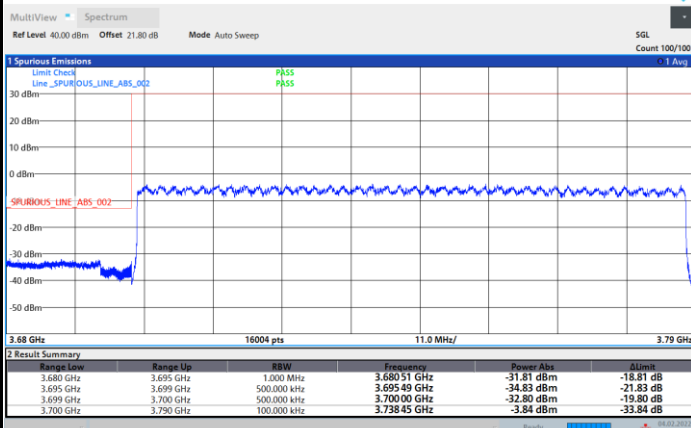
Lowest Band Edge / 1RB0

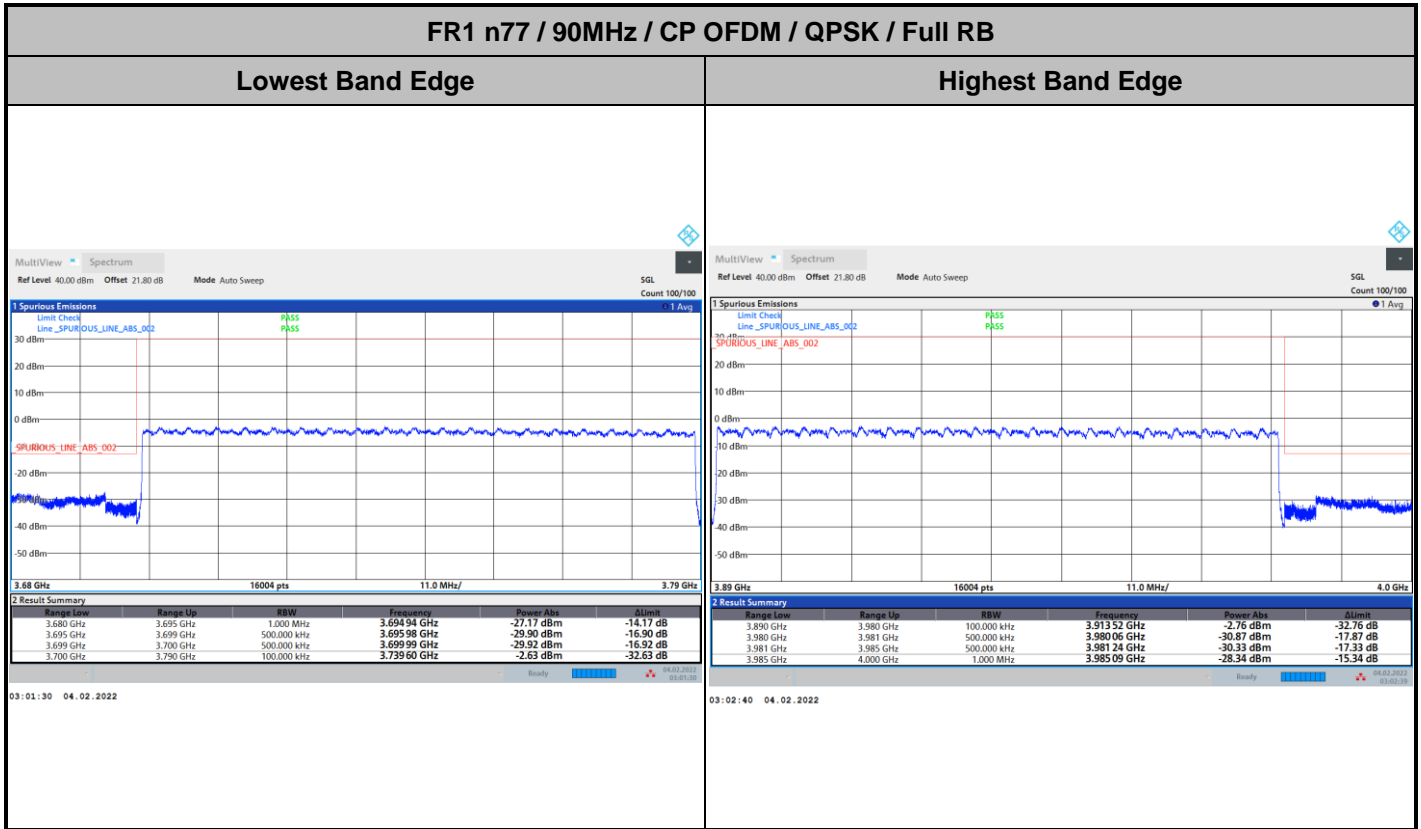
Highest Band Edge / 1RBmax



Lowest Band Edge / Full RB

Highest Band Edge / Full RB



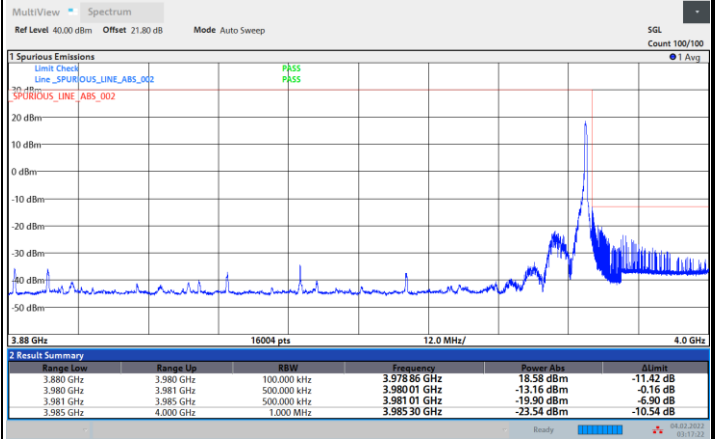
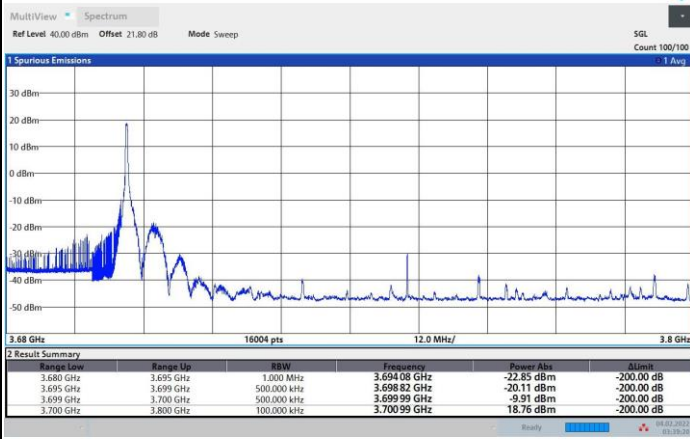




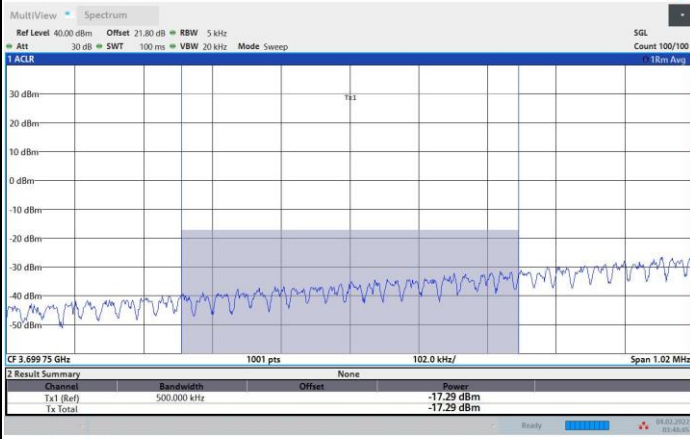
FR1 n77 / 100MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Channel power -13dBm > -17.29dBm (PASS)

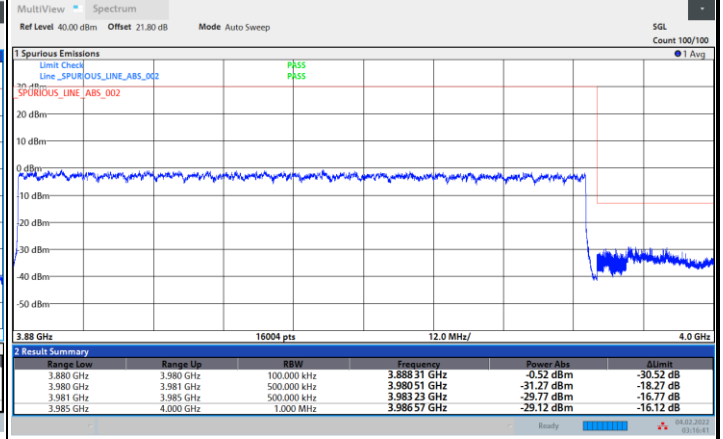
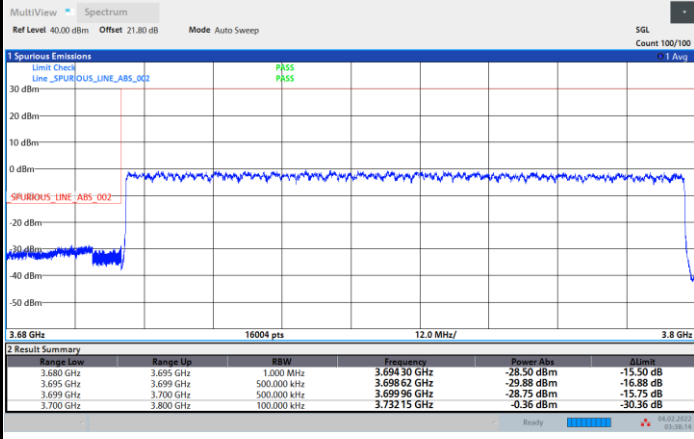




FR1 n77 / 100MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

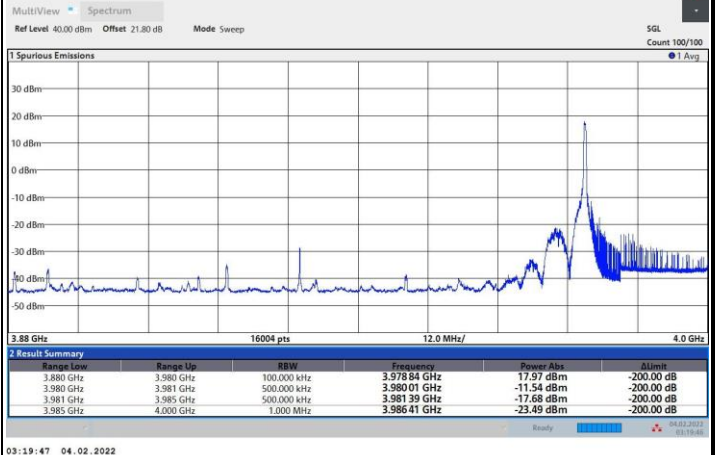
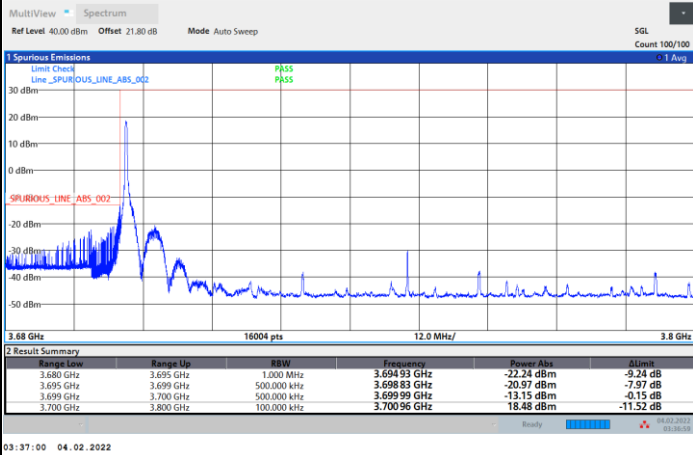




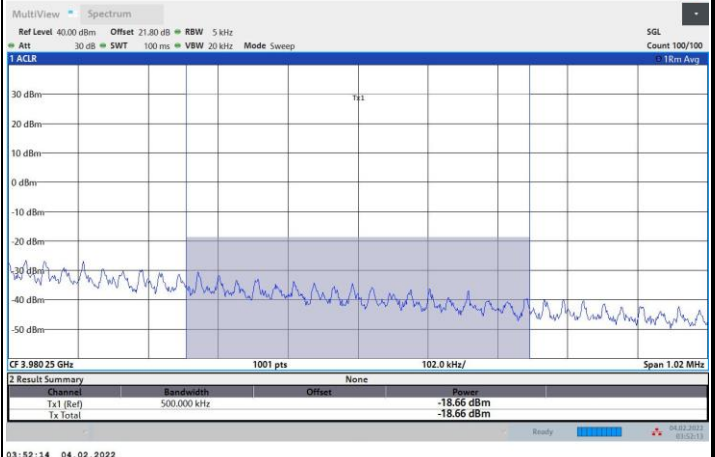
FR1 n77 / 100MHz / DFT-S OFDM / QPSK

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Channel power -13dBm > -18.66dBm (PASS)

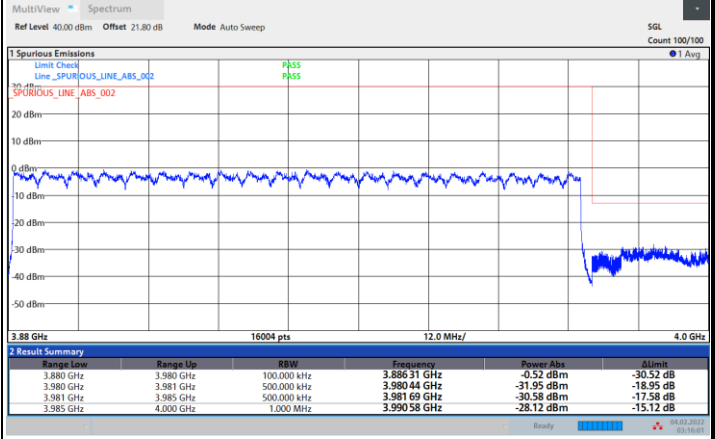
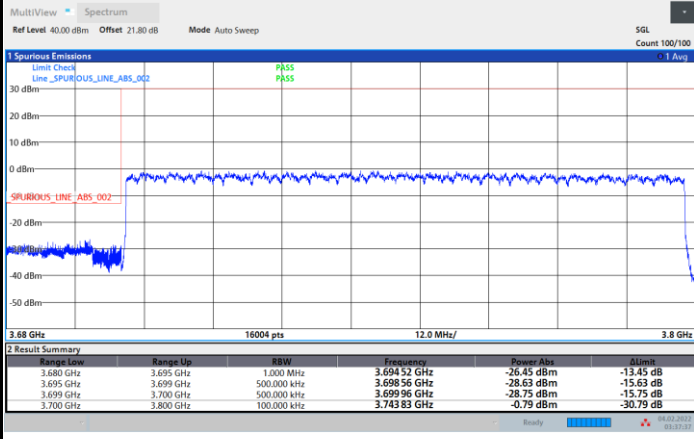




FR1 n77 / 100MHz / DFT-S OFDM / QPSK

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

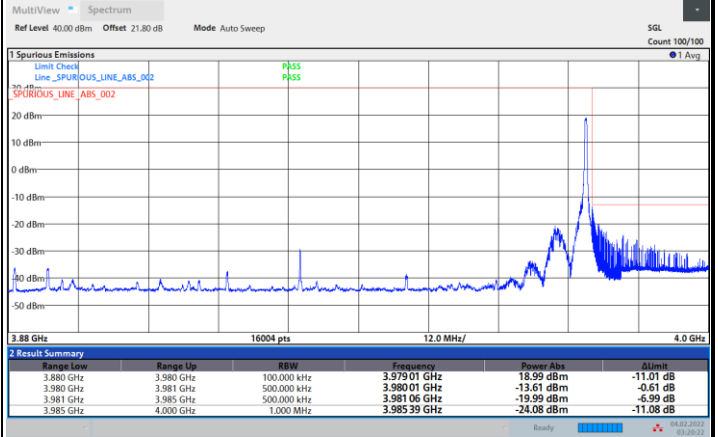
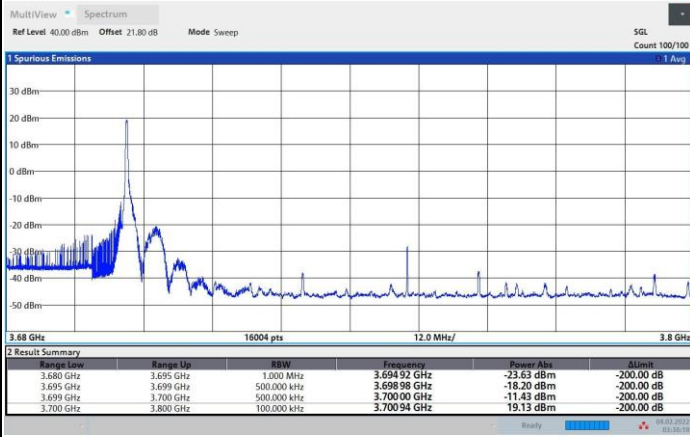




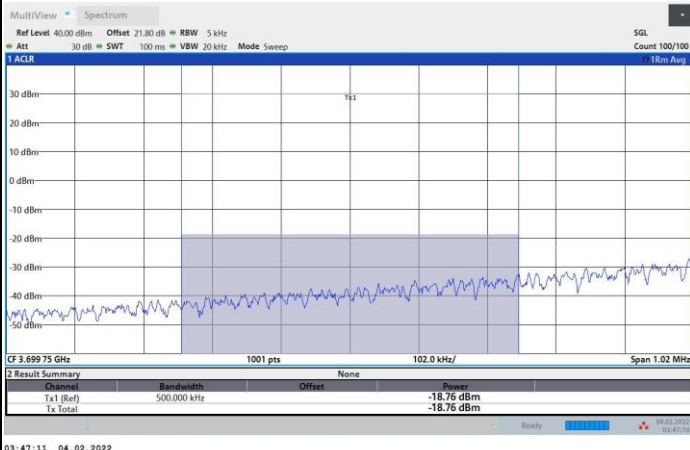
FR1 n77 / 100MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Channel power -13dBm > -18.76dBm (PASS)

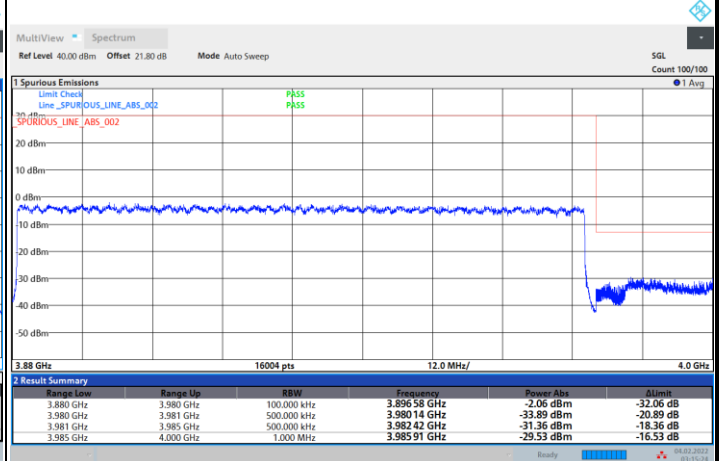
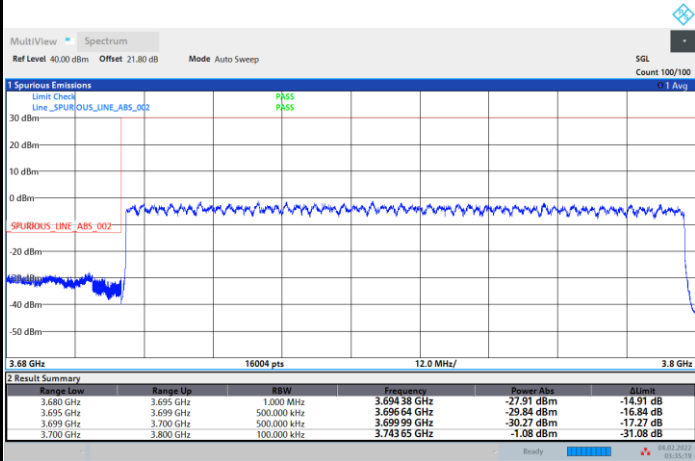




FR1 n77 / 100MHz / DFT-S OFDM / 16QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB

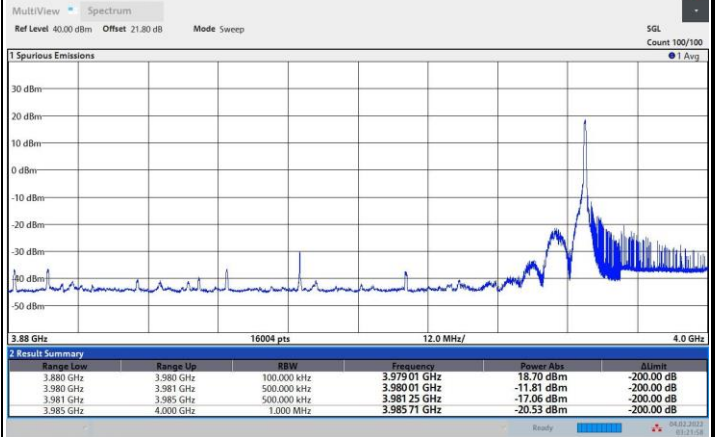
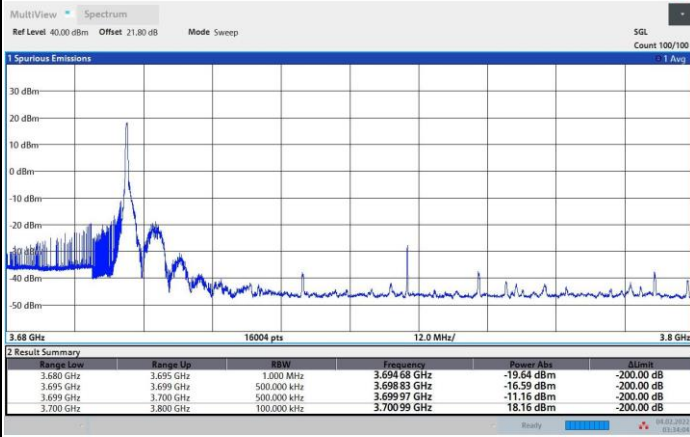




FR1 n77 / 100MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax

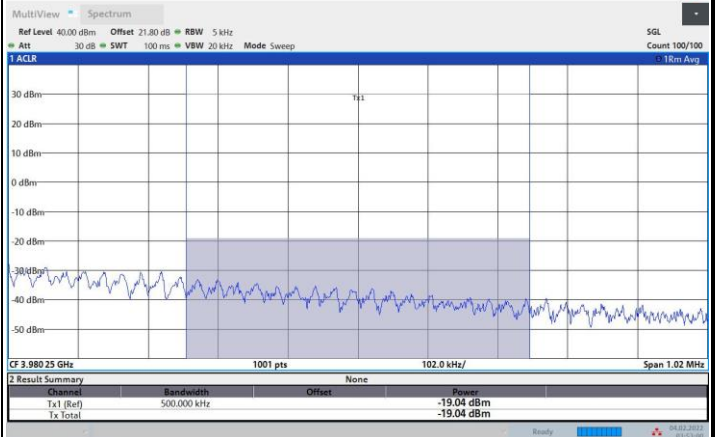
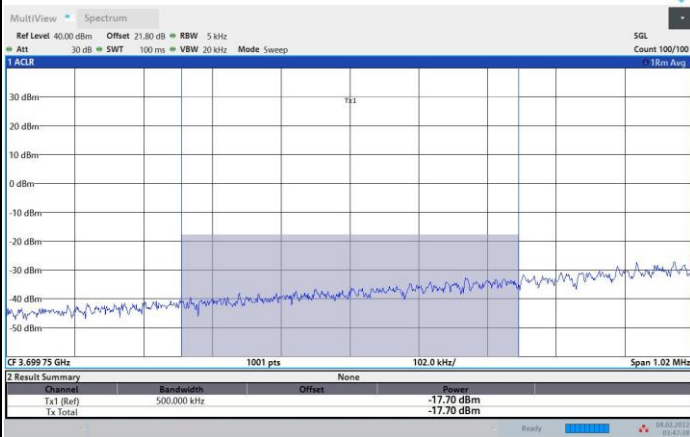


03:34:05 04.02.2022

03:21:59 04.02.2022

Channel power -13dBm > -17.70dBm (PASS)

Channel power -13dBm > -19.04dBm (PASS)



03:47:39 04.02.2022

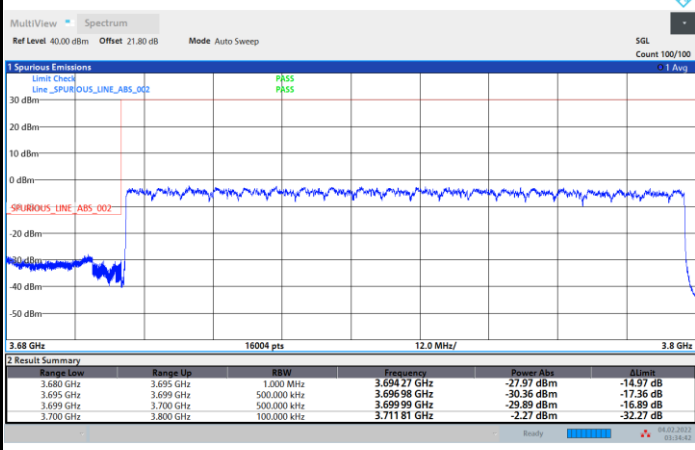
03:53:00 04.02.2022



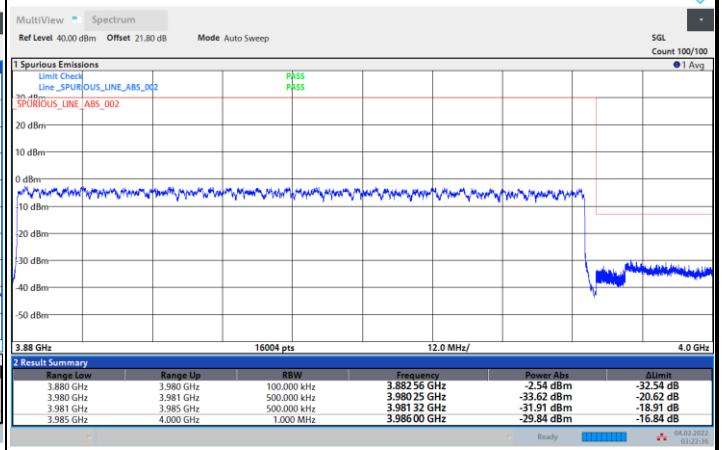
FR1 n77 / 100MHz / DFT-S OFDM / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



03:34:43 04.02.2022



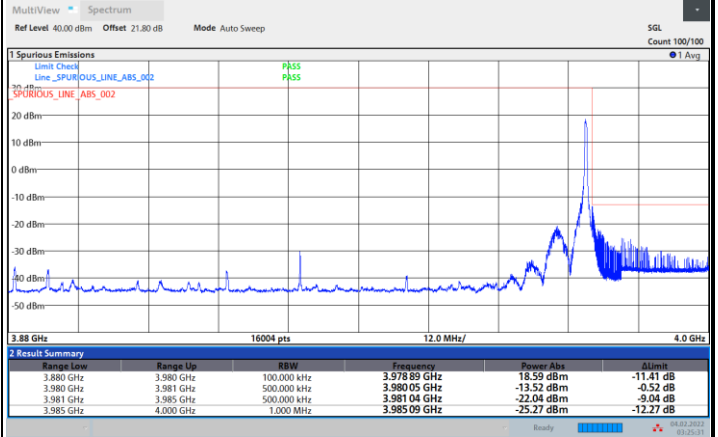
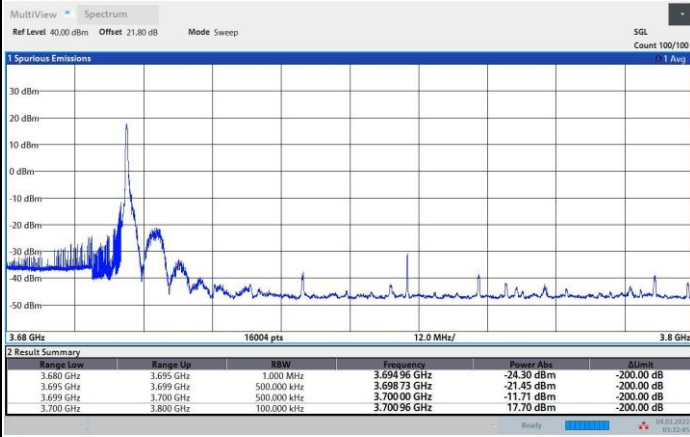
03:22:36 04.02.2022



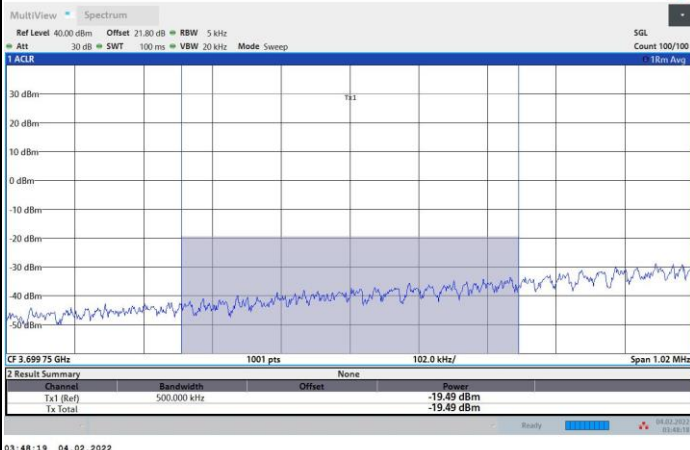
FR1 n77 / 100MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / 1RB0

Highest Band Edge / 1RBmax



Channel power -13dBm > -19.49dBm (PASS)

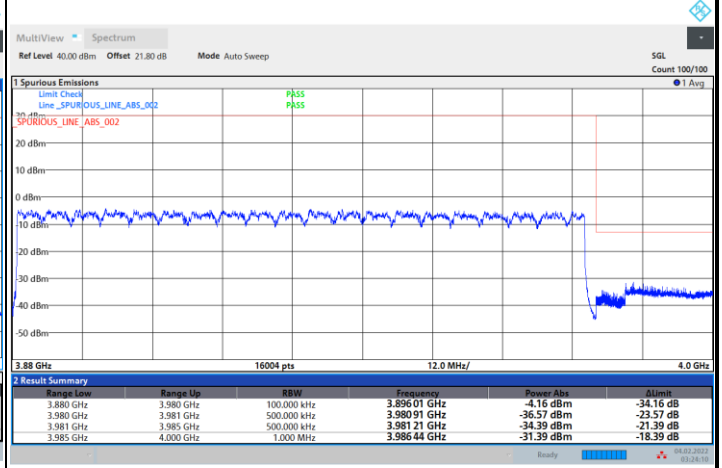
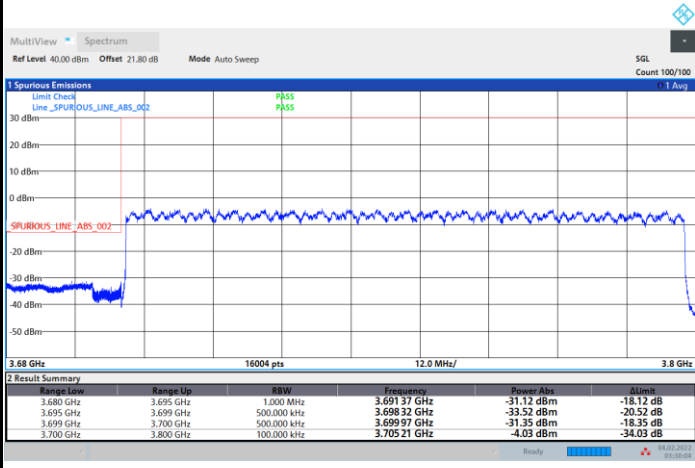


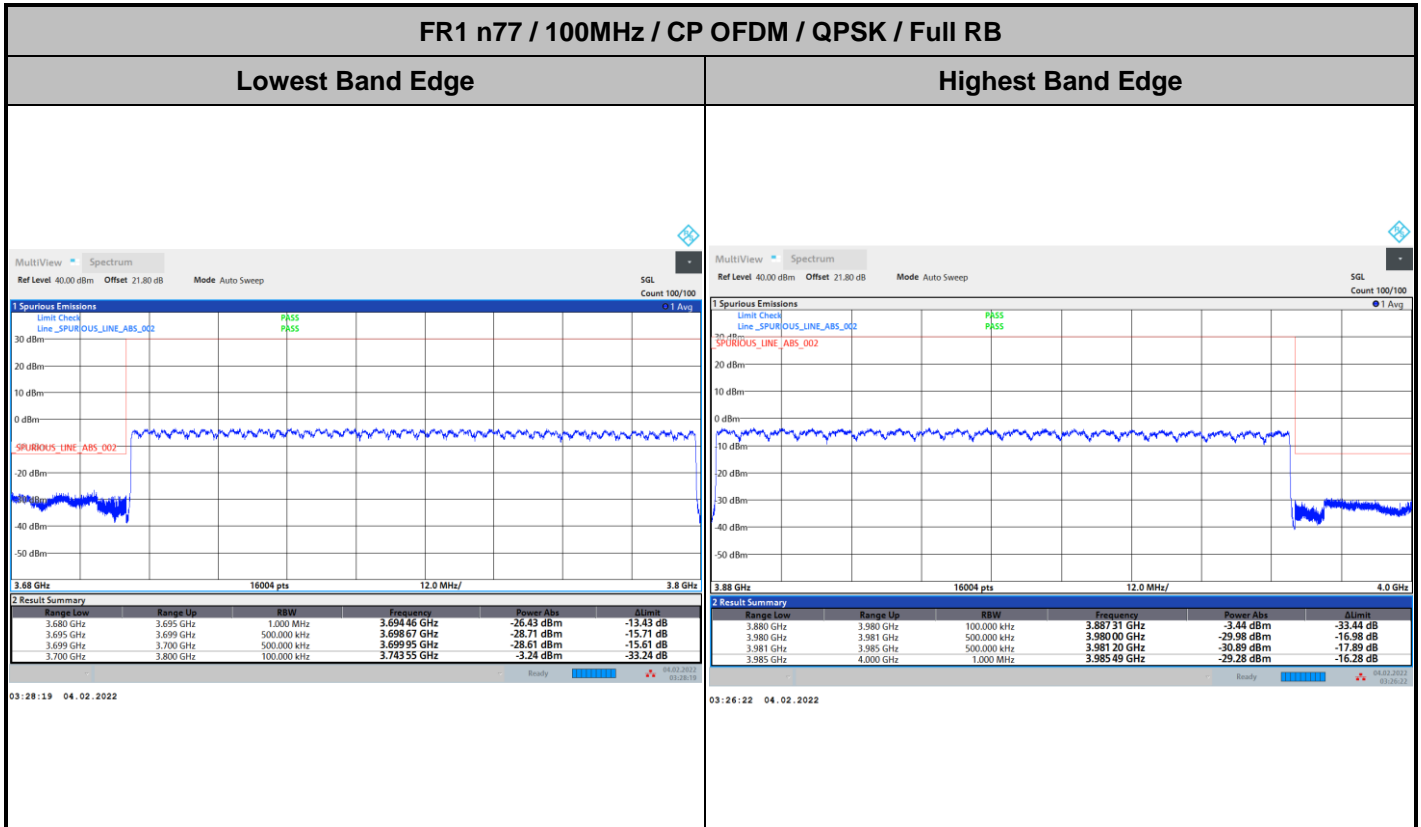


FR1 n77 / 100MHz / DFT-S OFDM / 256QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB





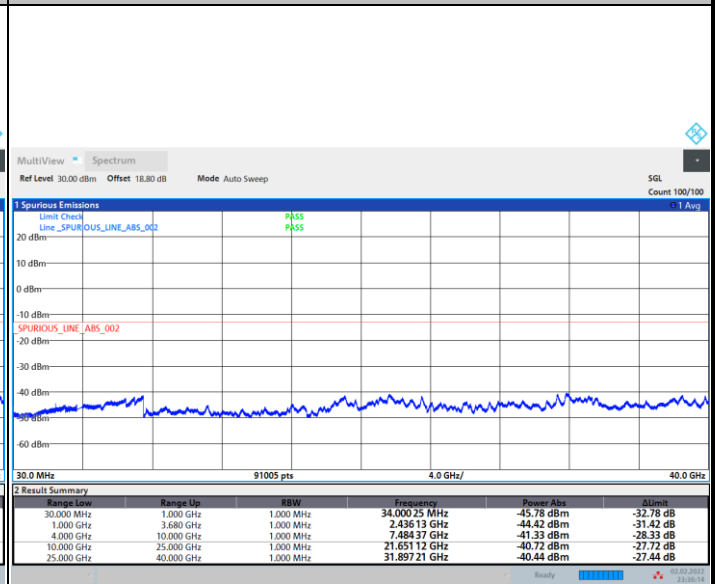
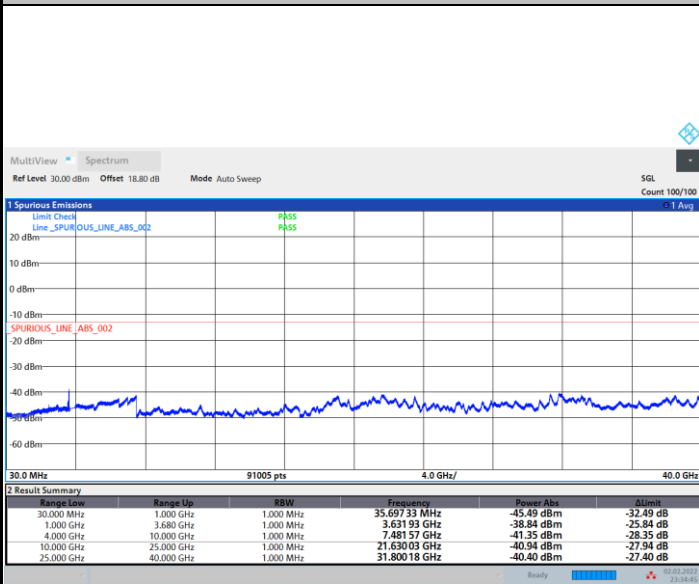


Conducted Spurious Emission

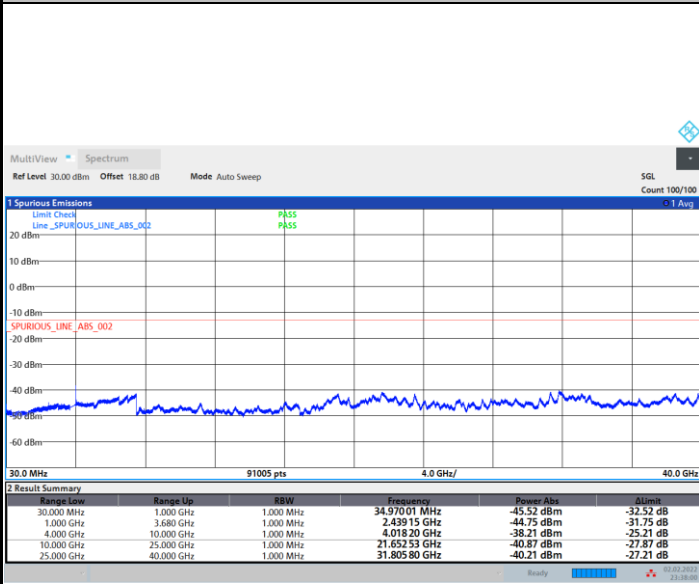
FR1 n77 / 10MHz / DFT-S OFDM / QPSK / 1RB1

Lowest Channel

Middle Channel



Highest Channel





Frequency Stability

| Test Conditions | | FR1 n77 (BPSK) / Middle Channel | Limit |
|------------------|-------------------|---------------------------------|---------|
| Temperature (°C) | Voltage (Volt) | BW 20MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0039 | PASS |
| 40 | Normal Voltage | 0.0007 | |
| 30 | Normal Voltage | 0.0051 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0022 | |
| 0 | Normal Voltage | 0.0018 | |
| -10 | Normal Voltage | 0.0040 | |
| -20 | Normal Voltage | 0.0017 | |
| -30 | Normal Voltage | 0.0034 | |
| 20 | Maximum Voltage | 0.0014 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0047 | |

Note:

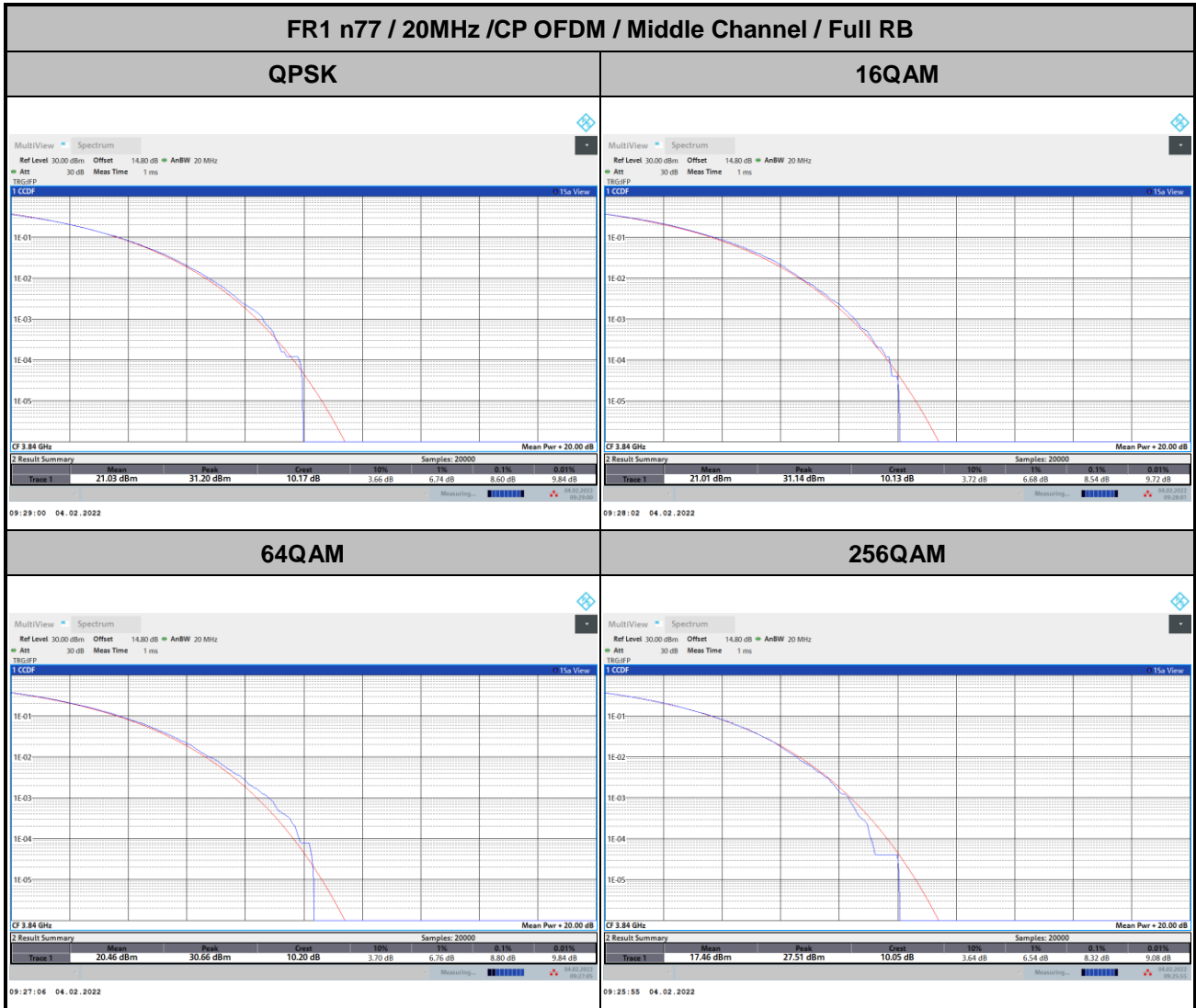
1. Normal Voltage =4.20 V. ; Battery End Point (BEP) =3.40 V. ; Maximum Voltage =4.30 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



FR1 n77_MIMO Mode ANT5

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 | 8.60 | 8.54 | 8.80 | 8.32 | PASS |





26dB Bandwidth

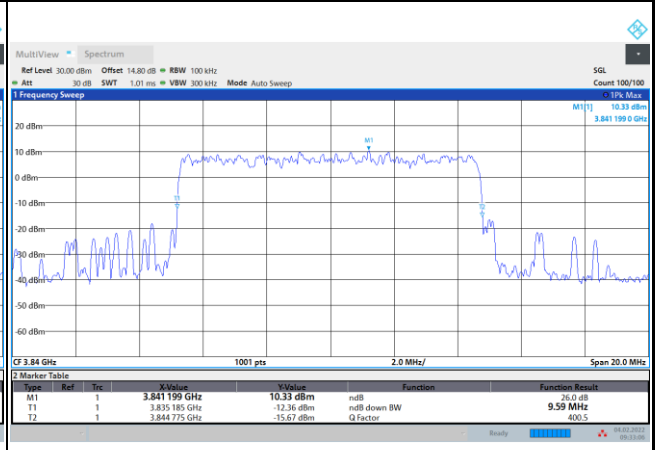
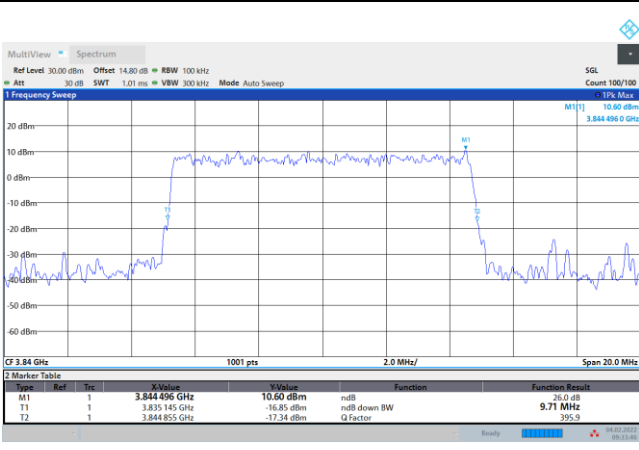
| Mode | FR1 n77 : 26dB BW(MHz) / CP OFDM | | | | | | | |
|-----------|----------------------------------|--------|-------|--------|-------|--------|--------|--------|
| BW | 10MHz | | 15MHz | | 20MHz | | 25MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | 9.71 | 9.59 | 14.96 | 14.96 | 19.74 | 19.74 | - | - |
| Mod. | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | 9.61 | 9.67 | 14.87 | 14.87 | 19.86 | 19.86 | - | - |
| BW | 30MHz | | 40MHz | | 50MHz | | 60MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | - | - | 39.64 | 39.56 | 50.75 | 50.75 | 60.78 | 60.42 |
| Mod. | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | - | - | 39.56 | 39.64 | 50.85 | 50.75 | 60.42 | 60.42 |
| BW | 70MHz | | 80MHz | | 90MHz | | 100MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Middle CH | - | - | 80.40 | 80.40 | 90.45 | 90.45 | 100.30 | 100.50 |
| Mod. | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM | 64QAM | 256QAM |
| Middle CH | - | - | 80.56 | 80.24 | 90.45 | 90.27 | 100.30 | 100.70 |



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

QPSK

16QAM



64QAM

256QAM

