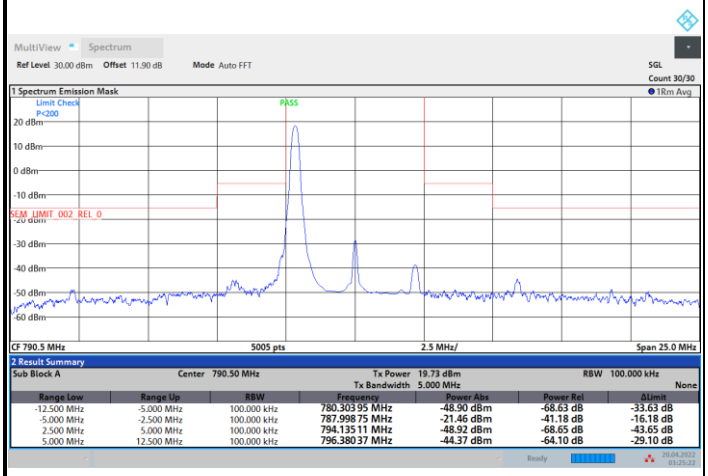
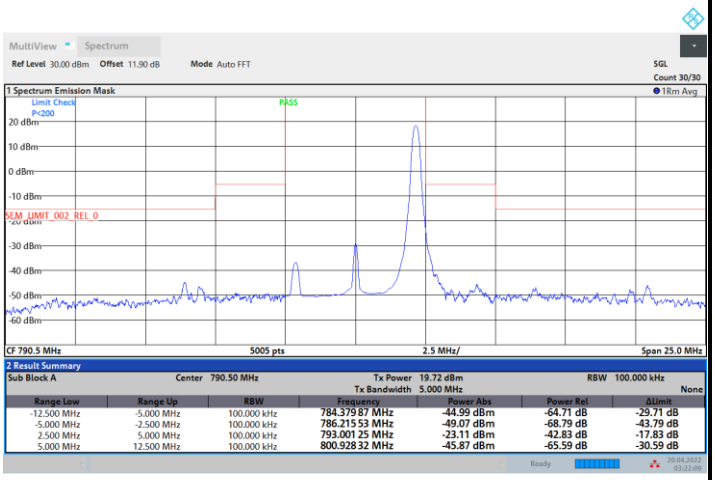
## FR1 n14 / 5MHz / DFT-S OFDM / 16QAM

### Lowest Channel

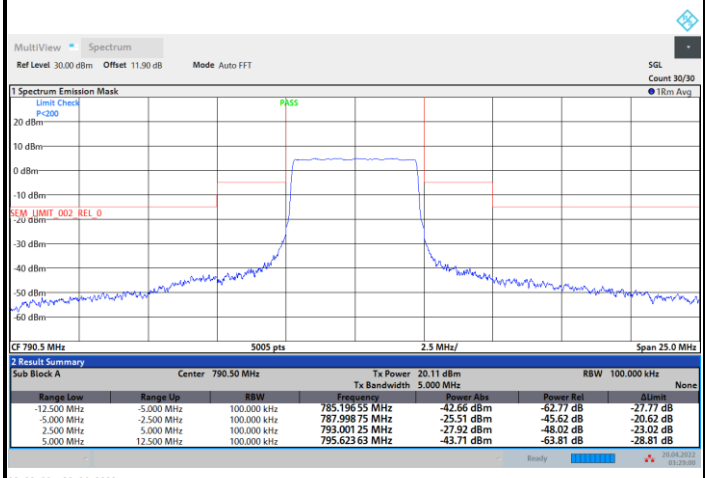
#### 1RB0




#### 1RBmax



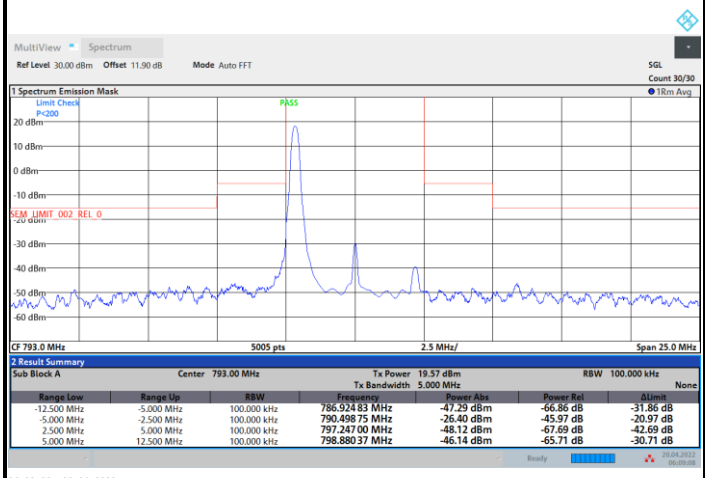

#### Full RB



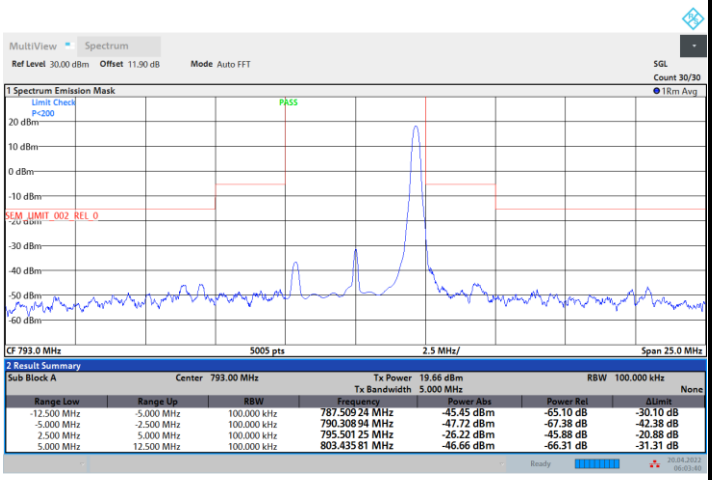
## FR1 n14 / 5MHz / DFT-S OFDM / 16QAM

### Middle Channel

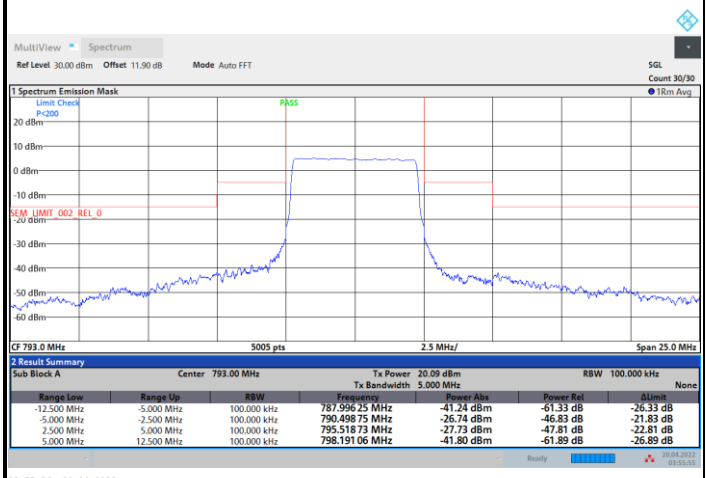
#### 1RB0




#### 1RBmax



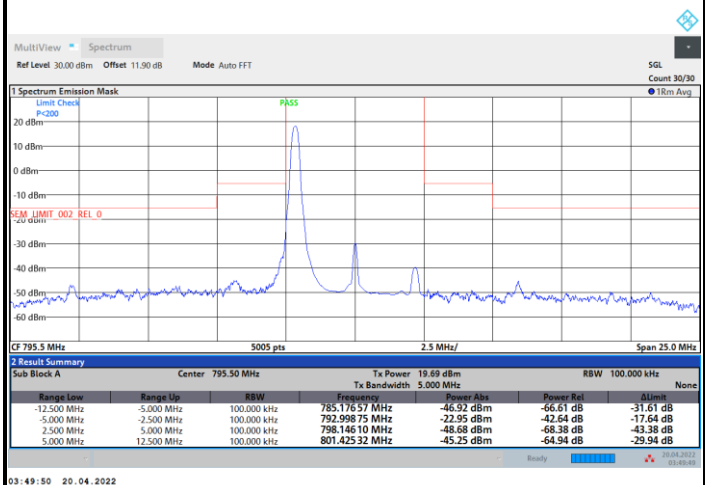

#### Full RB



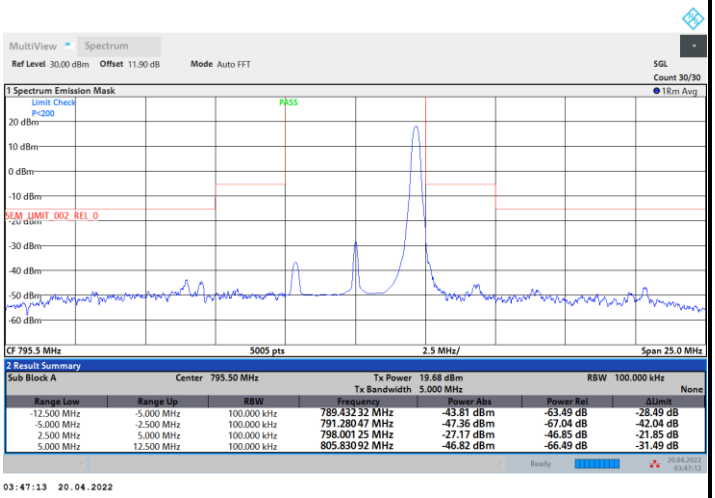
## FR1 n14 / 5MHz / DFT-S OFDM / 16QAM

### Highest Channel

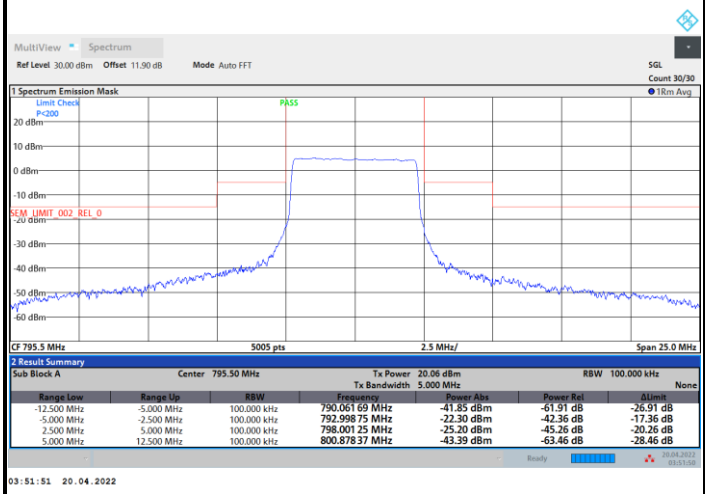
#### 1RB0




#### 1RBmax



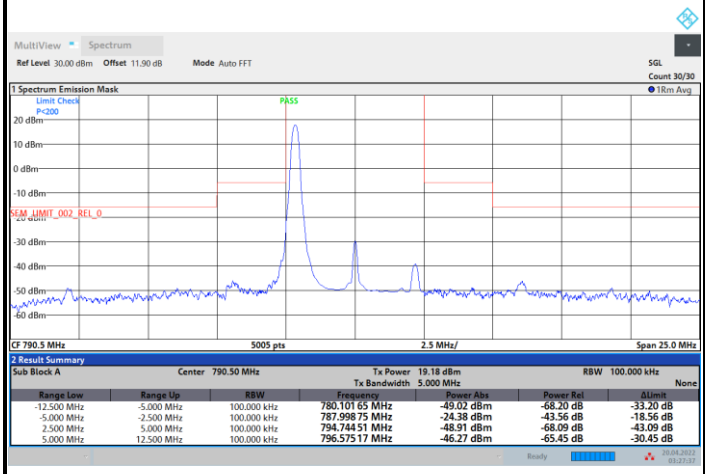

#### Full RB



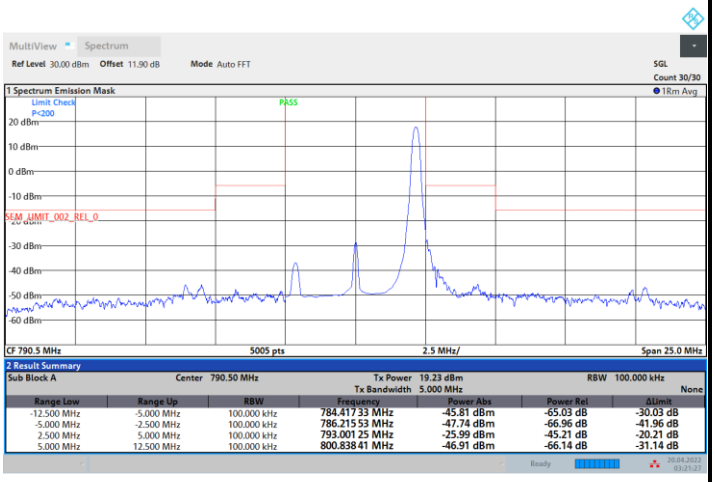
## FR1 n14 / 5MHz / DFT-S OFDM / 64QAM

### Lowest Channel

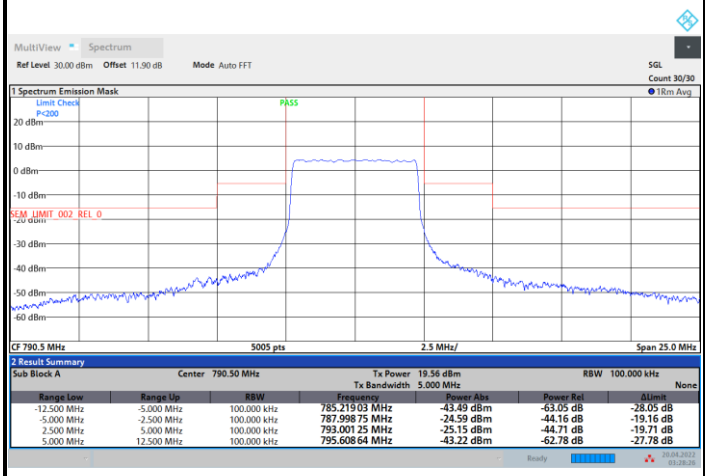
#### 1RB0




#### 1RBmax



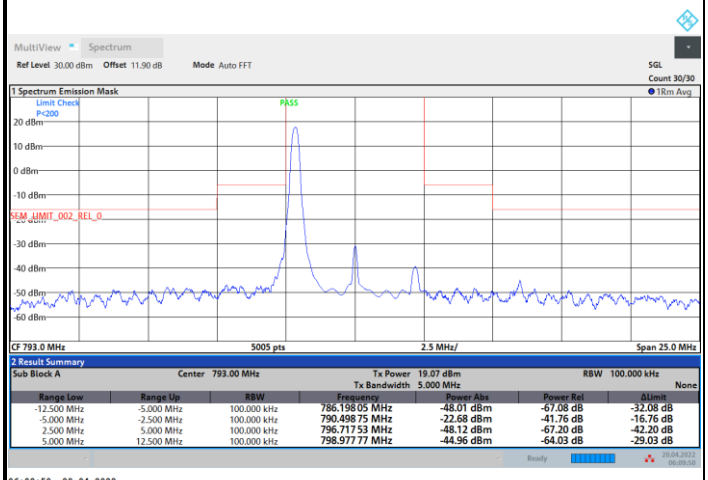

#### Full RB



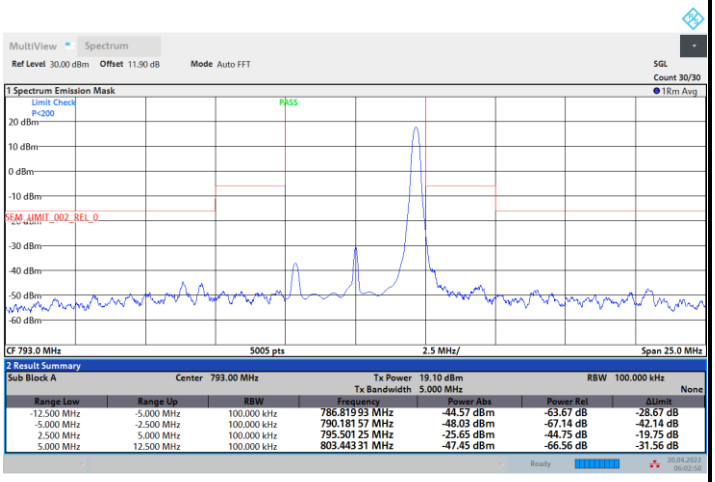
## FR1 n14 / 5MHz / DFT-S OFDM / 64QAM

### Middle Channel

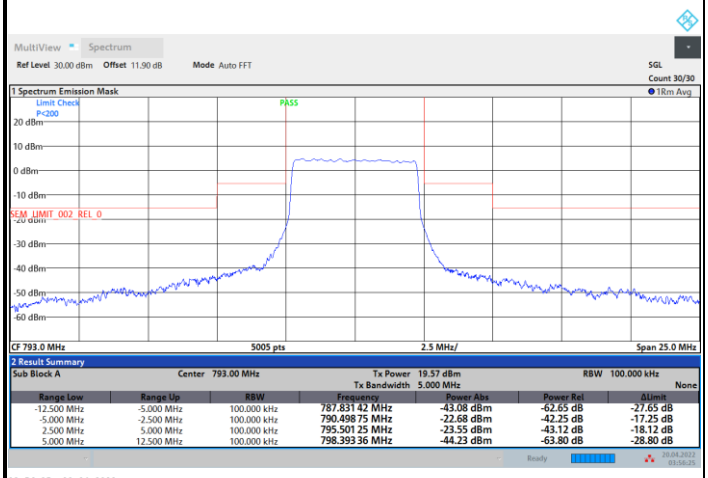
#### 1RB0




#### 1RBmax



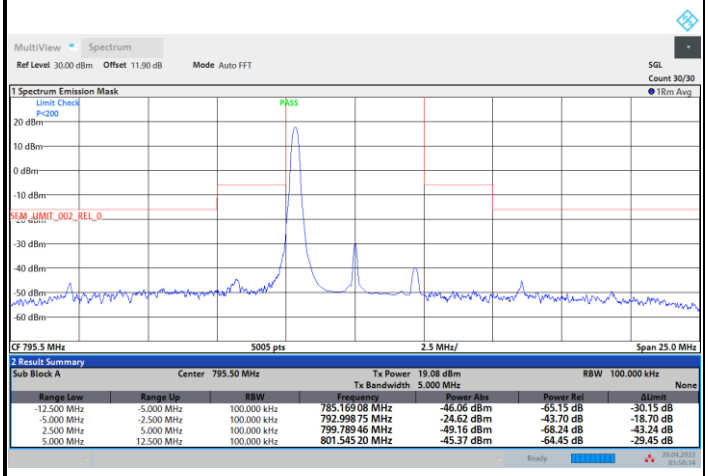

#### Full RB



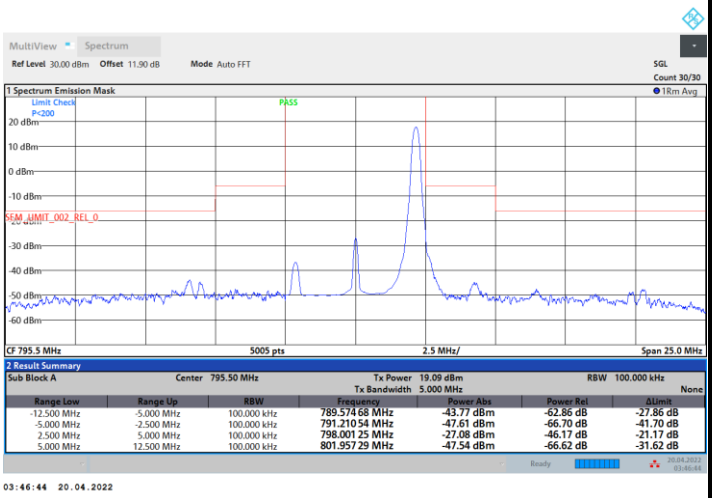
## FR1 n14 / 5MHz / DFT-S OFDM / 64QAM

### Highest Channel

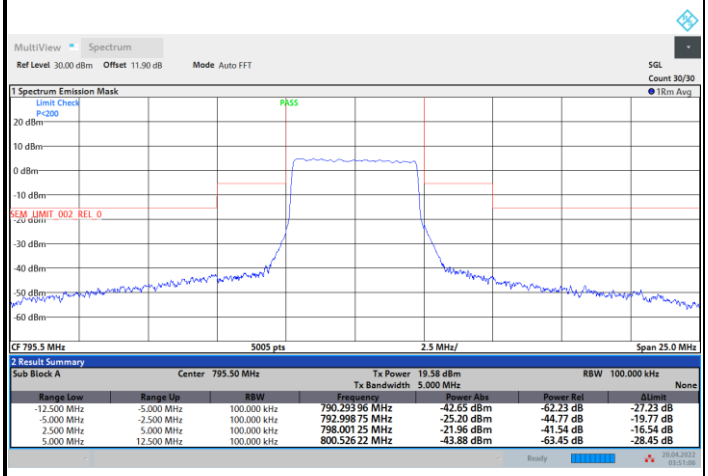
#### 1RB0




#### 1RBmax



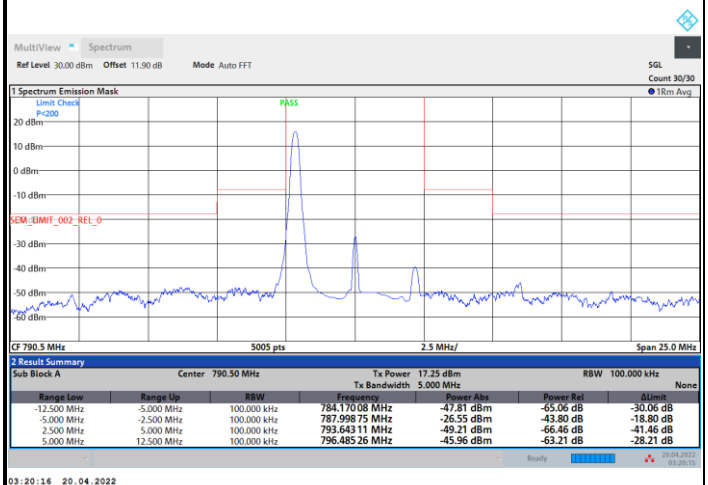

#### Full RB



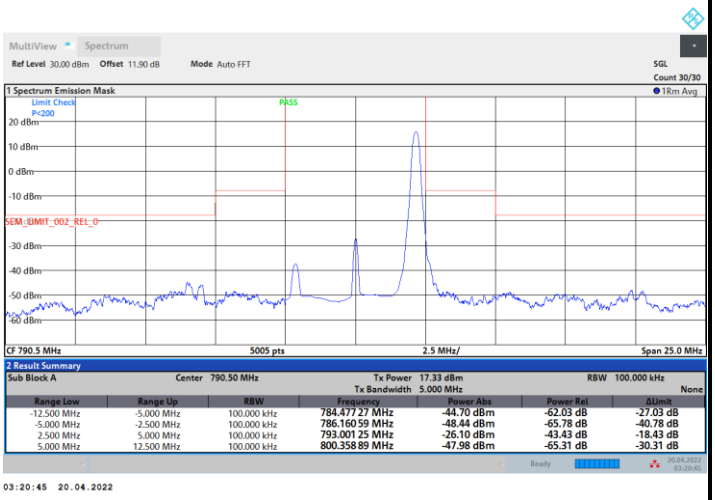
## FR1 n14 / 5MHz / DFT-S OFDM / 256QAM

### Lowest Channel

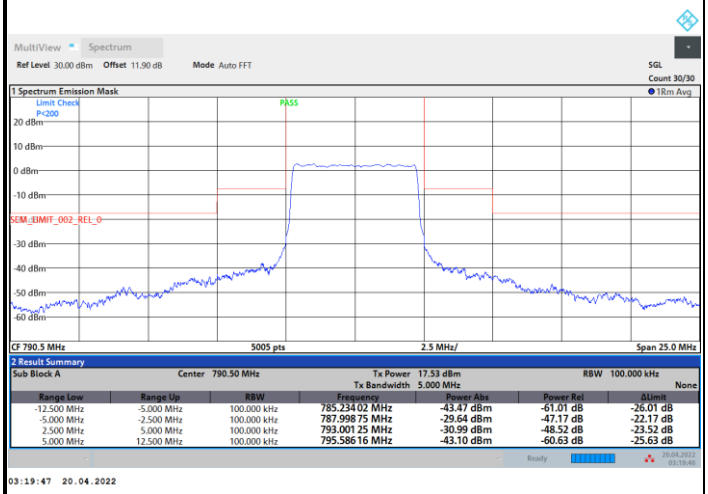
#### 1RB0




#### 1RBmax



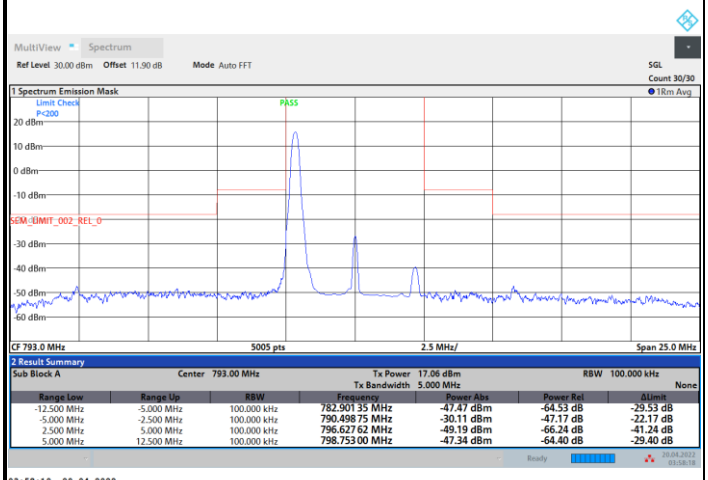

#### Full RB



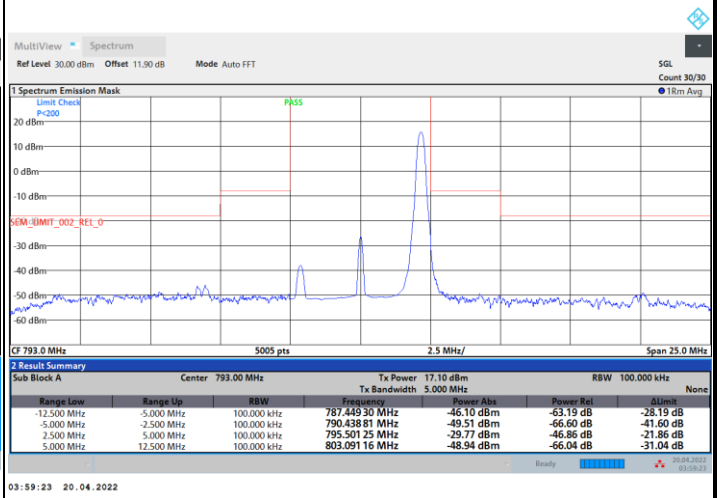
## FR1 n14 / 5MHz / DFT-S OFDM / 256QAM

### Middle Channel

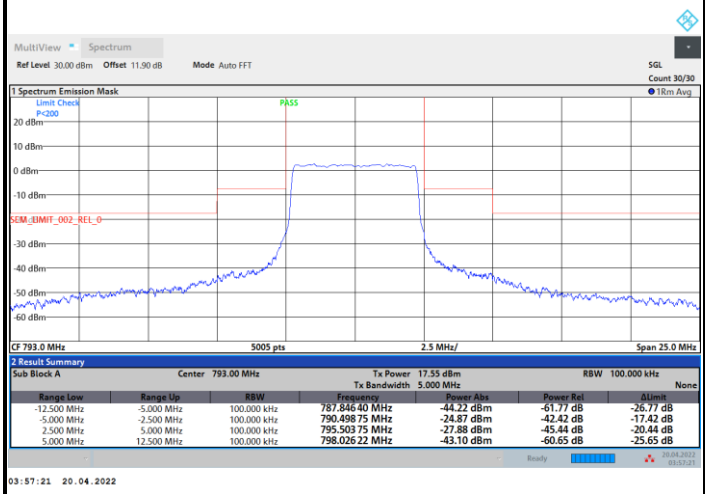
#### 1RB0




#### 1RBmax



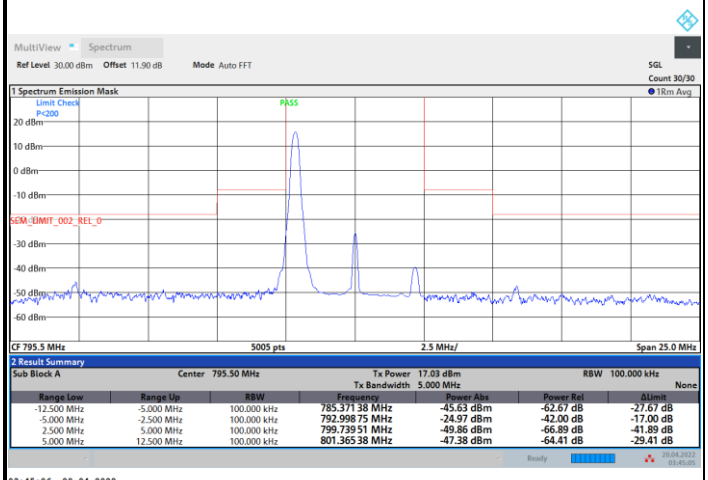

#### Full RB



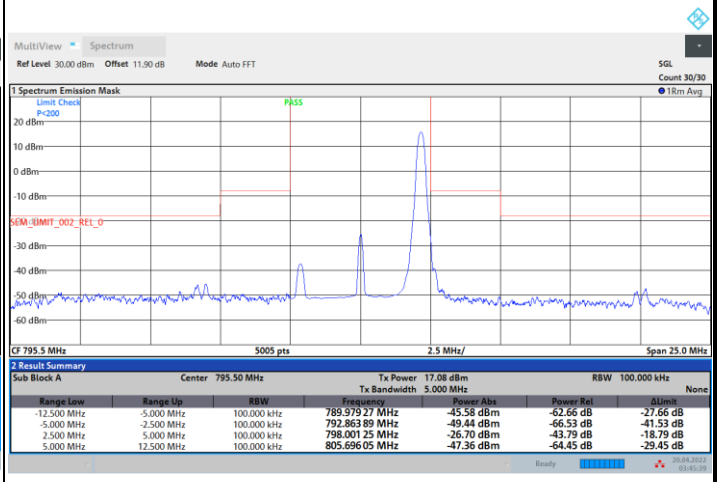
## FR1 n14 / 5MHz / DFT-S OFDM / 256QAM

### Highest Channel

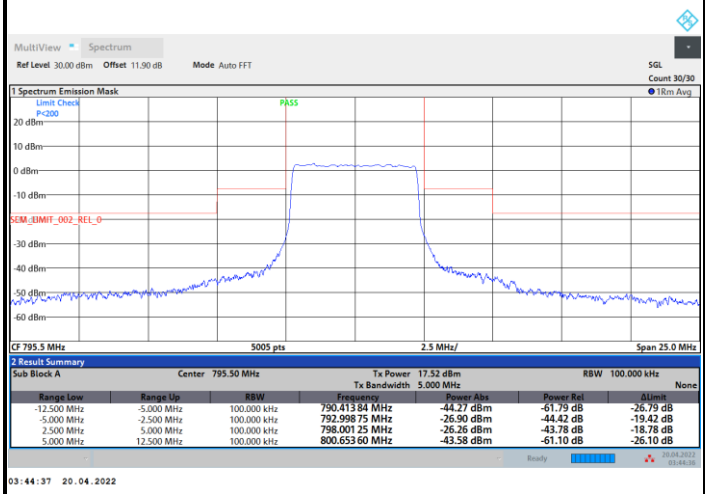
#### 1RB0

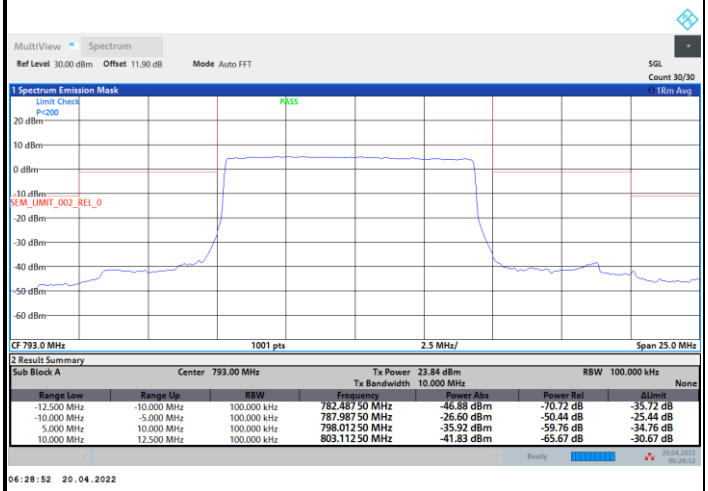



#### 1RBmax

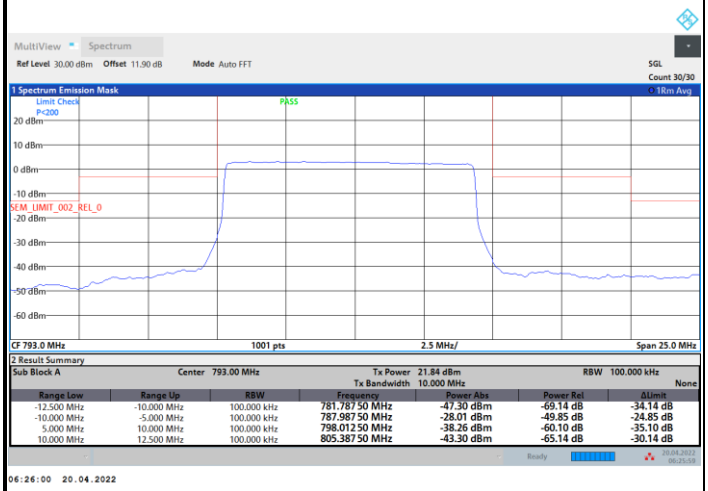


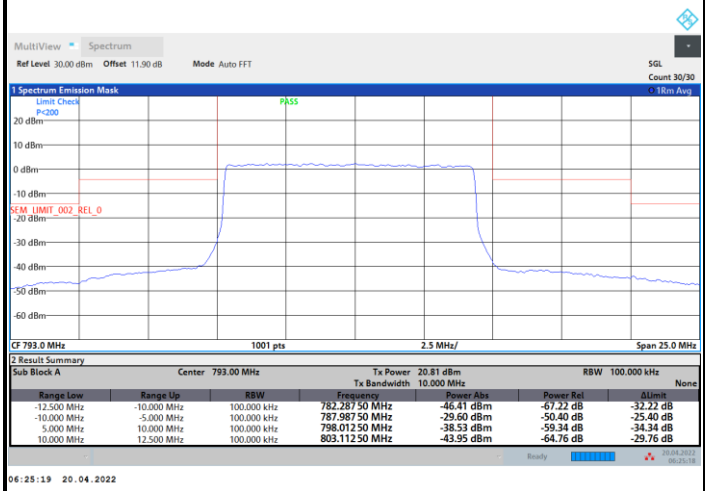

#### Full RB



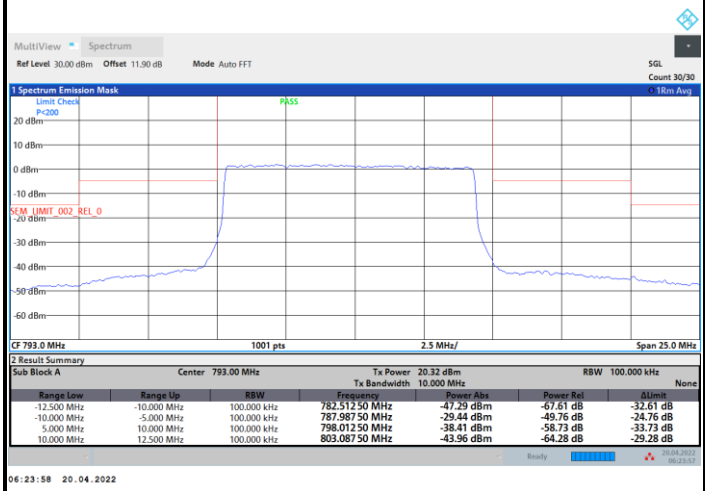
| FR1 n14 / 10MHz / DFT-S OFDM / BPSK | |
|---|---|
| Middle Channel | |
| Full RB | |
|  | |

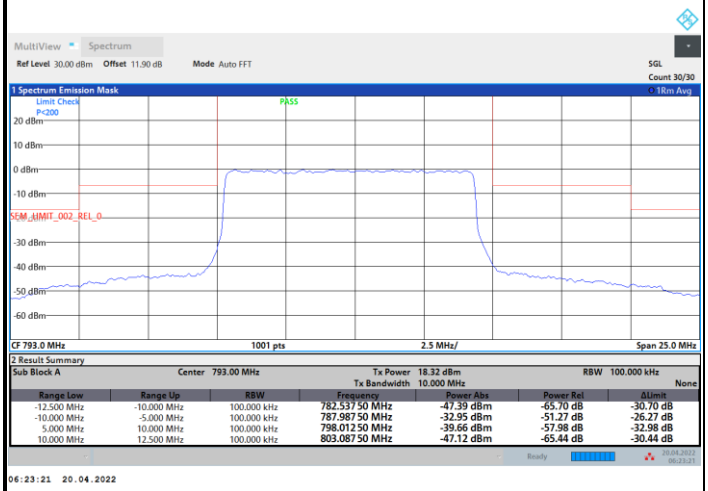


| FR1 n14 / 10MHz / DFT-S OFDM / QPSK | |
|---|---|
| Middle Channel | |
| Full RB | |
|  | |

| FR1 n14 / 10MHz / DFT-S OFDM / 16QAM | |
|---|---|
| Middle Channel | |
| Full RB | |
|  | |

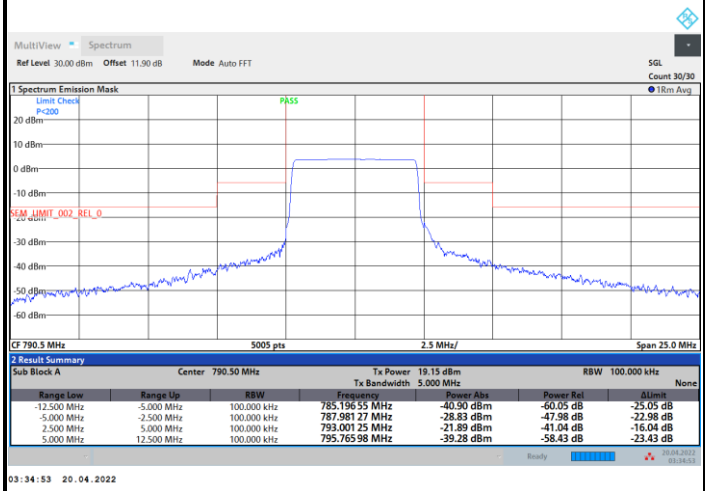


| FR1 n14 / 10MHz / DFT-S OFDM / 64QAM | |
|---|---|
| Middle Channel | |
| Full RB | |
|  | |

| FR1 n14 / 10MHz / DFT-S OFDM / 256QAM | |
|---|---|
| Middle Channel | |
| Full RB | |
|  | |

## FR1 n14 / 5MHz / CP OFDM / QPSK / Full RB

### Lowest Channel




2 Result Summary

Sub Block A Center 790.50 MHz Tx Power 19.15 dBm RBW 100.000 kHz
Tx Bandwidth 5.000 MHz None

| Range Low | Range Up | RBW | Frequency | Power Abs | Power Rel | ΔLimit |
|---|---|---|---|---|---|---|
| -12.500 MHz | -5.000 MHz | 100.000 kHz | 785.196 55 MHz | -40.90 dBm | -60.05 dB | -25.05 dB |
| -5.000 MHz | -2.500 MHz | 100.000 kHz | 787.981 27 MHz | -28.83 dBm | -47.98 dB | -22.98 dB |
| 2.500 MHz | 5.000 MHz | 100.000 kHz | 793.001 25 MHz | -21.89 dBm | -41.04 dB | -16.04 dB |
| 5.000 MHz | 12.500 MHz | 100.000 kHz | 795.765 98 MHz | -39.28 dBm | -58.43 dB | -23.43 dB |

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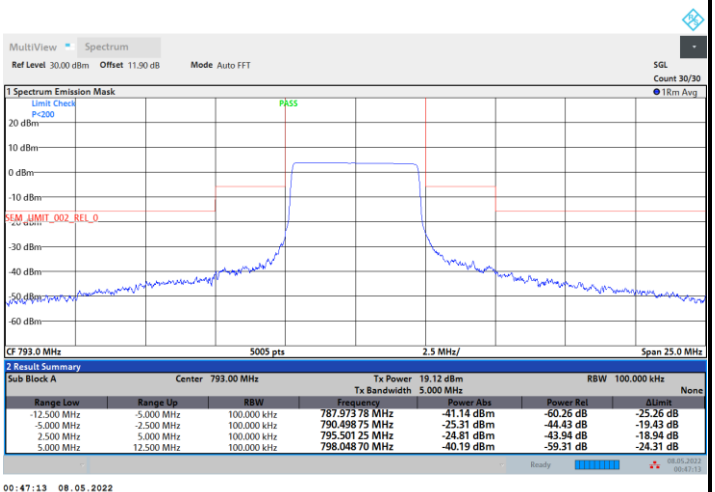
### Middle Channel




2 Result Summary

Sub Block A Center 793.00 MHz Tx Power 19.12 dBm RBW 100.000 kHz
Tx Bandwidth 5.000 MHz None

| Range Low | Range Up | RBW | Frequency | Power Abs | Power Rel | ΔLimit |
|---|---|---|---|---|---|---|
| -12.500 MHz | -5.000 MHz | 100.000 kHz | 787.973 78 MHz | -41.14 dBm | -60.26 dB | -25.26 dB |
| -5.000 MHz | -2.500 MHz | 100.000 kHz | 790.498 75 MHz | -25.31 dBm | -44.43 dB | -19.43 dB |
| 2.500 MHz | 5.000 MHz | 100.000 kHz | 795.501 25 MHz | -24.81 dBm | -43.94 dB | -18.94 dB |
| 5.000 MHz | 12.500 MHz | 100.000 kHz | 798.048 70 MHz | -40.19 dBm | -59.31 dB | -24.31 dB |

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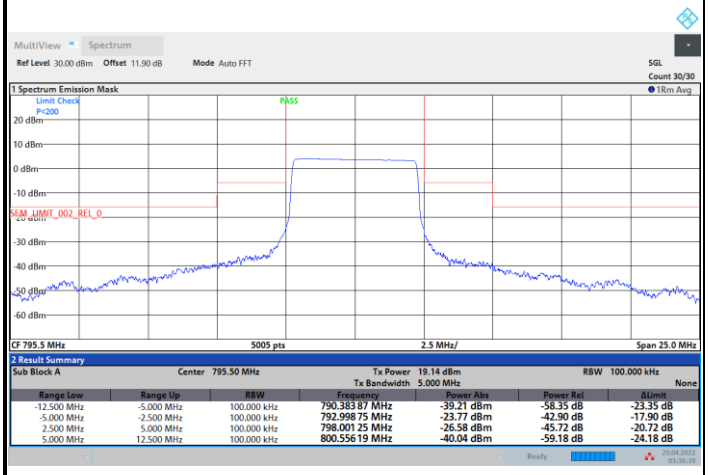
### Highest Channel



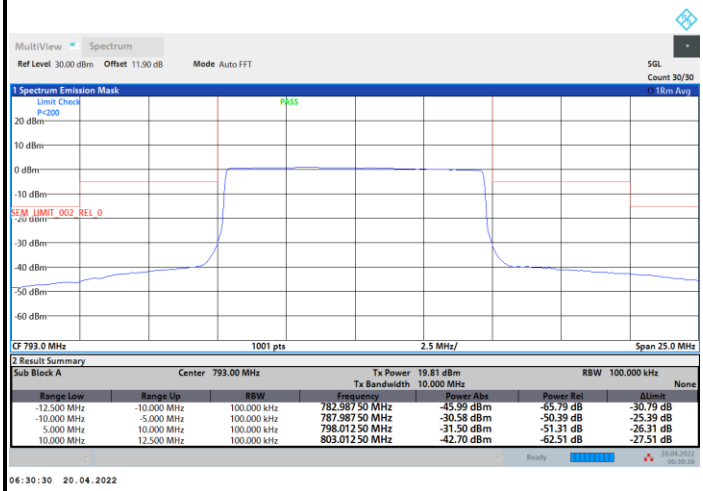

2 Result Summary

Sub Block A Center 795.50 MHz Tx Power 19.14 dBm RBW 100.000 kHz
Tx Bandwidth 5.000 MHz None

| Range Low | Range Up | RBW | Frequency | Power Abs | Power Rel | ΔLimit |
|---|---|---|---|---|---|---|
| -12.500 MHz | -5.000 MHz | 100.000 kHz | 790.383 87 MHz | -39.21 dBm | -58.35 dB | -23.35 dB |
| -5.000 MHz | -2.500 MHz | 100.000 kHz | 792.998 75 MHz | -23.77 dBm | -42.90 dB | -17.90 dB |
| 2.500 MHz | 5.000 MHz | 100.000 kHz | 798.001 25 MHz | -26.58 dBm | -45.72 dB | -20.72 dB |
| 5.000 MHz | 12.500 MHz | 100.000 kHz | 800.556 19 MHz | -40.04 dBm | -59.18 dB | -24.18 dB |

03:36:39 20.04.2022

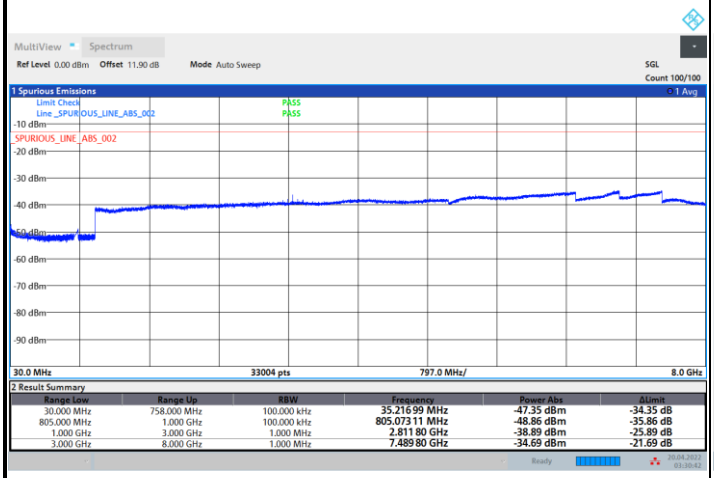
| FR1 n14 / 10MHz / CP OFDM / QPSK / Full RB | |
|---|---|
| **Middle Channel** | |



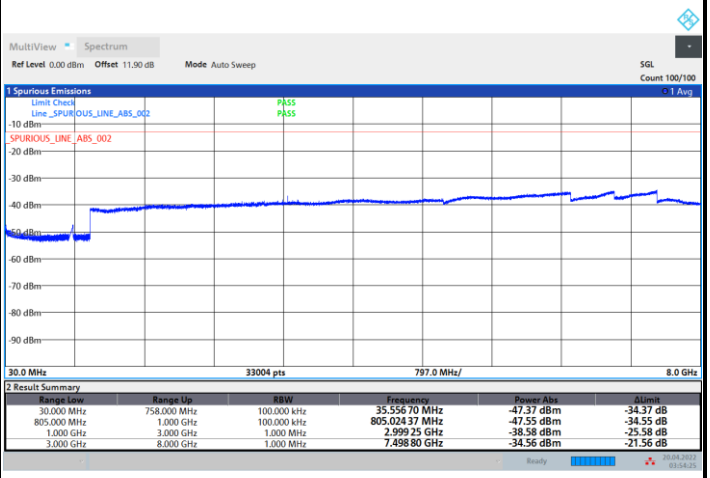
# Conducted Spurious Emission

## FR1 n14 / 5MHz / DFT-S OFDM / QPSK / 1RB1

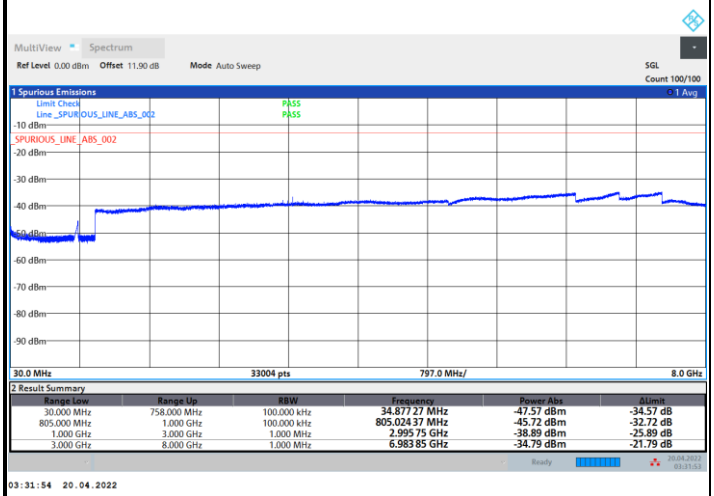
### Lowest Channel




### Middle Channel




### Highest Channel



# Frequency Stability

| Test Conditions | | FR1 n14 (BPSK) / Middle Channel | Limit |
|---|---|---|---|
| Temperature (°C) | Voltage (Volt) | BW 10MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0059 | PASS |
| 40 | Normal Voltage | 0.0030 | |
| 30 | Normal Voltage | 0.0007 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0008 | |
| 0 | Normal Voltage | 0.0023 | |
| -10 | Normal Voltage | 0.0050 | |
| -20 | Normal Voltage | 0.0046 | |
| -30 | Normal Voltage | 0.0006 | |
| 20 | Maximum Voltage | 0.0021 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0034 | |

**Note:**

1. Normal Voltage = 3.86 V.；Battery End Point (BEP) = 3.40 V.；Maximum Voltage = 4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

# Appendix B. Test Results of Radiated Test

**<Primary Antenna>**

## 5G NR n14

| 5G NR n14 /5M / BPSK | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Margin ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Lowest | 1576 | -62.17 | -42.15 | -20.02 | -71.99 | -64.11 | 4.82 | 8.91 | H |
| | 2360 | -65.21 | -13 | -52.21 | -77.83 | -67.64 | 5.92 | 10.50 | H |
| | 3152 | -62.33 | -13 | -49.33 | -78.85 | -63.91 | 6.87 | 10.61 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 1576 | -63.33 | -42.15 | -21.18 | -72.97 | -65.27 | 4.82 | 8.91 | V |
| | 2360 | -64.94 | -13 | -51.94 | -77.60 | -67.37 | 5.92 | 10.50 | V |
| | 3152 | -62.33 | -13 | -49.33 | -78.57 | -63.91 | 6.87 | 10.61 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| Middle | 1584 | -62.83 | -42.15 | -20.68 | -72.67 | -64.82 | 4.83 | 8.97 | H |
| | 2367 | -65.33 | -13 | -52.33 | -77.96 | -67.75 | 5.93 | 10.50 | H |
| | 3168 | -61.84 | -13 | -48.84 | -78.43 | -63.47 | 6.89 | 10.67 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 1584 | -63.76 | -42.15 | -21.61 | -73.40 | -65.75 | 4.83 | 8.97 | V |
| | 2367 | -64.48 | -13 | -51.48 | -77.16 | -66.90 | 5.93 | 10.50 | V |
| | 3168 | -62.20 | -13 | -49.20 | -78.51 | -63.83 | 6.89 | 10.67 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Highest | 1584 | -62.60 | -42.15 | -20.45 | -72.44 | -64.59 | 4.83 | 8.97 | H |
| | 2376 | -64.92 | -13 | -51.92 | -77.56 | -67.33 | 5.94 | 10.50 | H |
| | 3168 | -62.12 | -13 | -49.12 | -78.71 | -63.75 | 6.89 | 10.67 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 1584 | -62.69 | -42.15 | -20.54 | -72.33 | -64.68 | 4.83 | 8.97 | V |
| | 2376 | -64.97 | -13 | -51.97 | -77.65 | -67.38 | 5.94 | 10.50 | V |
| | 3168 | -62.46 | -13 | -49.46 | -78.77 | -64.09 | 6.89 | 10.67 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

| 5G NR n14 /10M / BPSK | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Margin ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle | 1576 | -65.52 | -42.15 | -23.37 | -75.34 | -67.46 | 4.82 | 8.91 | H |
| | 2368 | -53.95 | -13 | -40.95 | -66.58 | -56.37 | 5.93 | 10.50 | H |
| | 3152 | -62.32 | -13 | -49.32 | -78.84 | -63.90 | 6.87 | 10.61 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 1576 | -63.14 | -42.15 | -20.99 | -72.78 | -65.08 | 4.82 | 8.91 | V |
| | 2368 | -53.48 | -13 | -40.48 | -66.15 | -55.90 | 5.93 | 10.50 | V |
| | 3152 | -62.68 | -13 | -49.68 | -78.92 | -64.26 | 6.87 | 10.61 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**<ASDIV Antenna>**

# 5G NR n14

| 5G NR n14 / 5MHz / BPSK | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Margin ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Lowest | 1576 | -60.99 | -42.15 | -18.84 | -70.81 | -62.93 | 4.82 | 8.91 | H |
| | 2368 | -65.08 | -13 | -52.08 | -77.71 | -67.50 | 5.93 | 10.50 | H |
| | 3154 | -61.93 | -13 | -48.93 | -78.46 | -63.52 | 6.88 | 10.62 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 1576 | -62.68 | -42.15 | -20.53 | -72.32 | -64.62 | 4.82 | 8.91 | V |
| | 2368 | -64.08 | -13 | -51.08 | -76.75 | -66.50 | 5.93 | 10.50 | V |
| | 3154 | -62.84 | -13 | -49.84 | -79.09 | -64.43 | 6.88 | 10.62 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| Middle | 1584 | -62.60 | -42.15 | -20.45 | -72.44 | -64.59 | 4.83 | 8.97 | H |
| | 2376 | -64.35 | -13 | -51.35 | -76.99 | -66.76 | 5.94 | 10.50 | H |
| | 3168 | -62.01 | -13 | -49.01 | -78.60 | -63.64 | 6.89 | 10.67 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 1584 | -62.71 | -42.15 | -20.56 | -72.35 | -64.70 | 4.83 | 8.97 | V |
| | 2376 | -63.76 | -13 | -50.76 | -76.44 | -66.17 | 5.94 | 10.50 | V |
| | 3168 | -62.14 | -13 | -49.14 | -78.45 | -63.77 | 6.89 | 10.67 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Highest | 1587 | -63.94 | -42.15 | -21.79 | -73.78 | -65.95 | 4.84 | 9.00 | H |
| | 2380 | -64.96 | -13 | -51.96 | -77.61 | -67.36 | 5.95 | 10.50 | H |
| | 3174 | -62.24 | -13 | -49.24 | -78.86 | -63.89 | 6.90 | 10.70 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 1587 | -61.80 | -42.15 | -19.65 | -71.43 | -63.81 | 4.84 | 9.00 | V |
| | 2380 | -63.64 | -13 | -50.64 | -76.33 | -66.04 | 5.95 | 10.50 | V |
| | 3174 | -62.07 | -13 | -49.07 | -78.42 | -63.72 | 6.90 | 10.70 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

| 5G NR n14 / 10MHz / BPSK | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | ERP ( dBm ) | Limit ( dBm ) | Margin ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Middle | 1576 | -65.52 | -42.15 | -23.37 | -75.34 | -67.46 | 4.82 | 8.91 | H |
| | 2368 | -56.95 | -13 | -43.95 | -69.58 | -59.37 | 5.93 | 10.50 | H |
| | 3160 | -61.79 | -13 | -48.79 | -78.35 | -63.40 | 6.88 | 10.64 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 1576 | -66.14 | -42.15 | -23.99 | -75.78 | -68.08 | 4.82 | 8.91 | V |
| | 2368 | -57.48 | -13 | -44.48 | -70.15 | -59.90 | 5.93 | 10.50 | V |
| | 3160 | -62.24 | -13 | -49.24 | -78.52 | -63.85 | 6.88 | 10.64 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

———THE END———