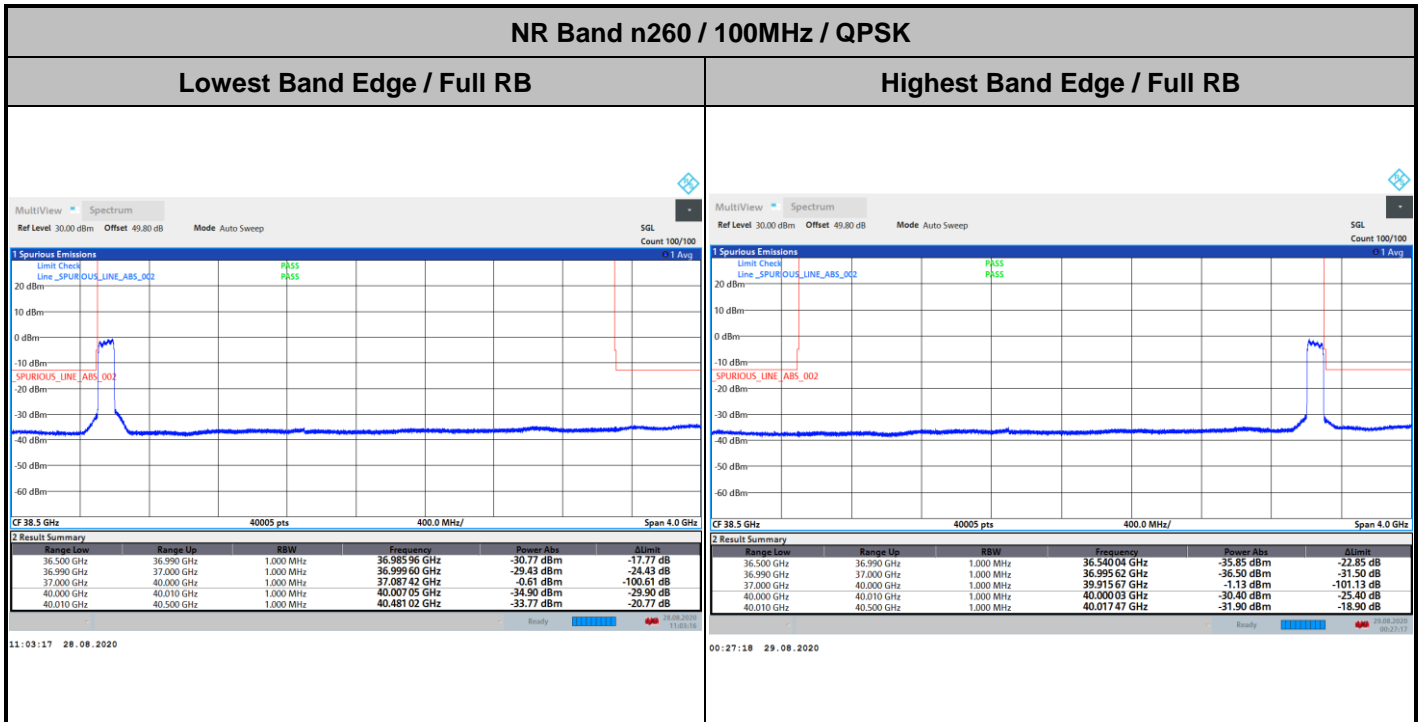
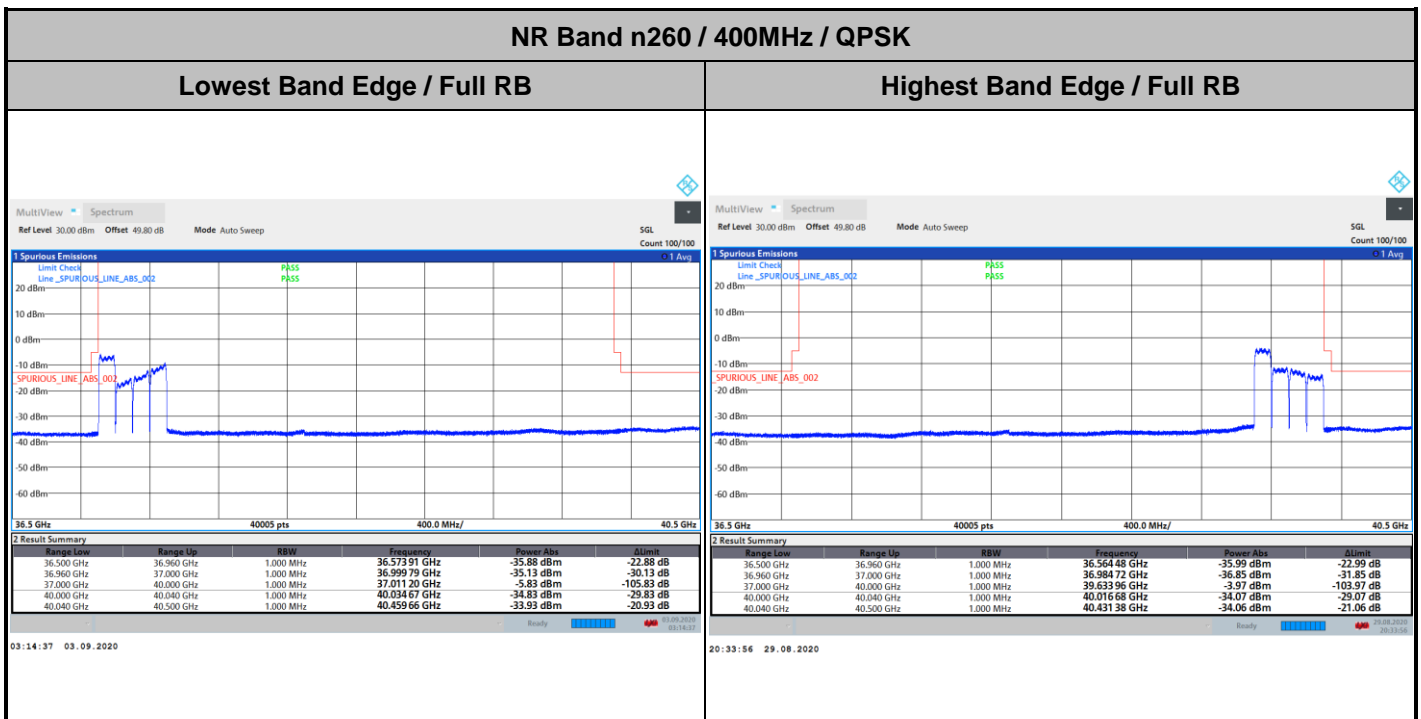




CP-OFDM Module 2



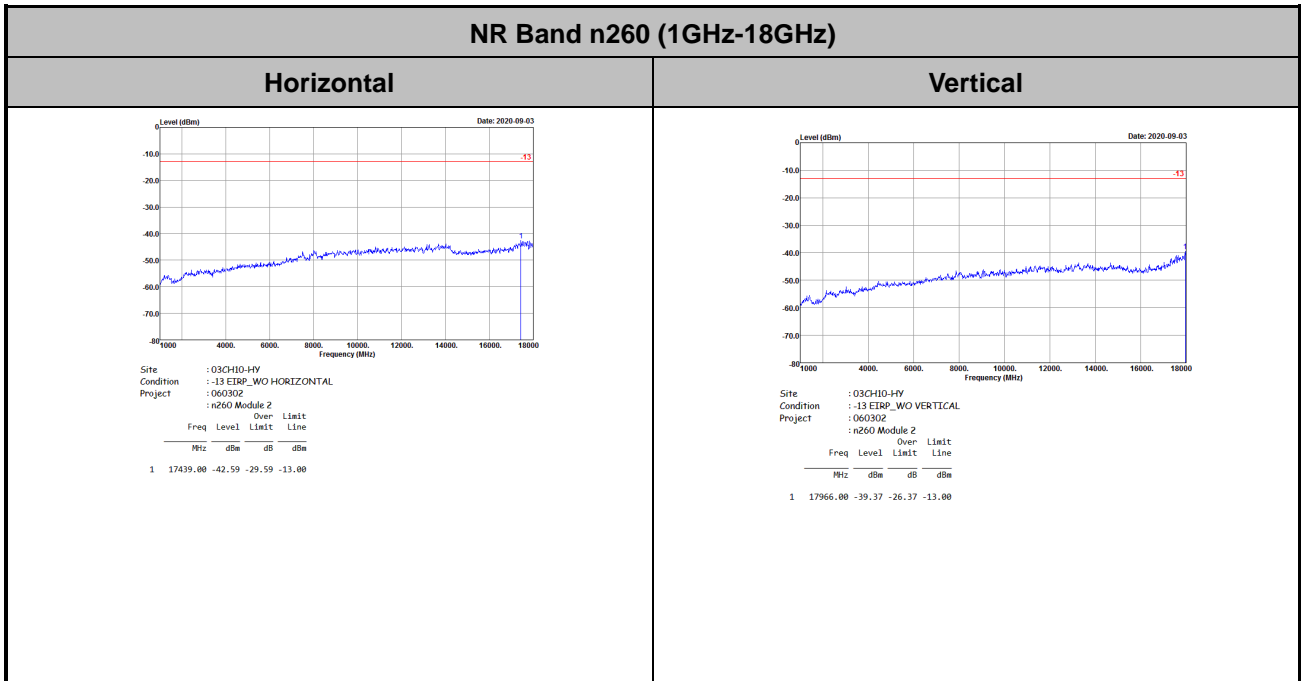
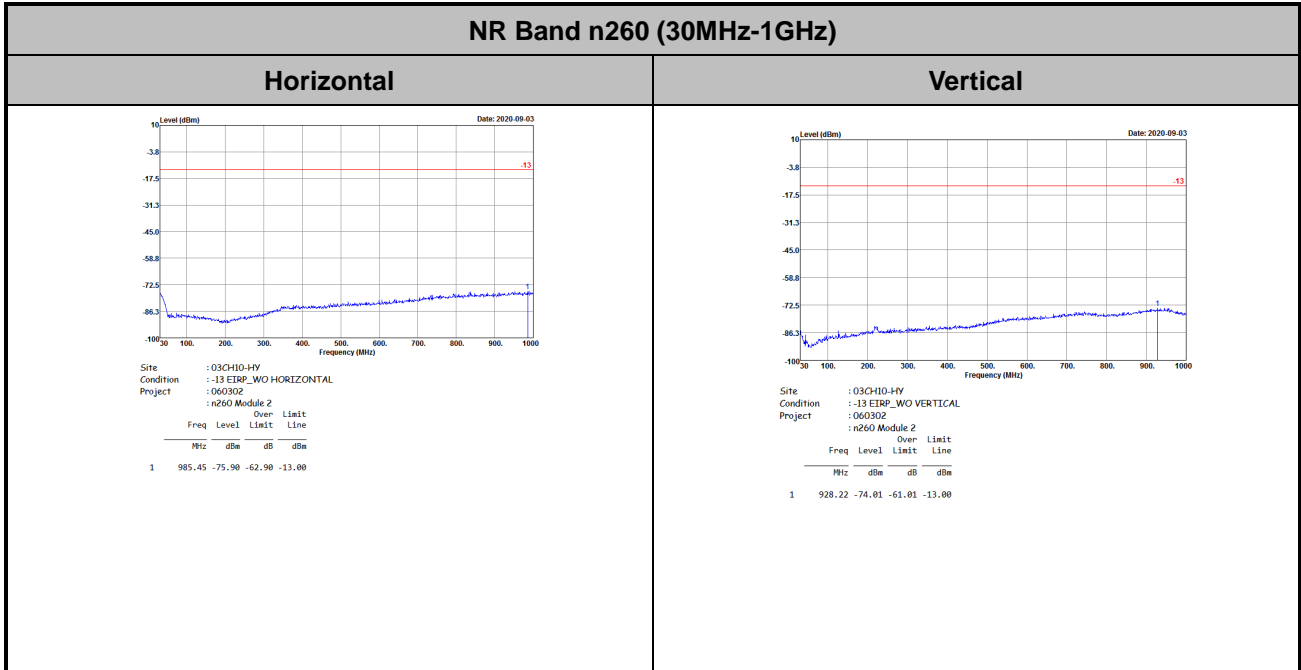
CP-OFDM Module 2





# Spurious Emission

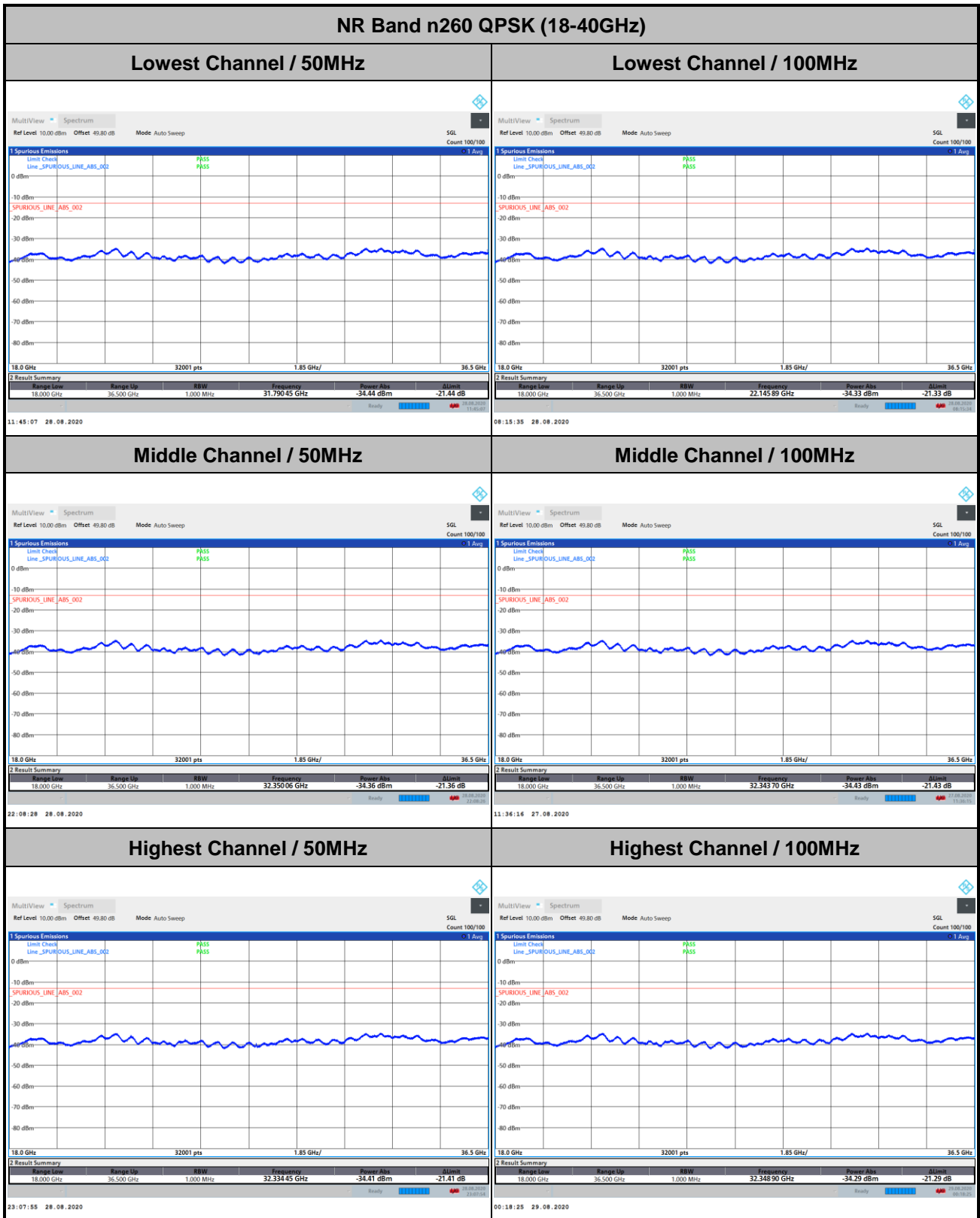
There is no significant spurious emission signal found for frequency started from 30MHz up to 18GHz. Only the noise floor is reported.





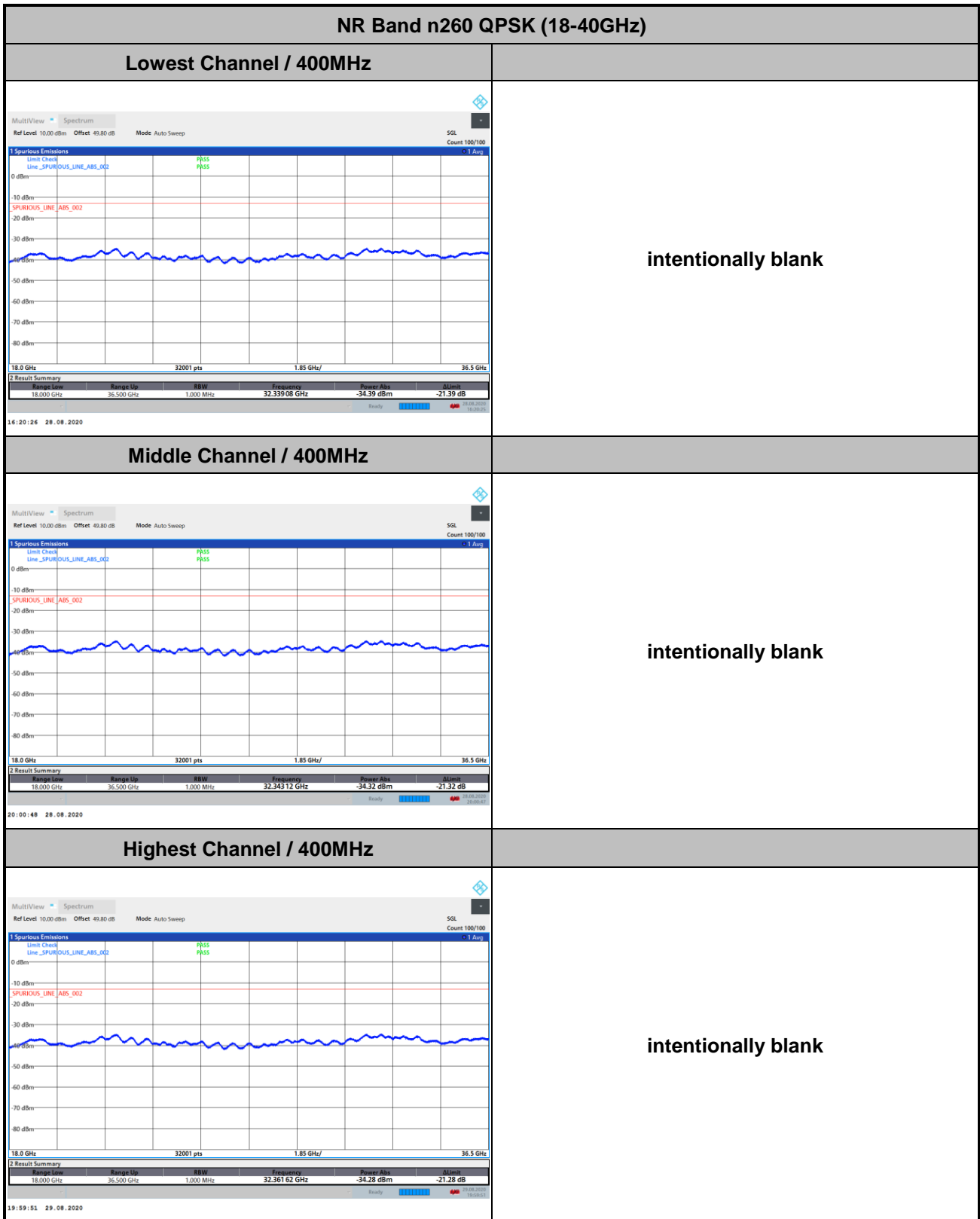
Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

DFT-s-OFDM Module 2





DFT-s-OFDM Module 2





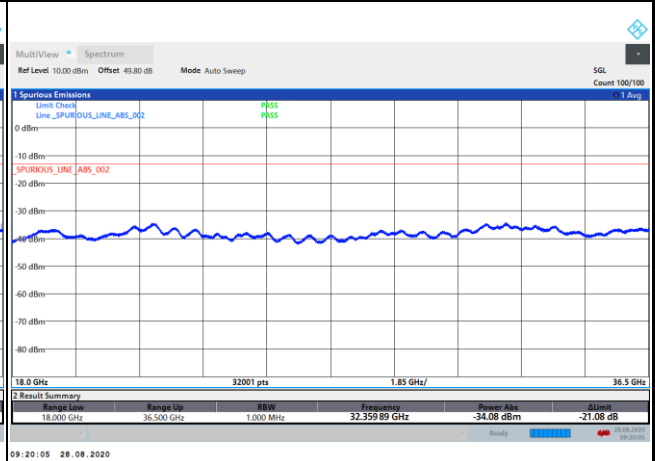
CP-OFDM Module 2

NR Band n260 QPSK (18-40GHz)

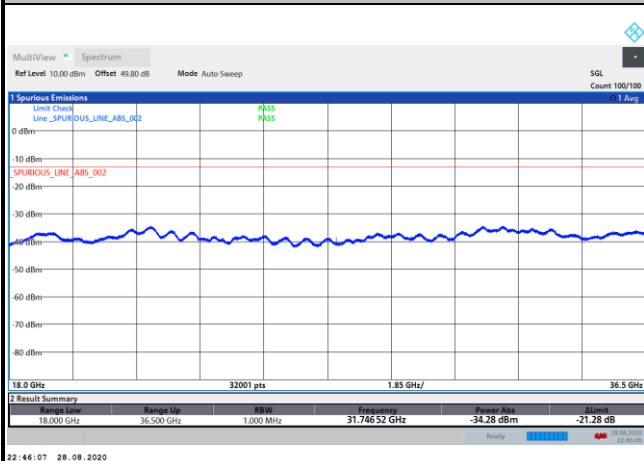
Lowest Channel / 50MHz



Lowest Channel / 100MHz



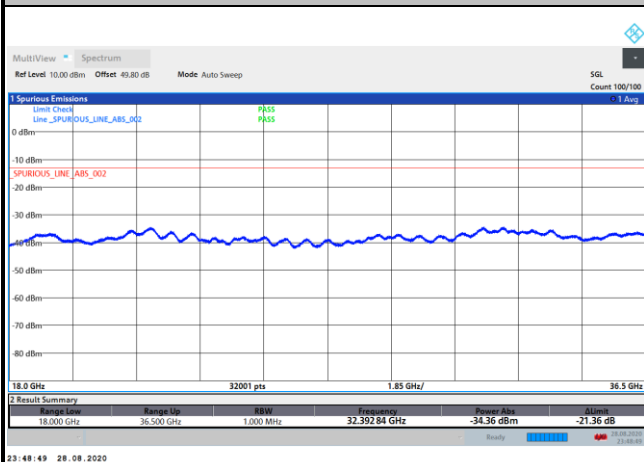
Middle Channel / 50MHz



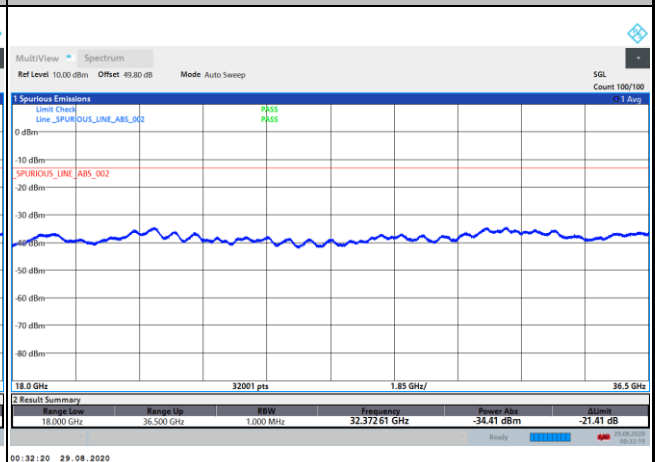
Middle Channel / 100MHz



Highest Channel / 50MHz

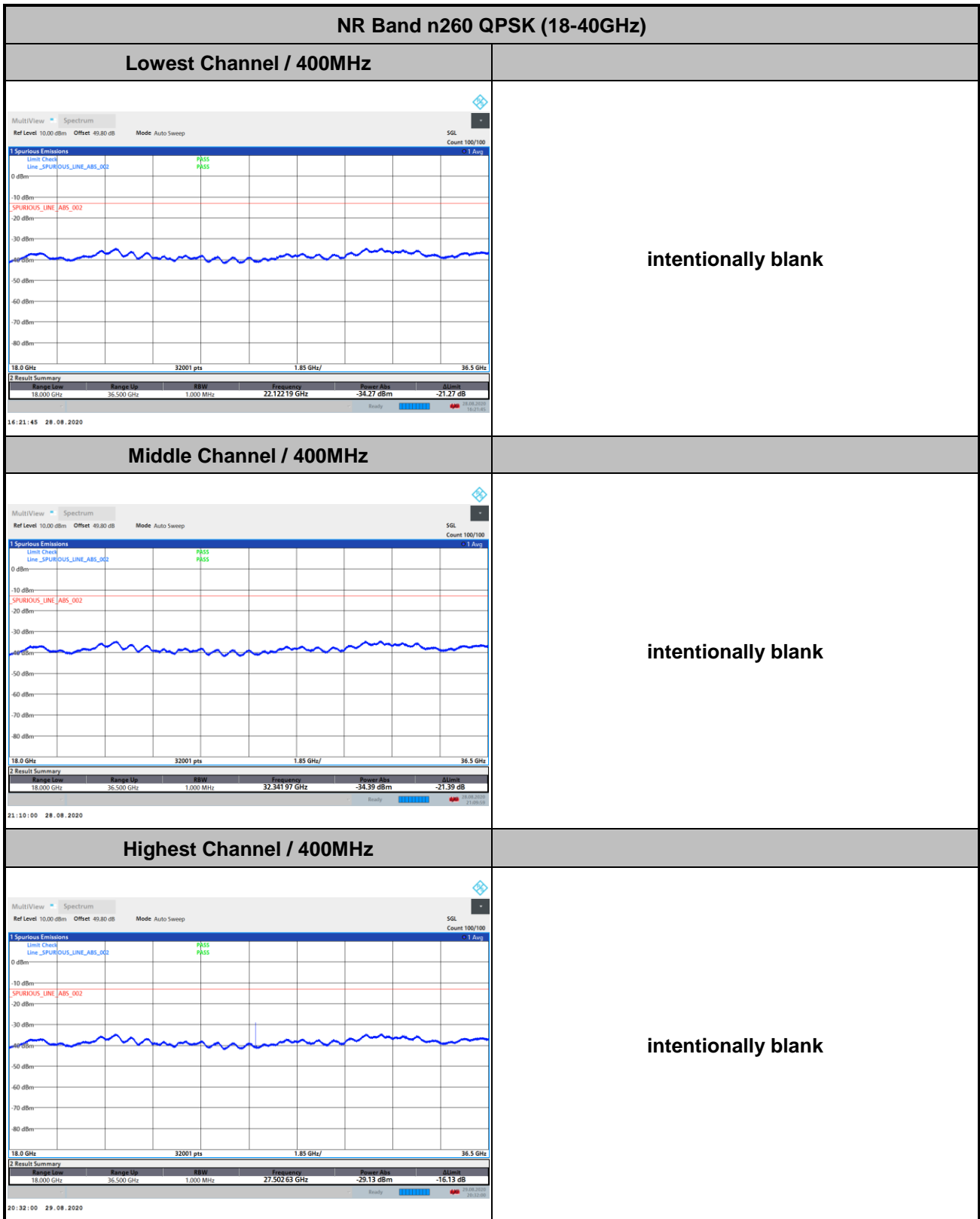


Highest Channel / 100MHz



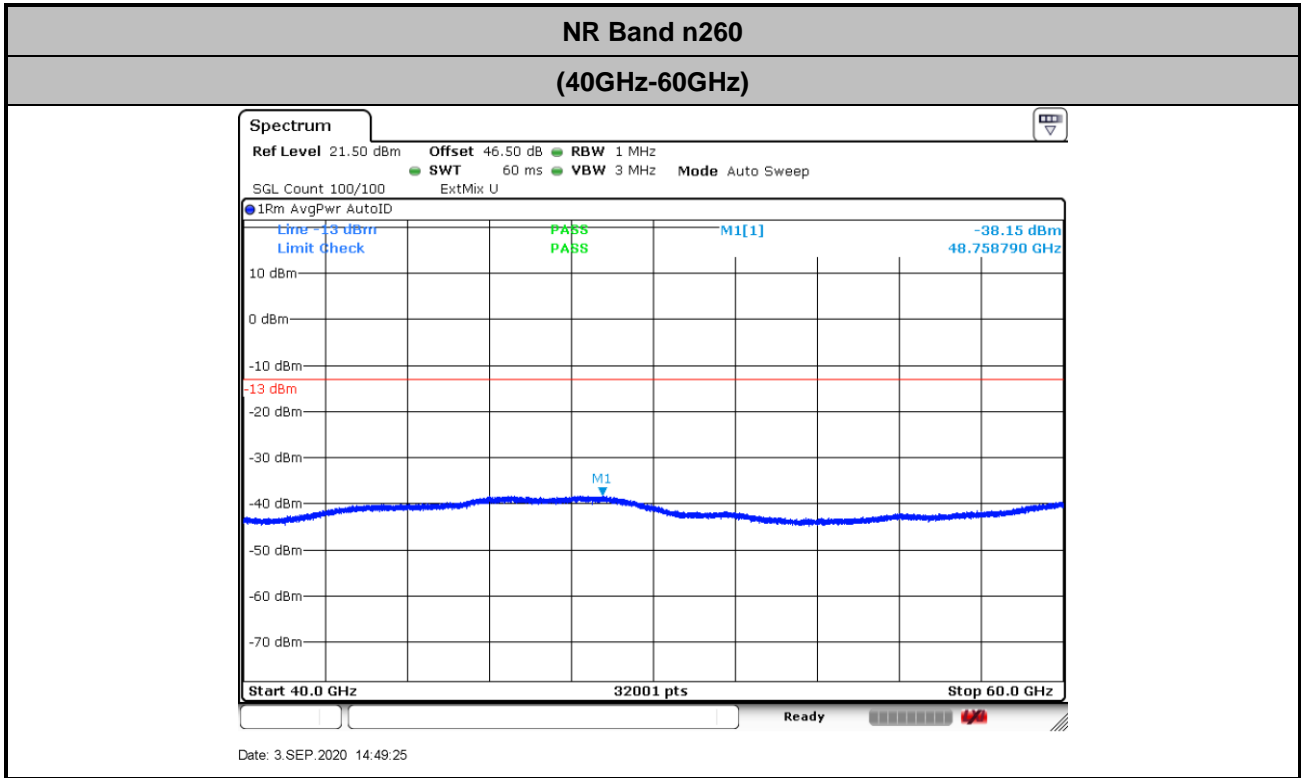


CP-OFDM Module 2

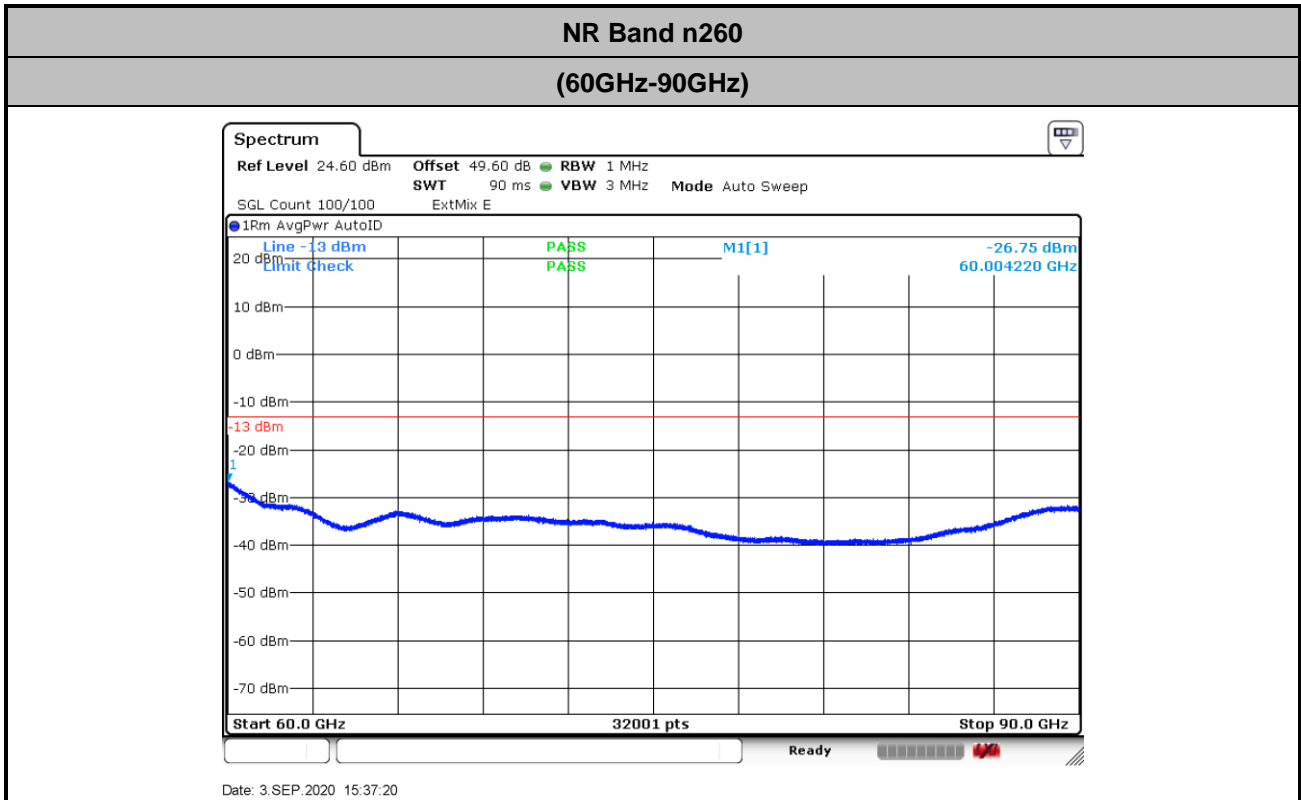




There is no significant spurious emission signal found for frequency started from 40GHz up to 200GHz. Only the noise floor is reported.

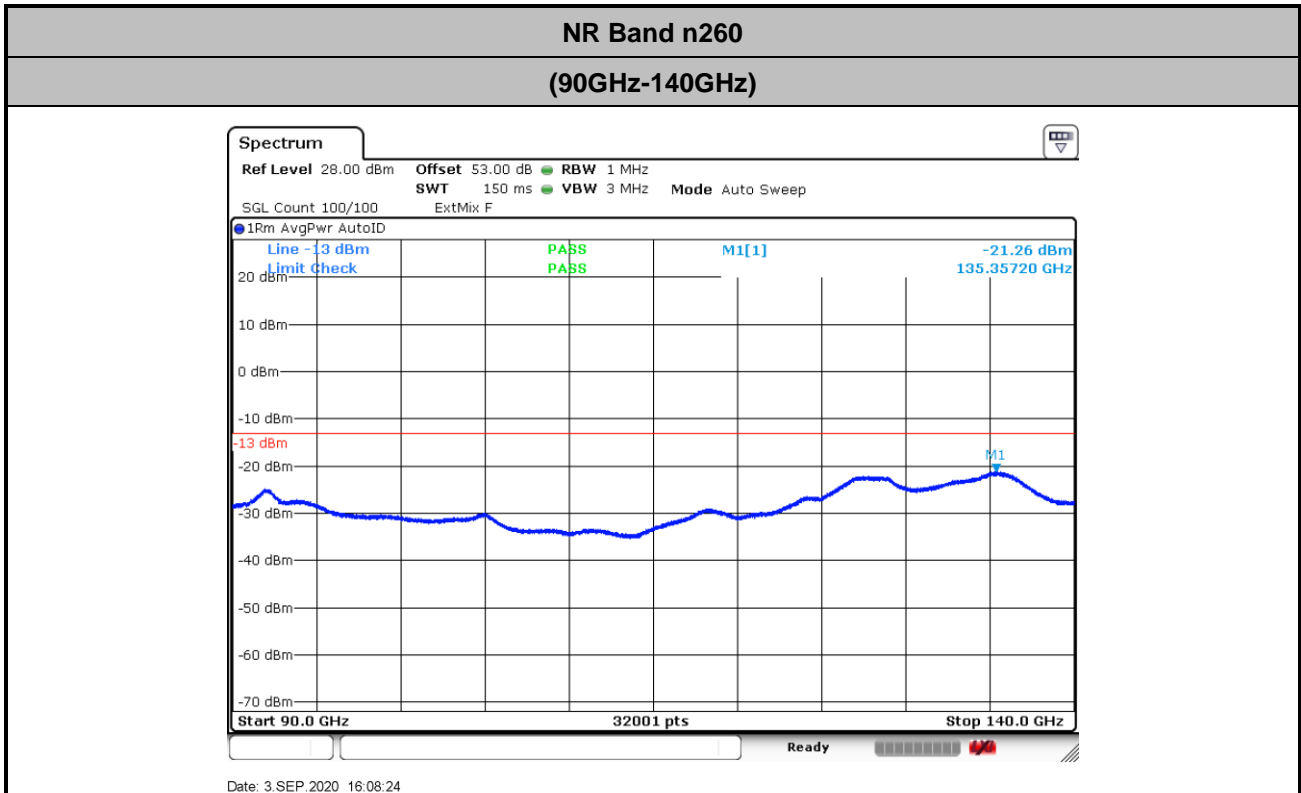


$$\begin{aligned} \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\ &= 42.1 + 2.2 + 107 + 20\log(1) - 104.8 = 46.5 \text{ (dB)} \end{aligned}$$



$$\begin{aligned}
 \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\
 &= 45.4 + 2 + 107 + 20\log(1) - 104.8 = 49.6 \text{ (dB)}
 \end{aligned}$$





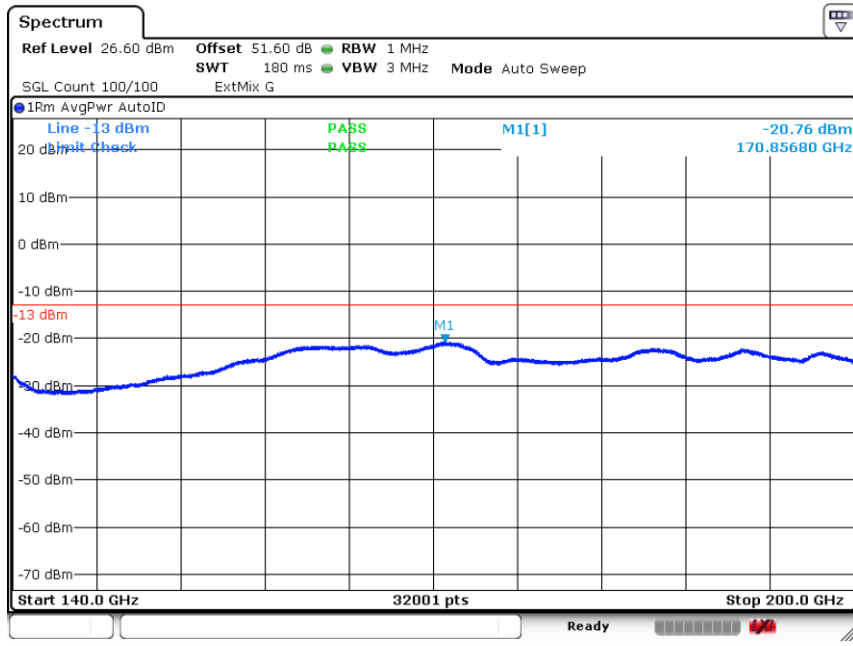
$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$

$$= 48.8 + 2 + 107 + 20\log(1) - 104.8 = 53 \text{ (dB)}$$



NR Band n260

(140GHz-200GHz)



Date: 3.SEP.2020 16:16:58

$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$

$$= 53.4 + 2 + 107 + 20\log(0.5) - 104.8 = 51.6 \text{ (dB)}$$



NR Band n260 Module 2 AG1

**Occupied Bandwidth**

| Mode       | DFT-s-OFDM Module 2 NR Band n260 : 99%OBW(MHz) |       |       |        |       |       |        |        |        |
|------------|--|-------|-------|--------|-------|-------|--------|--------|--------|
| BW         | 50MHz  |       |       | 100MHz |       |       | 400MHz |        |        |
| Mod.       | QPSK   | 16QAM | 64QAM | QPSK   | 16QAM | 64QAM | QPSK   | 16QAM  | 64QAM  |
| Lowest CH  | 45.31  | -     | -     | 90.63  | -     | -     | 387.54 | -      | -      |
| Middle CH  | 45.19  | 45.38 | 45.19 | 90.72  | 90.44 | 90.46 | 387.45 | 387.08 | 381.82 |
| Highest CH | 45.26  | -     | -     | 90.63  | -     | -     | 389.86 | -      | -      |

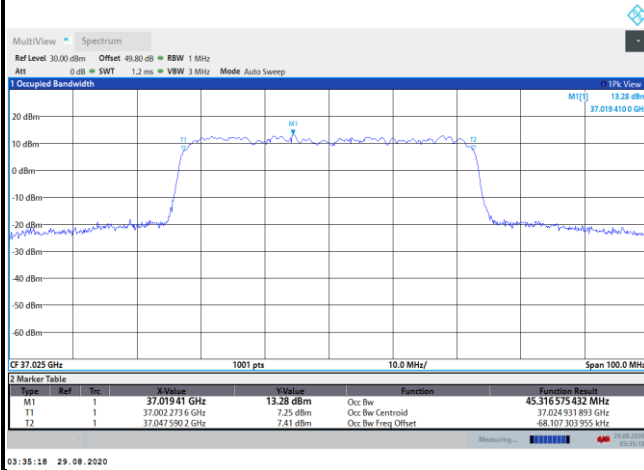
| Mode       | CP-OFDM Module 2 NR Band n260 : 99%OBW(MHz) |       |       |        |       |       |        |        |        |
|------------|---|-------|-------|--------|-------|-------|--------|--------|--------|
| BW         | 50MHz                                       |       |       | 100MHz |       |       | 400MHz |        |        |
| Mod.       | QPSK  | 16QAM | 64QAM | QPSK   | 16QAM | 64QAM | QPSK   | 16QAM  | 64QAM  |
| Lowest CH  | 45.45                                       | -     | -     | 92.68  | -     | -     | 387.04 | -      | -      |
| Middle CH  | 45.27                                       | 45.14 | 45.28 | 92.97  | 92.89 | 93.36 | 388.17 | 382.70 | 389.40 |
| Highest CH | 45.41                                       | -     | -     | 92.78  | -     | -     | 394.56 | -      | -      |



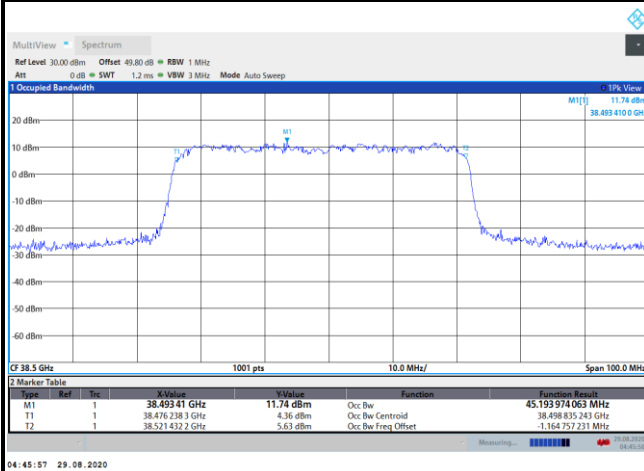
DFT-s-OFDM Module 2

NR Band n260

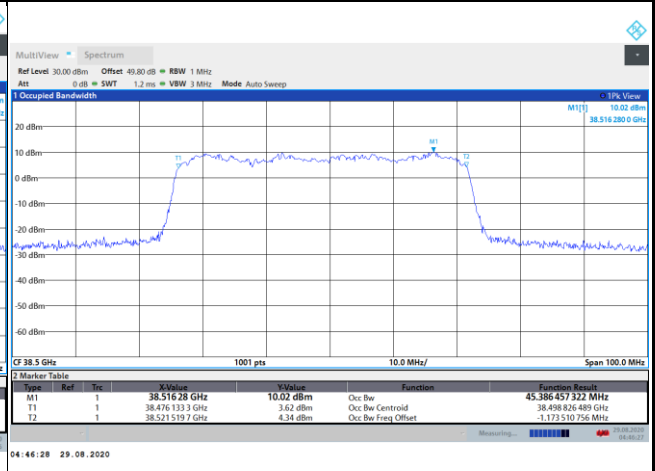
Lowest Channel / 50MHz / QPSK



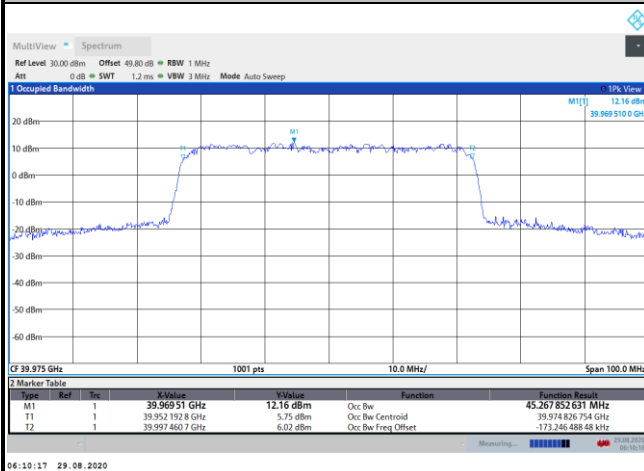
Middle Channel / 50MHz / QPSK



Middle Channel / 50MHz / 16QAM

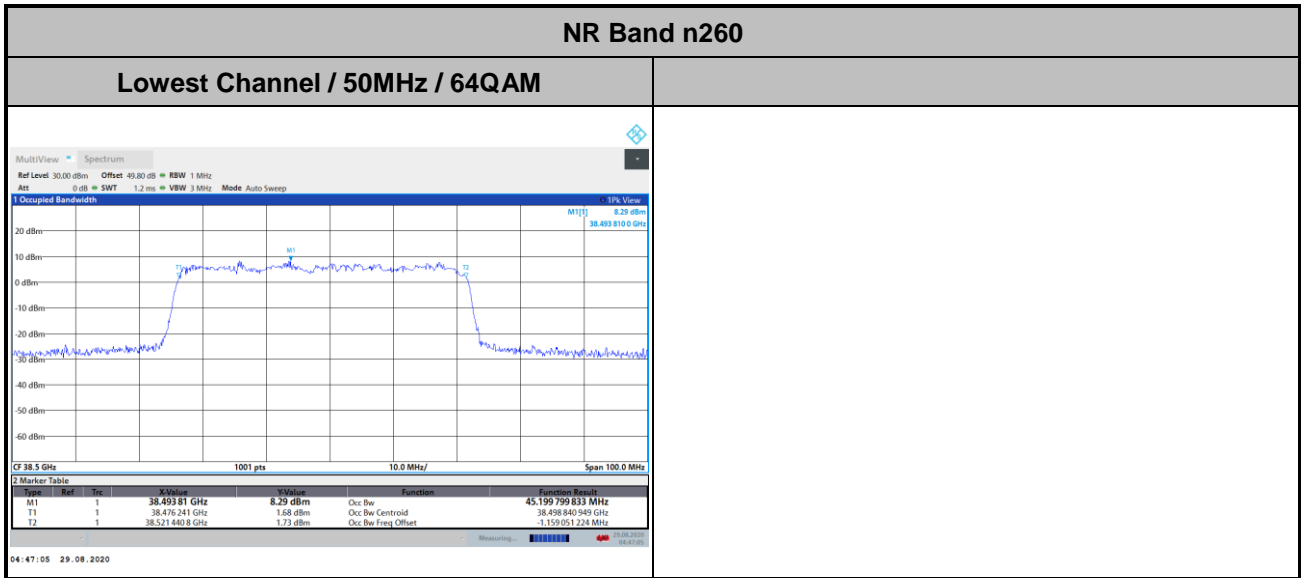


Highest Channel / 50MHz / QPSK





DFT-s-OFDM Module 2

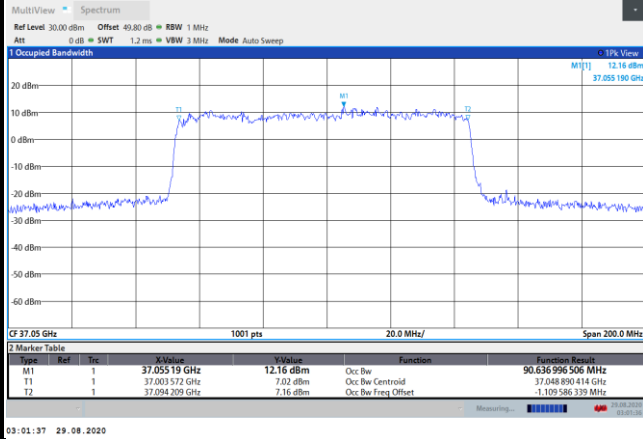




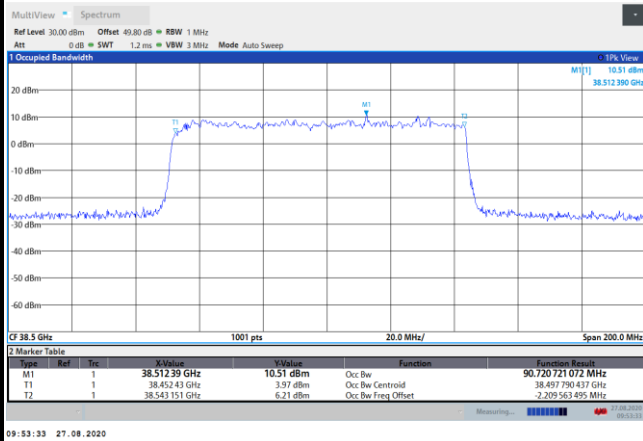
DFT-s-OFDM Module 2

NR Band n260

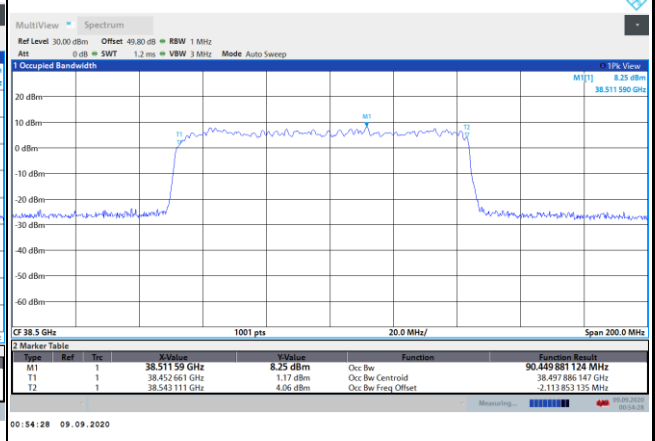
Lowest Channel / 100MHz / QPSK



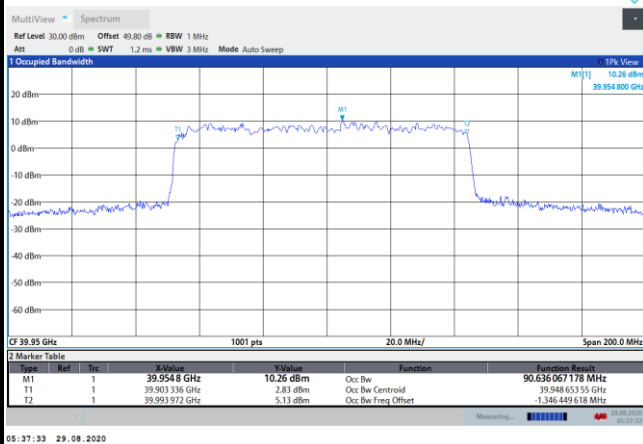
Middle Channel / 100MHz / QPSK



Middle Channel / 100MHz / 16QAM

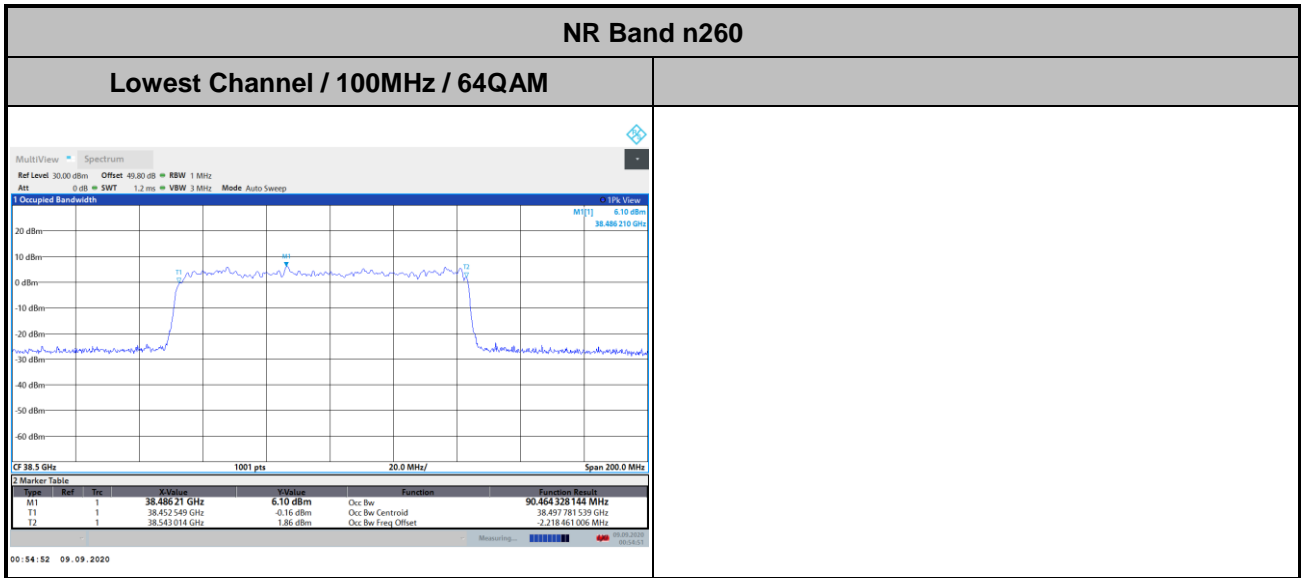


Highest Channel / 100MHz / QPSK





DFT-s-OFDM Module 2

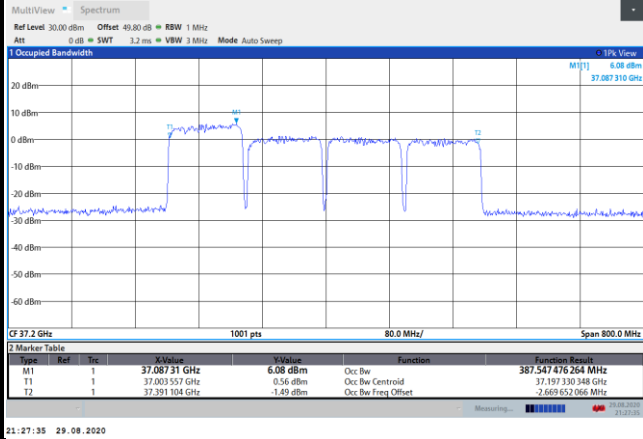




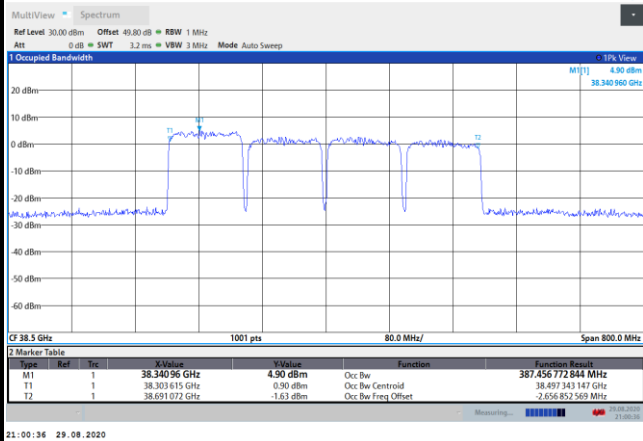
DFT-s-OFDM Module 2

NR Band n260

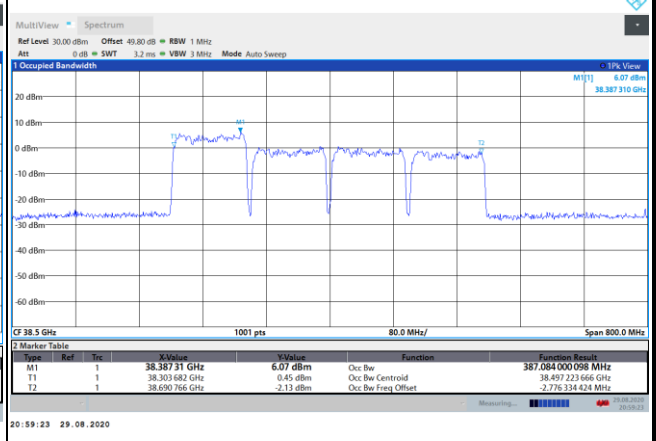
Lowest Channel / 400MHz / QPSK



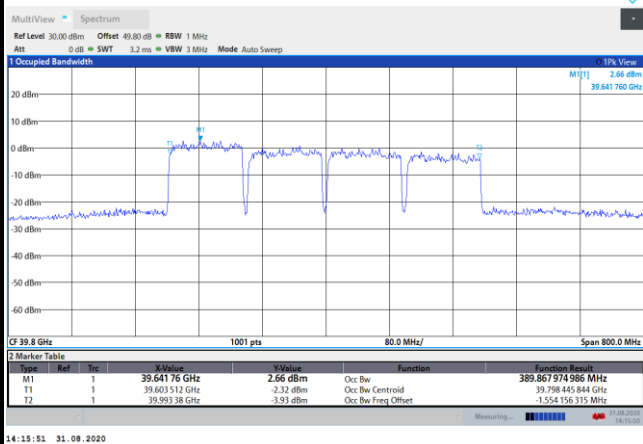
Middle Channel / 400MHz / QPSK



Middle Channel / 400MHz / 16QAM



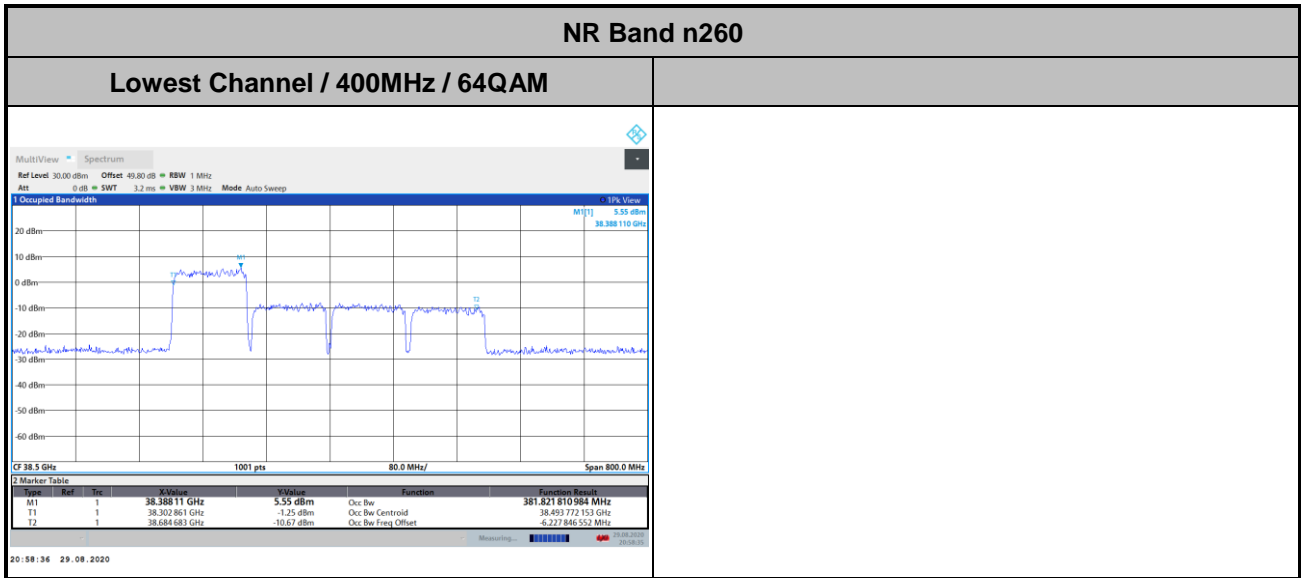
Highest Channel / 400MHz / QPSK







DFT-s-OFDM Module 2

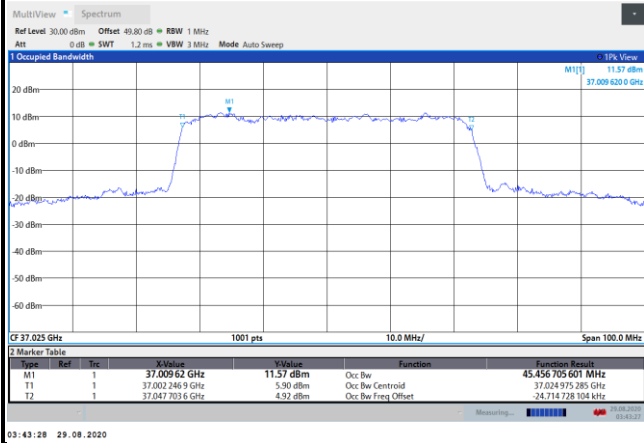




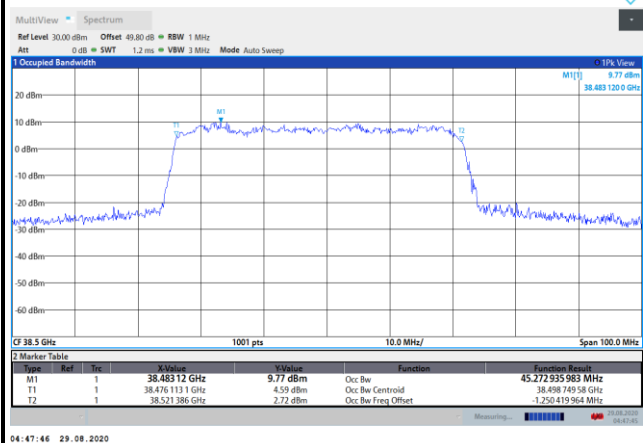
CP-OFDM Module 2

NR Band n260

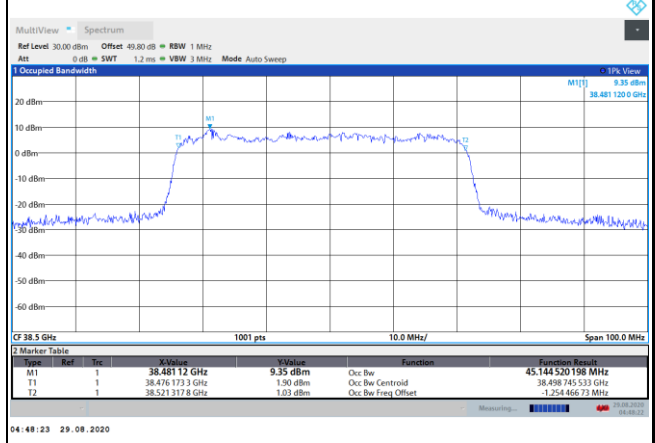
Lowest Channel / 50MHz / QPSK



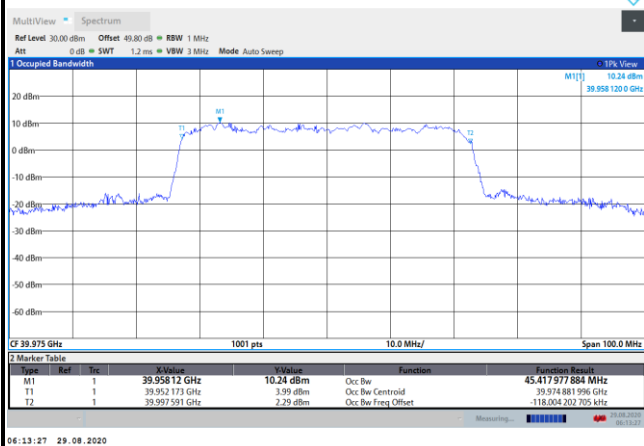
Middle Channel / 50MHz / QPSK



Middle Channel / 50MHz / 16QAM

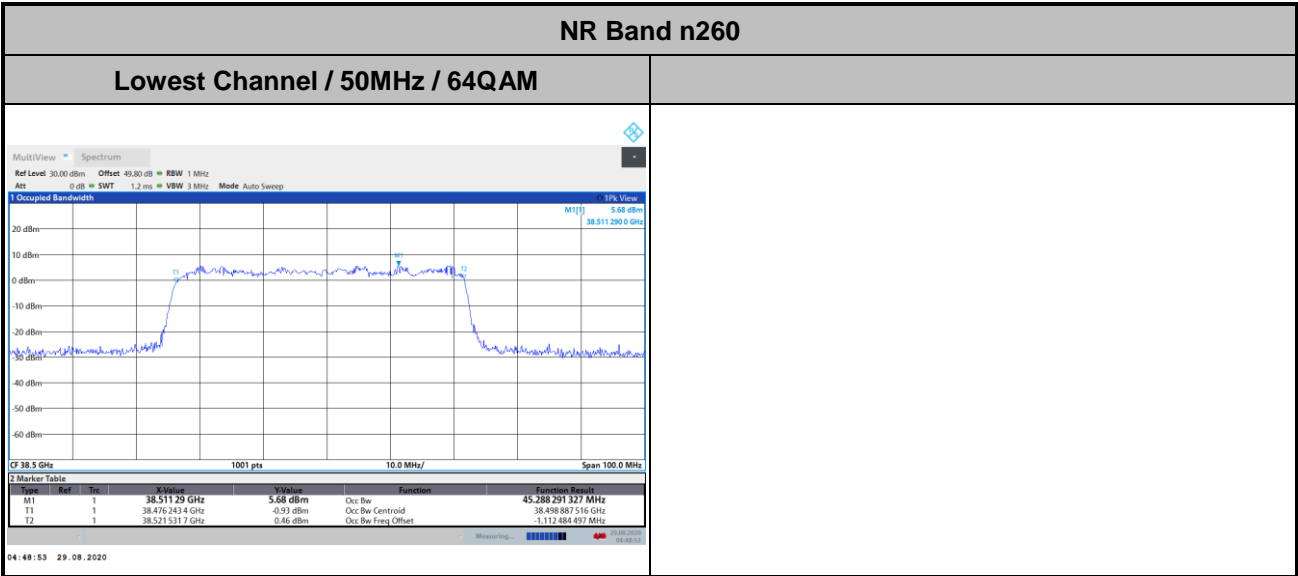


Highest Channel / 50MHz / QPSK





CP-OFDM Module 2

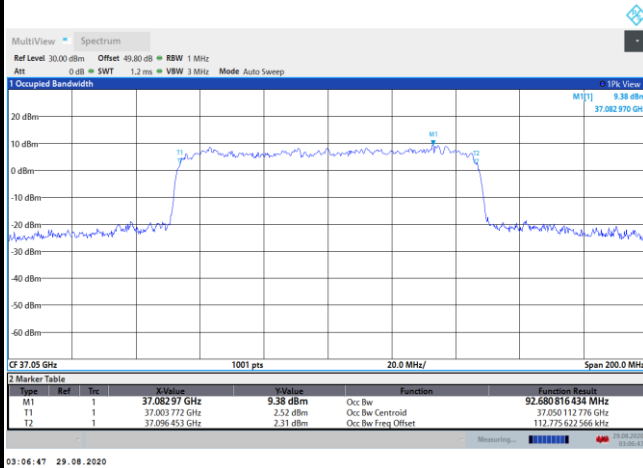




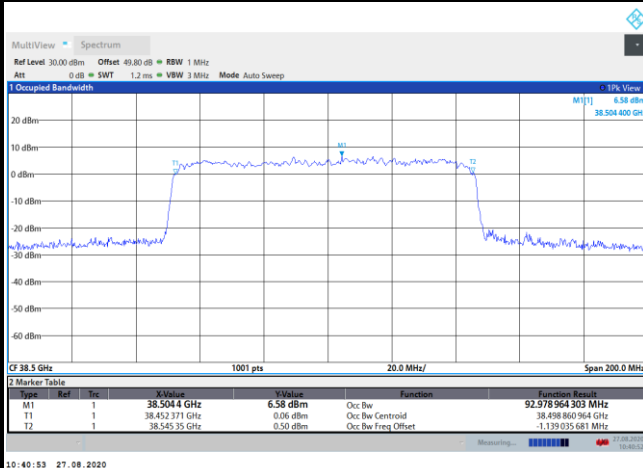
CP-OFDM Module 2

NR Band n260

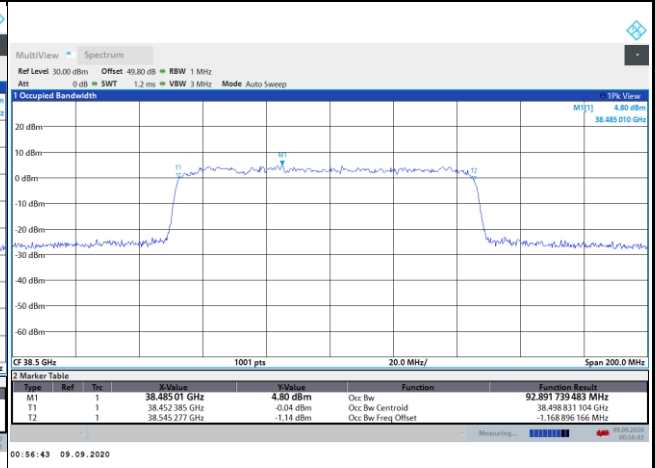
Lowest Channel / 100MHz / QPSK



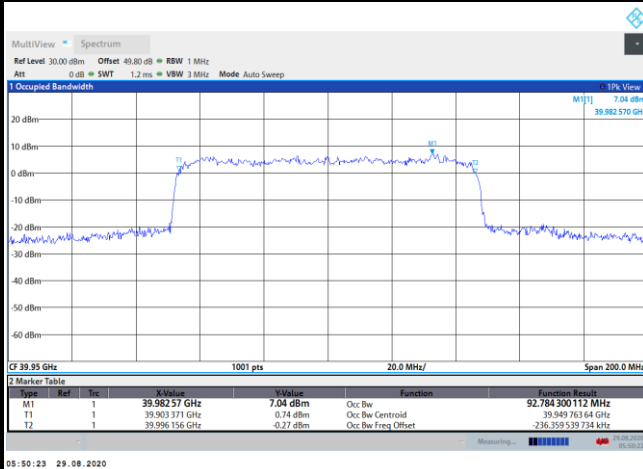
Middle Channel / 100MHz / QPSK



Middle Channel / 100MHz / 16QAM

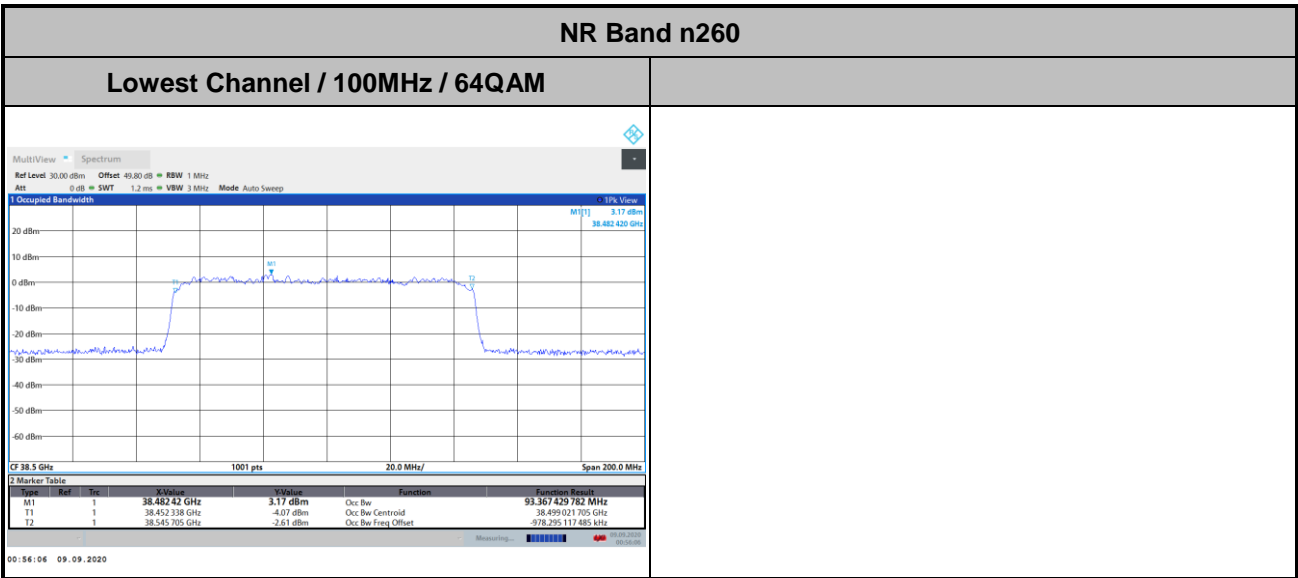


Highest Channel / 100MHz / QPSK





CP-OFDM Module 2

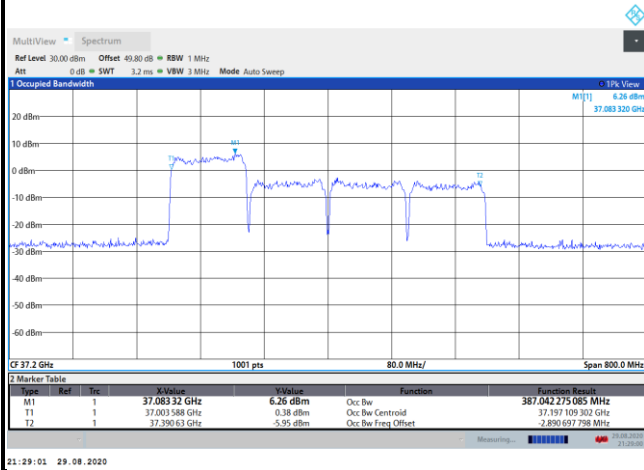




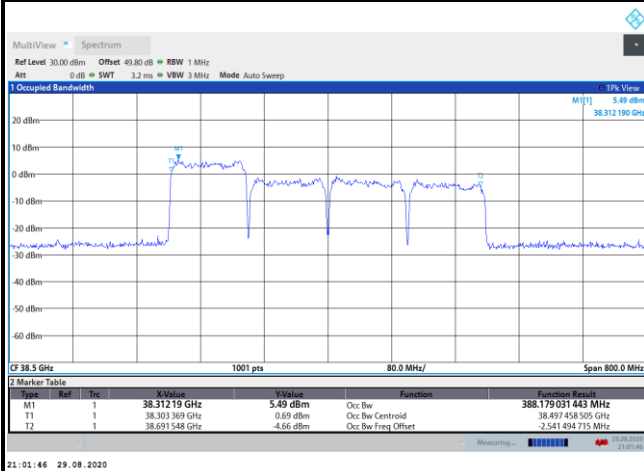
CP-OFDM Module 2

NR Band n260

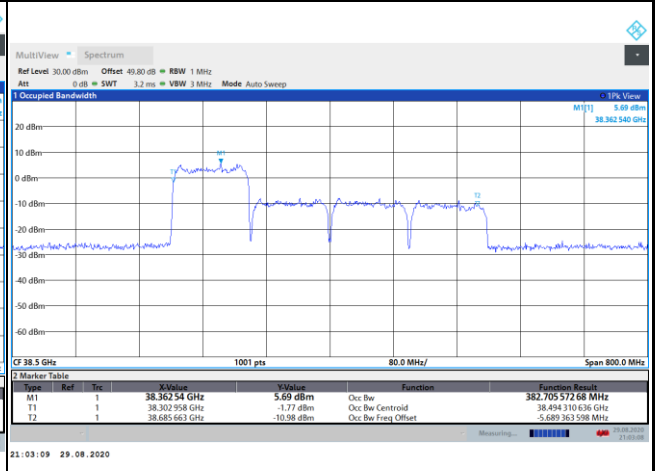
Lowest Channel / 400MHz / QPSK



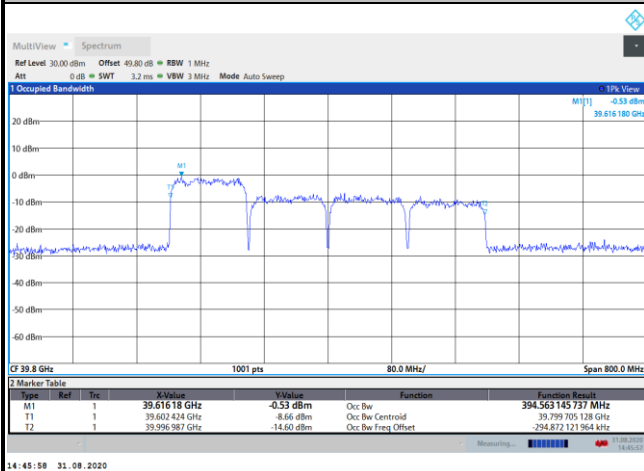
Middle Channel / 400MHz / QPSK



Middle Channel / 400MHz / 16QAM

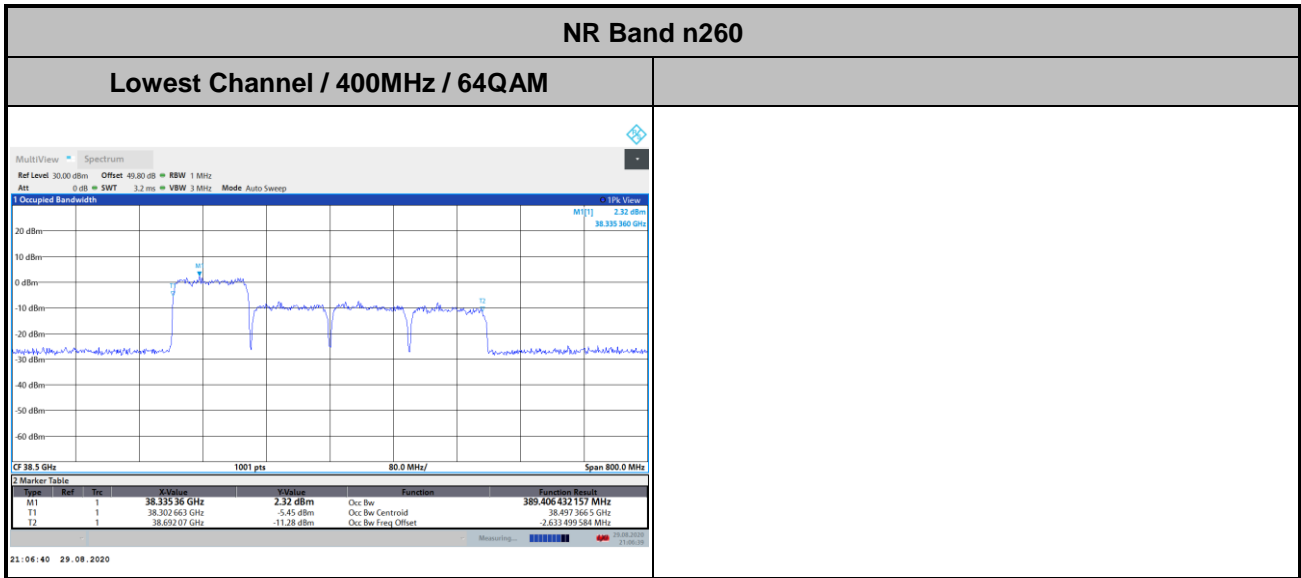


Highest Channel / 400MHz / QPSK





CP-OFDM Module 2





**Radiated Out of Band Emissions**

| Mode        |         |       | DFT-s-OFDM Module 2 NR Band n260 : BE (dBm) 1 RB |        |        |
|-------------|---------|-------|--|--------|--------|
| BW          |         |       | 50MHz  | 100MHz | 400MHz |
| Limit (dBm) |         |       | QPSK   | QPSK   | QPSK   |
| Low CH      | 0~10%OB | ≤ -5  | -13.97   | -14.68 | -19.59 |
|             | >10%OB  | ≤ -13 | -29.7  | -28.74 | -30.4  |
| High CH     | 0~10%OB | ≤ -5  | -18.08   | -18.67 | -32.73 |
|             | >10%OB  | ≤ -13 | -30.04   | -30.4  | -34.02 |
| Result      |         |       | Compliance                                       |        |        |

| Mode        |         |       | CP-OFDM Module 2 NR Band n260 : BE (dBm) 1 RB |        |        |
|-------------|---------|-------|---|--------|--------|
| BW          |         |       | 50MHz   | 100MHz | 400MHz |
| Limit (dBm) |         |       | QPSK  | QPSK   | QPSK   |
| Low CH      | 0~10%OB | ≤ -5  | -15.27  | -16.89 | -20.07 |
|             | >10%OB  | ≤ -13 | -31.44  | -30.22 | -30.46 |
| High CH     | 0~10%OB | ≤ -5  | -19.6   | -21.62 | -32.84 |
|             | >10%OB  | ≤ -13 | -31.06  | -32.08 | -33.98 |
| Result      |         |       | Compliance                                    |        |        |

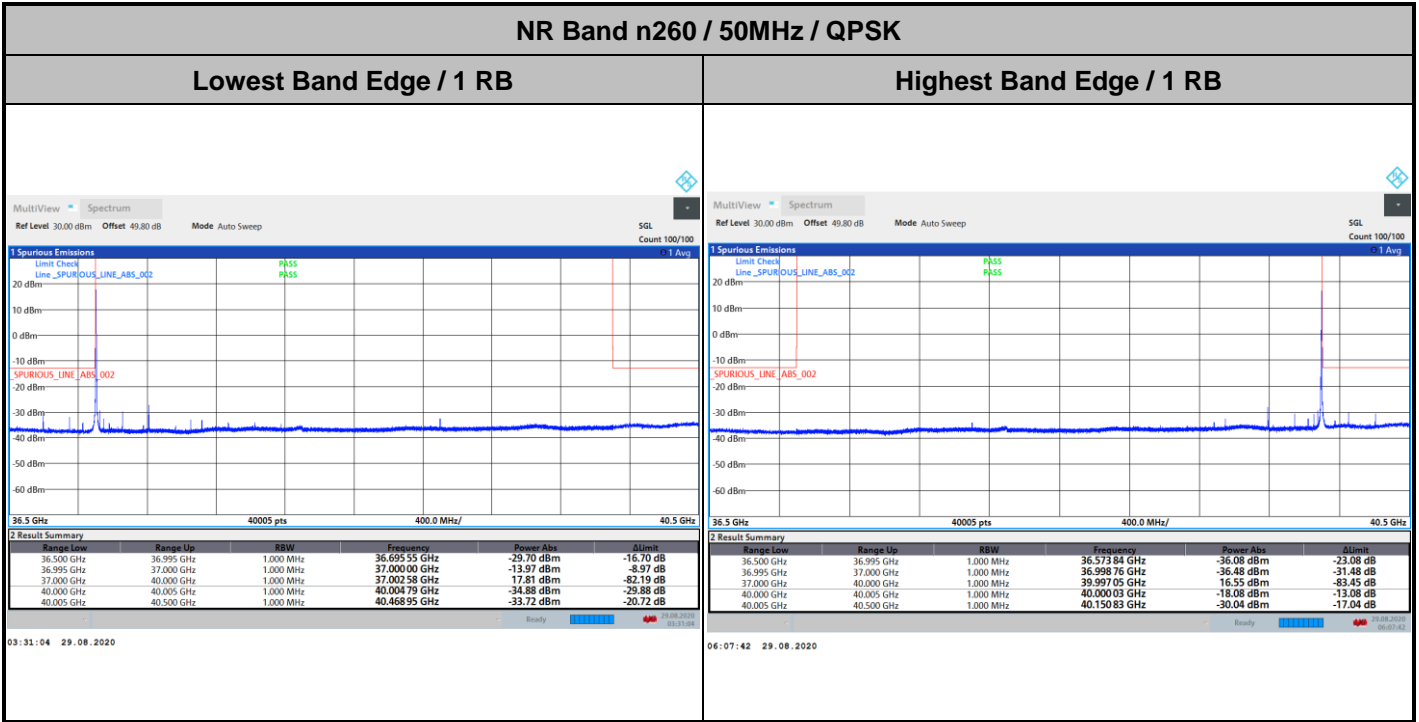
| Mode        |         |       | DFT-s-OFDM Module 2 NR Band n260 : BE (dBm) Full RB |        |        |
|-------------|---------|-------|---|--------|--------|
| BW          |         |       | 50MHz   | 100MHz | 400MHz |
| Limit (dBm) |         |       | QPSK  | QPSK   | QPSK   |
| Low CH      | 0~10%OB | ≤ -5  | -26.94  | -29.23 | -34.22 |
|             | >10%OB  | ≤ -13 | -28.97  | -30.8  | -34.83 |
| High CH     | 0~10%OB | ≤ -5  | -24.8   | -28.08 | -30.58 |
|             | >10%OB  | ≤ -13 | -25.46  | -29.1  | -30.64 |
| Result      |         |       | Compliance  |        |        |

| Mode        |         |       | CP-OFDM Module 2 NR Band n260 : BE (dBm) Full RB |        |        |
|-------------|---------|-------|--|--------|--------|
| BW          |         |       | 50MHz  | 100MHz | 400MHz |
| Limit (dBm) |         |       | QPSK   | QPSK   | QPSK   |
| Low CH      | 0~10%OB | ≤ -5  | -26.94   | -28.85 | -34.68 |
|             | >10%OB  | ≤ -13 | -28.97   | -30.33 | -35.75 |
| High CH     | 0~10%OB | ≤ -5  | -25.45   | -28.79 | -33.99 |
|             | >10%OB  | ≤ -13 | -27.36   | -30.09 | -33.51 |
| Result      |         |       | Compliance                                       |        |        |

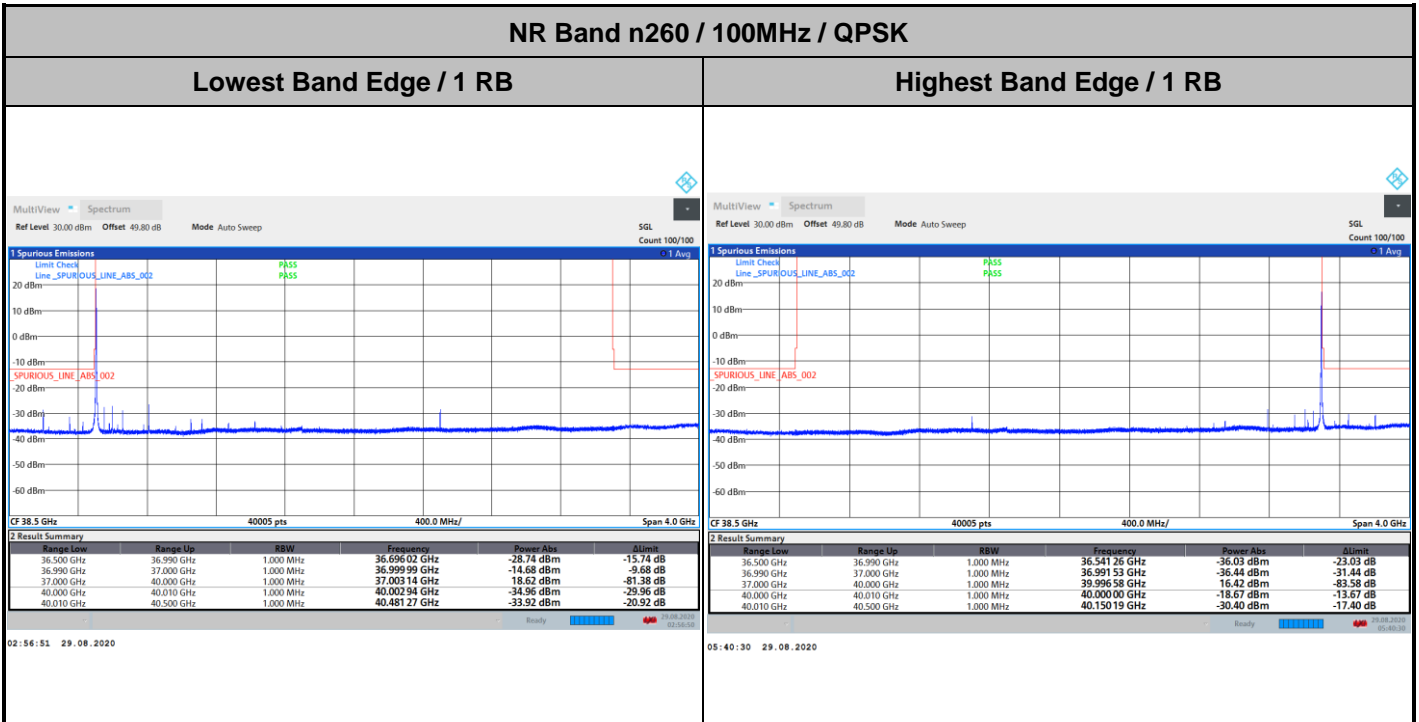




DFT-s-OFDM Module 2

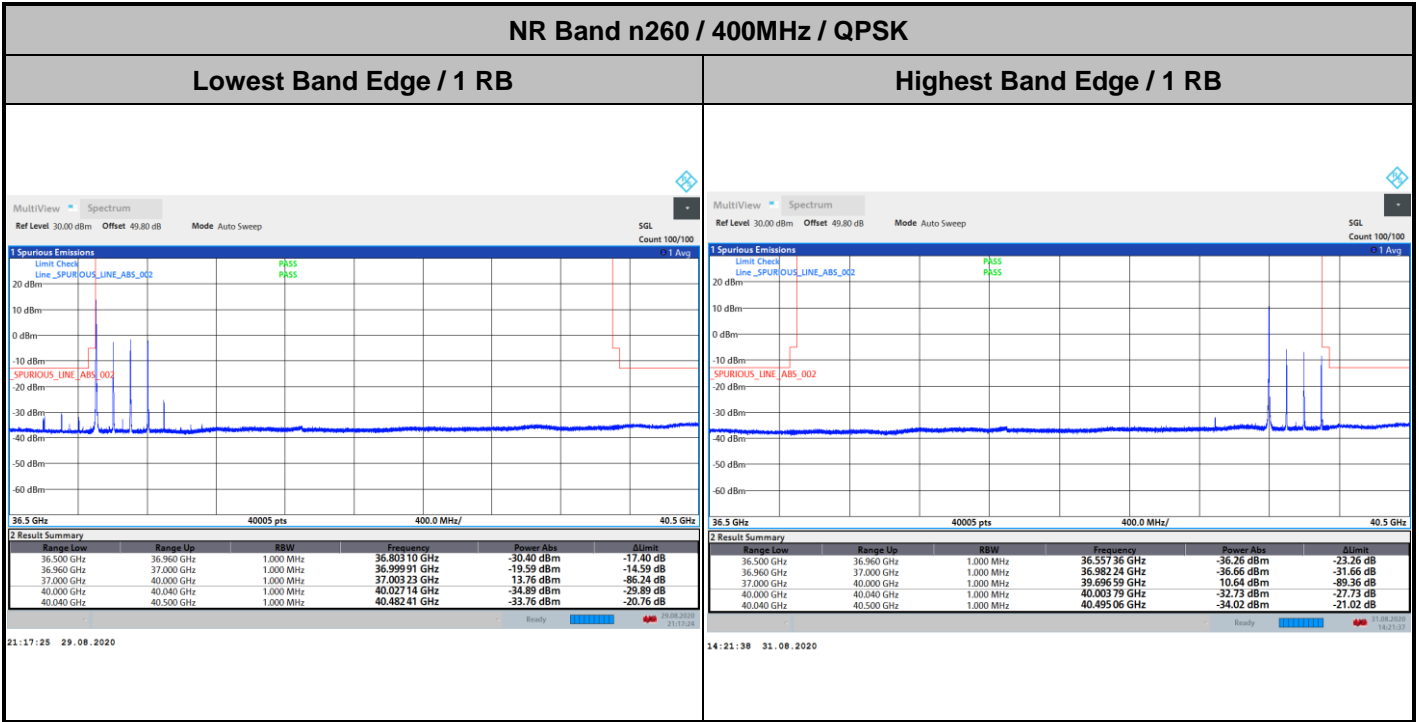


DFT-s-OFDM Module 2

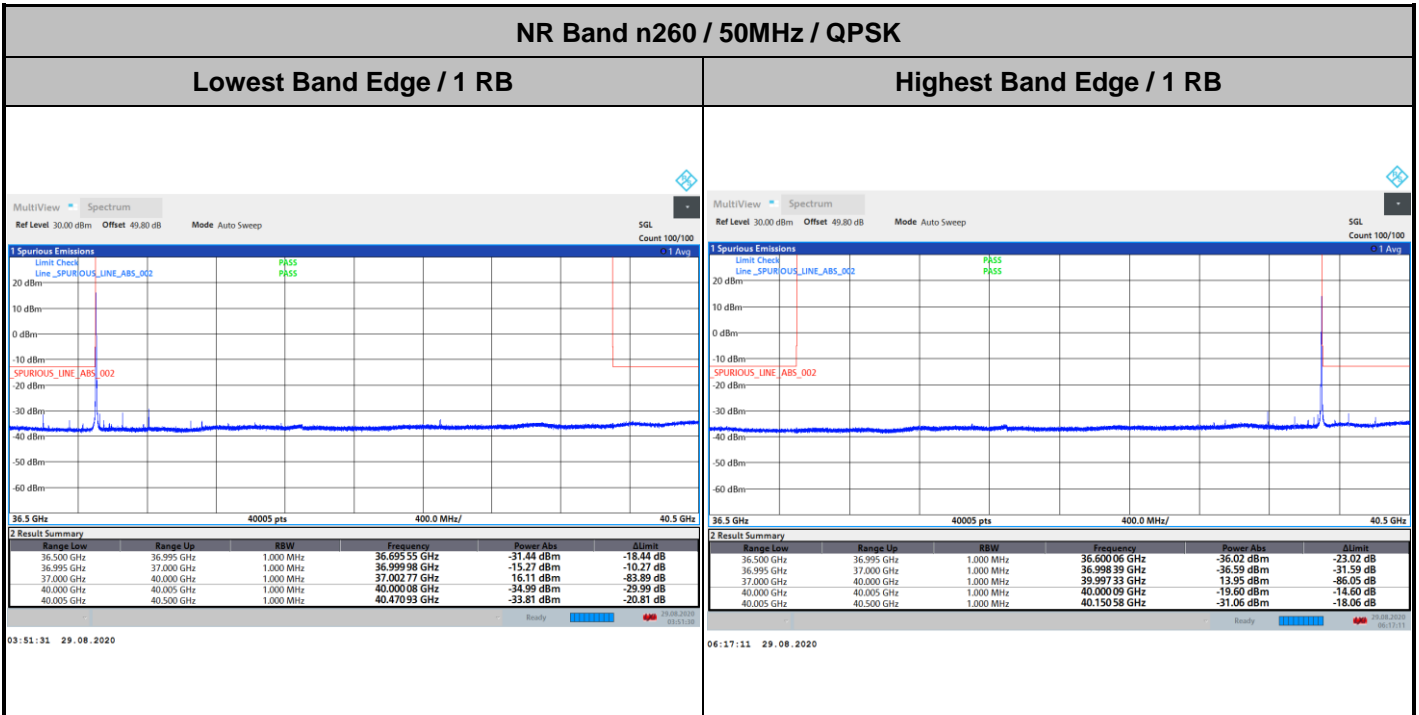




DFT-s-OFDM Module 2

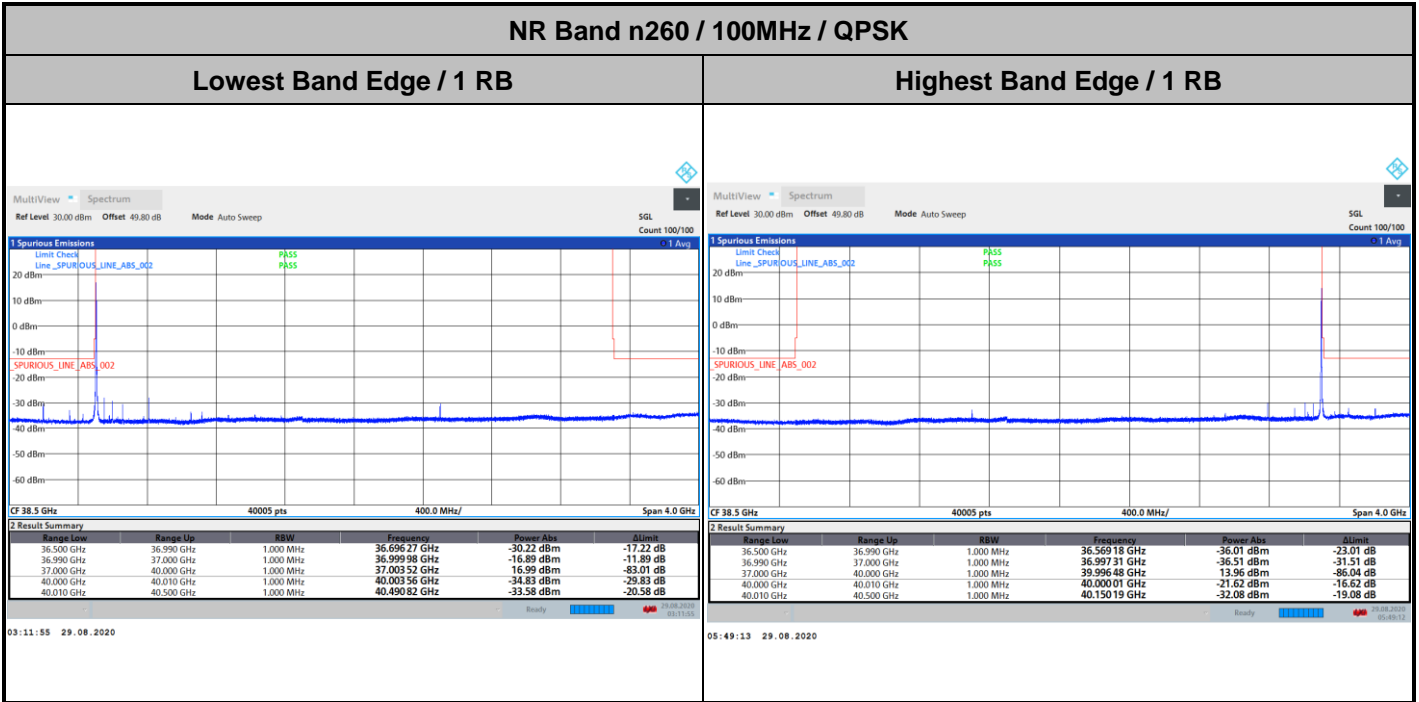


CP-OFDM Module 2

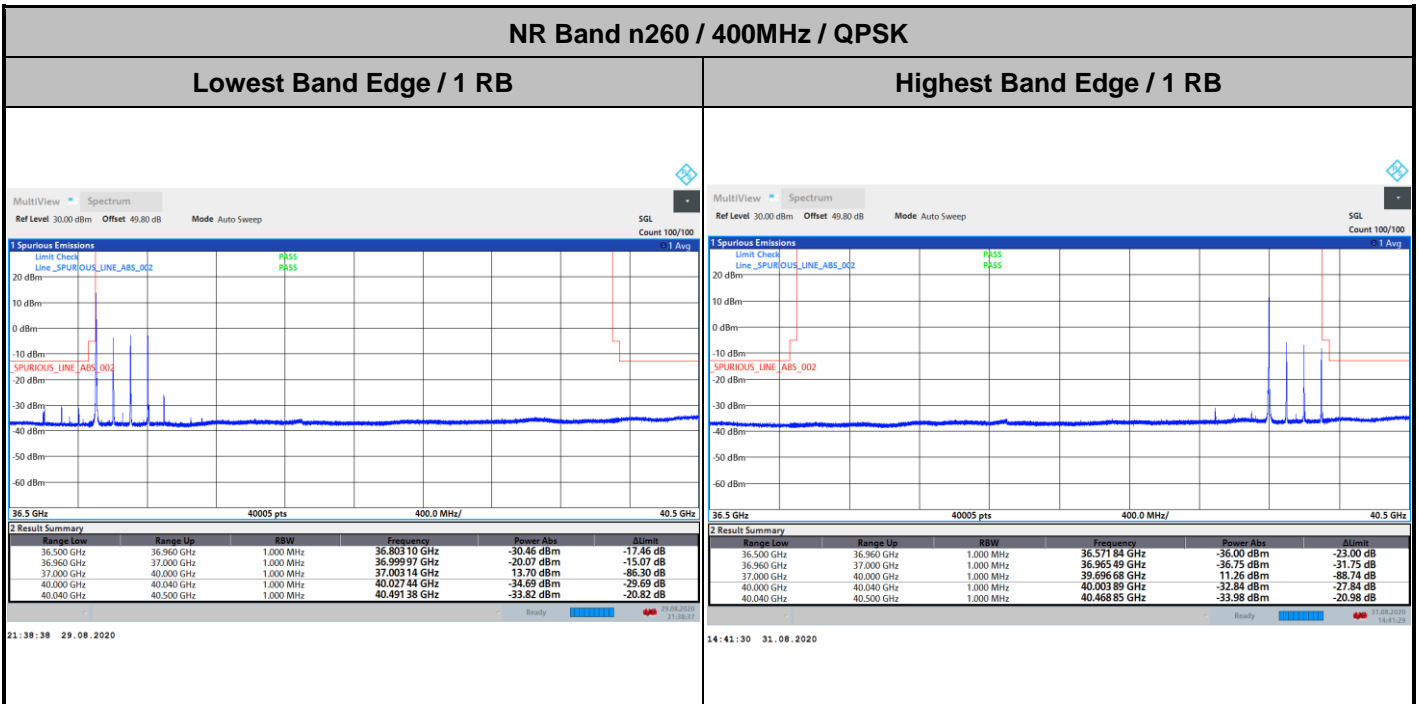




CP-OFDM Module 2

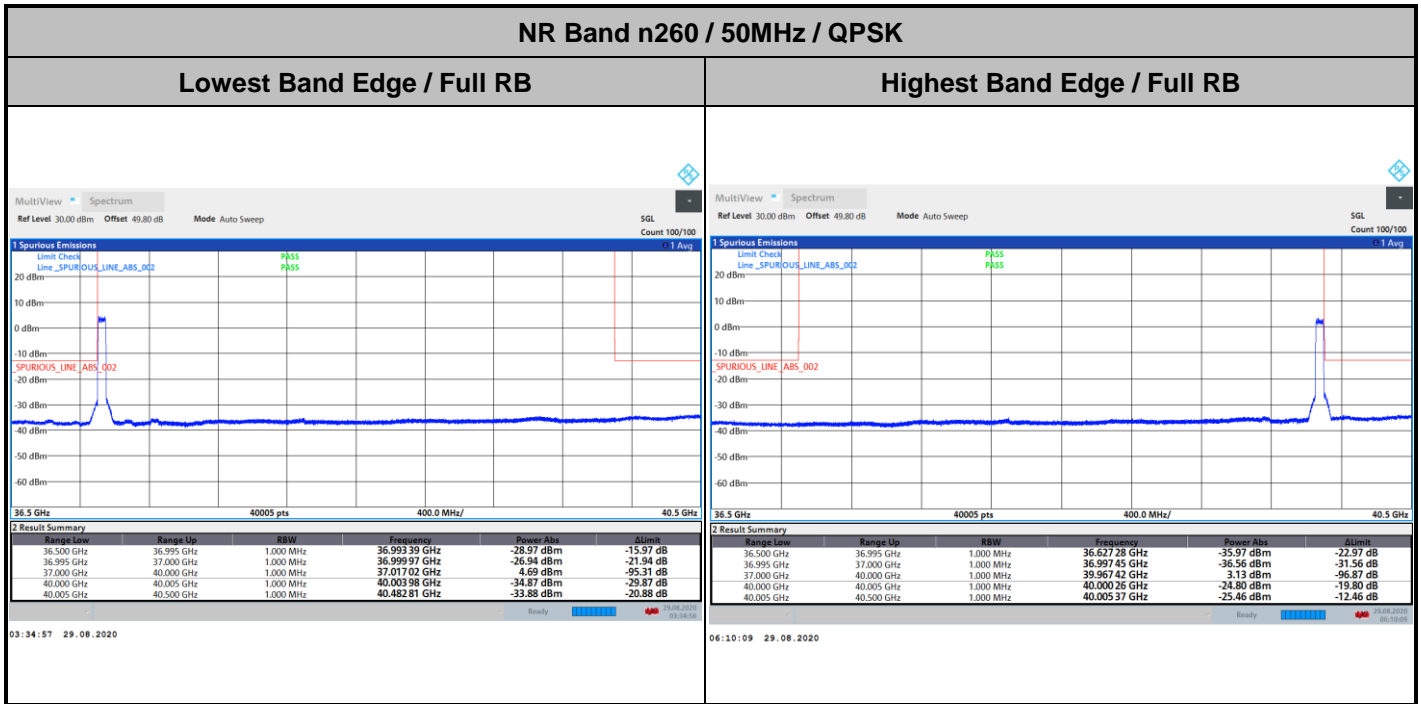


CP-OFDM Module 2

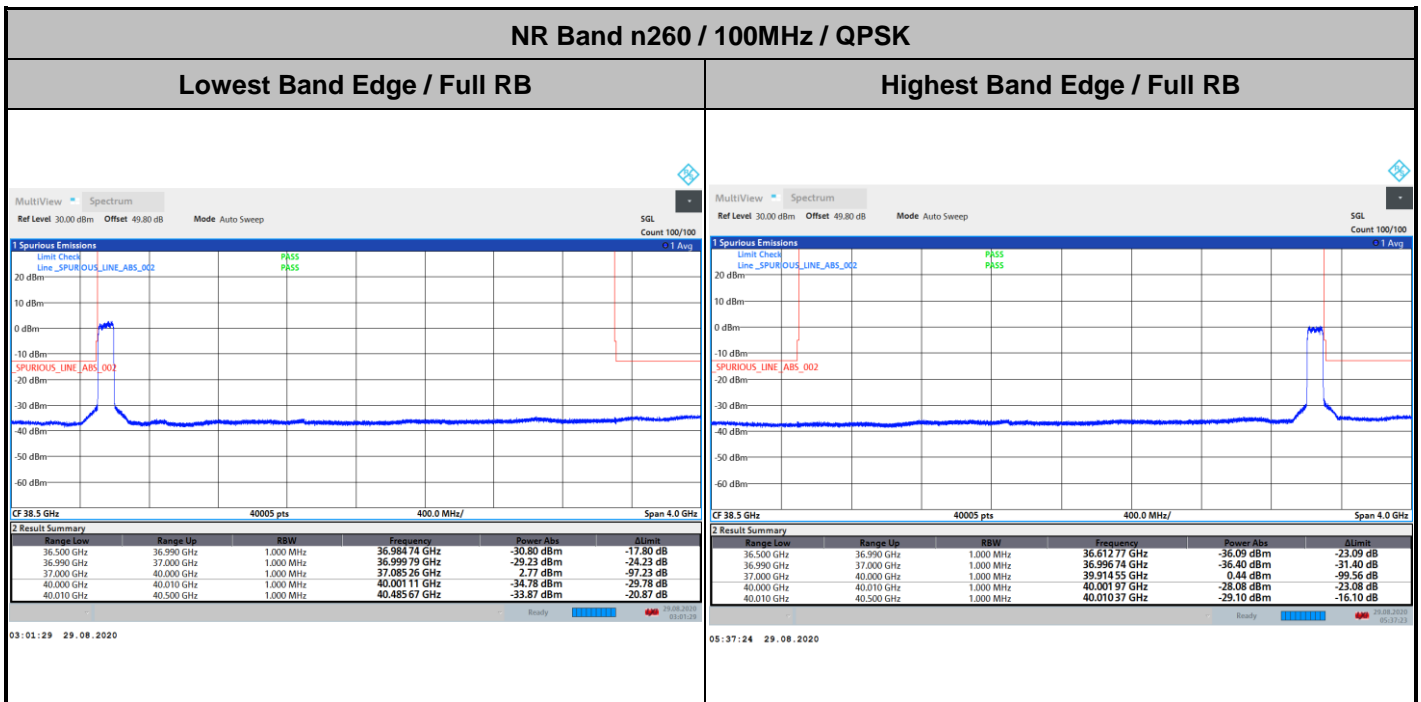




DFT-s-OFDM Module 2

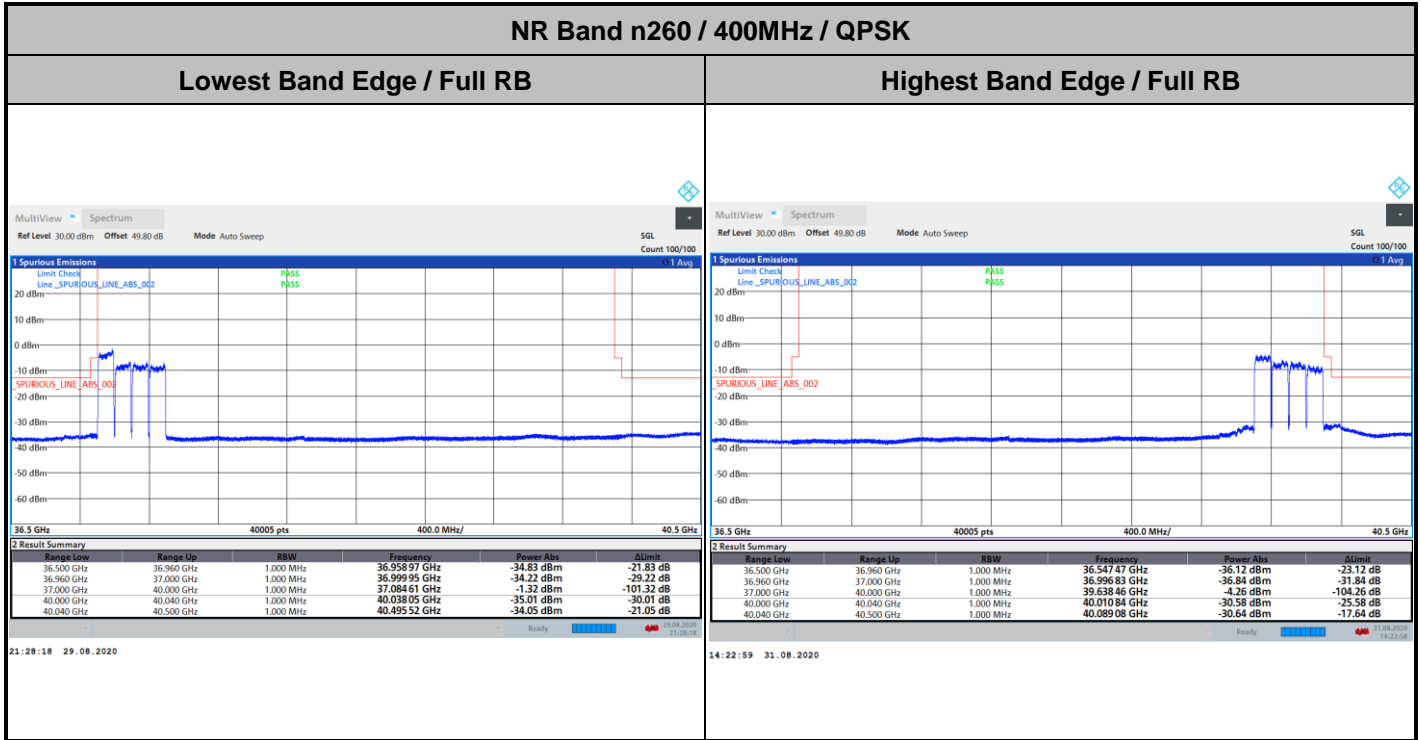


DFT-s-OFDM Module 2

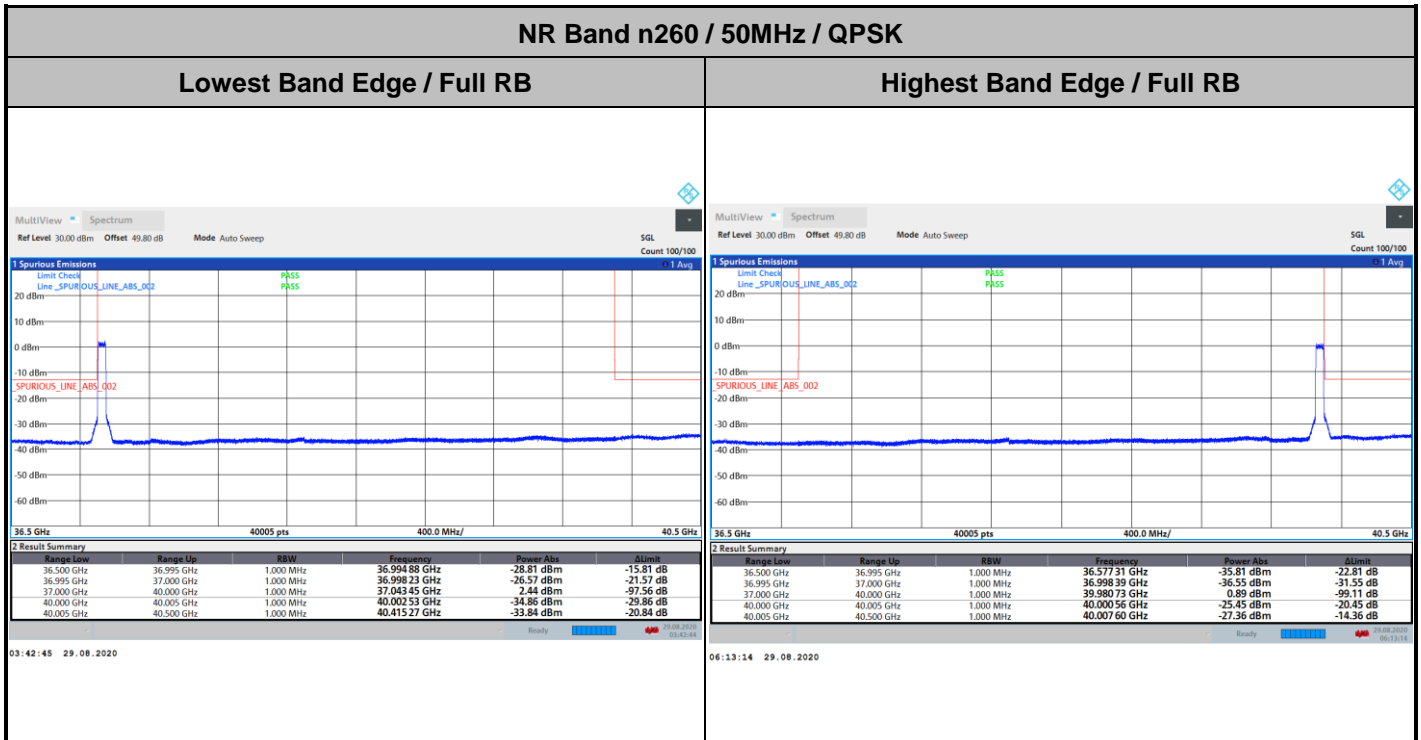




DFT-s-OFDM Module 2

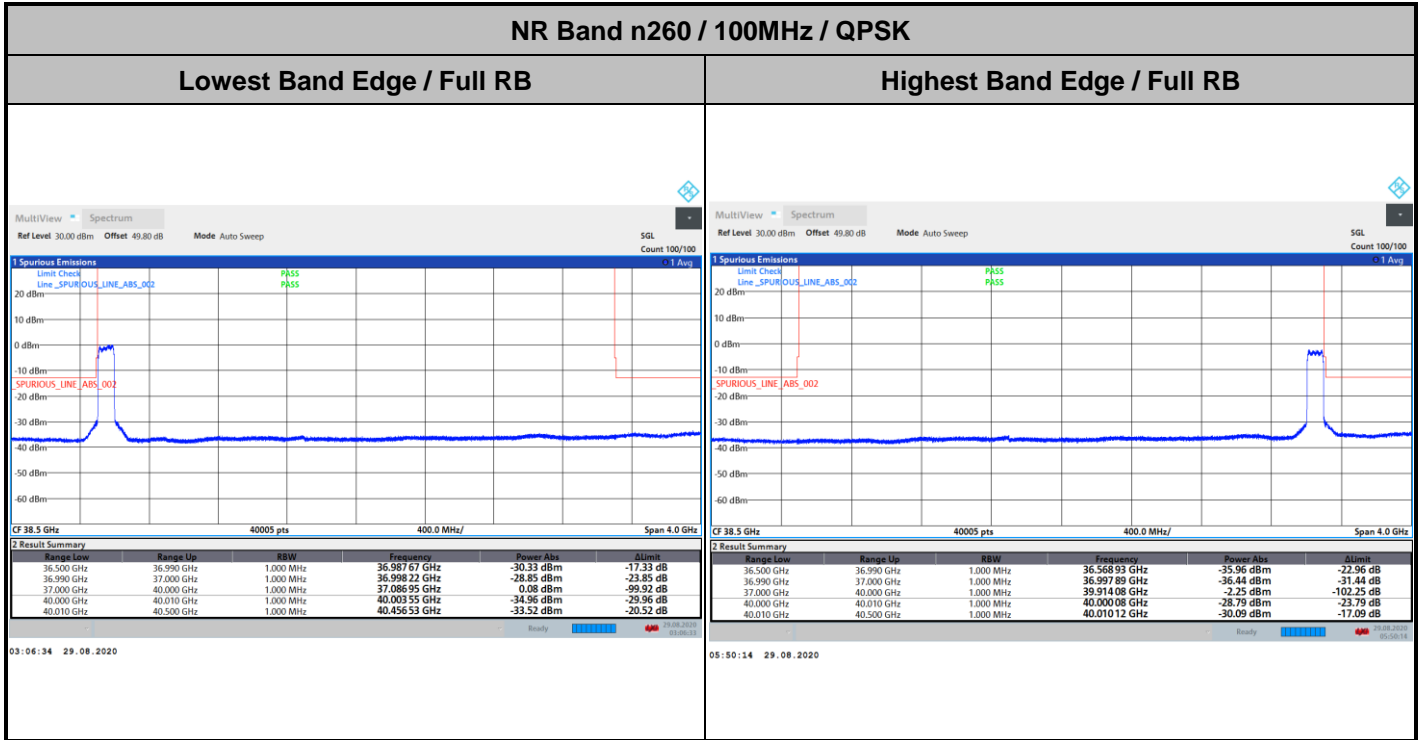


CP-OFDM Module 2

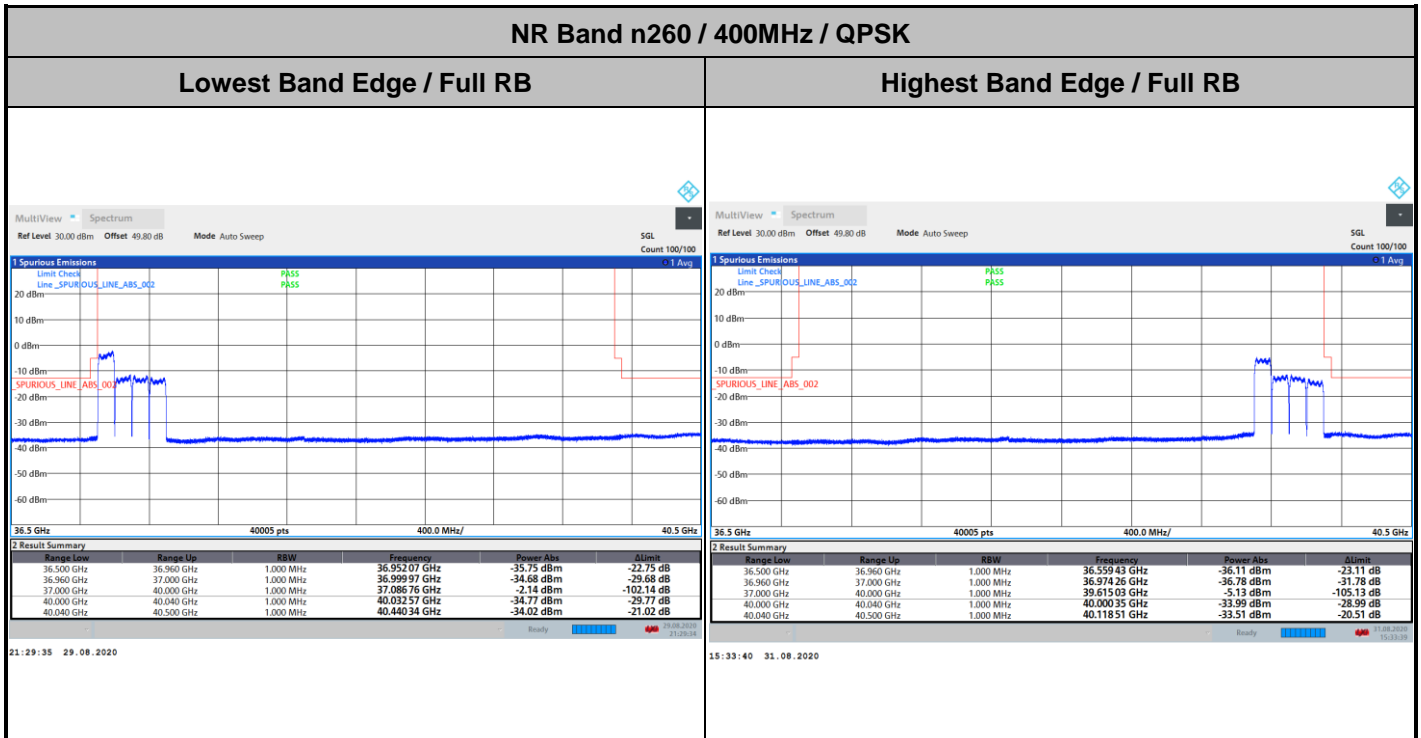




CP-OFDM Module 2



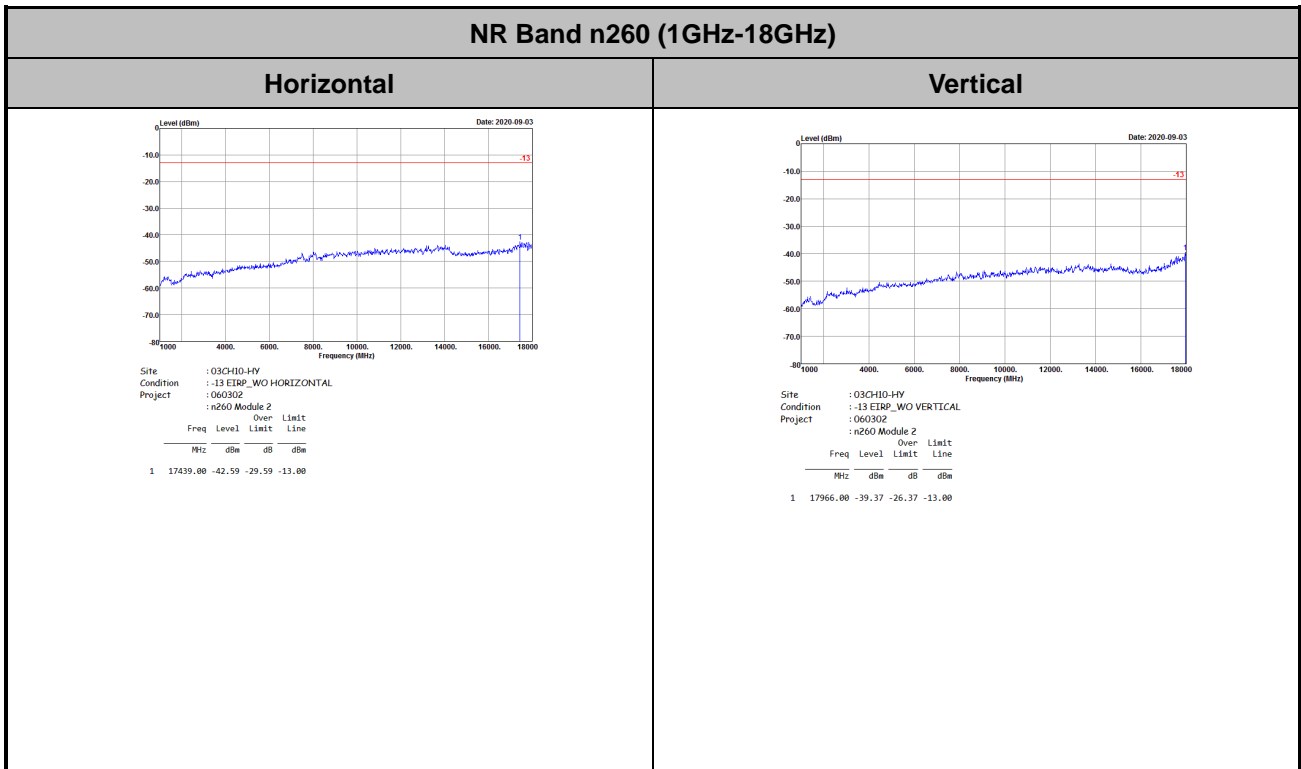
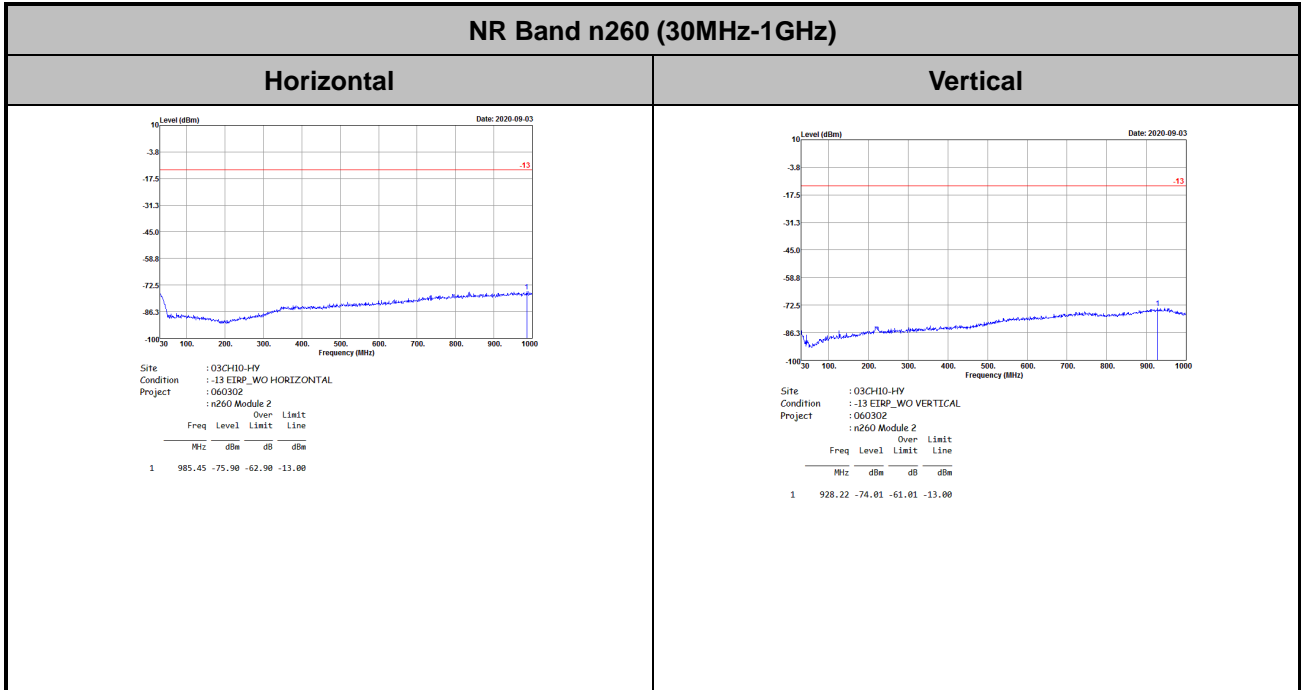
CP-OFDM Module 2





# Spurious Emission

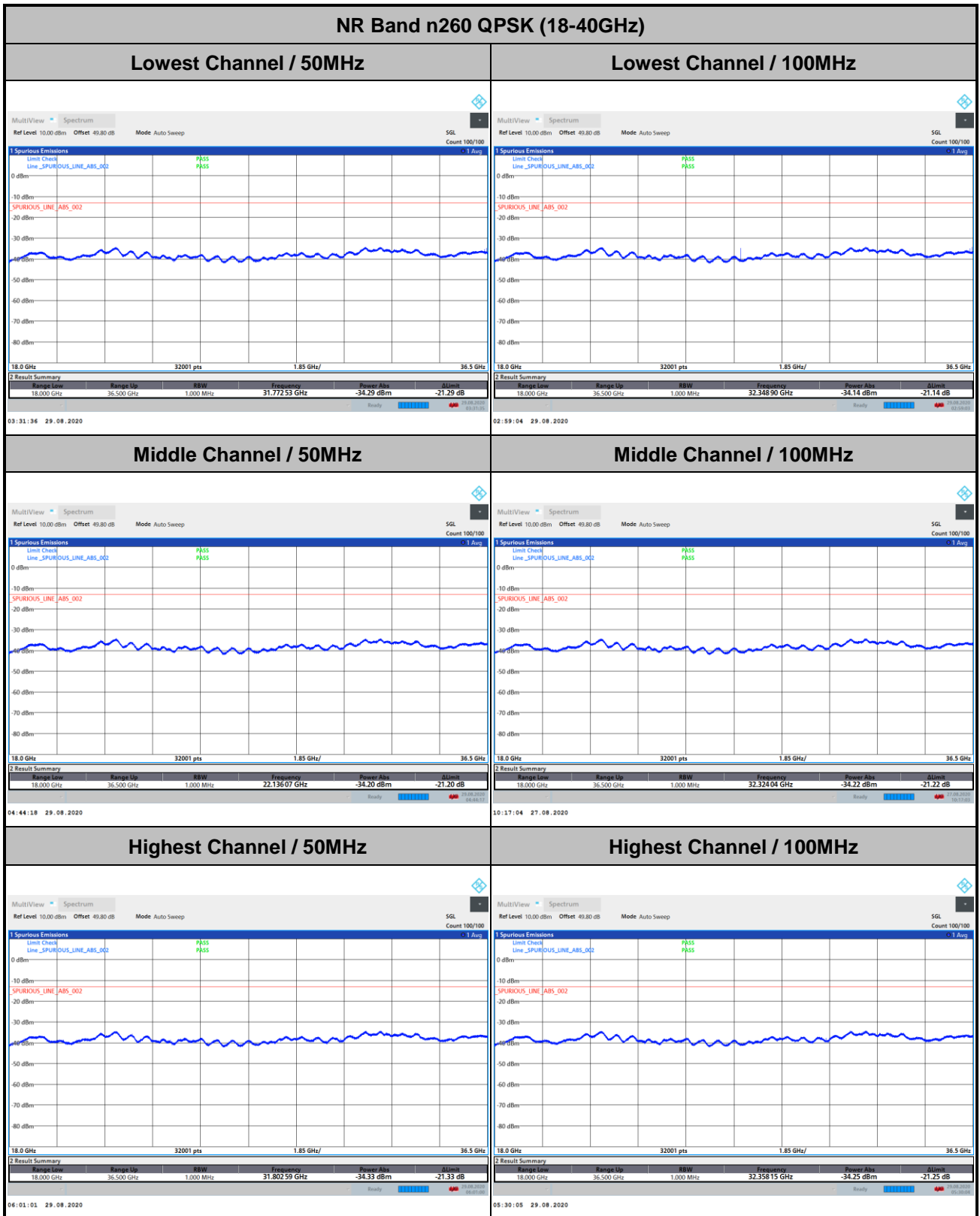
There is no significant spurious emission signal found for frequency started from 30MHz up to 18GHz. Only the noise floor is reported.





Spurious emission between 18GHz to 40GHz worst case plot is reported as following.

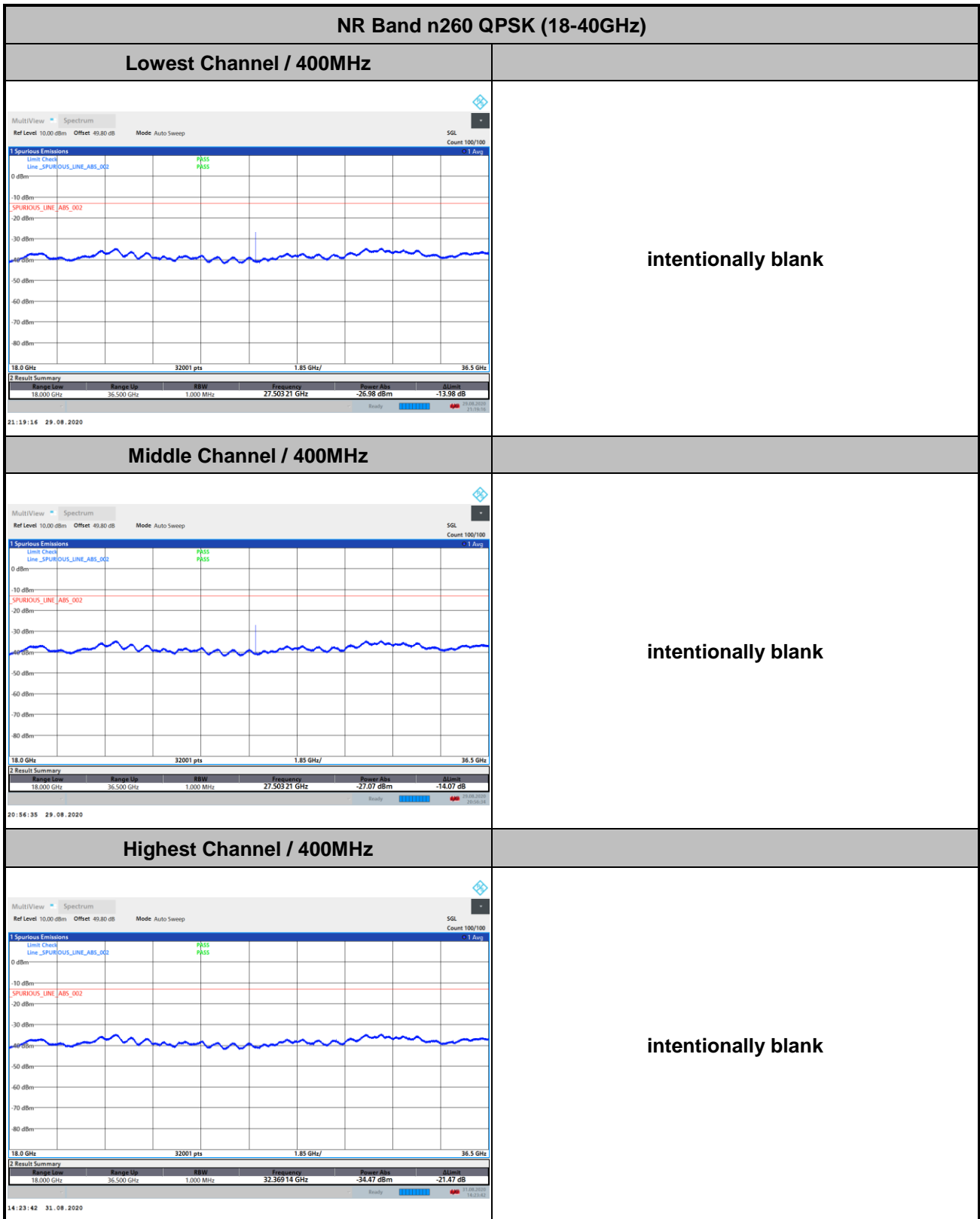
DFT-s-OFDM Module 2







DFT-s-OFDM Module 2

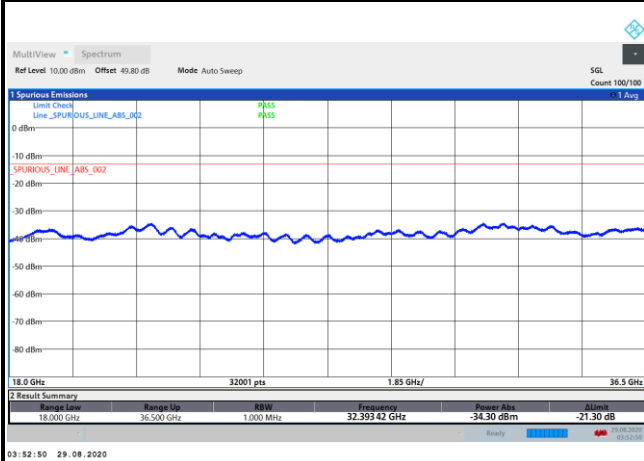




CP-OFDM Module 2

NR Band n260 QPSK (18-40GHz)

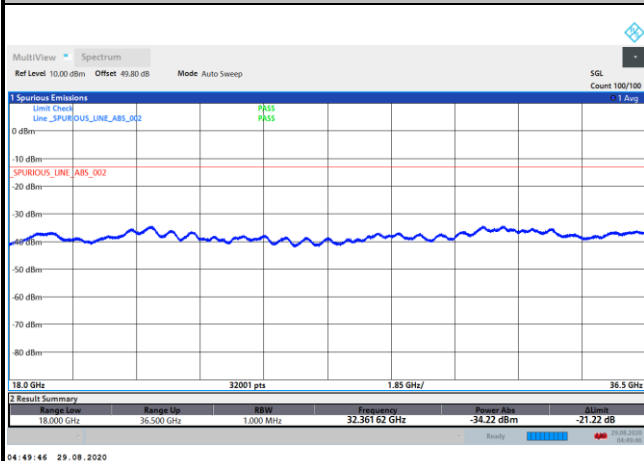
Lowest Channel / 50MHz



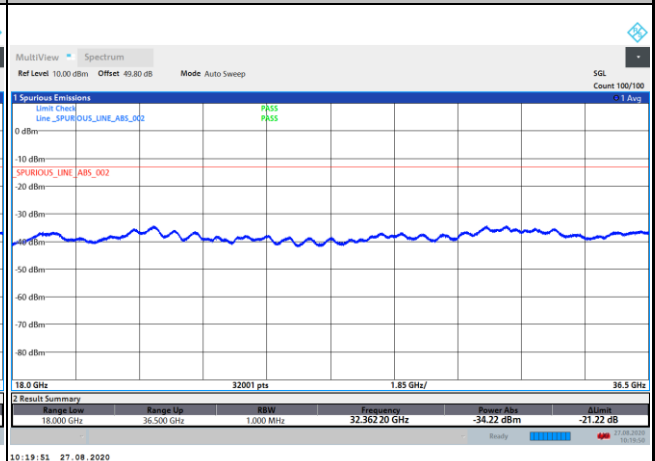
Lowest Channel / 100MHz



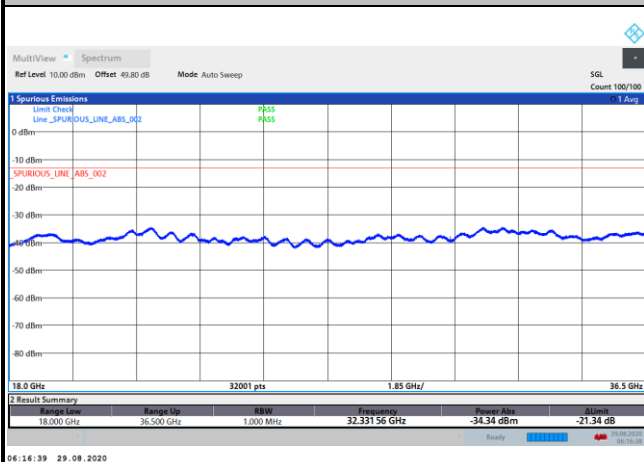
Middle Channel / 50MHz



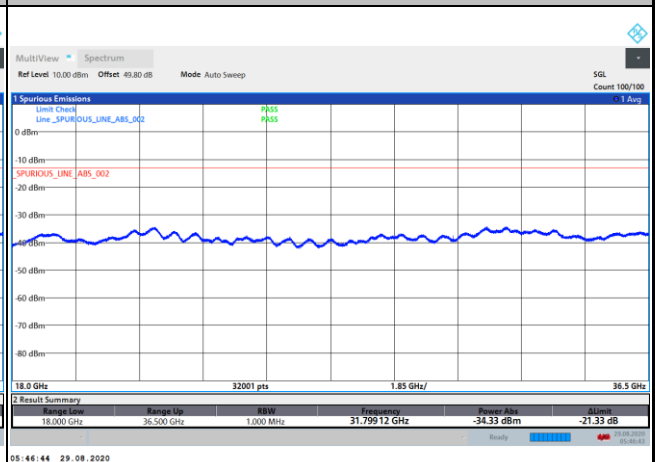
Middle Channel / 100MHz



Highest Channel / 50MHz

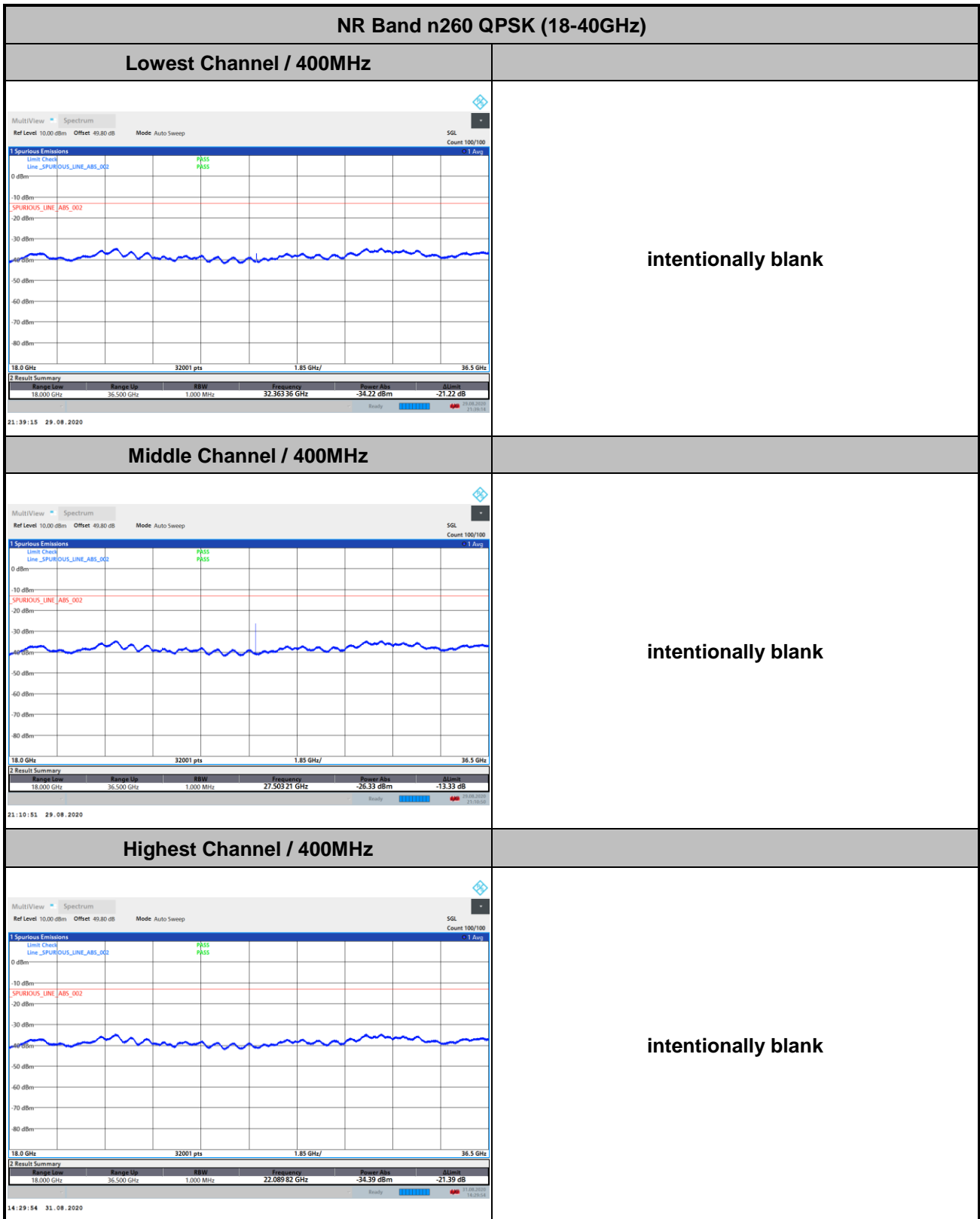


Highest Channel / 100MHz



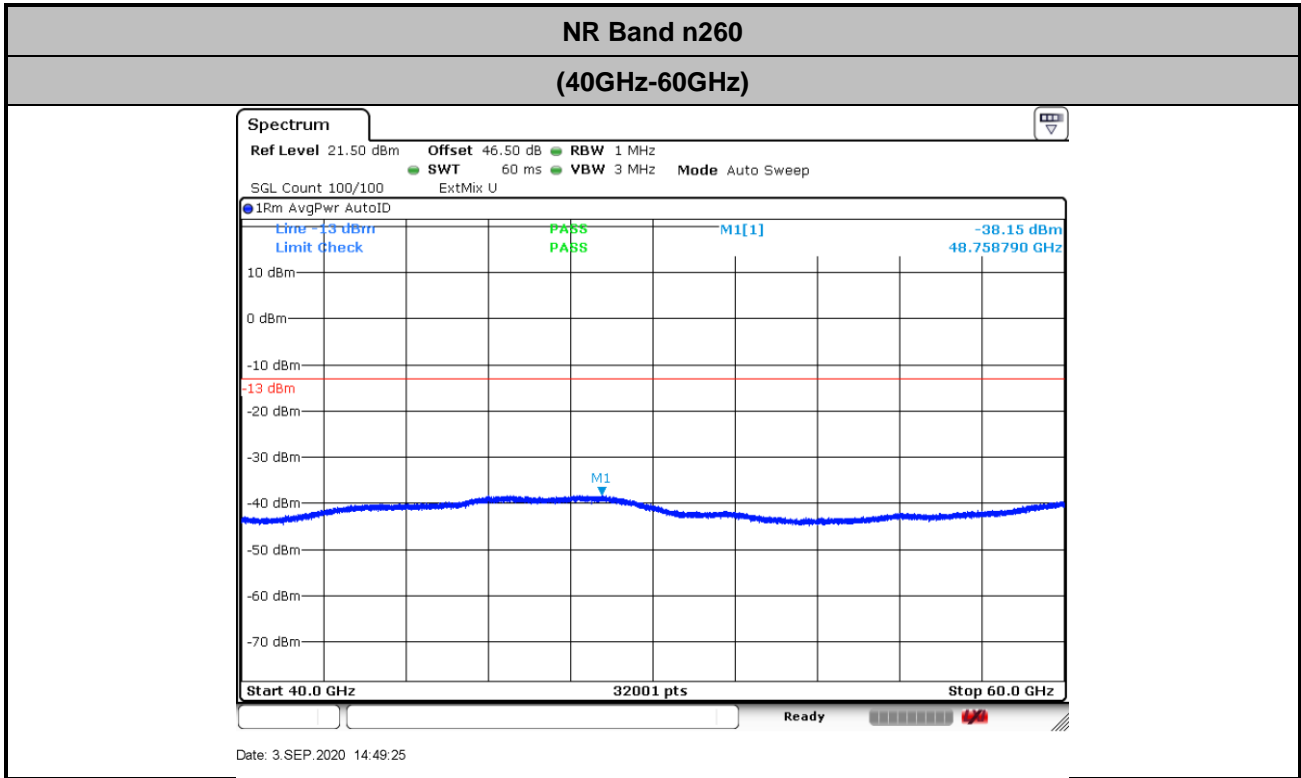


CP-OFDM Module 2



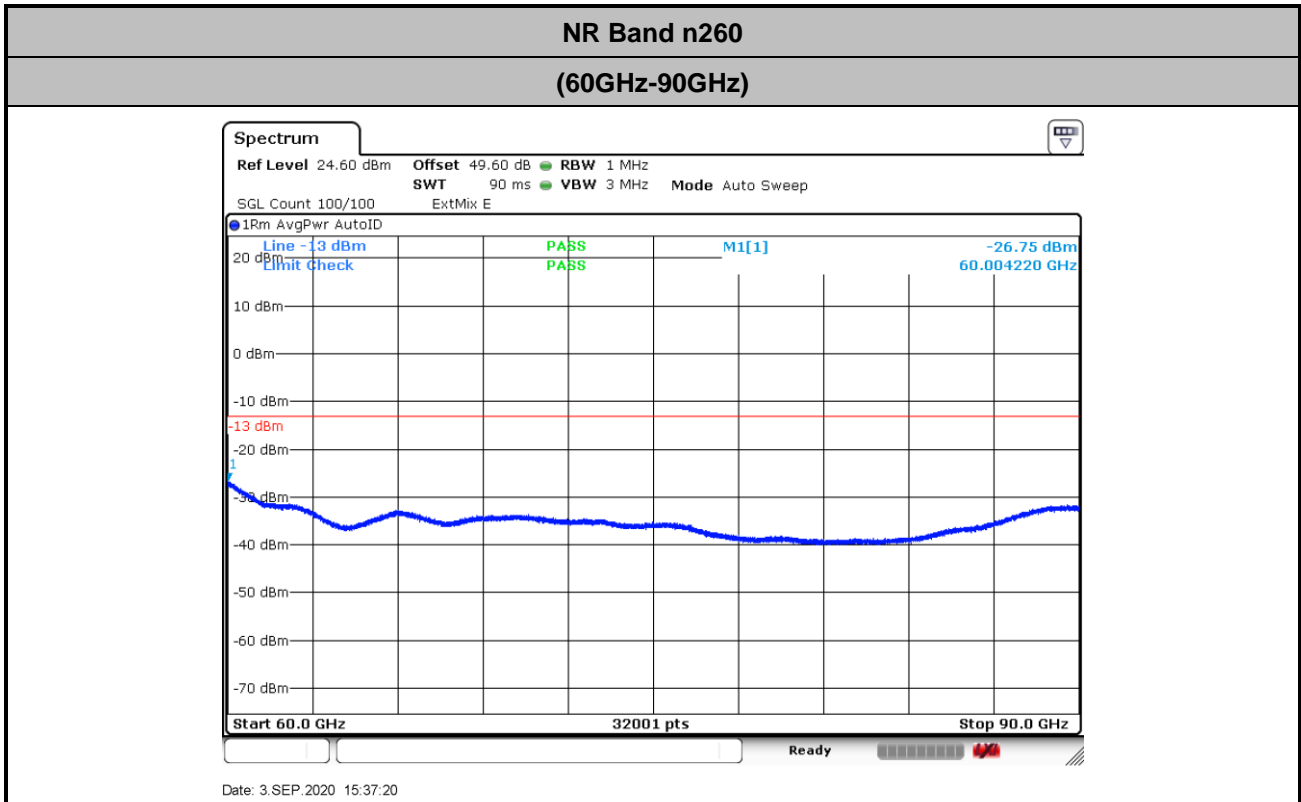


There is no significant spurious emission signal found for frequency started from 40GHz up to 200GHz. Only the noise floor is reported.

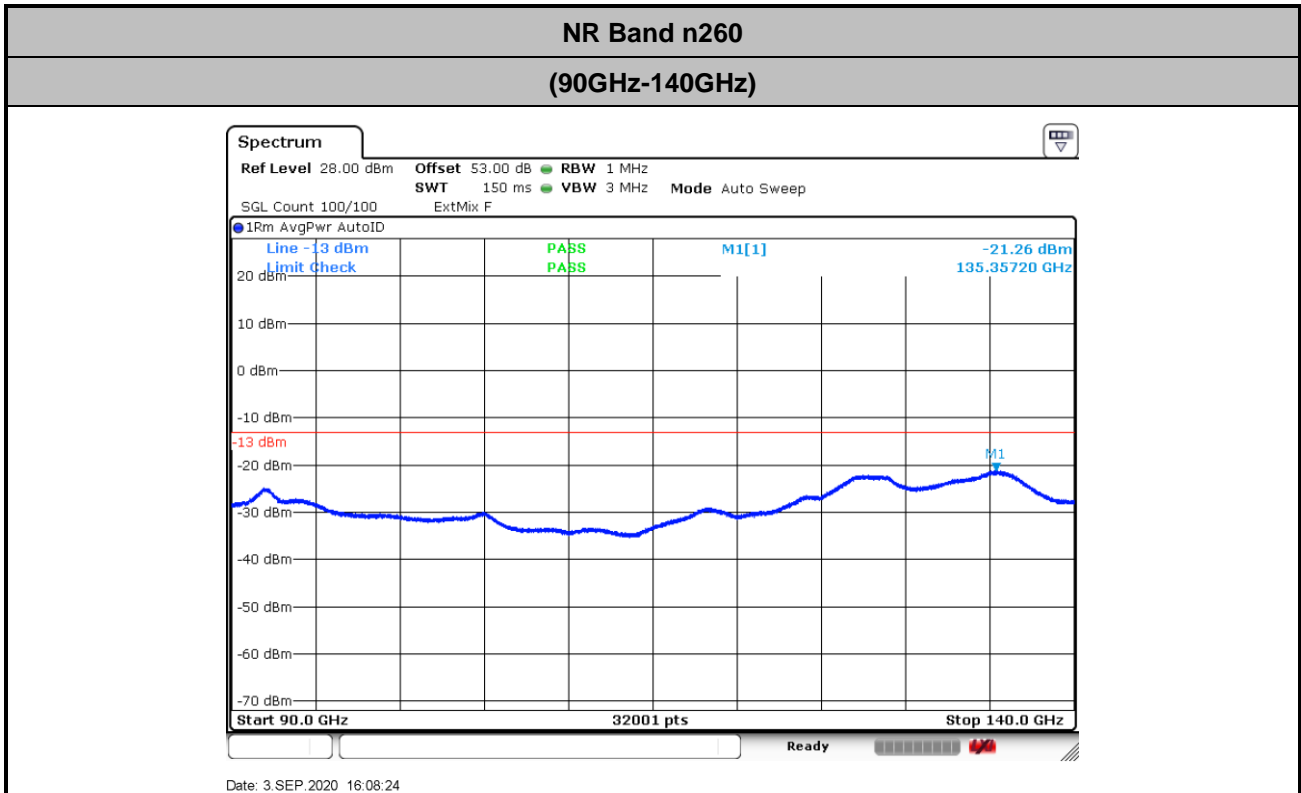


$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$

$$= 42.1 + 2.2 + 107 + 20\log(1) - 104.8 = 46.5 \text{ (dB)}$$



$$\begin{aligned}
 \text{Offset} &= \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8 \\
 &= 45.4 + 2 + 107 + 20\log(1) - 104.8 = 49.6 \text{ (dB)}
 \end{aligned}$$



$$\text{Offset} = \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} + 107 + 20\log(D) - 104.8$$

$$= 48.8 + 2 + 107 + 20\log(1) - 104.8 = 53 \text{ (dB)}$$