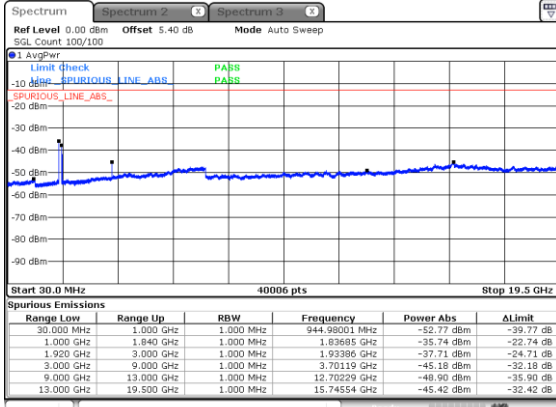




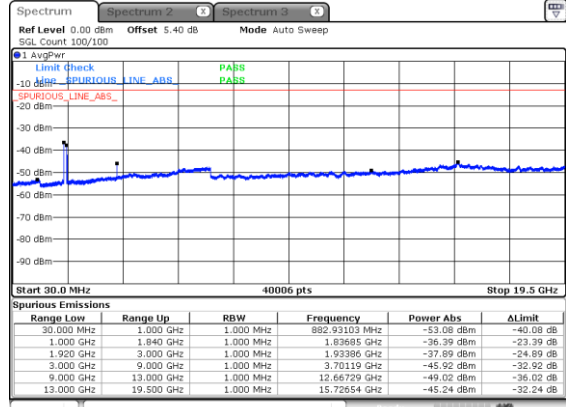
5G NR n25 / 15MHz / DFT-S OFDM

Lowest Channel / PI/2 BPSK



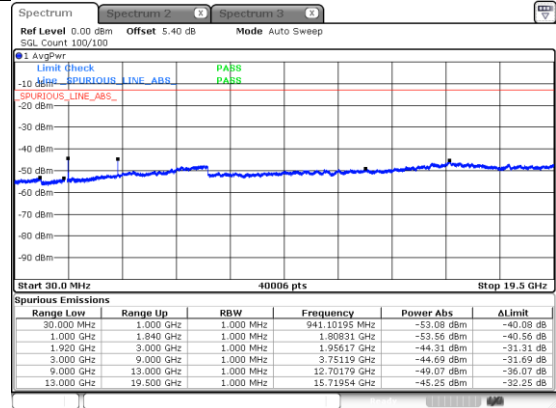
Date: 15\_SEP.2020 16:35:18

Lowest Channel / QPSK



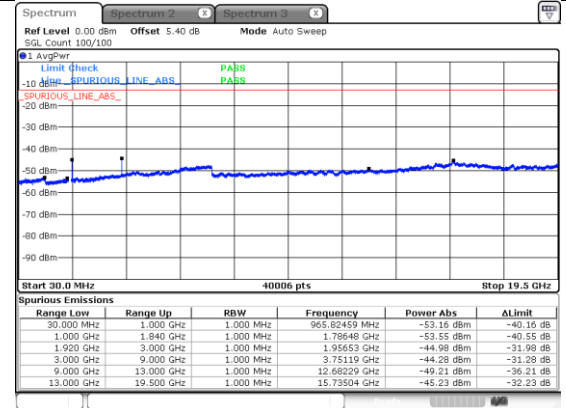
Date: 15\_SEP.2020 16:37:28

Middle Channel / PI/2 BPSK



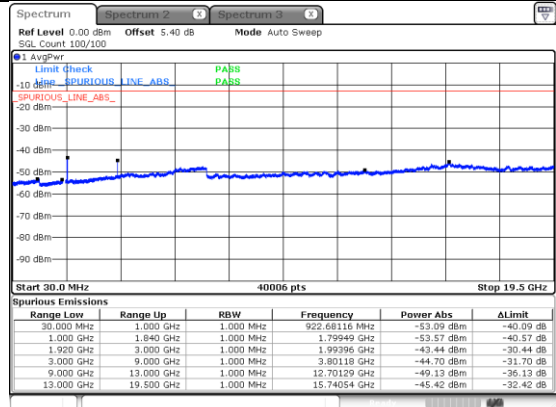
Date: 15\_SEP.2020 16:42:17

Middle Channel / QPSK



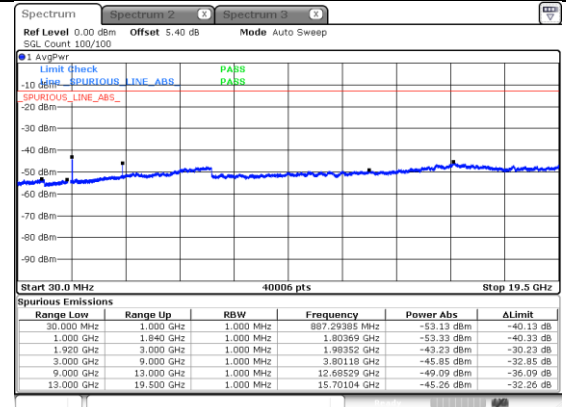
Date: 15\_SEP.2020 16:44:13

Highest Channel / PI/2 BPSK



Date: 15\_SEP.2020 17:03:41

Highest Channel / QPSK

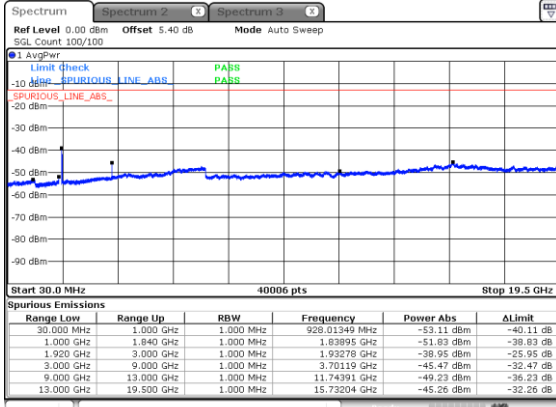


Date: 15\_SEP.2020 17:05:19



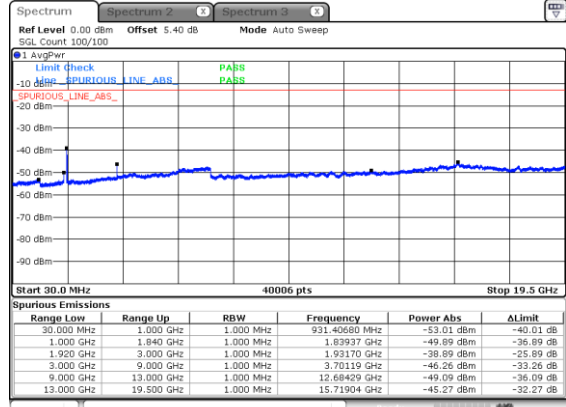
5G NR n25 / 20MHz / DFT-S OFDM

Lowest Channel / PI/2 BPSK



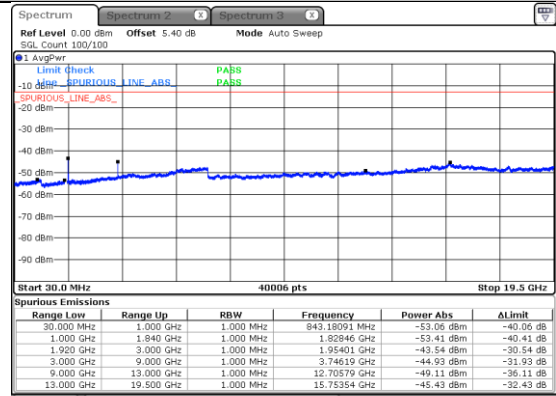
Date: 15\_SEP.2020 17:19:00

Lowest Channel / QPSK



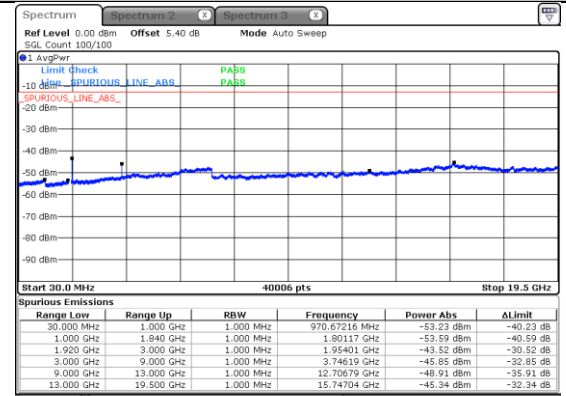
Date: 15\_SEP.2020 17:20:55

Middle Channel / PI/2 BPSK



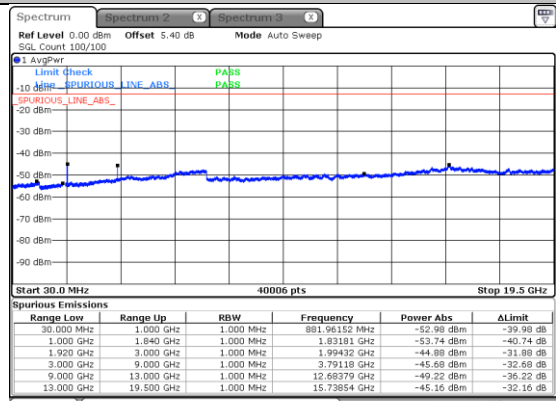
Date: 15\_SEP.2020 17:22:01

Middle Channel / QPSK



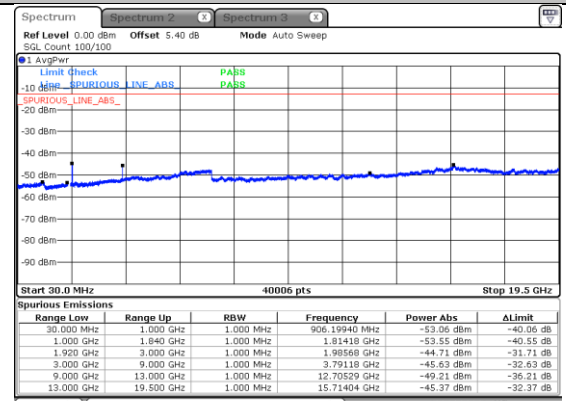
Date: 15\_SEP.2020 17:26:58

Highest Channel / PI/2 BPSK



Date: 15\_SEP.2020 18:31:00

Highest Channel / QPSK



Date: 15\_SEP.2020 18:32:35



Frequency Stability

| Test Conditions  |                   | 5G NR n25 (PI/2BPSK) / Middle Channel | Limit   |
|------------------|-------------------|---------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 20MHz                              | Note 2. |
|                  |                   | Deviation (ppm)                       | Result  |
| 50               | Normal Voltage    | 0.0018                                | PASS    |
| 40               | Normal Voltage    | 0.0016                                |         |
| 30               | Normal Voltage    | 0.0013                                |         |
| 20(Ref.)         | Normal Voltage    | 0.0015                                |         |
| 10               | Normal Voltage    | 0.0017                                |         |
| 0                | Normal Voltage    | 0.0026                                |         |
| -10              | Normal Voltage    | 0.0006                                |         |
| -20              | Normal Voltage    | 0.0008                                |         |
| -30              | Normal Voltage    | 0.0006                                |         |
| 20               | Maximum Voltage   | 0.0028                                |         |
| 20               | Normal Voltage    | 0.0000                                |         |
| 20               | Battery End Point | 0.0008                                |         |

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# 5G NR n41

## Peak-to-Average Ratio

| Mode       | 5G NR n41 / 20MHz / DFT-S OFDM |           |      |         |             |
|------------|--------------------------------|-----------|------|---------|-------------|
| Mod.       | PI/2 BPSK                      | PI/2 BPSK | QPSK | QPSK    | Limit: 13dB |
| RB Size    | 1RB                            | Full RB   | 1RB  | Full RB | Result      |
| Lowest CH  | 3.88                           | 3.51      | 5.68 | 4.93    | <b>PASS</b> |
| Middle CH  | 4.32                           | 3.39      | 5.57 | 5.16    |             |
| Highest CH | 4.14                           | 3.77      | 5.77 | 5.16    |             |



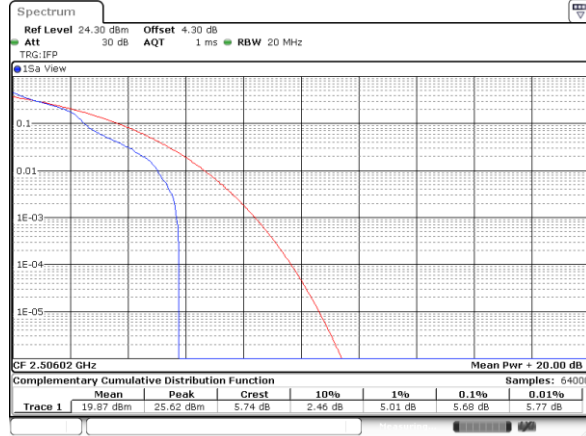
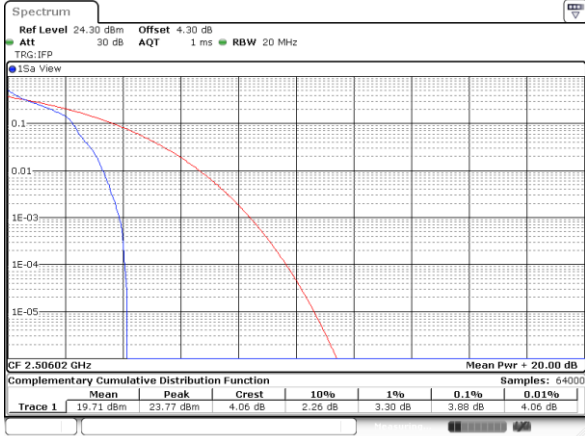
5G NR n41 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / 1RB

Lowest Channel / 1RB

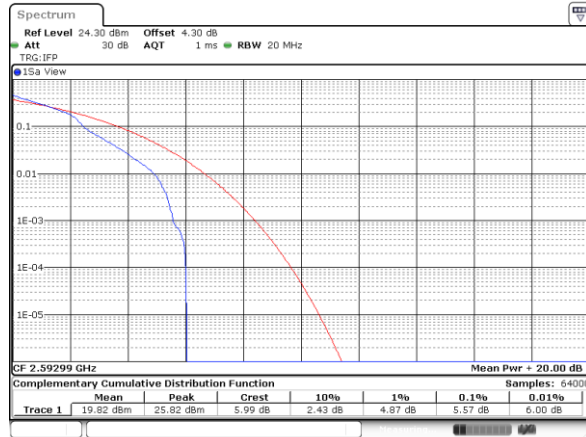
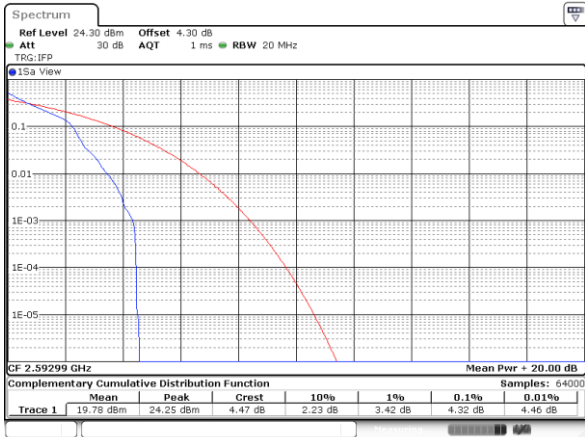


Date: 25\_SEP.2020 15:09:38

Date: 25\_SEP.2020 15:05:38

Middle Channel / 1 RB

Middle Channel / 1 RB

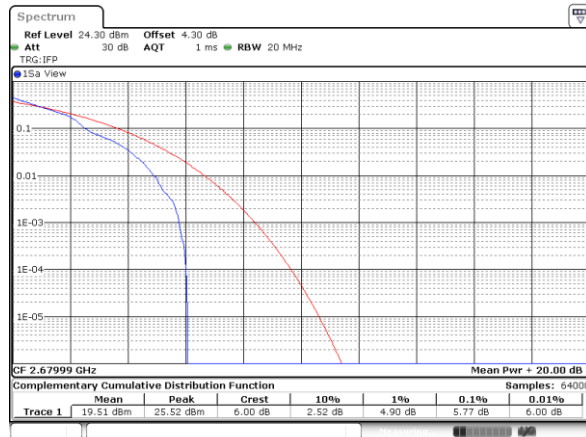
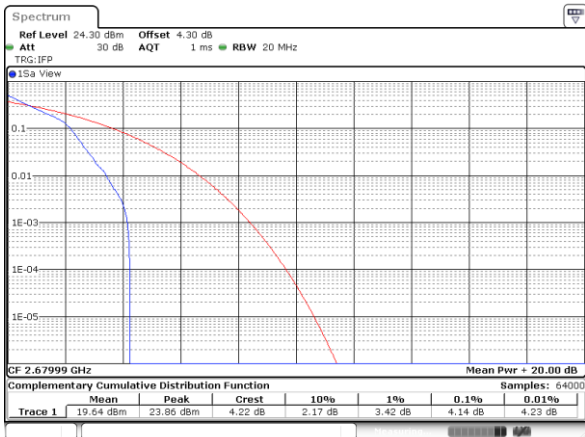


Date: 25\_SEP.2020 15:17:26

Date: 25\_SEP.2020 15:18:15

Highest Channel / 1 RB

Highest Channel / 1 RB



Date: 25\_SEP.2020 15:24:37

Date: 25\_SEP.2020 15:24:02



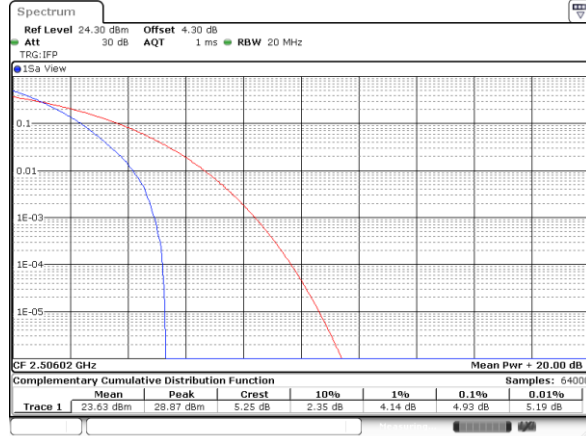
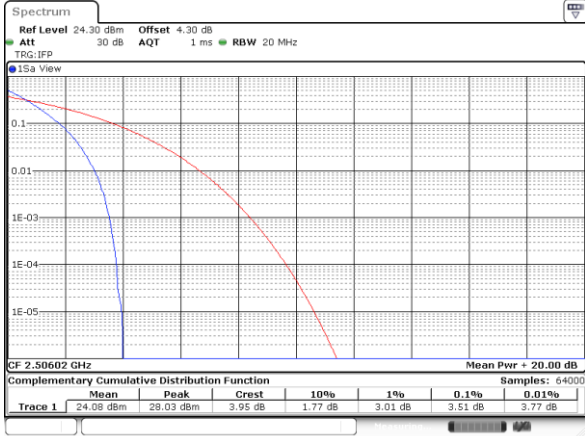
5G NR n41 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel / Full RB

Lowest Channel / Full RB

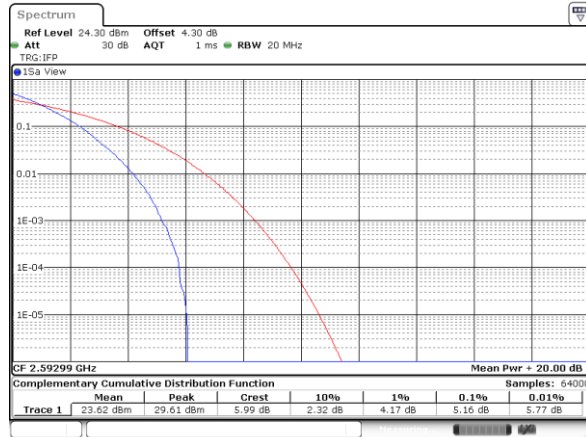
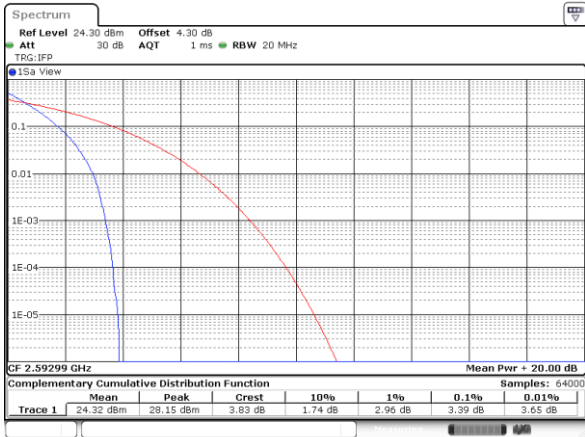


Date: 25\_SEP.2020 15:08:41

Date: 25\_SEP.2020 15:06:48

Middle Channel / Full RB

Middle Channel / Full RB

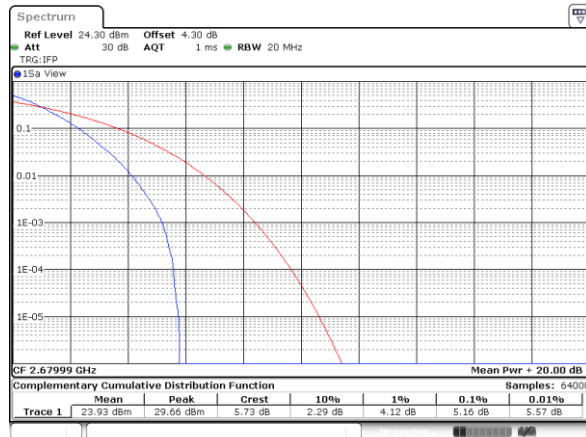
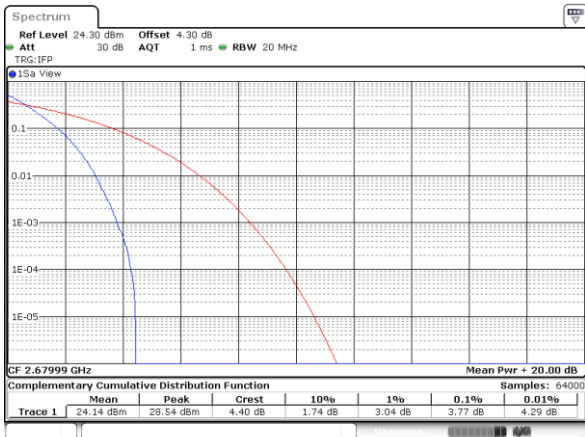


Date: 25\_SEP.2020 15:19:52

Date: 25\_SEP.2020 15:19:03

Highest Channel / Full RB

Highest Channel / Full RB



Date: 25\_SEP.2020 15:22:27

Date: 25\_SEP.2020 15:23:22



**26dB Bandwidth**

| Mode       | 5G NR n41 : 26dB BW(MHz) / DFT-S OFDM |       |           |       |           |       |
|------------|---------------------------------------|-------|-----------|-------|-----------|-------|
| BW         | 20MHz                                 |       | 60MHz     |       | 100MHz    |       |
| Mod.       | PI/2 BPSK                             | QPSK  | PI/2 BPSK | QPSK  | PI/2 BPSK | QPSK  |
| Lowest CH  | 18.82                                 | 18.74 | 60.42     | 60.42 | 99.30     | 99.30 |
| Middle CH  | 18.94                                 | 18.78 | 60.42     | 60.42 | 99.50     | 99.30 |
| Highest CH | 18.74                                 | 18.86 | 60.54     | 60.42 | 99.50     | 99.30 |



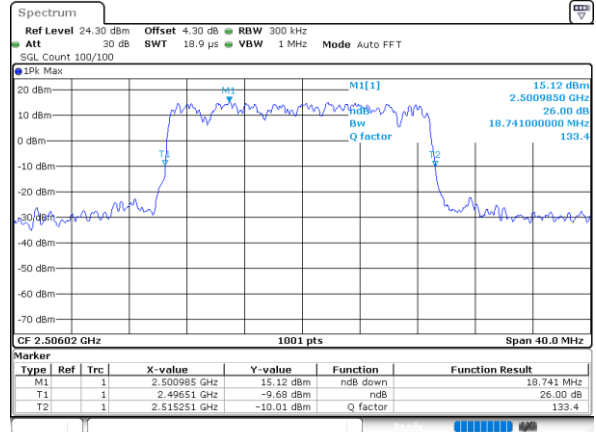
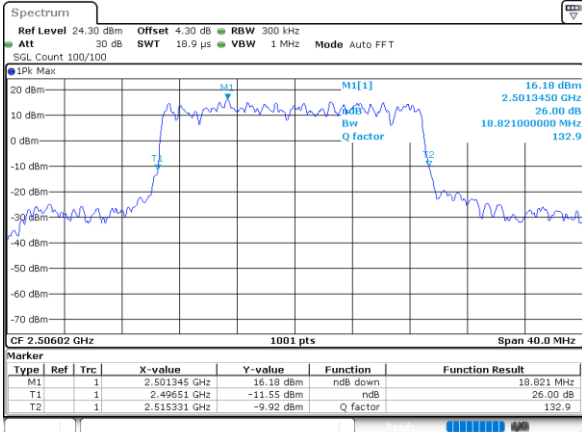
5G NR n2 / 20MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel

Lowest Channel

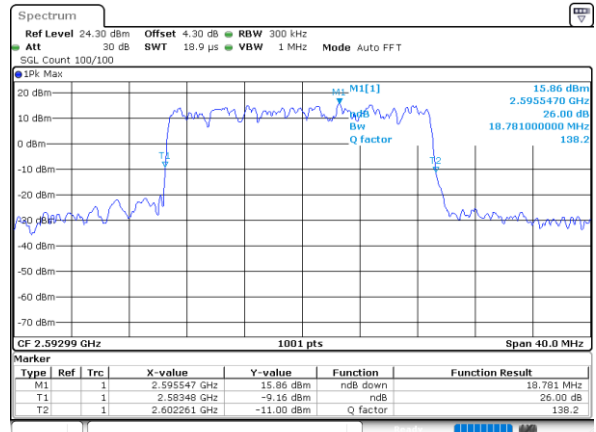
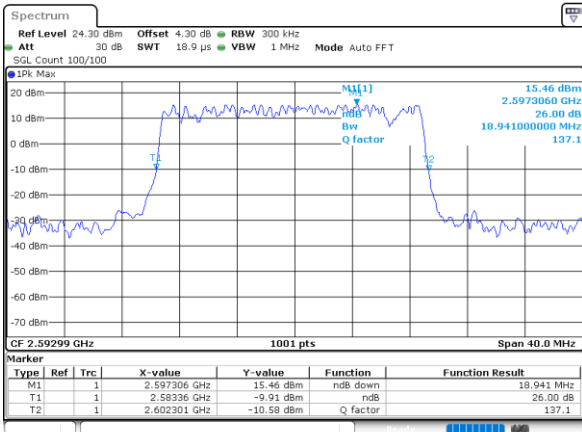


Date: 23\_SEP\_2020 13:28:05

Date: 23\_SEP\_2020 13:27:139

Middle Channel

Middle Channel

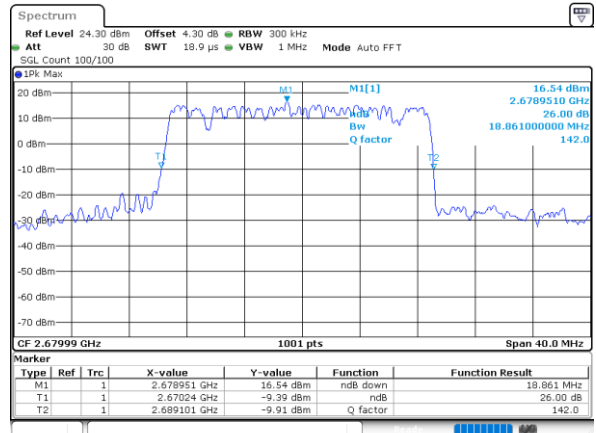
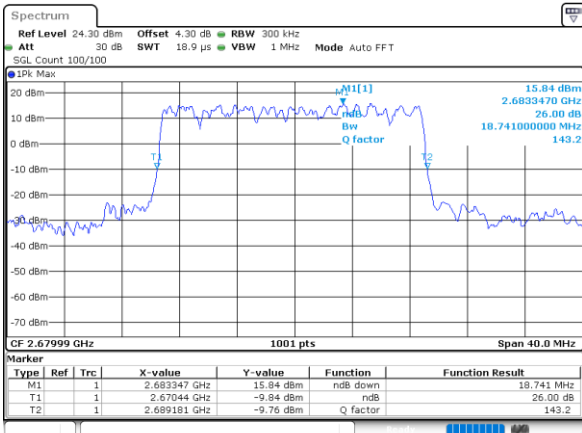


Date: 23\_SEP\_2020 13:30:44

Date: 23\_SEP\_2020 13:31:118

Highest Channel

Highest Channel



Date: 23\_SEP\_2020 13:35:18

Date: 23\_SEP\_2020 13:34:117





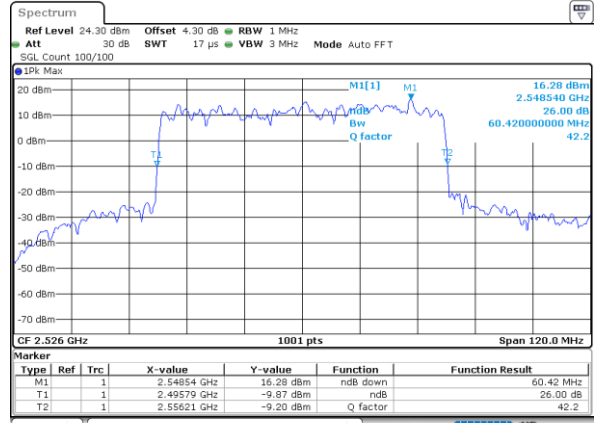
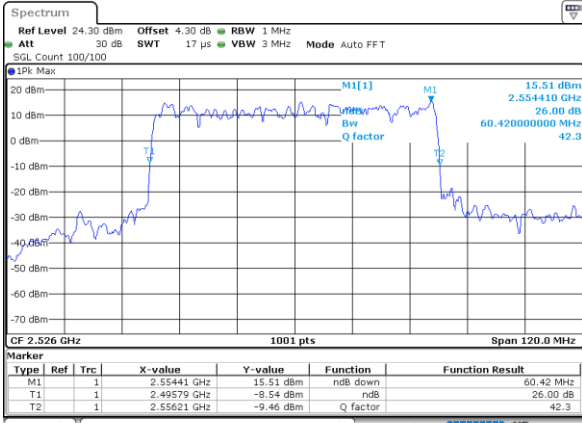
5G NR n2 / 60MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel

Lowest Channel

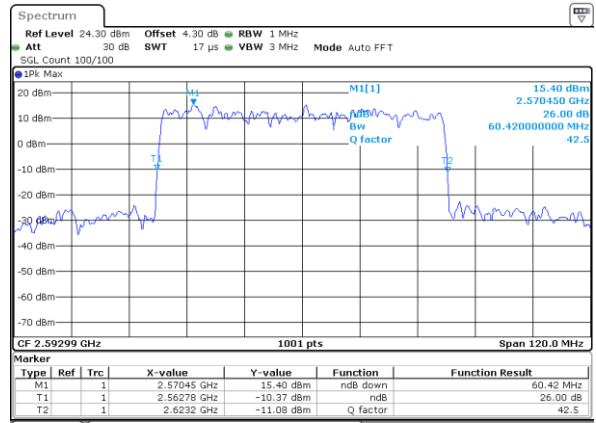
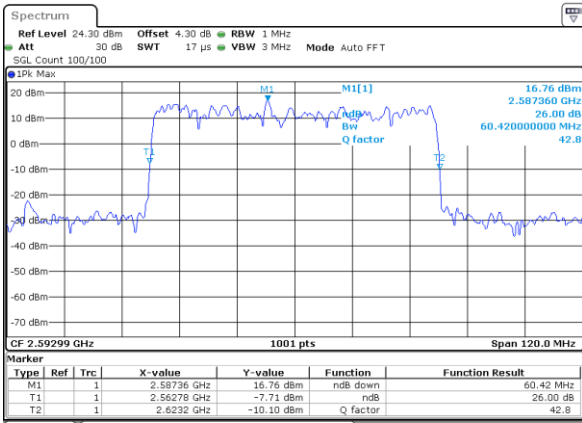


Date: 22\_SEP\_2020 03:29:33

Date: 22\_SEP\_2020 03:25:07

Middle Channel

Middle Channel

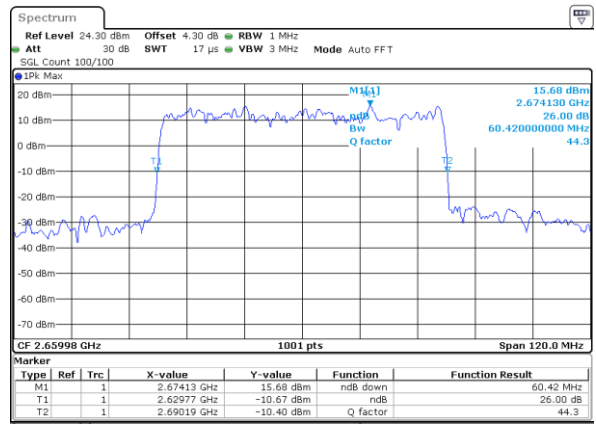
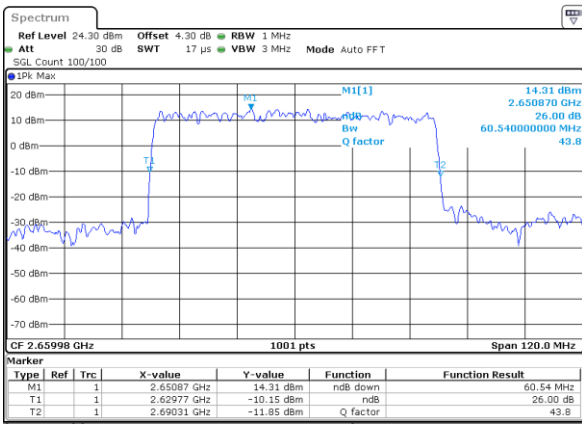


Date: 22\_SEP\_2020 03:43:14

Date: 22\_SEP\_2020 03:43:52

Highest Channel

Highest Channel



Date: 22\_SEP\_2020 03:53:58

Date: 22\_SEP\_2020 03:53:14



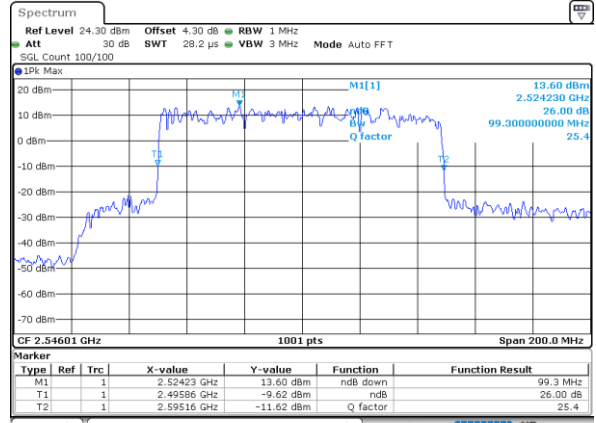
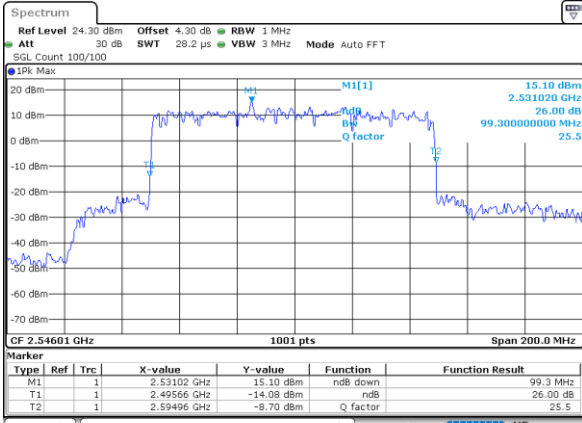
5G NR n2 / 100MHz / DFT-S OFDM

PI/2 BPSK

QPSK

Lowest Channel

Lowest Channel

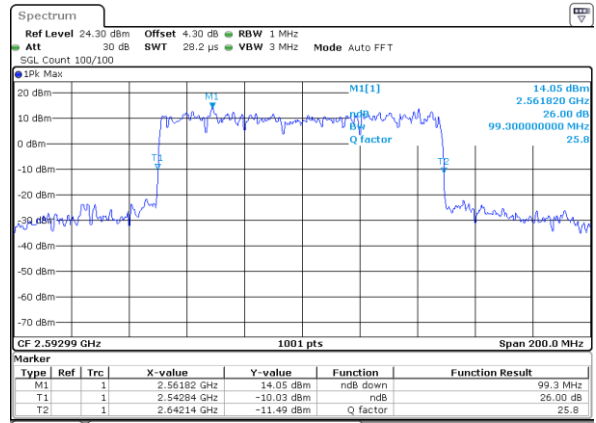
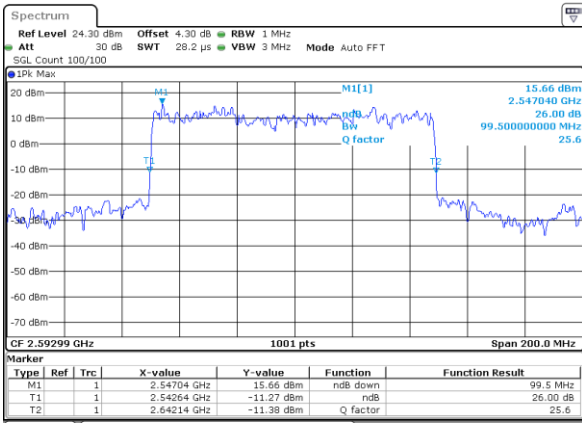


Date: 22\_SEP\_2020 02:13:26

Date: 22\_SEP\_2020 02:13:55

Middle Channel

Middle Channel

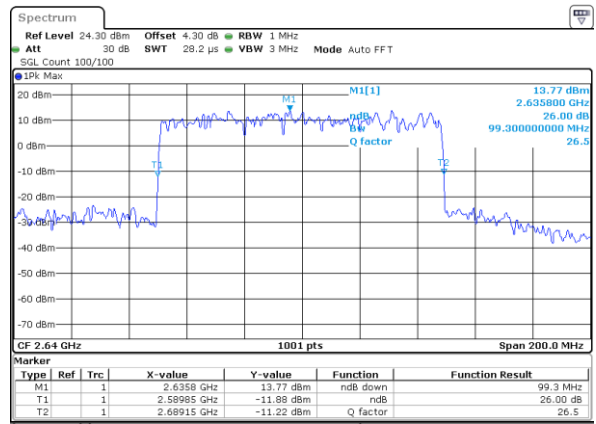
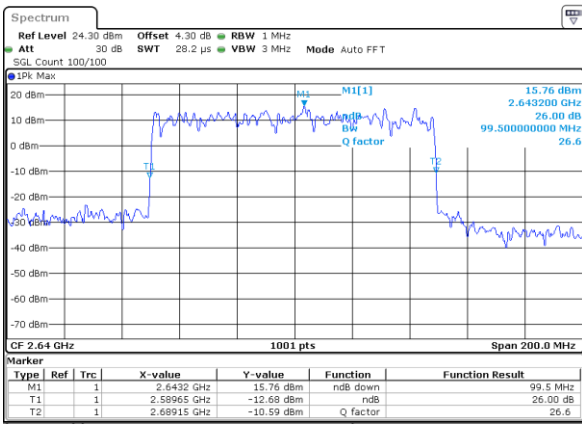


Date: 22\_SEP\_2020 02:47:30

Date: 22\_SEP\_2020 02:46:46

Highest Channel

Highest Channel



Date: 22\_SEP\_2020 03:09:57

Date: 22\_SEP\_2020 03:07:59



### Occupied Bandwidth

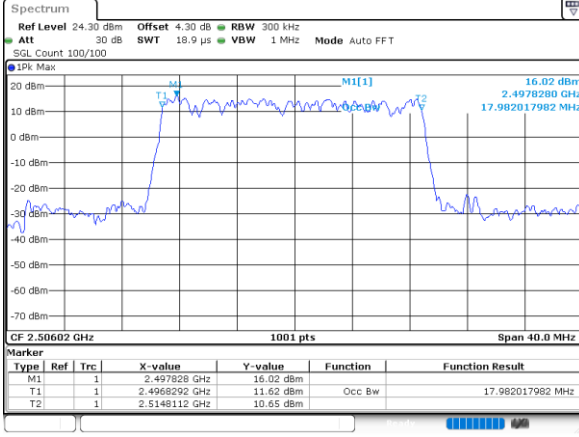
| Mode       | 5G NR n41: 99%OBW(MHz) / DFT-S OFDM |           |           |
|------------|-------------------------------------|-----------|-----------|
| BW         | 20MHz                               | 60MHz     | 100MHz    |
| Mod.       | PI/2 BPSK                           | PI/2 BPSK | PI/2 BPSK |
| Lowest CH  | 17.98                               | 58.14     | 96.50     |
| Middle CH  | 17.94                               | 58.14     | 96.70     |
| Highest CH | 17.94                               | 57.90     | 96.30     |

| Mode       | 5G NR n41 : 99%OBW(MHz) / DFT-S OFDM |        |       |        |        |        |
|------------|--------------------------------------|--------|-------|--------|--------|--------|
| BW         | 20MHz                                |        | 60MHz |        | 100MHz |        |
| Mod.       | QPSK                                 | 16QAM  | QPSK  | 16QAM  | QPSK   | 16QAM  |
| Lowest CH  | 17.82                                | -      | 57.78 | -      | 96.30  | -      |
| Middle CH  | 17.86                                | 18.14  | 57.90 | 57.78  | 97.10  | 97.30  |
| Highest CH | 17.90                                | -      | 58.02 | -      | 96.30  | -      |
| Mode       | 5G NR n41 : 99%OBW(MHz) / DFT-S OFDM |        |       |        |        |        |
| BW         | 20MHz                                |        | 60MHz |        | 100MHz |        |
| Mod.       | 64QAM                                | 256QAM | 64QAM | 256QAM | 64QAM  | 256QAM |
| Middle CH  | 18.26                                | 18.22  | 58.26 | 58.14  | 97.70  | 97.30  |

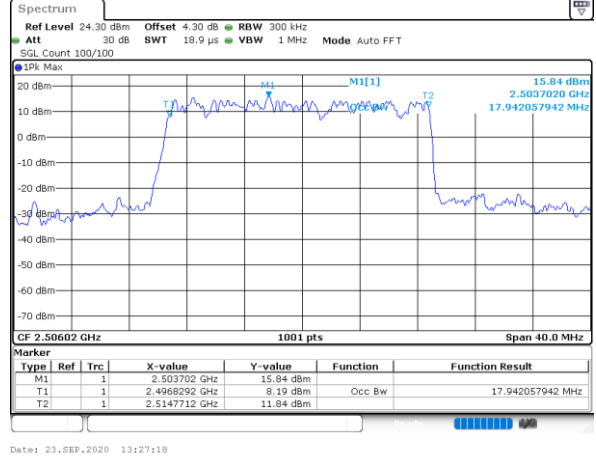


5G NR n41 / 20MHz / DFT-S OFDM

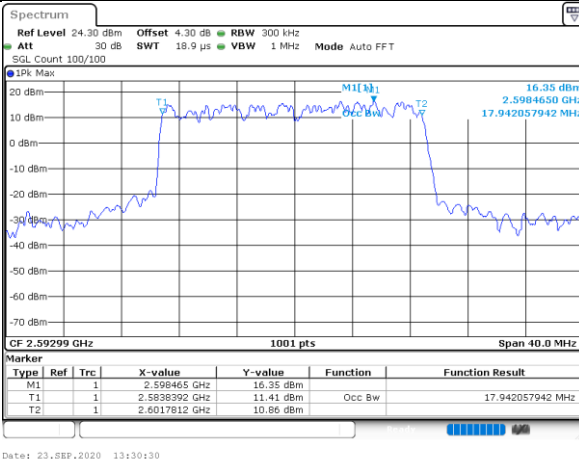
PI/2 BPSK  
Lowest Channel



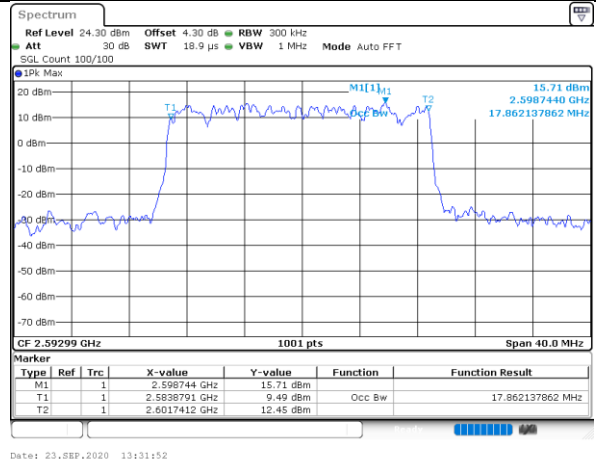
QPSK  
Lowest Channel



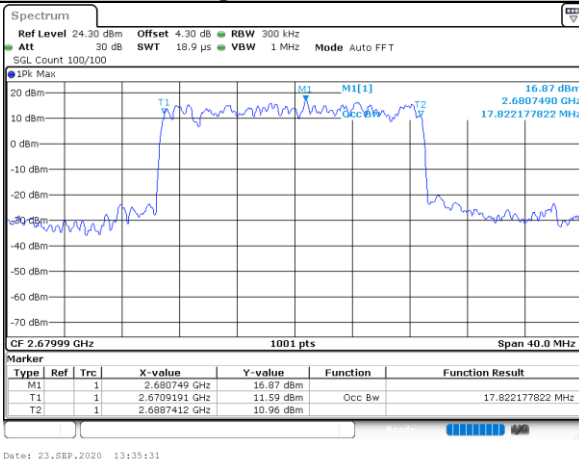
Middle Channel



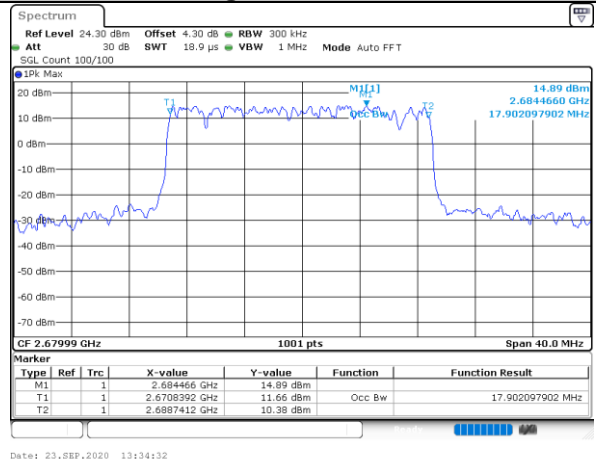
Middle Channel



Highest Channel



Highest Channel

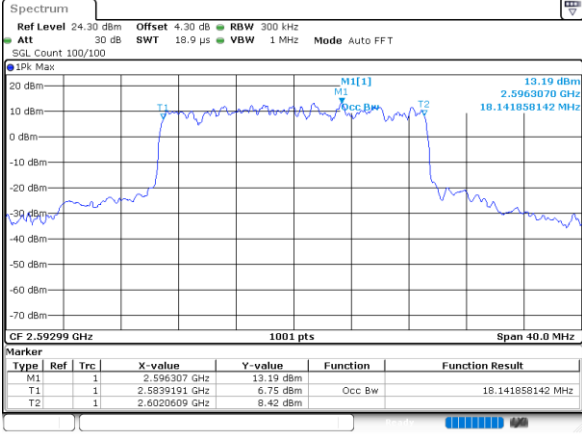




5G NR n41 / 20MHz / DFT-S OFDM

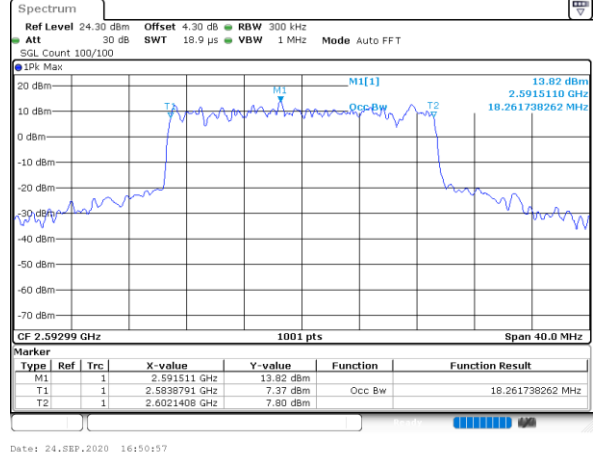
16QAM

Middle Channel



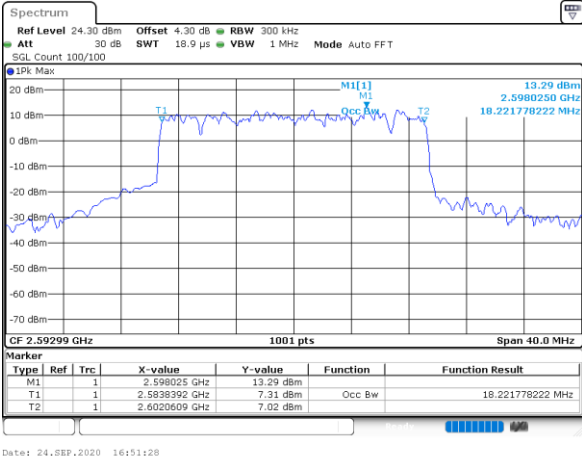
64QAM

Middle Channel



256QAM

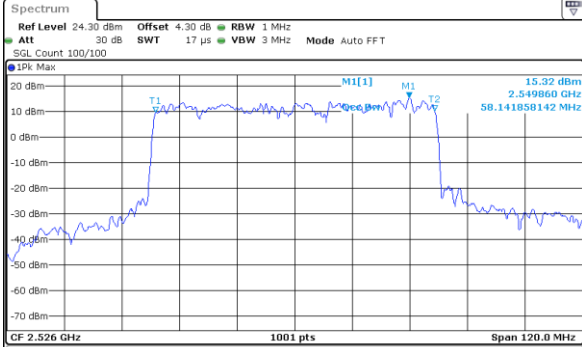
Middle Channel





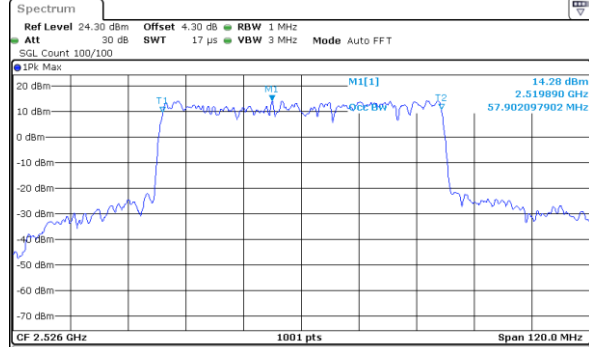
5G NR n41 / 60MHz / DFT-S OFDM

PI/2 BPSK  
Lowest Channel



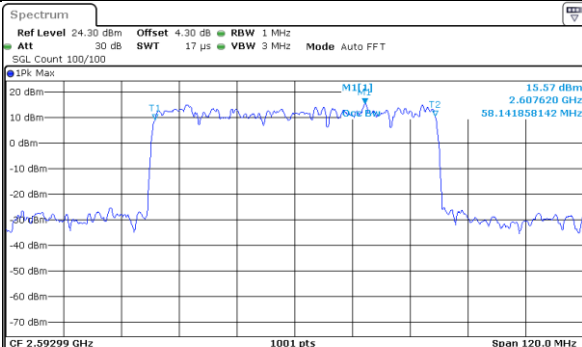
Date: 22\_SEP\_2020 03:29:27

QPSK  
Lowest Channel



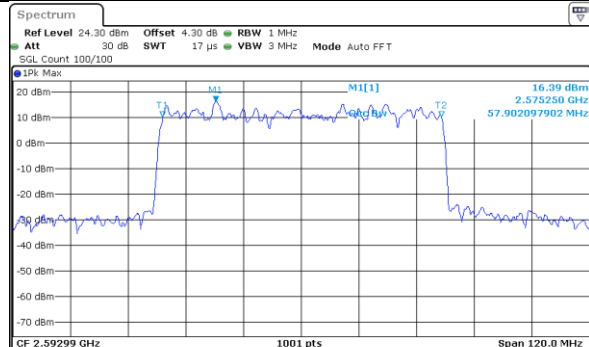
Date: 22\_SEP\_2020 03:25:02

Middle Channel



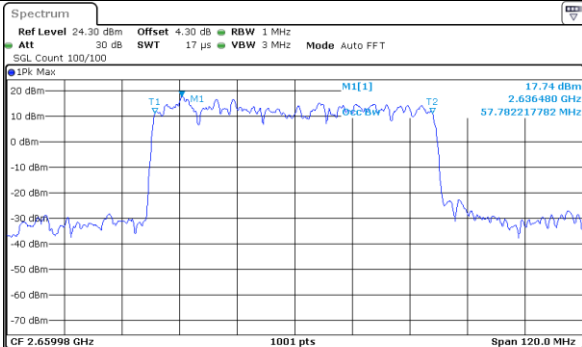
Date: 22\_SEP\_2020 03:43:09

Middle Channel



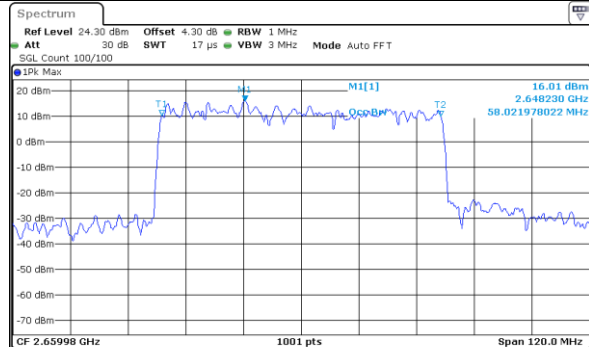
Date: 22\_SEP\_2020 03:43:37

Highest Channel



Date: 22\_SEP\_2020 03:51:54

Highest Channel



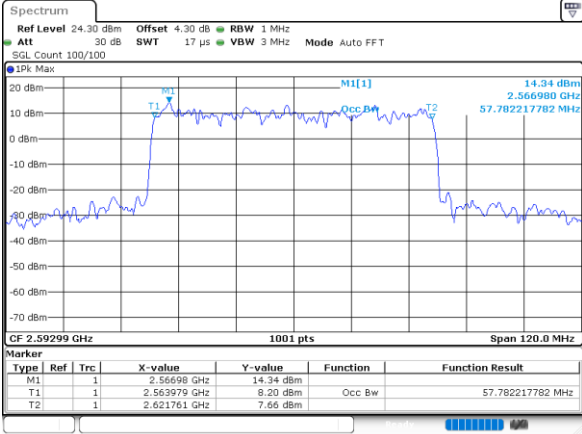
Date: 22\_SEP\_2020 03:53:08



5G NR n41 / 60MHz / DFT-S OFDM

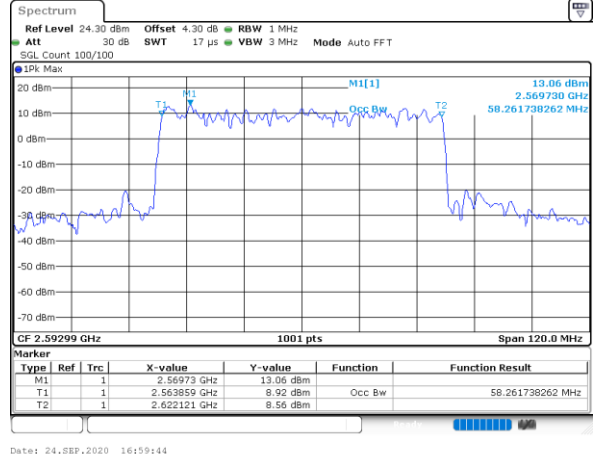
16QAM

Middle Channel



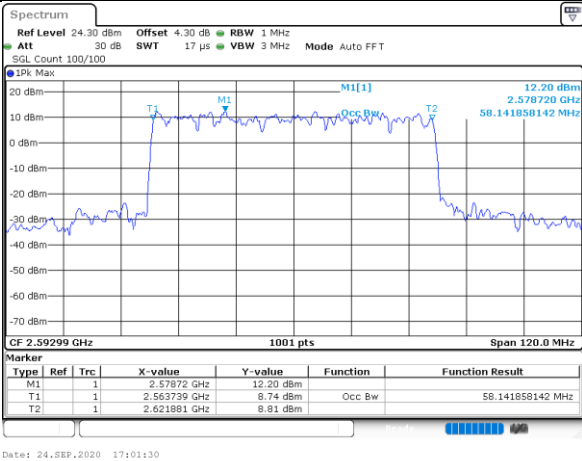
64QAM

Middle Channel



256QAM

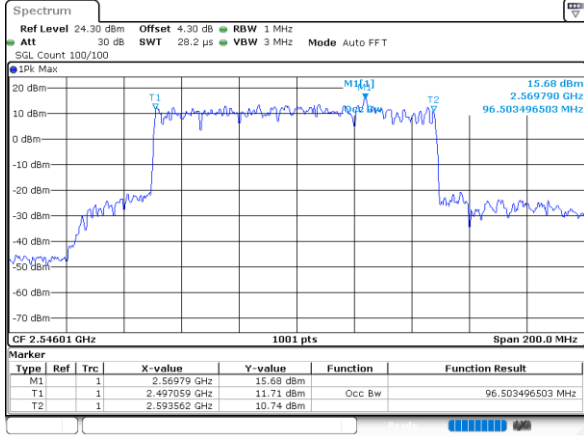
Middle Channel



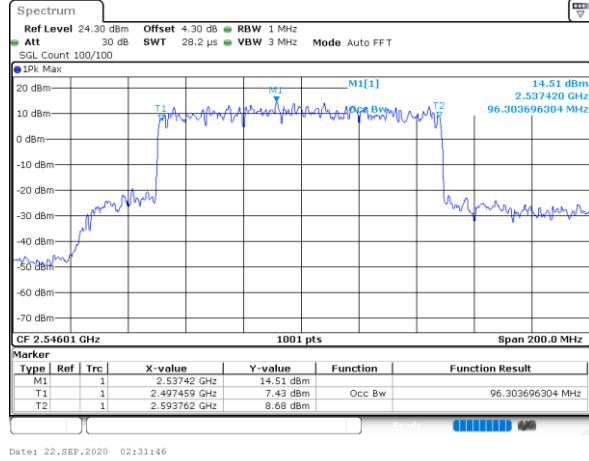


5G NR n41 / 100MHz / DFT-S OFDM

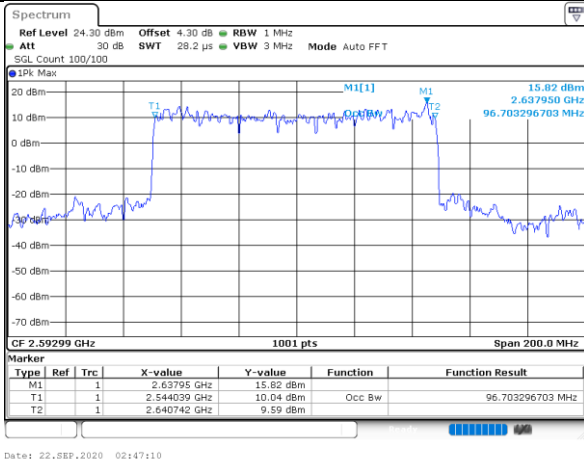
PI/2 BPSK  
Lowest Channel



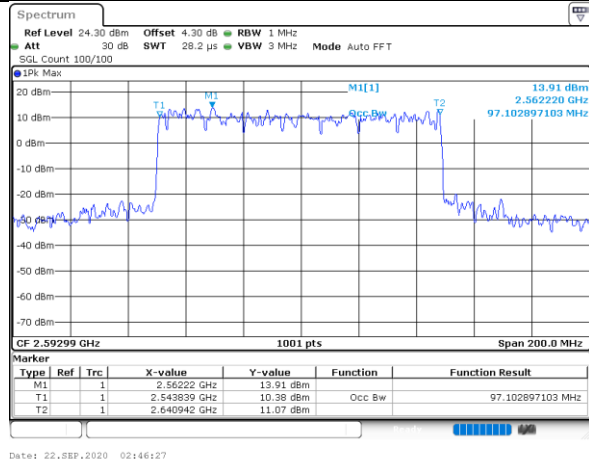
QPSK  
Lowest Channel



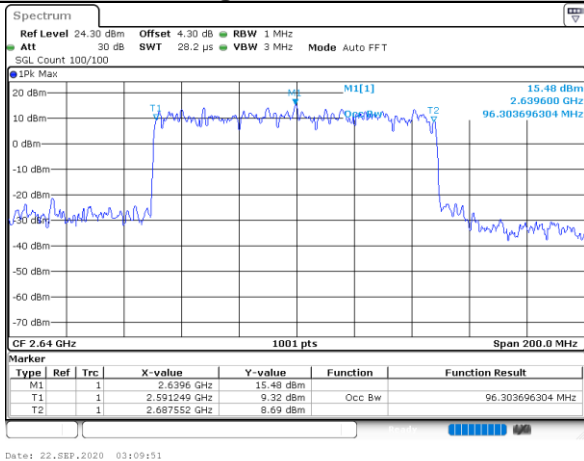
Middle Channel



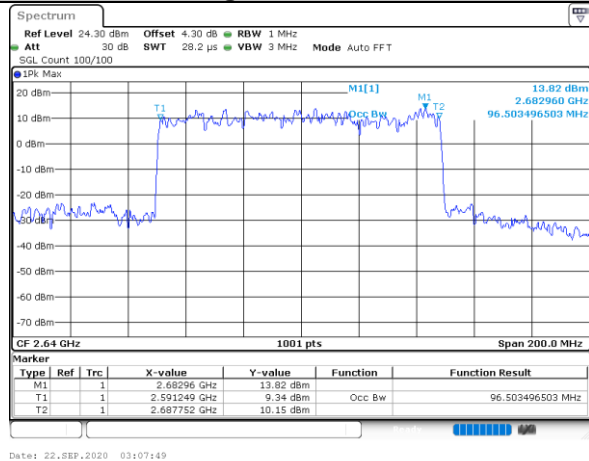
Middle Channel



Highest Channel



Highest Channel



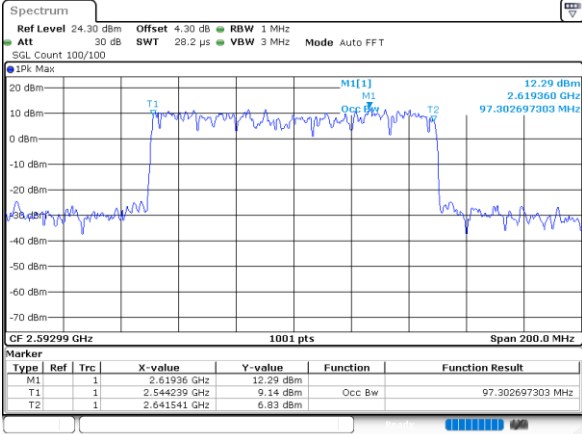




5G NR n41 / 100MHz / DFT-S OFDM

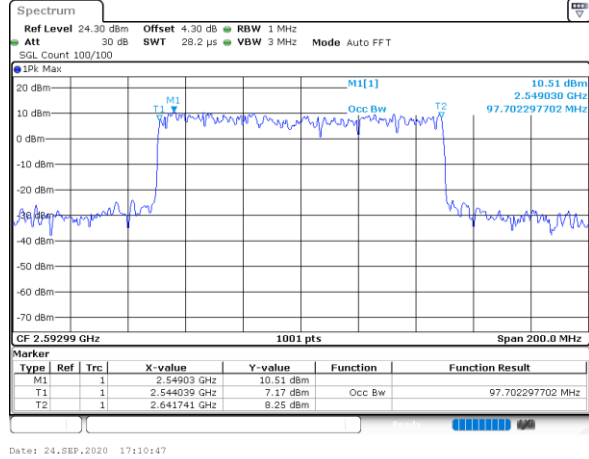
16QAM

Middle Channel



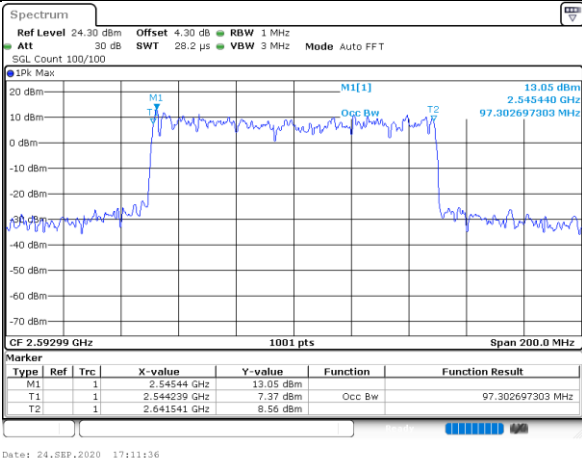
64QAM

Middle Channel



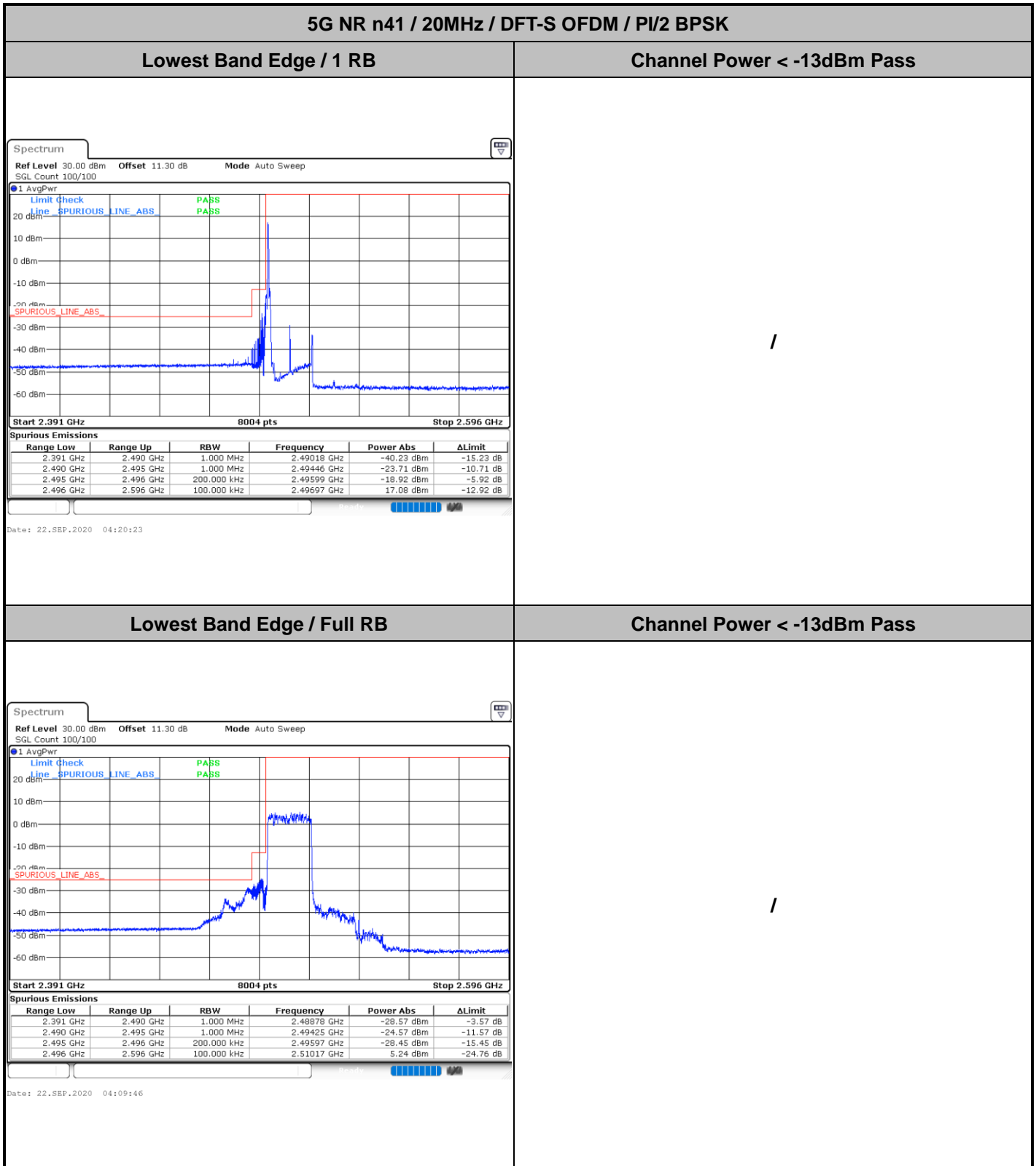
256QAM

Middle Channel





# Conducted Band Edge

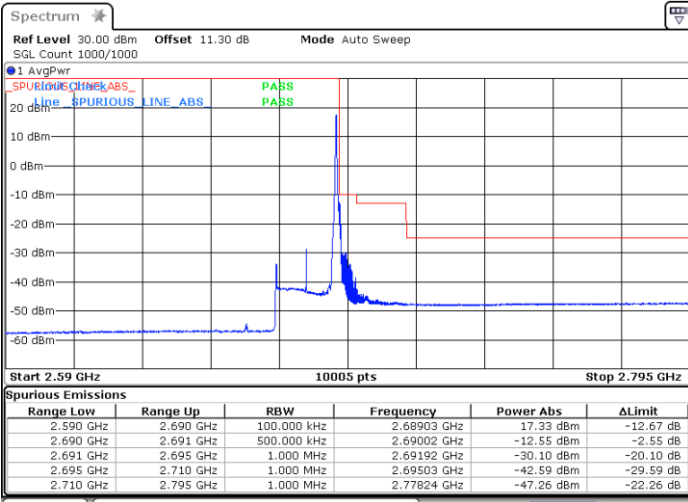




5G NR n41 / 20MHz / DFT-S OFDM / PI/2 BPSK

Highest Band Edge / 1 RB

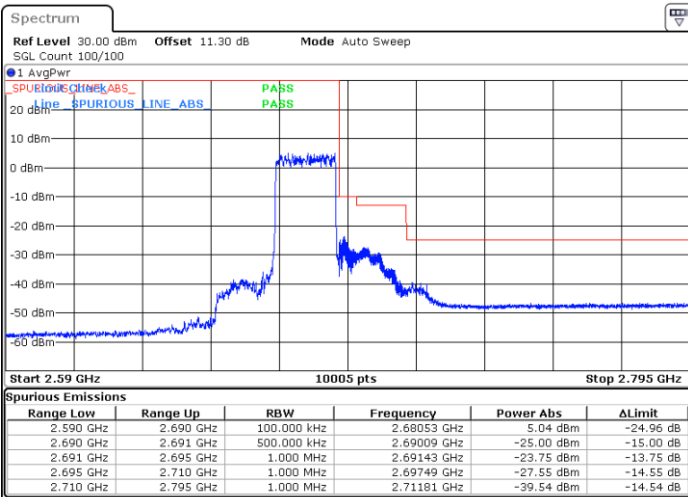
Channel Power < -25dBm Pass



Date: 22.SEP.2020 04:46:45

Highest Band Edge / Full RB

Channel Power < -25dBm Pass



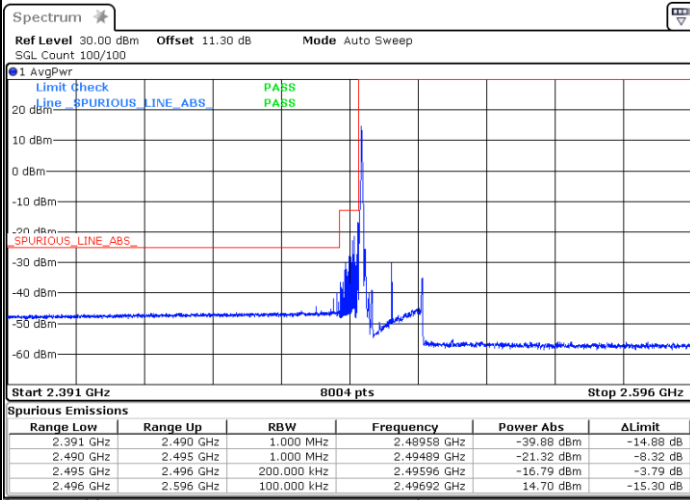
Date: 22.SEP.2020 04:33:13



5G NR n41 / 20MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

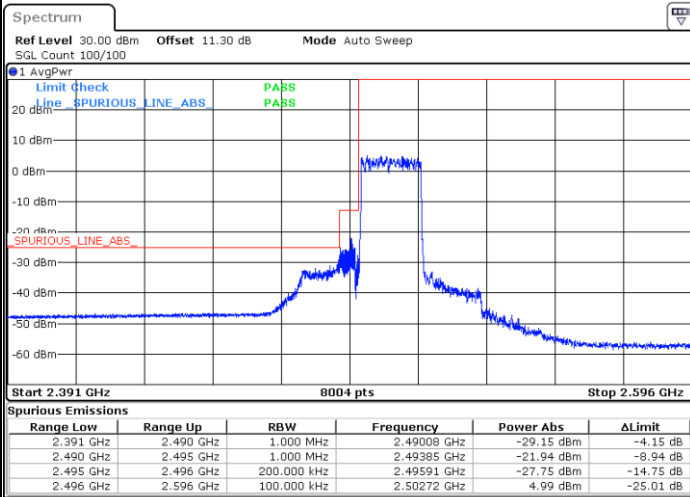
Channel Power < -25dBm Pass



Date: 22.SEP.2020 04:20:02

Lowest Band Edge / Full RB

Channel Power < -25dBm Pass



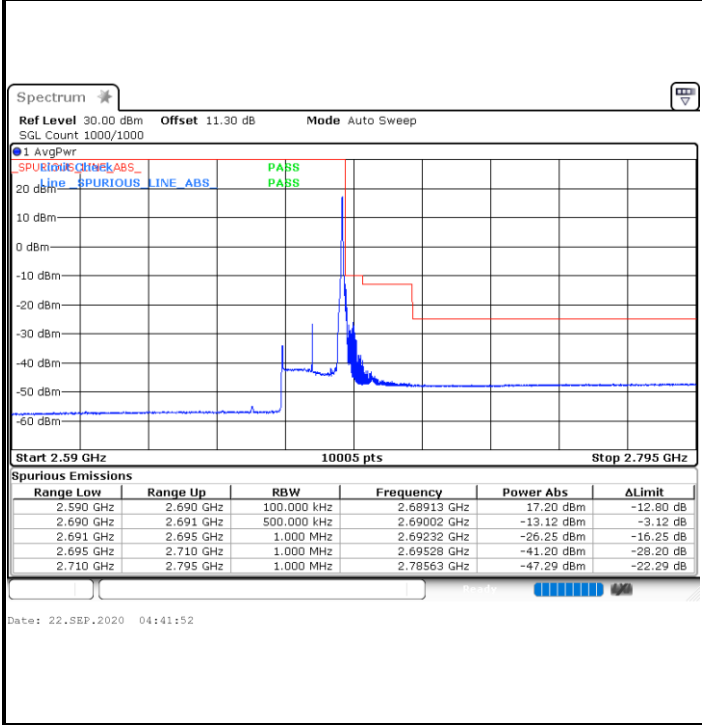
Date: 22.SEP.2020 04:11:06



**5G NR n41 / 20MHz / DFT-S OFDM QPSK**

**Highest Band Edge / 1 RB**

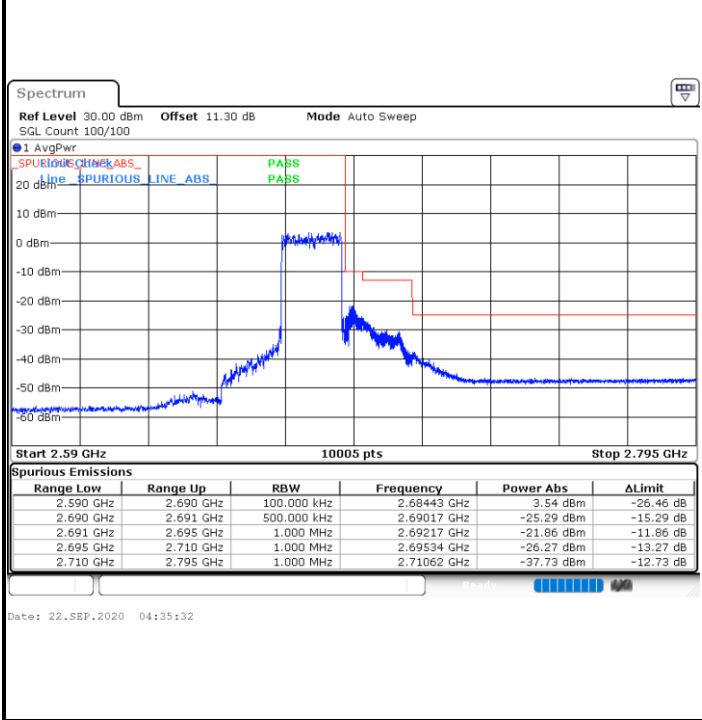
**Channel Power < -10dBm Pass**



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**Highest Band Edge / Full RB**

**Channel Power < -10dBm Pass**



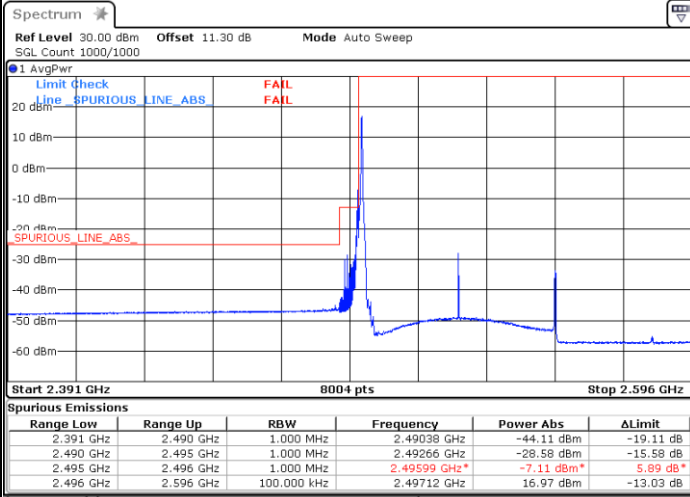
/



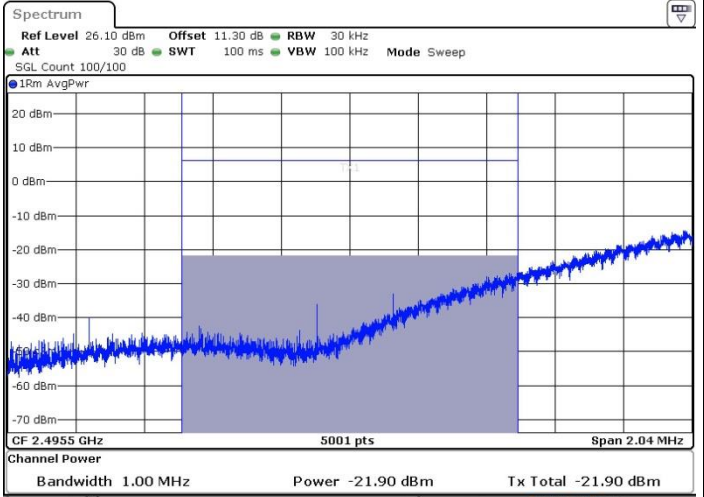
5G NR n41 / 60MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



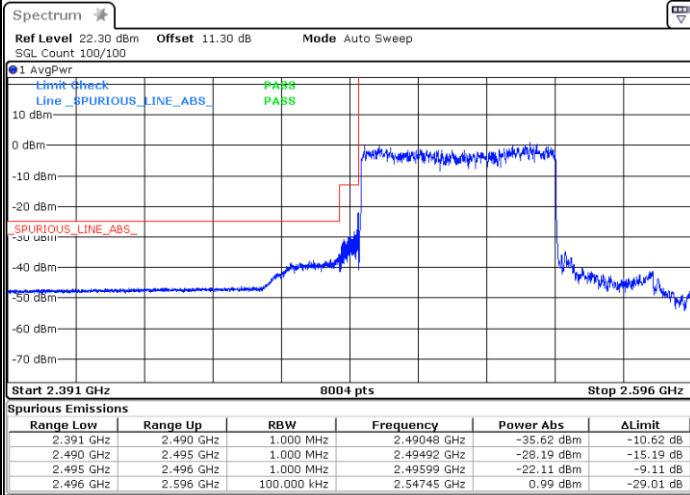
Date: 22.SEP.2020 03:34:29



Date: 22.SEP.2020 04:07:53

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



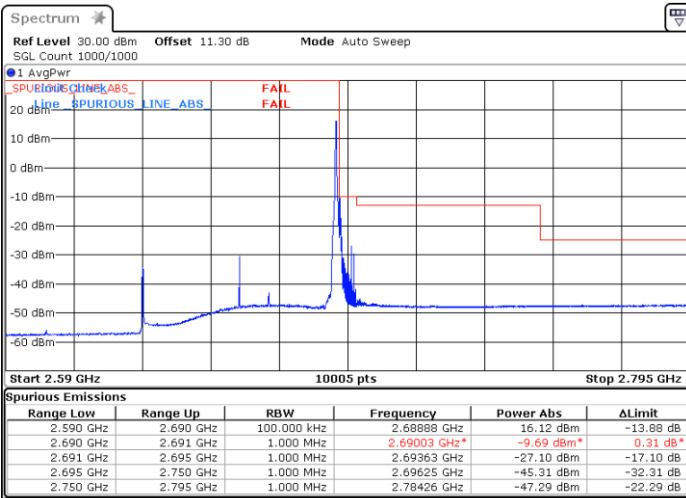
Date: 22.SEP.2020 03:30:08



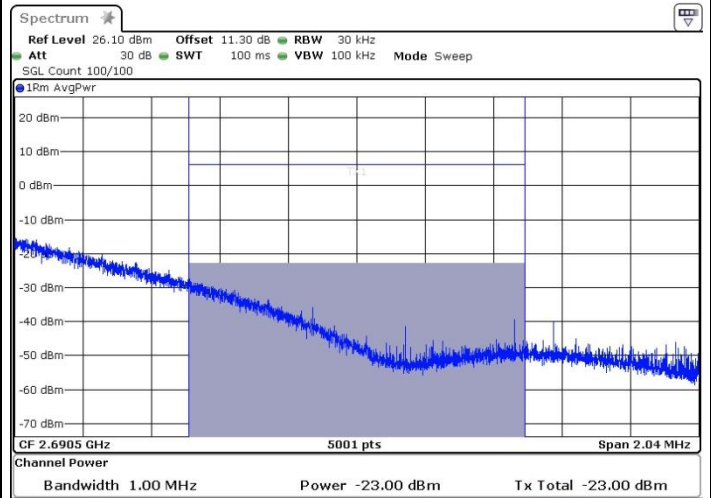
5G NR n41 / 60MHz / DFT-S OFDM / PI/2 BPSK

Highest Band Edge / 1 RB

Channel Power < -10dBm Pass



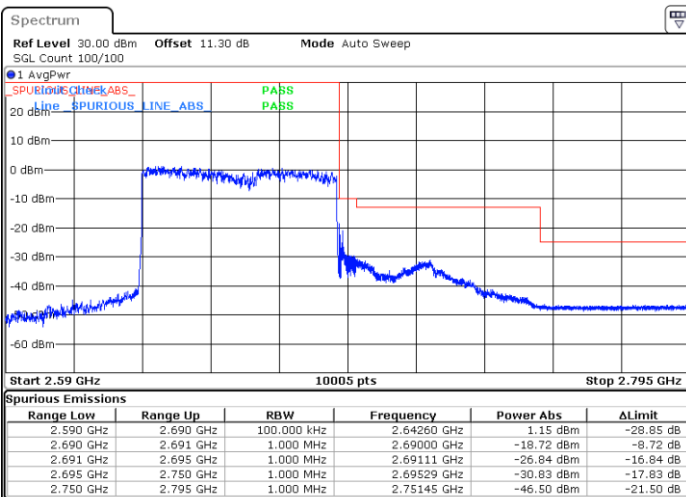
Date: 22.SEP.2020 03:57:03



Date: 22.SEP.2020 04:03:52

Highest Band Edge / Full RB

Channel Power < -10dBm Pass



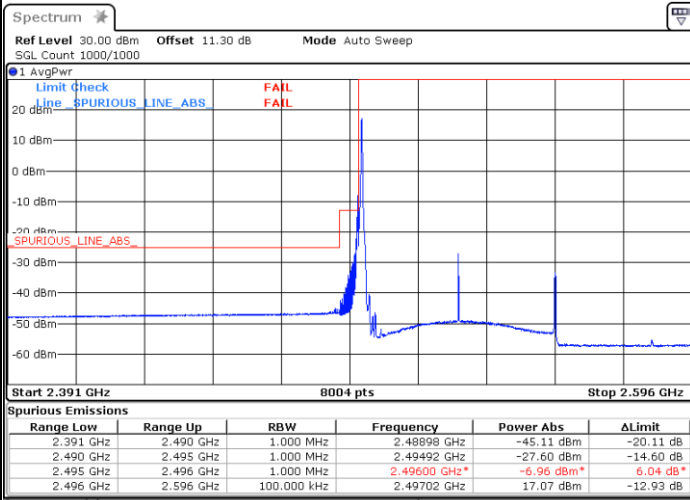
Date: 22.SEP.2020 03:55:16



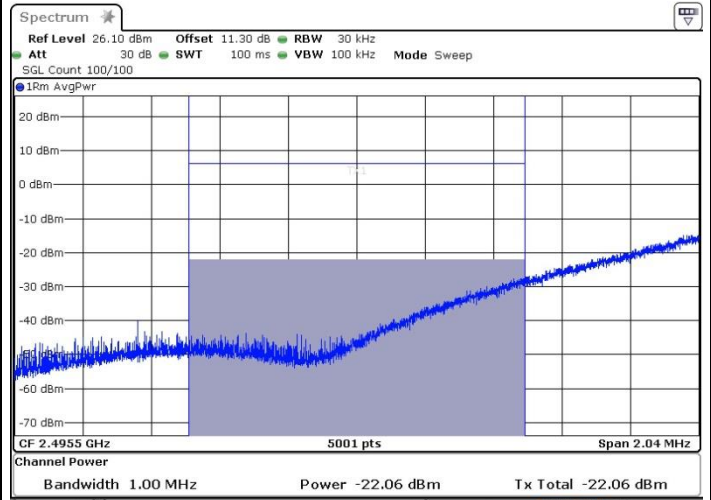
5G NR n41 / 60MHz / DFT-S OFDM QPSK

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass



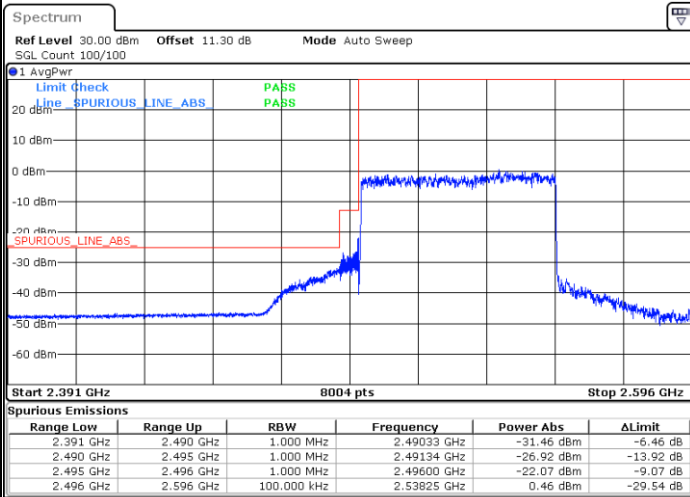
Date: 22.SEP.2020 03:32:25



Date: 22.SEP.2020 04:07:16

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass



Date: 22.SEP.2020 03:31:13

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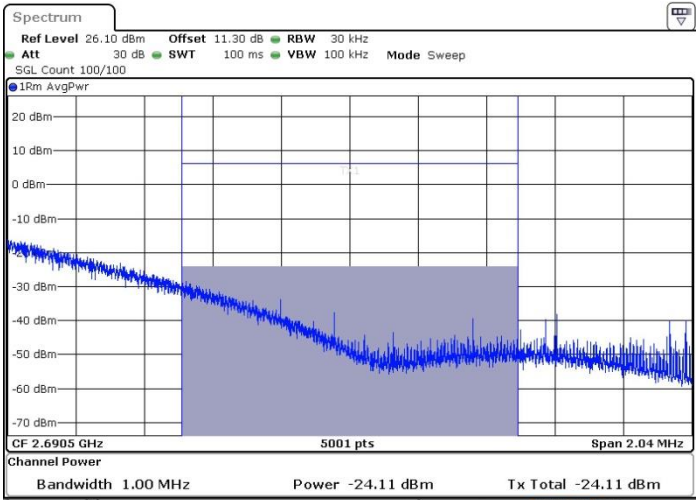
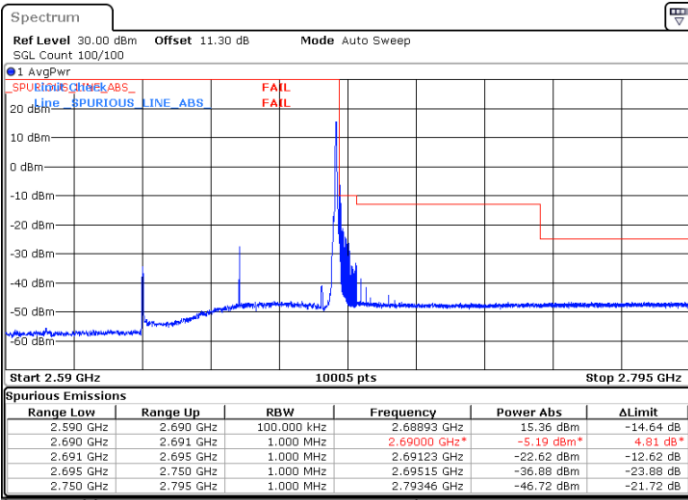




5G NR n41 / 60MHz / DFT-S OFDM QPSK

Highest Band Edge / 1 RB

Channel Power < -10dBm Pass

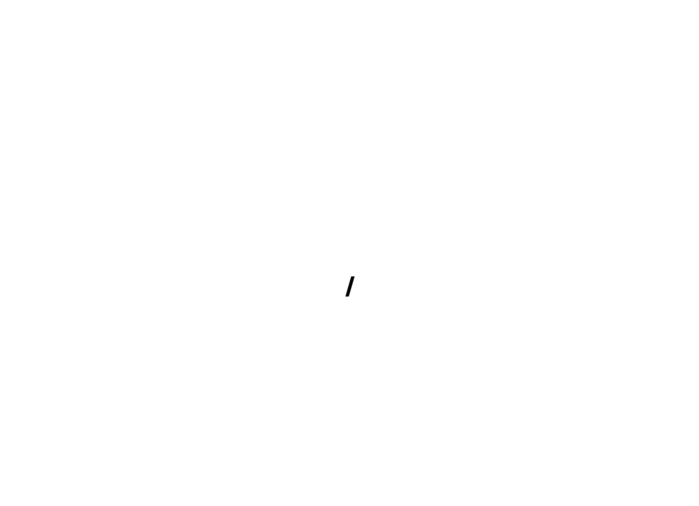
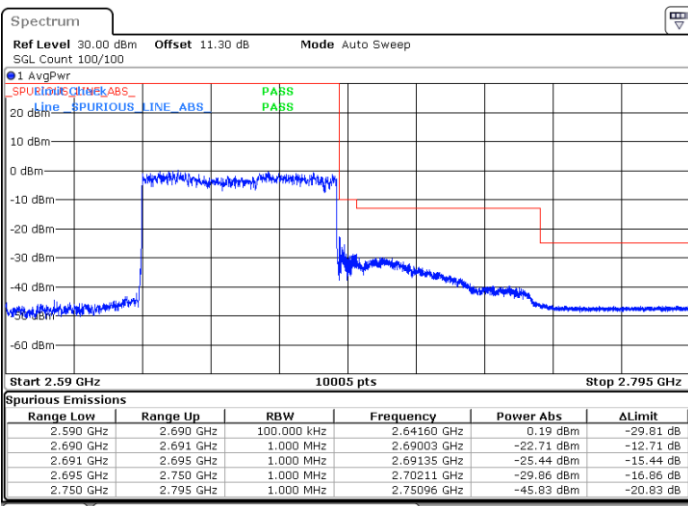


Date: 22.SEP.2020 03:58:09

Date: 22.SEP.2020 04:04:22

Highest Band Edge / Full RB

Channel Power < -10dBm Pass



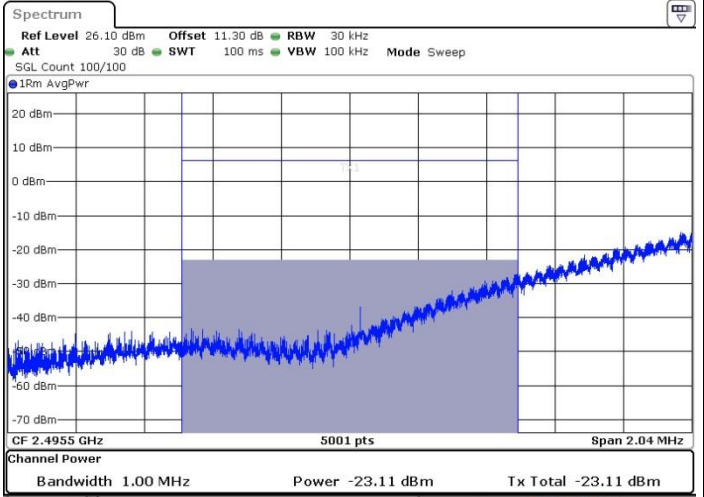
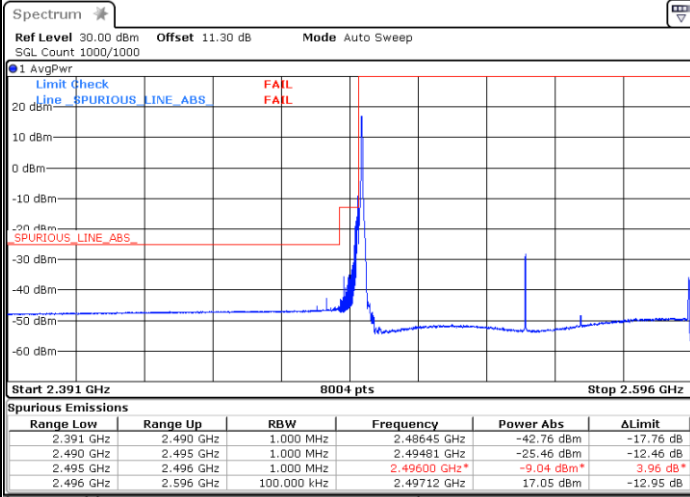
Date: 22.SEP.2020 03:53:36



5G NR n41 / 100MHz / DFT-S OFDM / PI/2 BPSK

Lowest Band Edge / 1 RB

Channel Power < -13dBm Pass

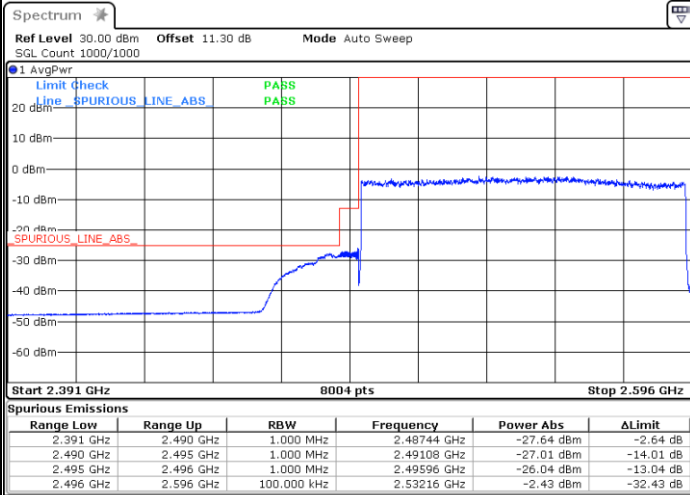


Date: 22.SEP.2020 02:39:58

Date: 22.SEP.2020 02:42:39

Lowest Band Edge / Full RB

Channel Power < -13dBm Pass

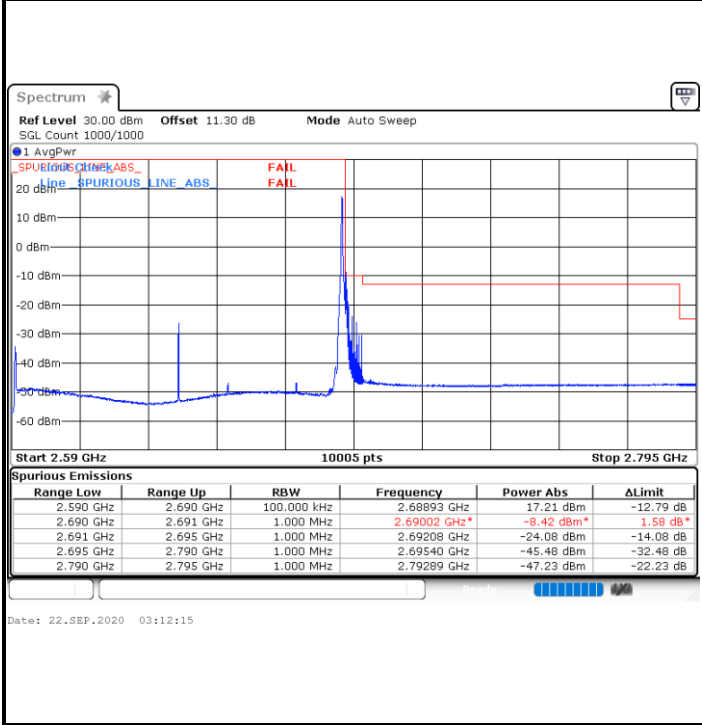


Date: 23.SEP.2020 13:42:16

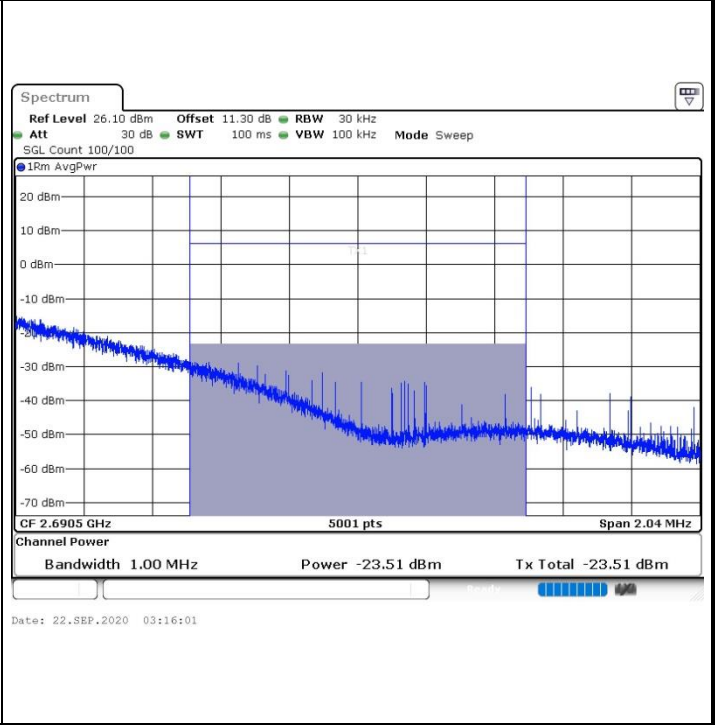


**5G NR n41 / 100MHz / DFT-S OFDM / PI/2 BPSK**

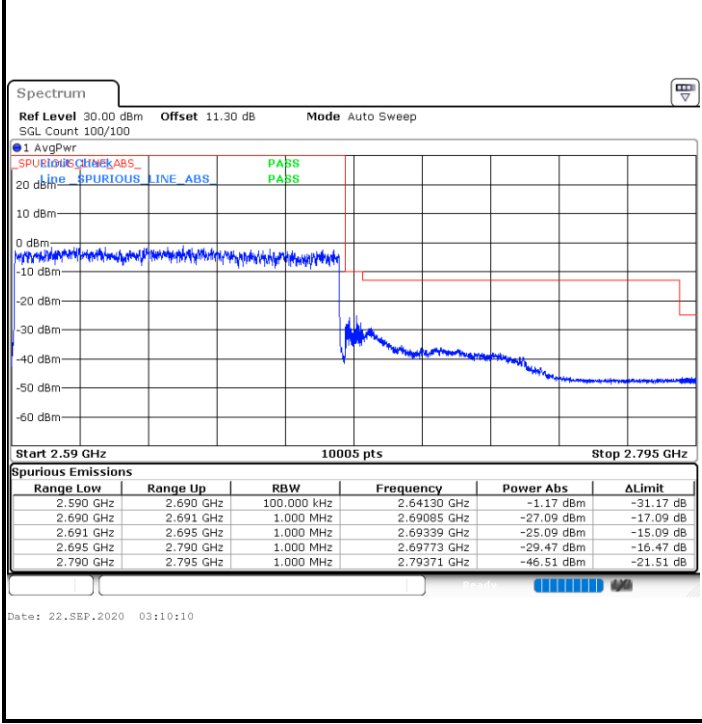
**Highest Band Edge / 1 RB**



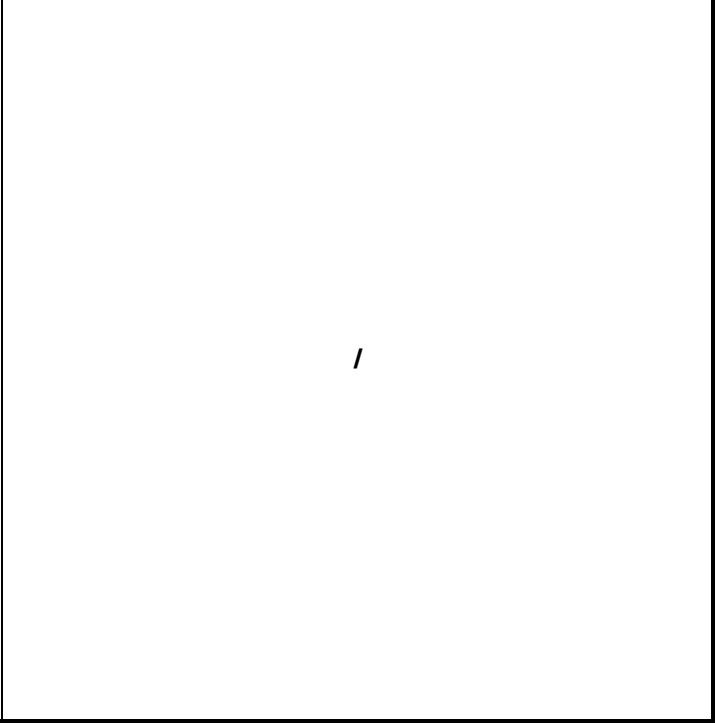
**Channel Power < -10dBm Pass**



**Highest Band Edge / Full RB**

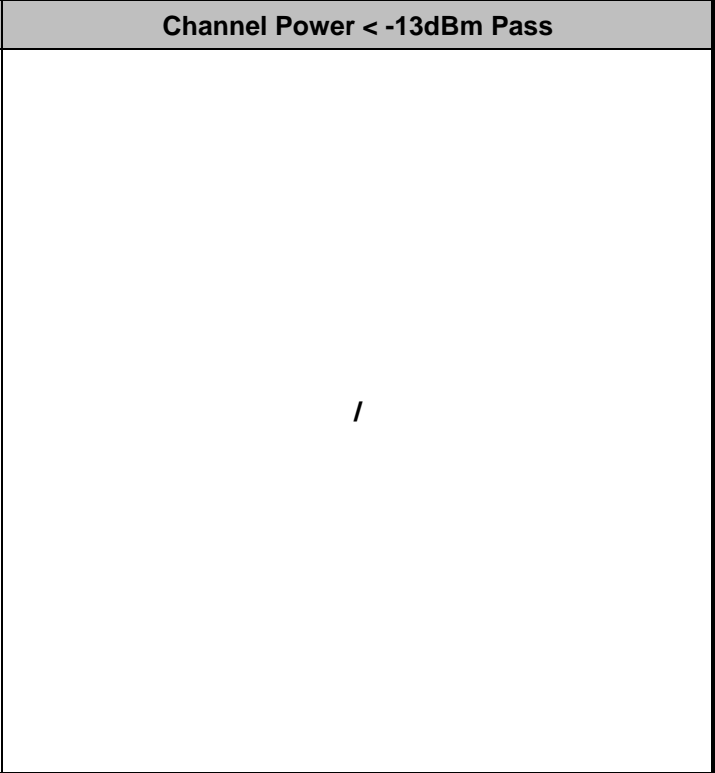
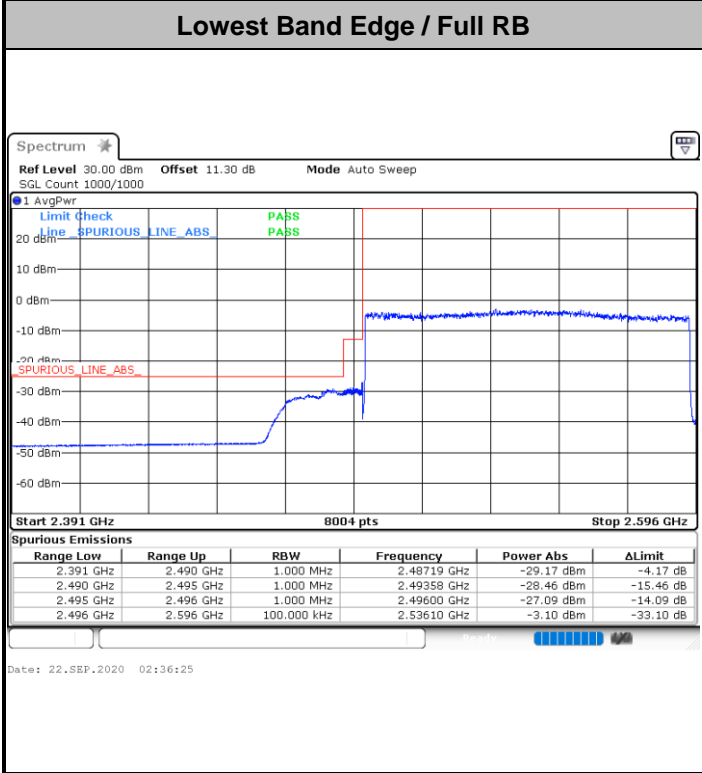
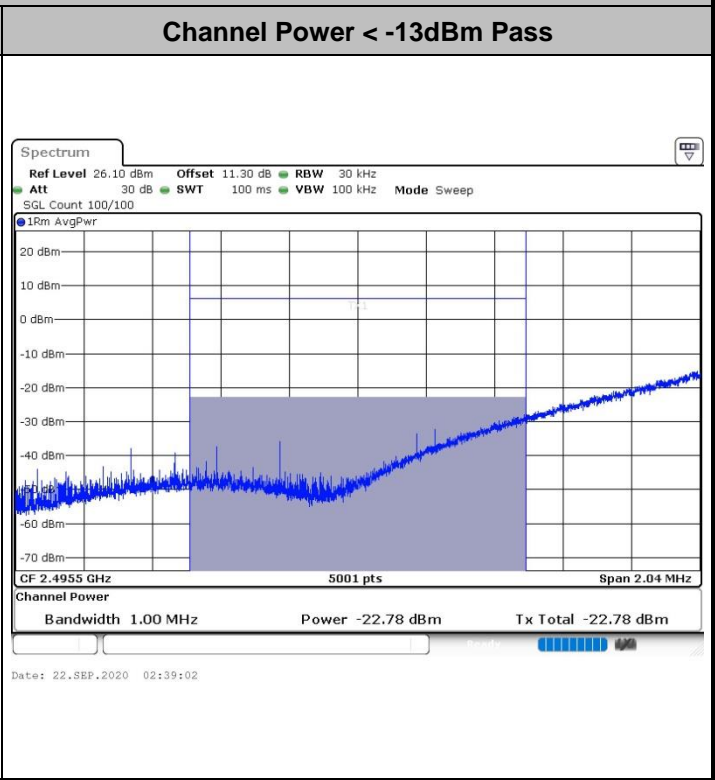
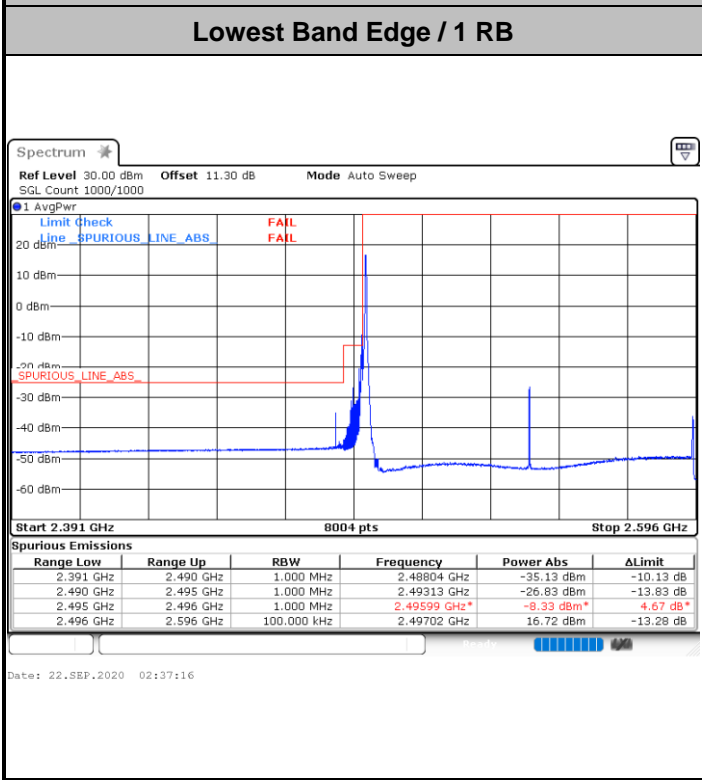


**Channel Power < -10dBm Pass**



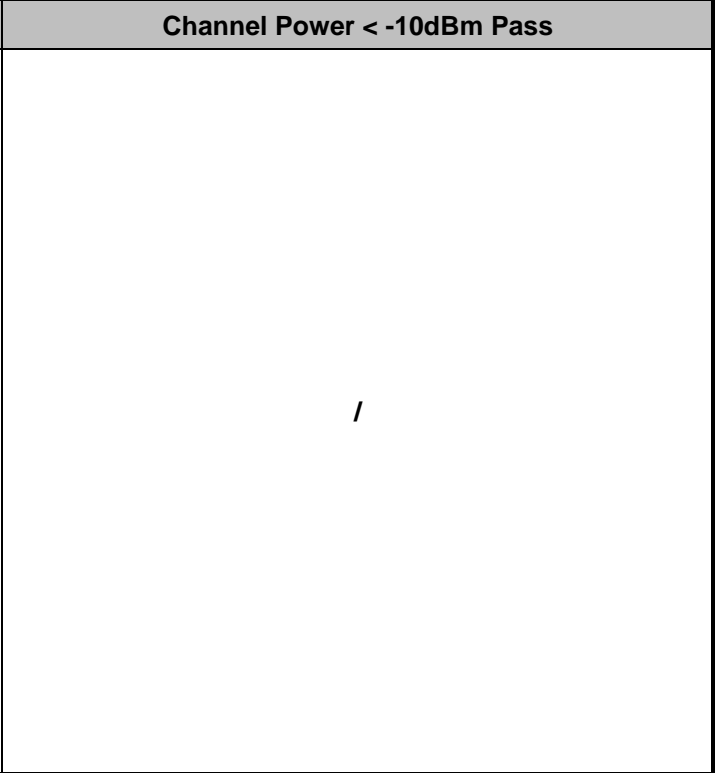
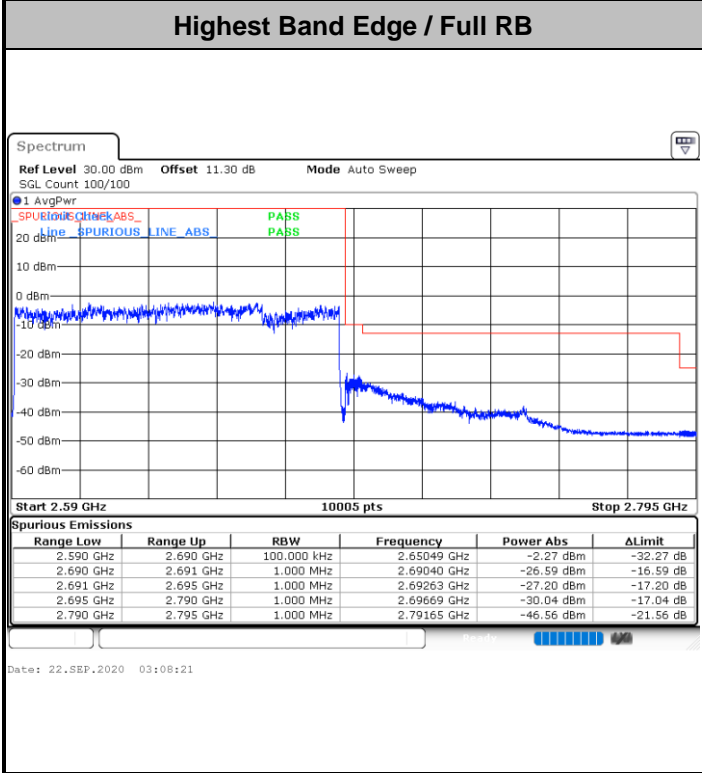
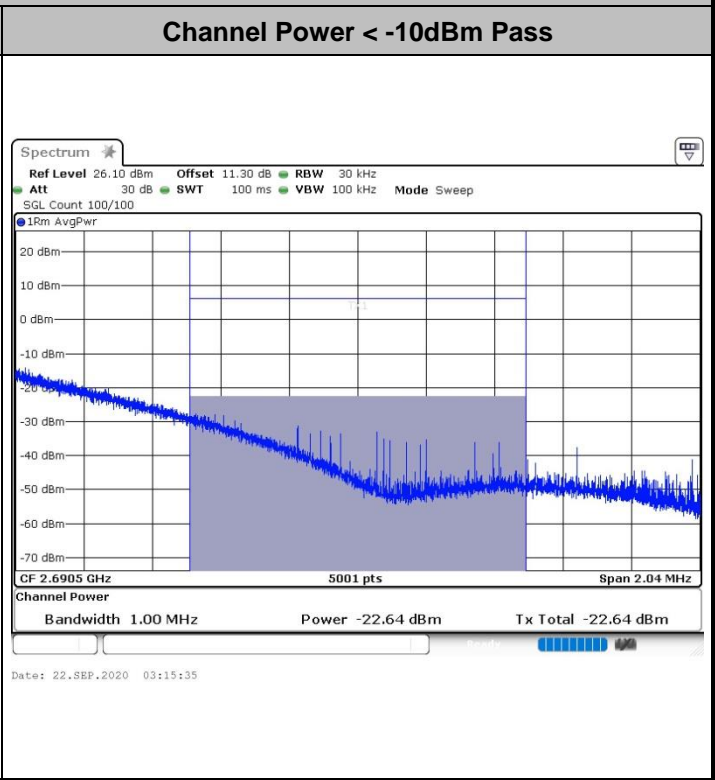
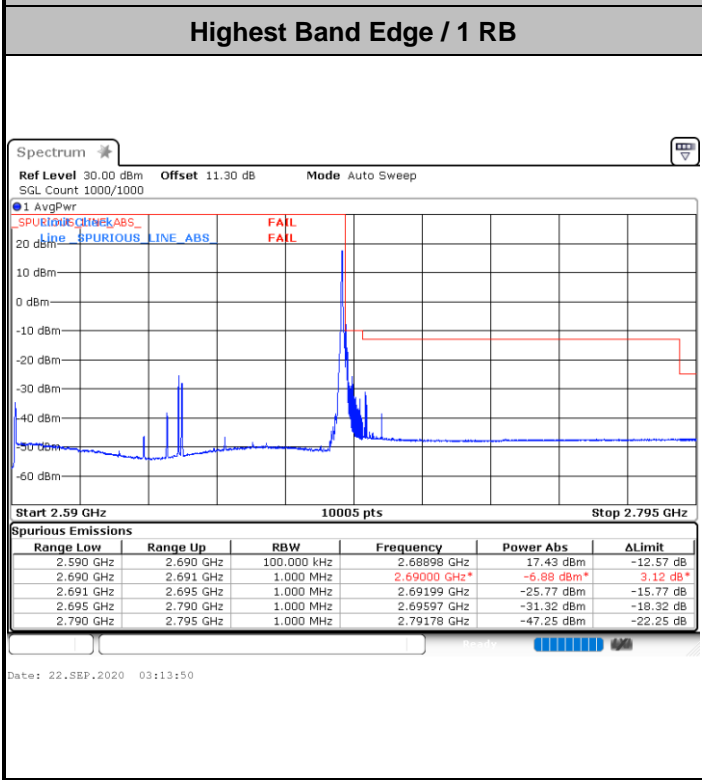


**5G NR n41 / 100MHz / DFT-S OFDM QPSK**



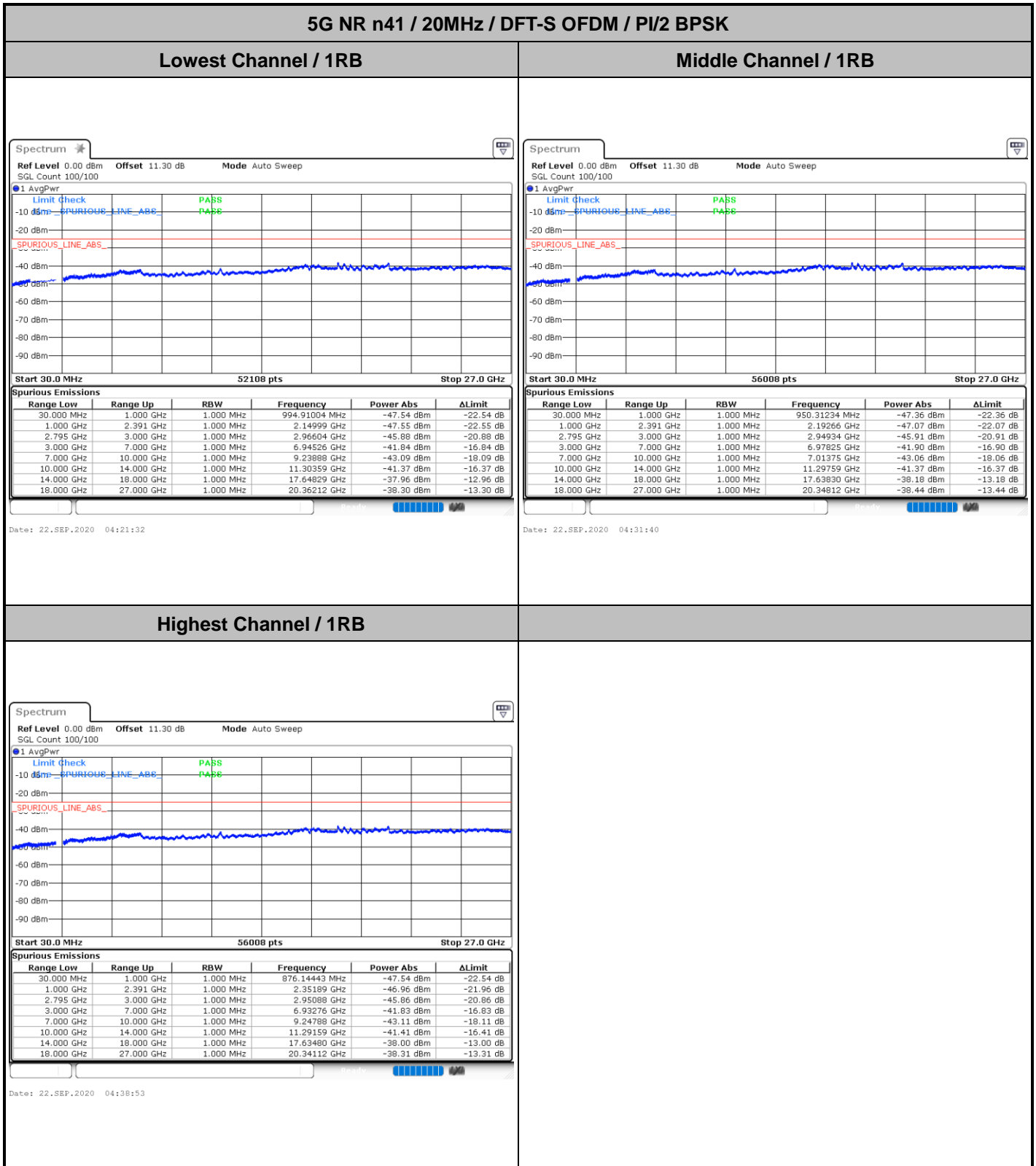


**5G NR n41 / 100MHz / DFT-S OFDM QPSK**





# Conducted Spurious Emission

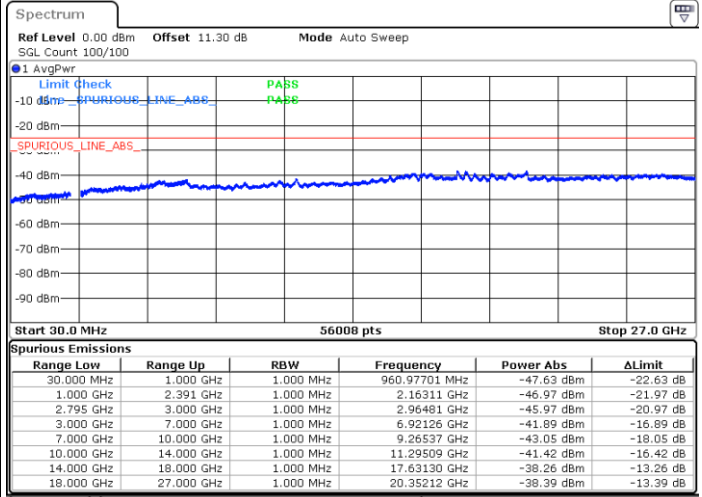
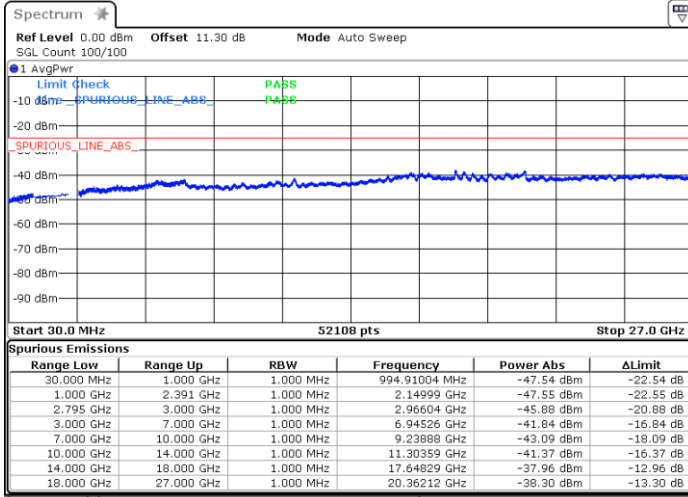




5G NR n41 / 20MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

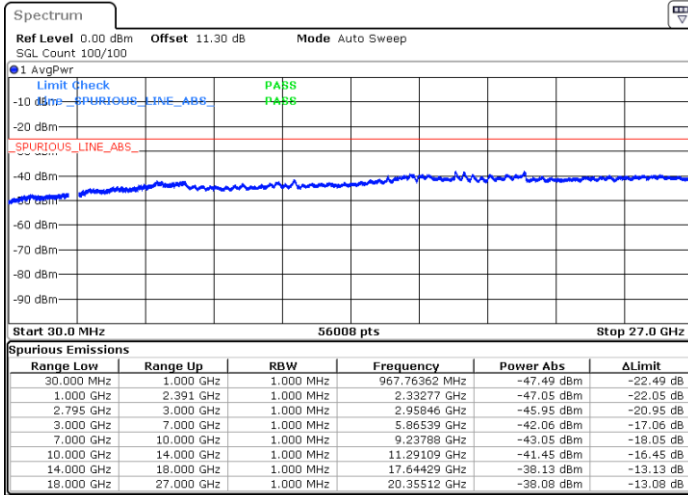
Middle Channel / 1RB



Date: 22.SEP.2020 04:21:32

Date: 22.SEP.2020 04:26:55

Highest Channel / 1RB



Date: 22.SEP.2020 04:39:50