

**Frequency Stability**

| Test Conditions     |                   | LTE Band 7 (QPSK) / Middle Channel | Limit   |
|---------------------|-------------------|------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 10MHz                           | Note 2. |
|                     |                   | Deviation (ppm)                    | Result  |
| 50                  | Normal Voltage    | 0.0001                             | PASS    |
| 40                  | Normal Voltage    | 0.0018                             |         |
| 30                  | Normal Voltage    | 0.0018                             |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                             |         |
| 10                  | Normal Voltage    | 0.0026                             |         |
| 0                   | Normal Voltage    | 0.0022                             |         |
| -10                 | Normal Voltage    | 0.0018                             |         |
| -20                 | Normal Voltage    | 0.0029                             |         |
| -30                 | Normal Voltage    | 0.0011                             |         |
| 20                  | Maximum Voltage   | 0.0034                             |         |
| 20                  | Normal Voltage    | 0.0000                             |         |
| 20                  | Battery End Point | 0.0002                             |         |

**Note:**

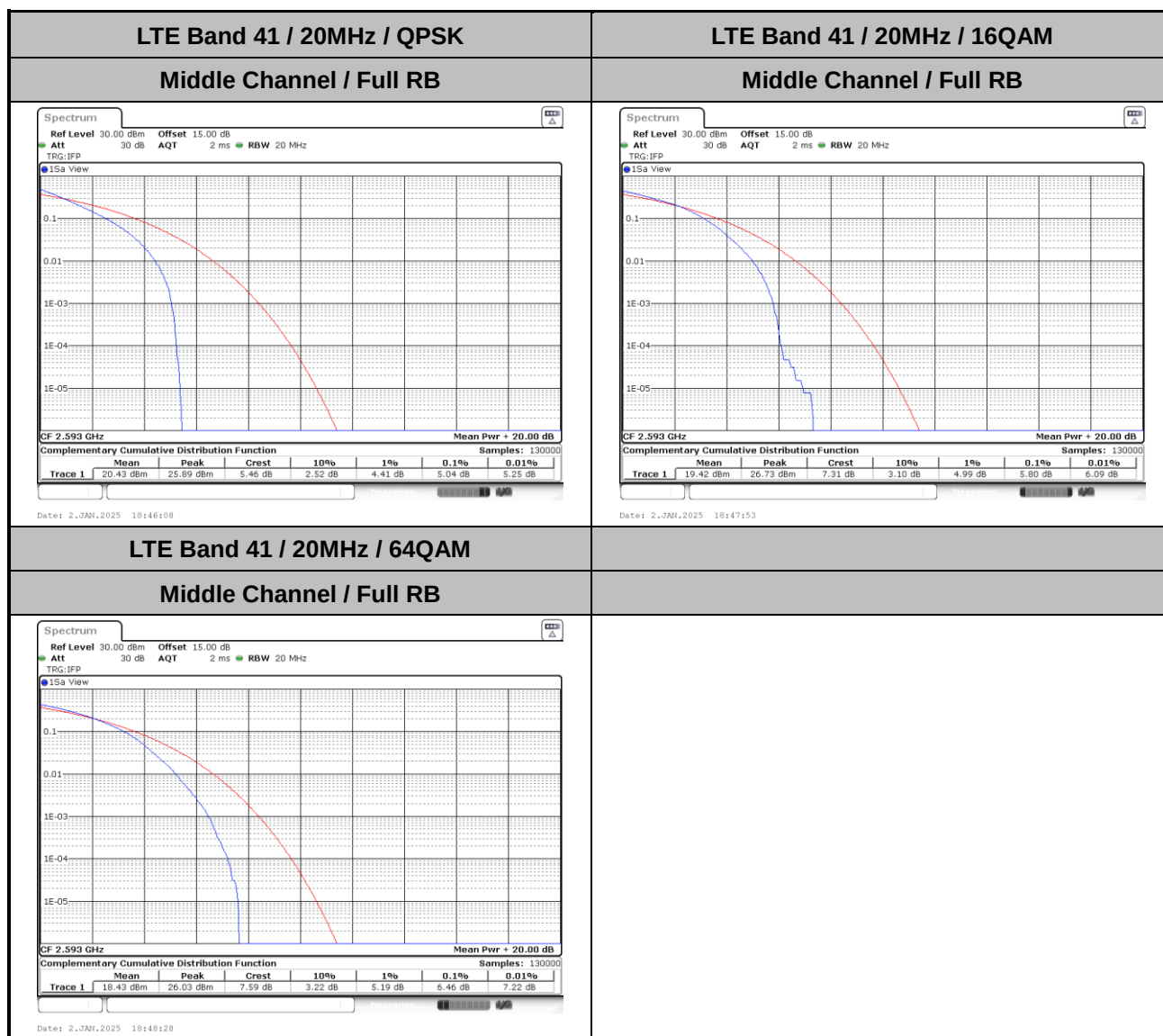
1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 41(Main PA)

## Peak-to-Average Ratio

| Mode      | LTE Band 41 / 20MHz |         |         |             |
|-----------|---------------------|---------|---------|-------------|
| Mod.      | QPSK                | 16QAM   | 64QAM   | Limit: 13dB |
| RB Size   | Full RB             | Full RB | Full RB | Result      |
| Middle CH | 5.04                | 5.80    | 6.46    | PASS        |



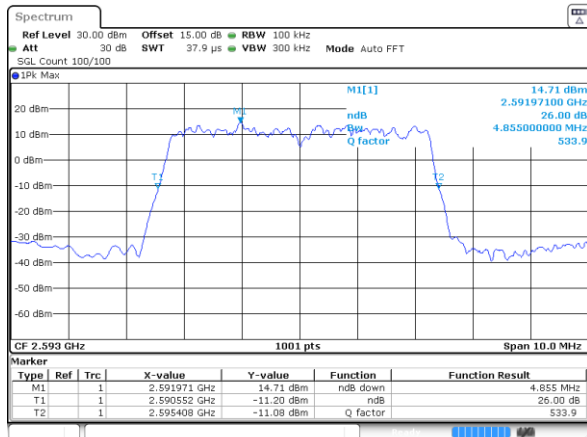


## 26dB Bandwidth

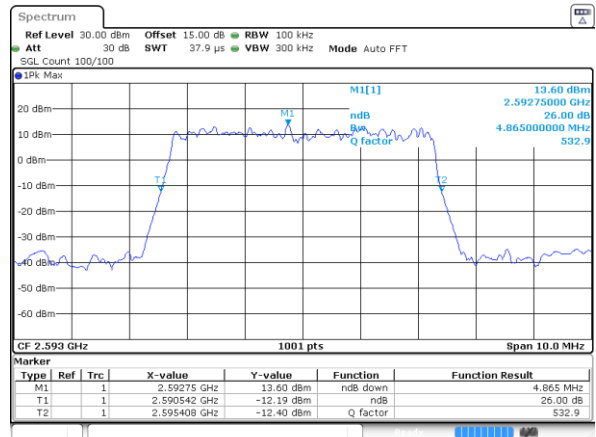
| Mode      | LTE Band 41 : 26dB BW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|-----------|----------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW        | 1.4MHz                     |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.      | QPSK                       | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Middle CH | -                          | -     | -    | -     | 4.86 | 4.87  | 9.61  | 9.61  | 14.33 | 14.15 | 18.66 | 18.70 |

### LTE Band 41

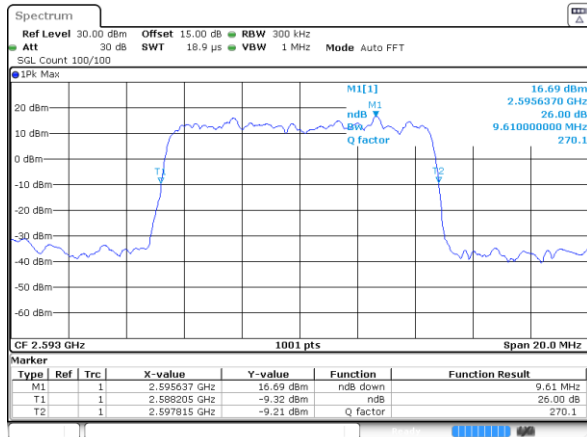
#### Middle Channel / 5MHz / QPSK



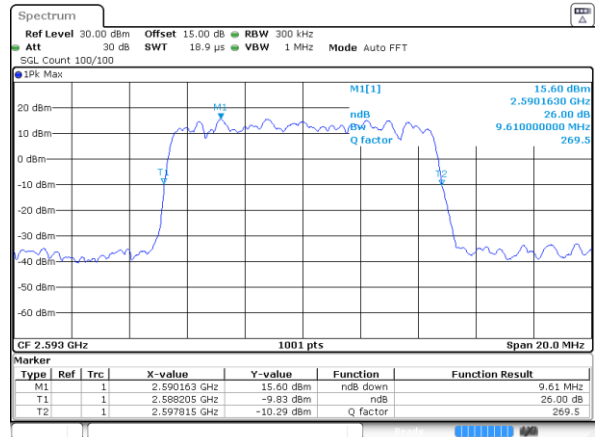
#### Middle Channel / 5MHz / 16QAM



#### Middle Channel / 10MHz / QPSK

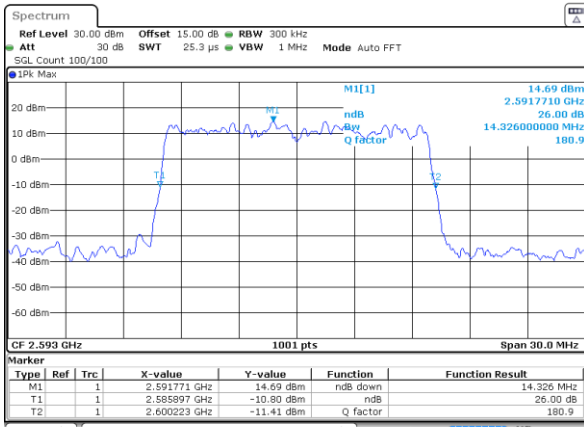


#### Middle Channel / 10MHz / 16QAM



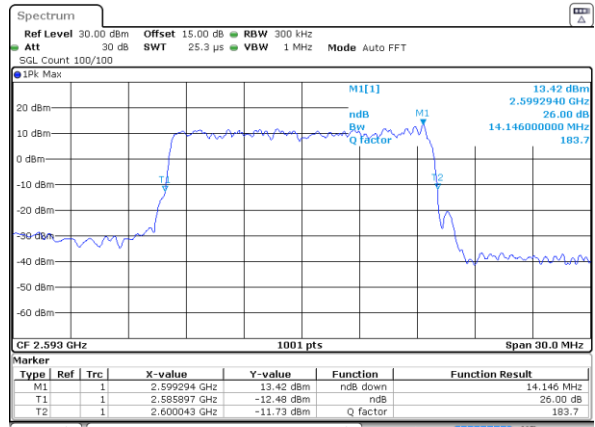


## Middle Channel / 15MHz / QPSK



Date: 28 DEC 2024 18:45:24

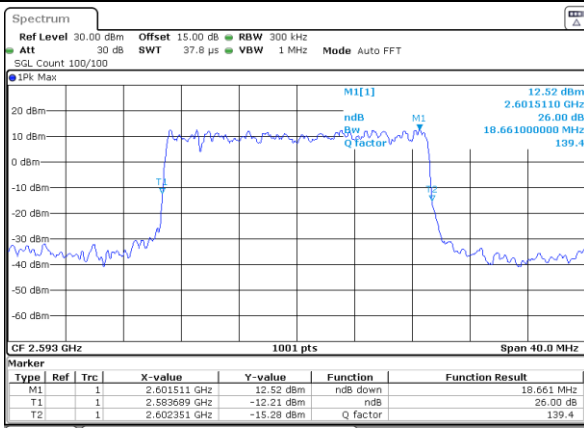
## Middle Channel / 15MHz / 16QAM



Date: 28 DEC 2024 18:46:03

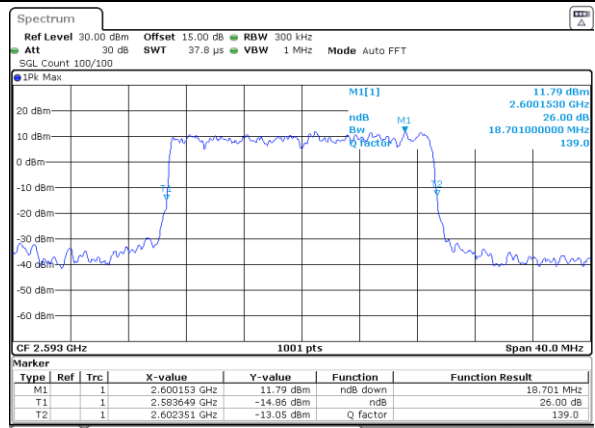
## LTE Band 41

## Middle Channel / 20MHz / QPSK



Date: 28 DEC 2024 19:00:49

## Middle Channel / 20MHz / 16QAM



Date: 28 DEC 2024 19:01:28

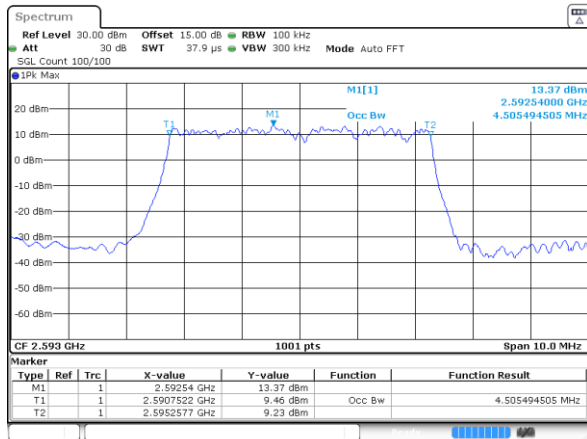


## Occupied Bandwidth

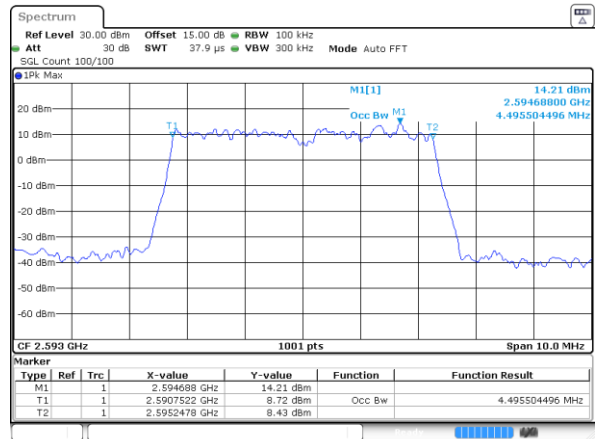
| Mode      | LTE Band 41 : 99%OBW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|-----------|---------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW        | 1.4MHz                    |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.      | QPSK                      | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Middle CH | -                         | -     | -    | -     | 4.51 | 4.50  | 9.03  | 9.05  | 13.49 | 13.43 | 17.78 | 17.86 |

### LTE Band 41

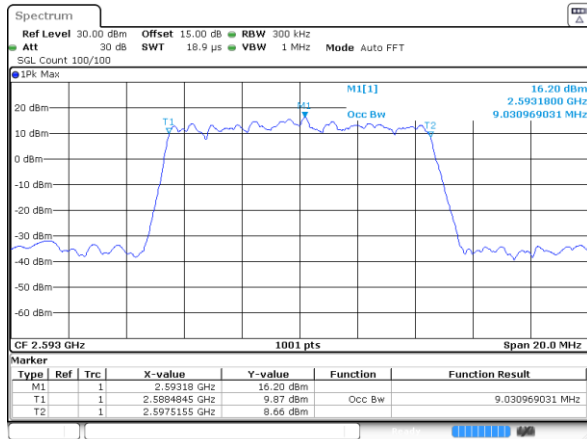
#### Middle Channel / 5MHz / QPSK



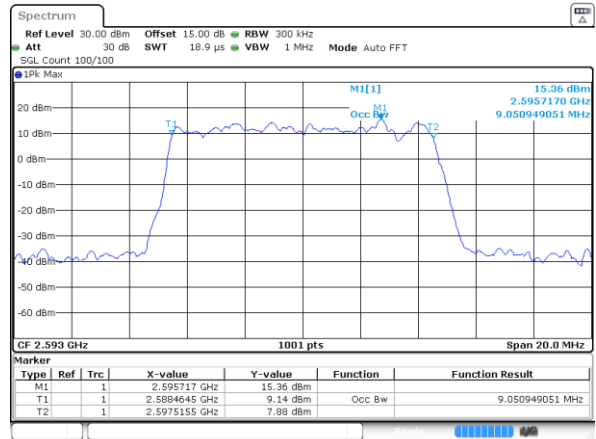
#### Middle Channel / 5MHz / 16QAM



#### Middle Channel / 10MHz / QPSK

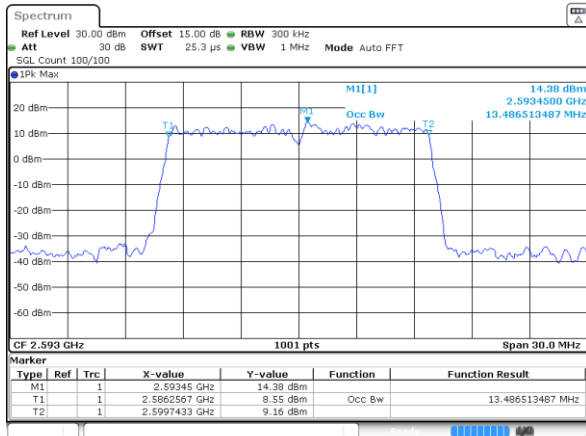


#### Middle Channel / 10MHz / 16QAM



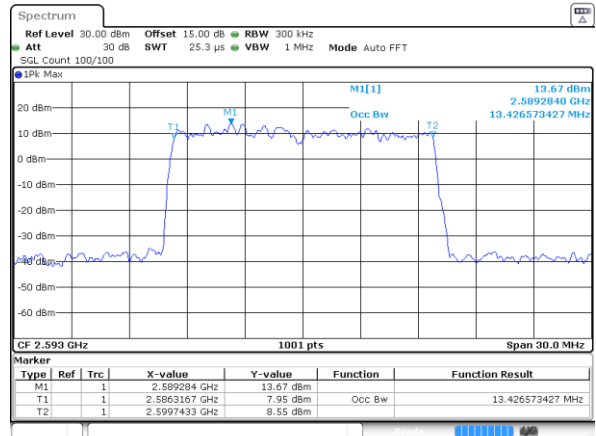


## Middle Channel / 15MHz / QPSK



Date: 28 DEC 2024 18:45:10

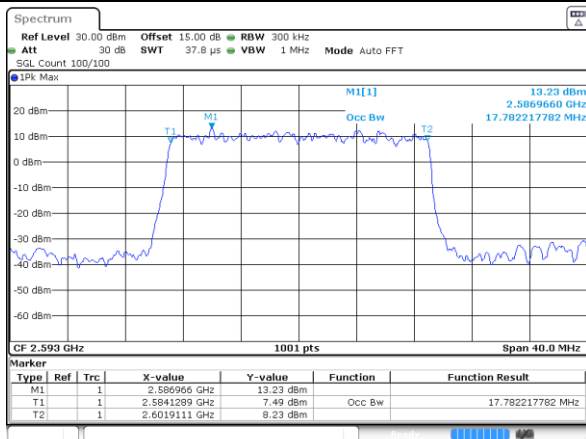
## Middle Channel / 15MHz / 16QAM



Date: 28 DEC 2024 18:45:49

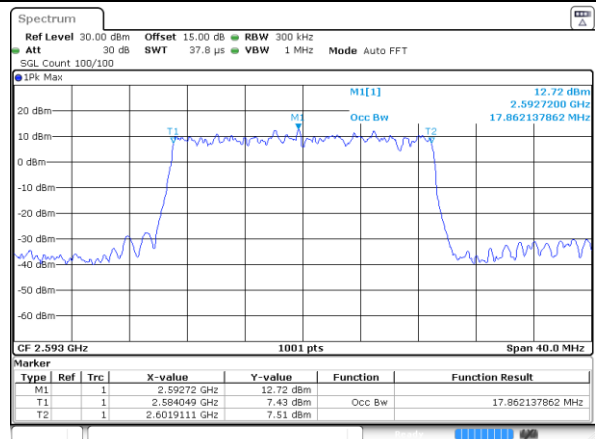
## LTE Band 41

## Middle Channel / 20MHz / QPSK

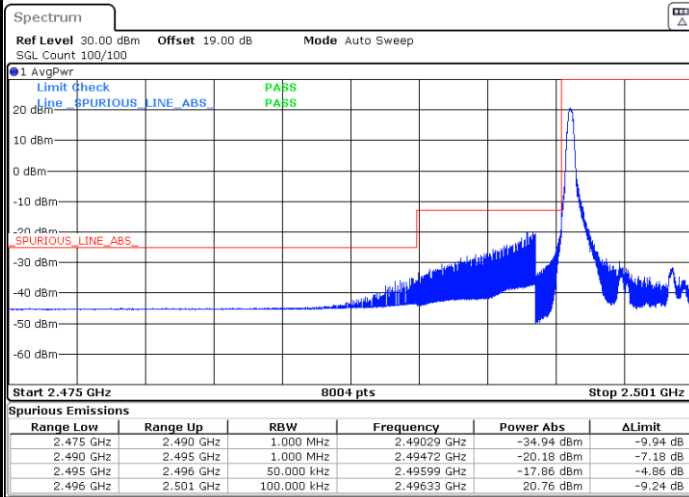
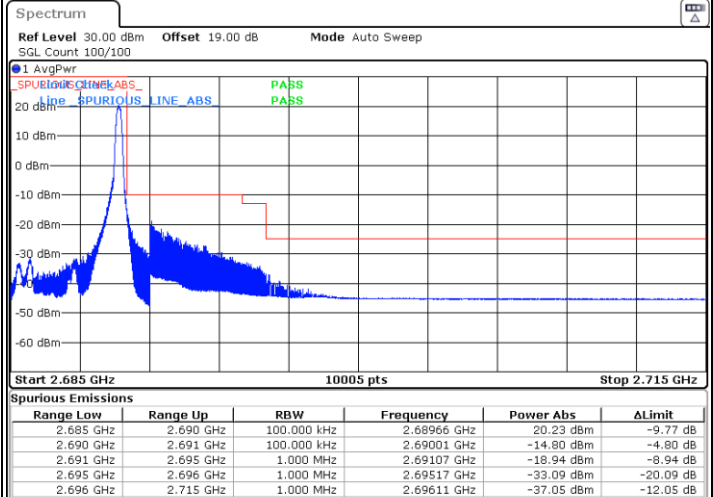
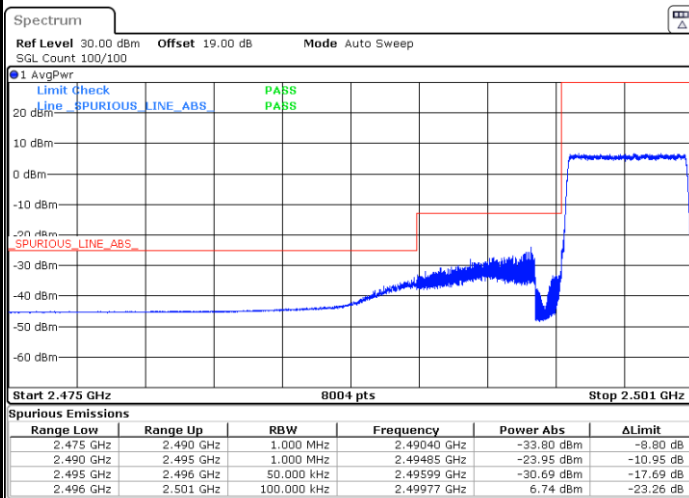
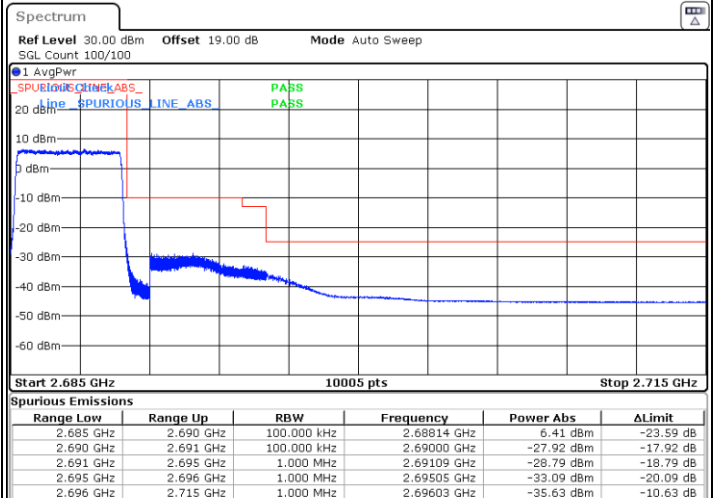


Date: 28 DEC 2024 19:00:35

## Middle Channel / 20MHz / 16QAM



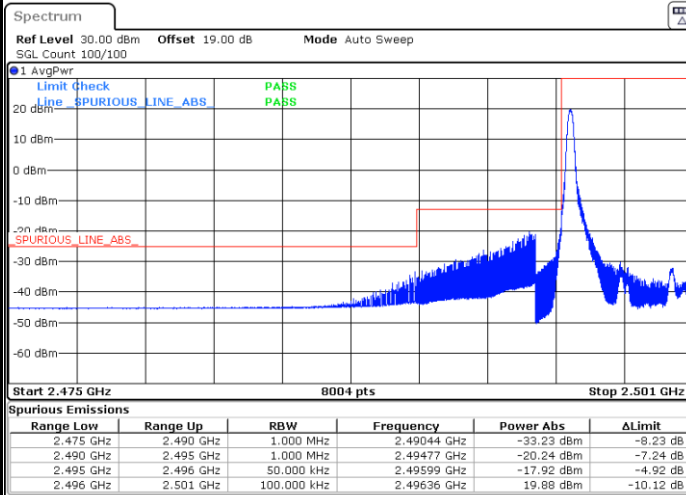
Date: 28 DEC 2024 19:01:14

**Conducted Band Edge****LTE Band 41 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**



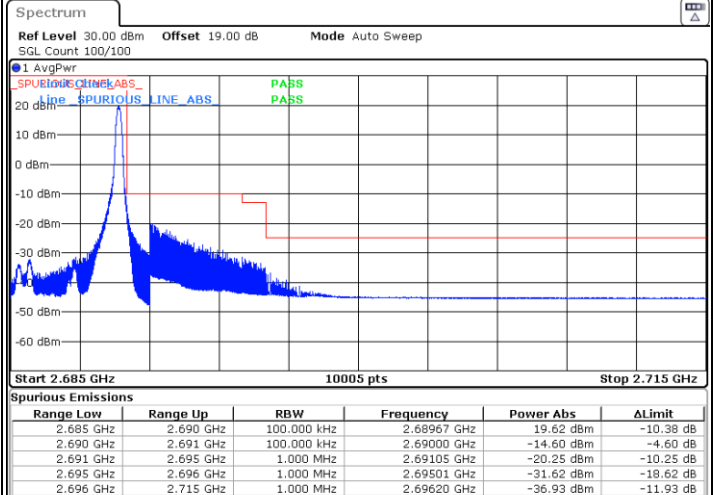
## LTE Band 41 / 5MHz / 16QAM

## Lowest Band Edge / 1RB



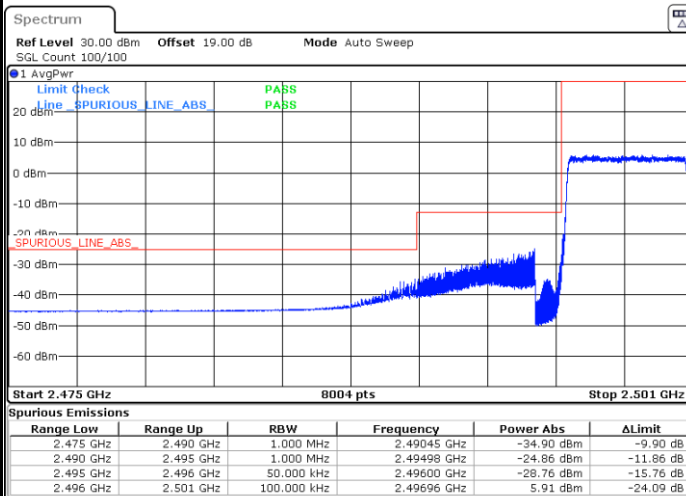
Date: 28 DEC 2024 18:08:21

## Highest Band Edge / 1 RB



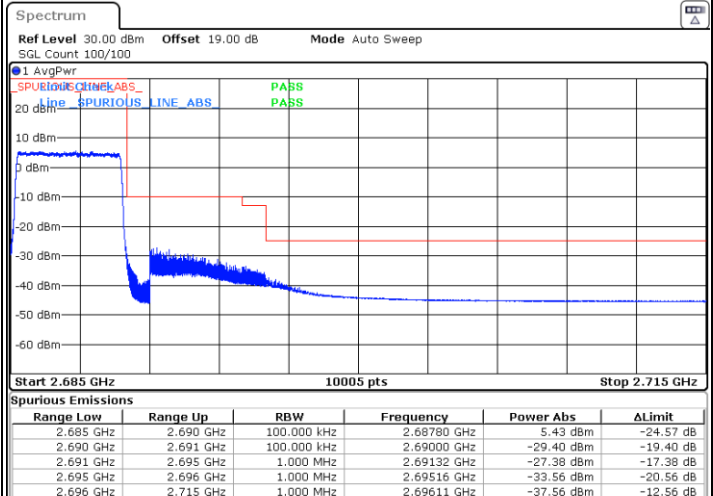
Date: 2 JAN 2025 18:53:53

## Lowest Band Edge / Full RB



Date: 28 DEC 2024 18:10:55

## Highest Band Edge / Full RB



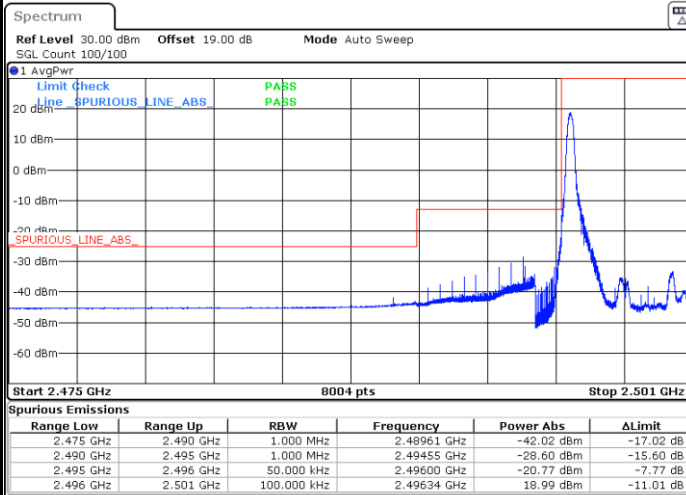
Date: 2 JAN 2025 18:42:24





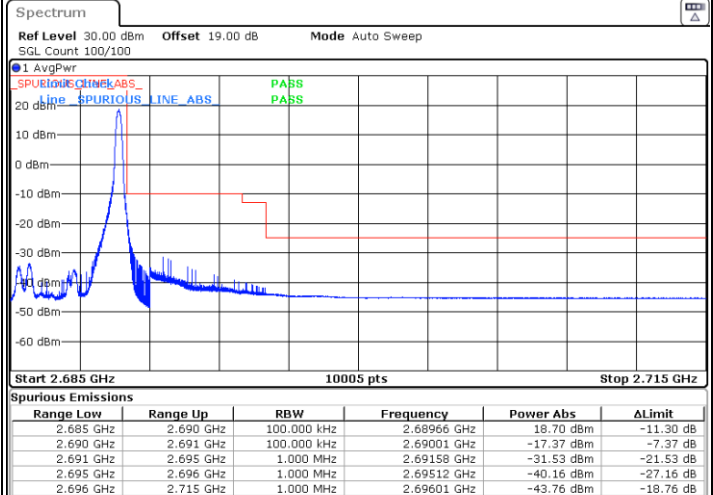
## LTE Band 41 / 5MHz / 64QAM

## Lowest Band Edge / 1RB



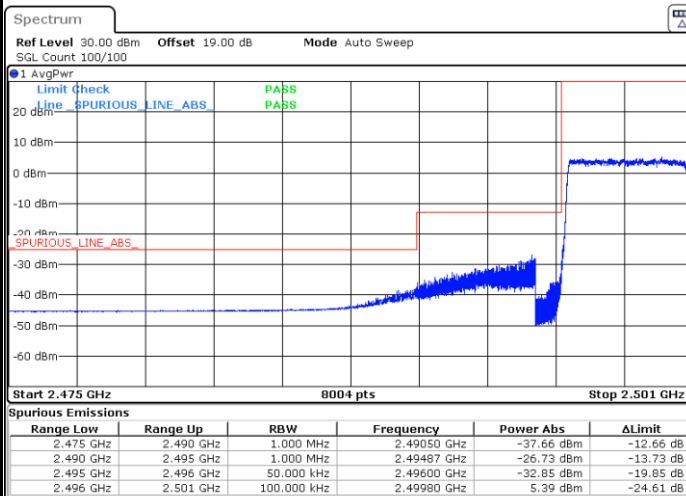
Date: 28 DEC 2024 18:09:12

## Highest Band Edge / 1 RB



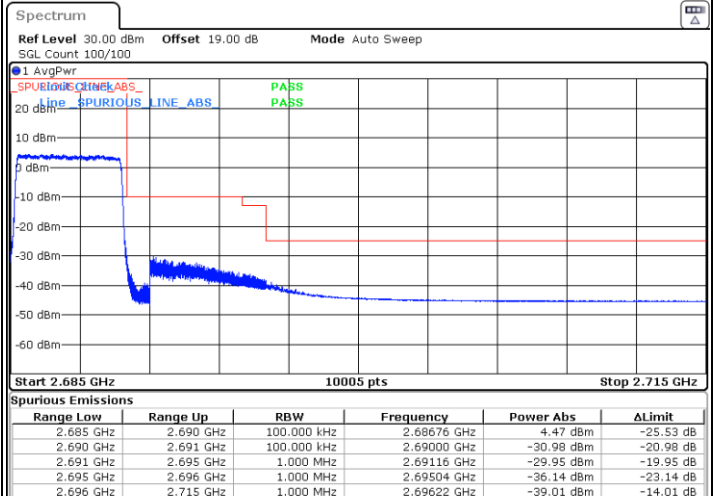
Date: 2 JAN 2025 18:55:09

## Lowest Band Edge / Full RB



Date: 28 DEC 2024 18:10:04

## Highest Band Edge / Full RB

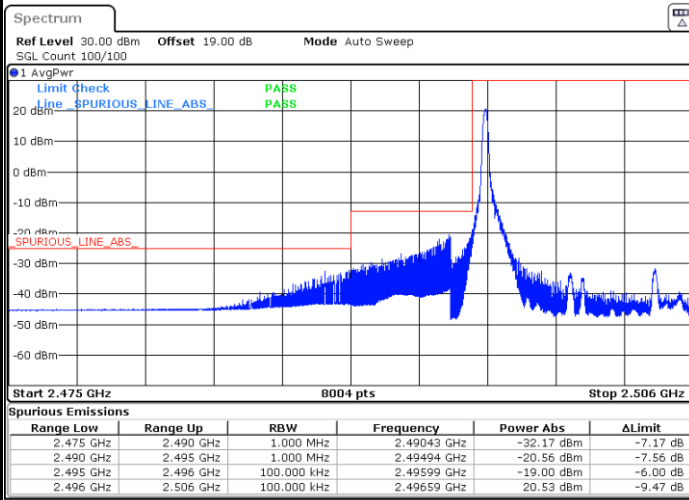


Date: 2 JAN 2025 18:51:21

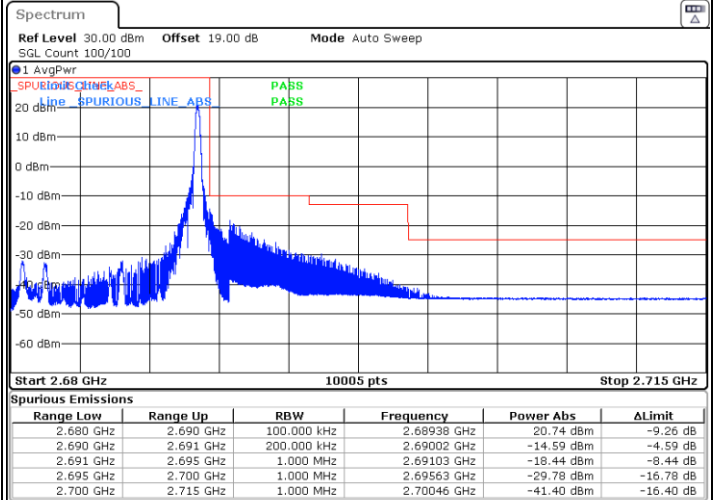


## LTE Band 41 / 10MHz / QPSK

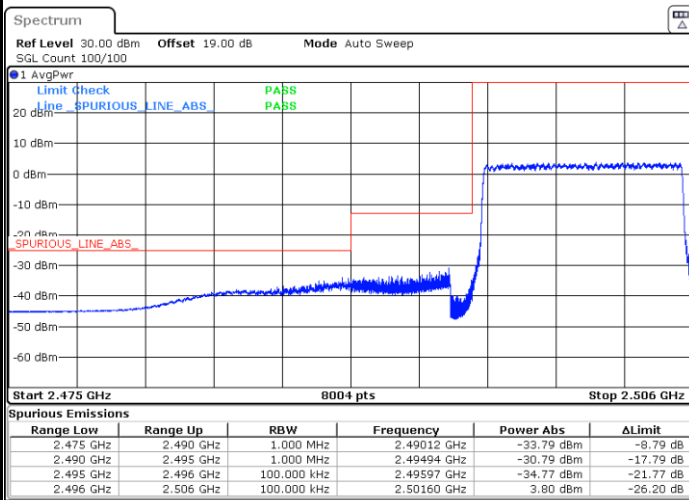
## Lowest Band Edge / 1 RB



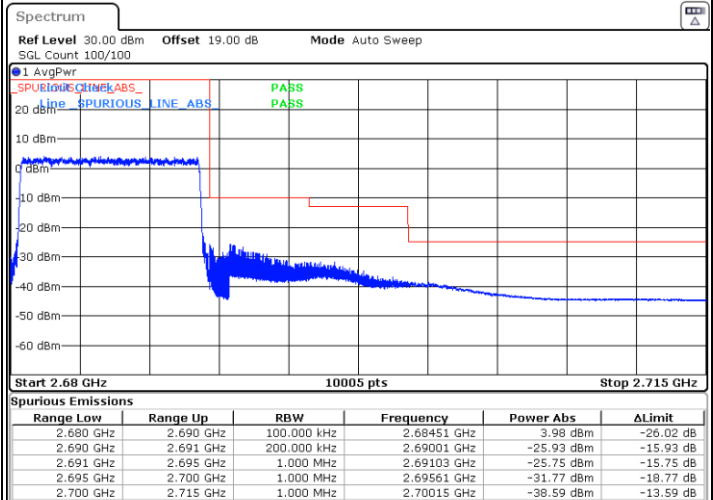
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



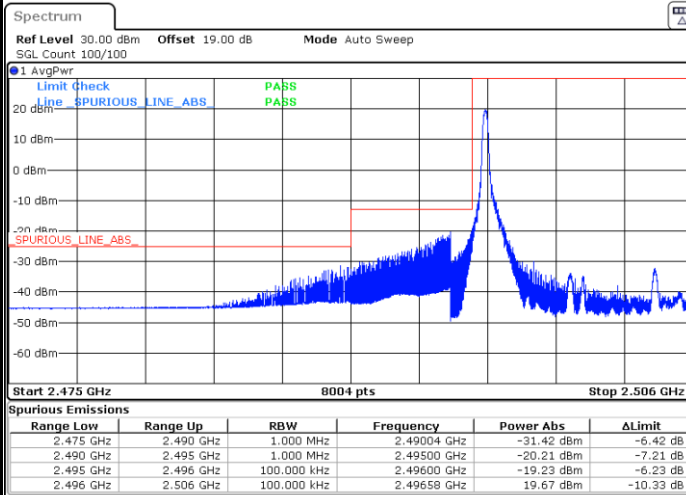
## Highest Band Edge / Full RB





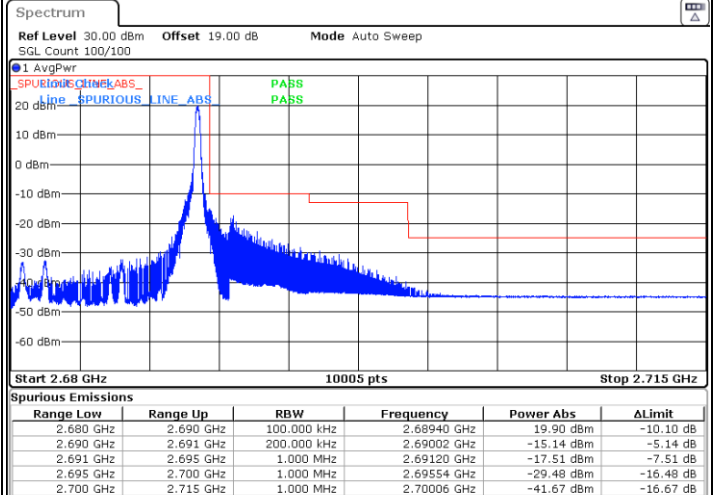
## LTE Band 41 / 10MHz / 16QAM

## Lowest Band Edge / 1RB



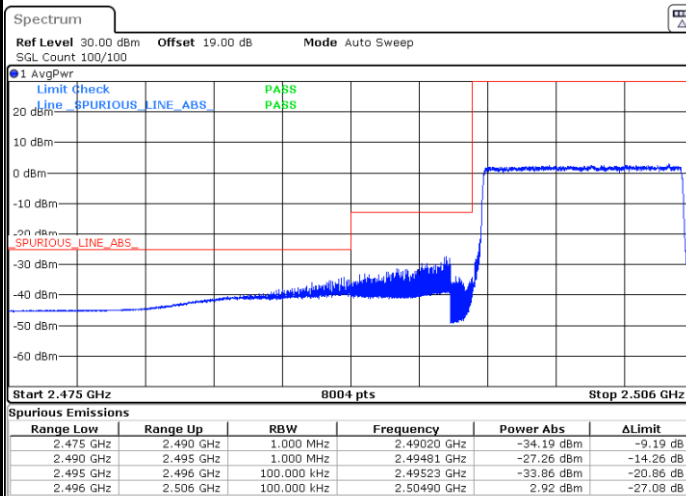
Date: 28 DEC 2024 18:25:00

## Highest Band Edge / 1 RB



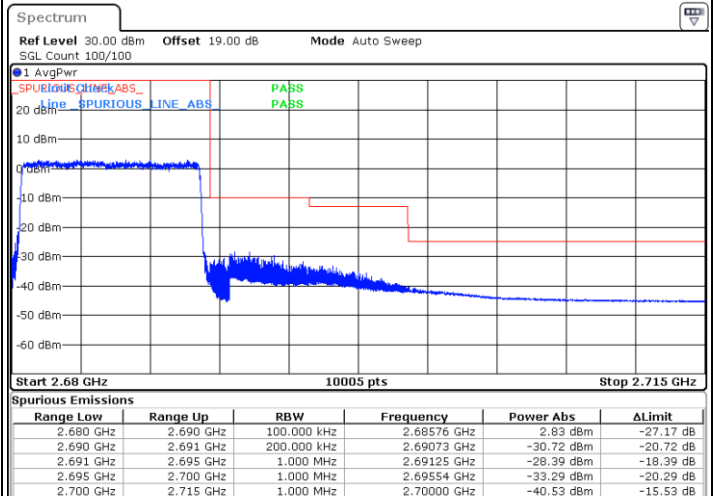
Date: 28 DEC 2024 18:33:10

## Lowest Band Edge / Full RB



Date: 28 DEC 2024 18:27:24

## Highest Band Edge / Full RB

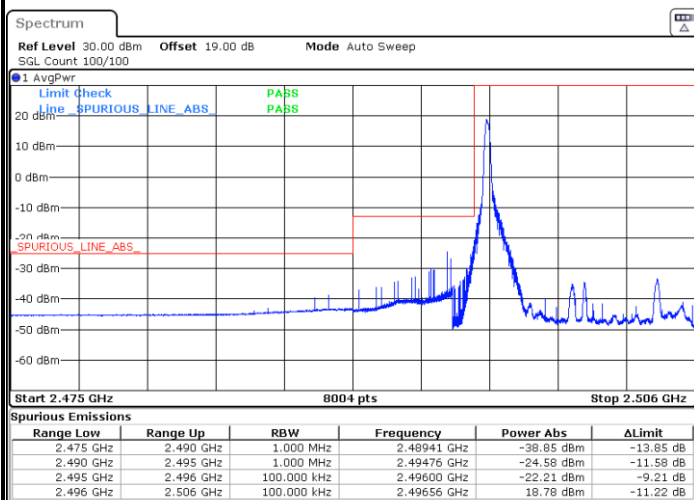


Date: 3 JAN 2025 13:31:02



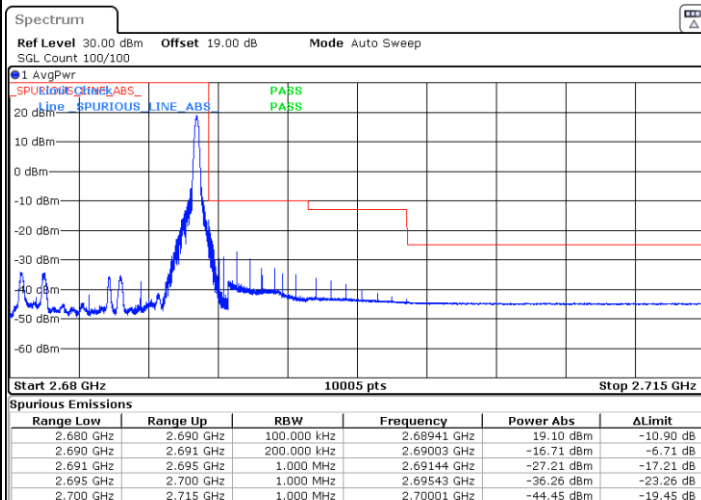
## LTE Band 41 / 10MHz / 64QAM

## Lowest Band Edge / 1RB



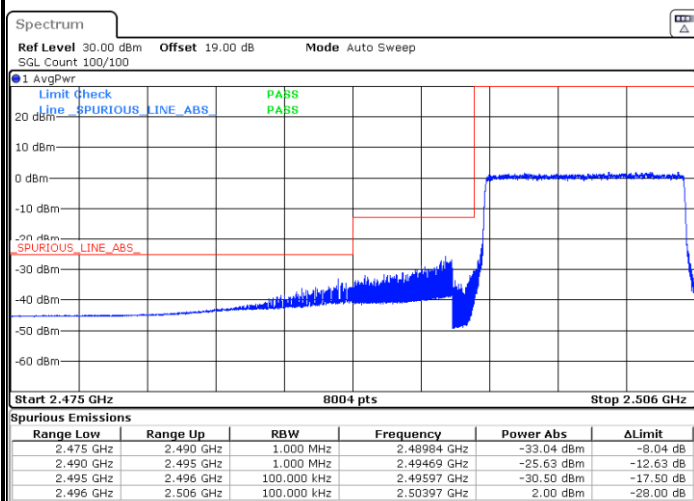
Date: 28 DEC 2024 18:25:48

## Highest Band Edge / 1 RB



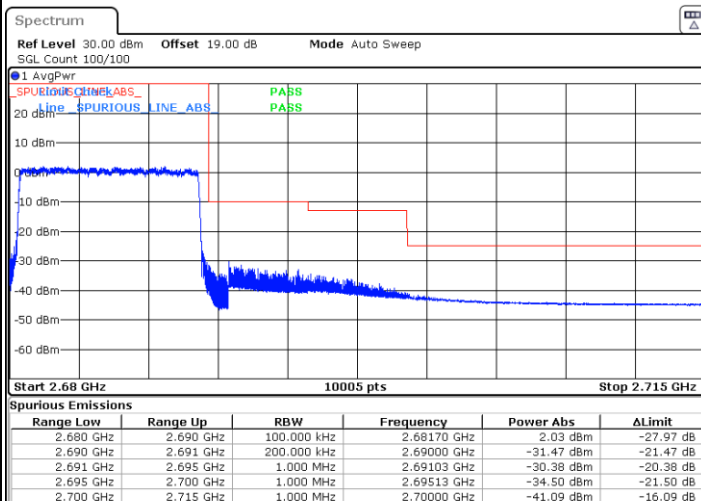
Date: 28 DEC 2024 18:33:56

## Lowest Band Edge / Full RB



Date: 28 DEC 2024 18:26:36

## Highest Band Edge / Full RB

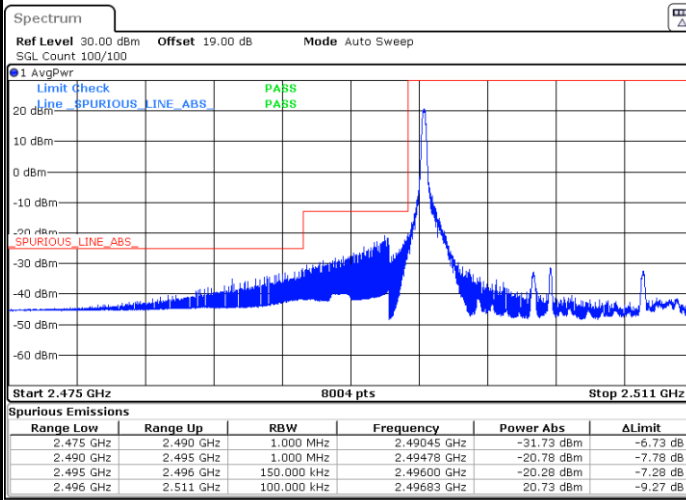


Date: 28 DEC 2024 18:34:41

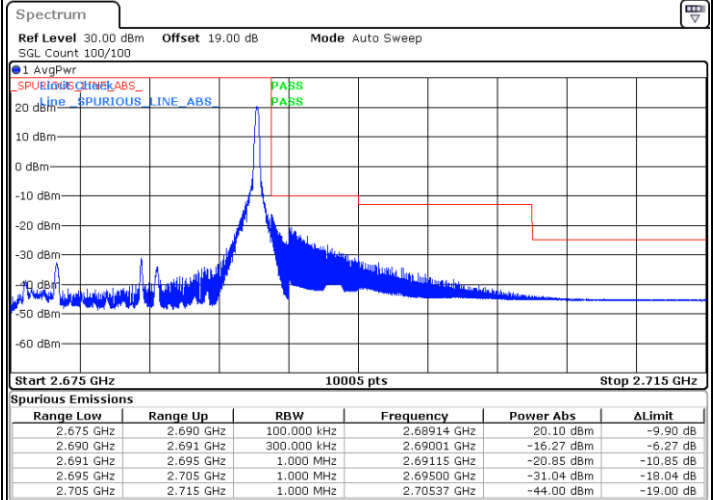


## LTE Band 41 / 15MHz / QPSK

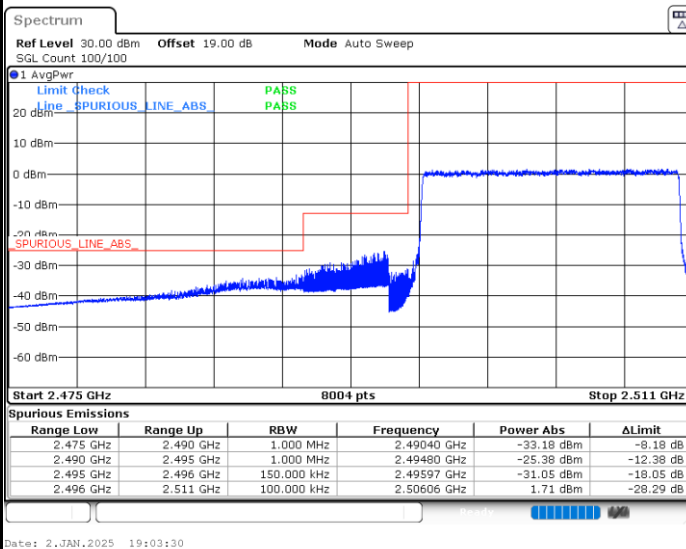
## Lowest Band Edge / 1 RB



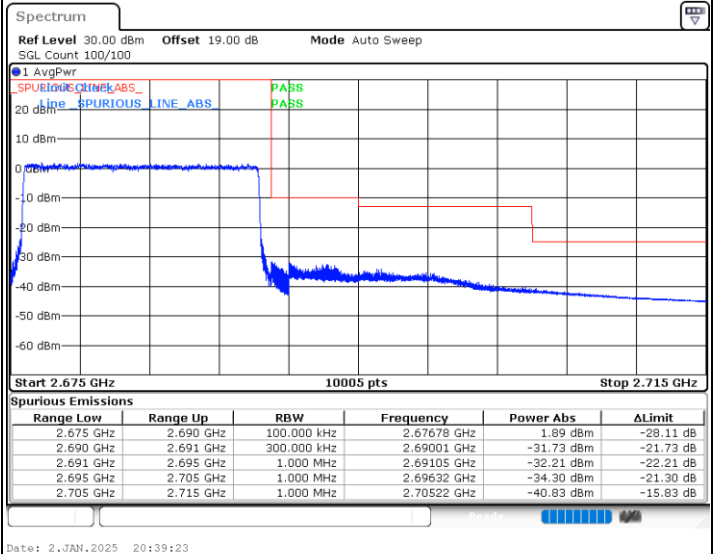
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



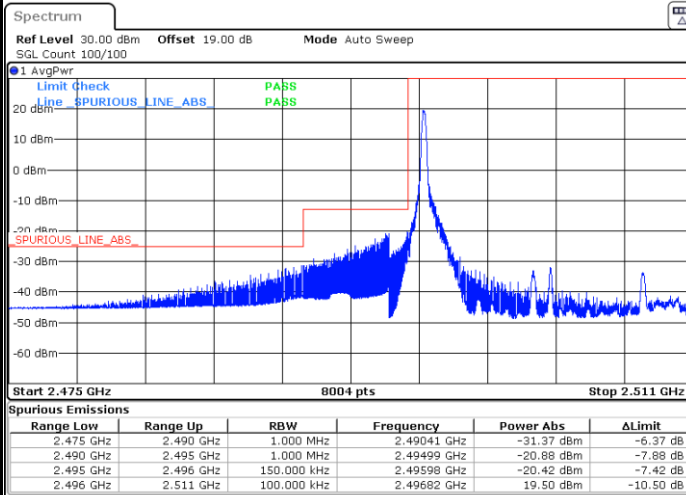
## Highest Band Edge / Full RB





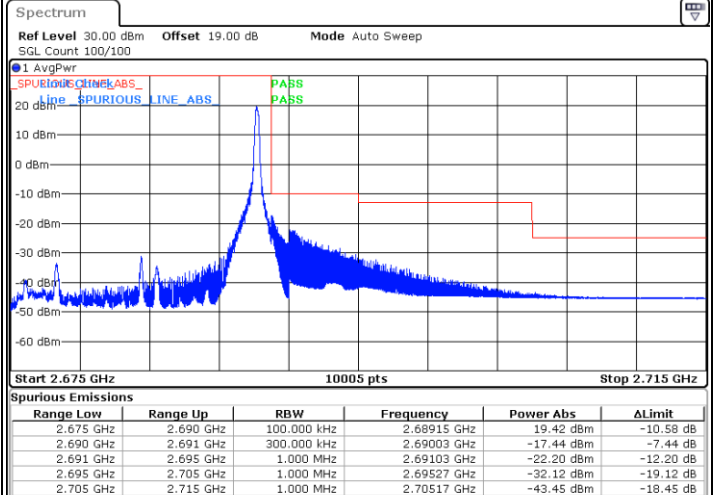
## LTE Band 41 / 15MHz / 16QAM

## Lowest Band Edge / 1RB



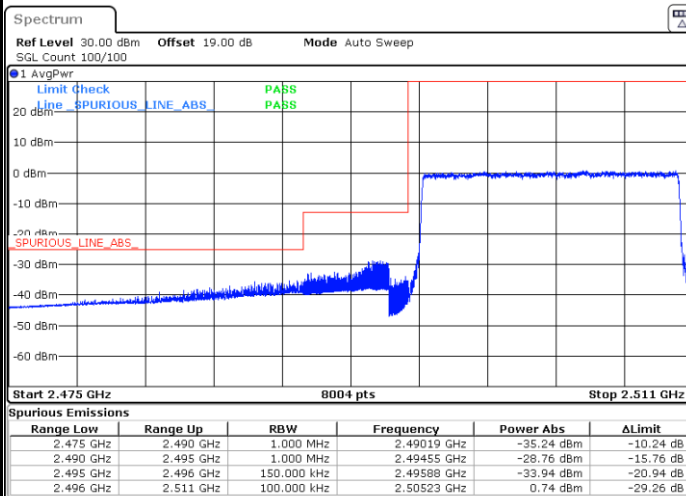
Date: 28 DEC 2024 18:39:32

## Highest Band Edge / 1 RB



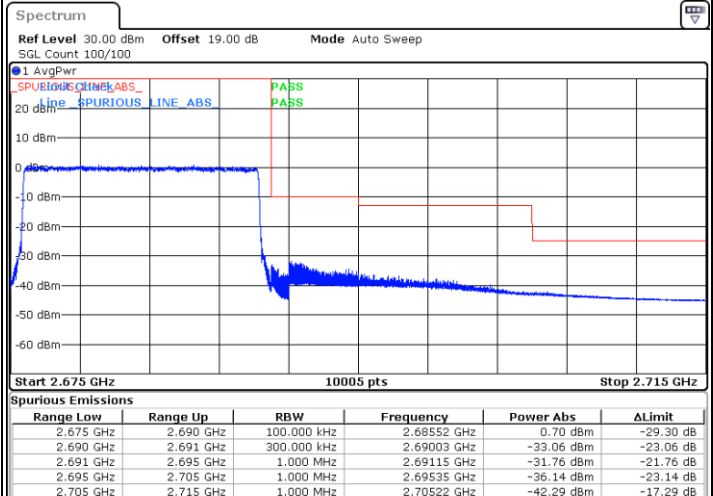
Date: 2 JAN 2025 20:34:18

## Lowest Band Edge / Full RB



Date: 2 JAN 2025 19:02:14

## Highest Band Edge / Full RB

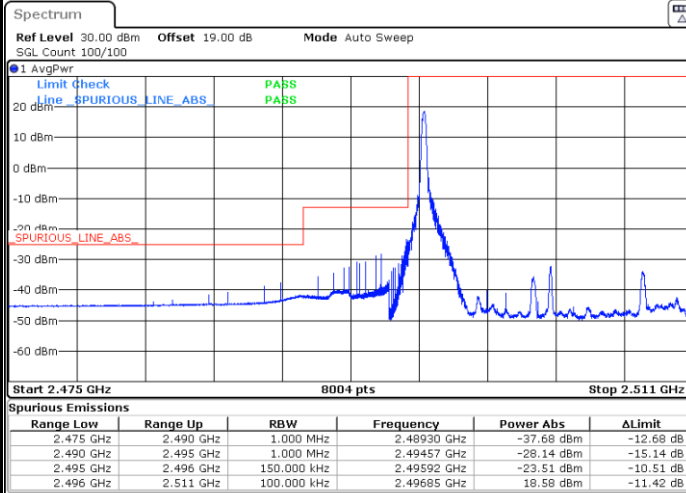


Date: 2 JAN 2025 20:38:07



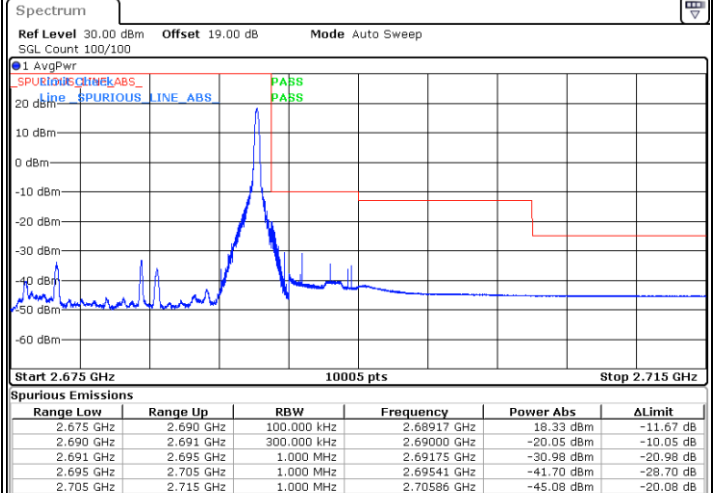
## LTE Band 41 / 15MHz / 64QAM

## Lowest Band Edge / 1RB



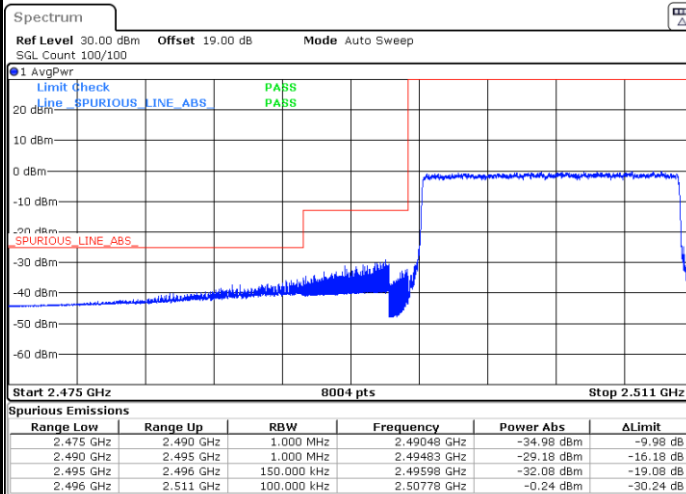
Date: 28 DEC 2024 18:40:17

## Highest Band Edge / 1 RB



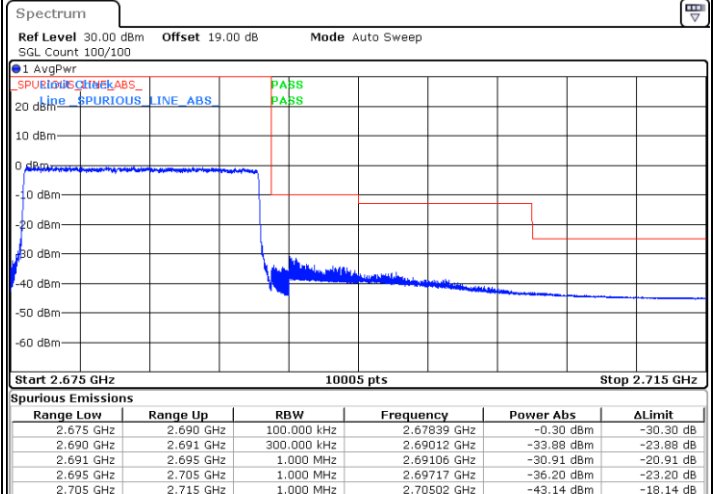
Date: 2 JAN 2025 20:35:34

## Lowest Band Edge / Full RB



Date: 2 JAN 2025 19:00:57

## Highest Band Edge / Full RB



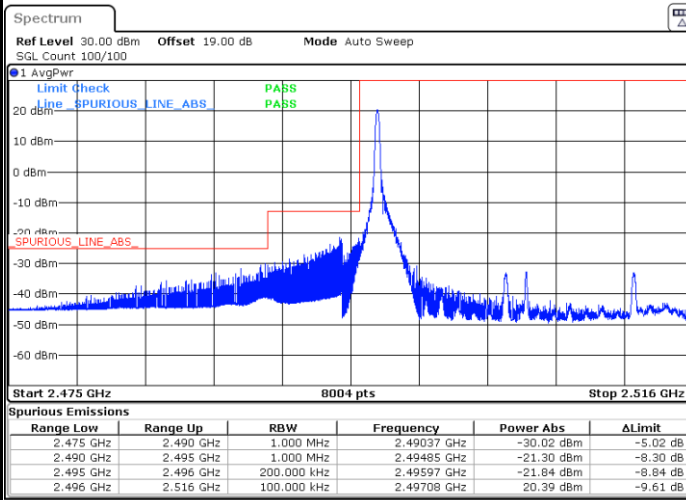
Date: 2 JAN 2025 20:36:51



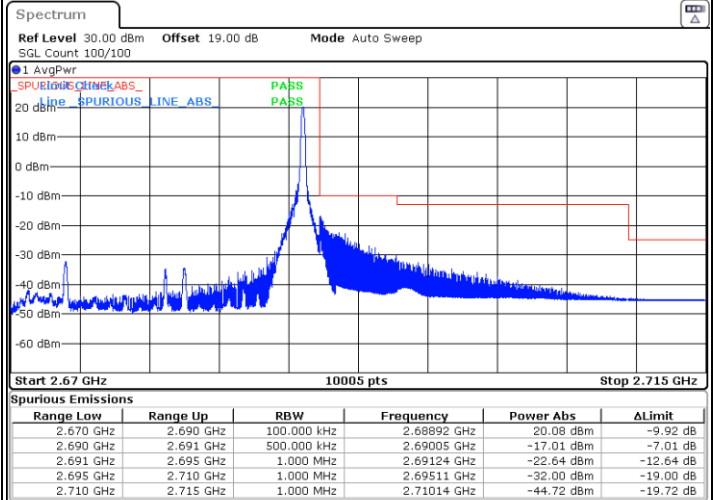


## LTE Band 41 / 20MHz / QPSK

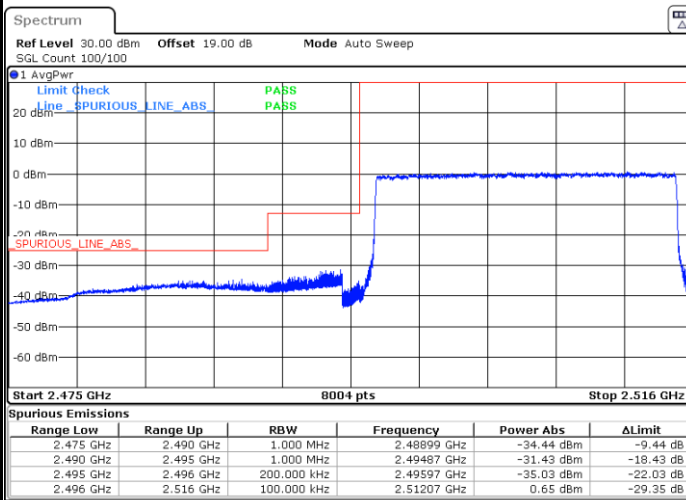
## Lowest Band Edge / 1 RB



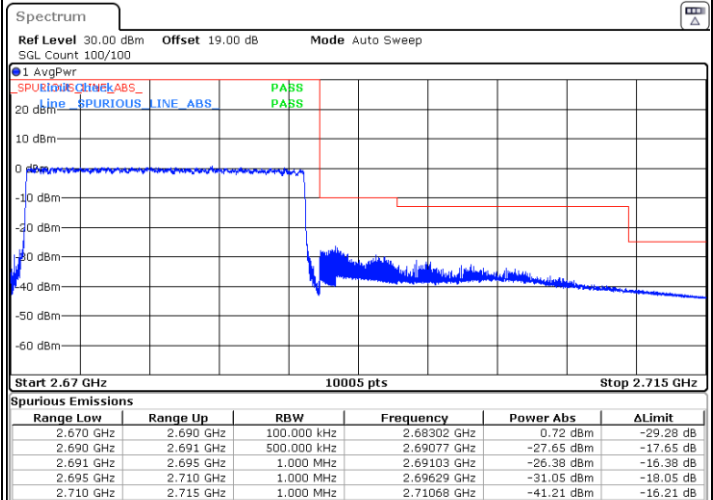
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

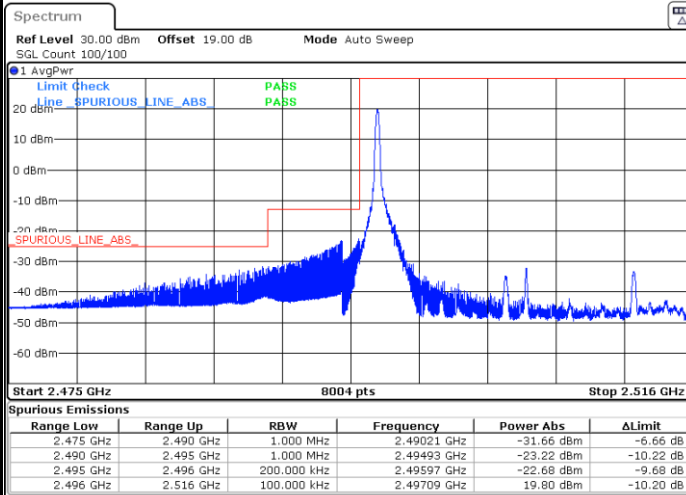






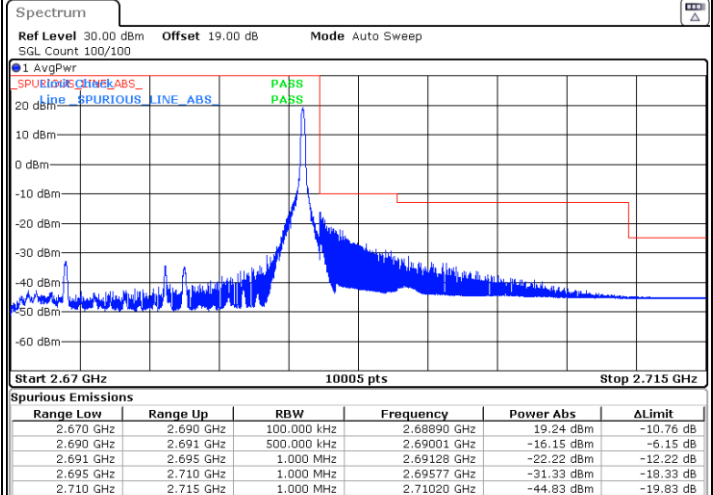
## LTE Band 41 / 20MHz / 16QAM

## Lowest Band Edge / 1RB



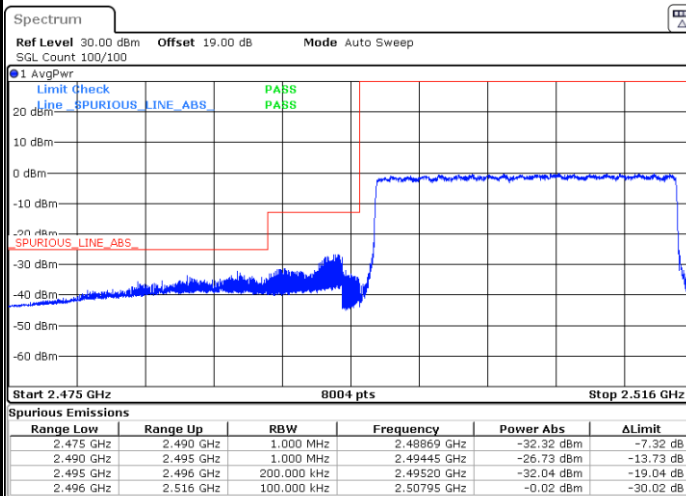
Date: 28 DEC 2024 18:54:47

## Highest Band Edge / 1 RB



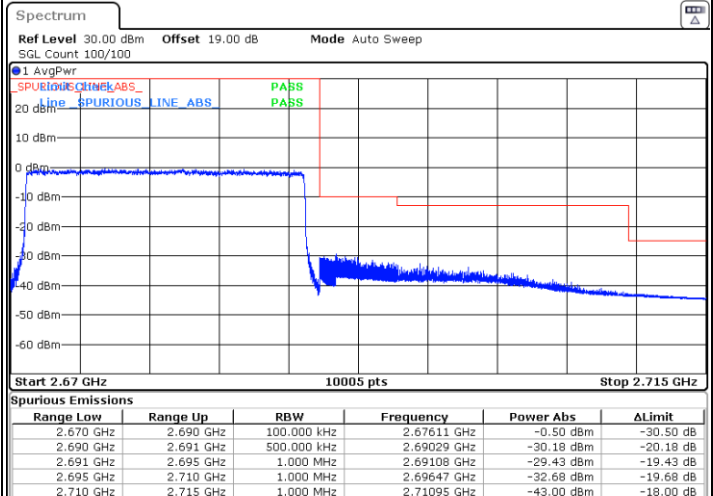
Date: 2 JAN 2025 19:06:45

## Lowest Band Edge / Full RB



Date: 28 DEC 2024 18:57:11

## Highest Band Edge / Full RB

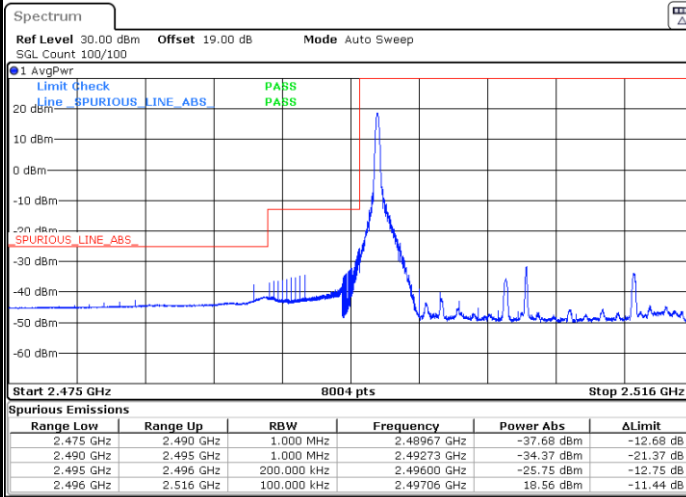


Date: 2 JAN 2025 19:14:22



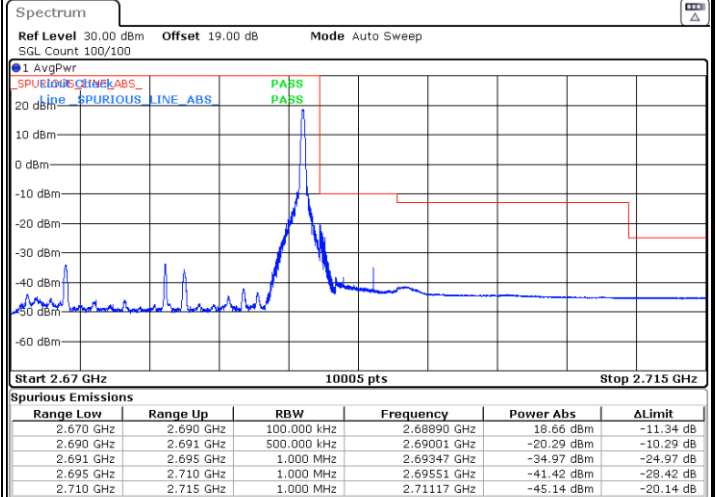
## LTE Band 41 / 20MHz / 64QAM

## Lowest Band Edge / 1RB



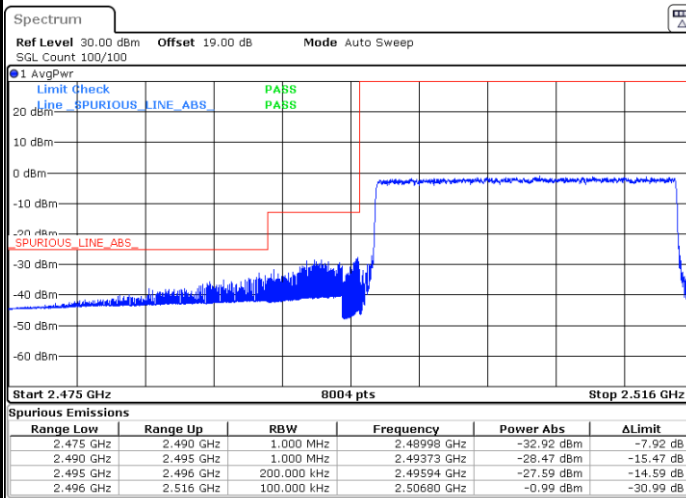
Date: 28 DEC 2024 18:55:35

## Highest Band Edge / 1 RB



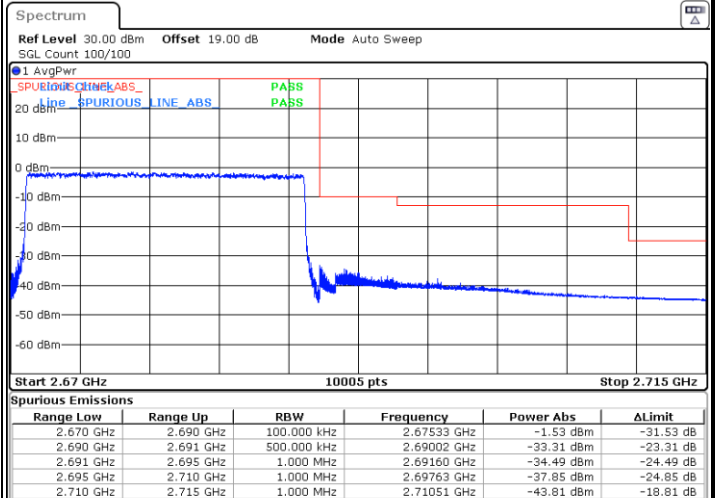
Date: 2 JAN 2025 19:05:29

## Lowest Band Edge / Full RB



Date: 28 DEC 2024 18:56:22

## Highest Band Edge / Full RB



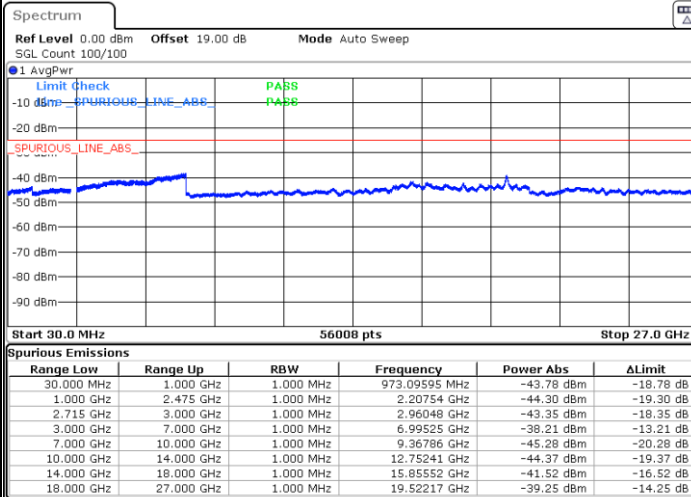
Date: 2 JAN 2025 19:15:38



# Conducted Spurious Emission

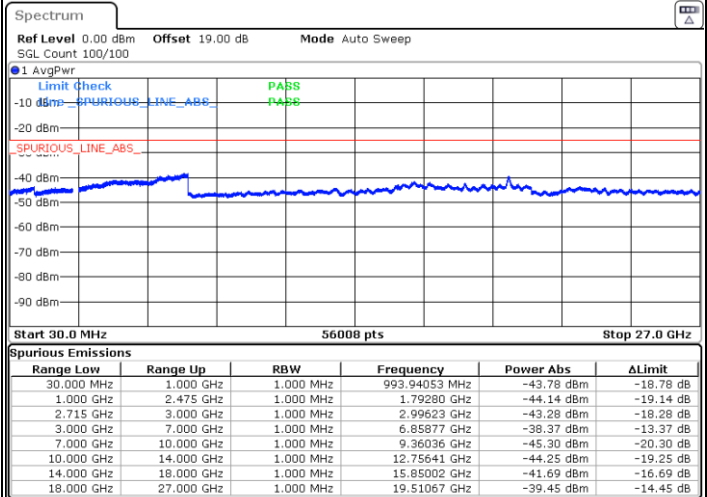
## LTE Band 41 / 5MHz

### Lowest Channel / QPSK



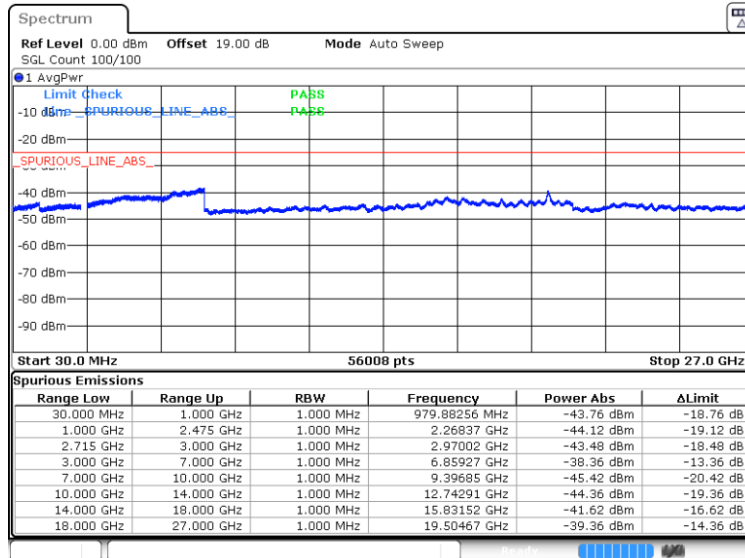
Date: 28.DEC.2024 18:12:51

### Middle Channel / QPSK



Date: 28.DEC.2024 18:13:56

### Highest Channel / QPSK

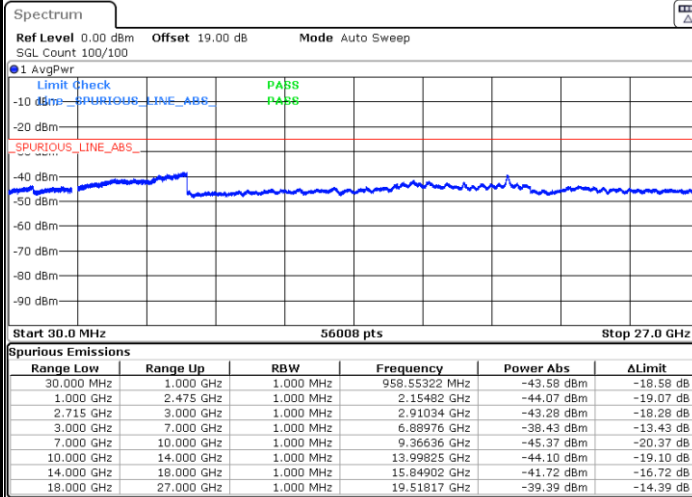


Date: 28.DEC.2024 18:22:41



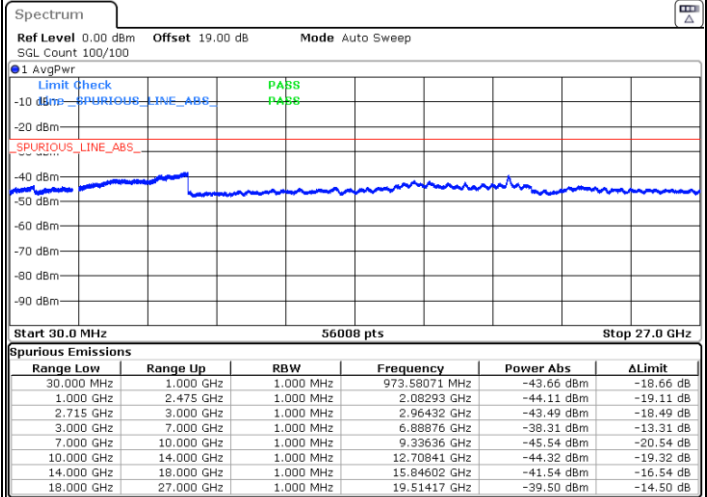
## LTE Band 41 / 10MHz

## Lowest Channel / QPSK



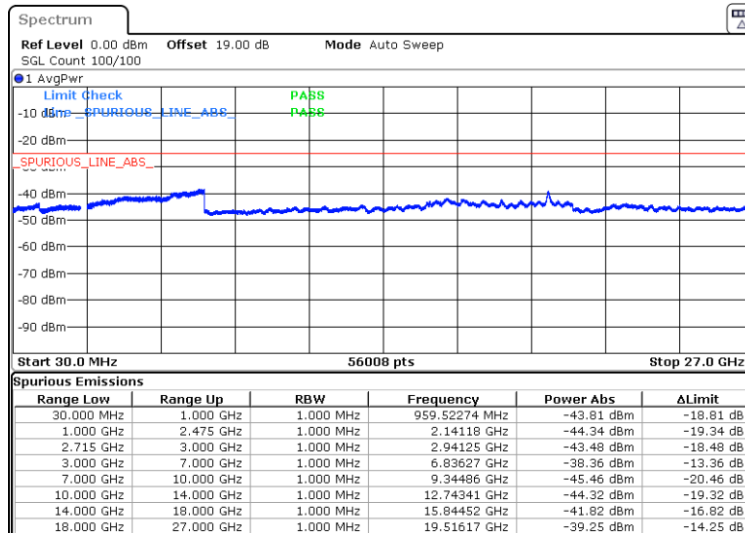
Date: 28 DEC 2024 18:29:17

## Middle Channel / QPSK



Date: 28 DEC 2024 18:30:21

## Highest Channel / QPSK

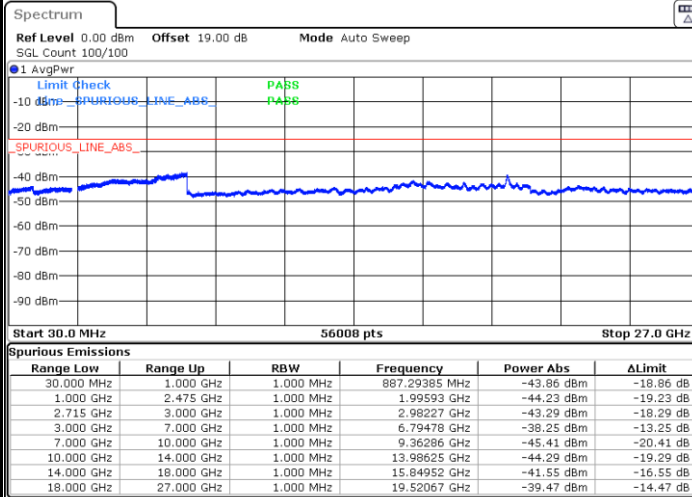


Date: 28 DEC 2024 18:37:18



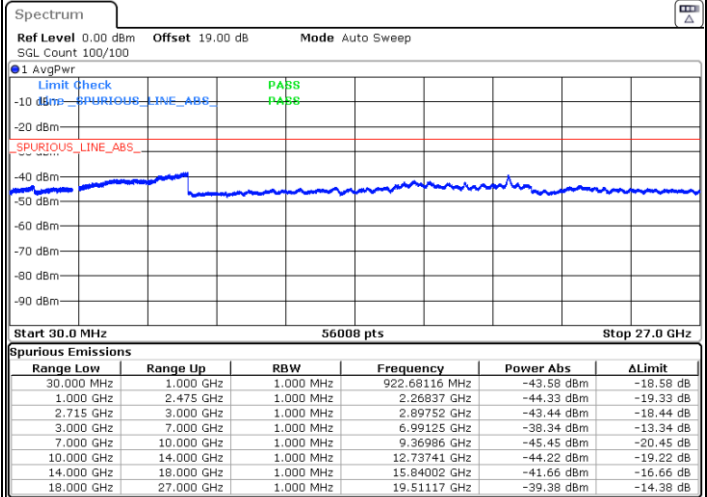
## LTE Band 41 / 15MHz

## Lowest Channel / QPSK



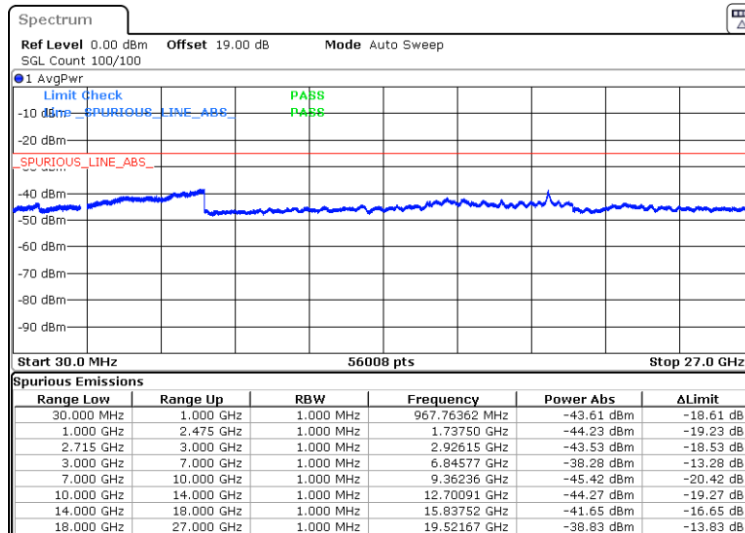
Date: 28 DEC 2024 18:43:40

## Middle Channel / QPSK



Date: 28 DEC 2024 18:44:44

## Highest Channel / QPSK

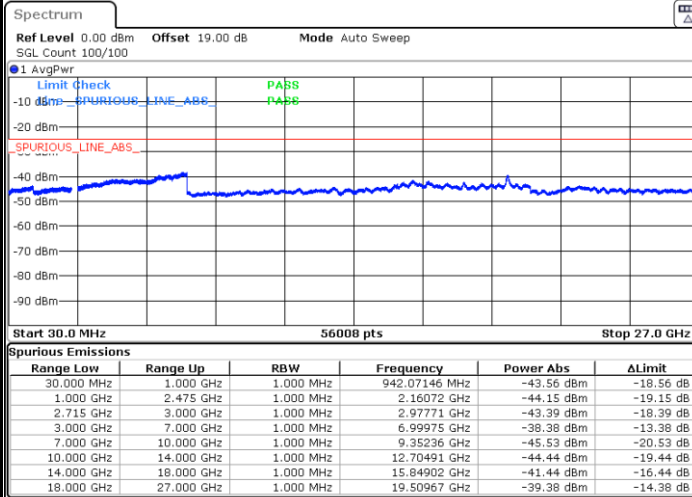


Date: 28 DEC 2024 18:52:28



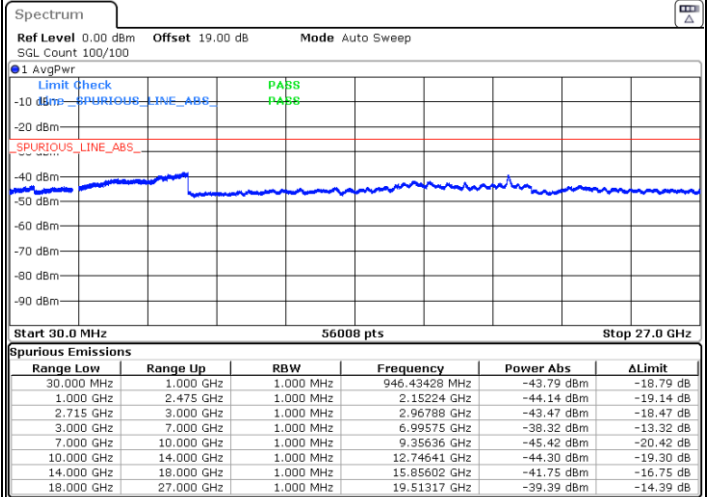
## LTE Band 41 / 20MHz

## Lowest Channel / QPSK



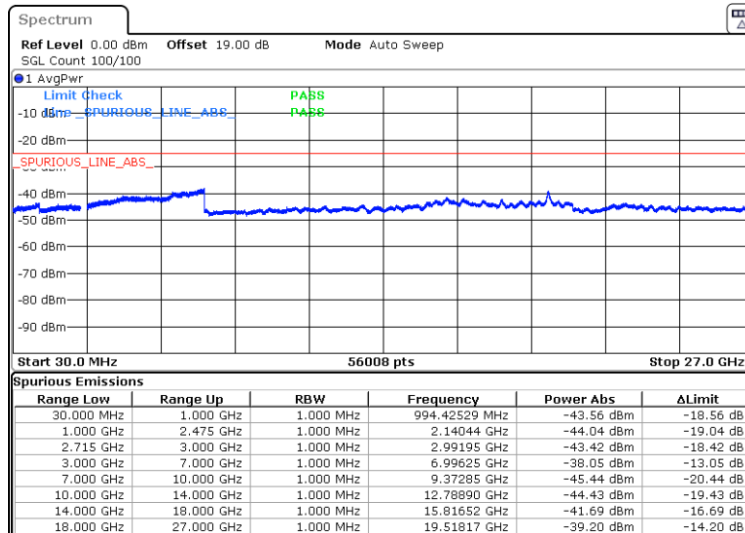
Date: 28 DEC 2024 18:59:04

## Middle Channel / QPSK



Date: 28 DEC 2024 19:00:08

## Highest Channel / QPSK



Date: 28 DEC 2024 19:09:14

**Frequency Stability**

| Test Conditions     |                   | LTE Band 41 (QPSK) / Middle Channel | Limit   |
|---------------------|-------------------|-------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 10MHz                            | Note 2. |
|                     |                   | Deviation (ppm)                     | Result  |
| 50                  | Normal Voltage    | 0.0037                              | PASS    |
| 40                  | Normal Voltage    | 0.0010                              |         |
| 30                  | Normal Voltage    | 0.0030                              |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                              |         |
| 10                  | Normal Voltage    | 0.0007                              |         |
| 0                   | Normal Voltage    | 0.0012                              |         |
| -10                 | Normal Voltage    | 0.0008                              |         |
| -20                 | Normal Voltage    | 0.0033                              |         |
| -30                 | Normal Voltage    | 0.0033                              |         |
| 20                  | Maximum Voltage   | 0.0044                              |         |
| 20                  | Normal Voltage    | 0.0000                              |         |
| 20                  | Battery End Point | 0.0030                              |         |

**Note:**

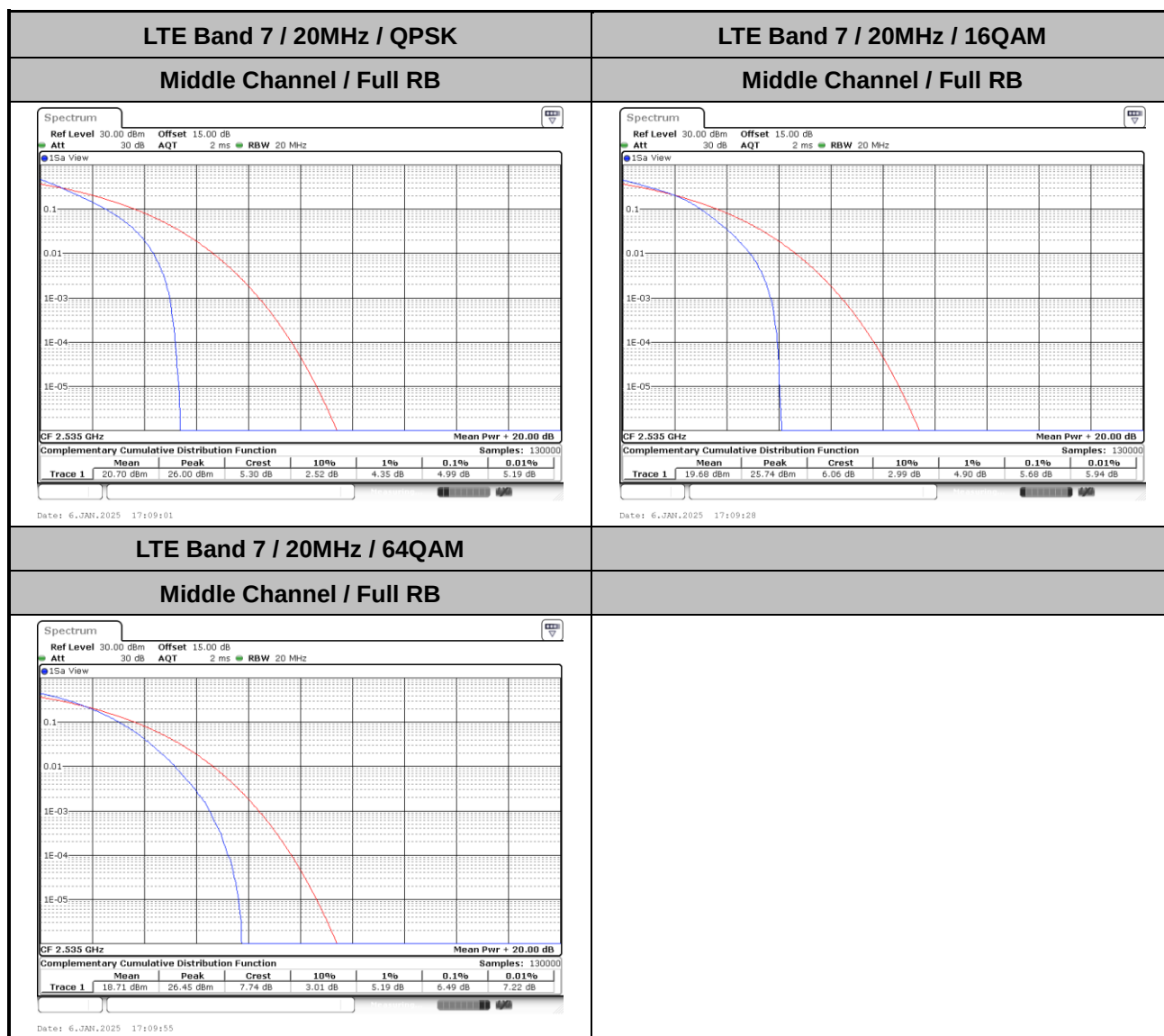
1. Normal Voltage = 3.91 V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage = 4.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 7(Other PA)

## Peak-to-Average Ratio

| Mode      | LTE Band 7 / 20MHz |         |         |             |
|-----------|--------------------|---------|---------|-------------|
| Mod.      | QPSK               | 16QAM   | 64QAM   | Limit: 13dB |
| RB Size   | Full RB            | Full RB | Full RB | Result      |
| Middle CH | 4.99               | 5.68    | 6.49    | PASS        |





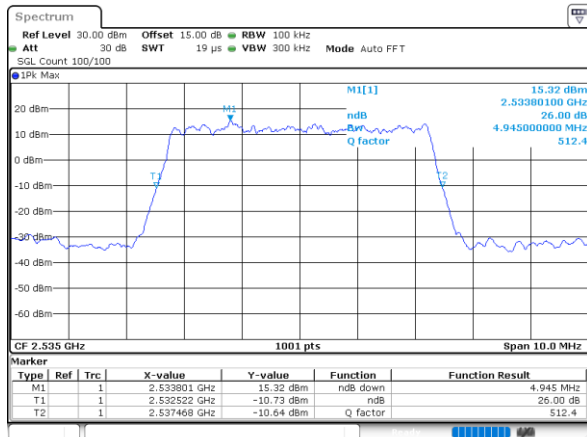


## 26dB Bandwidth

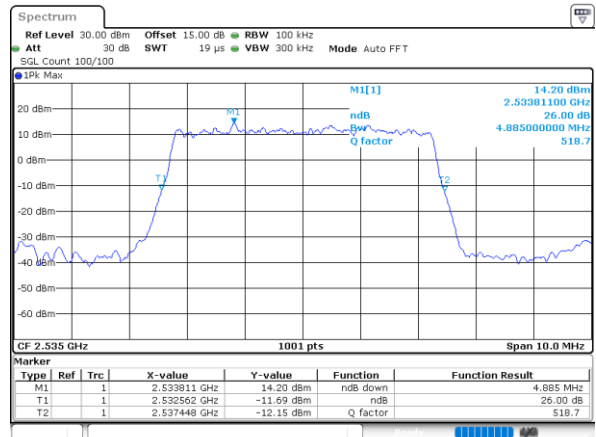
| Mode      | LTE Band 7 : 26dB BW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|-----------|---------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW        | 1.4MHz                    |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.      | QPSK                      | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Middle CH | -                         | -     | -    | -     | 4.95 | 4.89  | 9.75  | 9.69  | 14.24 | 14.27 | 19.06 | 18.98 |

### LTE Band 7

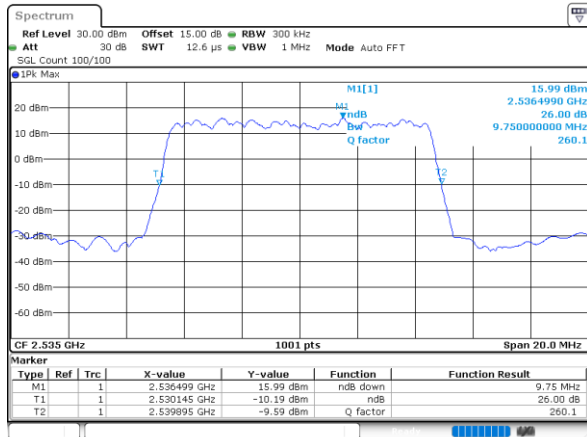
#### Middle Channel / 5MHz / QPSK



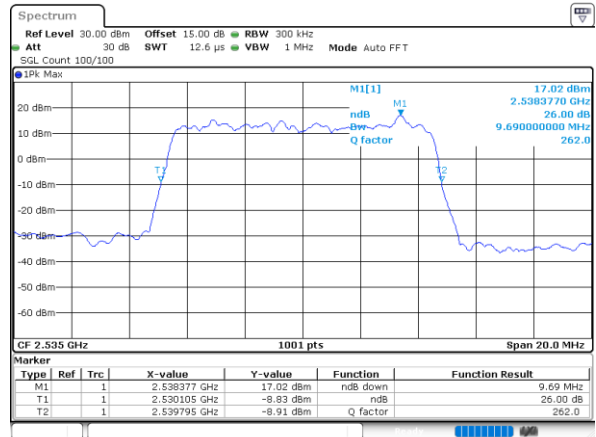
#### Middle Channel / 5MHz / 16QAM



#### Middle Channel / 10MHz / QPSK

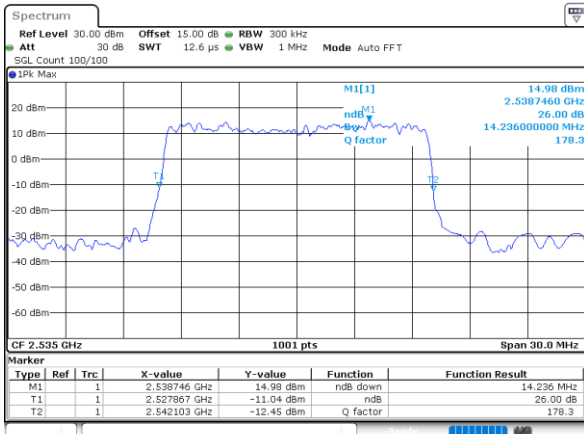


#### Middle Channel / 10MHz / 16QAM



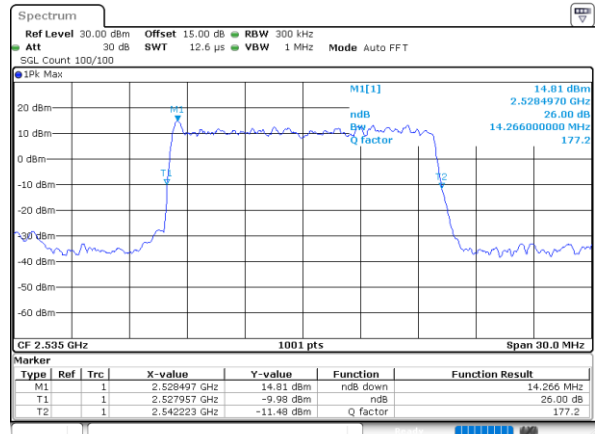


## Middle Channel / 15MHz / QPSK



Date: 6.JAN.2025 16:55:24

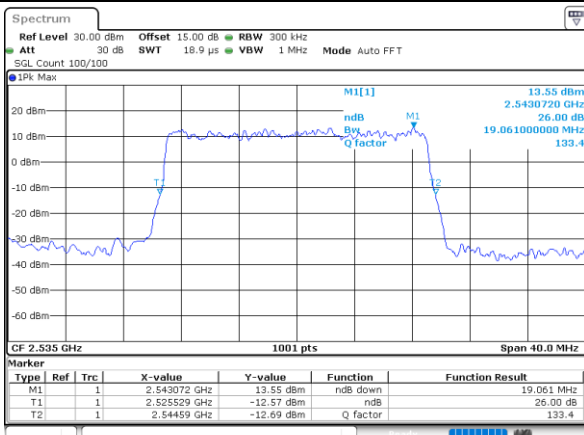
## Middle Channel / 15MHz / 16QAM



Date: 6.JAN.2025 16:56:04

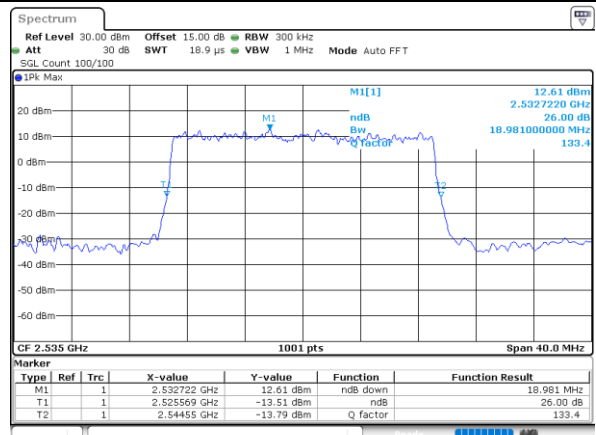
## LTE Band 7

## Middle Channel / 20MHz / QPSK



Date: 6.JAN.2025 17:07:54

## Middle Channel / 20MHz / 16QAM



Date: 6.JAN.2025 17:08:34

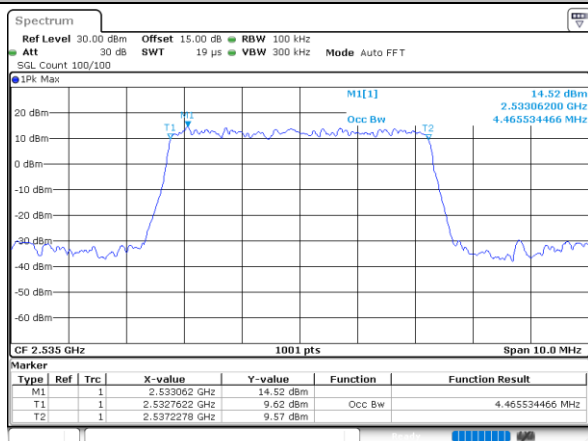


## Occupied Bandwidth

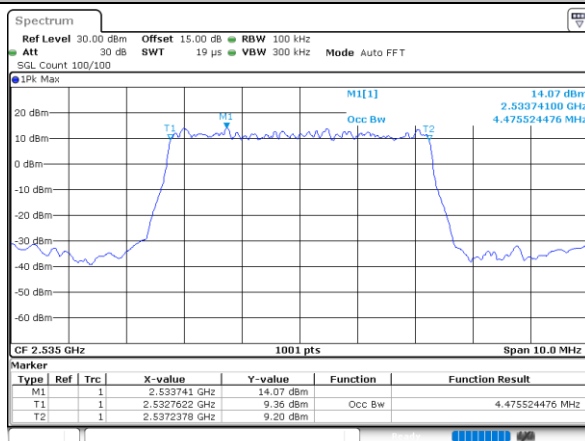
| Mode      | LTE Band 7 : 99%OBW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|-----------|--------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW        | 1.4MHz                   |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.      | QPSK                     | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Middle CH | -                        | -     | -    | -     | 4.47 | 4.48  | 9.03  | 9.09  | 13.49 | 13.43 | 17.86 | 17.90 |

### LTE Band 7

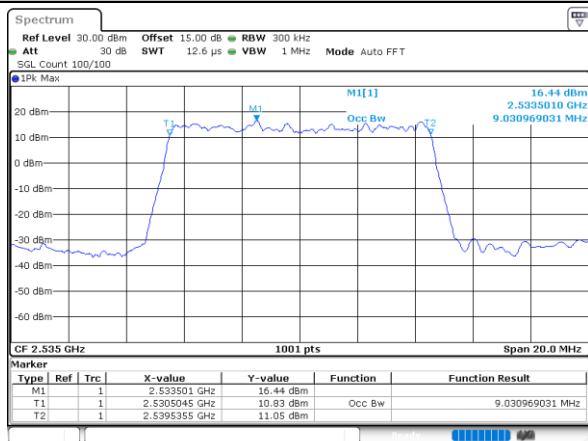
#### Middle Channel / 5MHz / QPSK



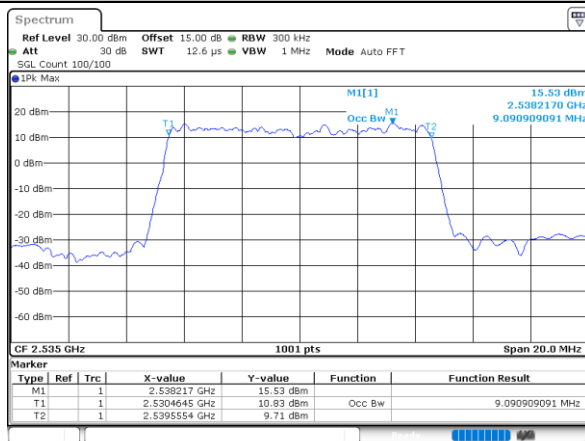
#### Middle Channel / 5MHz / 16QAM



#### Middle Channel / 10MHz / QPSK

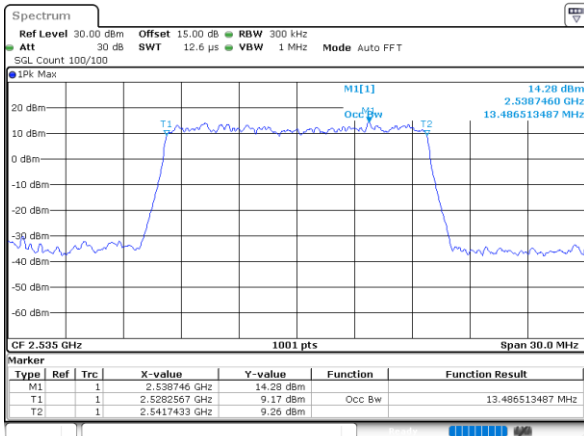


#### Middle Channel / 10MHz / 16QAM



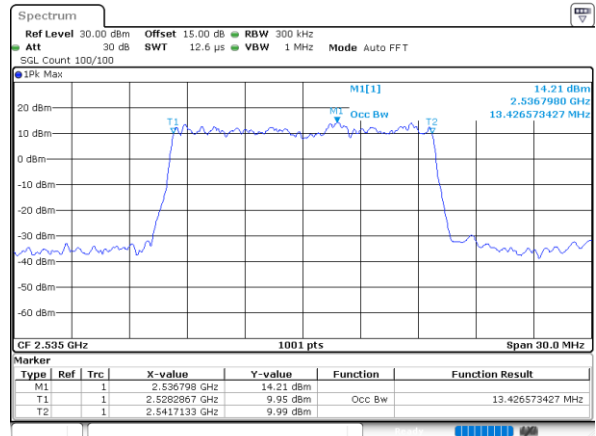


## Middle Channel / 15MHz / QPSK



Date: 6.JAN.2025 16:55:10

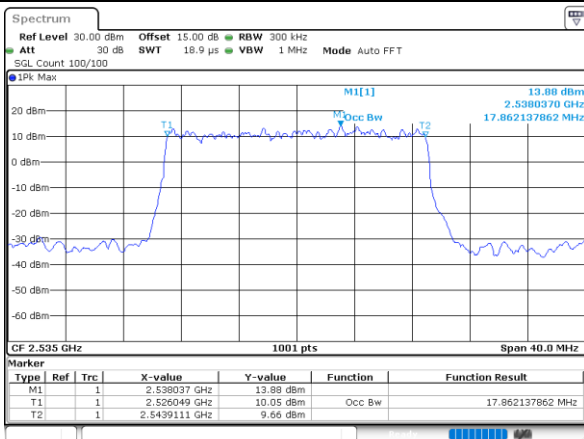
## Middle Channel / 15MHz / 16QAM



Date: 6.JAN.2025 16:55:50

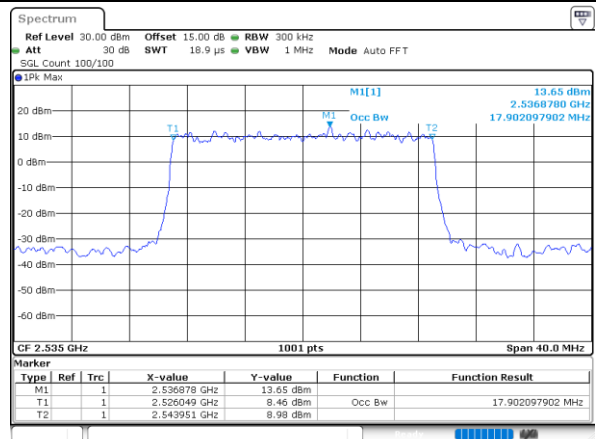
## LTE Band 7

## Middle Channel / 20MHz / QPSK



Date: 6.JAN.2025 17:07:40

## Middle Channel / 20MHz / 16QAM



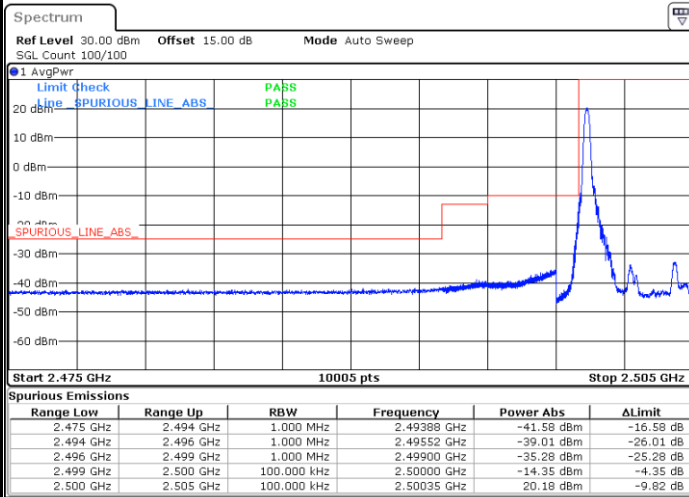
Date: 6.JAN.2025 17:08:20



# Conducted Band Edge

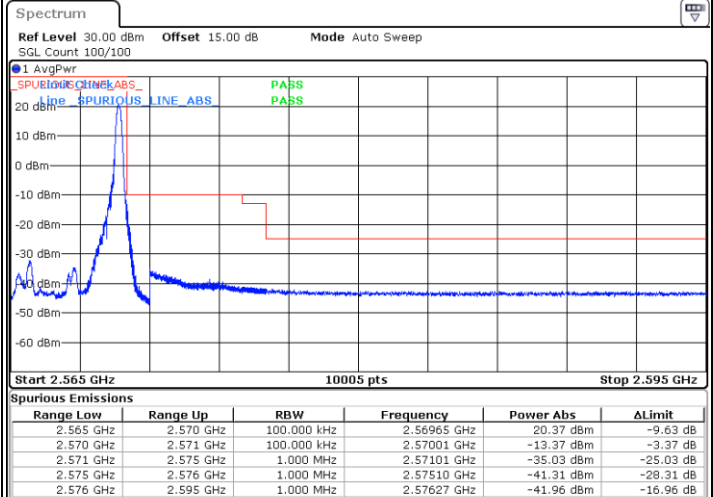
## LTE Band 7 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



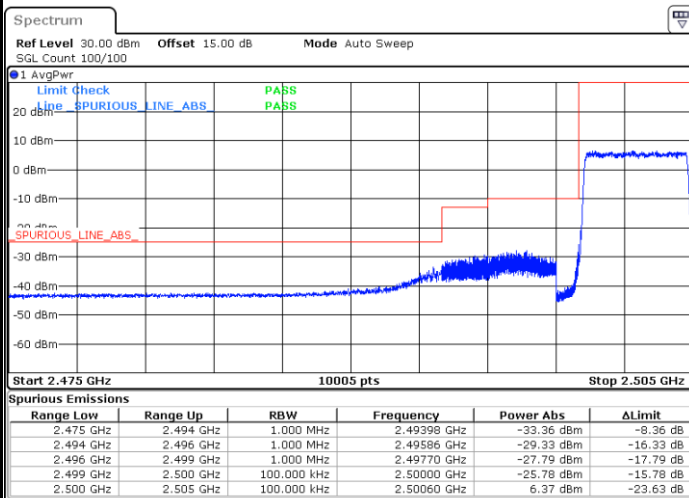
Date: 7.JAN.2025 00:31:23

### Highest Band Edge / 1 RB



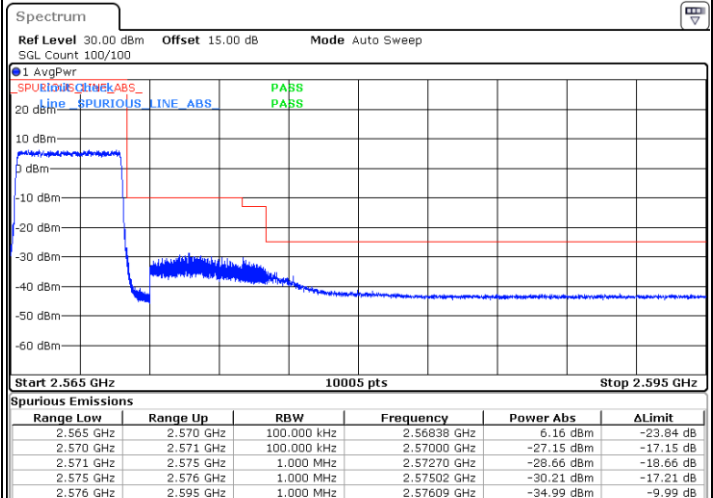
Date: 7.JAN.2025 00:39:17

### Lowest Band Edge / Full RB



Date: 7.JAN.2025 00:33:36

### Highest Band Edge / Full RB

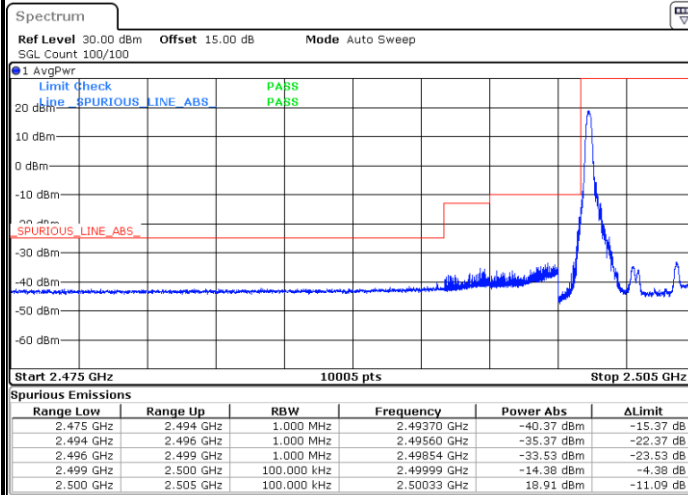


Date: 6.JAN.2025 16:33:23

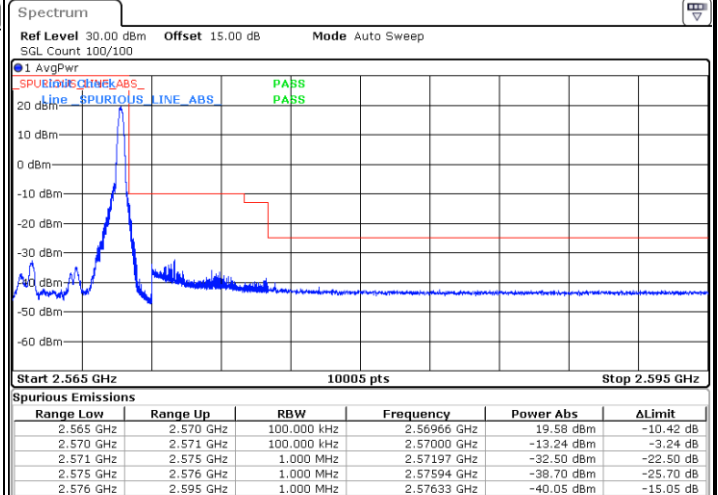


## LTE Band 7 / 5MHz / 16QAM

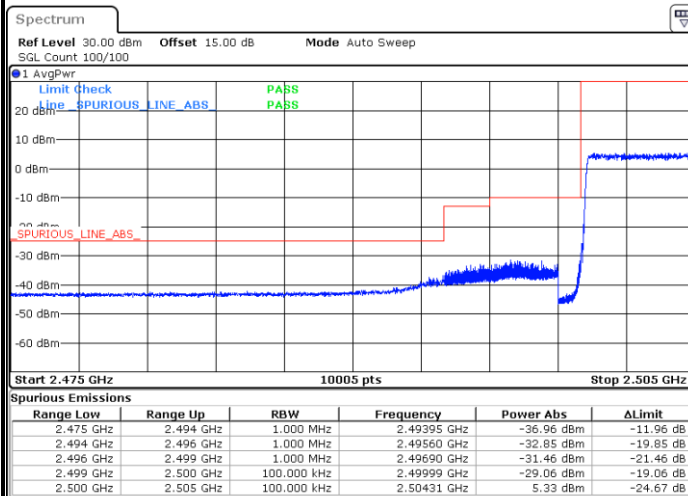
## Lowest Band Edge / 1RB



## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

