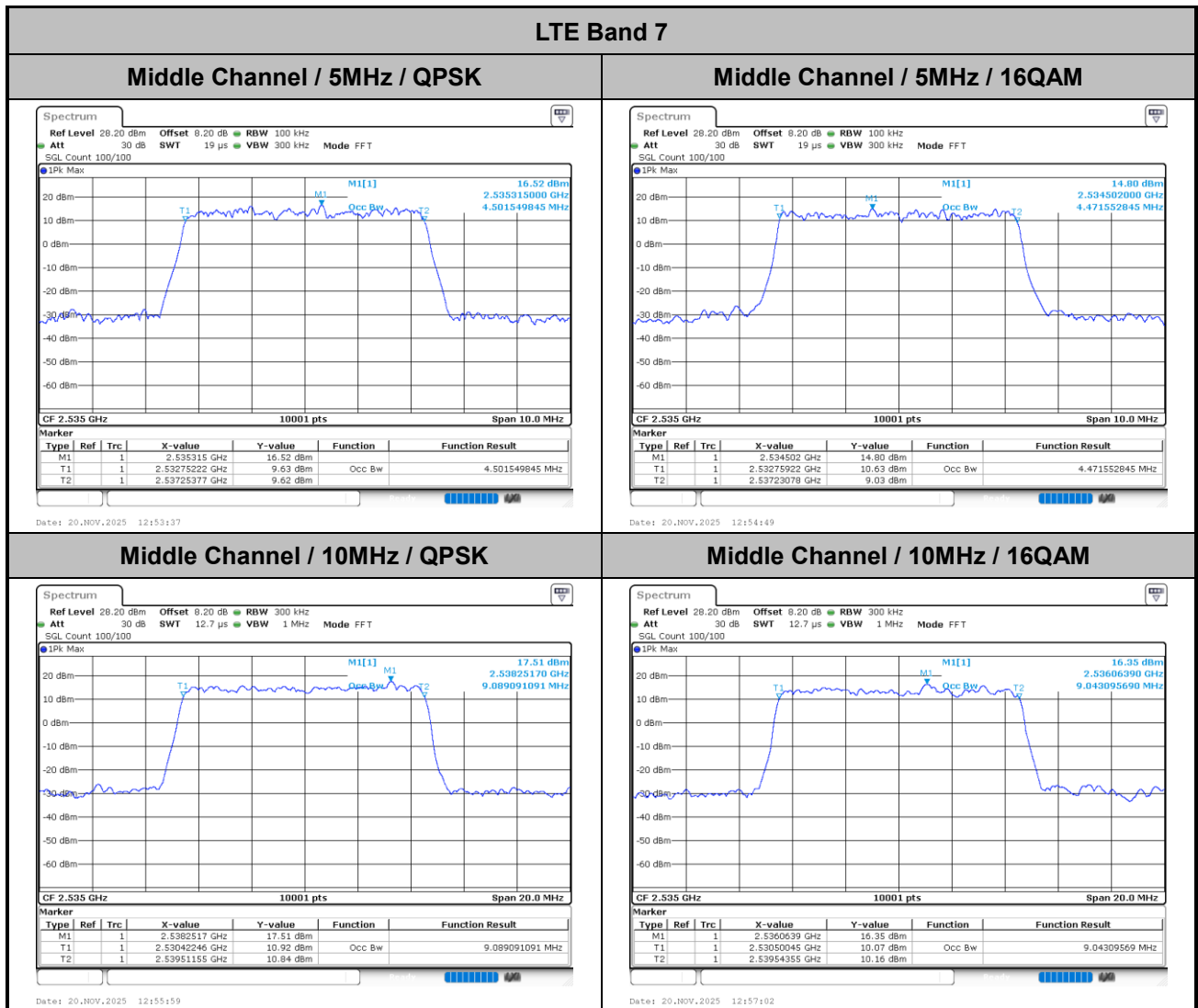




## Occupied Bandwidth

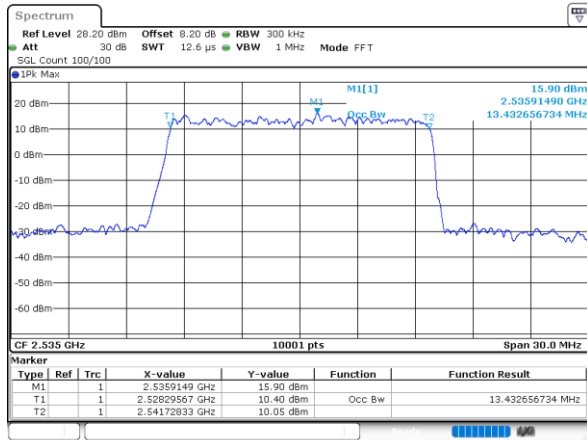
| Mode      | LTE Band 7 : 99%OBW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|-----------|--------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW        | 1.4MHz                   |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.      | QPSK                     | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Middle CH | -                        | -     | -    | -     | 4.50 | 4.47  | 9.08  | 9.04  | 13.43 | 13.47 | 17.87 | 17.84 |



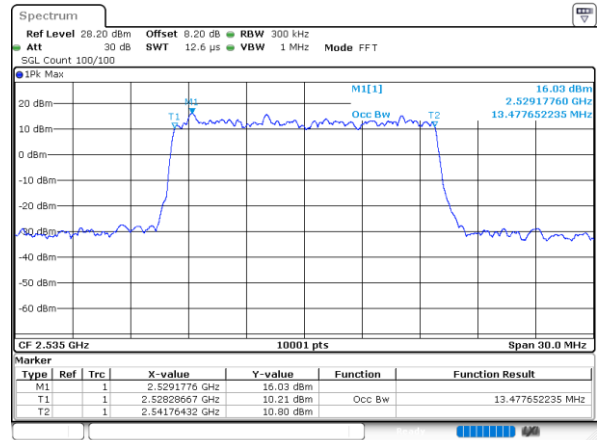


## LTE Band 7

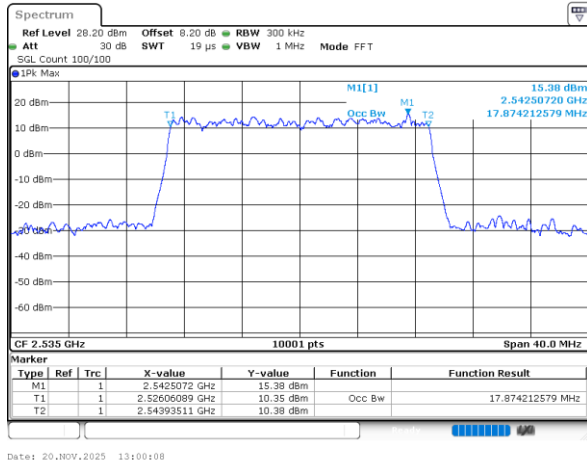
## Middle Channel / 15MHz / QPSK



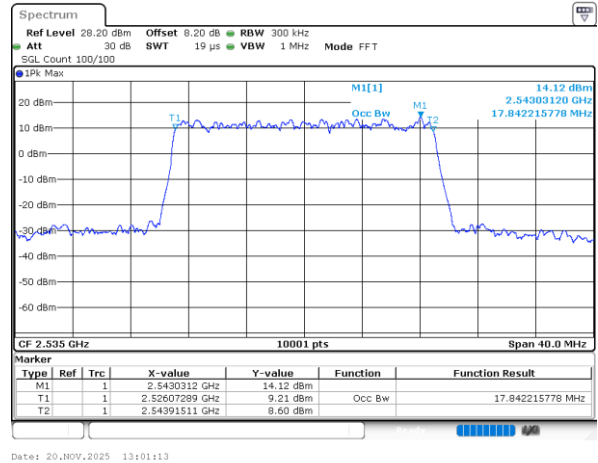
## Middle Channel / 15MHz / 16QAM



## Middle Channel / 20MHz / QPSK



## Middle Channel / 20MHz / 16QAM

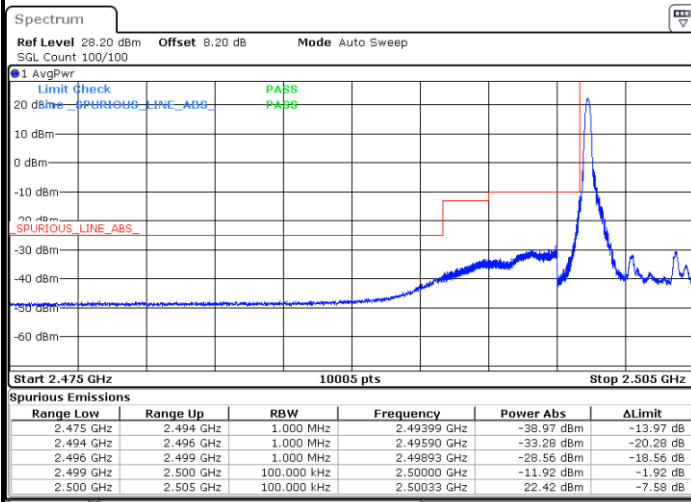




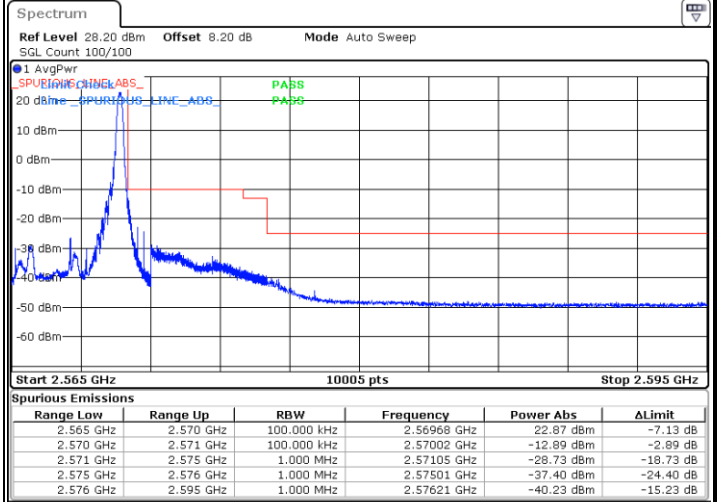
# Conducted Band Edge

## LTE Band 7 / 5MHz / QPSK

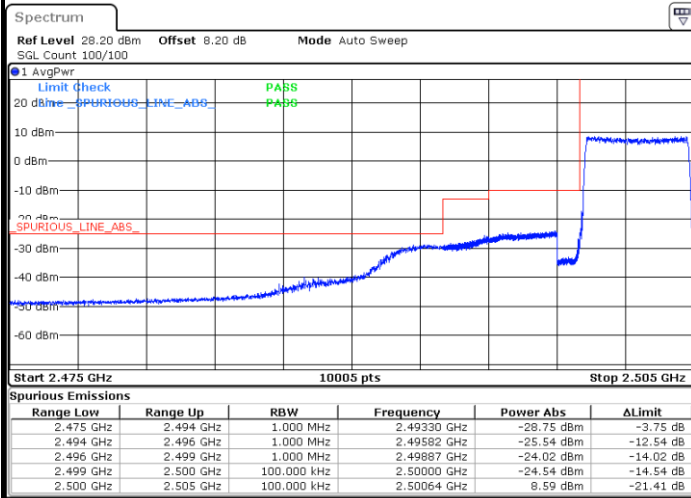
### Lowest Band Edge / 1 RB



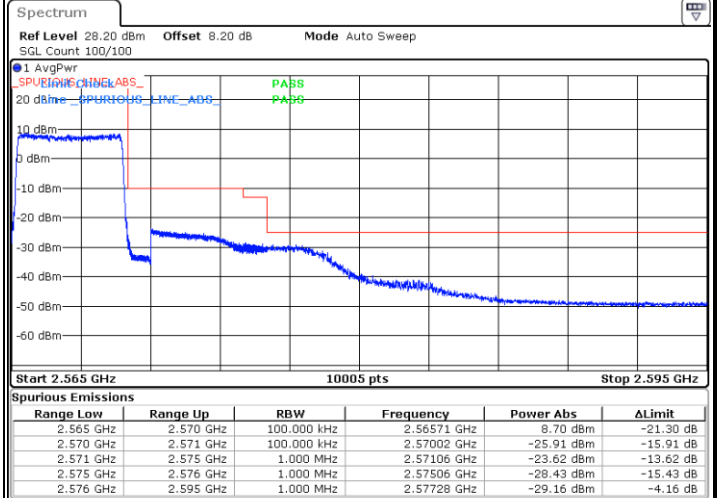
### Highest Band Edge / 1 RB



### Lowest Band Edge / Full RB



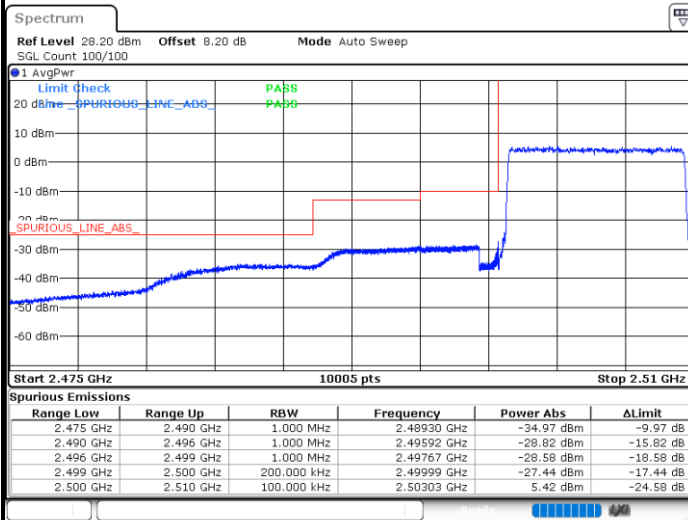
### Highest Band Edge / Full RB



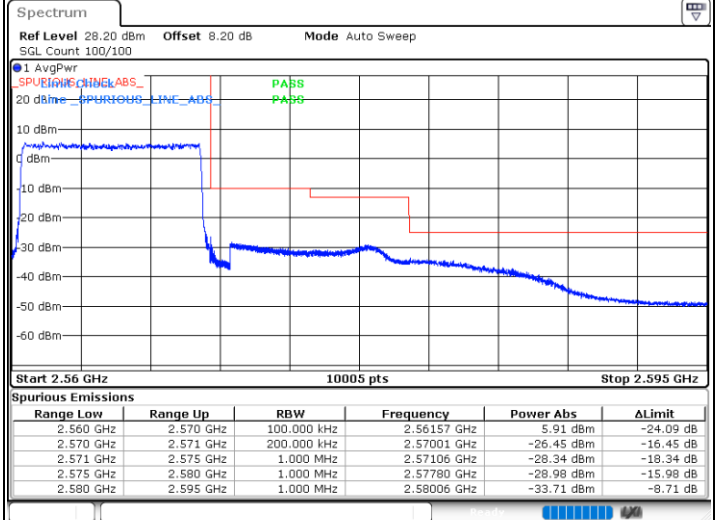


## LTE Band 7 / 10MHz / QPSK

## Lowest Band Edge / Full RB

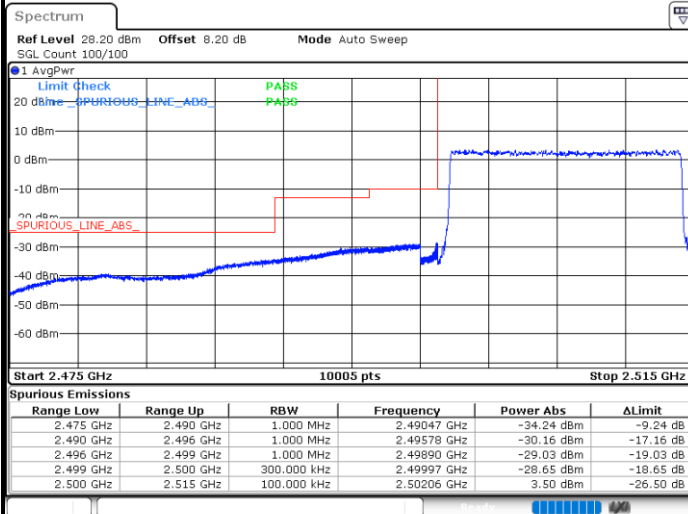


## Highest Band Edge / Full RB

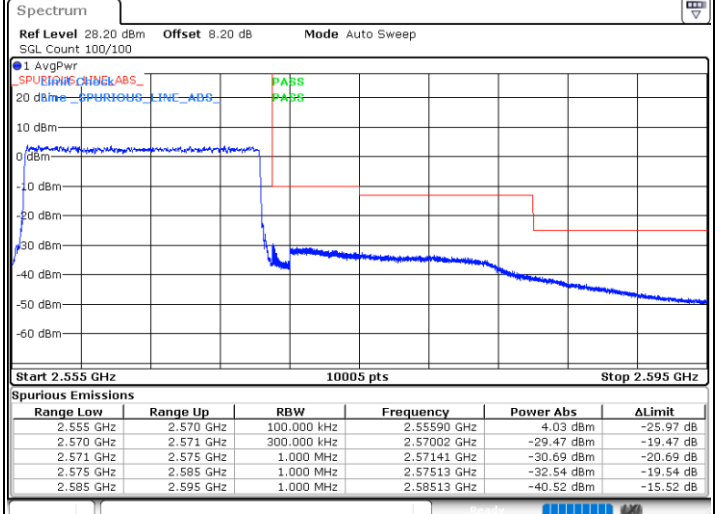


## LTE Band 7 / 15MHz / QPSK

## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

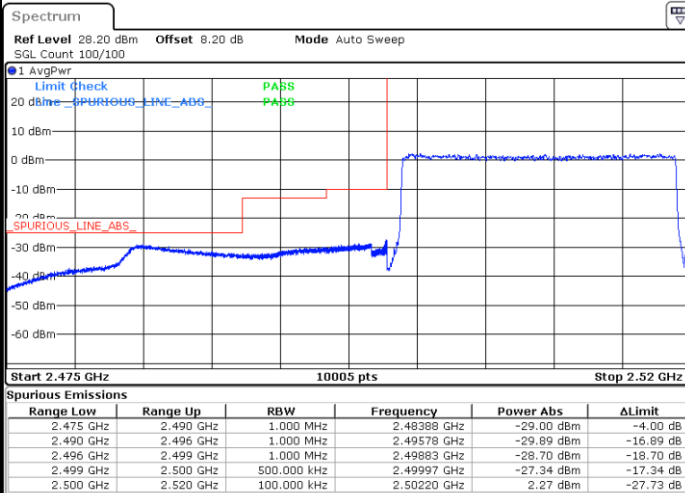




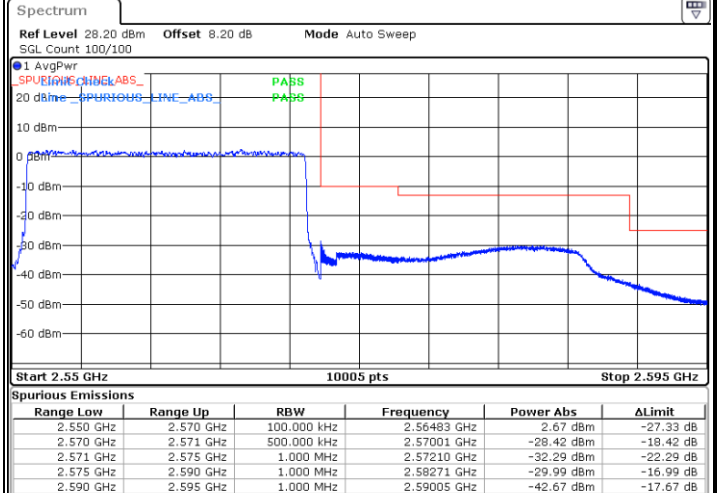
## LTE Band 7 / 20MHz / QPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB



Date: 20.NOV.2025 13:34:58



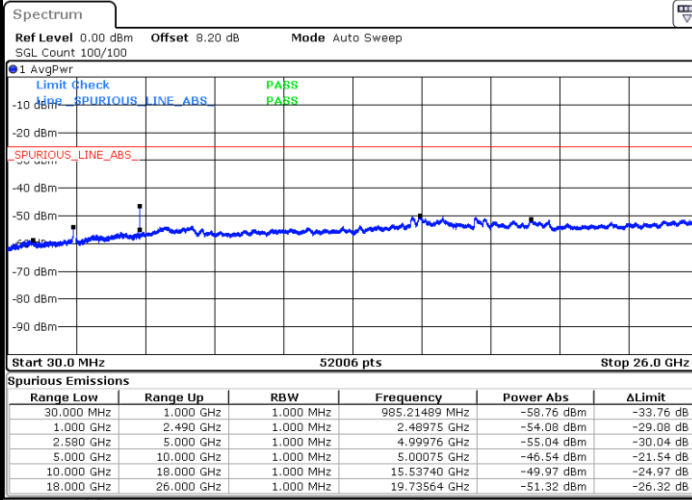
Date: 20.NOV.2025 13:36:36



# Conducted Spurious Emission

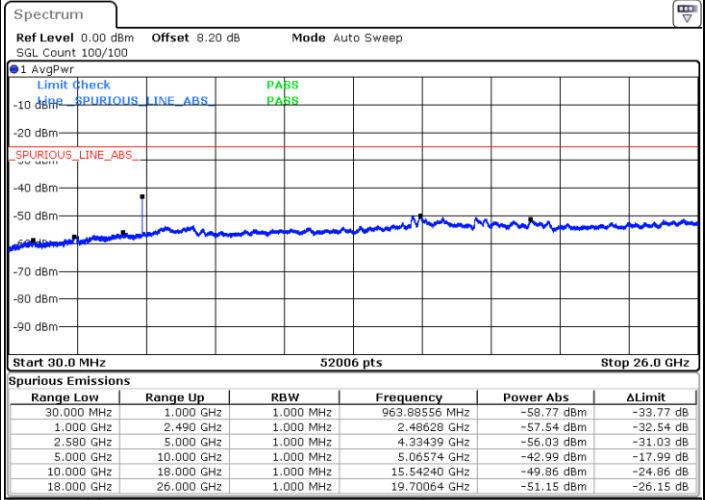
## LTE Band 7 / 5MHz

### Lowest Channel / QPSK



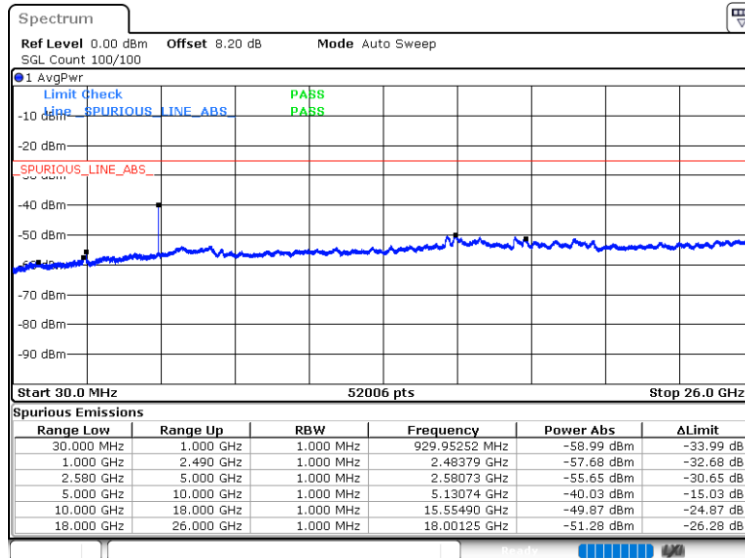
Date: 20.NOV.2025 13:38:35

### Middle Channel / QPSK



Date: 20.NOV.2025 13:40:23

### Highest Channel / QPSK

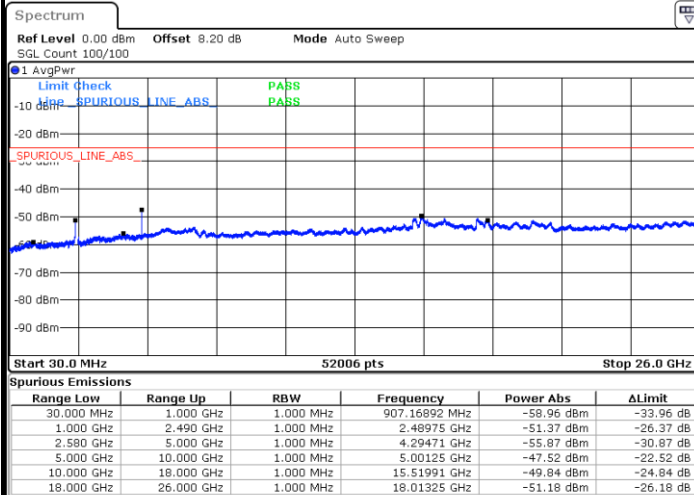


Date: 20.NOV.2025 13:42:06



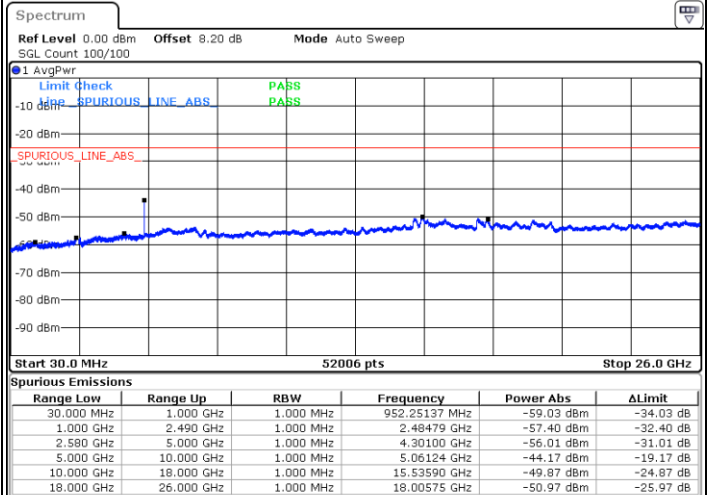
## LTE Band 7 / 10MHz

## Lowest Channel / QPSK



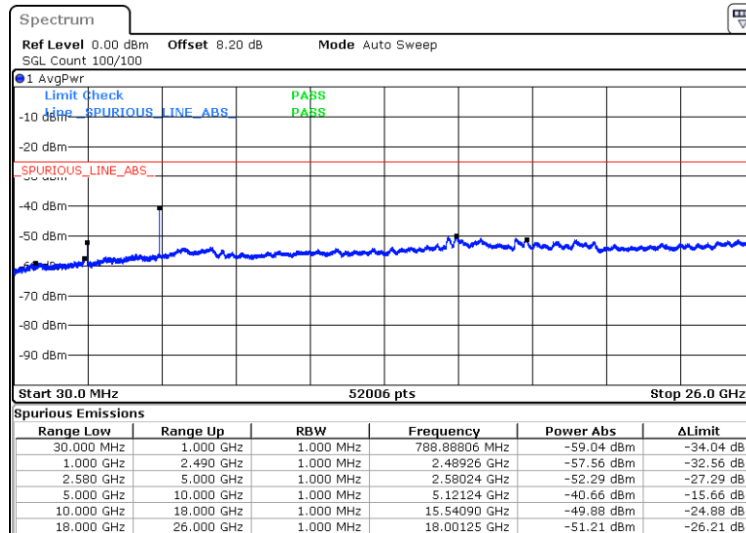
Date: 20.NOV.2025 13:43:56

## Middle Channel / QPSK



Date: 20.NOV.2025 13:46:00

## Highest Channel / QPSK

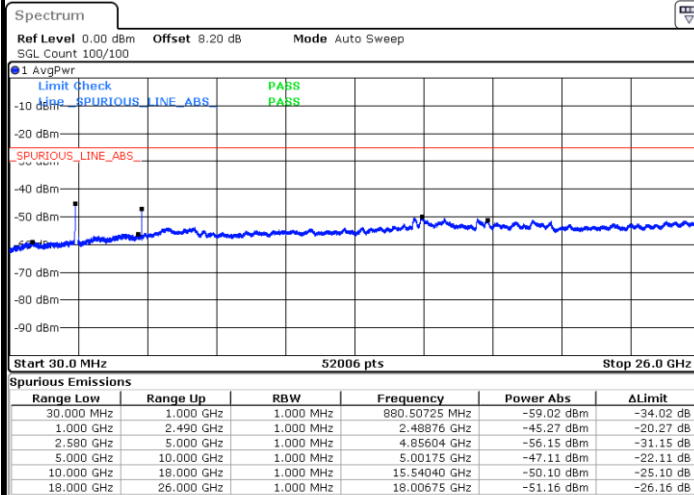


Date: 20.NOV.2025 13:47:54



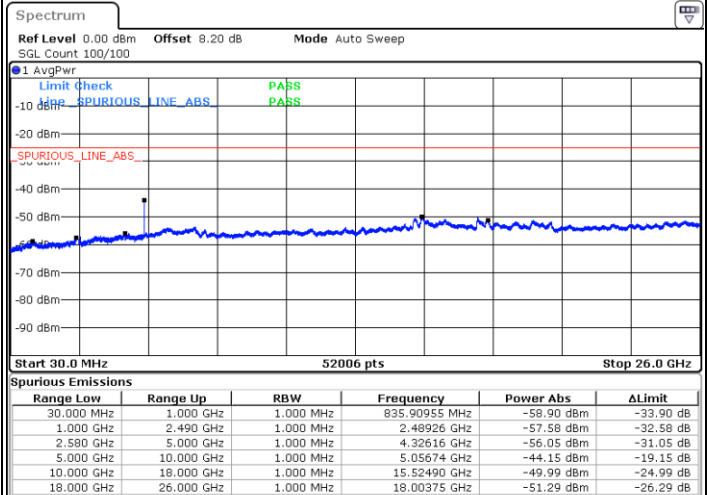
## LTE Band 7 / 15MHz

## Lowest Channel / QPSK



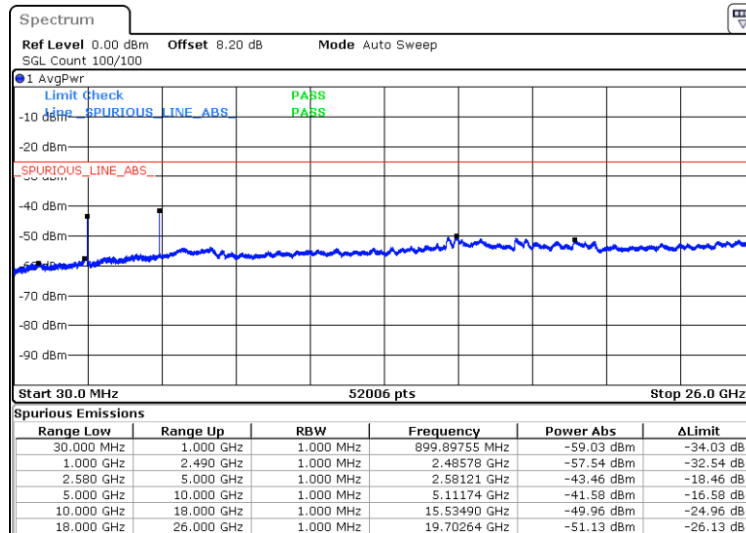
Date: 20.NOV.2025 13:49:43

## Middle Channel / QPSK



Date: 20.NOV.2025 13:51:38

## Highest Channel / QPSK

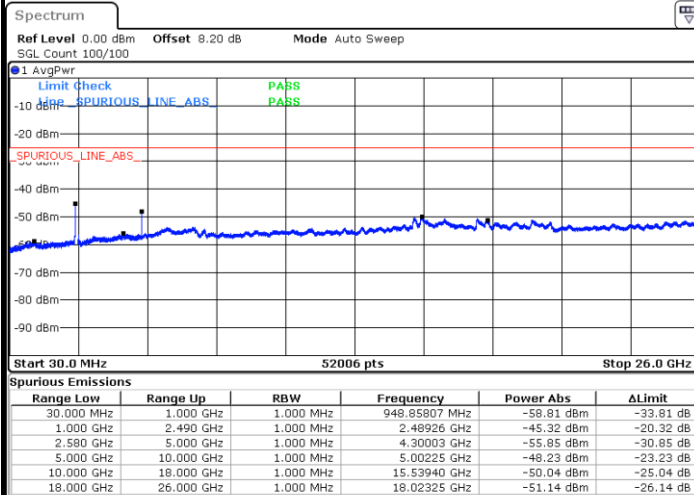


Date: 20.NOV.2025 13:53:29



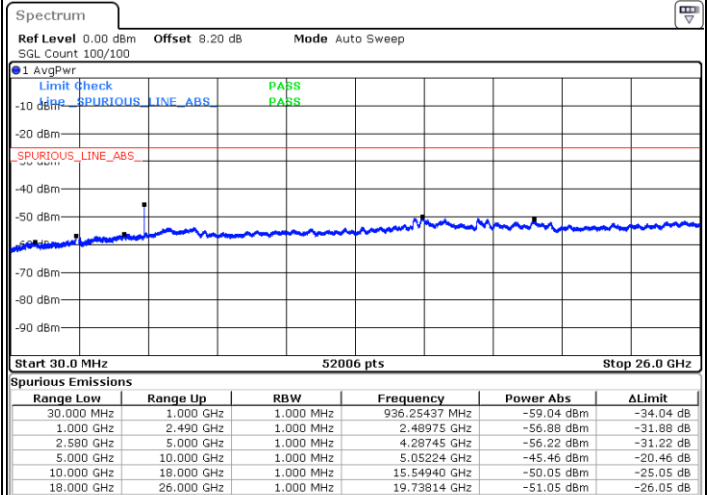
## LTE Band 7 / 20MHz

## Lowest Channel / QPSK



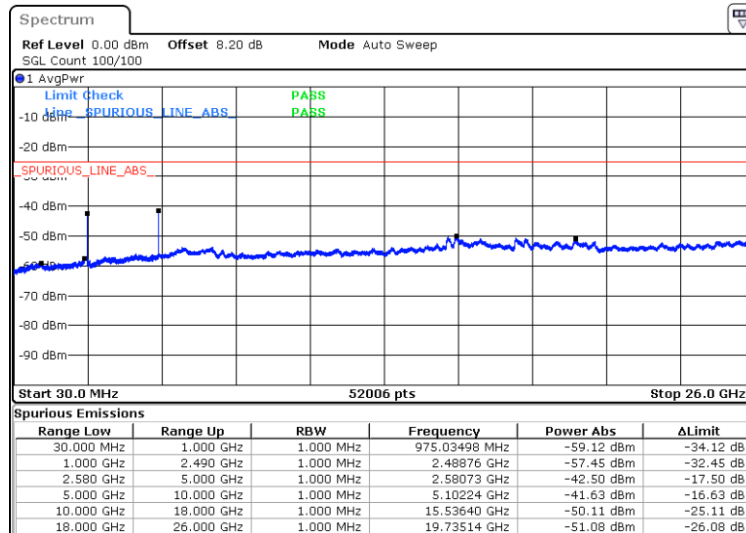
Date: 20.NOV.2025 13:55:21

## Middle Channel / QPSK



Date: 20.NOV.2025 13:57:13

## Highest Channel / QPSK



Date: 20.NOV.2025 13:58:55

## Frequency Stability

| Test Conditions     |                   | LTE Band 7 (QPSK) / Middle Channel 10M |                                         |                                             |        |
|---------------------|-------------------|----------------------------------------|-----------------------------------------|---------------------------------------------|--------|
| Temperature<br>(°C) | Voltage<br>(Volt) | Deviation (ppm)                        | Frequency Offset ( $\Delta f$ )<br>(Hz) | Within Authorized<br>Frequency<br>Block(Hz) | Result |
| 50                  | Normal Voltage    | 0.0017                                 | -4.4                                    | Yes                                         | PASS   |
| 40                  | Normal Voltage    | 0.0069                                 | -17.4                                   | Yes                                         |        |
| 30                  | Normal Voltage    | 0.0018                                 | -4.6                                    | Yes                                         |        |
| 20(Ref.)            | Normal Voltage    | 0.0000                                 | 0                                       | Yes                                         |        |
| 10                  | Normal Voltage    | 0.0059                                 | -14.9                                   | Yes                                         |        |
| 0                   | Normal Voltage    | 0.0013                                 | -3.2                                    | Yes                                         |        |
| -10                 | Normal Voltage    | 0.0069                                 | -17.5                                   | Yes                                         |        |
| -20                 | Normal Voltage    | 0.0029                                 | -7.4                                    | Yes                                         |        |
| -30                 | Normal Voltage    | 0.0063                                 | -15.9                                   | Yes                                         |        |
| 20                  | Maximum Voltage   | 0.0047                                 | -12                                     | Yes                                         |        |
| 20                  | Normal Voltage    | 0.0000                                 | 0                                       | Yes                                         |        |
| 20                  | Minimum Voltage   | 0.0054                                 | -13.7                                   | Yes                                         |        |

**Note:**

1. Normal Voltage = 3.9 V. ; Minimum Voltage = 3.6 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.

## LTE Band 12

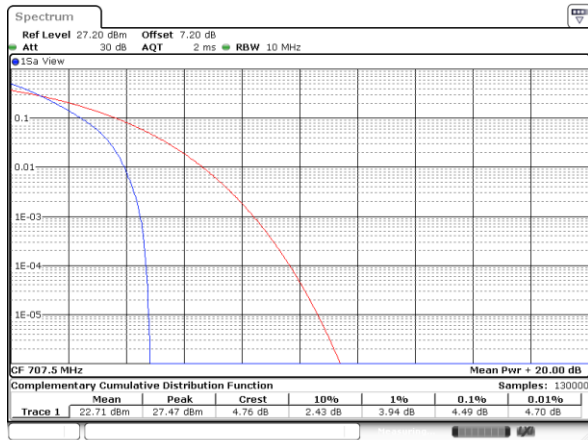
### Peak-to-Average Ratio

| Mode      | LTE Band 12 / 10MHz |         |         |         |             |
|-----------|---------------------|---------|---------|---------|-------------|
| Mod.      | QPSK                | 16QAM   | 64QAM   | 256QAM  | Limit: 13dB |
| RB Size   | Full RB             | Full RB | Full RB | Full RB | Result      |
| Middle CH | 4.49                | 5.33    | 5.97    | 6.38    | <b>PASS</b> |

| Mode      | LTE Band 12 / 1.4MHz |         |             |
|-----------|----------------------|---------|-------------|
| Mod.      | QPSK                 | 16QAM   | Limit: 13dB |
| RB Size   | Full RB              | Full RB | Result      |
| Middle CH | 4.81                 | 5.88    | <b>PASS</b> |
| Mode      | LTE Band 12 / 3MHz   |         |             |
| Mod.      | QPSK                 | 16QAM   | Limit: 13dB |
| RB Size   | Full RB              | Full RB | Result      |
| Middle CH | 4.46                 | 5.42    | <b>PASS</b> |
| Mode      | LTE Band 12 / 5MHz   |         |             |
| Mod.      | QPSK                 | 16QAM   | Limit: 13dB |
| RB Size   | Full RB              | Full RB | Result      |
| Middle CH | 4.26                 | 5.22    | <b>PASS</b> |

## LTE Band 12 / 10MHz / QPSK

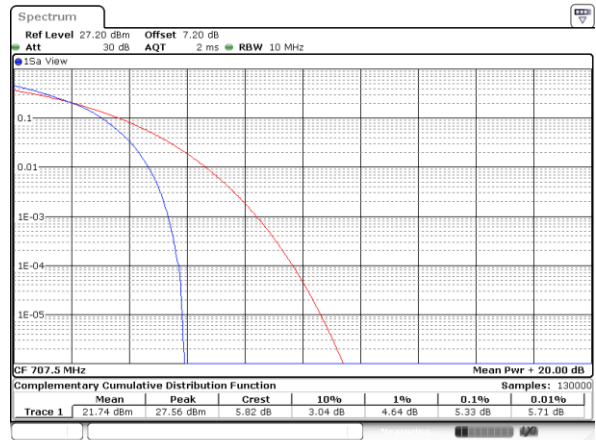
### Middle Channel / Full RB



Date: 26.NOV.2025 23:16:21

## LTE Band 12 / 10MHz / 16QAM

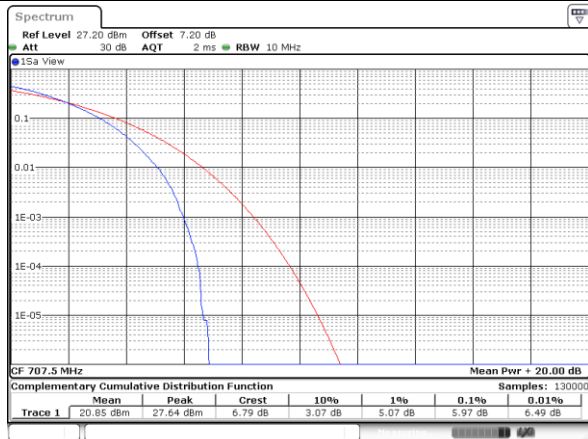
### Middle Channel / Full RB



Date: 26.NOV.2025 23:15:28

## LTE Band 12 / 10MHz / 64QAM

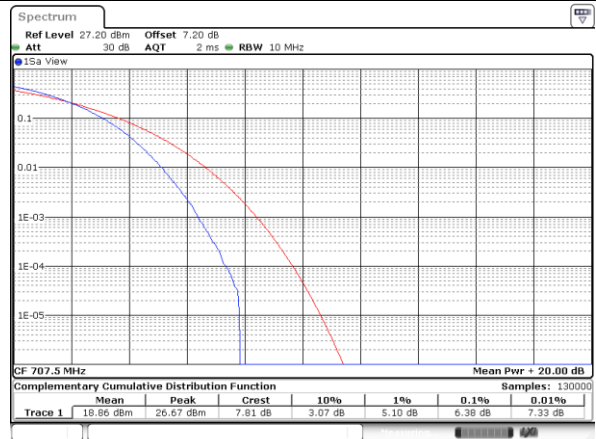
### Middle Channel / Full RB



Date: 26.NOV.2025 23:17:23

## LTE Band 12 / 10MHz / 256QAM

### Middle Channel / Full RB



Date: 26.NOV.2025 23:18:21



## LTE Band 12 / 1.4MHz / QPSK

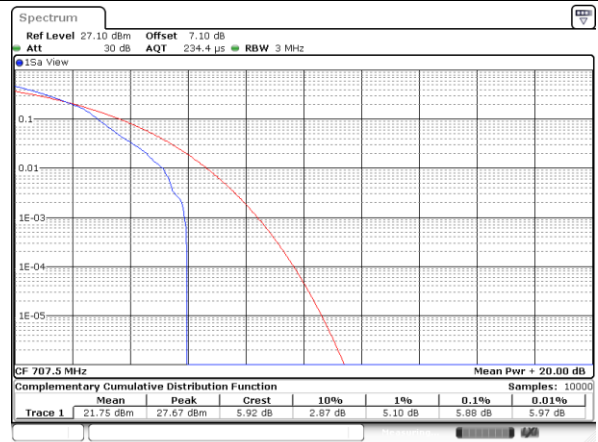
## Middle Channel / Full RB



Date: 26.MAY.2026 16:22:10

## LTE Band 12 / 1.4MHz / 16QAM

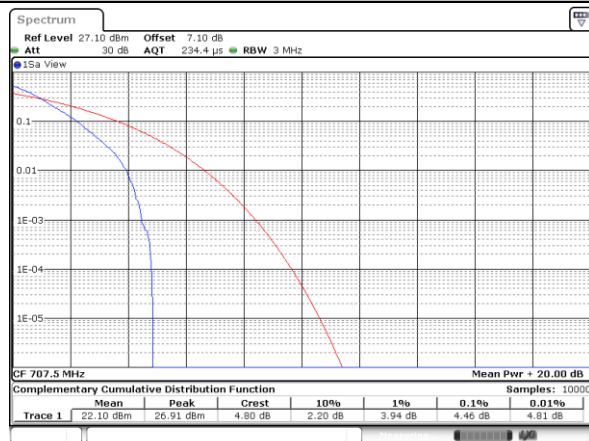
## Middle Channel / Full RB



Date: 26.MAY.2026 16:21:43

## LTE Band 12 / 3MHz / QPSK

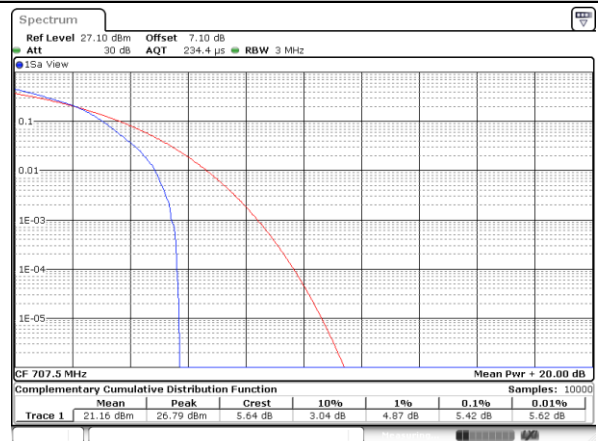
## Middle Channel / Full RB



Date: 26.MAY.2026 16:23:28

## LTE Band 12 / 3MHz / 16QAM

## Middle Channel / Full RB

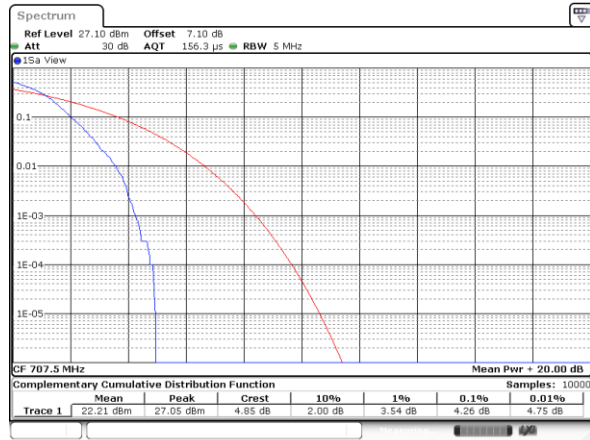


Date: 26.MAY.2026 16:22:54



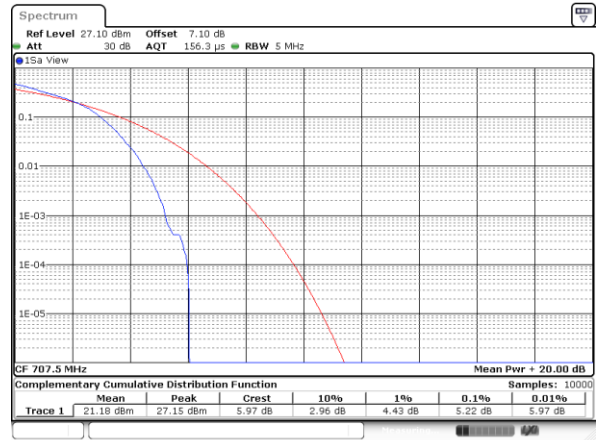
## LTE Band 12 / 5MHz / QPSK

## Middle Channel / Full RB



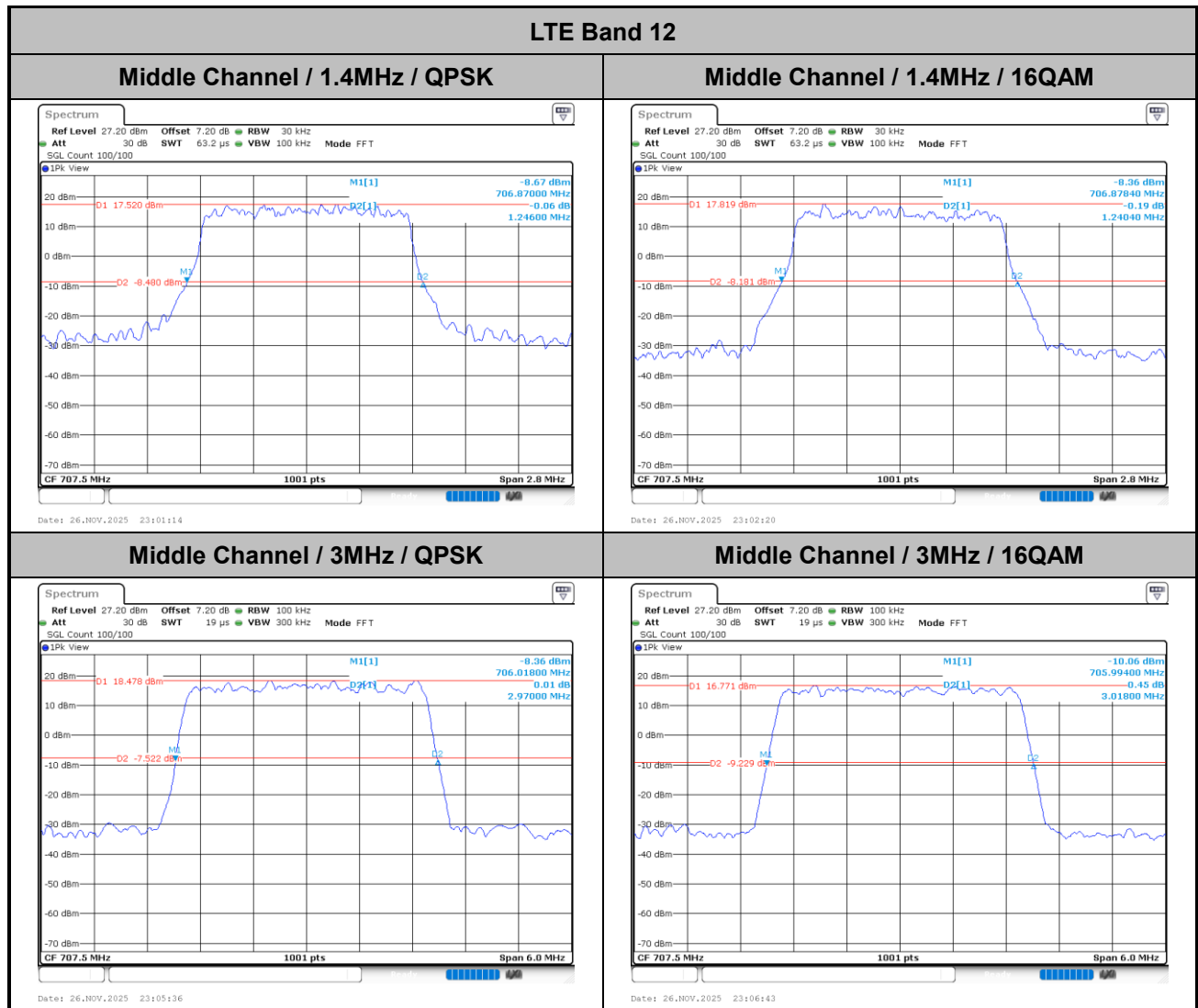
## LTE Band 12 / 5MHz / 16QAM

## Middle Channel / Full RB



**26dB Bandwidth**

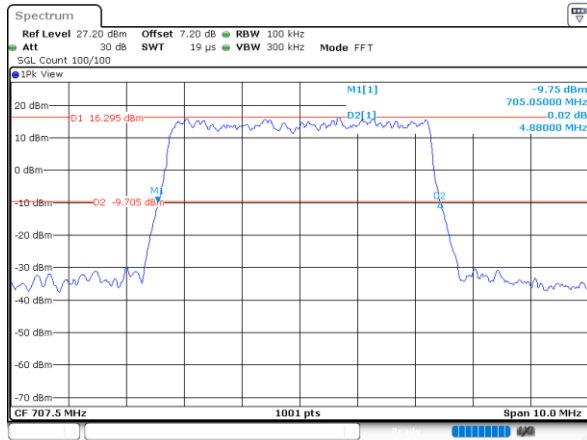
| Mode      | LTE Band 12 : 26dB BW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|-----------|----------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW        | 1.4MHz                     |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.      | QPSK                       | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Middle CH | 1.24                       | 1.24  | 2.97 | 3.01  | 4.88 | 4.91  | 9.70  | 9.88  | -     | -     | -     | -     |





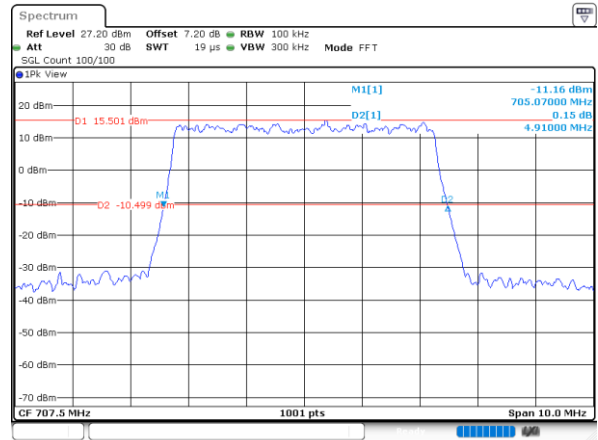
## LTE Band 12

## Middle Channel / 5MHz / QPSK



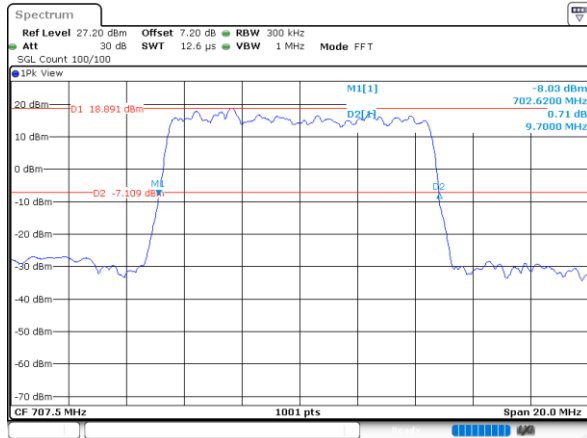
Date: 26,NOV,2025 23:09:32

## Middle Channel / 5MHz / 16QAM



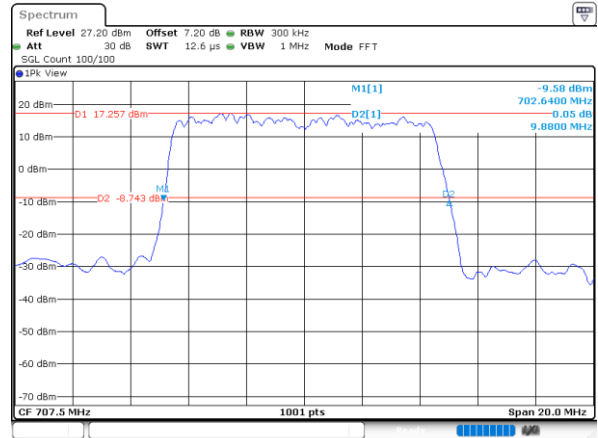
Date: 26,NOV,2025 23:10:36

## Middle Channel / 10MHz / QPSK



Date: 26,NOV,2025 23:13:34

## Middle Channel / 10MHz / 16QAM

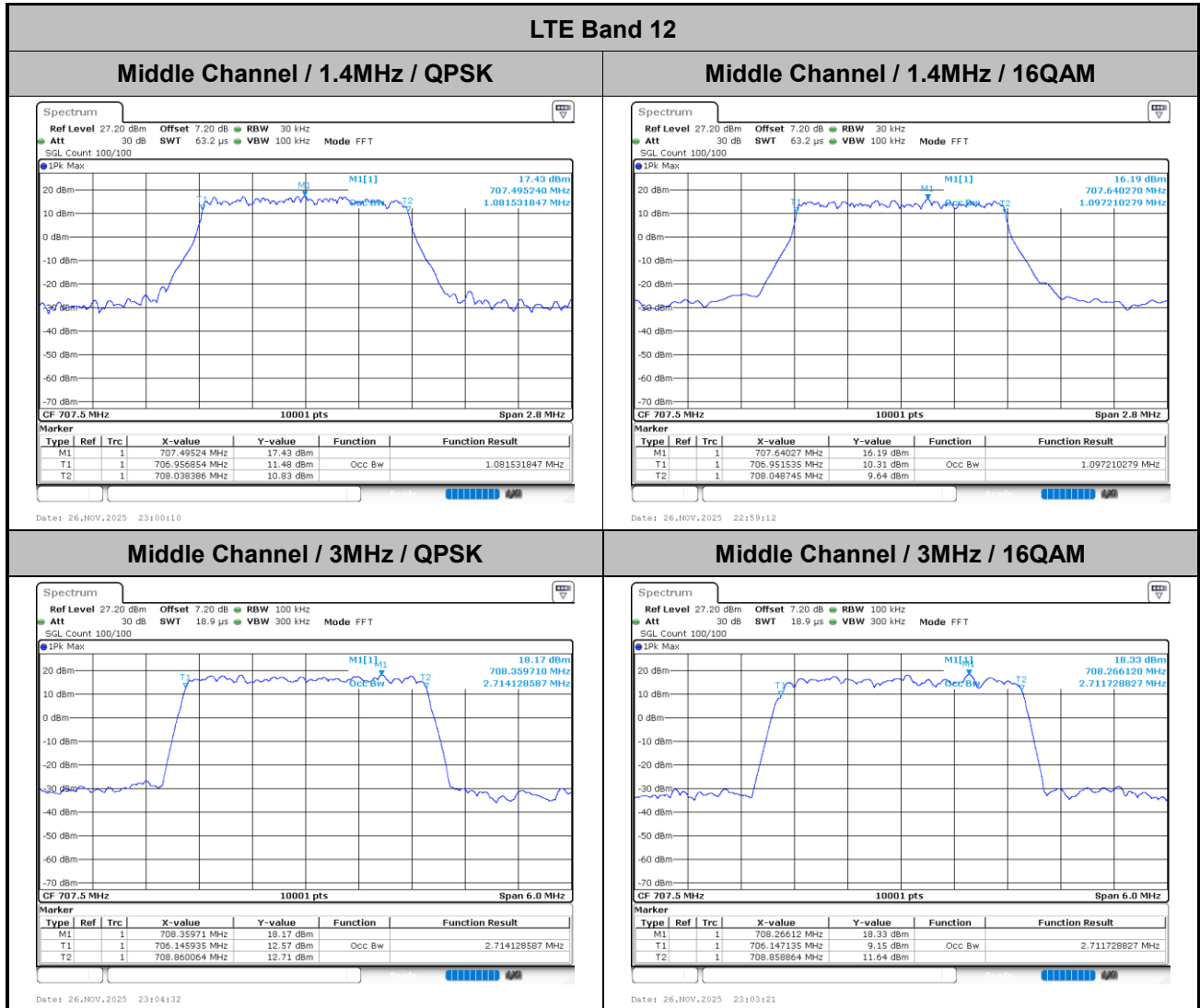


Date: 26,NOV,2025 23:14:36



## Occupied Bandwidth

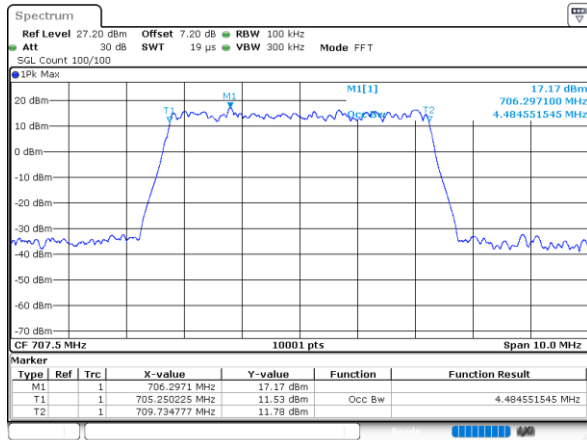
| Mode      | LTE Band 12 : 99%OBW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|-----------|---------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW        | 1.4MHz                    |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.      | QPSK                      | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Middle CH | 1.08                      | 1.09  | 2.71 | 2.71  | 4.48 | 4.47  | 9.02  | 9.00  | -     | -     | -     | -     |



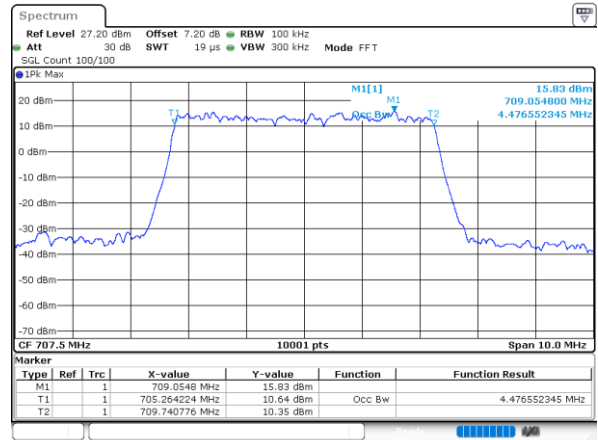


## LTE Band 12

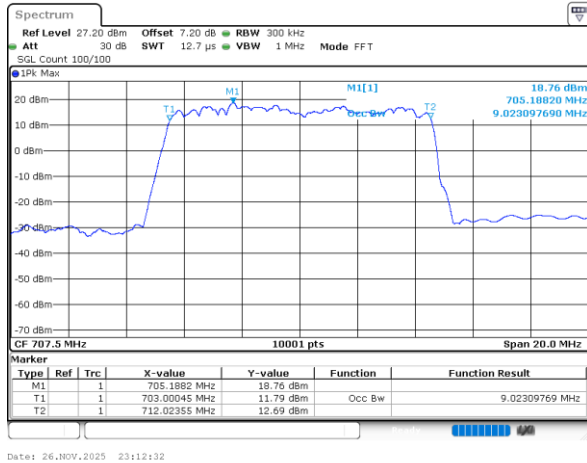
## Middle Channel / 5MHz / QPSK



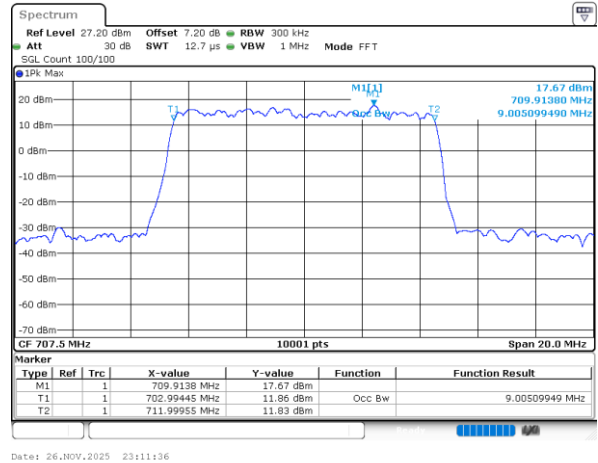
## Middle Channel / 5MHz / 16QAM

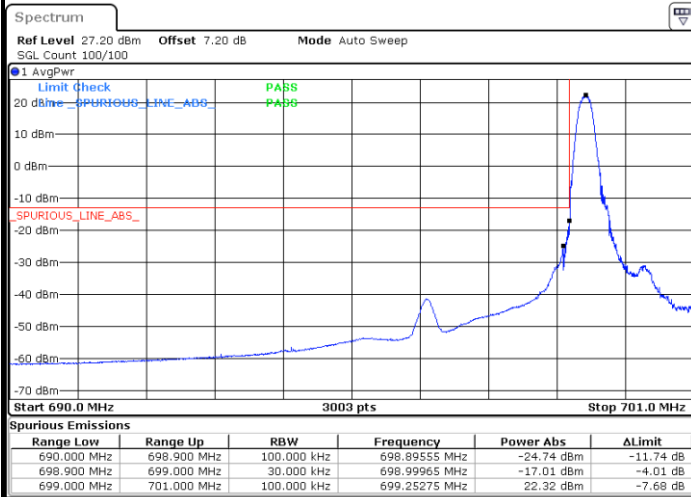
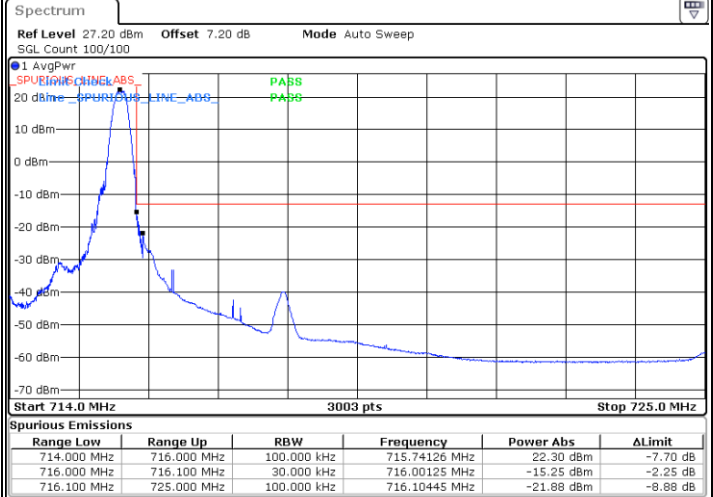
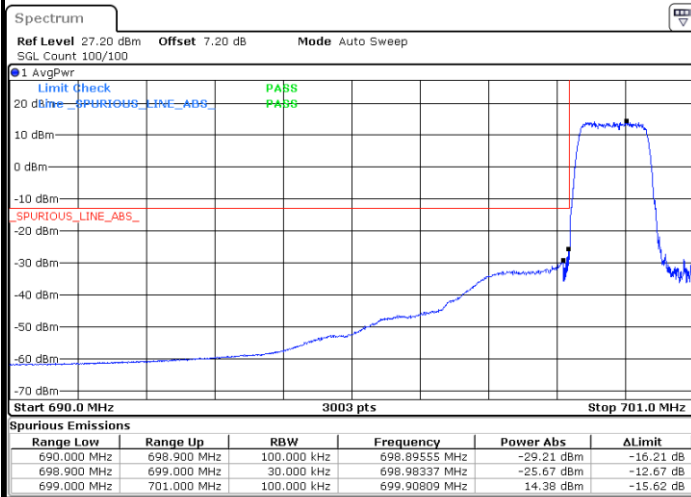
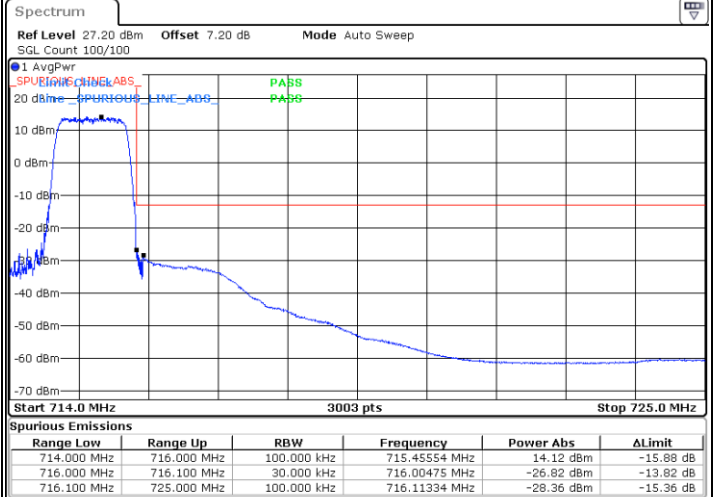


## Middle Channel / 10MHz / QPSK



## Middle Channel / 10MHz / 16QAM

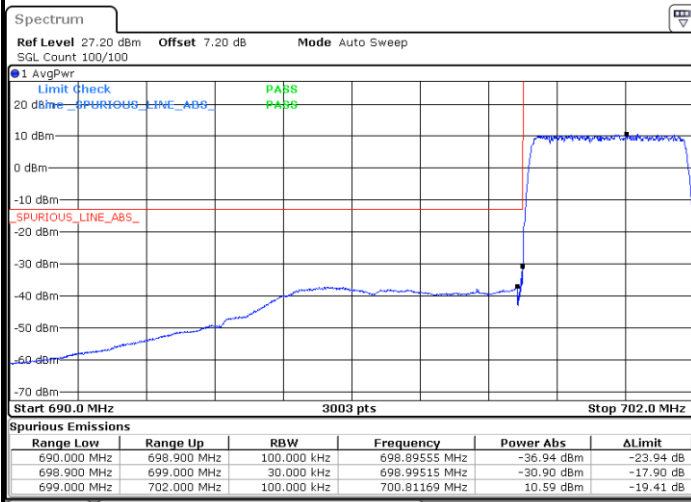


**Conducted Band Edge****LTE Band 12 / 1.4MHz / QPSK****Lowest Band Edge / 1RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

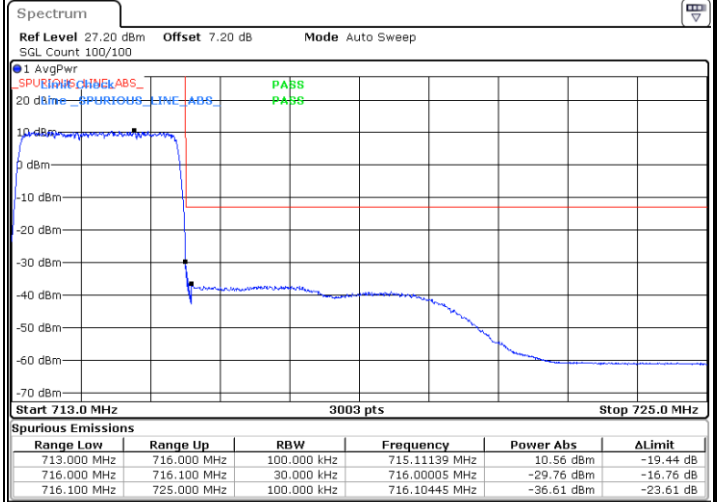


## LTE Band 12 / 3MHz / QPSK

## Lowest Band Edge / Full RB

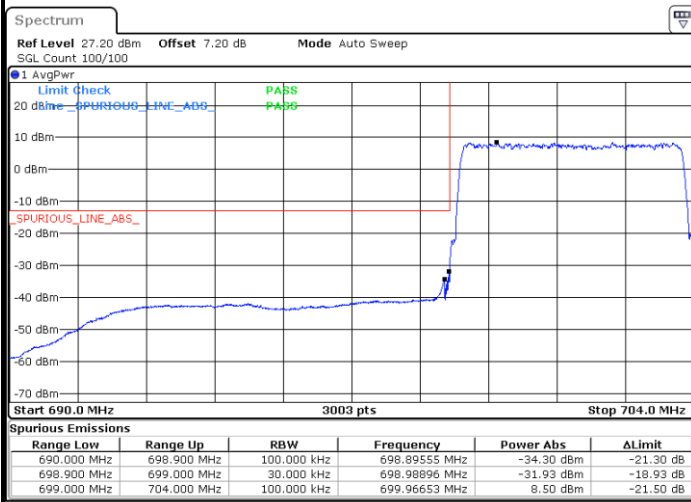


## Highest Band Edge / Full RB

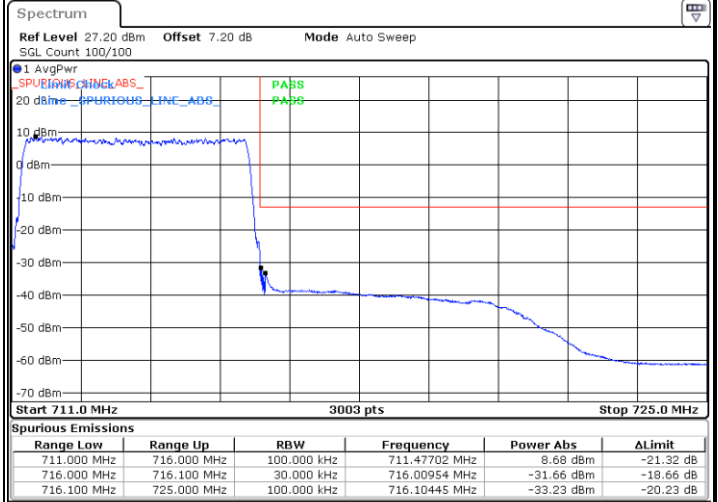


## LTE Band 12 / 5MHz / QPSK

## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

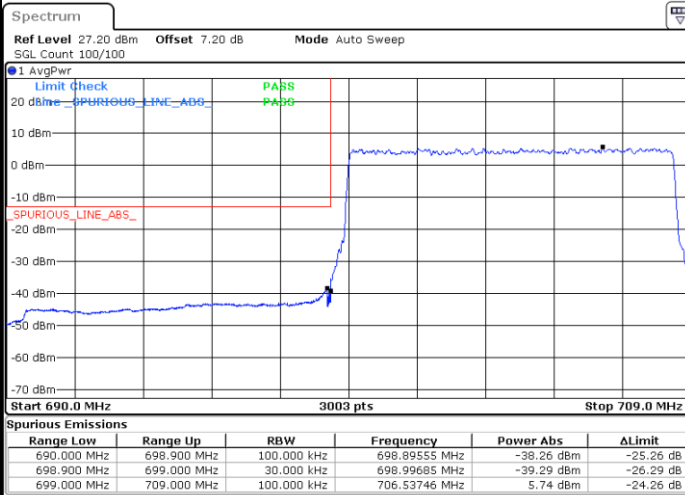




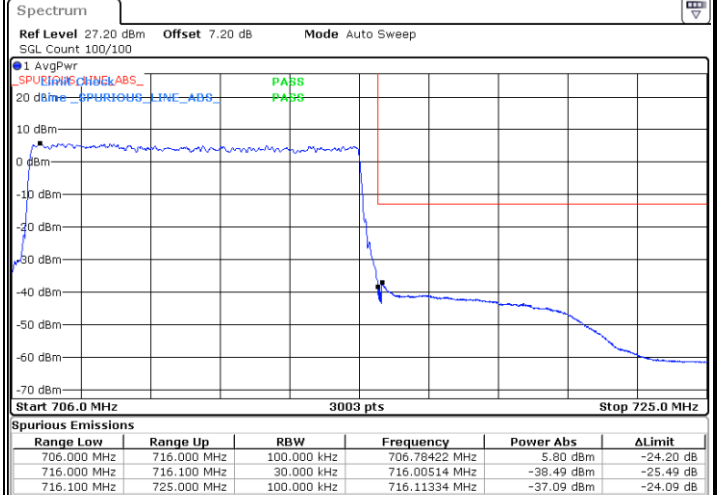
## LTE Band 12 / 10MHz / QPSK

## Lowest Band Edge / Full RB

## Highest Band Edge / Full RB



Date: 26.NOV.2025 23:37:56



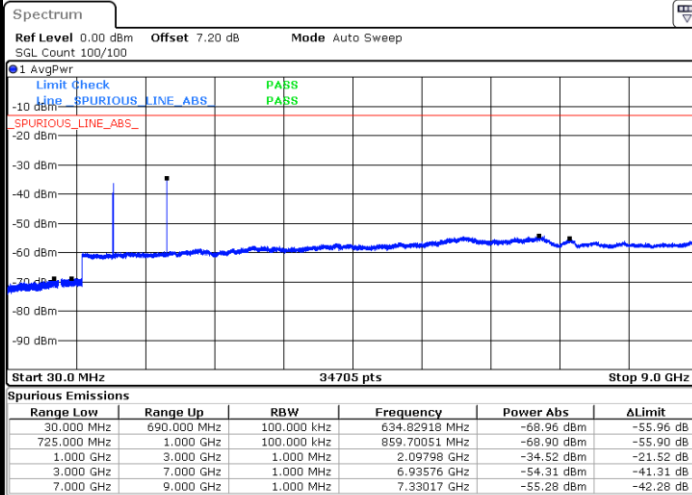
Date: 26.NOV.2025 23:39:25



# Conducted Spurious Emission

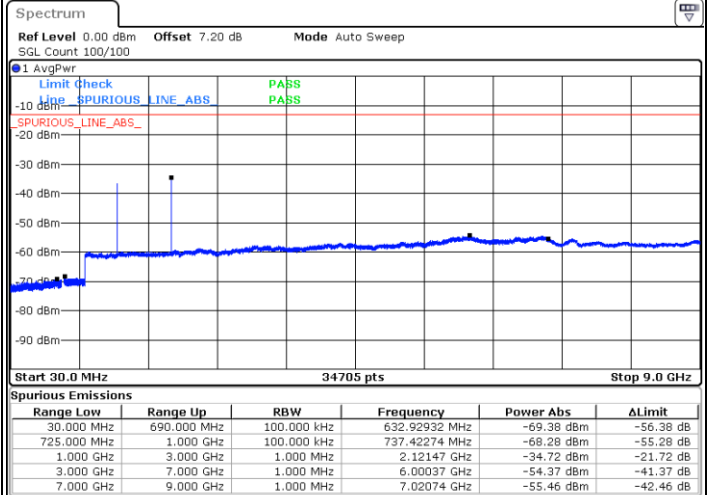
## LTE Band 12 / 1.4MHz

### Lowest Channel / QPSK



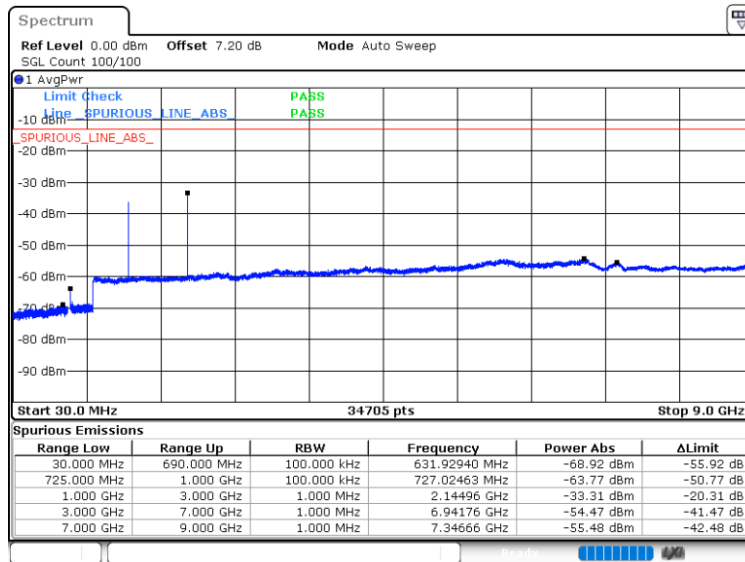
Date: 26.NOV.2025 23:23:15

### Middle Channel / QPSK



Date: 26.NOV.2025 23:25:13

### Highest Channel / QPSK

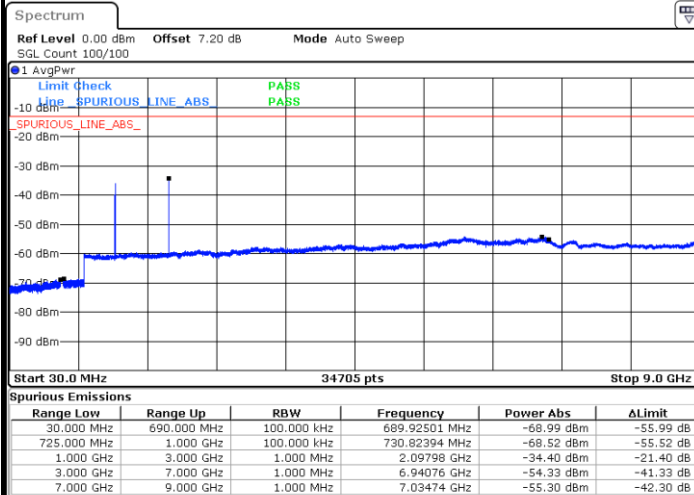


Date: 26.NOV.2025 23:30:04



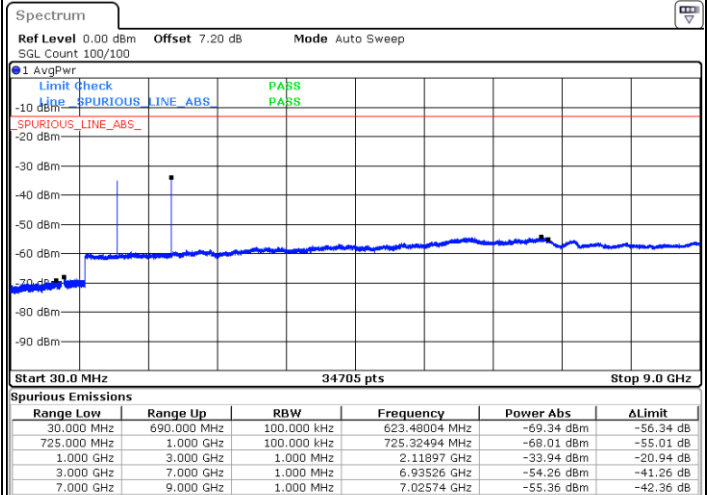
## LTE Band 12 / 3MHz

## Lowest Channel / QPSK



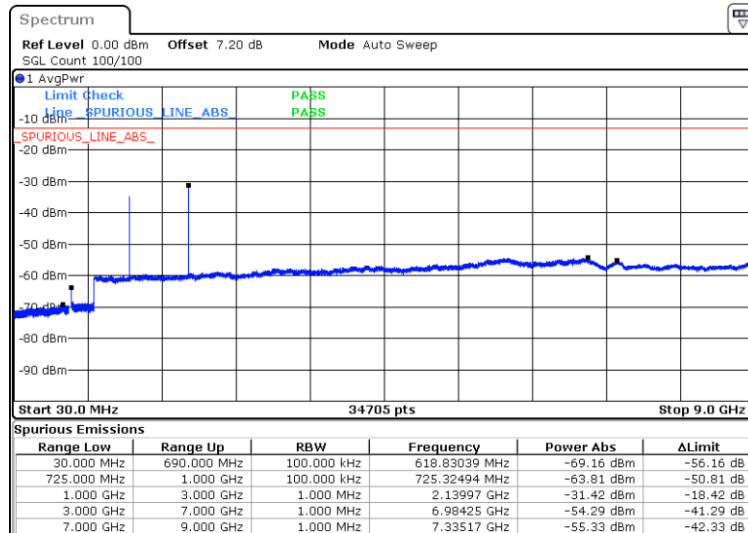
Date: 26.NOV.2025 23:41:11

## Middle Channel / QPSK



Date: 26.NOV.2025 23:43:07

## Highest Channel / QPSK

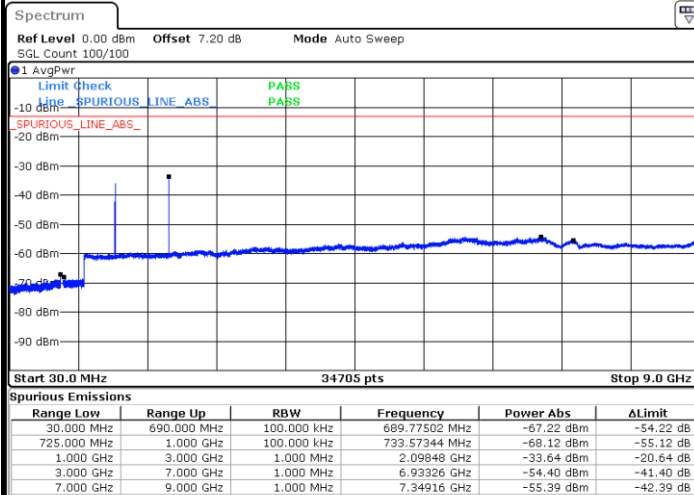


Date: 26.NOV.2025 23:44:59



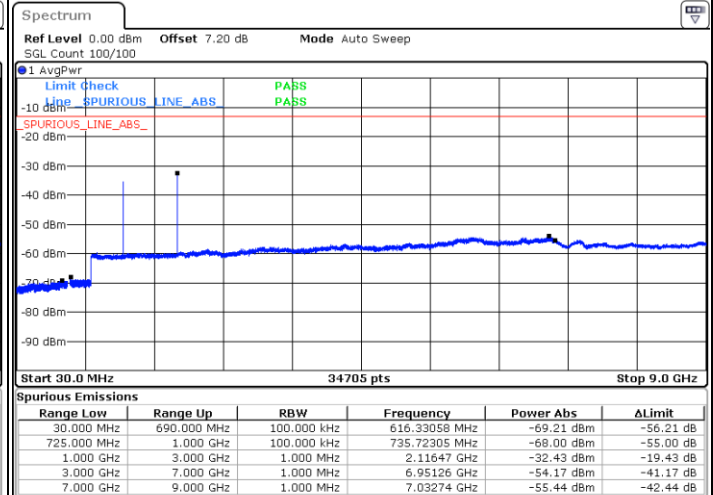
## LTE Band 12 / 5MHz

## Lowest Channel / QPSK



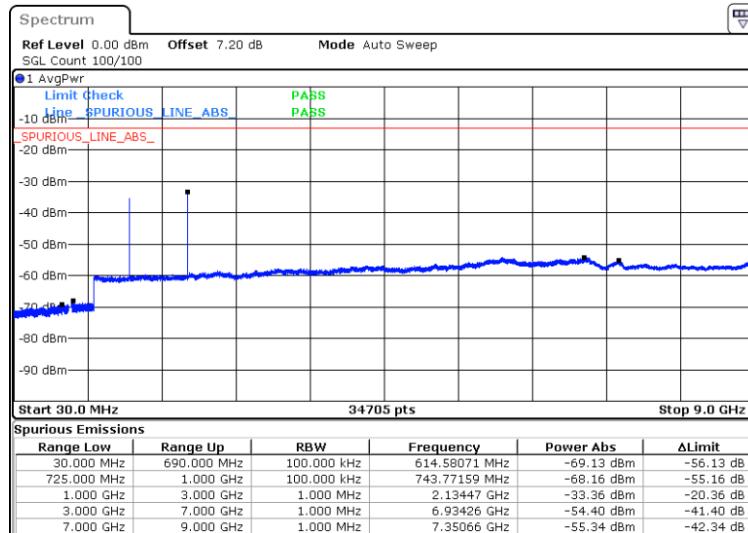
Date: 26.NOV.2025 23:46:58

## Middle Channel / QPSK



Date: 26.NOV.2025 23:48:59

## Highest Channel / QPSK

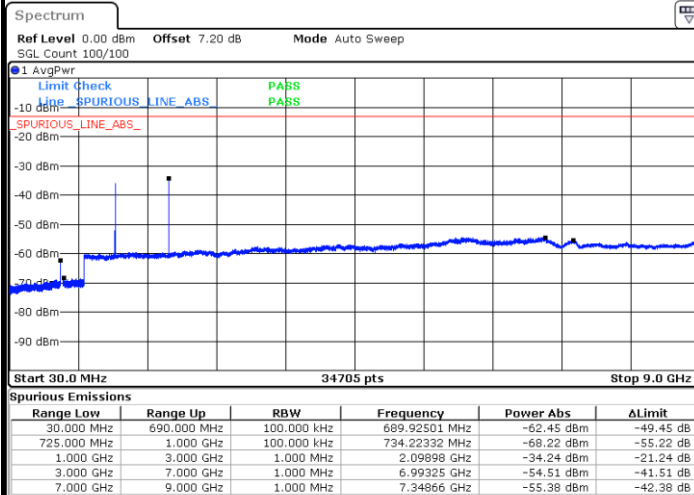


Date: 26.NOV.2025 23:50:52



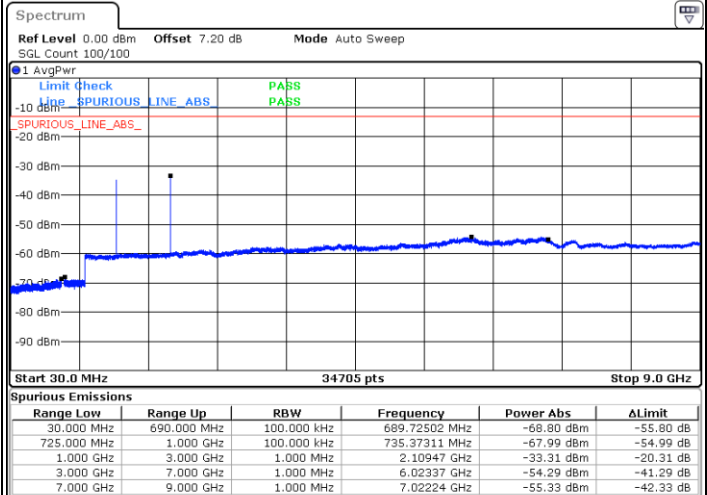
## LTE Band 12 / 10MHz

## Lowest Channel / QPSK



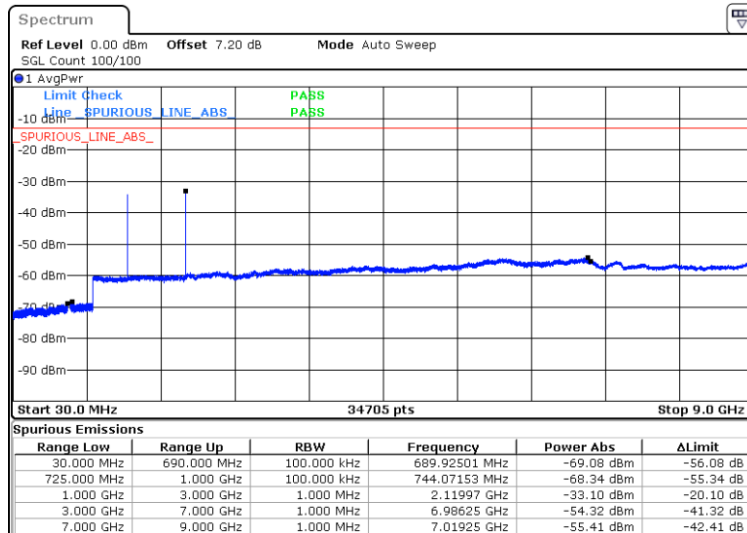
Date: 26.NOV.2025 23:52:43

## Middle Channel / QPSK



Date: 26.NOV.2025 23:54:40

## Highest Channel / QPSK



Date: 26.NOV.2025 23:56:26

## Frequency Stability

| Test Conditions     |                   | LTE Band 12 (QPSK) / Middle Channel / BandWidth 10M |                                         |                                             |        |
|---------------------|-------------------|-----------------------------------------------------|-----------------------------------------|---------------------------------------------|--------|
| Temperature<br>(°C) | Voltage<br>(Volt) | Deviation (ppm)                                     | Frequency Offset ( $\Delta f$ )<br>(Hz) | Within Authorized<br>Frequency<br>Block(Hz) | Result |
| 50                  | Normal Voltage    | 0.0079                                              | 5.6                                     | Yes                                         | PASS   |
| 40                  | Normal Voltage    | 0.0033                                              | 2.3                                     | Yes                                         |        |
| 30                  | Normal Voltage    | 0.0006                                              | 0.4                                     | Yes                                         |        |
| 20(Ref.)            | Normal Voltage    | 0.0000                                              | 0                                       | Yes                                         |        |
| 10                  | Normal Voltage    | 0.0110                                              | -7.8                                    | Yes                                         |        |
| 0                   | Normal Voltage    | 0.0011                                              | 0.8                                     | Yes                                         |        |
| -10                 | Normal Voltage    | 0.0003                                              | 0.2                                     | Yes                                         |        |
| -20                 | Normal Voltage    | 0.0054                                              | -3.8                                    | Yes                                         |        |
| -30                 | Normal Voltage    | 0.0008                                              | -0.6                                    | Yes                                         |        |
| 20                  | Maximum Voltage   | 0.0041                                              | -2.9                                    | Yes                                         |        |
| 20                  | Normal Voltage    | 0.0000                                              | 0                                       | Yes                                         |        |
| 20                  | Minimum Voltage   | 0.0129                                              | -9.1                                    | Yes                                         |        |

**Note:**

1. Normal Voltage = 3.9 V. ; Minimum Voltage = 3.6 V. ; Maximum Voltage = 4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.
3. The frequency variation is sufficient to ensure that the occupied bandwidth of all operation channels stay within the operating frequency block or frequency block group.



## LTE Band 13

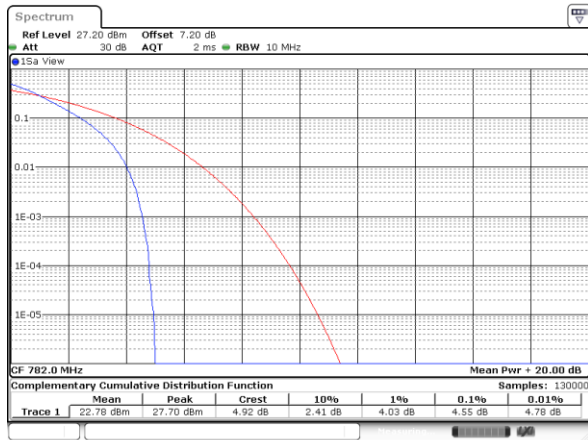
### Peak-to-Average Ratio

| Mode      | LTE Band 13 / 10MHz |         |         |         |             |
|-----------|---------------------|---------|---------|---------|-------------|
| Mod.      | QPSK                | 16QAM   | 64QAM   | 256QAM  | Limit: 13dB |
| RB Size   | Full RB             | Full RB | Full RB | Full RB | Result      |
| Middle CH | 4.55                | 5.33    | 5.86    | 6.20    | <b>PASS</b> |

| Mode      | LTE Band 13 / 5MHz |         |             |
|-----------|--------------------|---------|-------------|
| Mod.      | QPSK               | 16QAM   | Limit: 13dB |
| RB Size   | Full RB            | Full RB | Result      |
| Middle CH | 4.67               | 5.33    | <b>PASS</b> |

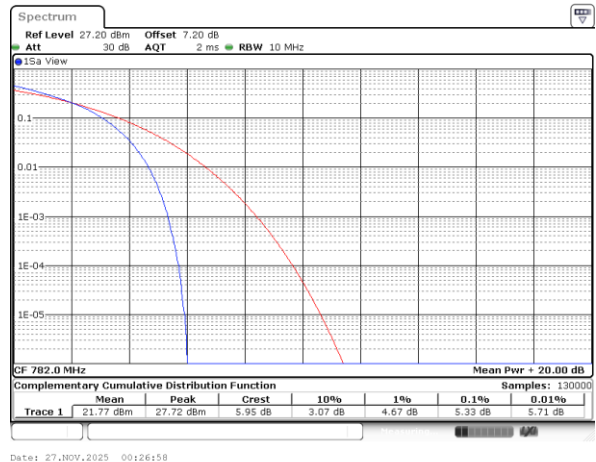
## LTE Band 13 / 10MHz / QPSK

### Middle Channel / Full RB



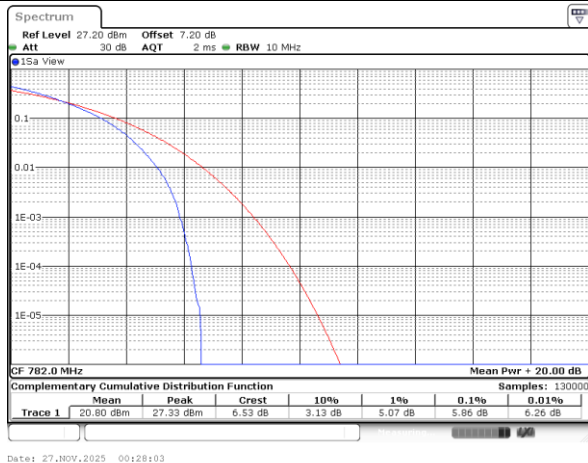
## LTE Band 13 / 10MHz / 16QAM

### Middle Channel / Full RB



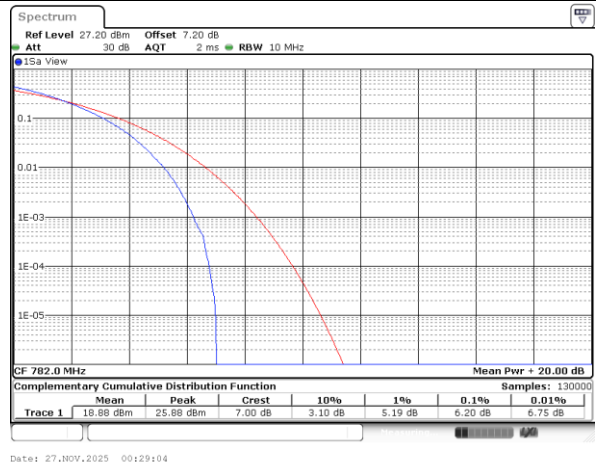
## LTE Band 13 / 10MHz / 64QAM

### Middle Channel / Full RB



## LTE Band 13 / 10MHz / 256QAM

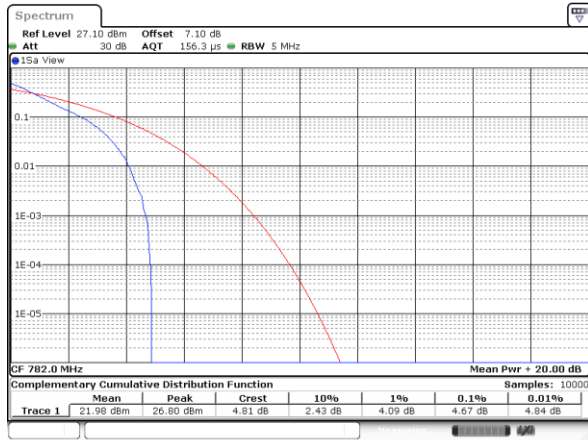
### Middle Channel / Full RB





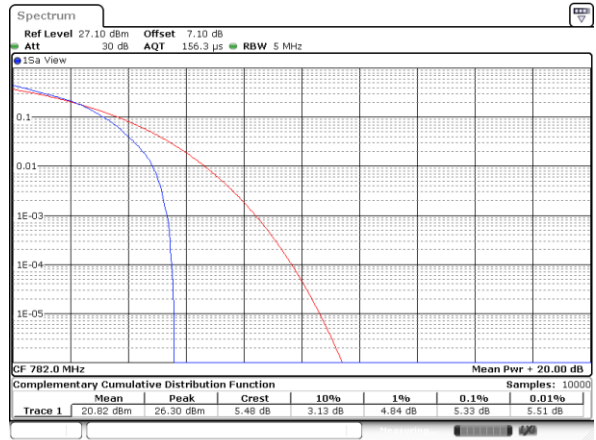
LTE Band 13 / 5MHz / QPSK

Middle Channel / Full RB



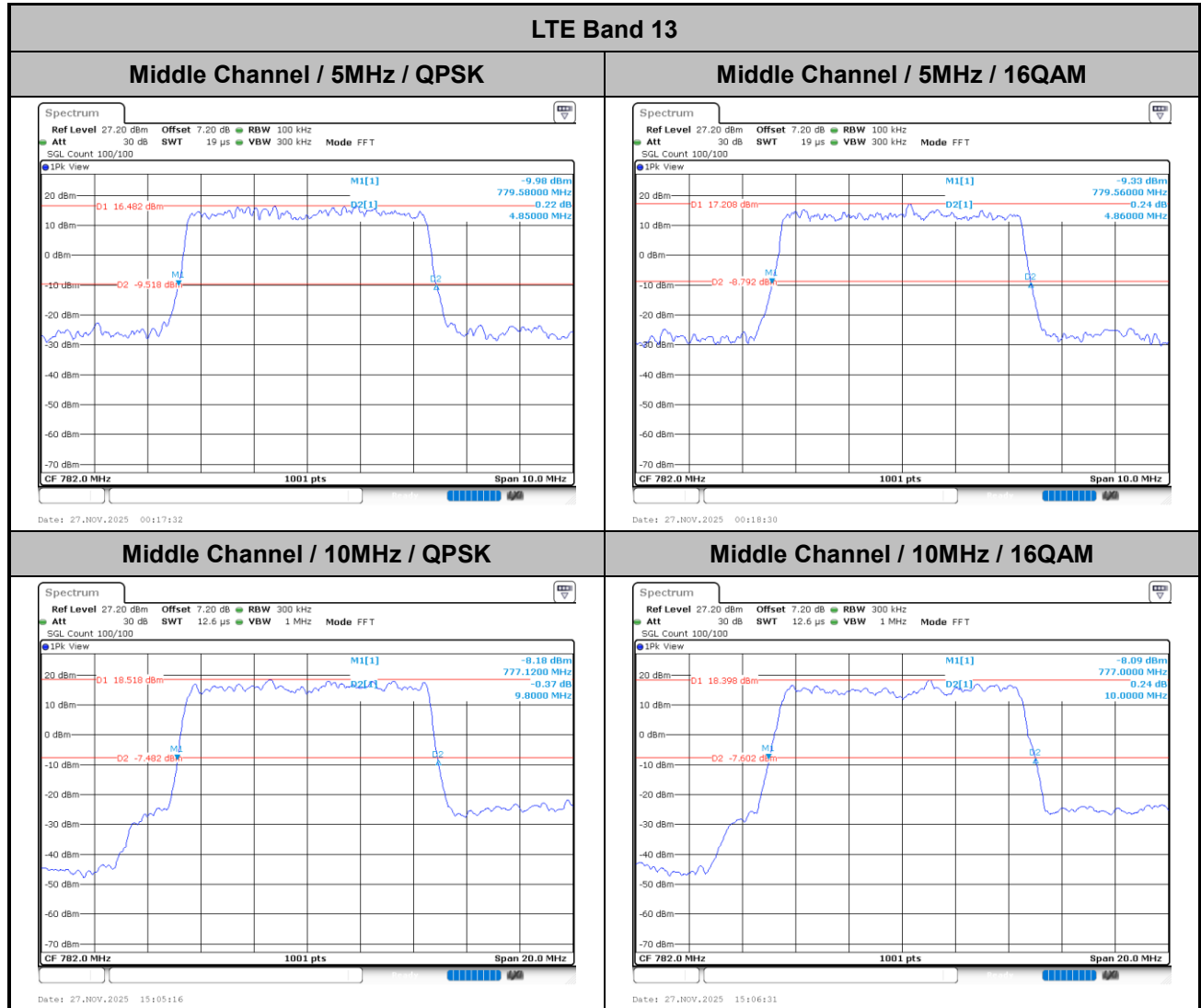
LTE Band 13 / 5MHz / 16QAM

Middle Channel / Full RB



**26dB Bandwidth**

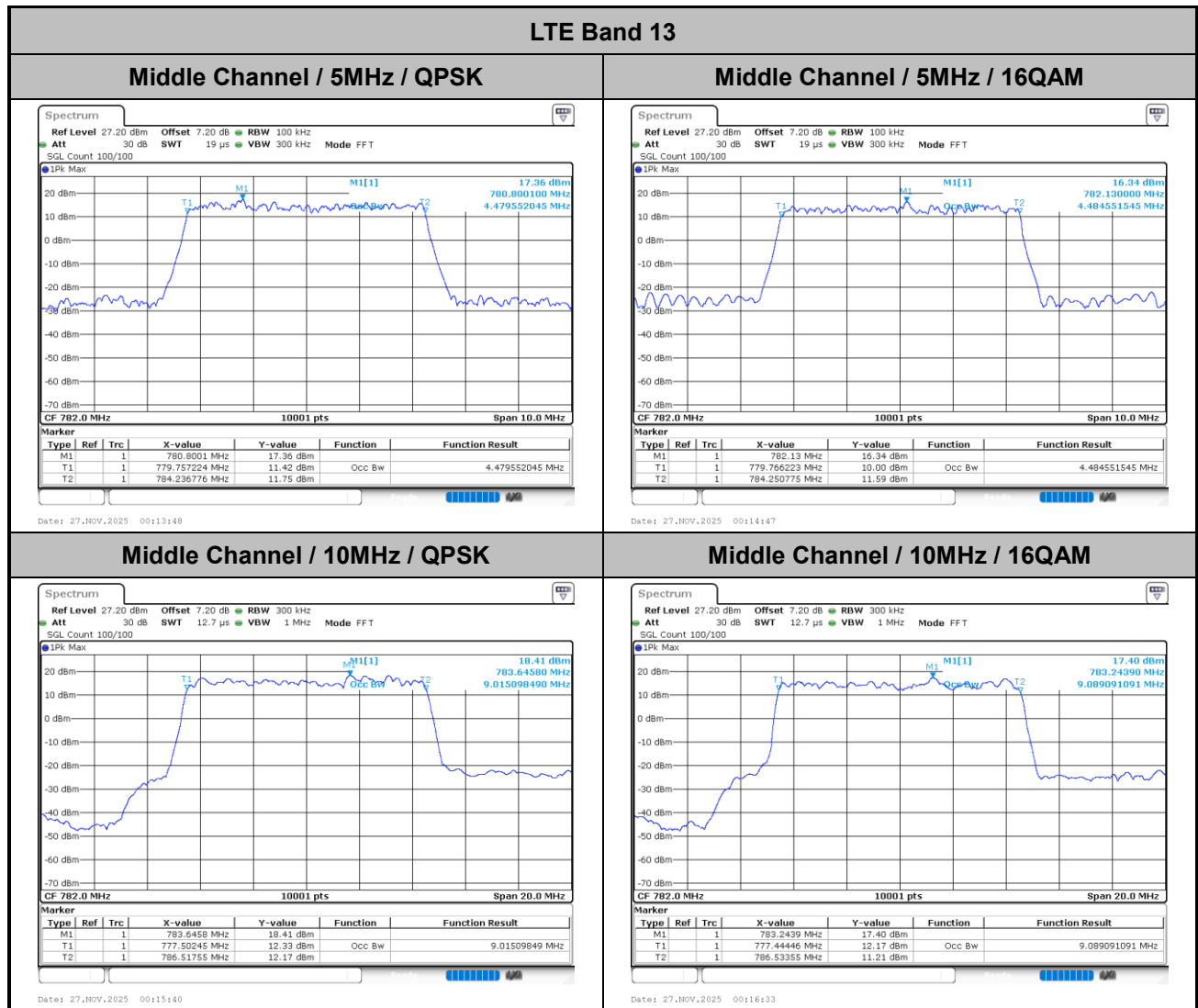
| Mode      | LTE Band 13 : 26dB BW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|-----------|----------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW        | 1.4MHz                     |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.      | QPSK                       | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Middle CH | -                          | -     | -    | -     | 4.85 | 4.86  | 9.80  | 10.00 | -     | -     | -     | -     |





## Occupied Bandwidth

| Mode      | LTE Band 13 : 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  | 9.01  | 9.08  | -     | -     | -     | -     |

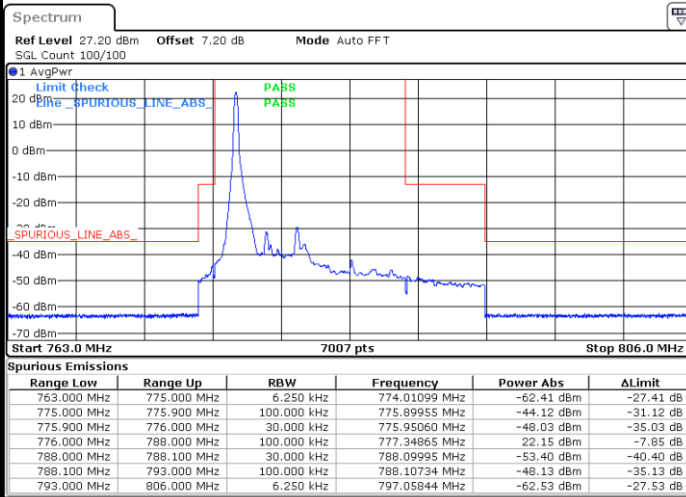




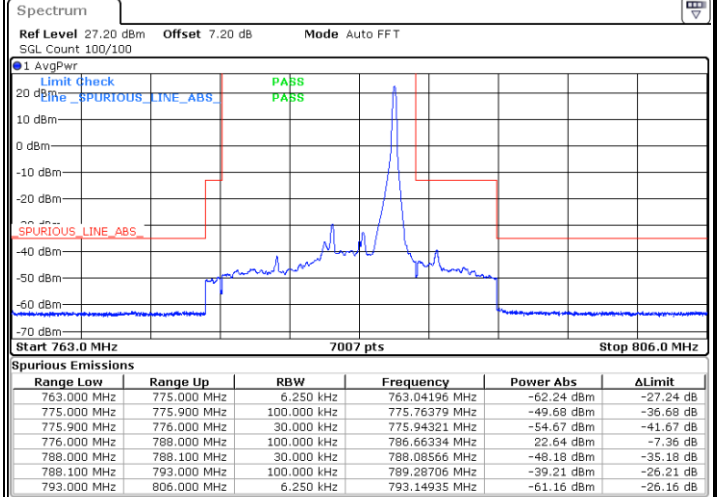
# Conducted Band Edge

## LTE Band 13 / 5MHz / QPSK

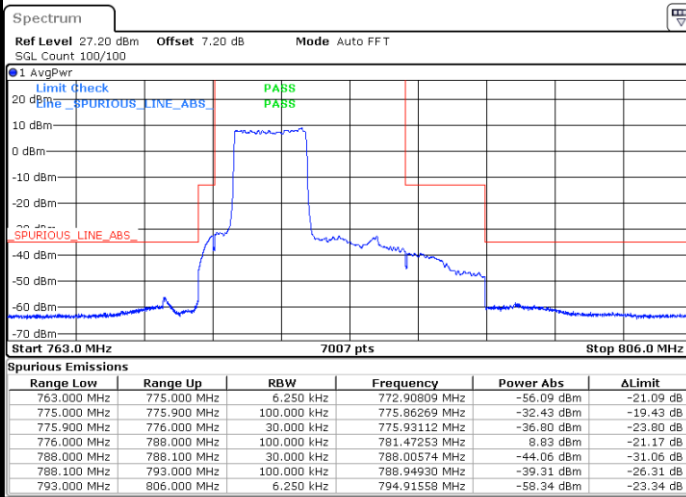
### Lowest Band Edge / 1 RB



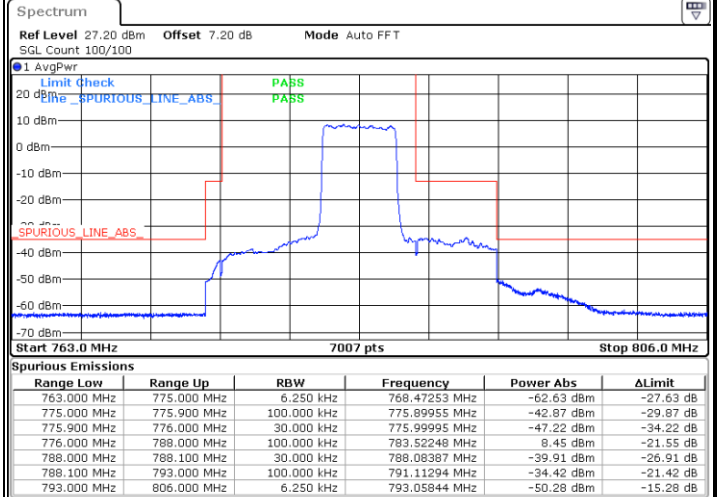
### Highest Band Edge / 1 RB

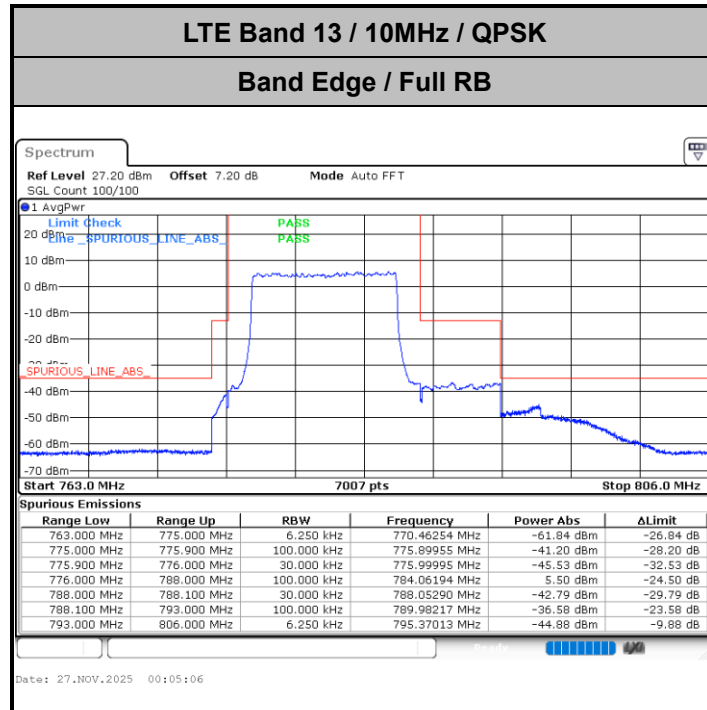


### Lowest Band Edge / Full RB



### Highest Band Edge / Full RB

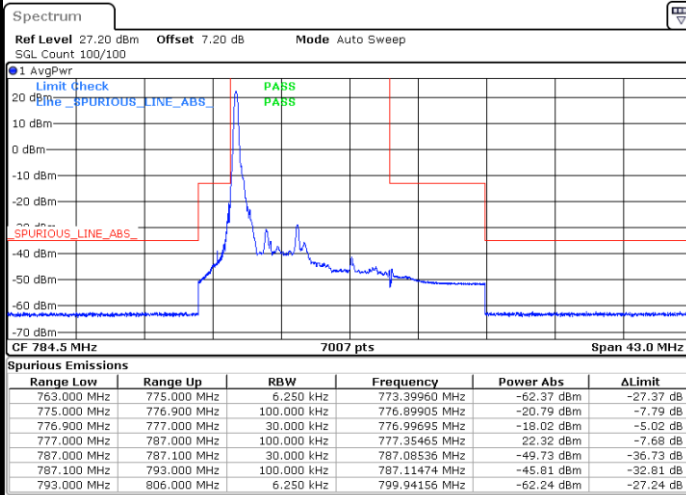






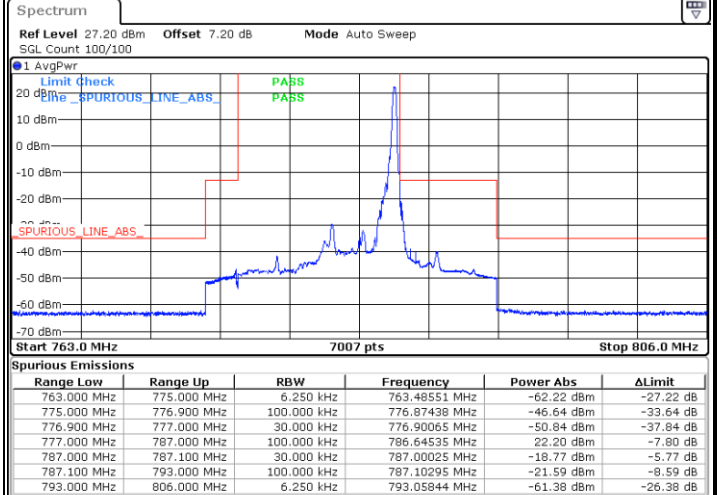
## LTE Band 13 / 5MHz / QPSK

## Lowest Band Edge / 1 RB



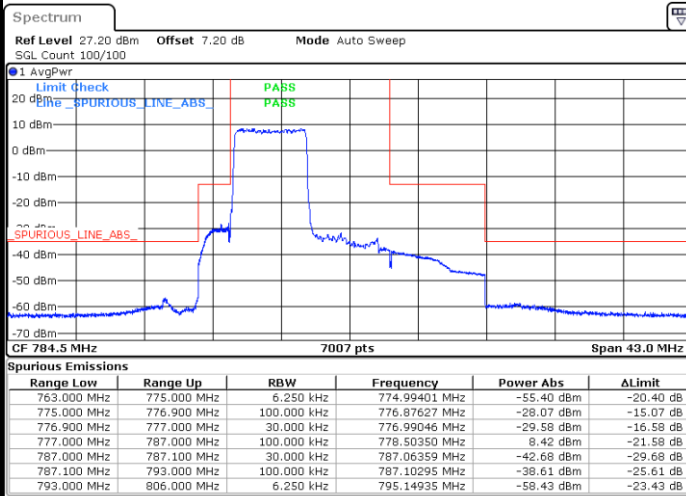
Date: 27.NOV.2025 16:23:21

## Highest Band Edge / 1 RB



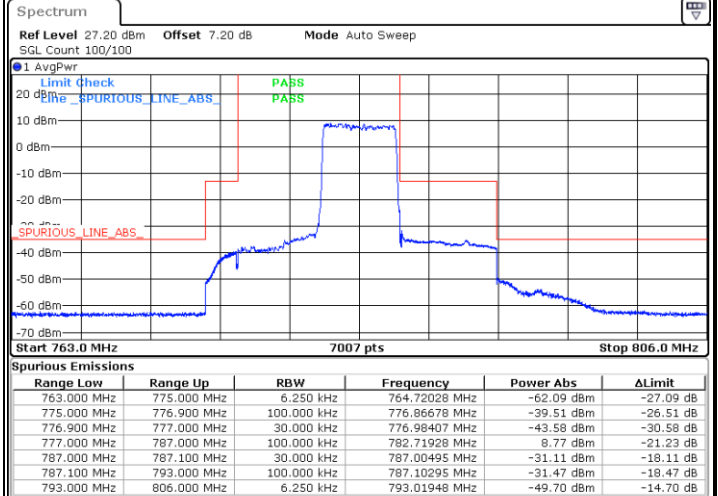
Date: 27.NOV.2025 16:26:56

## Lowest Band Edge / Full RB



Date: 27.NOV.2025 16:12:12

## Highest Band Edge / Full RB



Date: 27.NOV.2025 16:24:59

