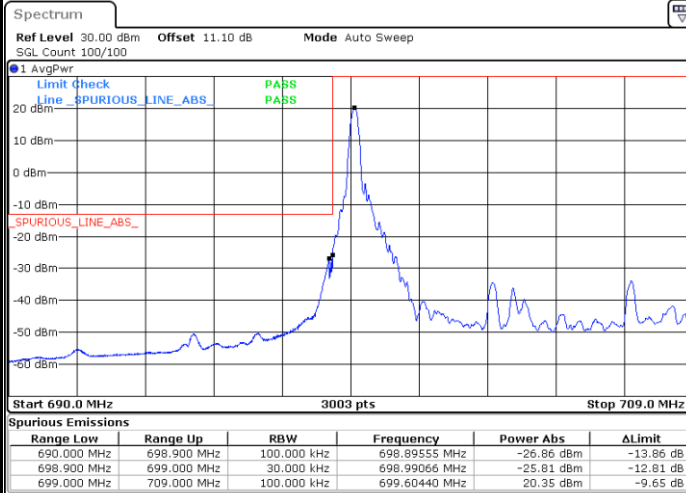


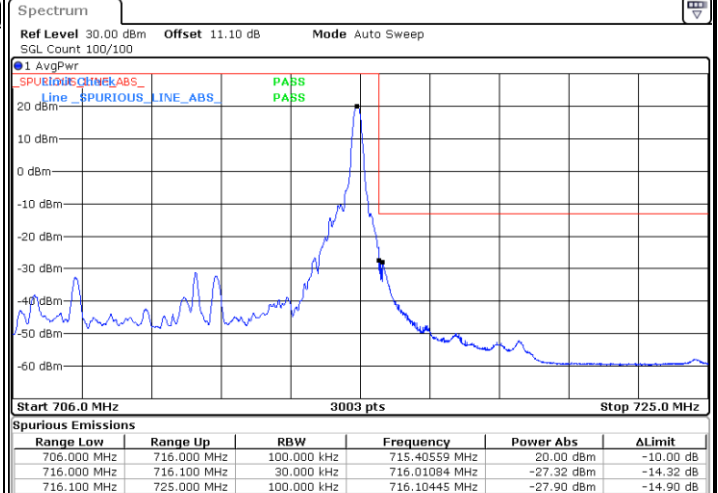


## LTE Band 12 / 10MHz / 16QAM

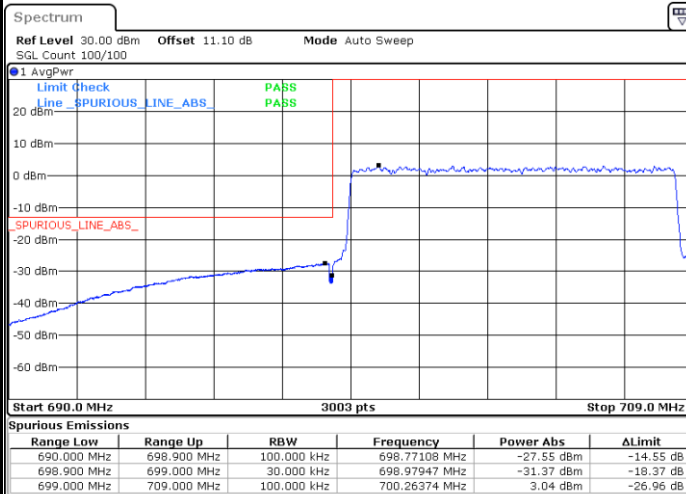
## Lowest Band Edge / 1 RB



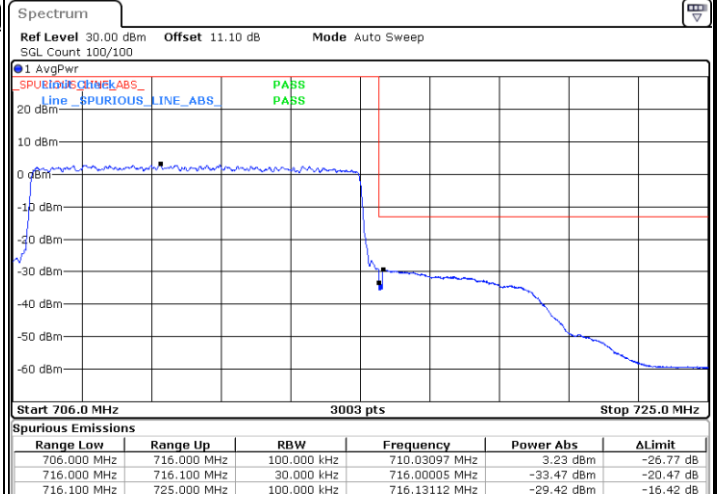
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



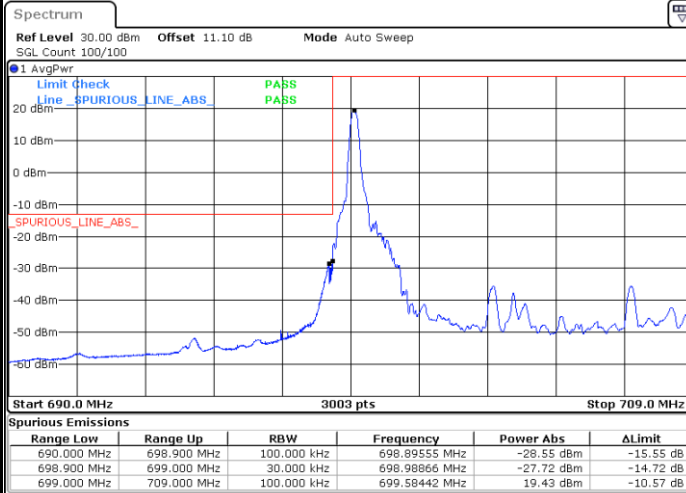
## Highest Band Edge / Full RB



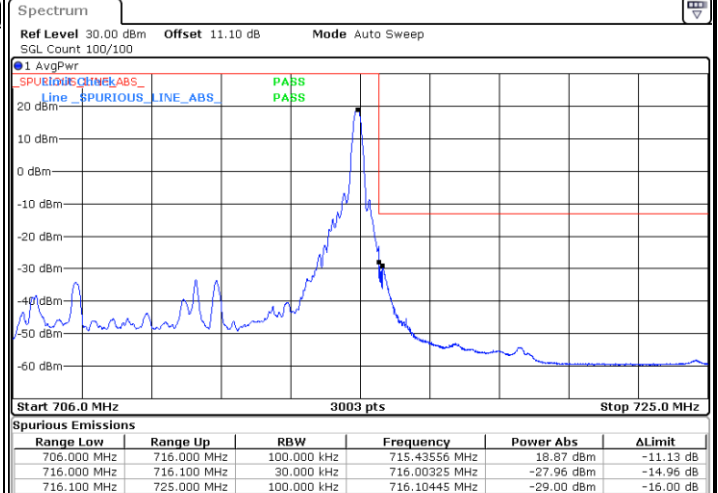


## LTE Band 12 / 10MHz / 64QAM

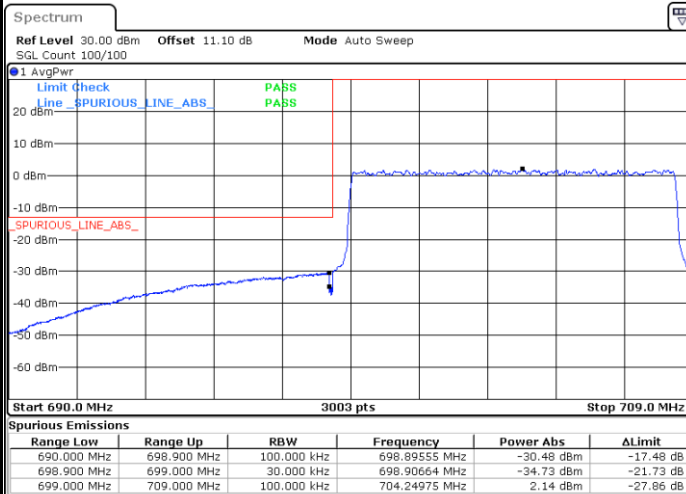
## Lowest Band Edge / 1 RB



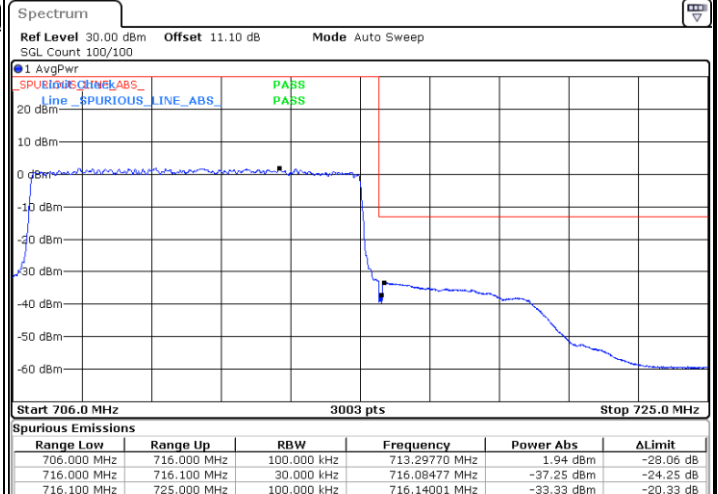
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



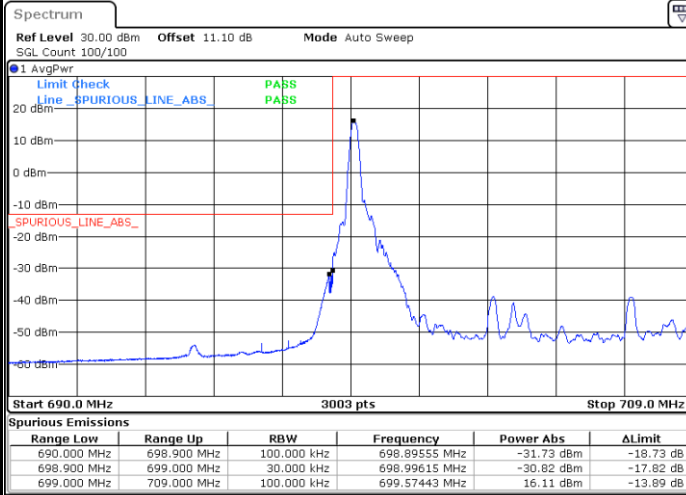
## Highest Band Edge / Full RB



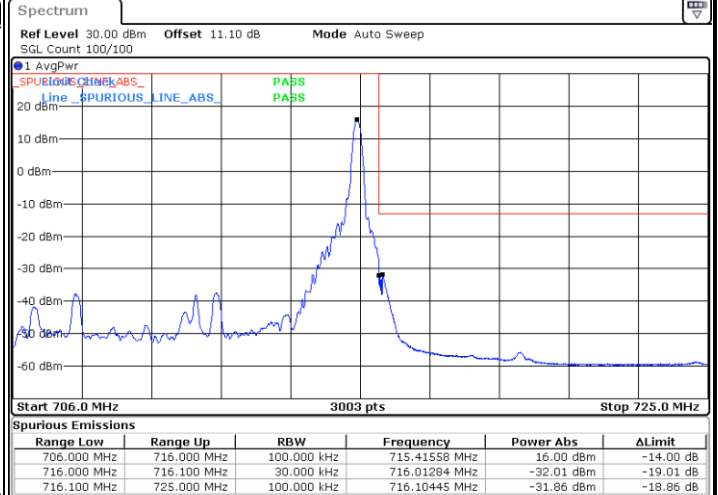


## LTE Band 12 / 10MHz / 256QAM

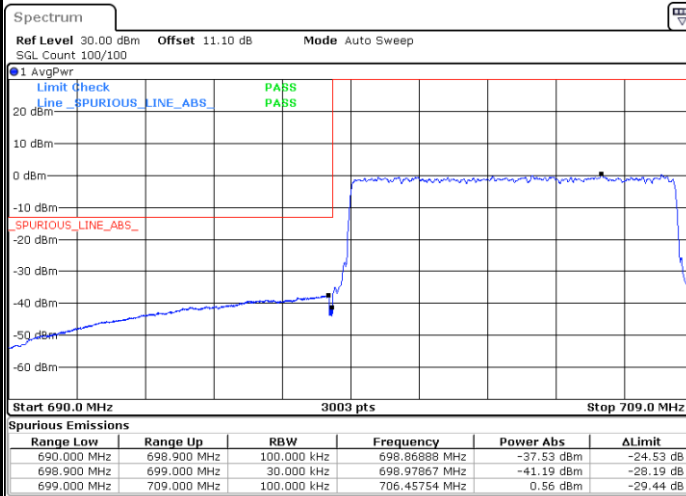
## Lowest Band Edge / 1 RB



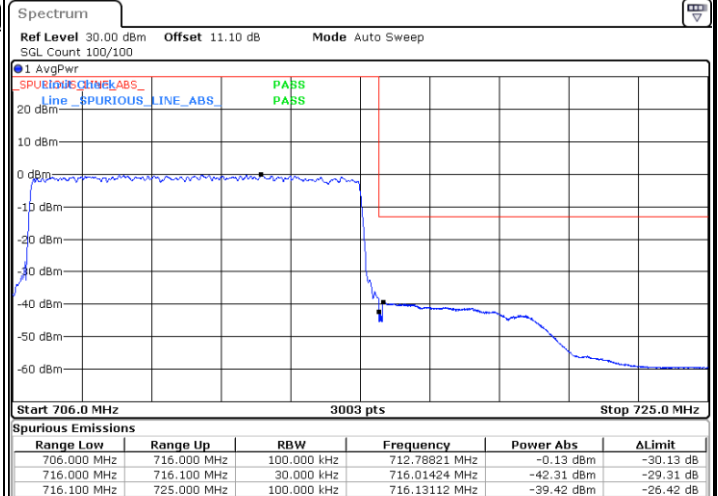
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

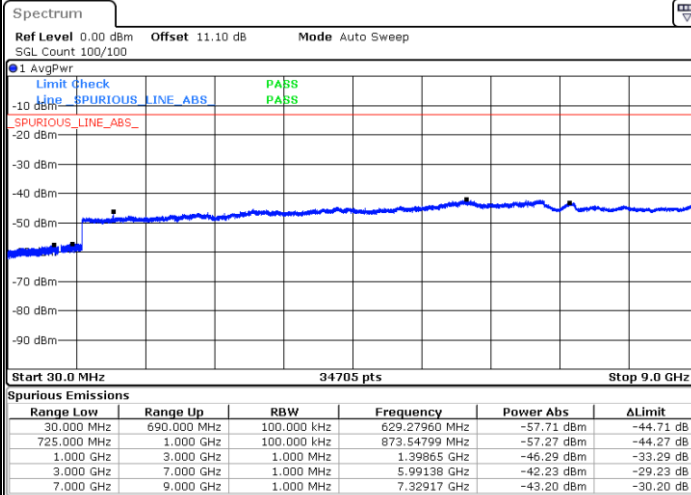




# Conducted Spurious Emission

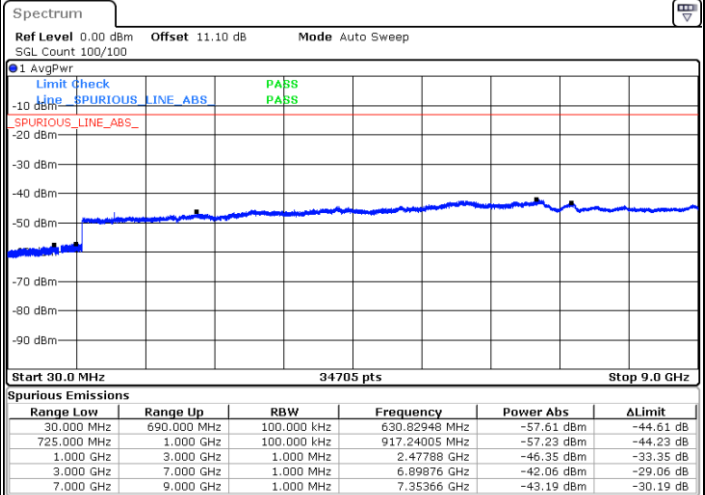
## LTE Band 12 / 1.4MHz

### Lowest Channel / QPSK



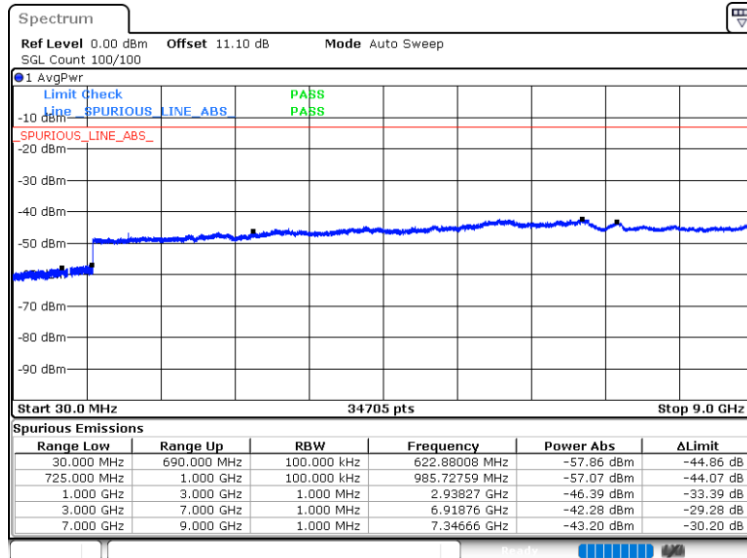
Date: 7.FEB.2022 13:45:58

### Middle Channel / QPSK



Date: 7.FEB.2022 13:56:08

### Highest Channel / QPSK

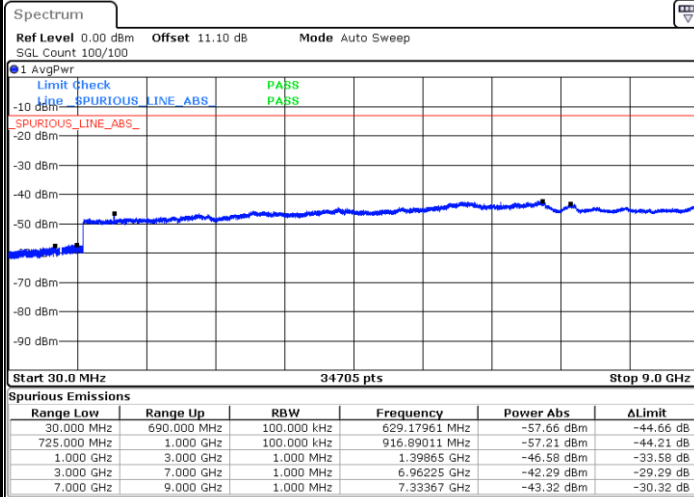


Date: 7.FEB.2022 13:57:18



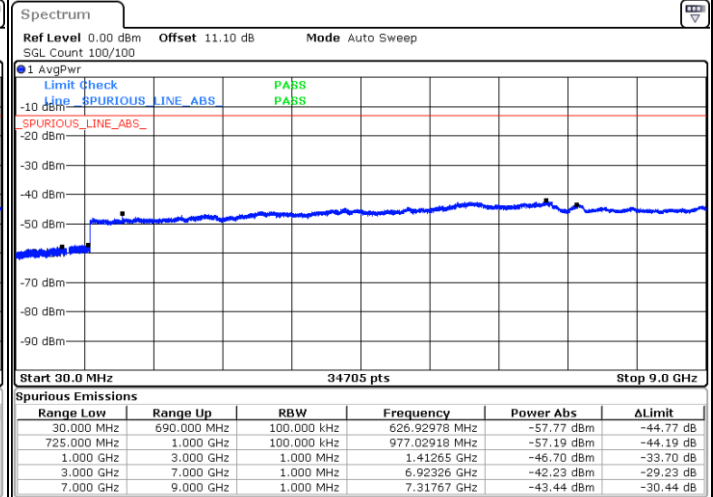
## LTE Band 12 / 3MHz

## Lowest Channel / QPSK



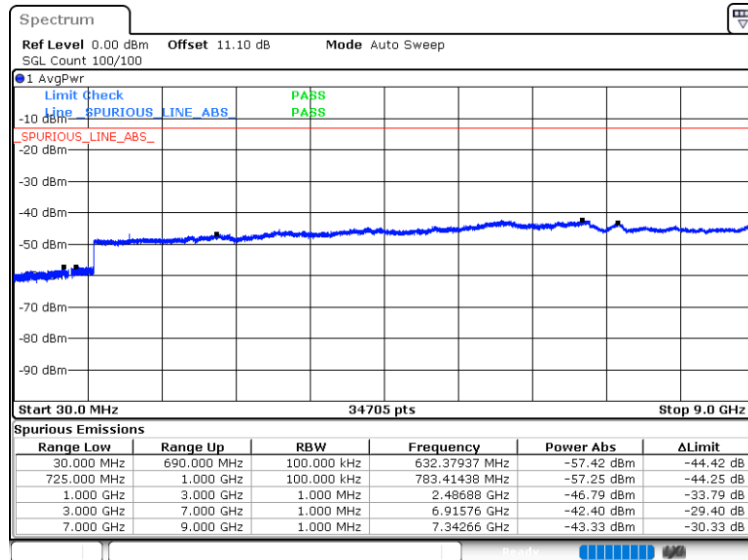
Date: 7.FEB.2022 14:06:15

## Middle Channel / QPSK



Date: 7.FEB.2022 14:16:16

## Highest Channel / QPSK

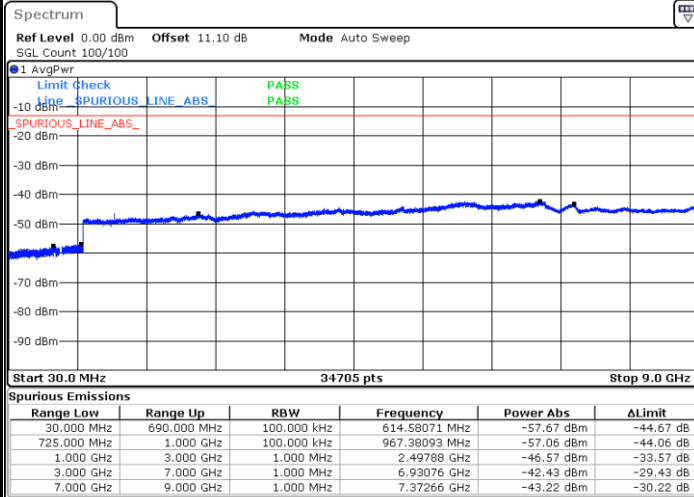


Date: 7.FEB.2022 14:17:25



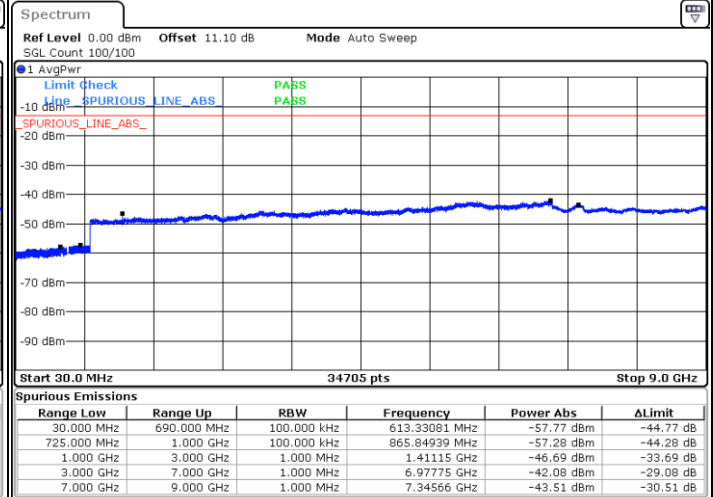
## LTE Band 12 / 5MHz

## Lowest Channel / QPSK



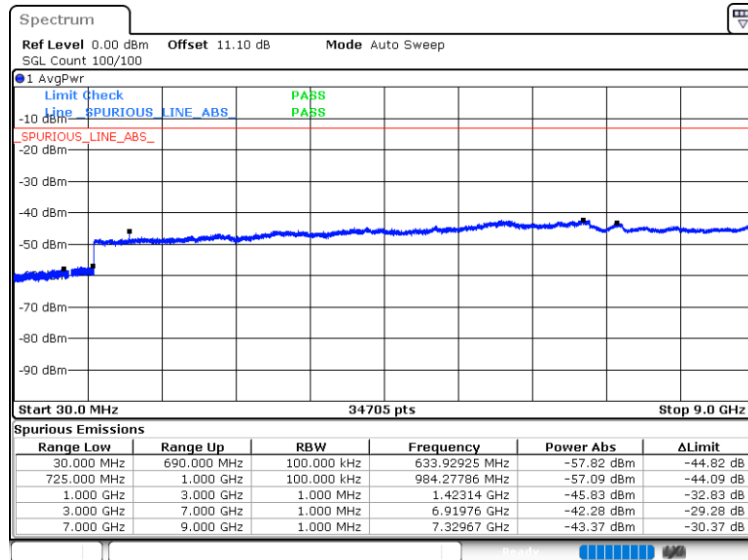
Date: 7.FEB.2022 14:26:34

## Middle Channel / QPSK



Date: 7.FEB.2022 14:36:33

## Highest Channel / QPSK

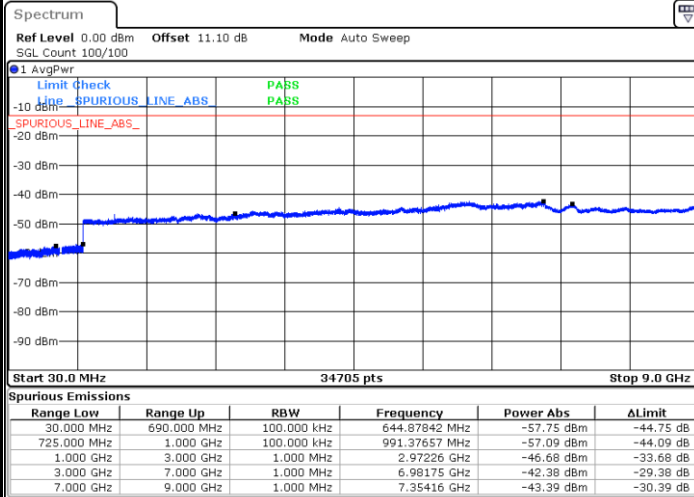


Date: 7.FEB.2022 14:37:43



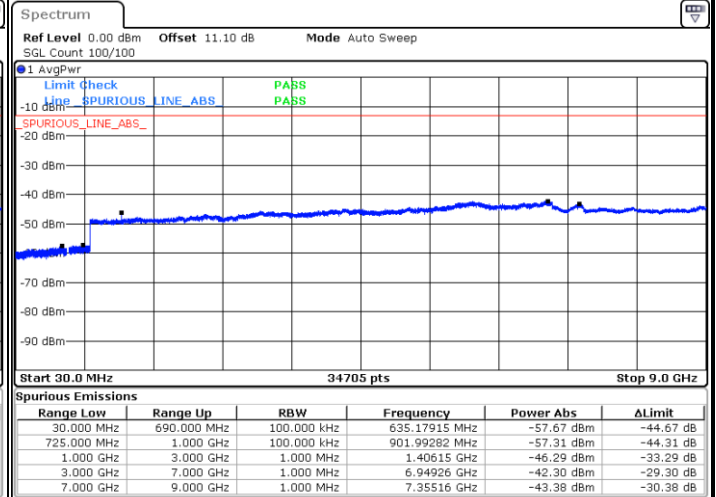
## LTE Band 12 / 10MHz

## Lowest Channel / QPSK



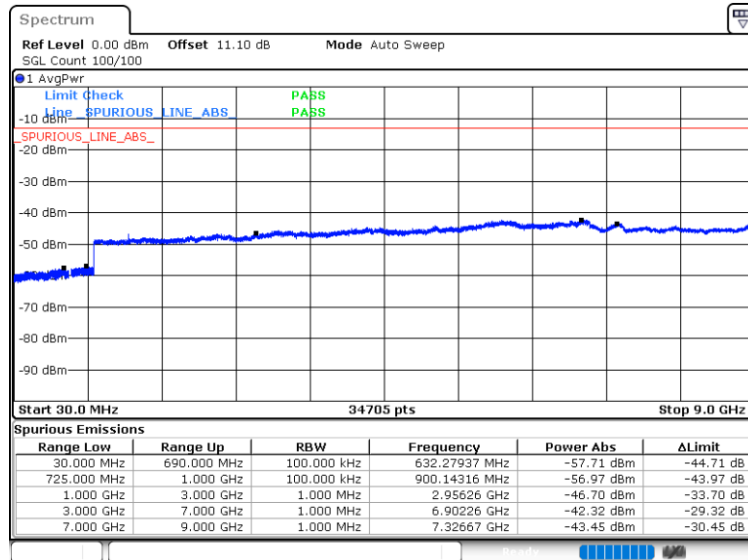
Date: 7.FEB.2022 14:46:54

## Middle Channel / QPSK



Date: 7.FEB.2022 14:56:54

## Highest Channel / QPSK



Date: 7.FEB.2022 14:58:03

## Frequency Stability

| Test Conditions     |                   | LTE Band 12 (QPSK) / Middle Channel | Limit   |
|---------------------|-------------------|-------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 10MHz                            | Note 2. |
|                     |                   | Deviation (ppm)                     | Result  |
| 50                  | Normal Voltage    | 0.0054                              | PASS    |
| 40                  | Normal Voltage    | 0.0037                              |         |
| 30                  | Normal Voltage    | 0.0007                              |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                              |         |
| 10                  | Normal Voltage    | 0.0058                              |         |
| 0                   | Normal Voltage    | 0.0165                              |         |
| -10                 | Normal Voltage    | 0.0180                              |         |
| -20                 | Normal Voltage    | 0.0143                              |         |
| -30                 | Normal Voltage    | 0.0167                              |         |
| 20                  | Maximum Voltage   | 0.0126                              |         |
| 20                  | Normal Voltage    | 0.0141                              |         |
| 20                  | Battery End Point | 0.0037                              |         |

**Note:**

1. Normal Voltage =4.2 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.3 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 13

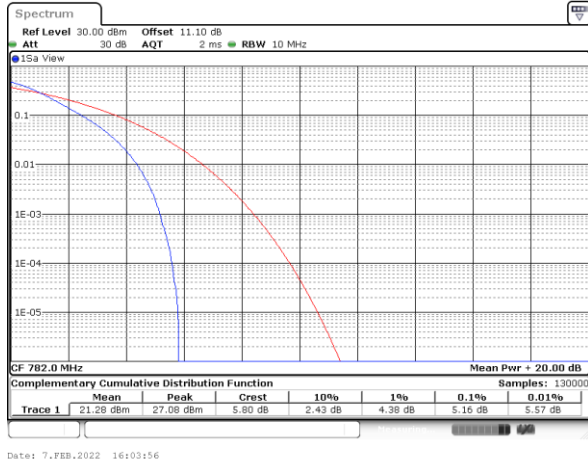
### Peak-to-Average Ratio

| 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 | 5.16                | 6.17    | 6.43    | 6.29    | PASS        |



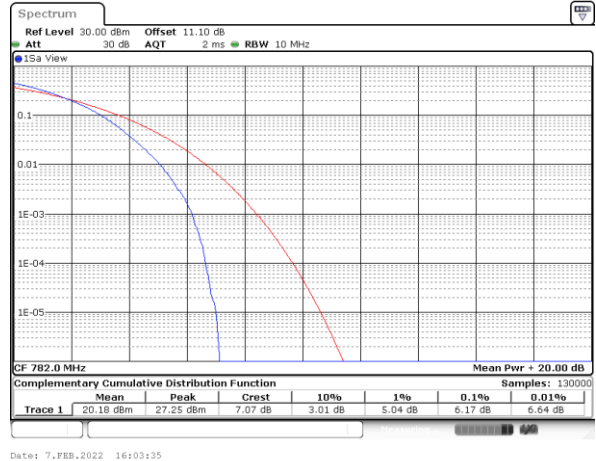
## LTE Band 13 / 10MHz / QPSK

## Middle Channel / Full RB



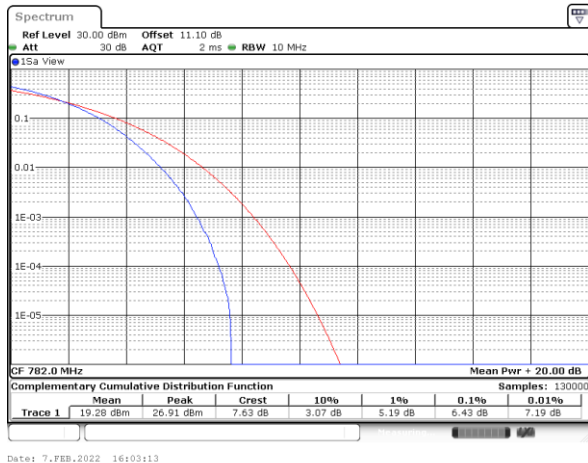
## LTE Band 13 / 10MHz / 16QAM

## Middle Channel / Full RB



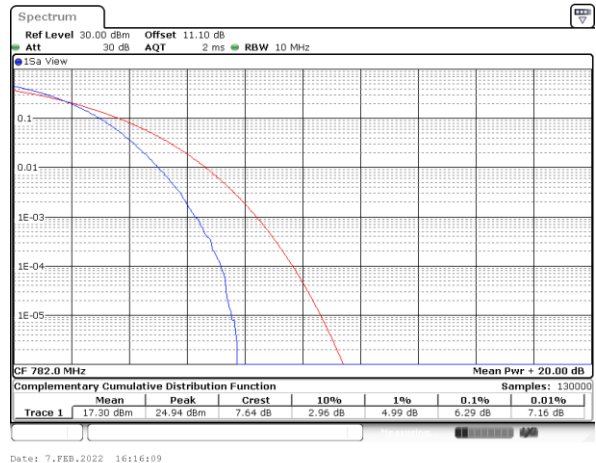
## LTE Band 13 / 10MHz / 64QAM

## Middle Channel / Full RB



## LTE Band 13 / 10MHz / 256QAM

## Middle Channel / Full RB



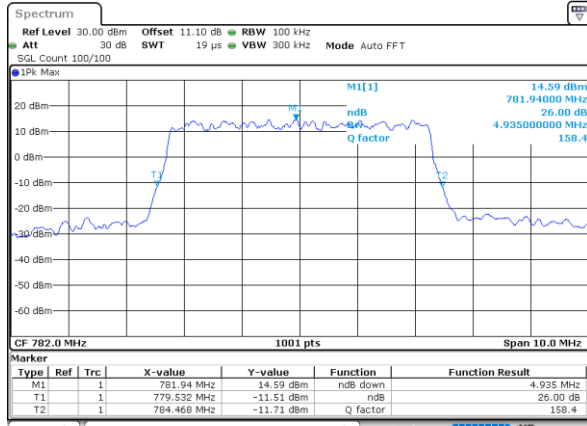
**26dB Bandwidth**

| 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 | -                          | -       | -     | -       | 4.94  | 4.78    | 9.83  | 9.87    | -     | -       | -     | -       |
| Mode      | LTE Band 13 : 26dB BW(MHz) |         |       |         |       |         |       |         |       |         |       |         |
| BW        | 1.4MHz                     |         | 3MHz  |         | 5MHz  |         | 10MHz |         | 15MHz |         | 20MHz |         |
| Mod.      | 64QAM                      | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM |
| Middle CH | -                          | -       | -     | -       | 4.87  | 4.93    | 9.79  | 9.75    | -     | -       | -     | -       |

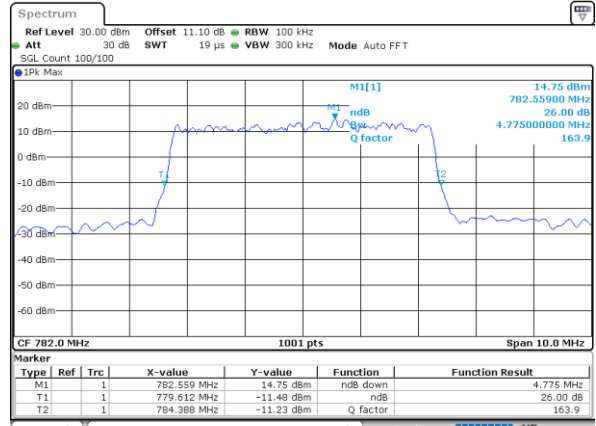


## LTE Band 13

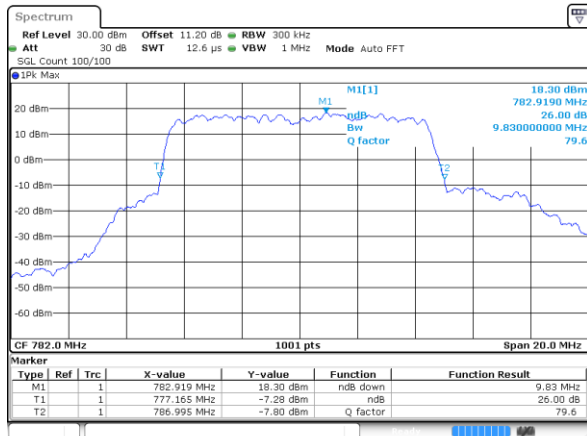
## Middle Channel / 5MHz / QPSK



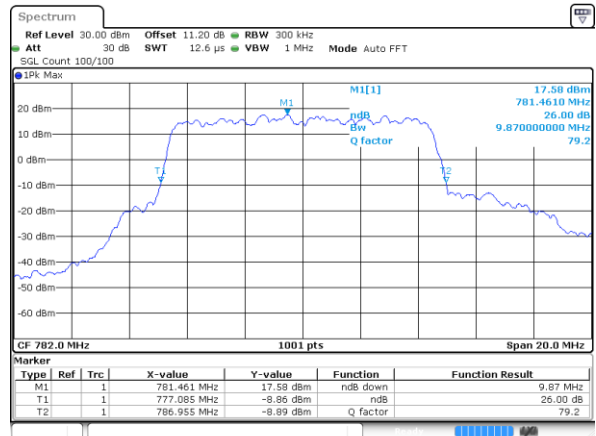
## Middle Channel / 5MHz / 16QAM



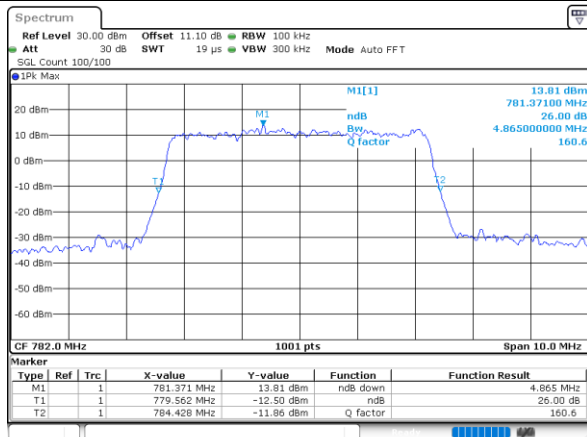
## Middle Channel / 10MHz / QPSK



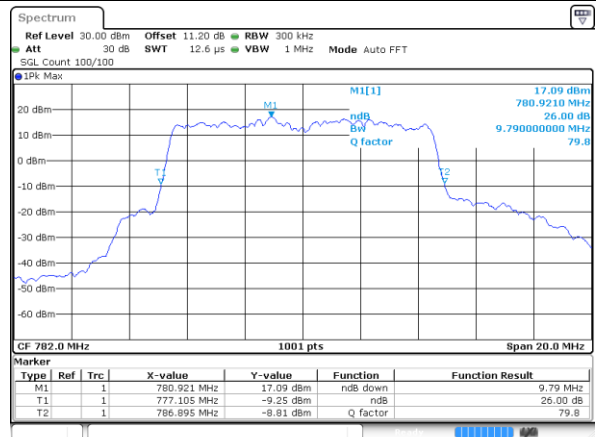
## Middle Channel / 10MHz / 16QAM



## Middle Channel / 5MHz / 64QAM



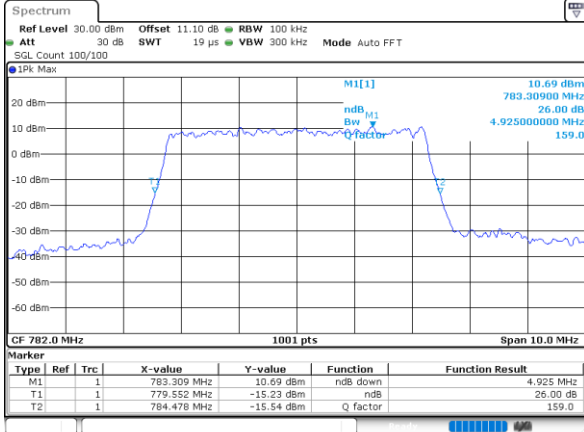
## Middle Channel / 10MHz / 64QAM





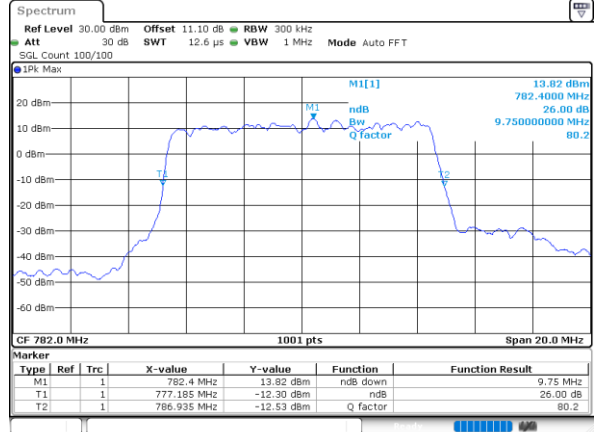
## LTE Band 13

## Middle Channel / 5MHz / 256QAM



Date: 7.FEB.2022 16:09:14

## Middle Channel / 10MHz / 256QAM



Date: 7.FEB.2022 16:13:18

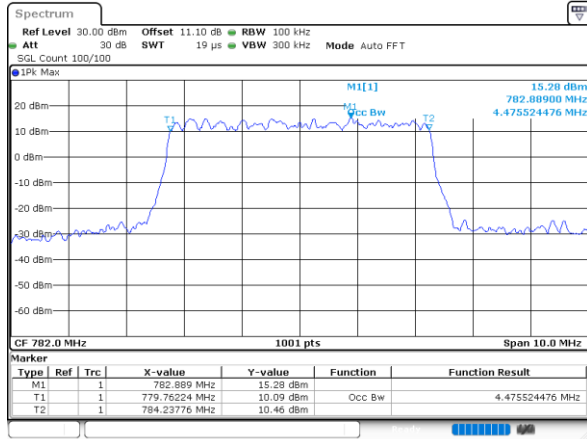
**Occupied Bandwidth**

| 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 | -                         | -       | -     | -       | 4.48  | 4.48    | 9.03  | 8.99    | -     | -       | -     | -       |
| Mode      | LTE Band 13 : 99%OBW(MHz) |         |       |         |       |         |       |         |       |         |       |         |
| BW        | 1.4MHz                    |         | 3MHz  |         | 5MHz  |         | 10MHz |         | 15MHz |         | 20MHz |         |
| Mod.      | 64QAM                     | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM |
| Middle CH | -                         | -       | -     | -       | 4.49  | 4.46    | 8.97  | 9.03    | -     | -       | -     | -       |

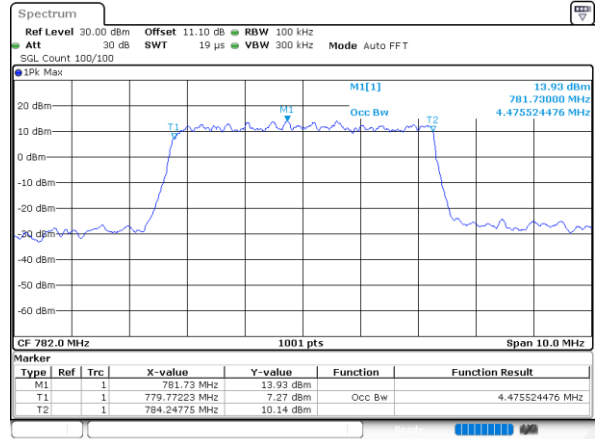


## LTE Band 13

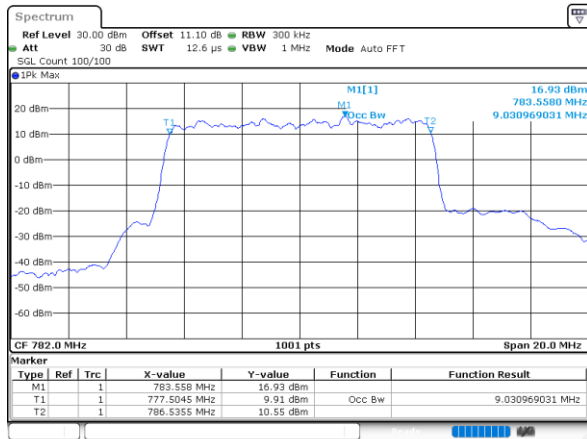
## Middle Channel / 5MHz / QPSK



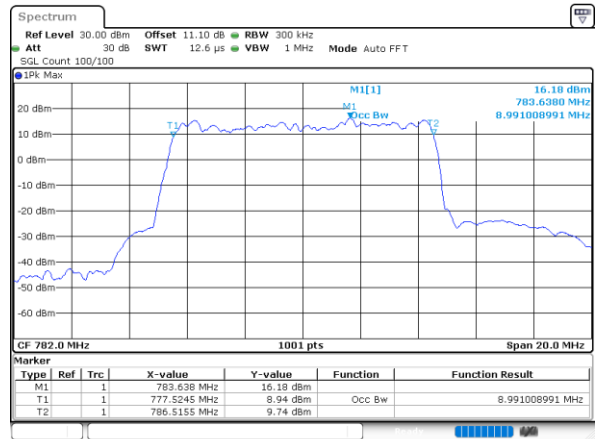
## Middle Channel / 5MHz / 16QAM



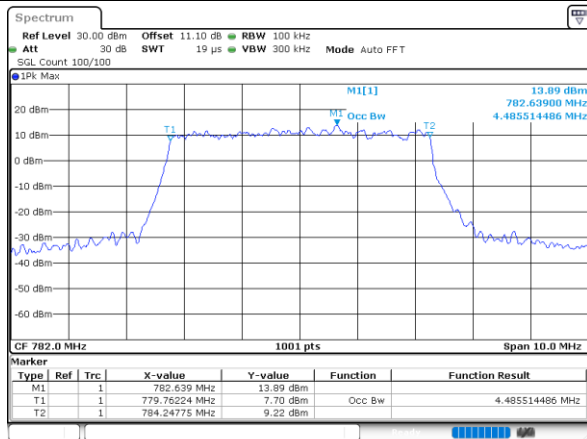
## Middle Channel / 10MHz / QPSK



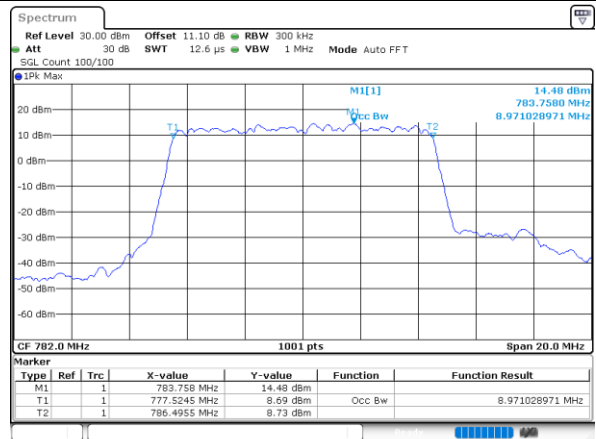
## Middle Channel / 10MHz / 16QAM



## Middle Channel / 5MHz / 64QAM



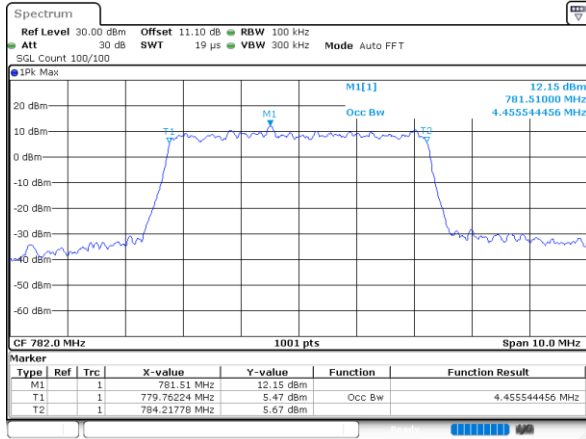
## Middle Channel / 10MHz / 64QAM





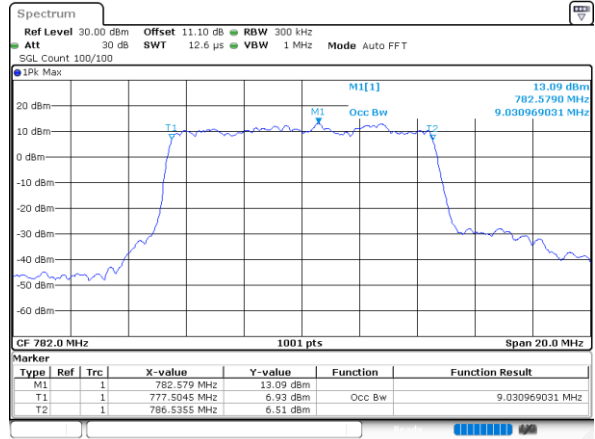
LTE Band 13

Middle Channel / 5MHz / 256QAM



Date: 7.FEB.2022 16:09:34

Middle Channel / 10MHz / 256QAM



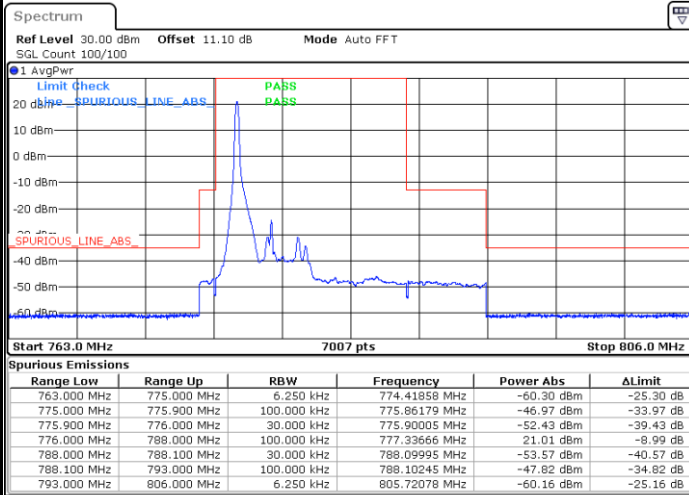
Date: 7.FEB.2022 16:12:58



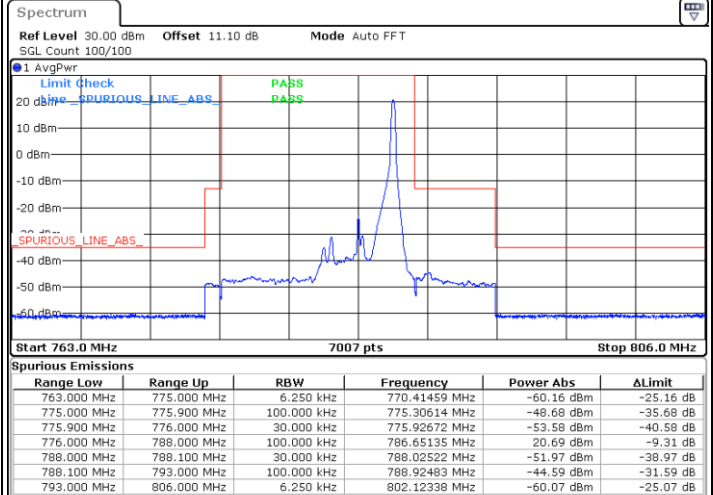
# Conducted Band Edge

## LTE Band 13 / 5MHz / QPSK

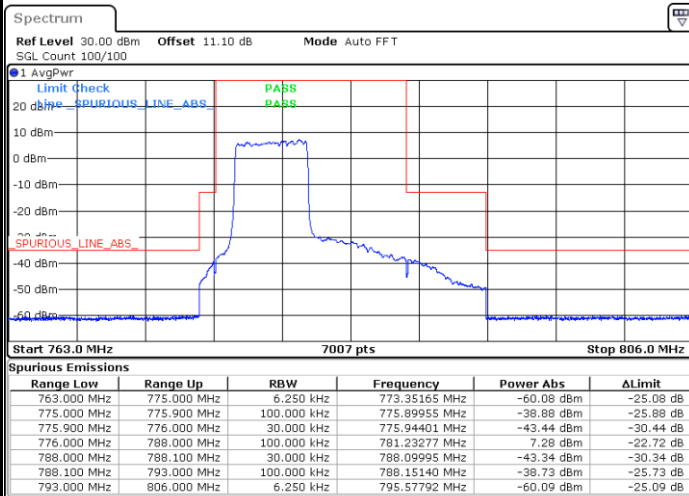
### Lowest Band Edge / 1 RB



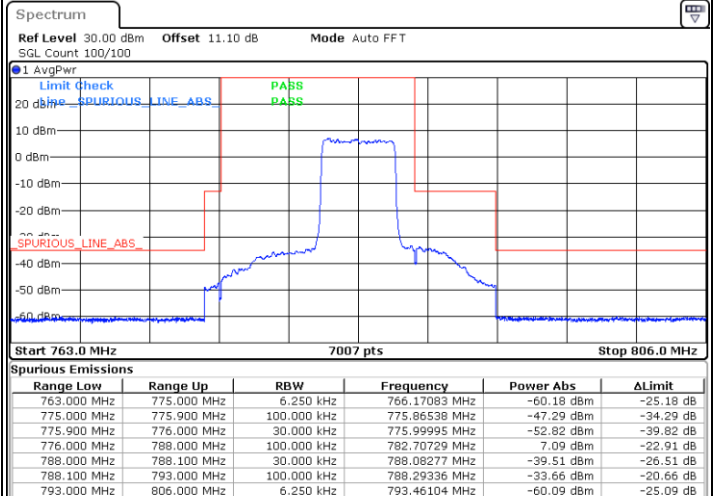
### Highest Band Edge / 1 RB



### Lowest Band Edge / Full RB



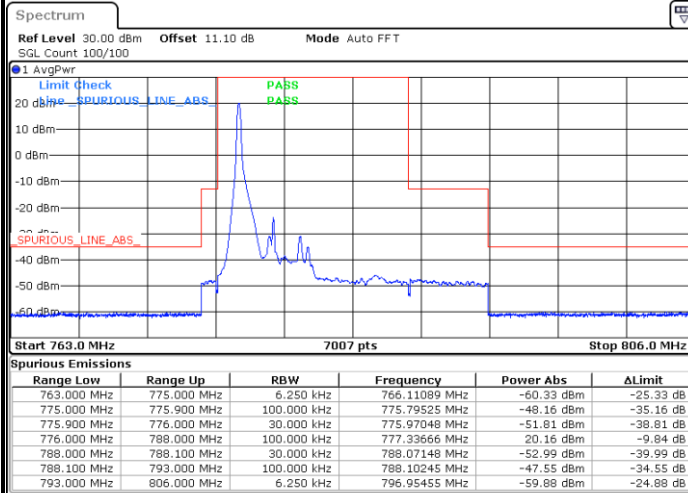
### Highest Band Edge / Full RB





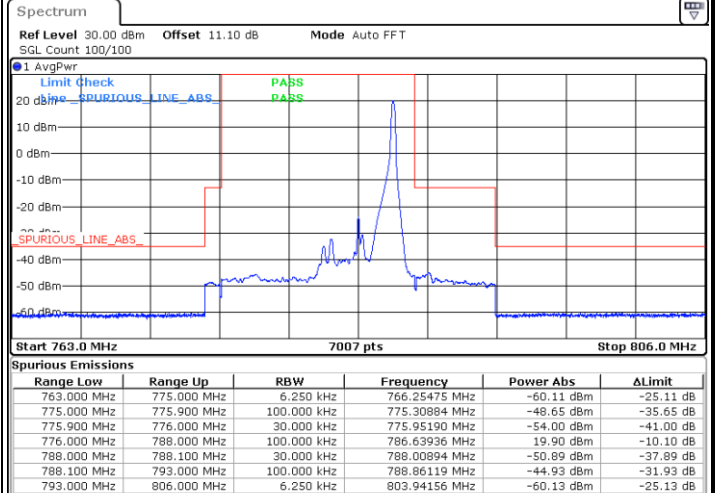
## LTE Band 13 / 5MHz / 16QAM

## Lowest Band Edge / 1 RB



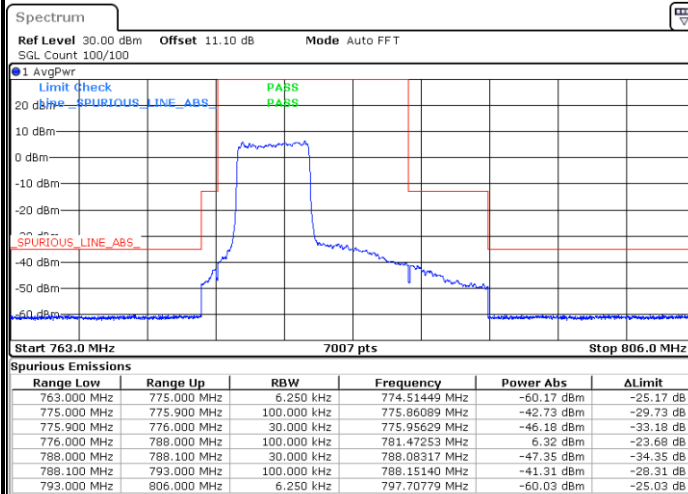
Date: 7.FEB.2022 15:39:07

## Highest Band Edge / 1 RB



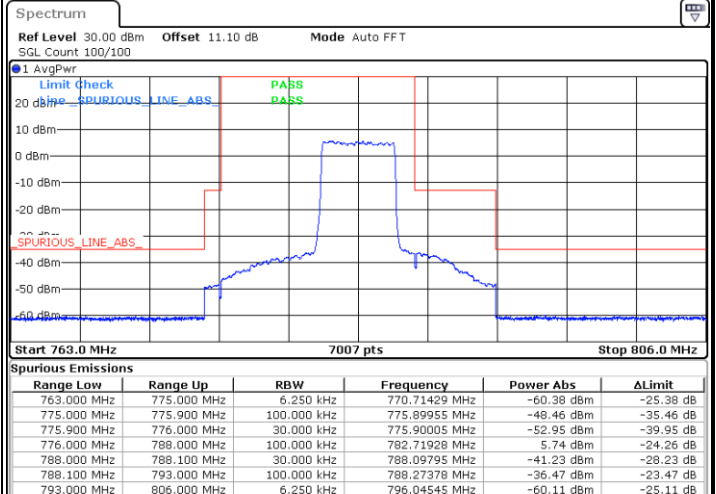
Date: 7.FEB.2022 15:46:09

## Lowest Band Edge / Full RB



Date: 7.FEB.2022 15:38:16

## Highest Band Edge / Full RB

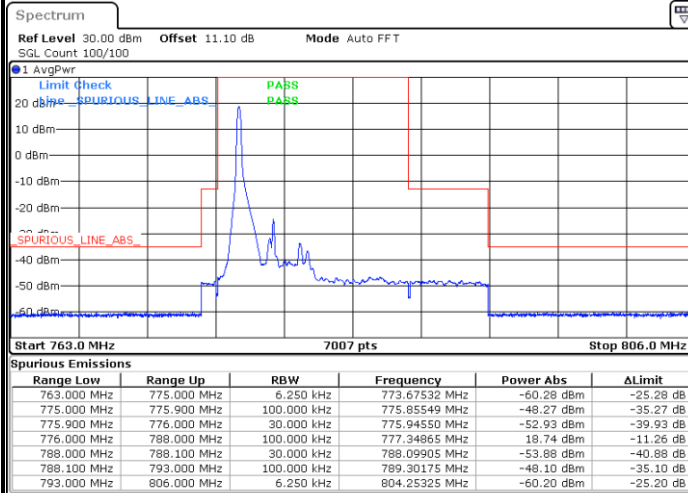


Date: 7.FEB.2022 15:45:18



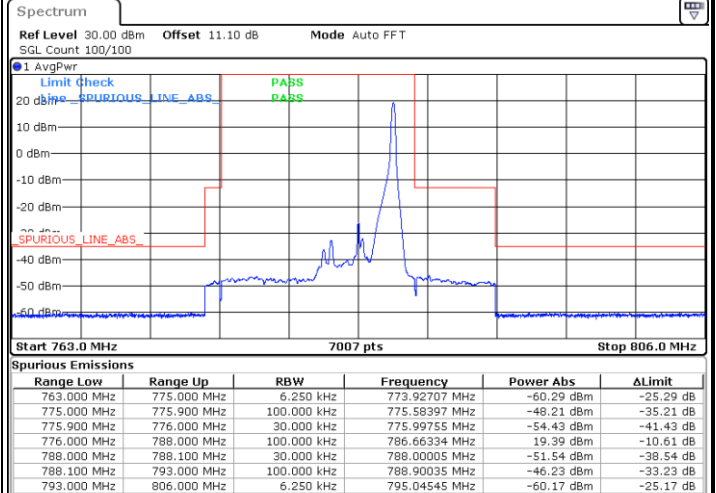
## LTE Band 13 / 5MHz / 64QAM

## Lowest Band Edge / 1 RB



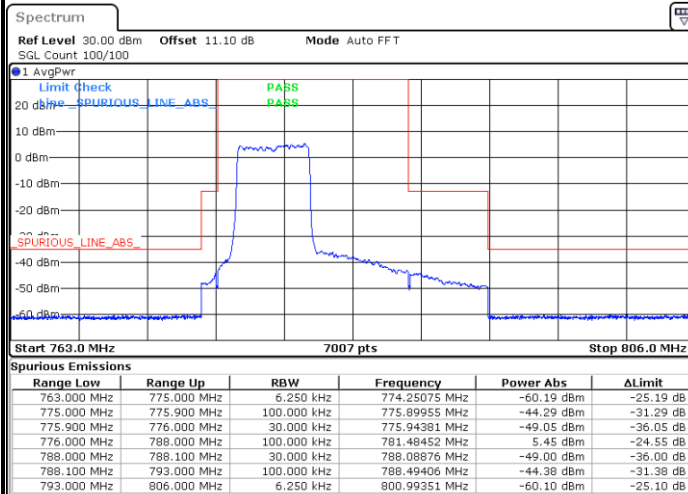
Date: 7.FEB.2022 15:49:50

## Highest Band Edge / 1 RB



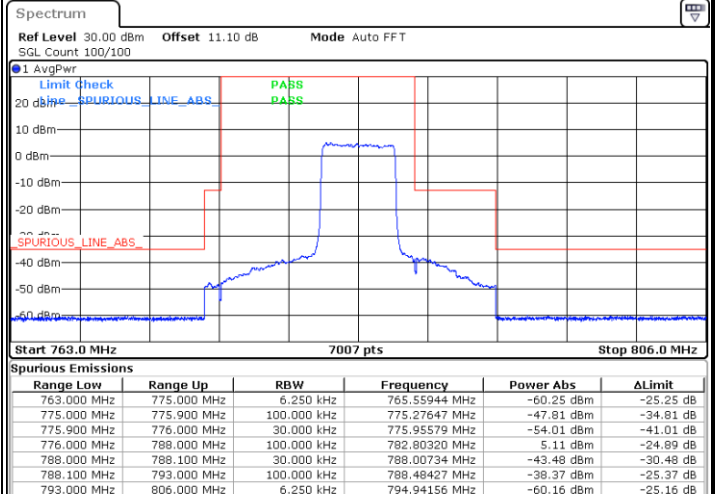
Date: 7.FEB.2022 15:52:11

## Lowest Band Edge / Full RB



Date: 7.FEB.2022 15:48:59

## Highest Band Edge / Full RB

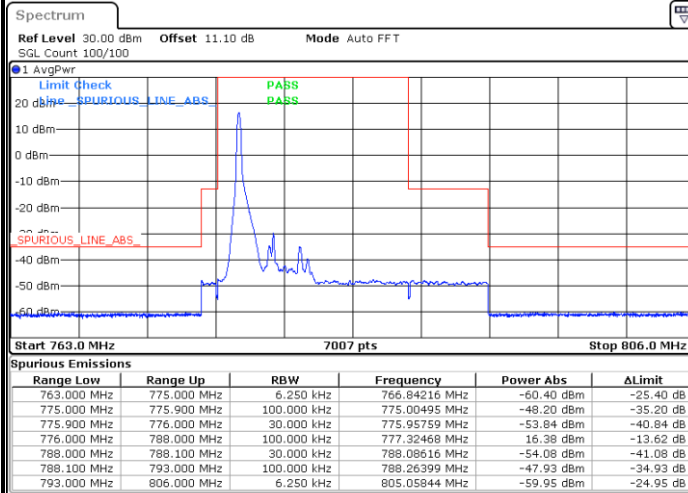


Date: 7.FEB.2022 15:51:21



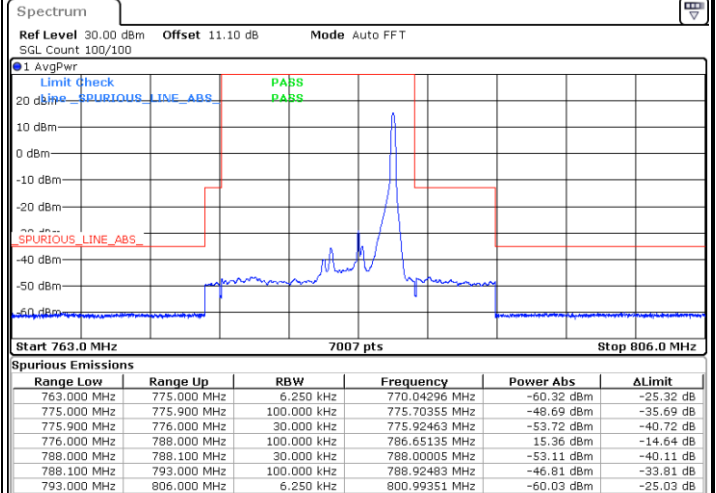
## LTE Band 13 / 5MHz / 256QAM

## Lowest Band Edge / 1 RB



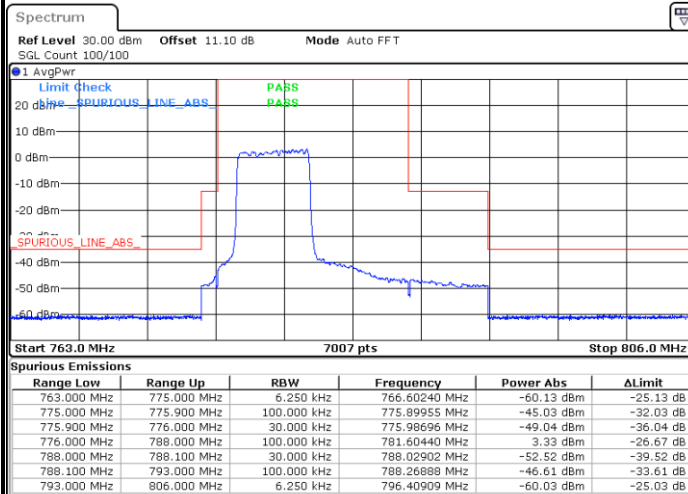
Date: 7.FEB.2022 16:17:21

## Highest Band Edge / 1 RB



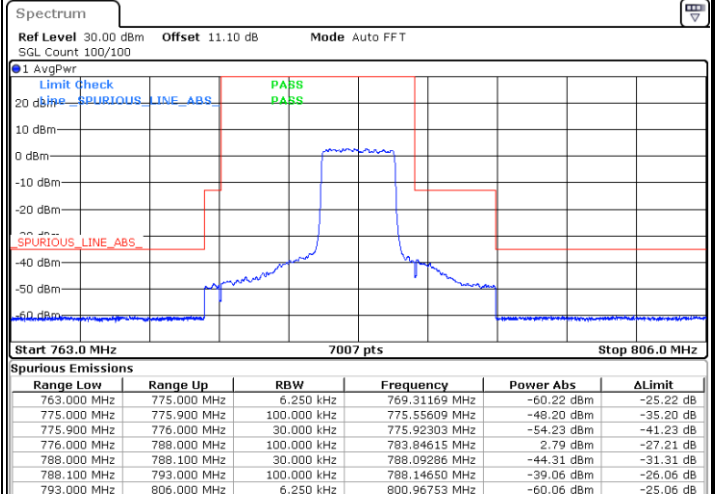
Date: 7.FEB.2022 16:18:09

## Lowest Band Edge / Full RB



Date: 7.FEB.2022 16:07:43

## Highest Band Edge / Full RB

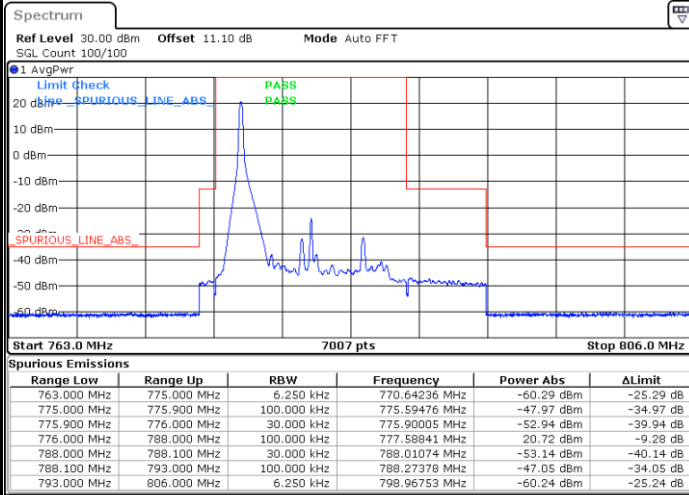


Date: 7.FEB.2022 16:18:56

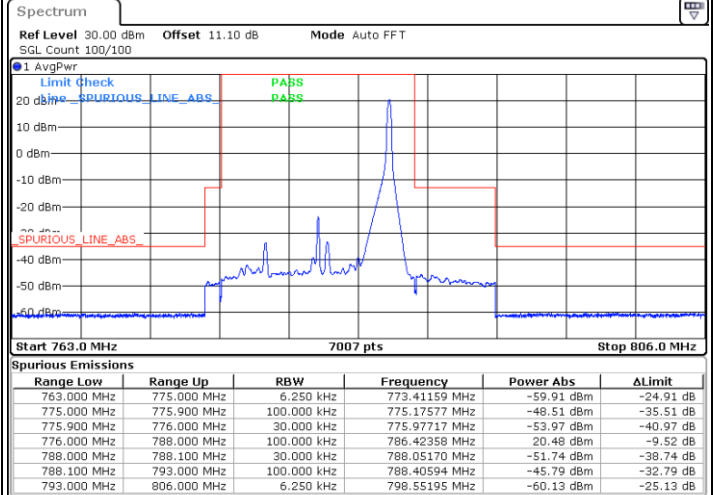


## LTE Band 13 / 10MHz / QPSK

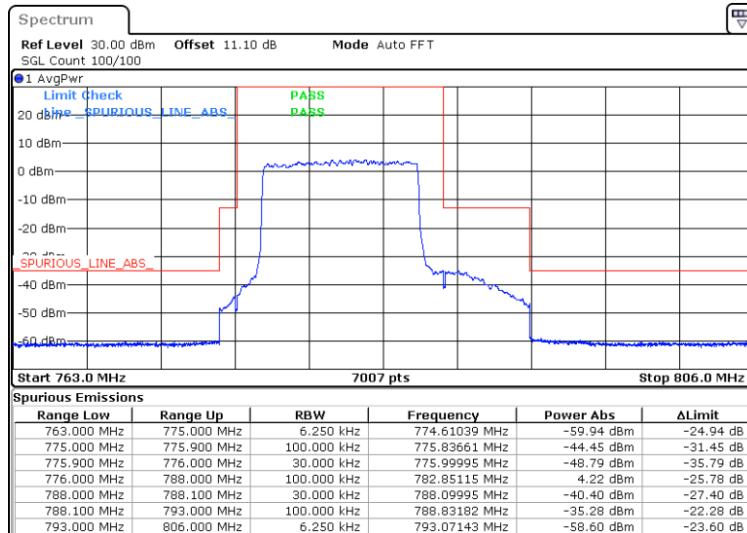
## Lowest Band Edge / 1 RB



## Highest Band Edge / 1 RB



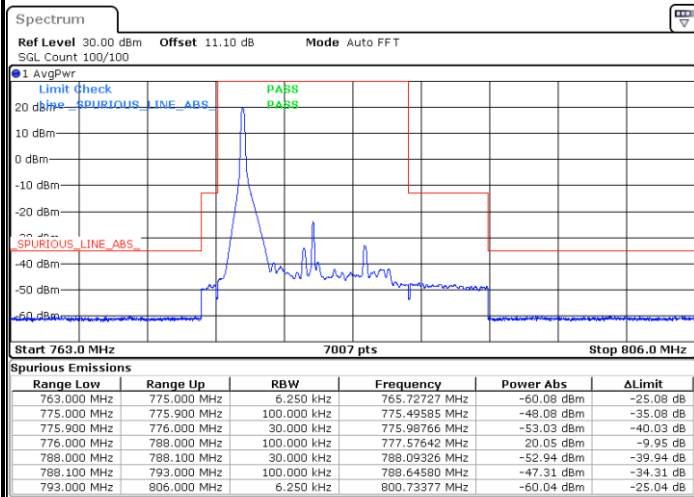
## Band Edge / Full RB



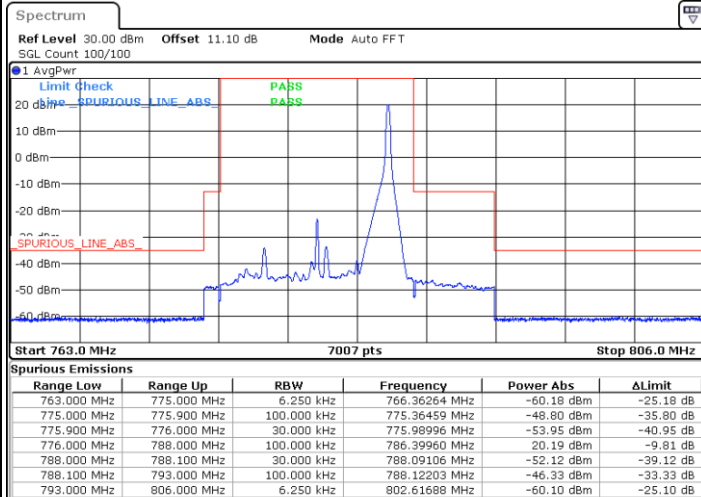


## LTE Band 13 / 10MHz / 16QAM

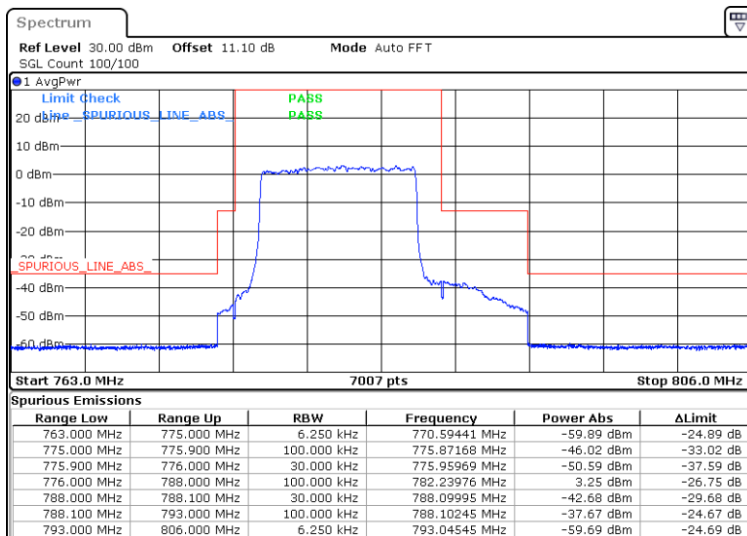
## Lowest Band Edge / 1 RB



## Highest Band Edge / 1 RB



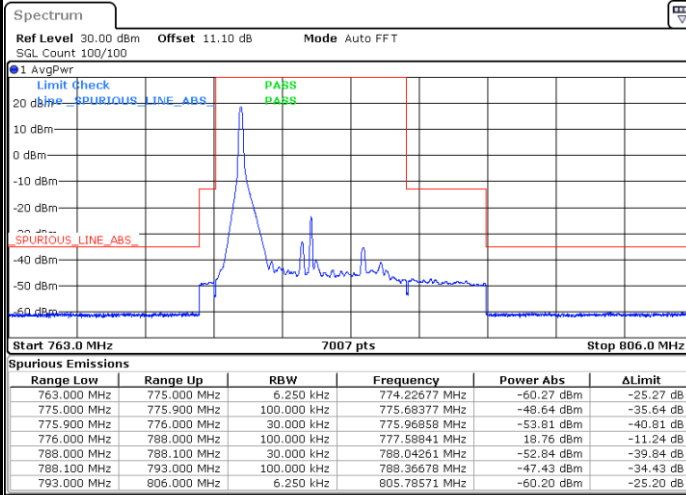
## Band Edge / Full RB





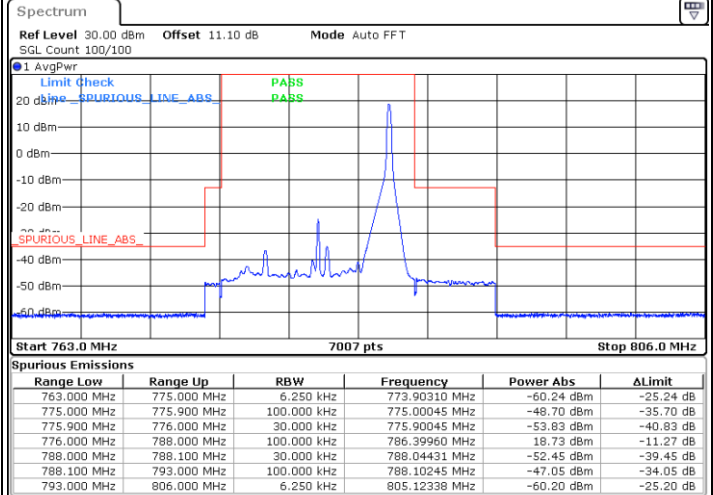
## LTE Band 13 / 10MHz / 64QAM

## Lowest Band Edge / 1 RB



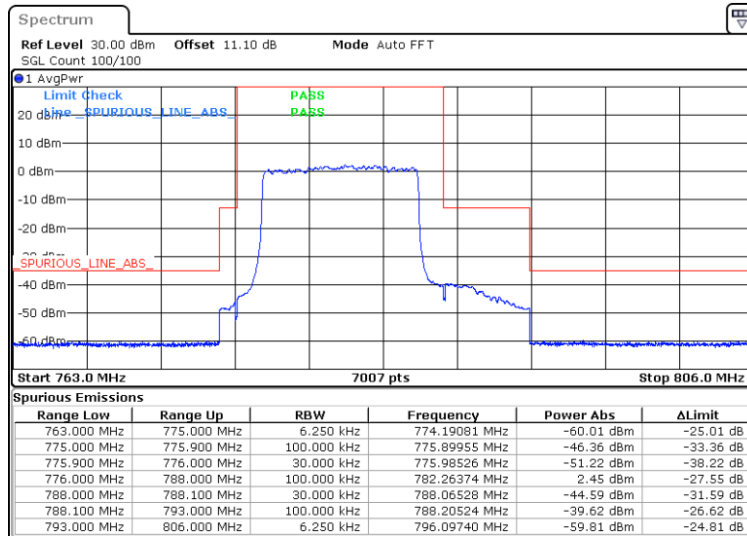
Date: 7.FEB.2022 16:02:02

## Highest Band Edge / 1 RB



Date: 7.FEB.2022 16:02:51

## Band Edge / Full RB

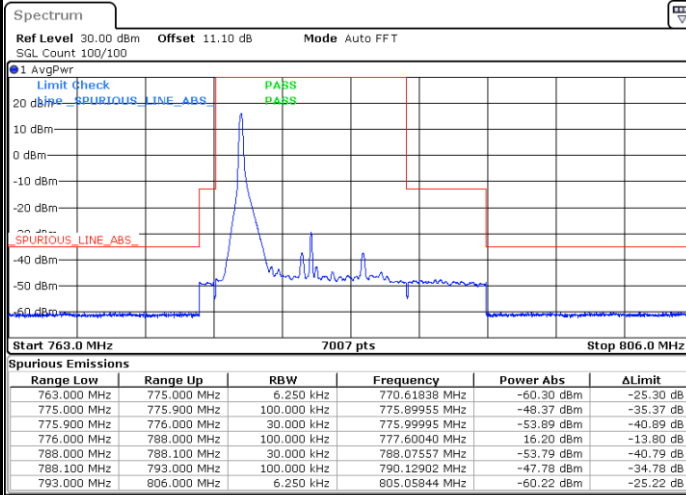


Date: 7.FEB.2022 16:01:12

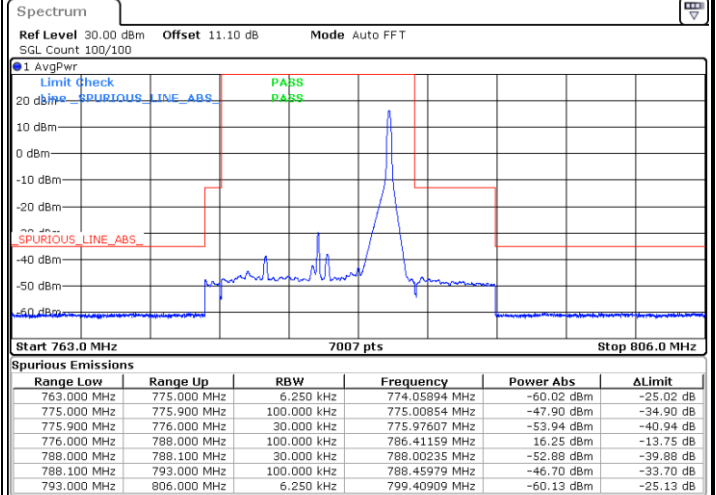


## LTE Band 13 / 10MHz / 256QAM

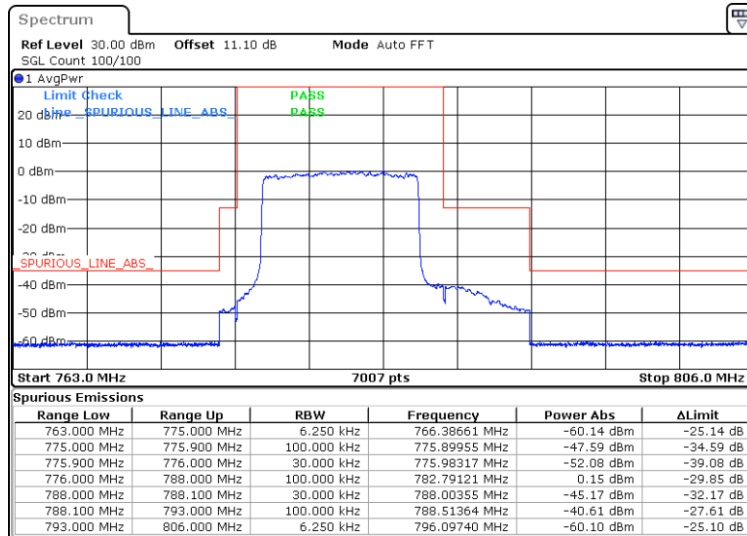
## Lowest Band Edge / 1 RB



## Highest Band Edge / 1 RB



## Band Edge / Full RB

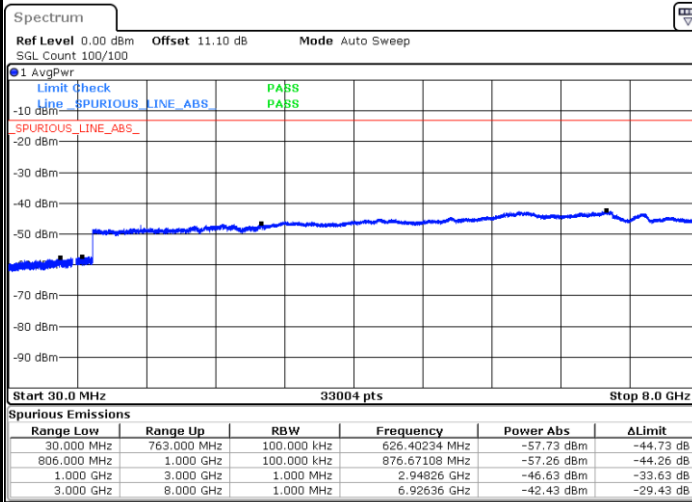




## Conducted Spurious Emission

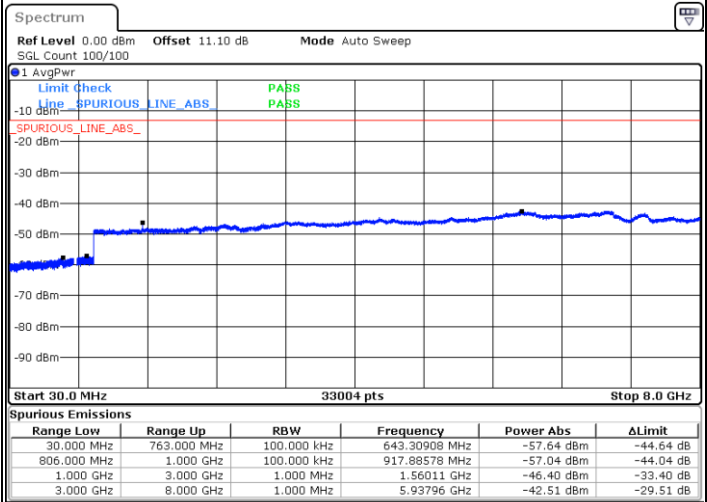
### LTE Band 13 / 5MHz

#### Lowest Channel / QPSK



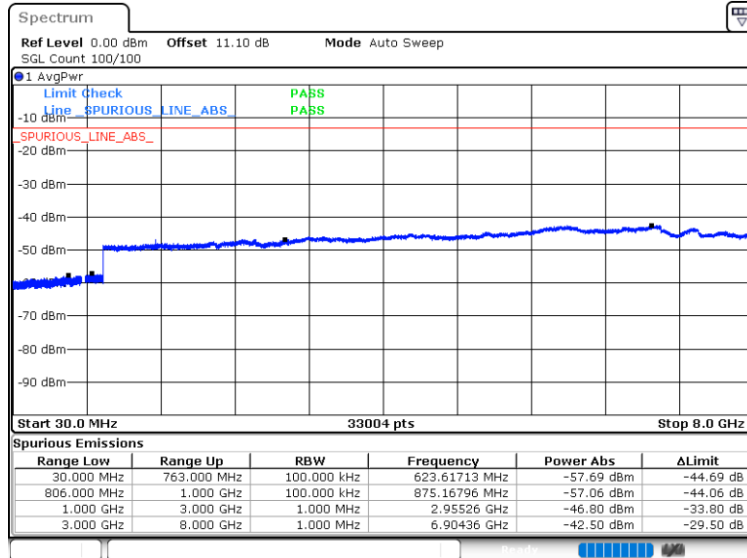
Date: 7.FEB.2022 15:41:07

#### Middle Channel / QPSK



Date: 7.FEB.2022 15:42:16

#### Highest Channel / QPSK

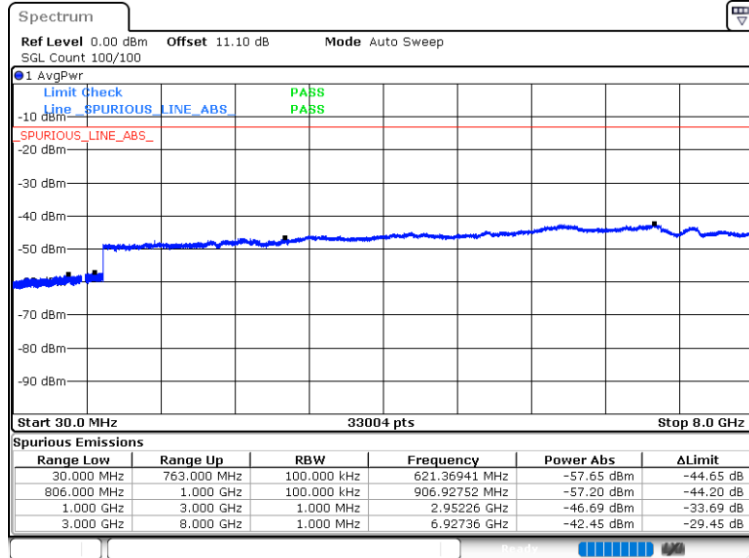


Date: 7.FEB.2022 15:48:09



## LTE Band 13 / 10MHz

## Middle Channel / QPSK



Date: 7.FEB.2022 15:59:41

## Frequency Stability

| Test Conditions     |                   | LTE Band 13 (QPSK) / Middle Channel | Limit   |
|---------------------|-------------------|-------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 10MHz                            | Note 2. |
|                     |                   | Deviation (ppm)                     | Result  |
| 50                  | Normal Voltage    | 0.0119                              | PASS    |
| 40                  | Normal Voltage    | 0.0009                              |         |
| 30                  | Normal Voltage    | 0.0004                              |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                              |         |
| 10                  | Normal Voltage    | 0.0157                              |         |
| 0                   | Normal Voltage    | 0.0043                              |         |
| -10                 | Normal Voltage    | 0.0133                              |         |
| -20                 | Normal Voltage    | 0.0059                              |         |
| -30                 | Normal Voltage    | 0.0040                              |         |
| 20                  | Maximum Voltage   | 0.0072                              |         |
| 20                  | Normal Voltage    | 0.0037                              |         |
| 20                  | Battery End Point | 0.0040                              |         |

**Note:**

1. Normal Voltage =4.2 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.3 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 66

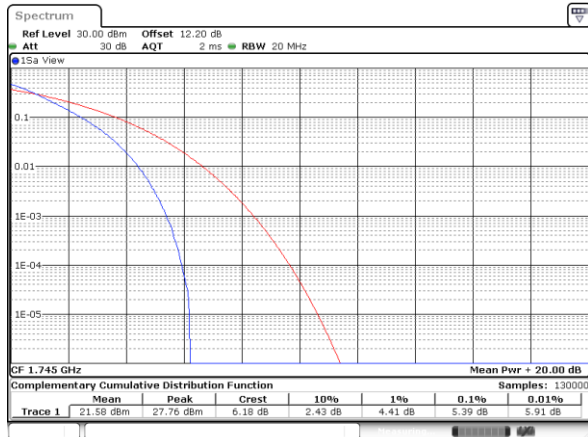
### Peak-to-Average Ratio

| Mode      | LTE Band 66 / 20MHz |         |         |         |             |
|-----------|---------------------|---------|---------|---------|-------------|
| Mod.      | QPSK                | 16QAM   | 64QAM   | 256QAM  | Limit: 13dB |
| RB Size   | Full RB             | Full RB | Full RB | Full RB | Result      |
| Middle CH | 5.39                | 6.29    | 6.46    | 6.38    | PASS        |



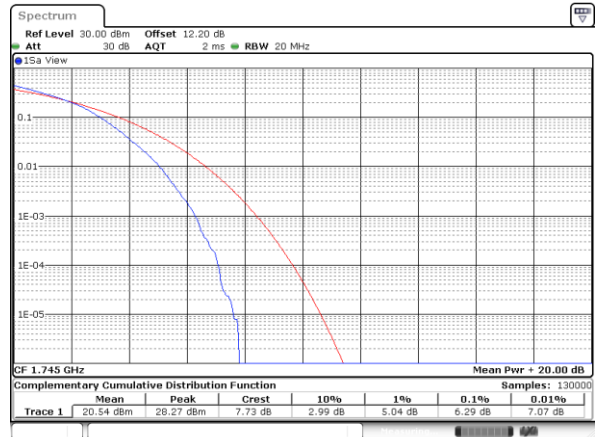
## LTE Band 66 / 20MHz / QPSK

## Middle Channel / Full RB



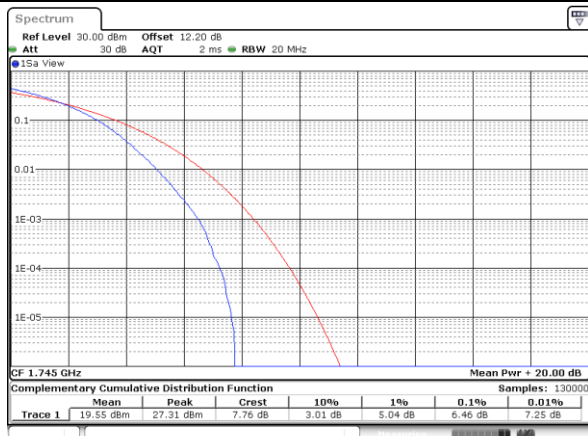
## LTE Band 66 / 20MHz / 16QAM

## Middle Channel / Full RB



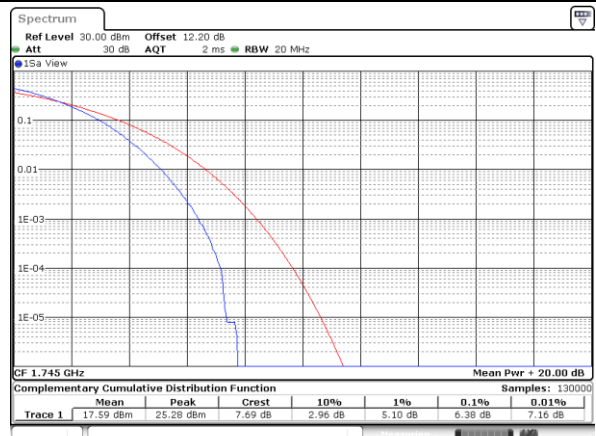
## LTE Band 66 / 20MHz / 64QAM

## Middle Channel / Full RB



## LTE Band 66 / 20MHz / 256QAM

## Middle Channel / Full RB



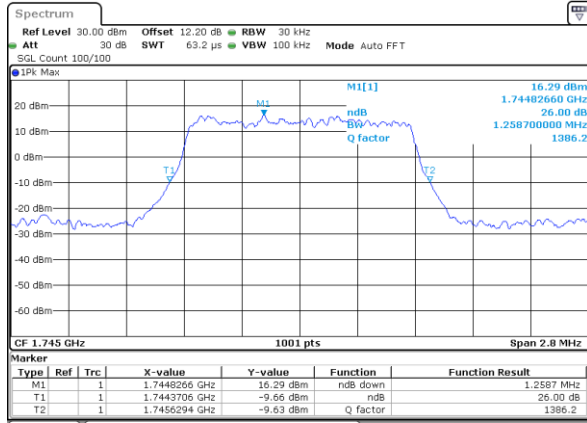
**26dB Bandwidth**

| Mode      | LTE Band 66 : 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 | 1.26                       | 1.28    | 2.96  | 2.94    | 4.86  | 4.89    | 9.67  | 9.71    | 14.51 | 14.30   | 18.70 | 18.74   |
| Mode      | LTE Band 66 : 26dB BW(MHz) |         |       |         |       |         |       |         |       |         |       |         |
| BW        | 1.4MHz                     |         | 3MHz  |         | 5MHz  |         | 10MHz |         | 15MHz |         | 20MHz |         |
| Mod.      | 64QAM                      | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM |
| Middle CH | 1.28                       | 1.26    | 3.00  | 2.98    | 4.89  | 4.81    | 9.73  | 9.75    | 14.45 | 14.33   | 18.82 | 18.86   |



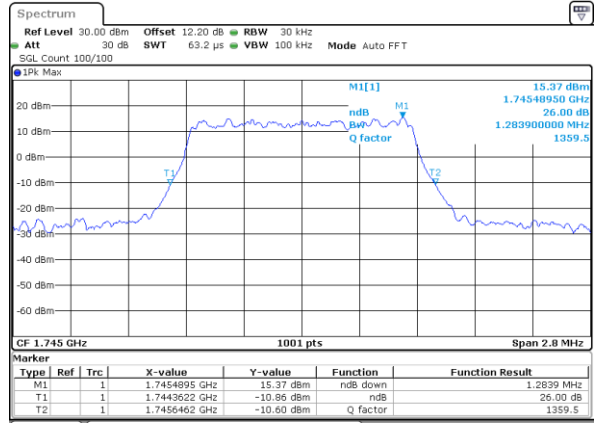
## LTE Band 66

## Middle Channel / 1.4MHz / QPSK



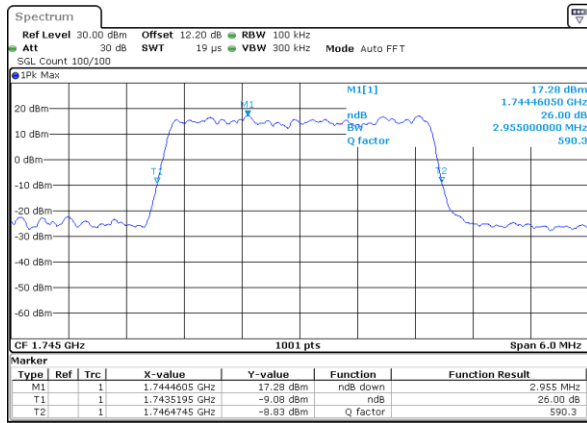
Date: 4.FEB.2022 15:57:12

## Middle Channel / 1.4MHz / 16QAM



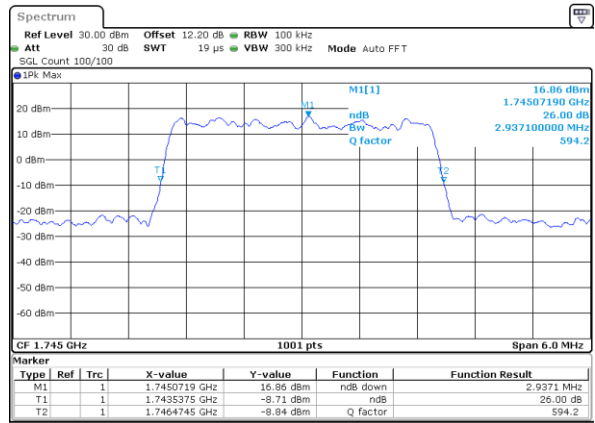
Date: 4.FEB.2022 15:57:33

## Middle Channel / 3MHz / QPSK



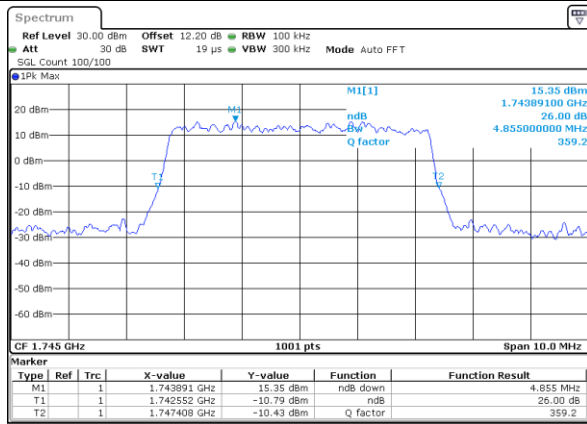
Date: 4.FEB.2022 16:23:02

## Middle Channel / 3MHz / 16QAM



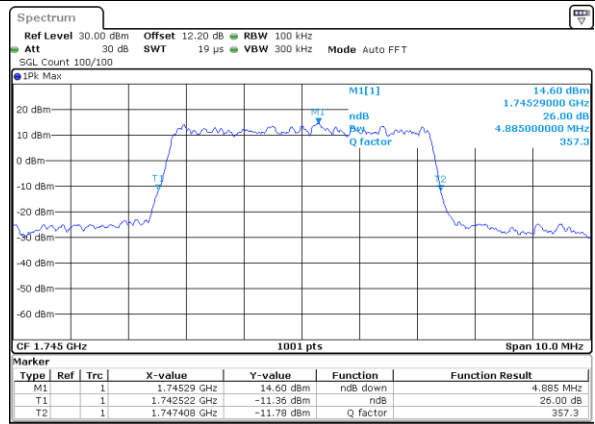
Date: 4.FEB.2022 16:23:03

## Middle Channel / 5MHz / QPSK



Date: 4.FEB.2022 16:42:56

## Middle Channel / 5MHz / 16QAM

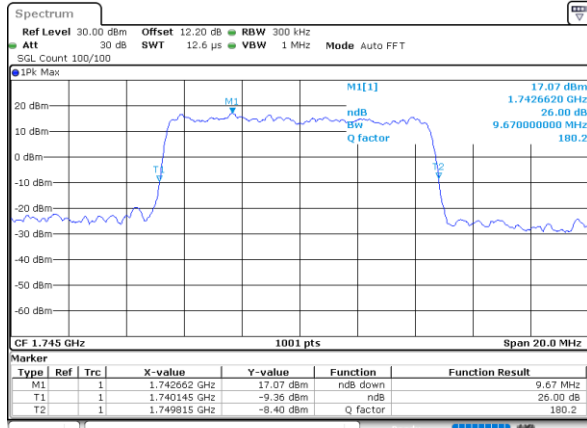


Date: 4.FEB.2022 16:43:17



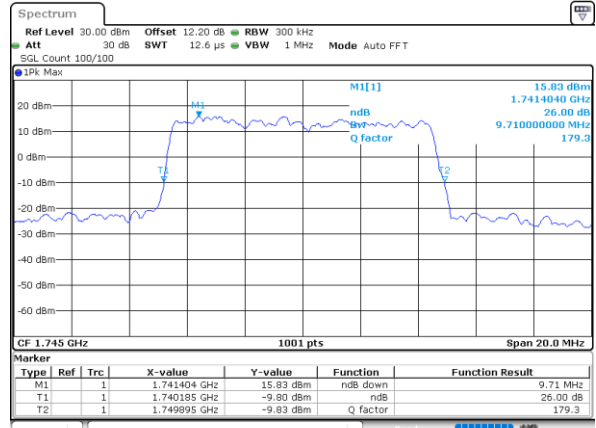
## LTE Band 66

## Middle Channel / 10MHz / QPSK



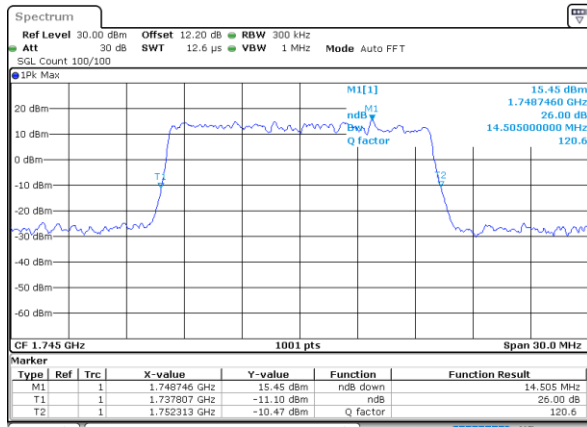
Date: 4.FEB.2022 17:02:47

## Middle Channel / 10MHz / 16QAM



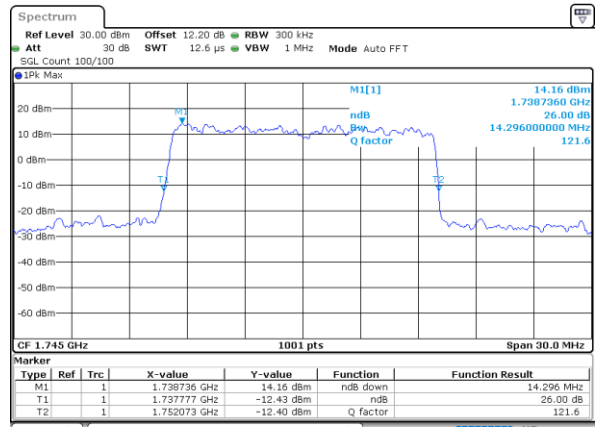
Date: 4.FEB.2022 17:03:08

## Middle Channel / 15MHz / QPSK



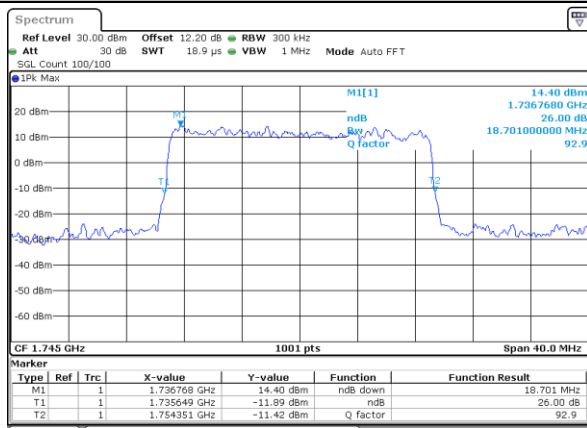
Date: 4.FEB.2022 17:22:38

## Middle Channel / 15MHz / 16QAM



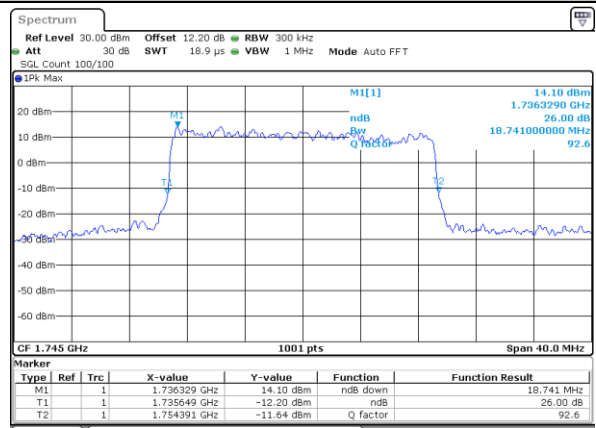
Date: 4.FEB.2022 17:22:59

## Middle Channel / 20MHz / QPSK



Date: 4.FEB.2022 17:42:29

## Middle Channel / 20MHz / 16QAM

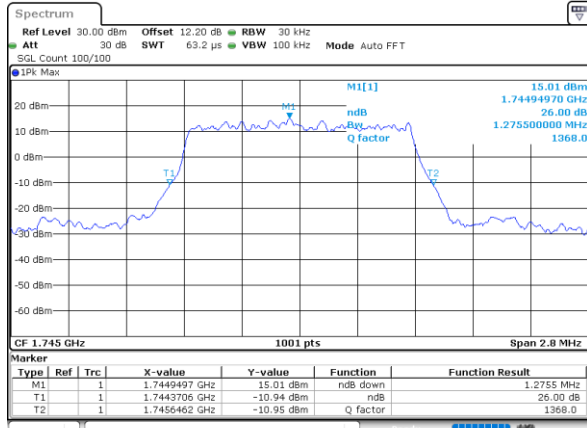


Date: 4.FEB.2022 17:42:50



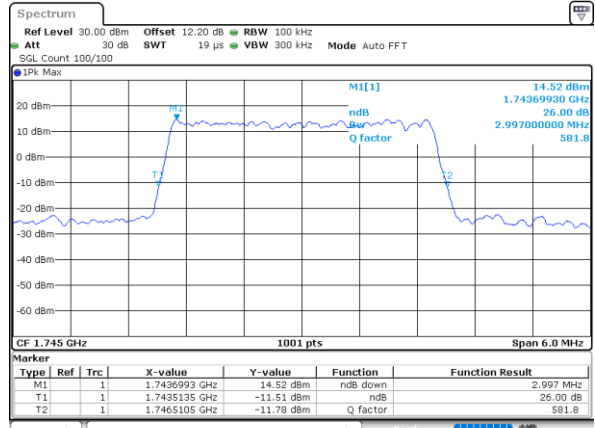
## LTE Band 66

## Middle Channel / 1.4MHz / 64QAM



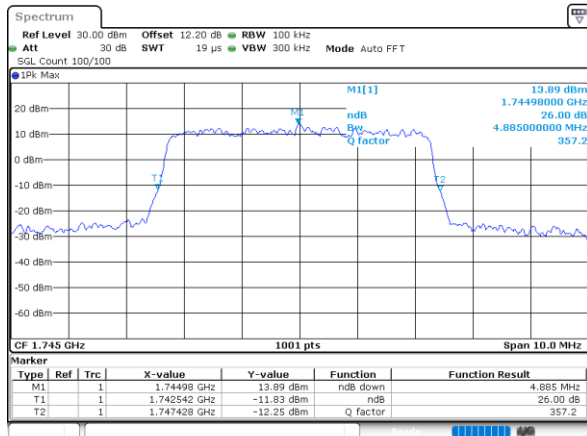
Date: 4.FEB.2022 15:58:36

## Middle Channel / 3MHz / 64QAM



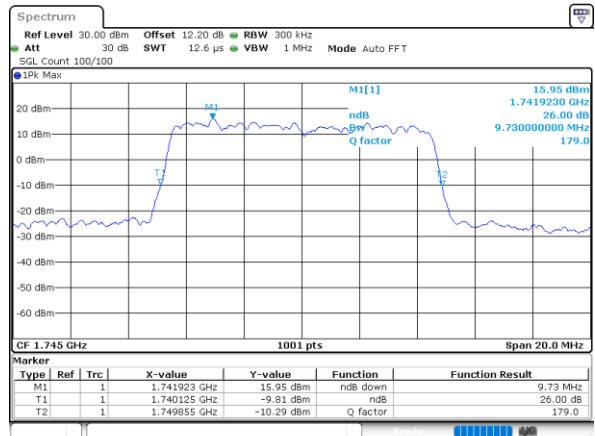
Date: 4.FEB.2022 16:24:26

## Middle Channel / 5MHz / 64QAM



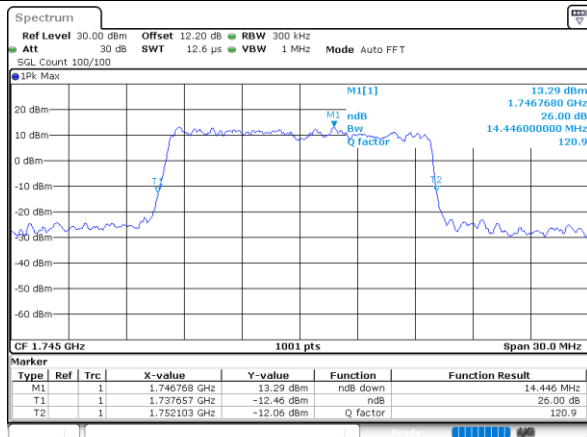
Date: 4.FEB.2022 16:44:20

## Middle Channel / 10MHz / 64QAM



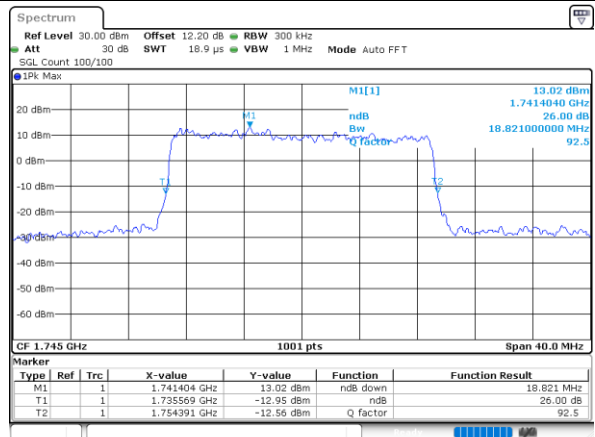
Date: 4.FEB.2022 17:04:11

## Middle Channel / 15MHz / 64QAM



Date: 4.FEB.2022 17:24:02

## Middle Channel / 20MHz / 64QAM

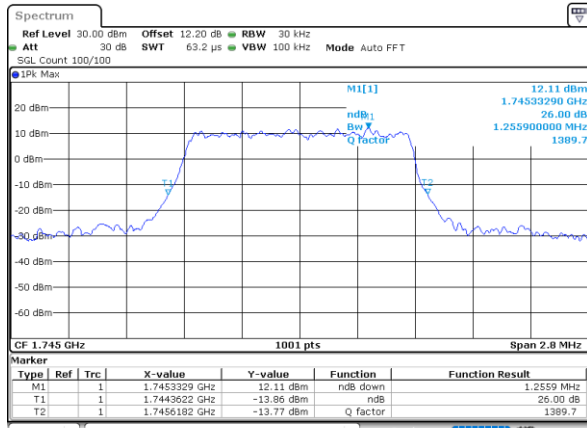


Date: 4.FEB.2022 17:43:54



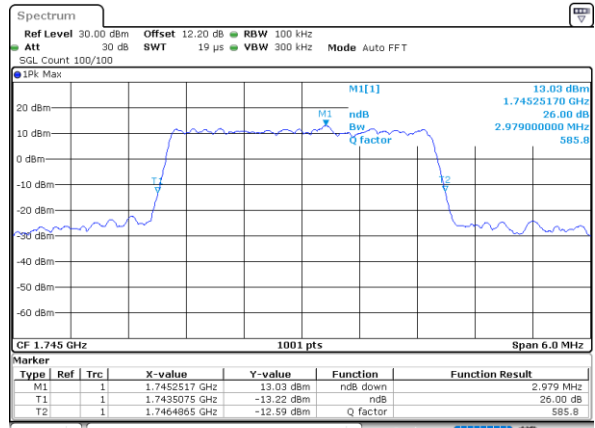
## LTE Band 66

## Middle Channel / 1.4MHz / 256QAM



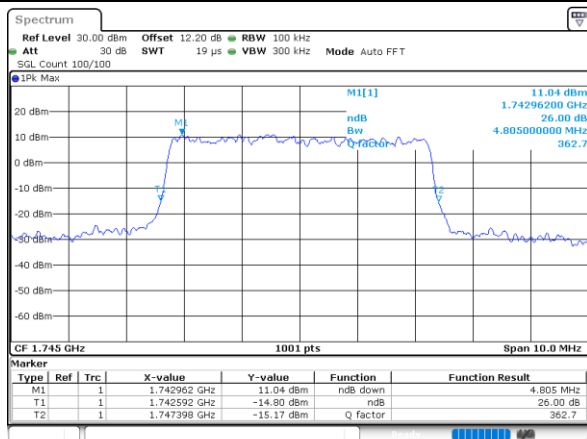
Date: 4.FEB.2022 15:58:57

## Middle Channel / 3MHz / 256QAM



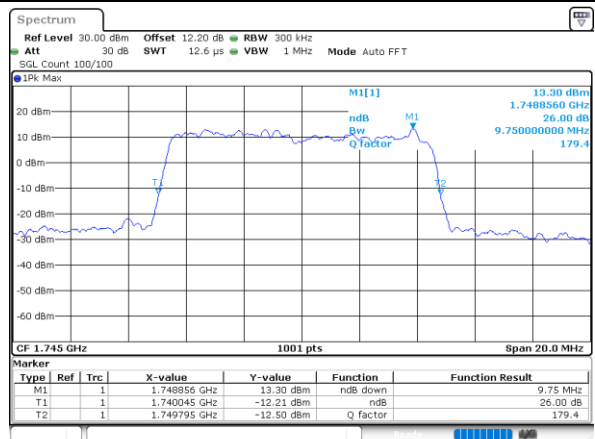
Date: 4.FEB.2022 16:24:47

## Middle Channel / 5MHz / 256QAM



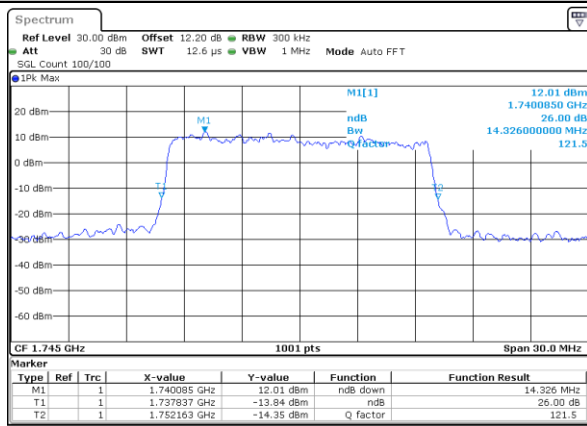
Date: 4.FEB.2022 16:44:41

## Middle Channel / 10MHz / 256QAM



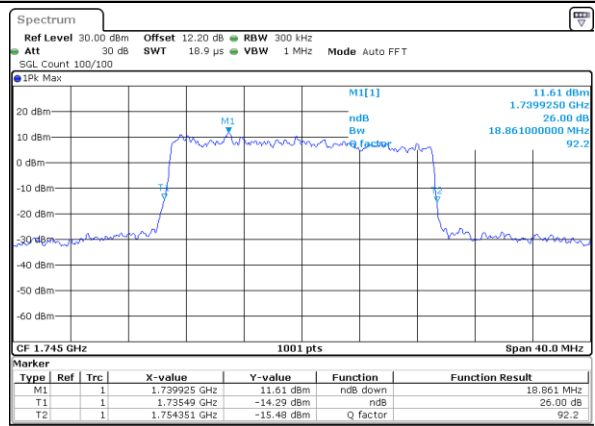
Date: 4.FEB.2022 17:04:32

## Middle Channel / 15MHz / 256QAM



Date: 4.FEB.2022 17:24:23

## Middle Channel / 20MHz / 256QAM



Date: 4.FEB.2022 17:44:15

**Occupied Bandwidth**

| Mode      | LTE Band 66 : 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 | 1.10                      | 1.09    | 2.73  | 2.72    | 4.48  | 4.49    | 9.01  | 9.03    | 13.37 | 13.40   | 17.82 | 17.86   |
| Mode      | LTE Band 66 : 99%OBW(MHz) |         |       |         |       |         |       |         |       |         |       |         |
| BW        | 1.4MHz                    |         | 3MHz  |         | 5MHz  |         | 10MHz |         | 15MHz |         | 20MHz |         |
| Mod.      | 64QAM                     | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM | 64QAM | 256 QAM |
| Middle CH | 1.08                      | 1.09    | 2.71  | 2.73    | 4.49  | 4.49    | 9.03  | 9.01    | 13.43 | 13.43   | 17.90 | 17.94   |