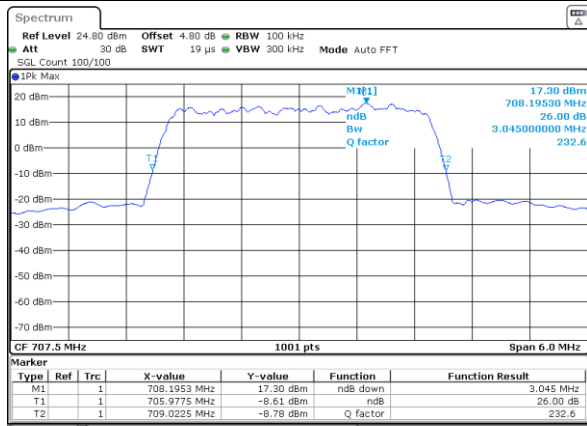




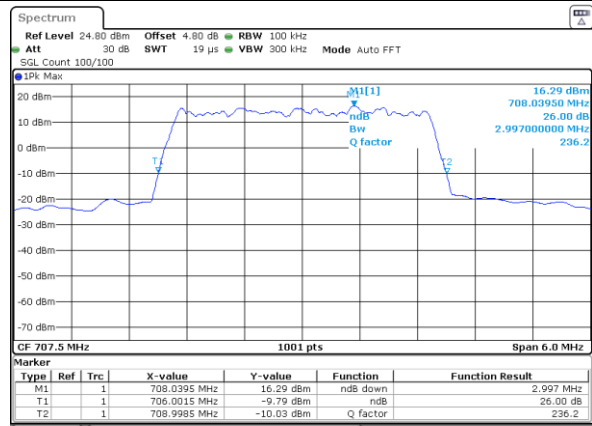
## LTE Band 12

## Middle Channel / 3MHz / QPSK



Date: 8.OCT.2024 15:36:31

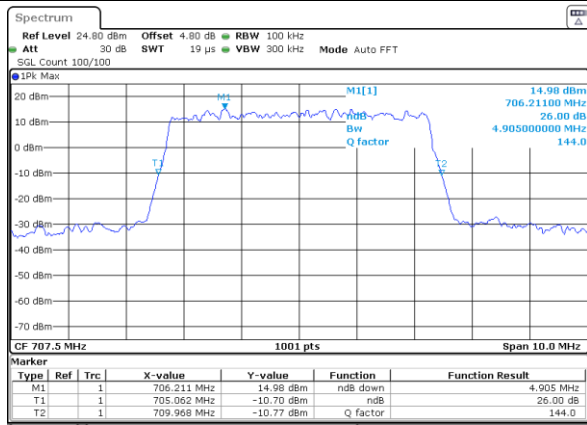
## Middle Channel / 3MHz / 16QAM



Date: 8.OCT.2024 15:36:53

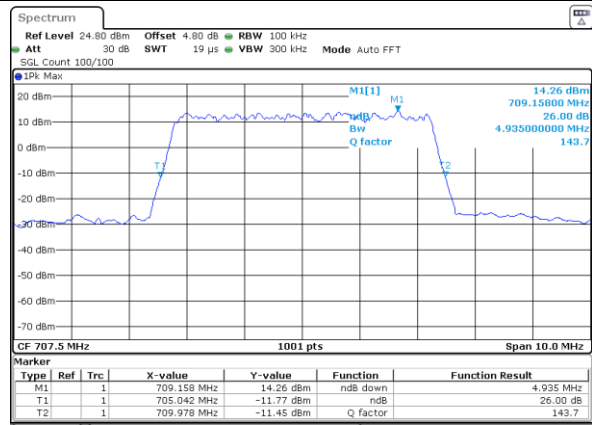
## LTE Band 12

## Middle Channel / 5MHz / QPSK



Date: 8.OCT.2024 15:35:05

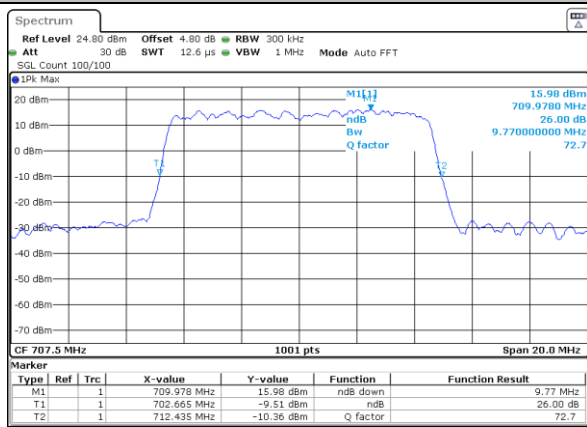
## Middle Channel / 5MHz / 16QAM



Date: 8.OCT.2024 15:35:27

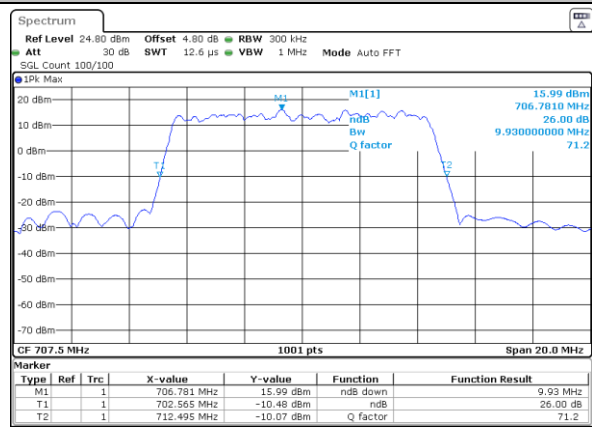
## LTE Band 12

## Middle Channel / 10MHz / QPSK



Date: 8.OCT.2024 15:34:01

## Middle Channel / 10MHz / 16QAM

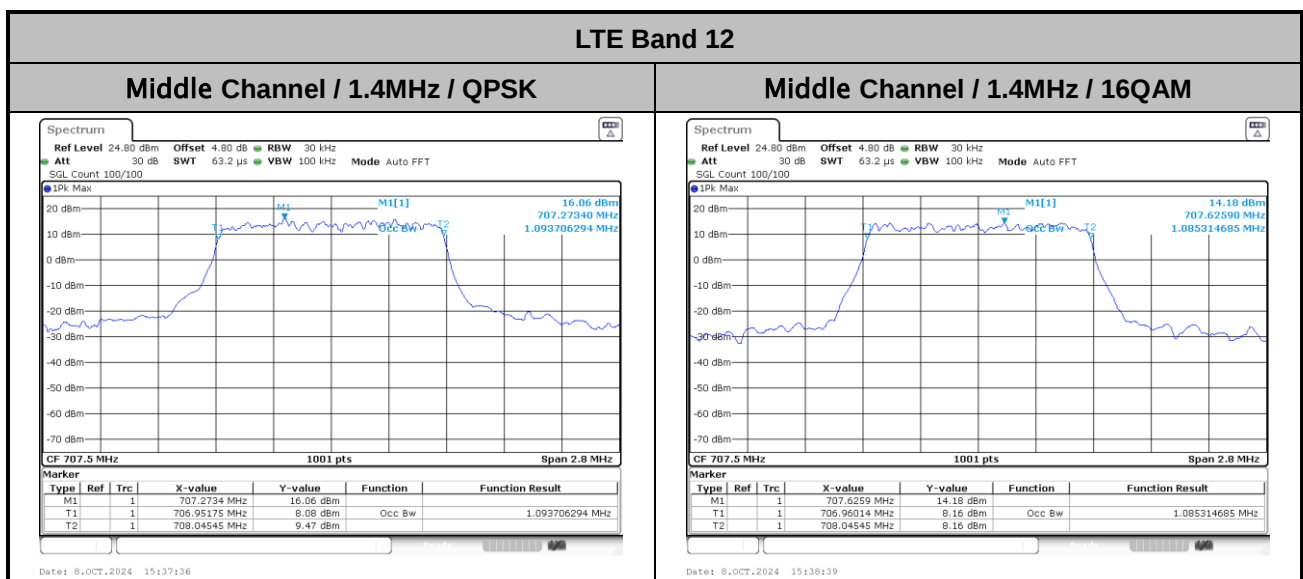


Date: 8.OCT.2024 15:34:22



## Occupied Bandwidth

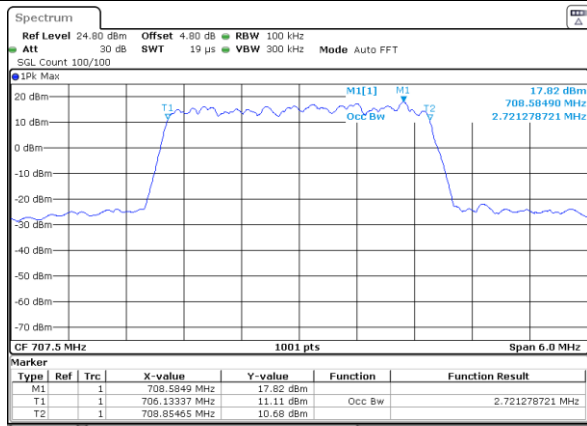
| Mode      | LTE Band 12 : 99%OBW(MHz) |       |
|-----------|---------------------------|-------|
| BW        | 1.4MHz                    |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 1.09                      | 1.09  |
| BW        | 3MHz                      |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 2.72                      | 2.73  |
| BW        | 5MHz                      |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 4.48                      | 4.50  |
| BW        | 10MHz                     |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 9.01                      | 8.95  |





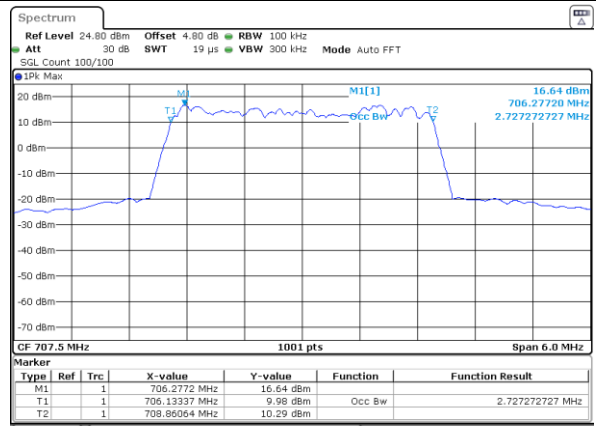
## LTE Band 12

## Middle Channel / 3MHz / QPSK



Date: 8.OCT.2024 15:36:10

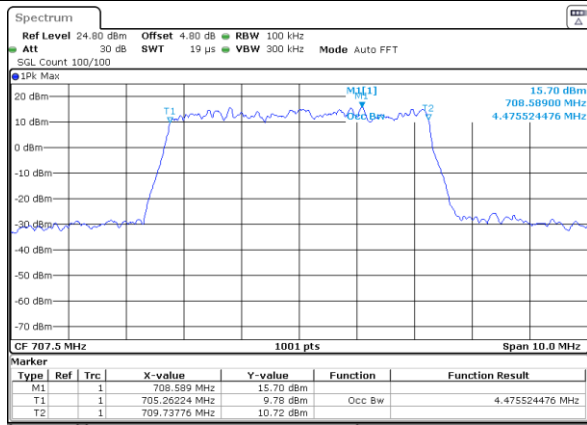
## Middle Channel / 3MHz / 16QAM



Date: 8.OCT.2024 15:37:14

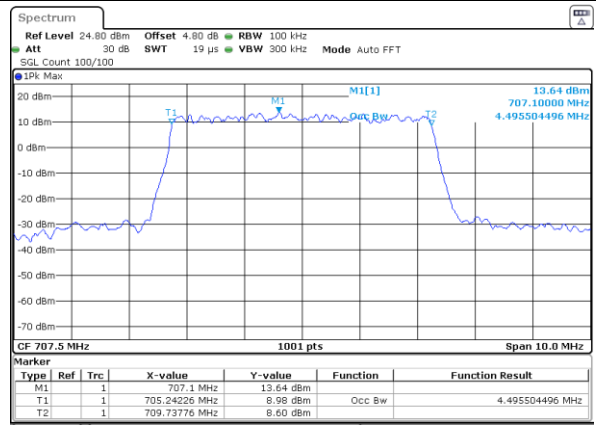
## LTE Band 12

## Middle Channel / 5MHz / QPSK



Date: 8.OCT.2024 15:34:44

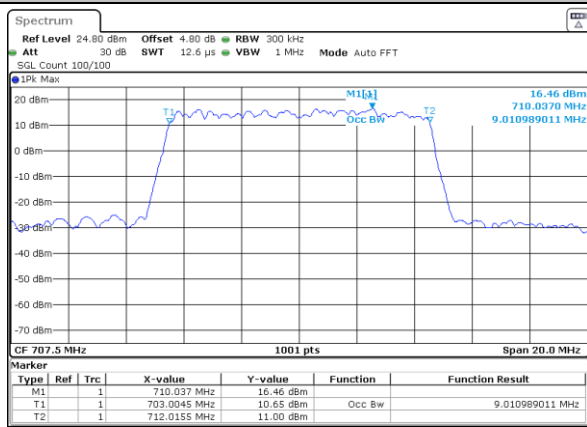
## Middle Channel / 5MHz / 16QAM



Date: 8.OCT.2024 15:35:48

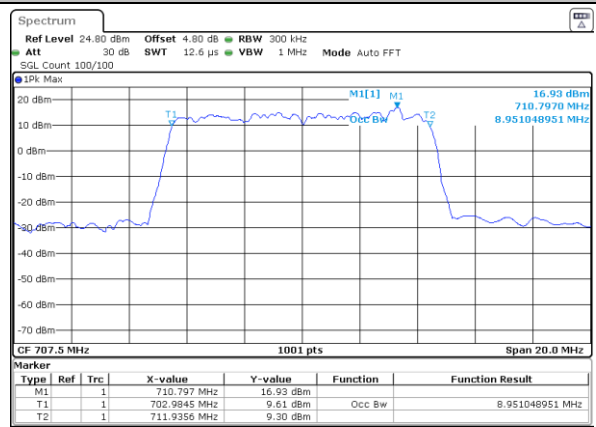
## LTE Band 12

## Middle Channel / 10MHz / QPSK



Date: 8.OCT.2024 15:33:19

## Middle Channel / 10MHz / 16QAM



Date: 8.OCT.2024 15:33:40



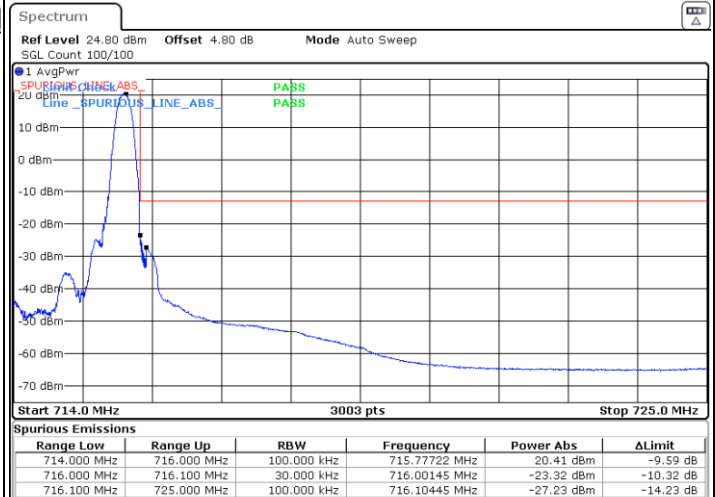
## Conducted Band Edge

### LTE Band 12 / 1.4MHz / QPSK

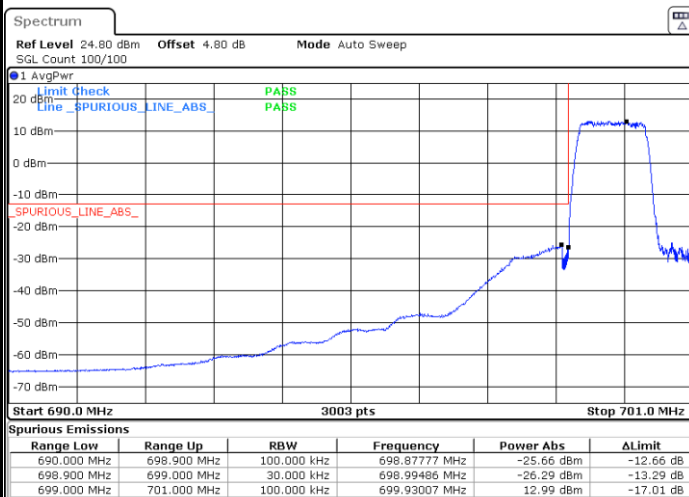
#### Lowest Band Edge / 1RB



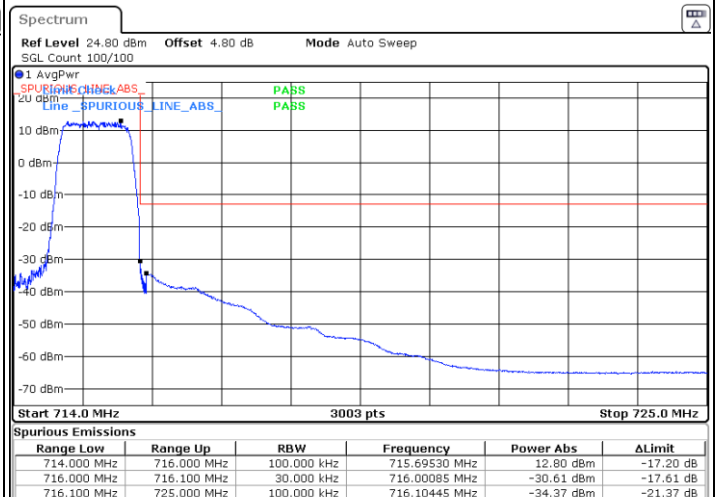
#### Highest Band Edge / 1RB



#### Lowest Band Edge / Full RB



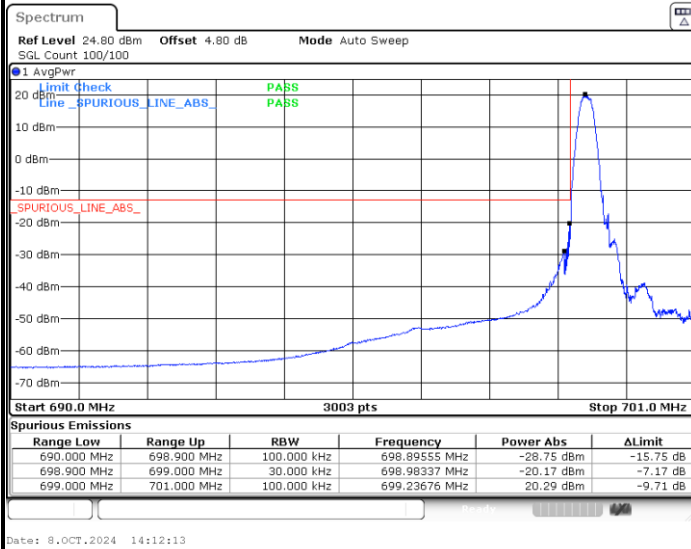
#### Highest Band Edge / Full RB



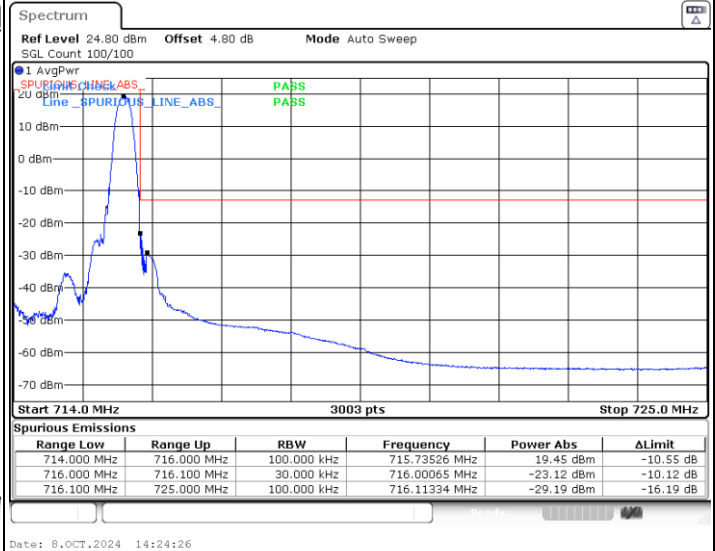


## LTE Band 12 / 1.4MHz / 16QAM

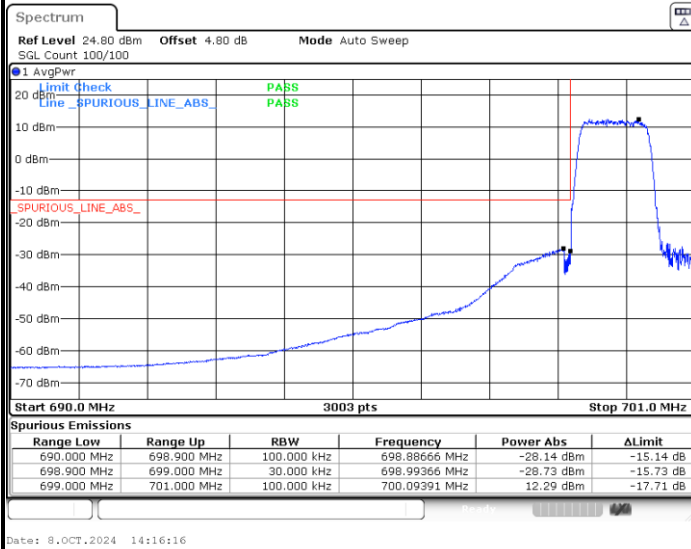
## Lowest Band Edge / 1 RB



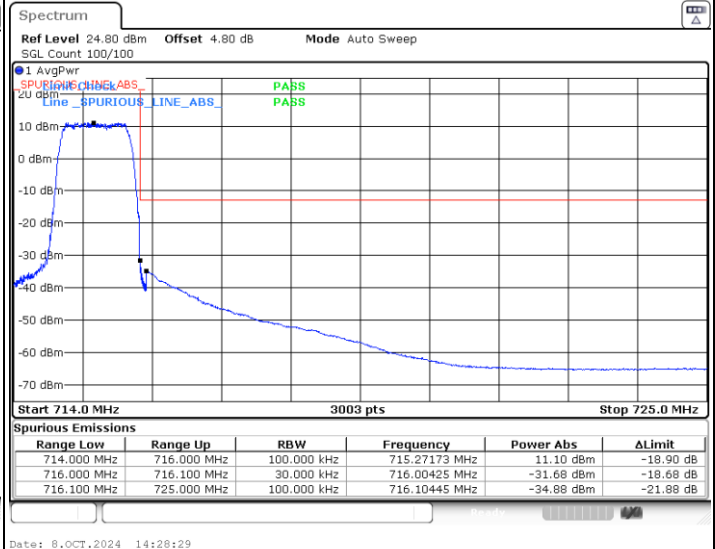
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



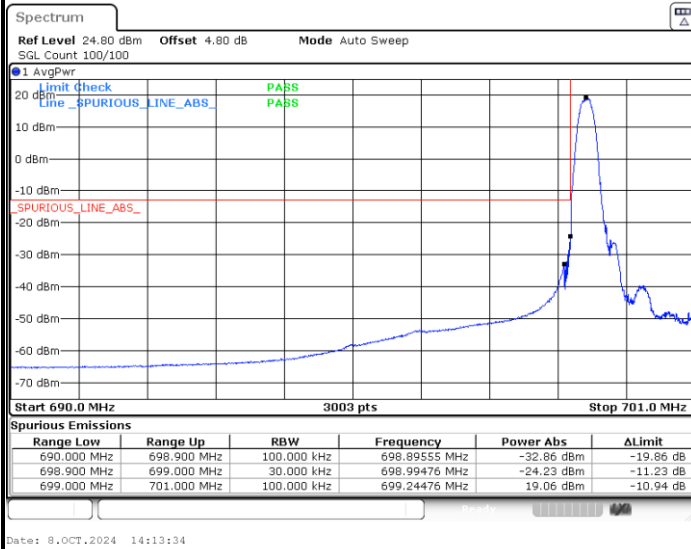
## Highest Band Edge / Full RB



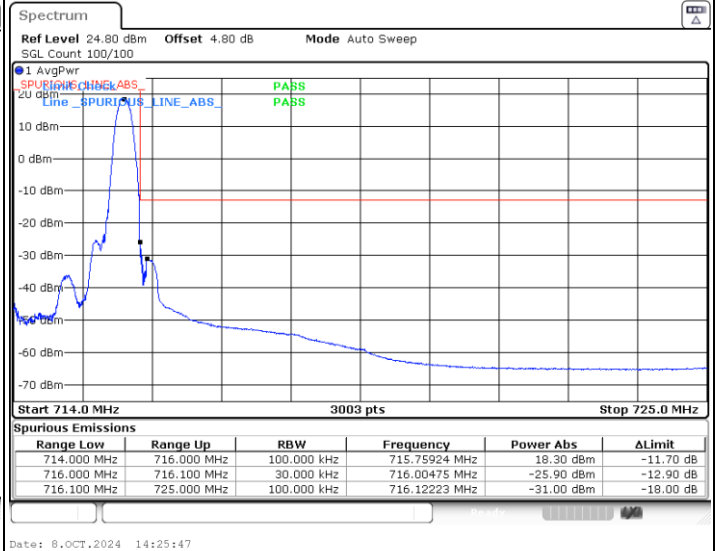


## LTE Band 12 / 1.4MHz / 64QAM

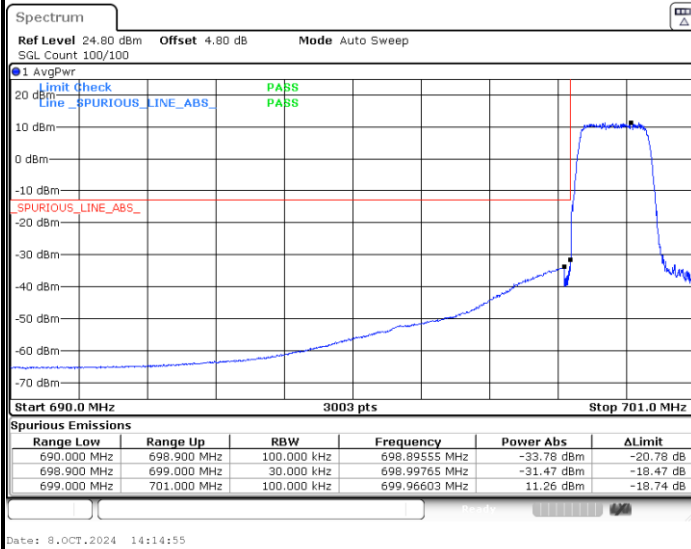
## Lowest Band Edge / 1 RB



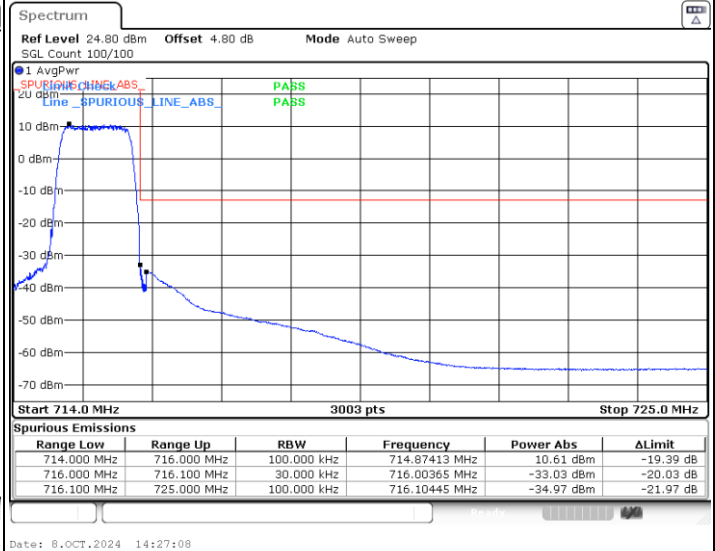
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



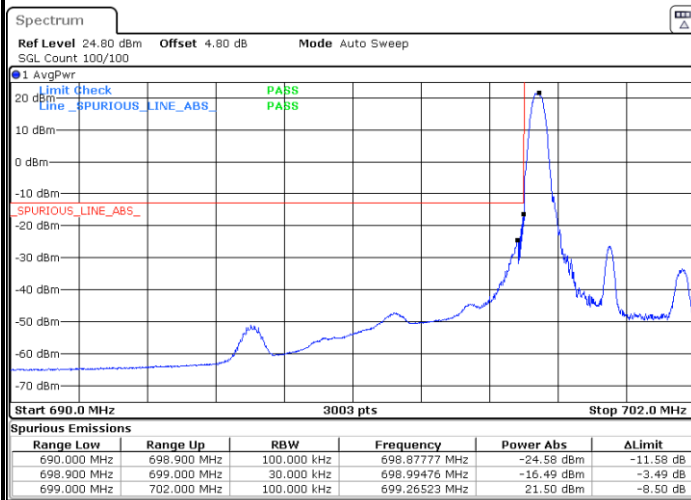
## Highest Band Edge / Full RB



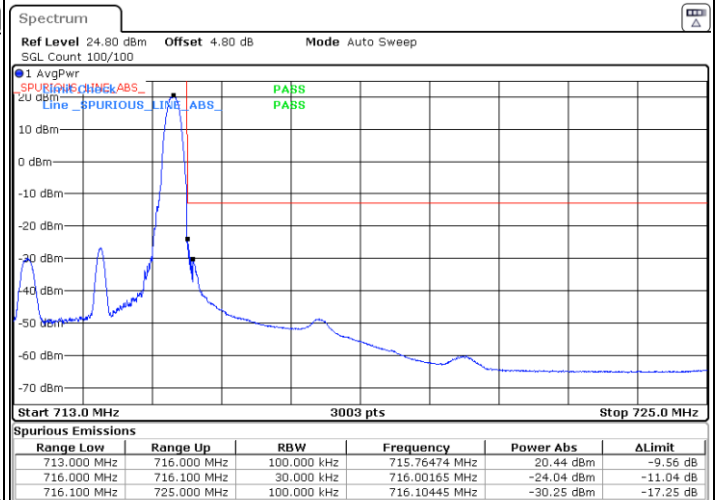


## LTE Band 12 / 3MHz / QPSK

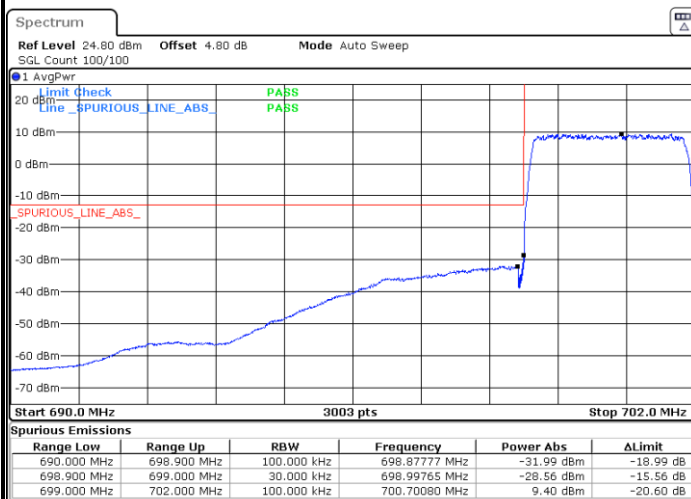
## Lowest Band Edge / 1RB



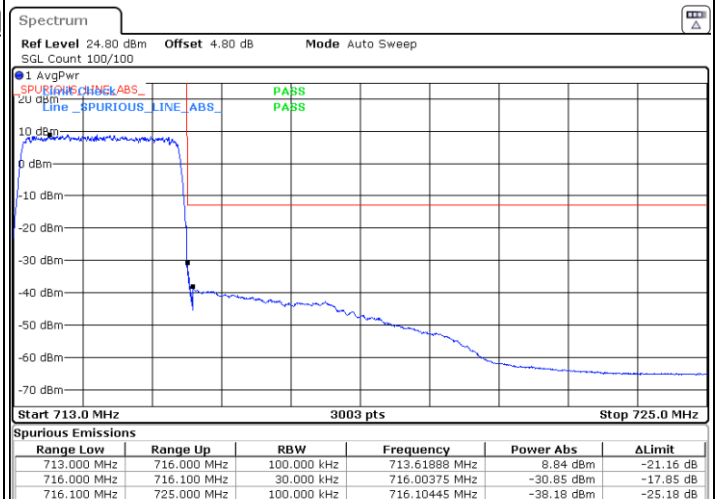
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



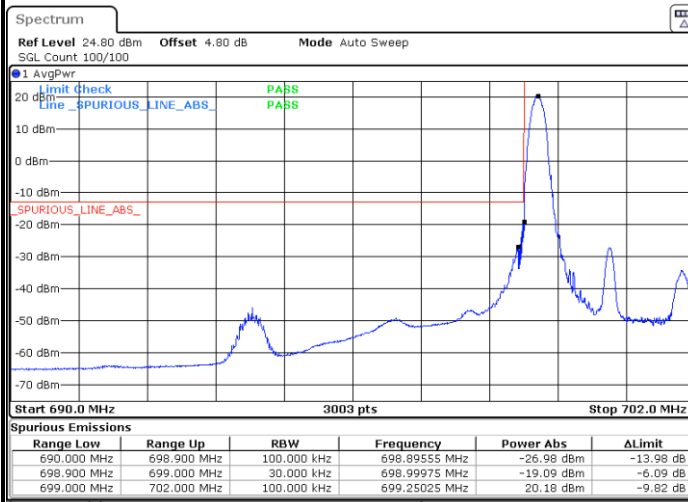
## Highest Band Edge / Full RB



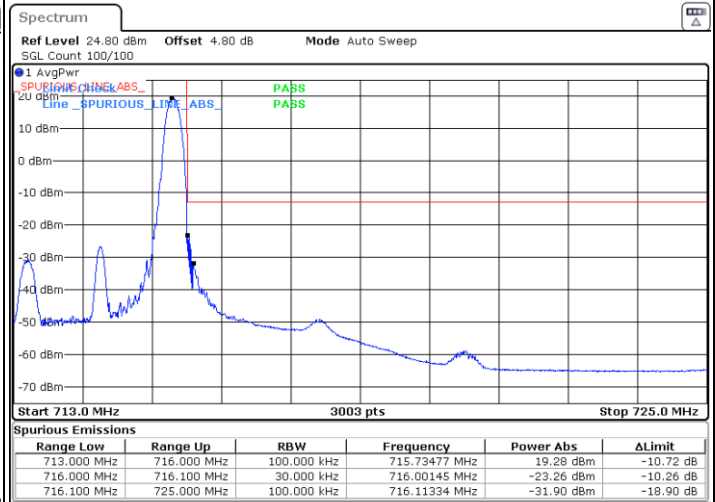


## LTE Band 12 / 3MHz / 16QAM

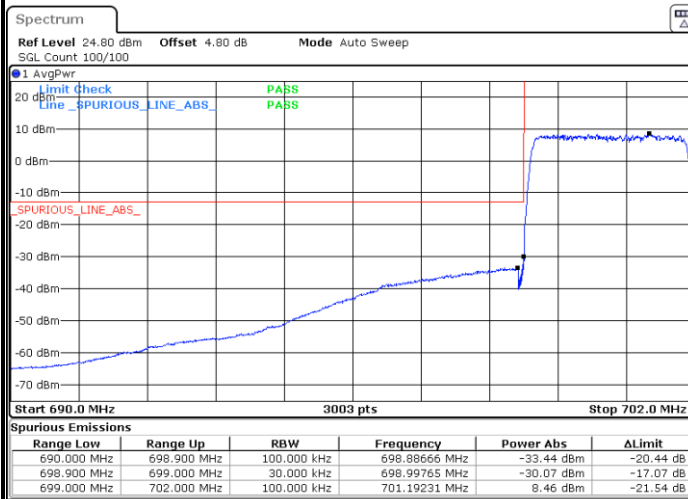
## Lowest Band Edge / 1 RB



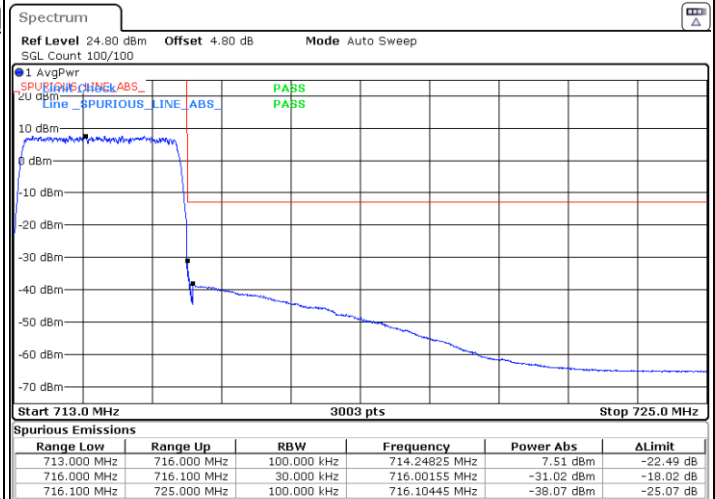
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



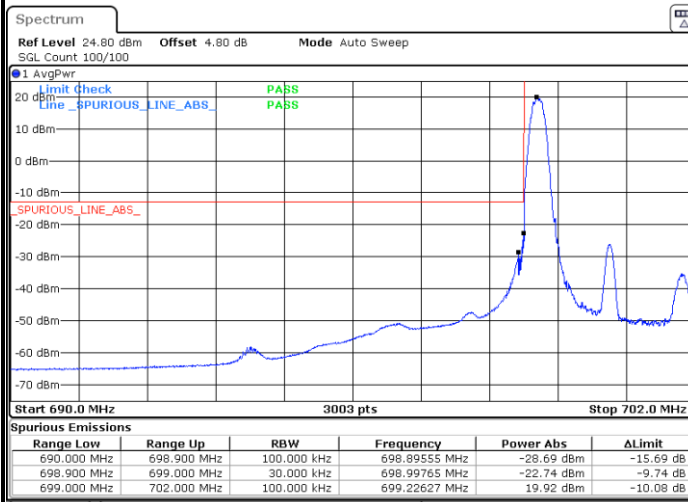
## Highest Band Edge / Full RB



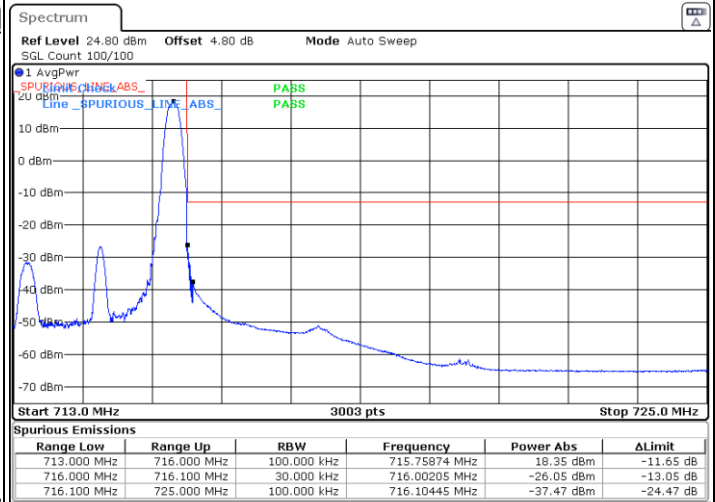


## LTE Band 12 / 3MHz / 64QAM

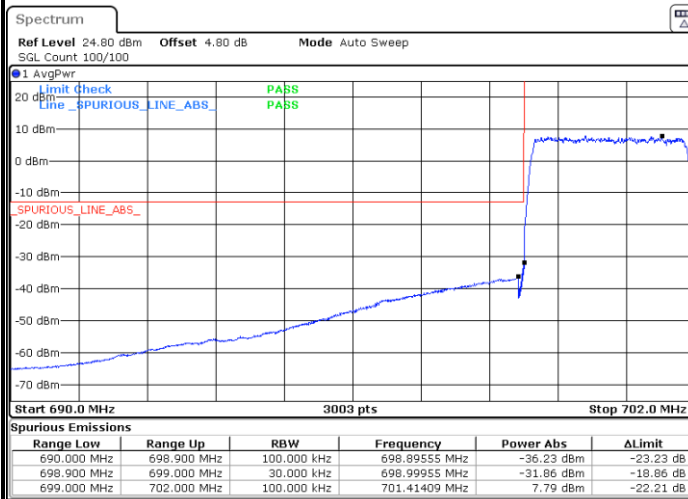
## Lowest Band Edge / 1 RB



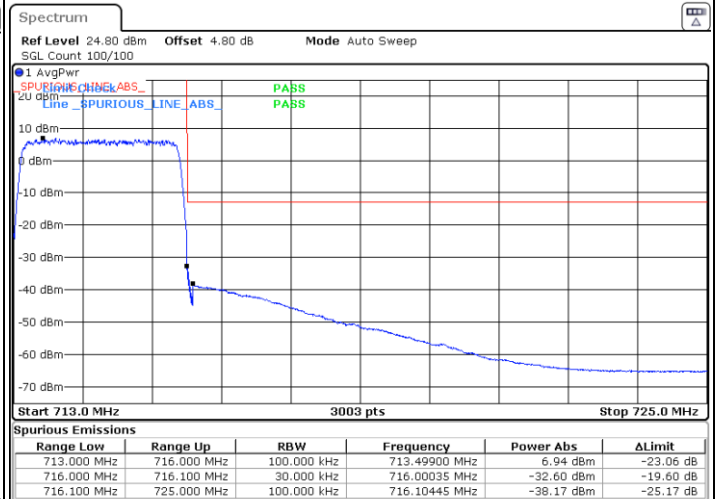
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



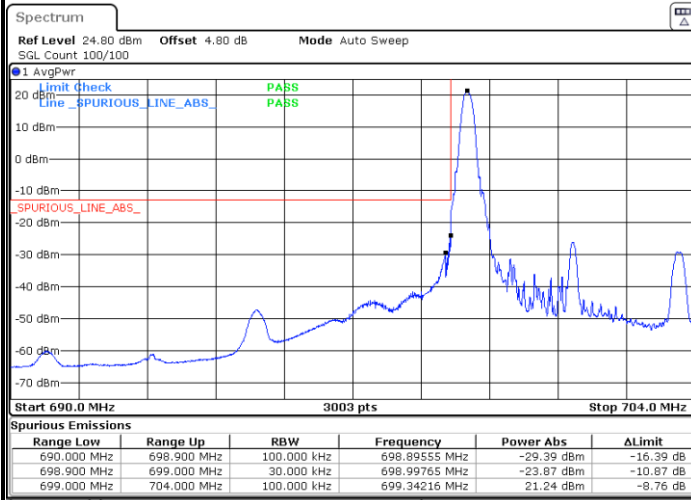
## Highest Band Edge / Full RB



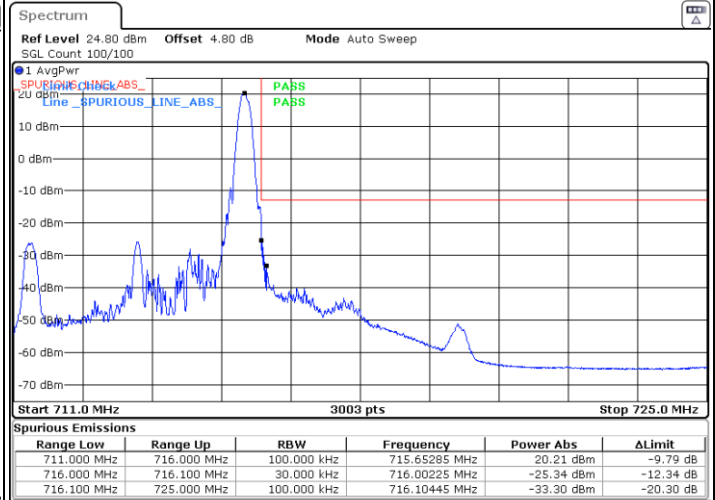


## LTE Band 12 / 5MHz / QPSK

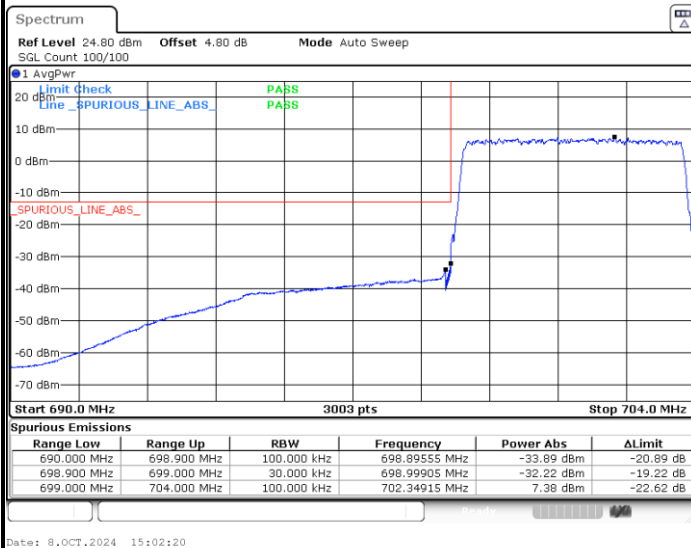
## Lowest Band Edge / 1 RB



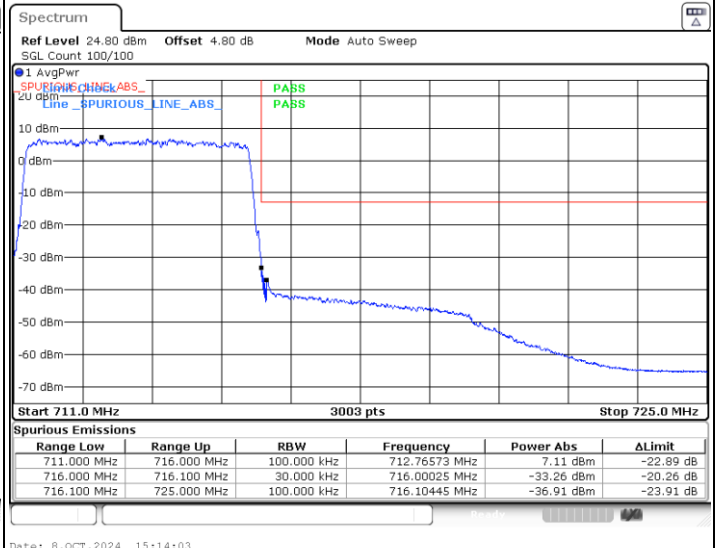
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



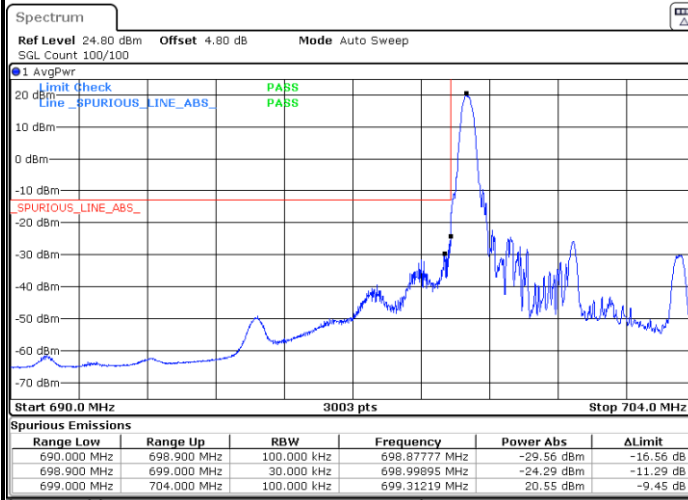
## Highest Band Edge / Full RB



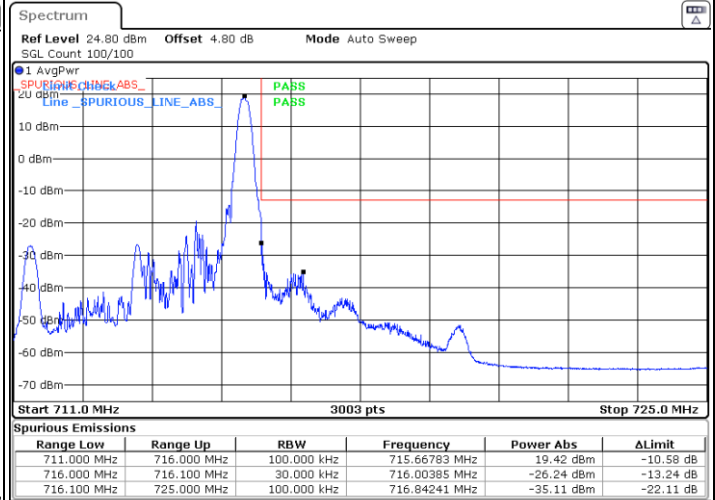


## LTE Band 12 / 5MHz / 16QAM

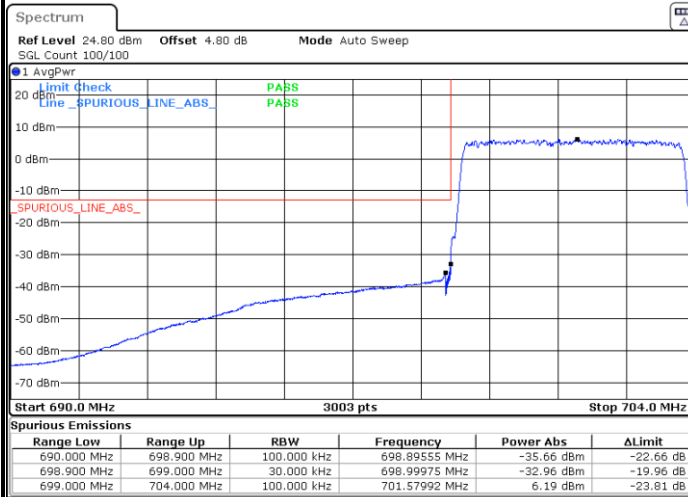
## Lowest Band Edge / 1RB



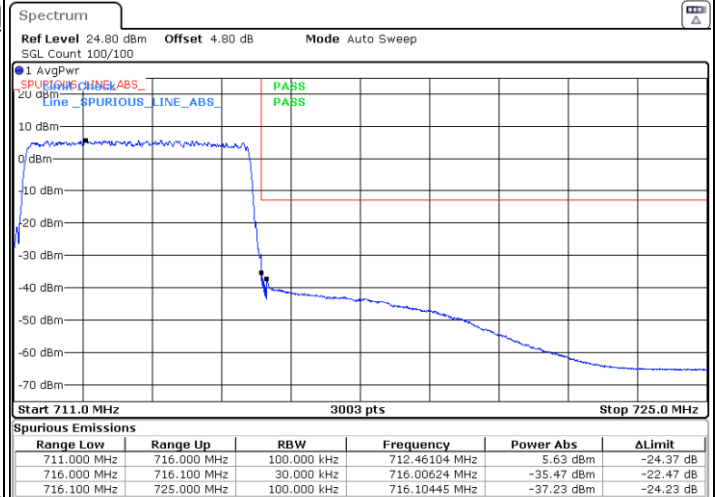
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



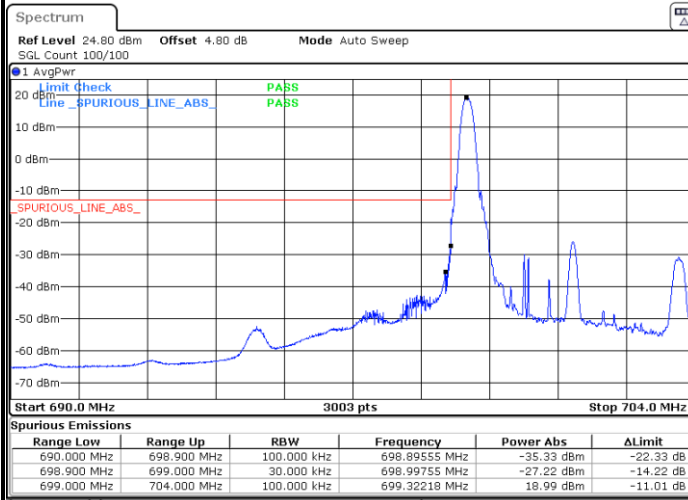
## Highest Band Edge / Full RB



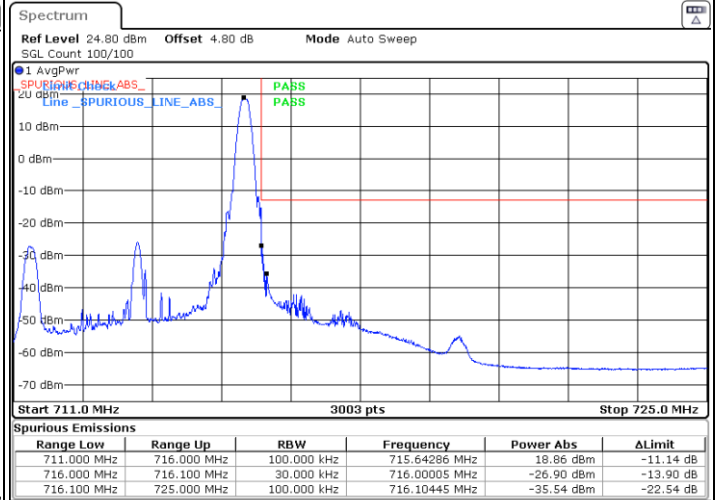


## LTE Band 12 / 5MHz / 64QAM

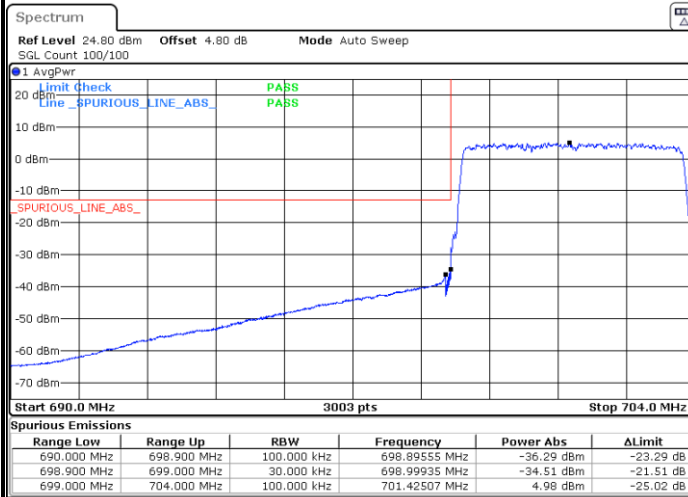
## Lowest Band Edge / 1RB



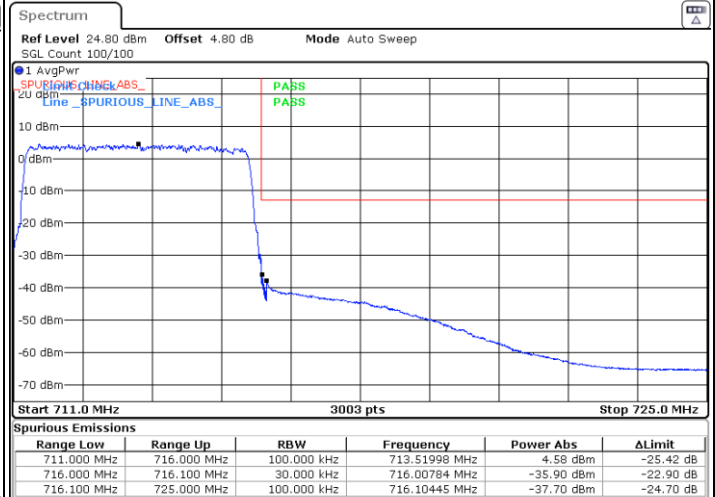
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



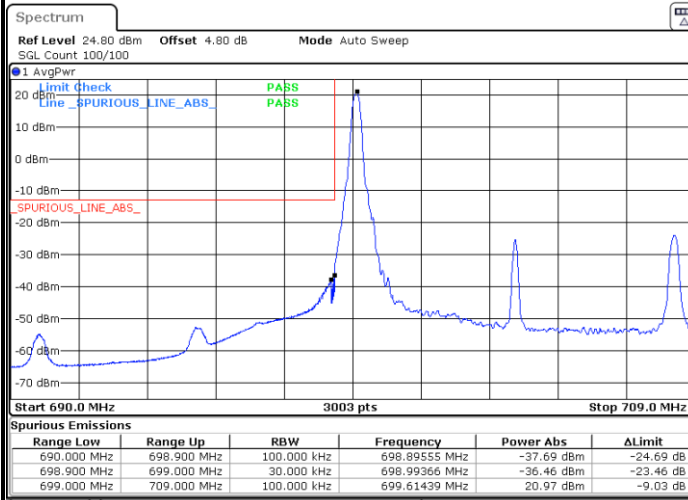
## Highest Band Edge / Full RB



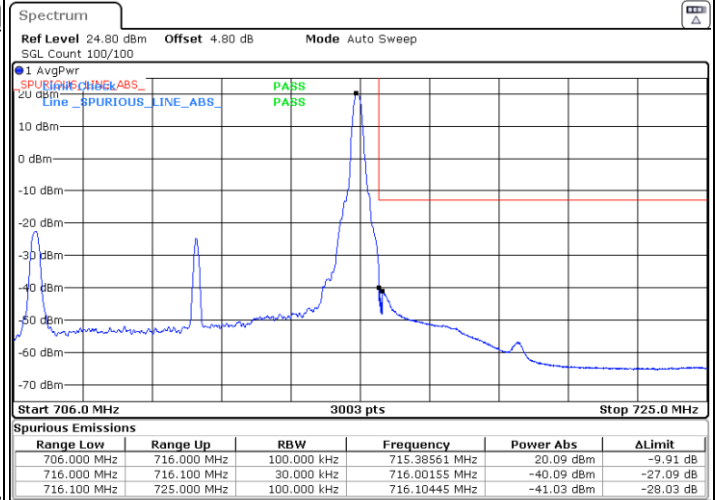


## LTE Band 12 / 10MHz / QPSK

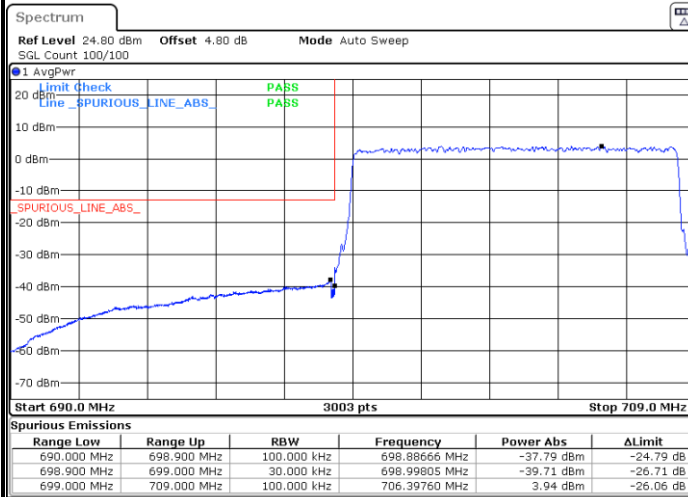
## Lowest Band Edge / 1 RB



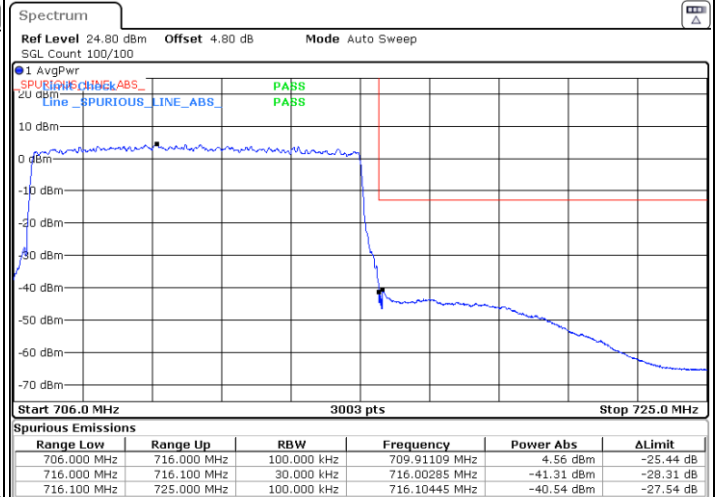
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



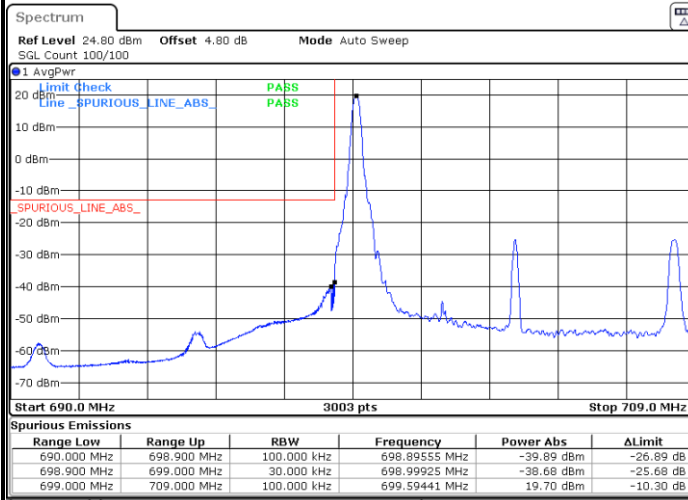
## Highest Band Edge / Full RB



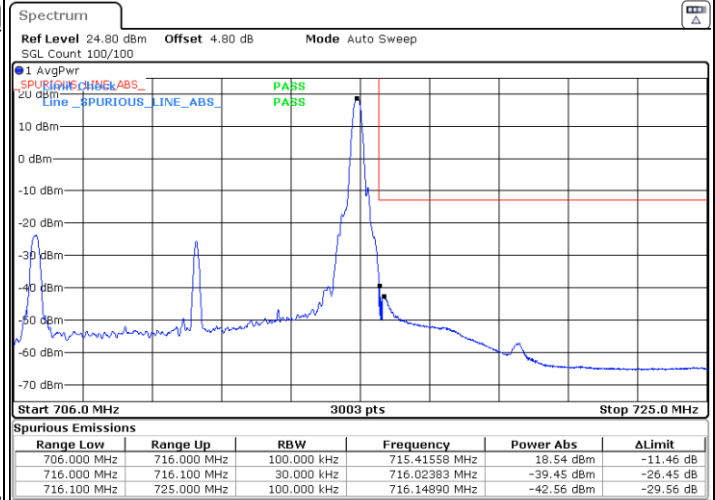


## LTE Band 12 / 10MHz / 16QAM

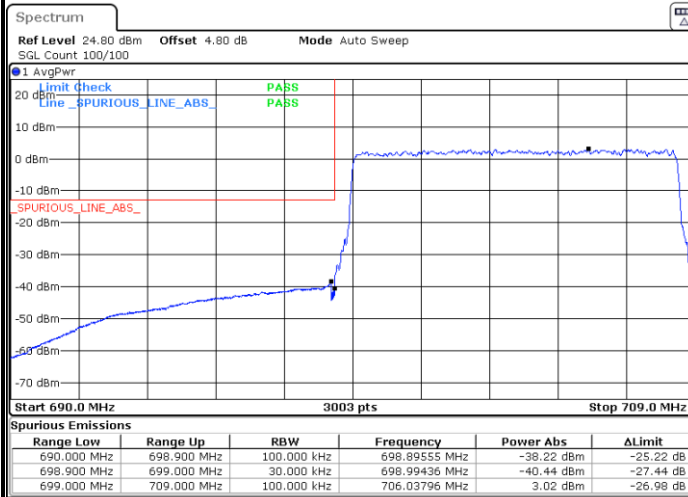
## Lowest Band Edge / 1 RB



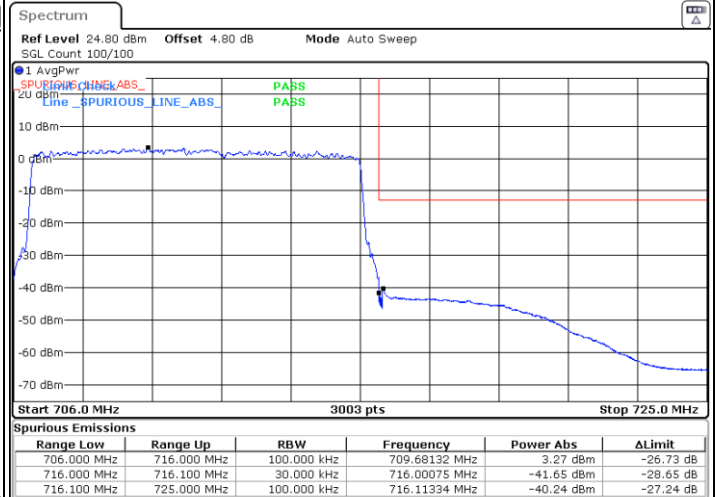
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



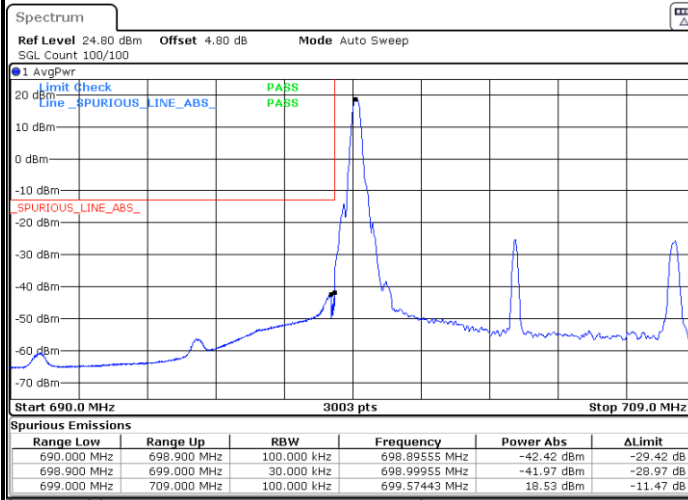
## Highest Band Edge / Full RB



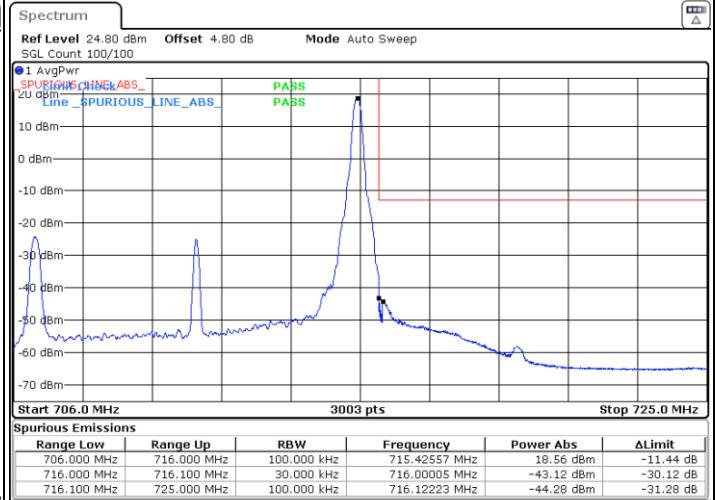


## LTE Band 12 / 10MHz / 64QAM

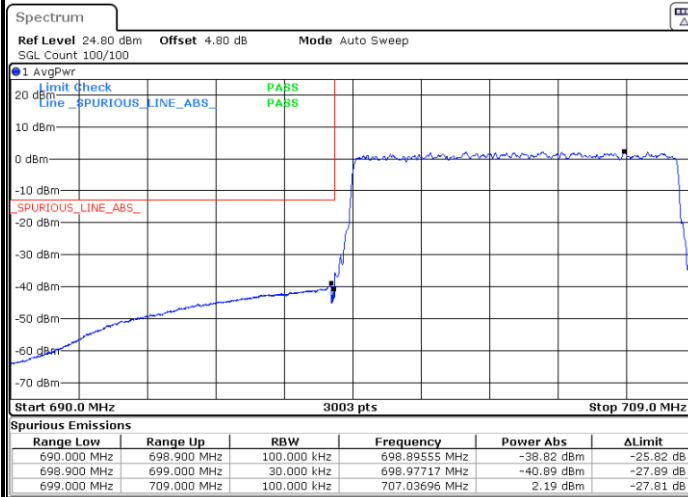
## Lowest Band Edge / 1 RB



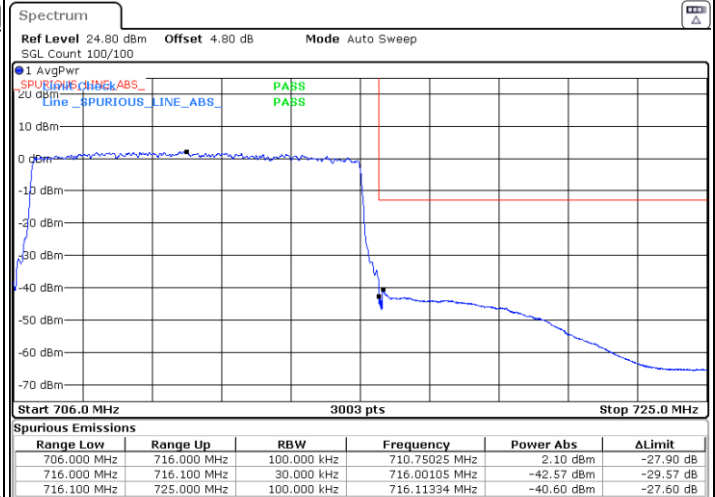
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

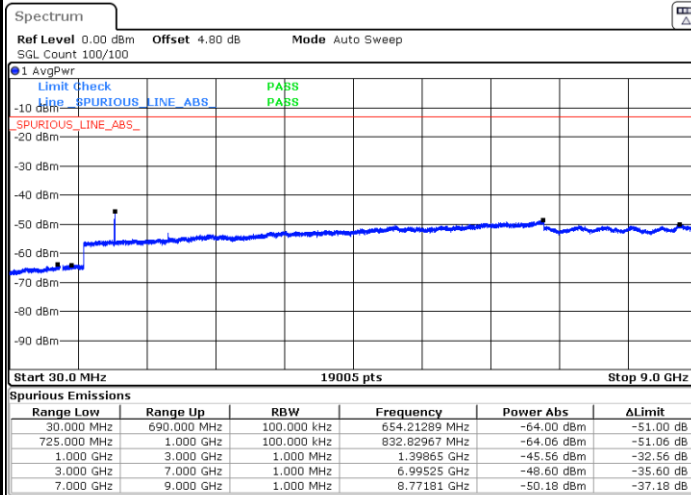




# Conducted Spurious Emission

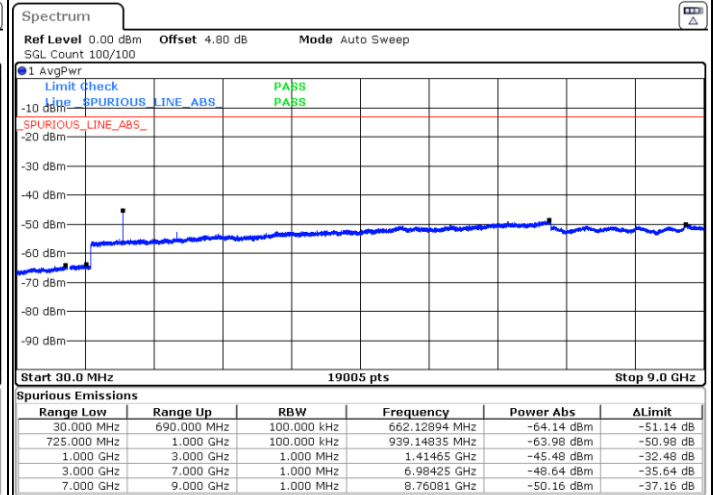
## LTE Band 12 / 1.4MHz

### Lowest Channel / QPSK



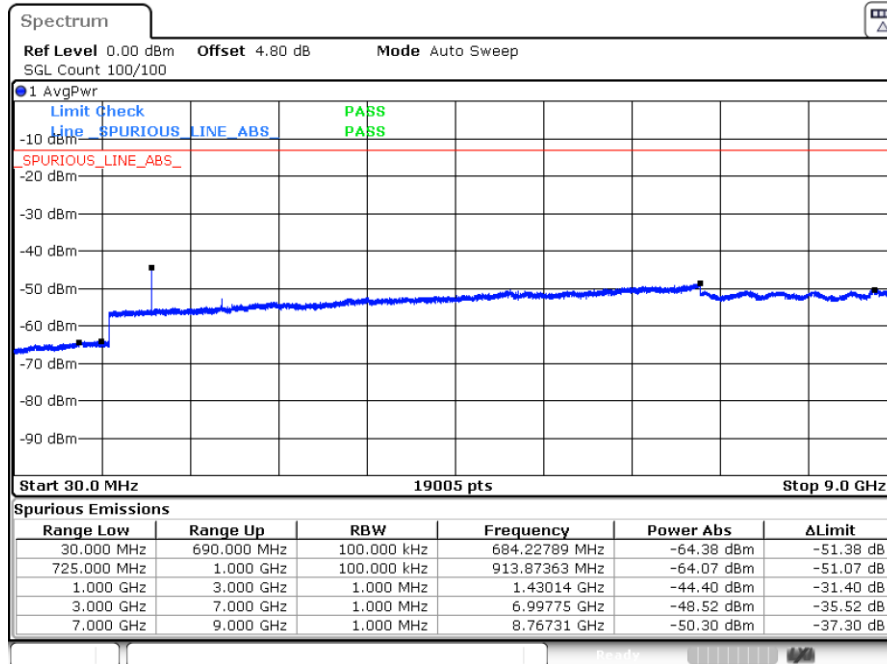
Date: 8.OCT.2024 14:09:31

### Middle Channel / QPSK



Date: 8.OCT.2024 14:19:41

### Highest Channel / QPSK

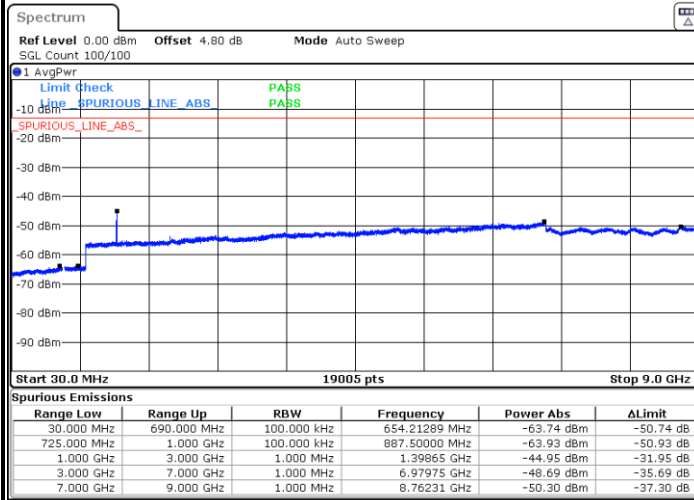


Date: 8.OCT.2024 14:21:45



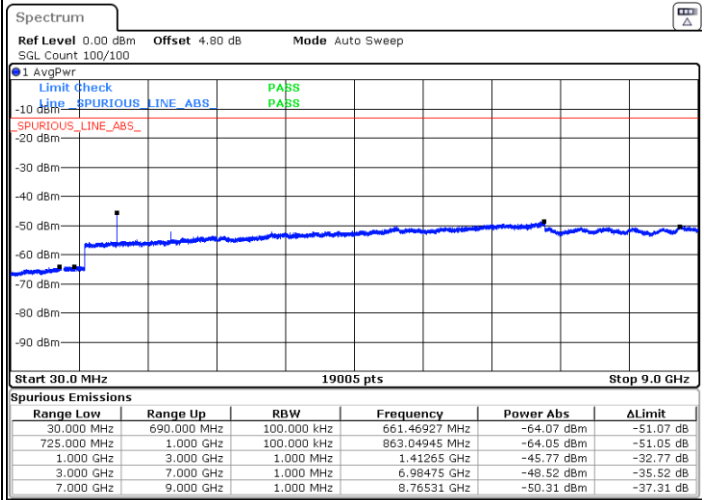
## LTE Band 12 / 3MHz

## Lowest Channel / QPSK



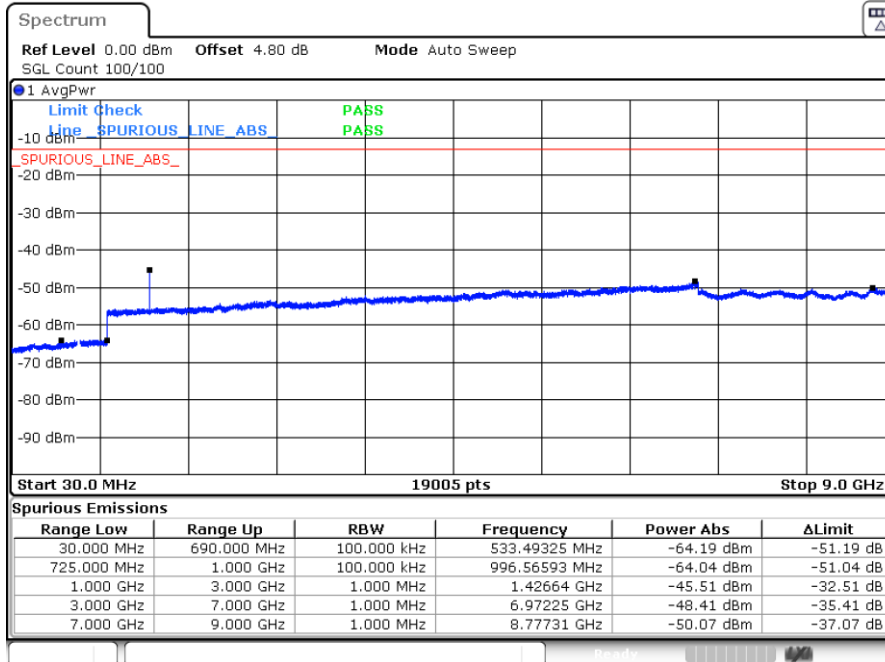
Date: 8.OCT.2024 14:31:53

## Middle Channel / QPSK



Date: 8.OCT.2024 14:42:02

## Highest Channel / QPSK

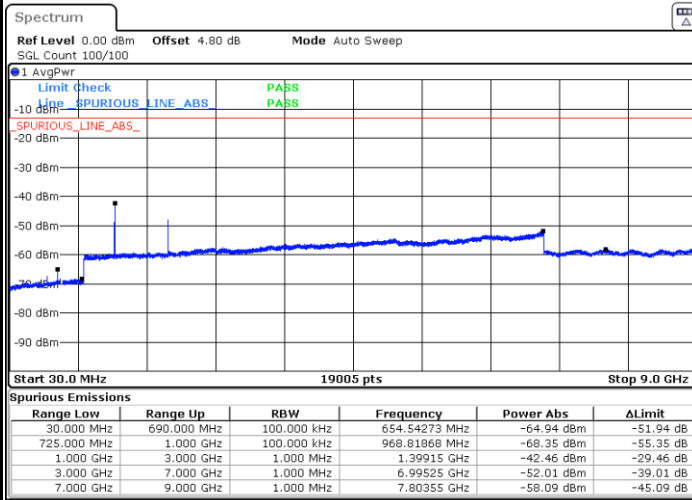


Date: 8.OCT.2024 14:44:05



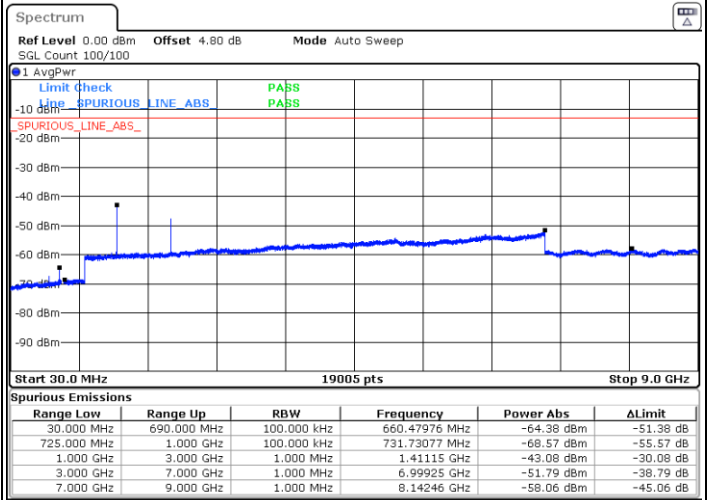
## LTE Band 12 / 5MHz

## Lowest Channel / QPSK



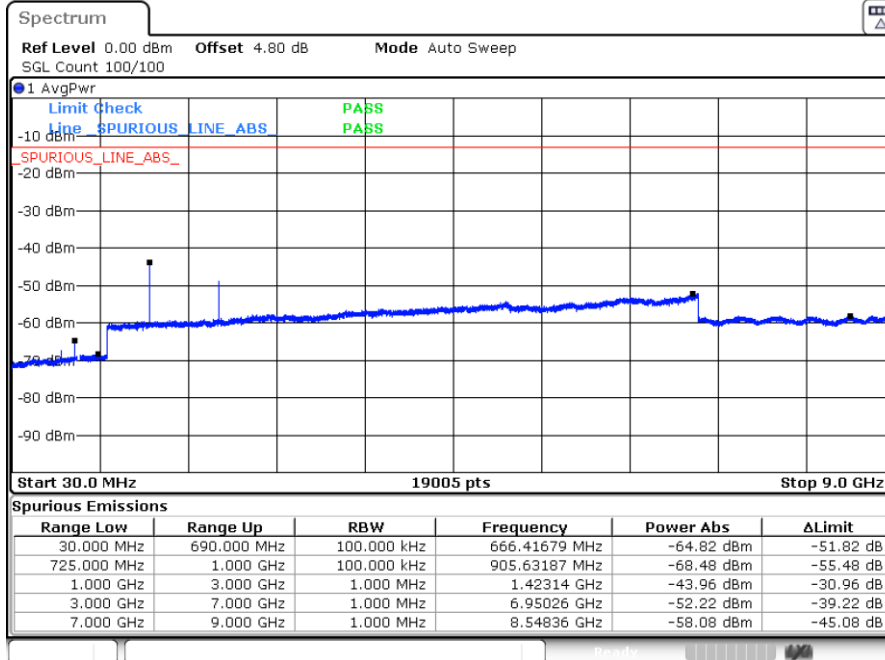
Date: 8.OCT.2024 14:54:14

## Middle Channel / QPSK



Date: 8.OCT.2024 15:04:24

## Highest Channel / QPSK

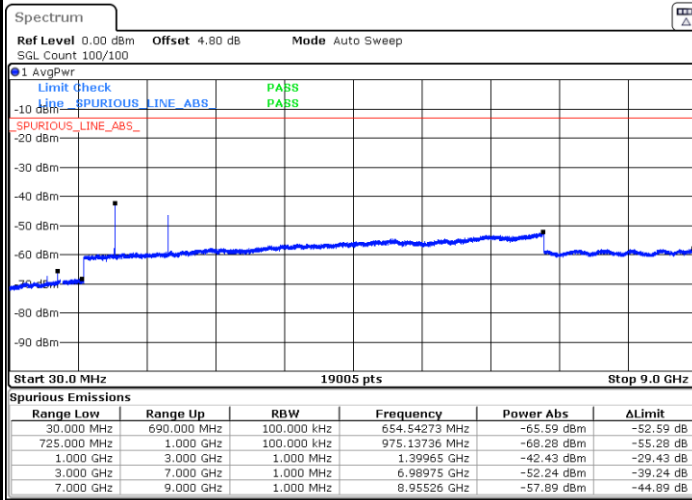


Date: 8.OCT.2024 15:06:27



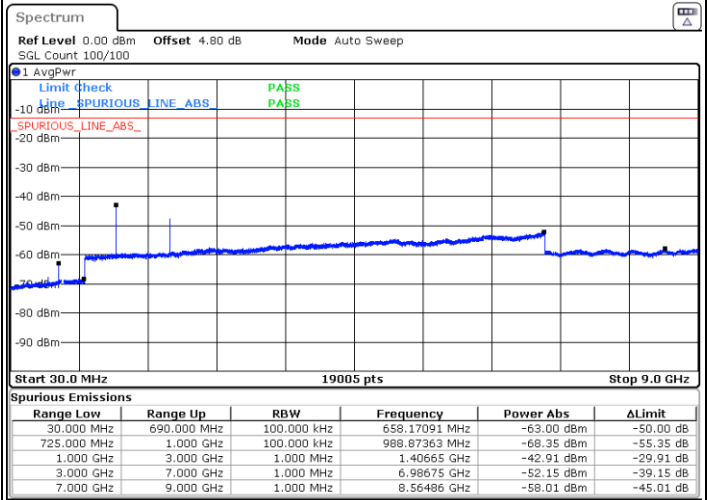
## LTE Band 12 / 10MHz

## Lowest Channel / QPSK



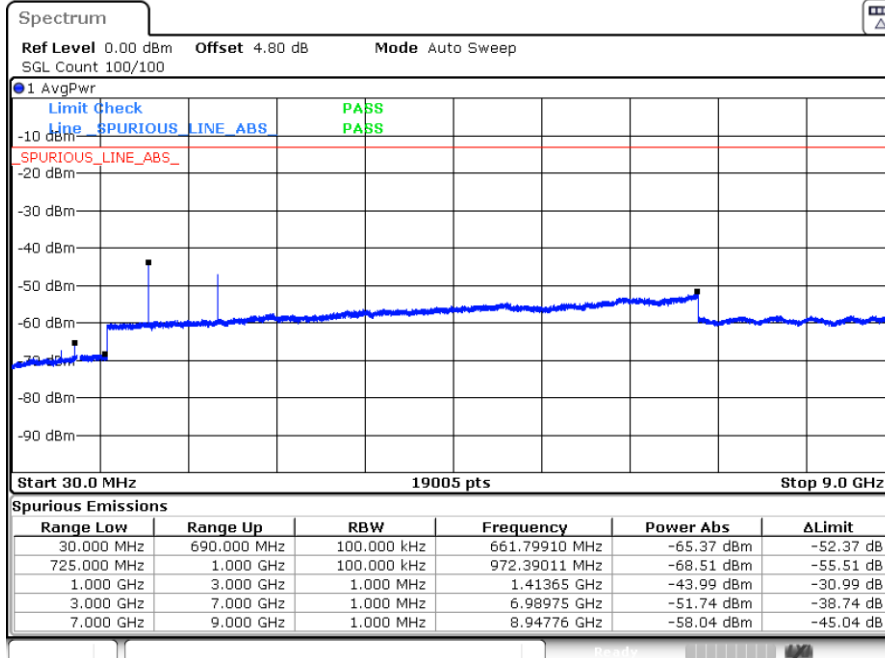
Date: 8.OCT.2024 15:16:08

## Middle Channel / QPSK



Date: 8.OCT.2024 15:24:07

## Highest Channel / QPSK



Date: 8.OCT.2024 15:26:12

**Frequency Stability**

| Test Conditions  |                   | LTE Band 12 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|-------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                            | Note 2. |
|                  |                   | Deviation (ppm)                     | Result  |
| 50               | Normal Voltage    | 0.0038                              | PASS    |
| 40               | Normal Voltage    | 0.0019                              |         |
| 30               | Normal Voltage    | 0.0054                              |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                              |         |
| 10               | Normal Voltage    | 0.0025                              |         |
| 0                | Normal Voltage    | 0.0033                              |         |
| -10              | Normal Voltage    | 0.0011                              |         |
| -20              | Normal Voltage    | 0.0005                              |         |
| -30              | Normal Voltage    | 0.0008                              |         |
| 20               | Maximum Voltage   | 0.0042                              |         |
| 20               | Normal Voltage    | 0.0000                              |         |
| 20               | Battery End Point | 0.0014                              |         |

**Note:**

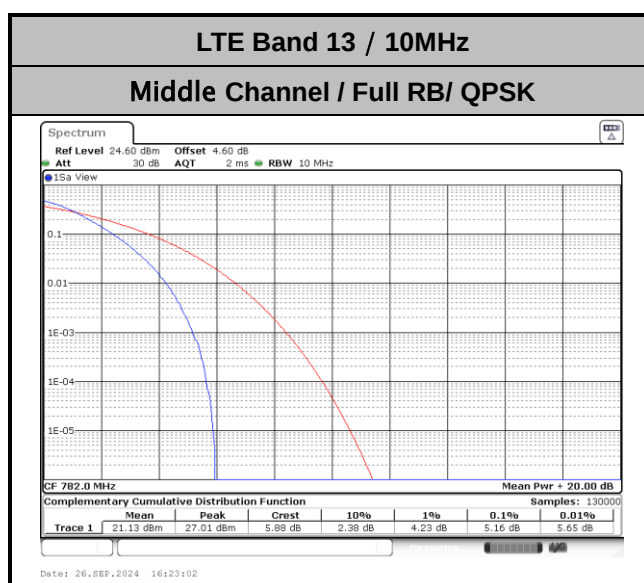
1. Normal Voltage =7.2 V. ; Battery End Point (BEP) =6.4 V. ; Maximum Voltage =8.33 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

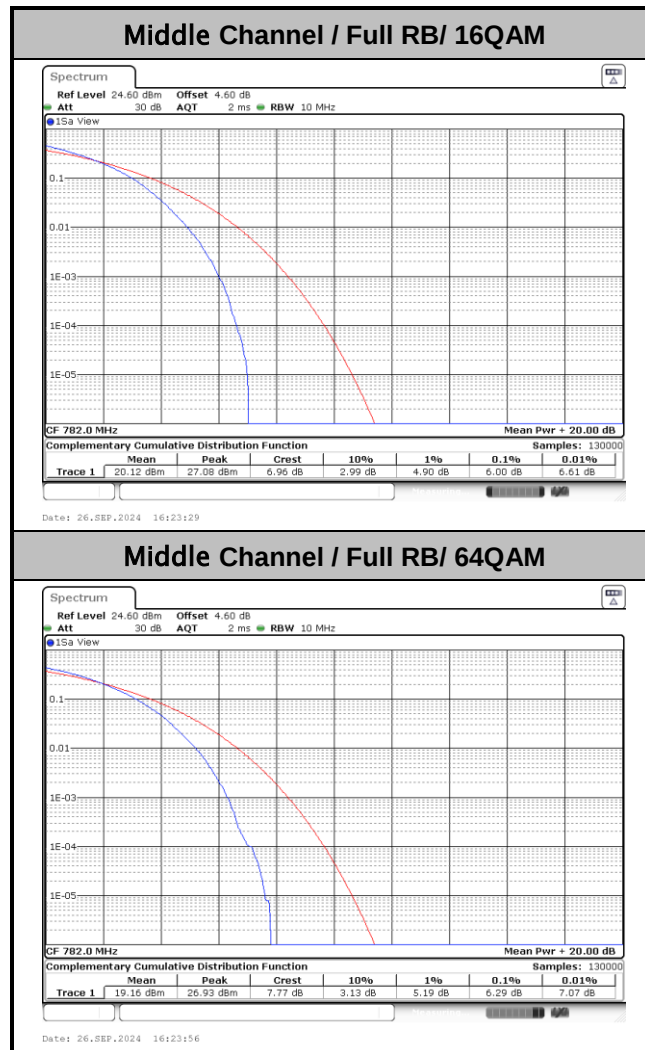


## LTE Band 13

## Peak-to-Average Ratio

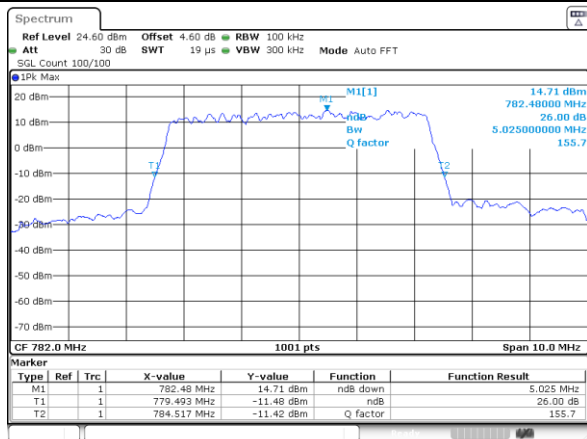
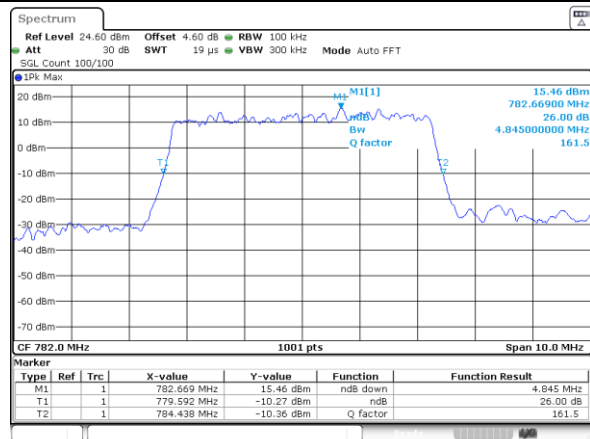
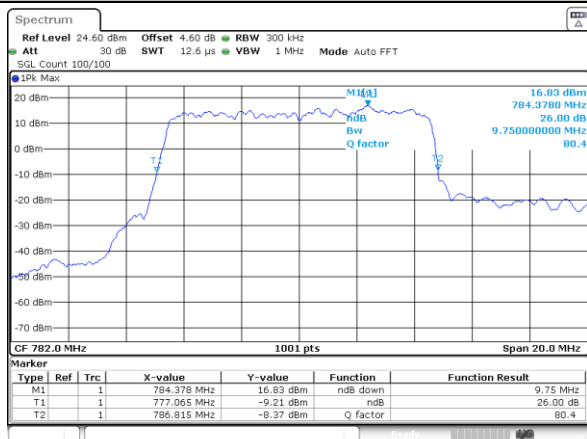
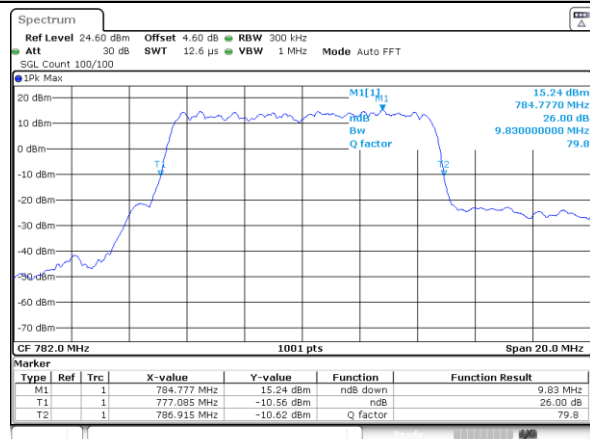
| Mode      | LTE Band 13 / 10MHz |         |         |             |
|-----------|---------------------|---------|---------|-------------|
| Mod.      | QPSK                | 16QAM   | 64QAM   | Limit: 13dB |
| RB Size   | Full RB             | Full RB | Full RB | Result      |
| Middle CH | 5.16                | 6.0     | 6.29    | PASS        |





**26dB Bandwidth**

| Mode      | LTE Band 13 : 26dB BW(MHz) |       |
|-----------|----------------------------|-------|
| BW        | 5MHz                       |       |
| Mod.      | QPSK                       | 16QAM |
| Middle CH | 5.03                       | 4.85  |
| BW        | 10MHz                      |       |
| Mod.      | QPSK                       | 16QAM |
| Middle CH | 9.75                       | 9.83  |

**LTE Band 13****Middle Channel / 5MHz / QPSK****Middle Channel / 5MHz / 16QAM****LTE Band 13****Middle Channel / 10MHz / QPSK****Middle Channel / 10MHz / 16QAM**

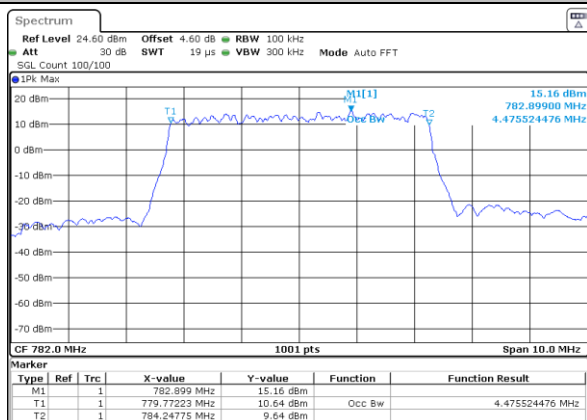


## Occupied Bandwidth

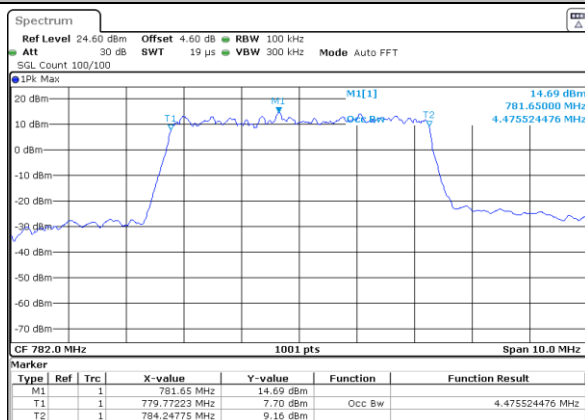
| Mode      | LTE Band 13 : 99%OBW(MHz) |       |
|-----------|---------------------------|-------|
| BW        | 5MHz                      |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 4.48                      | 4.48  |
| BW        | 10MHz                     |       |
| Mod.      | QPSK                      | 16QAM |
| Middle CH | 9.01                      | 9.03  |

### LTE Band 13

#### Middle Channel / 5MHz / QPSK

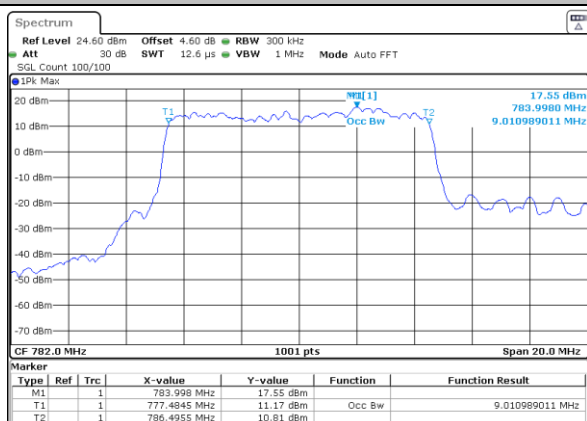


#### Middle Channel / 5MHz / 16QAM

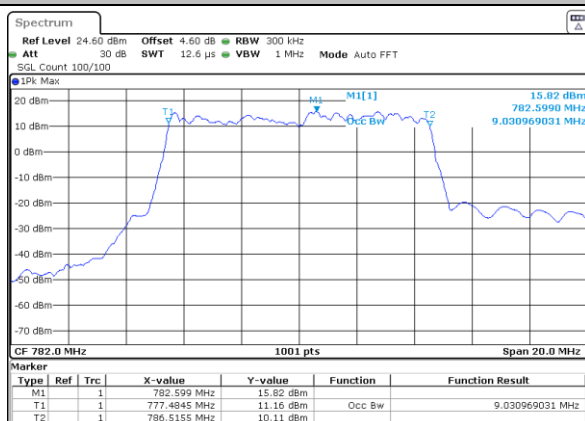


### LTE Band 13

#### Middle Channel / 10MHz / QPSK



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

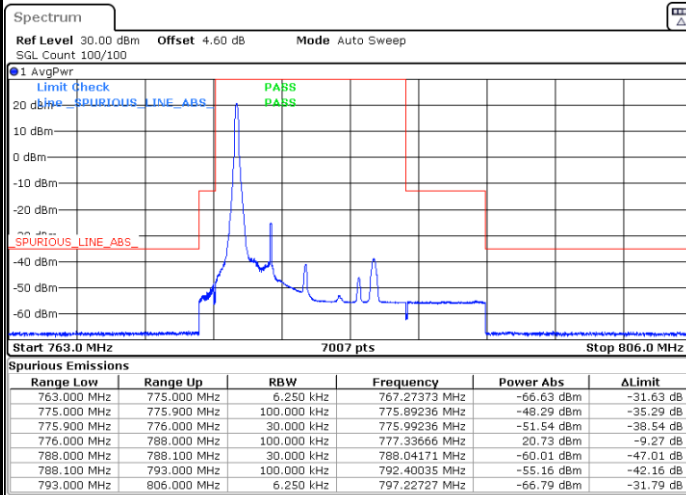




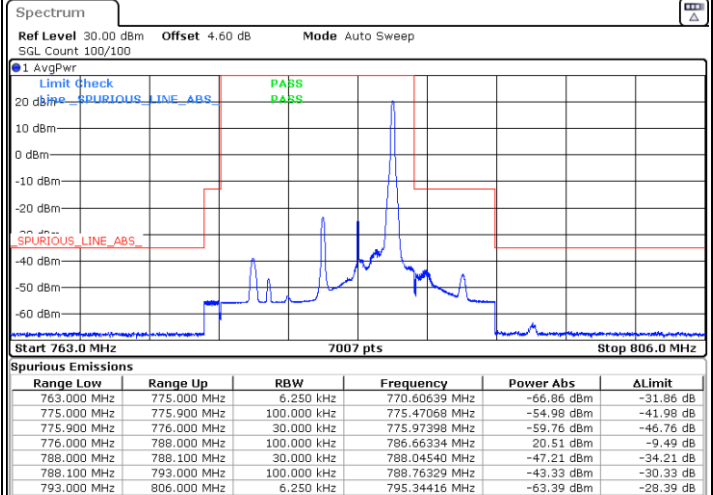
# Conducted Band Edge

## LTE Band 13 / 5MHz / QPSK

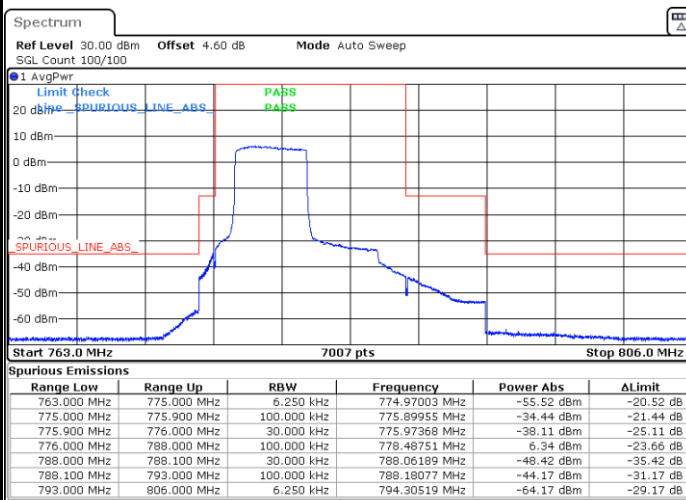
### Lowest Band Edge / 1 RB



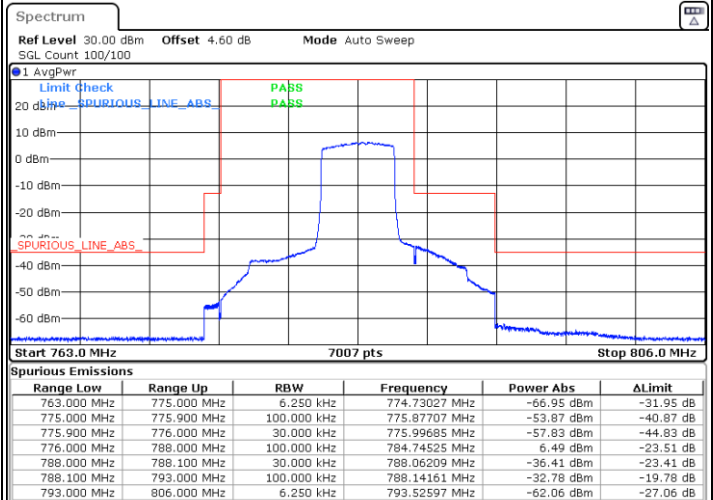
### Highest Band Edge / 1 RB



### Lowest Band Edge / Full RB



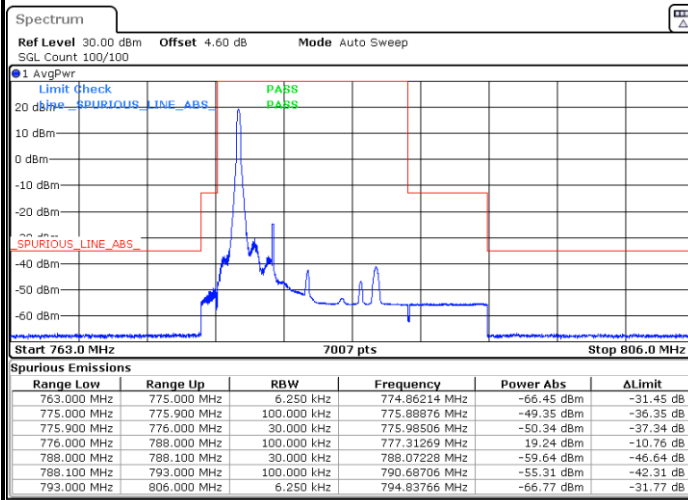
### Highest Band Edge / Full RB





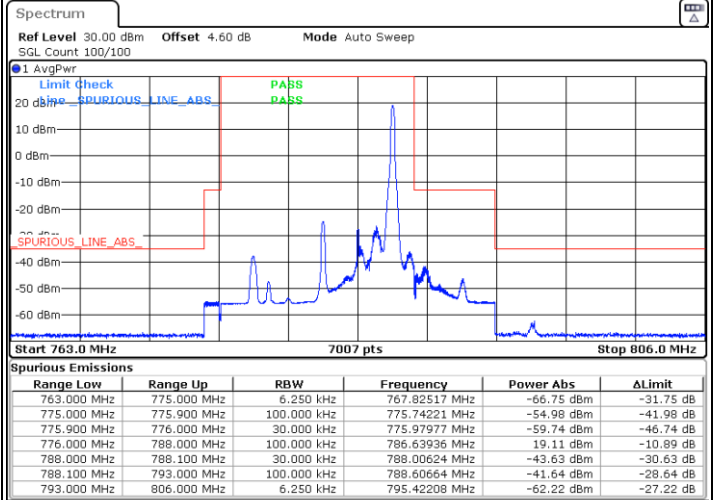
## LTE Band 13 / 5MHz / 16QAM

## Lowest Band Edge / 1RB



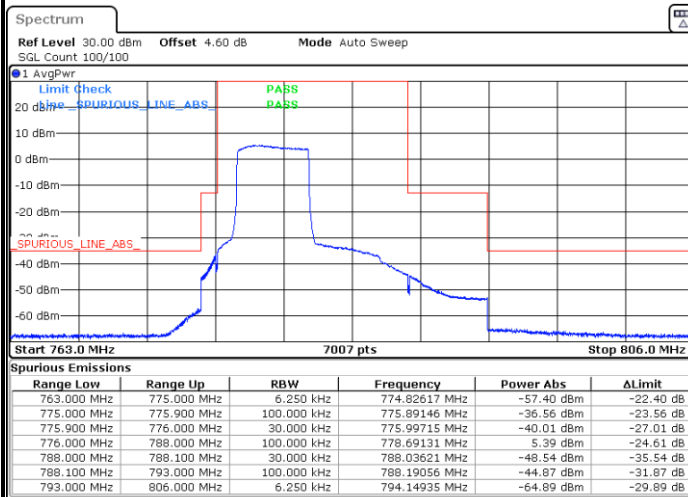
Date: 27.SEP.2024 15:12:52

## Highest Band Edge / 1 RB



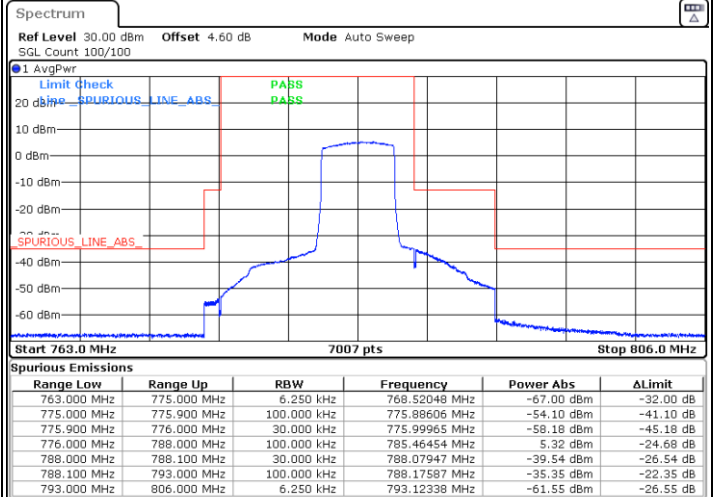
Date: 27.SEP.2024 15:21:32

## Lowest Band Edge / Full RB



Date: 27.SEP.2024 15:17:12

## Highest Band Edge / Full RB

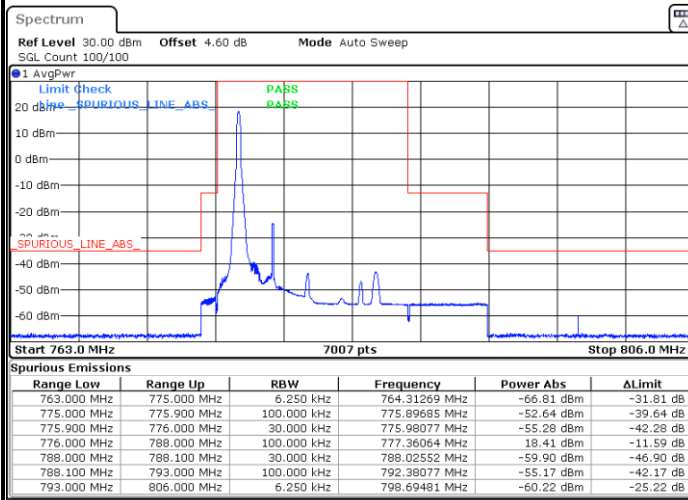


Date: 27.SEP.2024 15:25:51



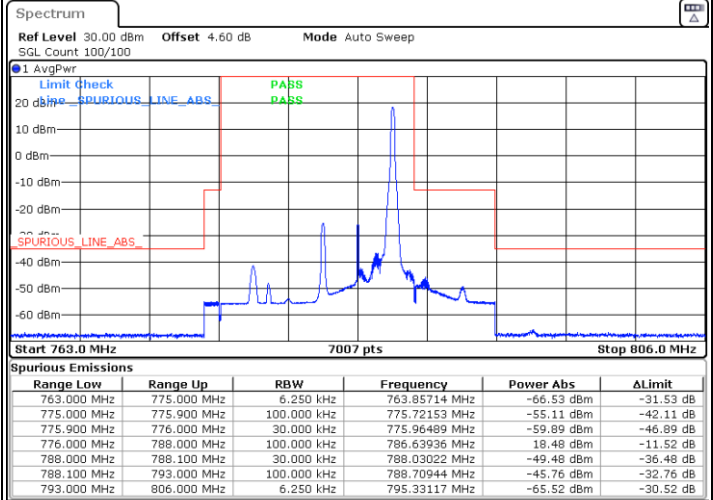
## LTE Band 13 / 5MHz / 64QAM

## Lowest Band Edge / 1RB



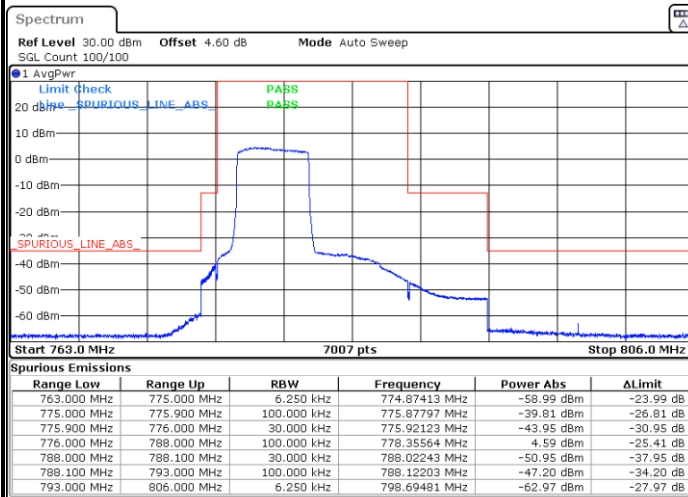
Date: 27.SEP.2024 15:14:19

## Highest Band Edge / 1 RB



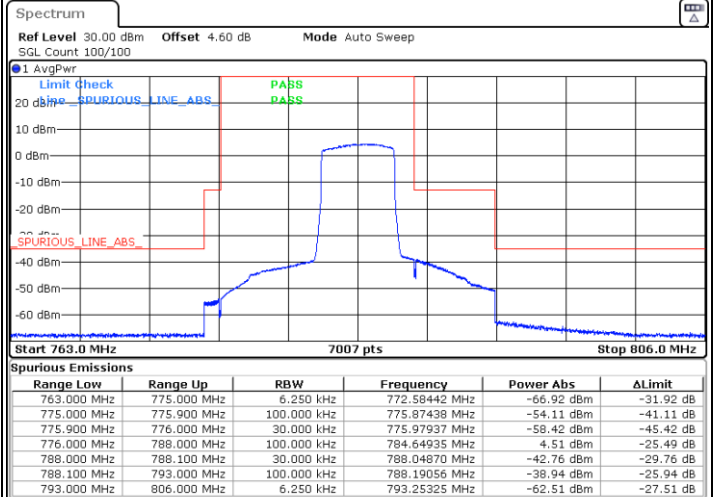
Date: 27.SEP.2024 15:22:58

## Lowest Band Edge / Full RB



Date: 27.SEP.2024 15:18:39

## Highest Band Edge / Full RB

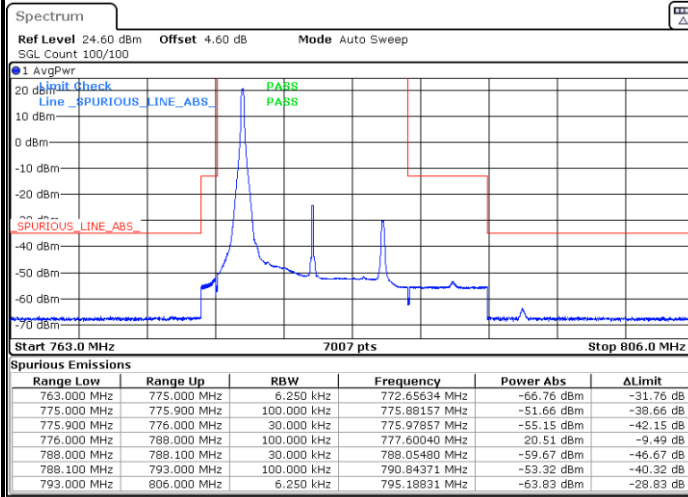


Date: 27.SEP.2024 15:27:18

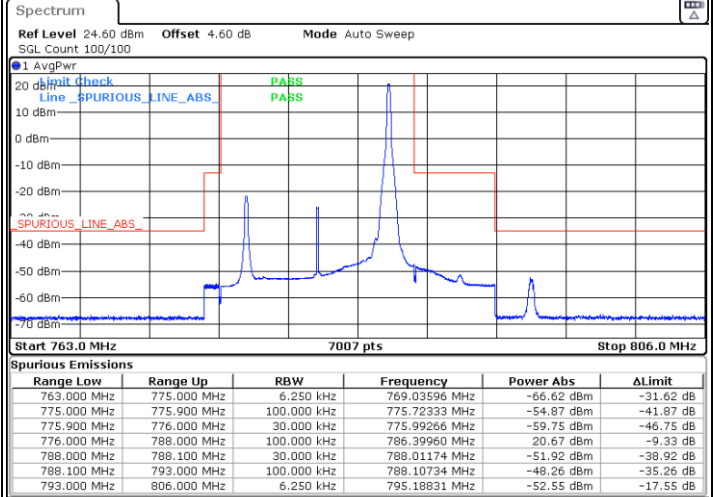


## LTE Band 13 / 10MHz / QPSK

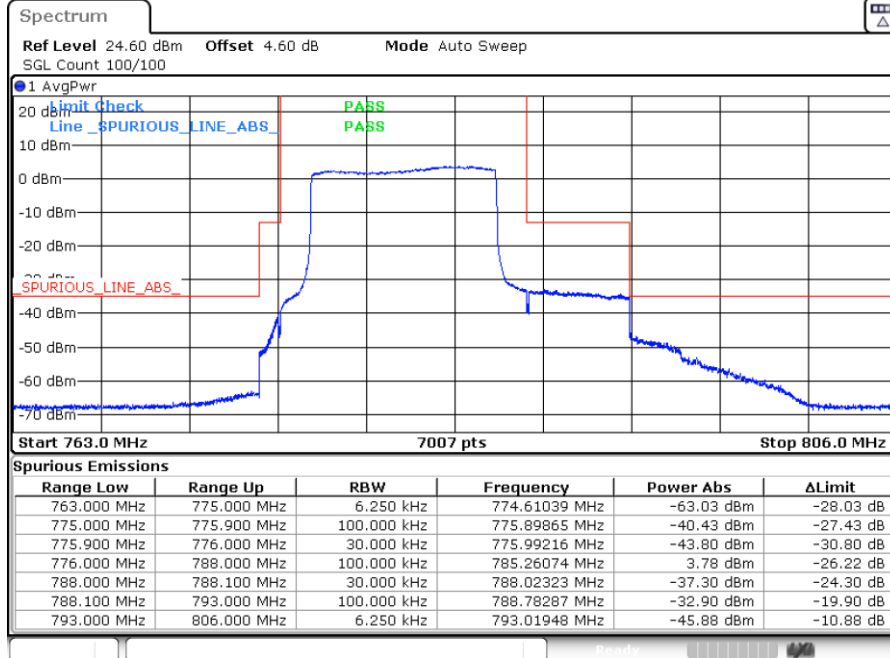
## middle Band Edge / 1 RB



## middle Band Edge / 1 RB



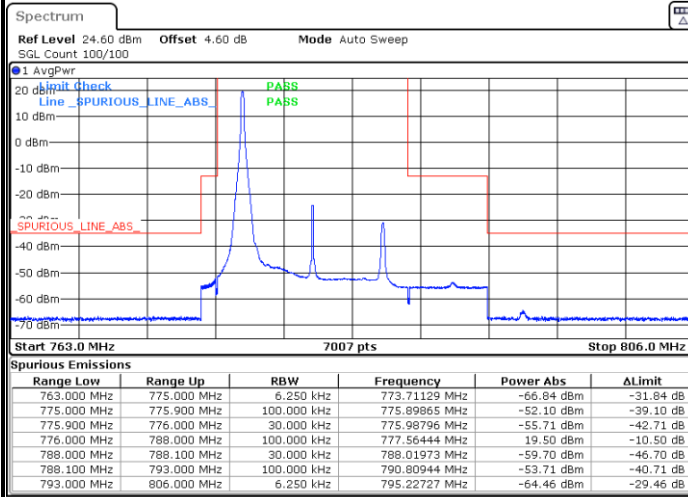
## Middle Band Edge / Full RB



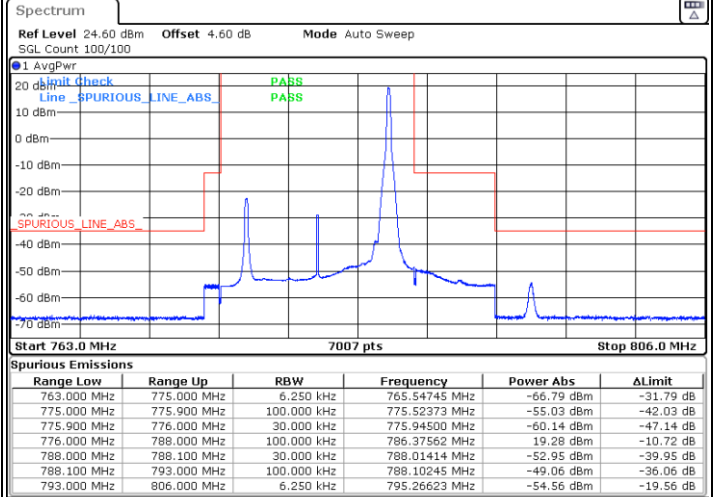


## LTE Band 13 / 10MHz / 16QAM

## middle Band Edge / 1 RB



## middle Band Edge / 1 RB



## middle Band Edge / Full RB

