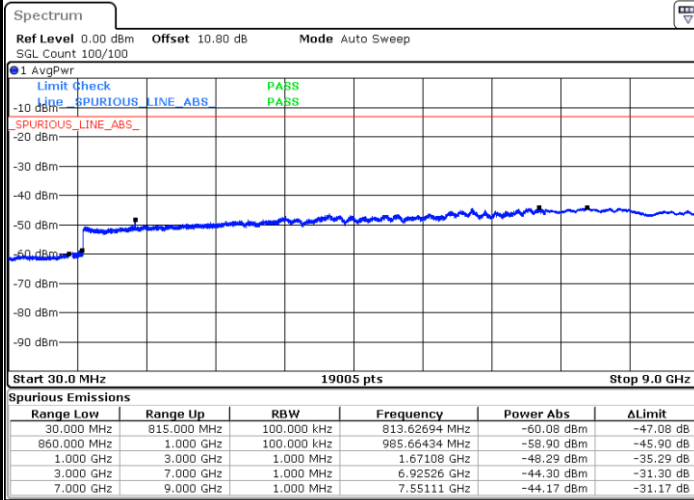




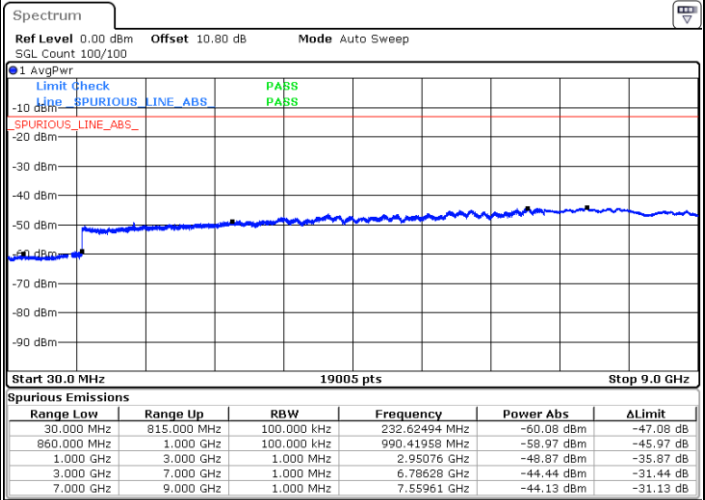
## LTE Band 5 / 3MHz

## Middle Channel / QPSK



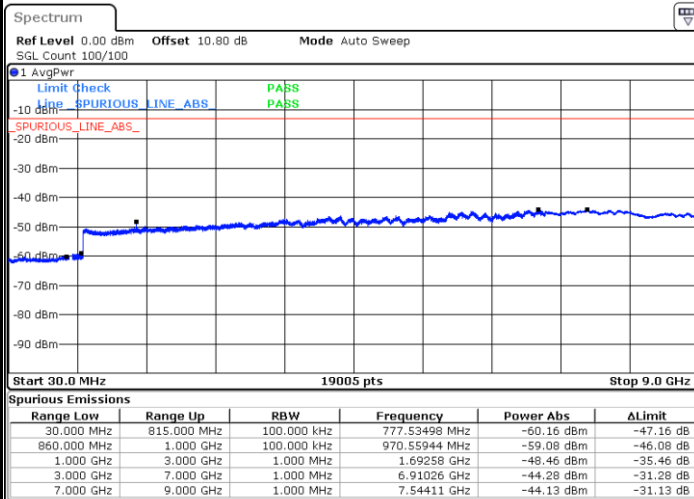
Date: 4 JAN 2020 05:39:11

## Middle Channel / 16QAM



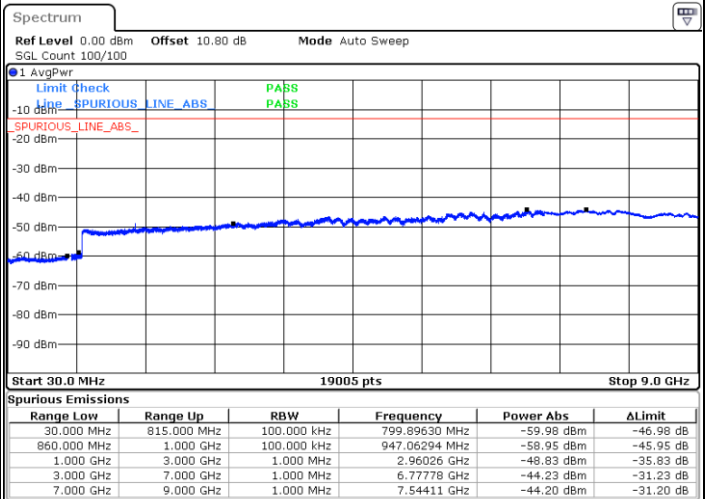
Date: 4 JAN 2020 05:39:51

## Highest Channel / QPSK



Date: 4 JAN 2020 05:48:04

## Highest Channel / 16QAM

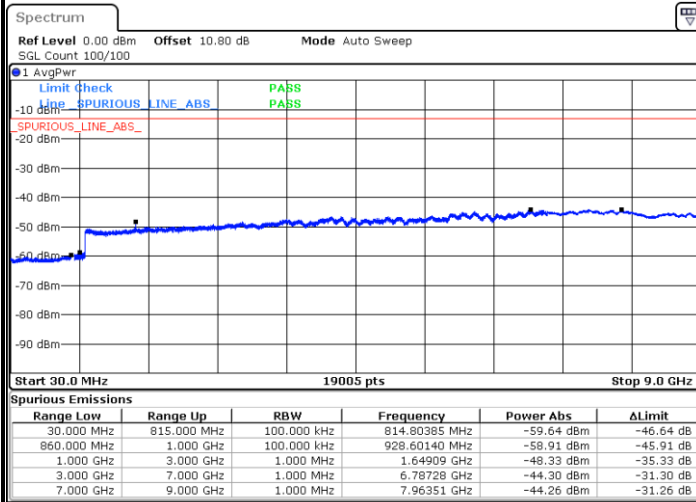


Date: 4 JAN 2020 05:48:45



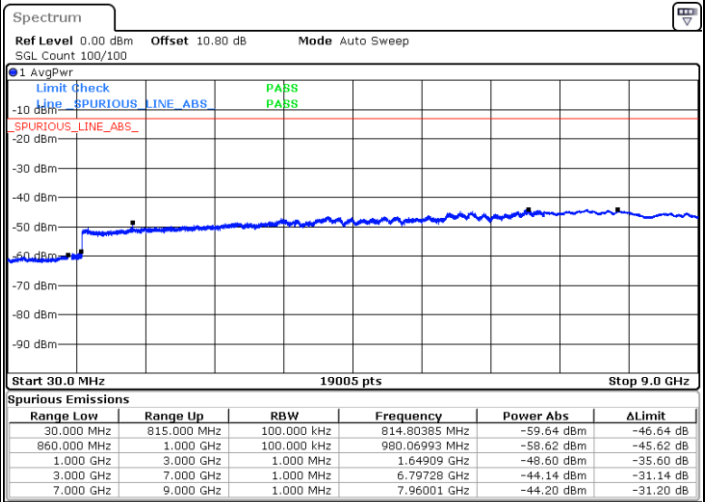
## LTE Band 5 / 5MHz

## Lowest Channel / QPSK



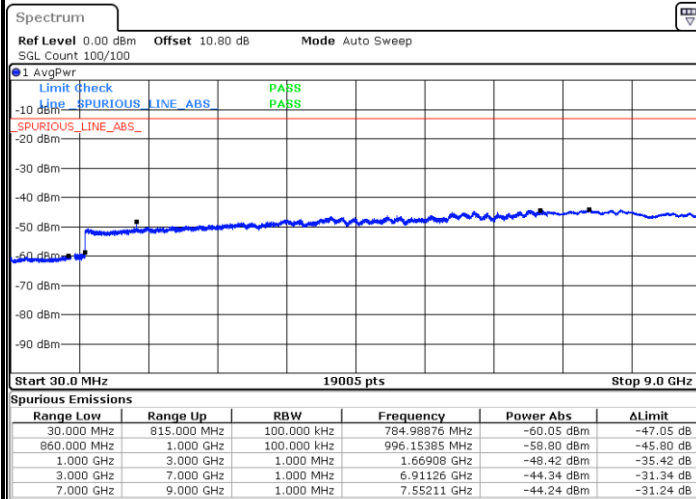
Date: 4 JAN 2020 04:16:48

## Lowest Channel / 16QAM



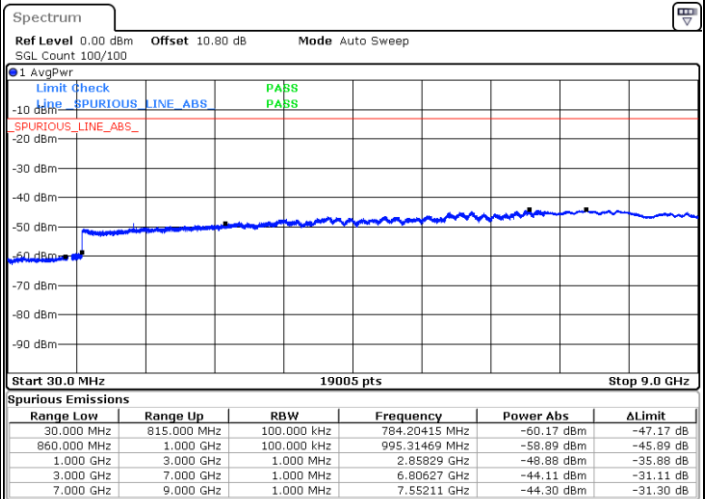
Date: 4 JAN 2020 04:17:29

## Middle Channel / QPSK



Date: 4 JAN 2020 04:18:56

## Middle Channel / 16QAM

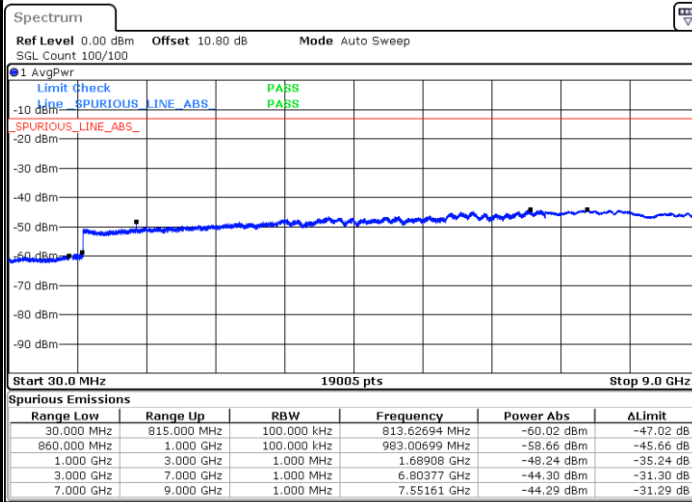


Date: 4 JAN 2020 04:19:36



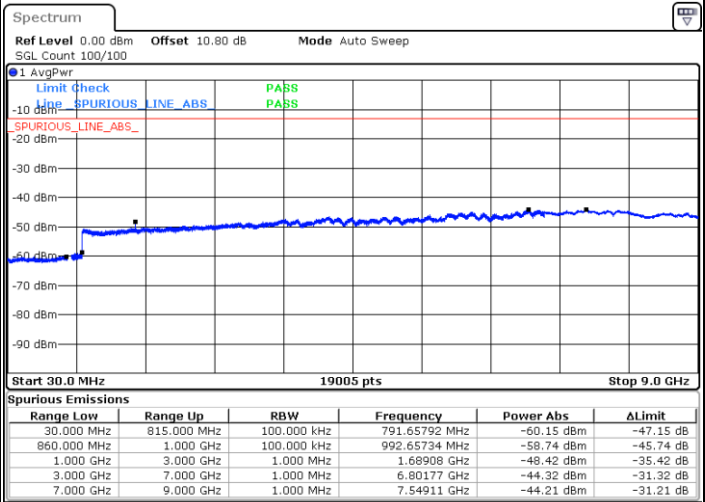
## LTE Band 5 / 5MHz

## Highest Channel / QPSK



Date: 4 JAN 2020 04:27:49

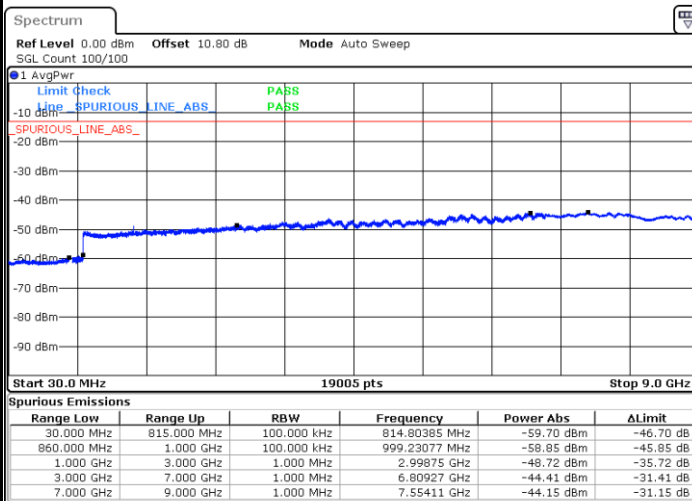
## Highest Channel / 16QAM



Date: 4 JAN 2020 04:28:30

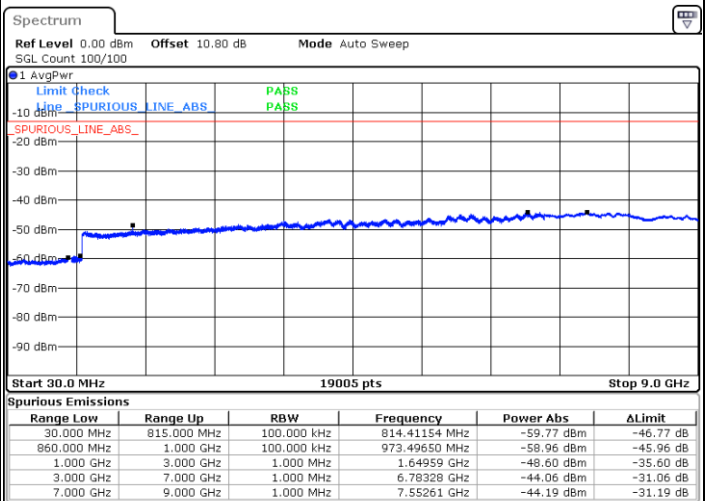
## LTE Band 5 / 10MHz

## Lowest Channel / QPSK



Date: 4 JAN 2020 04:46:01

## Lowest Channel / 16QAM

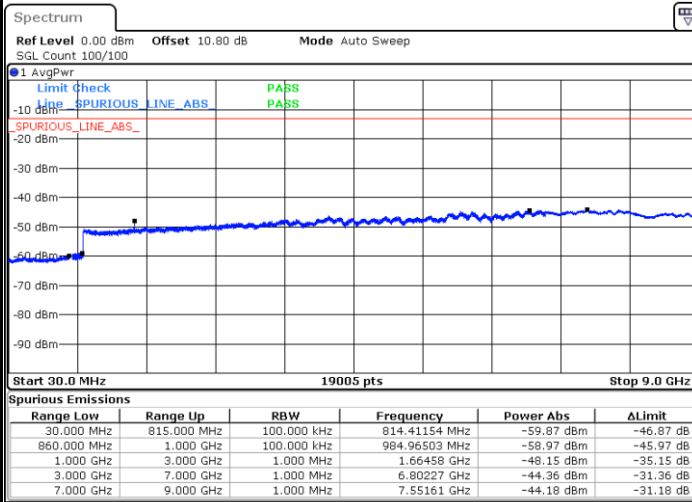


Date: 4 JAN 2020 04:46:42



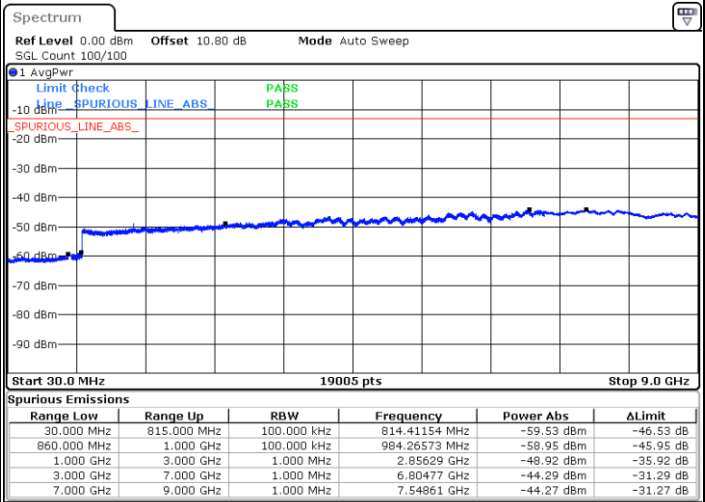
## LTE Band 5 / 10MHz

## Middle Channel / QPSK



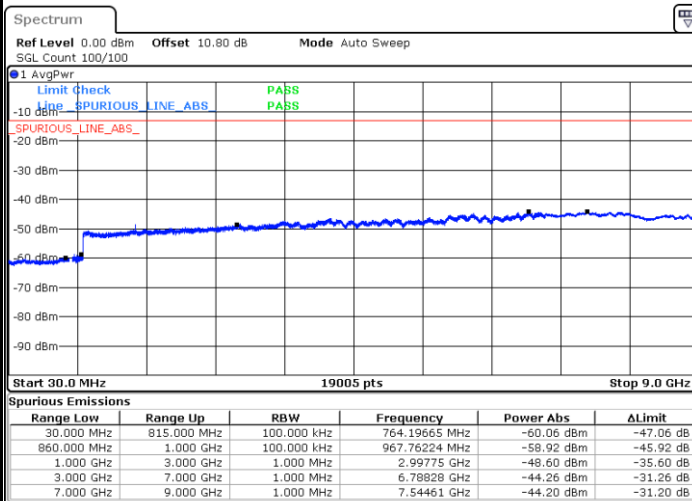
Date: 4 JAN 2020 04:48:09

## Middle Channel / 16QAM



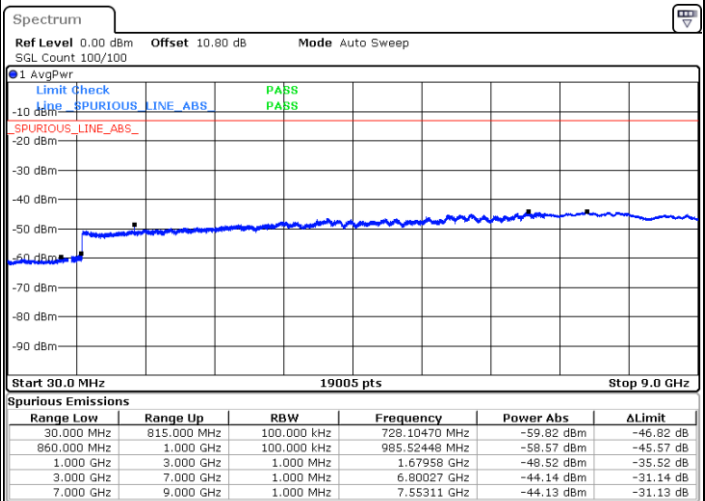
Date: 4 JAN 2020 04:48:50

## Highest Channel / QPSK



Date: 4 JAN 2020 04:57:02

## Highest Channel / 16QAM

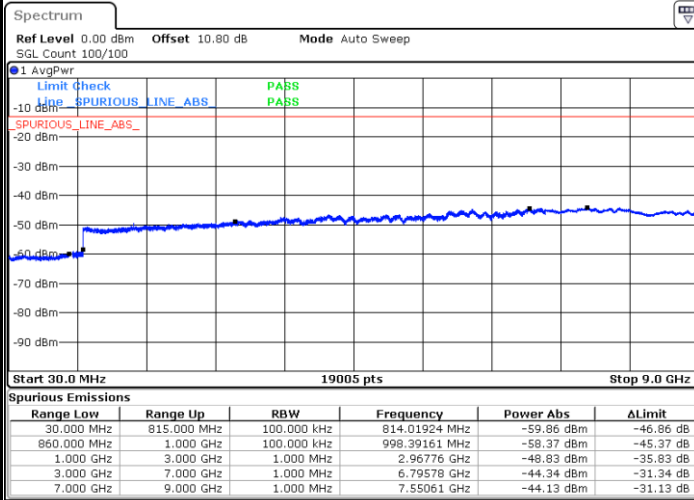


Date: 4 JAN 2020 04:57:43



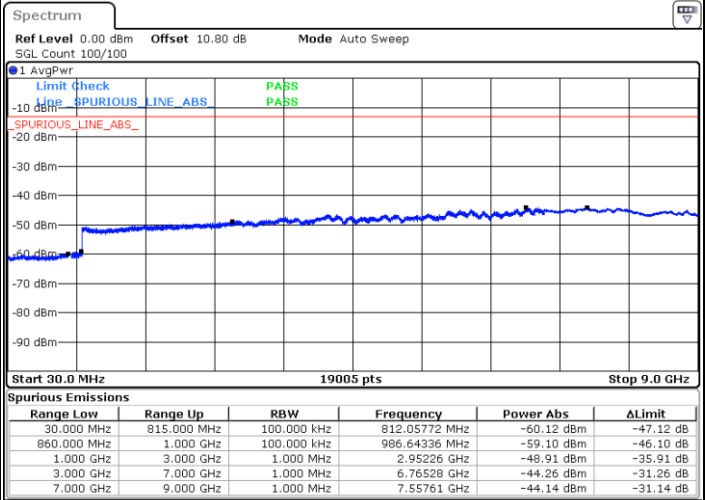
## LTE Band 5 / 1.4MHz

## Lowest Channel / 64QAM



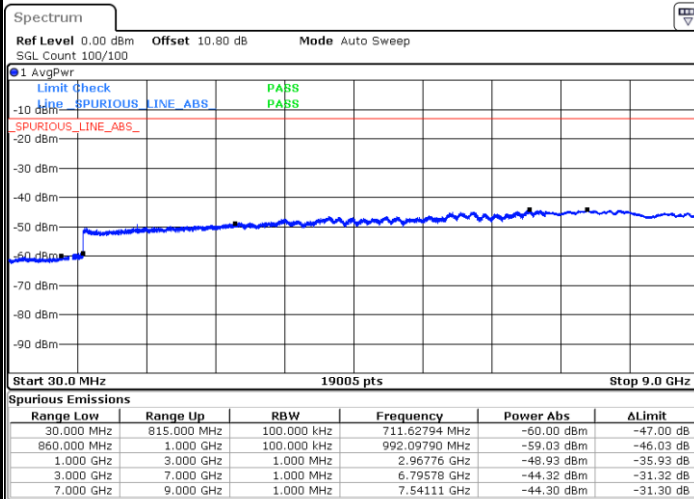
Date: 4 JAN 2020 06:18:56

## Middle Channel / 64QAM



Date: 4 JAN 2020 06:19:59

## Highest Channel / 64QAM

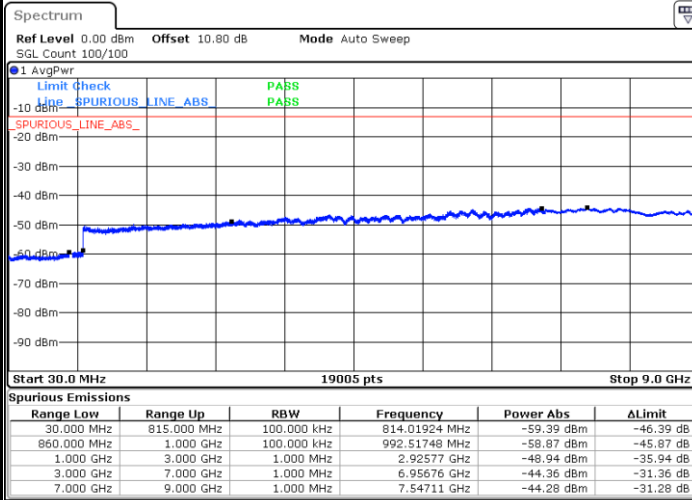


Date: 4 JAN 2020 06:24:26



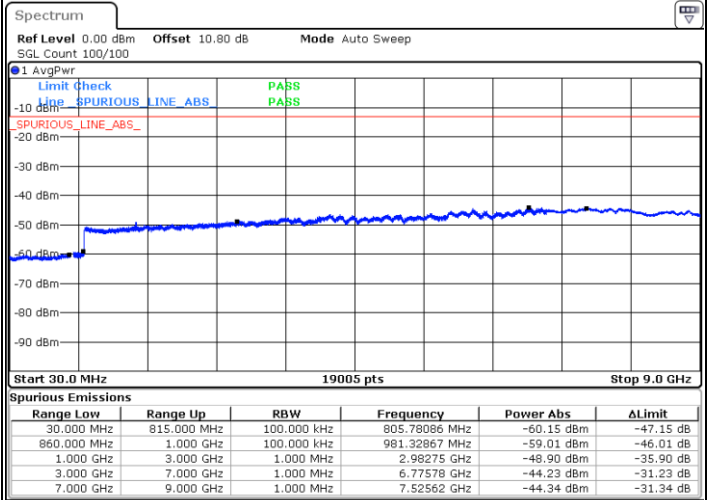
## LTE Band 5 / 3MHz

## Lowest Channel / 64QAM



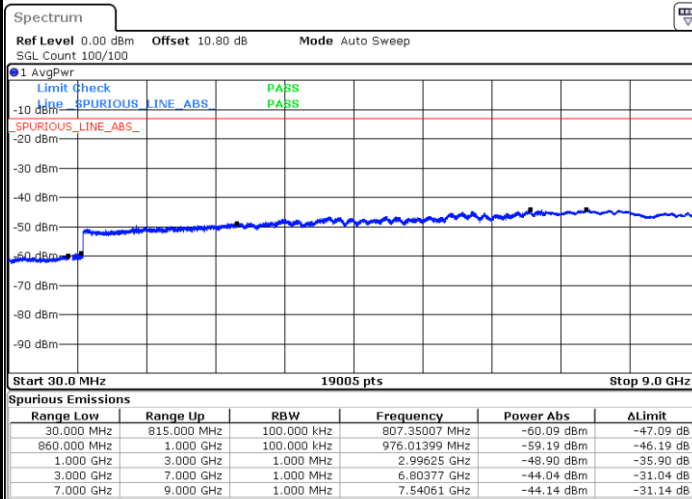
Date: 4 JAN 2020 05:53:12

## Middle Channel / 64QAM



Date: 4 JAN 2020 05:54:16

## Highest Channel / 64QAM

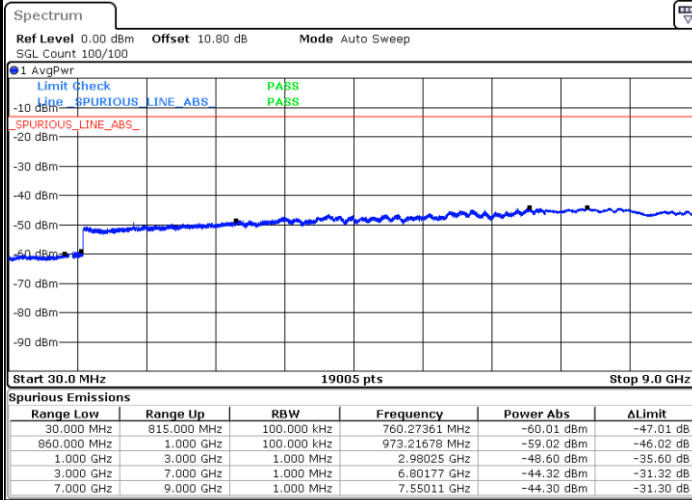


Date: 4 JAN 2020 05:58:43



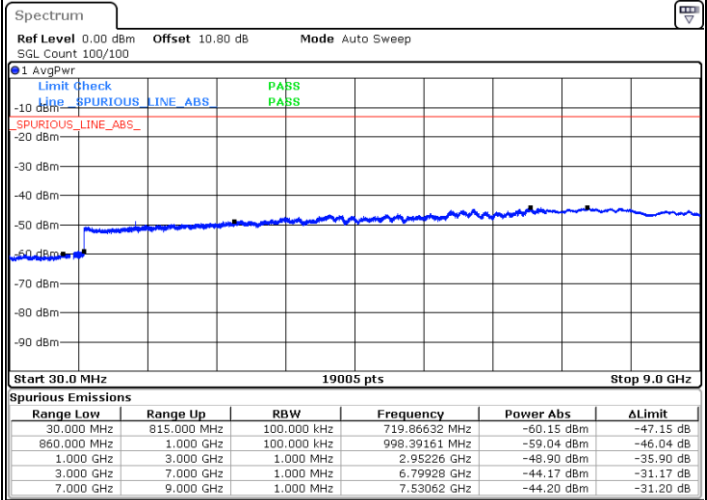
## LTE Band 5 / 5MHz

## Lowest Channel / 64QAM



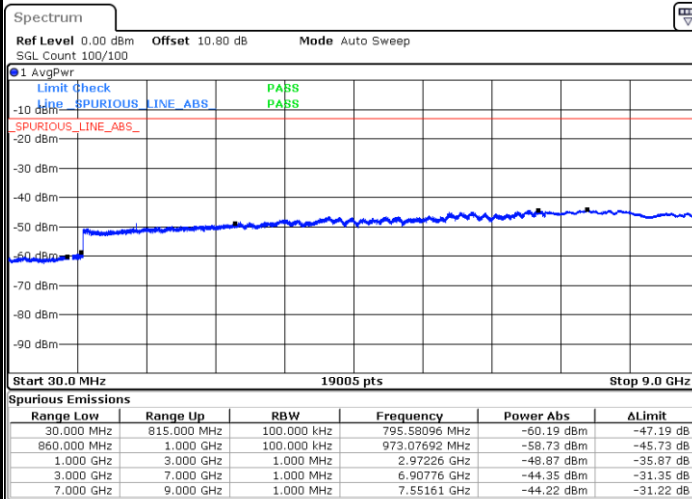
Date: 4 JAN 2020 04:32:57

## Middle Channel / 64QAM



Date: 4 JAN 2020 04:34:01

## Highest Channel / 64QAM

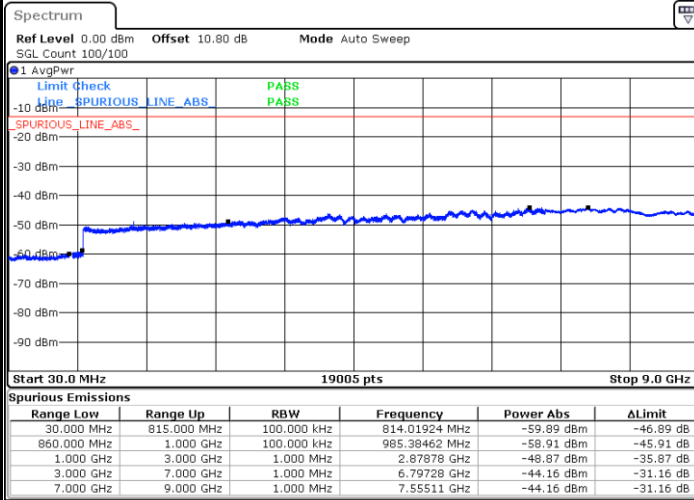


Date: 4 JAN 2020 04:58:25



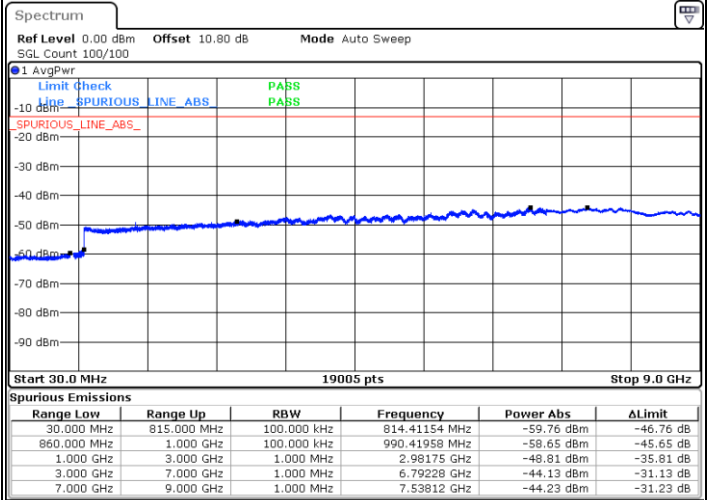
## LTE Band 5 / 10MHz

## Lowest Channel / 64QAM



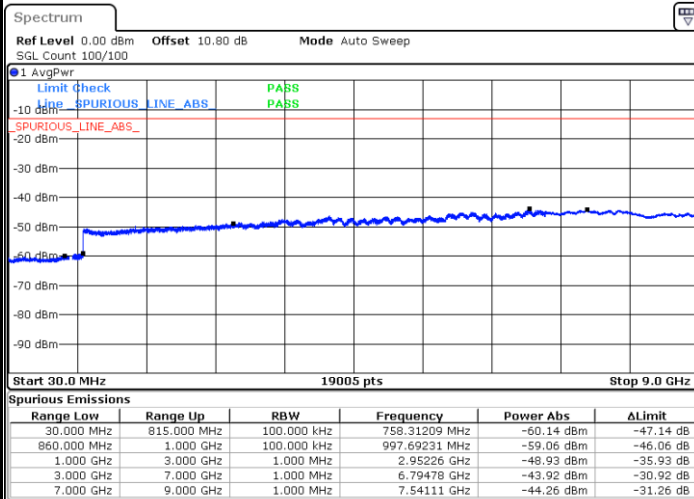
Date: 4 JAN 2020 05:02:52

## Middle Channel / 64QAM



Date: 4 JAN 2020 05:03:56

## Highest Channel / 64QAM



Date: 4 JAN 2020 05:08:22

## Frequency Stability

| Test Conditions  |                   | LTE Band 5 (QPSK) / Middle Channel | Limit  |
|------------------|-------------------|------------------------------------|--------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                           | 2.5ppm |
|                  |                   | Deviation (ppm)                    | Result |
| 50               | Normal Voltage    | 0.0130                             | PASS   |
| 40               | Normal Voltage    | 0.0121                             |        |
| 30               | Normal Voltage    | 0.0075                             |        |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |        |
| 10               | Normal Voltage    | 0.0051                             |        |
| 0                | Normal Voltage    | 0.0022                             |        |
| -10              | Normal Voltage    | 0.0074                             |        |
| -20              | Normal Voltage    | 0.0132                             |        |
| -30              | Normal Voltage    | 0.0002                             |        |
| 20               | Maximum Voltage   | 0.0100                             |        |
| 20               | Normal Voltage    | 0.0000                             |        |
| 20               | Battery End Point | 0.0023                             |        |

**Note:**

1. Normal Voltage =7.7 V. ; Battery End Point (BEP) =6.9 V. ; Maximum Voltage =8.5 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

## LTE Band 5B

### 26dB Bandwidth

| Mode       | LTE Band 5B : 26dB BW(MHz) |             |            |
|------------|----------------------------|-------------|------------|
| QPSK       |                            |             |            |
| BW         | 3MHz+5MHz                  | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                          | -           | 14.69      |
| Middle CH  | -                          | -           | 14.51      |
| Highest CH | -                          | -           | 14.57      |
| BW         | 10MHz+5MHz                 | 10MHz+10MHz | N/A        |
| Lowest CH  | 14.57                      | 9.71        | -          |
| Middle CH  | 14.69                      | 9.91        | -          |
| Highest CH | 14.69                      | 19.62       | -          |

| Mode       | LTE Band 5B : 26dB BW(MHz) |             |            |
|------------|----------------------------|-------------|------------|
| 16QAM      |                            |             |            |
| BW         | 3MHz+5MHz                  | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                          | -           | 14.57      |
| Middle CH  | -                          | -           | 14.63      |
| Highest CH | -                          | -           | 14.54      |
| BW         | 10MHz+5MHz                 | 10MHz+10MHz | N/A        |
| Lowest CH  | 14.63                      | 19.82       | -          |
| Middle CH  | 14.57                      | 19.50       | -          |
| Highest CH | 14.69                      | 9.71        | -          |

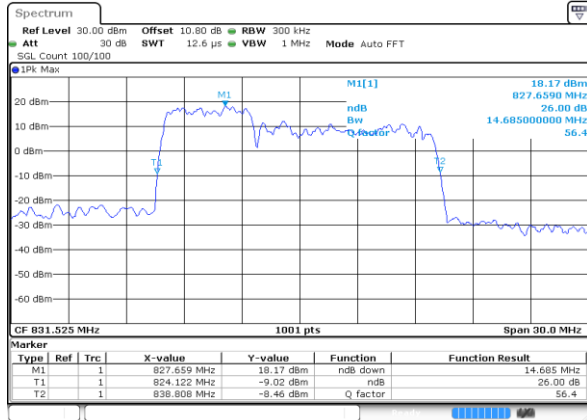
| Mode       | LTE Band 5B : 26dB BW(MHz) |             |            |
|------------|----------------------------|-------------|------------|
| 64QAM      |                            |             |            |
| BW         | 3MHz+5MHz                  | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                          | -           | 14.57      |
| Middle CH  | -                          | -           | 14.51      |
| Highest CH | -                          | -           | 14.60      |
| BW         | 10MHz+5MHz                 | 10MHz+10MHz | N/A        |
| Lowest CH  | 14.75                      | 19.58       | -          |
| Middle CH  | 14.60                      | 9.63        | -          |
| Highest CH | 14.72                      | 9.83        | -          |



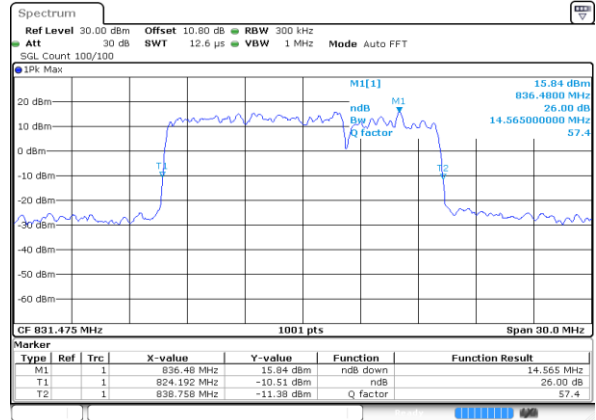
## LTE Band 5B

## QPSK

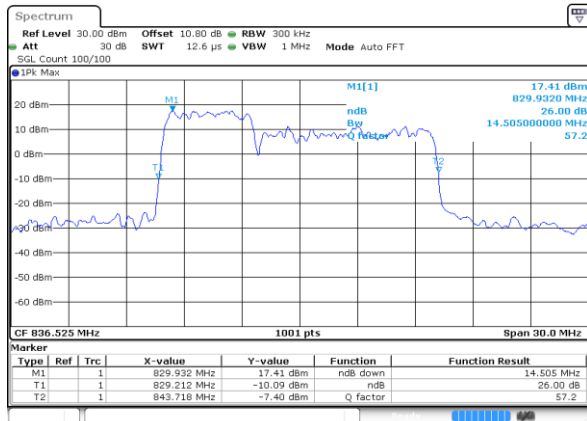
## Lowest Channel / 5MHz+10MHz



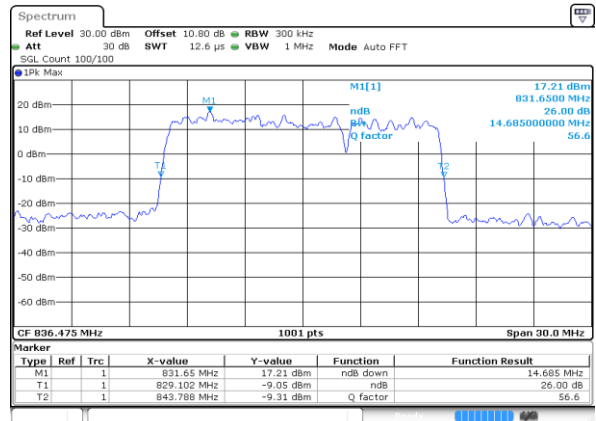
## Lowest Channel / 10MHz+5MHz



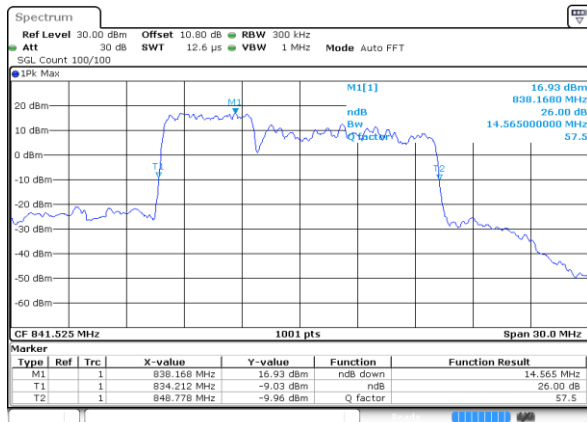
## Middle Channel / 5MHz+10MHz



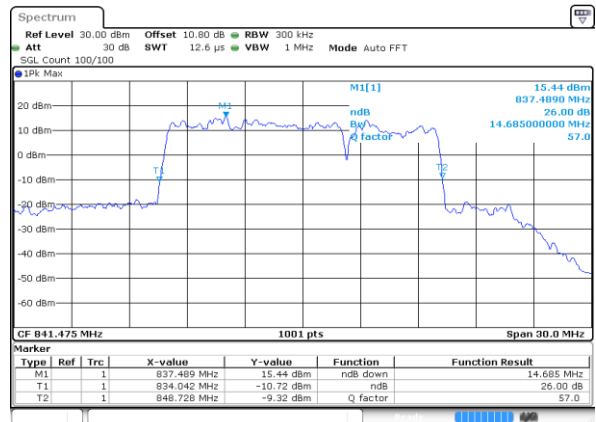
## Middle Channel / 10MHz+5MHz



## Highest Channel / 5MHz+10MHz

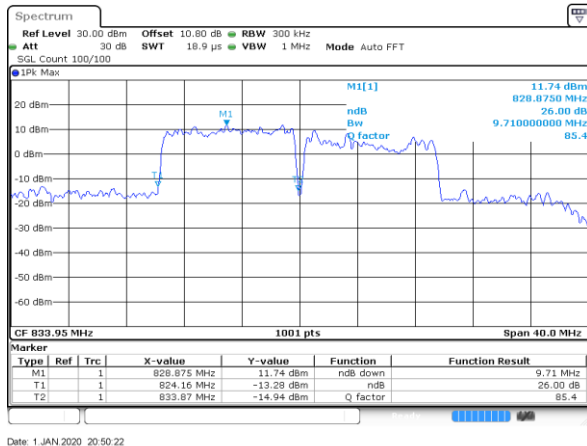


## Highest Channel / 10MHz+5MHz

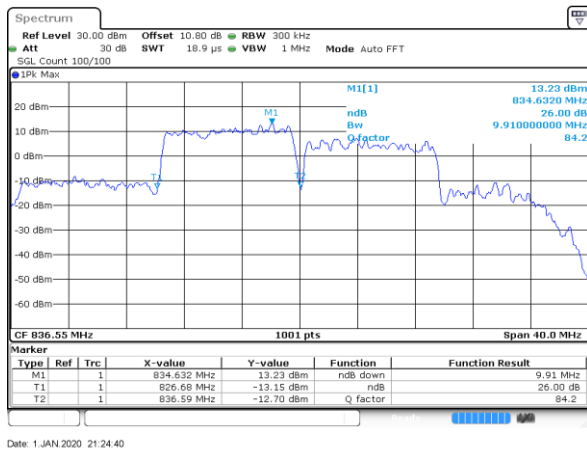


**LTE Band 5B**
**QPSK**
**Lowest Channel / 10MHz+10MHz**

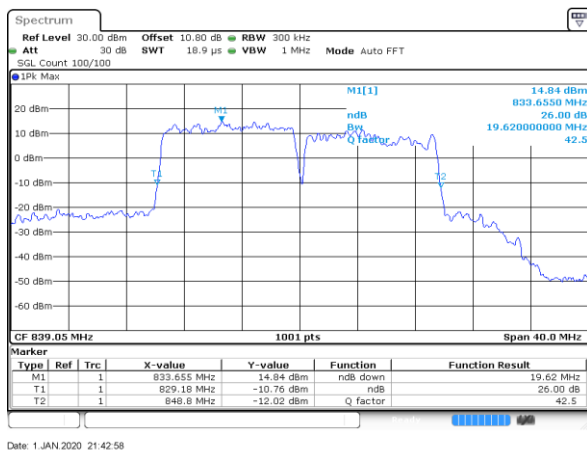
N/A


**Middle Channel / 10MHz+10MHz**

N/A


**Highest Channel / 10MHz+10MHz**

N/A

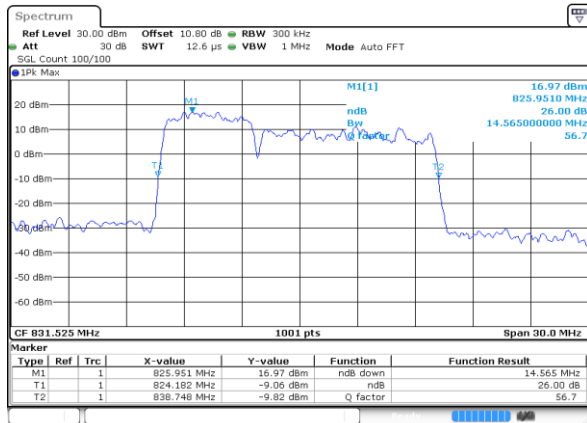




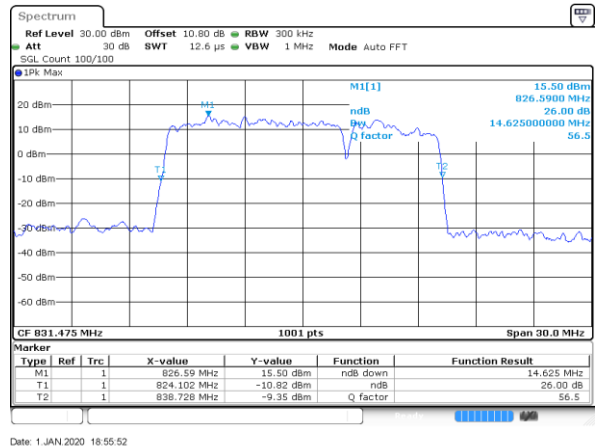
## LTE Band 5B

## 16QAM

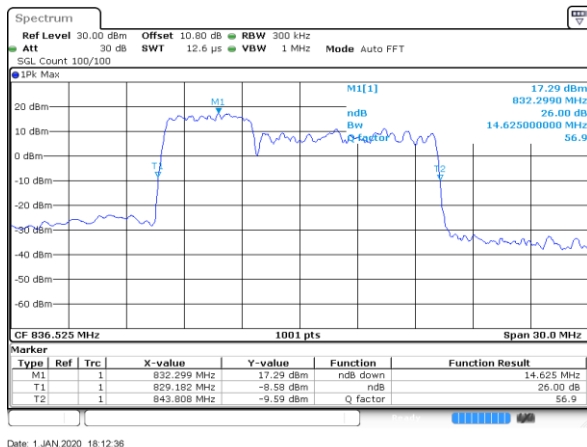
## Lowest Channel / 5MHz+10MHz



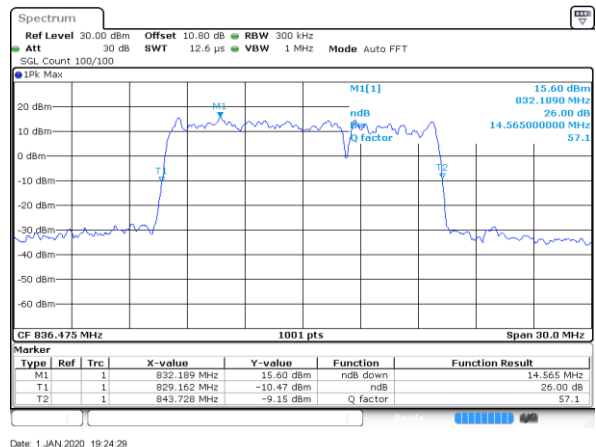
## Lowest Channel / 10MHz+5MHz



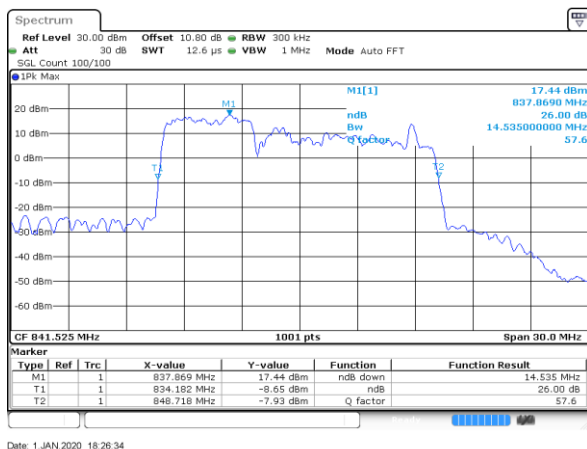
## Middle Channel / 5MHz+10MHz



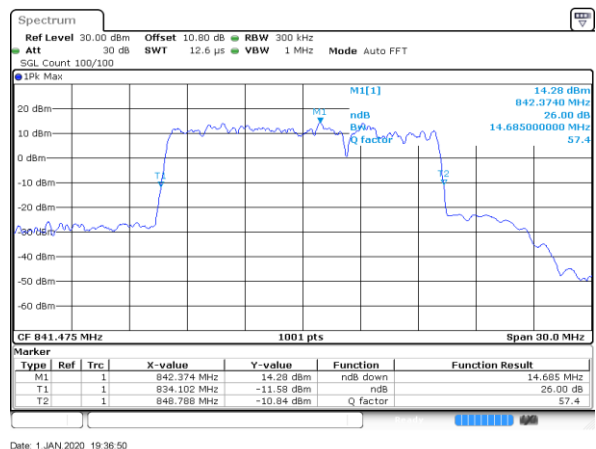
## Middle Channel / 10MHz+5MHz

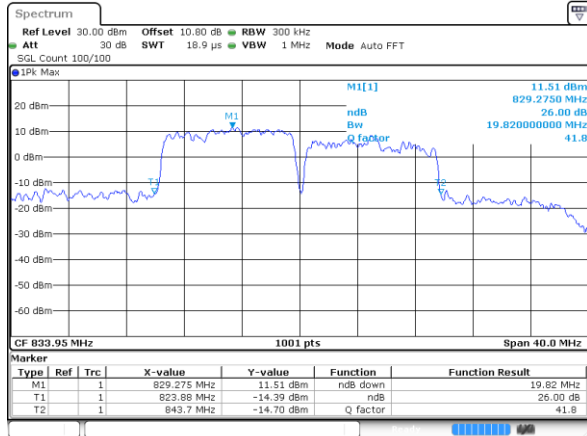


## Highest Channel / 5MHz+10MHz

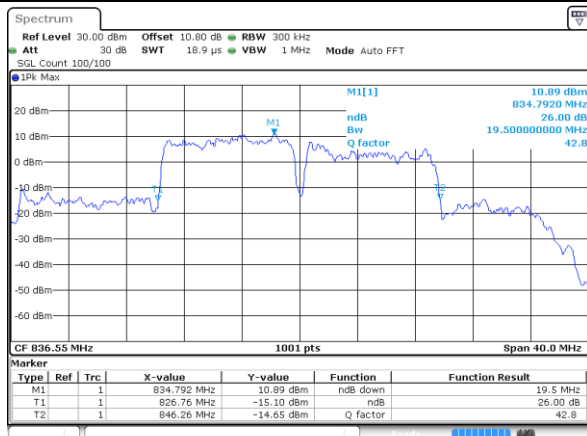


## Highest Channel / 10MHz+5MHz

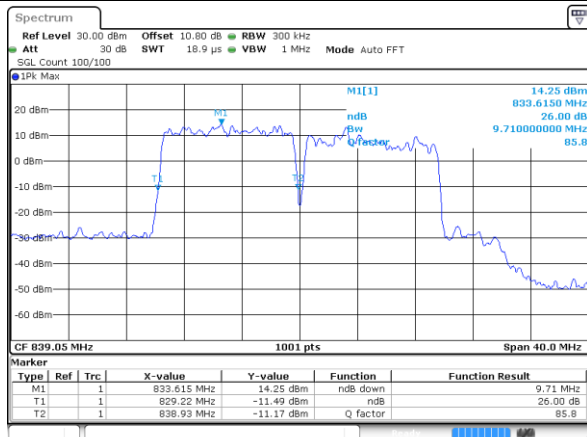


**LTE Band 5B**
**16QAM**
**Lowest Channel / 10MHz+10MHz**
**N/A**


Date: 1 JAN 2020 20:49:59

**Middle Channel / 10MHz+10MHz**
**N/A**


Date: 1 JAN 2020 21:24:17

**Highest Channel / 10MHz+10MHz**
**N/A**


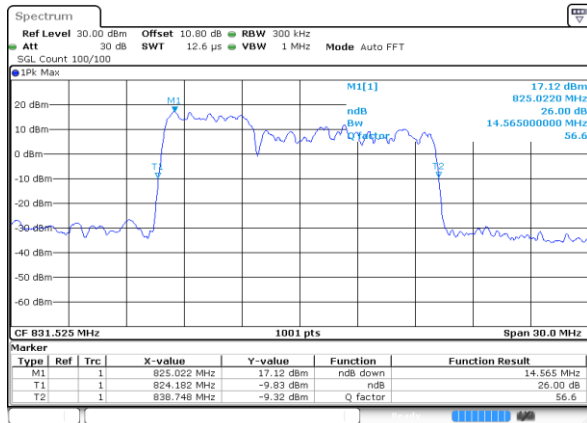
Date: 1 JAN 2020 21:43:21



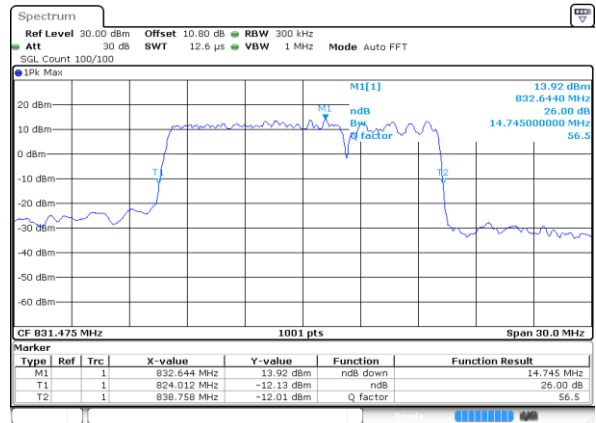
## LTE Band 5B

## 64QAM

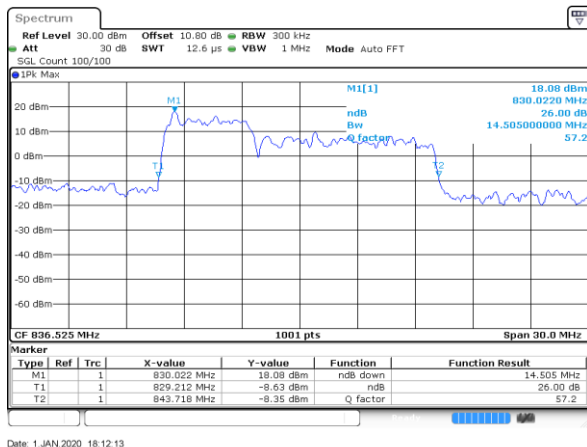
## Lowest Channel / 5MHz+10MHz



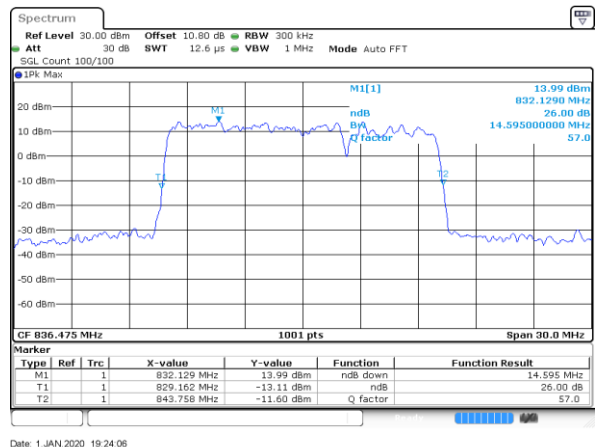
## Lowest Channel / 10MHz+5MHz



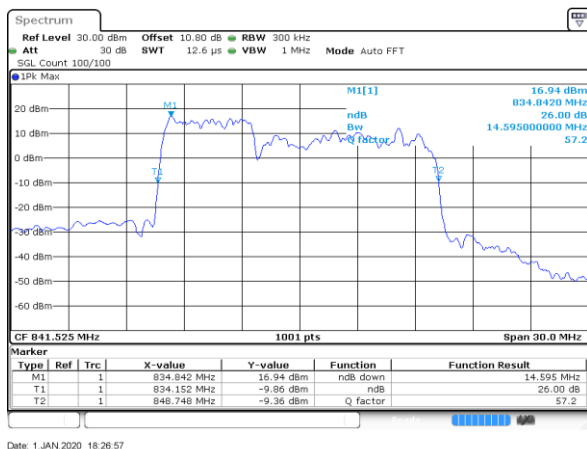
## Middle Channel / 5MHz+10MHz



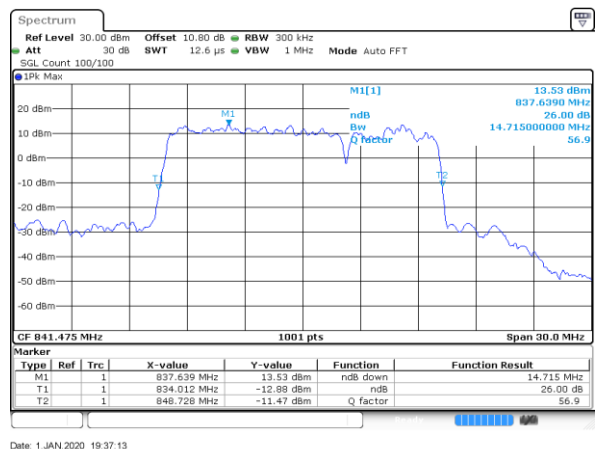
## Middle Channel / 10MHz+5MHz



## Highest Channel / 5MHz+10MHz



## Highest Channel / 10MHz+5MHz



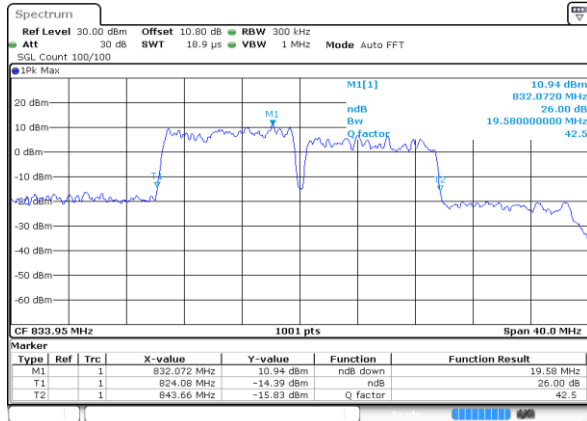


## LTE Band 5B

## 64QAM

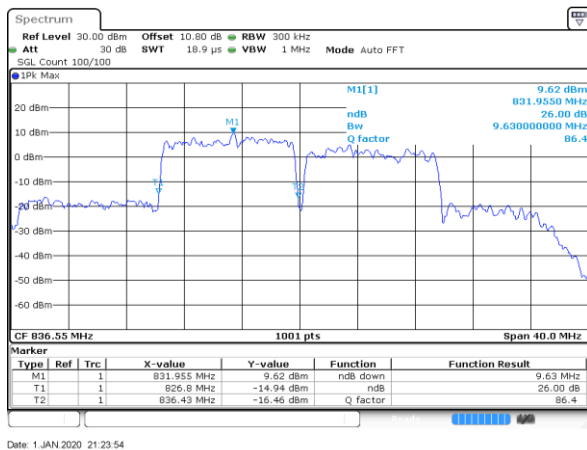
## Lowest Channel / 10MHz+10MHz

N/A



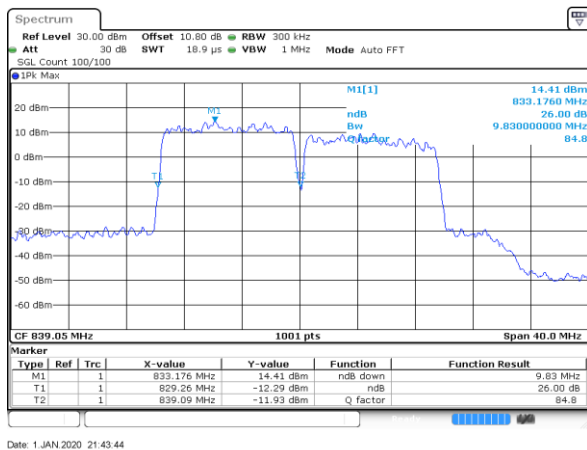
## Middle Channel / 10MHz+10MHz

N/A



## Highest Channel / 10MHz+10MHz

N/A



## Occupied Bandwidth

| Mode       | LTE Band 5B : 99%OBW(MHz) |             |            |
|------------|---------------------------|-------------|------------|
|            | QPSK                      |             |            |
| BW         | 3MHz+5MHz                 | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                         | -           | 13.91      |
| Middle CH  | -                         | -           | 13.88      |
| Highest CH | -                         | -           | 13.85      |
| BW         | 10MHz+5MHz                | 10MHz+10MHz | N/A        |
| Lowest CH  | 14.12                     | 18.70       | -          |
| Middle CH  | 14.00                     | 21.18       | -          |
| Highest CH | 13.97                     | 18.54       | -          |

| Mode       | LTE Band 5B : 99%OBW(MHz) |             |            |
|------------|---------------------------|-------------|------------|
|            | 16QAM                     |             |            |
| BW         | 3MHz+5MHz                 | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                         | -           | 13.88      |
| Middle CH  | -                         | -           | 14.00      |
| Highest CH | -                         | -           | 13.76      |
| BW         | 10MHz+5MHz                | 10MHz+10MHz | N/A        |
| Lowest CH  | 14.12                     | 18.82       | -          |
| Middle CH  | 14.00                     | 18.90       | -          |
| Highest CH | 13.82                     | 18.58       | -          |

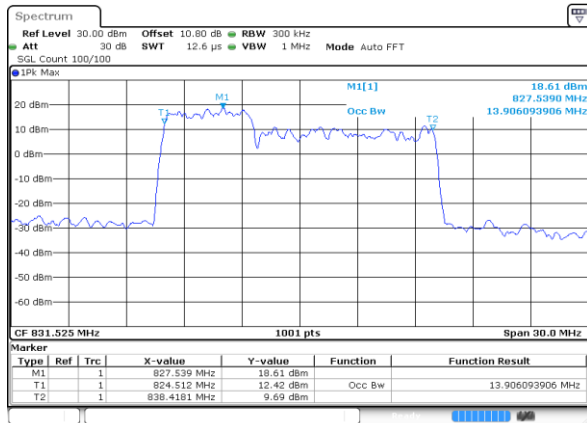
| Mode       | LTE Band 5B : 99%OBW(MHz) |             |            |
|------------|---------------------------|-------------|------------|
|            | 64QAM                     |             |            |
| BW         | 3MHz+5MHz                 | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                         | -           | 13.76      |
| Middle CH  | -                         | -           | 13.94      |
| Highest CH | -                         | -           | 13.76      |
| BW         | 10MHz+5MHz                | 10MHz+10MHz | N/A        |
| Lowest CH  | 13.91                     | 18.78       | -          |
| Middle CH  | 13.91                     | 18.66       | -          |
| Highest CH | 13.85                     | 18.82       | -          |



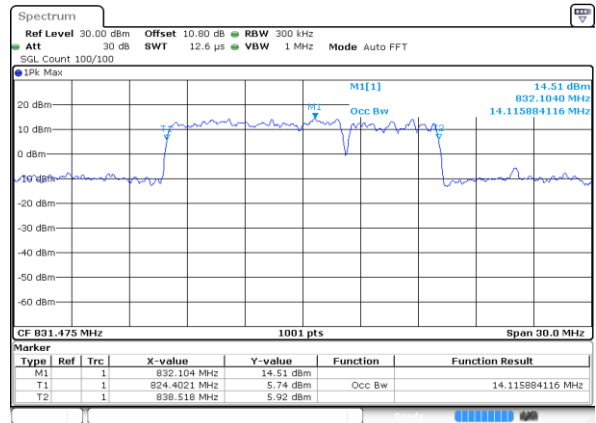
## LTE Band 5B

## QPSK

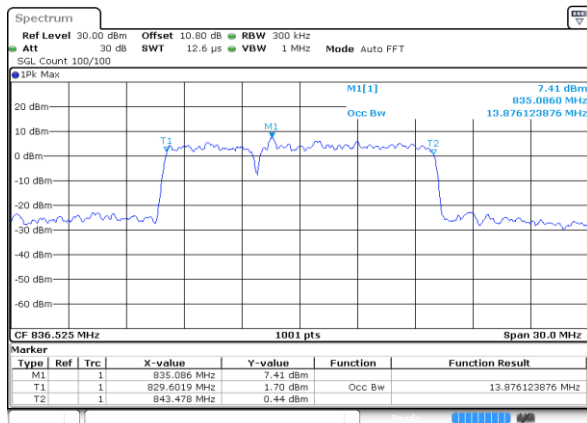
## Lowest Channel / 5MHz+10MHz



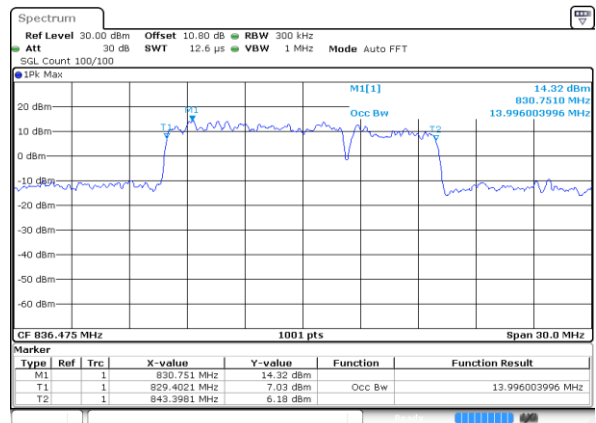
## Lowest Channel / 10MHz+5MHz



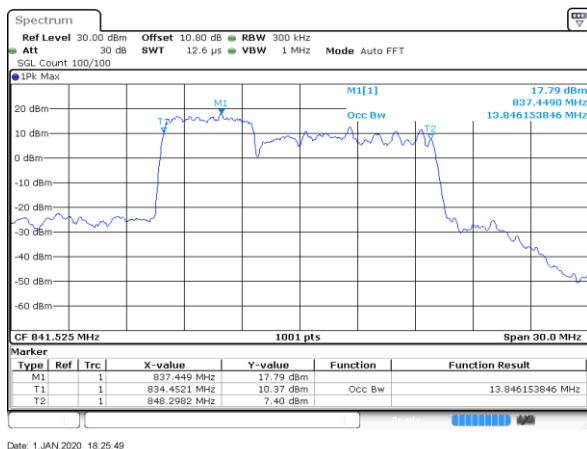
## Middle Channel / 5MHz+10MHz



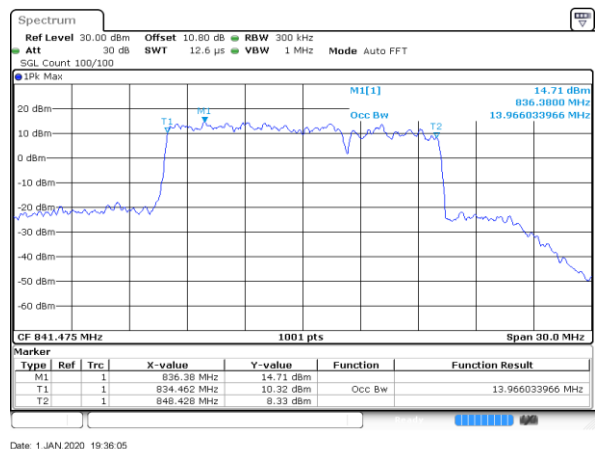
## Middle Channel / 10MHz+5MHz



## Highest Channel / 5MHz+10MHz



## Highest Channel / 10MHz+5MHz



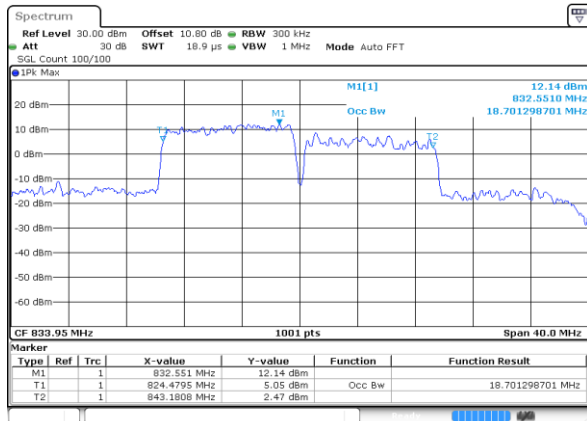


## LTE Band 5B

## QPSK

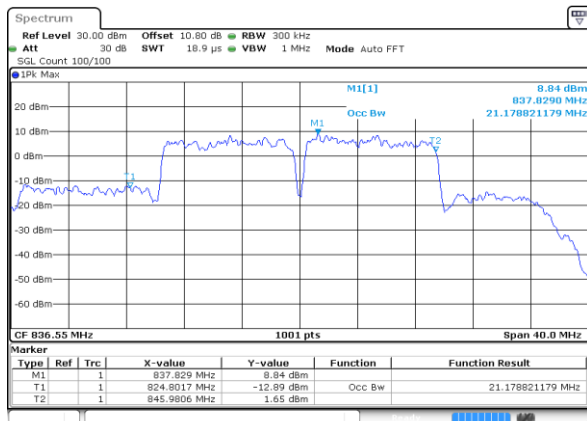
## Lowest Channel / 10MHz+10MHz

N/A



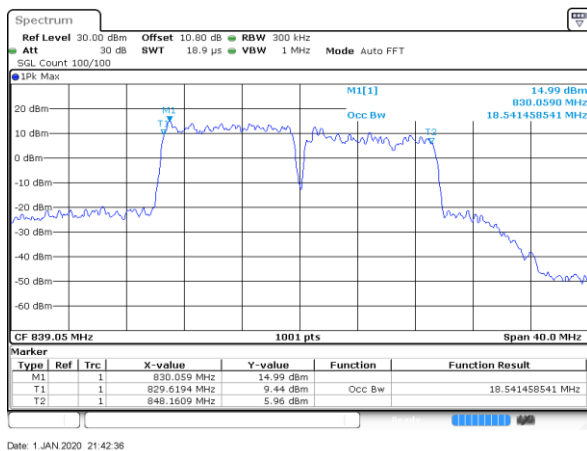
## Middle Channel / 10MHz+10MHz

N/A



## Highest Channel / 10MHz+10MHz

N/A

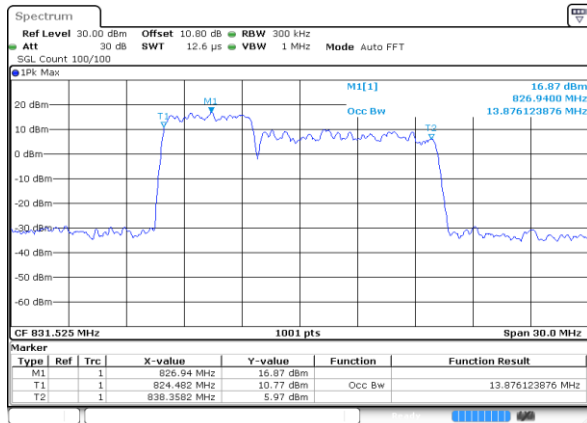




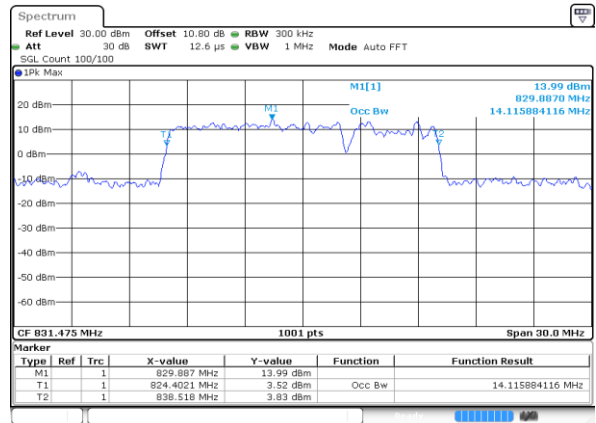
## LTE Band 5B

## 16QAM

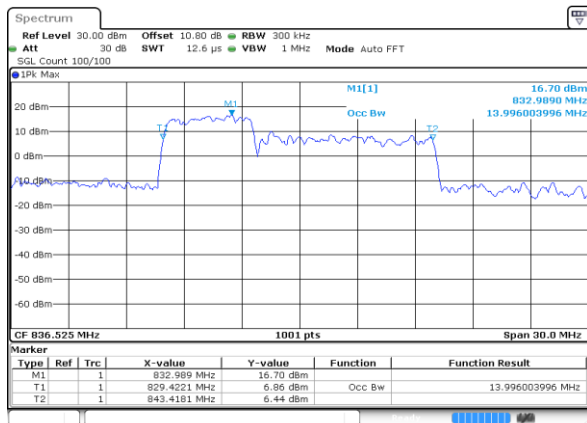
## Lowest Channel / 5MHz+10MHz



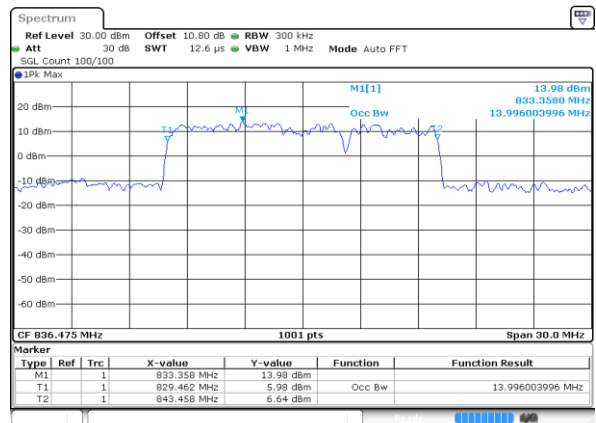
## Lowest Channel / 10MHz+5MHz



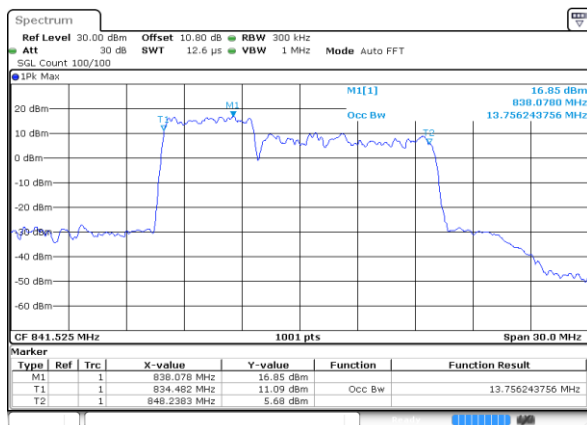
## Middle Channel / 5MHz+10MHz



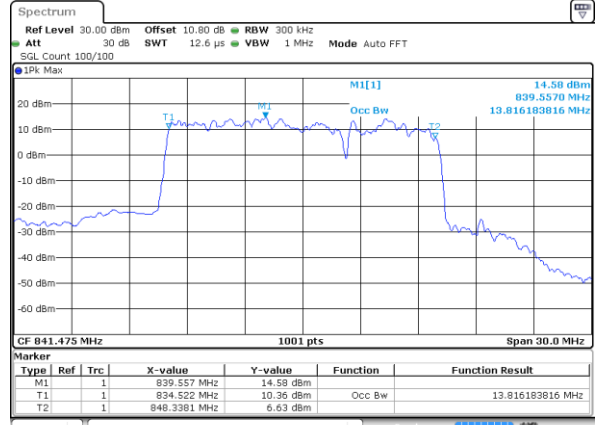
## Middle Channel / 10MHz+5MHz



## Highest Channel / 5MHz+10MHz



## Highest Channel / 10MHz+5MHz



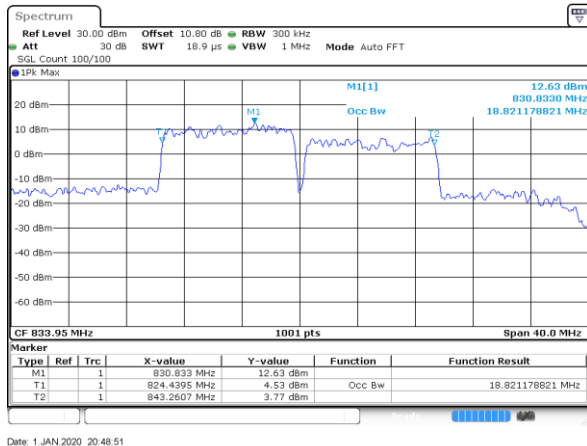


## LTE Band 5B

## 16QAM

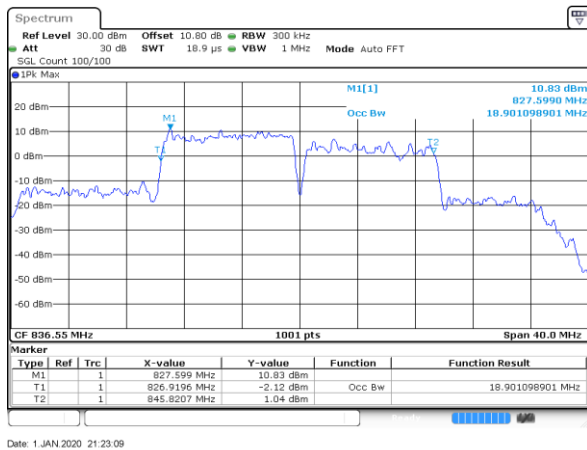
## Lowest Channel / 10MHz+10MHz

N/A



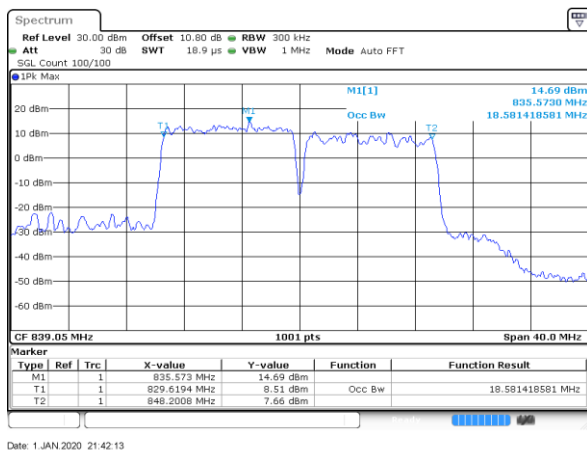
## Middle Channel / 10MHz+10MHz

N/A



## Highest Channel / 10MHz+10MHz

N/A

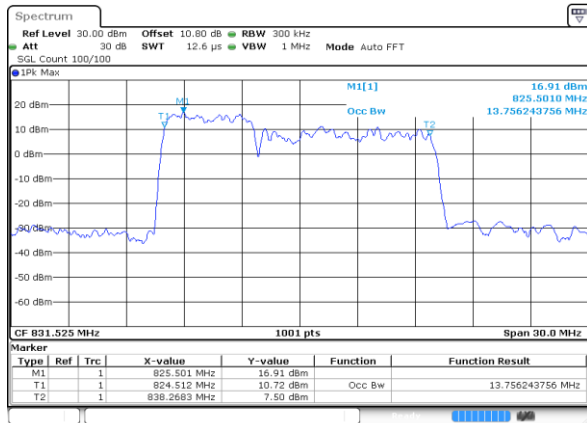




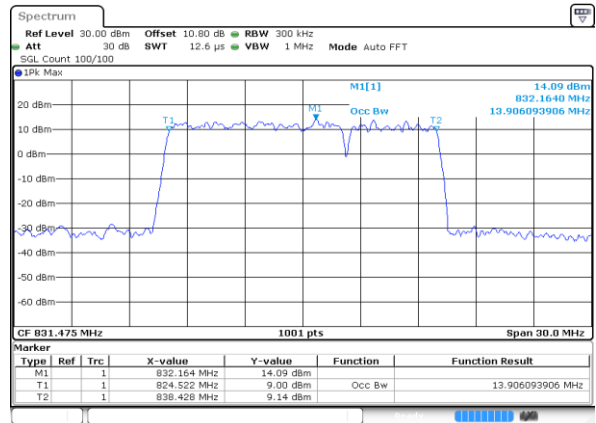
## LTE Band 5B

## 64QAM

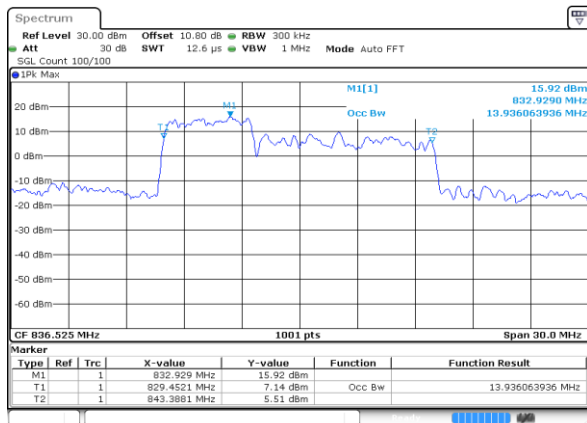
## Lowest Channel / 5MHz+10MHz



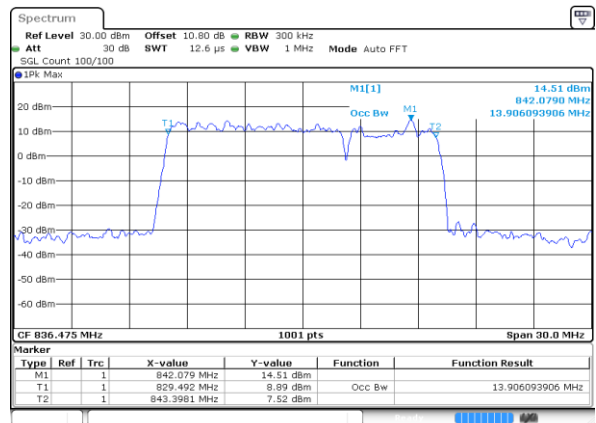
## Lowest Channel / 10MHz+5MHz



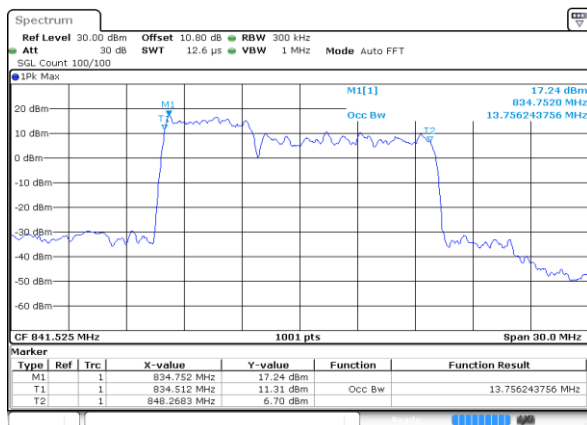
## Middle Channel / 5MHz+10MHz



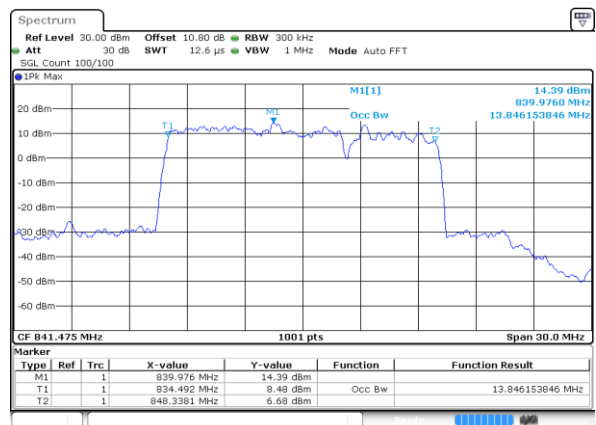
## Middle Channel / 10MHz+5MHz

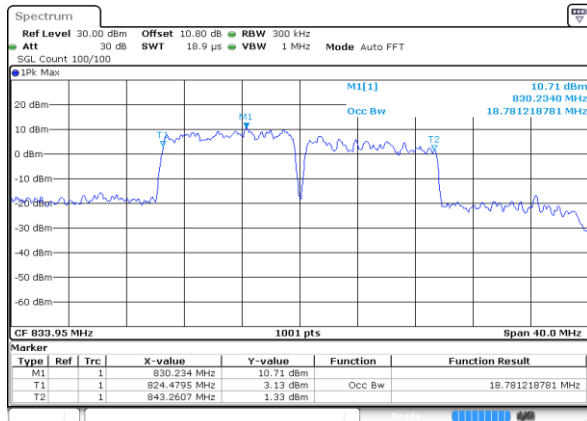
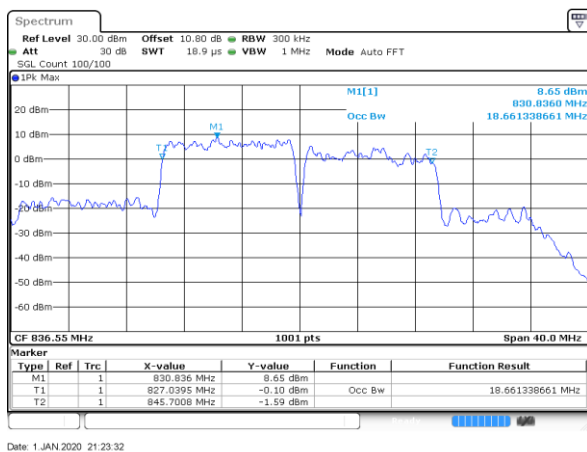
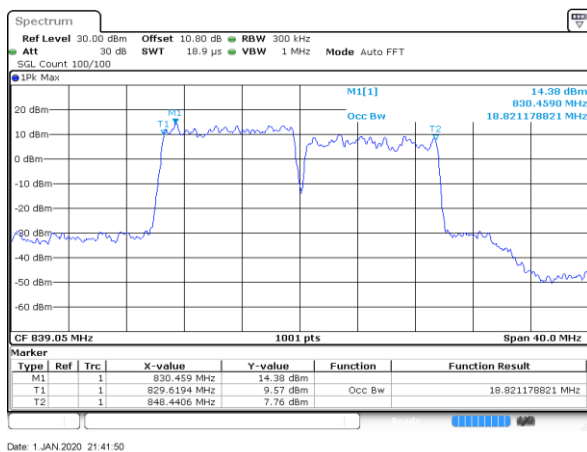


## Highest Channel / 5MHz+10MHz



## Highest Channel / 10MHz+5MHz



**LTE Band 5B**
**64QAM**
**Lowest Channel / 10MHz+10MHz**
**N/A**

**Middle Channel / 10MHz+10MHz**
**N/A**

**Highest Channel / 10MHz+10MHz**
**N/A**


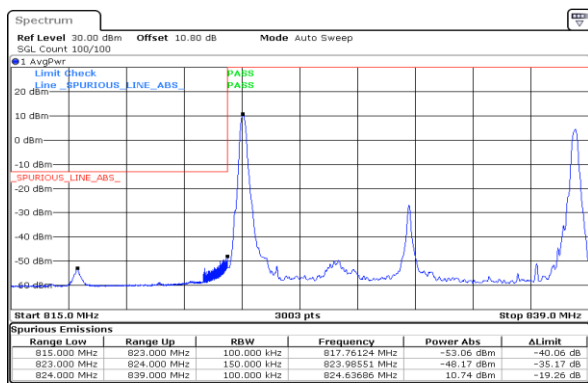


## Conducted Band Edge

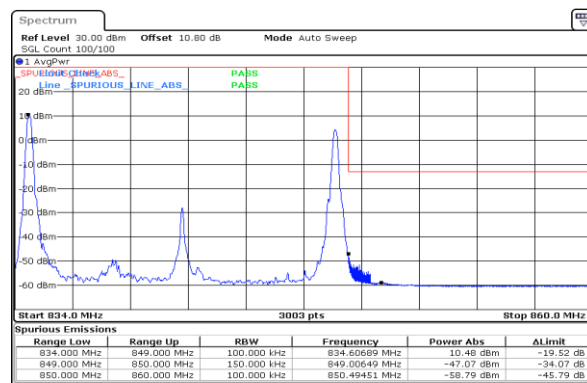
### LTE Band 5B / 5MHz+10MHz

#### QPSK

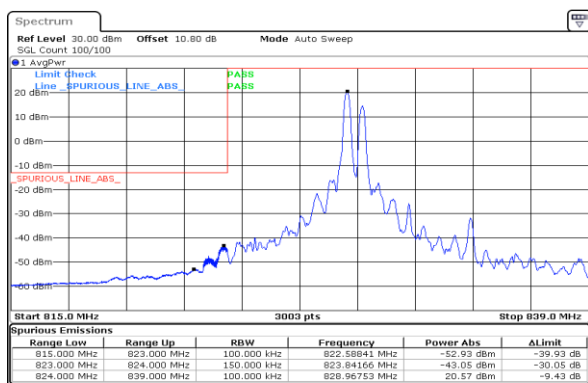
##### Lowest Band Edge / 1RB0 and 1RB49



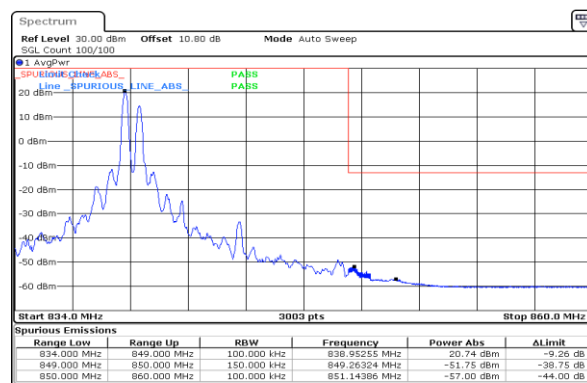
##### Highest Band Edge / 1RB0 and 1RB49



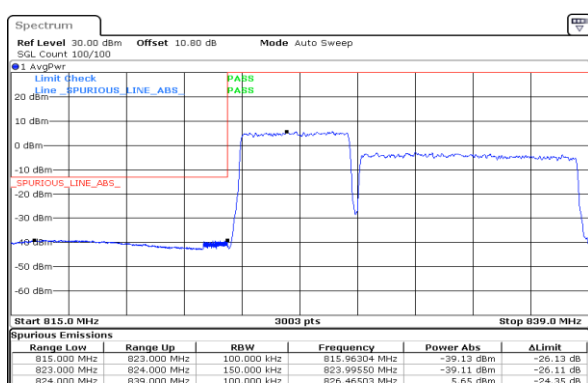
##### Lowest Band Edge / 1RB24 and 1RB0



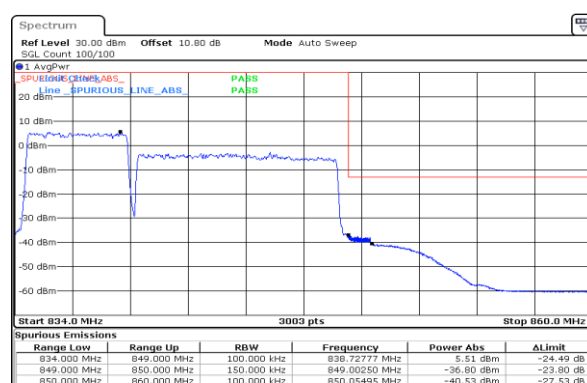
##### Highest Band Edge / 1RB24 and 1RB0



##### Lowest Band Edge / Full RB



##### Highest Band Edge / Full RB

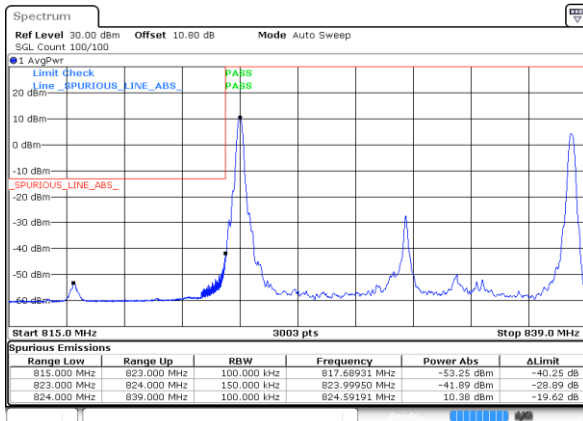




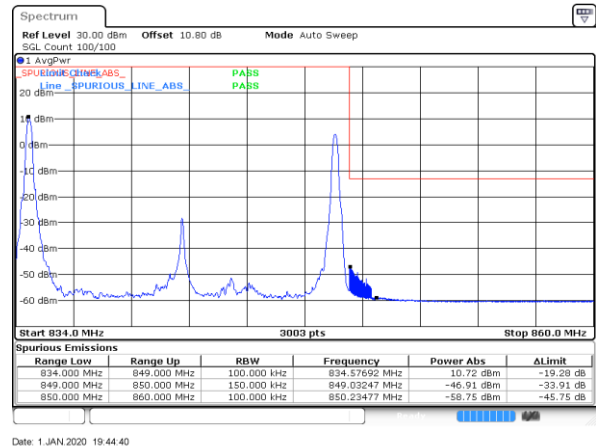
## LTE Band 5B / 10MHz+5MHz

## QPSK

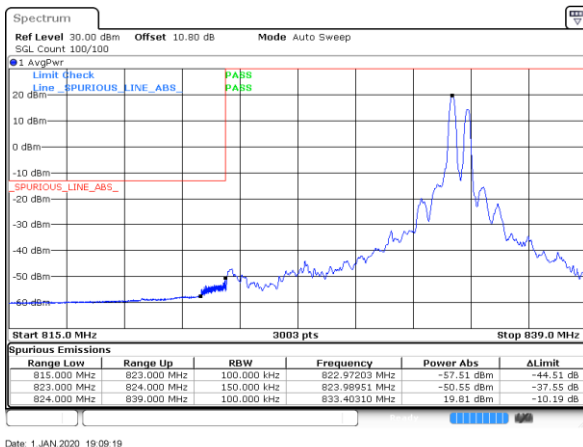
## Lowest Band Edge / 1RB0 and 1RB24



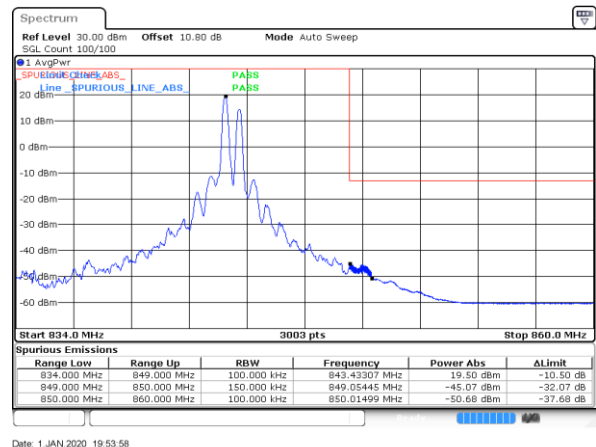
## Highest Band Edge / 1RB0 and 1RB24



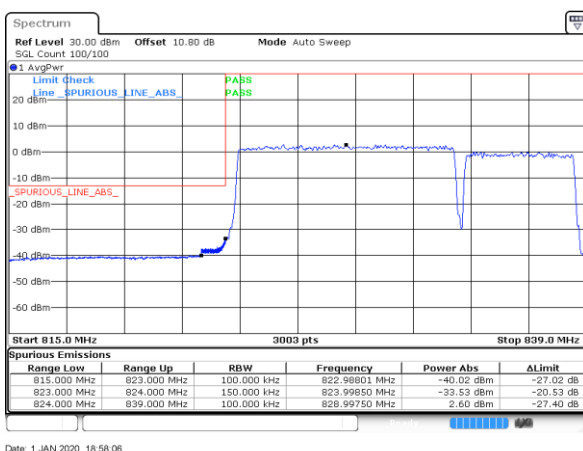
## Lowest Band Edge / 1RB49 and 1RB0



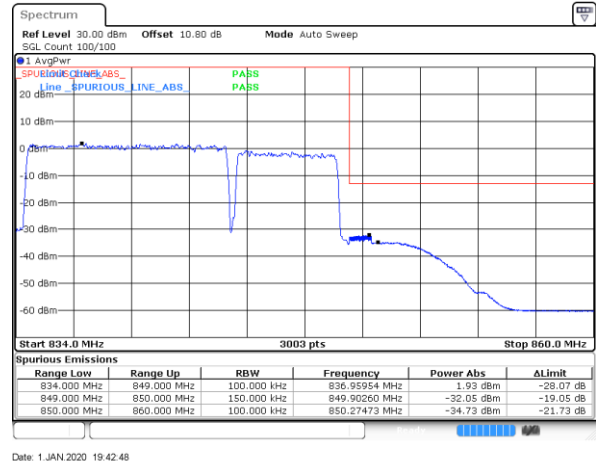
## Highest Band Edge / 1RB49 and 1RB0



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

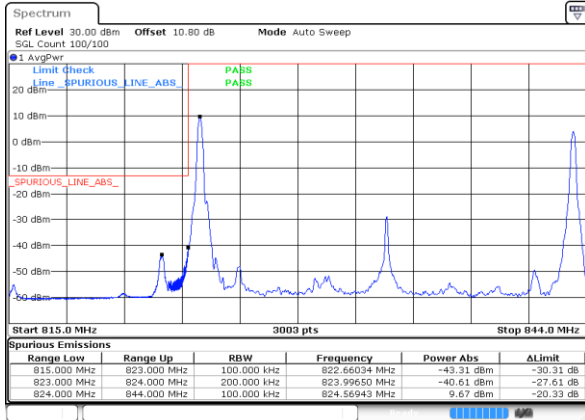




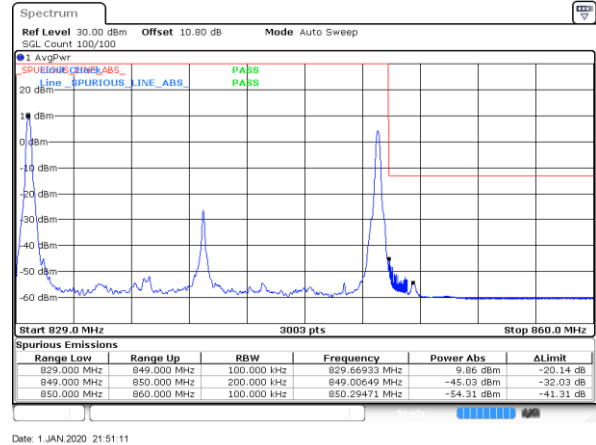
## LTE Band 5B / 10MHz+10MHz

## QPSK

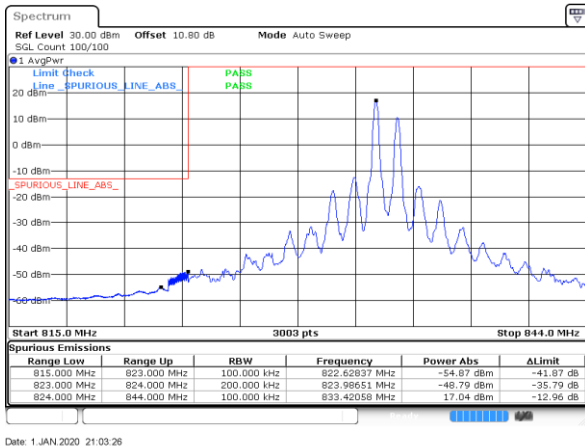
## Lowest Band Edge / 1RB0 and 1RB49



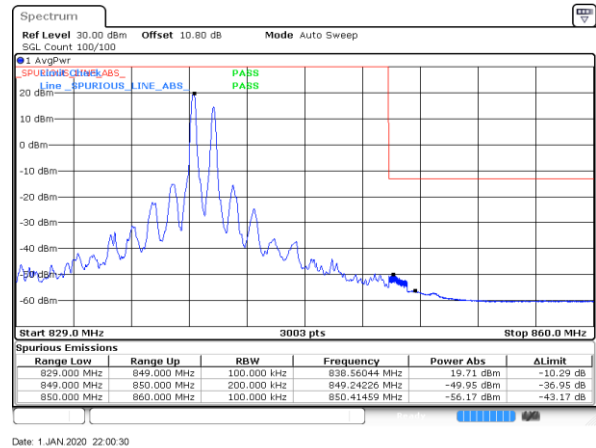
## Highest Band Edge / 1RB0 and 1RB49



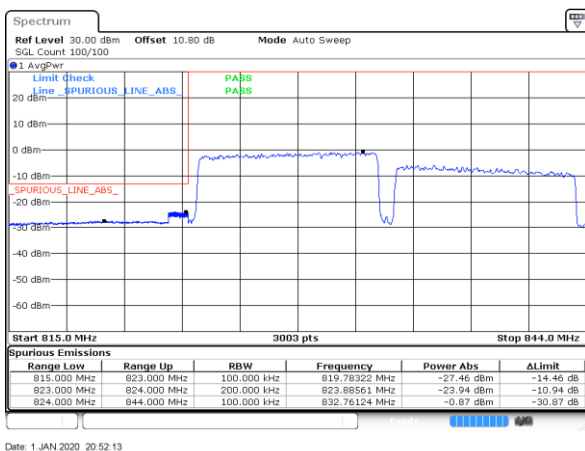
## Lowest Band Edge / 1RB49 and 1RB0



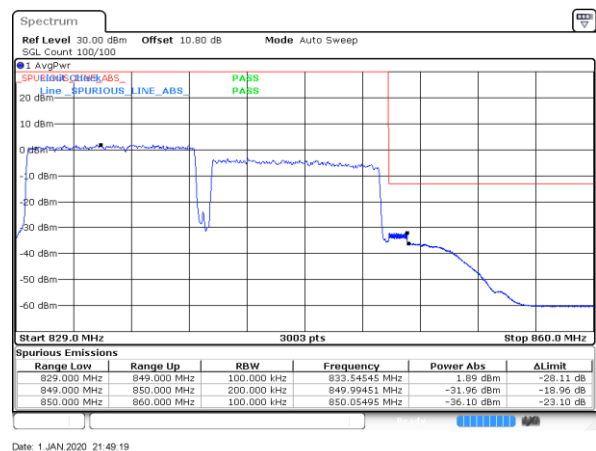
## Highest Band Edge / 1RB49 and 1RB0



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

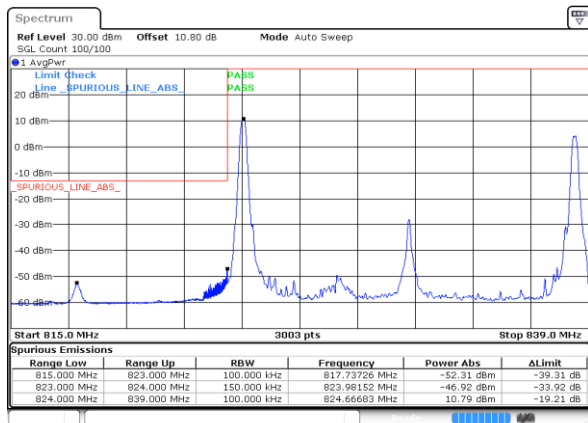




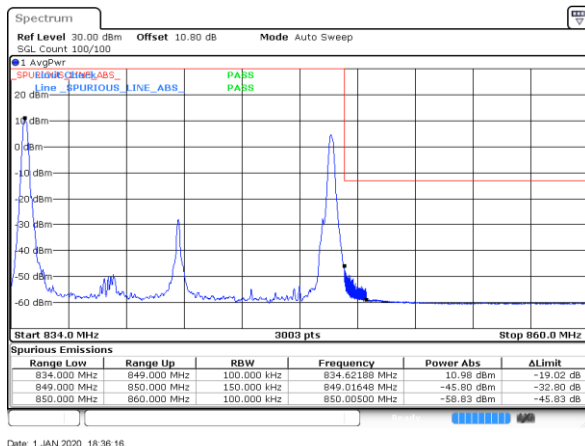
## LTE Band 5B / 5MHz+10MHz

## 16QAM

## Lowest Band Edge / 1RB0 and 1RB49



## Highest Band Edge / 1RB0 and 1RB49



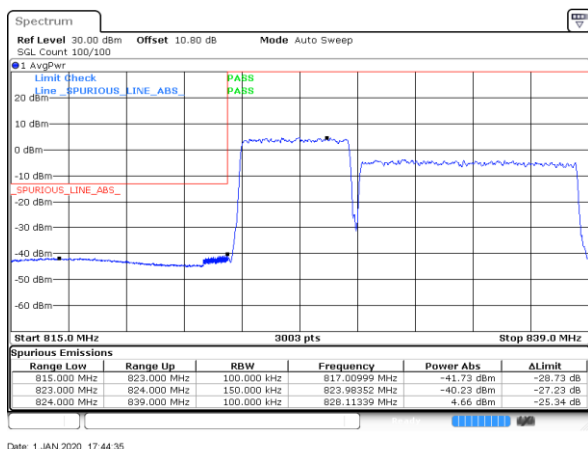
## Lowest Band Edge / 1RB24 and 1RB0



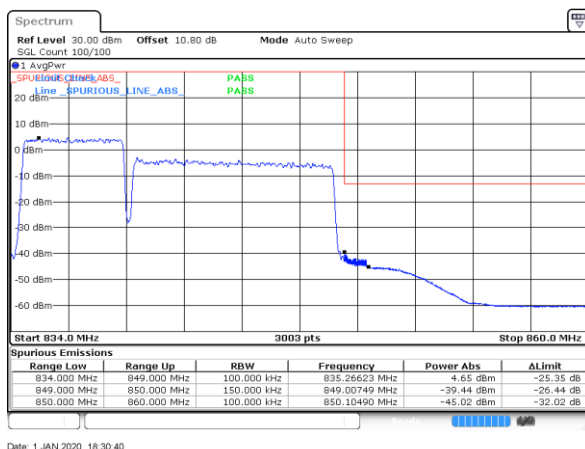
## Highest Band Edge / 1RB24 and 1RB0



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

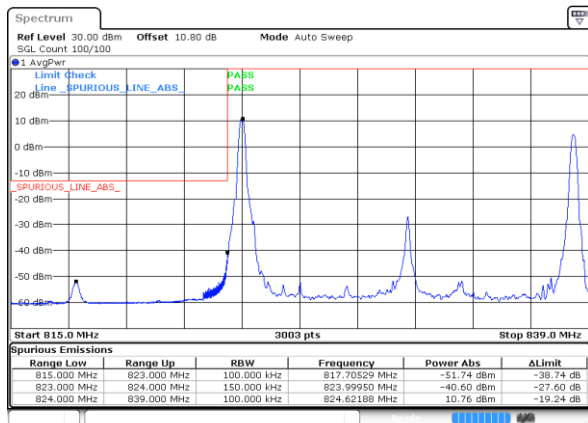




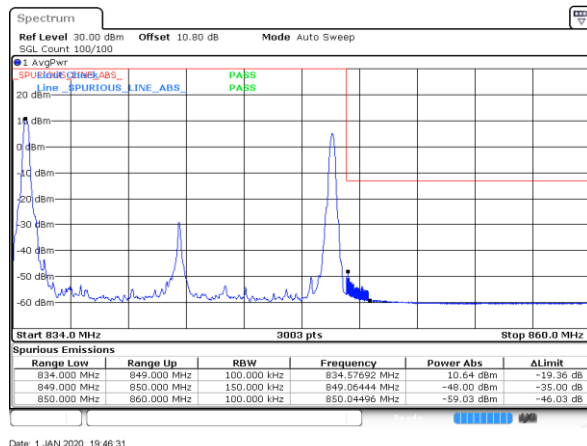
## LTE Band 5B / 10MHz+5MHz

## 16QAM

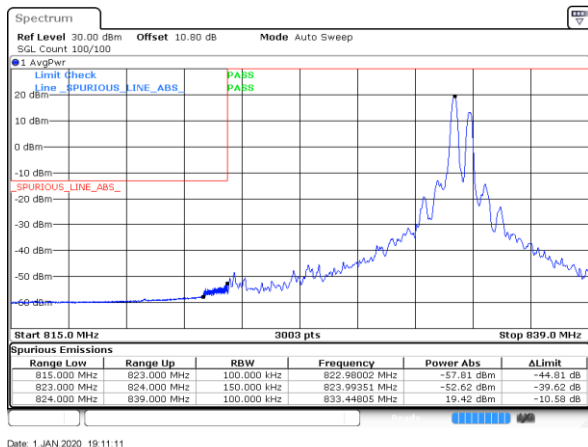
## Lowest Band Edge / 1RB0 and 1RB24



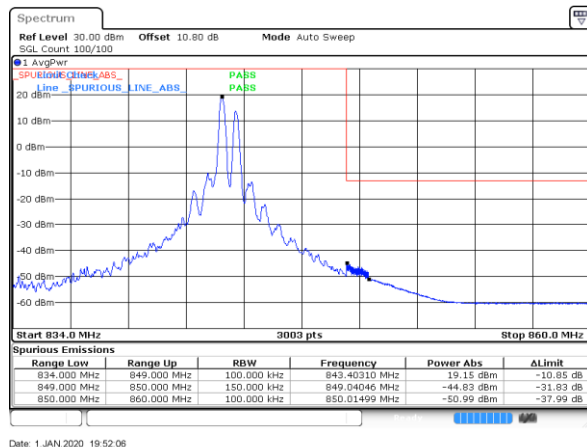
## Highest Band Edge / 1RB0 and 1RB24



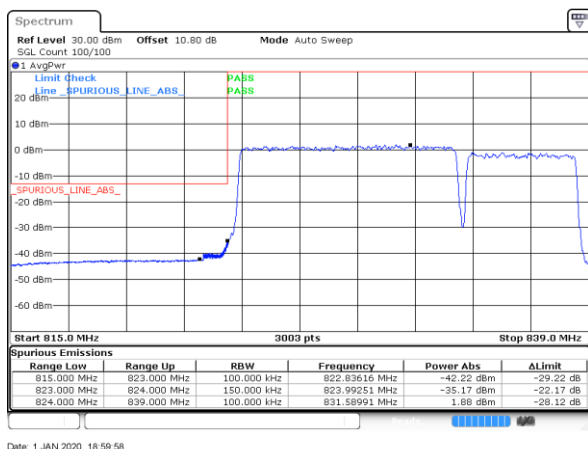
## Lowest Band Edge / 1RB49 and 1RB0



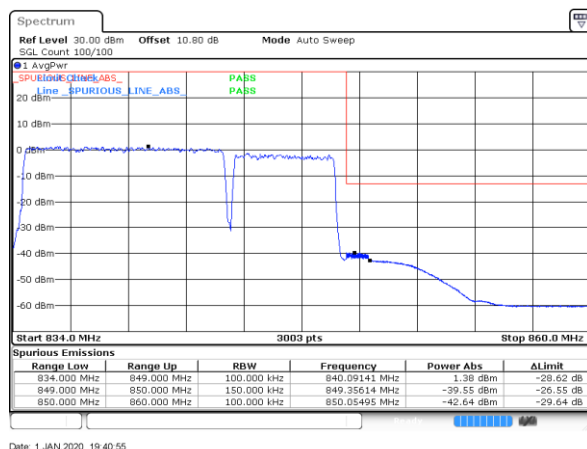
## Highest Band Edge / 1RB49 and 1RB0



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

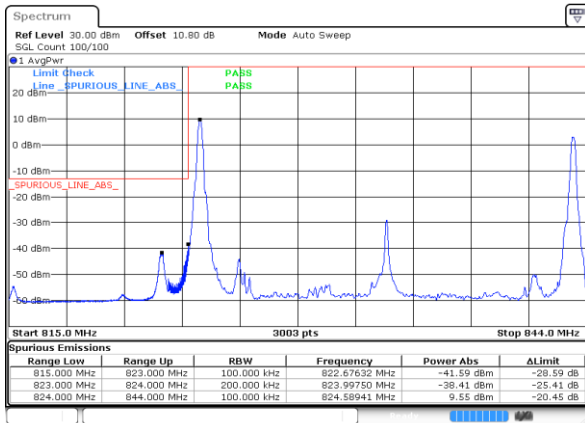




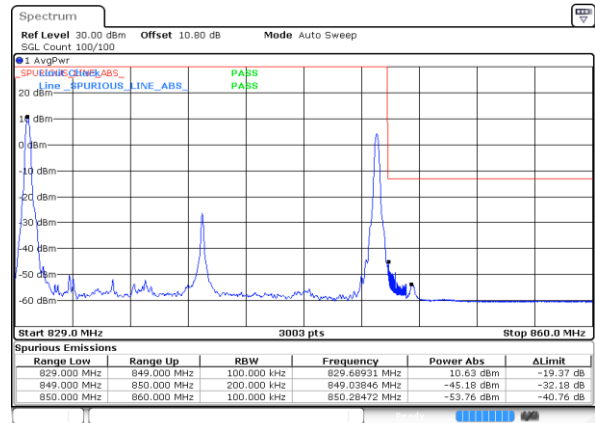
## LTE Band 5B / 10MHz+10MHz

## 16QAM

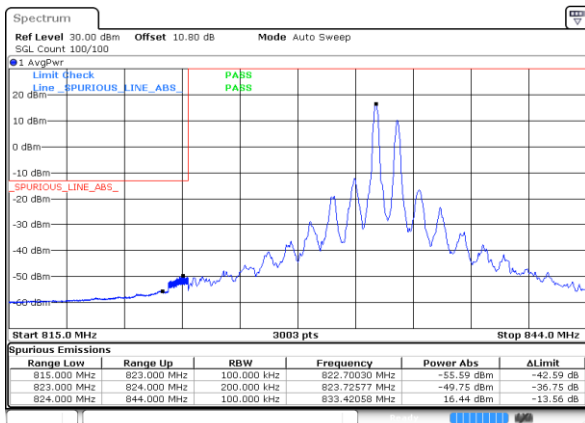
## Lowest Band Edge / 1RB0 and 1RB49



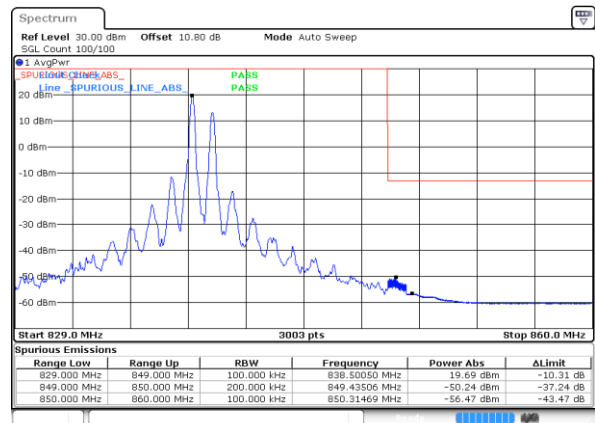
## Highest Band Edge / 1RB0 and 1RB49



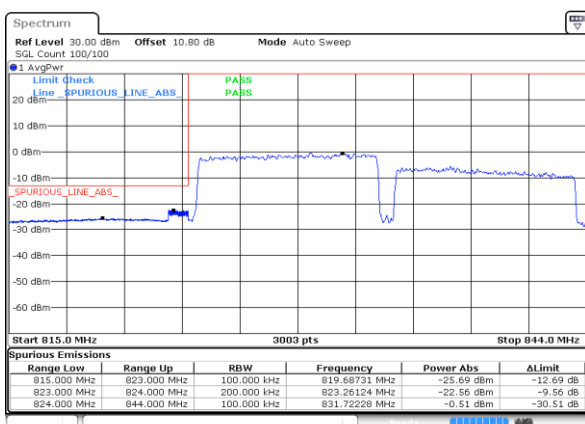
## Lowest Band Edge / 1RB49 and 1RB0



## Highest Band Edge / 1RB49 and 1RB0



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

