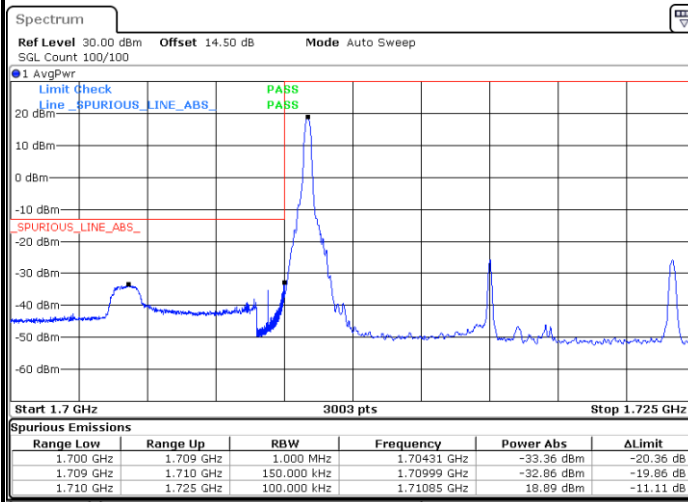


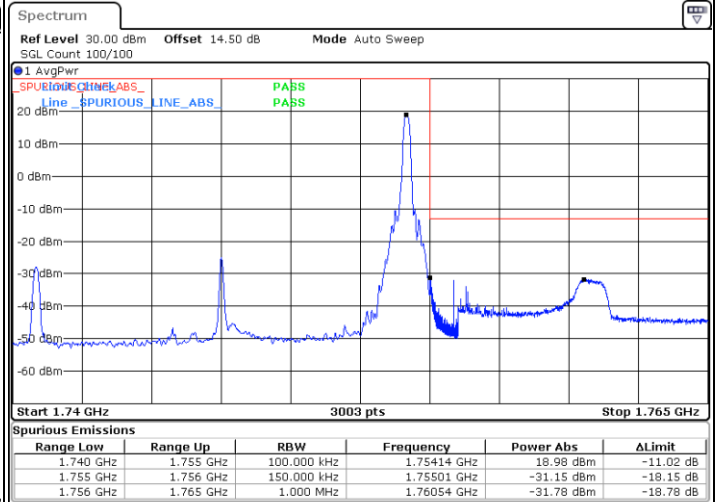


## LTE Band 4 / 15MHz / 64QAM

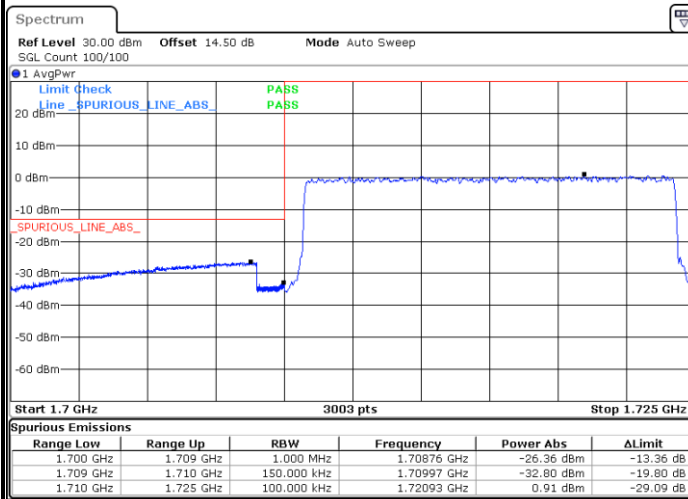
## Lowest Band Edge / 1 RB



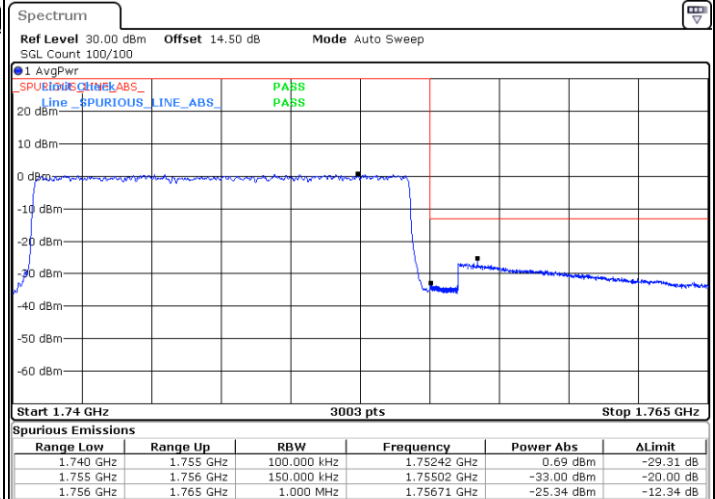
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



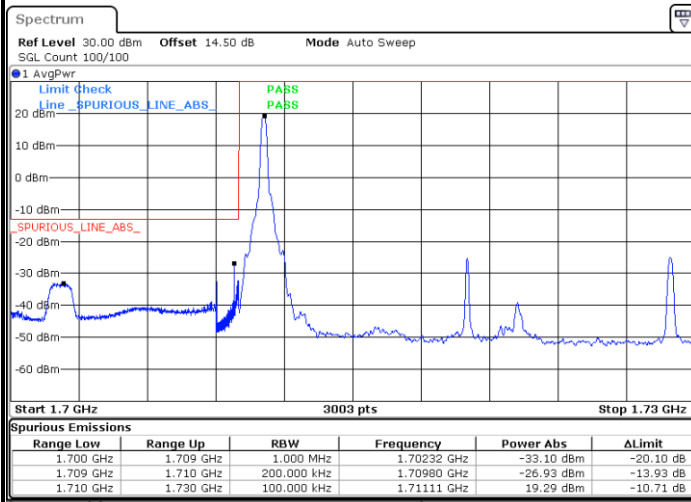
## Highest Band Edge / Full RB



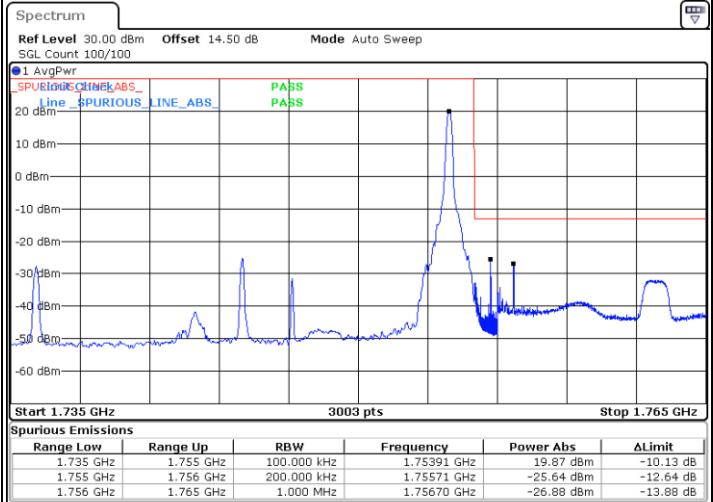


## LTE Band 4 / 20MHz / QPSK

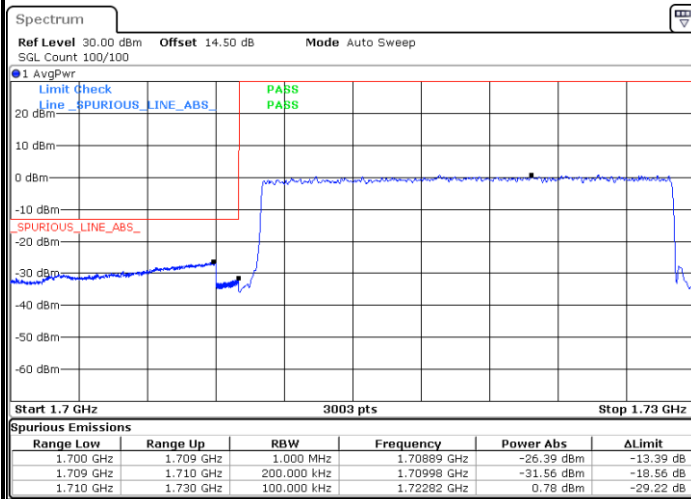
## Lowest Band Edge / 1 RB



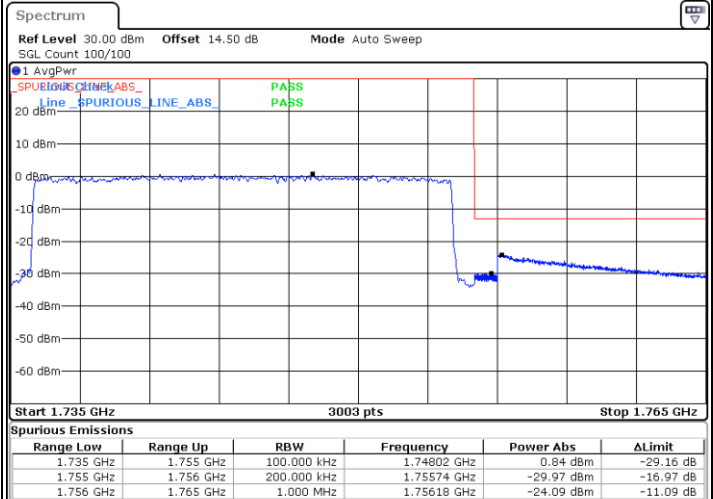
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



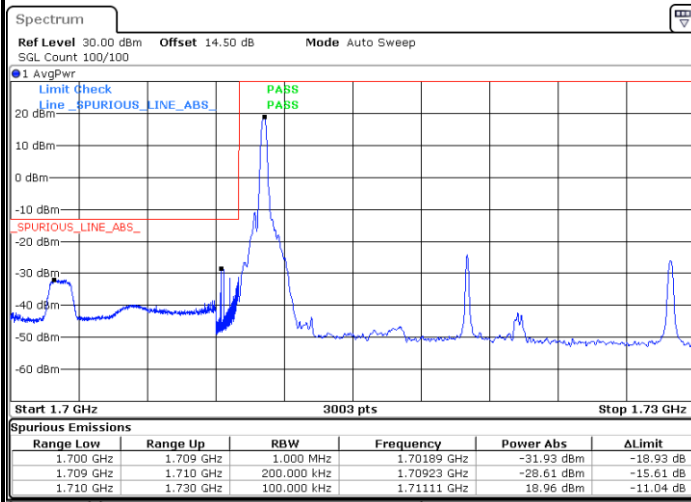
## Highest Band Edge / Full RB



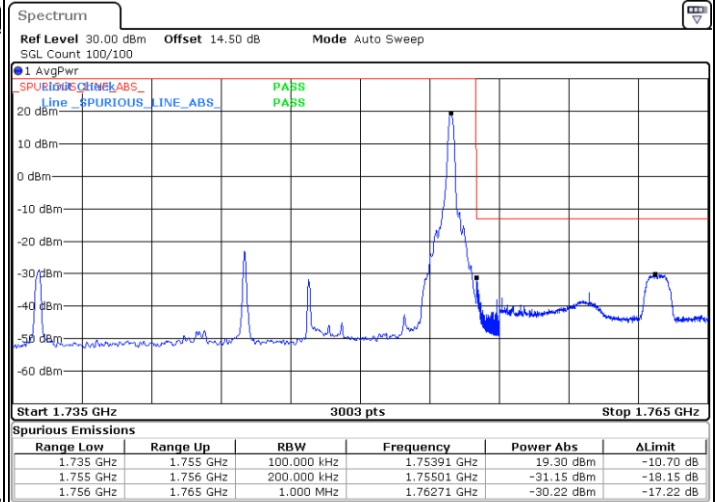


## LTE Band 4 / 20MHz / 16QAM

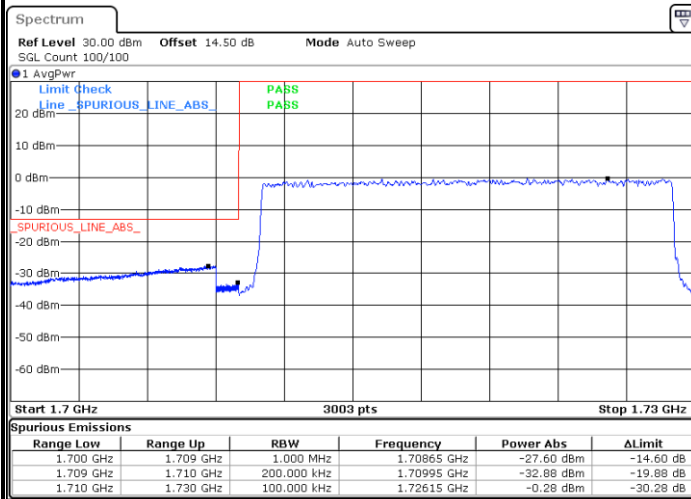
## Lowest Band Edge / 1 RB



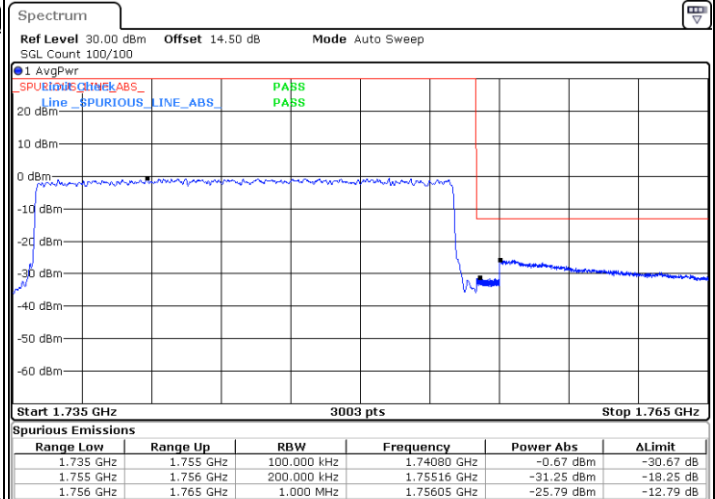
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



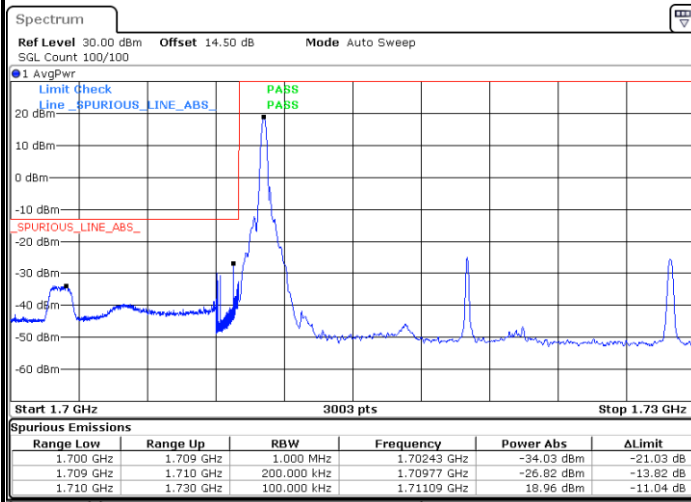
## Highest Band Edge / Full RB



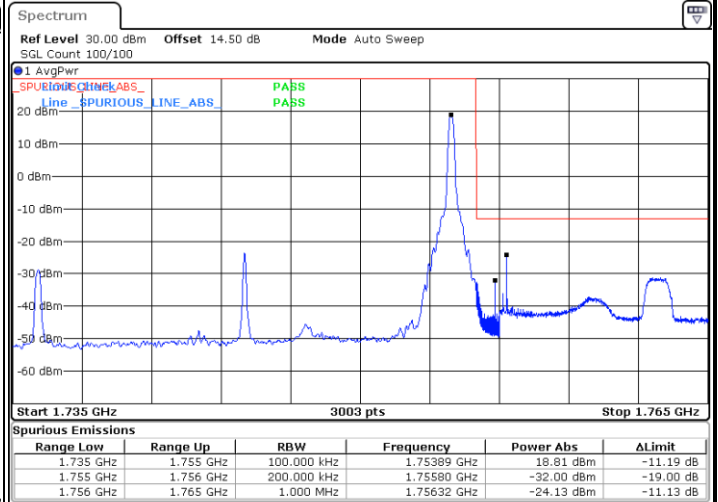


## LTE Band 4 / 20MHz / 64QAM

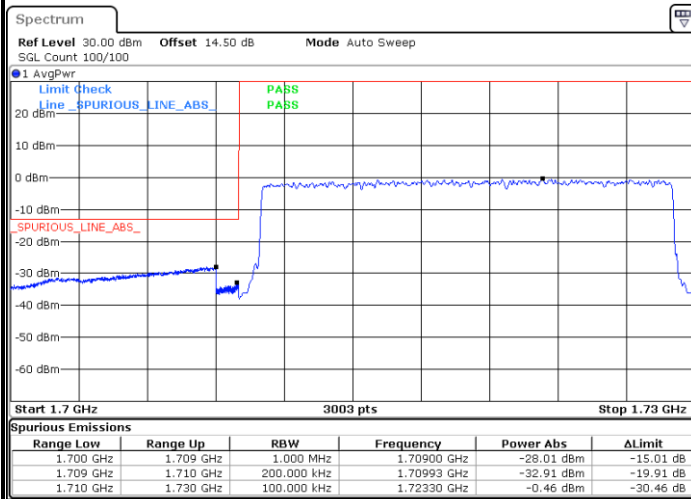
## Lowest Band Edge / 1 RB



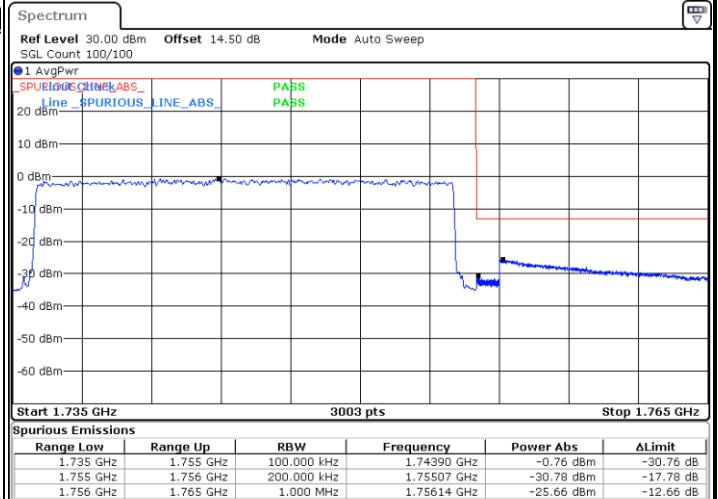
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

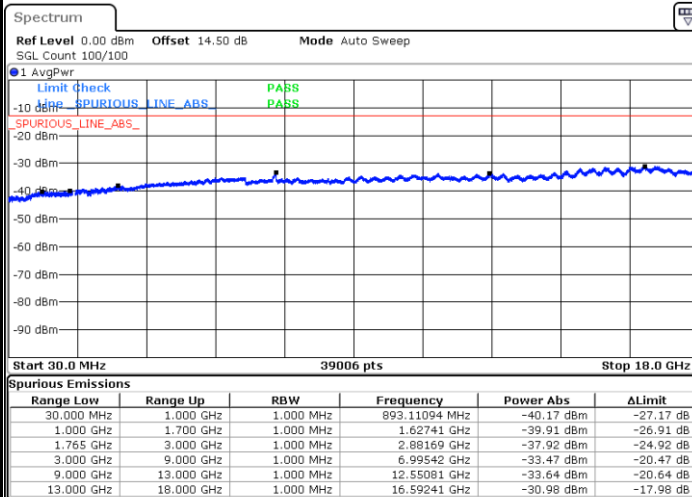




## Conducted Spurious Emission

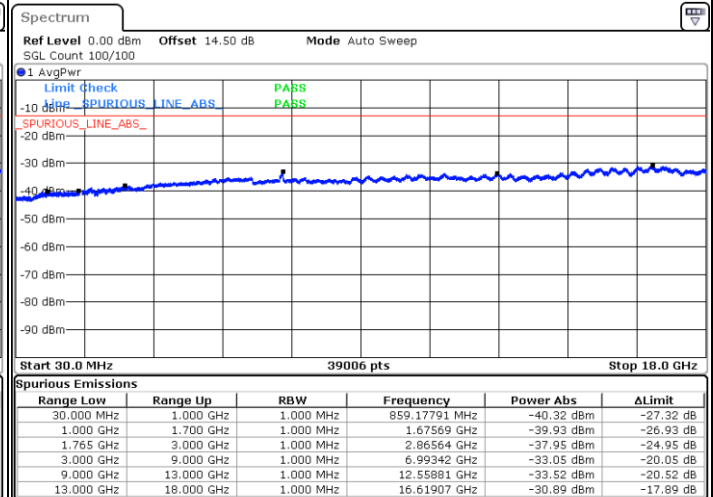
### LTE Band 4 / 1.4MHz

#### Lowest Channel / QPSK



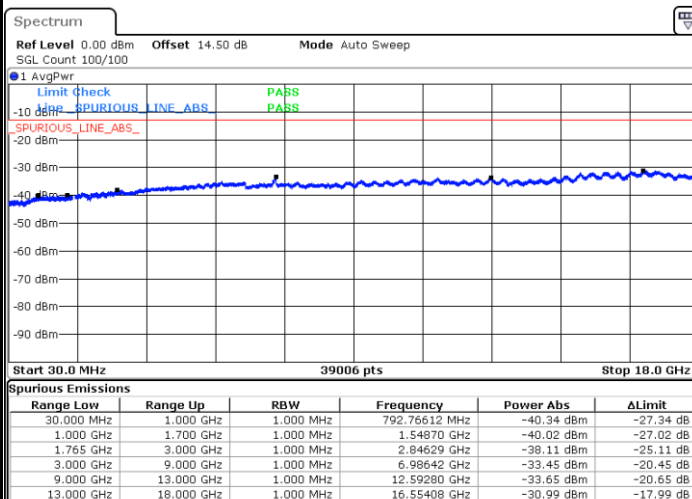
Date: 30.NOV.2019 07:13:08

#### Lowest Channel / 16QAM



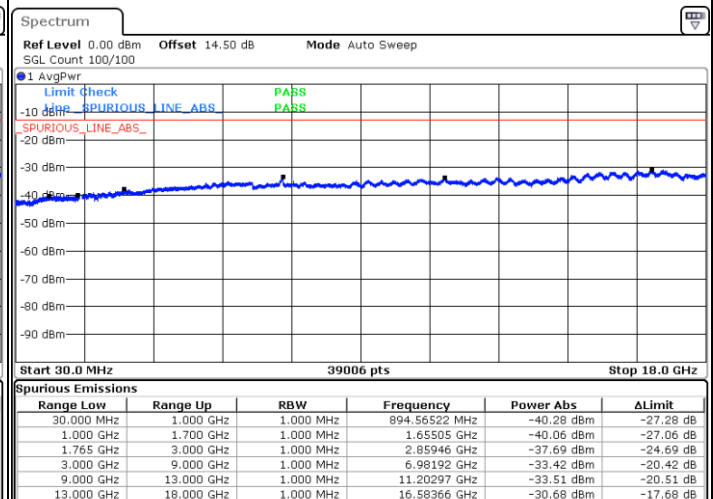
Date: 30.NOV.2019 07:14:07

#### Middle Channel / QPSK



Date: 30.NOV.2019 07:14:48

#### Middle Channel / 16QAM

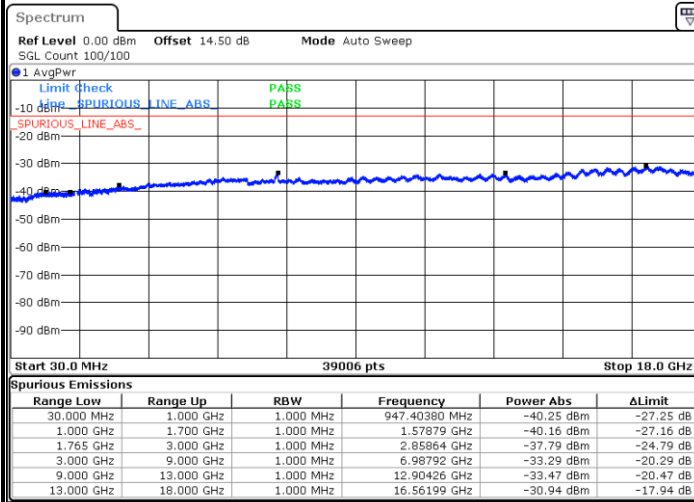


Date: 30.NOV.2019 07:15:30



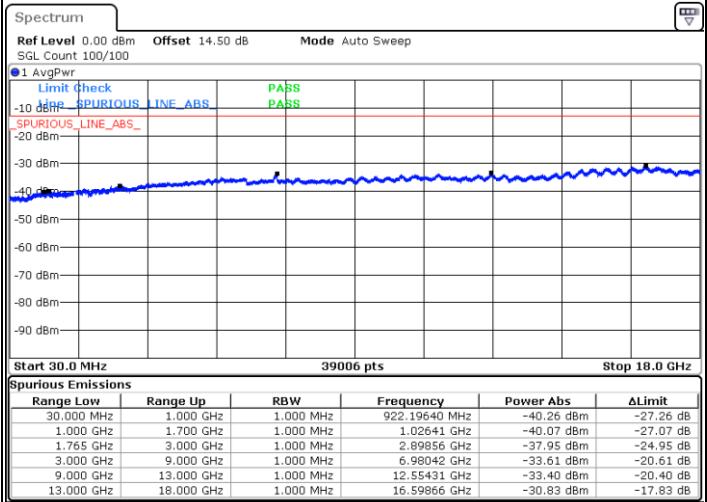
## LTE Band 4 / 1.4MHz

## Highest Channel / QPSK



Date: 30.NOV.2019 07:16:12

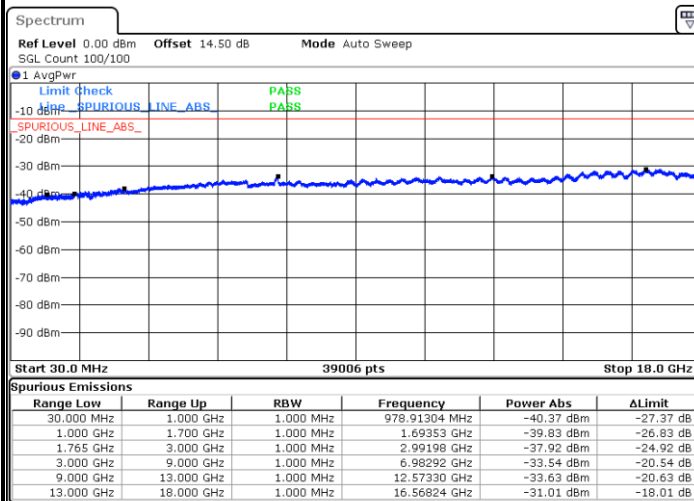
## Highest Channel / 16QAM



Date: 30.NOV.2019 07:16:53

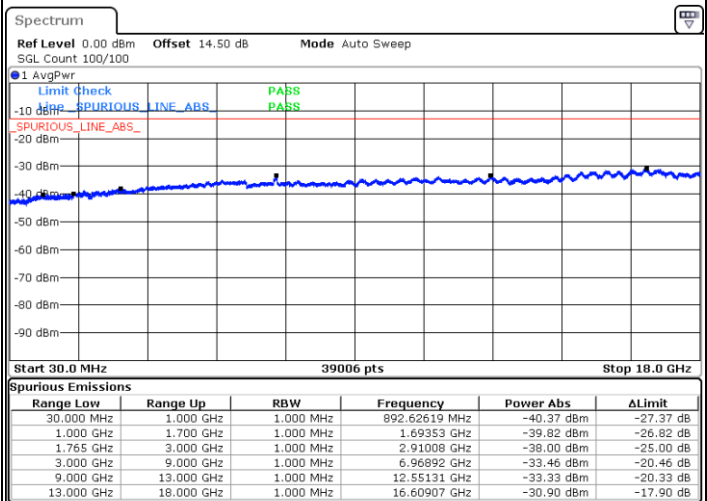
## LTE Band 4 / 3MHz

## Lowest Channel / QPSK



Date: 30.NOV.2019 07:17:35

## Lowest Channel / 16QAM

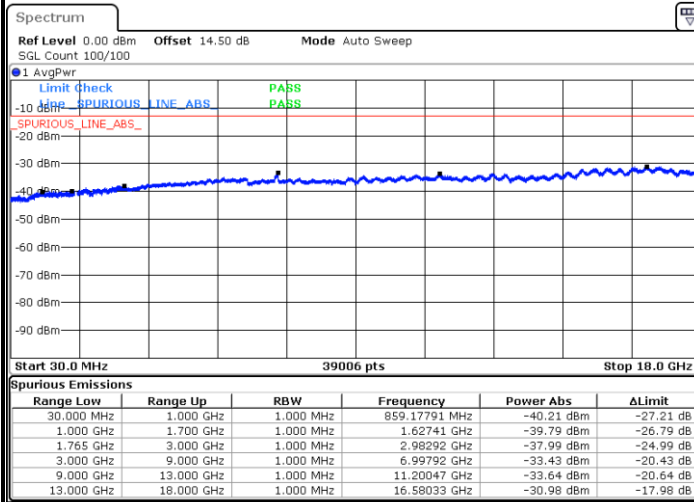


Date: 30.NOV.2019 07:18:17



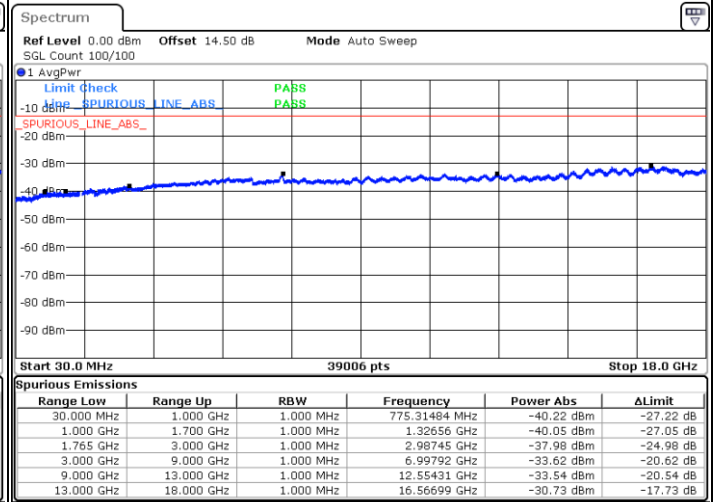
## LTE Band 4 / 3MHz

## Middle Channel / QPSK



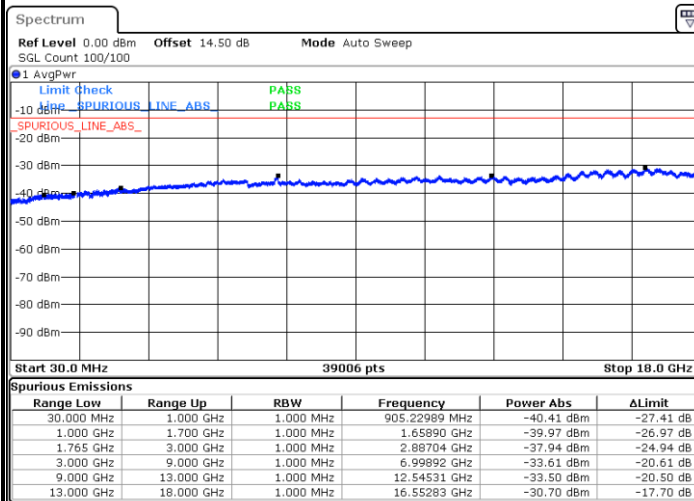
Date: 30.NOV.2019 07:18:59

## Middle Channel / 16QAM



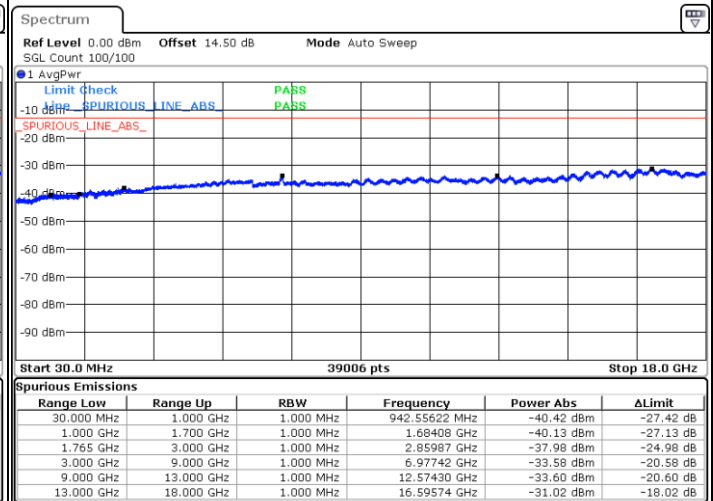
Date: 30.NOV.2019 07:19:40

## Highest Channel / QPSK



Date: 30.NOV.2019 07:20:22

## Highest Channel / 16QAM

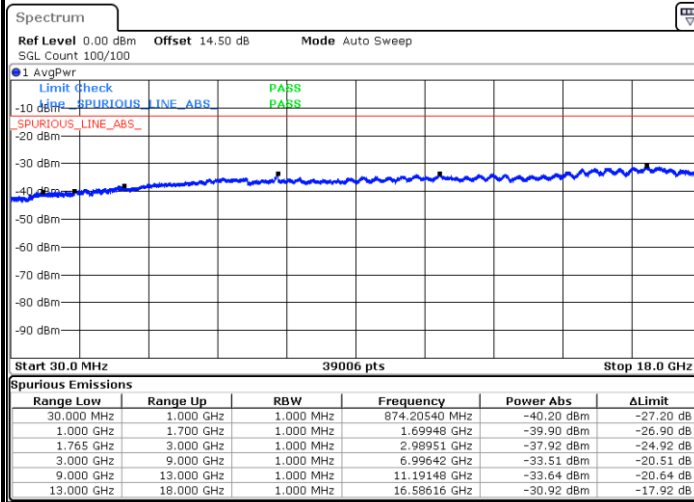


Date: 30.NOV.2019 07:21:03



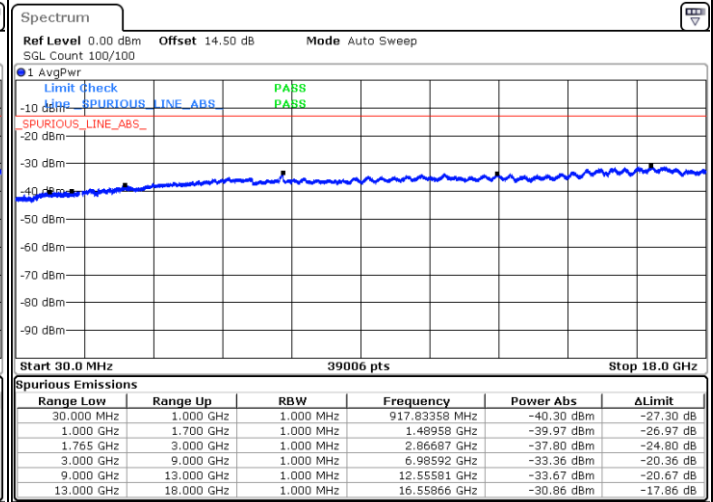
## LTE Band 4 / 5MHz

## Lowest Channel / QPSK



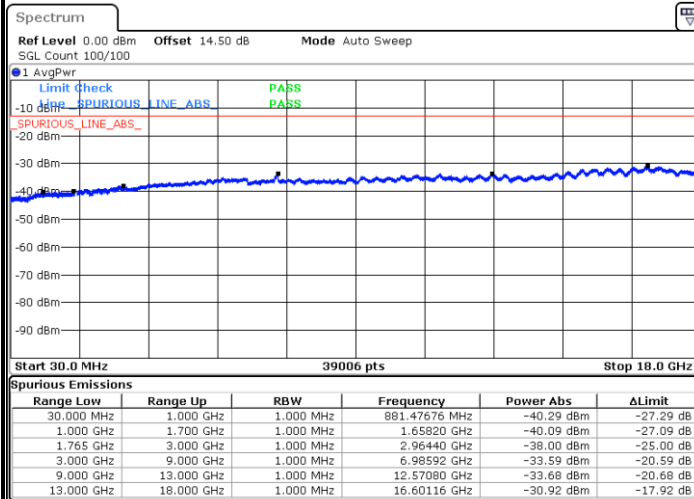
Date: 30.NOV.2019 07:21:45

## Lowest Channel / 16QAM



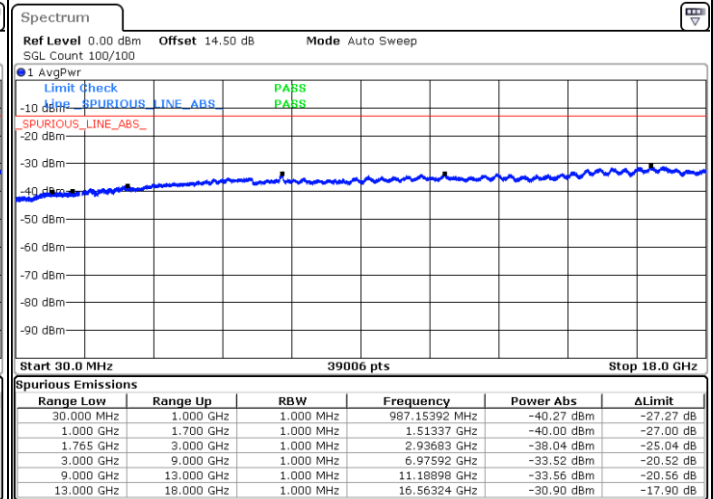
Date: 30.NOV.2019 07:22:27

## Middle Channel / QPSK



Date: 30.NOV.2019 07:23:09

## Middle Channel / 16QAM

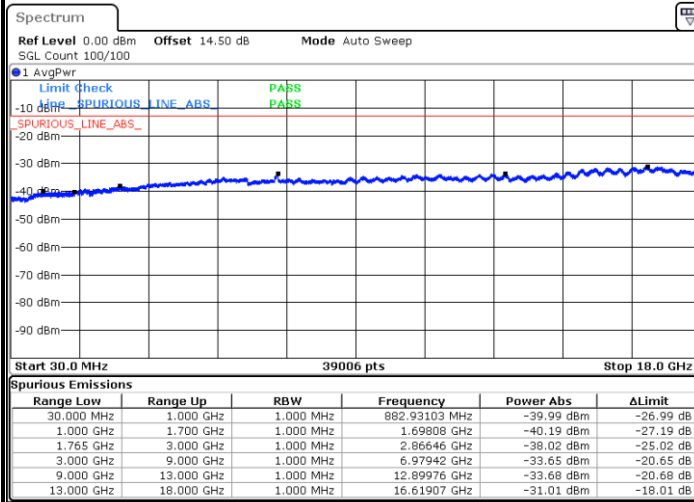


Date: 30.NOV.2019 07:23:50



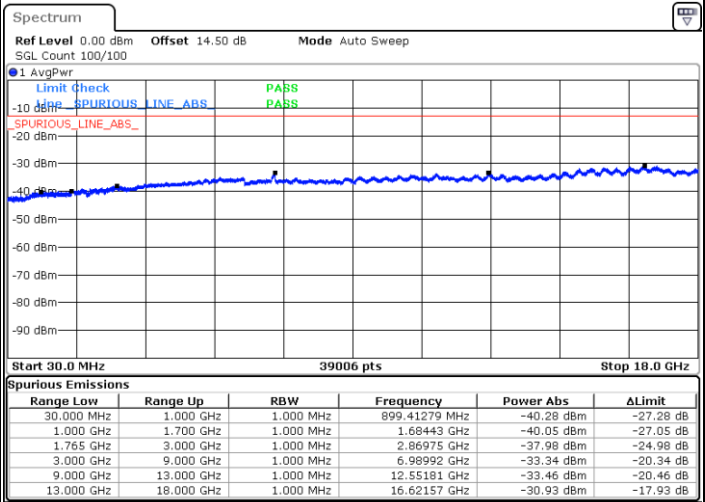
## LTE Band 4 / 5MHz

## Highest Channel / QPSK



Date: 30.NOV.2019 07:24:32

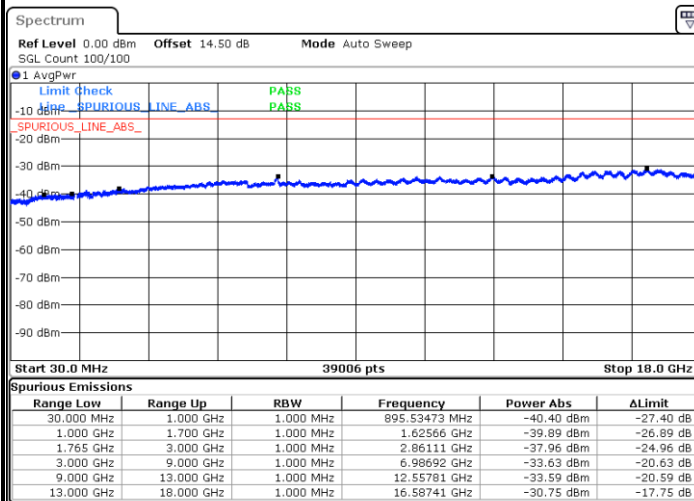
## Highest Channel / 16QAM



Date: 30.NOV.2019 07:25:14

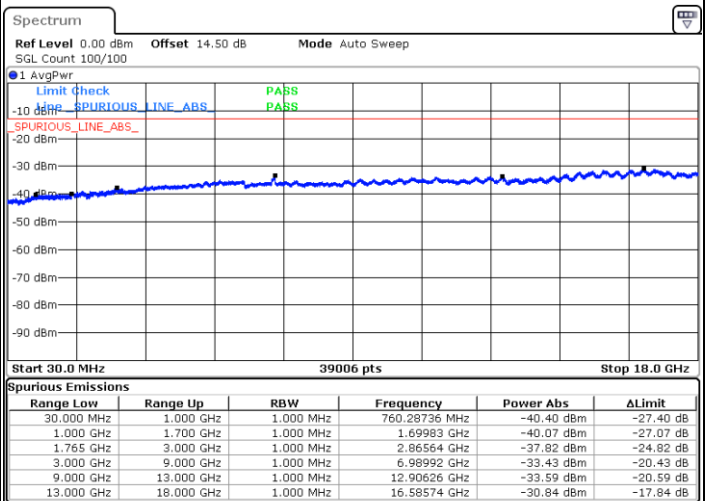
## LTE Band 4 / 10MHz

## Lowest Channel / QPSK



Date: 30.NOV.2019 07:25:56

## Lowest Channel / 16QAM

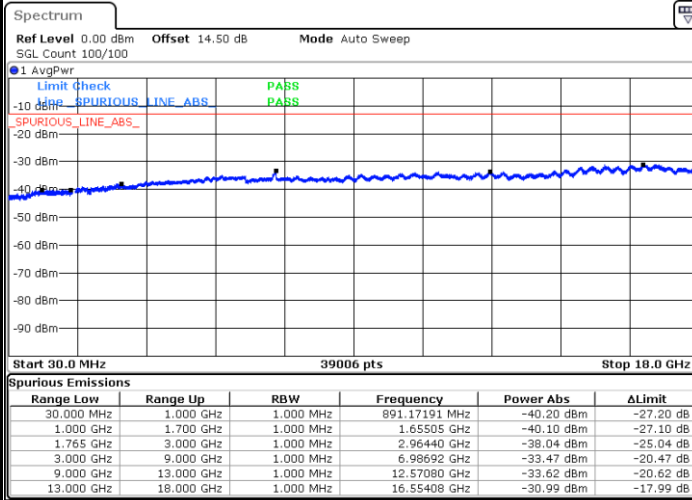


Date: 30.NOV.2019 07:26:37



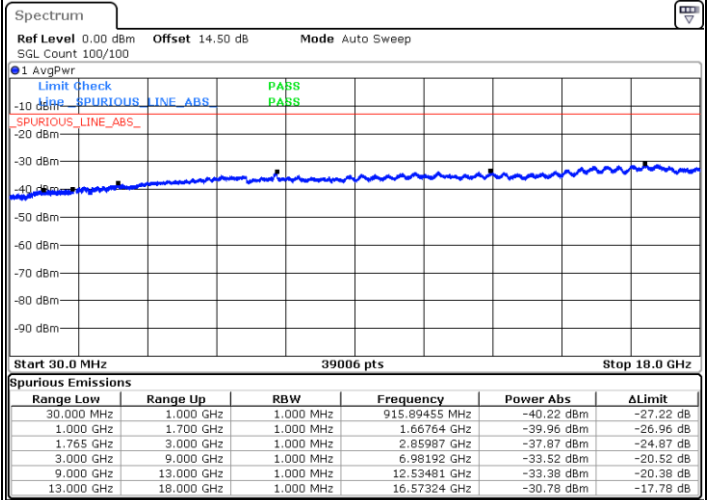
## LTE Band 4 / 10MHz

## Middle Channel / QPSK



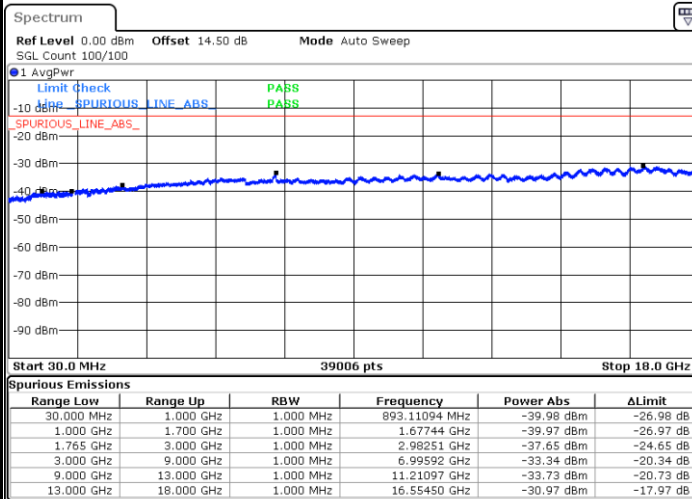
Date: 30.NOV.2019 07:27:19

## Middle Channel / 16QAM



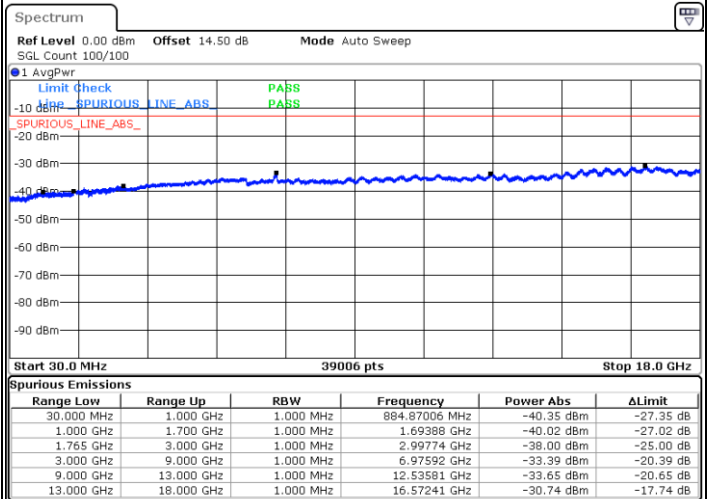
Date: 30.NOV.2019 07:28:01

## Highest Channel / QPSK



Date: 30.NOV.2019 07:28:42

## Highest Channel / 16QAM

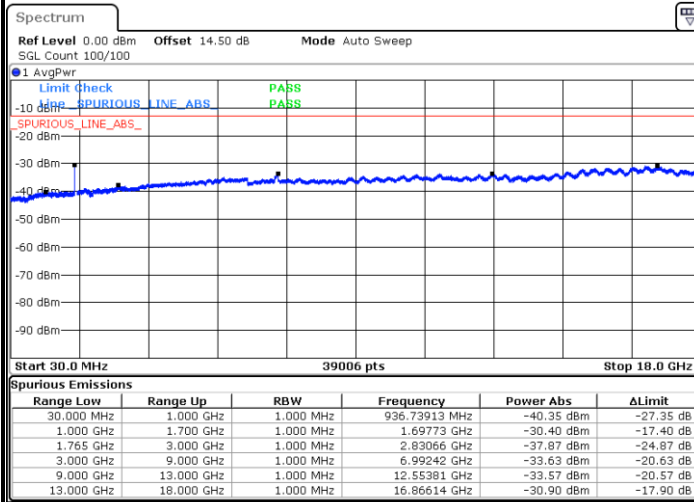


Date: 30.NOV.2019 07:29:24



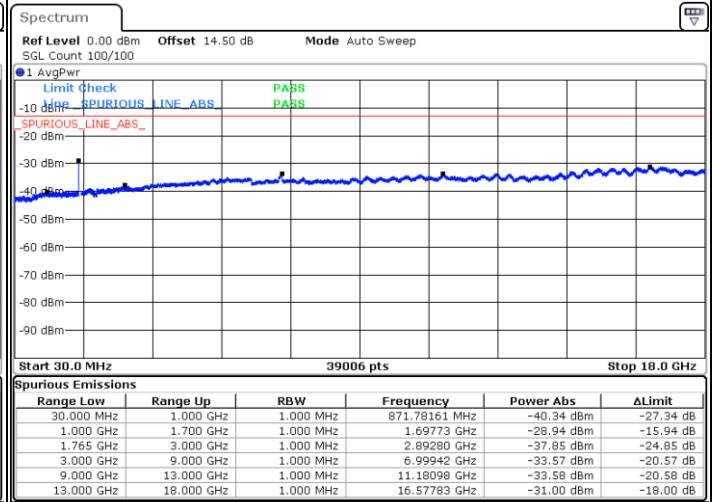
## LTE Band 4 / 15MHz

## Lowest Channel / QPSK



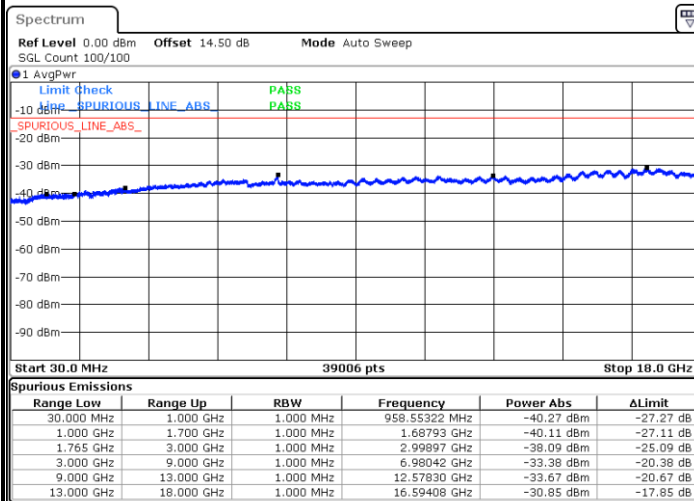
Date: 30.NOV.2019 07:30:06

## Lowest Channel / 16QAM



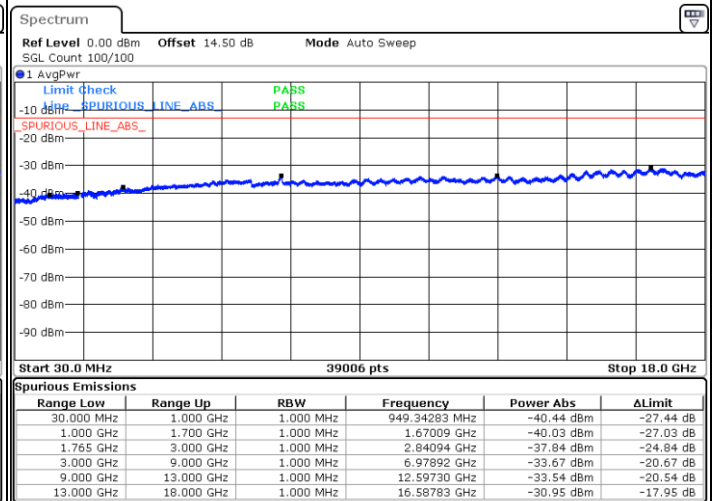
Date: 30.NOV.2019 07:30:47

## Middle Channel / QPSK



Date: 30.NOV.2019 07:31:29

## Middle Channel / 16QAM

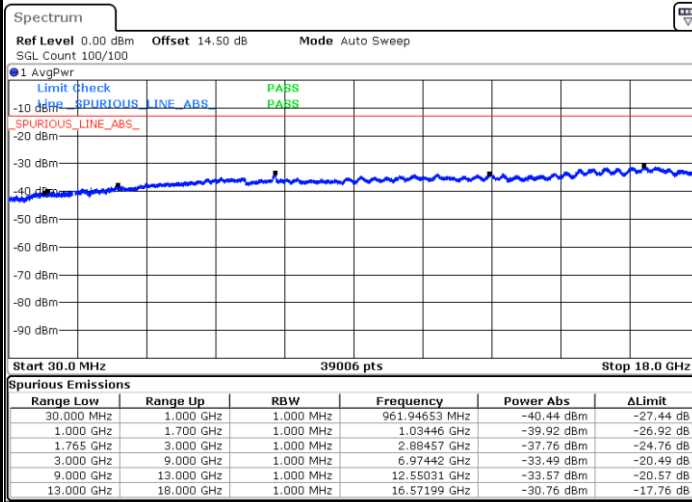


Date: 30.NOV.2019 07:32:10



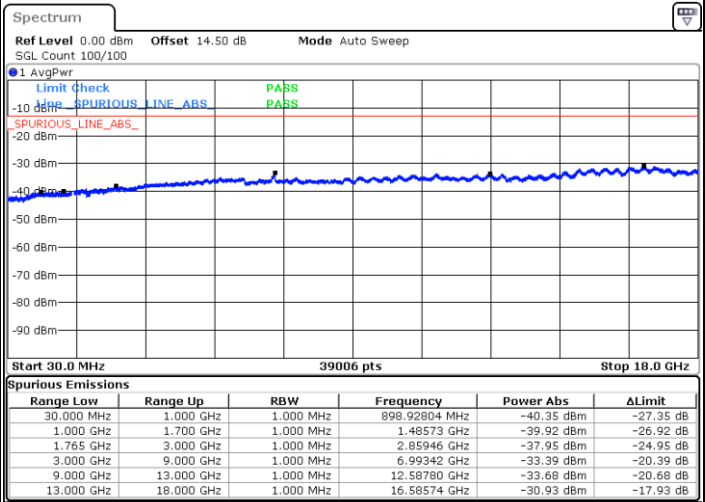
## LTE Band 4 / 15MHz

## Highest Channel / QPSK



Date: 30.NOV.2019 07:32:52

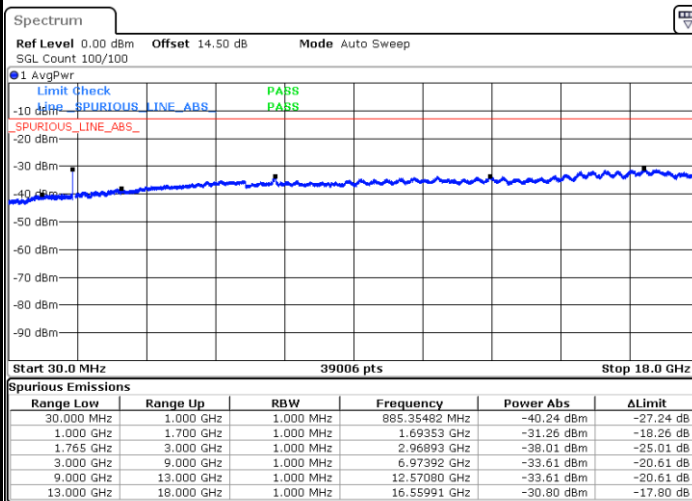
## Highest Channel / 16QAM



Date: 30.NOV.2019 07:33:33

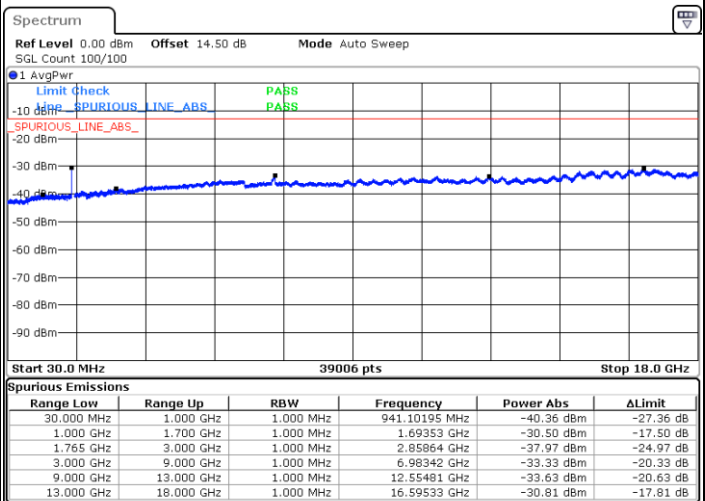
## LTE Band 4 / 20MHz

## Lowest Channel / QPSK



Date: 30.NOV.2019 07:34:15

## Lowest Channel / 16QAM

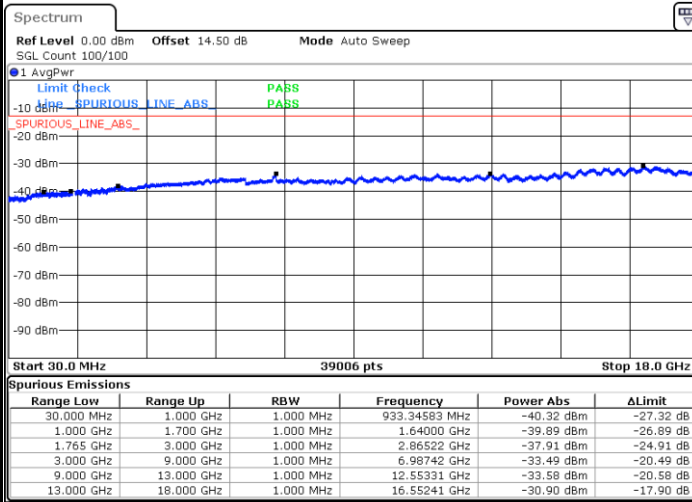


Date: 30.NOV.2019 07:34:56



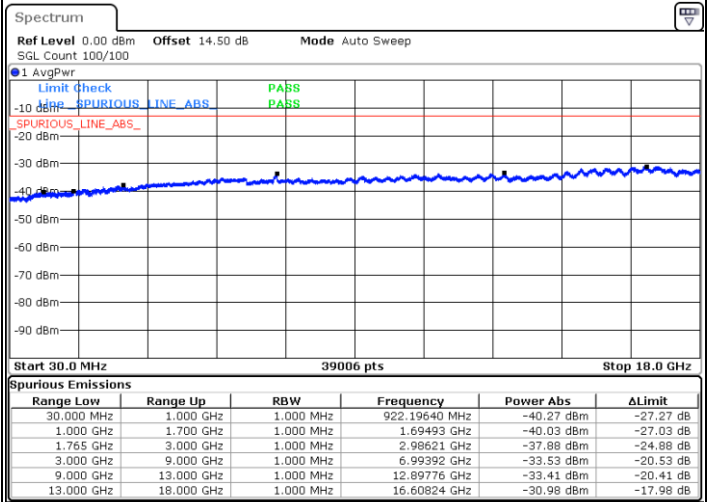
## LTE Band 4 / 20MHz

## Middle Channel / QPSK



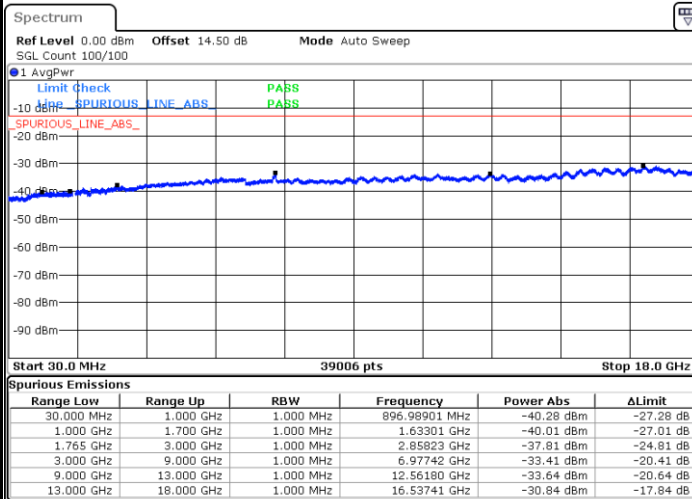
Date: 30.NOV.2019 07:35:37

## Middle Channel / 16QAM



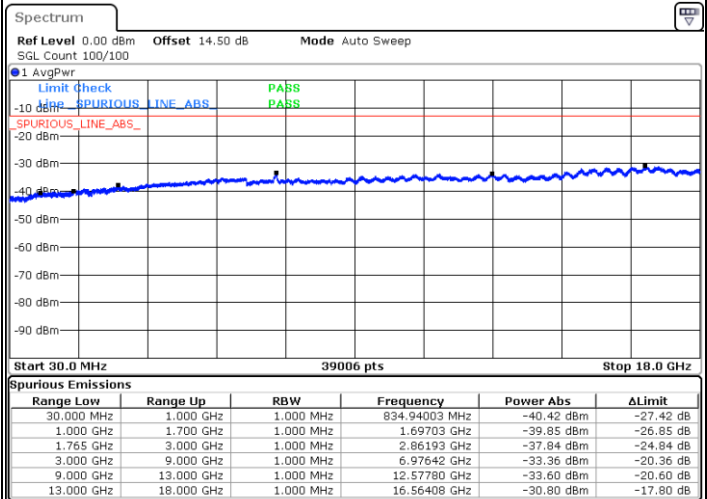
Date: 30.NOV.2019 07:36:18

## Highest Channel / QPSK



Date: 30.NOV.2019 07:36:59

## Highest Channel / 16QAM

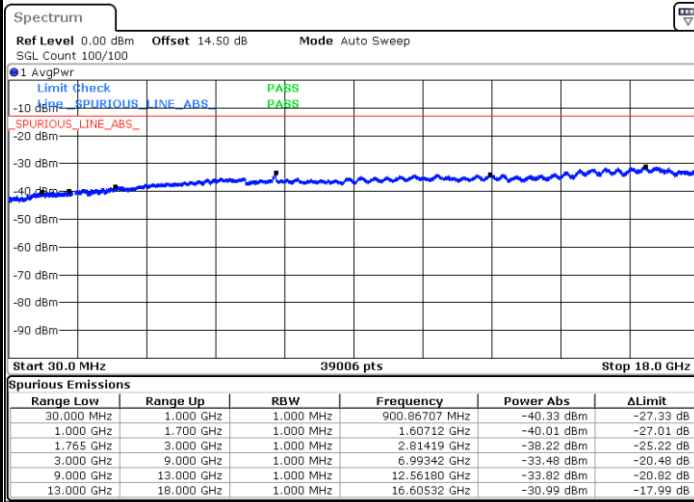


Date: 30.NOV.2019 07:37:41



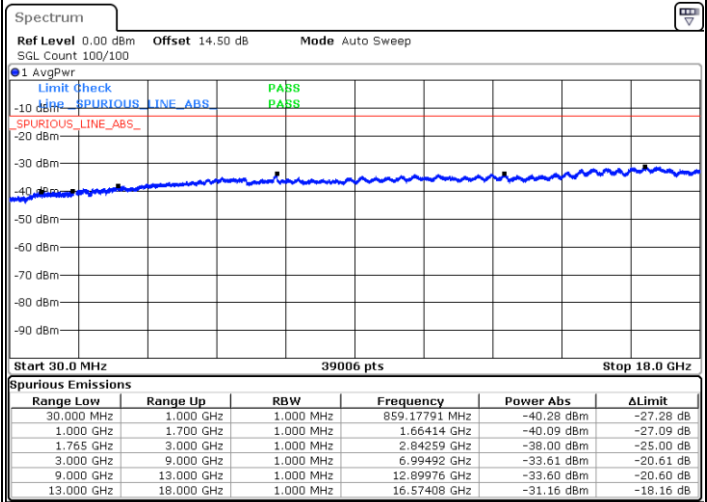
## LTE Band 4 / 1.4MHz

## Lowest Channel / 64QAM



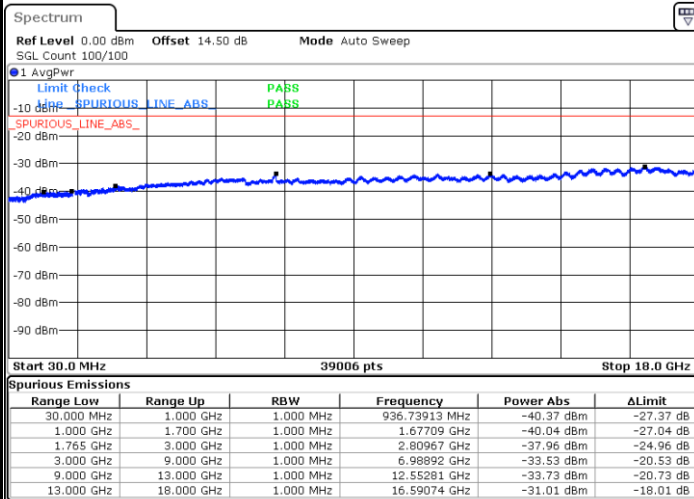
Date: 5.DEC.2019 14:03:36

## Middle Channel / 64QAM



Date: 5.DEC.2019 14:02:49

## Highest Channel / 64QAM

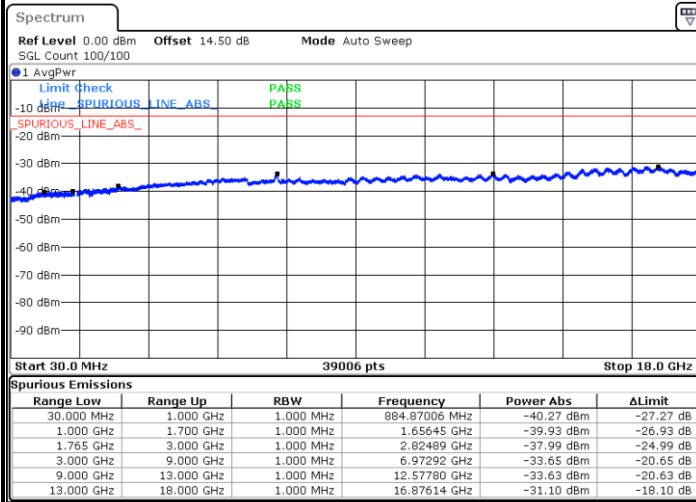


Date: 5.DEC.2019 13:59:39



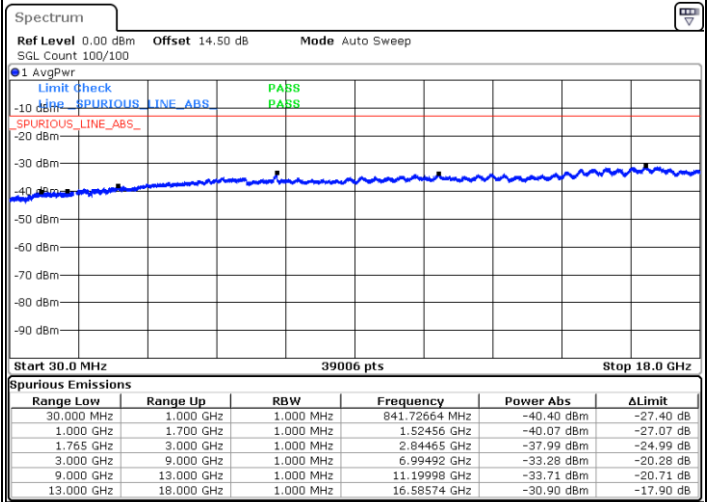
## LTE Band 4 / 3MHz

## Lowest Channel / 64QAM



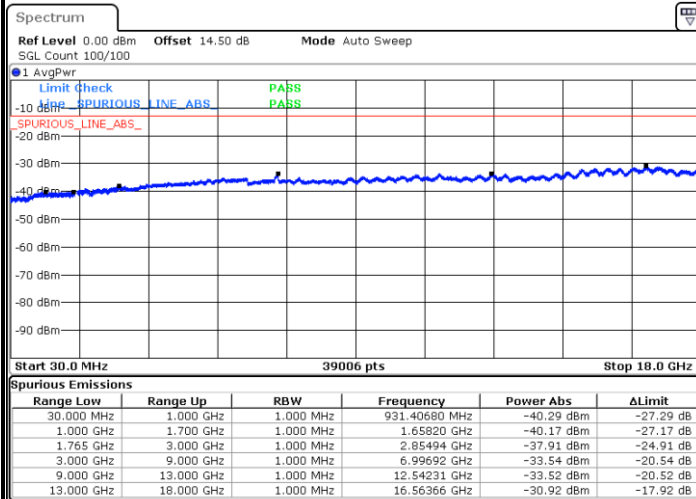
Date: 5.DEC.2019 14:09:05

## Middle Channel / 64QAM



Date: 5.DEC.2019 14:09:52

## Highest Channel / 64QAM

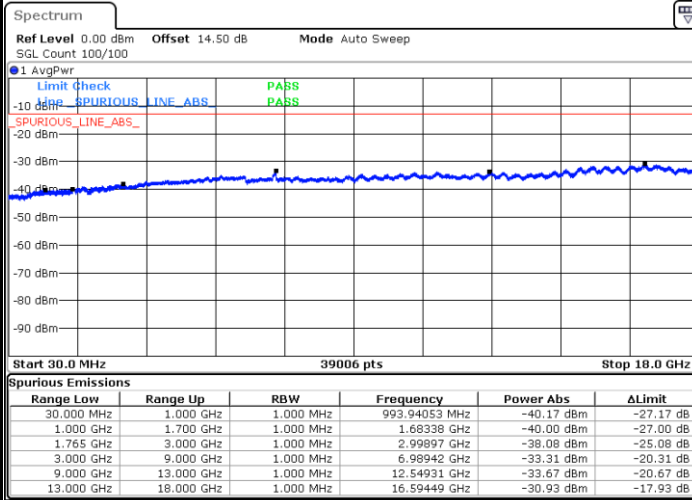


Date: 5.DEC.2019 14:13:02



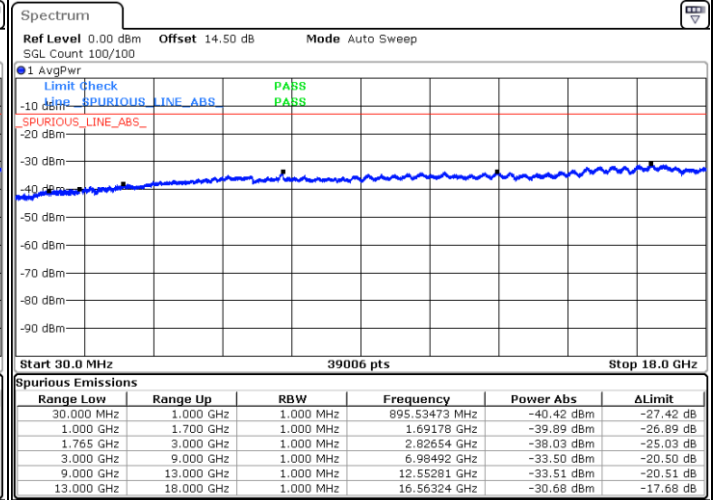
## LTE Band 4 / 5MHz

## Lowest Channel / 64QAM



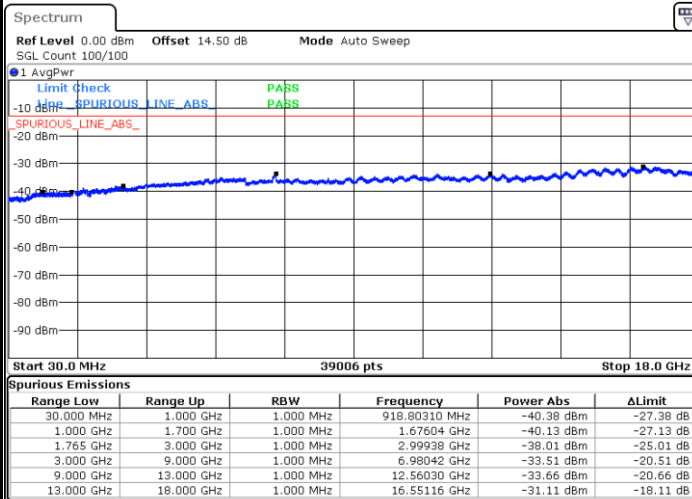
Date: 5.DEC.2019 14:26:21

## Middle Channel / 64QAM



Date: 5.DEC.2019 14:27:25

## Highest Channel / 64QAM

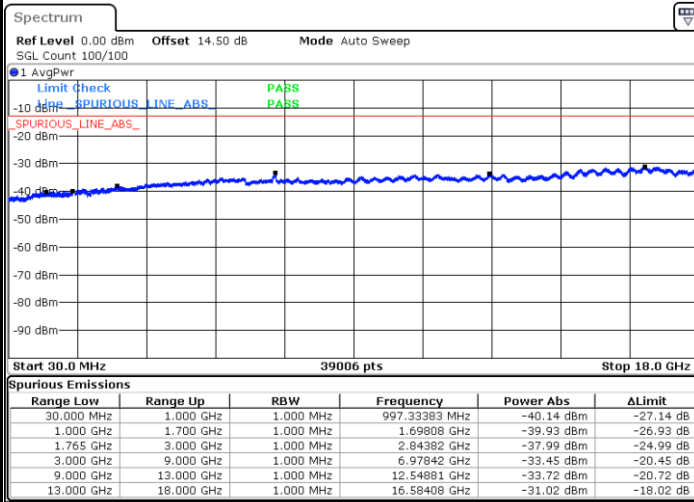


Date: 5.DEC.2019 14:30:28



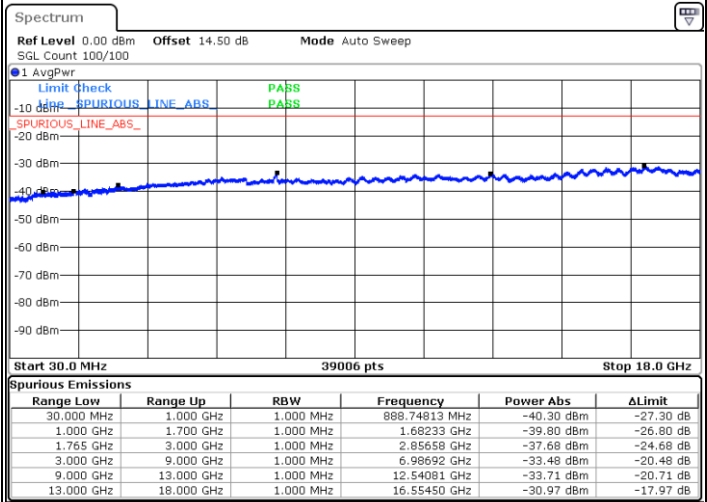
## LTE Band 4 / 10MHz

## Lowest Channel / 64QAM



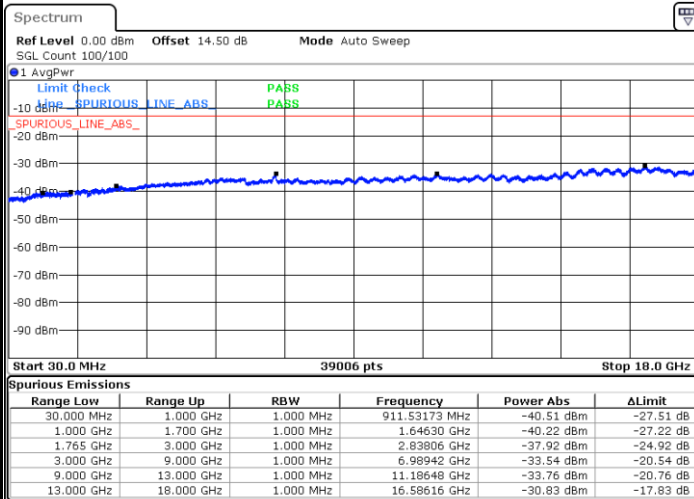
Date: 5.DEC.2019 14:33:32

## Middle Channel / 64QAM



Date: 5.DEC.2019 14:34:37

## Highest Channel / 64QAM

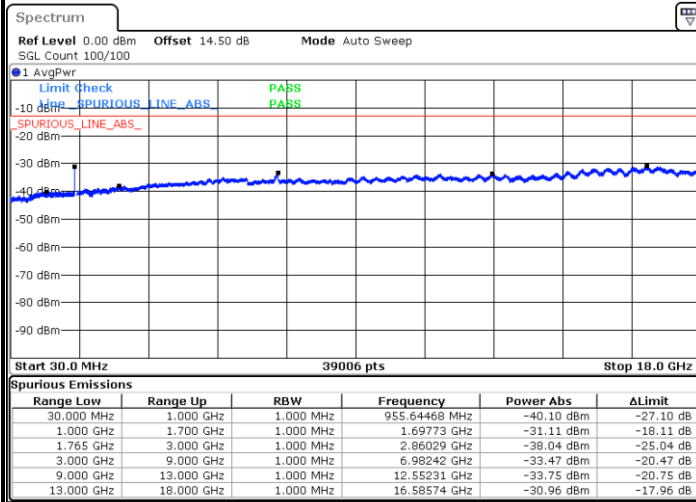


Date: 5.DEC.2019 14:37:41



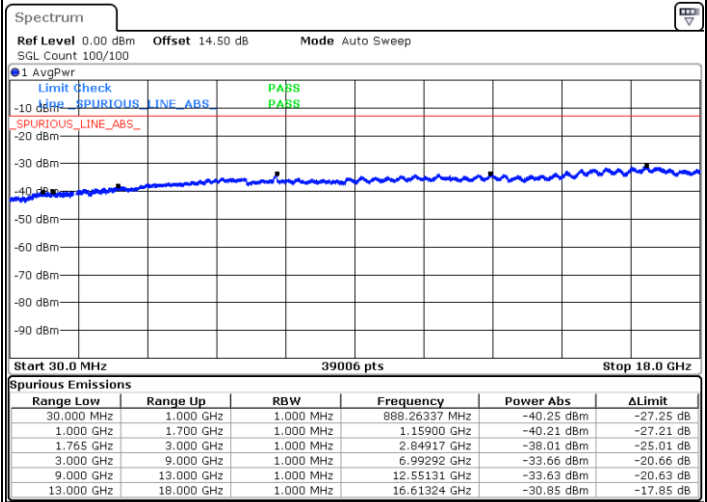
## LTE Band 4 / 15MHz

## Lowest Channel / 64QAM



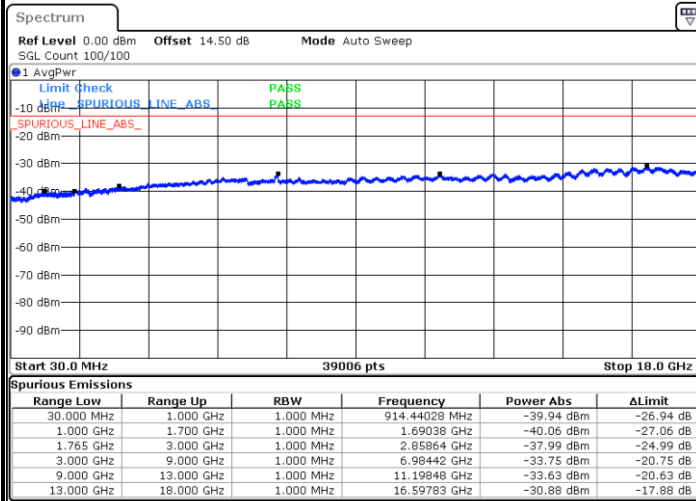
Date: 5.DEC.2019 14:40:44

## Middle Channel / 64QAM



Date: 5.DEC.2019 14:41:48

## Highest Channel / 64QAM

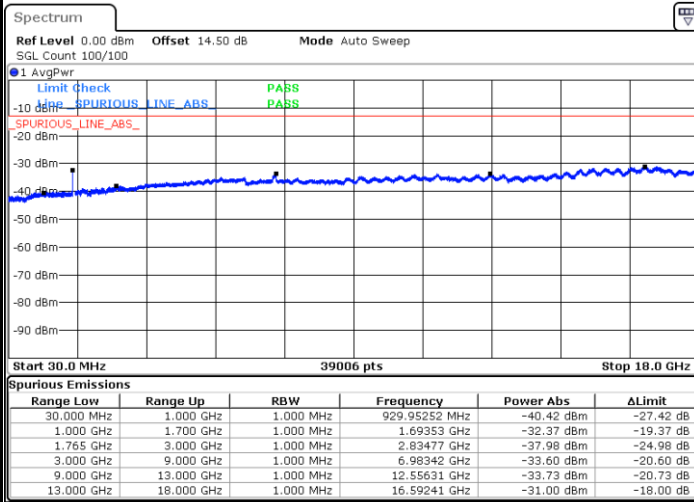


Date: 5.DEC.2019 14:44:52



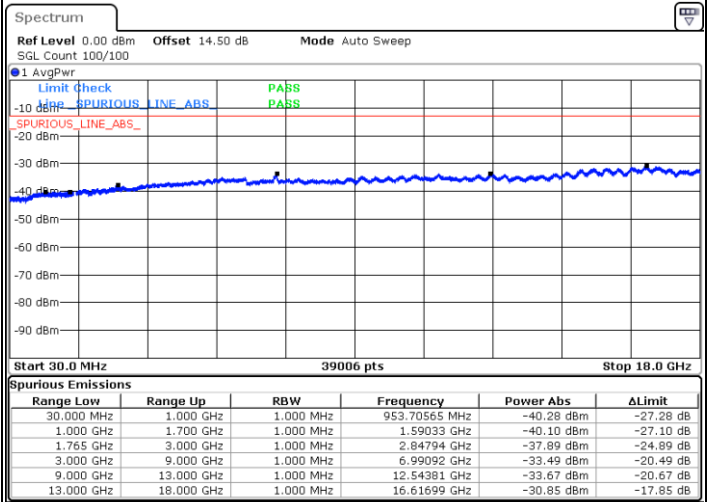
## LTE Band 4 / 20MHz

## Lowest Channel / 64QAM



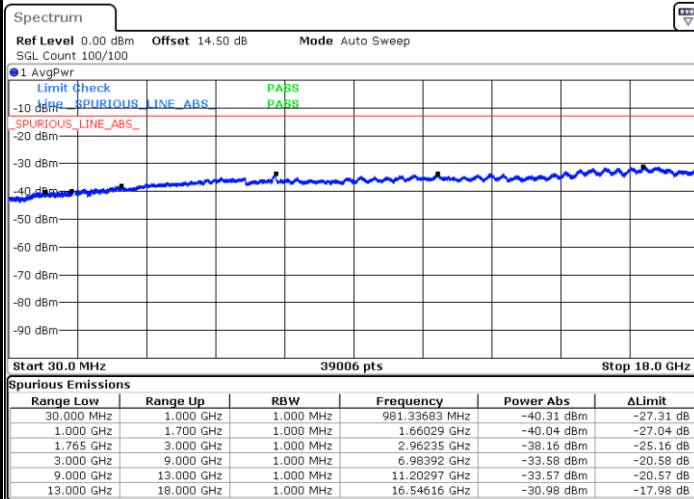
Date: 5.DEC.2019 14:47:56

## Middle Channel / 64QAM



Date: 5.DEC.2019 14:49:00

## Highest Channel / 64QAM



Date: 5.DEC.2019 14:52:03

**Frequency Stability**

| Test Conditions  |                   | LTE Band 4 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                           | Note 2. |
|                  |                   | Deviation (ppm)                    | Result  |
| 50               | Normal Voltage    | 0.0013                             | PASS    |
| 40               | Normal Voltage    | 0.0033                             |         |
| 30               | Normal Voltage    | 0.0036                             |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |         |
| 10               | Normal Voltage    | 0.0031                             |         |
| 0                | Normal Voltage    | 0.0005                             |         |
| -10              | Normal Voltage    | 0.0018                             |         |
| -20              | Normal Voltage    | 0.0001                             |         |
| -30              | Normal Voltage    | 0.0012                             |         |
| 20               | Maximum Voltage   | 0.0013                             |         |
| 20               | Normal Voltage    | 0.0000                             |         |
| 20               | Battery End Point | 0.0004                             |         |

**Note:**

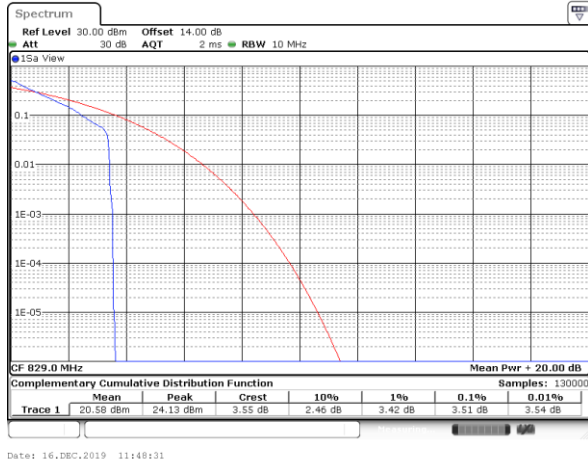
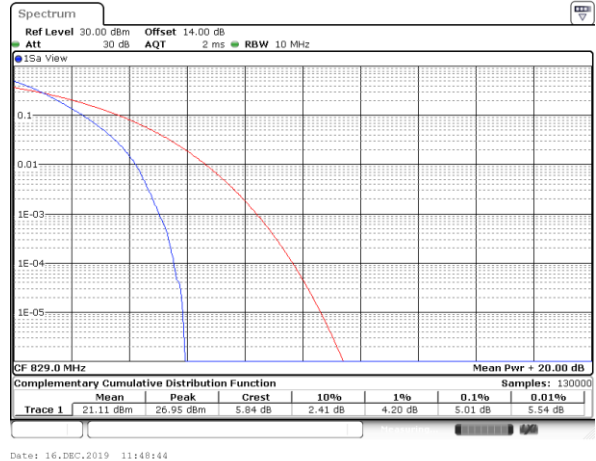
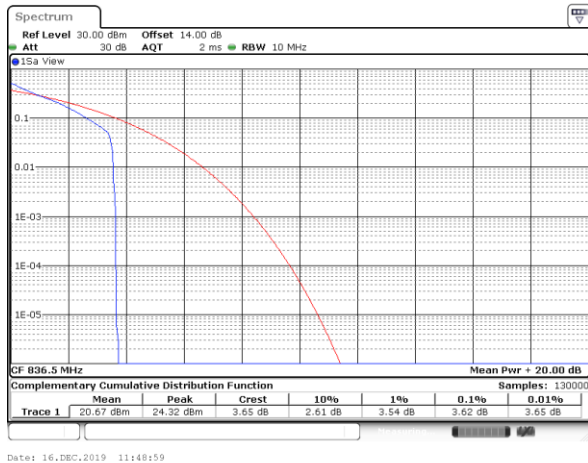
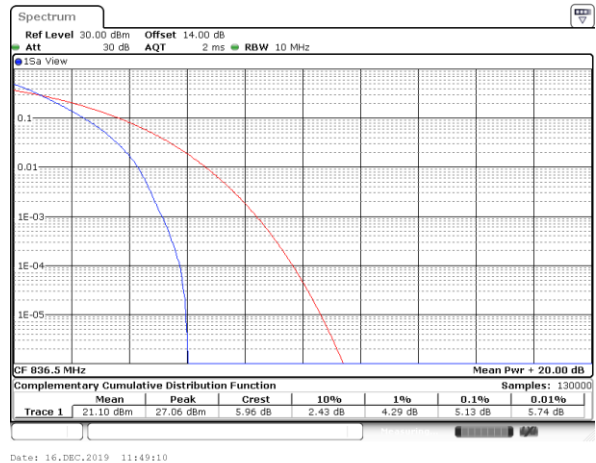
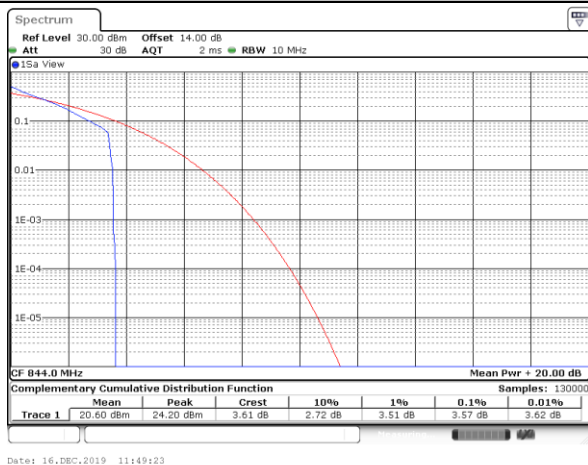
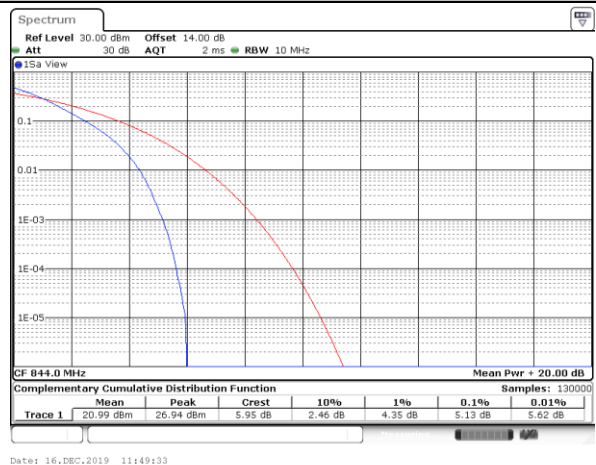
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 5

## Peak-to-Average Ratio

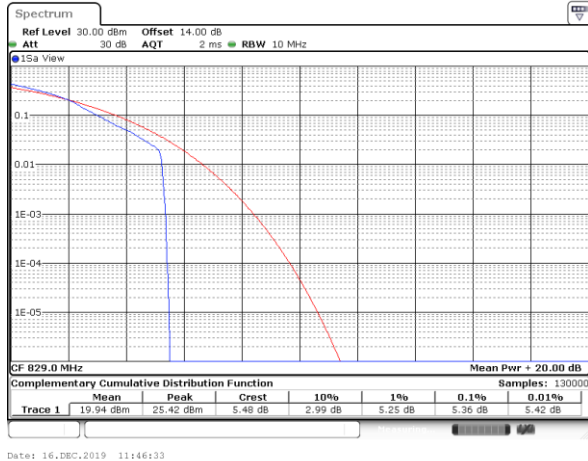
| Mode       | LTE Band 5 / 10MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 3.51               | 5.01    | 5.36  | 5.80    | PASS        |
| Middle CH  | 3.62               | 5.13    | 5.28  | 5.83    |             |
| Highest CH | 3.57               | 5.13    | 5.48  | 5.91    |             |
| Mode       | LTE Band 5 / 10MHz |         |       |         |             |
| Mod.       | 64QAM              |         |       |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB |       |         | Result      |
| Lowest CH  | 5.45               | 5.86    |       |         | PASS        |
| Middle CH  | 5.54               | 5.88    |       |         |             |
| Highest CH | 5.54               | 6.00    |       |         |             |

**LTE Band 5 / 10MHz / QPSK**
**Lowest Channel / 1RB**

**Lowest Channel / Full RB**

**Middle Channel / 1RB**

**Middle Channel / Full RB**

**Highest Channel / 1RB**

**Highest Channel / Full RB**


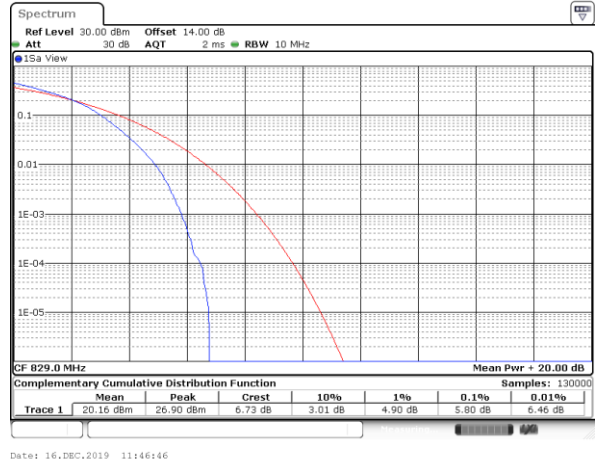


## LTE Band 5 / 10MHz / 16QAM

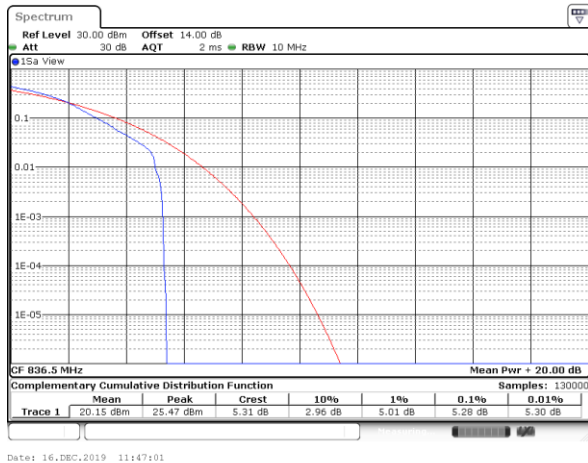
## Lowest Channel / 1RB



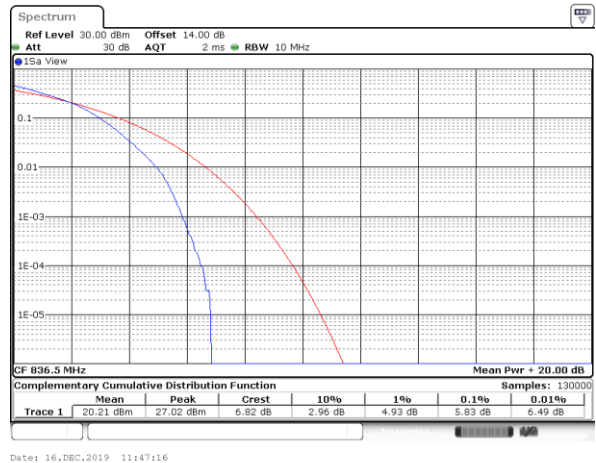
## Lowest Channel / Full RB



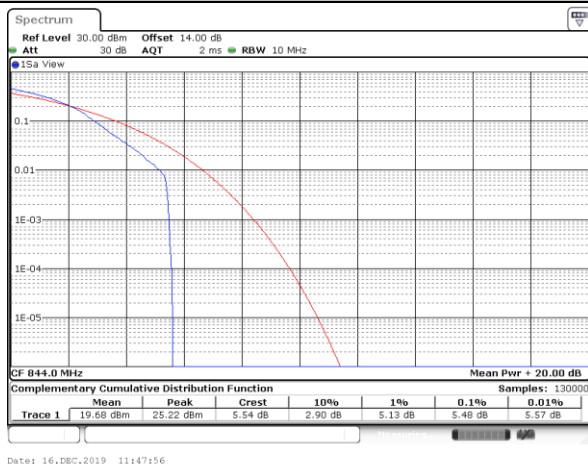
## Middle Channel / 1RB



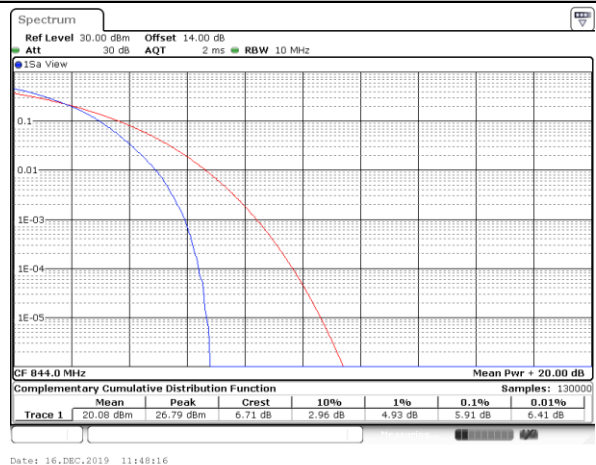
## Middle Channel / Full RB



## Highest Channel / 1RB



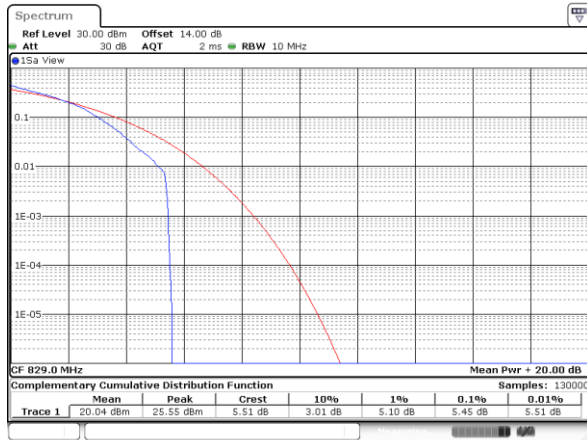
## Highest Channel / Full RB



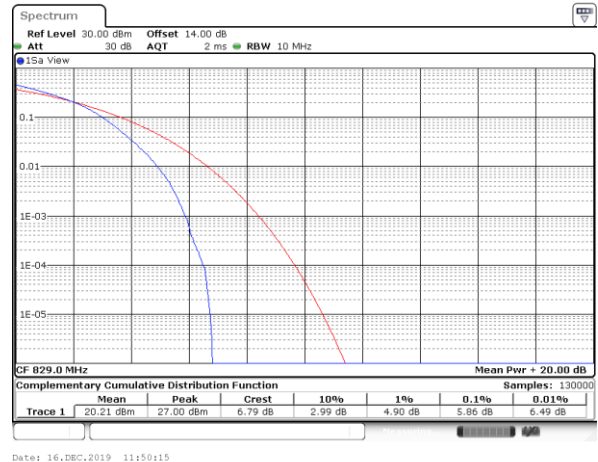


## LTE Band 5 / 10MHz / 64QAM

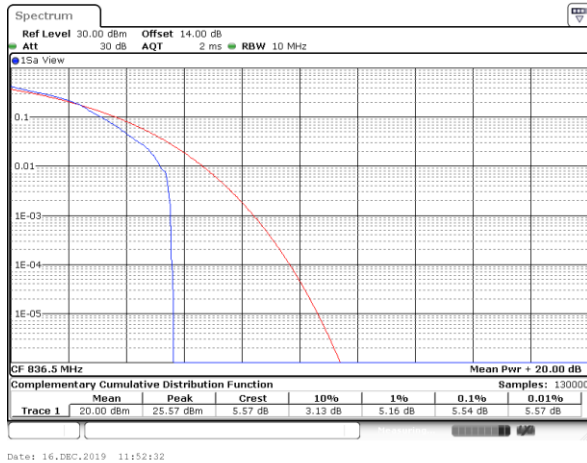
## Lowest Channel / 1RB



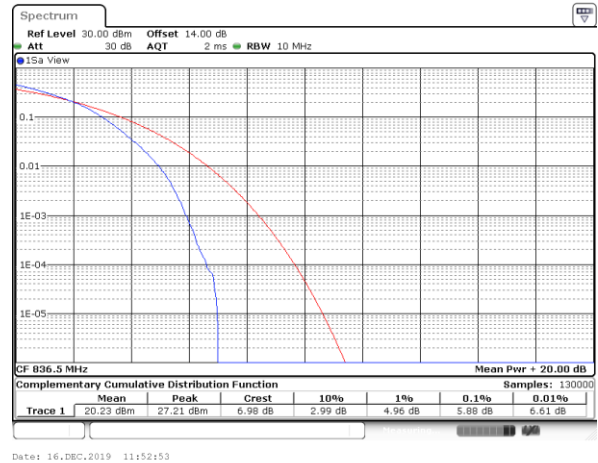
## Lowest Channel / Full RB



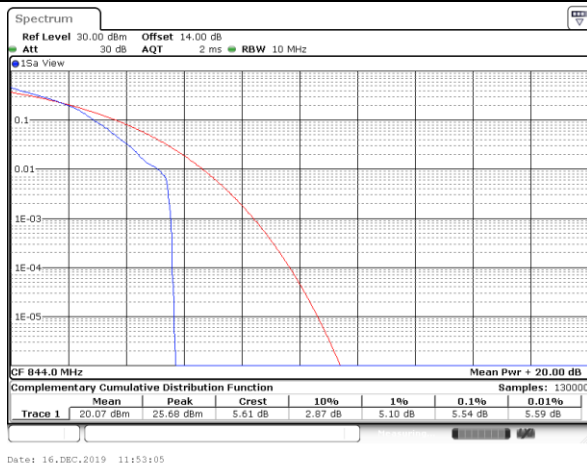
## Middle Channel / 1RB



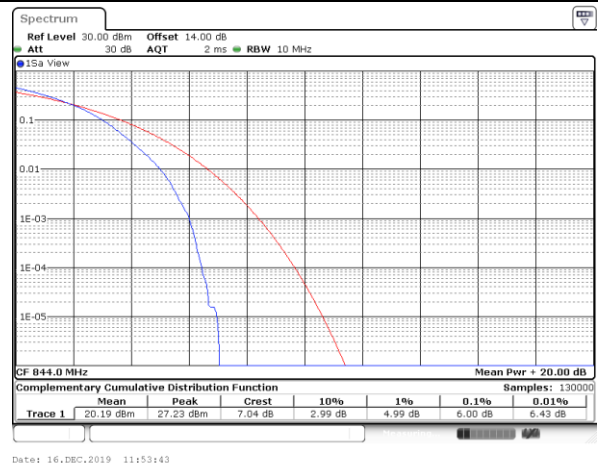
## Middle Channel / Full RB



## Highest Channel / 1RB



## Highest Channel / Full RB



**26dB Bandwidth**

| Mode       | LTE Band 5 : 26dB BW(MHz) |       |       |       |       |       |       |       |  |  |  |  |
|------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       |  |  |  |  |
| Mod.       | QPSK                      | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |  |  |  |  |
| Lowest CH  | 1.21                      | 1.23  | 3.02  | 2.98  | 4.86  | 4.88  | 9.85  | 9.71  |  |  |  |  |
| Middle CH  | 1.23                      | 1.22  | 3.03  | 3.03  | 4.90  | 4.91  | 9.73  | 9.79  |  |  |  |  |
| Highest CH | 1.24                      | 1.23  | 3.04  | 2.99  | 4.90  | 4.88  | 9.81  | 9.75  |  |  |  |  |
| Mode       | LTE Band 5 : 26dB BW(MHz) |       |       |       |       |       |       |       |  |  |  |  |
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       |  |  |  |  |
| Mod.       | 64QAM                     |       | 64QAM |       | 64QAM |       | 64QAM |       |  |  |  |  |
| Lowest CH  | 1.23                      | -     | 3.00  | -     | 4.88  | -     | 9.75  | -     |  |  |  |  |
| Middle CH  | 1.23                      | -     | 3.00  | -     | 4.86  | -     | 9.61  | -     |  |  |  |  |
| Highest CH | 1.24                      | -     | 3.00  | -     | 4.91  | -     | 9.89  | -     |  |  |  |  |