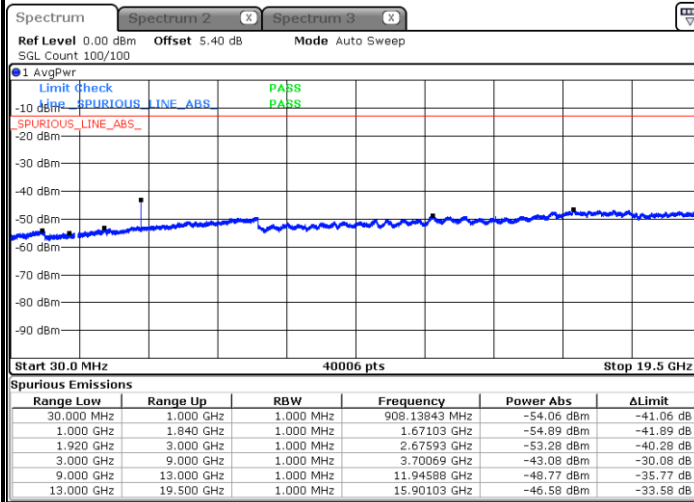




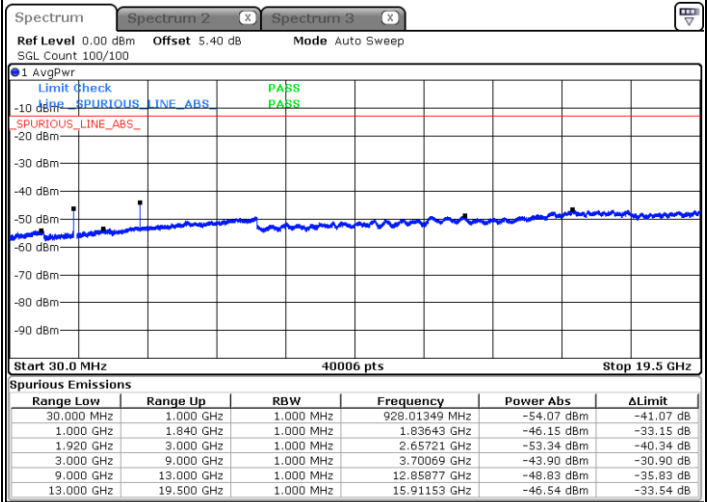
## LTE Band 2 / 5MHz

## Lowest Channel / QPSK



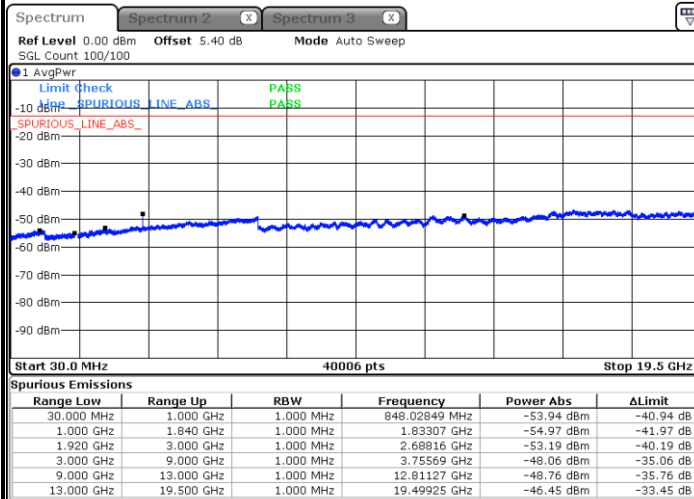
Date: 27 NOV 2019 19:43:09

## Lowest Channel / 16QAM



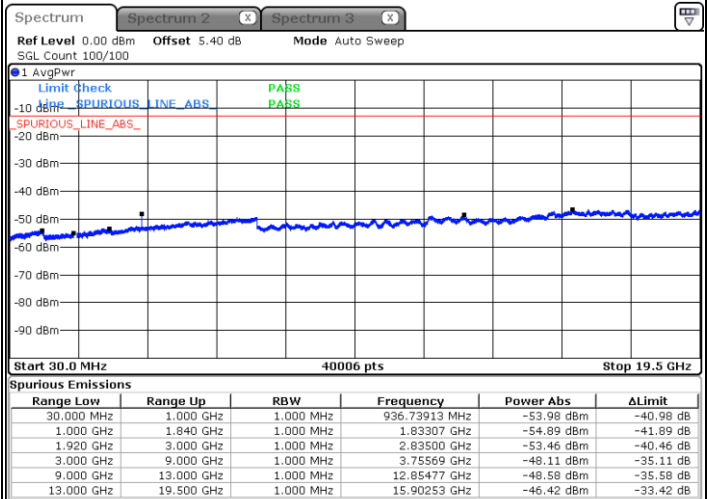
Date: 27 NOV 2019 19:44:04

## Middle Channel / QPSK



Date: 27 NOV 2019 19:45:39

## Middle Channel / 16QAM

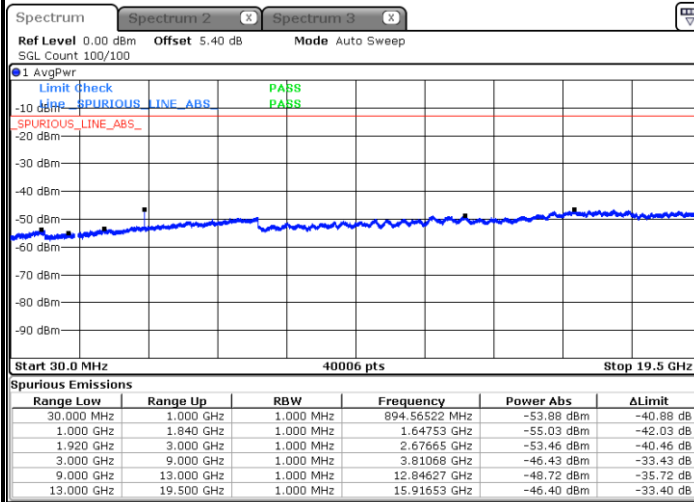


Date: 27 NOV 2019 19:46:34



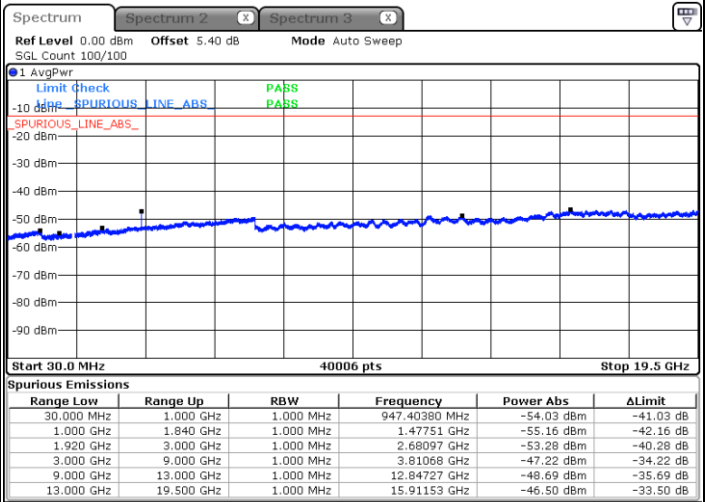
## LTE Band 2 / 5MHz

## Highest Channel / QPSK



Date: 27 NOV 2019 19:52:39

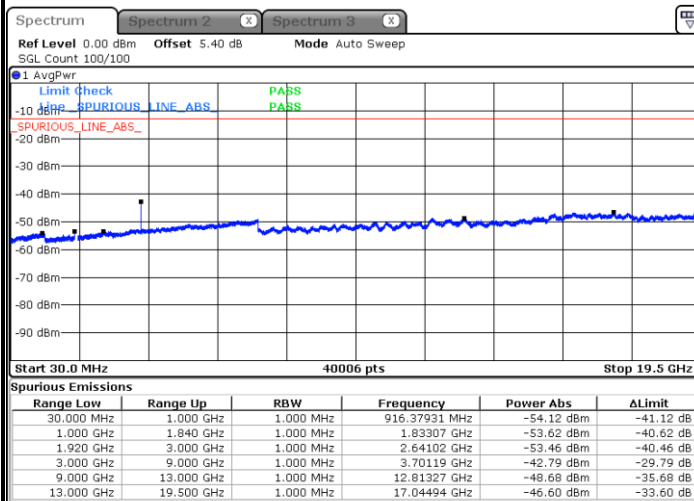
## Highest Channel / 16QAM



Date: 27 NOV 2019 19:53:34

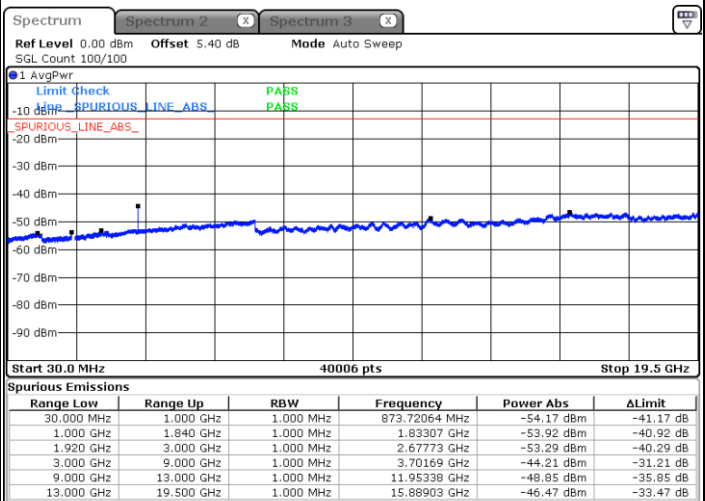
## LTE Band 2 / 10MHz

## Lowest Channel / QPSK



Date: 27 NOV 2019 19:59:39

## Lowest Channel / 16QAM

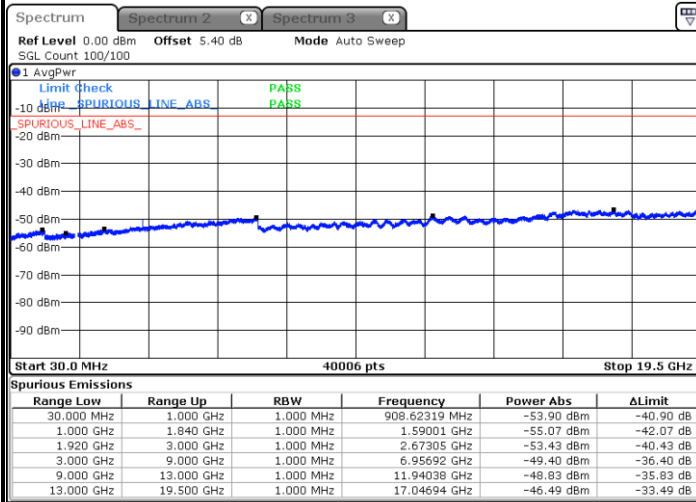


Date: 27 NOV 2019 20:00:34



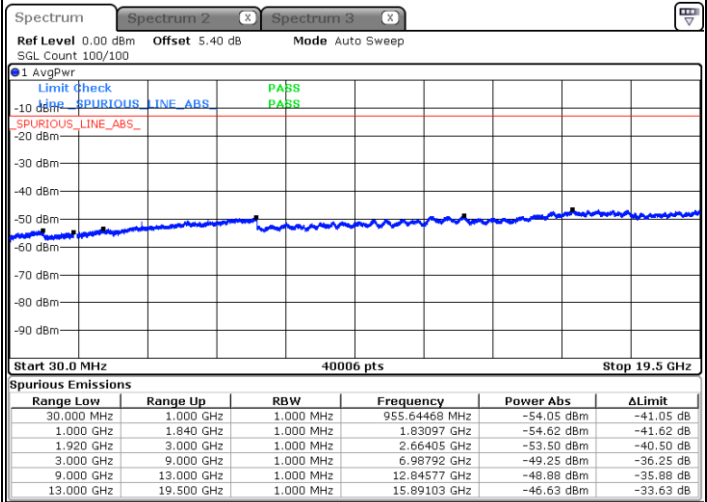
## LTE Band 2 / 10MHz

## Middle Channel / QPSK



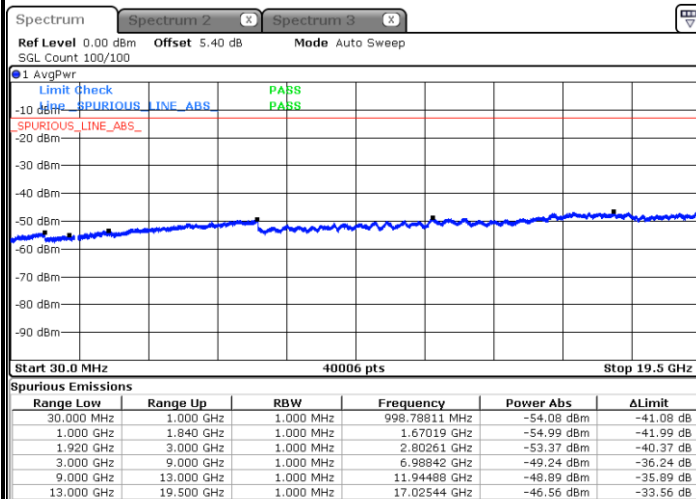
Date: 27 NOV 2019 20:02:10

## Middle Channel / 16QAM



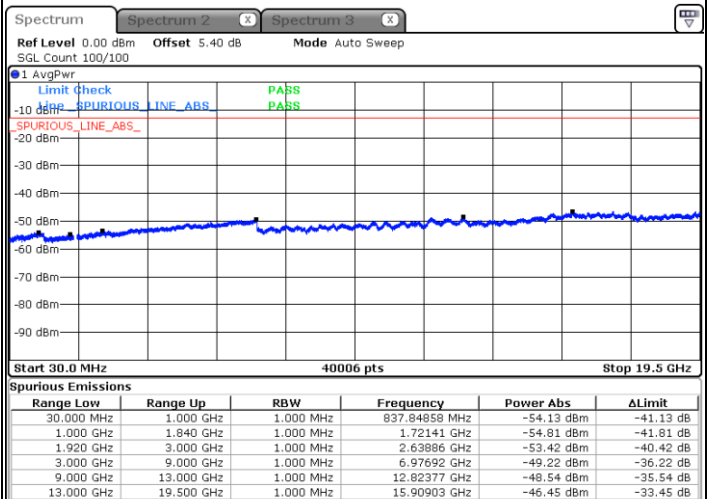
Date: 27 NOV 2019 20:03:04

## Highest Channel / QPSK



Date: 27 NOV 2019 20:09:10

## Highest Channel / 16QAM

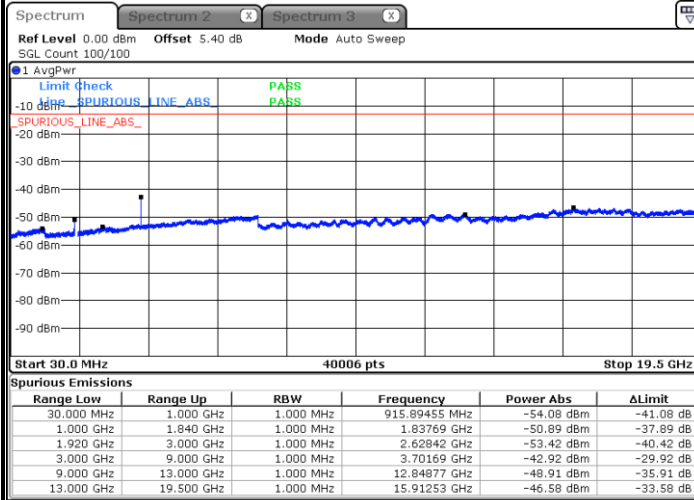


Date: 27 NOV 2019 20:10:04



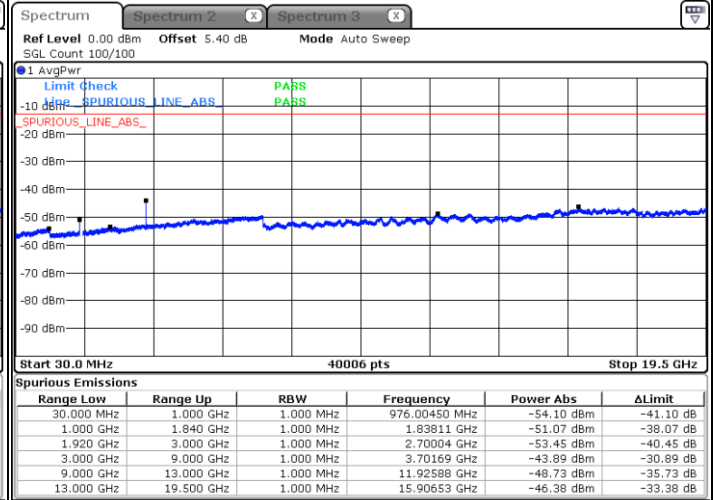
## LTE Band 2 / 15MHz

## Lowest Channel / QPSK



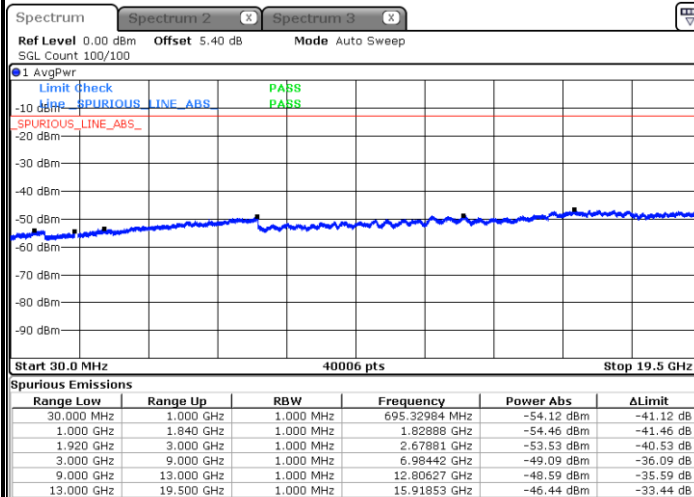
Date: 27 NOV 2019 20:16:09

## Lowest Channel / 16QAM



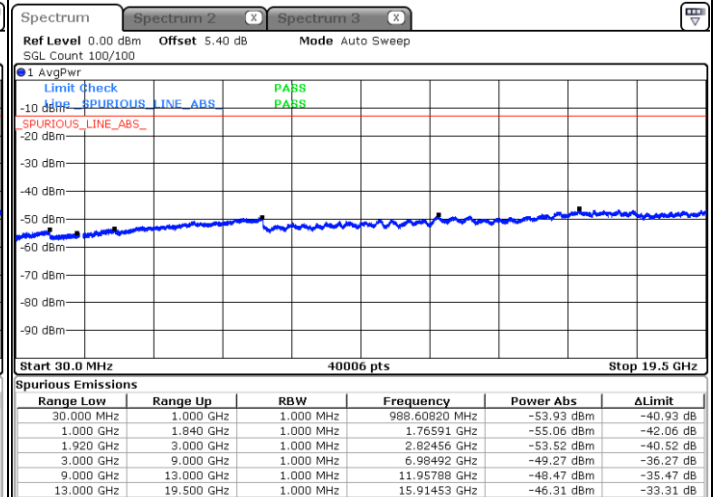
Date: 27 NOV 2019 20:17:04

## Middle Channel / QPSK



Date: 27 NOV 2019 20:18:39

## Middle Channel / 16QAM

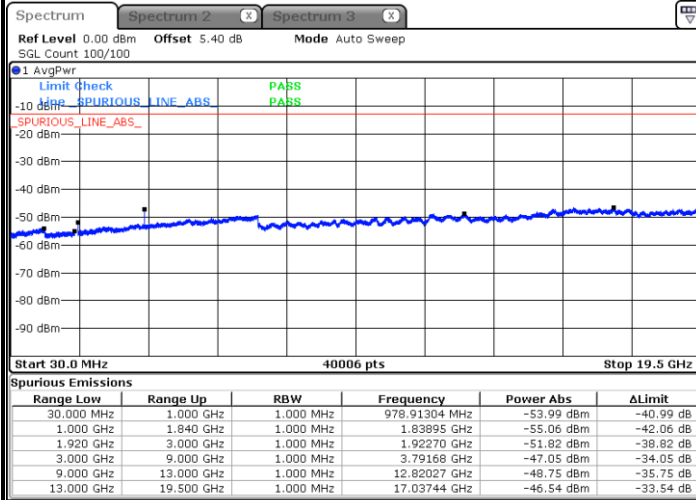


Date: 27 NOV 2019 20:19:34



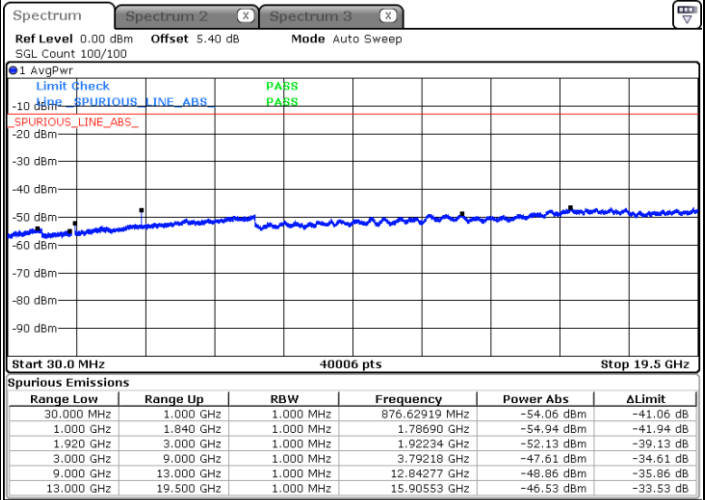
## LTE Band 2 / 15MHz

## Highest Channel / QPSK



Date: 27 NOV 2019 20:25:39

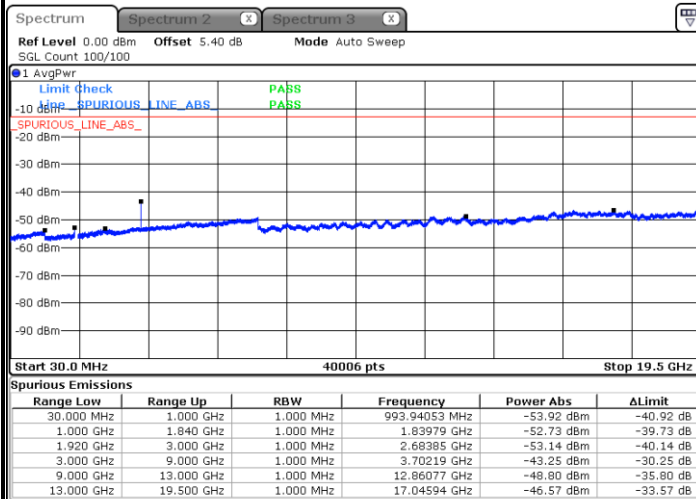
## Highest Channel / 16QAM



Date: 27 NOV 2019 20:26:34

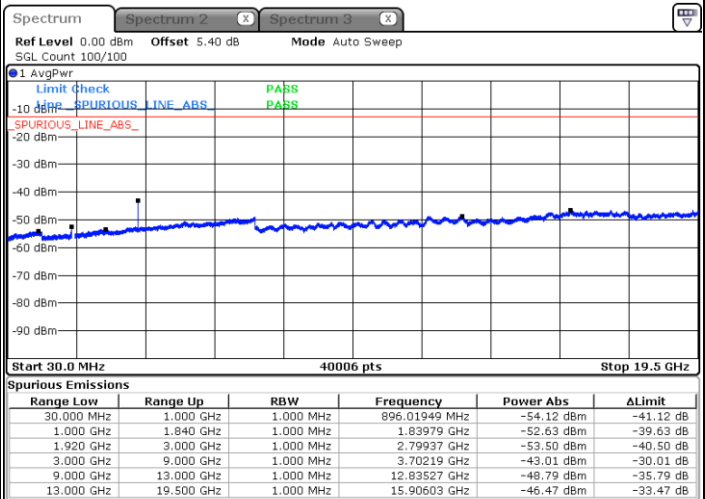
## LTE Band 2 / 20MHz

## Lowest Channel / QPSK



Date: 27 NOV 2019 20:32:39

## Lowest Channel / 16QAM

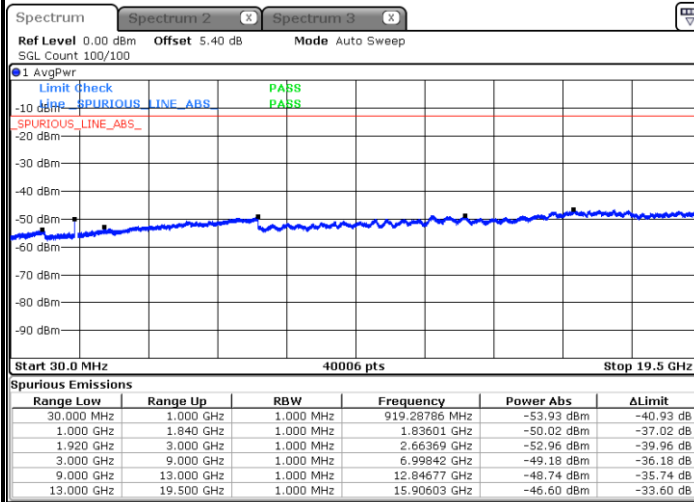


Date: 27 NOV 2019 20:33:34



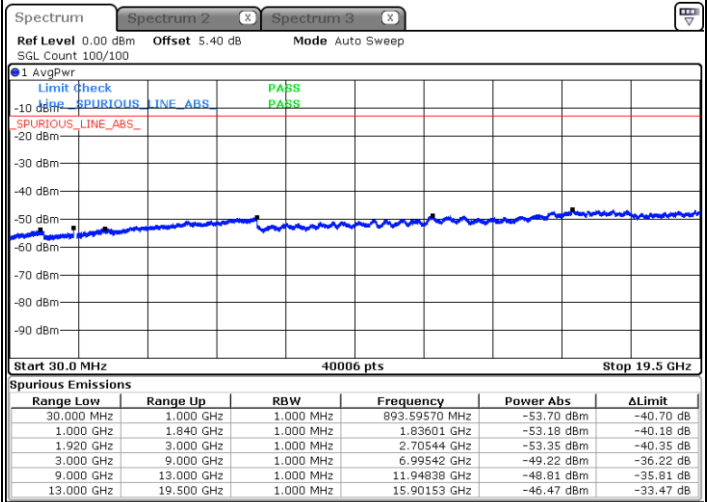
## LTE Band 2 / 20MHz

## Middle Channel / QPSK



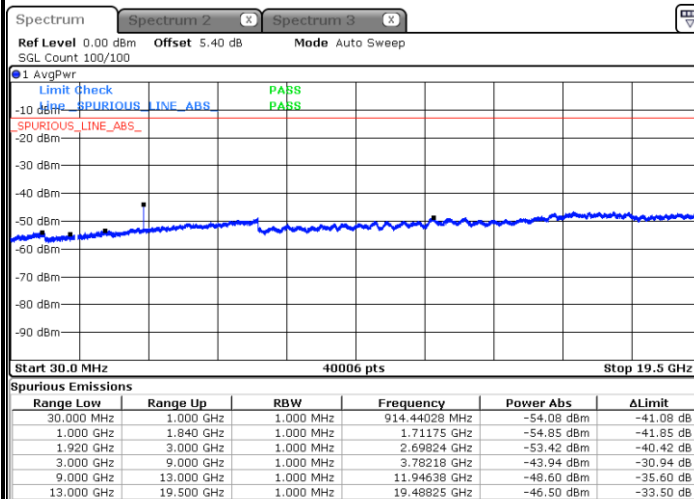
Date: 27 NOV 2019 20:35:09

## Middle Channel / 16QAM



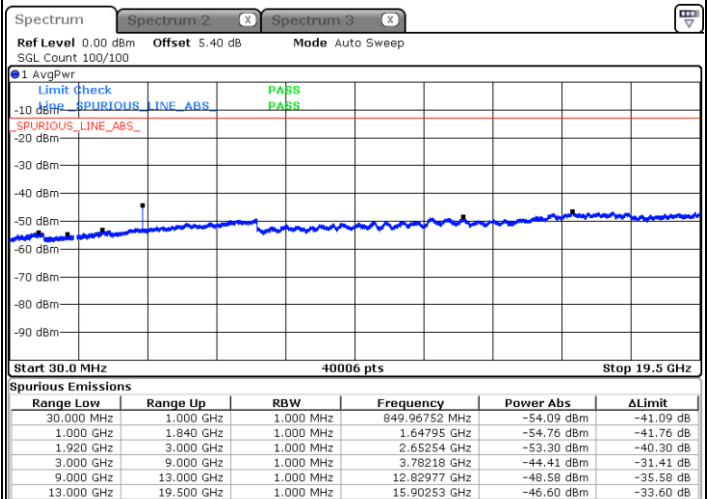
Date: 27 NOV 2019 20:36:04

## Highest Channel / QPSK



Date: 27 NOV 2019 20:42:09

## Highest Channel / 16QAM

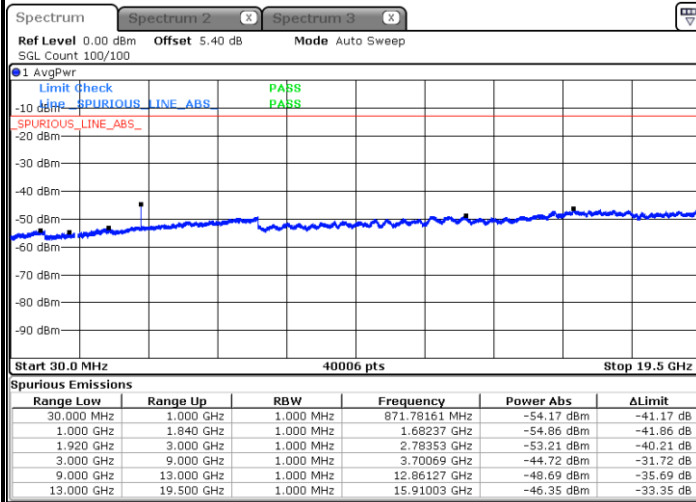


Date: 27 NOV 2019 20:43:04



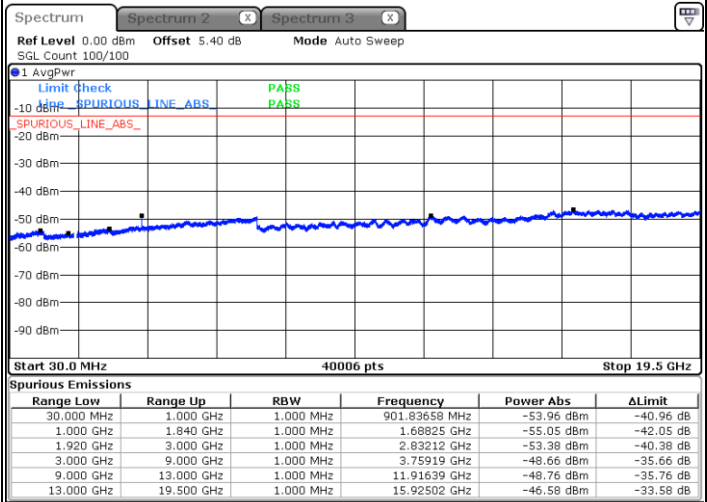
## LTE Band 2 / 1.4MHz

## Lowest Channel / 64QAM



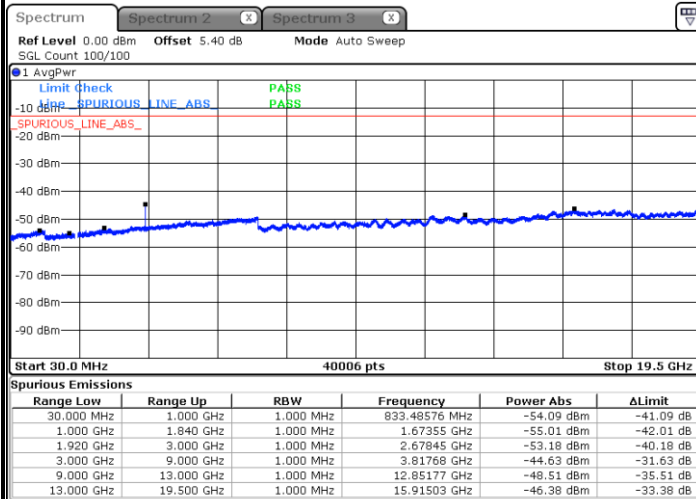
Date: 27.NOV.2019 21:17:03

## Middle Channel / 64QAM



Date: 27.NOV.2019 21:17:58

## Highest Channel / 64QAM

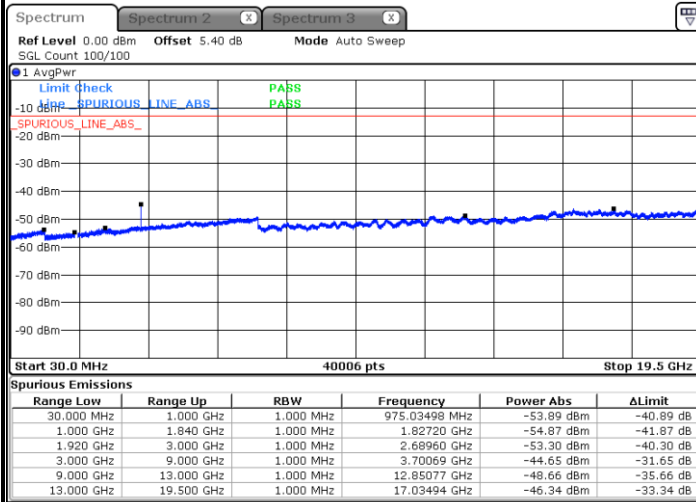


Date: 27.NOV.2019 21:18:53



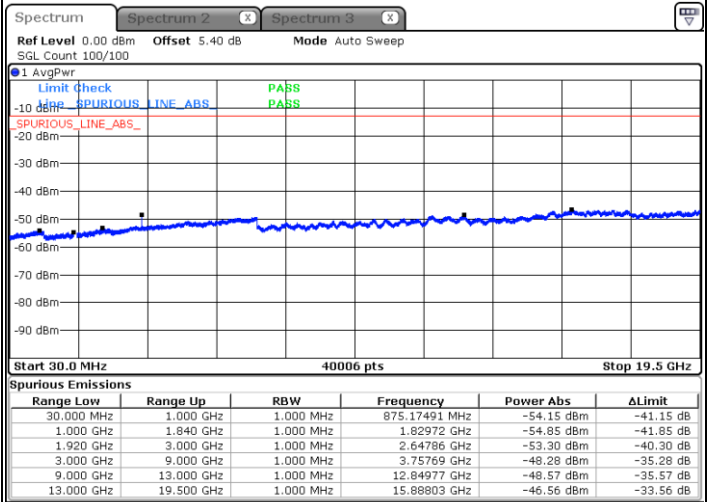
## LTE Band 2 / 3MHz

## Lowest Channel / 64QAM



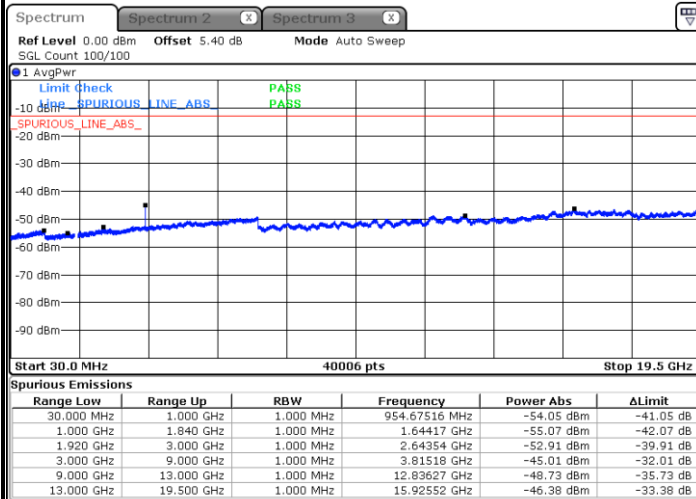
Date: 27.NOV.2019 21:19:48

## Middle Channel / 64QAM



Date: 27.NOV.2019 21:20:43

## Highest Channel / 64QAM

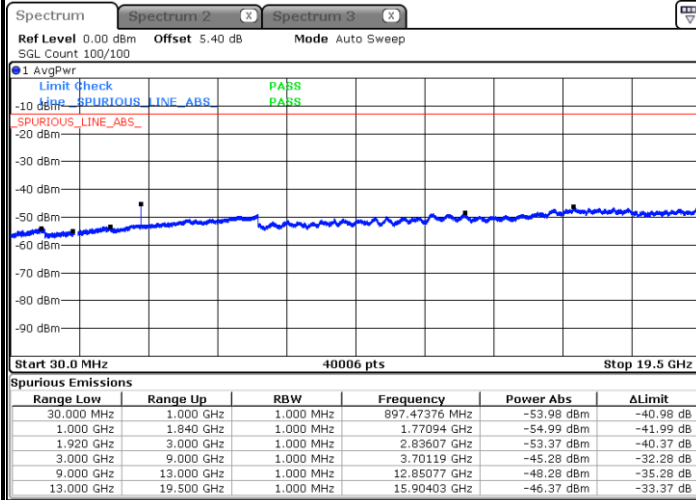


Date: 27.NOV.2019 21:21:38



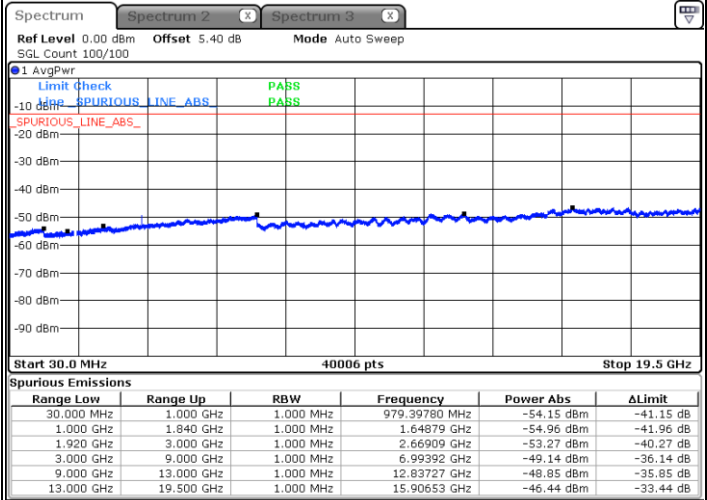
## LTE Band 2 / 5MHz

## Lowest Channel / 64QAM



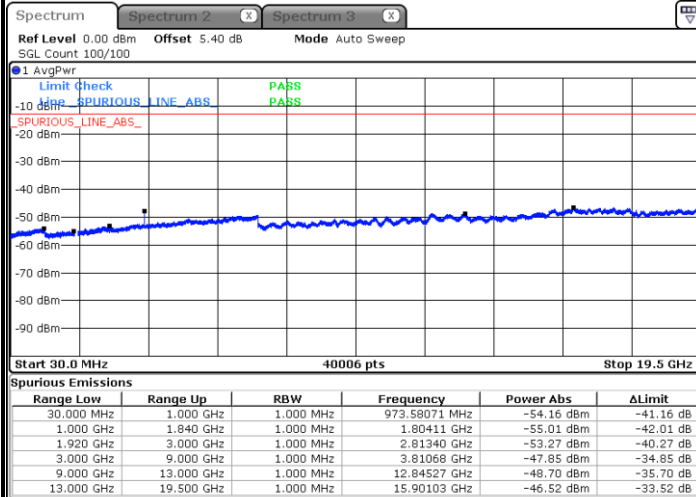
Date: 27 NOV 2019 21:22:33

## Middle Channel / 64QAM



Date: 27 NOV 2019 21:23:27

## Highest Channel / 64QAM

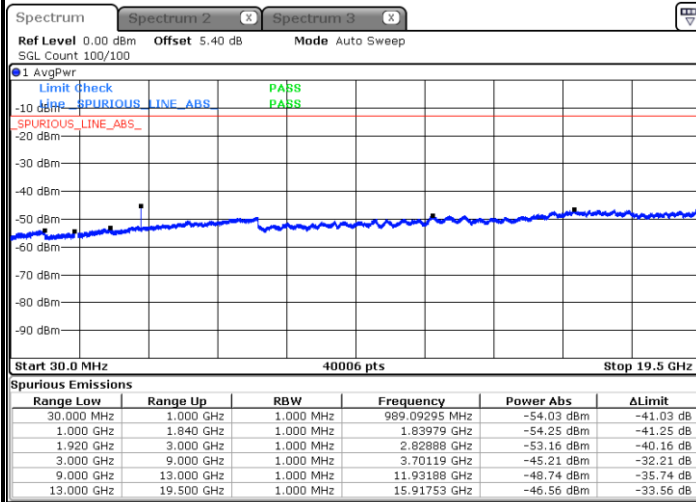


Date: 27 NOV 2019 21:24:22



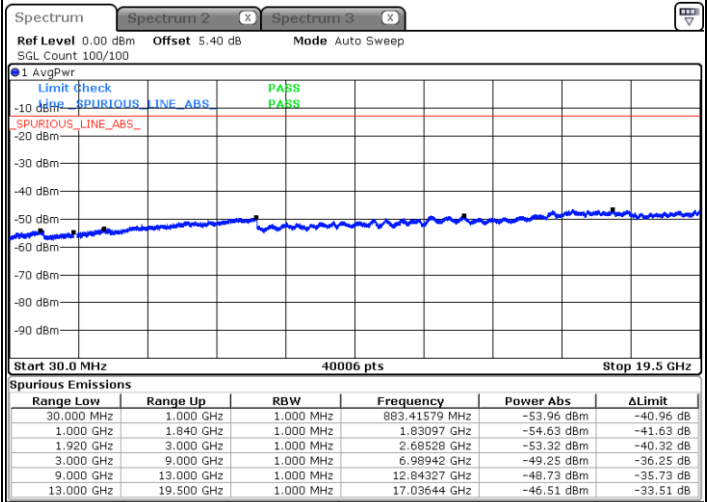
## LTE Band 2 / 10MHz

## Lowest Channel / 64QAM



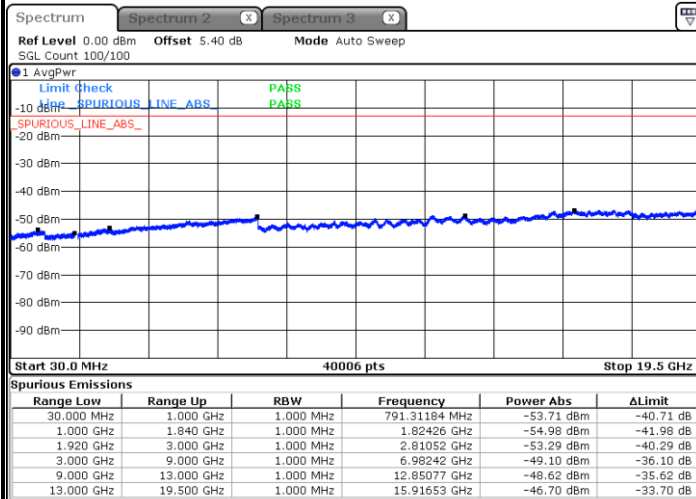
Date: 27 NOV 2019 21:25:17

## Middle Channel / 64QAM



Date: 27 NOV 2019 21:26:12

## Highest Channel / 64QAM

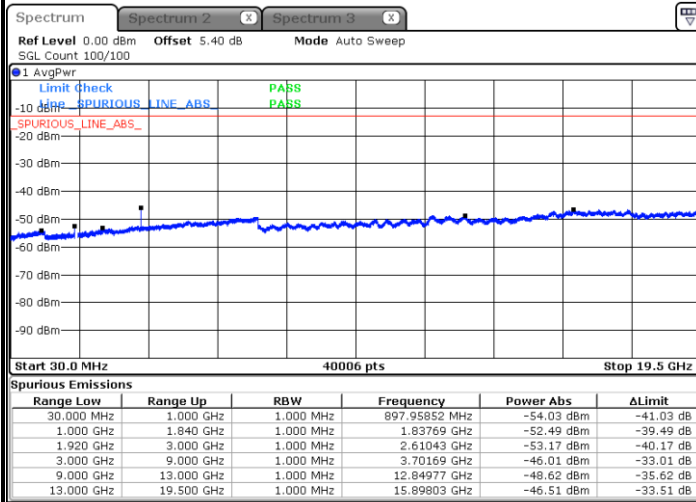


Date: 27 NOV 2019 21:27:06



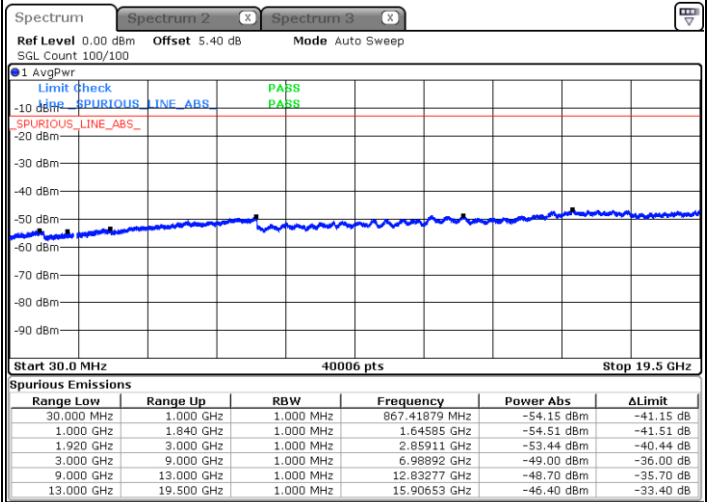
## LTE Band 2 / 15MHz

## Lowest Channel / 64QAM



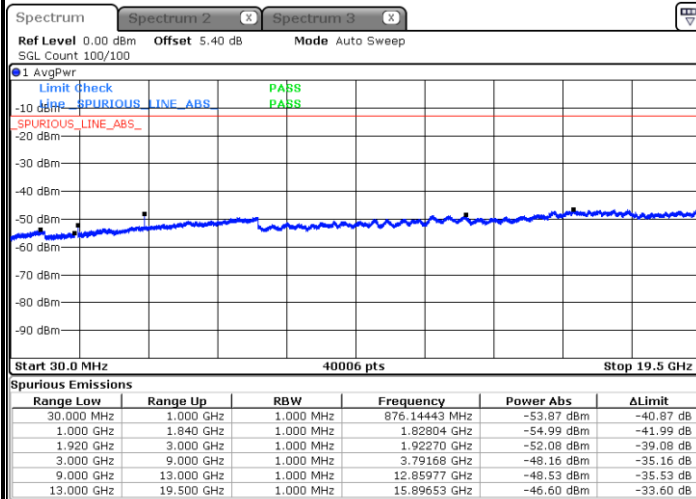
Date: 27 NOV 2019 21:28:01

## Middle Channel / 64QAM



Date: 27 NOV 2019 21:28:56

## Highest Channel / 64QAM

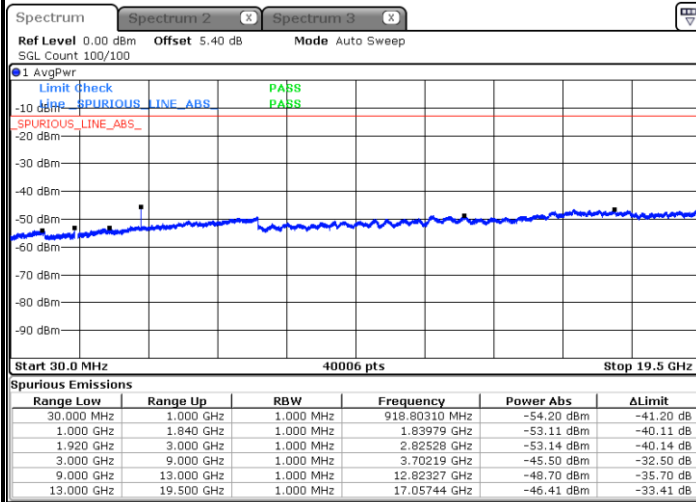


Date: 27 NOV 2019 21:29:51



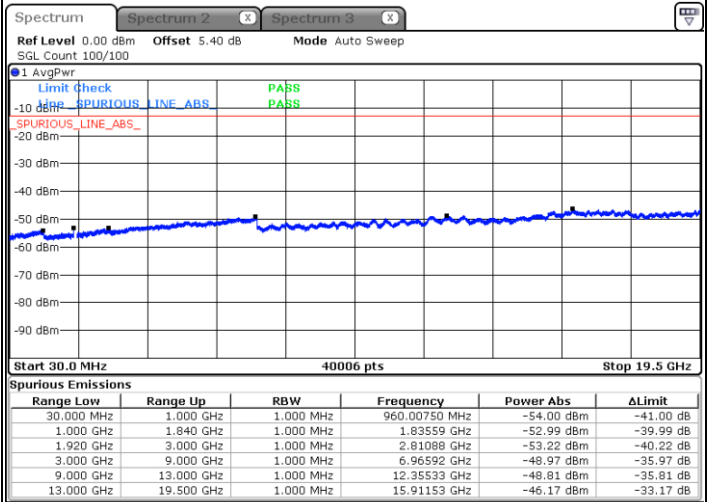
## LTE Band 2 / 20MHz

## Lowest Channel / 64QAM



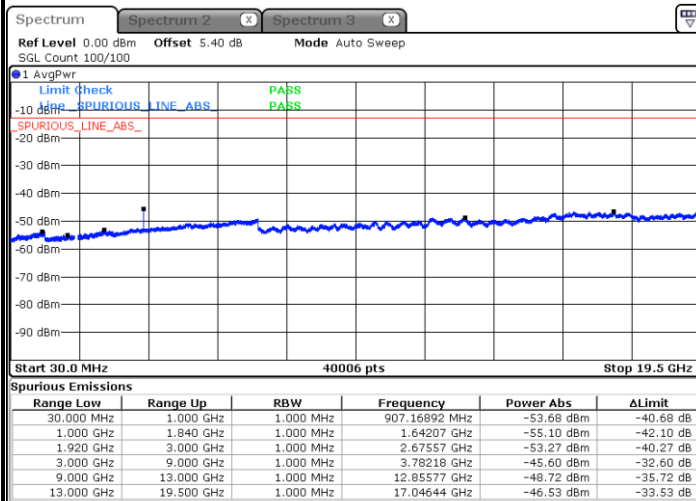
Date: 27 NOV 2019 21:30:46

## Middle Channel / 64QAM



Date: 27 NOV 2019 21:31:40

## Highest Channel / 64QAM



Date: 27 NOV 2019 21:32:35

## Frequency Stability

| Test Conditions  |                   | LTE Band 2 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                           | Note 2. |
|                  |                   | Deviation (ppm)                    | Result  |
| 50               | Normal Voltage    | 0.0006                             | PASS    |
| 40               | Normal Voltage    | 0.0004                             |         |
| 30               | Normal Voltage    | 0.0014                             |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |         |
| 10               | Normal Voltage    | 0.0005                             |         |
| 0                | Normal Voltage    | 0.0017                             |         |
| -10              | Normal Voltage    | 0.0021                             |         |
| -20              | Normal Voltage    | 0.0001                             |         |
| -30              | Normal Voltage    | 0.0023                             |         |
| 20               | Maximum Voltage   | 0.0003                             |         |
| 20               | Normal Voltage    | 0.0002                             |         |
| 20               | Battery End Point | 0.0017                             |         |

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

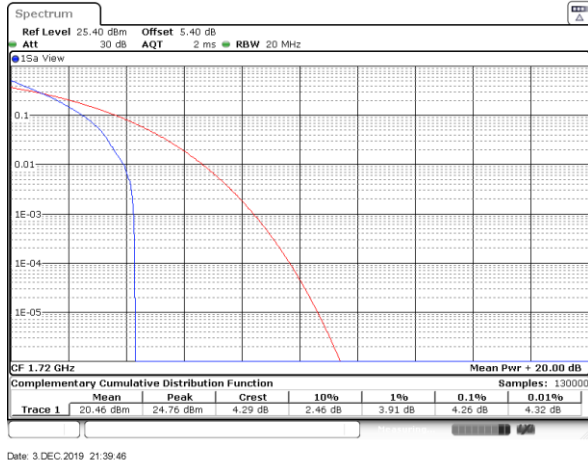
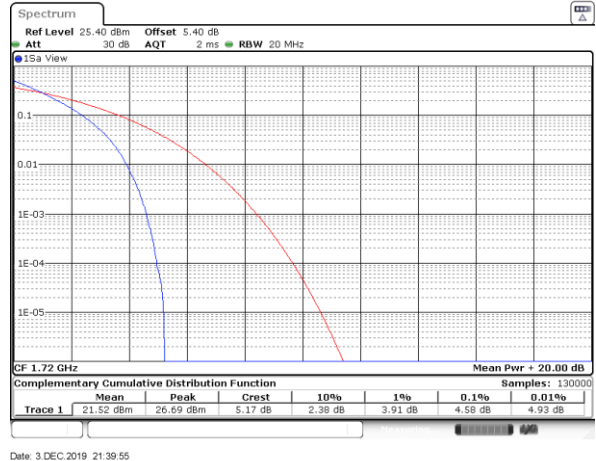
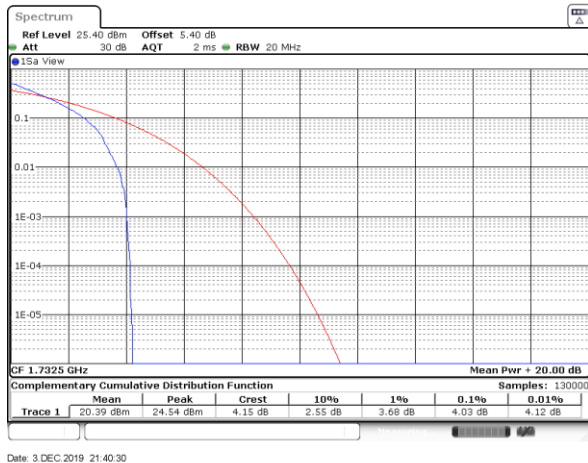
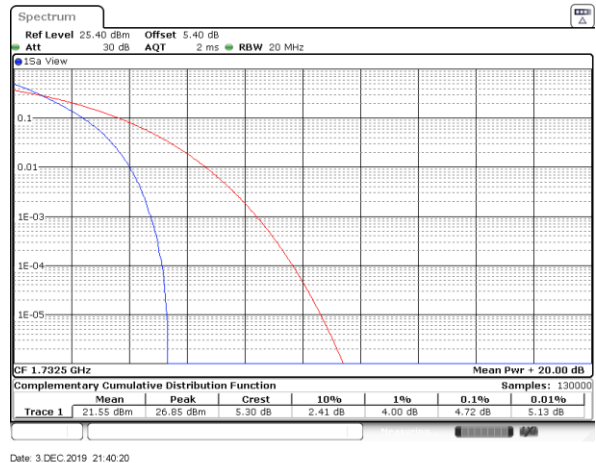
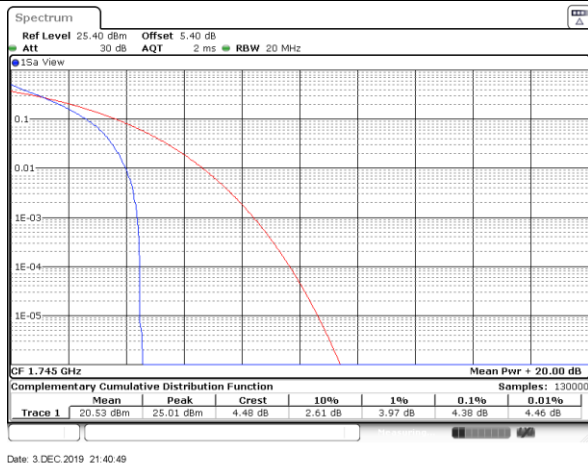
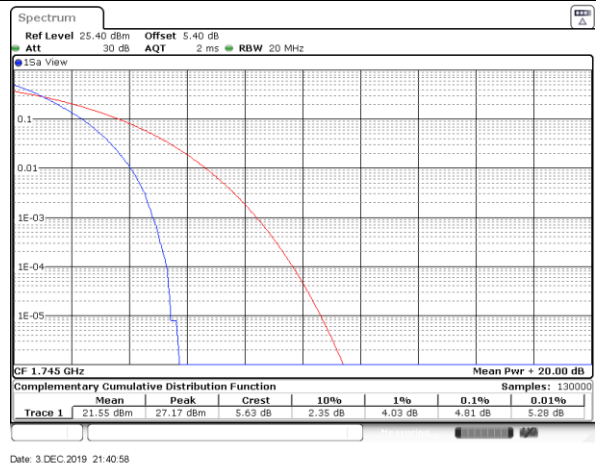


## LTE Band 4

## Peak-to-Average Ratio

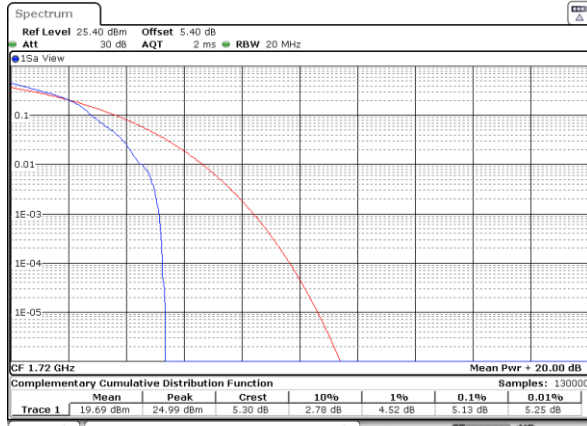
| Mode       | LTE Band 4 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 4.26               | 4.58    | 5.13  | 5.42    | PASS        |
| Middle CH  | 4.03               | 4.72    | 5.04  | 5.65    |             |
| Highest CH | 4.38               | 4.81    | 5.16  | 5.71    |             |

| Mode       | LTE Band 4 / 20MHz |         |  |  |             |
|------------|--------------------|---------|--|--|-------------|
| Mod.       | 64QAM              |         |  |  | Limit: 13dB |
| RB Size    | 1RB                | Full RB |  |  | Result      |
| Lowest CH  | 5.65               | 5.94    |  |  | PASS        |
| Middle CH  | 5.57               | 6.03    |  |  |             |
| Highest CH | 5.91               | 6.12    |  |  |             |

**LTE Band 4 / 20MHz / QPSK**
**Lowest Channel / 1RB**

**Lowest Channel / Full RB**

**Middle Channel / 1RB**

**Middle Channel / Full RB**

**Highest Channel / 1RB**

**Highest Channel / Full RB**


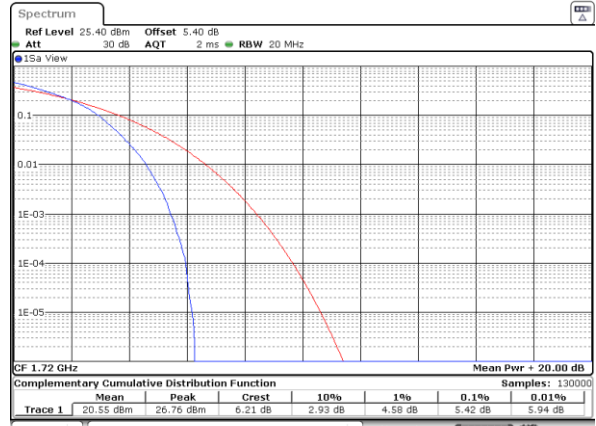
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



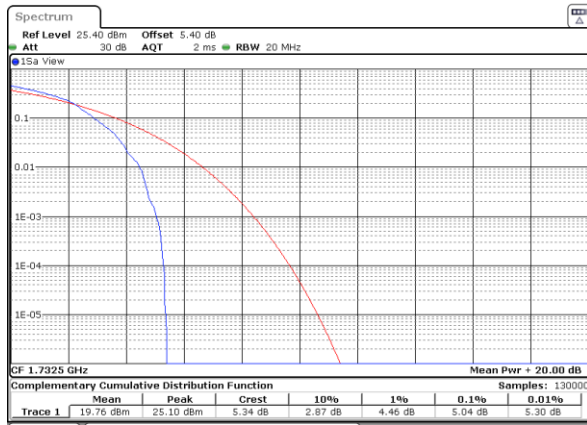
Date: 3 DEC 2019 21:38:49

Lowest Channel / Full RB



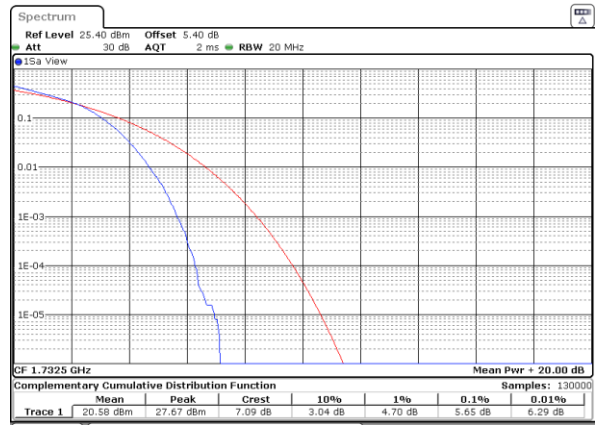
Date: 3 DEC 2019 21:39:00

Middle Channel / 1RB



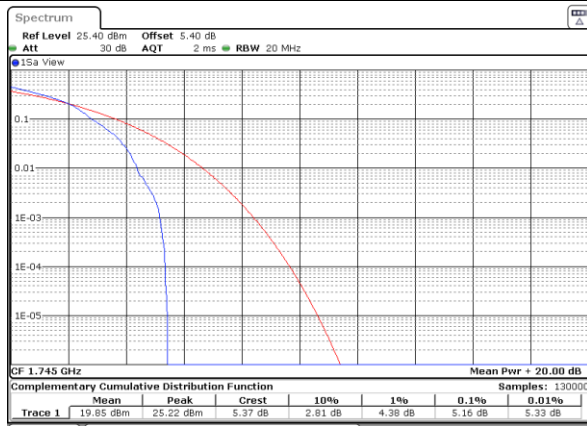
Date: 3 DEC 2019 21:39:09

Middle Channel / Full RB



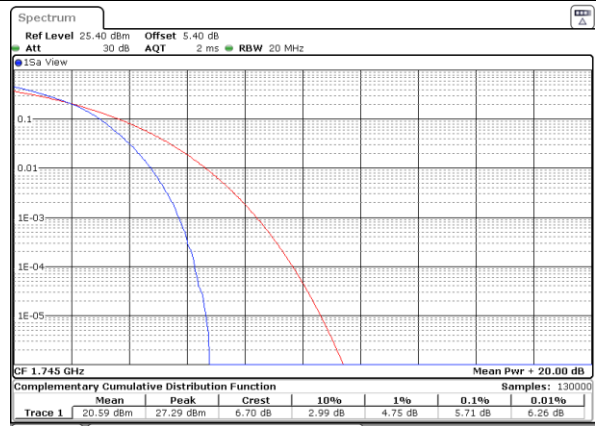
Date: 3 DEC 2019 21:39:18

Highest Channel / 1RB



Date: 3 DEC 2019 21:39:27

Highest Channel / Full RB

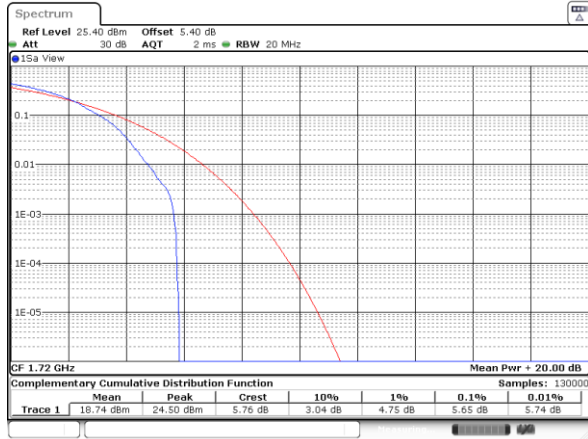


Date: 3 DEC 2019 21:39:37

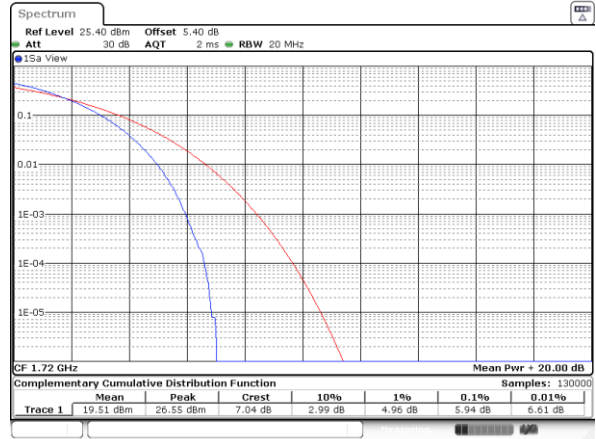


## LTE Band 4 / 20MHz / 64QAM

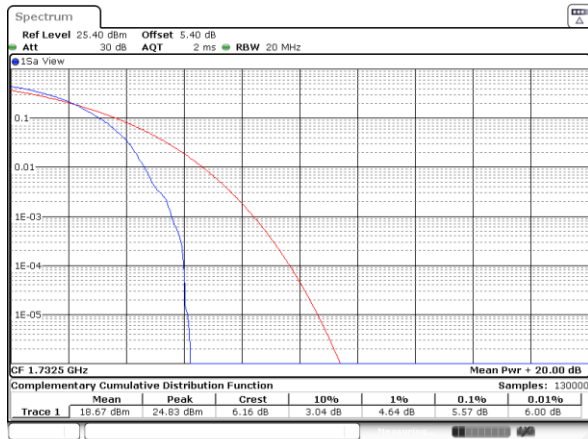
## Lowest Channel / 1RB



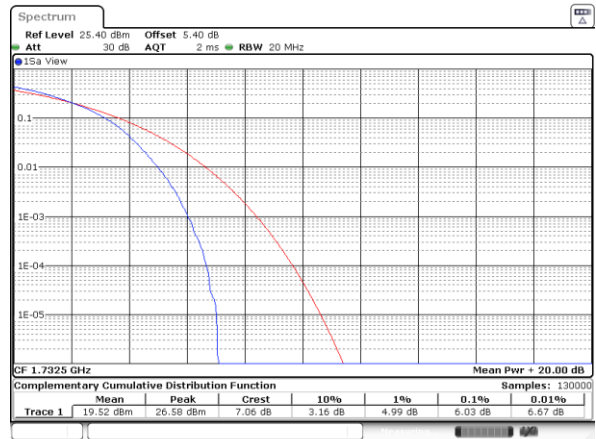
## Lowest Channel / Full RB



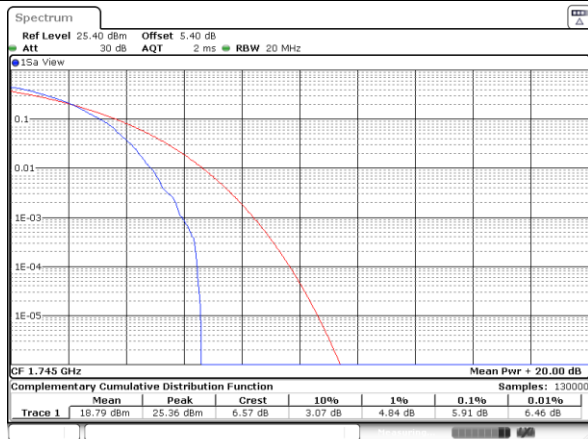
## Middle Channel / 1RB



## Middle Channel / Full RB



## Highest Channel / 1RB



## Highest Channel / Full RB



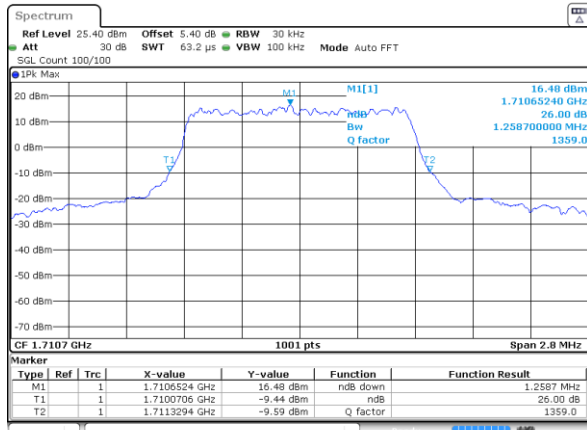
**26dB Bandwidth**

| Mode       | LTE Band 4 : 26dB BW(MHz) |       |       |       |       |       |       |       |        |        |       |       |
|------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz  |        | 20MHz |       |
| Mod.       | QPSK                      | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK   | 16QAM  | QPSK  | 16QAM |
| Lowest CH  | 1.259                     | 1.304 | 2.979 | 2.949 | 4.835 | 4.905 | 9.73  | 9.77  | 14.296 | 14.326 | 20.22 | 20.26 |
| Middle CH  | 1.284                     | 1.273 | 2.943 | 2.961 | 4.825 | 4.865 | 9.65  | 9.67  | 14.206 | 14.535 | 20.22 | 20.1  |
| Highest CH | 1.273                     | 1.301 | 2.949 | 3.411 | 4.945 | 4.855 | 9.75  | 9.95  | 14.595 | 14.206 | 20.18 | 20.22 |
| Mode       | LTE Band 4 : 26dB BW(MHz) |       |       |       |       |       |       |       |        |        |       |       |
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz  |        | 20MHz |       |
| Mod.       | 64QAM                     |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM  |        | 64QAM |       |
| Lowest CH  | 1.320                     |       | 2.925 |       | 4.835 |       | 9.75  |       | 14.386 |        | 20.14 |       |
| Middle CH  | 1.281                     |       | 2.937 |       | 4.885 |       | 9.91  |       | 14.446 |        | 20.18 |       |
| Highest CH | 1.262                     |       | 2.943 |       | 4.935 |       | 9.87  |       | 14.116 |        | 20.18 |       |



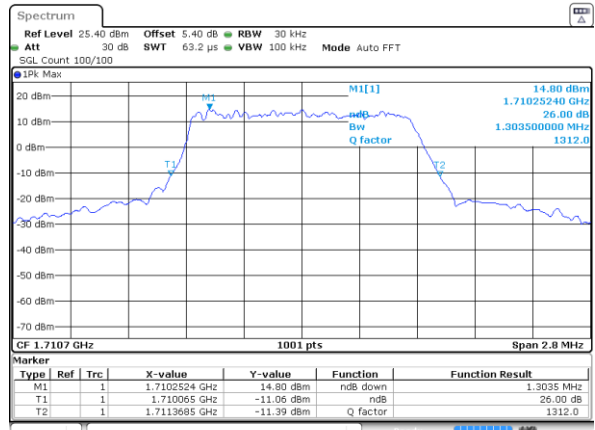
## LTE Band 4

## Lowest Channel / 1.4MHz / QPSK



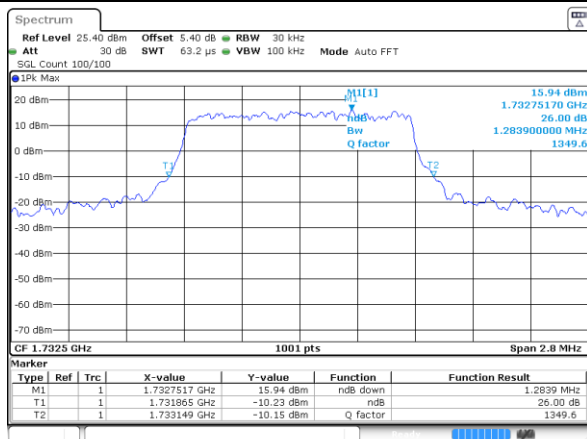
Date: 3 DEC 2019 18:36:03

## Lowest Channel / 1.4MHz / 16QAM



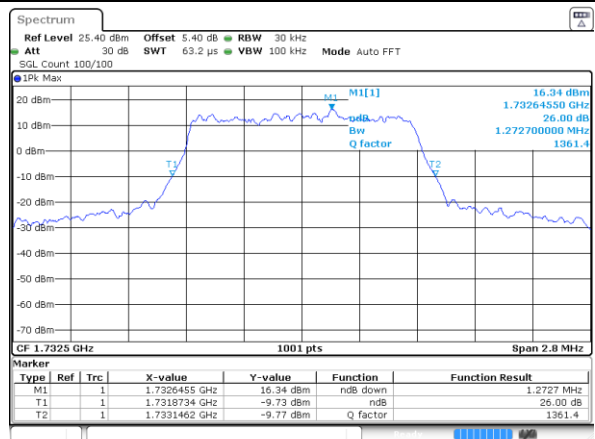
Date: 3 DEC 2019 18:36:13

## Middle Channel / 1.4MHz / QPSK



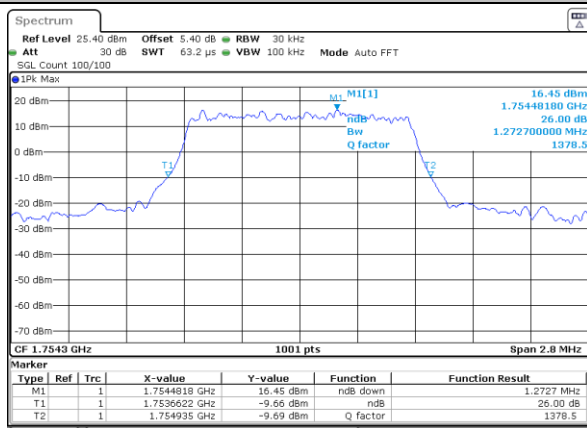
Date: 3 DEC 2019 18:43:02

## Middle Channel / 1.4MHz / 16QAM



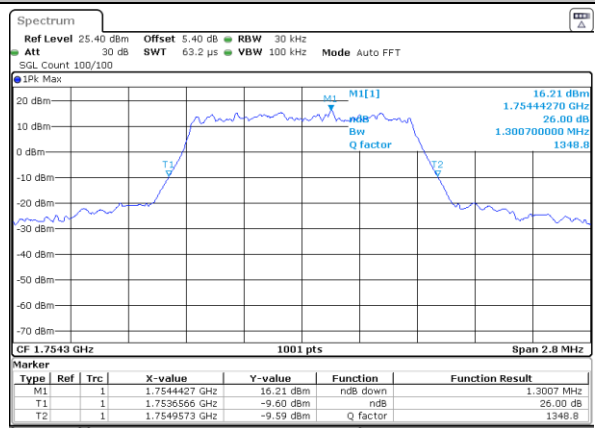
Date: 3 DEC 2019 18:43:12

## Highest Channel / 1.4MHz / QPSK



Date: 3 DEC 2019 18:45:31

## Highest Channel / 1.4MHz / 16QAM

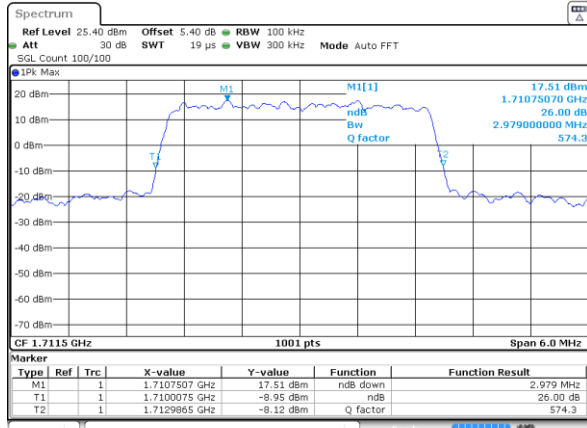


Date: 3 DEC 2019 18:45:41



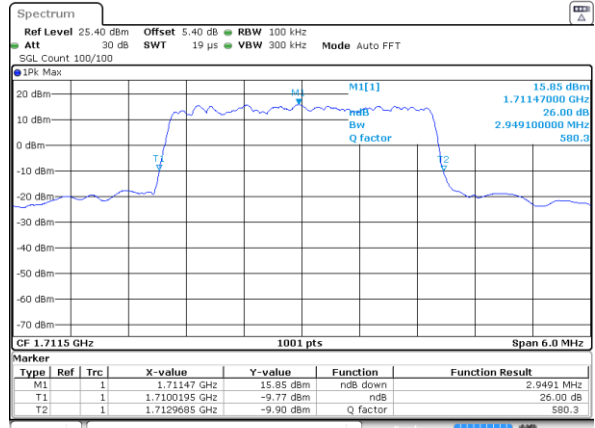
## LTE Band 4

## Lowest Channel / 3MHz / QPSK



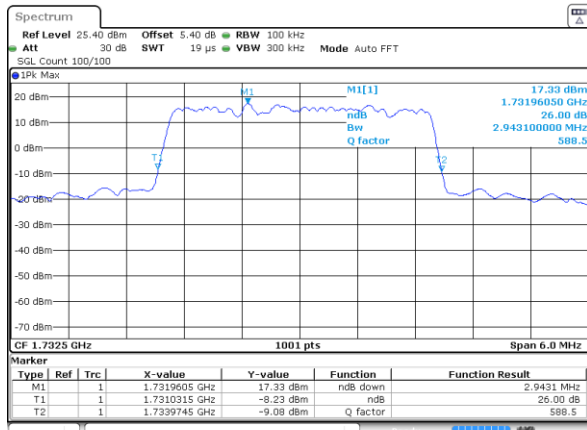
Date: 3 DEC 2019 18:52:30

## Lowest Channel / 3MHz / 16QAM



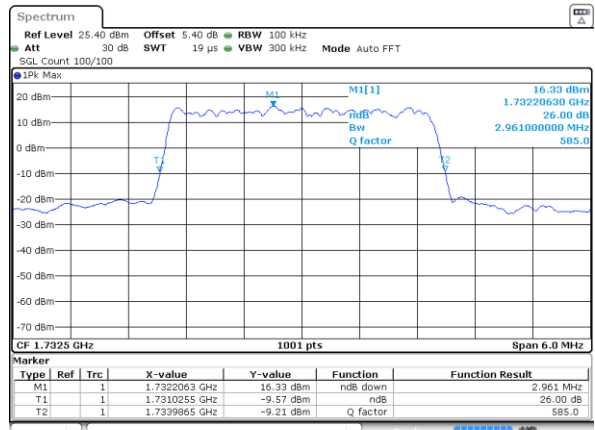
Date: 3 DEC 2019 18:52:40

## Middle Channel / 3MHz / QPSK



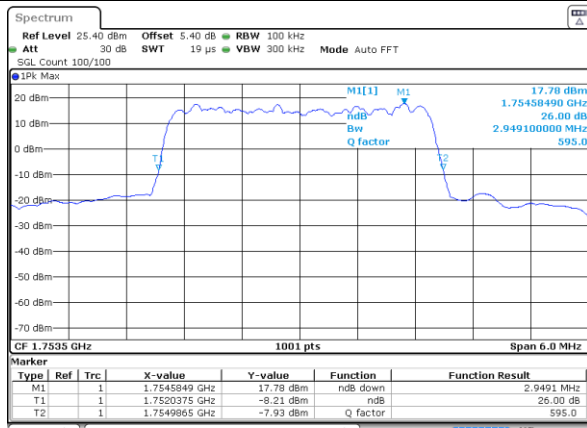
Date: 3 DEC 2019 18:59:29

## Middle Channel / 3MHz / 16QAM



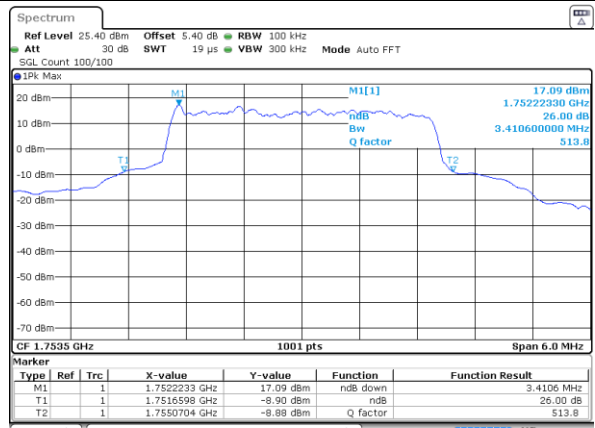
Date: 3 DEC 2019 18:59:39

## Highest Channel / 3MHz / QPSK



Date: 3 DEC 2019 19:01:57

## Highest Channel / 3MHz / 16QAM

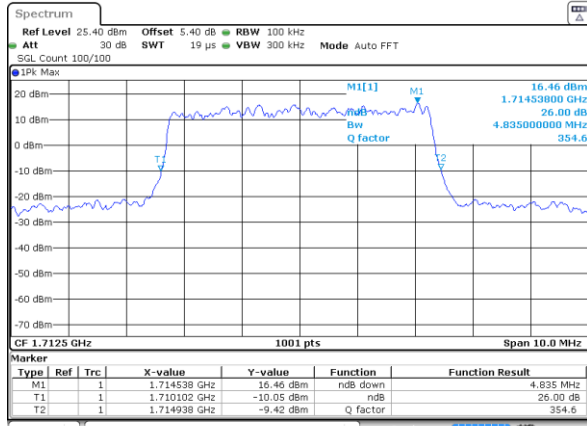


Date: 3 DEC 2019 19:02:07

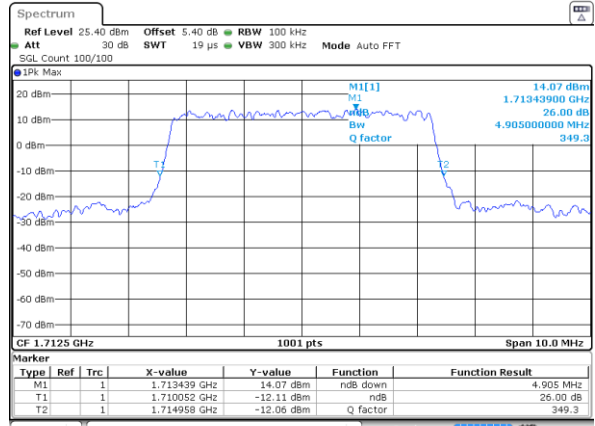


## LTE Band 4

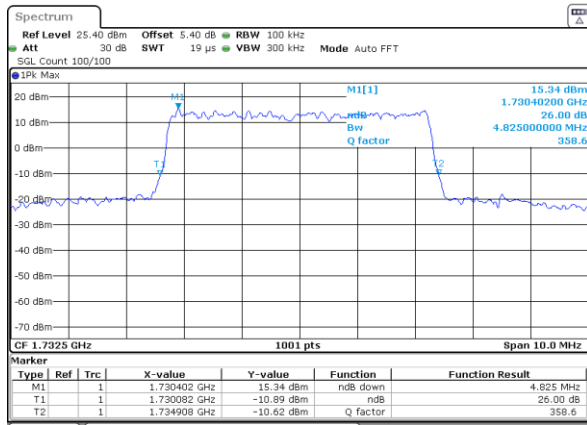
## Lowest Channel / 5MHz / QPSK



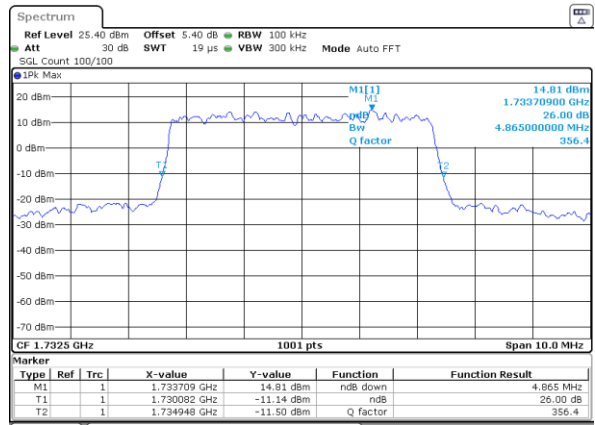
## Lowest Channel / 5MHz / 16QAM



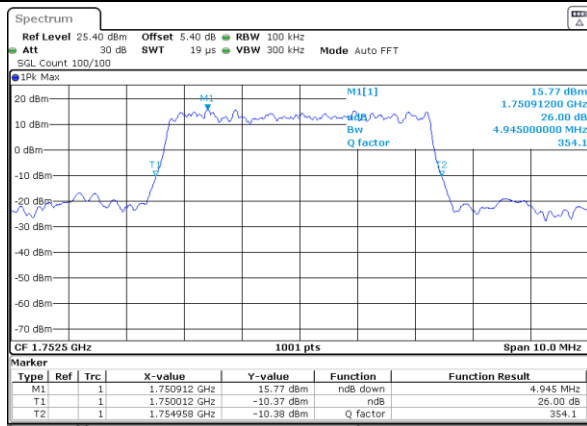
## Middle Channel / 5MHz / QPSK



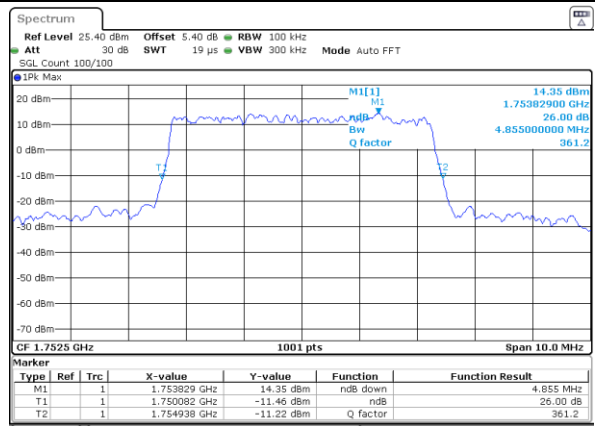
## Middle Channel / 5MHz / 16QAM



## Highest Channel / 5MHz / QPSK



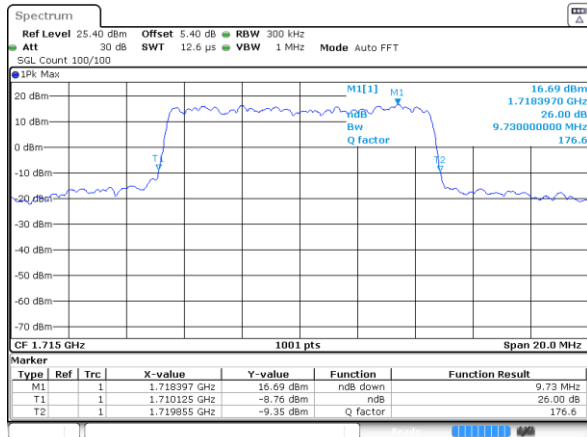
## Highest Channel / 5MHz / 16QAM



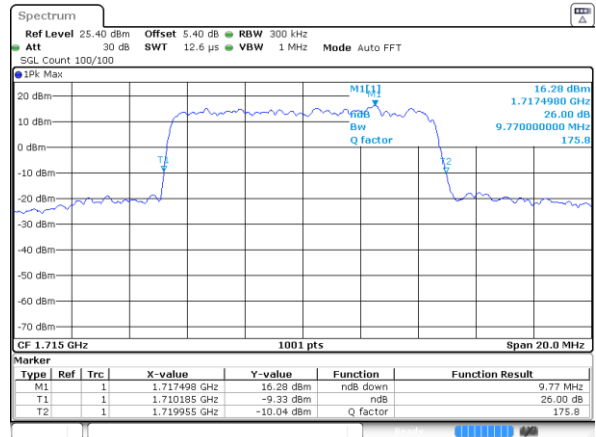


## LTE Band 4

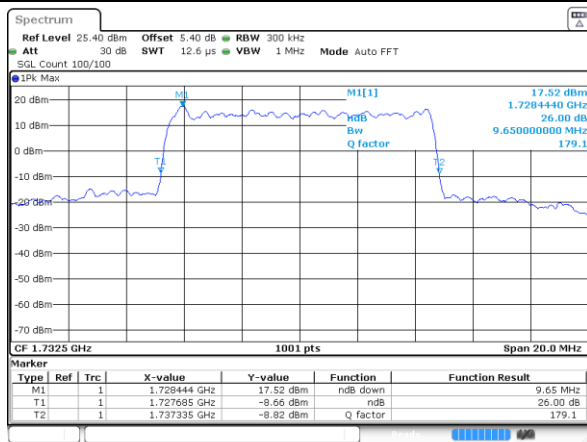
## Lowest Channel / 10MHz / QPSK



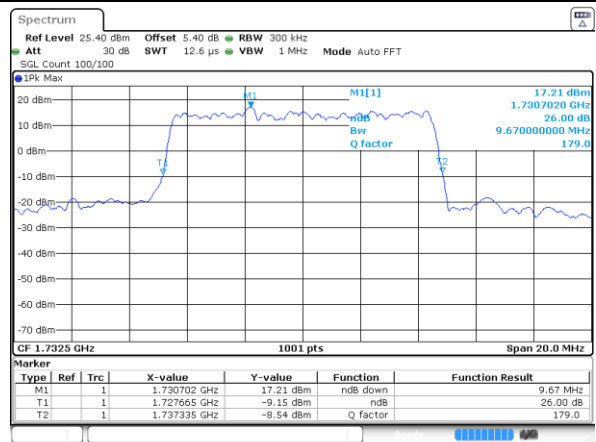
## Lowest Channel / 10MHz / 16QAM



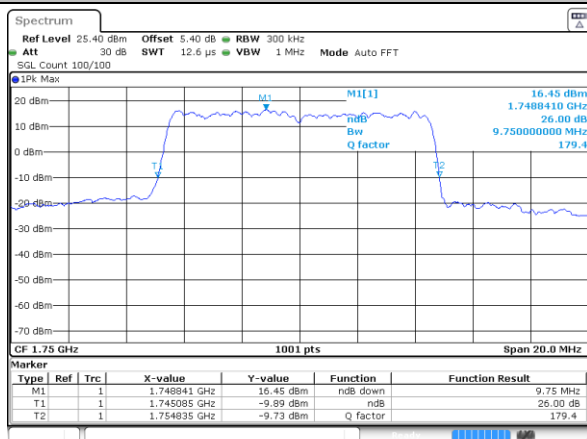
## Middle Channel / 10MHz / QPSK



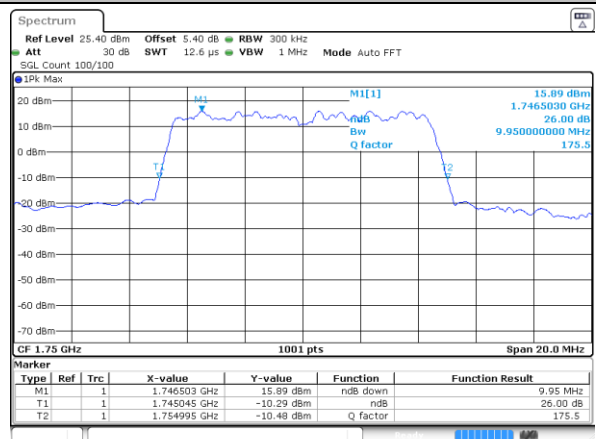
## Middle Channel / 10MHz / 16QAM



## Highest Channel / 10MHz / QPSK



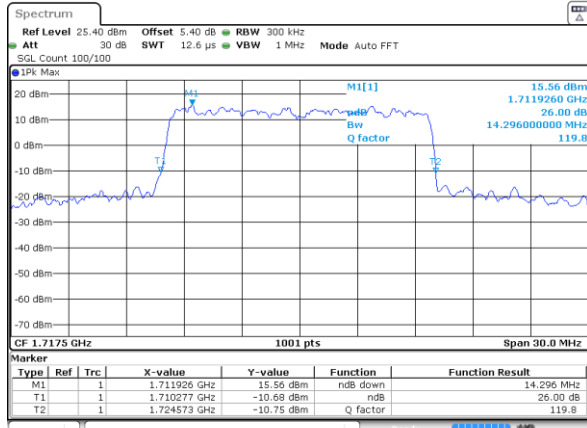
## Highest Channel / 10MHz / 16QAM





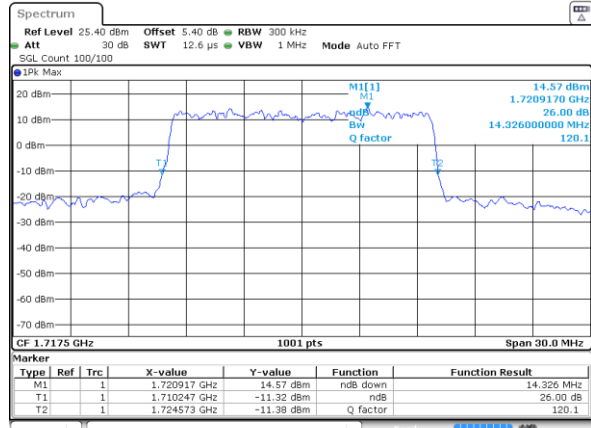
## LTE Band 4

## Lowest Channel / 15MHz / QPSK



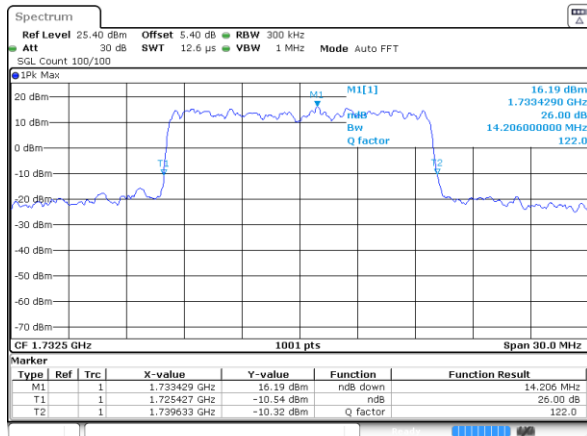
Date: 3 DEC 2019 19:47:21

## Lowest Channel / 15MHz / 16QAM



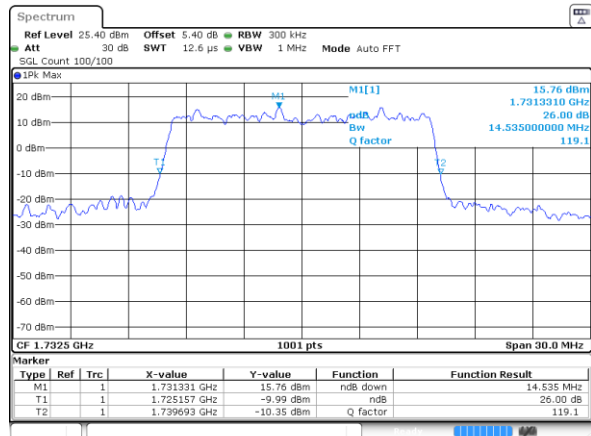
Date: 3 DEC 2019 19:47:31

## Middle Channel / 15MHz / QPSK



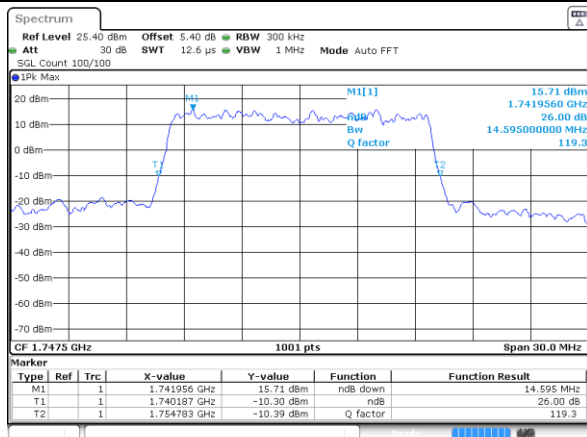
Date: 3 DEC 2019 19:54:19

## Middle Channel / 15MHz / 16QAM



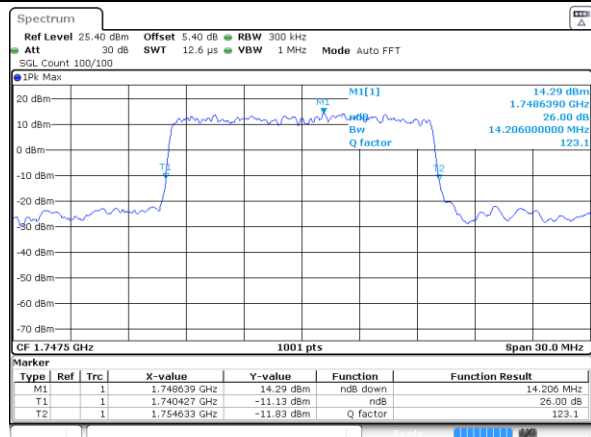
Date: 3 DEC 2019 19:54:30

## Highest Channel / 15MHz / QPSK



Date: 3 DEC 2019 19:56:49

## Highest Channel / 15MHz / 16QAM

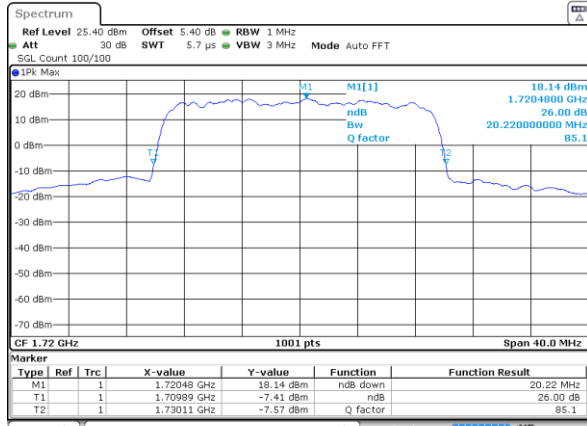


Date: 3 DEC 2019 19:56:59



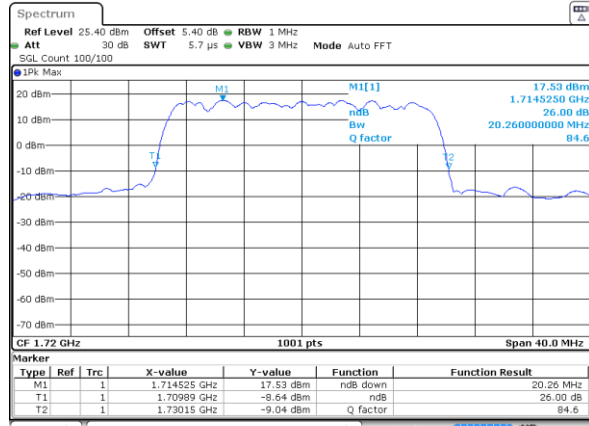
## LTE Band 4

## Lowest Channel / 20MHz / QPSK



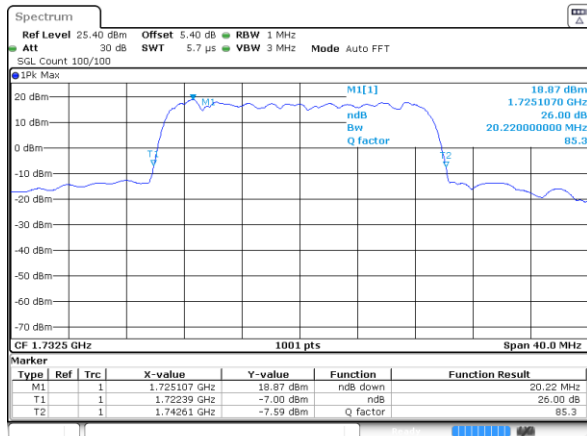
Date: 3 DEC 2019 20:03:48

## Lowest Channel / 20MHz / 16QAM



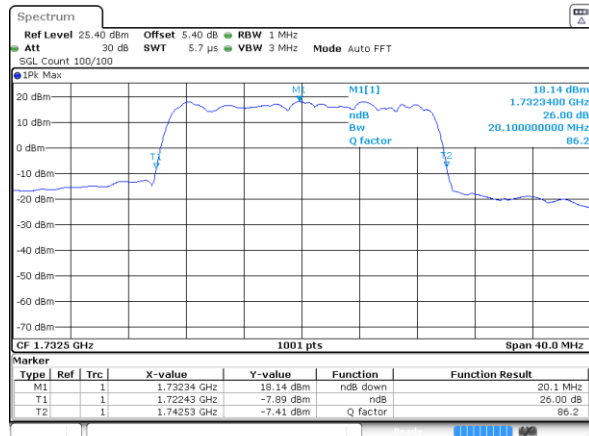
Date: 3 DEC 2019 20:03:58

## Middle Channel / 20MHz / QPSK



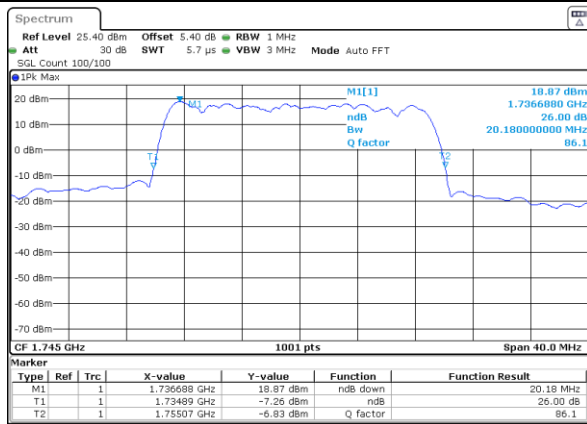
Date: 3 DEC 2019 20:10:47

## Middle Channel / 20MHz / 16QAM



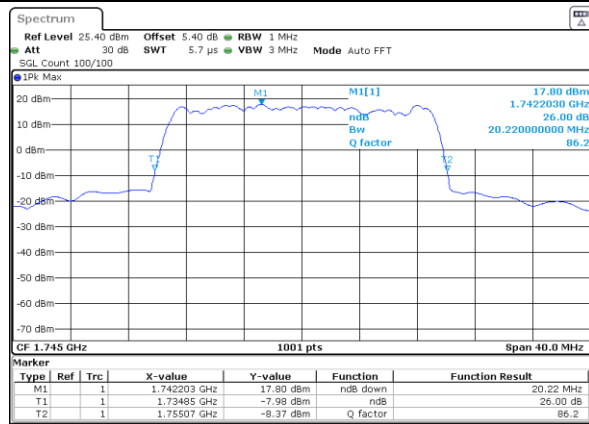
Date: 3 DEC 2019 20:10:57

## Highest Channel / 20MHz / QPSK



Date: 3 DEC 2019 20:13:16

## Highest Channel / 20MHz / 16QAM

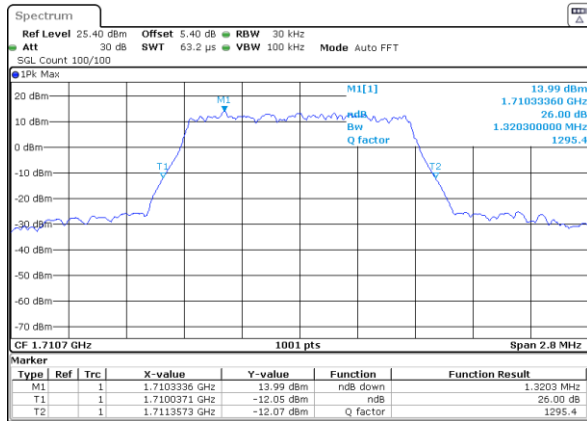


Date: 3 DEC 2019 20:13:26



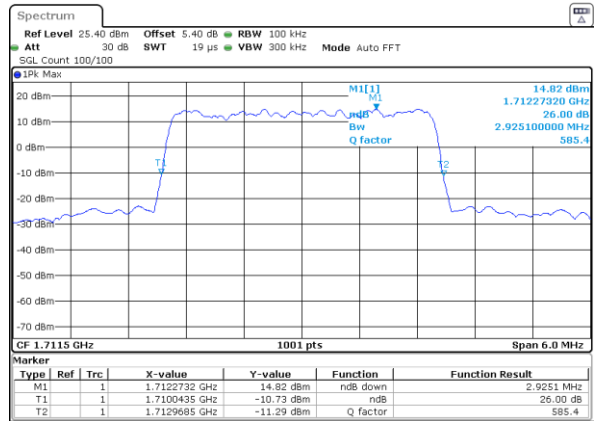
## LTE Band 4

## Lowest Channel / 1.4MHz / 64QAM



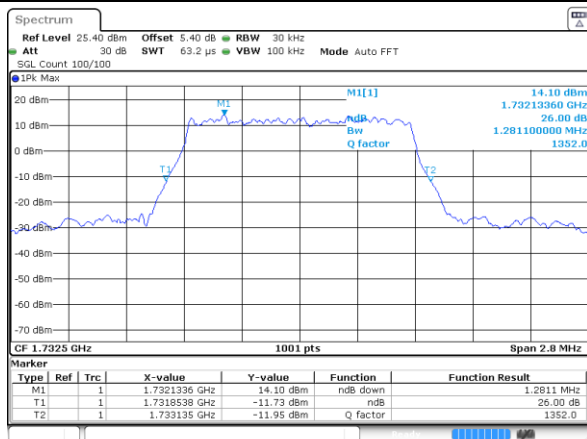
Date: 3 DEC 2019 20:43:21

## Lowest Channel / 3MHz / 64QAM



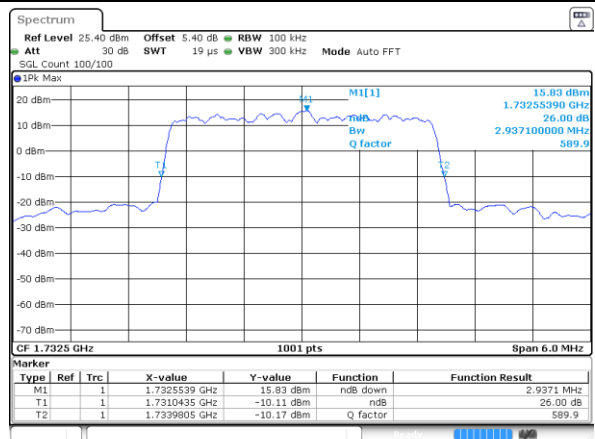
Date: 3 DEC 2019 20:51:36

## Middle Channel / 1.4MHz / 64QAM



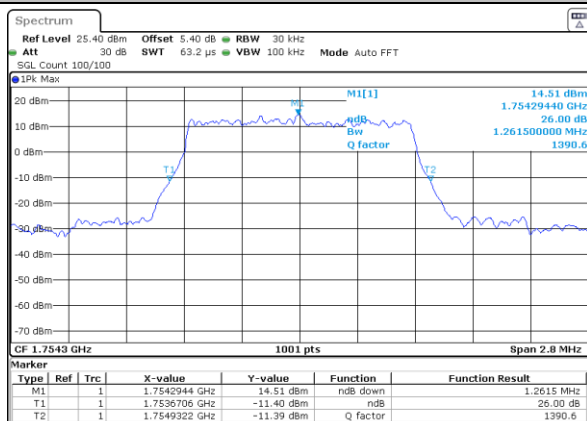
Date: 3 DEC 2019 20:46:51

## Middle Channel / 3MHz / 64QAM



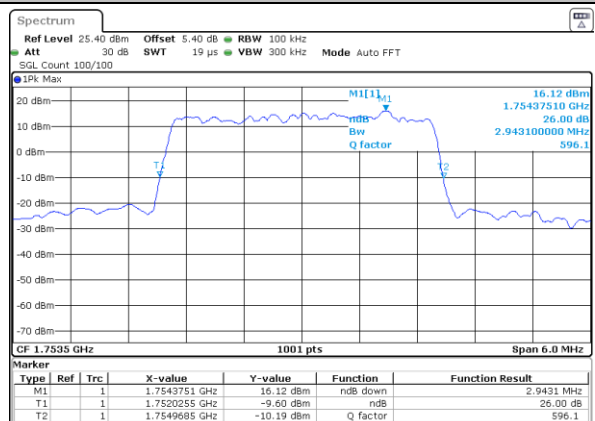
Date: 3 DEC 2019 20:55:05

## Highest Channel / 1.4MHz / 64QAM



Date: 3 DEC 2019 20:48:06

## Highest Channel / 3MHz / 64QAM

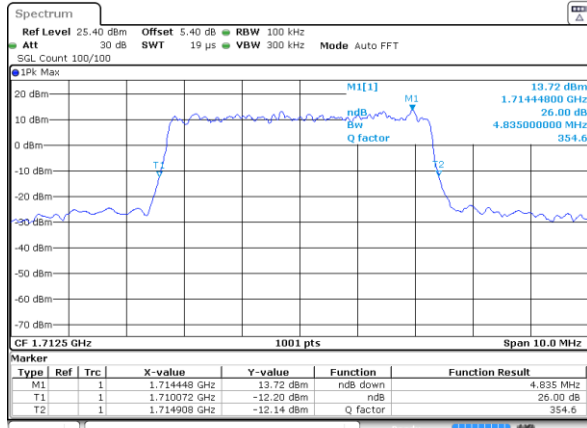


Date: 3 DEC 2019 20:56:20



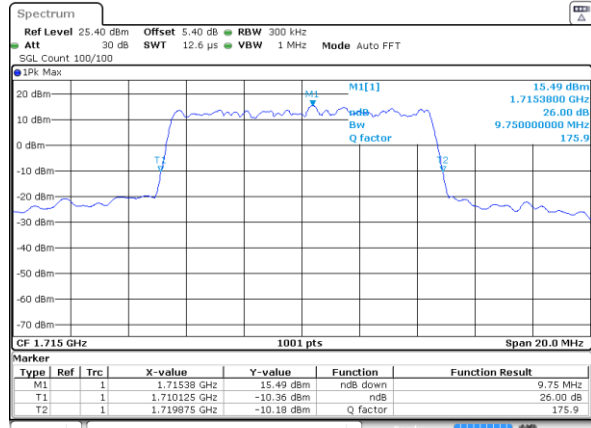
## LTE Band 4

## Lowest Channel / 5MHz / 64QAM



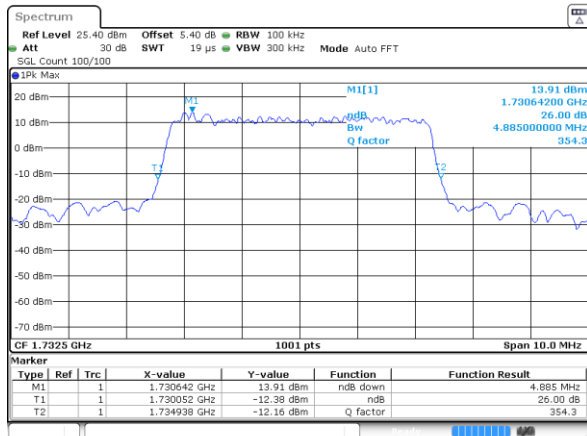
Date: 3 DEC 2019 20:59:50

## Lowest Channel / 10MHz / 64QAM



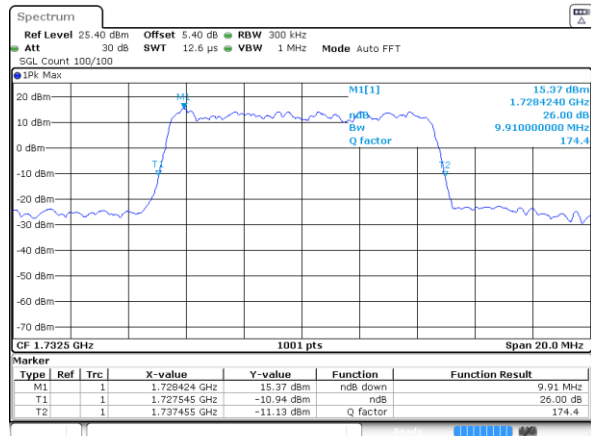
Date: 3 DEC 2019 21:08:05

## Middle Channel / 5MHz / 64QAM



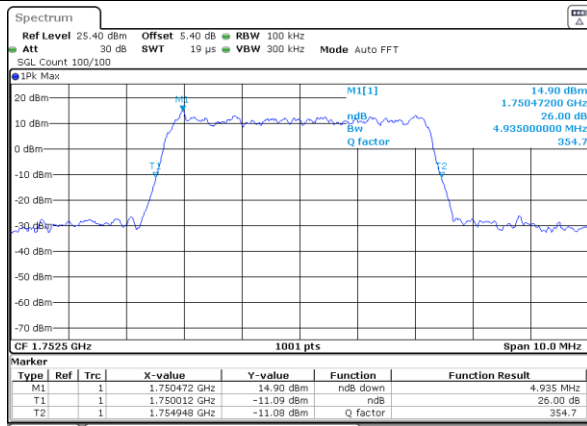
Date: 3 DEC 2019 21:03:20

## Middle Channel / 10MHz / 64QAM



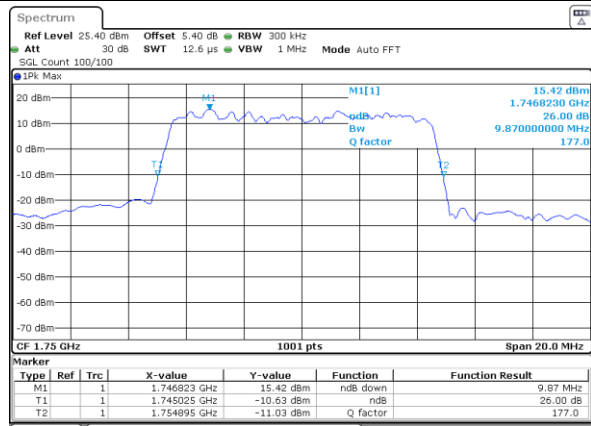
Date: 3 DEC 2019 21:11:36

## Highest Channel / 5MHz / 64QAM



Date: 3 DEC 2019 21:04:35

## Highest Channel / 10MHz / 64QAM



Date: 3 DEC 2019 21:12:51