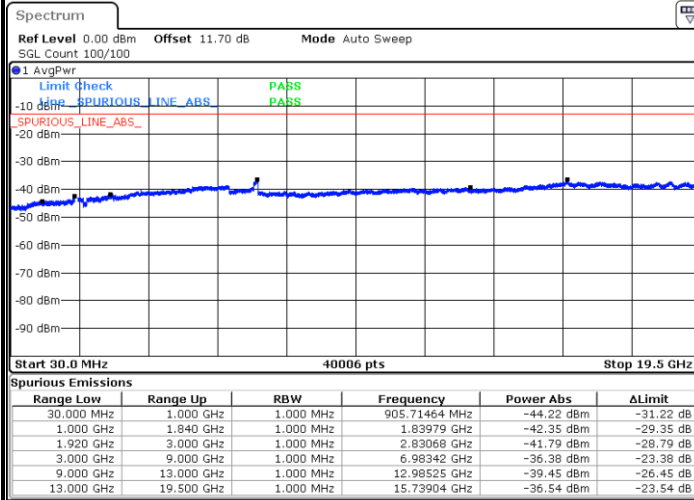




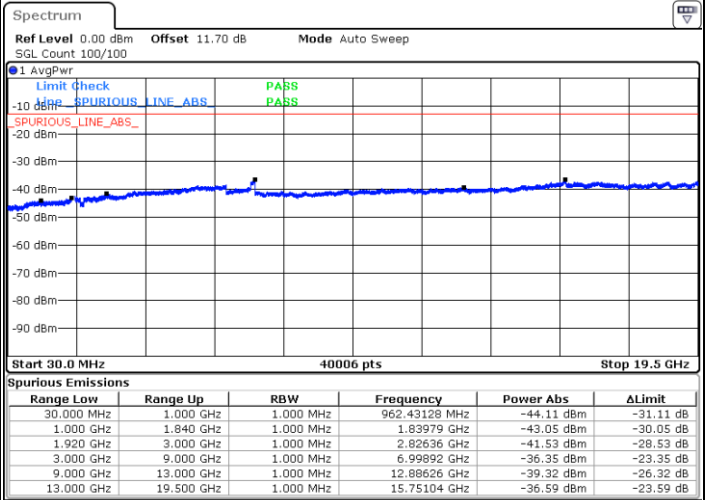
## LTE Band 2 / 5MHz

## Lowest Channel / QPSK



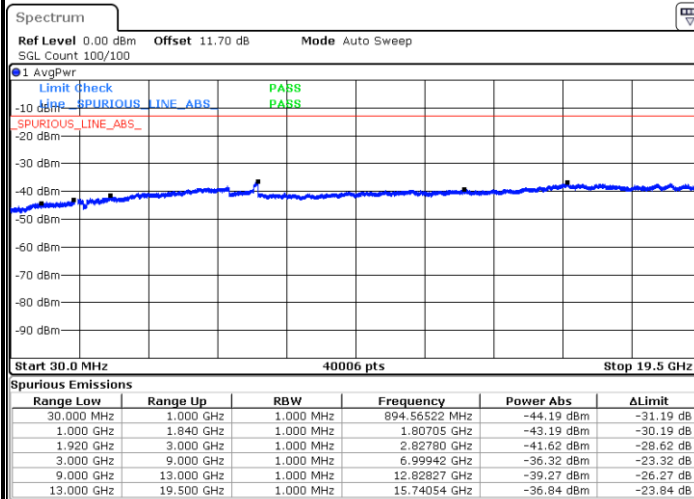
Date: 17.DEC.2019 23:48:24

## Lowest Channel / 16QAM



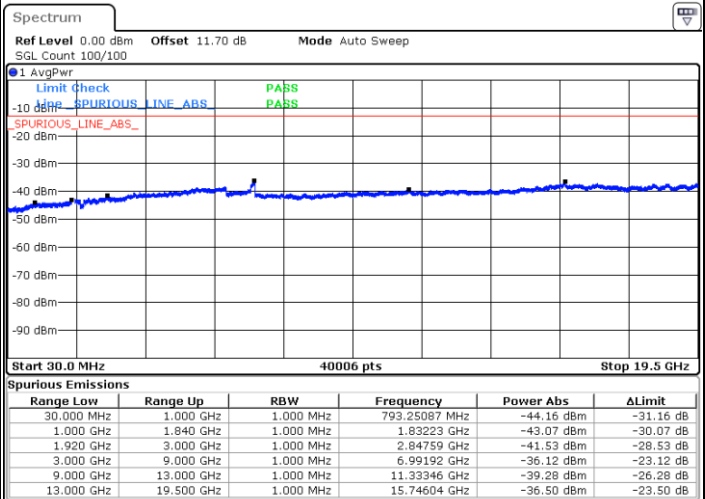
Date: 17.DEC.2019 23:49:14

## Middle Channel / QPSK



Date: 17.DEC.2019 23:50:58

## Middle Channel / 16QAM

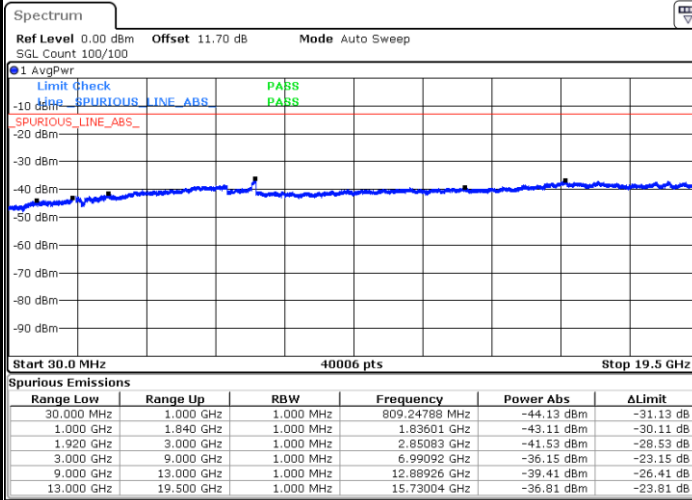


Date: 17.DEC.2019 23:51:47



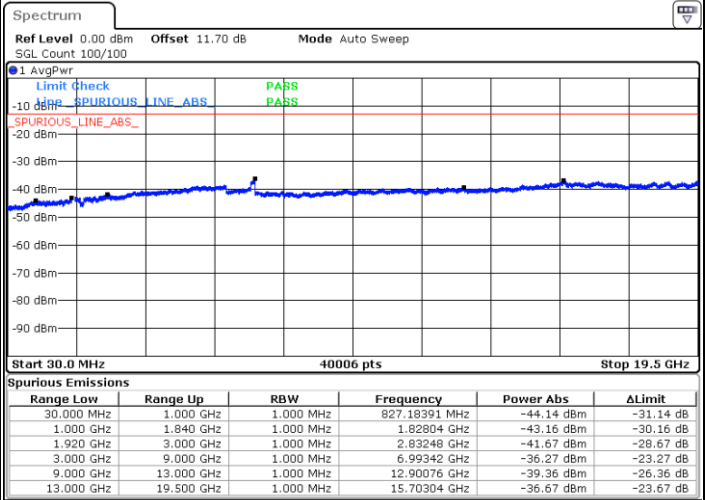
## LTE Band 2 / 5MHz

## Highest Channel / QPSK



Date: 17.DEC.2019 23:56:37

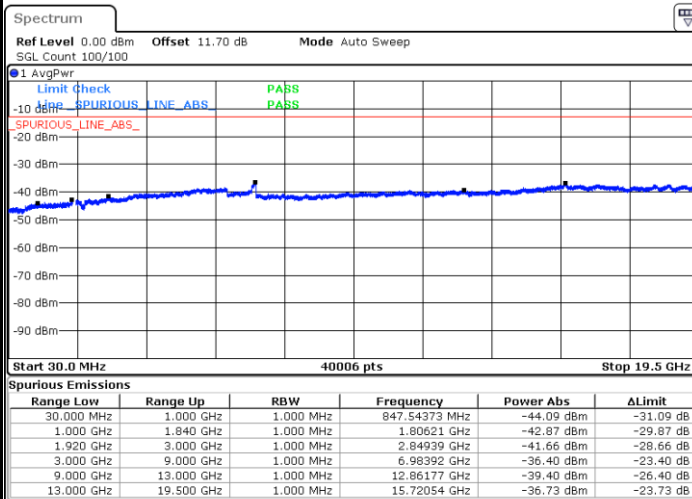
## Highest Channel / 16QAM



Date: 17.DEC.2019 23:57:27

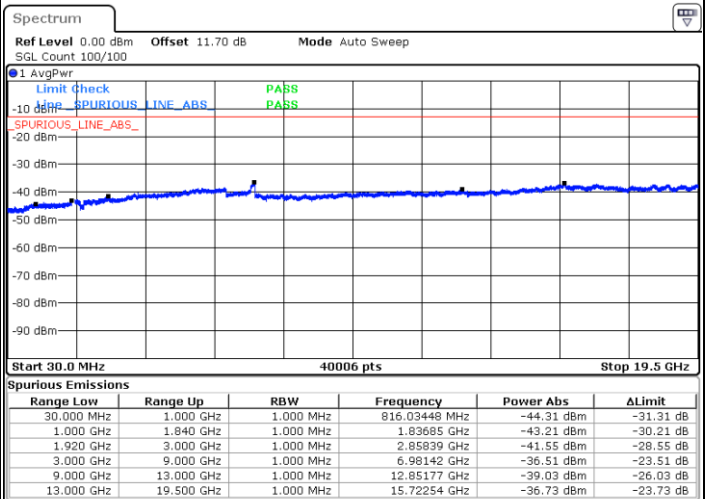
## LTE Band 2 / 10MHz

## Lowest Channel / QPSK



Date: 18.DEC.2019 00:02:17

## Lowest Channel / 16QAM

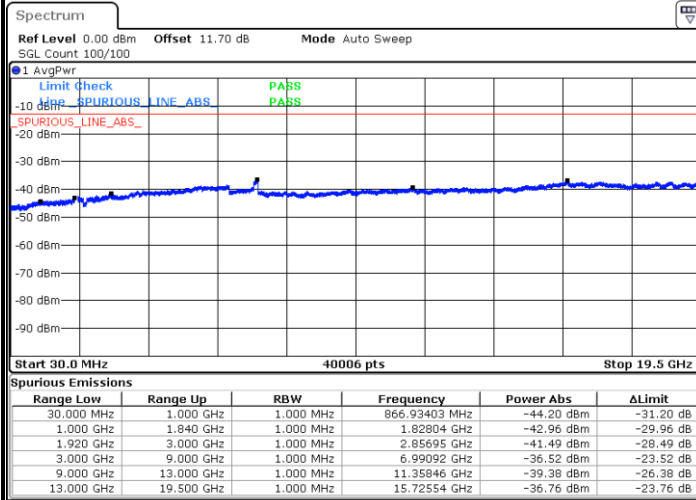


Date: 18.DEC.2019 00:03:07



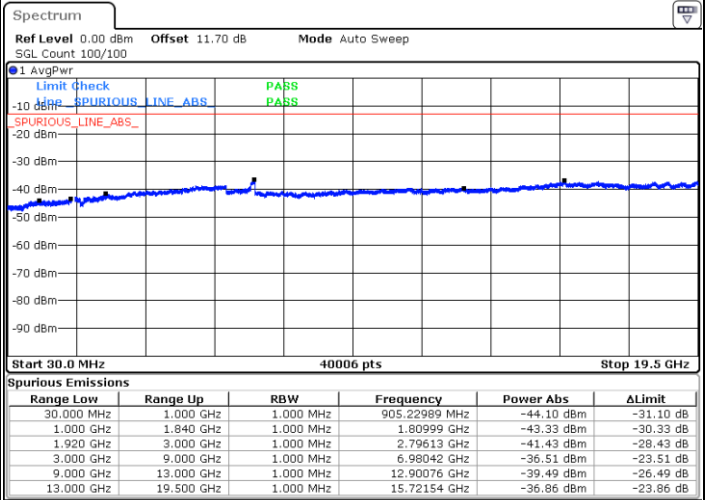
## LTE Band 2 / 10MHz

## Middle Channel / QPSK



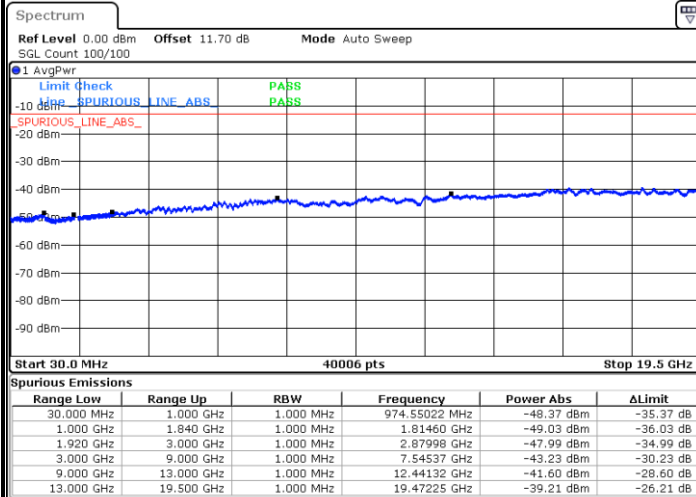
Date: 18.DEC.2019 00:42:10

## Middle Channel / 16QAM



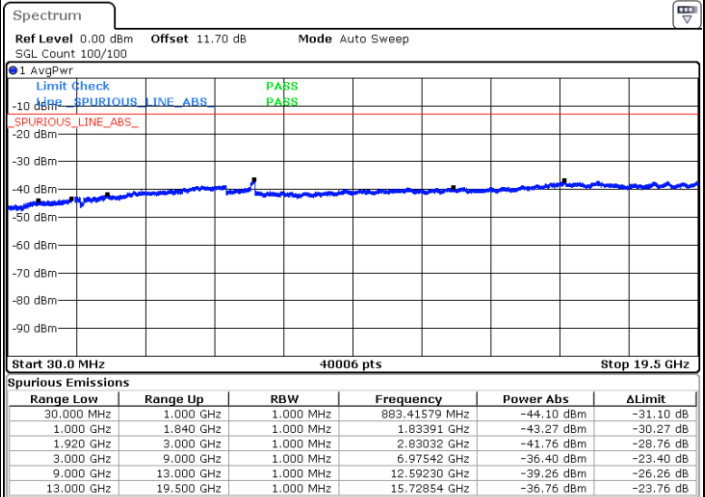
Date: 18.DEC.2019 00:42:59

## Highest Channel / QPSK



Date: 3.JAN.2020 02:54:23

## Highest Channel / 16QAM

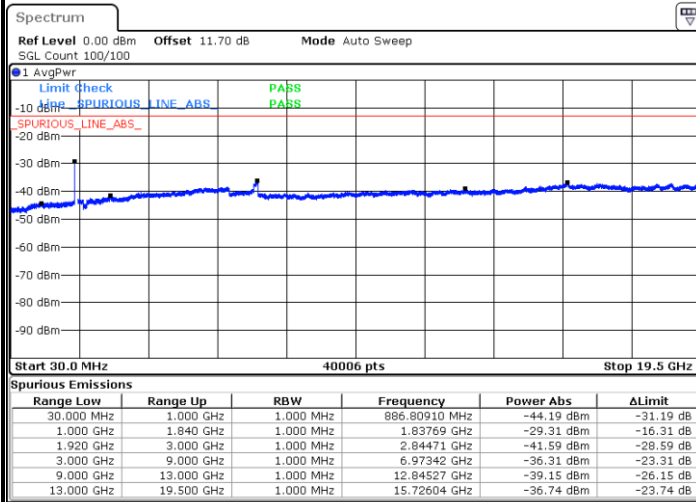


Date: 18.DEC.2019 00:45:41



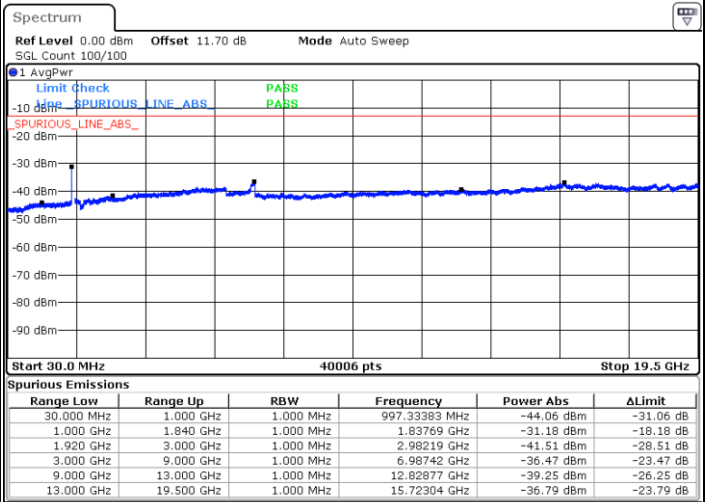
## LTE Band 2 / 15MHz

## Lowest Channel / QPSK



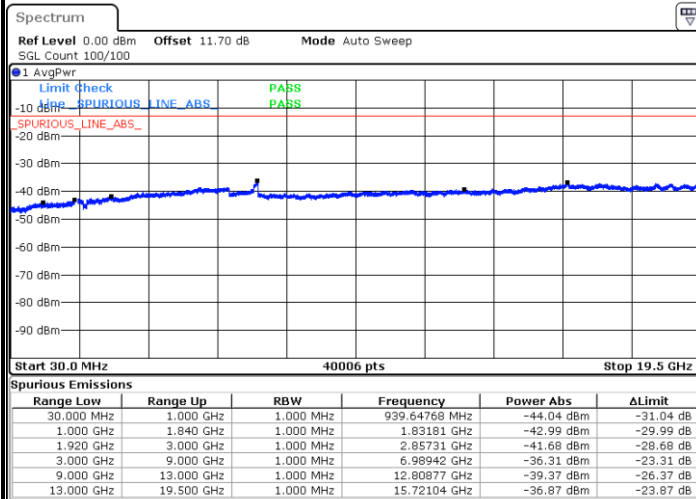
Date: 18.DEC.2019 00:50:32

## Lowest Channel / 16QAM



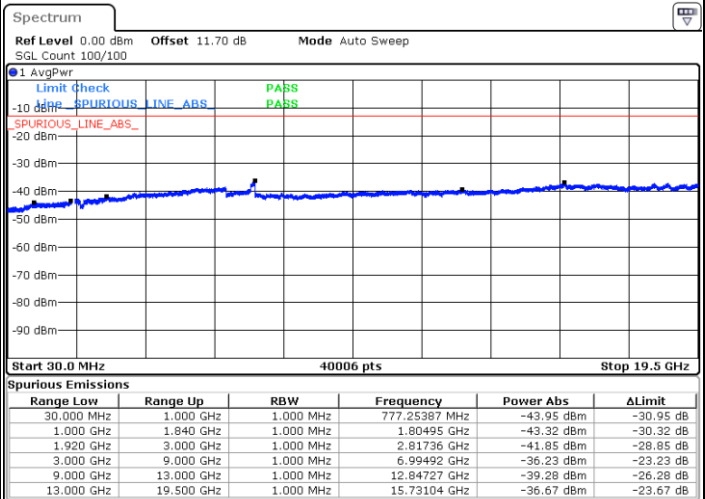
Date: 18.DEC.2019 00:51:22

## Middle Channel / QPSK



Date: 18.DEC.2019 00:53:04

## Middle Channel / 16QAM

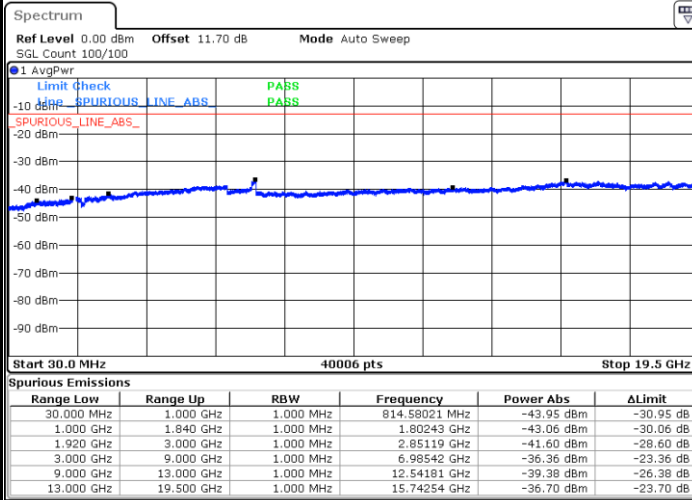


Date: 18.DEC.2019 00:53:54



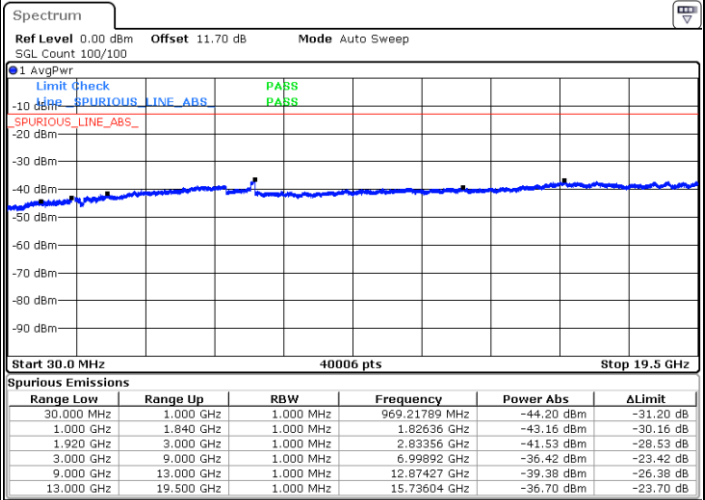
## LTE Band 2 / 15MHz

## Highest Channel / QPSK



Date: 18.DEC.2019 00:58:44

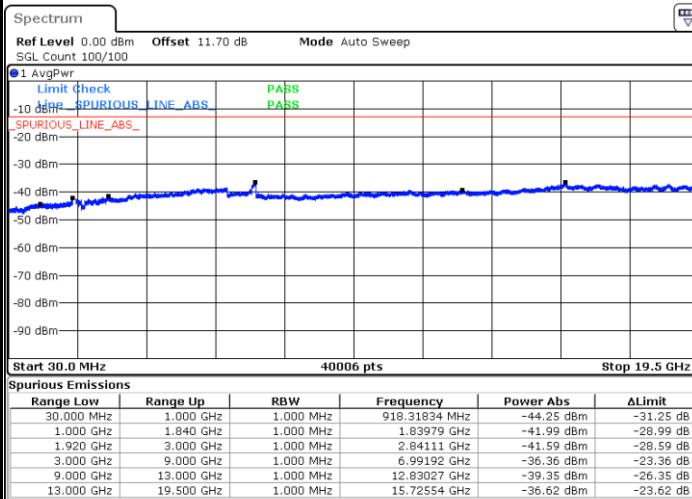
## Highest Channel / 16QAM



Date: 18.DEC.2019 00:59:33

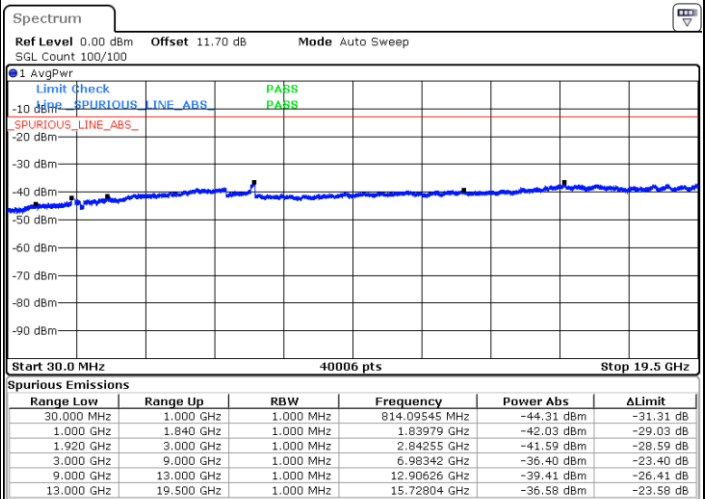
## LTE Band 2 / 20MHz

## Lowest Channel / QPSK



Date: 18.DEC.2019 01:04:24

## Lowest Channel / 16QAM

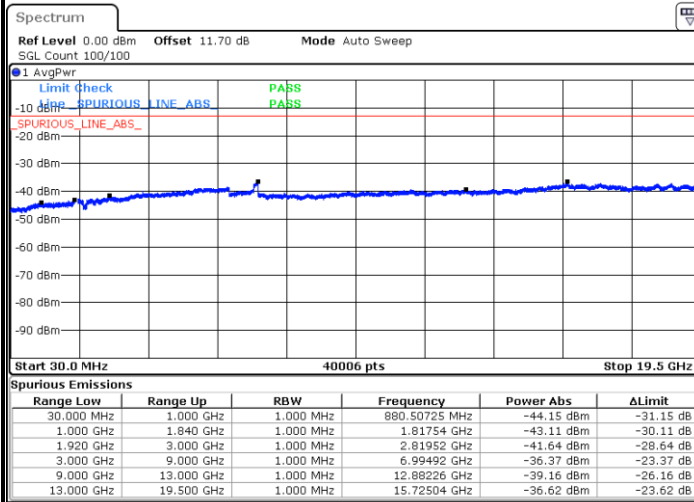


Date: 18.DEC.2019 01:05:14



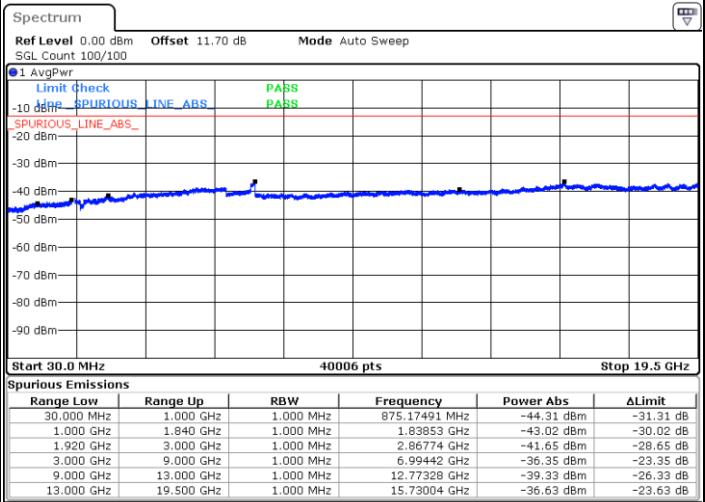
## LTE Band 2 / 20MHz

## Middle Channel / QPSK



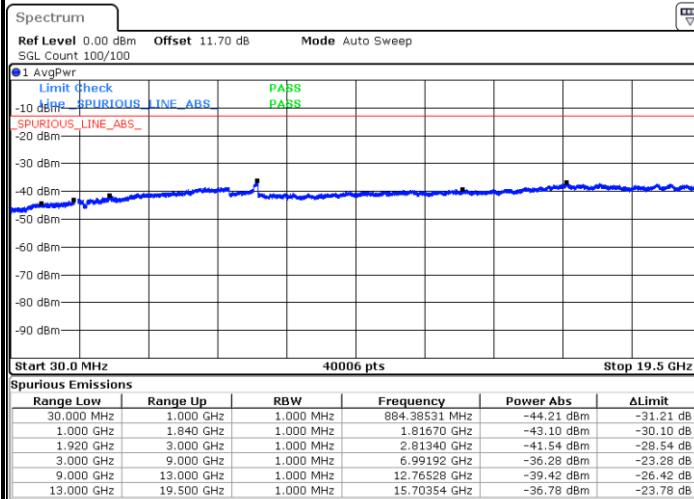
Date: 18.DEC.2019 01:06:57

## Middle Channel / 16QAM



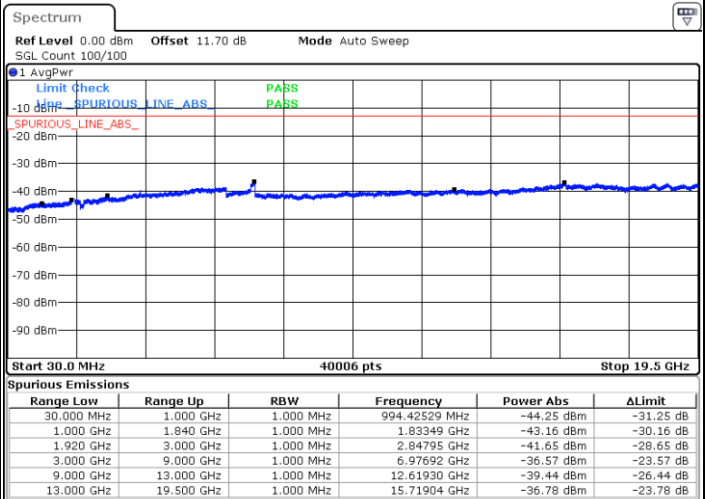
Date: 18.DEC.2019 01:07:46

## Highest Channel / QPSK



Date: 18.DEC.2019 01:12:36

## Highest Channel / 16QAM

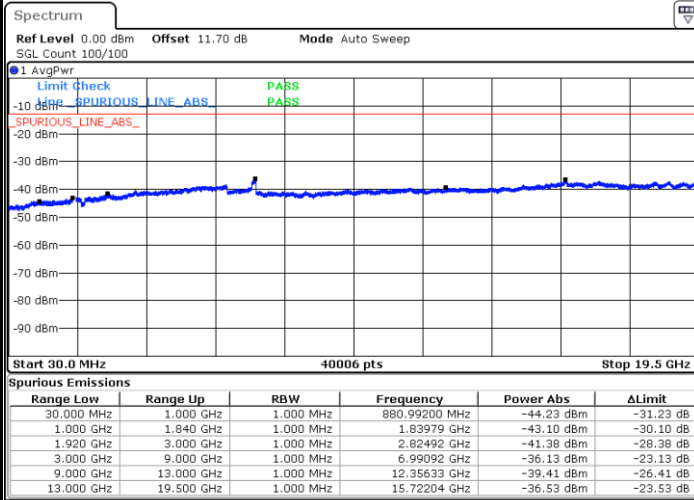


Date: 18.DEC.2019 01:13:26



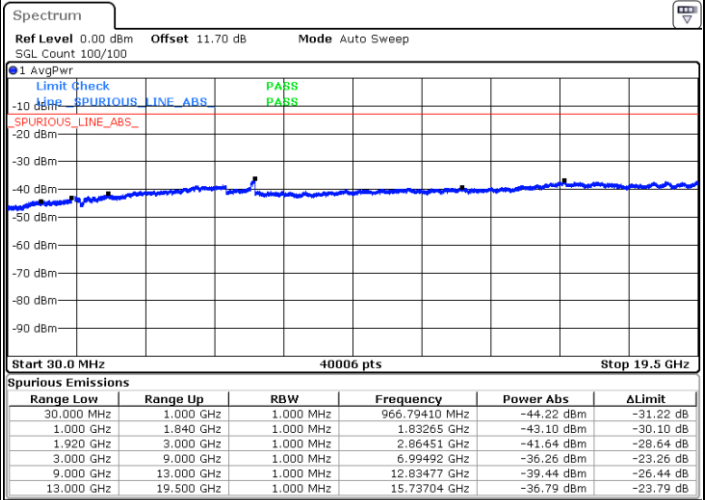
## LTE Band 2 / 1.4MHz

## Lowest Channel / 64QAM



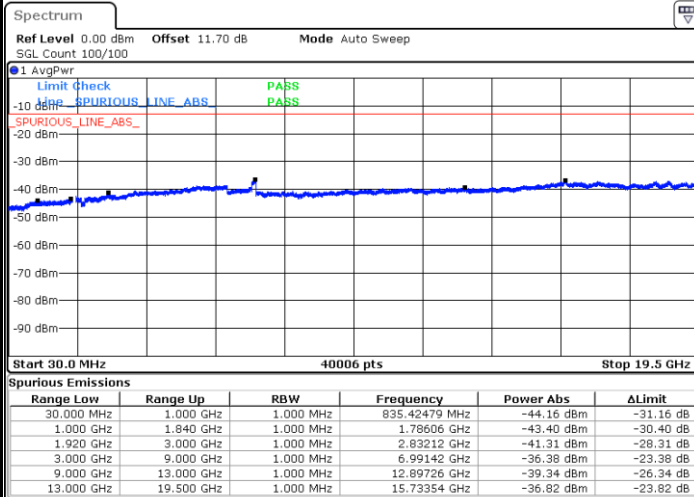
Date: 17.DEC.2019 23:23:03

## Middle Channel / 64QAM



Date: 17.DEC.2019 23:23:52

## Highest Channel / 64QAM

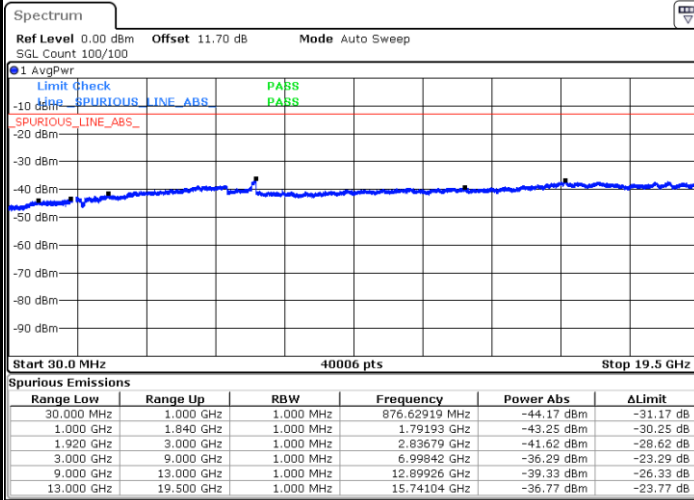


Date: 17.DEC.2019 23:24:42



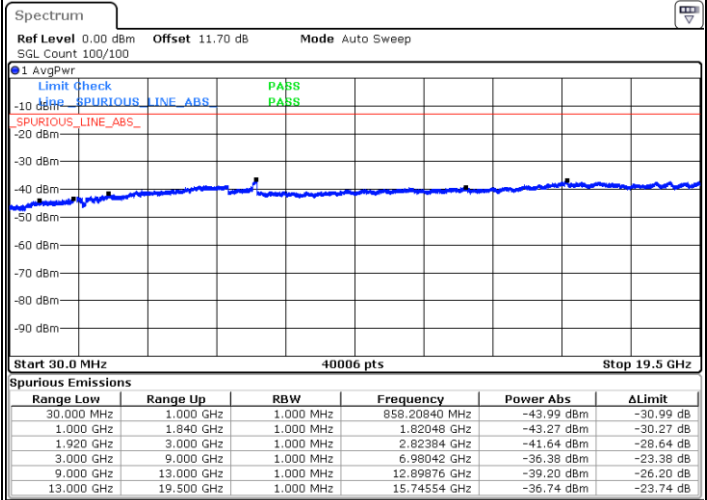
## LTE Band 2 / 3MHz

## Lowest Channel / 64QAM



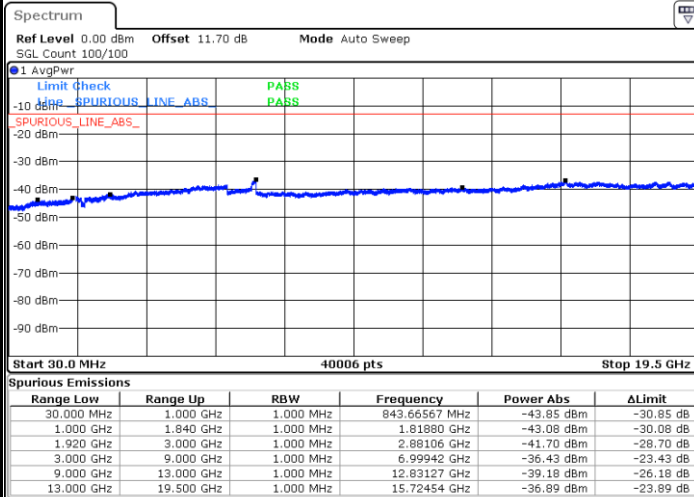
Date: 18.DEC.2019 01:16:16

## Middle Channel / 64QAM



Date: 18.DEC.2019 01:17:32

## Highest Channel / 64QAM

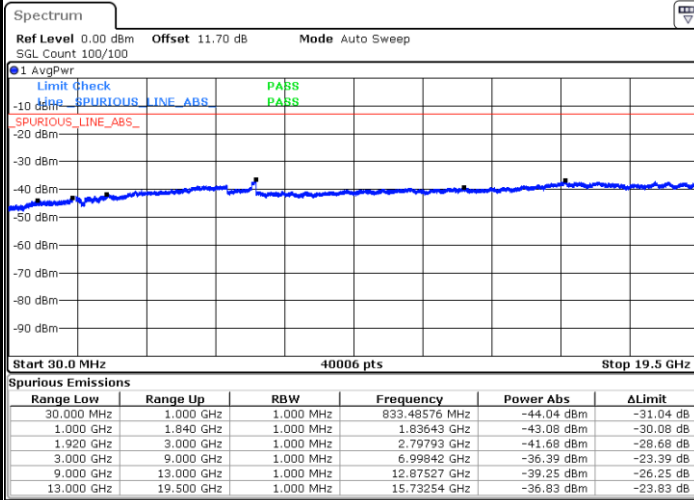


Date: 18.DEC.2019 01:20:22



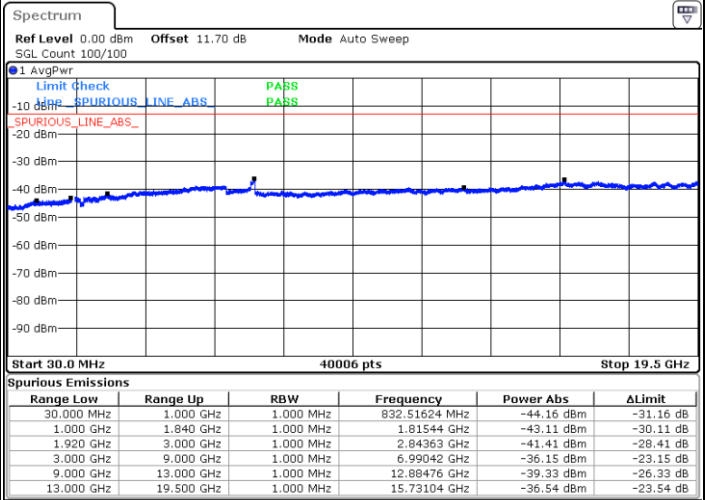
## LTE Band 2 / 5MHz

## Lowest Channel / 64QAM



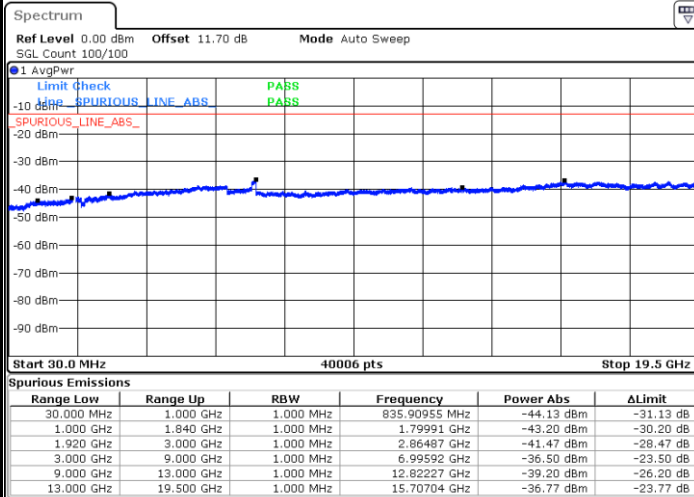
Date: 18.DEC.2019 01:23:12

## Middle Channel / 64QAM



Date: 18.DEC.2019 01:24:28

## Highest Channel / 64QAM

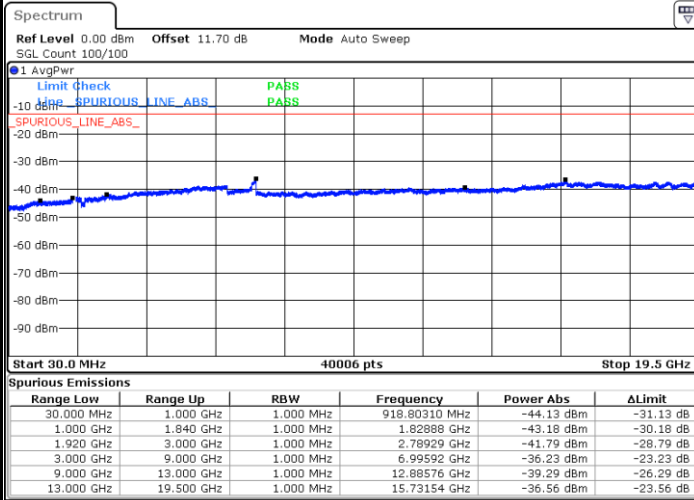


Date: 18.DEC.2019 01:27:18



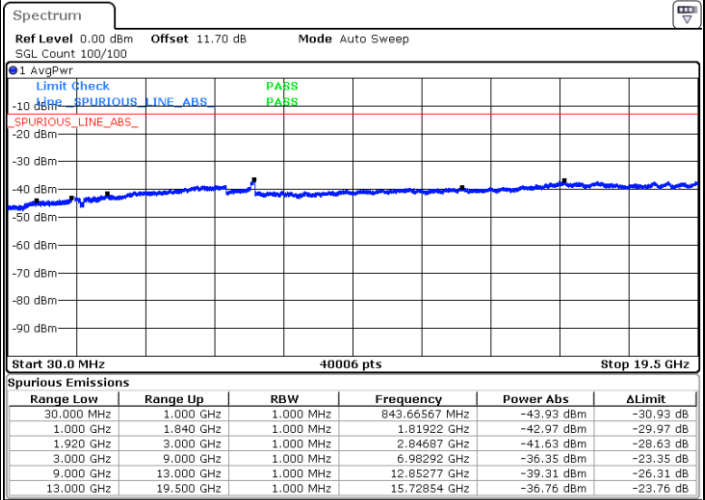
## LTE Band 2 / 10MHz

## Lowest Channel / 64QAM



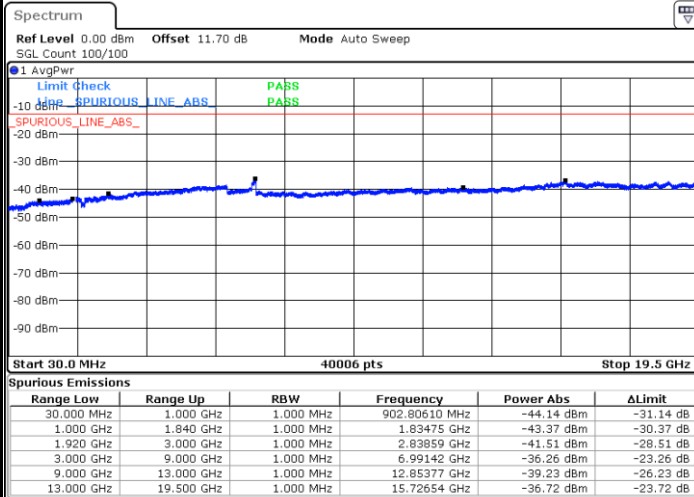
Date: 18.DEC.2019 01:30:08

## Middle Channel / 64QAM



Date: 18.DEC.2019 01:31:24

## Highest Channel / 64QAM

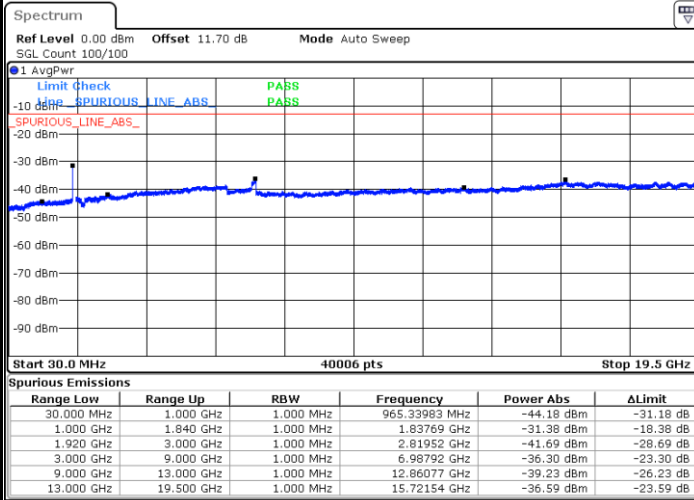


Date: 18.DEC.2019 01:34:14



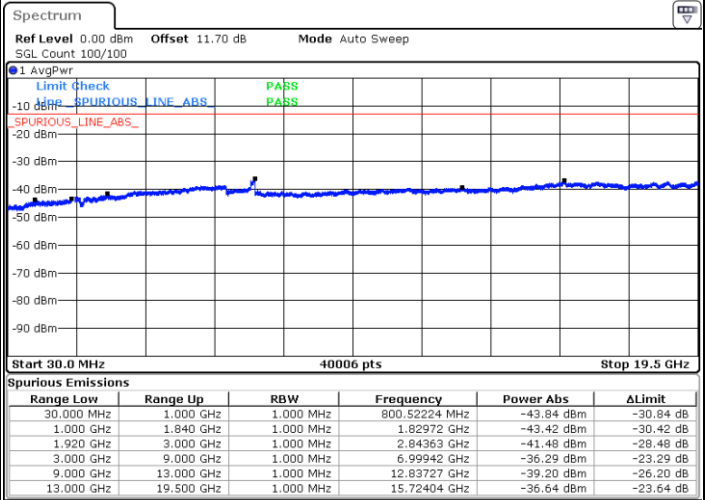
## LTE Band 2 / 15MHz

## Lowest Channel / 64QAM



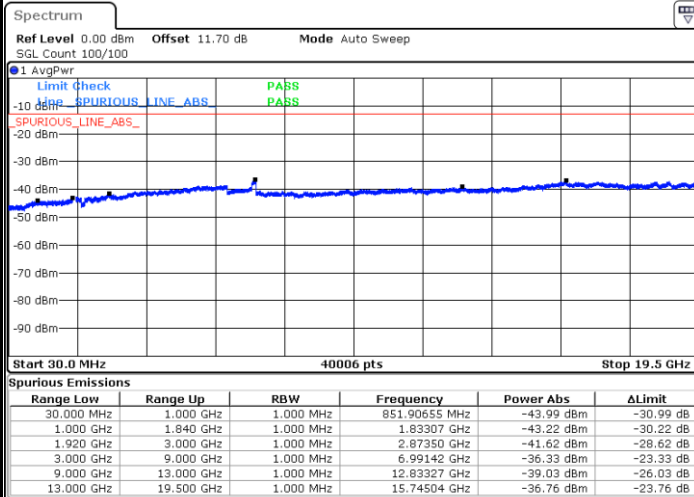
Date: 18.DEC.2019 01:37:04

## Middle Channel / 64QAM



Date: 18.DEC.2019 01:38:21

## Highest Channel / 64QAM

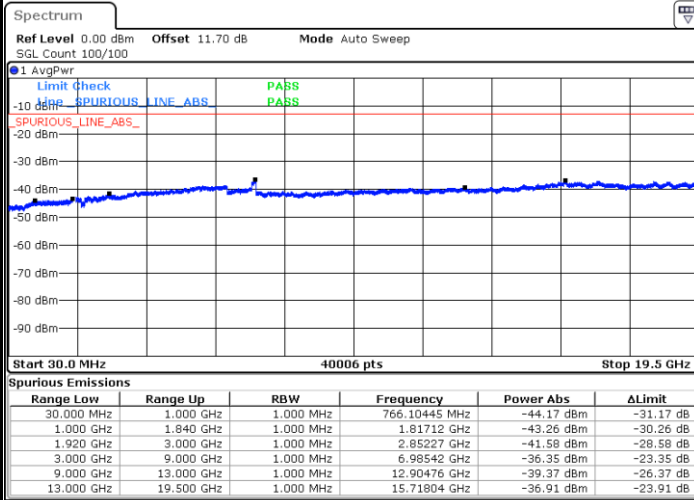


Date: 18.DEC.2019 01:41:10



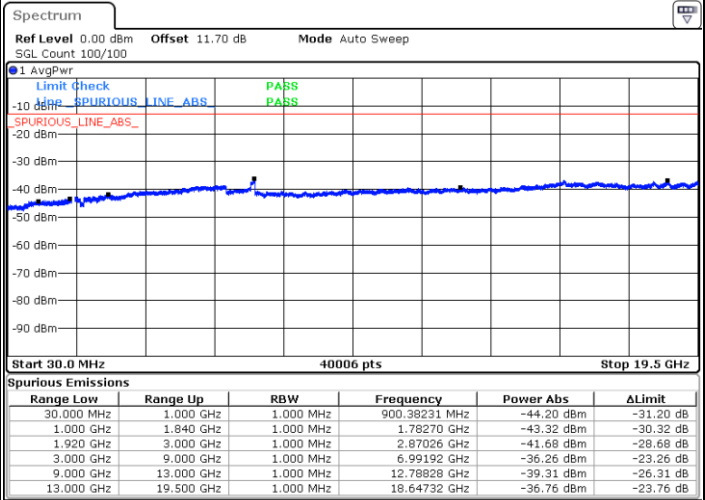
## LTE Band 2 / 20MHz

## Lowest Channel / 64QAM



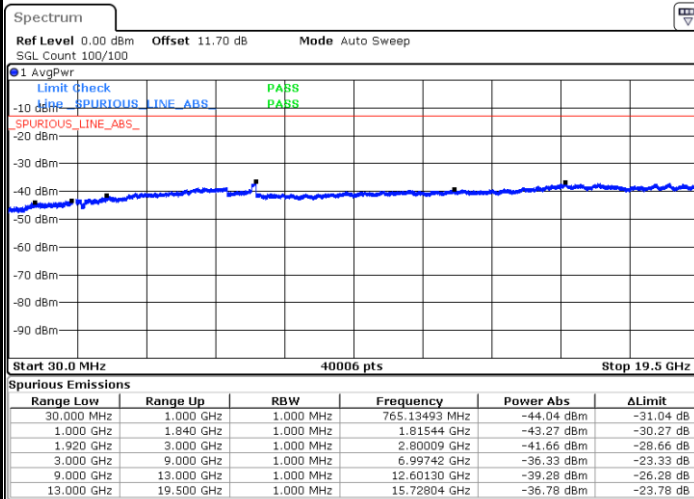
Date: 18.DEC.2019 01:44:00

## Middle Channel / 64QAM



Date: 18.DEC.2019 01:45:16

## Highest Channel / 64QAM



Date: 18.DEC.2019 01:48:06

## 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    | 0.0030                             | PASS    |
| 40               | Normal Voltage    | 0.0002                             |         |
| 30               | Normal Voltage    | 0.0028                             |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |         |
| 10               | Normal Voltage    | 0.0080                             |         |
| 0                | Normal Voltage    | 0.0007                             |         |
| -10              | Normal Voltage    | 0.0010                             |         |
| -20              | Normal Voltage    | 0.0001                             |         |
| -30              | Normal Voltage    | 0.0045                             |         |
| 20               | Maximum Voltage   | 0.0040                             |         |
| 20               | Normal Voltage    | 0.0000                             |         |
| 20               | Battery End Point | 0.0021                             |         |

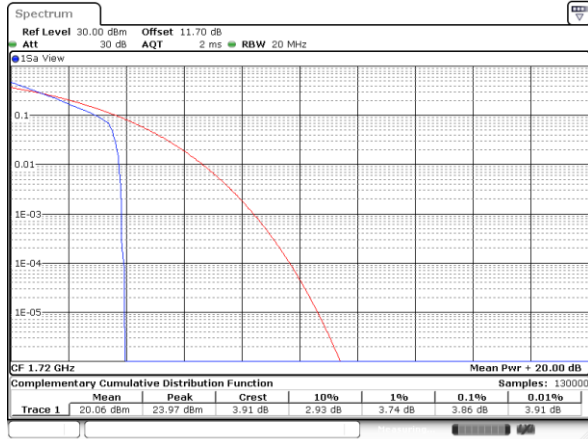
**Note:**

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.

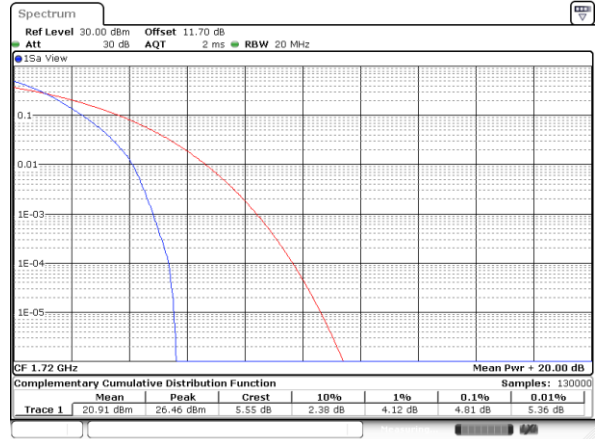
## LTE Band 4

### Peak-to-Average Ratio

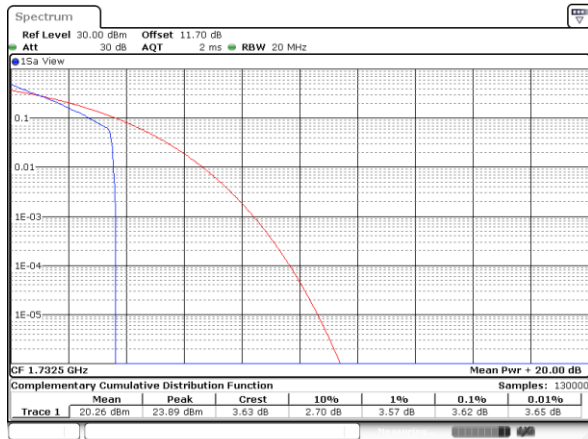
| Mode       | LTE Band 4 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 3.86               | 4.81    | 4.90  | 6.00    | PASS        |
| Middle CH  | 3.62               | 4.90    | 5.19  | 5.83    |             |
| Highest CH | 3.65               | 4.96    | 4.06  | 5.97    |             |
| Mode       | LTE Band 4 / 20MHz |         |       |         |             |
| Mod.       | 64QAM              |         |       |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB |       |         | Result      |
| Lowest CH  | 6.35               | 6.41    | -     | -       | PASS        |
| Middle CH  | 6.58               | 6.43    | -     | -       |             |
| Highest CH | 6.49               | 6.67    | -     | -       |             |

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


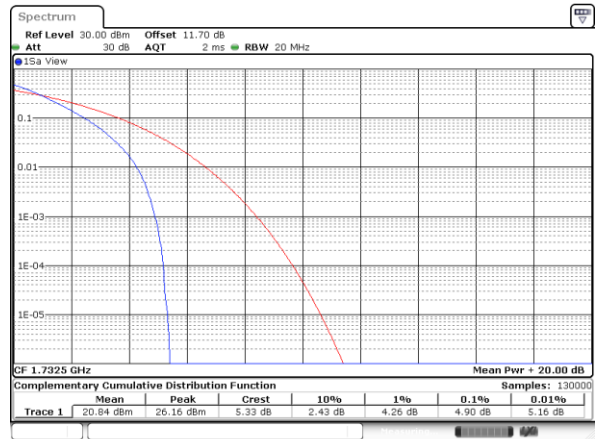
Date: 4 JAN 2020 03:03:37

**Lowest Channel / Full RB**


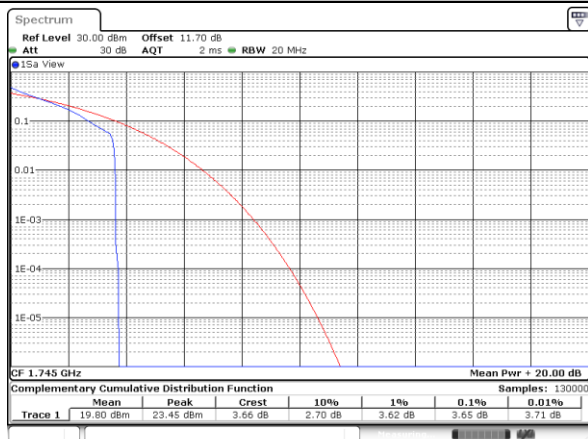
Date: 4 JAN 2020 03:03:55

**Middle Channel / 1RB**


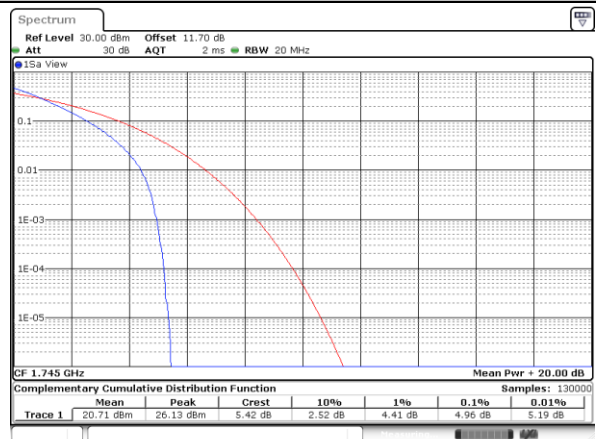
Date: 4 JAN 2020 03:04:08

**Middle Channel / Full RB**


Date: 4 JAN 2020 03:04:18

**Highest Channel / 1RB**


Date: 4 JAN 2020 03:04:29

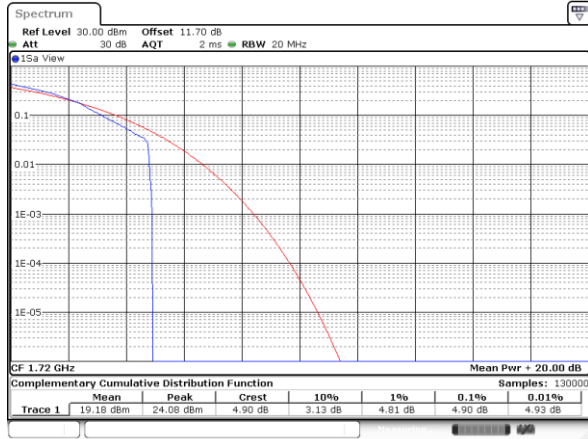
**Highest Channel / Full RB**


Date: 4 JAN 2020 03:05:39

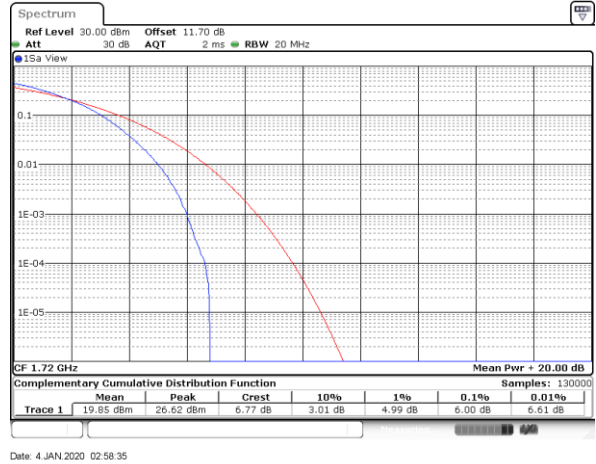


## LTE Band 4 / 20MHz / 16QAM

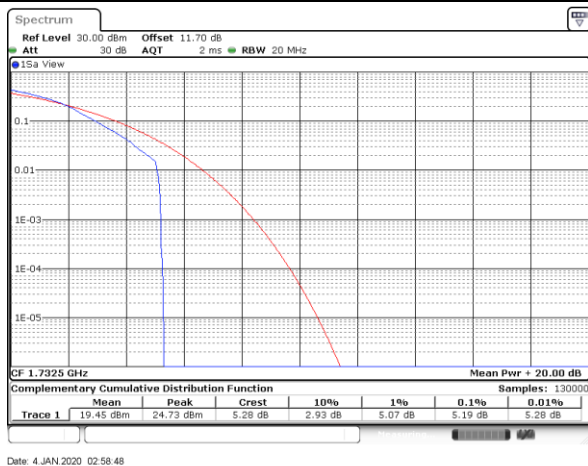
## Lowest Channel / 1RB



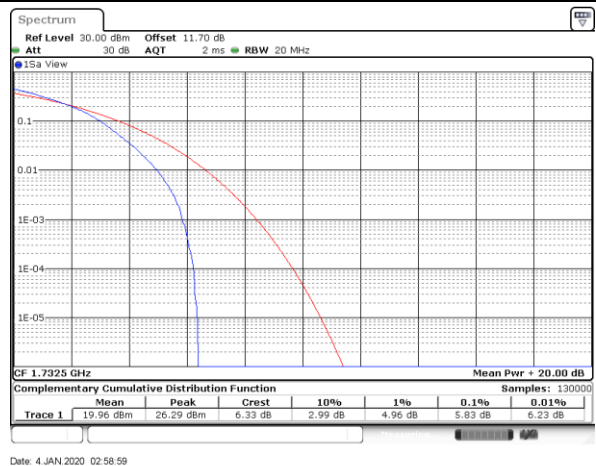
## Lowest Channel / Full RB



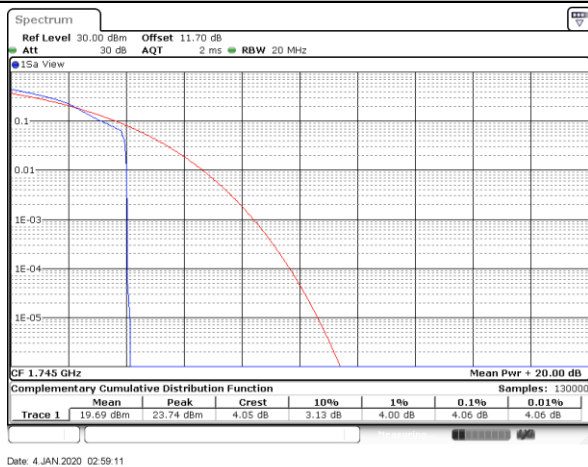
## Middle Channel / 1RB



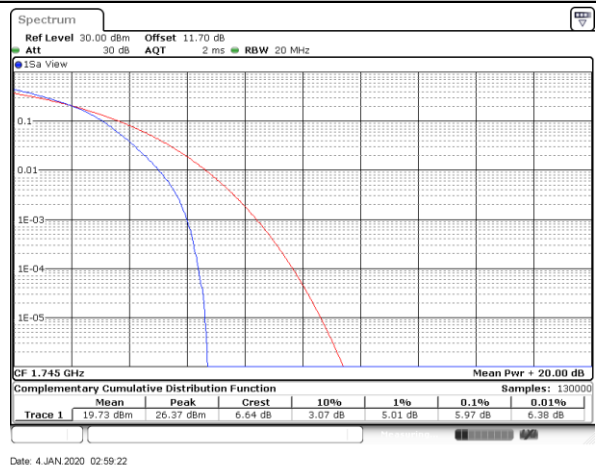
## Middle Channel / Full RB

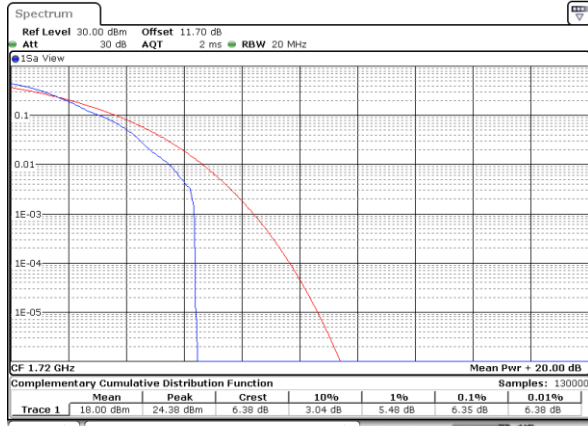


## Highest Channel / 1RB

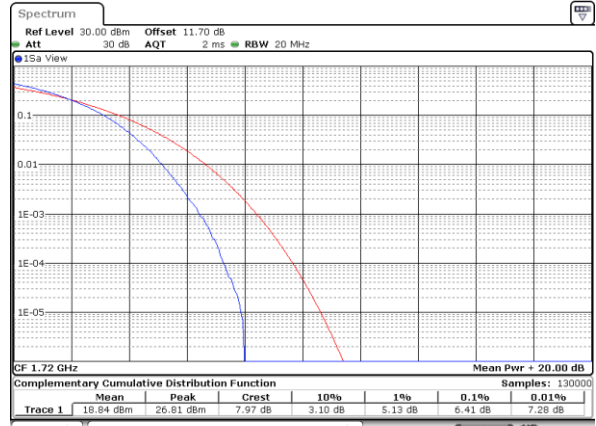


## Highest Channel / Full RB

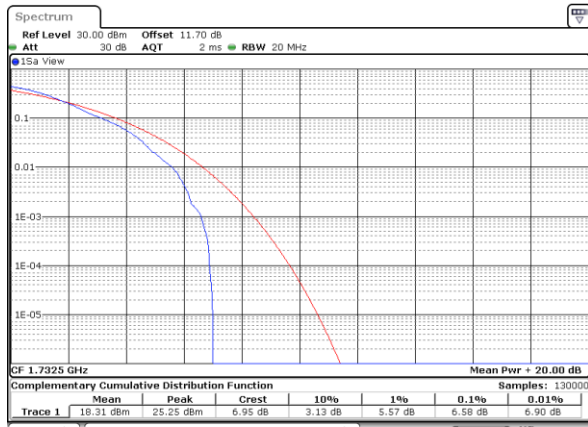


**LTE Band 4 / 20MHz / 64QAM**
**Lowest Channel / 1RB**


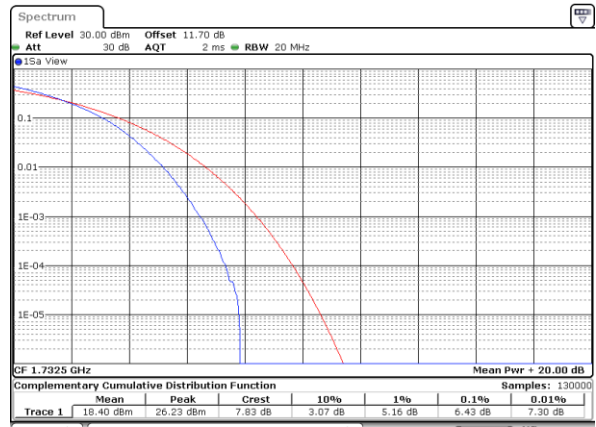
Date: 4 JAN 2020 03:06:45

**Lowest Channel / Full RB**


Date: 4 JAN 2020 03:07:10

**Middle Channel / 1RB**


Date: 4 JAN 2020 03:07:22

**Middle Channel / Full RB**


Date: 4 JAN 2020 03:07:36

**Highest Channel / 1RB**


Date: 4 JAN 2020 03:07:51

**Highest Channel / Full RB**


Date: 4 JAN 2020 03:08:10

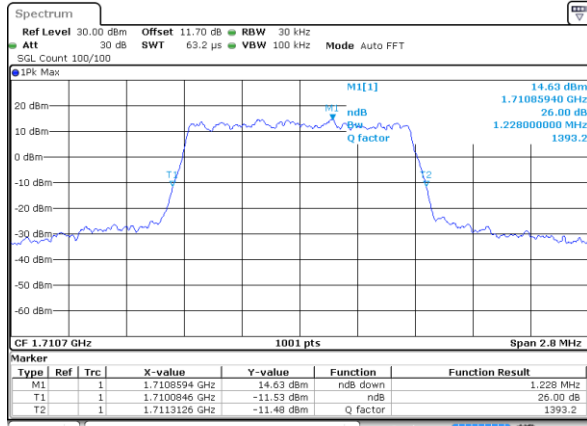
**26dB Bandwidth**

| 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  | 1.23                      | 1.22  | 3.04  | 3.01  | 4.88  | 4.85  | 9.81  | 9.83  | 14.54 | 14.63 | 18.70 | 19.02 |
| Middle CH  | 1.23                      | 1.23  | 2.97  | 2.97  | 4.89  | 4.78  | 9.77  | 9.81  | 14.54 | 14.57 | 19.06 | 19.02 |
| Highest CH | 1.21                      | 1.23  | 3.07  | 2.96  | 4.90  | 4.83  | 9.69  | 9.87  | 14.54 | 14.48 | 19.18 | 19.10 |
| Mode       | LTE Band 4 : 26dB BW(MHz) |       |       |       |       |       |       |       |       |       |       |       |
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | 64QAM                     |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | 1.22                      | -     | 3.03  | -     | 4.90  | -     | 9.83  | -     | 14.39 | -     | 18.94 | -     |
| Middle CH  | 1.23                      | -     | 3.04  | -     | 4.92  | -     | 9.81  | -     | 14.39 | -     | 18.70 | -     |
| Highest CH | 1.24                      | -     | 2.99  | -     | 4.90  | -     | 9.81  | -     | 14.54 | -     | 18.94 | -     |



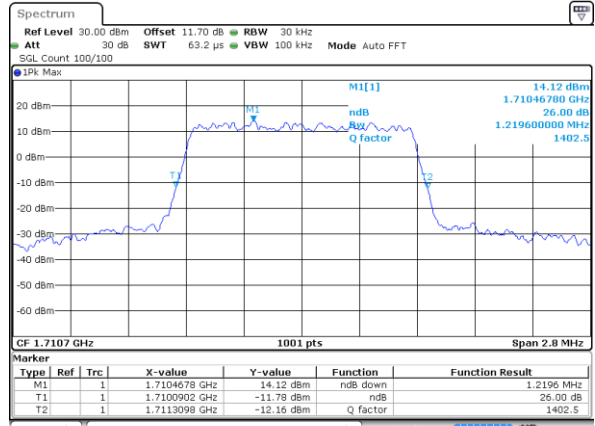
## LTE Band 4

## Lowest Channel / 1.4MHz / QPSK



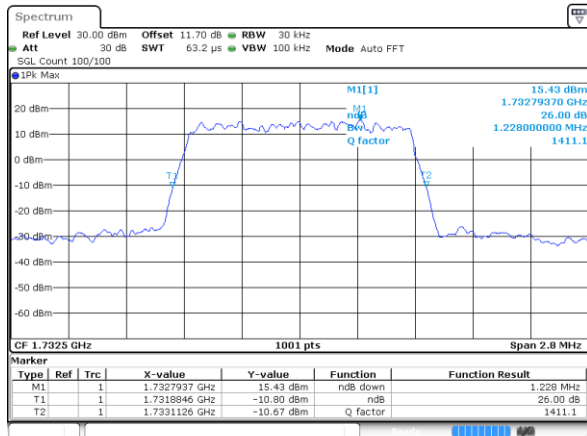
Date: 4 JAN 2020 02:40:04

## Lowest Channel / 1.4MHz / 16QAM



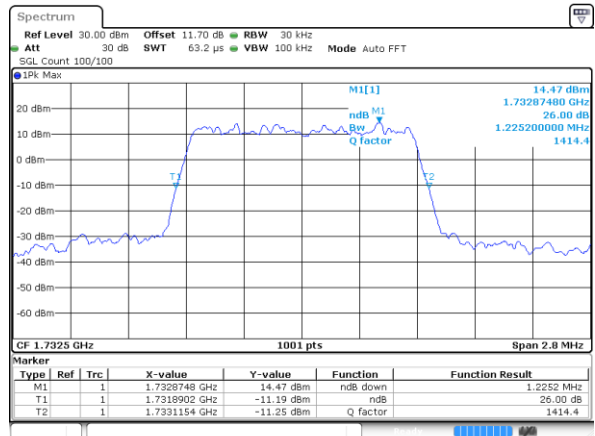
Date: 4 JAN 2020 02:40:16

## Middle Channel / 1.4MHz / QPSK



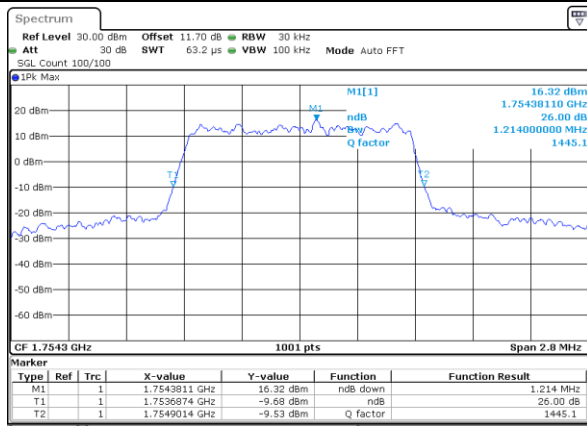
Date: 4 JAN 2020 02:46:38

## Middle Channel / 1.4MHz / 16QAM



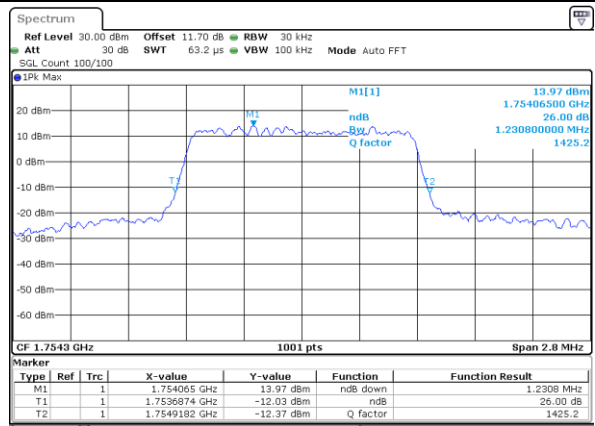
Date: 4 JAN 2020 02:46:49

## Highest Channel / 1.4MHz / QPSK



Date: 4 JAN 2020 02:48:47

## Highest Channel / 1.4MHz / 16QAM

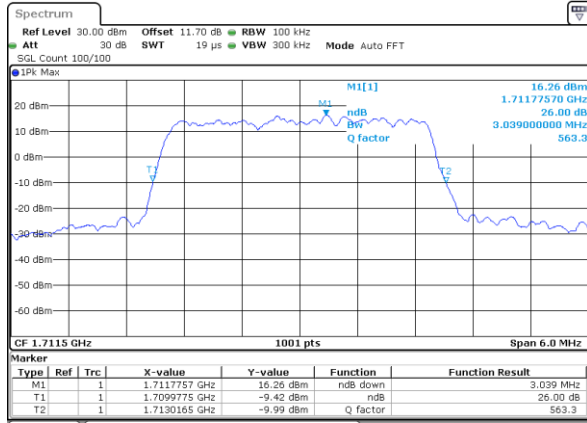


Date: 4 JAN 2020 02:48:59



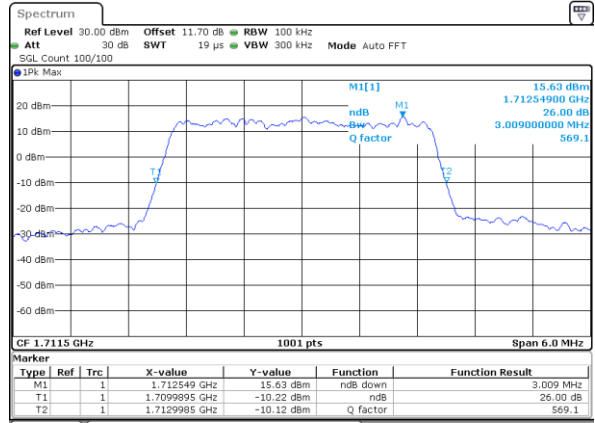
## LTE Band 4

## Lowest Channel / 3MHz / QPSK



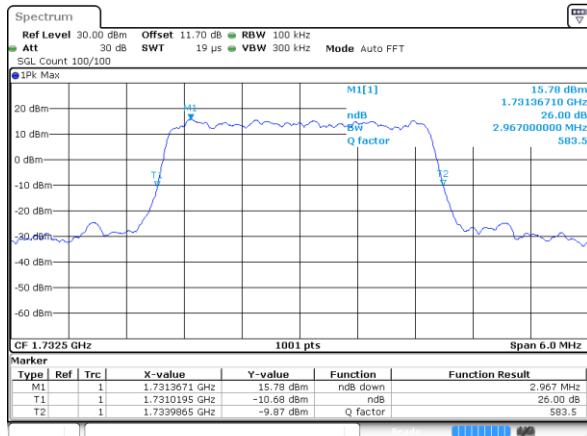
Date: 4 JAN 2020 00:55:57

## Lowest Channel / 3MHz / 16QAM



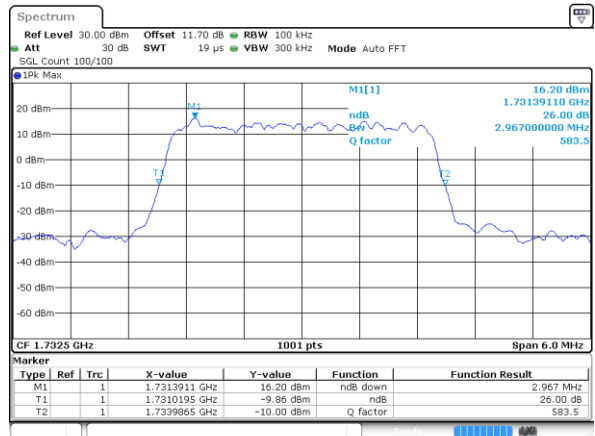
Date: 4 JAN 2020 00:56:09

## Middle Channel / 3MHz / QPSK



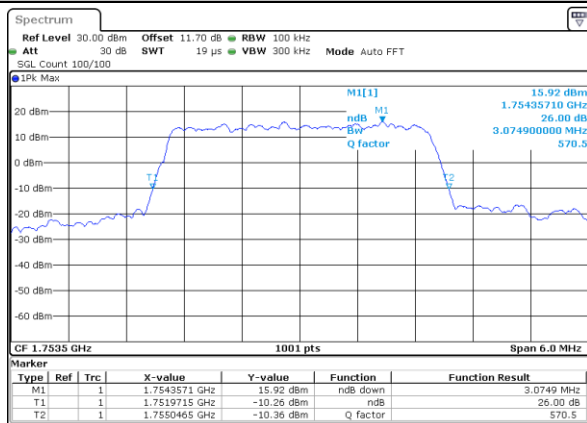
Date: 4 JAN 2020 01:00:50

## Middle Channel / 3MHz / 16QAM



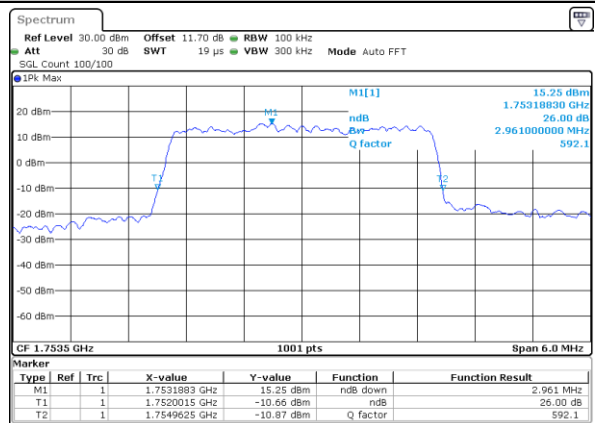
Date: 4 JAN 2020 01:01:02

## Highest Channel / 3MHz / QPSK



Date: 4 JAN 2020 01:02:59

## Highest Channel / 3MHz / 16QAM

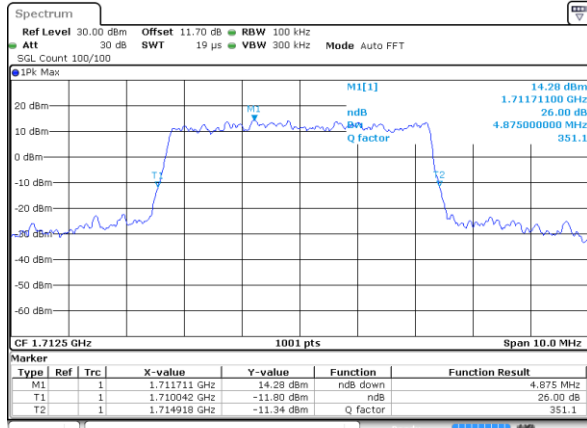


Date: 4 JAN 2020 01:03:12



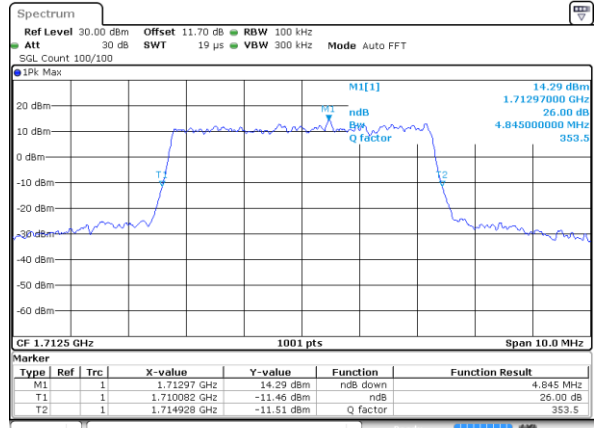
## LTE Band 4

## Lowest Channel / 5MHz / QPSK



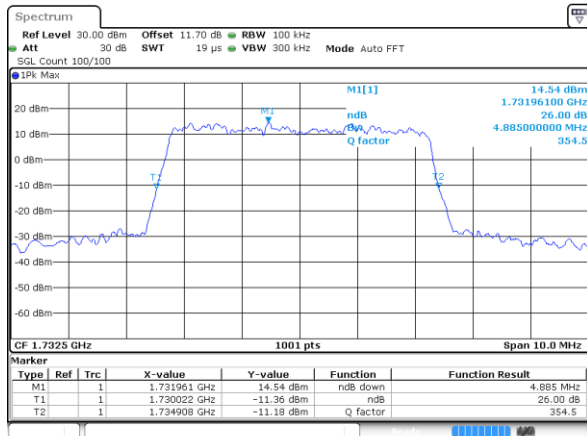
Date: 4 JAN 2020 01:07:54

## Lowest Channel / 5MHz / 16QAM



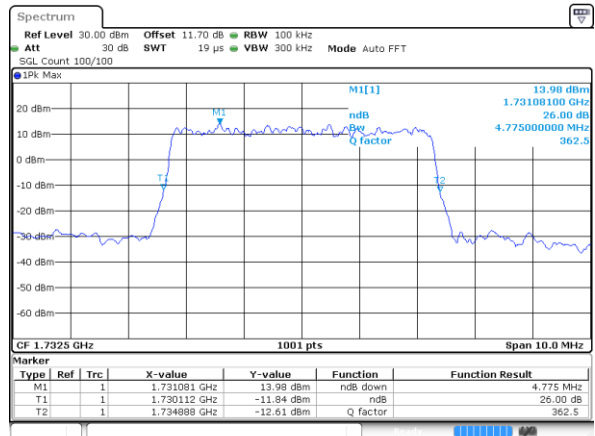
Date: 4 JAN 2020 01:08:07

## Middle Channel / 5MHz / QPSK



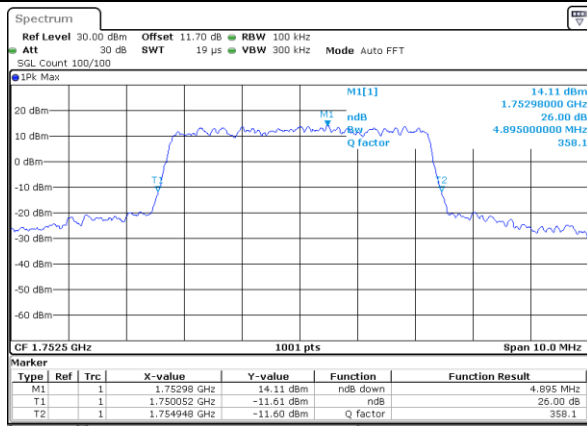
Date: 4 JAN 2020 01:12:47

## Middle Channel / 5MHz / 16QAM



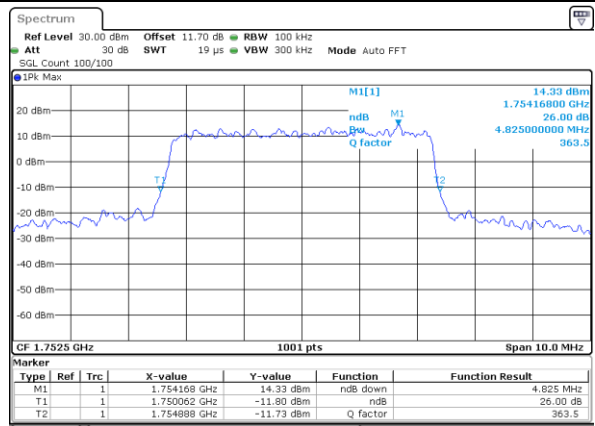
Date: 4 JAN 2020 01:12:59

## Highest Channel / 5MHz / QPSK

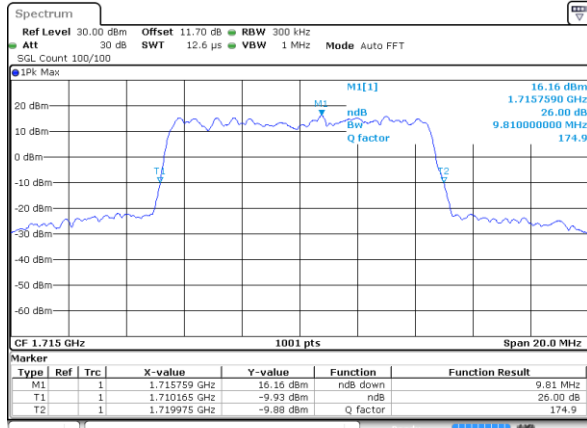


Date: 4 JAN 2020 01:14:57

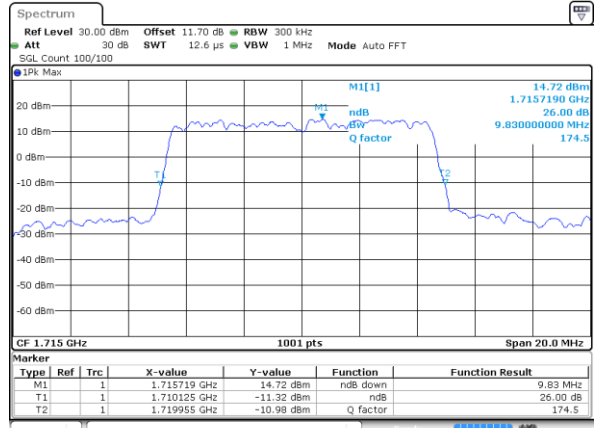
## Highest Channel / 5MHz / 16QAM



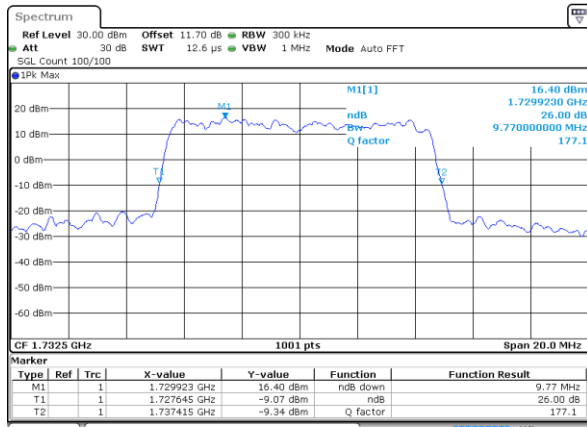
Date: 4 JAN 2020 01:15:09

**LTE Band 4**
**Lowest Channel / 10MHz / QPSK**


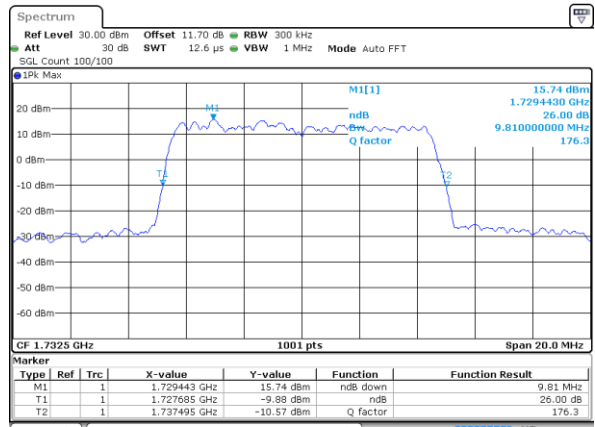
Date: 4 JAN 2020 01:19:52

**Lowest Channel / 10MHz / 16QAM**


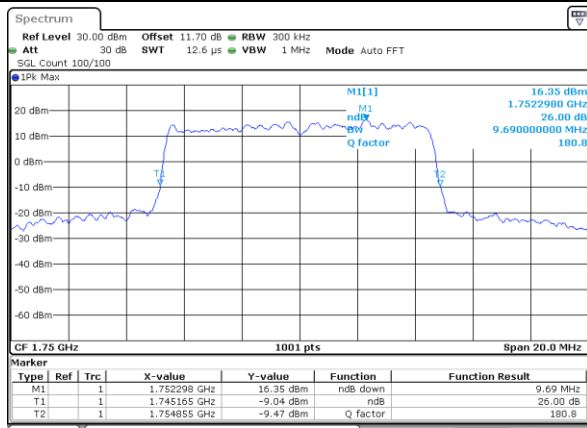
Date: 4 JAN 2020 01:20:04

**Middle Channel / 10MHz / QPSK**


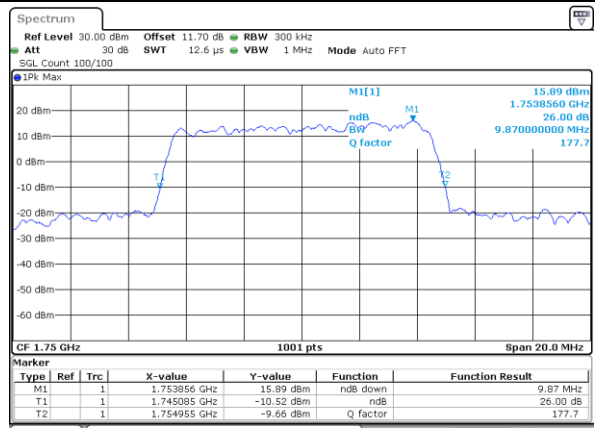
Date: 4 JAN 2020 01:24:45

**Middle Channel / 10MHz / 16QAM**


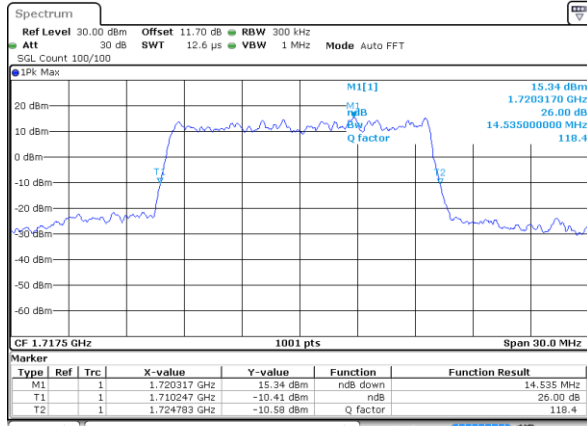
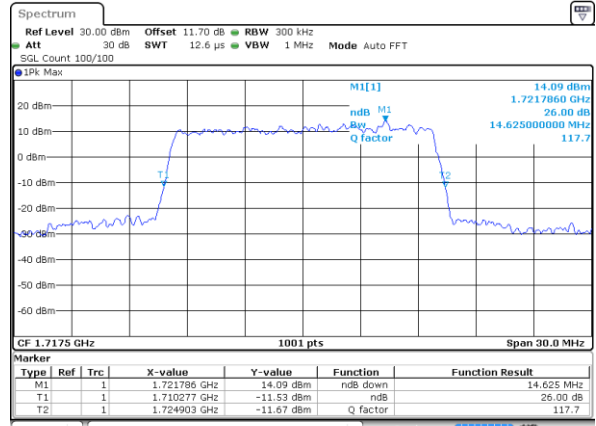
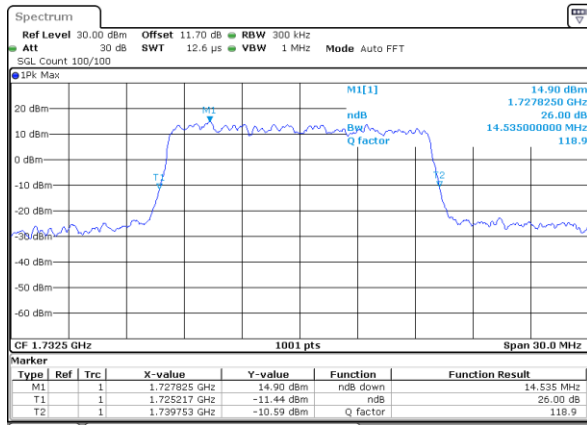
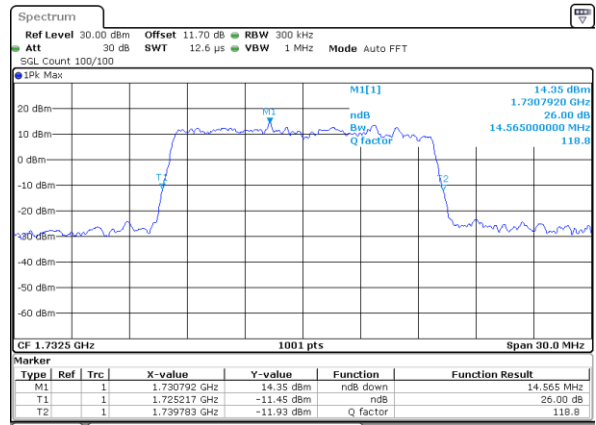
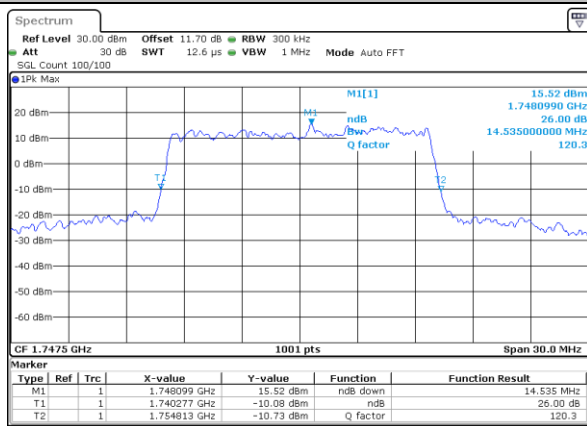
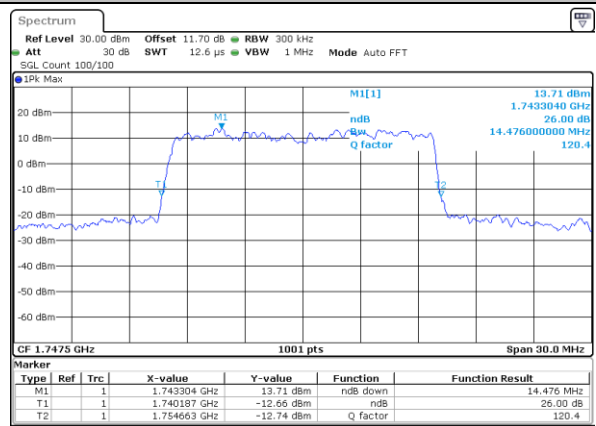
Date: 4 JAN 2020 01:24:57

**Highest Channel / 10MHz / QPSK**


Date: 4 JAN 2020 01:30:36

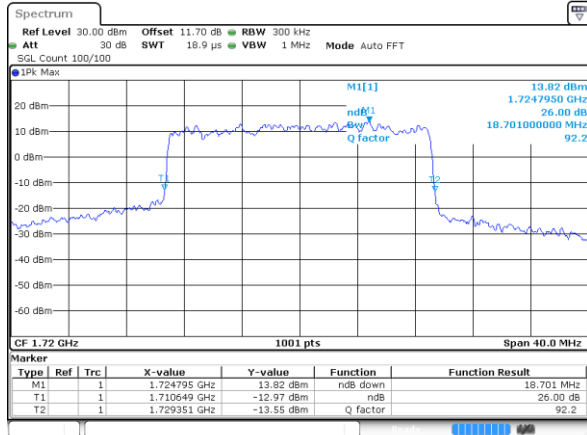
**Highest Channel / 10MHz / 16QAM**


Date: 4 JAN 2020 01:30:49

**LTE Band 4**
**Lowest Channel / 15MHz / QPSK**

**Lowest Channel / 15MHz / 16QAM**

**Middle Channel / 15MHz / QPSK**

**Middle Channel / 15MHz / 16QAM**

**Highest Channel / 15MHz / QPSK**

**Highest Channel / 15MHz / 16QAM**


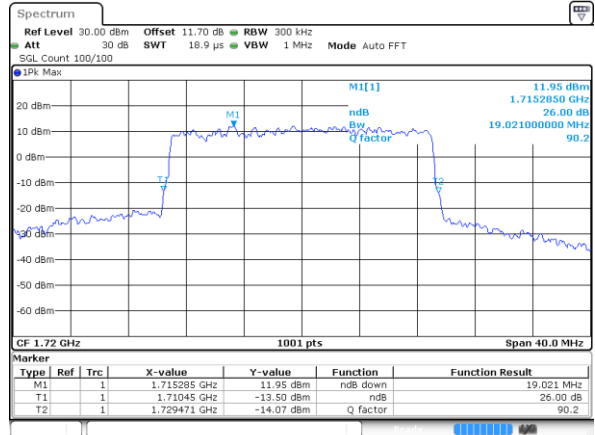
## LTE Band 4

### Lowest Channel / 20MHz / QPSK



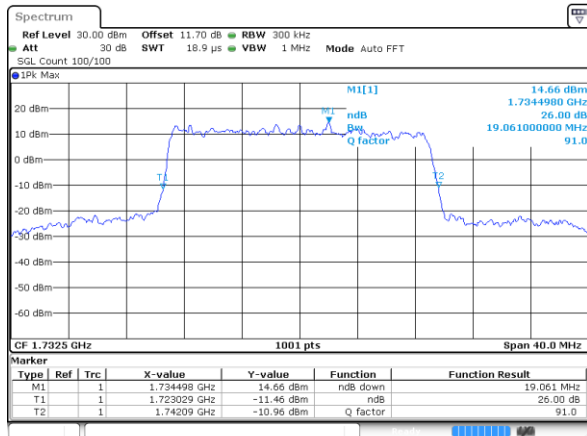
Date: 4 JAN 2020 01:47:29

### Lowest Channel / 20MHz / 16QAM



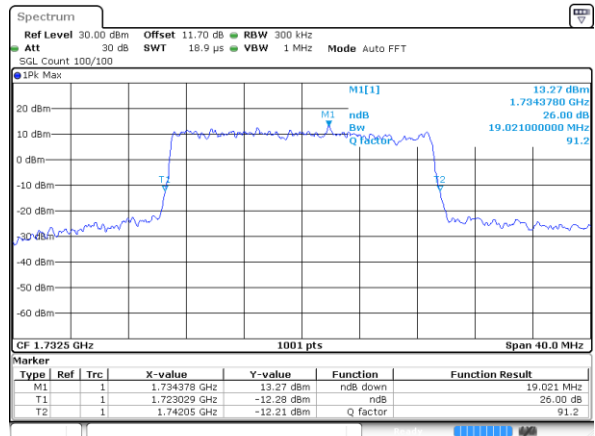
Date: 4 JAN 2020 01:47:41

### Middle Channel / 20MHz / QPSK



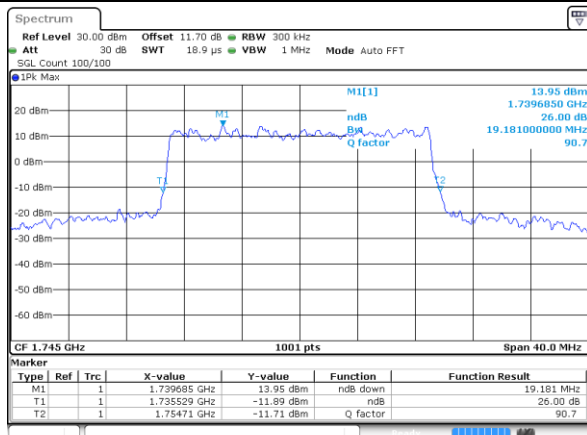
Date: 4 JAN 2020 01:52:22

### Middle Channel / 20MHz / 16QAM



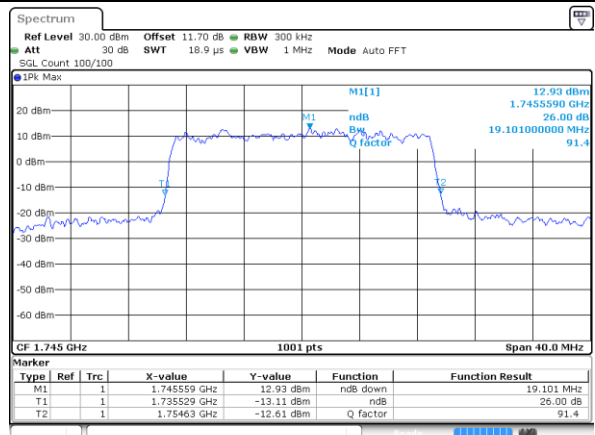
Date: 4 JAN 2020 01:52:34

### Highest Channel / 20MHz / QPSK



Date: 4 JAN 2020 01:54:31

### Highest Channel / 20MHz / 16QAM

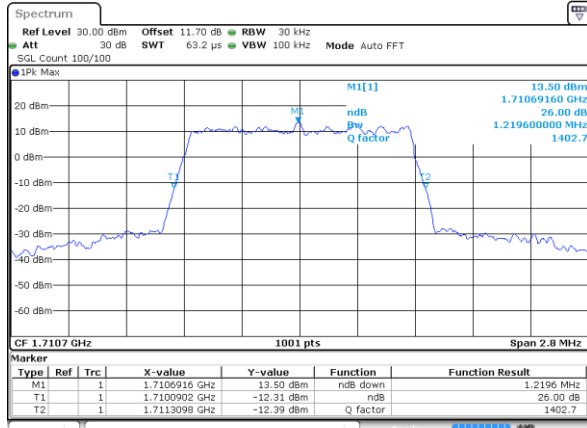


Date: 4 JAN 2020 01:54:43



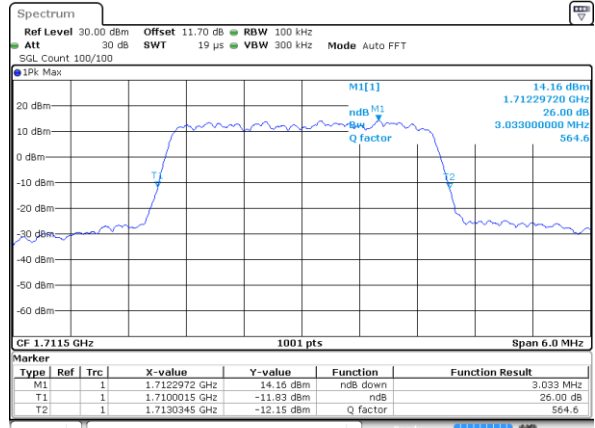
## LTE Band 4

## Lowest Channel / 1.4MHz / 64QAM



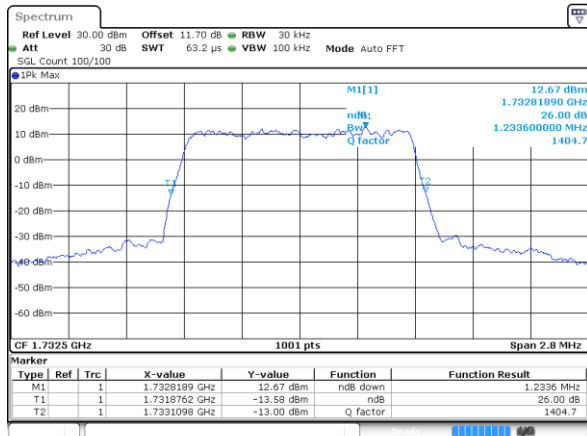
Date: 4 JAN 2020 02:32:14

## Lowest Channel / 3MHz / 64QAM



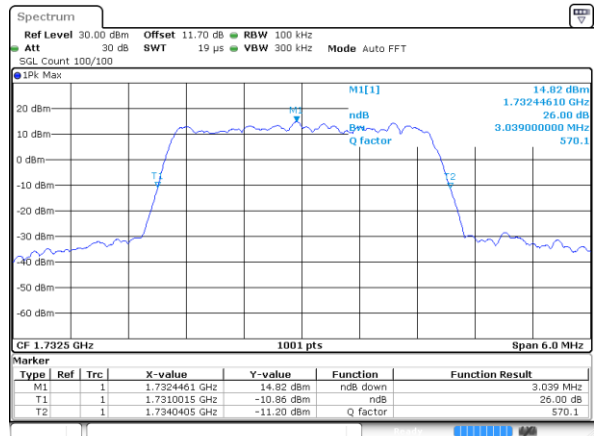
Date: 4 JAN 2020 01:59:14

## Middle Channel / 1.4MHz / 64QAM



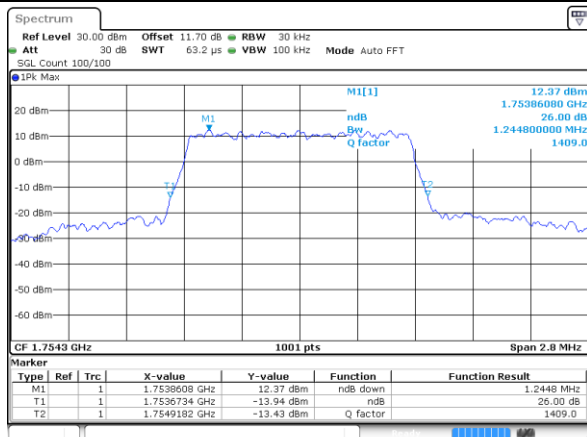
Date: 4 JAN 2020 02:35:30

## Middle Channel / 3MHz / 64QAM



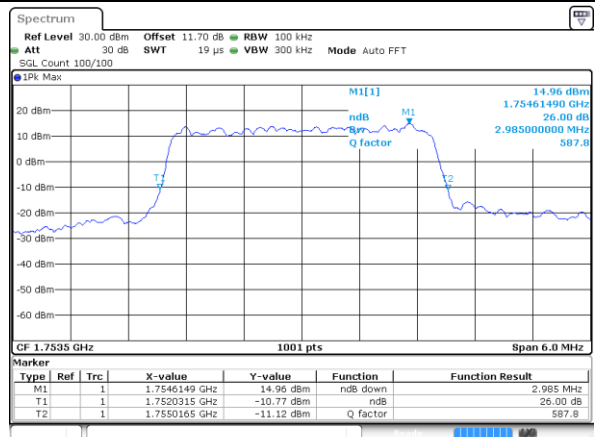
Date: 4 JAN 2020 02:01:40

## Highest Channel / 1.4MHz / 64QAM



Date: 4 JAN 2020 02:36:34

## Highest Channel / 3MHz / 64QAM

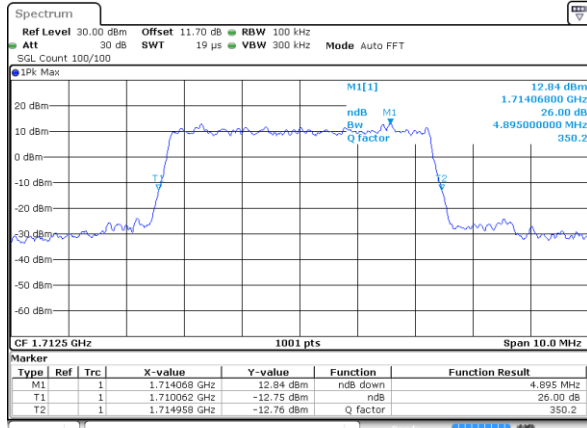


Date: 4 JAN 2020 02:02:45

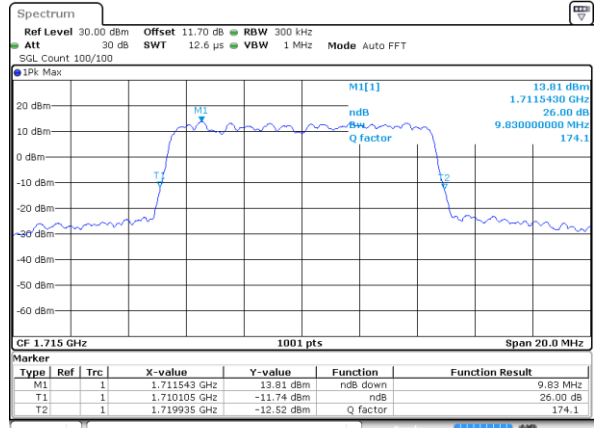


## LTE Band 4

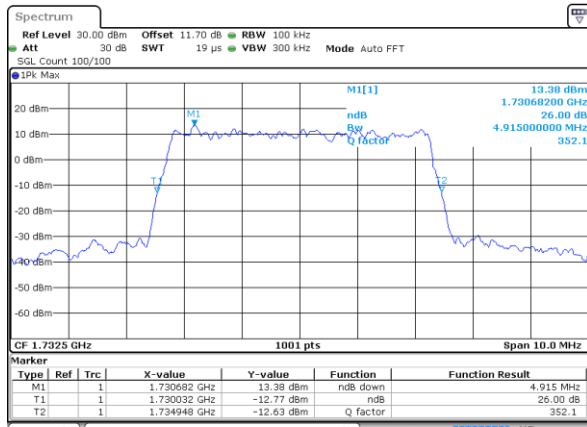
## Lowest Channel / 5MHz / 64QAM



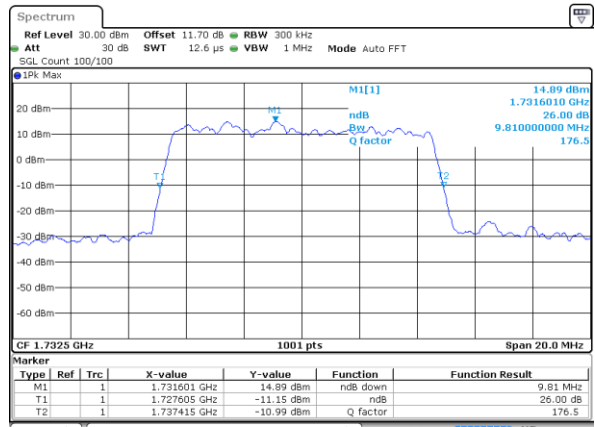
## Lowest Channel / 10MHz / 64QAM



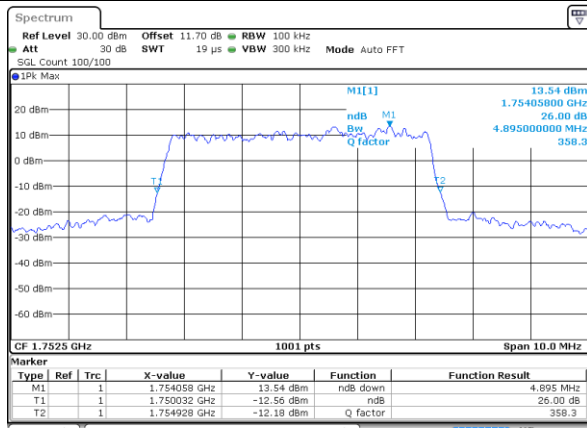
## Middle Channel / 5MHz / 64QAM



## Middle Channel / 10MHz / 64QAM



## Highest Channel / 5MHz / 64QAM



## Highest Channel / 10MHz / 64QAM

