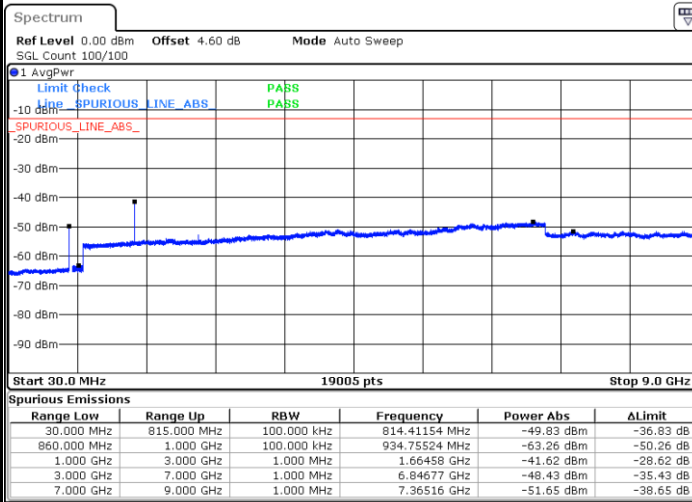




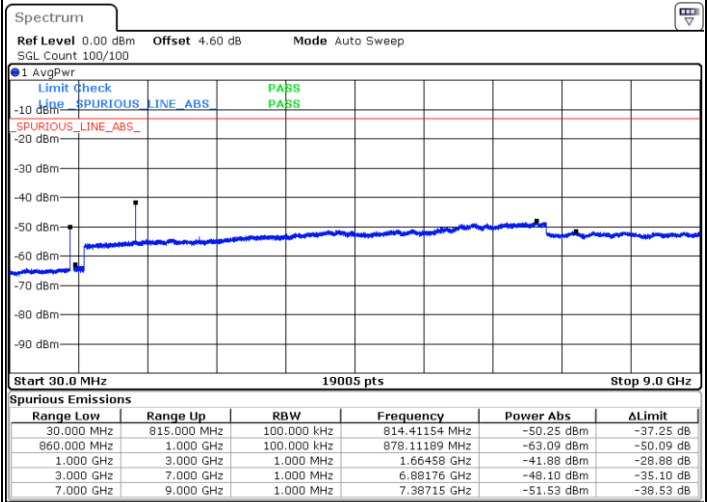
## LTE Band 5 / 10MHz

## Middle Channel / QPSK



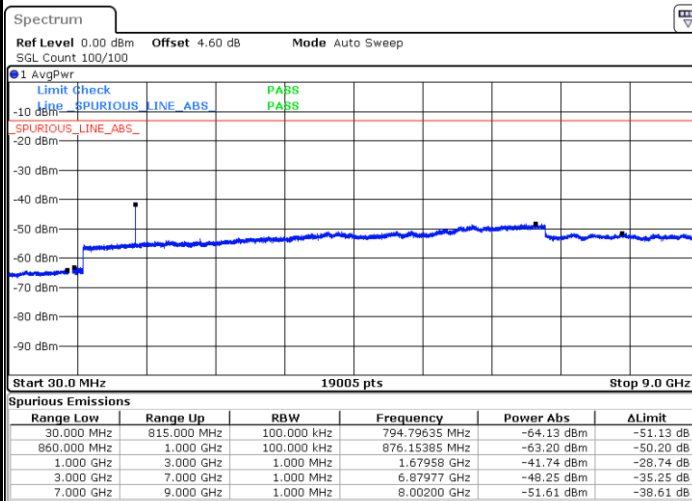
Date: 27.NOV.2019 09:09:21

## Middle Channel / 16QAM



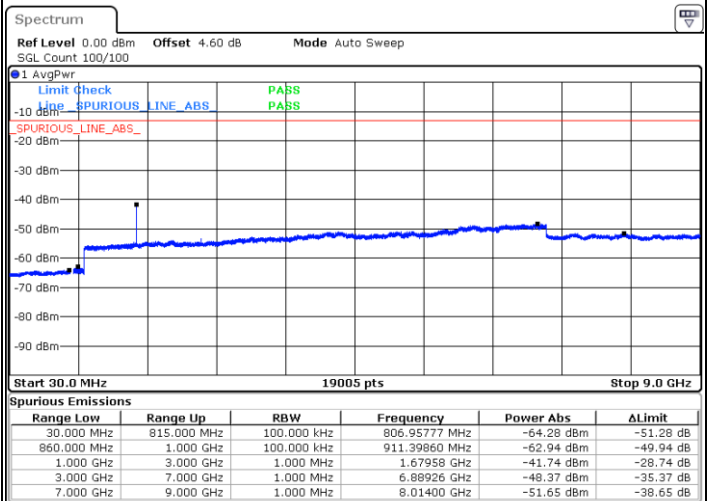
Date: 27.NOV.2019 09:10:15

## Highest Channel / QPSK



Date: 27.NOV.2019 09:18:19

## Highest Channel / 16QAM

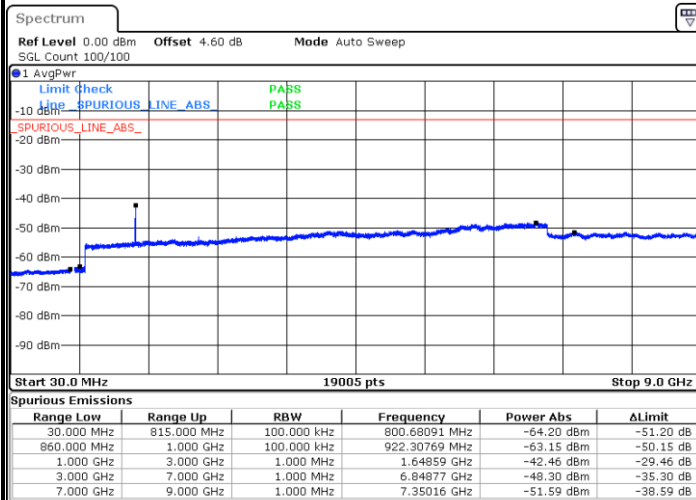


Date: 27.NOV.2019 09:19:14



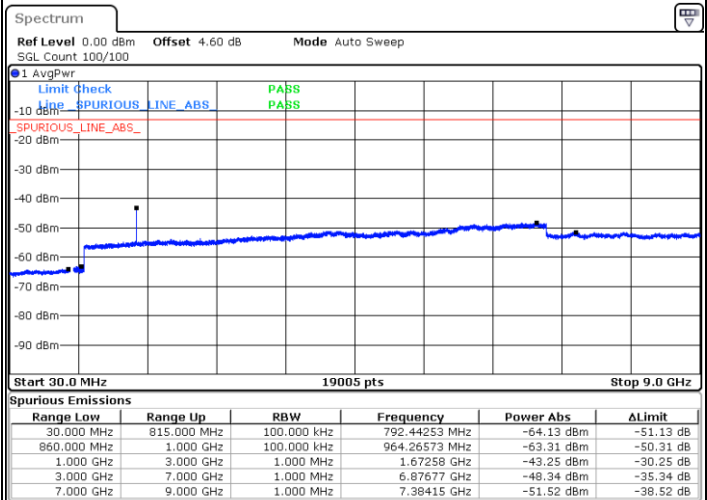
## LTE Band 5 / 1.4MHz

## Lowest Channel / 64QAM



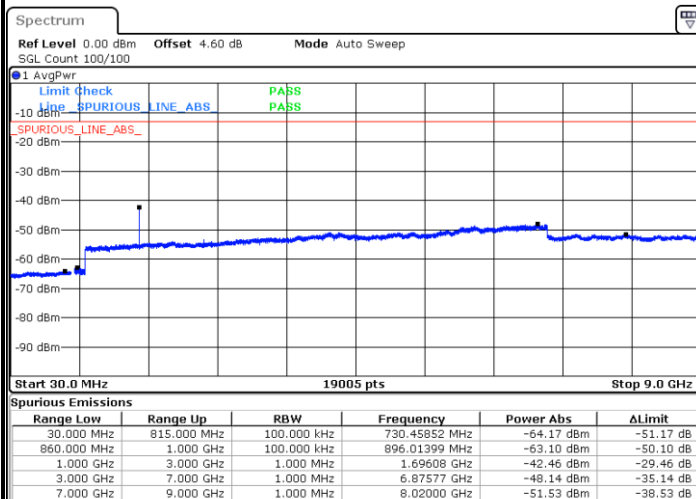
Date: 28 NOV 2019 00:10:41

## Middle Channel / 64QAM



Date: 28 NOV 2019 00:11:35

## Highest Channel / 64QAM

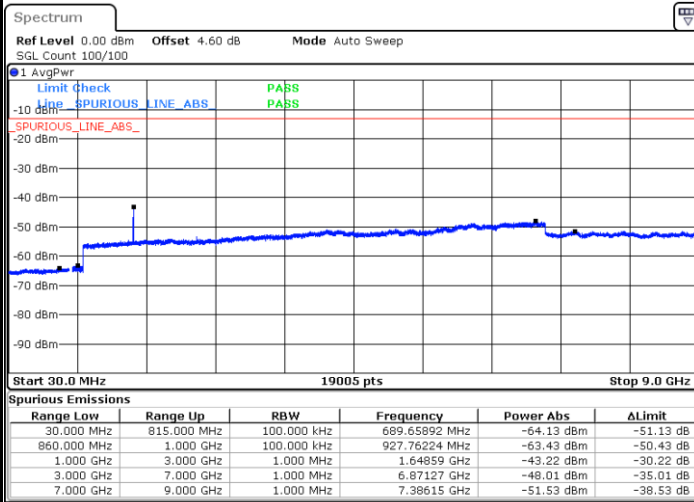


Date: 28 NOV 2019 00:16:25



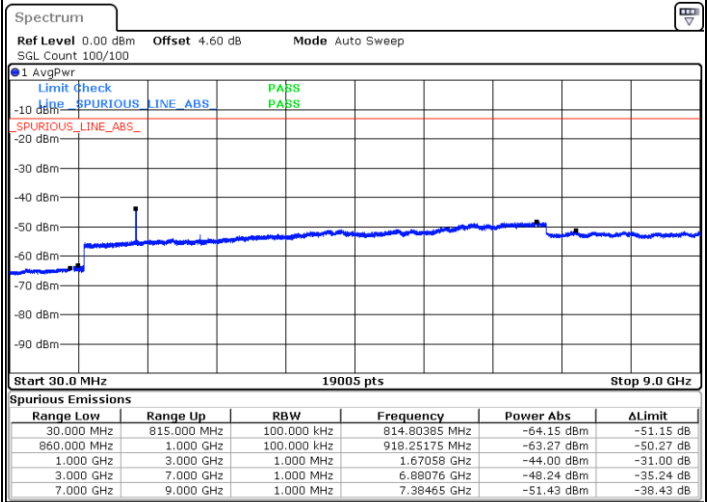
## LTE Band 5 / 3MHz

## Lowest Channel / 64QAM



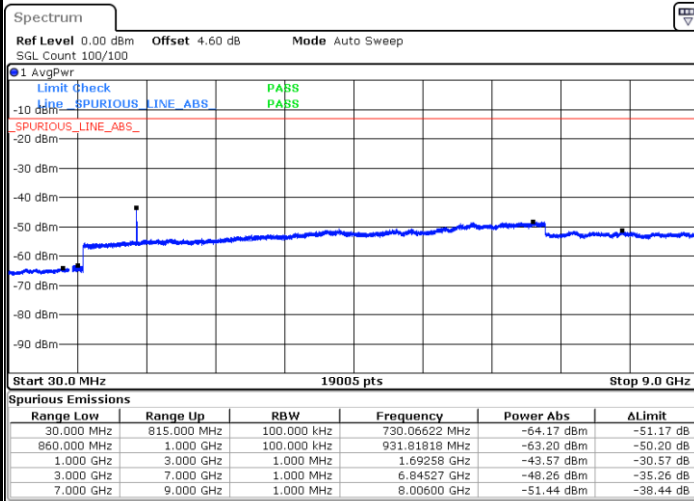
Date: 28 NOV 2019 00:20:54

## Middle Channel / 64QAM



Date: 28 NOV 2019 00:21:48

## Highest Channel / 64QAM

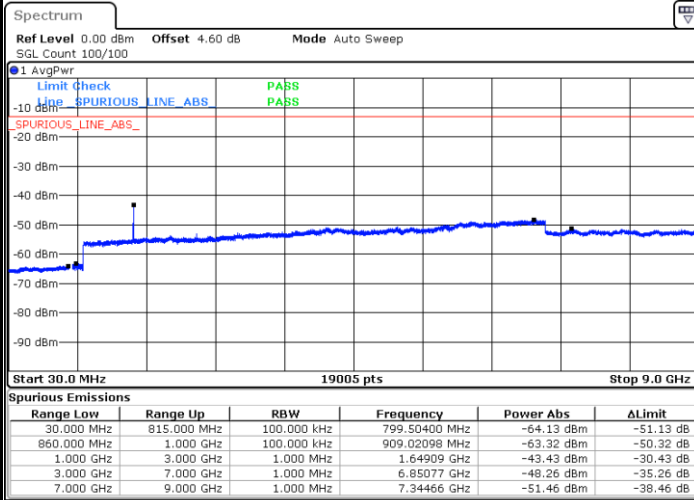


Date: 28 NOV 2019 00:26:38



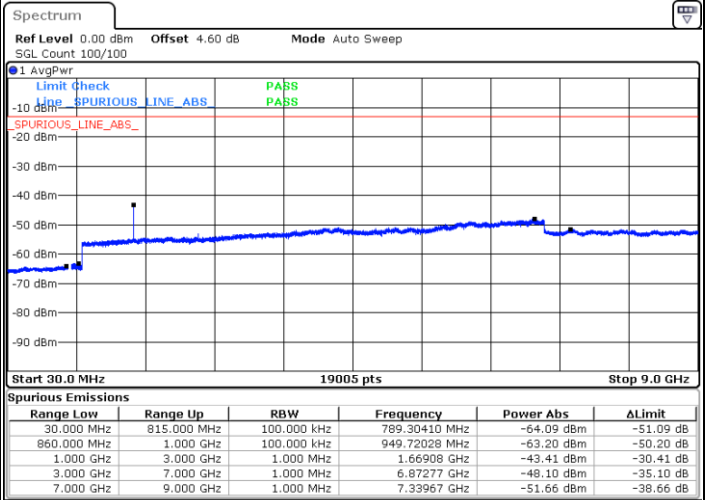
## LTE Band 5 / 5MHz

## Lowest Channel / 64QAM



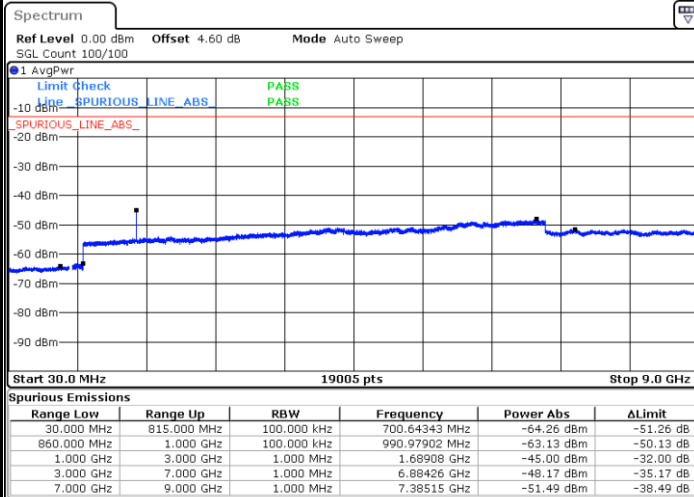
Date: 28 NOV 2019 00:31:07

## Middle Channel / 64QAM



Date: 28 NOV 2019 00:32:01

## Highest Channel / 64QAM

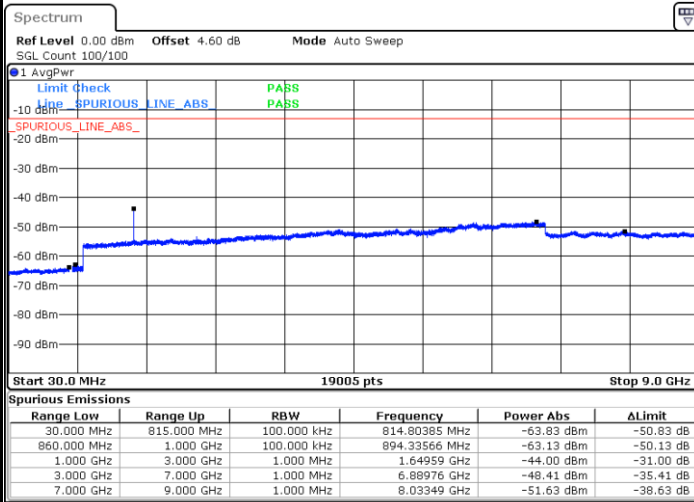


Date: 28 NOV 2019 00:37:27



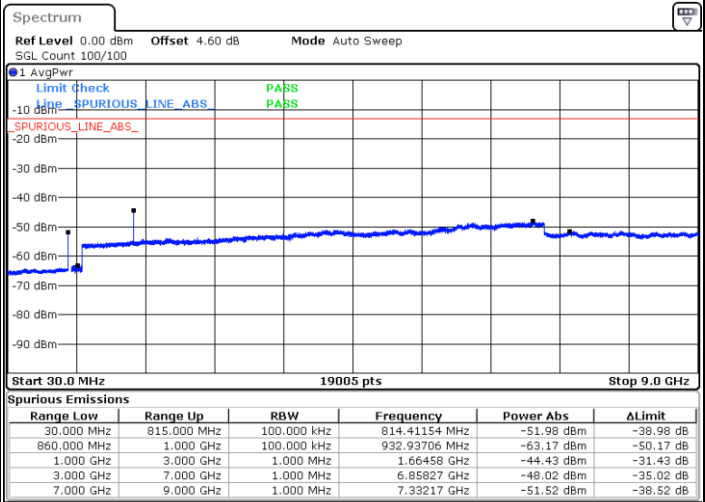
## LTE Band 5 / 10MHz

## Lowest Channel / 64QAM



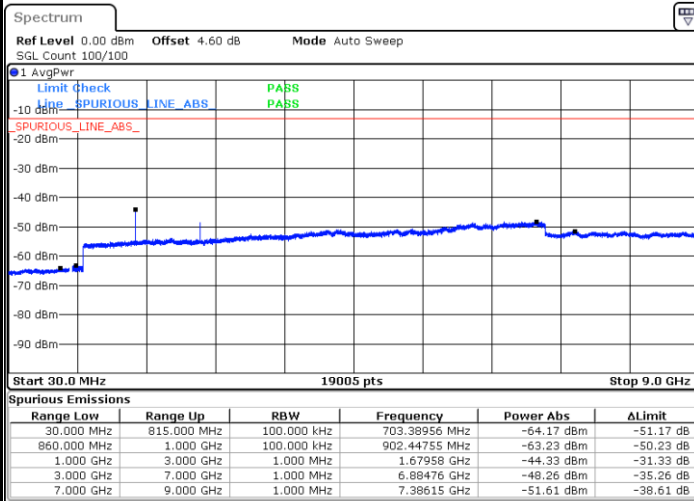
Date: 28 NOV 2019 00:41:57

## Middle Channel / 64QAM



Date: 28 NOV 2019 00:42:51

## Highest Channel / 64QAM



Date: 28 NOV 2019 00:47:42

## 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    | 0.0012                             | PASS   |
| 40               | Normal Voltage    | 0.0014                             |        |
| 30               | Normal Voltage    | 0.0033                             |        |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |        |
| 10               | Normal Voltage    | 0.0056                             |        |
| 0                | Normal Voltage    | 0.0059                             |        |
| -10              | Normal Voltage    | 0.0051                             |        |
| -20              | Normal Voltage    | 0.0023                             |        |
| -30              | Normal Voltage    | 0.0010                             |        |
| 20               | Maximum Voltage   | 0.0045                             |        |
| 20               | Normal Voltage    | 0.0050                             |        |
| 20               | Battery End Point | 0.0012                             |        |

**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 7

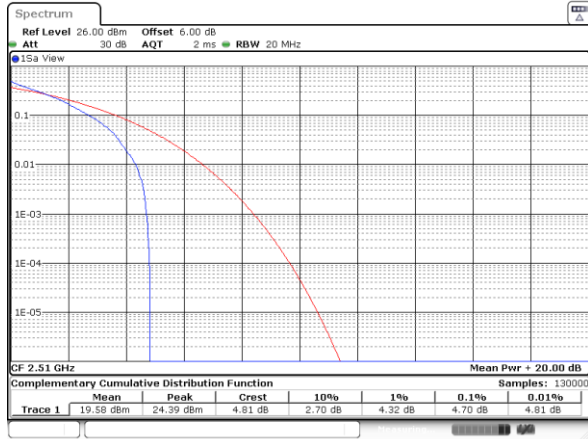
## Peak-to-Average Ratio

| Mode       | LTE Band 7 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 4.70               | 5.42    | 5.68  | 6.29    | PASS        |
| Middle CH  | 5.30               | 5.30    | 6.09  | 6.41    |             |
| Highest CH | 5.39               | 5.30    | 6.03  | 6.20    |             |
| Mod.       | 64QAM              |         |       |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB |       |         | Result      |
| Lowest CH  | 6.09               | 6.64    |       |         | PASS        |
| Middle CH  | 6.17               | 6.64    |       |         |             |
| Highest CH | 6.72               | 6.52    |       |         |             |

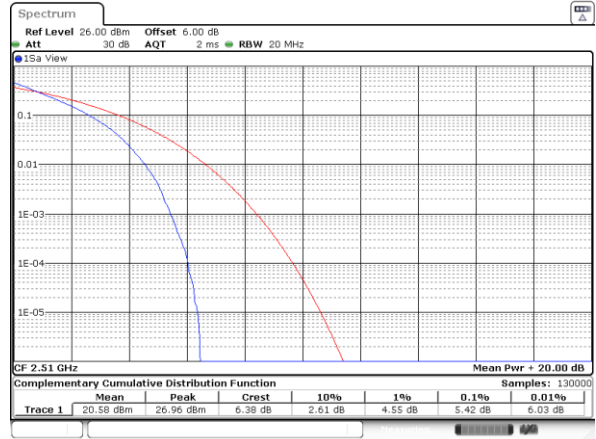


## LTE Band 7 / 20MHz / QPSK

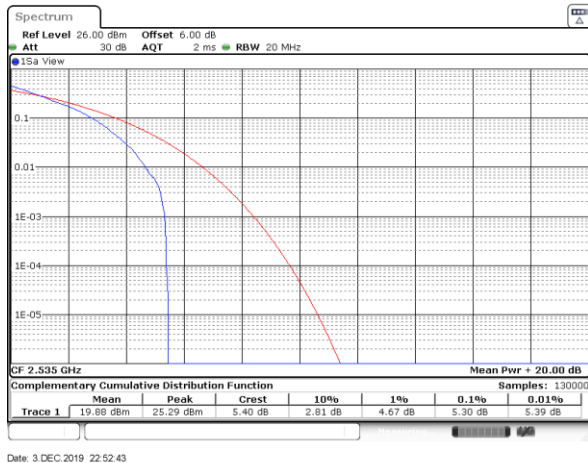
## Lowest Channel / 1RB



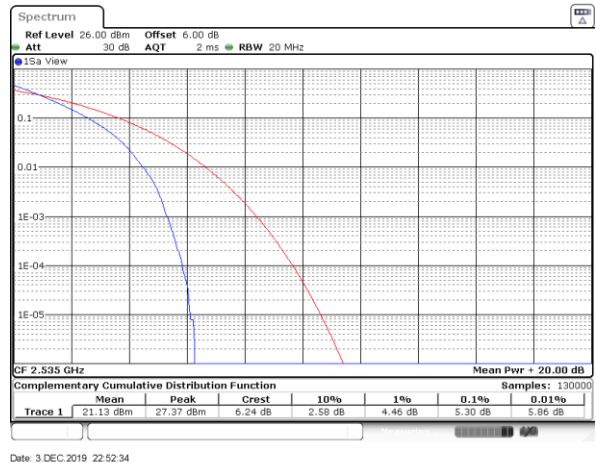
## Lowest Channel / Full RB



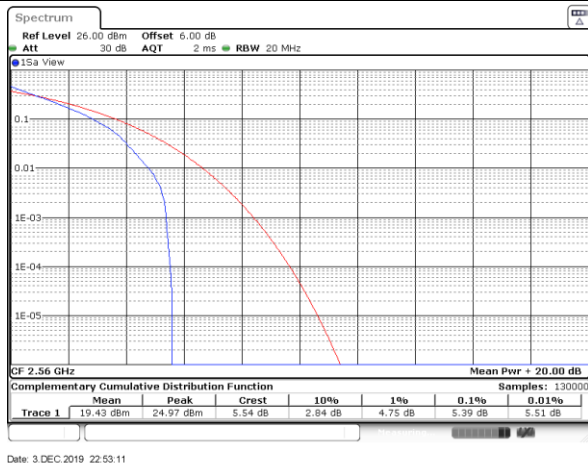
## Middle Channel / 1RB



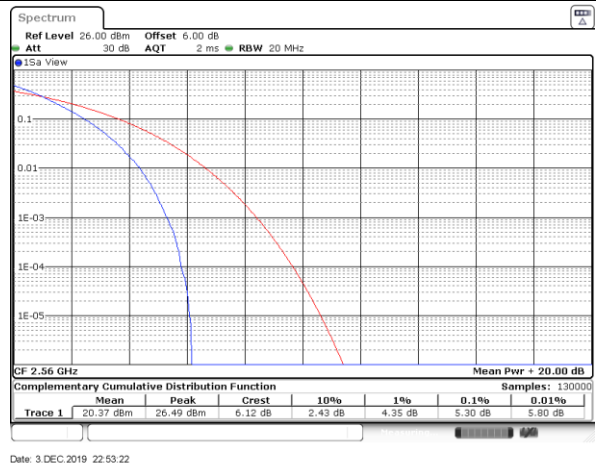
## Middle Channel / Full RB



## Highest Channel / 1RB



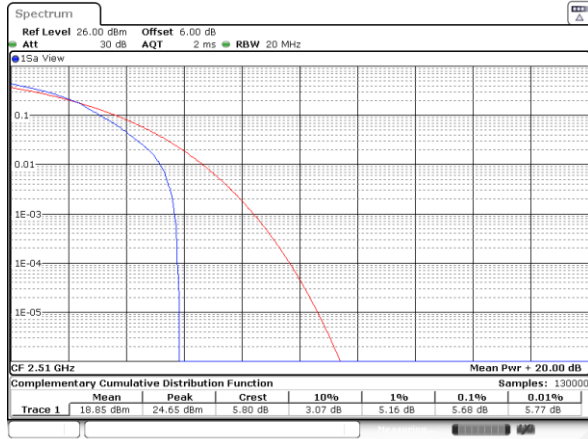
## Highest Channel / Full RB



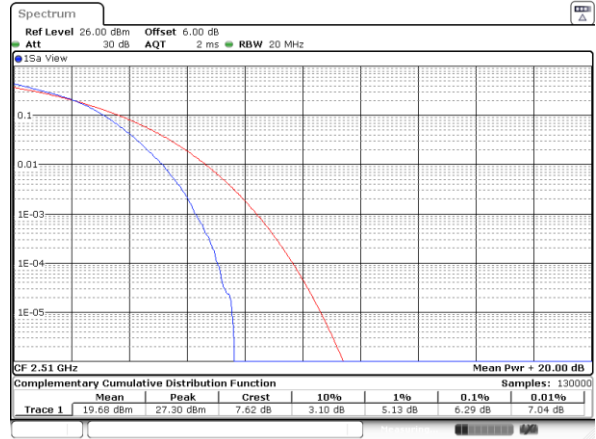


## LTE Band 7 / 20MHz / 16QAM

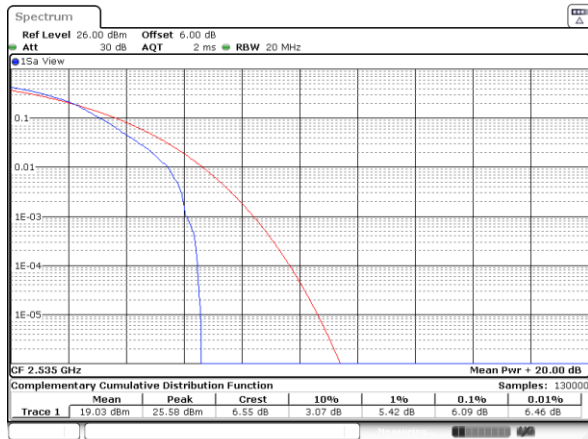
## Lowest Channel / 1RB



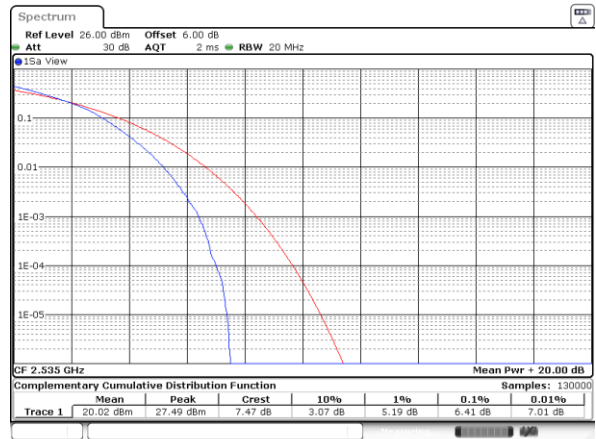
## Lowest Channel / Full RB



## Middle Channel / 1RB



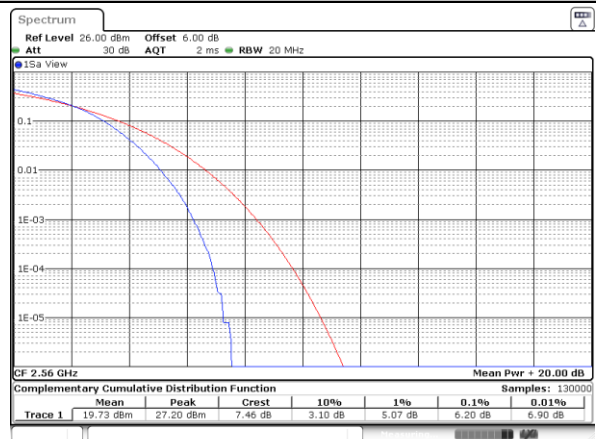
## Middle Channel / Full RB



## Highest Channel / 1RB



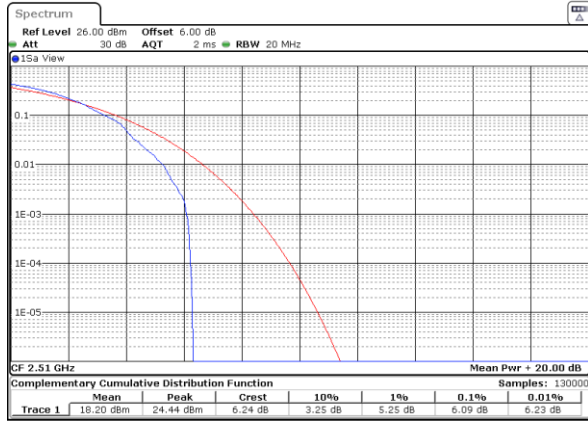
## Highest Channel / Full RB



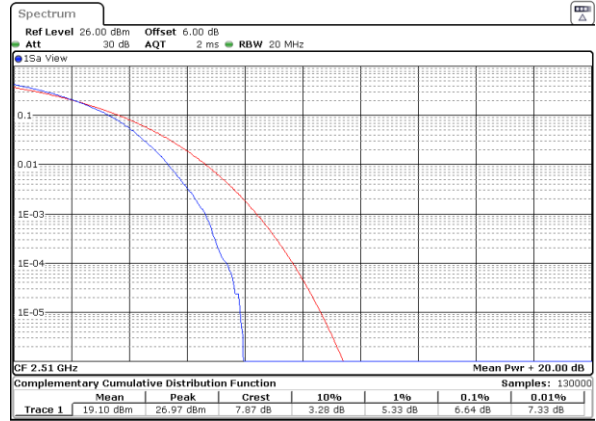


## LTE Band 7 / 20MHz / 64QAM

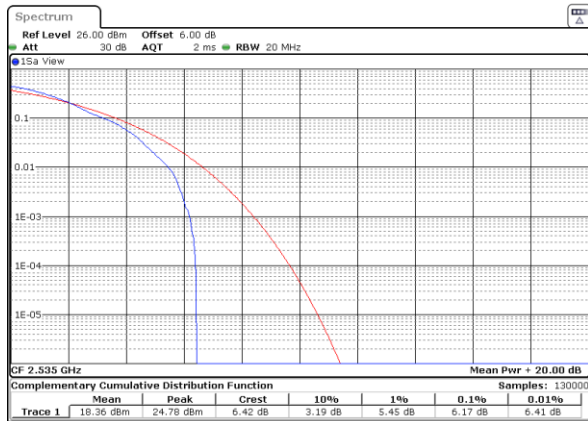
## Lowest Channel / 1RB



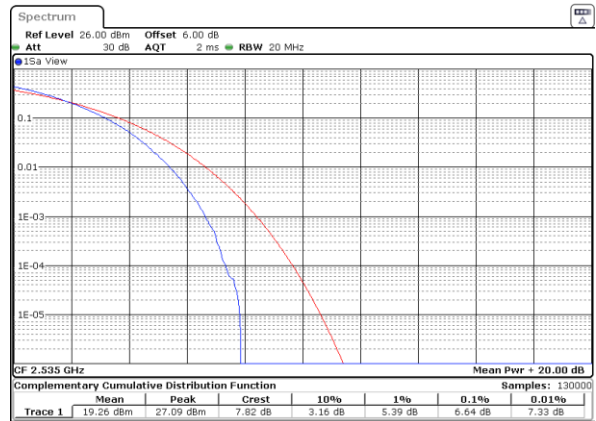
## Lowest Channel / Full RB



## Middle Channel / 1RB



## Middle Channel / Full RB



## Highest Channel / 1RB



## Highest Channel / Full RB



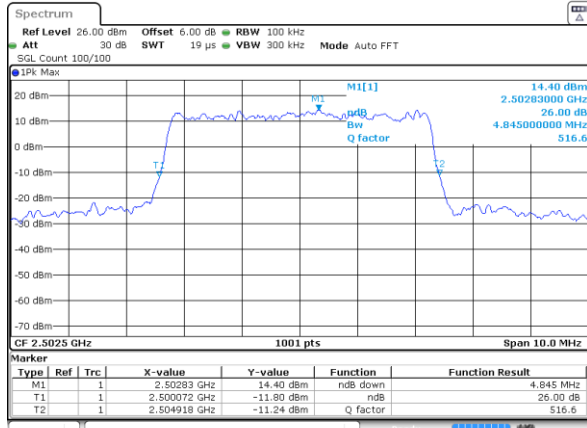
**26dB Bandwidth**

| Mode       | LTE Band 7 : 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  |                           |       |      |       | 4.845 | 4.925 | 9.65  | 9.81  | 14.416 | 14.236 | 20.22 | 20.18 |
| Middle CH  |                           |       |      |       | 4.925 | 4.875 | 9.65  | 9.73  | 14.446 | 14.565 | 20.18 | 20.22 |
| Highest CH |                           |       |      |       | 4.885 | 4.835 | 9.69  | 9.73  | 14.296 | 14.266 | 20.10 | 20.14 |
| BW         | 1.4MHz                    |       | 3MHz |       | 5MHz  |       | 10MHz |       | 15MHz  |        | 20MHz |       |
| Mod.       |                           |       |      |       | 64QAM |       | 64QAM |       | 64QAM  |        | 64QAM |       |
| Lowest CH  |                           |       |      |       | 4.805 |       | 9.89  |       | 14.266 |        | 20.26 |       |
| Middle CH  |                           |       |      |       | 4.835 |       | 9.69  |       | 14.386 |        | 20.22 |       |
| Highest CH |                           |       |      |       | 4.915 |       | 9.73  |       | 14.386 |        | 20.14 |       |



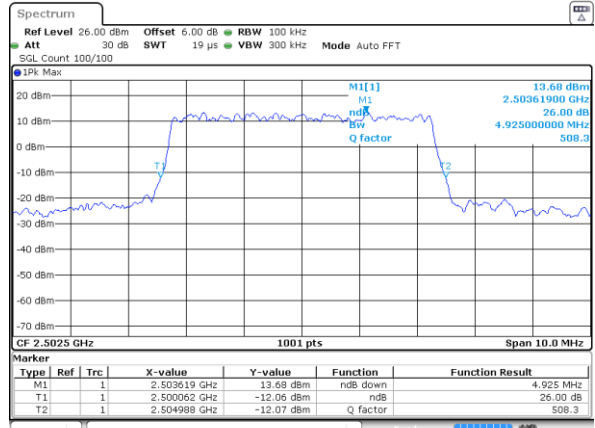
## LTE Band 7

## Lowest Channel / 5MHz / QPSK



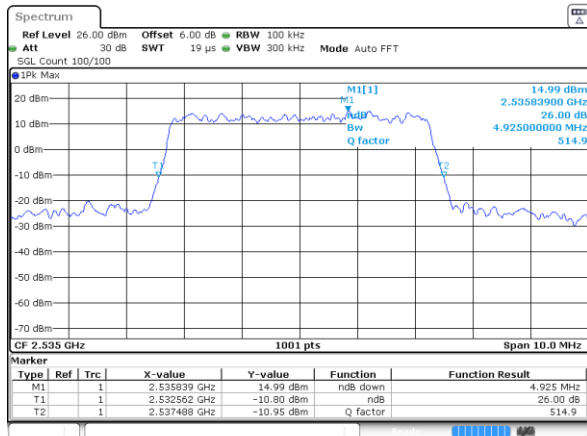
Date: 3 DEC 2019 21:45:51

## Lowest Channel / 5MHz / 16QAM



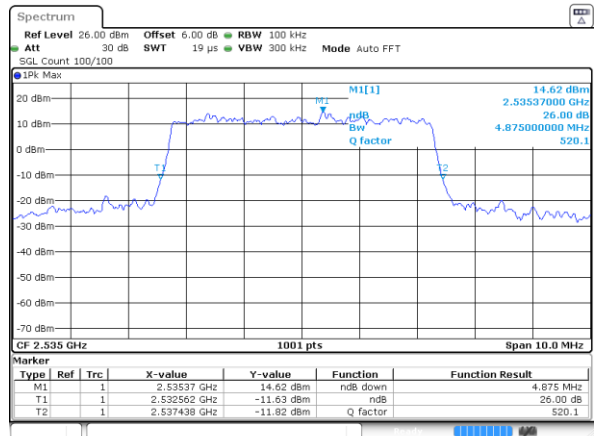
Date: 3 DEC 2019 21:46:11

## Middle Channel / 5MHz / QPSK



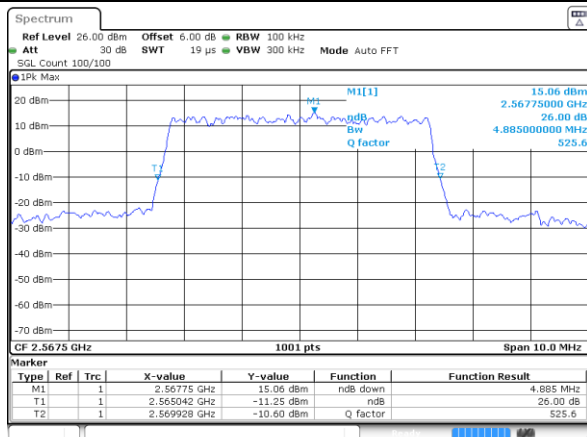
Date: 3 DEC 2019 21:46:51

## Middle Channel / 5MHz / 16QAM



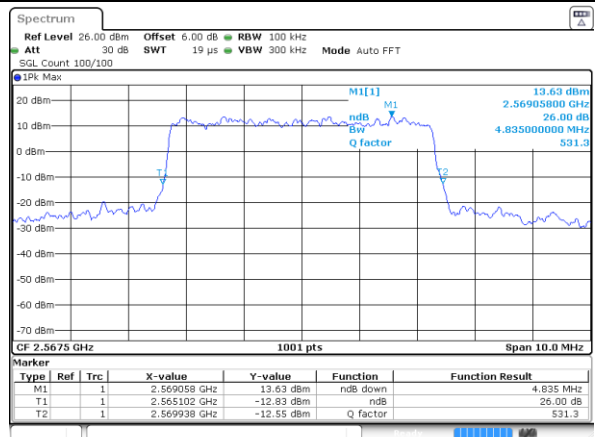
Date: 3 DEC 2019 21:46:31

## Highest Channel / 5MHz / QPSK



Date: 3 DEC 2019 21:47:11

## Highest Channel / 5MHz / 16QAM

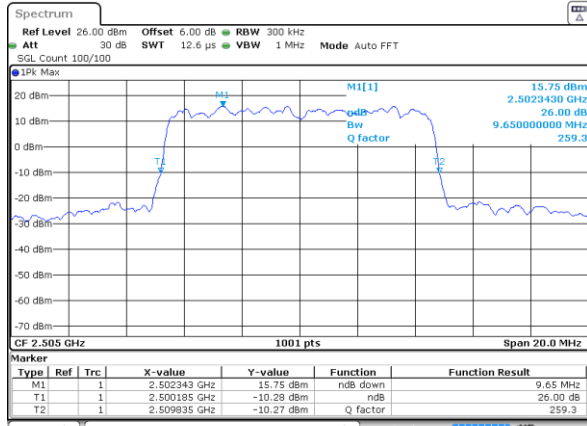


Date: 3 DEC 2019 21:47:31



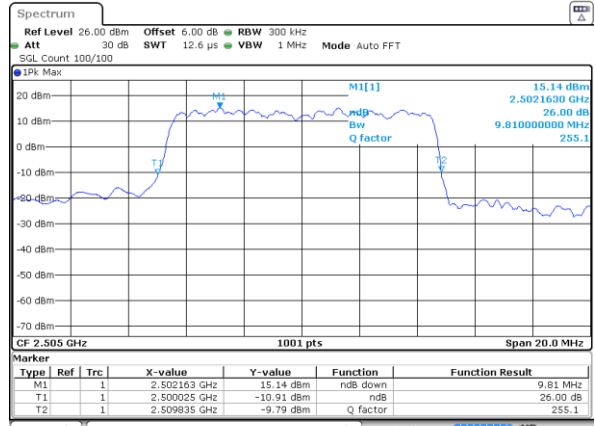
## LTE Band 7

## Lowest Channel / 10MHz / QPSK



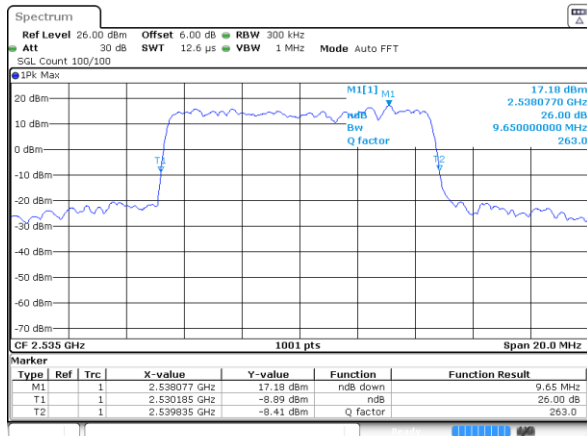
Date: 3 DEC 2019 22:02:24

## Lowest Channel / 10MHz / 16QAM



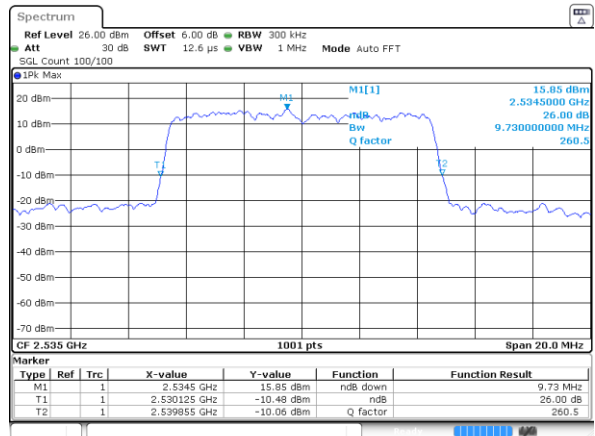
Date: 3 DEC 2019 22:02:44

## Middle Channel / 10MHz / QPSK



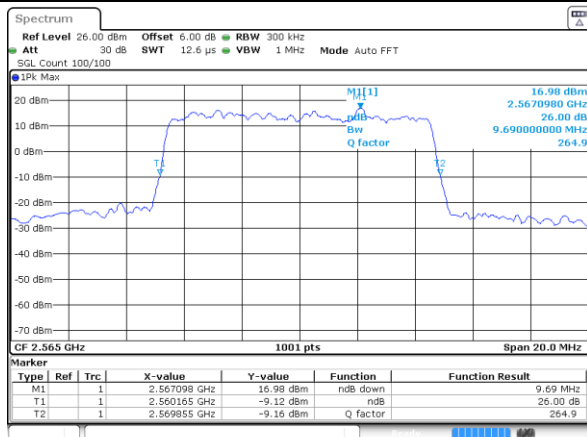
Date: 3 DEC 2019 22:03:24

## Middle Channel / 10MHz / 16QAM



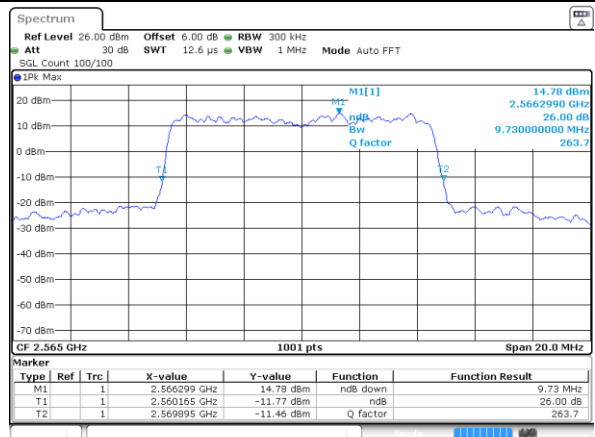
Date: 3 DEC 2019 22:03:04

## Highest Channel / 10MHz / QPSK



Date: 3 DEC 2019 22:03:44

## Highest Channel / 10MHz / 16QAM

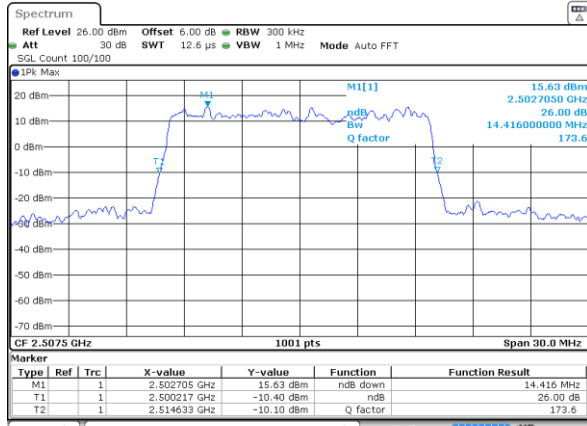


Date: 3 DEC 2019 22:04:04



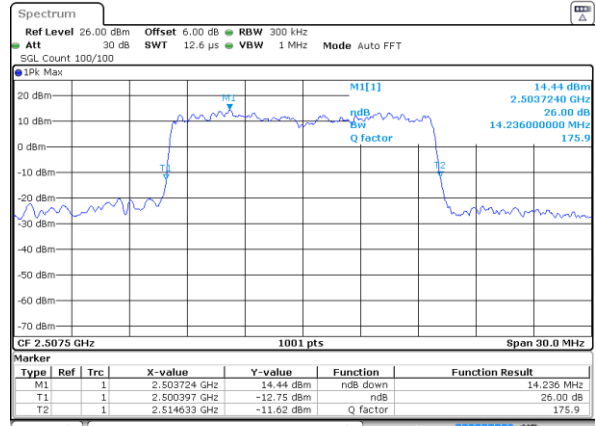
## LTE Band 7

## Lowest Channel / 15MHz / QPSK



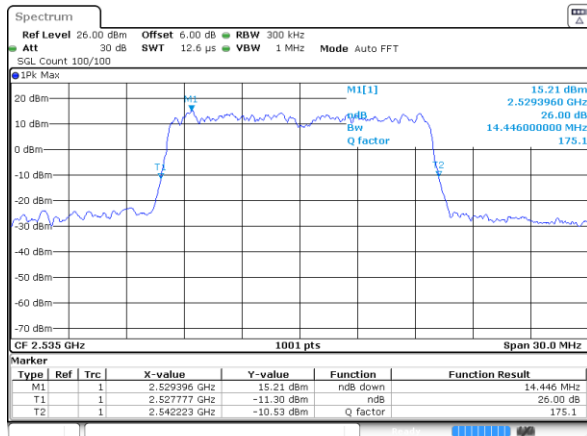
Date: 3 DEC 2019 22:19:14

## Lowest Channel / 15MHz / 16QAM



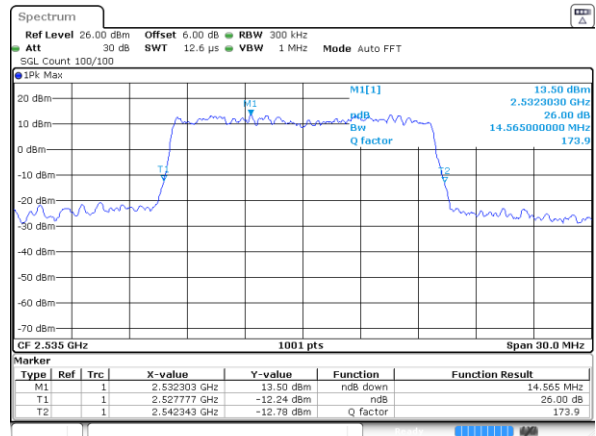
Date: 3 DEC 2019 22:18:54

## Middle Channel / 15MHz / QPSK



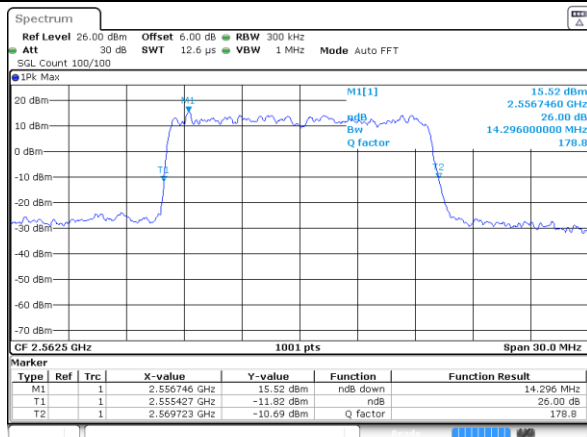
Date: 3 DEC 2019 22:19:34

## Middle Channel / 15MHz / 16QAM



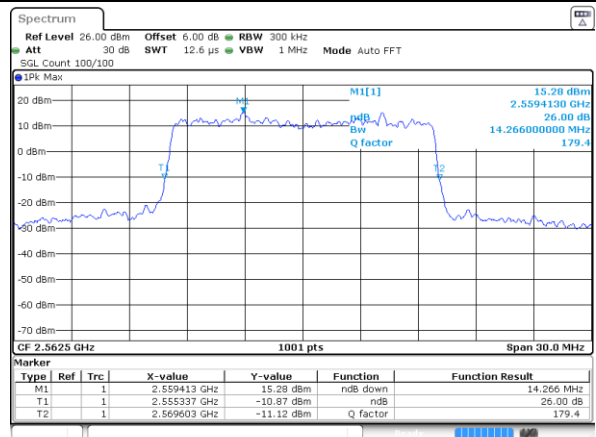
Date: 3 DEC 2019 22:19:54

## Highest Channel / 15MHz / QPSK



Date: 3 DEC 2019 22:20:35

## Highest Channel / 15MHz / 16QAM

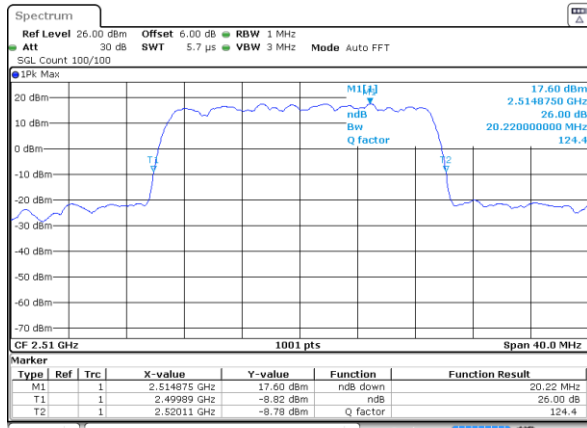


Date: 3 DEC 2019 22:20:15

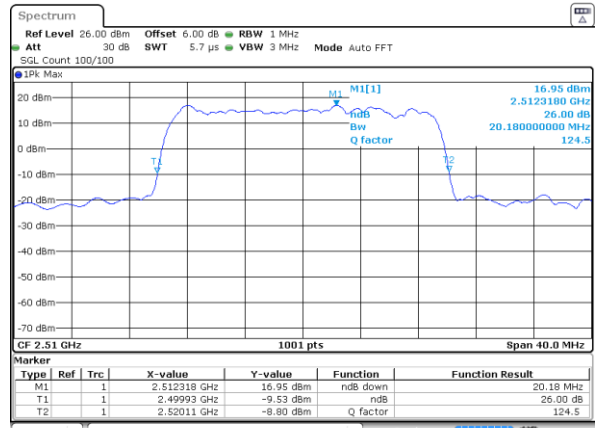


## LTE Band 7

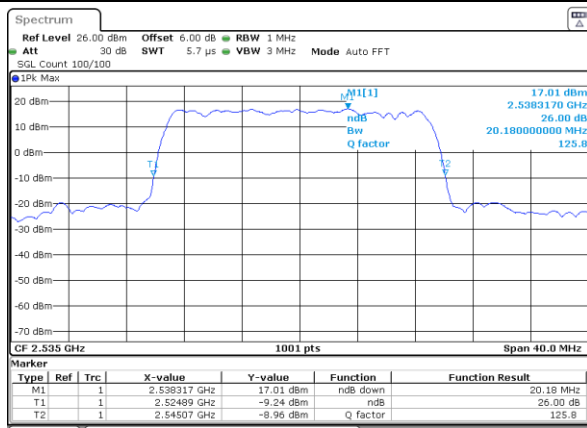
## Lowest Channel / 20MHz / QPSK



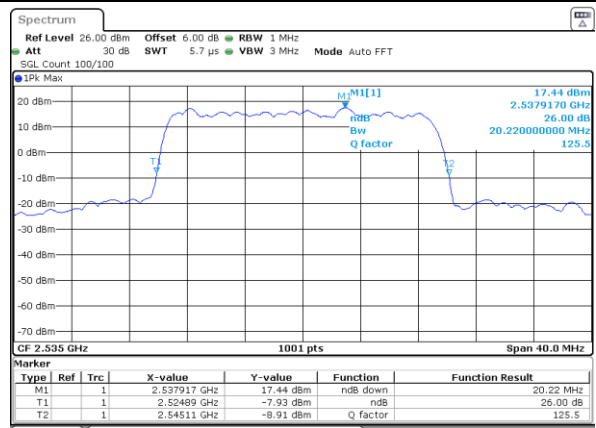
## Lowest Channel / 20MHz / 16QAM



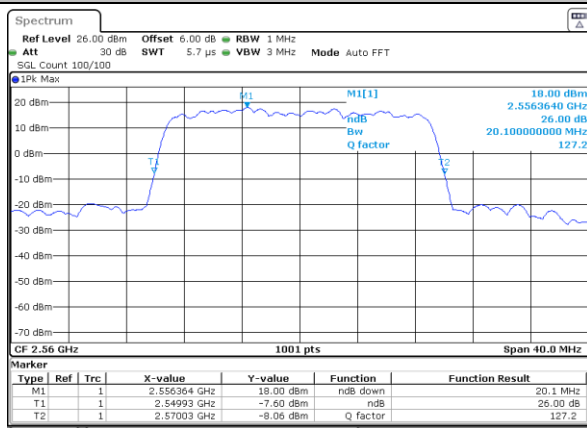
## Middle Channel / 20MHz / QPSK



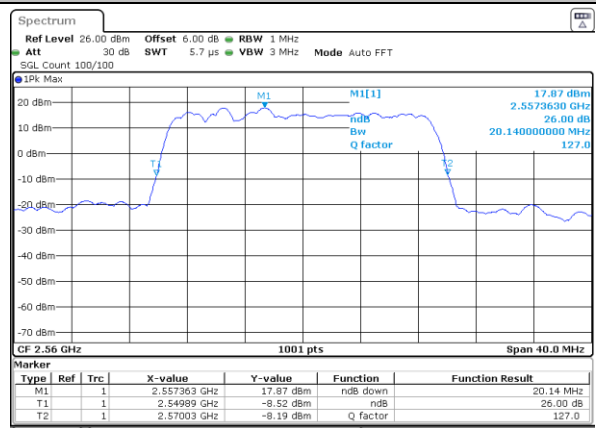
## Middle Channel / 20MHz / 16QAM



## Highest Channel / 20MHz / QPSK



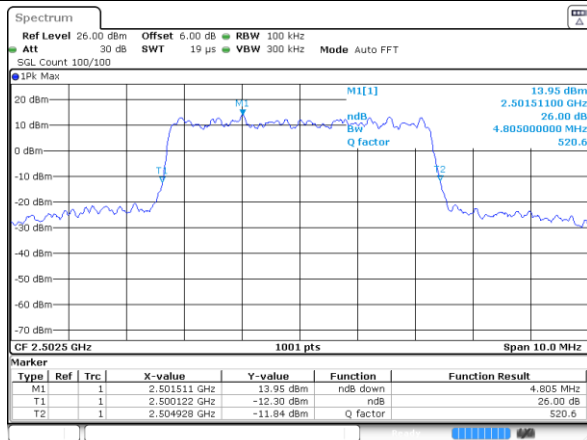
## Highest Channel / 20MHz / 16QAM





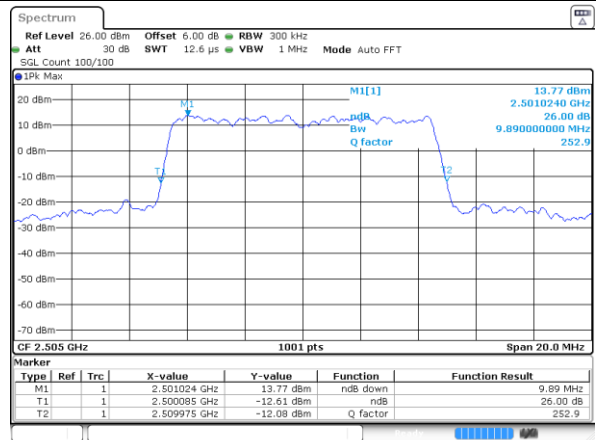
## LTE Band 7

## Lowest Channel / 5MHz / 64QAM



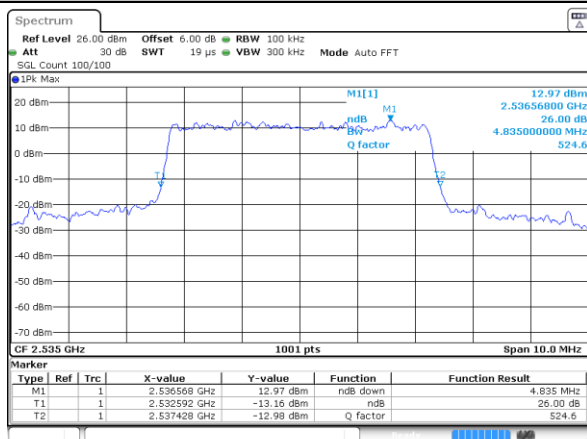
Date: 3 DEC 2019 22:54:24

## Lowest Channel / 10MHz / 64QAM



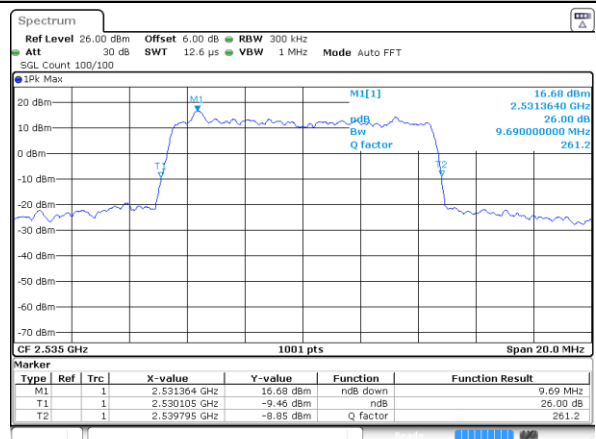
Date: 3 DEC 2019 23:00:23

## Middle Channel / 5MHz / 64QAM



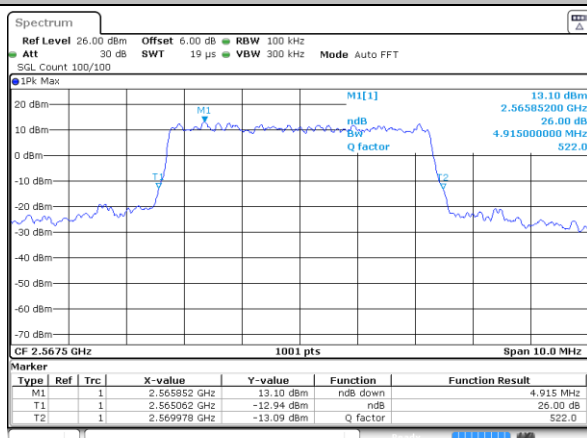
Date: 3 DEC 2019 22:54:35

## Middle Channel / 10MHz / 64QAM



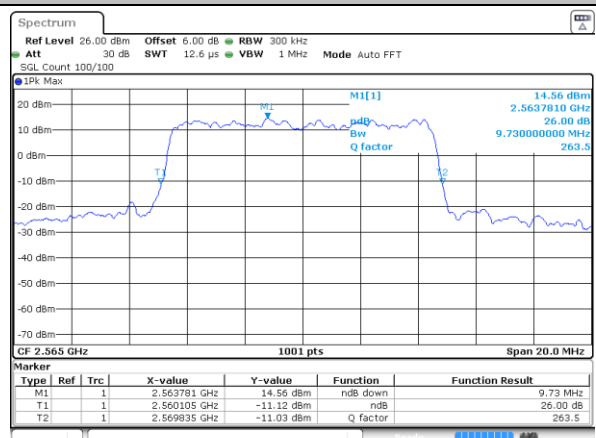
Date: 3 DEC 2019 23:00:33

## Highest Channel / 5MHz / 64QAM



Date: 3 DEC 2019 22:54:45

## Highest Channel / 10MHz / 64QAM

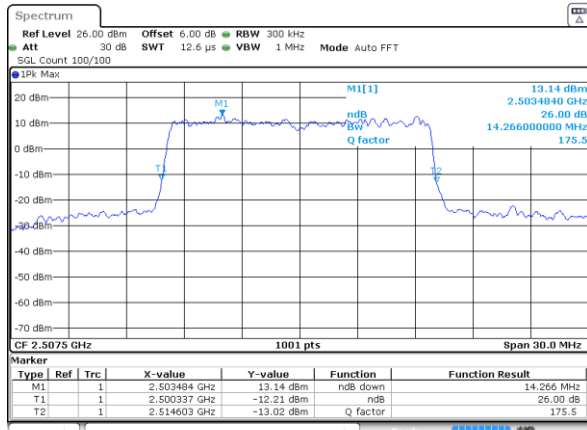


Date: 3 DEC 2019 23:00:43



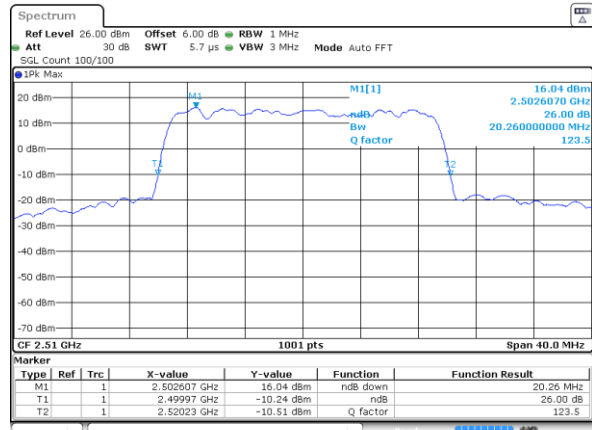
## LTE Band 7

## Lowest Channel / 15MHz / 64QAM



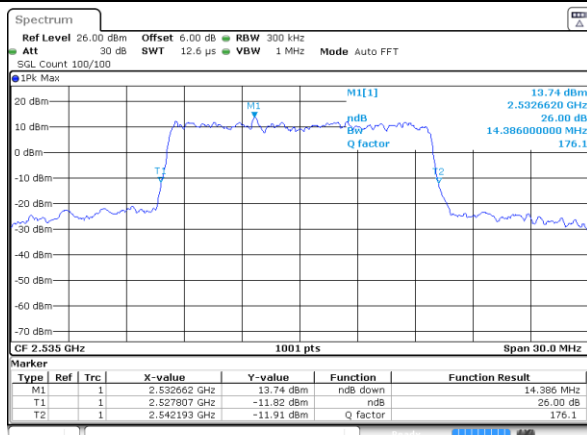
Date: 3 DEC 2019 23:06:22

## Lowest Channel / 20MHz / 64QAM



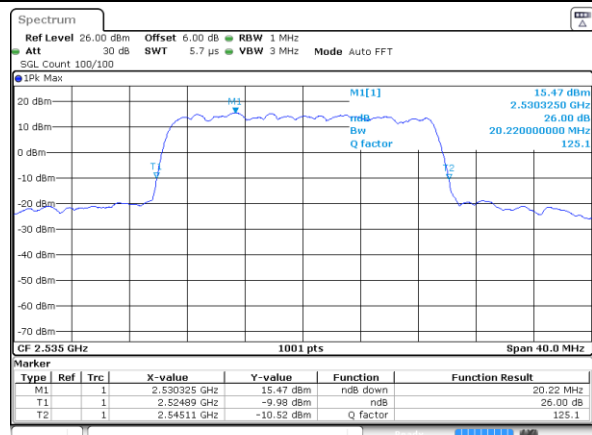
Date: 3 DEC 2019 23:12:21

## Middle Channel / 15MHz / 64QAM



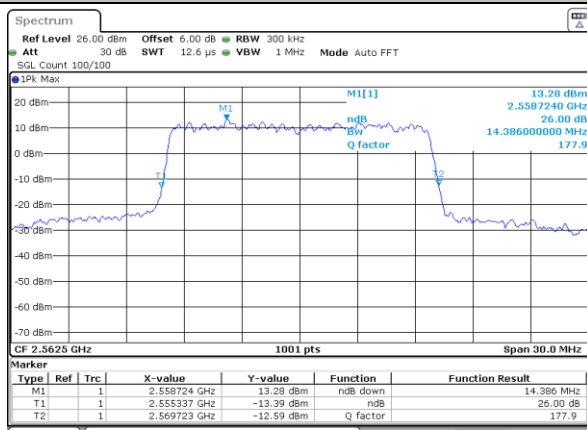
Date: 3 DEC 2019 23:06:32

## Middle Channel / 20MHz / 64QAM



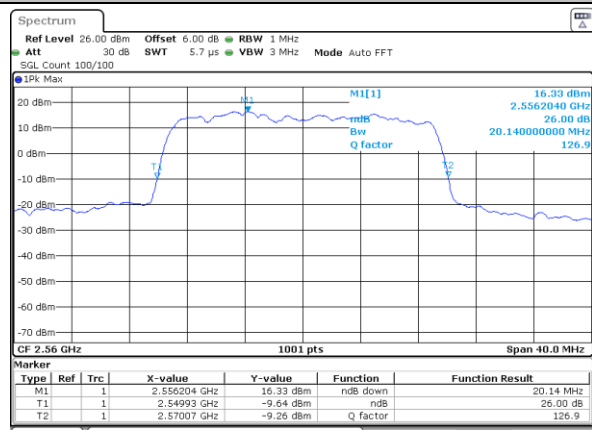
Date: 3 DEC 2019 23:12:31

## Highest Channel / 15MHz / 64QAM



Date: 3 DEC 2019 23:06:42

## Highest Channel / 20MHz / 64QAM



Date: 3 DEC 2019 23:12:41



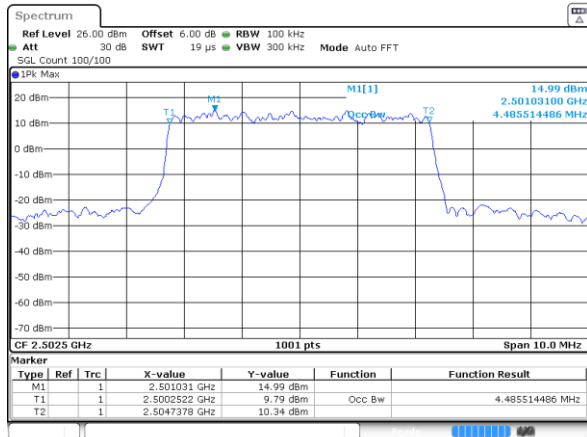
## Occupied Bandwidth

| Mode       | LTE Band 7 : 99%OBW(MHz) |       |      |       |       |       |       |       |        |        |        |        |
|------------|--------------------------|-------|------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| BW         | 1.4MHz                   |       | 3MHz |       | 5MHz  |       | 10MHz |       | 15MHz  |        | 20MHz  |        |
| Mod.       | QPSK                     | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK   | 16QAM  | QPSK   | 16QAM  |
| Lowest CH  |                          |       |      |       | 4.486 | 4.486 | 9.071 | 8.991 | 13.487 | 13.427 | 18.382 | 18.581 |
| Middle CH  |                          |       |      |       | 4.486 | 4.505 | 9.071 | 8.991 | 13.487 | 13.457 | 18.382 | 18.262 |
| Highest CH |                          |       |      |       | 4.466 | 4.486 | 9.031 | 9.031 | 13.367 | 13.367 | 18.422 | 18.342 |
| BW         | 1.4MHz                   |       | 3MHz |       | 5MHz  |       | 10MHz |       | 15MHz  |        | 20MHz  |        |
| Mod.       |                          |       |      |       | 64QAM |       | 64QAM |       | 64QAM  |        | 64QAM  |        |
| Lowest CH  |                          |       |      |       | 4.496 |       | 9.051 |       | 13.487 |        | 18.462 |        |
| Middle CH  |                          |       |      |       | 4.486 |       | 9.111 |       | 13.457 |        | 18.342 |        |
| Highest CH |                          |       |      |       | 4.476 |       | 8.991 |       | 13.427 |        | 18.262 |        |



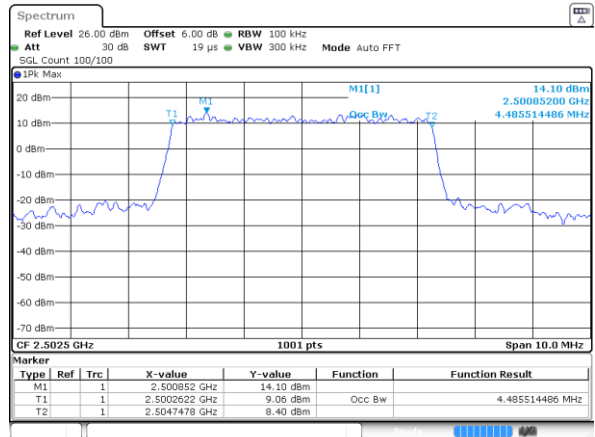
## LTE Band 7

## Lowest Channel / 5MHz / QPSK



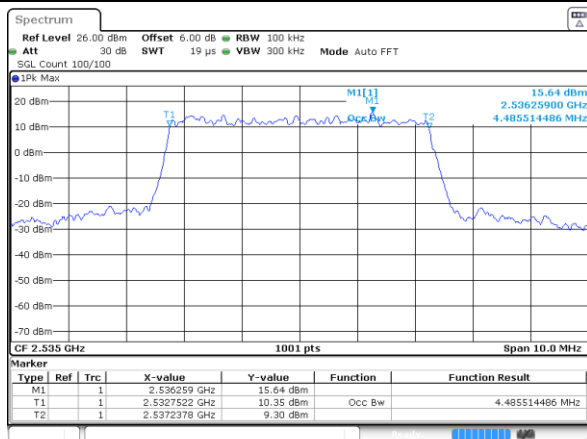
Date: 3.DEC.2019 21:45:41

## Lowest Channel / 5MHz / 16QAM



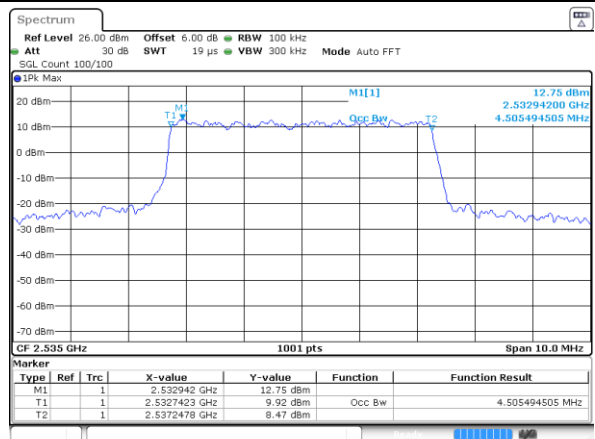
Date: 3.DEC.2019 21:46:01

## Middle Channel / 5MHz / QPSK



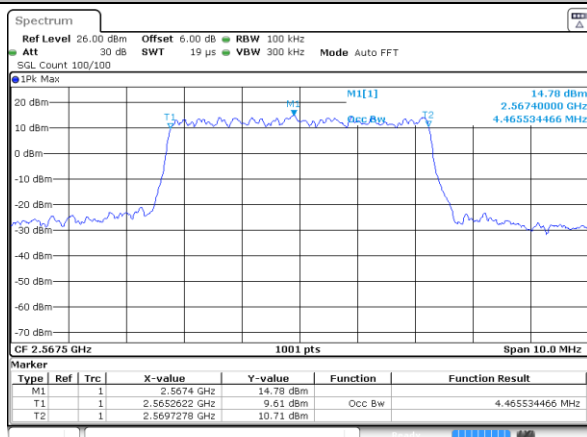
Date: 3.DEC.2019 21:46:41

## Middle Channel / 5MHz / 16QAM



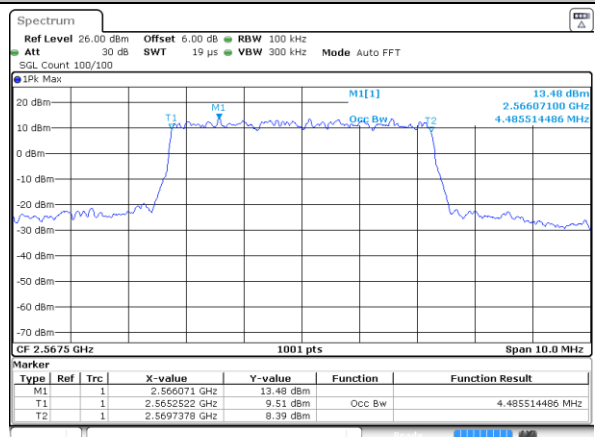
Date: 3.DEC.2019 21:46:21

## Highest Channel / 5MHz / QPSK



Date: 3.DEC.2019 21:47:01

## Highest Channel / 5MHz / 16QAM

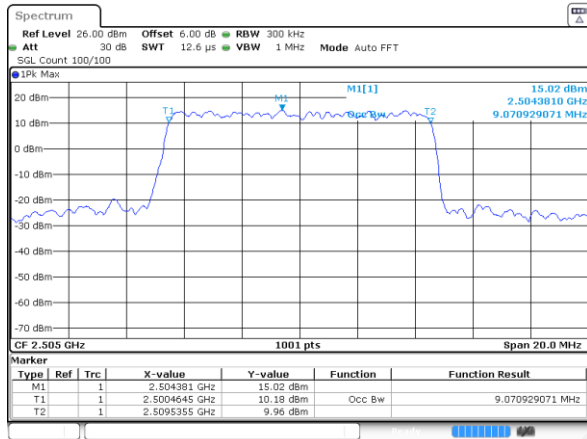


Date: 3.DEC.2019 21:47:21



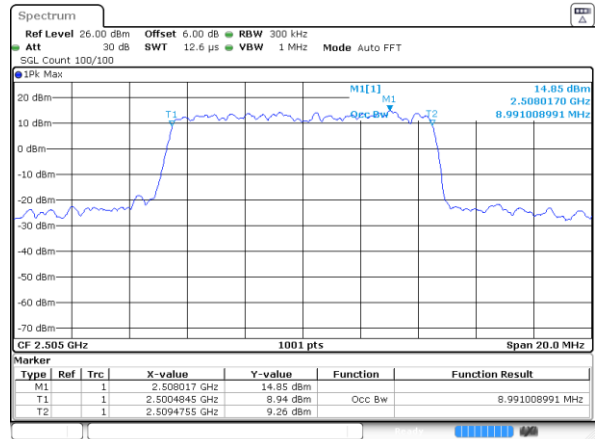
## LTE Band 7

## Lowest Channel / 10MHz / QPSK



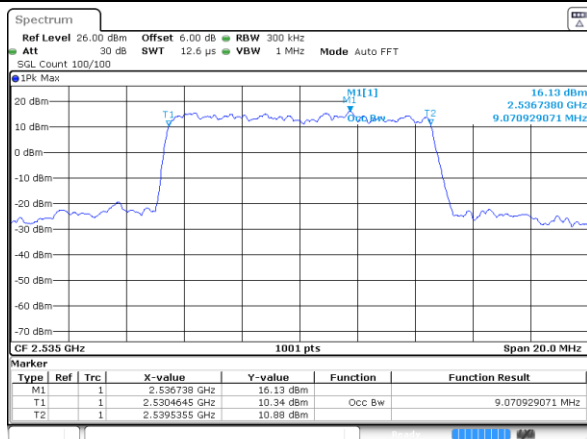
Date: 3 DEC 2019 22:02:14

## Lowest Channel / 10MHz / 16QAM



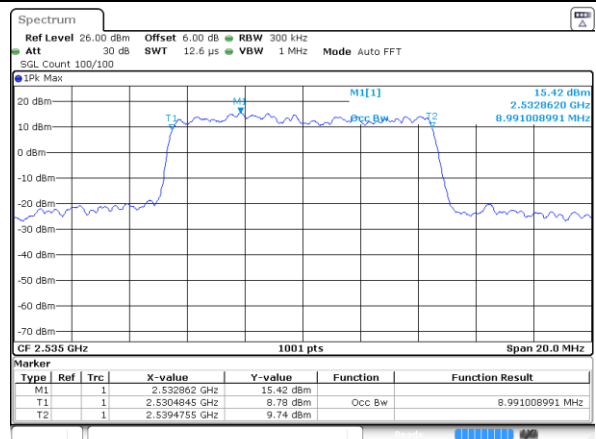
Date: 3 DEC 2019 22:02:34

## Middle Channel / 10MHz / QPSK



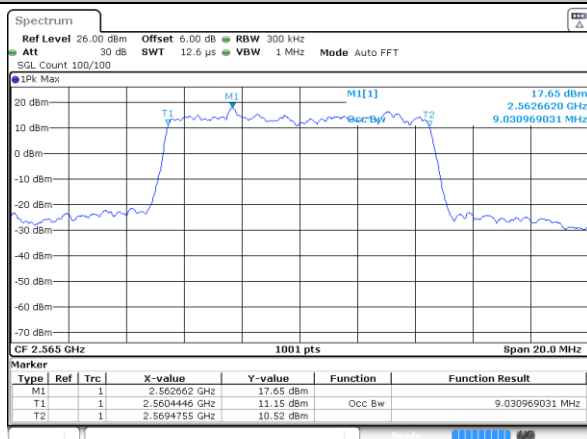
Date: 3 DEC 2019 22:03:14

## Middle Channel / 10MHz / 16QAM



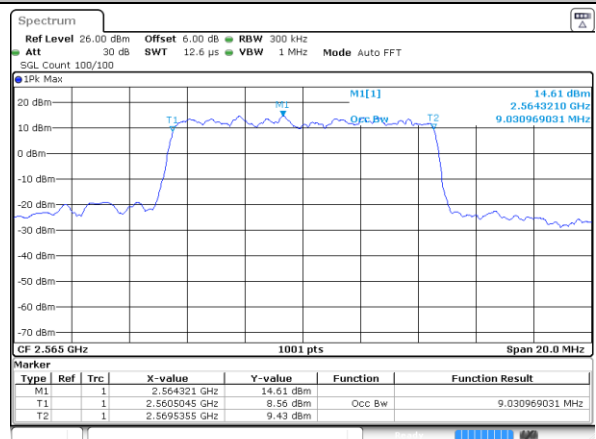
Date: 3 DEC 2019 22:02:54

## Highest Channel / 10MHz / QPSK



Date: 3 DEC 2019 22:03:34

## Highest Channel / 10MHz / 16QAM

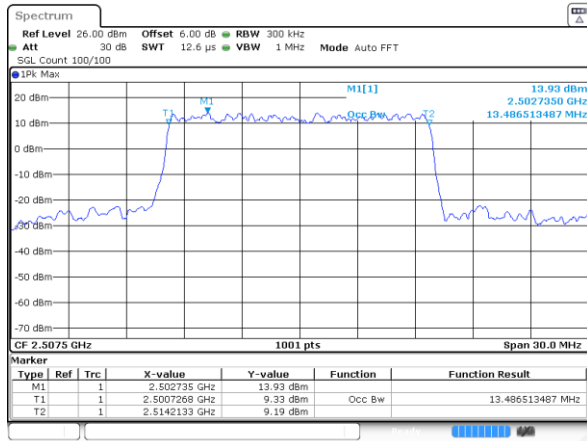


Date: 3 DEC 2019 22:03:54

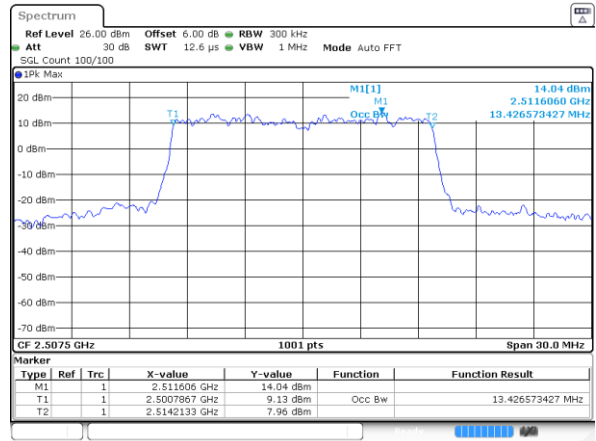


## LTE Band 7

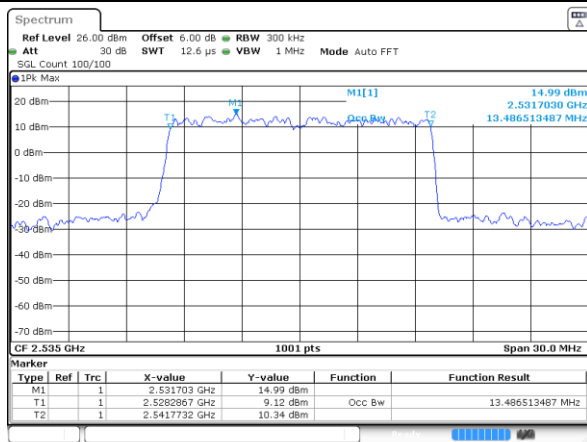
## Lowest Channel / 15MHz / QPSK



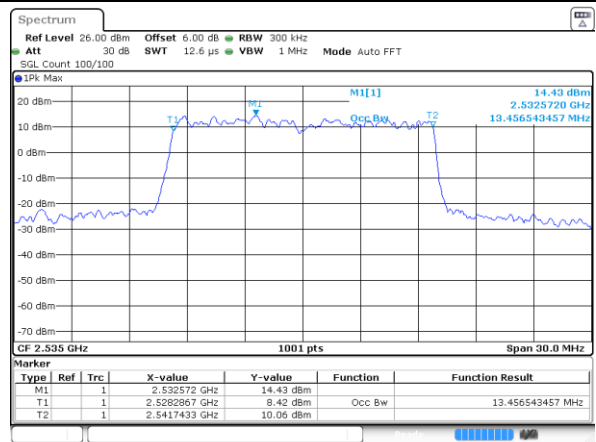
## Lowest Channel / 15MHz / 16QAM



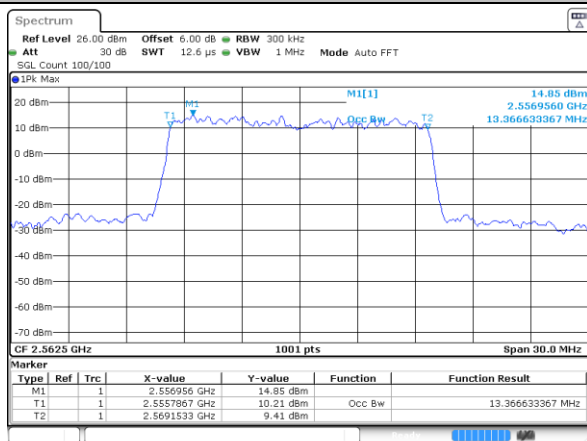
## Middle Channel / 15MHz / QPSK



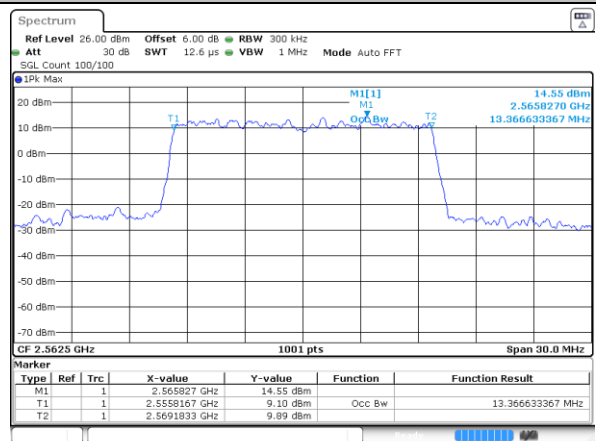
## Middle Channel / 15MHz / 16QAM



## Highest Channel / 15MHz / QPSK



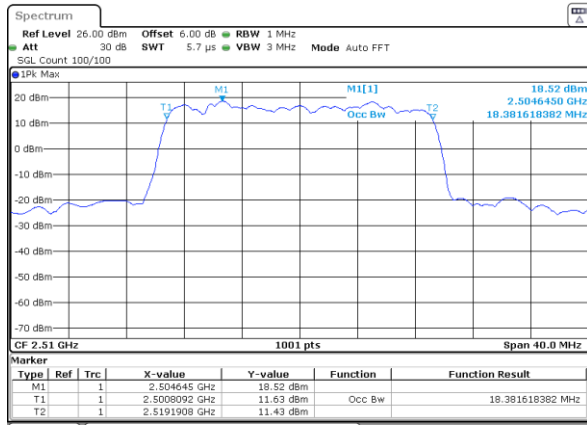
## Highest Channel / 15MHz / 16QAM





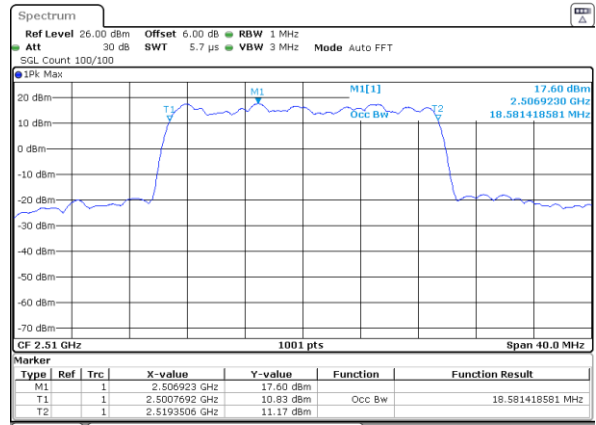
## LTE Band 7

## Lowest Channel / 20MHz / QPSK



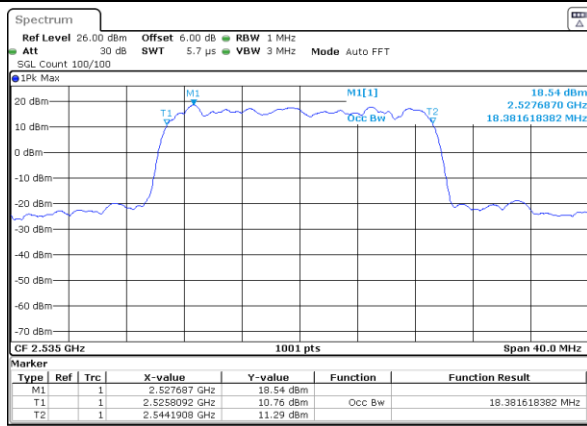
Date: 3 DEC 2019 22:35:35

## Lowest Channel / 20MHz / 16QAM



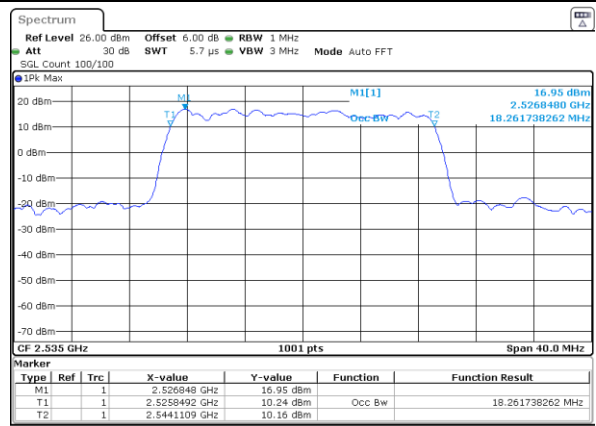
Date: 3 DEC 2019 22:35:15

## Middle Channel / 20MHz / QPSK



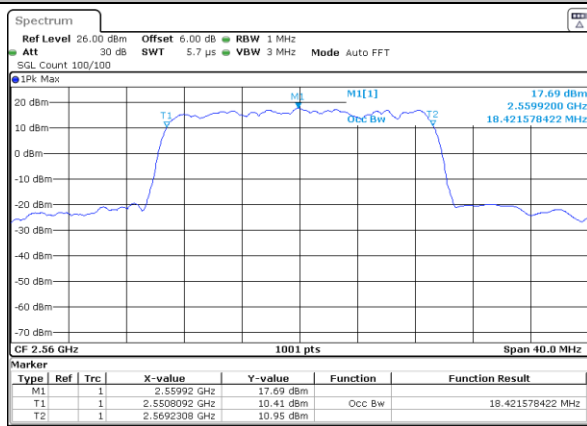
Date: 3 DEC 2019 22:35:55

## Middle Channel / 20MHz / 16QAM



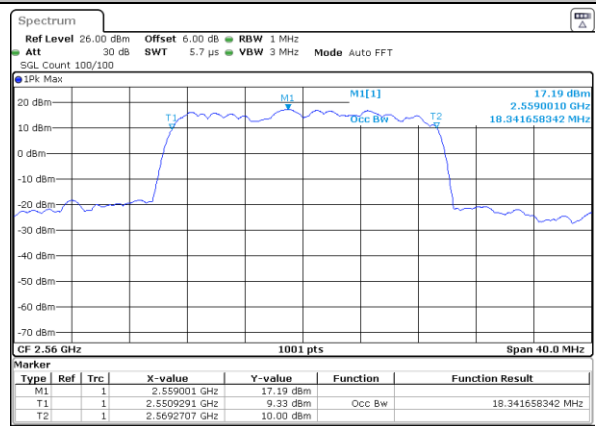
Date: 3 DEC 2019 22:36:15

## Highest Channel / 20MHz / QPSK



Date: 3 DEC 2019 22:36:55

## Highest Channel / 20MHz / 16QAM

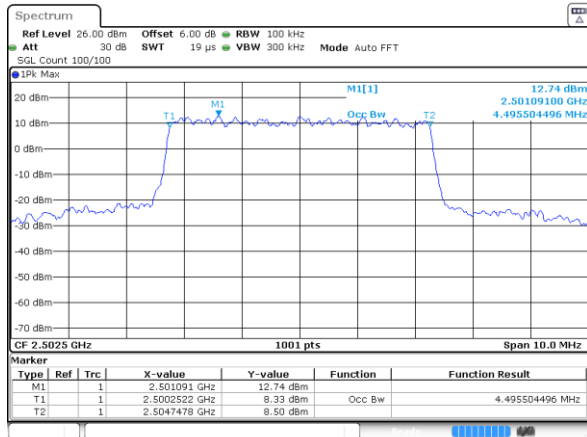


Date: 3 DEC 2019 22:36:35



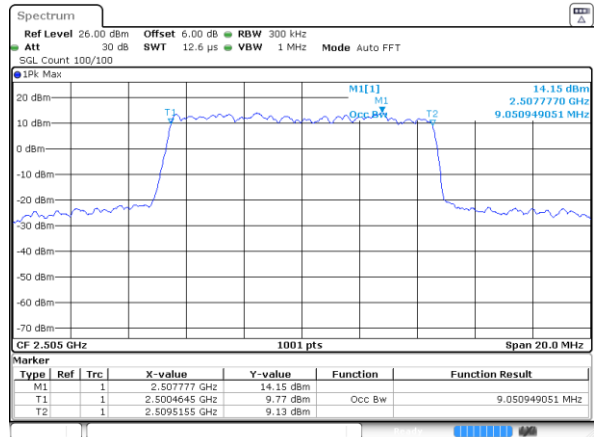
## LTE Band 7

## Lowest Channel / 5MHz / 64QAM



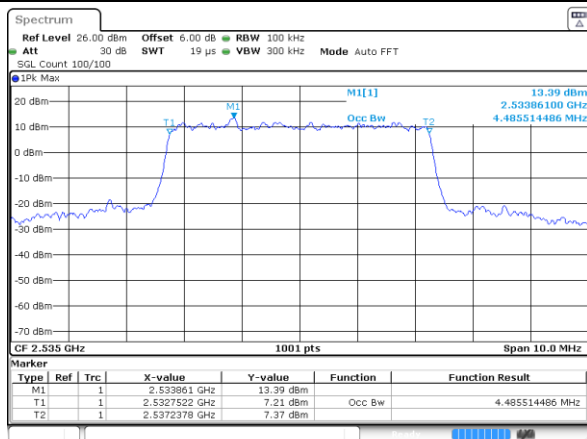
Date: 3 DEC 2019 22:53:54

## Lowest Channel / 10MHz / 64QAM



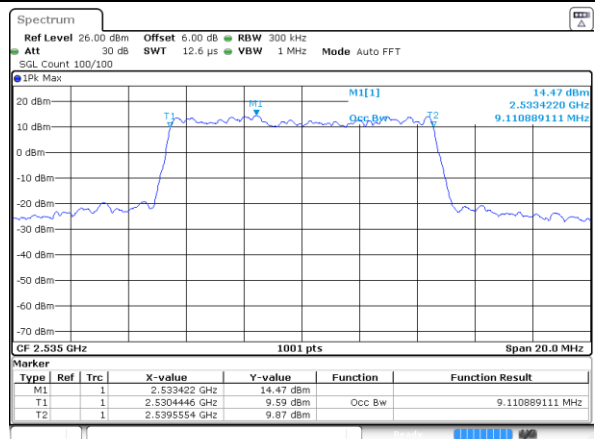
Date: 3 DEC 2019 22:59:53

## Middle Channel / 5MHz / 64QAM



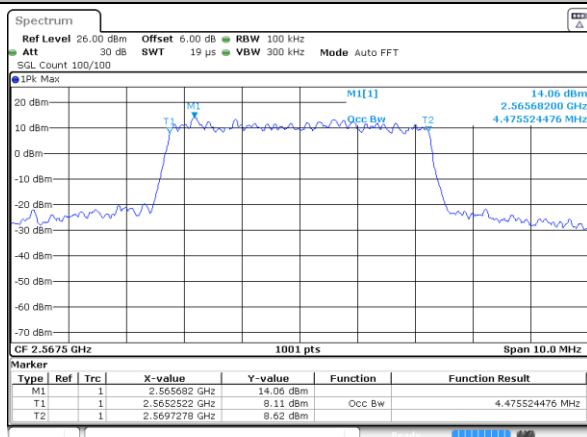
Date: 3 DEC 2019 22:54:04

## Middle Channel / 10MHz / 64QAM



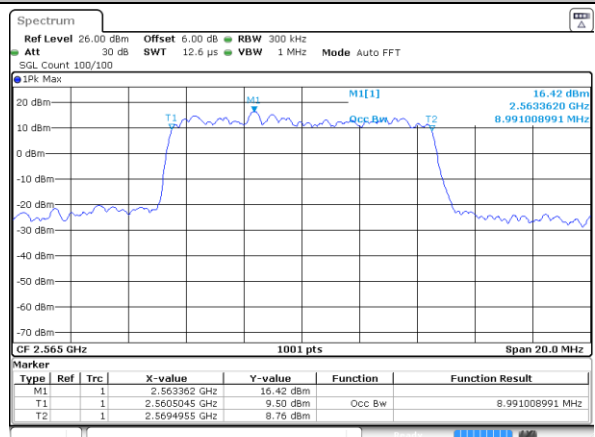
Date: 3 DEC 2019 23:00:03

## Highest Channel / 5MHz / 64QAM



Date: 3 DEC 2019 22:54:14

## Highest Channel / 10MHz / 64QAM

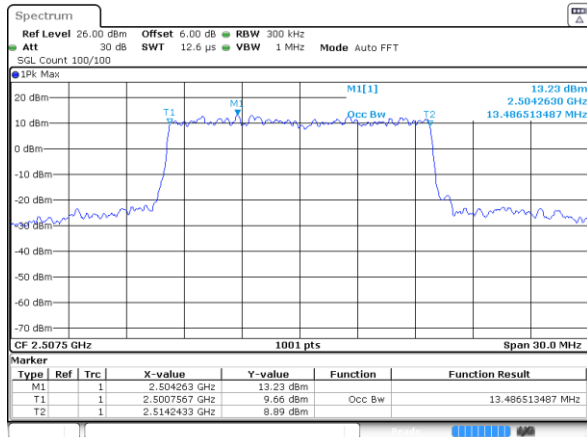


Date: 3 DEC 2019 23:00:13



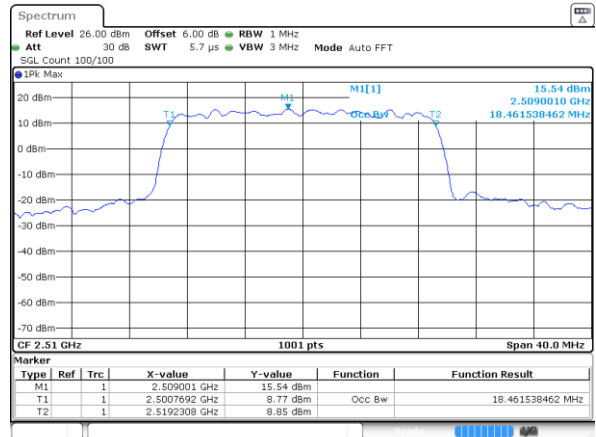
## LTE Band 7

## Lowest Channel / 15MHz / 64QAM



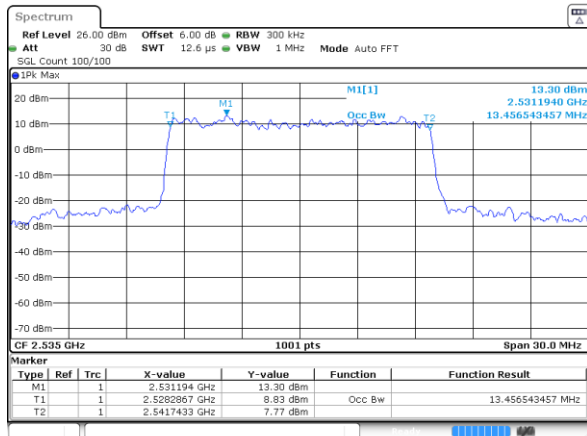
Date: 3 DEC 2019 23:05:52

## Lowest Channel / 20MHz / 64QAM



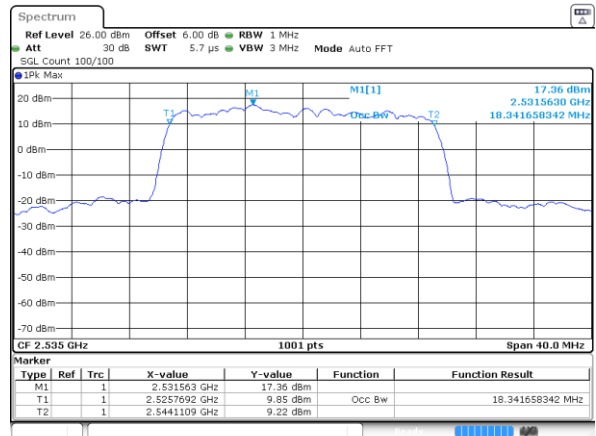
Date: 3 DEC 2019 23:11:50

## Middle Channel / 15MHz / 64QAM



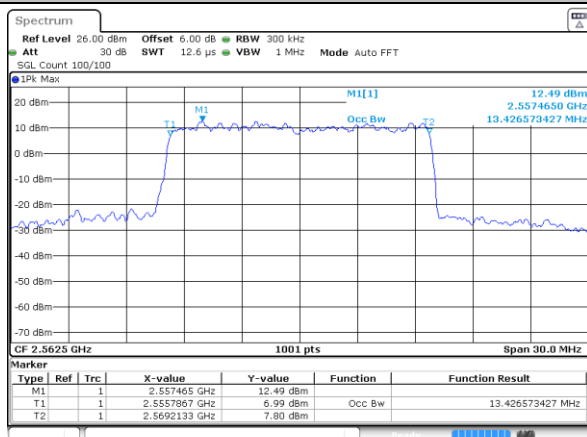
Date: 3 DEC 2019 23:06:02

## Middle Channel / 20MHz / 64QAM



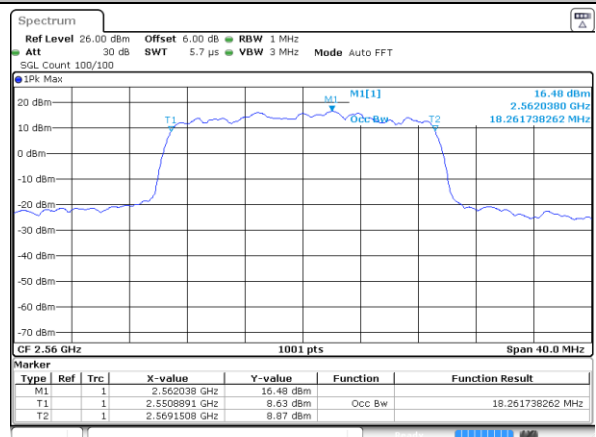
Date: 3 DEC 2019 23:12:01

## Highest Channel / 15MHz / 64QAM



Date: 3 DEC 2019 23:06:12

## Highest Channel / 20MHz / 64QAM



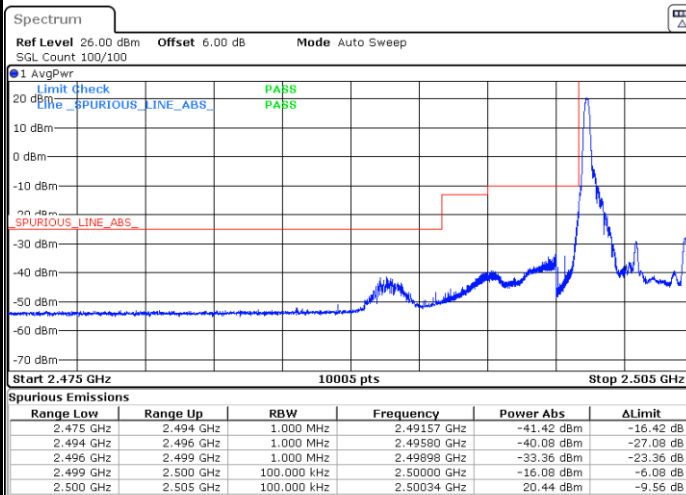
Date: 3 DEC 2019 23:12:11



## Conducted Band Edge

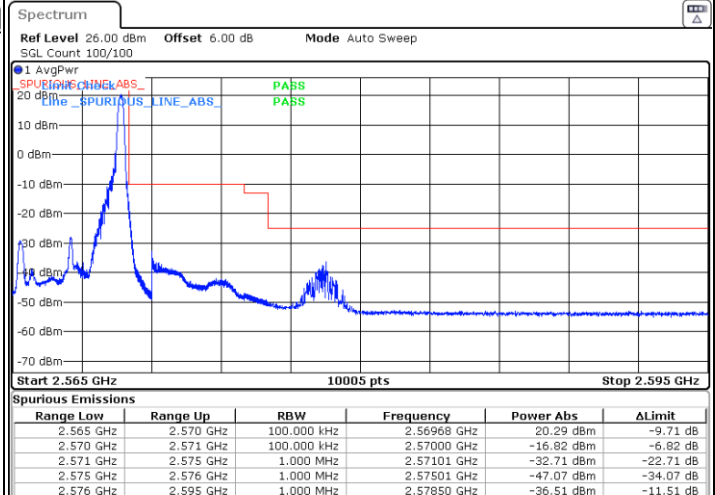
### LTE Band 7 / 5MHz / QPSK

#### Lowest Band Edge / 1 RB



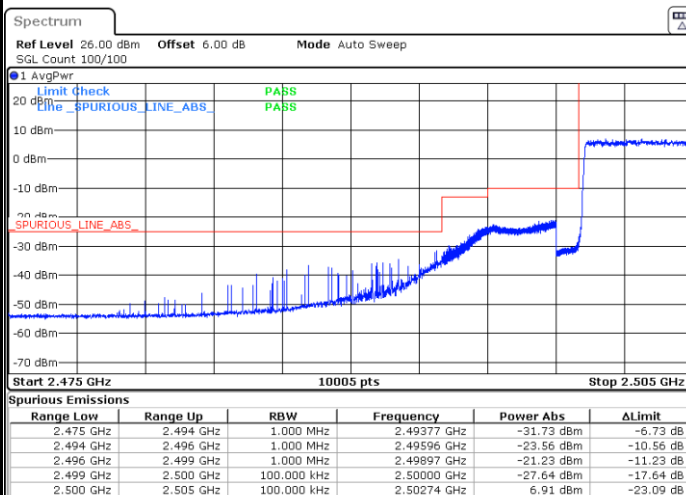
Date: 3 DEC 2019 21:48:40

#### Highest Band Edge / 1 RB



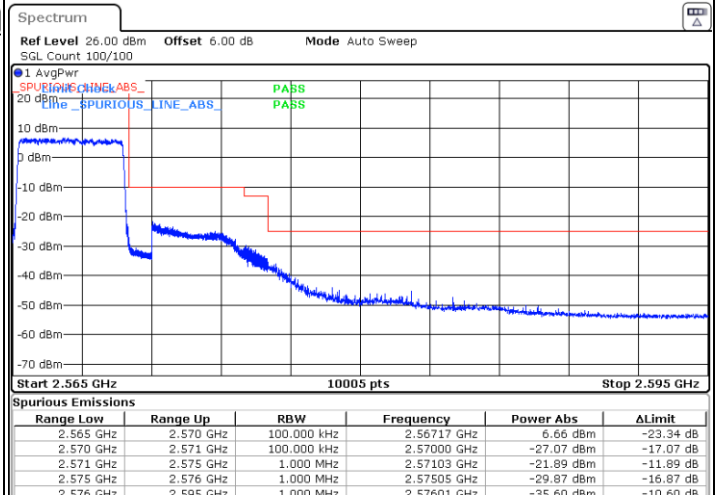
Date: 3 DEC 2019 21:56:39

#### Lowest Band Edge / Full RB



Date: 3 DEC 2019 21:52:06

#### Highest Band Edge / Full RB

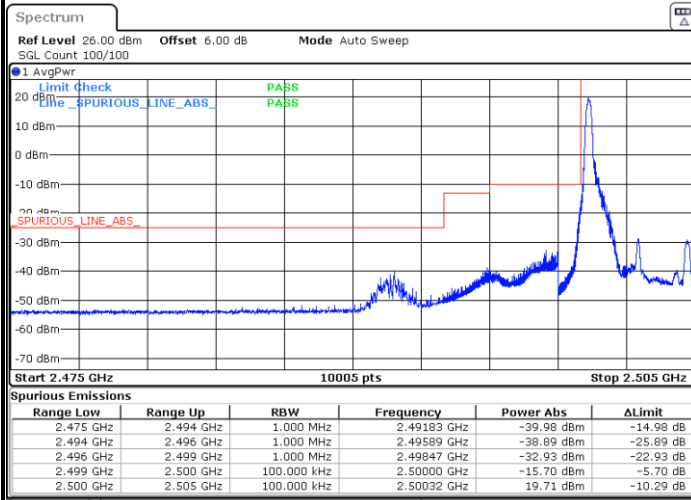


Date: 3 DEC 2019 21:53:15



## LTE Band 7 / 5MHz / 16QAM

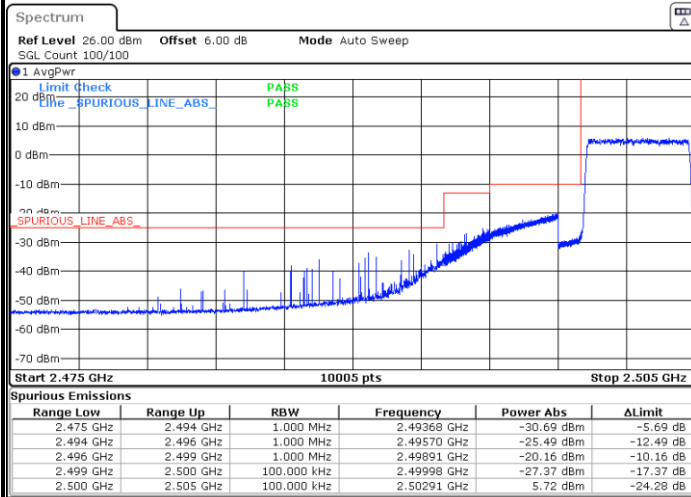
## Lowest Band Edge / 1 RB



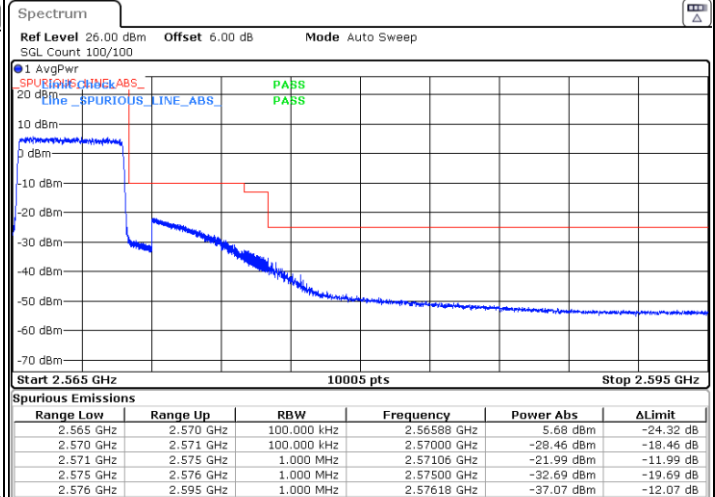
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



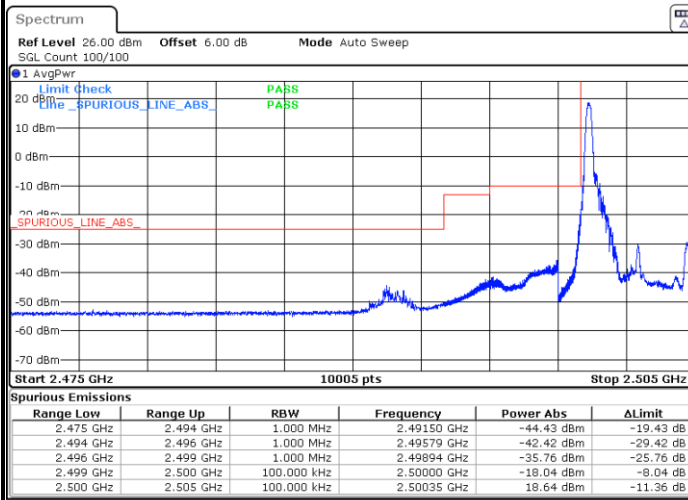
## Highest Band Edge / Full RB



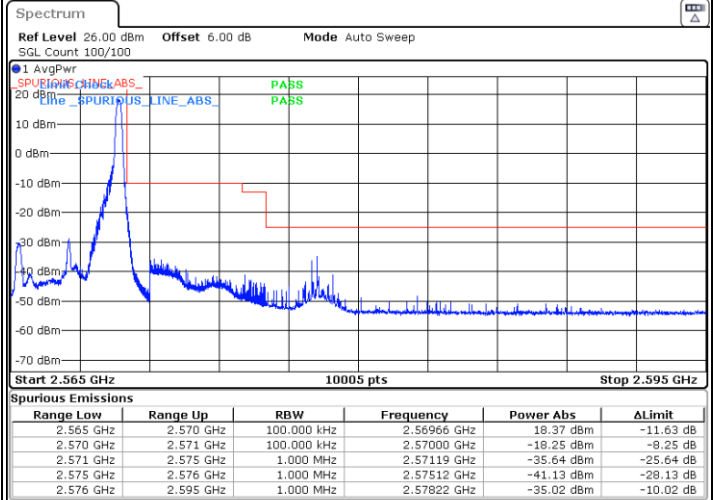


## LTE Band 7 / 5MHz / 64QAM

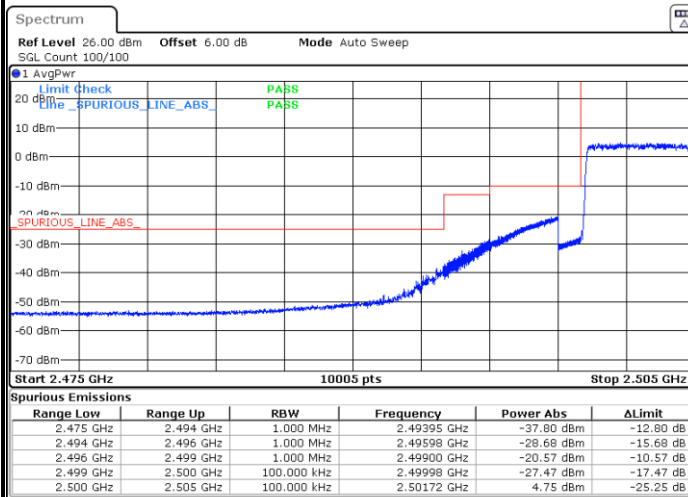
## Lowest Band Edge / 1RB



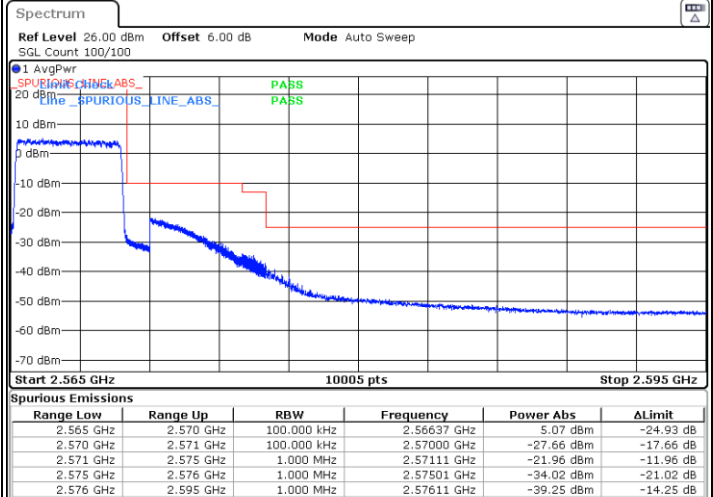
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



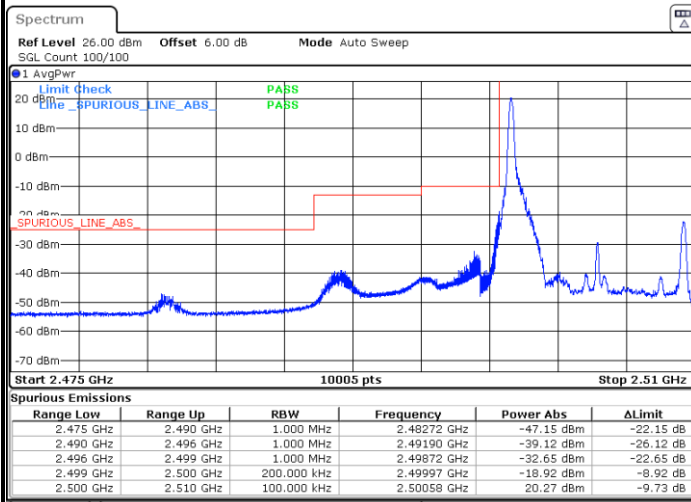
## Highest Band Edge / Full RB



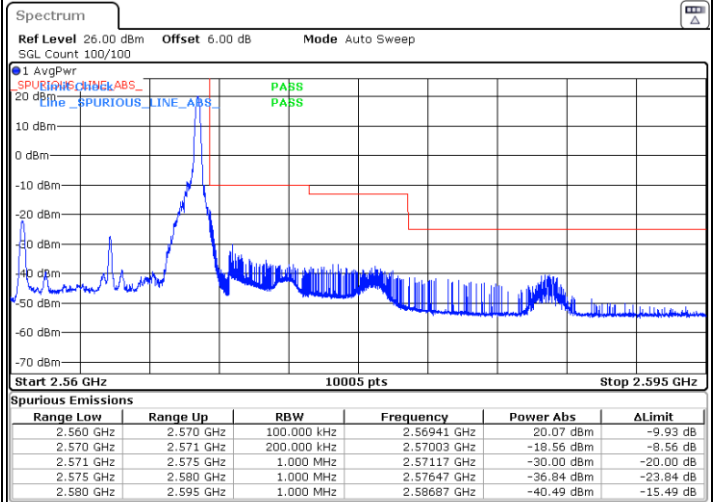


## LTE Band 7 / 10MHz / QPSK

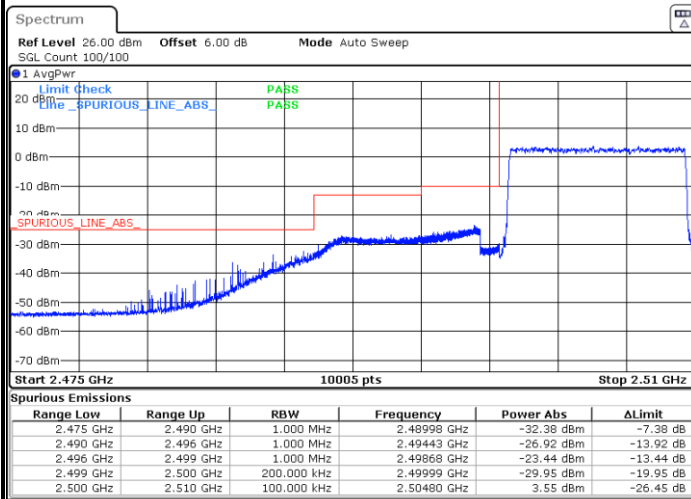
## Lowest Band Edge / 1 RB



## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

