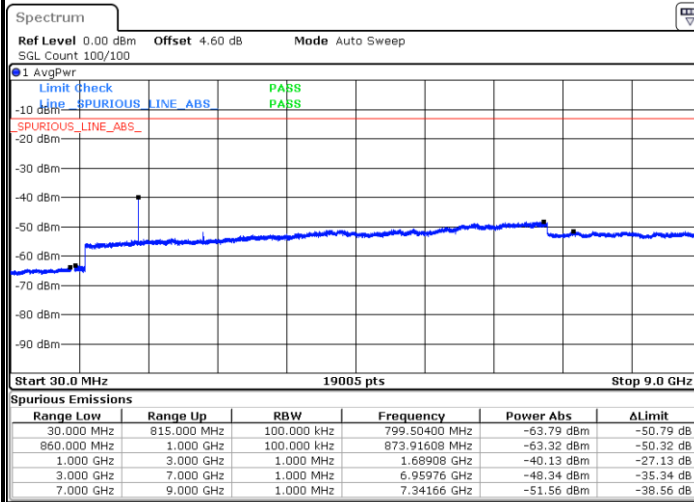




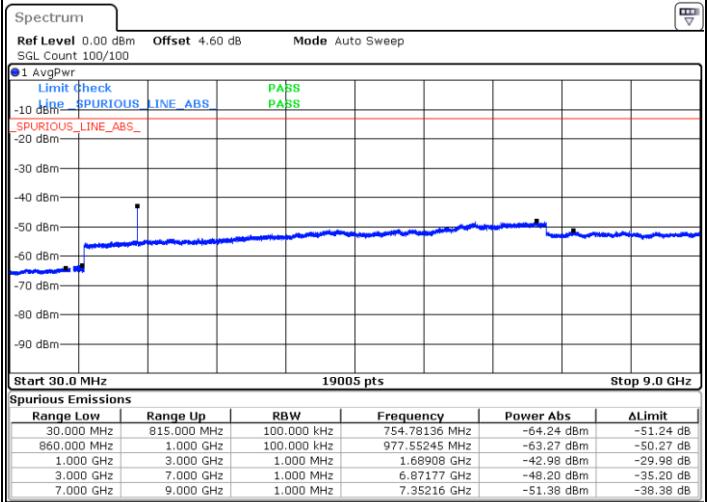
## LTE Band 5 / 5MHz

## Highest Channel / QPSK



Date: 19.OCT.2019 16:00:47

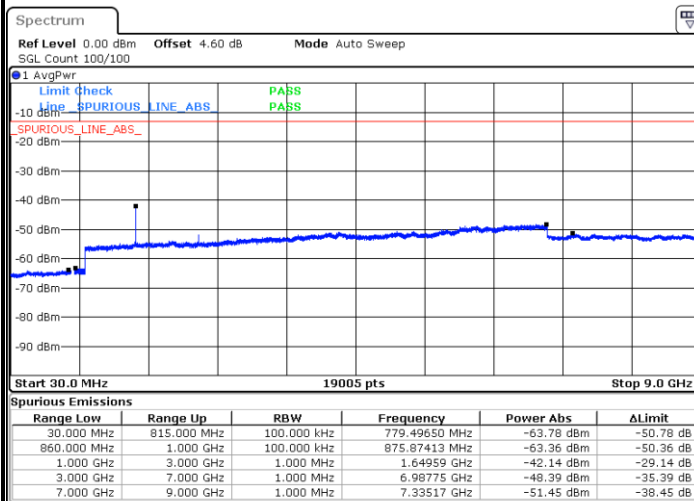
## Highest Channel / 16QAM



Date: 19.OCT.2019 16:01:42

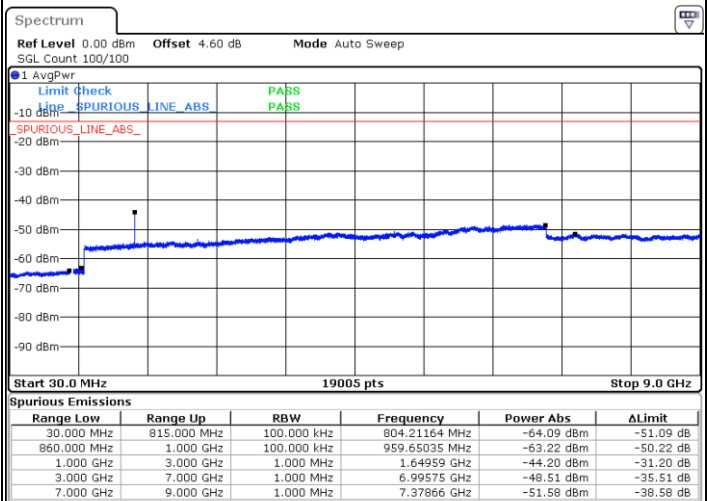
## LTE Band 5 / 10MHz

## Lowest Channel / QPSK



Date: 19.OCT.2019 16:09:47

## Lowest Channel / 16QAM

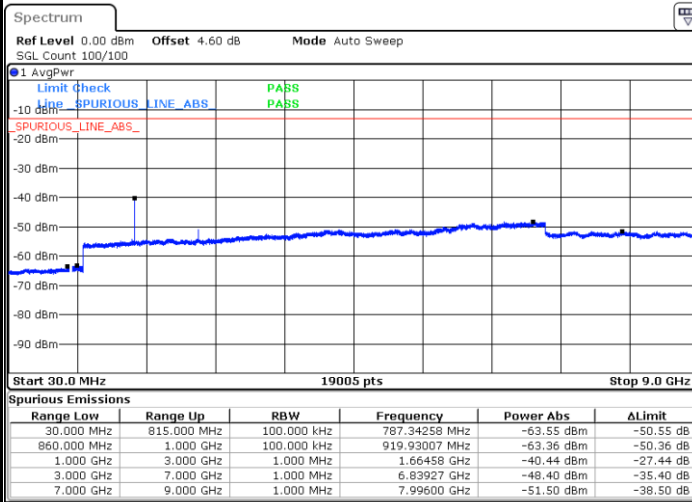


Date: 19.OCT.2019 16:10:42



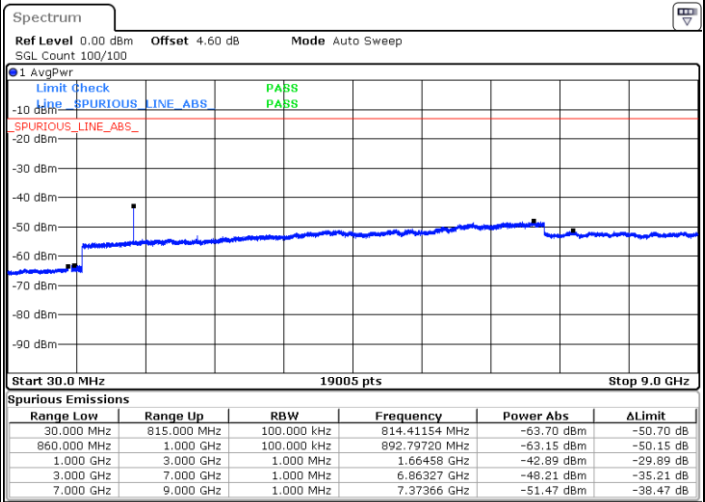
## LTE Band 5 / 10MHz

## Middle Channel / QPSK



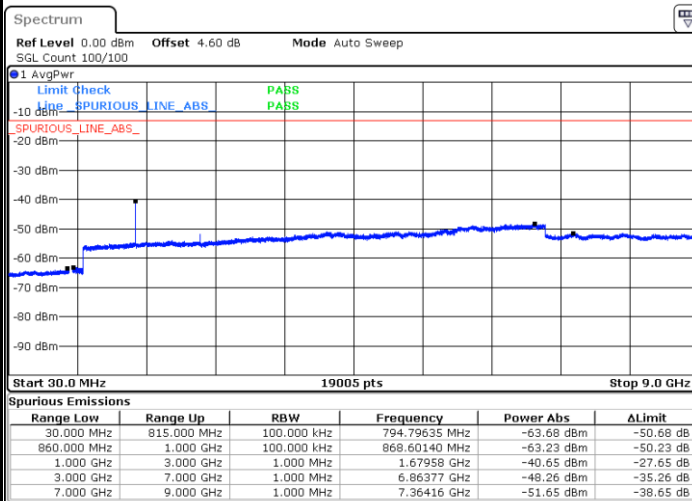
Date: 19.OCT.2019 16:12:16

## Middle Channel / 16QAM



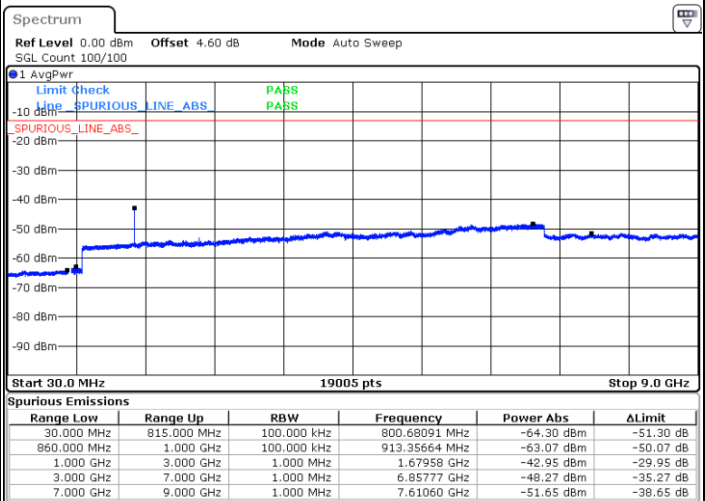
Date: 19.OCT.2019 16:13:11

## Highest Channel / QPSK



Date: 19.OCT.2019 16:21:16

## Highest Channel / 16QAM



Date: 19.OCT.2019 16:23:55

**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    | 0.0001                             | PASS   |
| 40               | Normal Voltage    | 0.0018                             |        |
| 30               | Normal Voltage    | 0.0050                             |        |
| 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   | 0.0060                             |        |
| 20               | Normal Voltage    | 0.0000                             |        |
| 20               | Battery End Point | 0.0012                             |        |

**Note:** Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.35 V.



## LTE Band 7

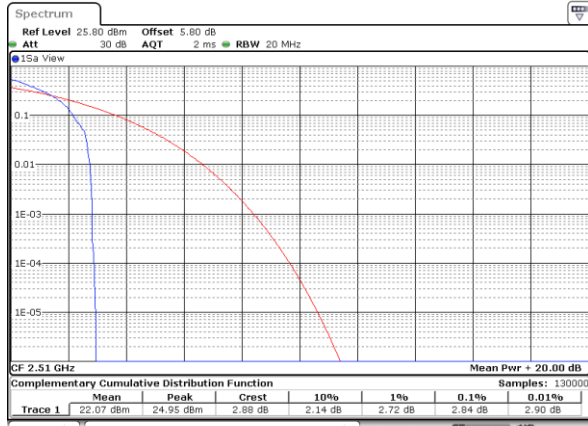
## Peak-to-Average Ratio

| Mode       | LTE Band 7 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 2.84               | 4.23    | 4.12  | 5.30    | PASS        |
| Middle CH  | 3.54               | 4.84    | 4.32  | 5.91    |             |
| Highest CH | 3.16               | 4.67    | 4.17  | 5.68    |             |

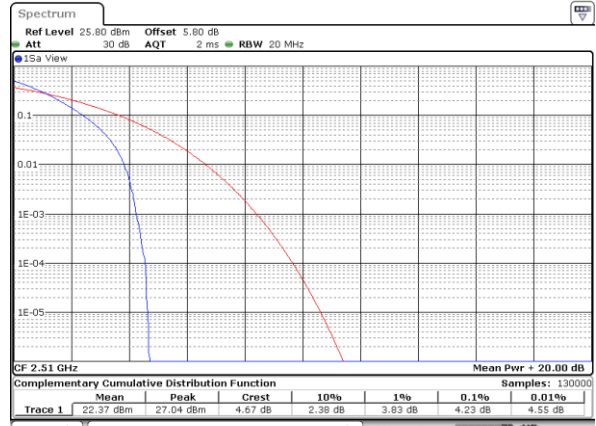


## LTE Band 7 / 20MHz / QPSK

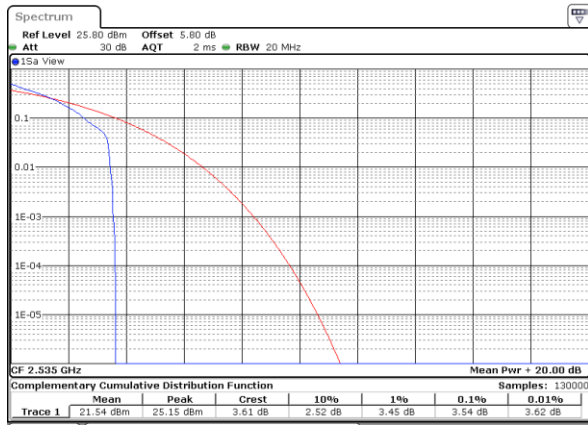
## Lowest Channel / 1RB



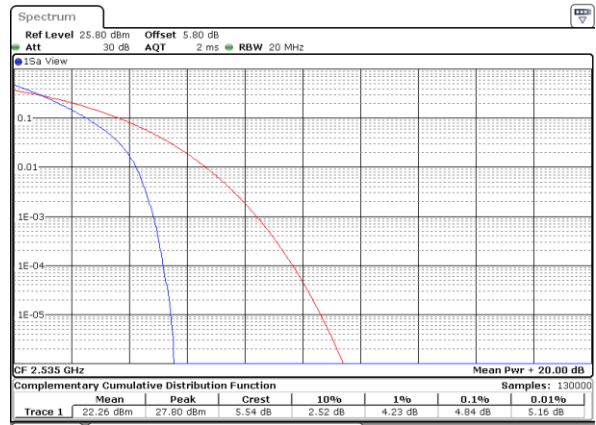
## Lowest Channel / Full RB



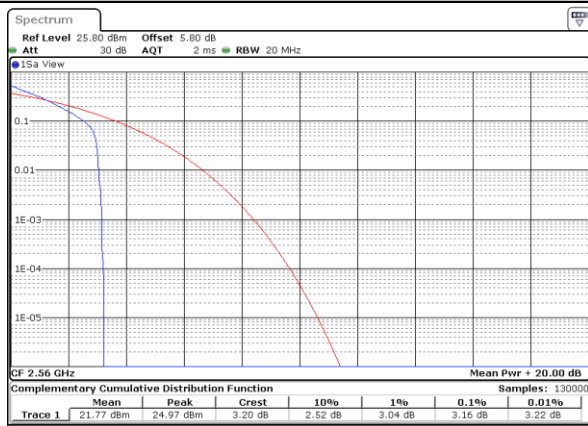
## Middle Channel / 1RB



## Middle Channel / Full RB



## Highest Channel / 1RB



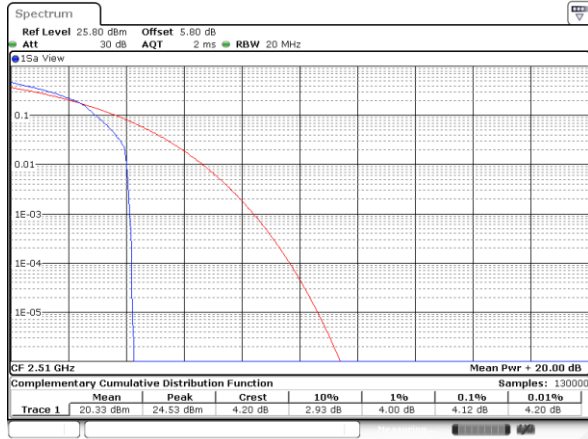
## Highest Channel / Full RB



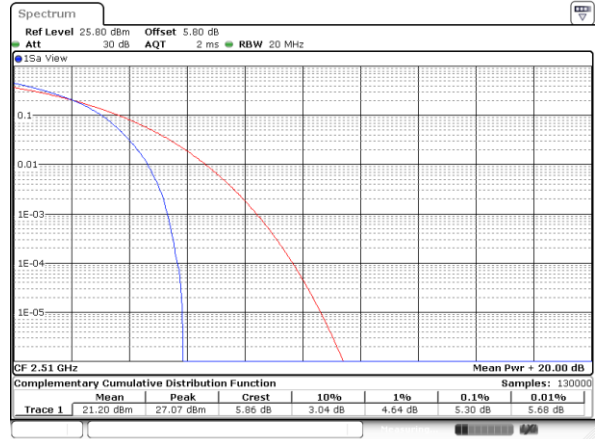


## LTE Band 7 / 20MHz / 16QAM

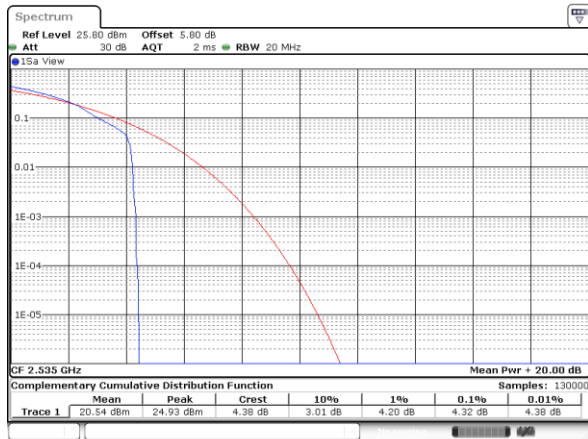
## Lowest Channel / 1RB



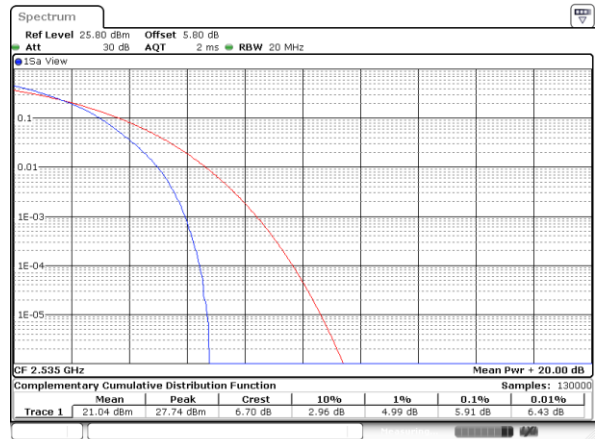
## Lowest Channel / Full RB



## Middle Channel / 1RB



## Middle Channel / Full RB



## Highest Channel / 1RB



## Highest Channel / Full RB





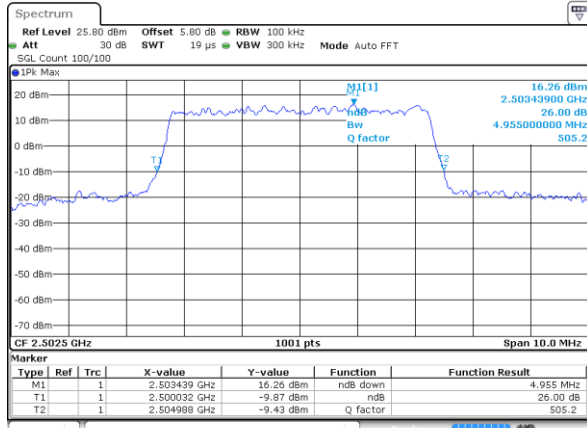
26dB Bandwidth

| 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  | -                         | -     | -    | -     | 4.955 | 4.895 | 9.83  | 9.83  | 14.595 | 14.206 | 20.14 | 20.10 |
| Middle CH  | -                         | -     | -    | -     | 4.895 | 4.875 | 9.81  | 9.77  | 14.146 | 14.236 | 20.22 | 20.26 |
| Highest CH | -                         | -     | -    | -     | 5.045 | 4.825 | 9.65  | 9.79  | 14.326 | 14.236 | 20.38 | 20.14 |



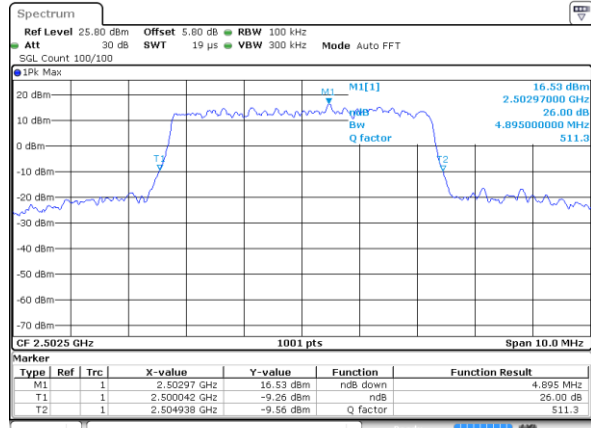
## LTE Band 7

## Lowest Channel / 5MHz / QPSK



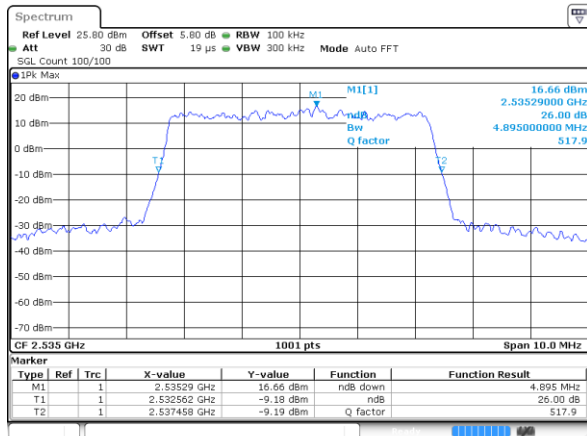
Date: 19.OCT.2019 18:43:24

## Lowest Channel / 5MHz / 16QAM



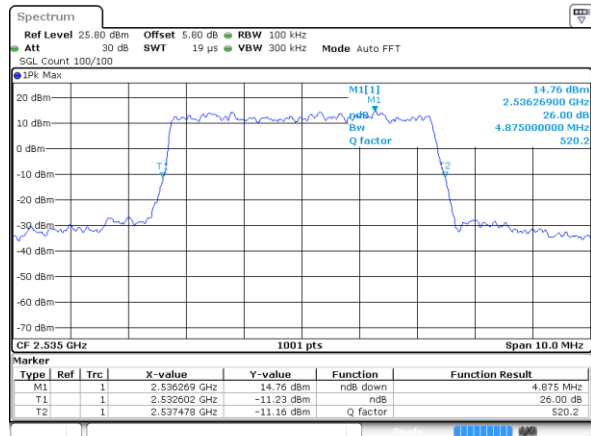
Date: 19.OCT.2019 18:43:44

## Middle Channel / 5MHz / QPSK



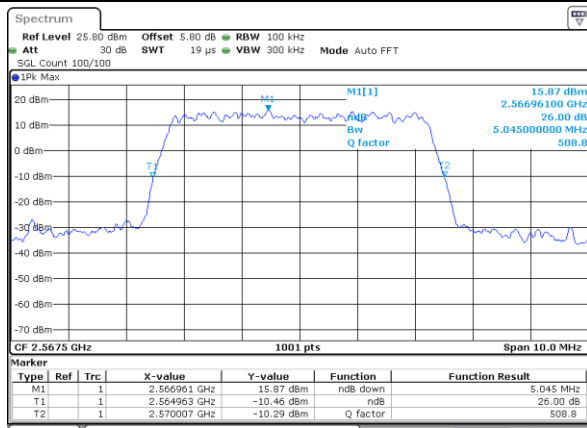
Date: 19.OCT.2019 18:44:24

## Middle Channel / 5MHz / 16QAM



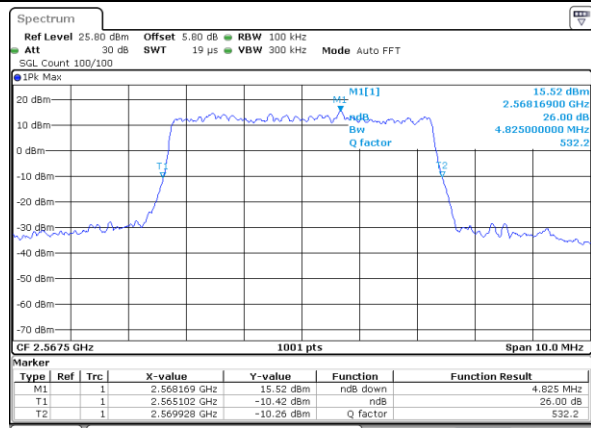
Date: 19.OCT.2019 18:44:04

## Highest Channel / 5MHz / QPSK



Date: 19.OCT.2019 18:44:44

## Highest Channel / 5MHz / 16QAM

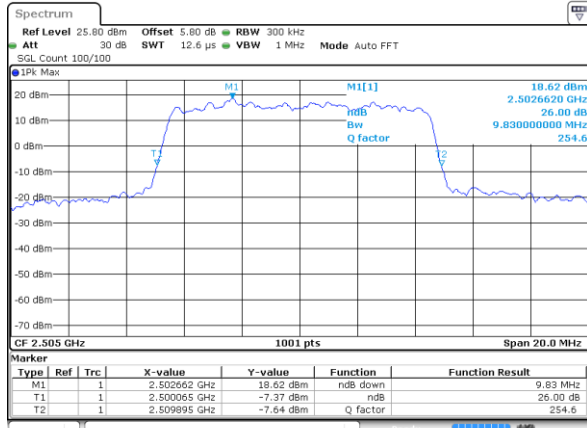


Date: 19.OCT.2019 18:45:04



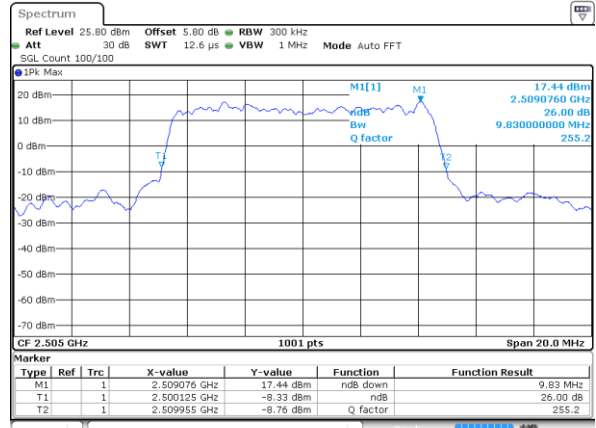
## LTE Band 7

## Lowest Channel / 10MHz / QPSK



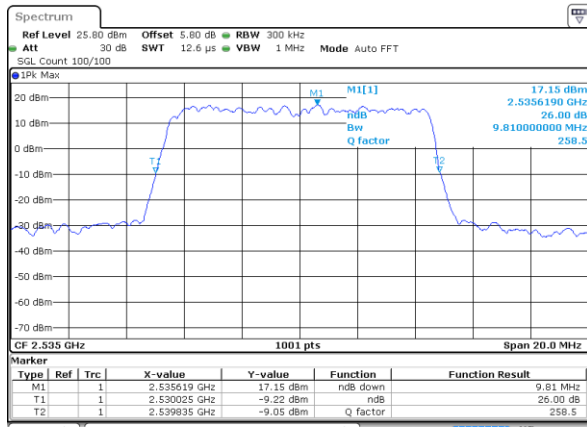
Date: 19.OCT.2019 18:59:56

## Lowest Channel / 10MHz / 16QAM



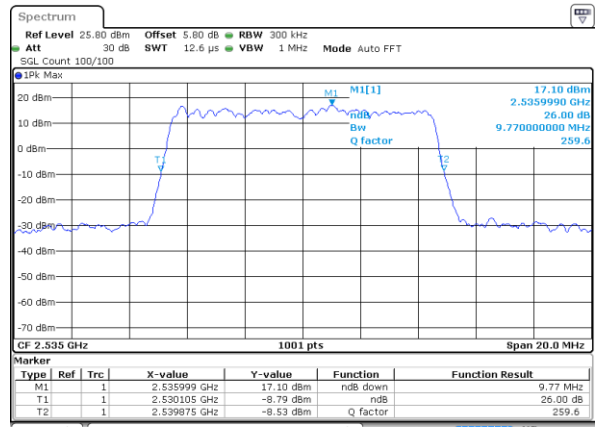
Date: 19.OCT.2019 19:00:16

## Middle Channel / 10MHz / QPSK



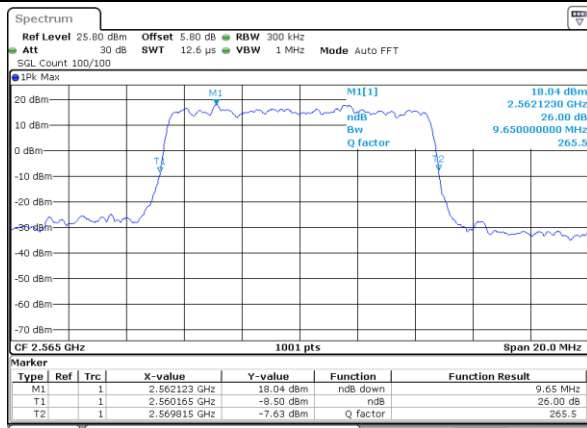
Date: 19.OCT.2019 19:00:56

## Middle Channel / 10MHz / 16QAM



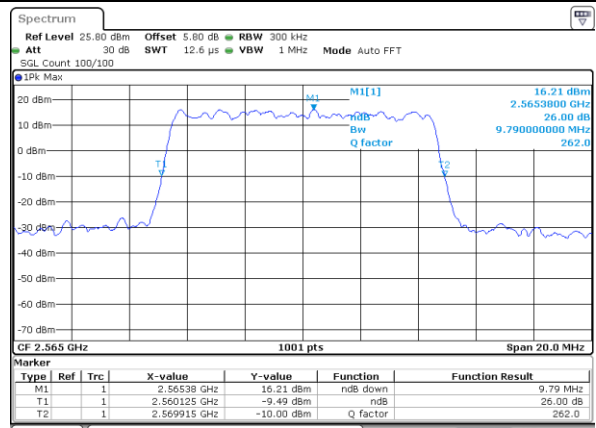
Date: 19.OCT.2019 19:00:36

## Highest Channel / 10MHz / QPSK



Date: 19.OCT.2019 19:01:16

## Highest Channel / 10MHz / 16QAM

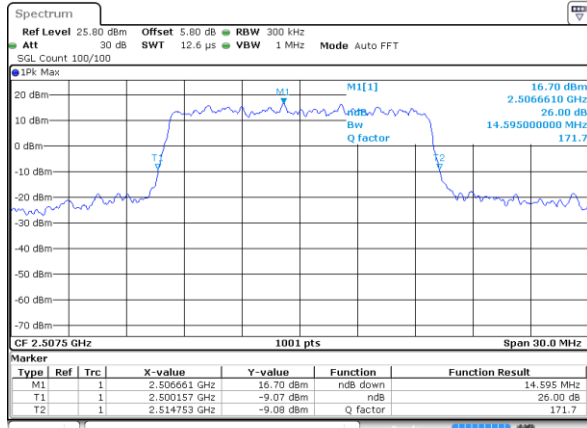


Date: 19.OCT.2019 19:01:36



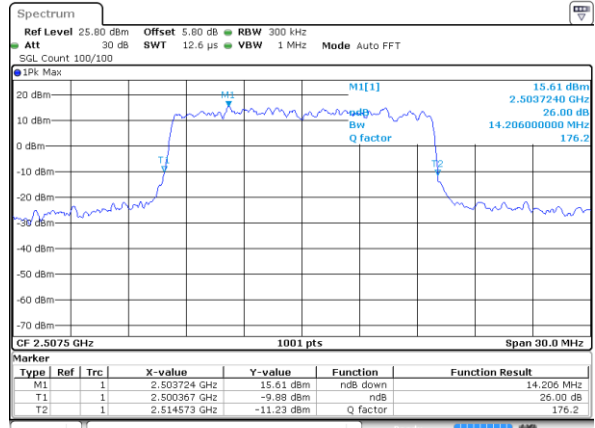
## LTE Band 7

## Lowest Channel / 15MHz / QPSK



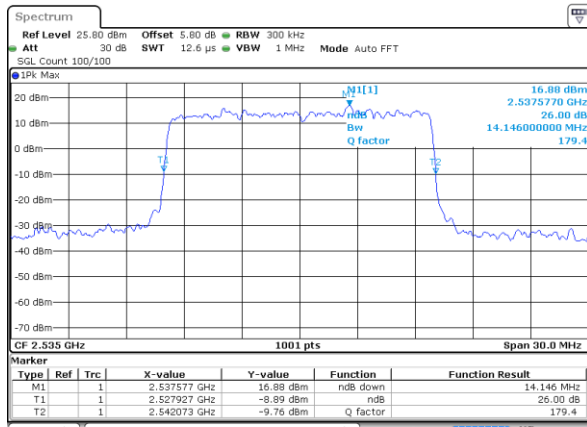
Date: 19.OCT.2019 19:16:46

## Lowest Channel / 15MHz / 16QAM



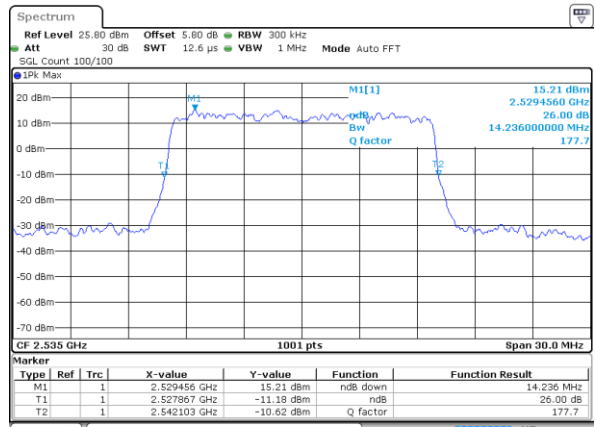
Date: 19.OCT.2019 19:16:26

## Middle Channel / 15MHz / QPSK



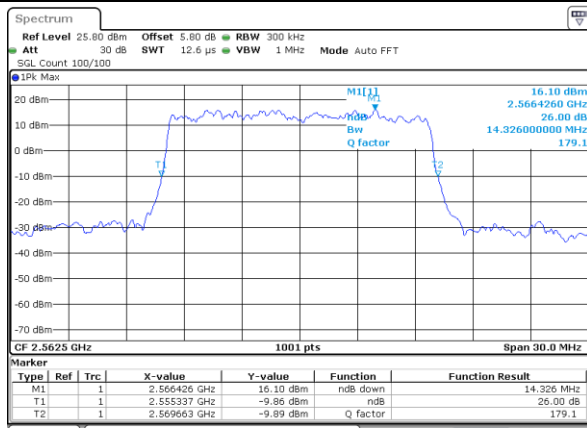
Date: 19.OCT.2019 19:17:06

## Middle Channel / 15MHz / 16QAM



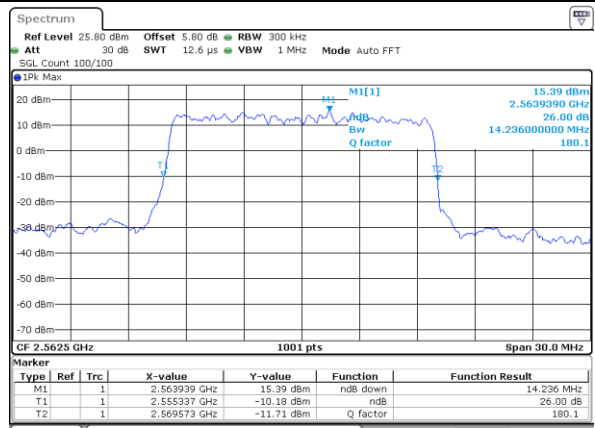
Date: 19.OCT.2019 19:17:26

## Highest Channel / 15MHz / QPSK



Date: 19.OCT.2019 19:18:06

## Highest Channel / 15MHz / 16QAM

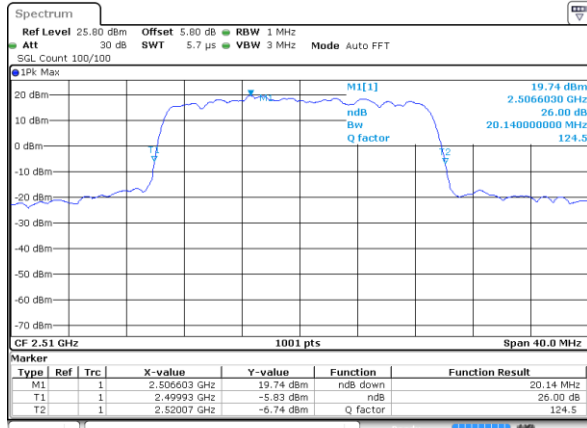


Date: 19.OCT.2019 19:17:46

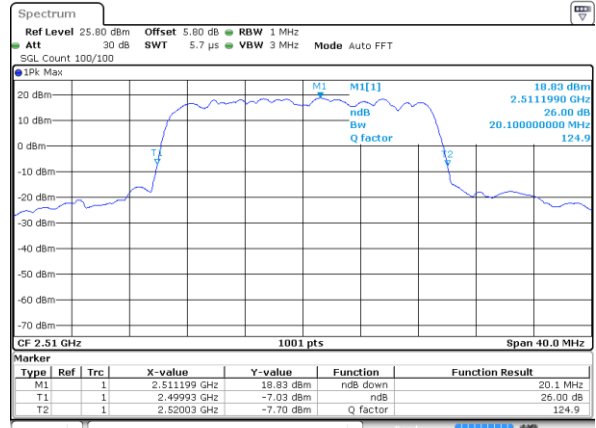


## LTE Band 7

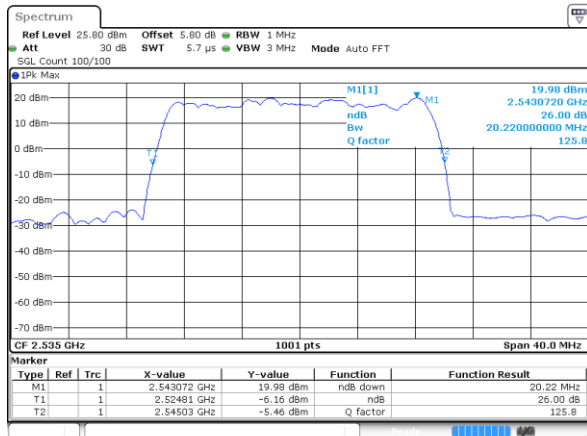
## Lowest Channel / 20MHz / QPSK



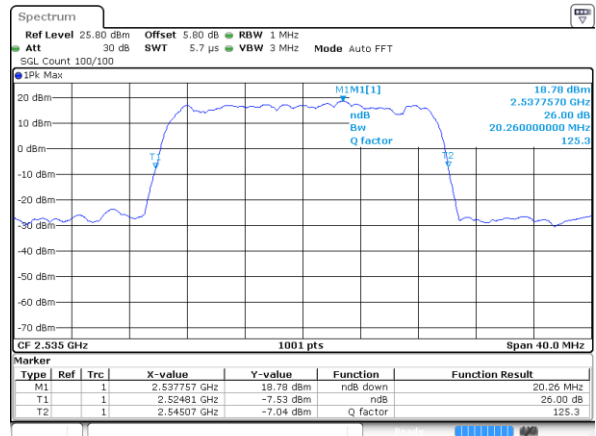
## Lowest Channel / 20MHz / 16QAM



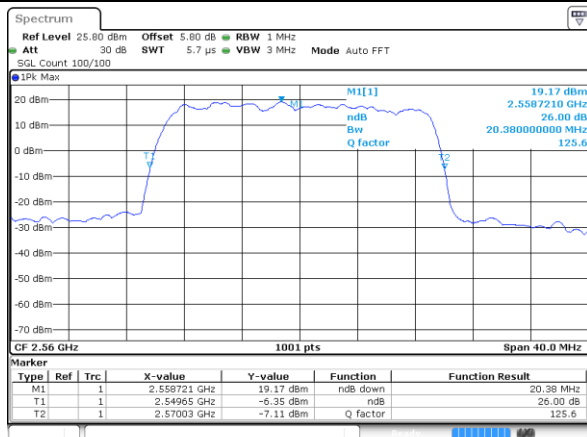
## Middle Channel / 20MHz / QPSK



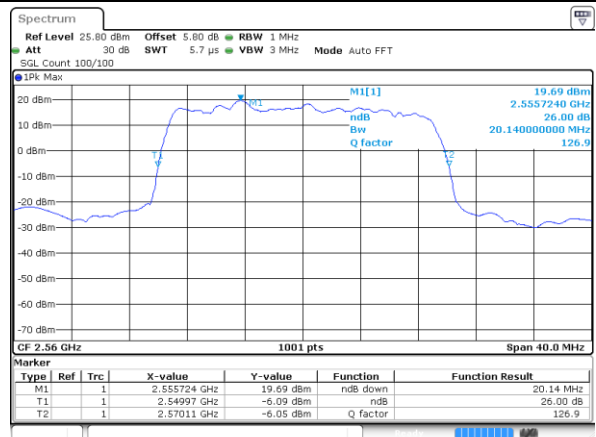
## Middle Channel / 20MHz / 16QAM



## Highest Channel / 20MHz / QPSK



## Highest Channel / 20MHz / 16QAM





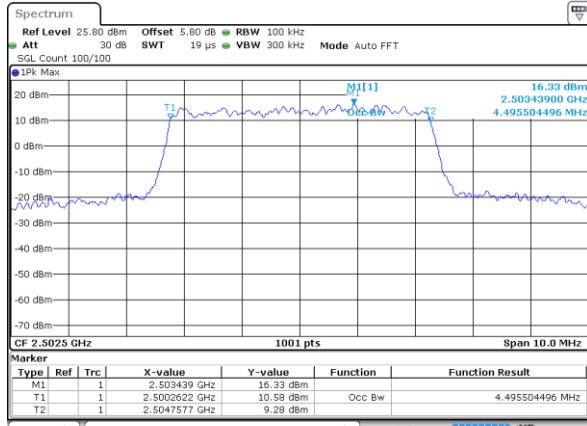
## Occupied Bandwidth

| 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  | -                        | -     | -    | -     | 4.50 | 4.50  | 9.01  | 8.95  | 13.43 | 13.43 | 18.22 | 18.42 |
| Middle CH  | -                        | -     | -    | -     | 4.50 | 4.49  | 9.03  | 9.01  | 13.40 | 13.37 | 18.26 | 18.22 |
| Highest CH | -                        | -     | -    | -     | 4.50 | 4.51  | 9.01  | 8.99  | 13.40 | 13.40 | 18.22 | 18.18 |



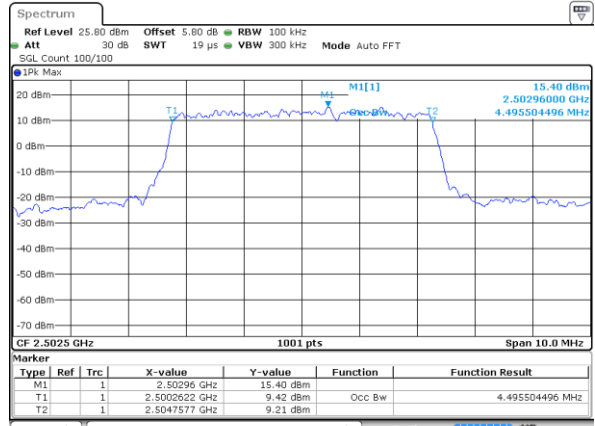
## LTE Band 7

## Lowest Channel / 5MHz / QPSK



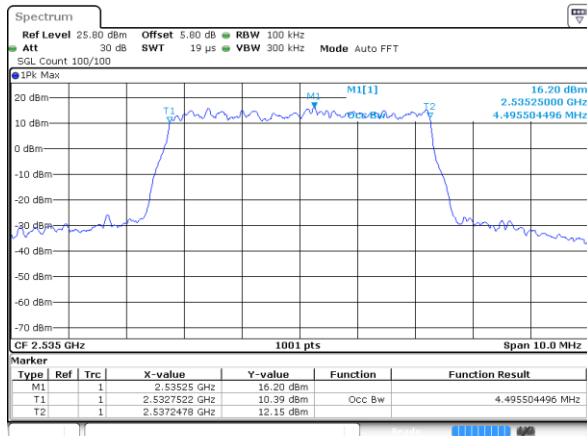
Date: 19.OCT.2019 18:43:14

## Lowest Channel / 5MHz / 16QAM



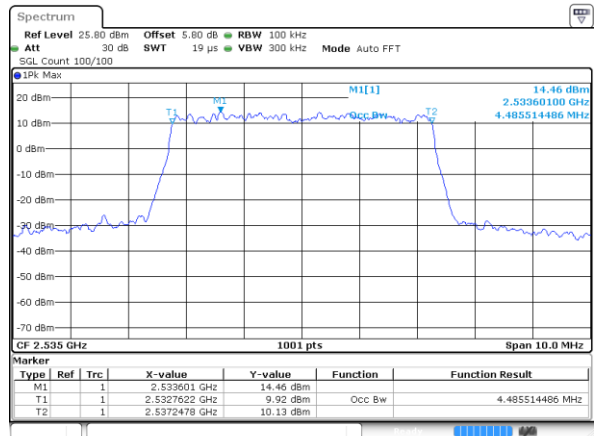
Date: 19.OCT.2019 18:43:34

## Middle Channel / 5MHz / QPSK



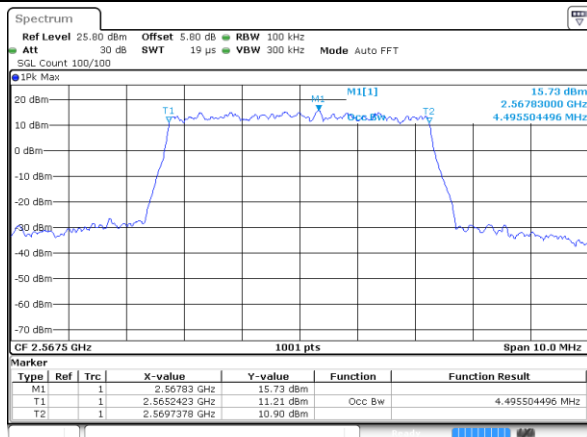
Date: 19.OCT.2019 18:44:14

## Middle Channel / 5MHz / 16QAM



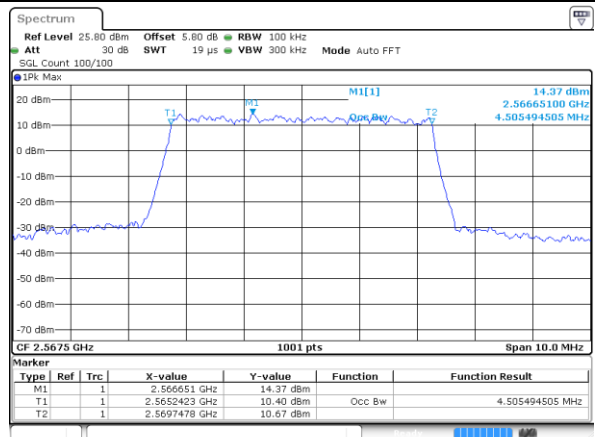
Date: 19.OCT.2019 18:43:54

## Highest Channel / 5MHz / QPSK



Date: 19.OCT.2019 18:44:34

## Highest Channel / 5MHz / 16QAM

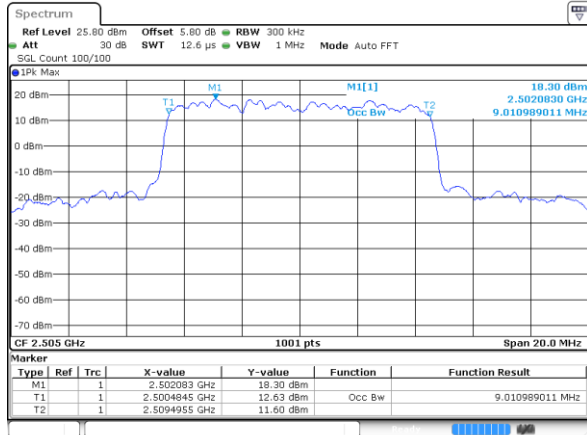


Date: 19.OCT.2019 18:44:54



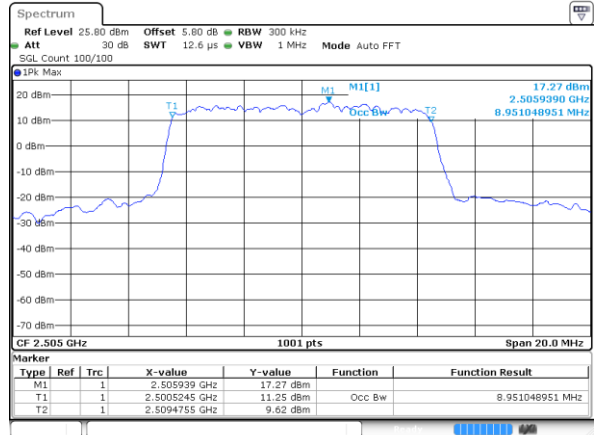
## LTE Band 7

## Lowest Channel / 10MHz / QPSK



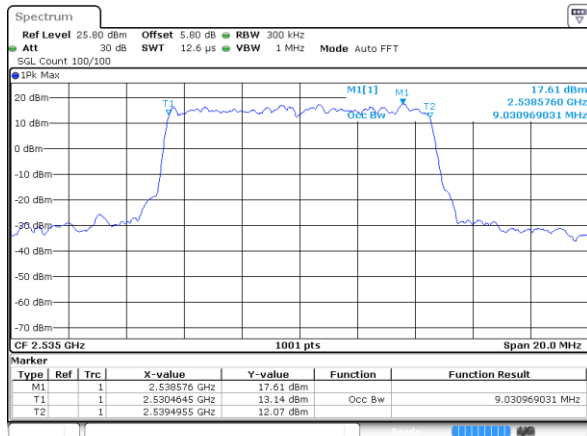
Date: 19.OCT.2019 18:59:45

## Lowest Channel / 10MHz / 16QAM



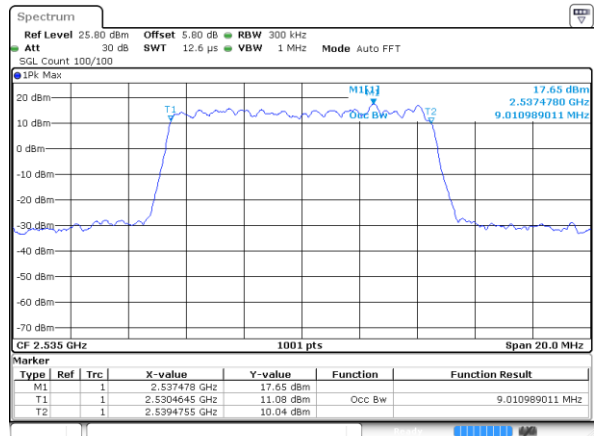
Date: 19.OCT.2019 19:00:06

## Middle Channel / 10MHz / QPSK



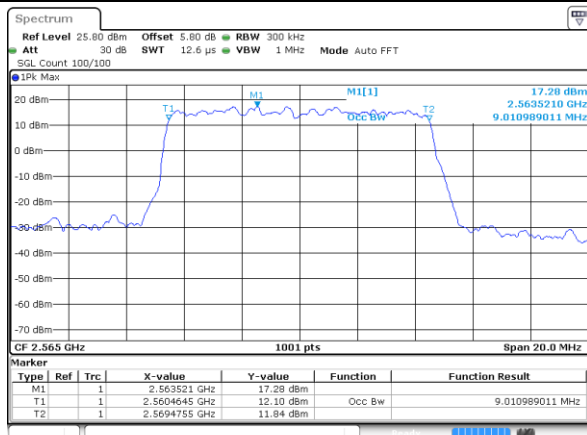
Date: 19.OCT.2019 19:00:46

## Middle Channel / 10MHz / 16QAM



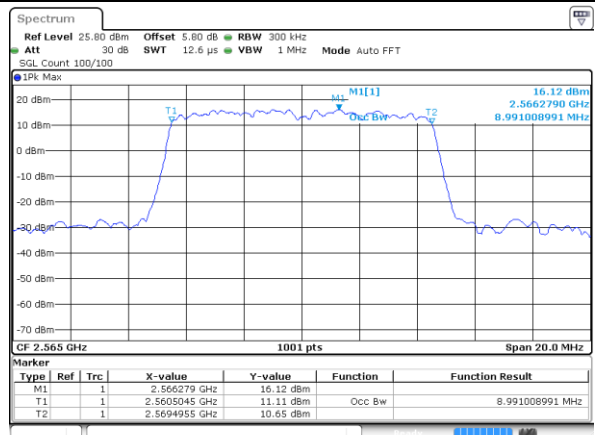
Date: 19.OCT.2019 19:00:26

## Highest Channel / 10MHz / QPSK



Date: 19.OCT.2019 19:01:06

## Highest Channel / 10MHz / 16QAM

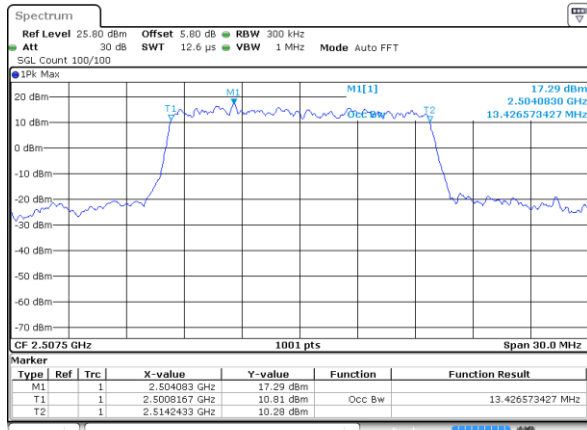


Date: 19.OCT.2019 19:01:26

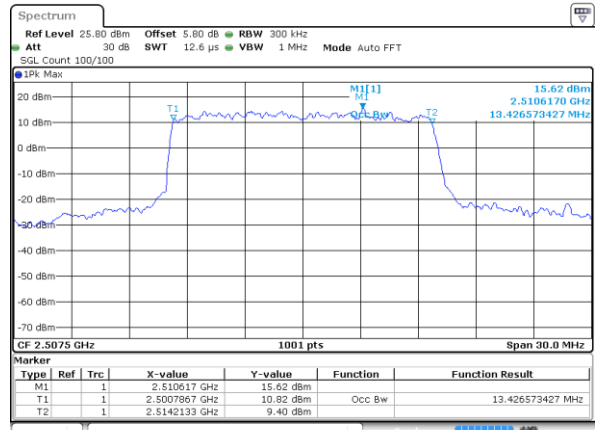


## LTE Band 7

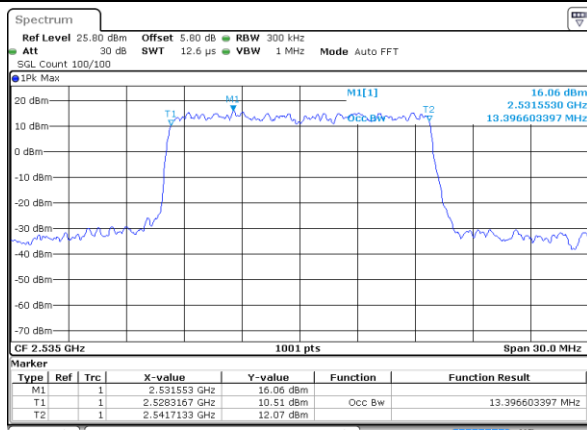
## Lowest Channel / 15MHz / QPSK



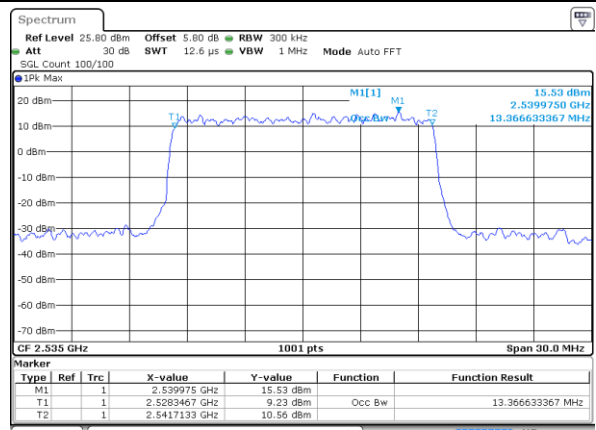
## Lowest Channel / 15MHz / 16QAM



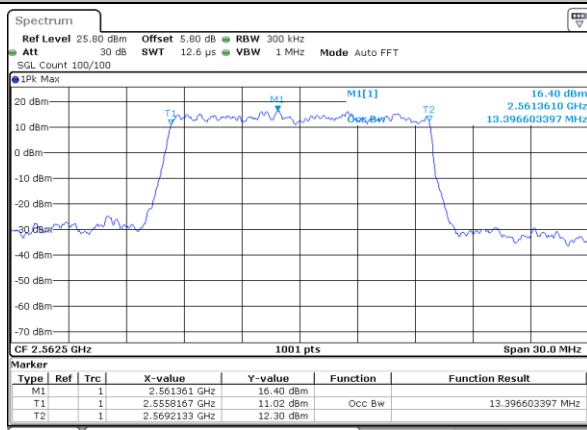
## Middle Channel / 15MHz / QPSK



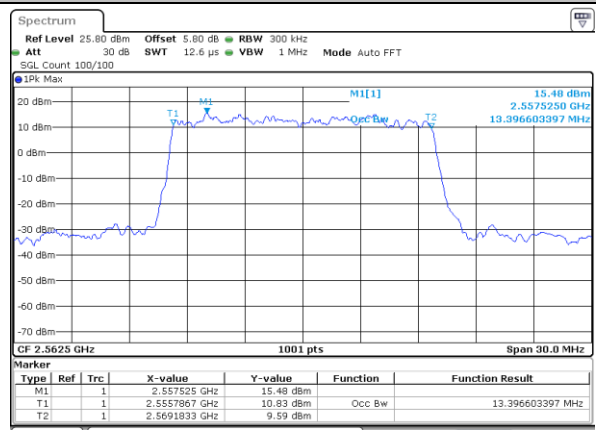
## Middle Channel / 15MHz / 16QAM



## Highest Channel / 15MHz / QPSK



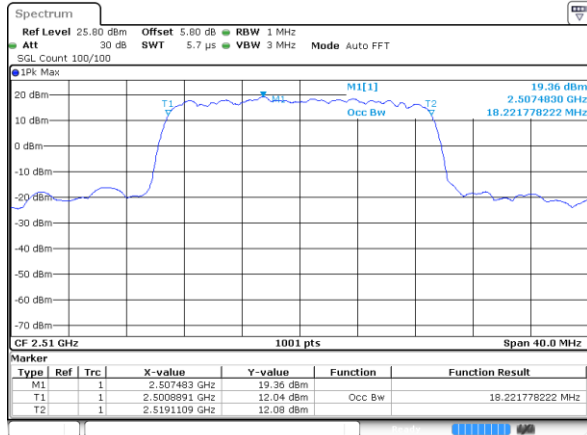
## Highest Channel / 15MHz / 16QAM





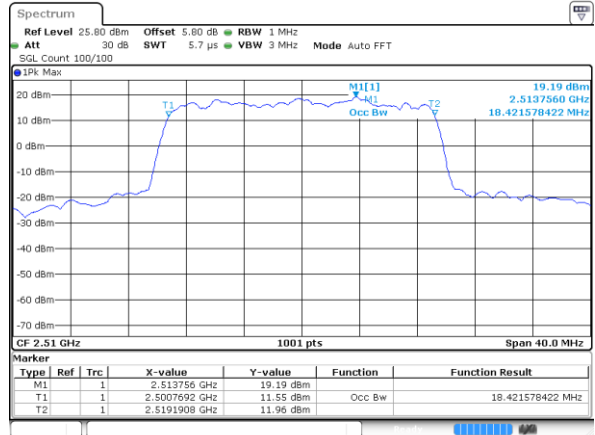
## LTE Band 7

## Lowest Channel / 20MHz / QPSK



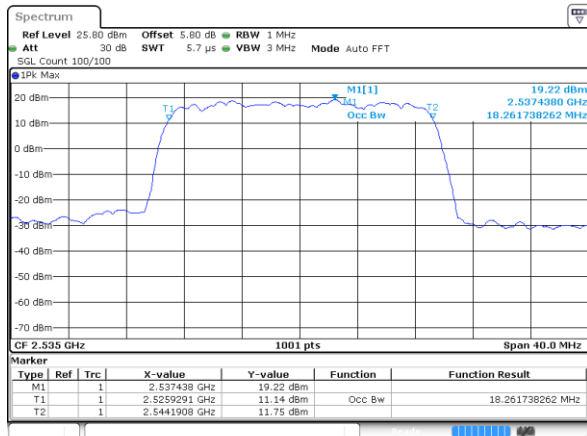
Date: 19.OCT.2019 19:33:08

## Lowest Channel / 20MHz / 16QAM



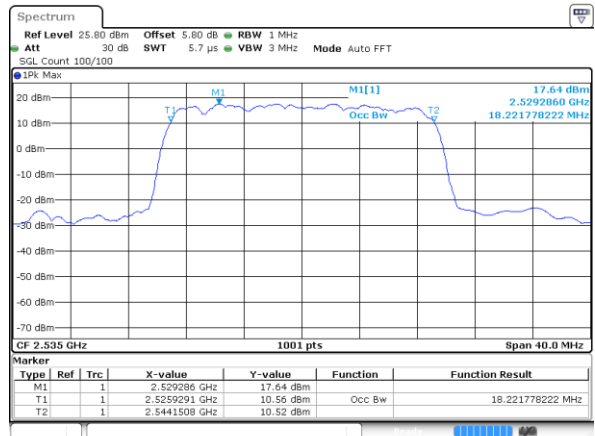
Date: 19.OCT.2019 19:32:47

## Middle Channel / 20MHz / QPSK



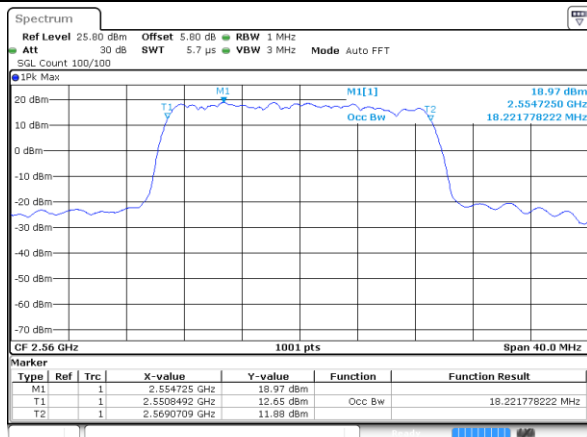
Date: 19.OCT.2019 19:33:28

## Middle Channel / 20MHz / 16QAM



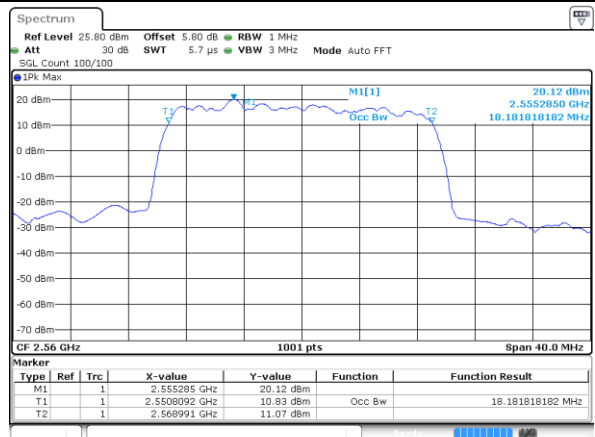
Date: 19.OCT.2019 19:33:48

## Highest Channel / 20MHz / QPSK



Date: 19.OCT.2019 19:34:29

## Highest Channel / 20MHz / 16QAM



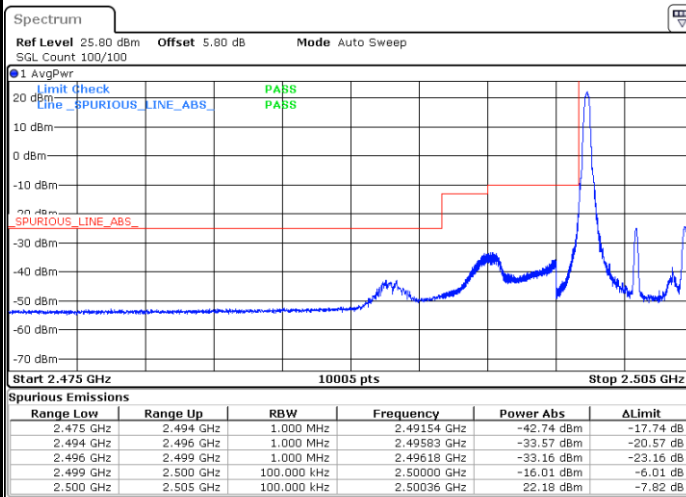
Date: 19.OCT.2019 19:34:08



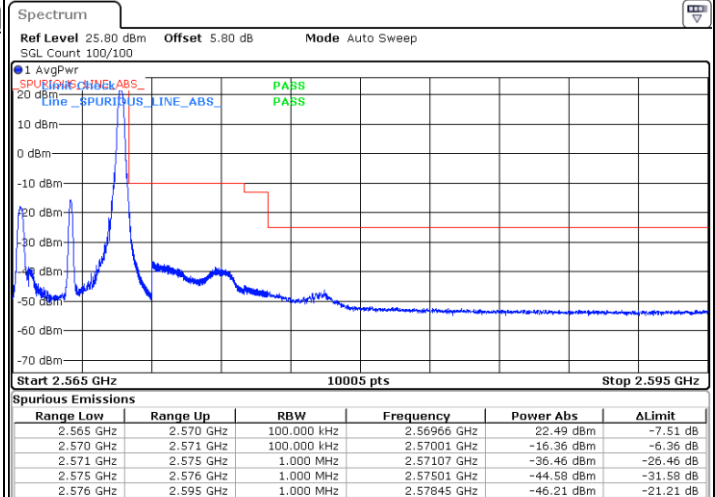
## Conducted Band Edge

### LTE Band 7 / 5MHz / QPSK

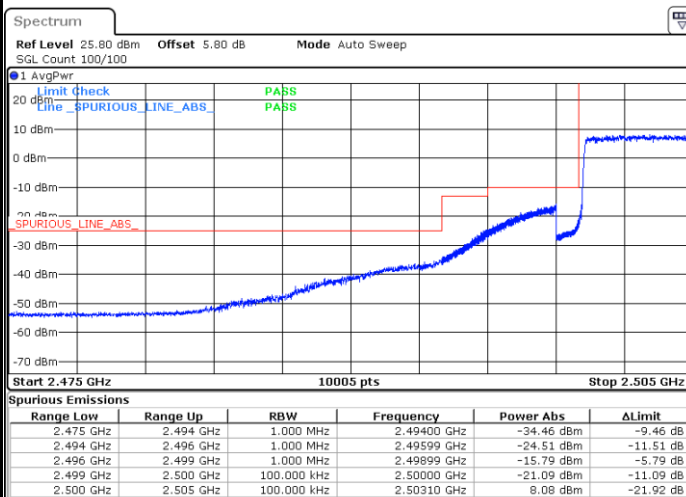
#### Lowest Band Edge / 1 RB



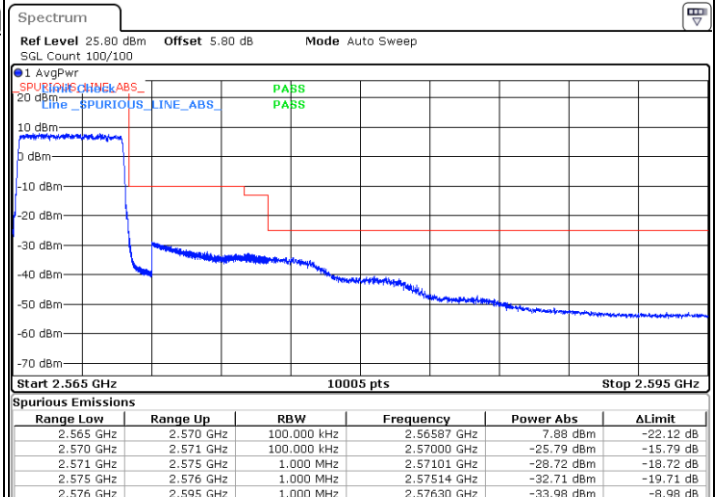
#### Highest Band Edge / 1 RB



#### Lowest Band Edge / Full RB



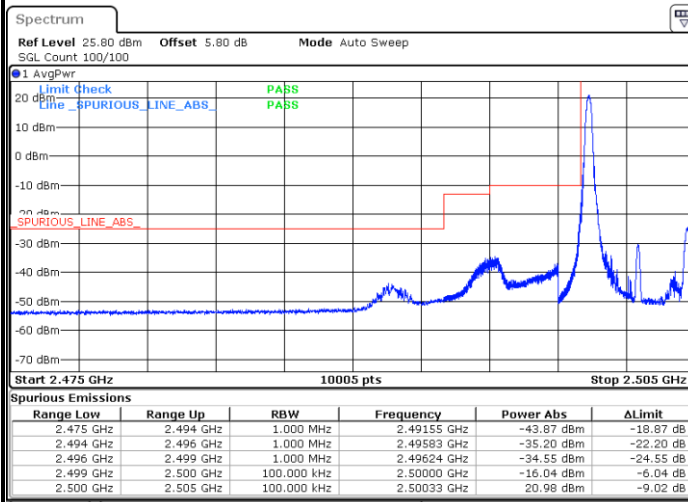
#### Highest Band Edge / Full RB



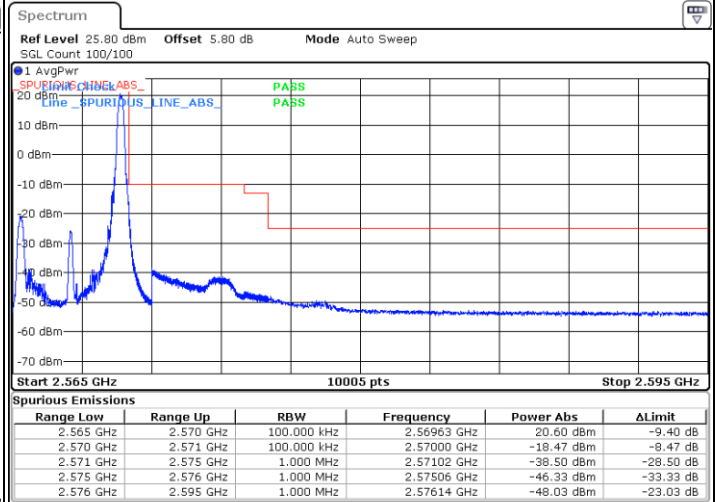


## LTE Band 7 / 5MHz / 16QAM

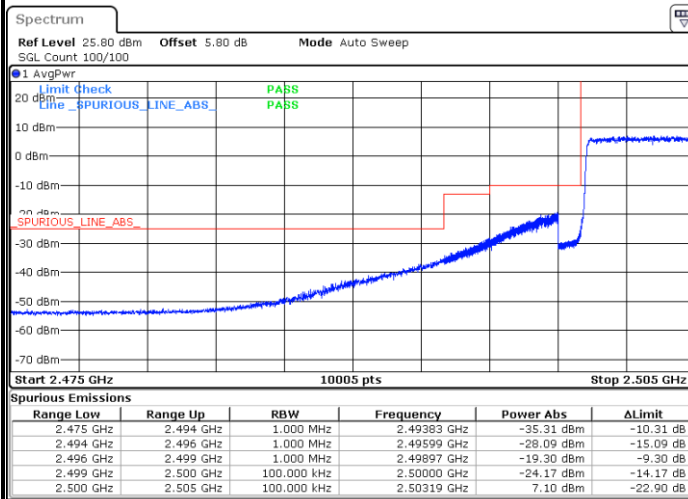
## Lowest Band Edge / 1 RB



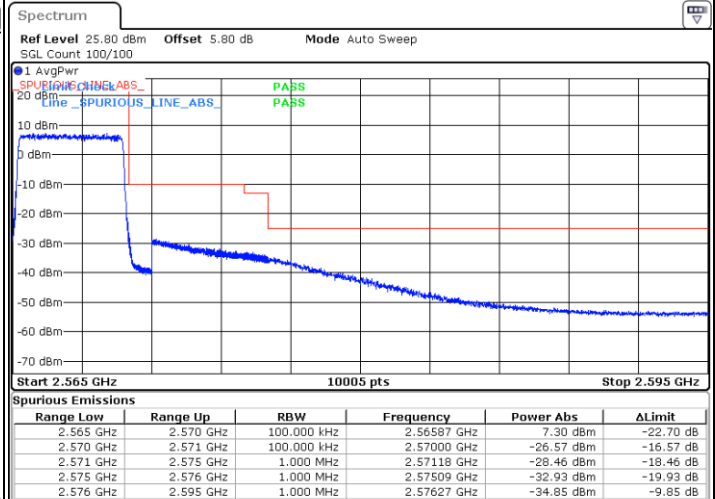
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



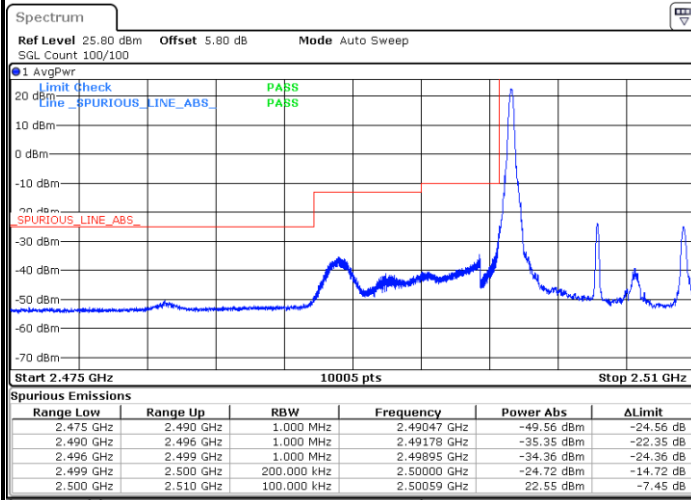
## Highest Band Edge / Full RB



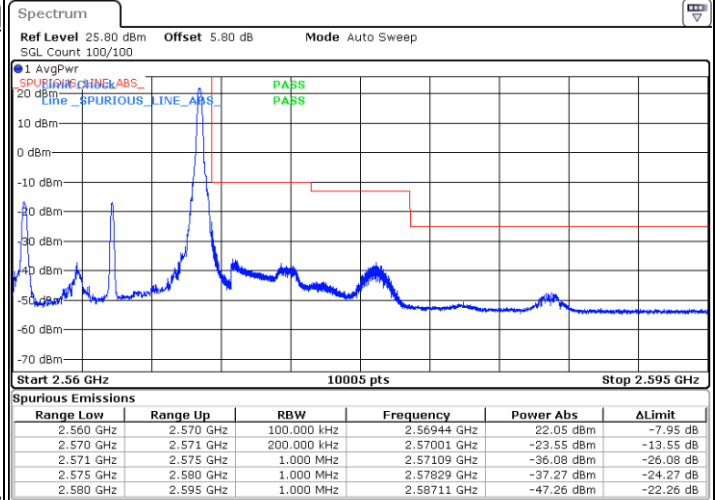


## LTE Band 7 / 10MHz / QPSK

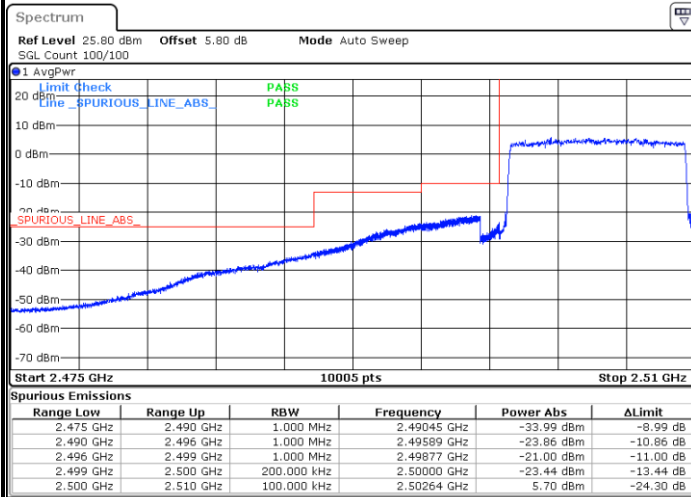
## Lowest Band Edge / 1 RB



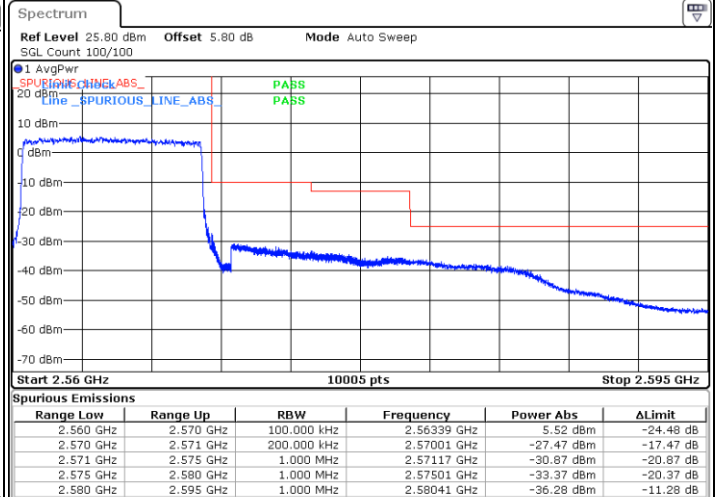
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



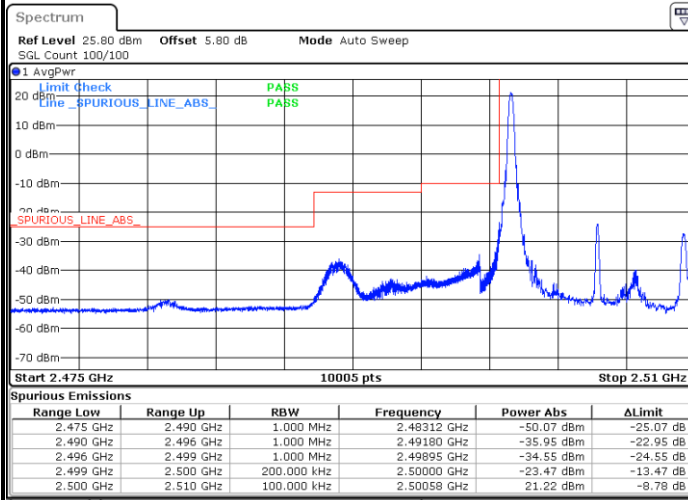
## Highest Band Edge / Full RB



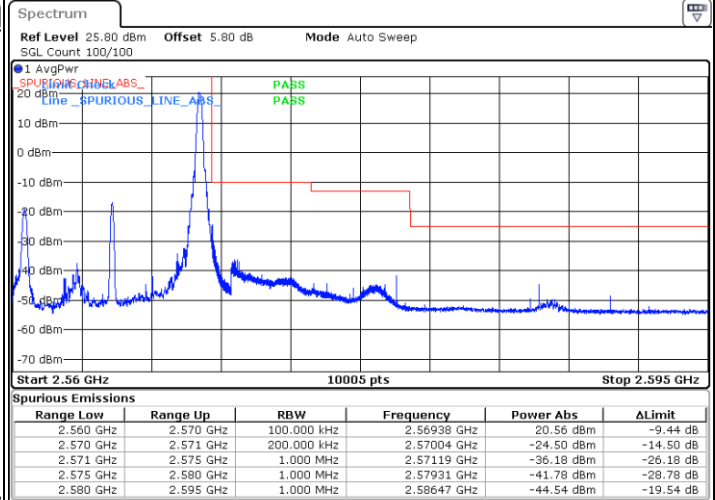


## LTE Band 7 / 10MHz / 16QAM

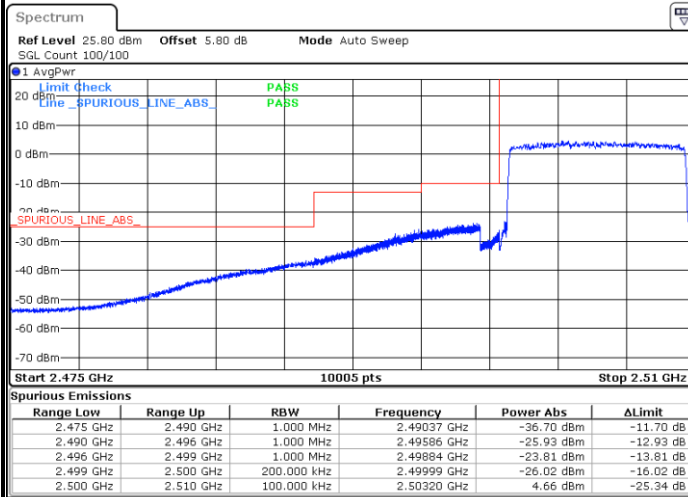
## Lowest Band Edge / 1 RB



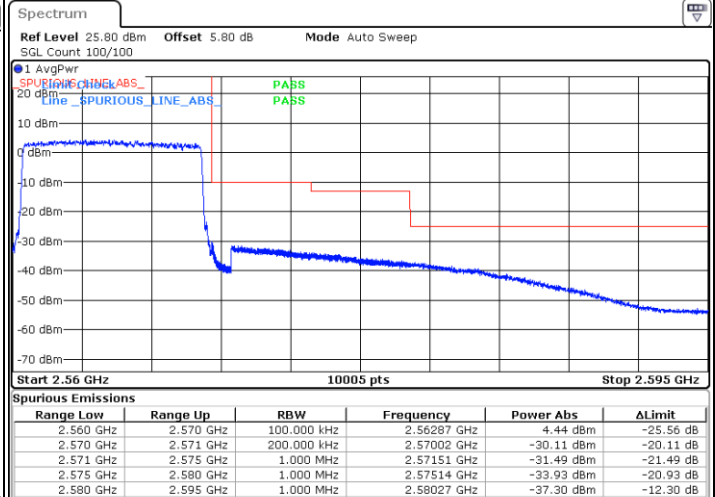
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



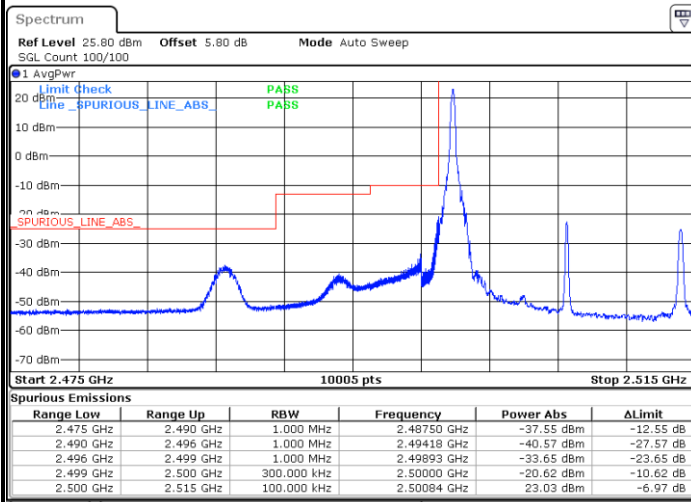
## Highest Band Edge / Full RB



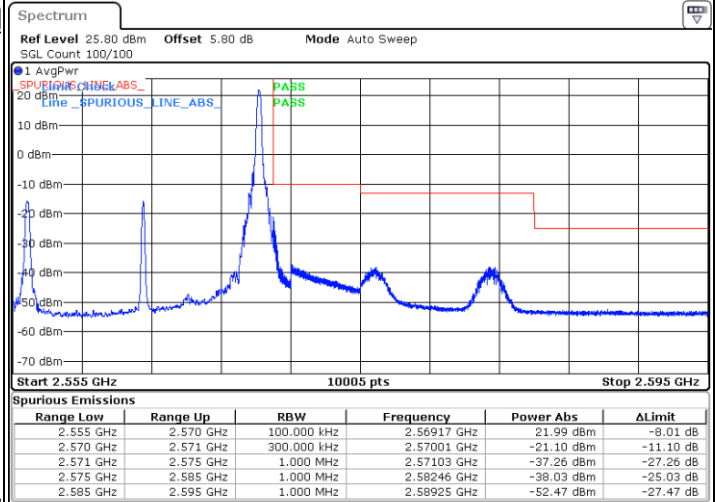


## LTE Band 7 / 15MHz / QPSK

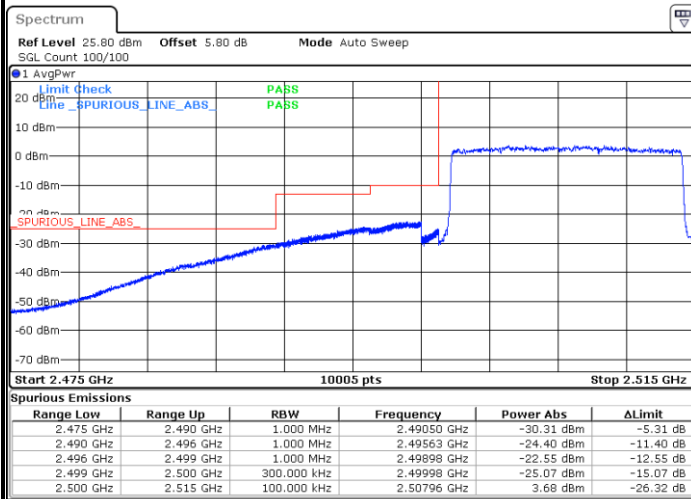
## Lowest Band Edge / 1 RB



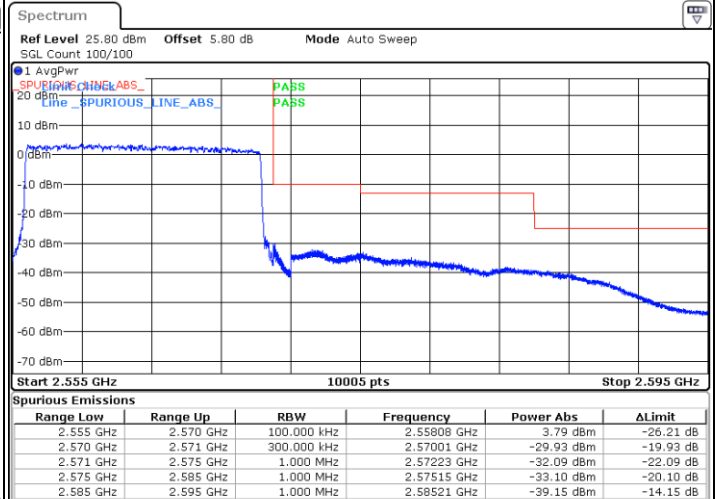
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



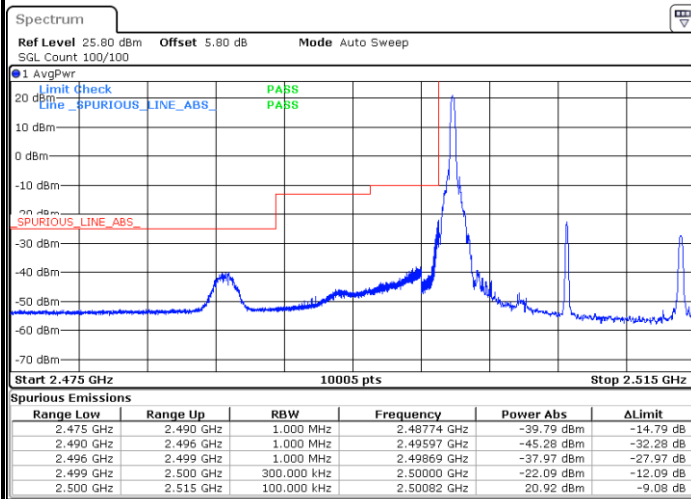
## Highest Band Edge / Full RB



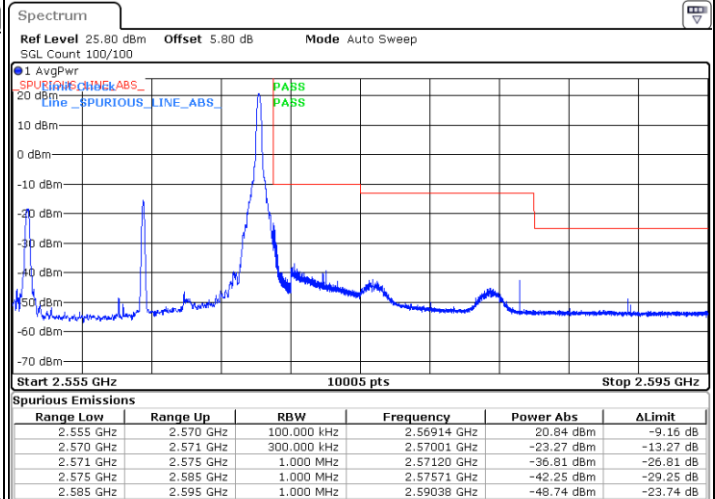


## LTE Band 7 / 15MHz / 16QAM

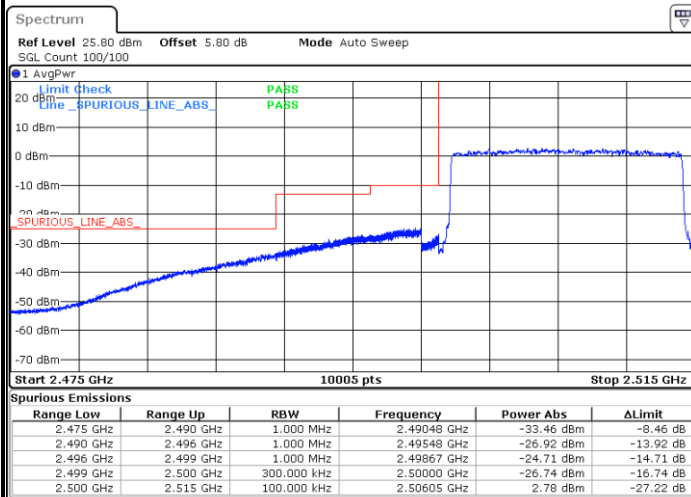
## Lowest Band Edge / 1 RB



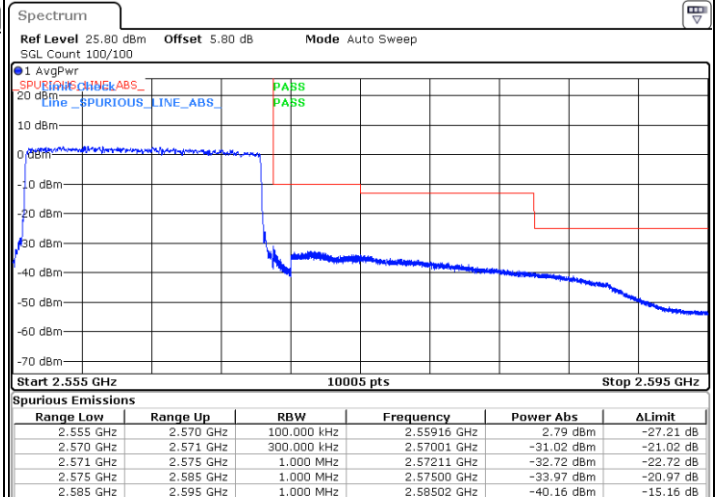
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



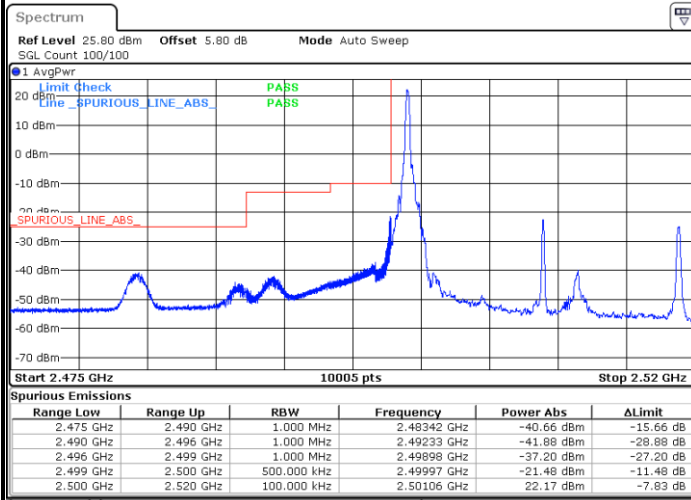
## Highest Band Edge / Full RB



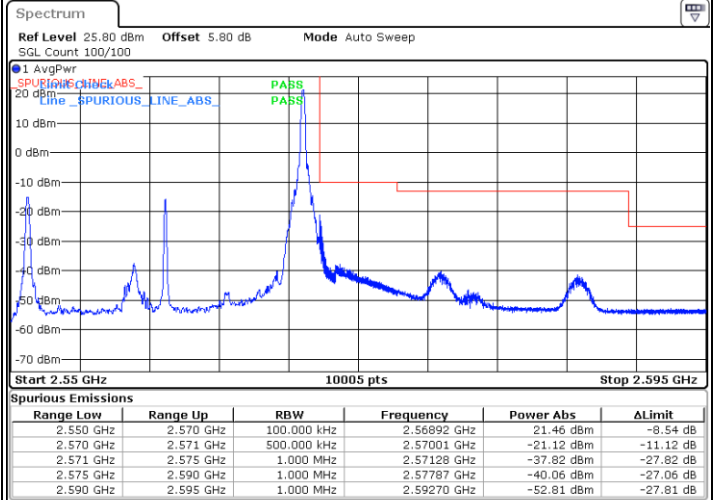


## LTE Band 7 / 20MHz / QPSK

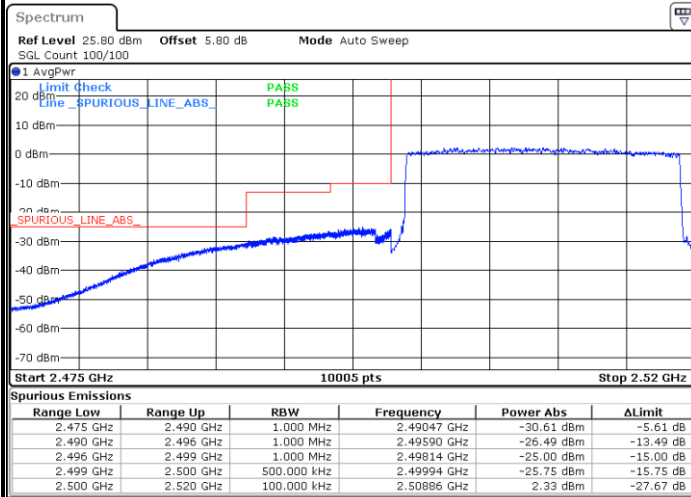
## Lowest Band Edge / 1 RB



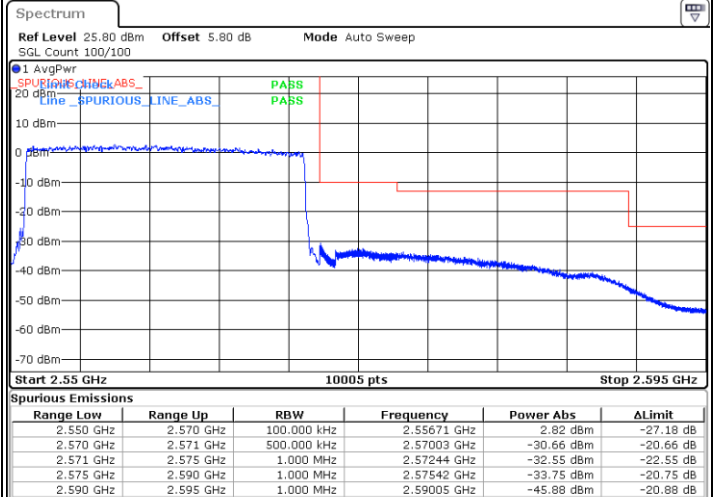
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



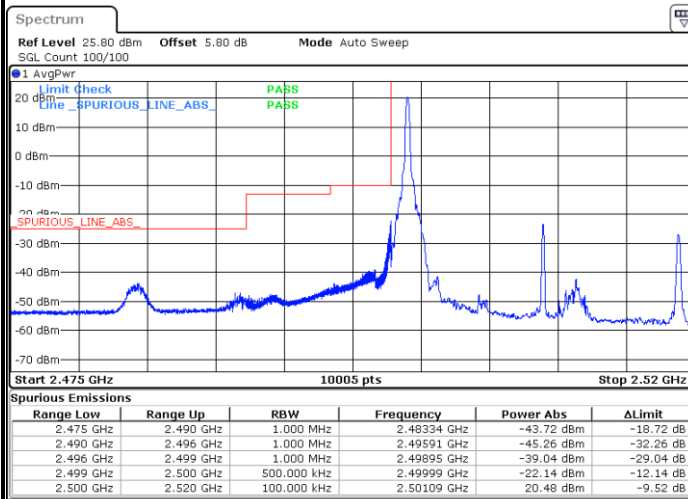
## Highest Band Edge / Full RB



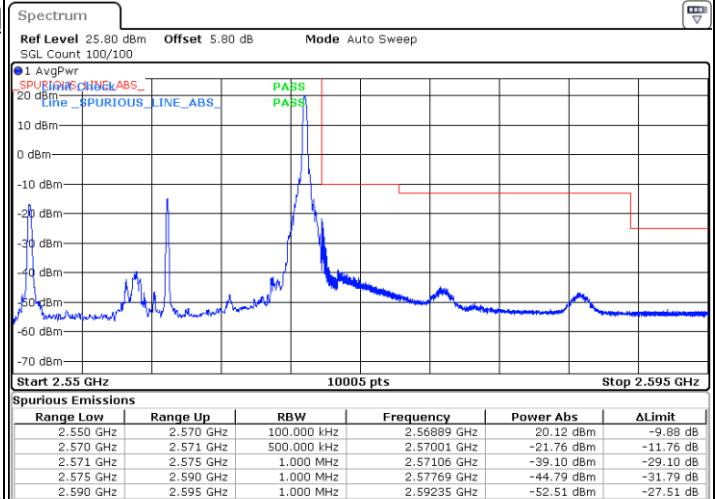


## LTE Band 7 / 20MHz / 16QAM

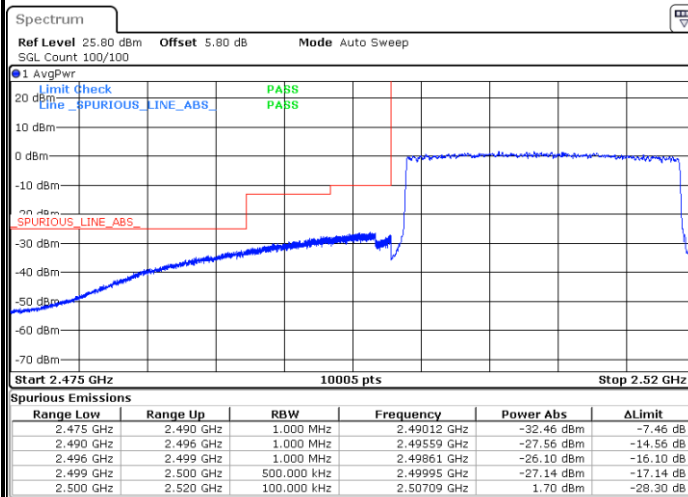
## Lowest Band Edge / 1 RB



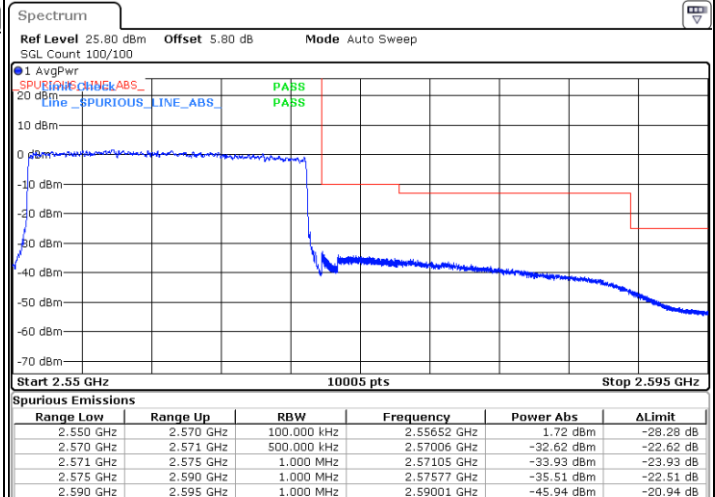
## Highest Band Edge / 1RB



## Lowest Band Edge / Full RB

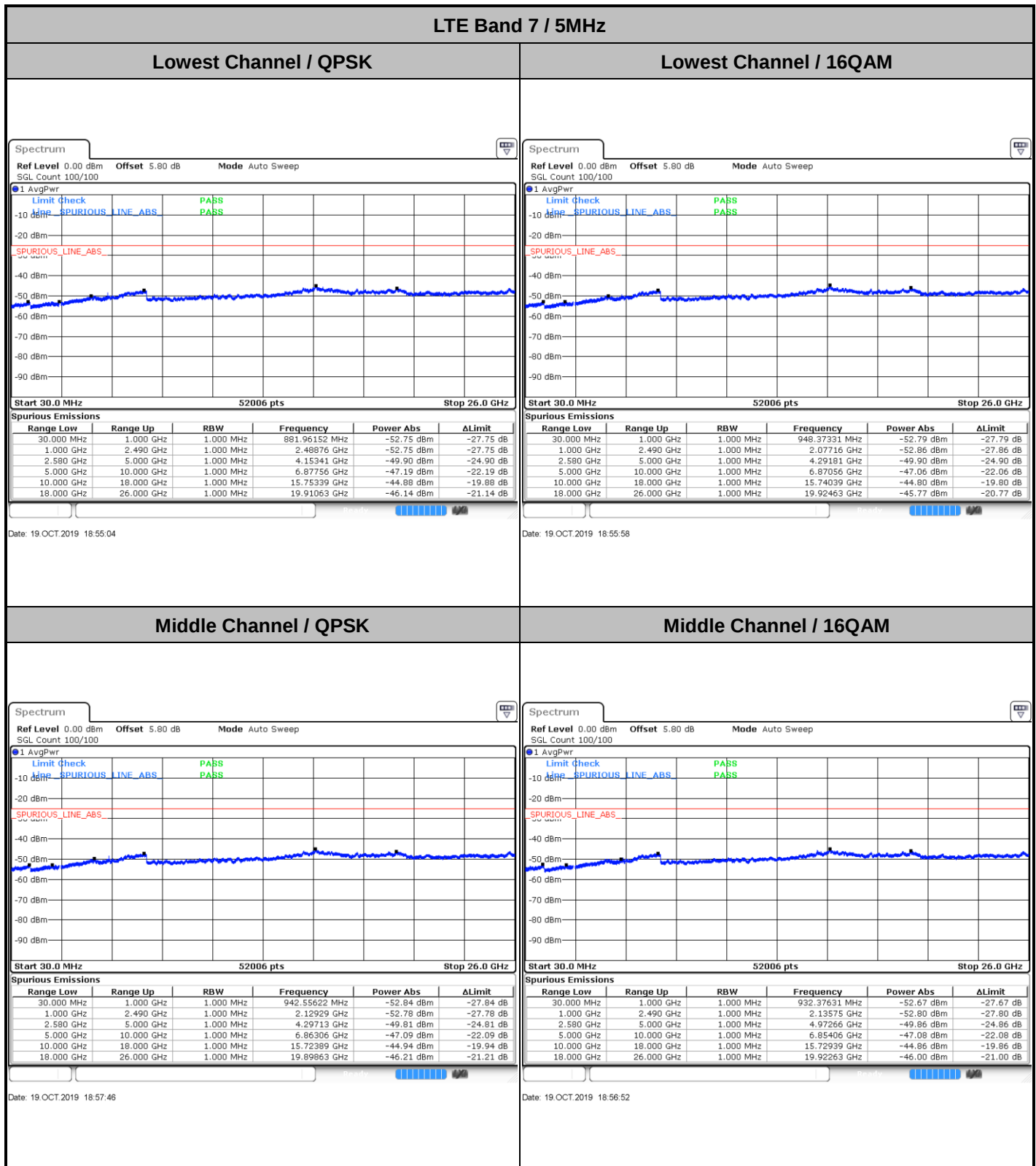


## Highest Band Edge / Full RB





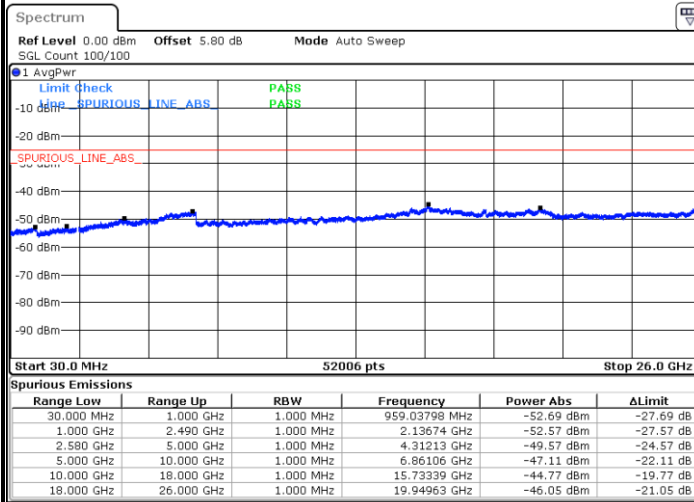
# Conducted Spurious Emission





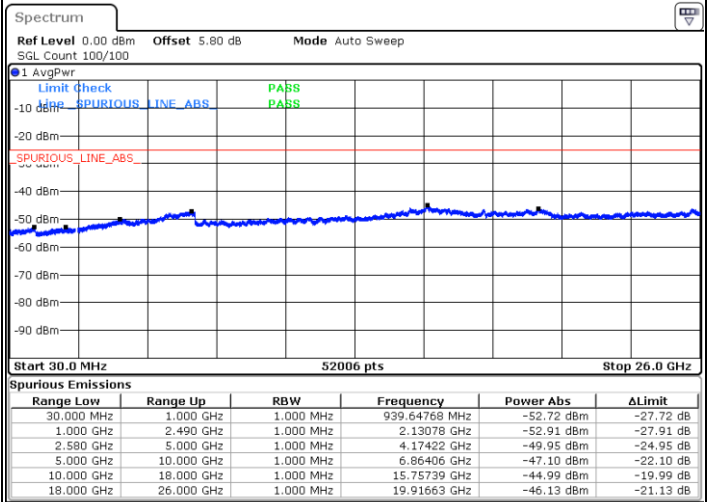
## LTE Band 7 / 5MHz

## Highest Channel / QPSK



Date: 19.OCT.2019 18:58:40

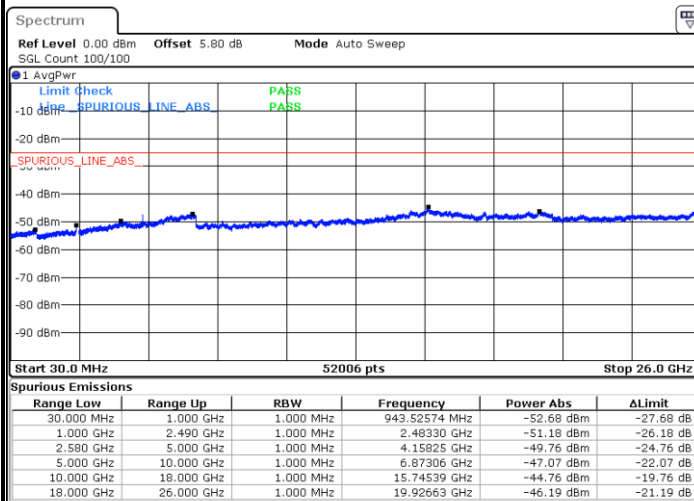
## Highest Channel / 16QAM



Date: 19.OCT.2019 18:59:35

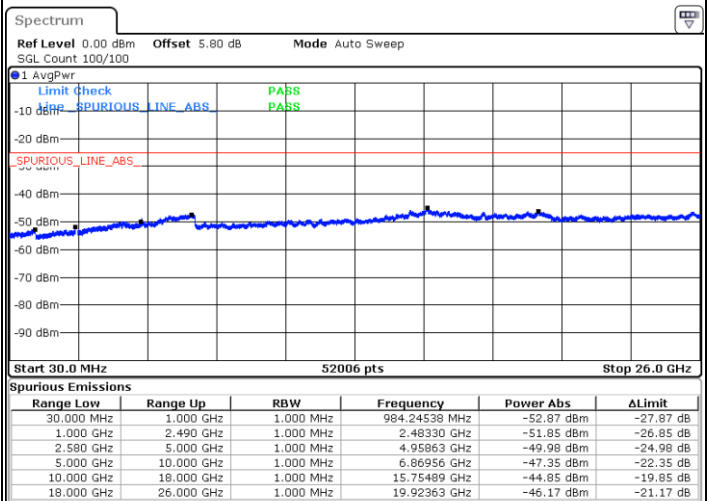
## LTE Band 7 / 10MHz

## Lowest Channel / QPSK



Date: 19.OCT.2019 19:11:34

## Lowest Channel / 16QAM

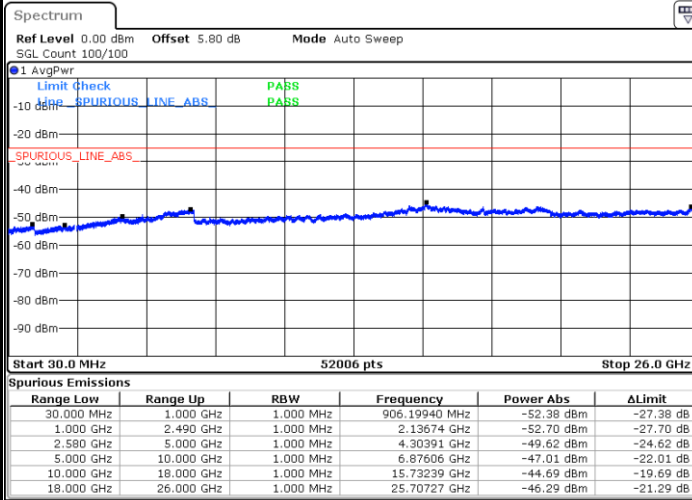


Date: 19.OCT.2019 19:12:28



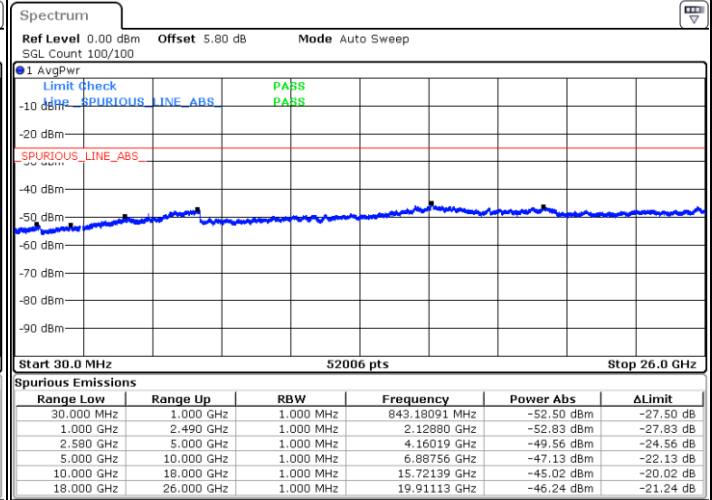
## LTE Band 7 / 10MHz

## Middle Channel / QPSK



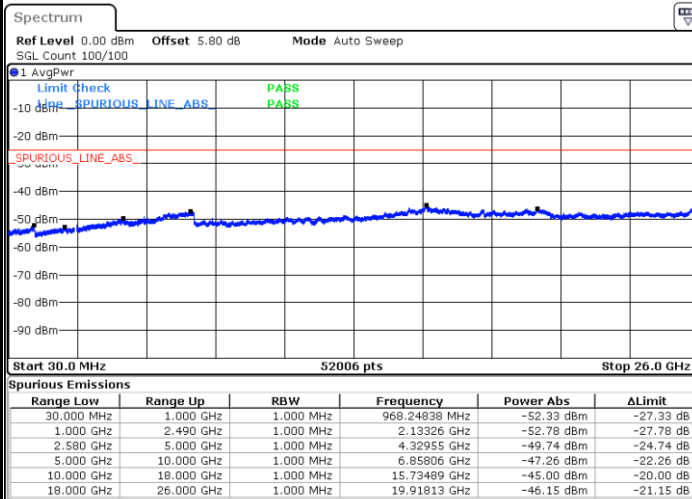
Date: 19.OCT.2019 19:14:17

## Middle Channel / 16QAM



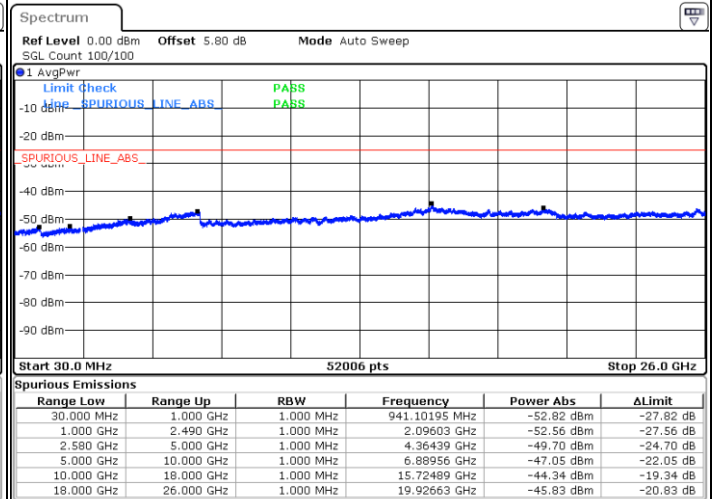
Date: 19.OCT.2019 19:13:23

## Highest Channel / QPSK



Date: 19.OCT.2019 19:15:11

## Highest Channel / 16QAM



Date: 19.OCT.2019 19:16:05