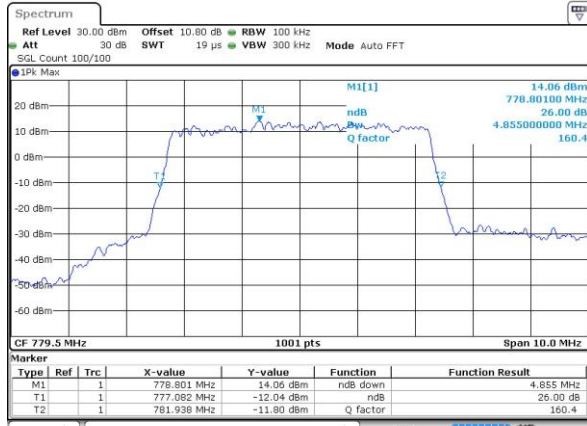


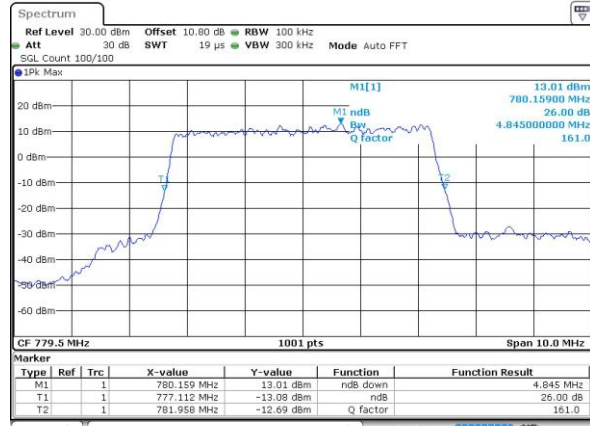


## LTE Band 13

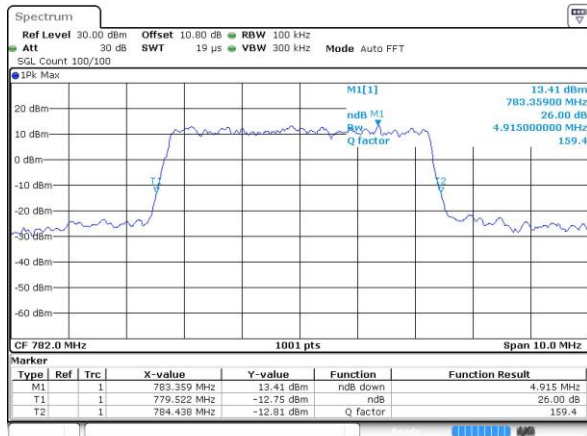
## Lowest Channel / 5MHz / QPSK



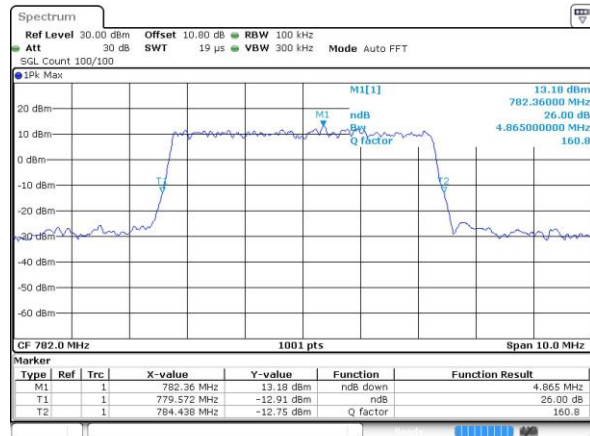
## Lowest Channel / 5MHz / 16QAM



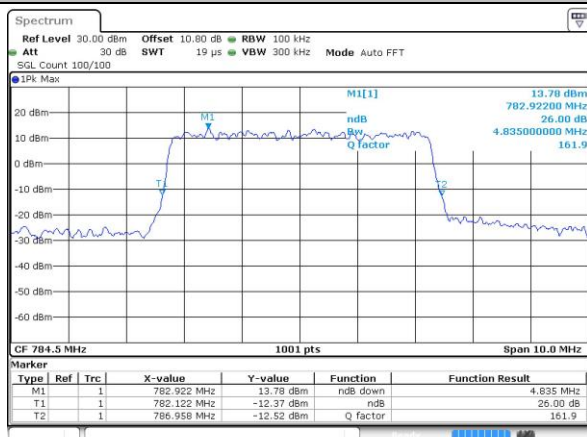
## Middle Channel / 5MHz / QPSK



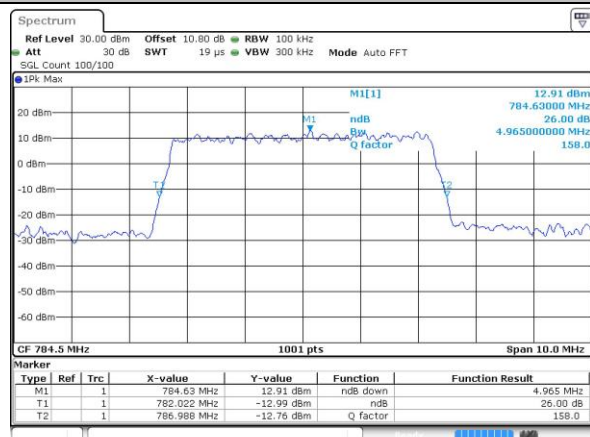
## Middle Channel / 5MHz / 16QAM



## Highest Channel / 5MHz / QPSK



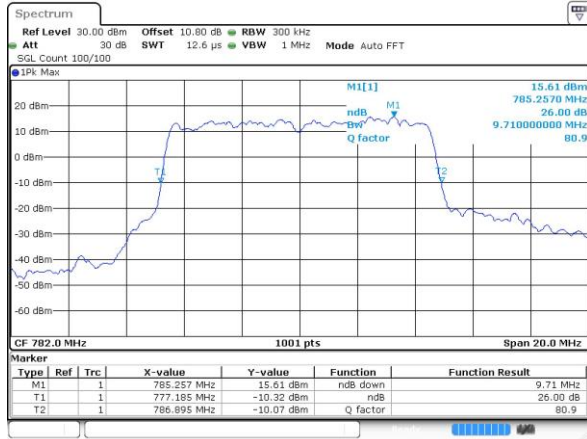
## Highest Channel / 5MHz / 16QAM



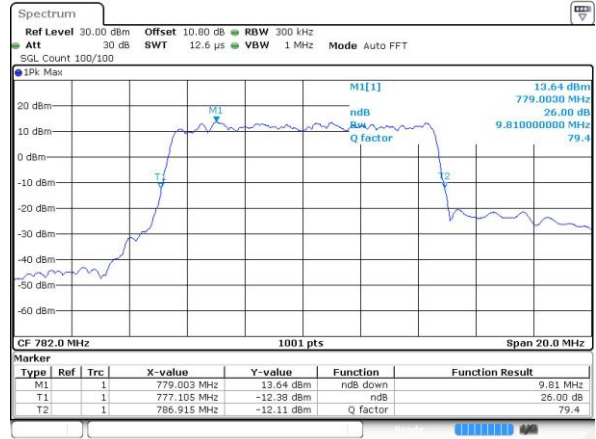


LTE Band 13

Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM





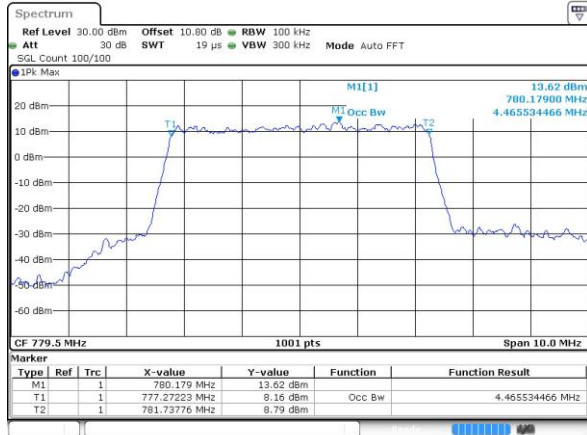
## Occupied Bandwidth

| Mode       | LTE Band 13 : 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  | -                         | -     | -    | -     | 4.47 | 4.49  | -     | -     | -     | -     | -     | -     |
| Middle CH  | -                         | -     | -    | -     | 4.5  | 4.51  | 8.99  | 8.99  | -     | -     | -     | -     |
| Highest CH | -                         | -     | -    | -     | 4.48 | 4.49  | -     | -     | -     | -     | -     | -     |



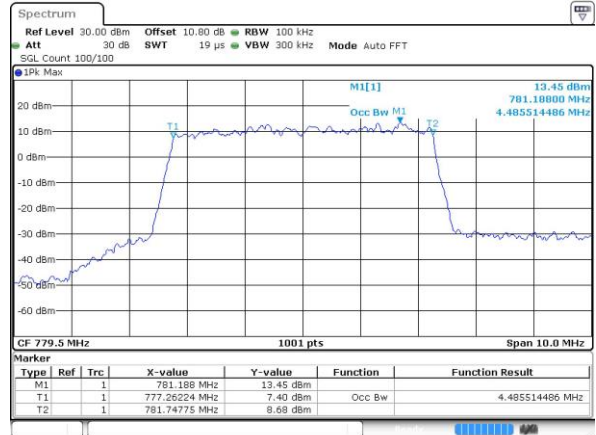
## LTE Band 13

## Lowest Channel / 5MHz / QPSK



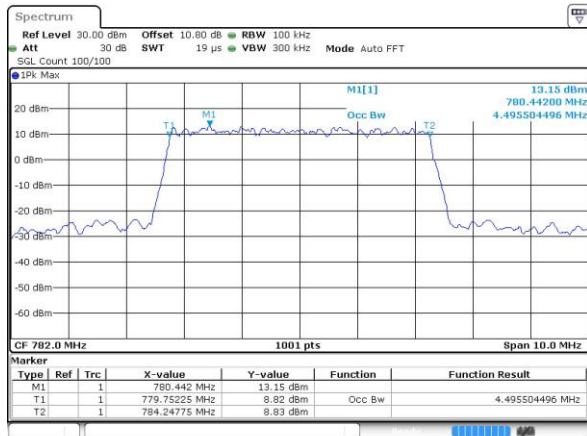
Date: 9 APR 2018 20:21:16

## Lowest Channel / 5MHz / 16QAM



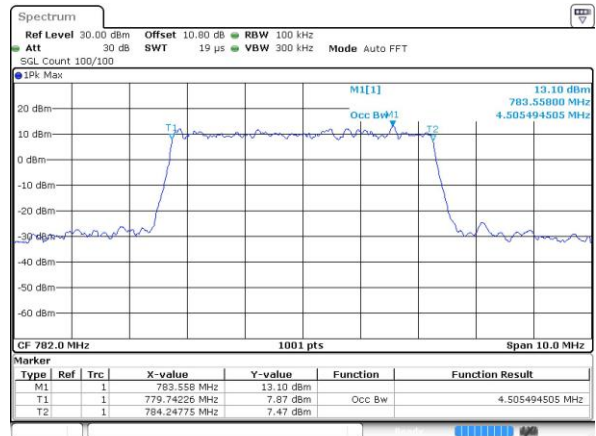
Date: 9 APR 2018 20:21:26

## Middle Channel / 5MHz / QPSK



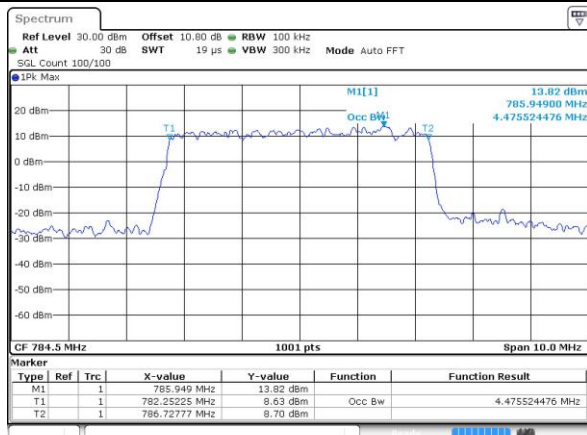
Date: 9 APR 2018 20:32:43

## Middle Channel / 5MHz / 16QAM



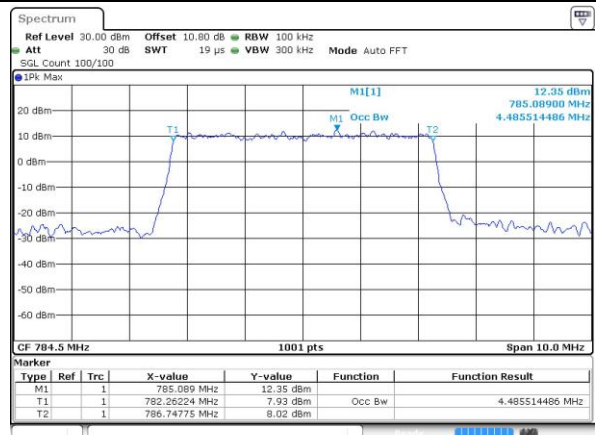
Date: 9 APR 2018 20:32:33

## Highest Channel / 5MHz / QPSK



Date: 9 APR 2018 20:32:54

## Highest Channel / 5MHz / 16QAM

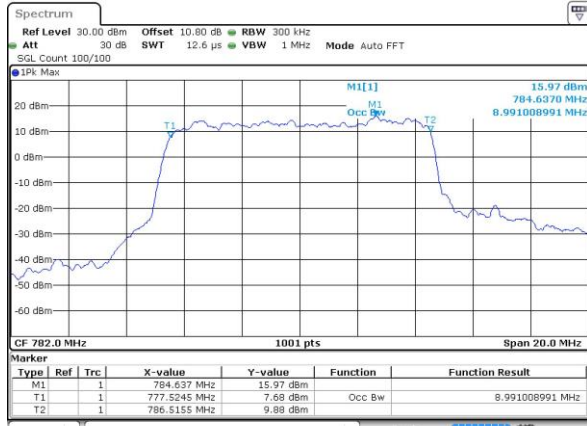


Date: 9 APR 2018 20:33:04



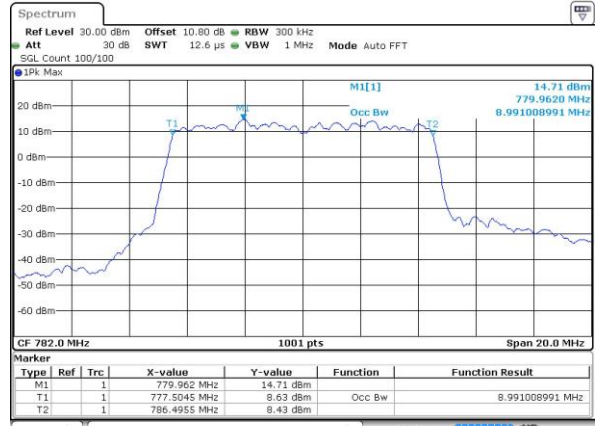
## LTE Band 13

## Middle Channel / 10MHz / QPSK



Date: 9 APR 2018 20:42:01

## Middle Channel / 10MHz / 16QAM



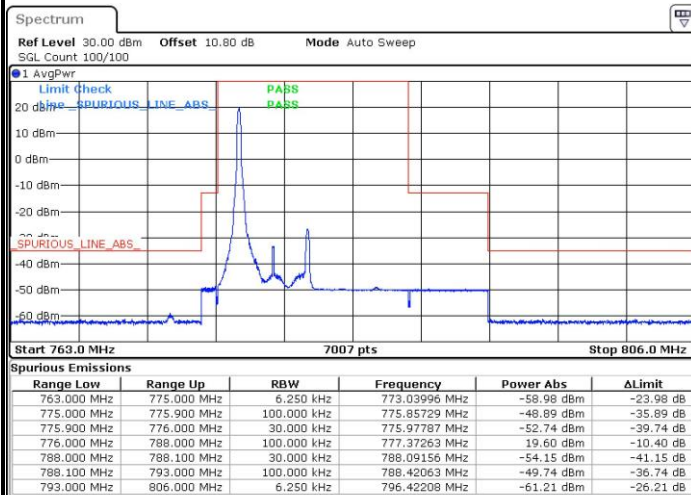
Date: 9 APR 2018 20:42:12



# Conducted Band Edge

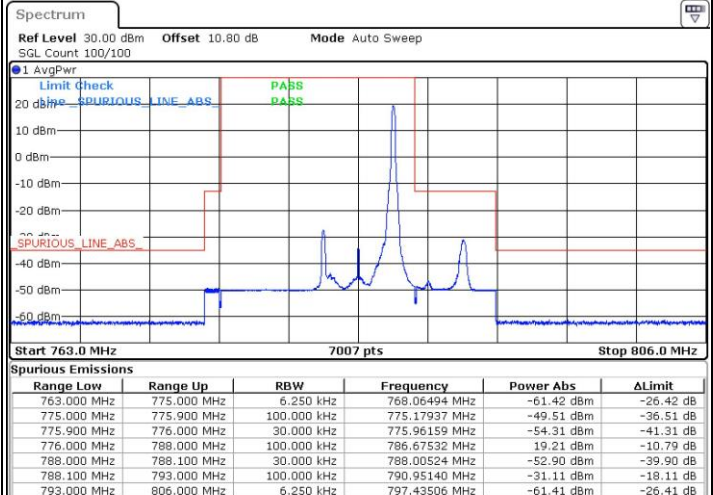
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



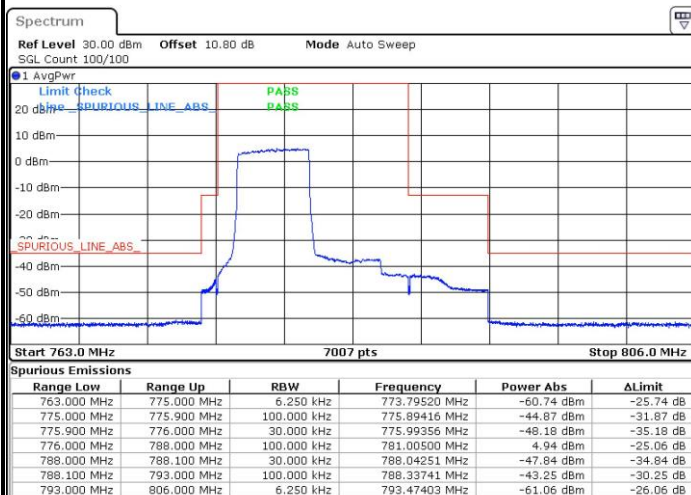
Date: 9 APR 2018 20:28:25

### Highest Band Edge / 1 RB



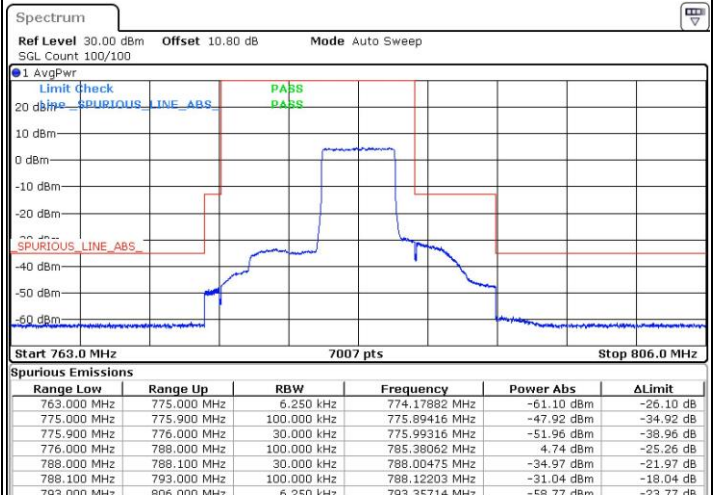
Date: 9 APR 2018 20:40:02

### Lowest Band Edge / Full RB



Date: 9 APR 2018 20:23:26

### Highest Band Edge / Full RB

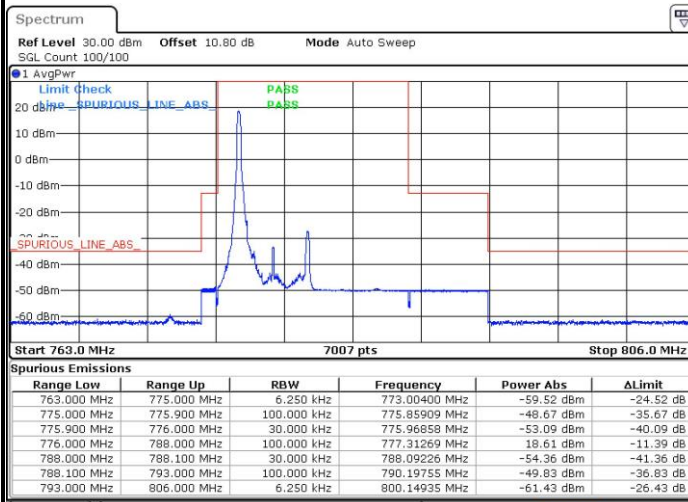


Date: 9 APR 2018 20:35:04

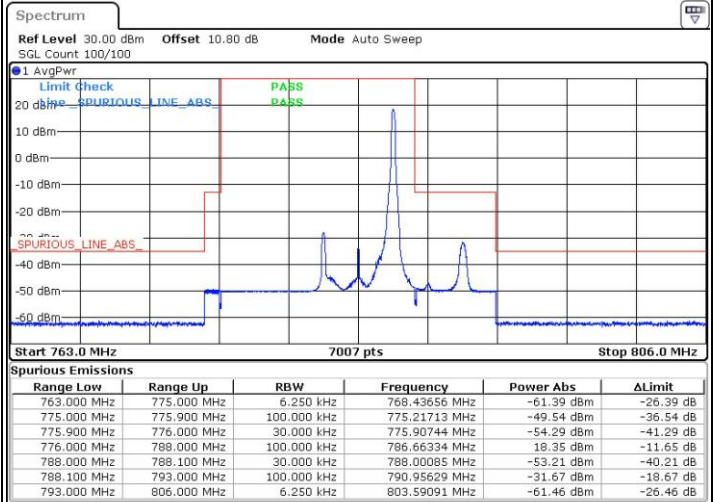


## LTE Band 13 / 5MHz / 16QAM

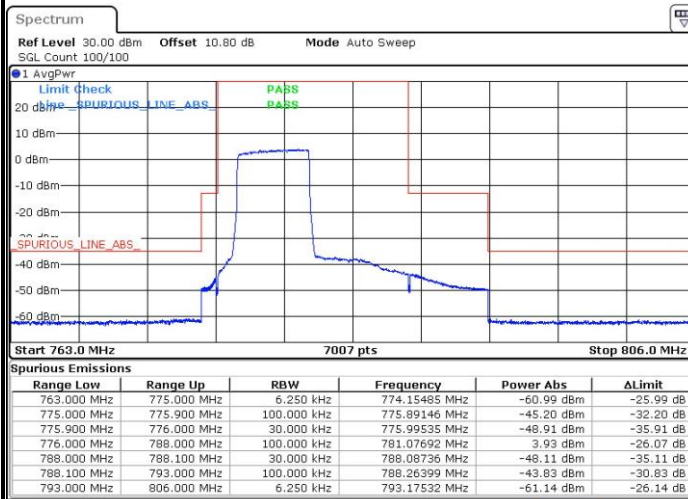
## Lowest Band Edge / 1 RB



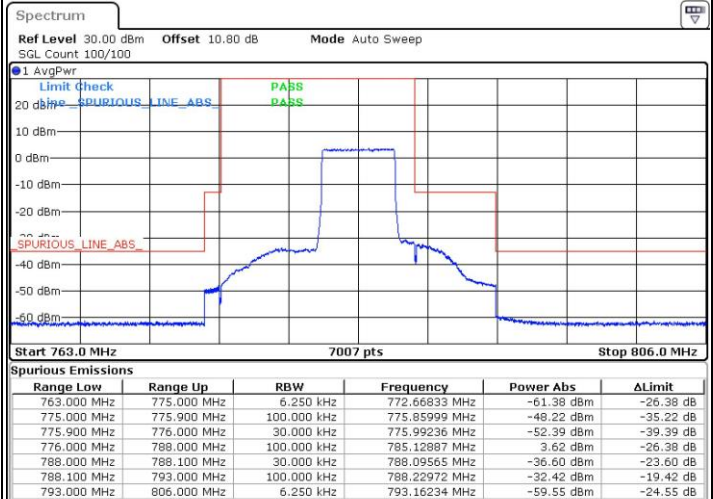
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



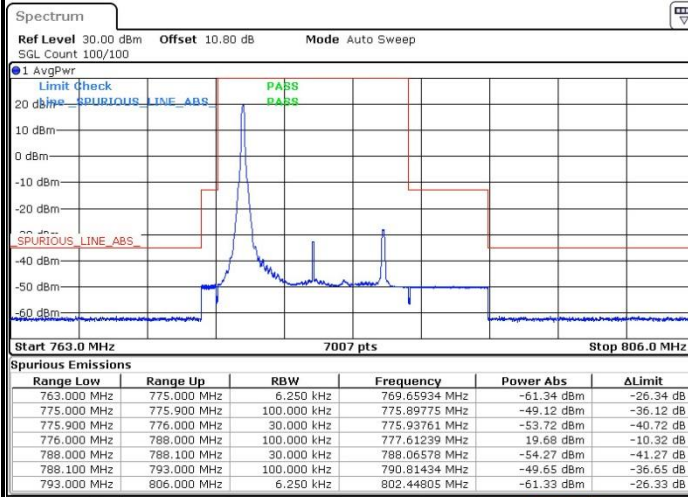
## Highest Band Edge / Full RB





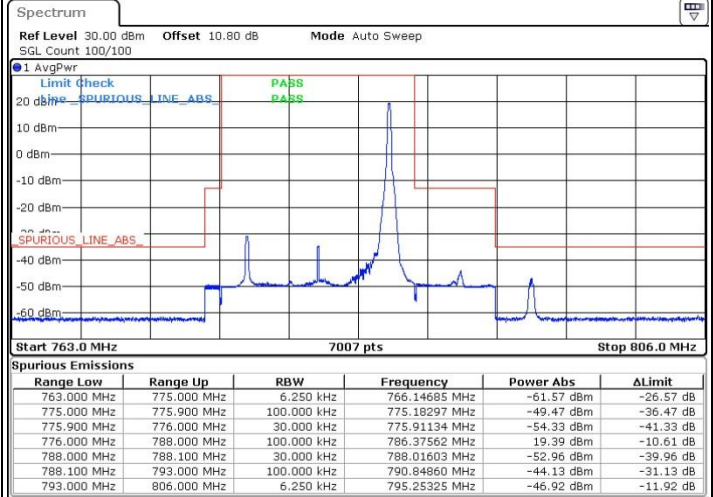
## LTE Band 13 / 10MHz / QPSK

## Lowest Band Edge / 1 RB



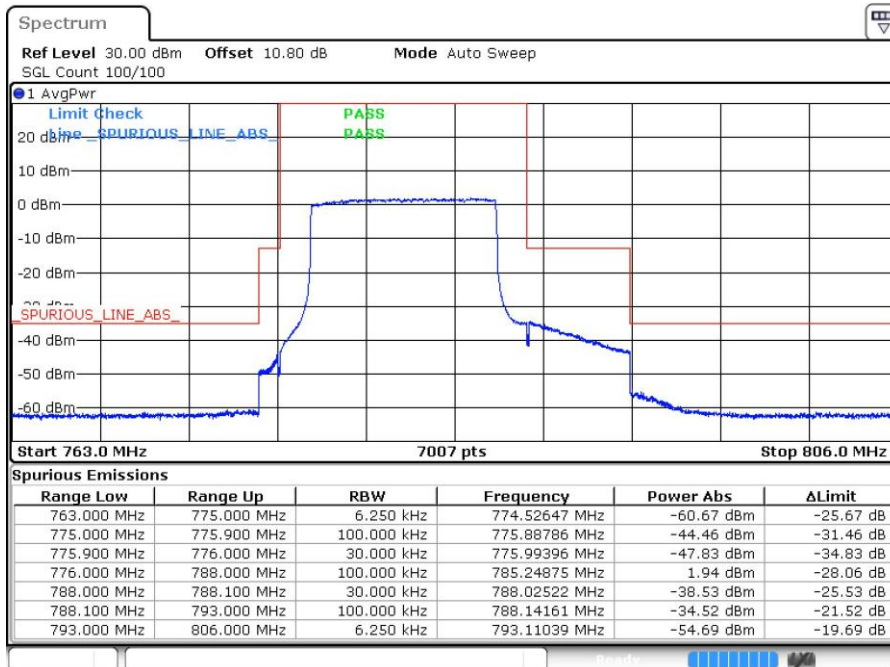
Date: 9 APR 2018 20:49:10

## Highest Band Edge / 1 RB



Date: 9 APR 2018 20:50:50

## Band Edge / Full RB

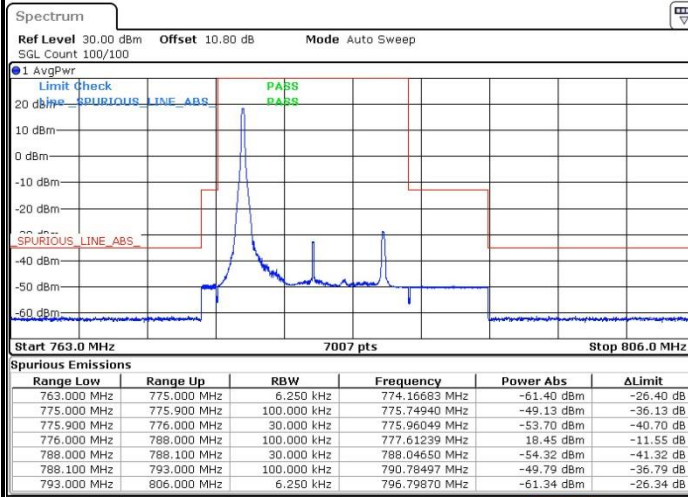


Date: 9 APR 2018 20:44:12



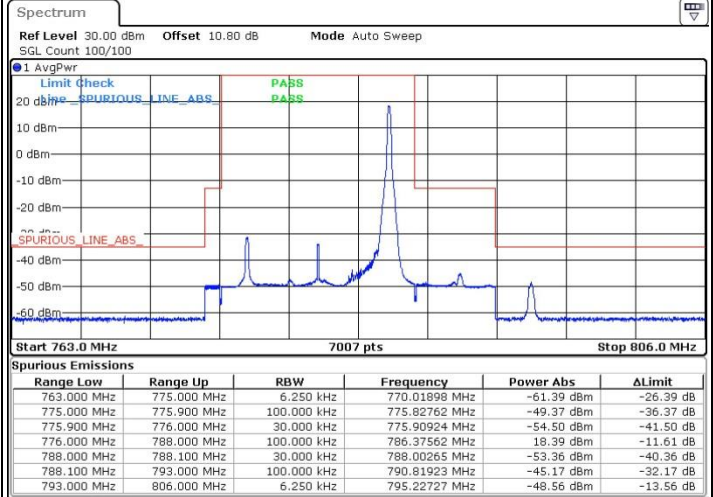
## LTE Band 13 / 10MHz / 16QAM

## Lowest Band Edge / 1 RB



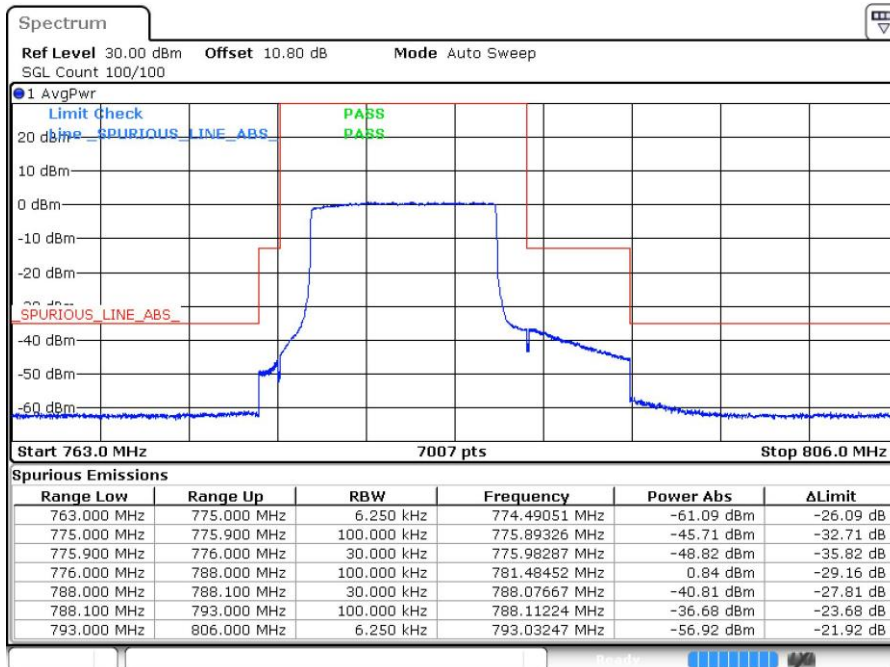
Date: 9 APR 2018 20:47:31

## Highest Band Edge / 1 RB



Date: 9 APR 2018 20:52:29

## Band Edge / Full RB



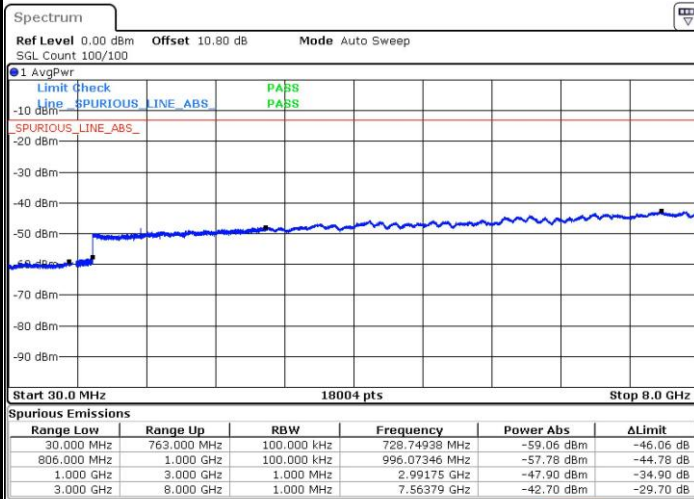
Date: 9 APR 2018 20:45:51



# Conducted Spurious Emission

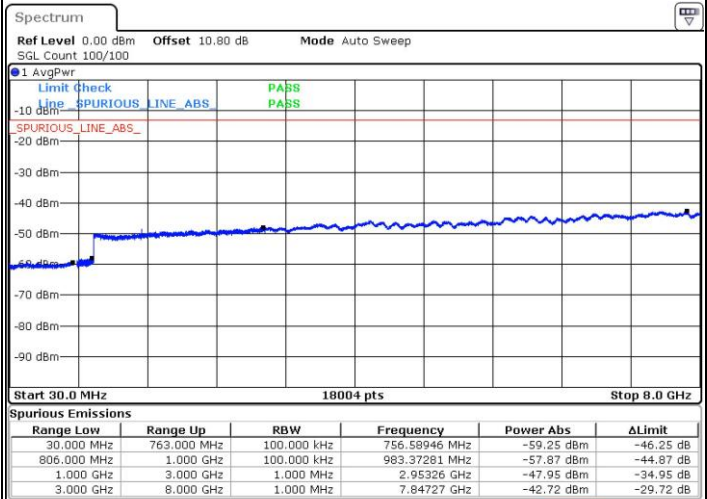
## LTE Band 13 / 5MHz

### Lowest Channel / QPSK



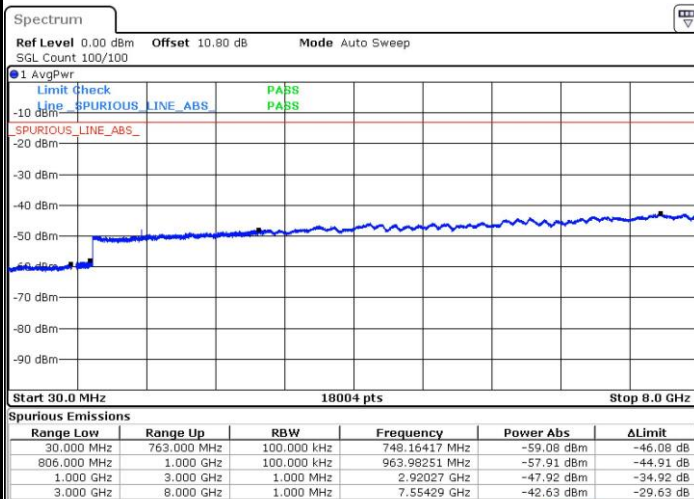
Date: 9 APR 2018 20:29:19

### Lowest Channel / 16QAM



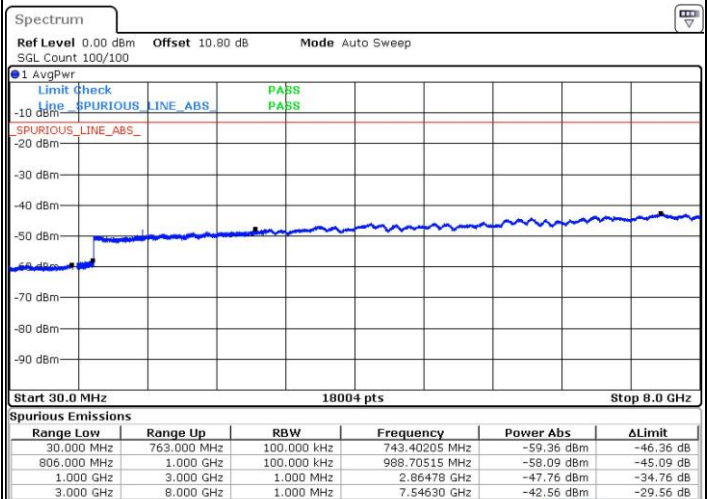
Date: 9 APR 2018 20:30:14

### Middle Channel / QPSK



Date: 9 APR 2018 20:32:02

### Middle Channel / 16QAM

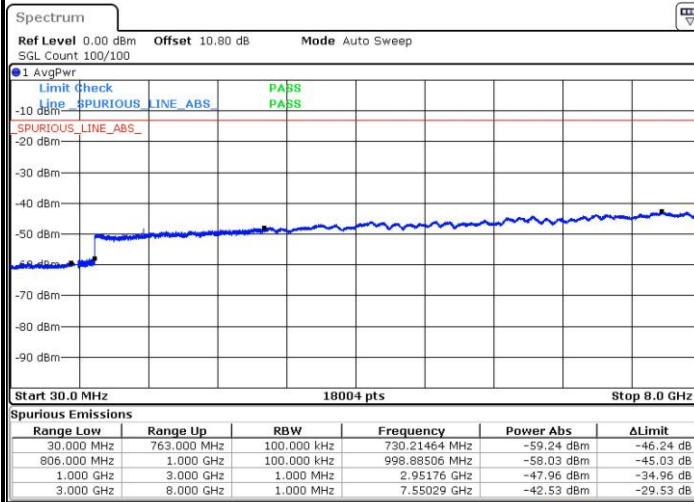


Date: 9 APR 2018 20:31:08



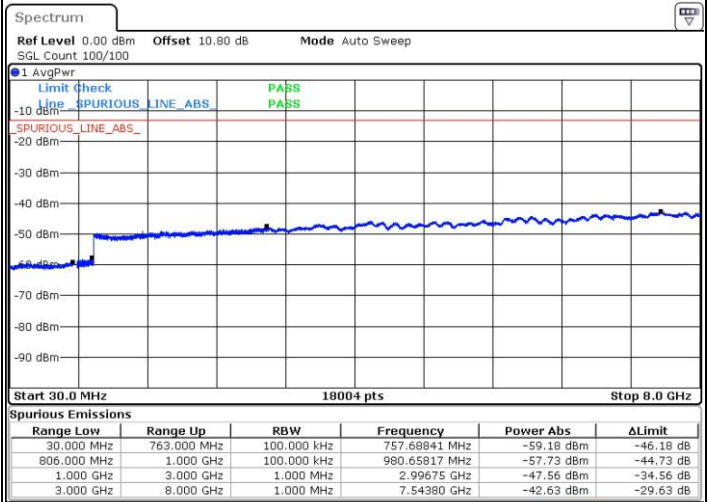
## LTE Band 13 / 5MHz

## Highest Channel / QPSK



Date: 9 APR 2018 20:40:57

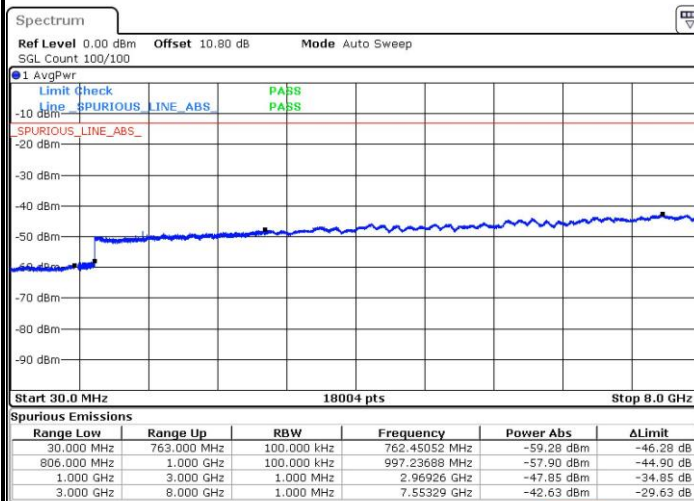
## Highest Channel / 16QAM



Date: 9 APR 2018 20:41:51

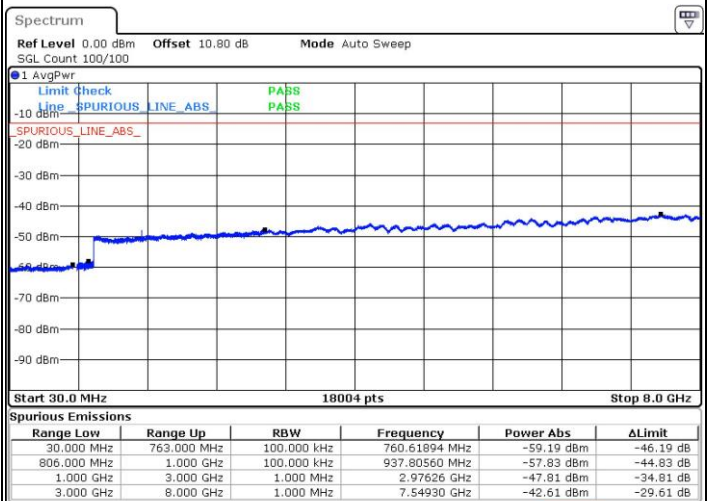
## LTE Band 13 / 10MHz

## Middle Channel / QPSK



Date: 9 APR 2018 20:54:18

## Middle Channel / 16QAM



Date: 9 APR 2018 20:53:24

## Frequency Stability

| Test Conditions     |                   | LTE Band 13 (QPSK) / Middle Channel | Limit   |
|---------------------|-------------------|-------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 10MHz                            | Note 2. |
|                     |                   | Deviation (ppm)                     | Result  |
| 50                  | Normal Voltage    | 0.0059                              | PASS    |
| 40                  | Normal Voltage    | 0.0013                              |         |
| 30                  | Normal Voltage    | 0.0042                              |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                              |         |
| 10                  | Normal Voltage    | 0.0146                              |         |
| 0                   | Normal Voltage    | 0.0015                              |         |
| -10                 | Normal Voltage    | 0.0087                              |         |
| -20                 | Normal Voltage    | 0.0036                              |         |
| -30                 | Normal Voltage    | 0.0020                              |         |
| 20                  | Maximum Voltage   | 0.0028                              |         |
| 20                  | Normal Voltage    | 0.0000                              |         |
| 20                  | Battery End Point | 0.0026                              |         |

**Note:**

1. Normal Voltage =120 V. ; Battery End Point (BEP) =102 V. ; Maximum Voltage =138 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 25

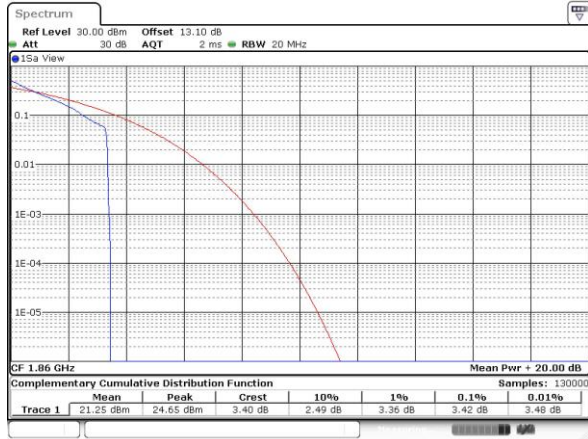
### Peak-to-Average Ratio

| Mode       | LTE Band 25 / 20MHz |         |       |         |             |
|------------|---------------------|---------|-------|---------|-------------|
| Mod.       | QPSK                |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                 | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 3.42                | 4.7     | 4     | 5.68    | PASS        |
| Middle CH  | 4.35                | 4.96    | 5.01  | 5.71    |             |
| Highest CH | 3.33                | 4.84    | 5.28  | 5.65    |             |

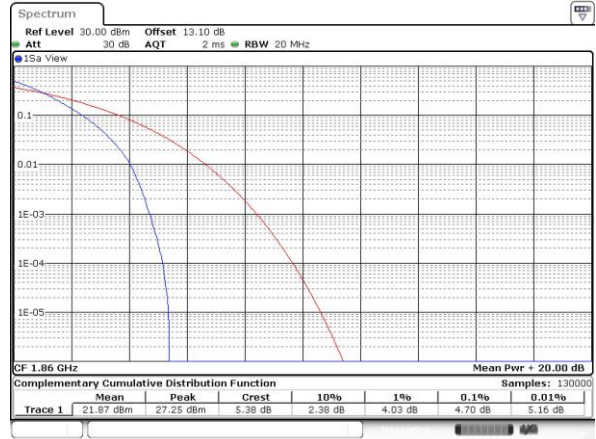


## LTE Band 25 / 20MHz / QPSK

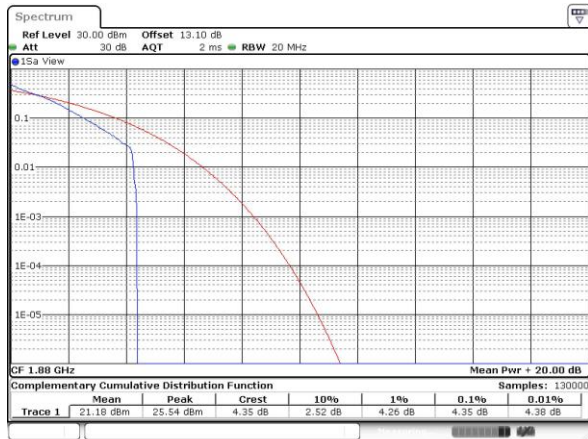
## Lowest Channel / 1RB



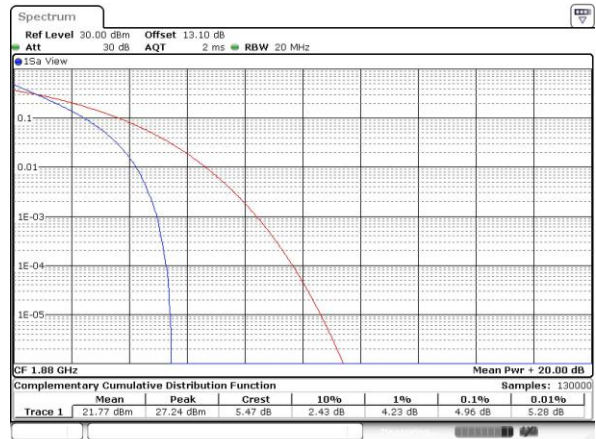
## Lowest Channel / Full RB



## Middle Channel / 1RB



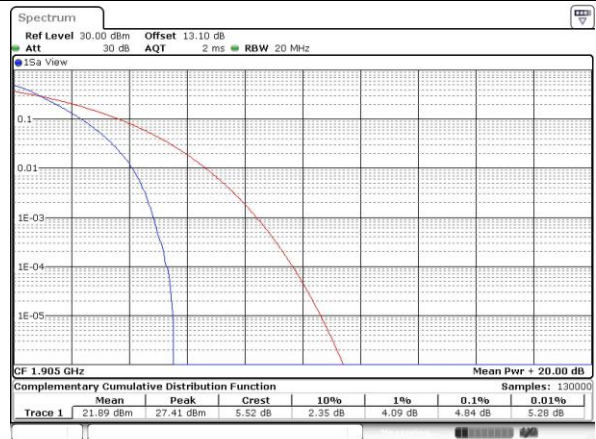
## Middle Channel / Full RB

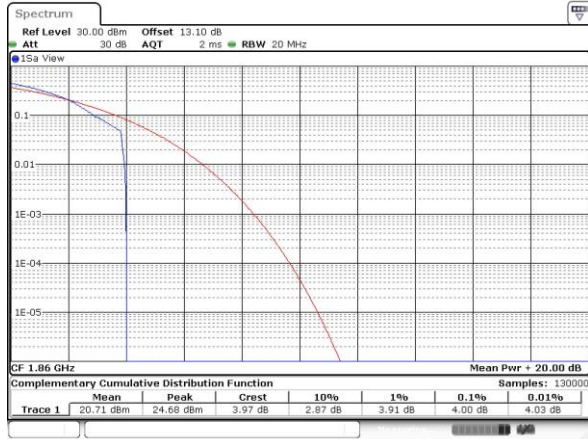


## Highest Channel / 1RB

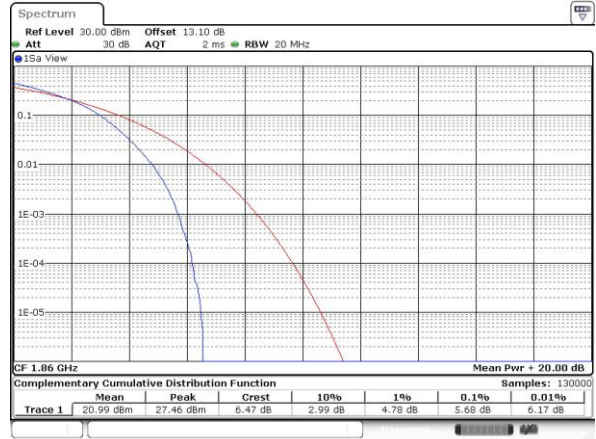


## Highest Channel / Full RB

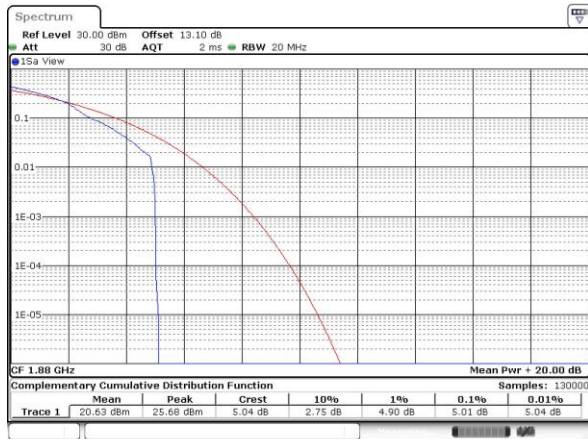


**LTE Band 25 / 20MHz / 16QAM**
**Lowest Channel / 1RB**


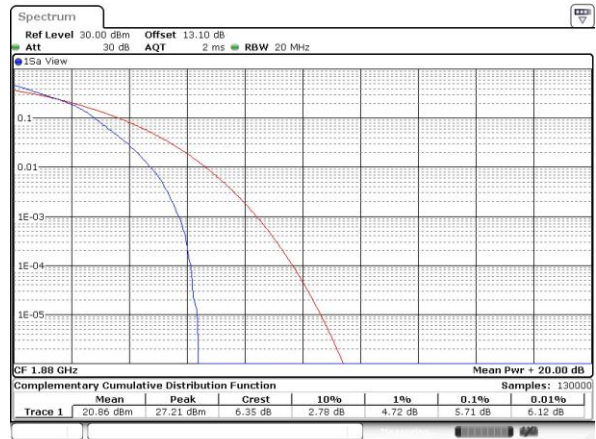
Date: 9 APR 2018 22:58:07

**Lowest Channel / Full RB**


Date: 9 APR 2018 23:00:50

**Middle Channel / 1RB**


Date: 9 APR 2018 23:11:11

**Middle Channel / Full RB**


Date: 9 APR 2018 23:11:22

**Highest Channel / 1RB**


Date: 9 APR 2018 23:13:26

**Highest Channel / Full RB**


Date: 9 APR 2018 23:13:37



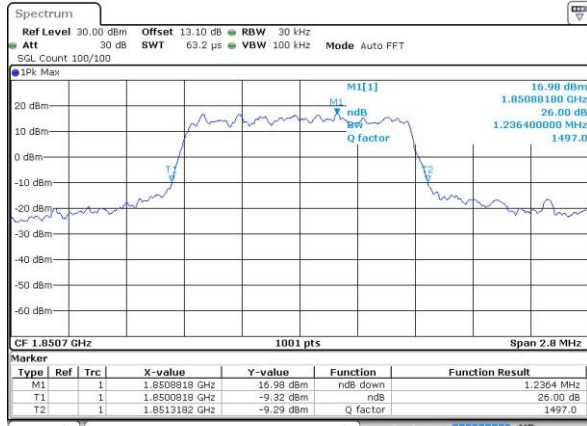
## 26dB Bandwidth

| Mode       | LTE Band 25 : 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  | 1.24                       | 1.24  | 3.02 | 3.03  | 4.99 | 4.97  | 9.85  | 9.83  | 14.27 | 14.45 | 20.26 | 20.02 |
| Middle CH  | 1.24                       | 1.24  | 3.02 | 3.05  | 4.86 | 4.94  | 9.99  | 9.63  | 14.75 | 14.54 | 20.18 | 20.26 |
| Highest CH | 1.24                       | 1.24  | 3.01 | 3.06  | 4.89 | 4.77  | 9.87  | 9.73  | 14.69 | 14.51 | 20.42 | 20.26 |



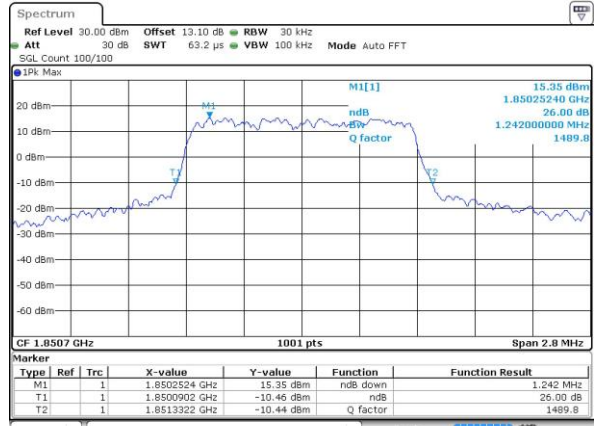
## LTE Band 25

## Lowest Channel / 1.4MHz / QPSK



Date: 9 APR 2018 22:36:02

## Lowest Channel / 1.4MHz / 16QAM



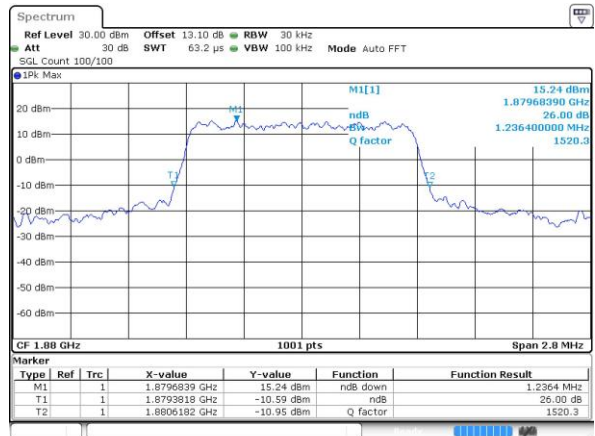
Date: 9 APR 2018 22:36:12

## Middle Channel / 1.4MHz / QPSK



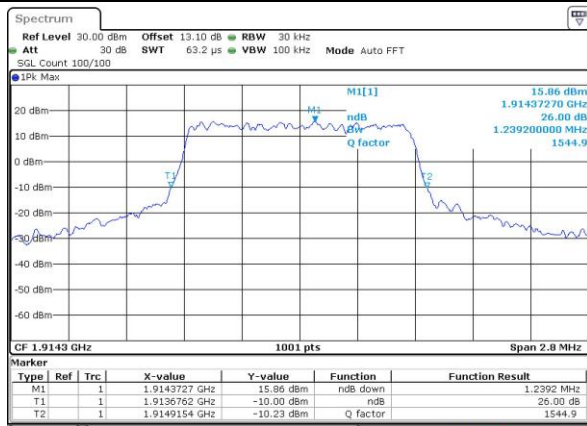
Date: 9 APR 2018 22:43:09

## Middle Channel / 1.4MHz / 16QAM



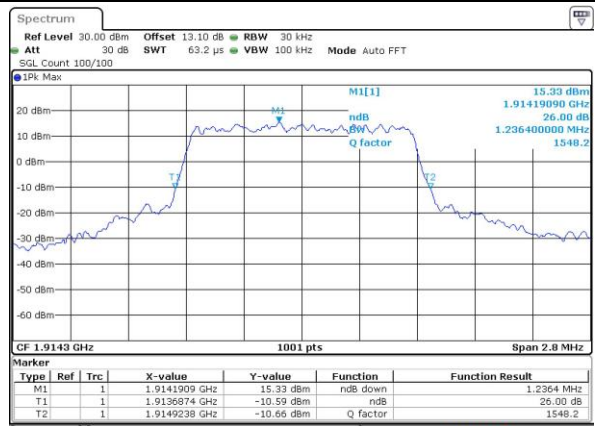
Date: 9 APR 2018 22:43:20

## Highest Channel / 1.4MHz / QPSK



Date: 9 APR 2018 22:45:51

## Highest Channel / 1.4MHz / 16QAM

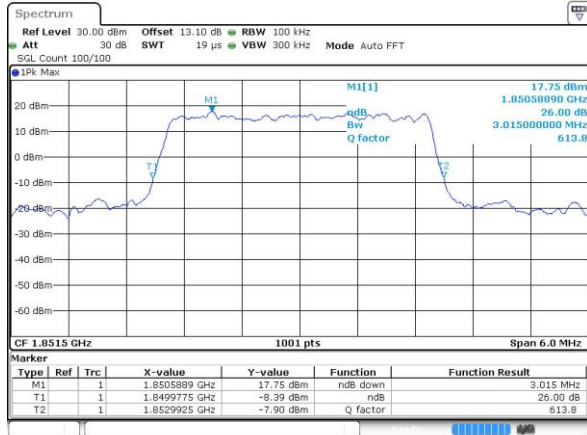


Date: 9 APR 2018 22:45:40



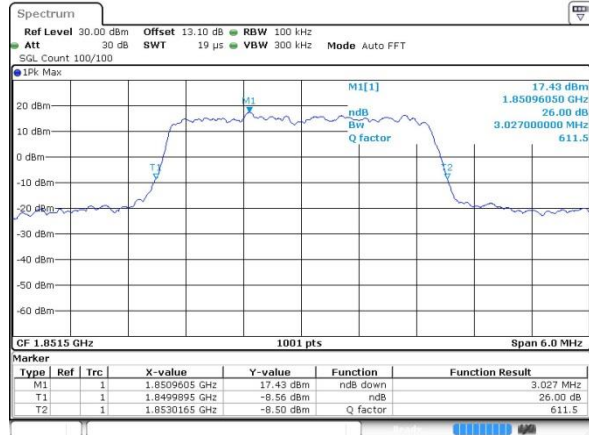
## LTE Band 25

## Lowest Channel / 3MHz / QPSK



Date: 9 APR 2018 21:10:04

## Lowest Channel / 3MHz / 16QAM



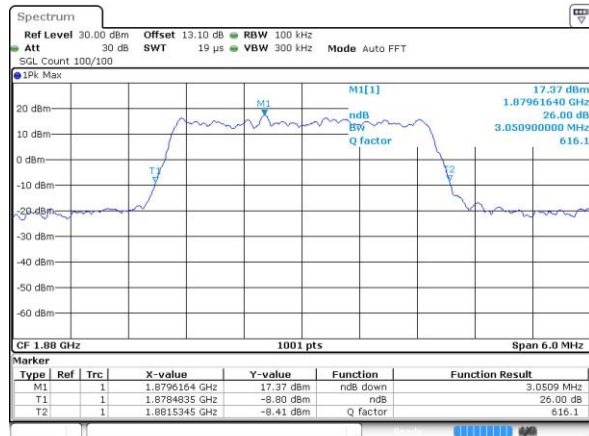
Date: 9 APR 2018 21:10:15

## Middle Channel / 3MHz / QPSK



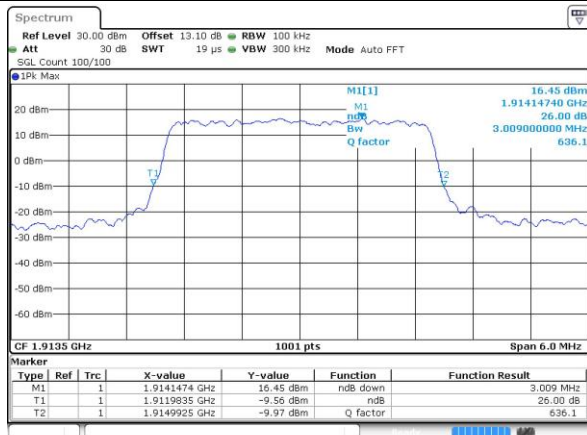
Date: 9 APR 2018 21:17:13

## Middle Channel / 3MHz / 16QAM



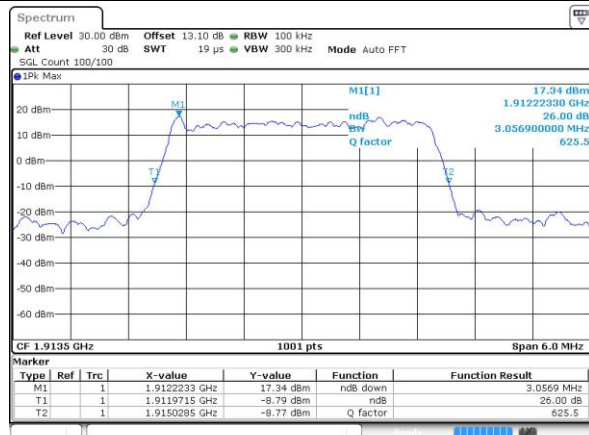
Date: 9 APR 2018 21:17:23

## Highest Channel / 3MHz / QPSK



Date: 9 APR 2018 21:19:54

## Highest Channel / 3MHz / 16QAM

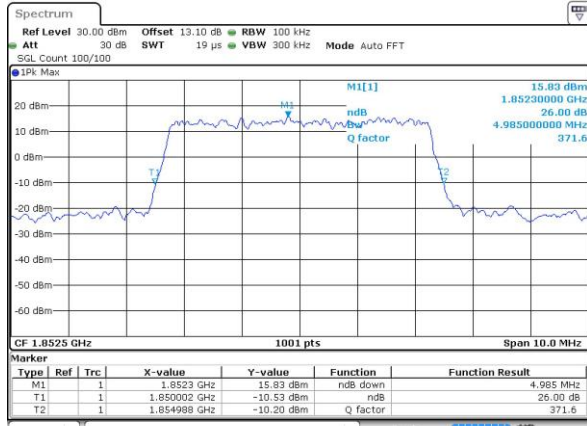


Date: 9 APR 2018 21:19:43



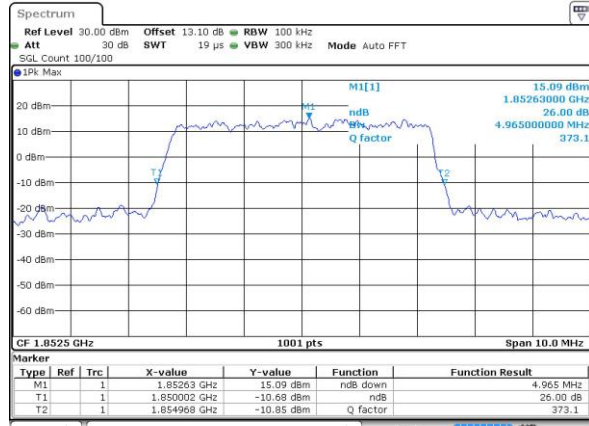
## LTE Band 25

## Lowest Channel / 5MHz / QPSK



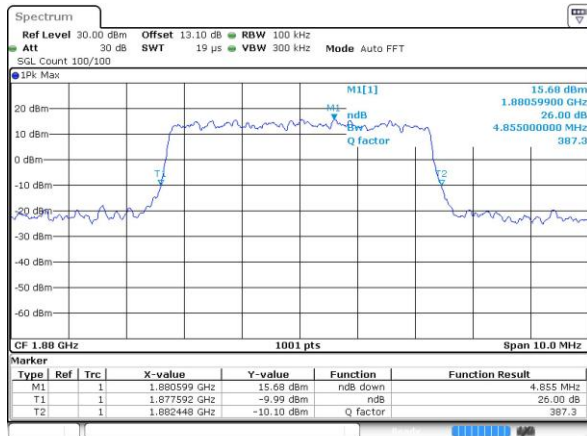
Date: 9 APR 2018 21:26:52

## Lowest Channel / 5MHz / 16QAM



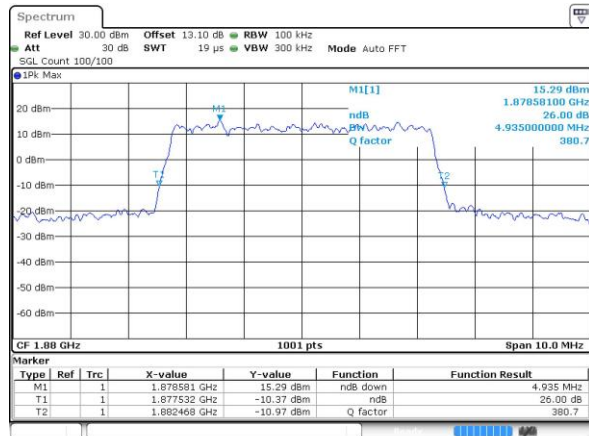
Date: 9 APR 2018 21:27:02

## Middle Channel / 5MHz / QPSK



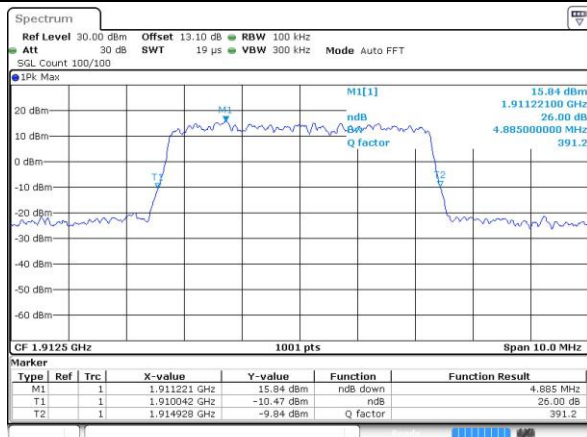
Date: 9 APR 2018 21:34:00

## Middle Channel / 5MHz / 16QAM



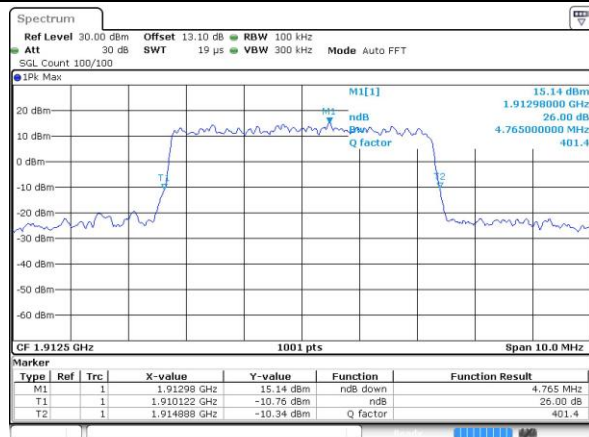
Date: 9 APR 2018 21:34:10

## Highest Channel / 5MHz / QPSK



Date: 9 APR 2018 21:36:41

## Highest Channel / 5MHz / 16QAM

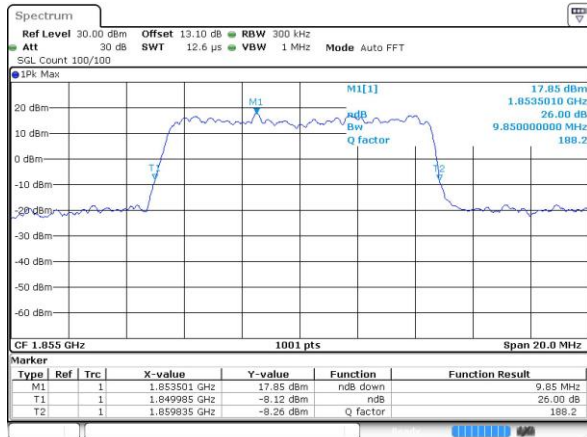


Date: 9 APR 2018 21:36:51



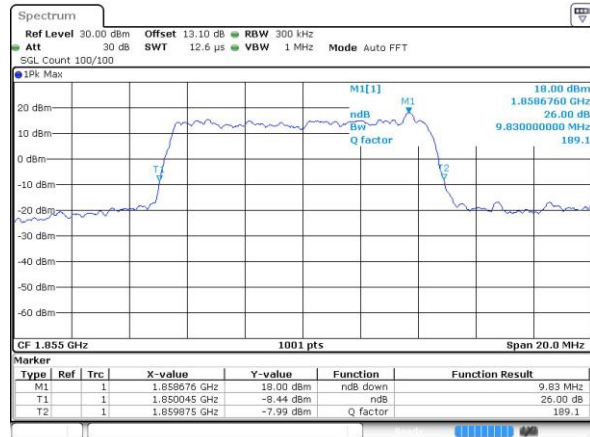
## LTE Band 25

## Lowest Channel / 10MHz / QPSK



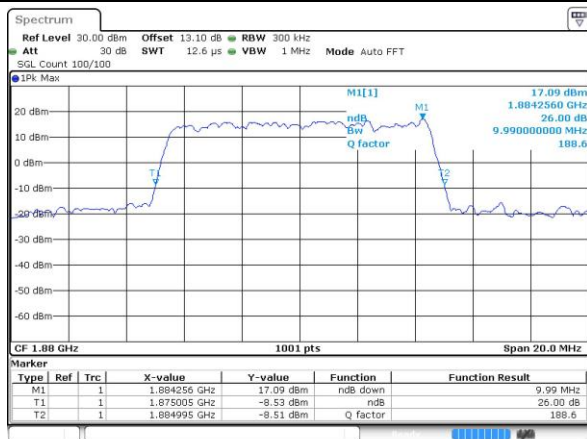
Date: 9 APR 2018 21:43:39

## Lowest Channel / 10MHz / 16QAM



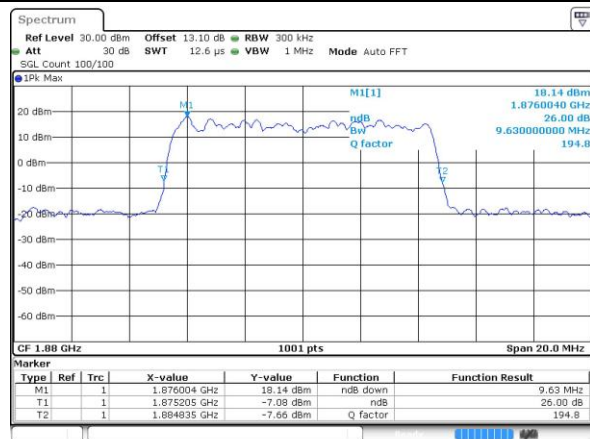
Date: 9 APR 2018 21:43:49

## Middle Channel / 10MHz / QPSK



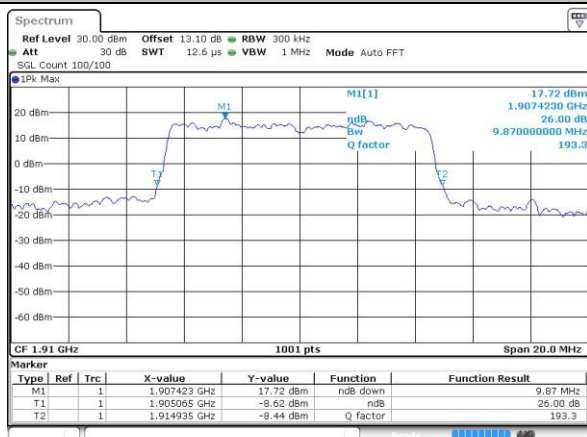
Date: 9 APR 2018 21:50:46

## Middle Channel / 10MHz / 16QAM



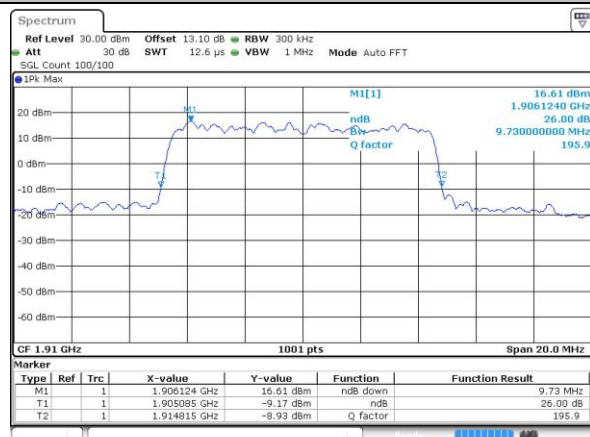
Date: 9 APR 2018 21:50:57

## Highest Channel / 10MHz / QPSK



Date: 9 APR 2018 21:53:28

## Highest Channel / 10MHz / 16QAM

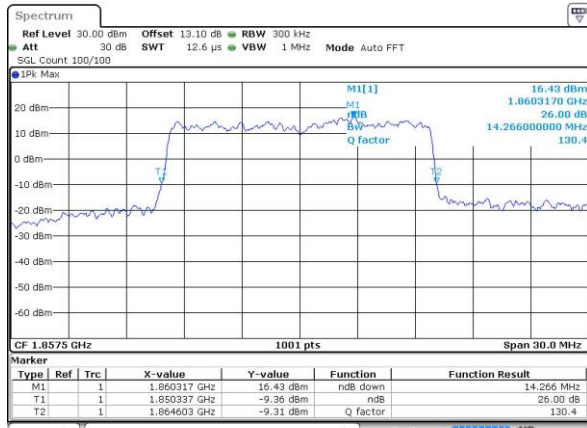


Date: 9 APR 2018 21:53:17



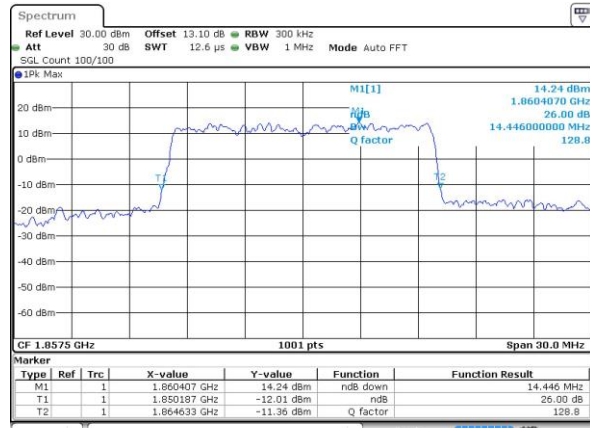
## LTE Band 25

## Lowest Channel / 15MHz / QPSK



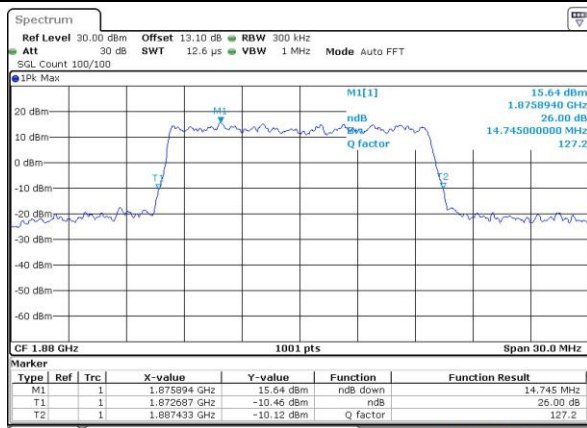
Date: 9 APR 2018 22:00:25

## Lowest Channel / 15MHz / 16QAM



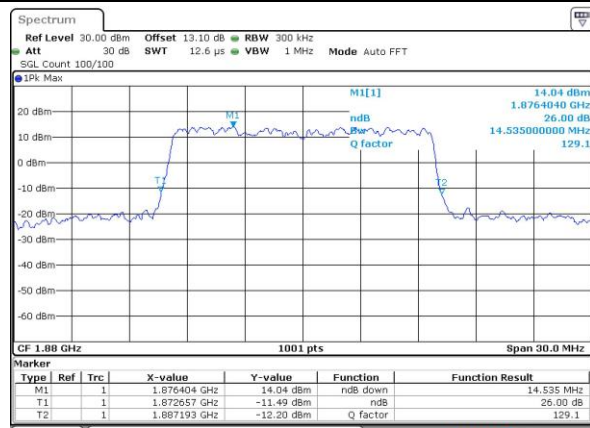
Date: 9 APR 2018 22:00:35

## Middle Channel / 15MHz / QPSK



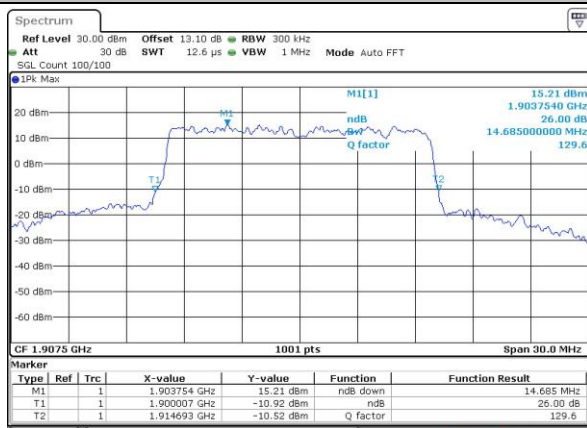
Date: 9 APR 2018 22:07:32

## Middle Channel / 15MHz / 16QAM



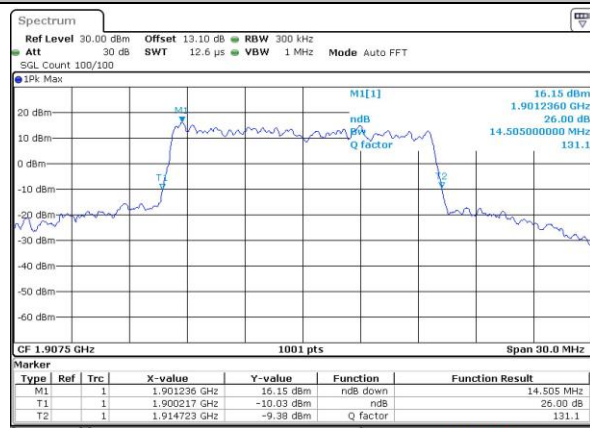
Date: 9 APR 2018 22:07:43

## Highest Channel / 15MHz / QPSK



Date: 9 APR 2018 22:10:14

## Highest Channel / 15MHz / 16QAM

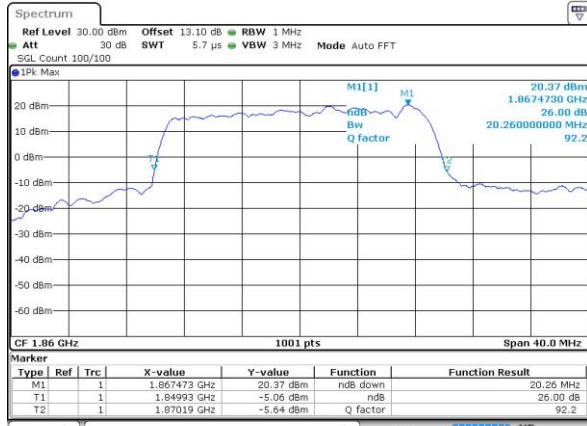


Date: 9 APR 2018 22:10:03

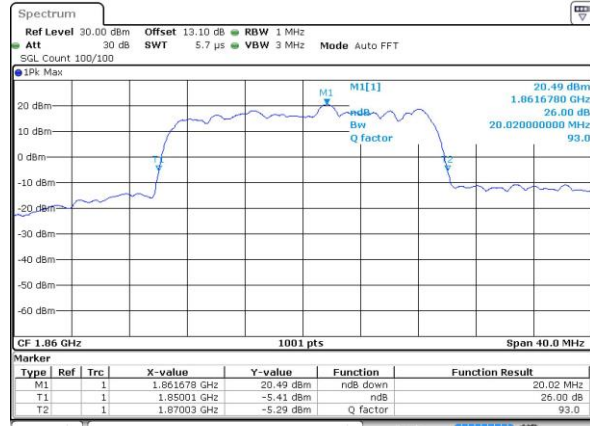


## LTE Band 25

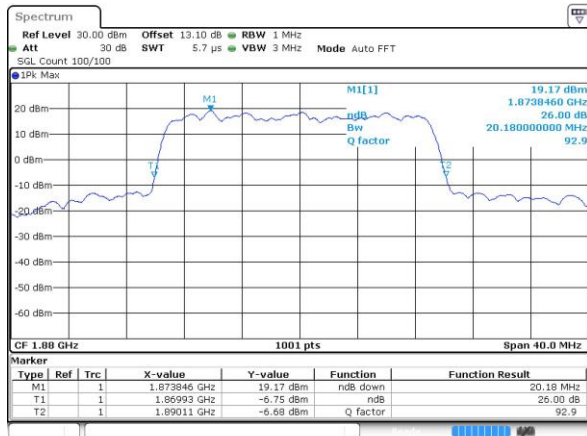
## Lowest Channel / 20MHz / QPSK



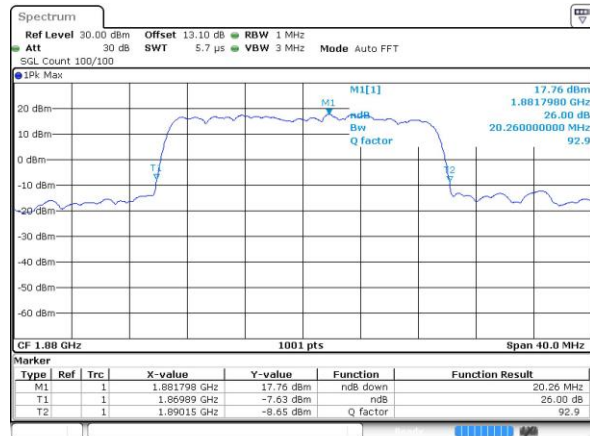
## Lowest Channel / 20MHz / 16QAM



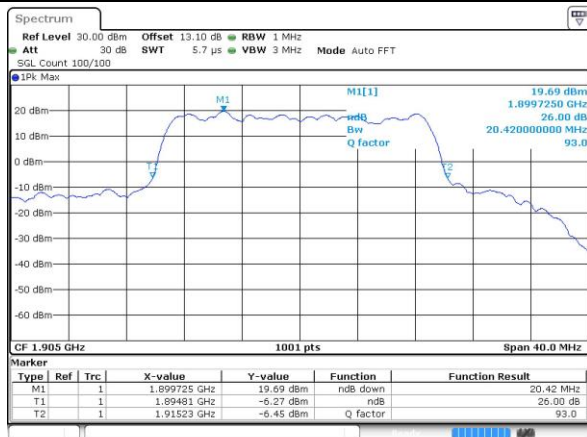
## Middle Channel / 20MHz / QPSK



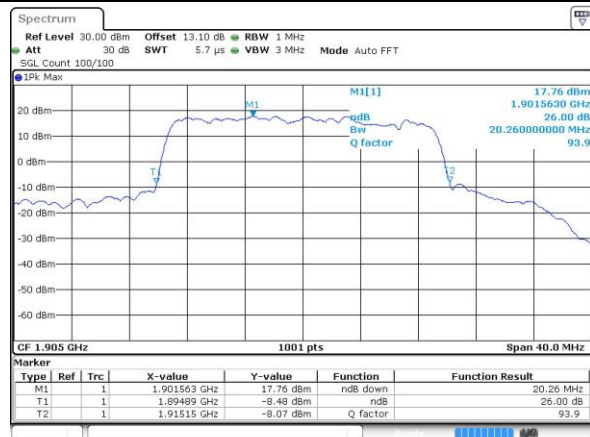
## Middle Channel / 20MHz / 16QAM



## Highest Channel / 20MHz / QPSK



## Highest Channel / 20MHz / 16QAM





## Occupied Bandwidth

| Mode       | LTE Band 25 : 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  | 1.09                      | 1.1   | 2.72 | 2.71  | 4.49 | 4.5   | 9.07  | 9.01  | 13.43 | 13.49 | 18.5  | 18.46 |
| Middle CH  | 1.09                      | 1.08  | 2.73 | 2.72  | 4.51 | 4.5   | 9.05  | 9.01  | 13.4  | 13.52 | 18.58 | 18.46 |
| Highest CH | 1.09                      | 1.09  | 2.72 | 2.72  | 4.5  | 4.5   | 9.07  | 9.07  | 13.46 | 13.37 | 18.42 | 18.34 |