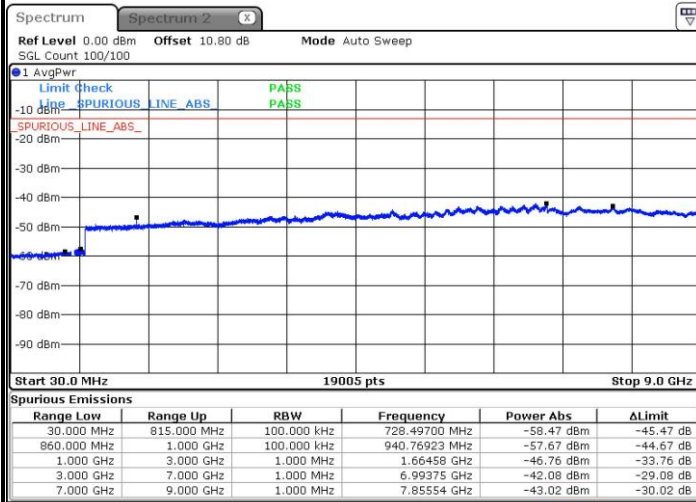




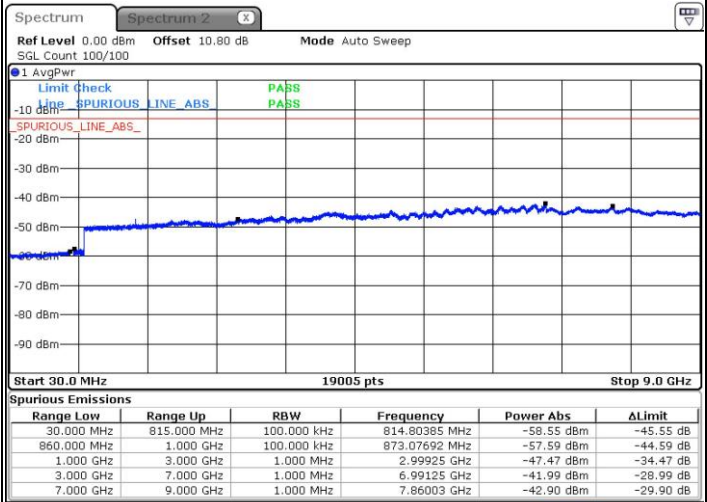
## LTE Band 5 / 10MHz

## Middle Channel / QPSK



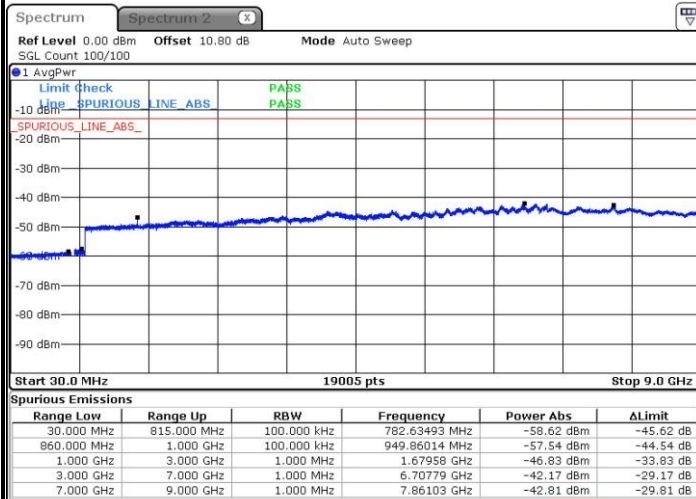
Date: 12 MAY 2017 00:20:08

## Middle Channel / 16QAM



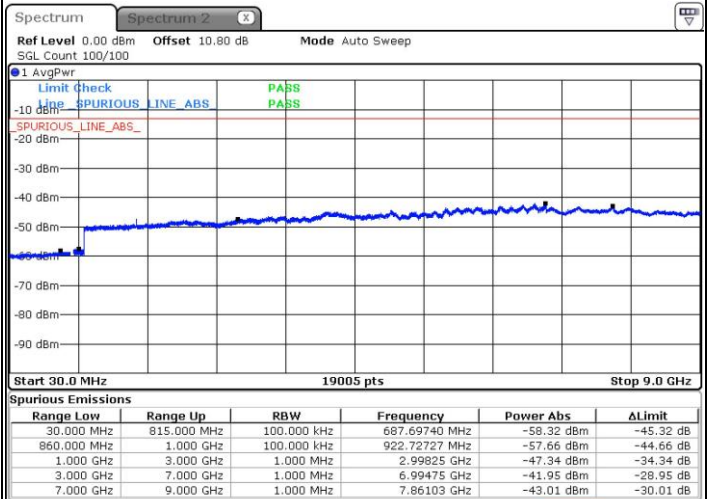
Date: 12 MAY 2017 00:21:02

## Highest Channel / QPSK



Date: 12 MAY 2017 00:29:14

## Highest Channel / 16QAM

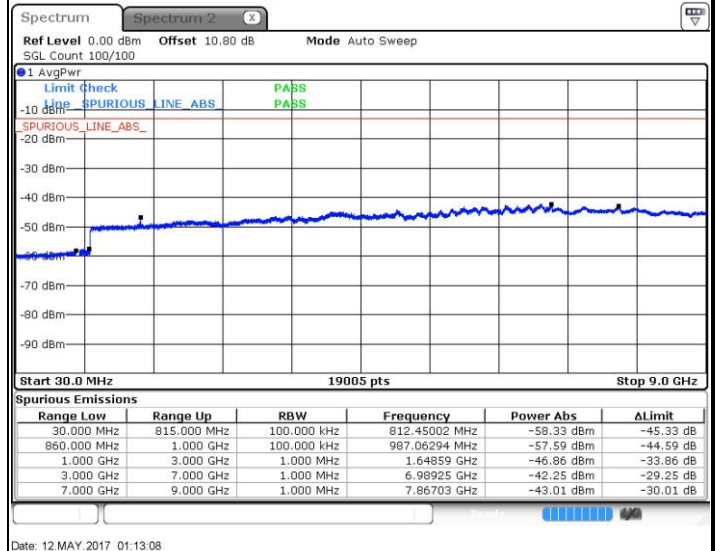


Date: 12 MAY 2017 00:30:09

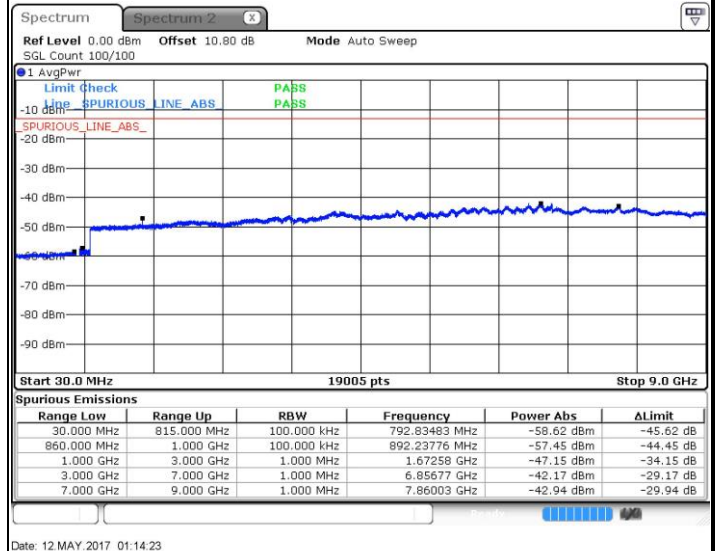


## LTE Band 5 / 1.4MHz

## Lowest Channel / 64QAM



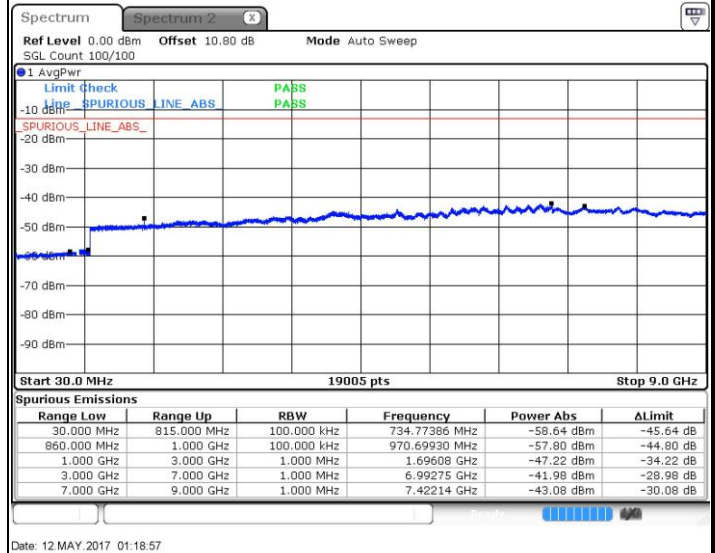
## Middle Channel / 64QAM





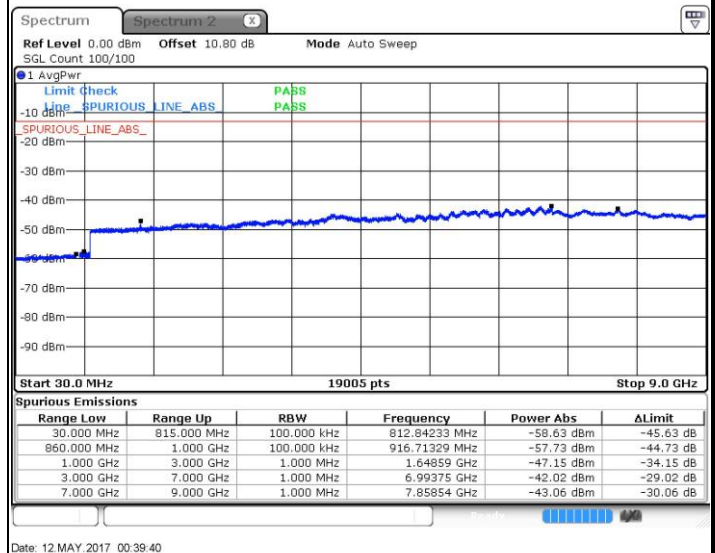
## LTE Band 5 / 1.4MHz

## Highest Channel / 64QAM



## LTE Band 5 / 3MHz

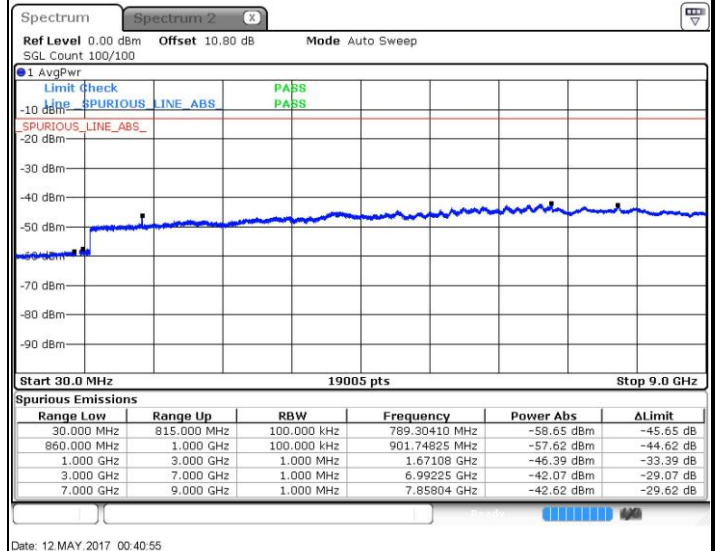
## Lowest Channel / 64QAM



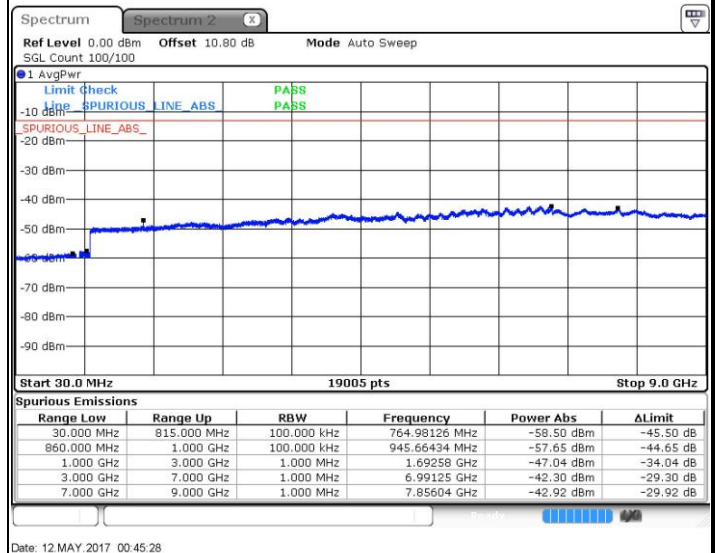


## LTE Band 5 / 3MHz

## Middle Channel / 64QAM



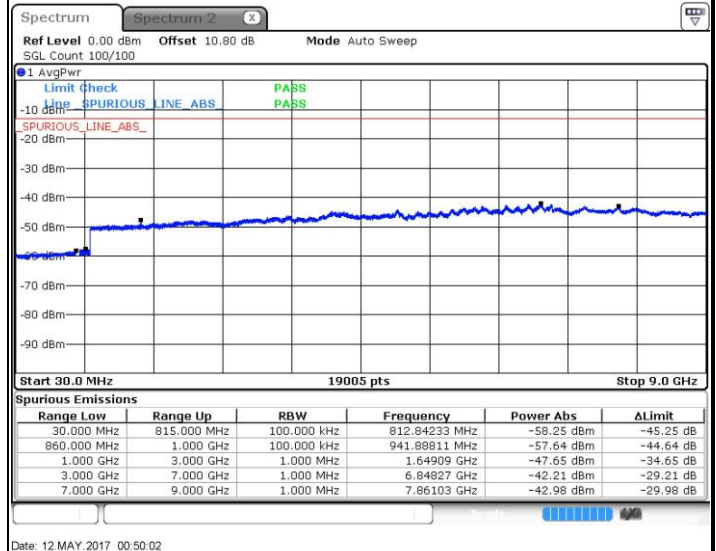
## Highest Channel / 64QAM



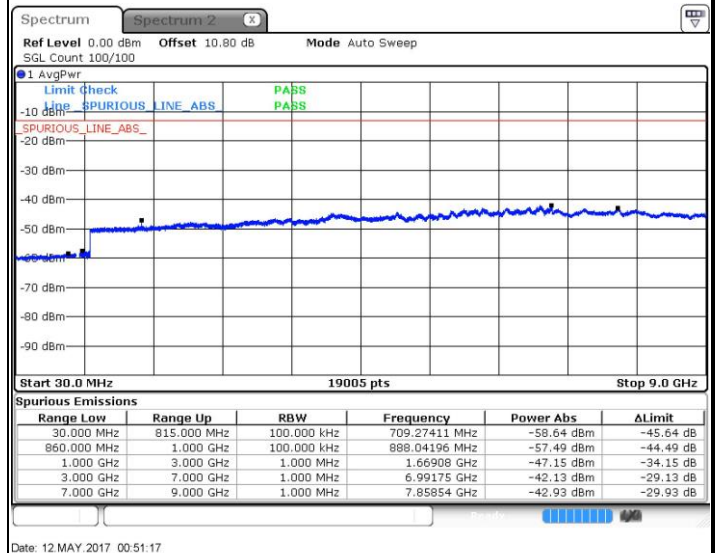


## LTE Band 5 / 5MHz

## Lowest Channel / 64QAM



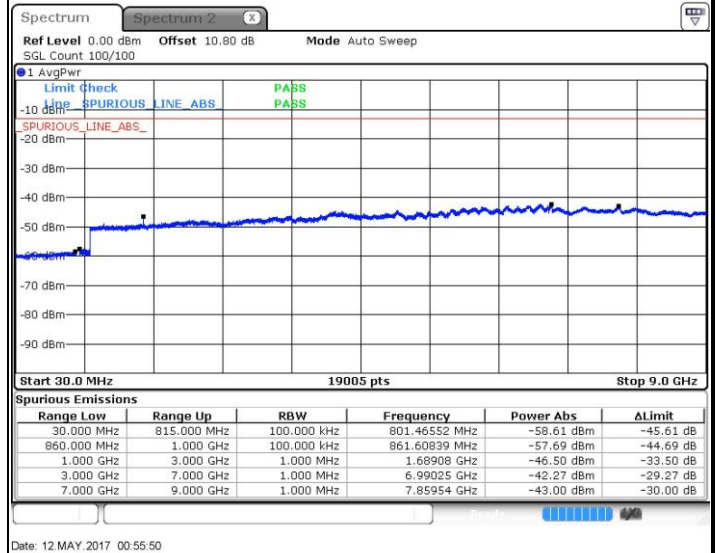
## Middle Channel / 64QAM





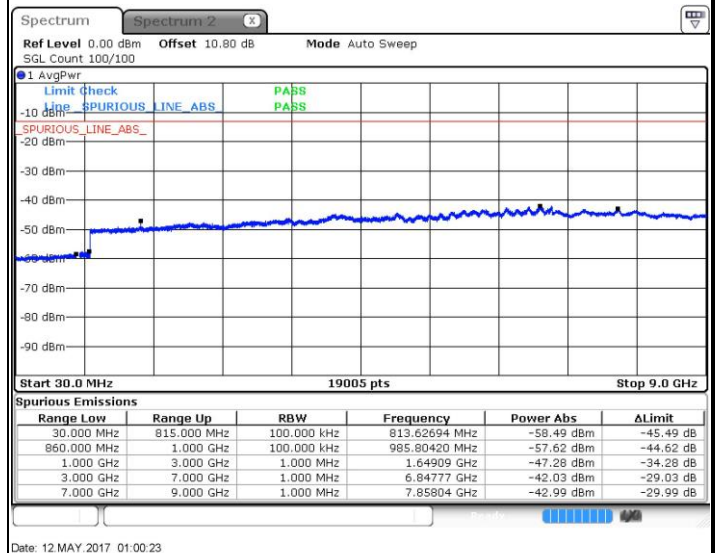
## LTE Band 5 / 5MHz

## Highest Channel / 64QAM



## LTE Band 5 / 10MHz

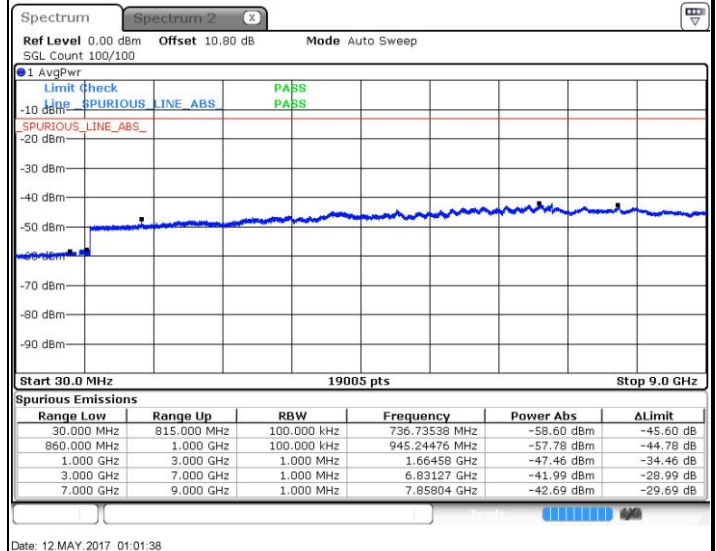
## Lowest Channel / 64QAM



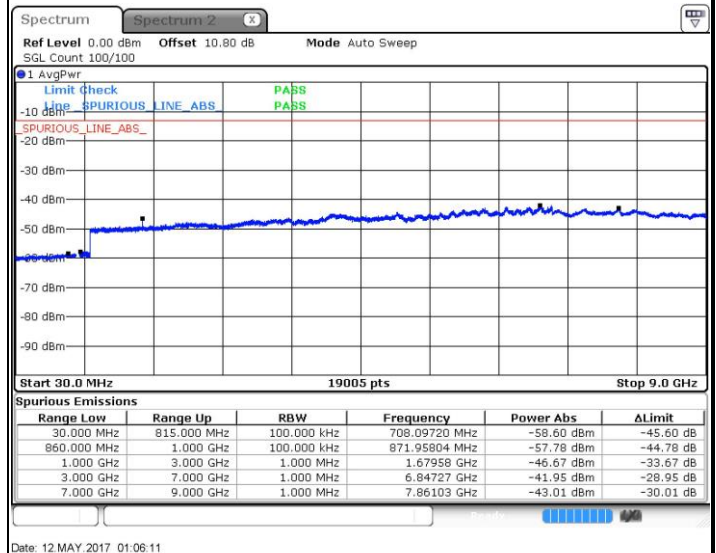


## LTE Band 5 / 10MHz

## Middle Channel / 64QAM



## Highest Channel / 64QAM



## 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    | 0.0069                             | PASS   |
| 40               | Normal Voltage    | 0.0049                             |        |
| 30               | Normal Voltage    | 0.0027                             |        |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |        |
| 10               | Normal Voltage    | 0.0063                             |        |
| 0                | Normal Voltage    | 0.0075                             |        |
| -10              | Normal Voltage    | 0.0065                             |        |
| -20              | Normal Voltage    | 0.0019                             |        |
| -30              | Normal Voltage    | 0.0056                             |        |
| 20               | Maximum Voltage   | 0.0007                             |        |
| 20               | Normal Voltage    | 0.0000                             |        |
| 20               | Battery End Point | 0.0072                             |        |

**Note:**

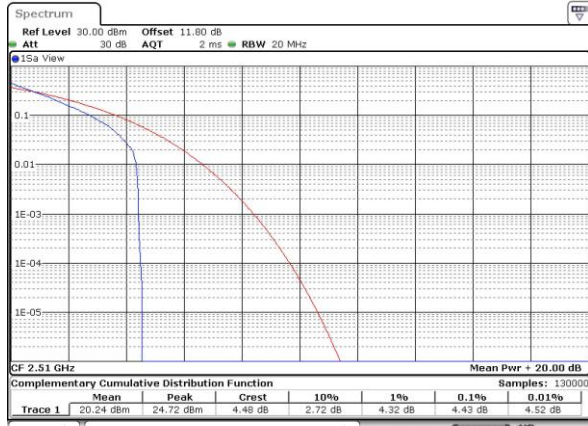
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



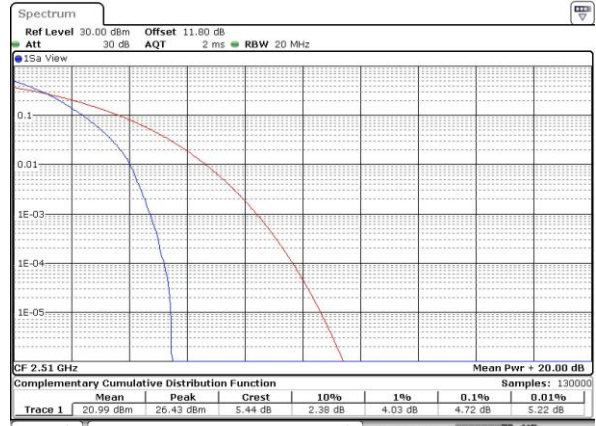
## LTE Band 7

## Peak-to-Average Ratio

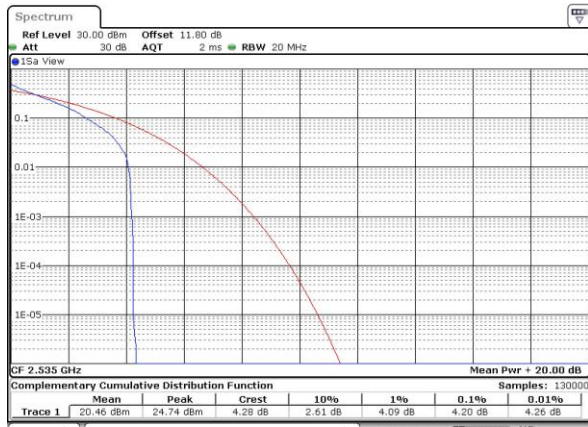
| Mode       | LTE Band 7 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 4.43               | 4.72    | 5.16  | 5.86    | PASS        |
| Middle CH  | 4.2                | 5.04    | 5.1   | 5.97    |             |
| Highest CH | 4.43               | 5.04    | 5.16  | 5.91    |             |
| Mod.       | -                  |         | 64QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | -                  | -       | 4.99  | 5.77    | PASS        |
| Middle CH  | -                  | -       | 5.07  | 6.03    |             |
| Highest CH | -                  | -       | 5.19  | 5.97    |             |

**LTE Band 7 / 20MHz / QPSK**
**Lowest Channel / 1RB**


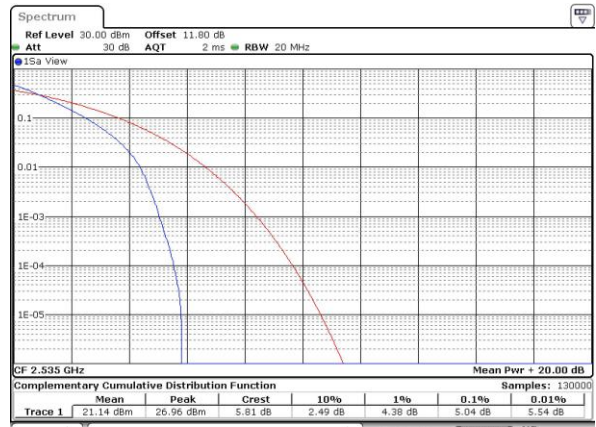
Date: 13 MAY 2017 18:50:45

**Lowest Channel / Full RB**


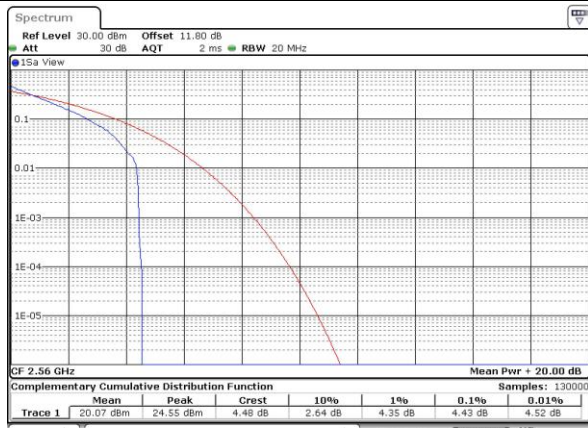
Date: 13 MAY 2017 18:50:55

**Middle Channel / 1RB**


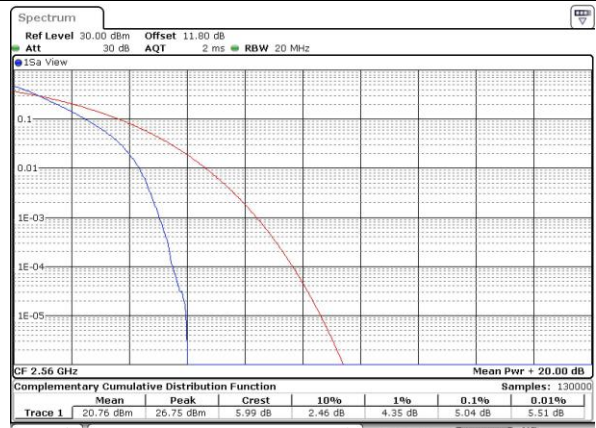
Date: 13 MAY 2017 18:51:05

**Middle Channel / Full RB**


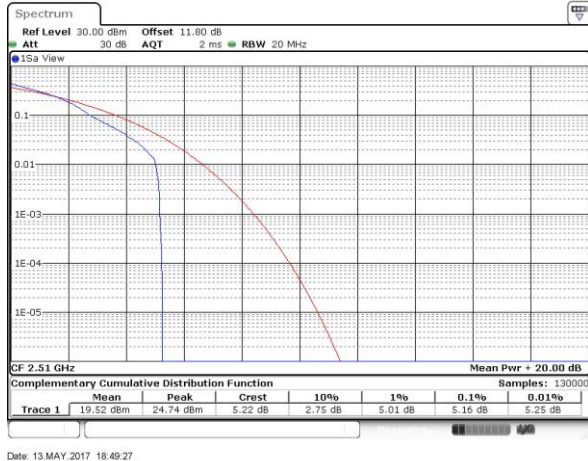
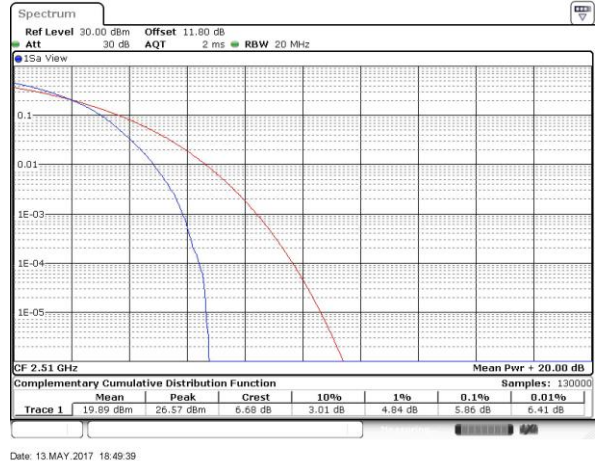
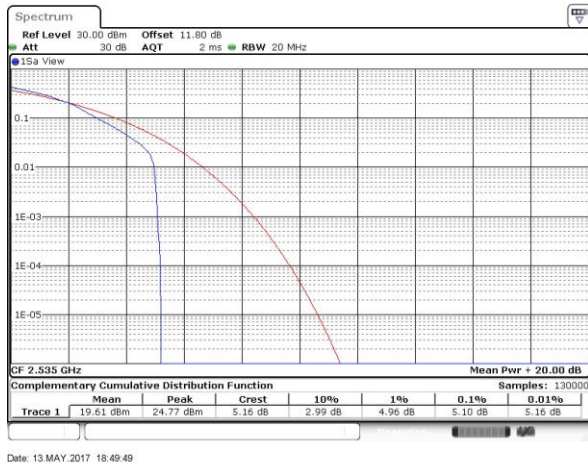
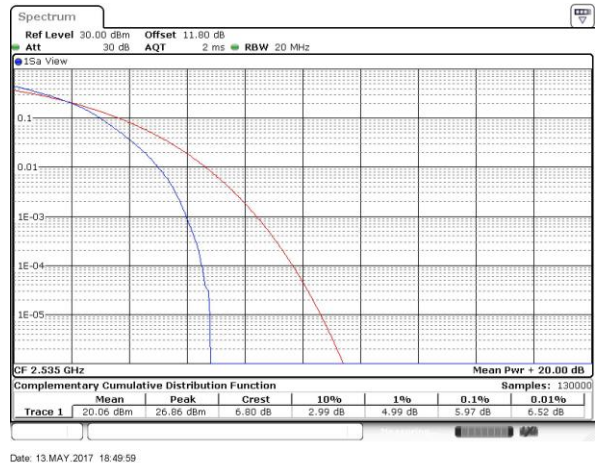
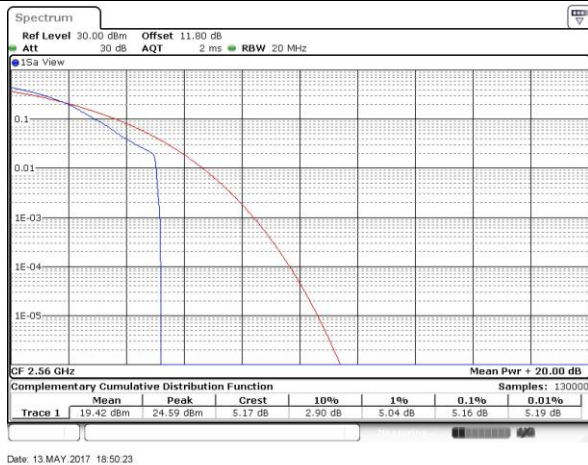
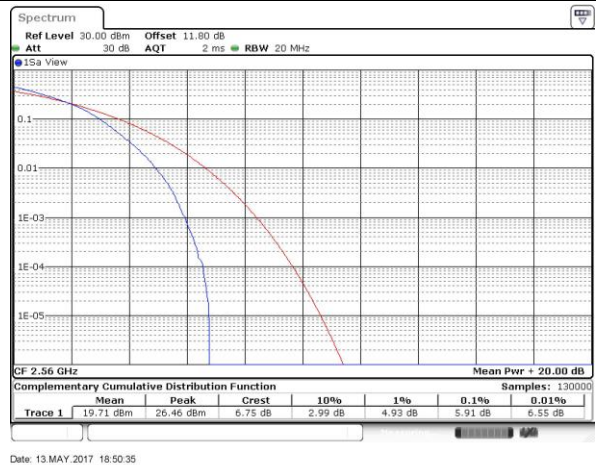
Date: 13 MAY 2017 18:51:43

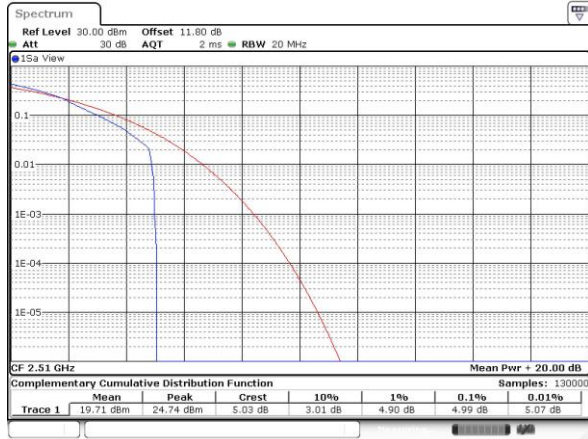
**Highest Channel / 1RB**


Date: 13 MAY 2017 18:51:53

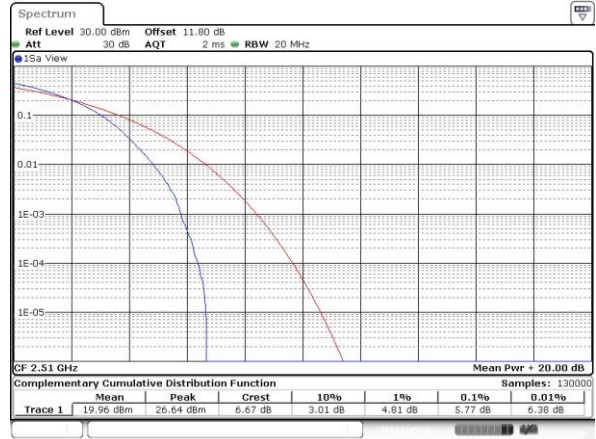
**Highest Channel / Full RB**


Date: 13 MAY 2017 18:52:03

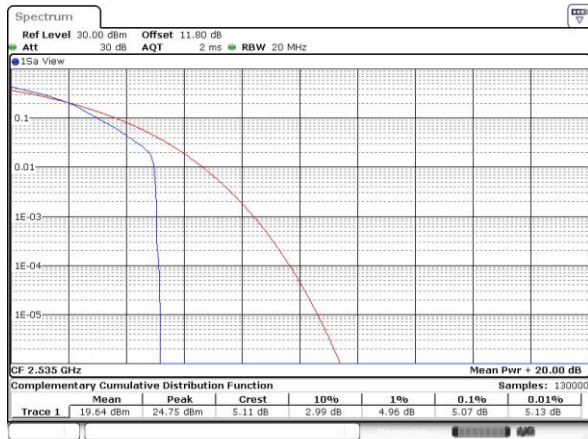
**LTE Band 7 / 20MHz / 16QAM**
**Lowest Channel / 1RB**

**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**


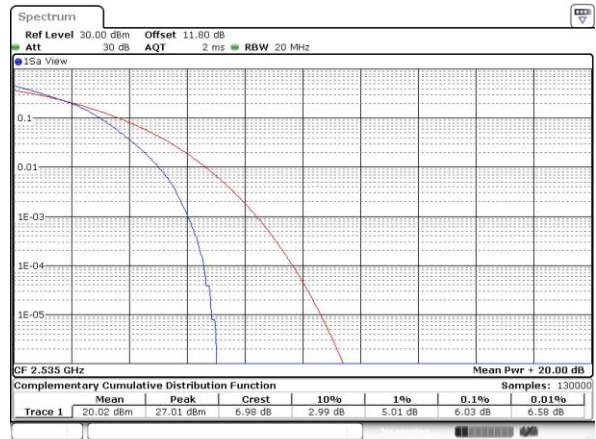
Date: 13 MAY 2017 19:27:43

**Lowest Channel / Full RB**


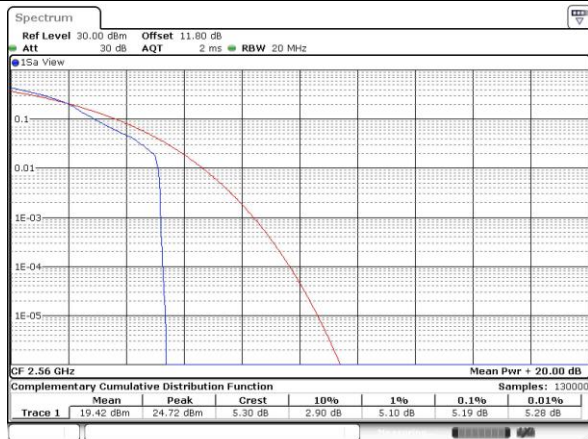
Date: 13 MAY 2017 19:27:52

**Middle Channel / 1RB**


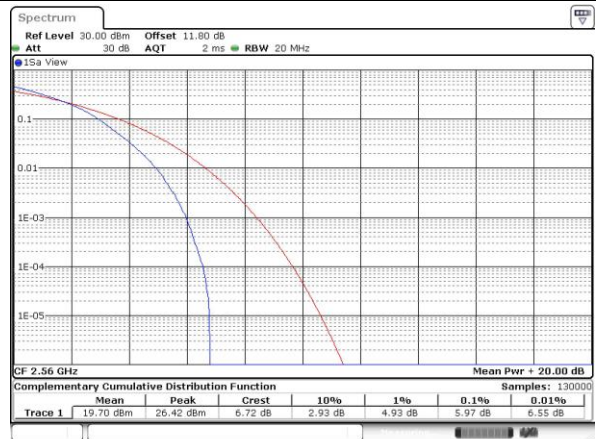
Date: 13 MAY 2017 19:28:08

**Middle Channel / Full RB**


Date: 13 MAY 2017 19:28:17

**Highest Channel / 1RB**


Date: 13 MAY 2017 19:28:28

**Highest Channel / Full RB**


Date: 13 MAY 2017 19:28:40

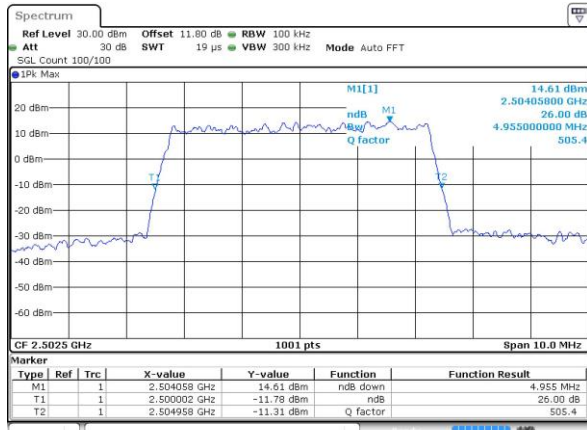
**26dB Bandwidth**

| 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  | -                         | -     | -    | -     | 4.96 | 4.87  | 9.69  | 9.71  | 14.39 | 14.15 | 20.10 | 20.02 |
| Middle CH  | -                         | -     | -    | -     | 4.96 | 4.90  | 9.93  | 9.89  | 14.15 | 14.36 | 20.18 | 20.26 |
| Highest CH | -                         | -     | -    | -     | 4.88 | 4.87  | 9.71  | 9.65  | 14.21 | 14.33 | 20.30 | 20.22 |
| BW         | 1.4MHz                    |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | -                         | 64QAM | -    | 64QAM | -    | 64QAM | -     | 64QAM | -     | 64QAM | -     | 64QAM |
| Lowest CH  | -                         | -     | -    | -     | -    | 4.84  | -     | 9.81  | -     | 14.36 | -     | 20.10 |
| Middle CH  | -                         | -     | -    | -     | -    | 4.93  | -     | 9.87  | -     | 14.42 | -     | 20.30 |
| Highest CH | -                         | -     | -    | -     | -    | 4.85  | -     | 9.81  | -     | 14.42 | -     | 20.14 |



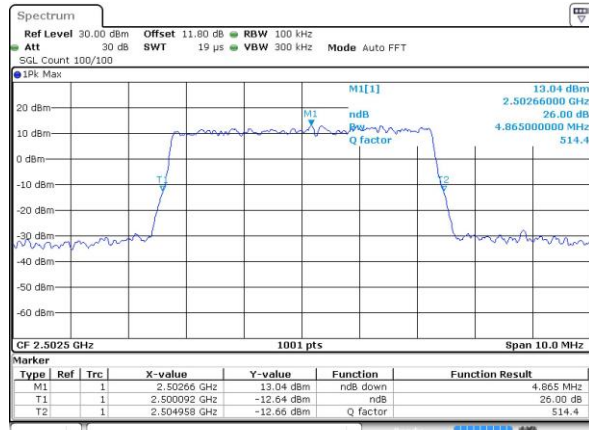
## LTE Band 7

## Lowest Channel / 5MHz / QPSK



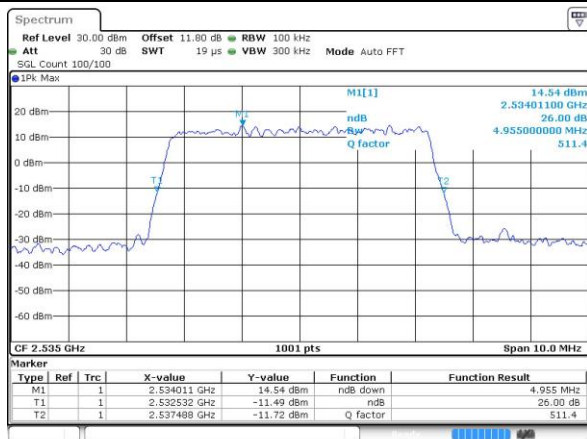
Date: 13 MAY 2017 17:42:26

## Lowest Channel / 5MHz / 16QAM



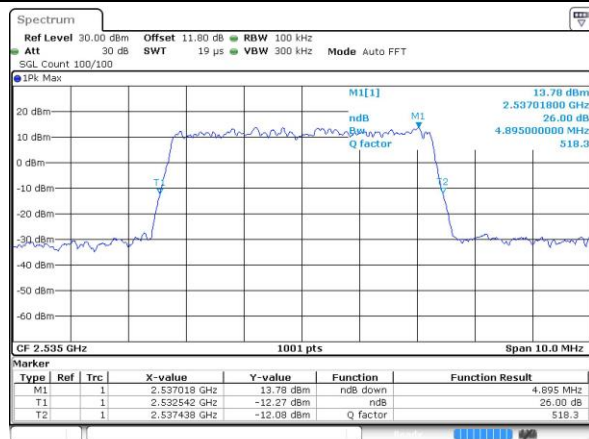
Date: 13 MAY 2017 17:42:37

## Middle Channel / 5MHz / QPSK



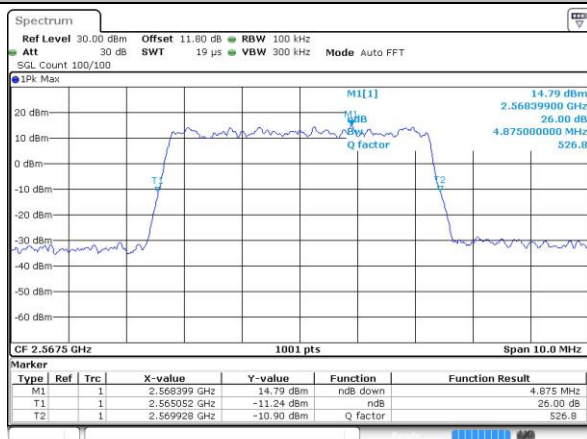
Date: 13 MAY 2017 17:49:34

## Middle Channel / 5MHz / 16QAM



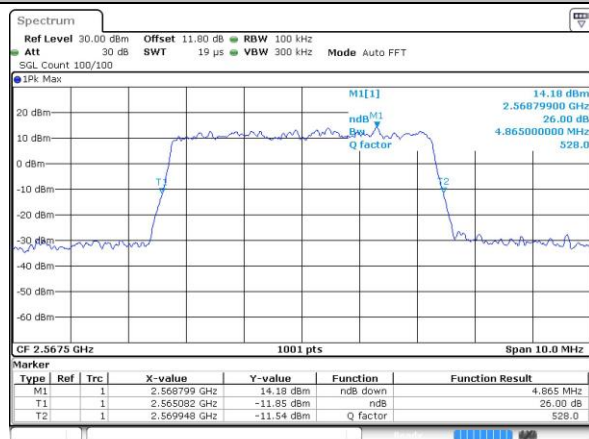
Date: 13 MAY 2017 17:49:45

## Highest Channel / 5MHz / QPSK



Date: 13 MAY 2017 17:52:03

## Highest Channel / 5MHz / 16QAM

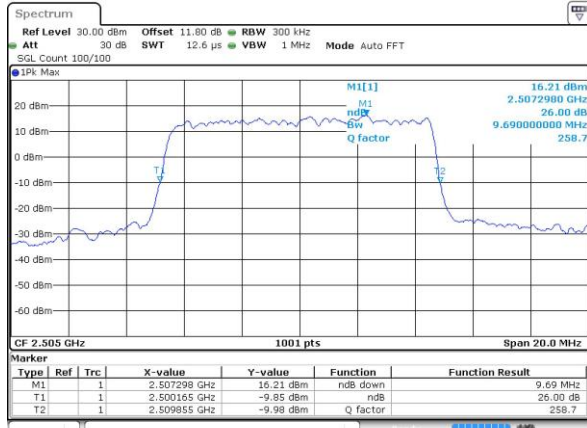


Date: 13 MAY 2017 17:52:14



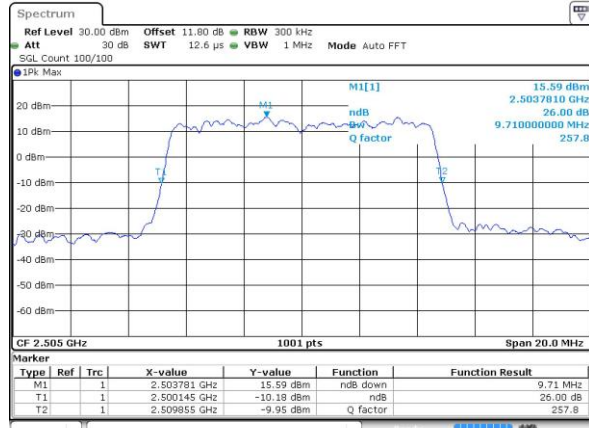
## LTE Band 7

## Lowest Channel / 10MHz / QPSK



Date: 13 MAY 2017 17:59:12

## Lowest Channel / 10MHz / 16QAM



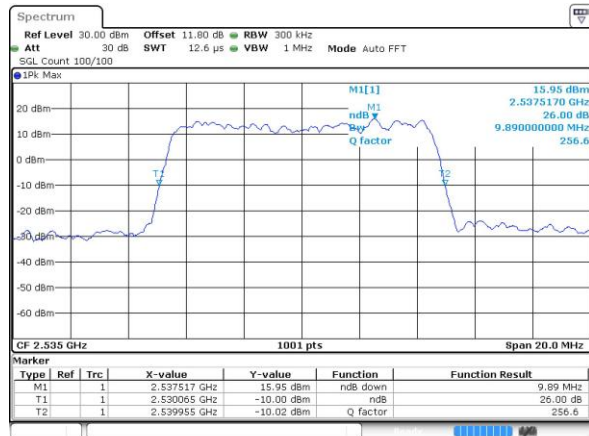
Date: 13 MAY 2017 17:59:22

## Middle Channel / 10MHz / QPSK



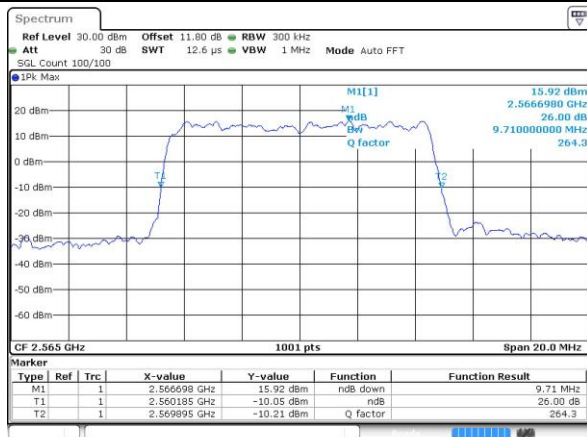
Date: 13 MAY 2017 18:06:19

## Middle Channel / 10MHz / 16QAM



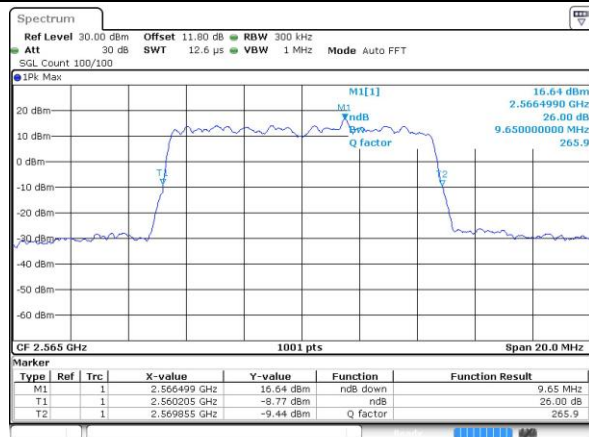
Date: 13 MAY 2017 18:06:30

## Highest Channel / 10MHz / QPSK



Date: 13 MAY 2017 18:08:48

## Highest Channel / 10MHz / 16QAM

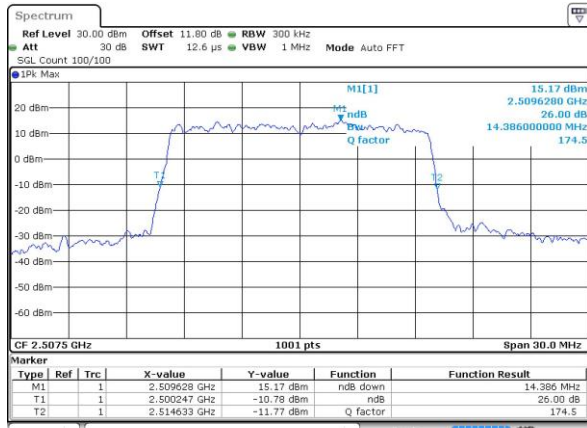


Date: 13 MAY 2017 18:08:59



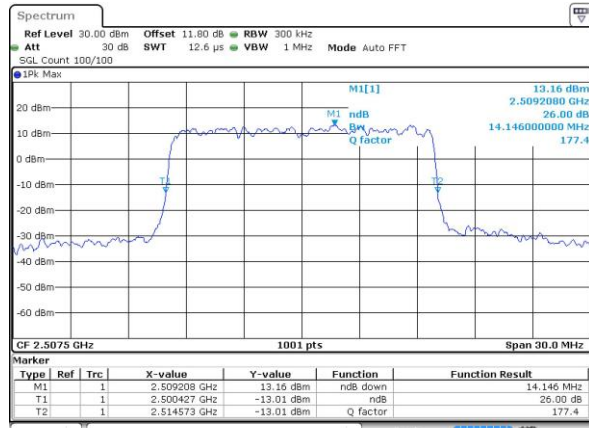
## LTE Band 7

## Lowest Channel / 15MHz / QPSK



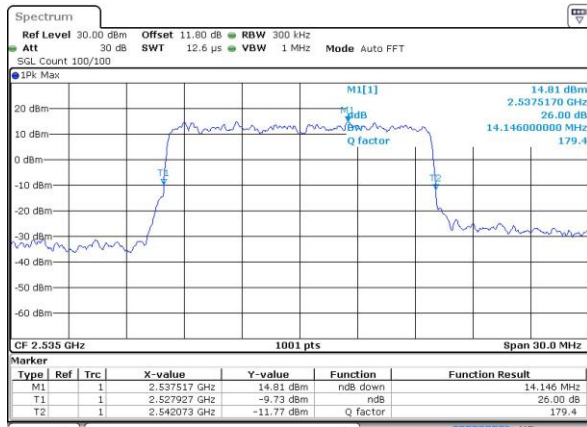
Date: 13 MAY 2017 18:15:57

## Lowest Channel / 15MHz / 16QAM



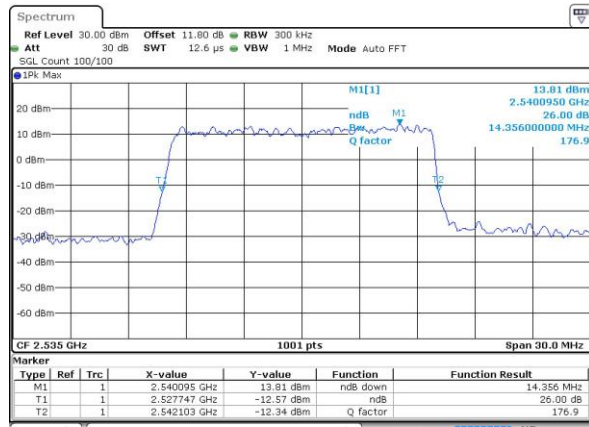
Date: 13 MAY 2017 18:16:07

## Middle Channel / 15MHz / QPSK



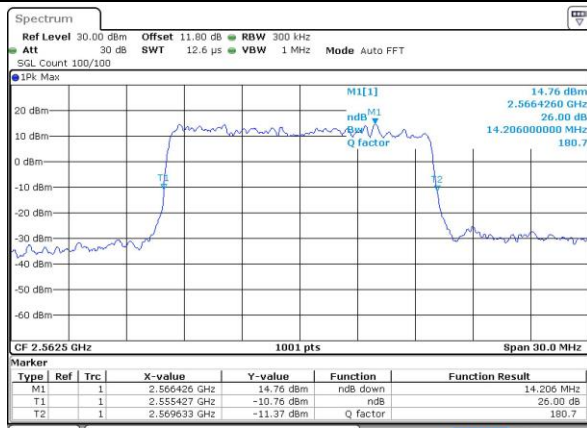
Date: 13 MAY 2017 18:23:04

## Middle Channel / 15MHz / 16QAM



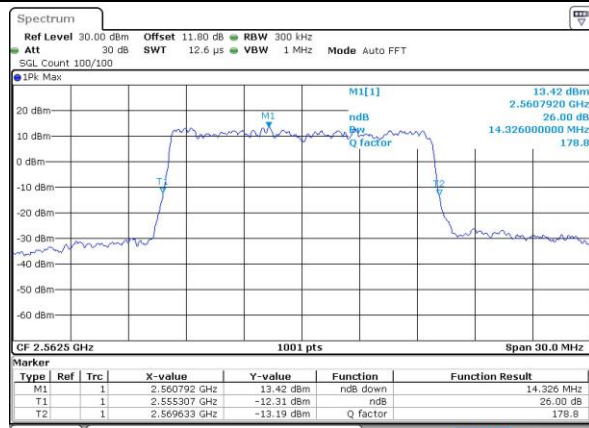
Date: 13 MAY 2017 18:23:15

## Highest Channel / 15MHz / QPSK



Date: 13 MAY 2017 18:25:33

## Highest Channel / 15MHz / 16QAM

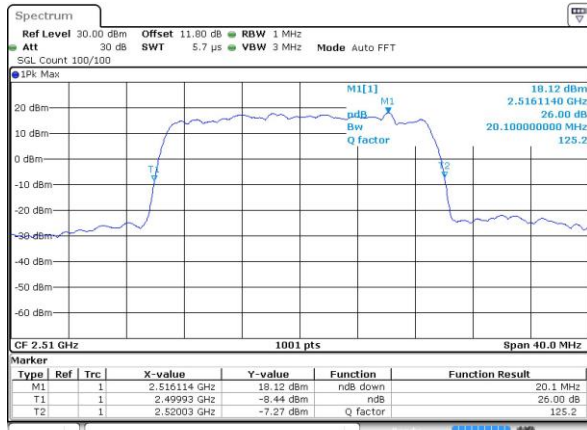


Date: 13 MAY 2017 18:25:44

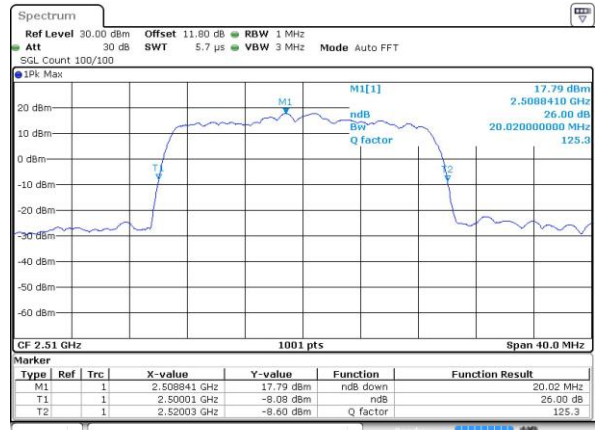


## LTE Band 7

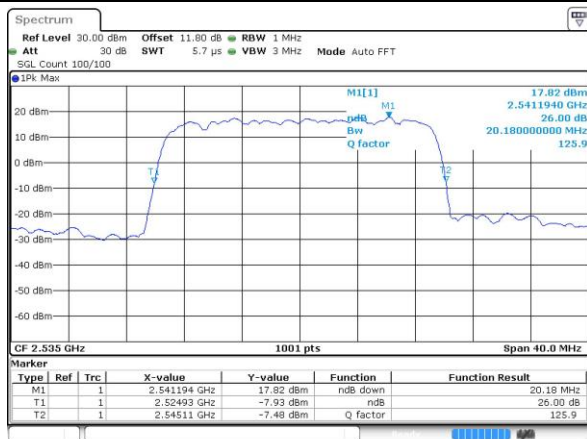
## Lowest Channel / 20MHz / QPSK



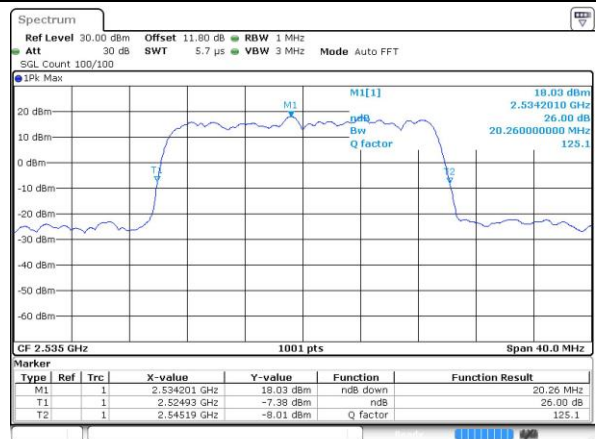
## Lowest Channel / 20MHz / 16QAM



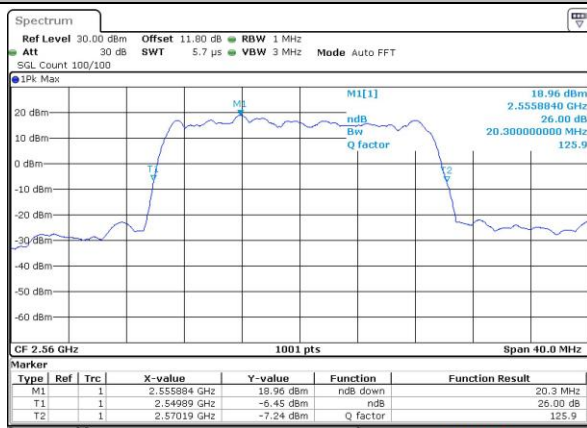
## Middle Channel / 20MHz / QPSK



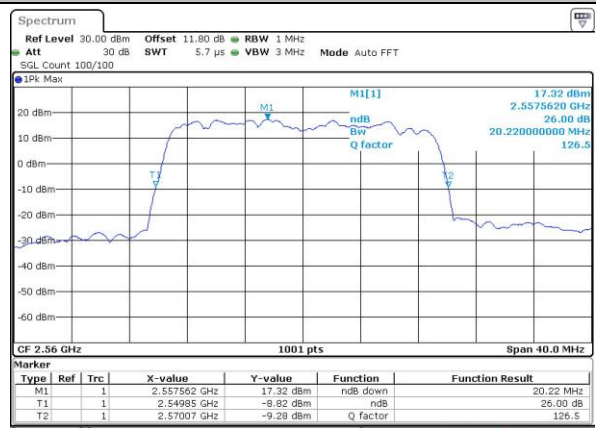
## Middle Channel / 20MHz / 16QAM



## Highest Channel / 20MHz / QPSK



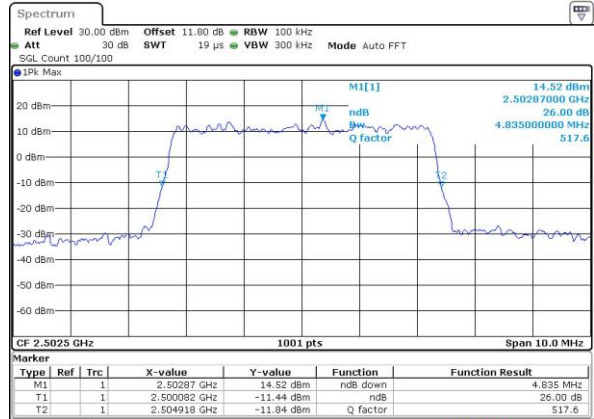
## Highest Channel / 20MHz / 16QAM



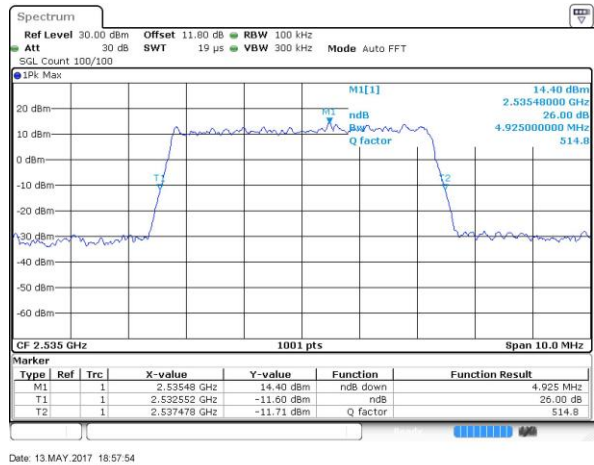


## LTE Band 7

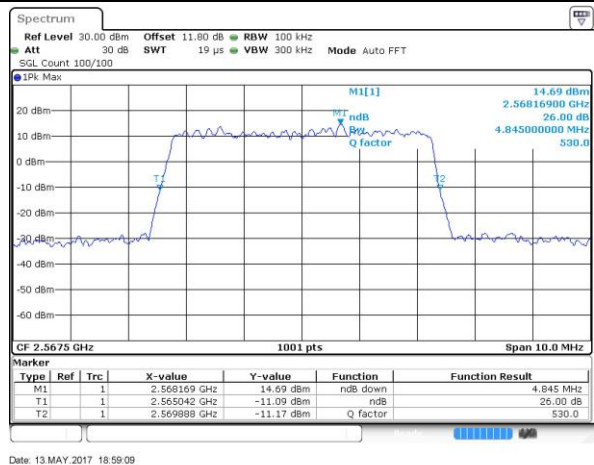
## Lowest Channel / 5MHz / 64QAM



## Middle Channel / 5MHz / 64QAM



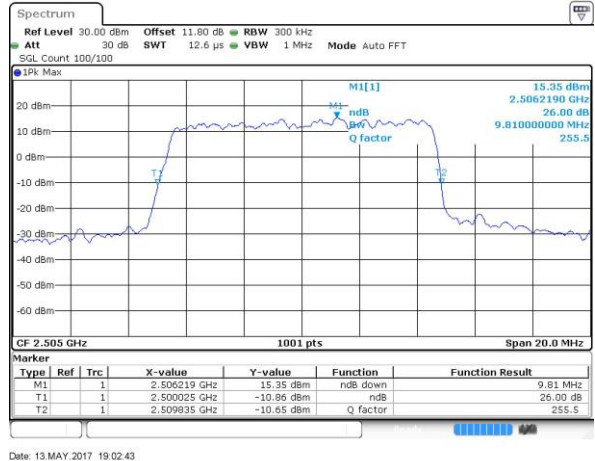
## Highest Channel / 5MHz / 64QAM



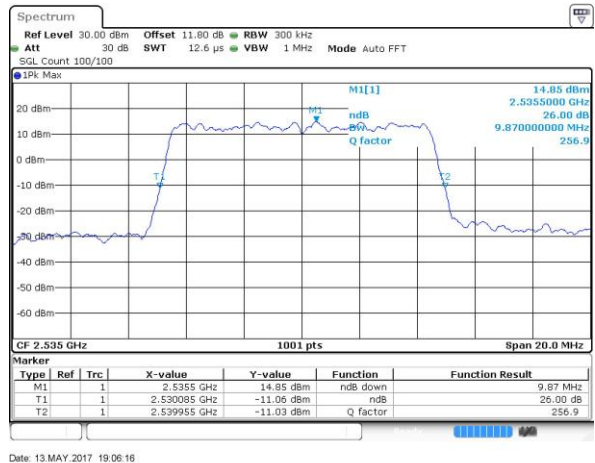


## LTE Band 7

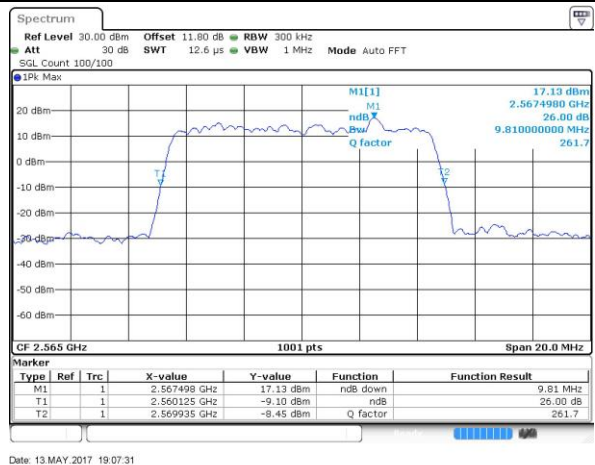
## Lowest Channel / 10MHz / 64QAM



## Middle Channel / 10MHz / 64QAM



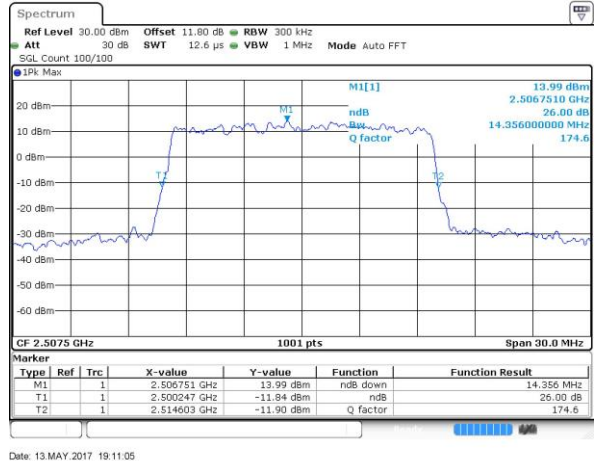
## Highest Channel / 10MHz / 64QAM



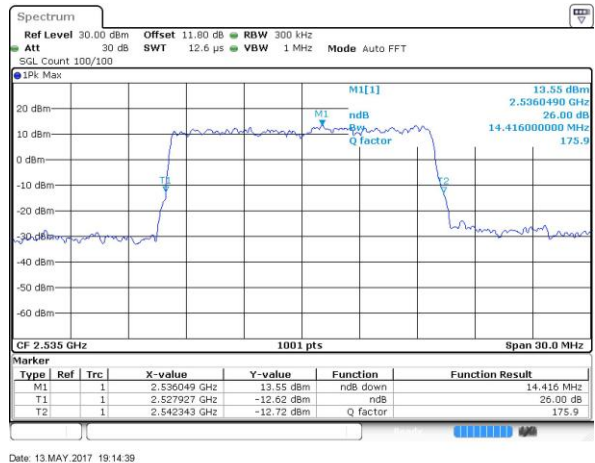


## LTE Band 7

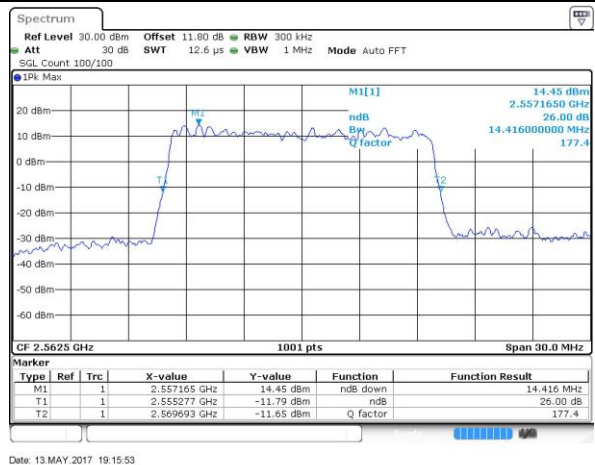
## Lowest Channel / 15MHz / 64QAM



## Middle Channel / 15MHz / 64QAM



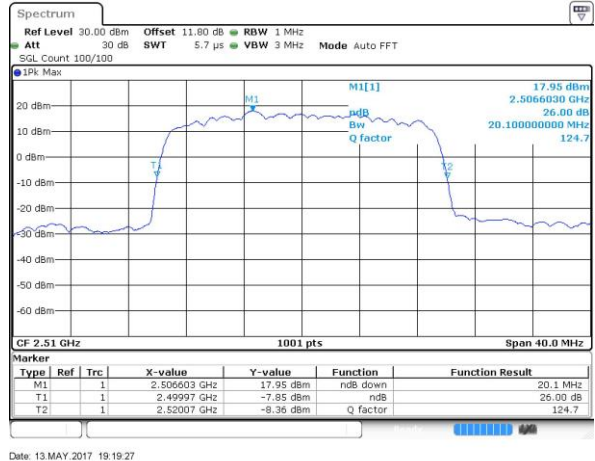
## Highest Channel / 15MHz / 64QAM



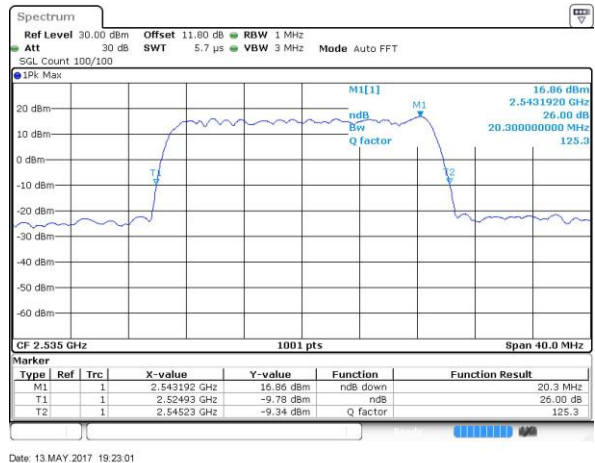


## LTE Band 7

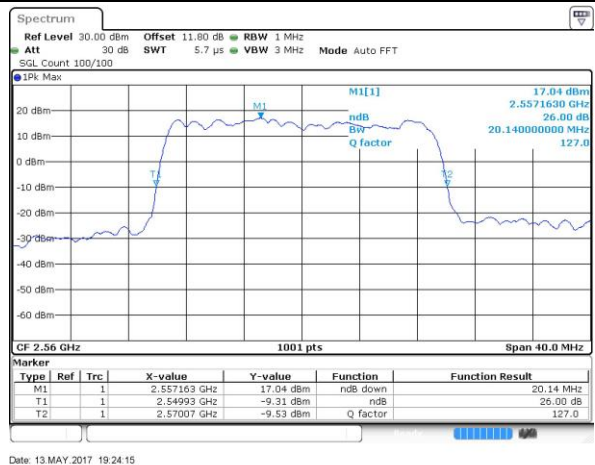
## Lowest Channel / 20MHz / 64QAM



## Middle Channel / 20MHz / 64QAM



## Highest Channel / 20MHz / 64QAM



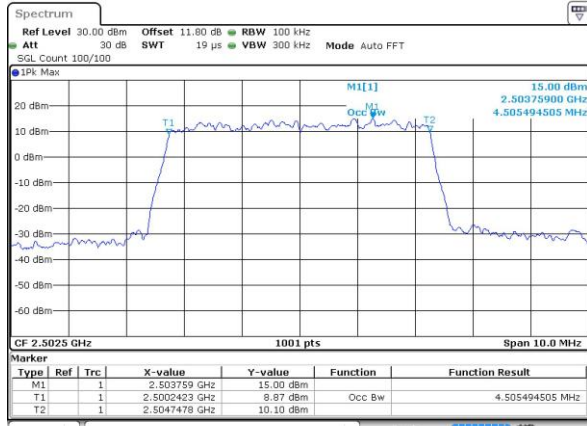
**Occupied Bandwidth**

| 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  | -                        | -     | -    | -     | 4.51 | 4.5   | 8.97  | 9.05  | 13.4  | 13.37 | 18.1  | 18.3  |
| Middle CH  | -                        | -     | -    | -     | 4.5  | 4.49  | 9.01  | 8.99  | 13.46 | 13.43 | 18.42 | 18.38 |
| Highest CH | -                        | -     | -    | -     | 4.5  | 4.5   | 8.97  | 9.03  | 13.49 | 13.4  | 18.34 | 18.34 |
| BW         | 1.4MHz                   |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | -                        | 64QAM | -    | 64QAM | -    | 64QAM | -     | 64QAM | -     | 64QAM | -     | 64QAM |
| Lowest CH  | -                        | -     | -    | -     | -    | 4.46  | -     | 8.99  | -     | 13.43 | -     | 18.26 |
| Middle CH  | -                        | -     | -    | -     | -    | 4.49  | -     | 9.05  | -     | 13.43 | -     | 18.22 |
| Highest CH | -                        | -     | -    | -     | -    | 4.46  | -     | 8.97  | -     | 13.46 | -     | 18.34 |



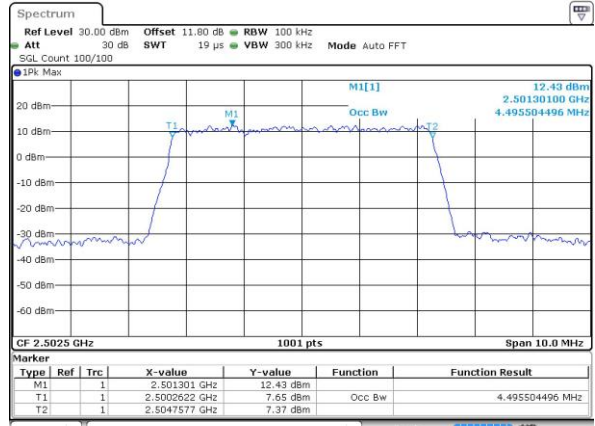
## LTE Band 7

## Lowest Channel / 5MHz / QPSK



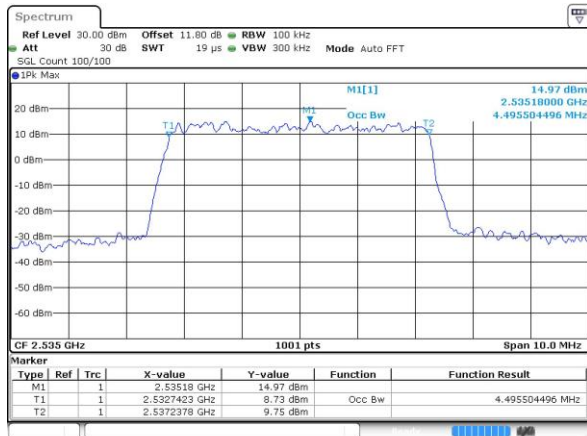
Date: 13 MAY 2017 17:42:06

## Lowest Channel / 5MHz / 16QAM



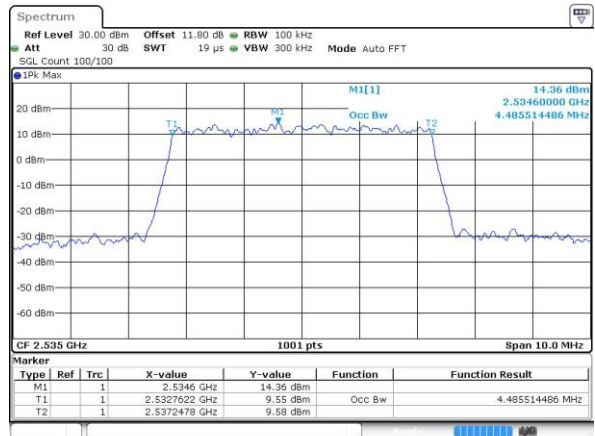
Date: 13 MAY 2017 17:42:16

## Middle Channel / 5MHz / QPSK



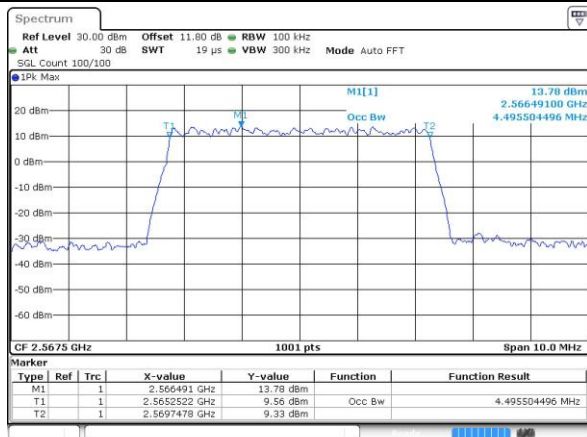
Date: 13 MAY 2017 17:49:14

## Middle Channel / 5MHz / 16QAM



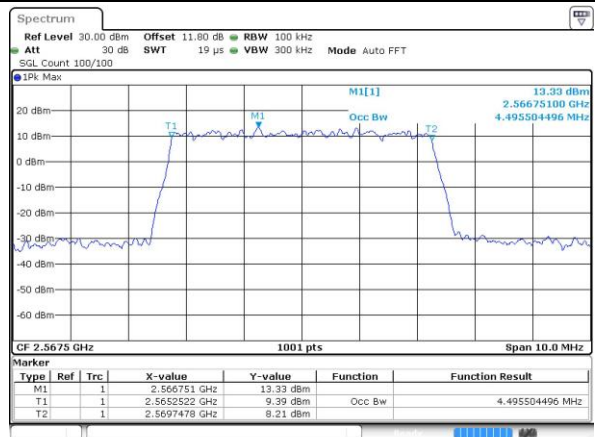
Date: 13 MAY 2017 17:49:24

## Highest Channel / 5MHz / QPSK



Date: 13 MAY 2017 17:51:43

## Highest Channel / 5MHz / 16QAM

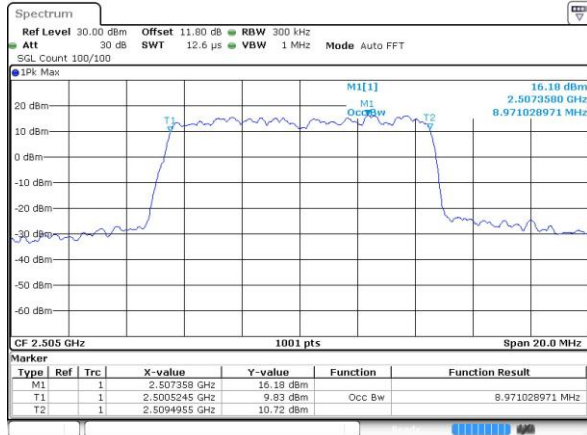


Date: 13 MAY 2017 17:51:53



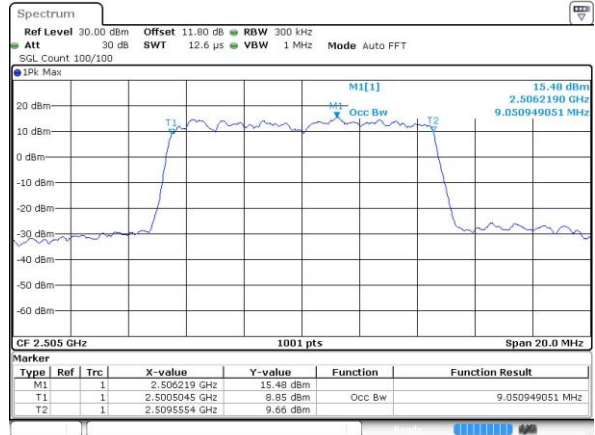
## LTE Band 7

## Lowest Channel / 10MHz / QPSK



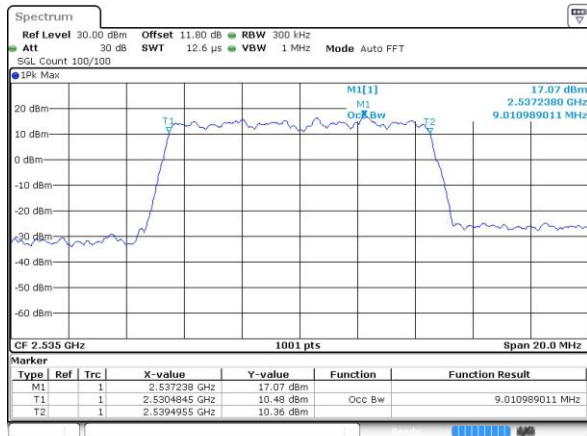
Date: 13 MAY 2017 17:58:51

## Lowest Channel / 10MHz / 16QAM



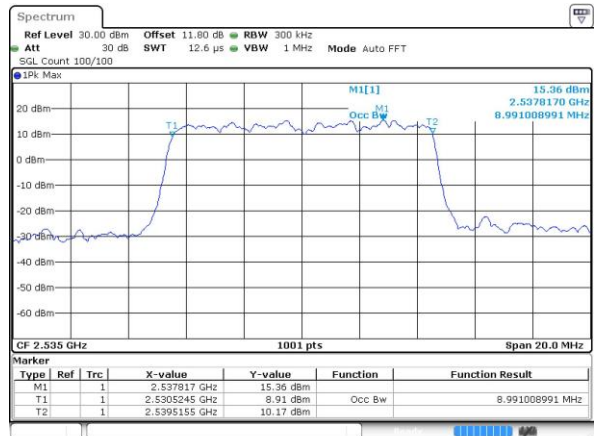
Date: 13 MAY 2017 17:59:01

## Middle Channel / 10MHz / QPSK



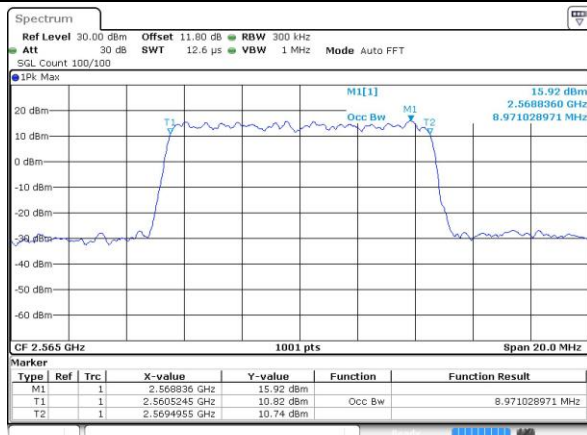
Date: 13 MAY 2017 18:05:59

## Middle Channel / 10MHz / 16QAM



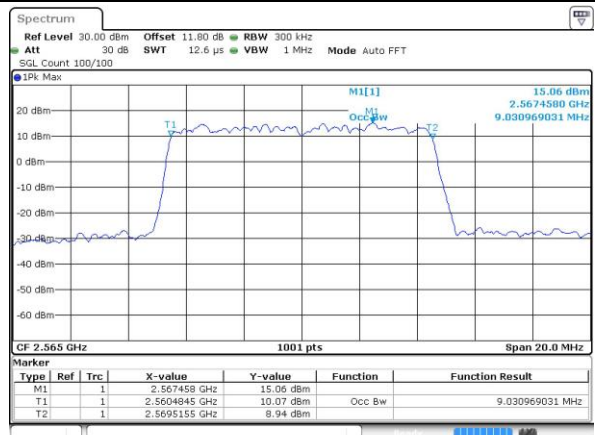
Date: 13 MAY 2017 18:06:09

## Highest Channel / 10MHz / QPSK



Date: 13 MAY 2017 18:08:28

## Highest Channel / 10MHz / 16QAM

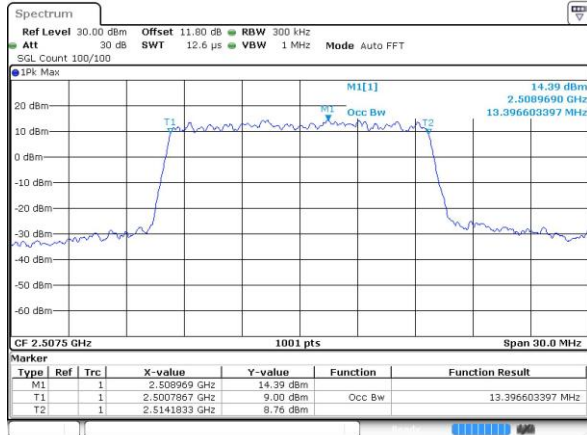


Date: 13 MAY 2017 18:08:38



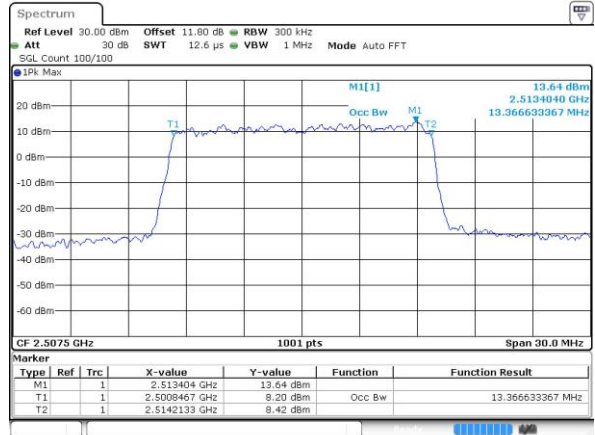
## LTE Band 7

## Lowest Channel / 15MHz / QPSK



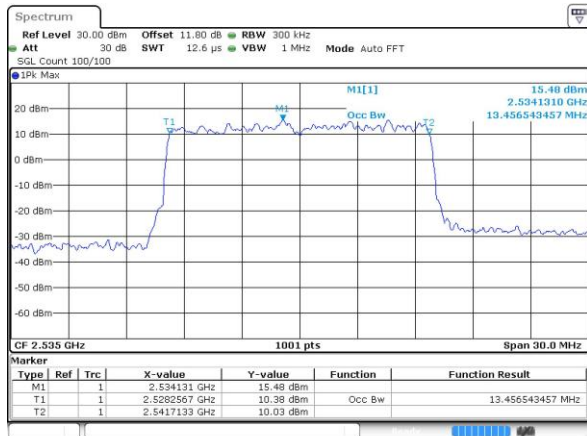
Date: 13 MAY 2017 18:15:36

## Lowest Channel / 15MHz / 16QAM



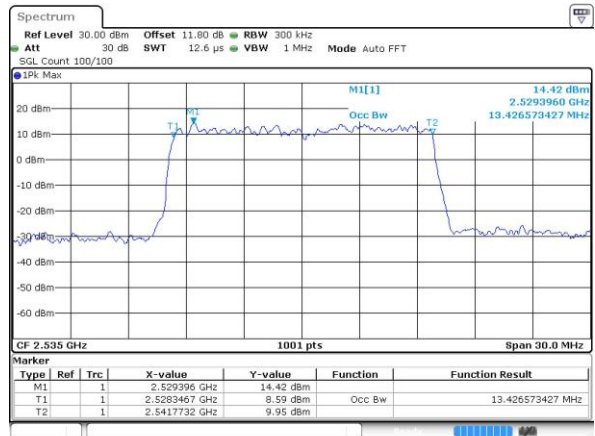
Date: 13 MAY 2017 18:15:46

## Middle Channel / 15MHz / QPSK



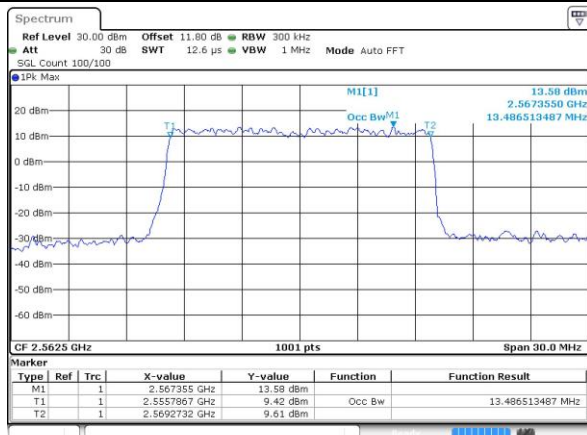
Date: 13 MAY 2017 18:22:44

## Middle Channel / 15MHz / 16QAM



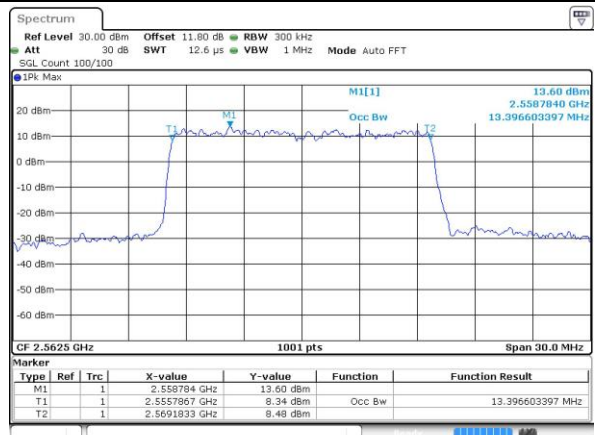
Date: 13 MAY 2017 18:22:54

## Highest Channel / 15MHz / QPSK



Date: 13 MAY 2017 18:25:12

## Highest Channel / 15MHz / 16QAM

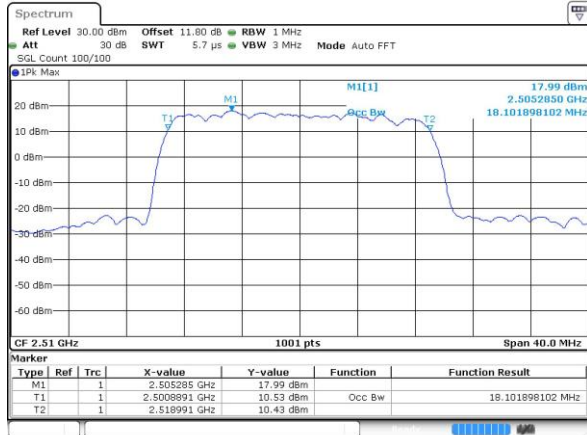


Date: 13 MAY 2017 18:25:23



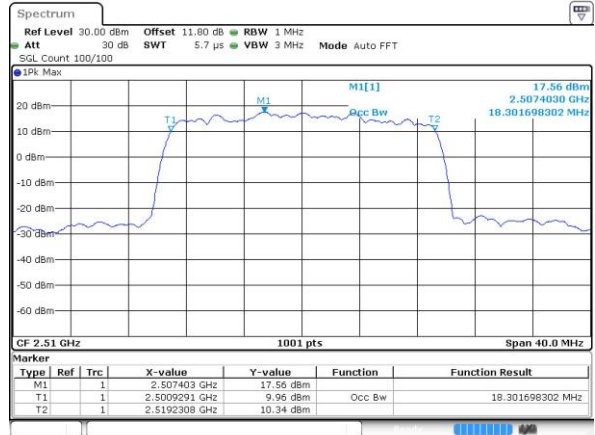
## LTE Band 7

## Lowest Channel / 20MHz / QPSK



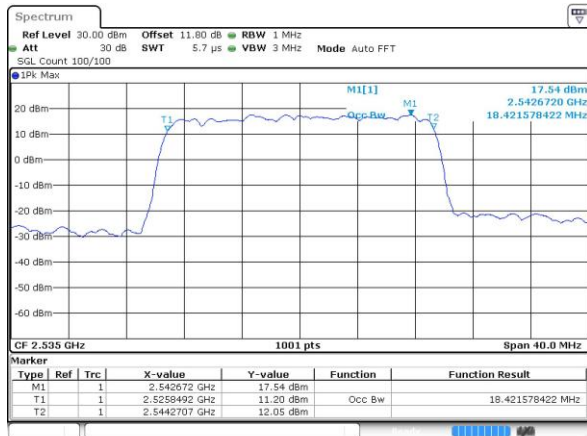
Date: 13 MAY 2017 18:32:21

## Lowest Channel / 20MHz / 16QAM



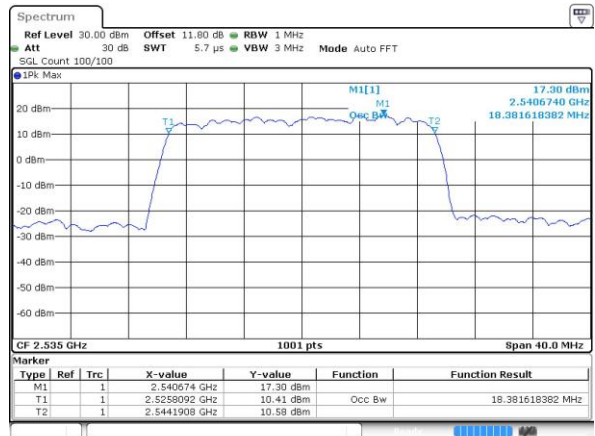
Date: 13 MAY 2017 18:32:31

## Middle Channel / 20MHz / QPSK



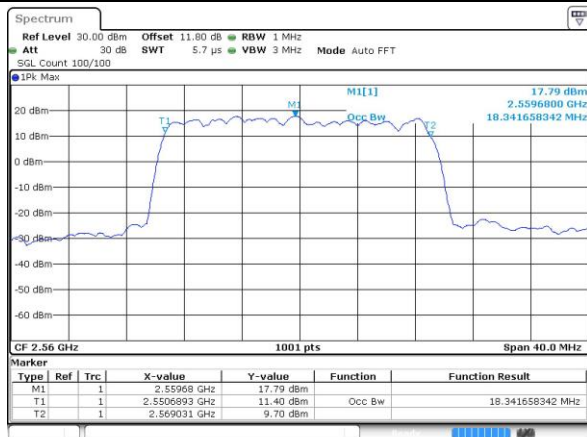
Date: 13 MAY 2017 18:39:28

## Middle Channel / 20MHz / 16QAM



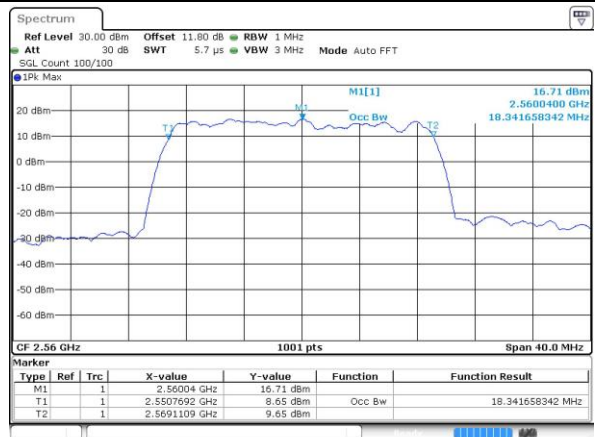
Date: 13 MAY 2017 18:39:39

## Highest Channel / 20MHz / QPSK



Date: 13 MAY 2017 18:41:57

## Highest Channel / 20MHz / 16QAM



Date: 13 MAY 2017 18:42:08