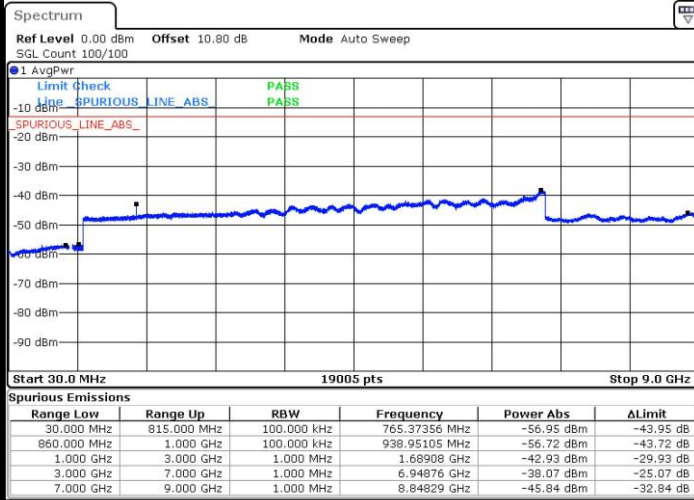




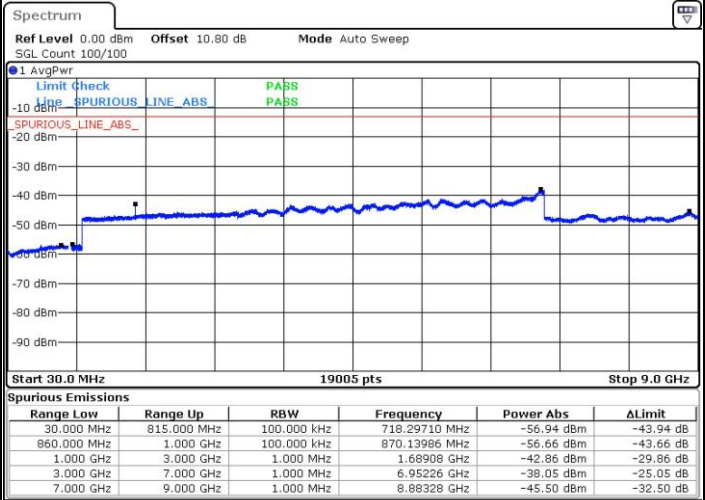
## LTE Band 5 / 5MHz

## Highest Channel / QPSK



Date: 13.APR.2018 09:50:17

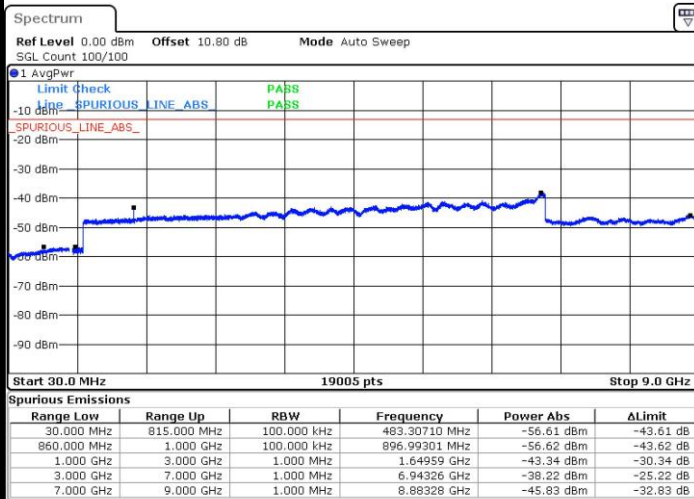
## Highest Channel / 16QAM



Date: 13.APR.2018 09:51:15

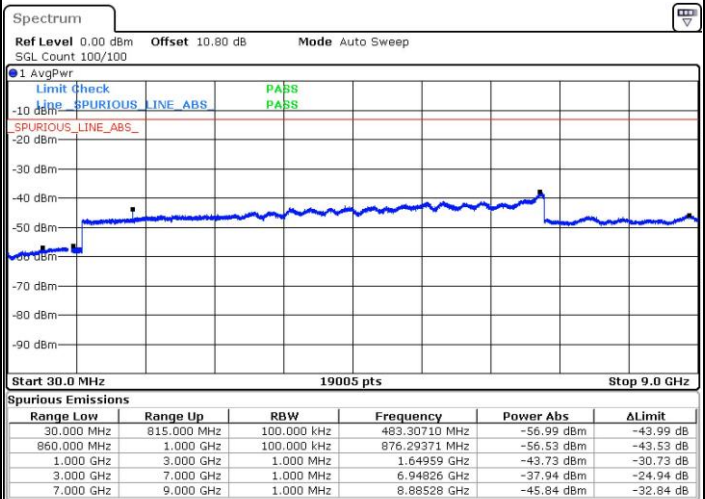
## LTE Band 5 / 10MHz

## Lowest Channel / QPSK



Date: 13.APR.2018 09:59:39

## Lowest Channel / 16QAM

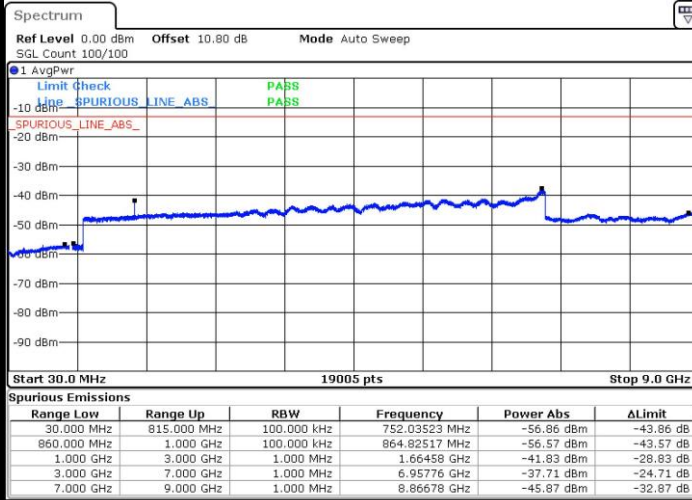


Date: 13.APR.2018 10:00:37



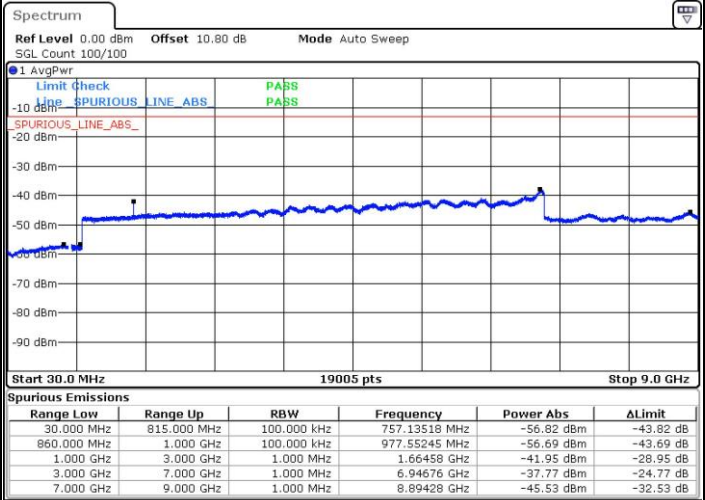
## LTE Band 5 / 10MHz

## Middle Channel / QPSK



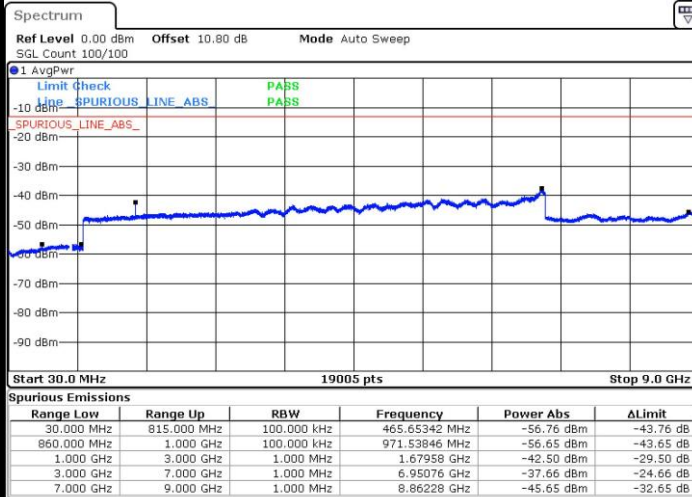
Date: 13.APR.2018 10:02:23

## Middle Channel / 16QAM



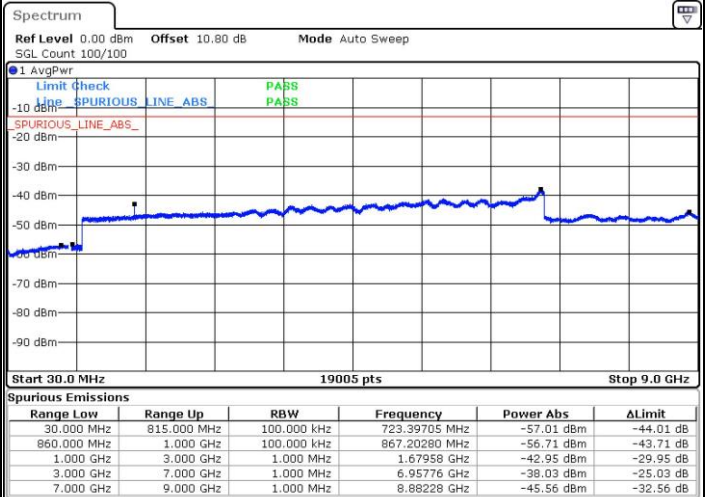
Date: 13.APR.2018 10:03:21

## Highest Channel / QPSK



Date: 13.APR.2018 10:16:51

## Highest Channel / 16QAM



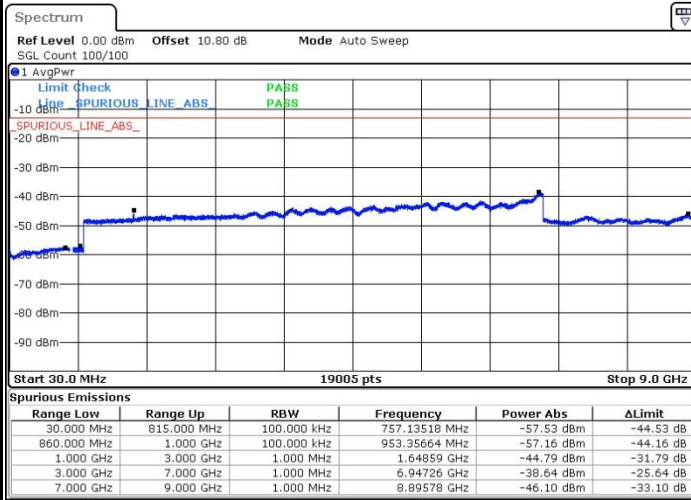
Date: 13.APR.2018 10:17:50



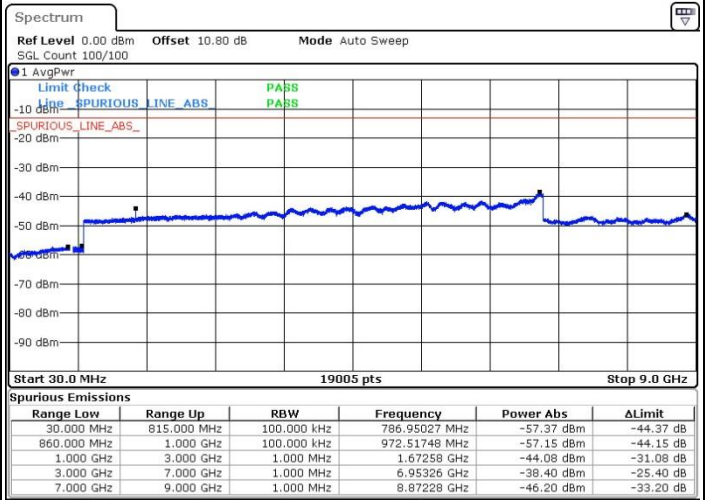
## LTE Band 5 / 1.4MHz

## Lowest Channel / 64QAM

## Middle Channel / 64QAM

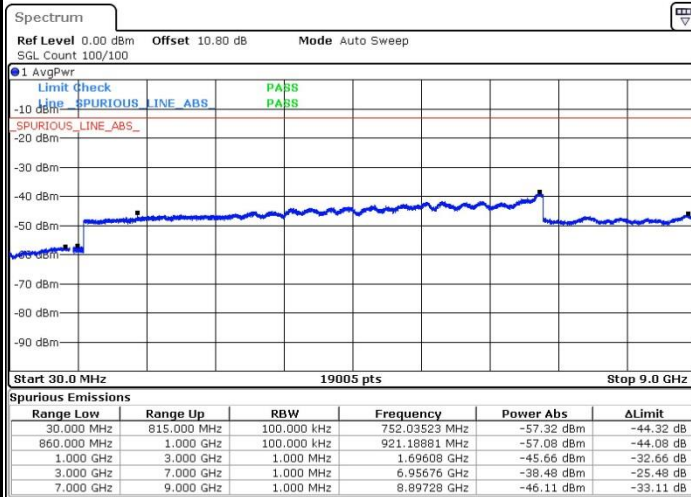


Date: 16.APR.2018 15:47:35



Date: 16.APR.2018 15:48:56

## Highest Channel / 64QAM

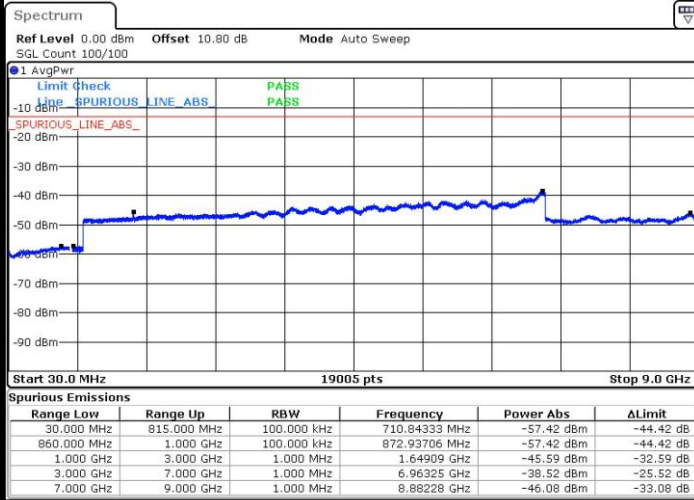


Date: 16.APR.2018 15:53:37



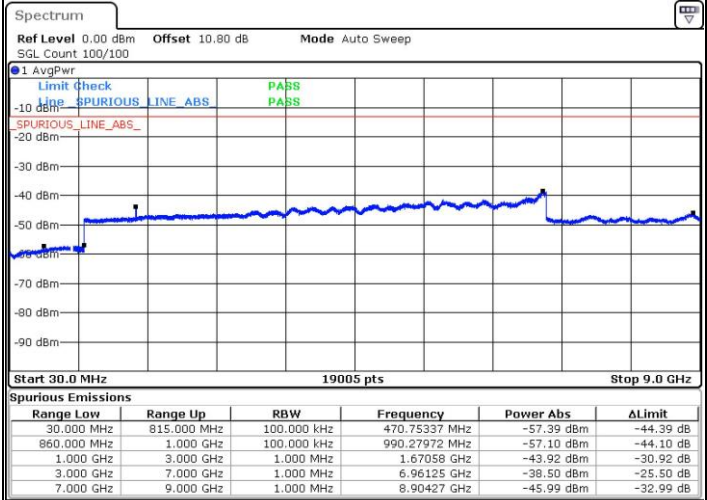
## LTE Band 5 / 3MHz

## Lowest Channel / 64QAM



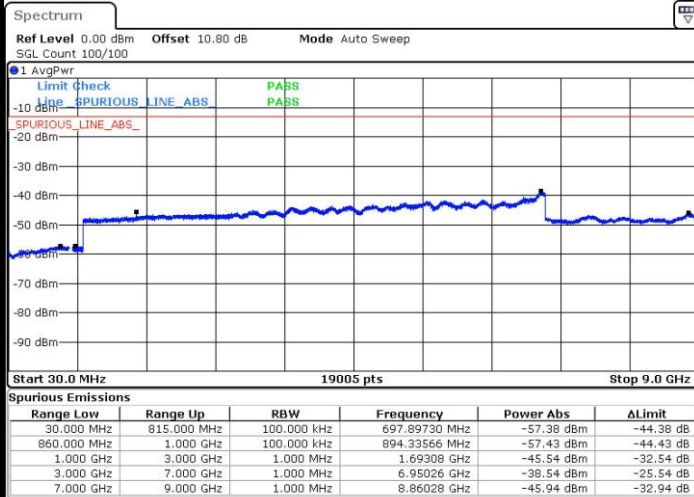
Date: 16.APR.2018 14:59:59

## Middle Channel / 64QAM



Date: 16.APR.2018 15:01:20

## Highest Channel / 64QAM

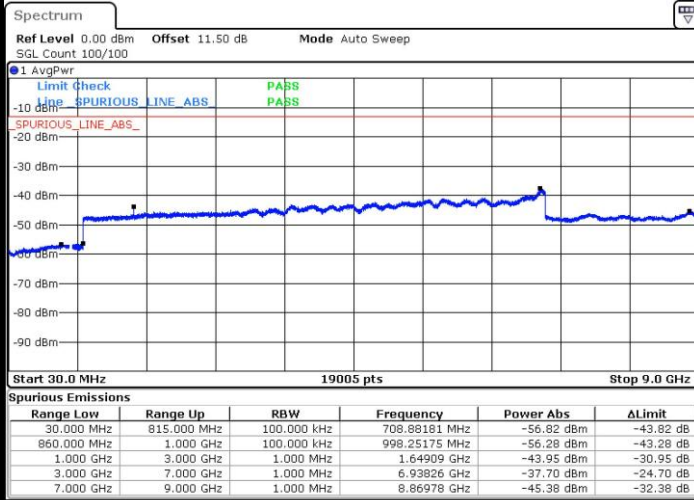


Date: 16.APR.2018 15:06:01



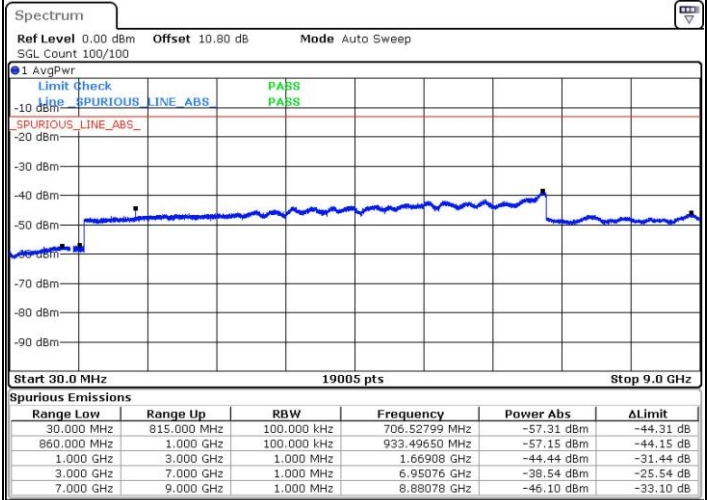
## LTE Band 5 / 5MHz

## Lowest Channel / 64QAM



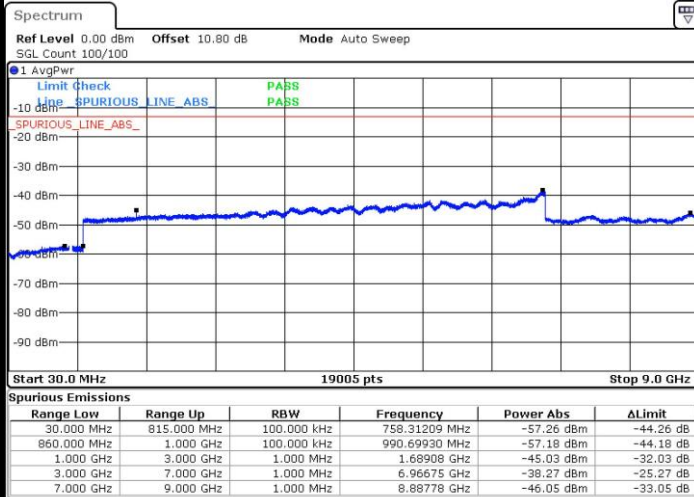
Date: 16.APR.2018 15:10:47

## Middle Channel / 64QAM



Date: 16.APR.2018 15:58:21

## Highest Channel / 64QAM

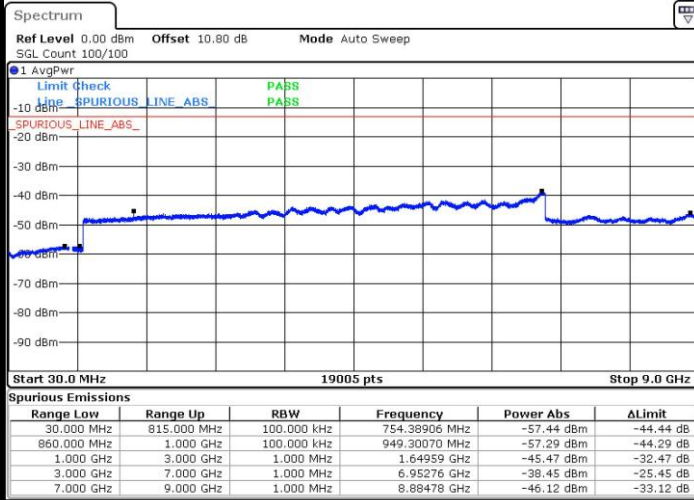


Date: 16.APR.2018 15:32:12



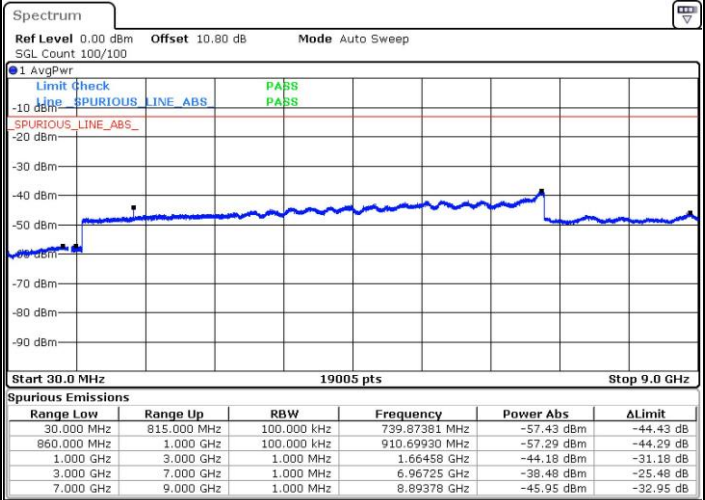
## LTE Band 5 / 10MHz

## Lowest Channel / 64QAM



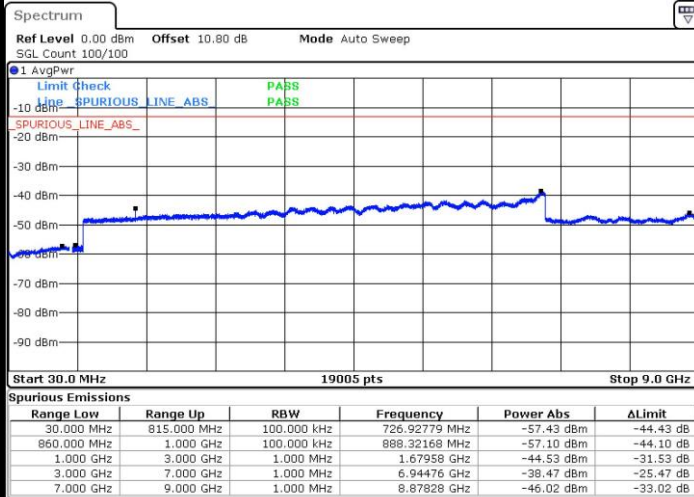
Date: 16.APR.2018 15:36:52

## Middle Channel / 64QAM



Date: 16.APR.2018 15:38:14

## Highest Channel / 64QAM



Date: 16.APR.2018 15:42:55

## 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    | 0.0043                             | PASS   |
| 40               | Normal Voltage    | 0.0104                             |        |
| 30               | Normal Voltage    | 0.0117                             |        |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |        |
| 10               | Normal Voltage    | 0.0104                             |        |
| 0                | Normal Voltage    | 0.0153                             |        |
| -10              | Normal Voltage    | 0.0102                             |        |
| -20              | Normal Voltage    | 0.0090                             |        |
| -30              | Normal Voltage    | 0.0077                             |        |
| 20               | Maximum Voltage   | 0.0031                             |        |
| 20               | Normal Voltage    | 0.0000                             |        |
| 20               | Battery End Point | 0.0105                             |        |

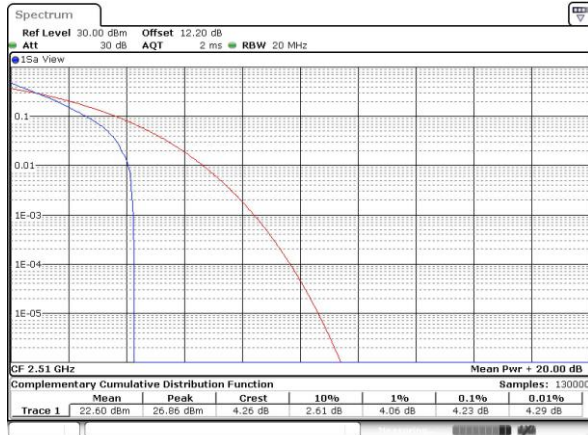
**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

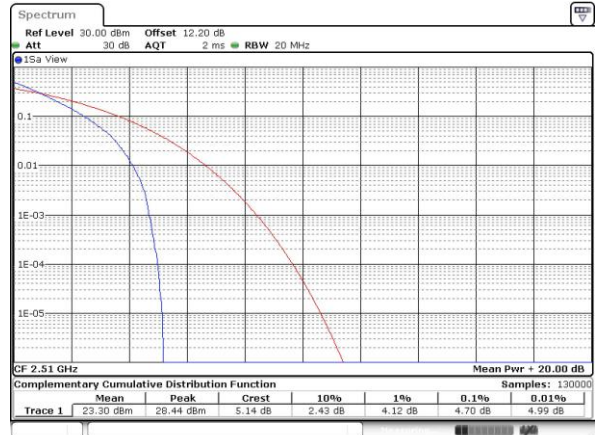
## LTE Band 7

### Peak-to-Average Ratio

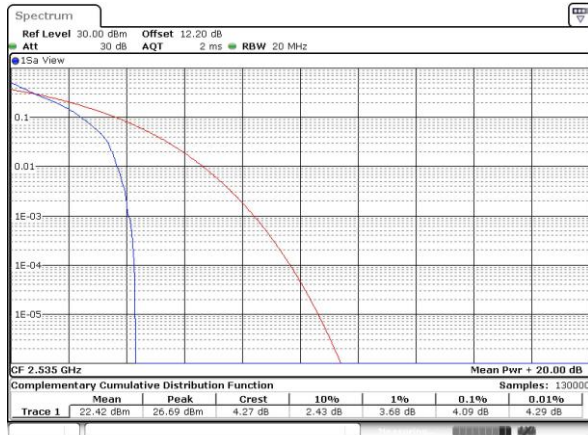
| Mode       | LTE Band 7 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 4.23               | 4.70    | 5.07  | 5.71    | PASS        |
| Middle CH  | 4.09               | 4.12    | 4.64  | 4.99    |             |
| Highest CH | 4.41               | 4.20    | 5.25  | 5.28    |             |
| Mode       | LTE Band 7 / 20MHz |         |       |         |             |
| Mod.       | 64QAM              |         |       |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB |       |         | Result      |
| Lowest CH  | 5.74               | 6.17    | -     | -       | PASS        |
| Middle CH  | 5.16               | 5.57    | -     | -       |             |
| Highest CH | 6.17               | 5.77    | -     | -       |             |

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


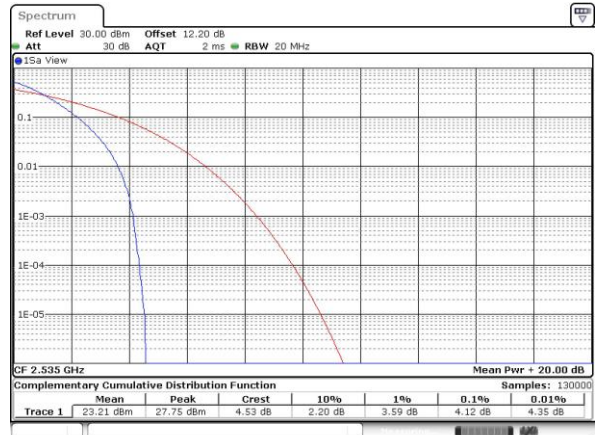
Date: 27 JUN 2018 02:28:01

**Lowest Channel / Full RB**


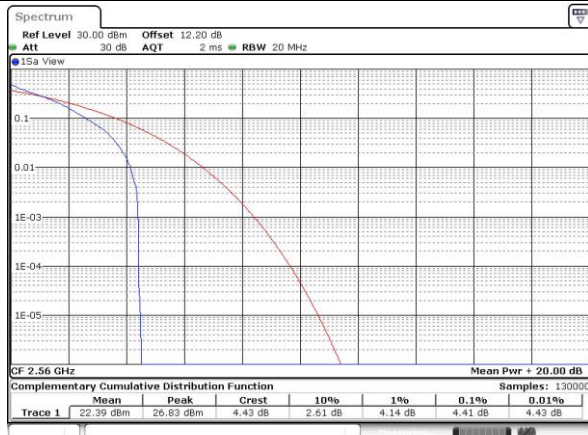
Date: 27 JUN 2018 02:26:11

**Middle Channel / 1RB**


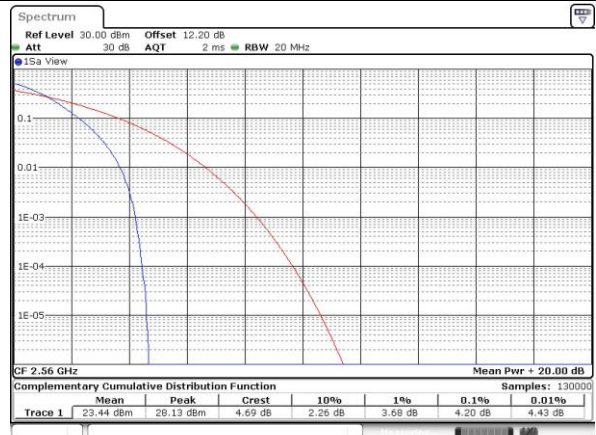
Date: 27 JUN 2018 02:26:21

**Middle Channel / Full RB**


Date: 27 JUN 2018 02:26:31

**Highest Channel / 1RB**


Date: 27 JUN 2018 02:28:41

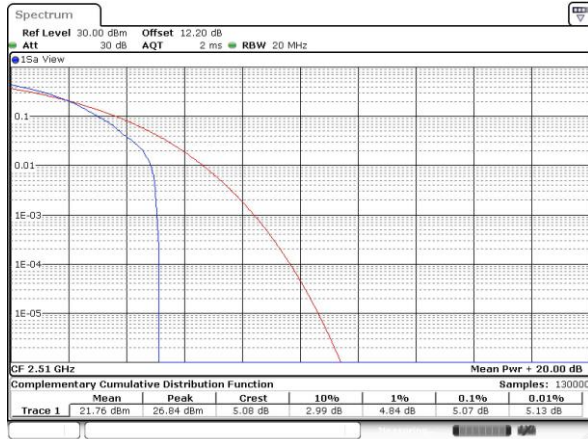
**Highest Channel / Full RB**


Date: 27 JUN 2018 02:26:51

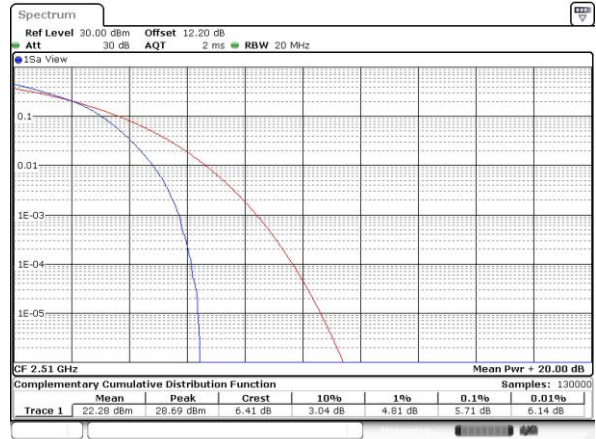


## LTE Band 7 / 20MHz / 16QAM

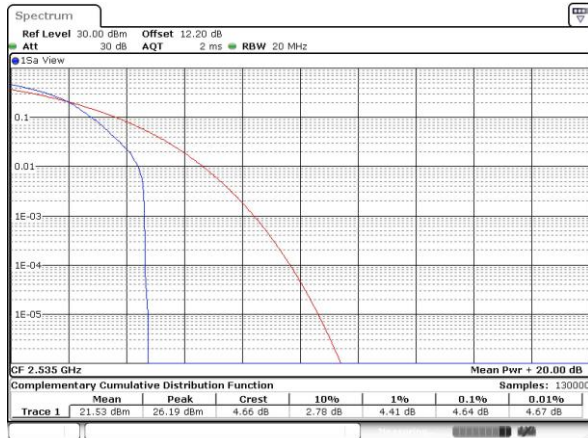
## Lowest Channel / 1RB



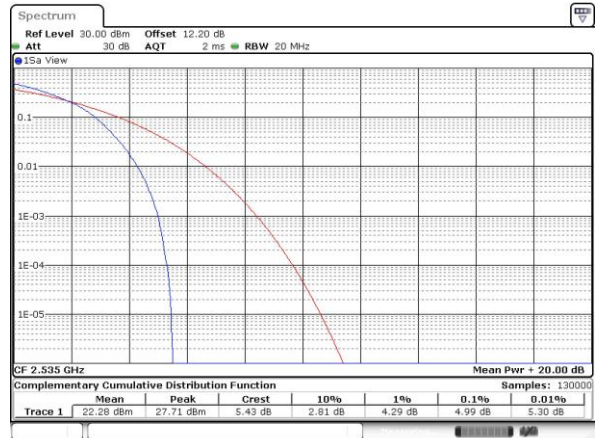
## Lowest Channel / Full RB



## Middle Channel / 1RB



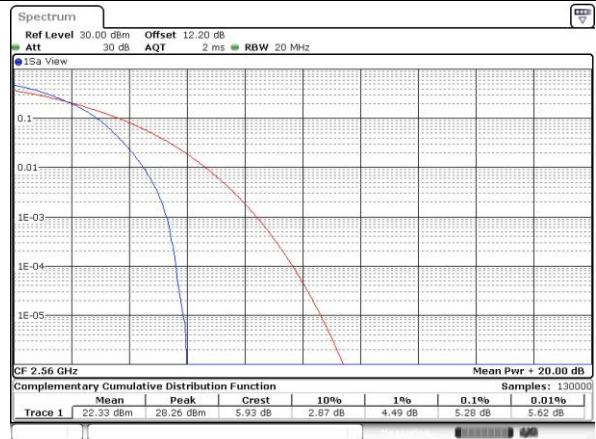
## Middle Channel / Full RB



## Highest Channel / 1RB



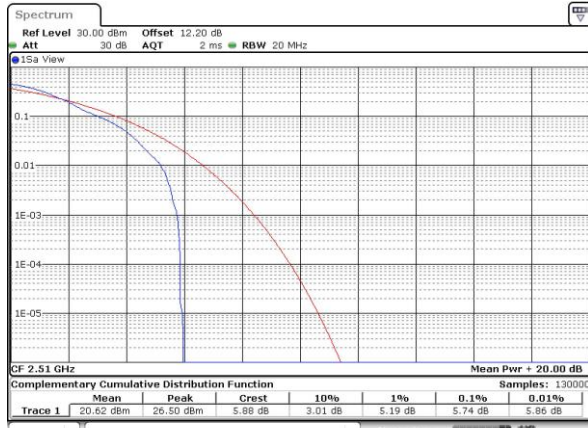
## Highest Channel / Full RB



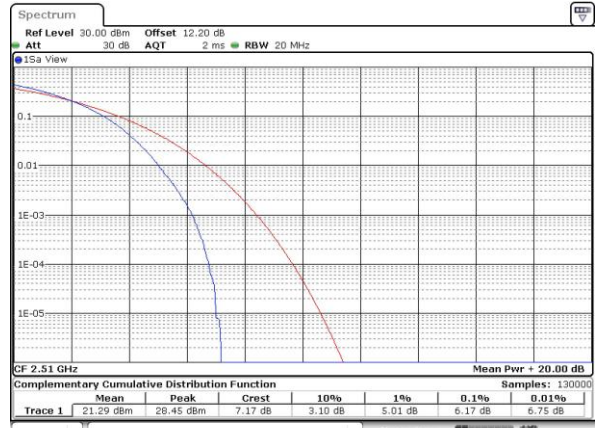


## LTE Band 7 / 20MHz / 64QAM

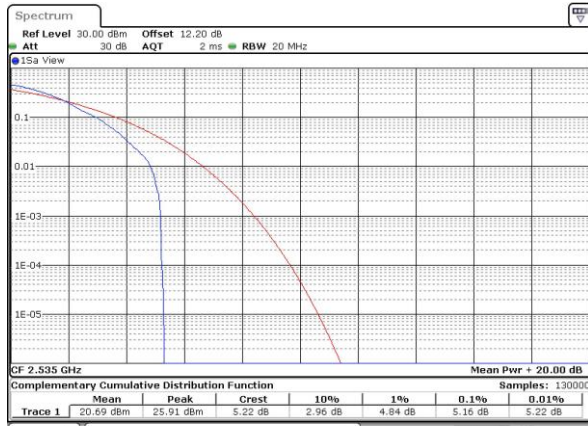
## Lowest Channel / 1RB



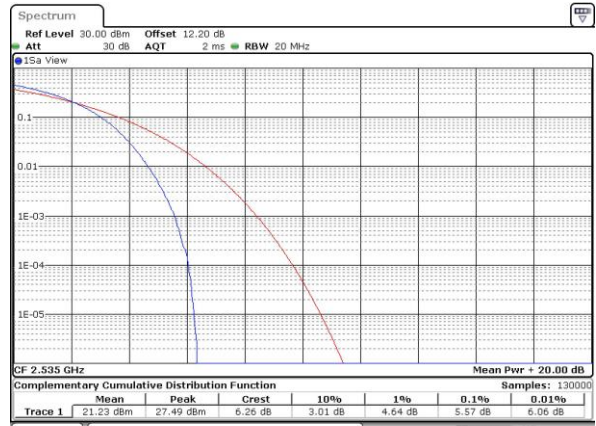
## Lowest Channel / Full RB



## Middle Channel / 1RB



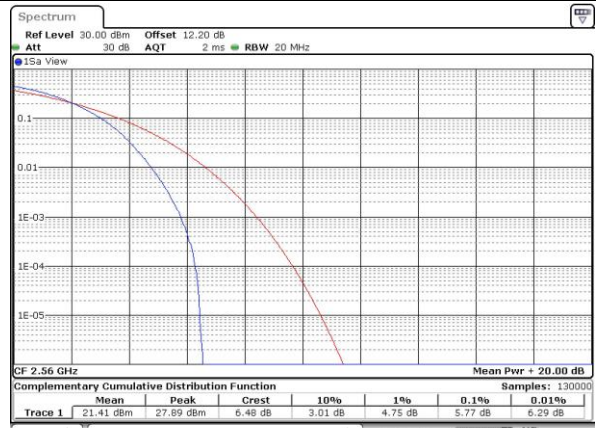
## Middle Channel / Full RB



## Highest Channel / 1RB



## Highest Channel / Full RB



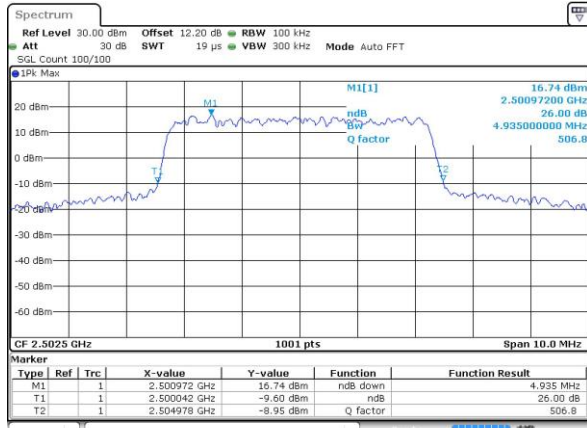
**26dB Bandwidth**

| 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  | -                         | -     | -     | -     | 4.94  | 4.85  | 9.87  | 9.65  | 14.18 | 14.48 | 20.30 | 20.10 |
| Middle CH  | -                         | -     | -     | -     | 4.92  | 4.94  | 9.79  | 9.83  | 14.30 | 14.33 | 20.78 | 20.50 |
| Highest CH | -                         | -     | -     | -     | 4.99  | 4.89  | 9.85  | 9.63  | 14.57 | 14.54 | 20.50 | 20.26 |
| Mode       | LTE Band 7 : 26dB BW(MHz) |       |       |       |       |       |       |       |       |       |       |       |
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | 64QAM                     |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | -                         | -     | -     | -     | 4.94  |       | 9.79  |       | 14.54 |       | 20.22 | -     |
| Middle CH  | -                         | -     | -     | -     | 4.86  |       | 9.93  |       | 14.69 |       | 20.18 | -     |
| Highest CH | -                         | -     | -     | -     | 4.80  |       | 9.95  |       | 14.60 |       | 20.26 | -     |



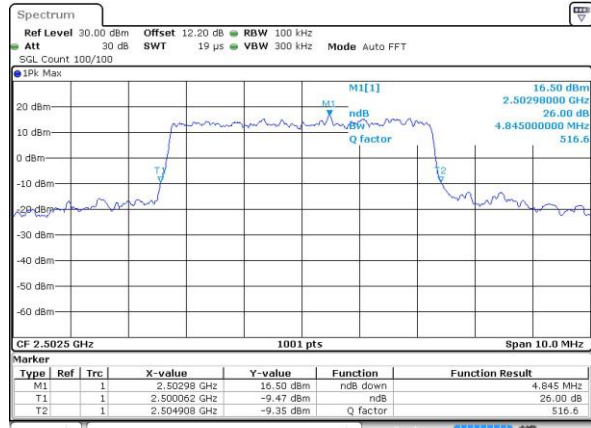
## LTE Band 7

## Lowest Channel / 5MHz / QPSK



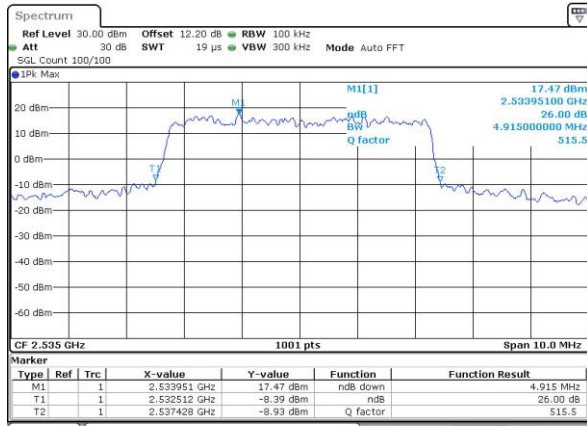
Date: 27 JUN 2018 00:46:10

## Lowest Channel / 5MHz / 16QAM



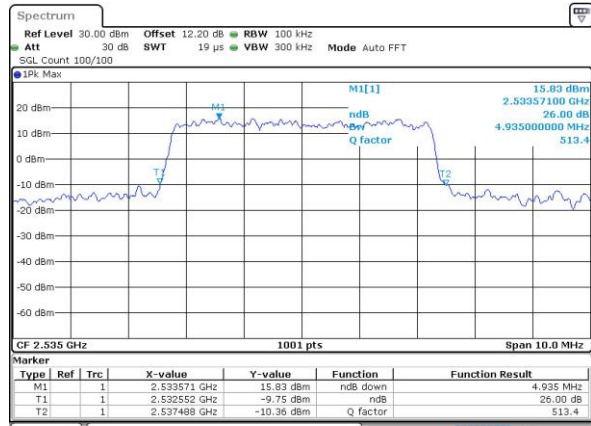
Date: 27 JUN 2018 00:46:20

## Middle Channel / 5MHz / QPSK



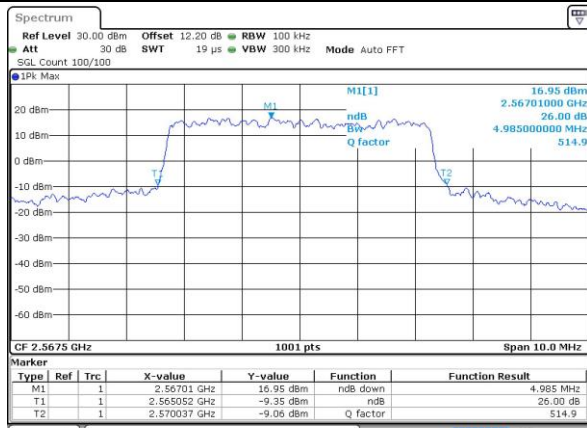
Date: 27 JUN 2018 00:53:09

## Middle Channel / 5MHz / 16QAM



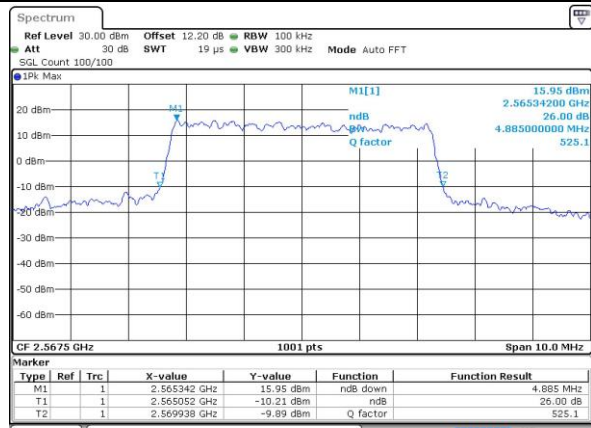
Date: 27 JUN 2018 00:53:19

## Highest Channel / 5MHz / QPSK



Date: 27 JUN 2018 00:55:36

## Highest Channel / 5MHz / 16QAM

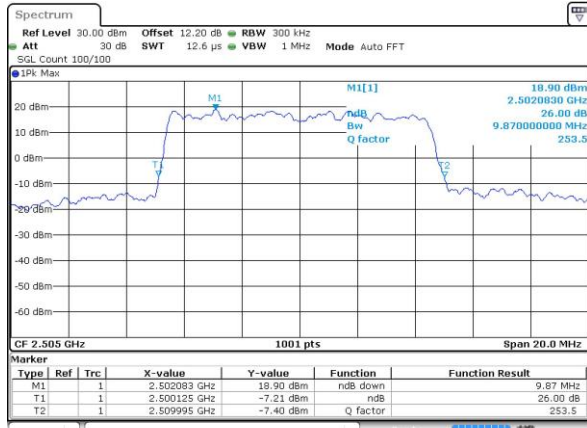


Date: 27 JUN 2018 00:55:47



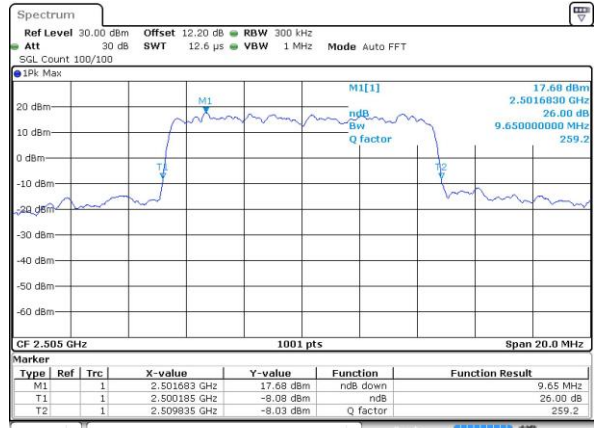
## LTE Band 7

## Lowest Channel / 10MHz / QPSK



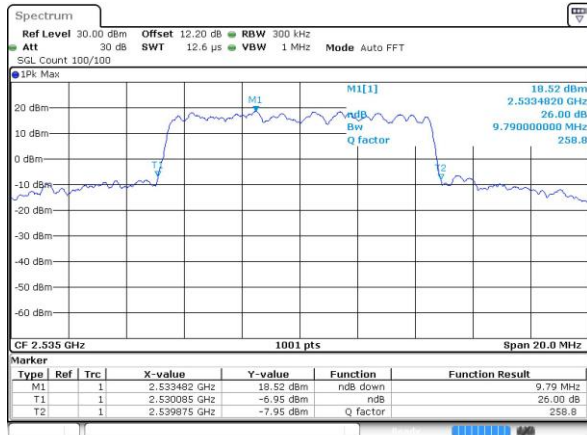
Date: 27 JUN 2018 01:10:48

## Lowest Channel / 10MHz / 16QAM



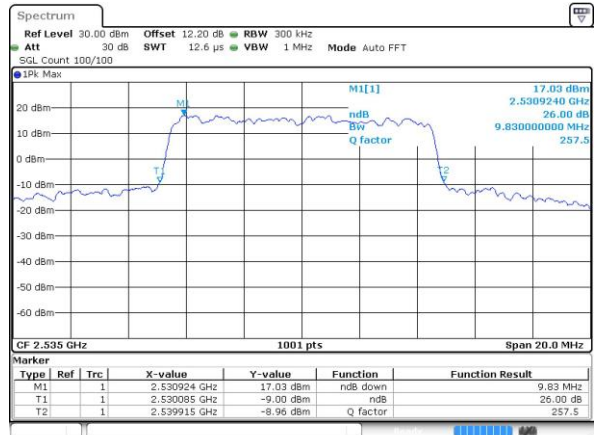
Date: 27 JUN 2018 01:10:58

## Middle Channel / 10MHz / QPSK



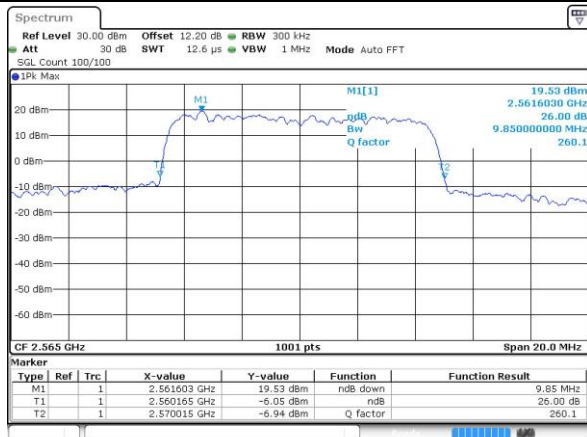
Date: 27 JUN 2018 01:17:47

## Middle Channel / 10MHz / 16QAM



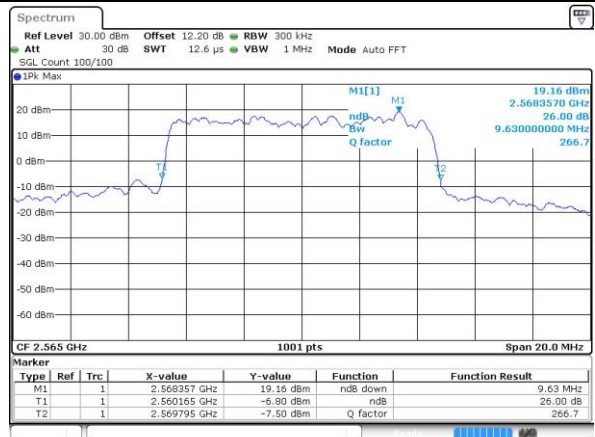
Date: 27 JUN 2018 01:17:57

## Highest Channel / 10MHz / QPSK



Date: 27 JUN 2018 01:20:15

## Highest Channel / 10MHz / 16QAM

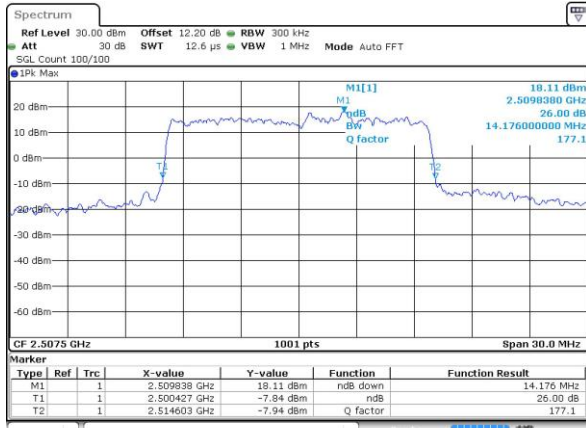


Date: 27 JUN 2018 01:20:25

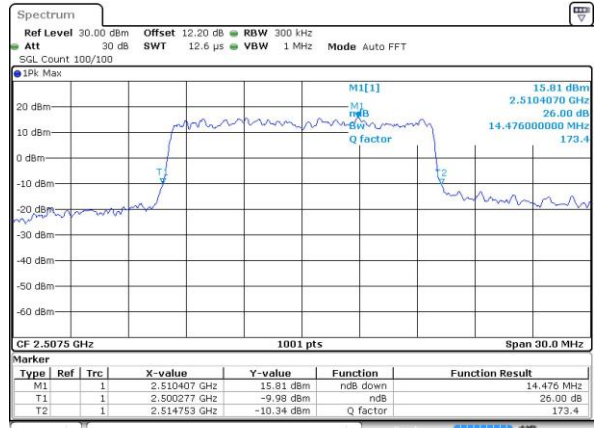


## LTE Band 7

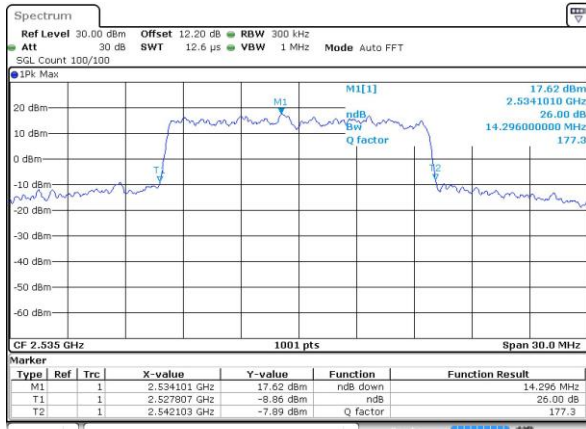
## Lowest Channel / 15MHz / QPSK



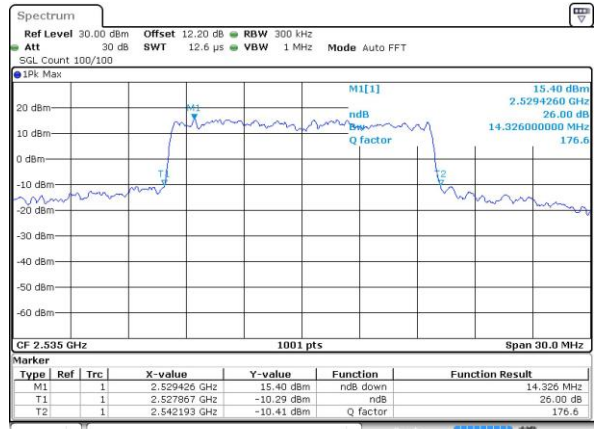
## Lowest Channel / 15MHz / 16QAM



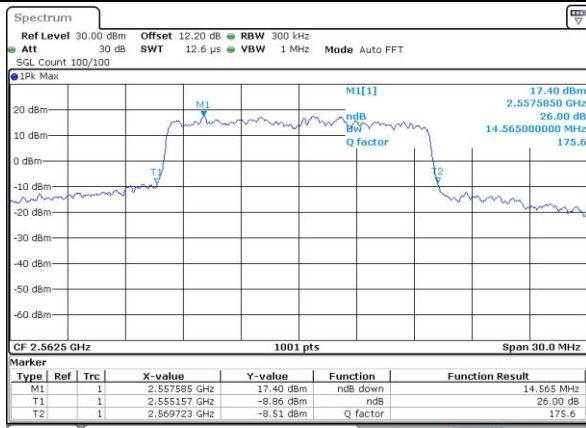
## Middle Channel / 15MHz / QPSK



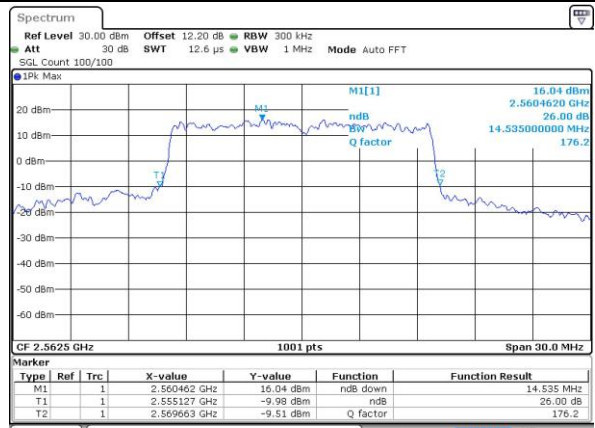
## Middle Channel / 15MHz / 16QAM



## Highest Channel / 15MHz / QPSK



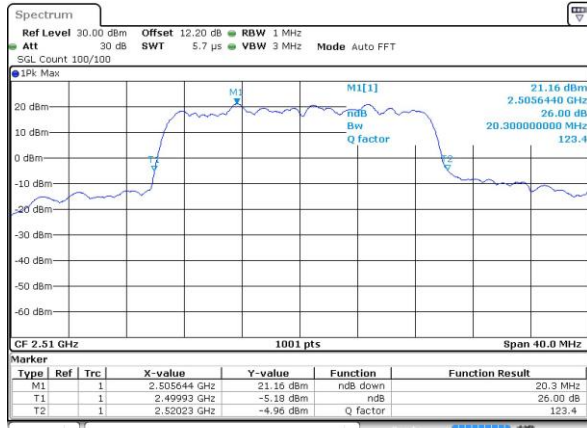
## Highest Channel / 15MHz / 16QAM



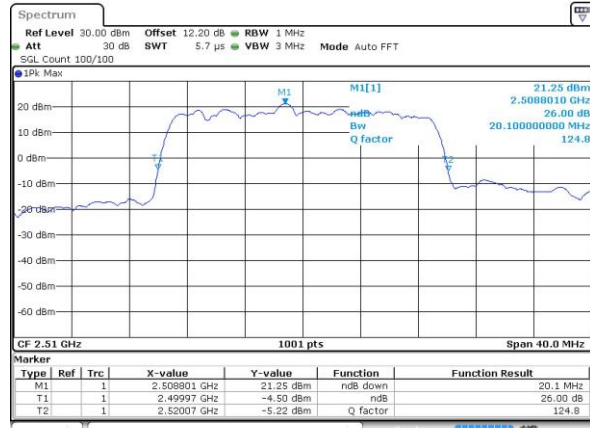


## LTE Band 7

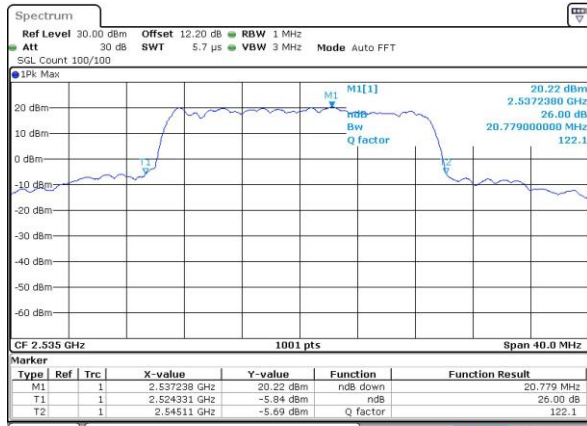
## Lowest Channel / 20MHz / QPSK



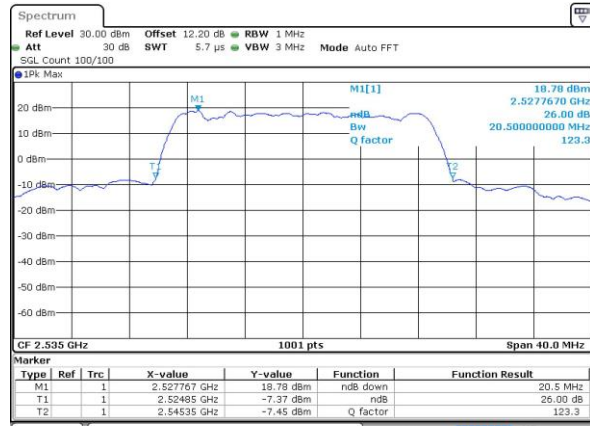
## Lowest Channel / 20MHz / 16QAM



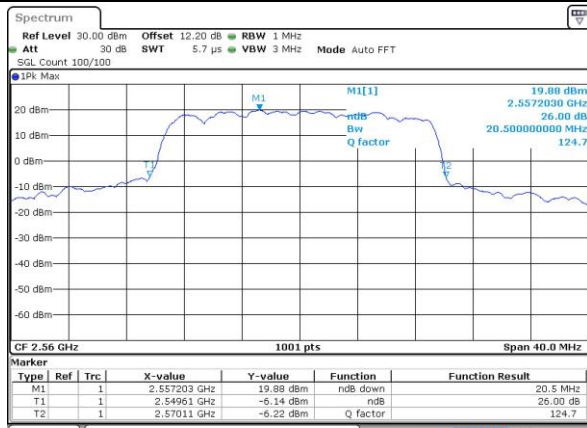
## Middle Channel / 20MHz / QPSK



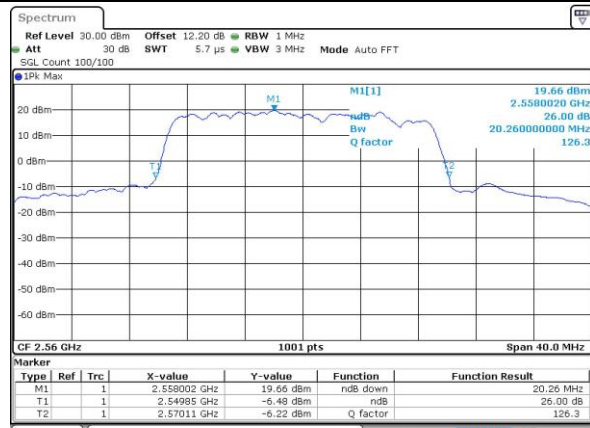
## Middle Channel / 20MHz / 16QAM



## Highest Channel / 20MHz / QPSK



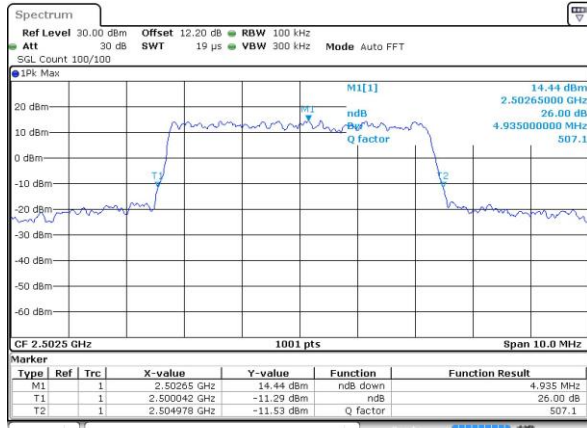
## Highest Channel / 20MHz / 16QAM





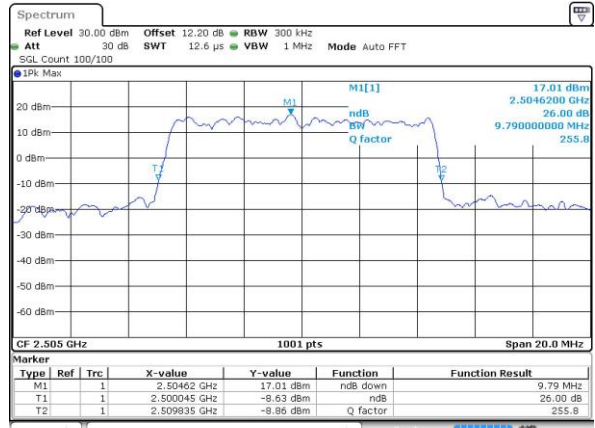
## LTE Band 7

## Lowest Channel / 5MHz / 64QAM



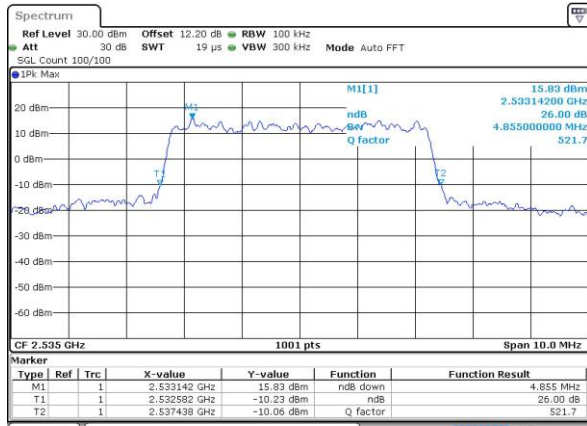
Date: 27 JUN 2018 01:02:25

## Lowest Channel / 10MHz / 64QAM



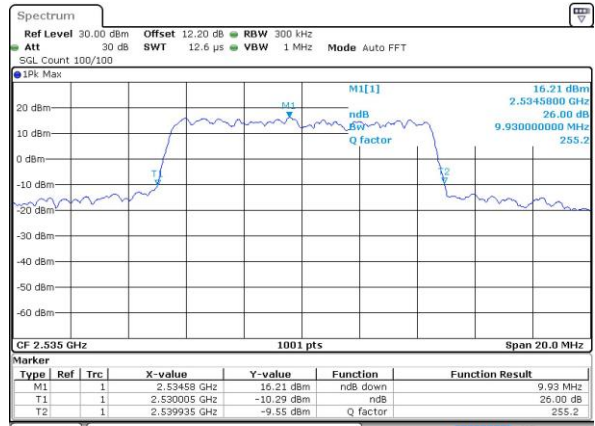
Date: 27 JUN 2018 01:27:04

## Middle Channel / 5MHz / 64QAM



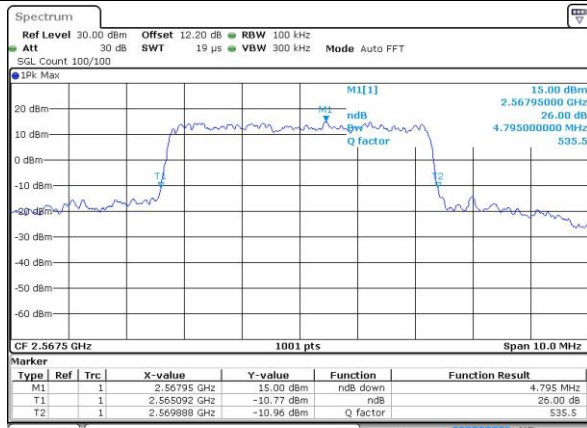
Date: 27 JUN 2018 01:05:55

## Middle Channel / 10MHz / 64QAM



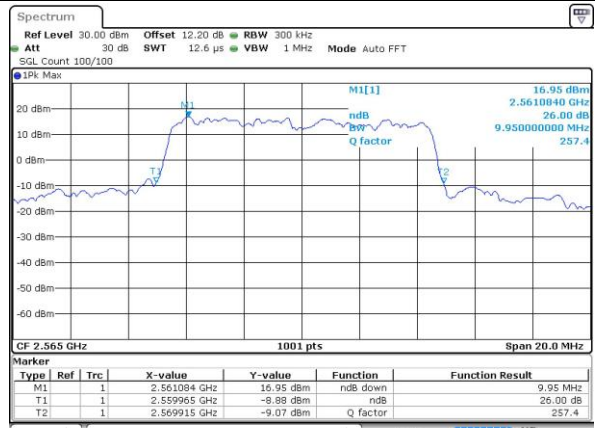
Date: 27 JUN 2018 01:30:33

## Highest Channel / 5MHz / 64QAM



Date: 27 JUN 2018 01:07:09

## Highest Channel / 10MHz / 64QAM

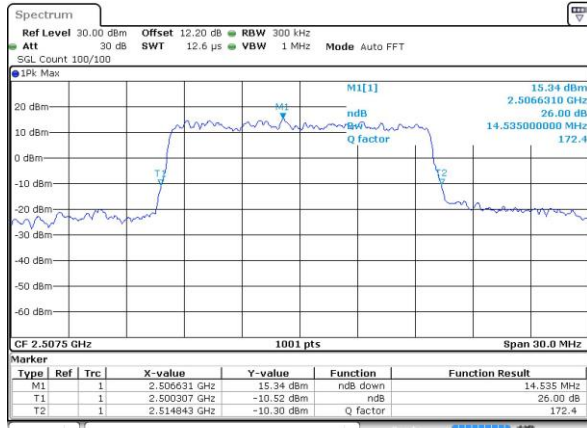


Date: 27 JUN 2018 01:31:47



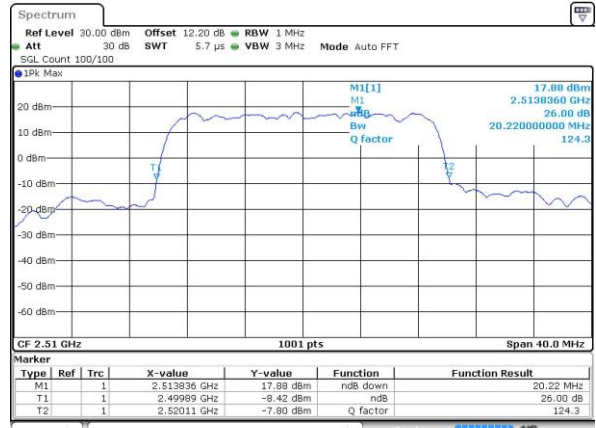
## LTE Band 7

## Lowest Channel / 15MHz / 64QAM



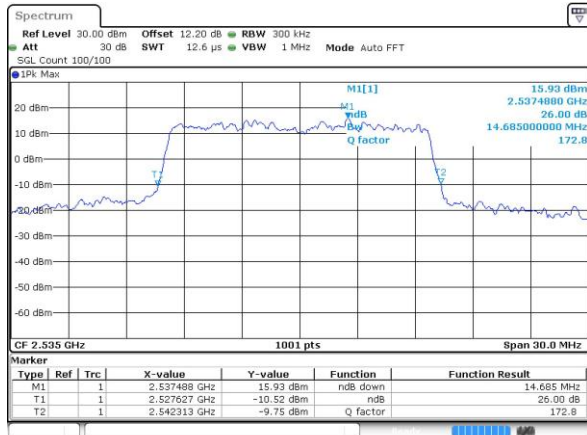
Date: 27 JUN 2018 01:51:44

## Lowest Channel / 20MHz / 64QAM



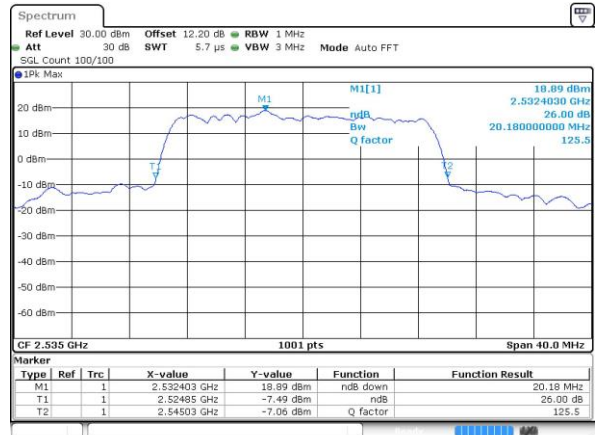
Date: 27 JUN 2018 02:16:22

## Middle Channel / 15MHz / 64QAM



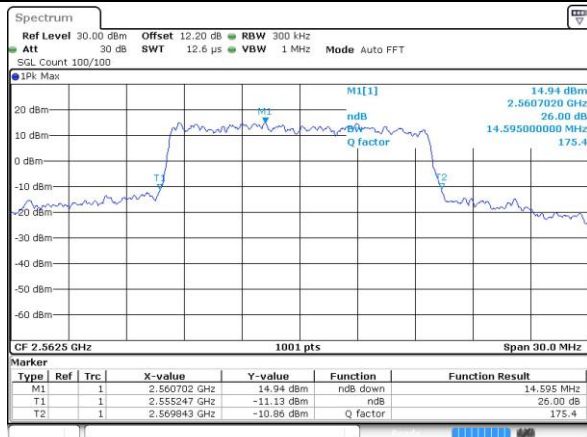
Date: 27 JUN 2018 01:55:13

## Middle Channel / 20MHz / 64QAM



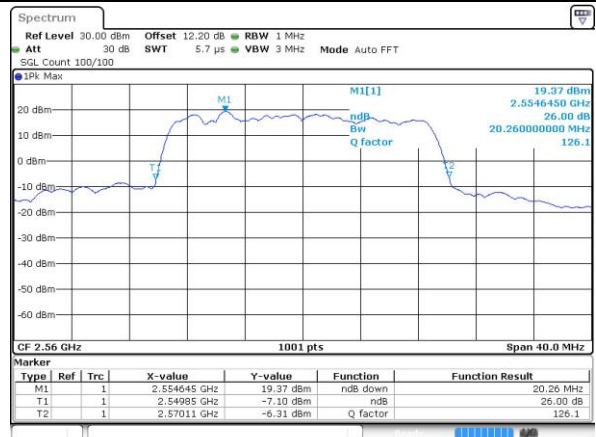
Date: 27 JUN 2018 02:19:52

## Highest Channel / 15MHz / 64QAM



Date: 27 JUN 2018 01:56:27

## Highest Channel / 20MHz / 64QAM



Date: 27 JUN 2018 02:21:05

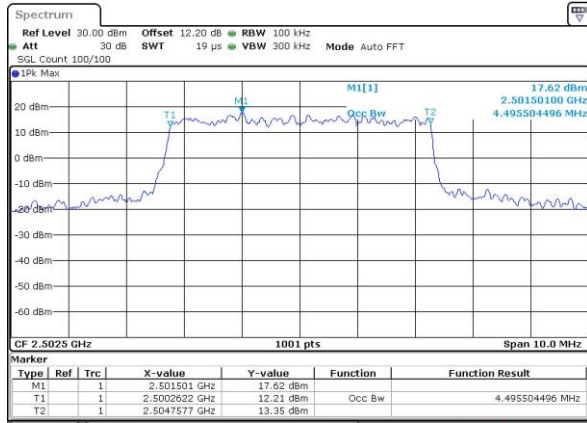
**Occupied Bandwidth**

| 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  | 4.47  | 9.01  | 9.03  | 13.43 | 13.46 | 18.34 | 18.42 |
| Middle CH  | -                        | -     | -     | -     | 4.50  | 4.51  | 9.01  | 9.01  | 13.49 | 13.49 | 18.18 | 18.46 |
| Highest CH | -                        | -     | -     | -     | 4.52  | 4.49  | 9.05  | 9.01  | 13.52 | 13.49 | 18.30 | 18.42 |
| Mode       | LTE Band 7 : 99%OBW(MHz) |       |       |       |       |       |       |       |       |       |       |       |
| BW         | 1.4MHz                   |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | 64QAM                    |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | -                        | -     | -     | -     | 4.50  |       | 9.07  |       | 13.40 |       | 18.38 | -     |
| Middle CH  | -                        | -     | -     | -     | 4.51  |       | 9.09  |       | 13.46 |       | 18.38 | -     |
| Highest CH | -                        | -     | -     | -     | 4.52  |       | 9.03  |       | 13.46 |       | 18.42 | -     |



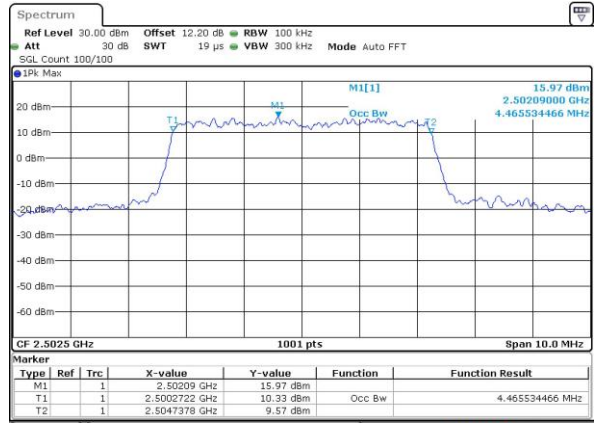
## LTE Band 7

## Lowest Channel / 5MHz / QPSK



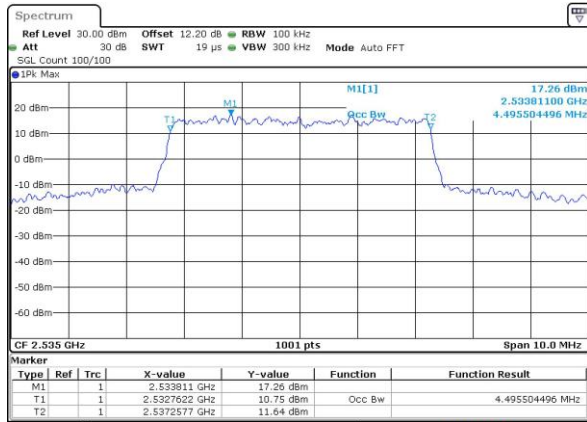
Date: 27 JUN 2018 00:45:49

## Lowest Channel / 5MHz / 16QAM



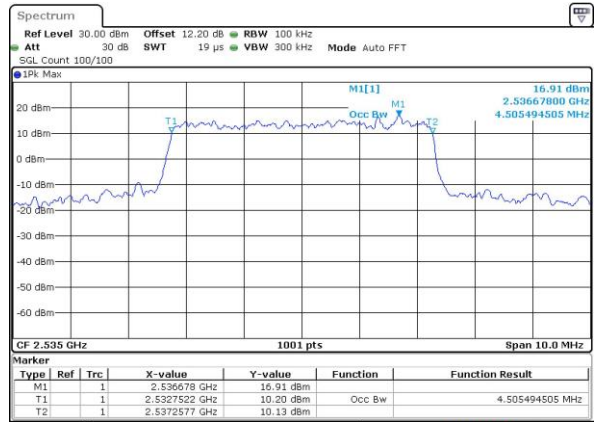
Date: 27 JUN 2018 00:46:00

## Middle Channel / 5MHz / QPSK



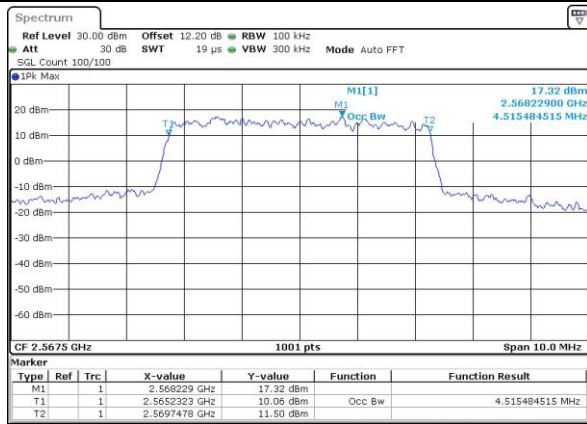
Date: 27 JUN 2018 00:52:49

## Middle Channel / 5MHz / 16QAM



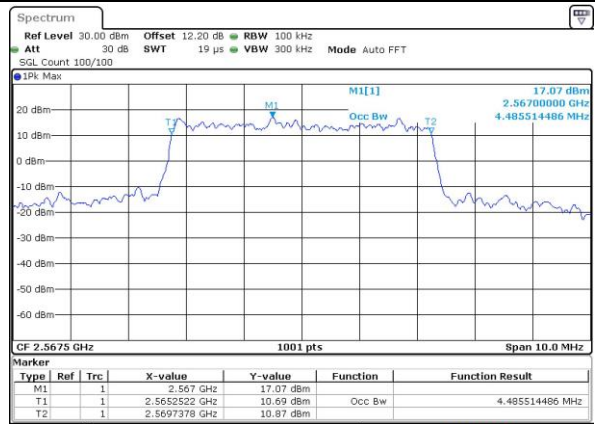
Date: 27 JUN 2018 00:52:59

## Highest Channel / 5MHz / QPSK



Date: 27 JUN 2018 00:55:16

## Highest Channel / 5MHz / 16QAM

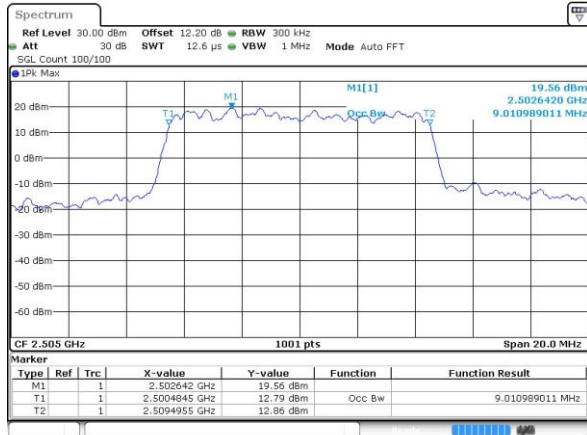


Date: 27 JUN 2018 00:55:26



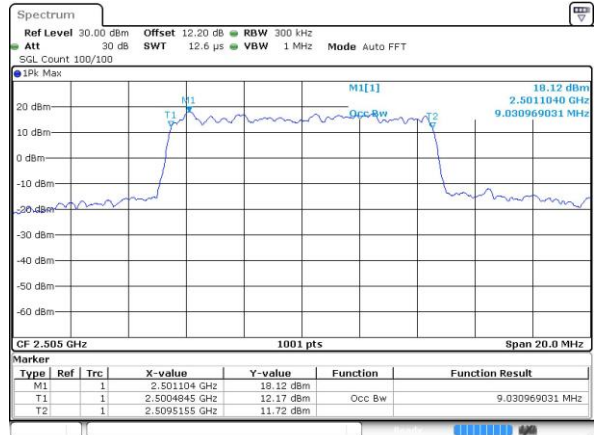
## LTE Band 7

## Lowest Channel / 10MHz / QPSK



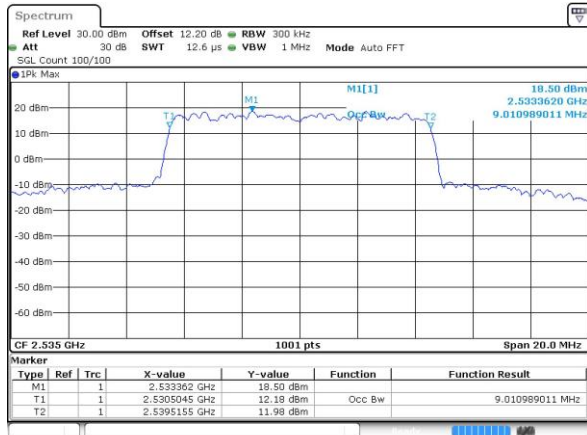
Date: 27 JUN 2018 01:10:28

## Lowest Channel / 10MHz / 16QAM



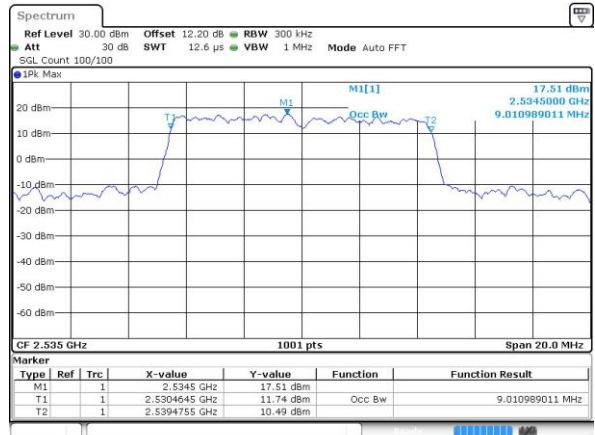
Date: 27 JUN 2018 01:10:38

## Middle Channel / 10MHz / QPSK



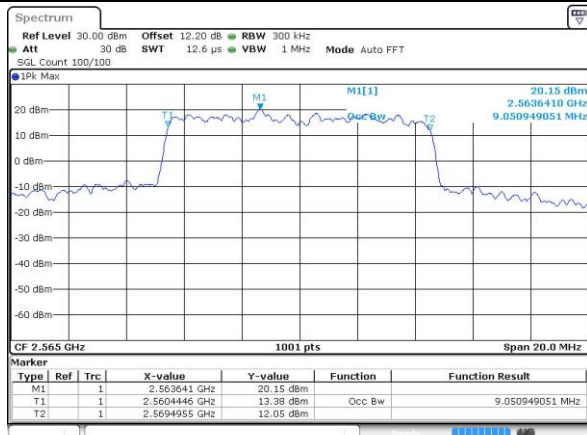
Date: 27 JUN 2018 01:17:27

## Middle Channel / 10MHz / 16QAM



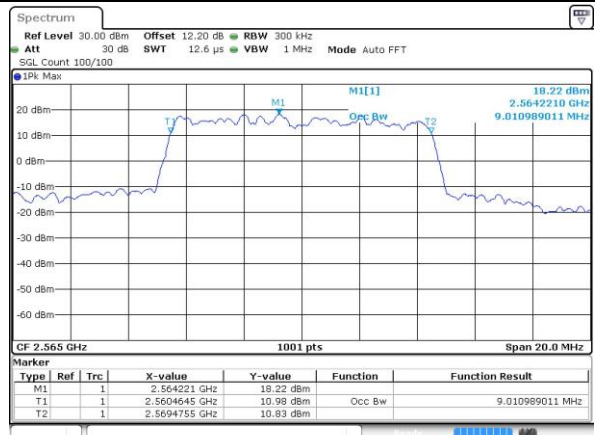
Date: 27 JUN 2018 01:17:37

## Highest Channel / 10MHz / QPSK



Date: 27 JUN 2018 01:19:55

## Highest Channel / 10MHz / 16QAM

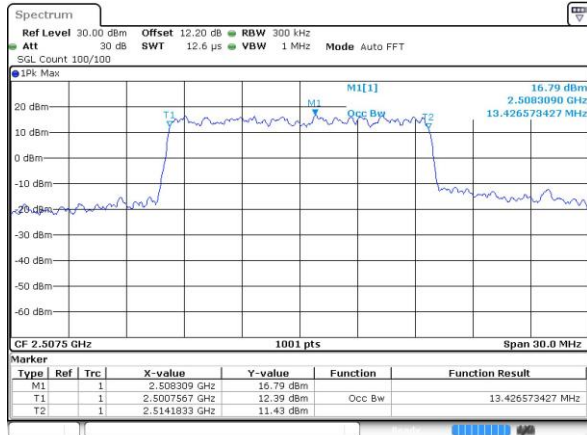


Date: 27 JUN 2018 01:20:05



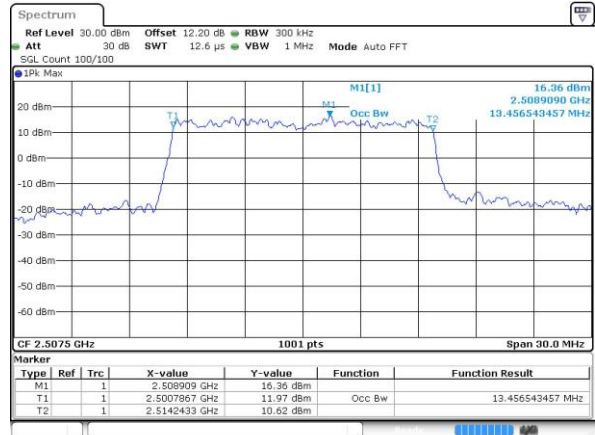
## LTE Band 7

## Lowest Channel / 15MHz / QPSK



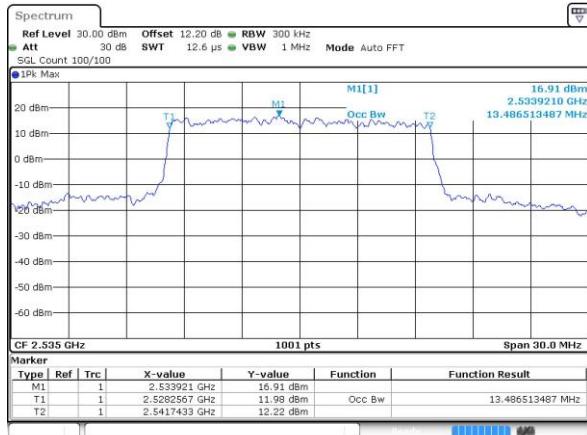
Date: 27 JUN 2018 01:35:07

## Lowest Channel / 15MHz / 16QAM



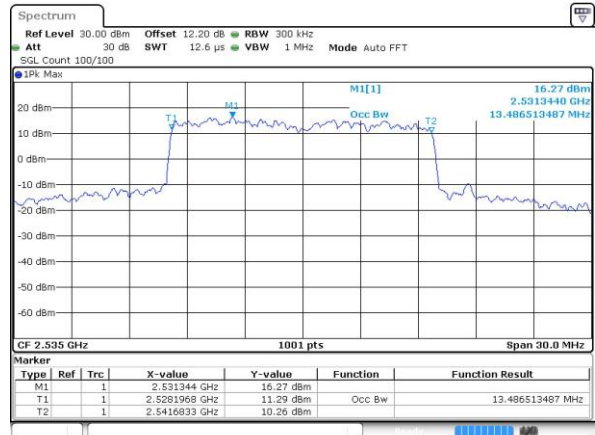
Date: 27 JUN 2018 01:35:17

## Middle Channel / 15MHz / QPSK



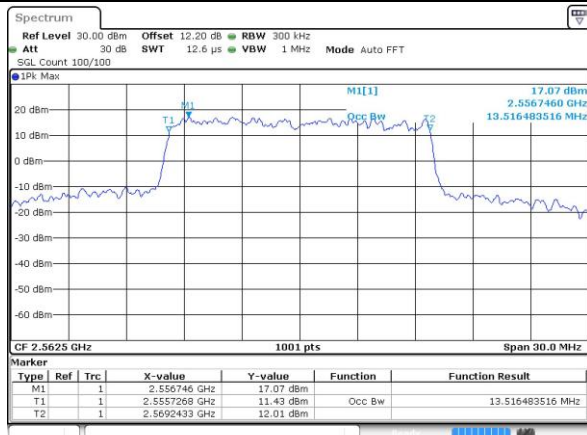
Date: 27 JUN 2018 01:42:06

## Middle Channel / 15MHz / 16QAM



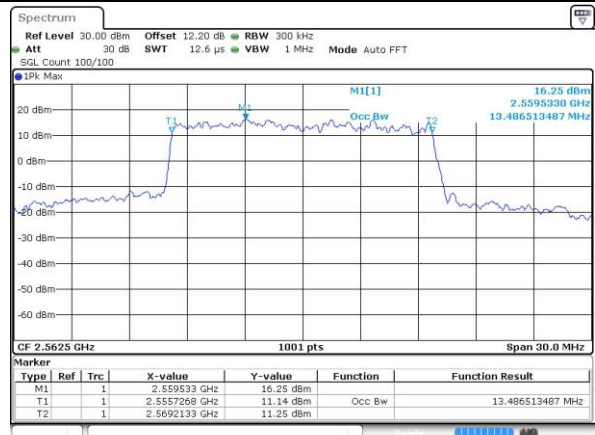
Date: 27 JUN 2018 01:42:16

## Highest Channel / 15MHz / QPSK



Date: 27 JUN 2018 01:44:33

## Highest Channel / 15MHz / 16QAM



Date: 27 JUN 2018 01:44:43