



Frequency Stability

| Test Conditions | | LTE Band 12 (QPSK) / Middle Channel | Limit |
|------------------|-------------------|-------------------------------------|---------|
| Temperature (°C) | Voltage (Volt) | BW 10MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0065 | PASS |
| 40 | Normal Voltage | 0.0031 | |
| 30 | Normal Voltage | 0.0016 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0011 | |
| 0 | Normal Voltage | 0.0027 | |
| -10 | Normal Voltage | 0.0057 | |
| -20 | Normal Voltage | 0.0119 | |
| -30 | Normal Voltage | 0.0008 | |
| 20 | Maximum Voltage | 0.0034 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0078 | |

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 41

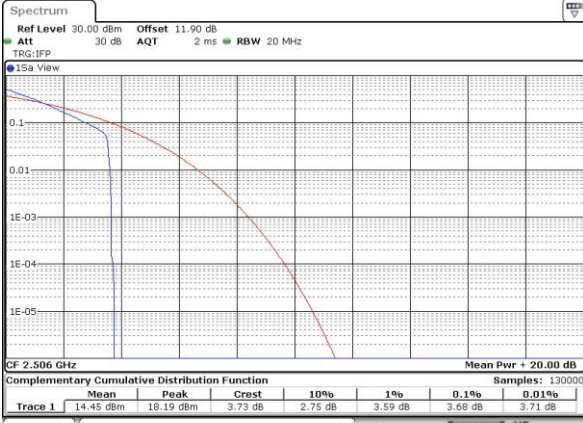
Peak-to-Average Ratio

| Mode | LTE Band 41 / 20MHz | | | | |
|------------|---------------------|---------|-------|---------|-------------|
| Mod. | QPSK | | 16QAM | | Limit: 13dB |
| RB Size | 1RB | Full RB | 1RB | Full RB | Result |
| Lowest CH | 3.68 | 4.78 | 4.29 | 5.74 | PASS |
| Middle CH | 3.65 | 4.78 | 4.32 | 5.77 | |
| Highest CH | 3.86 | 4.96 | 4.46 | 6.32 | |
| Mode | LTE Band 41 / 20MHz | | | | |
| Mod. | 64QAM | | | | Limit: 13dB |
| RB Size | 1RB | Full RB | | | Result |
| Lowest CH | 5.01 | 6.81 | - | - | PASS |
| Middle CH | 5.07 | 6.61 | - | - | |
| Highest CH | 5.51 | 6.87 | - | - | |



LTE Band 41 / 20MHz / QPSK

Lowest Channel / 1RB



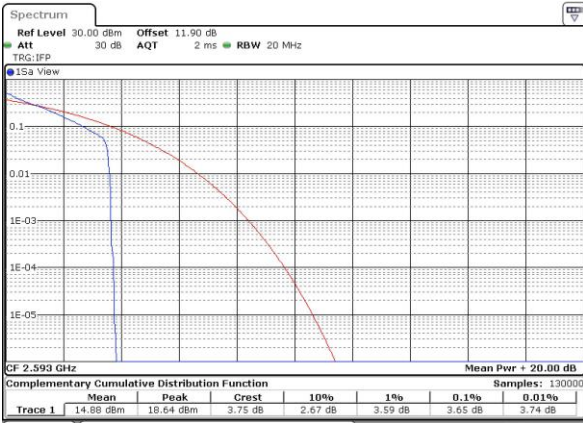
Date: 28 MAR 2019 23:32:36

Lowest Channel / Full RB



Date: 28 MAR 2019 23:32:52

Middle Channel / 1RB



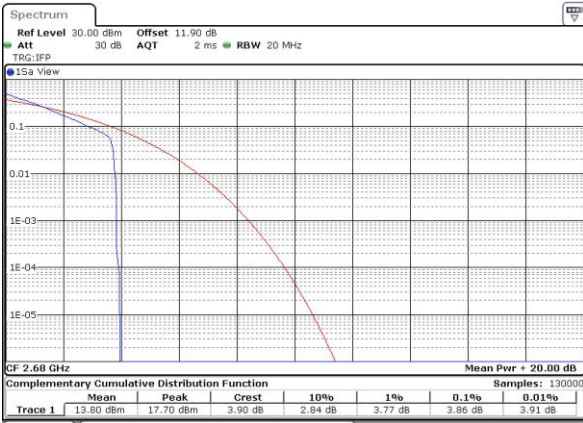
Date: 28 MAR 2019 23:33:08

Middle Channel / Full RB



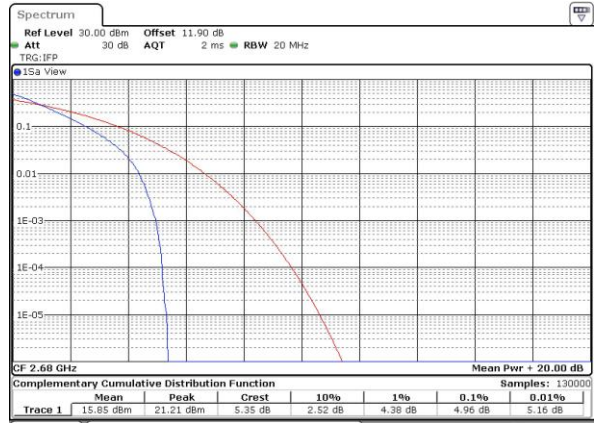
Date: 28 MAR 2019 23:33:24

Highest Channel / 1RB



Date: 28 MAR 2019 23:33:42

Highest Channel / Full RB

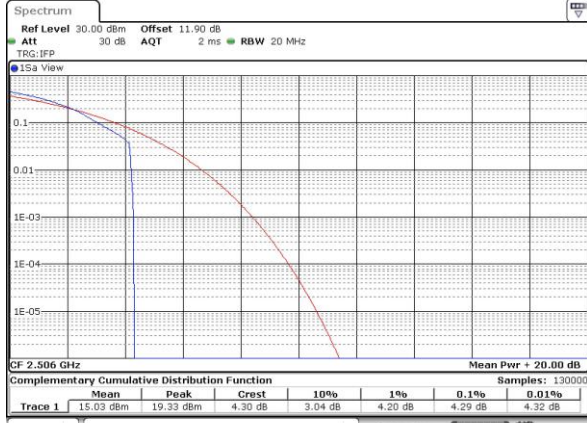


Date: 28 MAR 2019 23:33:59



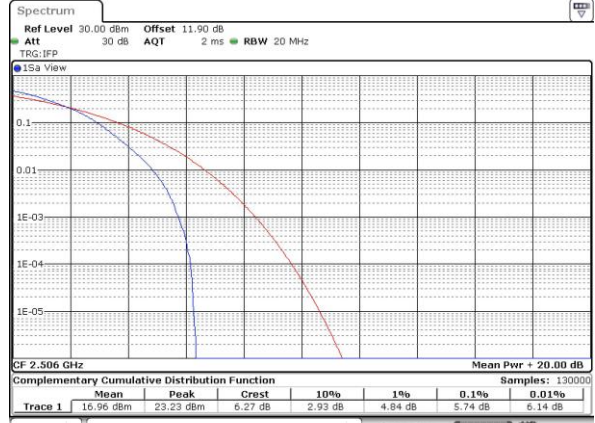
LTE Band 41 / 20MHz / 16QAM

Lowest Channel / 1RB



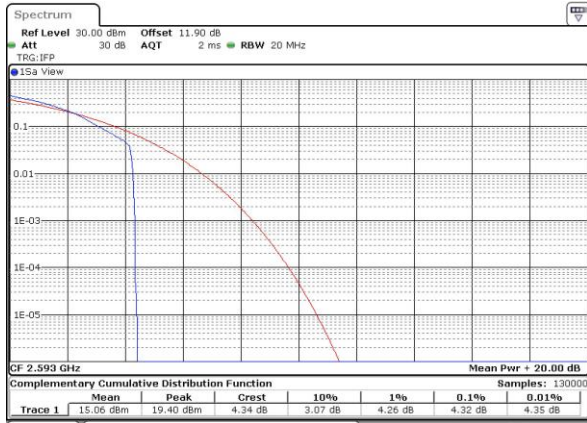
Date: 28 MAR 2019 23:30:59

Lowest Channel / Full RB



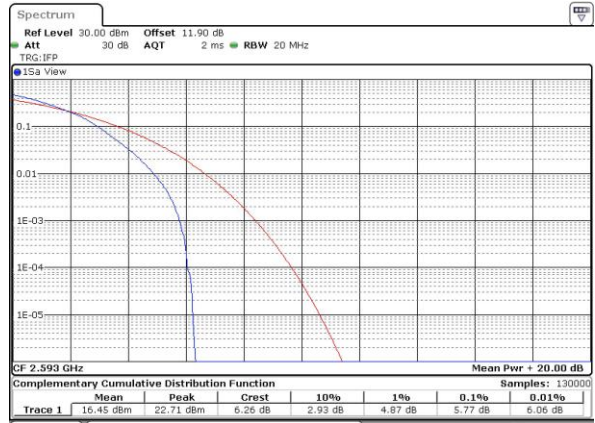
Date: 28 MAR 2019 23:31:15

Middle Channel / 1RB



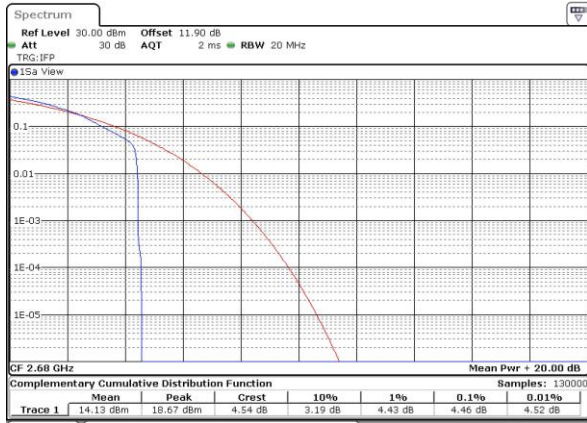
Date: 28 MAR 2019 23:31:33

Middle Channel / Full RB



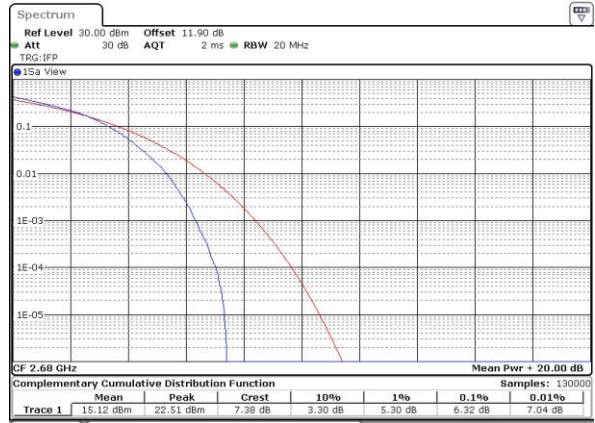
Date: 28 MAR 2019 23:31:48

Highest Channel / 1RB



Date: 28 MAR 2019 23:32:04

Highest Channel / Full RB



Date: 28 MAR 2019 23:32:20



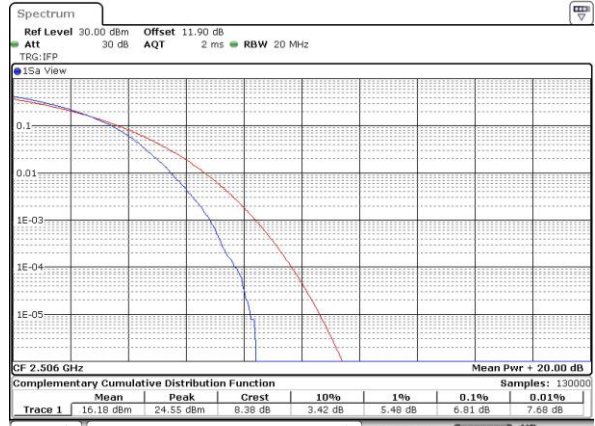
LTE Band 41 / 20MHz / 64QAM

Lowest Channel / 1RB



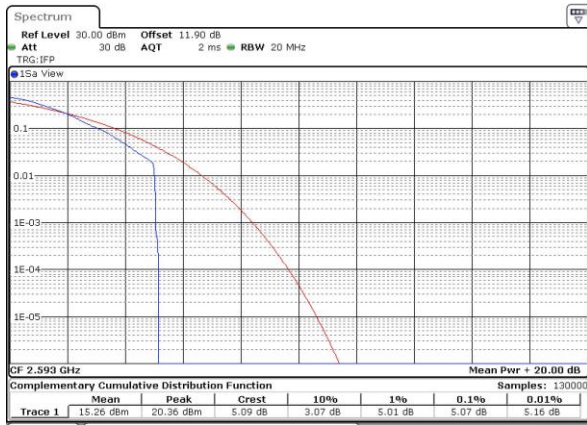
Date: 28 MAR 2019 23:29:21

Lowest Channel / Full RB



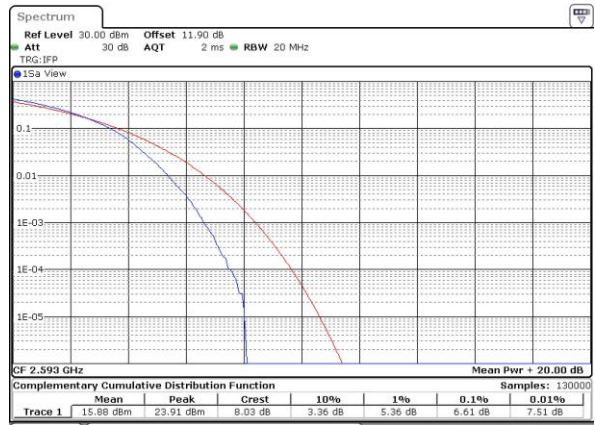
Date: 28 MAR 2019 23:29:38

Middle Channel / 1RB



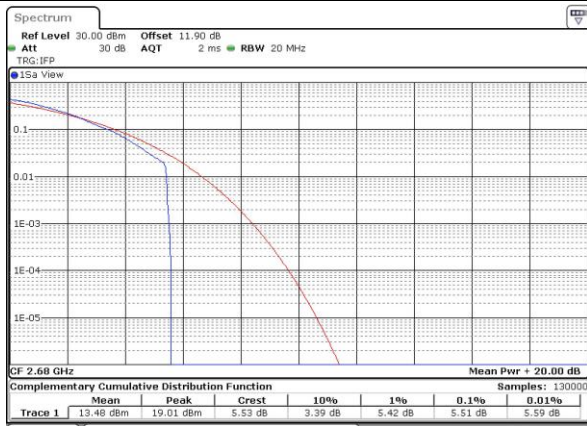
Date: 28 MAR 2019 23:29:54

Middle Channel / Full RB



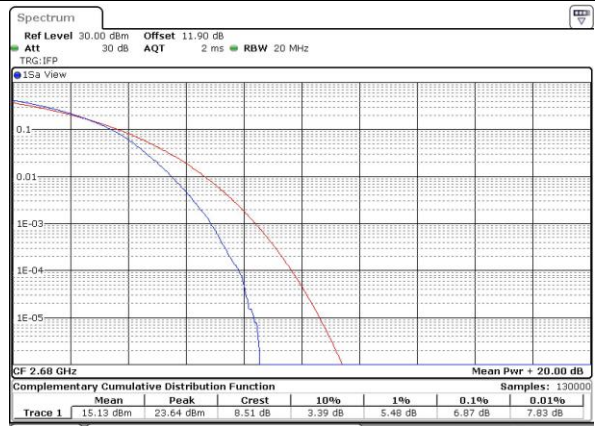
Date: 28 MAR 2019 23:30:10

Highest Channel / 1RB



Date: 28 MAR 2019 23:30:26

Highest Channel / Full RB



Date: 28 MAR 2019 23:30:43



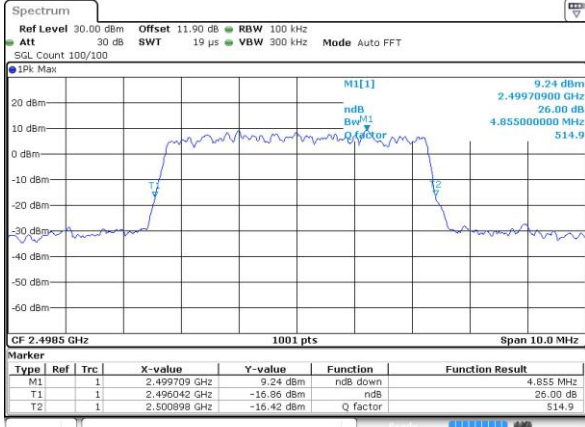
26dB Bandwidth

| Mode | LTE Band 41 : 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 | | | | | 4.86 | 4.92 | 9.73 | 9.65 | 14.42 | 14.30 | 20.22 | 20.22 |
| Middle CH | | | | | 4.92 | 4.91 | 9.61 | 9.63 | 14.12 | 14.15 | 20.26 | 20.10 |
| Highest CH | | | | | 4.92 | 4.90 | 9.75 | 9.69 | 14.36 | 14.21 | 20.26 | 20.02 |
| Mode | LTE Band 41 : 26dB BW(MHz) | | | | | | | | | | | |
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | |
| Lowest CH | - | - | - | - | 4.97 | - | 9.61 | - | 14.21 | - | 20.14 | - |
| Middle CH | - | - | - | - | 4.87 | - | 9.73 | - | 14.36 | - | 20.14 | - |
| Highest CH | - | - | - | - | 4.82 | - | 9.65 | - | 14.33 | - | 20.14 | - |



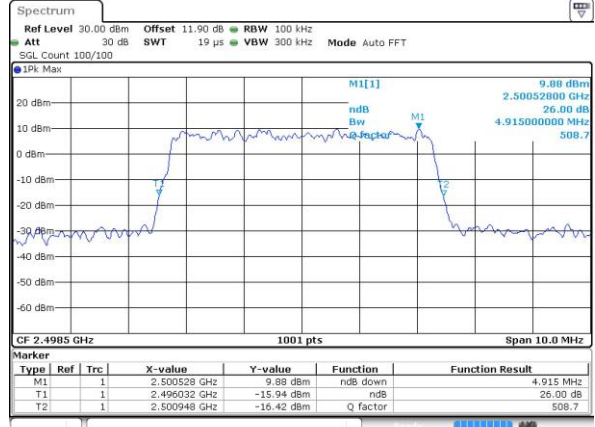
LTE Band 41

Lowest Channel / 5MHz / QPSK



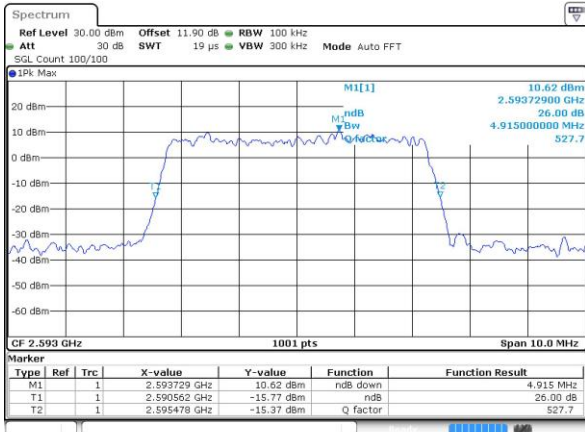
Date: 28 MAR 2019 23:14:31

Lowest Channel / 5MHz / 16QAM



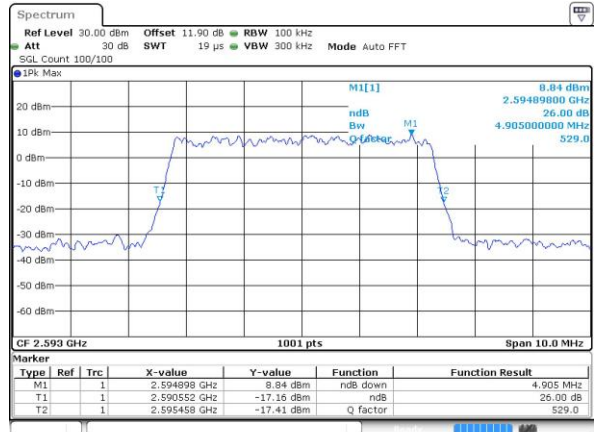
Date: 28 MAR 2019 23:14:43

Middle Channel / 5MHz / QPSK



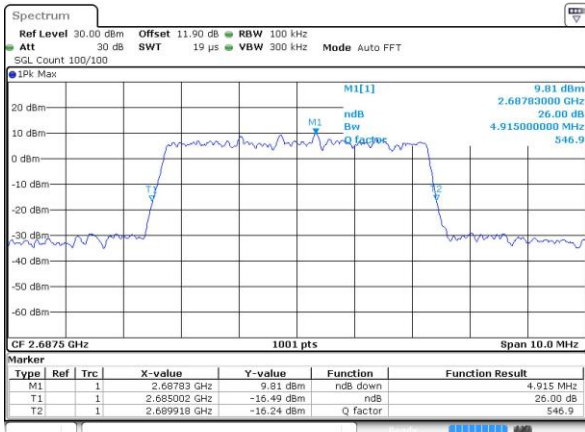
Date: 28 MAR 2019 23:15:18

Middle Channel / 5MHz / 16QAM



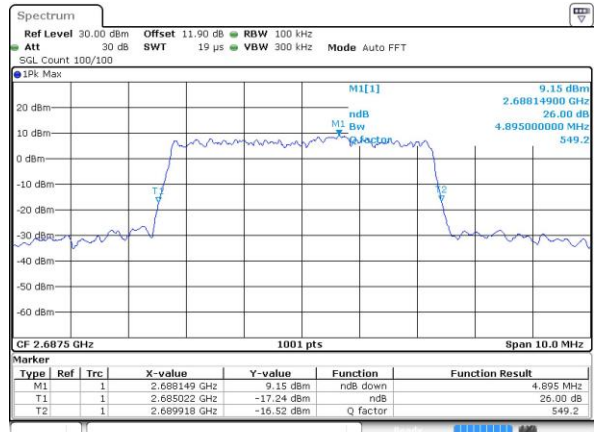
Date: 28 MAR 2019 23:15:30

Highest Channel / 5MHz / QPSK



Date: 28 MAR 2019 23:16:07

Highest Channel / 5MHz / 16QAM

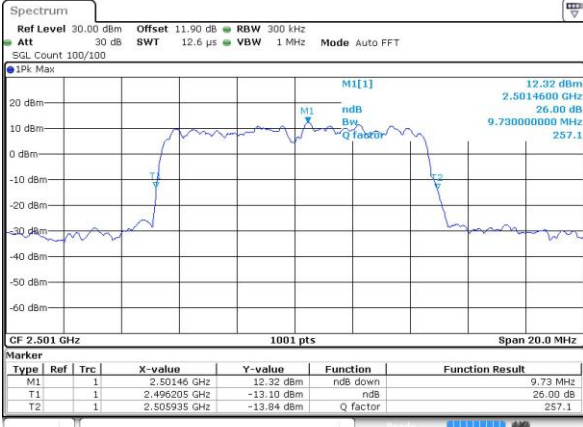


Date: 28 MAR 2019 23:16:19



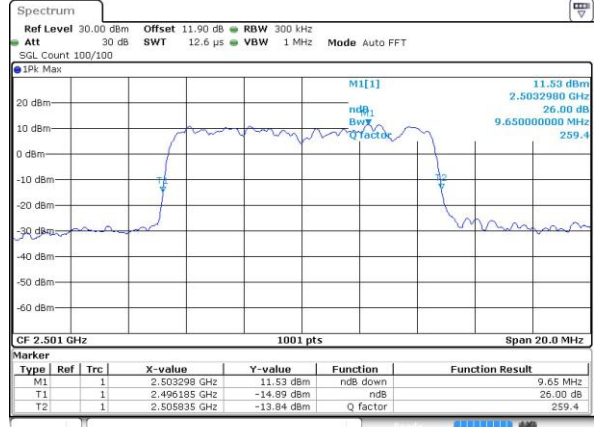
LTE Band 41

Lowest Channel / 10MHz / QPSK



Date: 28 MAR 2019 23:16:56

Lowest Channel / 10MHz / 16QAM



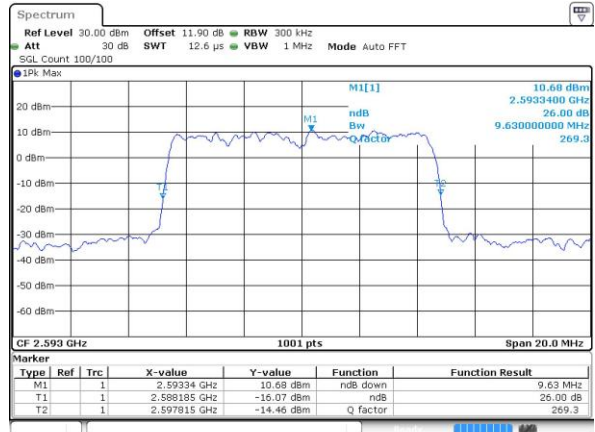
Date: 28 MAR 2019 23:17:09

Middle Channel / 10MHz / QPSK



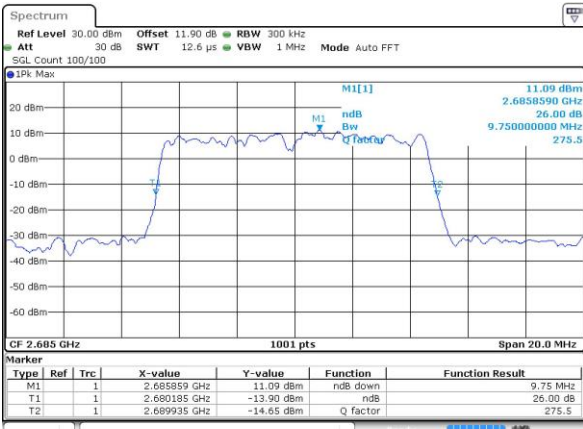
Date: 28 MAR 2019 23:17:44

Middle Channel / 10MHz / 16QAM



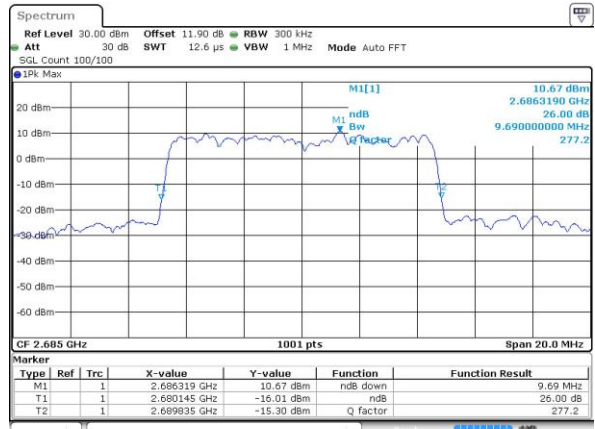
Date: 28 MAR 2019 23:17:56

Highest Channel / 10MHz / QPSK



Date: 28 MAR 2019 23:18:33

Highest Channel / 10MHz / 16QAM

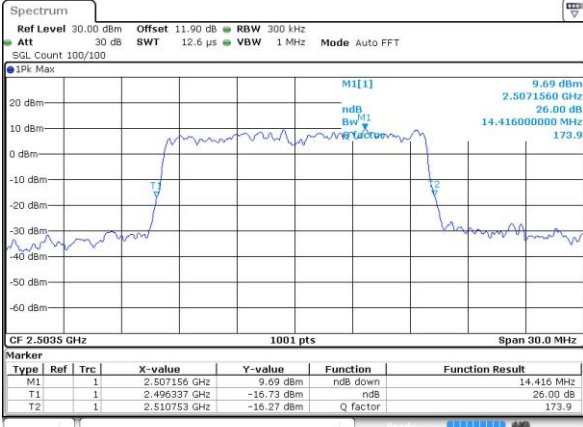


Date: 28 MAR 2019 23:18:45



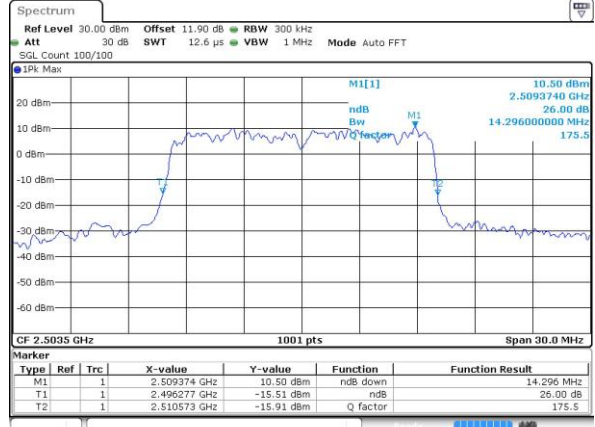
LTE Band 41

Lowest Channel / 15MHz / QPSK



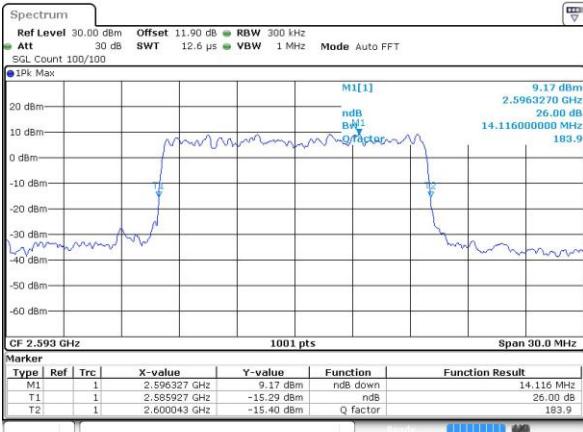
Date: 28 MAR 2019 23:19:22

Lowest Channel / 15MHz / 16QAM



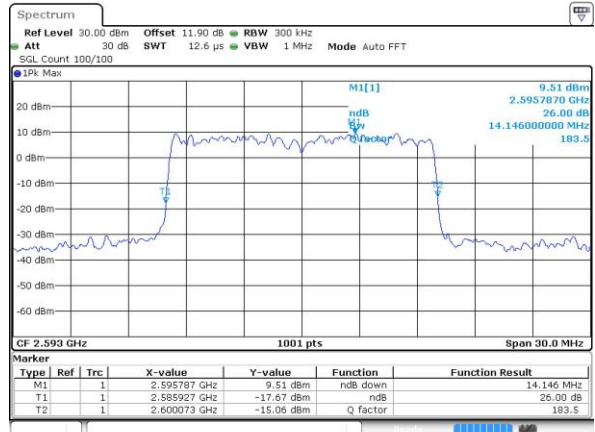
Date: 28 MAR 2019 23:19:34

Middle Channel / 15MHz / QPSK



Date: 28 MAR 2019 23:20:10

Middle Channel / 15MHz / 16QAM



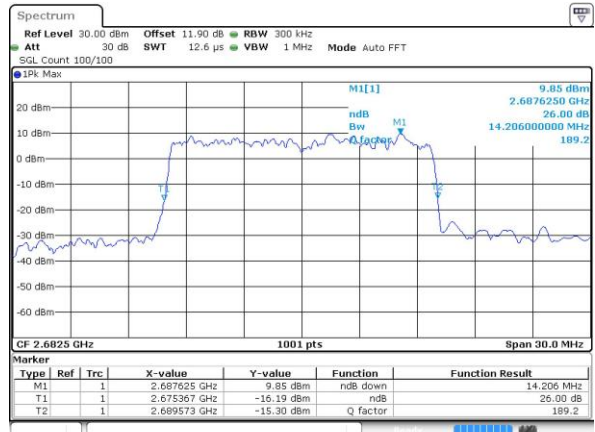
Date: 28 MAR 2019 23:20:22

Highest Channel / 15MHz / QPSK



Date: 28 MAR 2019 23:20:59

Highest Channel / 15MHz / 16QAM

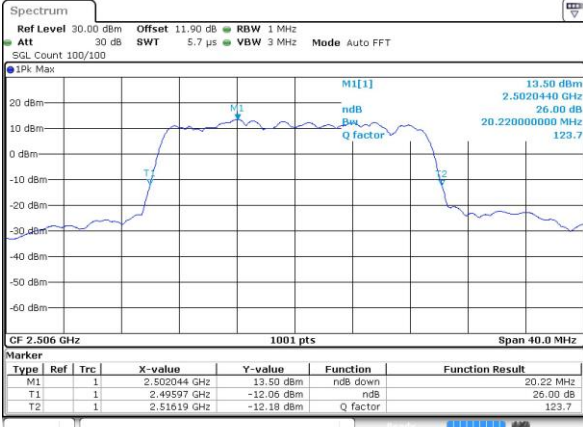


Date: 28 MAR 2019 23:21:11



LTE Band 41

Lowest Channel / 20MHz / QPSK



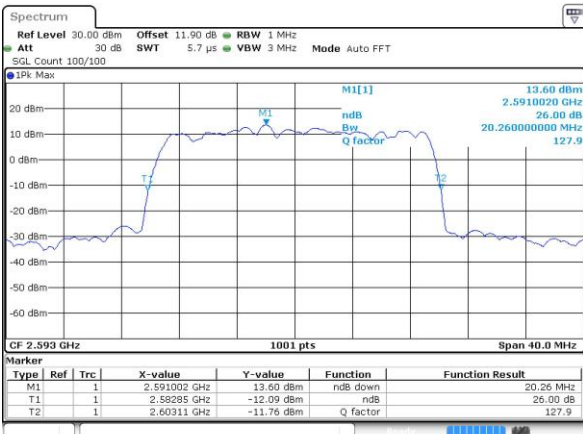
Date: 28 MAR 2019 23:21:48

Lowest Channel / 20MHz / 16QAM



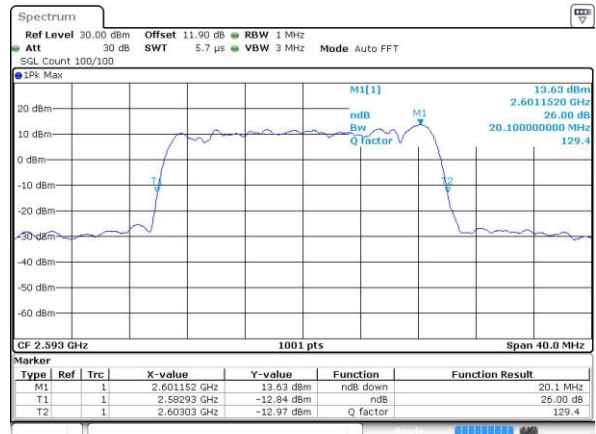
Date: 28 MAR 2019 23:22:00

Middle Channel / 20MHz / QPSK



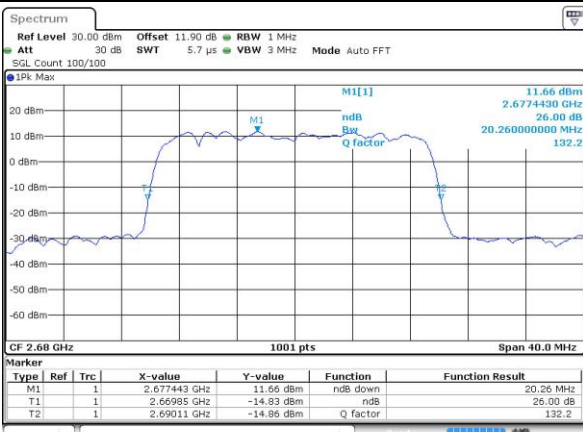
Date: 28 MAR 2019 23:22:38

Middle Channel / 20MHz / 16QAM



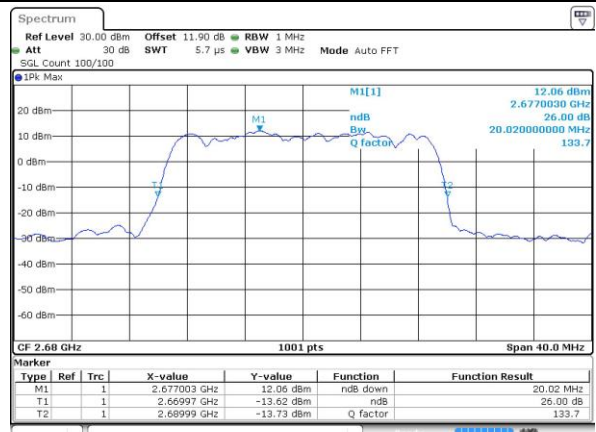
Date: 28 MAR 2019 23:22:48

Highest Channel / 20MHz / QPSK



Date: 28 MAR 2019 23:23:24

Highest Channel / 20MHz / 16QAM

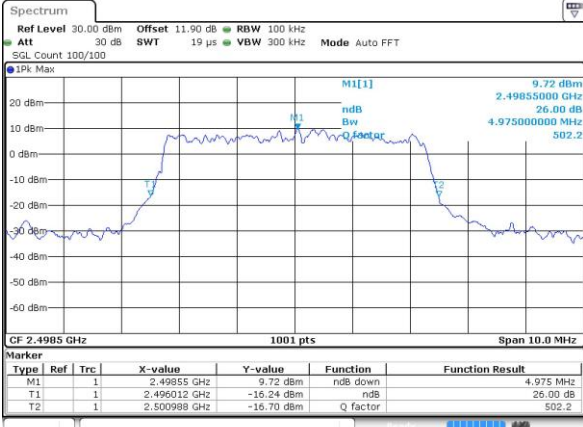


Date: 28 MAR 2019 23:23:37



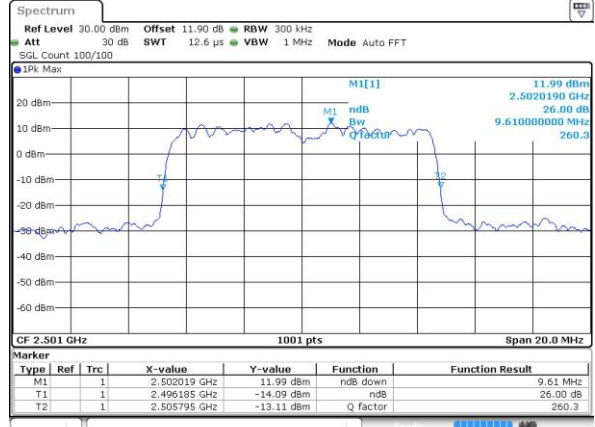
LTE Band 41

Lowest Channel / 5MHz / 64QAM



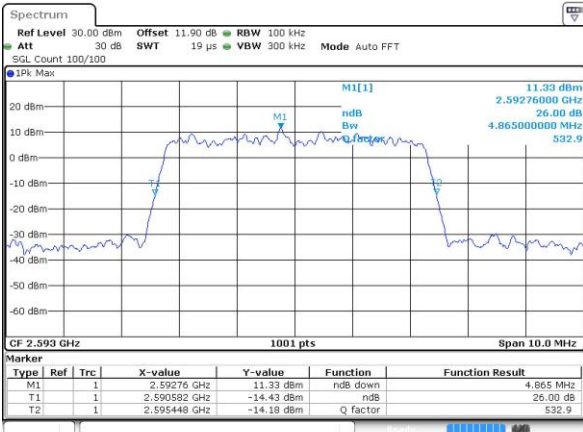
Date: 28 MAR 2019 23:24:02

Lowest Channel / 10MHz / 64QAM



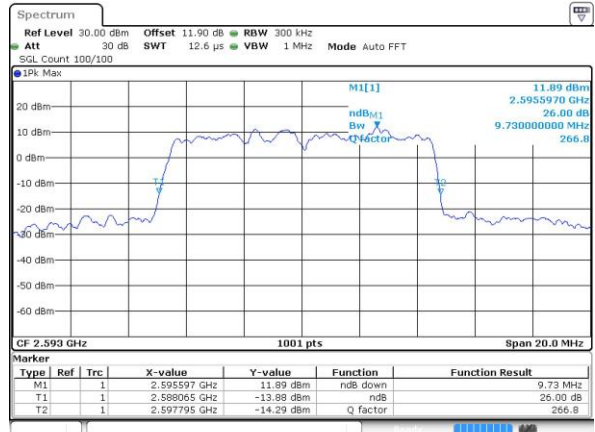
Date: 28 MAR 2019 23:25:14

Middle Channel / 5MHz / 64QAM



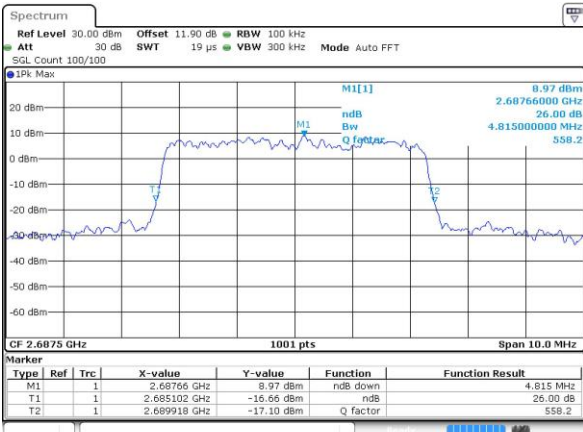
Date: 28 MAR 2019 23:24:25

Middle Channel / 10MHz / 64QAM



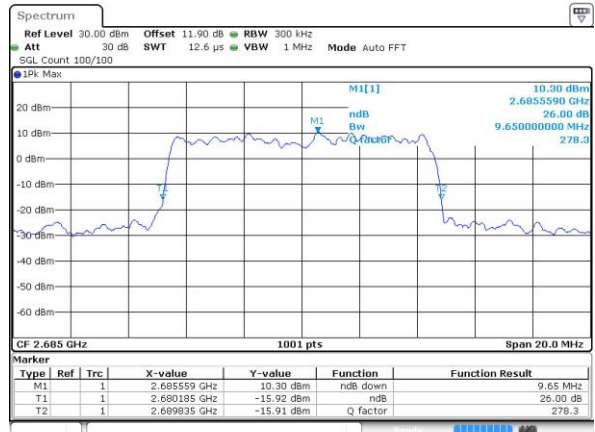
Date: 28 MAR 2019 23:25:38

Highest Channel / 5MHz / 64QAM



Date: 28 MAR 2019 23:24:49

Highest Channel / 10MHz / 64QAM

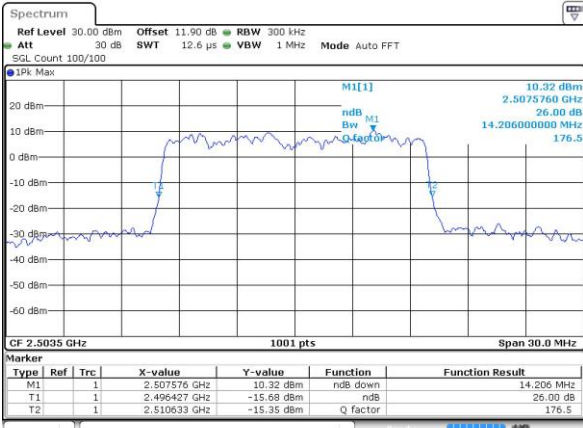


Date: 28 MAR 2019 23:26:02



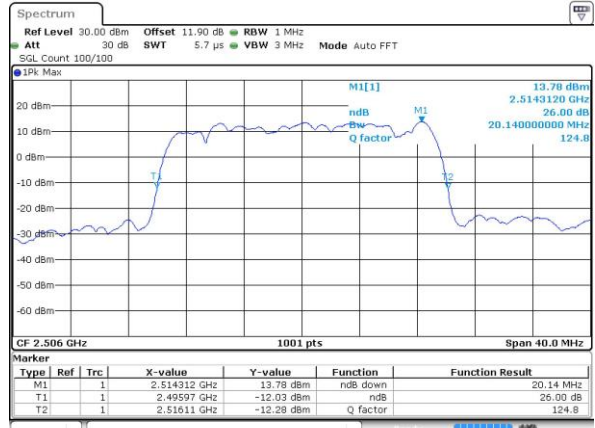
LTE Band 41

Lowest Channel / 15MHz / 64QAM



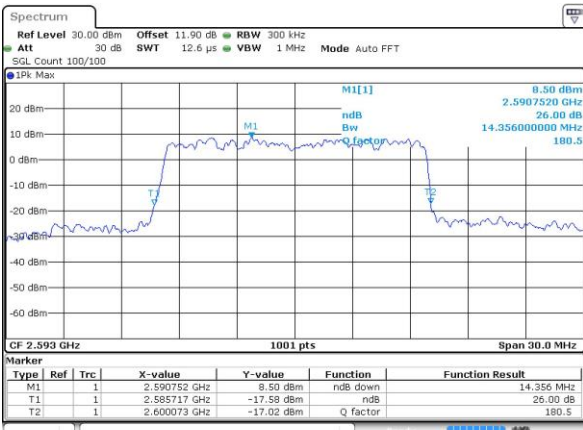
Date: 28 MAR 2019 23:26:27

Lowest Channel / 20MHz / 64QAM



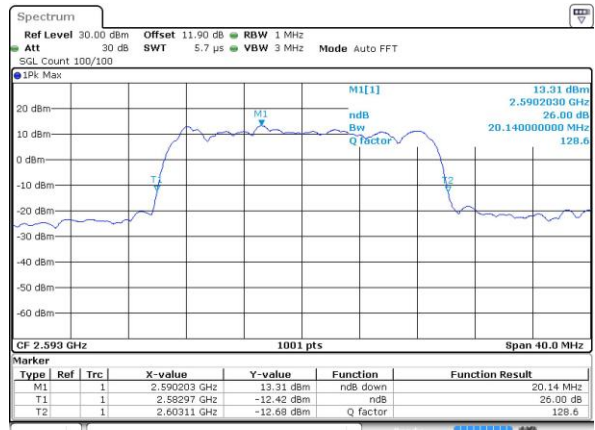
Date: 28 MAR 2019 23:27:40

Middle Channel / 15MHz / 64QAM



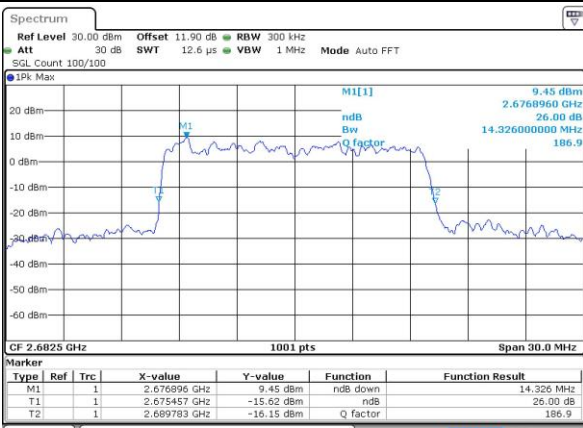
Date: 28 MAR 2019 23:26:51

Middle Channel / 20MHz / 64QAM



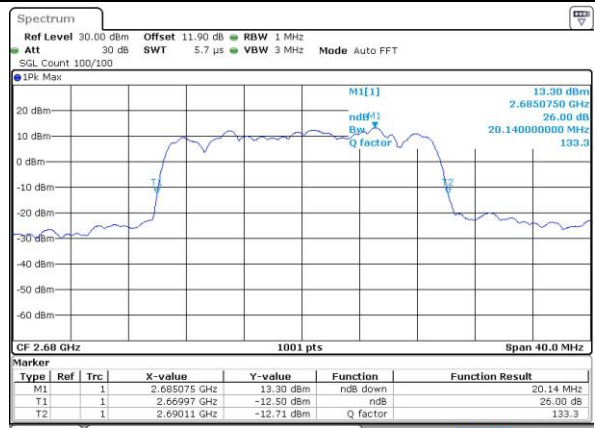
Date: 28 MAR 2019 23:28:04

Highest Channel / 15MHz / 64QAM



Date: 28 MAR 2019 23:27:15

Highest Channel / 20MHz / 64QAM



Date: 28 MAR 2019 23:28:28



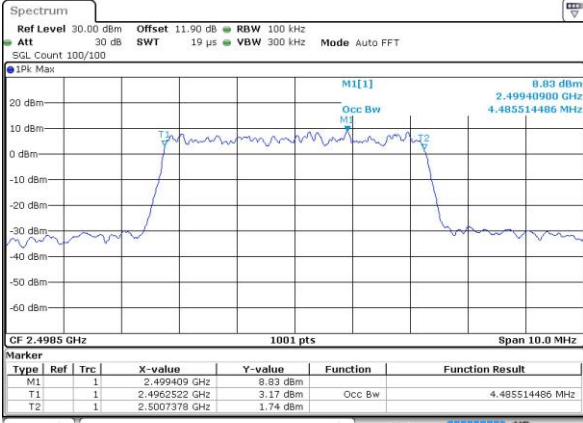
Occupied Bandwidth

| Mode | LTE Band 41 : 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 | | | | | 4.49 | 4.50 | 9.07 | 8.97 | 13.40 | 13.52 | 17.86 | 17.86 |
| Middle CH | | | | | 4.49 | 4.49 | 9.03 | 8.99 | 13.46 | 13.46 | 17.78 | 17.94 |
| Highest CH | | | | | 4.49 | 4.46 | 8.99 | 8.99 | 13.46 | 13.49 | 17.86 | 17.86 |
| Mode | LTE Band 41 : 99%OBW(MHz) | | | | | | | | | | | |
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | |
| Lowest CH | - | - | - | - | 4.49 | - | 9.07 | - | 13.37 | - | 17.78 | - |
| Middle CH | - | - | - | - | 4.50 | - | 9.03 | - | 13.43 | - | 17.86 | - |
| Highest CH | - | - | - | - | 4.50 | - | 9.03 | - | 13.43 | - | 17.86 | - |



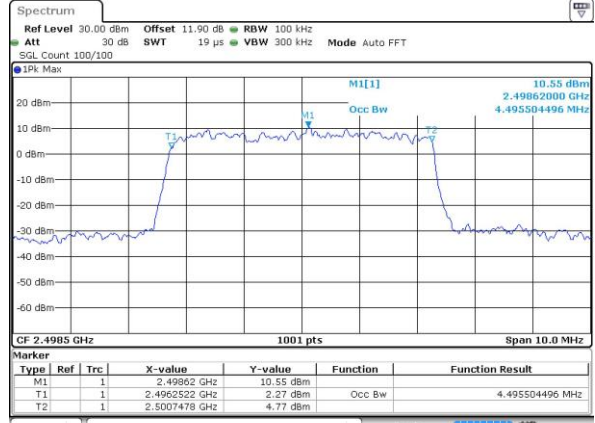
LTE Band 41

Lowest Channel / 5MHz / QPSK



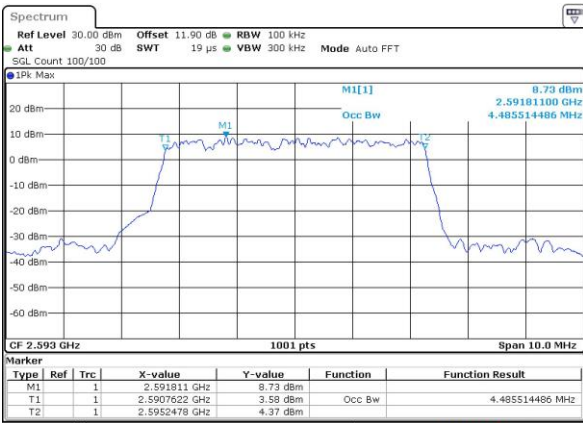
Date: 28 MAR 2019 23:14:06

Lowest Channel / 5MHz / 16QAM



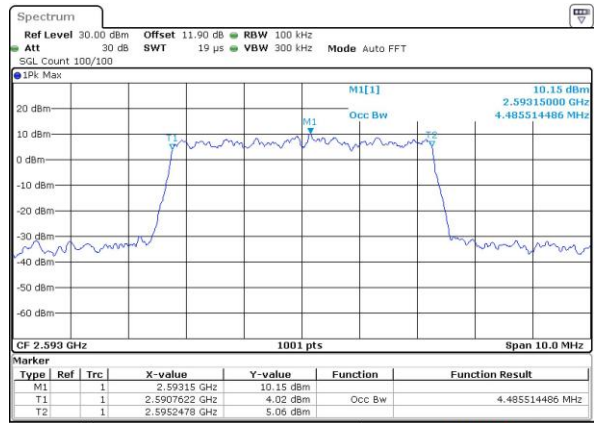
Date: 28 MAR 2019 23:14:18

Middle Channel / 5MHz / QPSK



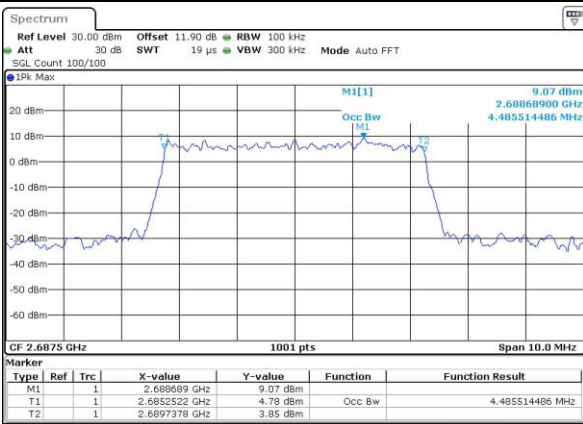
Date: 28 MAR 2019 23:14:55

Middle Channel / 5MHz / 16QAM



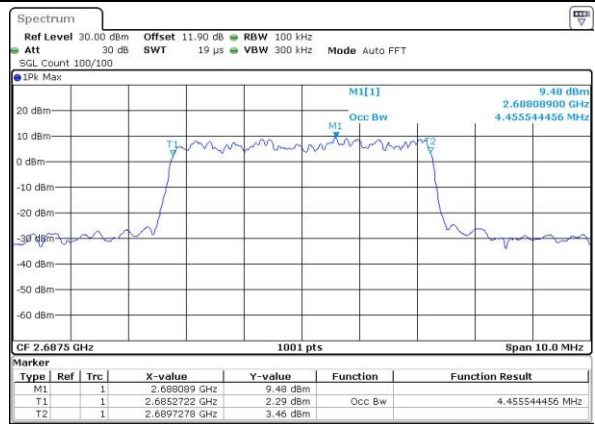
Date: 28 MAR 2019 23:15:07

Highest Channel / 5MHz / QPSK



Date: 28 MAR 2019 23:15:42

Highest Channel / 5MHz / 16QAM

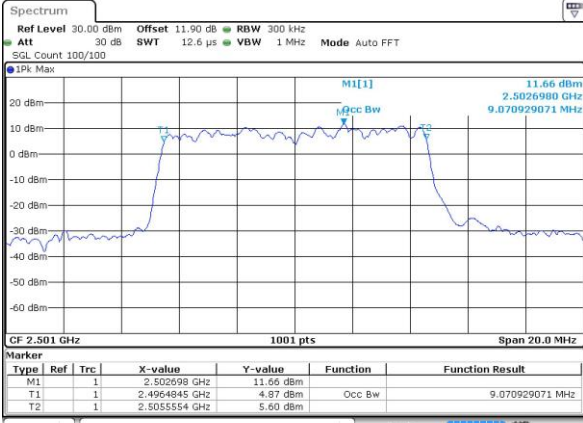


Date: 28 MAR 2019 23:15:54



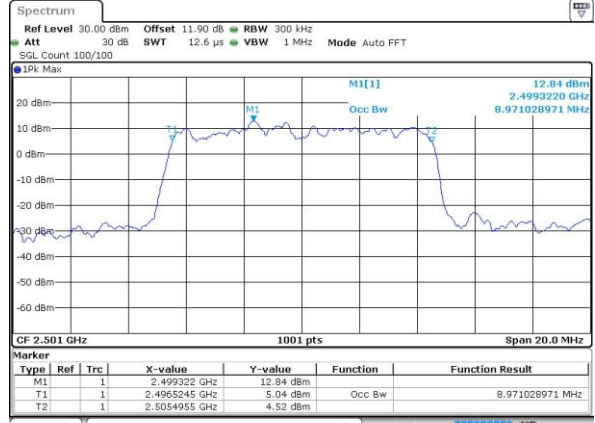
LTE Band 41

Lowest Channel / 10MHz / QPSK



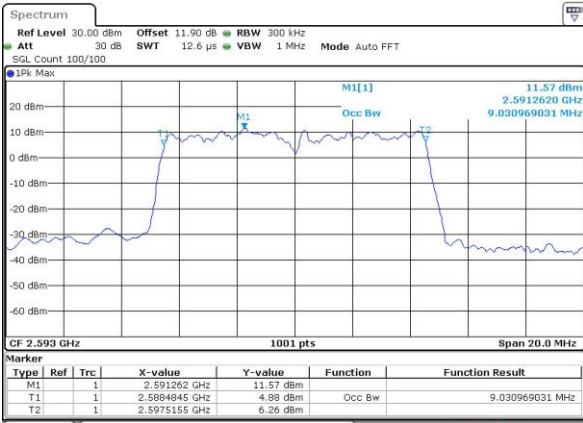
Date: 28 MAR 2019 23:16:32

Lowest Channel / 10MHz / 16QAM



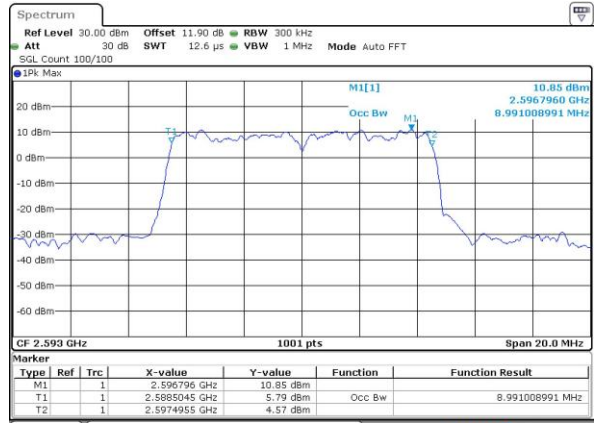
Date: 28 MAR 2019 23:16:44

Middle Channel / 10MHz / QPSK



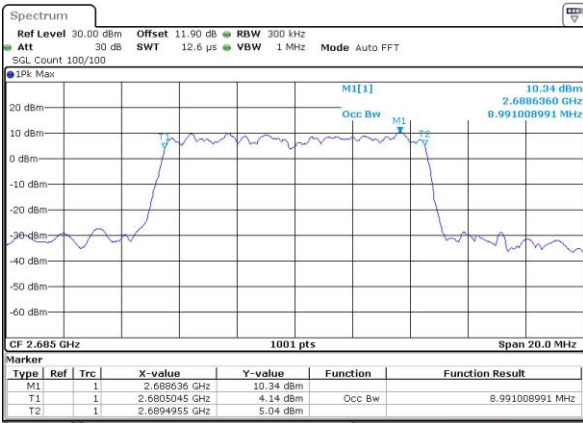
Date: 28 MAR 2019 23:17:21

Middle Channel / 10MHz / 16QAM



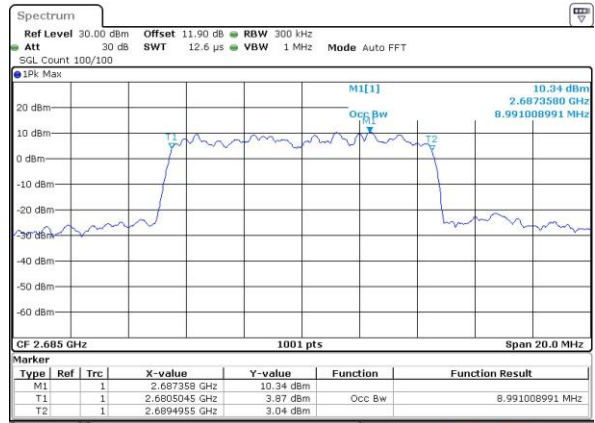
Date: 28 MAR 2019 23:17:32

Highest Channel / 10MHz / QPSK



Date: 28 MAR 2019 23:18:08

Highest Channel / 10MHz / 16QAM

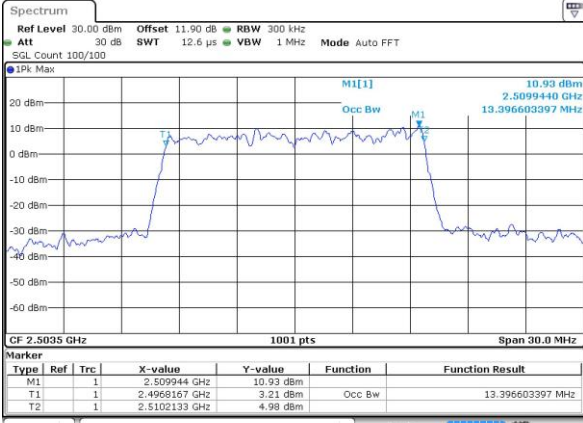


Date: 28 MAR 2019 23:18:20



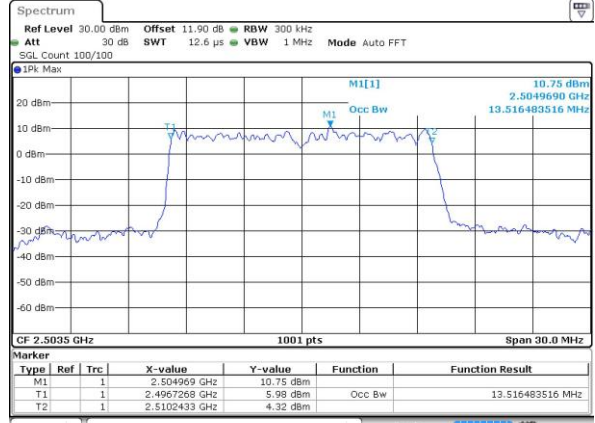
LTE Band 41

Lowest Channel / 15MHz / QPSK



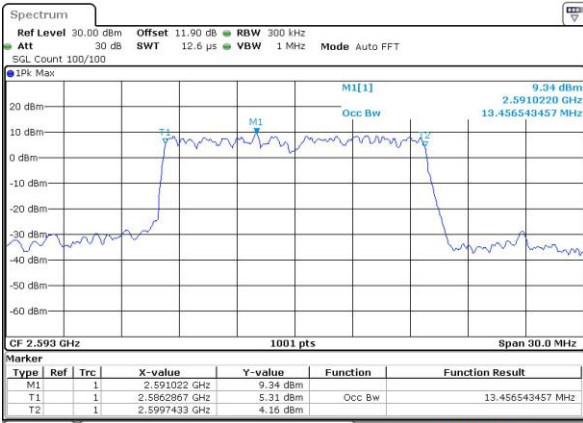
Date: 28 MAR 2019 23:18:58

Lowest Channel / 15MHz / 16QAM



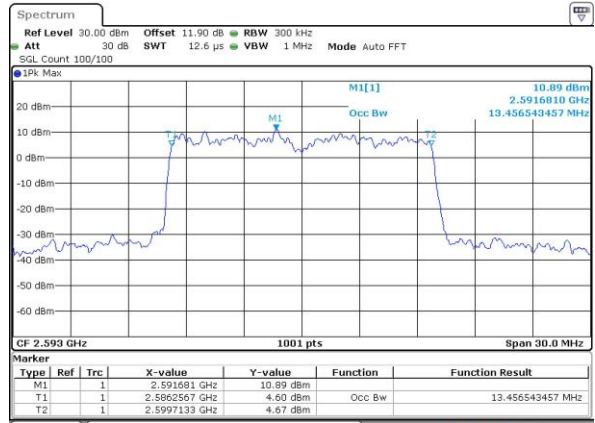
Date: 28 MAR 2019 23:19:10

Middle Channel / 15MHz / QPSK



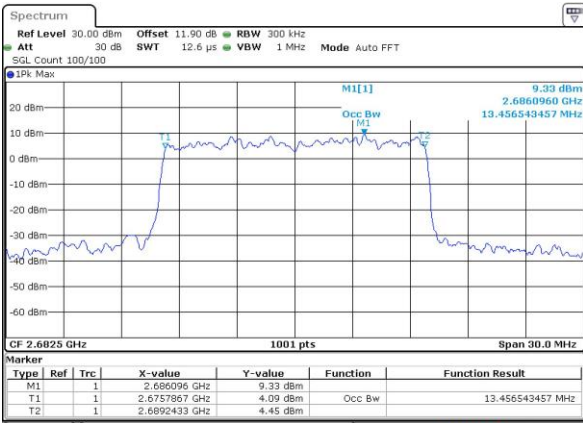
Date: 28 MAR 2019 23:19:46

Middle Channel / 15MHz / 16QAM



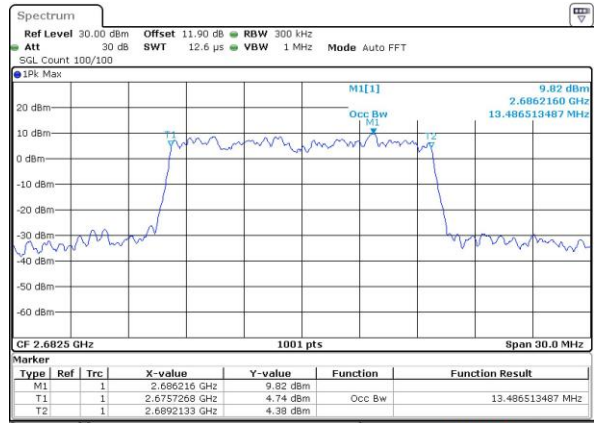
Date: 28 MAR 2019 23:19:58

Highest Channel / 15MHz / QPSK



Date: 28 MAR 2019 23:20:34

Highest Channel / 15MHz / 16QAM

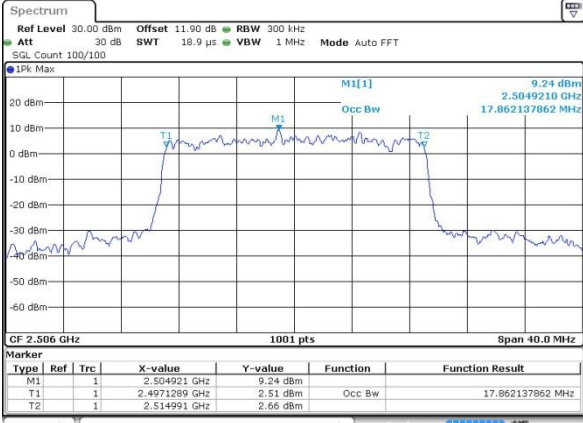


Date: 28 MAR 2019 23:20:46



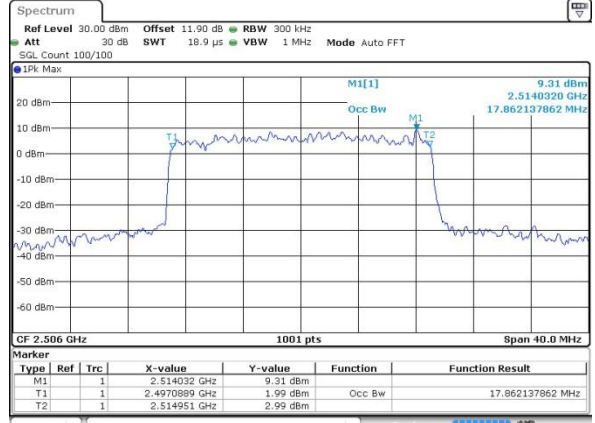
LTE Band 41

Lowest Channel / 20MHz / QPSK



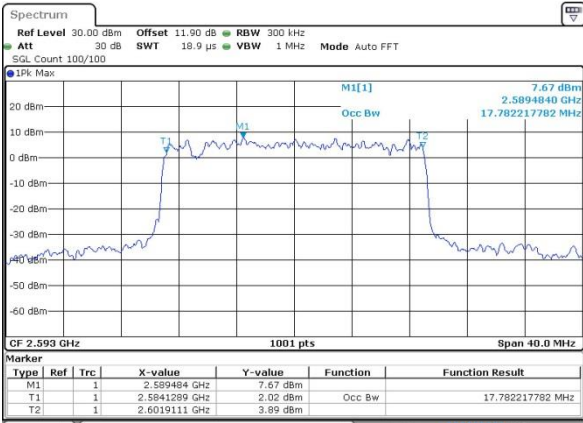
Date: 2 APR 2019 15:54:21

Lowest Channel / 20MHz / 16QAM



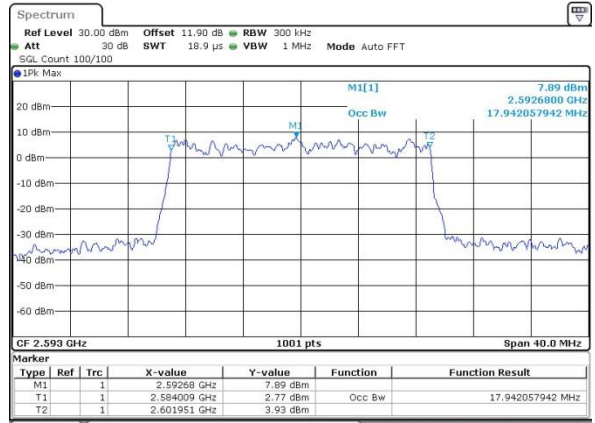
Date: 2 APR 2019 15:54:34

Middle Channel / 20MHz / QPSK



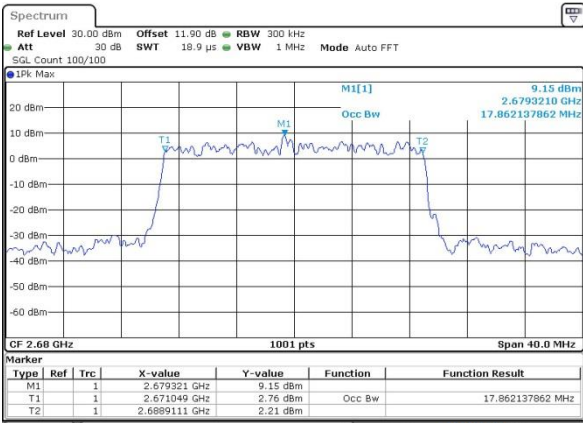
Date: 2 APR 2019 15:54:46

Middle Channel / 20MHz / 16QAM



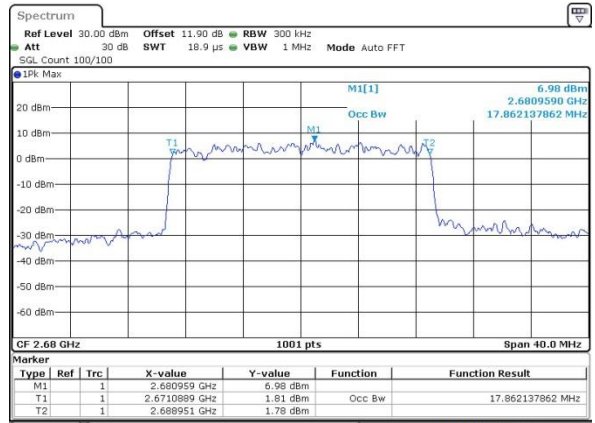
Date: 2 APR 2019 15:54:58

Highest Channel / 20MHz / QPSK



Date: 2 APR 2019 15:55:11

Highest Channel / 20MHz / 16QAM

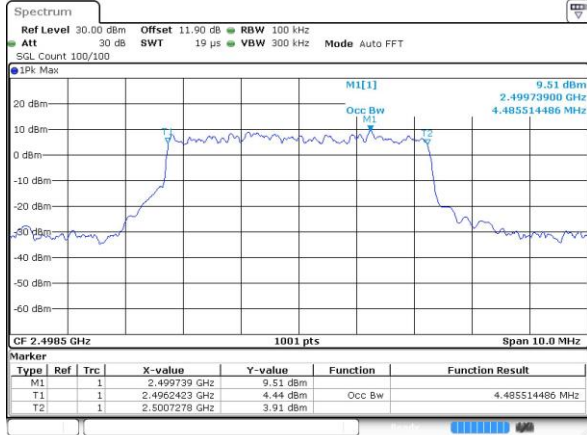


Date: 2 APR 2019 15:55:23



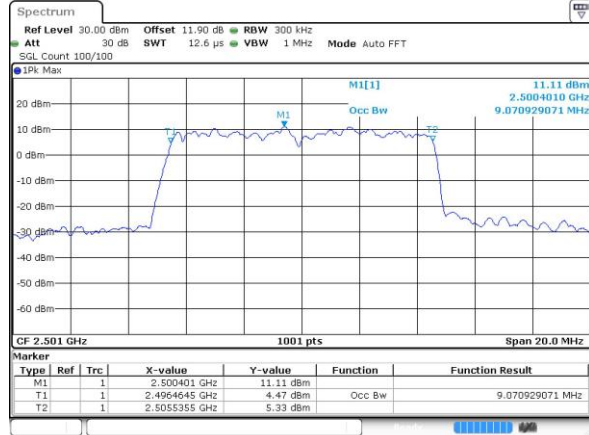
LTE Band 41

Lowest Channel / 5MHz / 64QAM



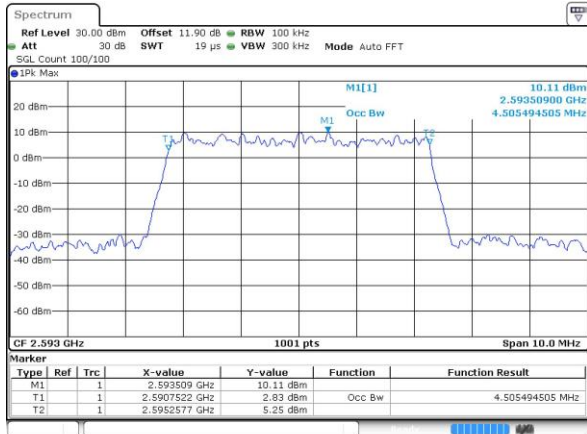
Date: 28 MAR 2019 23:23:49

Lowest Channel / 10MHz / 64QAM



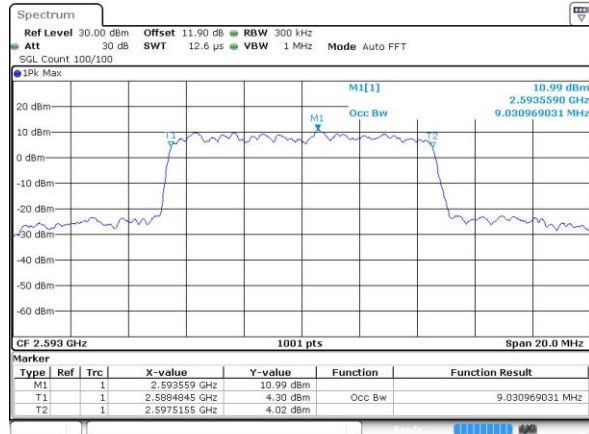
Date: 28 MAR 2019 23:25:02

Middle Channel / 5MHz / 64QAM



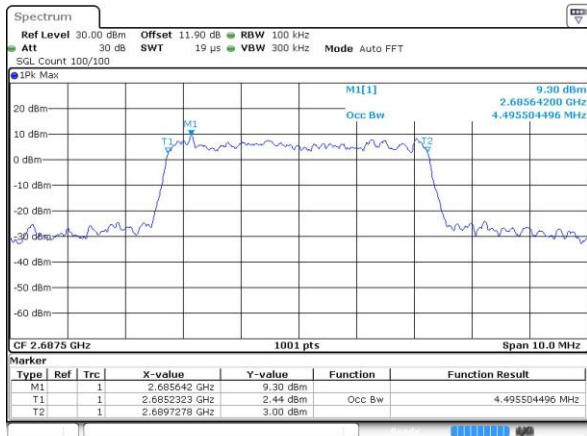
Date: 28 MAR 2019 23:24:14

Middle Channel / 10MHz / 64QAM



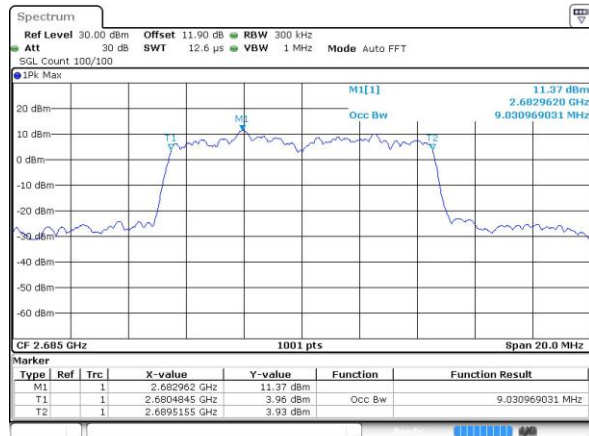
Date: 28 MAR 2019 23:25:26

Highest Channel / 5MHz / 64QAM



Date: 28 MAR 2019 23:24:37

Highest Channel / 10MHz / 64QAM

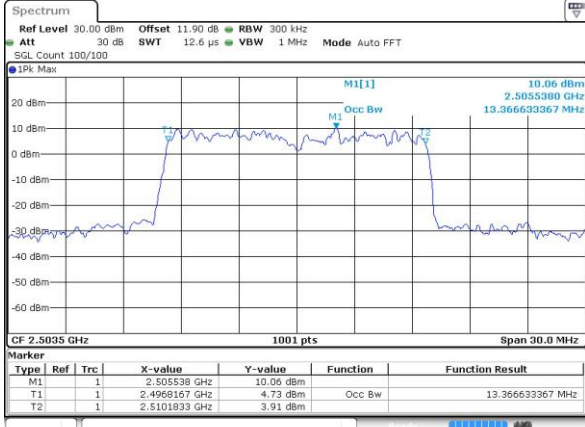


Date: 28 MAR 2019 23:25:50



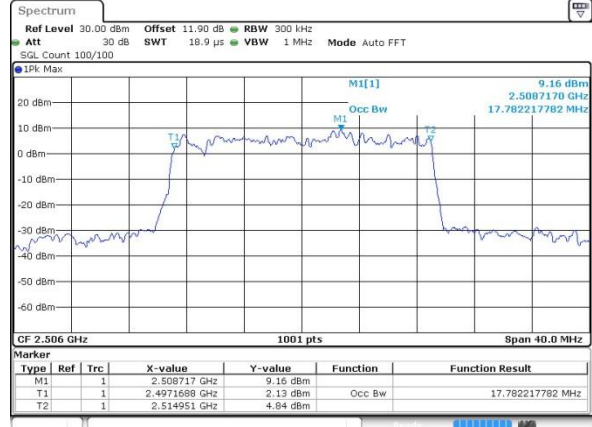
LTE Band 41

Lowest Channel / 15MHz / 64QAM



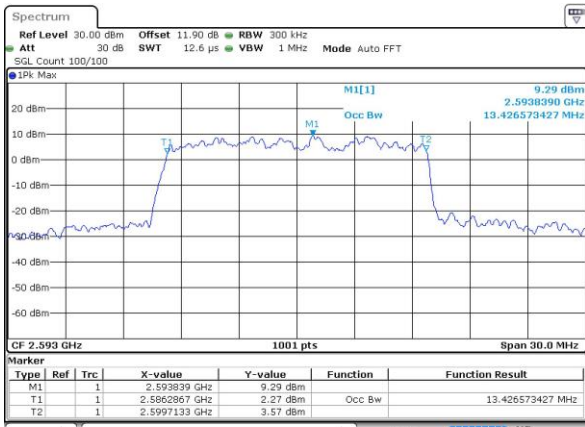
Date: 28 MAR 2019 23:26:15

Lowest Channel / 20MHz / 64QAM



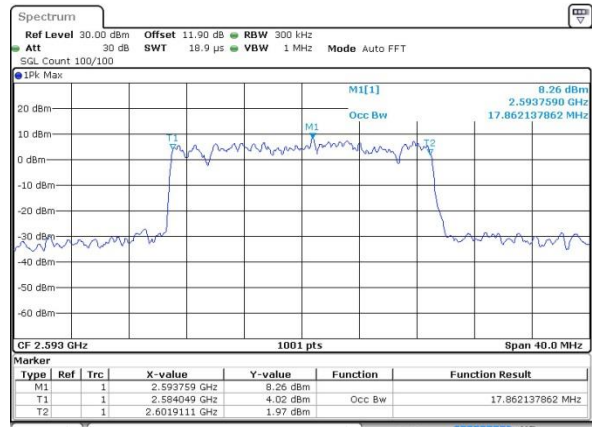
Date: 2 APR 2019 15:55:36

Middle Channel / 15MHz / 64QAM



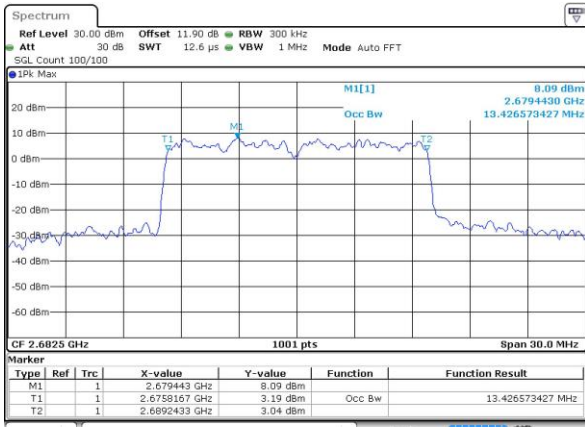
Date: 28 MAR 2019 23:26:39

Middle Channel / 20MHz / 64QAM



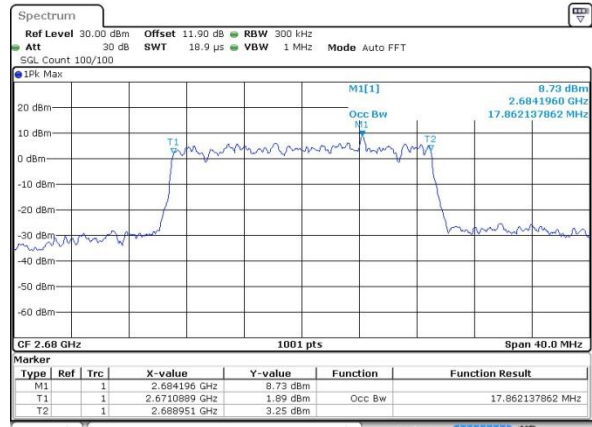
Date: 2 APR 2019 15:55:48

Highest Channel / 15MHz / 64QAM



Date: 28 MAR 2019 23:27:03

Highest Channel / 20MHz / 64QAM



Date: 2 APR 2019 15:56:01