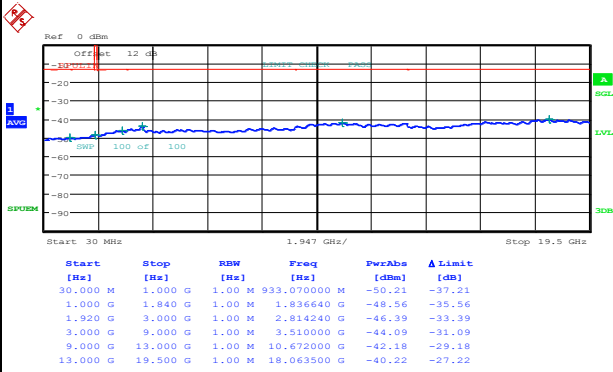




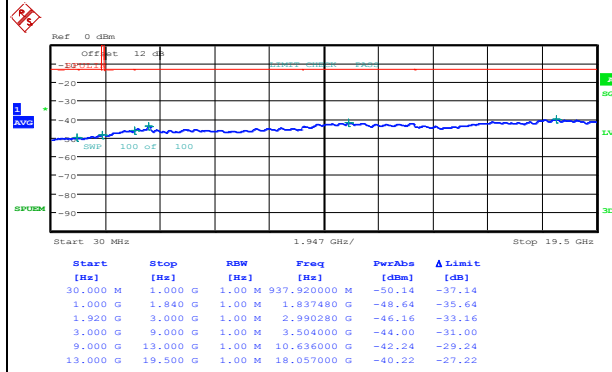
LTE Band 2 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



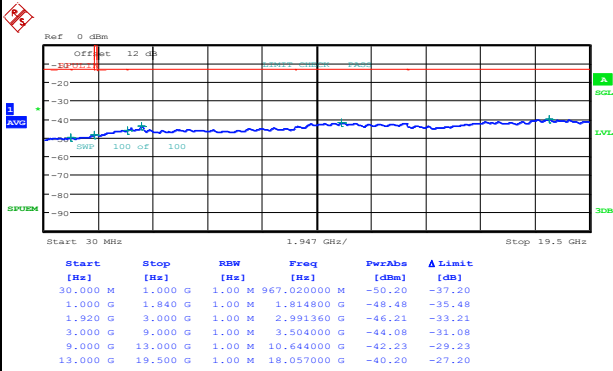
Date: 12.JAN.2015 14:29:20



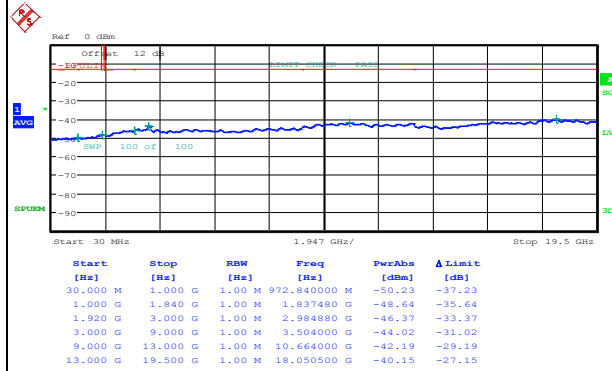
Date: 12.JAN.2015 14:30:30

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 12.JAN.2015 14:32:27



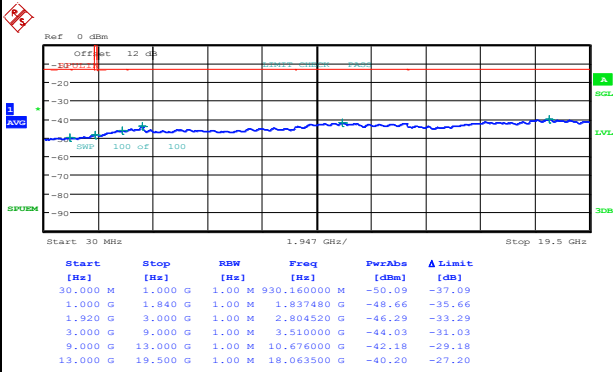
Date: 12.JAN.2015 14:33:36



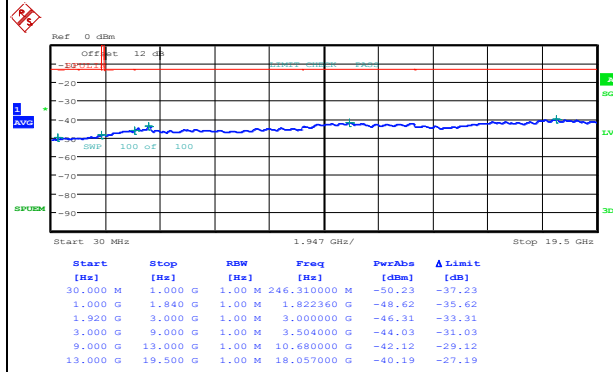
LTE Band 2 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.JAN.2015 14:40:13

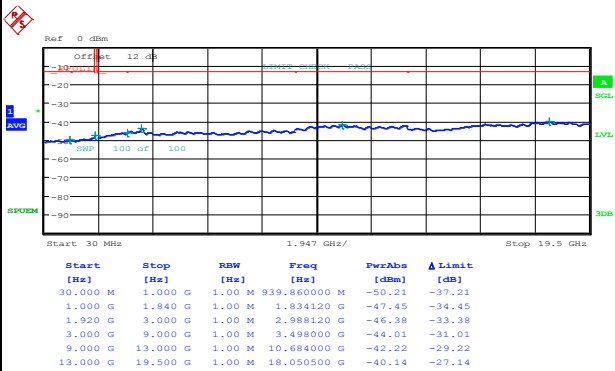


Date: 12.JAN.2015 14:41:24

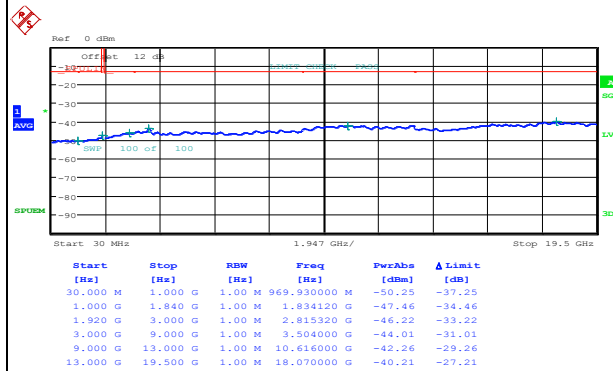
LTE Band 2 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 12.JAN.2015 14:50:21



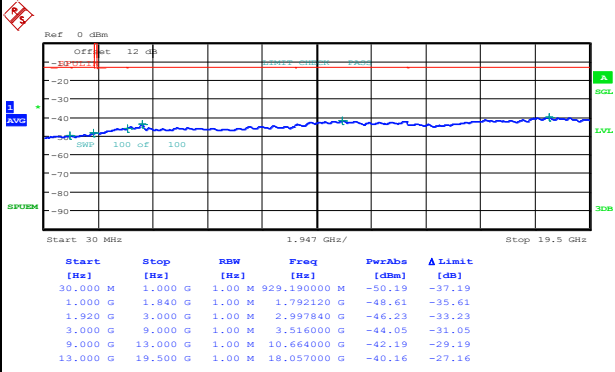
Date: 12.JAN.2015 14:51:32



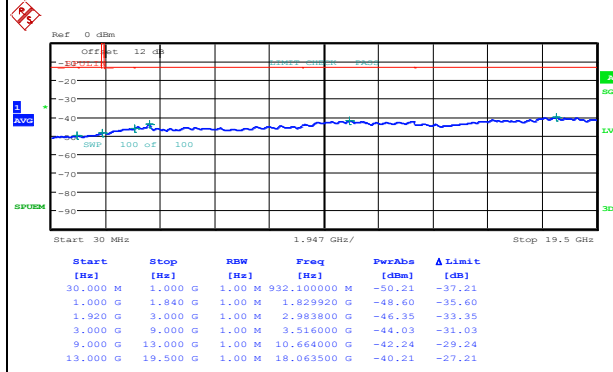
LTE Band 2 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



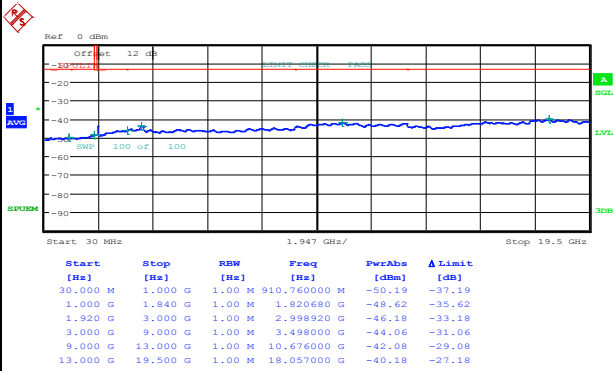
Date: 12.JAN.2015 14:53:29



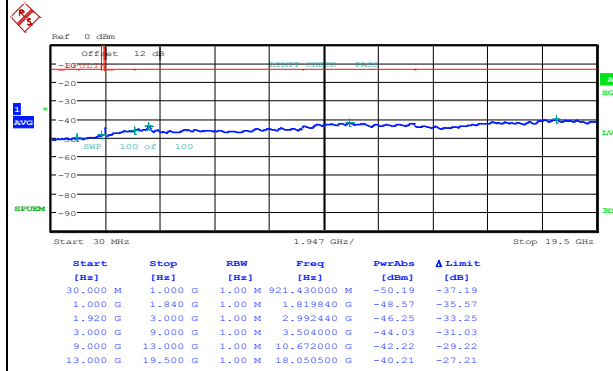
Date: 12.JAN.2015 14:54:39

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.JAN.2015 15:01:15



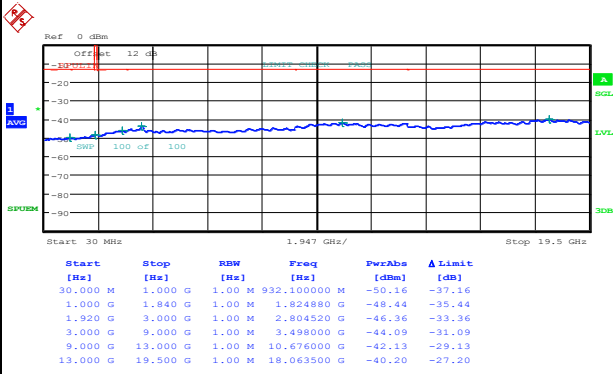
Date: 12.JAN.2015 15:02:26



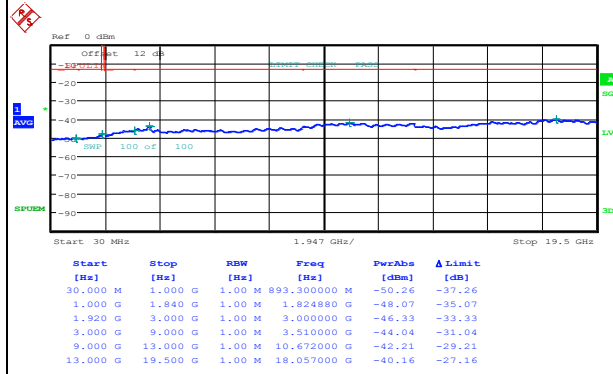
LTE Band 2 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



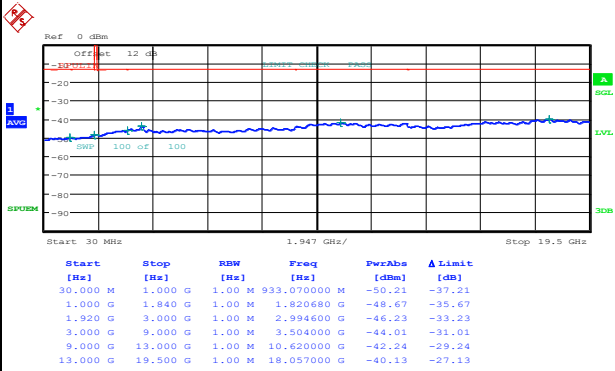
Date: 12.JAN.2015 15:11:05



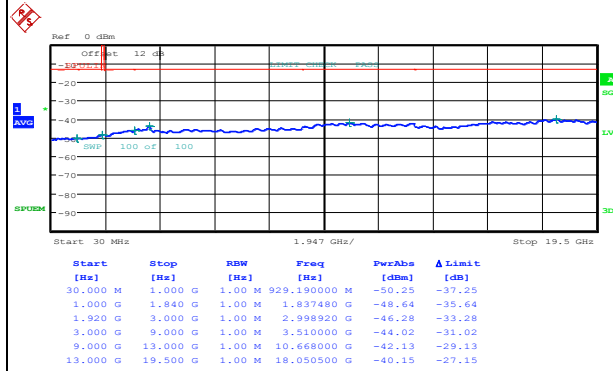
Date: 12.JAN.2015 15:12:16

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 12.JAN.2015 15:14:13



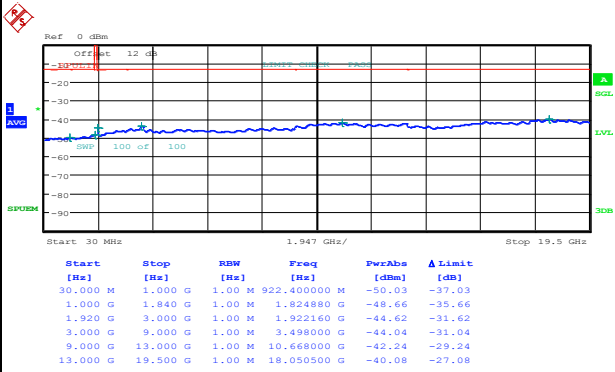
Date: 12.JAN.2015 15:15:23



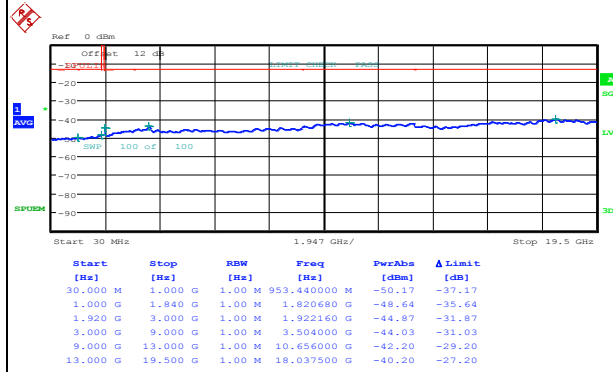
LTE Band 2 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.JAN.2015 15:22:00

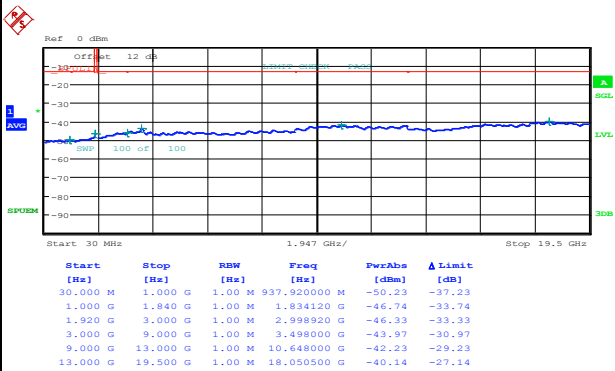


Date: 12.JAN.2015 15:23:12

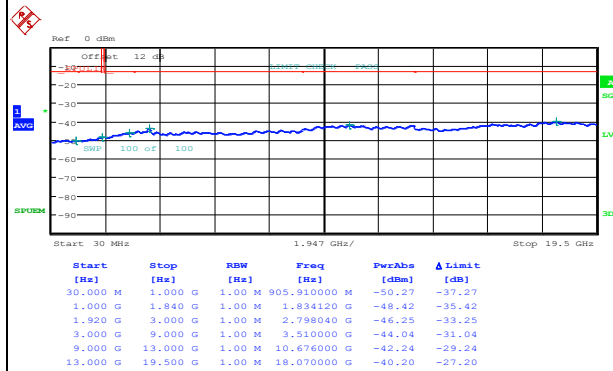
LTE Band 2 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 12.JAN.2015 15:29:53



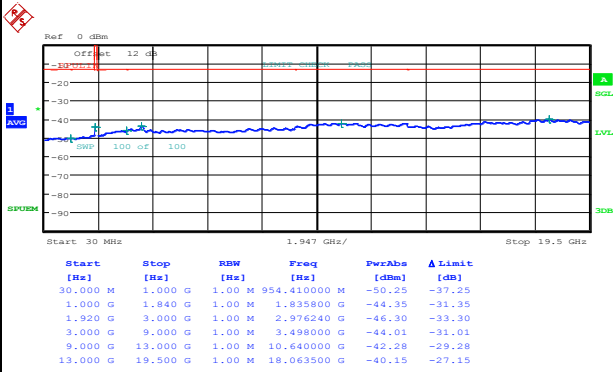
Date: 12.JAN.2015 15:31:02



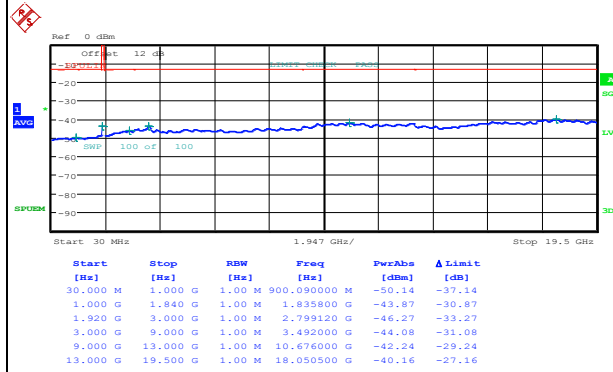
LTE Band 2 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM



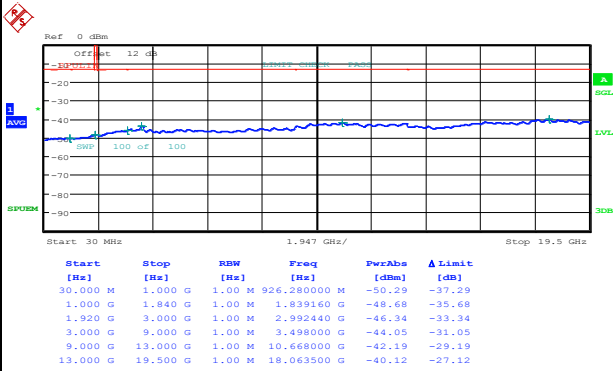
Date: 12.JAN.2015 15:32:59



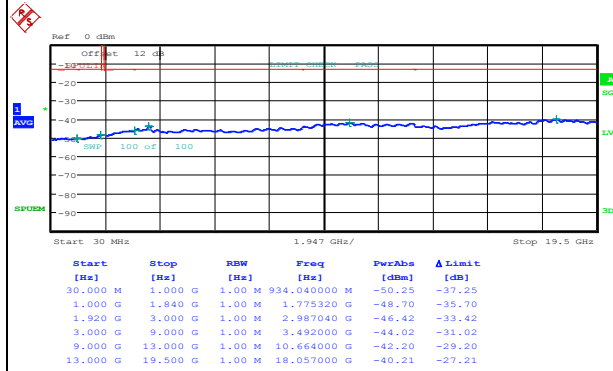
Date: 12.JAN.2015 15:34:09

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.JAN.2015 15:40:45



Date: 12.JAN.2015 16:31:28



**Frequency Stability**

| Test Conditions  |                   | LTE Band 2 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                           | Note 2. |
|                  |                   | Deviation (ppm)                    | Result  |
| 50               | Normal Voltage    | 0.0006                             | PASS    |
| 40               | Normal Voltage    | 0.0004                             |         |
| 30               | Normal Voltage    | 0.0002                             |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |         |
| 10               | Normal Voltage    | 0.0001                             |         |
| 0                | Normal Voltage    | 0.0002                             |         |
| -10              | Normal Voltage    | 0.0005                             |         |
| -20              | Normal Voltage    | 0.0006                             |         |
| -30              | Normal Voltage    | 0.0004                             |         |
| 20               | Maximum Voltage   | 0.0008                             |         |
| 20               | Normal Voltage    | 0.0000                             |         |
| 20               | Battery End Point | 0.0005                             |         |

**Note:**

1. Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.1 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



## LTE Band 4

### Peak-to-Average Ratio

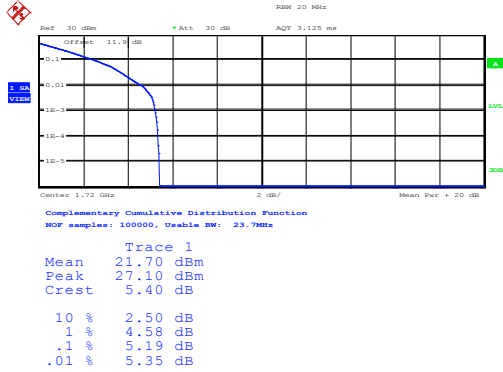
| Mode       | LTE Band 4 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | RB Size | Result      |
| Lowest CH  | 5.19               | 5.45    | 6.12  | 6.28    | <b>PASS</b> |
| Middle CH  | 4.49               | 5.58    | 5.64  | 6.19    |             |
| Highest CH | 4.58               | 5.77    | 5.74  | 6.41    |             |





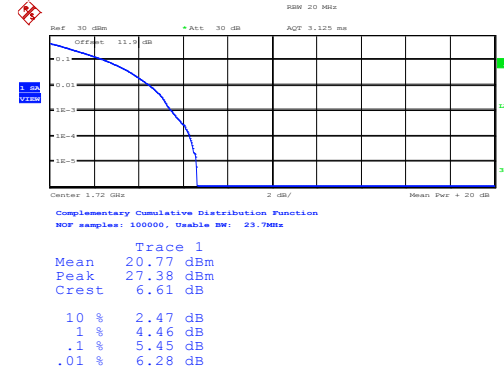
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



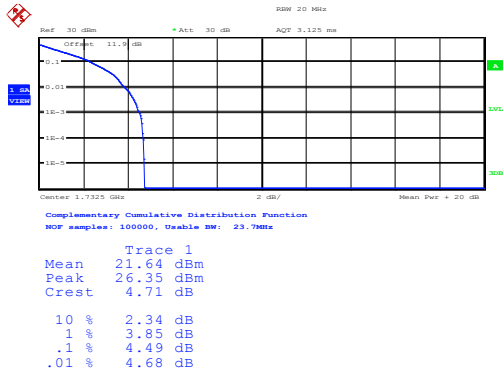
Date: 13.JAN.2015 22:45:58

Lowest Channel / Full RB



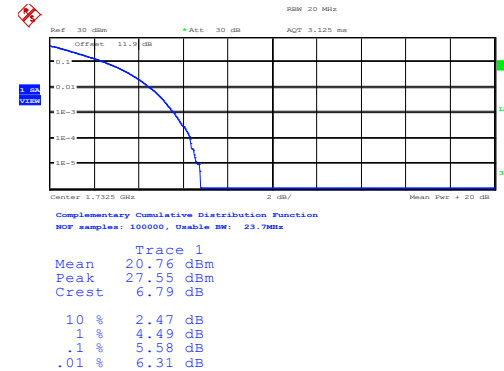
Date: 13.JAN.2015 22:46:09

Middle Channel / 1RB



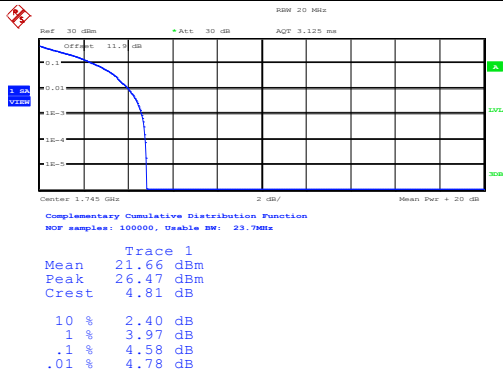
Date: 13.JAN.2015 22:46:22

Middle Channel / Full RB



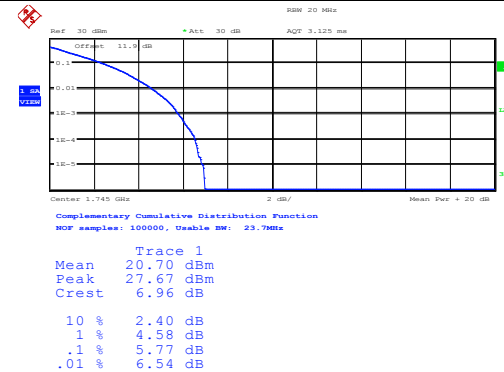
Date: 13.JAN.2015 22:46:35

Highest Channel / 1RB



Date: 13.JAN.2015 22:46:47

Highest Channel / Full RB

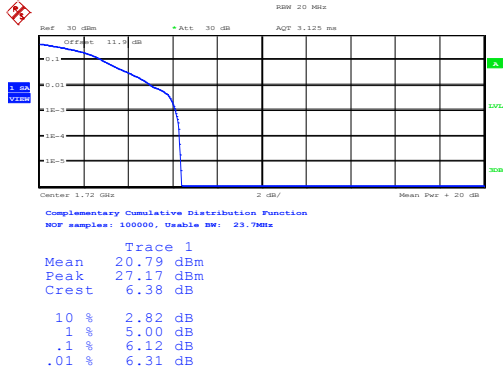


Date: 13.JAN.2015 22:47:00



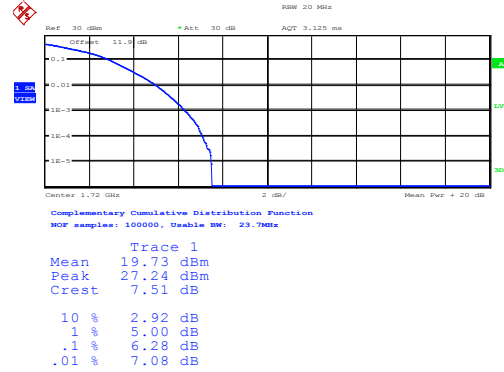
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



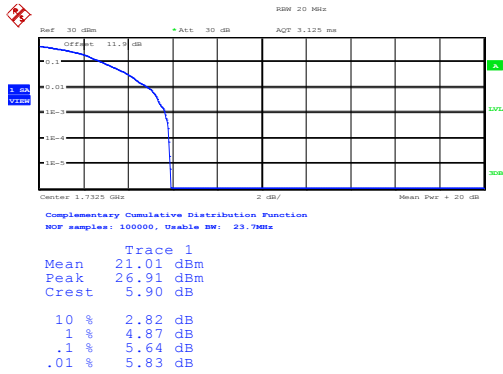
Date: 13.JAN.2015 22:43:03

Lowest Channel / Full RB



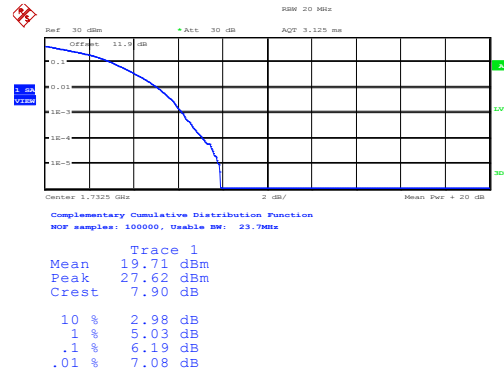
Date: 13.JAN.2015 22:43:17

Middle Channel / 1RB



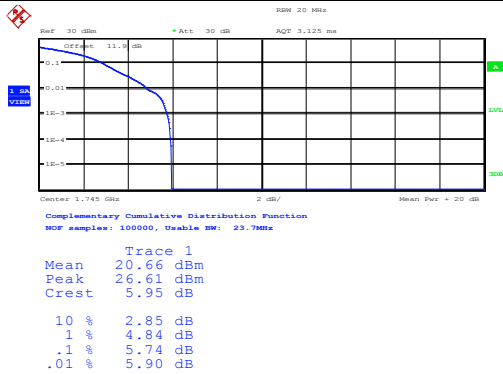
Date: 13.JAN.2015 22:43:30

Middle Channel / Full RB



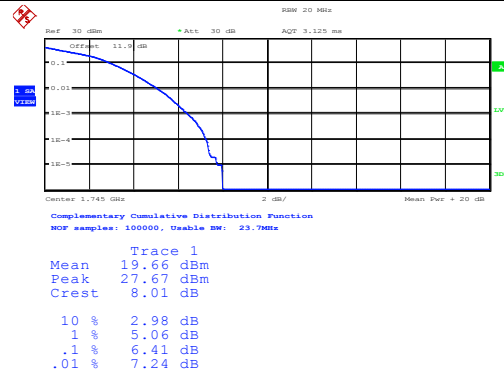
Date: 13.JAN.2015 22:43:43

Highest Channel / 1RB



Date: 13.JAN.2015 22:43:55

Highest Channel / Full RB



Date: 13.JAN.2015 22:45:45



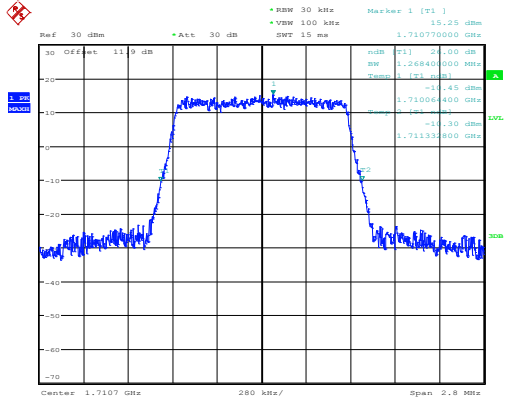
**26dB Bandwidth**

| Mode       | LTE Band 4 : 26dB BW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|------------|---------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
|            | 1.4MHz                    |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| BW         | QPSK                      | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.27                      | 1.27  | 2.99 | 3     | 4.95 | 4.97  | 10.06 | 10    | 14.73 | 14.7  | 21.04 | 20.88 |
| Middle CH  | 1.27                      | 1.27  | 3.02 | 3.02  | 5    | 5.05  | 10.18 | 10.06 | 14.76 | 14.73 | 21.12 | 21.04 |
| Highest CH | 1.27                      | 1.27  | 3.01 | 3.02  | 5    | 4.99  | 10.06 | 10.04 | 14.88 | 14.85 | 21.12 | 21.08 |



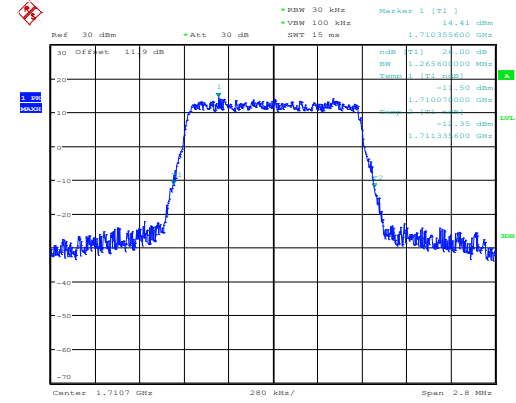
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



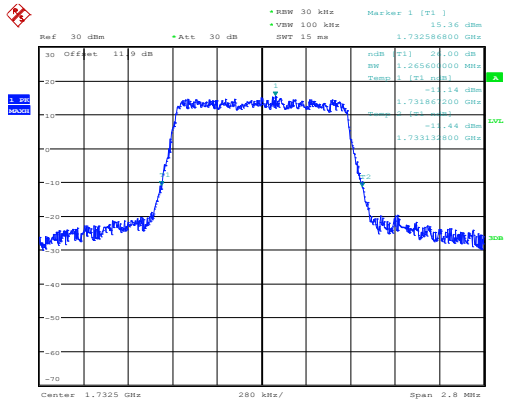
Date: 13.JAN.2015 22:22:45

Lowest Channel / 1.4MHz / 16QAM



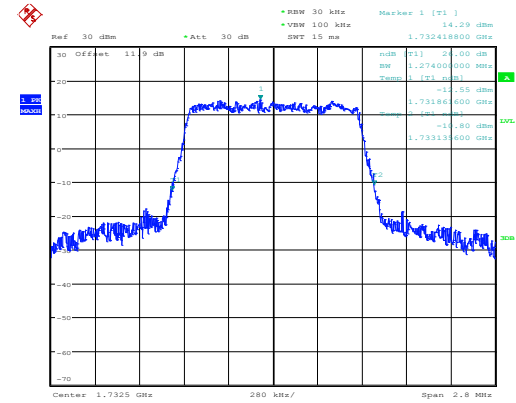
Date: 13.JAN.2015 22:22:58

Middle Channel / 1.4MHz / QPSK



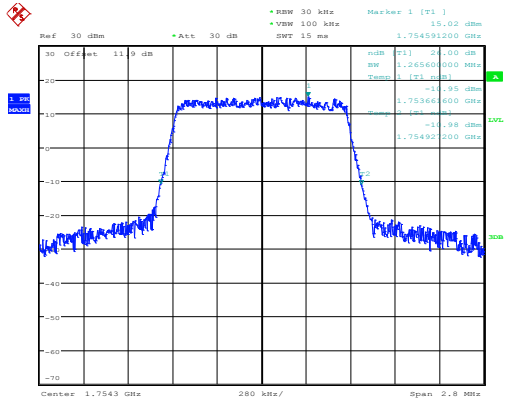
Date: 13.JAN.2015 22:30:35

Middle Channel / 1.4MHz / 16QAM



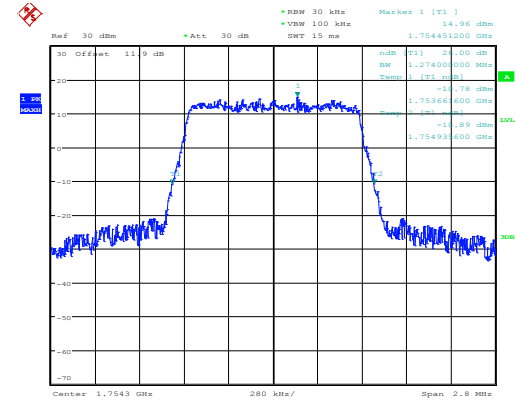
Date: 13.JAN.2015 22:30:48

Highest Channel / 1.4MHz / QPSK



Date: 13.JAN.2015 22:33:44

Highest Channel / 1.4MHz / 16QAM

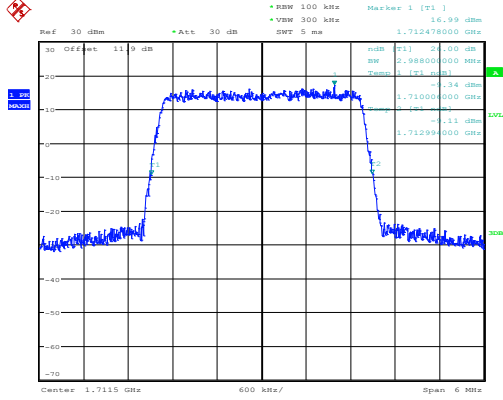


Date: 13.JAN.2015 22:33:57



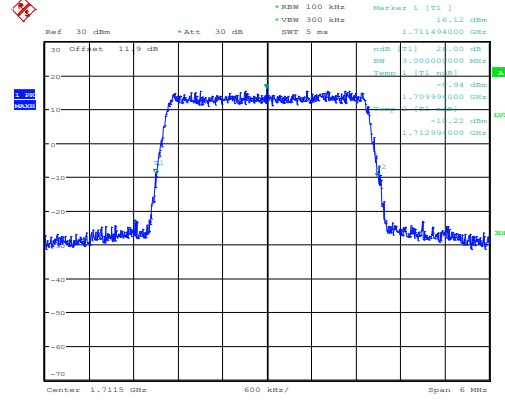
LTE Band 4

Lowest Channel / 3MHz / QPSK



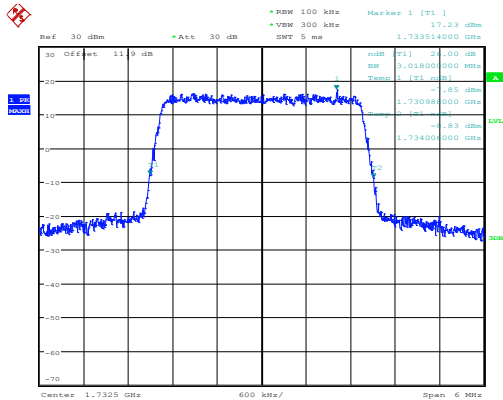
Date: 13.JAN.2015 09:28:34

Lowest Channel / 3MHz / 16QAM



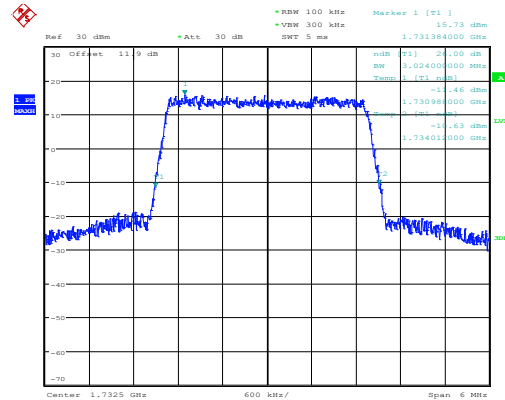
Date: 13.JAN.2015 09:28:47

Middle Channel / 3MHz / QPSK



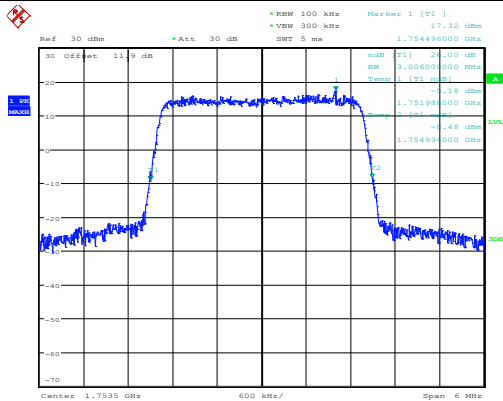
Date: 13.JAN.2015 09:36:21

Middle Channel / 3MHz / 16QAM



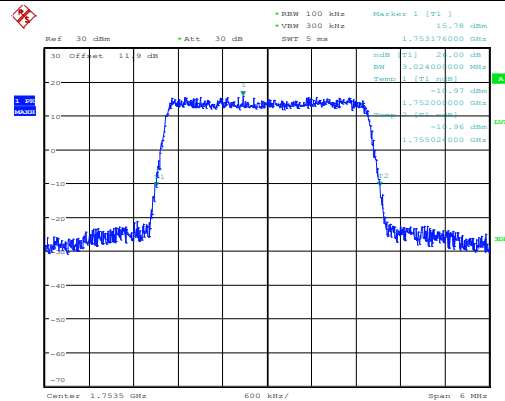
Date: 13.JAN.2015 09:36:34

Highest Channel / 3MHz / QPSK



Date: 13.JAN.2015 09:39:28

Highest Channel / 3MHz / 16QAM

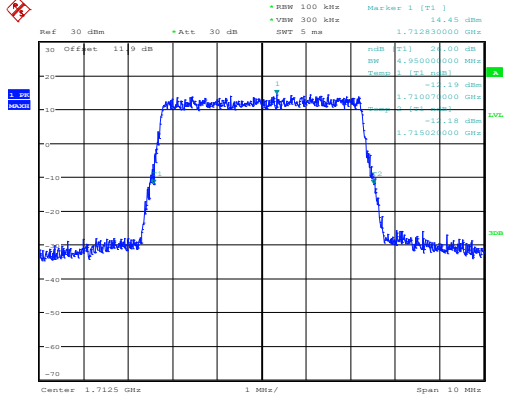


Date: 13.JAN.2015 09:39:41



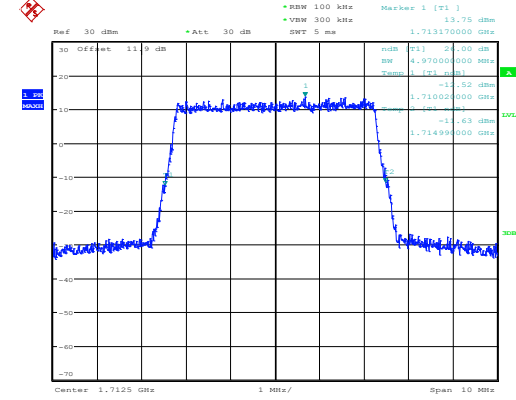
LTE Band 4

Lowest Channel / 5MHz / QPSK



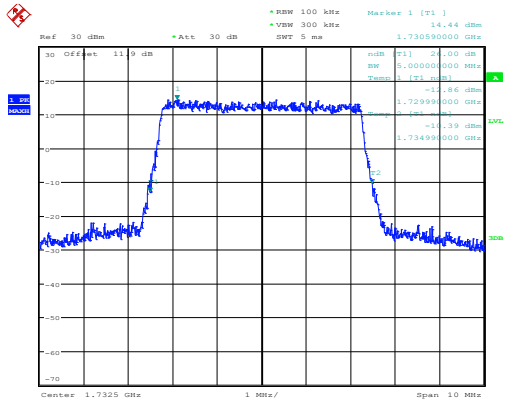
Date: 13.JAN.2015 09:47:19

Lowest Channel / 5MHz / 16QAM



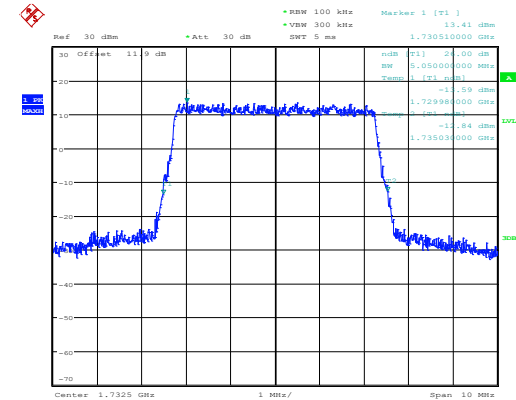
Date: 13.JAN.2015 09:47:32

Middle Channel / 5MHz / QPSK



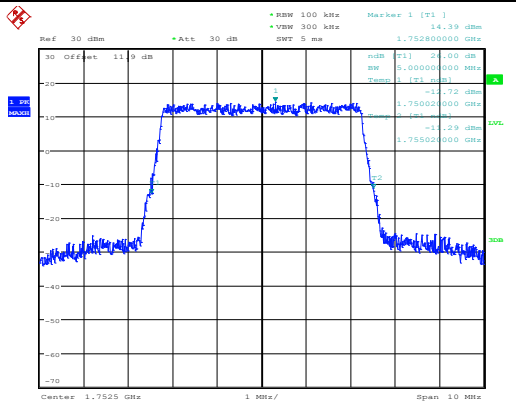
Date: 13.JAN.2015 09:55:05

Middle Channel / 5MHz / 16QAM



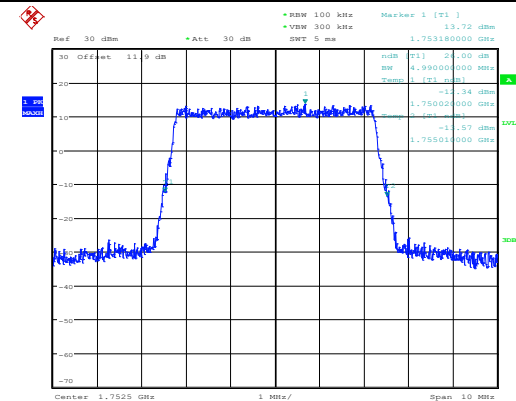
Date: 13.JAN.2015 09:55:18

Highest Channel / 5MHz / QPSK



Date: 13.JAN.2015 09:58:12

Highest Channel / 5MHz / 16QAM

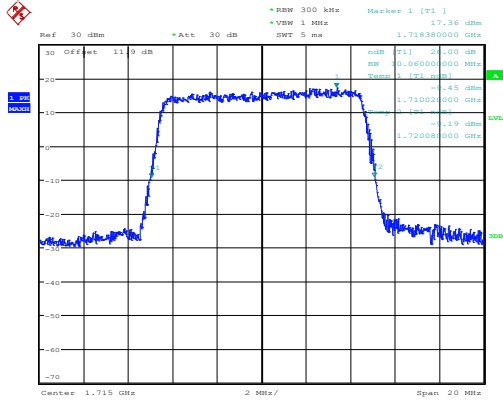


Date: 13.JAN.2015 09:58:25



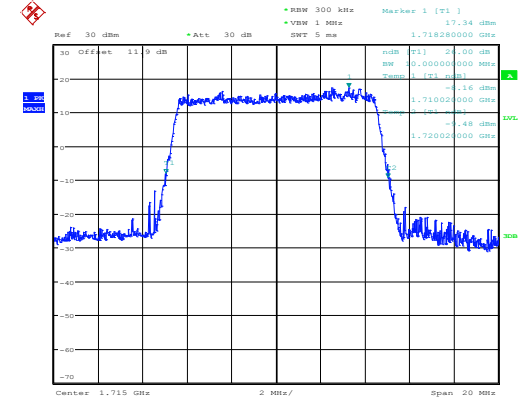
LTE Band 4

Lowest Channel / 10MHz / QPSK



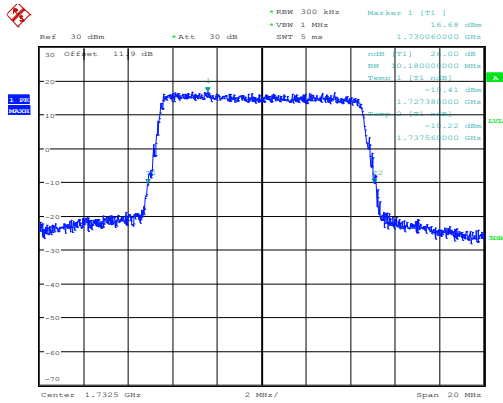
Date: 13.JAN.2015 10:06:03

Lowest Channel / 10MHz / 16QAM



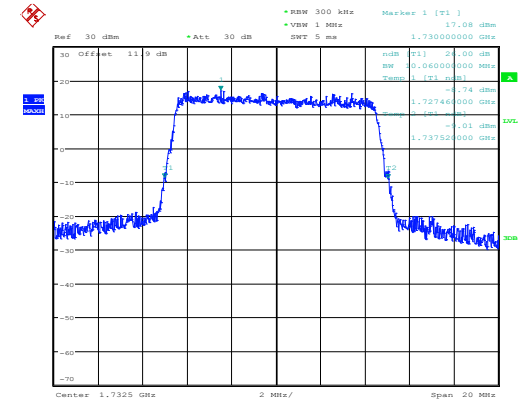
Date: 13.JAN.2015 10:06:16

Middle Channel / 10MHz / QPSK



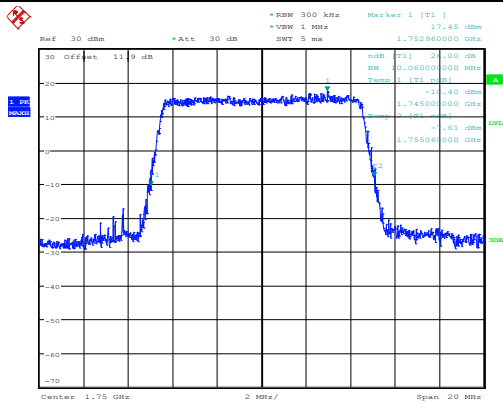
Date: 13.JAN.2015 10:13:50

Middle Channel / 10MHz / 16QAM



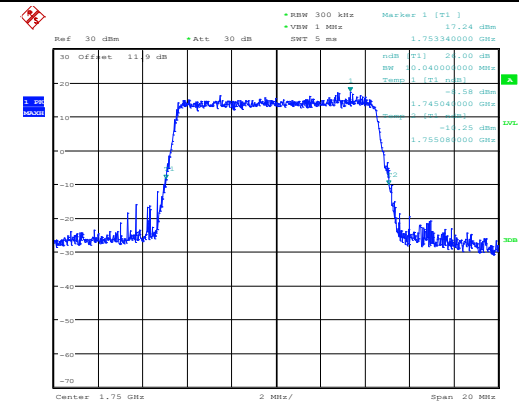
Date: 13.JAN.2015 10:14:03

Highest Channel / 10MHz / QPSK



Date: 13.JAN.2015 10:16:57

Highest Channel / 10MHz / 16QAM

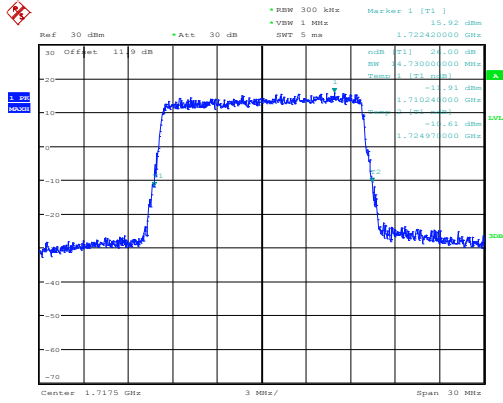


Date: 13.JAN.2015 10:17:10



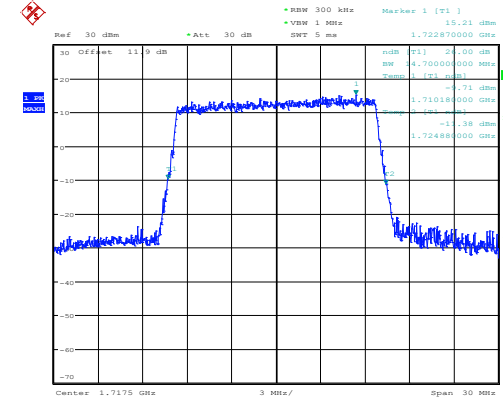
LTE Band 4

Lowest Channel / 15MHz / QPSK



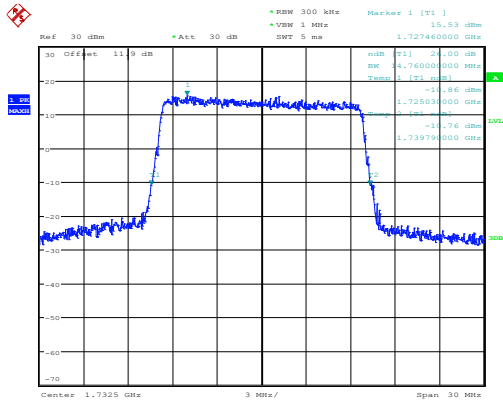
Date: 13.JAN.2015 10:25:04

Lowest Channel / 15MHz / 16QAM



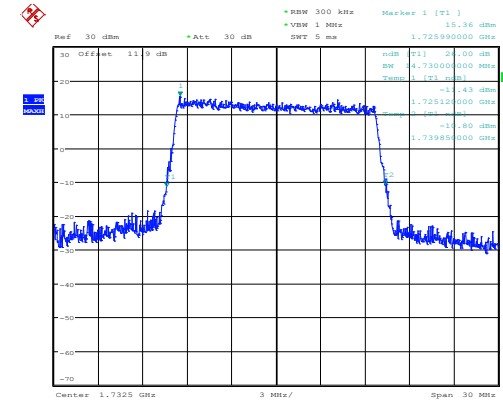
Date: 13.JAN.2015 10:25:17

Middle Channel / 15MHz / QPSK



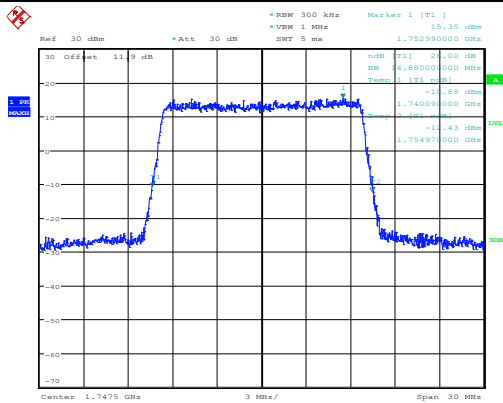
Date: 13.JAN.2015 10:32:51

Middle Channel / 15MHz / 16QAM



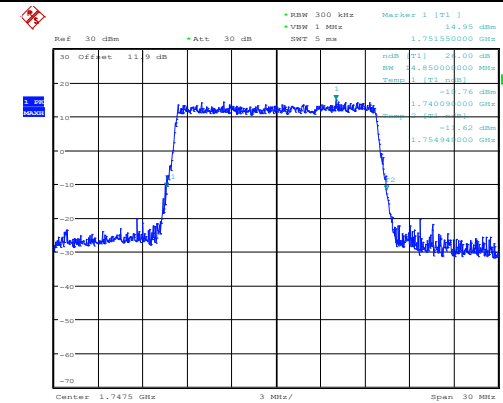
Date: 13.JAN.2015 10:33:04

Highest Channel / 15MHz / QPSK



Date: 13.JAN.2015 10:36:00

Highest Channel / 15MHz / 16QAM



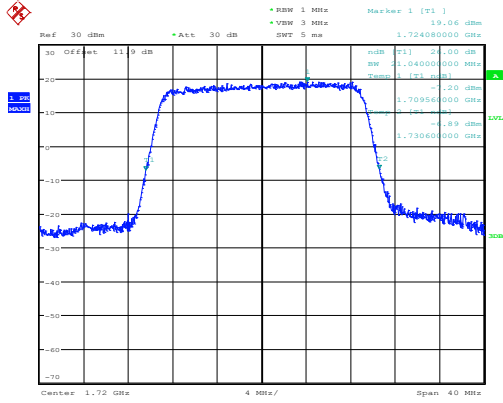
Date: 13.JAN.2015 10:36:13





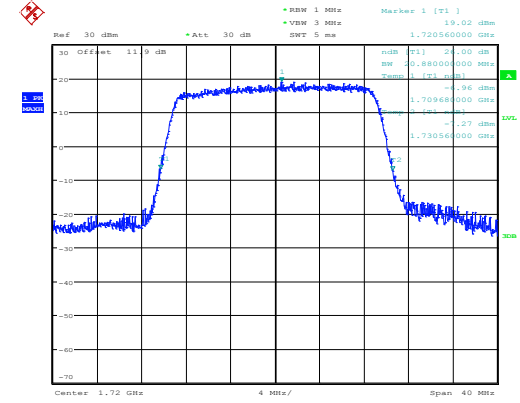
LTE Band 4

Lowest Channel / 20MHz / QPSK



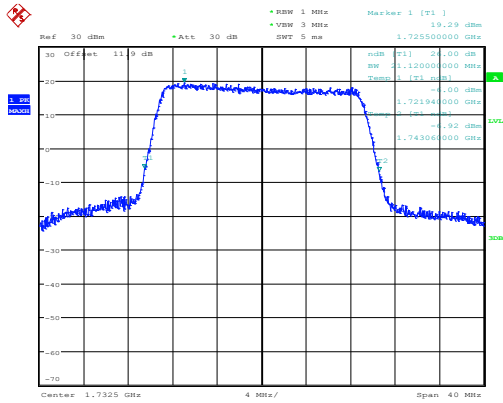
Date: 13.JAN.2015 10:52:01

Lowest Channel / 20MHz / 16QAM



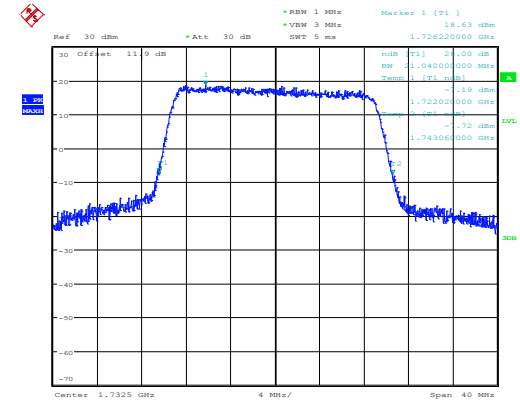
Date: 13.JAN.2015 10:52:14

Middle Channel / 20MHz / QPSK



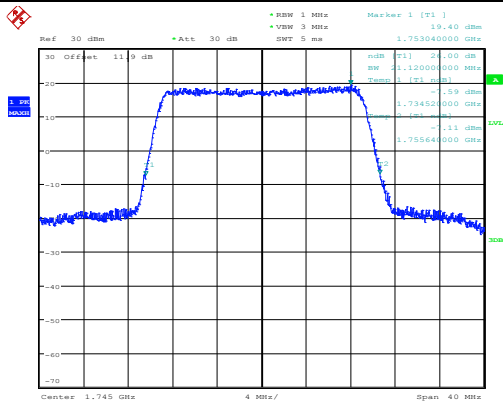
Date: 13.JAN.2015 10:59:47

Middle Channel / 20MHz / 16QAM



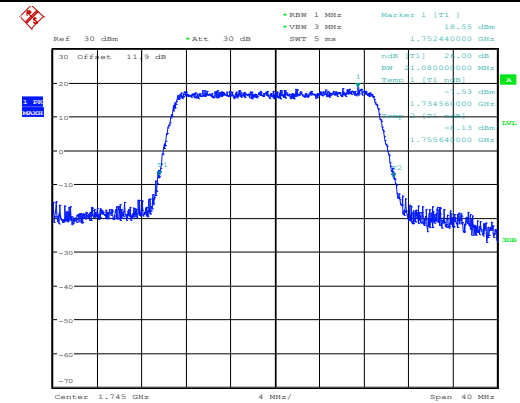
Date: 13.JAN.2015 11:00:00

Highest Channel / 20MHz / QPSK



Date: 13.JAN.2015 11:02:54

Highest Channel / 20MHz / 16QAM



Date: 13.JAN.2015 11:03:07



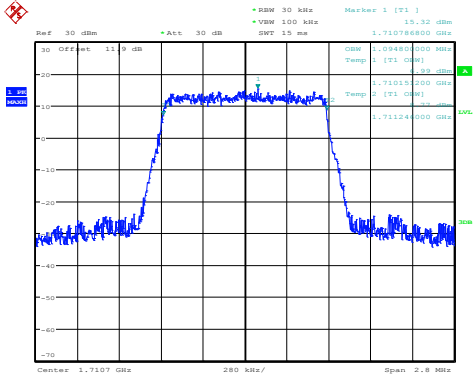
### Occupied Bandwidth

| Mode       | LTE Band 4 : 99%OBW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|------------|--------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
|            | 1.4MHz                   |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| BW         | QPSK                     | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.09                     | 1.1   | 2.72 | 2.72  | 4.51 | 4.51  | 9.08  | 9.04  | 13.47 | 13.47 | 18.44 | 18.44 |
| Middle CH  | 1.09                     | 1.1   | 2.72 | 2.72  | 4.51 | 4.5   | 9.06  | 9.04  | 13.5  | 13.53 | 18.56 | 18.56 |
| Highest CH | 1.09                     | 1.1   | 2.72 | 2.72  | 4.52 | 4.51  | 9.08  | 9.04  | 13.5  | 13.5  | 18.6  | 18.64 |



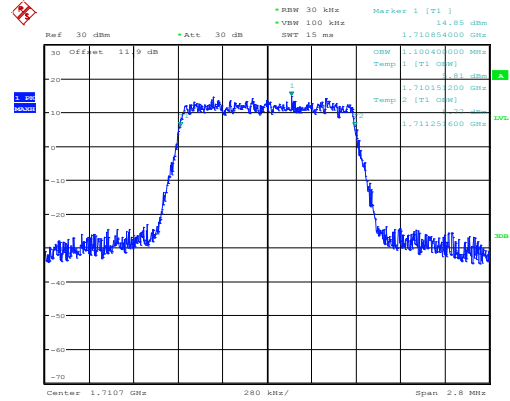
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



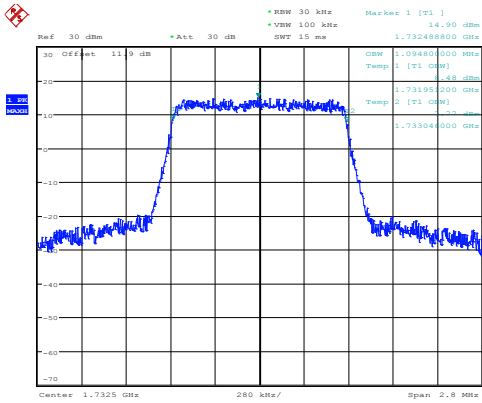
Date: 14.JAN.2015 13:57:11

Lowest Channel / 1.4MHz / 16QAM



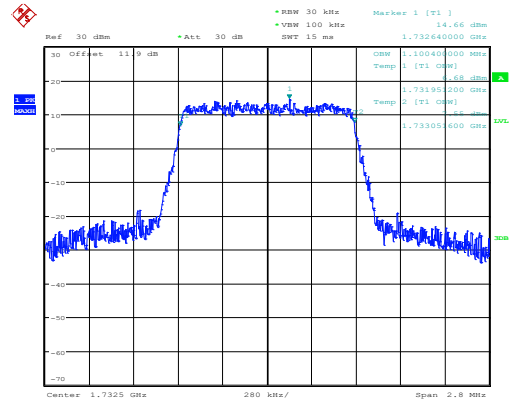
Date: 13.JAN.2015 22:22:32

Middle Channel / 1.4MHz / QPSK



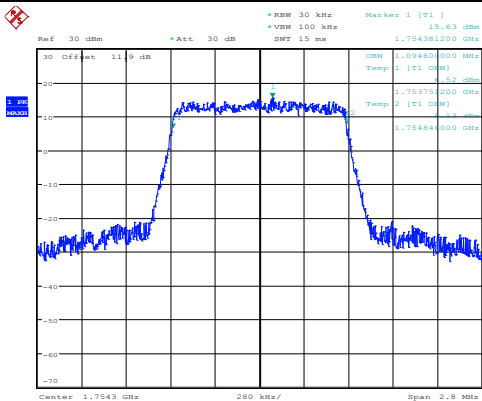
Date: 13.JAN.2015 22:30:12

Middle Channel / 1.4MHz / 16QAM



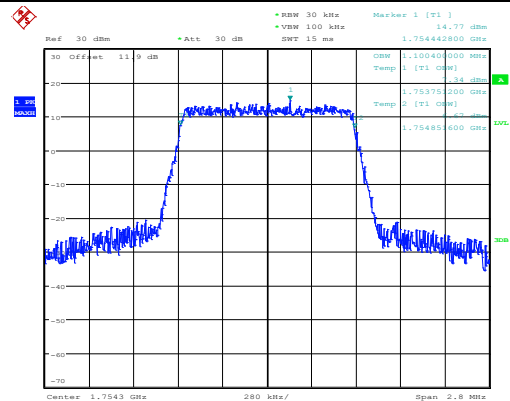
Date: 13.JAN.2015 22:30:23

Highest Channel / 1.4MHz / QPSK



Date: 13.JAN.2015 22:33:20

Highest Channel / 1.4MHz / 16QAM

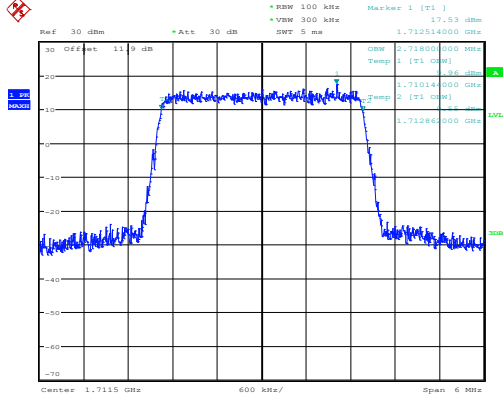


Date: 13.JAN.2015 22:33:31



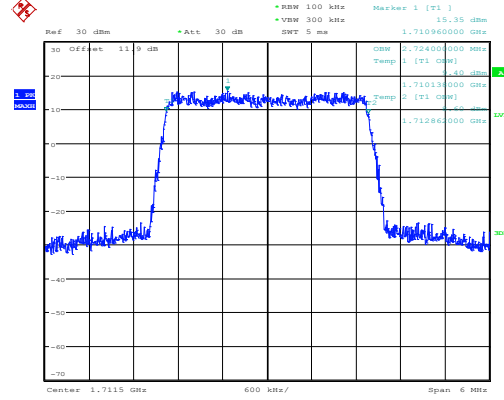
LTE Band 4

Lowest Channel / 3MHz / QPSK



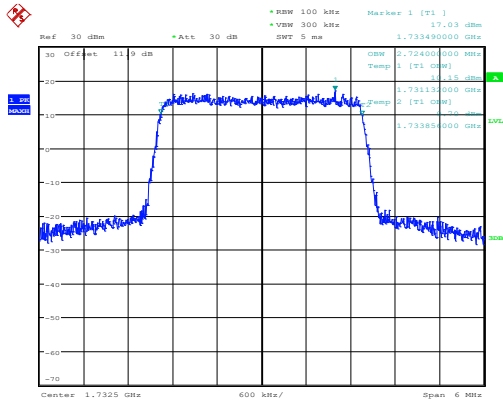
Date: 13.JAN.2015 09:26:17

Lowest Channel / 3MHz / 16QAM



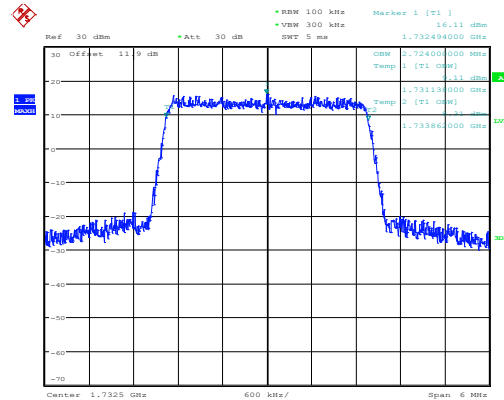
Date: 13.JAN.2015 09:26:28

Middle Channel / 3MHz / QPSK



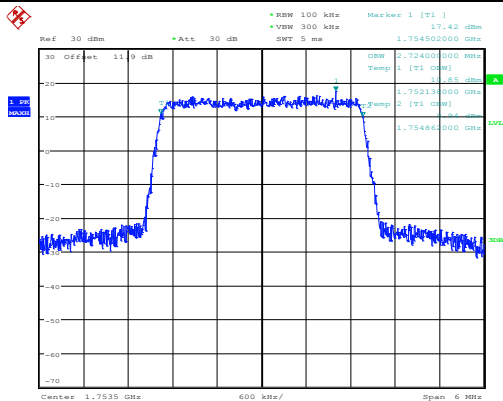
Date: 13.JAN.2015 09:35:58

Middle Channel / 3MHz / 16QAM



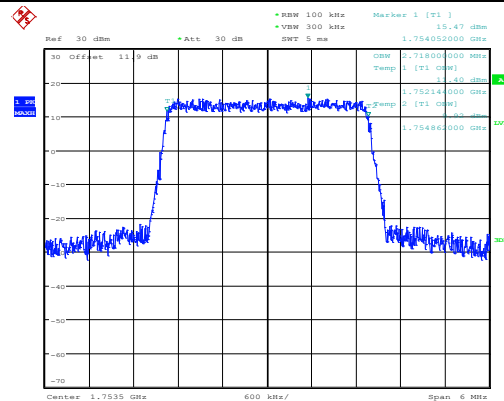
Date: 13.JAN.2015 09:36:08

Highest Channel / 3MHz / QPSK



Date: 13.JAN.2015 09:39:05

Highest Channel / 3MHz / 16QAM

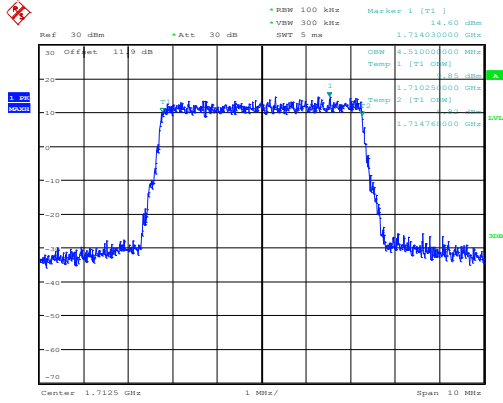


Date: 13.JAN.2015 09:39:15



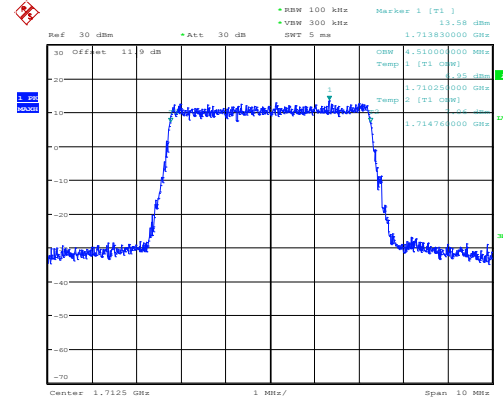
LTE Band 4

Lowest Channel / 5MHz / QPSK



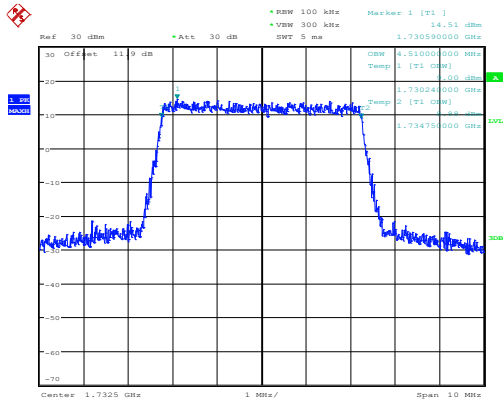
Date: 13.JAN.2015 09:46:56

Lowest Channel / 5MHz / 16QAM



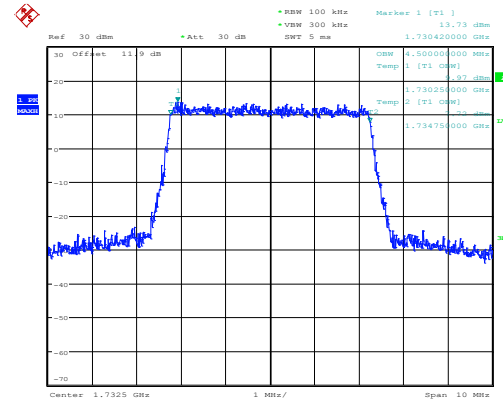
Date: 13.JAN.2015 09:47:07

Middle Channel / 5MHz / QPSK



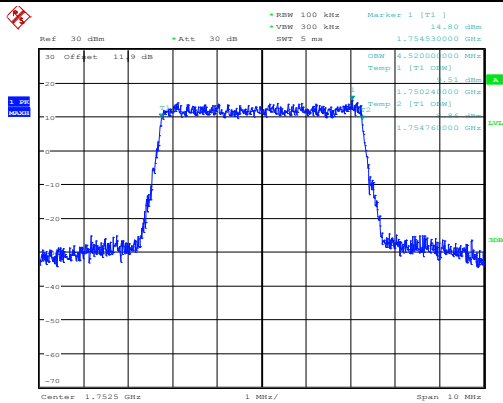
Date: 13.JAN.2015 09:54:42

Middle Channel / 5MHz / 16QAM



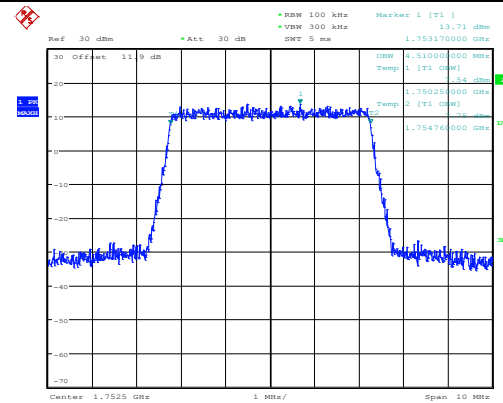
Date: 13.JAN.2015 09:54:52

Highest Channel / 5MHz / QPSK



Date: 13.JAN.2015 09:57:49

Highest Channel / 5MHz / 16QAM

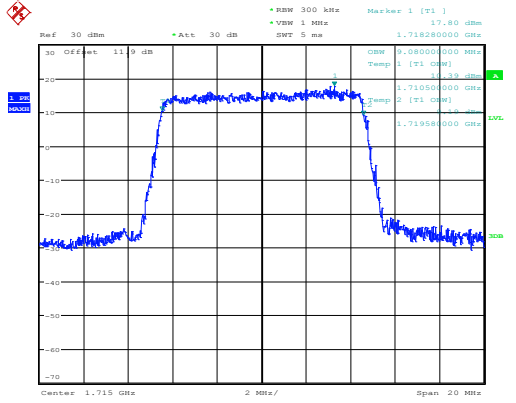


Date: 13.JAN.2015 09:57:59

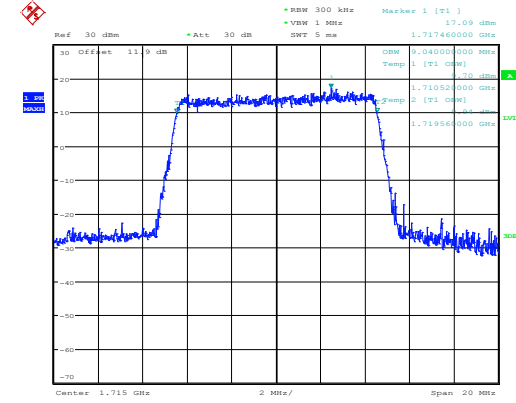


LTE Band 4

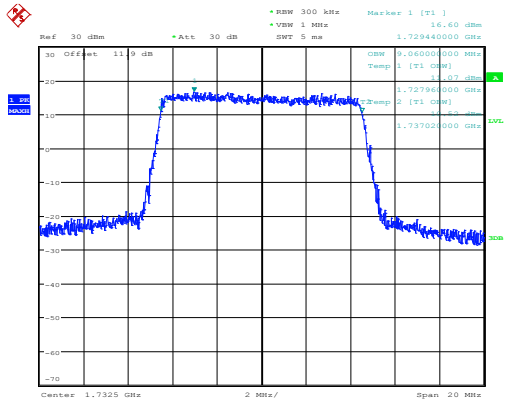
Lowest Channel / 10MHz / QPSK



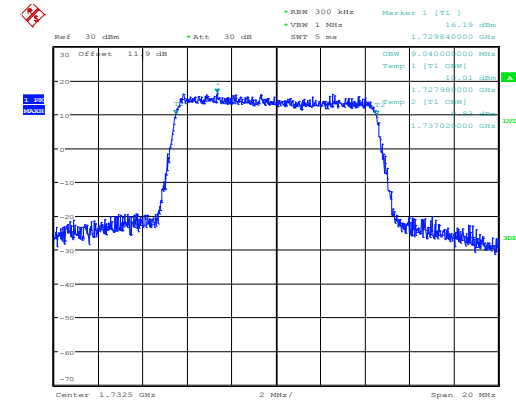
Lowest Channel / 10MHz / 16QAM



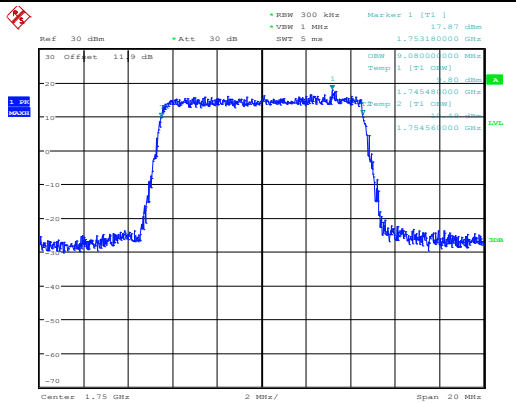
Middle Channel / 10MHz / QPSK



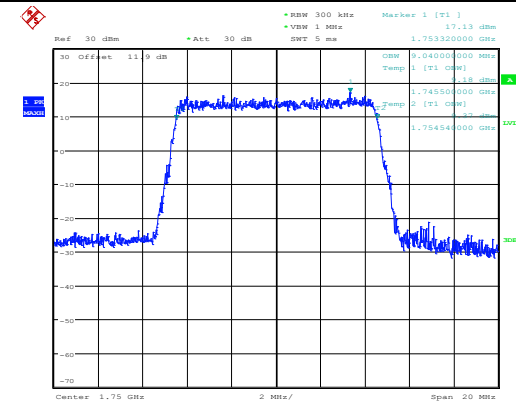
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



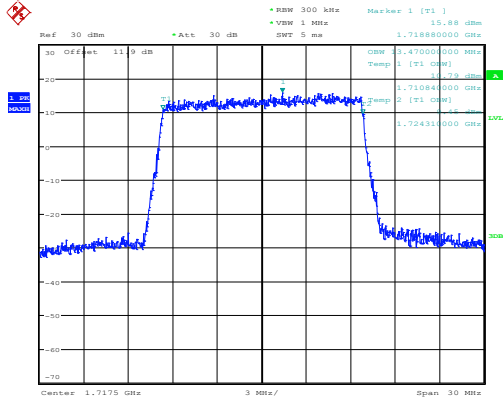
Highest Channel / 10MHz / 16QAM



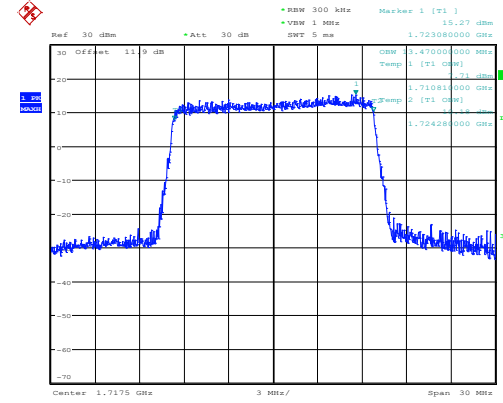


LTE Band 4

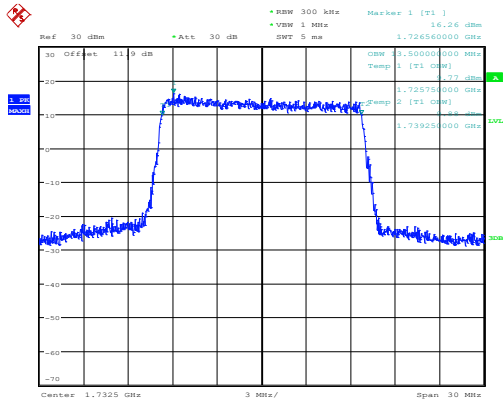
Lowest Channel / 15MHz / QPSK



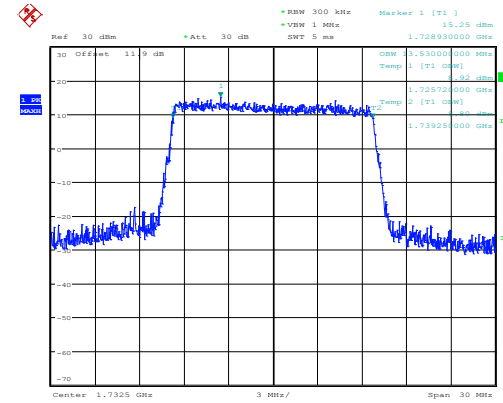
Lowest Channel / 15MHz / 16QAM



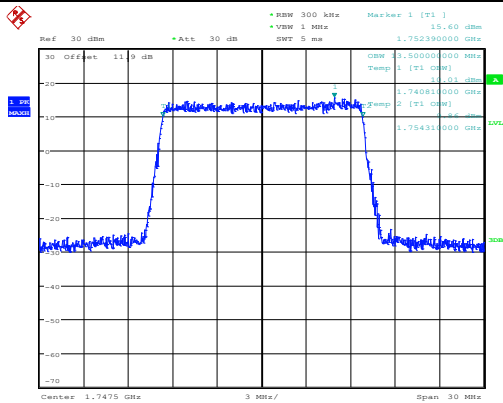
Middle Channel / 15MHz / QPSK



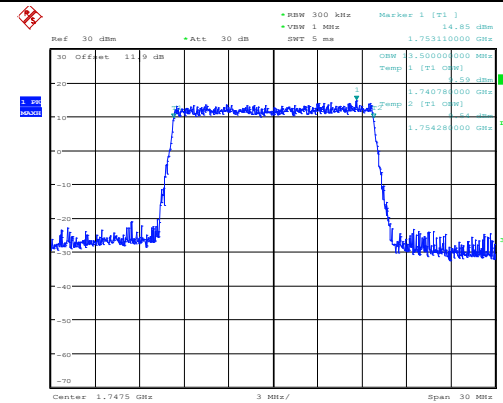
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



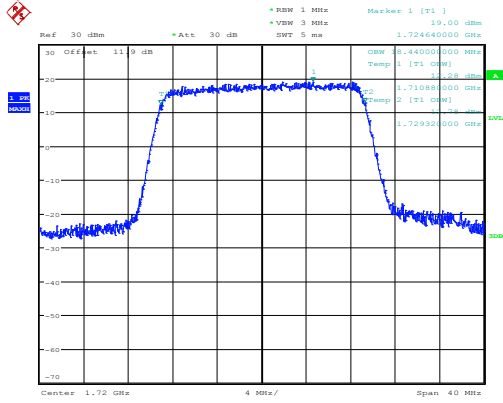
Highest Channel / 15MHz / 16QAM





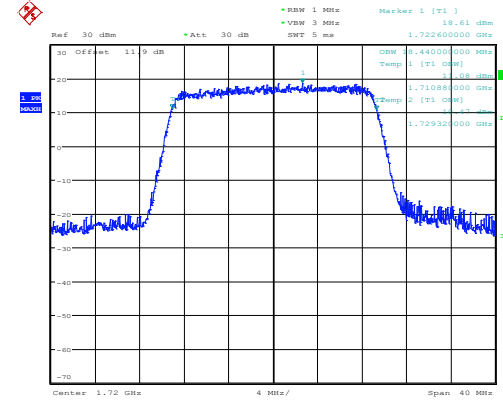
LTE Band 4

Lowest Channel / 20MHz / QPSK



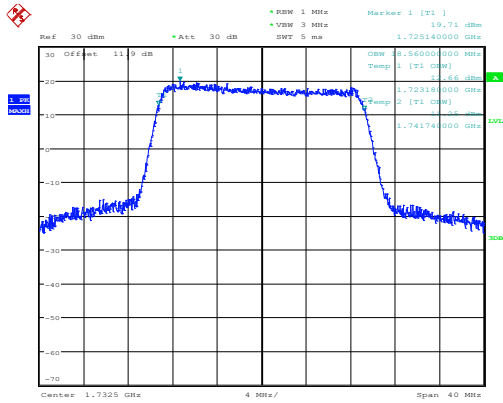
Date: 13.JAN.2015 10:51:38

Lowest Channel / 20MHz / 16QAM



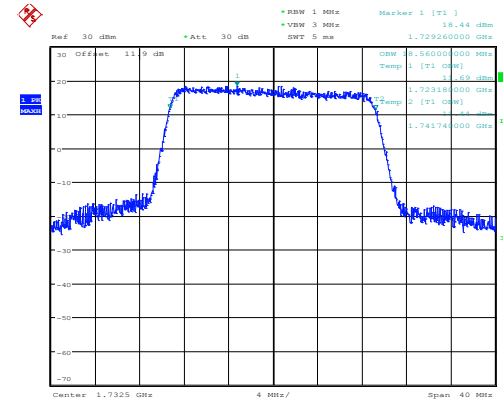
Date: 13.JAN.2015 10:51:49

Middle Channel / 20MHz / QPSK



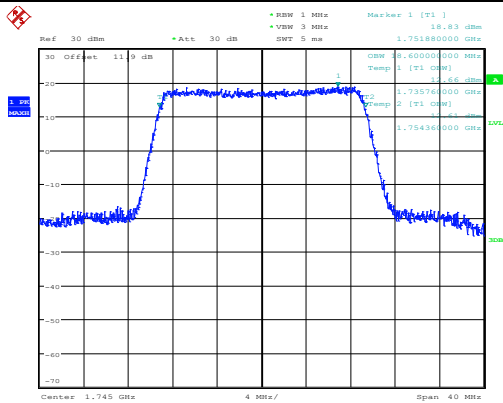
Date: 13.JAN.2015 10:59:24

Middle Channel / 20MHz / 16QAM



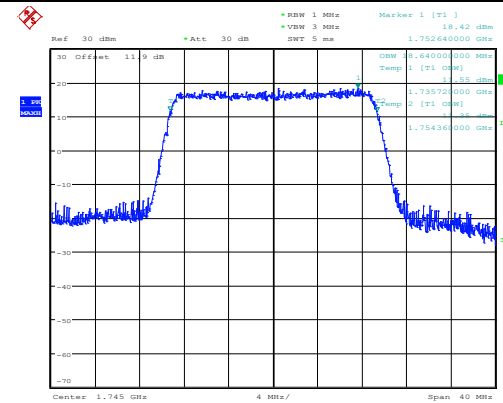
Date: 13.JAN.2015 10:59:34

Highest Channel / 20MHz / QPSK



Date: 13.JAN.2015 11:02:31

Highest Channel / 20MHz / 16QAM



Date: 13.JAN.2015 11:02:41



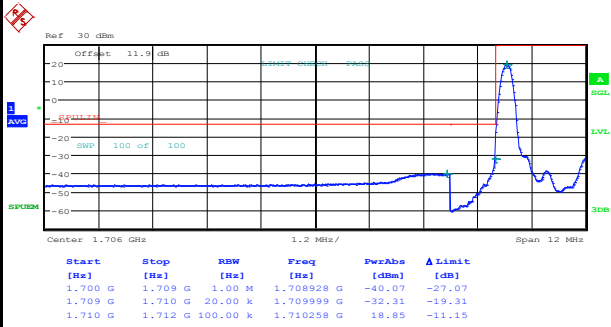


**Conducted Band Edge**



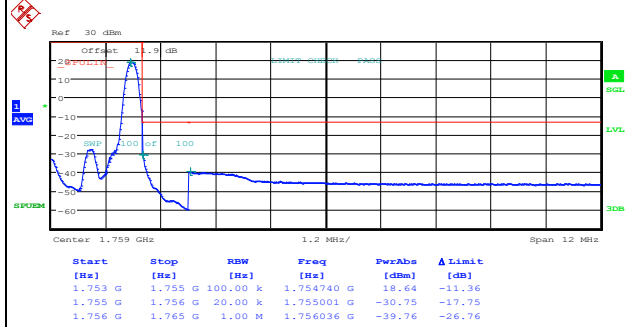
LTE Band 4 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



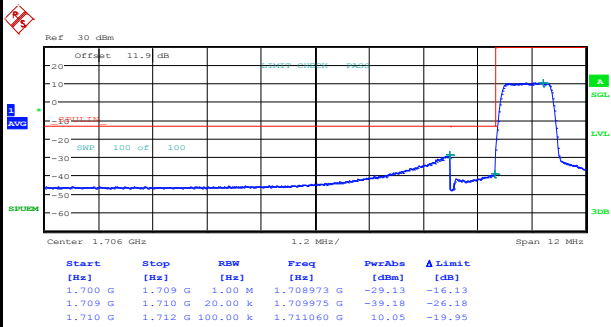
Date: 13.JAN.2015 22:24:08

Highest Band Edge / 1RB



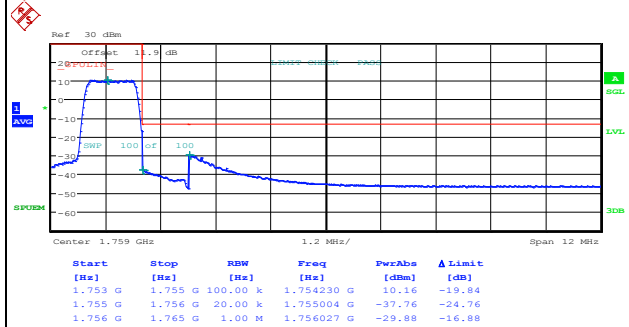
Date: 13.JAN.2015 22:35:07

Lowest Band Edge / Full RB



Date: 13.JAN.2015 22:26:29

Highest Band Edge / Full RB

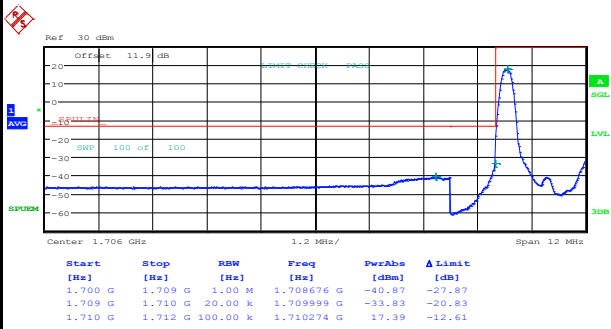


Date: 13.JAN.2015 22:37:28



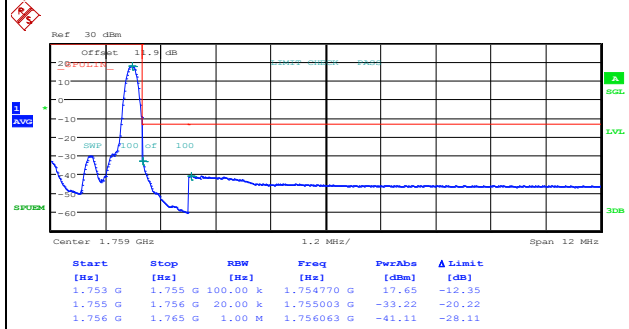
LTE Band 4 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



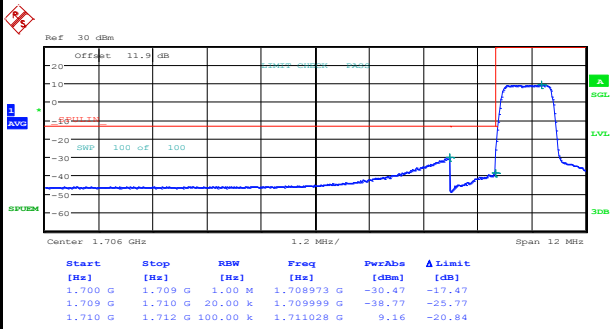
Date: 13.JAN.2015 22:25:19

Highest Band Edge / 1 RB



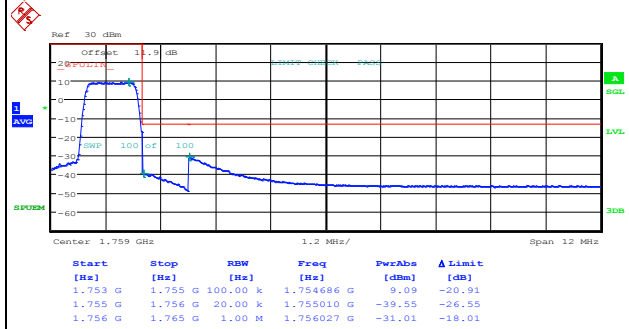
Date: 13.JAN.2015 22:36:17

Lowest Band Edge / Full RB



Date: 13.JAN.2015 22:27:40

Highest Band Edge / Full RB

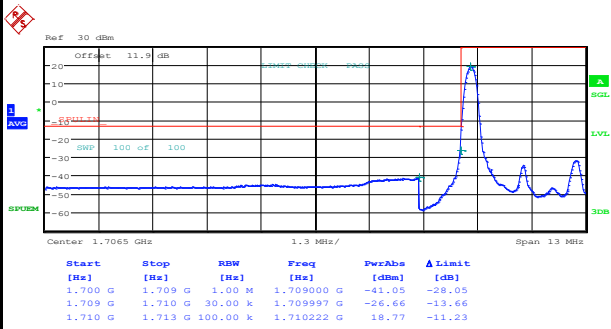


Date: 13.JAN.2015 22:38:38



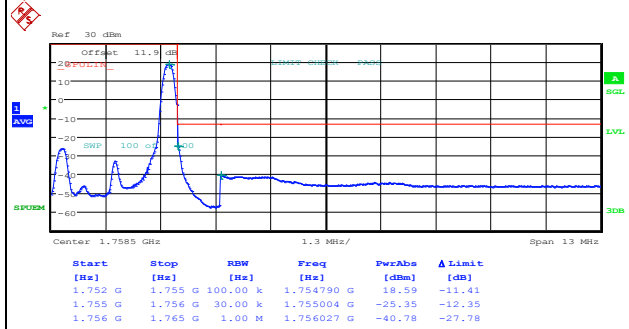
LTE Band 4 / 3MHz / QPSK

Lowest Band Edge / 1RB



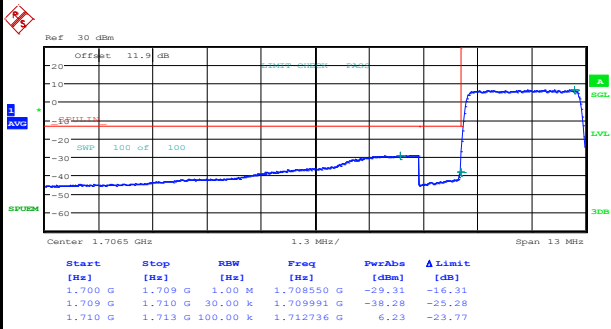
Date: 13.JAN.2015 09:29:56

Highest Band Edge / 1 RB



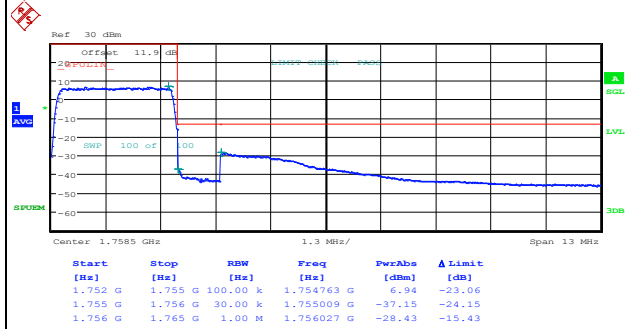
Date: 13.JAN.2015 09:40:51

Lowest Band Edge / Full RB



Date: 13.JAN.2015 09:32:16

Highest Band Edge / Full RB

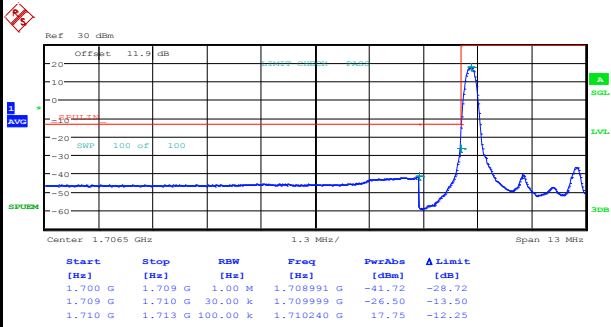


Date: 13.JAN.2015 09:43:10



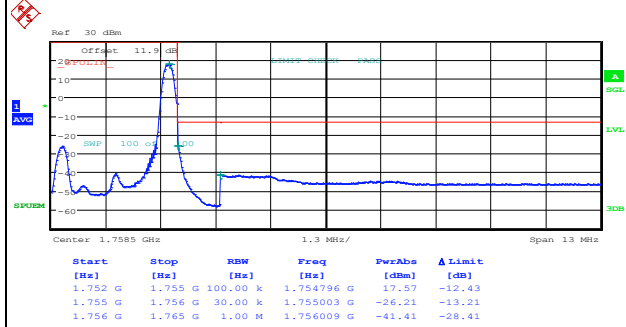
LTE Band 4 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



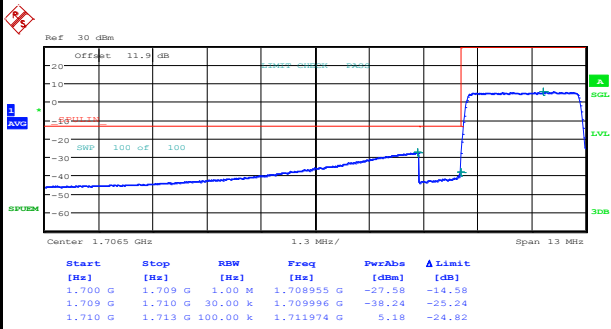
Date: 13.JAN.2015 09:31:06

Highest Band Edge / 1 RB



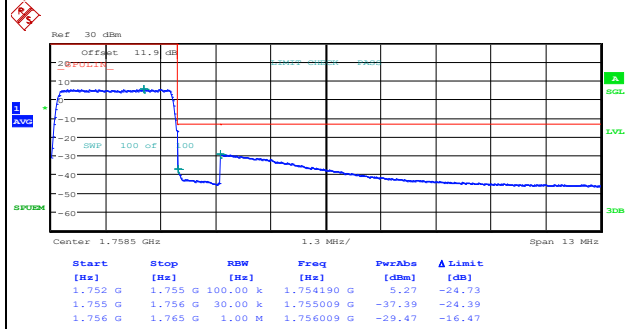
Date: 13.JAN.2015 09:42:00

Lowest Band Edge / Full RB



Date: 13.JAN.2015 09:33:26

Highest Band Edge / Full RB

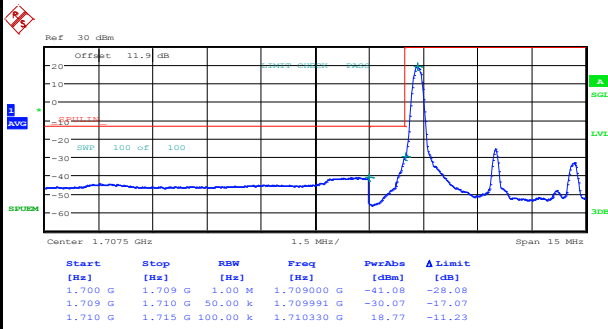


Date: 13.JAN.2015 09:44:20



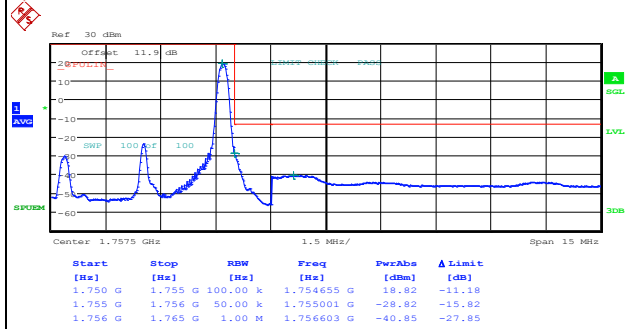
LTE Band 4 / 5MHz / QPSK

Lowest Band Edge / 1 RB



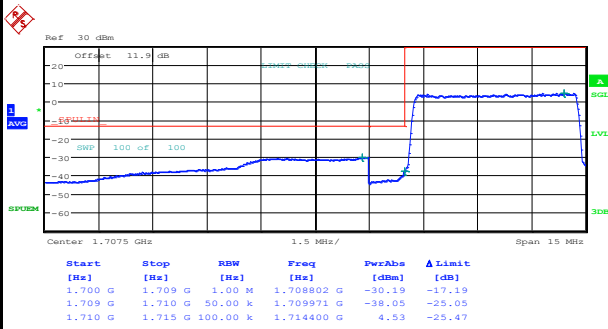
Date: 13.JAN.2015 09:48:42

Highest Band Edge / 1 RB



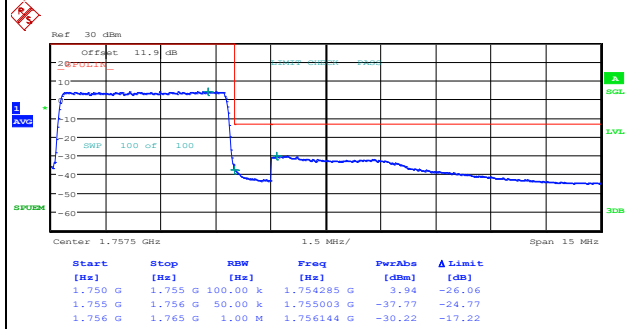
Date: 13.JAN.2015 09:59:35

Lowest Band Edge / Full RB



Date: 13.JAN.2015 09:51:01

Highest Band Edge / Full RB

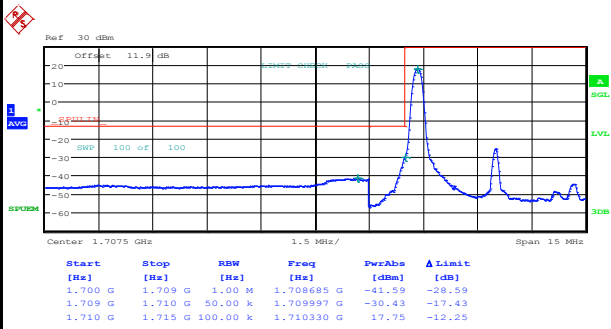


Date: 13.JAN.2015 10:01:54



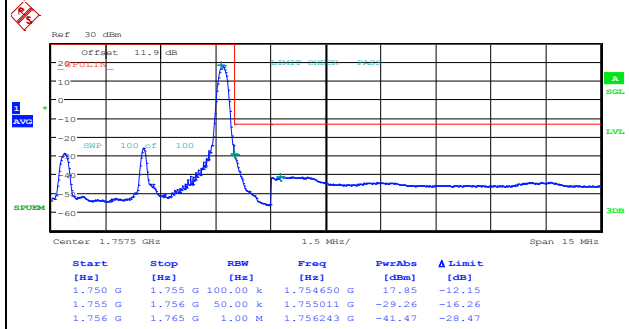
LTE Band 4 / 5MHz / 16QAM

Lowest Band Edge / 1RB



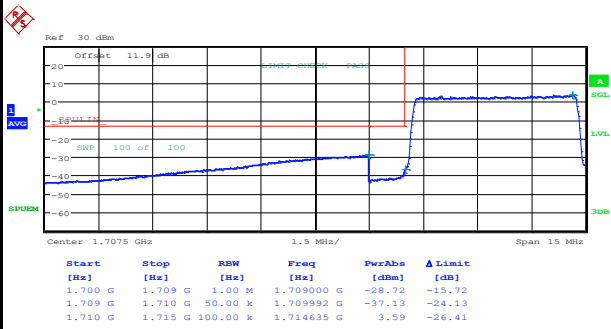
Date: 13.JAN.2015 09:49:52

Highest Band Edge / 1 RB



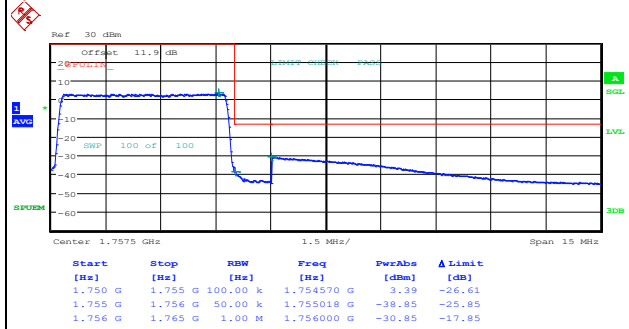
Date: 13.JAN.2015 10:00:44

Lowest Band Edge / Full RB



Date: 13.JAN.2015 09:52:11

Highest Band Edge / Full RB

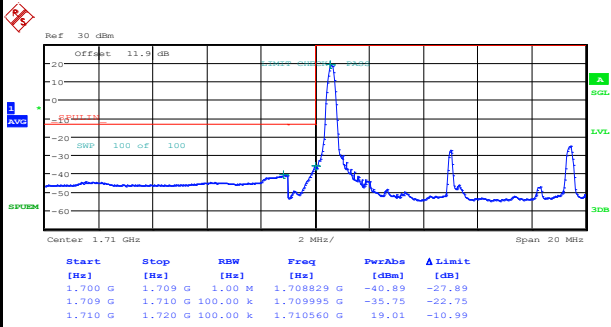


Date: 13.JAN.2015 10:03:04



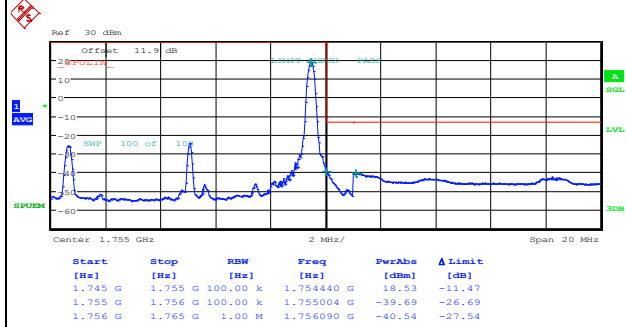
LTE Band 4 / 10MHz / QPSK

Lowest Band Edge / 1 RB



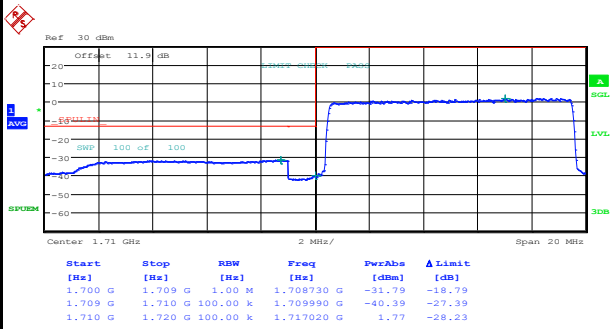
Date: 13.JAN.2015 10:07:26

Highest Band Edge / 1 RB



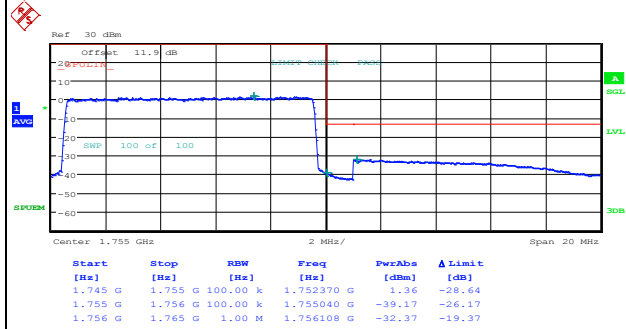
Date: 13.JAN.2015 10:18:20

Lowest Band Edge / Full RB



Date: 13.JAN.2015 10:09:45

Highest Band Edge / Full RB



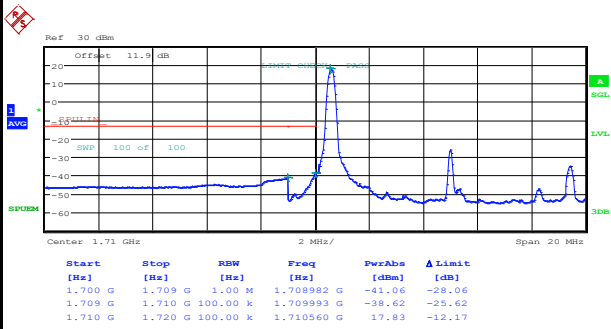
Date: 13.JAN.2015 10:20:42





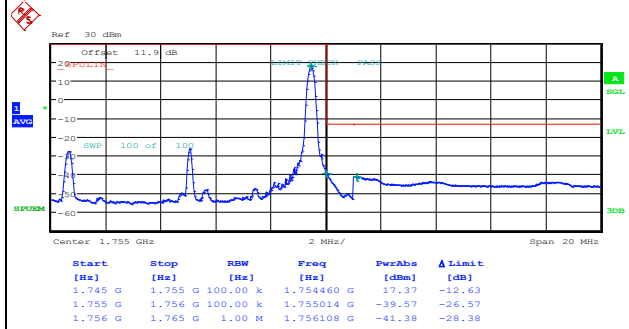
LTE Band 4 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



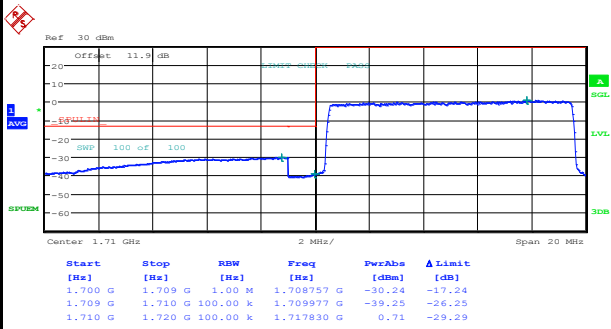
Date: 13.JAN.2015 10:08:35

Highest Band Edge / 1 RB



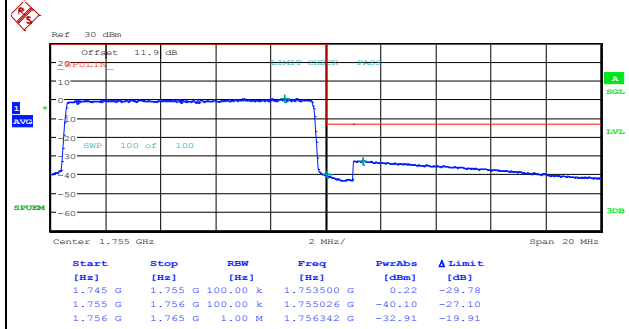
Date: 13.JAN.2015 10:19:30

Lowest Band Edge / Full RB



Date: 13.JAN.2015 10:10:55

Highest Band Edge / Full RB

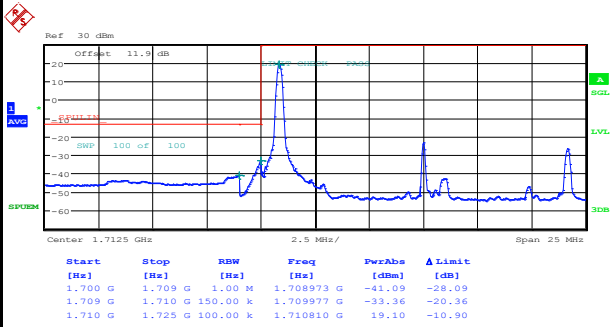


Date: 13.JAN.2015 10:22:00



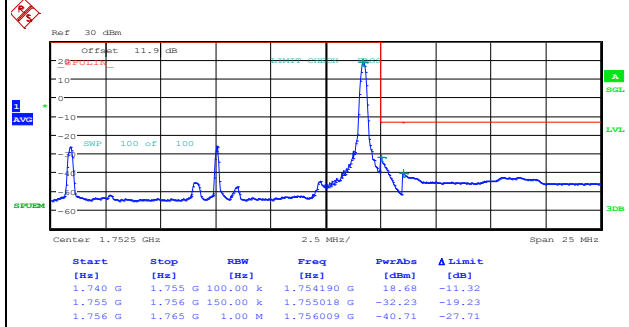
LTE Band 4 / 15MHz / QPSK

Lowest Band Edge / 1 RB



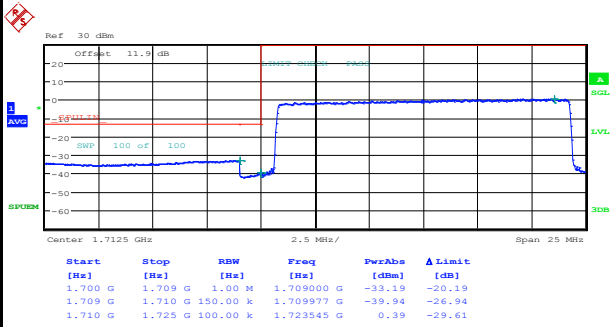
Date: 13.JAN.2015 10:26:27

Highest Band Edge / 1 RB



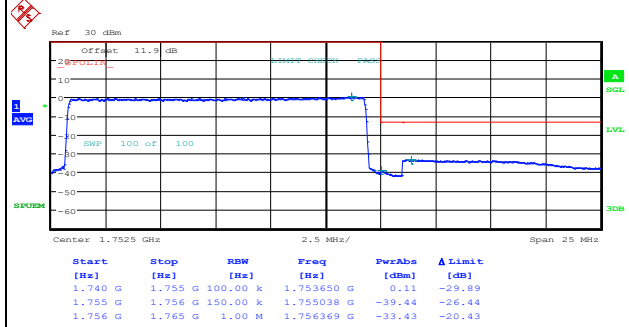
Date: 14.JAN.2015 13:58:38

Lowest Band Edge / Full RB



Date: 13.JAN.2015 10:28:47

Highest Band Edge / Full RB

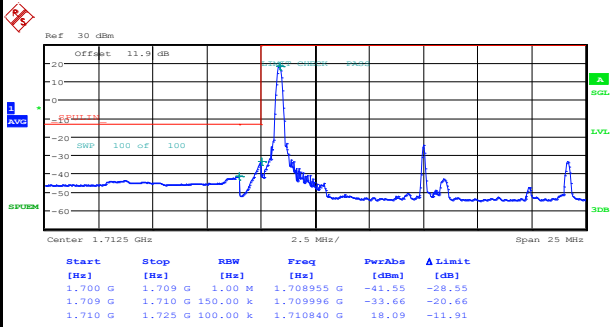


Date: 13.JAN.2015 10:47:53



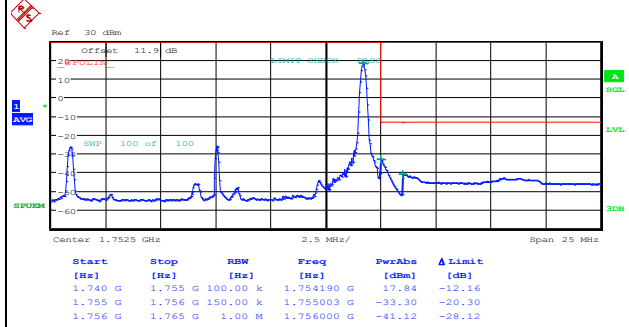
LTE Band 4 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



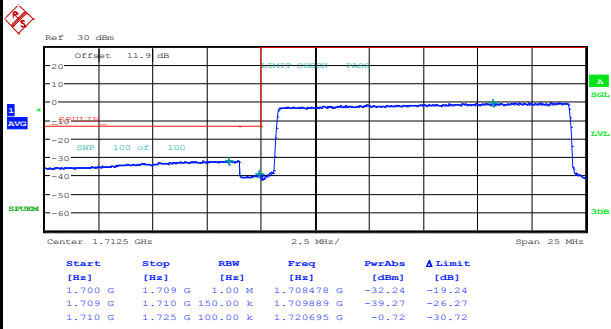
Date: 13.JAN.2015 10:27:37

Highest Band Edge / 1 RB



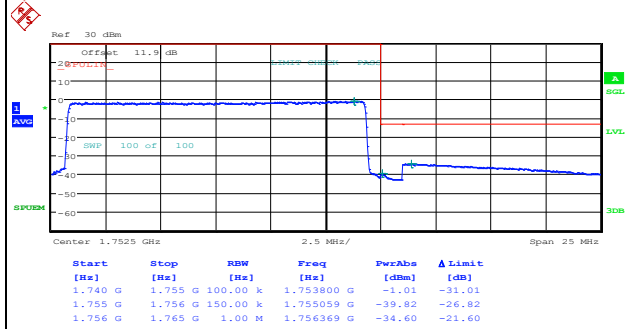
Date: 13.JAN.2015 10:46:43

Lowest Band Edge / Full RB



Date: 13.JAN.2015 10:29:57

Highest Band Edge / Full RB

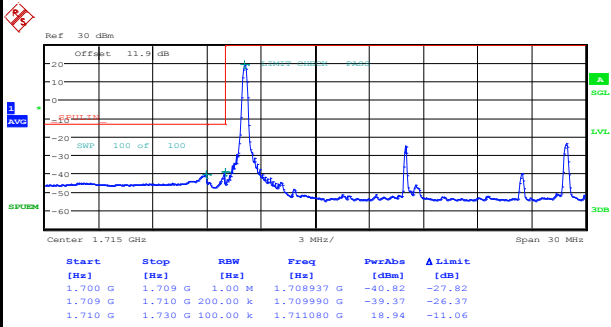


Date: 13.JAN.2015 10:49:03



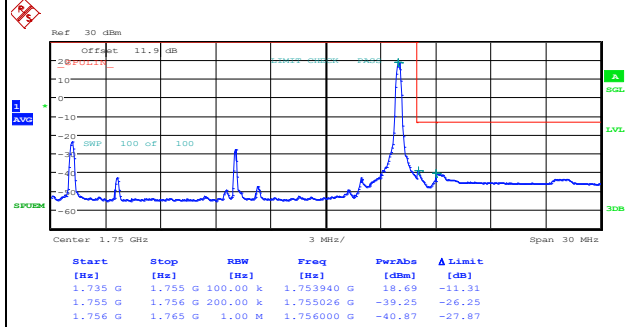
LTE Band 4 / 20MHz / QPSK

Lowest Band Edge / 1 RB



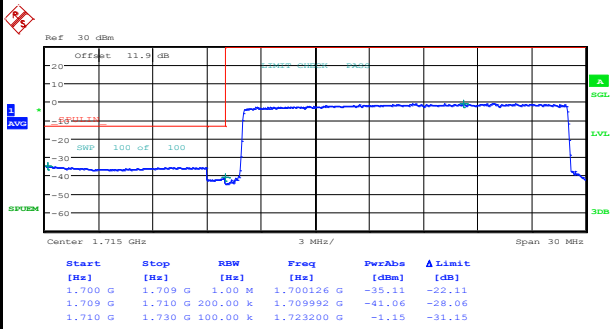
Date: 13.JAN.2015 10:53:24

Highest Band Edge / 1 RB



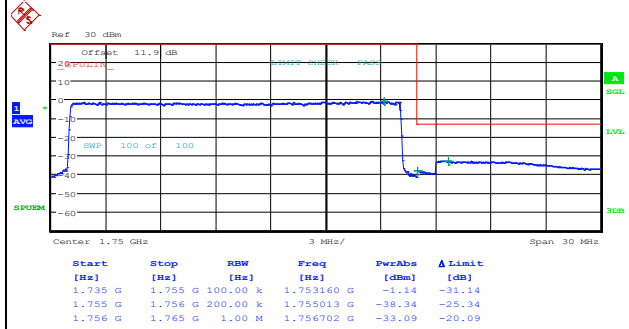
Date: 13.JAN.2015 11:04:16

Lowest Band Edge / Full RB



Date: 13.JAN.2015 10:55:43

Highest Band Edge / Full RB

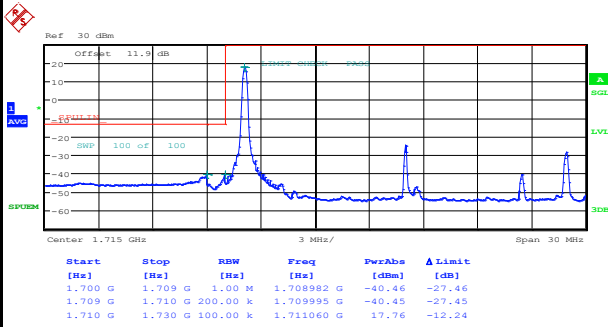


Date: 13.JAN.2015 11:06:36



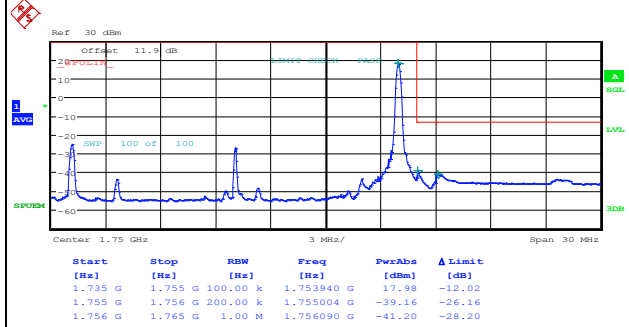
LTE Band 4 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



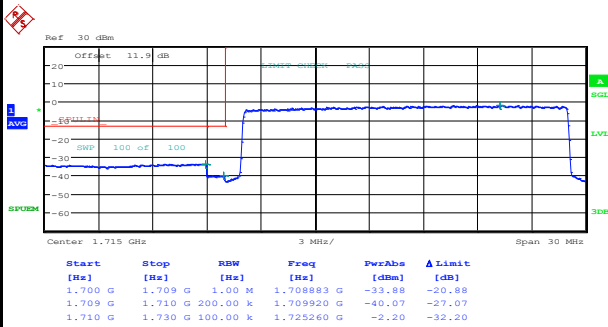
Date: 13.JAN.2015 10:54:34

Highest Band Edge / 1 RB



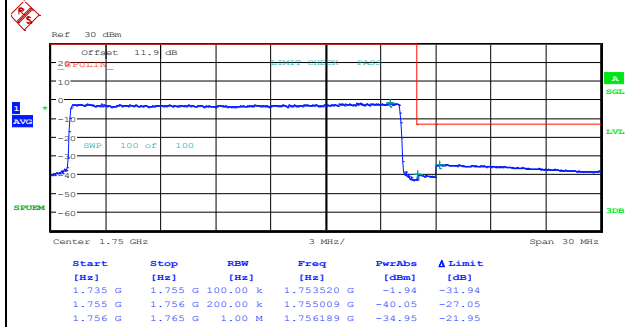
Date: 13.JAN.2015 11:05:26

Lowest Band Edge / Full RB



Date: 13.JAN.2015 10:56:53

Highest Band Edge / Full RB



Date: 13.JAN.2015 11:07:46



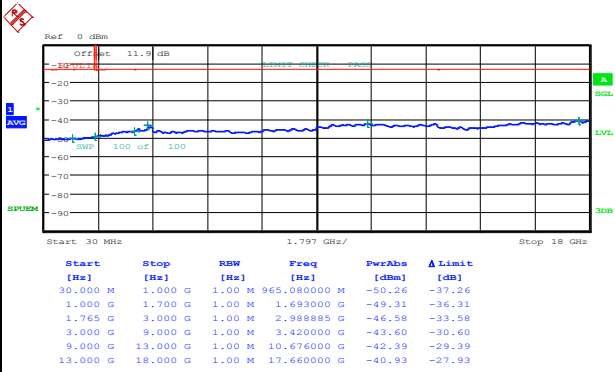
**Conducted Spurious Emission**



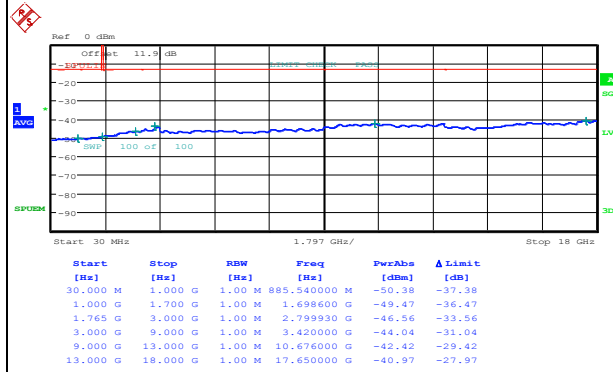
LTE Band 4 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



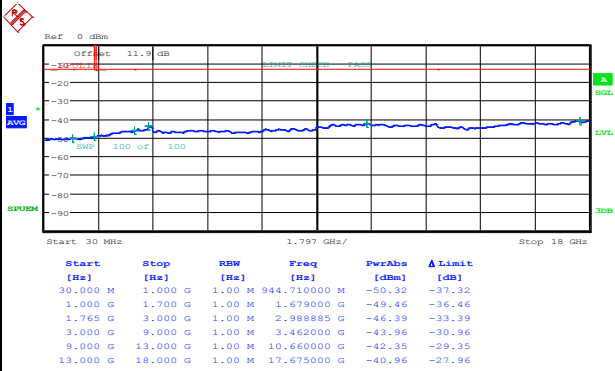
Date: 13.JAN.2015 22:28:50



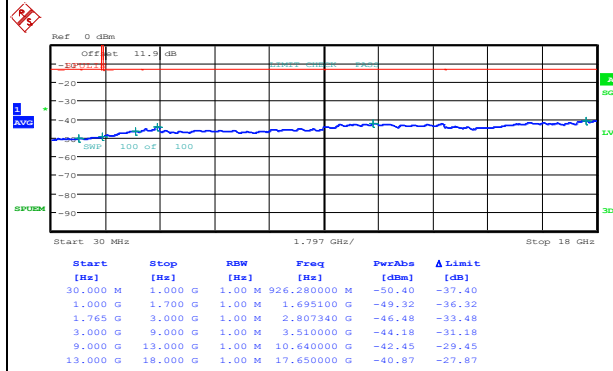
Date: 13.JAN.2015 22:30:01

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 13.JAN.2015 22:31:58



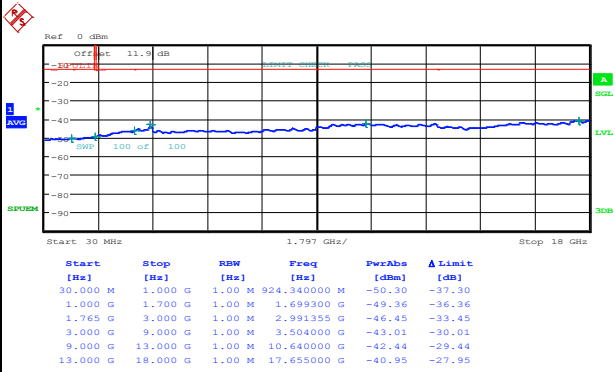
Date: 13.JAN.2015 22:33:09



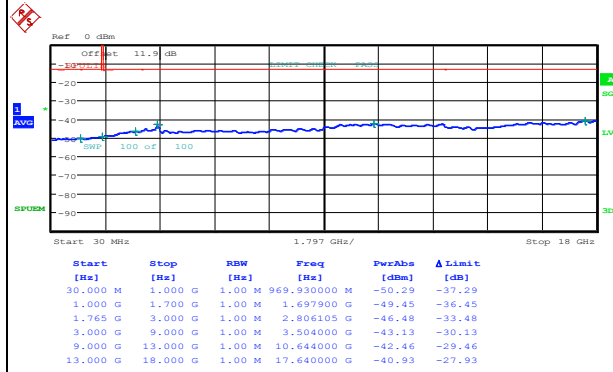
LTE Band 4 / 1.4MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 13.JAN.2015 22:39:48

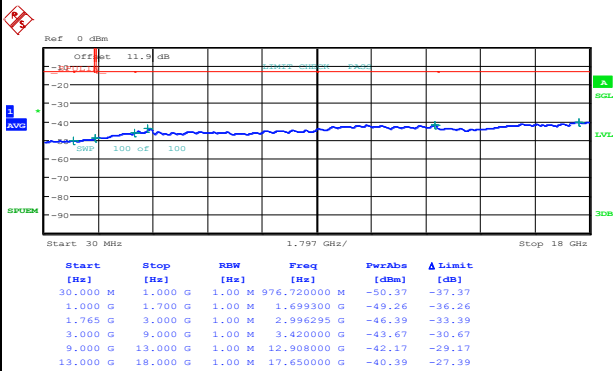


Date: 13.JAN.2015 22:40:59

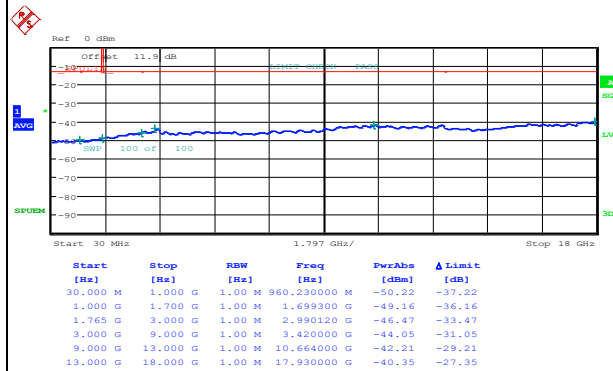
LTE Band 4 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 13.JAN.2015 09:34:36



Date: 13.JAN.2015 09:35:46

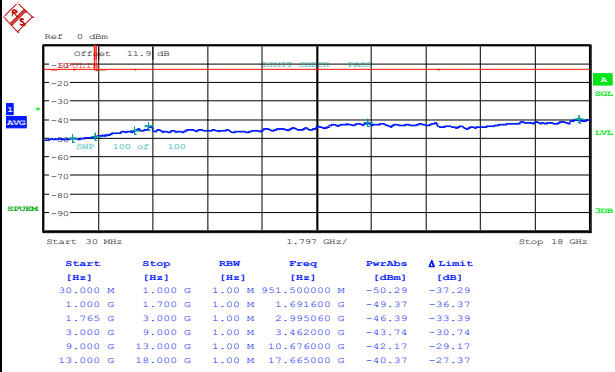




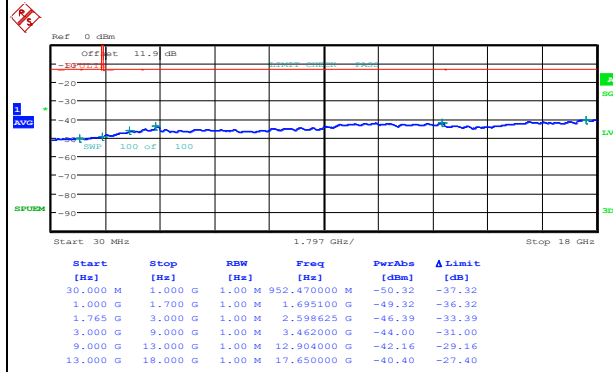
LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM



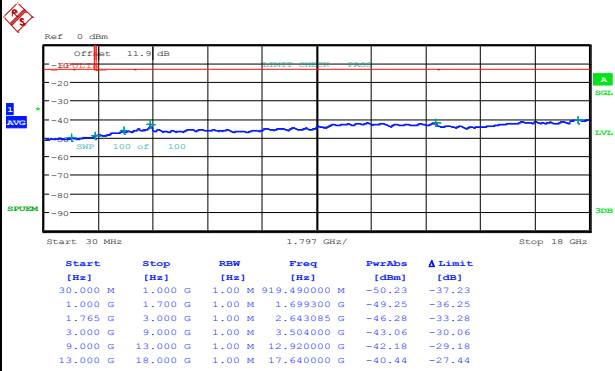
Date: 13.JAN.2015 09:37:44



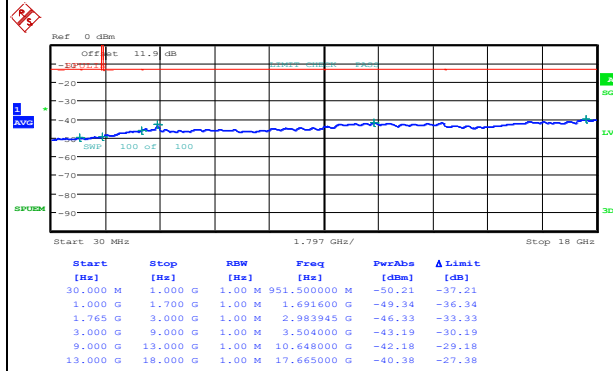
Date: 13.JAN.2015 09:38:54

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 13.JAN.2015 09:45:30



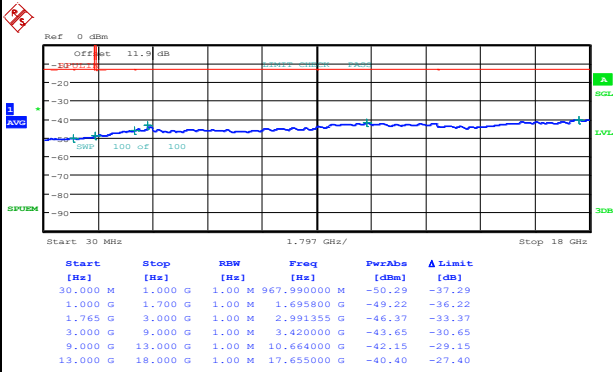
Date: 13.JAN.2015 09:46:40



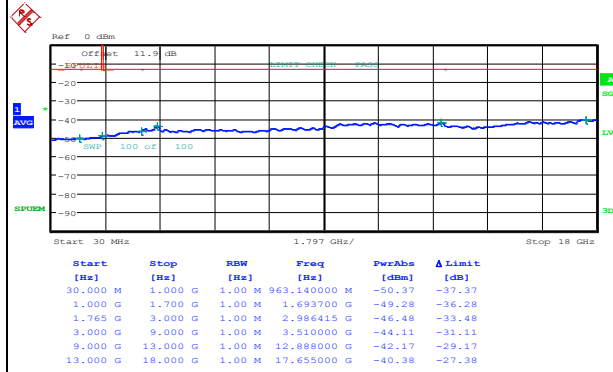
LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



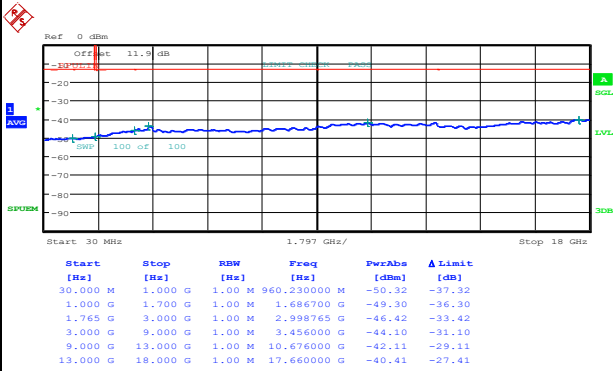
Date: 13.JAN.2015 09:53:21



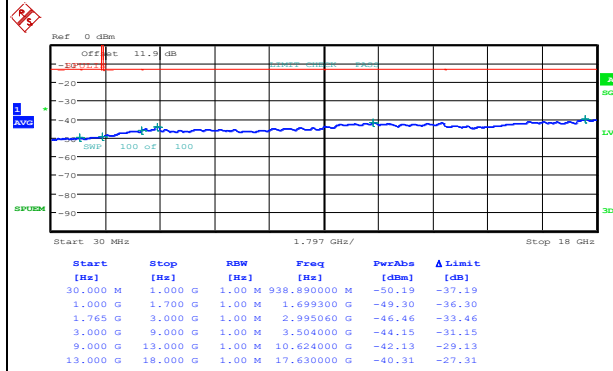
Date: 13.JAN.2015 09:54:31

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 13.JAN.2015 09:56:28



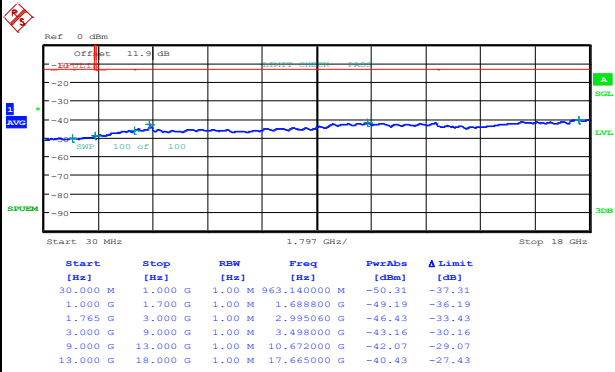
Date: 13.JAN.2015 09:57:37



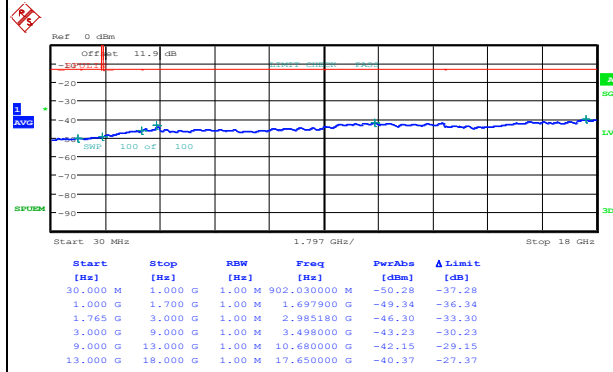
LTE Band 4 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 13.JAN.2015 10:04:14

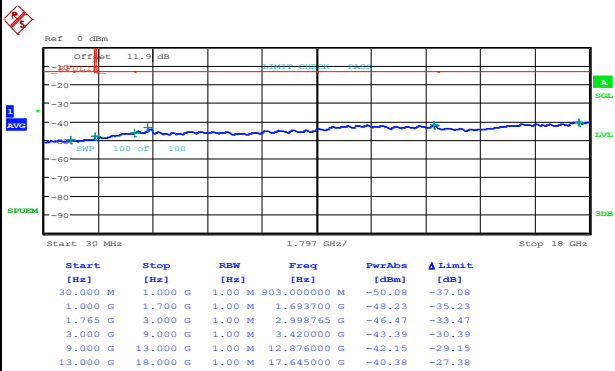


Date: 13.JAN.2015 10:05:24

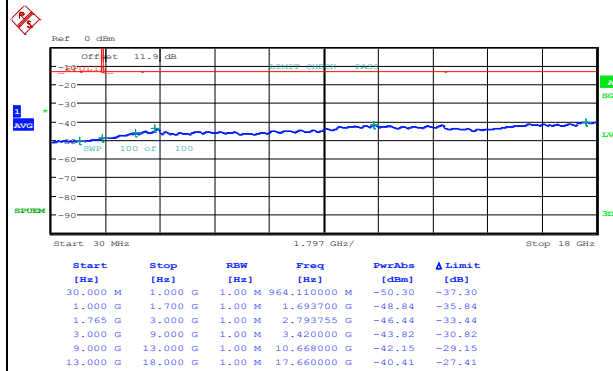
LTE Band 4 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 13.JAN.2015 10:12:05



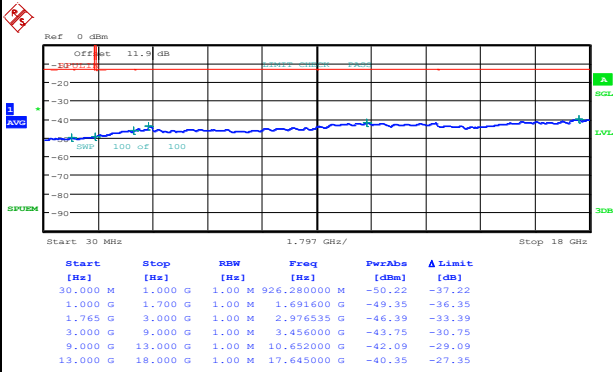
Date: 13.JAN.2015 10:13:16



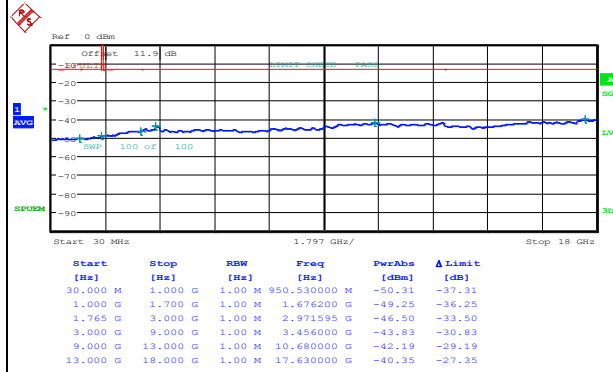
LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



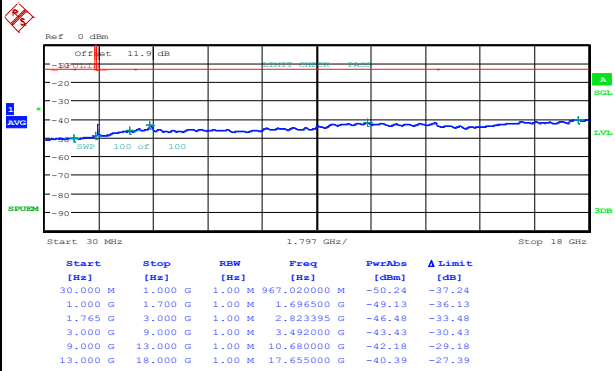
Date: 13.JAN.2015 10:15:13



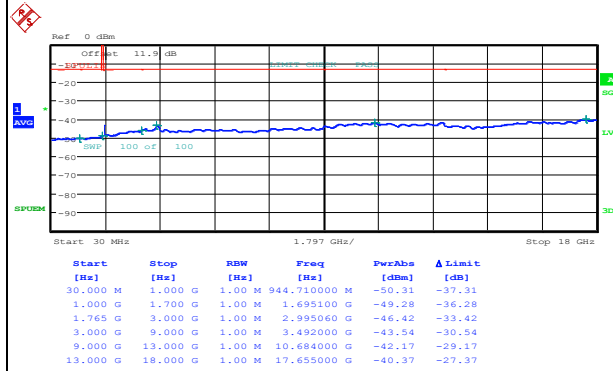
Date: 13.JAN.2015 10:16:23

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 13.JAN.2015 10:23:12



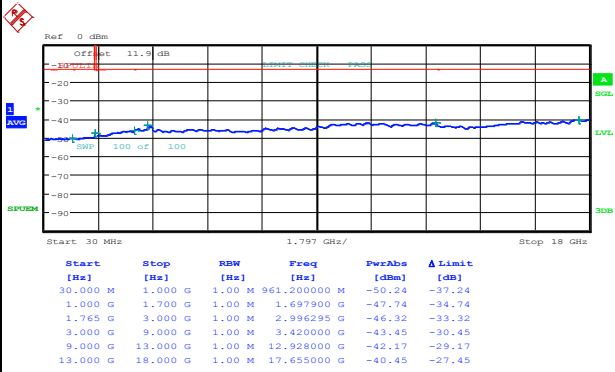
Date: 13.JAN.2015 10:24:25



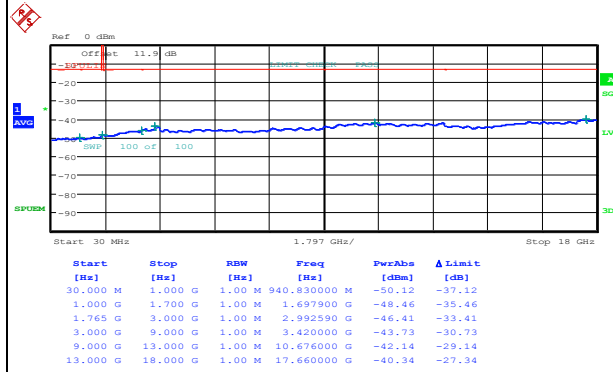
LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



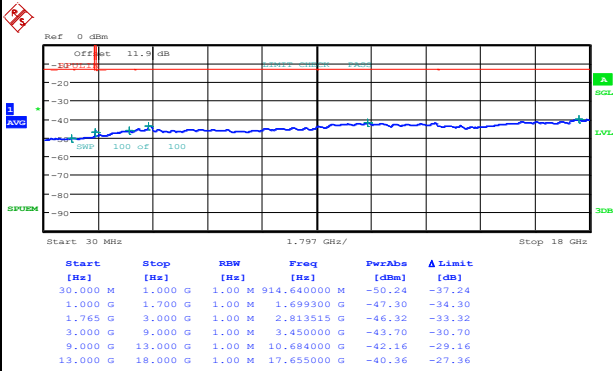
Date: 13.JAN.2015 10:31:07



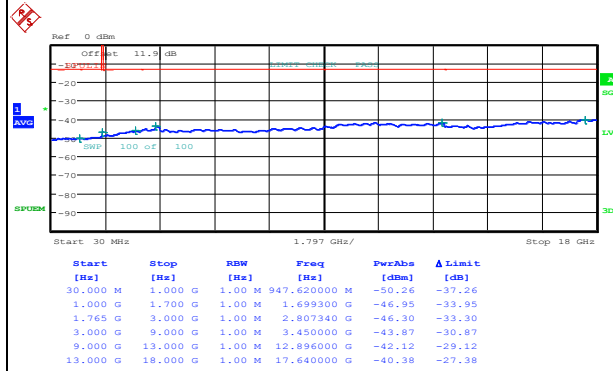
Date: 13.JAN.2015 10:32:16

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 13.JAN.2015 10:34:14



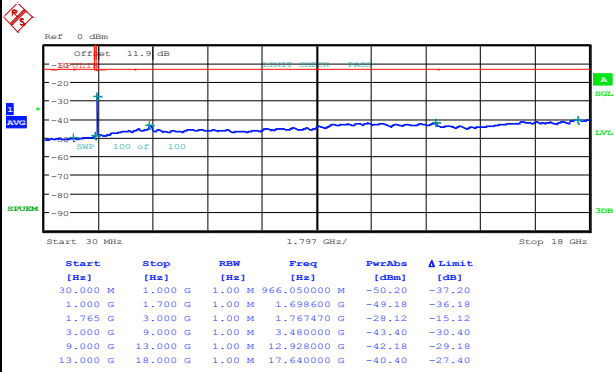
Date: 13.JAN.2015 10:35:24



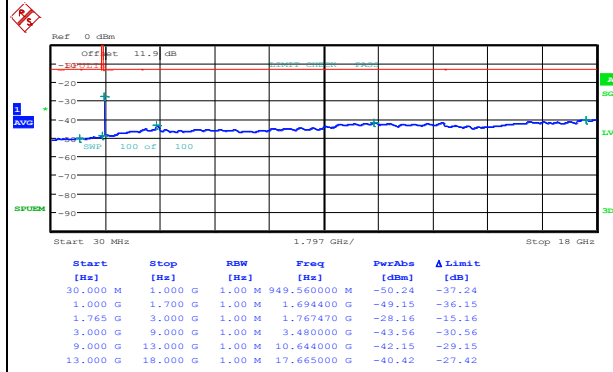
LTE Band 4 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 13.JAN.2015 10:50:12

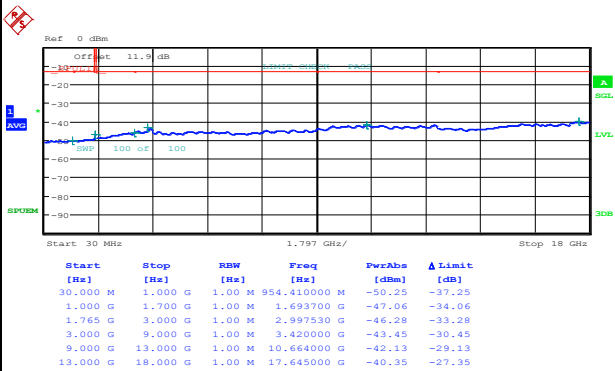


Date: 13.JAN.2015 10:51:22

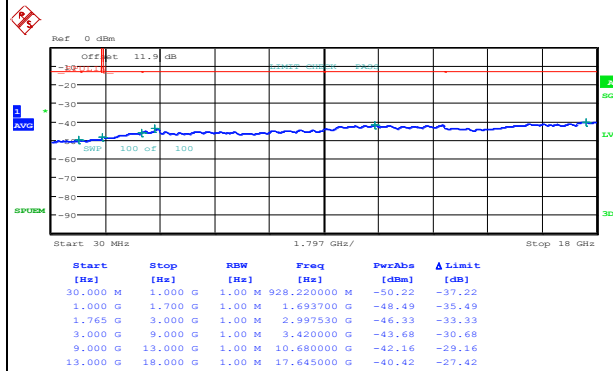
LTE Band 4 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 13.JAN.2015 10:58:02



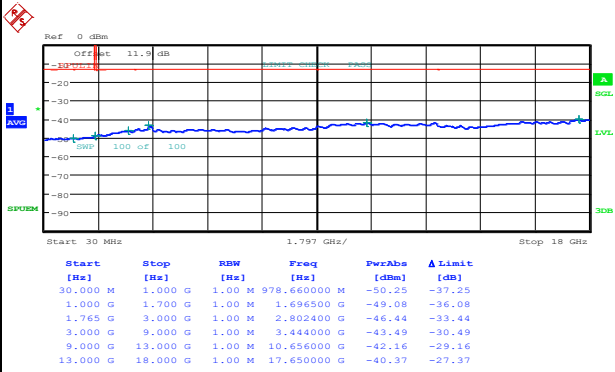
Date: 13.JAN.2015 10:59:13



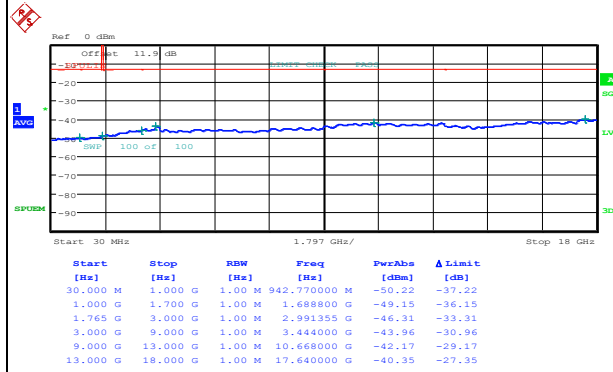
LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM



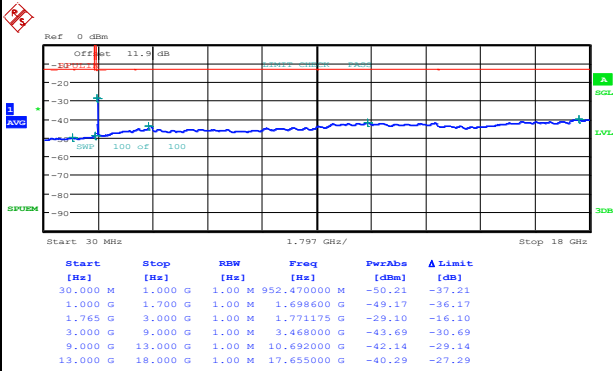
Date: 13.JAN.2015 11:01:10



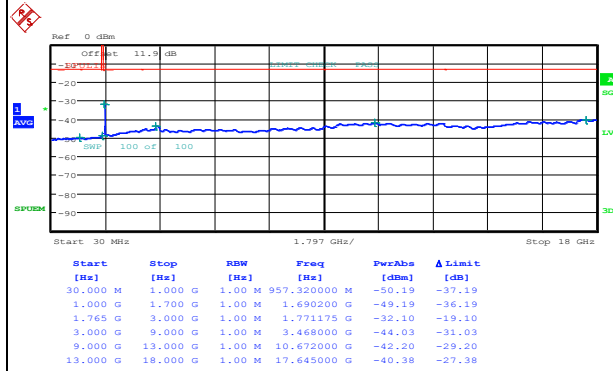
Date: 13.JAN.2015 11:02:19

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 13.JAN.2015 11:08:56



Date: 13.JAN.2015 11:10:06



### Frequency Stability

| Test Conditions  |                   | LTE Band 4 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                           | Note 2. |
|                  |                   | Deviation (ppm)                    | Result  |
| 50               | Normal Voltage    | 0.0002                             | PASS    |
| 40               | Normal Voltage    | 0.0009                             |         |
| 30               | Normal Voltage    | 0.0001                             |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |         |
| 10               | Normal Voltage    | 0.0004                             |         |
| 0                | Normal Voltage    | 0.0002                             |         |
| -10              | Normal Voltage    | 0.0010                             |         |
| -20              | Normal Voltage    | 0.0005                             |         |
| -30              | Normal Voltage    | 0.0003                             |         |
| 20               | Maximum Voltage   | 0.0003                             |         |
| 20               | Normal Voltage    | 0.0000                             |         |
| 20               | Battery End Point | 0.0008                             |         |

**Note:**

1. Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.1 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.





## LTE Band 5

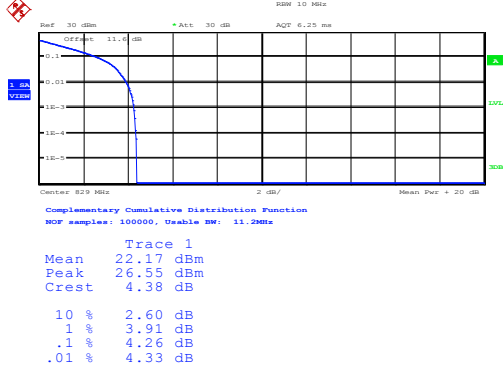
### Peak-to-Average Ratio

| Mode       | LTE Band 5 / 10MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | RB Size | Result      |
| Lowest CH  | 4.26               | 5.93    | 5.74  | 6.57    | <b>PASS</b> |
| Middle CH  | 6.19               | 6.19    | 6.67  | 6.73    |             |
| Highest CH | 4.9                | 5.96    | 5.87  | 6.54    |             |



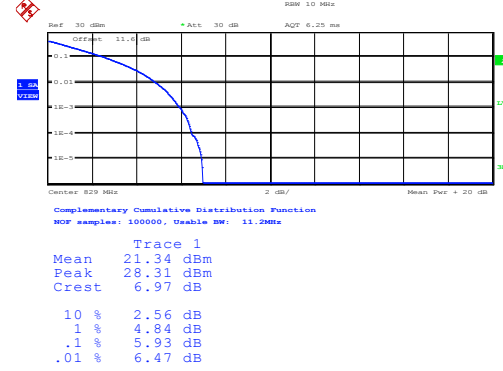
LTE Band 5 / 10MHz / QPSK

Lowest Channel / 1RB



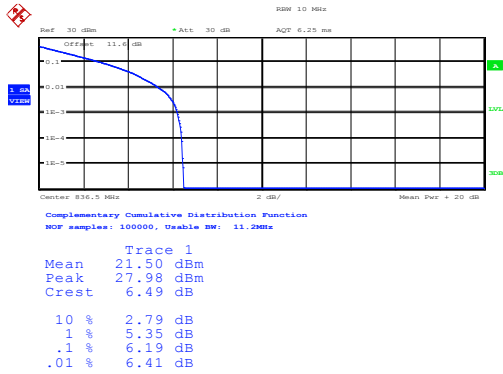
Date: 12.JAN.2015 13:38:12

Lowest Channel / Full RB



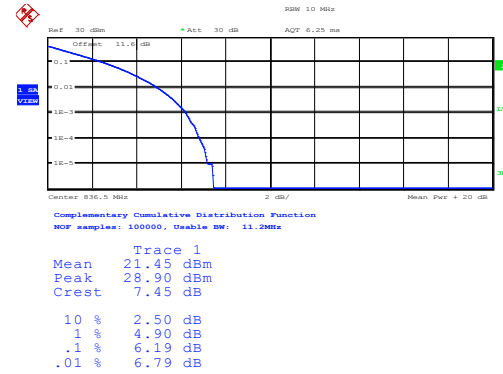
Date: 12.JAN.2015 13:38:32

Middle Channel / 1RB



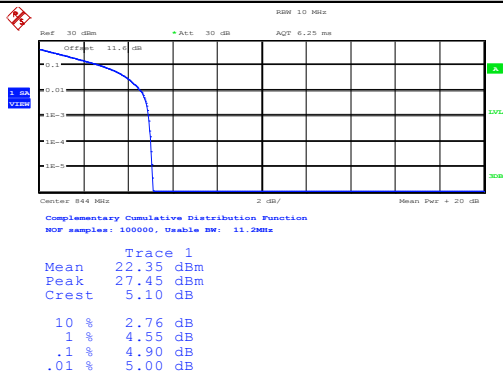
Date: 12.JAN.2015 13:39:42

Middle Channel / Full RB



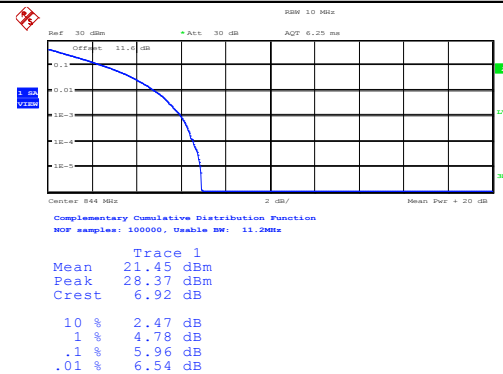
Date: 12.JAN.2015 13:40:14

Highest Channel / 1RB



Date: 12.JAN.2015 13:41:43

Highest Channel / Full RB

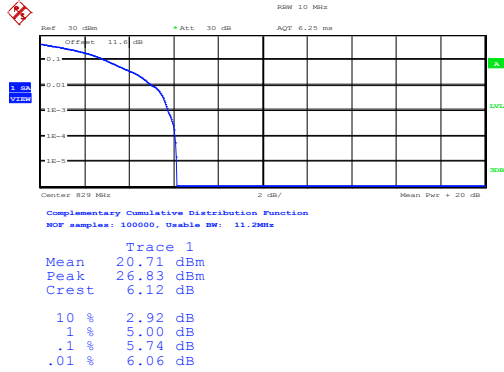


Date: 12.JAN.2015 13:42:03



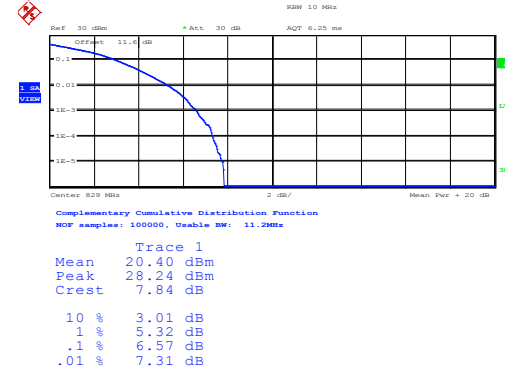
LTE Band 5 / 10MHz / 16QAM

Lowest Channel / 1RB



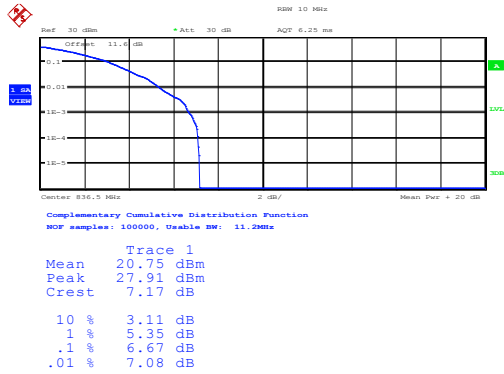
Date: 12.JAN.2015 13:32:26

Lowest Channel / Full RB



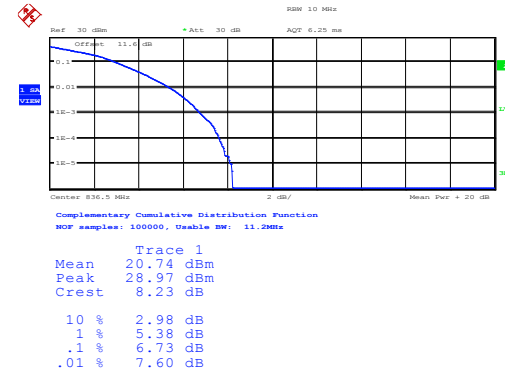
Date: 12.JAN.2015 13:34:38

Middle Channel / 1RB



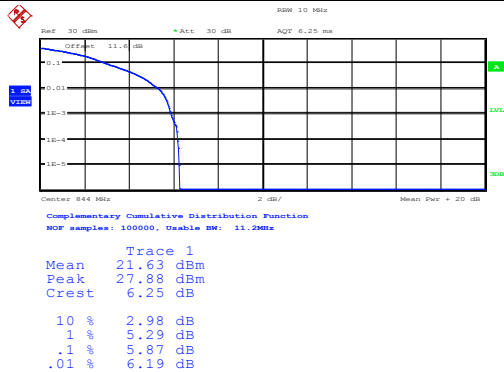
Date: 12.JAN.2015 13:34:57

Middle Channel / Full RB



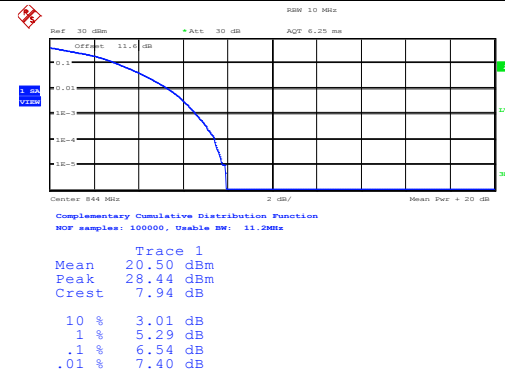
Date: 12.JAN.2015 13:36:26

Highest Channel / 1RB



Date: 12.JAN.2015 13:36:51

Highest Channel / Full RB



Date: 12.JAN.2015 13:37:54



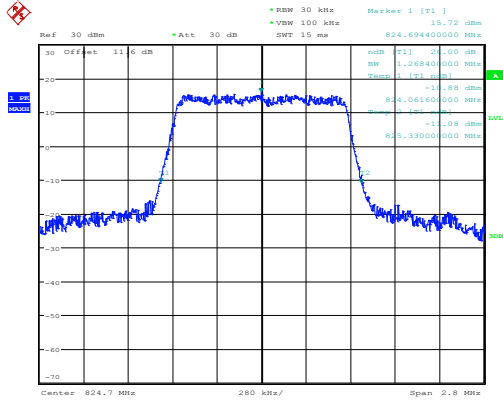
**26dB Bandwidth**

| Mode       | LTE Band 5 : 26dB BW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|------------|---------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
|            | 1.4MHz                    |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| BW         | QPSK                      | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.27                      | 1.27  | 3.01 | 3.02  | 4.99 | 5     | 10.08 | 10.04 | -     | -     | -     | -     |
| Middle CH  | 1.26                      | 1.25  | 3    | 2.99  | 4.92 | 4.94  | 10    | 10.08 | -     | -     | -     | -     |
| Highest CH | 1.26                      | 1.27  | 3.02 | 3     | 5.01 | 5.02  | 10.14 | 10    | -     | -     | -     | -     |



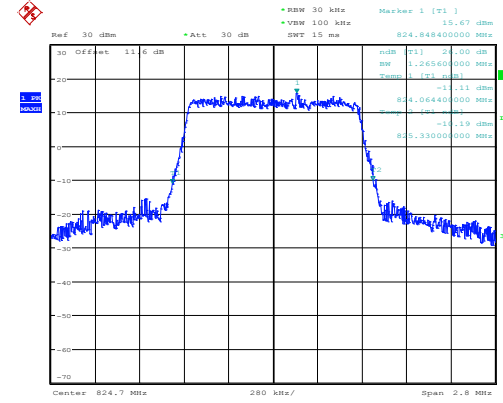
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



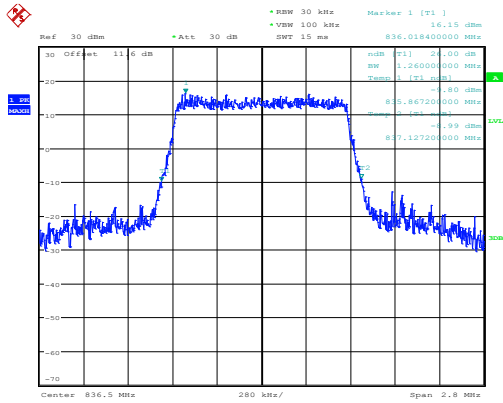
Date: 12.JAN.2015 12:08:13

Lowest Channel / 1.4MHz / 16QAM



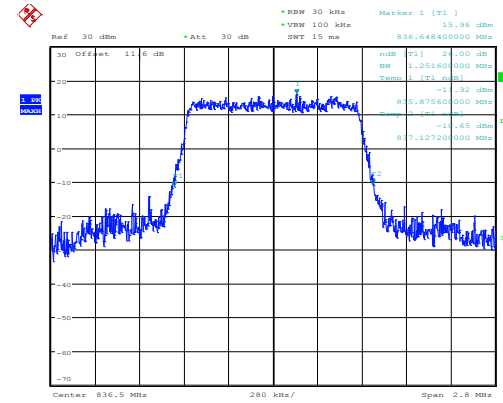
Date: 12.JAN.2015 12:08:00

Middle Channel / 1.4MHz / QPSK



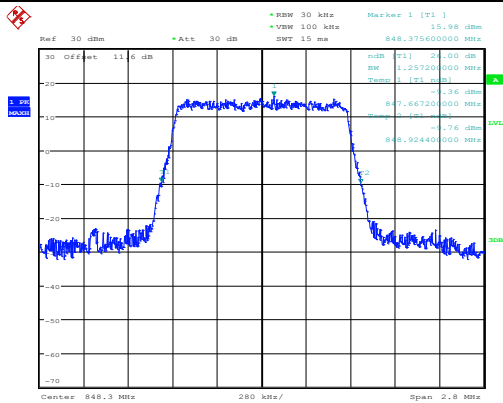
Date: 12.JAN.2015 12:15:51

Middle Channel / 1.4MHz / 16QAM



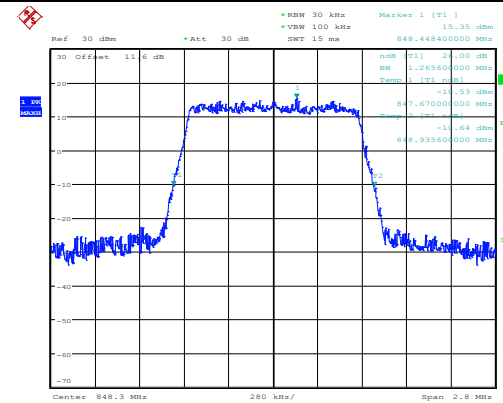
Date: 12.JAN.2015 12:16:04

Highest Channel / 1.4MHz / QPSK



Date: 12.JAN.2015 12:18:58

Highest Channel / 1.4MHz / 16QAM

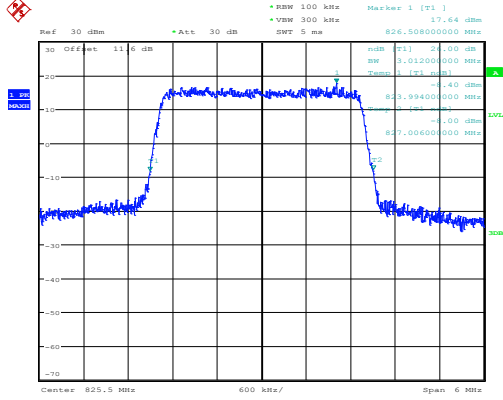


Date: 12.JAN.2015 12:19:11



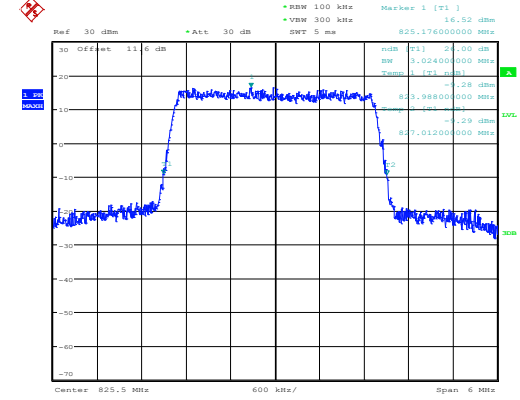
LTE Band 5

Lowest Channel / 3MHz / QPSK



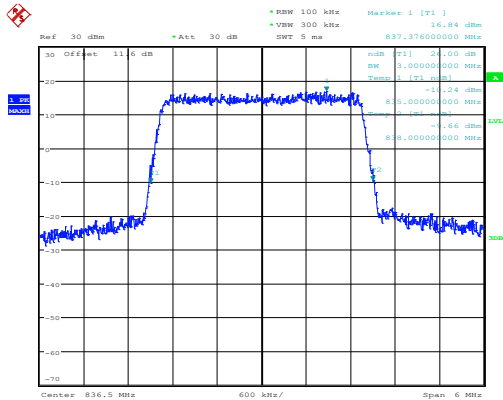
Date: 12.JAN.2015 11:00:44

Lowest Channel / 3MHz / 16QAM



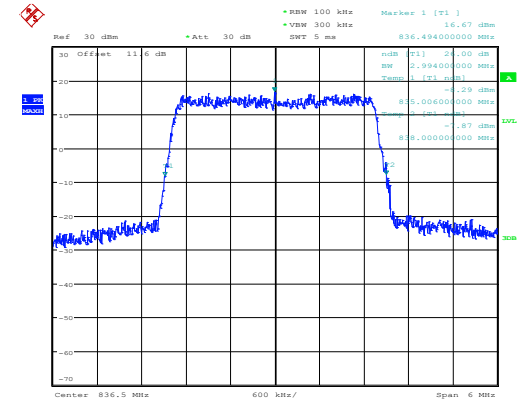
Date: 12.JAN.2015 11:00:56

Middle Channel / 3MHz / QPSK



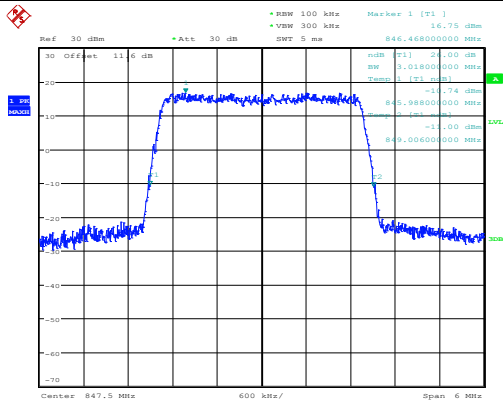
Date: 12.JAN.2015 11:08:30

Middle Channel / 3MHz / 16QAM



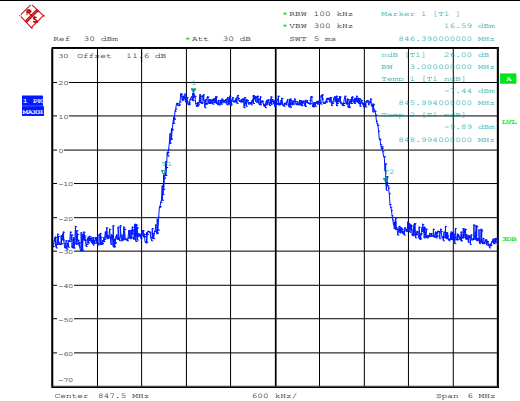
Date: 12.JAN.2015 11:08:43

Highest Channel / 3MHz / QPSK



Date: 12.JAN.2015 11:11:37

Highest Channel / 3MHz / 16QAM

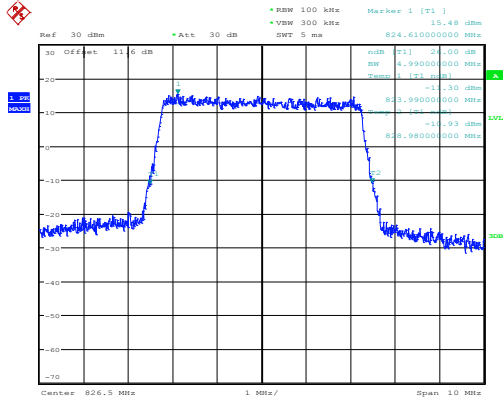


Date: 12.JAN.2015 11:11:50



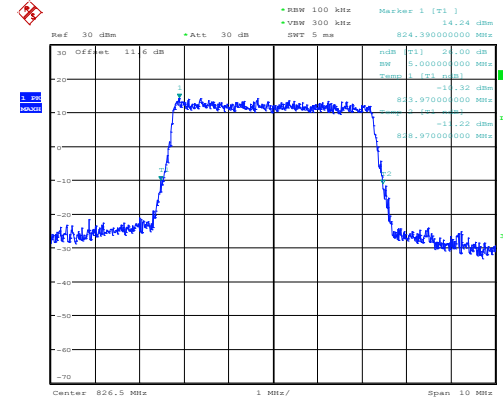
LTE Band 5

Lowest Channel / 5MHz / QPSK



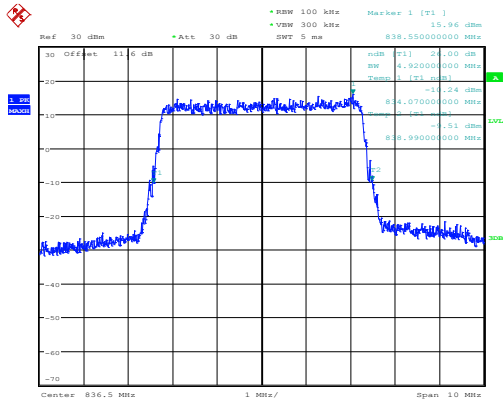
Date: 12.JAN.2015 11:24:24

Lowest Channel / 5MHz / 16QAM



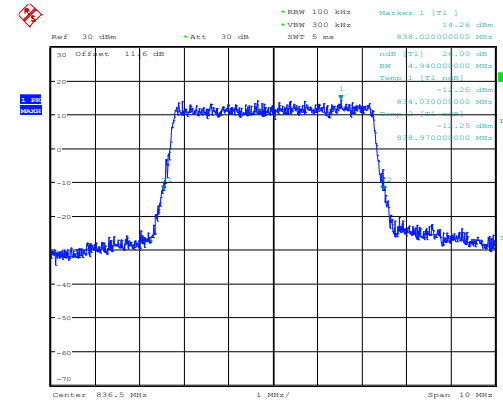
Date: 12.JAN.2015 11:24:36

Middle Channel / 5MHz / QPSK



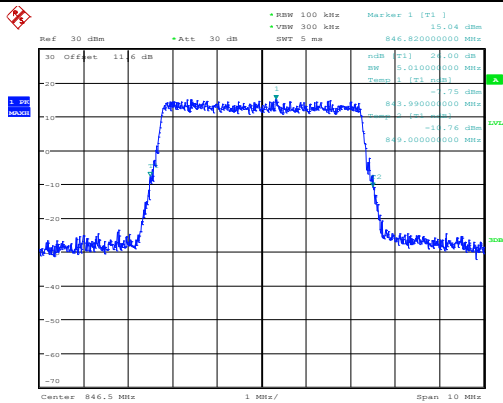
Date: 12.JAN.2015 11:38:04

Middle Channel / 5MHz / 16QAM



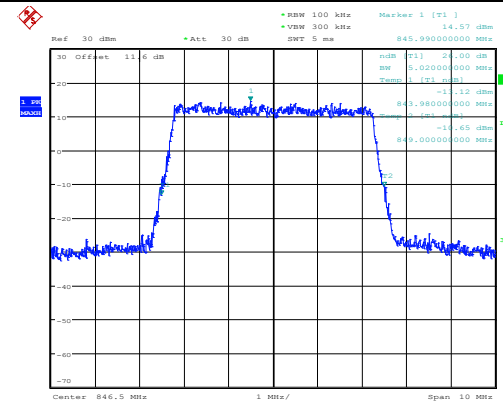
Date: 12.JAN.2015 11:38:17

Highest Channel / 5MHz / QPSK



Date: 12.JAN.2015 11:41:11

Highest Channel / 5MHz / 16QAM

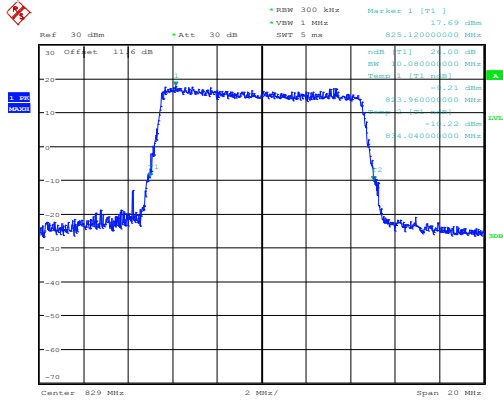


Date: 12.JAN.2015 11:41:24



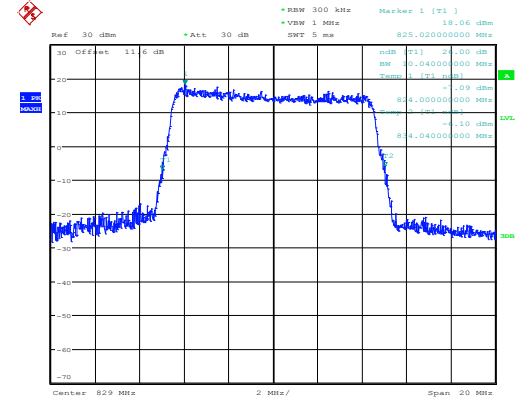
LTE Band 5

Lowest Channel / 10MHz / QPSK



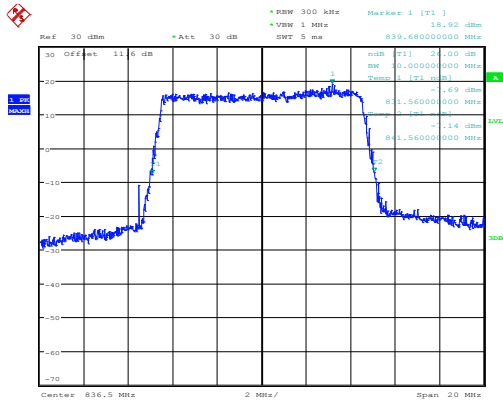
Date: 12.JAN.2015 11:49:15

Lowest Channel / 10MHz / 16QAM



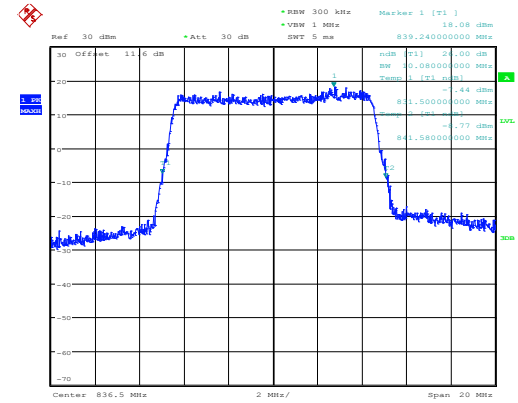
Date: 12.JAN.2015 11:49:28

Middle Channel / 10MHz / QPSK



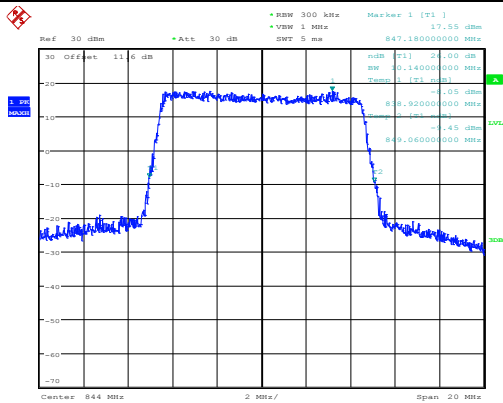
Date: 12.JAN.2015 11:57:02

Middle Channel / 10MHz / 16QAM



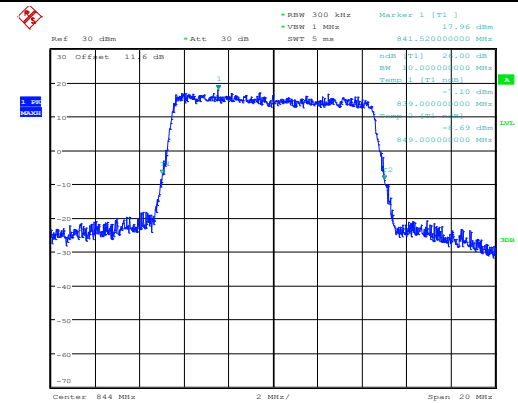
Date: 12.JAN.2015 11:57:15

Highest Channel / 10MHz / QPSK



Date: 12.JAN.2015 12:00:09

Highest Channel / 10MHz / 16QAM



Date: 12.JAN.2015 12:00:22





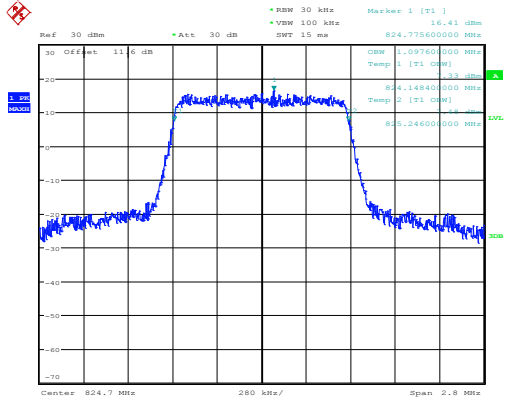
### Occupied Bandwidth

| Mode       | LTE Band 5 : 99%OBW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|------------|--------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
|            | 1.4MHz                   |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| BW         | QPSK                     | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.1                      | 1.1   | 2.72 | 2.72  | 4.5  | 4.51  | 9.1   | 9.06  | -     | -     | -     | -     |
| Middle CH  | 1.09                     | 1.09  | 2.73 | 2.73  | 4.5  | 4.5   | 9.1   | 9.06  | -     | -     | -     | -     |
| Highest CH | 1.1                      | 1.1   | 2.72 | 2.72  | 4.5  | 4.51  | 9.08  | 9.06  | -     | -     | -     | -     |



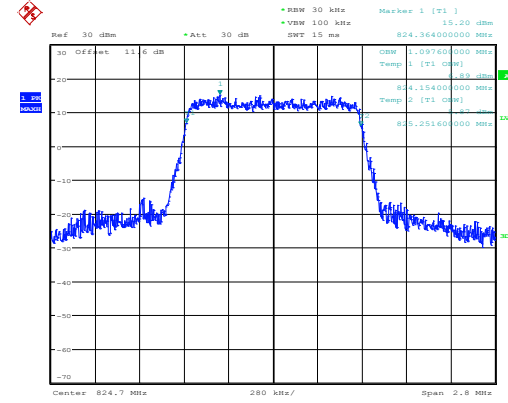
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



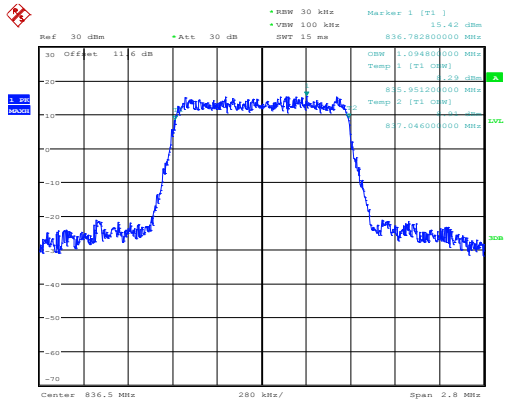
Date: 12.JAN.2015 12:07:36

Lowest Channel / 1.4MHz / 16QAM



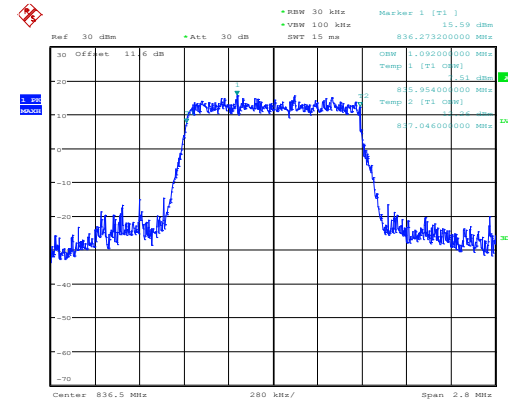
Date: 12.JAN.2015 12:07:47

Middle Channel / 1.4MHz / QPSK



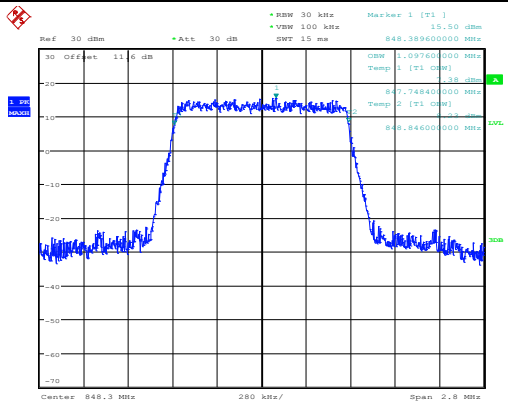
Date: 12.JAN.2015 12:15:27

Middle Channel / 1.4MHz / 16QAM



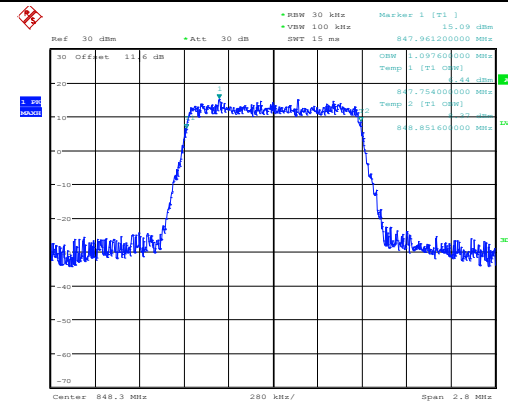
Date: 12.JAN.2015 12:15:38

Highest Channel / 1.4MHz / QPSK



Date: 12.JAN.2015 12:18:35

Highest Channel / 1.4MHz / 16QAM

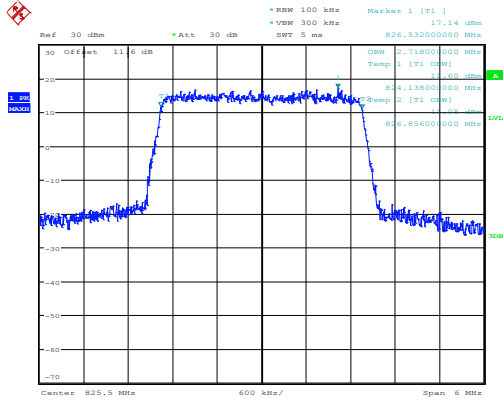


Date: 12.JAN.2015 12:18:46

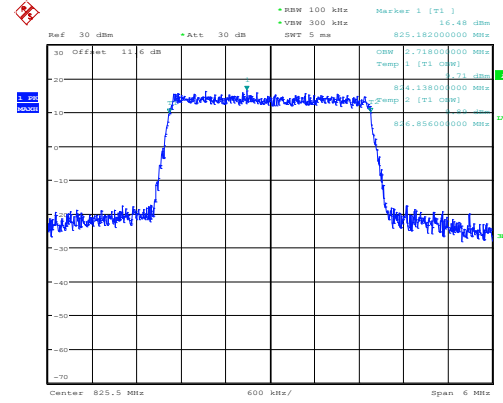


LTE Band 5

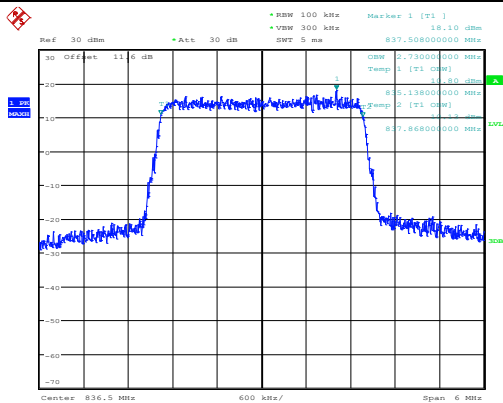
Lowest Channel / 3MHz / QPSK



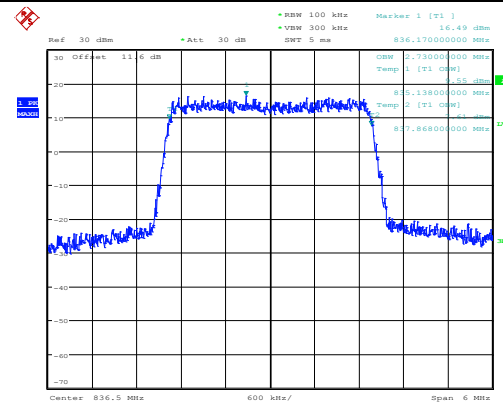
Lowest Channel / 3MHz / 16QAM



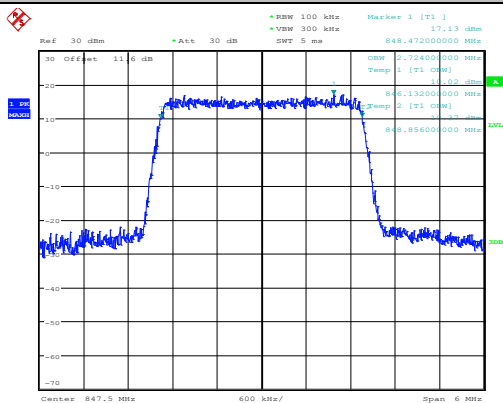
Middle Channel / 3MHz / QPSK



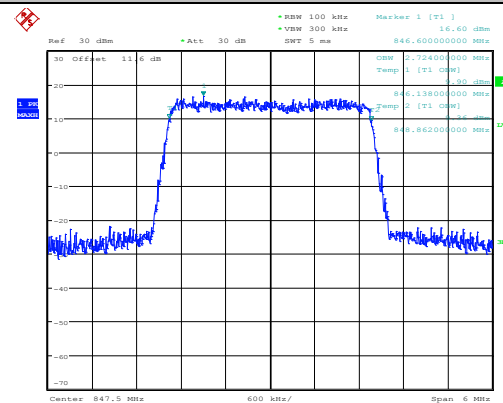
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



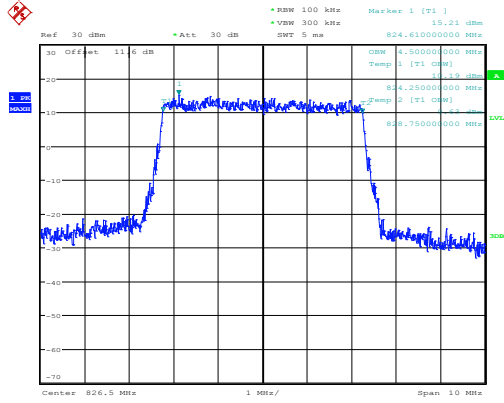
Highest Channel / 3MHz / 16QAM





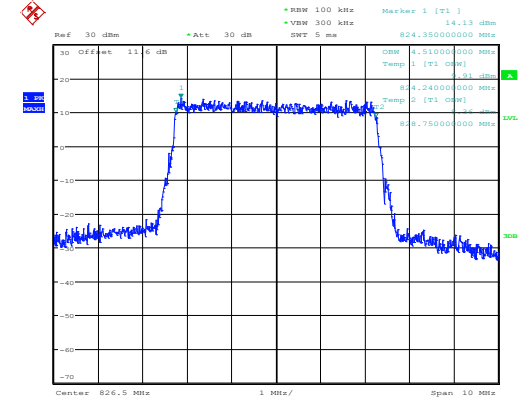
LTE Band 5

Lowest Channel / 5MHz / QPSK



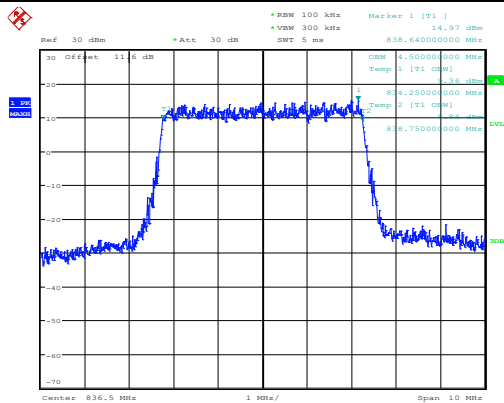
Date: 12.JAN.2015 13:56:07

Lowest Channel / 5MHz / 16QAM



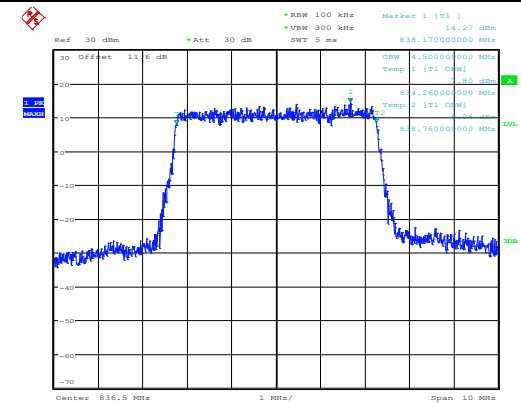
Date: 12.JAN.2015 11:24:11

Middle Channel / 5MHz / QPSK



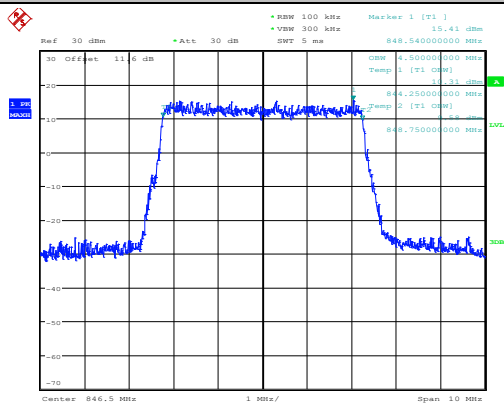
Date: 12.JAN.2015 13:57:07

Middle Channel / 5MHz / 16QAM



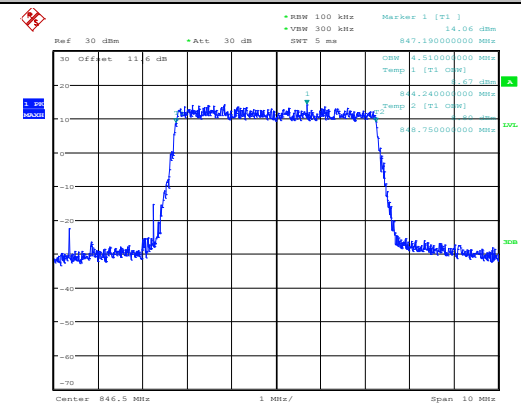
Date: 12.JAN.2015 11:37:51

Highest Channel / 5MHz / QPSK



Date: 12.JAN.2015 11:40:48

Highest Channel / 5MHz / 16QAM

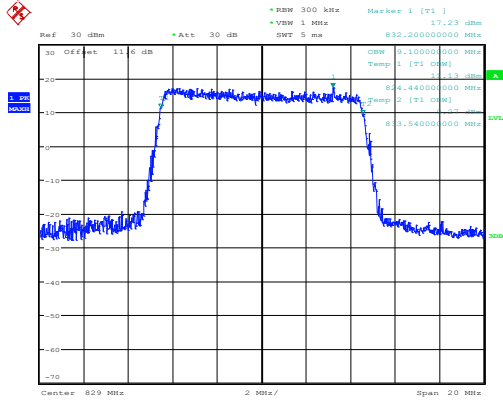


Date: 12.JAN.2015 11:40:58



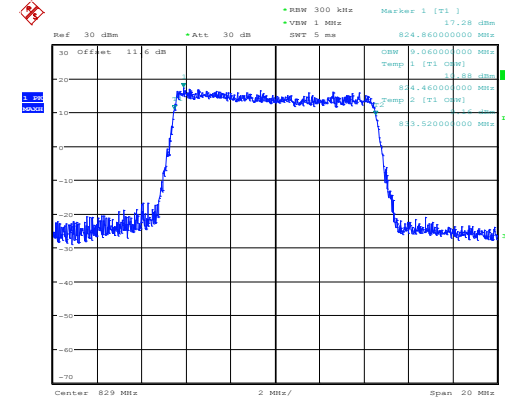
LTE Band 5

Lowest Channel / 10MHz / QPSK



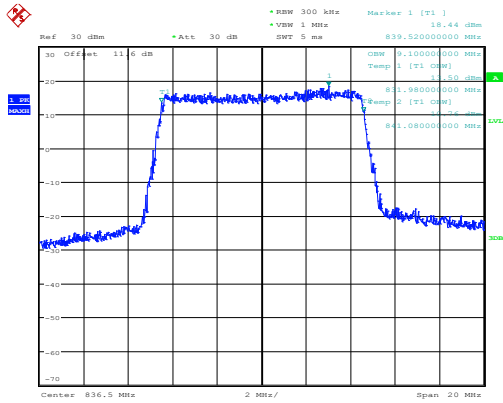
Date: 12.JAN.2015 14:00:05

Lowest Channel / 10MHz / 16QAM



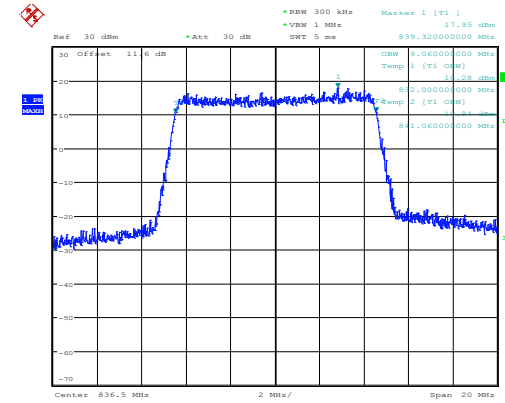
Date: 12.JAN.2015 11:49:02

Middle Channel / 10MHz / QPSK



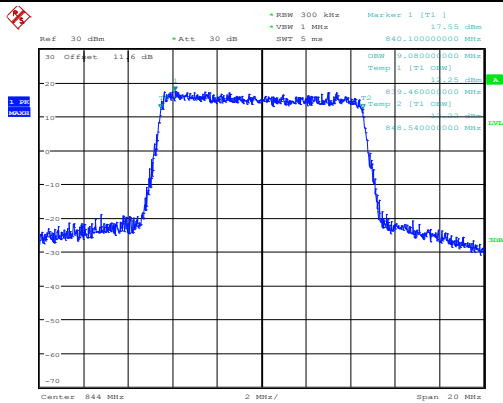
Date: 12.JAN.2015 11:56:39

Middle Channel / 10MHz / 16QAM



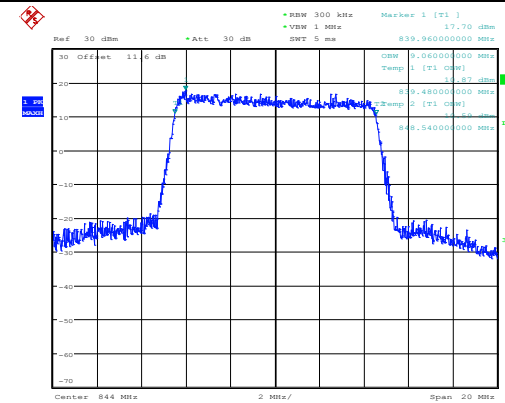
Date: 12.JAN.2015 11:56:50

Highest Channel / 10MHz / QPSK



Date: 12.JAN.2015 11:59:46

Highest Channel / 10MHz / 16QAM



Date: 12.JAN.2015 11:59:57



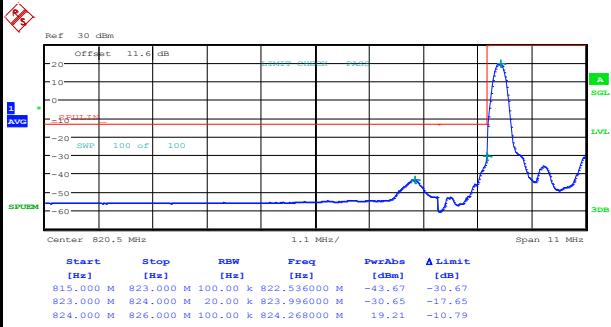
**Conducted Band Edge**



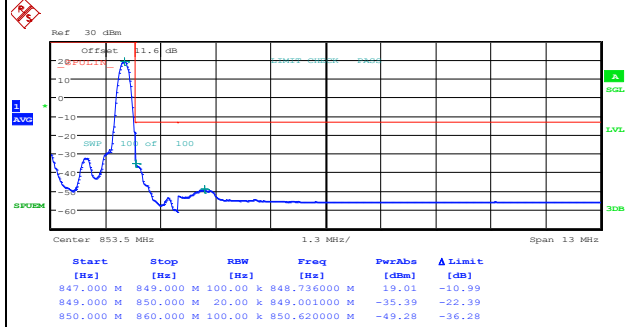
LTE Band 5 / 1.4MHz / QPSK

Lowest Band Edge / 1RB

Highest Band Edge / 1RB



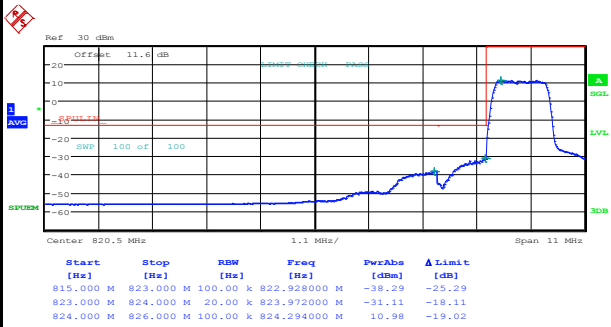
Date: 12.JAN.2015 12:09:22



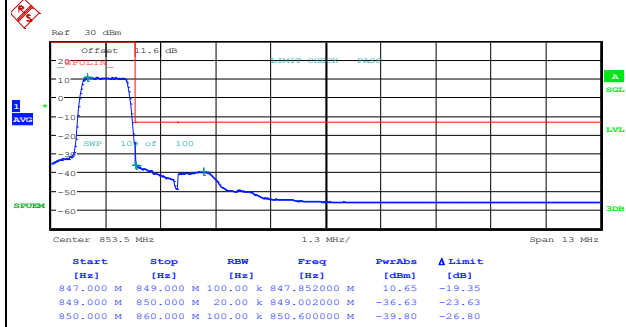
Date: 12.JAN.2015 12:22:41

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.JAN.2015 12:11:42



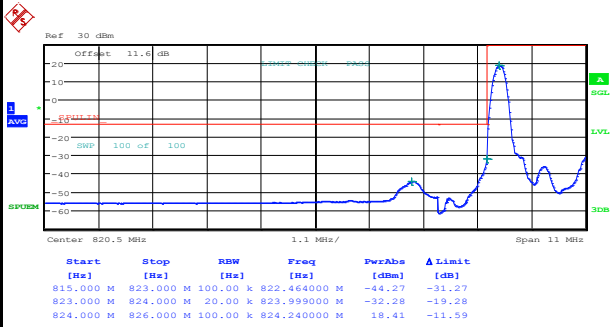
Date: 12.JAN.2015 12:20:21



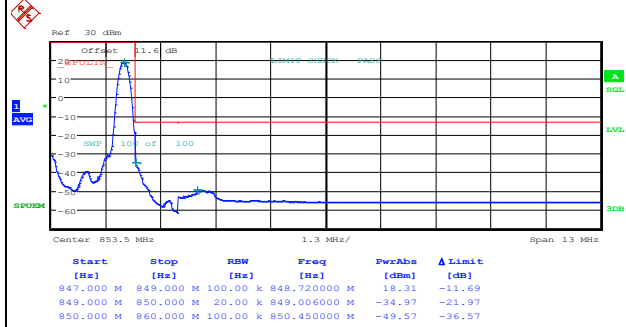
LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



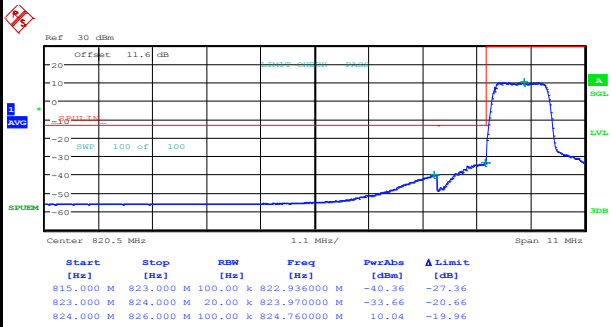
Date: 12.JAN.2015 12:10:32



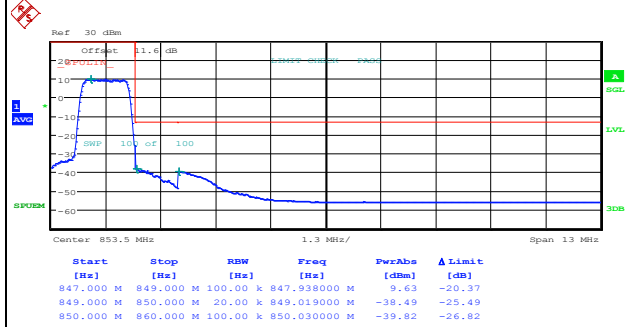
Date: 12.JAN.2015 12:23:51

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 12.JAN.2015 12:12:53



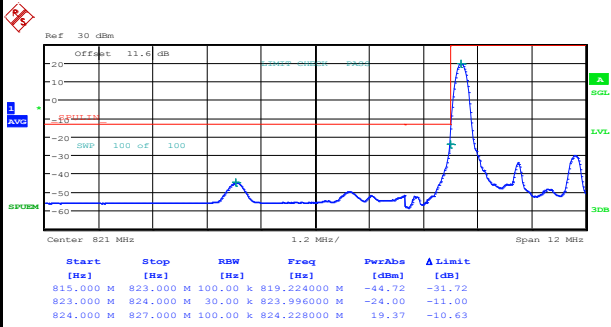
Date: 12.JAN.2015 12:21:31





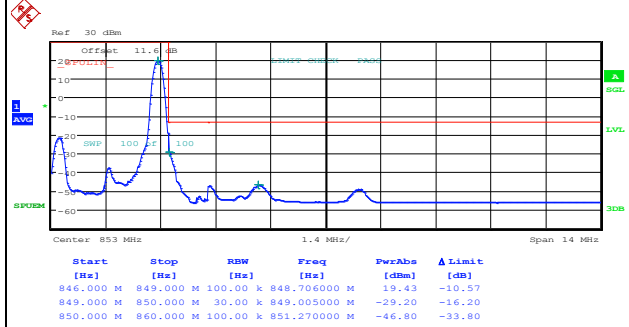
LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / 1RB



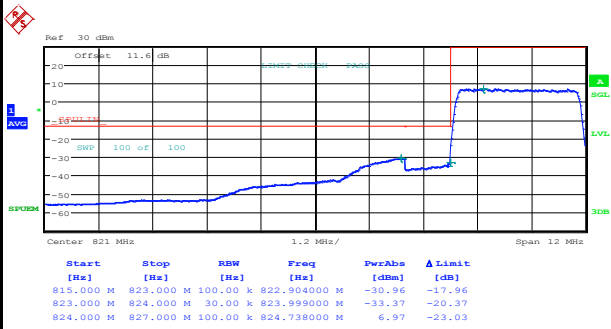
Date: 12.JAN.2015 11:02:06

Highest Band Edge / 1 RB



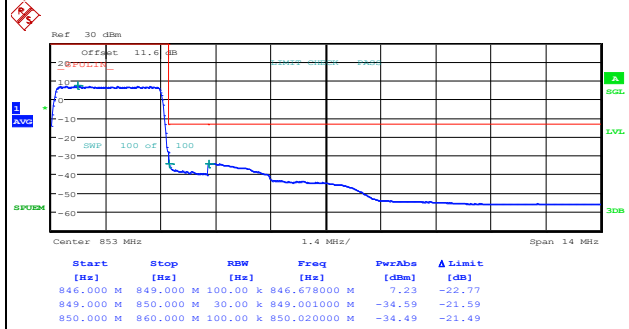
Date: 12.JAN.2015 11:13:00

Lowest Band Edge / Full RB



Date: 12.JAN.2015 11:04:26

Highest Band Edge / Full RB

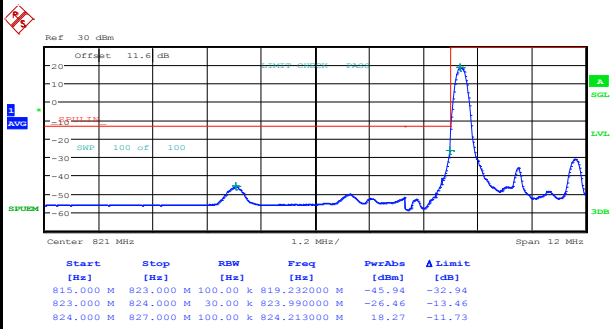


Date: 12.JAN.2015 11:15:20



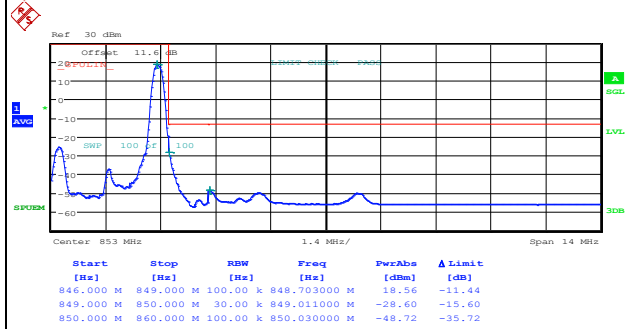
LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



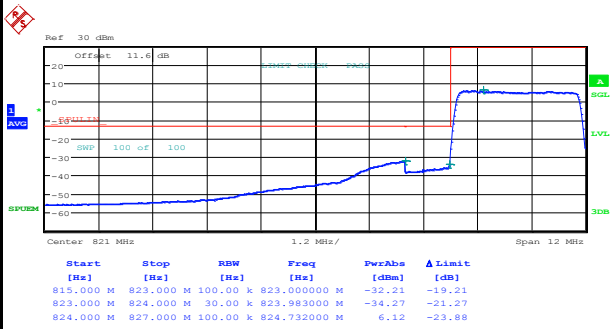
Date: 12.JAN.2015 11:03:16

Highest Band Edge / 1 RB



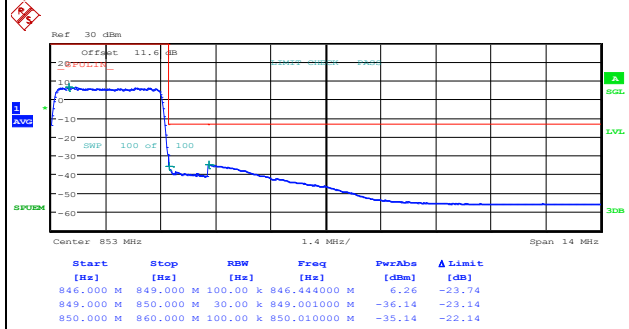
Date: 12.JAN.2015 11:14:10

Lowest Band Edge / Full RB



Date: 12.JAN.2015 11:05:36

Highest Band Edge / Full RB

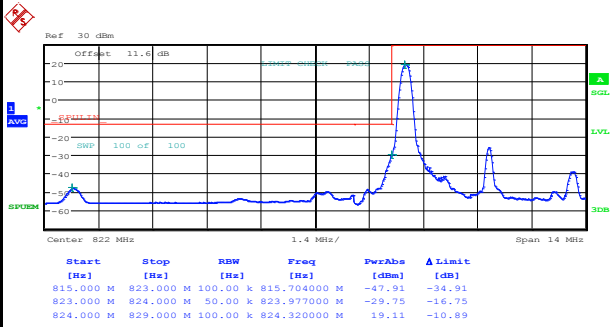


Date: 12.JAN.2015 11:16:30



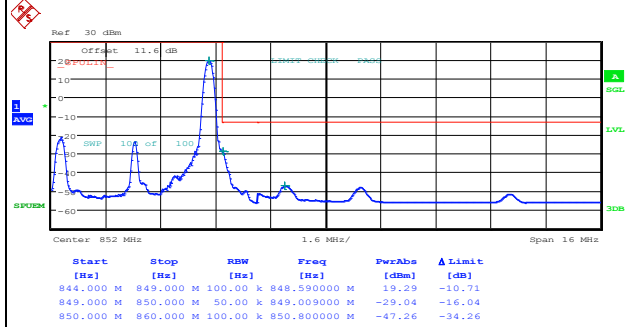
LTE Band 5 / 5MHz / QPSK

Lowest Band Edge / 1 RB



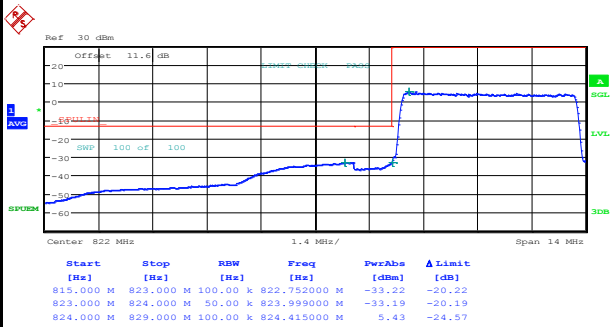
Date: 12.JAN.2015 11:25:46

Highest Band Edge / 1 RB



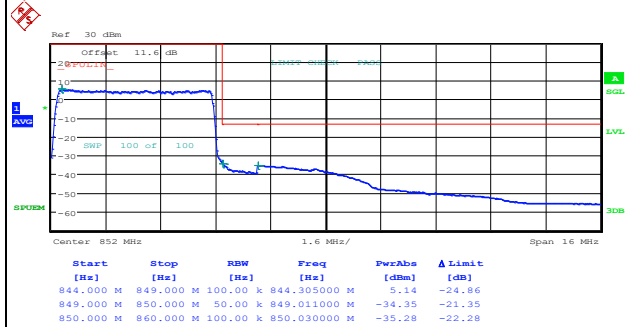
Date: 12.JAN.2015 11:42:34

Lowest Band Edge / Full RB



Date: 12.JAN.2015 11:28:06

Highest Band Edge / Full RB

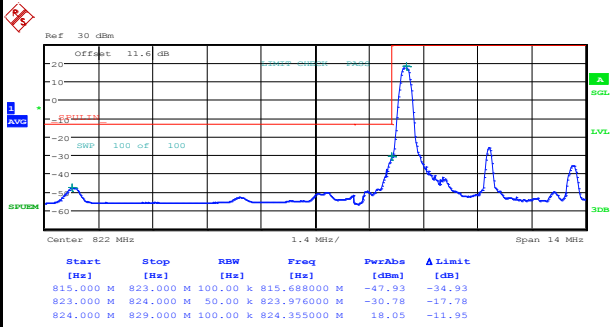


Date: 12.JAN.2015 11:44:54



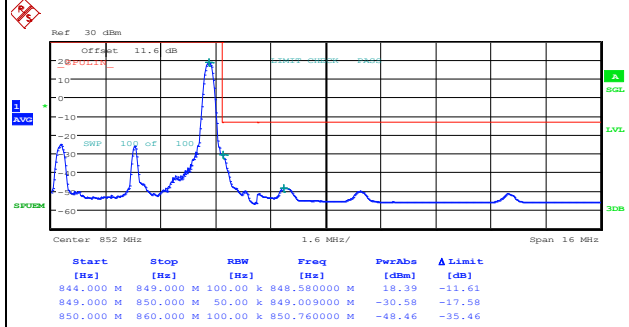
LTE Band 5 / 5MHz / 16QAM

Lowest Band Edge / 1RB



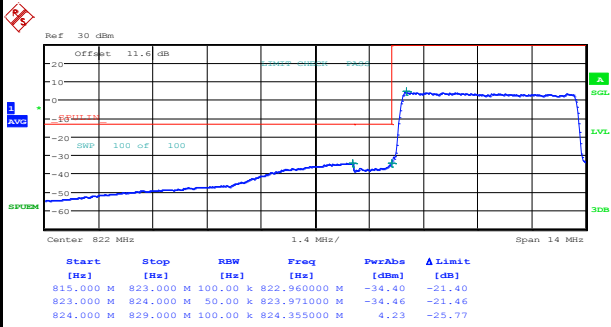
Date: 12.JAN.2015 11:26:56

Highest Band Edge / 1 RB



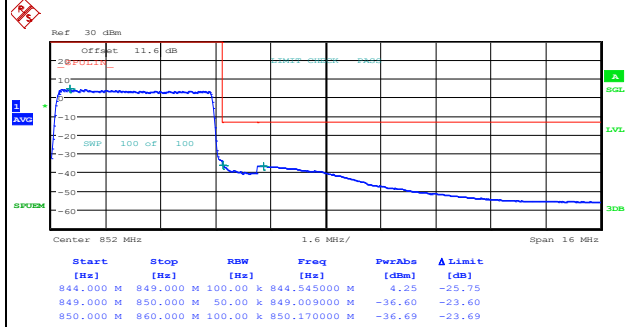
Date: 12.JAN.2015 11:43:44

Lowest Band Edge / Full RB



Date: 12.JAN.2015 11:29:16

Highest Band Edge / Full RB

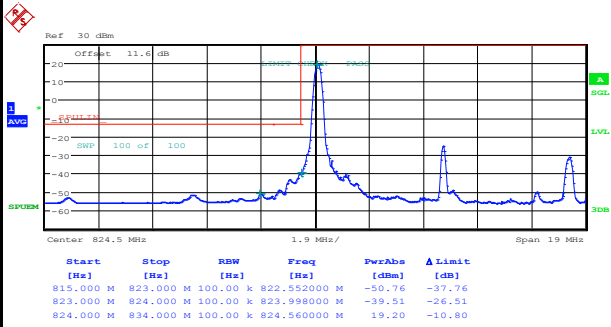


Date: 12.JAN.2015 11:46:04



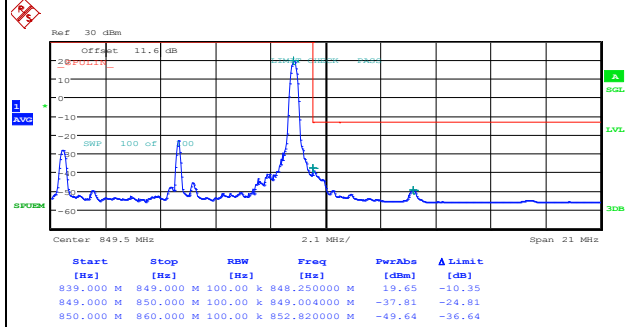
LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / 1 RB



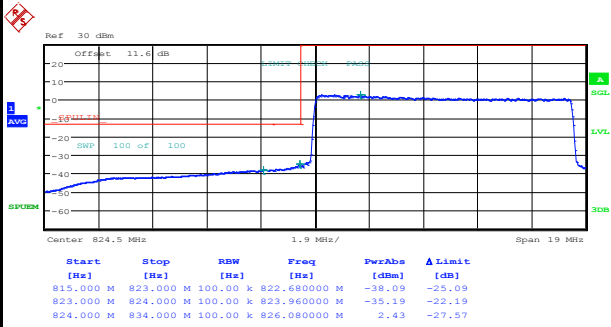
Date: 12.JAN.2015 11:50:38

Highest Band Edge / 1 RB



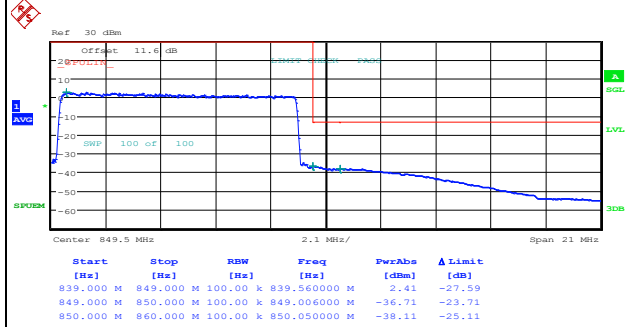
Date: 12.JAN.2015 12:01:32

Lowest Band Edge / Full RB



Date: 12.JAN.2015 11:52:58

Highest Band Edge / Full RB

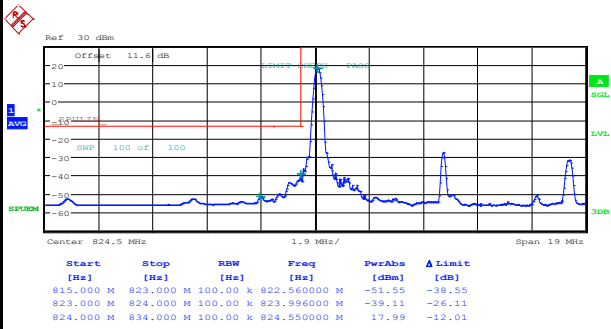


Date: 12.JAN.2015 12:03:52



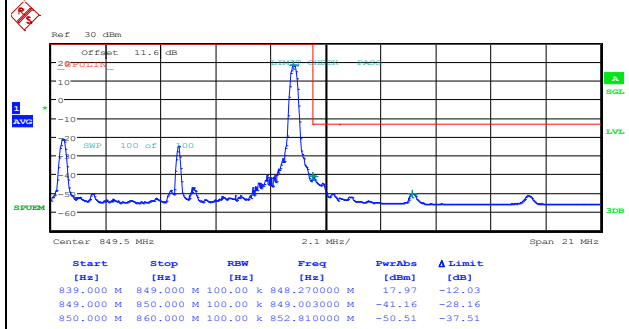
LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



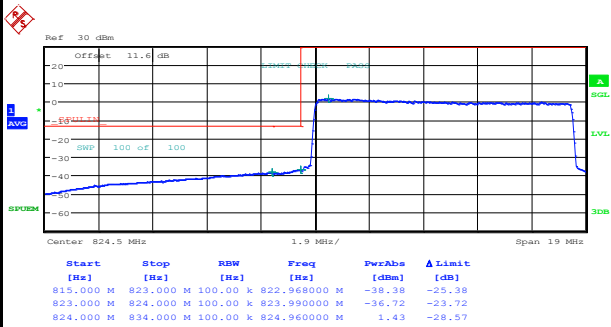
Date: 12.JAN.2015 11:51:48

Highest Band Edge / 1 RB



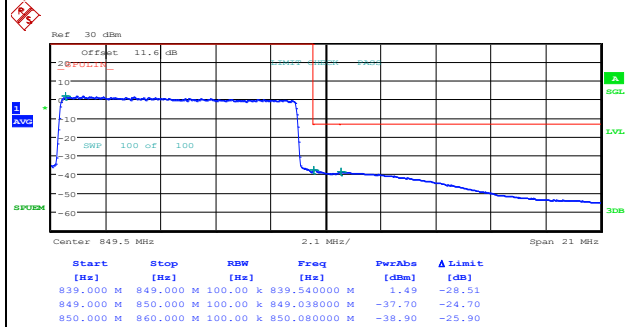
Date: 12.JAN.2015 12:02:42

Lowest Band Edge / Full RB



Date: 12.JAN.2015 11:54:08

Highest Band Edge / Full RB



Date: 12.JAN.2015 12:05:01



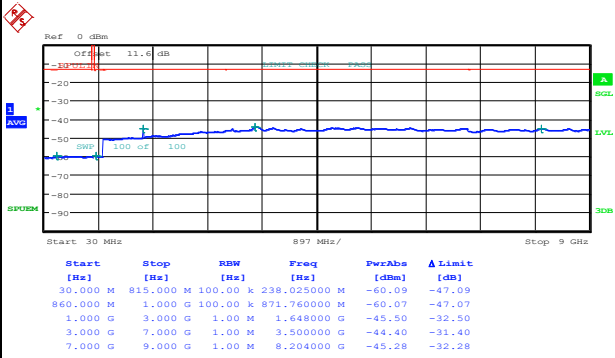
**Conducted Spurious Emission**



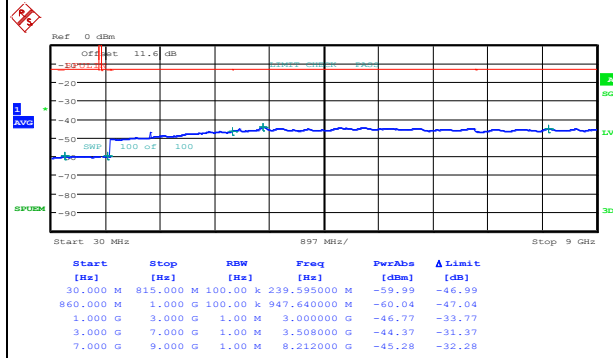
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



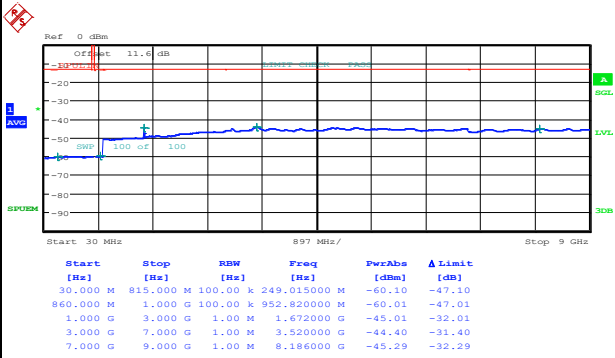
Date: 12.JAN.2015 12:14:05



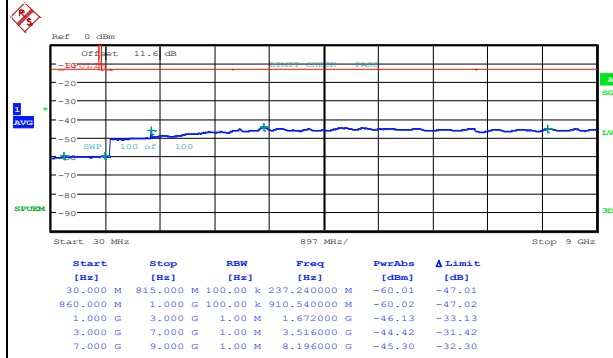
Date: 12.JAN.2015 12:15:16

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 12.JAN.2015 12:17:13



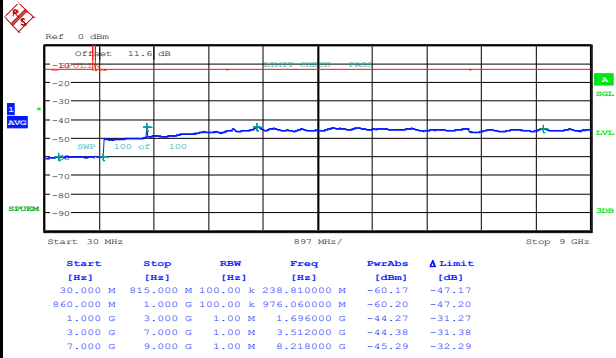
Date: 12.JAN.2015 12:18:24





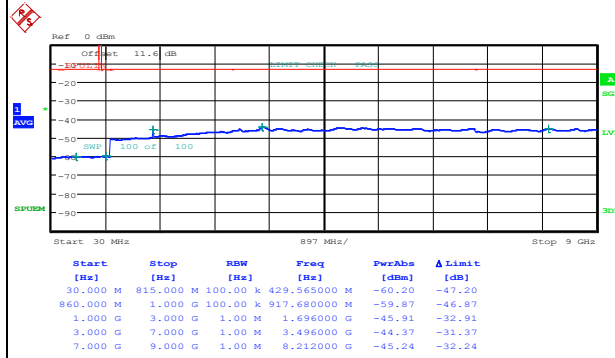
LTE Band 5 / 1.4MHz

Highest Channel / QPSK



Date: 12.JAN.2015 12:25:00

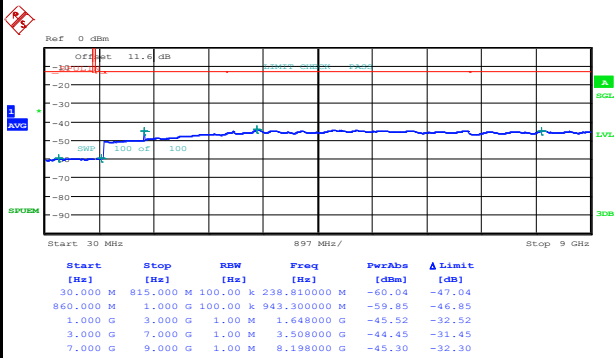
Highest Channel / 16QAM



Date: 12.JAN.2015 12:26:11

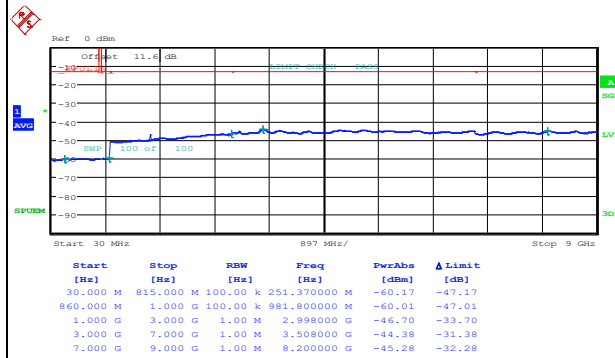
LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 12.JAN.2015 11:06:46

Lowest Channel / 16QAM



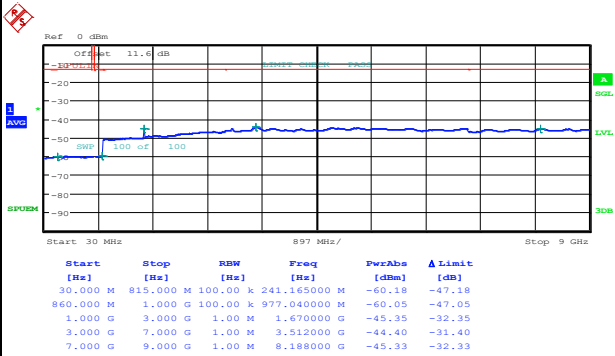
Date: 12.JAN.2015 11:07:56



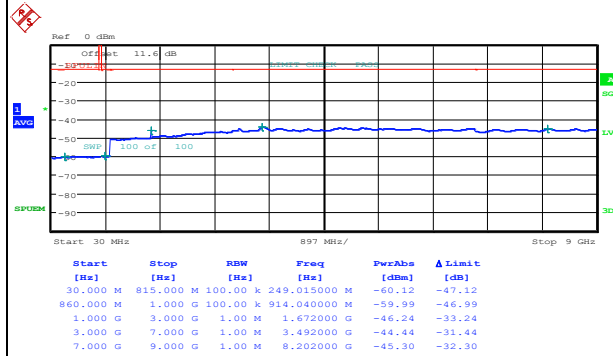
LTE Band 5 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM



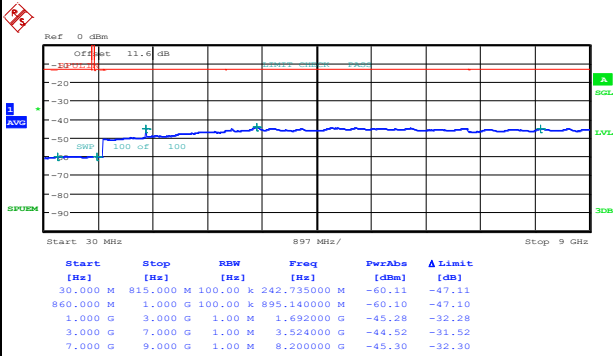
Date: 12.JAN.2015 11:09:53



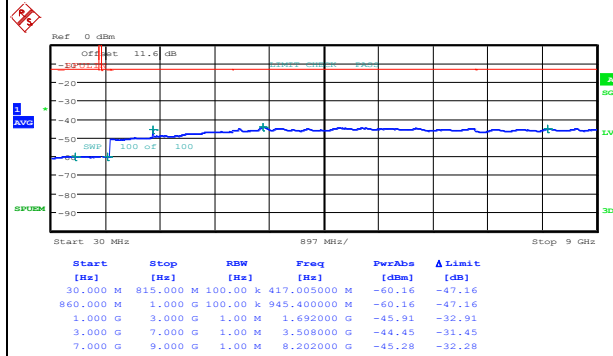
Date: 12.JAN.2015 11:11:03

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.JAN.2015 11:17:39



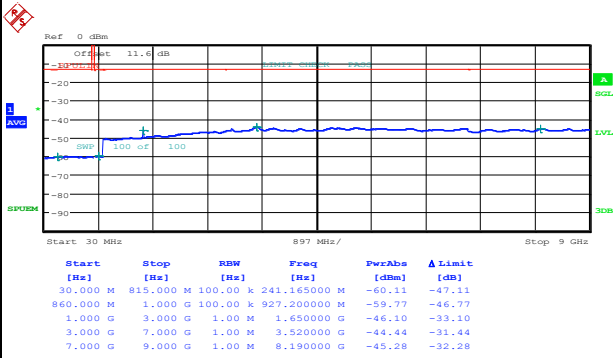
Date: 12.JAN.2015 11:18:50



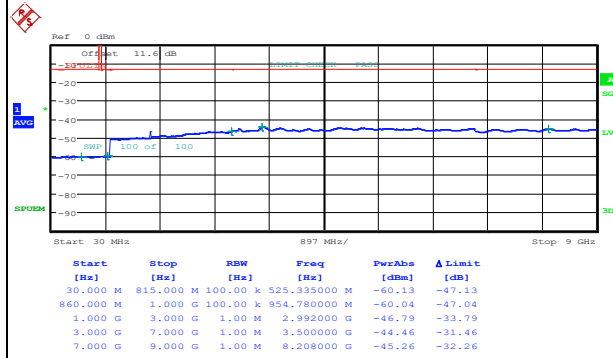
LTE Band 5 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



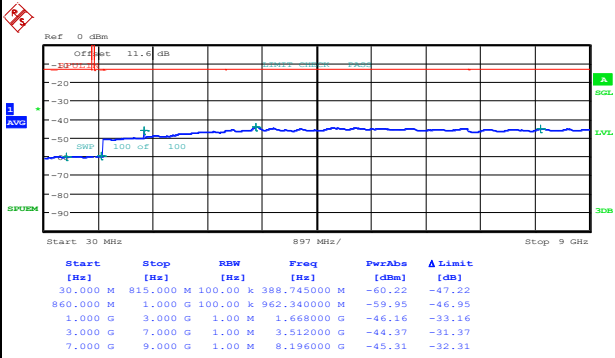
Date: 12.JAN.2015 11:30:25



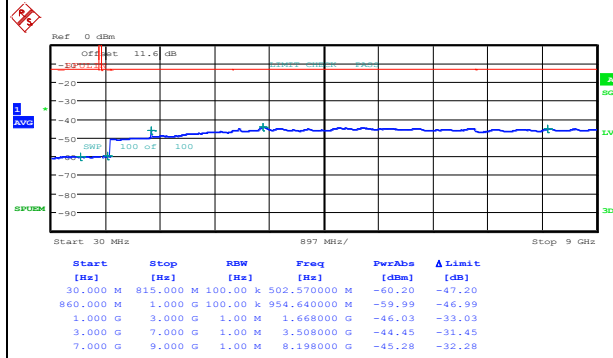
Date: 12.JAN.2015 11:31:35

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 12.JAN.2015 11:39:26



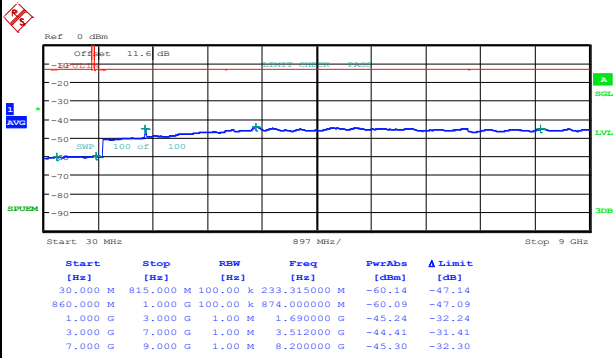
Date: 12.JAN.2015 11:40:37



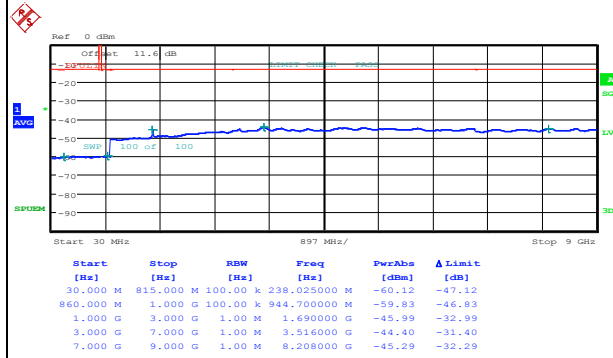
LTE Band 5 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.JAN.2015 11:47:14

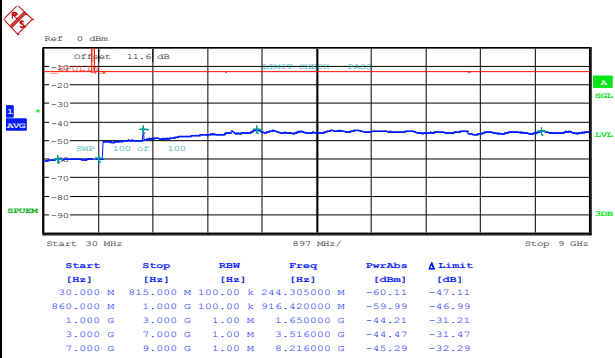


Date: 12.JAN.2015 11:48:25

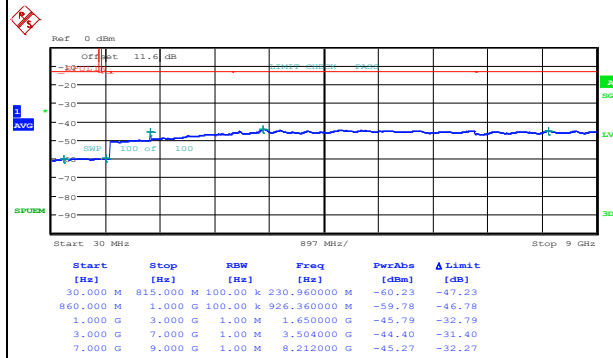
LTE Band 5 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 12.JAN.2015 11:55:18



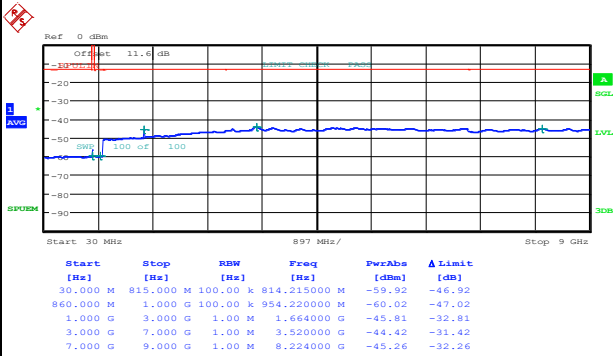
Date: 12.JAN.2015 11:56:28



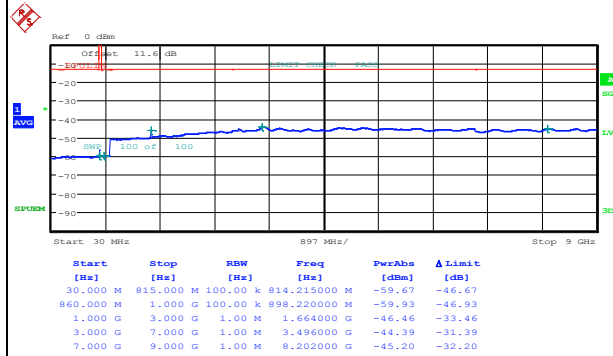
LTE Band 5 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



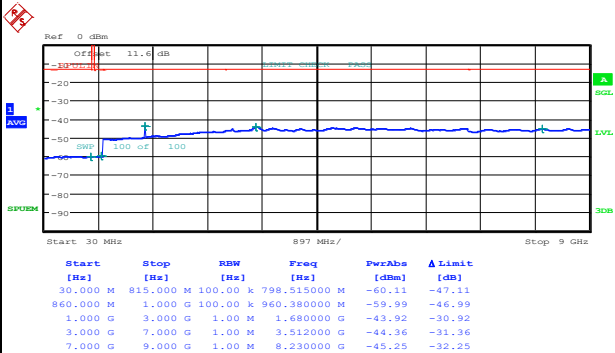
Date: 12.JAN.2015 11:58:25



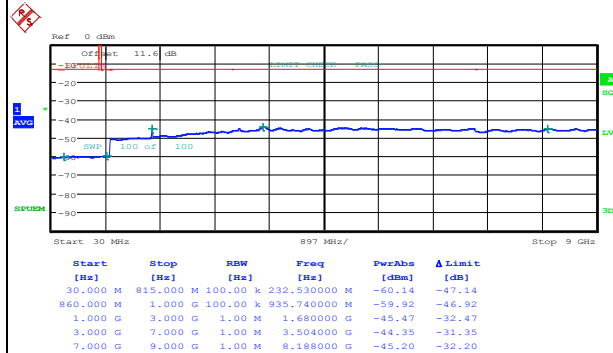
Date: 12.JAN.2015 11:59:35

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.JAN.2015 12:06:11



Date: 12.JAN.2015 12:07:21



**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    | 0.0011                             | PASS   |
| 40               | Normal Voltage    | 0.0139                             |        |
| 30               | Normal Voltage    | 0.0033                             |        |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |        |
| 10               | Normal Voltage    | 0.0111                             |        |
| 0                | Normal Voltage    | 0.0114                             |        |
| -10              | Normal Voltage    | 0.0103                             |        |
| -20              | Normal Voltage    | 0.0158                             |        |
| -30              | Normal Voltage    | 0.0133                             |        |
| 20               | Maximum Voltage   | 0.0109                             |        |
| 20               | Normal Voltage    | 0.0000                             |        |
| 20               | Battery End Point | 0.0014                             |        |

**Note:**

1. Normal Voltage = 3.7V. ; Battery End Point (BEP) = 3.5 V. ; Maximum Voltage =4.1 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.