



## LTE Band 2

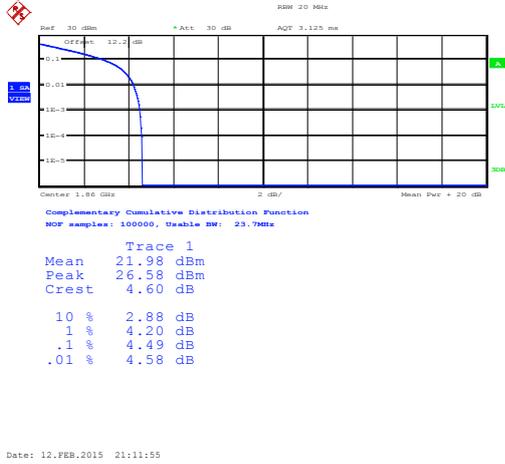
### Peak-to-Average Ratio

| Mode       | LTE Band 2 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 4.49               | 5.06    | 5.38  | 6.03    | <b>PASS</b> |
| Middle CH  | 4.01               | 5.35    | 4.84  | 6.22    |             |
| Highest CH | 4.68               | 4.97    | 5.61  | 5.80    |             |

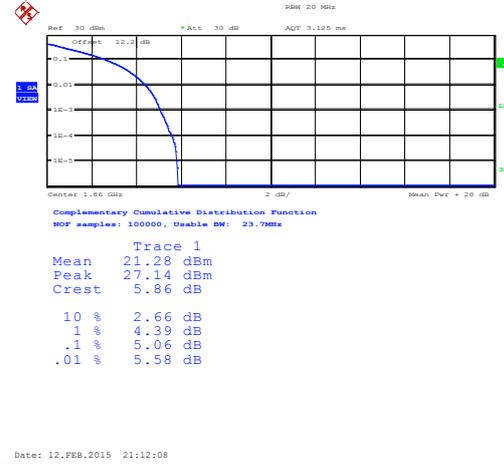


LTE Band 2 / 20MHz / QPSK

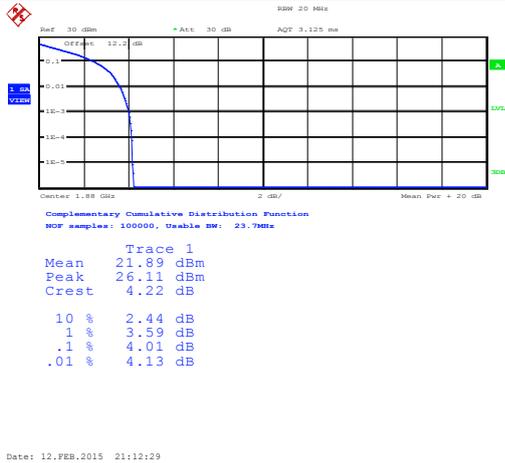
Lowest Channel / 1RB



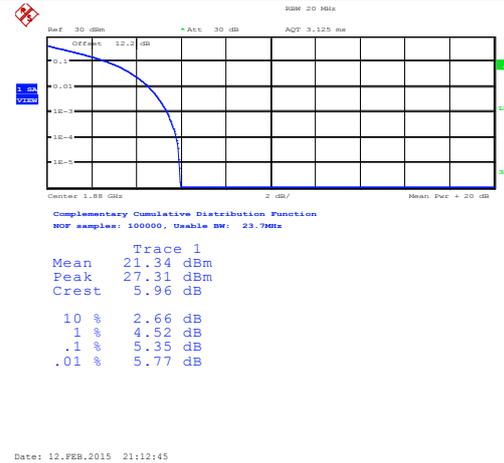
Lowest Channel / Full RB



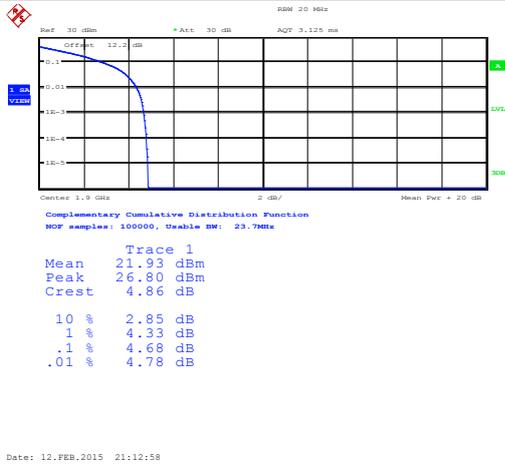
Middle Channel / 1RB



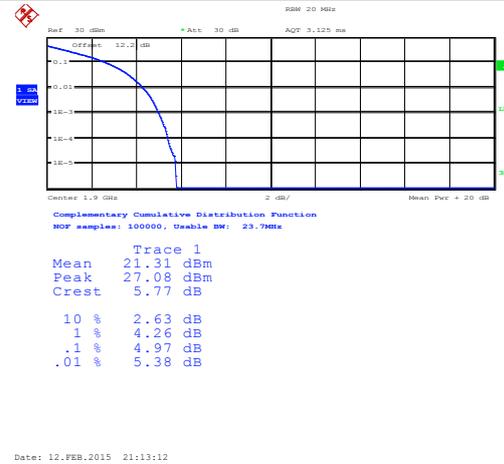
Middle Channel / Full RB



Highest Channel / 1RB



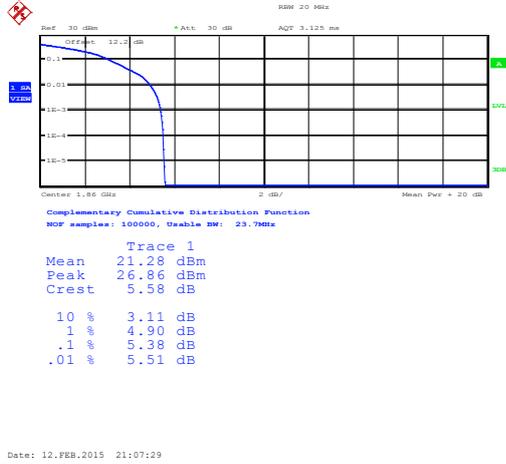
Highest Channel / Full RB



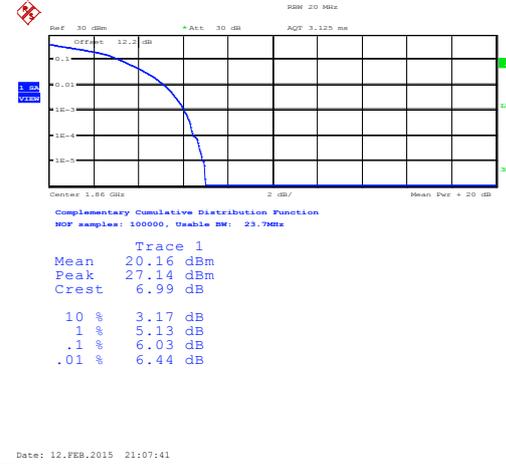


LTE Band 2 / 20MHz / 16QAM

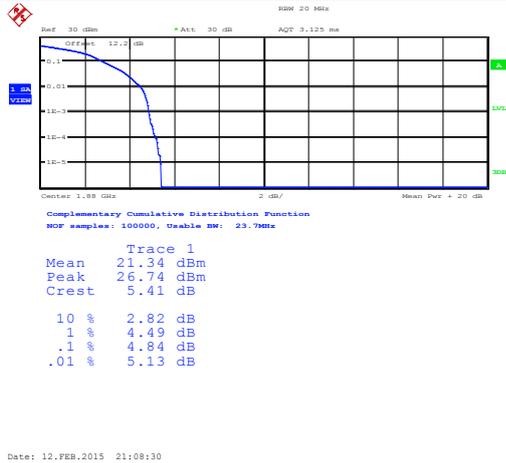
Lowest Channel / 1RB



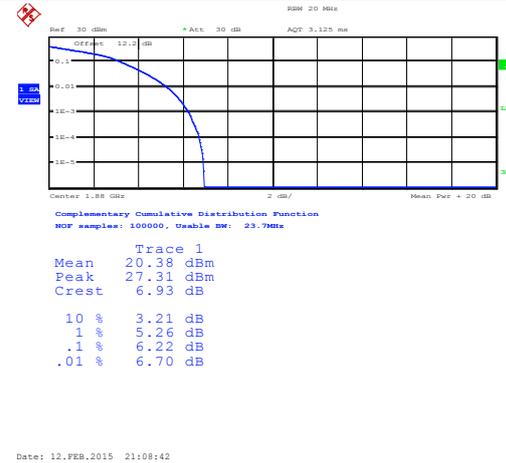
Lowest Channel / Full RB



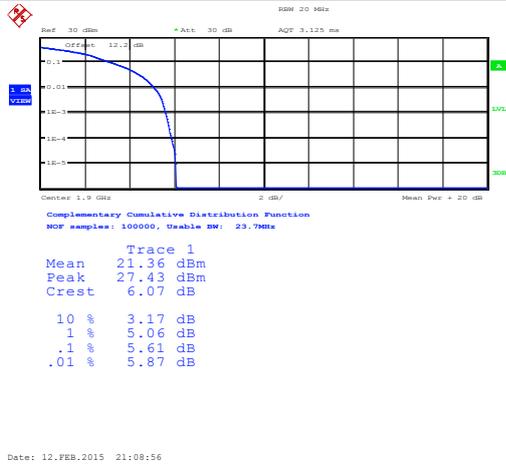
Middle Channel / 1RB



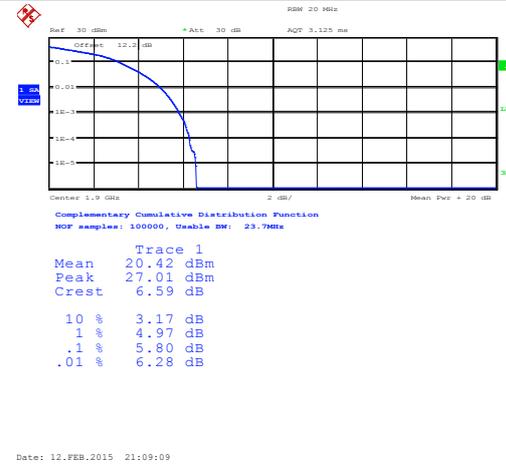
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB





**26dB Bandwidth**

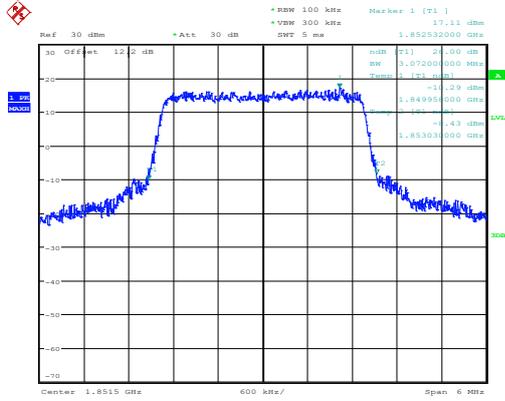
| Mode       | LTE Band 2 : 26dB BW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|------------|---------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
|            | 1.4MHz                    |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| BW         | QPSK                      | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.31                      | 1.36  | 3.07 | 3.08  | 4.99 | 4.95  | 10.36 | 10.38 | 15.15 | 15.24 | 21.80 | 21.48 |
| Middle CH  | 1.35                      | 1.35  | 3.06 | 3.10  | 4.99 | 4.99  | 10.46 | 10.28 | 15.69 | 15.60 | 21.76 | 22.28 |
| Highest CH | 1.31                      | 1.34  | 3.07 | 3.10  | 4.95 | 4.96  | 10.32 | 10.38 | 15.30 | 15.81 | 21.96 | 21.36 |



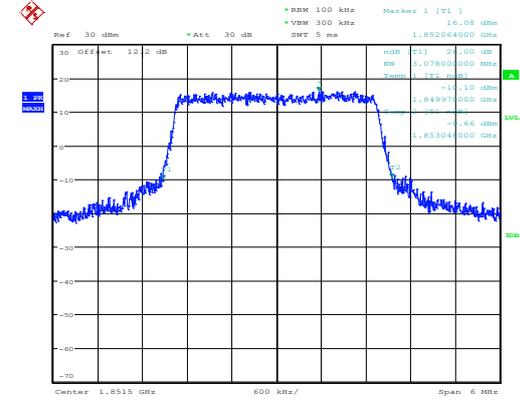


LTE Band 2

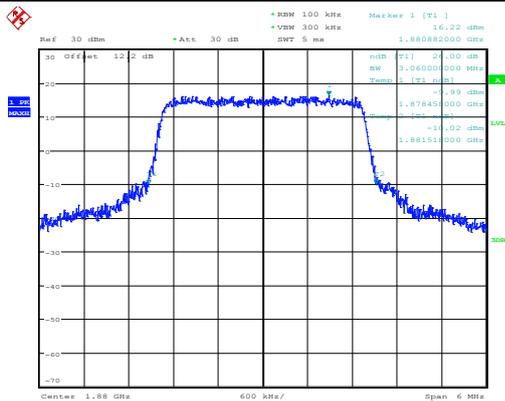
Lowest Channel / 3MHz / QPSK



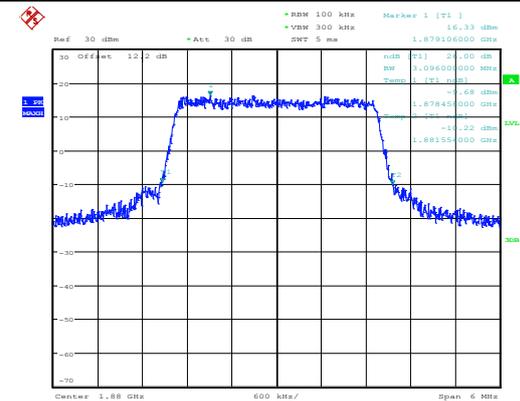
Lowest Channel / 3MHz / 16QAM



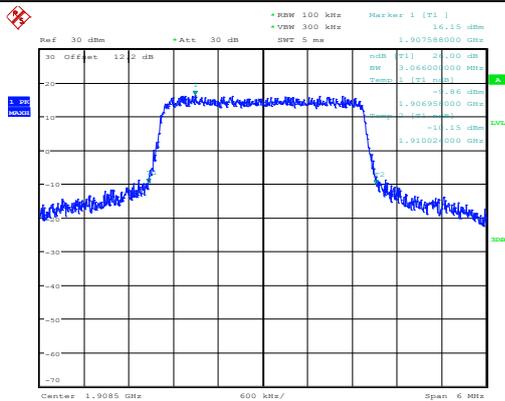
Middle Channel / 3MHz / QPSK



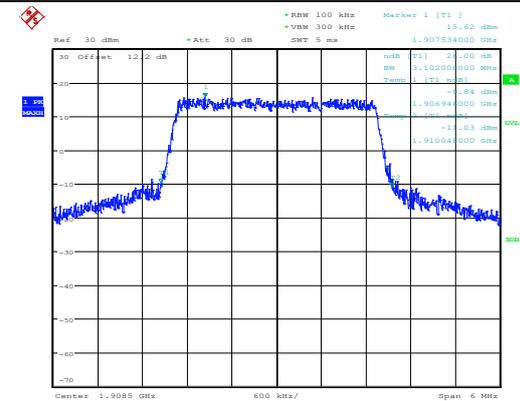
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



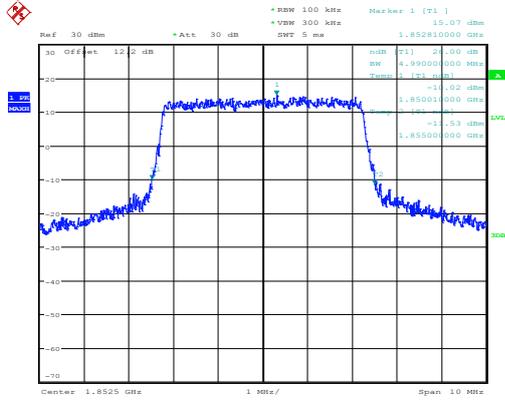
Highest Channel / 3MHz / 16QAM





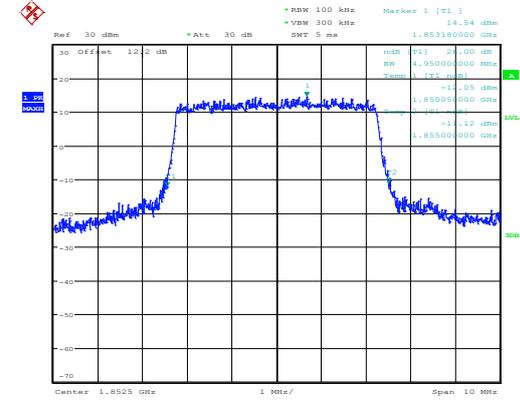
LTE Band 2

Lowest Channel / 5MHz / QPSK



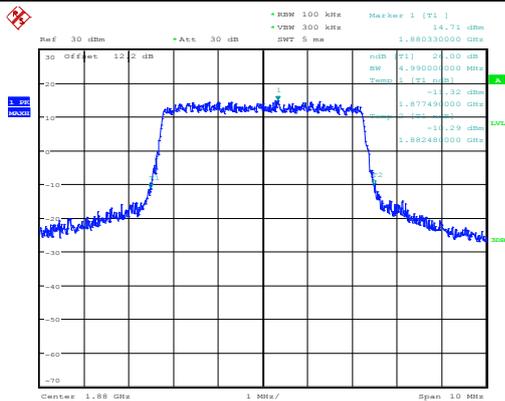
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Lowest Channel / 5MHz / 16QAM



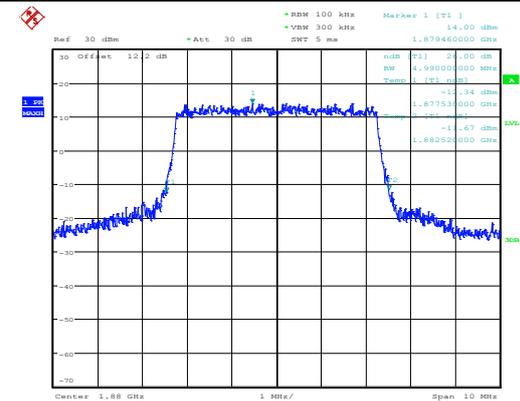
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Middle Channel / 5MHz / QPSK



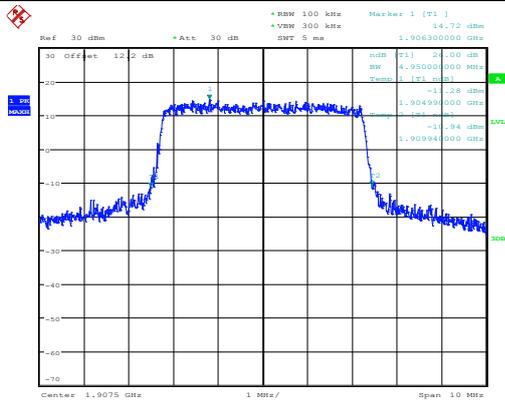
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Middle Channel / 5MHz / 16QAM



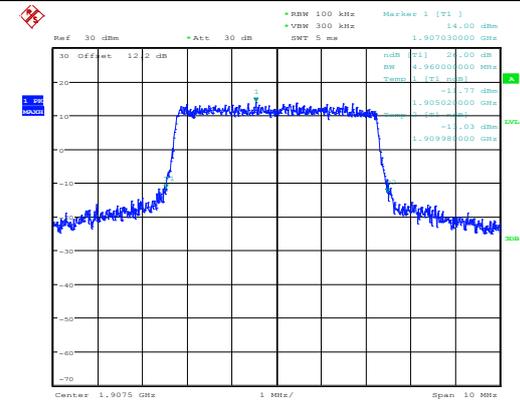
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Highest Channel / 5MHz / QPSK



Date: 12.FEB.2015 19:42:28

Highest Channel / 5MHz / 16QAM

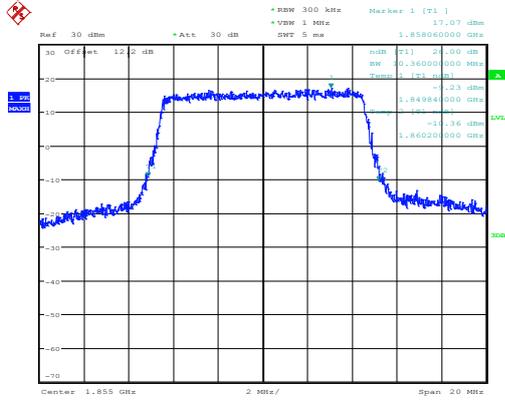


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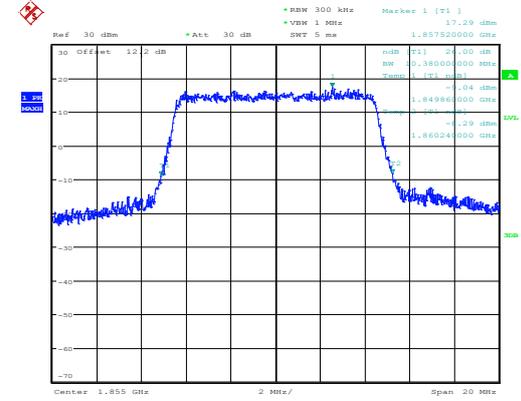
LTE Band 2

Lowest Channel / 10MHz / QPSK



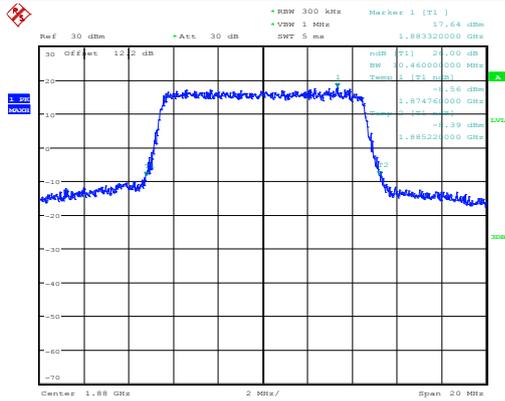
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Lowest Channel / 10MHz / 16QAM



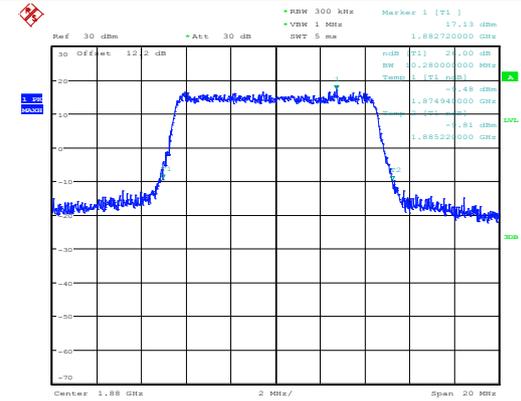
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Middle Channel / 10MHz / QPSK



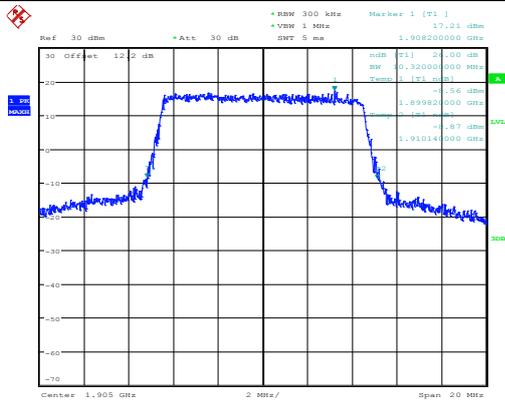
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Middle Channel / 10MHz / 16QAM



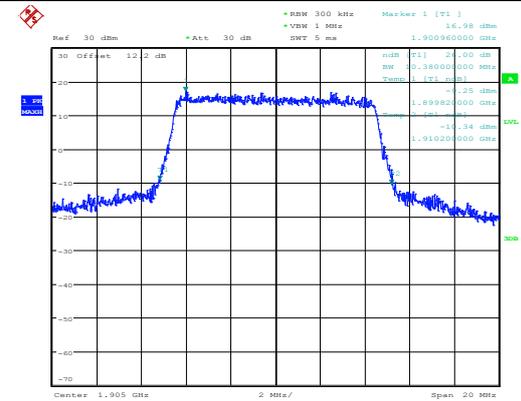
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Highest Channel / 10MHz / QPSK



Date: 12.FEB.2015 20:01:07

Highest Channel / 10MHz / 16QAM

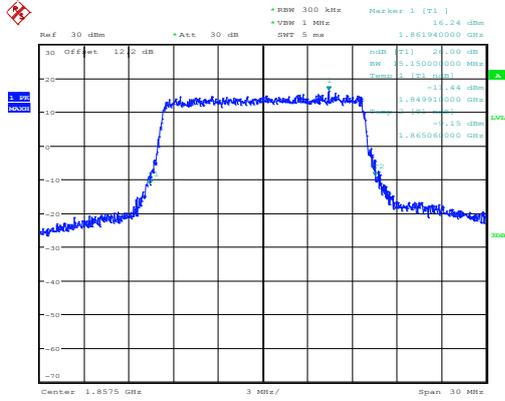


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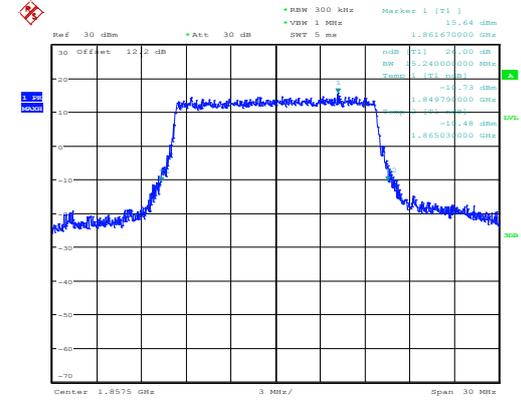
LTE Band 2

Lowest Channel / 15MHz / QPSK



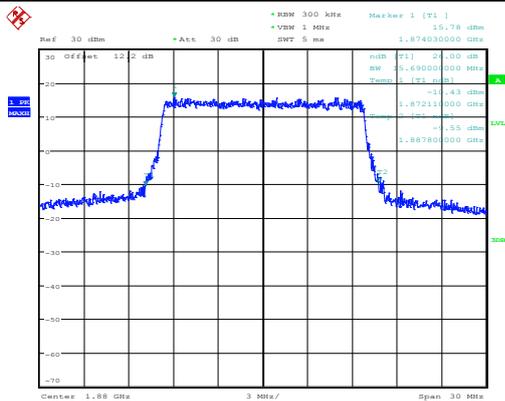
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Lowest Channel / 15MHz / 16QAM



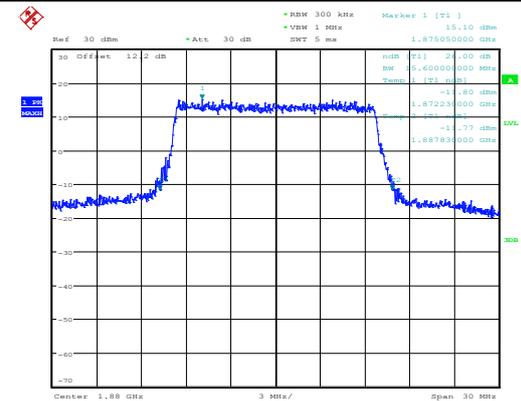
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Middle Channel / 15MHz / QPSK



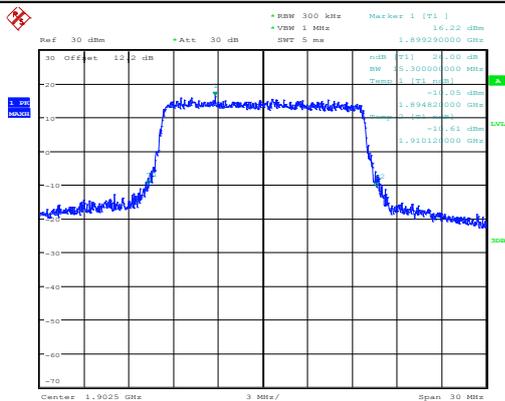
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Middle Channel / 15MHz / 16QAM



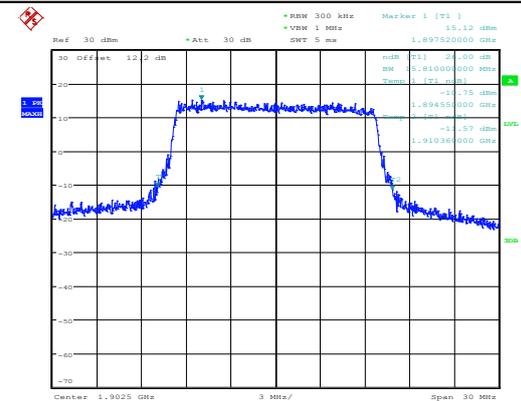
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Highest Channel / 15MHz / QPSK



Date: 12.FEB.2015 20:19:46

Highest Channel / 15MHz / 16QAM

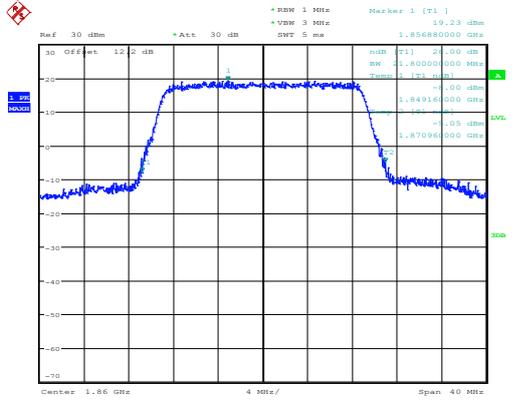


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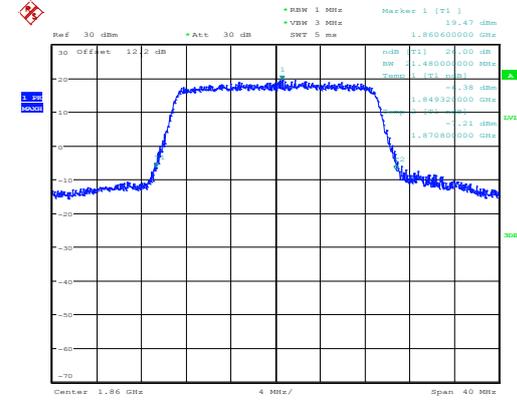
LTE Band 2

Lowest Channel / 20MHz / QPSK



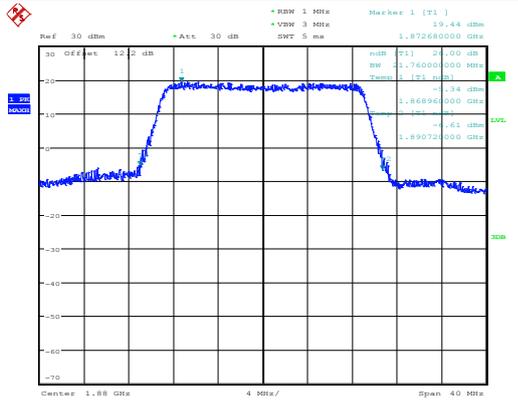
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Lowest Channel / 20MHz / 16QAM



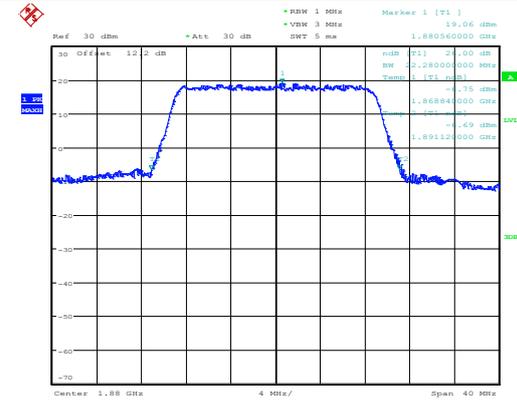
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Middle Channel / 20MHz / QPSK



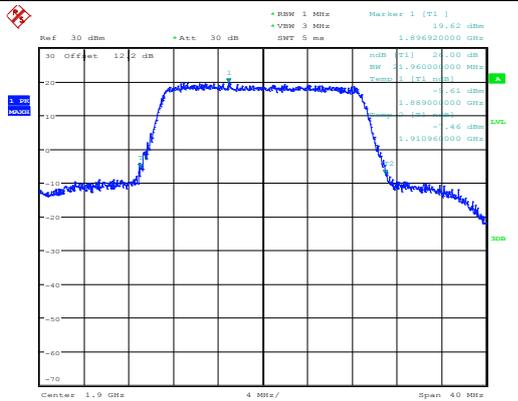
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Middle Channel / 20MHz / 16QAM



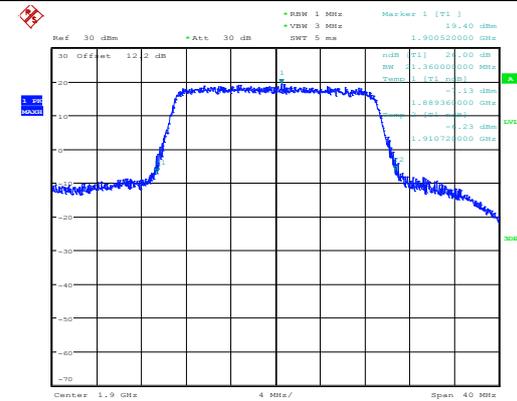
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Highest Channel / 20MHz / QPSK



Date: 12.FEB.2015 20:38:25

Highest Channel / 20MHz / 16QAM



Date: 12.FEB.2015 20:38:38



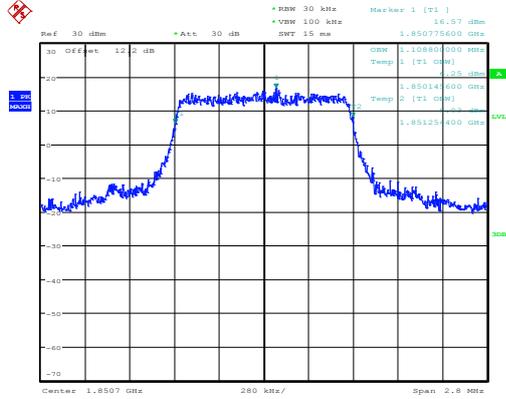
### Occupied Bandwidth

| Mode       | LTE Band 2 : 99%OBW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|------------|--------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW         | 1.4MHz                   |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | QPSK                     | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.11                     | 1.11  | 2.74 | 2.74  | 4.50 | 4.49  | 9.10  | 9.08  | 13.50 | 13.50 | 18.56 | 18.64 |
| Middle CH  | 1.11                     | 1.11  | 2.72 | 2.72  | 4.49 | 4.50  | 9.12  | 9.10  | 13.56 | 13.59 | 18.76 | 18.76 |
| Highest CH | 1.11                     | 1.11  | 2.74 | 2.73  | 4.50 | 4.52  | 9.08  | 9.08  | 13.50 | 13.53 | 18.60 | 18.60 |



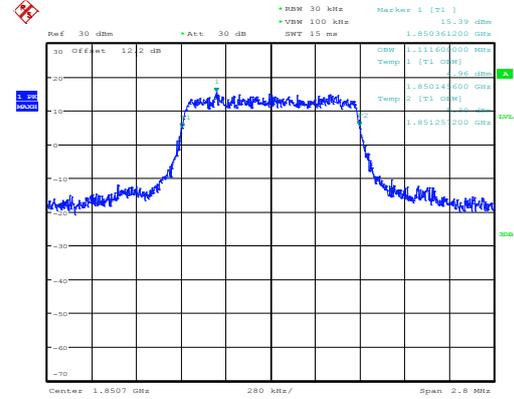
LTE Band 2

Lowest Channel / 1.4MHz / QPSK



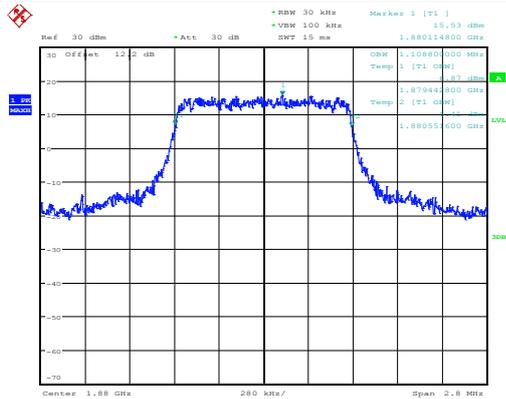
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Lowest Channel / 1.4MHz / 16QAM



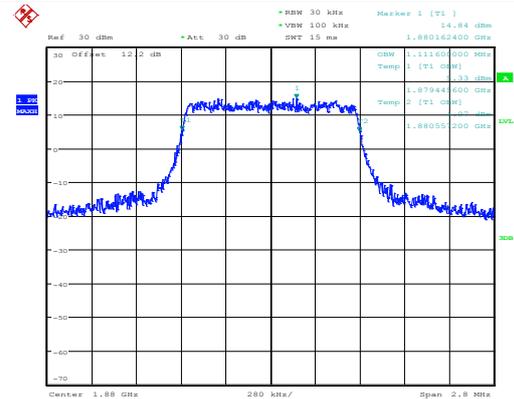
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Middle Channel / 1.4MHz / QPSK



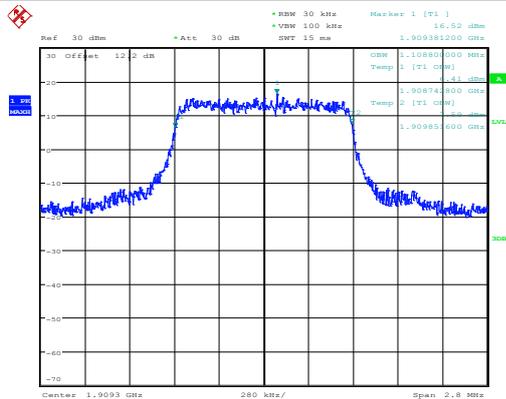
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Middle Channel / 1.4MHz / 16QAM



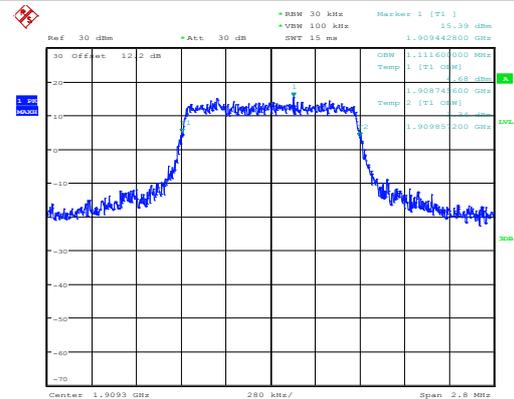
Date: 12.FEB.2015 20:53:59

Highest Channel / 1.4MHz / QPSK



Date: 12.FEB.2015 20:56:59

Highest Channel / 1.4MHz / 16QAM

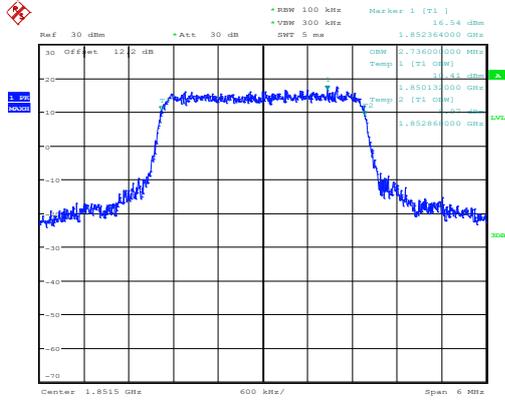


Date: 12.FEB.2015 20:57:09



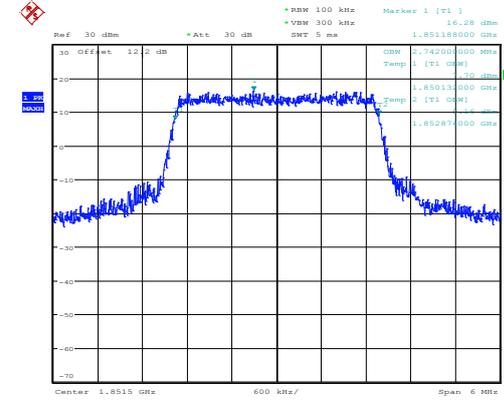
LTE Band 2

Lowest Channel / 3MHz / QPSK



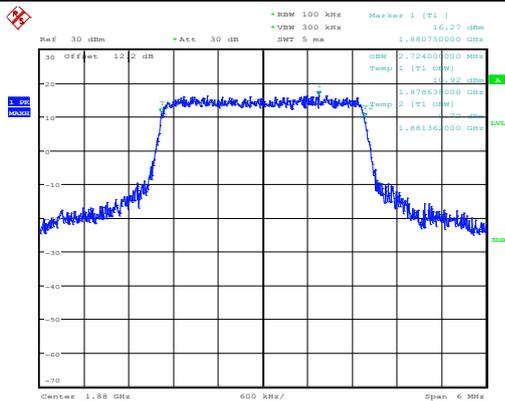
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Lowest Channel / 3MHz / 16QAM



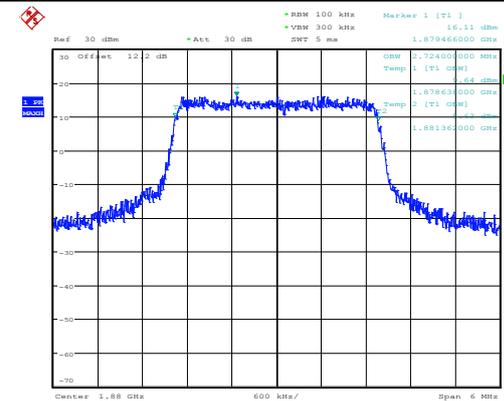
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Middle Channel / 3MHz / QPSK



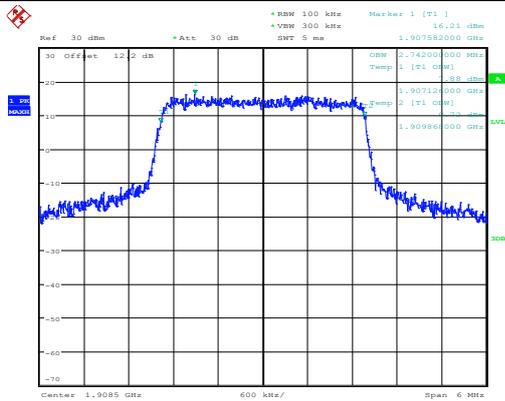
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Middle Channel / 3MHz / 16QAM



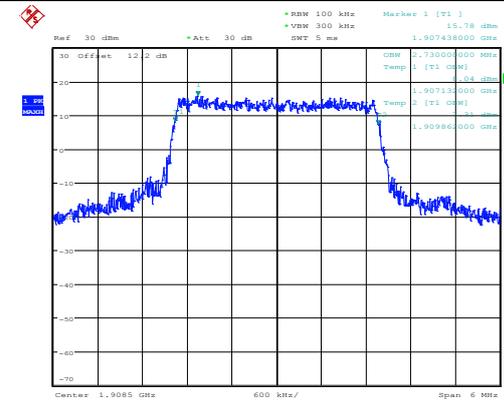
Date: 12.FEB.2015 19:20:28

Highest Channel / 3MHz / QPSK



Date: 12.FEB.2015 19:23:24

Highest Channel / 3MHz / 16QAM

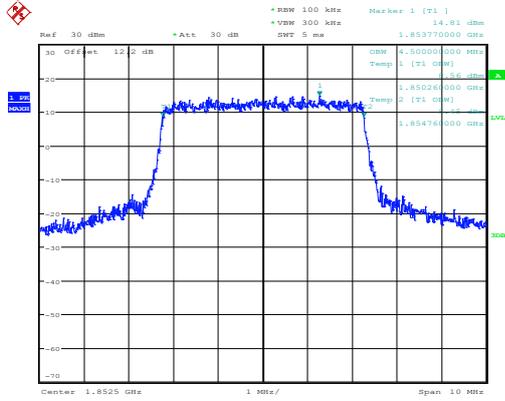


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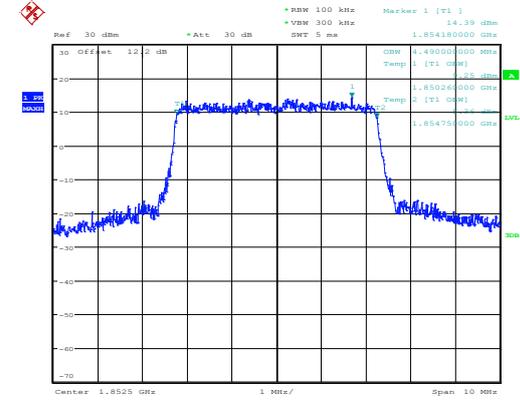


LTE Band 2

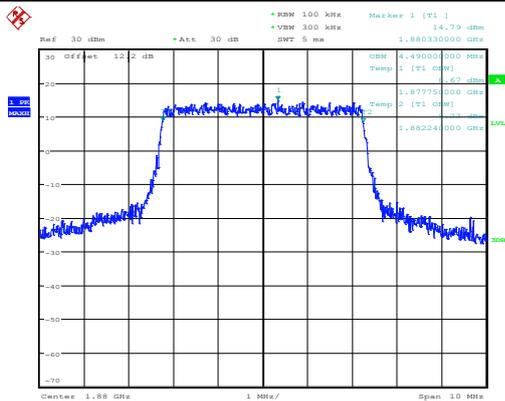
Lowest Channel / 5MHz / QPSK



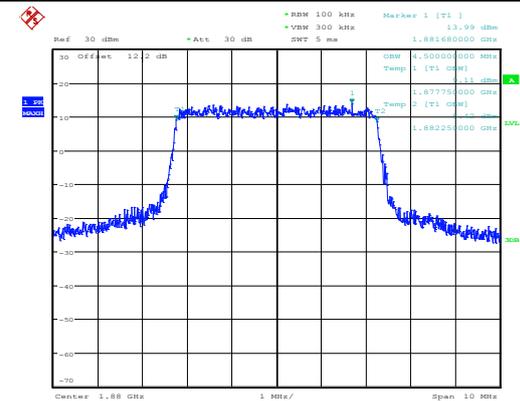
Lowest Channel / 5MHz / 16QAM



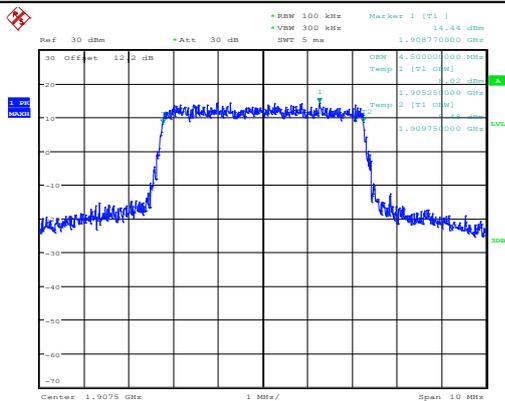
Middle Channel / 5MHz / QPSK



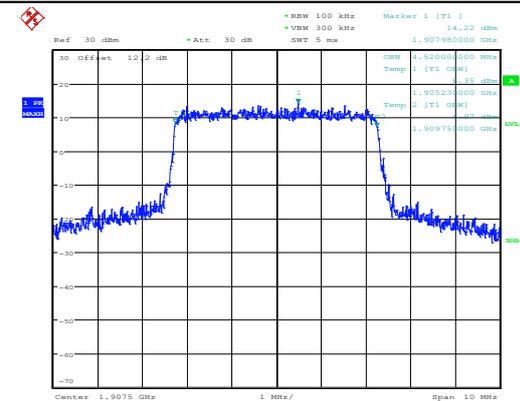
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



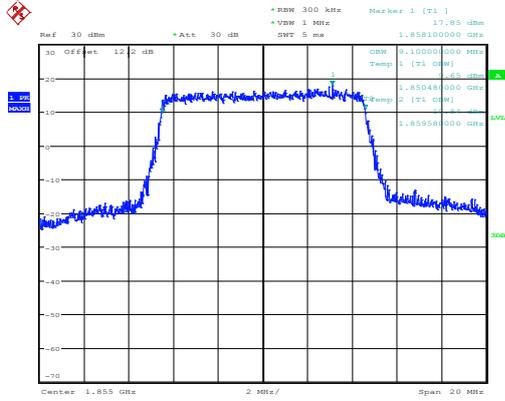
Highest Channel / 5MHz / 16QAM





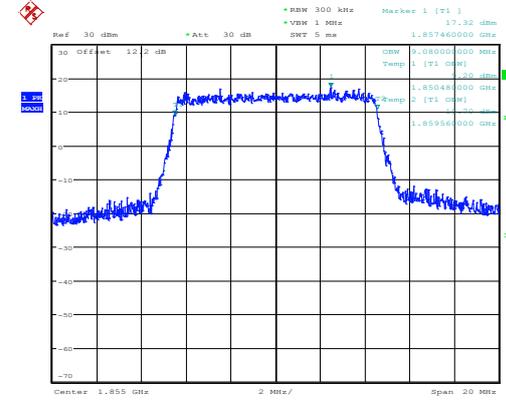
LTE Band 2

Lowest Channel / 10MHz / QPSK



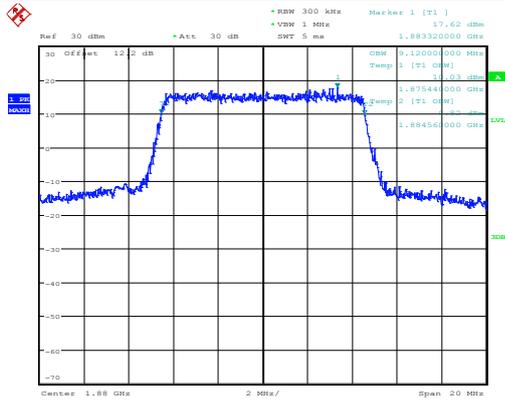
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Lowest Channel / 10MHz / 16QAM



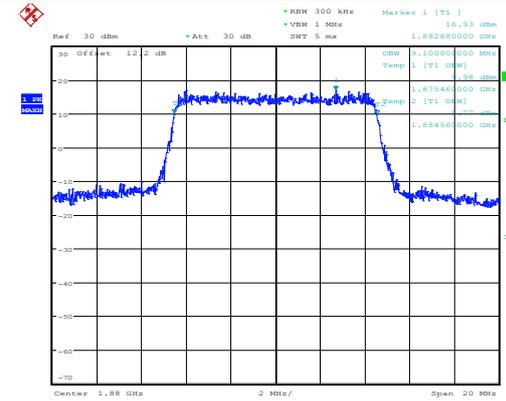
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Middle Channel / 10MHz / QPSK



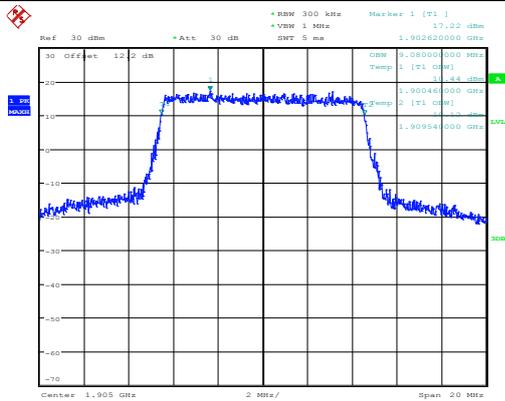
Date: 12.FEB.2015 19:57:36

Middle Channel / 10MHz / 16QAM



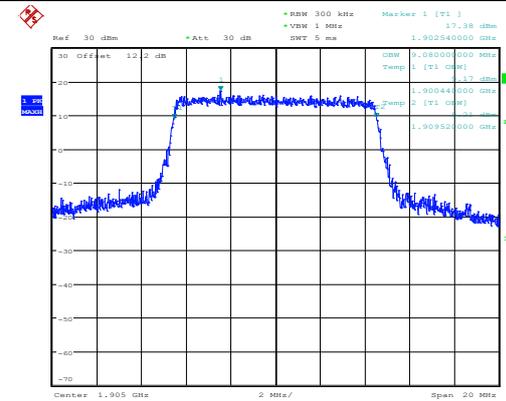
Date: 12.FEB.2015 19:57:47

Highest Channel / 10MHz / QPSK



Date: 12.FEB.2015 20:00:43

Highest Channel / 10MHz / 16QAM

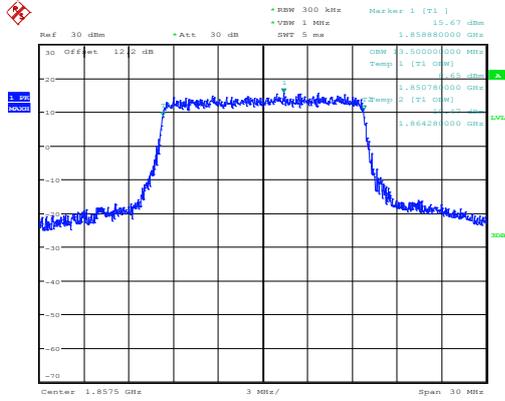


Date: 12.FEB.2015 20:00:54



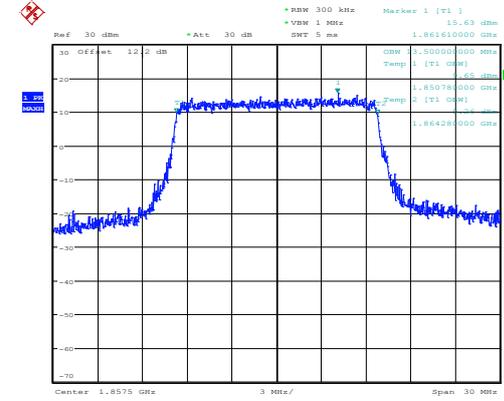
LTE Band 2

Lowest Channel / 15MHz / QPSK



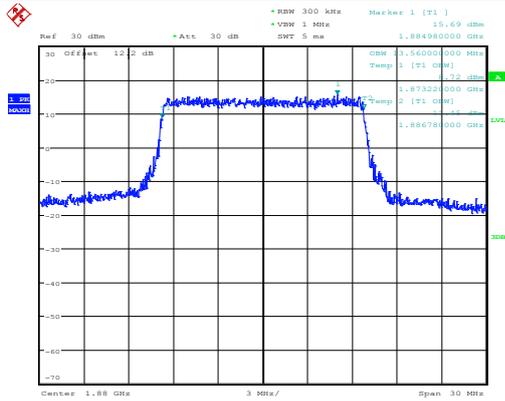
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Lowest Channel / 15MHz / 16QAM



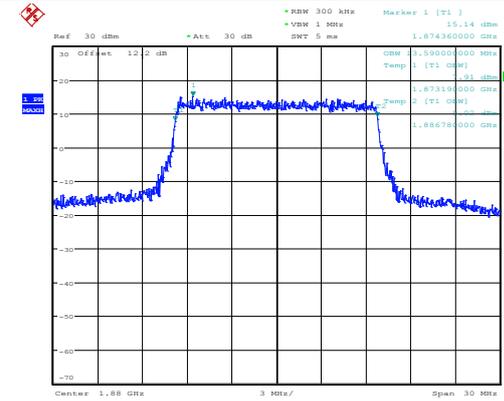
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Middle Channel / 15MHz / QPSK



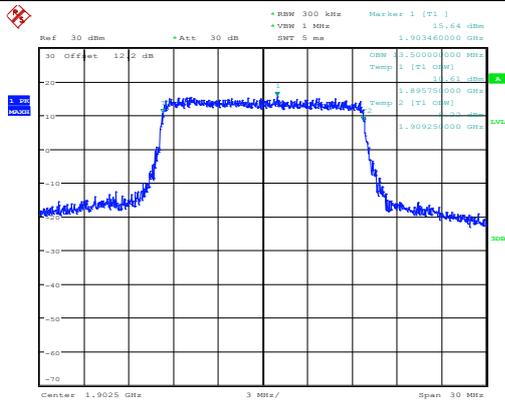
Date: 12.FEB.2015 20:16:15

Middle Channel / 15MHz / 16QAM



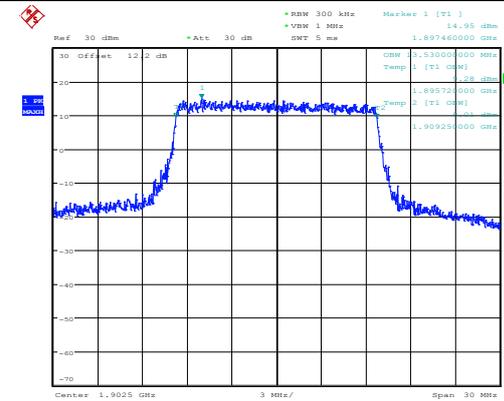
Date: 12.FEB.2015 20:16:26

Highest Channel / 15MHz / QPSK



Date: 12.FEB.2015 20:19:22

Highest Channel / 15MHz / 16QAM



Date: 12.FEB.2015 20:19:33

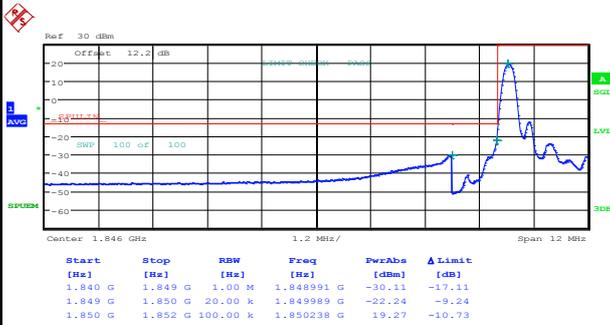




# Conducted Band Edge

## LTE Band 2 / 1.4MHz / QPSK

### Lowest Band Edge / 1RB



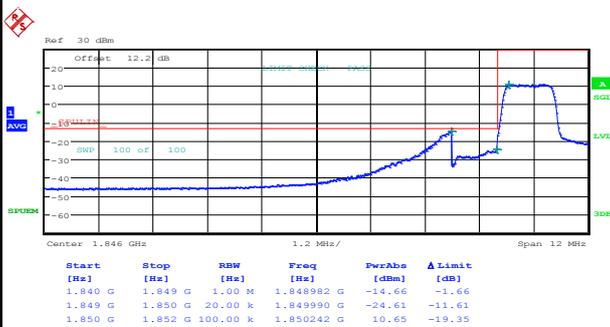
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### Highest Band Edge / 1RB



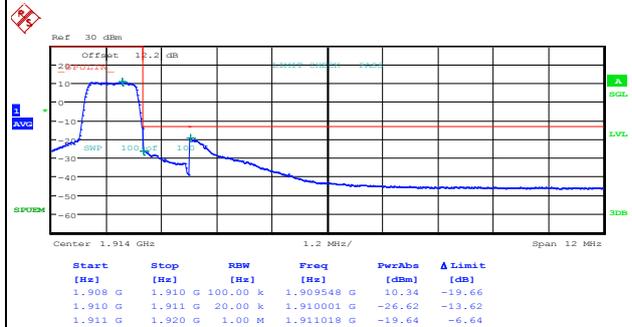
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### Lowest Band Edge / Full RB



Date: 12.FEB.2015 20:49:53

### Highest Band Edge / Full RB

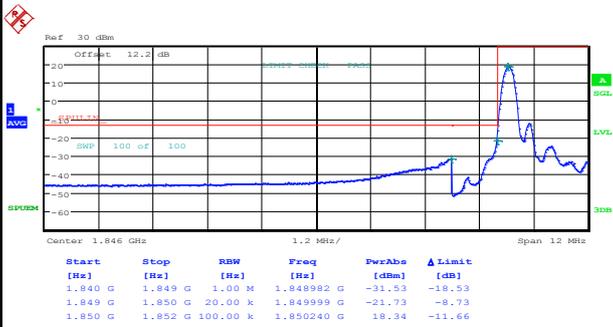


Date: 12.FEB.2015 21:03:38



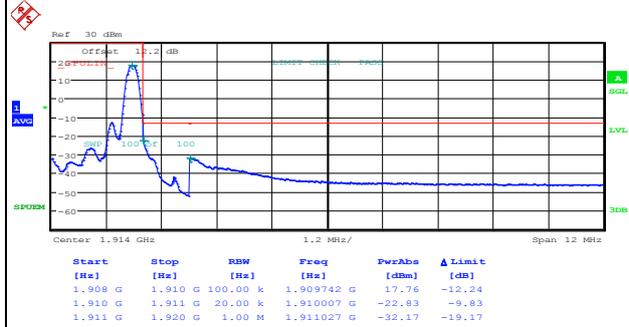
LTE Band 2 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



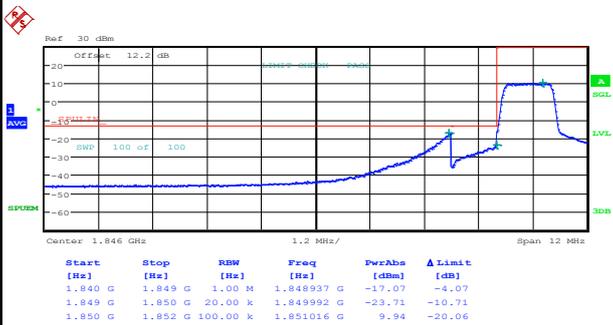
Date: 12.FEB.2015 20:48:43

Highest Band Edge / 1 RB



Date: 12.FEB.2015 21:02:28

Lowest Band Edge / Full RB



Date: 12.FEB.2015 20:51:03

Highest Band Edge / Full RB

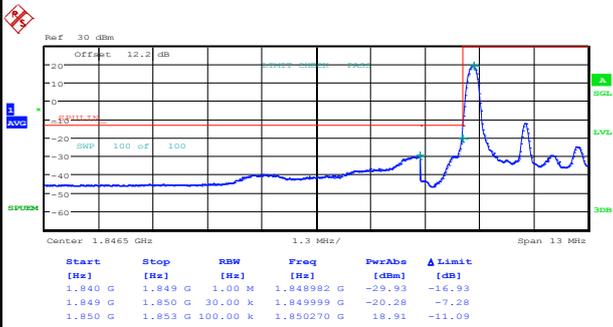


Date: 12.FEB.2015 21:04:48



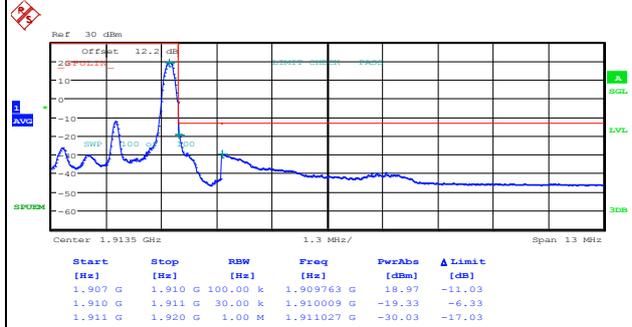
LTE Band 2 / 3MHz / QPSK

Lowest Band Edge / 1RB



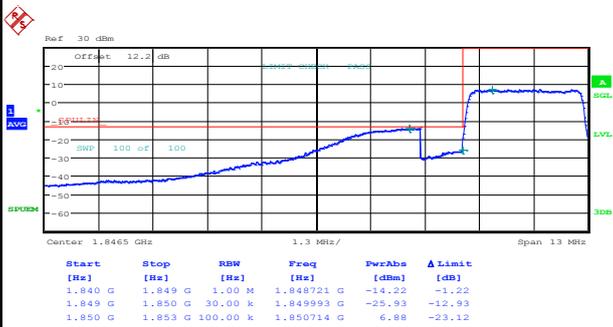
Date: 12.FEB.2015 21:32:08

Highest Band Edge / 1 RB



Date: 12.FEB.2015 19:25:10

Lowest Band Edge / Full RB



Date: 12.FEB.2015 21:29:59

Highest Band Edge / Full RB

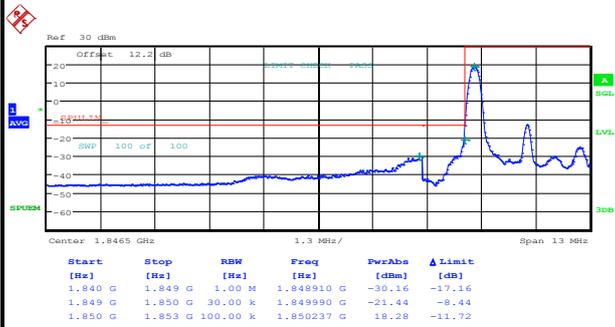


Date: 12.FEB.2015 19:27:30



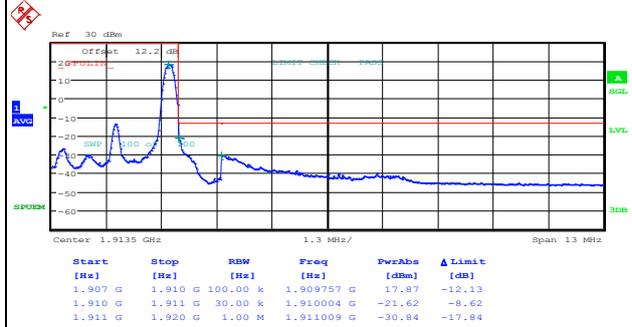
LTE Band 2 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



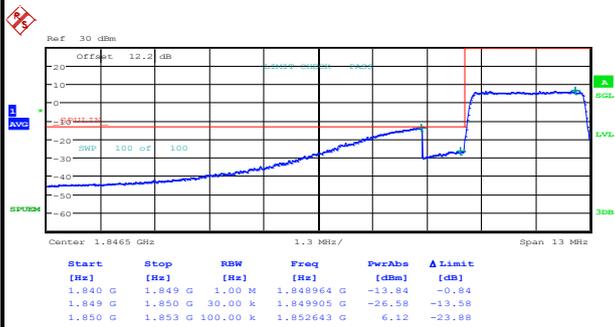
Date: 12.FEB.2015 21:31:27

Highest Band Edge / 1 RB



Date: 12.FEB.2015 19:26:20

Lowest Band Edge / Full RB



Date: 12.FEB.2015 21:30:43

Highest Band Edge / Full RB

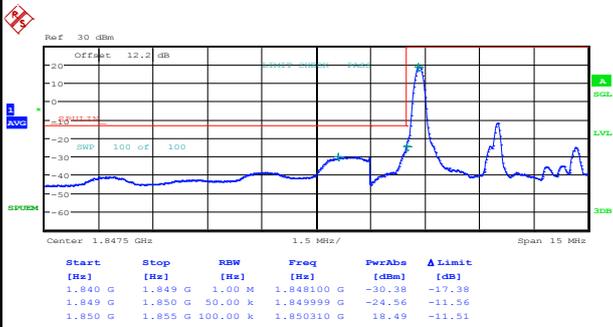


Date: 12.FEB.2015 19:28:40



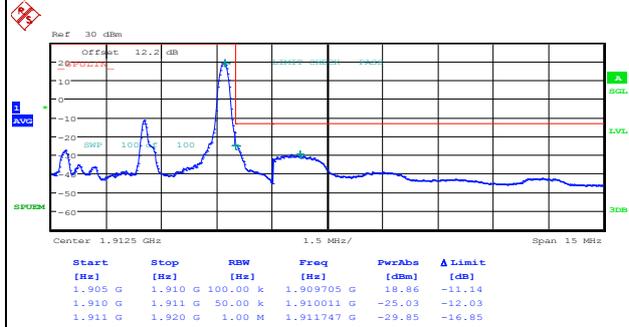
LTE Band 2 / 5MHz / QPSK

Lowest Band Edge / 1 RB



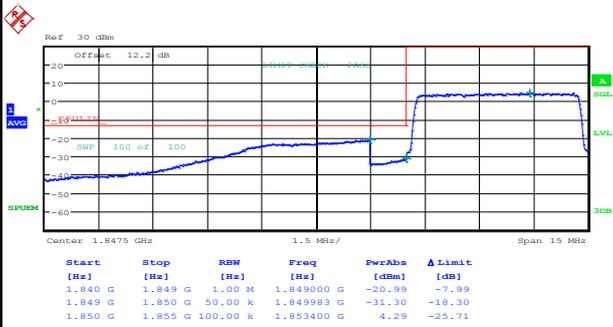
Date: 12.FEB.2015 19:32:57

Highest Band Edge / 1 RB



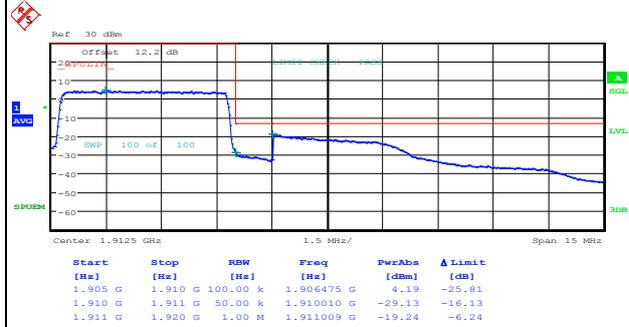
Date: 12.FEB.2015 19:43:50

Lowest Band Edge / Full RB



Date: 12.FEB.2015 19:35:16

Highest Band Edge / Full RB

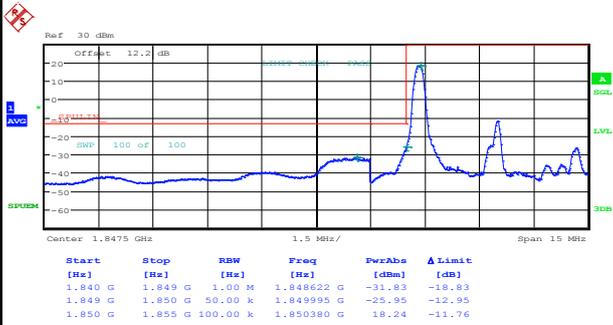


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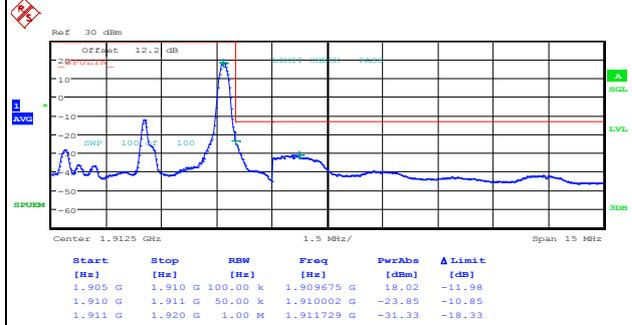
LTE Band 2 / 5MHz / 16QAM

Lowest Band Edge / 1RB



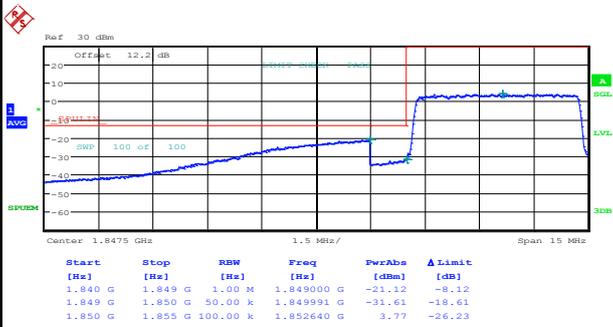
Date: 12.FEB.2015 19:34:06

Highest Band Edge / 1 RB



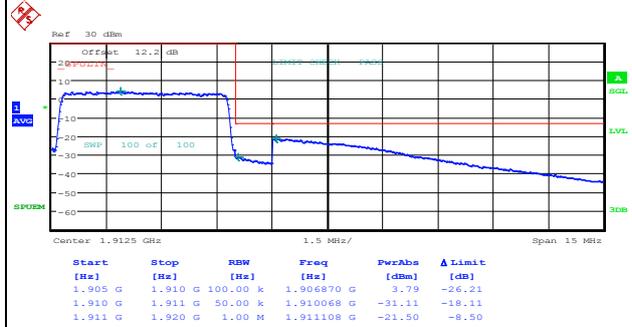
Date: 12.FEB.2015 19:45:00

Lowest Band Edge / Full RB



Date: 12.FEB.2015 19:36:26

Highest Band Edge / Full RB

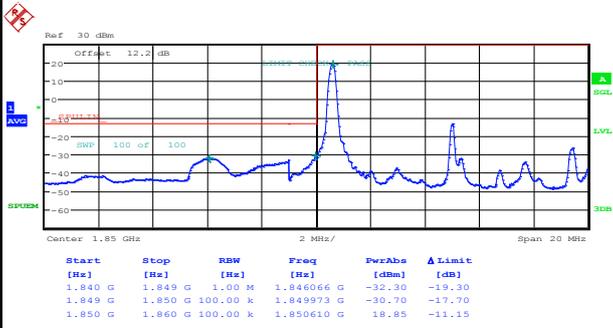


Date: 12.FEB.2015 19:47:19



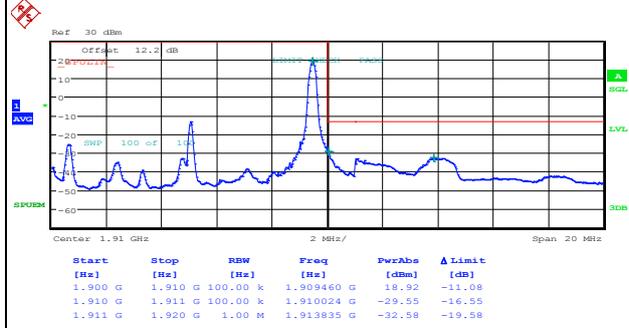
LTE Band 2 / 10MHz / QPSK

Lowest Band Edge / 1 RB



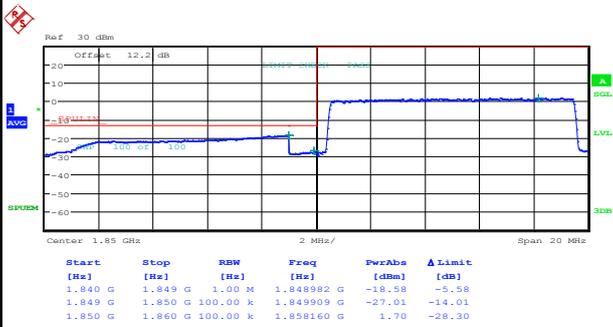
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Highest Band Edge / 1 RB



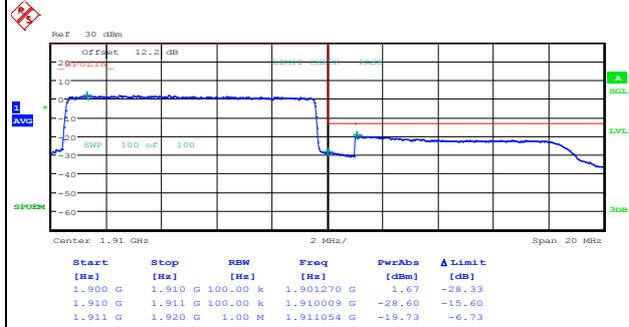
Date: 12.FEB.2015 20:02:29

Lowest Band Edge / Full RB



Date: 12.FEB.2015 19:53:56

Highest Band Edge / Full RB

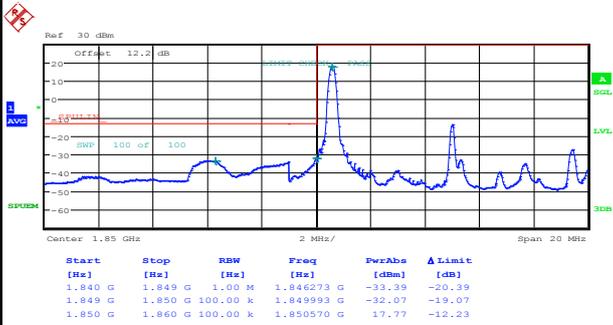


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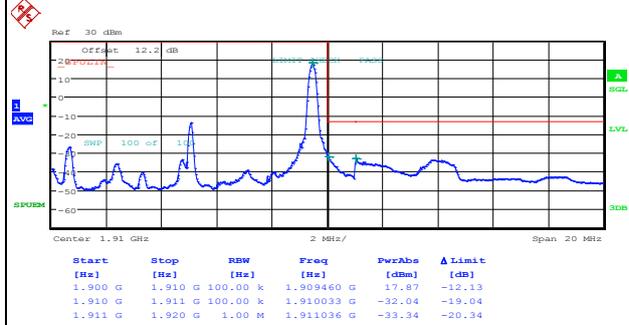
LTE Band 2 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



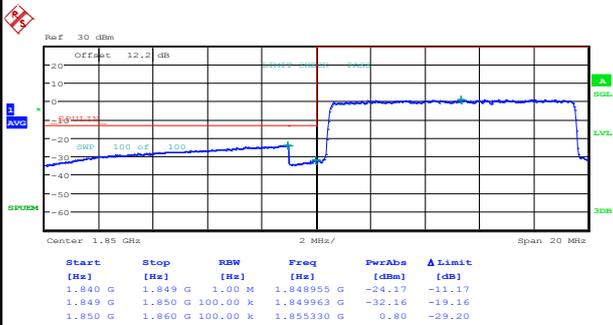
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Highest Band Edge / 1 RB



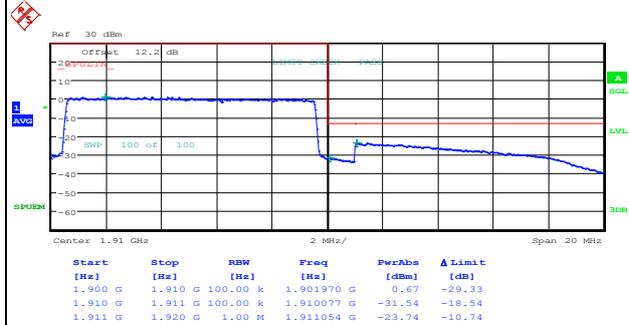
Date: 12.FEB.2015 20:03:39

Lowest Band Edge / Full RB



Date: 12.FEB.2015 19:55:05

Highest Band Edge / Full RB

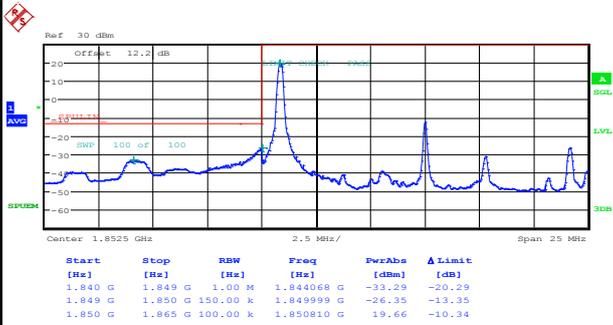


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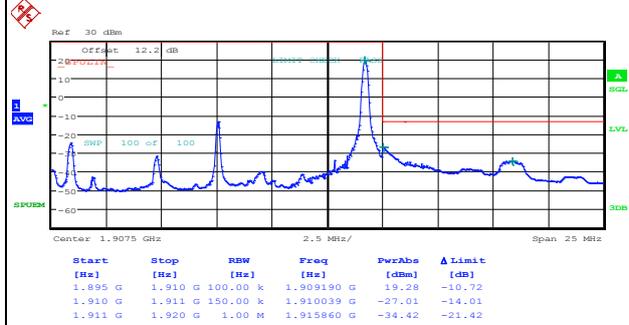
LTE Band 2 / 15MHz / QPSK

Lowest Band Edge / 1 RB



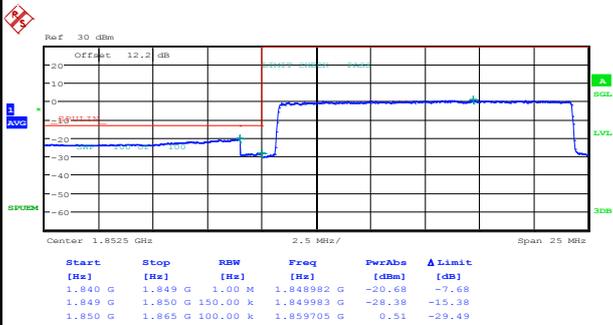
Date: 12.FEB.2015 20:10:15

Highest Band Edge / 1 RB



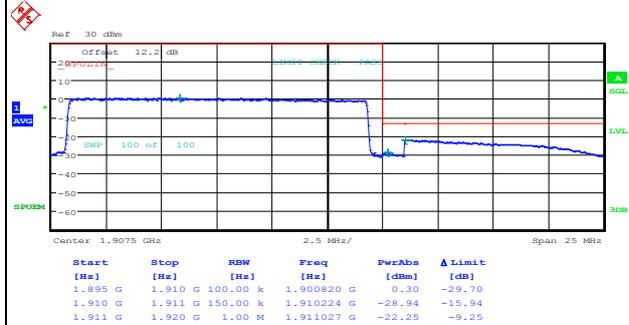
Date: 12.FEB.2015 20:21:08

Lowest Band Edge / Full RB



Date: 12.FEB.2015 20:12:35

Highest Band Edge / Full RB

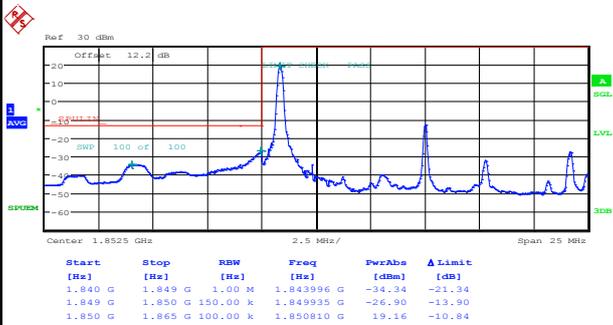


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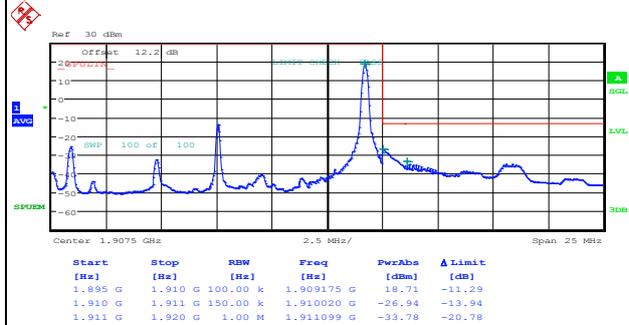
LTE Band 2 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



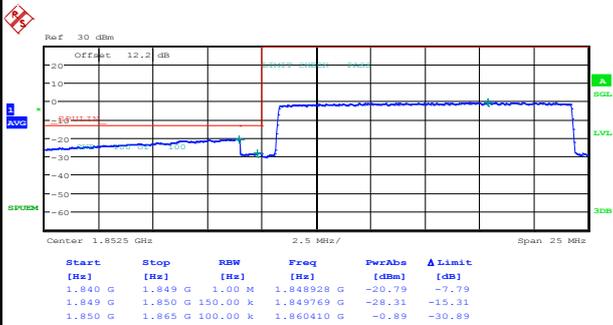
Date: 12.FEB.2015 20:11:25

Highest Band Edge / 1 RB



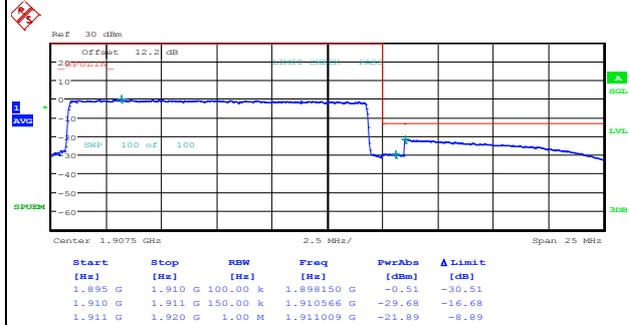
Date: 12.FEB.2015 20:22:18

Lowest Band Edge / Full RB



Date: 12.FEB.2015 21:34:00

Highest Band Edge / Full RB

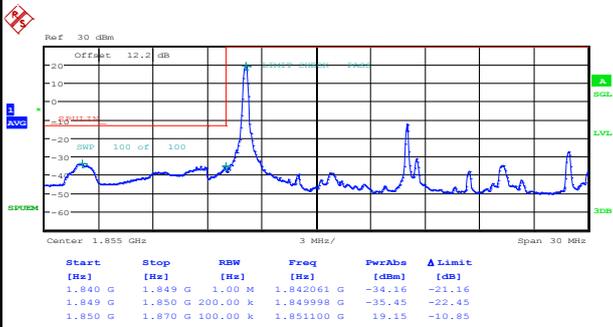


Date: 12.FEB.2015 20:24:38



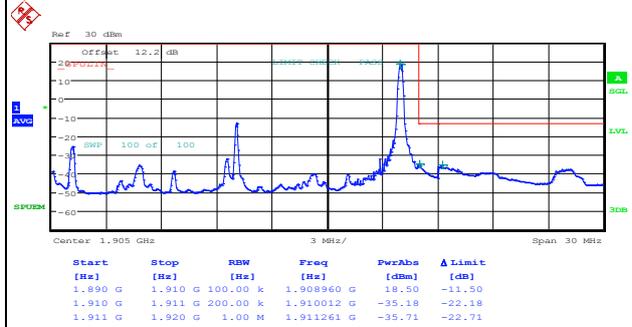
LTE Band 2 / 20MHz / QPSK

Lowest Band Edge / 1 RB



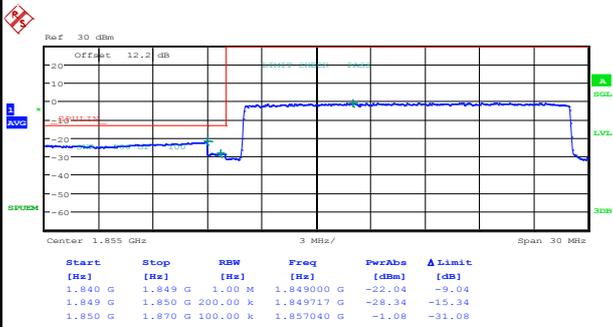
Date: 12.FEB.2015 20:28:54

Highest Band Edge / 1 RB



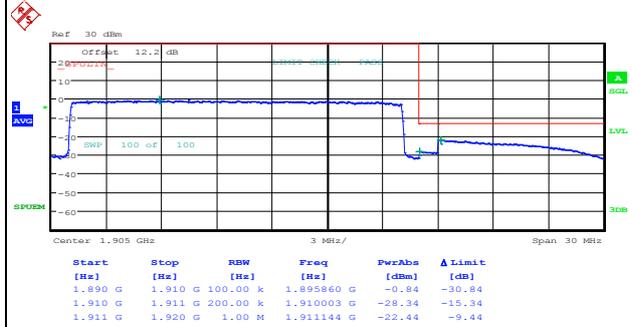
Date: 12.FEB.2015 20:39:47

Lowest Band Edge / Full RB



Date: 12.FEB.2015 20:31:14

Highest Band Edge / Full RB

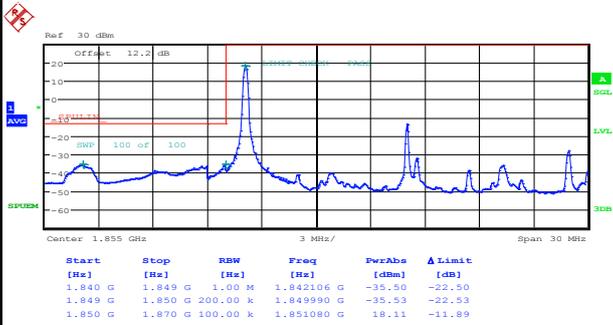


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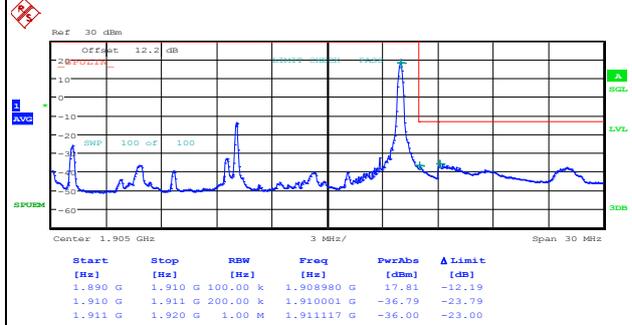
LTE Band 2 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



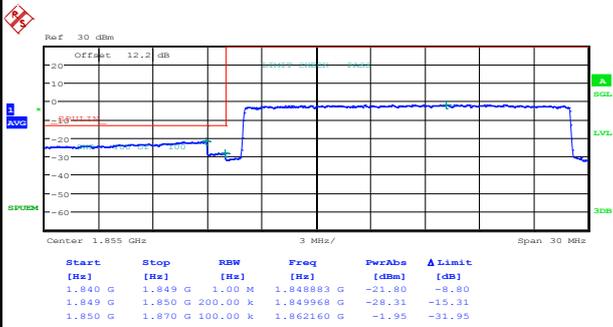
Date: 12.FEB.2015 20:30:04

Highest Band Edge / 1 RB



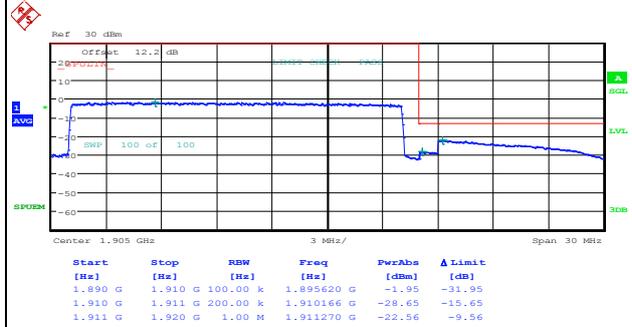
Date: 12.FEB.2015 20:40:57

Lowest Band Edge / Full RB



Date: 12.FEB.2015 20:32:24

Highest Band Edge / Full RB



Date: 12.FEB.2015 20:43:17

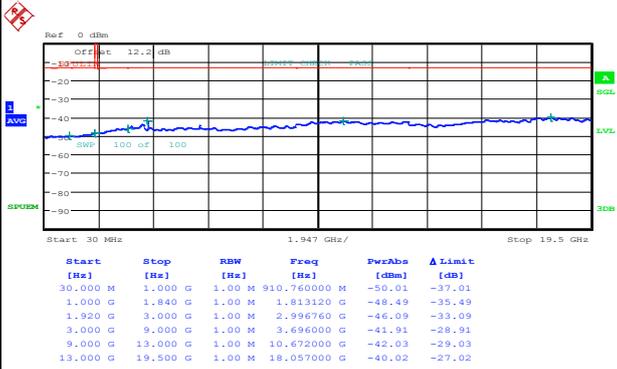


# Conducted Spurious Emission

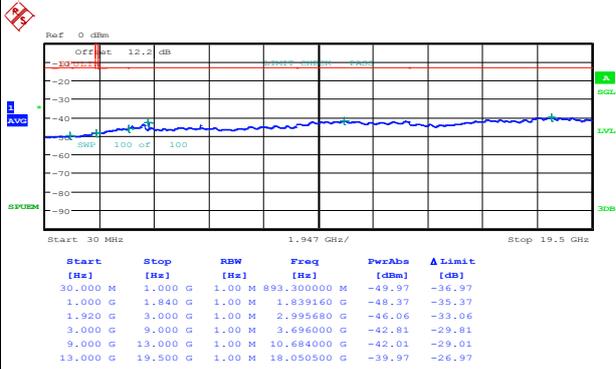
## LTE Band 2 / 1.4MHz

### Lowest Channel / QPSK

### Lowest Channel / 16QAM



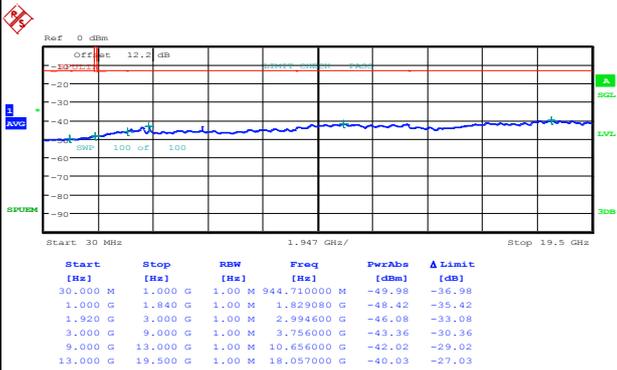
Date: 12.FEB.2015 20:52:16



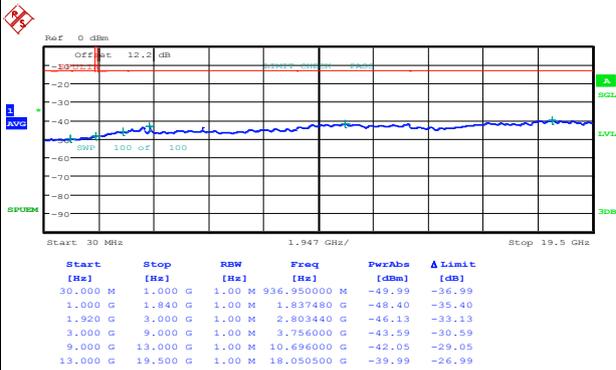
Date: 12.FEB.2015 20:53:30

### Middle Channel / QPSK

### Middle Channel / 16QAM



Date: 12.FEB.2015 20:55:37



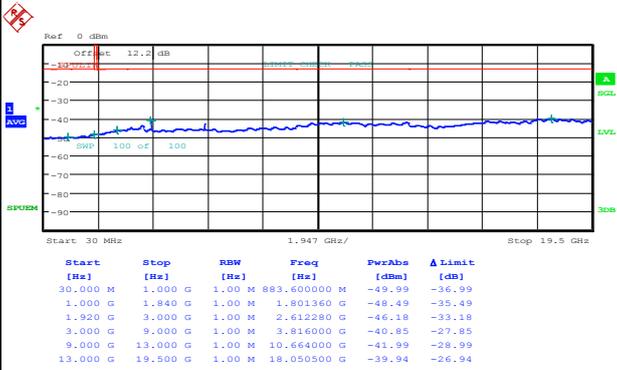
Date: 12.FEB.2015 20:56:48



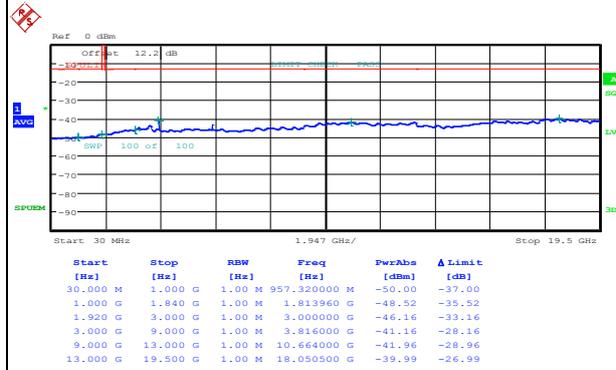
LTE Band 2 / 1.4MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.FEB.2015 21:05:58

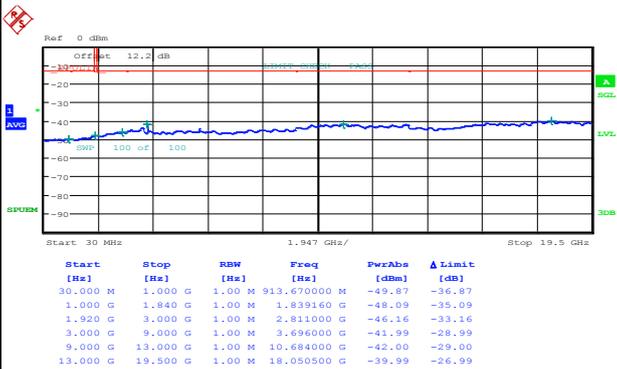


Date: 12.FEB.2015 21:07:08

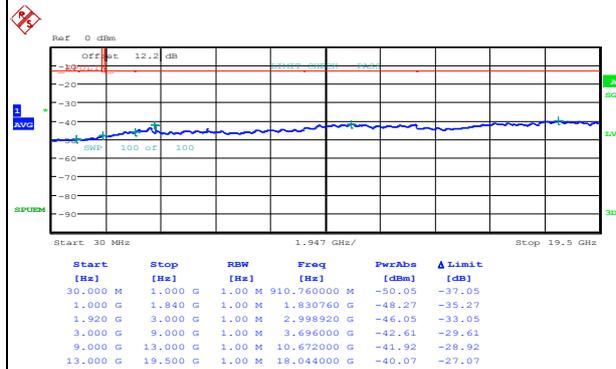
LTE Band 2 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 12.FEB.2015 19:18:56



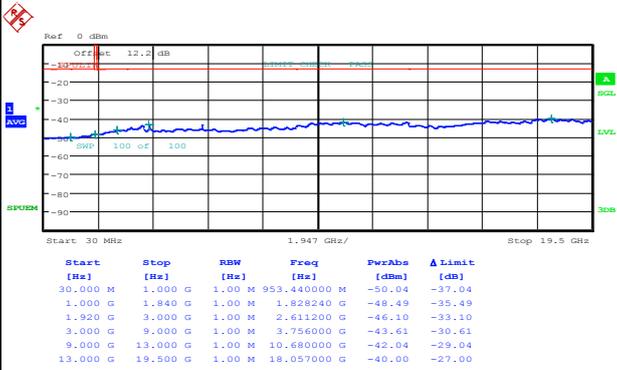
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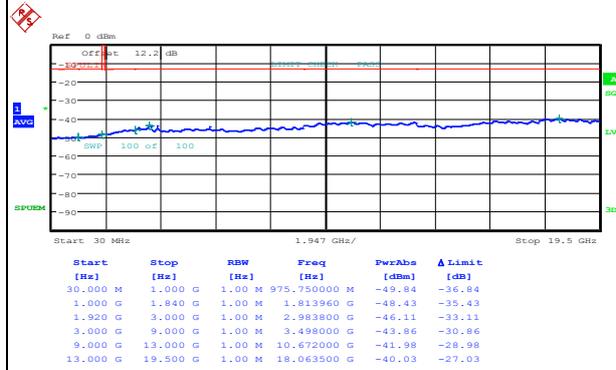
LTE Band 2 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM



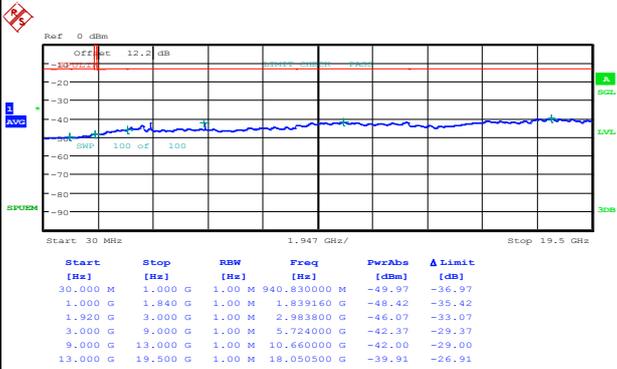
Date: 12.FEB.2015 19:22:03



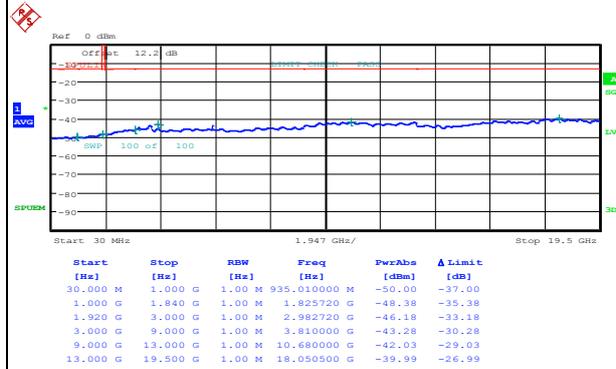
Date: 12.FEB.2015 19:23:13

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.FEB.2015 19:29:50



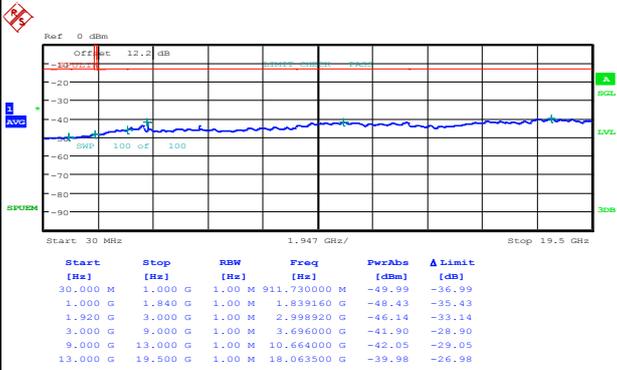
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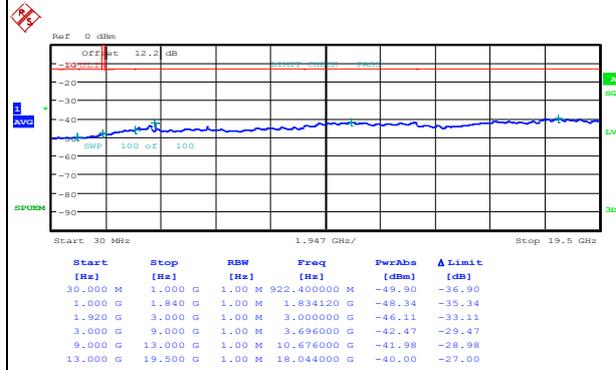
LTE Band 2 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



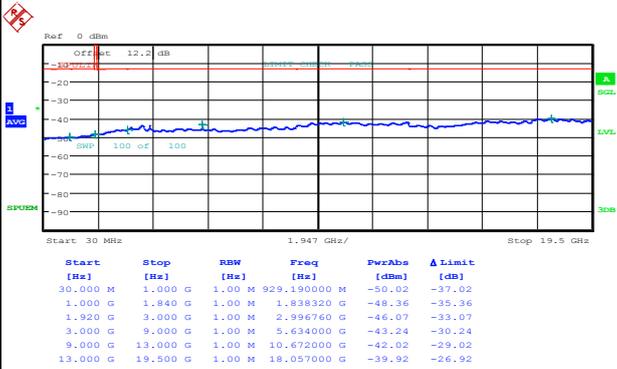
Date: 12.FEB.2015 19:37:36



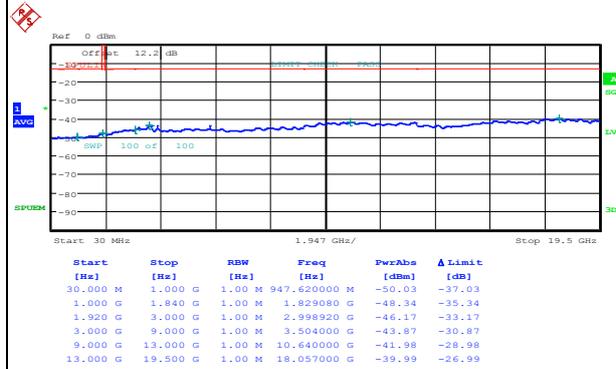
Date: 12.FEB.2015 19:38:46

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 12.FEB.2015 19:40:43

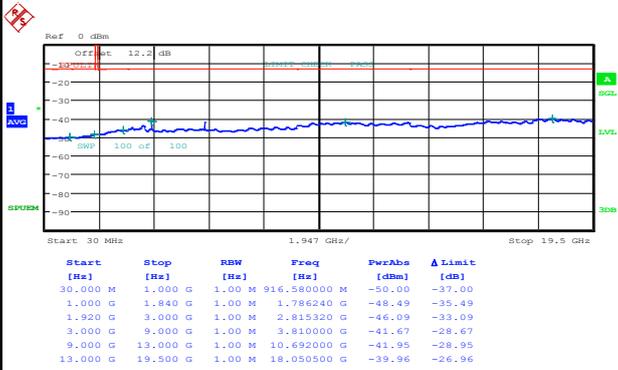


Date: 12.FEB.2015 19:41:53



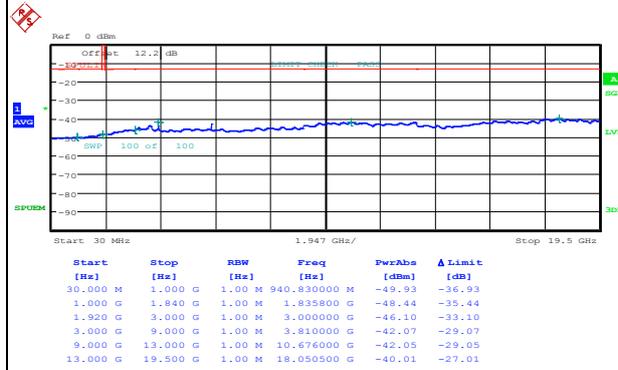
LTE Band 2 / 5MHz

Highest Channel / QPSK



Date: 12.FEB.2015 19:48:29

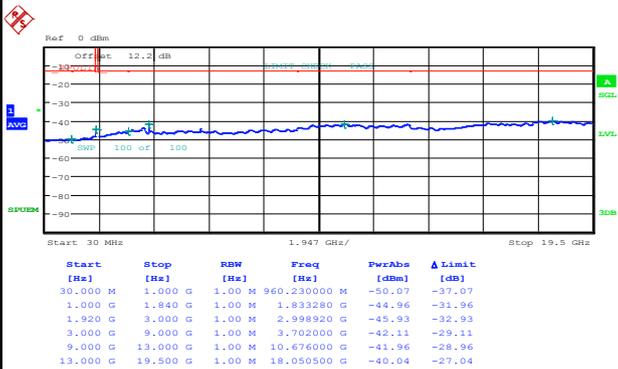
Highest Channel / 16QAM



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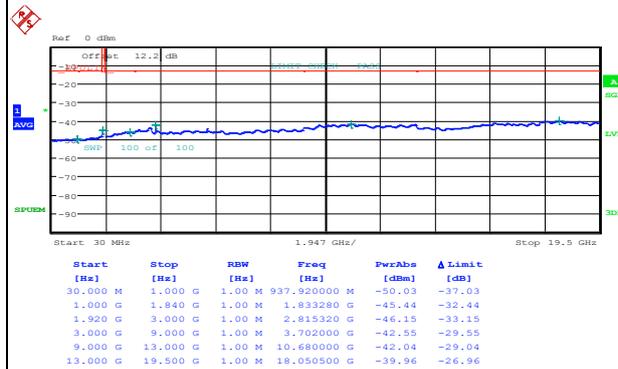
LTE Band 2 / 10MHz

Lowest Channel / QPSK



Date: 12.FEB.2015 19:56:15

Lowest Channel / 16QAM



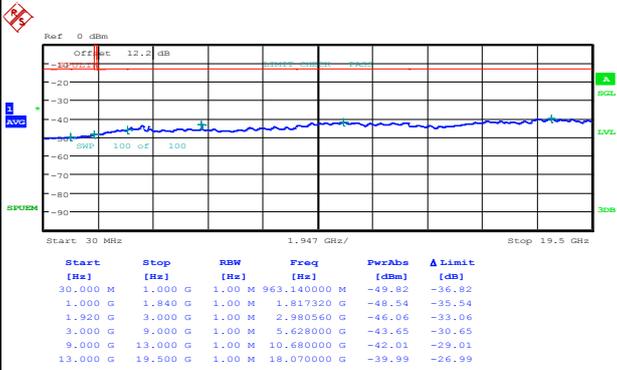
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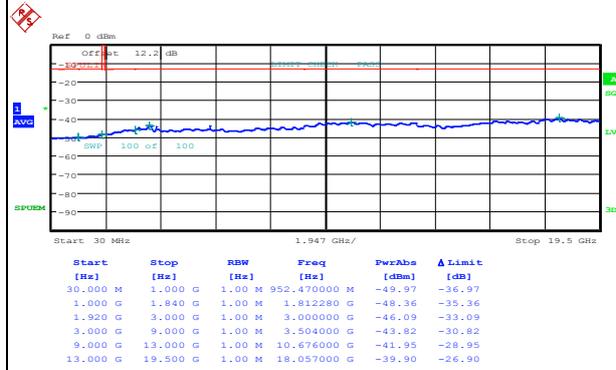
LTE Band 2 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



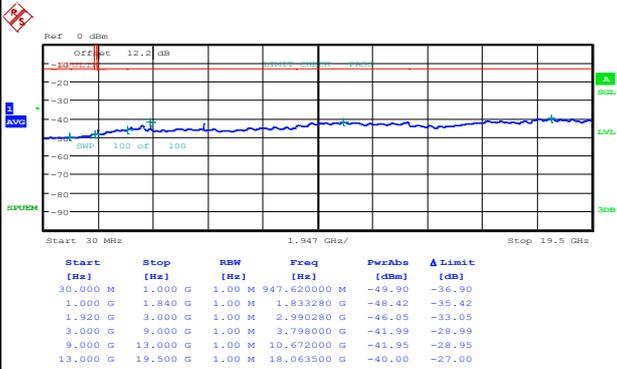
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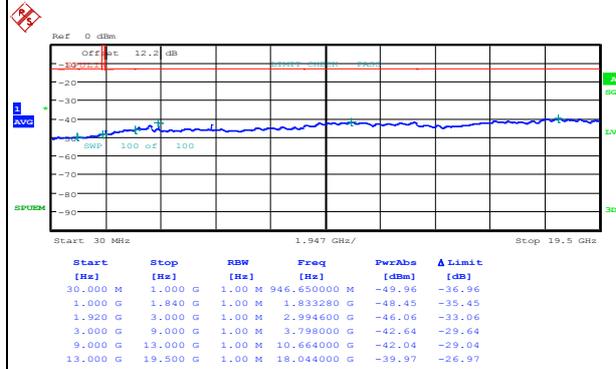
Date: 12.FEB.2015 20:00:32

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.FEB.2015 20:07:08



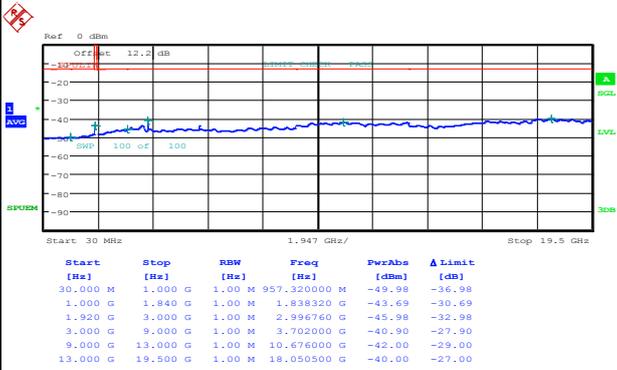
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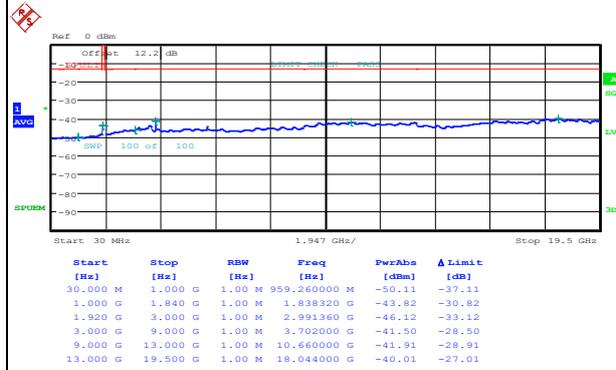
LTE Band 2 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



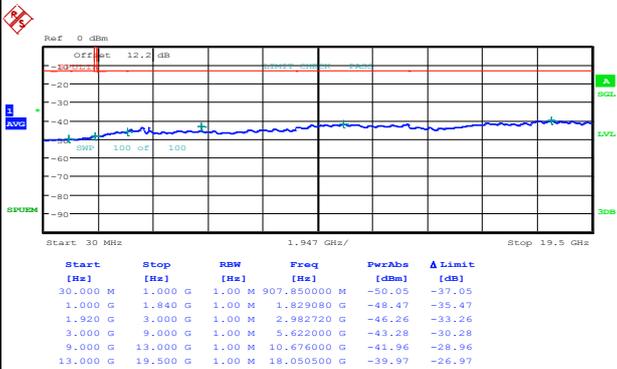
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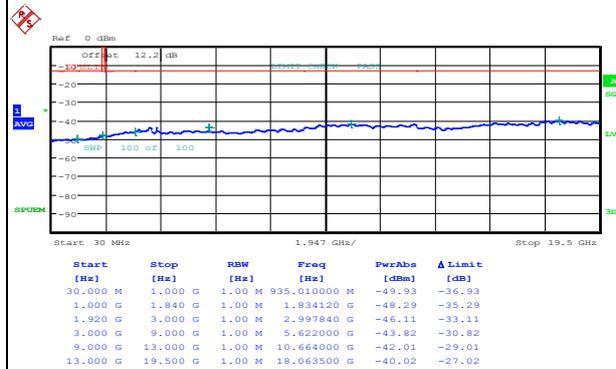
Date: 12.FEB.2015 20:16:04

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 12.FEB.2015 20:18:01

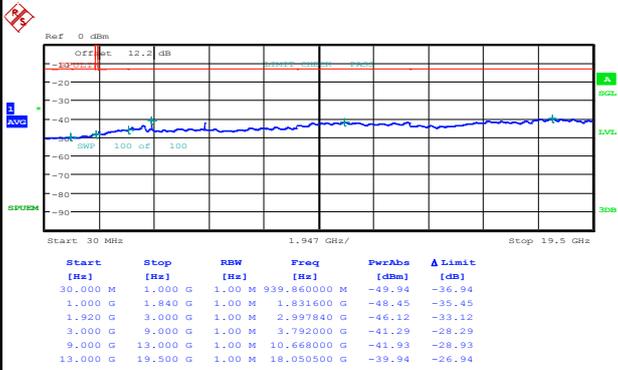


Date: 12.FEB.2015 20:19:11



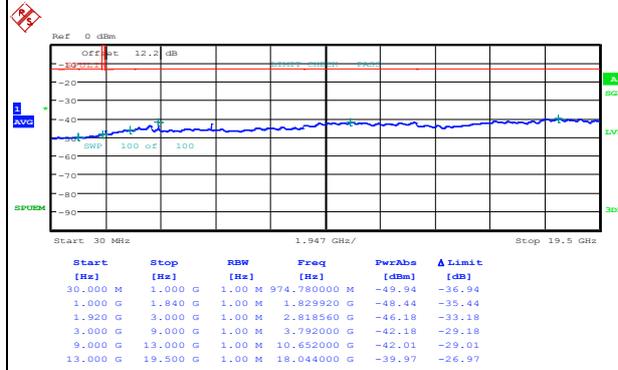
LTE Band 2 / 15MHz

Highest Channel / QPSK



Date: 12.FEB.2015 20:25:47

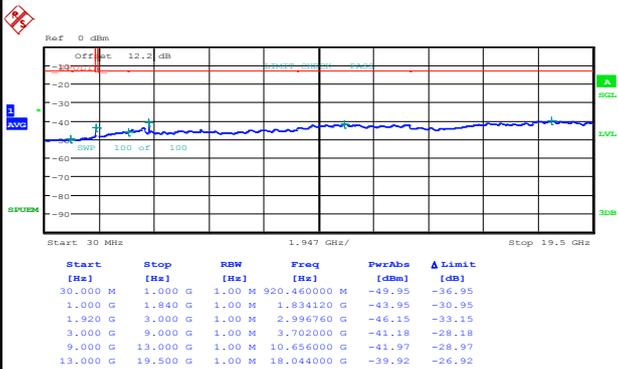
Highest Channel / 16QAM



Date: 12.FEB.2015 20:26:57

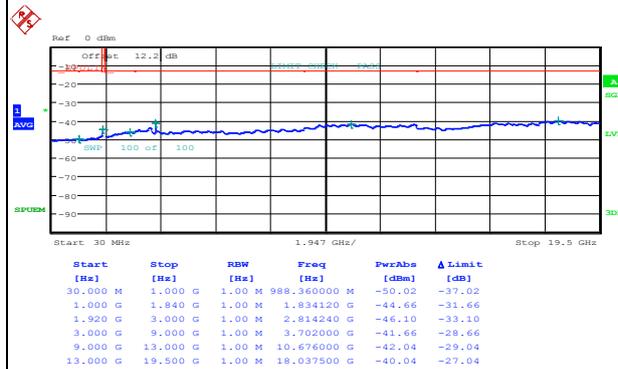
LTE Band 2 / 20MHz

Lowest Channel / QPSK



Date: 12.FEB.2015 20:33:33

Lowest Channel / 16QAM



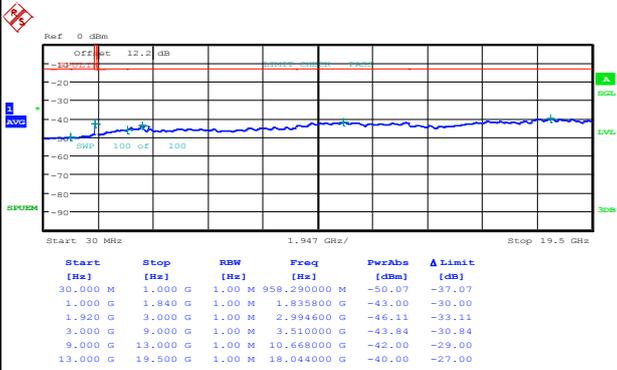
Date: 12.FEB.2015 20:34:43



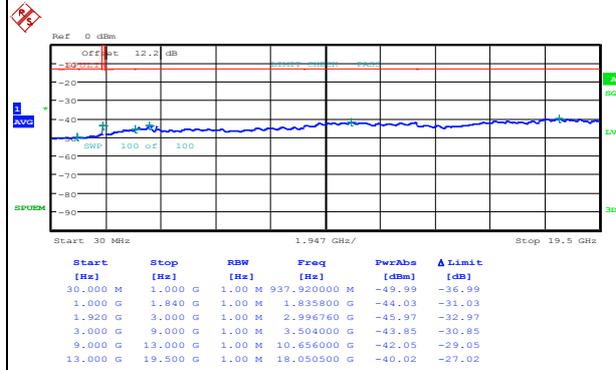
LTE Band 2 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM



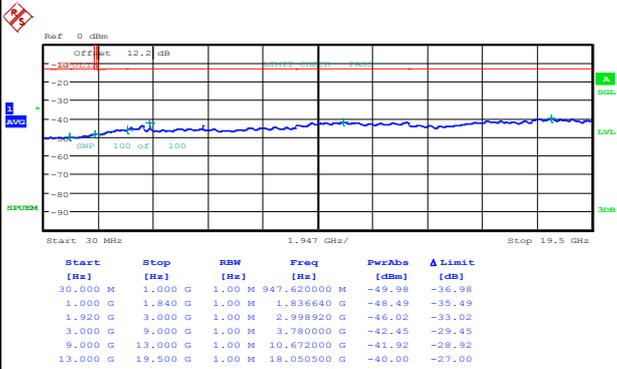
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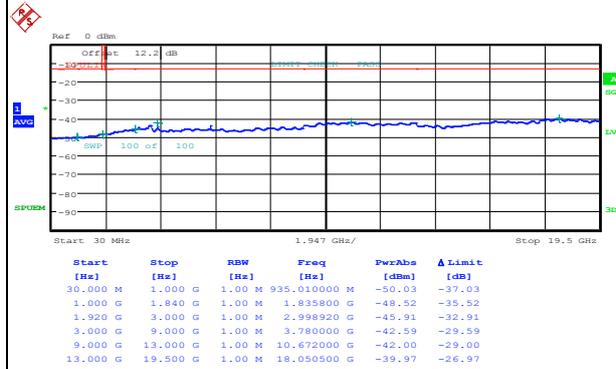
Date: 12.FEB.2015 20:37:50

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 12.FEB.2015 20:44:26



Date: 12.FEB.2015 20:45:36



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    | 0.0010                             | PASS    |
| 40               | Normal Voltage    | 0.0016                             |         |
| 30               | Normal Voltage    | 0.0175                             |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |         |
| 10               | Normal Voltage    | 0.0221                             |         |
| 0                | Normal Voltage    | 0.0206                             |         |
| -10              | Normal Voltage    | 0.0006                             |         |
| -20              | Normal Voltage    | 0.0203                             |         |
| -30              | Normal Voltage    | 0.0014                             |         |
| 20               | Maximum Voltage   | 0.0227                             |         |
| 20               | Normal Voltage    | 0.0000                             |         |
| 20               | Battery End Point | 0.0006                             |         |

Note:

1. Normal Voltage = 3.8V. ; Battery End Point (BEP) = 3.6 V. ; Maximum Voltage =4.35 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.