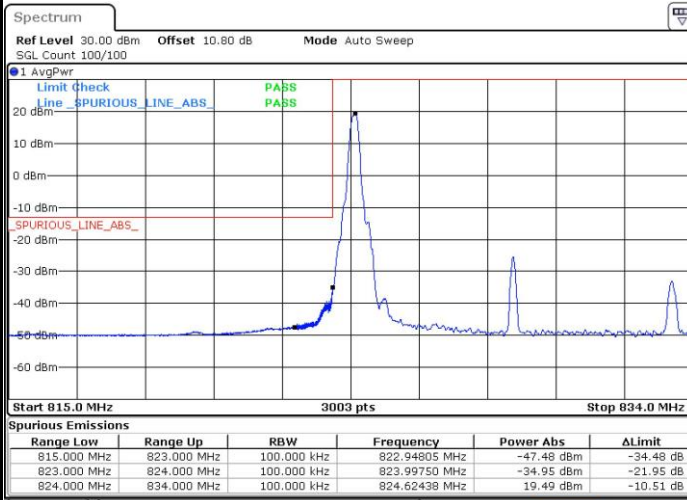




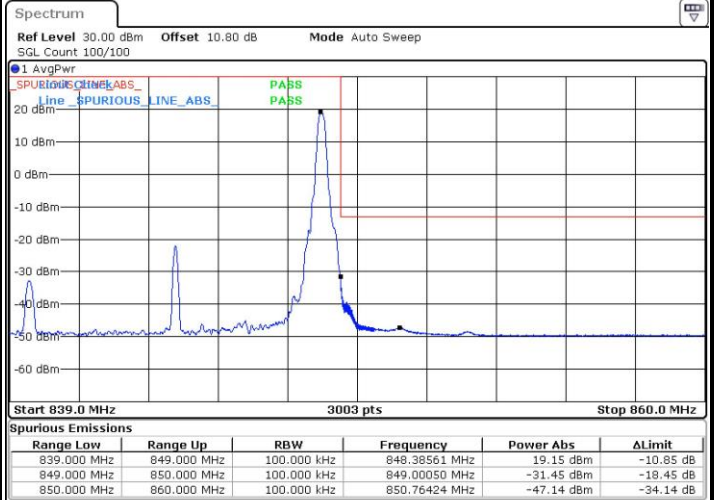
LTE Band 5 / 10MHz / QPSK

Lowest Band Edge / 1 RB



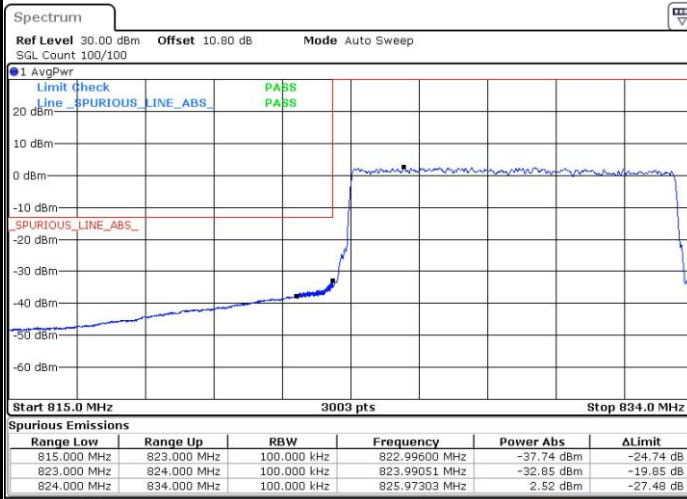
Date: 27.DEC.2016 15:11:08

Highest Band Edge / 1 RB



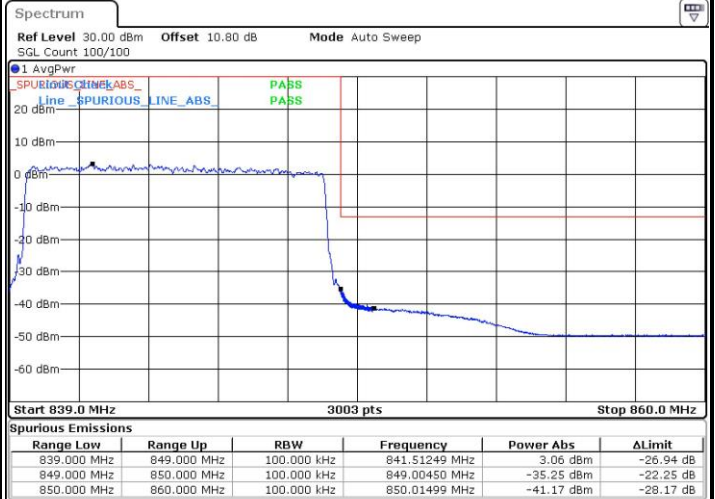
Date: 27.DEC.2016 15:22:44

Lowest Band Edge / Full RB



Date: 27.DEC.2016 15:14:26

Highest Band Edge / Full RB

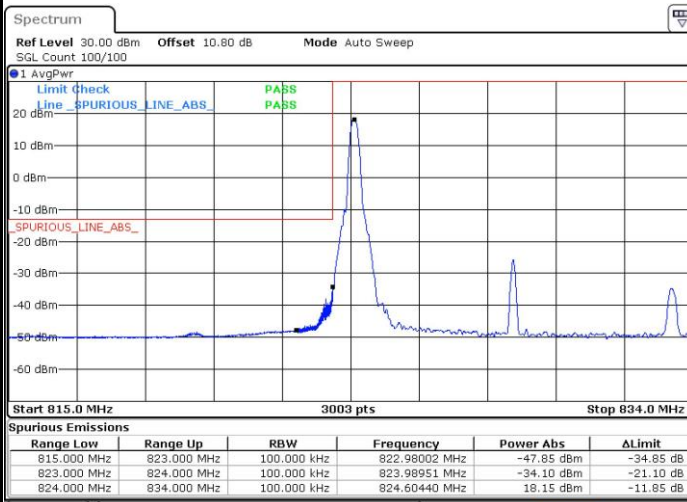


Date: 27.DEC.2016 15:26:02



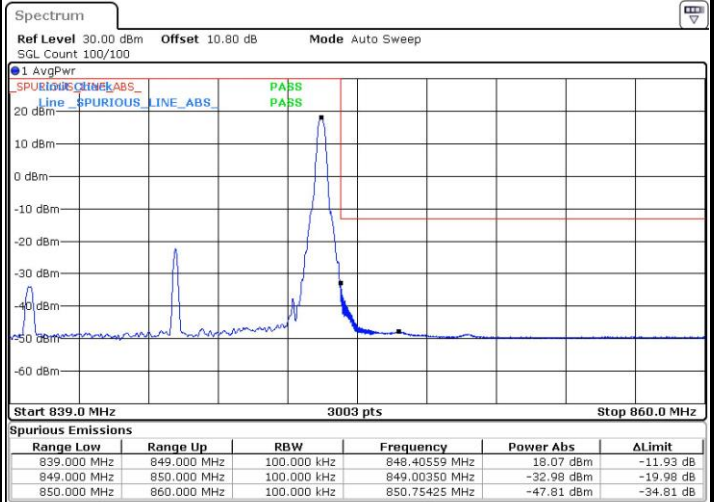
LTE Band 5 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



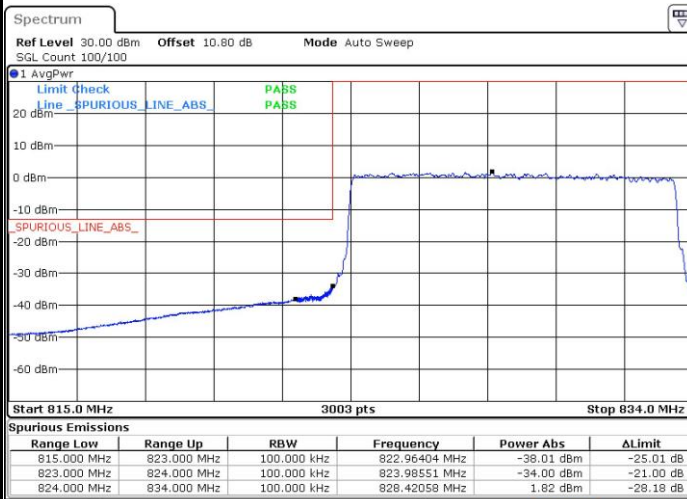
Date: 27.DEC.2016 15:12:47

Highest Band Edge / 1 RB



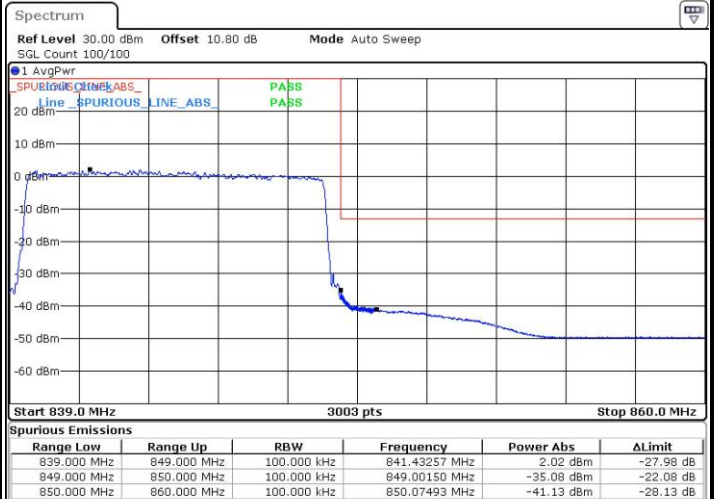
Date: 27.DEC.2016 15:24:23

Lowest Band Edge / Full RB



Date: 27.DEC.2016 15:16:05

Highest Band Edge / Full RB



Date: 27.DEC.2016 15:27:41



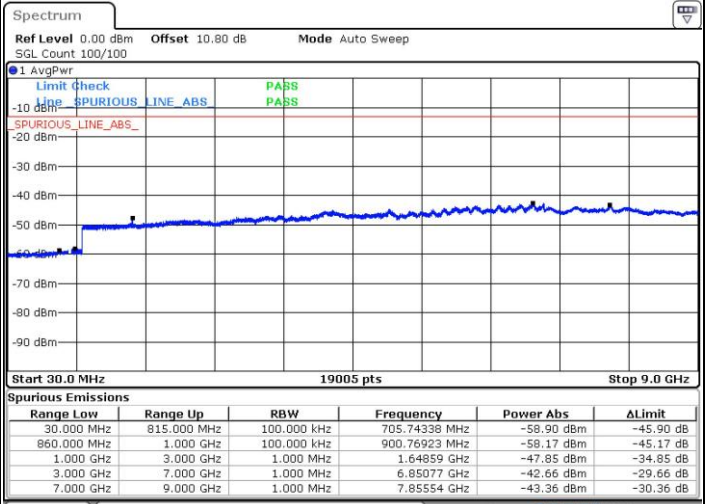
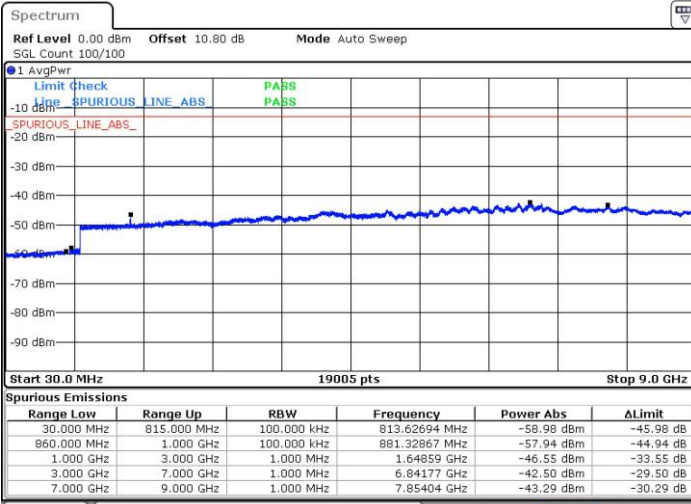
Conducted Spurious Emission



LTE Band 5 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

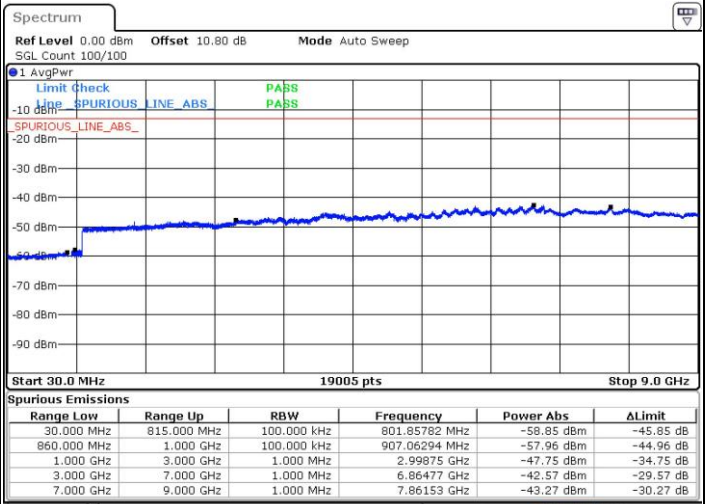
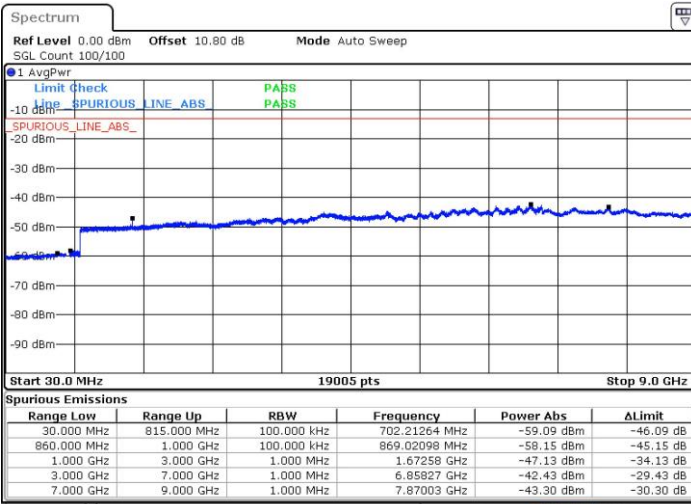


Date: 27.DEC.2016 15:37:42

Date: 27.DEC.2016 15:38:37

Middle Channel / QPSK

Middle Channel / 16QAM



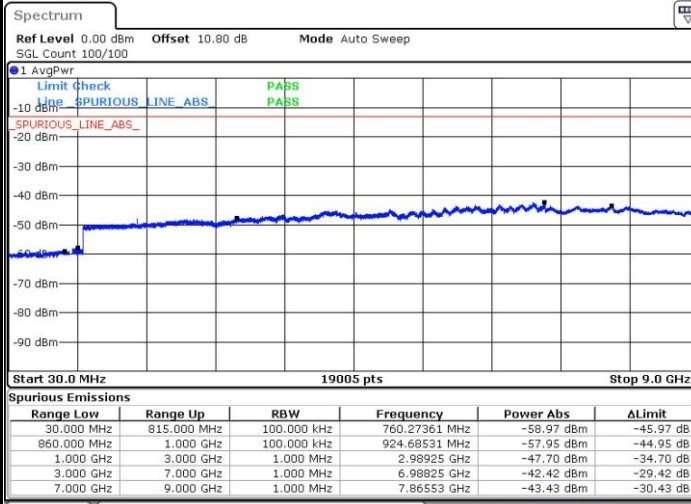
Date: 27.DEC.2016 15:40:12

Date: 27.DEC.2016 15:41:06



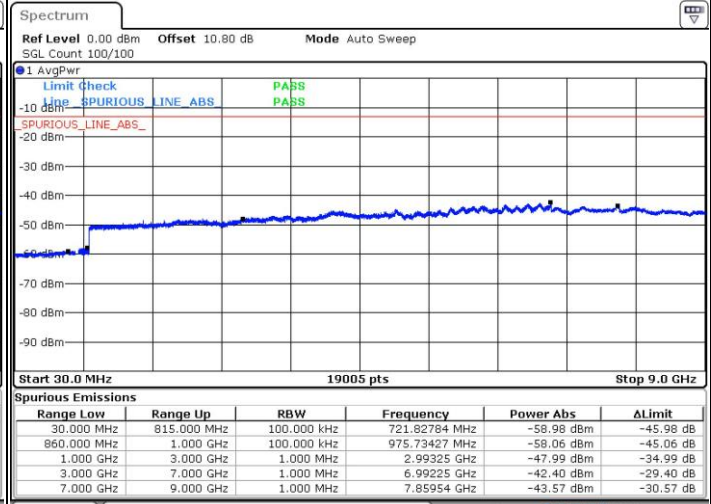
LTE Band 5 / 1.4MHz

Highest Channel / QPSK



Date: 27.DEC.2016 15:49:19

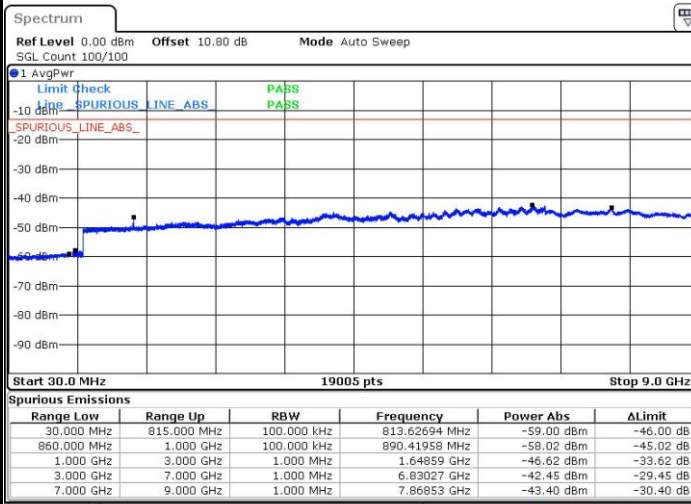
Highest Channel / 16QAM



Date: 27.DEC.2016 15:50:13

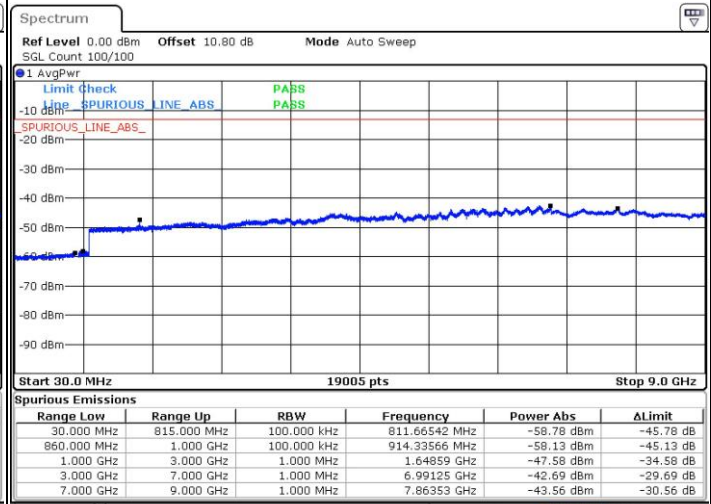
LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 27.DEC.2016 14:35:34

Lowest Channel / 16QAM



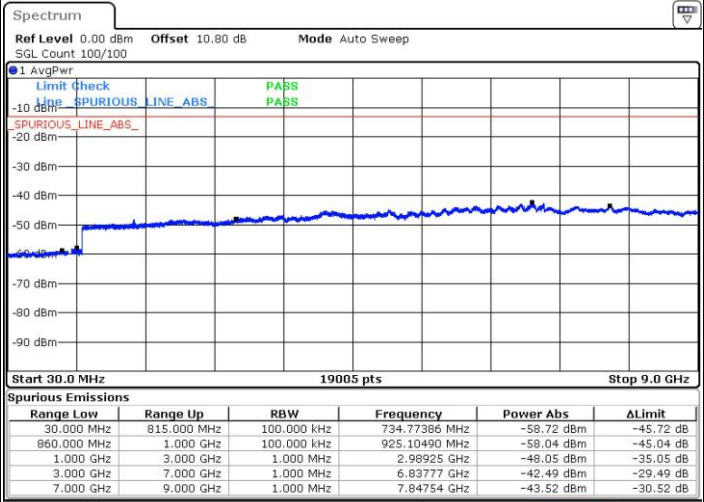
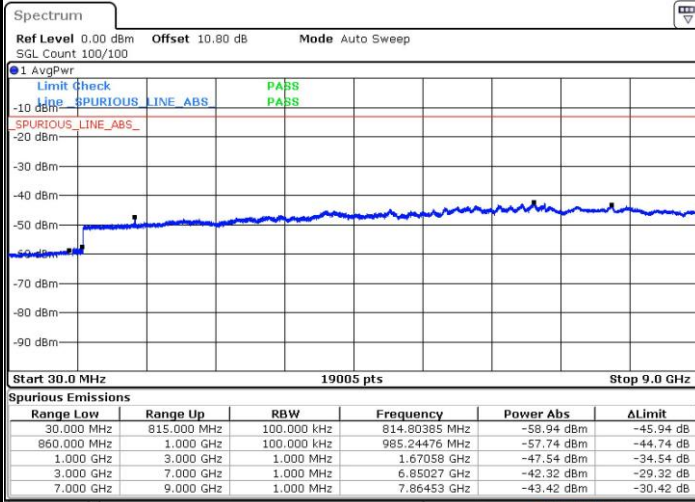
Date: 27.DEC.2016 14:36:28



LTE Band 5 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

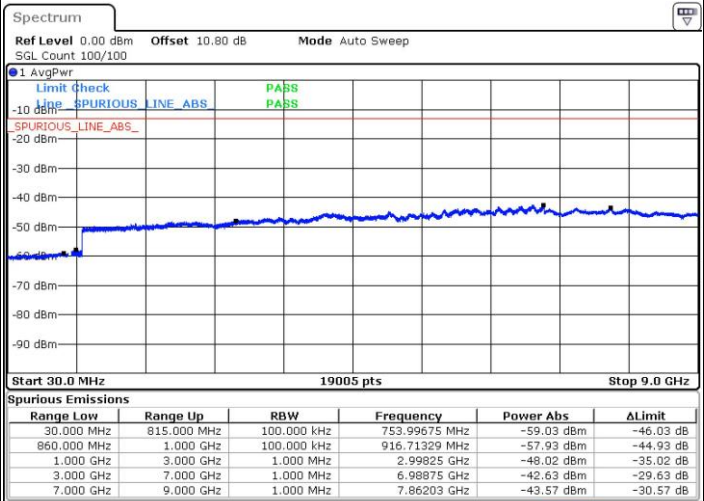
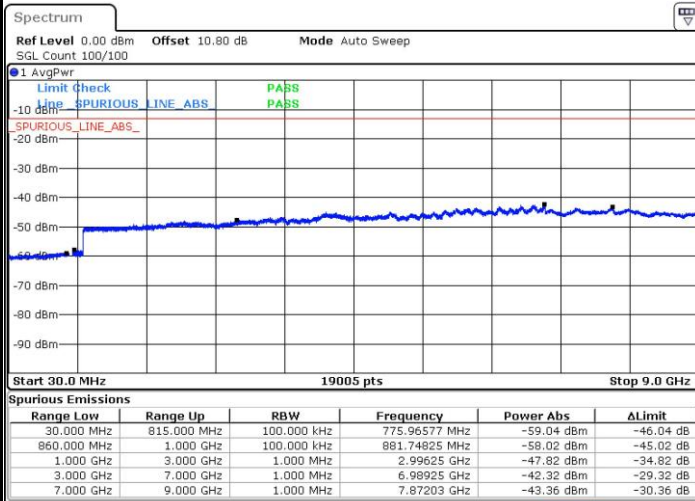


Date: 27.DEC.2016 14:38:04

Date: 27.DEC.2016 14:38:58

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 27.DEC.2016 14:47:10

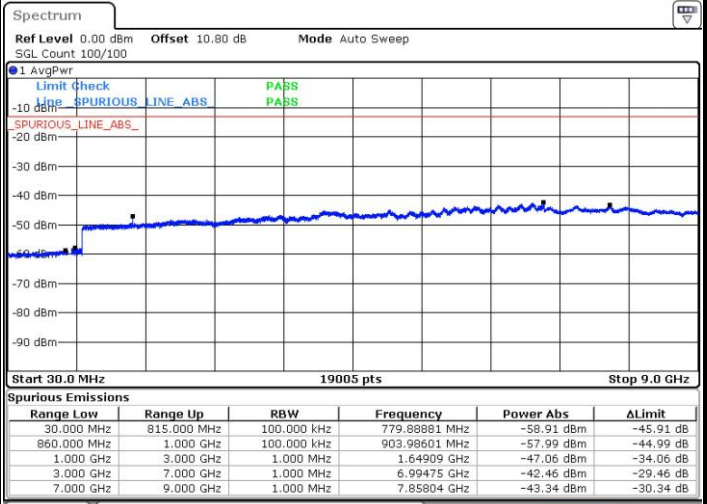
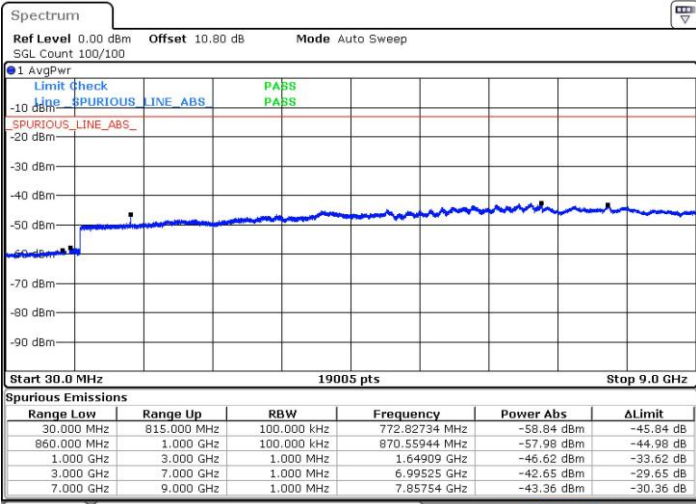
Date: 27.DEC.2016 14:48:05



LTE Band 5 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

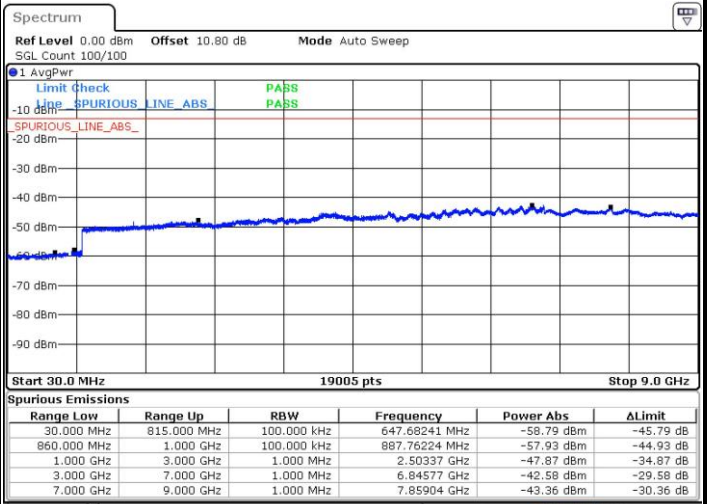
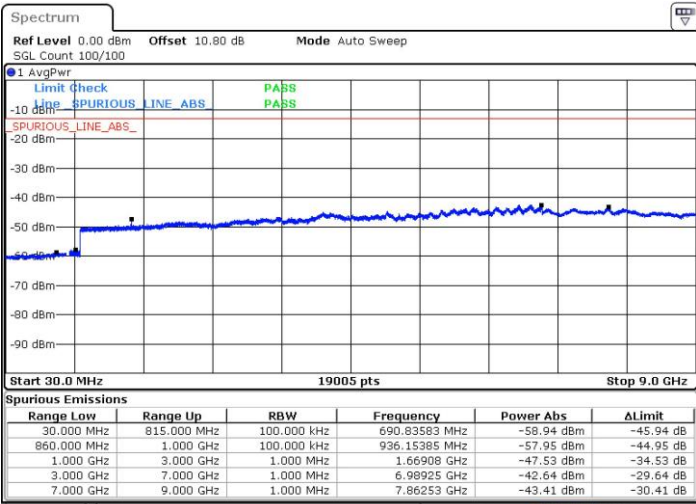


Date: 27.DEC.2016 14:56:17

Date: 27.DEC.2016 14:57:11

Middle Channel / QPSK

Middle Channel / 16QAM



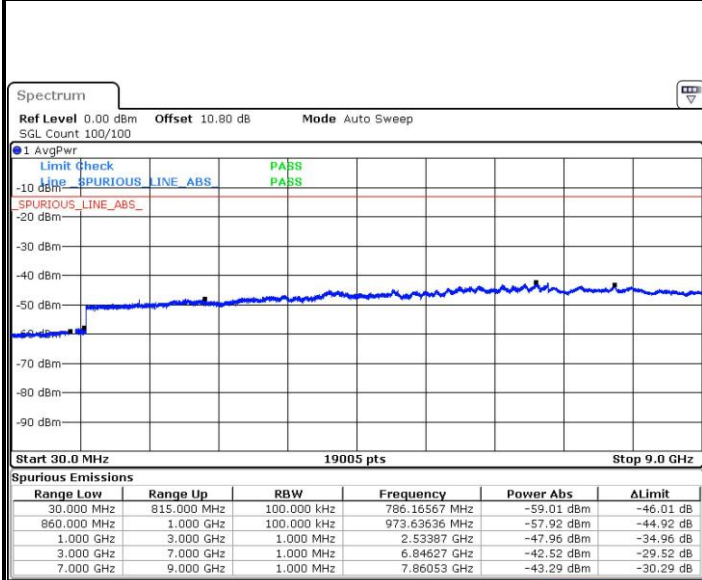
Date: 27.DEC.2016 14:58:47

Date: 27.DEC.2016 14:59:41



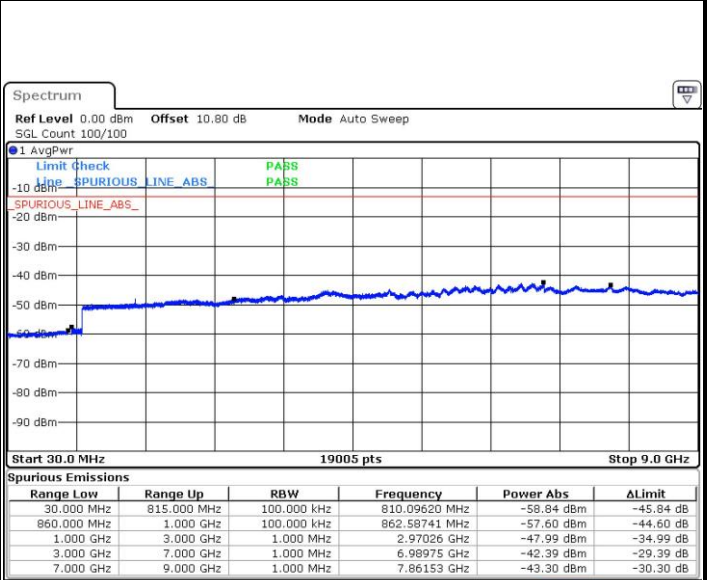
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 27.DEC.2016 15:07:53

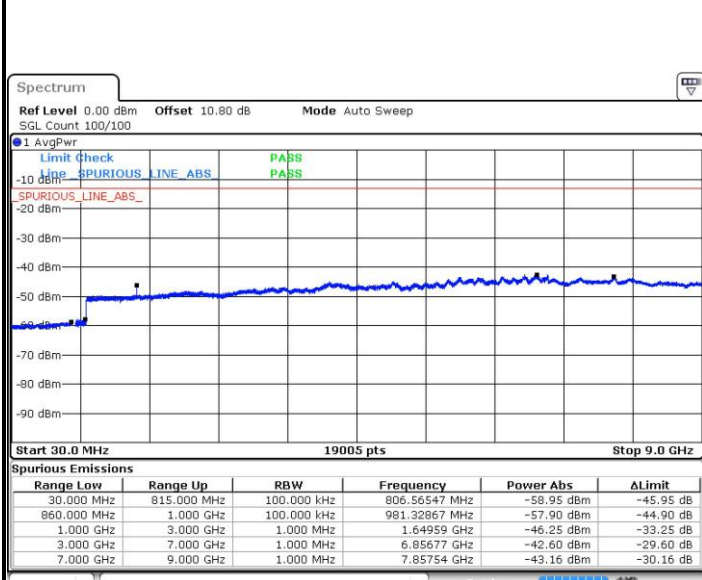
Highest Channel / 16QAM



Date: 27.DEC.2016 15:08:48

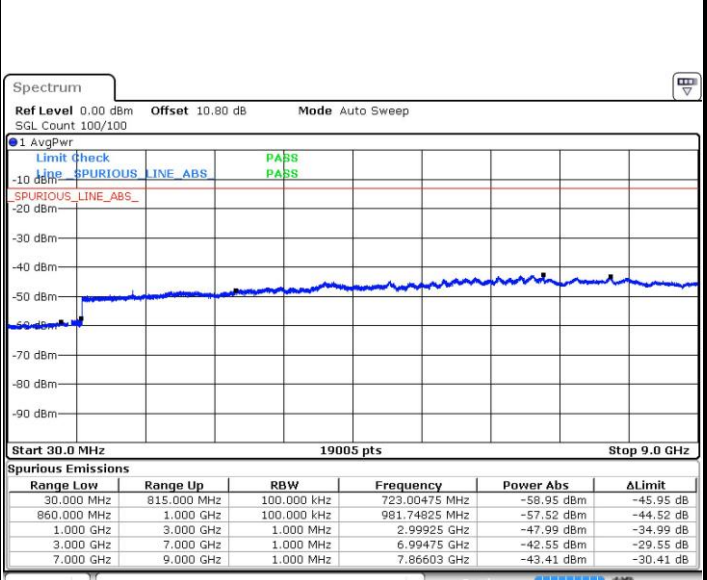
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 27.DEC.2016 15:17:00

Lowest Channel / 16QAM

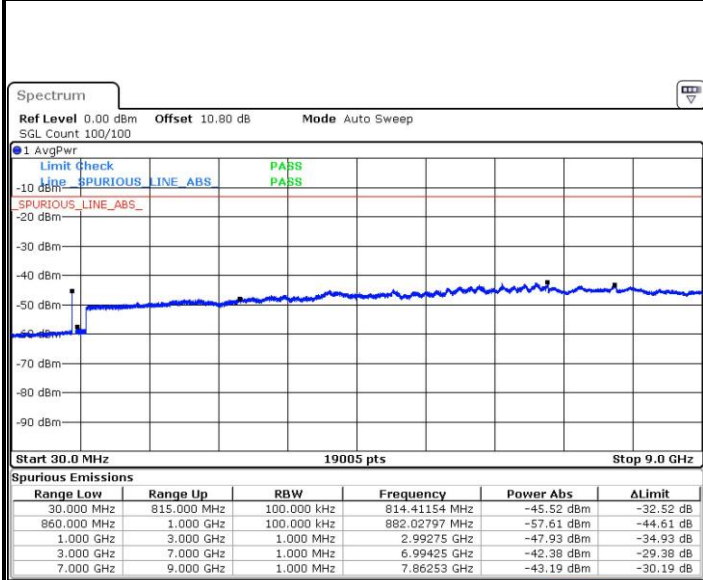


Date: 27.DEC.2016 15:17:54



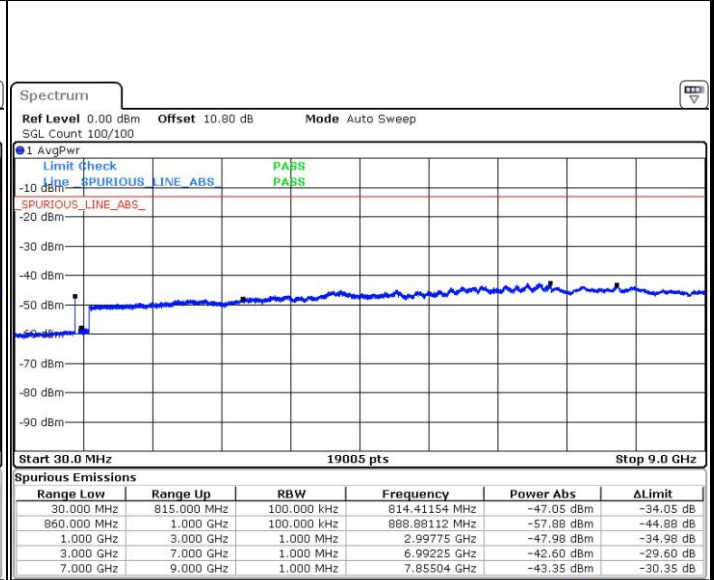
LTE Band 5 / 10MHz

Middle Channel / QPSK



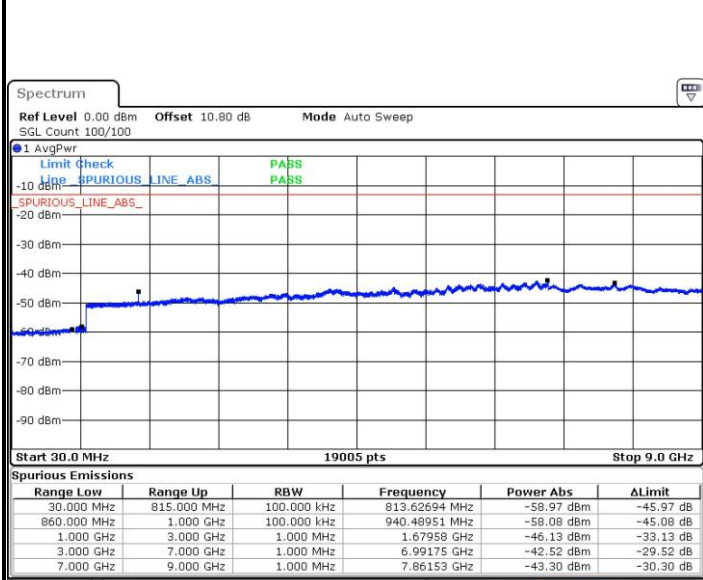
Date: 27.DEC.2016 15:19:30

Middle Channel / 16QAM



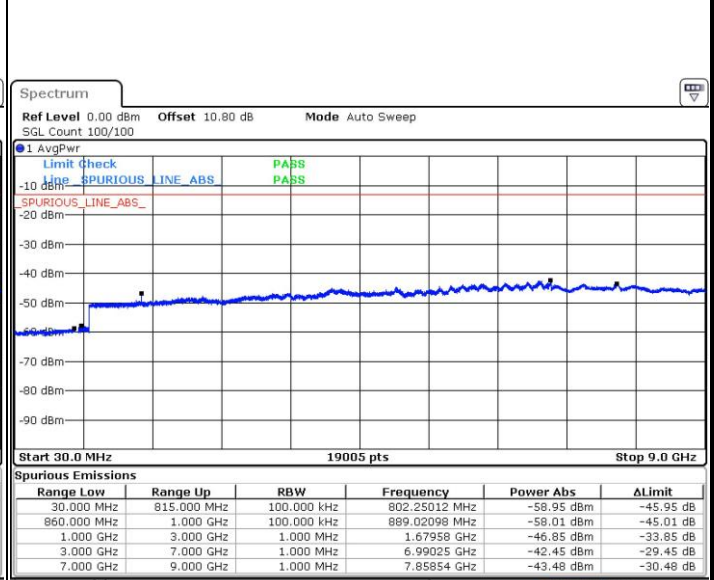
Date: 27.DEC.2016 15:20:24

Highest Channel / QPSK



Date: 27.DEC.2016 15:28:36

Highest Channel / 16QAM



Date: 27.DEC.2016 15:29:30



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 | 0.0160 | PASS |
| 40 | Normal Voltage | 0.0143 | |
| 30 | Normal Voltage | 0.0166 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0157 | |
| 0 | Normal Voltage | 0.0018 | |
| -10 | Normal Voltage | 0.0166 | |
| -20 | Normal Voltage | 0.0169 | |
| -30 | Normal Voltage | 0.0142 | |
| 20 | Maximum Voltage | 0.0025 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0011 | |

Note:

1. Normal Voltage =24.0 V. ; Battery End Point (BEP) =12.0 V. ; Maximum Voltage =48.0 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

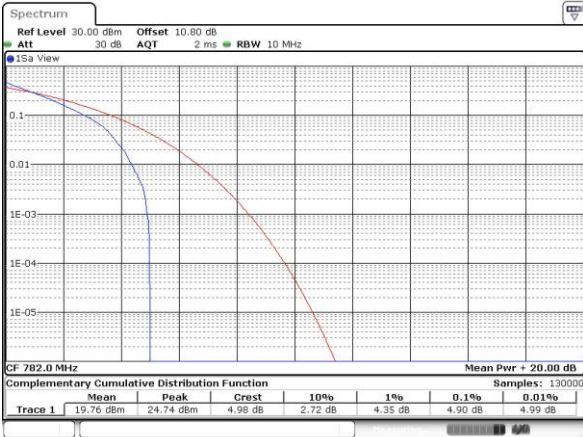
Peak-to-Average Ratio

| Mode | LTE Band 13 / 10MHz | | | | |
|------------|---------------------|---------|-------|---------|-------------|
| Mod. | QPSK | | 16QAM | | Limit: 13dB |
| RB Size | 1RB | Full RB | 1RB | Full RB | Result |
| Lowest CH | - | - | - | - | PASS |
| Middle CH | 4.9 | 4.96 | 5.74 | 5.94 | |
| Highest CH | - | - | - | - | |



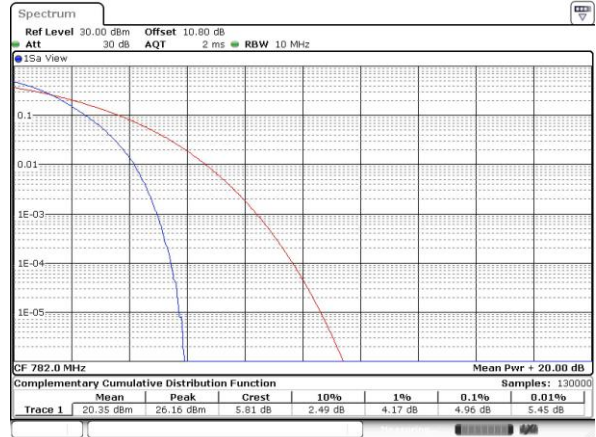
LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 27 DEC 2016 14:26:20

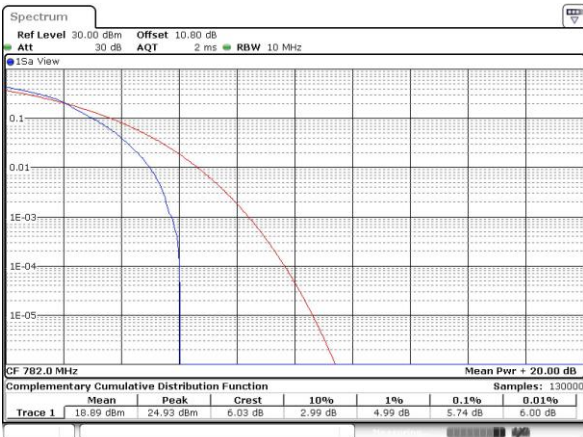
Middle Channel / Full RB



Date: 27 DEC 2016 14:26:29

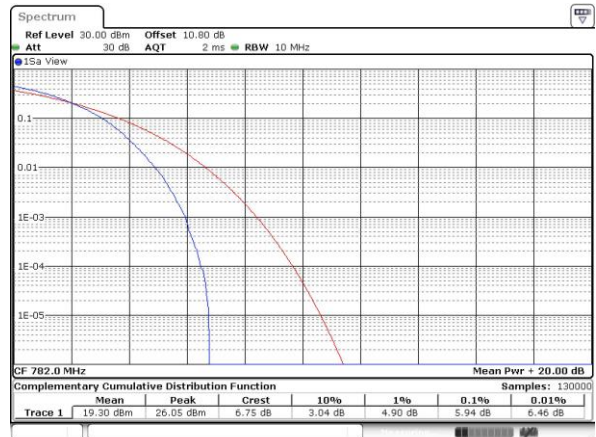
LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Date: 27 DEC 2016 14:25:48

Middle Channel / Full RB



Date: 27 DEC 2016 14:26:10



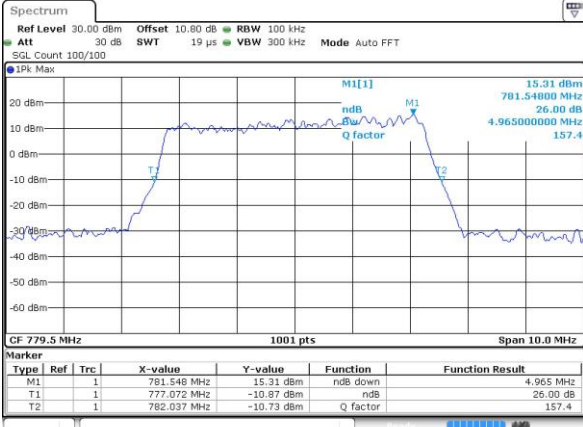
26dB Bandwidth

| Mode | LTE Band 13 : 26dB BW(MHz) | | | | | | | | | | | |
|------------|----------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| BW | | | | | | | | | | | | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Lowest CH | - | - | - | - | 4.97 | 4.95 | - | - | - | - | - | - |
| Middle CH | - | - | - | - | 4.90 | 4.91 | 9.65 | 9.67 | - | - | - | - |
| Highest CH | - | - | - | - | 4.97 | 4.93 | - | - | - | - | - | - |



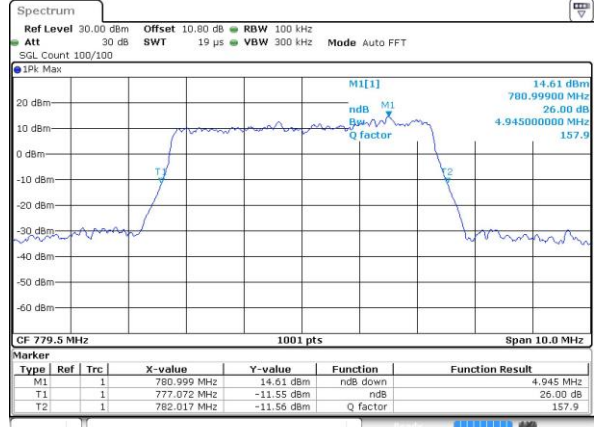
LTE Band 13

Lowest Channel / 5MHz / QPSK



Date: 27 DEC 2016 13:48:48

Lowest Channel / 5MHz / 16QAM



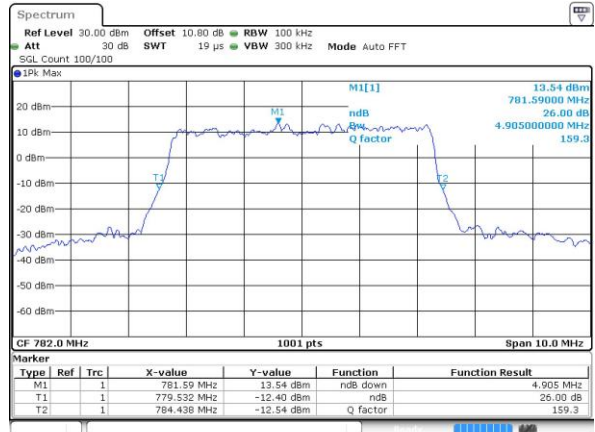
Date: 27 DEC 2016 13:48:38

Middle Channel / 5MHz / QPSK



Date: 27 DEC 2016 13:59:12

Middle Channel / 5MHz / 16QAM



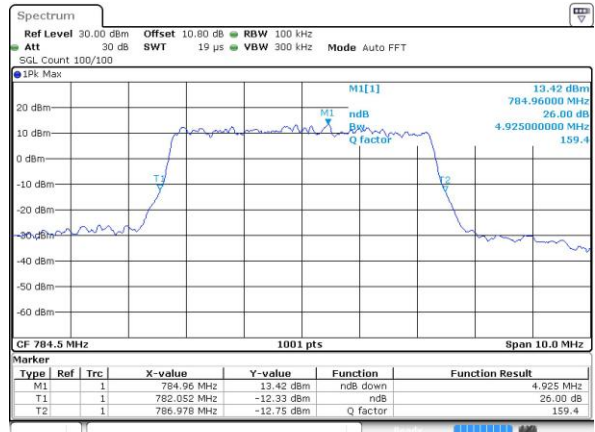
Date: 27 DEC 2016 13:59:22

Highest Channel / 5MHz / QPSK



Date: 27 DEC 2016 14:00:24

Highest Channel / 5MHz / 16QAM

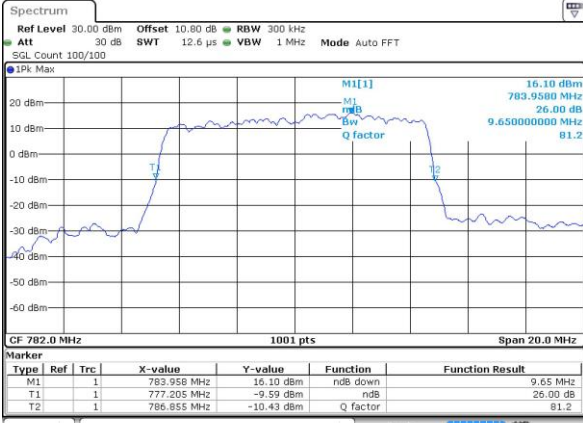


Date: 27 DEC 2016 14:00:14



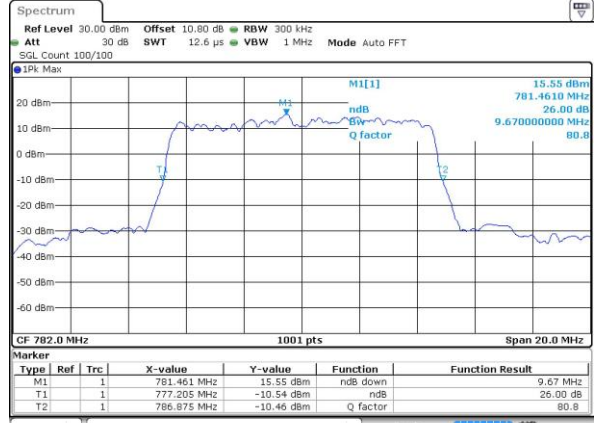
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 27 DEC 2016 14:09:31

Middle Channel / 10MHz / 16QAM



Date: 27 DEC 2016 14:09:21



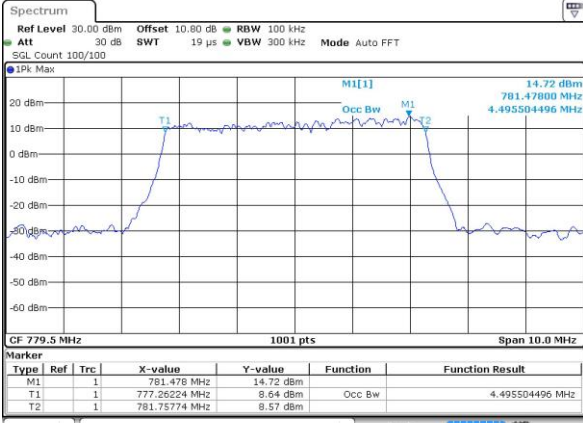
Occupied Bandwidth

| Mode | LTE Band 13 : 99%OBW(MHz) | | | | | | | | | | | |
|------------|---------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| BW | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Lowest CH | - | - | - | - | 4.5 | 4.5 | - | - | - | - | - | - |
| Middle CH | - | - | - | - | 4.49 | 4.48 | 8.97 | 8.97 | - | - | - | - |
| Highest CH | - | - | - | - | 4.47 | 4.47 | - | - | - | - | - | - |



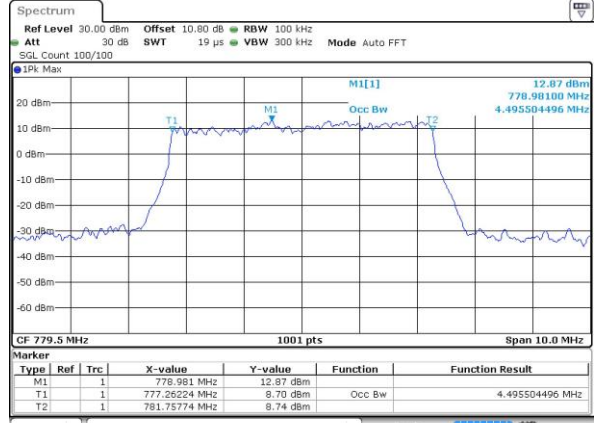
LTE Band 13

Lowest Channel / 5MHz / QPSK



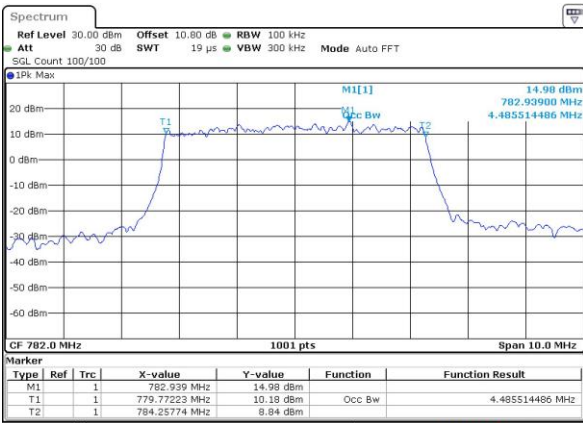
Date: 27 DEC 2016 13:48:17

Lowest Channel / 5MHz / 16QAM



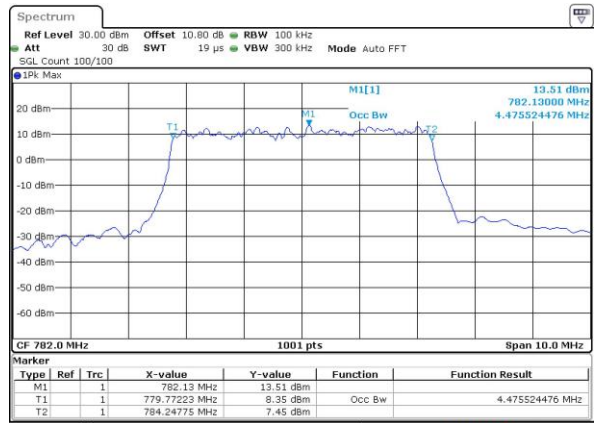
Date: 27 DEC 2016 13:48:28

Middle Channel / 5MHz / QPSK



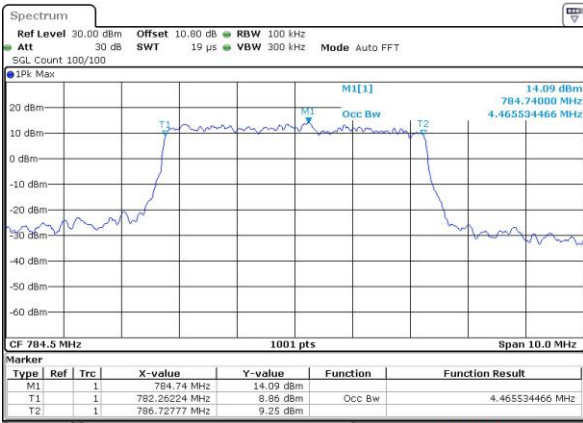
Date: 27 DEC 2016 13:59:43

Middle Channel / 5MHz / 16QAM



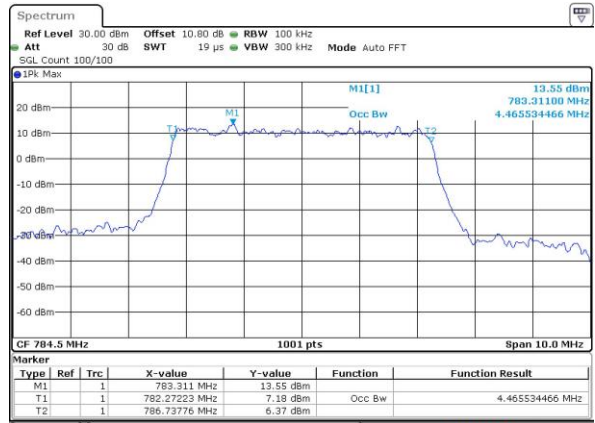
Date: 27 DEC 2016 13:59:33

Highest Channel / 5MHz / QPSK



Date: 27 DEC 2016 13:59:53

Highest Channel / 5MHz / 16QAM

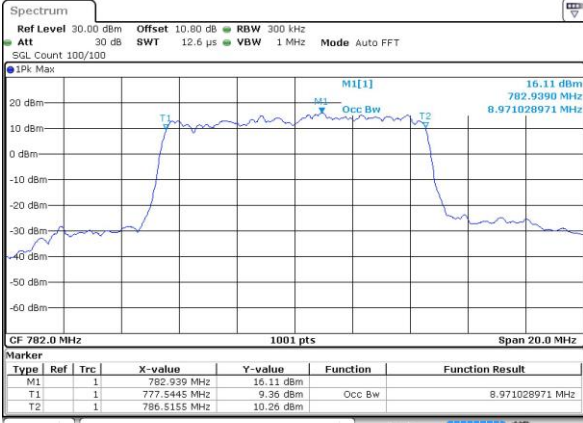


Date: 27 DEC 2016 14:00:04



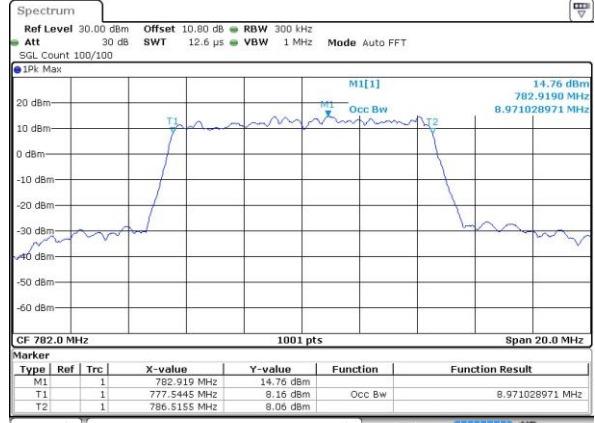
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 27 DEC 2016 14:09:00

Middle Channel / 10MHz / 16QAM



Date: 27 DEC 2016 14:09:11



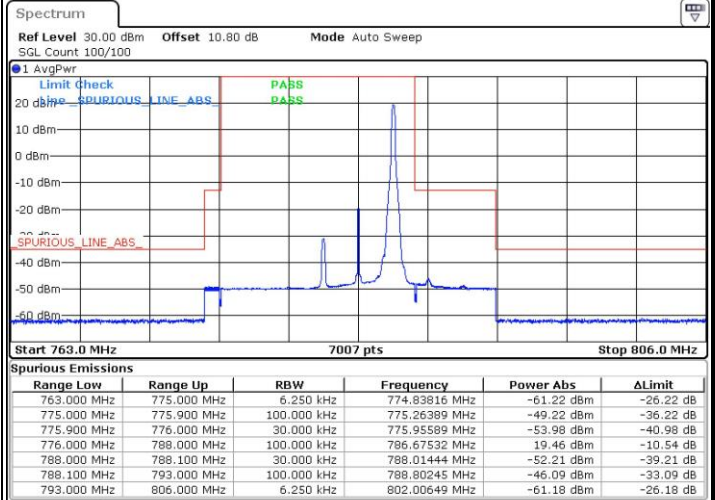
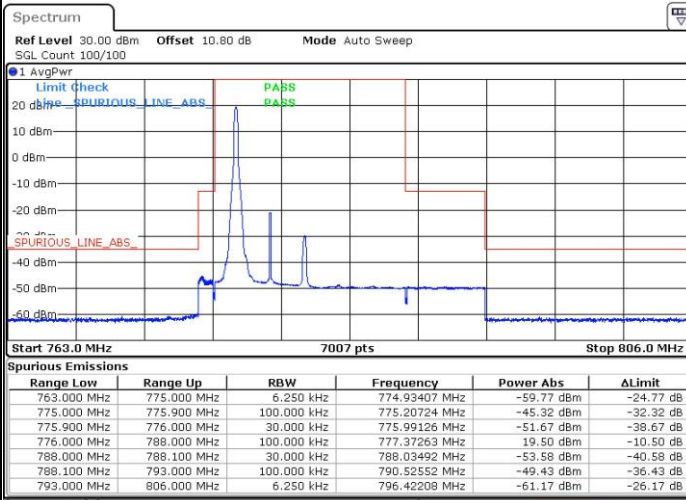
Conducted Band Edge



LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

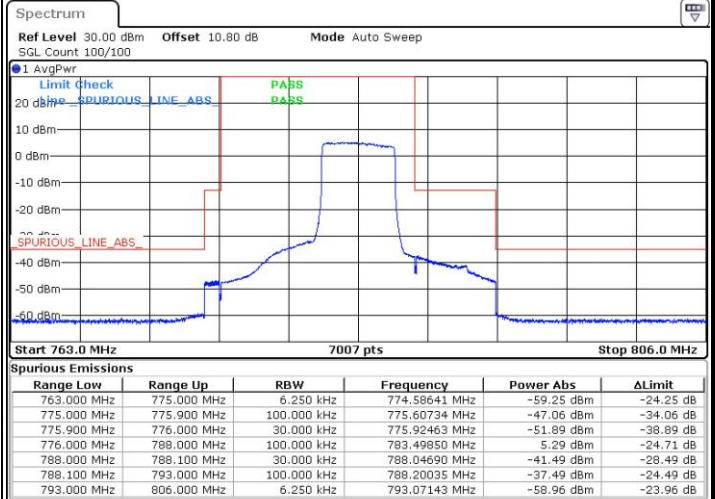
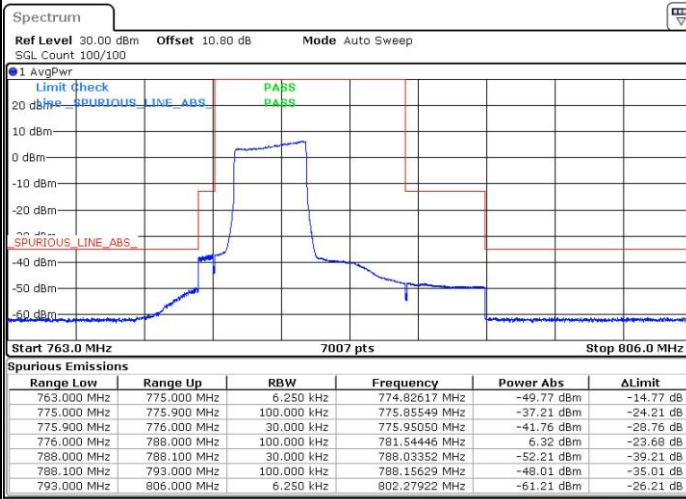


Date: 27.DEC.2016 13:55:25

Date: 27.DEC.2016 14:07:01

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 27.DEC.2016 13:50:27

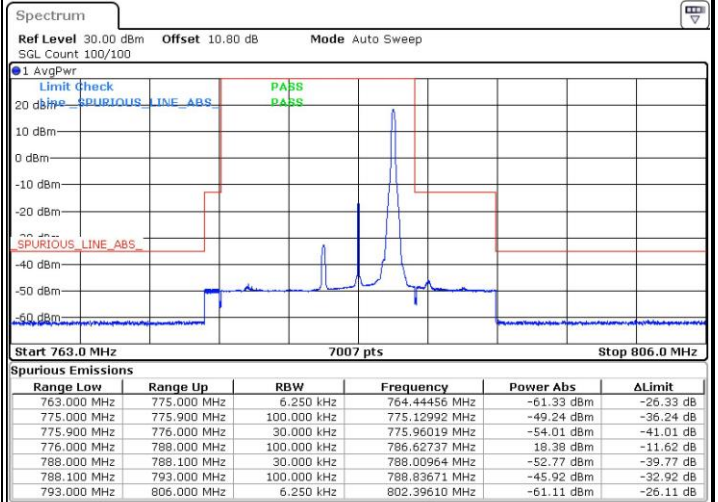
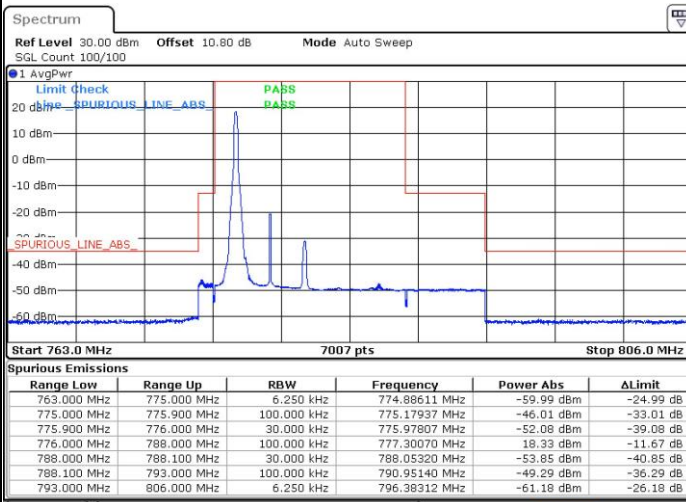
Date: 27.DEC.2016 14:02:03



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

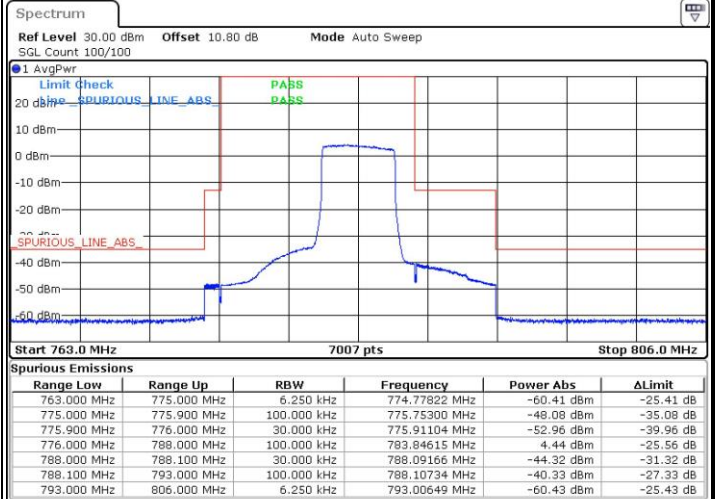
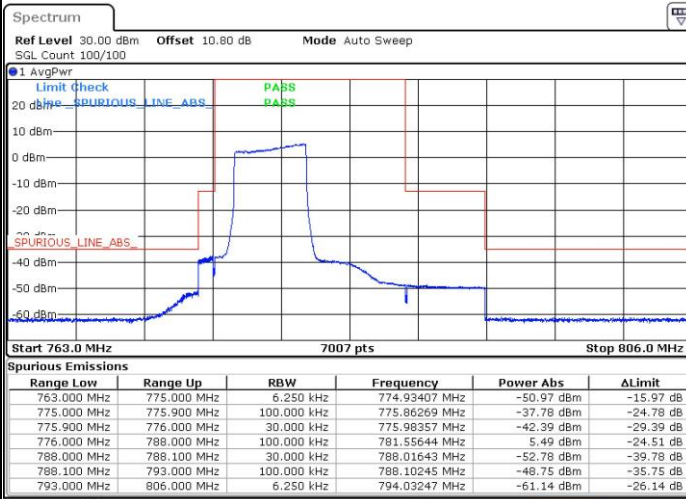


Date: 27. DEC. 2016 13:53:46

Date: 27. DEC. 2016 14:05:22

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



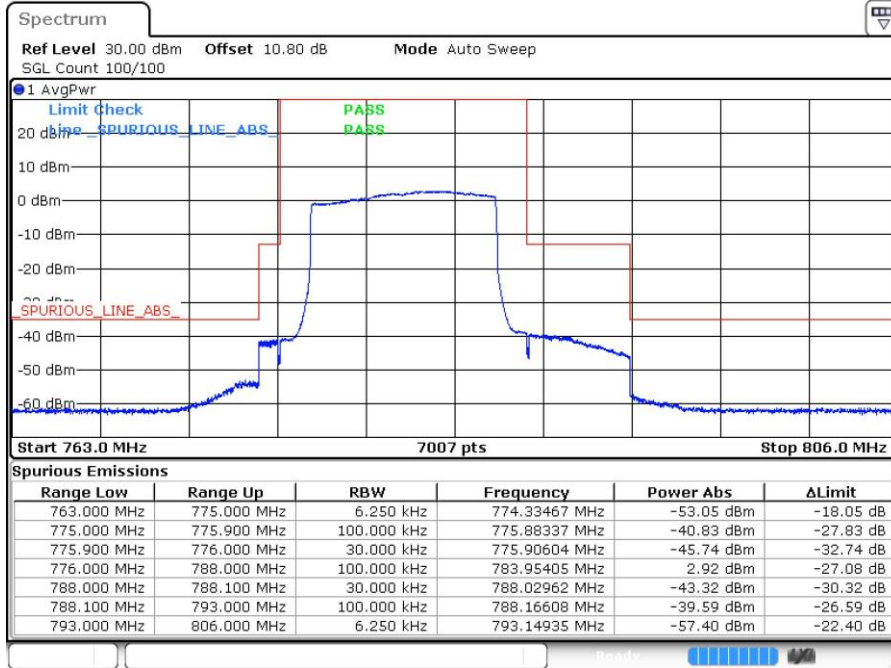
Date: 27. DEC. 2016 13:52:06

Date: 27. DEC. 2016 14:03:42



LTE Band 13 / 10MHz / QPSK

Band Edge / Full RB

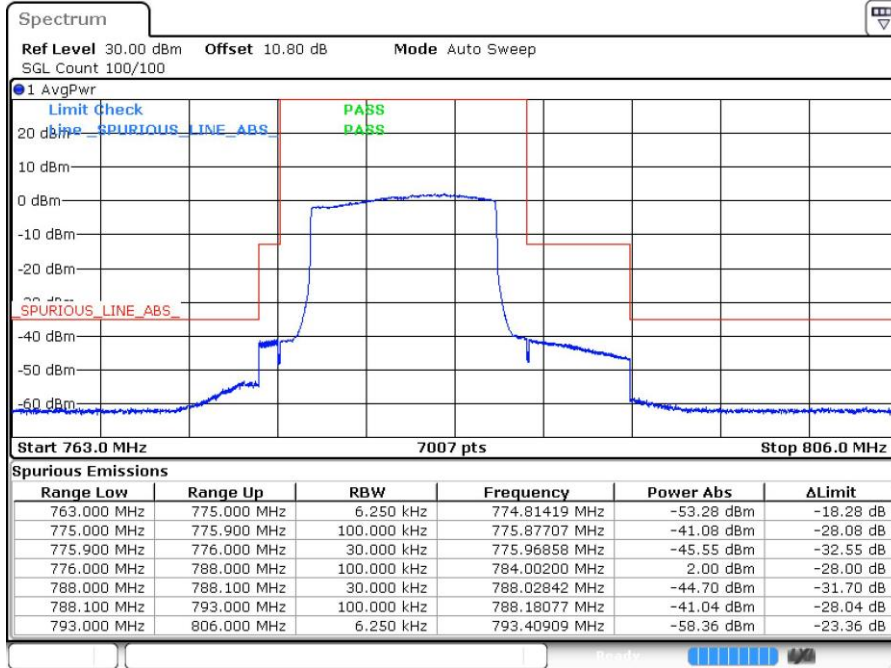


Date: 27 DEC 2016 14:11:10



LTE Band 13 / 10MHz / 16QAM

Band Edge / Full RB



Date: 27 DEC 2016 14:12:50



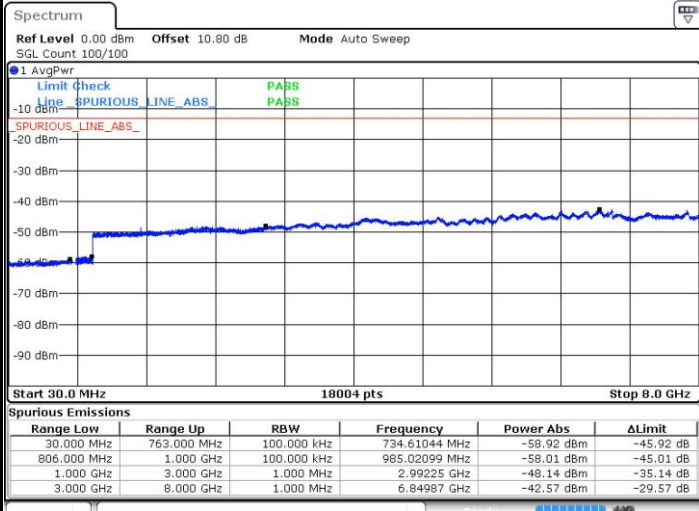
Conducted Spurious Emission



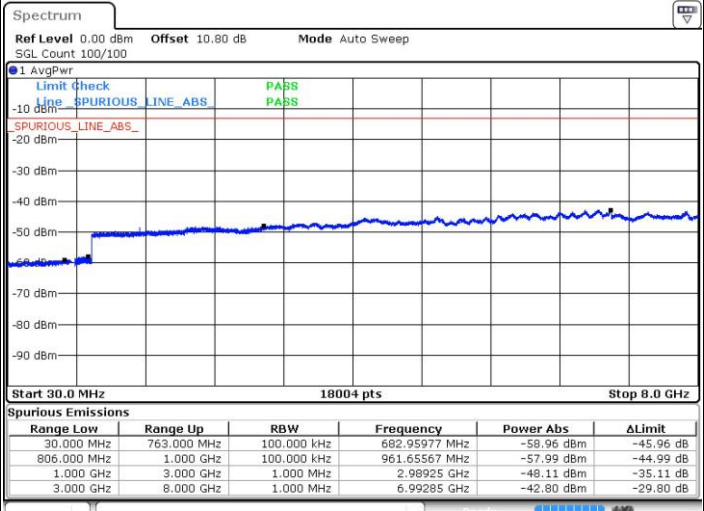
LTE Band 13 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



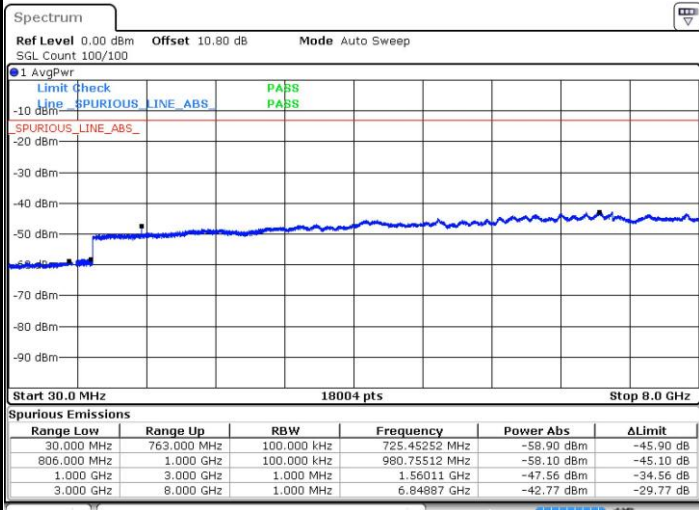
Date: 27.DEC.2016 13:56:20



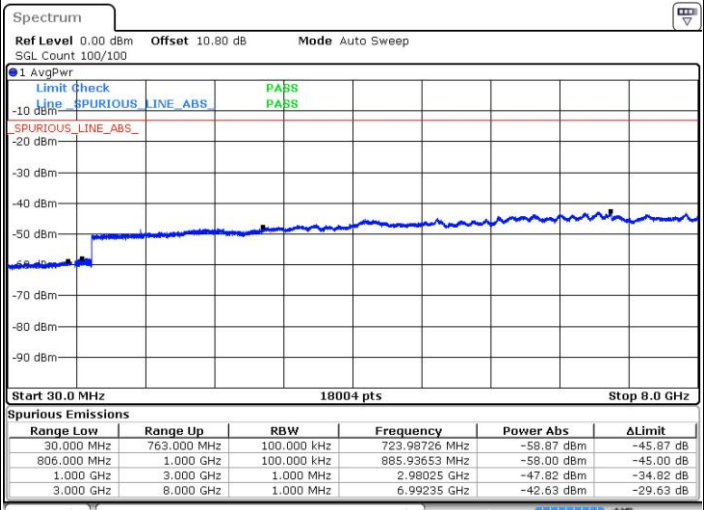
Date: 27.DEC.2016 13:57:14

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 27.DEC.2016 13:59:02

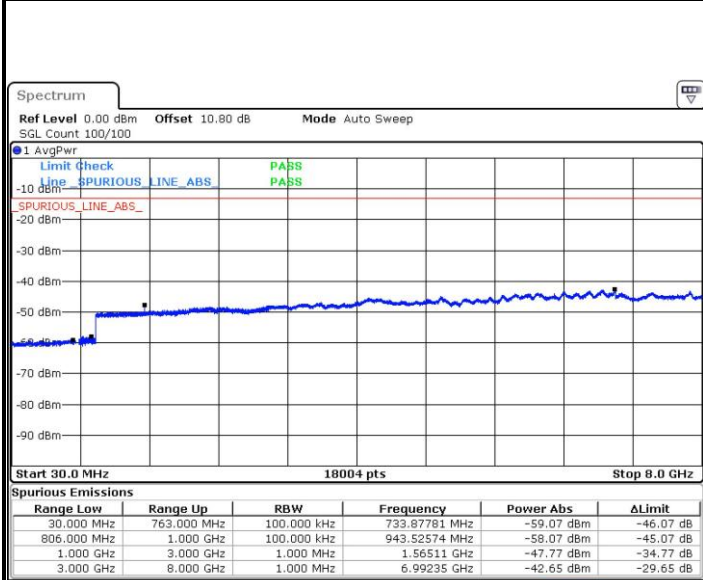


Date: 27.DEC.2016 13:58:08



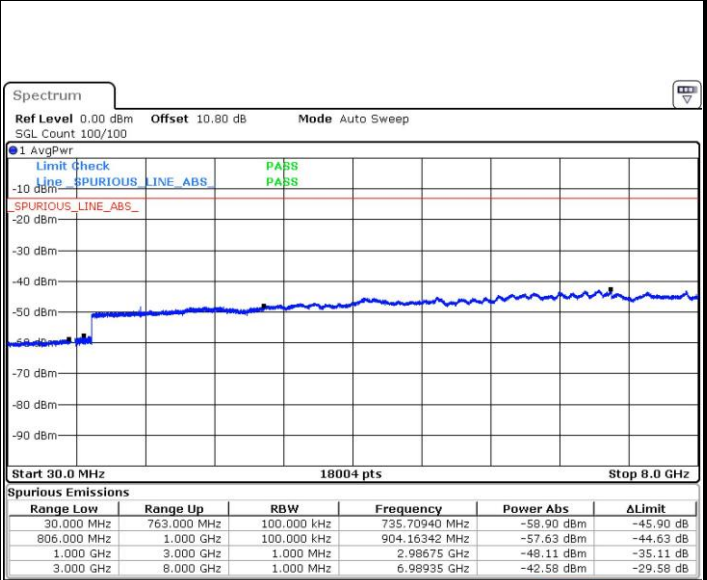
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 27.DEC.2016 14:07:56

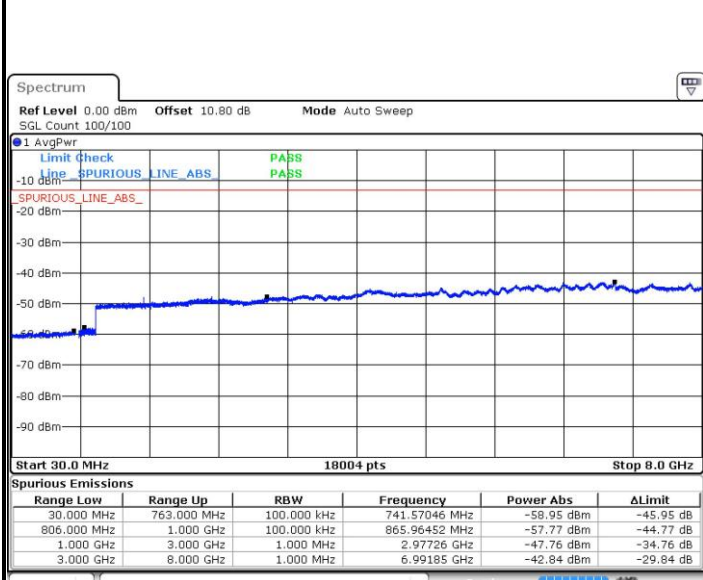
Highest Channel / 16QAM



Date: 27.DEC.2016 14:08:50

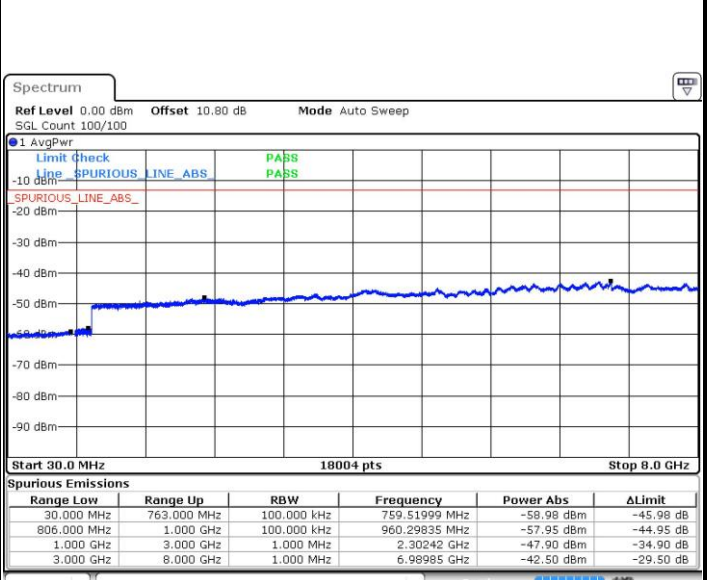
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 27.DEC.2016 14:21:16

Middle Channel / 16QAM



Date: 27.DEC.2016 14:20:22



Frequency Stability

| Test Conditions | | LTE Band 13 (QPSK) / Middle Channel | Limit |
|------------------|-------------------|-------------------------------------|---------|
| Temperature (°C) | Voltage (Volt) | BW 10MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0092 | PASS |
| 40 | Normal Voltage | 0.0114 | |
| 30 | Normal Voltage | 0.0017 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0091 | |
| 0 | Normal Voltage | 0.0008 | |
| -10 | Normal Voltage | 0.0107 | |
| -20 | Normal Voltage | 0.0013 | |
| -30 | Normal Voltage | 0.0119 | |
| 20 | Maximum Voltage | 0.0101 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0098 | |

Note:

1. Normal Voltage =24.0 V. ; Battery End Point (BEP) =12.0 V. ; Maximum Voltage =48.0 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 17

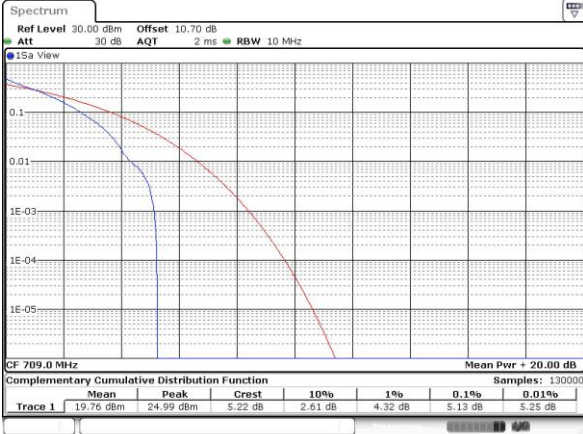
Peak-to-Average Ratio

| Mode | LTE Band 17 / 10MHz | | | | |
|------------|---------------------|---------|-------|---------|-------------|
| Mod. | QPSK | | 16QAM | | Limit: 13dB |
| RB Size | 1RB | Full RB | 1RB | Full RB | Result |
| Lowest CH | 5.13 | 5.28 | 6.49 | 6.14 | PASS |
| Middle CH | 4.75 | 5.28 | 6.12 | 6.29 | |
| Highest CH | 4.46 | 5.36 | 5.59 | 6.29 | |



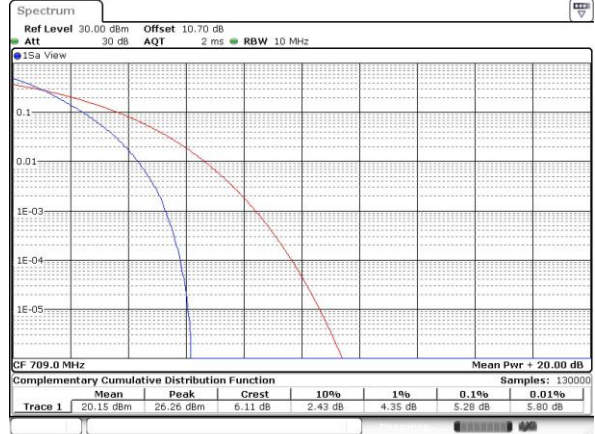
LTE Band 17 / 10MHz / QPSK

Lowest Channel / 1RB



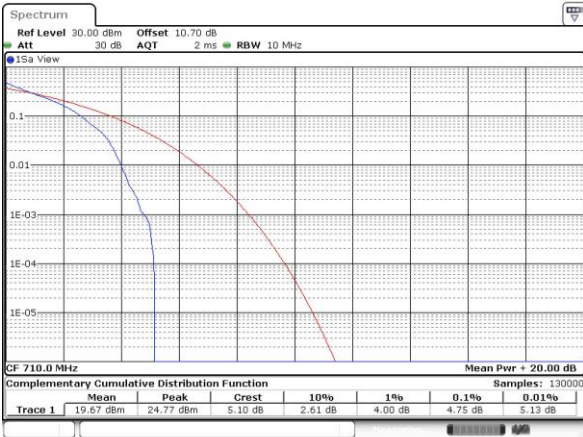
Date: 27 DEC 2016 16:57:50

Lowest Channel / Full RB



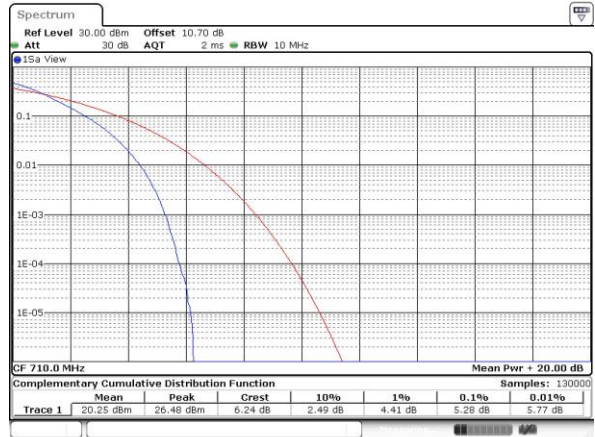
Date: 27 DEC 2016 16:57:59

Middle Channel / 1RB



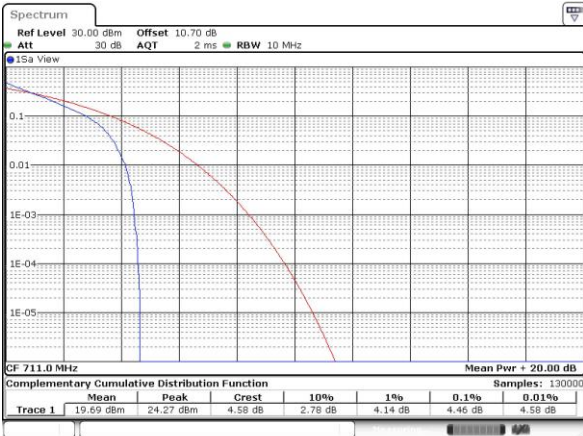
Date: 27 DEC 2016 16:58:09

Middle Channel / Full RB



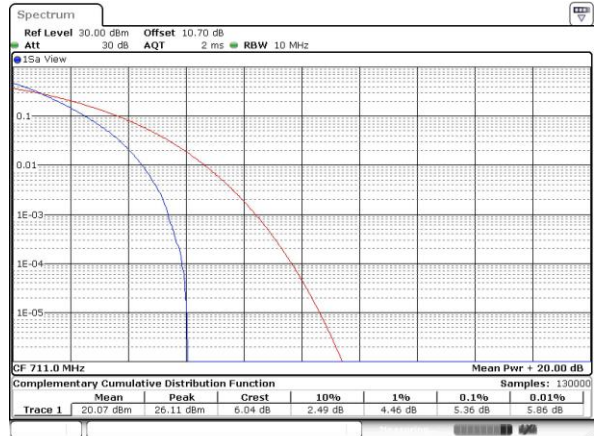
Date: 27 DEC 2016 16:58:19

Highest Channel / 1RB



Date: 27 DEC 2016 16:58:29

Highest Channel / Full RB



Date: 27 DEC 2016 16:58:38