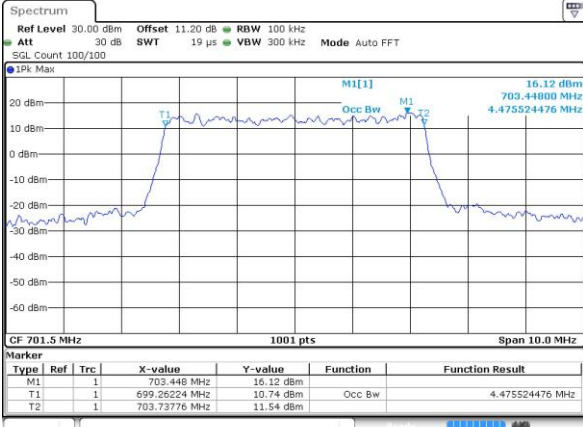




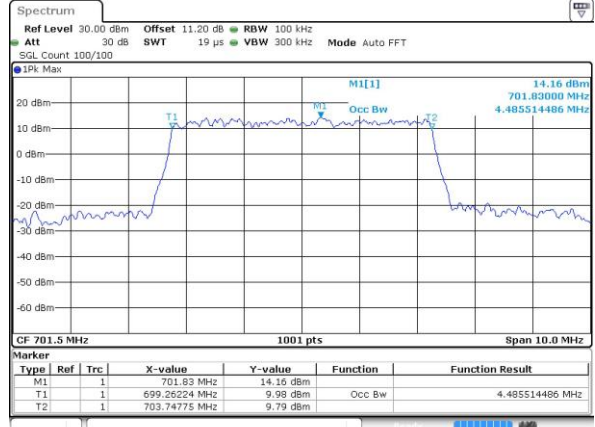
LTE Band 12

Lowest Channel / 5MHz / QPSK



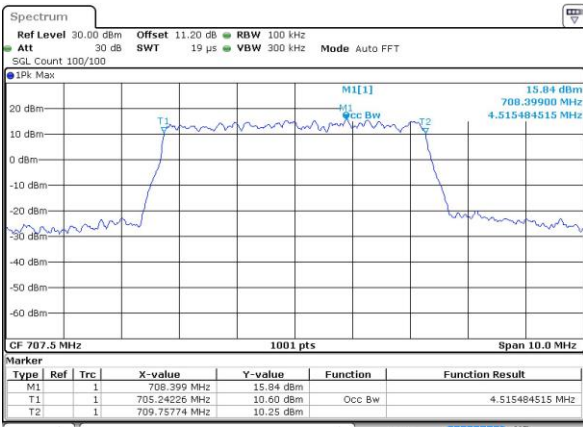
Date: 20 JUL 2018 06:06:49

Lowest Channel / 5MHz / 16QAM



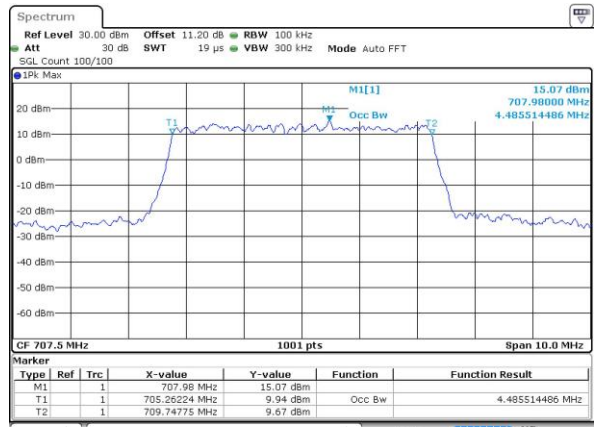
Date: 20 JUL 2018 06:06:59

Middle Channel / 5MHz / QPSK



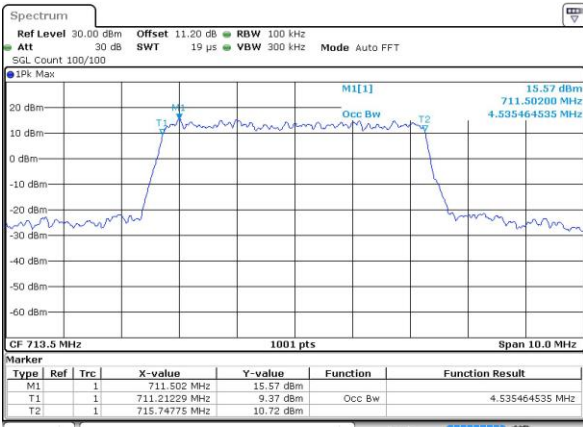
Date: 20 JUL 2018 06:13:58

Middle Channel / 5MHz / 16QAM



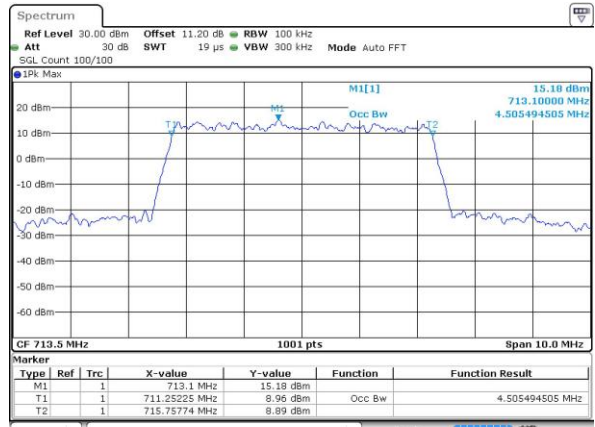
Date: 20 JUL 2018 06:13:48

Highest Channel / 5MHz / QPSK



Date: 20 JUL 2018 06:16:16

Highest Channel / 5MHz / 16QAM

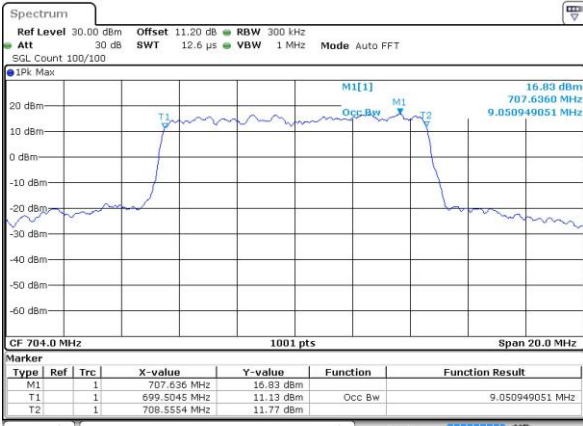


Date: 20 JUL 2018 06:16:26



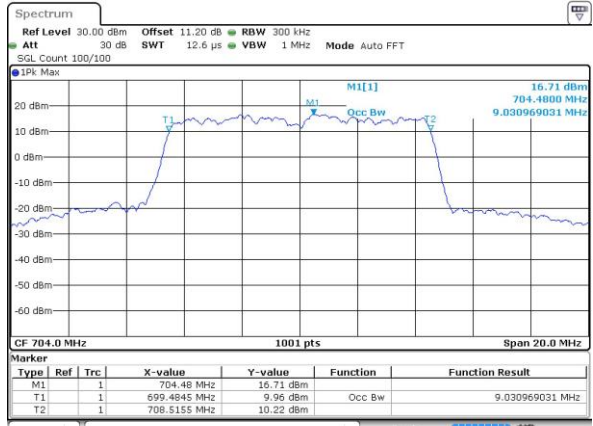
LTE Band 12

Lowest Channel / 10MHz / QPSK



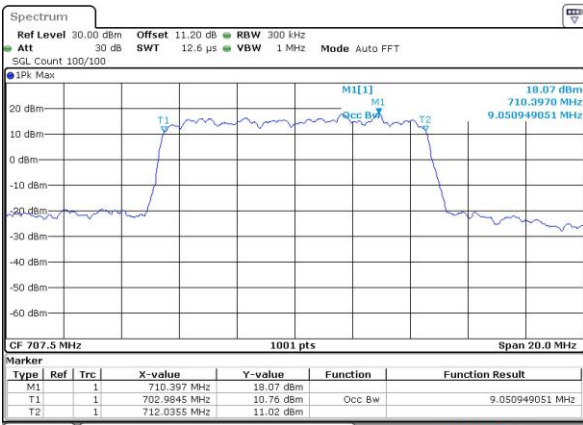
Date: 20 JUL 2018 06:23:15

Lowest Channel / 10MHz / 16QAM



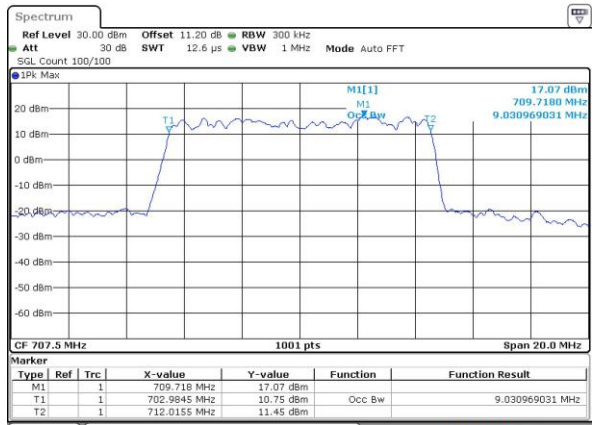
Date: 20 JUL 2018 06:23:25

Middle Channel / 10MHz / QPSK



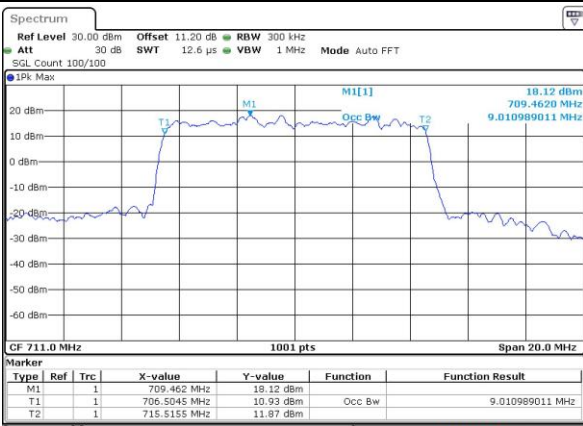
Date: 20 JUL 2018 06:30:24

Middle Channel / 10MHz / 16QAM



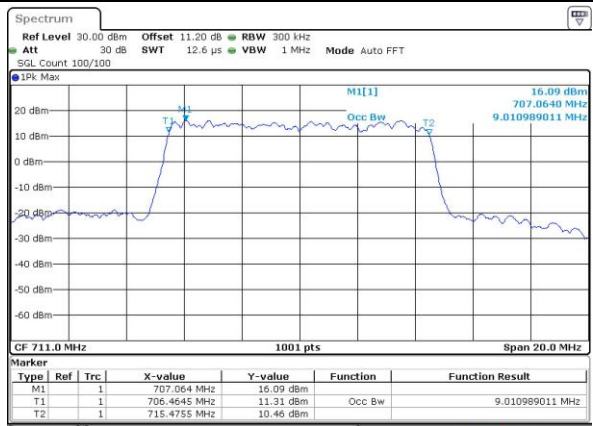
Date: 20 JUL 2018 06:30:14

Highest Channel / 10MHz / QPSK



Date: 20 JUL 2018 06:32:42

Highest Channel / 10MHz / 16QAM



Date: 20 JUL 2018 06:32:52

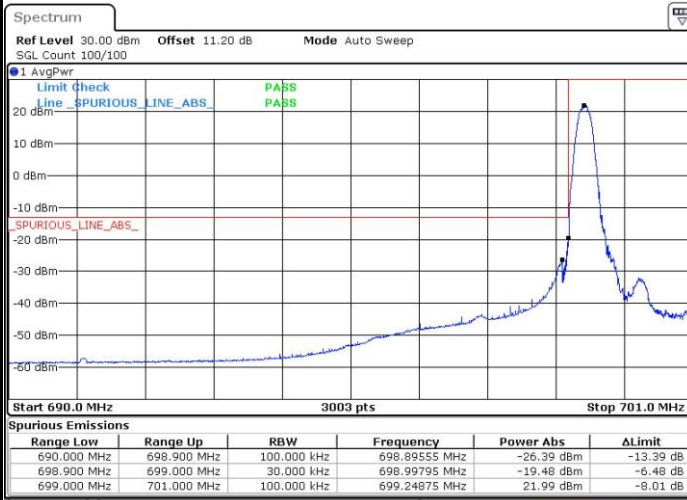


Conducted Band Edge



LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1 RB



Date: 20 JUL 2018 06:51:46

Highest Band Edge / 1RB



Date: 20 JUL 2018 07:01:14

Lowest Band Edge / Full RB



Date: 20 JUL 2018 06:48:23

Highest Band Edge / Full RB

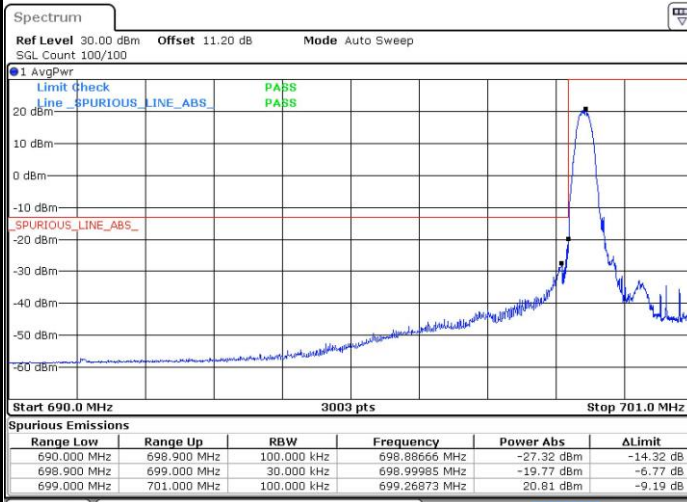


Date: 20 JUL 2018 06:57:51



LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 20 JUL 2018 06:50:39

Highest Band Edge / 1 RB



Date: 20 JUL 2018 07:00:06

Lowest Band Edge / Full RB



Date: 20 JUL 2018 06:49:31

Highest Band Edge / Full RB

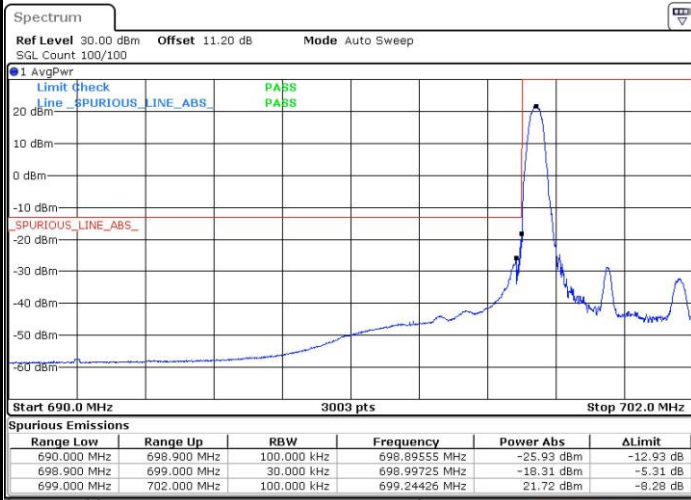


Date: 20 JUL 2018 06:58:59



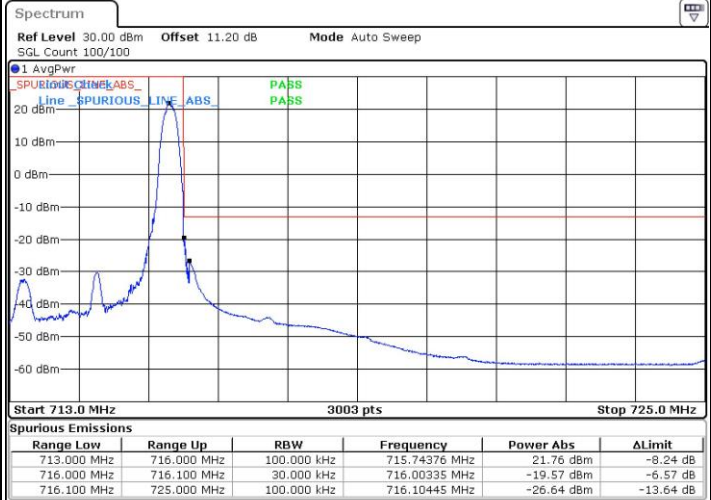
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



Date: 20 JUL 2018 05:55:23

Highest Band Edge / 1 RB



Date: 20 JUL 2018 06:04:51

Lowest Band Edge / Full RB



Date: 20 JUL 2018 05:52:01

Highest Band Edge / Full RB

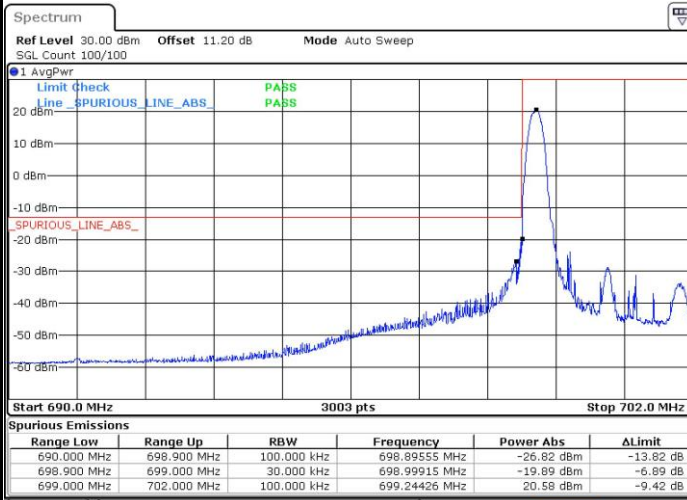


Date: 20 JUL 2018 06:01:28



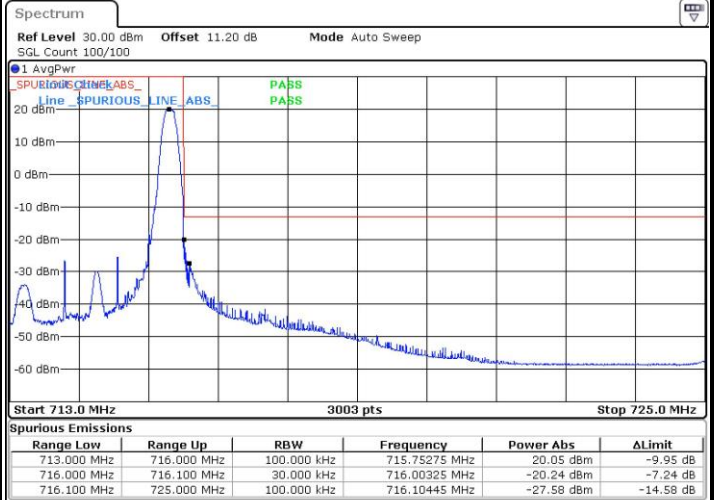
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 20 JUL 2018 05:54:16

Highest Band Edge / 1 RB



Date: 20 JUL 2018 06:03:43

Lowest Band Edge / Full RB



Date: 20 JUL 2018 05:53:08

Highest Band Edge / Full RB

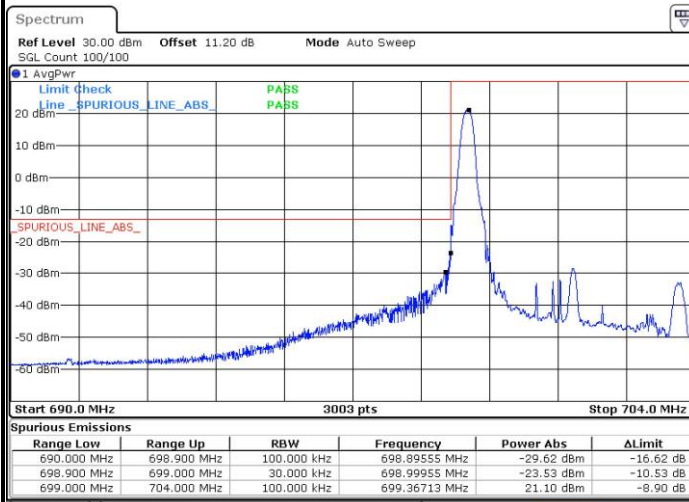


Date: 20 JUL 2018 06:02:36



LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



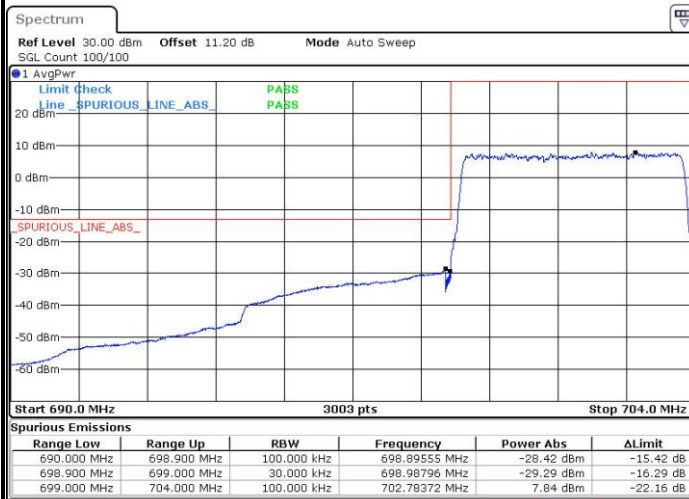
Date: 20 JUL 2018 06:11:50

Highest Band Edge / 1 RB



Date: 20 JUL 2018 06:20:10

Lowest Band Edge / Full RB



Date: 20 JUL 2018 06:08:27

Highest Band Edge / Full RB

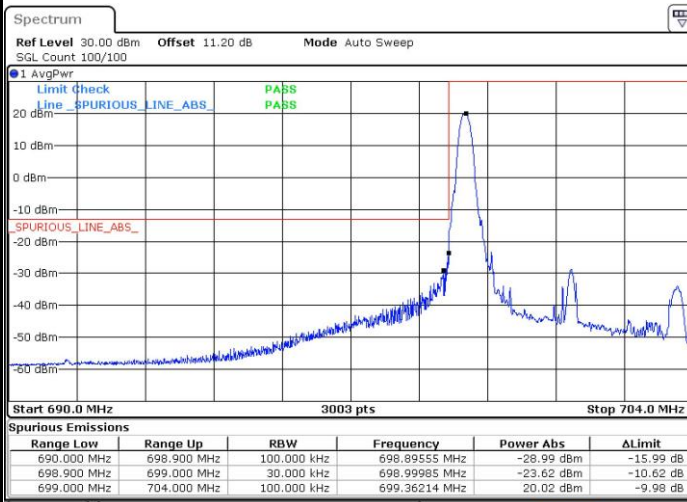


Date: 20 JUL 2018 06:17:55



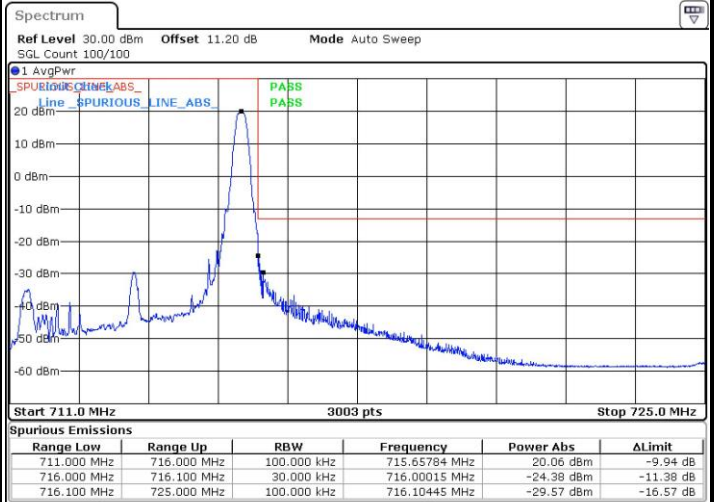
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



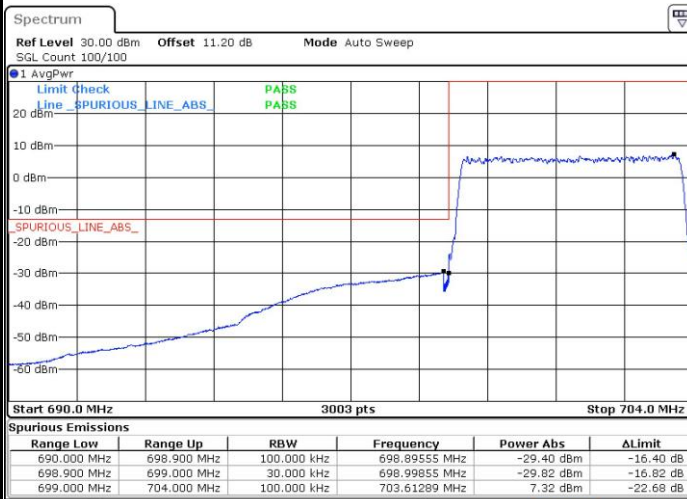
Date: 20 JUL 2018 06:10:42

Highest Band Edge / 1 RB



Date: 20 JUL 2018 06:21:17

Lowest Band Edge / Full RB



Date: 20 JUL 2018 06:09:35

Highest Band Edge / Full RB

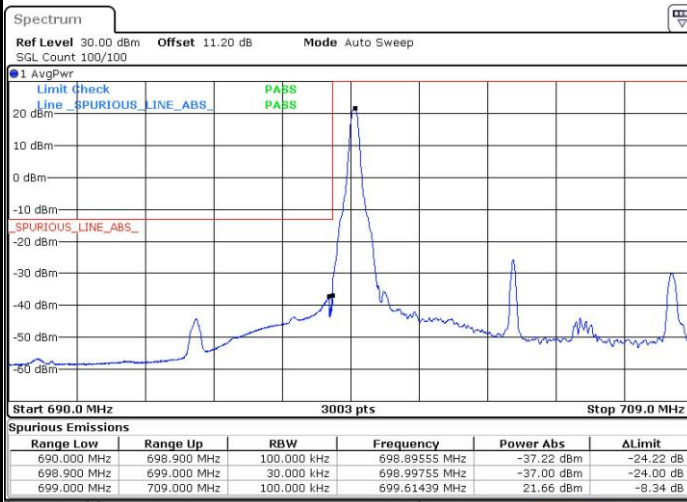


Date: 20 JUL 2018 06:19:02



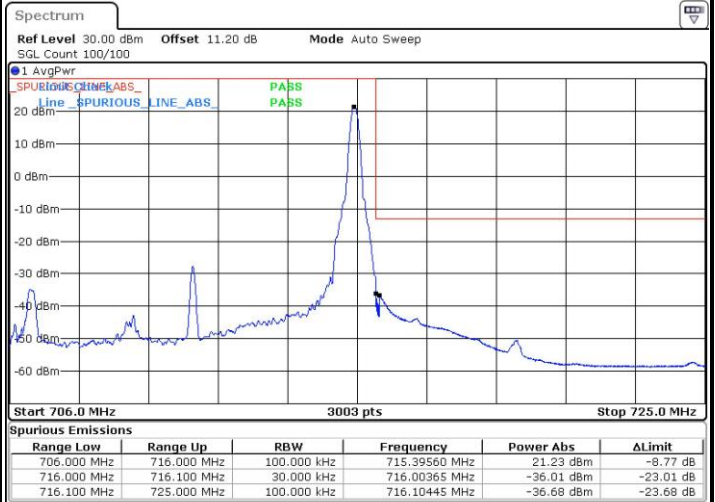
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



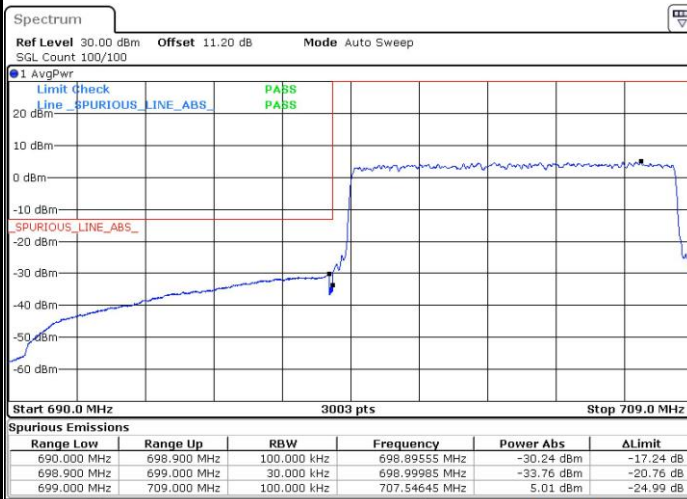
Date: 20 JUL 2018 06:28:16

Highest Band Edge / 1 RB



Date: 20 JUL 2018 06:37:43

Lowest Band Edge / Full RB



Date: 20 JUL 2018 06:24:53

Highest Band Edge / Full RB

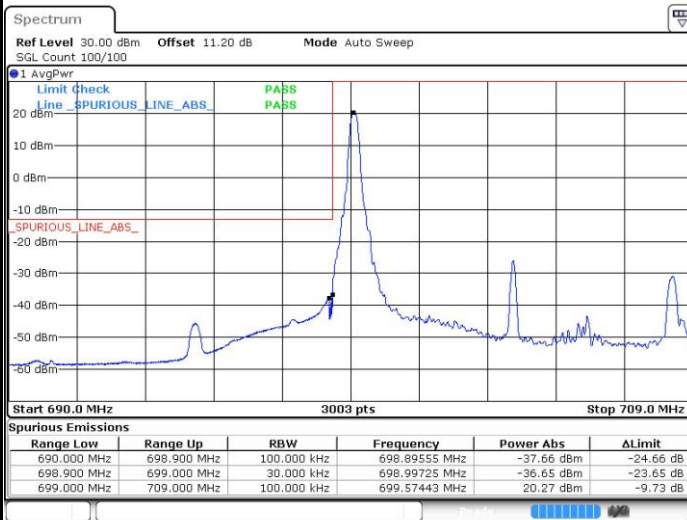


Date: 20 JUL 2018 06:34:21



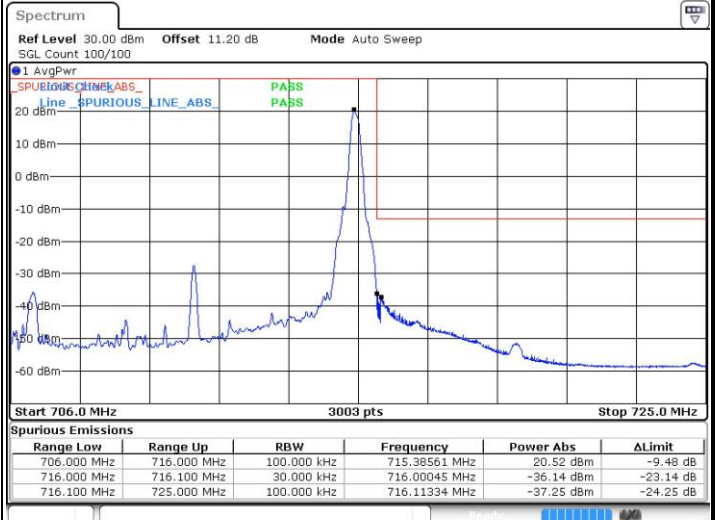
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



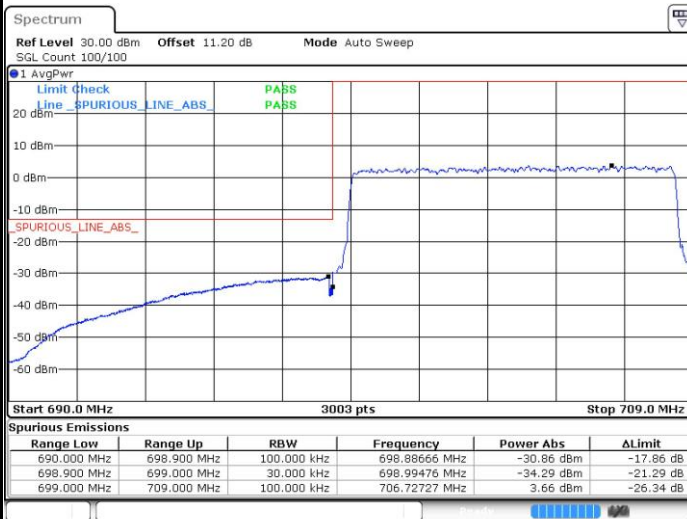
Date: 20 JUL 2018 06:27:08

Highest Band Edge / 1 RB



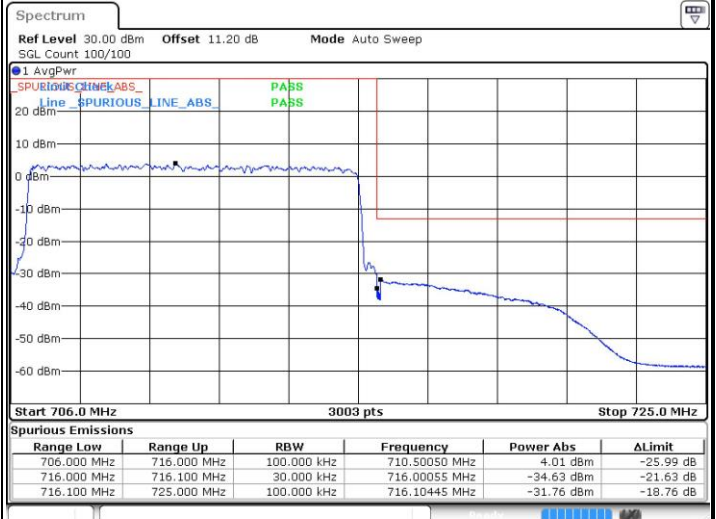
Date: 20 JUL 2018 06:36:36

Lowest Band Edge / Full RB



Date: 20 JUL 2018 06:26:01

Highest Band Edge / Full RB



Date: 20 JUL 2018 06:35:28



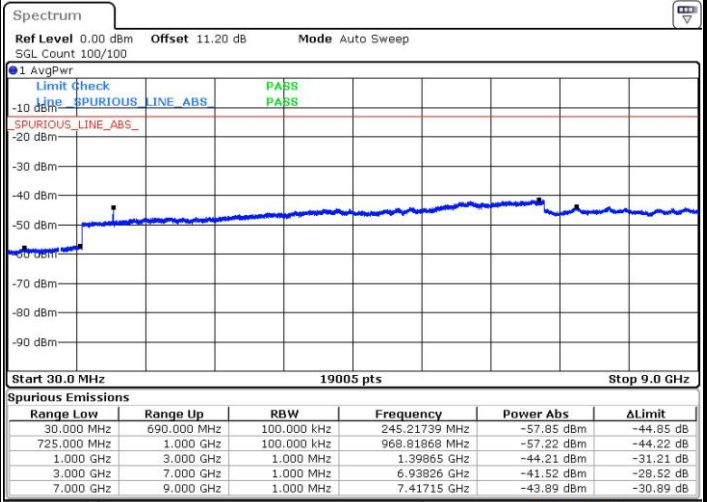
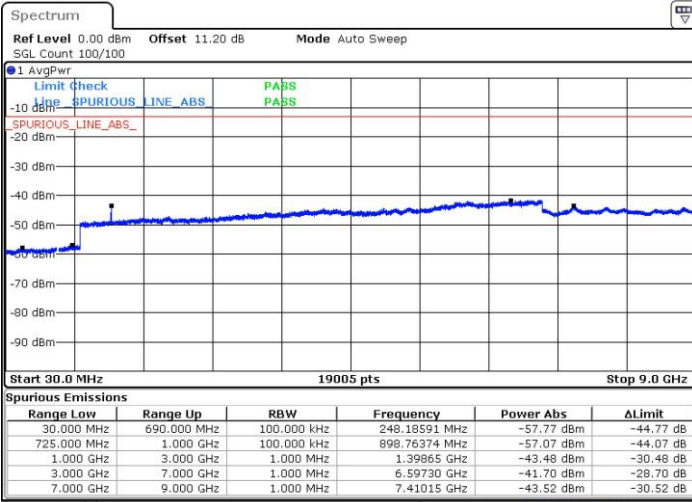
Conducted Spurious Emission



LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

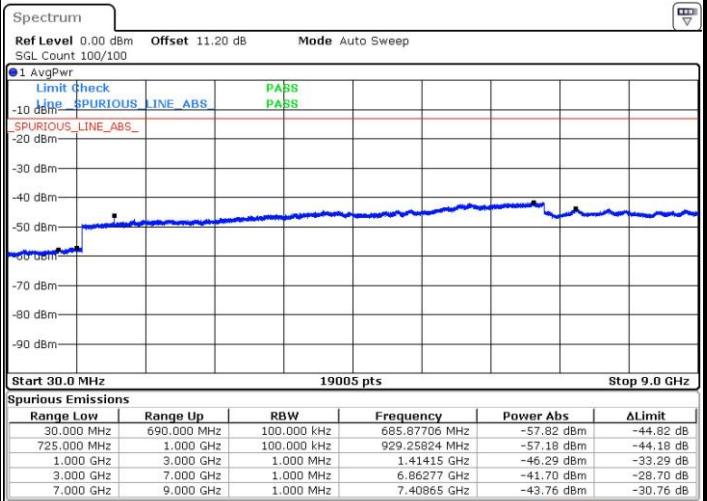
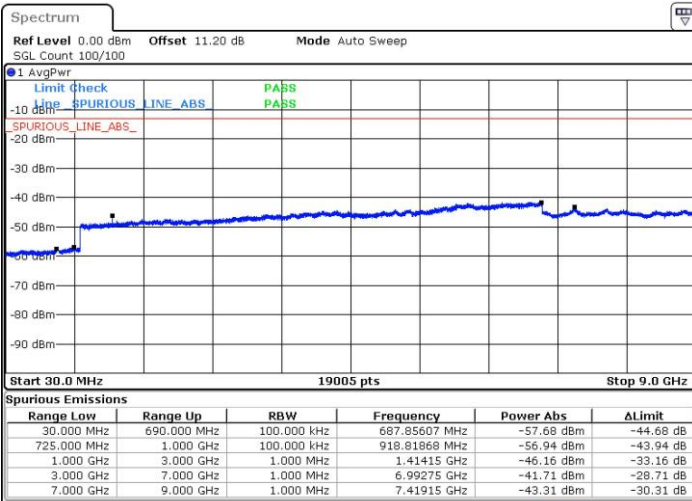


Date: 20 JUL 2018 06:52:39

Date: 20 JUL 2018 06:53:33

Middle Channel / QPSK

Middle Channel / 16QAM



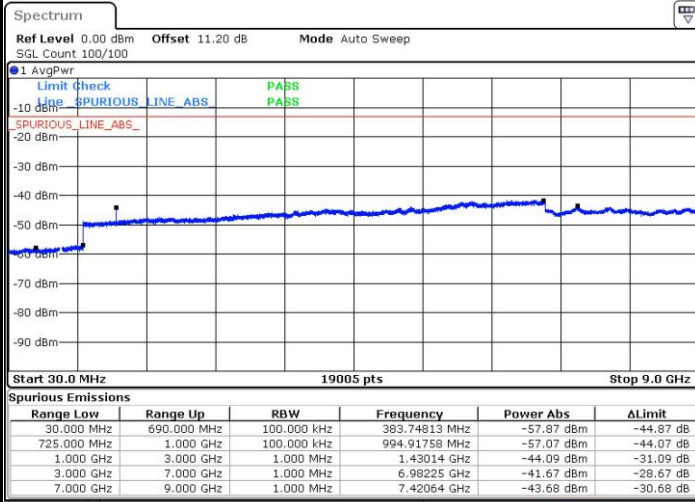
Date: 20 JUL 2018 06:56:02

Date: 20 JUL 2018 06:55:08



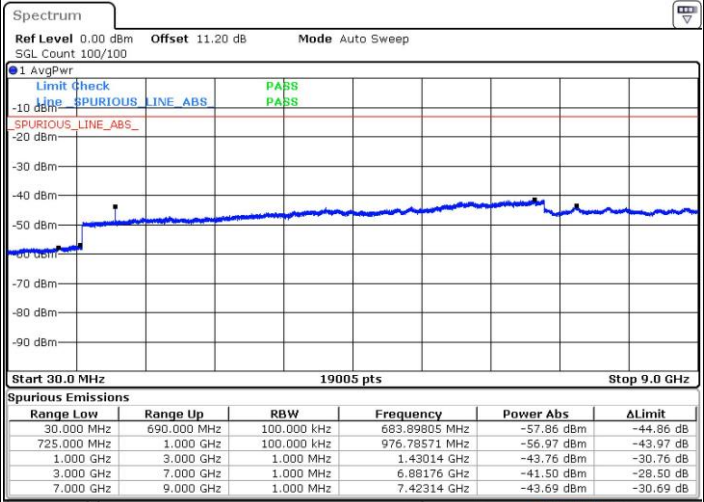
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 20 JUL 2018 07:02:07

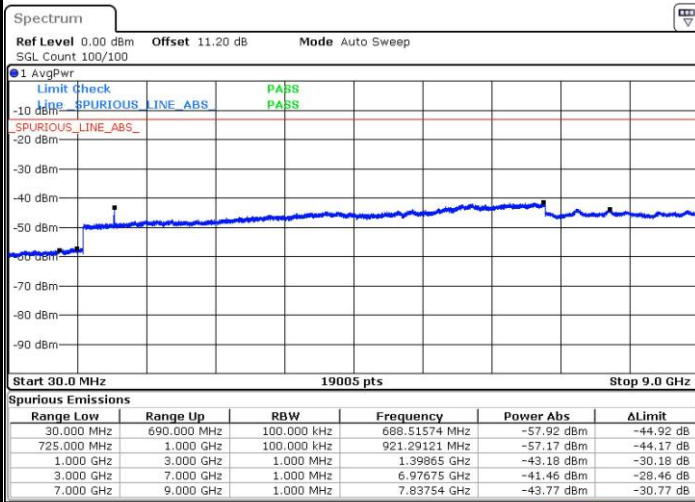
Highest Channel / 16QAM



Date: 20 JUL 2018 07:03:01

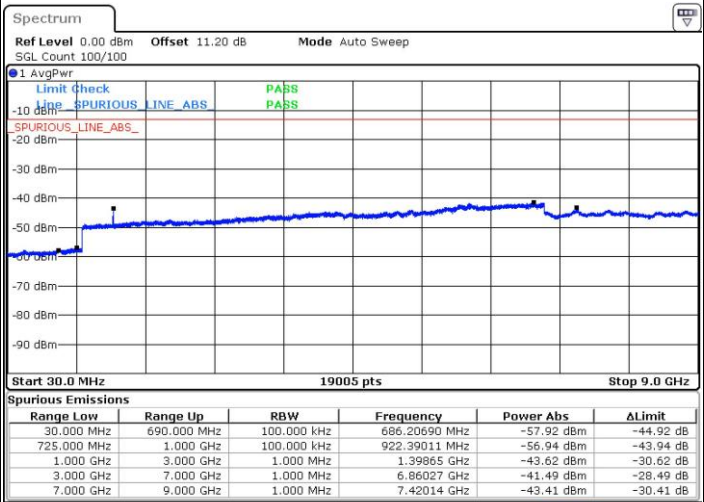
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 20 JUL 2018 05:56:17

Lowest Channel / 16QAM



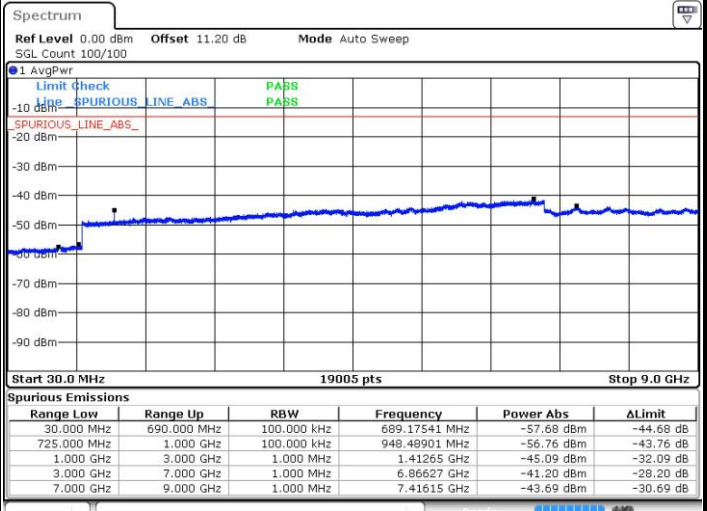
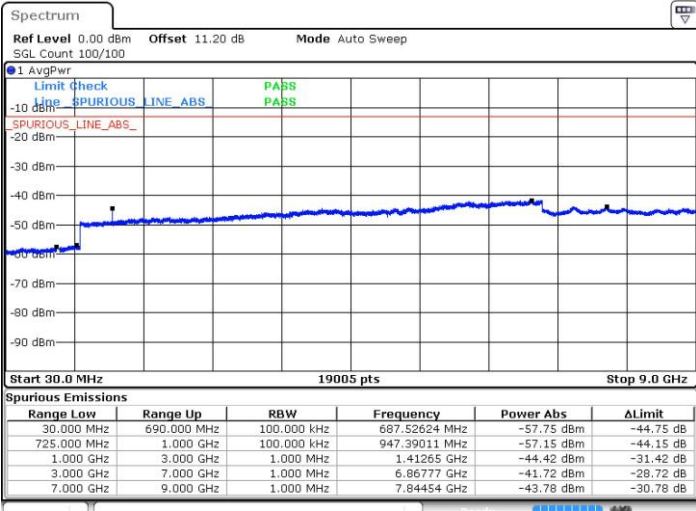
Date: 20 JUL 2018 05:57:11



LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

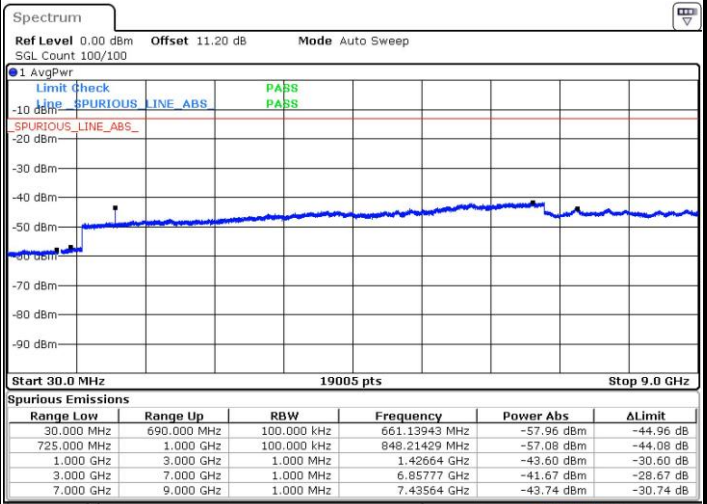
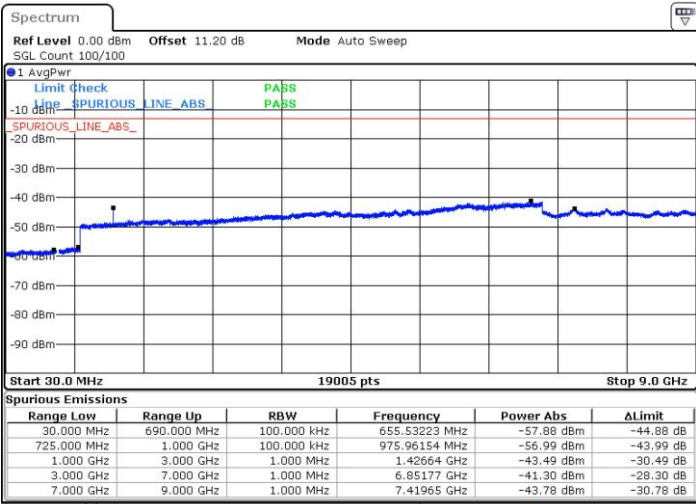


Date: 20 JUL 2018 05:59:40

Date: 20 JUL 2018 05:58:46

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 20 JUL 2018 06:05:44

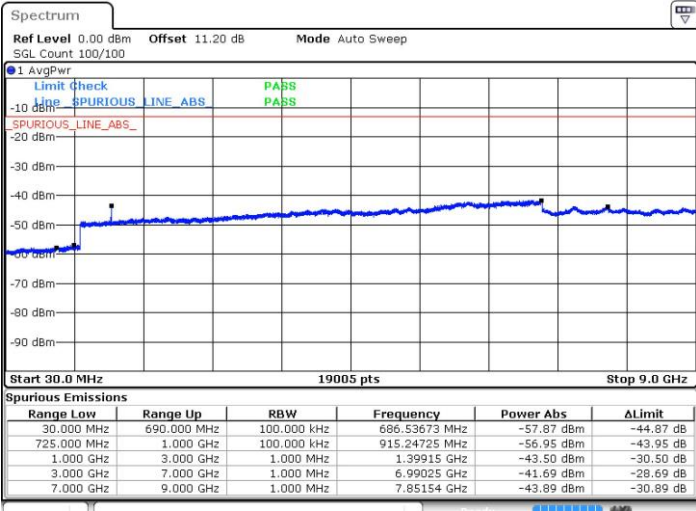
Date: 20 JUL 2018 06:06:38



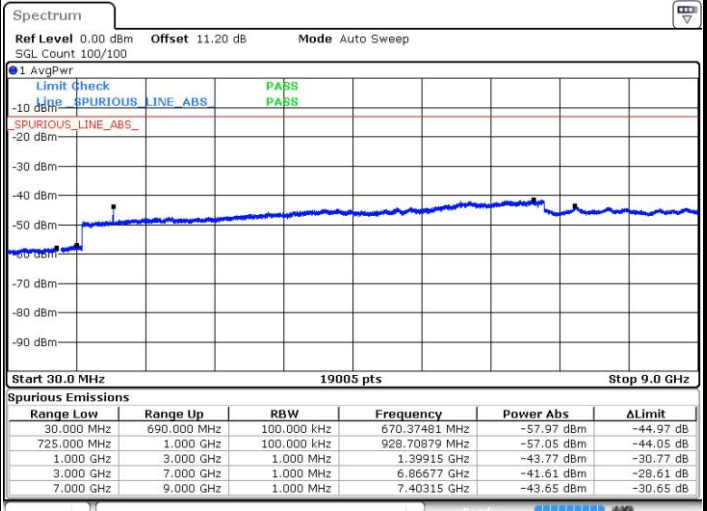
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



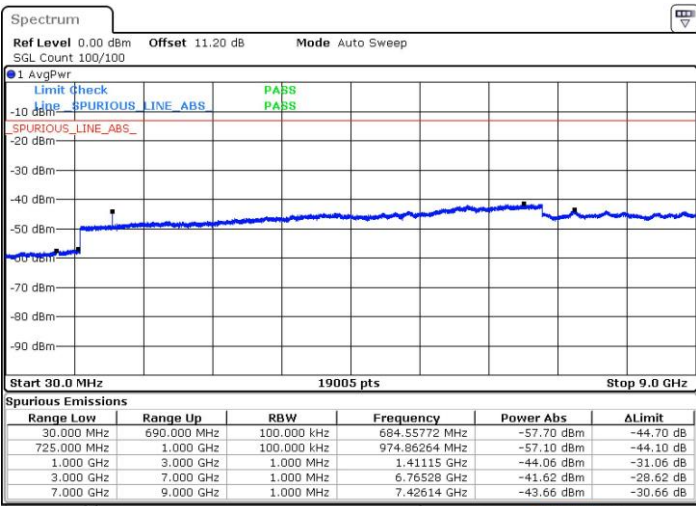
Date: 20 JUL 2018 06:12:43



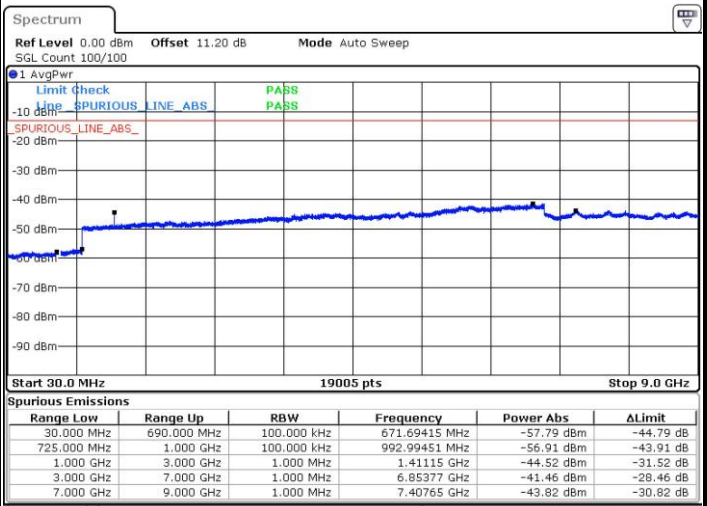
Date: 20 JUL 2018 06:13:37

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 20 JUL 2018 06:16:06



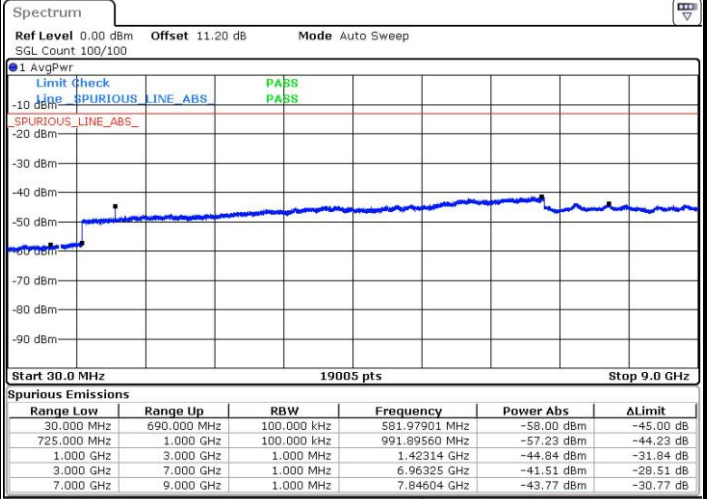
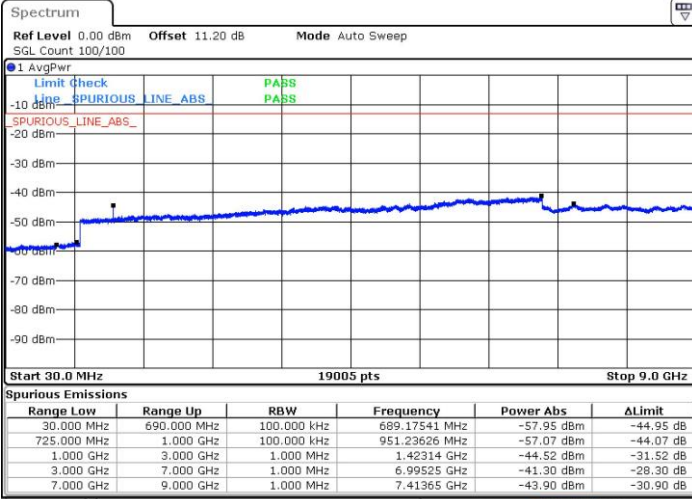
Date: 20 JUL 2018 06:15:12



LTE Band 12 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



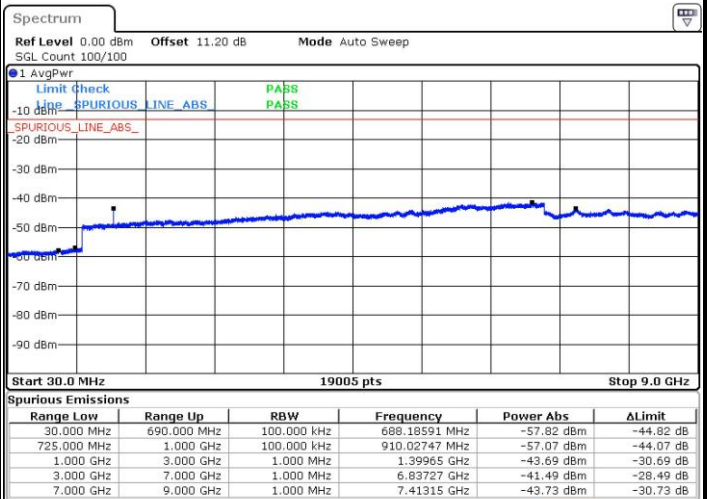
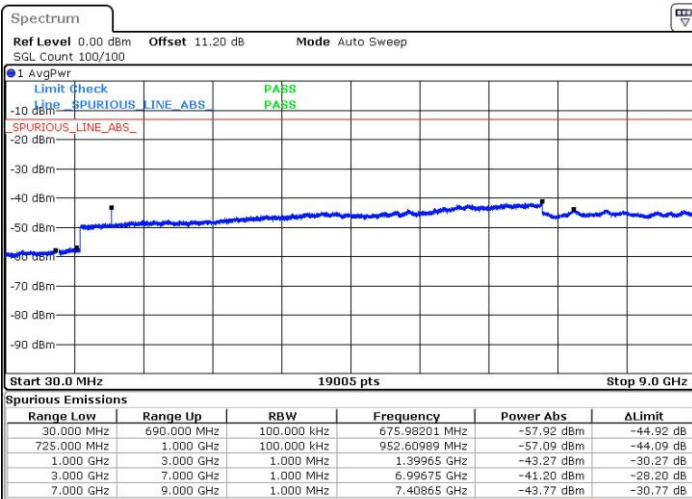
Date: 20 JUL 2018 06:23:04

Date: 20 JUL 2018 06:22:10

LTE Band 12 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



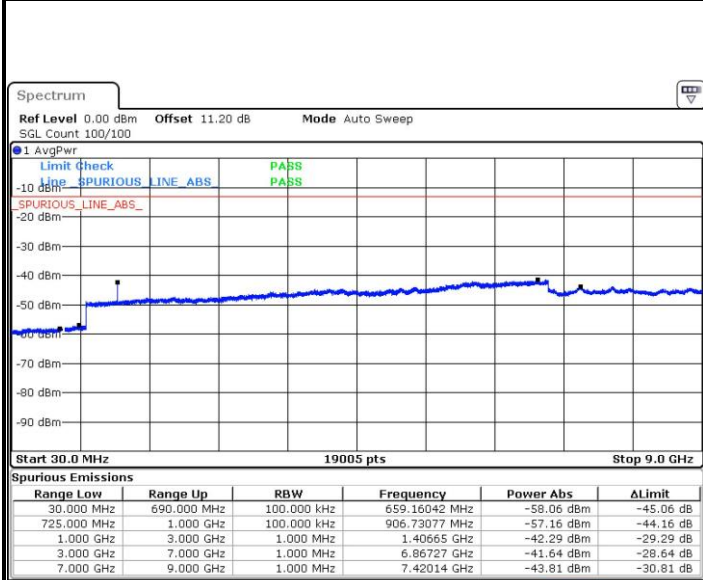
Date: 20 JUL 2018 06:29:09

Date: 20 JUL 2018 06:30:03



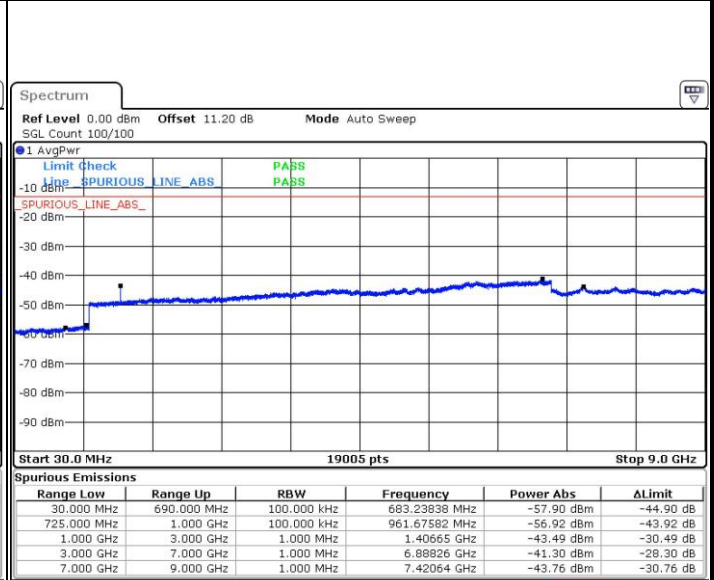
LTE Band 12 / 10MHz

Middle Channel / QPSK



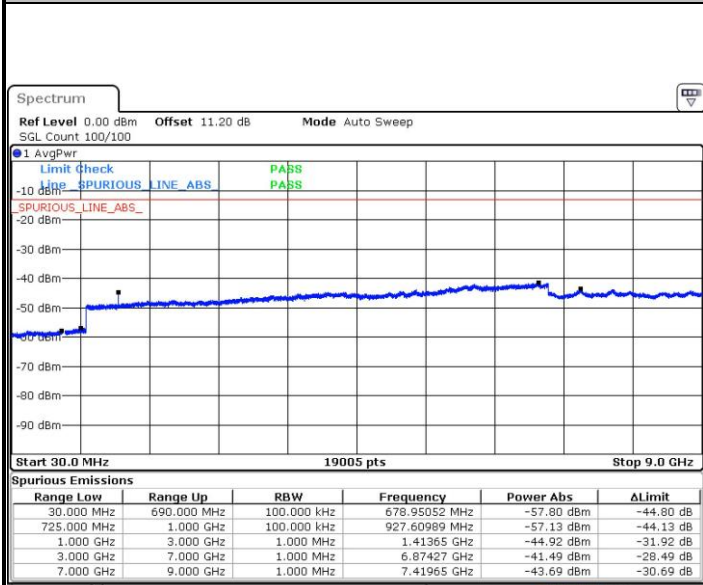
Date: 20 JUL 2018 06:32:32

Middle Channel / 16QAM



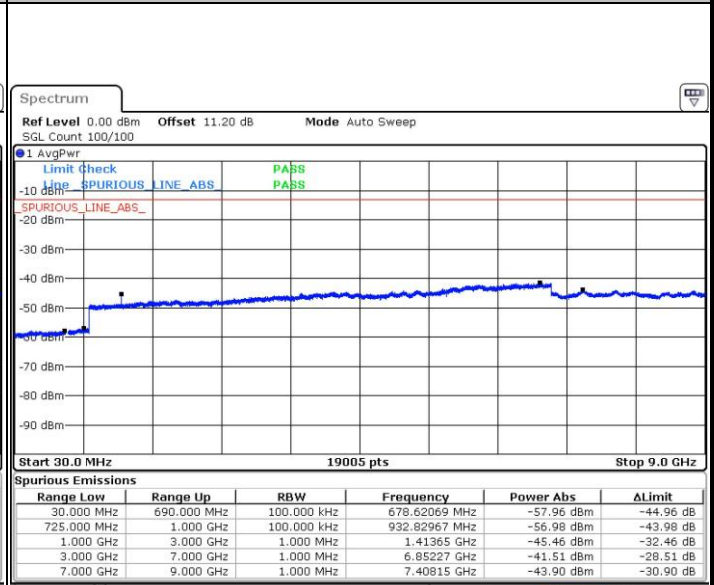
Date: 20 JUL 2018 06:31:38

Highest Channel / QPSK



Date: 20 JUL 2018 06:38:36

Highest Channel / 16QAM



Date: 20 JUL 2018 06:39:30



Frequency Stability

| Test Conditions | | LTE Band 12 (QPSK) / Middle Channel | Limit |
|------------------|-------------------|-------------------------------------|---------|
| Temperature (°C) | Voltage (Volt) | BW 10MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0034 | PASS |
| 40 | Normal Voltage | 0.0014 | |
| 30 | Normal Voltage | 0.0047 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0112 | |
| 0 | Normal Voltage | 0.0020 | |
| -10 | Normal Voltage | 0.0141 | |
| -20 | Normal Voltage | 0.0007 | |
| -30 | Normal Voltage | 0.0052 | |
| 20 | Maximum Voltage | 0.0010 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0055 | |

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



| Test Conditions | | LTE Band 12 (QPSK) / Middle Channel | Limit |
|------------------|-------------------|--------------------------------------|-------------|
| Temperature (°C) | Voltage (Volt) | BW 5MHz | Within Band |
| | | Frequency Offset (Δf) (Hz) | Result |
| 50 | Normal Voltage | 2.4 | PASS |
| 40 | Normal Voltage | -1 | |
| 30 | Normal Voltage | -3.3 | |
| 20(Ref.) | Normal Voltage | 0 | |
| 10 | Normal Voltage | -7.9 | |
| 0 | Normal Voltage | 1.4 | |
| -10 | Normal Voltage | -10 | |
| -20 | Normal Voltage | -0.5 | |
| -30 | Normal Voltage | 3.7 | |
| 20 | Maximum Voltage | -0.7 | |
| 20 | Normal Voltage | 0 | |
| 20 | Battery End Point | -3.9 | |

$|\text{MAX}(\Delta f)| = 3.7\text{Hz}$

| Frequency Stability | Frequency (MHz) | Limit Line | Result |
|--------------------------------|-----------------|------------------------|--------|
| $f_L - \text{MAX}(\Delta f) $ | 699.038690 | $\geq 699 \text{ MHz}$ | PASS |
| $f_H + \text{MAX}(\Delta f) $ | 715.955610 | $\leq 716 \text{ MHz}$ | |



LTE Band 13

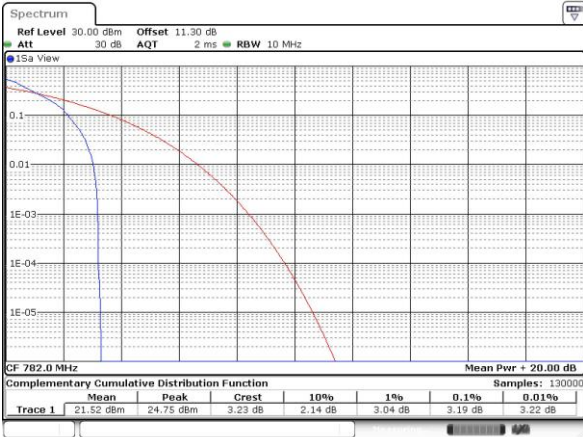
Peak-to-Average Ratio

| Mode | LTE Band 13 / 10MHz | | | | |
|------------|---------------------|---------|-------|---------|-------------|
| Mod. | QPSK | | 16QAM | | Limit: 13dB |
| RB Size | 1RB | Full RB | 1RB | Full RB | Result |
| Lowest CH | - | - | - | - | PASS |
| Middle CH | 3.19 | 4.81 | 4.14 | 5.86 | |
| Highest CH | - | - | - | - | |



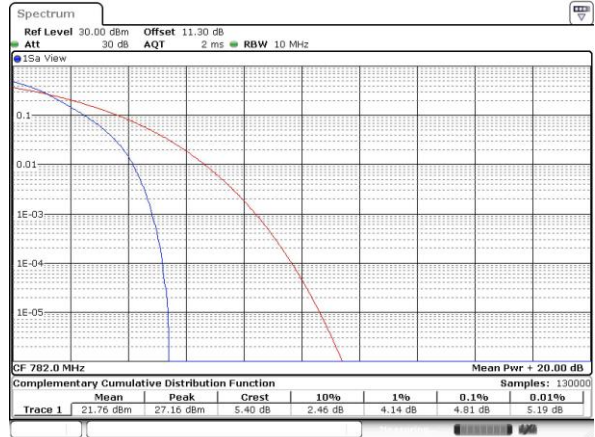
LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 20 JUL 2016 07:59:21

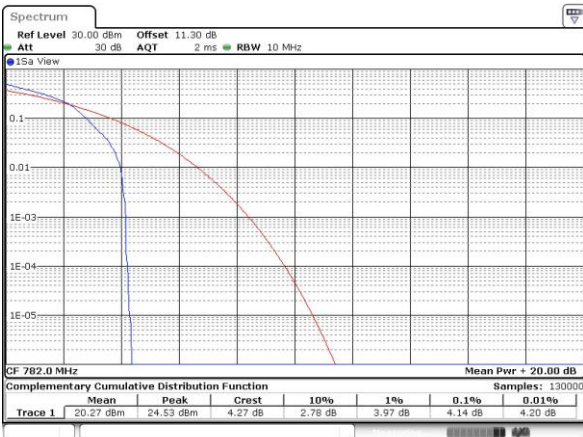
Middle Channel / Full RB



Date: 20 JUL 2016 07:59:32

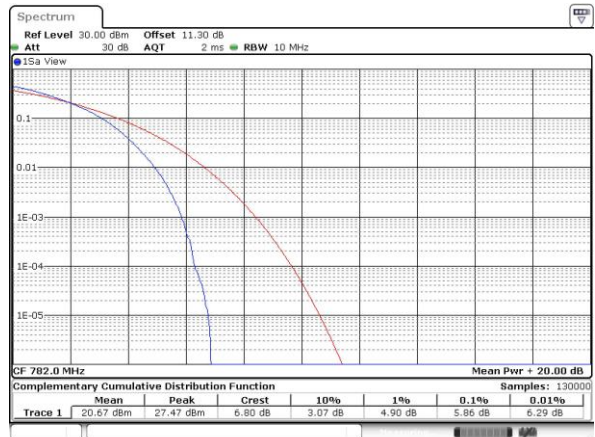
LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Date: 20 JUL 2016 07:59:01

Middle Channel / Full RB



Date: 20 JUL 2016 07:59:11



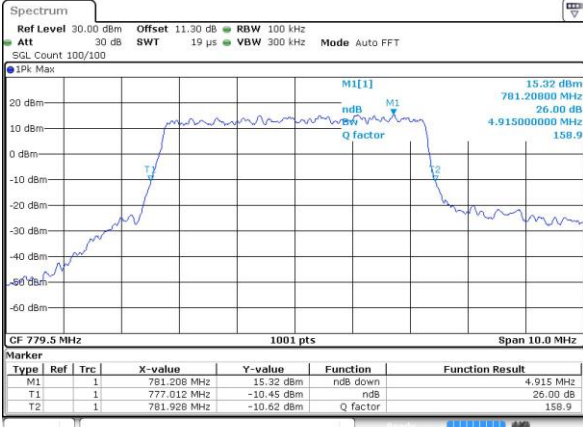
26dB Bandwidth

| 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 | - | - | - | - | 4.92 | 4.98 | - | - | - | - | - | - |
| Middle CH | - | - | - | - | 4.97 | 4.84 | 9.81 | 9.67 | - | - | - | - |
| Highest CH | - | - | - | - | 4.97 | 4.85 | - | - | - | - | - | - |



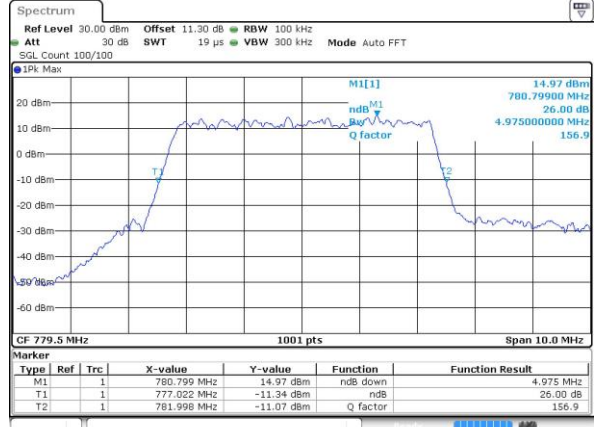
LTE Band 13

Lowest Channel / 5MHz / QPSK



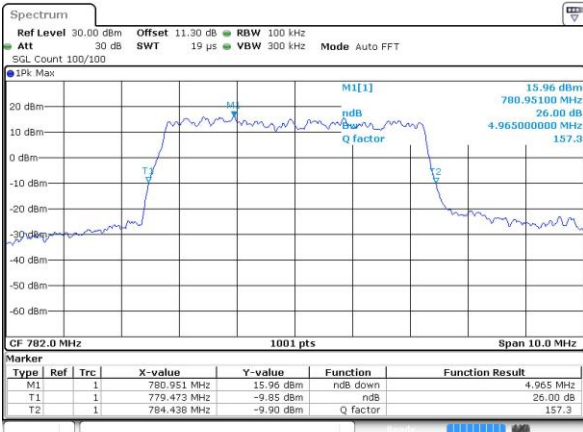
Date: 20 JUL 2018 07:23:08

Lowest Channel / 5MHz / 16QAM



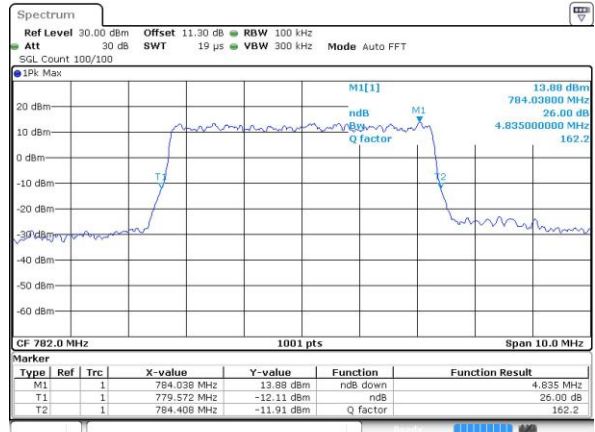
Date: 20 JUL 2018 07:22:58

Middle Channel / 5MHz / QPSK



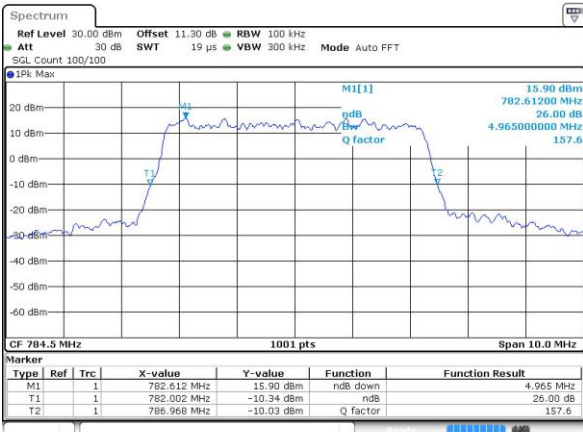
Date: 20 JUL 2018 07:33:24

Middle Channel / 5MHz / 16QAM



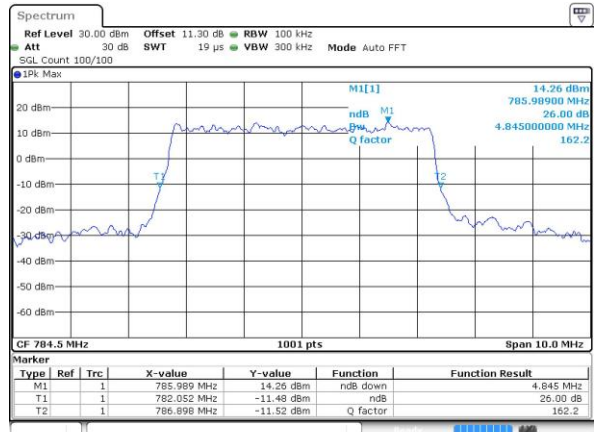
Date: 20 JUL 2018 07:33:34

Highest Channel / 5MHz / QPSK



Date: 20 JUL 2018 07:34:35

Highest Channel / 5MHz / 16QAM



Date: 20 JUL 2018 07:34:25