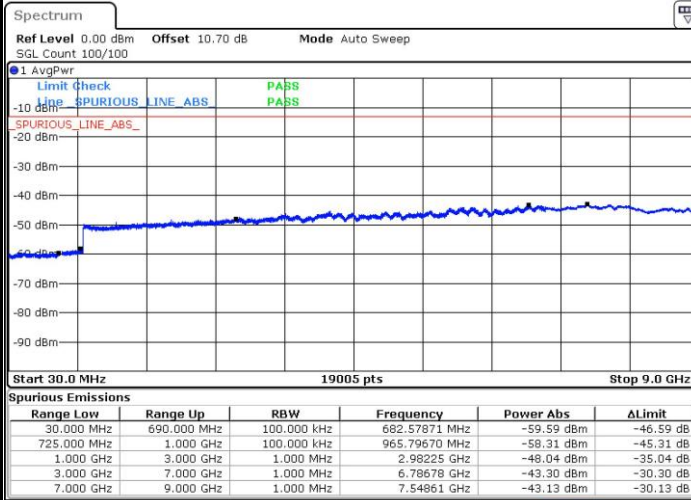




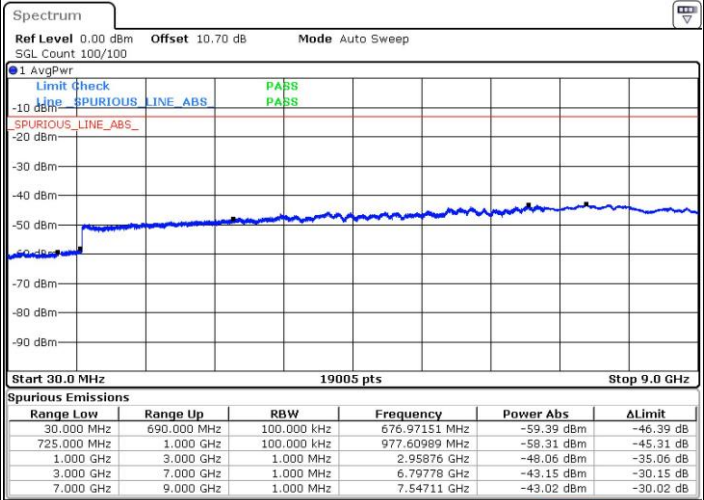
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 5 SEP.2018 01:54:14

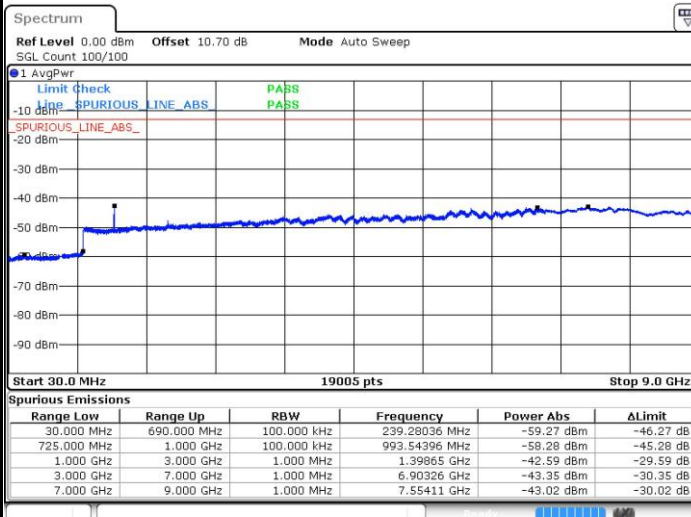
Highest Channel / 16QAM



Date: 5 SEP.2018 01:55:04

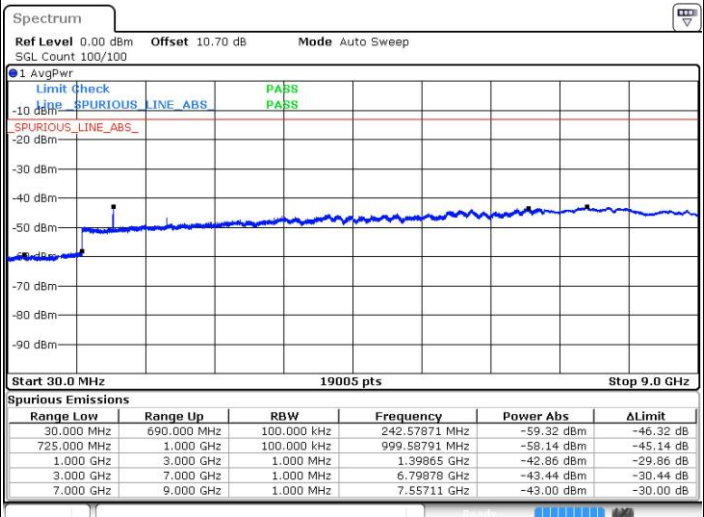
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 4 SEP.2018 23:23:39

Lowest Channel / 16QAM

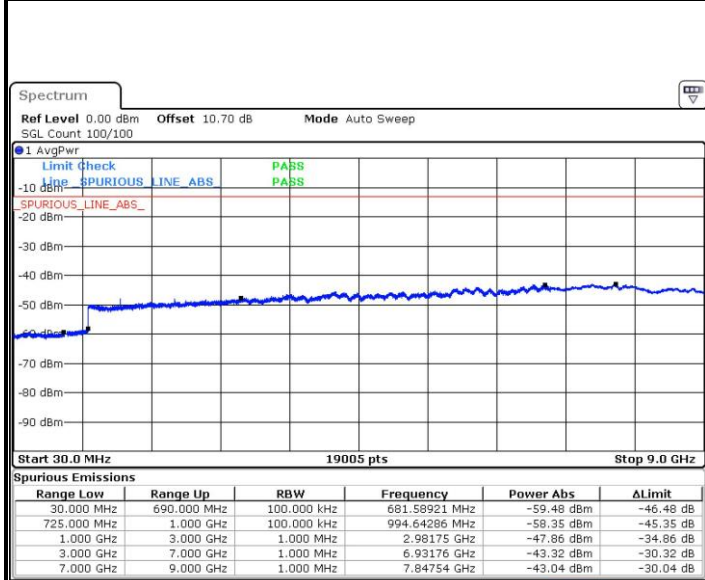


Date: 4 SEP.2018 23:24:29



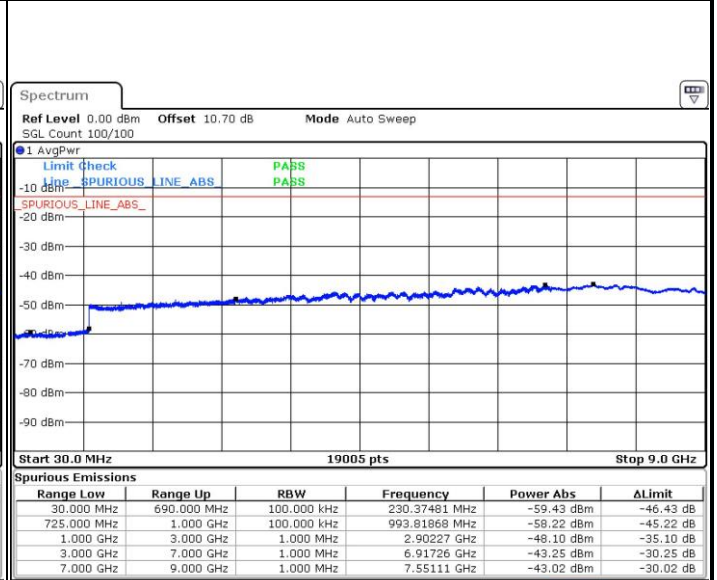
LTE Band 12 / 3MHz

Middle Channel / QPSK



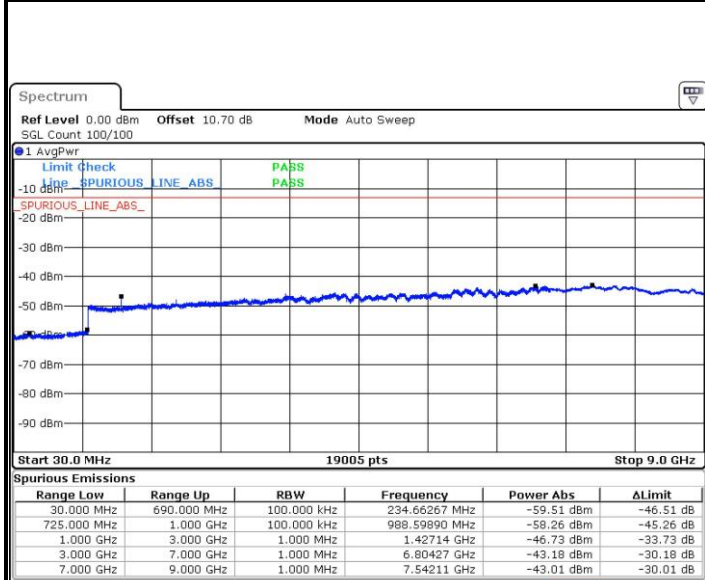
Date: 4 SEP.2018 23:26:55

Middle Channel / 16QAM



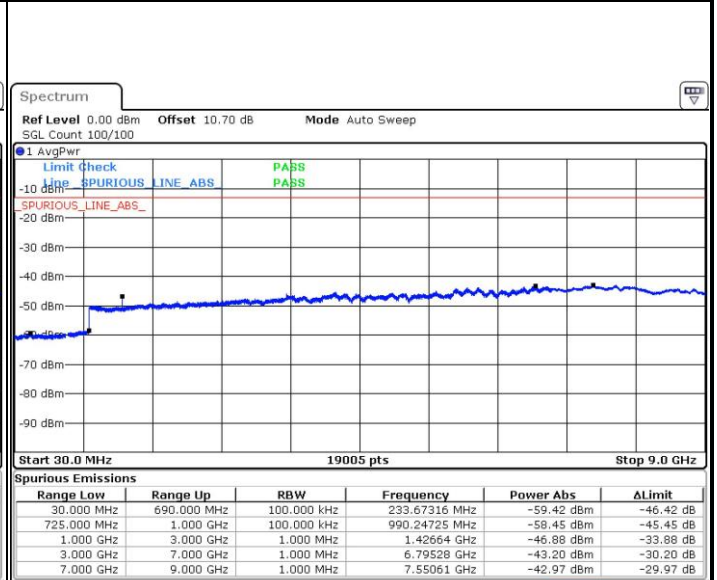
Date: 4 SEP.2018 23:26:05

Highest Channel / QPSK



Date: 4 SEP.2018 23:33:12

Highest Channel / 16QAM



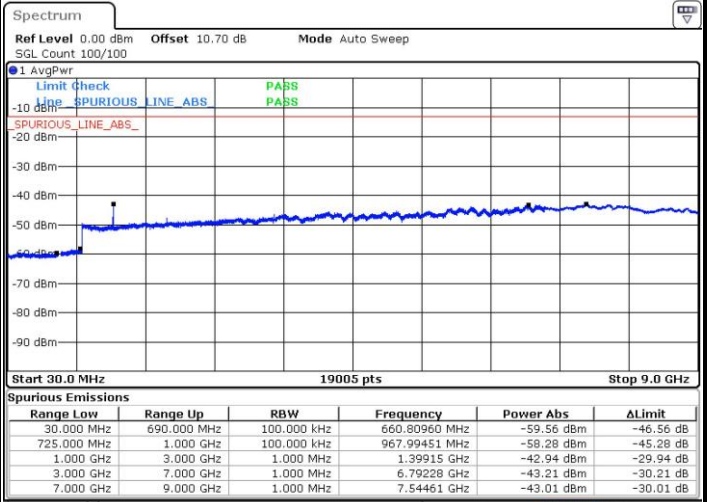
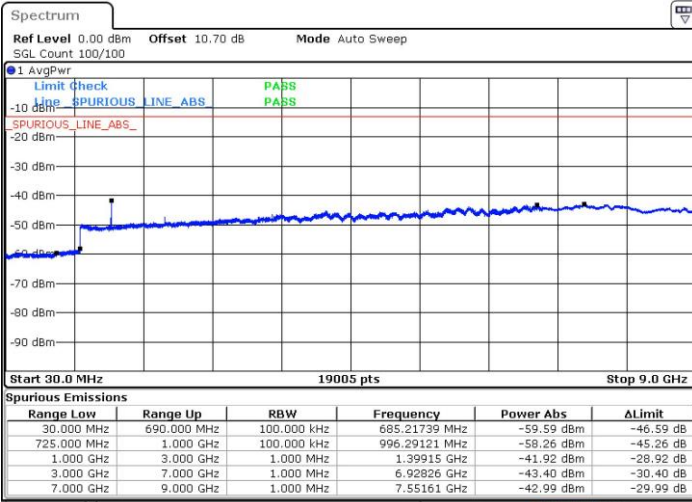
Date: 4 SEP.2018 23:34:02



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

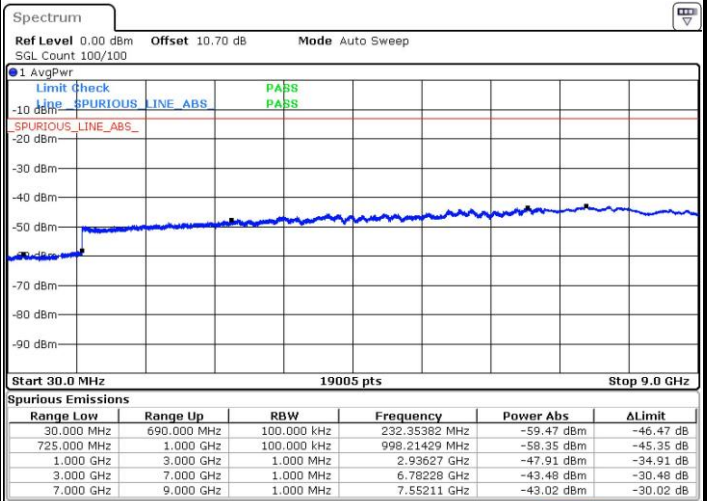
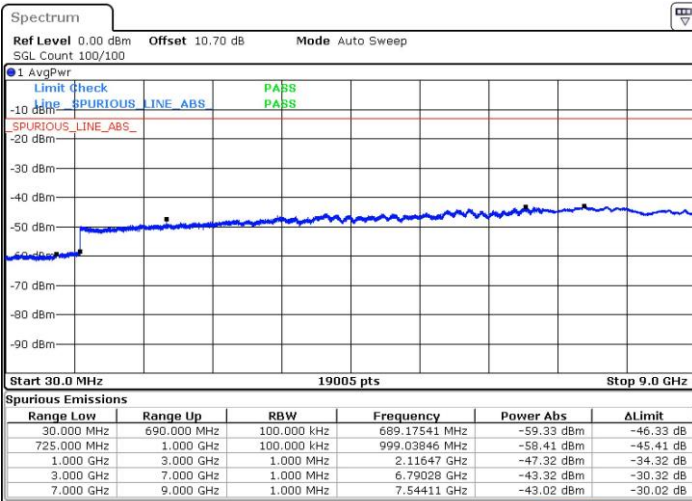


Date: 4 SEP.2018 23:40:18

Date: 4 SEP.2018 23:41:08

Middle Channel / QPSK

Middle Channel / 16QAM



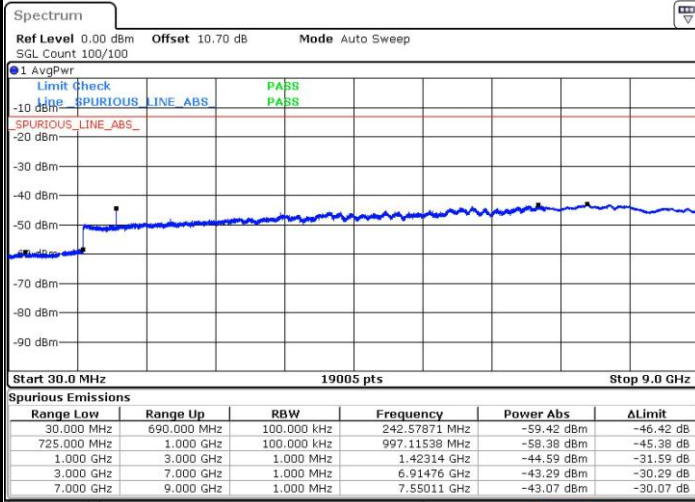
Date: 4 SEP.2018 23:43:34

Date: 4 SEP.2018 23:42:44



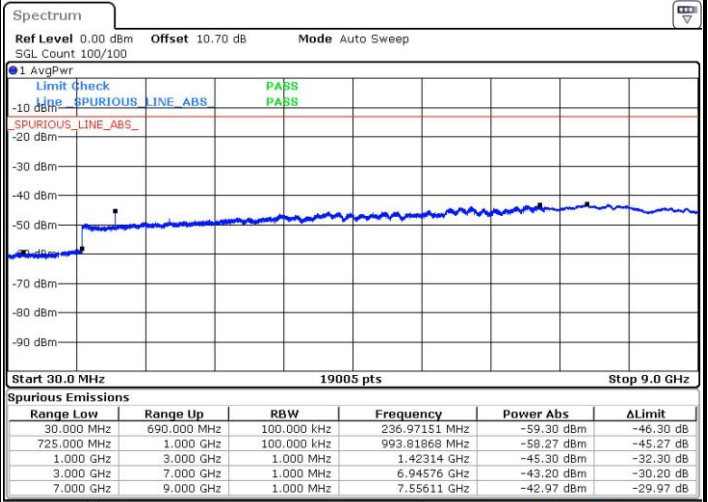
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 4 SEP.2018 23:50:39

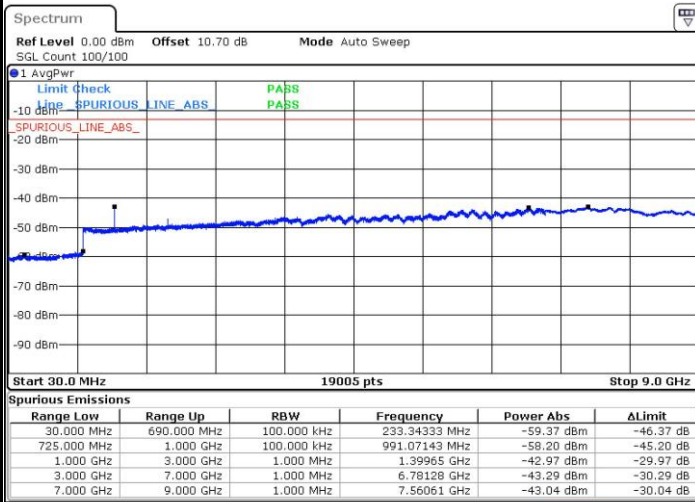
Highest Channel / 16QAM



Date: 4 SEP.2018 23:49:49

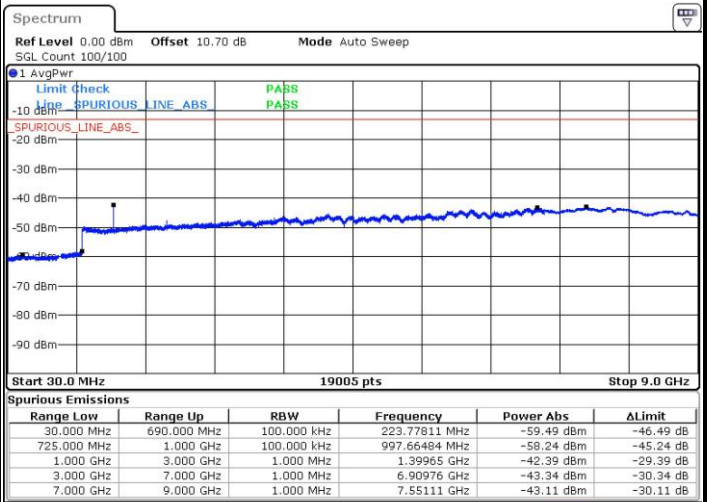
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 4 SEP.2018 23:56:55

Lowest Channel / 16QAM

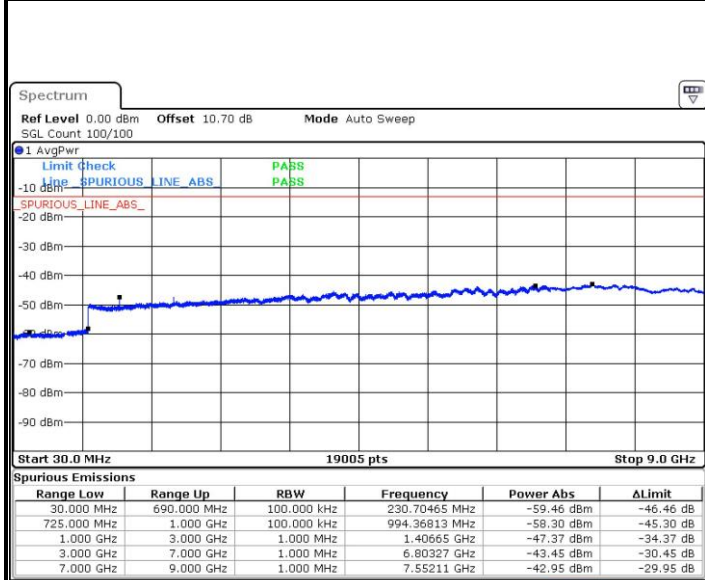


Date: 4 SEP.2018 23:57:45



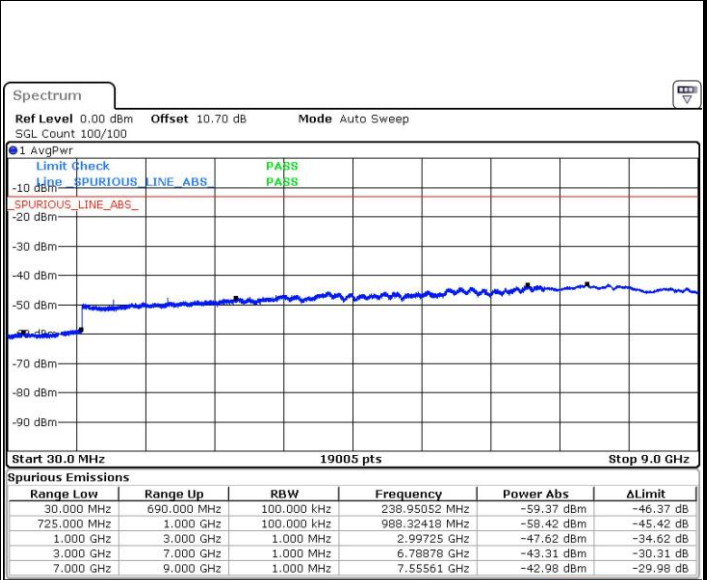
LTE Band 12 / 10MHz

Middle Channel / QPSK



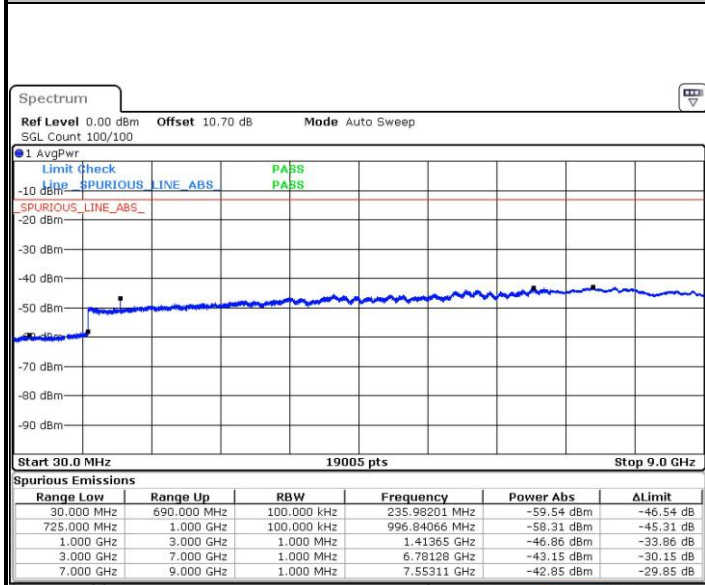
Date: 5.SEP.2018 00:00:11

Middle Channel / 16QAM



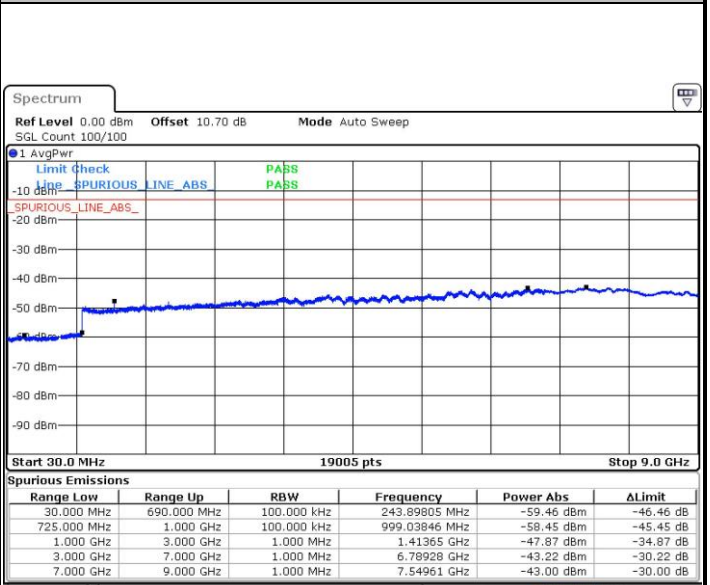
Date: 4.SEP.2018 23:59:21

Highest Channel / QPSK



Date: 5.SEP.2018 00:14:21

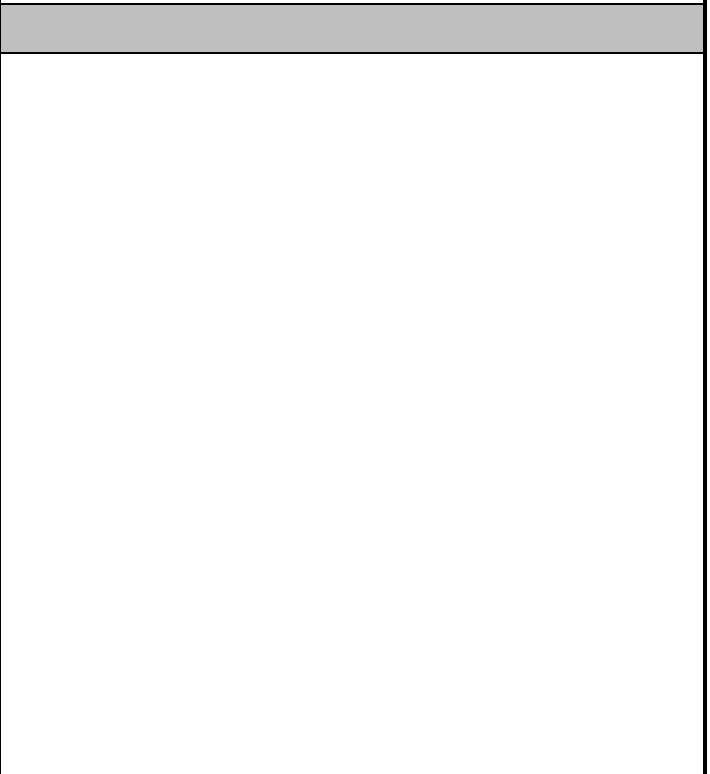
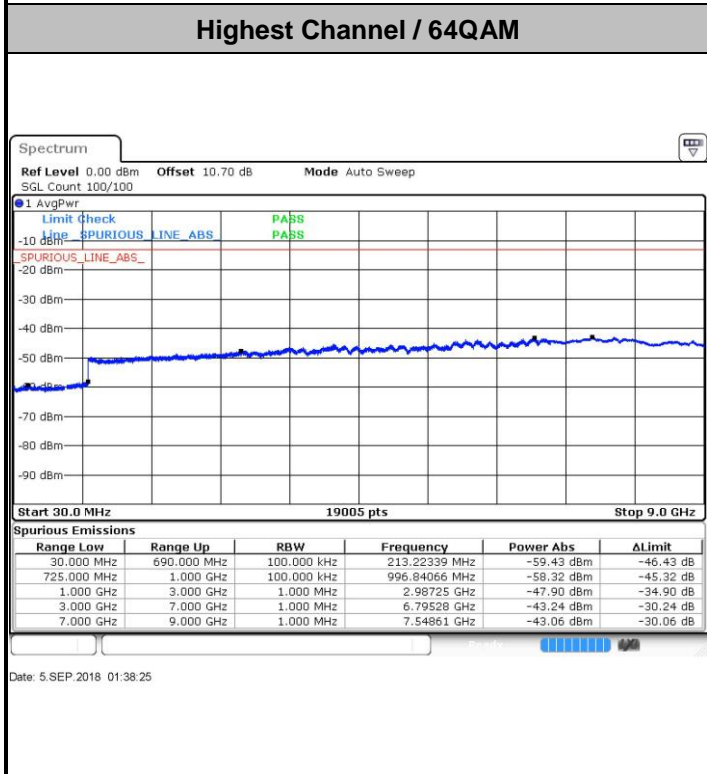
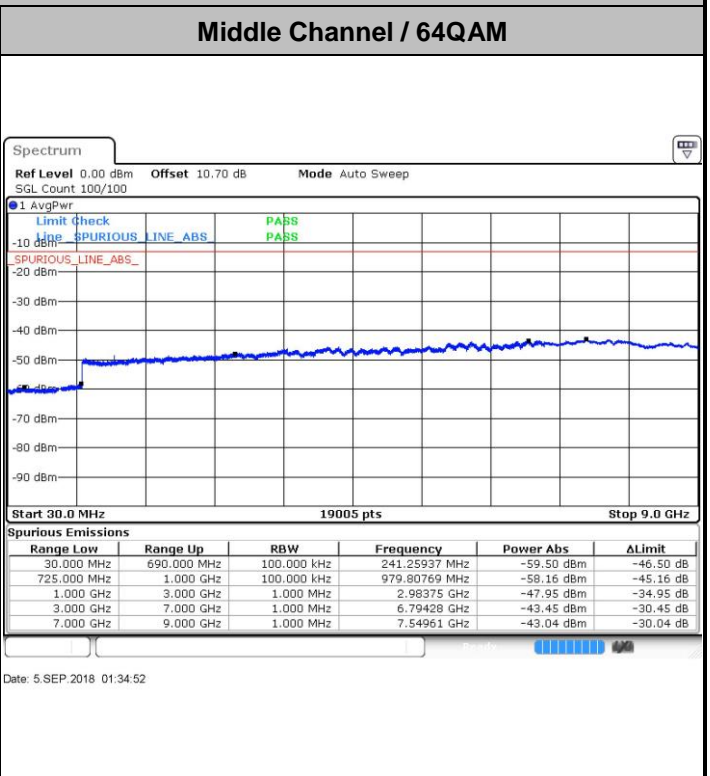
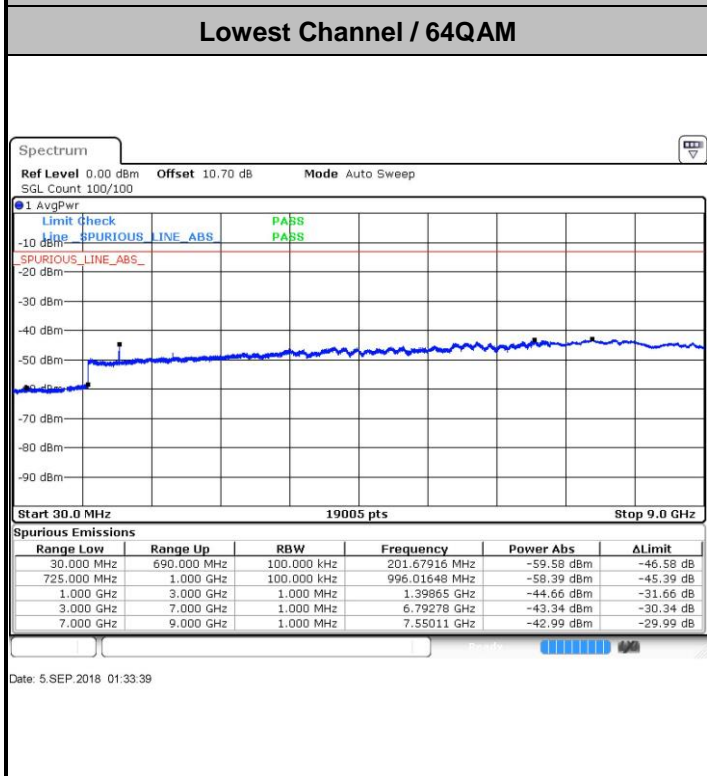
Highest Channel / 16QAM



Date: 5.SEP.2018 00:15:12



LTE Band 12 / 1.4MHz

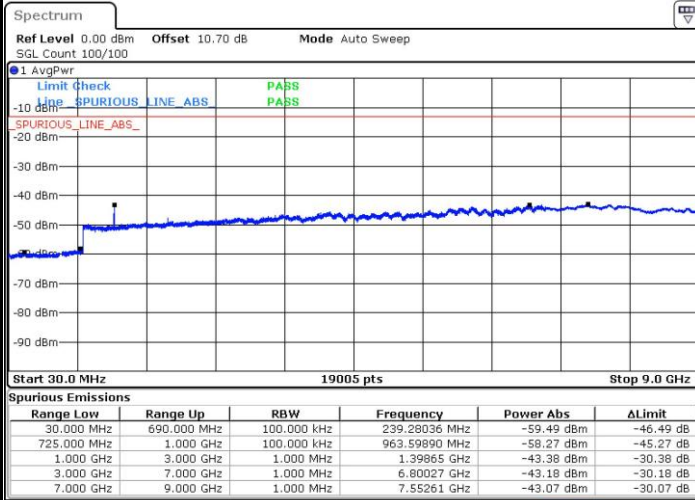




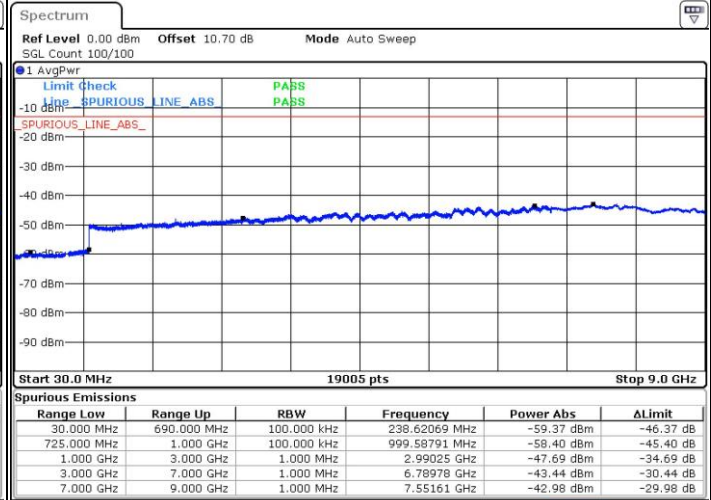
LTE Band 12 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

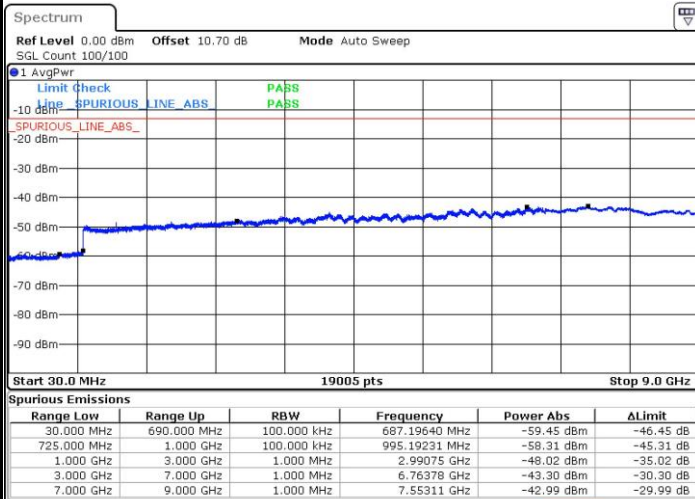


Date: 5.SEP.2018 01:08:40



Date: 5.SEP.2018 01:09:53

Highest Channel / 64QAM



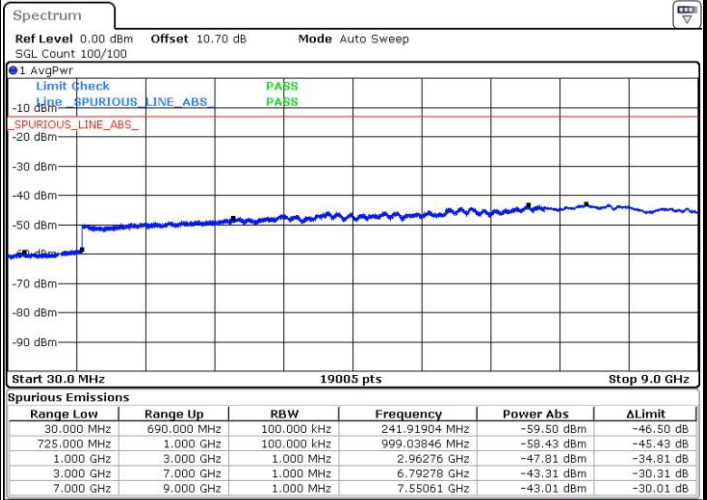
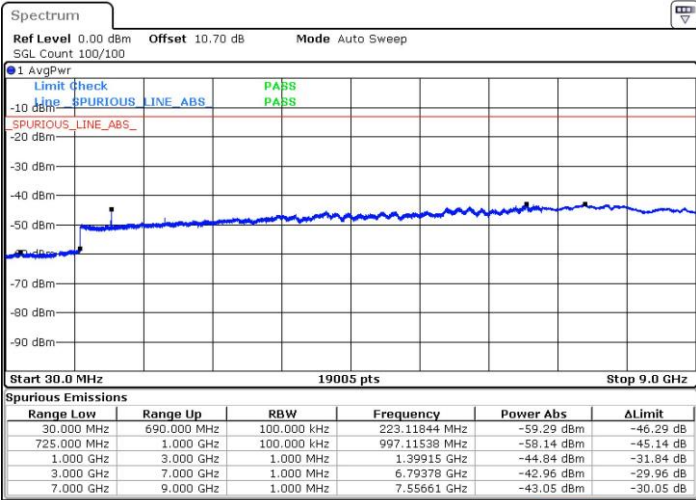
Date: 5.SEP.2018 01:13:26



LTE Band 12 / 5MHz

Lowest Channel / 64QAM

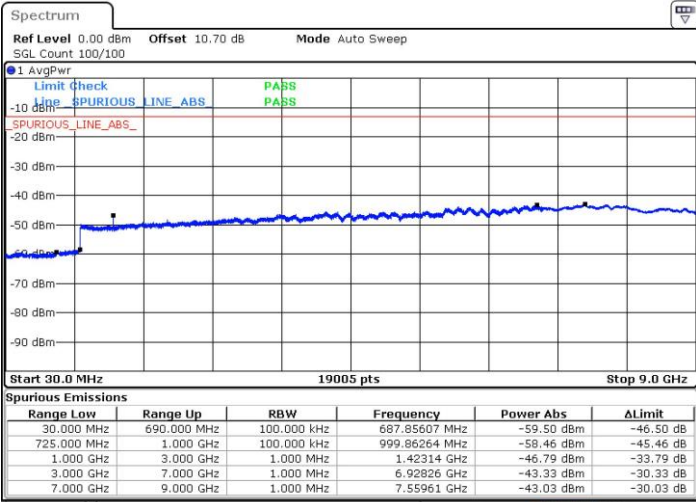
Middle Channel / 64QAM



Date: 5.SEP.2018 01:16:59

Date: 5.SEP.2018 01:18:12

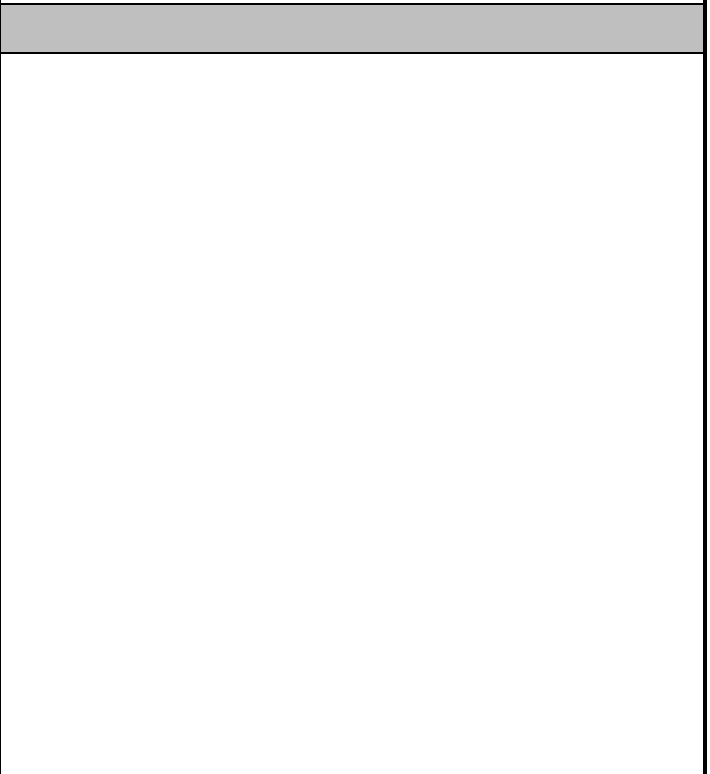
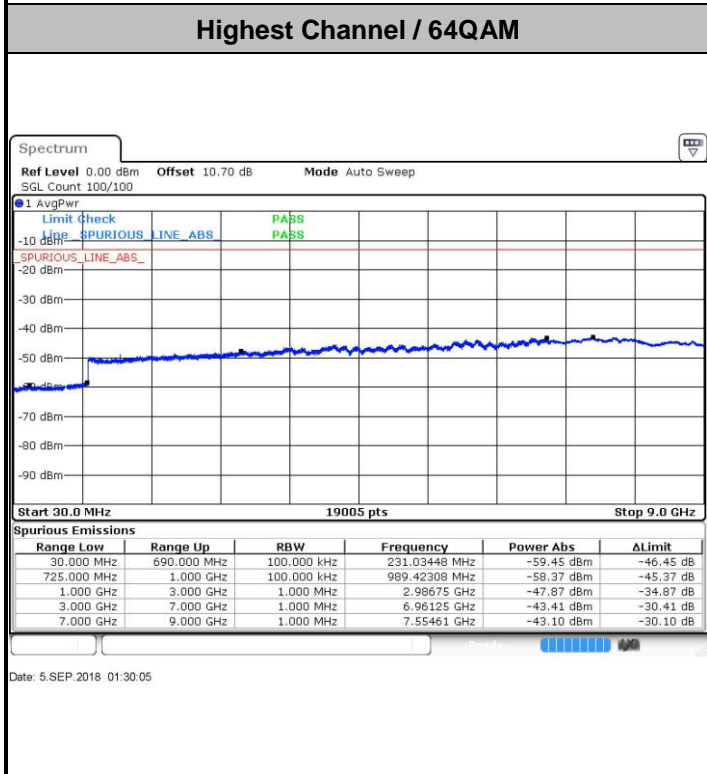
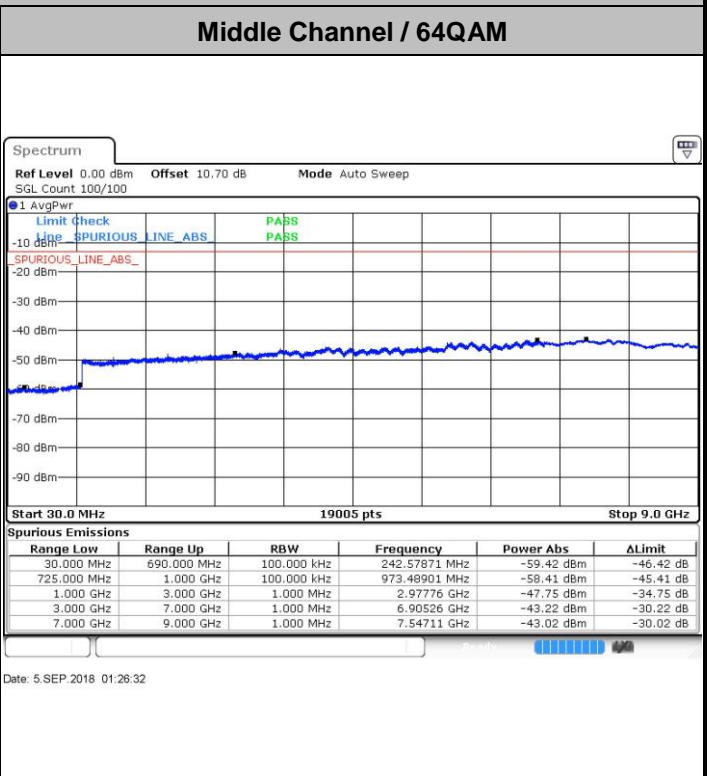
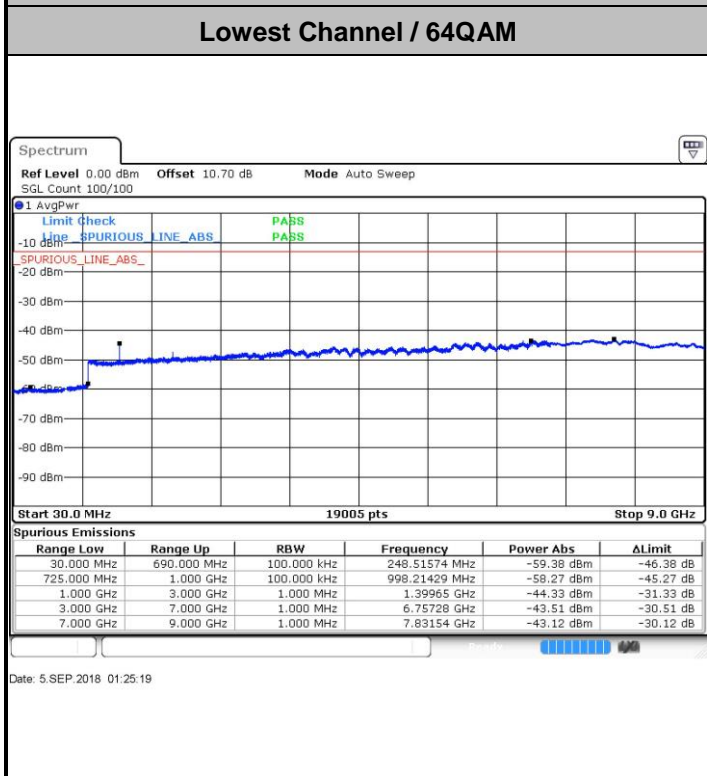
Highest Channel / 64QAM



Date: 5.SEP.2018 01:21:46



LTE Band 12 / 10MHz





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 | 0.0011 | PASS |
| 40 | Normal Voltage | 0.0030 | |
| 30 | Normal Voltage | 0.0028 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0107 | |
| 0 | Normal Voltage | 0.0098 | |
| -10 | Normal Voltage | 0.0079 | |
| -20 | Normal Voltage | 0.0031 | |
| -30 | Normal Voltage | 0.0089 | |
| 20 | Maximum Voltage | 0.0093 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0025 | |

Note:

- 1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

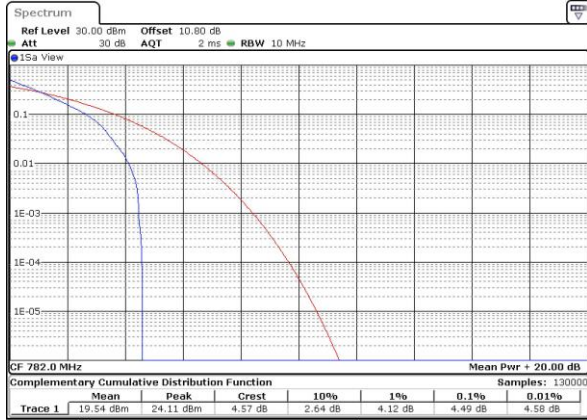
Peak-to-Average Ratio

| Mode | LTE Band 13 / 10MHz | | | | |
|------------|---------------------|---------|-------|---------|-------------|
| Mod. | QPSK | | 16QAM | | Limit: 13dB |
| RB Size | 1RB | Full RB | 1RB | Full RB | Result |
| Lowest CH | - | - | - | - | PASS |
| Middle CH | 4.49 | 5.10 | 5.39 | 6.06 | |
| Highest CH | - | - | - | - | |
| Mode | LTE Band 13 / 10MHz | | | | |
| Mod. | 64QAM | | | | Limit: 13dB |
| RB Size | 1RB | Full RB | | | Result |
| Lowest CH | - | - | - | - | PASS |
| Middle CH | 6.38 | 6.41 | - | - | |
| Highest CH | - | - | - | - | |



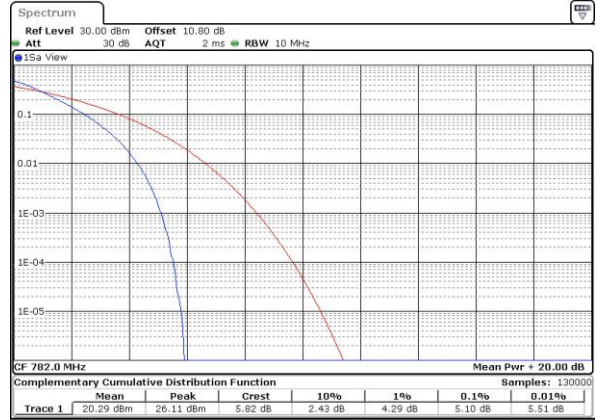
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 6 SEP 2018 00:06:07

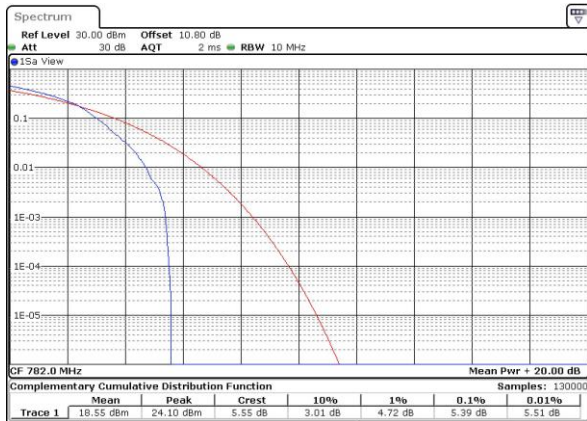
Middle Channel / Full RB



Date: 6 SEP 2018 00:06:17

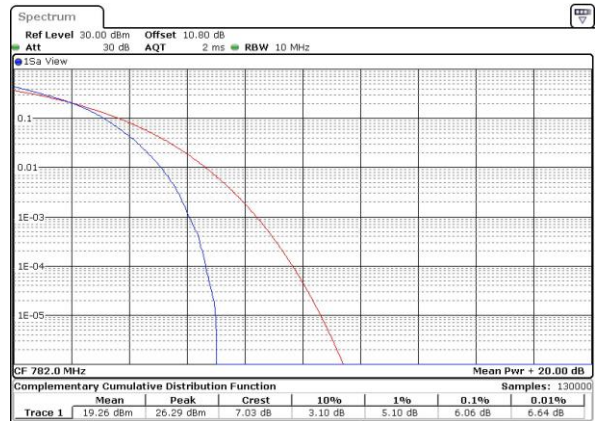
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 6 SEP 2018 00:07:47

Middle Channel / Full RB



Date: 6 SEP 2018 00:07:57

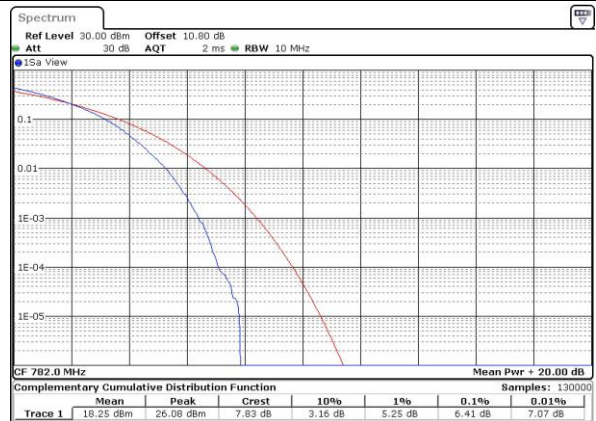
LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 6 SEP 2018 00:07:27

Middle Channel / Full RB



Date: 6 SEP 2018 00:07:37



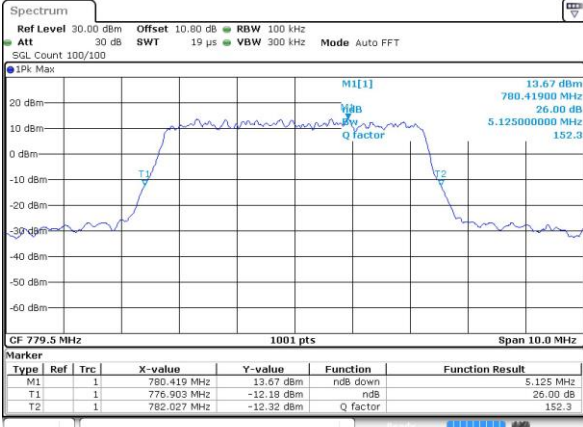
26dB Bandwidth

| Mode | LTE Band 13 : 26dB BW(MHz) | | | | | | | | | | | |
|------------|----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Lowest CH | - | - | - | - | 5.13 | 5.08 | - | - | - | - | - | - |
| Middle CH | - | - | - | - | 5.07 | 5.01 | 10.11 | 9.93 | - | - | - | - |
| Highest CH | - | - | - | - | 5.18 | 5.10 | - | - | - | - | - | - |
| Mode | LTE Band 13 : 26dB BW(MHz) | | | | | | | | | | | |
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | |
| Lowest CH | - | - | - | - | 4.98 | - | - | - | - | - | - | - |
| Middle CH | - | - | - | - | 5.08 | - | 9.87 | - | - | - | - | - |
| Highest CH | - | - | - | - | 5.06 | - | - | - | - | - | - | - |



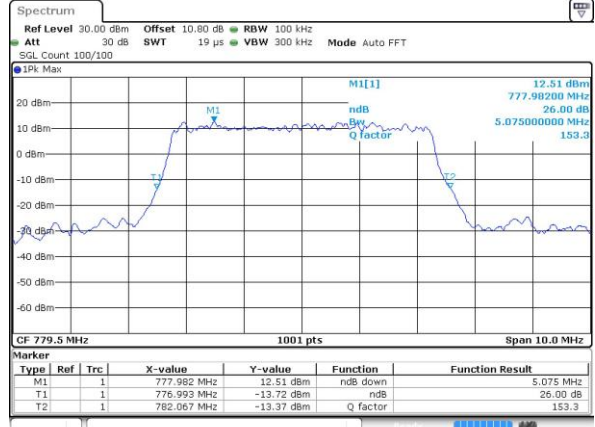
LTE Band 13

Lowest Channel / 5MHz / QPSK



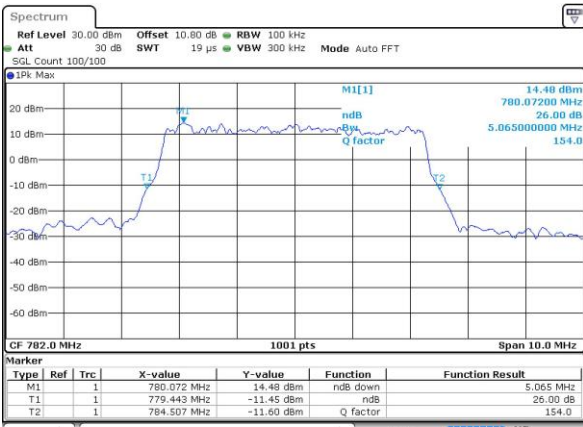
Date: 5 SEP.2018 23:16:36

Lowest Channel / 5MHz / 16QAM



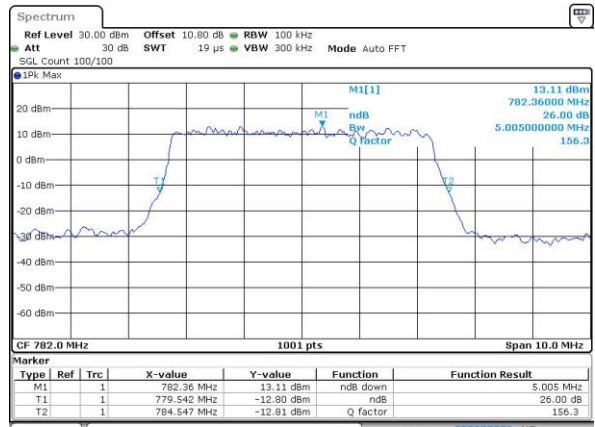
Date: 5 SEP.2018 23:16:24

Middle Channel / 5MHz / QPSK



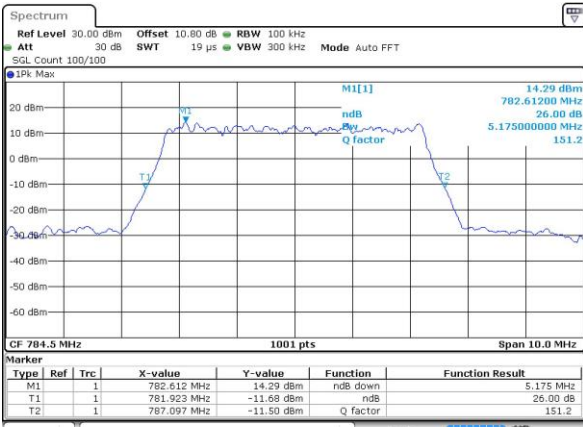
Date: 5 SEP.2018 23:26:48

Middle Channel / 5MHz / 16QAM



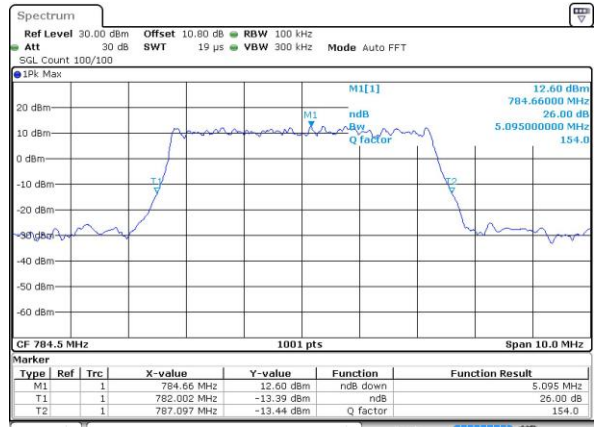
Date: 5 SEP.2018 23:27:00

Highest Channel / 5MHz / QPSK



Date: 5 SEP.2018 23:28:08

Highest Channel / 5MHz / 16QAM

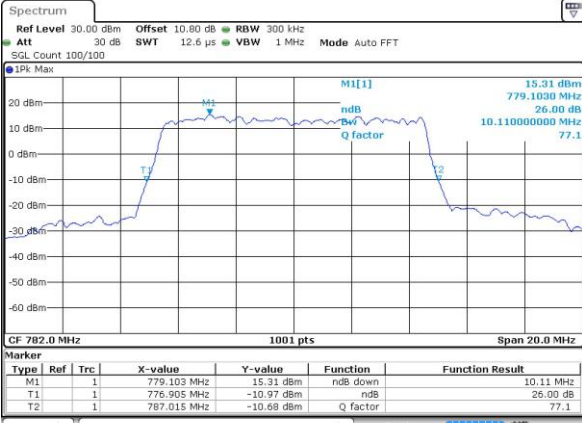


Date: 5 SEP.2018 23:27:57



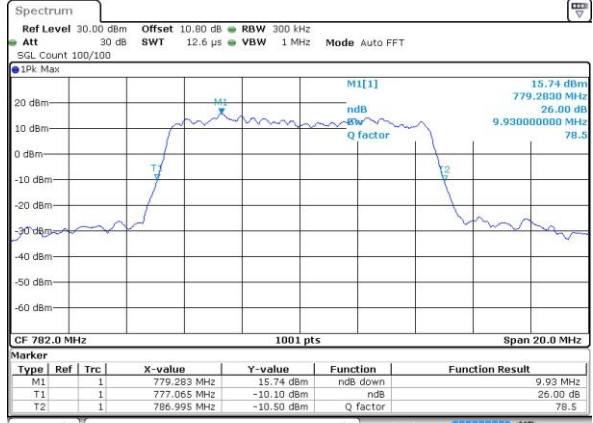
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 5 SEP 2018 23:47:34

Middle Channel / 10MHz / 16QAM

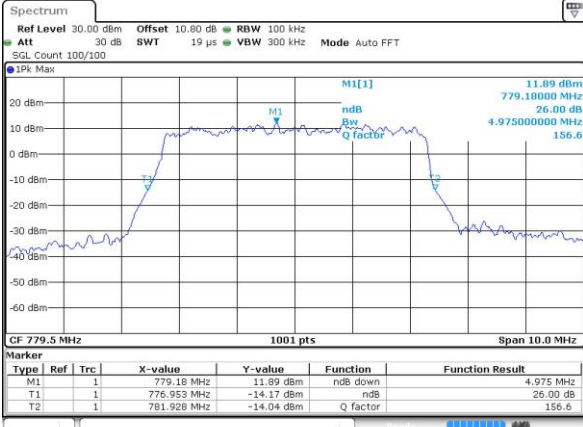


Date: 5 SEP 2018 23:47:23



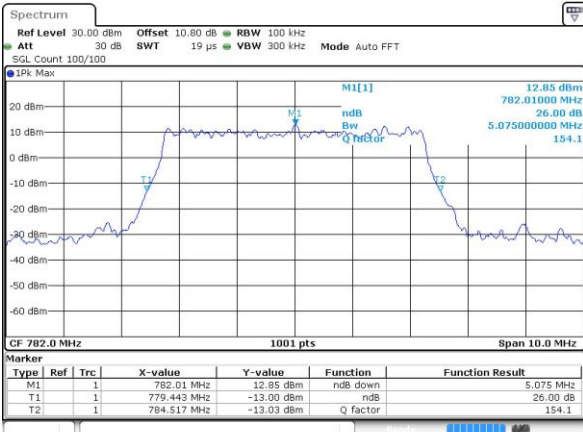
LTE Band 13

Lowest Channel / 5MHz / 64QAM



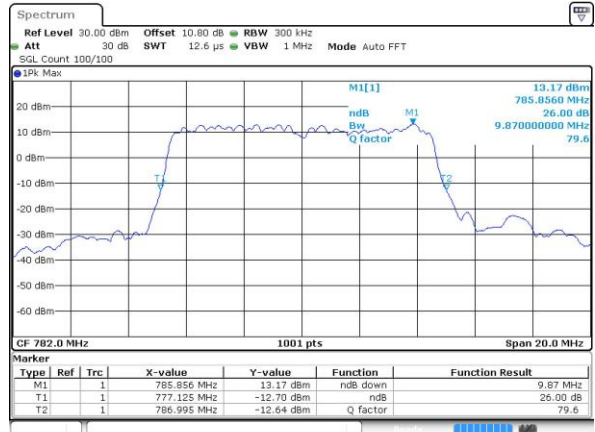
Date: 5 SEP.2018 23:36:52

Middle Channel / 5MHz / 64QAM



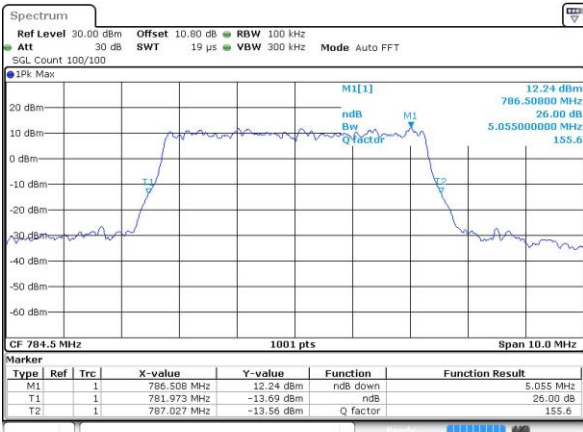
Date: 5 SEP.2018 23:42:04

Middle Channel / 10MHz / 64QAM



Date: 5 SEP.2018 23:59:38

Highest Channel / 5MHz / 64QAM



Date: 5 SEP.2018 23:42:38



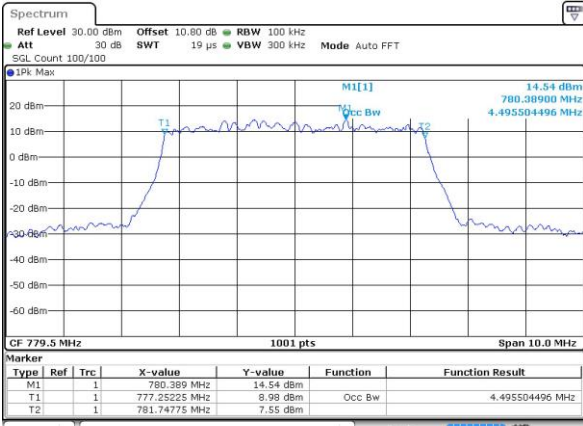
Occupied Bandwidth

| Mode | LTE Band 13 : 99%OBW(MHz) | | | | | | | | | | | |
|------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK | 16QAM |
| Lowest CH | - | - | - | - | 4.5 | 4.49 | - | - | - | - | - | - |
| Middle CH | - | - | - | - | 4.51 | 4.5 | 9.07 | 9.01 | - | - | - | - |
| Highest CH | - | - | - | - | 4.5 | 4.51 | - | - | - | - | - | - |
| Mode | LTE Band 13 : 99%OBW(MHz) | | | | | | | | | | | |
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | |
| Lowest CH | - | - | - | - | 4.50 | - | - | - | - | - | - | - |
| Middle CH | - | - | - | - | 4.49 | - | 9.03 | - | - | - | - | - |
| Highest CH | - | - | - | - | 4.52 | - | - | - | - | - | - | - |



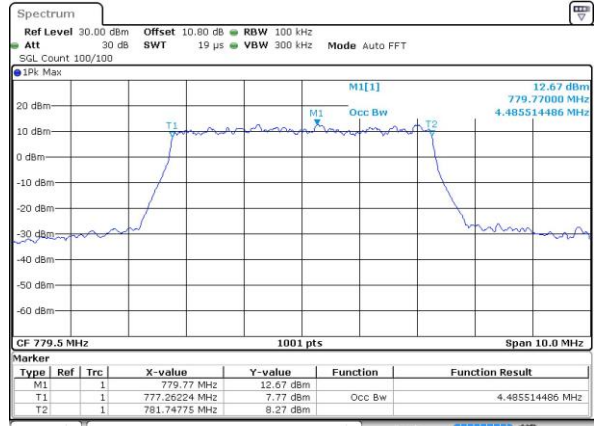
LTE Band 13

Lowest Channel / 5MHz / QPSK



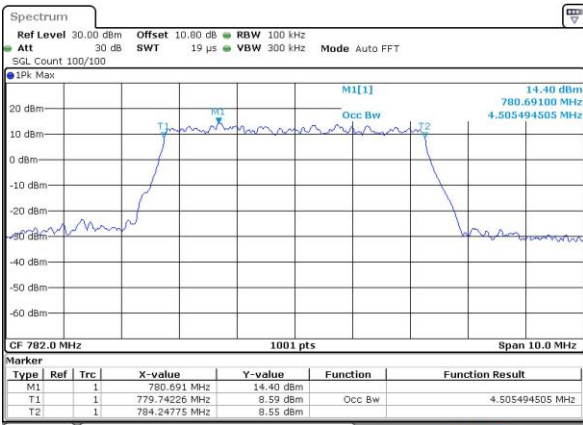
Date: 5 SEP.2018 23:16:01

Lowest Channel / 5MHz / 16QAM



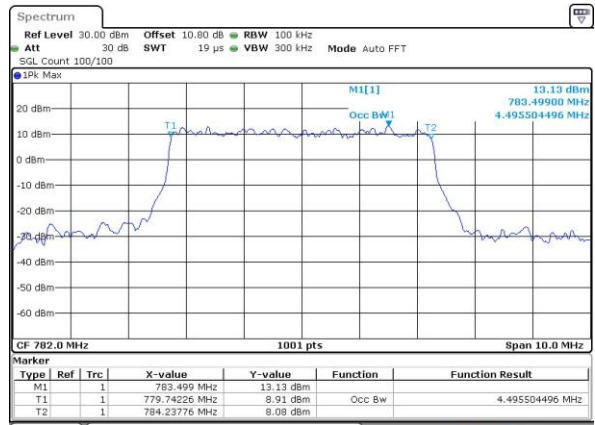
Date: 5 SEP.2018 23:16:13

Middle Channel / 5MHz / QPSK



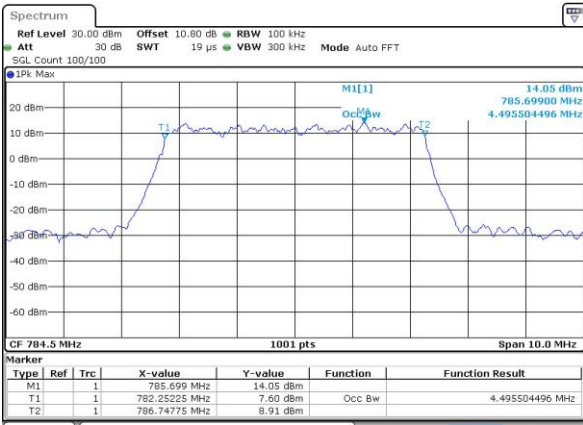
Date: 5 SEP.2018 23:27:23

Middle Channel / 5MHz / 16QAM



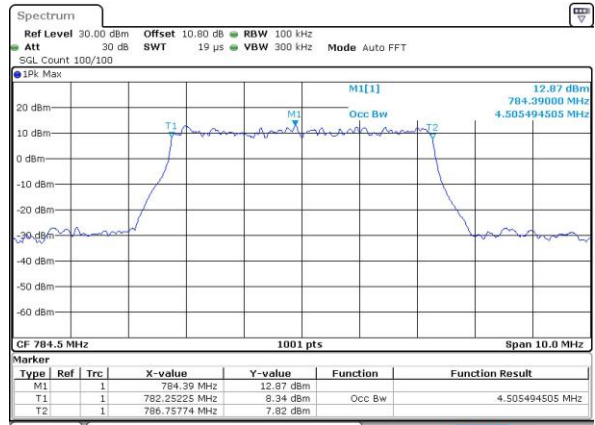
Date: 5 SEP.2018 23:27:11

Highest Channel / 5MHz / QPSK



Date: 5 SEP.2018 23:27:34

Highest Channel / 5MHz / 16QAM

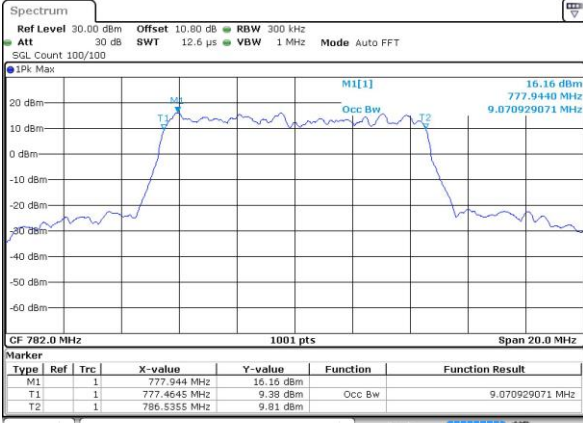


Date: 5 SEP.2018 23:27:45



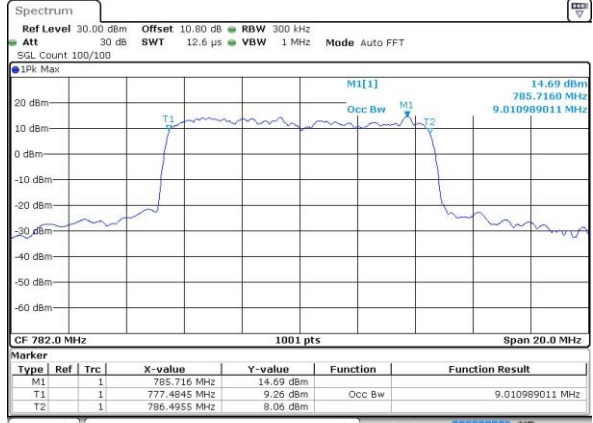
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 5 SEP 2018 23:47:00

Middle Channel / 10MHz / 16QAM

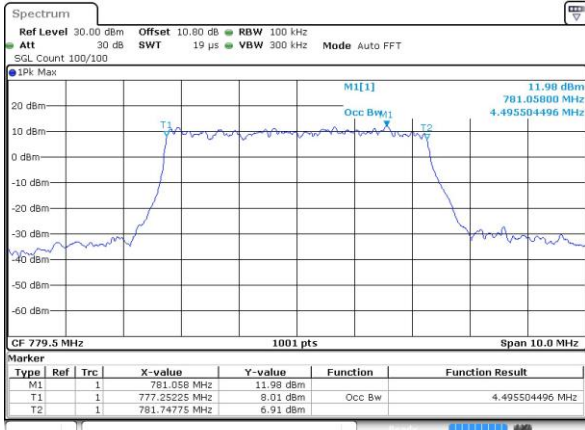


Date: 5 SEP 2018 23:47:11



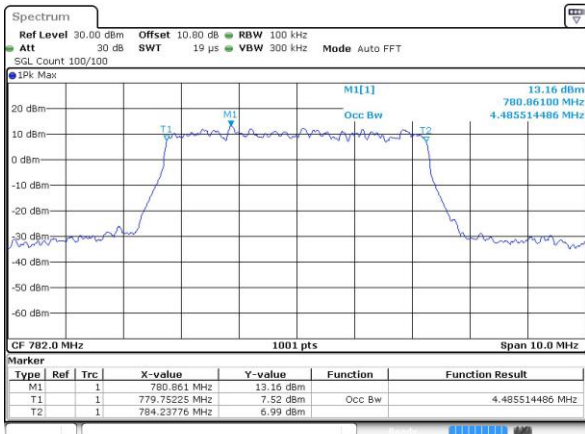
LTE Band 13

Lowest Channel / 5MHz / 64QAM



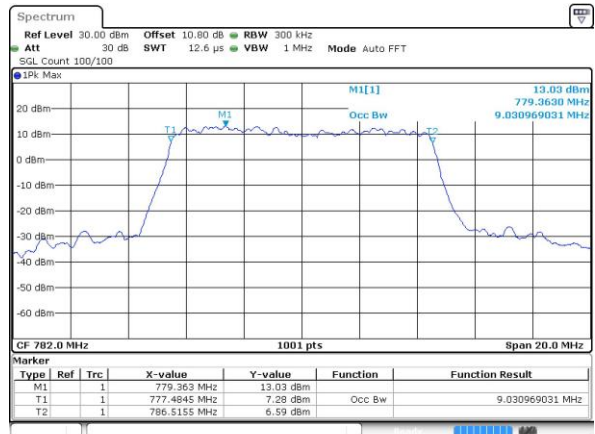
Date: 5 SEP.2018 23:36:40

Middle Channel / 5MHz / 64QAM



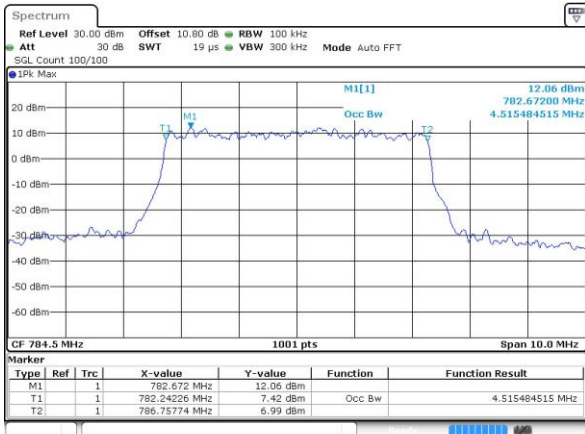
Date: 5 SEP.2018 23:42:15

Middle Channel / 10MHz / 64QAM



Date: 5 SEP.2018 23:59:27

Highest Channel / 5MHz / 64QAM



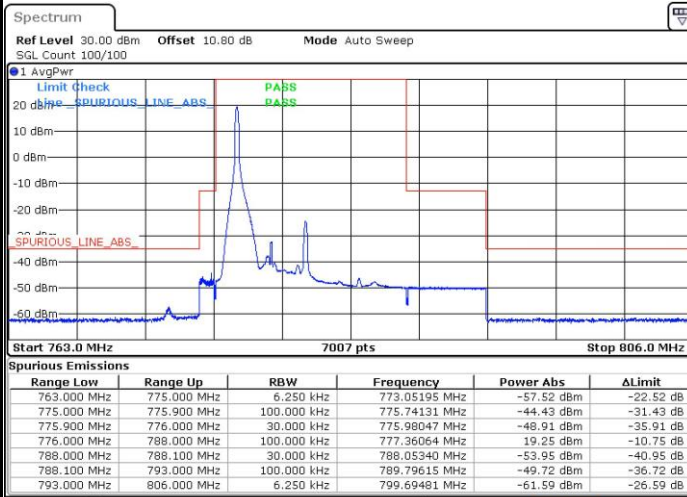
Date: 5 SEP.2018 23:42:26



Conducted Band Edge

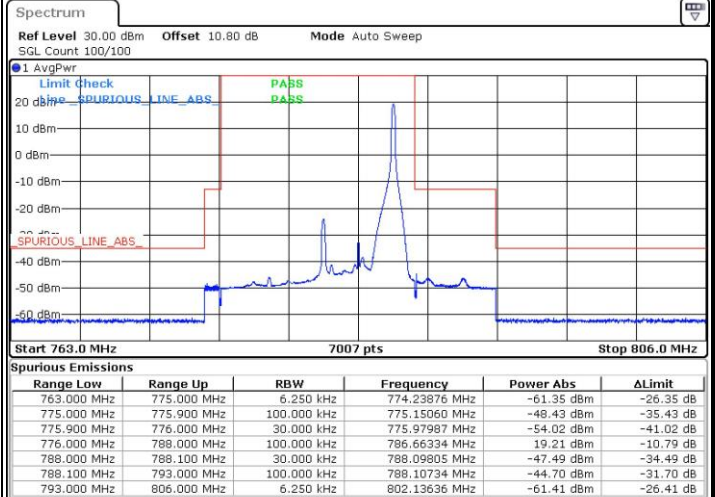
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



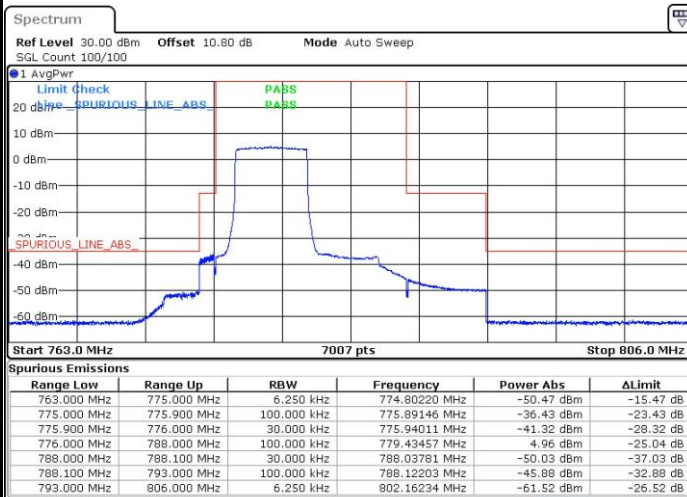
Date: 5 SEP.2018 23:23:16

Highest Band Edge / 1 RB



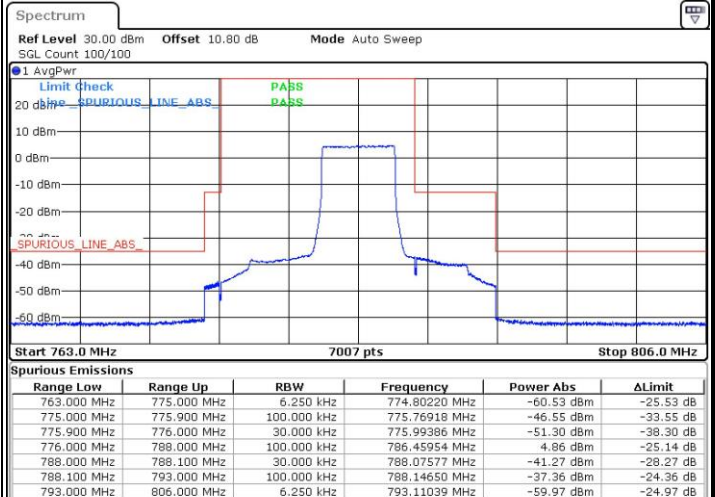
Date: 5 SEP.2018 23:34:49

Lowest Band Edge / Full RB



Date: 5 SEP.2018 23:18:15

Highest Band Edge / Full RB



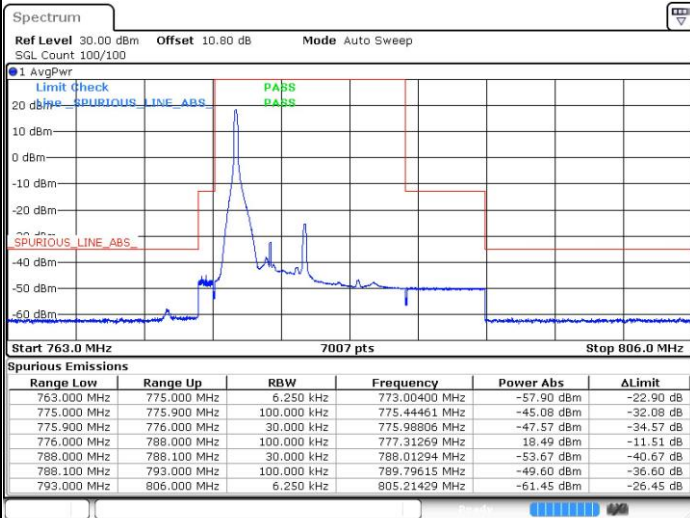
Date: 5 SEP.2018 23:29:48



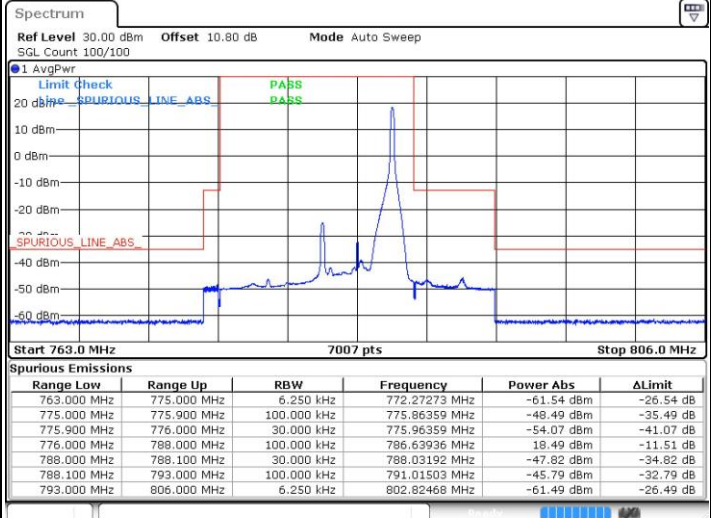
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



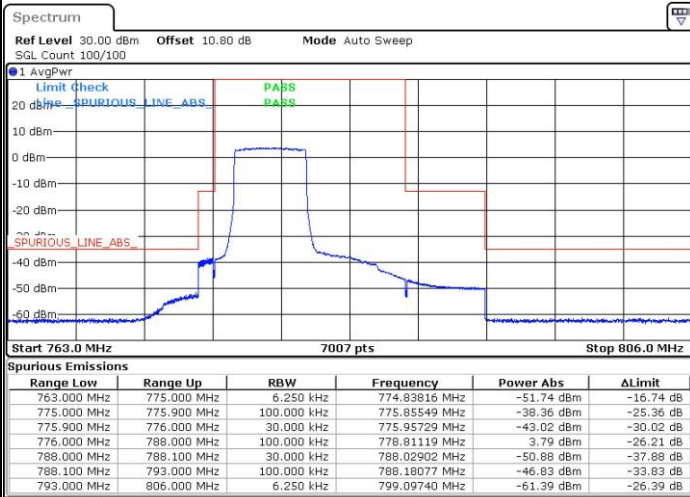
Date: 5 SEP.2018 23:21:36



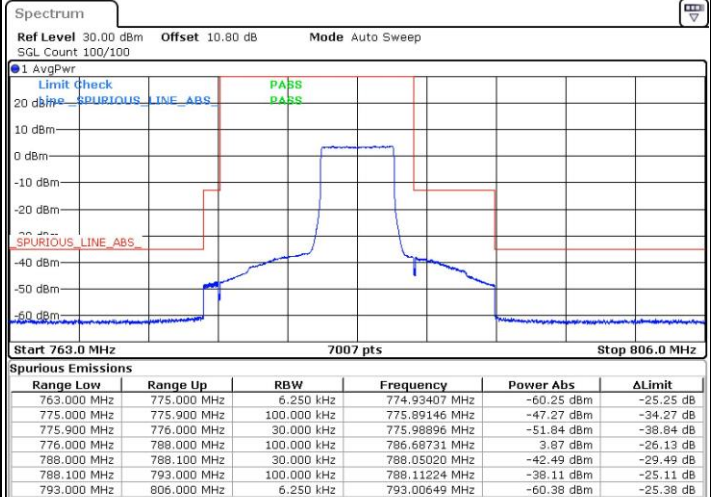
Date: 5 SEP.2018 23:33:08

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 5 SEP.2018 23:19:56



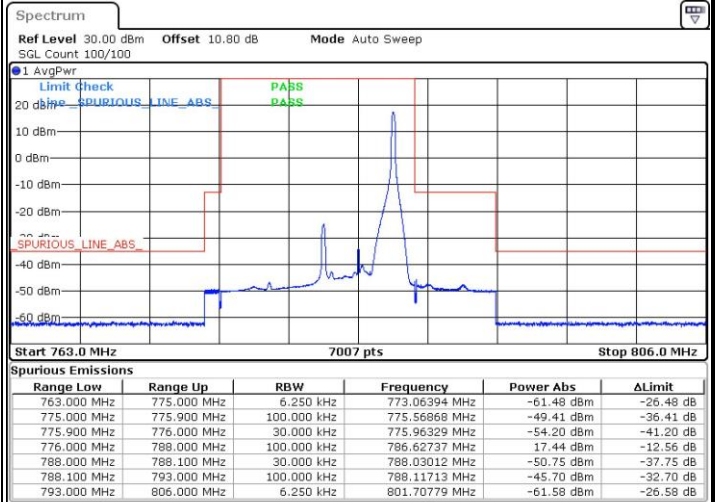
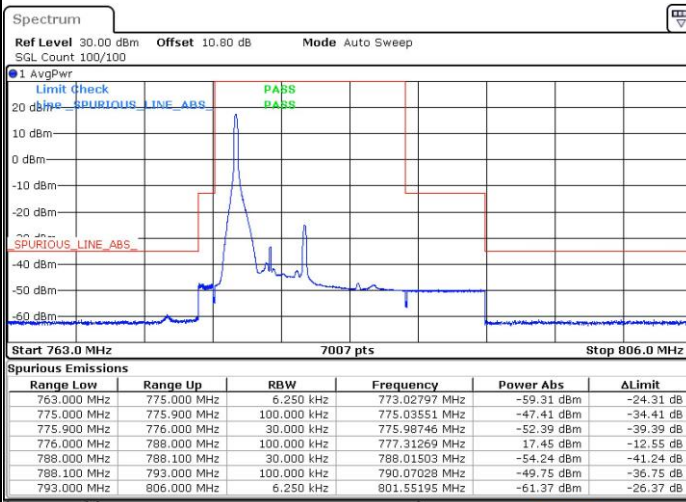
Date: 5 SEP.2018 23:31:28



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

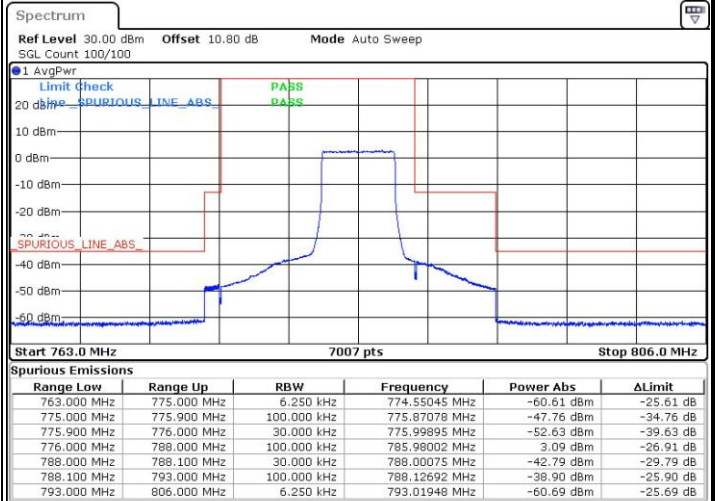
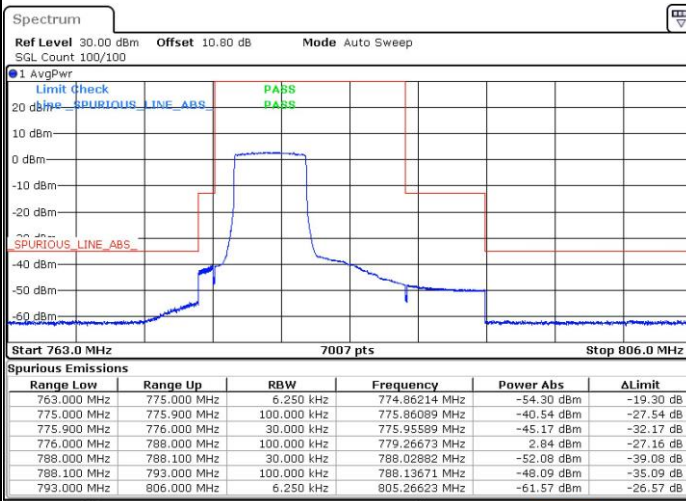


Date: 5 SEP.2018 23:40:12

Date: 5 SEP.2018 23:45:58

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 5 SEP.2018 23:38:32

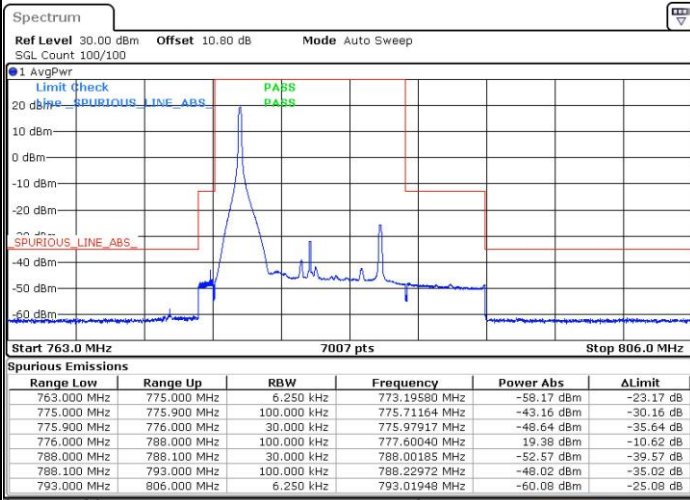
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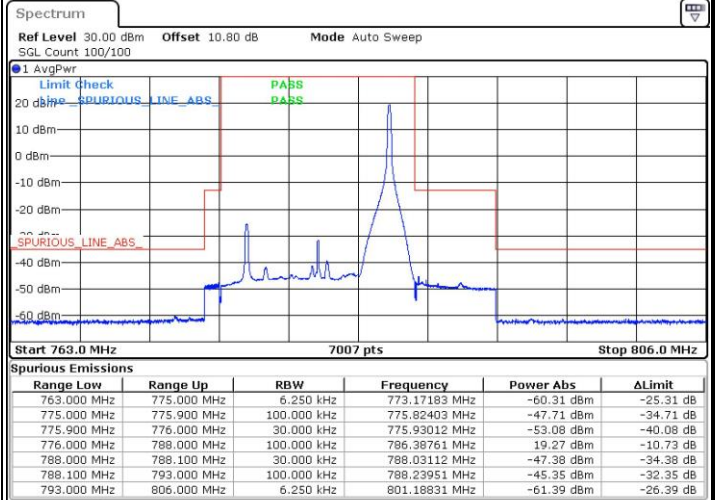
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

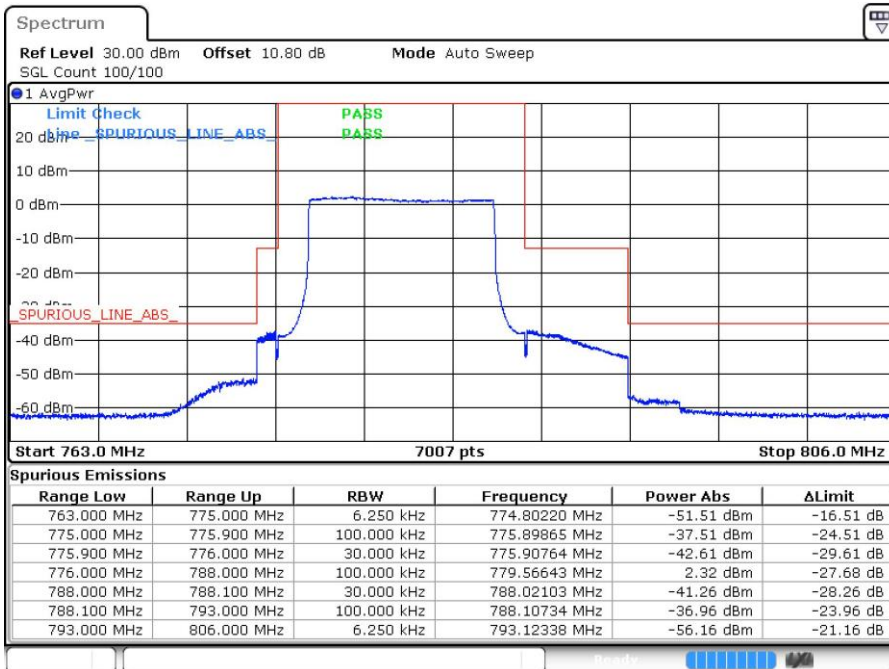


Date: 5 SEP.2018 23:54:14



Date: 5 SEP.2018 23:55:55

Band Edge / Full RB



Date: 5 SEP.2018 23:49:14