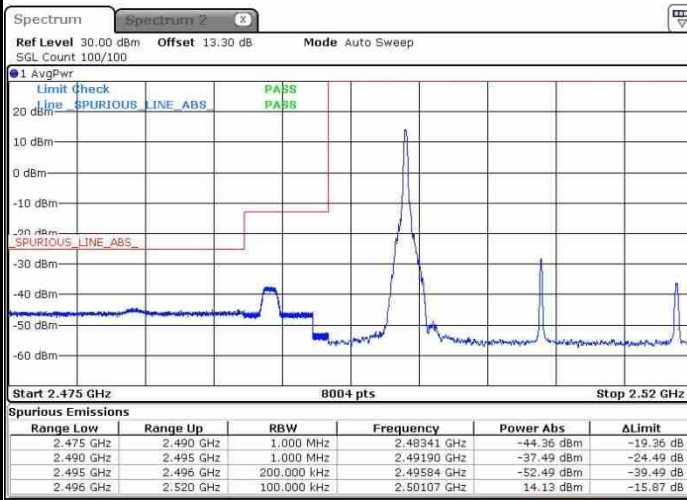




LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



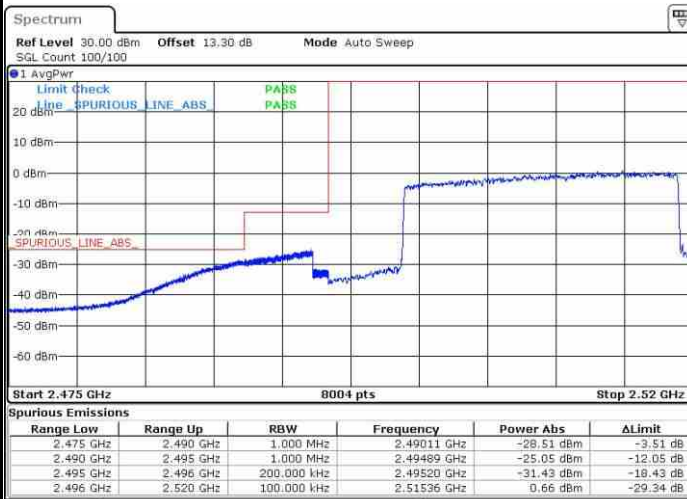
Date: 27.MAR.2018 00:09:11

Highest Band Edge / 1 RB



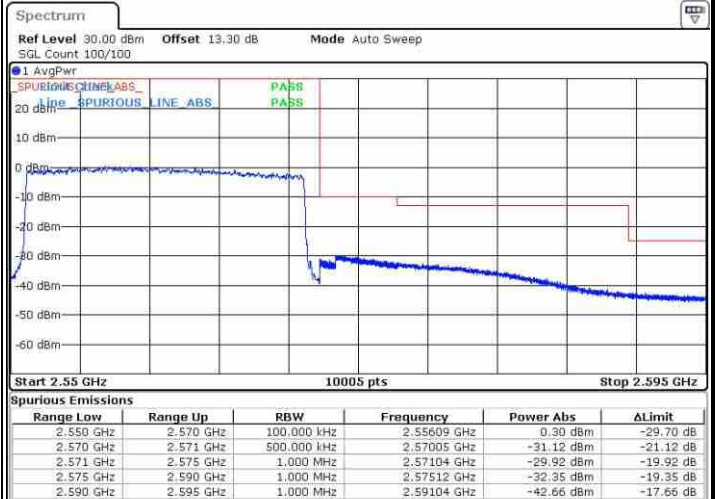
Date: 16.MAR.2018 11:27:12

Lowest Band Edge / Full RB



Date: 16.MAR.2018 11:22:16

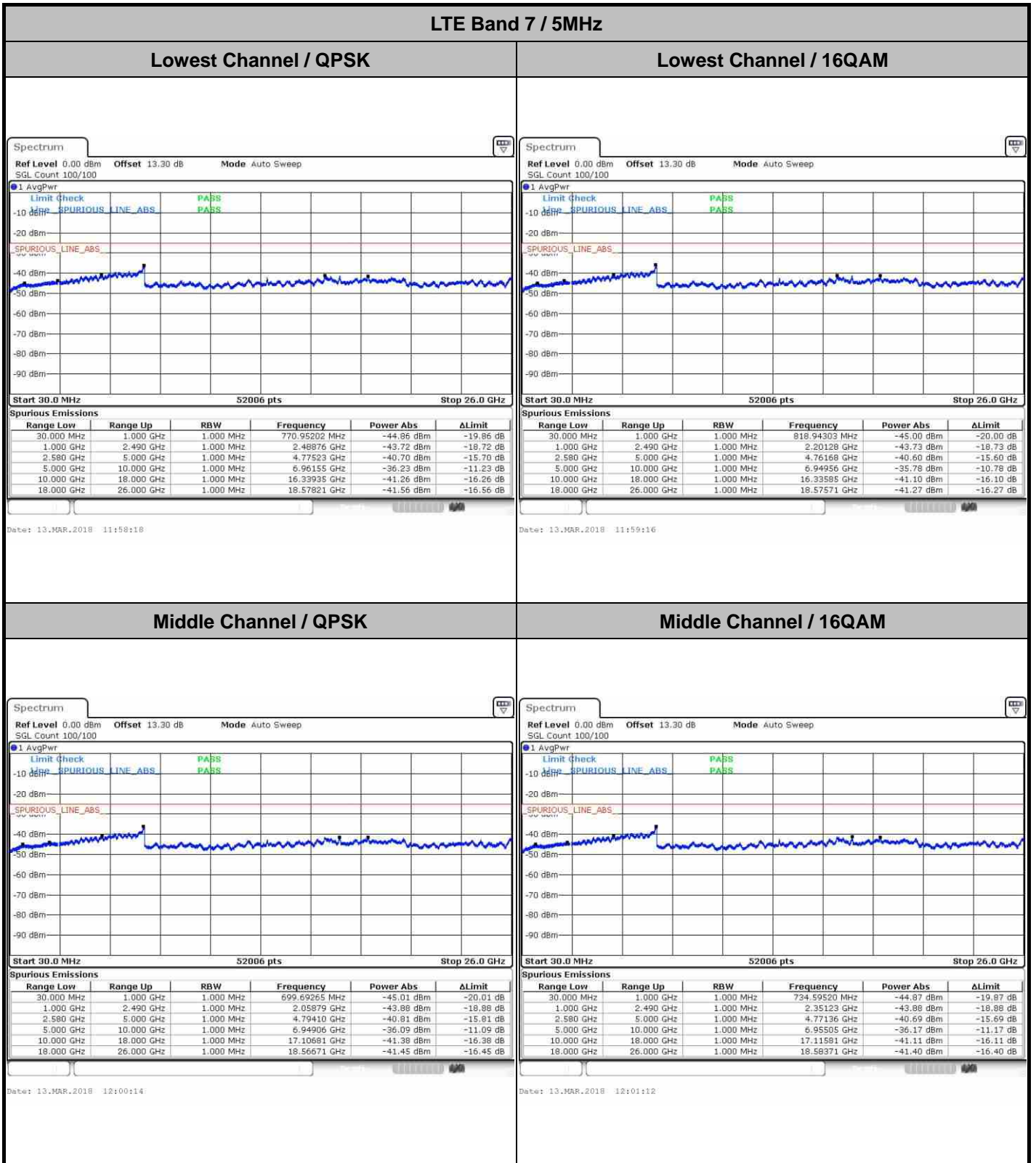
Highest Band Edge / Full RB



Date: 16.MAR.2018 11:28:23



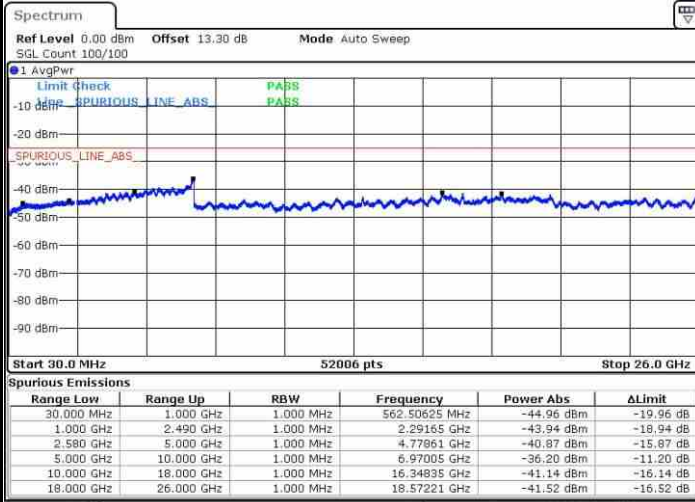
Conducted Spurious Emission





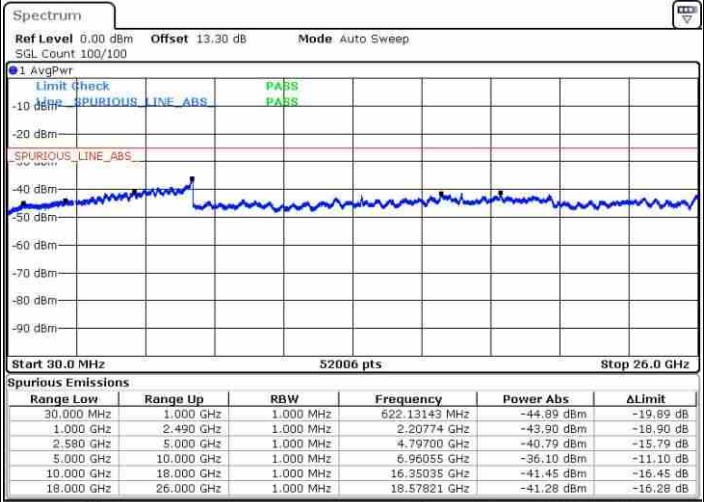
LTE Band 7 / 5MHz

Highest Channel / QPSK



Date: 13.MAR.2018 12:02:10

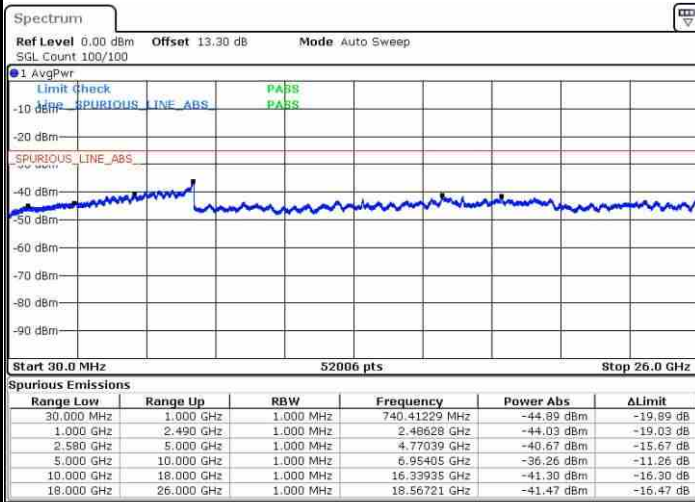
Highest Channel / 16QAM



Date: 13.MAR.2018 12:03:08

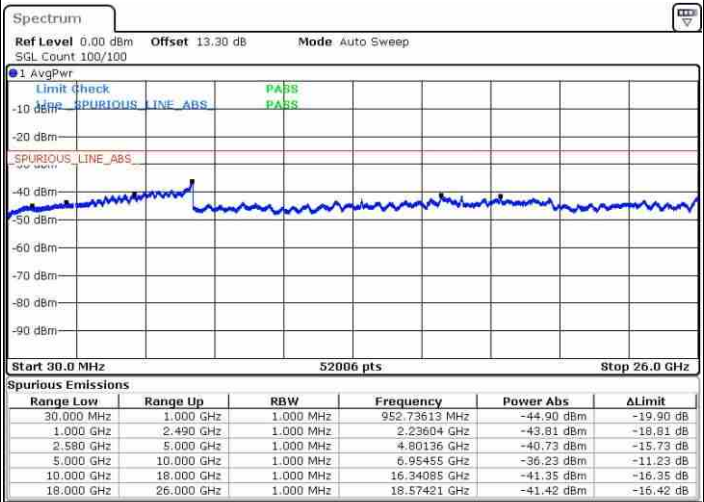
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Date: 13.MAR.2018 12:04:06

Lowest Channel / 16QAM



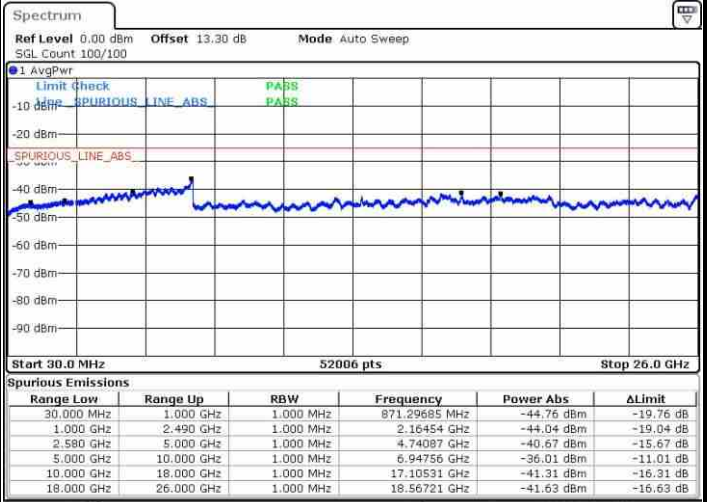
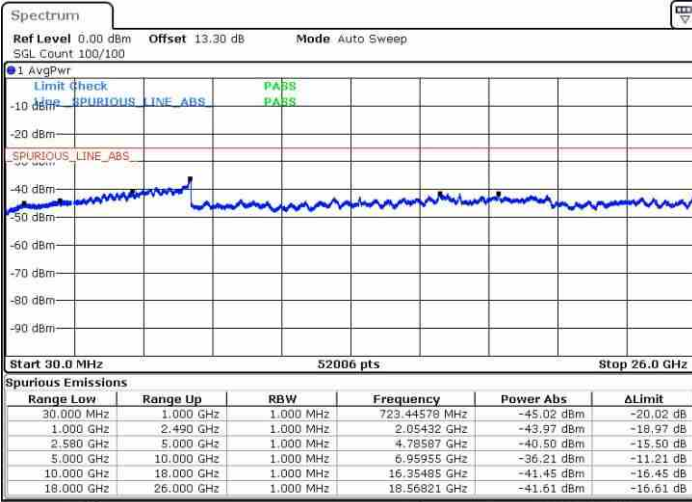
Date: 13.MAR.2018 12:05:04



LTE Band 7 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

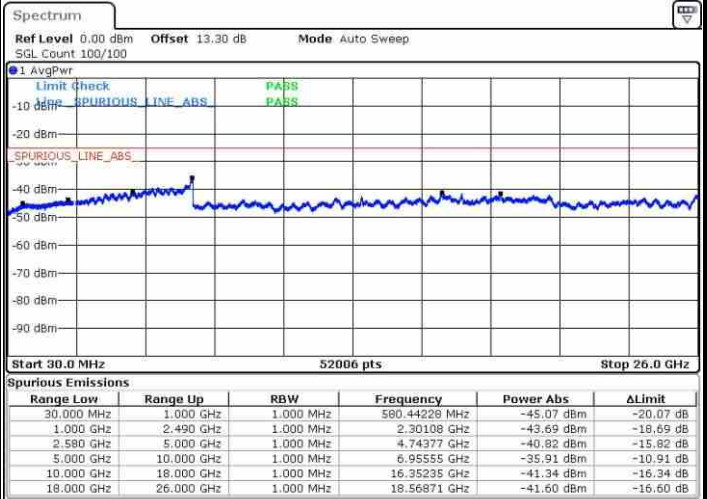
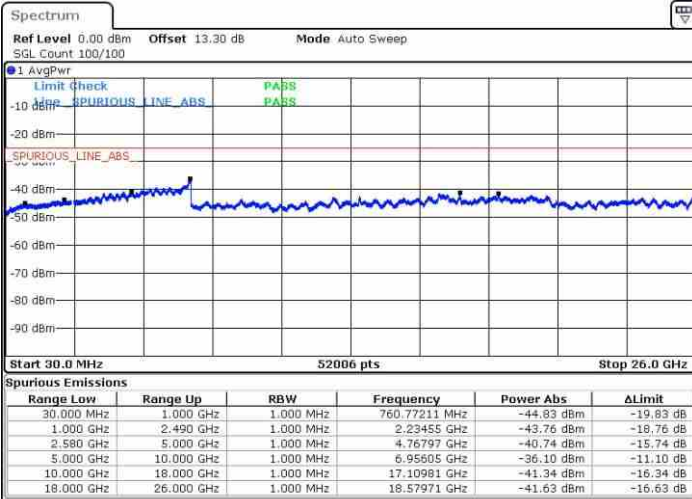


Date: 13.MAR.2018 12:06:02

Date: 13.MAR.2018 12:07:00

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 13.MAR.2018 12:07:59

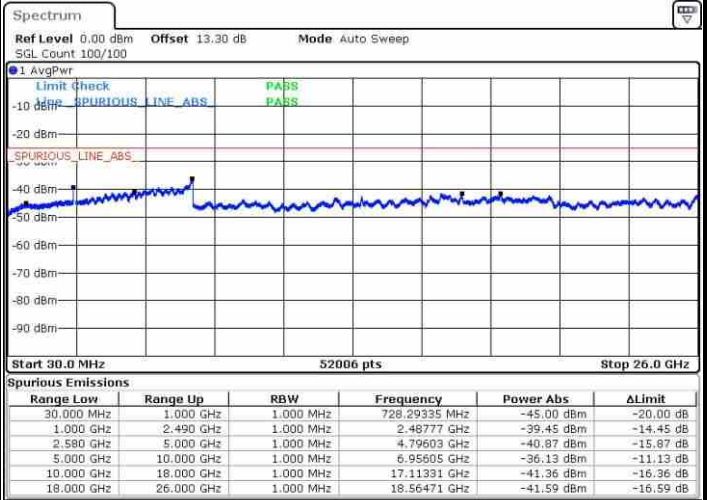
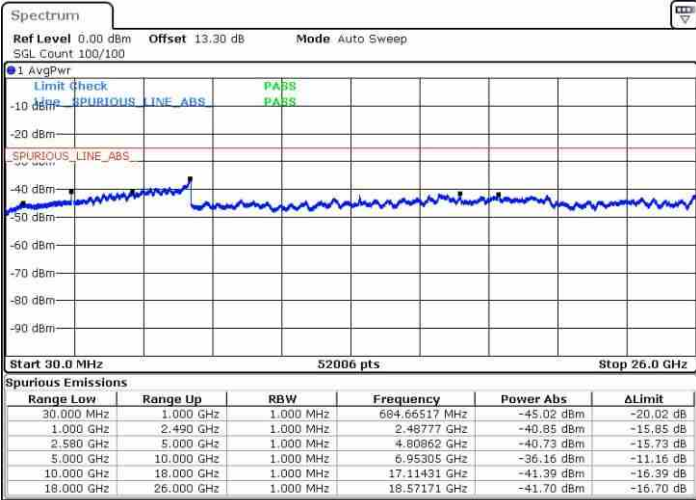
Date: 13.MAR.2018 12:08:56



LTE Band 7 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

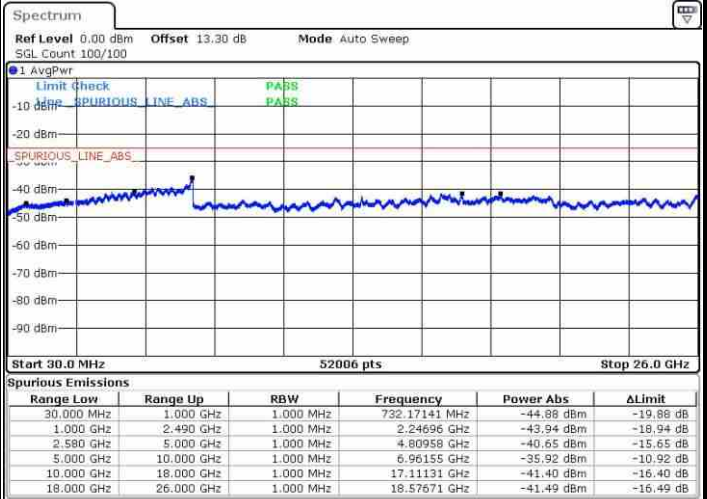
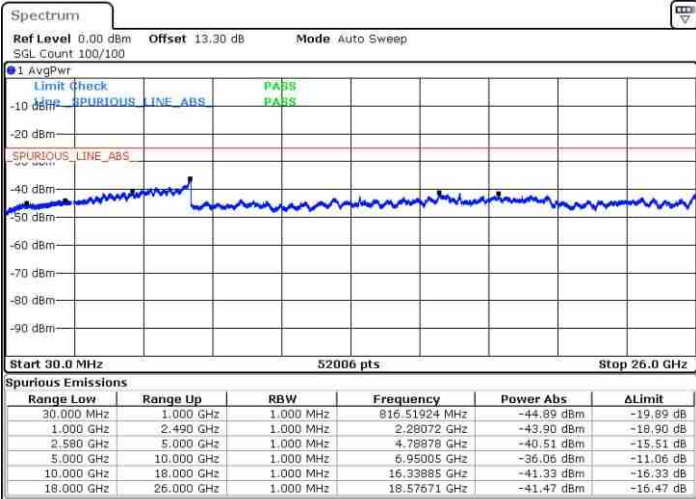


Date: 13.MAR.2018 12:09:54

Date: 13.MAR.2018 12:10:53

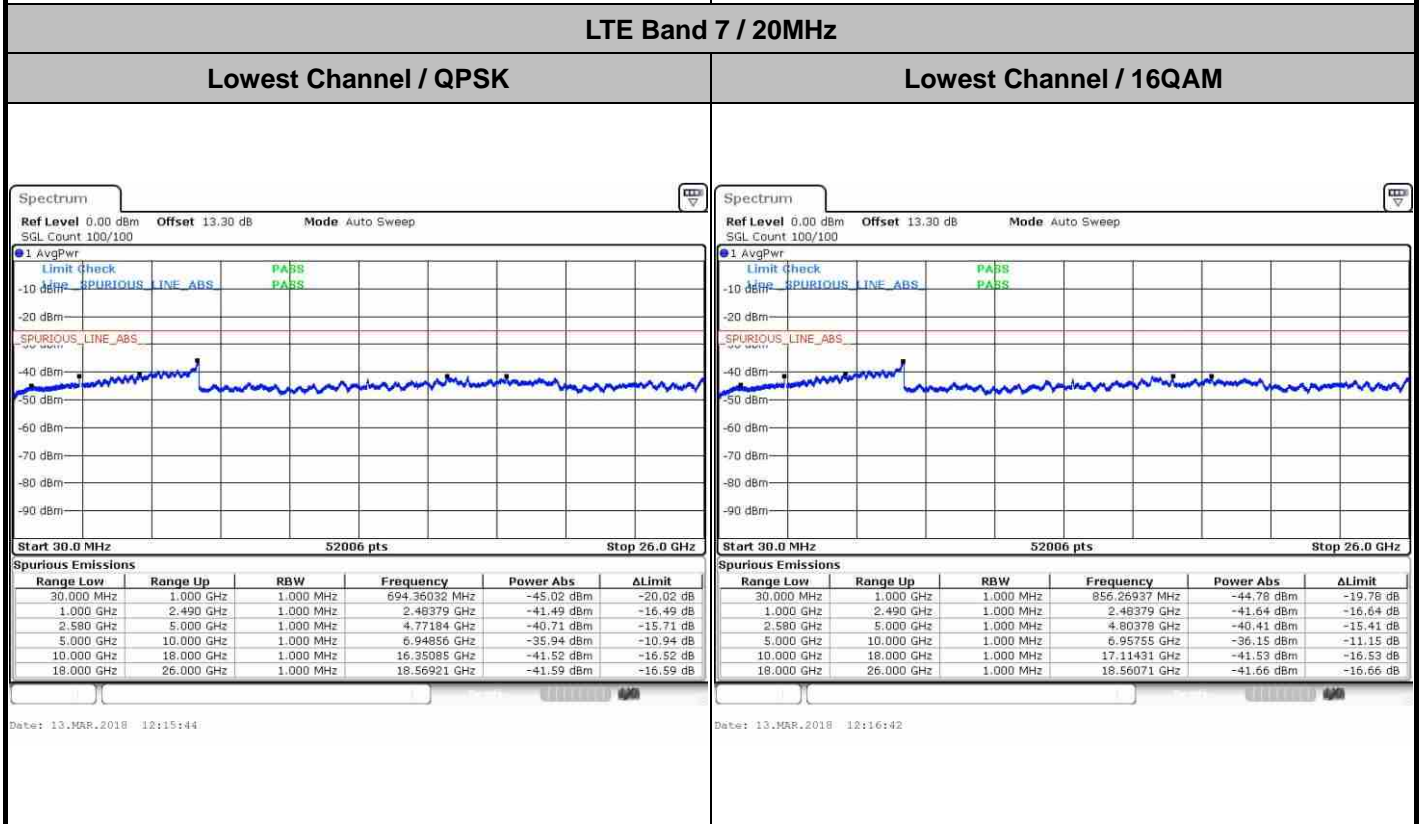
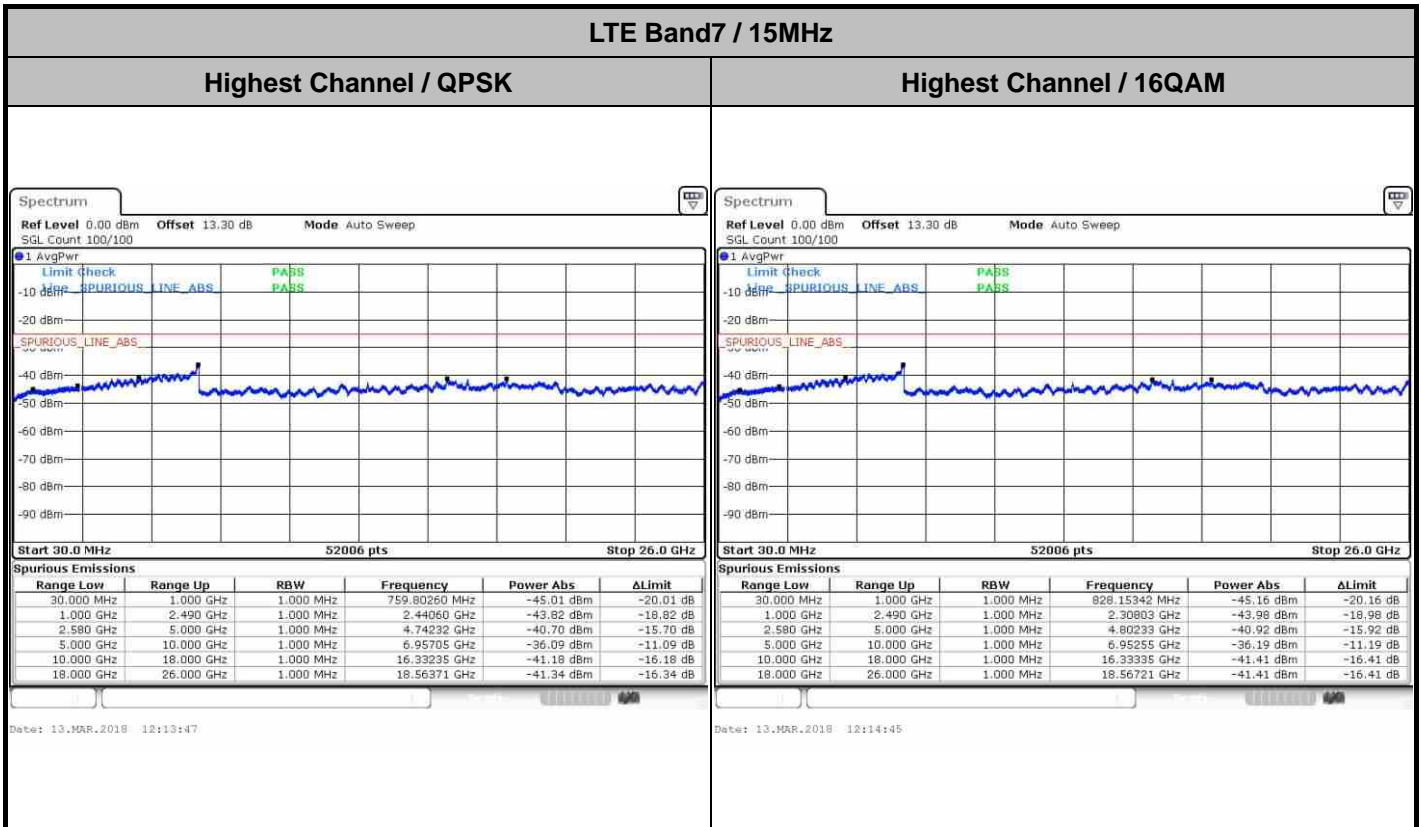
Middle Channel / QPSK

Middle Channel / 16QAM



Date: 13.MAR.2018 12:11:51

Date: 13.MAR.2018 12:12:49

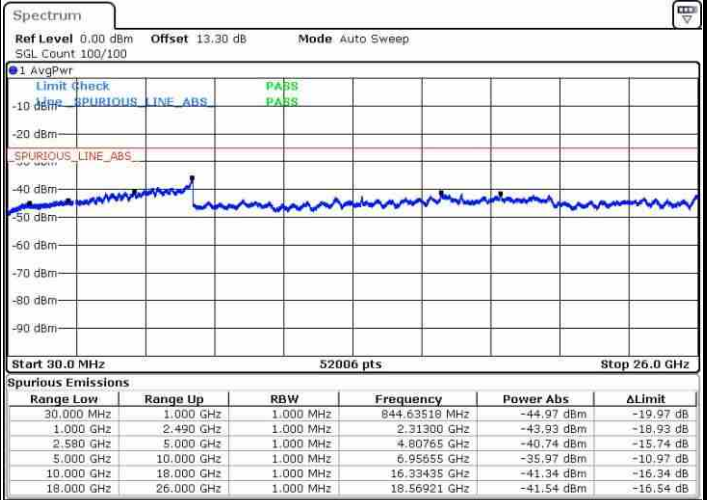
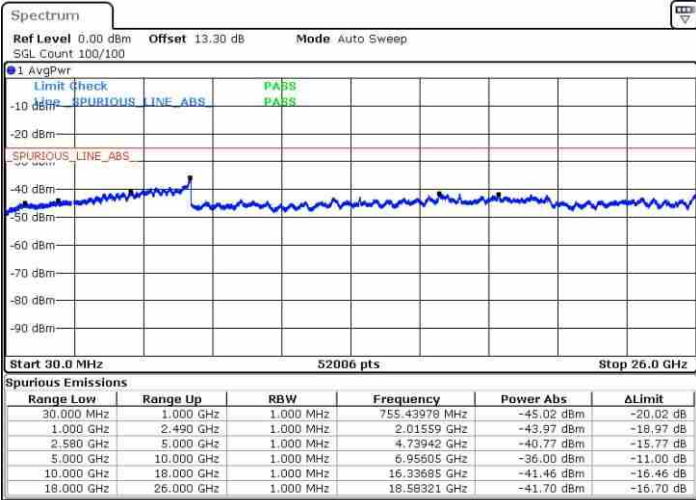




LTE Band 7 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

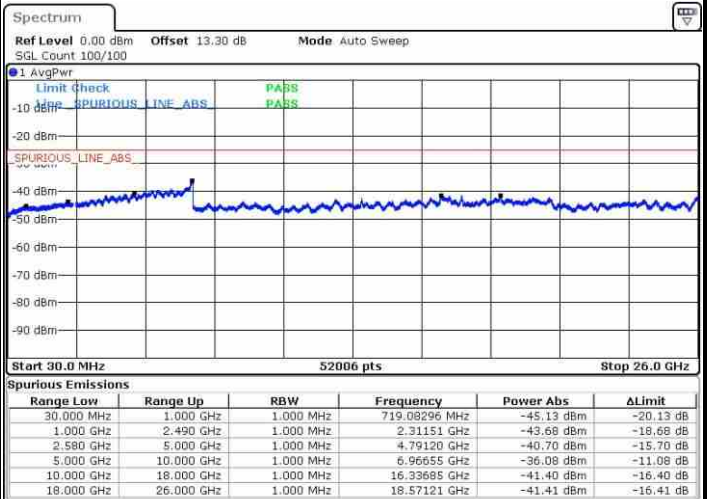
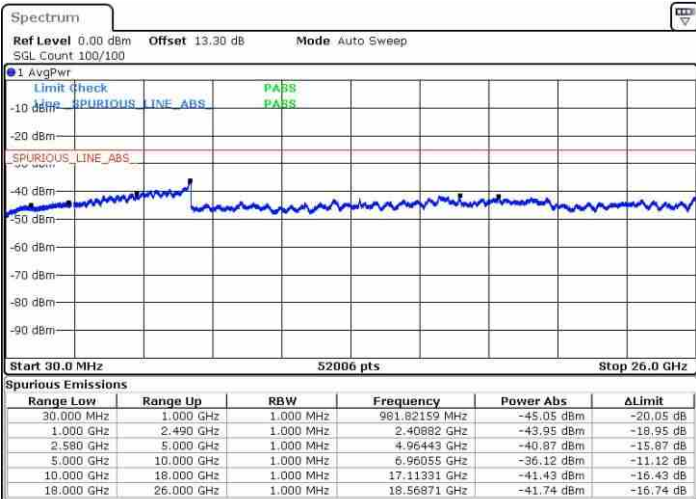


Date: 13.MAR.2018 12:17:40

Date: 13.MAR.2018 12:18:38

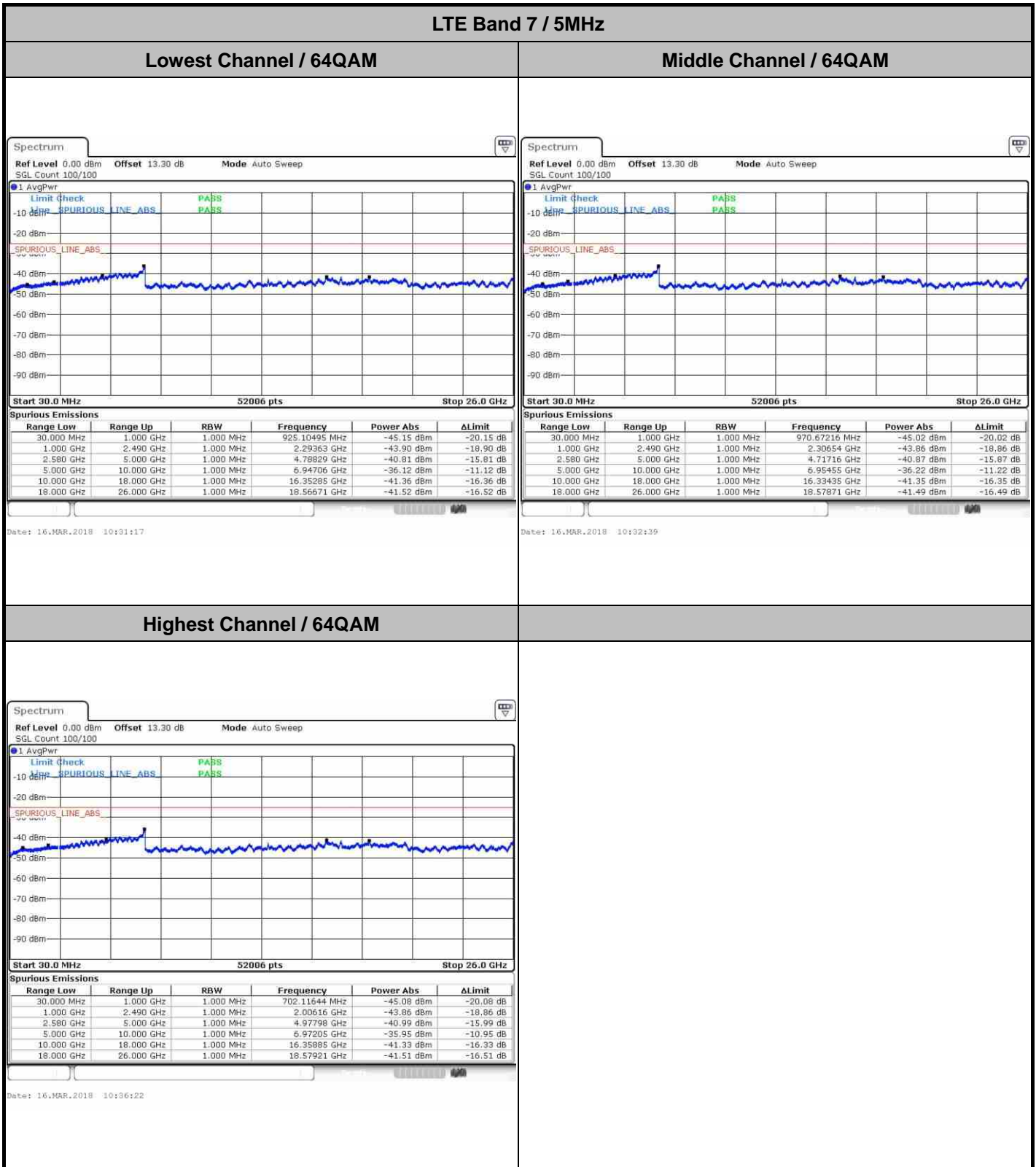
Highest Channel / QPSK

Highest Channel / 16QAM



Date: 13.MAR.2018 12:19:35

Date: 13.MAR.2018 12:20:33

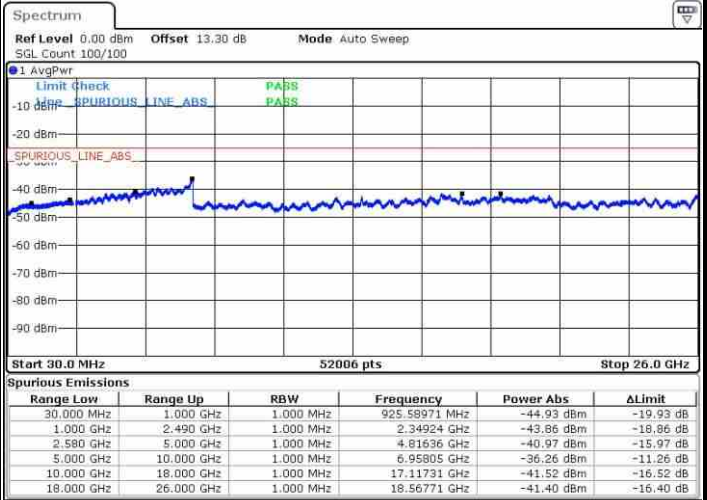
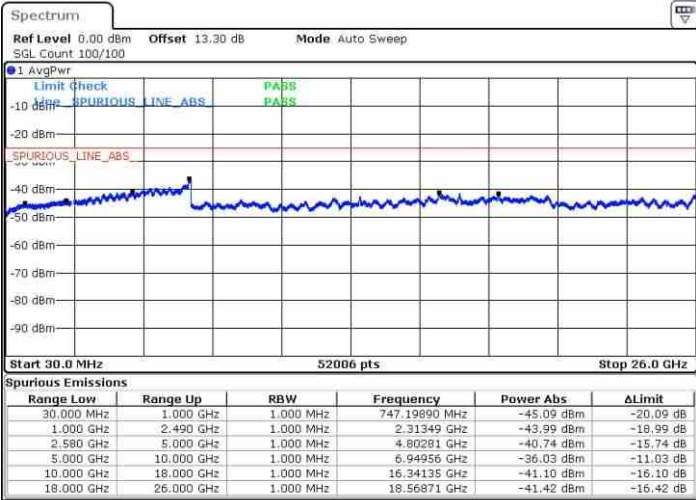




LTE Band 7 / 10MHz

Lowest Channel / 64QAM

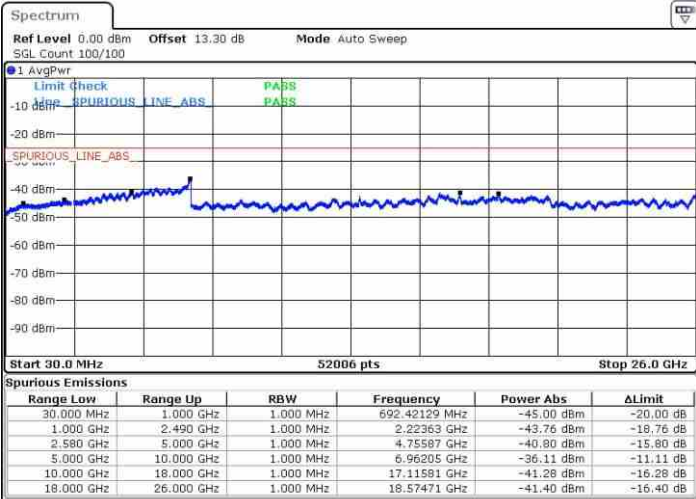
Middle Channel / 64QAM



Date: 16.MAR.2018 10:40:05

Date: 16.MAR.2018 10:42:35

Highest Channel / 64QAM



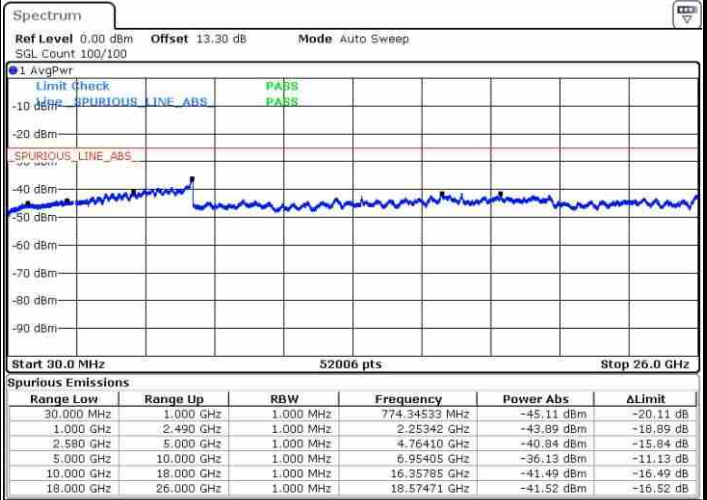
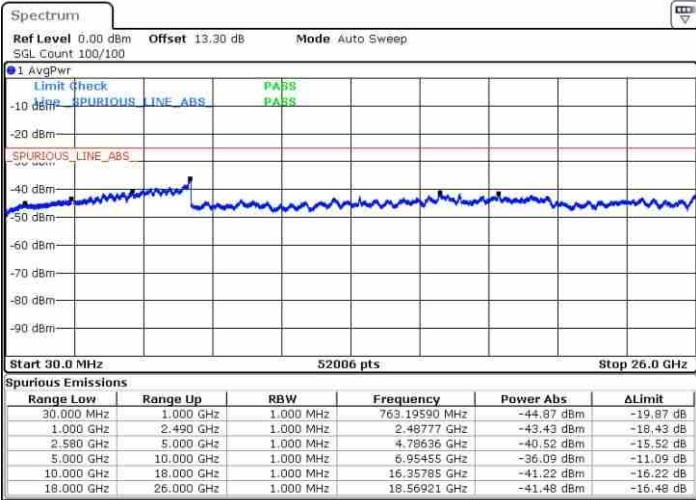
Date: 16.MAR.2018 10:46:18



LTE Band 7 / 15MHz

Lowest Channel / 64QAM

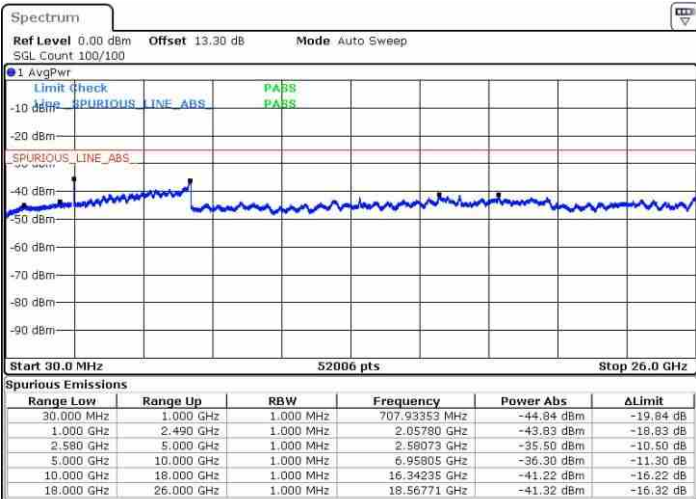
Middle Channel / 64QAM



Date: 16.MAR.2018 10:50:00

Date: 16.MAR.2018 10:51:22

Highest Channel / 64QAM



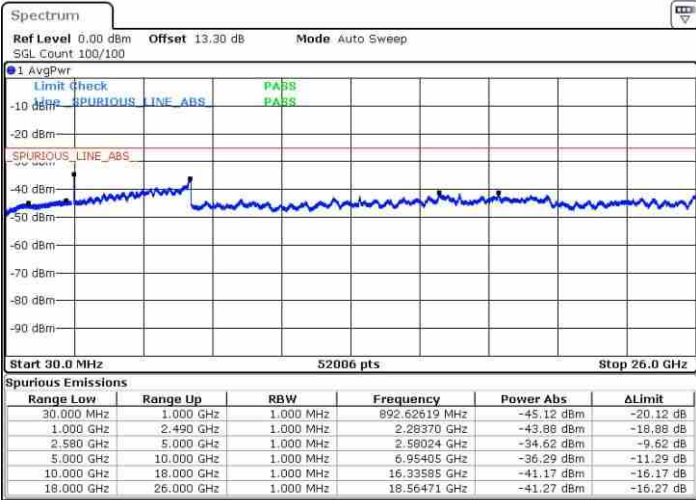
Date: 16.MAR.2018 10:55:22



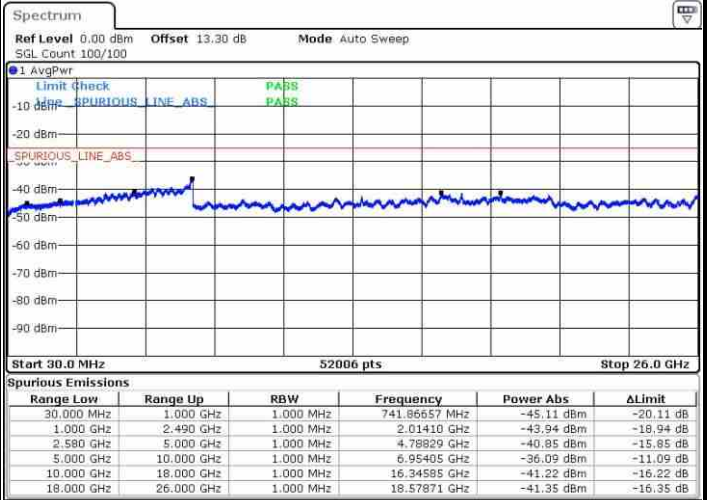
LTE Band 7 / 20MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

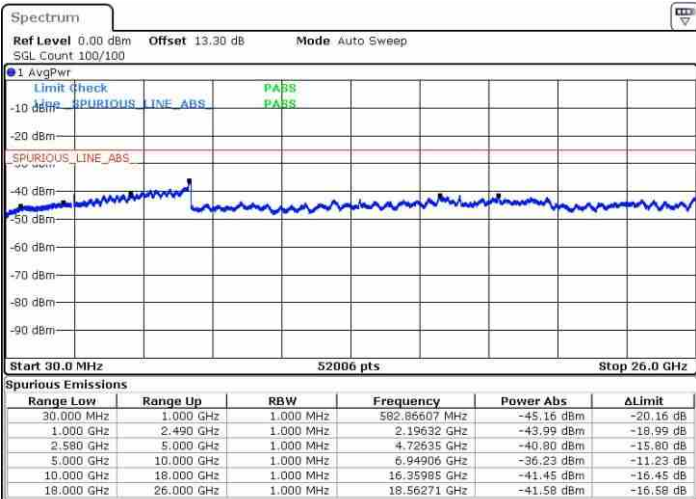


Date: 16.MAR.2018 10:59:28



Date: 16.MAR.2018 11:25:37

Highest Channel / 64QAM



Date: 16.MAR.2018 11:29:19



Frequency Stability

| Test Conditions | | LTE Band 7 (QPSK) / Middle Channel | Limit |
|------------------|-------------------|------------------------------------|---------|
| Temperature (°C) | Voltage (Volt) | BW 10MHz | Note 2. |
| | | Deviation (ppm) | Result |
| 50 | Normal Voltage | 0.0006 | PASS |
| 40 | Normal Voltage | 0.0030 | |
| 30 | Normal Voltage | 0.0006 | |
| 20(Ref.) | Normal Voltage | 0.0000 | |
| 10 | Normal Voltage | 0.0013 | |
| 0 | Normal Voltage | 0.0061 | |
| -10 | Normal Voltage | 0.0055 | |
| -20 | Normal Voltage | 0.0048 | |
| -30 | Normal Voltage | 0.0041 | |
| 20 | Maximum Voltage | 0.0029 | |
| 20 | Normal Voltage | 0.0000 | |
| 20 | Battery End Point | 0.0033 | |

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

Peak-to-Average Ratio

| Mode | LTE Band 12 / 10MHz | | | | |
|------------|---------------------|---------|-------|---------|-------------|
| Mod. | QPSK | | 16QAM | | Limit: 13dB |
| RB Size | 1RB | Full RB | 1RB | Full RB | Result |
| Lowest CH | 3.62 | 4.61 | 5.16 | 5.88 | PASS |
| Middle CH | 4.23 | 4.64 | 5.83 | 5.94 | |
| Highest CH | 3.65 | 4.58 | 5.57 | 6.03 | |
| Mode | LTE Band 12 / 10MHz | | | | |
| Mod. | 64QAM | | | | Limit: 13dB |
| RB Size | 1RB | Full RB | | | Result |
| Lowest CH | 6.67 | 6.49 | - | - | PASS |
| Middle CH | 6.84 | 6.55 | - | - | |
| Highest CH | 6.43 | 6.55 | - | - | |



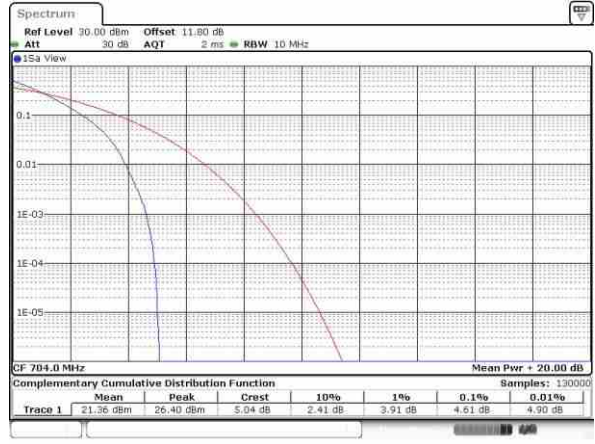
LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



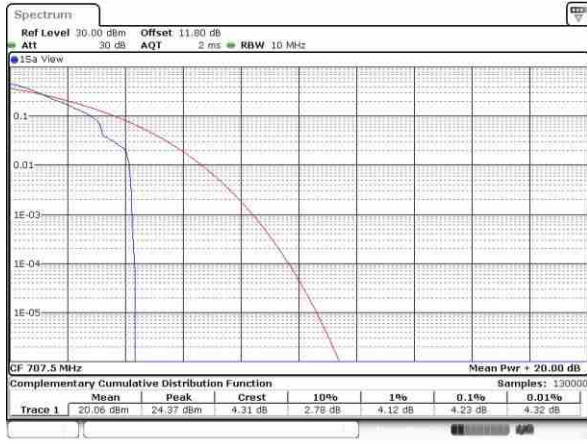
Date: 14, MAR, 2018 22:31:45

Lowest Channel / Full RB



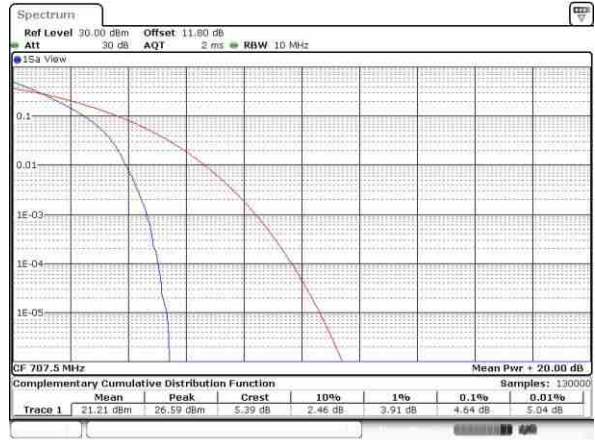
Date: 14, MAR, 2018 22:31:34

Middle Channel / 1RB



Date: 14, MAR, 2018 22:31:57

Middle Channel / Full RB



Date: 14, MAR, 2018 22:32:08

Highest Channel / 1RB



Date: 14, MAR, 2018 22:32:31

Highest Channel / Full RB

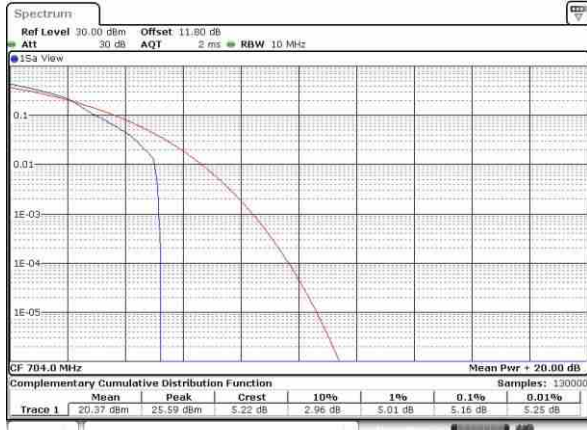


Date: 14, MAR, 2018 22:32:20



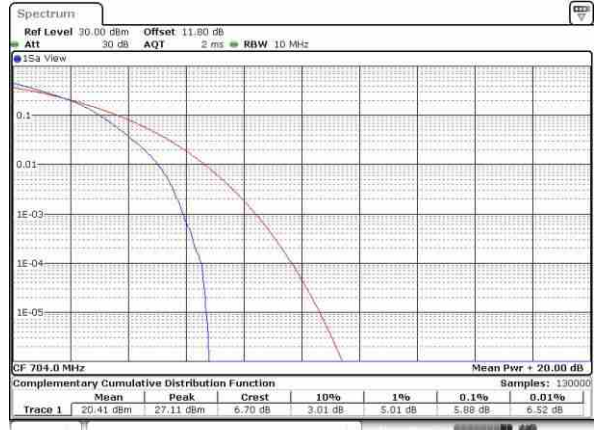
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



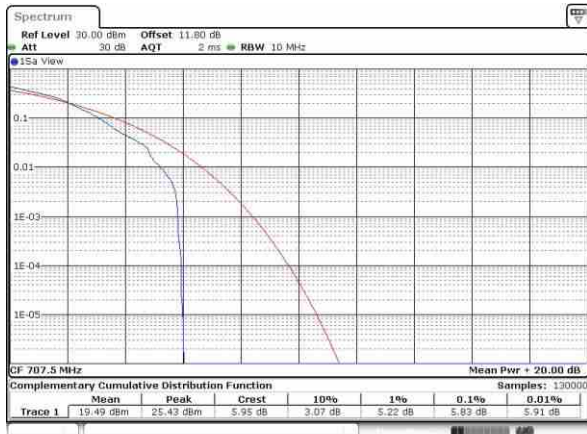
Date: 14, MAR, 2018 22:38:16

Lowest Channel / Full RB



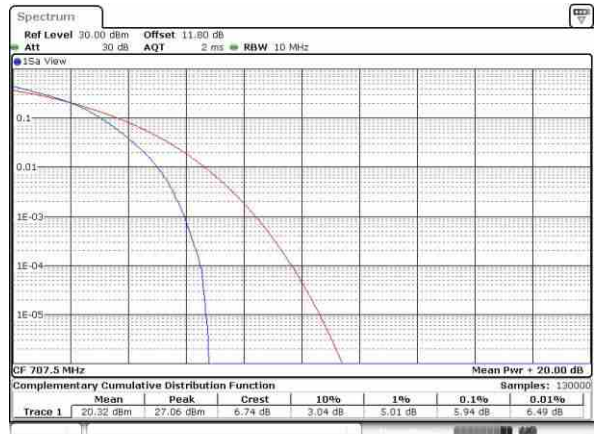
Date: 14, MAR, 2018 22:38:24

Middle Channel / 1RB



Date: 14, MAR, 2018 22:38:47

Middle Channel / Full RB



Date: 14, MAR, 2018 22:38:59

Highest Channel / 1RB



Date: 14, MAR, 2018 22:38:22

Highest Channel / Full RB



Date: 14, MAR, 2018 22:38:11



LTE Band 12 / 10MHz / 64QAM

Lowest Channel / 1RB



Date: 14, MAR, 2018 23:09:45

Lowest Channel / Full RB



Date: 14, MAR, 2018 23:09:32

Middle Channel / 1RB



Date: 14, MAR, 2018 23:19:07

Middle Channel / Full RB



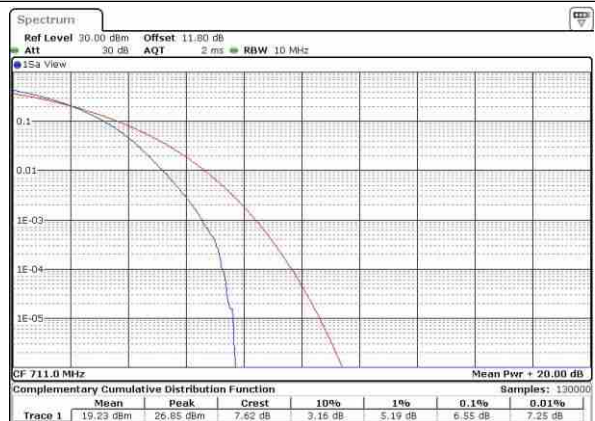
Date: 14, MAR, 2018 23:19:20

Highest Channel / 1RB



Date: 14, MAR, 2018 23:11:22

Highest Channel / Full RB



Date: 14, MAR, 2018 23:11:07



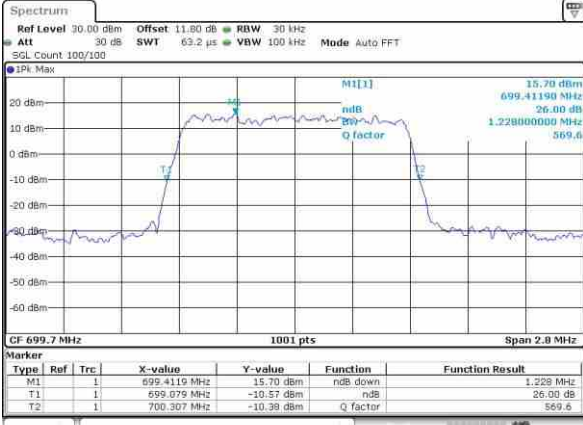
26dB Bandwidth

| Mode | LTE Band 12 : 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 | 1.23 | 1.22 | 3.05 | 3.02 | 4.99 | 4.90 | 9.81 | 9.85 | - | - | - | - |
| Middle CH | 1.22 | 1.23 | 3.02 | 3.05 | 4.92 | 5.00 | 9.79 | 9.71 | - | - | - | - |
| Highest CH | 1.23 | 1.24 | 2.99 | 3.01 | 4.83 | 4.91 | 9.83 | 9.71 | - | - | - | - |
| Mode | LTE Band 12 : 26dB BW(MHz) | | | | | | | | | | | |
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | |
| Lowest CH | 1.24 | - | 2.97 | - | 4.87 | - | 9.85 | - | - | - | - | - |
| Middle CH | 1.24 | - | 3.01 | - | 4.96 | - | 9.79 | - | - | - | - | - |
| Highest CH | 1.22 | - | 3.01 | - | 4.92 | - | 9.67 | - | - | - | - | - |



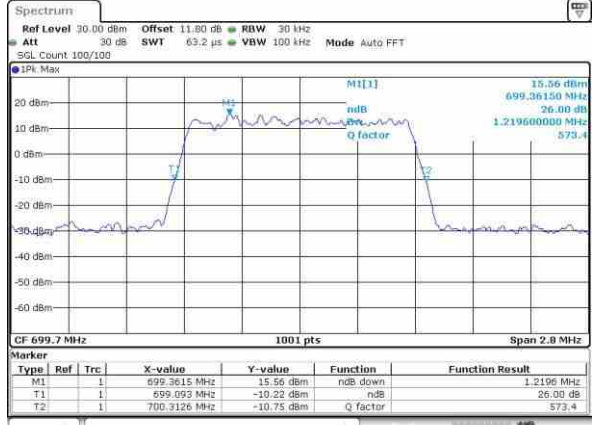
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



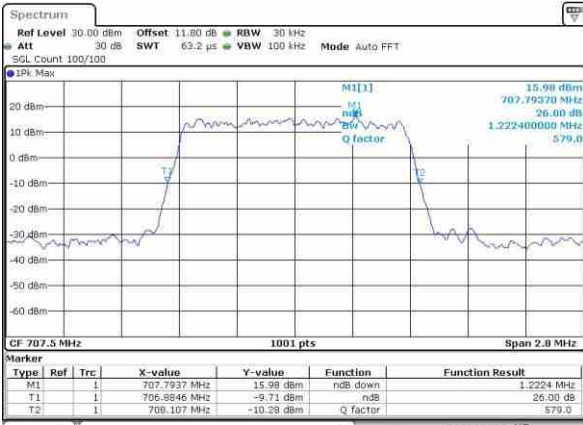
Date: 14, MAR, 2018 22:10:59

Lowest Channel / 1.4MHz / 16QAM



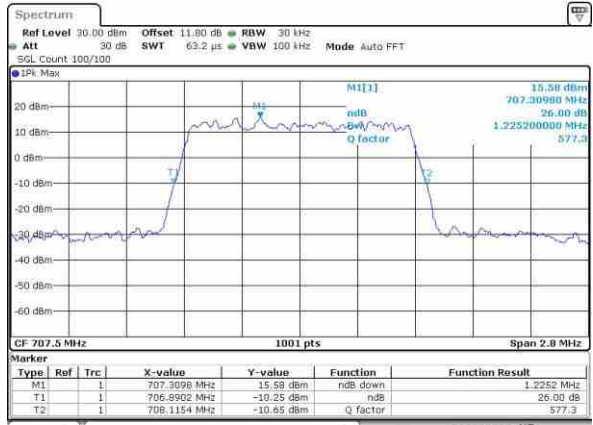
Date: 14, MAR, 2018 22:10:47

Middle Channel / 1.4MHz / QPSK



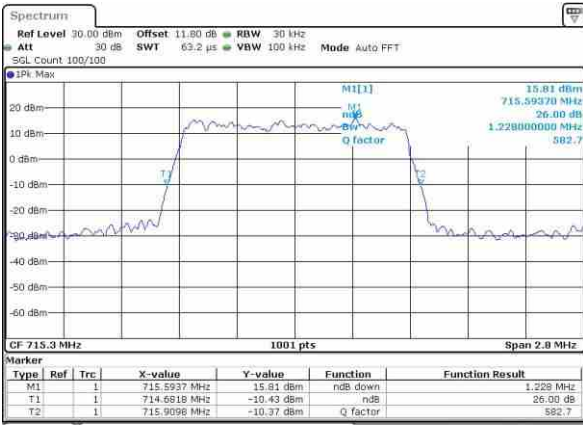
Date: 14, MAR, 2018 22:16:09

Middle Channel / 1.4MHz / 16QAM



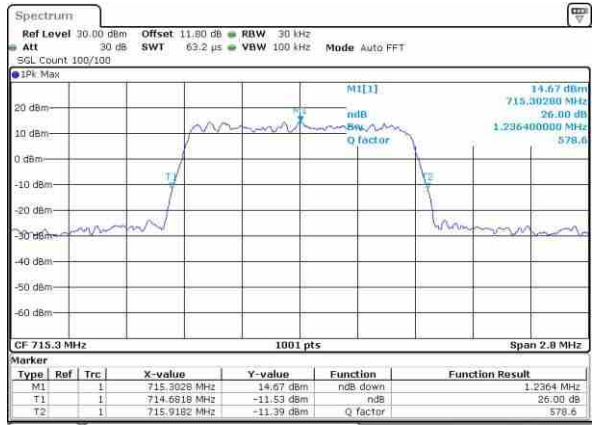
Date: 14, MAR, 2018 22:16:21

Highest Channel / 1.4MHz / QPSK



Date: 14, MAR, 2018 22:19:05

Highest Channel / 1.4MHz / 16QAM

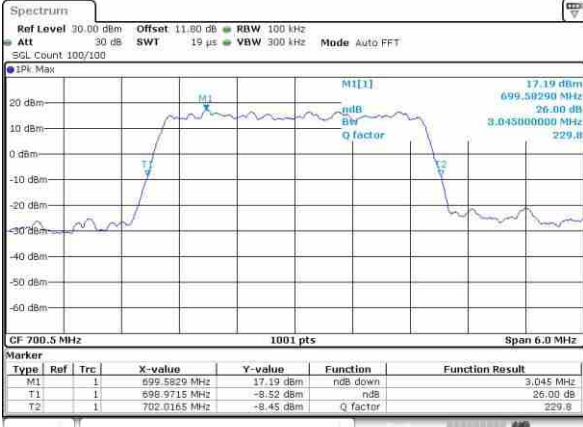


Date: 14, MAR, 2018 22:18:52



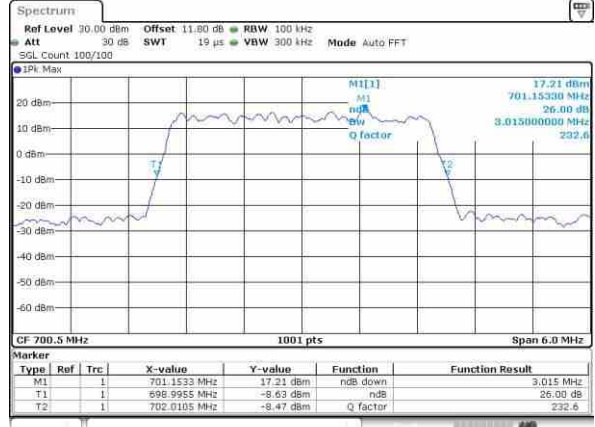
LTE Band 12

Lowest Channel / 3MHz / QPSK



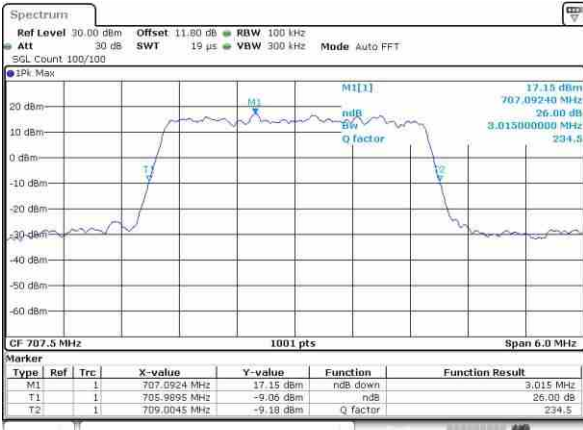
Date: 14, MAR, 2018 21:15:22

Lowest Channel / 3MHz / 16QAM



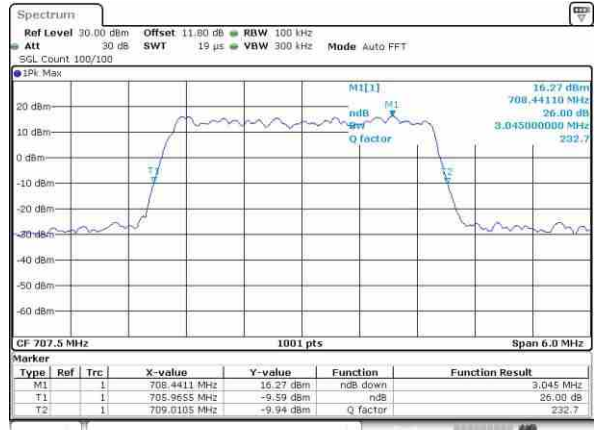
Date: 14, MAR, 2018 21:15:10

Middle Channel / 3MHz / QPSK



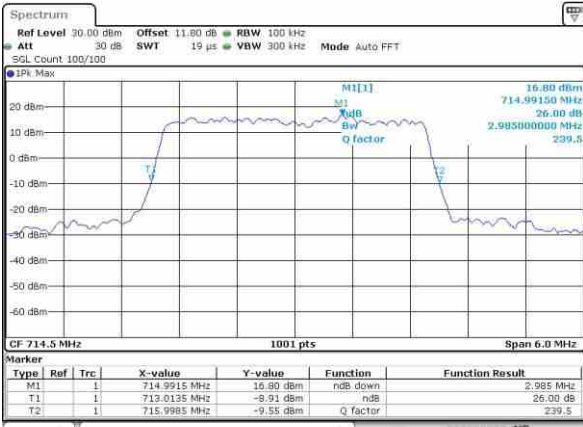
Date: 14, MAR, 2018 21:22:32

Middle Channel / 3MHz / 16QAM



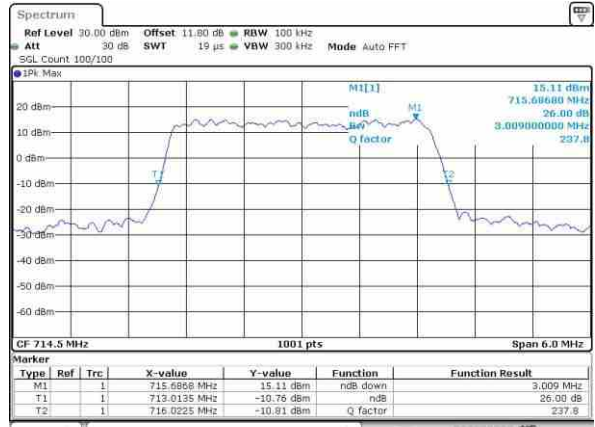
Date: 14, MAR, 2018 21:22:44

Highest Channel / 3MHz / QPSK



Date: 14, MAR, 2018 21:25:29

Highest Channel / 3MHz / 16QAM

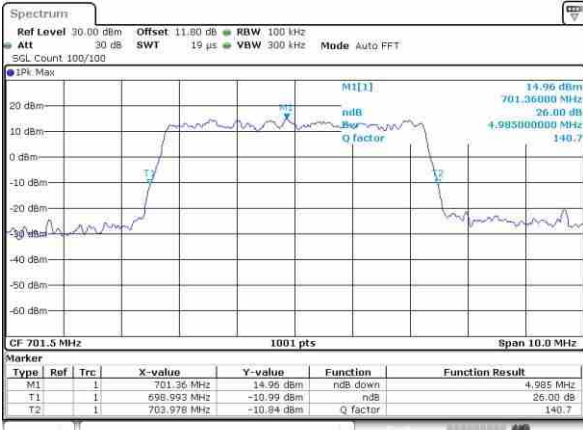


Date: 14, MAR, 2018 21:25:17



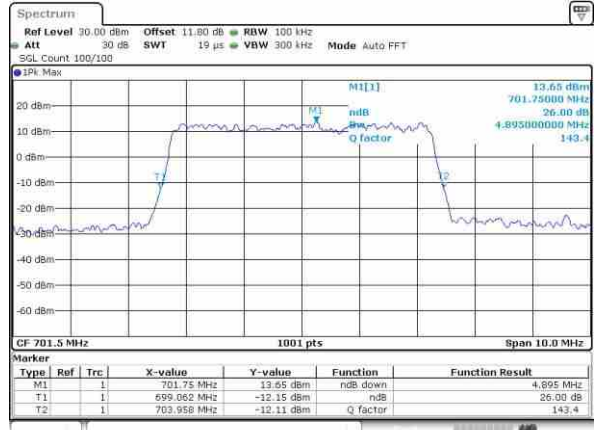
LTE Band 12

Lowest Channel / 5MHz / QPSK



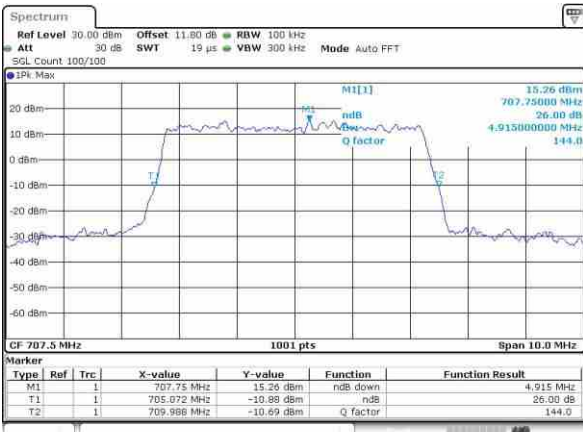
Date: 14, MAR, 2018 21:32:49

Lowest Channel / 5MHz / 16QAM



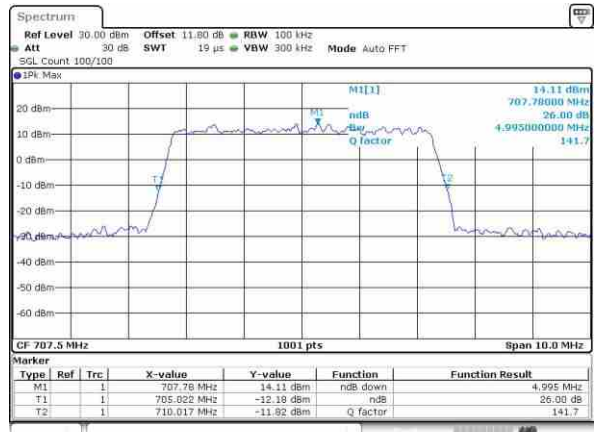
Date: 14, MAR, 2018 21:32:38

Middle Channel / 5MHz / QPSK



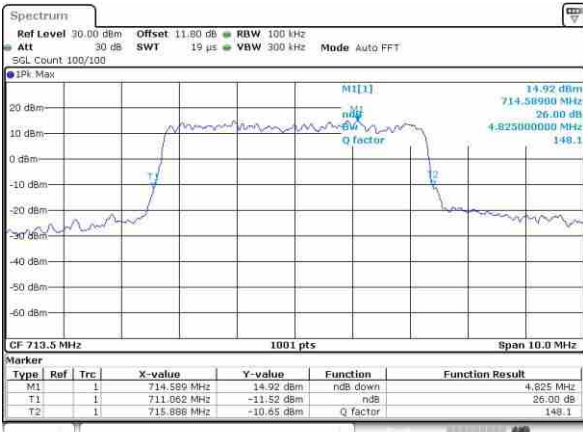
Date: 14, MAR, 2018 21:33:59

Middle Channel / 5MHz / 16QAM



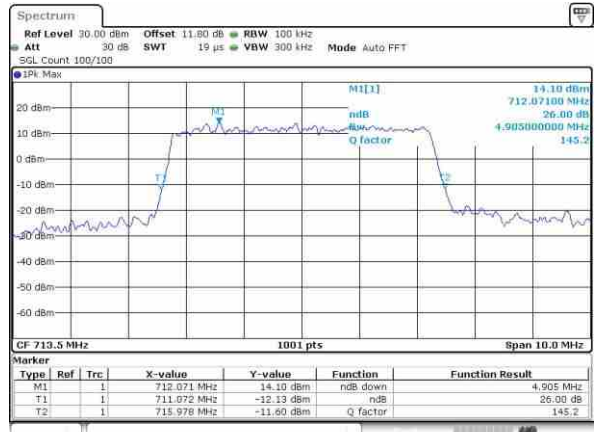
Date: 14, MAR, 2018 21:40:11

Highest Channel / 5MHz / QPSK



Date: 14, MAR, 2018 21:42:55

Highest Channel / 5MHz / 16QAM

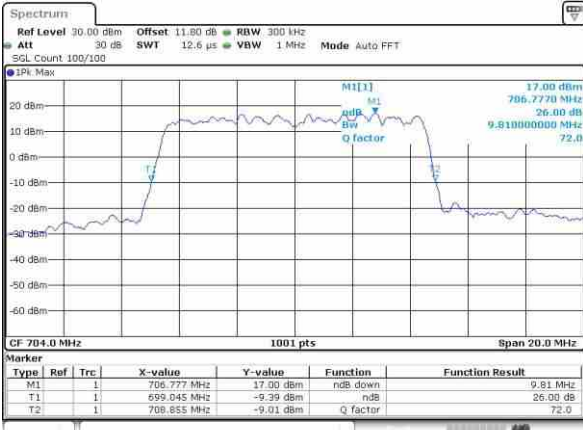


Date: 14, MAR, 2018 21:42:43



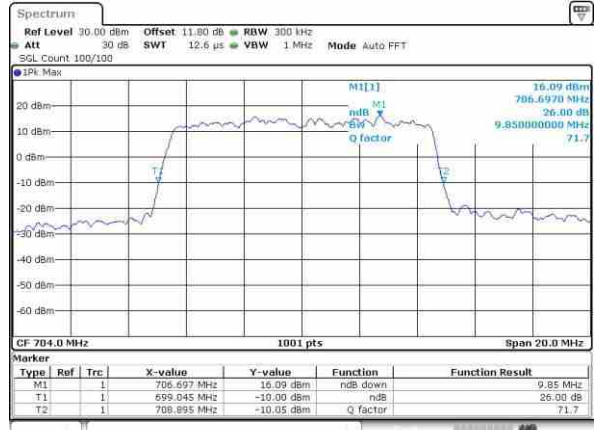
LTE Band 12

Lowest Channel / 10MHz / QPSK



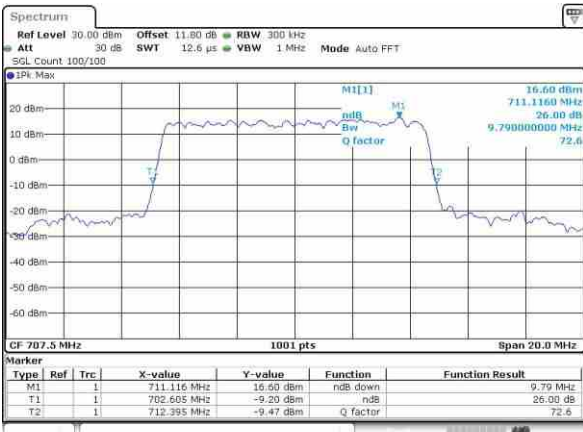
Date: 14, MAR, 2018 21:59:16

Lowest Channel / 10MHz / 16QAM



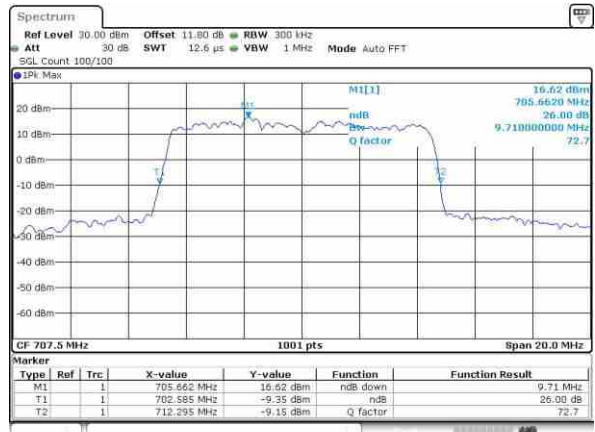
Date: 14, MAR, 2018 21:59:08

Middle Channel / 10MHz / QPSK



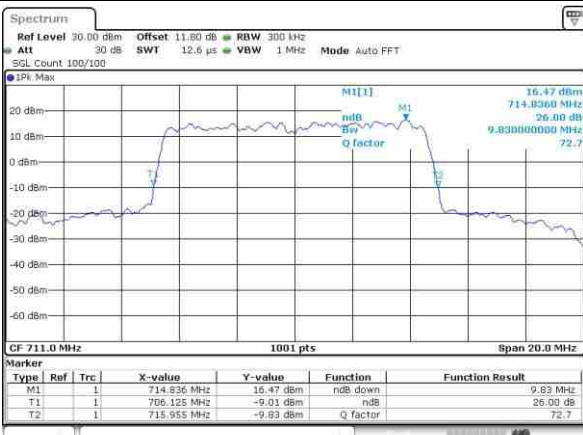
Date: 14, MAR, 2018 21:57:25

Middle Channel / 10MHz / 16QAM



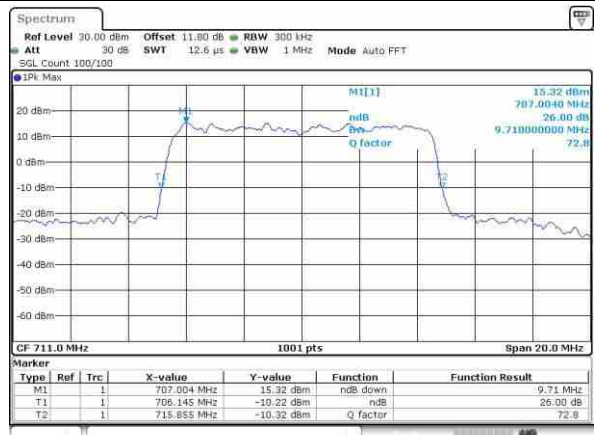
Date: 14, MAR, 2018 21:57:37

Highest Channel / 10MHz / QPSK



Date: 14, MAR, 2018 22:00:21

Highest Channel / 10MHz / 16QAM

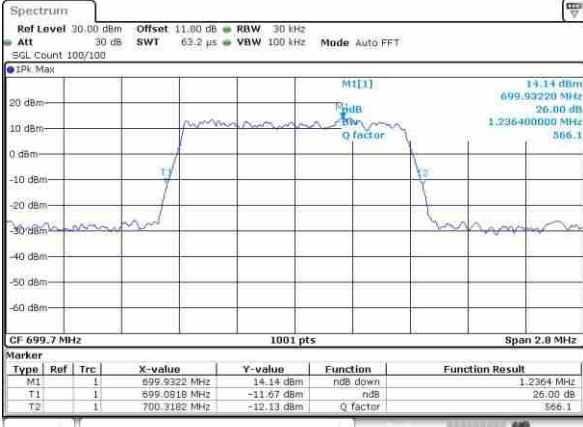


Date: 14, MAR, 2018 22:00:09



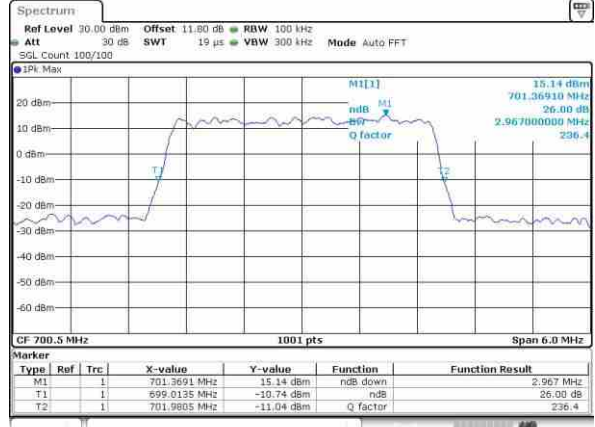
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



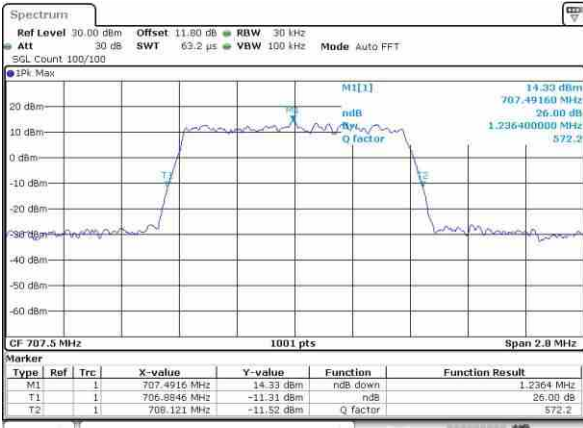
Date: 14, MAR, 2018 23:06:18

Lowest Channel / 3MHz / 64QAM



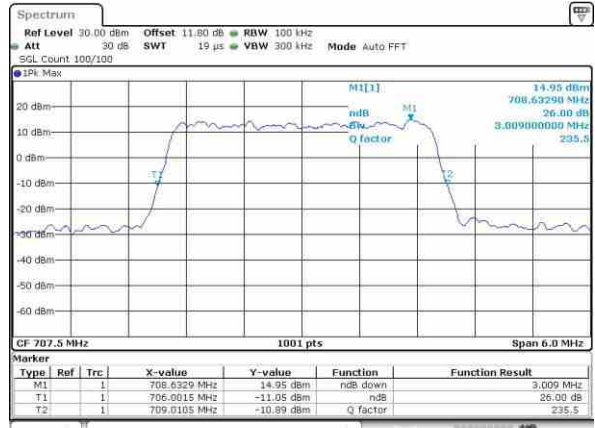
Date: 14, MAR, 2018 22:34:07

Middle Channel / 1.4MHz / 64QAM



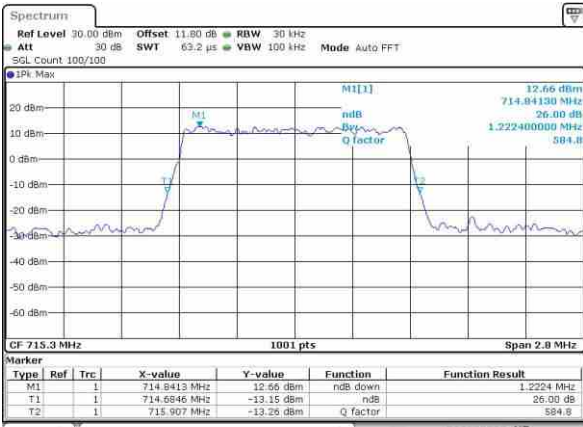
Date: 14, MAR, 2018 23:03:59

Middle Channel / 3MHz / 64QAM



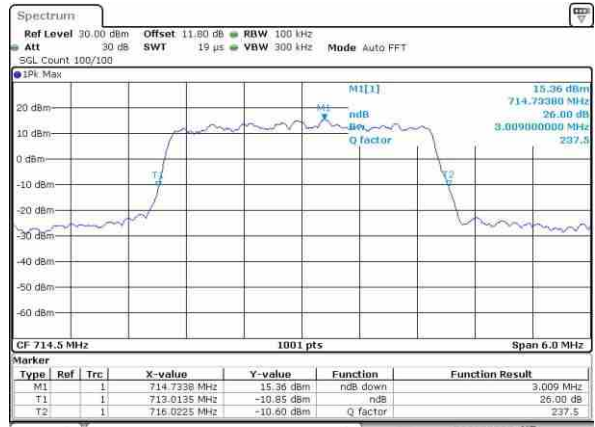
Date: 14, MAR, 2018 22:37:48

Highest Channel / 1.4MHz / 64QAM



Date: 14, MAR, 2018 23:05:21

Highest Channel / 3MHz / 64QAM

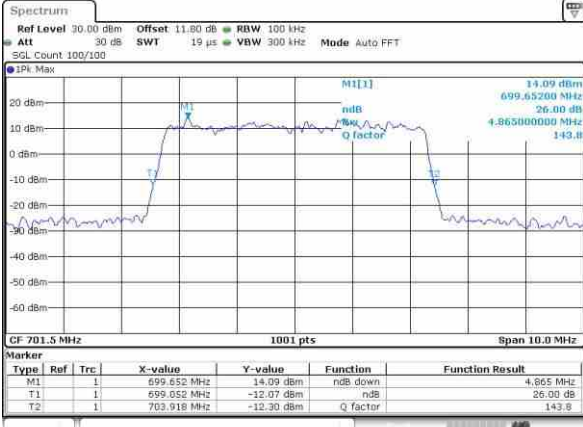


Date: 14, MAR, 2018 22:39:10



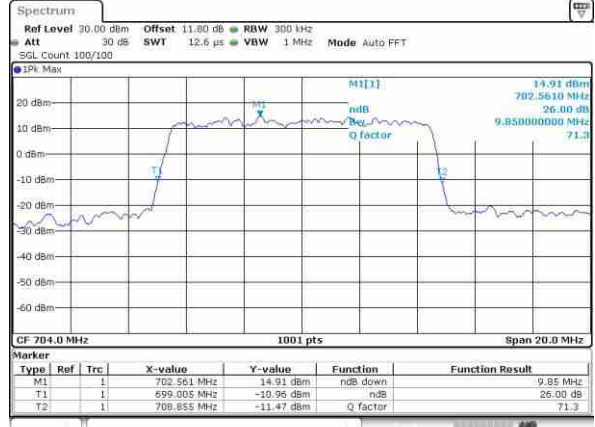
LTE Band 12

Lowest Channel / 5MHz / 64QAM



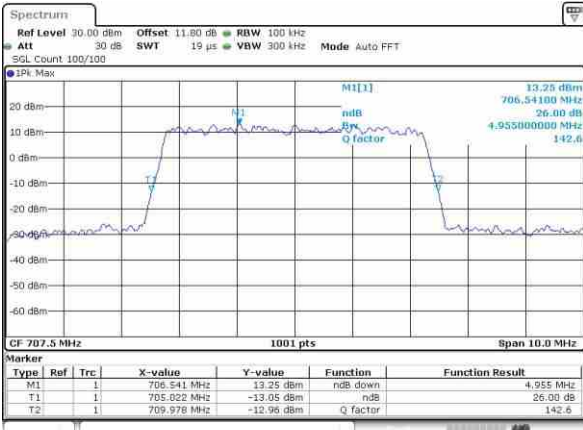
Date: 14, MAR, 2018 22:42:51

Lowest Channel / 10MHz / 64QAM



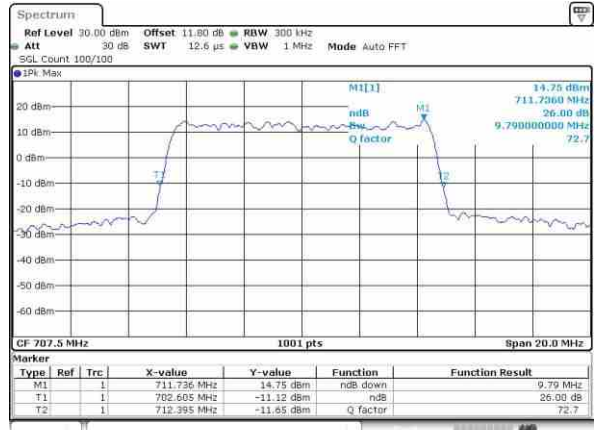
Date: 14, MAR, 2018 22:51:35

Middle Channel / 5MHz / 64QAM



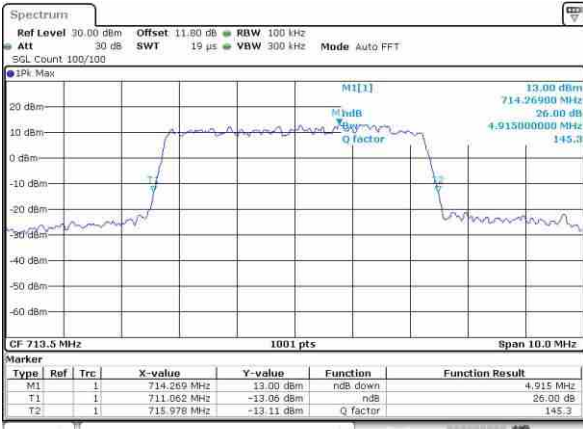
Date: 14, MAR, 2018 22:46:32

Middle Channel / 10MHz / 64QAM



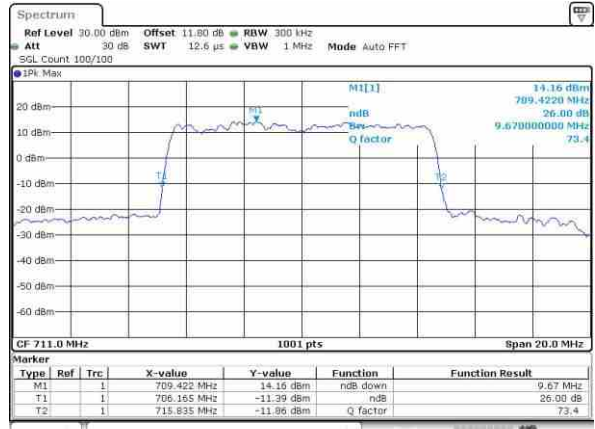
Date: 14, MAR, 2018 22:55:16

Highest Channel / 5MHz / 64QAM



Date: 14, MAR, 2018 22:47:54

Highest Channel / 10MHz / 64QAM



Date: 14, MAR, 2018 22:56:38



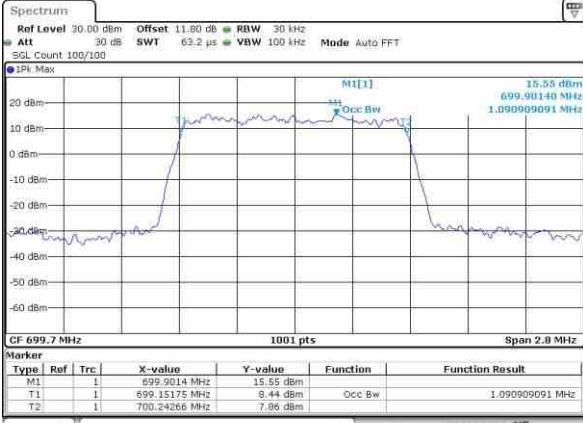
Occupied Bandwidth

| Mode | LTE Band 12 : 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 | 1.09 | 1.1 | 2.72 | 2.73 | 4.51 | 4.49 | 9.05 | 8.93 | - | - | - | - |
| Middle CH | 1.09 | 1.09 | 2.7 | 2.72 | 4.48 | 4.5 | 9.07 | 9.07 | - | - | - | - |
| Highest CH | 1.09 | 1.09 | 2.73 | 2.72 | 4.47 | 4.48 | 9.01 | 9.03 | - | - | - | - |
| Mode | LTE Band 12 : 99%OBW(MHz) | | | | | | | | | | | |
| BW | 1.4MHz | | 3MHz | | 5MHz | | 10MHz | | 15MHz | | 20MHz | |
| Mod. | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | | 64QAM | |
| Lowest CH | 1.09 | - | 2.72 | - | 4.49 | - | 9.01 | - | - | - | - | - |
| Middle CH | 1.09 | - | 2.74 | - | 4.51 | - | 9.03 | - | - | - | - | - |
| Highest CH | 1.09 | - | 2.73 | - | 4.50 | - | 9.03 | - | - | - | - | - |



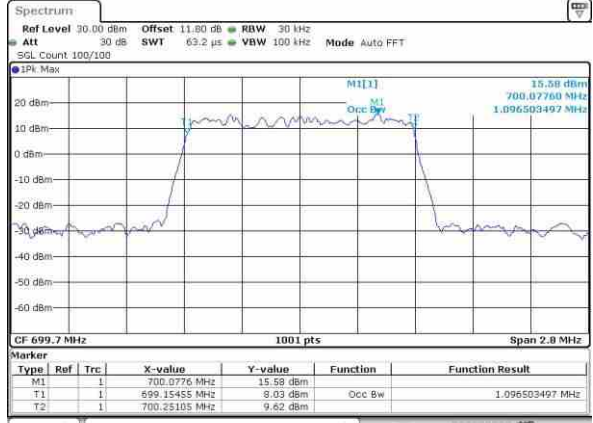
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



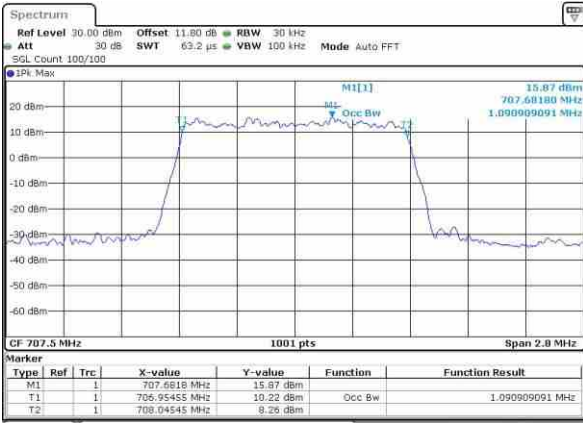
Date: 14, MAR, 2018 22:10:24

Lowest Channel / 1.4MHz / 16QAM



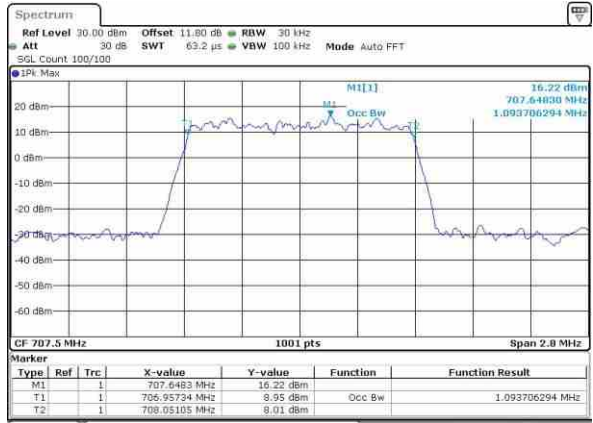
Date: 14, MAR, 2018 22:10:35

Middle Channel / 1.4MHz / QPSK



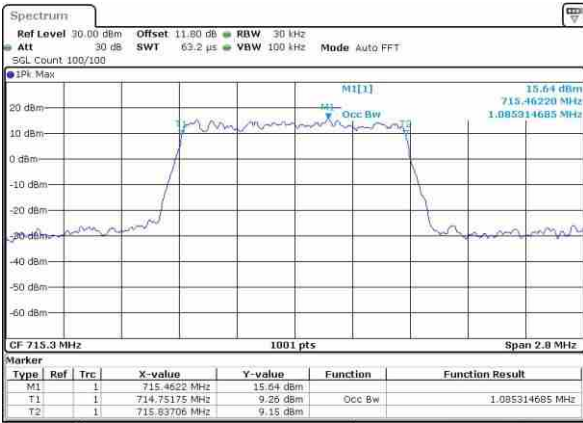
Date: 14, MAR, 2018 22:15:57

Middle Channel / 1.4MHz / 16QAM



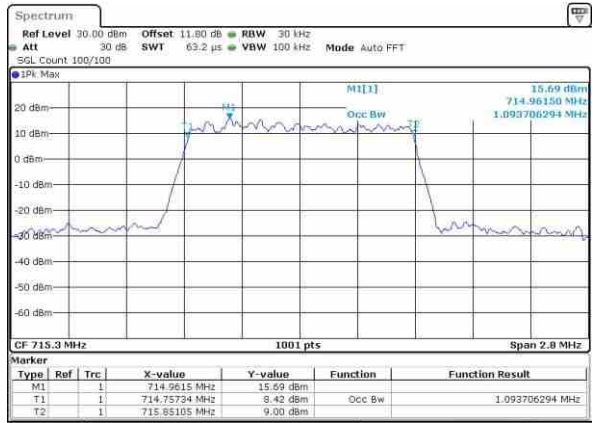
Date: 14, MAR, 2018 22:15:45

Highest Channel / 1.4MHz / QPSK



Date: 14, MAR, 2018 22:18:29

Highest Channel / 1.4MHz / 16QAM

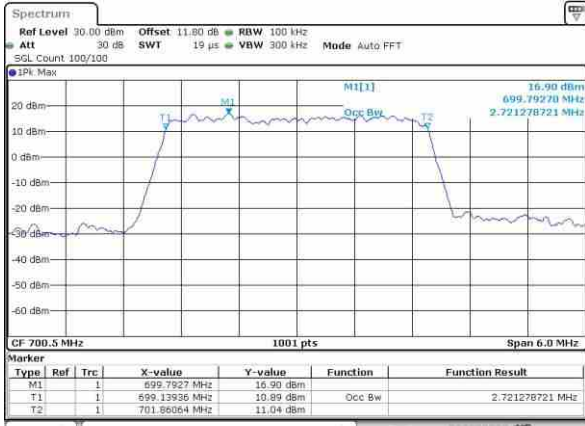


Date: 14, MAR, 2018 22:18:41



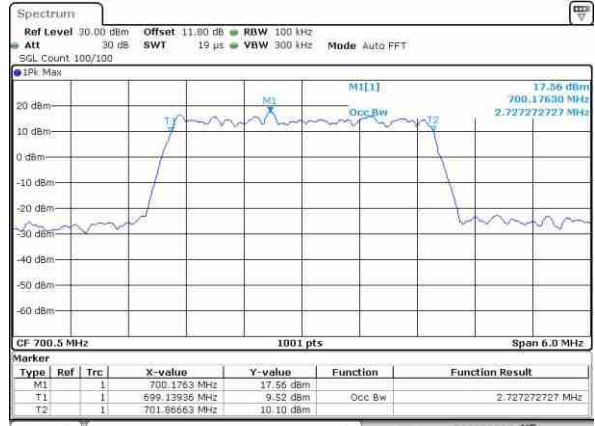
LTE Band 12

Lowest Channel / 3MHz / QPSK



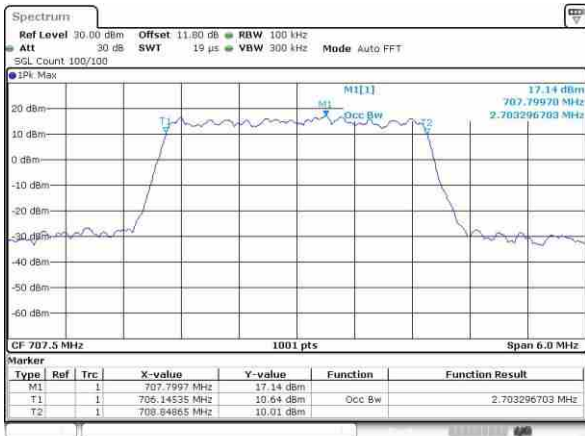
Date: 14, MAR, 2018 21:14:47

Lowest Channel / 3MHz / 16QAM



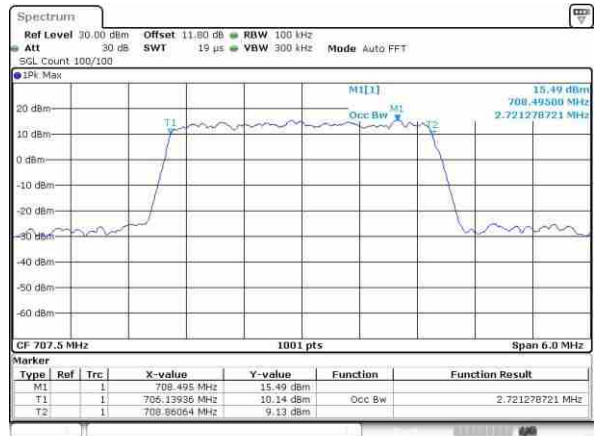
Date: 14, MAR, 2018 21:14:59

Middle Channel / 3MHz / QPSK



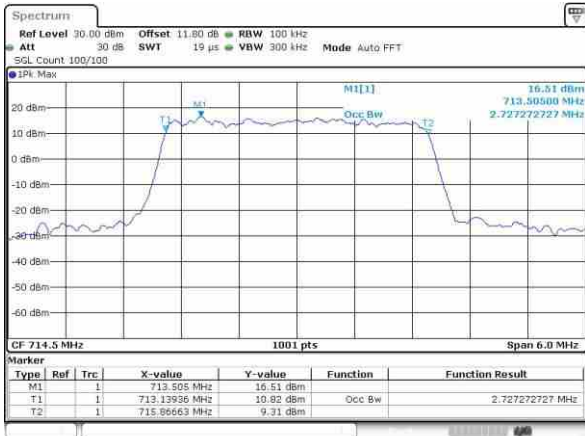
Date: 14, MAR, 2018 21:22:20

Middle Channel / 3MHz / 16QAM



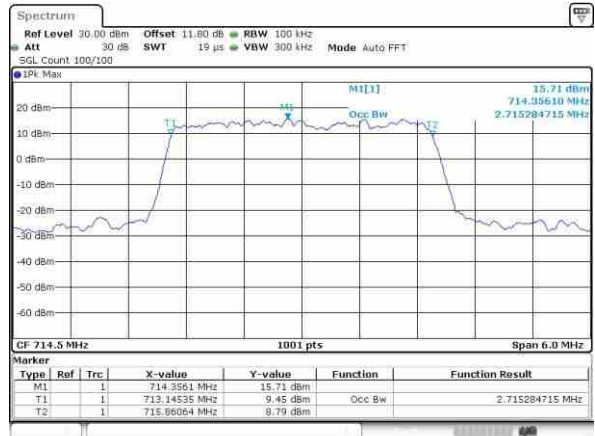
Date: 14, MAR, 2018 21:22:08

Highest Channel / 3MHz / QPSK



Date: 14, MAR, 2018 21:24:53

Highest Channel / 3MHz / 16QAM

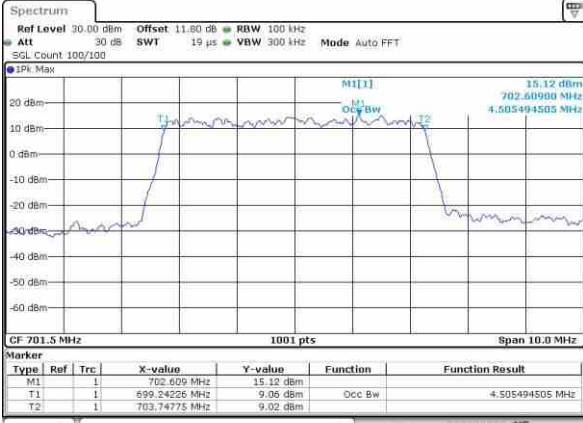


Date: 14, MAR, 2018 21:25:05



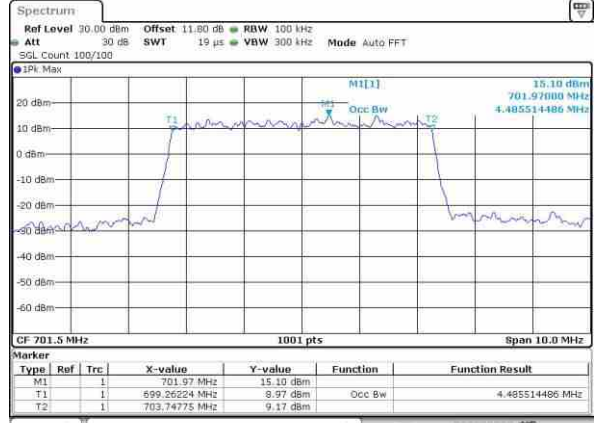
LTE Band 12

Lowest Channel / 5MHz / QPSK



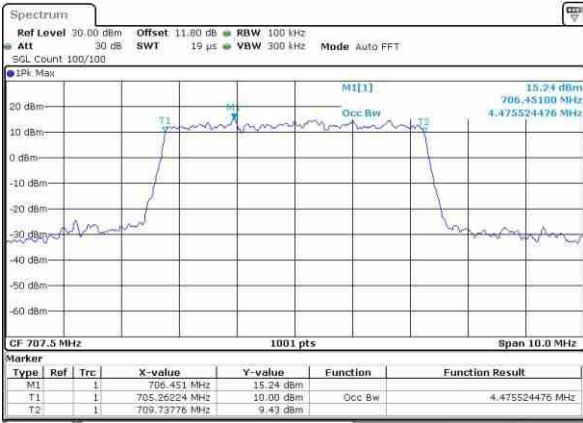
Date: 14, MAR, 2018 21:32:14

Lowest Channel / 5MHz / 16QAM



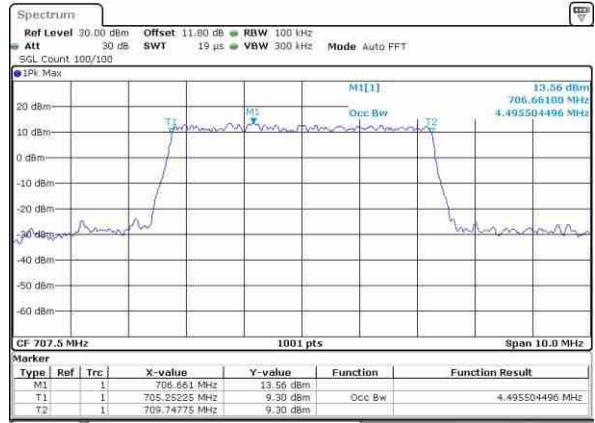
Date: 14, MAR, 2018 21:32:16

Middle Channel / 5MHz / QPSK



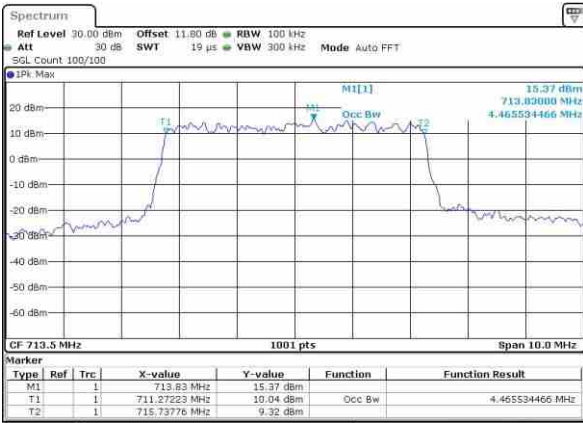
Date: 14, MAR, 2018 21:33:47

Middle Channel / 5MHz / 16QAM



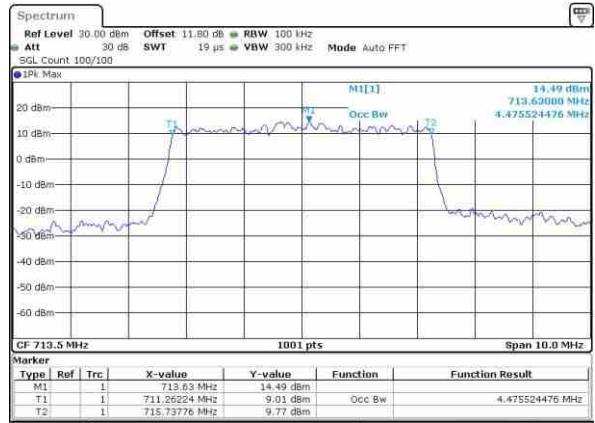
Date: 14, MAR, 2018 21:33:55

Highest Channel / 5MHz / QPSK



Date: 14, MAR, 2018 21:42:19

Highest Channel / 5MHz / 16QAM

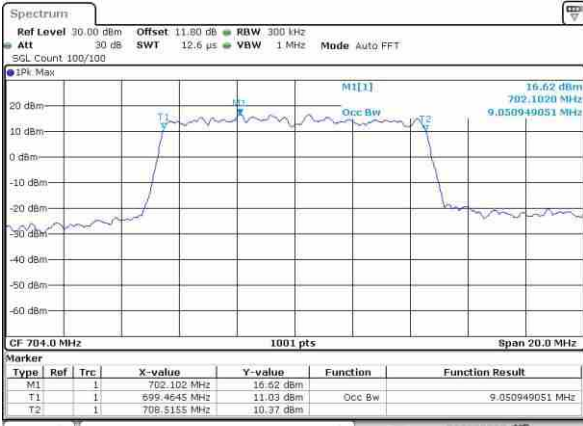


Date: 14, MAR, 2018 21:42:31



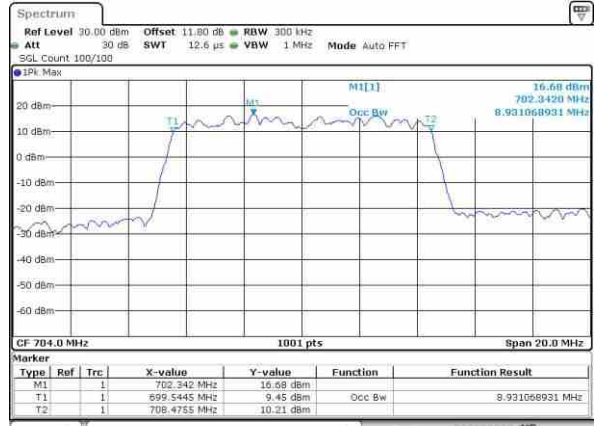
LTE Band 12

Lowest Channel / 10MHz / QPSK



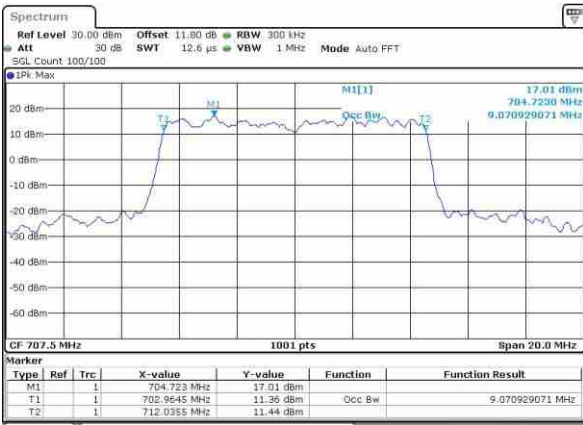
Date: 14, MAR, 2018 21:49:41

Lowest Channel / 10MHz / 16QAM



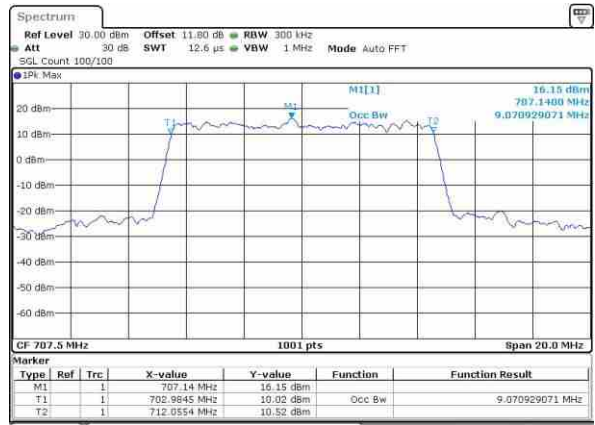
Date: 14, MAR, 2018 21:49:52

Middle Channel / 10MHz / QPSK



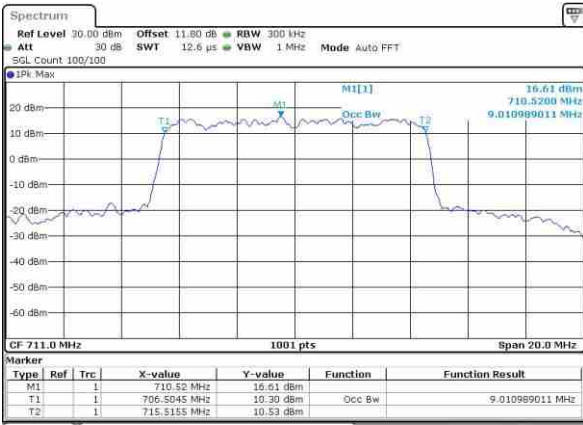
Date: 14, MAR, 2018 21:57:12

Middle Channel / 10MHz / 16QAM



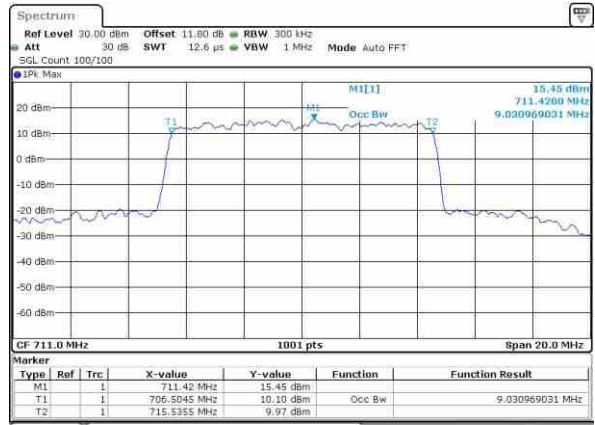
Date: 14, MAR, 2018 21:57:01

Highest Channel / 10MHz / QPSK



Date: 14, MAR, 2018 21:59:45

Highest Channel / 10MHz / 16QAM

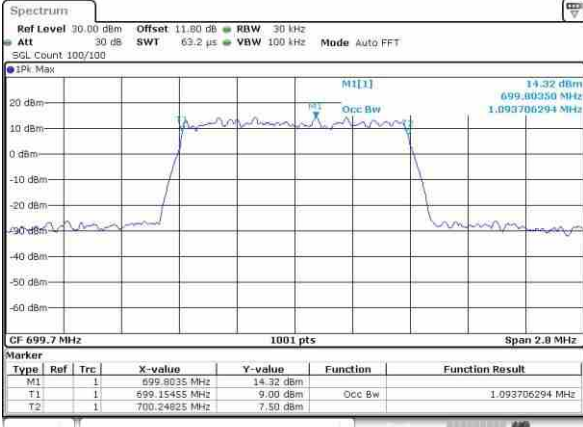


Date: 14, MAR, 2018 21:59:57



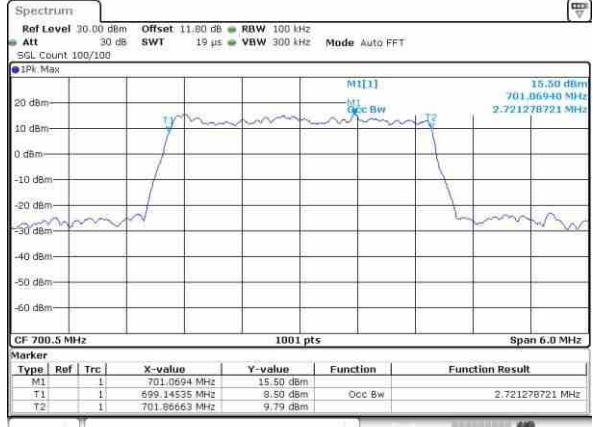
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



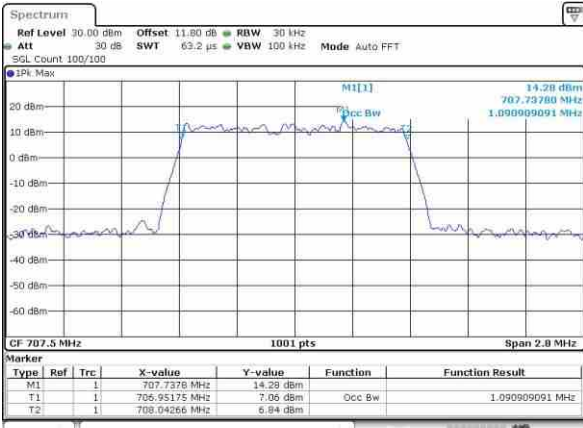
Date: 14, MAR, 2018 23:00:06

Lowest Channel / 3MHz / 64QAM



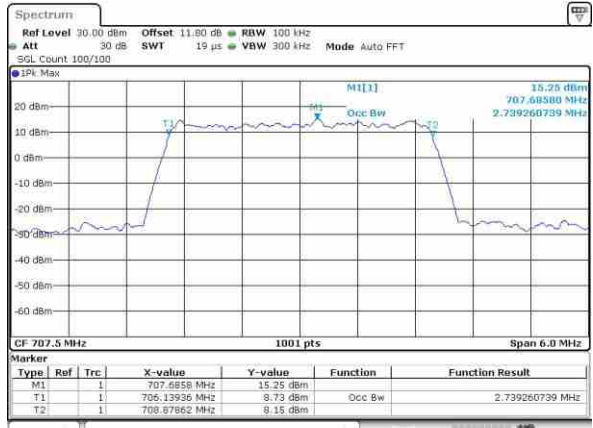
Date: 14, MAR, 2018 22:33:55

Middle Channel / 1.4MHz / 64QAM



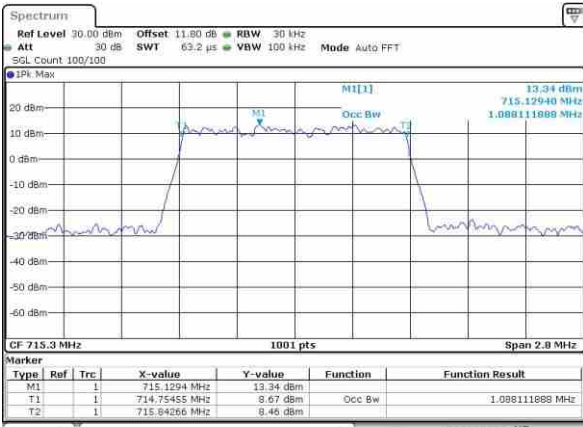
Date: 14, MAR, 2018 23:03:48

Middle Channel / 3MHz / 64QAM



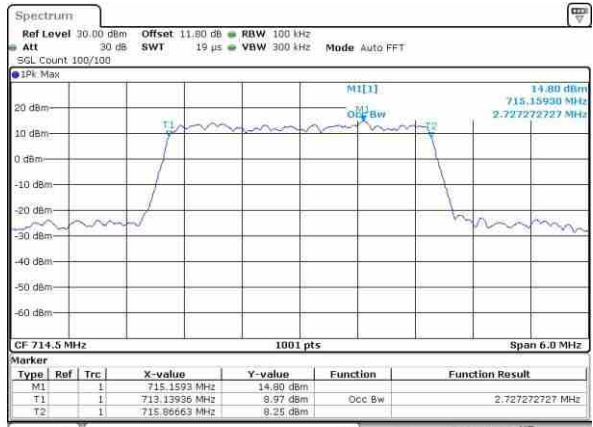
Date: 14, MAR, 2018 22:37:17

Highest Channel / 1.4MHz / 64QAM



Date: 14, MAR, 2018 23:03:09

Highest Channel / 3MHz / 64QAM

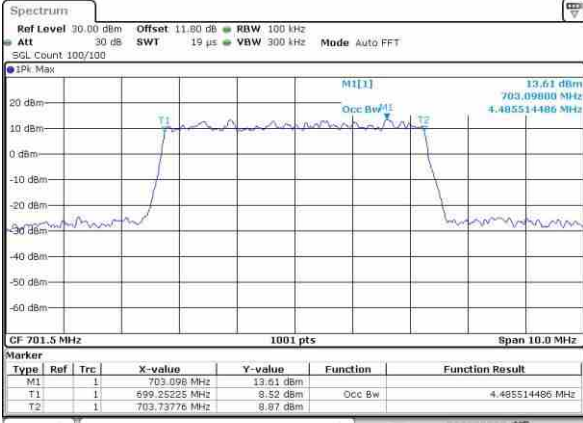


Date: 14, MAR, 2018 22:38:59



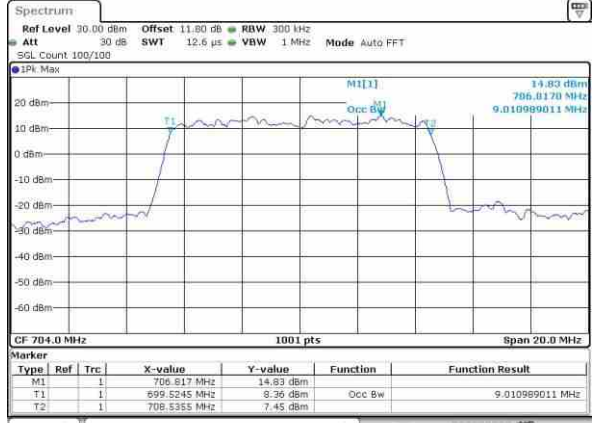
LTE Band 12

Lowest Channel / 5MHz / 64QAM



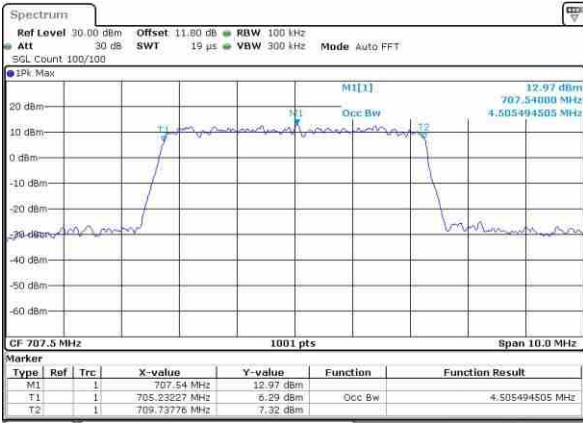
Date: 14, MAR, 2018 22:42:40

Lowest Channel / 10MHz / 64QAM



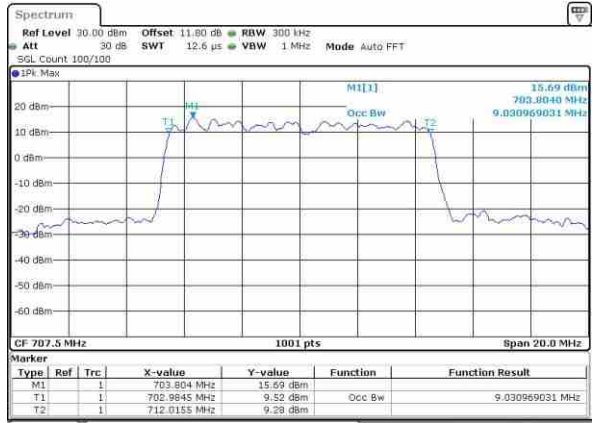
Date: 14, MAR, 2018 22:51:23

Middle Channel / 5MHz / 64QAM



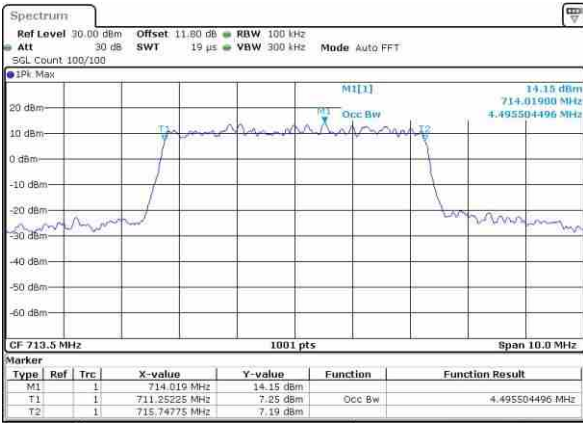
Date: 14, MAR, 2018 22:46:20

Middle Channel / 10MHz / 64QAM



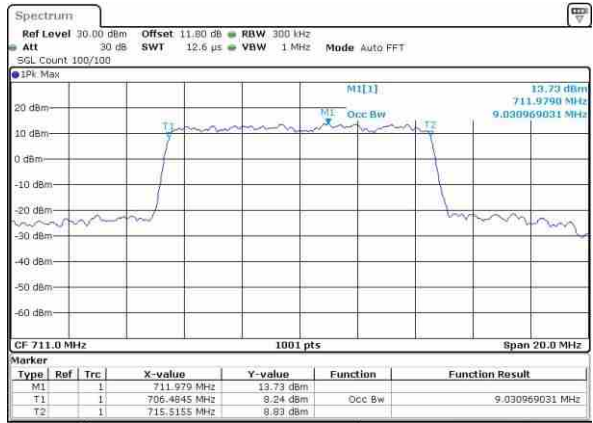
Date: 14, MAR, 2018 22:55:04

Highest Channel / 5MHz / 64QAM



Date: 14, MAR, 2018 22:47:42

Highest Channel / 10MHz / 64QAM



Date: 14, MAR, 2018 22:56:26



Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1 RB



Date: 14.MAR.2018 22:13:37

Highest Band Edge / 1RB



Date: 14.MAR.2018 22:23:43

Lowest Band Edge / Full RB



Date: 14.MAR.2018 22:10:08

Highest Band Edge / Full RB



Date: 14.MAR.2018 22:20:14



LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 14.MAR.2018 22:12:27

Highest Band Edge / 1 RB



Date: 14.MAR.2018 22:22:33

Lowest Band Edge / Full RB



Date: 14.MAR.2018 22:11:18

Highest Band Edge / Full RB



Date: 14.MAR.2018 22:21:24



LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



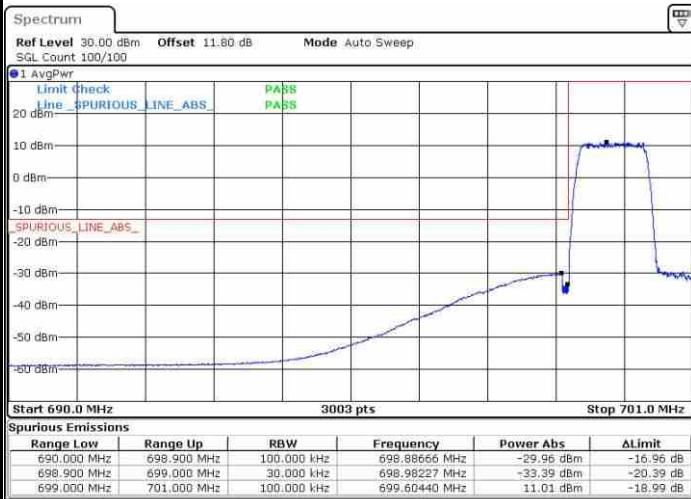
Date: 14.MAR.2018 23:02:37

Highest Band Edge / 1 RB



Date: 14.MAR.2018 23:07:40

Lowest Band Edge / Full RB



Date: 14.MAR.2018 23:01:28

Highest Band Edge / Full RB

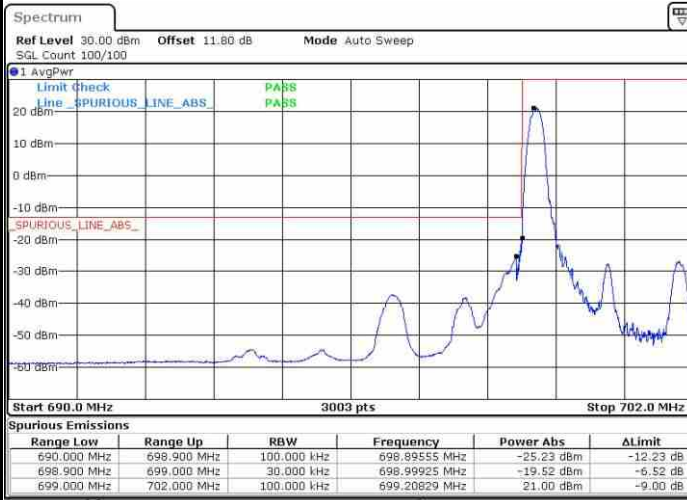


Date: 14.MAR.2018 23:06:31



LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



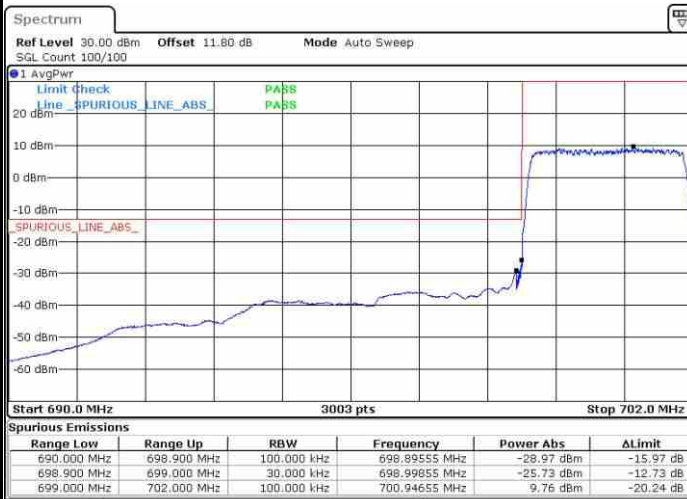
Date: 14.MAR.2018 21:20:00

Highest Band Edge / 1 RB



Date: 14.MAR.2018 21:30:06

Lowest Band Edge / Full RB



Date: 14.MAR.2018 21:16:32

Highest Band Edge / Full RB

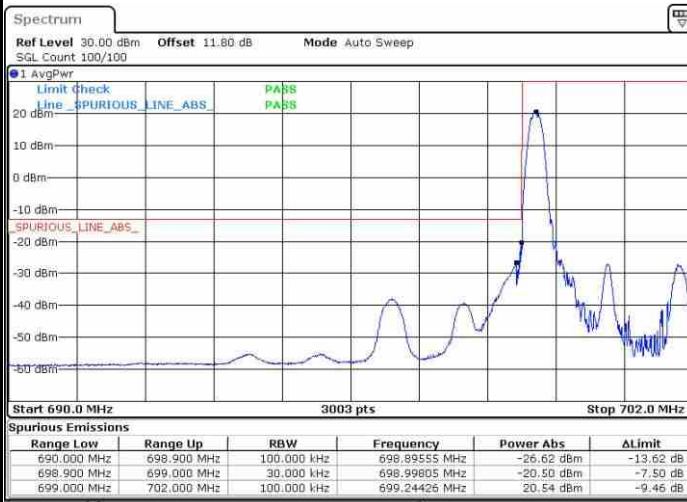


Date: 14.MAR.2018 21:26:38



LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



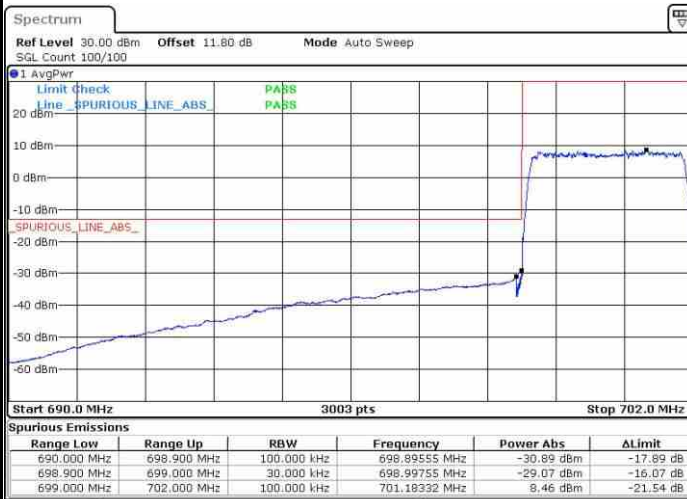
Date: 14.MAR.2018 21:18:51

Highest Band Edge / 1 RB



Date: 14.MAR.2018 21:28:57

Lowest Band Edge / Full RB



Date: 14.MAR.2018 21:17:41

Highest Band Edge / Full RB

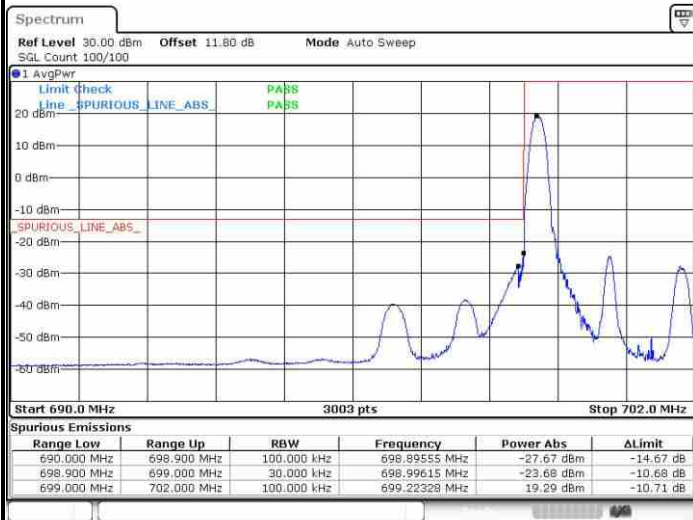


Date: 14.MAR.2018 21:27:48



LTE Band 12 / 3MHz / 64QAM

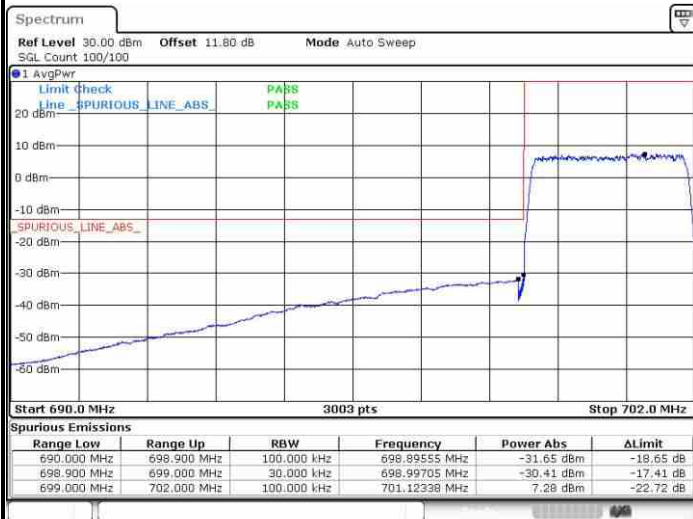
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



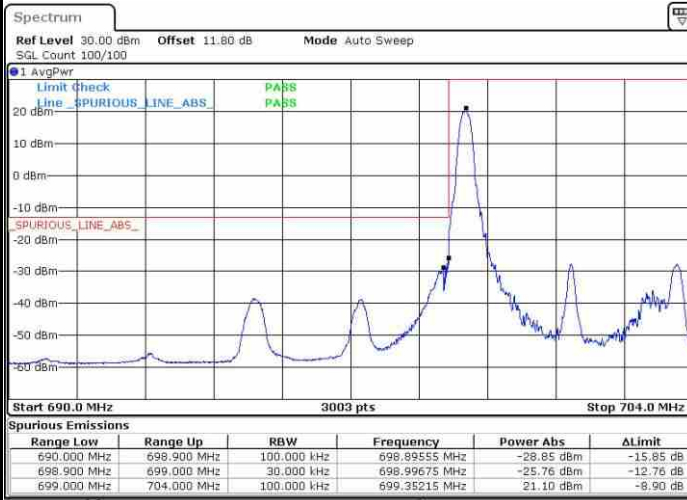
Highest Band Edge / Full RB





LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



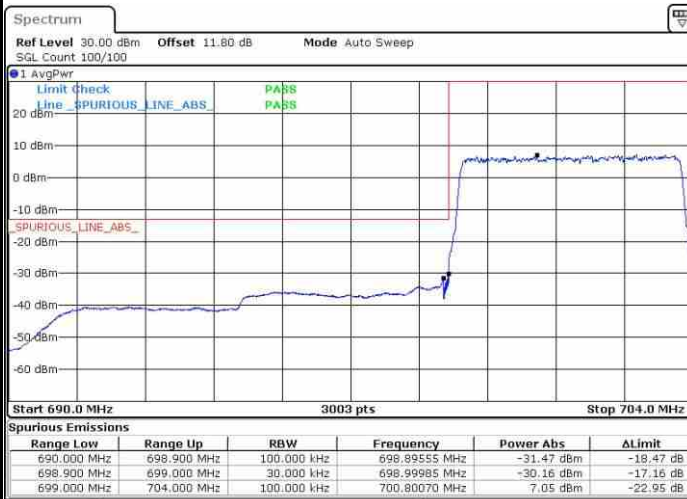
Date: 14.MAR.2018 21:37:27

Highest Band Edge / 1 RB



Date: 14.MAR.2018 21:46:23

Lowest Band Edge / Full RB



Date: 14.MAR.2018 21:33:59

Highest Band Edge / Full RB



Date: 14.MAR.2018 21:44:04