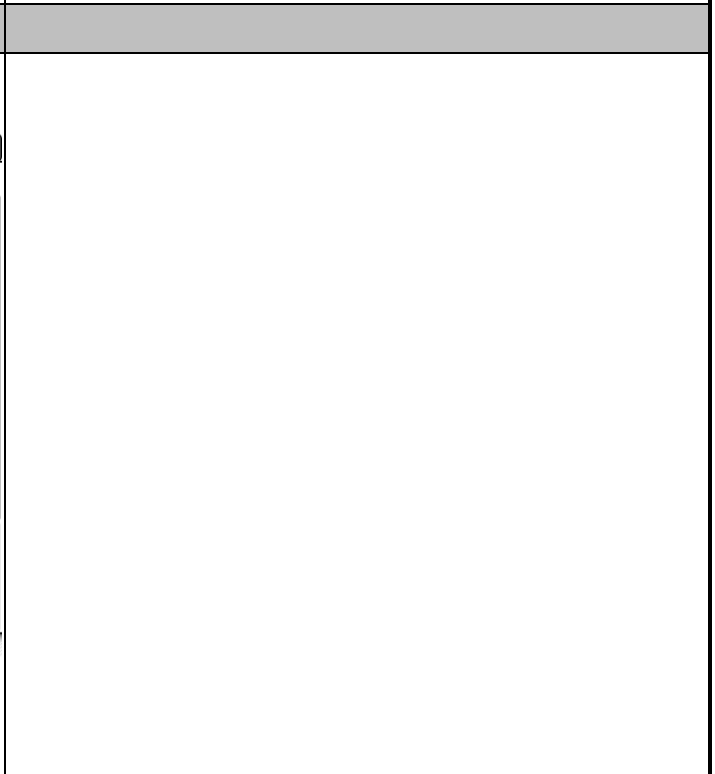
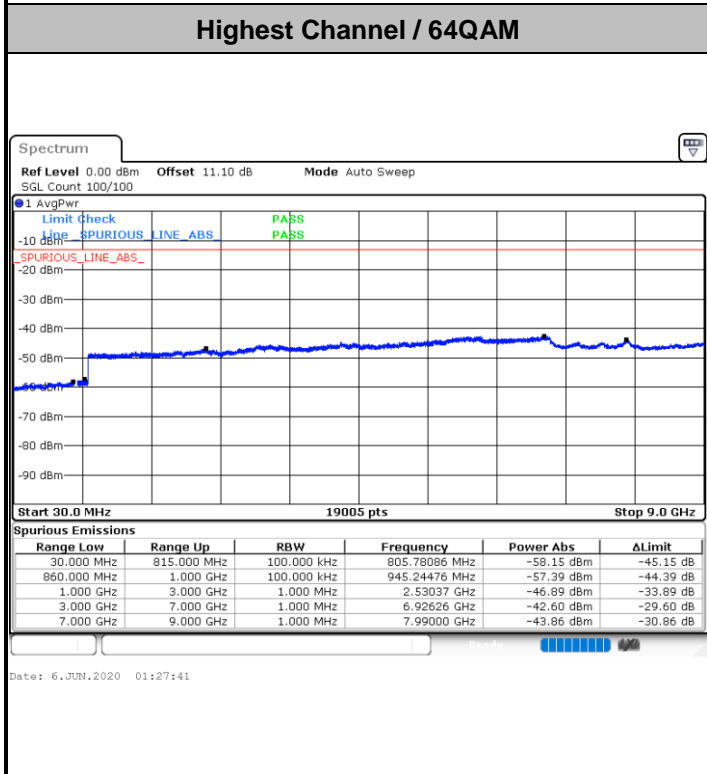
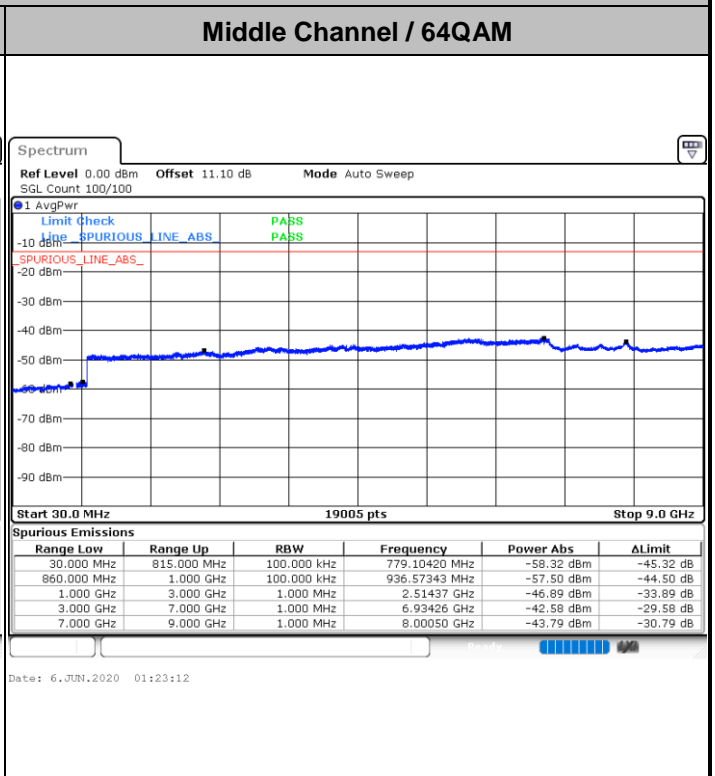
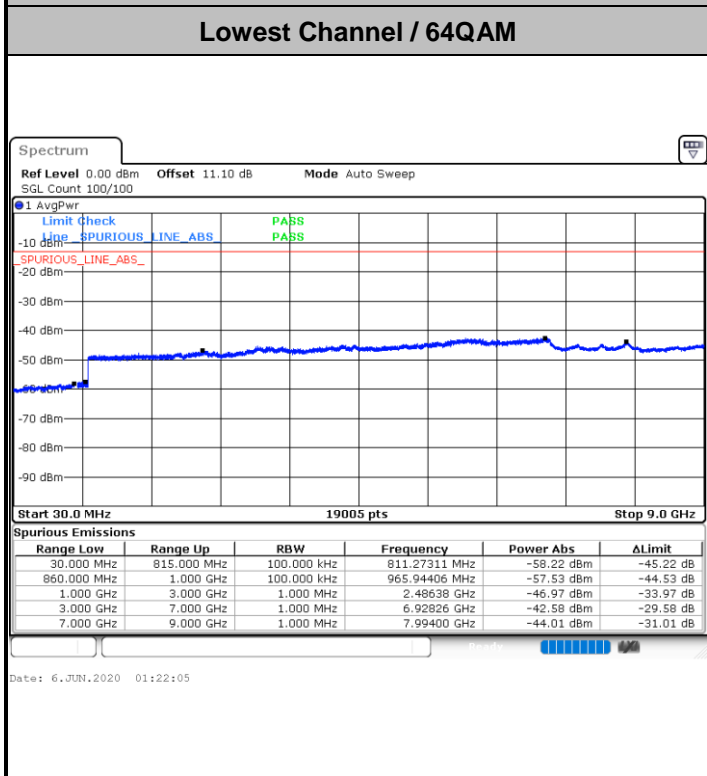


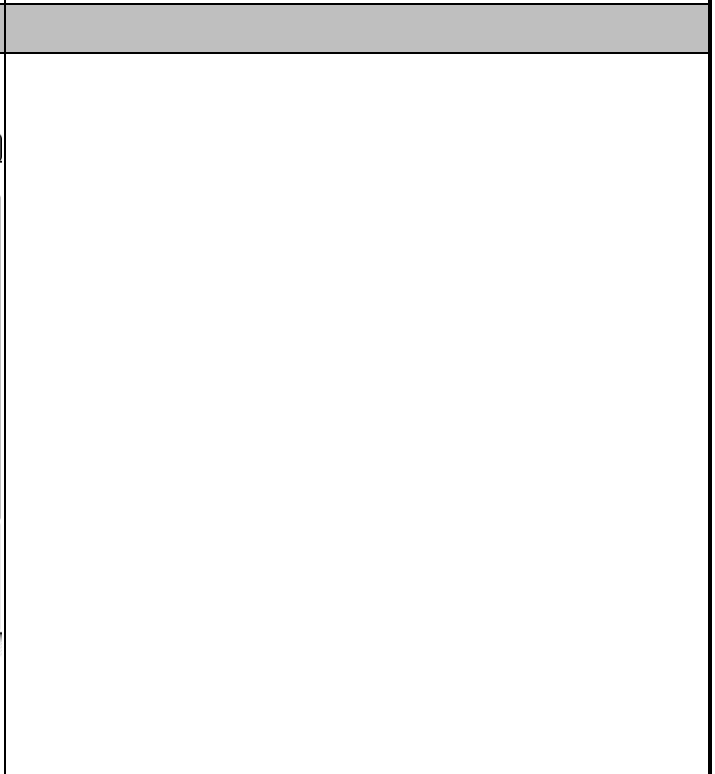
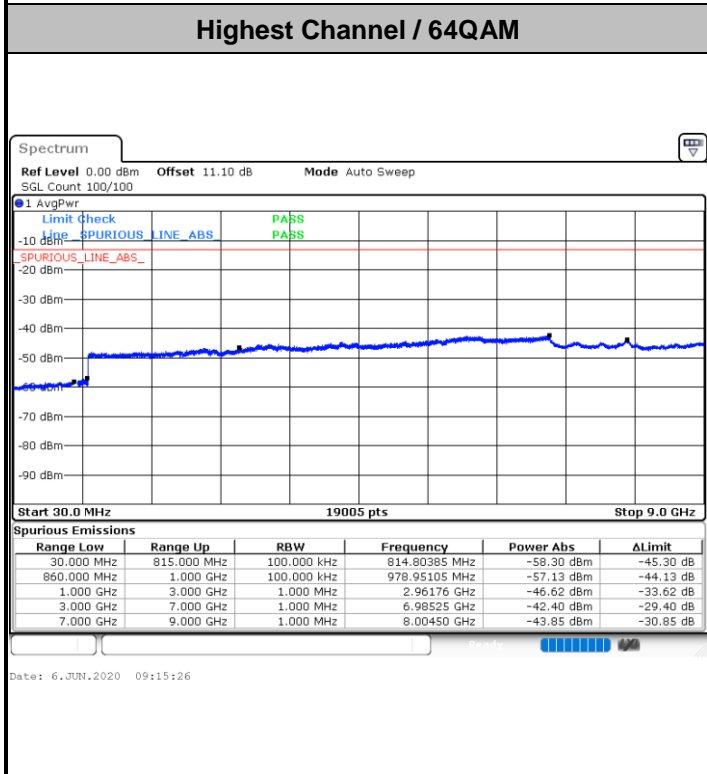
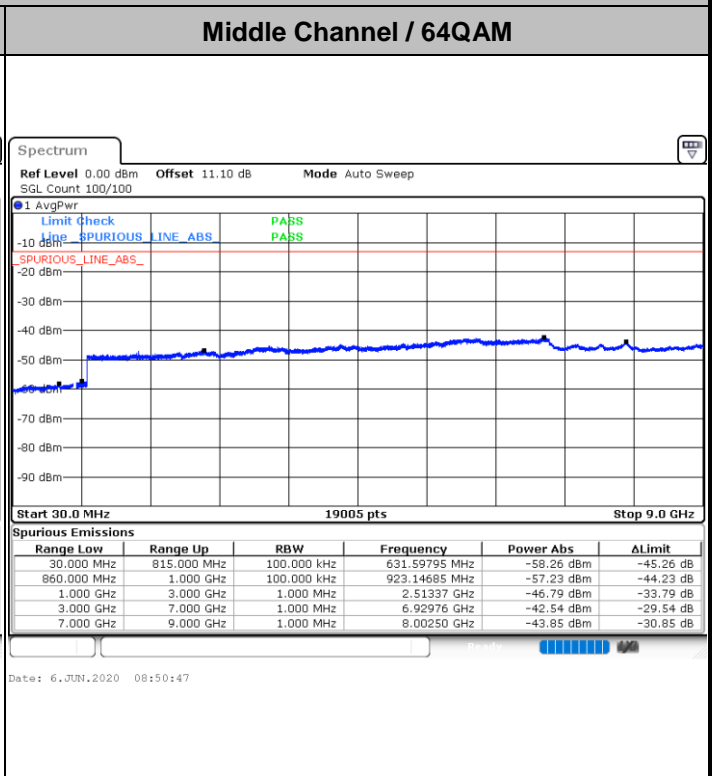
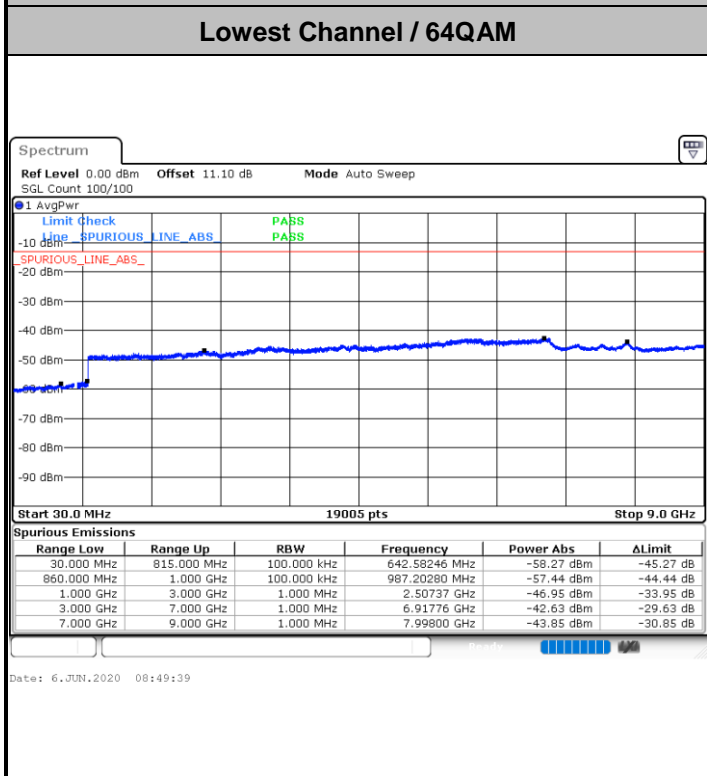


**LTE Band 5 / 3MHz**





**LTE Band 5 / 5MHz**

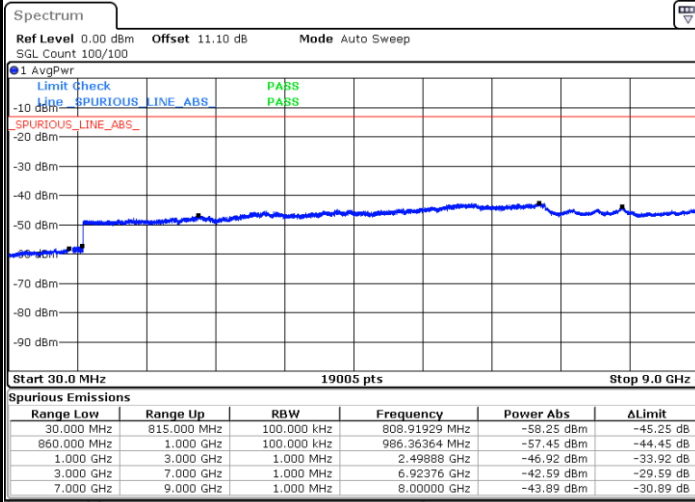




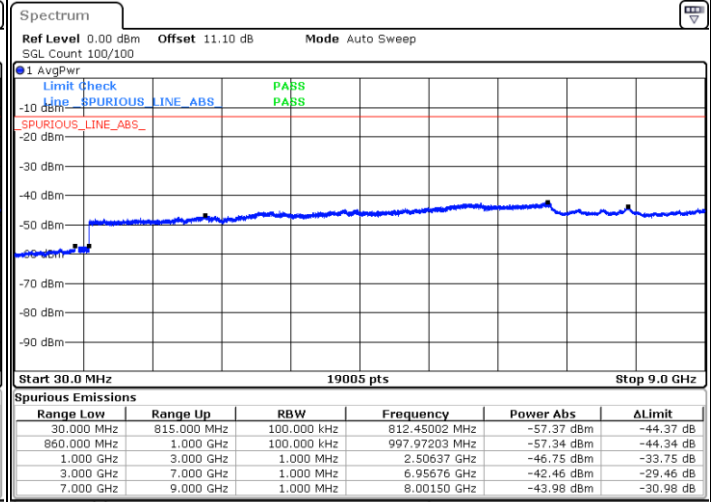
LTE Band 5 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

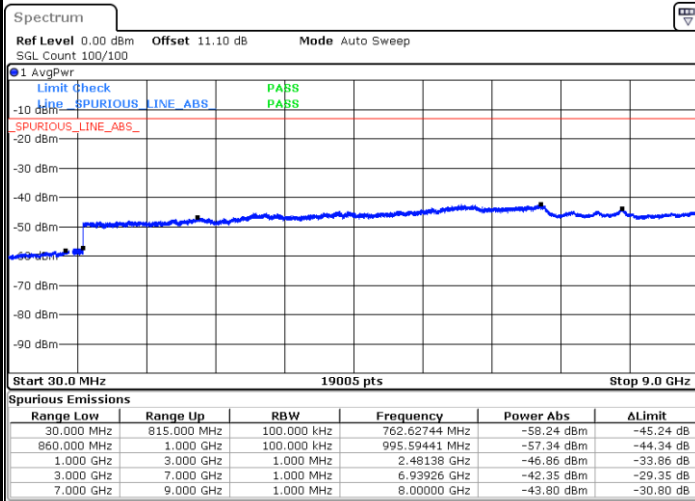


Date: 6 JUN.2020 09:19:55



Date: 6 JUN.2020 09:21:03

Highest Channel / 64QAM



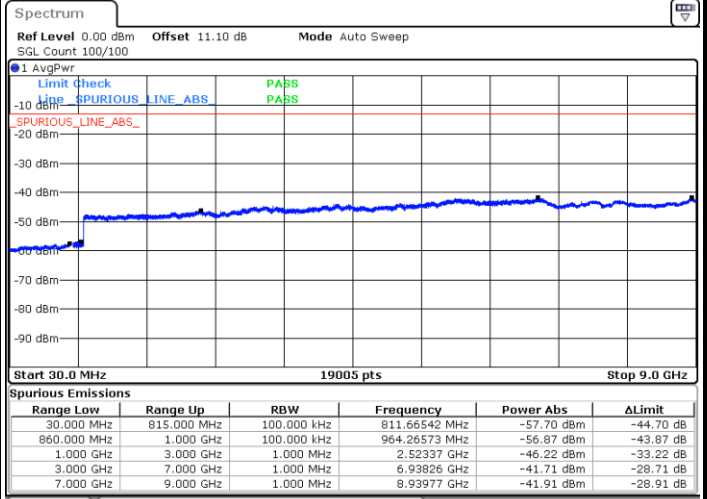
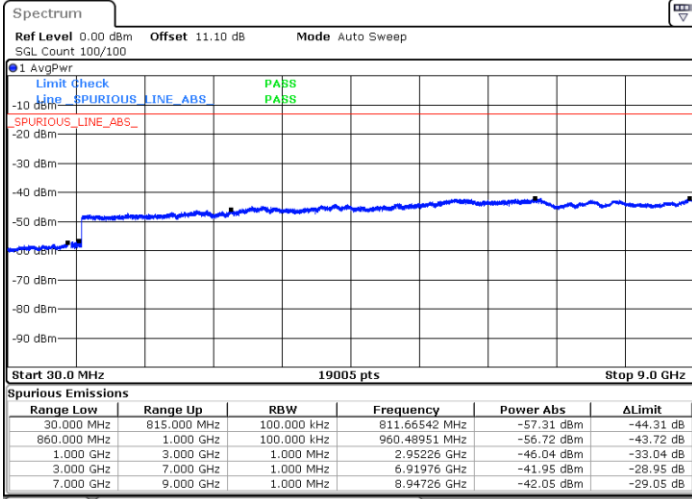
Date: 6 JUN.2020 09:25:31



LTE Band 5 / 1.4MHz

Lowest Channel / 256QAM

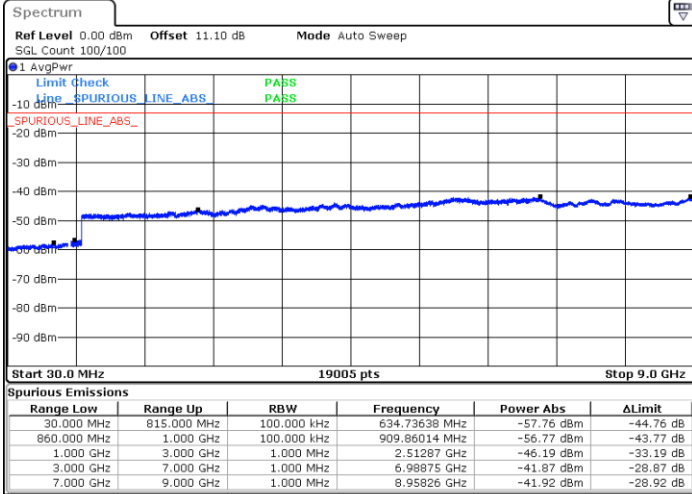
Middle Channel / 256QAM



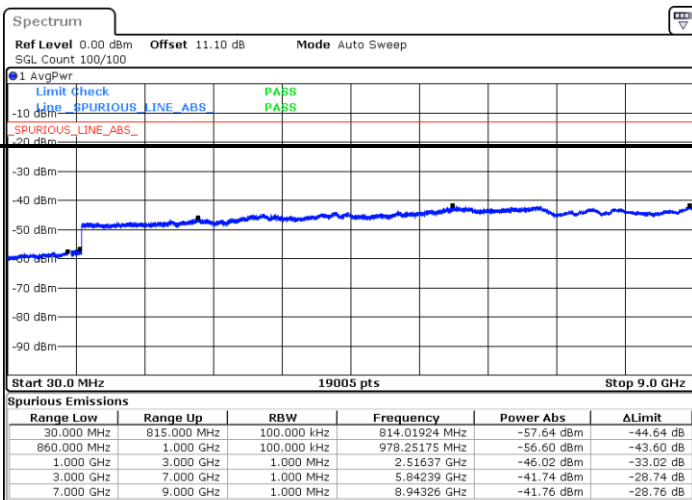
Date: 16.JUL.2020 10:25:01

Date: 16.JUL.2020 10:17:39

Highest Channel / 256QAM



Date: 16.JUL.2020 10:40:07



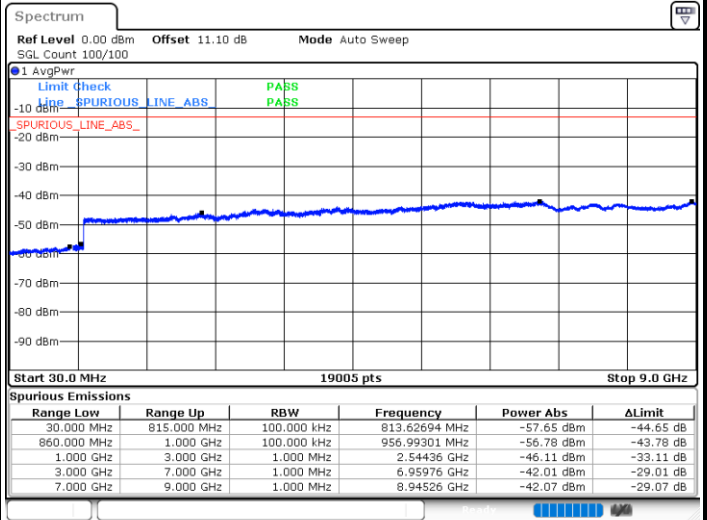
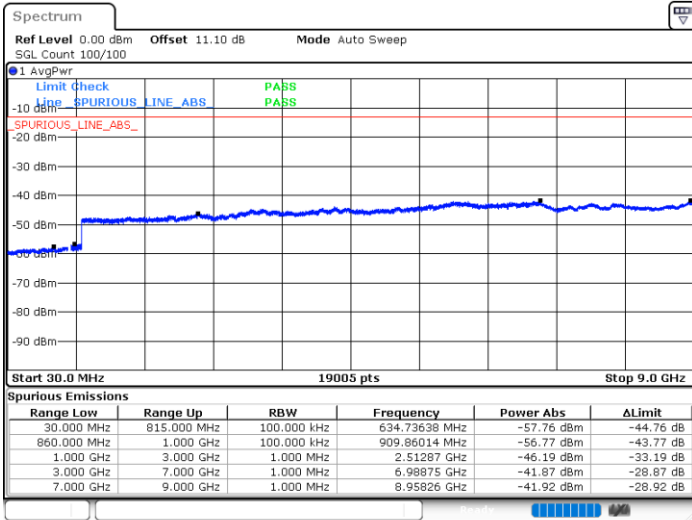
Date: 16.JUL.2020 10:28:22



LTE Band 5 / 3MHz

Lowest Channel / 256QAM

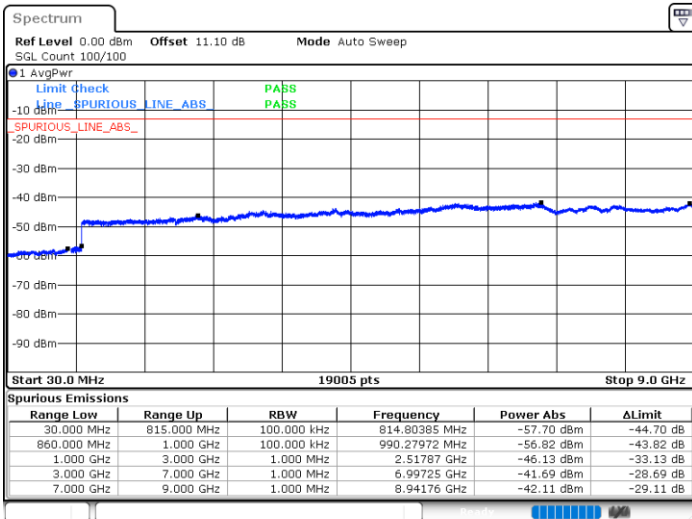
Middle Channel / 256QAM



Date: 16.JUL.2020 10:40:07

Date: 16.JUL.2020 10:35:45

Highest Channel / 256QAM



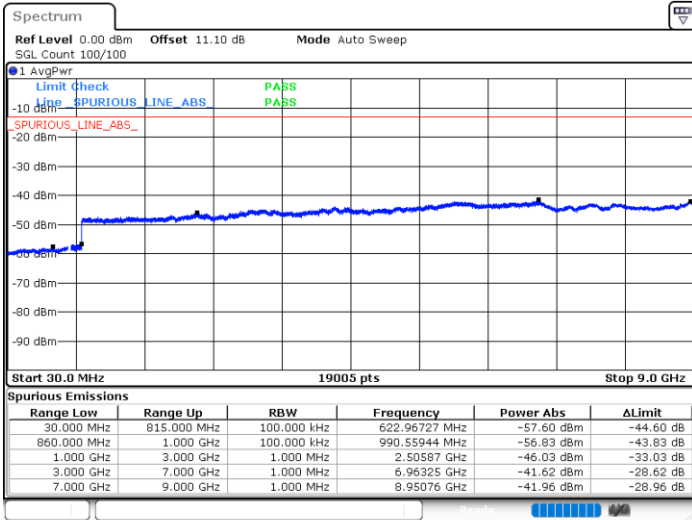
Date: 16.JUL.2020 10:41:30



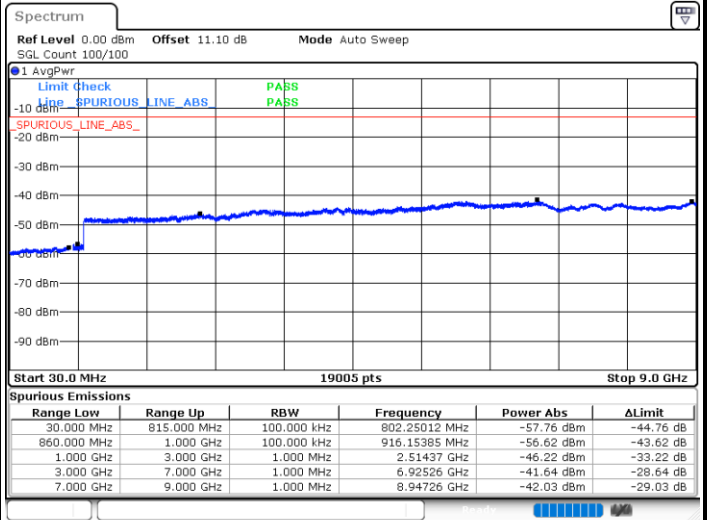
LTE Band 5 / 5MHz

Lowest Channel / 256QAM

Middle Channel / 256QAM

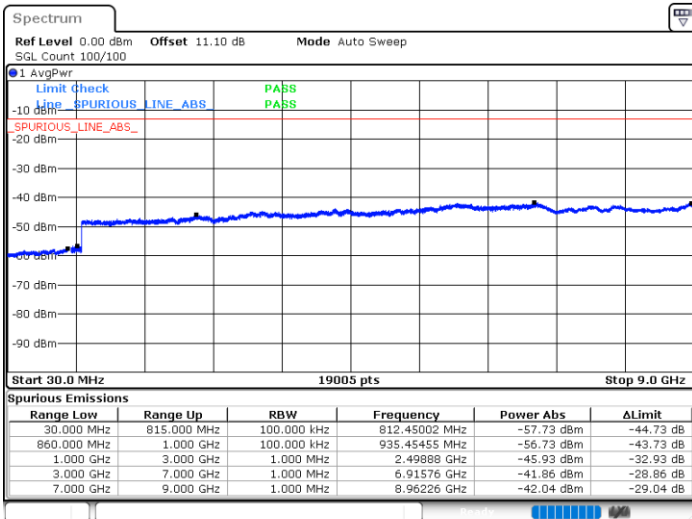


Date: 16.JUL.2020 10:52:34



Date: 16.JUL.2020 10:50:29

Highest Channel / 256QAM



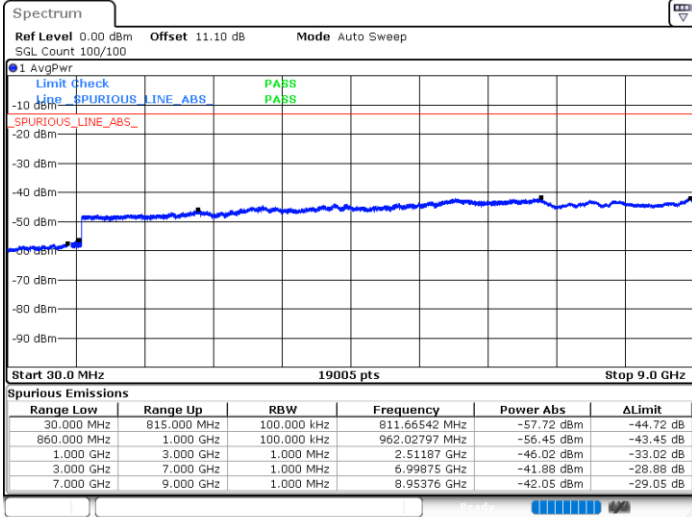
Date: 16.JUL.2020 10:56:19



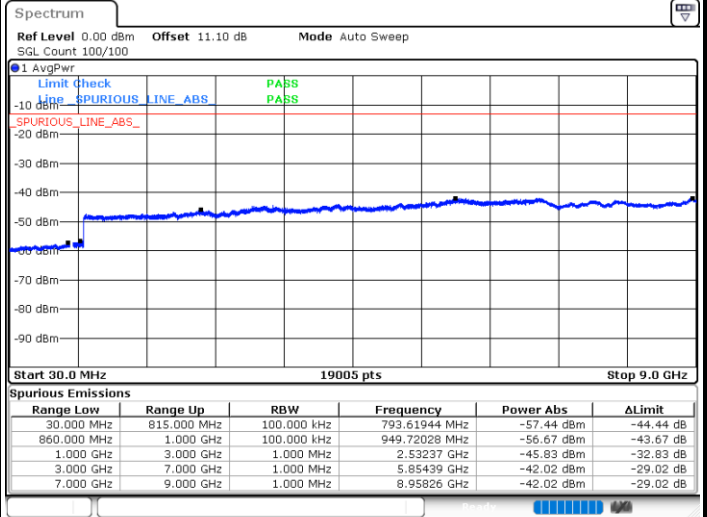
LTE Band 5 / 10MHz

Lowest Channel / 256QAM

Middle Channel / 256QAM

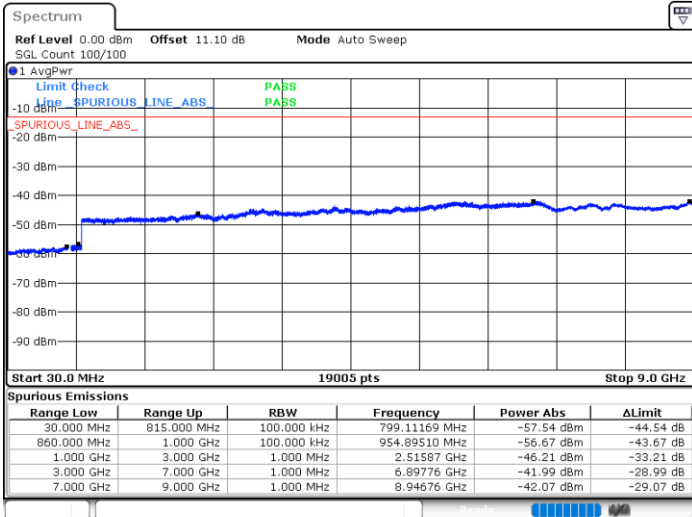


Date: 16.JUL.2020 11:01:34



Date: 16.JUL.2020 10:59:37

Highest Channel / 256QAM



Date: 16.JUL.2020 11:04:55



**Frequency Stability**

| Test Conditions  |                   | LTE Band 5 (QPSK) / Middle Channel | Limit  |
|------------------|-------------------|------------------------------------|--------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                           | 2.5ppm |
|                  |                   | Deviation (ppm)                    | Result |
| 50               | Normal Voltage    | 0.0012                             | PASS   |
| 40               | Normal Voltage    | 0.0010                             |        |
| 30               | Normal Voltage    | 0.0007                             |        |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |        |
| 10               | Normal Voltage    | 0.0010                             |        |
| 0                | Normal Voltage    | 0.0004                             |        |
| -10              | Normal Voltage    | 0.0115                             |        |
| -20              | Normal Voltage    | 0.0105                             |        |
| -30              | Normal Voltage    | 0.0114                             |        |
| 20               | Maximum Voltage   | 0.0008                             |        |
| 20               | Normal Voltage    | 0.0000                             |        |
| 20               | Battery End Point | 0.0111                             |        |

**Note:**

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.30 V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.





# LTE Band 5B

## 26dB Bandwidth

| Mode       | LTE Band 5B : 26dB BW(MHz) |             |            |
|------------|----------------------------|-------------|------------|
| QPSK       |                            |             |            |
| BW         | 3MHz+5MHz                  | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                          | 8.14        | 14.63      |
| Middle CH  | -                          | 8.12        | 14.60      |
| Highest CH | -                          | 8.12        | 14.60      |
| BW         | 10MHz+5MHz                 | 10MHz+10MHz | N/A        |
| Lowest CH  | 14.60                      | 19.58       | -          |
| Middle CH  | 14.72                      | 19.58       | -          |
| Highest CH | 14.66                      | 19.62       | -          |

| Mode       | LTE Band 5B : 26dB BW(MHz) |             |            |
|------------|----------------------------|-------------|------------|
| 16QAM      |                            |             |            |
| BW         | 3MHz+5MHz                  | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                          | 8.15        | 14.60      |
| Middle CH  | -                          | 8.15        | 14.54      |
| Highest CH | -                          | 8.12        | 14.66      |
| BW         | 10MHz+5MHz                 | 10MHz+10MHz | N/A        |
| Lowest CH  | 14.66                      | 19.82       | -          |
| Middle CH  | 14.60                      | 19.62       | -          |
| Highest CH | 14.63                      | 19.58       | -          |



| Mode       | LTE Band 5B : 26dB BW(MHz) |             |            |
|------------|----------------------------|-------------|------------|
| 64QAM      |                            |             |            |
| BW         | 3MHz+5MHz                  | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                          | 8.14        | 14.51      |
| Middle CH  | -                          | 8.15        | 14.63      |
| Highest CH | -                          | 8.14        | 14.51      |
| BW         | 10MHz+5MHz                 | 10MHz+10MHz | N/A        |
| Lowest CH  | 14.54                      | 19.86       | -          |
| Middle CH  | 14.57                      | 19.50       | -          |
| Highest CH | 14.57                      | 19.82       | -          |

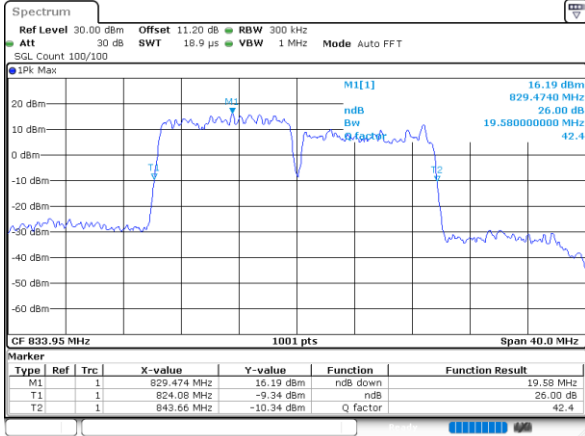
| Mode       | LTE Band 5B : 26dB BW(MHz) |             |            |
|------------|----------------------------|-------------|------------|
| 256QAM     |                            |             |            |
| BW         | 3MHz+5MHz                  | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                          | 8.20        | 14.54      |
| Middle CH  | -                          | 8.12        | 14.51      |
| Highest CH | -                          | 8.09        | 14.51      |
| BW         | 10MHz+5MHz                 | 10MHz+10MHz | N/A        |
| Lowest CH  | 14.66                      | 19.82       | -          |
| Middle CH  | 14.54                      | 19.74       | -          |
| Highest CH | 14.66                      | 19.54       | -          |



LTE Band 5B

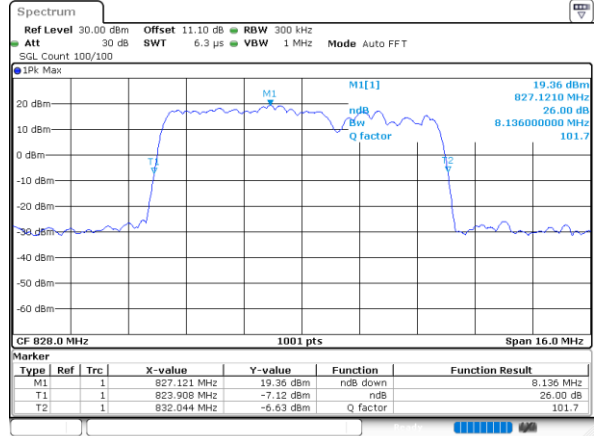
QPSK

Lowest Channel / 10MHz+10MHz



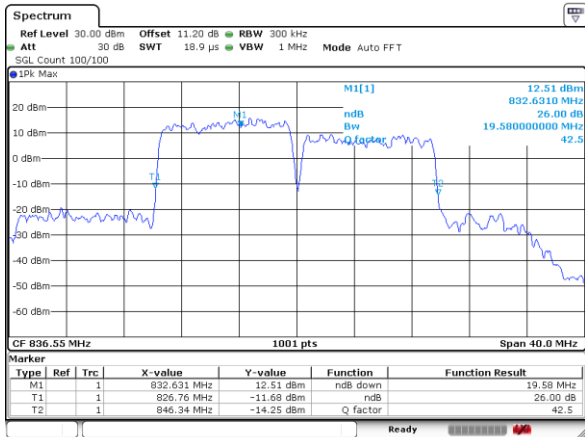
Date: 4.JUN.2020 19:35:52

Lowest Channel / 5MHz+3MHz



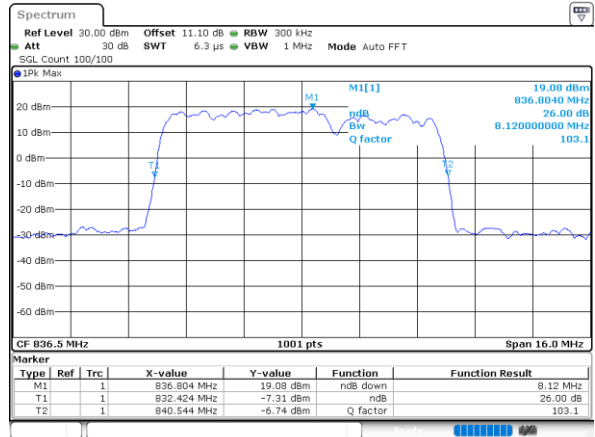
Date: 13.JUL.2020 14:16:18

Middle Channel / 10MHz+10MHz



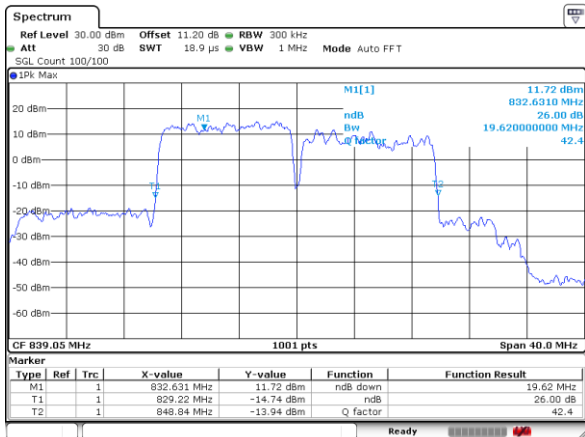
Date: 4.JUN.2020 20:46:32

Middle Channel / 5MHz+3MHz



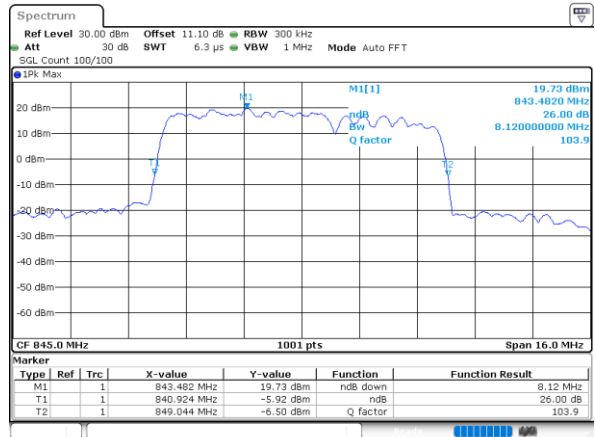
Date: 13.JUL.2020 13:53:05

Highest Channel / 10MHz+10MHz



Date: 4.JUN.2020 20:47:34

Highest Channel / 5MHz+3MHz



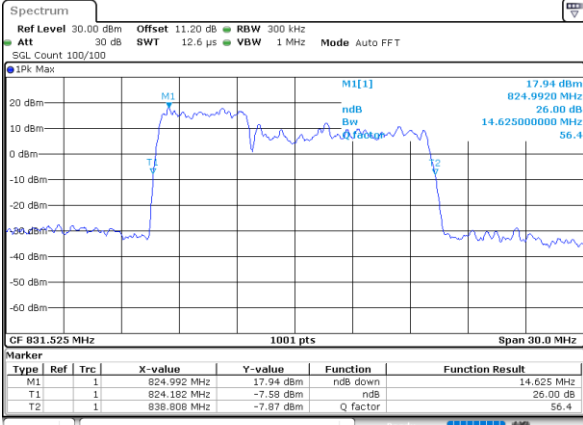
Date: 13.JUL.2020 14:52:43



LTE Band 5B

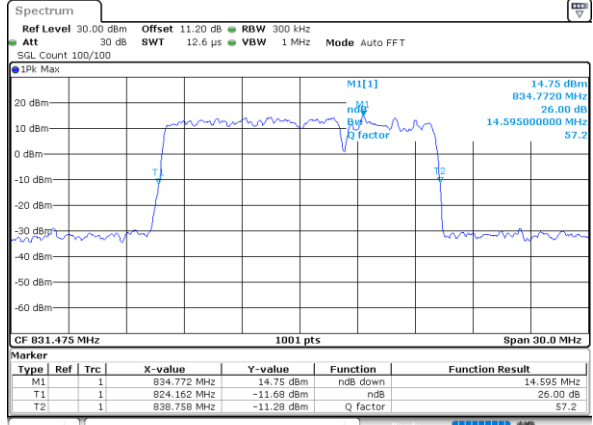
QPSK

Lowest Channel / 5MHz+10MHz



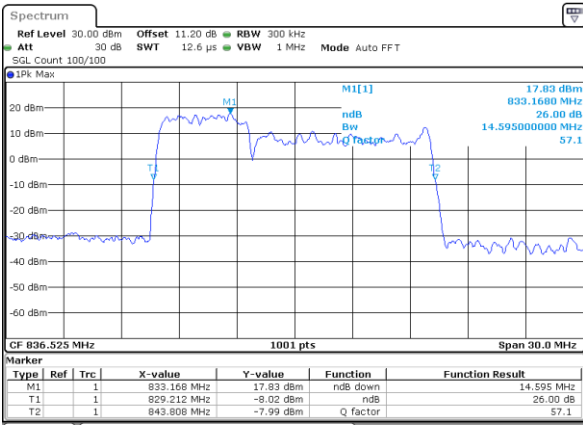
Date: 4 JUN 2020 17:01:31

Lowest Channel / 10MHz+5MHz



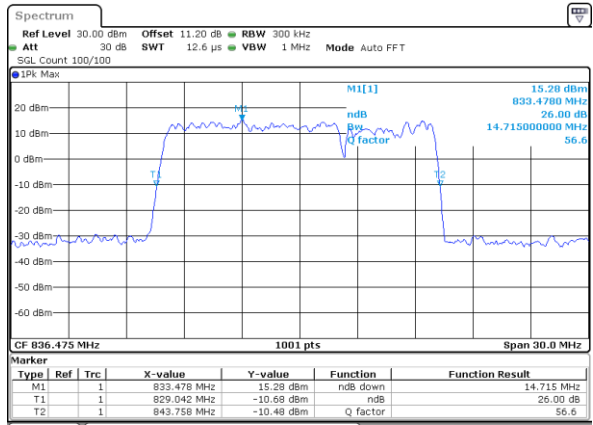
Date: 4 JUN 2020 18:24:27

Middle Channel / 5MHz+10MHz



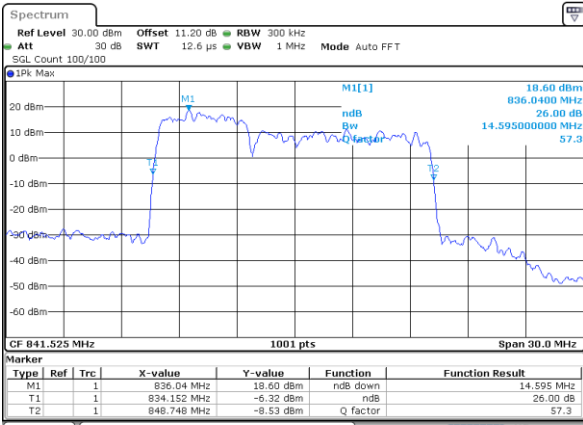
Date: 4 JUN 2020 18:09:40

Middle Channel / 10MHz+5MHz



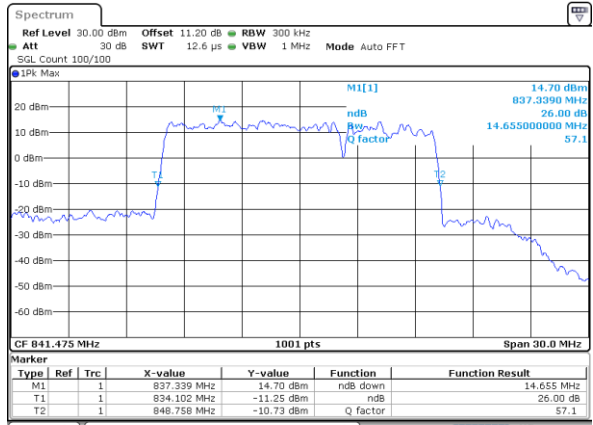
Date: 4 JUN 2020 19:23:45

Highest Channel / 5MHz+10MHz



Date: 4 JUN 2020 17:30:34

Highest Channel / 10MHz+5MHz



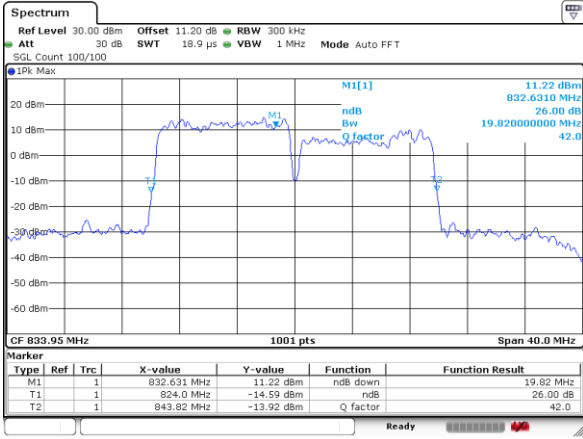
Date: 4 JUN 2020 18:54:36



LTE Band 5B

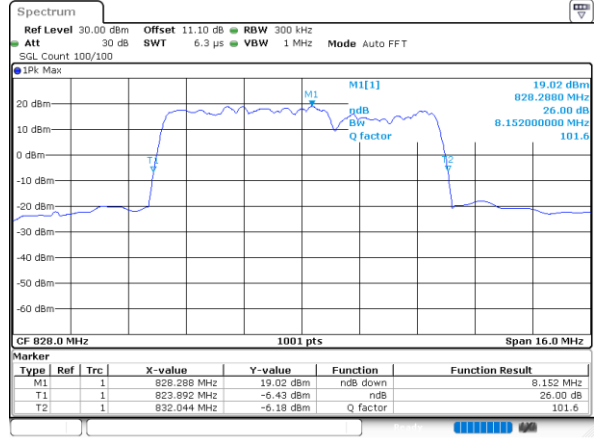
16QAM

Lowest Channel / 10MHz+10MHz



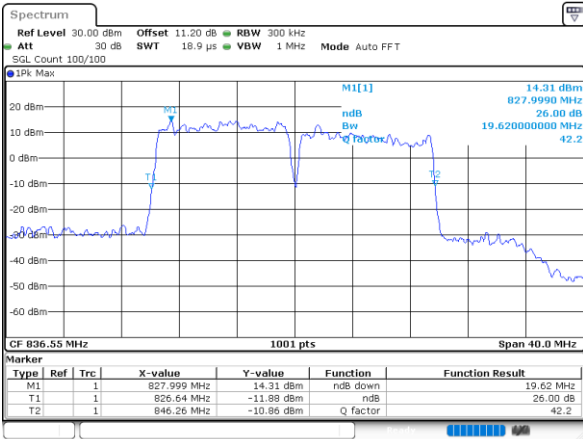
Date: 4.JUN.2020 20:44:07

Lowest Channel / 5MHz+3MHz



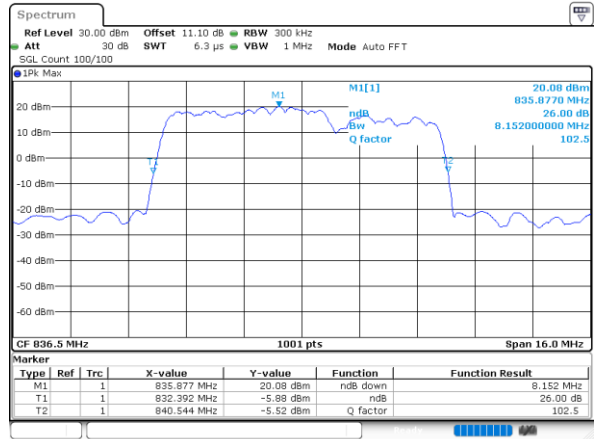
Date: 13.JUL.2020 14:15:56

Middle Channel / 10MHz+10MHz



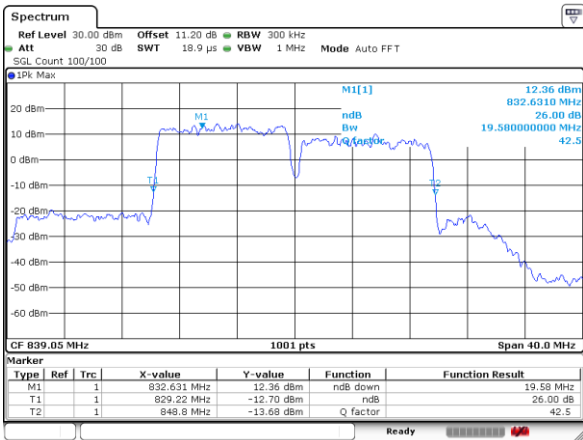
Date: 4.JUN.2020 20:31:58

Middle Channel / 5MHz+3MHz



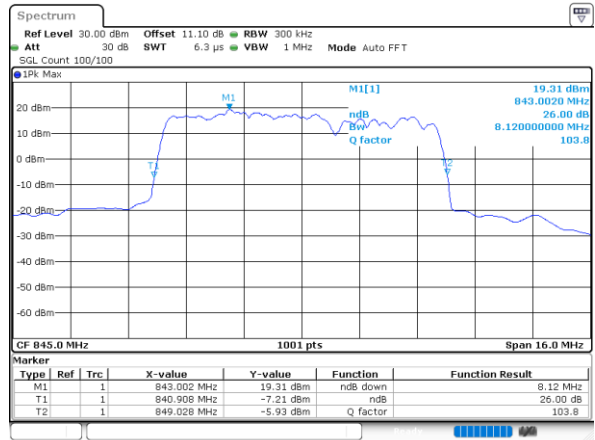
Date: 13.JUL.2020 13:52:43

Highest Channel / 10MHz+10MHz



Date: 4.JUN.2020 20:47:58

Highest Channel / 5MHz+3MHz



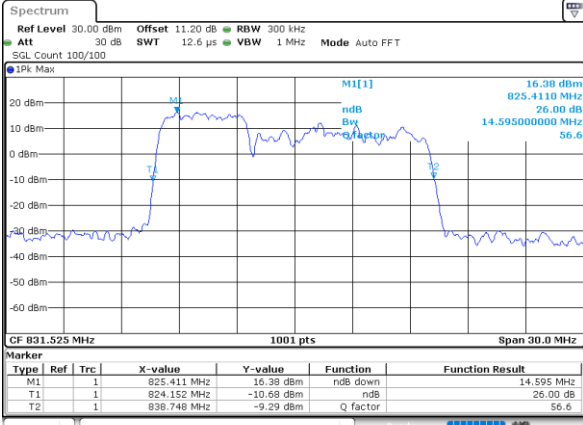
Date: 13.JUL.2020 14:53:06



LTE Band 5B

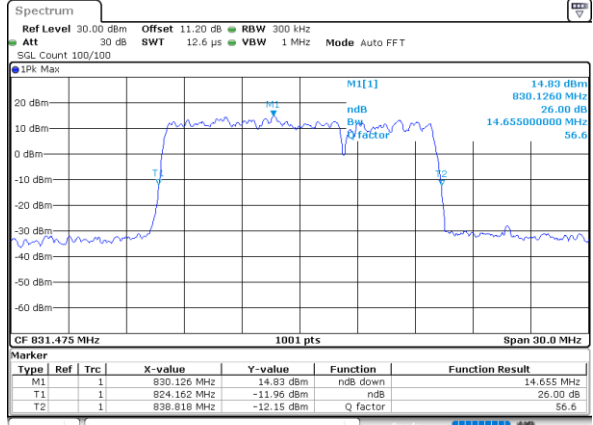
16QAM

Lowest Channel / 5MHz+10MHz



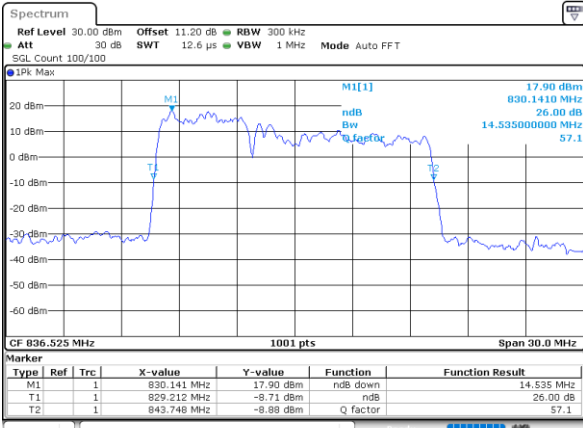
Date: 4 JUN 2020 17:01:08

Lowest Channel / 10MHz+5MHz



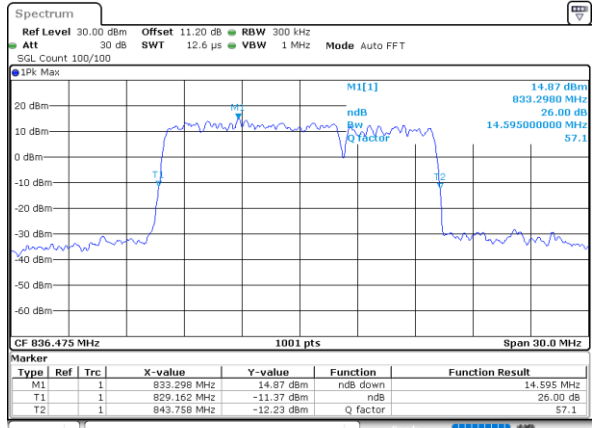
Date: 4 JUN 2020 18:24:04

Middle Channel / 5MHz+10MHz



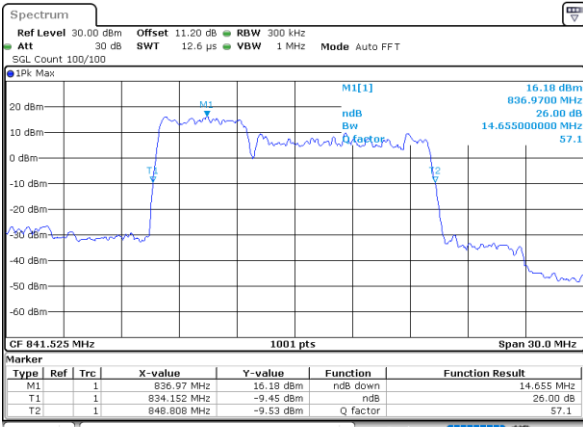
Date: 4 JUN 2020 18:09:17

Middle Channel / 10MHz+5MHz



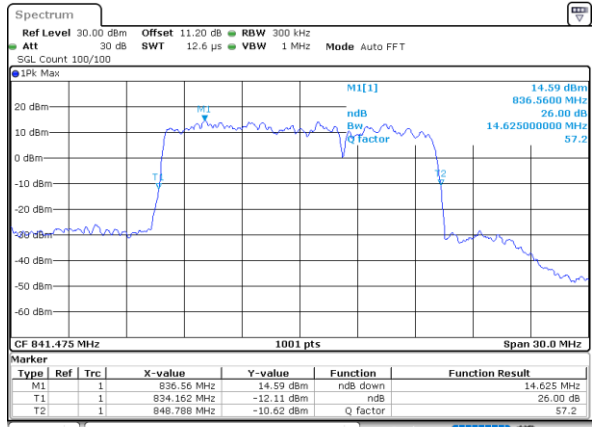
Date: 4 JUN 2020 19:23:22

Highest Channel / 5MHz+10MHz



Date: 4 JUN 2020 17:30:57

Highest Channel / 10MHz+5MHz



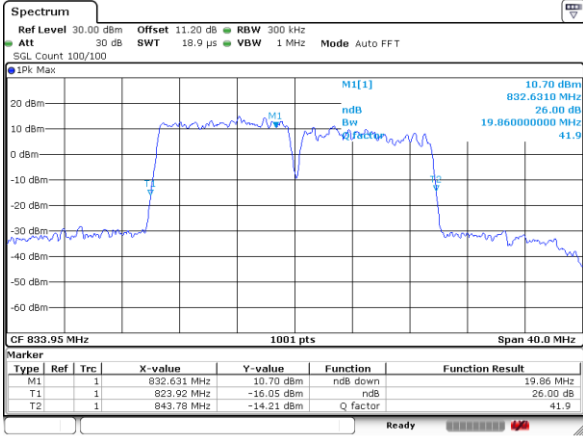
Date: 4 JUN 2020 18:54:59



LTE Band 5B

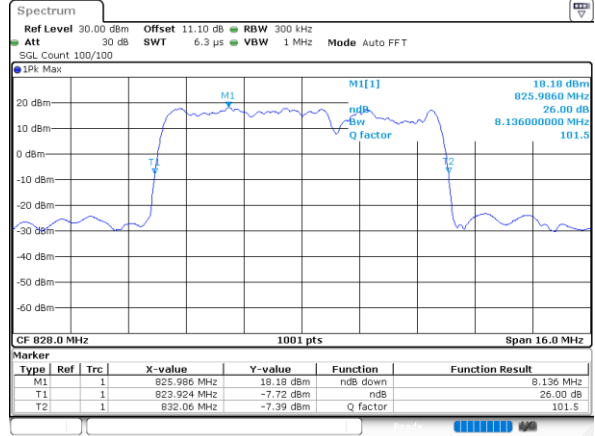
64QAM

Lowest Channel / 10MHz+10MHz



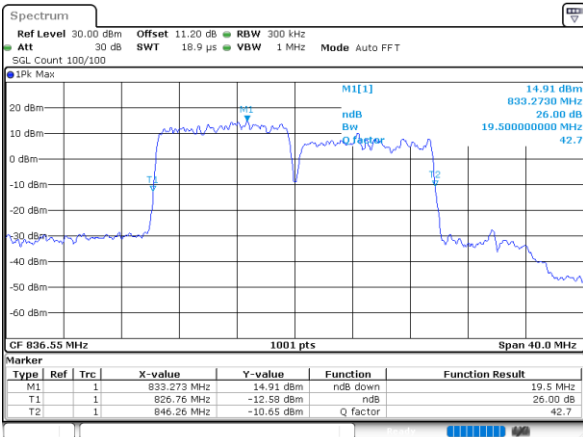
Date: 4.JUN.2020 20:44:54

Lowest Channel / 5MHz+3MHz



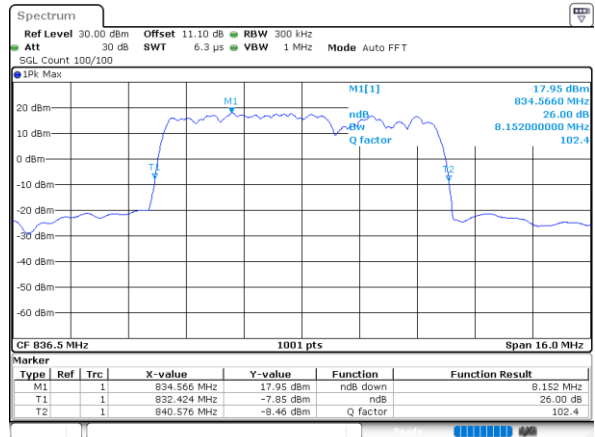
Date: 13.JUL.2020 14:15:34

Middle Channel / 10MHz+10MHz



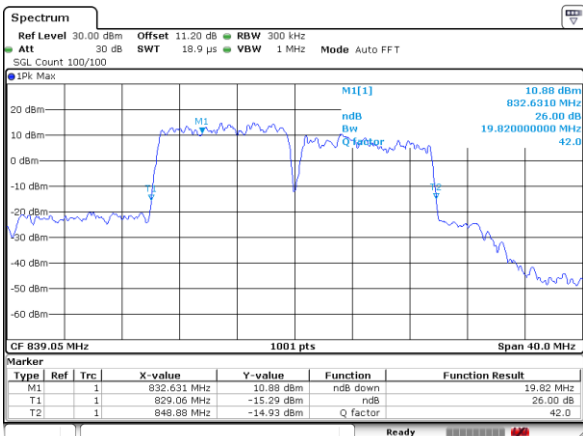
Date: 4.JUN.2020 20:31:35

Middle Channel / 5MHz+3MHz



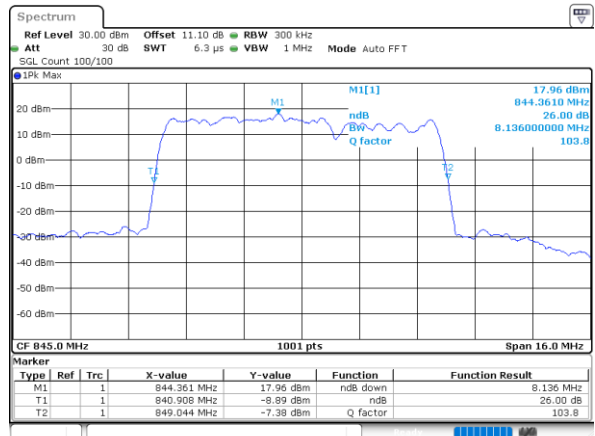
Date: 13.JUL.2020 13:52:20

Highest Channel / 10MHz+10MHz



Date: 4.JUN.2020 20:48:22

Highest Channel / 5MHz+3MHz



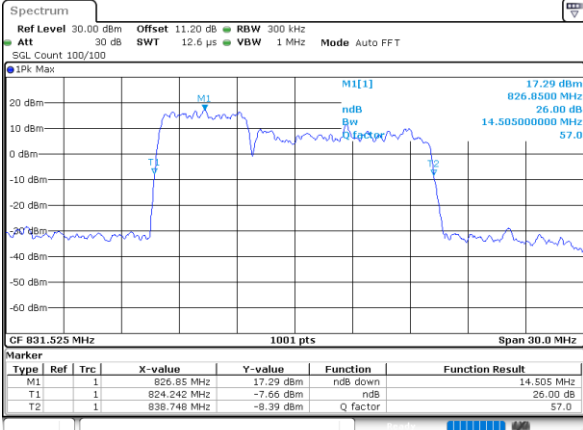
Date: 13.JUL.2020 14:53:28



LTE Band 5B

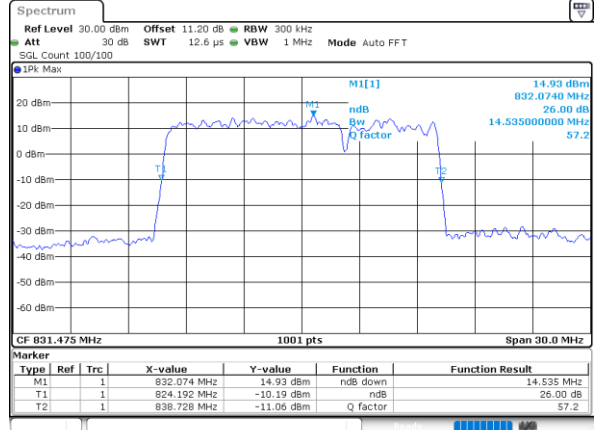
64QAM

Lowest Channel / 5MHz+10MHz



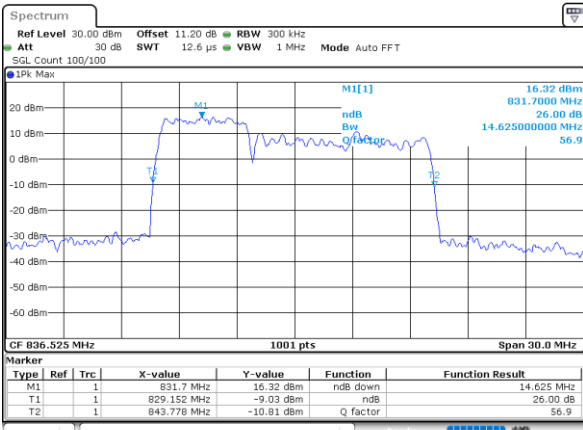
Date: 4 JUN 2020 17:00:45

Lowest Channel / 10MHz+5MHz



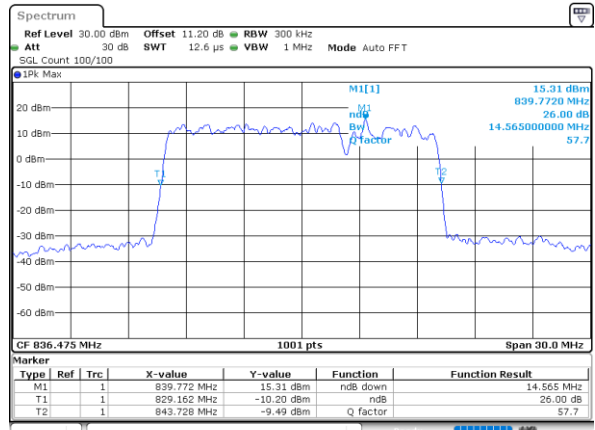
Date: 4 JUN 2020 18:23:41

Middle Channel / 5MHz+10MHz



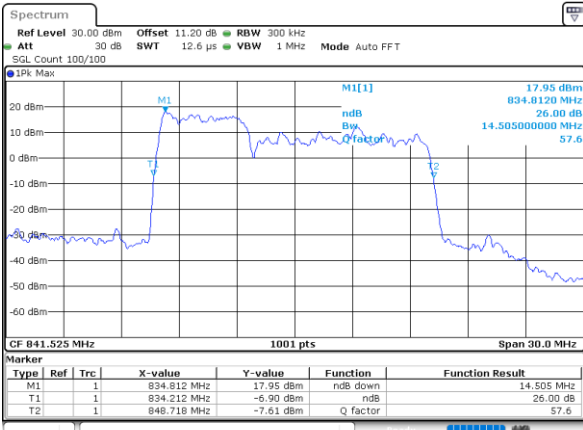
Date: 4 JUN 2020 18:08:54

Middle Channel / 10MHz+5MHz



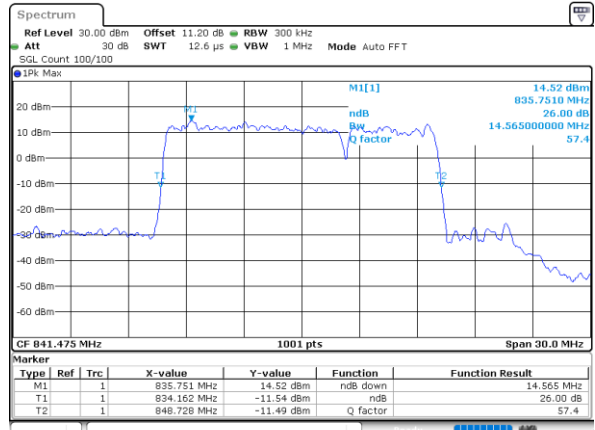
Date: 4 JUN 2020 19:22:59

Highest Channel / 5MHz+10MHz



Date: 4 JUN 2020 17:31:20

Highest Channel / 10MHz+5MHz



Date: 4 JUN 2020 18:55:22

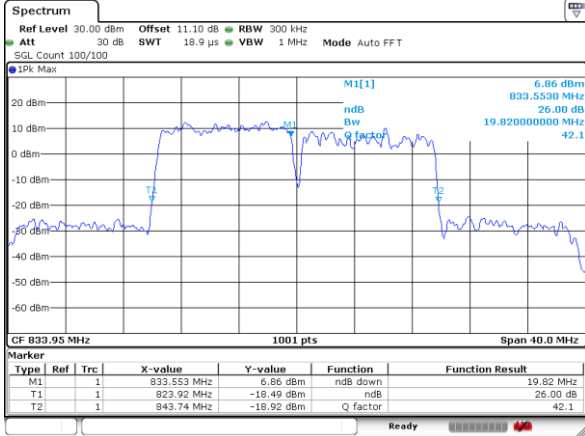




LTE Band 5B

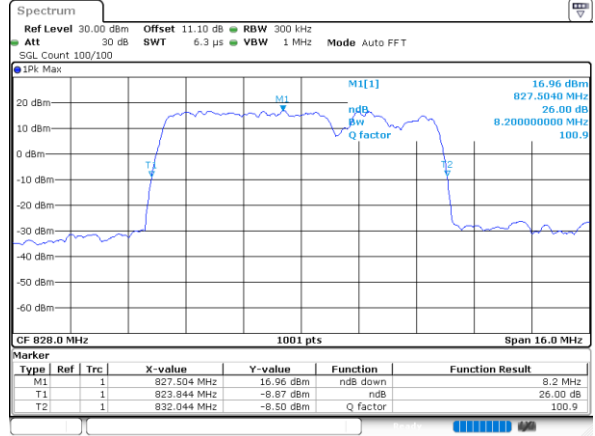
256QAM

Lowest Channel / 10MHz+10MHz



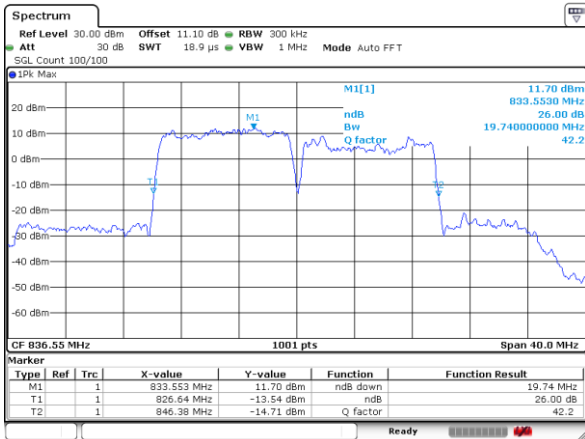
Date: 13.JUL.2020 16:19:48

Lowest Channel / 5MHz+3MHz



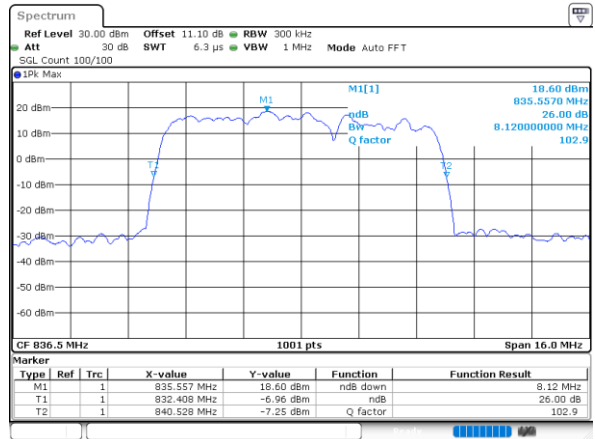
Date: 13.JUL.2020 14:15:11

Middle Channel / 10MHz+10MHz



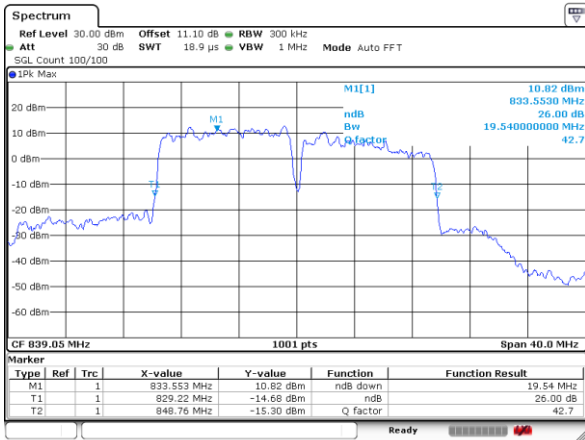
Date: 13.JUL.2020 16:13:53

Middle Channel / 5MHz+3MHz



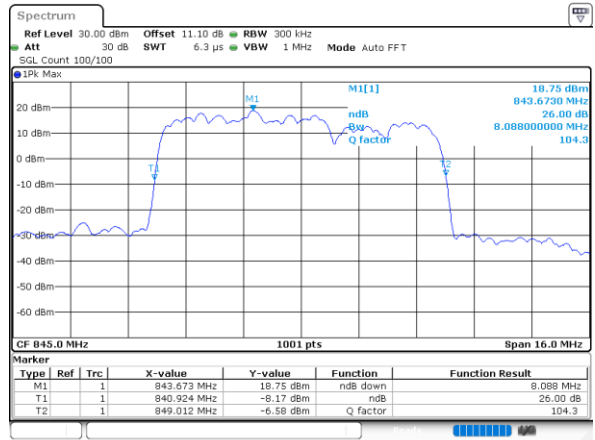
Date: 13.JUL.2020 13:53:27

Highest Channel / 10MHz+10MHz



Date: 13.JUL.2020 16:22:03

Highest Channel / 5MHz+3MHz



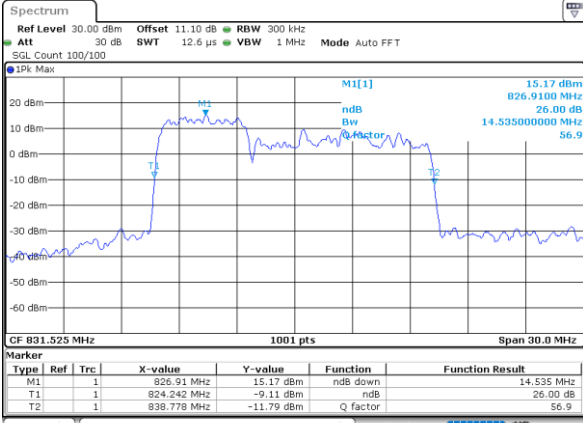
Date: 13.JUL.2020 14:53:50



LTE Band 5B

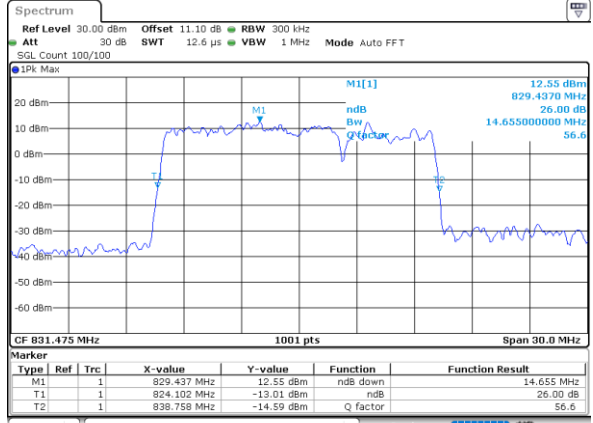
256QAM

Lowest Channel / 5MHz+10MHz



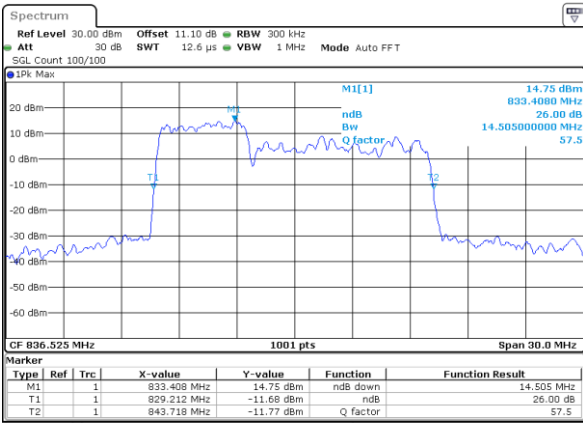
Date: 13\_JUL\_2020 10:37:01

Lowest Channel / 10MHz+5MHz



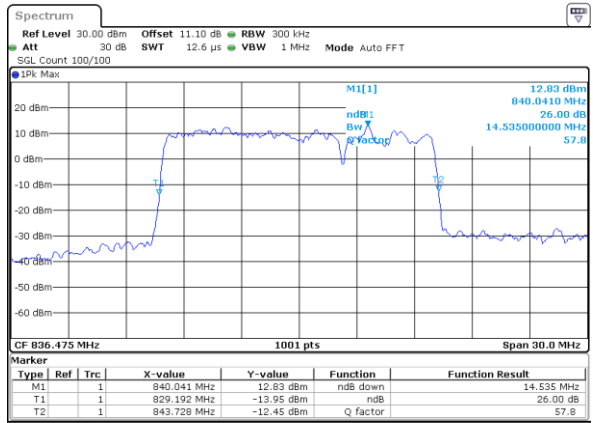
Date: 13\_JUL\_2020 16:41:15

Middle Channel / 5MHz+10MHz



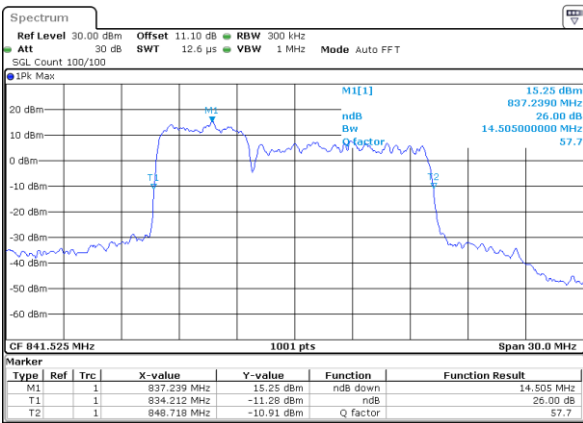
Date: 13\_JUL\_2020 10:57:45

Middle Channel / 10MHz+5MHz



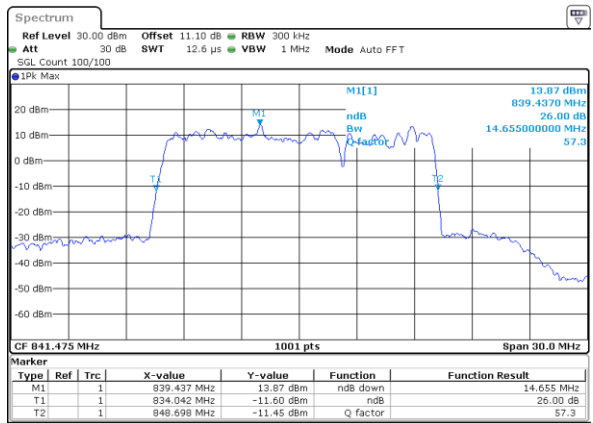
Date: 13\_JUL\_2020 16:56:13

Highest Channel / 5MHz+10MHz



Date: 13\_JUL\_2020 11:09:01

Highest Channel / 10MHz+5MHz



Date: 13\_JUL\_2020 17:06:46



**Occupied Bandwidth**

| Mode       | LTE Band 5B : 99%OBW(MHz) |             |            |
|------------|---------------------------|-------------|------------|
| QPSK       |                           |             |            |
| BW         | 3MHz+5MHz                 | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                         | 7.53        | 13.88      |
| Middle CH  | -                         | 7.53        | 13.73      |
| Highest CH | -                         | 7.53        | 13.85      |
| BW         | 10MHz+5MHz                | 10MHz+10MHz | N/A        |
| Lowest CH  | 13.85                     | 18.70       | -          |
| Middle CH  | 13.88                     | 18.70       | -          |
| Highest CH | 13.85                     | 18.62       | -          |

| Mode       | LTE Band 5B : 99%OBW(MHz) |             |            |
|------------|---------------------------|-------------|------------|
| 16QAM      |                           |             |            |
| BW         | 3MHz+5MHz                 | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                         | 7.54        | 13.79      |
| Middle CH  | -                         | 7.47        | 13.91      |
| Highest CH | -                         | 7.56        | 13.70      |
| BW         | 10MHz+5MHz                | 10MHz+10MHz | N/A        |
| Lowest CH  | 13.76                     | 18.58       | -          |
| Middle CH  | 13.91                     | 18.62       | -          |
| Highest CH | 13.82                     | 18.62       | -          |



| Mode       | LTE Band 5B : 99%OBW(MHz) |             |            |
|------------|---------------------------|-------------|------------|
| 64QAM      |                           |             |            |
| BW         | 3MHz+5MHz                 | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                         | 7.54        | 13.85      |
| Middle CH  | -                         | 7.54        | 13.79      |
| Highest CH | -                         | 7.51        | 13.73      |
| BW         | 10MHz+5MHz                | 10MHz+10MHz | N/A        |
| Lowest CH  | 13.91                     | 18.62       | -          |
| Middle CH  | 13.91                     | 18.66       | -          |
| Highest CH | 13.85                     | 18.62       | -          |

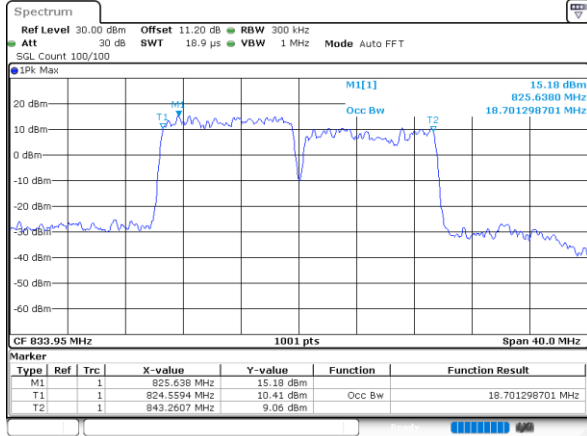
| Mode       | LTE Band 5B : 99%OBW(MHz) |             |            |
|------------|---------------------------|-------------|------------|
| 256QAM     |                           |             |            |
| BW         | 3MHz+5MHz                 | 5MHz+3MHz   | 5MHz+10MHz |
| Lowest CH  | -                         | 7.48        | 13.85      |
| Middle CH  | -                         | 7.48        | 13.79      |
| Highest CH | -                         | 7.53        | 13.73      |
| BW         | 10MHz+5MHz                | 10MHz+10MHz | N/A        |
| Lowest CH  | 13.82                     | 18.66       | -          |
| Middle CH  | 13.91                     | 18.58       | -          |
| Highest CH | 13.82                     | 18.70       | -          |



LTE Band 5B

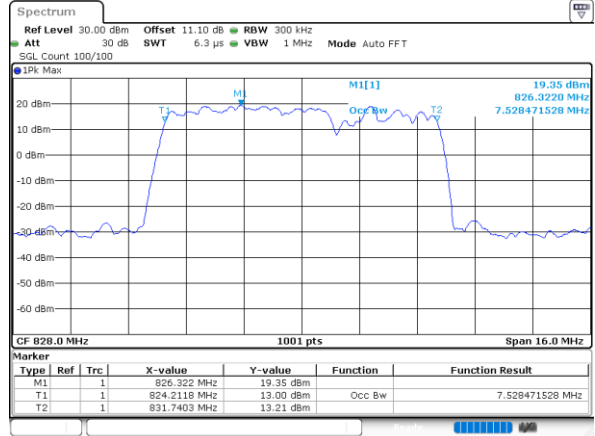
QPSK

Lowest Channel / 10MHz+10MHz



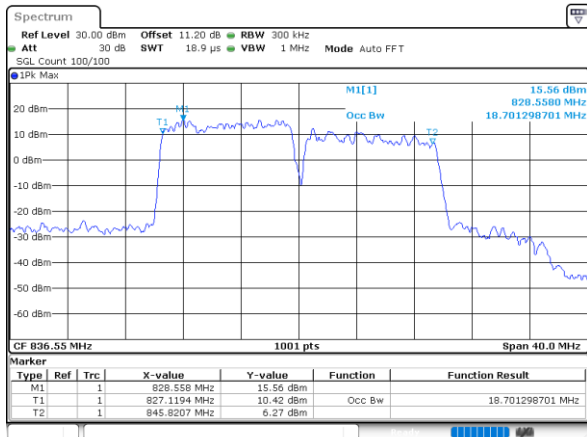
Date: 4.JUN.2020 19:33:58

Lowest Channel / 5MHz+3MHz



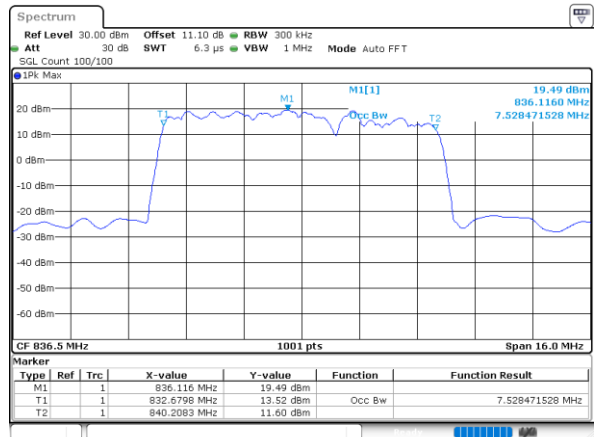
Date: 13.JUL.2020 14:13:42

Middle Channel / 10MHz+10MHz



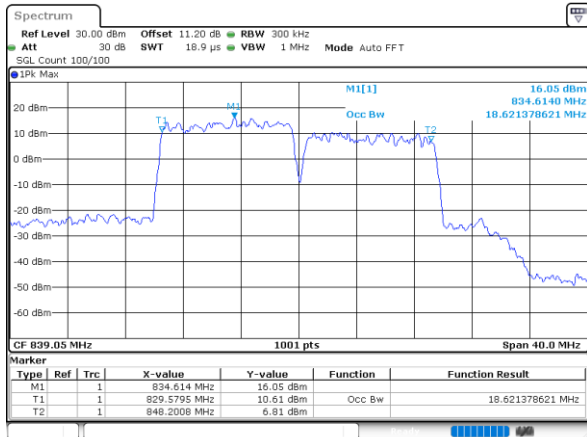
Date: 4.JUN.2020 20:30:27

Middle Channel / 5MHz+3MHz



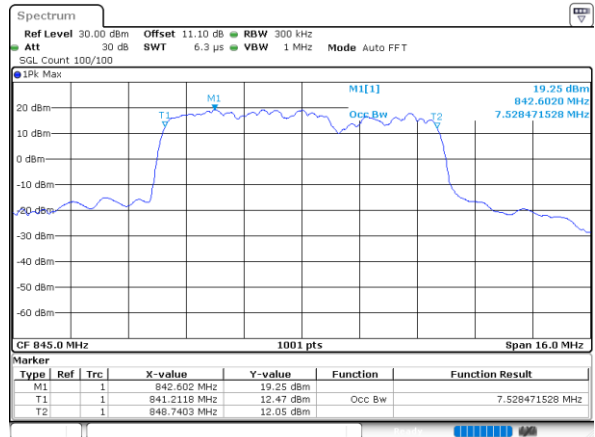
Date: 13.JUL.2020 13:50:51

Highest Channel / 10MHz+10MHz



Date: 4.JUN.2020 20:03:07

Highest Channel / 5MHz+3MHz



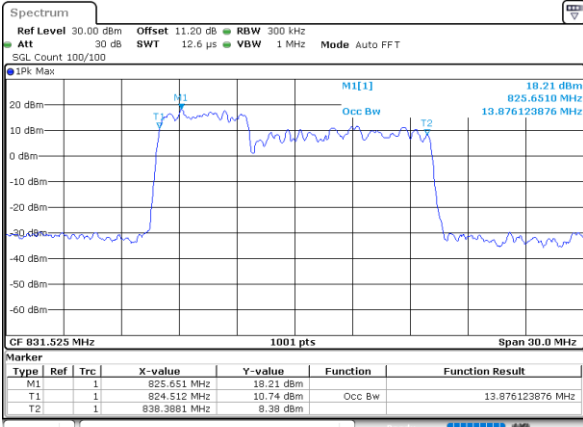
Date: 13.JUL.2020 14:51:58



LTE Band 5B

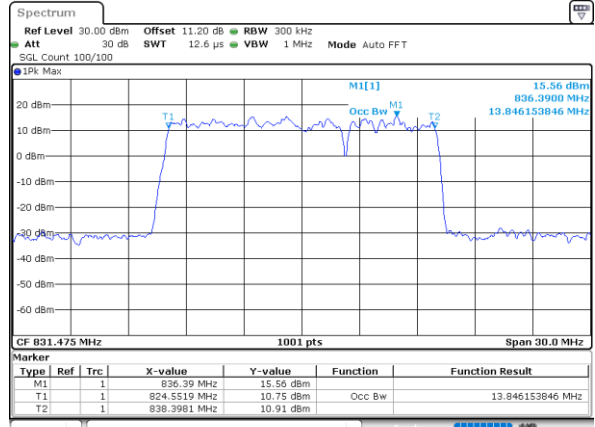
QPSK

Lowest Channel / 5MHz+10MHz



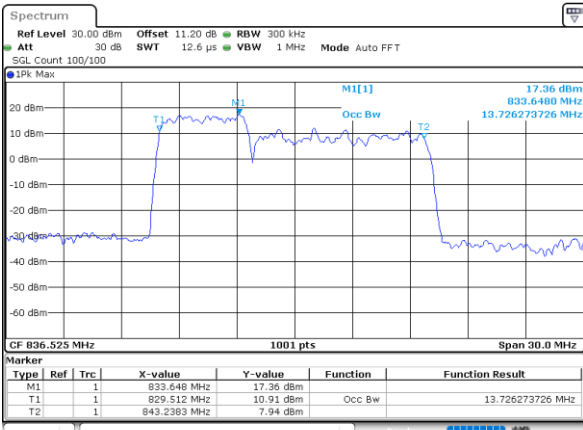
Date: 4 JUN 2020 16:59:37

Lowest Channel / 10MHz+5MHz



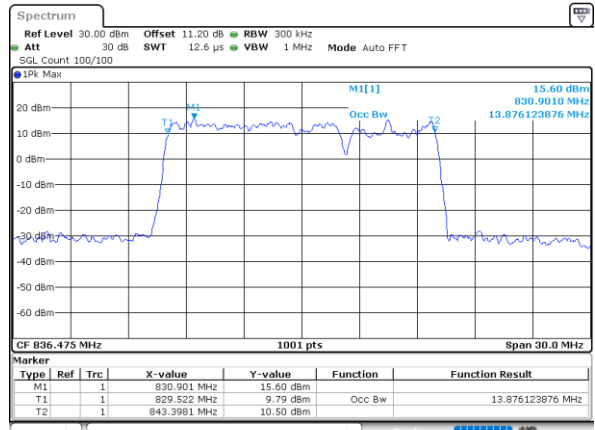
Date: 4 JUN 2020 18:22:33

Middle Channel / 5MHz+10MHz



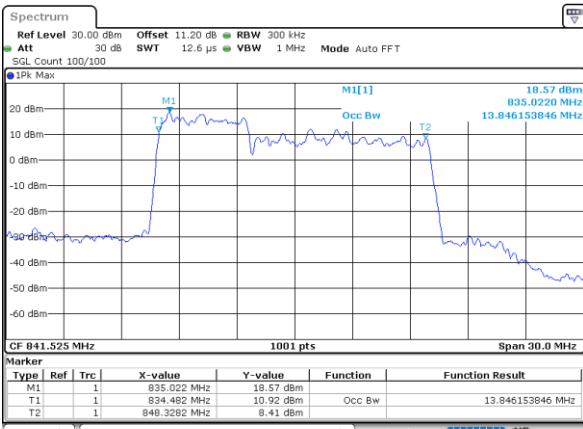
Date: 4 JUN 2020 18:07:46

Middle Channel / 10MHz+5MHz



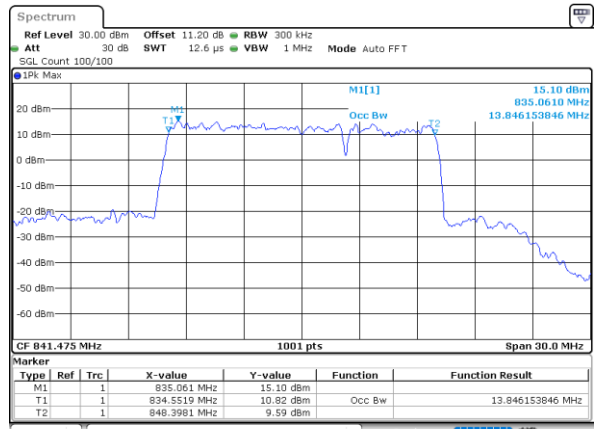
Date: 4 JUN 2020 19:21:51

Highest Channel / 5MHz+10MHz



Date: 4 JUN 2020 17:30:12

Highest Channel / 10MHz+5MHz



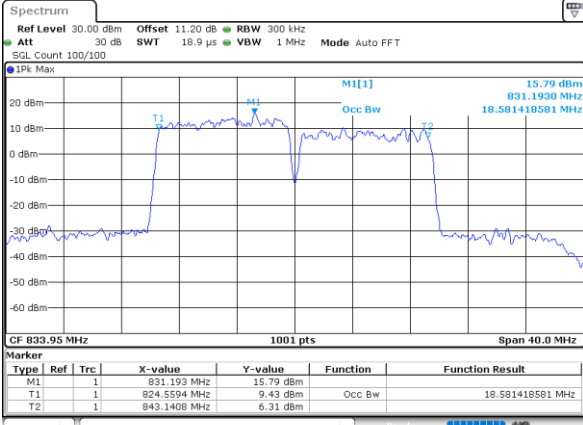
Date: 4 JUN 2020 18:54:14



LTE Band 5B

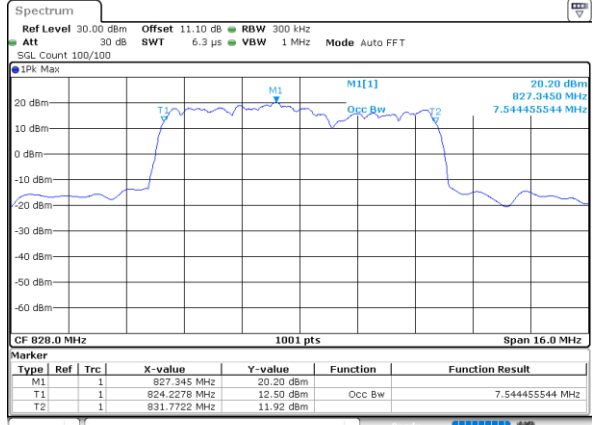
16QAM

Lowest Channel / 10MHz+10MHz



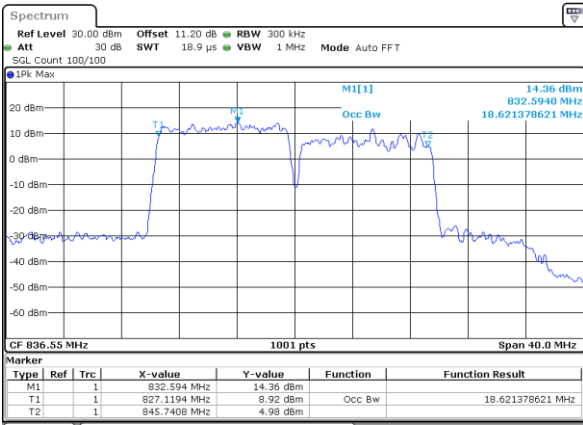
Date: 4 JUN 2020 19:34:21

Lowest Channel / 5MHz+3MHz



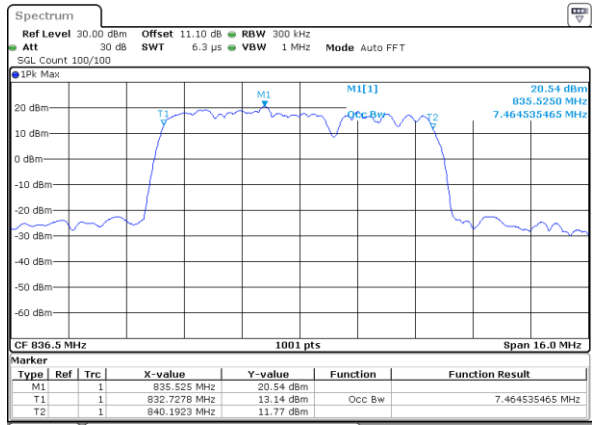
Date: 13 JUL 2020 14:14:04

Middle Channel / 10MHz+10MHz



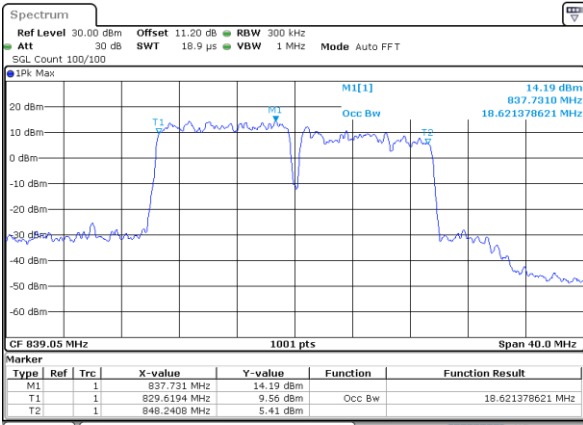
Date: 4 JUN 2020 20:30:50

Middle Channel / 5MHz+3MHz



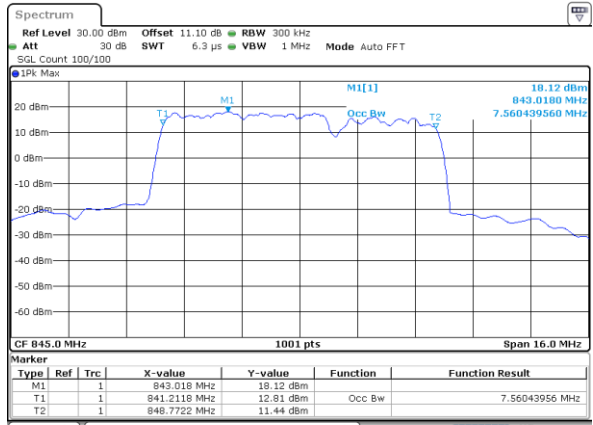
Date: 13 JUL 2020 13:51:13

Highest Channel / 10MHz+10MHz



Date: 4 JUN 2020 20:02:44

Highest Channel / 5MHz+3MHz



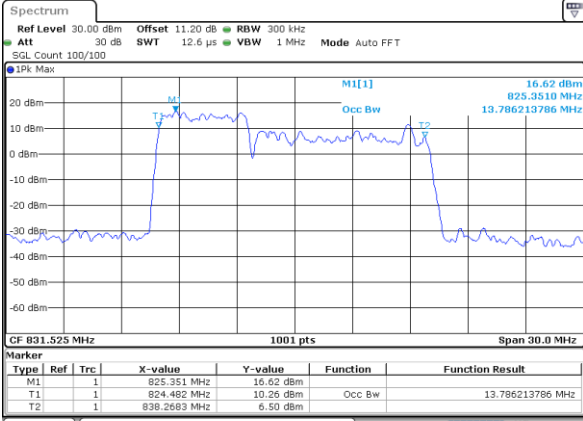
Date: 13 JUL 2020 14:51:36



LTE Band 5B

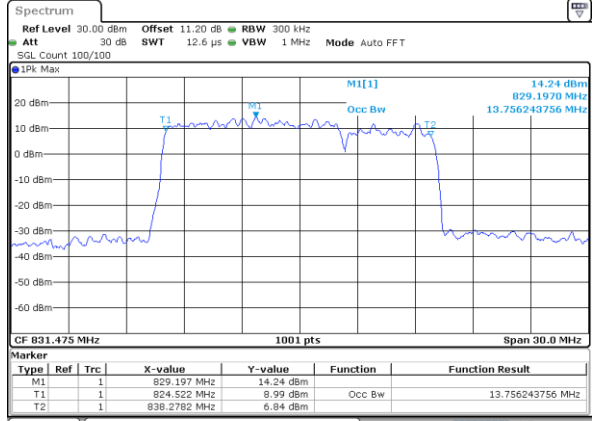
16QAM

Lowest Channel / 5MHz+10MHz



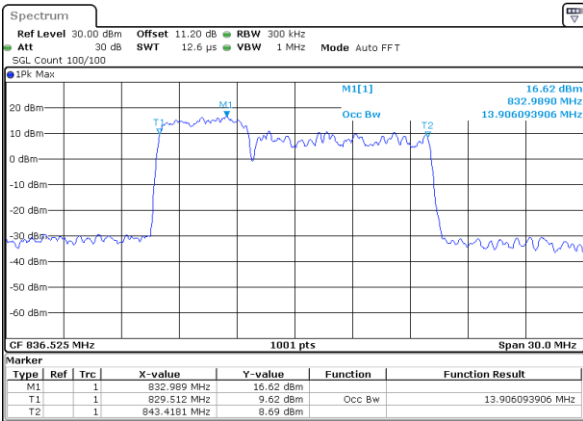
Date: 4 JUN 2020 17:00:00

Lowest Channel / 10MHz+5MHz



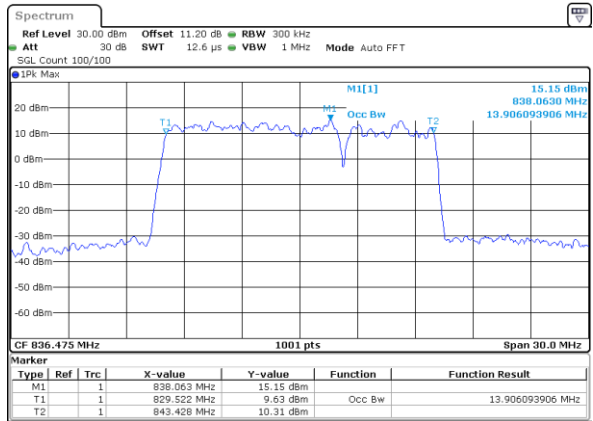
Date: 4 JUN 2020 18:22:56

Middle Channel / 5MHz+10MHz



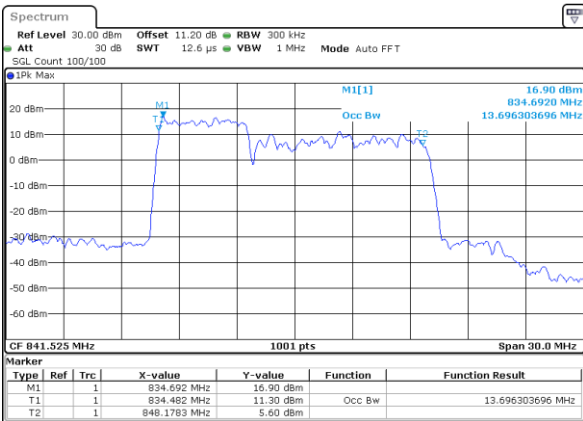
Date: 4 JUN 2020 18:08:09

Middle Channel / 10MHz+5MHz



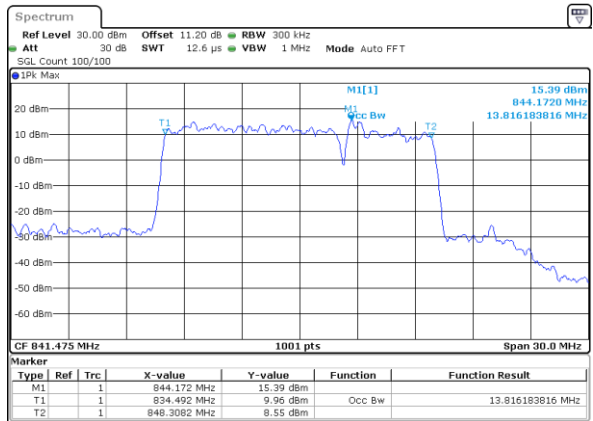
Date: 4 JUN 2020 19:22:14

Highest Channel / 5MHz+10MHz



Date: 4 JUN 2020 17:29:49

Highest Channel / 10MHz+5MHz



Date: 4 JUN 2020 18:53:51

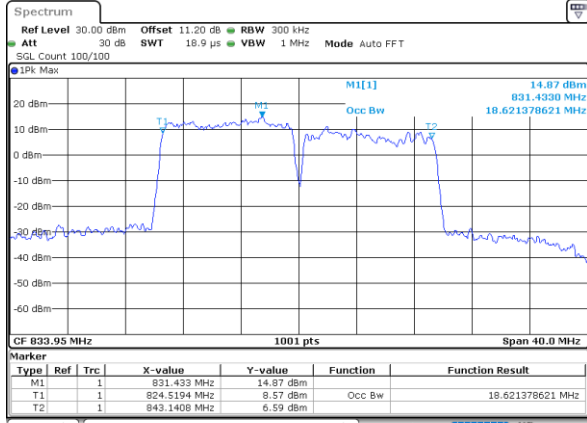




LTE Band 5B

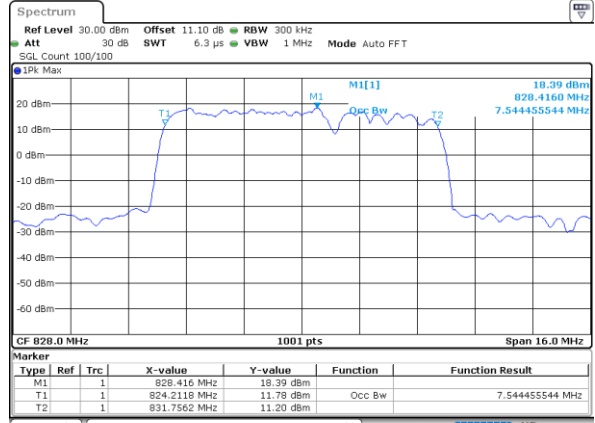
64QAM

Lowest Channel / 10MHz+10MHz



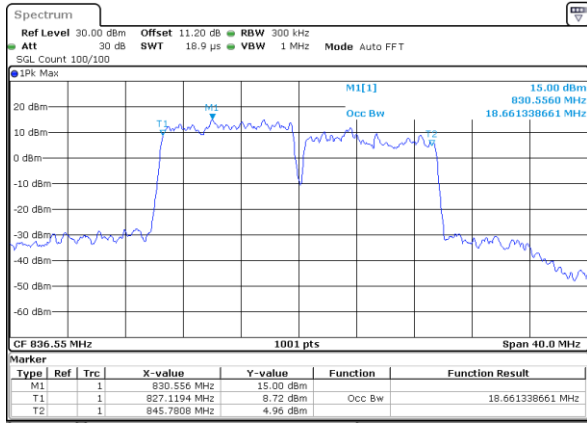
Date: 4.JUN.2020 19:34:44

Lowest Channel / 5MHz+3MHz



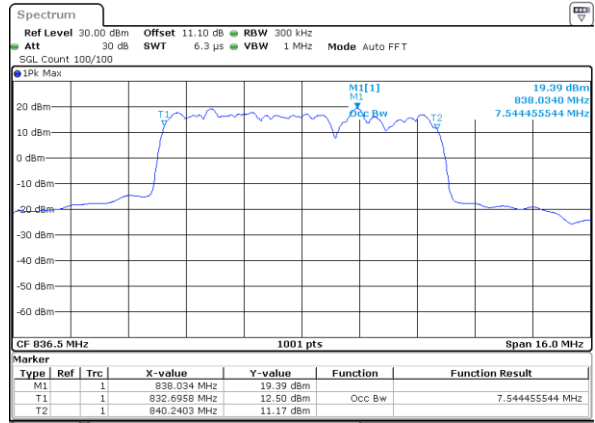
Date: 13.JUL.2020 14:14:26

Middle Channel / 10MHz+10MHz



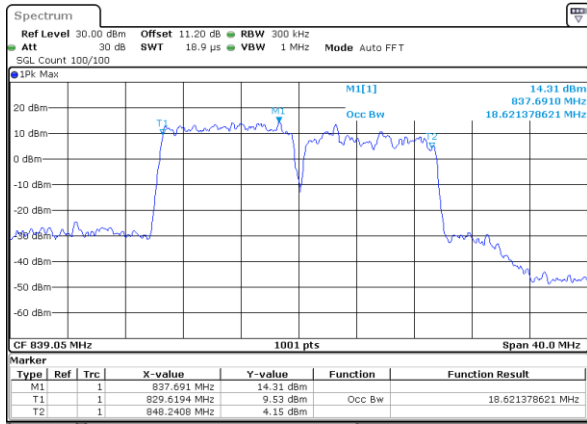
Date: 4.JUN.2020 20:31:13

Middle Channel / 5MHz+3MHz



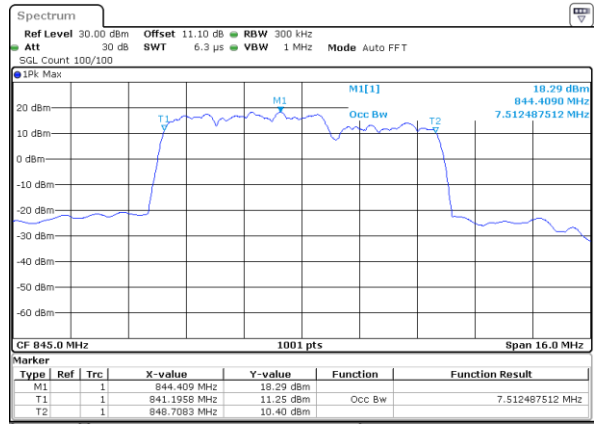
Date: 13.JUL.2020 13:51:36

Highest Channel / 10MHz+10MHz



Date: 4.JUN.2020 20:02:21

Highest Channel / 5MHz+3MHz



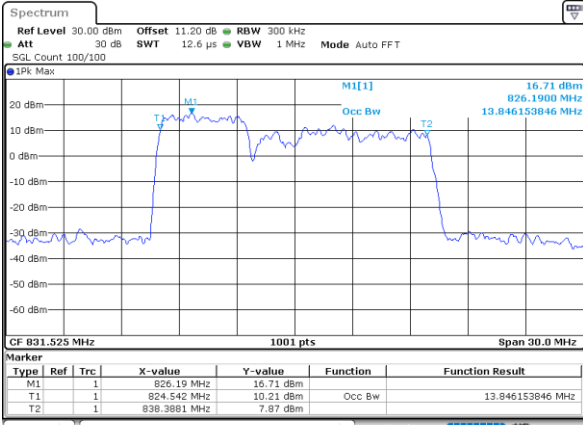
Date: 13.JUL.2020 14:51:13



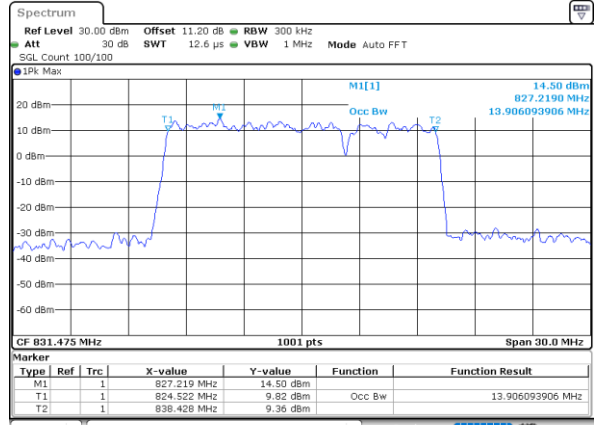
LTE Band 5B

64QAM

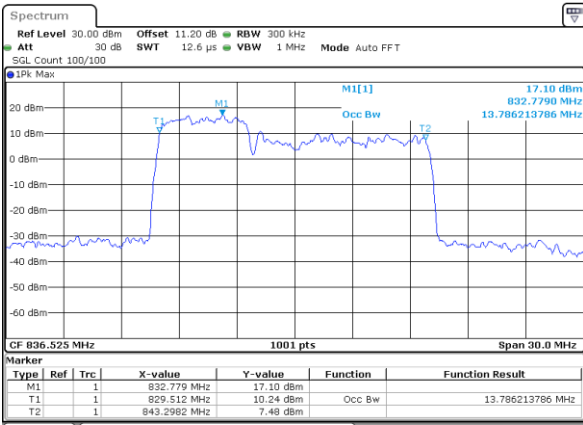
Lowest Channel / 5MHz+10MHz



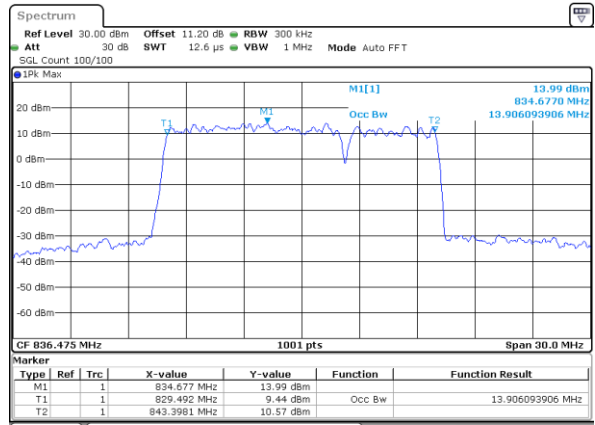
Lowest Channel / 10MHz+5MHz



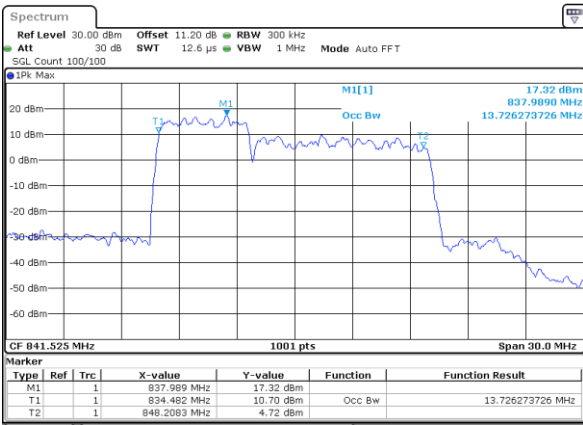
Middle Channel / 5MHz+10MHz



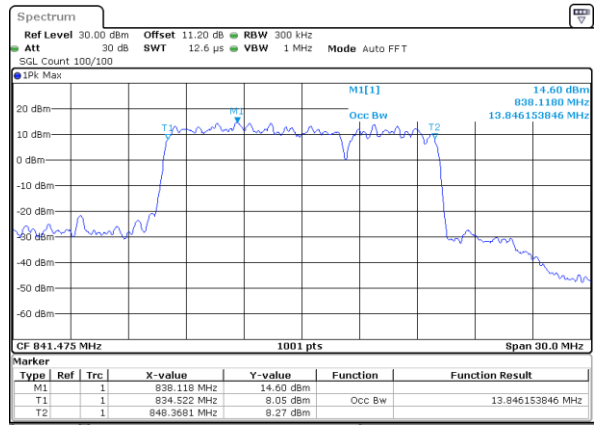
Middle Channel / 10MHz+5MHz



Highest Channel / 5MHz+10MHz



Highest Channel / 10MHz+5MHz

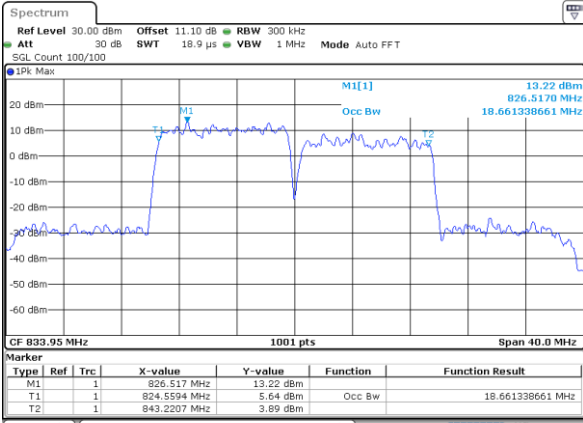




LTE Band 5B

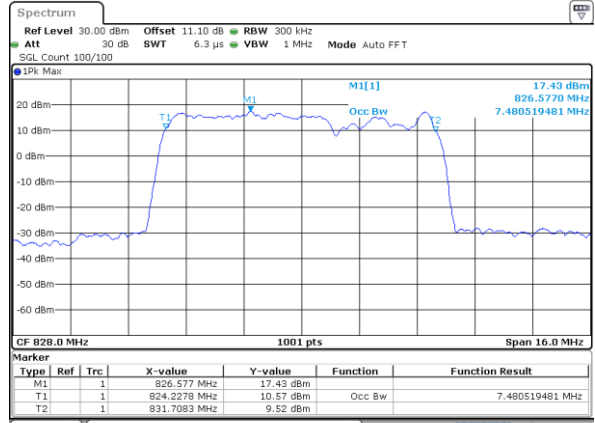
256QAM

Lowest Channel / 10MHz+10MHz



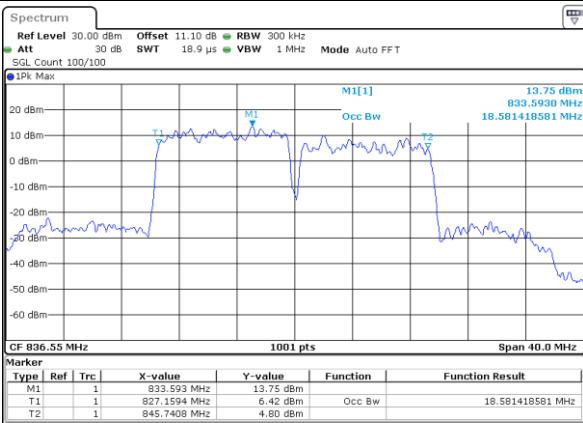
Date: 13.JUL.2020 15:48:23

Lowest Channel / 5MHz+3MHz



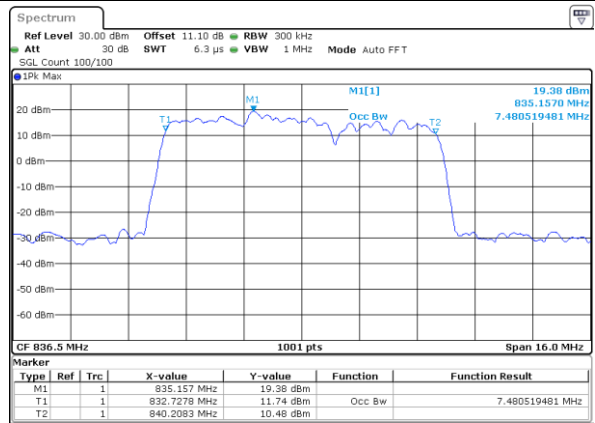
Date: 13.JUL.2020 14:14:49

Middle Channel / 10MHz+10MHz



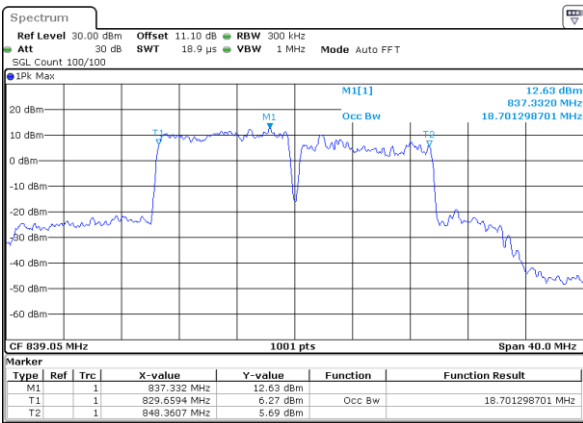
Date: 13.JUL.2020 16:08:23

Middle Channel / 5MHz+3MHz



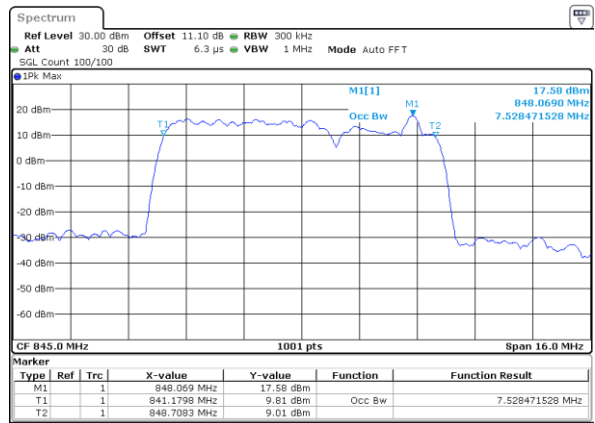
Date: 13.JUL.2020 13:51:59

Highest Channel / 10MHz+10MHz



Date: 13.JUL.2020 16:22:39

Highest Channel / 5MHz+3MHz



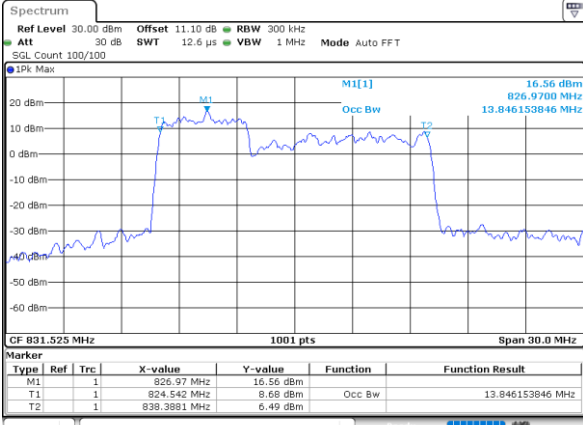
Date: 13.JUL.2020 14:52:21



LTE Band 5B

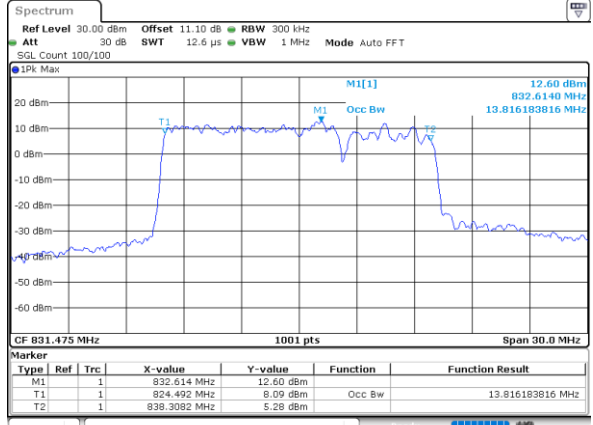
256QAM

Lowest Channel / 5MHz+10MHz



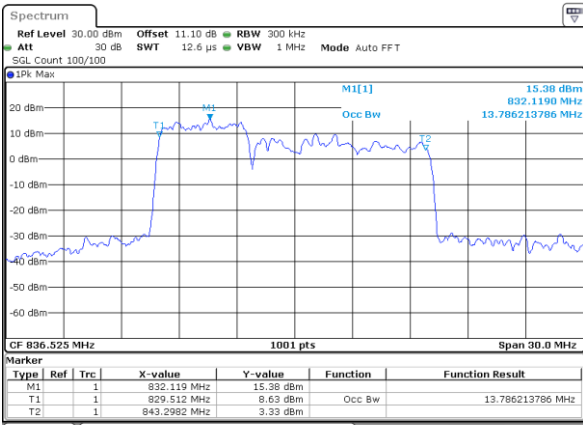
Date: 13\_JUL\_2020 10:36:39

Lowest Channel / 10MHz+5MHz



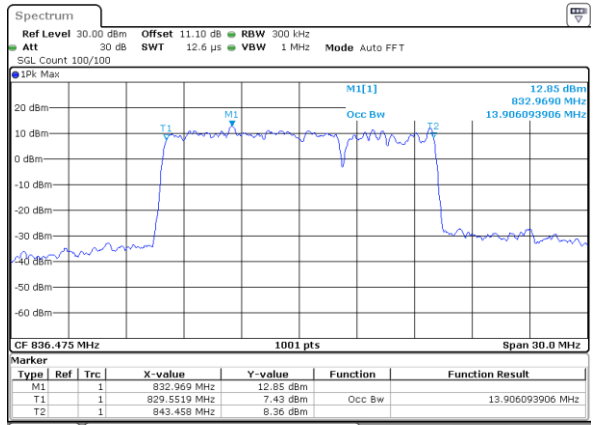
Date: 13\_JUL\_2020 16:40:53

Middle Channel / 5MHz+10MHz



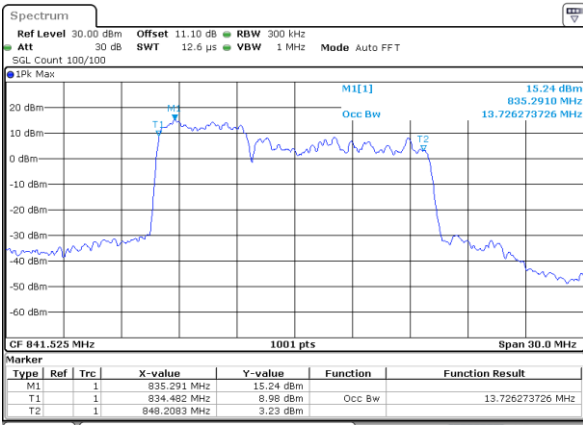
Date: 13\_JUL\_2020 10:57:23

Middle Channel / 10MHz+5MHz



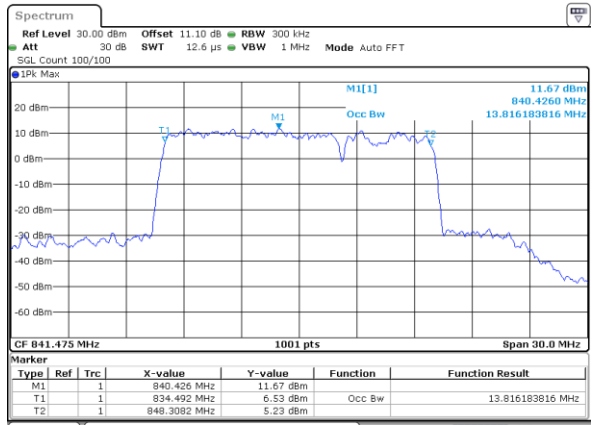
Date: 13\_JUL\_2020 16:55:51

Highest Channel / 5MHz+10MHz



Date: 13\_JUL\_2020 11:09:39

Highest Channel / 10MHz+5MHz



Date: 13\_JUL\_2020 17:06:24

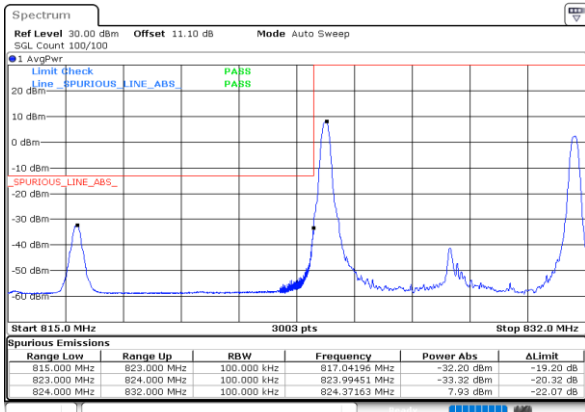


# Conducted Band Edge

## LTE Band 5B / 5MHz+3MHz

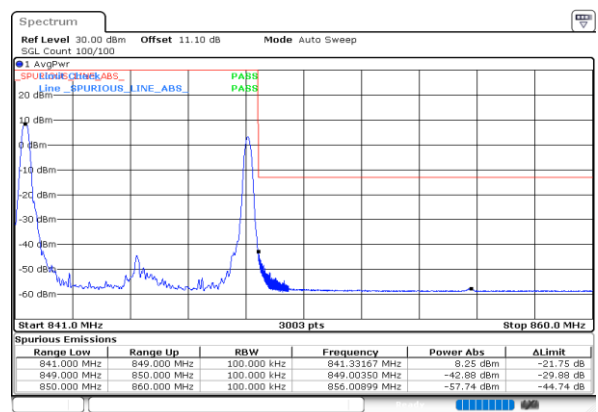
### QPSK

#### Lowest Band Edge / 1RB0 and 1RB14



Date: 13\_JUL\_2020 14:31:17

#### Highest Band Edge / 1RB0 and 1RB14



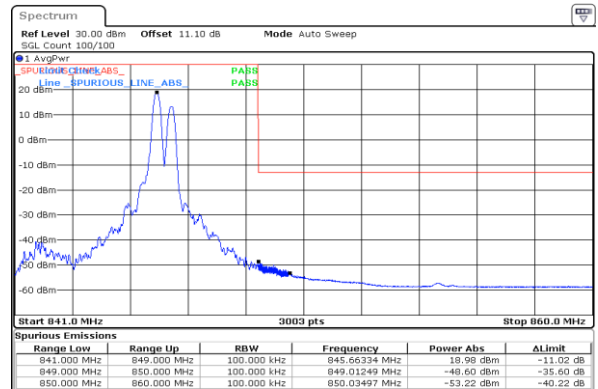
Date: 13\_JUL\_2020 15:03:09

#### Lowest Band Edge / 1RB24 and 1RB0



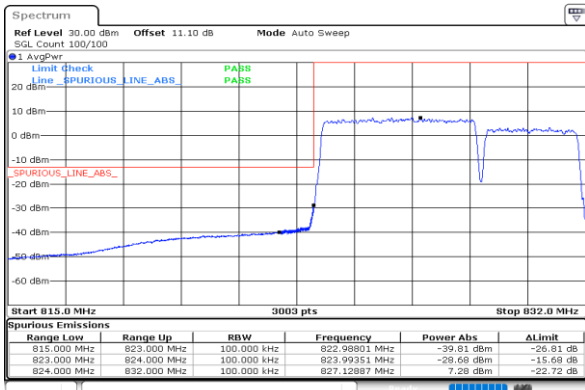
Date: 13\_JUL\_2020 14:13:09

#### Highest Band Edge / 1RB24 and 1RB0



Date: 13\_JUL\_2020 15:16:14

#### Lowest Band Edge / Full RB



Date: 13\_JUL\_2020 14:18:09

#### Highest Band Edge / Full RB

