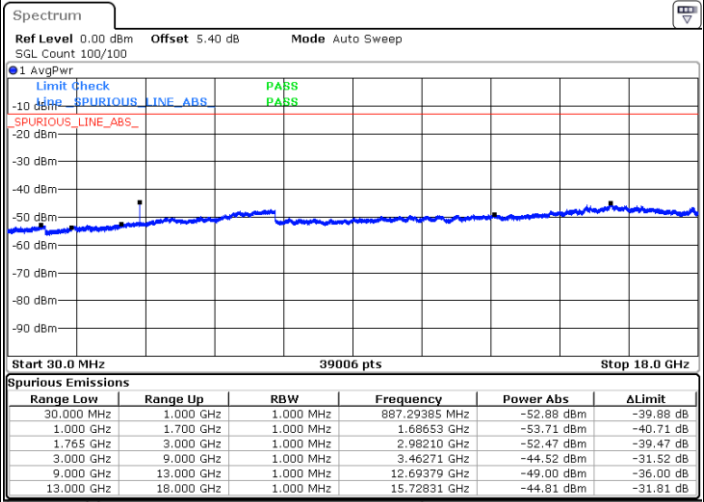
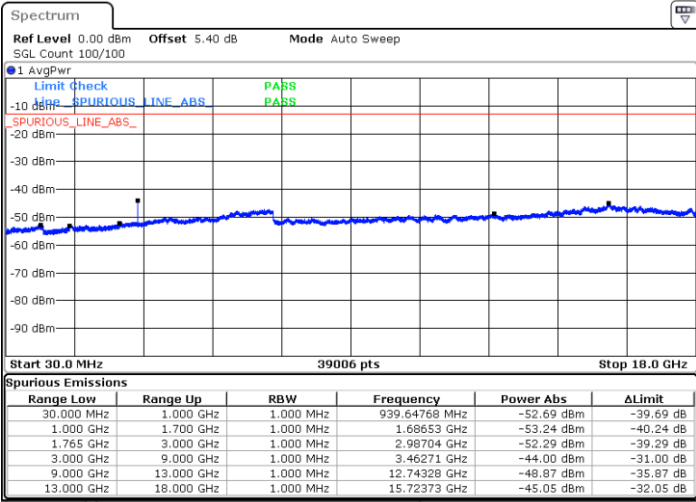




LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

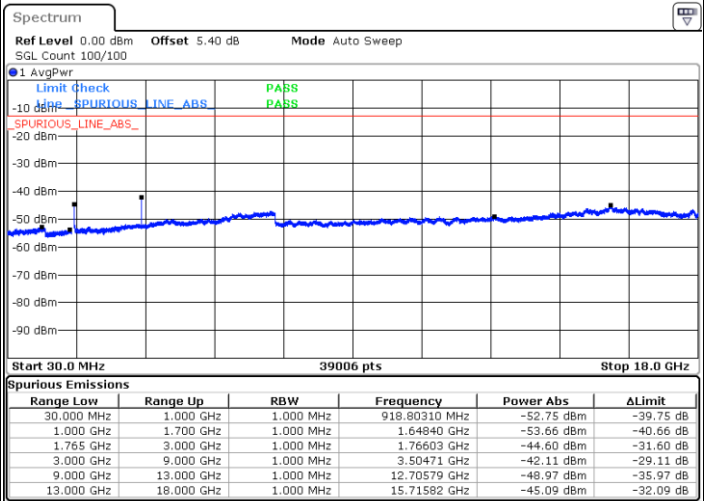
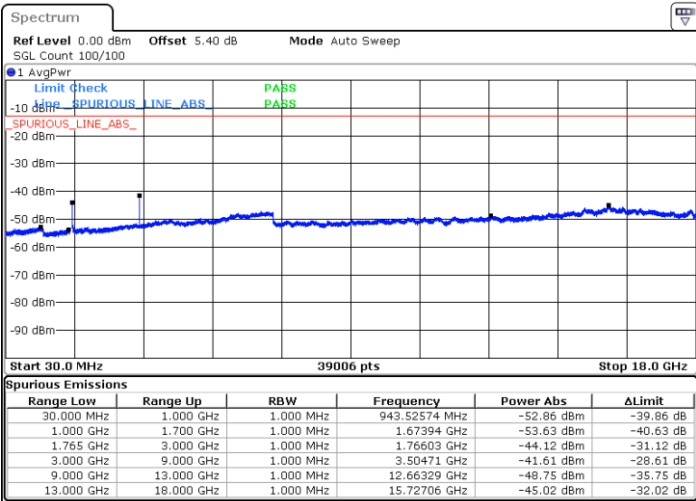


Date: 24 APR 2020 21:15:56

Date: 24 APR 2020 21:16:50

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24 APR 2020 21:22:54

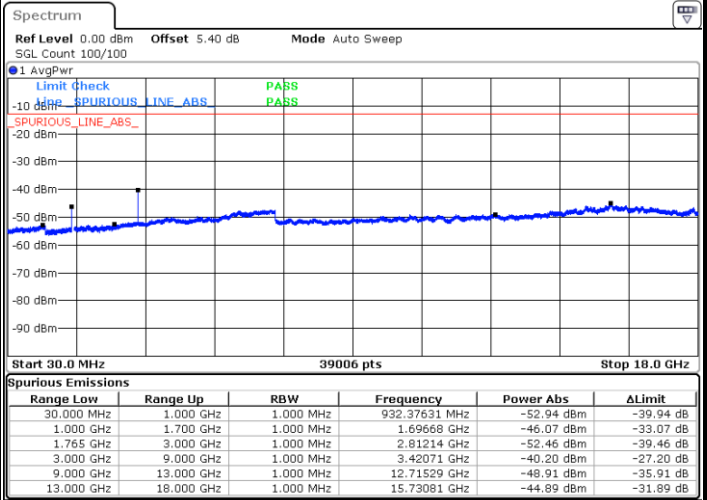
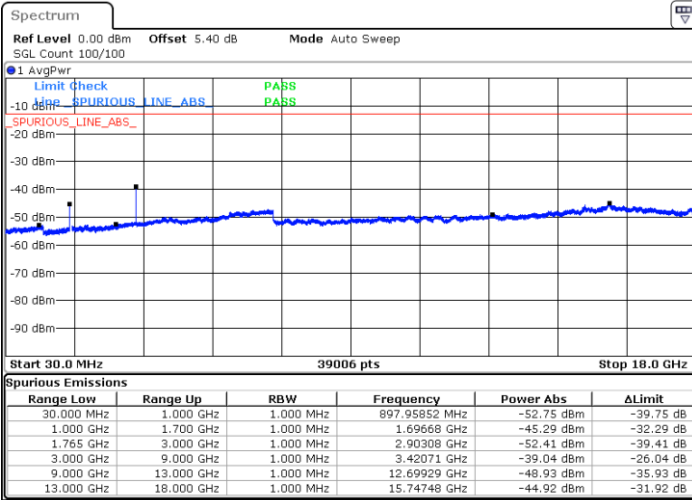
Date: 24 APR 2020 21:23:49



LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

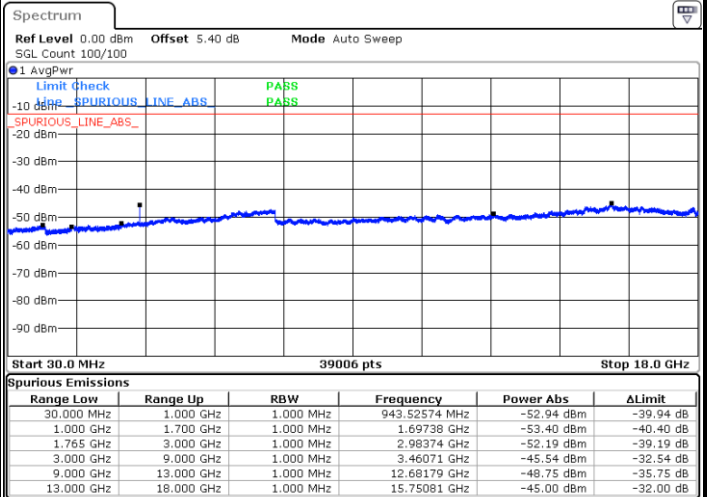
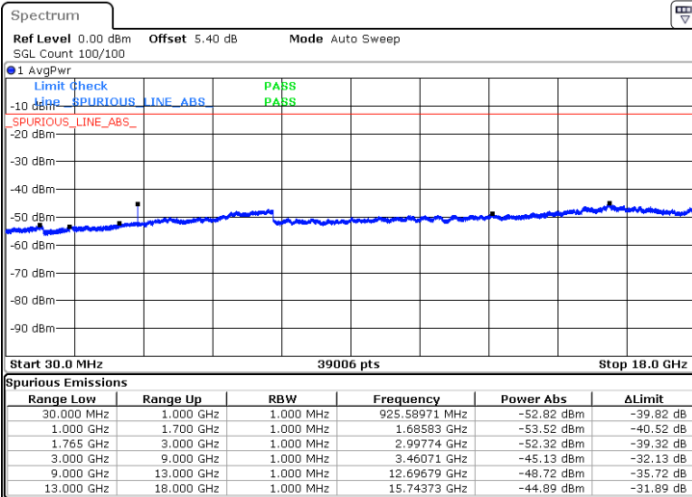


Date: 24 APR 2020 21:29:52

Date: 24 APR 2020 21:30:47

Middle Channel / QPSK

Middle Channel / 16QAM



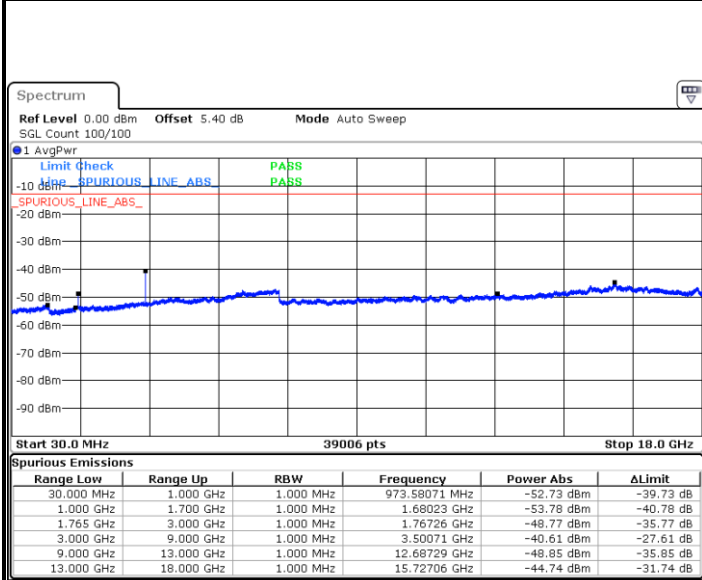
Date: 24 APR 2020 21:32:21

Date: 24 APR 2020 21:33:15



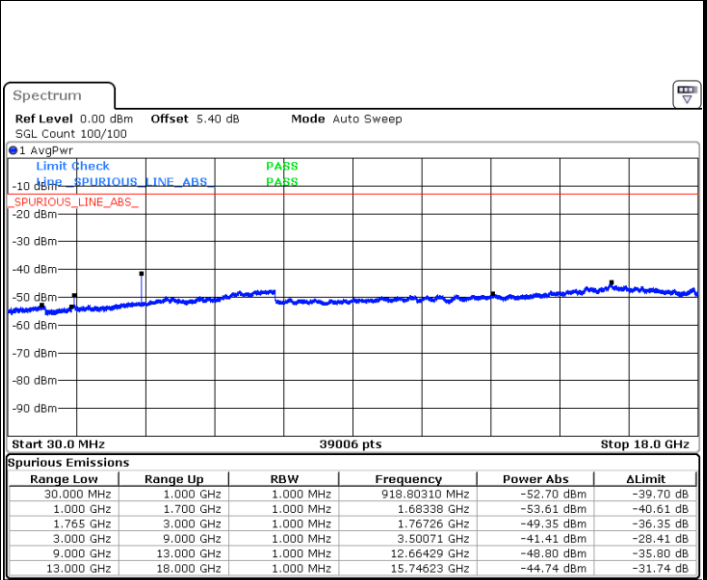
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 24 APR 2020 21:39:19

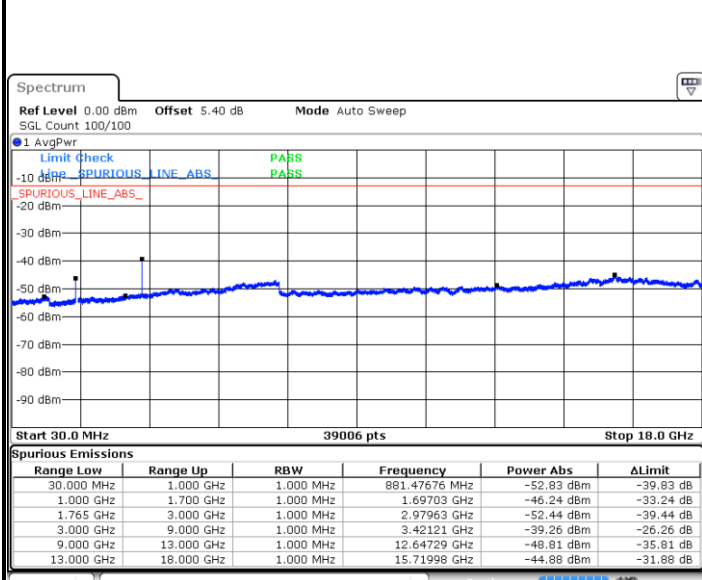
Highest Channel / 16QAM



Date: 24 APR 2020 21:40:14

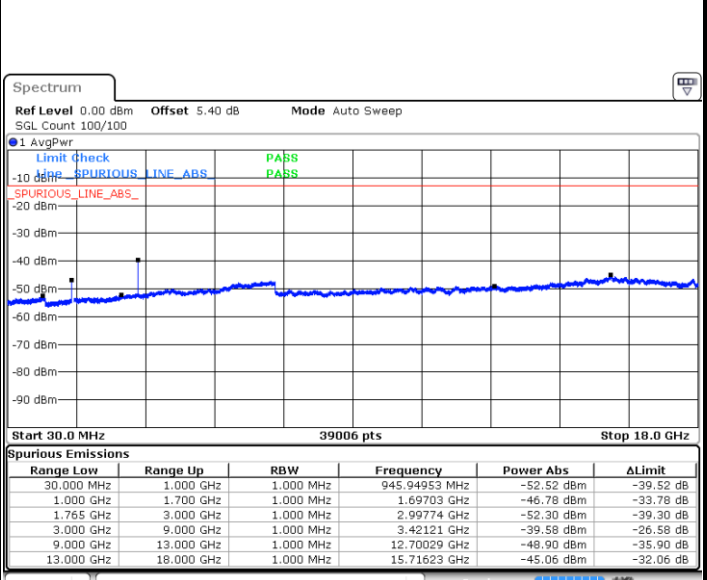
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 24 APR 2020 21:46:18

Lowest Channel / 16QAM



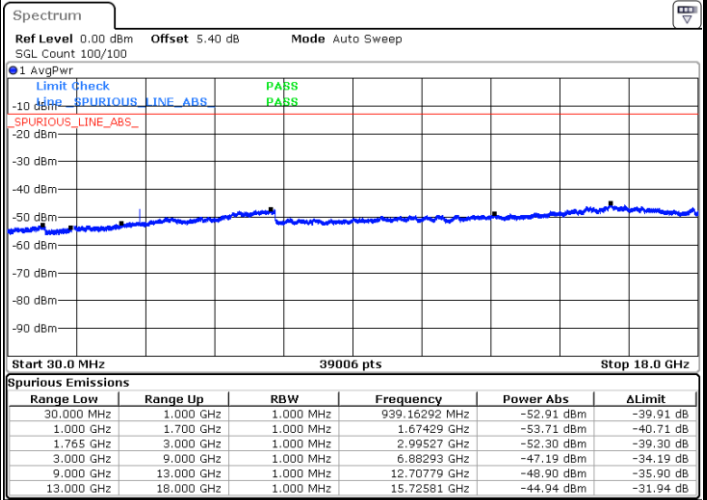
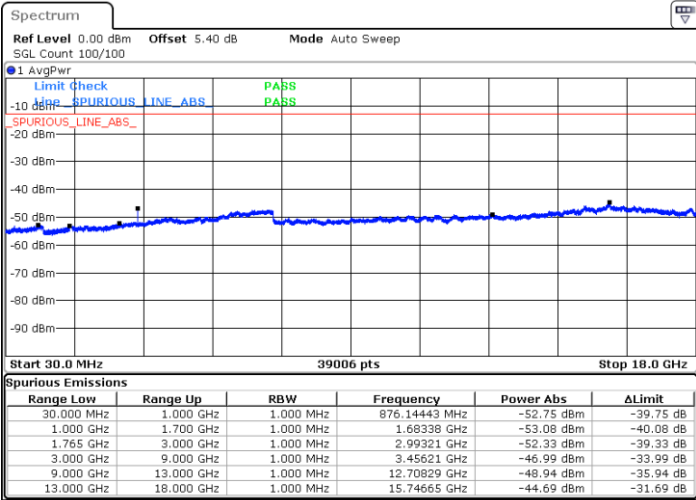
Date: 24 APR 2020 21:47:12



LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

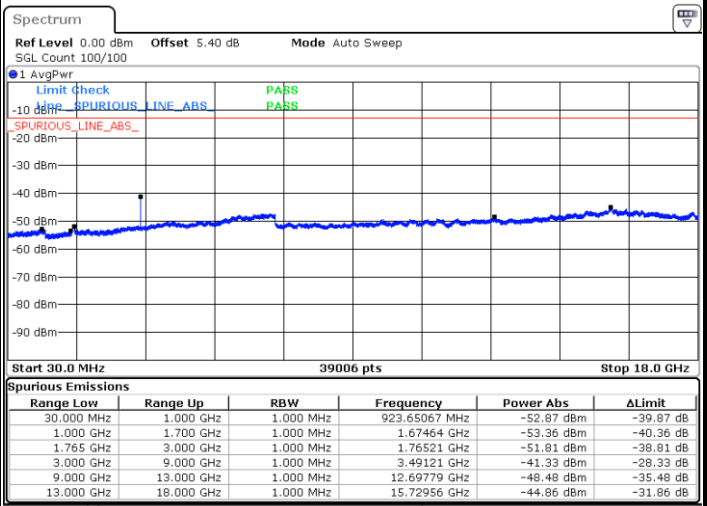
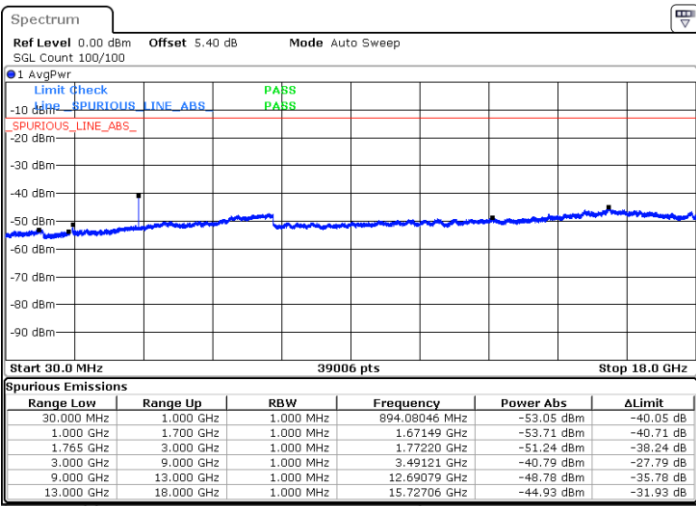


Date: 24 APR 2020 21:48:46

Date: 24 APR 2020 21:49:41

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24 APR 2020 21:55:45

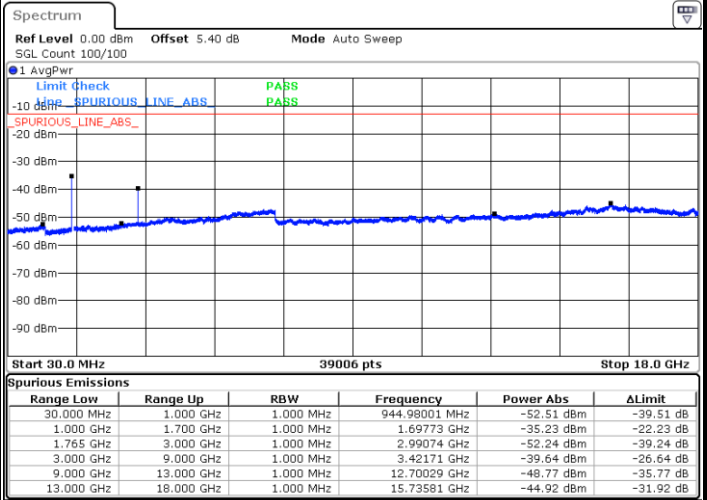
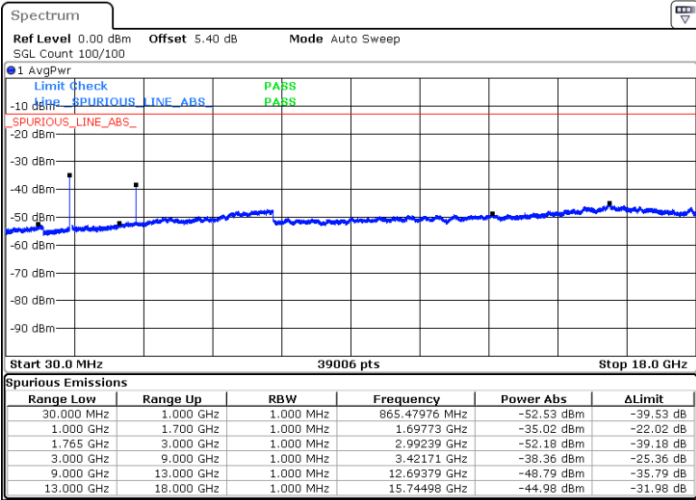
Date: 24 APR 2020 21:56:39



LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

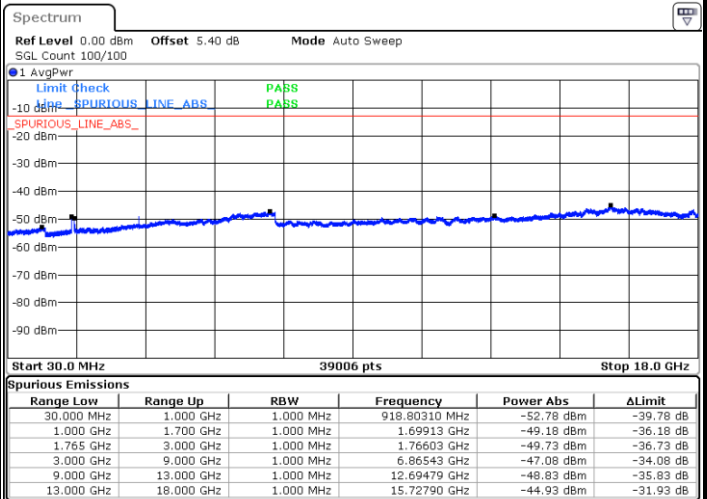
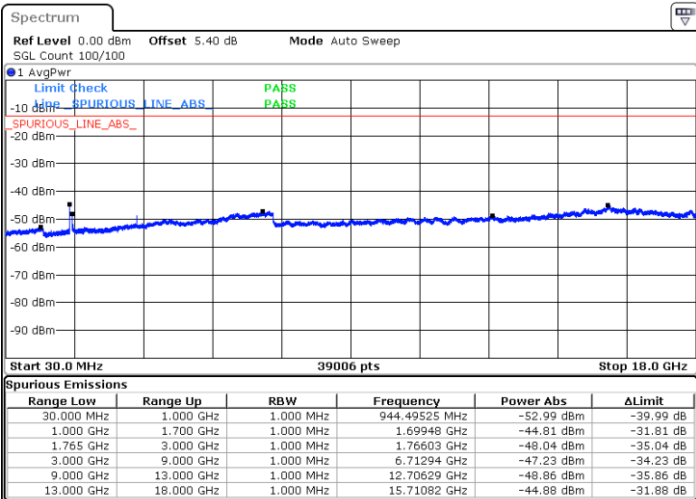


Date: 24 APR 2020 22:02:43

Date: 24 APR 2020 22:03:38

Middle Channel / QPSK

Middle Channel / 16QAM



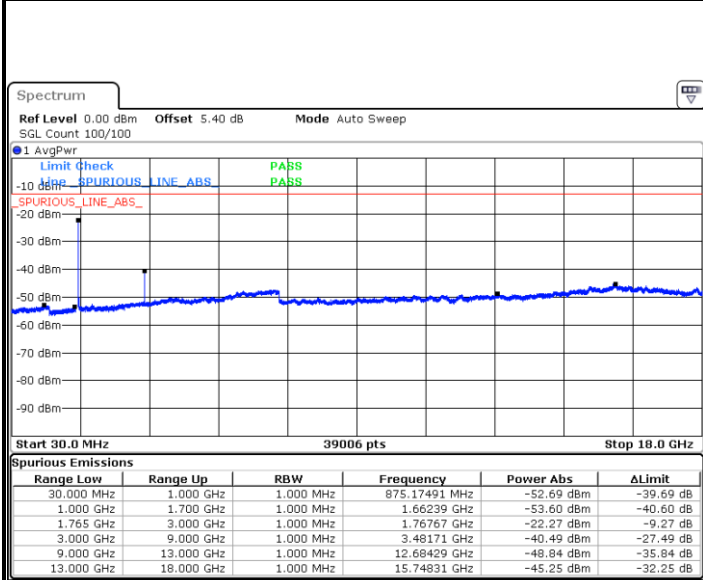
Date: 24 APR 2020 22:05:12

Date: 24 APR 2020 22:06:06



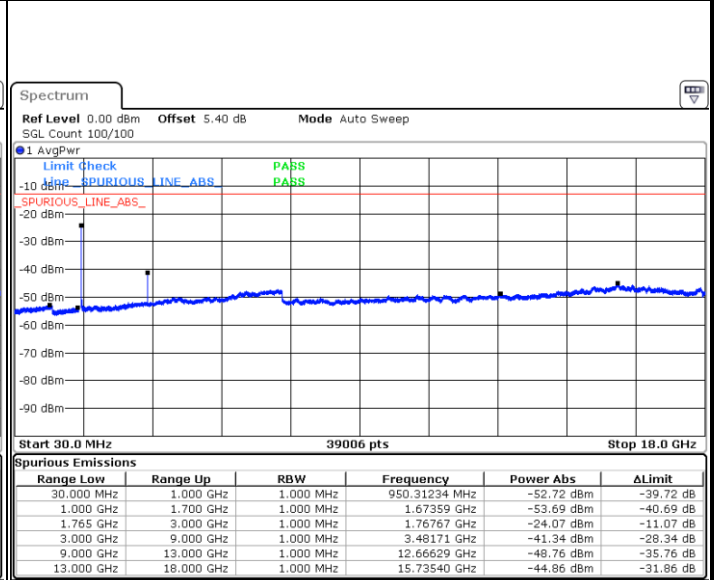
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 24 APR 2020 22:12:10

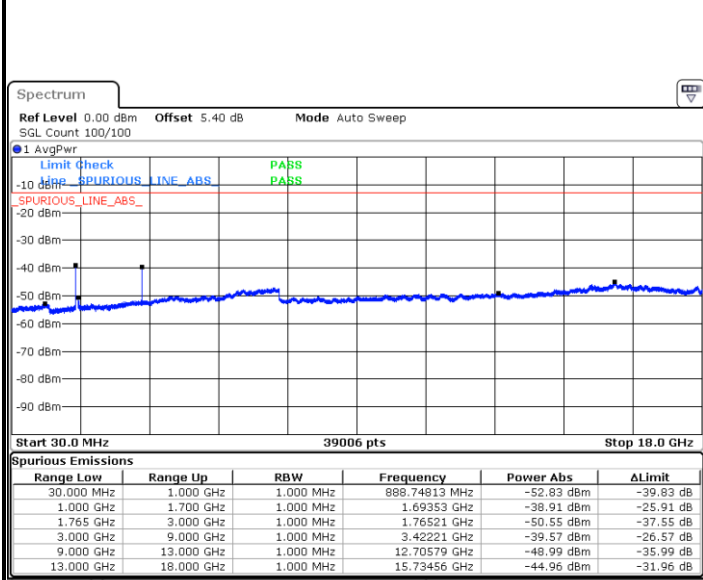
Highest Channel / 16QAM



Date: 24 APR 2020 22:13:04

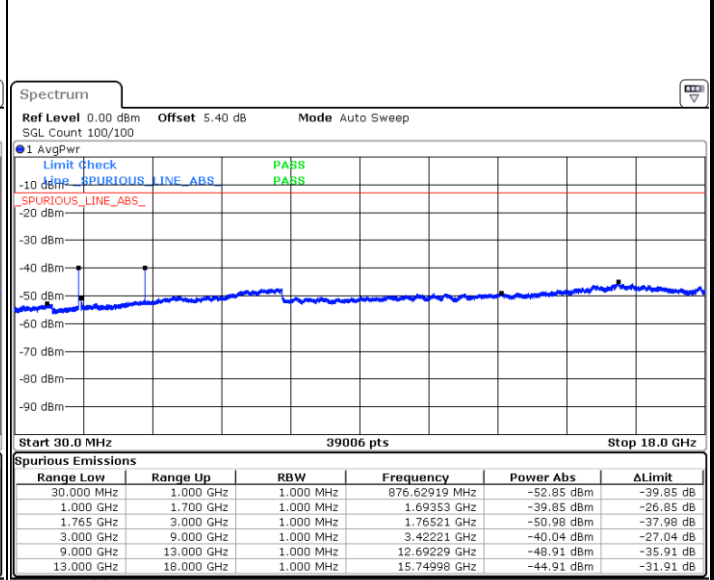
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 24 APR 2020 22:19:08

Lowest Channel / 16QAM



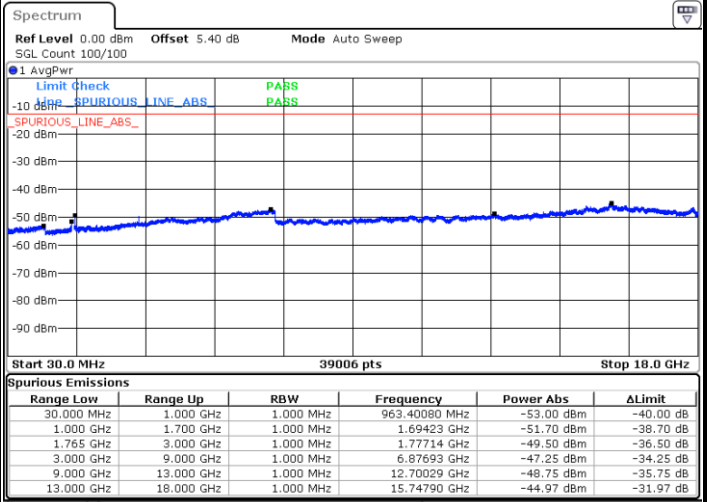
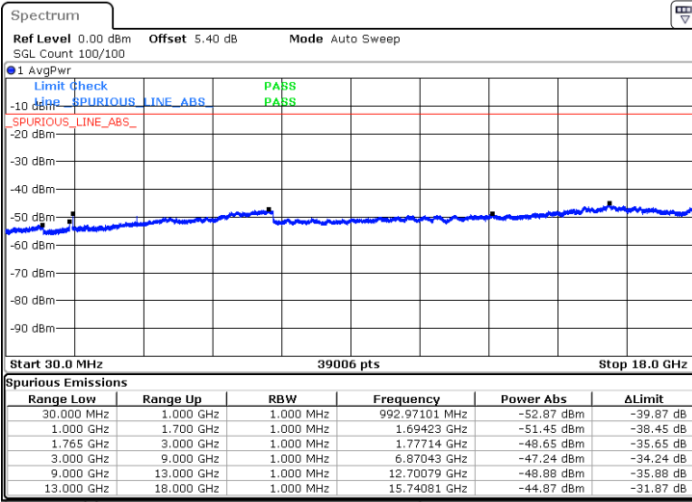
Date: 24 APR 2020 22:20:03



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

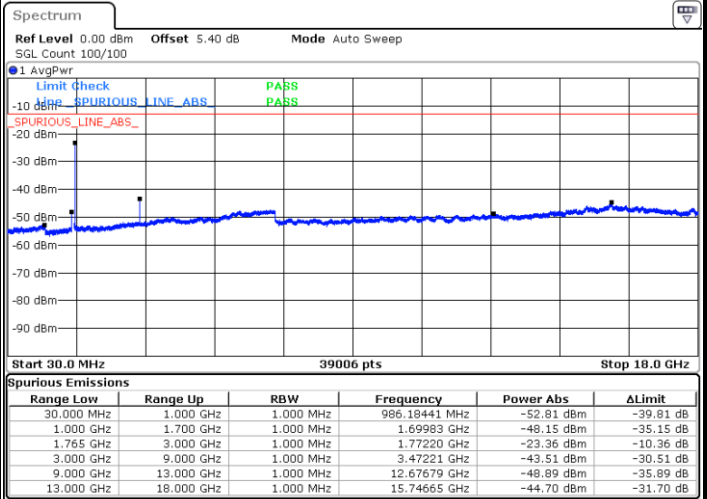
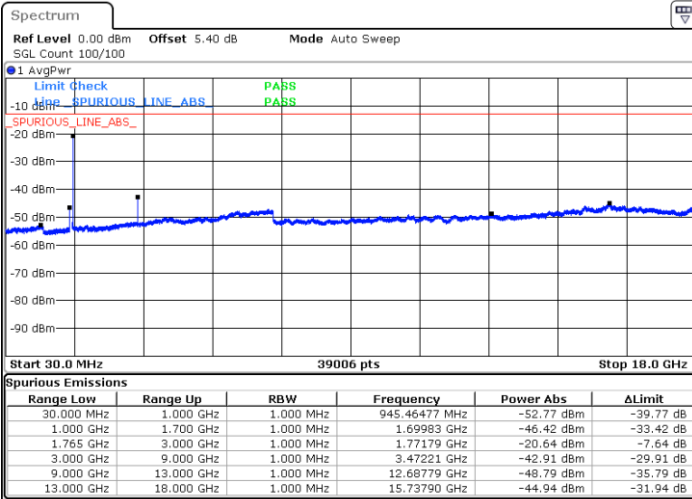


Date: 24 APR 2020 22:21:37

Date: 24 APR 2020 22:22:31

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24 APR 2020 22:28:35

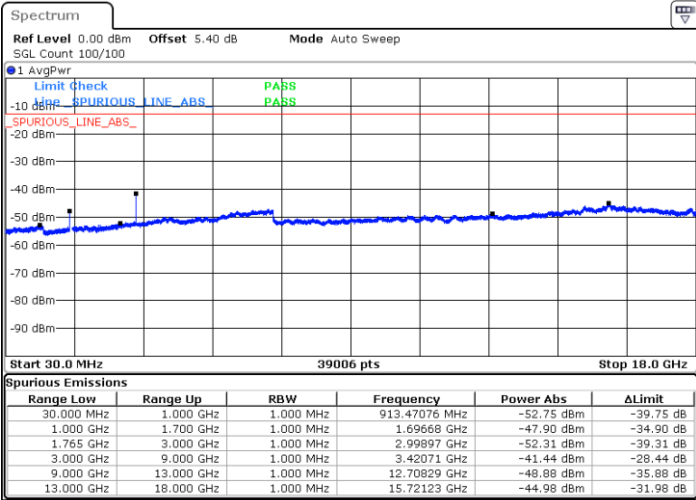
Date: 24 APR 2020 22:29:29



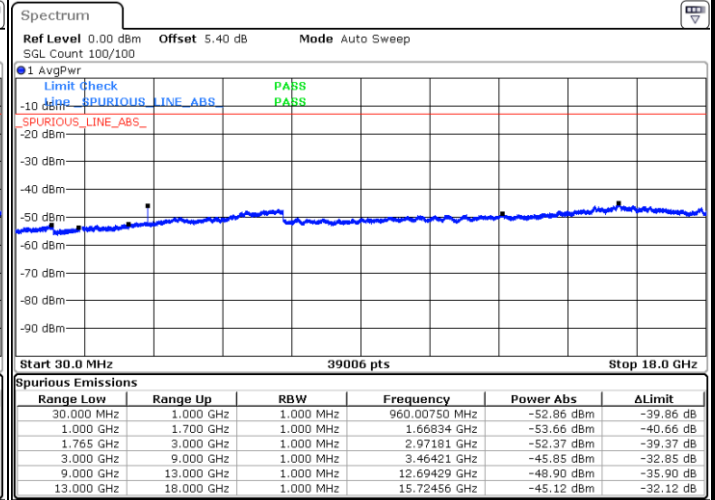
LTE Band 4 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

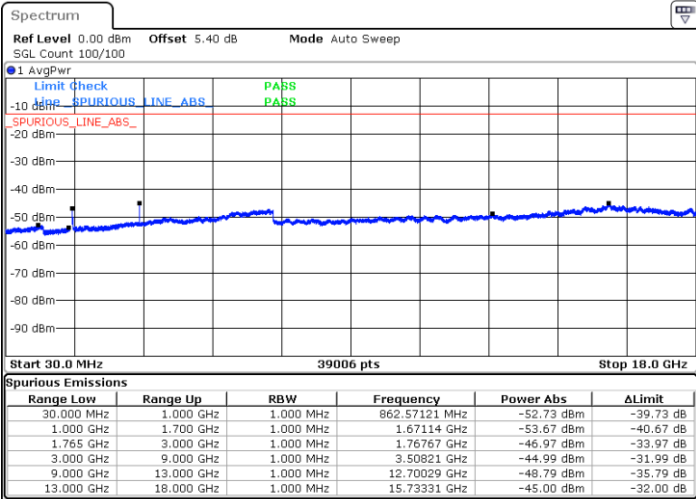


Date: 24 APR 2020 22:34:53



Date: 24 APR 2020 22:36:08

Highest Channel / 64QAM



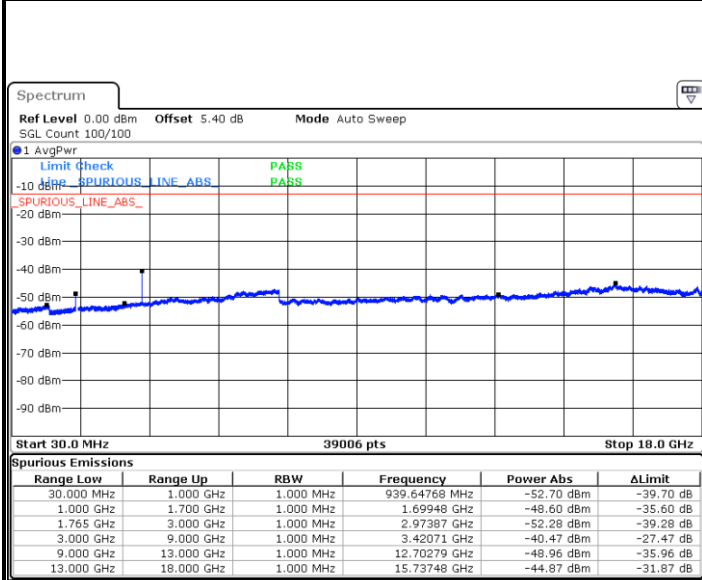
Date: 24 APR 2020 22:39:37





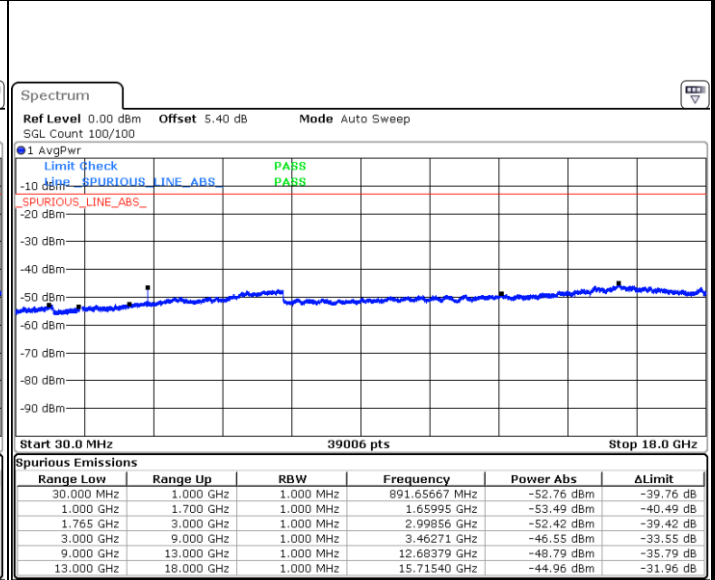
LTE Band 4 / 3MHz

Lowest Channel / 64QAM



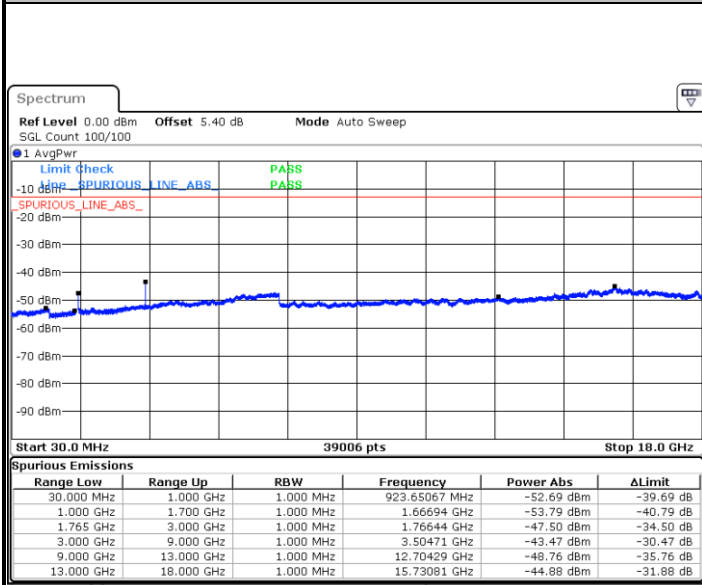
Date: 24 APR 2020 22:43:07

Middle Channel / 64QAM

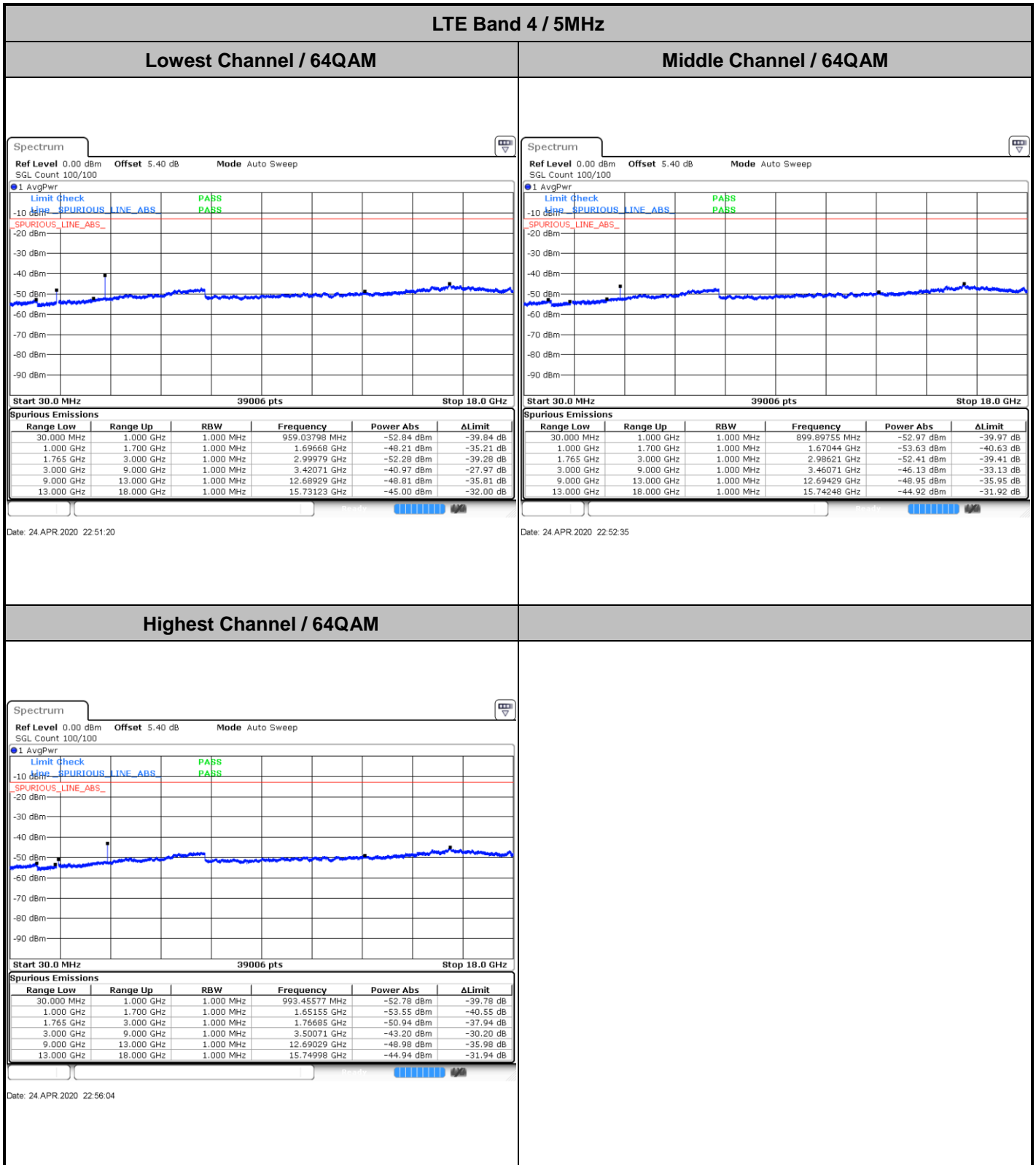


Date: 24 APR 2020 22:44:21

Highest Channel / 64QAM



Date: 24 APR 2020 22:47:51

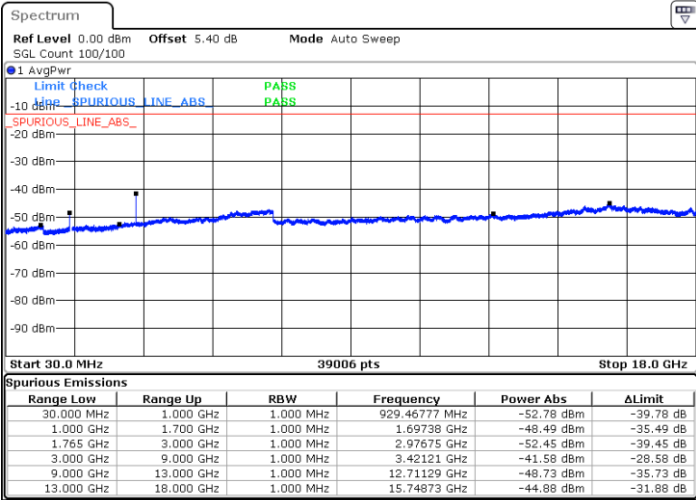




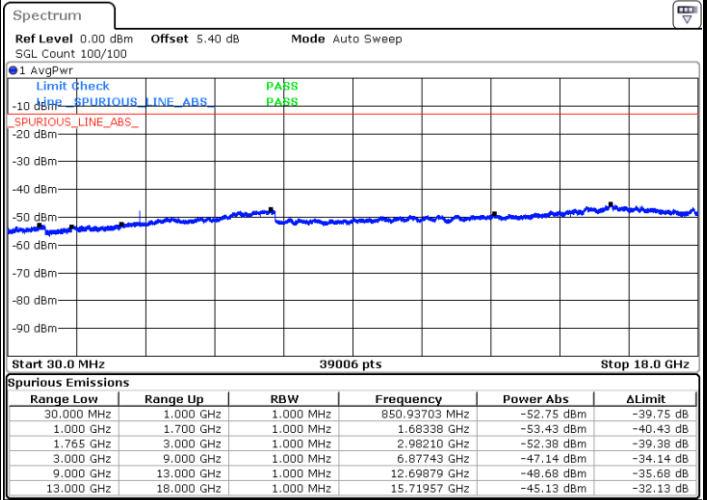
LTE Band 4 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

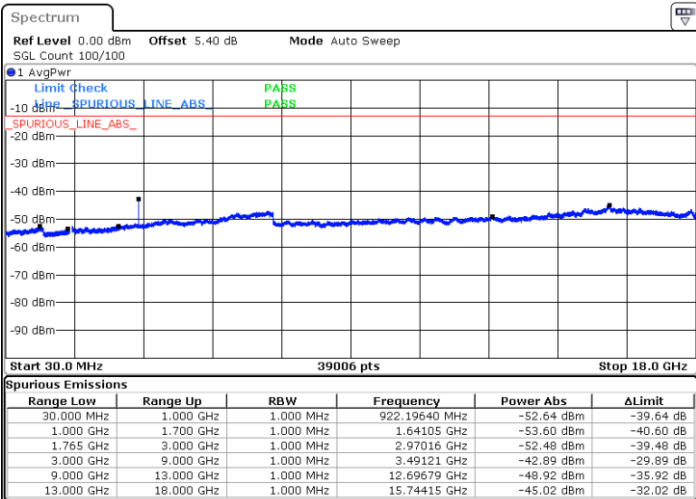


Date: 24 APR 2020 22:59:33



Date: 24 APR 2020 23:00:48

Highest Channel / 64QAM



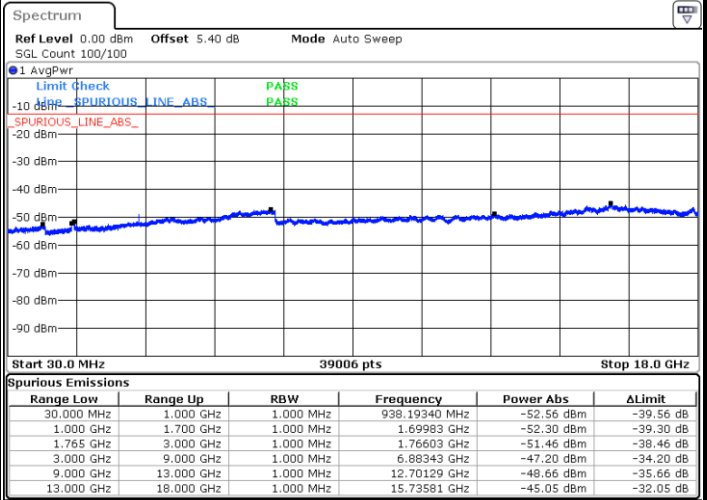
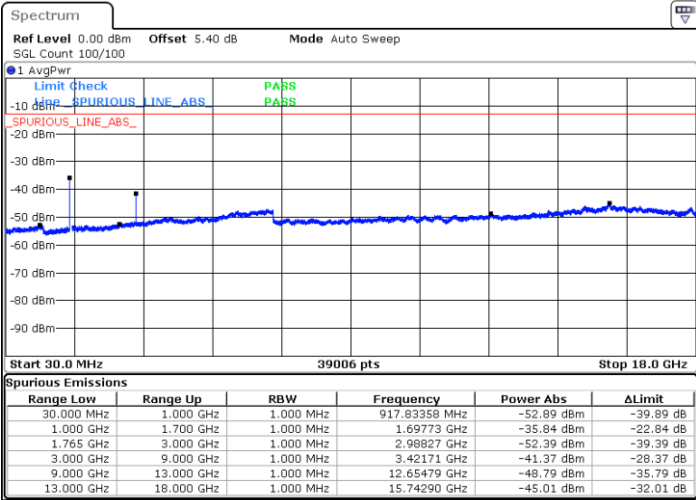
Date: 24 APR 2020 23:04:17



LTE Band 4 / 15MHz

Lowest Channel / 64QAM

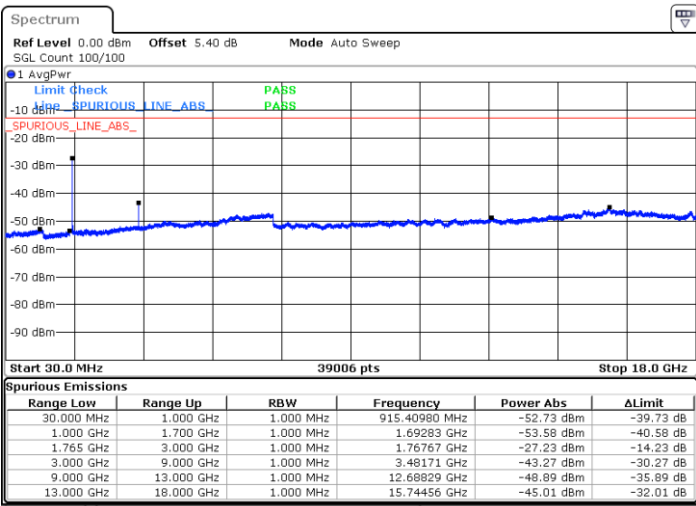
Middle Channel / 64QAM



Date: 24 APR 2020 23:07:46

Date: 24 APR 2020 23:09:01

Highest Channel / 64QAM

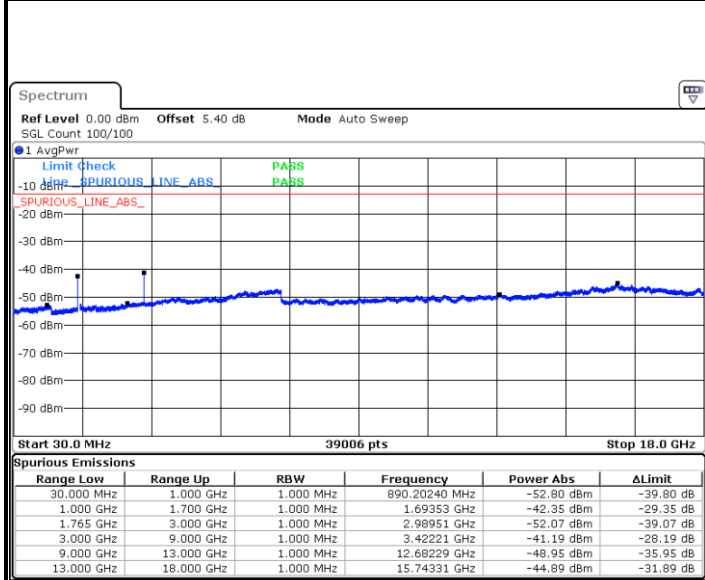


Date: 24 APR 2020 23:12:30



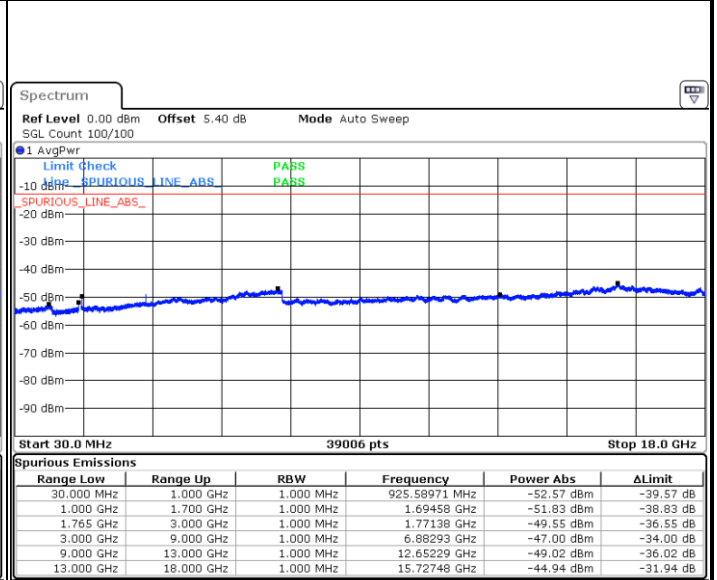
**LTE Band 4 / 20MHz**

**Lowest Channel / 64QAM**



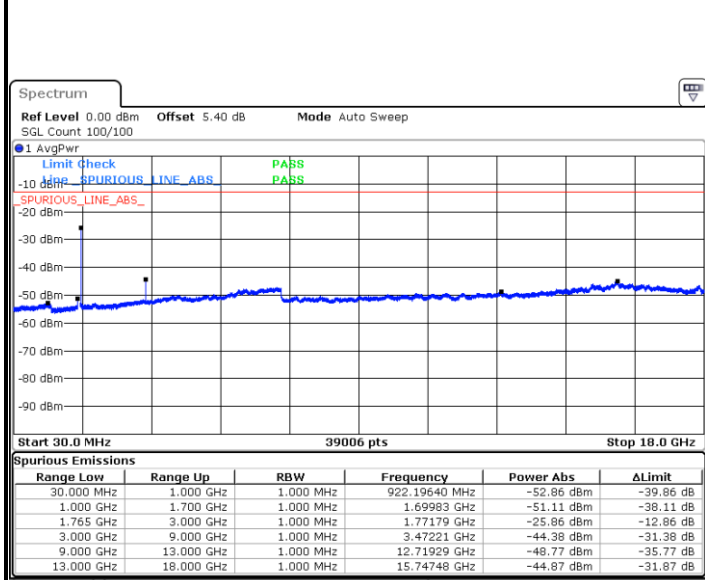
Date: 24 APR 2020 23:15:59

**Middle Channel / 64QAM**



Date: 24 APR 2020 23:17:14

**Highest Channel / 64QAM**



Date: 24 APR 2020 23:20:44



Frequency Stability

| Test Conditions  |                   | LTE Band 4 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                           | Note 2. |
|                  |                   | Deviation (ppm)                    | Result  |
| 50               | Normal Voltage    | 0.0006                             | PASS    |
| 40               | Normal Voltage    | 0.0023                             |         |
| 30               | Normal Voltage    | 0.0008                             |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |         |
| 10               | Normal Voltage    | 0.0018                             |         |
| 0                | Normal Voltage    | 0.0009                             |         |
| -10              | Normal Voltage    | 0.0012                             |         |
| -20              | Normal Voltage    | 0.0024                             |         |
| -30              | Normal Voltage    | 0.0028                             |         |
| 20               | Maximum Voltage   | 0.0002                             |         |
| 20               | Normal Voltage    | 0.0007                             |         |
| 20               | Battery End Point | 0.0012                             |         |

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 5

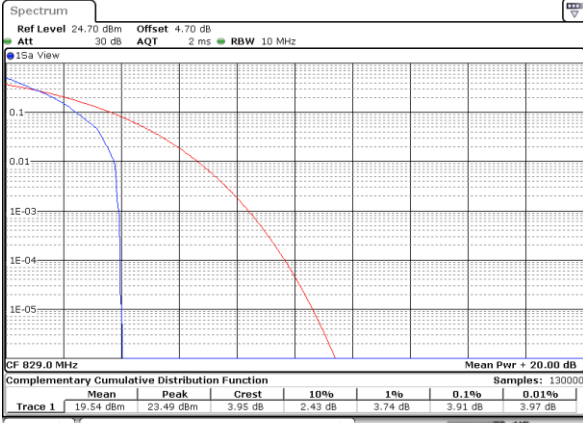
## Peak-to-Average Ratio

| Mode       | LTE Band 5 / 10MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 3.91               | 4.70    | 4.67  | 5.62    | PASS        |
| Middle CH  | 4.43               | 4.90    | 4.75  | 5.77    |             |
| Highest CH | 4.14               | 4.67    | 4.72  | 5.62    |             |
| Mode       | LTE Band 5 / 10MHz |         |       |         |             |
| Mod.       | 64QAM              |         |       |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB |       |         | Result      |
| Lowest CH  | 5.54               | 6.06    | -     | -       | PASS        |
| Middle CH  | 6.06               | 6.23    | -     | -       |             |
| Highest CH | 6.00               | 6.12    | -     | -       |             |



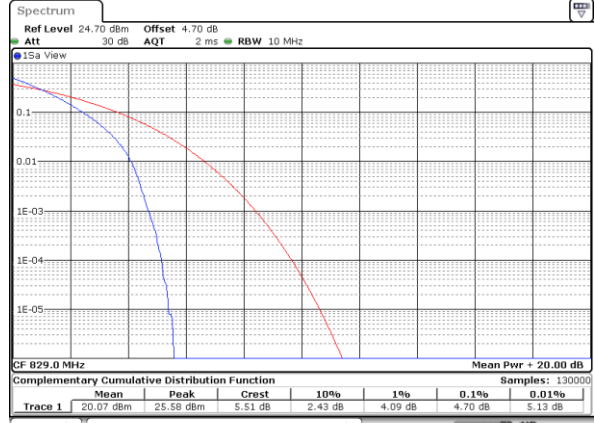
LTE Band 5 / 10MHz / QPSK

Lowest Channel / 1RB



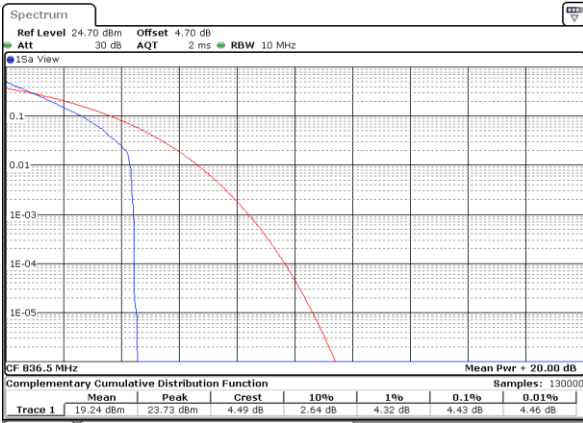
Date: 1 MAY 2020 12:18:49

Lowest Channel / Full RB



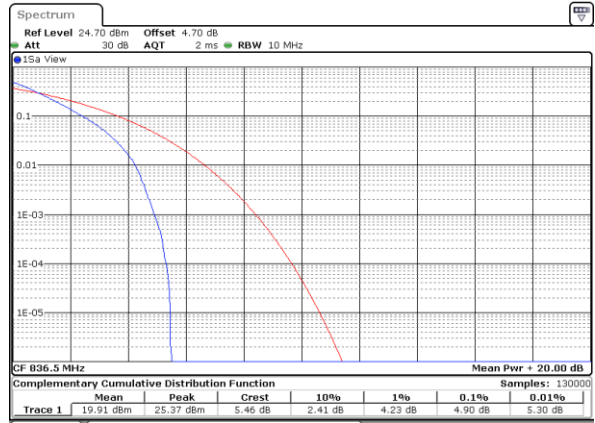
Date: 1 MAY 2020 12:18:57

Middle Channel / 1RB



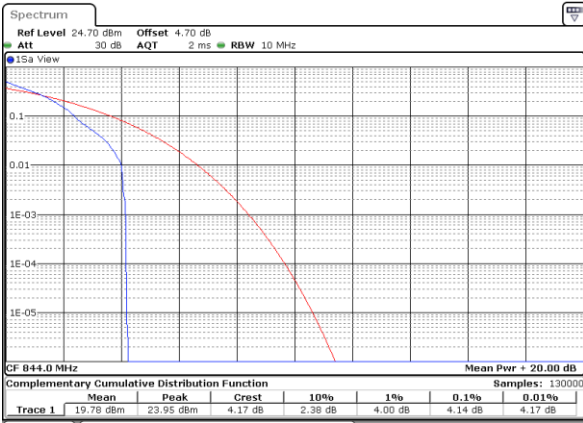
Date: 1 MAY 2020 12:18:40

Middle Channel / Full RB



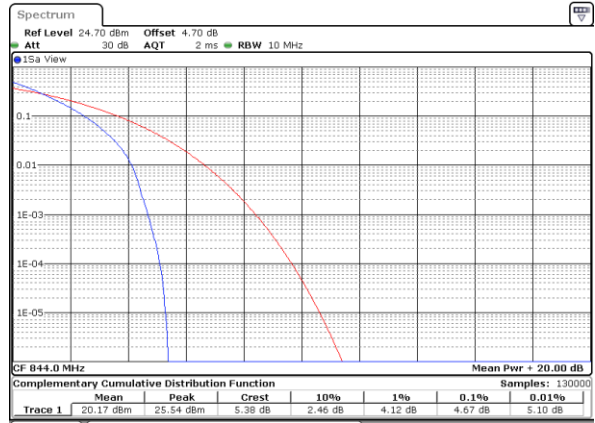
Date: 1 MAY 2020 12:18:31

Highest Channel / 1RB



Date: 1 MAY 2020 12:18:05

Highest Channel / Full RB



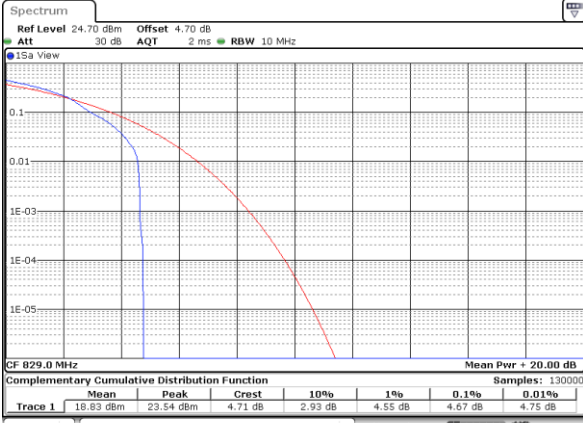
Date: 1 MAY 2020 12:18:23





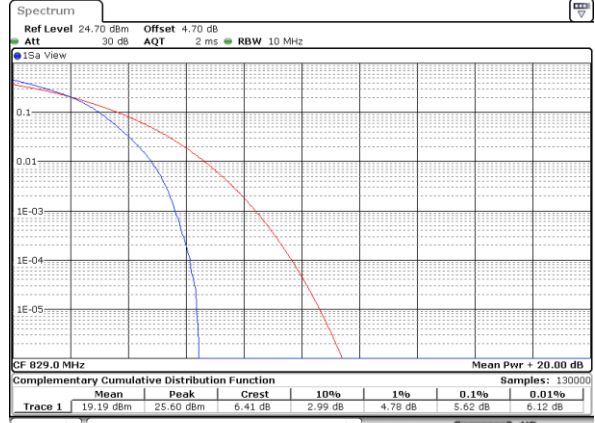
LTE Band 5 / 10MHz / 16QAM

Lowest Channel / 1RB



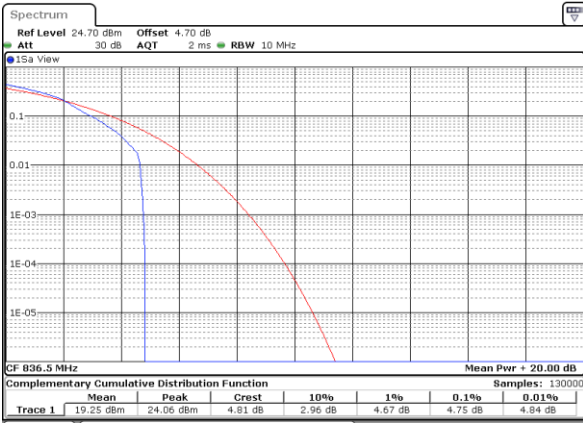
Date: 1 MAY 2020 12:17:08

Lowest Channel / Full RB



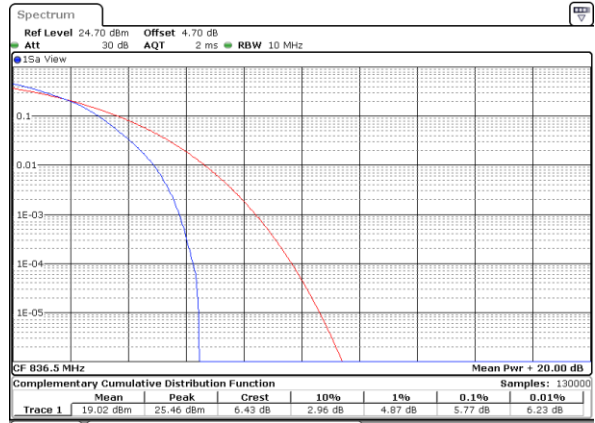
Date: 1 MAY 2020 12:17:17

Middle Channel / 1RB



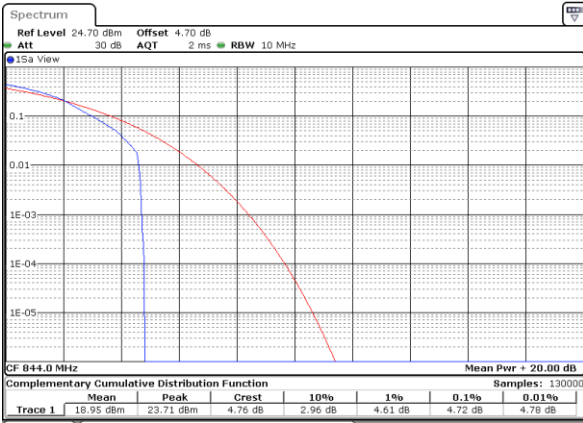
Date: 1 MAY 2020 12:17:25

Middle Channel / Full RB



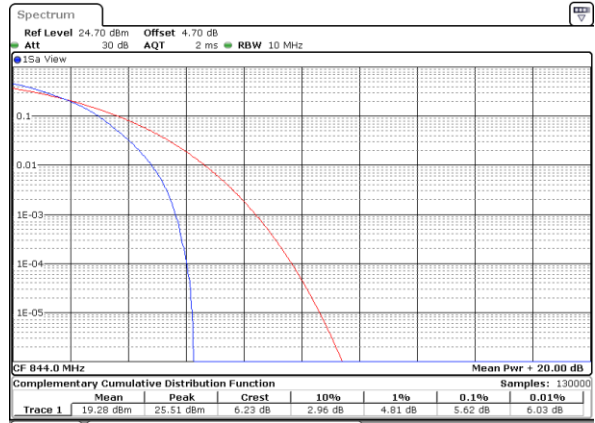
Date: 1 MAY 2020 12:17:34

Highest Channel / 1RB



Date: 1 MAY 2020 12:17:42

Highest Channel / Full RB

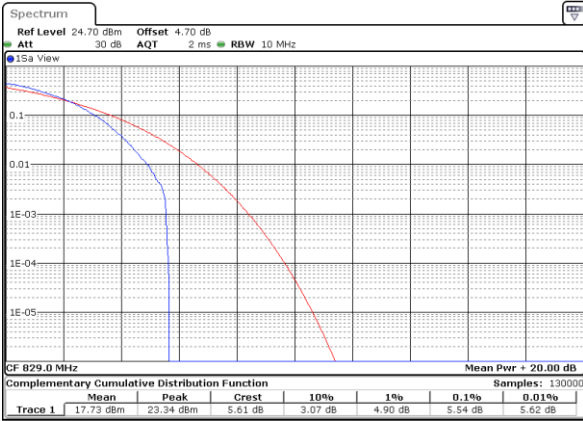


Date: 1 MAY 2020 12:17:51



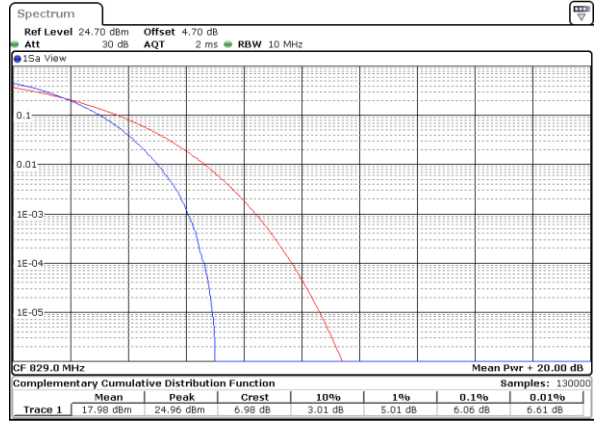
LTE Band 5 / 10MHz / 64QAM

Lowest Channel / 1RB



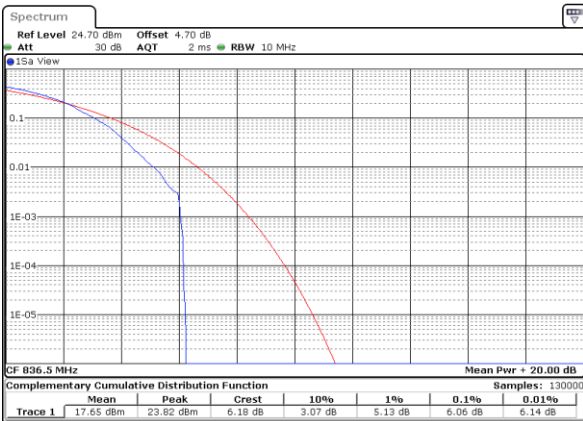
Date: 1 MAY 2020 13:48:36

Lowest Channel / Full RB



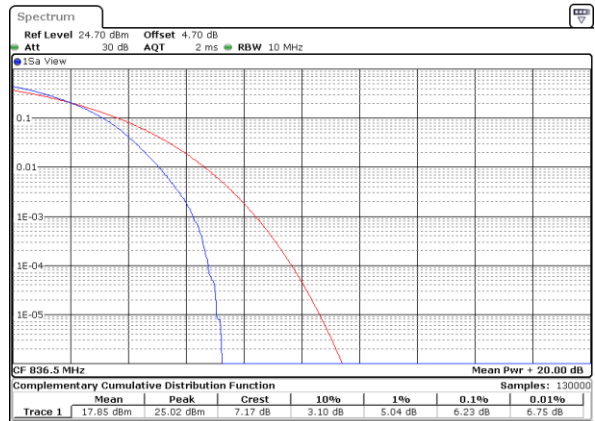
Date: 1 MAY 2020 13:48:56

Middle Channel / 1RB



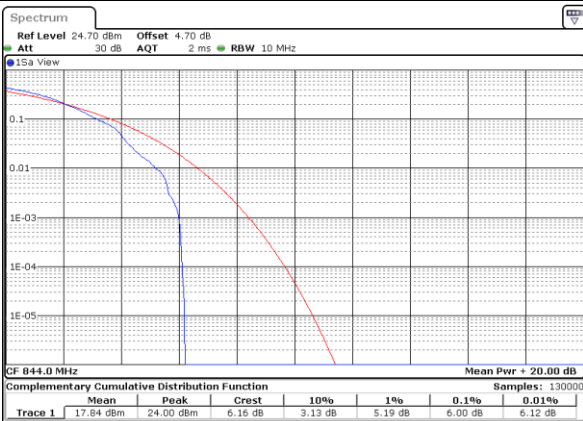
Date: 1 MAY 2020 13:25:06

Middle Channel / Full RB



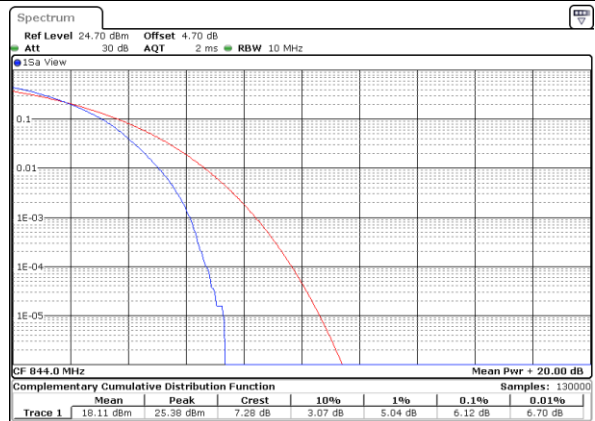
Date: 1 MAY 2020 13:24:56

Highest Channel / 1RB



Date: 1 MAY 2020 13:24:40

Highest Channel / Full RB



Date: 1 MAY 2020 13:24:49



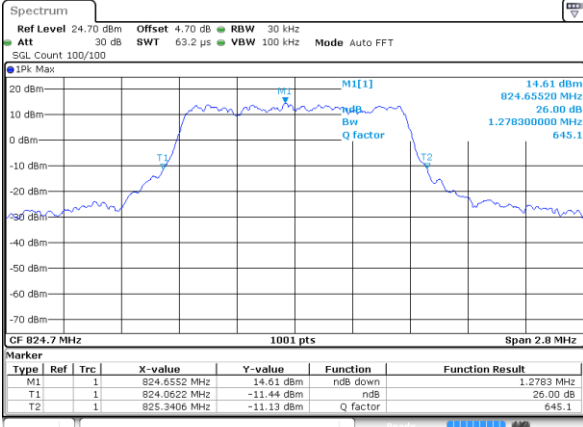
**26dB Bandwidth**

| Mode       | LTE Band 5 : 26dB BW(MHz) |       |       |       |       |       |       |       |
|------------|---------------------------|-------|-------|-------|-------|-------|-------|-------|
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       |
| Mod.       | QPSK                      | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.28                      | 1.28  | 2.99  | 3.01  | 4.92  | 4.88  | 9.93  | 9.63  |
| Middle CH  | 1.24                      | 1.26  | 3.03  | 2.99  | 4.97  | 4.88  | 9.87  | 9.73  |
| Highest CH | 1.26                      | 1.30  | 3.02  | 3.02  | 4.90  | 4.89  | 9.75  | 9.73  |
| Mode       | LTE Band 5 : 26dB BW(MHz) |       |       |       |       |       |       |       |
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       |
| Mod.       | 64QAM                     |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | 1.26                      |       | 3.03  |       | 4.96  |       | 9.69  |       |
| Middle CH  | 1.27                      |       | 3.03  |       | 4.91  |       | 9.81  |       |
| Highest CH | 1.28                      |       | 3.00  |       | 4.86  |       | 9.77  |       |



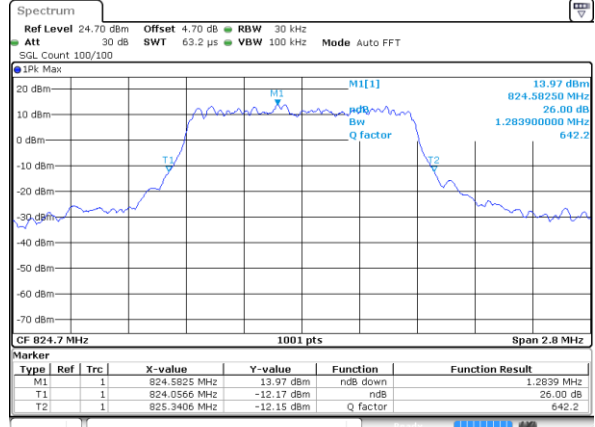
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



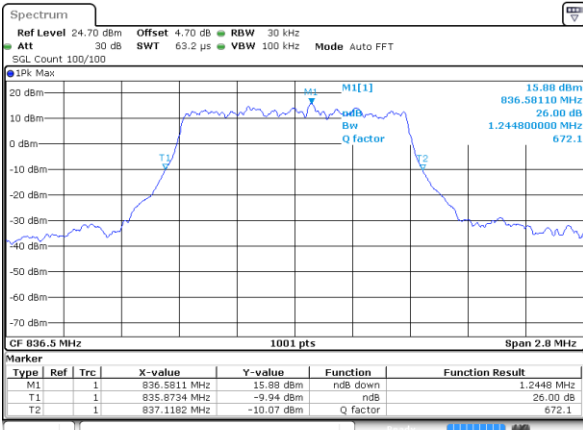
Date: 1 MAY 2020 10:31:04

Lowest Channel / 1.4MHz / 16QAM



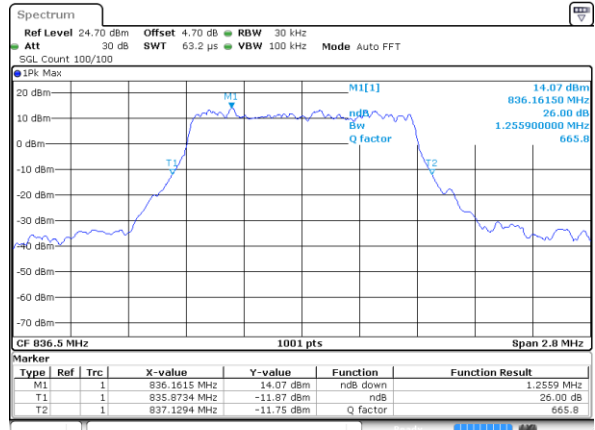
Date: 1 MAY 2020 10:30:54

Middle Channel / 1.4MHz / QPSK



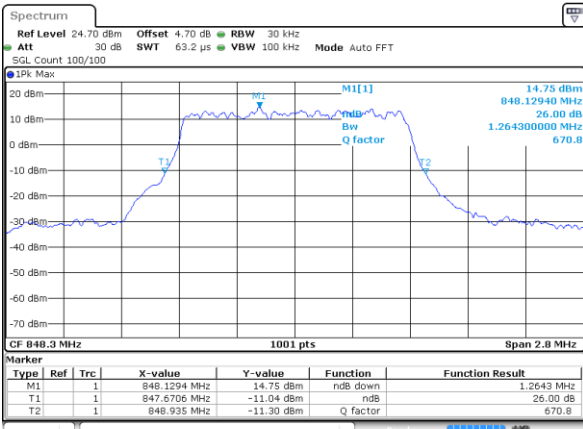
Date: 1 MAY 2020 10:52:30

Middle Channel / 1.4MHz / 16QAM



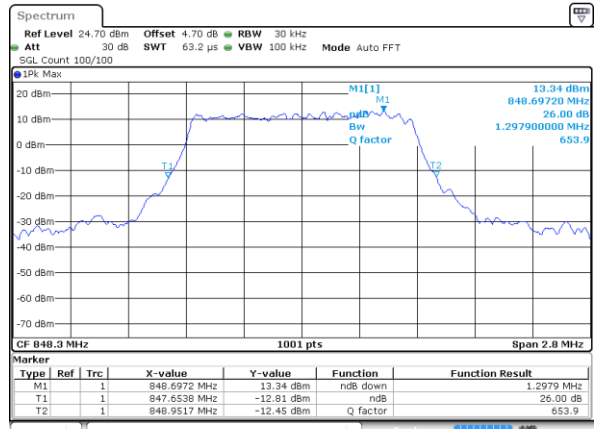
Date: 1 MAY 2020 10:52:39

Highest Channel / 1.4MHz / QPSK



Date: 1 MAY 2020 10:54:59

Highest Channel / 1.4MHz / 16QAM

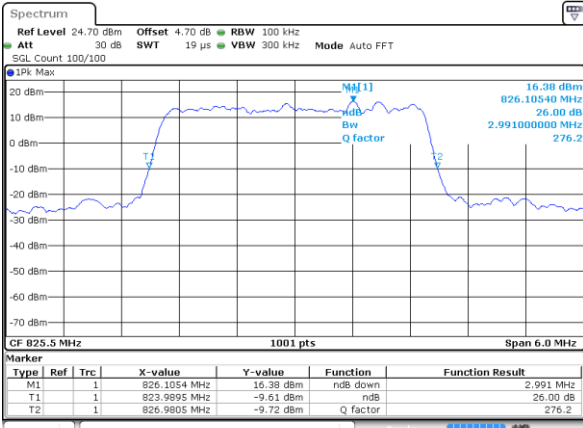


Date: 1 MAY 2020 10:55:09



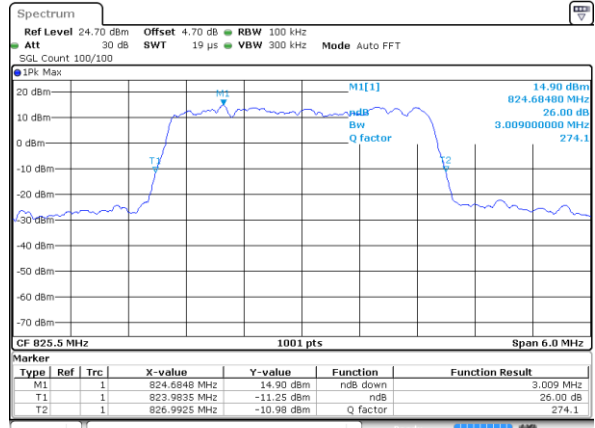
LTE Band 5

Lowest Channel / 3MHz / QPSK



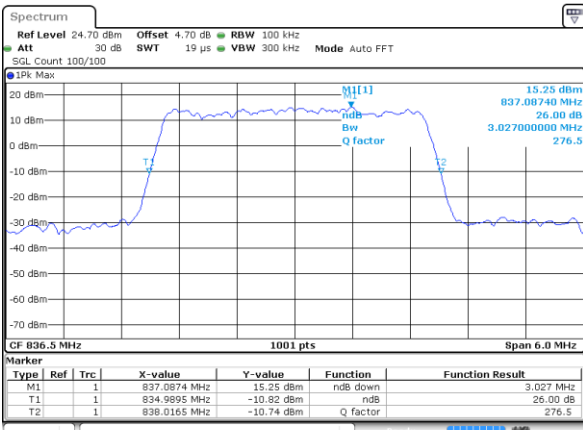
Date: 1 MAY 2020 11:06:19

Lowest Channel / 3MHz / 16QAM



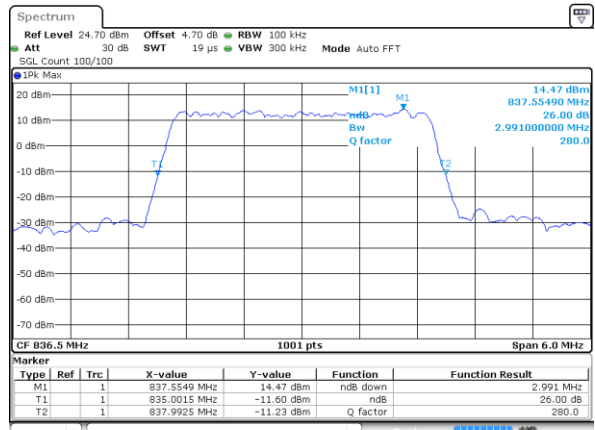
Date: 1 MAY 2020 11:06:29

Middle Channel / 3MHz / QPSK



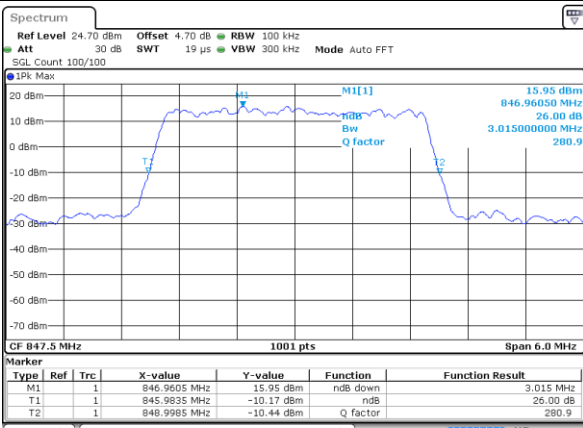
Date: 1 MAY 2020 11:18:13

Middle Channel / 3MHz / 16QAM



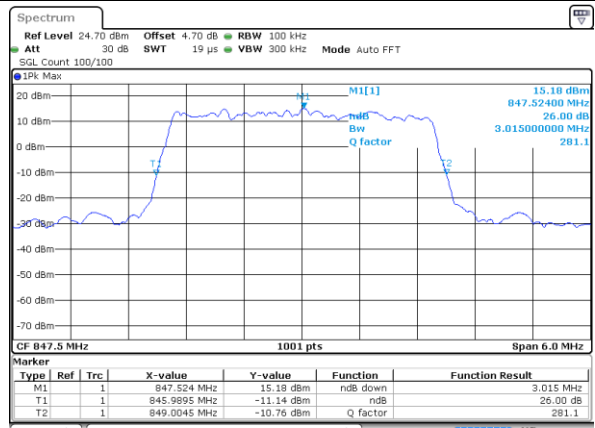
Date: 1 MAY 2020 11:18:23

Highest Channel / 3MHz / QPSK



Date: 1 MAY 2020 11:20:42

Highest Channel / 3MHz / 16QAM

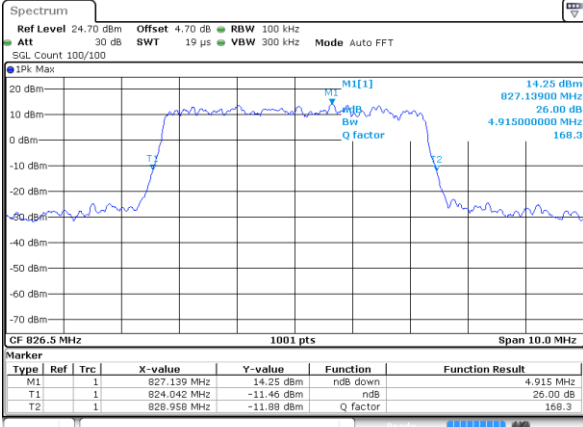


Date: 1 MAY 2020 11:20:52



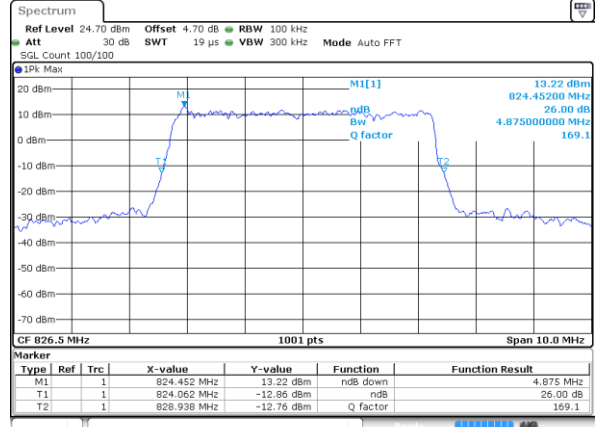
LTE Band 5

Lowest Channel / 5MHz / QPSK



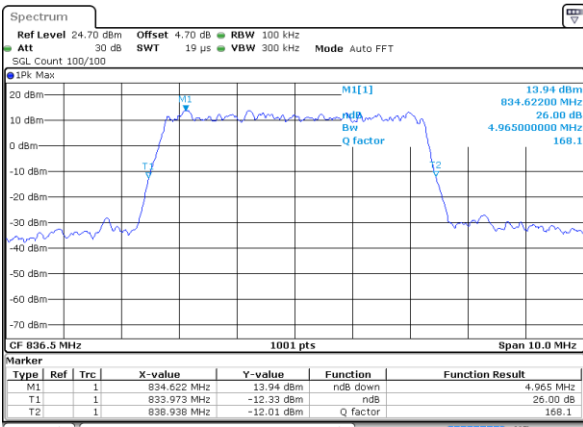
Date: 1 MAY 2020 11:32:06

Lowest Channel / 5MHz / 16QAM



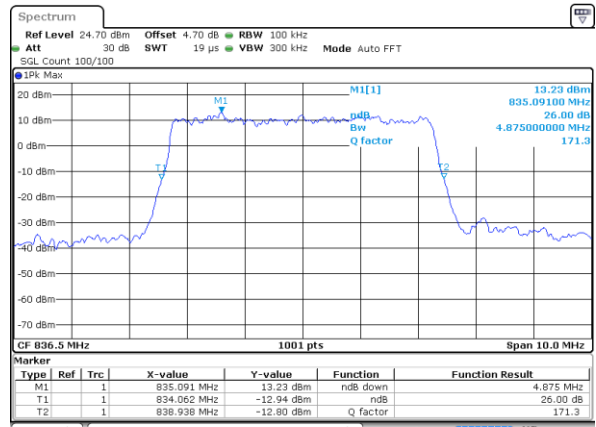
Date: 1 MAY 2020 11:32:16

Middle Channel / 5MHz / QPSK



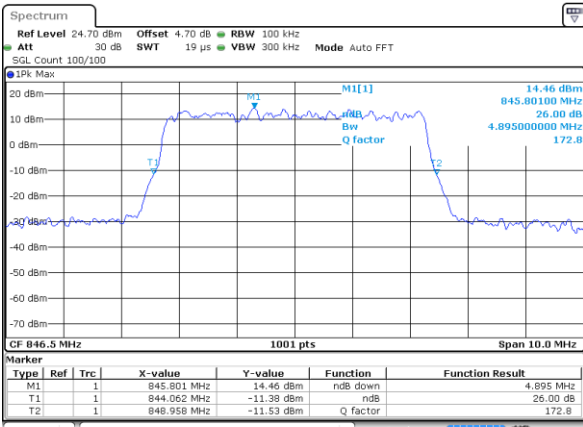
Date: 1 MAY 2020 11:41:06

Middle Channel / 5MHz / 16QAM



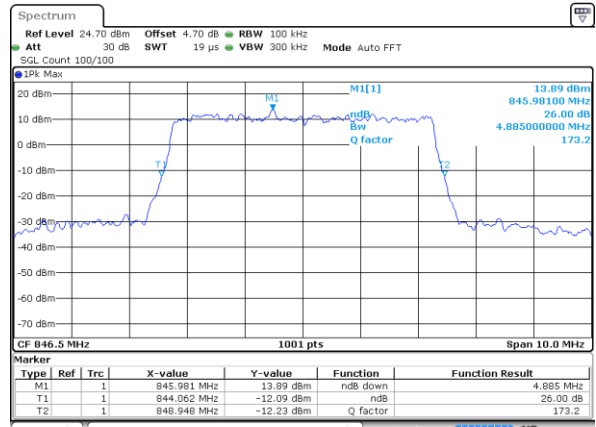
Date: 1 MAY 2020 11:41:15

Highest Channel / 5MHz / QPSK



Date: 1 MAY 2020 11:43:35

Highest Channel / 5MHz / 16QAM

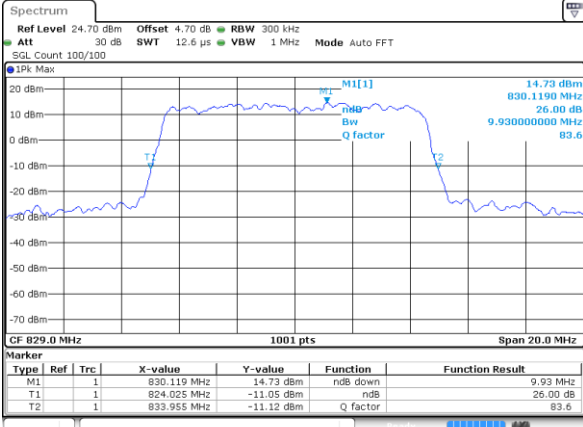


Date: 1 MAY 2020 11:43:45



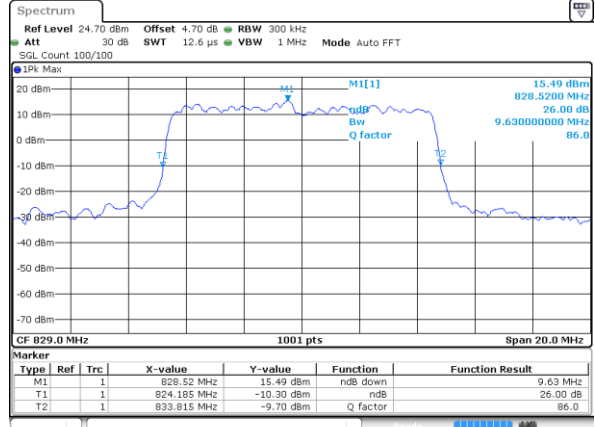
LTE Band 5

Lowest Channel / 10MHz / QPSK



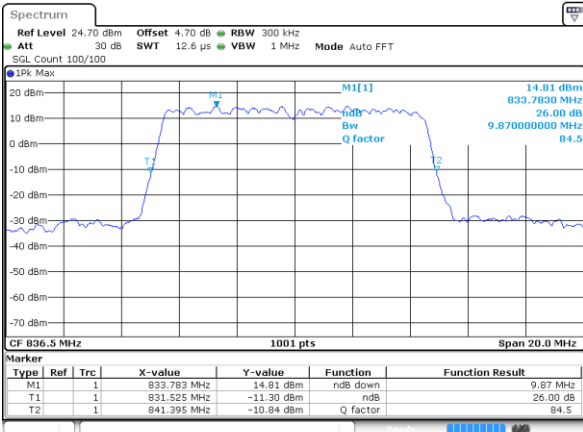
Date: 1 MAY 2020 11:56:51

Lowest Channel / 10MHz / 16QAM



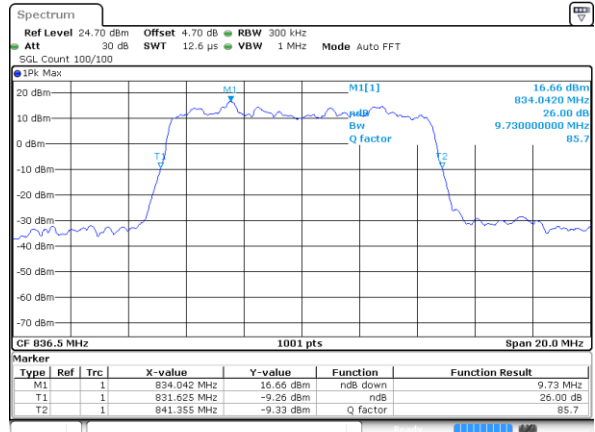
Date: 1 MAY 2020 11:57:01

Middle Channel / 10MHz / QPSK



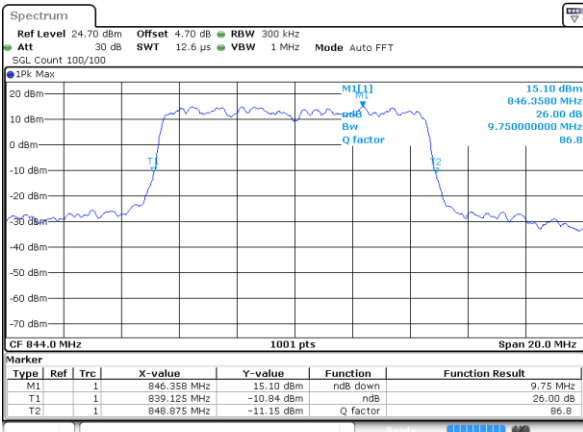
Date: 1 MAY 2020 12:05:50

Middle Channel / 10MHz / 16QAM



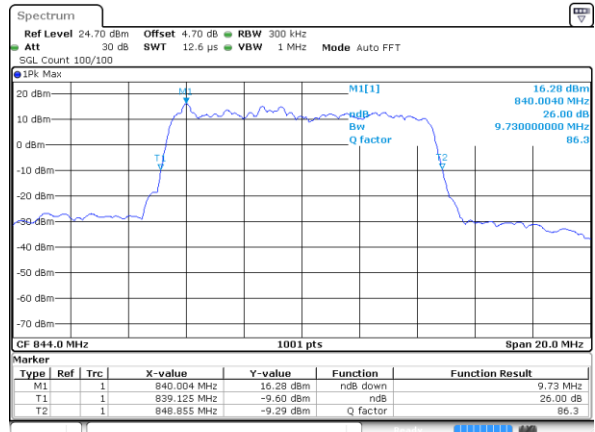
Date: 1 MAY 2020 12:06:00

Highest Channel / 10MHz / QPSK



Date: 1 MAY 2020 12:08:19

Highest Channel / 10MHz / 16QAM

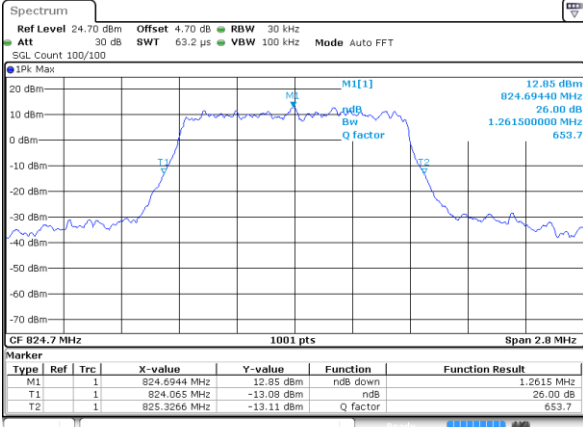


Date: 1 MAY 2020 12:08:30



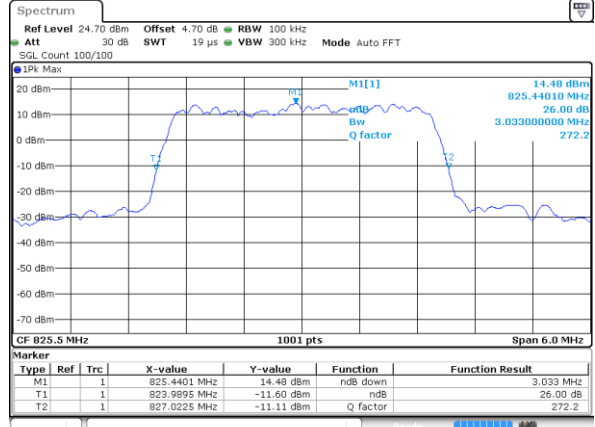
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



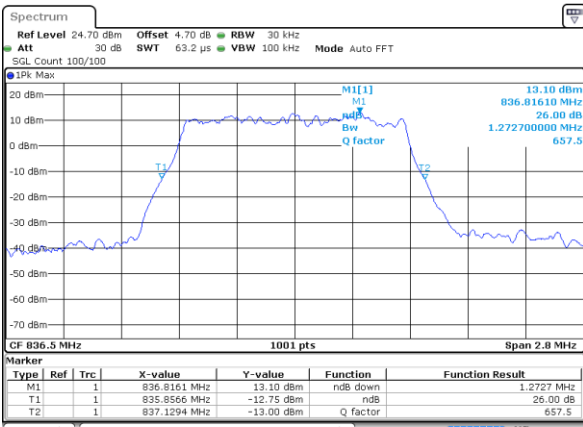
Date: 1 MAY 2020 13:50:55

Lowest Channel / 3MHz / 64QAM



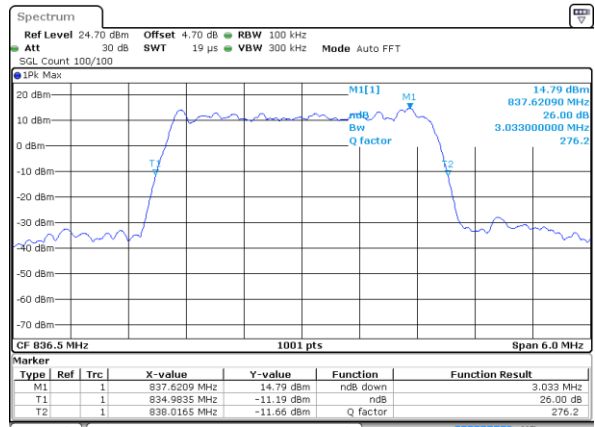
Date: 1 MAY 2020 12:32:18

Middle Channel / 1.4MHz / 64QAM



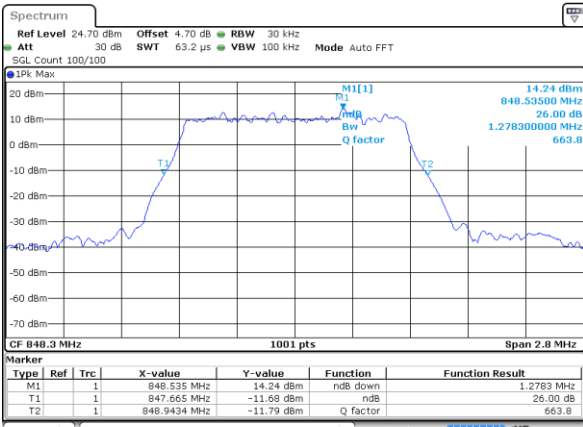
Date: 1 MAY 2020 12:23:42

Middle Channel / 3MHz / 64QAM



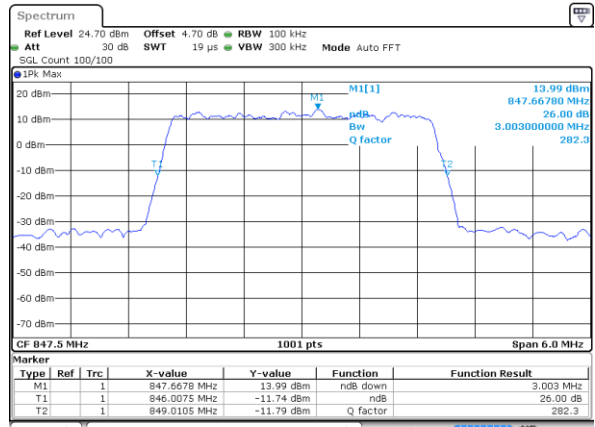
Date: 1 MAY 2020 12:48:05

Highest Channel / 1.4MHz / 64QAM



Date: 1 MAY 2020 12:26:05

Highest Channel / 3MHz / 64QAM



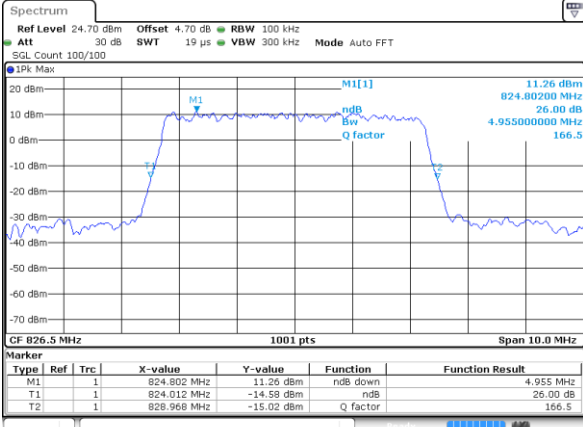
Date: 1 MAY 2020 12:48:35





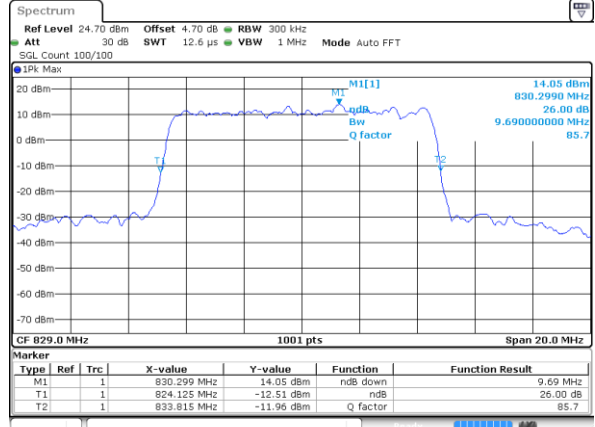
LTE Band 5

Lowest Channel / 5MHz / 64QAM



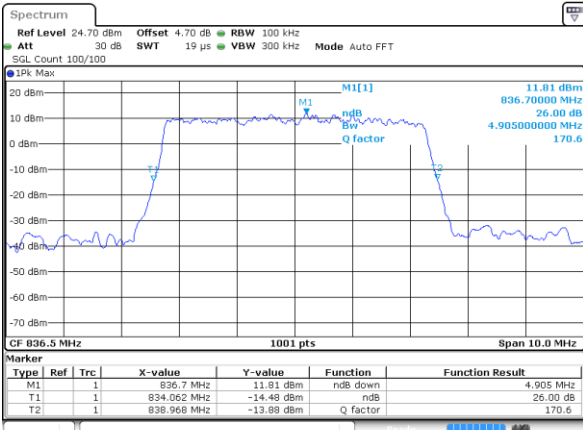
Date: 1 MAY 2020 12:55:47

Lowest Channel / 10MHz / 64QAM



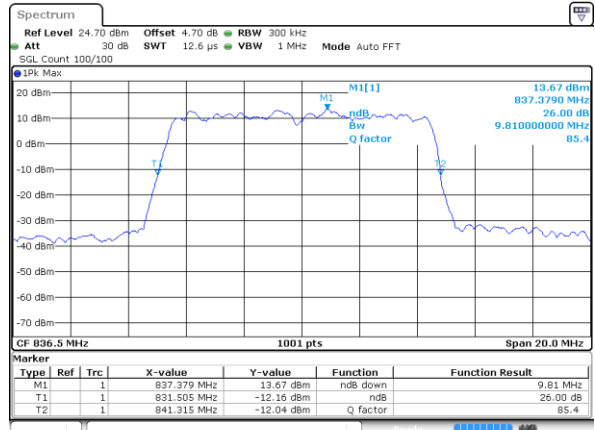
Date: 1 MAY 2020 13:07:28

Middle Channel / 5MHz / 64QAM



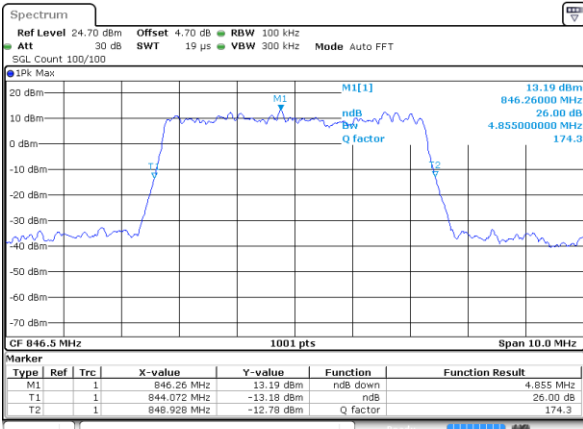
Date: 1 MAY 2020 13:01:12

Middle Channel / 10MHz / 64QAM



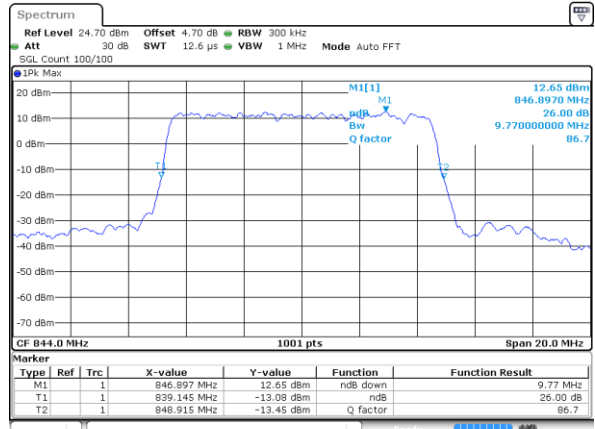
Date: 1 MAY 2020 13:12:53

Highest Channel / 5MHz / 64QAM



Date: 1 MAY 2020 13:02:59

Highest Channel / 10MHz / 64QAM



Date: 1 MAY 2020 13:13:13



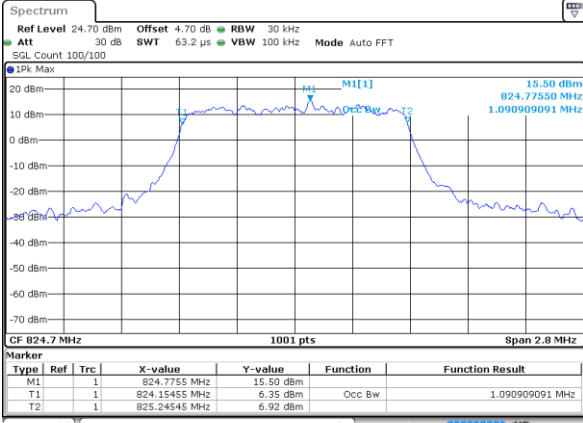
### Occupied Bandwidth

| Mode       | LTE Band 5 : 99%OBW(MHz) |       |       |       |       |       |       |       |
|------------|--------------------------|-------|-------|-------|-------|-------|-------|-------|
| BW         | 1.4MHz                   |       | 3MHz  |       | 5MHz  |       | 10MHz |       |
| Mod.       | QPSK                     | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.09                     | 1.09  | 2.72  | 2.73  | 4.49  | 4.50  | 9.03  | 8.95  |
| Middle CH  | 1.09                     | 1.09  | 2.71  | 2.72  | 4.50  | 4.50  | 8.99  | 9.01  |
| Highest CH | 1.10                     | 1.09  | 2.71  | 2.73  | 4.51  | 4.51  | 9.03  | 9.05  |
| Mode       | LTE Band 5 : 99%OBW(MHz) |       |       |       |       |       |       |       |
| BW         | 1.4MHz                   |       | 3MHz  |       | 5MHz  |       | 10MHz |       |
| Mod.       | 64QAM                    |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | 1.10                     |       | 2.73  |       | 4.48  |       | 9.01  |       |
| Middle CH  | 1.09                     |       | 2.71  |       | 4.51  |       | 9.01  |       |
| Highest CH | 1.10                     |       | 2.72  |       | 4.51  |       | 9.01  |       |



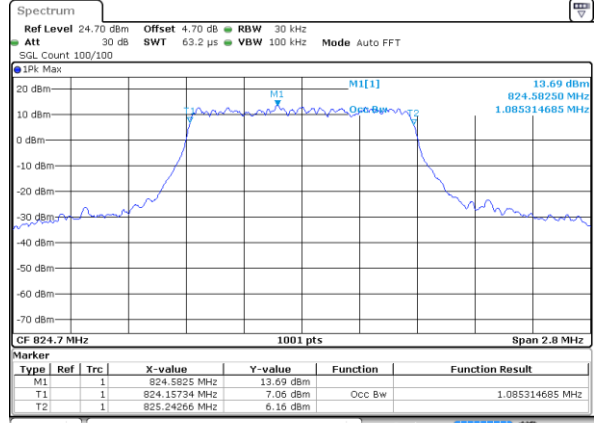
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



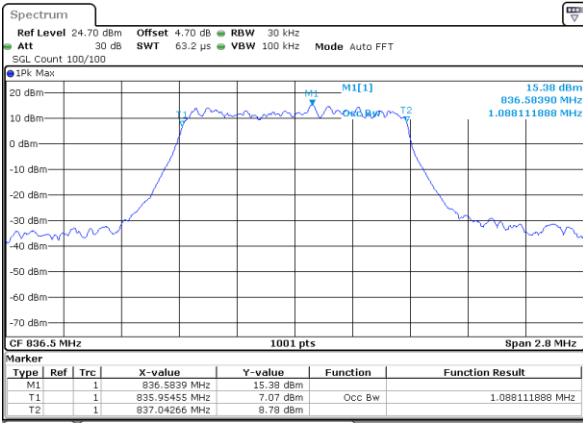
Date: 1 MAY 2020 10:30:34

Lowest Channel / 1.4MHz / 16QAM



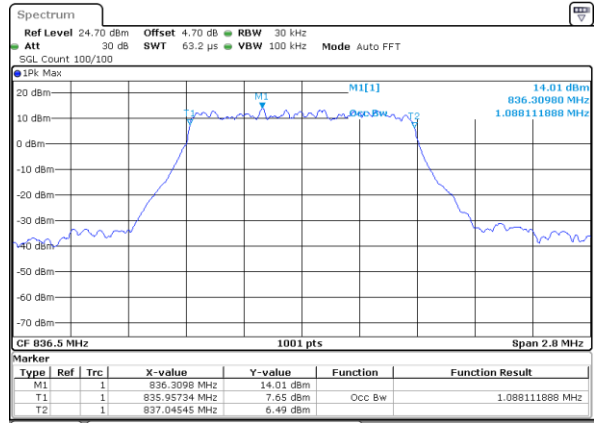
Date: 1 MAY 2020 10:30:44

Middle Channel / 1.4MHz / QPSK



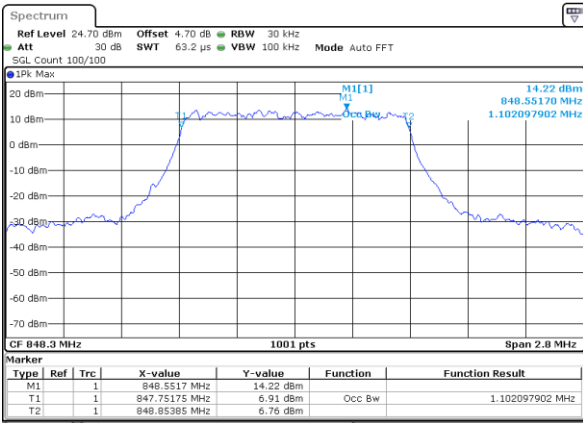
Date: 1 MAY 2020 10:52:09

Middle Channel / 1.4MHz / 16QAM



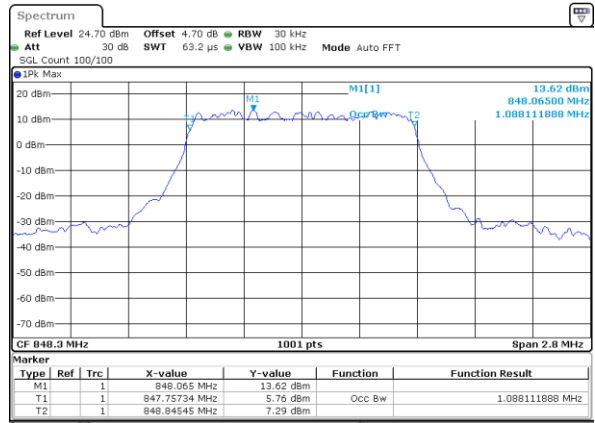
Date: 1 MAY 2020 10:52:20

Highest Channel / 1.4MHz / QPSK



Date: 1 MAY 2020 10:54:39

Highest Channel / 1.4MHz / 16QAM

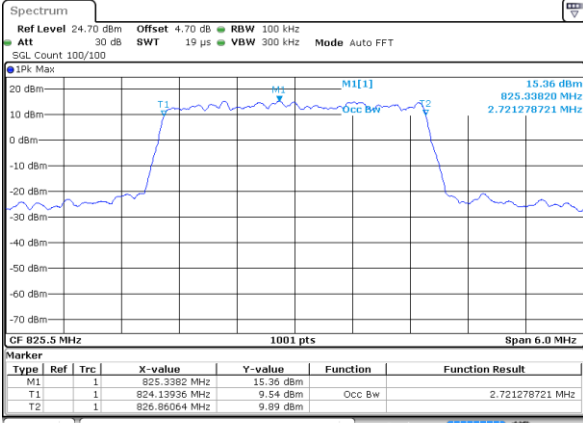


Date: 1 MAY 2020 10:54:49



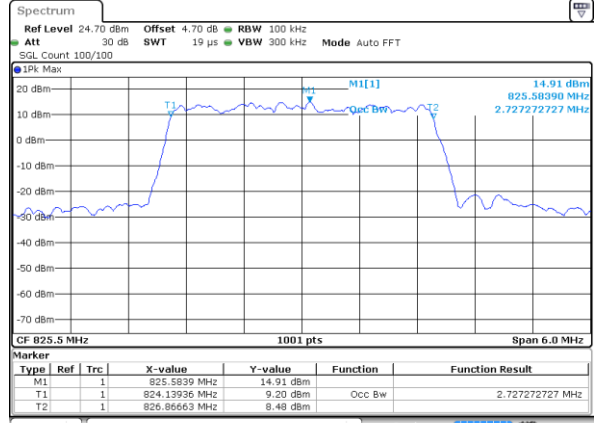
LTE Band 5

Lowest Channel / 3MHz / QPSK



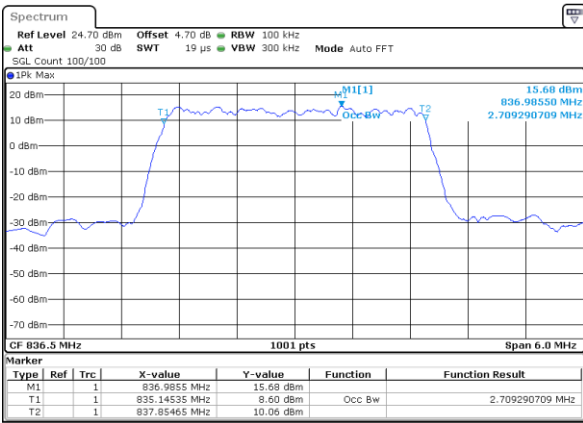
Date: 1 MAY 2020 11:05:59

Lowest Channel / 3MHz / 16QAM



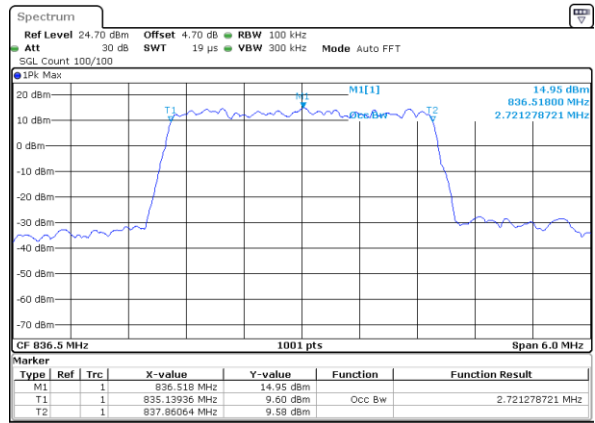
Date: 1 MAY 2020 11:06:09

Middle Channel / 3MHz / QPSK



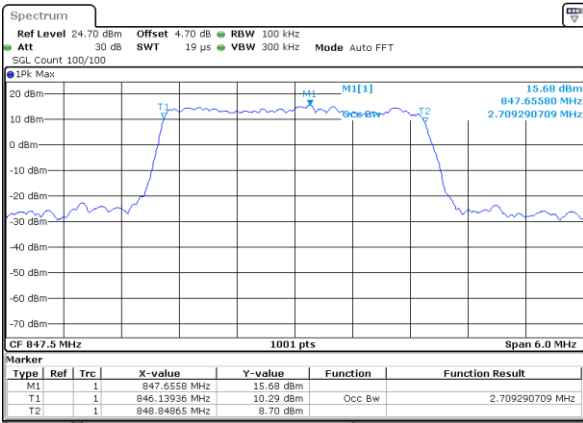
Date: 1 MAY 2020 11:17:53

Middle Channel / 3MHz / 16QAM



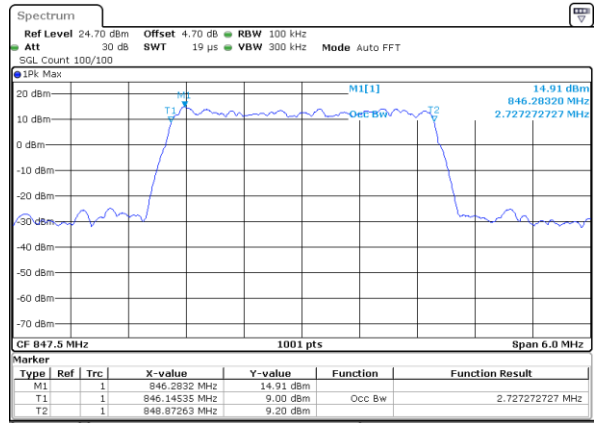
Date: 1 MAY 2020 11:18:03

Highest Channel / 3MHz / QPSK



Date: 1 MAY 2020 11:20:22

Highest Channel / 3MHz / 16QAM



Date: 1 MAY 2020 11:20:32