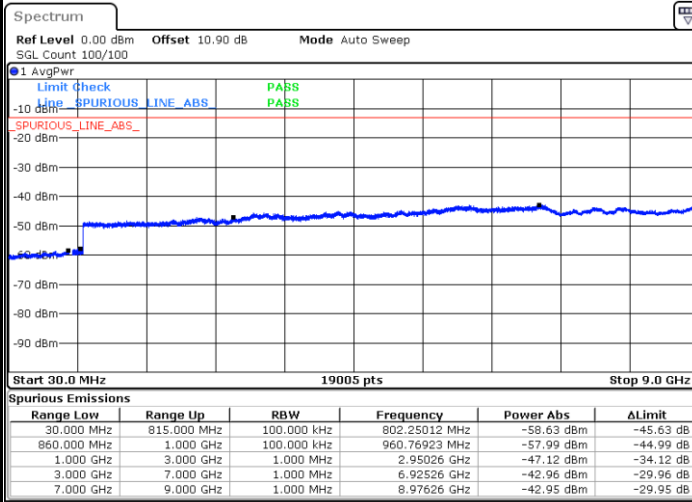




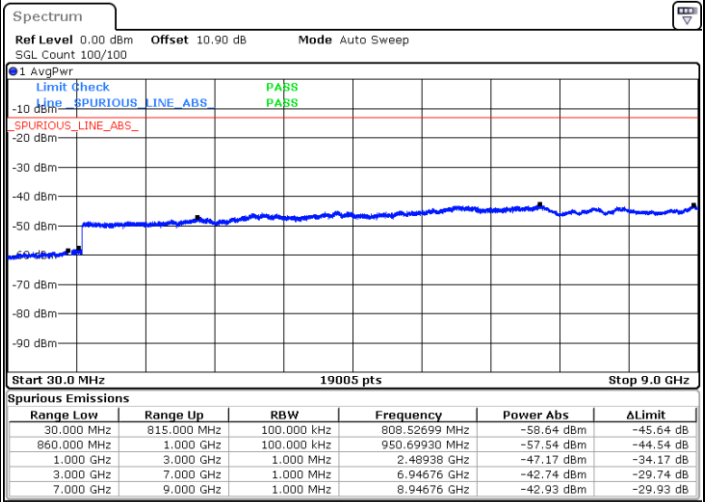
## LTE Band 5 / 1.4MHz

## Highest Channel / QPSK



Date: 18.JUL.2020 11:31:46

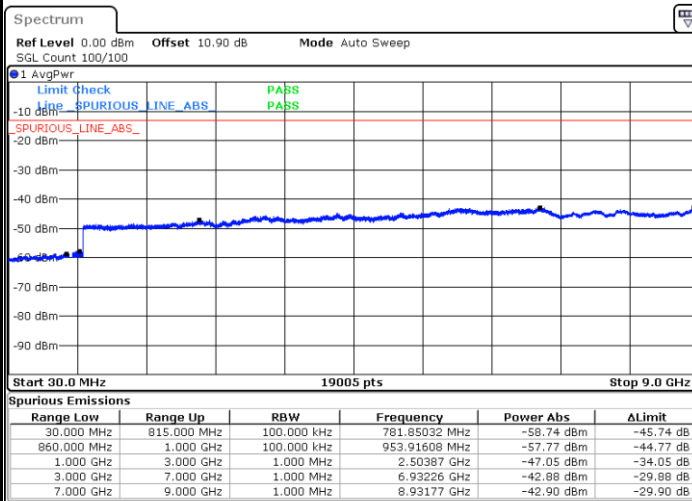
## Highest Channel / 16QAM



Date: 18.JUL.2020 11:32:30

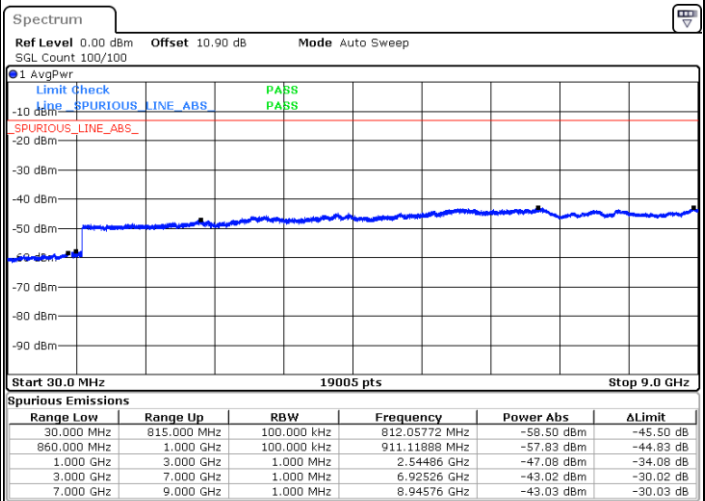
## LTE Band 5 / 3MHz

## Lowest Channel / QPSK



Date: 18.JUL.2020 11:41:37

## Lowest Channel / 16QAM

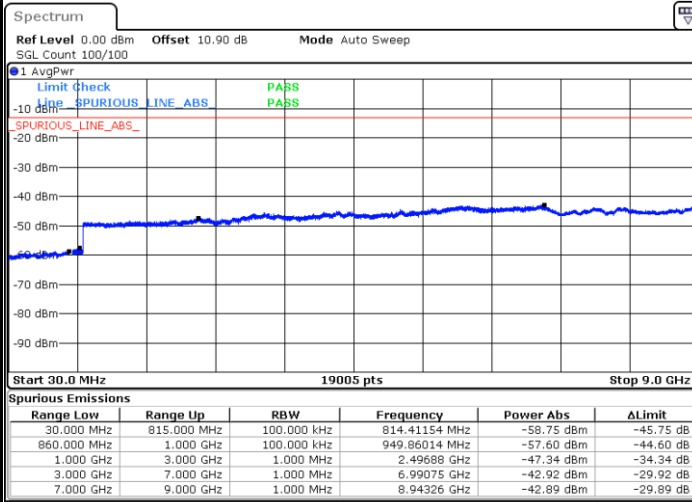


Date: 18.JUL.2020 11:43:29



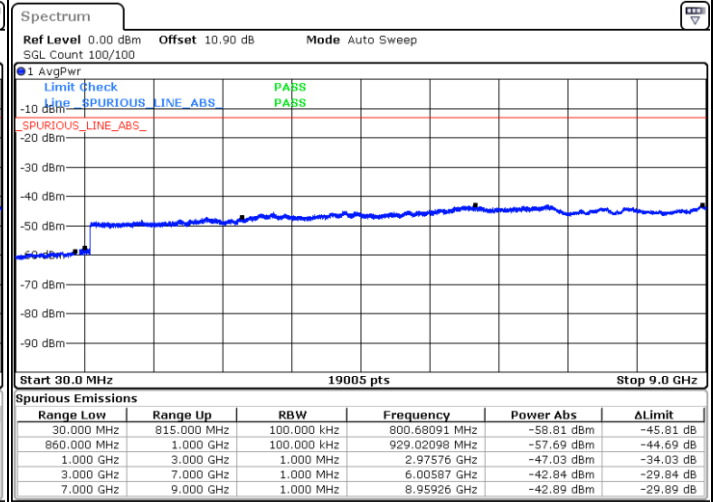
## LTE Band 5 / 3MHz

## Middle Channel / QPSK



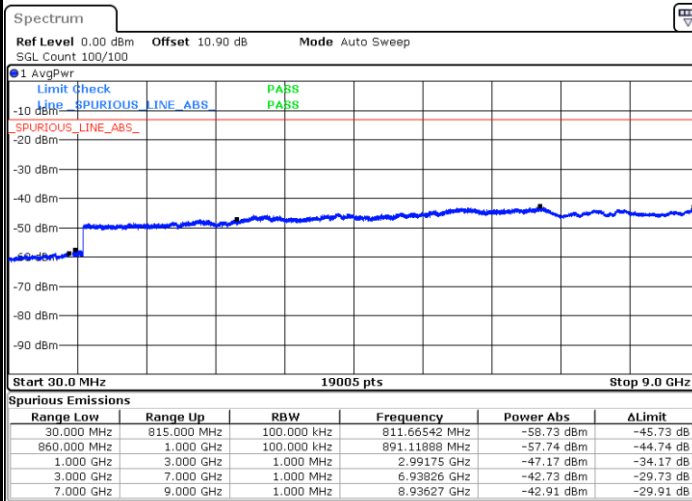
Date: 18.JUL.2020 11:36:52

## Middle Channel / 16QAM



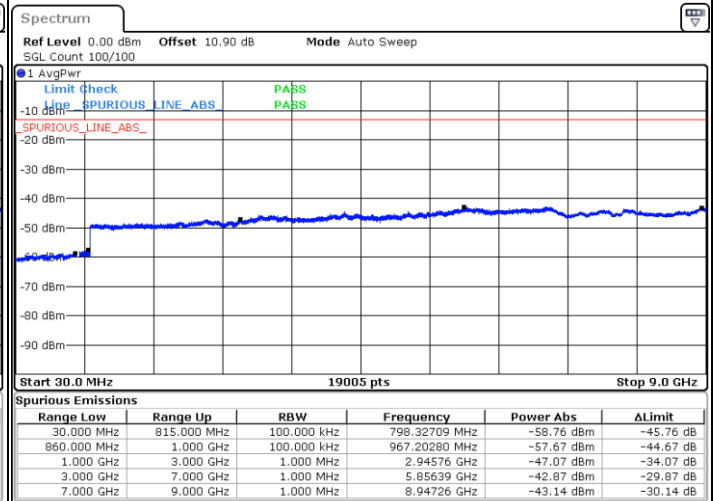
Date: 18.JUL.2020 11:37:53

## Highest Channel / QPSK



Date: 18.JUL.2020 11:45:55

## Highest Channel / 16QAM

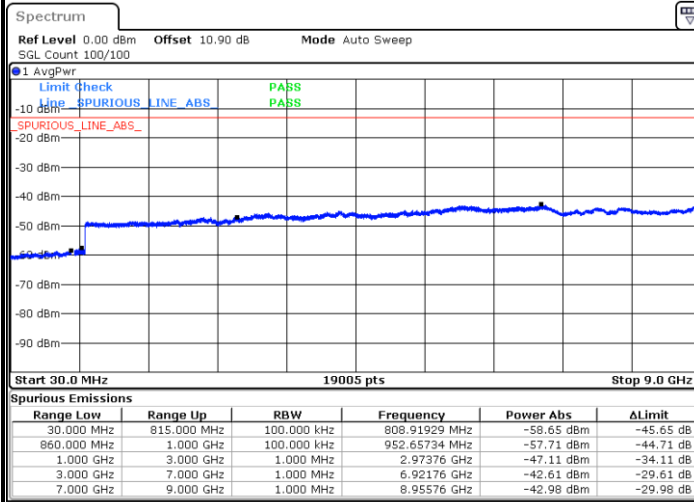


Date: 18.JUL.2020 11:48:49



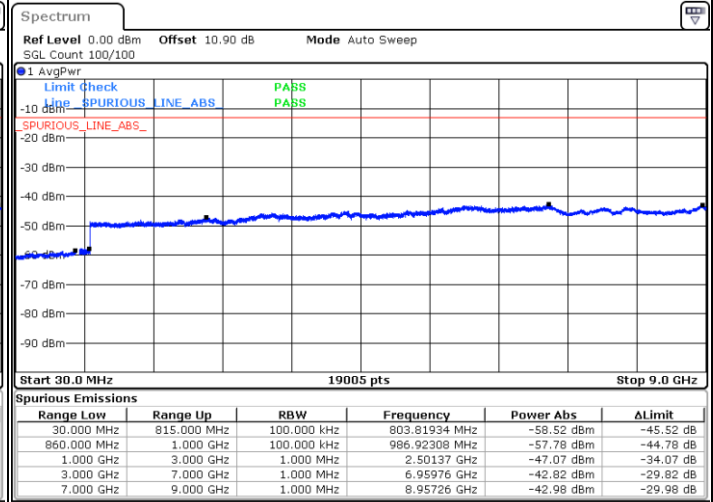
## LTE Band 5 / 5MHz

## Lowest Channel / QPSK



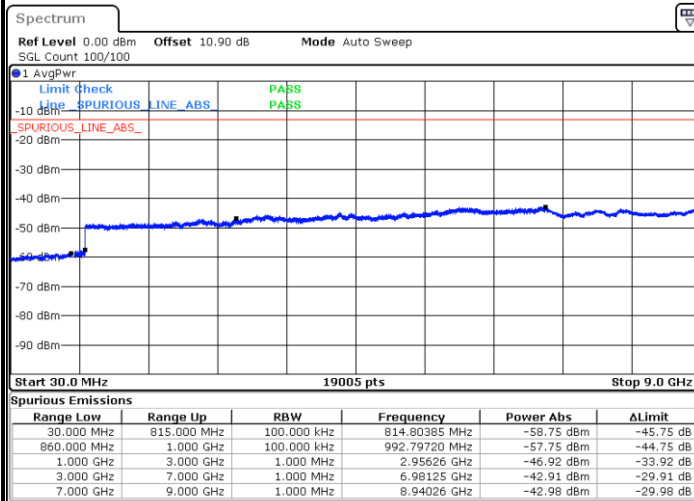
Date: 18.JUL.2020 11:55:01

## Lowest Channel / 16QAM



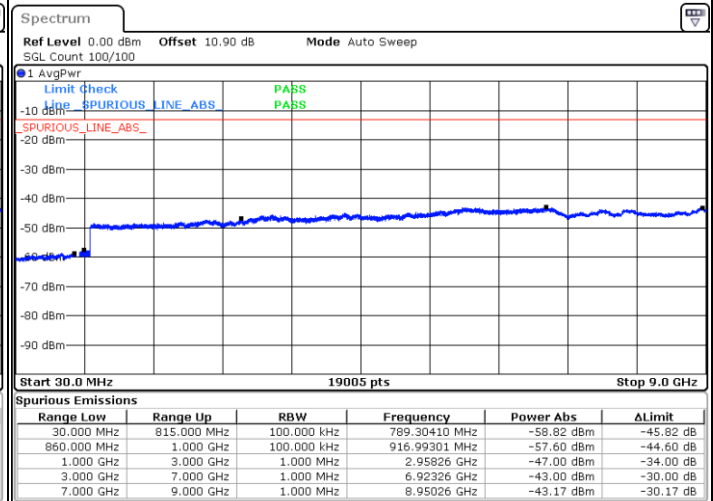
Date: 18.JUL.2020 11:56:11

## Middle Channel / QPSK



Date: 18.JUL.2020 11:51:41

## Middle Channel / 16QAM

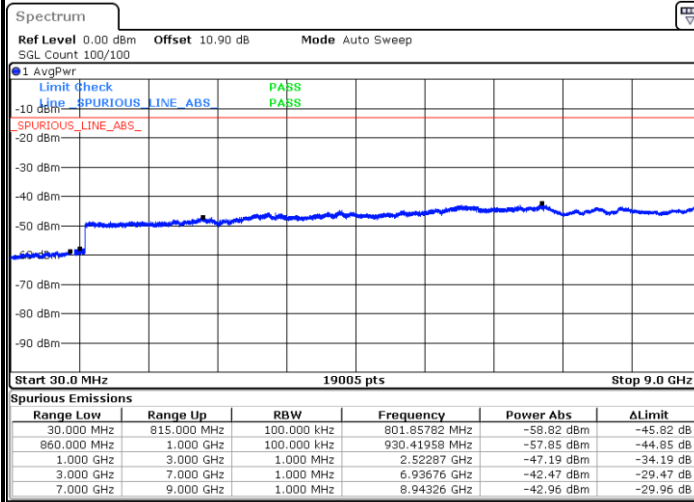


Date: 18.JUL.2020 11:52:19



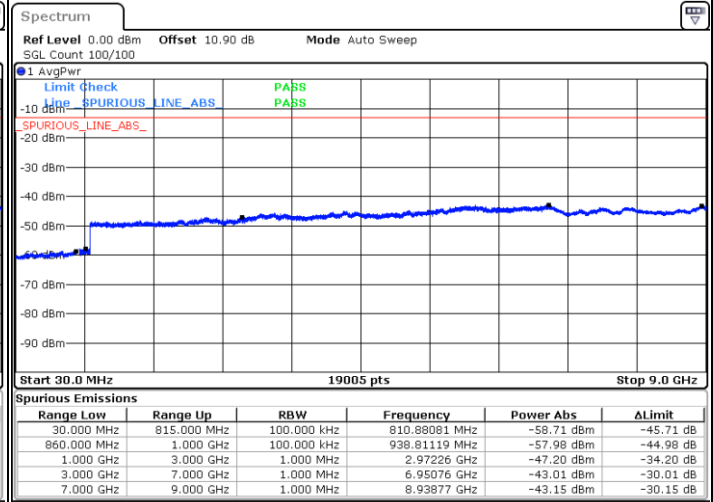
## LTE Band 5 / 5MHz

## Highest Channel / QPSK



Date: 18.JUL.2020 11:58:13

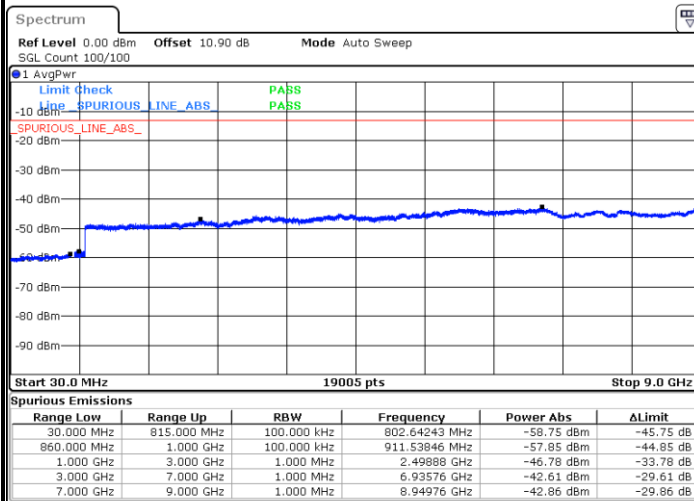
## Highest Channel / 16QAM



Date: 18.JUL.2020 12:00:28

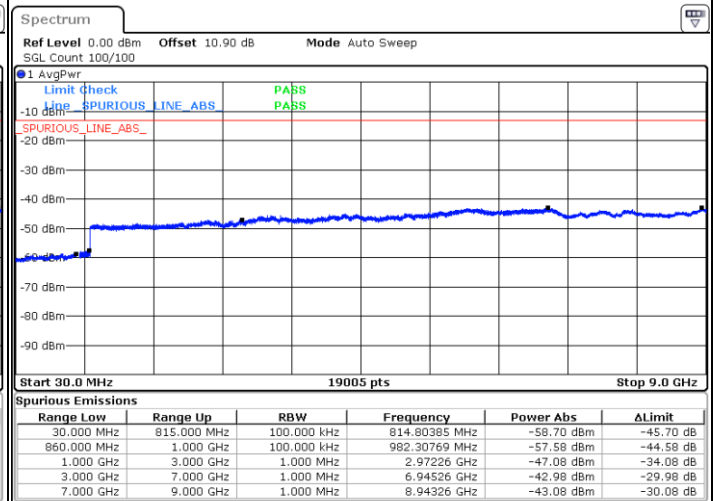
## LTE Band 5 / 10MHz

## Lowest Channel / QPSK



Date: 18.JUL.2020 12:07:21

## Lowest Channel / 16QAM

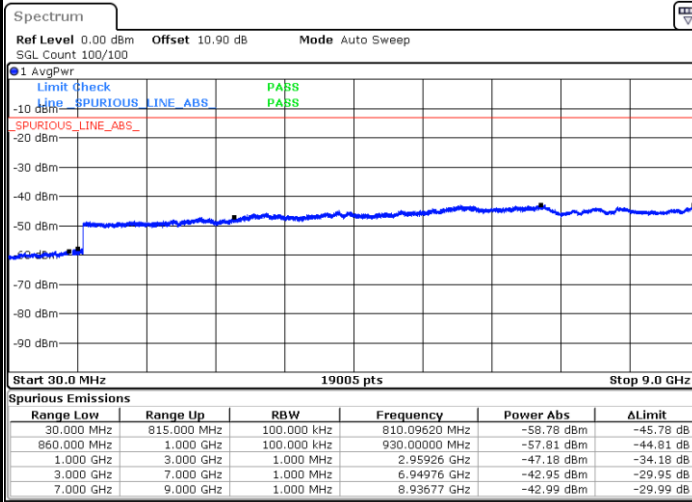


Date: 18.JUL.2020 12:08:30



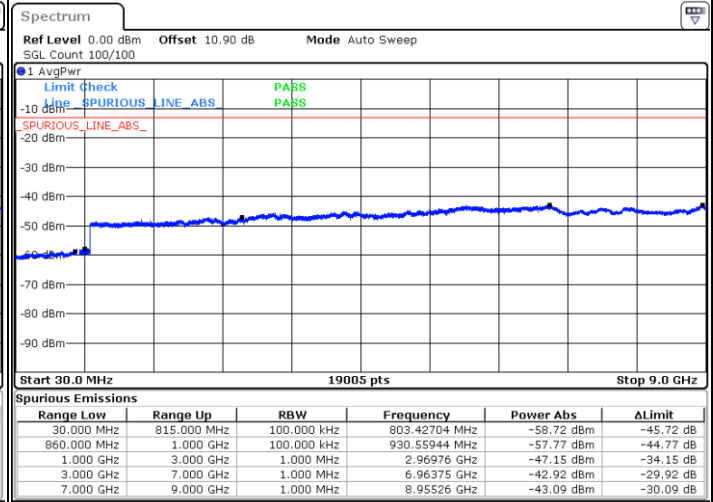
## LTE Band 5 / 10MHz

## Middle Channel / QPSK



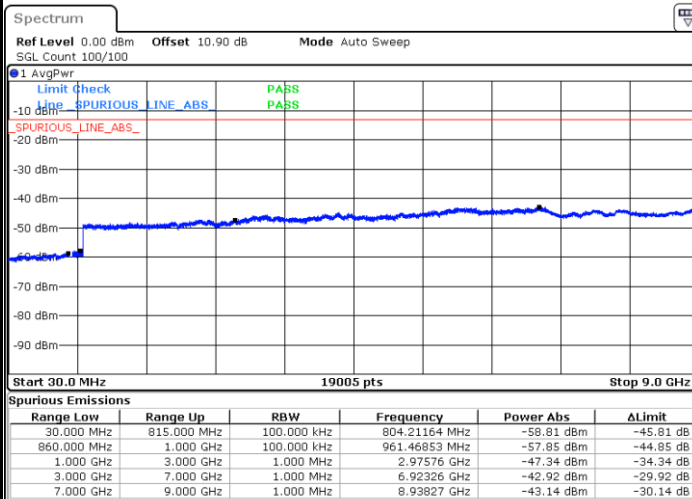
Date: 18.JUL.2020 12:03:18

## Middle Channel / 16QAM



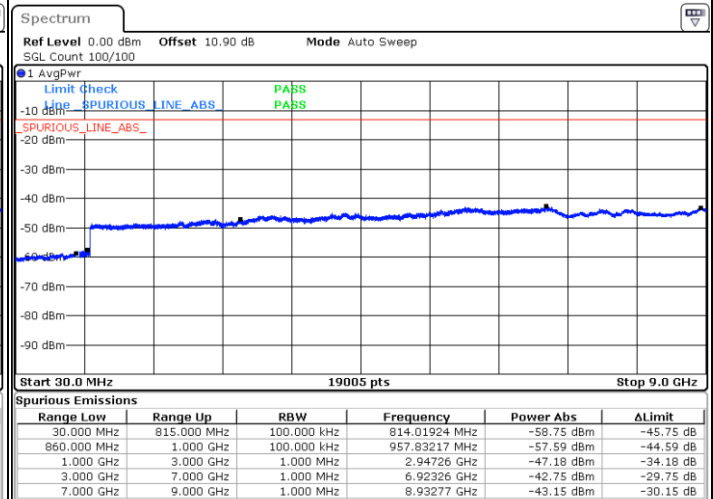
Date: 18.JUL.2020 12:04:21

## Highest Channel / QPSK



Date: 18.JUL.2020 12:14:21

## Highest Channel / 16QAM



Date: 18.JUL.2020 12:16:33

## 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    | 0.0005                             | PASS   |
| 40               | Normal Voltage    | 0.0023                             |        |
| 30               | Normal Voltage    | 0.0011                             |        |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |        |
| 10               | Normal Voltage    | 0.0006                             |        |
| 0                | Normal Voltage    | 0.0016                             |        |
| -10              | Normal Voltage    | 0.0002                             |        |
| -20              | Normal Voltage    | 0.0264                             |        |
| -30              | Normal Voltage    | 0.0013                             |        |
| 20               | Maximum Voltage   | 0.0023                             |        |
| 20               | Normal Voltage    | 0.0000                             |        |
| 20               | Battery End Point | 0.0037                             |        |

**Note:**

1. Normal Voltage =3.6 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =3.7 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 12

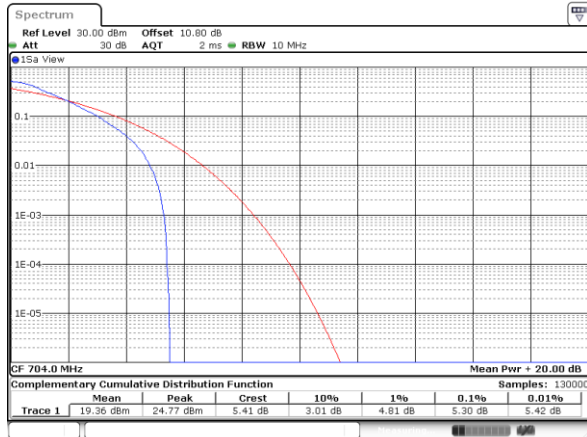
### Peak-to-Average Ratio

| Mode       | LTE Band 12 / 10MHz |         |       |         |             |
|------------|---------------------|---------|-------|---------|-------------|
| Mod.       | QPSK                |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                 | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 5.30                | 5.13    | 8.61  | 6.03    | PASS        |
| Middle CH  | 8.49                | 8.49    | 8.41  | 5.94    |             |
| Highest CH | 8.52                | 8.41    | 7.16  | 6.26    |             |

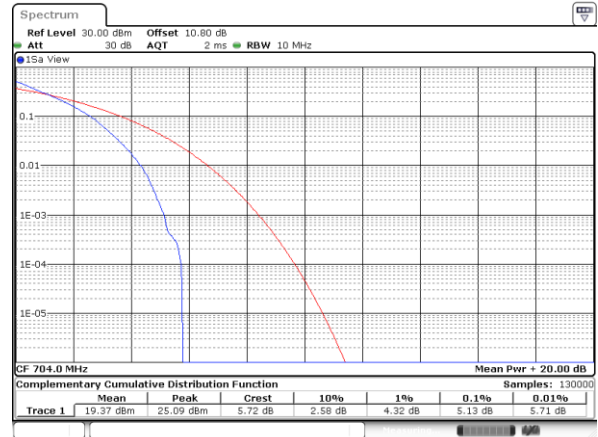


## LTE Band 12 / 10MHz / QPSK

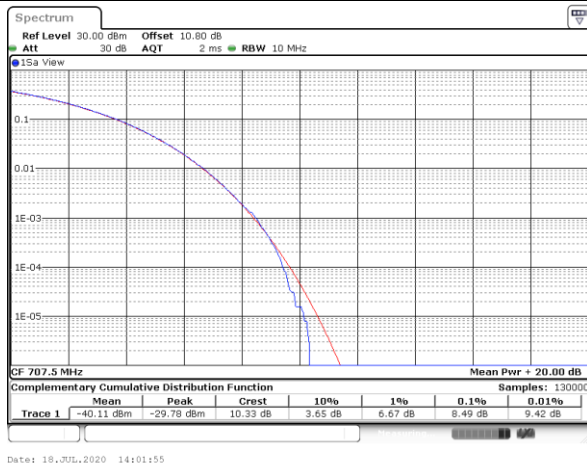
## Lowest Channel / 1RB



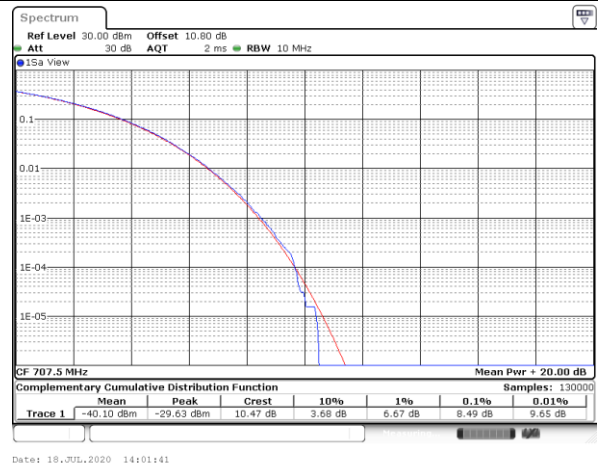
## Lowest Channel / Full RB



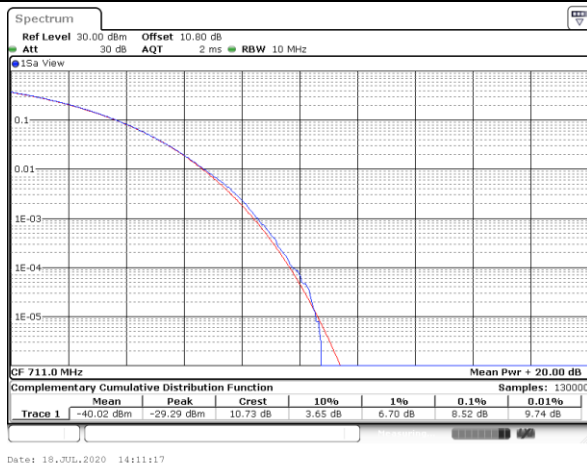
## Middle Channel / 1RB



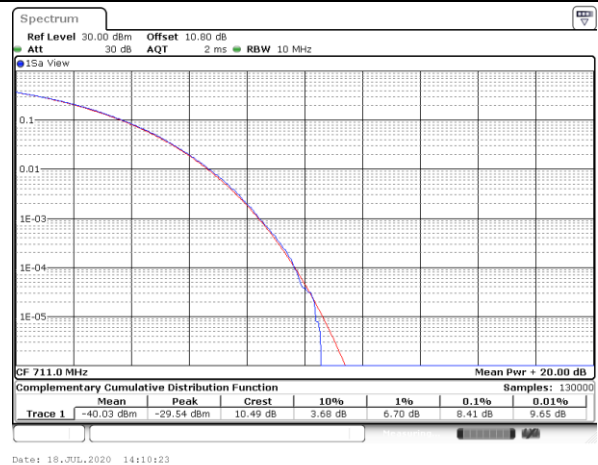
## Middle Channel / Full RB



## Highest Channel / 1RB



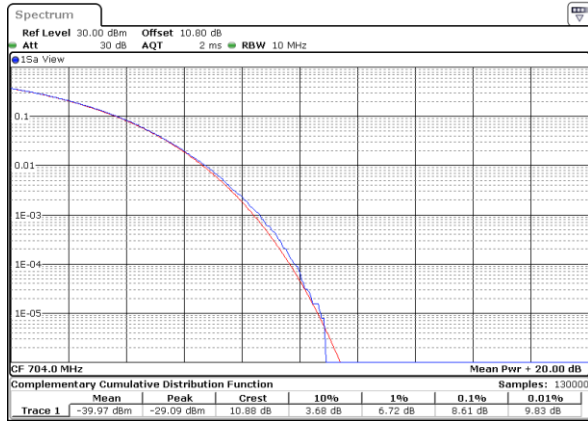
## Highest Channel / Full RB



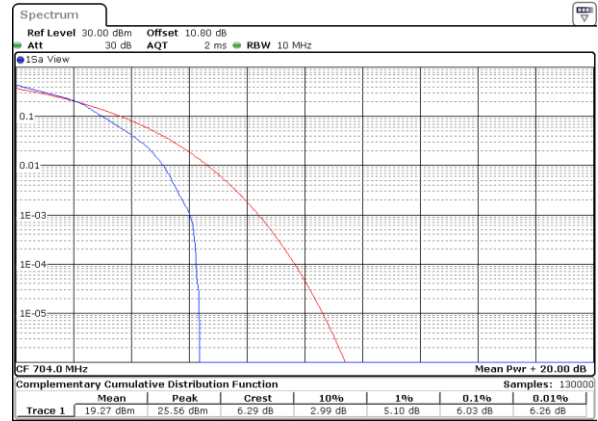


## LTE Band 12 / 10MHz / 16QAM

## Lowest Channel / 1RB



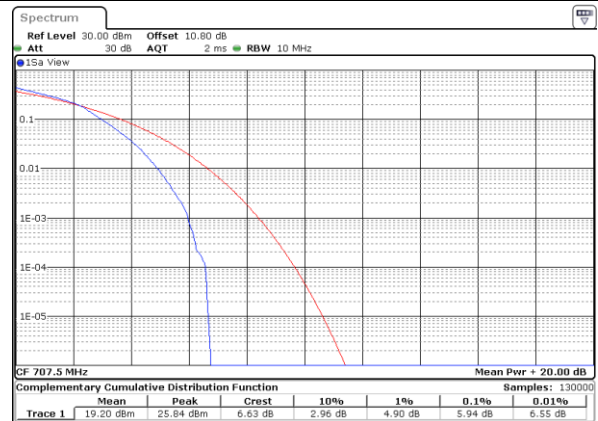
## Lowest Channel / Full RB



## Middle Channel / 1RB



## Middle Channel / Full RB



## Highest Channel / 1RB



## Highest Channel / Full RB



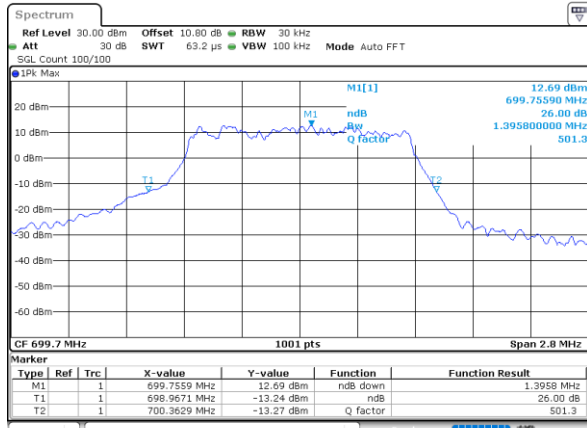
**26dB Bandwidth**

| 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  | 1.40                       | 1.31  | 1.40 | 1.43  | 1.35 | 1.35  | 1.80  | 1.60  | -     | -     | -     | -     |
| Middle CH  | 1.27                       | 1.33  | 1.44 | 1.38  | 1.38 | 1.39  | 1.78  | 1.68  | -     | -     | -     | -     |
| Highest CH | 1.32                       | 1.25  | 1.39 | 1.38  | 1.39 | 1.37  | 1.82  | 1.74  | -     | -     | -     | -     |

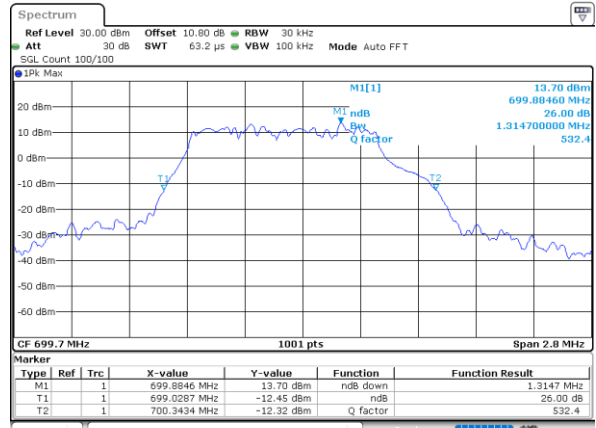


## LTE Band 12

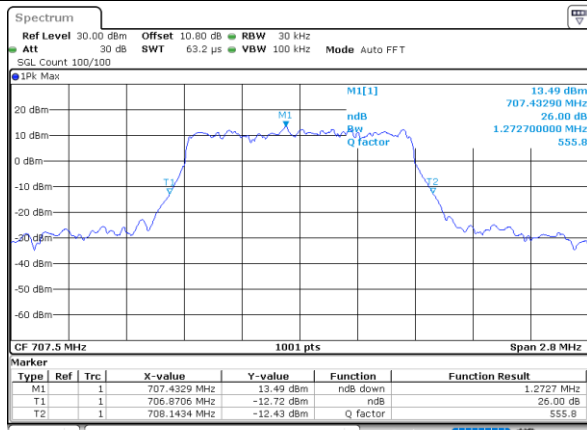
## Lowest Channel / 1.4MHz / QPSK



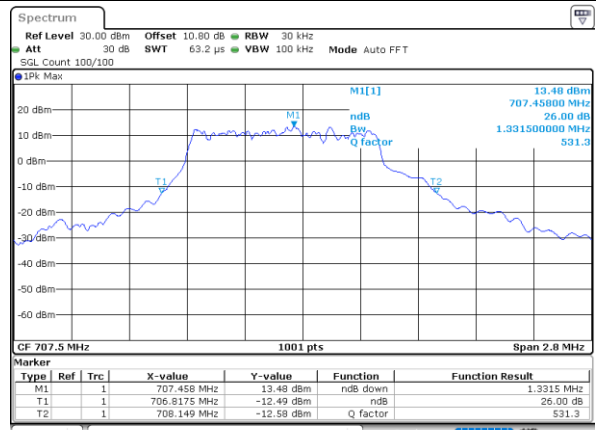
## Lowest Channel / 1.4MHz / 16QAM



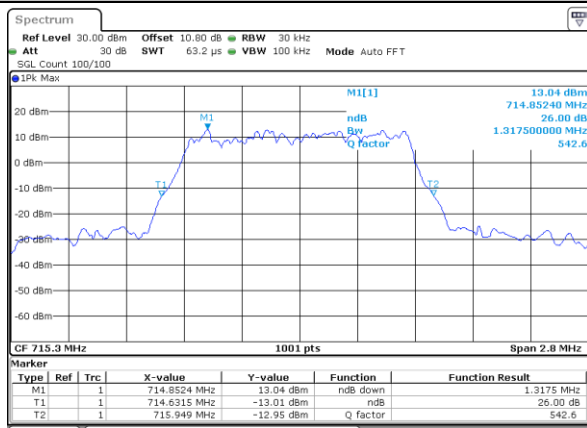
## Middle Channel / 1.4MHz / QPSK



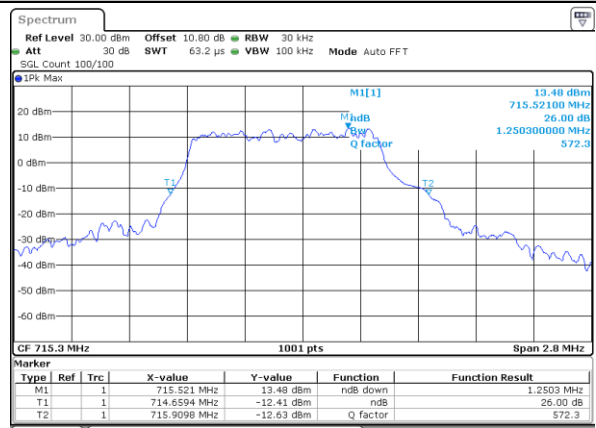
## Middle Channel / 1.4MHz / 16QAM



## Highest Channel / 1.4MHz / QPSK



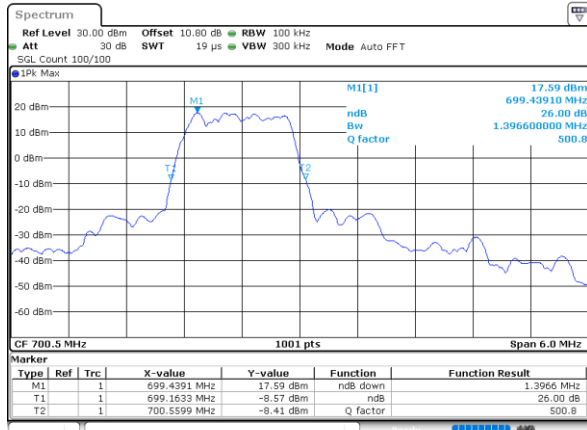
## Highest Channel / 1.4MHz / 16QAM





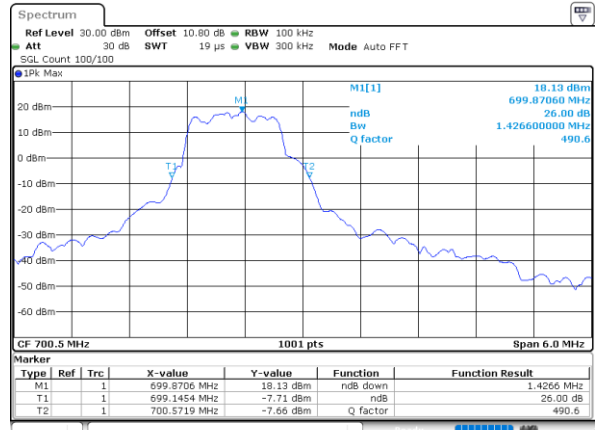
## LTE Band 12

## Lowest Channel / 3MHz / QPSK



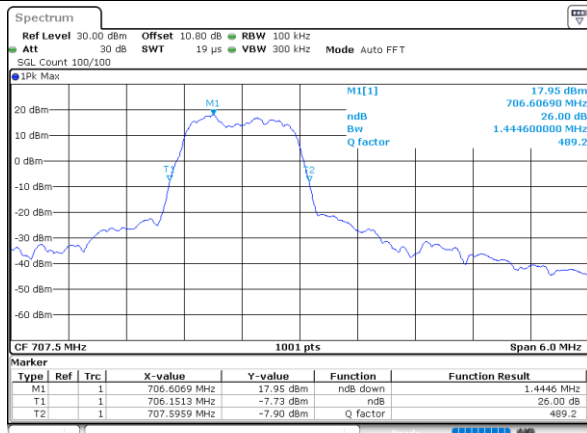
Date: 18.JUL.2020 14:29:08

## Lowest Channel / 3MHz / 16QAM



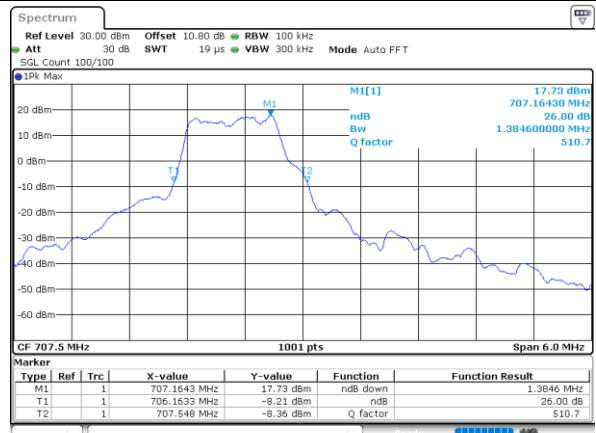
Date: 21.JUL.2020 10:41:53

## Middle Channel / 3MHz / QPSK



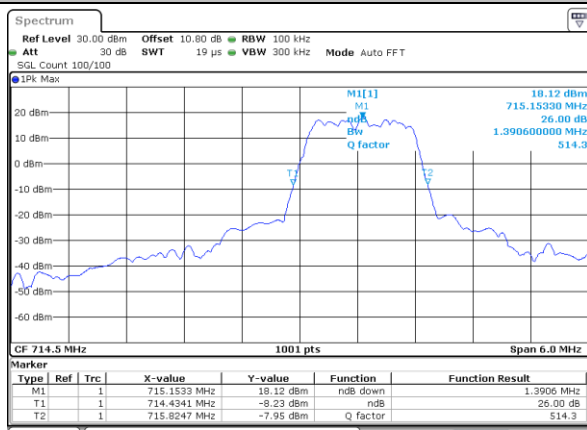
Date: 18.JUL.2020 14:26:55

## Middle Channel / 3MHz / 16QAM



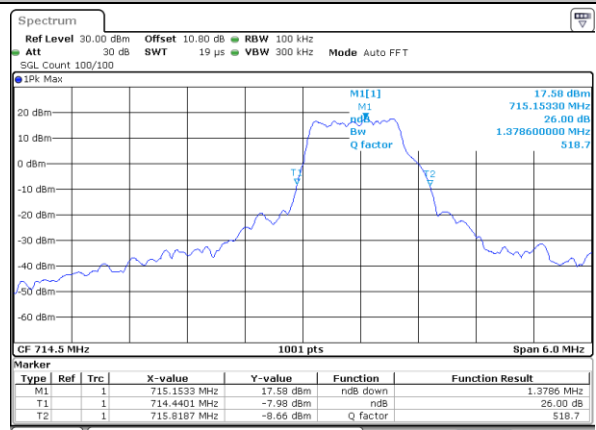
Date: 21.JUL.2020 10:41:31

## Highest Channel / 3MHz / QPSK



Date: 18.JUL.2020 14:34:09

## Highest Channel / 3MHz / 16QAM

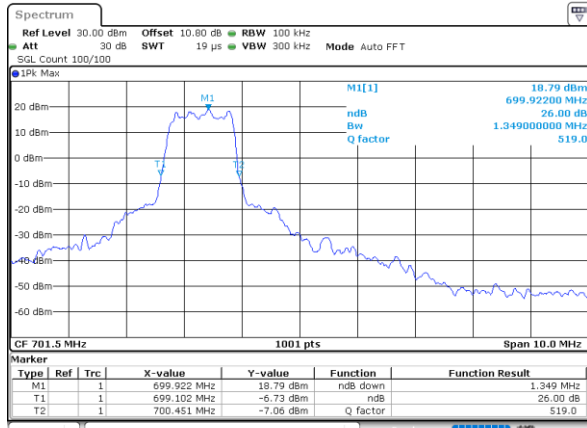


Date: 21.JUL.2020 10:43:08



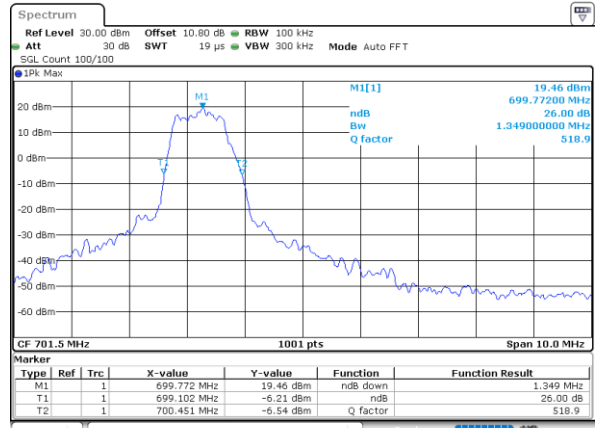
## LTE Band 12

## Lowest Channel / 5MHz / QPSK



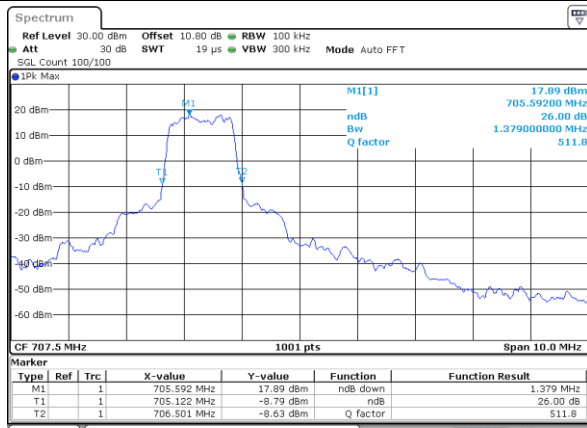
Date: 18.JUL.2020 14:41:21

## Lowest Channel / 5MHz / 16QAM



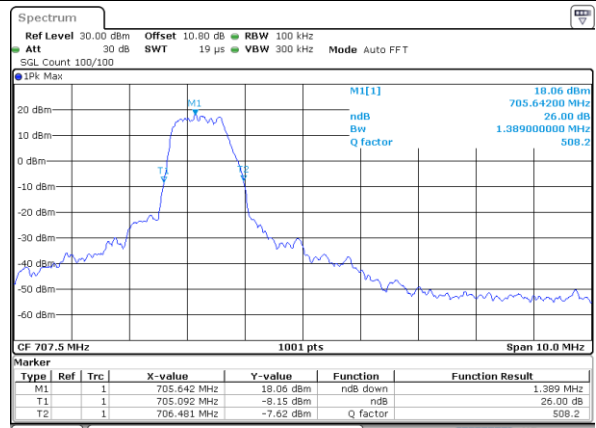
Date: 21.JUL.2020 11:31:51

## Middle Channel / 5MHz / QPSK



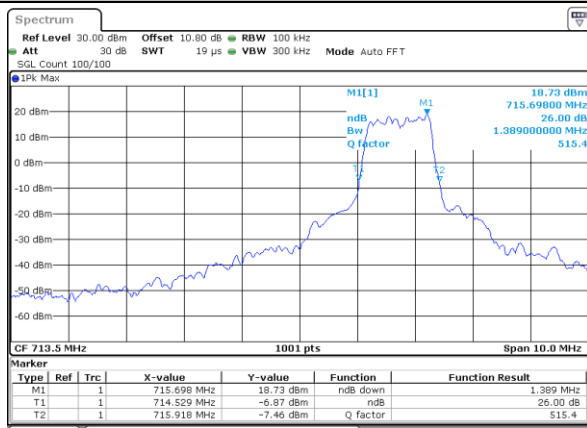
Date: 18.JUL.2020 14:39:00

## Middle Channel / 5MHz / 16QAM



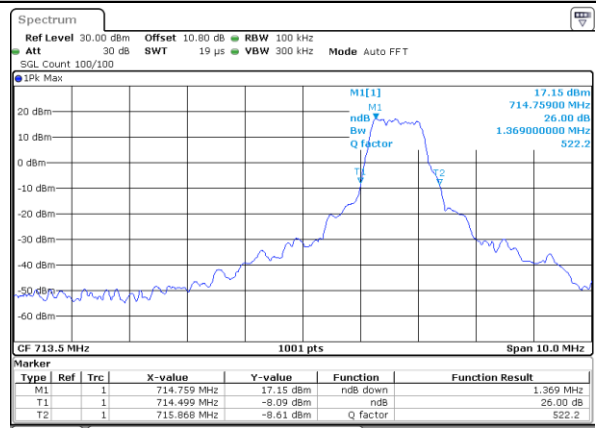
Date: 21.JUL.2020 11:31:14

## Highest Channel / 5MHz / QPSK



Date: 18.JUL.2020 14:46:38

## Highest Channel / 5MHz / 16QAM

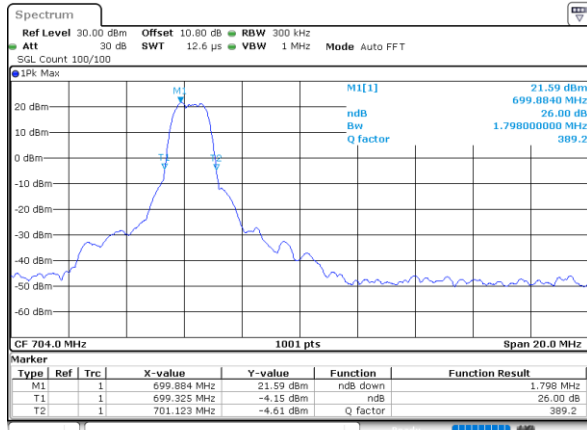


Date: 21.JUL.2020 11:33:41



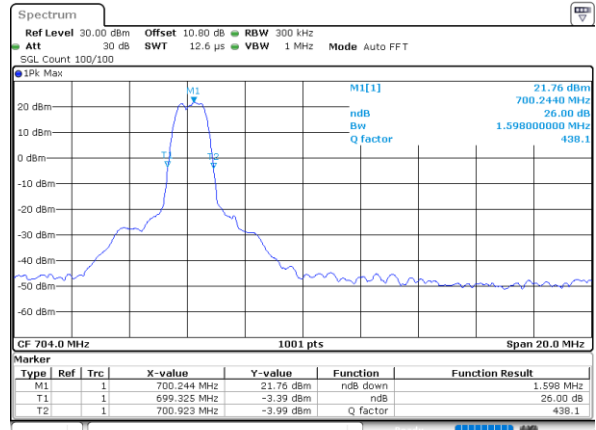
## LTE Band 12

## Lowest Channel / 10MHz / QPSK



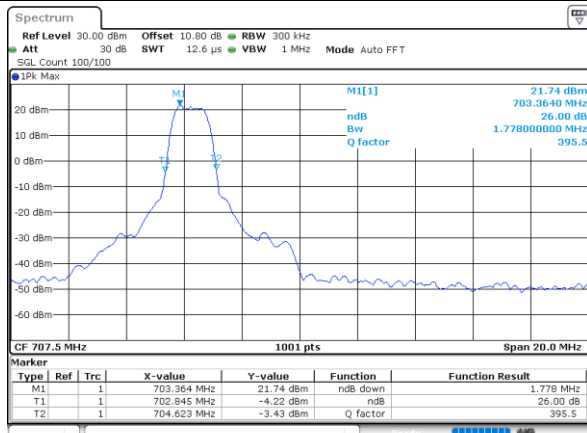
Date: 18.JUL.2020 14:05:08

## Lowest Channel / 10MHz / 16QAM



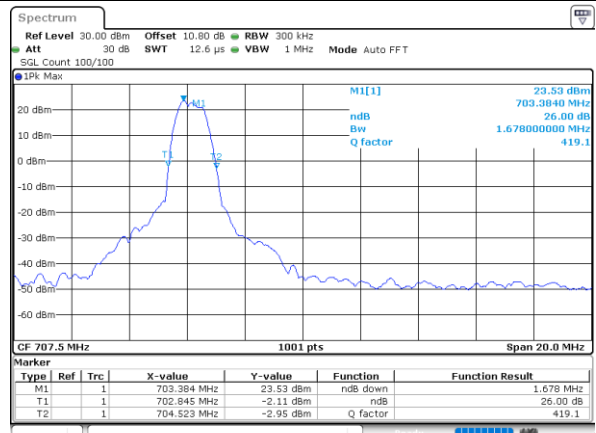
Date: 21.JUL.2020 11:38:49

## Middle Channel / 10MHz / QPSK



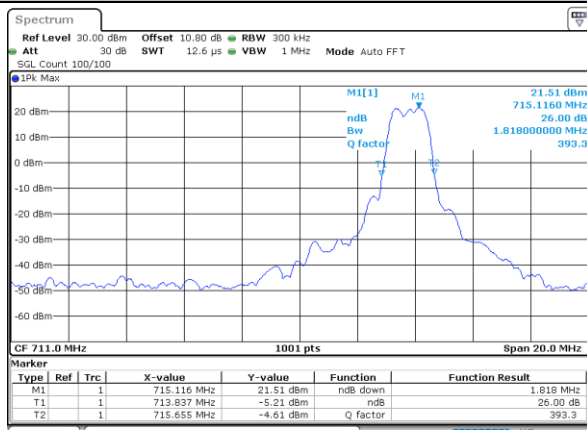
Date: 18.JUL.2020 14:01:03

## Middle Channel / 10MHz / 16QAM



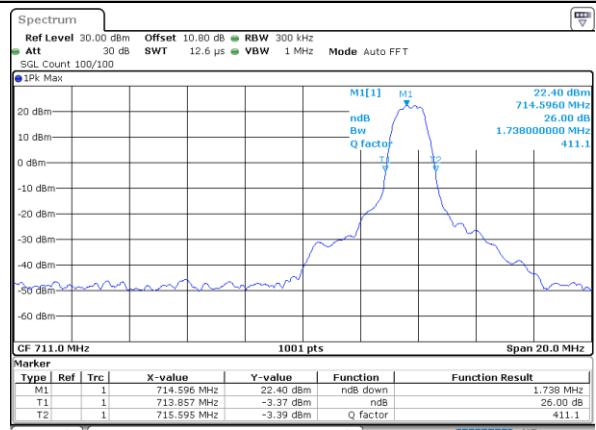
Date: 21.JUL.2020 11:38:14

## Highest Channel / 10MHz / QPSK



Date: 18.JUL.2020 14:10:15

## Highest Channel / 10MHz / 16QAM



Date: 21.JUL.2020 11:40:04

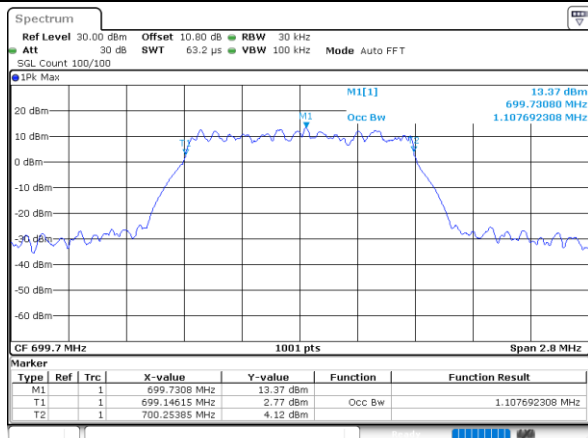
**Occupied Bandwidth**

| 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  | 1.11                      | 0.93  | 1.15 | 0.99  | 1.14 | 1.15  | 1.40  | 1.28  | -     | -     | -     | -     |
| Middle CH  | 1.10                      | 0.92  | 1.17 | 1.01  | 1.17 | 1.01  | 1.42  | 1.26  | -     | -     | -     | -     |
| Highest CH | 1.10                      | 0.91  | 1.15 | 1.00  | 1.16 | 1.07  | 1.44  | 1.30  | -     | -     | -     | -     |

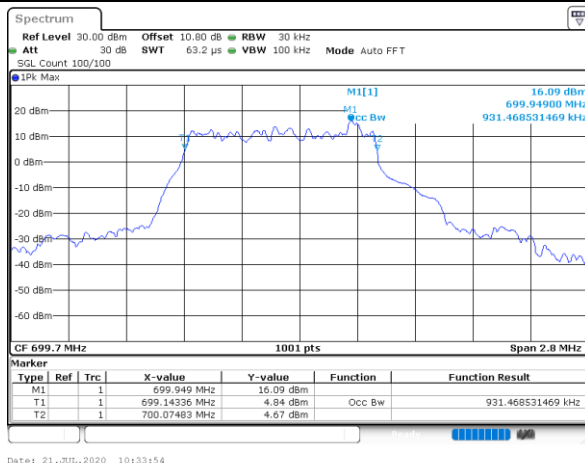


## LTE Band 12

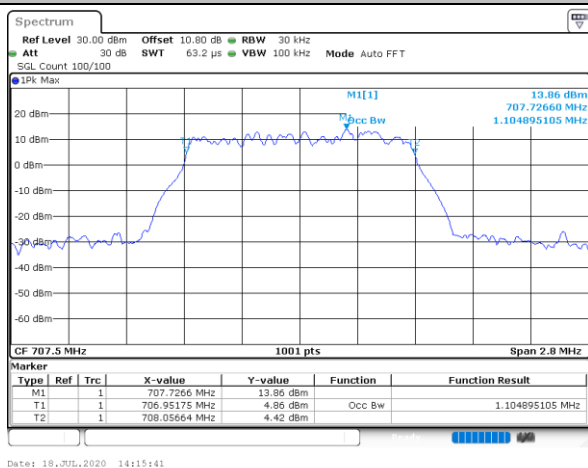
## Lowest Channel / 1.4MHz / QPSK



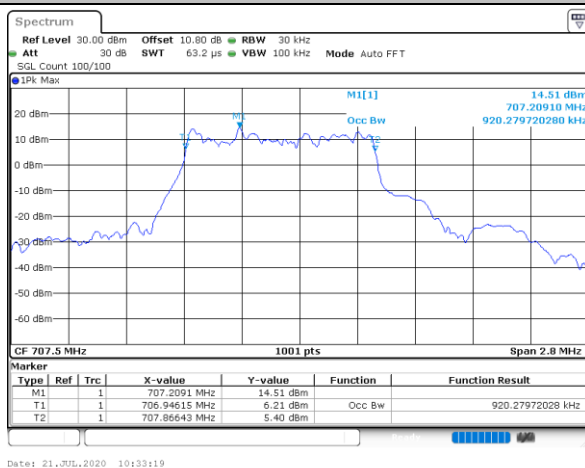
## Lowest Channel / 1.4MHz / 16QAM



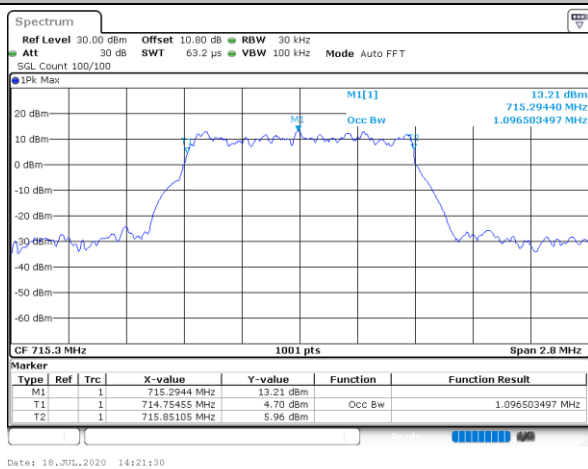
## Middle Channel / 1.4MHz / QPSK



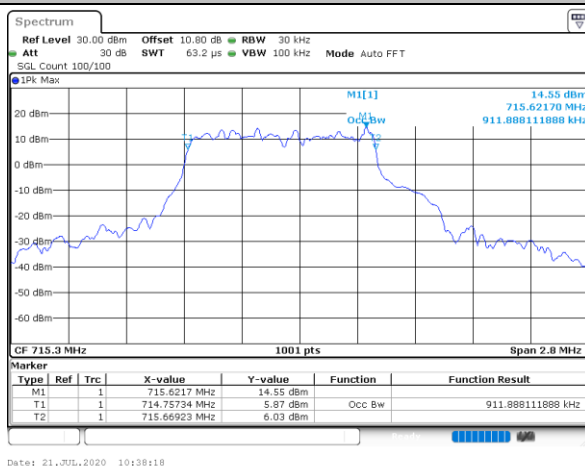
## Middle Channel / 1.4MHz / 16QAM



## Highest Channel / 1.4MHz / QPSK



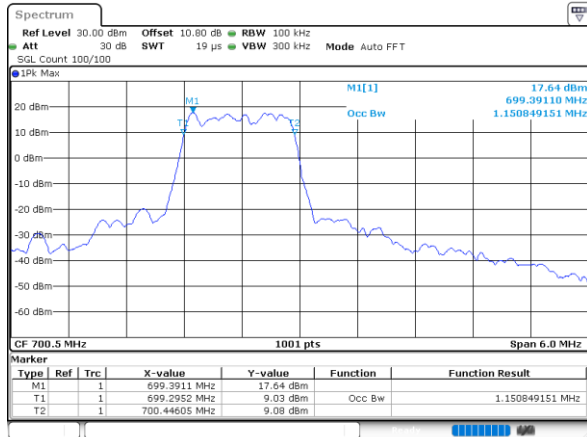
## Highest Channel / 1.4MHz / 16QAM



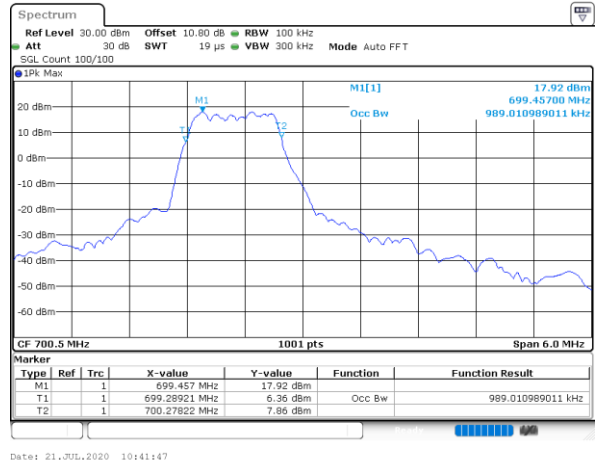


## LTE Band 12

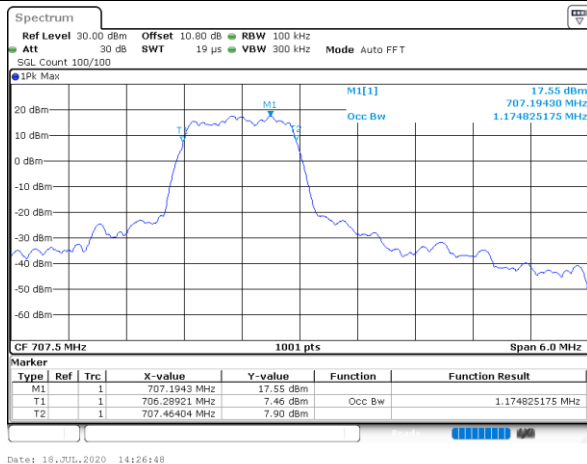
## Lowest Channel / 3MHz / QPSK



## Lowest Channel / 3MHz / 16QAM



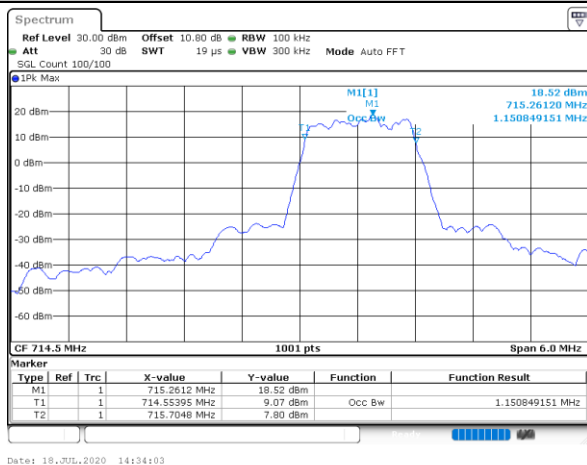
## Middle Channel / 3MHz / QPSK



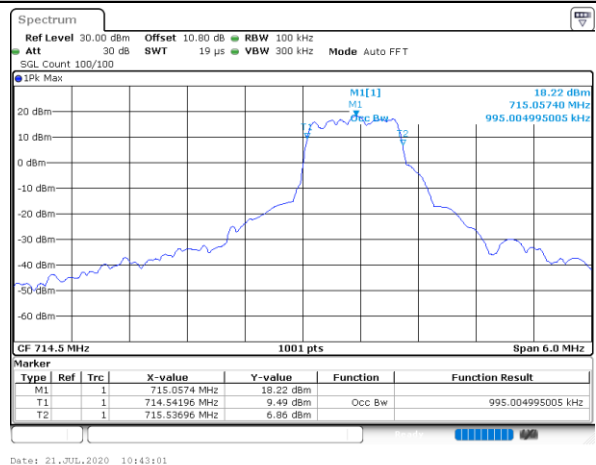
## Middle Channel / 3MHz / 16QAM



## Highest Channel / 3MHz / QPSK



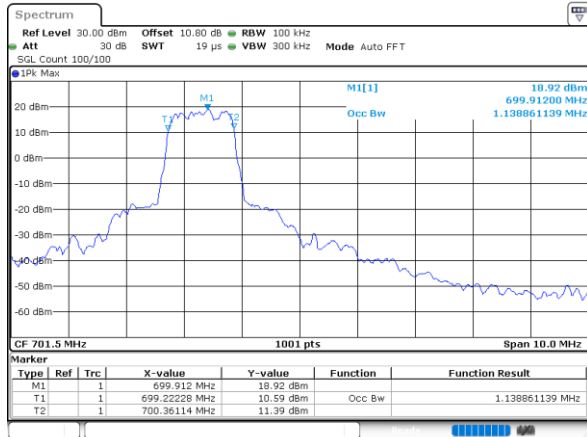
## Highest Channel / 3MHz / 16QAM



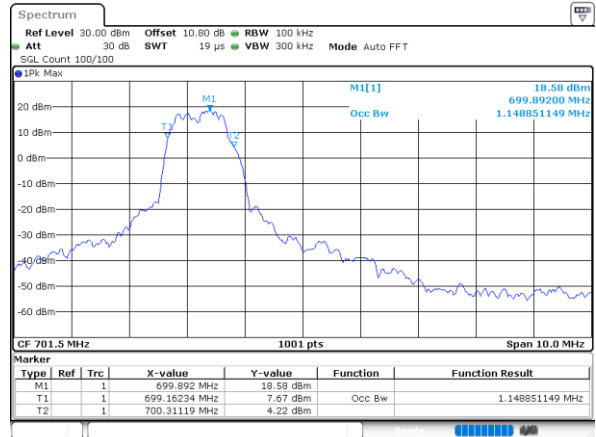


## LTE Band 12

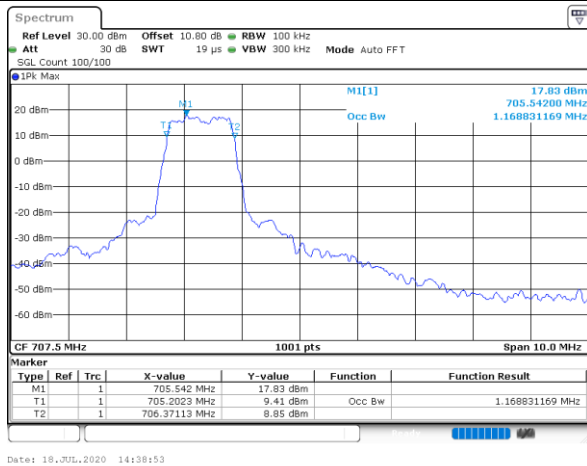
## Lowest Channel / 5MHz / QPSK



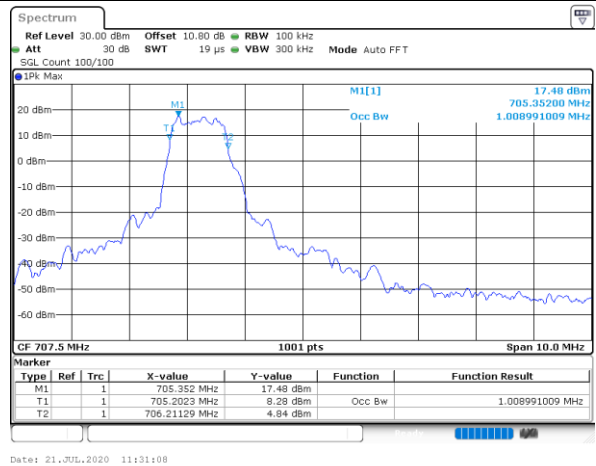
## Lowest Channel / 5MHz / 16QAM



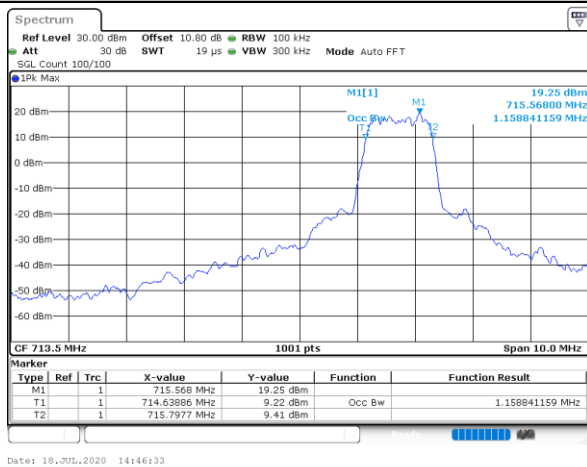
## Middle Channel / 5MHz / QPSK



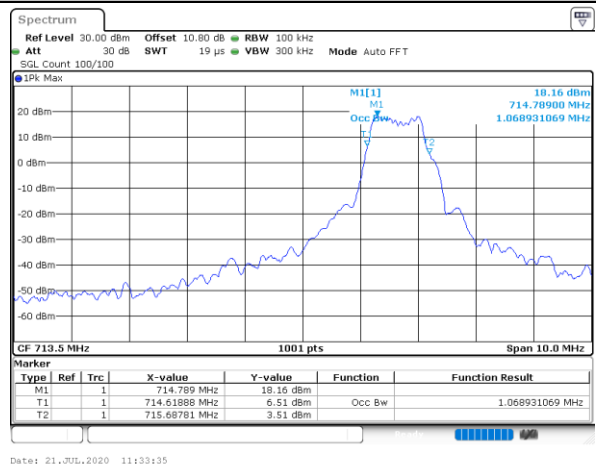
## Middle Channel / 5MHz / 16QAM



## Highest Channel / 5MHz / QPSK



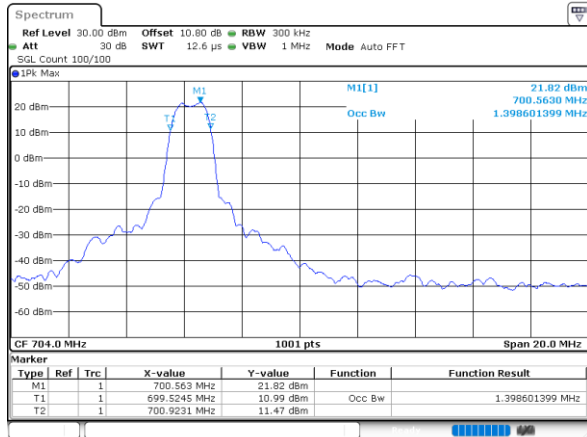
## Highest Channel / 5MHz / 16QAM



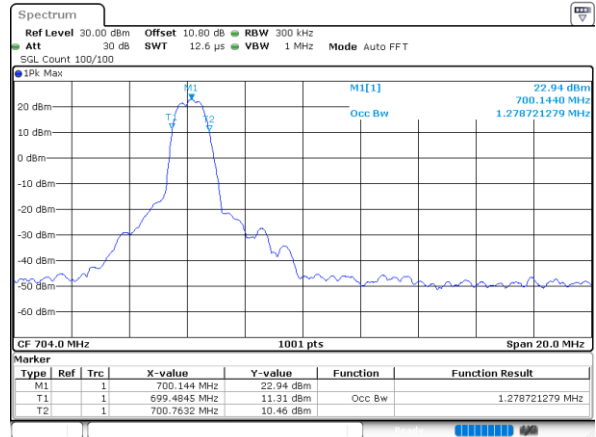


## LTE Band 12

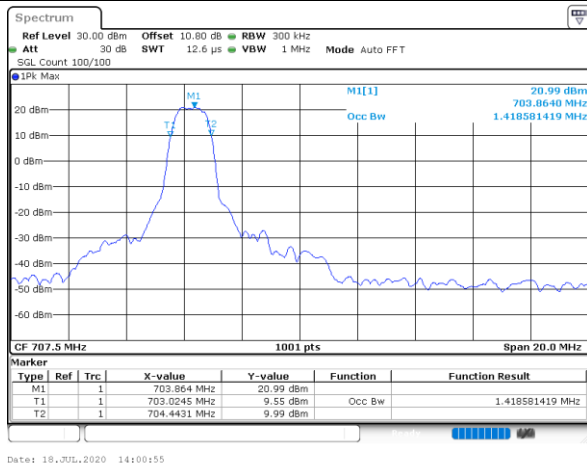
## Lowest Channel / 10MHz / QPSK



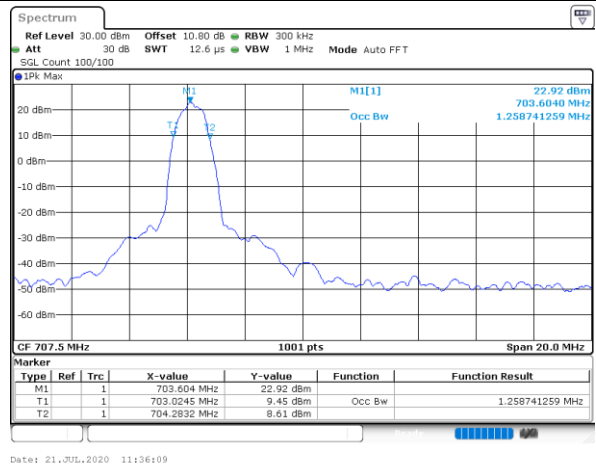
## Lowest Channel / 10MHz / 16QAM



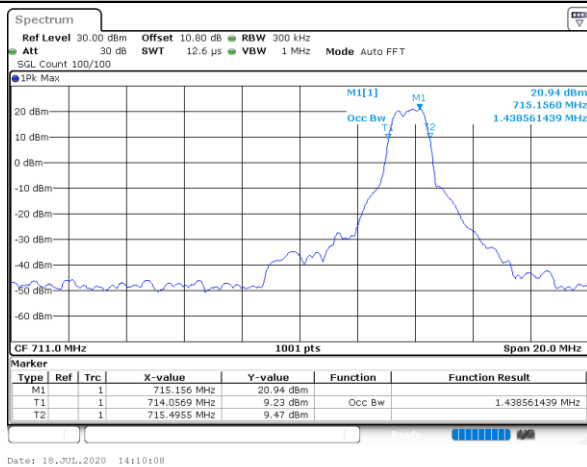
## Middle Channel / 10MHz / QPSK



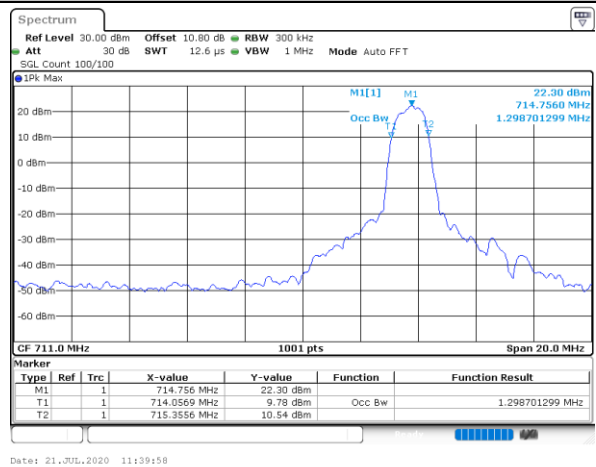
## Middle Channel / 10MHz / 16QAM

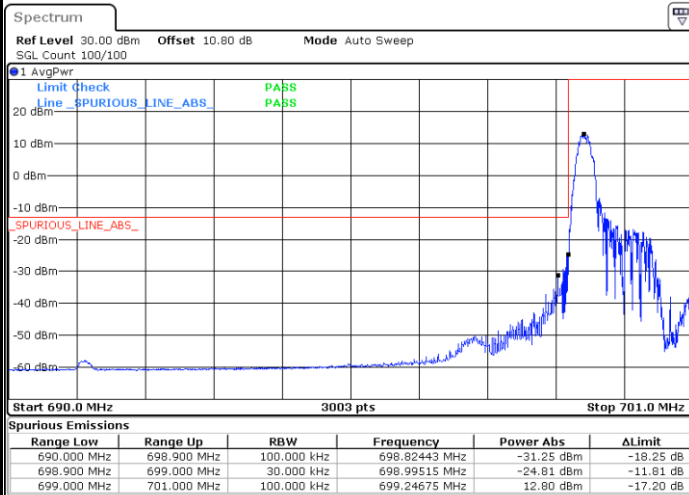
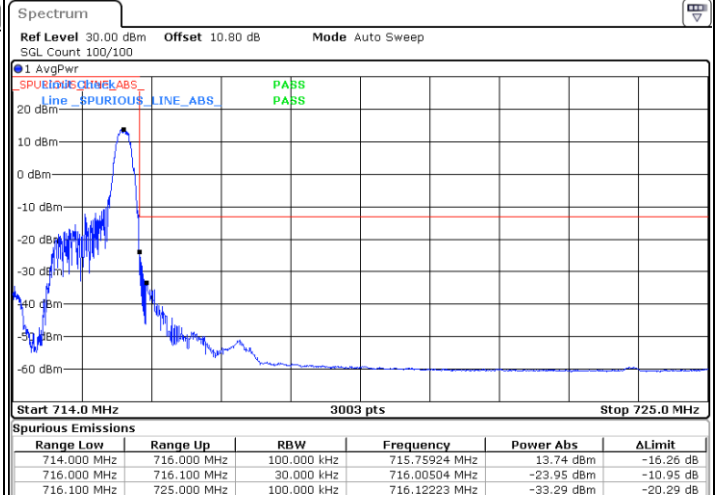
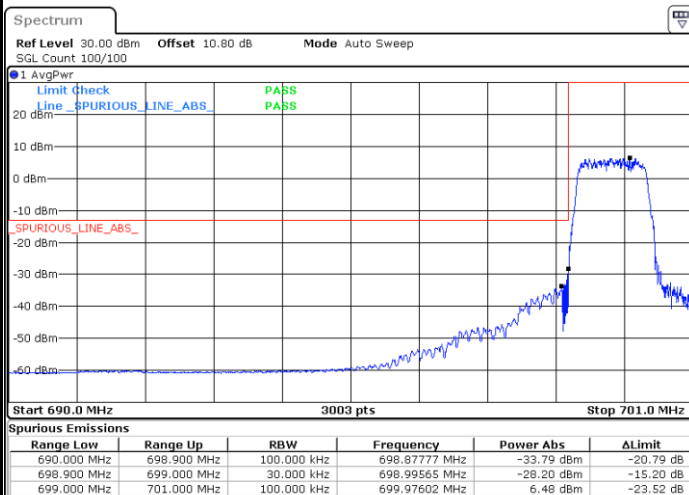


## Highest Channel / 10MHz / QPSK



## Highest Channel / 10MHz / 16QAM

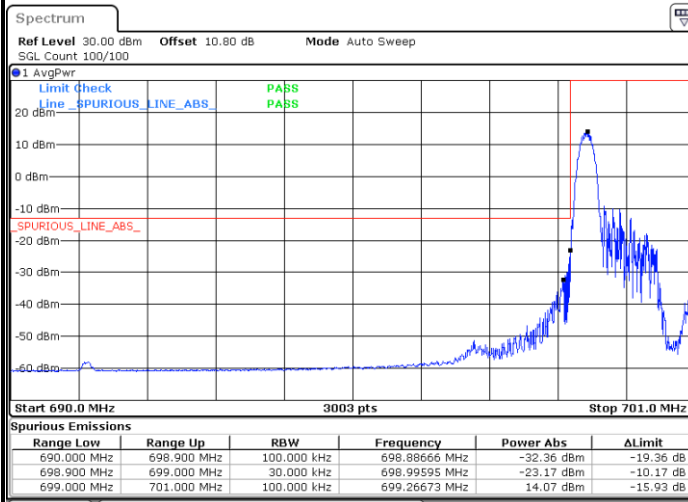


**Conducted Band Edge****LTE Band 12 / 1.4MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**



## LTE Band 12 / 1.4MHz / 16QAM

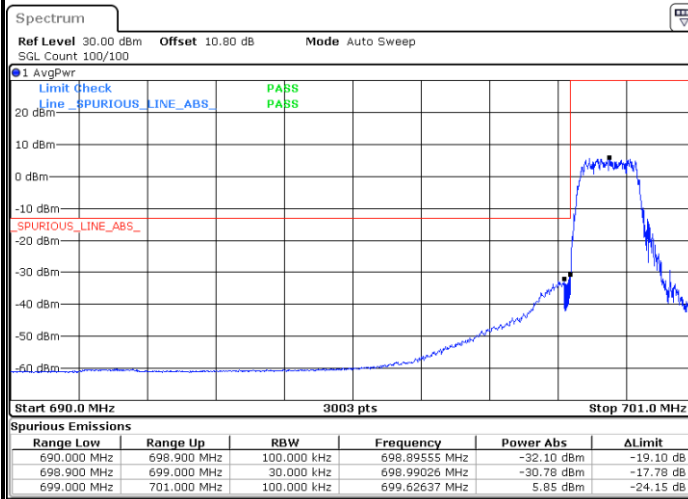
## Lowest Band Edge / 1 RB



## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



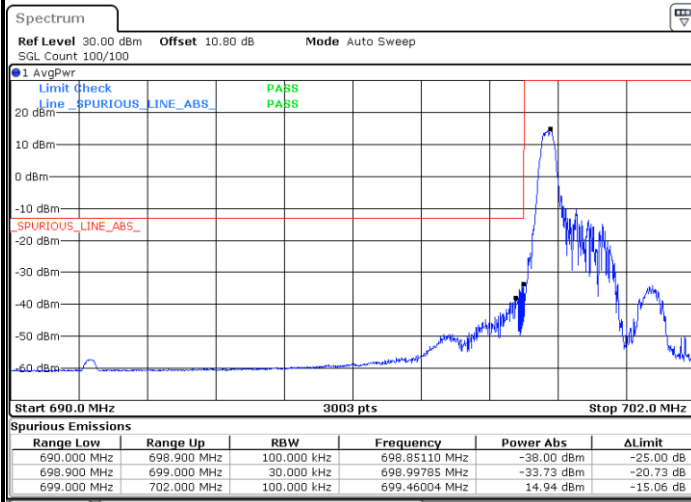
## Highest Band Edge / Full RB



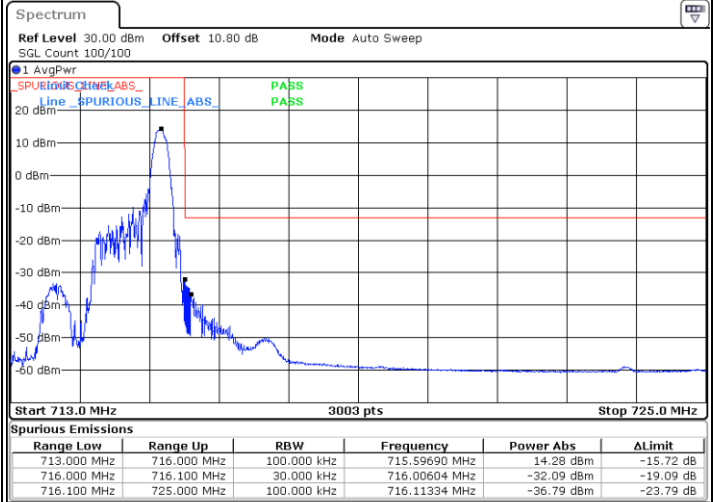


## LTE Band 12 / 3MHz / QPSK

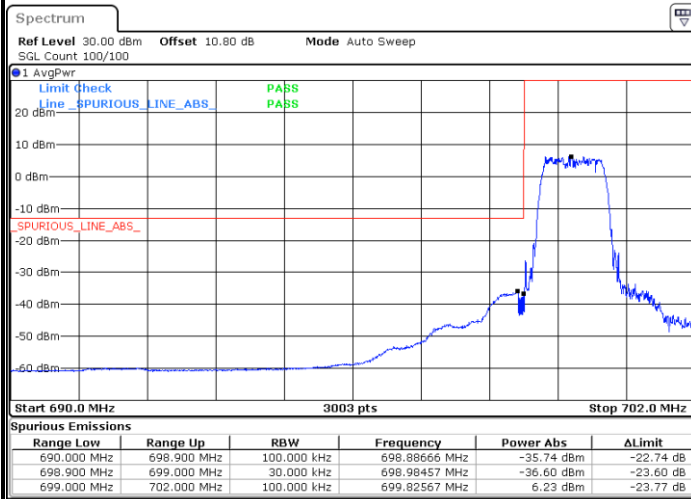
## Lowest Band Edge / 1RB



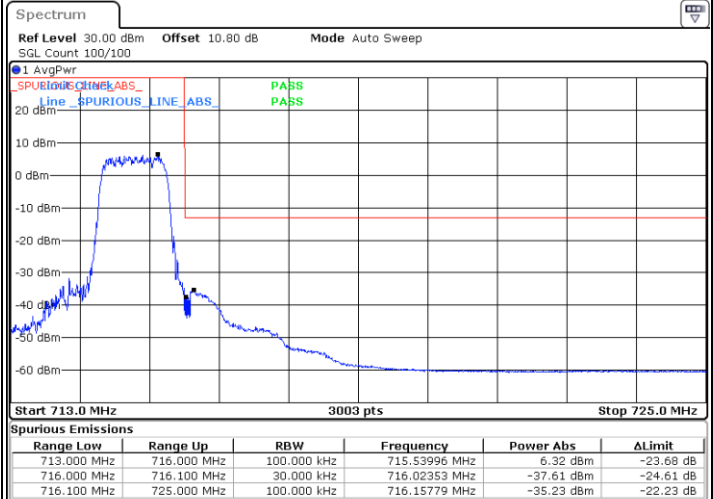
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



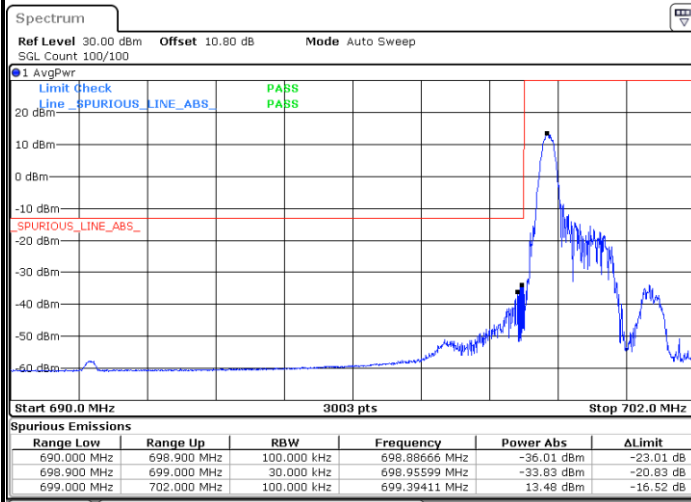
## Highest Band Edge / Full RB



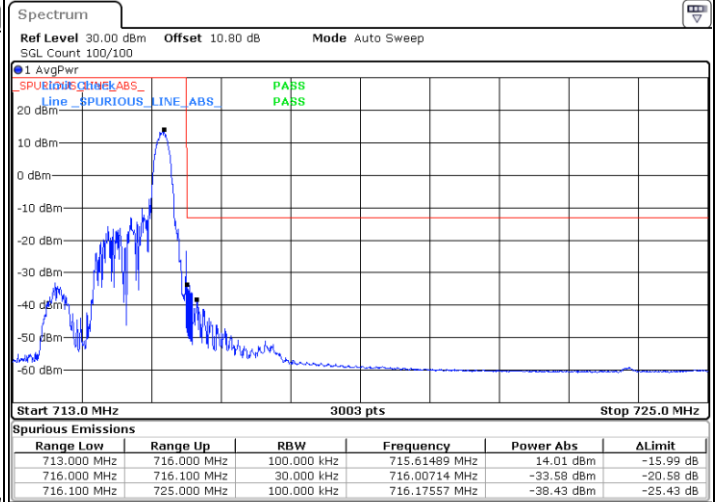


## LTE Band 12 / 3MHz / 16QAM

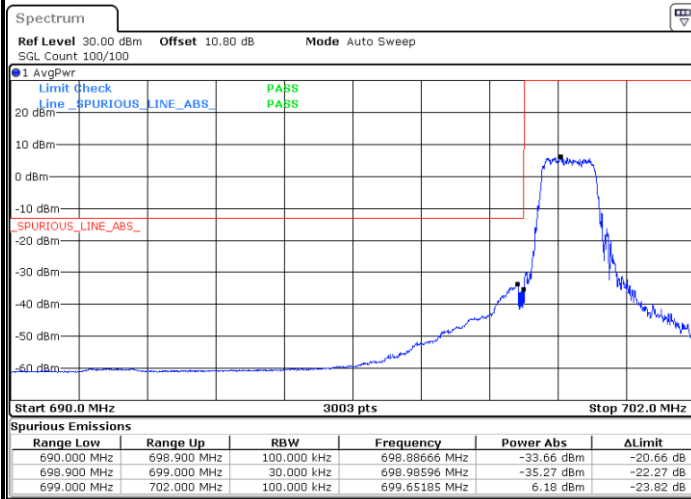
## Lowest Band Edge / 1 RB



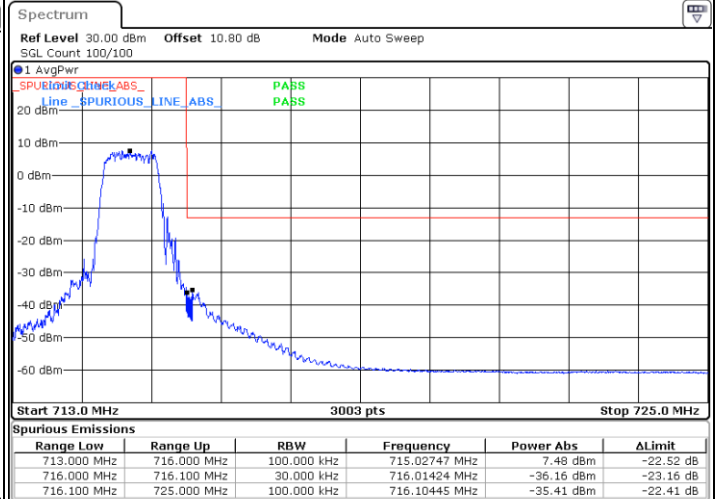
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



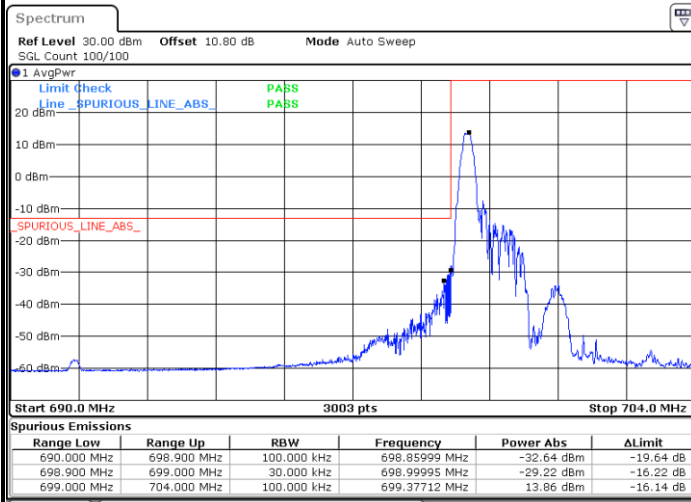
## Highest Band Edge / Full RB



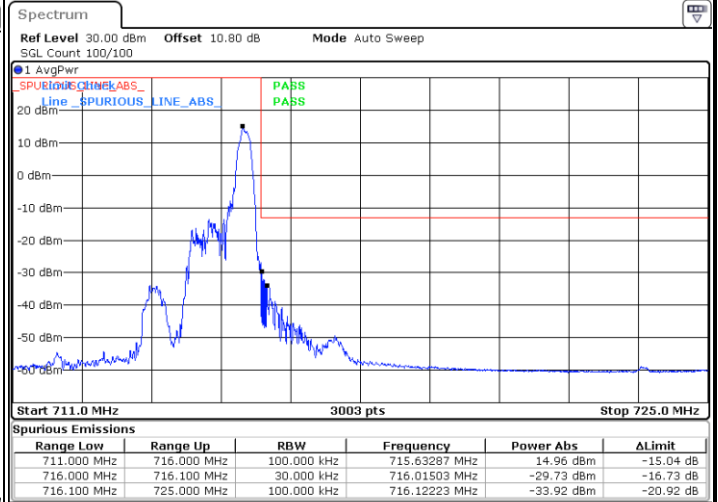


## LTE Band 12 / 5MHz / QPSK

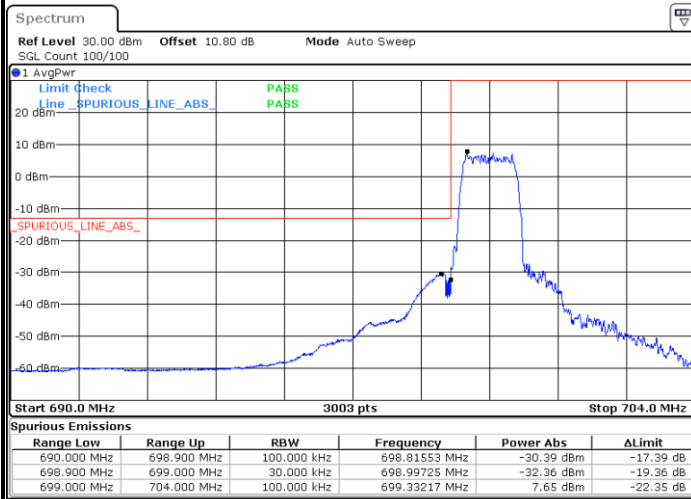
## Lowest Band Edge / 1 RB



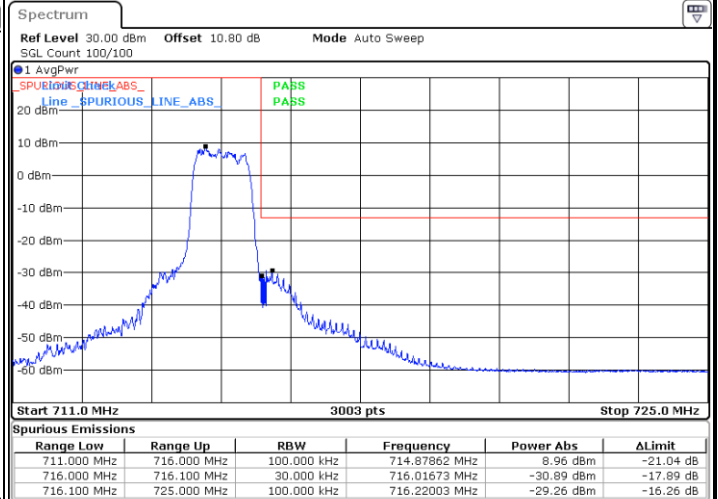
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



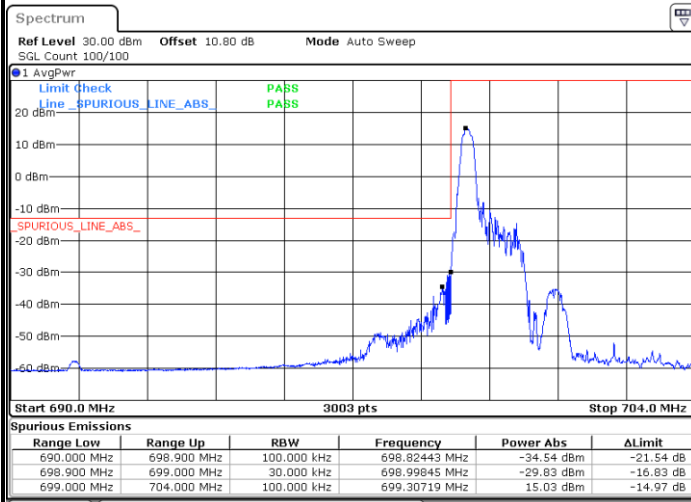
## Highest Band Edge / Full RB



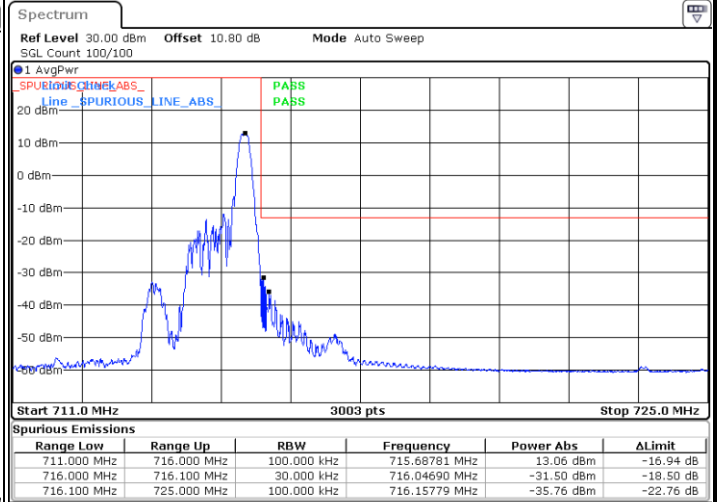


## LTE Band 12 / 5MHz / 16QAM

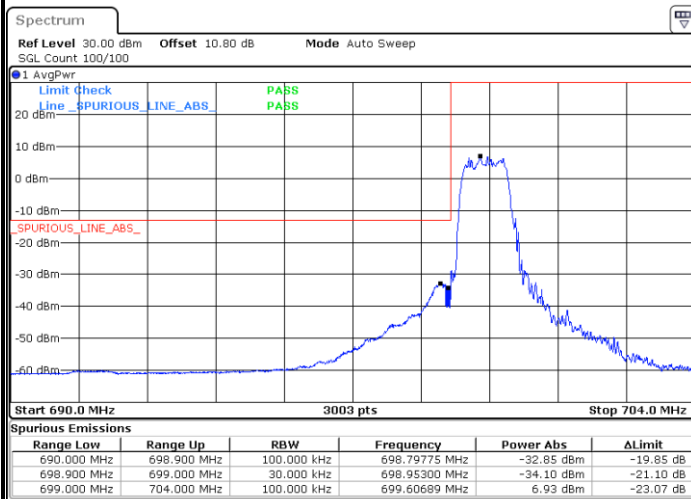
## Lowest Band Edge / 1RB



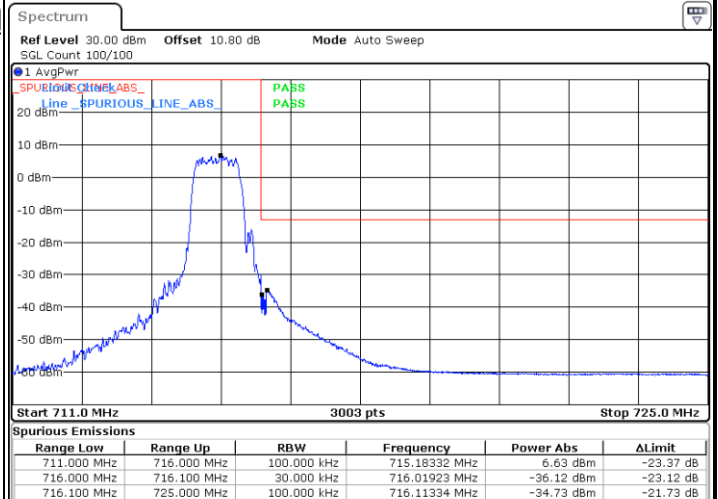
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



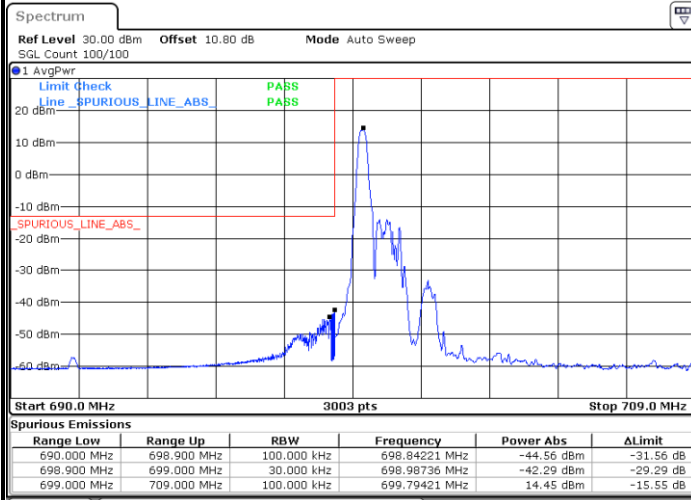
## Highest Band Edge / Full RB





## LTE Band 12 / 10MHz / QPSK

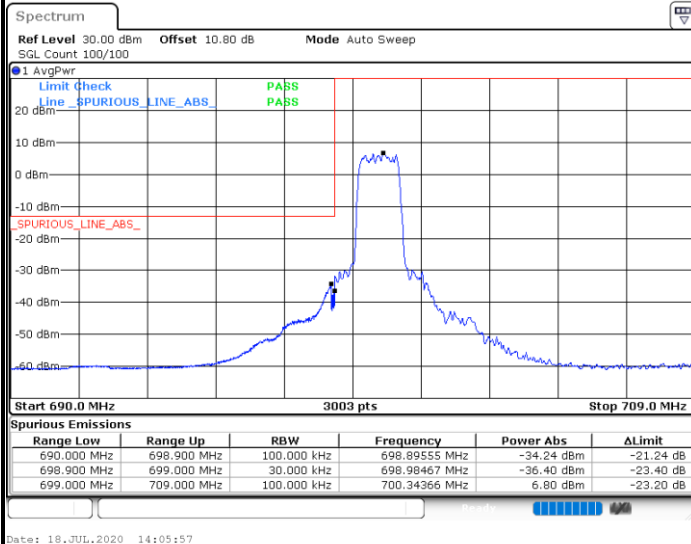
## Lowest Band Edge / 1 RB



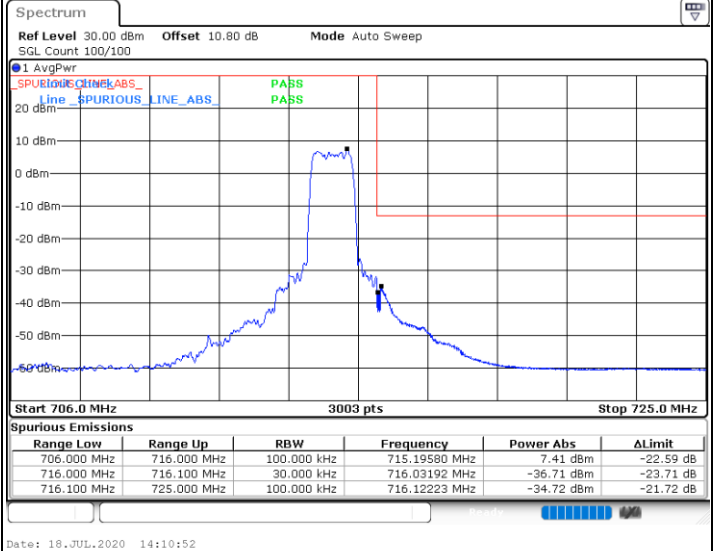
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



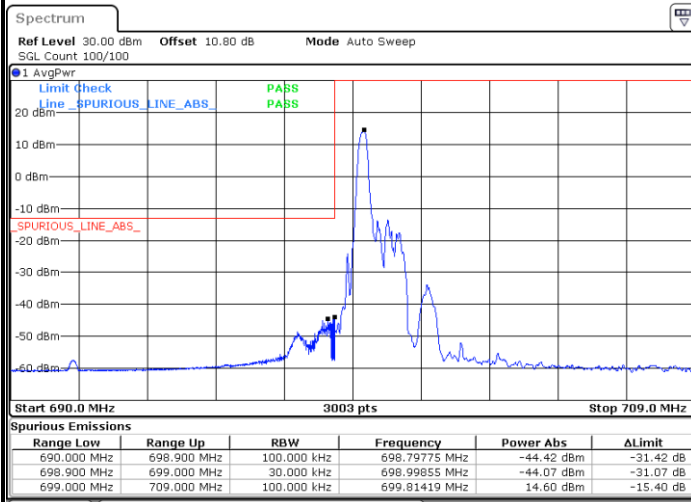
## Highest Band Edge / Full RB





## LTE Band 12 / 10MHz / 16QAM

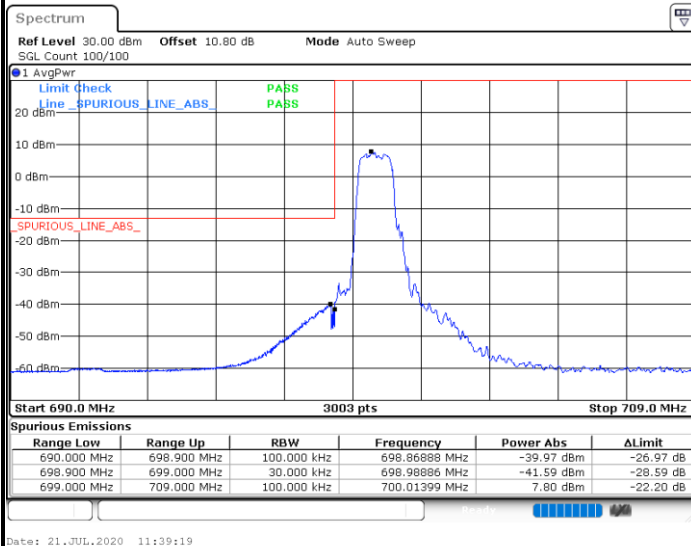
## Lowest Band Edge / 1 RB



## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

