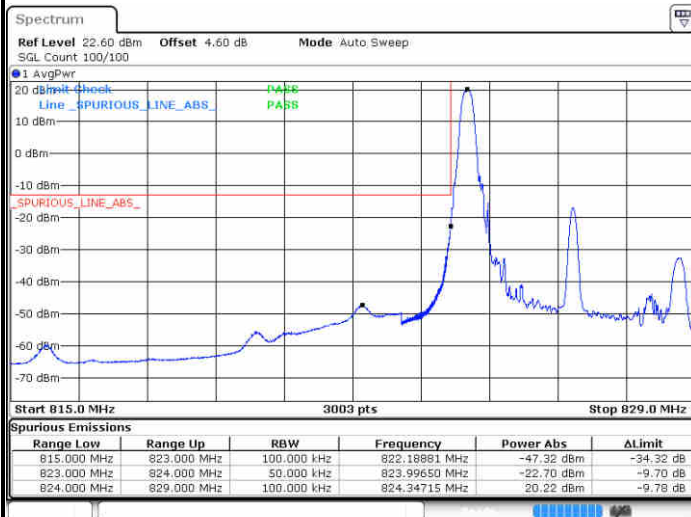


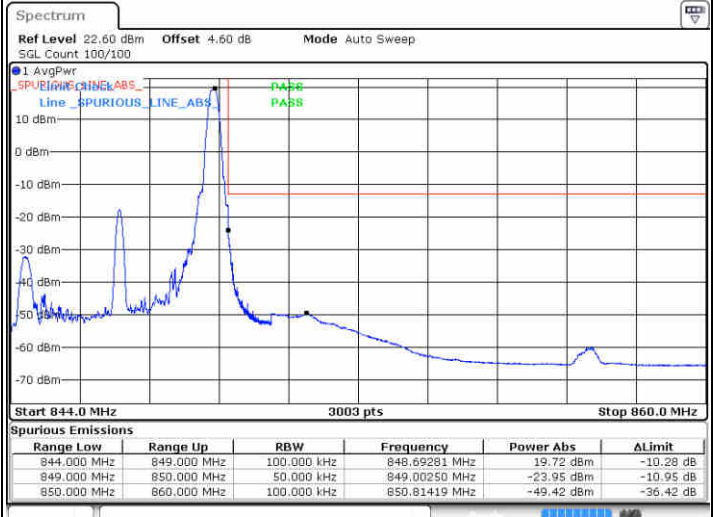


## LTE Band 5 / 5MHz / 16QAM

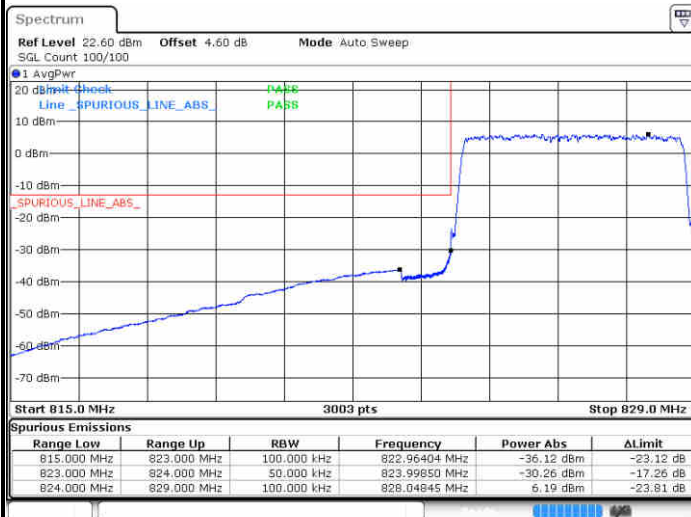
## Lowest Band Edge / 1RB



## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



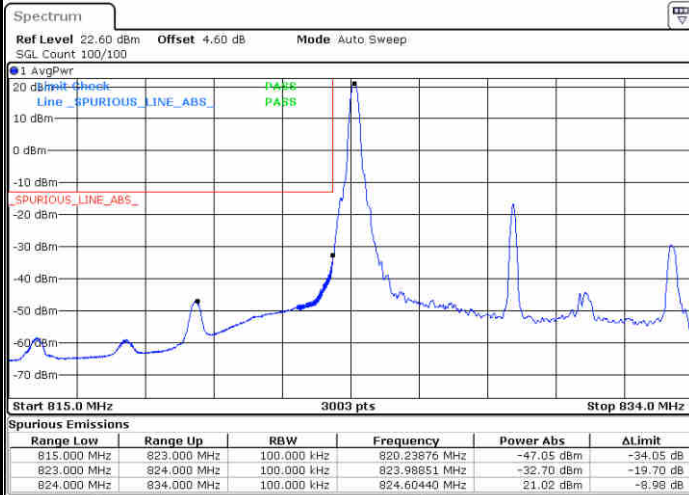
## Highest Band Edge / Full RB



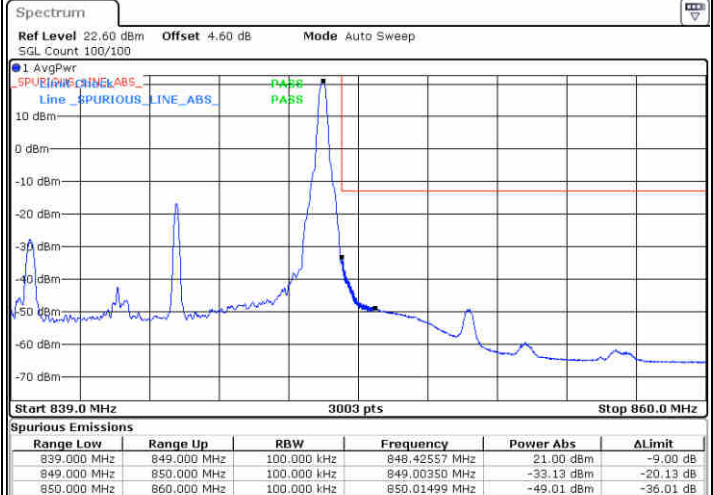


## LTE Band 5 / 10MHz / QPSK

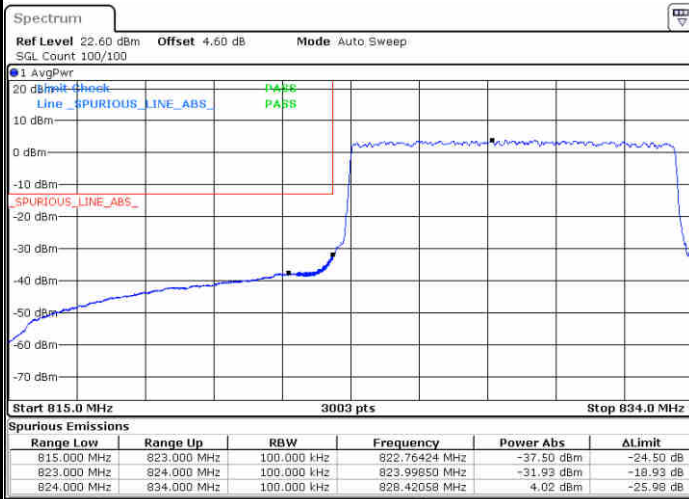
## Lowest Band Edge / 1 RB



## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



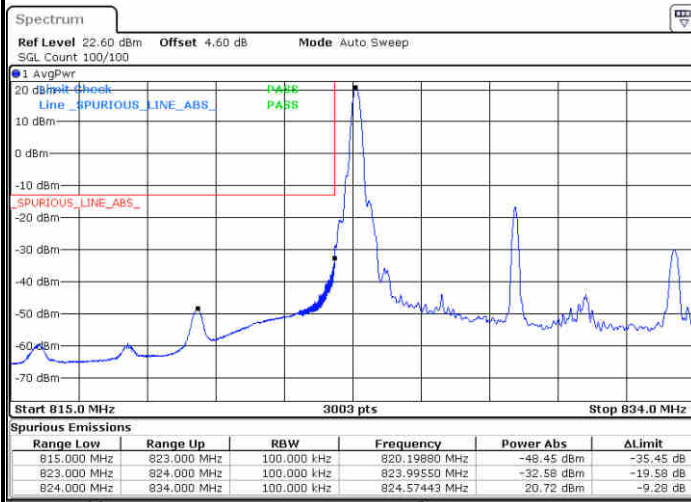
## Highest Band Edge / Full RB



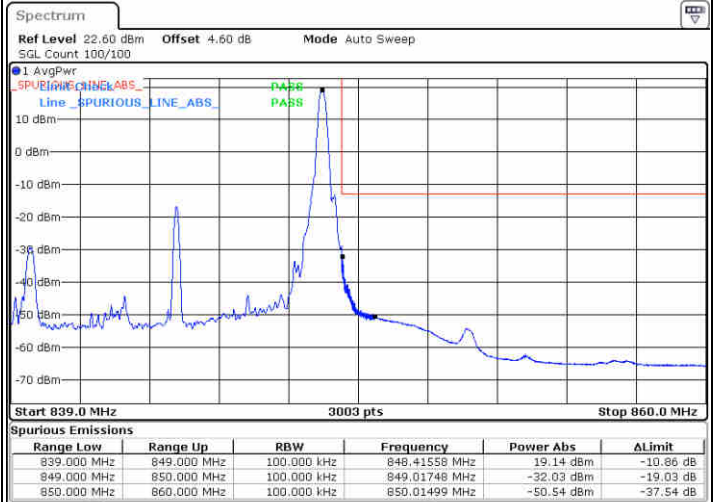


## LTE Band 5 / 10MHz / 16QAM

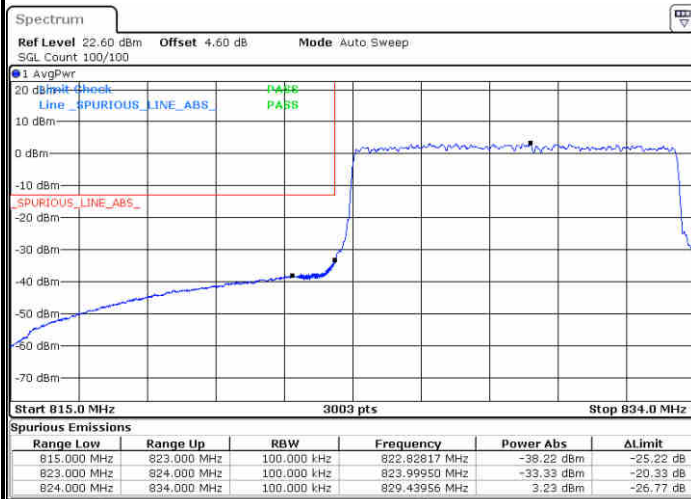
## Lowest Band Edge / 1 RB



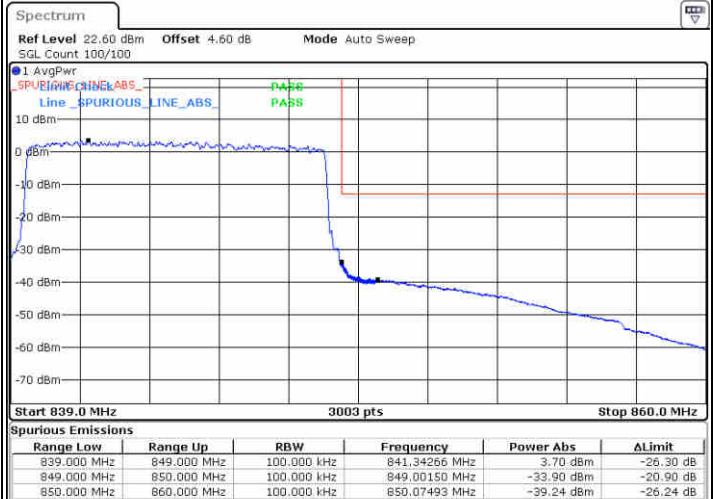
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

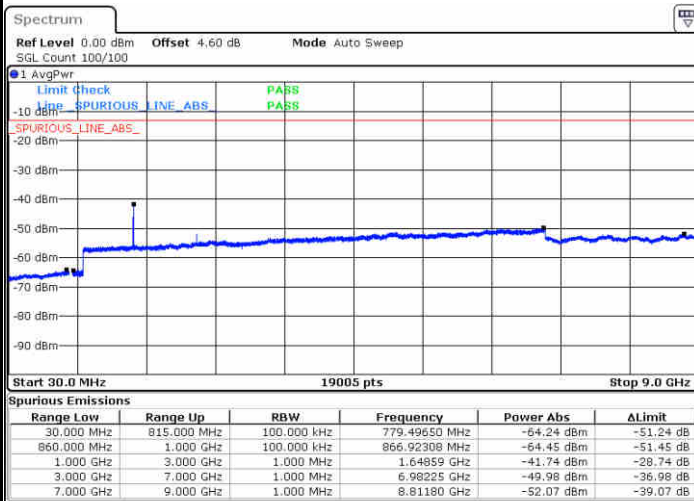




## Conducted Spurious Emission

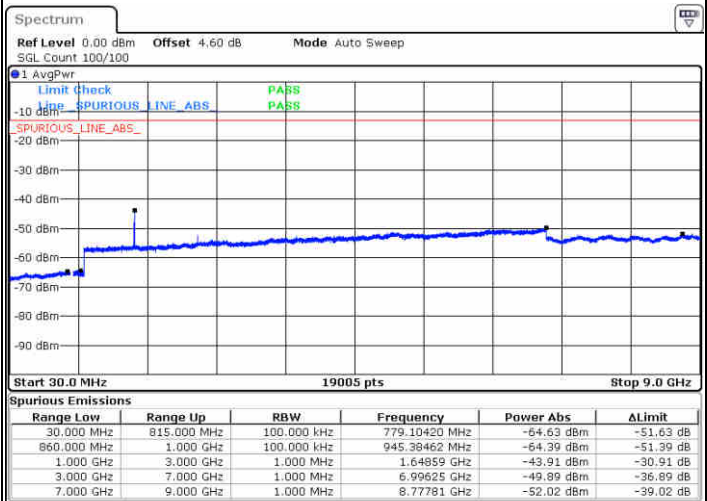
### LTE Band 5 / 1.4MHz

#### Lowest Channel / QPSK



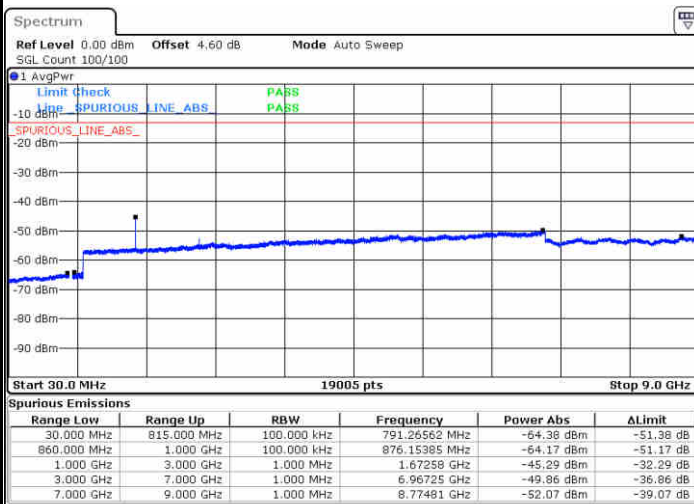
Date: 17.MAY.2020 05:01:39

#### Lowest Channel / 16QAM



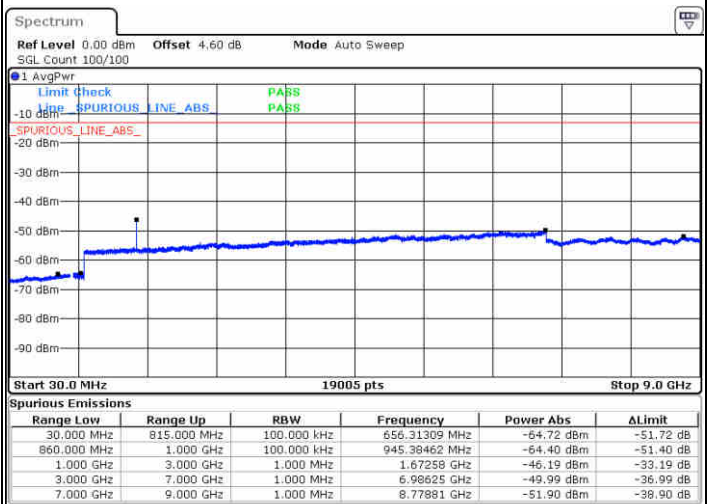
Date: 17.MAY.2020 05:02:34

#### Middle Channel / QPSK



Date: 17.MAY.2020 05:04:09

#### Middle Channel / 16QAM

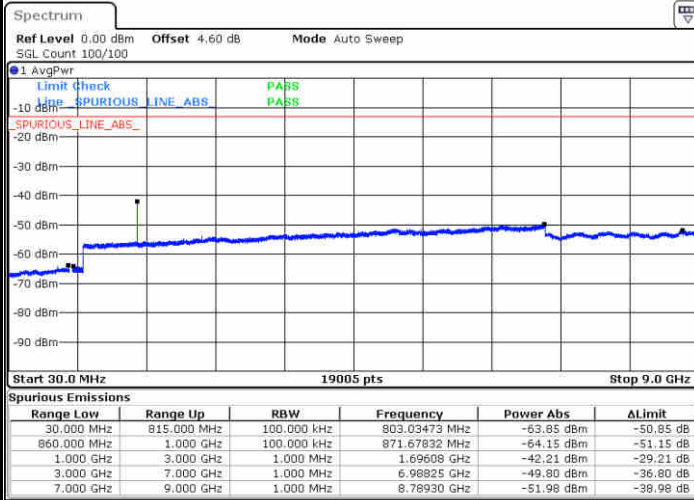


Date: 17.MAY.2020 05:05:04



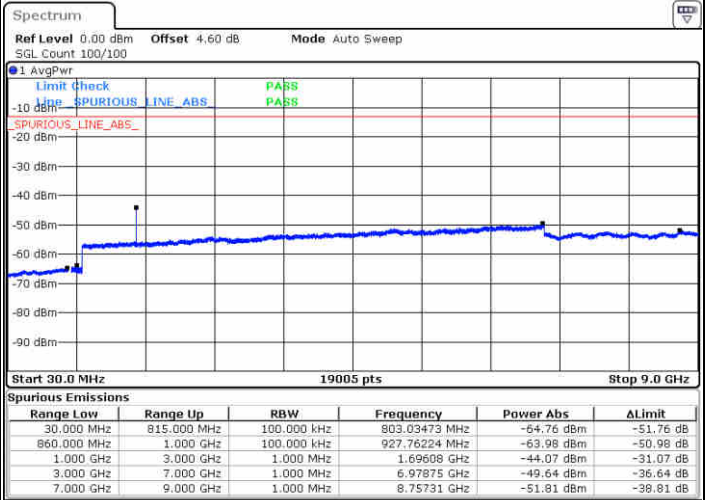
## LTE Band 5 / 1.4MHz

## Highest Channel / QPSK



Date: 17.MAY.2020 05:13:08

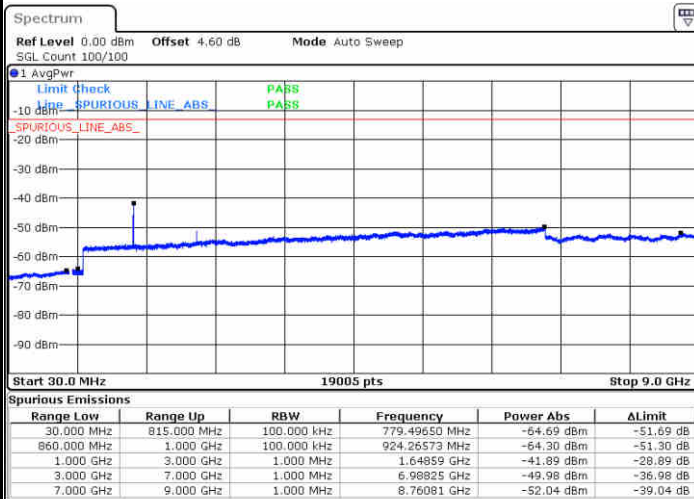
## Highest Channel / 16QAM



Date: 17.MAY.2020 05:14:03

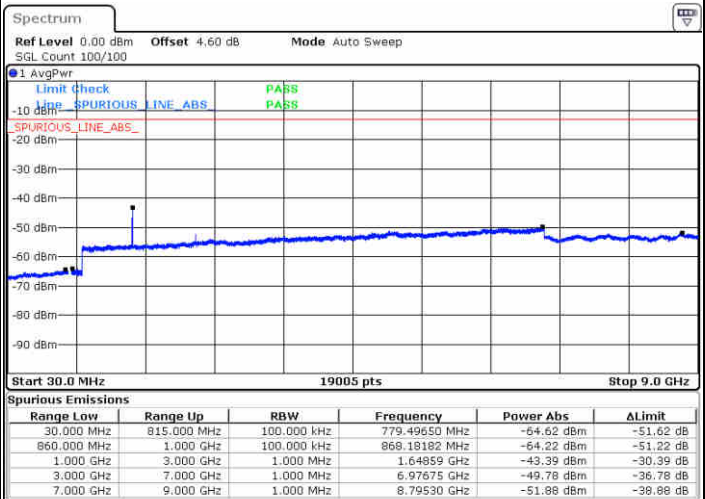
## LTE Band 5 / 3MHz

## Lowest Channel / QPSK



Date: 17.MAY.2020 05:54:03

## Lowest Channel / 16QAM

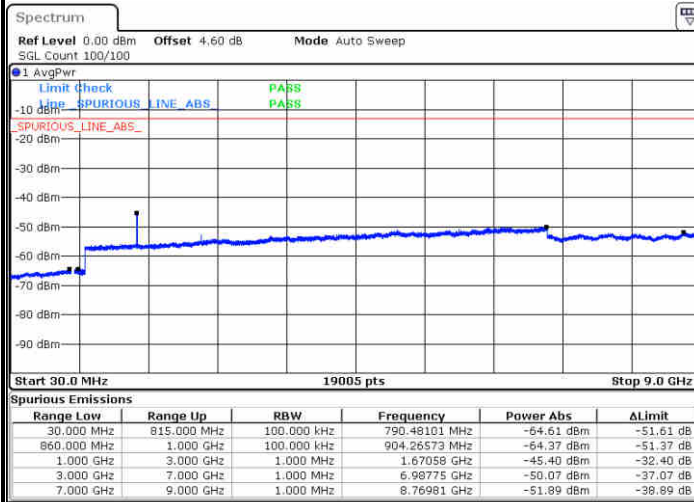


Date: 17.MAY.2020 05:54:57



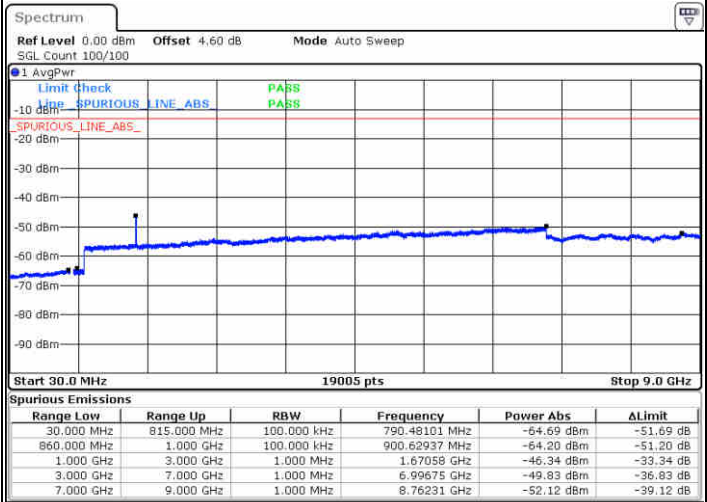
## LTE Band 5 / 3MHz

## Middle Channel / QPSK



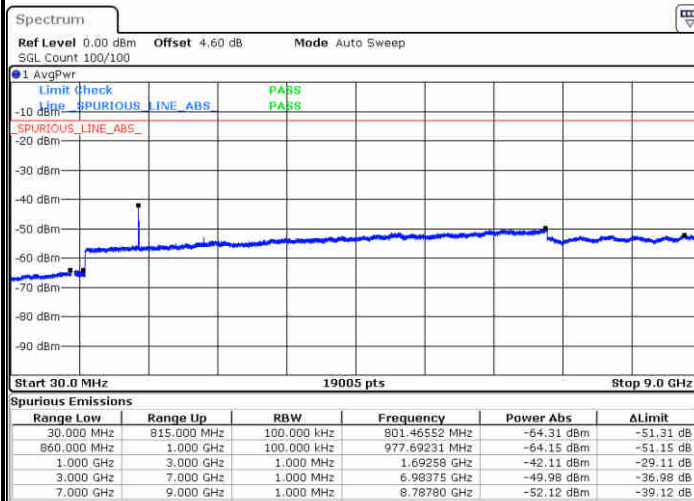
Date: 17.MAY.2020 05:56:32

## Middle Channel / 16QAM



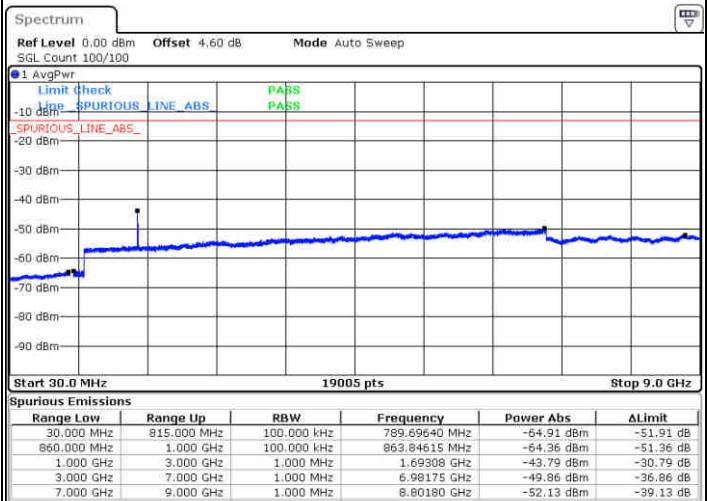
Date: 17.MAY.2020 05:57:26

## Highest Channel / QPSK



Date: 17.MAY.2020 06:05:31

## Highest Channel / 16QAM

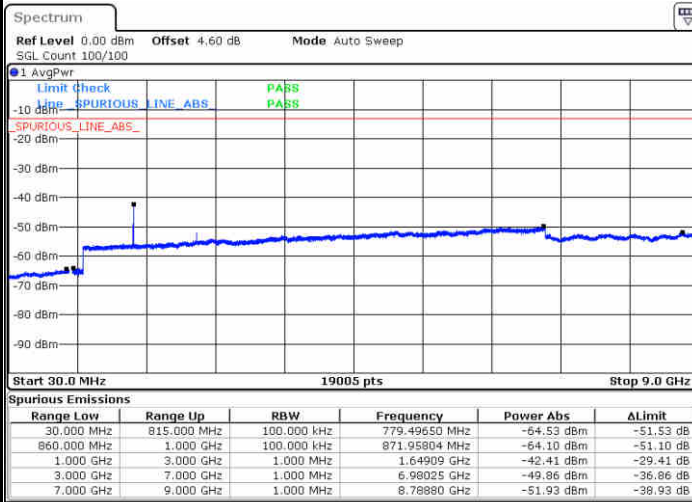


Date: 17.MAY.2020 06:06:26



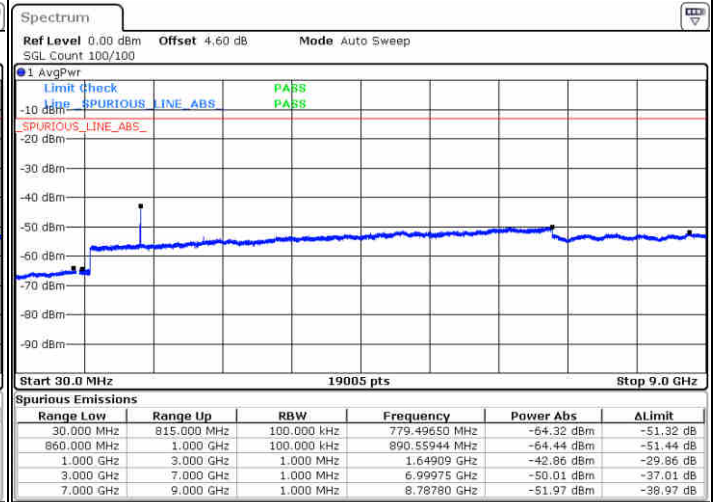
## LTE Band 5 / 5MHz

## Lowest Channel / QPSK



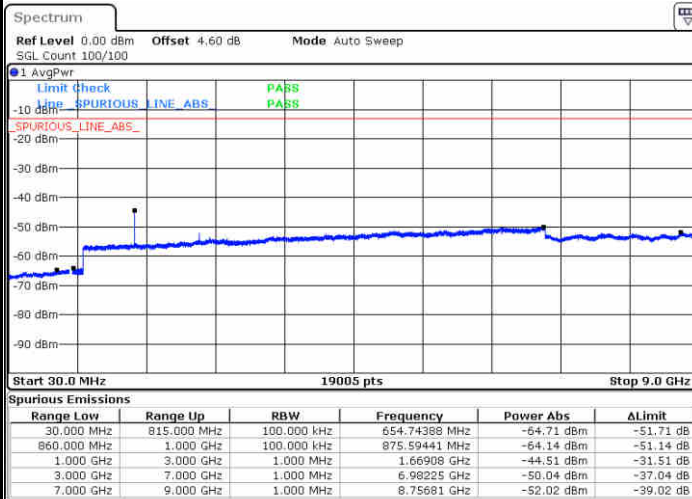
Date: 17.MAY.2020 06:24:36

## Lowest Channel / 16QAM



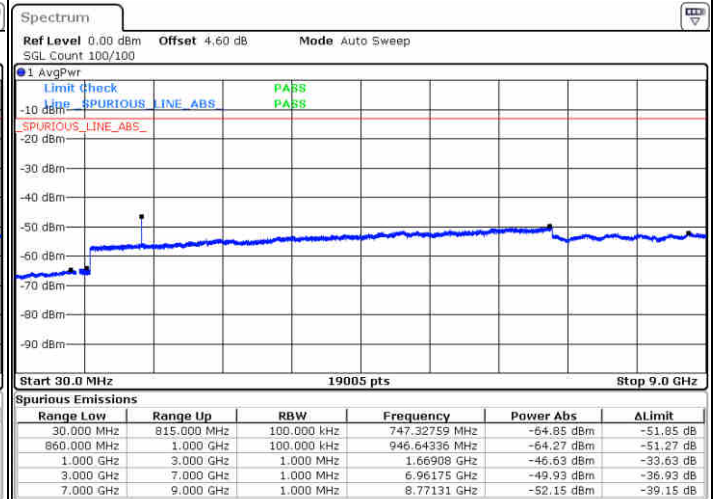
Date: 17.MAY.2020 06:25:31

## Middle Channel / QPSK



Date: 17.MAY.2020 05:17:12

## Middle Channel / 16QAM

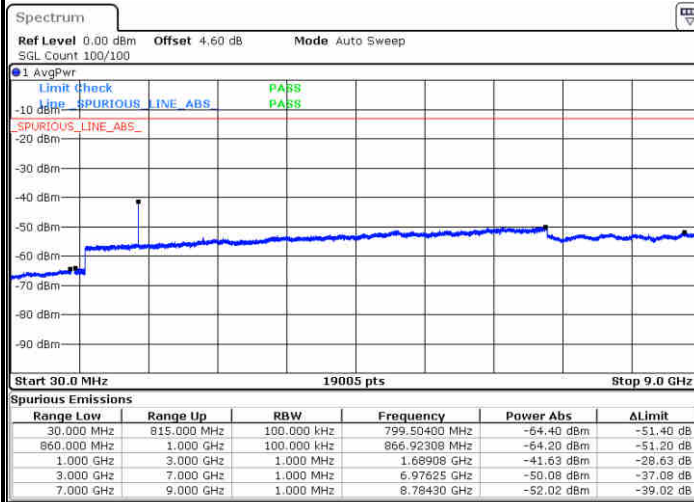


Date: 17.MAY.2020 05:18:07



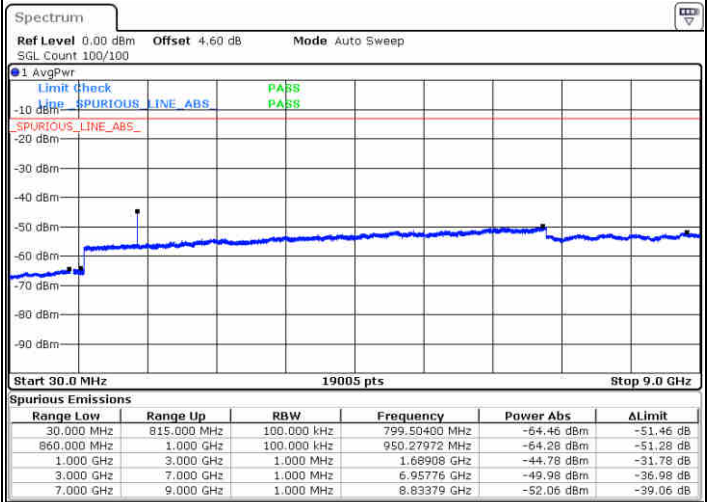
## LTE Band 5 / 5MHz

## Highest Channel / QPSK



Date: 17.MAY.2020 05:26:12

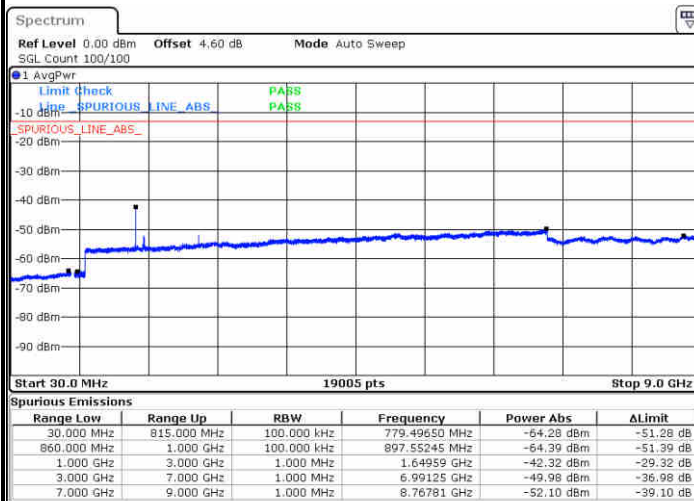
## Highest Channel / 16QAM



Date: 17.MAY.2020 05:27:06

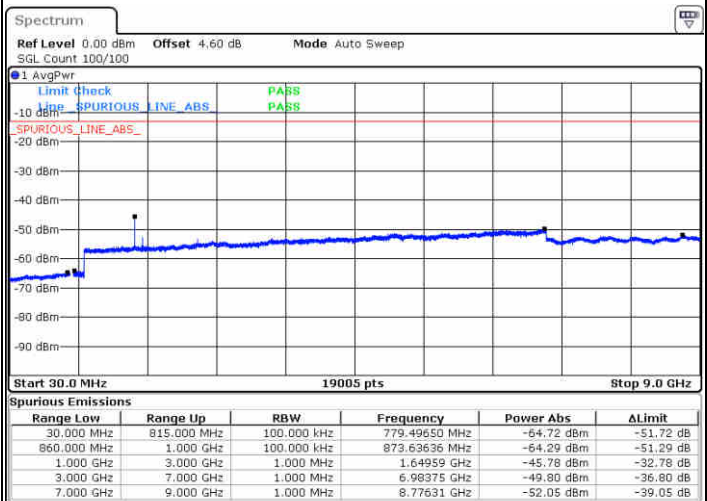
## LTE Band 5 / 10MHz

## Lowest Channel / QPSK



Date: 17.MAY.2020 06:35:22

## Lowest Channel / 16QAM

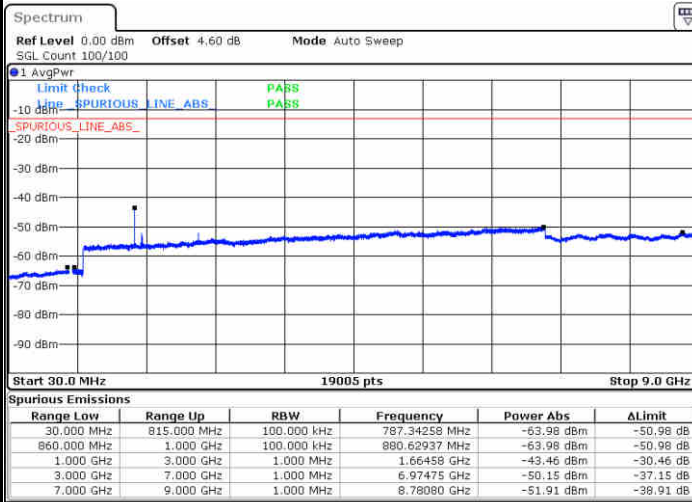


Date: 17.MAY.2020 06:36:17



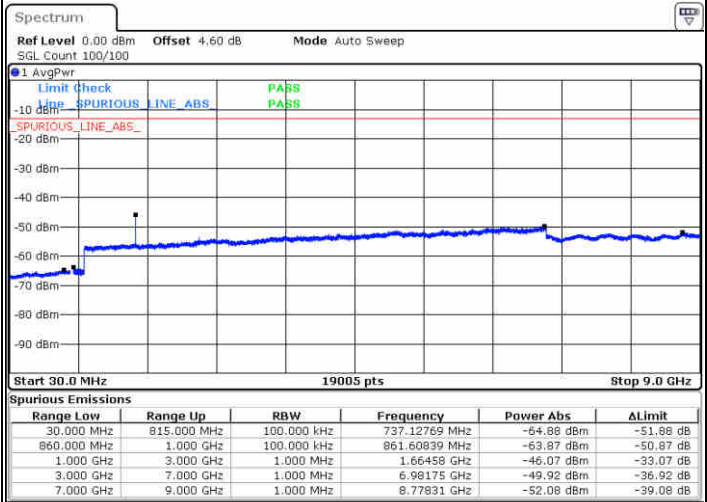
## LTE Band 5 / 10MHz

## Middle Channel / QPSK



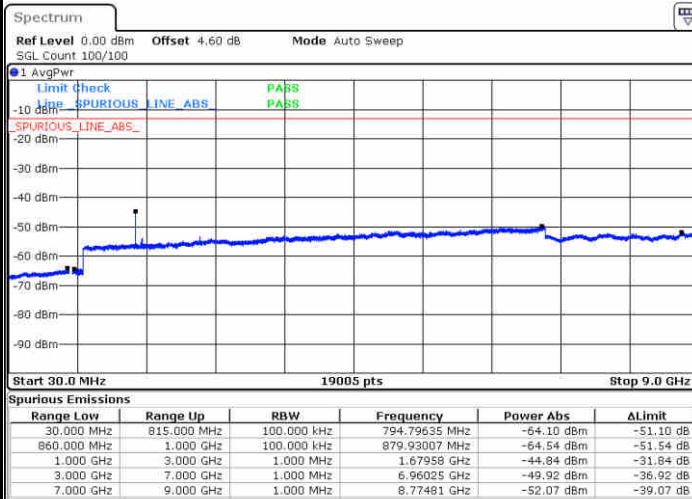
Date: 17.MAY.2020 06:37:51

## Middle Channel / 16QAM



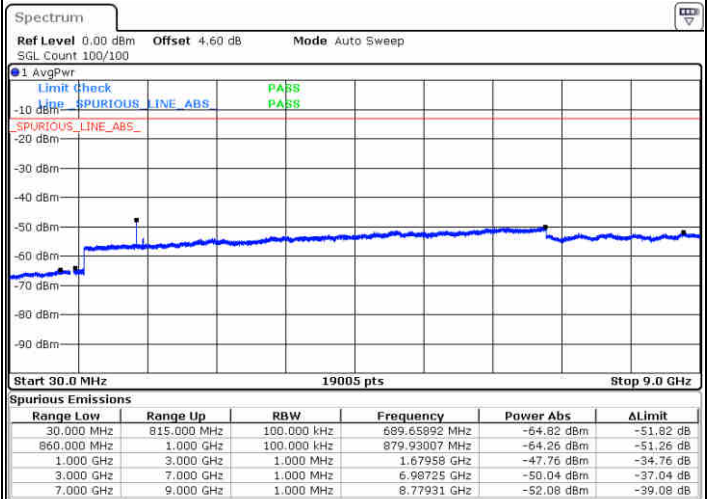
Date: 17.MAY.2020 06:38:46

## Highest Channel / QPSK



Date: 17.MAY.2020 06:46:50

## Highest Channel / 16QAM



Date: 17.MAY.2020 06:47:45

**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    | 0.0022                             | PASS   |
| 40               | Normal Voltage    | 0.0015                             |        |
| 30               | Normal Voltage    | 0.0033                             |        |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |        |
| 10               | Normal Voltage    | 0.0021                             |        |
| 0                | Normal Voltage    | 0.0011                             |        |
| -10              | Normal Voltage    | 0.0035                             |        |
| -20              | Normal Voltage    | 0.0029                             |        |
| -30              | Normal Voltage    | 0.0024                             |        |
| 20               | Maximum Voltage   | 0.0014                             |        |
| 20               | Normal Voltage    | 0.0000                             |        |
| 20               | Battery End Point | 0.0039                             |        |

**Note:** Normal Voltage =4 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.



## LTE Band 12

## Peak-to-Average Ratio

| Mode       | LTE Band 12 / 10MHz |         |       |         |             |
|------------|---------------------|---------|-------|---------|-------------|
| Mod.       | QPSK                |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                 | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 3.54                | 4.58    | 4.14  | 5.59    | PASS        |
| Middle CH  | 3.42                | 4.32    | 4.29  | 5.36    |             |
| Highest CH | 2.93                | 4.41    | 4.14  | 5.45    |             |



## LTE Band 12 / 10MHz / QPSK

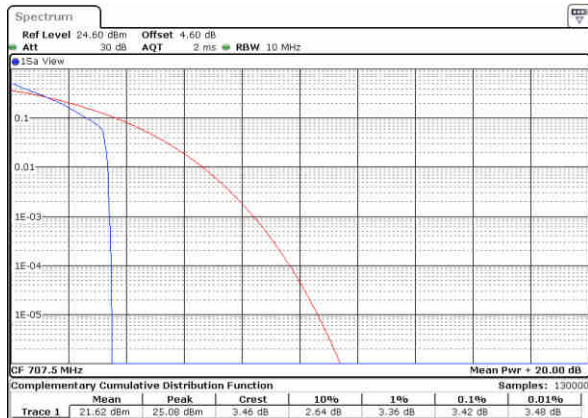
## Lowest Channel / 1RB



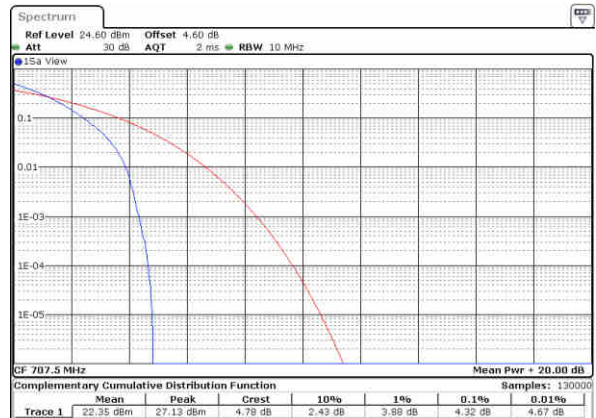
## Lowest Channel / Full RB



## Middle Channel / 1RB



## Middle Channel / Full RB



## Highest Channel / 1RB



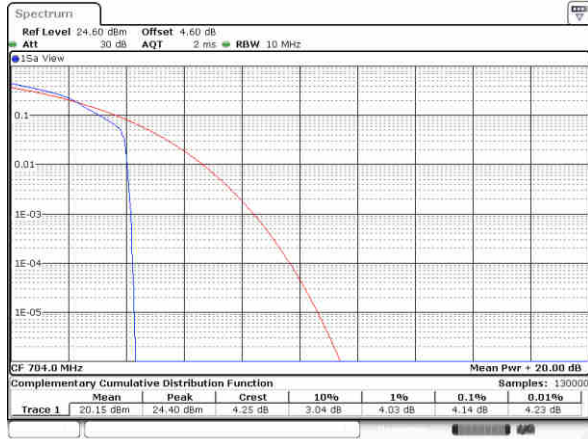
## Highest Channel / Full RB



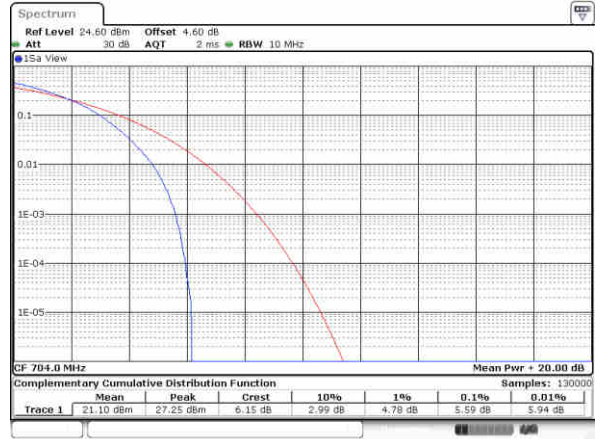


## LTE Band 12 / 10MHz / 16QAM

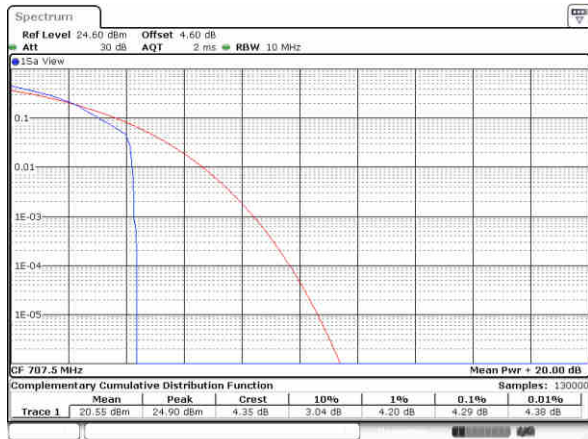
## Lowest Channel / 1RB



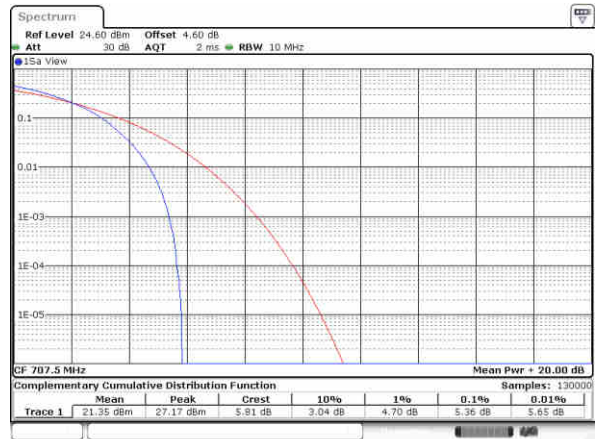
## Lowest Channel / Full RB



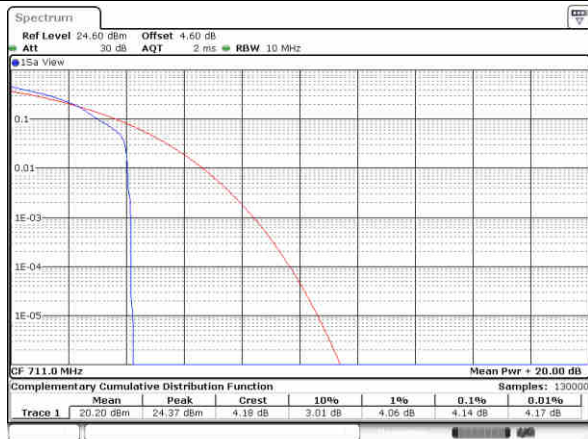
## Middle Channel / 1RB



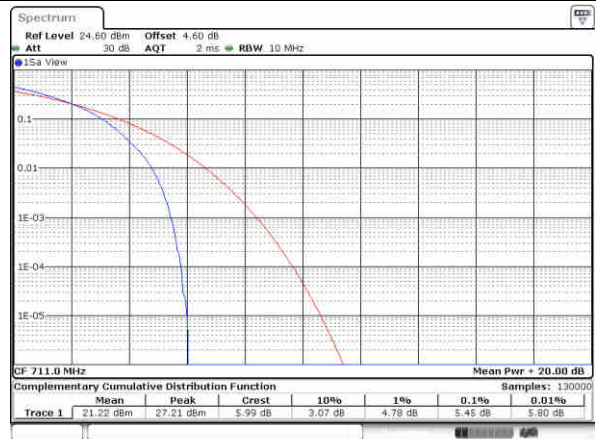
## Middle Channel / Full RB



## Highest Channel / 1RB



## Highest Channel / Full RB





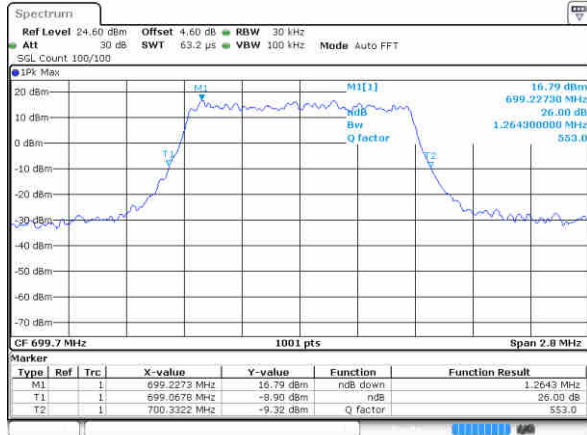
26dB Bandwidth

| 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  | 1.26                       | 1.25  | 3.01 | 3.02  | 4.92 | 4.96  | 9.79  | 9.71  | -     | -     | -     | -     |
| Middle CH  | 1.31                       | 1.27  | 3.00 | 3.02  | 4.92 | 4.87  | 9.79  | 9.73  | -     | -     | -     | -     |
| Highest CH | 1.28                       | 1.27  | 2.99 | 3.03  | 4.92 | 4.93  | 9.65  | 9.87  | -     | -     | -     | -     |



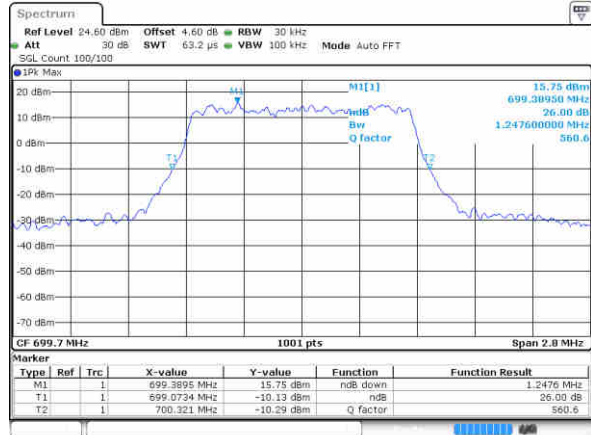
## LTE Band 12

## Lowest Channel / 1.4MHz / QPSK



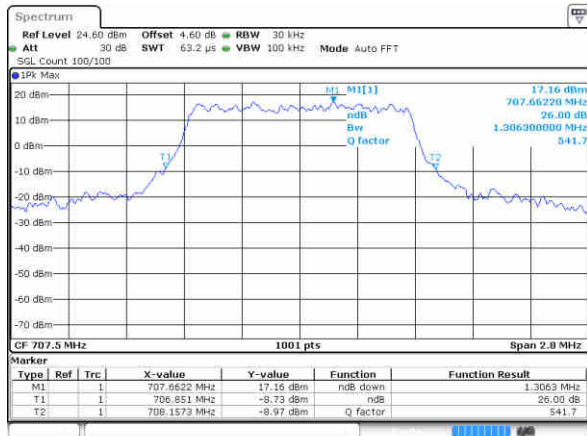
Date: 17 MAY 2020 03:24:50

## Lowest Channel / 1.4MHz / 16QAM



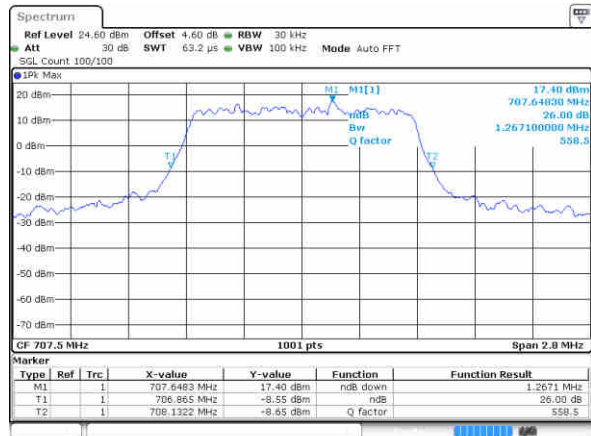
Date: 17 MAY 2020 03:24:40

## Middle Channel / 1.4MHz / QPSK



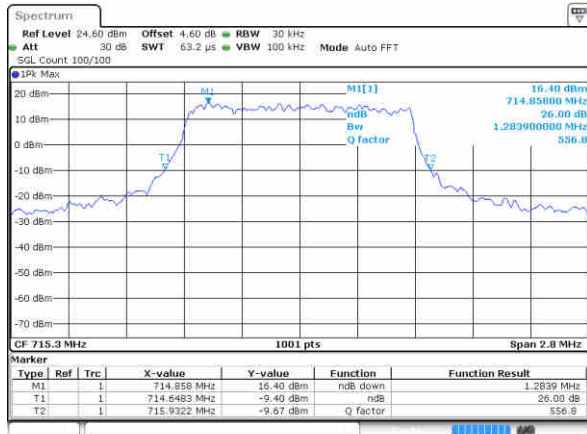
Date: 17 MAY 2020 03:24:20

## Middle Channel / 1.4MHz / 16QAM



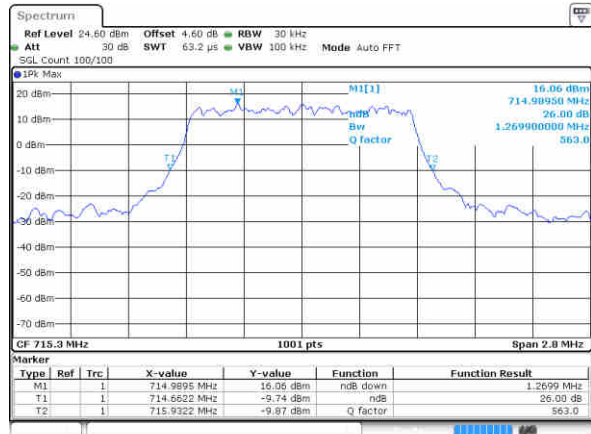
Date: 17 MAY 2020 03:24:30

## Highest Channel / 1.4MHz / QPSK



Date: 17 MAY 2020 03:24:10

## Highest Channel / 1.4MHz / 16QAM

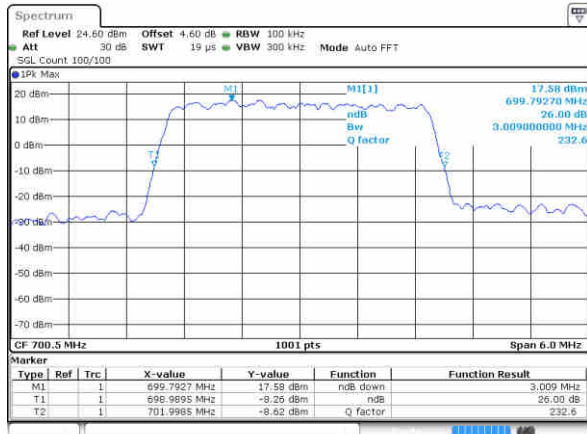


Date: 17 MAY 2020 03:24:00

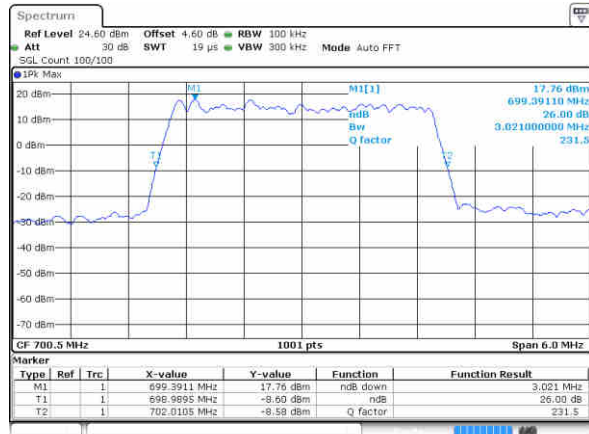


## LTE Band 12

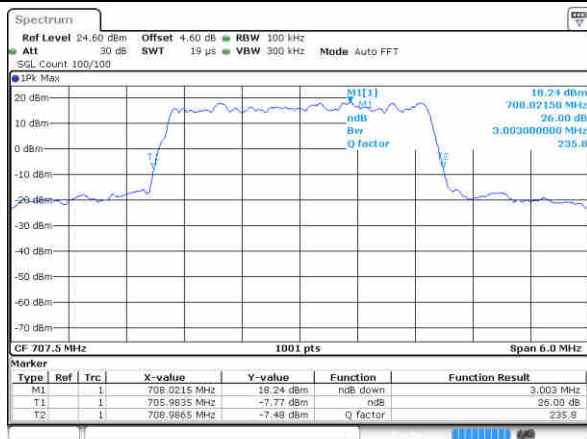
## Lowest Channel / 3MHz / QPSK



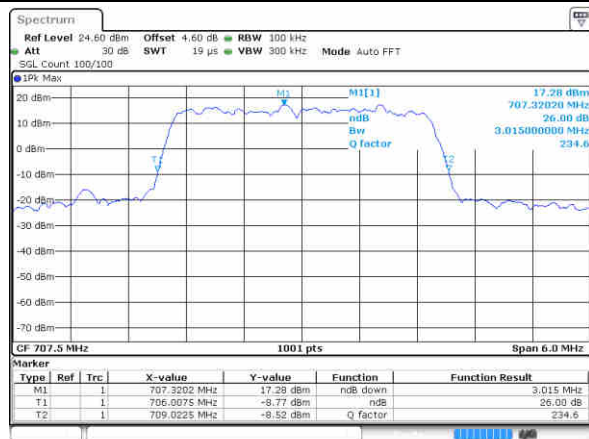
## Lowest Channel / 3MHz / 16QAM



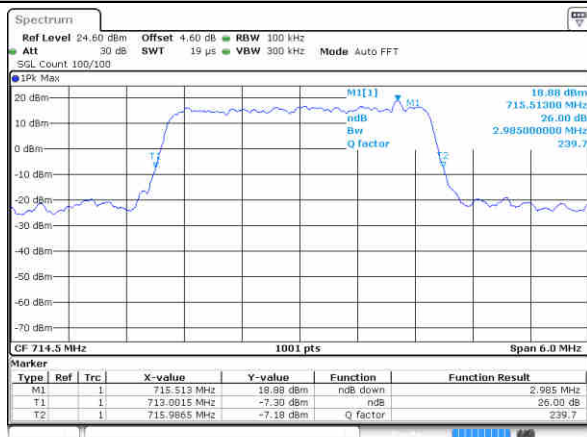
## Middle Channel / 3MHz / QPSK



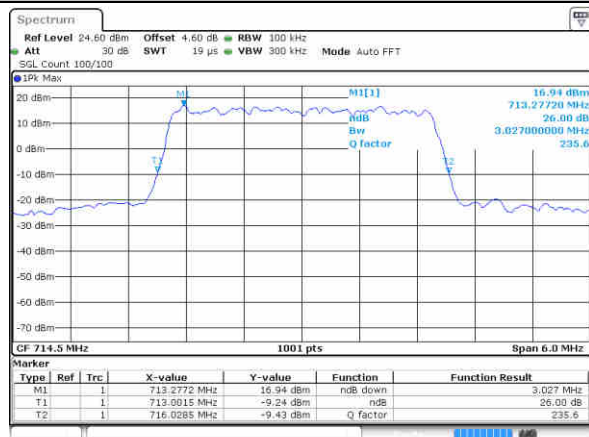
## Middle Channel / 3MHz / 16QAM



## Highest Channel / 3MHz / QPSK



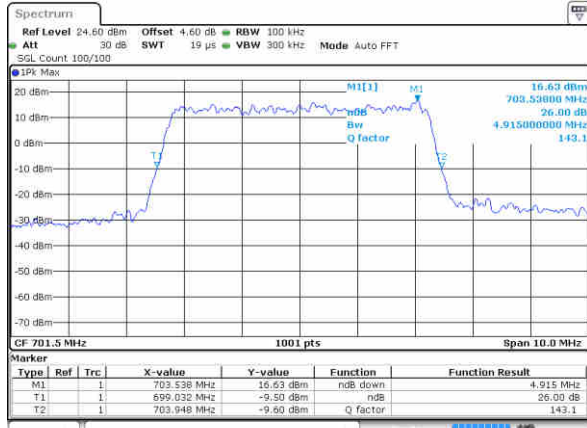
## Highest Channel / 3MHz / 16QAM





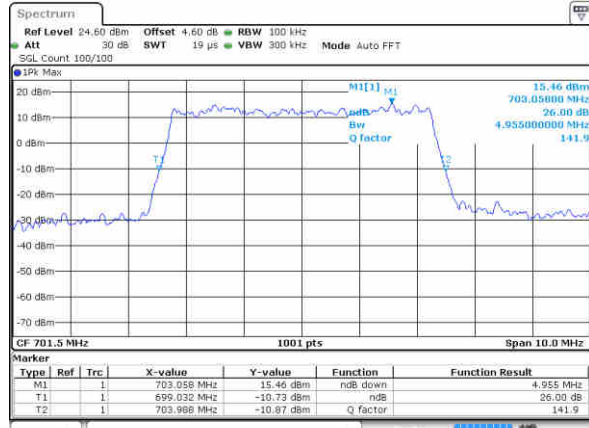
## LTE Band 12

## Lowest Channel / 5MHz / QPSK



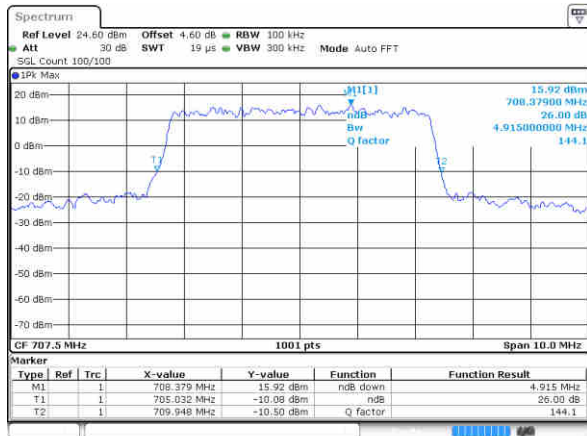
Date: 17 MAY 2020 03:57:46

## Lowest Channel / 5MHz / 16QAM



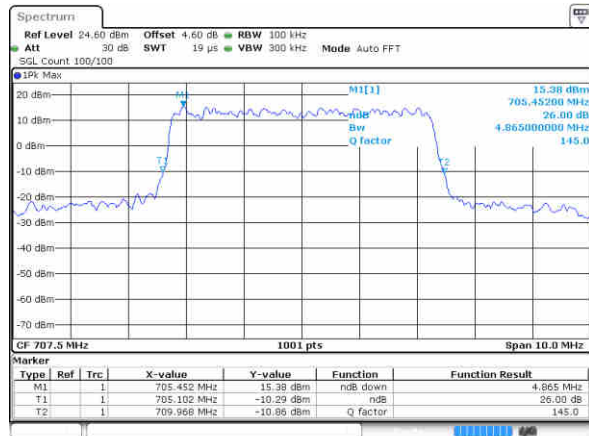
Date: 17 MAY 2020 03:57:35

## Middle Channel / 5MHz / QPSK



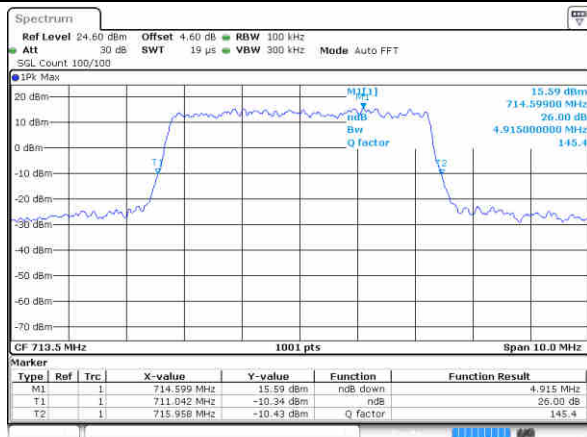
Date: 17 MAY 2020 03:57:16

## Middle Channel / 5MHz / 16QAM



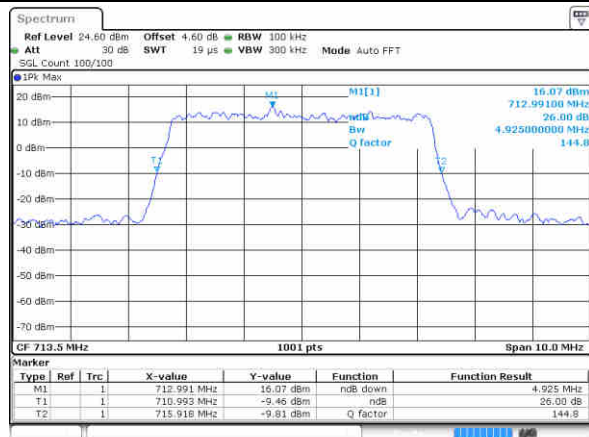
Date: 17 MAY 2020 03:57:26

## Highest Channel / 5MHz / QPSK



Date: 17 MAY 2020 03:57:06

## Highest Channel / 5MHz / 16QAM

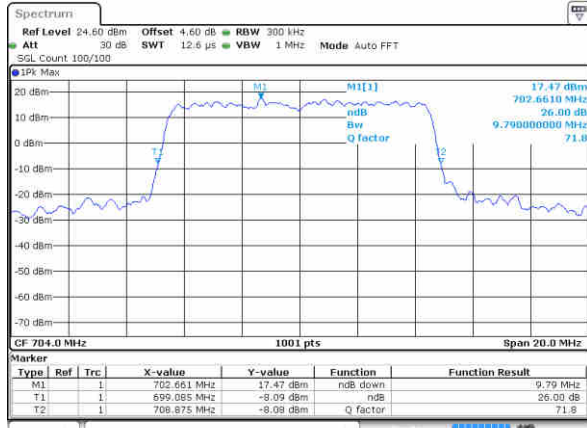


Date: 17 MAY 2020 03:56:56



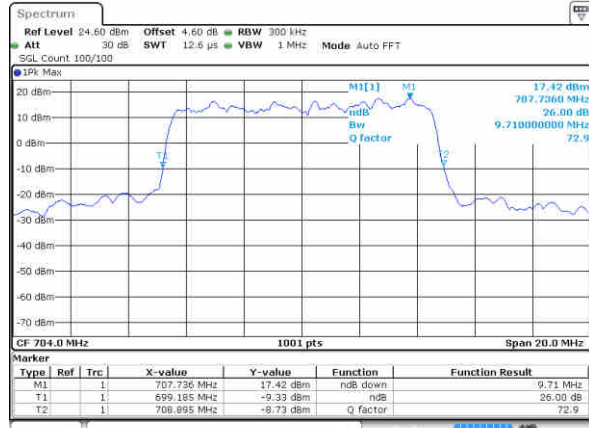
## LTE Band 12

## Lowest Channel / 10MHz / QPSK



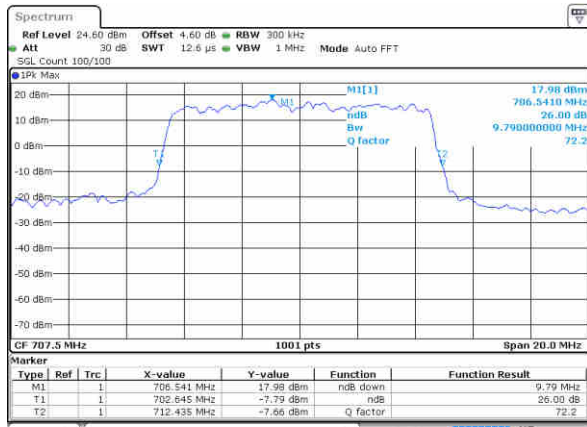
Date: 17 MAY 2020 04:14:14

## Lowest Channel / 10MHz / 16QAM



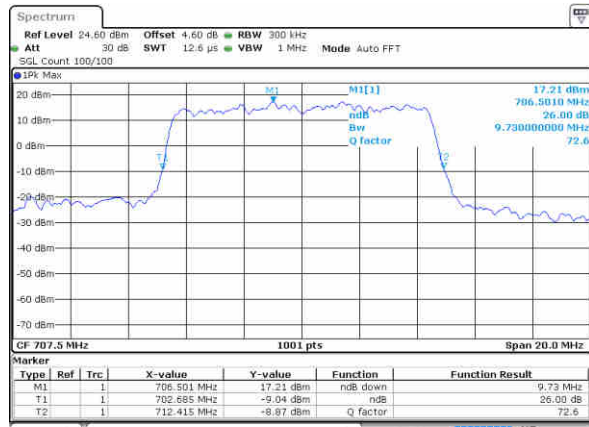
Date: 17 MAY 2020 04:14:04

## Middle Channel / 10MHz / QPSK



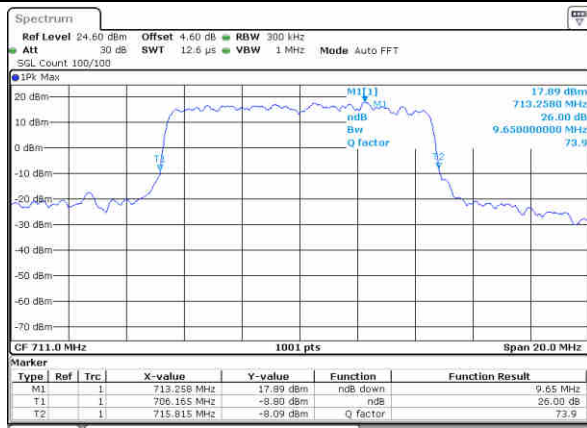
Date: 17 MAY 2020 04:14:44

## Middle Channel / 10MHz / 16QAM



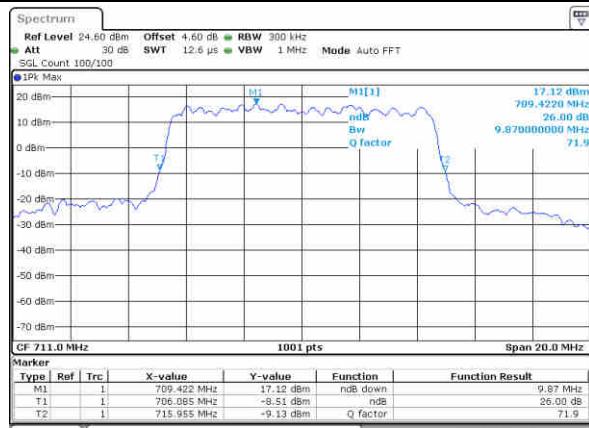
Date: 17 MAY 2020 04:13:54

## Highest Channel / 10MHz / QPSK



Date: 17 MAY 2020 04:13:34

## Highest Channel / 10MHz / 16QAM



Date: 17 MAY 2020 04:13:24

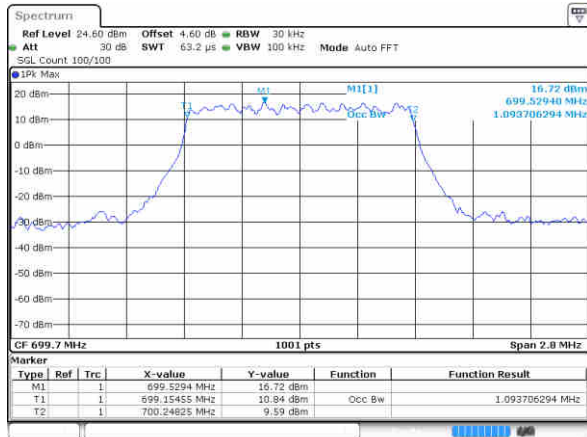
**Occupied Bandwidth**

| Mode       | LTE Band 12 : 99%OBW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|------------|---------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| BW         | 1.4MHz                    |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | QPSK                      | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.09                      | 1.10  | 2.71 | 2.72  | 4.48 | 4.49  | 9.05  | 8.97  | -     | -     | -     | -     |
| Middle CH  | 1.09                      | 1.09  | 2.72 | 2.72  | 4.49 | 4.49  | 8.99  | 8.95  | -     | -     | -     | -     |
| Highest CH | 1.10                      | 1.09  | 2.73 | 2.72  | 4.49 | 4.48  | 8.99  | 9.01  | -     | -     | -     | -     |

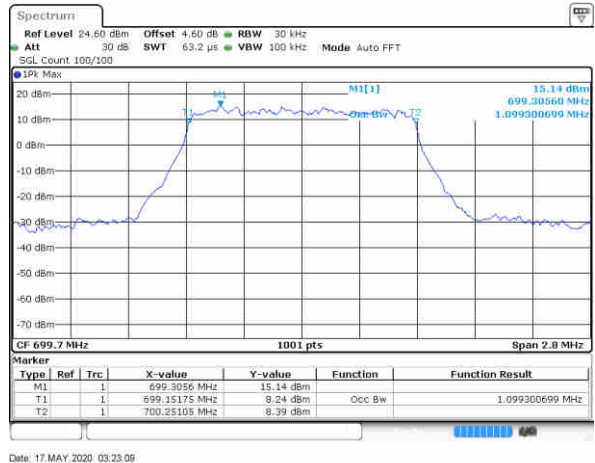


## LTE Band 12

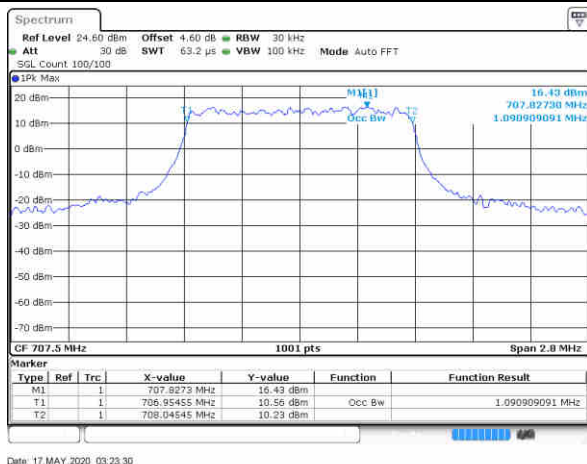
## Lowest Channel / 1.4MHz / QPSK



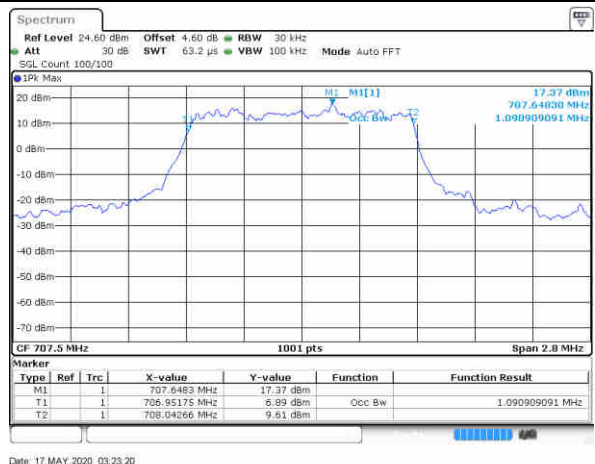
## Lowest Channel / 1.4MHz / 16QAM



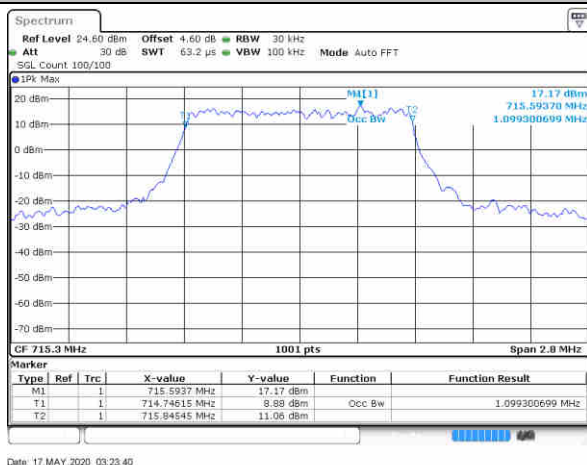
## Middle Channel / 1.4MHz / QPSK



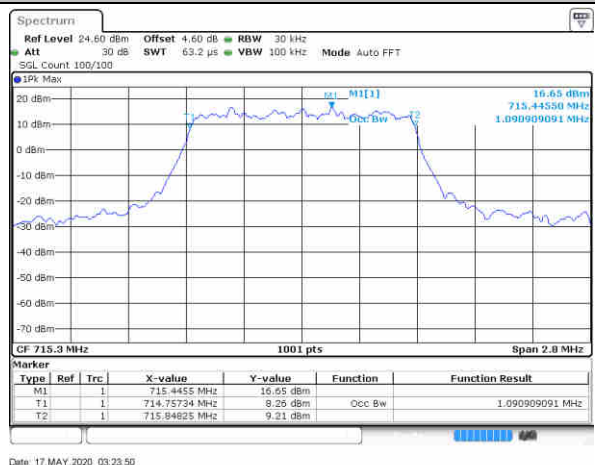
## Middle Channel / 1.4MHz / 16QAM



## Highest Channel / 1.4MHz / QPSK



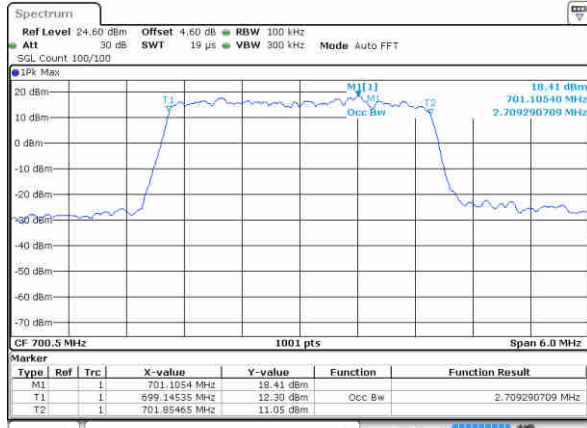
## Highest Channel / 1.4MHz / 16QAM





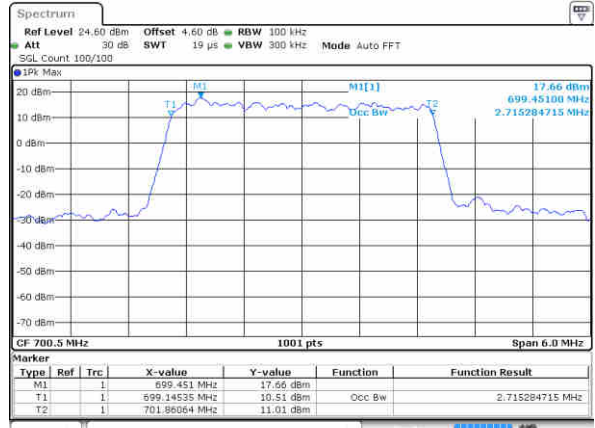
## LTE Band 12

## Lowest Channel / 3MHz / QPSK



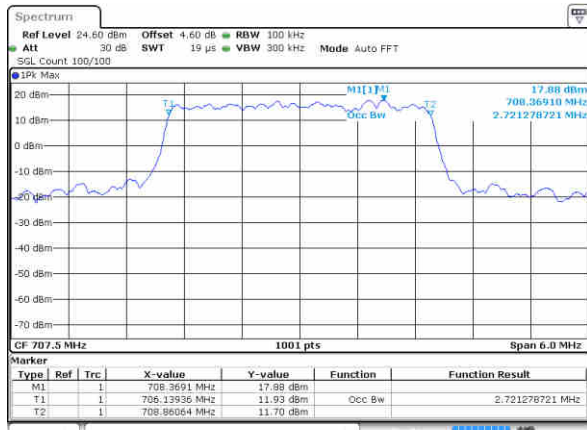
Date: 17 MAY 2020 03:39:27

## Lowest Channel / 3MHz / 16QAM



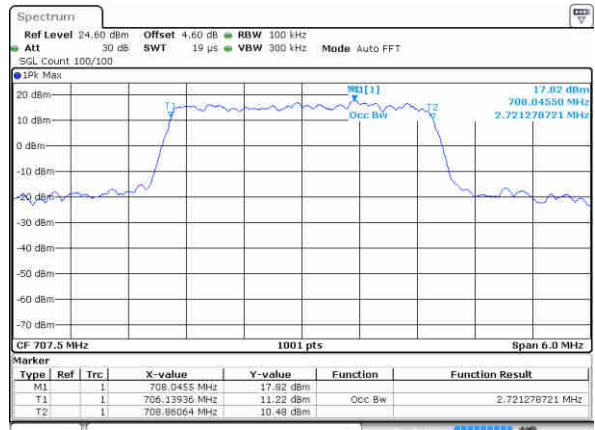
Date: 17 MAY 2020 03:39:37

## Middle Channel / 3MHz / QPSK



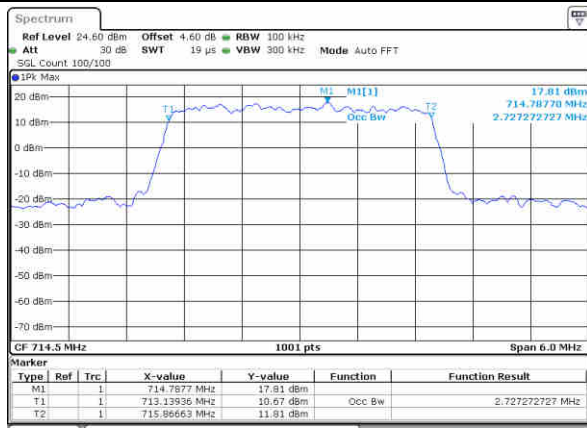
Date: 17 MAY 2020 03:39:57

## Middle Channel / 3MHz / 16QAM



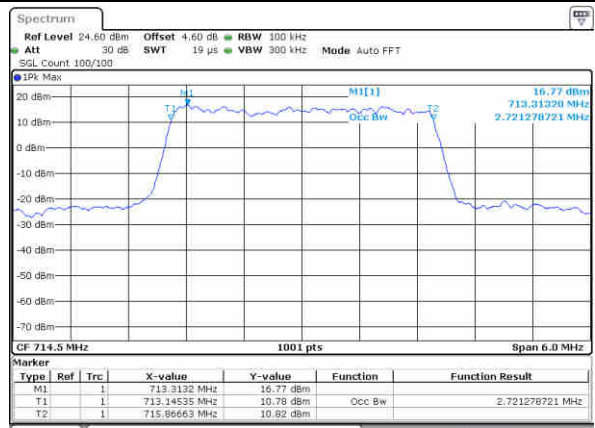
Date: 17 MAY 2020 03:39:47

## Highest Channel / 3MHz / QPSK



Date: 17 MAY 2020 03:40:07

## Highest Channel / 3MHz / 16QAM

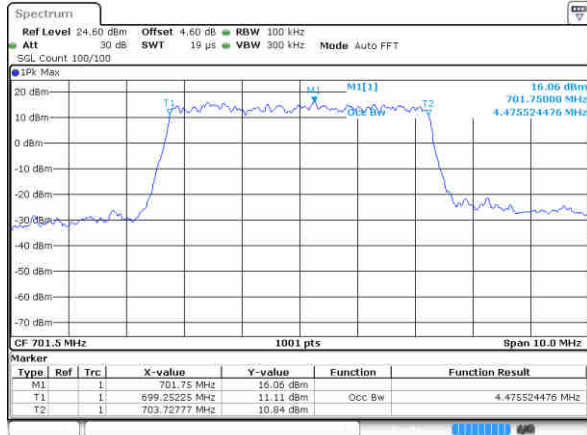


Date: 17 MAY 2020 03:40:18



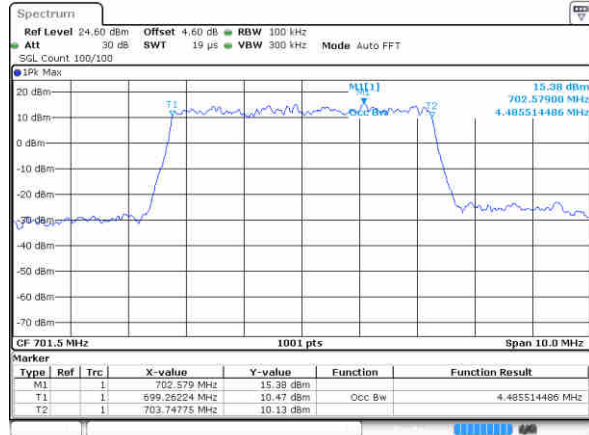
## LTE Band 12

## Lowest Channel / 5MHz / QPSK



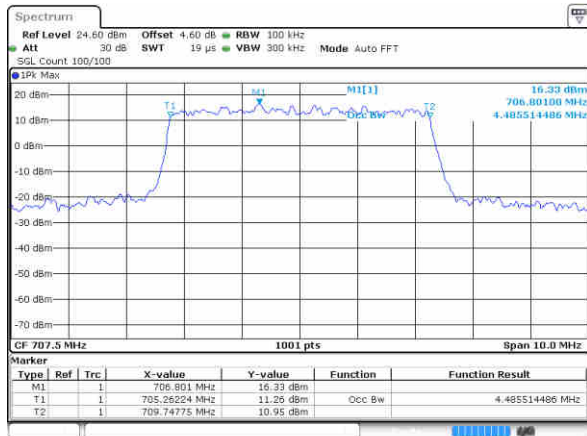
Date: 17 MAY 2020 03:55:55

## Lowest Channel / 5MHz / 16QAM



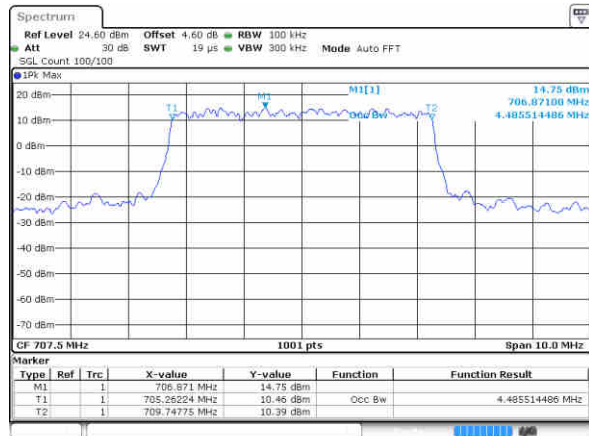
Date: 17 MAY 2020 03:56:05

## Middle Channel / 5MHz / QPSK



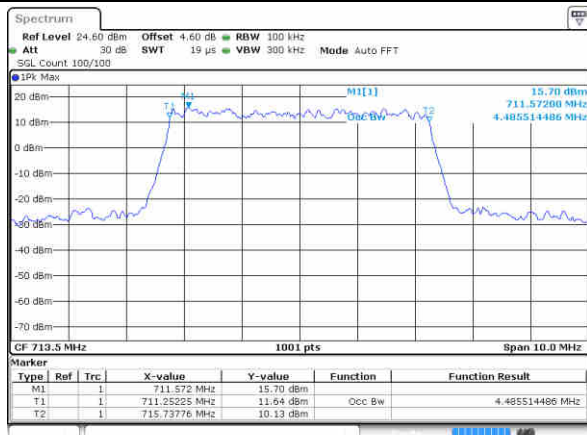
Date: 17 MAY 2020 03:56:25

## Middle Channel / 5MHz / 16QAM



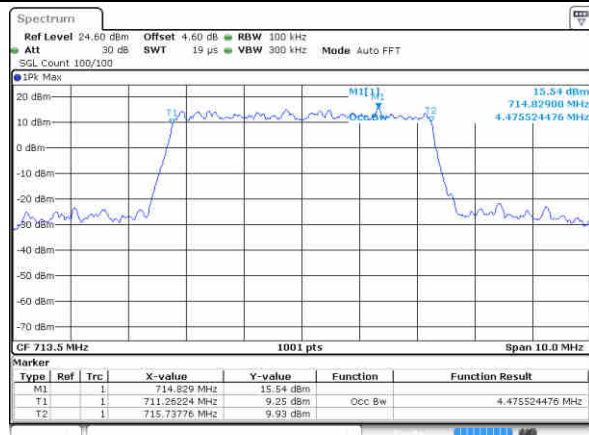
Date: 17 MAY 2020 03:56:15

## Highest Channel / 5MHz / QPSK



Date: 17 MAY 2020 03:56:36

## Highest Channel / 5MHz / 16QAM

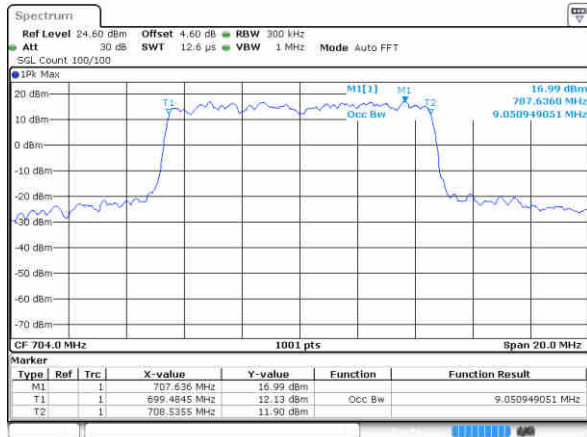


Date: 17 MAY 2020 03:56:46

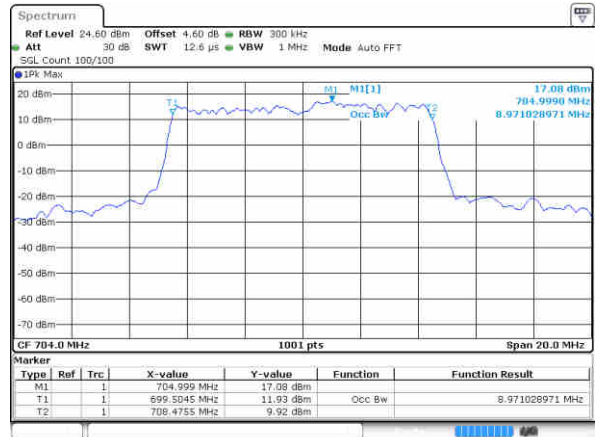


## LTE Band 12

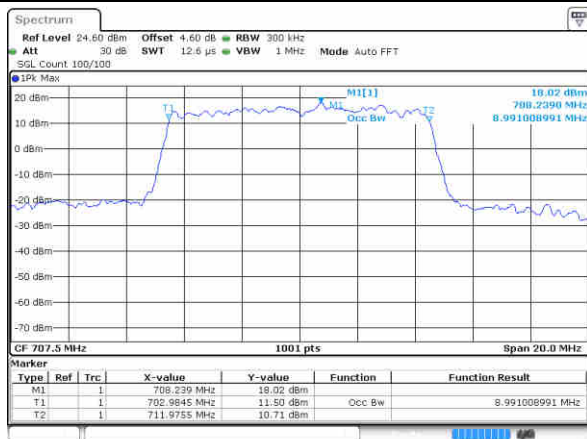
## Lowest Channel / 10MHz / QPSK



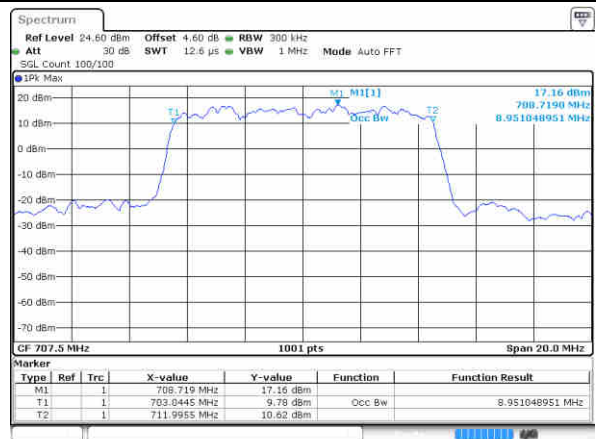
## Lowest Channel / 10MHz / 16QAM



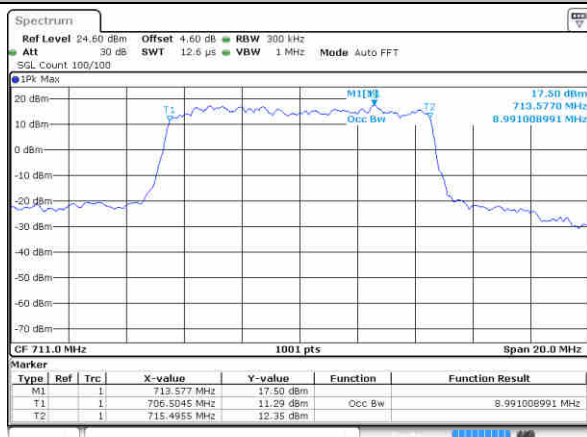
## Middle Channel / 10MHz / QPSK



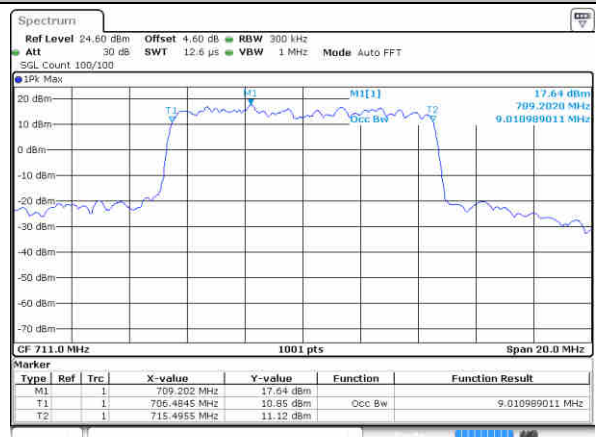
## Middle Channel / 10MHz / 16QAM

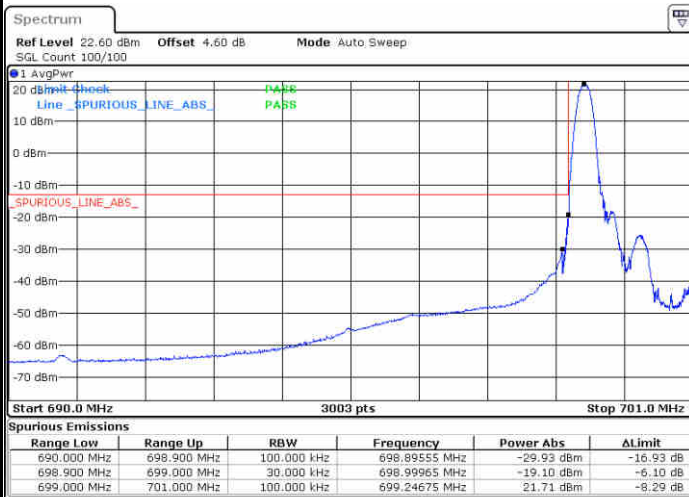


## Highest Channel / 10MHz / QPSK



## Highest Channel / 10MHz / 16QAM

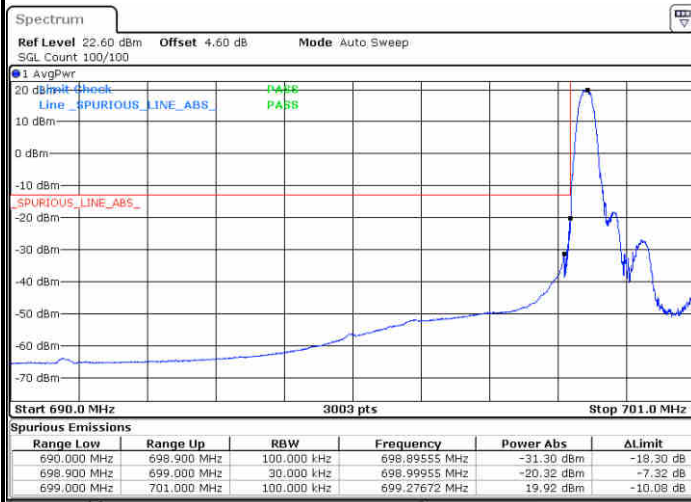


**Conducted Band Edge****LTE Band 12 / 1.4MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**



## LTE Band 12 / 1.4MHz / 16QAM

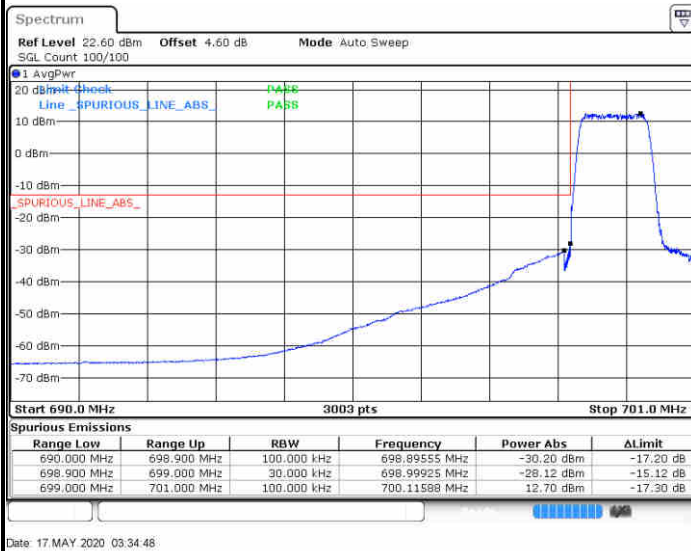
## Lowest Band Edge / 1 RB



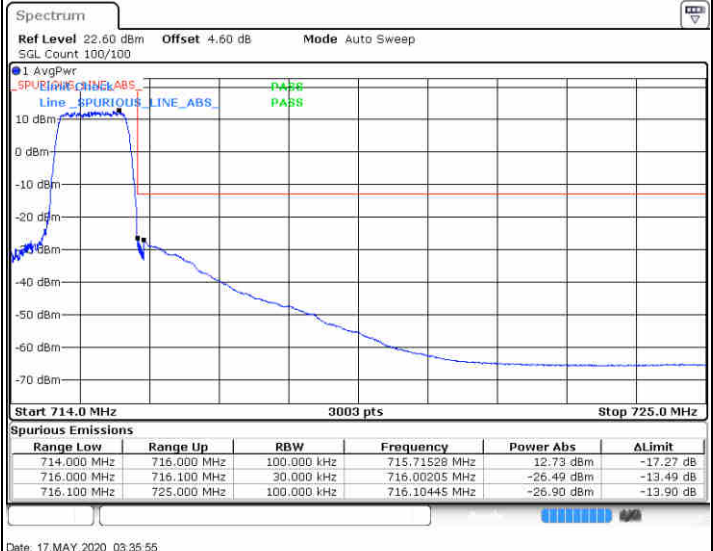
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



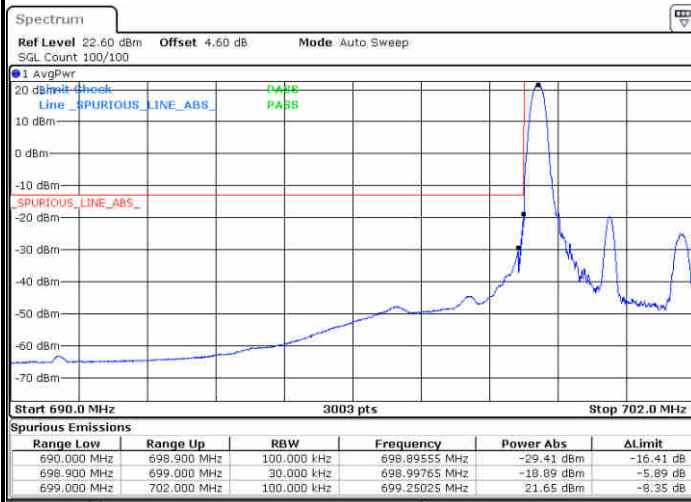
## Highest Band Edge / Full RB



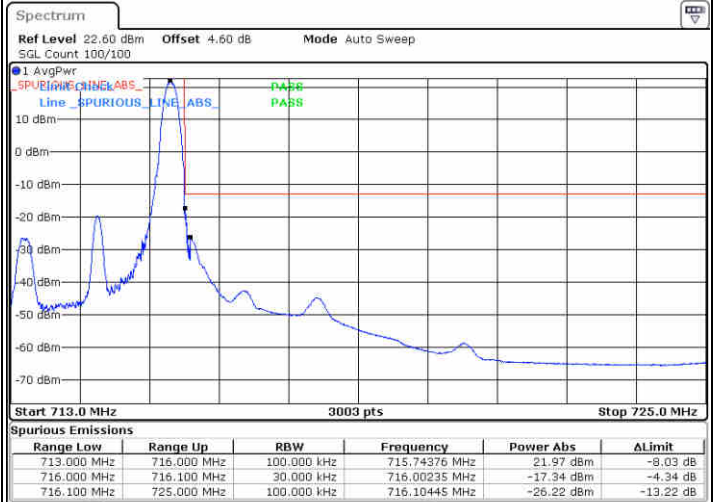


## LTE Band 12 / 3MHz / QPSK

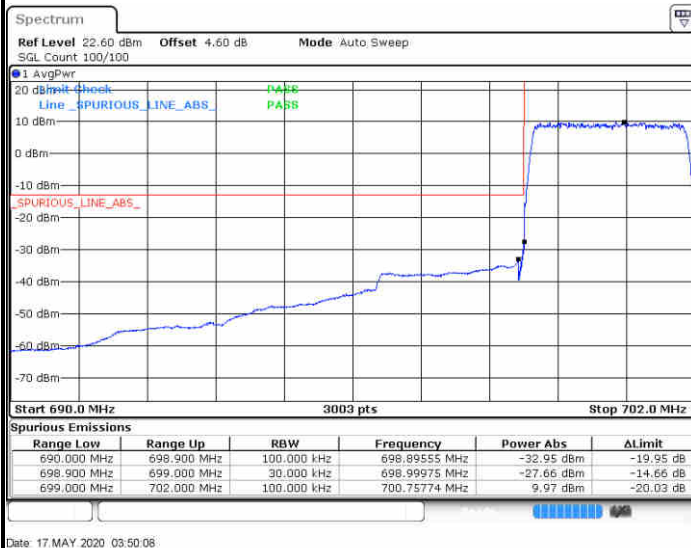
## Lowest Band Edge / 1RB



## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB





## LTE Band 12 / 3MHz / 16QAM

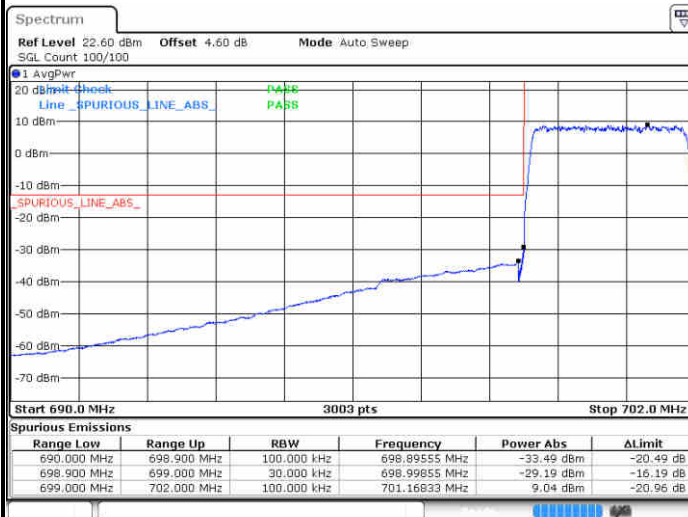
## Lowest Band Edge / 1 RB



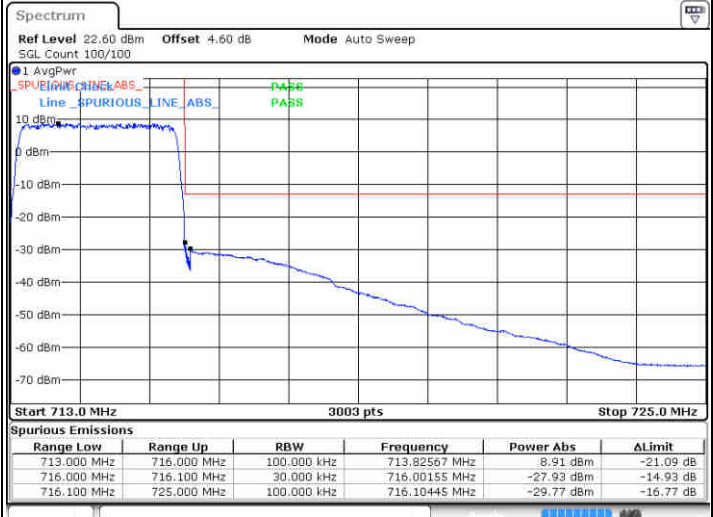
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



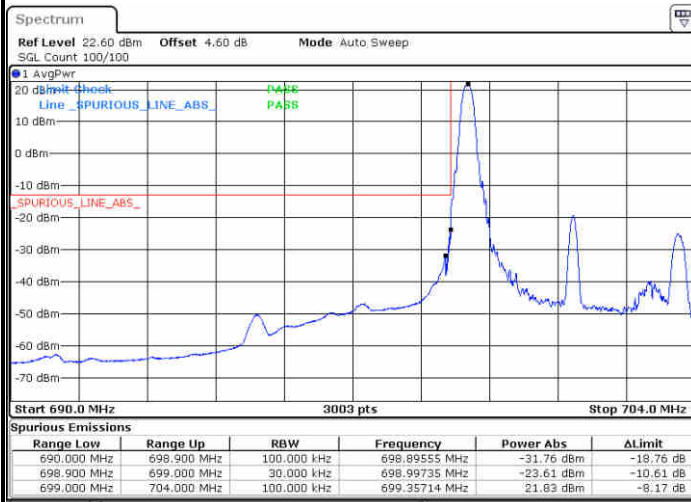
## Highest Band Edge / Full RB



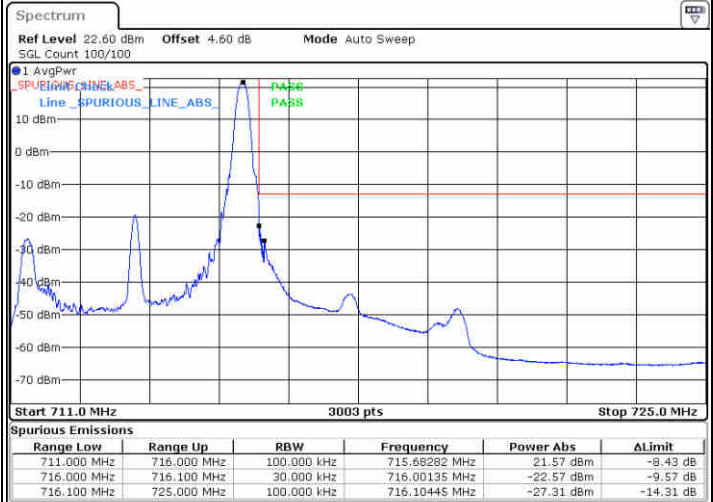


## LTE Band 12 / 5MHz / QPSK

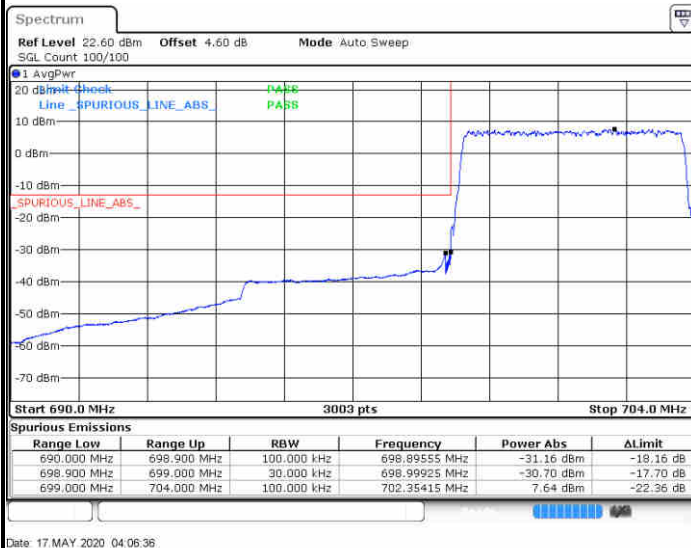
## Lowest Band Edge / 1 RB



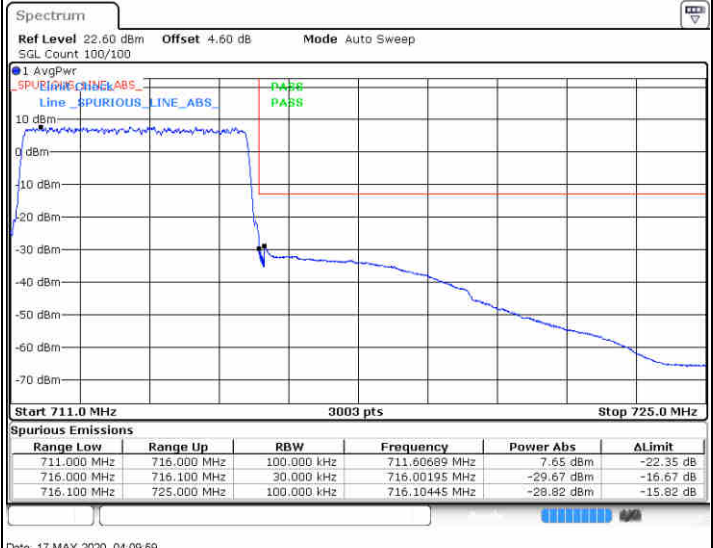
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



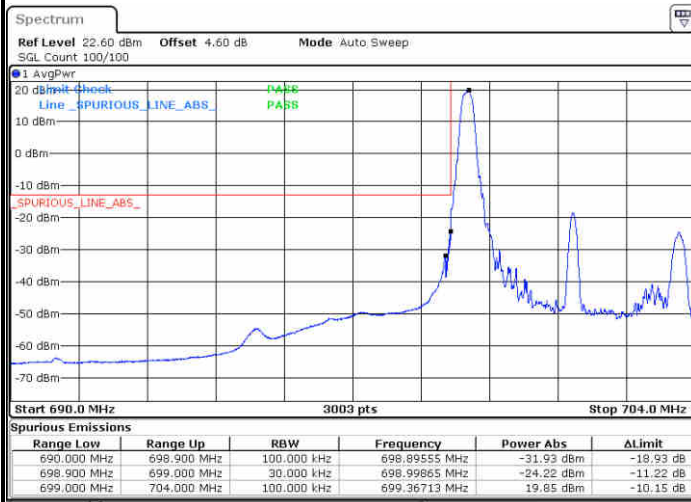
## Highest Band Edge / Full RB



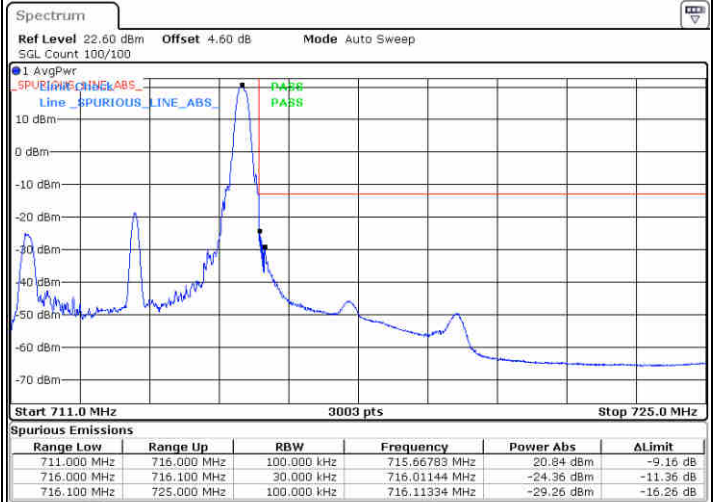


## LTE Band 12 / 5MHz / 16QAM

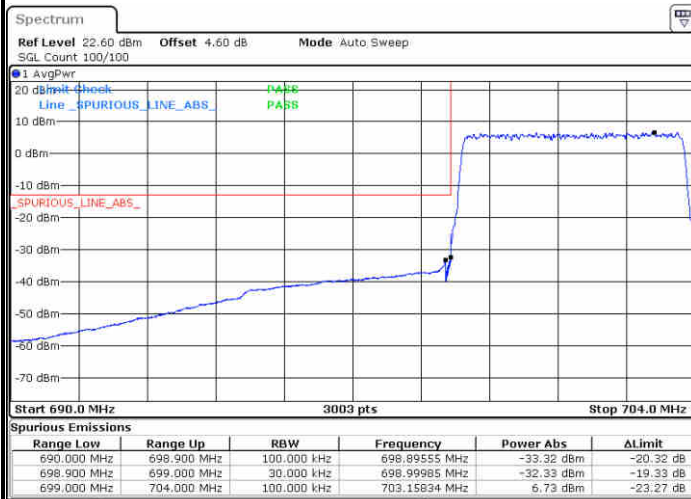
## Lowest Band Edge / 1RB



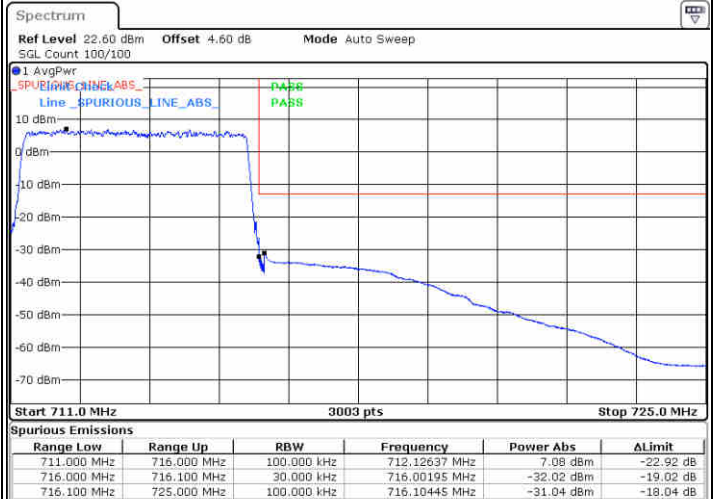
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



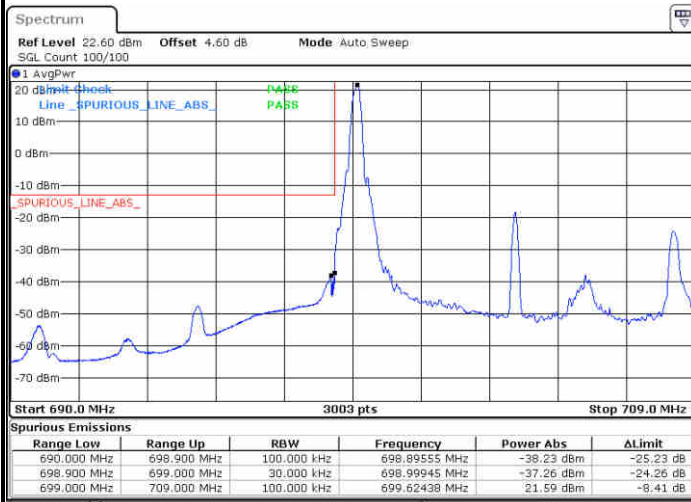
## Highest Band Edge / Full RB



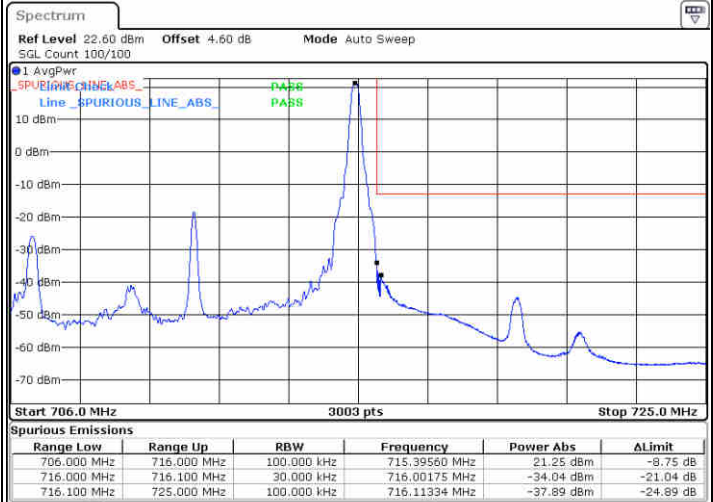


## LTE Band 12 / 10MHz / QPSK

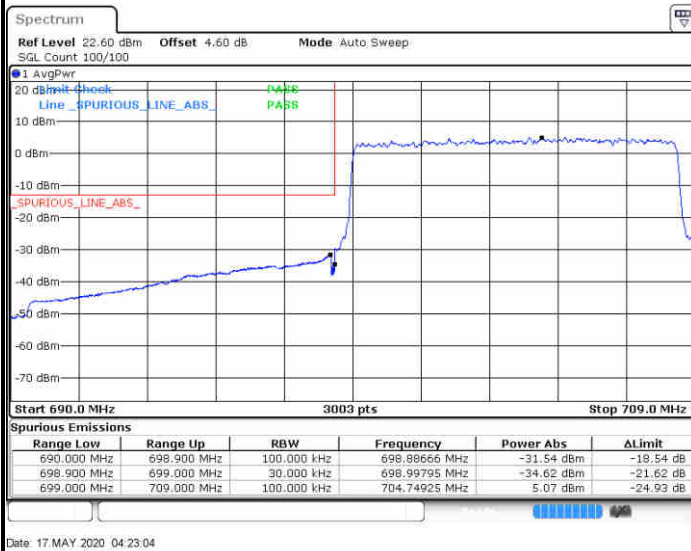
## Lowest Band Edge / 1 RB



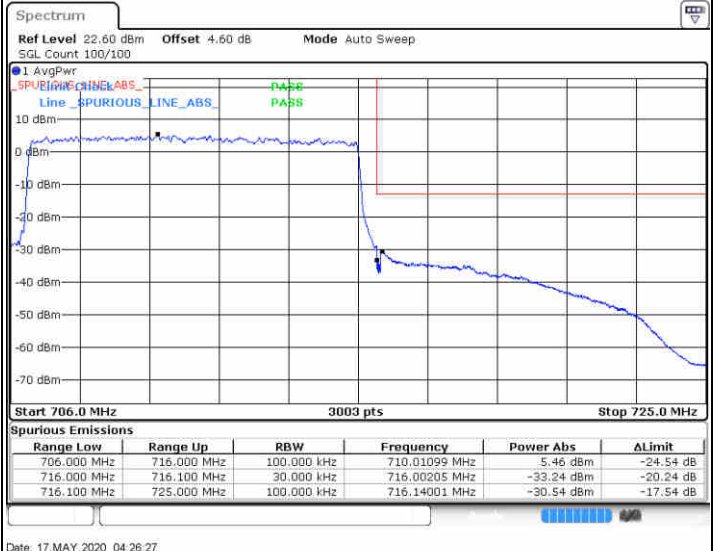
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



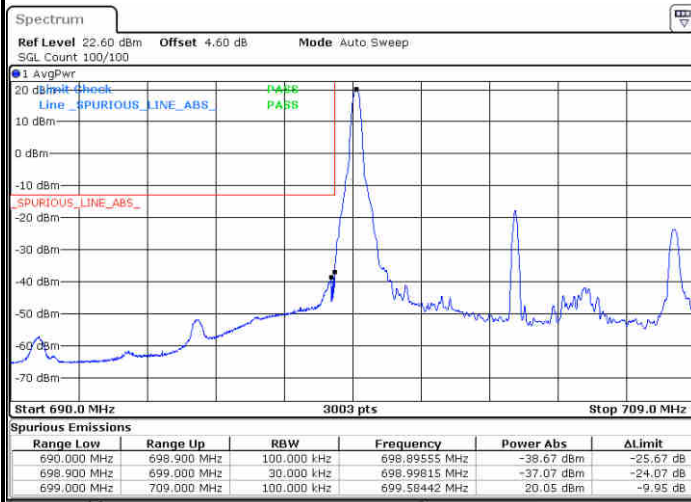
## Highest Band Edge / Full RB



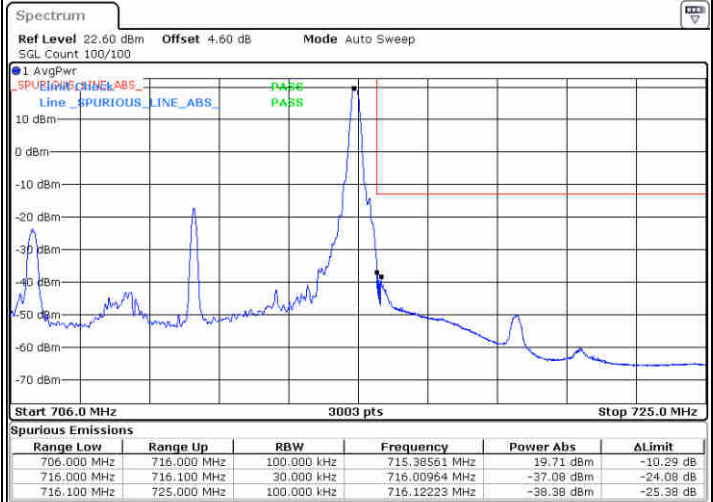


## LTE Band 12 / 10MHz / 16QAM

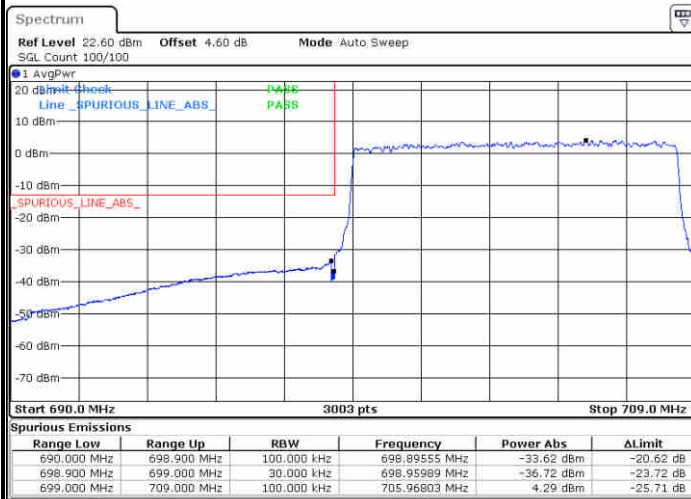
## Lowest Band Edge / 1 RB



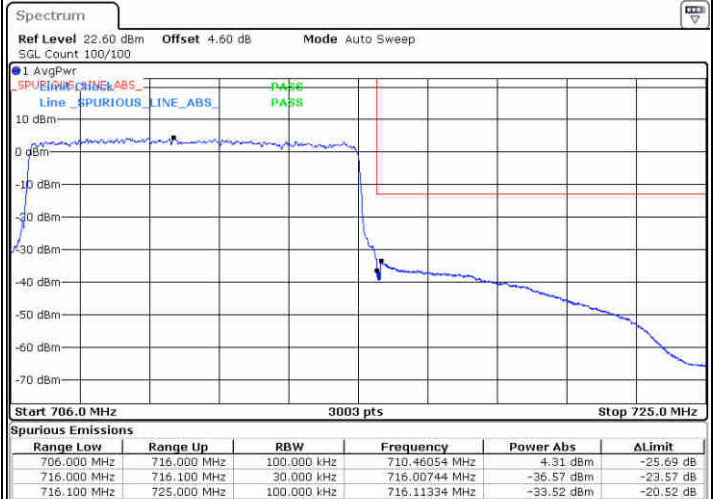
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



## Highest Band Edge / Full RB

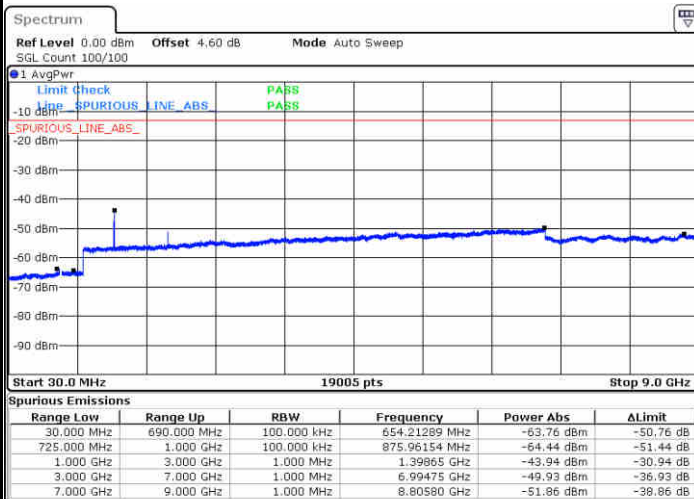




## Conducted Spurious Emission

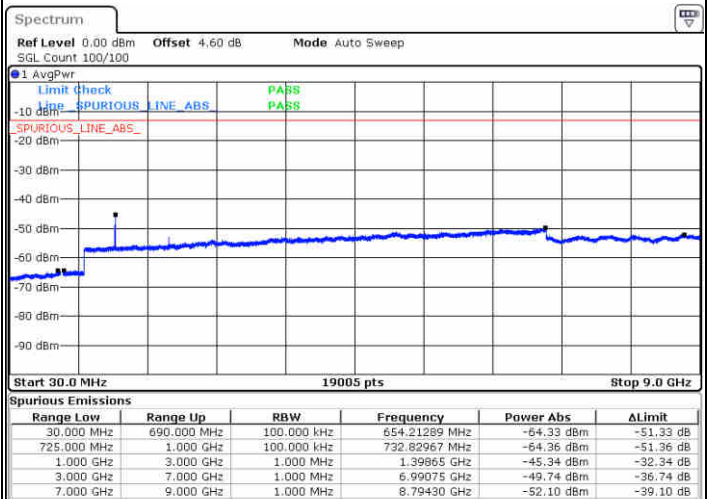
### LTE Band 12 / 1.4MHz

#### Lowest Channel / QPSK



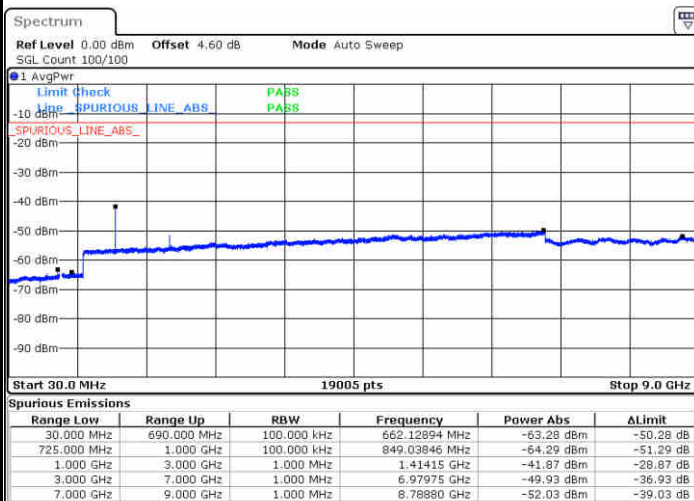
Date: 17.MAY.2020 03:25:44

#### Lowest Channel / 16QAM



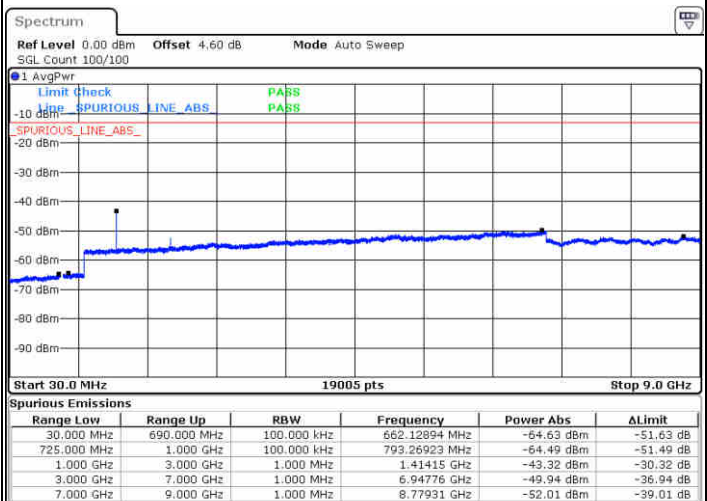
Date: 17.MAY.2020 03:26:38

#### Middle Channel / QPSK



Date: 17.MAY.2020 03:28:27

#### Middle Channel / 16QAM

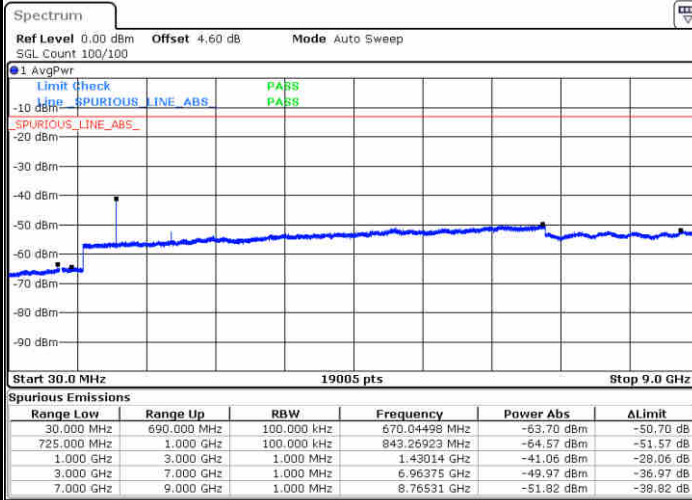


Date: 17.MAY.2020 03:27:33



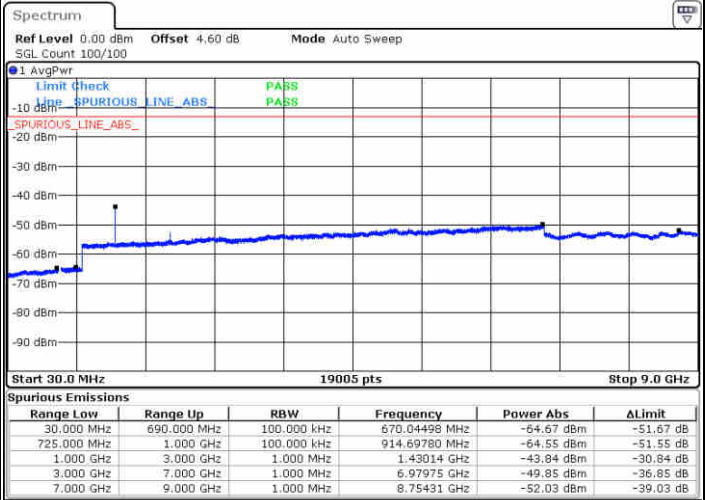
## LTE Band 12 / 1.4MHz

## Highest Channel / QPSK



Date: 17.MAY.2020 03:29:22

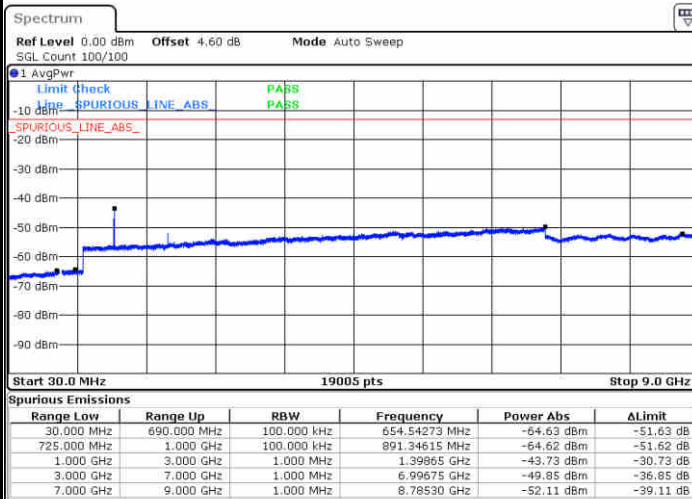
## Highest Channel / 16QAM



Date: 17.MAY.2020 03:30:17

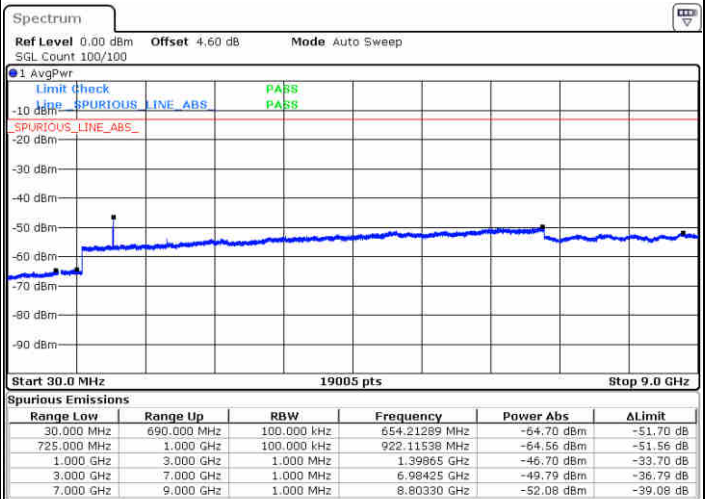
## LTE Band 12 / 3MHz

## Lowest Channel / QPSK



Date: 17.MAY.2020 03:42:12

## Lowest Channel / 16QAM

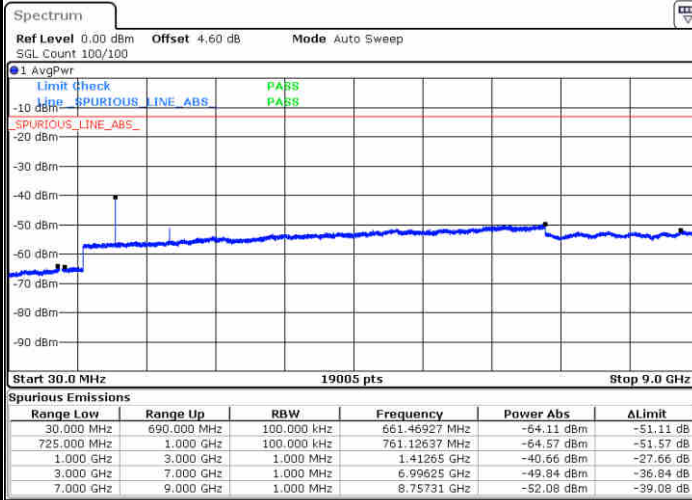


Date: 17.MAY.2020 03:43:06



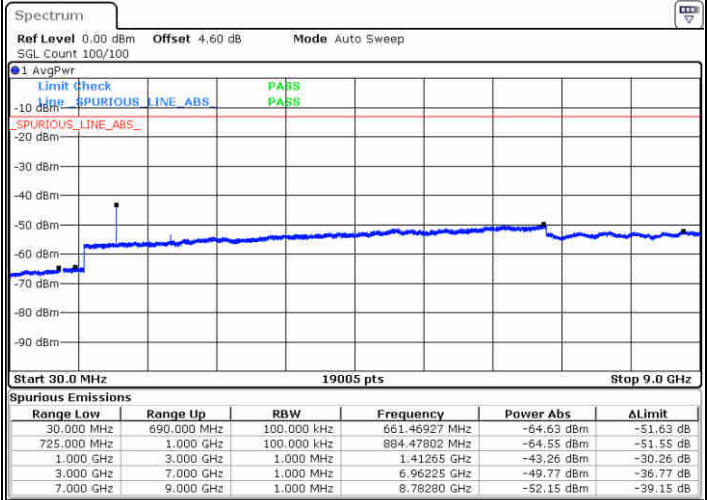
## LTE Band 12 / 3MHz

## Middle Channel / QPSK



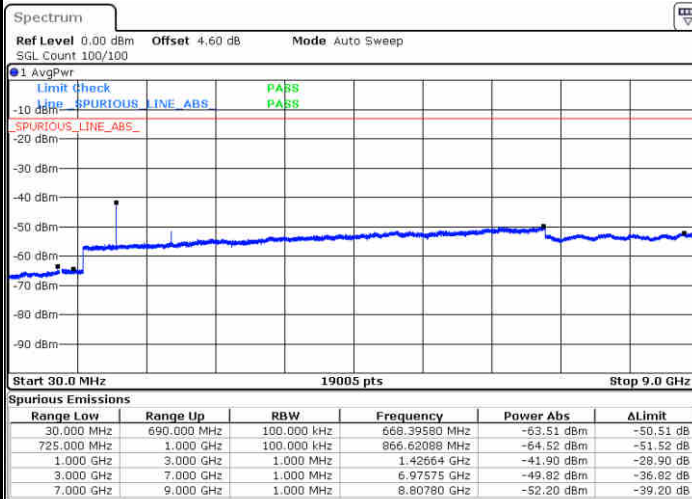
Date: 17.MAY.2020 03:44:55

## Middle Channel / 16QAM



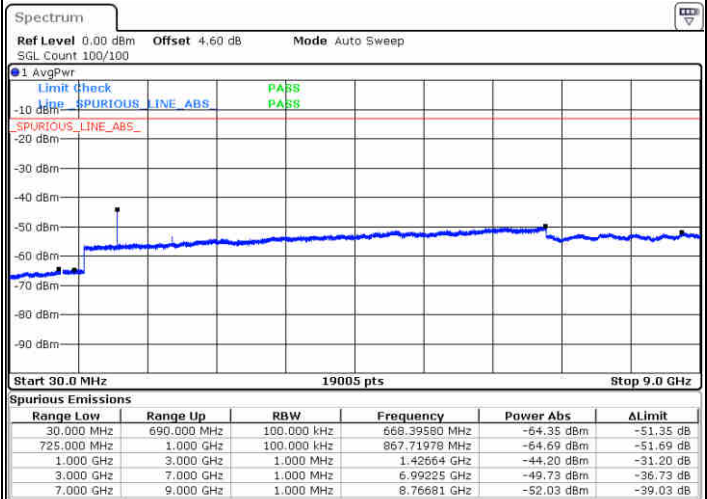
Date: 17.MAY.2020 03:44:01

## Highest Channel / QPSK



Date: 17.MAY.2020 03:45:50

## Highest Channel / 16QAM



Date: 17.MAY.2020 03:46:45