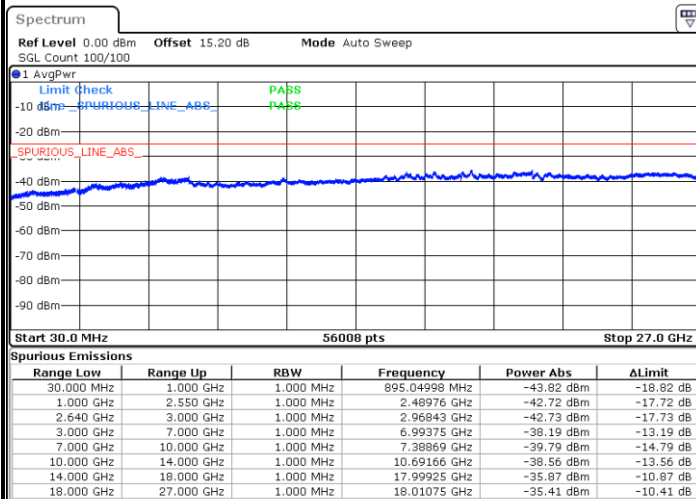




# Conducted Spurious Emission

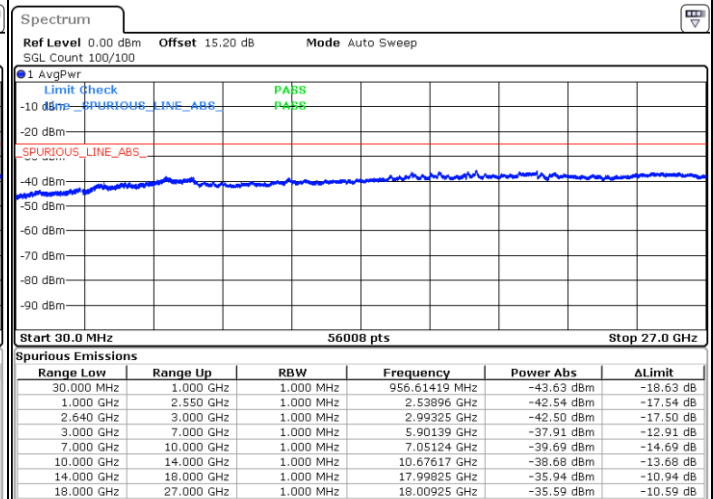
## LTE Band 38 / 5MHz

### Lowest Channel / QPSK



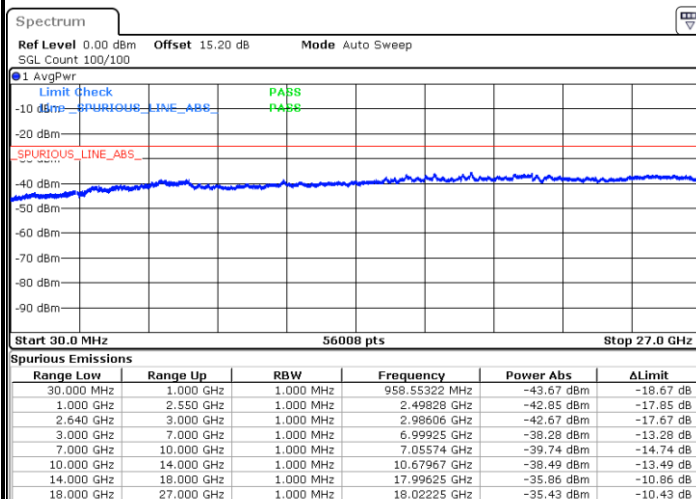
Date: 28.MAR.2020 15:47:49

### Lowest Channel / 16QAM



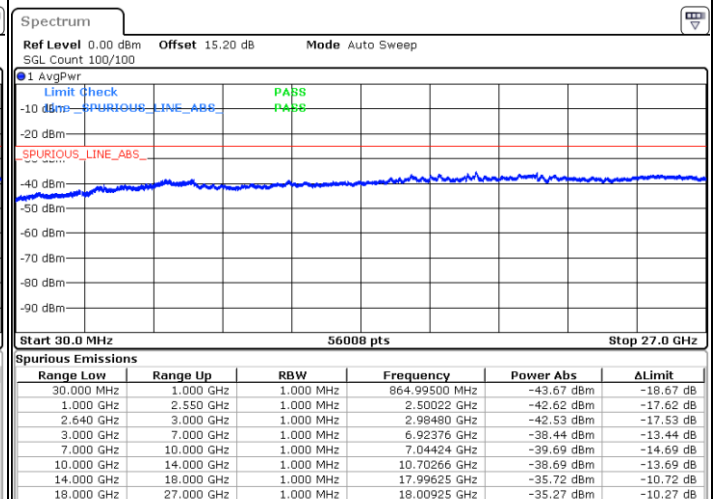
Date: 28.MAR.2020 15:49:09

### Middle Channel / QPSK



Date: 28.MAR.2020 15:50:30

### Middle Channel / 16QAM

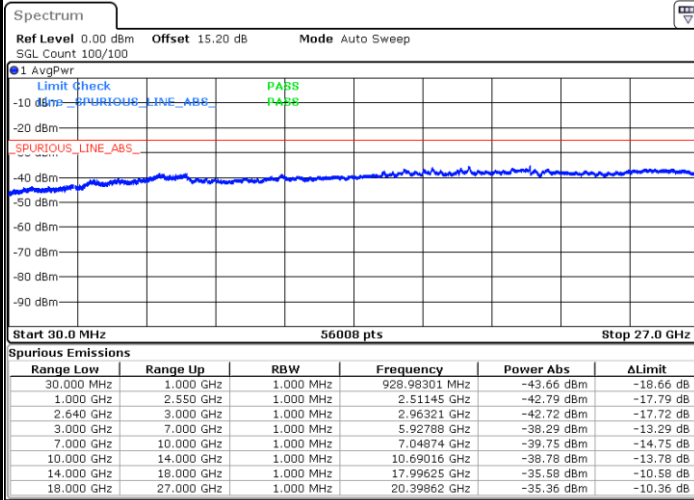


Date: 28.MAR.2020 15:51:50



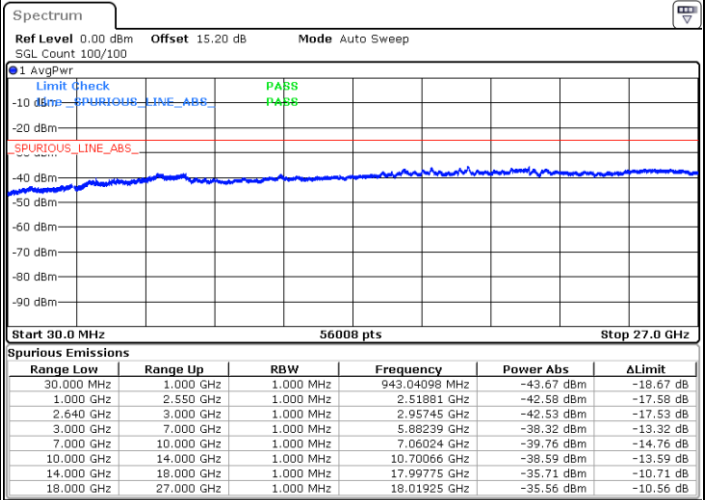
## LTE Band 38 / 5MHz

## Highest Channel / QPSK



Date: 28.MAR.2020 15:53:11

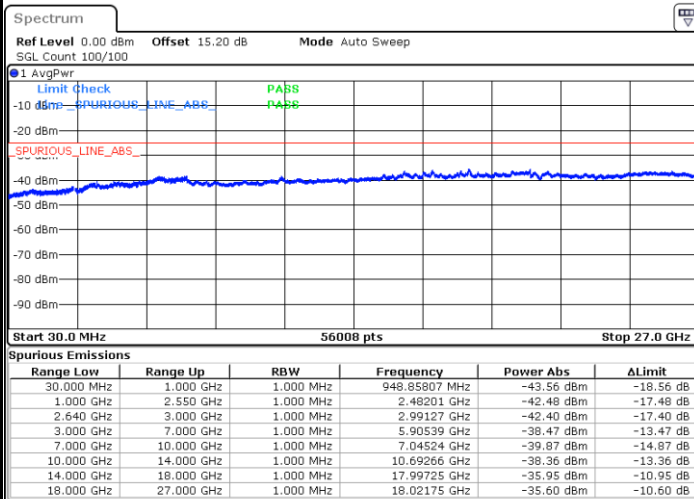
## Highest Channel / 16QAM



Date: 28.MAR.2020 15:54:31

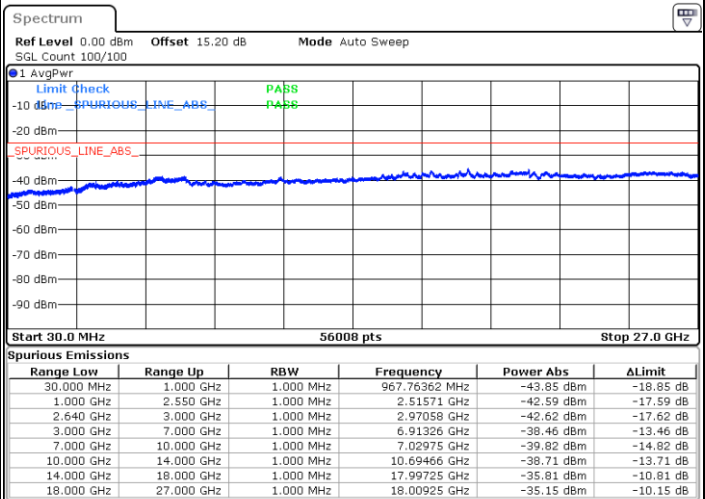
## LTE Band 38 / 10MHz

## Lowest Channel / QPSK



Date: 28.MAR.2020 15:59:54

## Lowest Channel / 16QAM

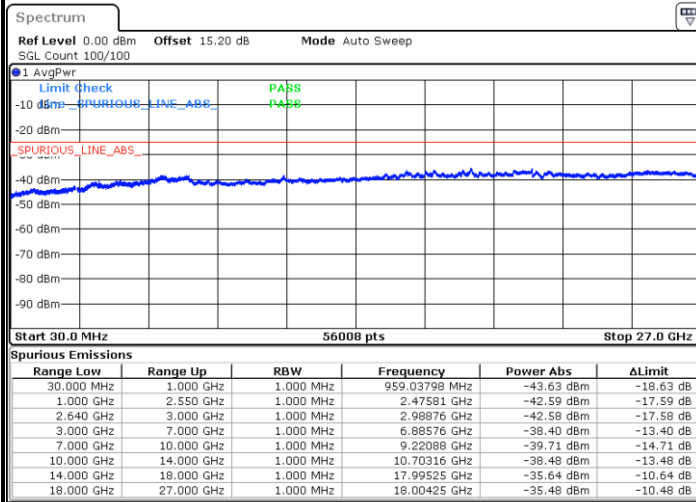


Date: 28.MAR.2020 16:01:15



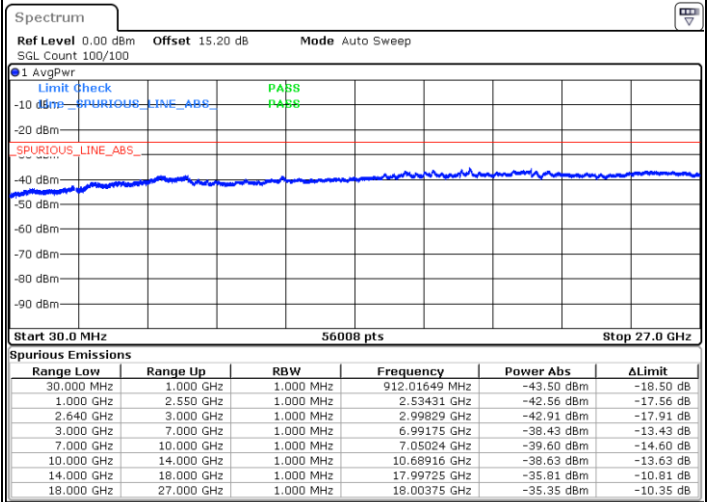
## LTE Band 38 / 10MHz

## Middle Channel / QPSK



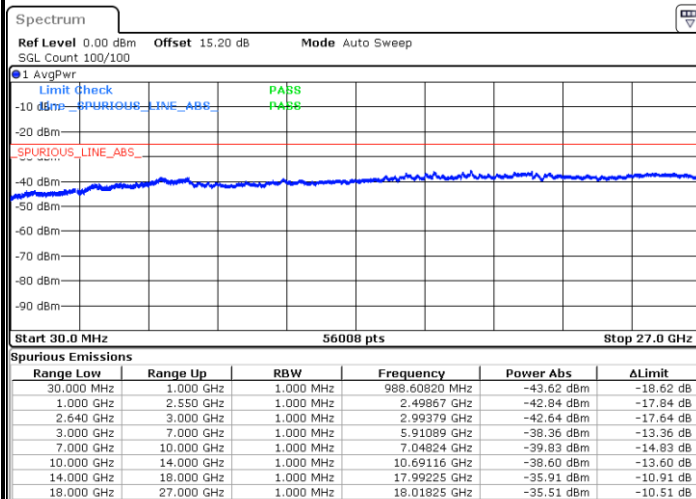
Date: 28.MAR.2020 16:02:35

## Middle Channel / 16QAM



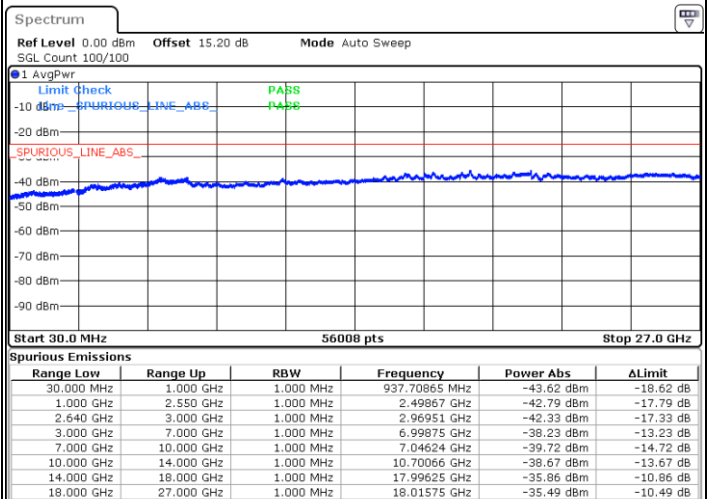
Date: 28.MAR.2020 16:03:56

## Highest Channel / QPSK



Date: 28.MAR.2020 16:05:16

## Highest Channel / 16QAM

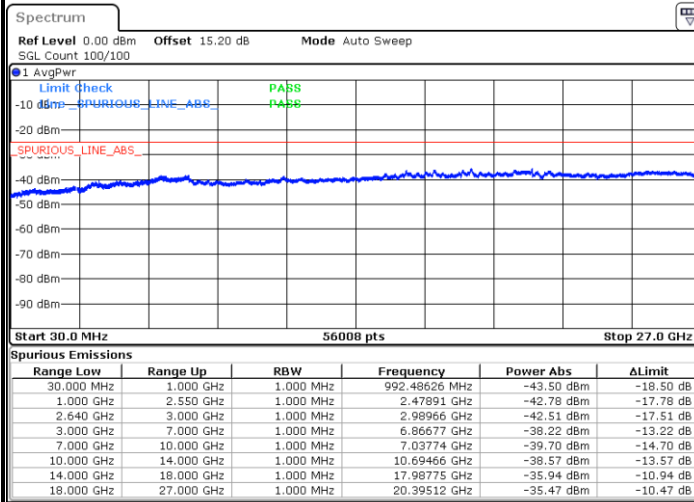


Date: 28.MAR.2020 16:06:37



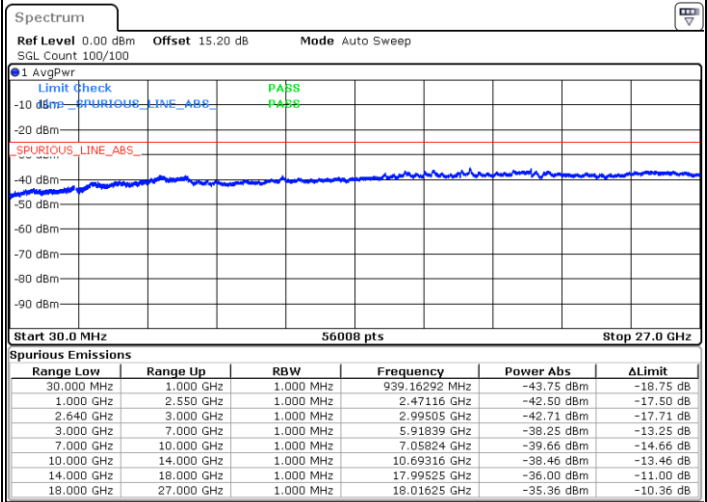
## LTE Band 38 / 15MHz

## Lowest Channel / QPSK



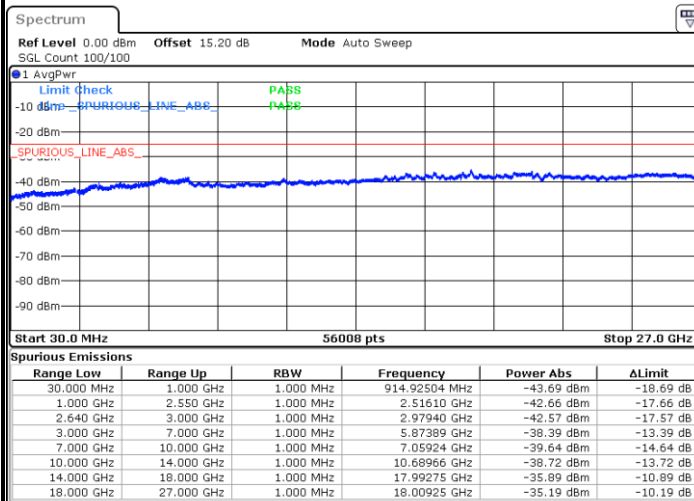
Date: 28.MAR.2020 16:07:58

## Lowest Channel / 16QAM



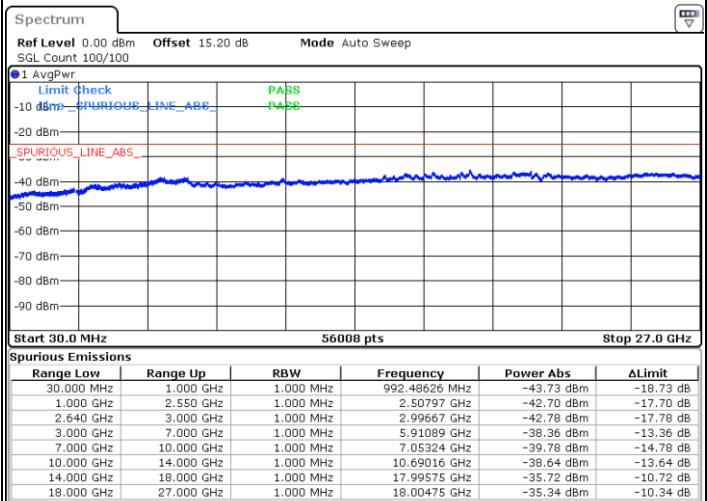
Date: 28.MAR.2020 16:09:52

## Middle Channel / QPSK



Date: 28.MAR.2020 16:11:12

## Middle Channel / 16QAM

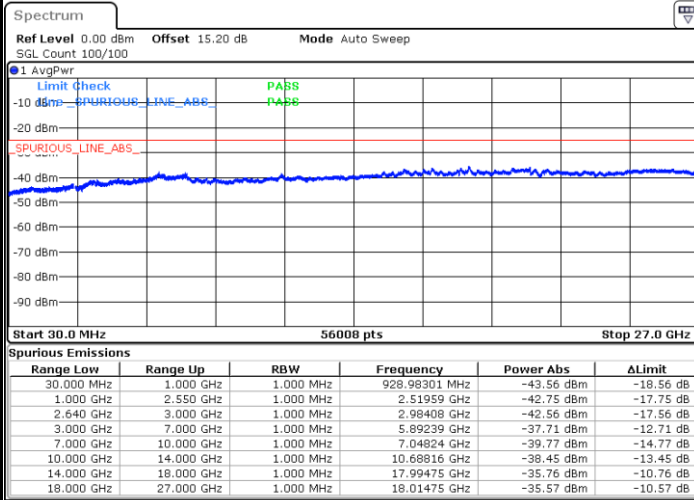


Date: 28.MAR.2020 16:12:33



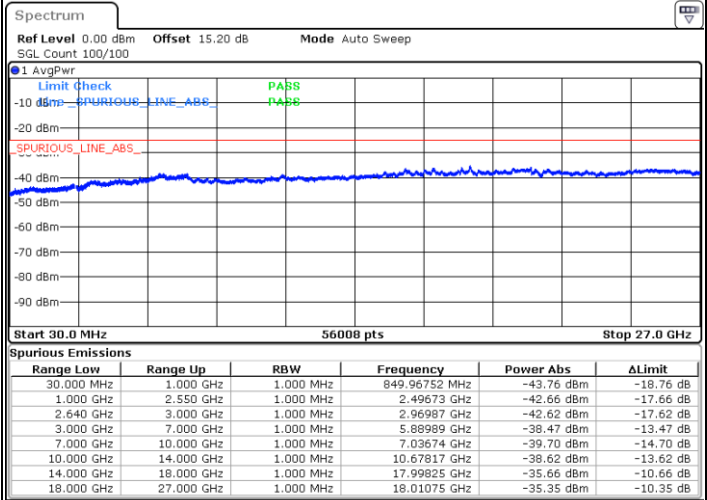
## LTE Band 38 / 15MHz

## Highest Channel / QPSK



Date: 28.MAR.2020 16:13:53

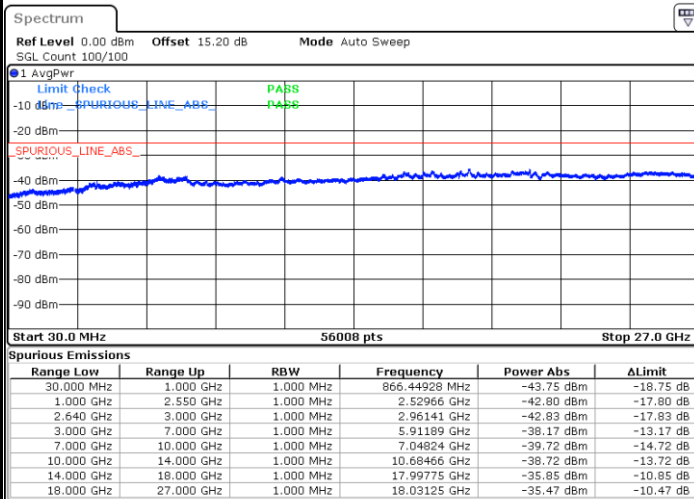
## Highest Channel / 16QAM



Date: 28.MAR.2020 16:15:40

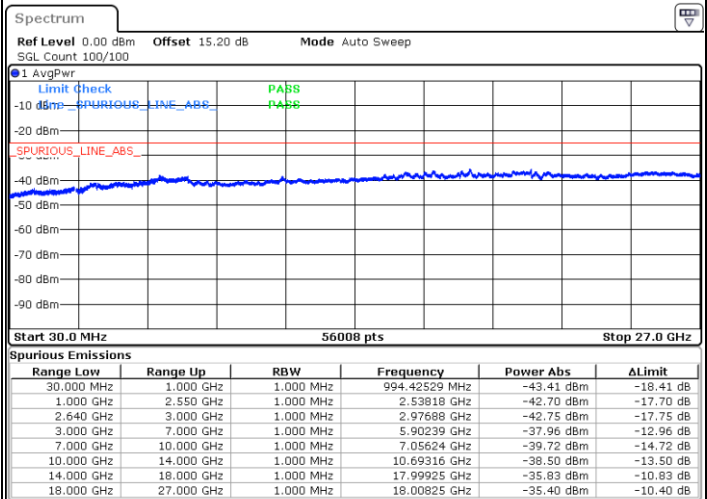
## LTE Band 38 / 20MHz

## Lowest Channel / QPSK



Date: 28.MAR.2020 16:26:49

## Lowest Channel / 16QAM

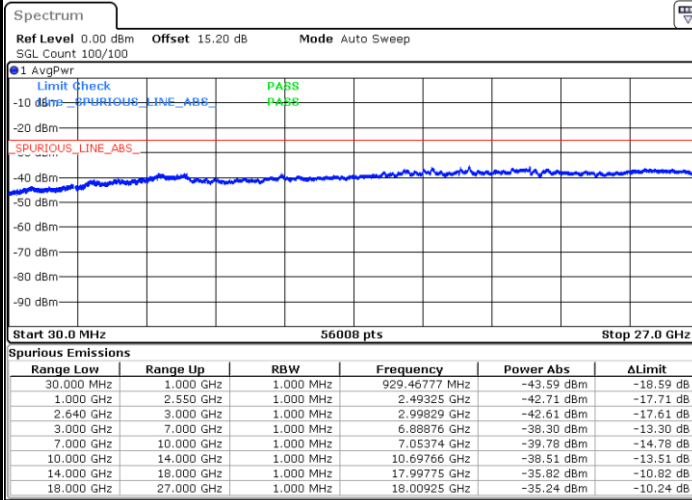


Date: 28.MAR.2020 16:28:10



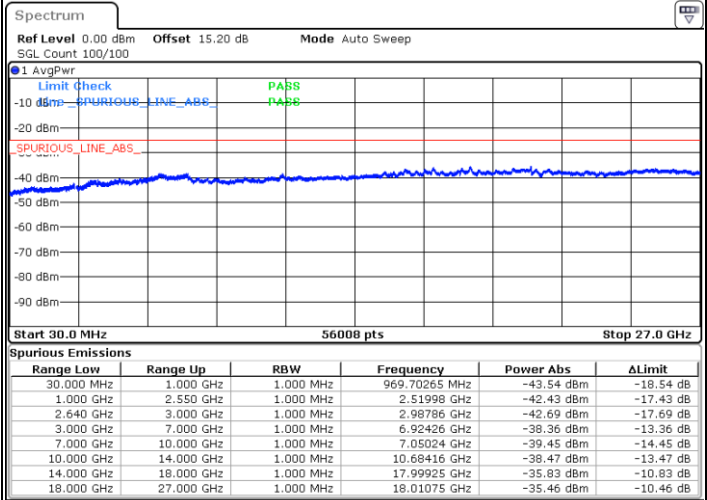
## LTE Band 38 / 20MHz

## Middle Channel / QPSK



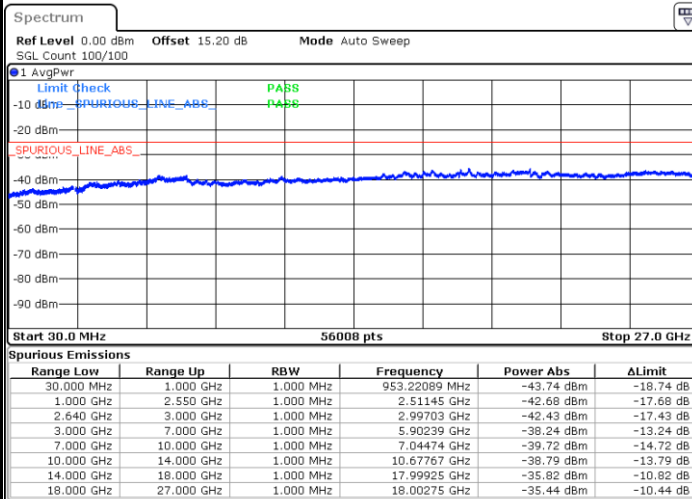
Date: 28.MAR.2020 16:29:30

## Middle Channel / 16QAM



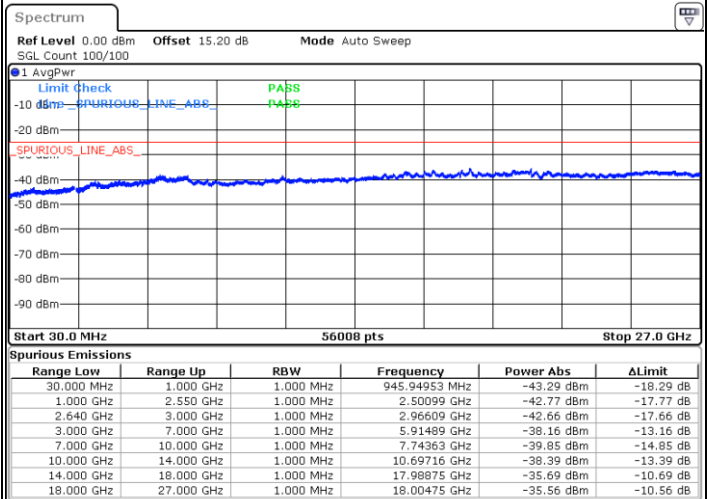
Date: 28.MAR.2020 16:30:50

## Highest Channel / QPSK



Date: 28.MAR.2020 16:32:11

## Highest Channel / 16QAM

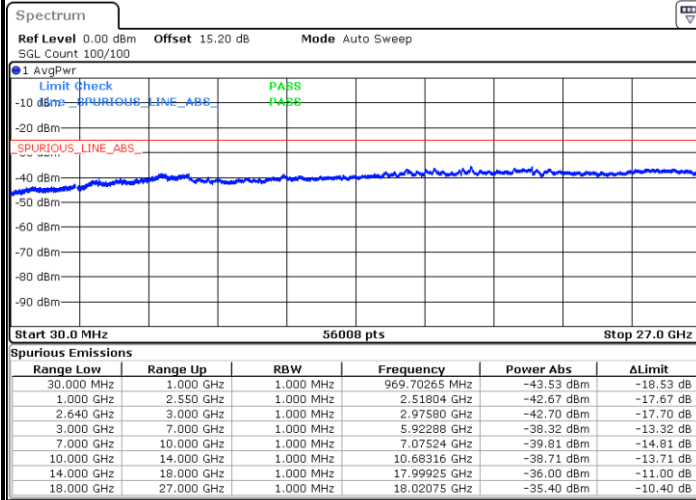


Date: 28.MAR.2020 16:33:32



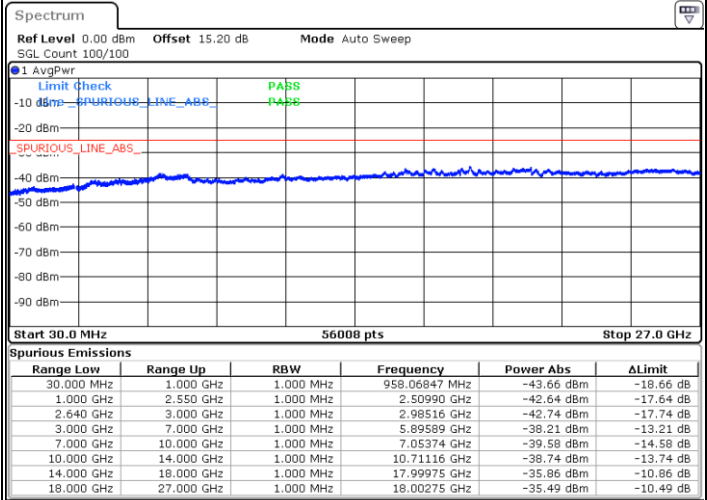
## LTE Band 38 / 5MHz

## Lowest Channel / 64QAM



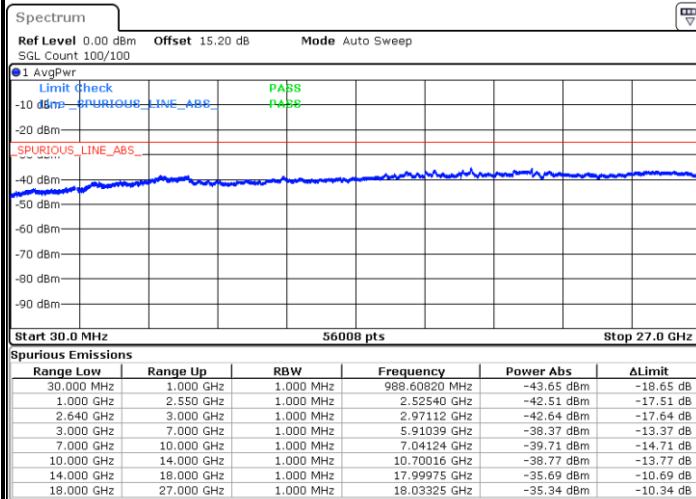
Date: 28.MAR.2020 15:43:47

## Middle Channel / 64QAM



Date: 28.MAR.2020 15:45:08

## Highest Channel / 64QAM

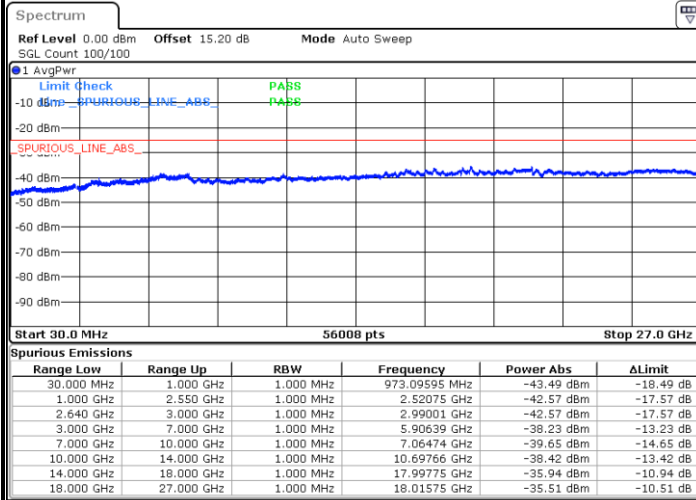


Date: 28.MAR.2020 15:46:28



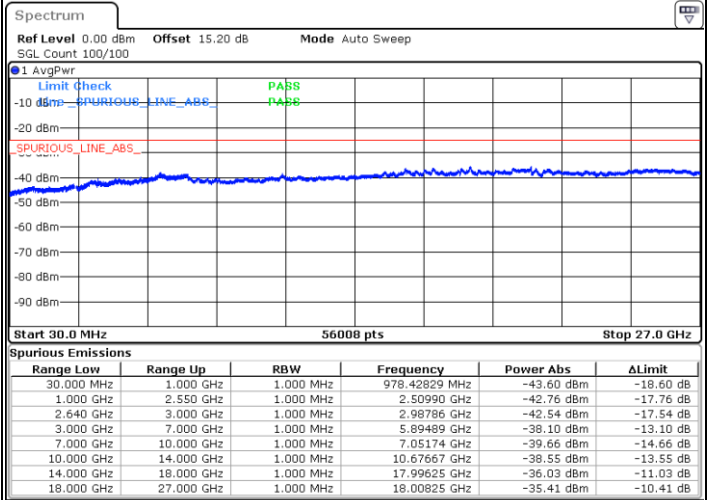
## LTE Band 38 / 10MHz

## Lowest Channel / 64QAM



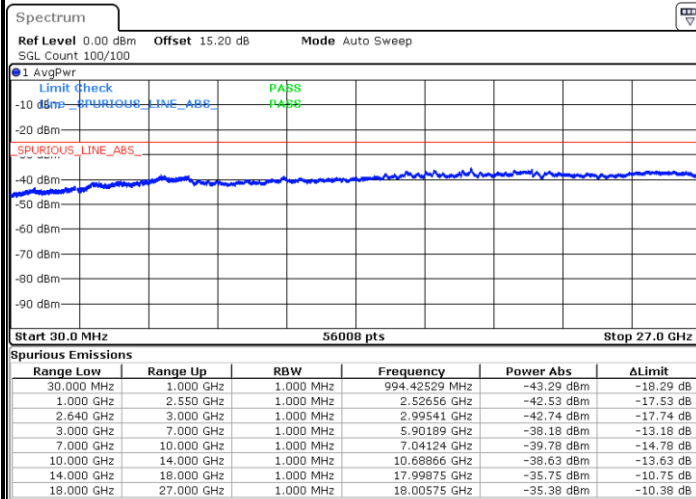
Date: 28.MAR.2020 15:55:53

## Middle Channel / 64QAM



Date: 28.MAR.2020 15:57:13

## Highest Channel / 64QAM

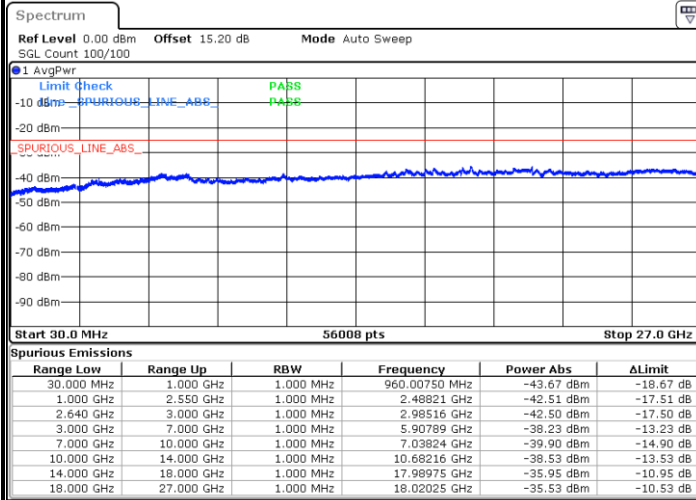


Date: 28.MAR.2020 15:58:33



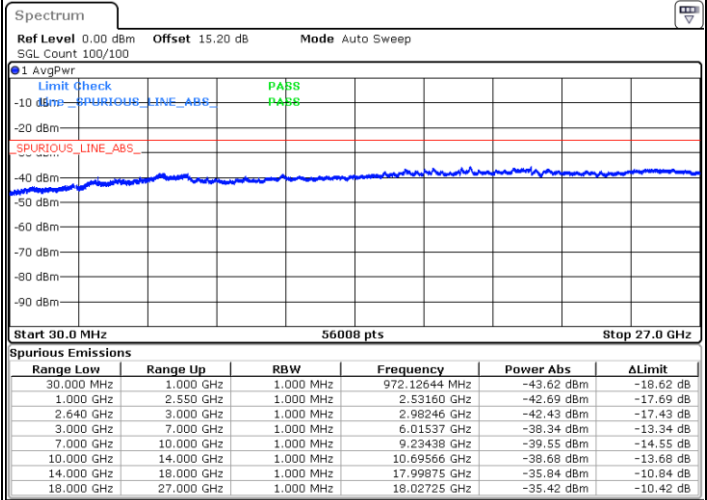
## LTE Band 38 / 15MHz

## Lowest Channel / 64QAM



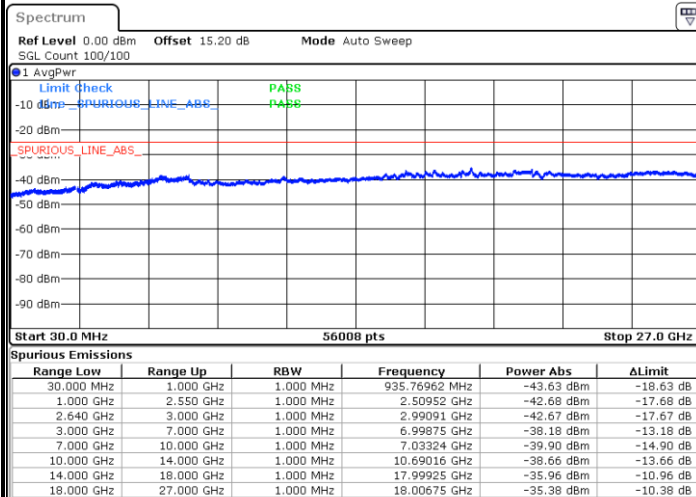
Date: 28.MAR.2020 16:17:35

## Middle Channel / 64QAM



Date: 28.MAR.2020 16:24:07

## Highest Channel / 64QAM

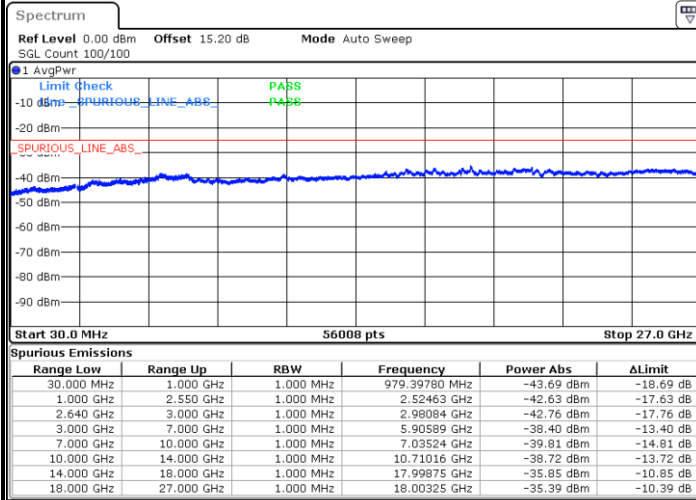


Date: 28.MAR.2020 16:25:28



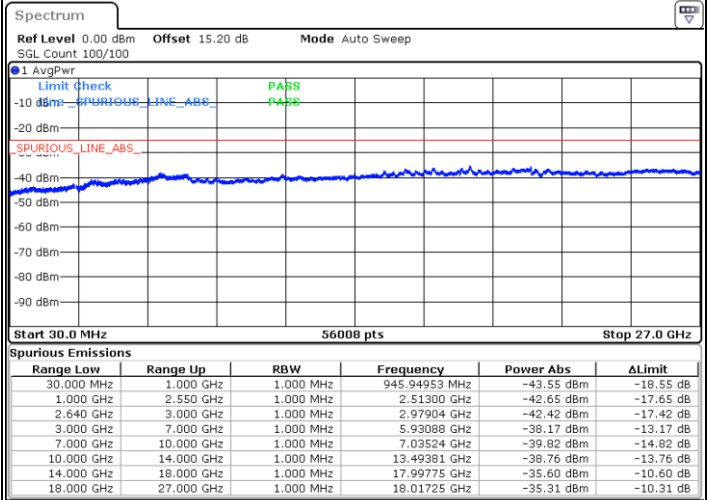
## LTE Band 38 / 20MHz

## Lowest Channel / 64QAM



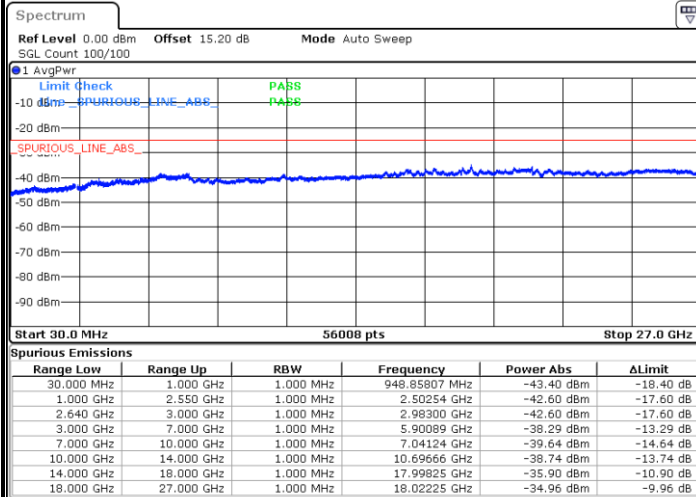
Date: 28.MAR.2020 16:34:52

## Middle Channel / 64QAM



Date: 28.MAR.2020 16:36:13

## Highest Channel / 64QAM



Date: 28.MAR.2020 16:37:33

## Frequency Stability

| Test Conditions  |                   | LTE Band 38 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|-------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                            | Note 2. |
|                  |                   | Deviation (ppm)                     | Result  |
| 50               | Normal Voltage    | 0.0001                              | PASS    |
| 40               | Normal Voltage    | 0.0008                              |         |
| 30               | Normal Voltage    | 0.0000                              |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                              |         |
| 10               | Normal Voltage    | 0.0072                              |         |
| 0                | Normal Voltage    | 0.0067                              |         |
| -10              | Normal Voltage    | 0.0071                              |         |
| -20              | Normal Voltage    | 0.0074                              |         |
| -30              | Normal Voltage    | 0.0005                              |         |
| 20               | Maximum Voltage   | 0.0068                              |         |
| 20               | Normal Voltage    | 0.0000                              |         |
| 20               | Battery End Point | 0.0071                              |         |

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 41

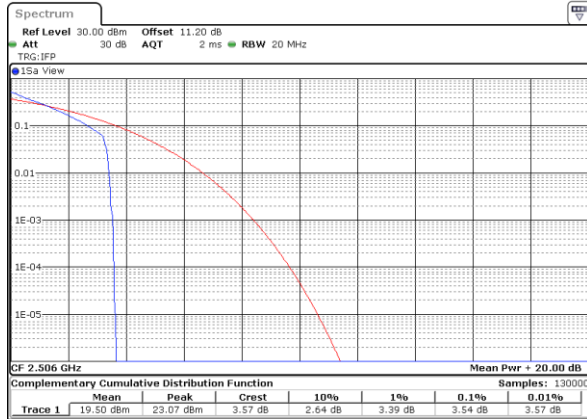
**Peak-to-Average Ratio**

| Mode       | LTE Band 41 / 20MHz |         |       |         |             |
|------------|---------------------|---------|-------|---------|-------------|
| Mod.       | QPSK                |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                 | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 3.54                | 4.29    | 4.96  | 5.59    | PASS        |
| Middle CH  | 3.30                | 4.38    | 4.55  | 5.62    |             |
| Highest CH | 3.65                | 4.17    | 5.36  | 5.45    |             |
| Mode       | LTE Band 41 / 20MHz |         |       |         |             |
| Mod.       | 64QAM               |         |       |         | Limit: 13dB |
| RB Size    | 1RB                 | Full RB |       |         | Result      |
| Lowest CH  | 6.00                | 6.23    | -     | -       | PASS        |
| Middle CH  | 5.71                | 6.32    | -     | -       |             |
| Highest CH | 6.26                | 6.06    | -     | -       |             |

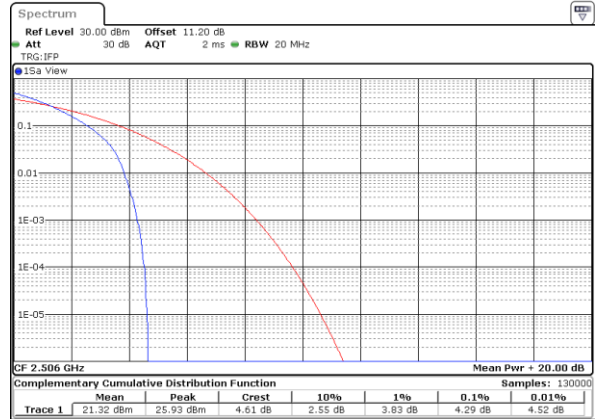


## LTE Band 41 / 20MHz / QPSK

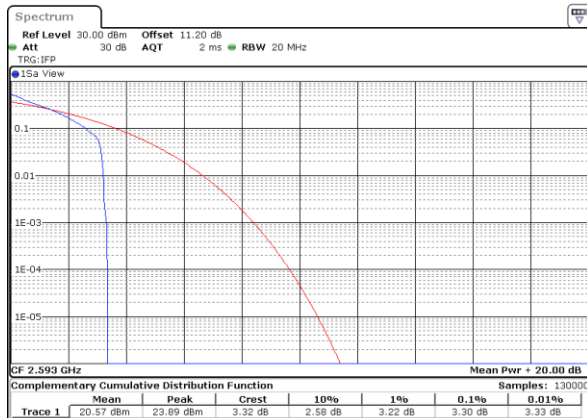
## Lowest Channel / 1RB



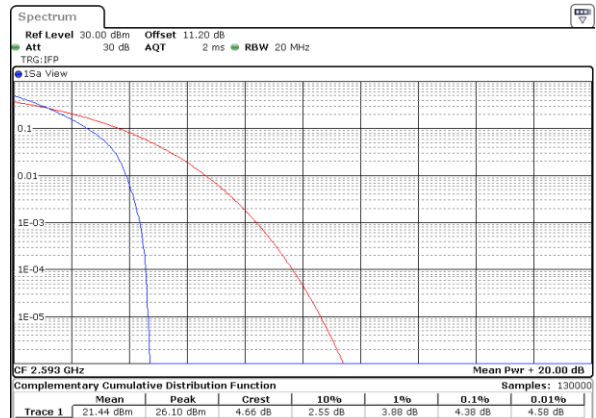
## Lowest Channel / Full RB



## Middle Channel / 1RB



## Middle Channel / Full RB



## Highest Channel / 1RB



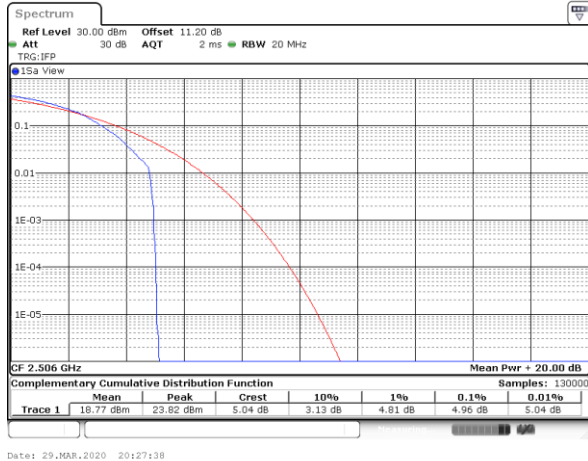
## Highest Channel / Full RB



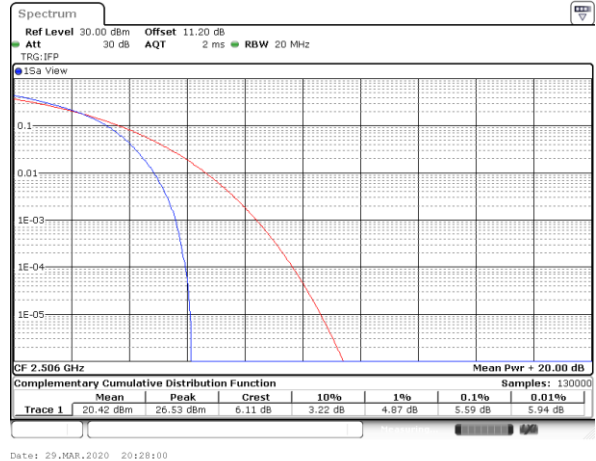


## LTE Band 41 / 20MHz / 16QAM

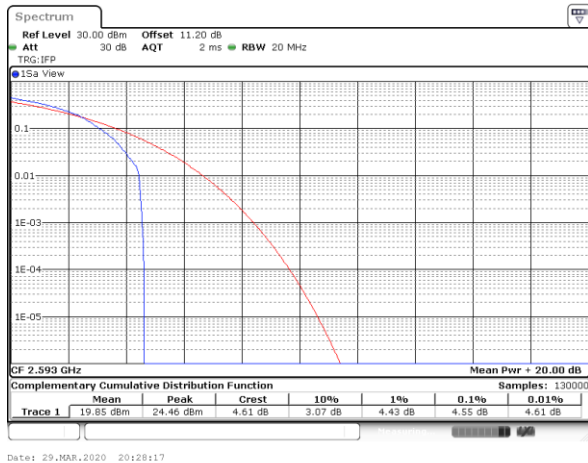
## Lowest Channel / 1RB



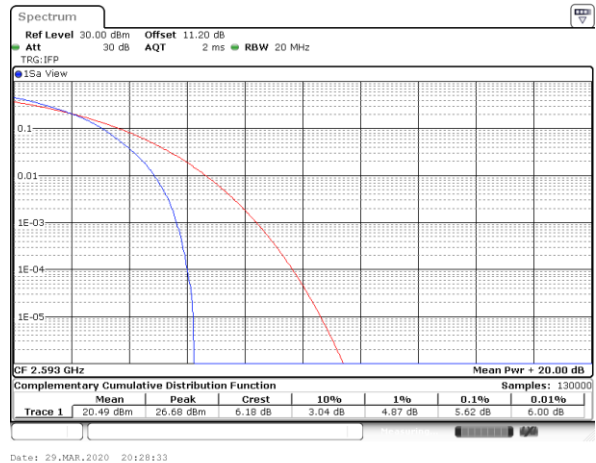
## Lowest Channel / Full RB



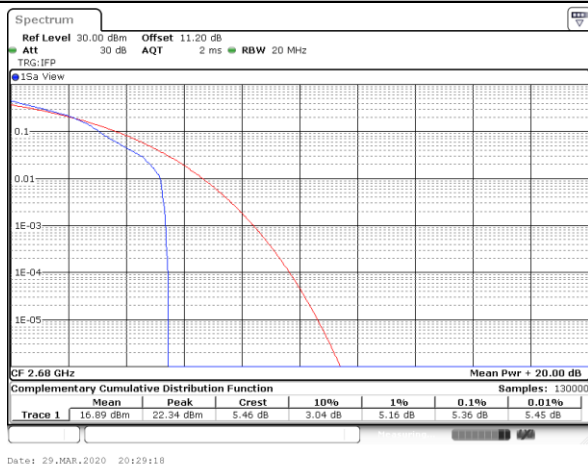
## Middle Channel / 1RB



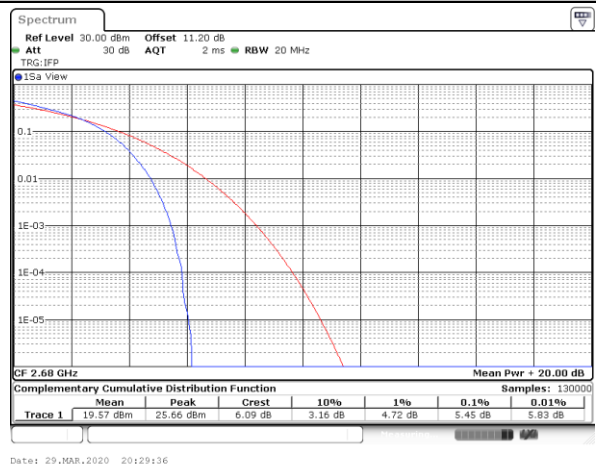
## Middle Channel / Full RB



## Highest Channel / 1RB



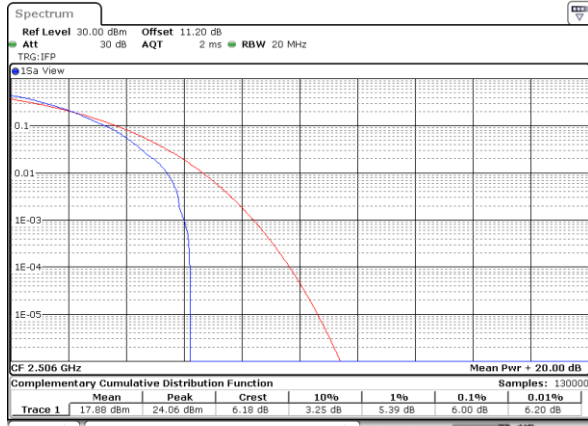
## Highest Channel / Full RB



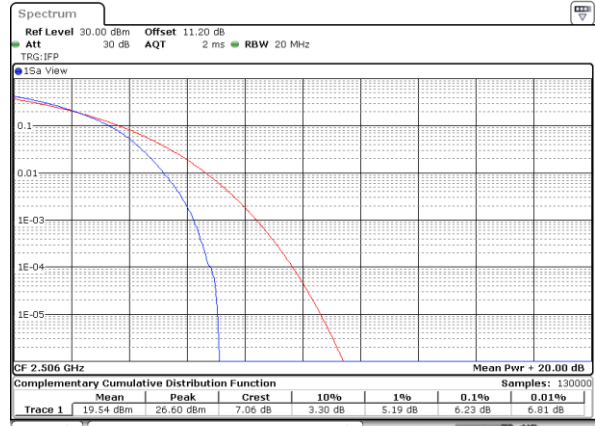


## LTE Band 41 / 20MHz / 64QAM

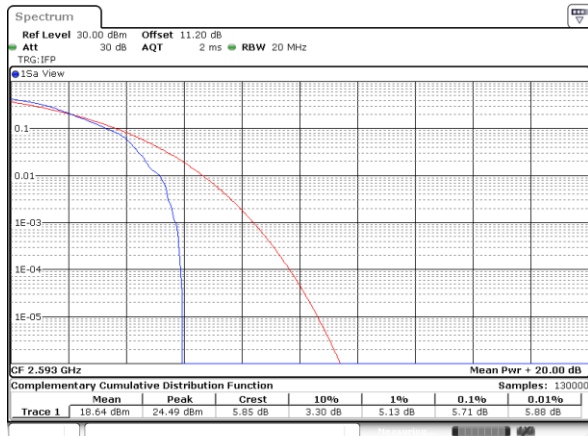
## Lowest Channel / 1RB



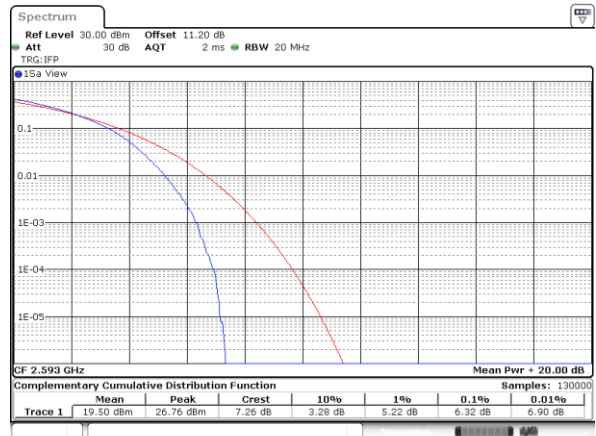
## Lowest Channel / Full RB



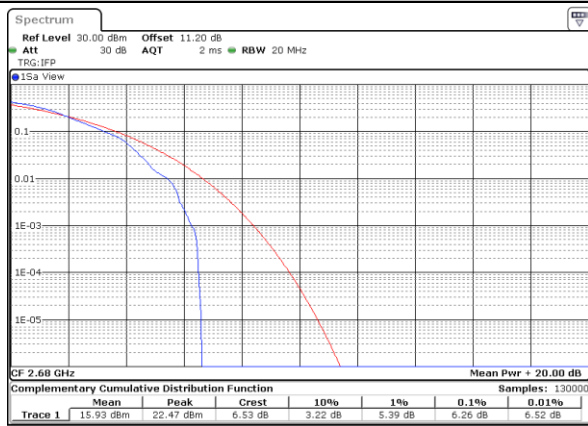
## Middle Channel / 1RB



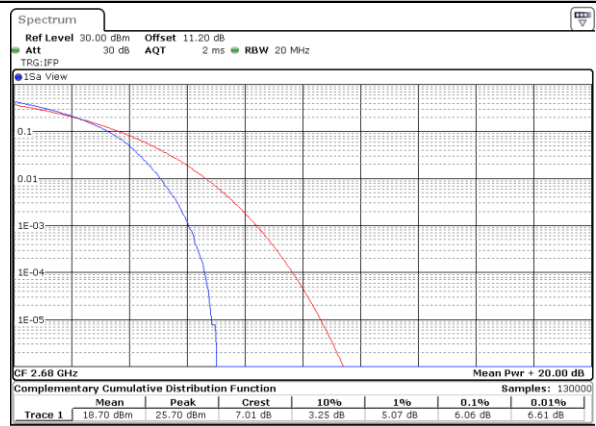
## Middle Channel / Full RB



## Highest Channel / 1RB



## Highest Channel / Full RB



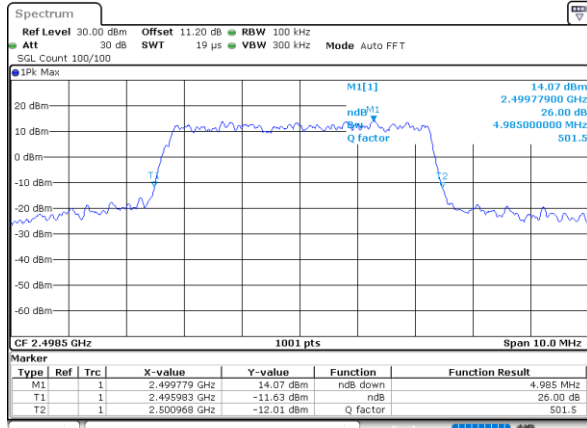
**26dB Bandwidth**

| Mode       | LTE Band 41 : 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  | -                          | -     | -     | -     | 4.99  | 4.88  | 9.63  | 9.81  | 14.39 | 14.21 | 18.66 | 19.18 |
| Middle CH  | -                          | -     | -     | -     | 4.88  | 4.75  | 9.61  | 9.83  | 14.36 | 14.21 | 18.66 | 18.70 |
| Highest CH | -                          | -     | -     | -     | 4.90  | 4.89  | 9.67  | 9.63  | 14.36 | 14.57 | 18.90 | 18.78 |
| Mode       | LTE Band 41 : 26dB BW(MHz) |       |       |       |       |       |       |       |       |       |       |       |
| BW         | 1.4MHz                     |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | 64QAM                      |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | -                          | -     | -     | -     | 5.16  | -     | 9.65  | -     | 14.21 | -     | 18.58 | -     |
| Middle CH  | -                          | -     | -     | -     | 4.87  | -     | 9.75  | -     | 14.12 | -     | 19.06 | -     |
| Highest CH | -                          | -     | -     | -     | 4.80  | -     | 9.69  | -     | 14.09 | -     | 18.78 | -     |



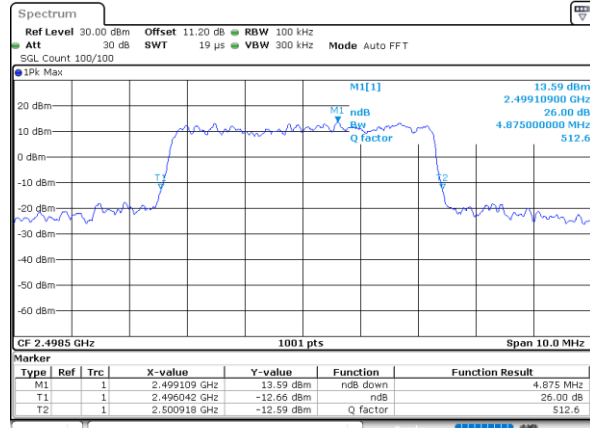
## LTE Band 41

## Lowest Channel / 5MHz / QPSK



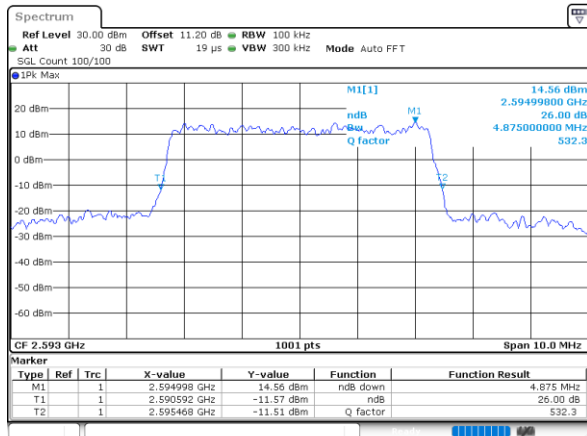
Date: 29\_MAR\_2020 19:35:11

## Lowest Channel / 5MHz / 16QAM



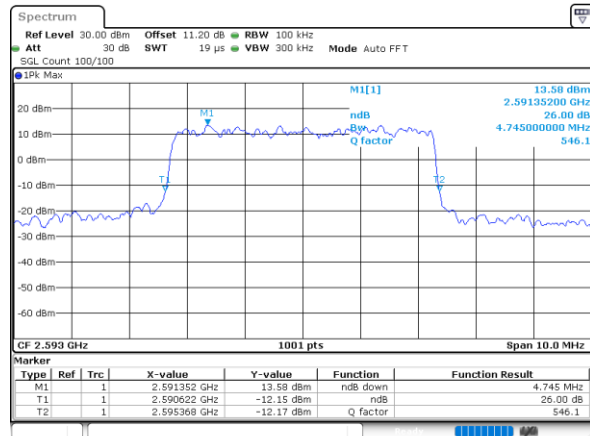
Date: 29\_MAR\_2020 19:35:23

## Middle Channel / 5MHz / QPSK



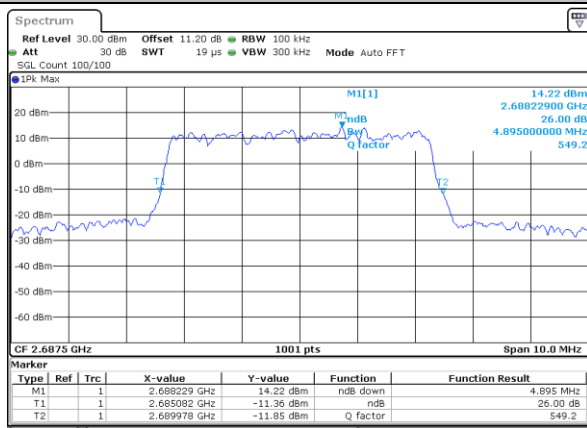
Date: 29\_MAR\_2020 19:35:08

## Middle Channel / 5MHz / 16QAM



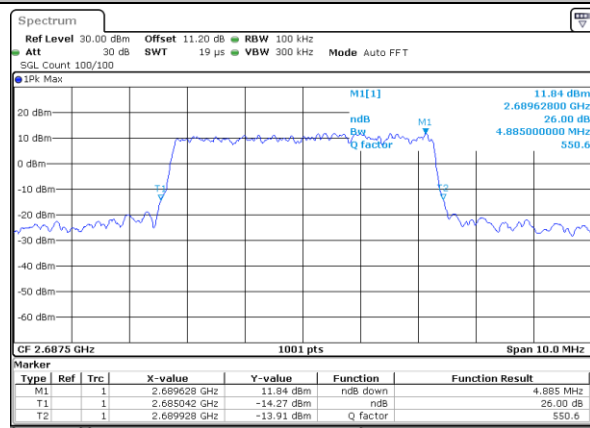
Date: 29\_MAR\_2020 19:36:10

## Highest Channel / 5MHz / QPSK



Date: 29\_MAR\_2020 19:36:46

## Highest Channel / 5MHz / 16QAM

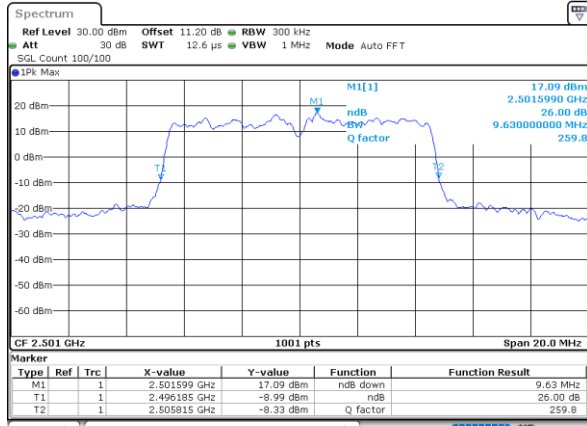


Date: 29\_MAR\_2020 19:36:58



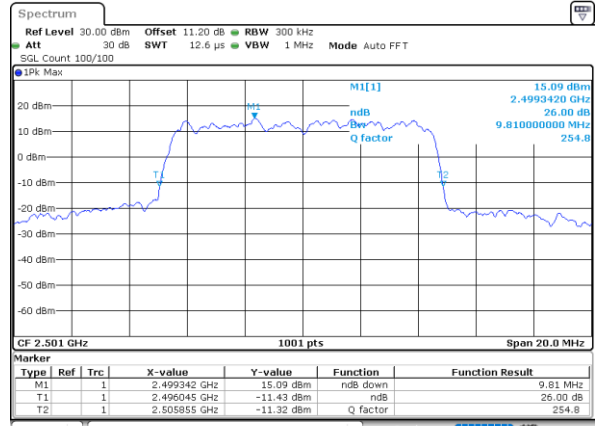
## LTE Band 41

## Lowest Channel / 10MHz / QPSK



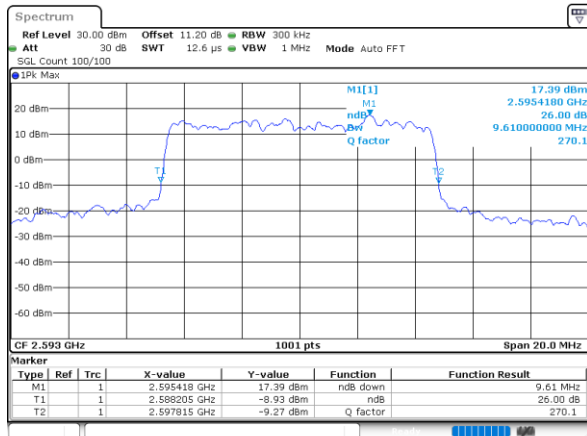
Date: 29\_MAR\_2020 19:37:35

## Lowest Channel / 10MHz / 16QAM



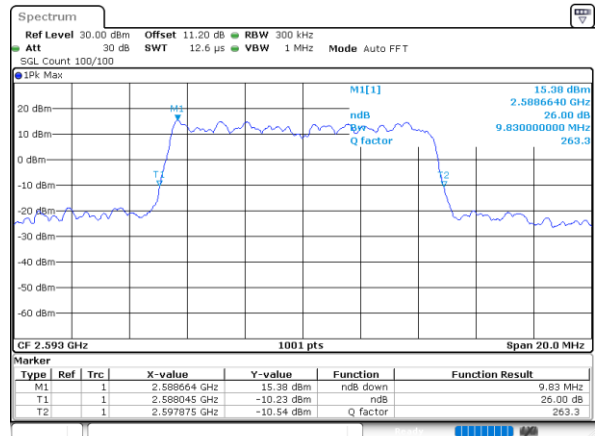
Date: 29\_MAR\_2020 19:37:47

## Middle Channel / 10MHz / QPSK



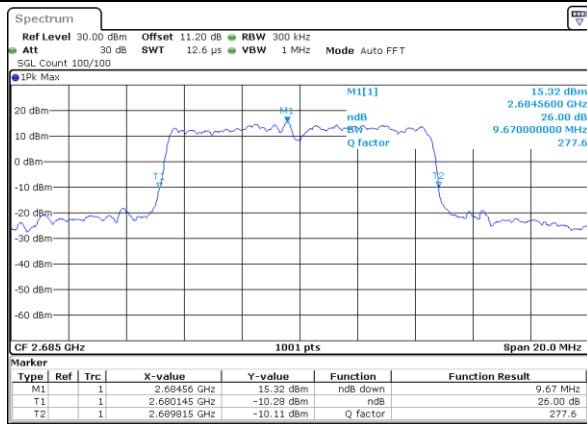
Date: 29\_MAR\_2020 19:38:22

## Middle Channel / 10MHz / 16QAM



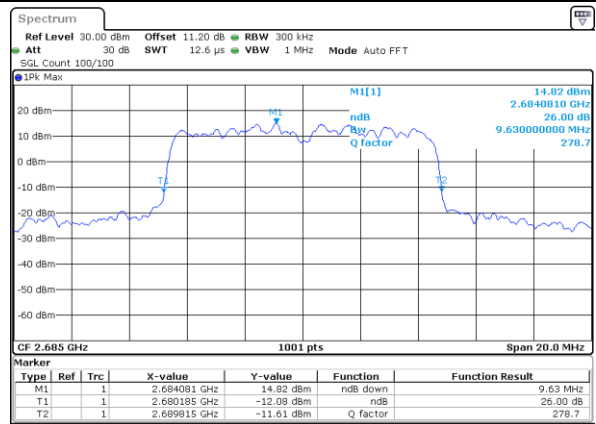
Date: 29\_MAR\_2020 19:38:34

## Highest Channel / 10MHz / QPSK



Date: 29\_MAR\_2020 19:39:10

## Highest Channel / 10MHz / 16QAM

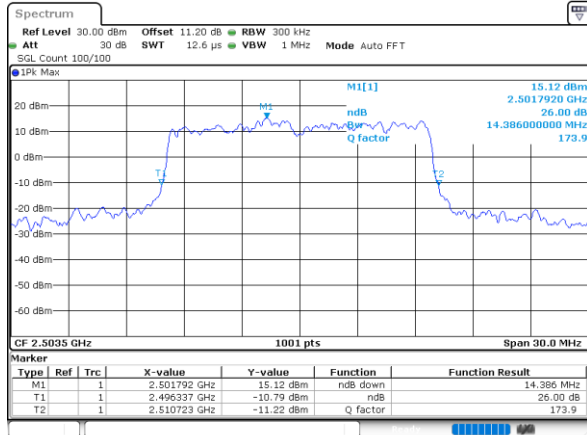


Date: 29\_MAR\_2020 19:39:22

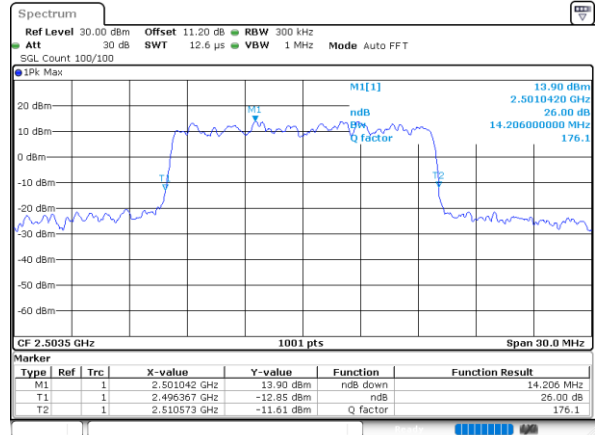


## LTE Band 41

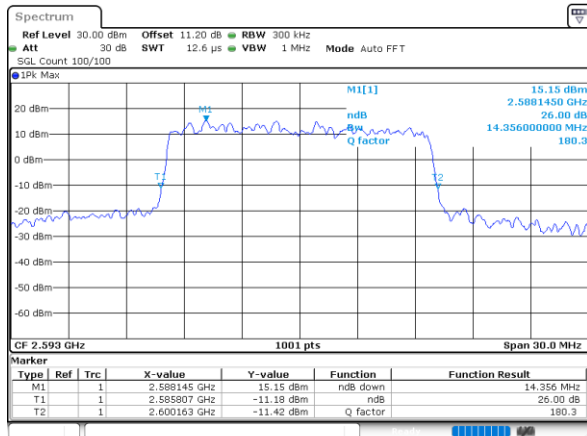
## Lowest Channel / 15MHz / QPSK



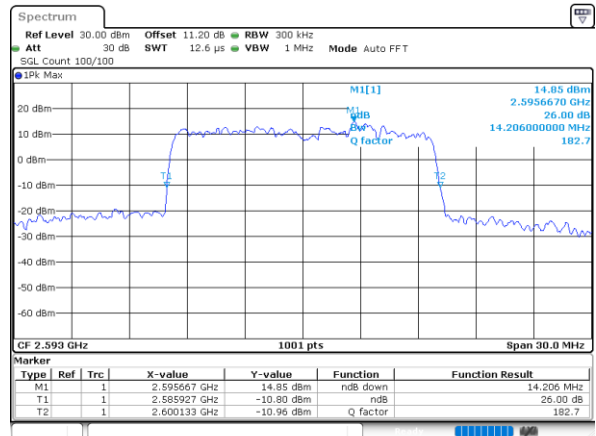
## Lowest Channel / 15MHz / 16QAM



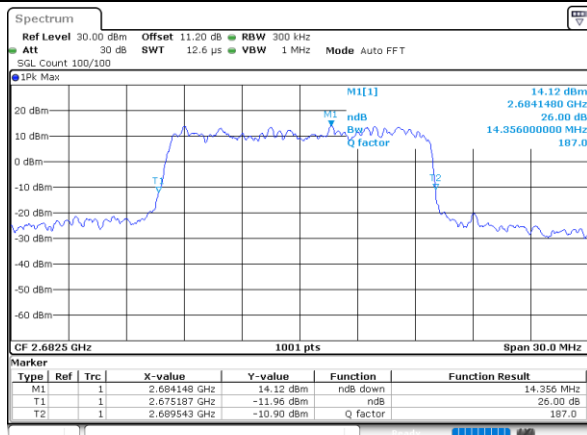
## Middle Channel / 15MHz / QPSK



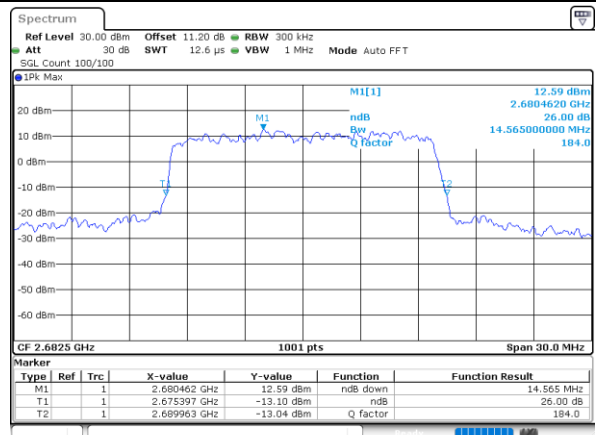
## Middle Channel / 15MHz / 16QAM



## Highest Channel / 15MHz / QPSK



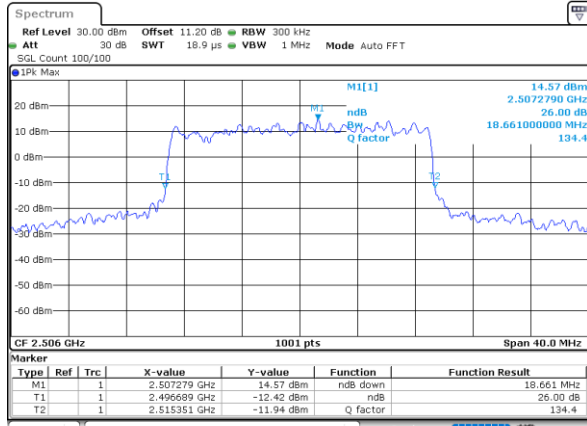
## Highest Channel / 15MHz / 16QAM





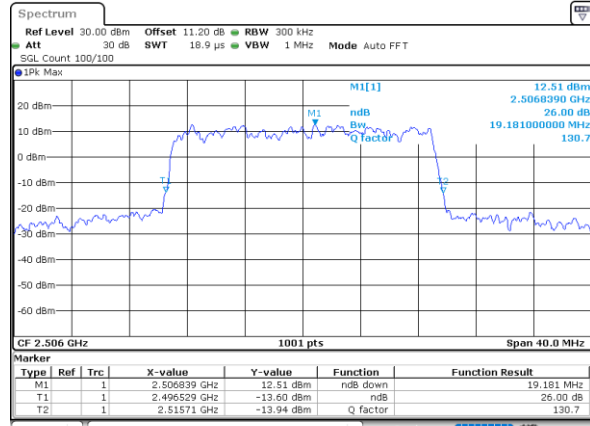
## LTE Band 41

## Lowest Channel / 20MHz / QPSK



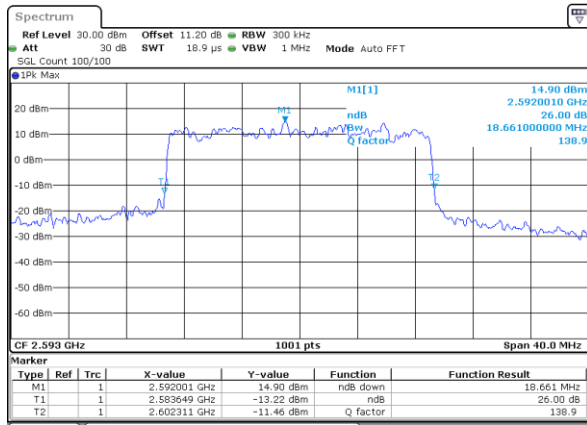
Date: 29\_MAR\_2020 19:58:40

## Lowest Channel / 20MHz / 16QAM



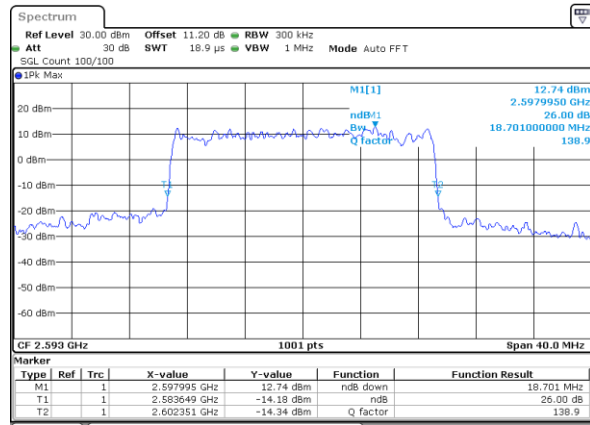
Date: 29\_MAR\_2020 19:59:00

## Middle Channel / 20MHz / QPSK



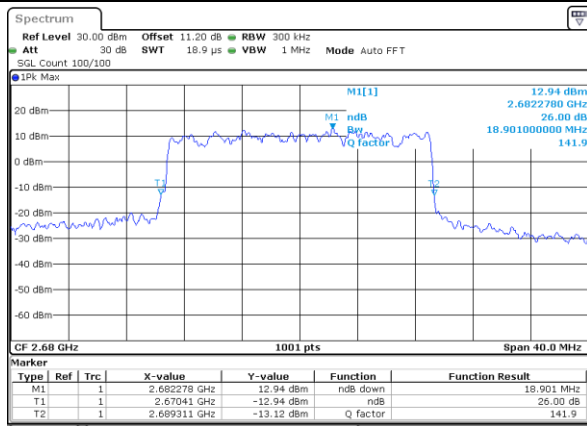
Date: 29\_MAR\_2020 19:59:35

## Middle Channel / 20MHz / 16QAM



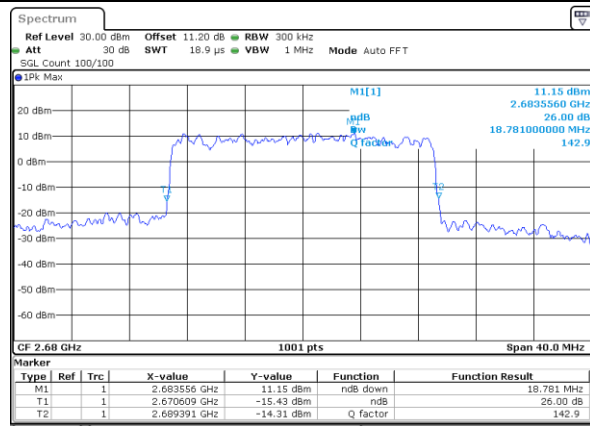
Date: 29\_MAR\_2020 19:59:47

## Highest Channel / 20MHz / QPSK



Date: 29\_MAR\_2020 20:00:23

## Highest Channel / 20MHz / 16QAM

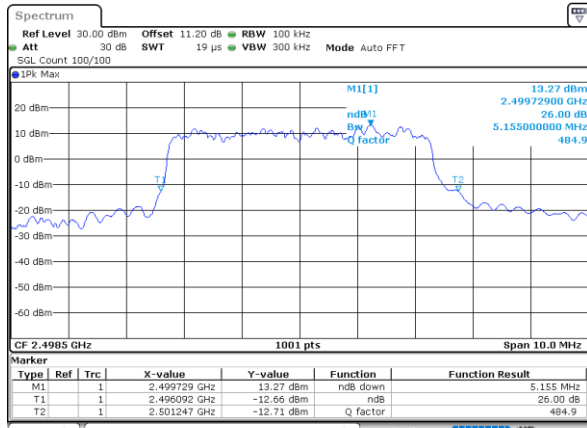


Date: 29\_MAR\_2020 20:00:35



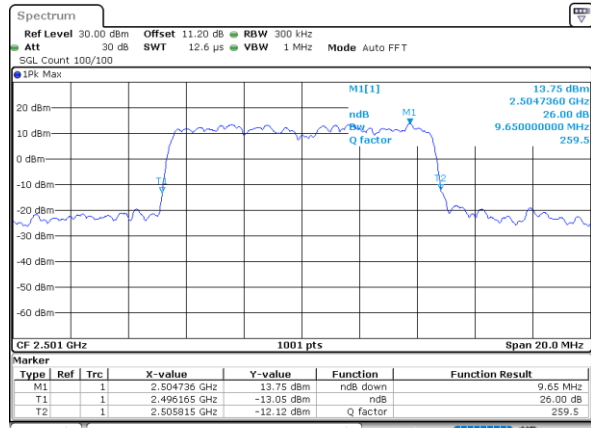
## LTE Band 41

## Lowest Channel / 5MHz / 64QAM



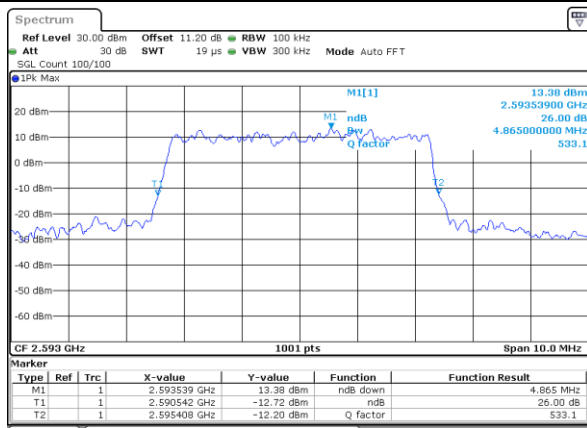
Date: 29\_MAR\_2020 20:01:00

## Lowest Channel / 10MHz / 64QAM



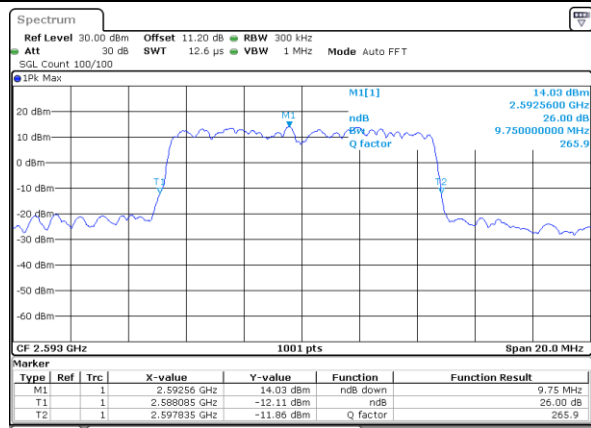
Date: 29\_MAR\_2020 20:02:11

## Middle Channel / 5MHz / 64QAM



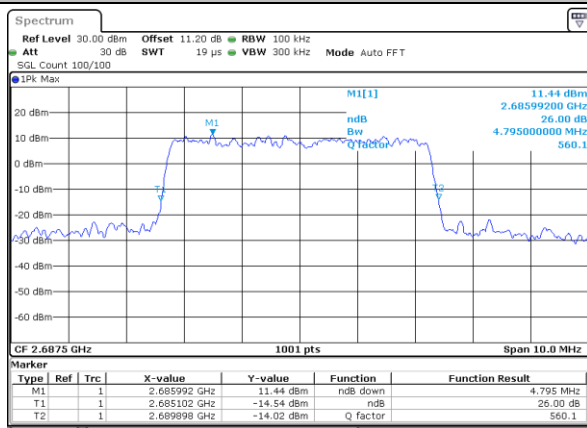
Date: 29\_MAR\_2020 20:01:23

## Middle Channel / 10MHz / 64QAM



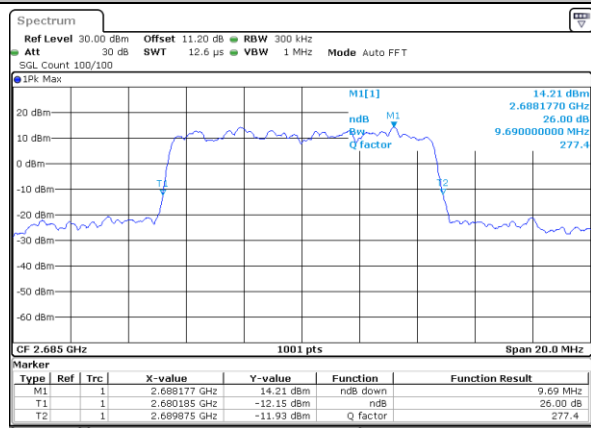
Date: 29\_MAR\_2020 20:02:35

## Highest Channel / 5MHz / 64QAM



Date: 29\_MAR\_2020 20:01:47

## Highest Channel / 10MHz / 64QAM

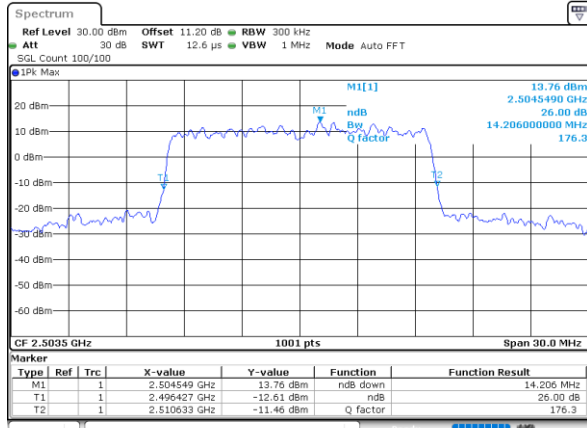


Date: 29\_MAR\_2020 20:02:58



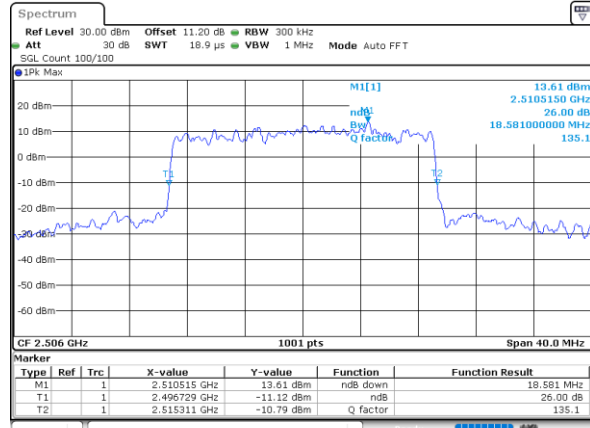
## LTE Band 41

## Lowest Channel / 15MHz / 64QAM



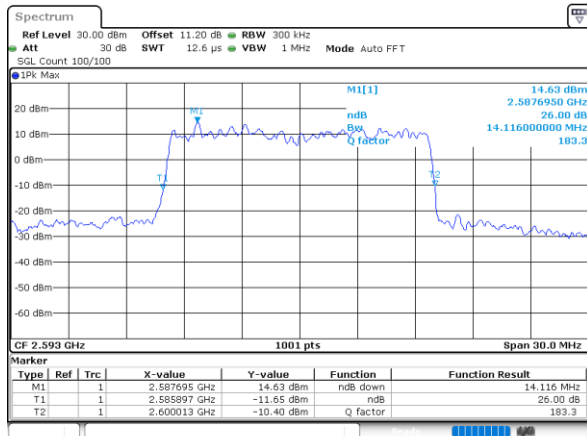
Date: 29\_MAR\_2020 20:03:23

## Lowest Channel / 20MHz / 64QAM



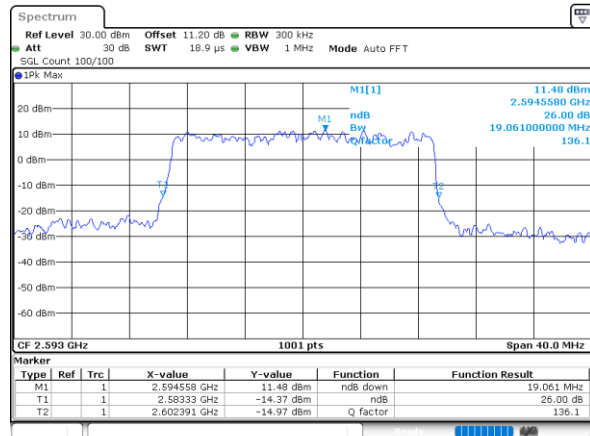
Date: 29\_MAR\_2020 20:09:00

## Middle Channel / 15MHz / 64QAM



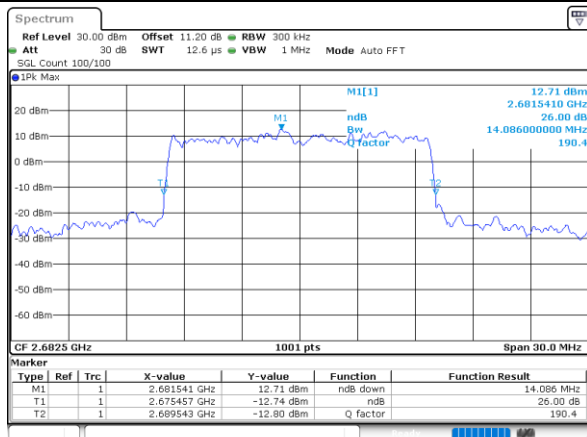
Date: 29\_MAR\_2020 20:03:46

## Middle Channel / 20MHz / 64QAM



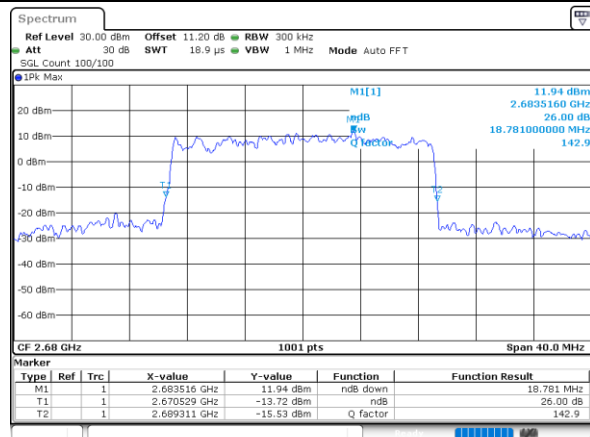
Date: 29\_MAR\_2020 20:09:23

## Highest Channel / 15MHz / 64QAM



Date: 29\_MAR\_2020 20:08:35

## Highest Channel / 20MHz / 64QAM



Date: 29\_MAR\_2020 20:09:47

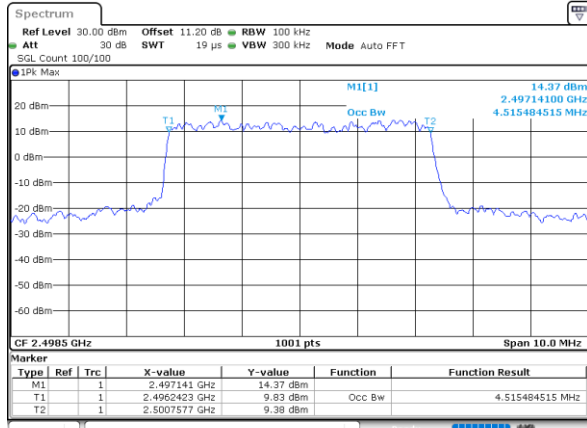
**Occupied Bandwidth**

| Mode       | LTE Band 41 : 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  | -                         | -     | -     | -     | 4.52  | 4.47  | 8.95  | 9.05  | 13.40 | 13.40 | 17.82 | 17.82 |
| Middle CH  | -                         | -     | -     | -     | 4.50  | 4.49  | 9.07  | 9.03  | 13.49 | 13.43 | 17.90 | 17.90 |
| Highest CH | -                         | -     | -     | -     | 4.50  | 4.51  | 9.03  | 9.09  | 13.43 | 13.40 | 17.82 | 17.82 |
| Mode       | LTE Band 41 : 99%OBW(MHz) |       |       |       |       |       |       |       |       |       |       |       |
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | 64QAM                     |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | -                         | -     | -     | -     | 4.51  | -     | 8.99  | -     | 13.43 | -     | 17.94 | -     |
| Middle CH  | -                         | -     | -     | -     | 4.48  | -     | 9.01  | -     | 13.43 | -     | 17.86 | -     |
| Highest CH | -                         | -     | -     | -     | 4.49  | -     | 9.05  | -     | 13.34 | -     | 17.82 | -     |

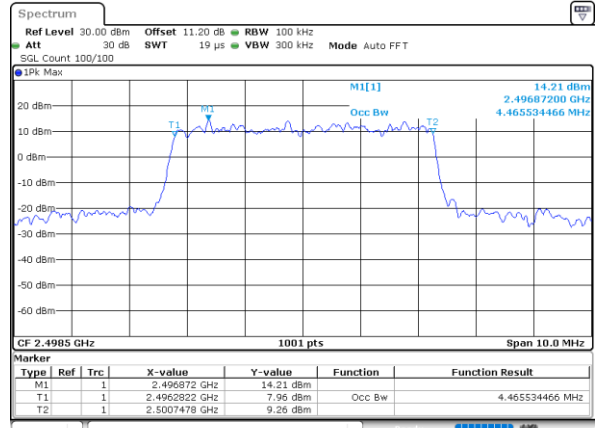


## LTE Band 41

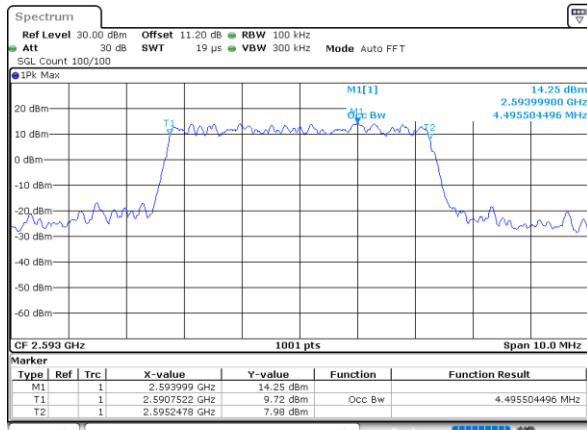
## Lowest Channel / 5MHz / QPSK



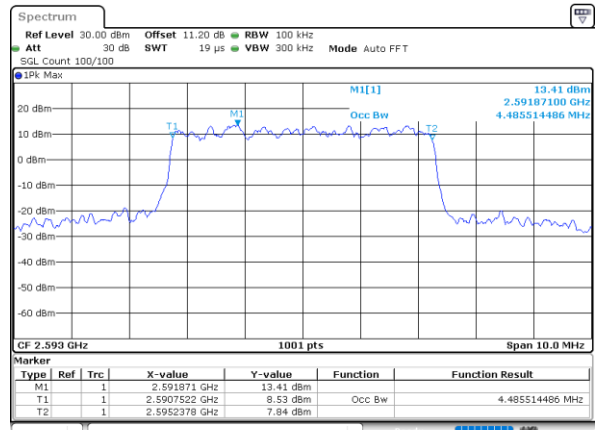
## Lowest Channel / 5MHz / 16QAM



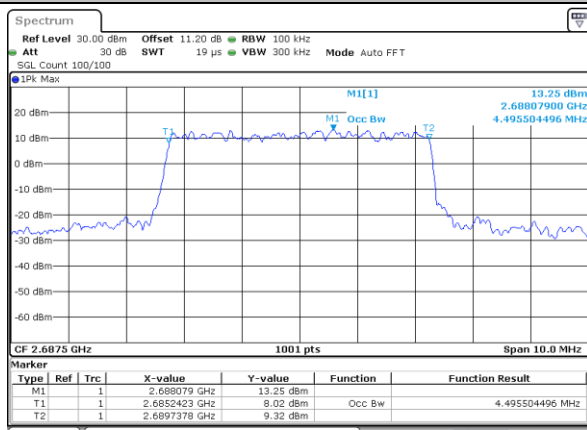
## Middle Channel / 5MHz / QPSK



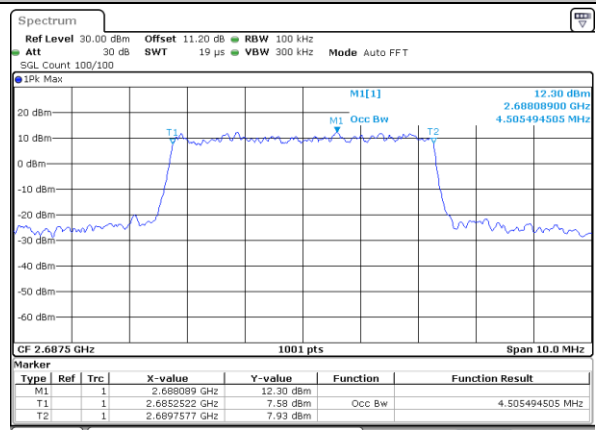
## Middle Channel / 5MHz / 16QAM



## Highest Channel / 5MHz / QPSK



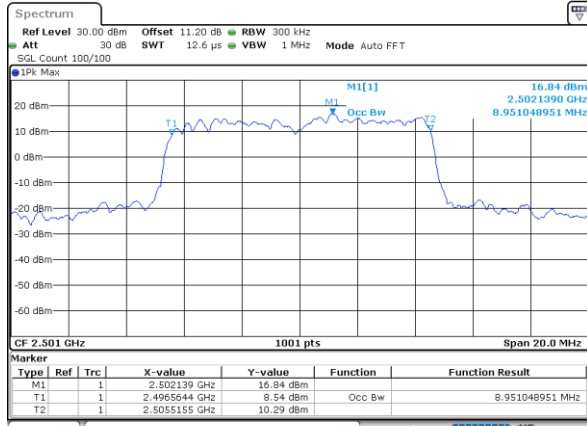
## Highest Channel / 5MHz / 16QAM



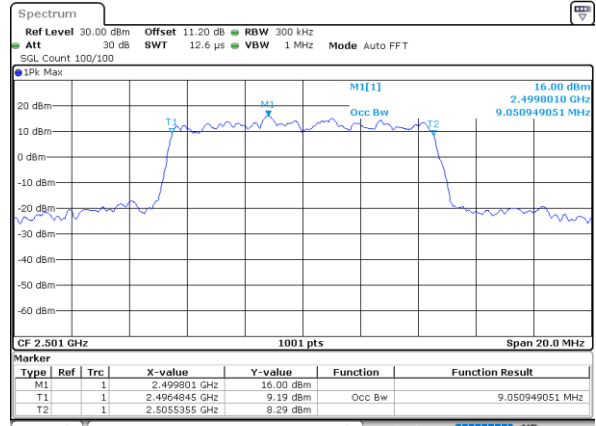


## LTE Band 41

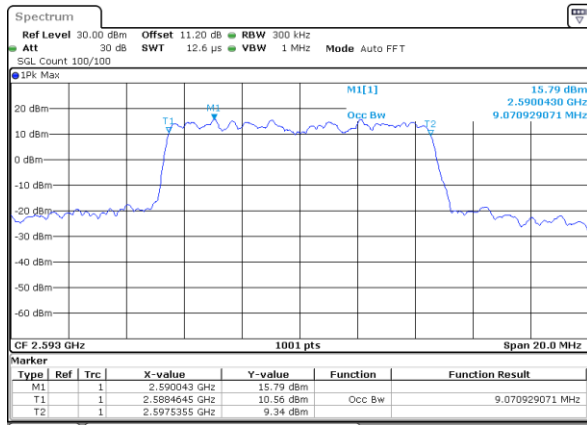
## Lowest Channel / 10MHz / QPSK



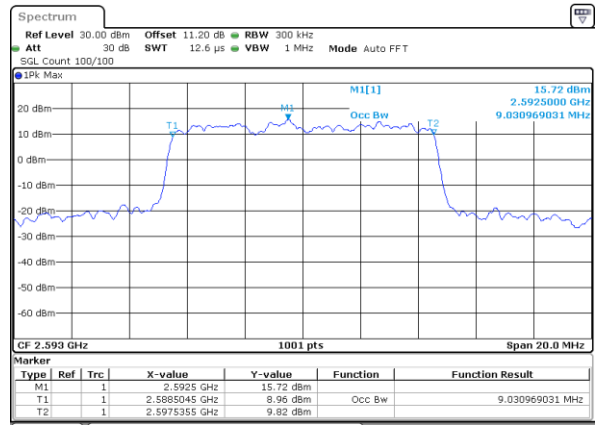
## Lowest Channel / 10MHz / 16QAM



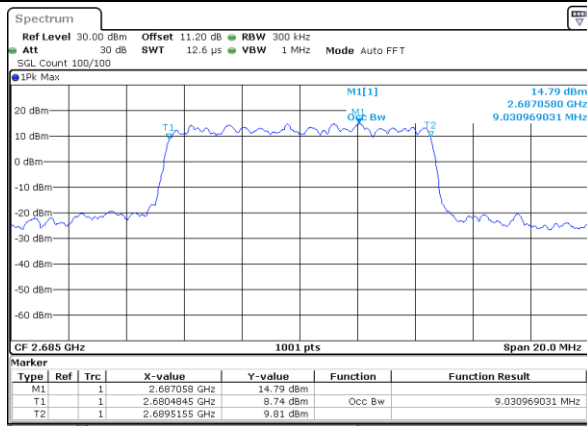
## Middle Channel / 10MHz / QPSK



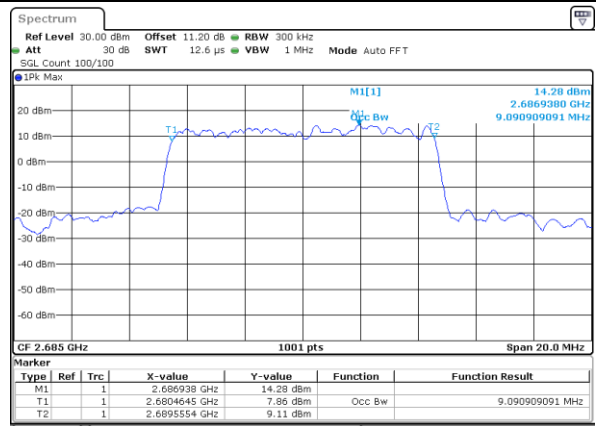
## Middle Channel / 10MHz / 16QAM



## Highest Channel / 10MHz / QPSK



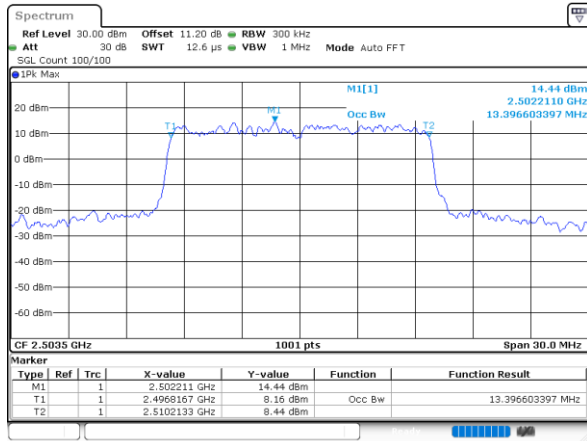
## Highest Channel / 10MHz / 16QAM





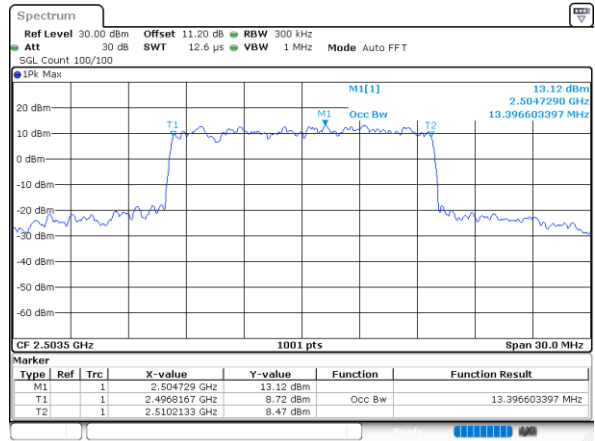
## LTE Band 41

## Lowest Channel / 15MHz / QPSK



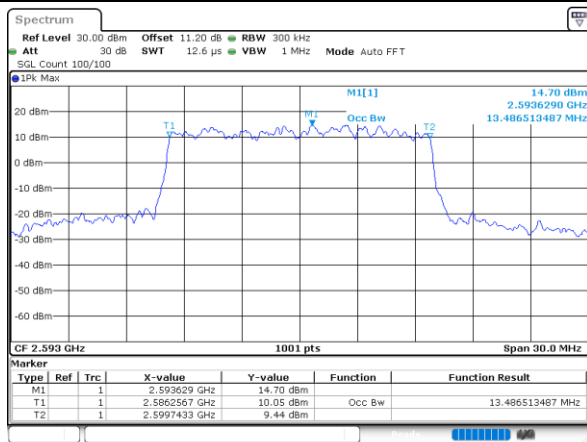
Date: 29\_MAR\_2020 19:39:35

## Lowest Channel / 15MHz / 16QAM



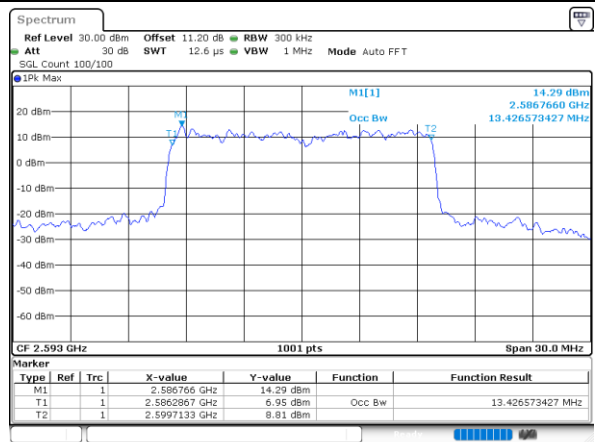
Date: 29\_MAR\_2020 19:39:47

## Middle Channel / 15MHz / QPSK



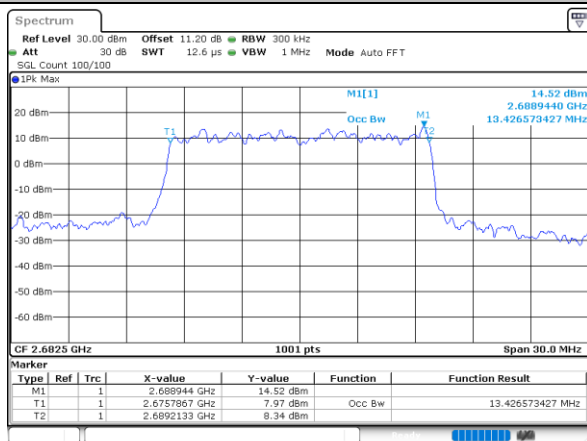
Date: 29\_MAR\_2020 19:40:23

## Middle Channel / 15MHz / 16QAM



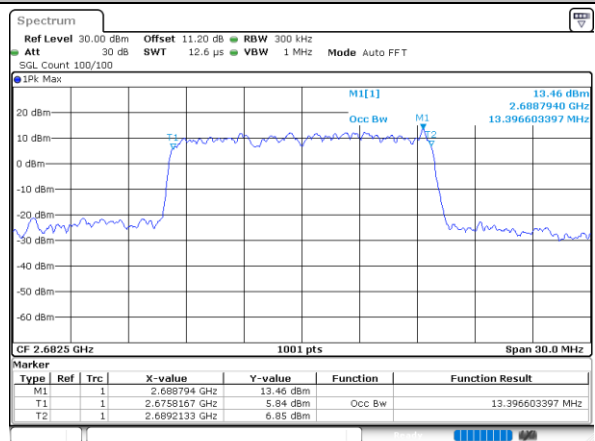
Date: 29\_MAR\_2020 19:40:34

## Highest Channel / 15MHz / QPSK



Date: 29\_MAR\_2020 19:41:09

## Highest Channel / 15MHz / 16QAM



Date: 29\_MAR\_2020 19:41:21