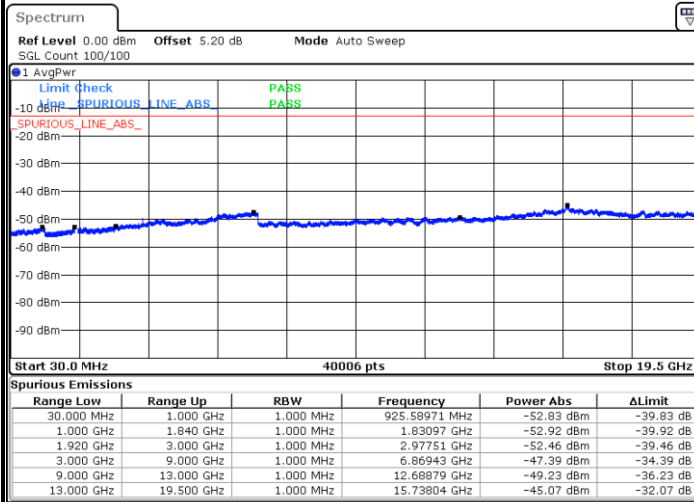




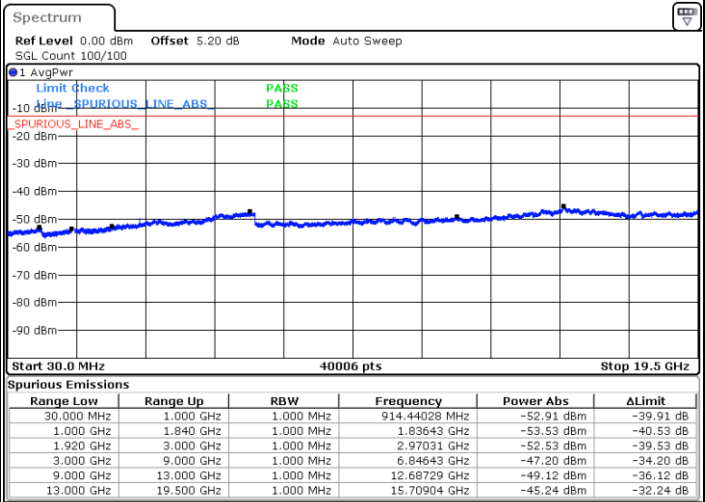
## LTE Band 2 / 10MHz

## Middle Channel / QPSK



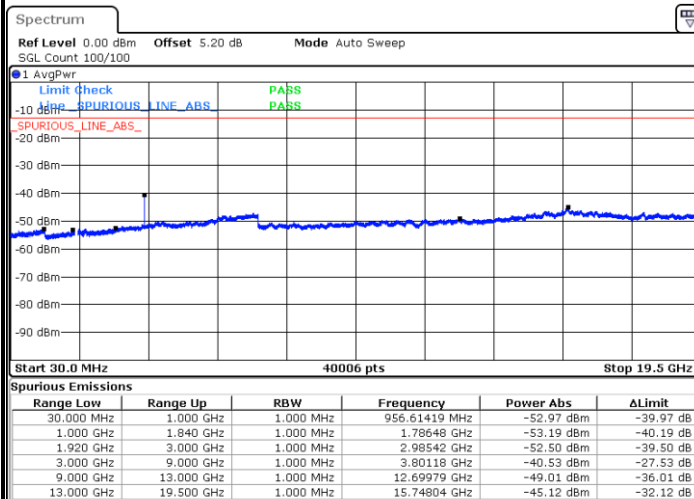
Date: 4.AUG.2020 20:17:36

## Middle Channel / 16QAM



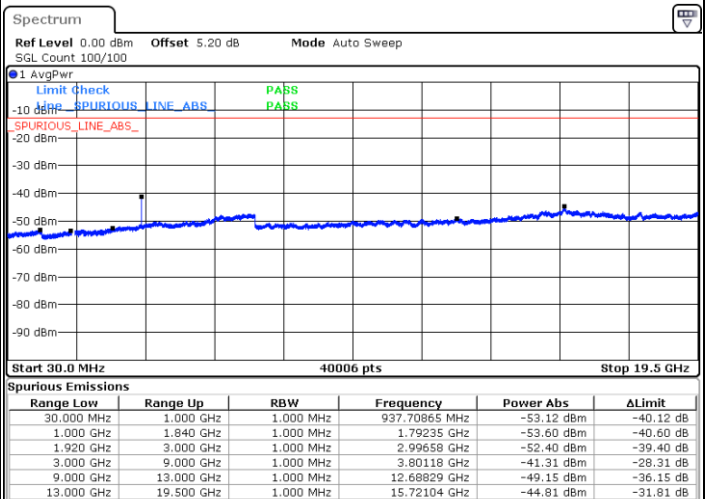
Date: 4.AUG.2020 20:18:33

## Highest Channel / QPSK



Date: 4.AUG.2020 20:24:42

## Highest Channel / 16QAM

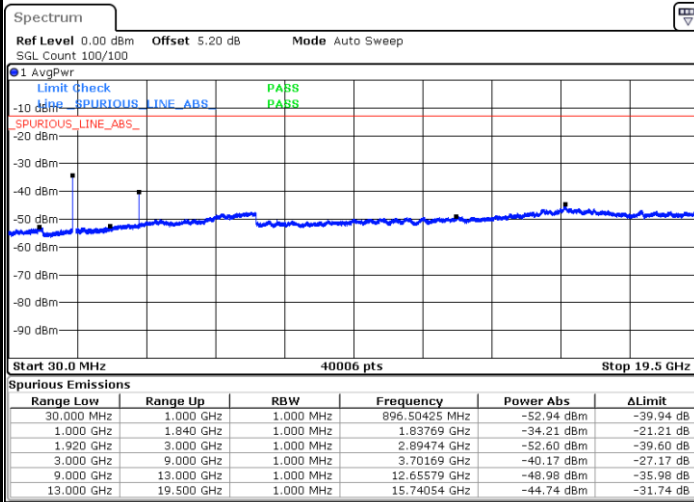


Date: 4.AUG.2020 20:25:39



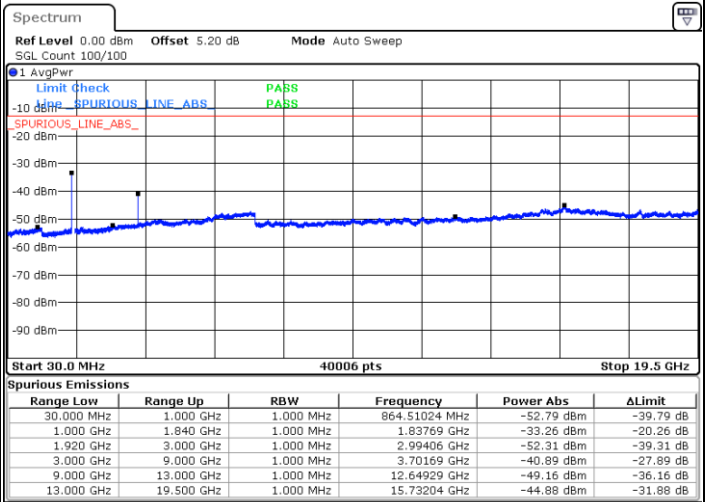
## LTE Band 2 / 15MHz

## Lowest Channel / QPSK



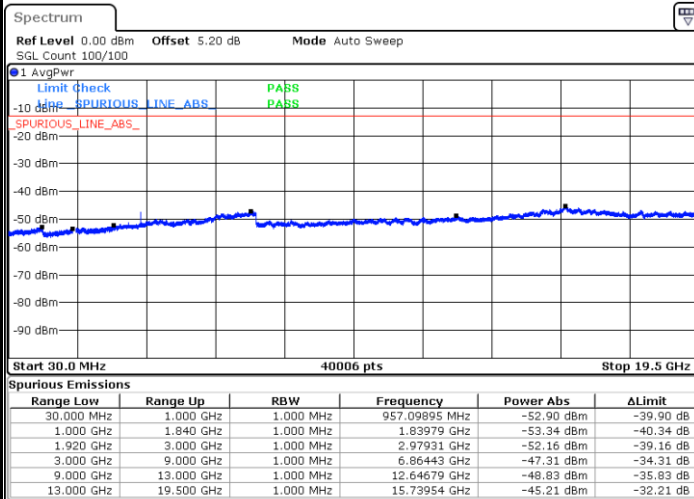
Date: 4.AUG.2020 20:31:48

## Lowest Channel / 16QAM



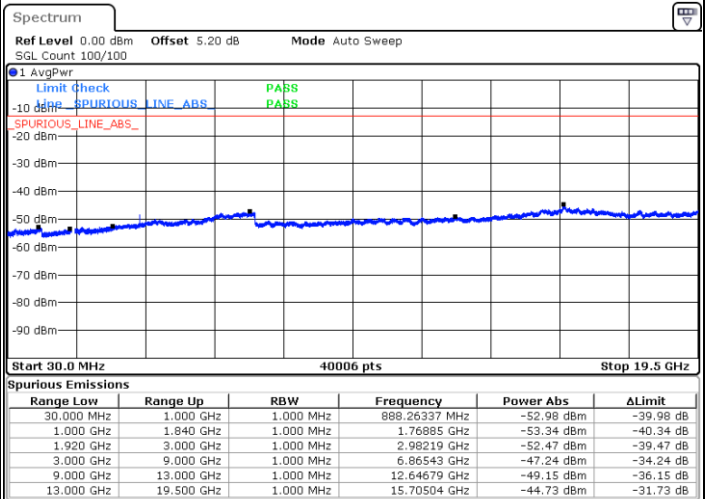
Date: 4.AUG.2020 20:32:44

## Middle Channel / QPSK



Date: 4.AUG.2020 20:34:22

## Middle Channel / 16QAM

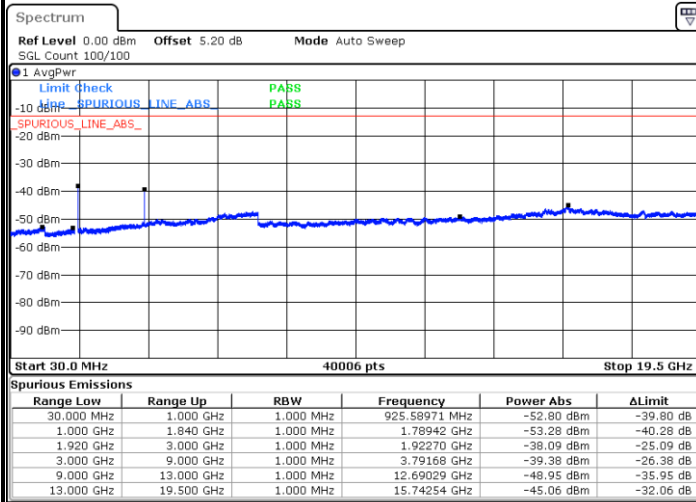


Date: 4.AUG.2020 20:35:19



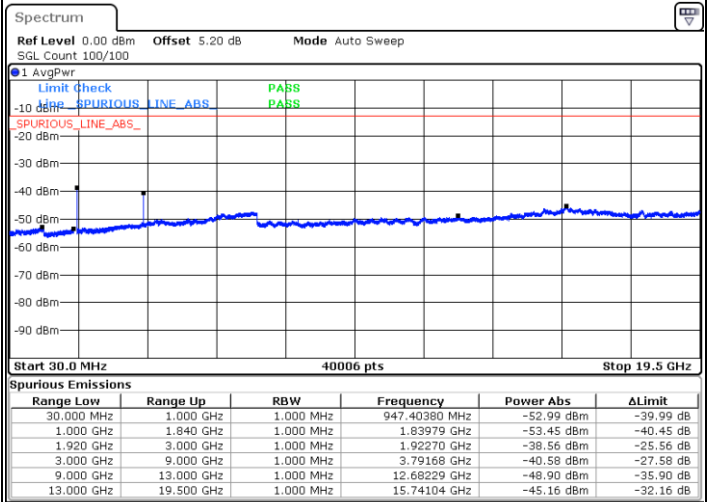
## LTE Band 2 / 15MHz

## Highest Channel / QPSK



Date: 4.AUG.2020 20:41:27

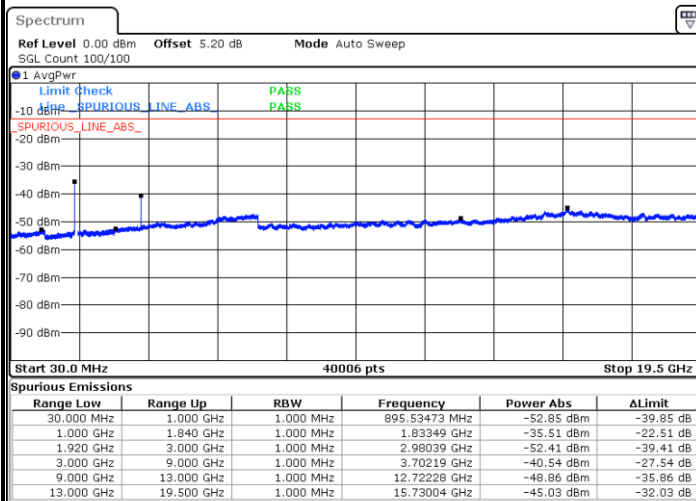
## Highest Channel / 16QAM



Date: 4.AUG.2020 20:42:24

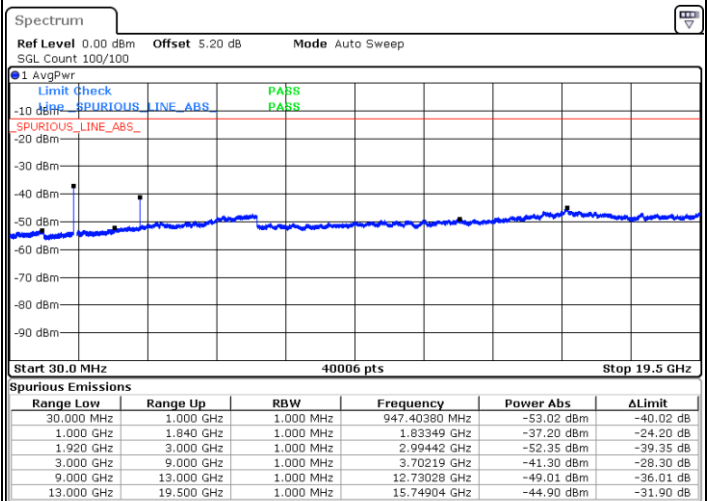
## LTE Band 2 / 20MHz

## Lowest Channel / QPSK



Date: 4.AUG.2020 20:48:45

## Lowest Channel / 16QAM

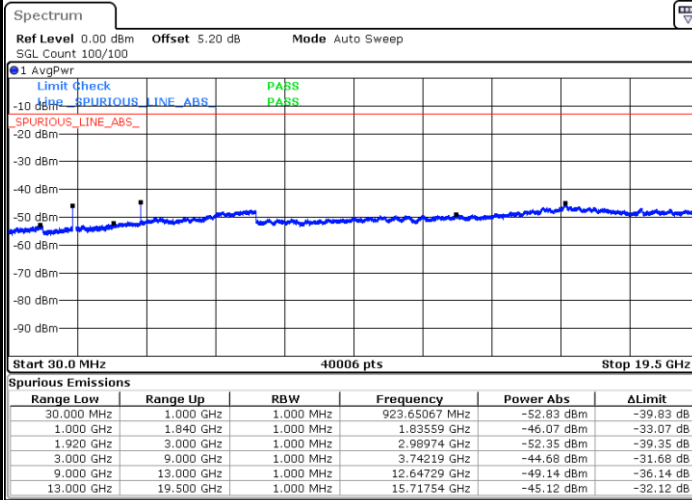


Date: 4.AUG.2020 20:49:42



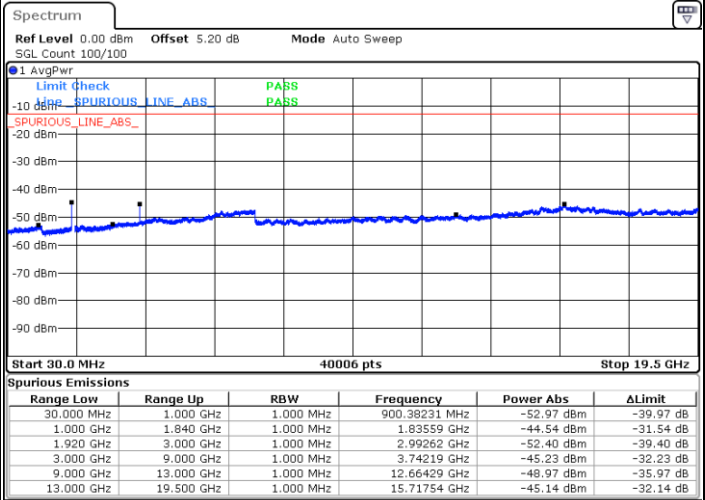
## LTE Band 2 / 20MHz

## Middle Channel / QPSK



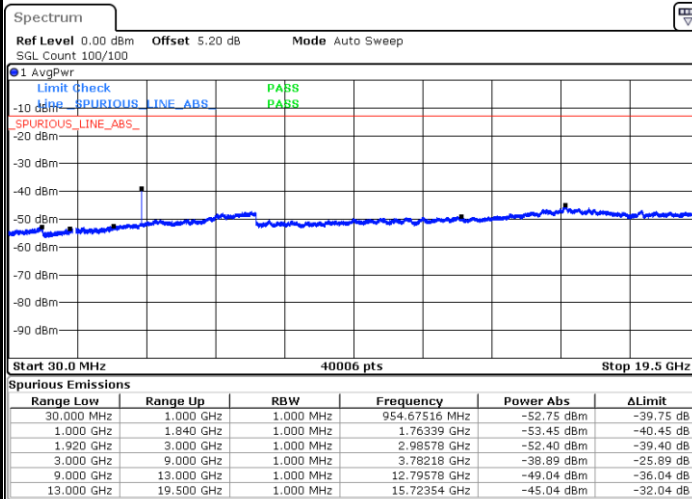
Date: 4.AUG.2020 20:51:19

## Middle Channel / 16QAM



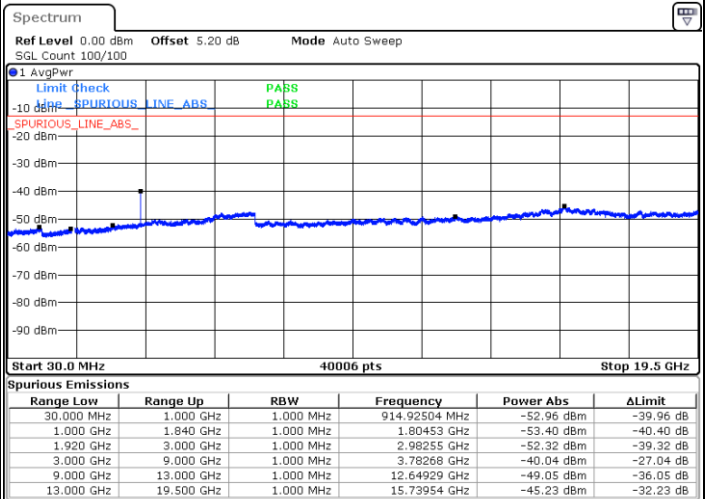
Date: 4.AUG.2020 20:52:16

## Highest Channel / QPSK



Date: 4.AUG.2020 20:58:25

## Highest Channel / 16QAM

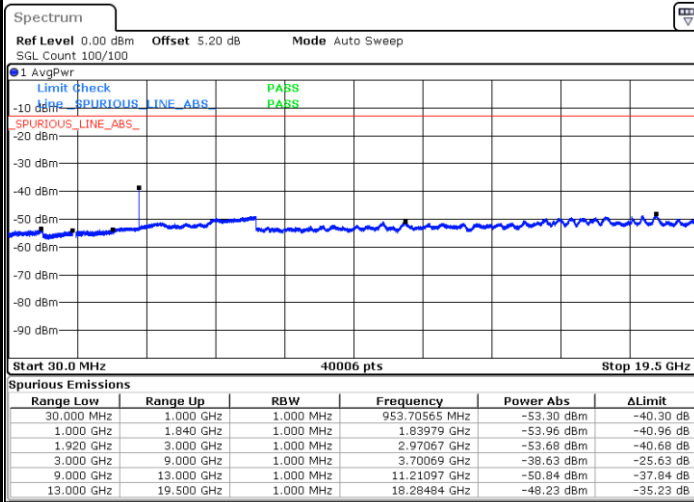


Date: 4.AUG.2020 20:59:21



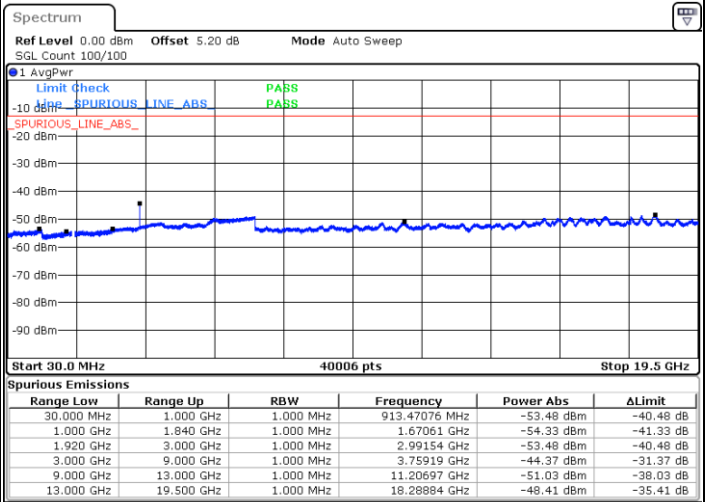
## LTE Band 2 / 1.4MHz

## Lowest Channel / 64QAM



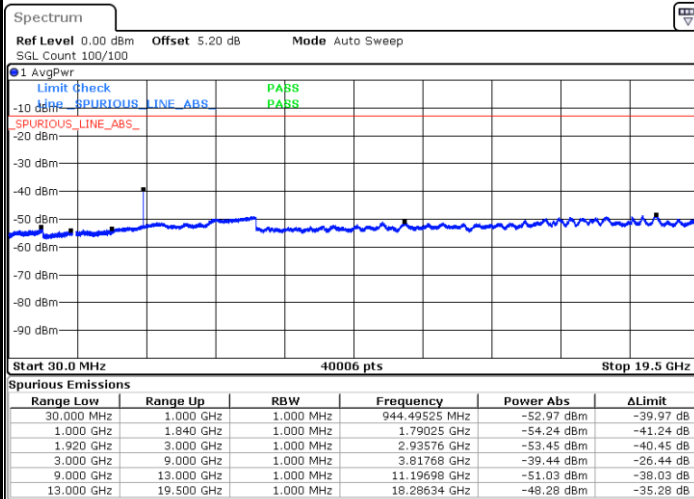
Date: 24 AUG 2020 17:39:00

## Middle Channel / 64QAM



Date: 24 AUG 2020 17:39:54

## Highest Channel / 64QAM

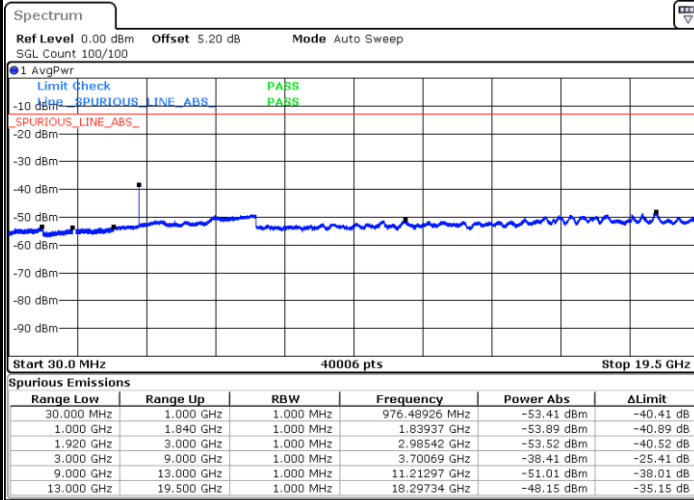


Date: 24 AUG 2020 17:40:48



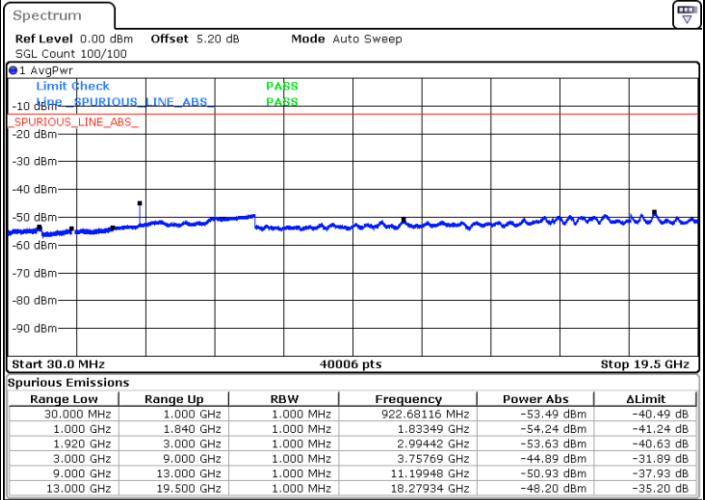
## LTE Band 2 / 3MHz

## Lowest Channel / 64QAM



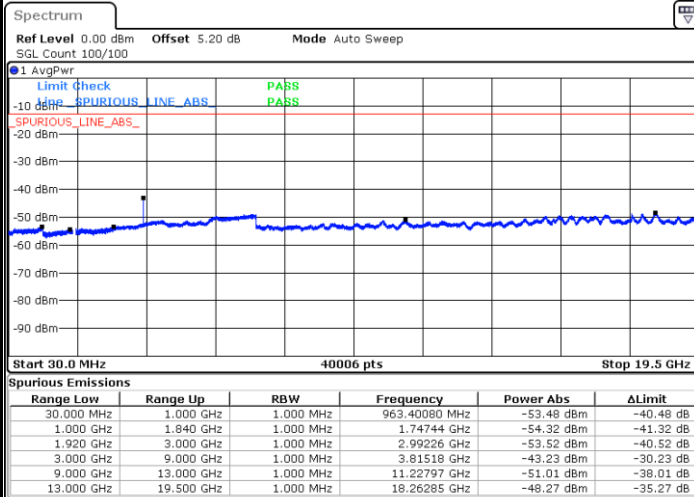
Date: 24 AUG 2020 17:41:42

## Middle Channel / 64QAM



Date: 24 AUG 2020 17:42:37

## Highest Channel / 64QAM

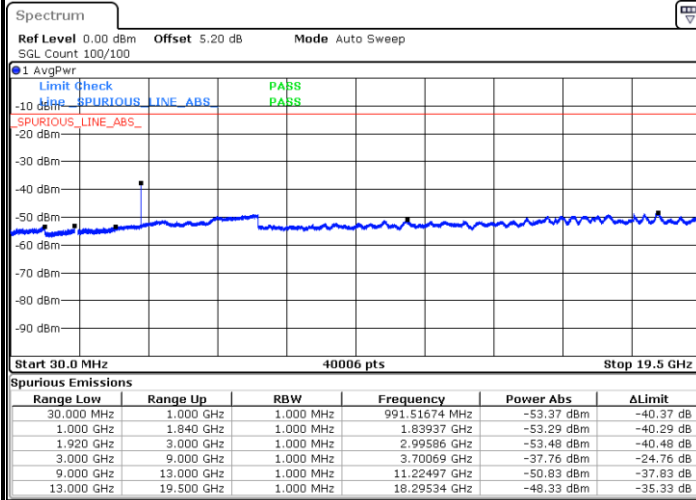


Date: 24 AUG 2020 17:43:30



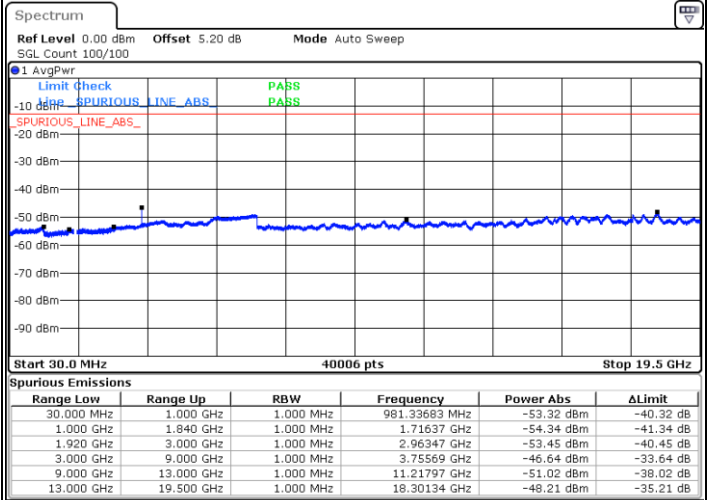
## LTE Band 2 / 5MHz

## Lowest Channel / 64QAM



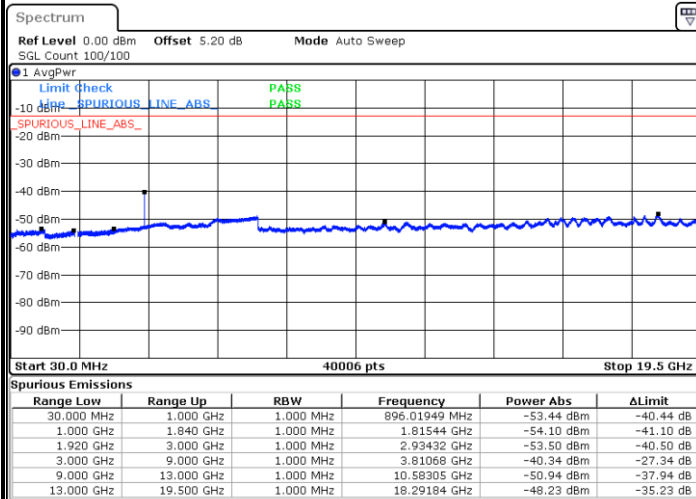
Date: 24 AUG 2020 17:44:25

## Middle Channel / 64QAM



Date: 24 AUG 2020 17:45:18

## Highest Channel / 64QAM

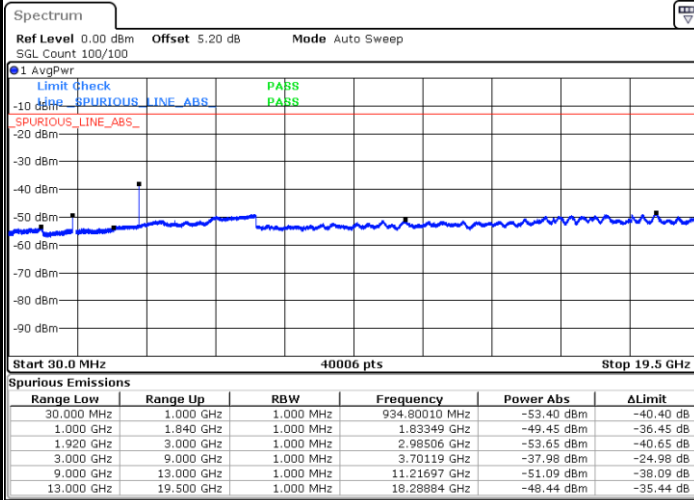


Date: 24 AUG 2020 17:46:12



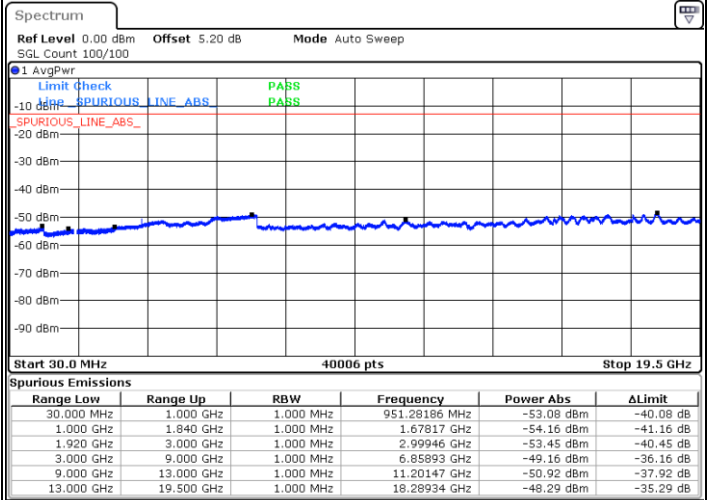
## LTE Band 2 / 10MHz

## Lowest Channel / 64QAM



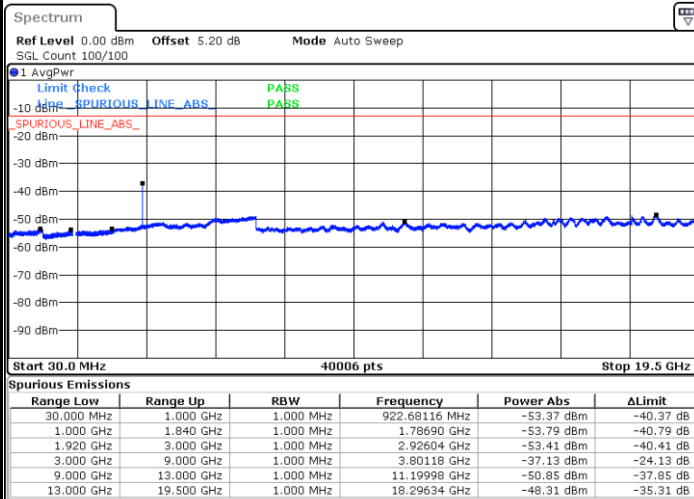
Date: 24 AUG 2020 17:47:06

## Middle Channel / 64QAM



Date: 24 AUG 2020 17:48:00

## Highest Channel / 64QAM

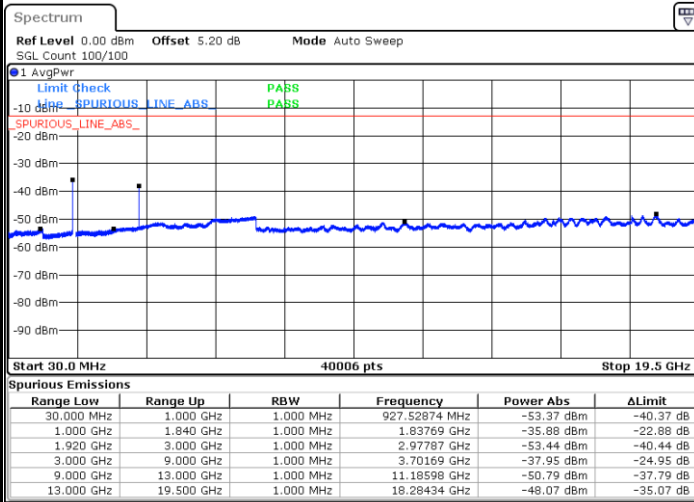


Date: 24 AUG 2020 17:48:55



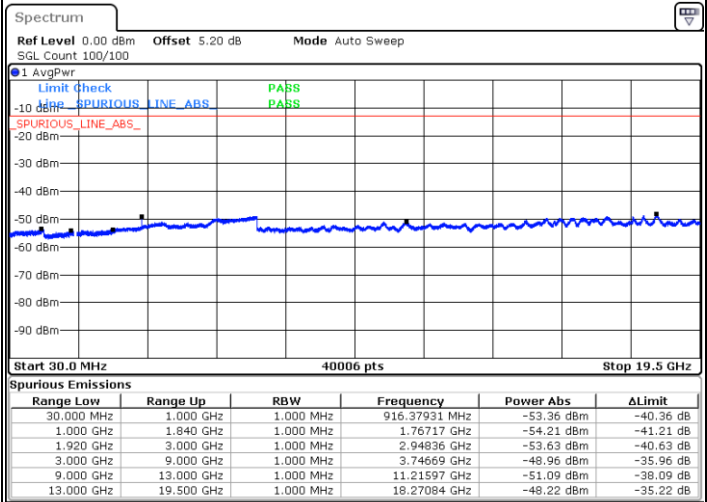
## LTE Band 2 / 15MHz

## Lowest Channel / 64QAM



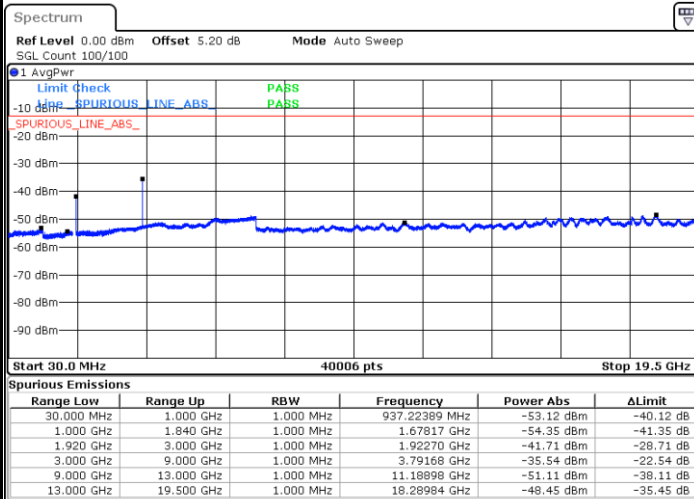
Date: 24 AUG 2020 17:49:49

## Middle Channel / 64QAM



Date: 24 AUG 2020 17:50:43

## Highest Channel / 64QAM

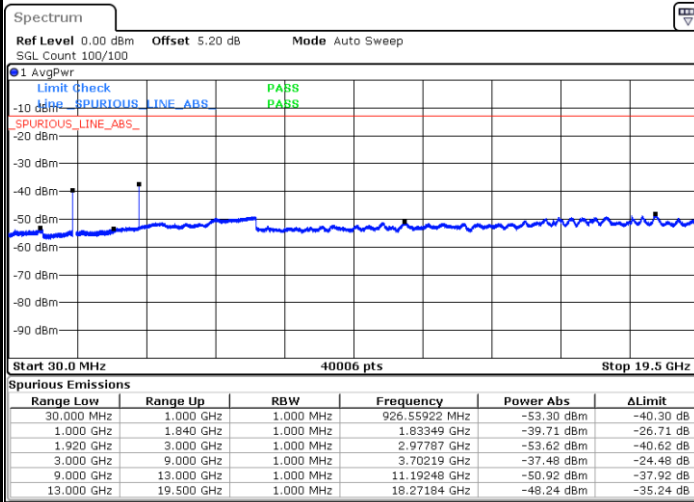


Date: 24 AUG 2020 17:51:37



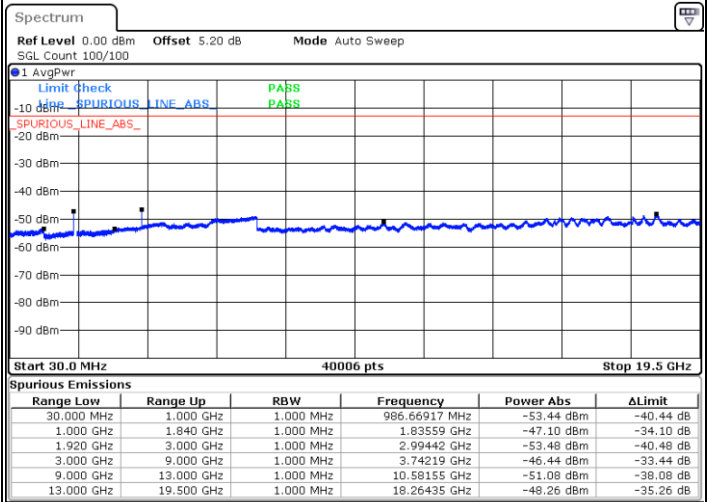
## LTE Band 2 / 20MHz

## Lowest Channel / 64QAM



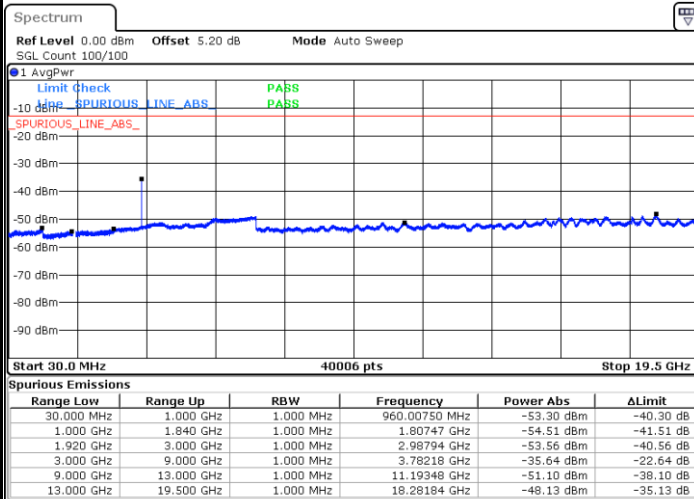
Date: 24 AUG 2020 17:52:31

## Middle Channel / 64QAM



Date: 24 AUG 2020 17:53:25

## Highest Channel / 64QAM



Date: 24 AUG 2020 17:54:19

## Frequency Stability

| Test Conditions  |                   | LTE Band 2 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                           | Note 2. |
|                  |                   | Deviation (ppm)                    | Result  |
| 50               | Normal Voltage    | 0.0031                             | PASS    |
| 40               | Normal Voltage    | 0.0029                             |         |
| 30               | Normal Voltage    | 0.0005                             |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                             |         |
| 10               | Normal Voltage    | 0.0033                             |         |
| 0                | Normal Voltage    | 0.0024                             |         |
| -10              | Normal Voltage    | 0.0002                             |         |
| -20              | Normal Voltage    | 0.0024                             |         |
| -30              | Normal Voltage    | 0.0022                             |         |
| 20               | Maximum Voltage   | 0.0007                             |         |
| 20               | Normal Voltage    | 0.0000                             |         |
| 20               | Battery End Point | 0.0006                             |         |

**Note:**

1. Normal Voltage =4 V. ; Battery End Point (BEP) =3.8V. ; Maximum Voltage =4.4V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 4

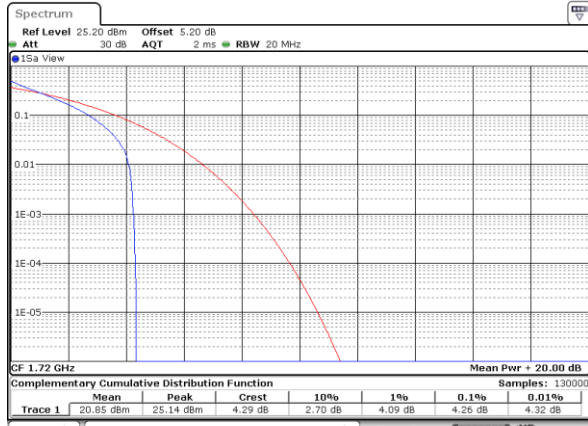
## Peak-to-Average Ratio

| Mode       | LTE Band 4 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 4.26               | 4.52    | 5.13  | 5.57    | PASS        |
| Middle CH  | 3.94               | 4.58    | 4.32  | 5.54    |             |
| Highest CH | 4.29               | 4.84    | 4.90  | 5.88    |             |
| Mode       | LTE Band 4 / 20MHz |         |       |         |             |
| Mod.       | 64QAM              |         |       |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB |       |         | Result      |
| Lowest CH  | 4.87               | 5.19    | -     | -       | PASS        |
| Middle CH  | 4.09               | 5.36    | -     | -       |             |
| Highest CH | 4.87               | 4.64    | -     | -       |             |

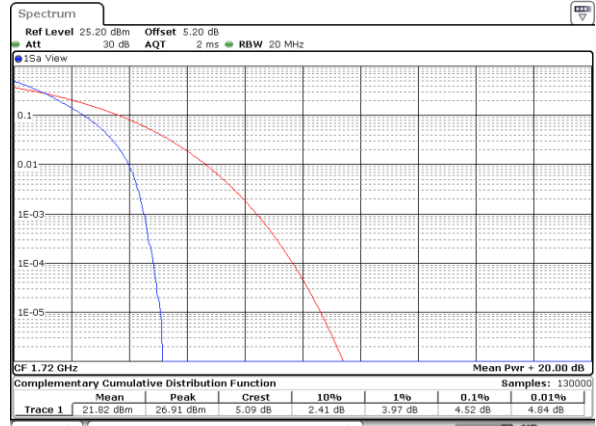


## LTE Band 4 / 20MHz / QPSK

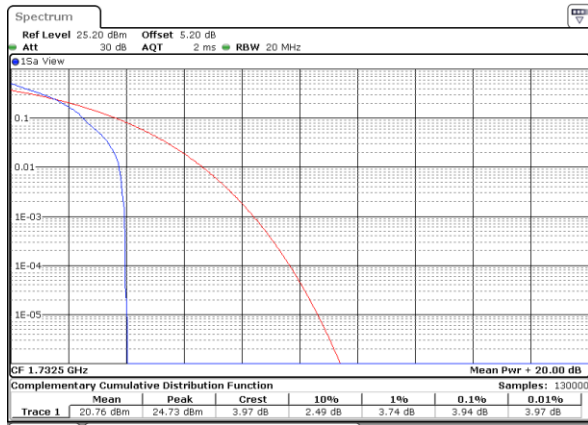
## Lowest Channel / 1RB



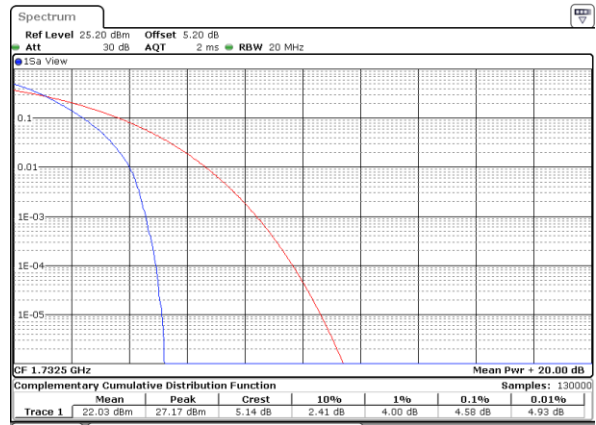
## Lowest Channel / Full RB



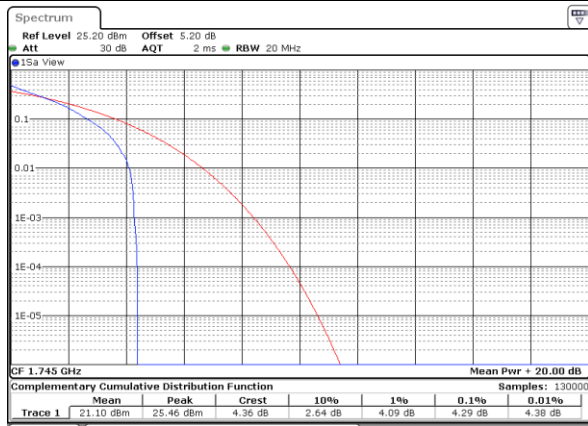
## Middle Channel / 1RB



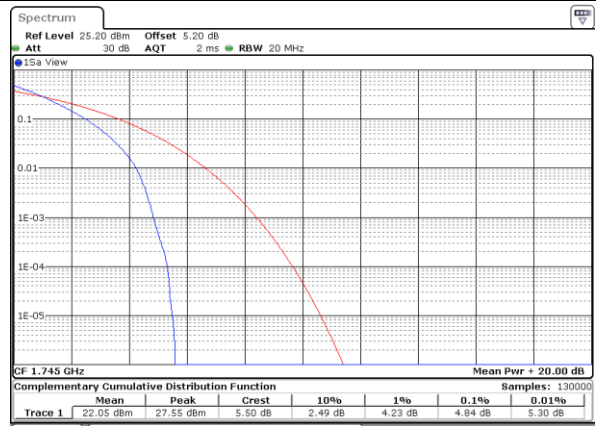
## Middle Channel / Full RB



## Highest Channel / 1RB



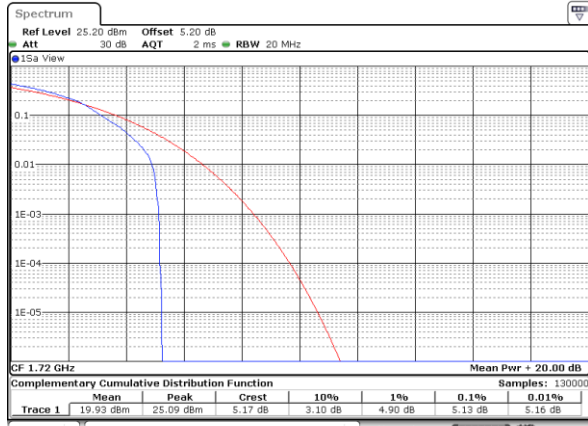
## Highest Channel / Full RB



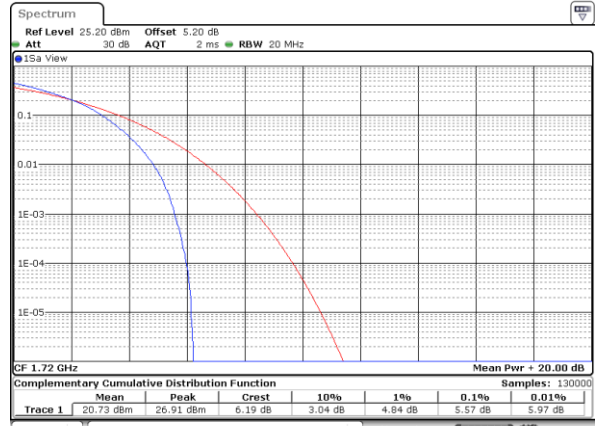


## LTE Band 4 / 20MHz / 16QAM

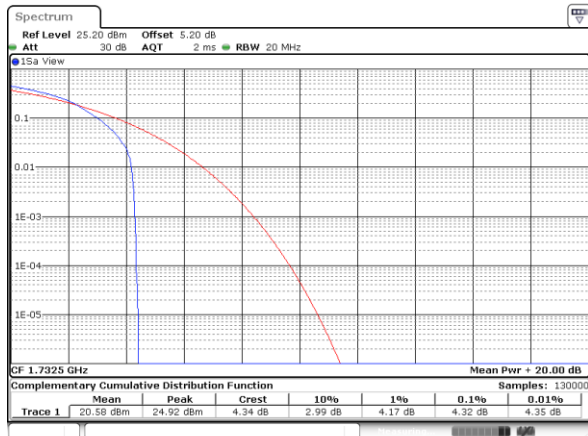
## Lowest Channel / 1RB



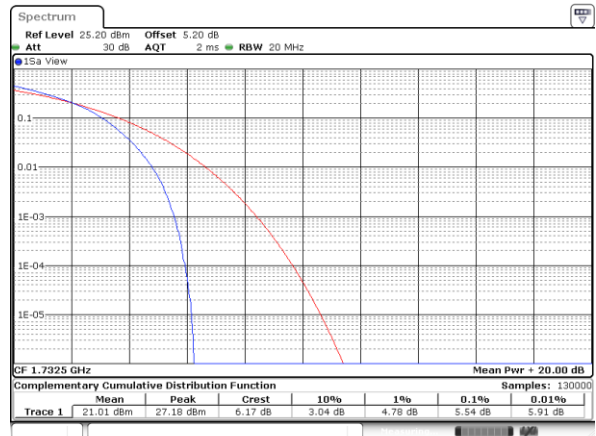
## Lowest Channel / Full RB



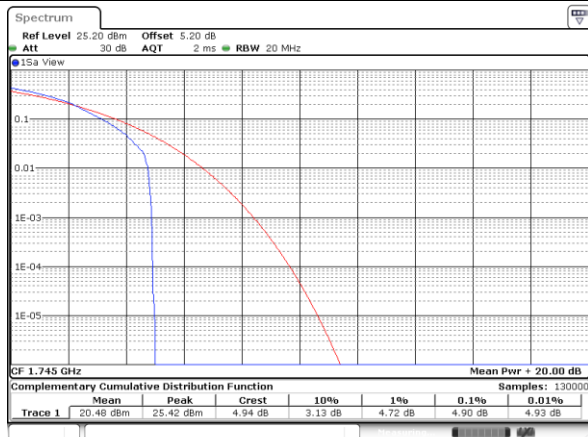
## Middle Channel / 1RB



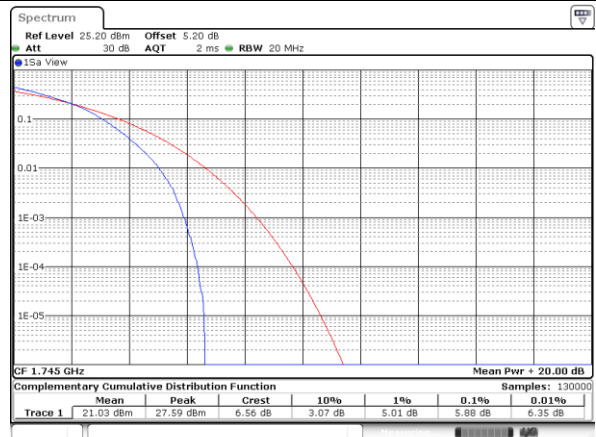
## Middle Channel / Full RB



## Highest Channel / 1RB



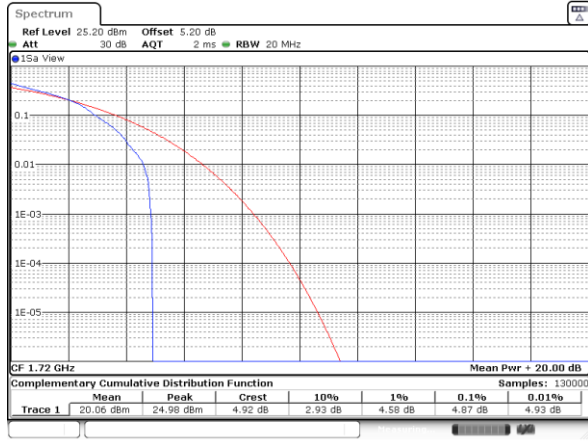
## Highest Channel / Full RB



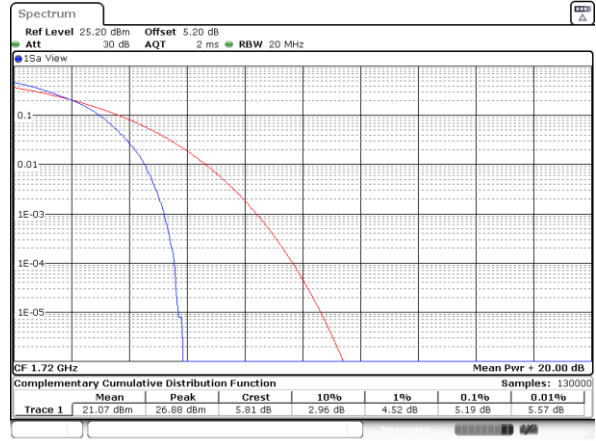


## LTE Band 4 / 20MHz / 64QAM

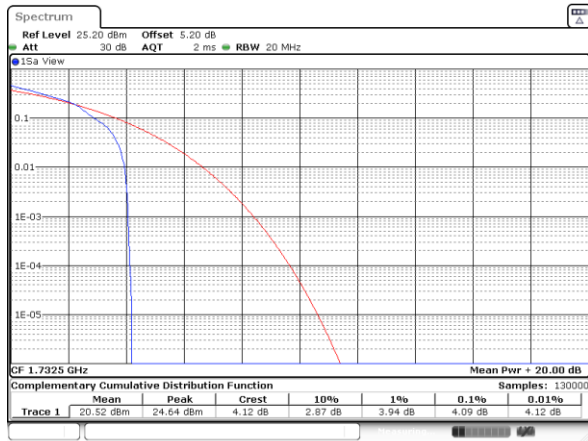
## Lowest Channel / 1RB



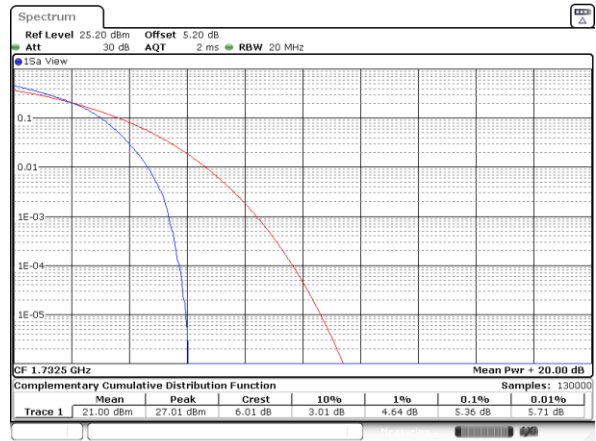
## Lowest Channel / Full RB



## Middle Channel / 1RB



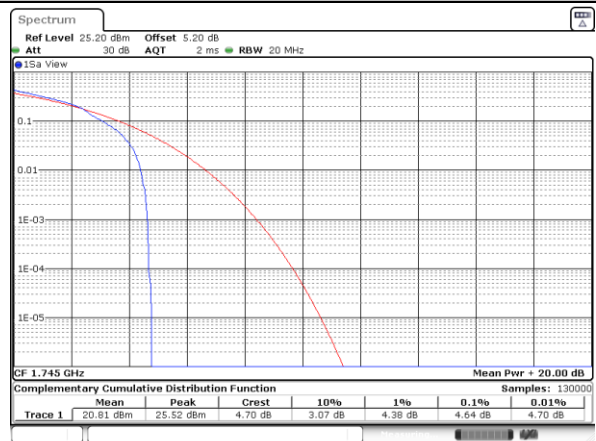
## Middle Channel / Full RB



## Highest Channel / 1RB



## Highest Channel / Full RB



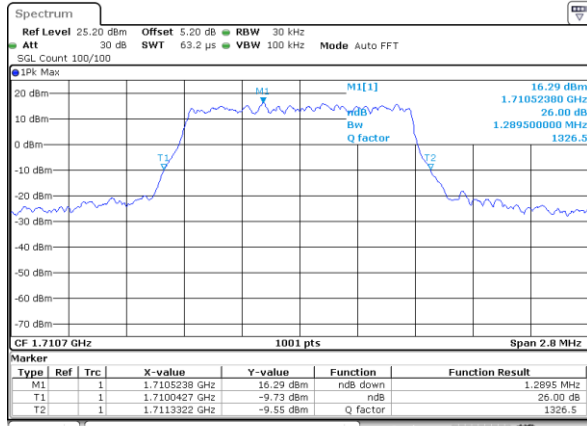
**26dB Bandwidth**

| Mode       | LTE Band 4 : 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  | 1.29                      | 1.26  | 3.00  | 3.05  | 4.83  | 4.87  | 9.79  | 9.77  | 14.54 | 14.30 | 20.18 | 20.14 |
| Middle CH  | 1.31                      | 1.26  | 3.01  | 2.99  | 4.98  | 4.88  | 9.81  | 9.93  | 14.42 | 14.48 | 20.18 | 20.26 |
| Highest CH | 1.27                      | 1.31  | 2.97  | 3.00  | 4.89  | 4.93  | 9.73  | 9.93  | 14.42 | 14.27 | 20.30 | 20.10 |
| Mode       | LTE Band 4 : 26dB BW(MHz) |       |       |       |       |       |       |       |       |       |       |       |
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | 64QAM                     |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | 1.28                      | -     | 3.00  | -     | 4.87  | -     | 9.75  | -     | 14.36 | -     | 20.30 | -     |
| Middle CH  | 1.28                      | -     | 2.96  | -     | 4.97  | -     | 9.89  | -     | 14.45 | -     | 20.30 | -     |
| Highest CH | 1.27                      | -     | 2.97  | -     | 4.92  | -     | 9.95  | -     | 14.33 | -     | 20.26 | -     |



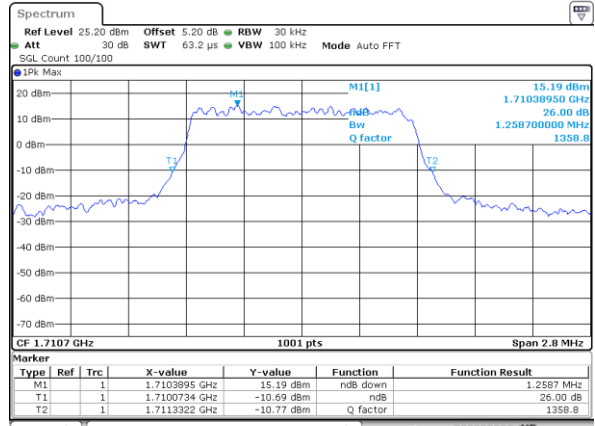
## LTE Band 4

## Lowest Channel / 1.4MHz / QPSK



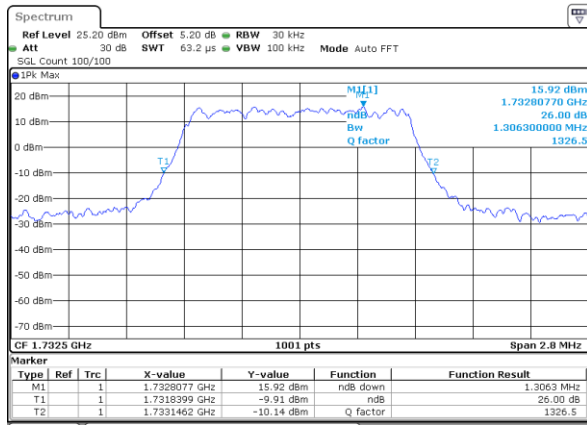
Date: 4.AUG.2020 21:18:53

## Lowest Channel / 1.4MHz / 16QAM



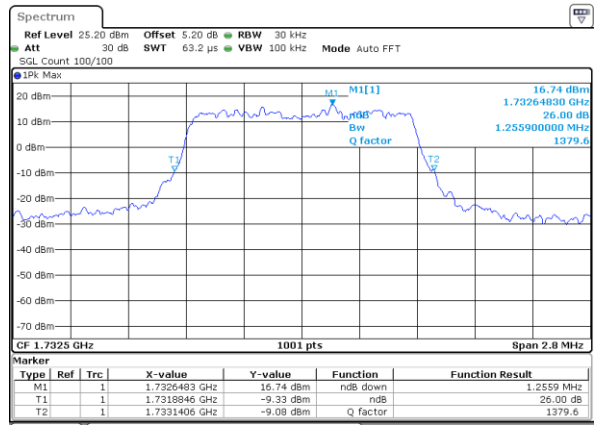
Date: 4.AUG.2020 21:19:03

## Middle Channel / 1.4MHz / QPSK



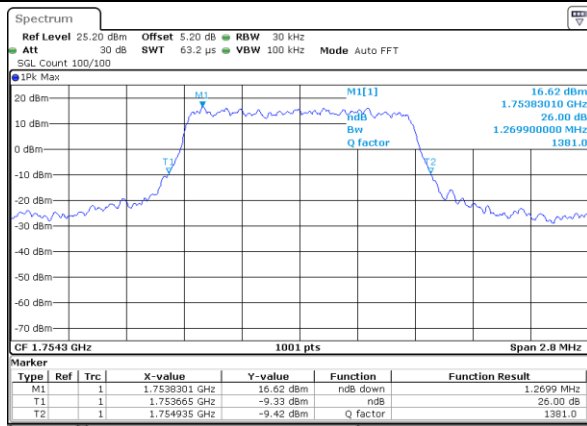
Date: 4.AUG.2020 21:25:58

## Middle Channel / 1.4MHz / 16QAM



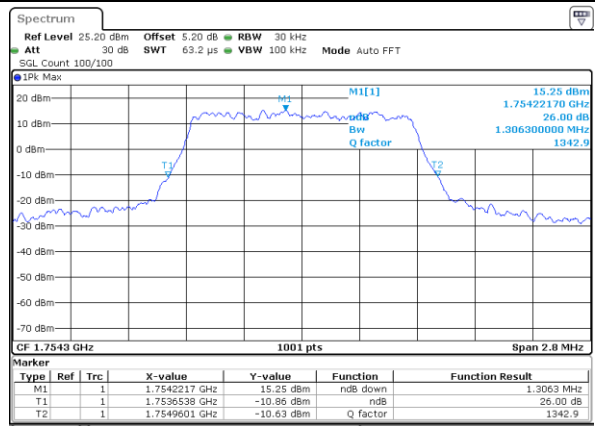
Date: 4.AUG.2020 21:26:08

## Highest Channel / 1.4MHz / QPSK



Date: 4.AUG.2020 21:28:32

## Highest Channel / 1.4MHz / 16QAM

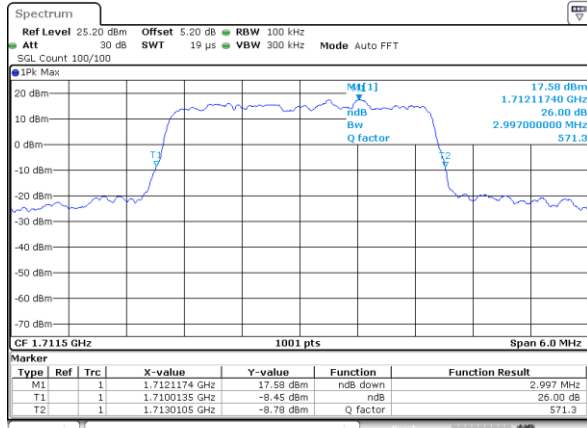


Date: 4.AUG.2020 21:28:42

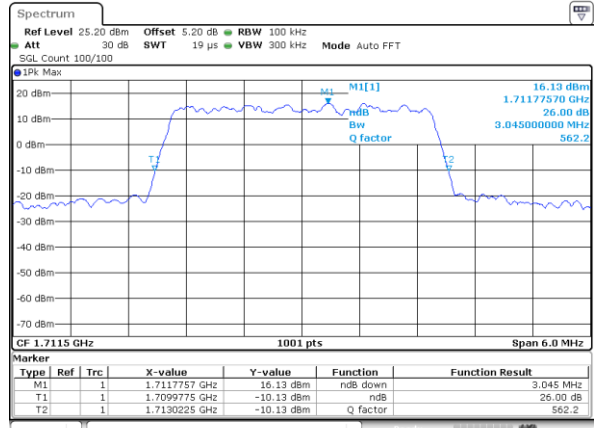


## LTE Band 4

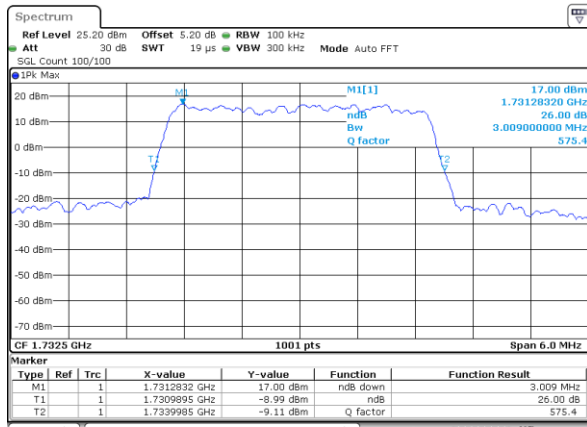
## Lowest Channel / 3MHz / QPSK



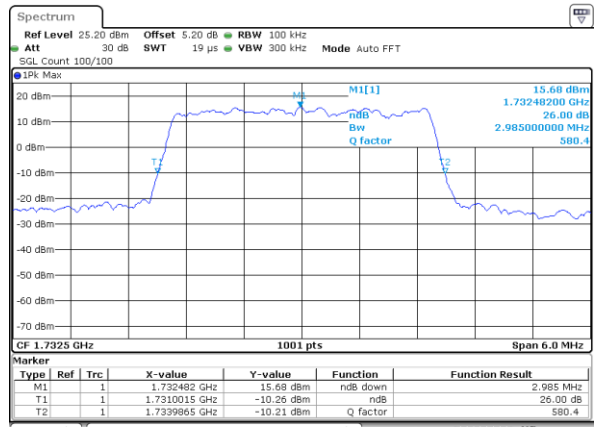
## Lowest Channel / 3MHz / 16QAM



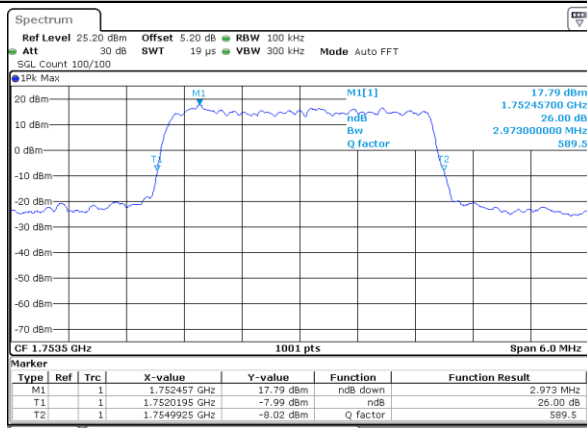
## Middle Channel / 3MHz / QPSK



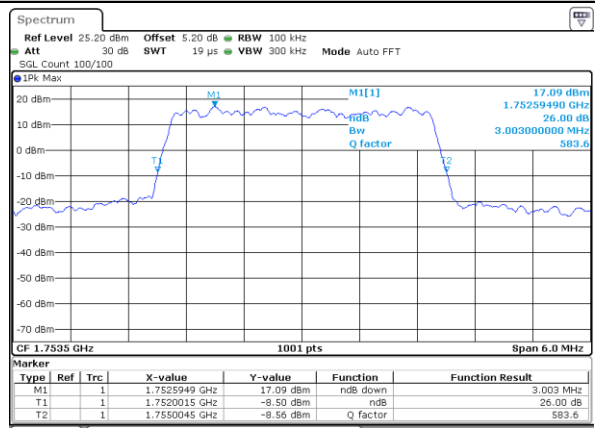
## Middle Channel / 3MHz / 16QAM



## Highest Channel / 3MHz / QPSK



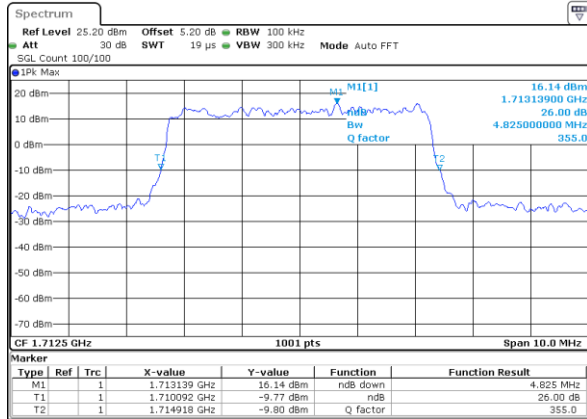
## Highest Channel / 3MHz / 16QAM





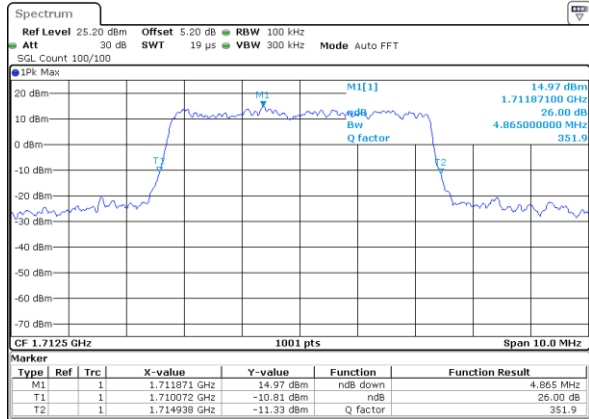
## LTE Band 4

## Lowest Channel / 5MHz / QPSK



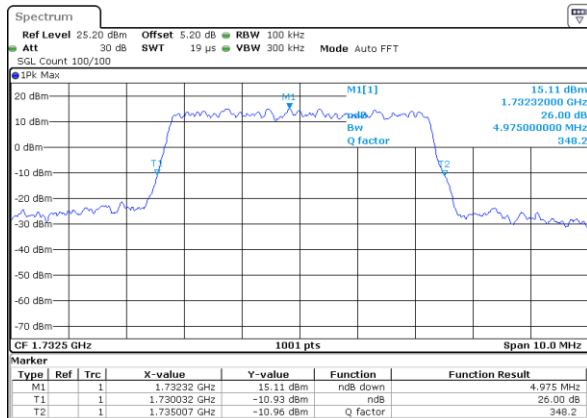
Date: 4.AUG.2020 21:52:20

## Lowest Channel / 5MHz / 16QAM



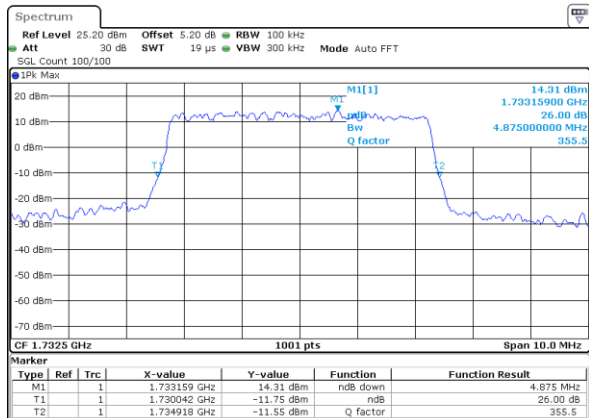
Date: 4.AUG.2020 21:52:30

## Middle Channel / 5MHz / QPSK



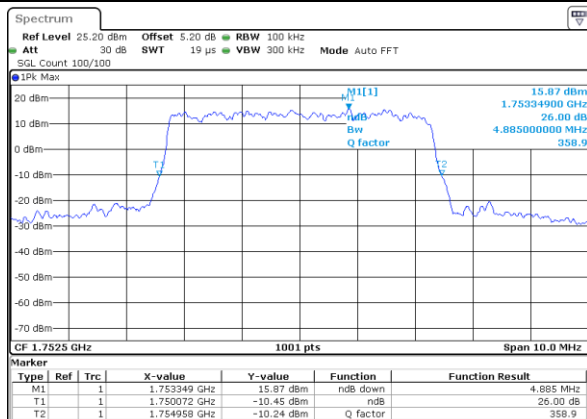
Date: 4.AUG.2020 21:59:24

## Middle Channel / 5MHz / 16QAM



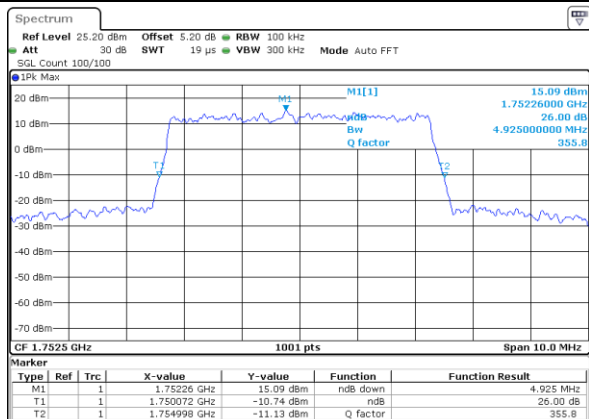
Date: 4.AUG.2020 21:59:34

## Highest Channel / 5MHz / QPSK



Date: 4.AUG.2020 22:01:58

## Highest Channel / 5MHz / 16QAM

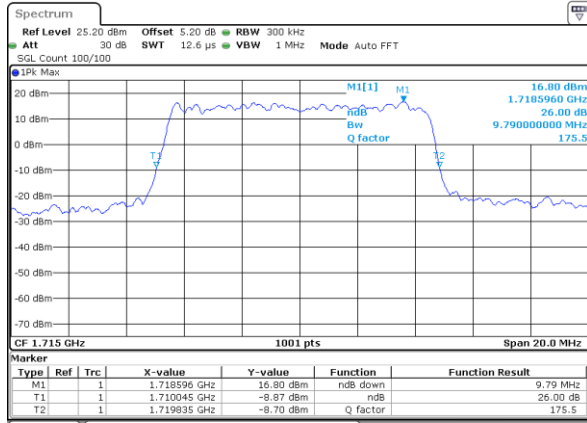


Date: 4.AUG.2020 22:02:08

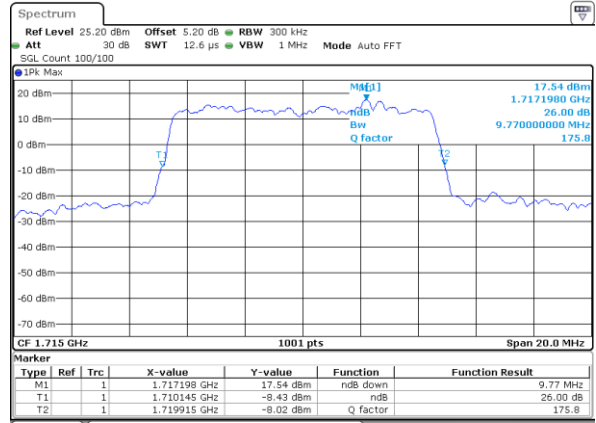


## LTE Band 4

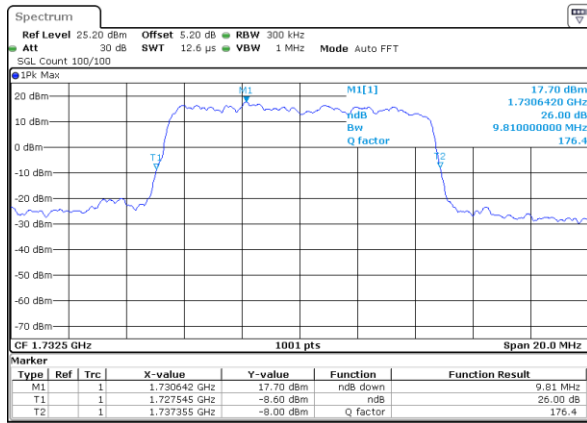
## Lowest Channel / 10MHz / QPSK



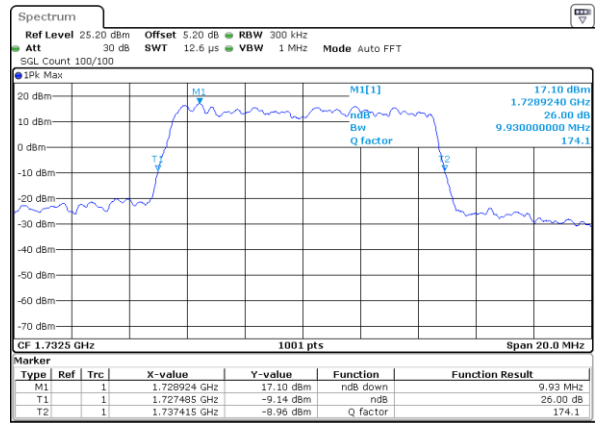
## Lowest Channel / 10MHz / 16QAM



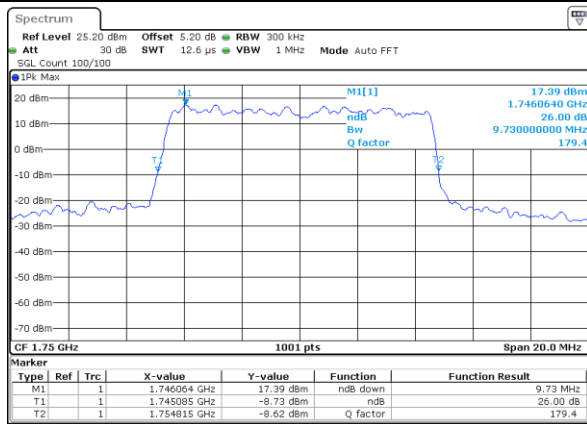
## Middle Channel / 10MHz / QPSK



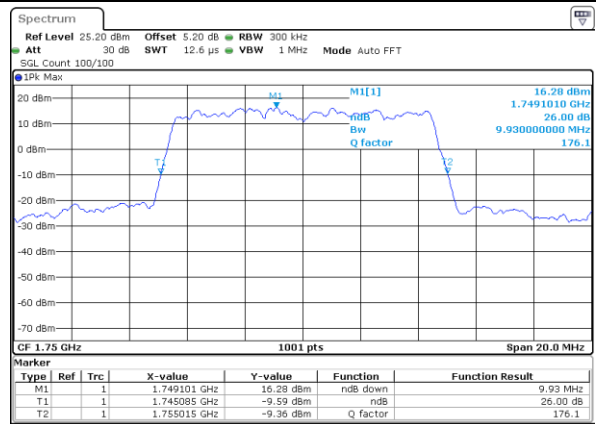
## Middle Channel / 10MHz / 16QAM



## Highest Channel / 10MHz / QPSK



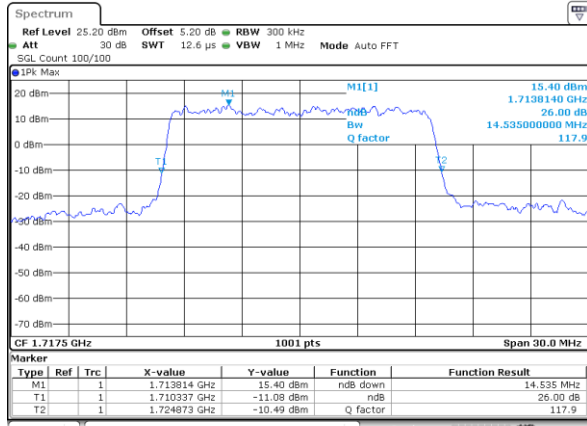
## Highest Channel / 10MHz / 16QAM



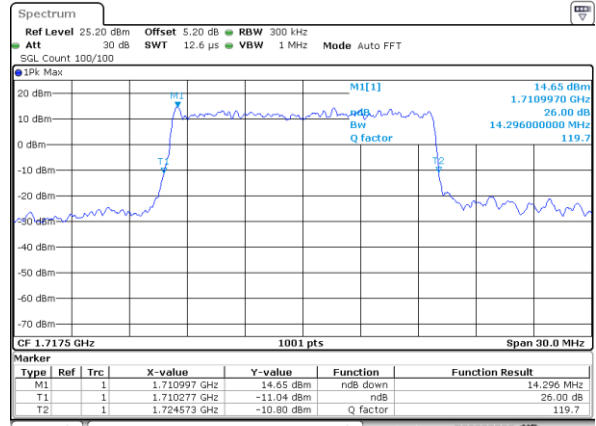


## LTE Band 4

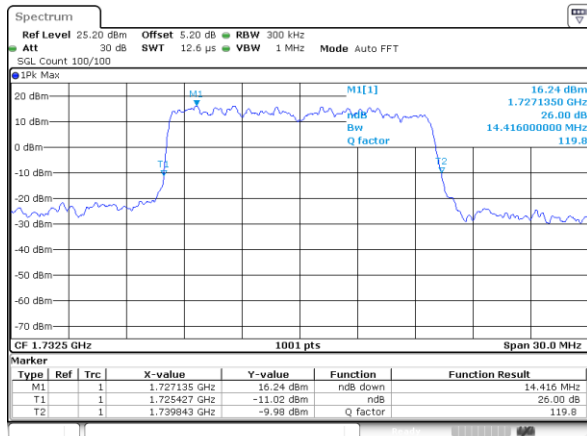
## Lowest Channel / 15MHz / QPSK



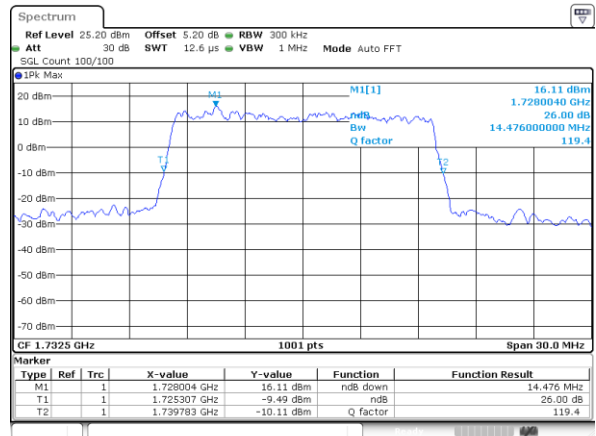
## Lowest Channel / 15MHz / 16QAM



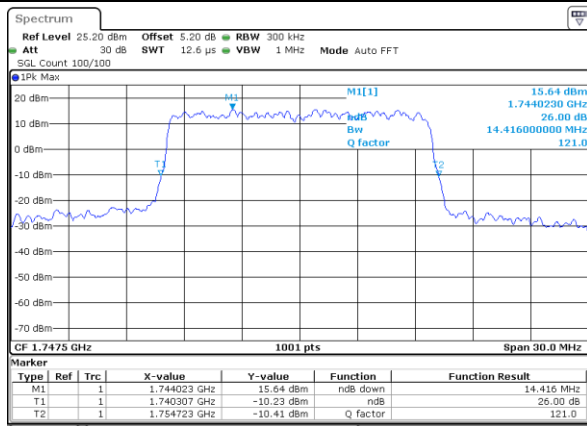
## Middle Channel / 15MHz / QPSK



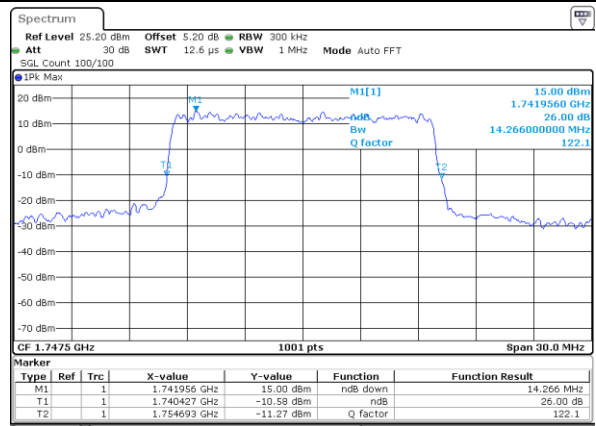
## Middle Channel / 15MHz / 16QAM



## Highest Channel / 15MHz / QPSK



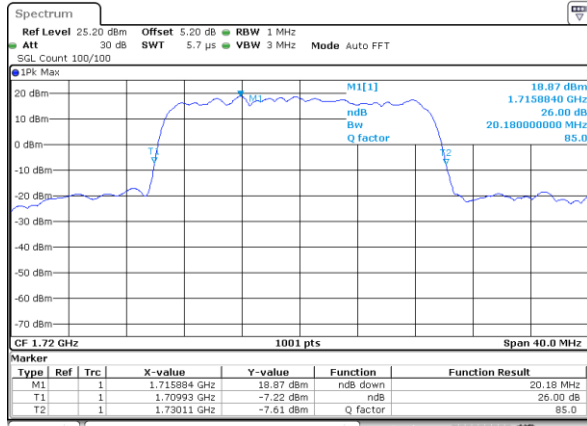
## Highest Channel / 15MHz / 16QAM





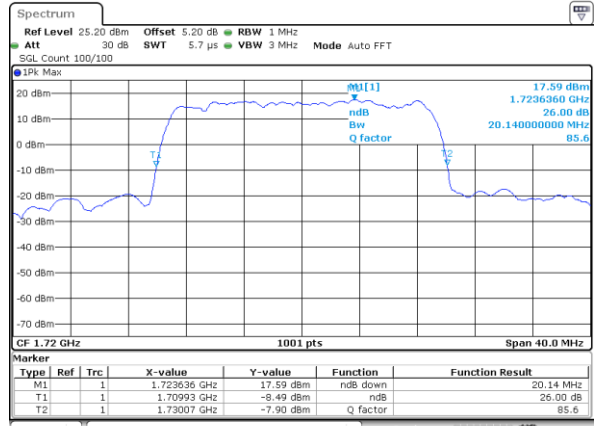
## LTE Band 4

## Lowest Channel / 20MHz / QPSK



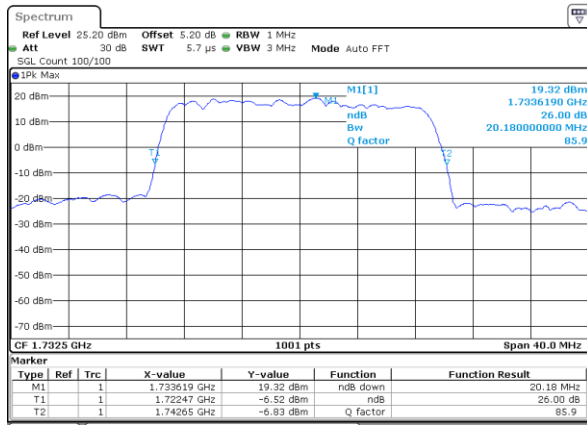
Date: 4.AUG.2020 22:55:15

## Lowest Channel / 20MHz / 16QAM



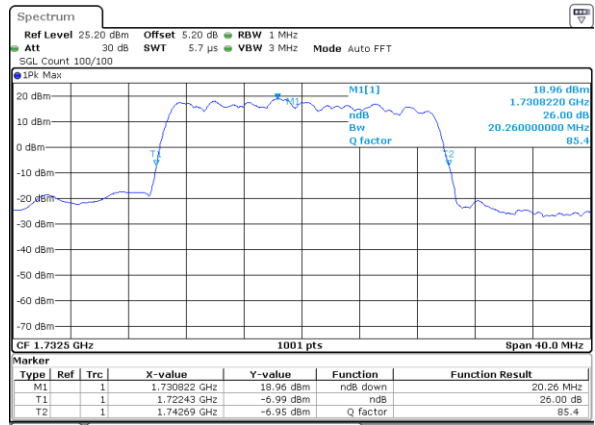
Date: 4.AUG.2020 22:55:25

## Middle Channel / 20MHz / QPSK



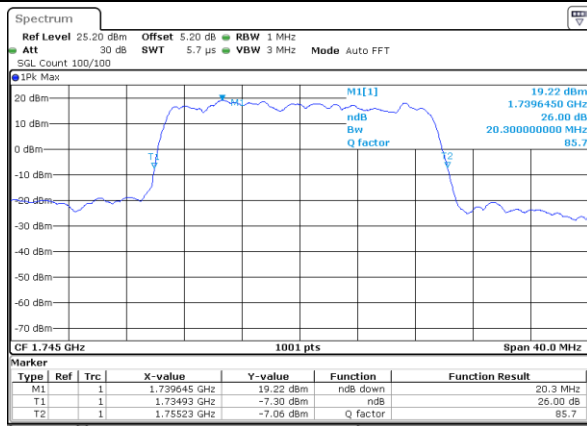
Date: 4.AUG.2020 23:02:19

## Middle Channel / 20MHz / 16QAM



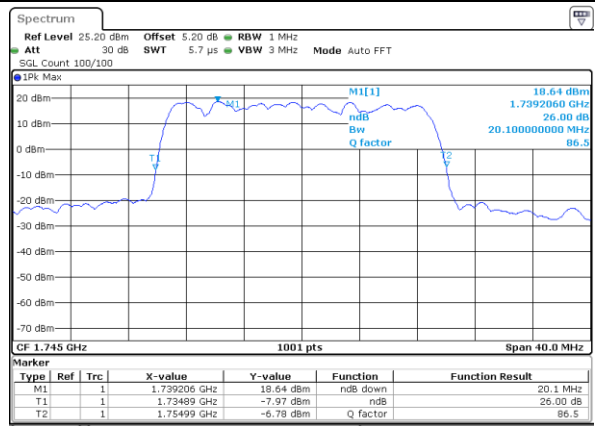
Date: 4.AUG.2020 23:02:29

## Highest Channel / 20MHz / QPSK



Date: 4.AUG.2020 23:04:53

## Highest Channel / 20MHz / 16QAM

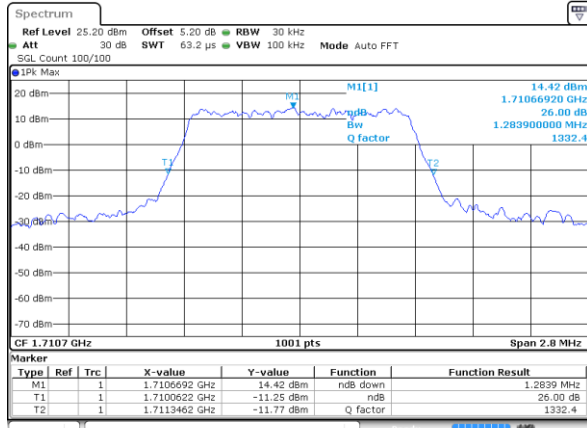


Date: 4.AUG.2020 23:05:03



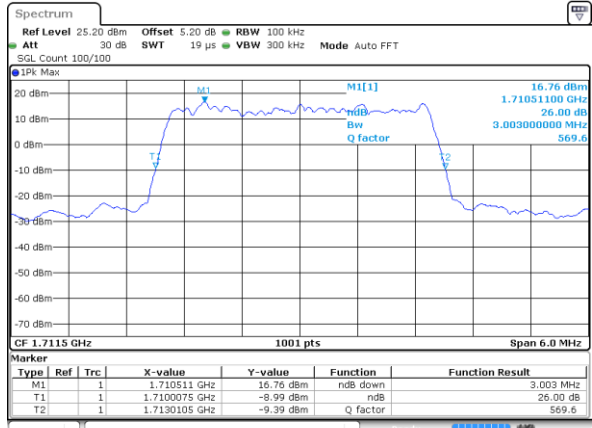
## LTE Band 4

## Lowest Channel / 1.4MHz / 64QAM



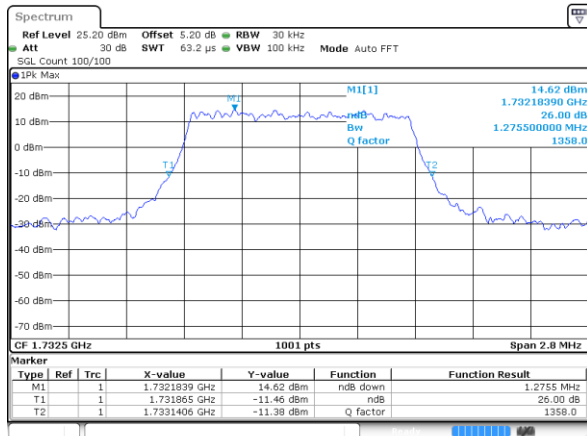
Date: 24 AUG 2020 17:56:36

## Lowest Channel / 3MHz / 64QAM



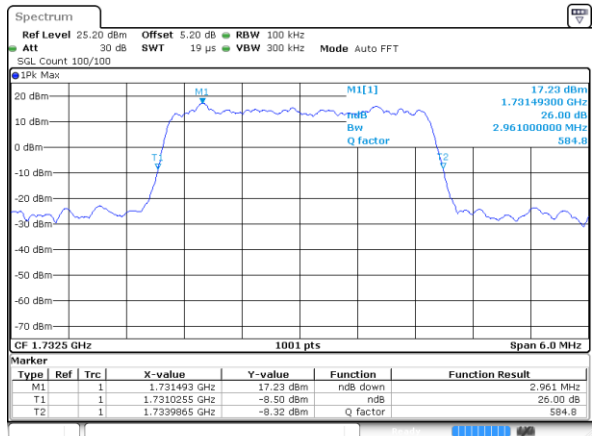
Date: 24 AUG 2020 18:04:53

## Middle Channel / 1.4MHz / 64QAM



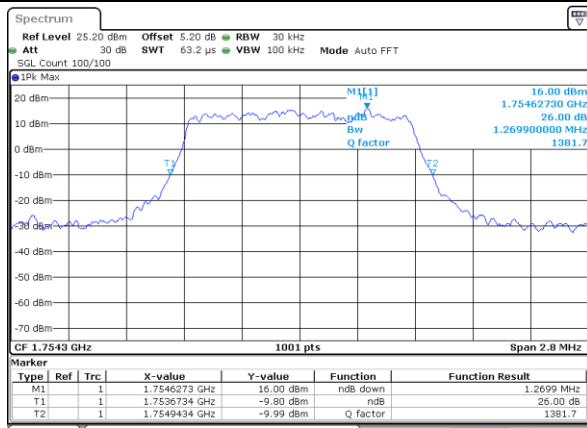
Date: 24 AUG 2020 18:00:08

## Middle Channel / 3MHz / 64QAM



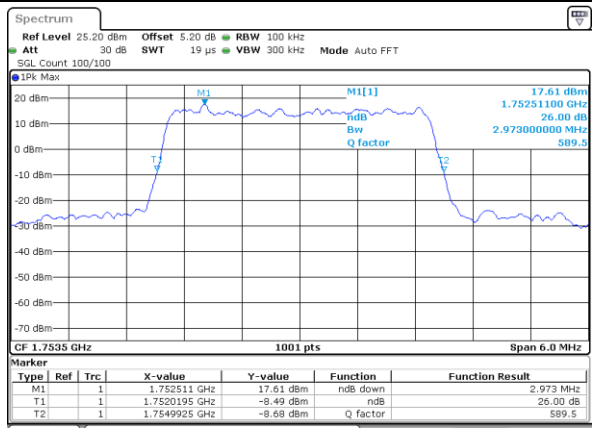
Date: 24 AUG 2020 18:08:25

## Highest Channel / 1.4MHz / 64QAM



Date: 24 AUG 2020 18:01:22

## Highest Channel / 3MHz / 64QAM

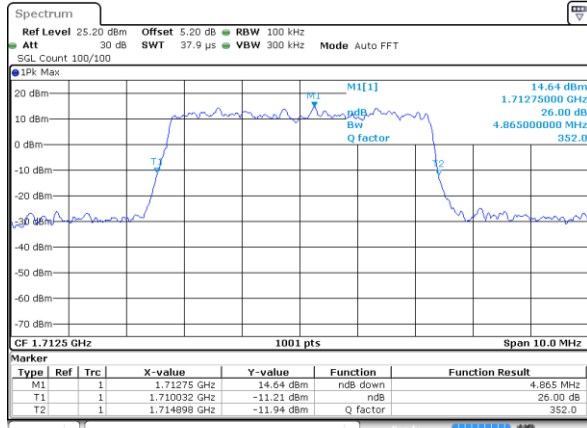


Date: 24 AUG 2020 18:09:39



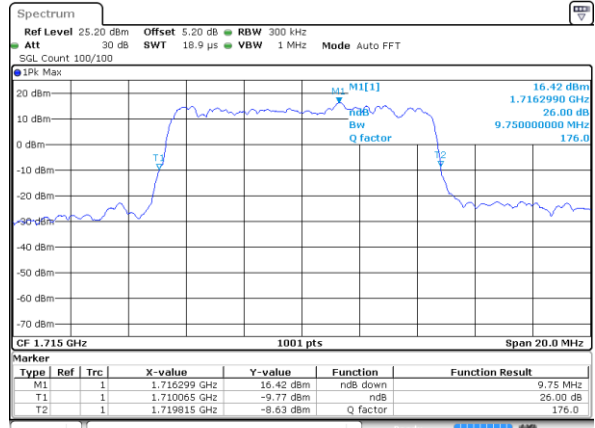
## LTE Band 4

## Lowest Channel / 5MHz / 64QAM



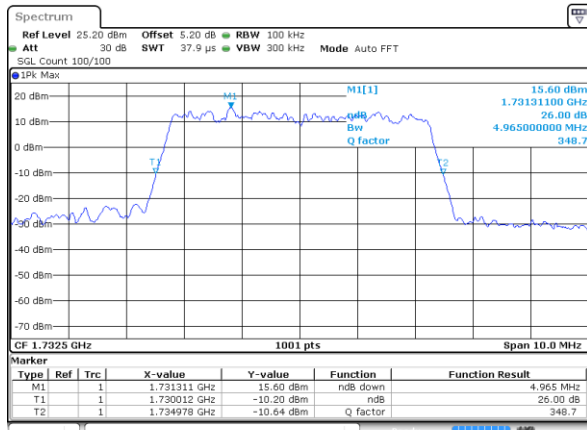
Date: 24 AUG 2020 18:13:10

## Lowest Channel / 10MHz / 64QAM



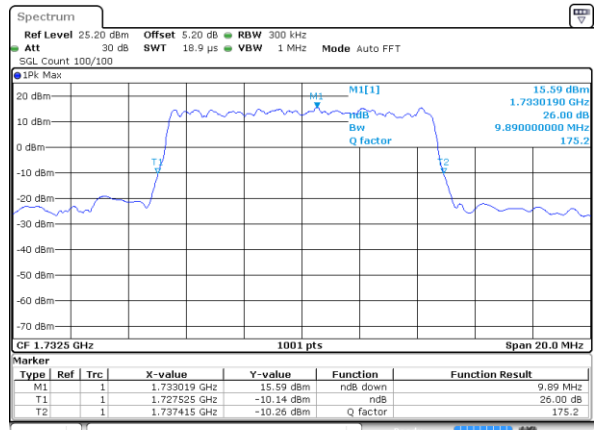
Date: 24 AUG 2020 18:21:27

## Middle Channel / 5MHz / 64QAM



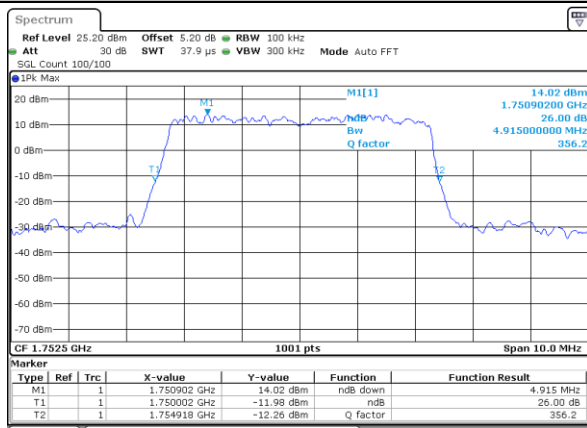
Date: 24 AUG 2020 18:16:42

## Middle Channel / 10MHz / 64QAM



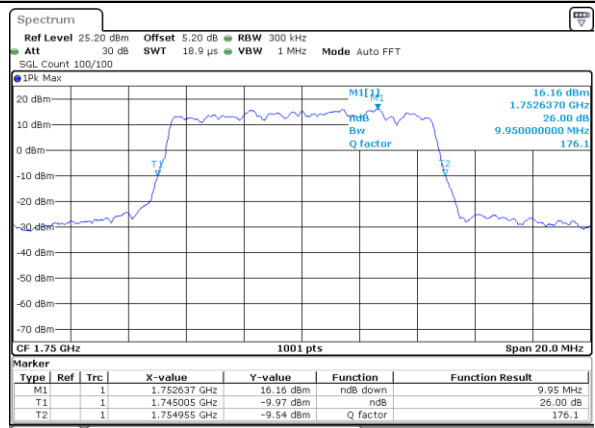
Date: 24 AUG 2020 18:24:58

## Highest Channel / 5MHz / 64QAM



Date: 24 AUG 2020 18:17:55

## Highest Channel / 10MHz / 64QAM

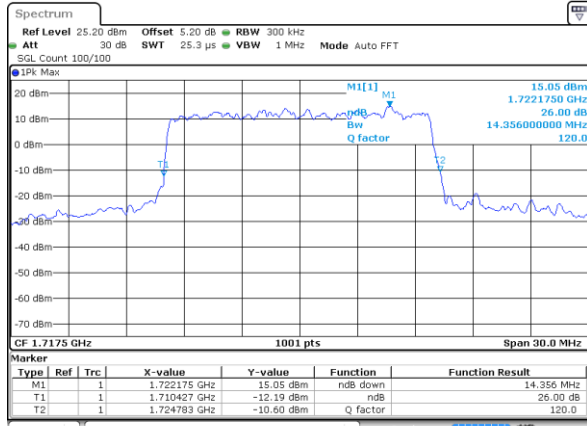


Date: 24 AUG 2020 18:26:12



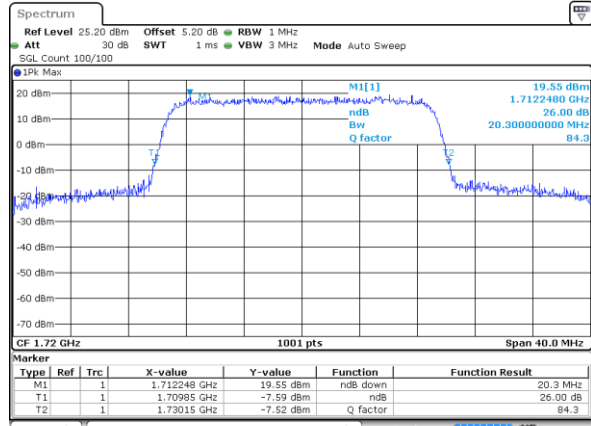
## LTE Band 4

## Lowest Channel / 15MHz / 64QAM



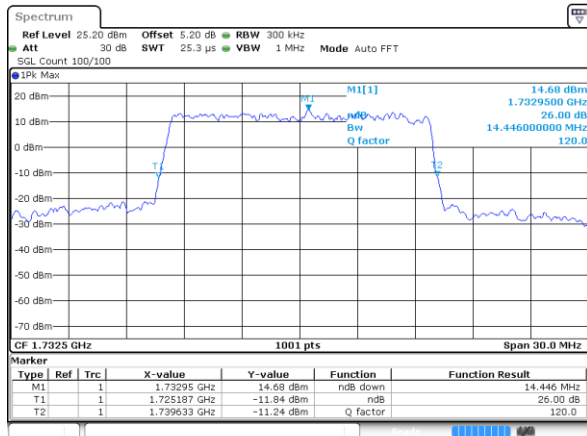
Date: 24 AUG 2020 18:29:44

## Lowest Channel / 20MHz / 64QAM



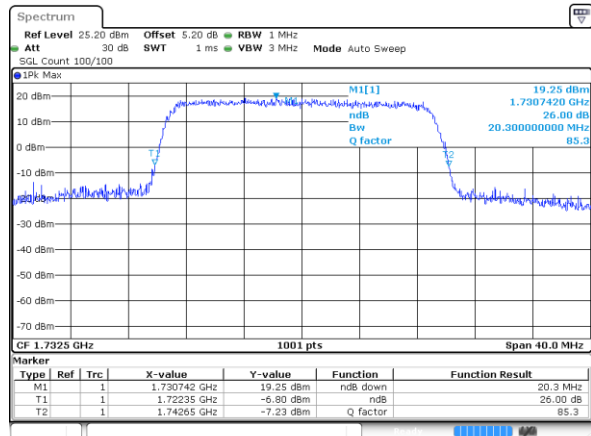
Date: 24 AUG 2020 18:38:00

## Middle Channel / 15MHz / 64QAM



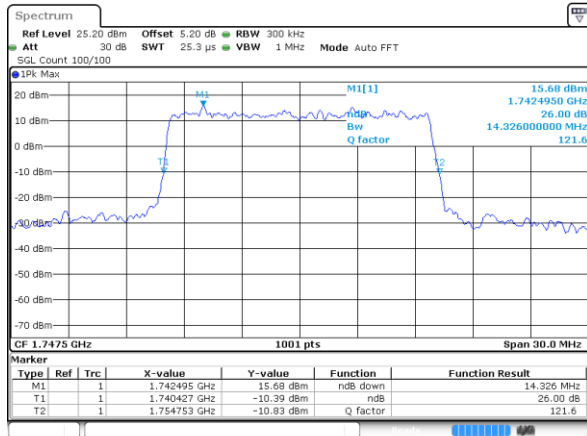
Date: 24 AUG 2020 18:33:15

## Middle Channel / 20MHz / 64QAM



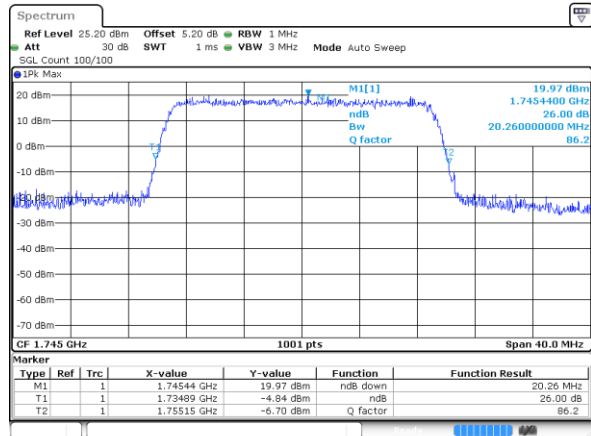
Date: 24 AUG 2020 18:41:32

## Highest Channel / 15MHz / 64QAM



Date: 24 AUG 2020 18:34:29

## Highest Channel / 20MHz / 64QAM



Date: 24 AUG 2020 18:42:46

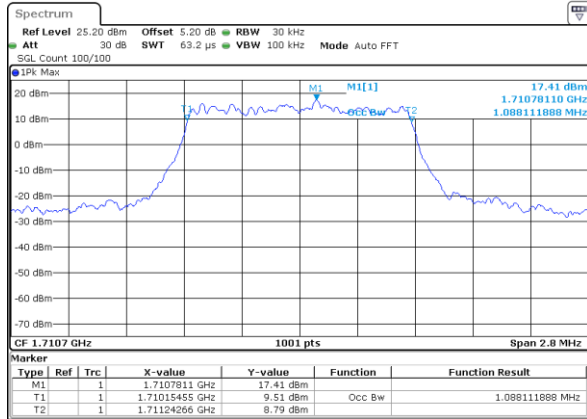
**Occupied Bandwidth**

| Mode       | LTE Band 4 : 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  | 2.72  | 2.72  | 4.49  | 4.49  | 9.07  | 9.01  | 13.46 | 13.49 | 18.26 | 18.30 |
| Middle CH  | 1.09                     | 1.10  | 2.72  | 2.71  | 4.49  | 4.48  | 9.03  | 9.01  | 13.49 | 13.40 | 18.30 | 18.38 |
| Highest CH | 1.10                     | 1.10  | 2.74  | 2.71  | 4.50  | 4.49  | 9.05  | 8.95  | 13.52 | 13.43 | 18.46 | 18.38 |
| Mode       | LTE Band 4 : 99%OBW(MHz) |       |       |       |       |       |       |       |       |       |       |       |
| BW         | 1.4MHz                   |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | 64QAM                    |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | 1.09                     | -     | 2.73  | -     | 4.50  | -     | 9.03  | -     | 13.37 | -     | 18.34 | -     |
| Middle CH  | 1.09                     | -     | 2.72  | -     | 4.51  | -     | 9.03  | -     | 13.40 | -     | 18.34 | -     |
| Highest CH | 1.10                     | -     | 2.73  | -     | 4.52  | -     | 9.05  | -     | 13.46 | -     | 18.30 | -     |

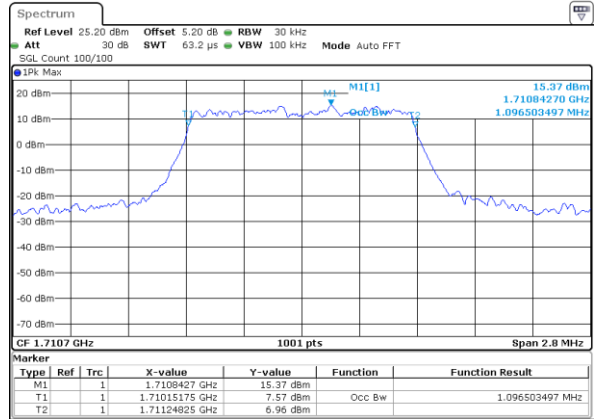


## LTE Band 4

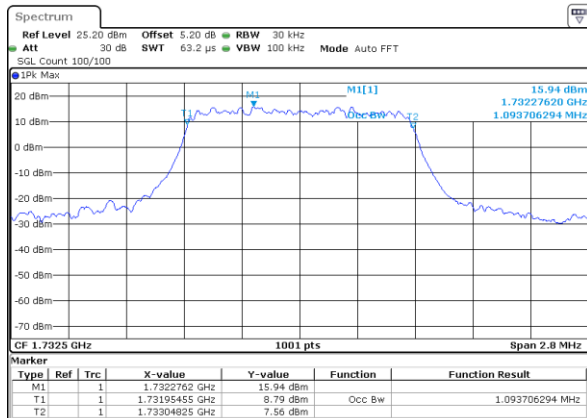
## Lowest Channel / 1.4MHz / QPSK



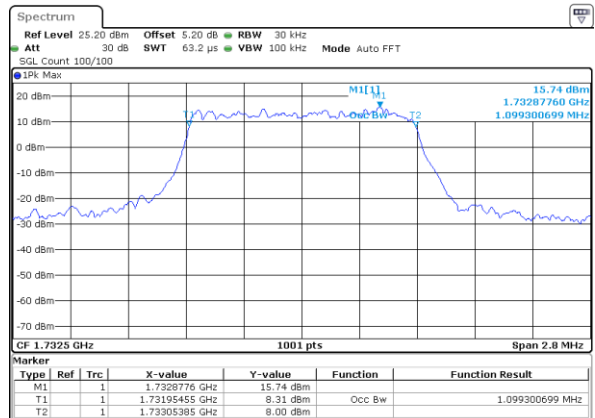
## Lowest Channel / 1.4MHz / 16QAM



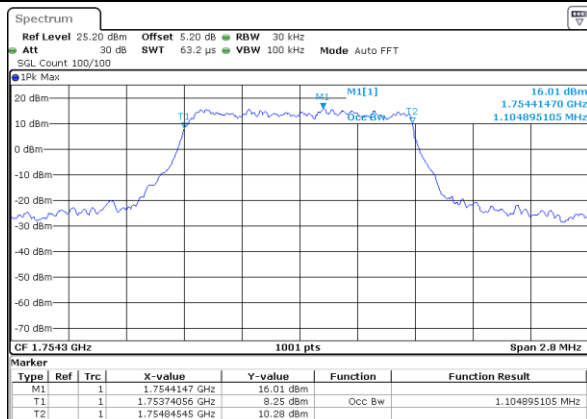
## Middle Channel / 1.4MHz / QPSK



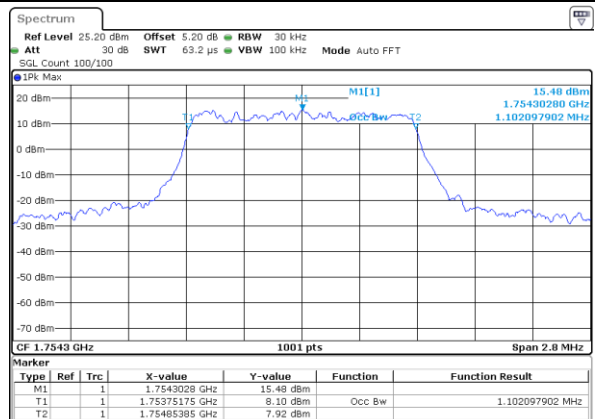
## Middle Channel / 1.4MHz / 16QAM



## Highest Channel / 1.4MHz / QPSK



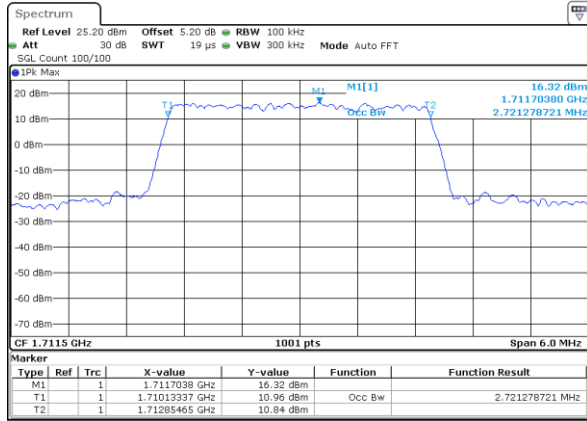
## Highest Channel / 1.4MHz / 16QAM





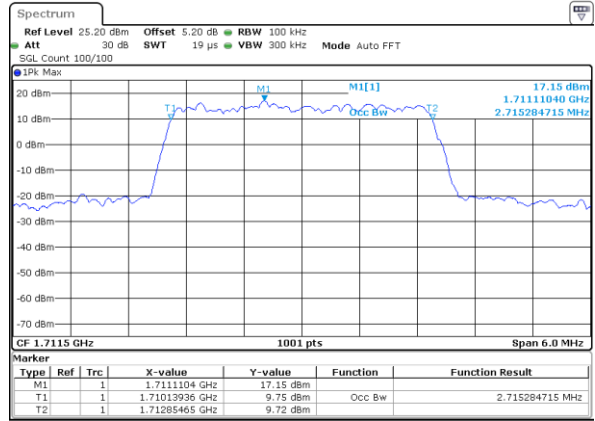
## LTE Band 4

## Lowest Channel / 3MHz / QPSK



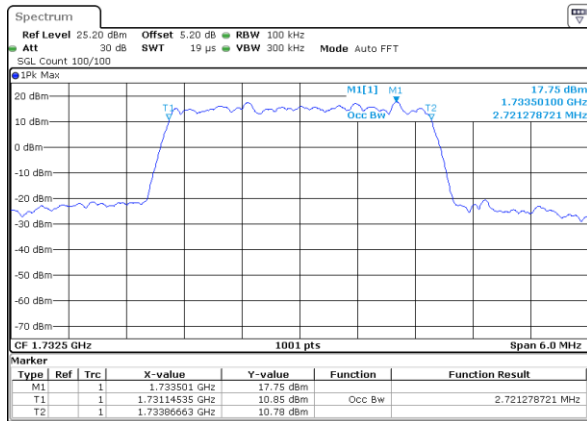
Date: 4.AUG.2020 21:35:16

## Lowest Channel / 3MHz / 16QAM



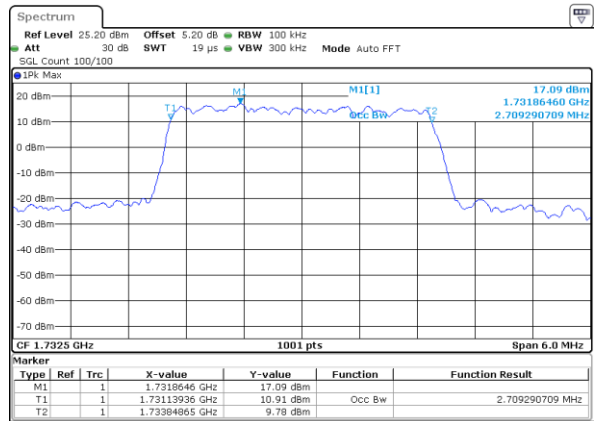
Date: 4.AUG.2020 21:35:27

## Middle Channel / 3MHz / QPSK



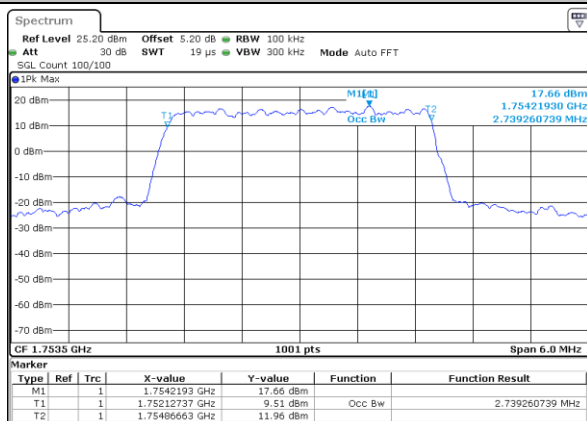
Date: 4.AUG.2020 21:42:21

## Middle Channel / 3MHz / 16QAM



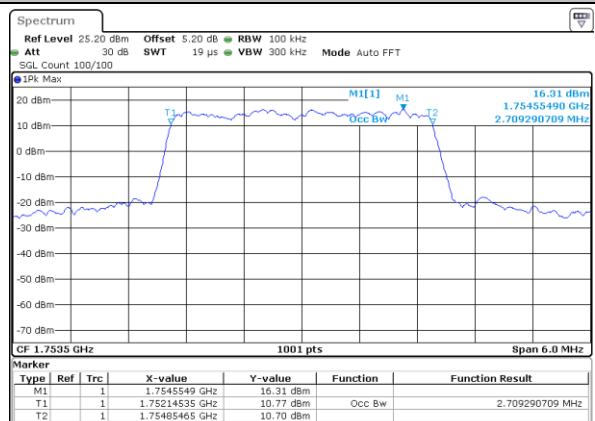
Date: 4.AUG.2020 21:42:31

## Highest Channel / 3MHz / QPSK



Date: 4.AUG.2020 21:44:55

## Highest Channel / 3MHz / 16QAM



Date: 4.AUG.2020 21:45:05