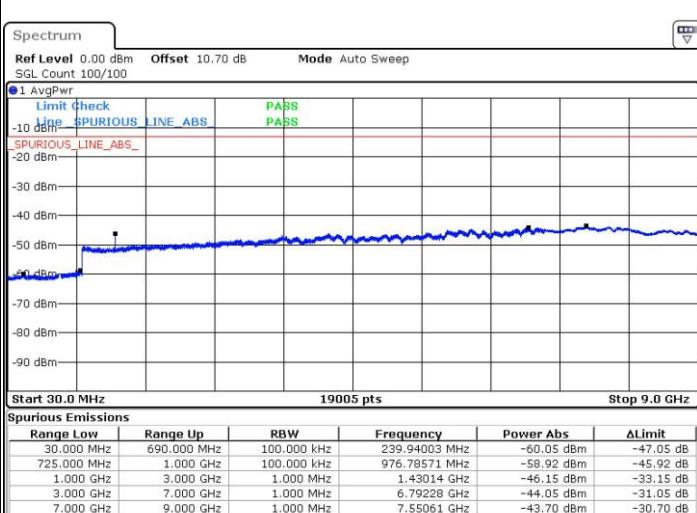
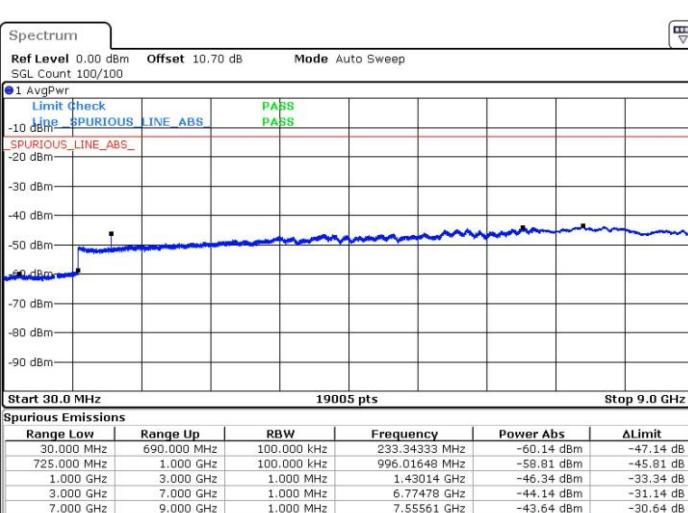




## LTE Band 12 / 1.4MHz

## Highest Channel / QPSK

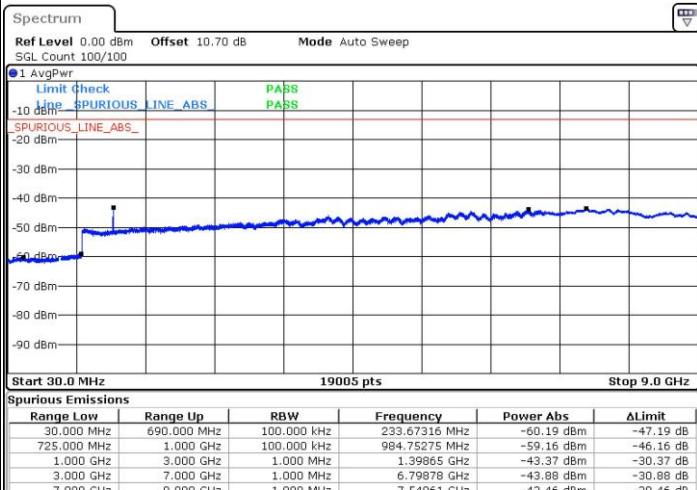
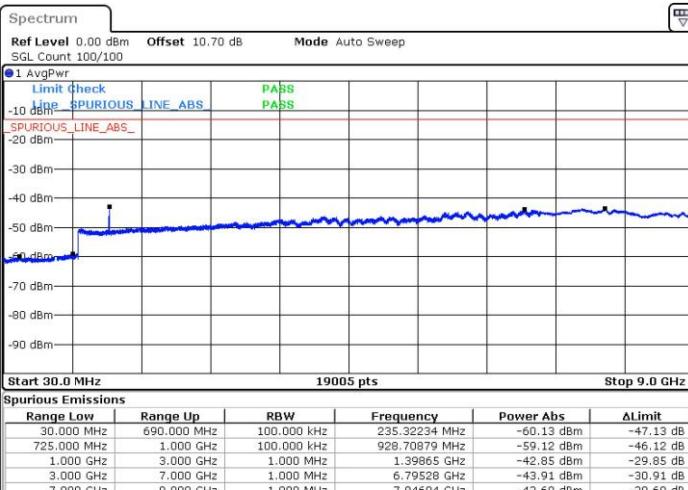
## Highest Channel / 16QAM

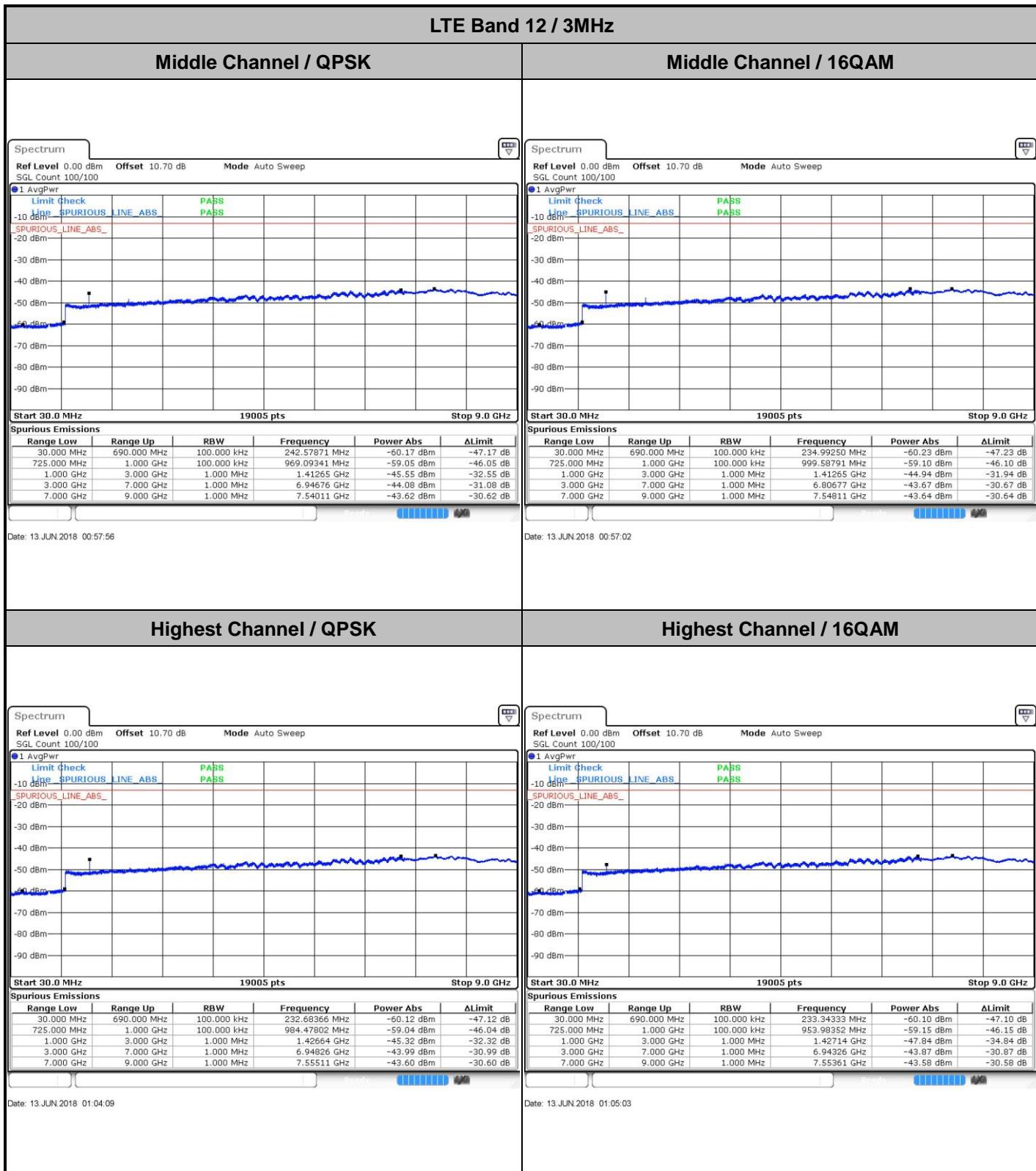


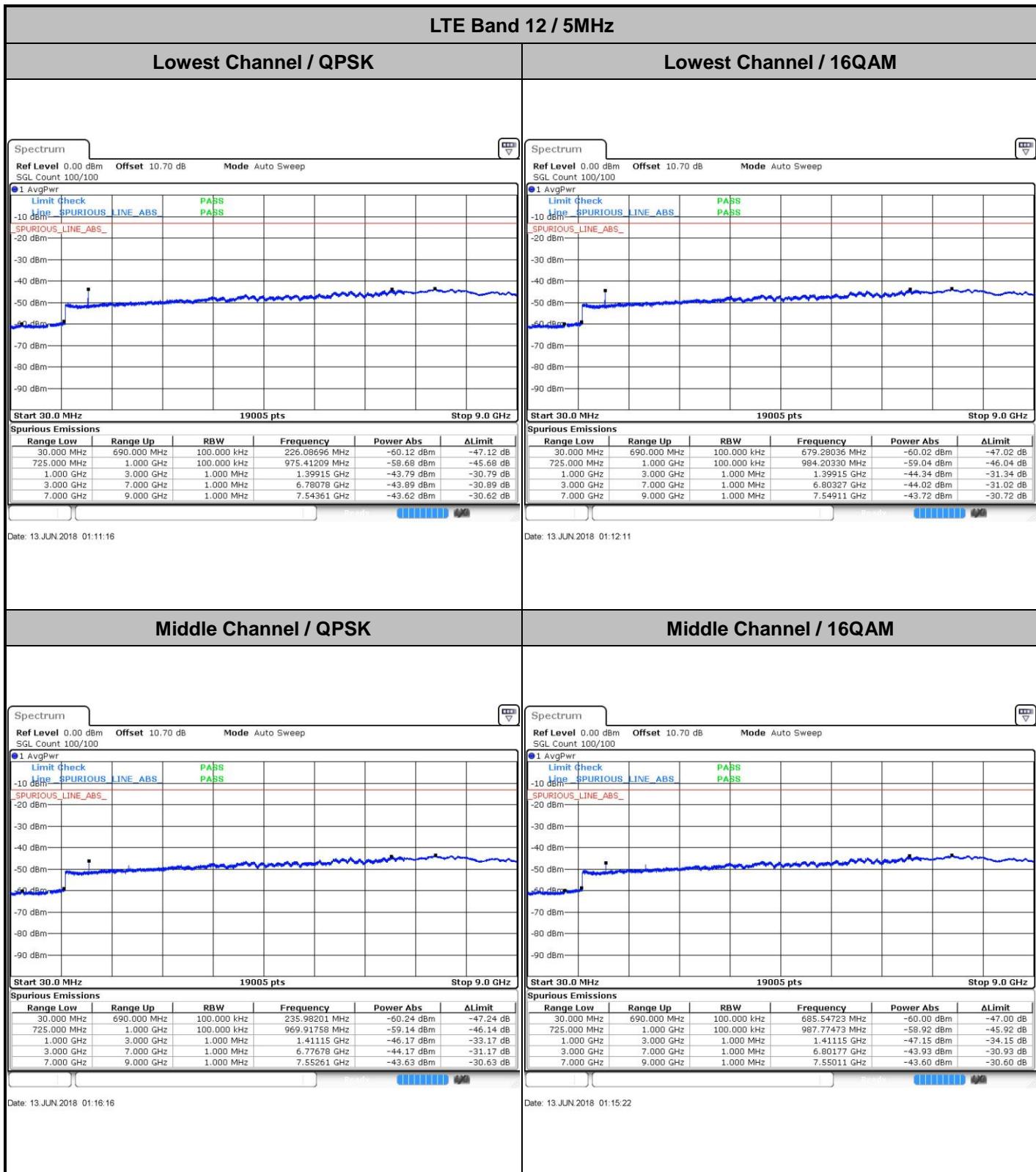
## LTE Band 12 / 3MHz

## Lowest Channel / QPSK

## Lowest Channel / 16QAM





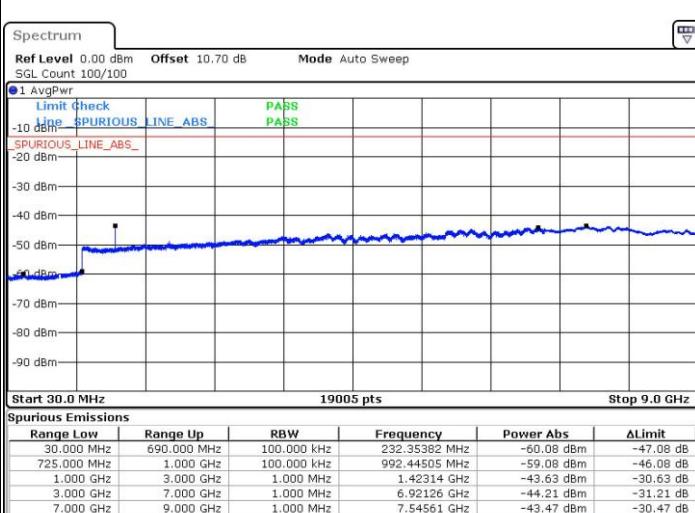
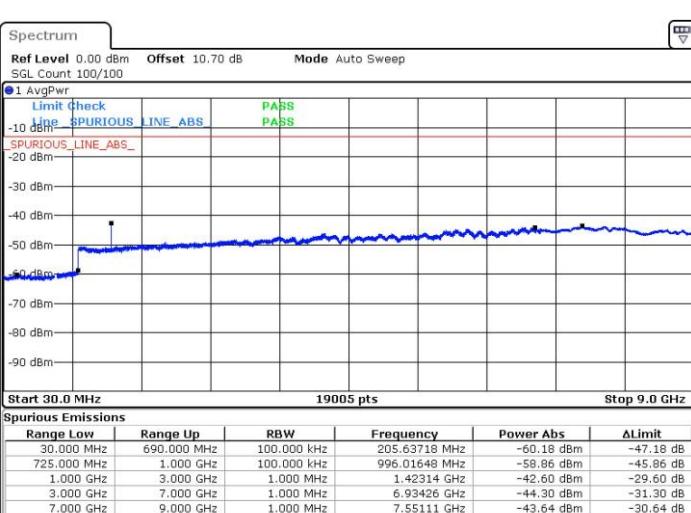




## LTE Band 12 / 5MHz

## Highest Channel / QPSK

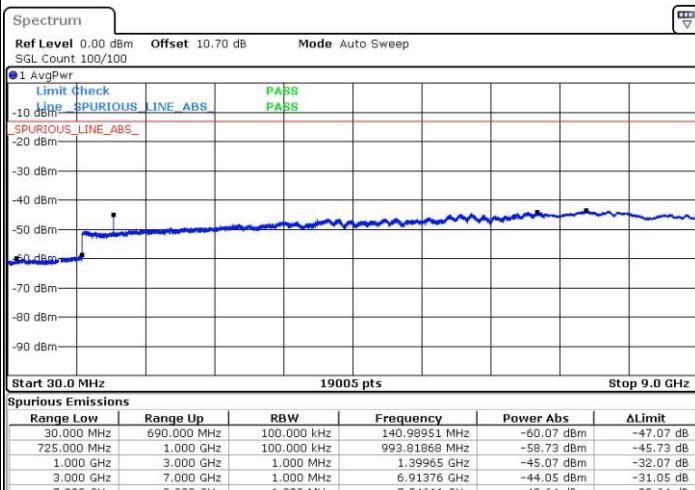
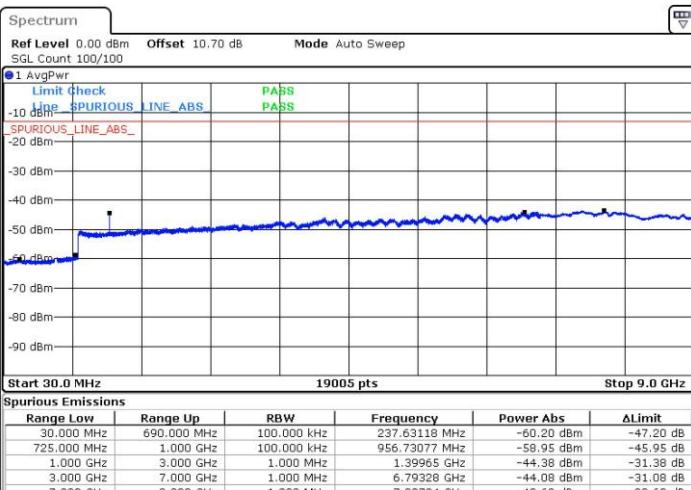
## Highest Channel / 16QAM



## LTE Band 12 / 10MHz

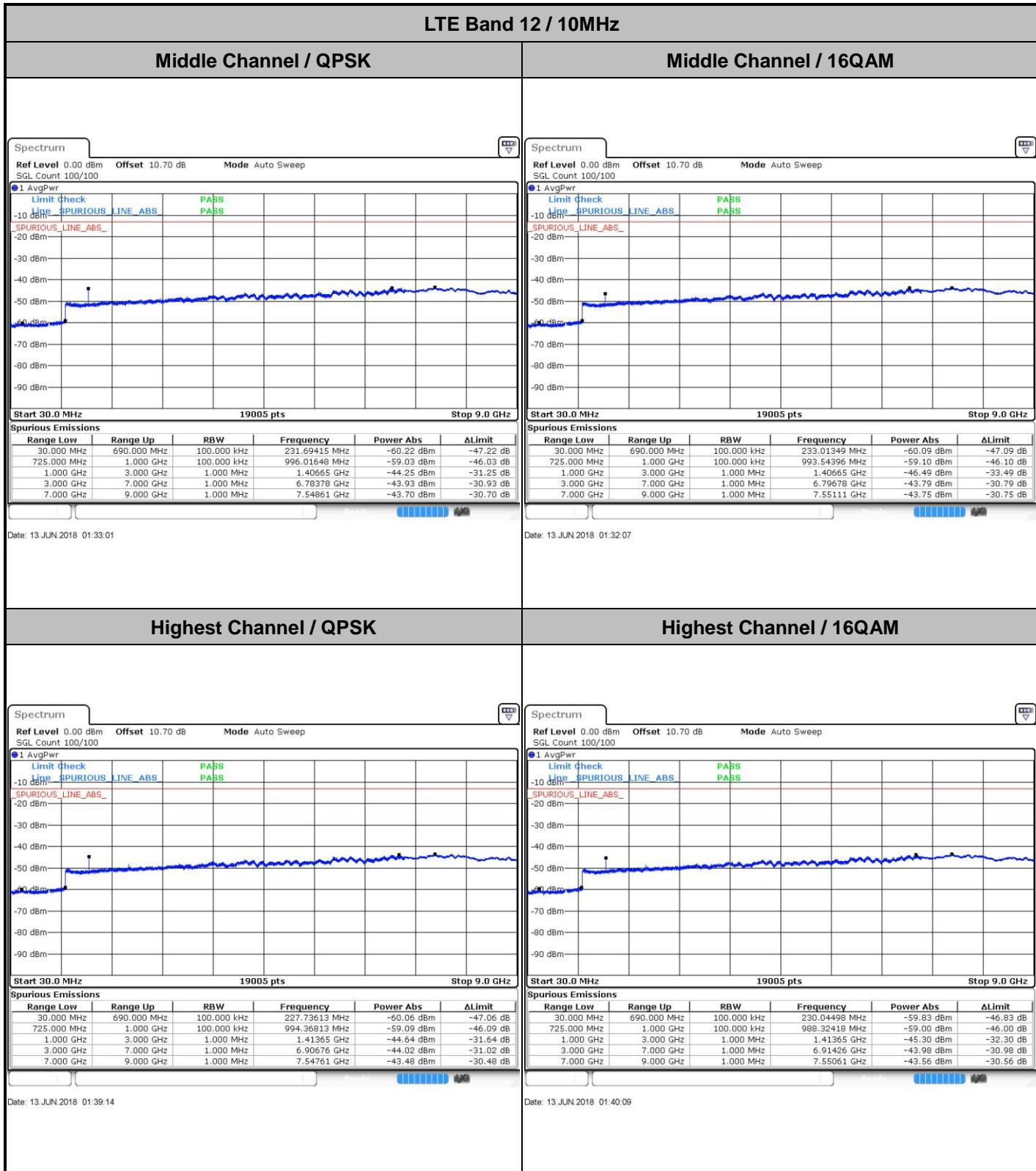
## Lowest Channel / QPSK

## Lowest Channel / 16QAM



Date: 13.JUN.2018 01:29:36

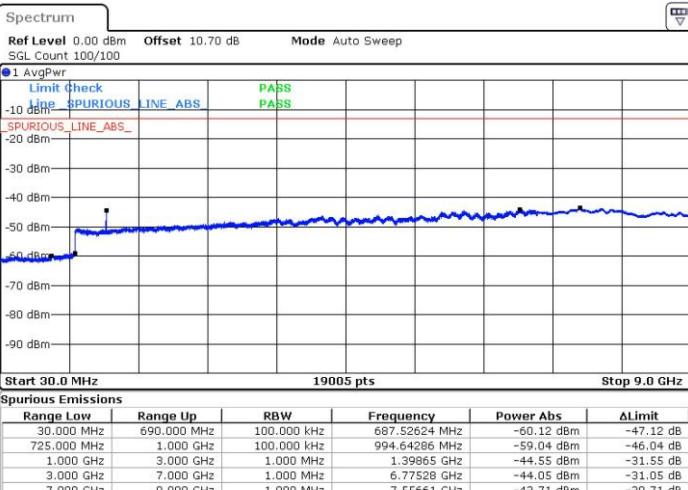
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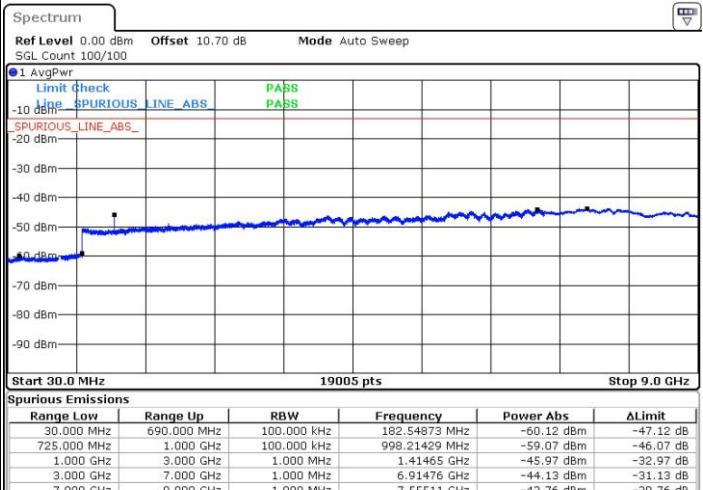
## LTE Band 12 / 1.4MHz

## Lowest Channel / 64QAM



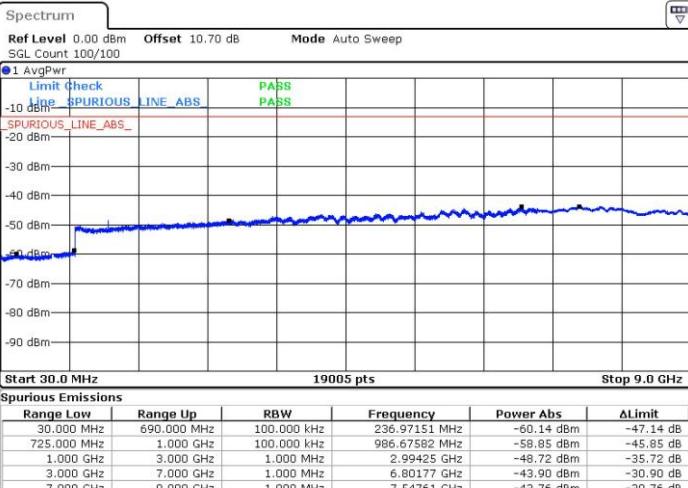
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## Middle Channel / 64QAM

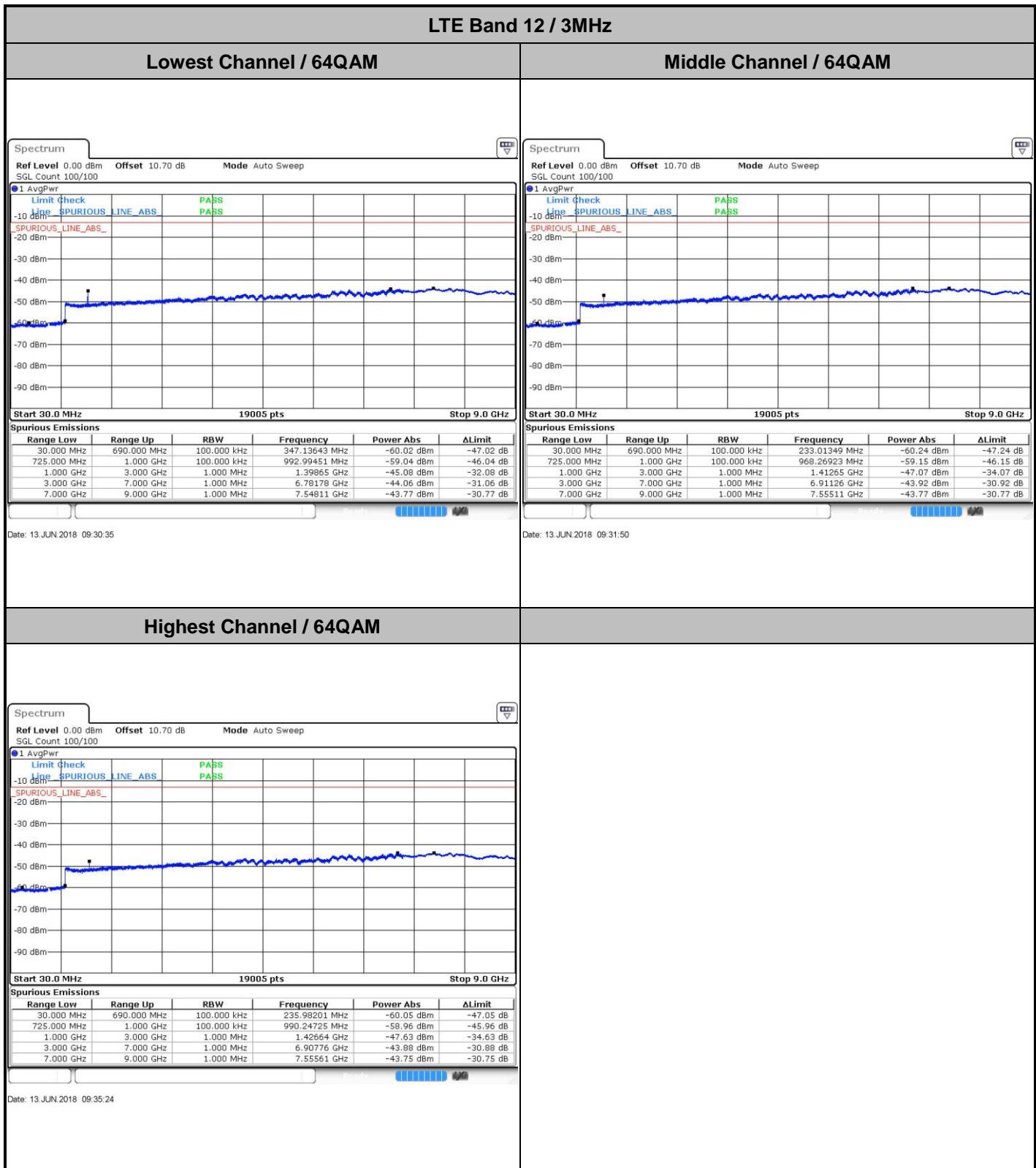


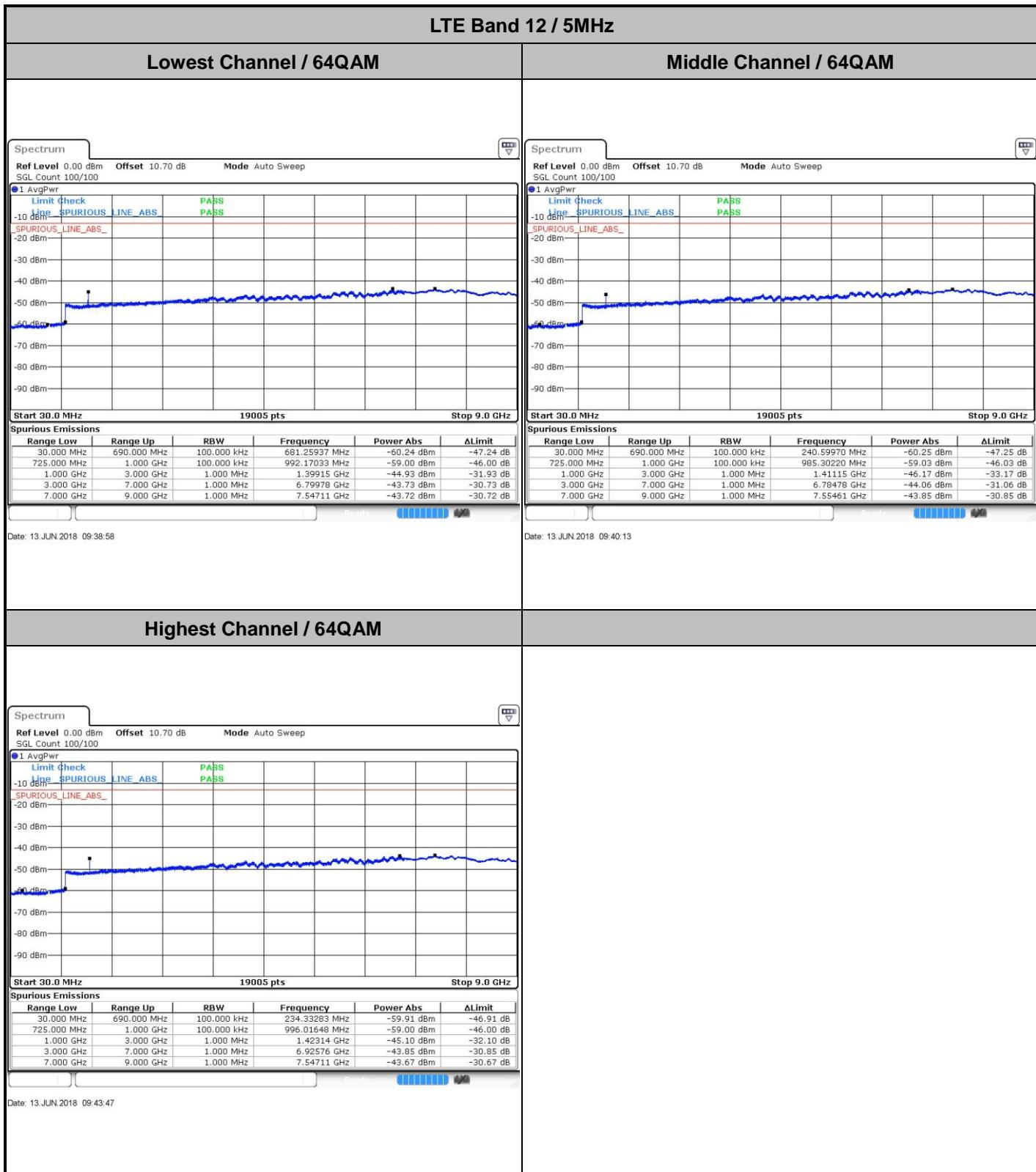
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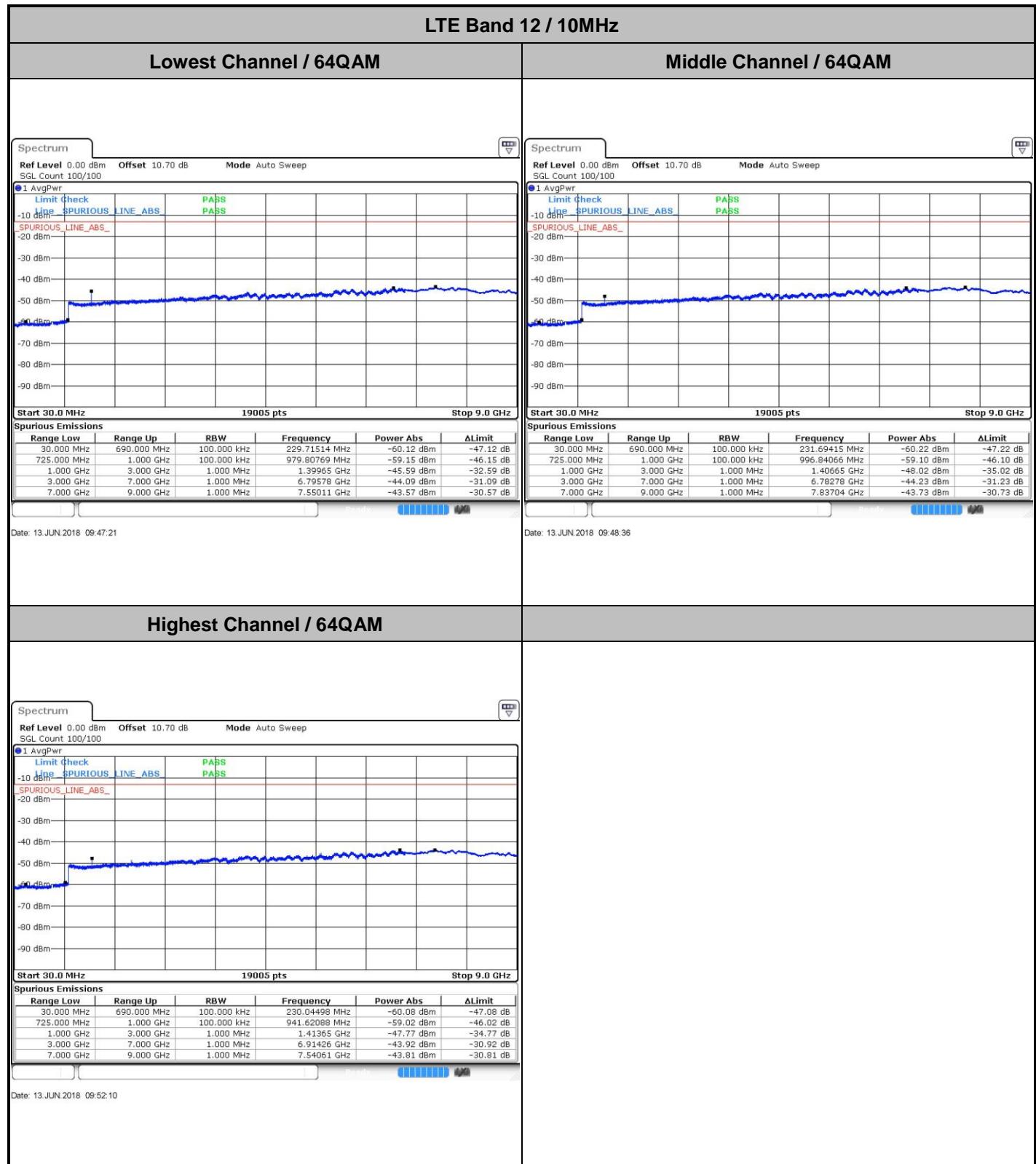
## Highest Channel / 64QAM



Date: 13.JUN.2018 10:00:32









## Frequency Stability

| Test Conditions     |                   | LTE Band 12 (QPSK) / Middle Channel | Limit   |
|---------------------|-------------------|-------------------------------------|---------|
| Temperature<br>(°C) | Voltage<br>(Volt) | BW 10MHz                            | Note 2. |
|                     |                   | Deviation (ppm)                     | Result  |
| 50                  | Normal Voltage    | 0.0028                              | PASS    |
| 40                  | Normal Voltage    | 0.0025                              |         |
| 30                  | Normal Voltage    | 0.0035                              |         |
| 20(Ref.)            | Normal Voltage    | 0.0000                              |         |
| 10                  | Normal Voltage    | 0.0006                              |         |
| 0                   | Normal Voltage    | 0.0001                              |         |
| -10                 | Normal Voltage    | 0.0030                              |         |
| -20                 | Normal Voltage    | 0.0054                              |         |
| -30                 | Normal Voltage    | 0.0047                              |         |
| 20                  | Maximum Voltage   | 0.0072                              |         |
| 20                  | Normal Voltage    | 0.0000                              |         |
| 20                  | Battery End Point | 0.0007                              |         |

**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 13

### Peak-to-Average Ratio

| Mode       | LTE Band 13 / 10MHz |         |       |         |             |
|------------|---------------------|---------|-------|---------|-------------|
| Mod.       | QPSK                |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                 | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | -                   | -       | -     | -       | PASS        |
| Middle CH  | 4.41                | 5.57    | 5.07  | 6.41    |             |
| Highest CH | -                   | -       | -     | -       |             |
| Mode       | LTE Band 13 / 10MHz |         |       |         |             |
| Mod.       | 64QAM               |         |       |         | Limit: 13dB |
| RB Size    | 1RB                 | Full RB |       |         | Result      |
| Lowest CH  | -                   | -       | -     | -       | PASS        |
| Middle CH  | 5.94                | 6.78    | -     | -       |             |
| Highest CH | -                   | -       | -     | -       |             |



## LTE Band 13 / 10MHz / QPSK

## Middle Channel / 1RB

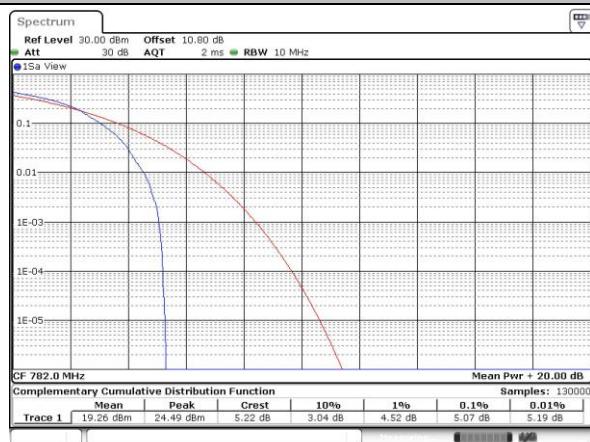


## Middle Channel / Full RB



## LTE Band 13 / 10MHz / 16QAM

## Middle Channel / 1RB



## Middle Channel / Full RB

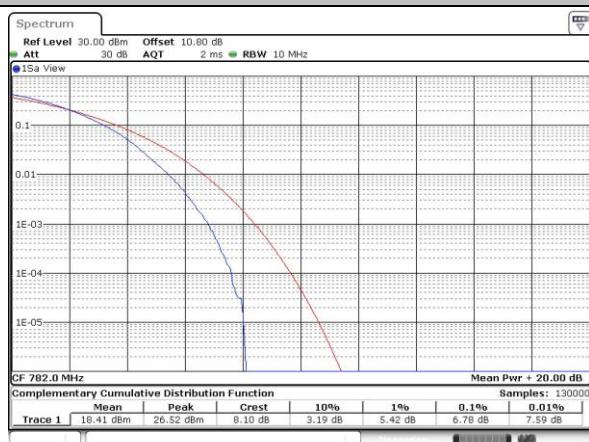


## LTE Band 13 / 10MHz / 64QAM

## Middle Channel / 1RB

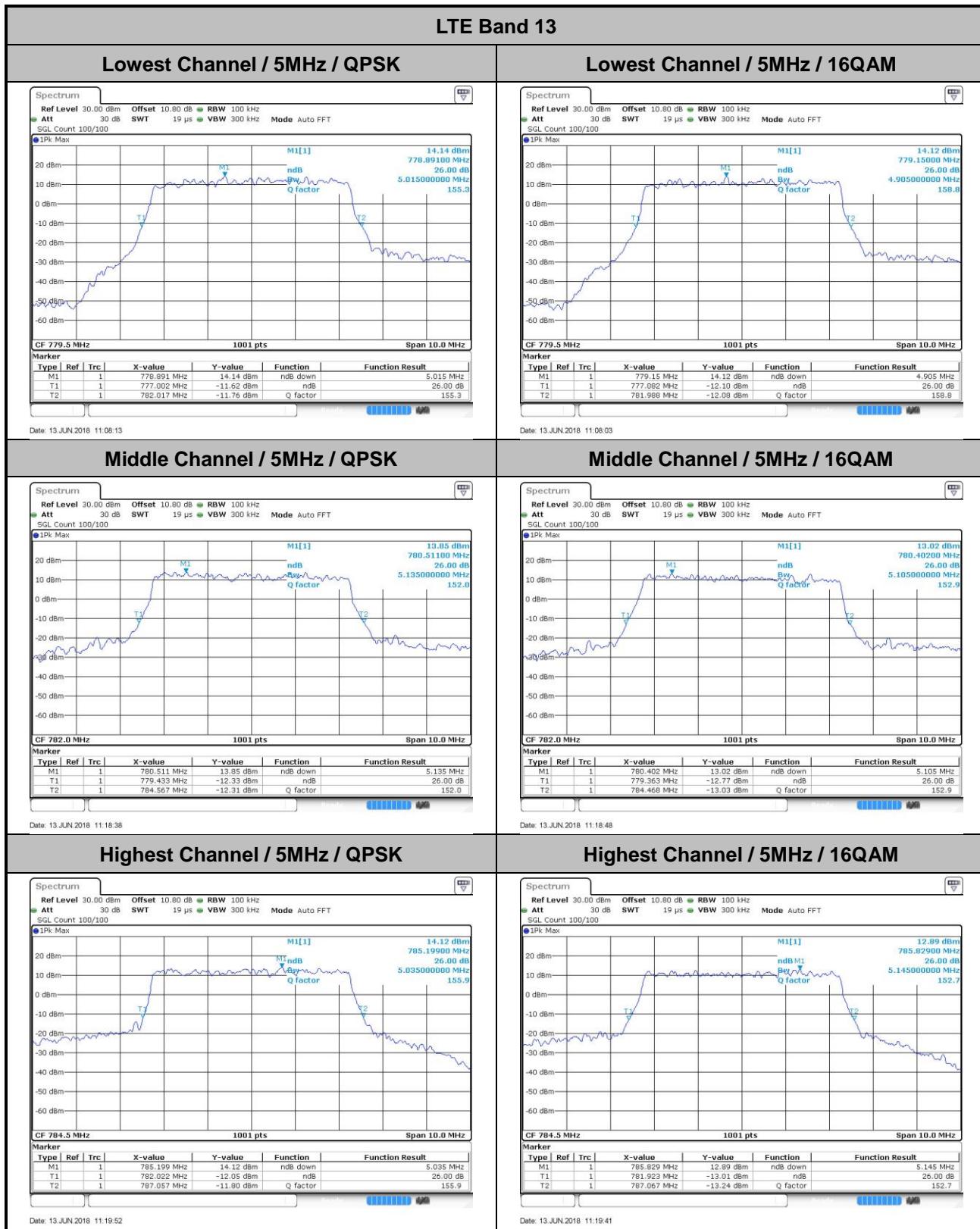


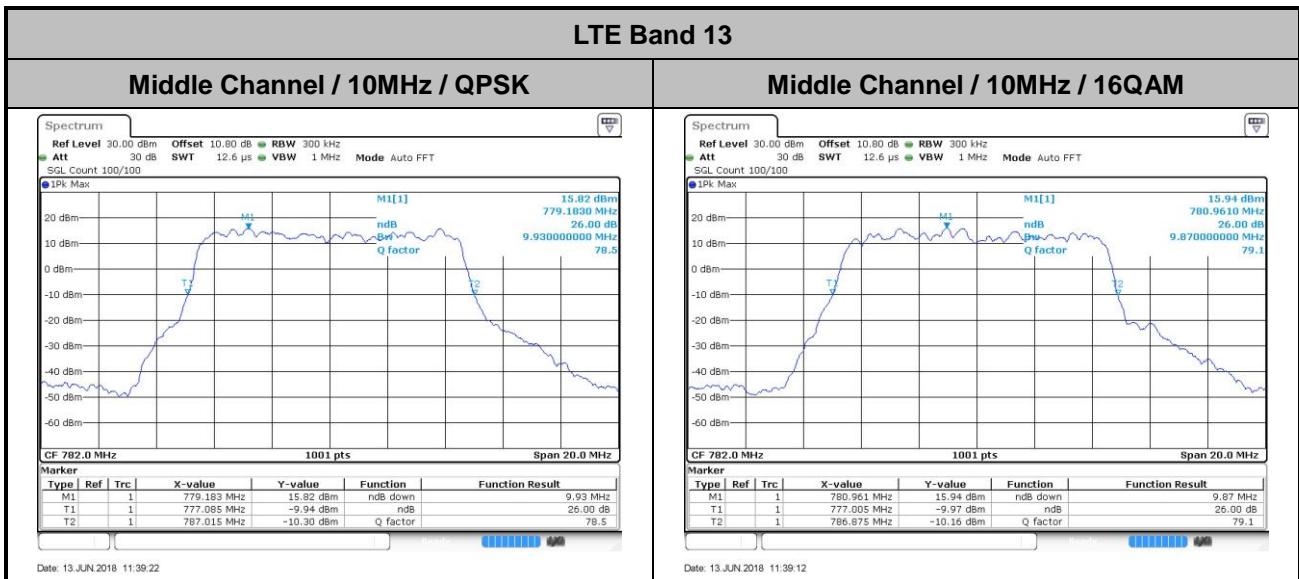
## Middle Channel / Full RB

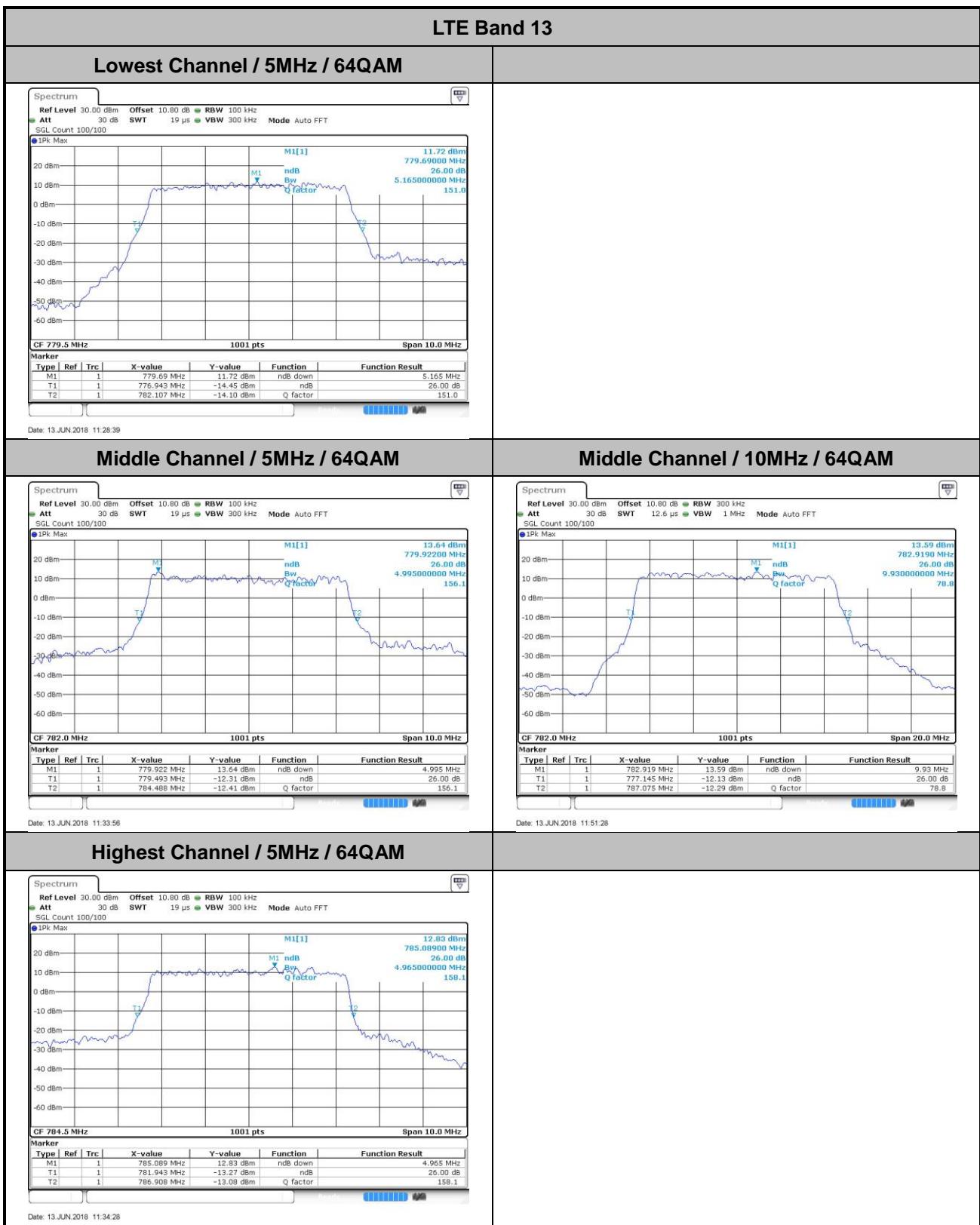


**26dB Bandwidth**

| Mode       | LTE Band 13 : 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  | -                          | -     | -     | -     | 5.02  | 4.91  | -     | -     | -     | -     | -     | -     |
| Middle CH  | -                          | -     | -     | -     | 5.14  | 5.11  | 9.93  | 9.87  | -     | -     | -     | -     |
| Highest CH | -                          | -     | -     | -     | 5.04  | 5.15  | -     | -     | -     | -     | -     | -     |
| Mode       | LTE Band 13 : 26dB BW(MHz) |       |       |       |       |       |       |       |       |       |       |       |
| BW         | 1.4MHz                     |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | 64QAM                      |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | -                          | -     | -     | -     | 5.17  | -     | -     | -     | -     | -     | -     | -     |
| Middle CH  | -                          | -     | -     | -     | 5.00  | -     | 9.93  | -     | -     | -     | -     | -     |
| Highest CH | -                          | -     | -     | -     | 4.97  | -     | -     | -     | -     | -     | -     | -     |

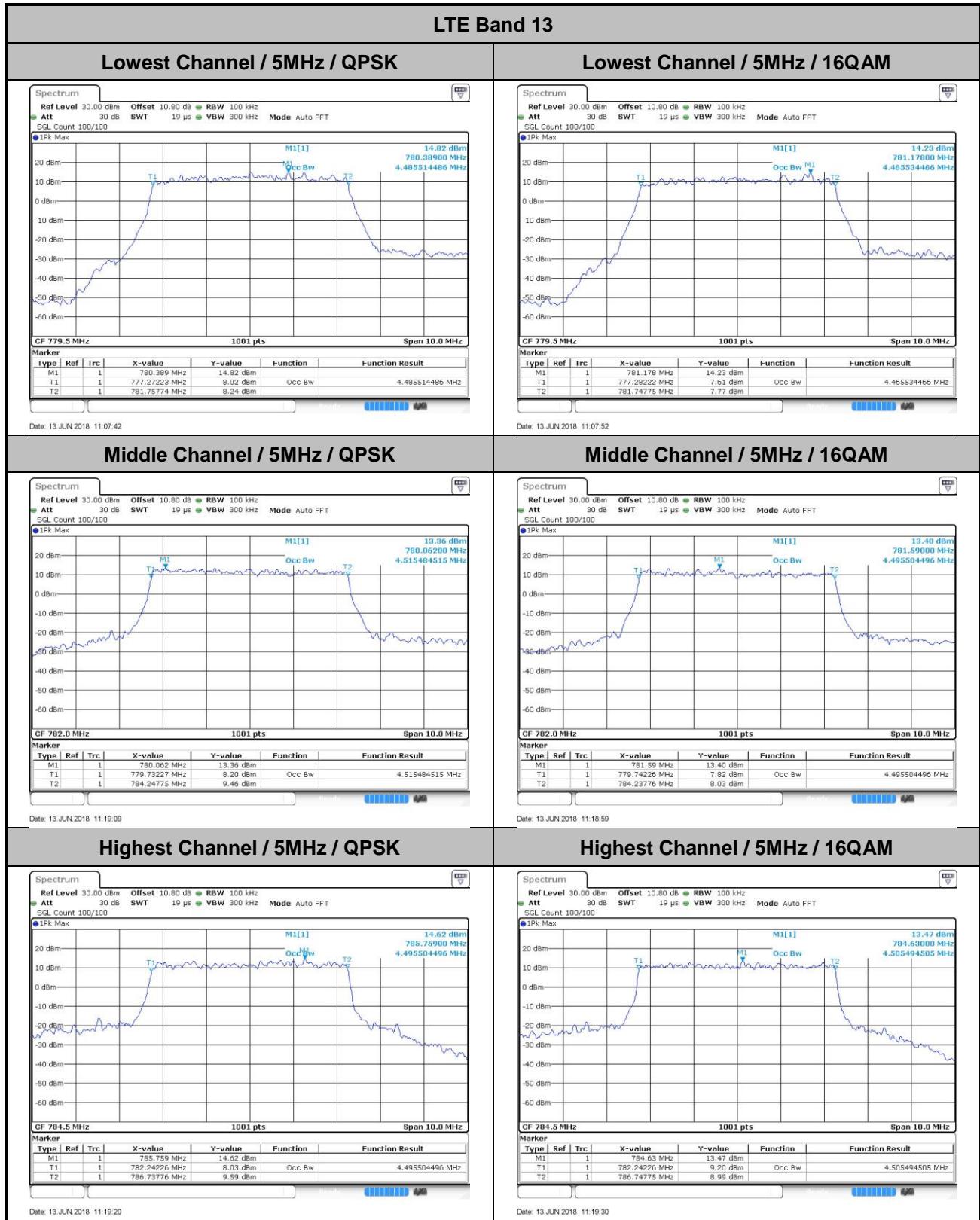


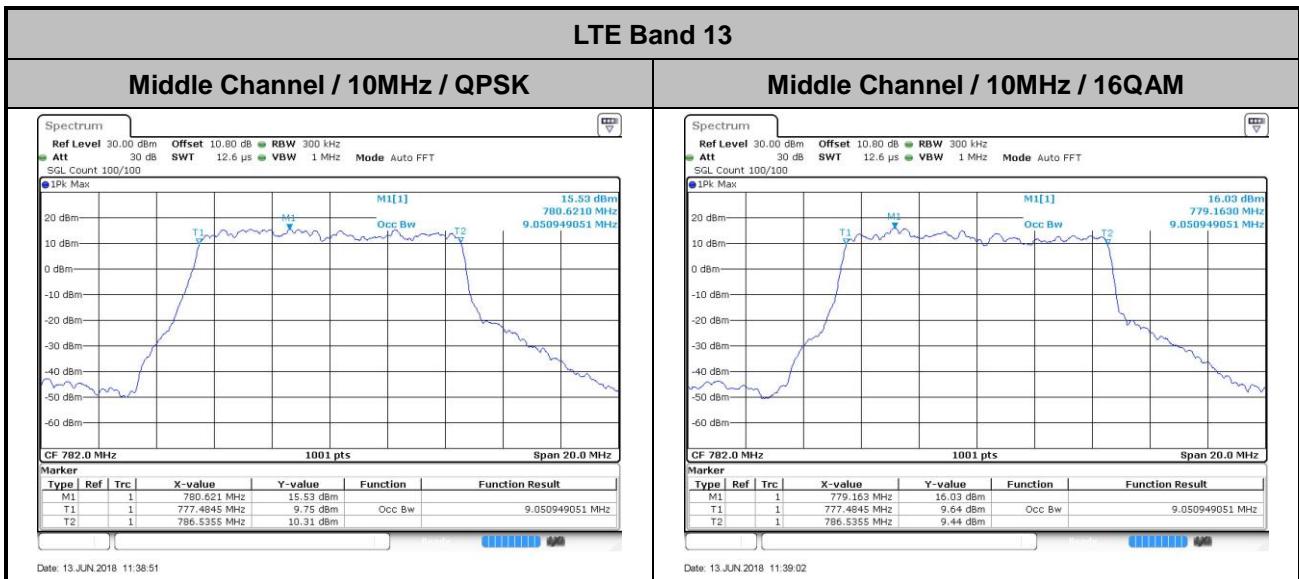


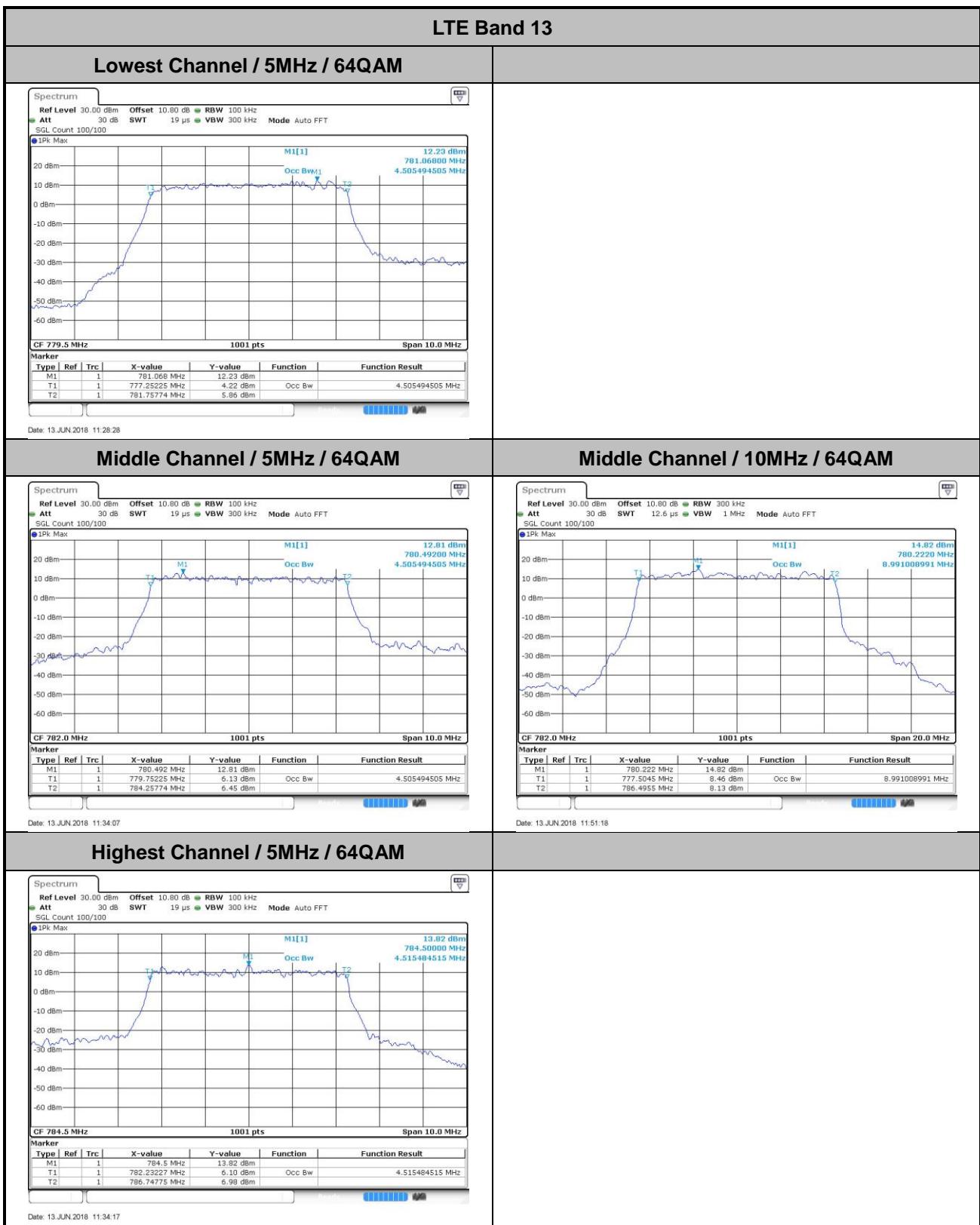


**Occupied Bandwidth**

| Mode       | LTE Band 13 : 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  | -                         | -     | -     | -     | 4.49  | 4.47  | -     | -     | -     | -     | -     | -     |
| Middle CH  | -                         | -     | -     | -     | 4.52  | 4.5   | 9.05  | 9.05  | -     | -     | -     | -     |
| Highest CH | -                         | -     | -     | -     | 4.5   | 4.51  | -     | -     | -     | -     | -     | -     |
| Mode       | LTE Band 13 : 99%OBW(MHz) |       |       |       |       |       |       |       |       |       |       |       |
| BW         | 1.4MHz                    |       | 3MHz  |       | 5MHz  |       | 10MHz |       | 15MHz |       | 20MHz |       |
| Mod.       | 64QAM                     |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       | 64QAM |       |
| Lowest CH  | -                         | -     | -     | -     | 4.51  | -     | -     | -     | -     | -     | -     | -     |
| Middle CH  | -                         | -     | -     | -     | 4.51  | -     | 8.99  | -     | -     | -     | -     | -     |
| Highest CH | -                         | -     | -     | -     | 4.52  | -     | -     | -     | -     | -     | -     | -     |

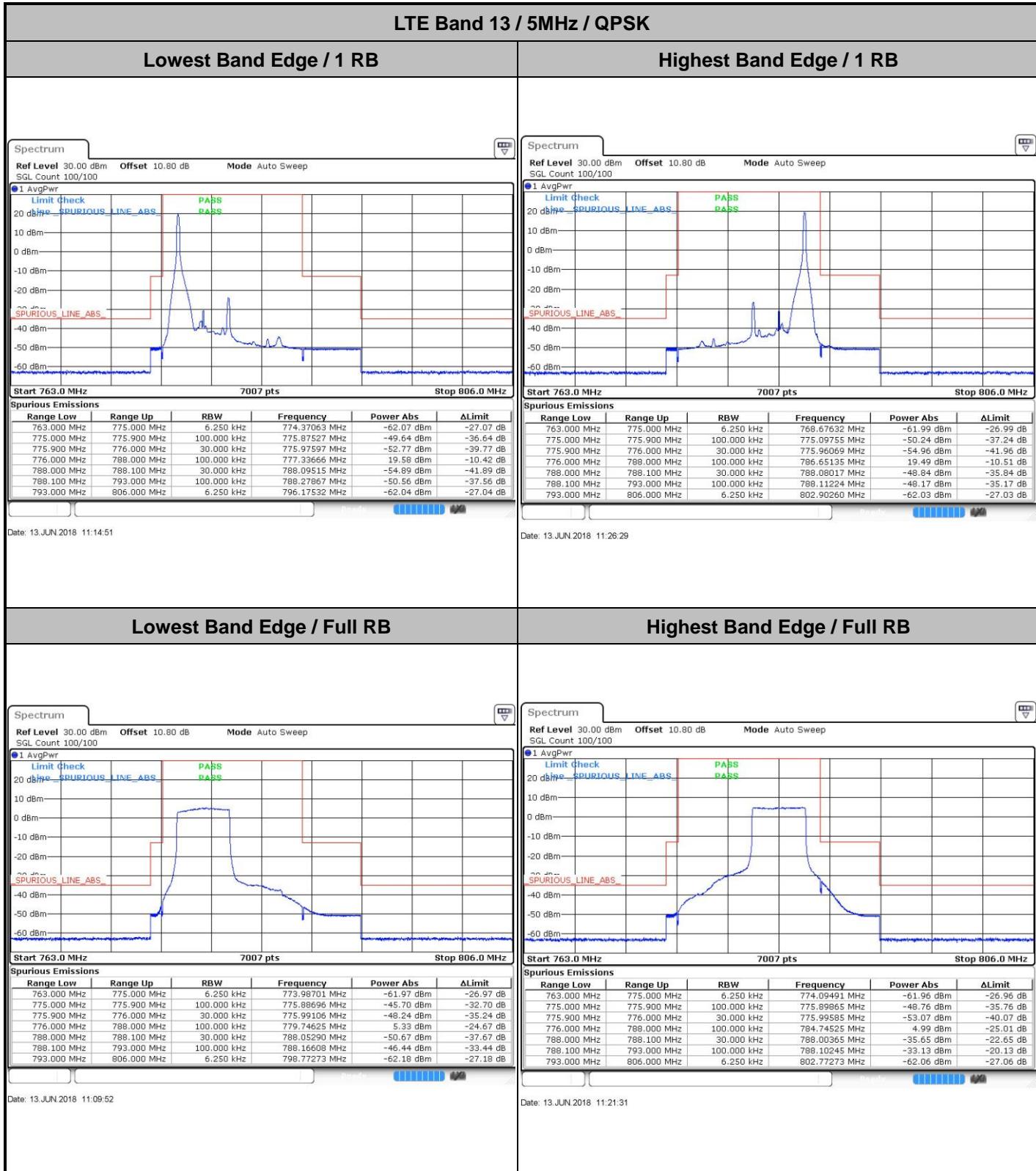


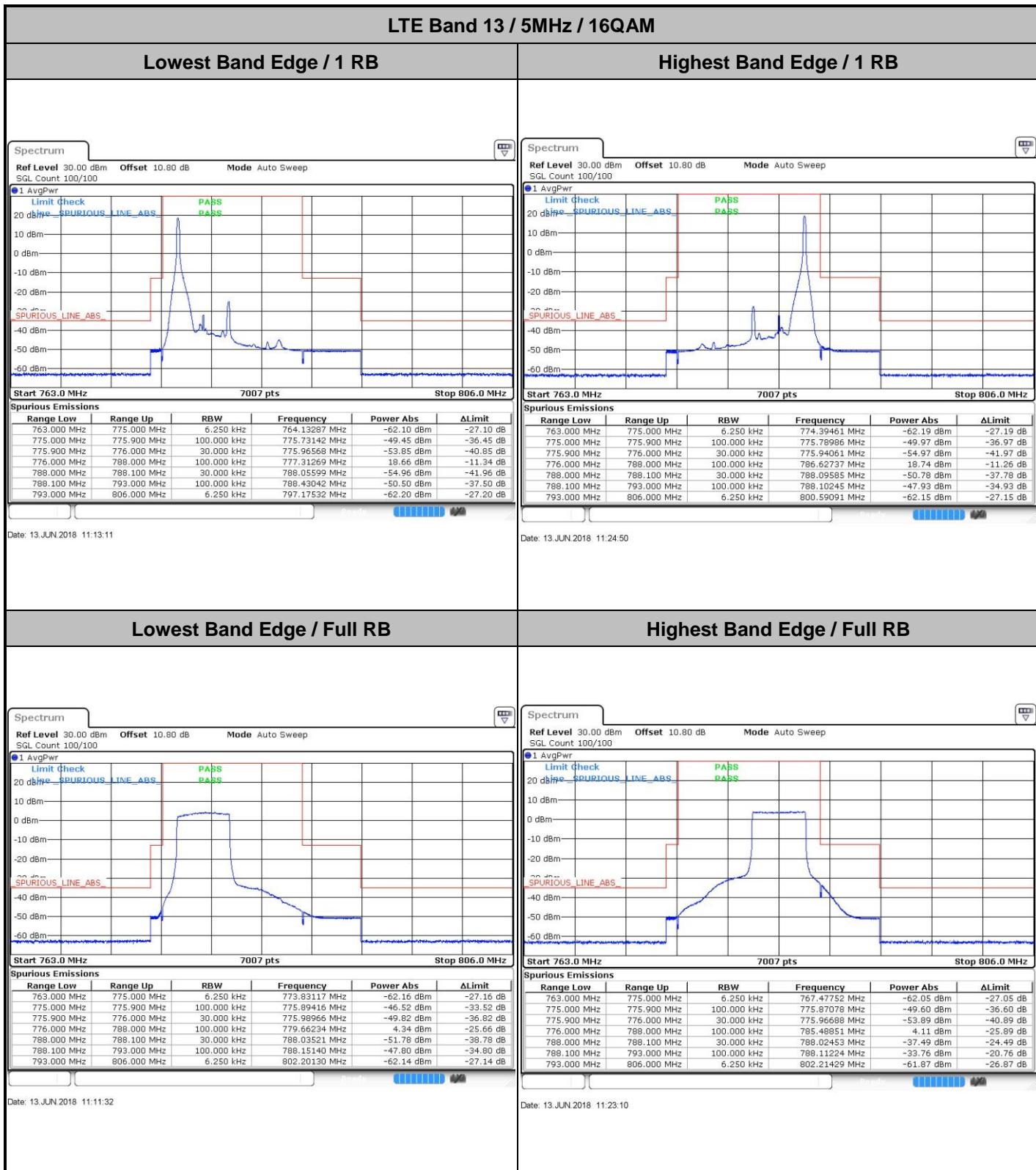


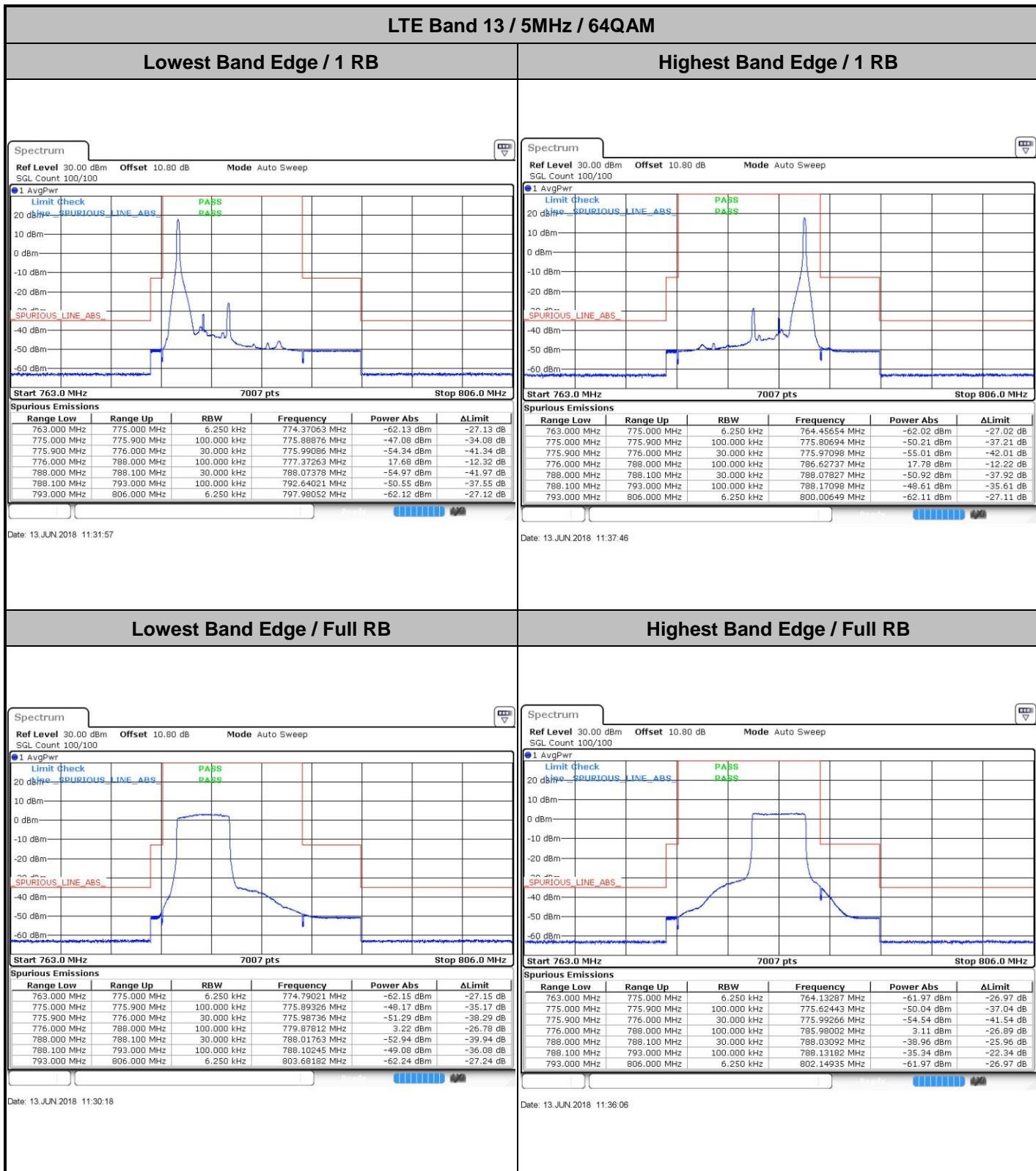




## Conducted Band Edge





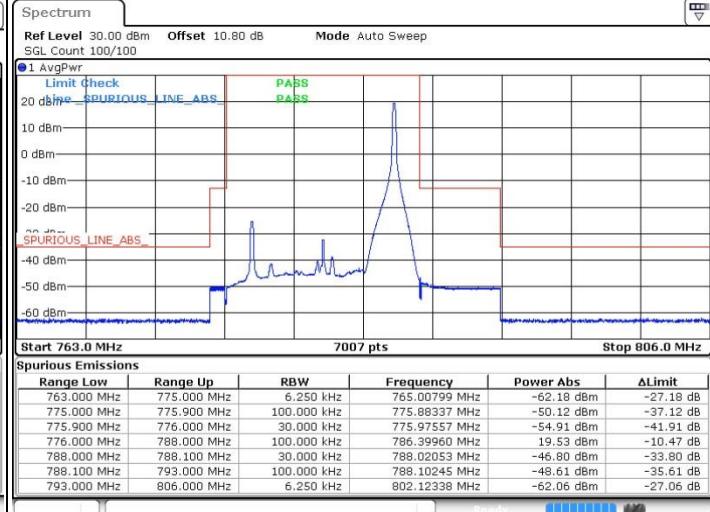
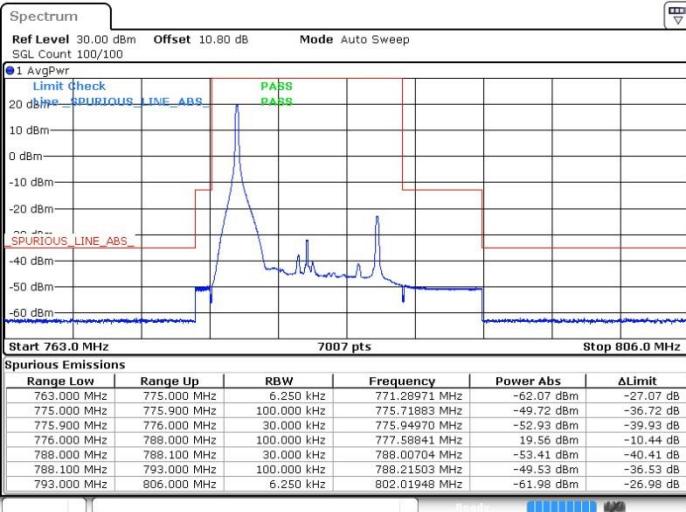




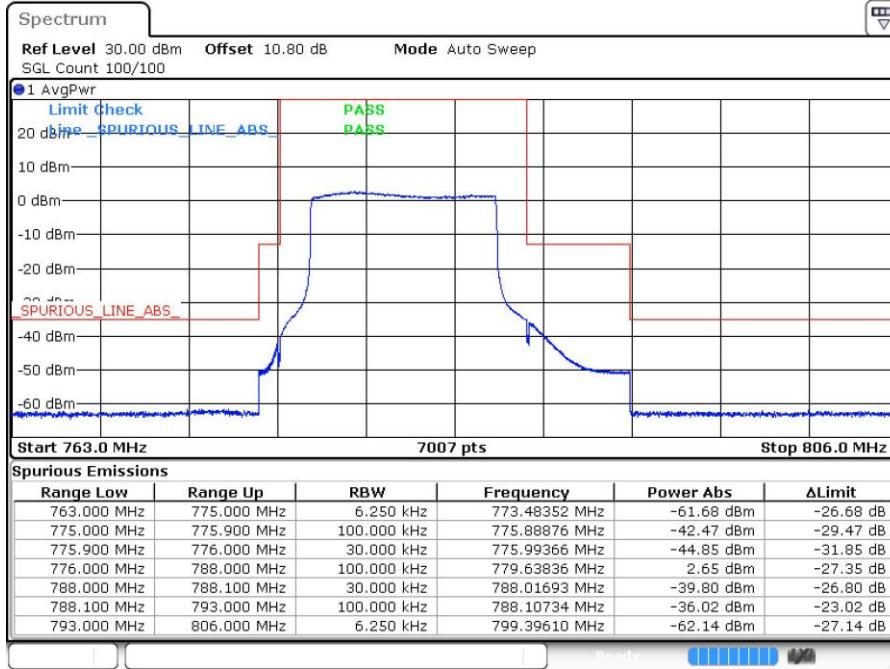
## LTE Band 13 / 10MHz / QPSK

## Lowest Band Edge / 1 RB

## Highest Band Edge / 1 RB



## Band Edge / Full RB



Date: 13.JUN.2018 11:41:01