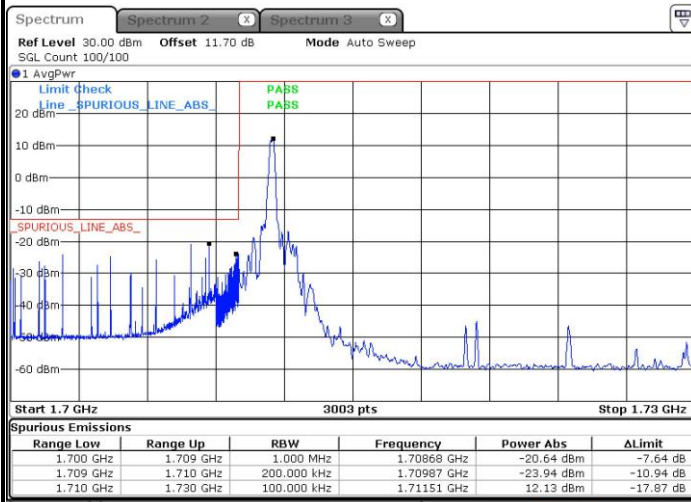


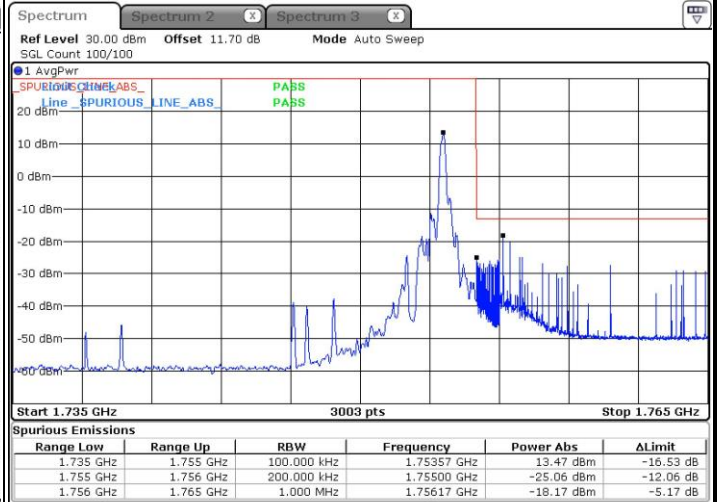


## LTE M1 Band 4 / 20MHz / 16QAM

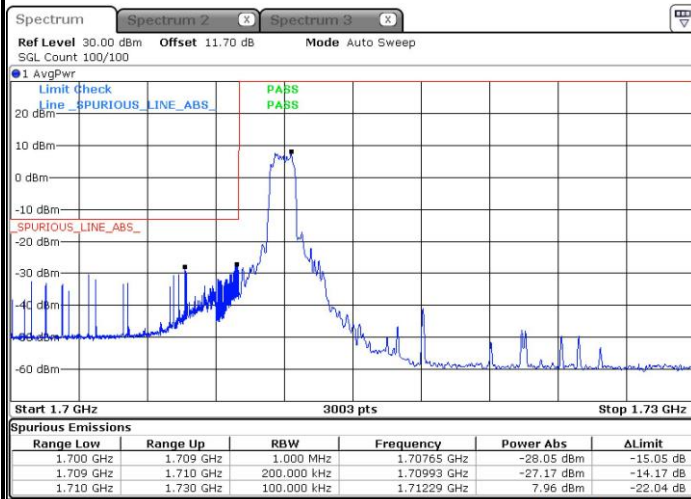
## Lowest Band Edge / 1 RB



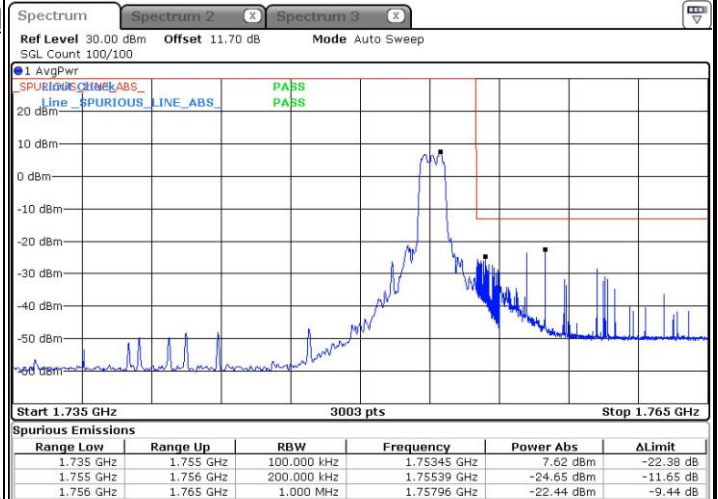
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB

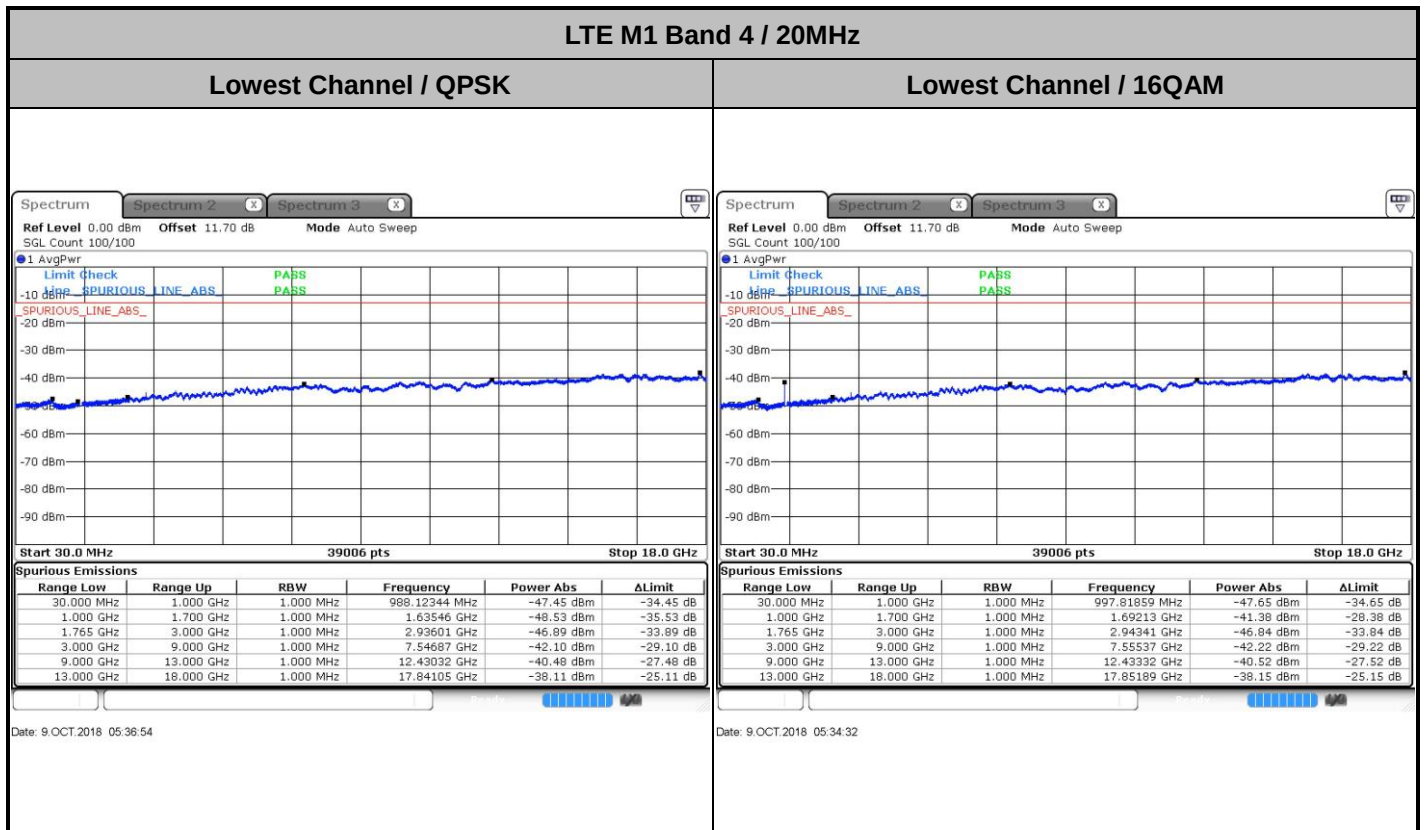


## Highest Band Edge / Full RB





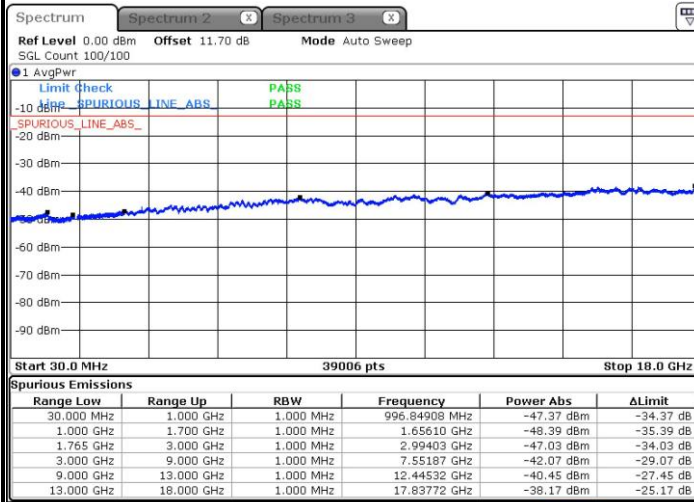
## Conducted Spurious Emission





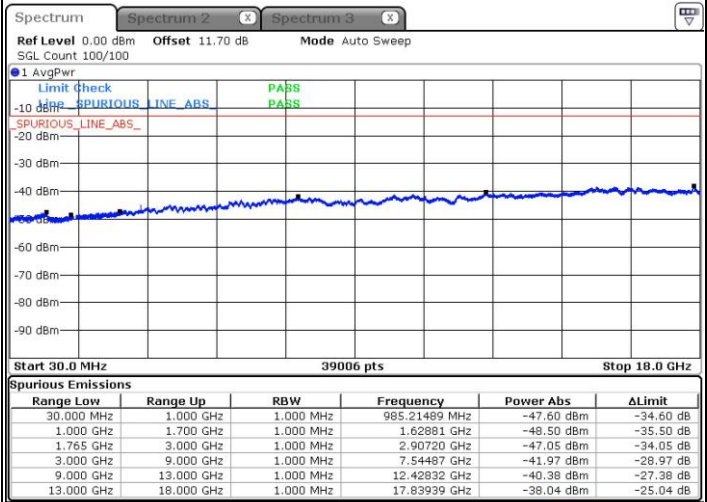
## LTE M1 Band 4 / 20MHz

## Middle Channel / QPSK



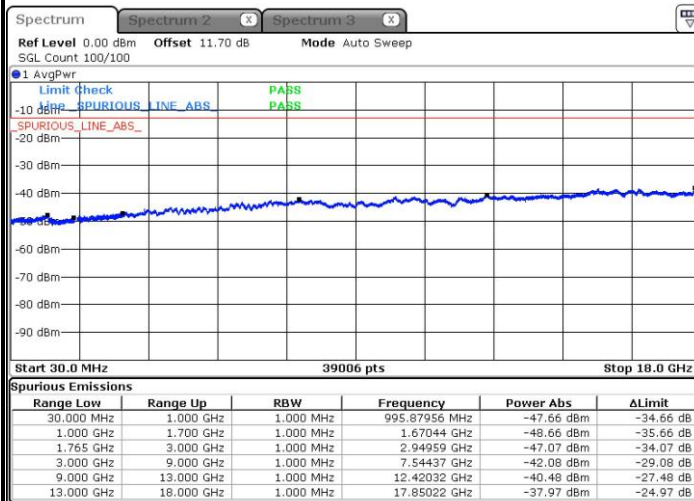
Date: 9.OCT.2018 05:44:52

## Middle Channel / 16QAM



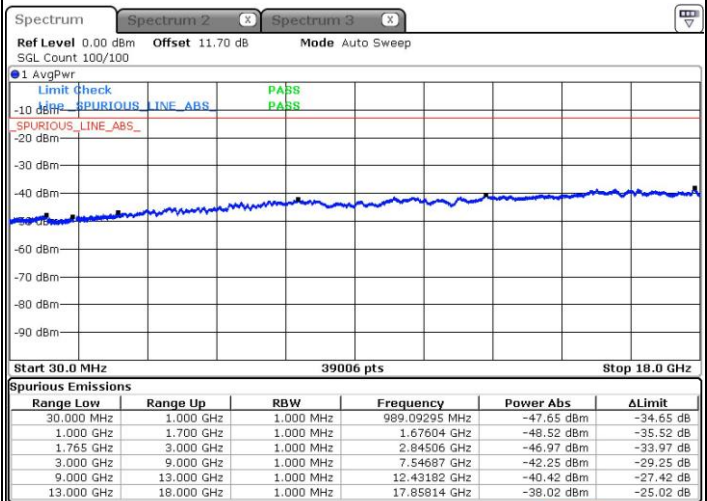
Date: 9.OCT.2018 05:42:06

## Highest Channel / QPSK



Date: 9.OCT.2018 05:46:21

## Highest Channel / 16QAM



Date: 9.OCT.2018 05:47:43

## Frequency Stability

| Test Conditions  |                   | LTE M1 Band 4 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|---------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                              | Note 2. |
|                  |                   | Deviation (ppm)                       | Result  |
| 50               | Normal Voltage    | 0.0011                                | PASS    |
| 40               | Normal Voltage    | 0.0022                                |         |
| 30               | Normal Voltage    | 0.0012                                |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                                |         |
| 10               | Normal Voltage    | 0.0004                                |         |
| 0                | Normal Voltage    | 0.0010                                |         |
| -10              | Normal Voltage    | 0.0014                                |         |
| -20              | Normal Voltage    | 0.0005                                |         |
| -30              | Normal Voltage    | 0.0013                                |         |
| 20               | Maximum Voltage   | 0.0010                                |         |
| 20               | Normal Voltage    | 0.0000                                |         |
| 20               | Battery End Point | 0.0005                                |         |

**Note:**

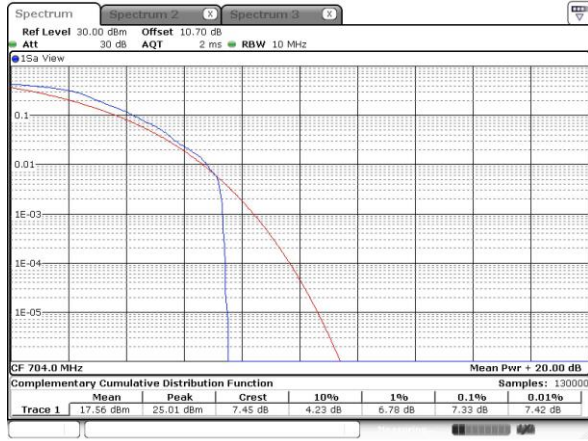
1. Normal Voltage =12 V. ; Battery End Point (BEP) =8 V. ; Maximum Voltage =32 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



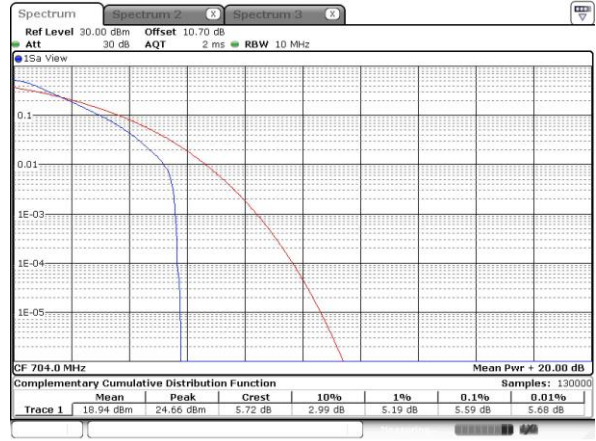
## LTE M1 Band 12

### Peak-to-Average Ratio

| Mode       | LTE M1 Band 12 / 10MHz |         |       |         |             |
|------------|------------------------|---------|-------|---------|-------------|
| Mod.       | QPSK                   |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                    | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 7.33                   | 5.59    | 8.55  | 8.32    | PASS        |
| Middle CH  | 8.38                   | 8.46    | 8.46  | 8.52    |             |
| Highest CH | 6.29                   | 6.99    | 8.32  | 8.55    |             |

**LTE M1 Band 12 / 10MHz / QPSK**
**Lowest Channel / 1RB**


Date: 9.OCT.2018 06:06:39

**Lowest Channel / Full RB**


Date: 9.OCT.2018 05:58:10

**Middle Channel / 1RB**

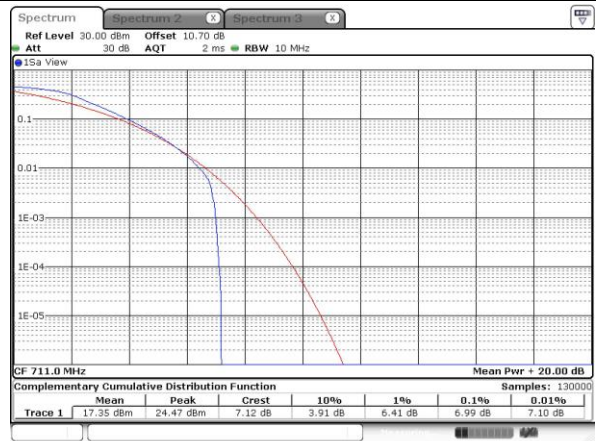

Date: 9.OCT.2018 06:19:44

**Middle Channel / Full RB**


Date: 9.OCT.2018 06:15:22

**Highest Channel / 1RB**

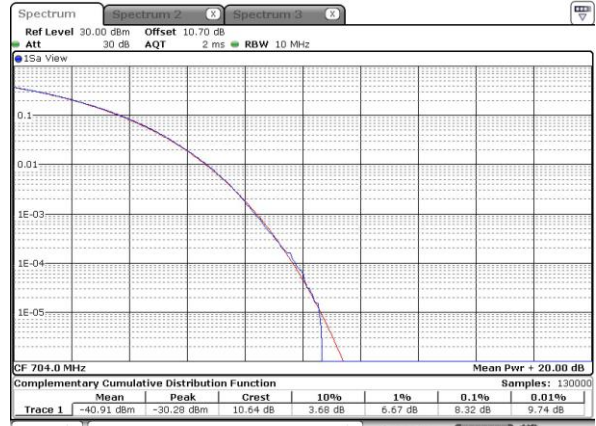

Date: 9.OCT.2018 06:22:10

**Highest Channel / Full RB**


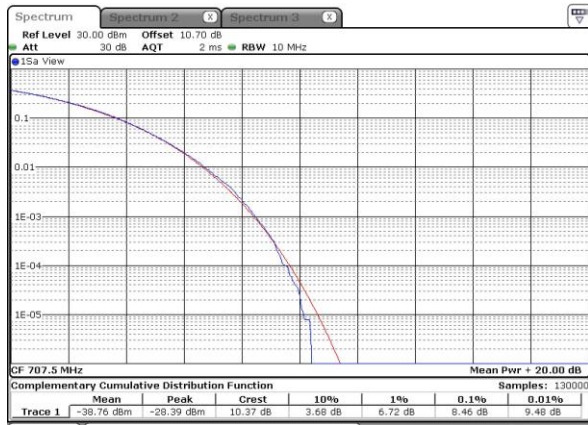
Date: 9.OCT.2018 06:28:22

**LTE M1 Band 12 / 10MHz / 16QAM**
**Lowest Channel / 1RB**


Date: 9.OCT.2018 06:03:51

**Lowest Channel / Full RB**


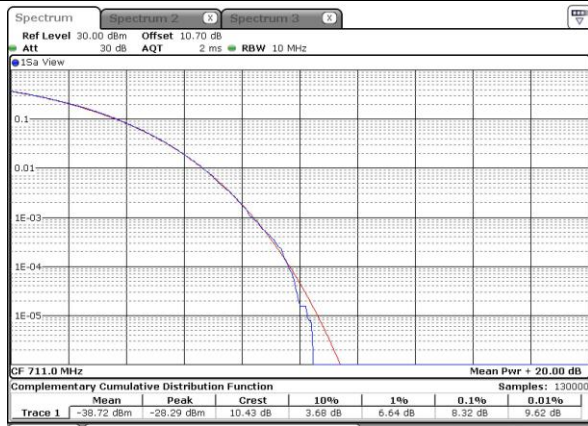
Date: 9.OCT.2018 06:00:56

**Middle Channel / 1RB**


Date: 9.OCT.2018 06:20:06

**Middle Channel / Full RB**


Date: 9.OCT.2018 06:16:37

**Highest Channel / 1RB**


Date: 9.OCT.2018 06:21:55

**Highest Channel / Full RB**


Date: 9.OCT.2018 06:25:43



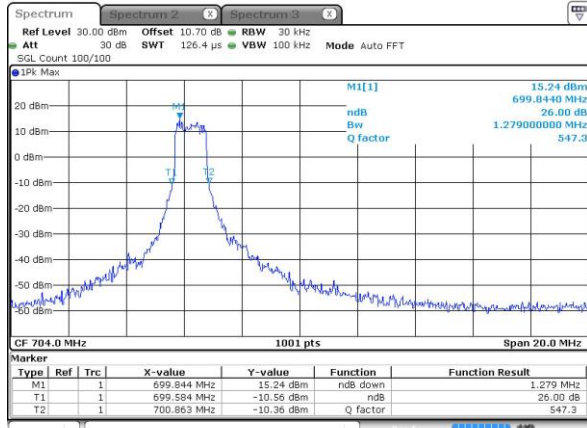
26dB Bandwidth

| Mode       | LTE M1 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  | -                             | -     | -    | -     | -    | -     | 1.28  | 1.52  | -     | -     | -     | -     |
| Middle CH  | -                             | -     | -    | -     | -    | -     | 1.44  | 1.48  | -     | -     | -     | -     |
| Highest CH | -                             | -     | -    | -     | -    | -     | 1.36  | 1.40  | -     | -     | -     | -     |



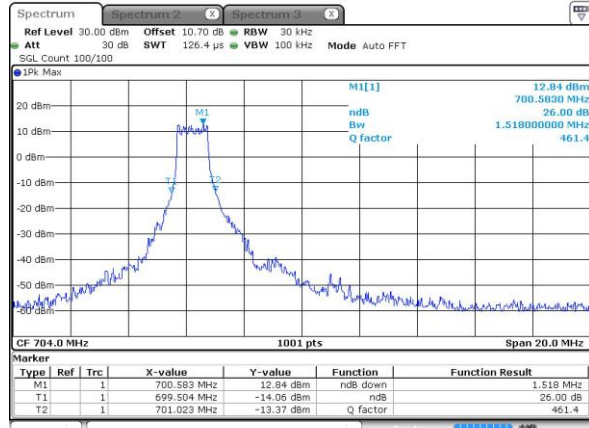
## LTE M1 Band 12

## Lowest Channel / 10MHz / QPSK



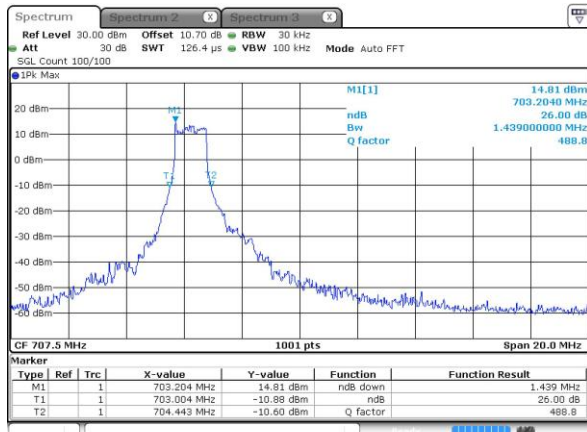
Date: 9 OCT 2018 05:59:26

## Lowest Channel / 10MHz / 16QAM



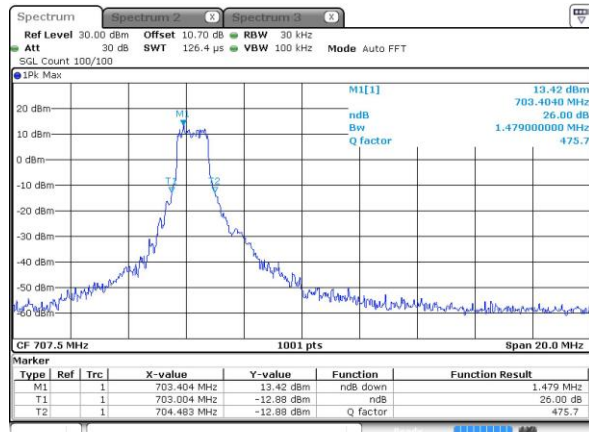
Date: 9 OCT 2018 06:01:33

## Middle Channel / 10MHz / QPSK



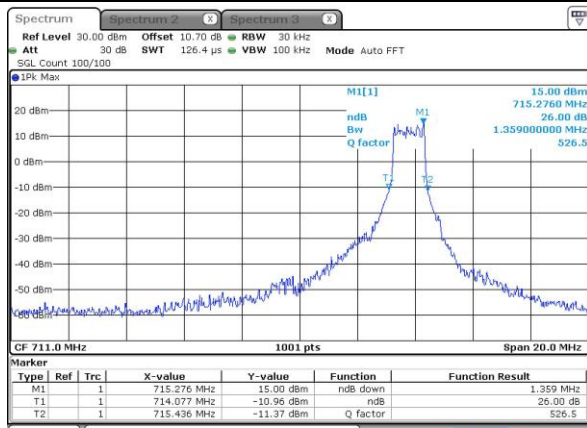
Date: 9 OCT 2018 06:15:59

## Middle Channel / 10MHz / 16QAM



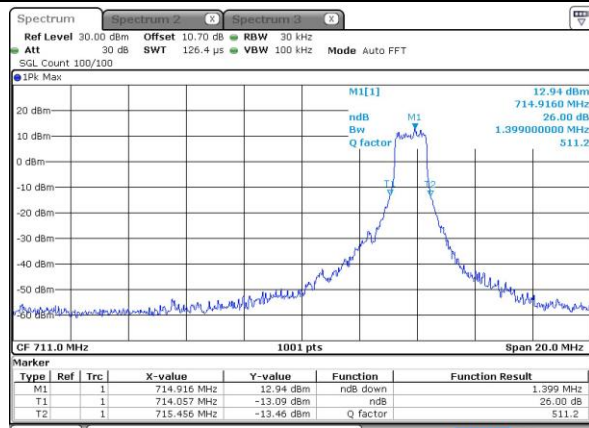
Date: 9 OCT 2018 06:17:11

## Highest Channel / 10MHz / QPSK



Date: 9 OCT 2018 06:29:12

## Highest Channel / 10MHz / 16QAM



Date: 9 OCT 2018 06:26:12



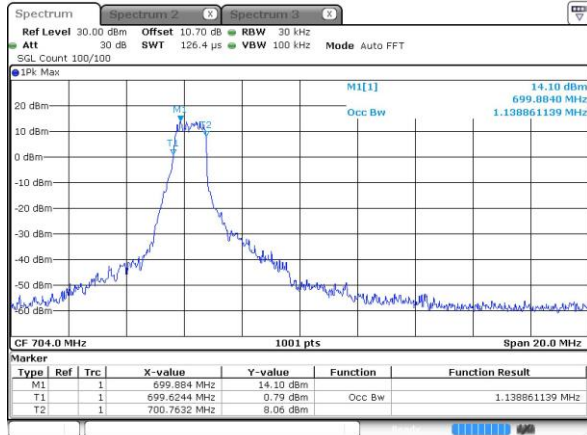
## Occupied Bandwidth

| Mode       | LTE M1 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  | -                            | -     | -    | -     | -    | -     | 1.14  | 1.08  | -     | -     | -     | -     |
| Middle CH  | -                            | -     | -    | -     | -    | -     | 1.12  | 1.08  | -     | -     | -     | -     |
| Highest CH | -                            | -     | -    | -     | -    | -     | 1.12  | 1.1   | -     | -     | -     | -     |

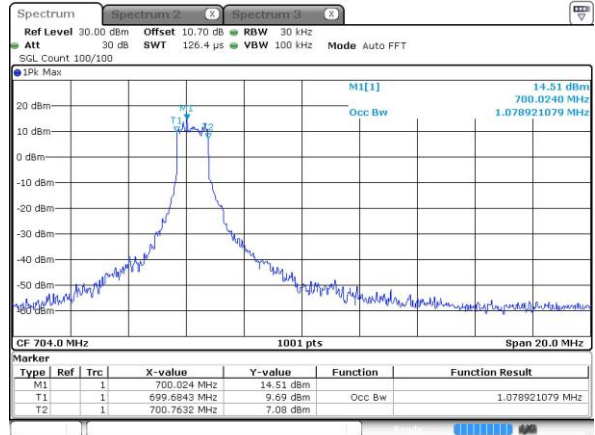


## LTE M1 Band 12

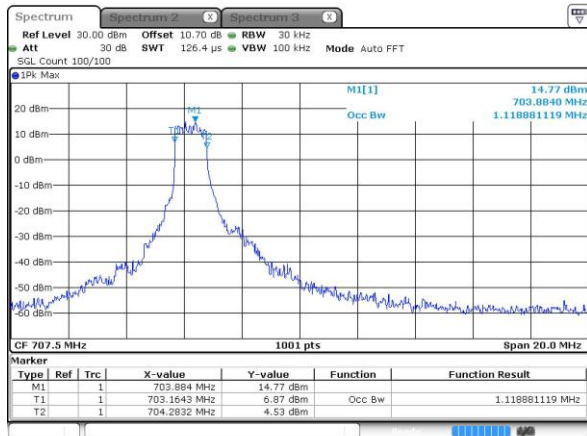
## Lowest Channel / 10MHz / QPSK



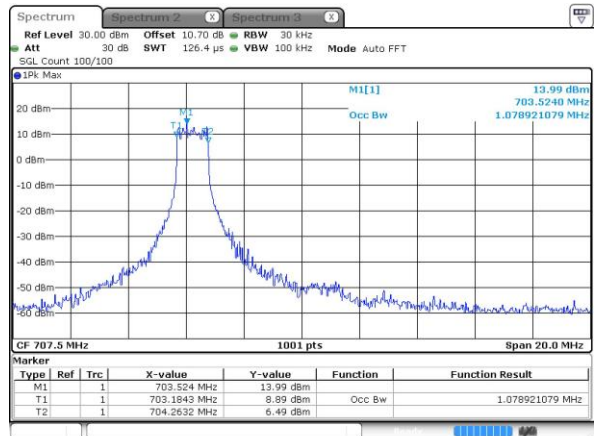
## Lowest Channel / 10MHz / 16QAM



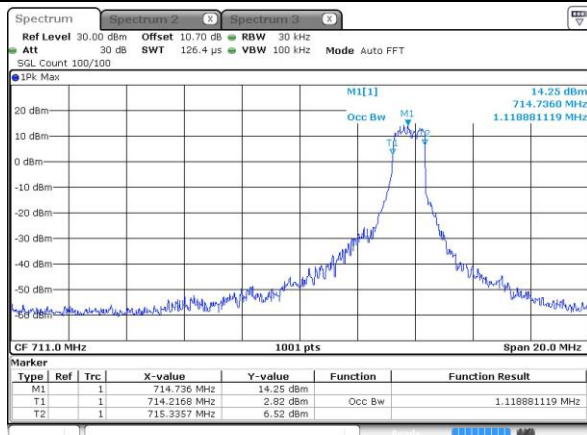
## Middle Channel / 10MHz / QPSK



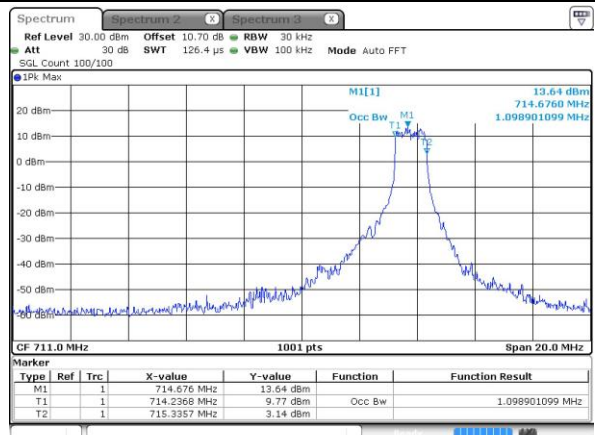
## Middle Channel / 10MHz / 16QAM



## Highest Channel / 10MHz / QPSK



## Highest Channel / 10MHz / 16QAM



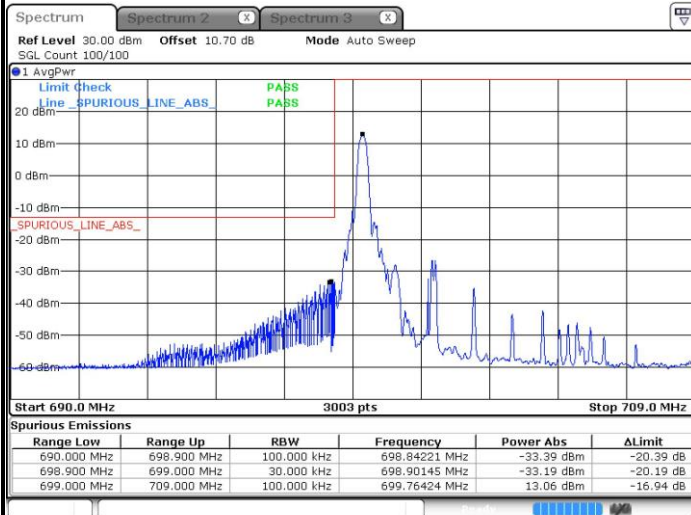


## **Conducted Band Edge**

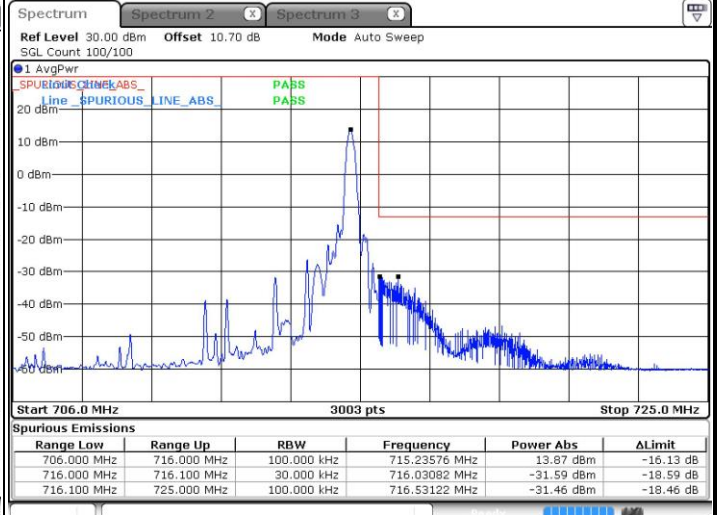


## LTE M1 Band 12 / 10MHz / QPSK

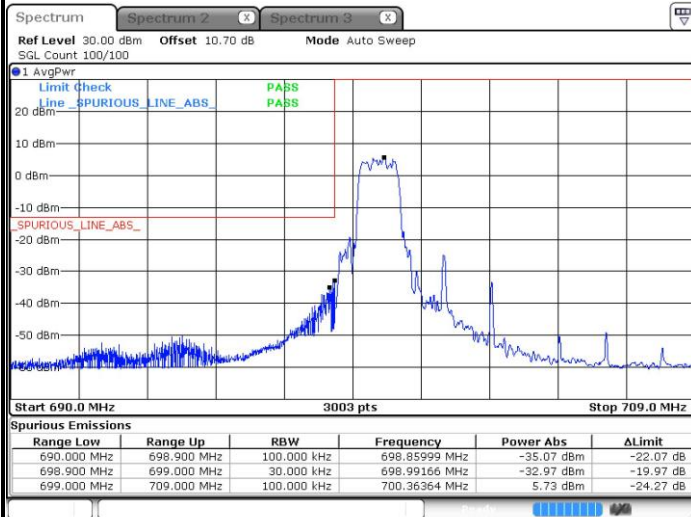
## Lowest Band Edge / 1 RB



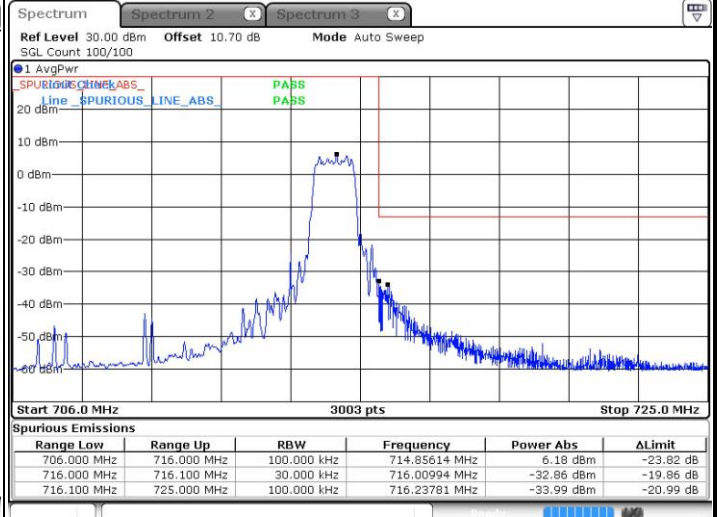
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB



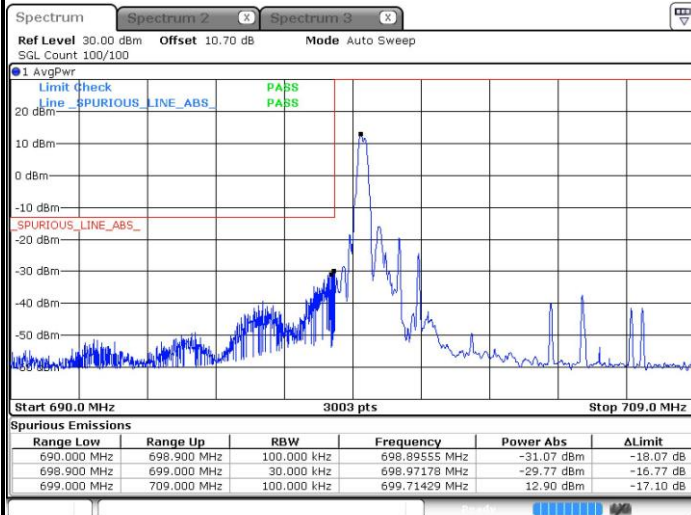
## Highest Band Edge / Full RB



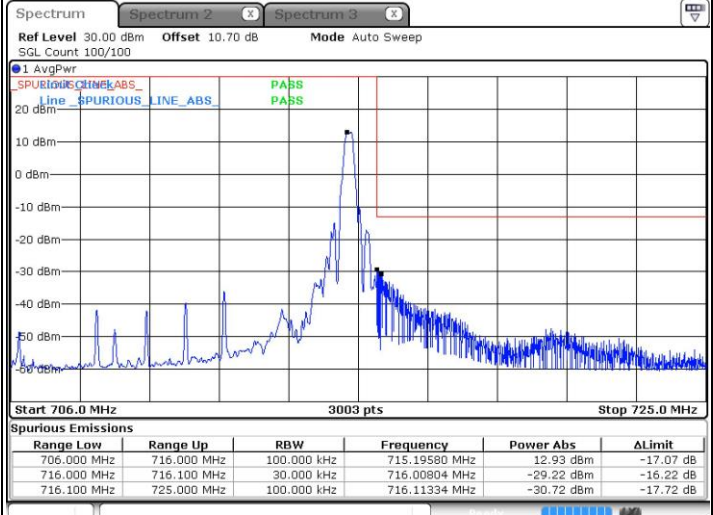


## LTE M1 Band 12 / 10MHz / 16QAM

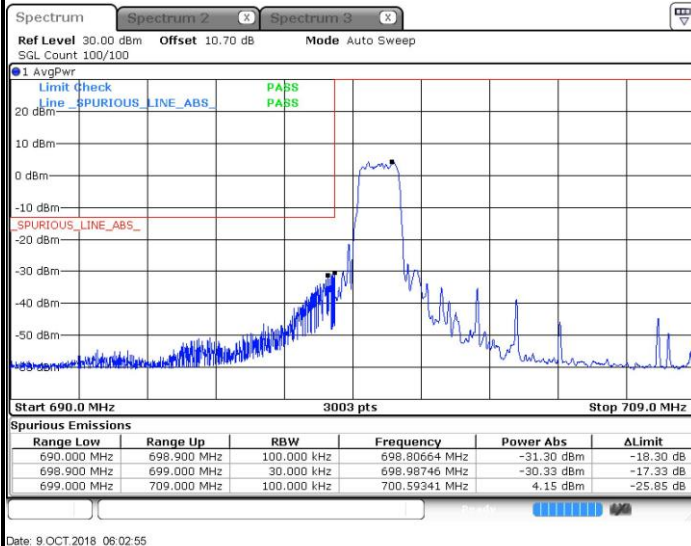
## Lowest Band Edge / 1 RB



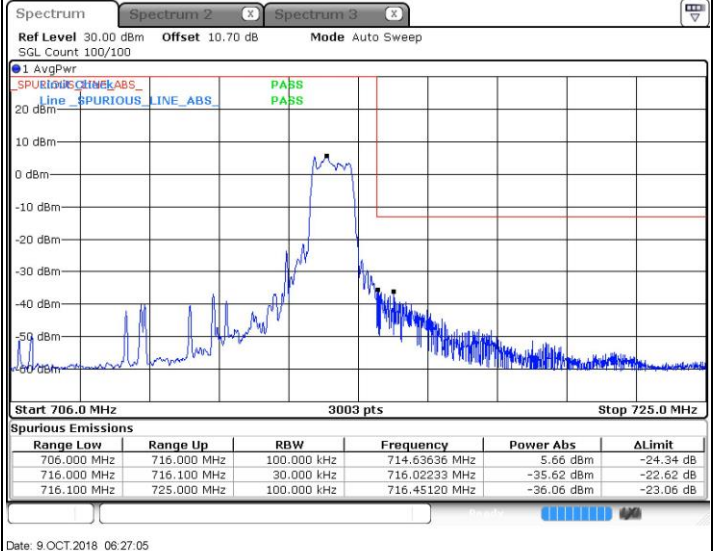
## Highest Band Edge / 1 RB



## Lowest Band Edge / Full RB

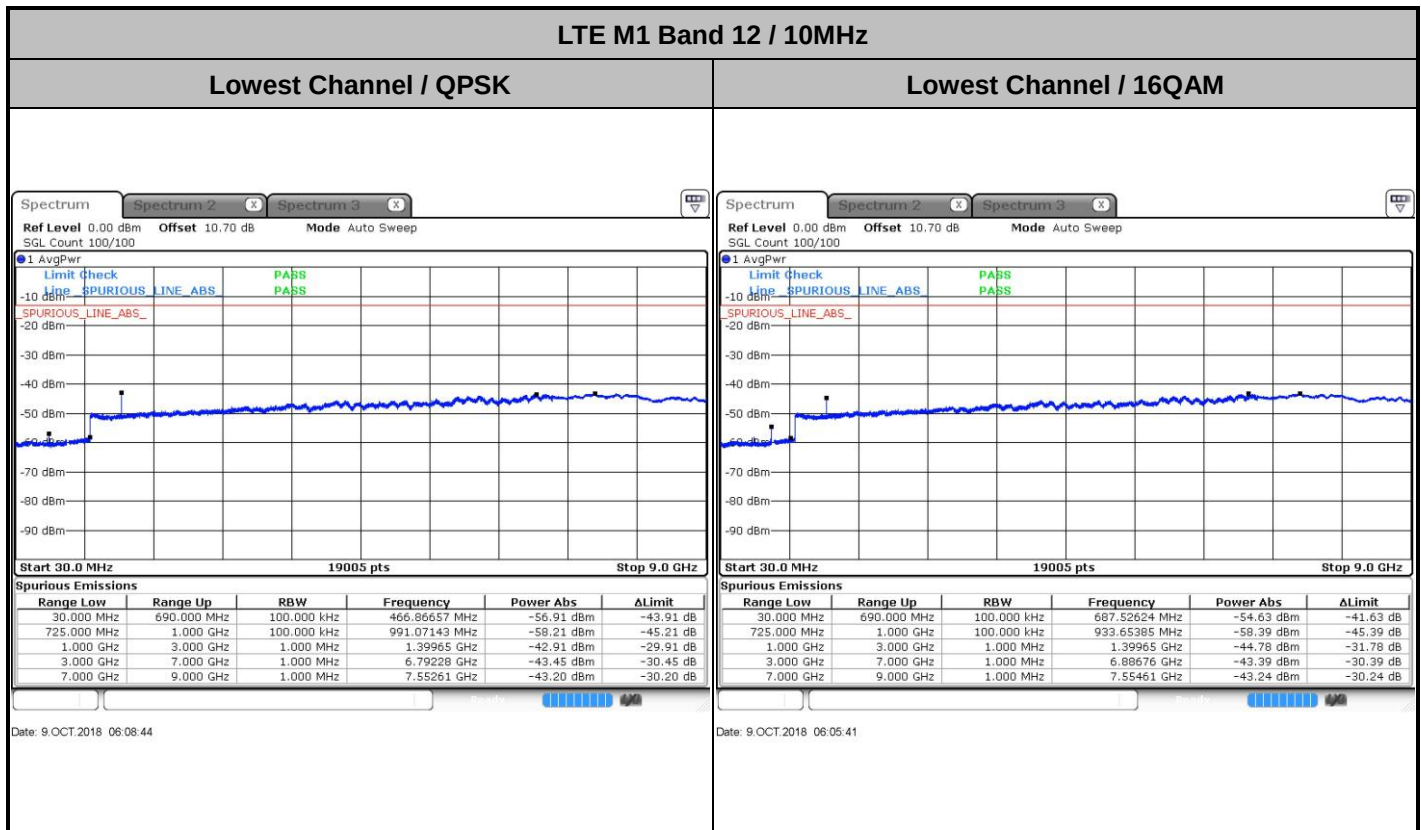


## Highest Band Edge / Full RB





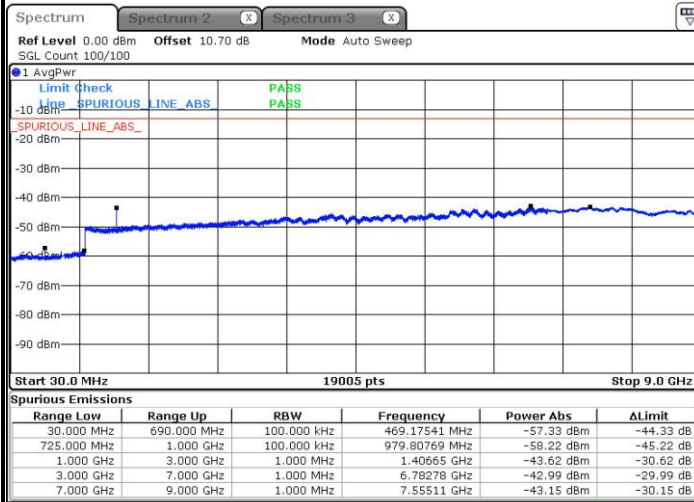
## Conducted Spurious Emission





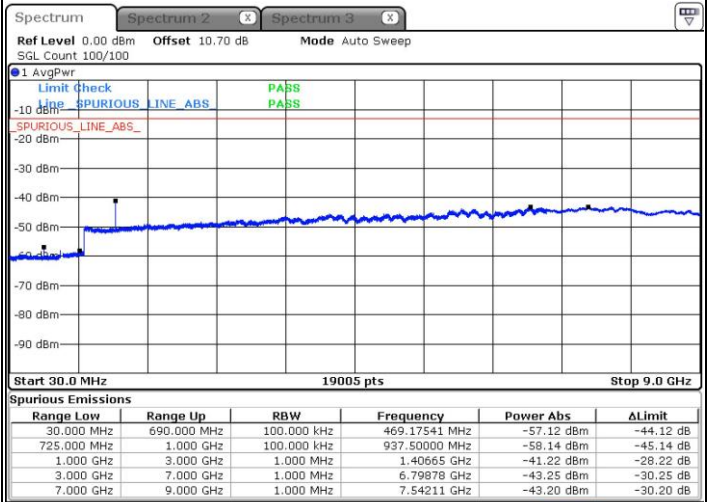
## LTE M1 Band 12 / 10MHz

## Middle Channel / QPSK



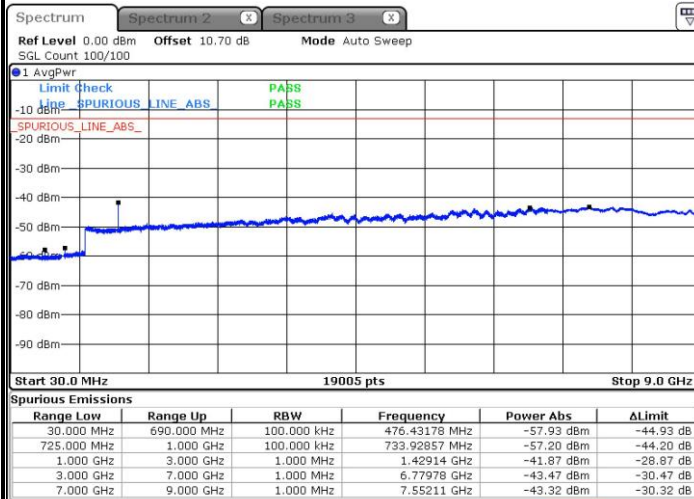
Date: 9.OCT.2018 06:19:14

## Middle Channel / 16QAM



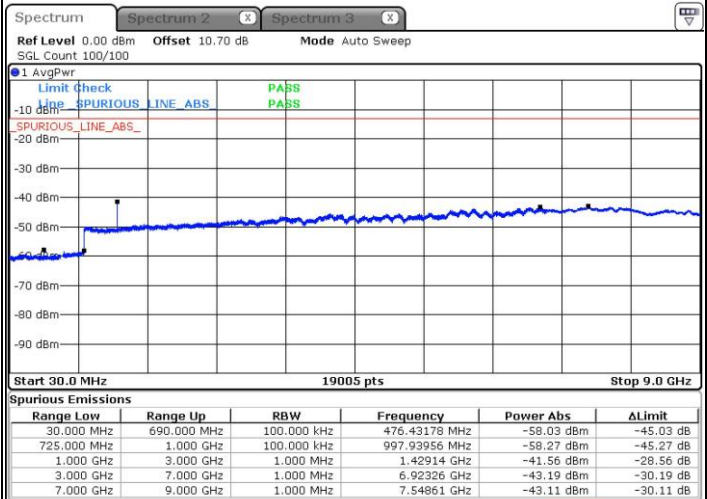
Date: 9.OCT.2018 06:18:13

## Highest Channel / QPSK



Date: 9.OCT.2018 06:23:01

## Highest Channel / 16QAM



Date: 9.OCT.2018 06:21:47

## Frequency Stability

| Test Conditions  |                   | LTE M1 Band 12 (QPSK) / Middle Channel | Limit   |
|------------------|-------------------|----------------------------------------|---------|
| Temperature (°C) | Voltage (Volt)    | BW 10MHz                               | Note 2. |
|                  |                   | Deviation (ppm)                        | Result  |
| 50               | Normal Voltage    | 0.0006                                 | PASS    |
| 40               | Normal Voltage    | 0.0016                                 |         |
| 30               | Normal Voltage    | 0.0007                                 |         |
| 20(Ref.)         | Normal Voltage    | 0.0000                                 |         |
| 10               | Normal Voltage    | 0.0011                                 |         |
| 0                | Normal Voltage    | 0.0013                                 |         |
| -10              | Normal Voltage    | 0.0004                                 |         |
| -20              | Normal Voltage    | 0.0001                                 |         |
| -30              | Normal Voltage    | 0.0018                                 |         |
| 20               | Maximum Voltage   | 0.0023                                 |         |
| 20               | Normal Voltage    | 0.0000                                 |         |
| 20               | Battery End Point | 0.0027                                 |         |

**Note:**

1. Normal Voltage =12 V. ; Battery End Point (BEP) =8 V. ; Maximum Voltage =32 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

**Appendix B. Test Results of ERP/EIRP and Radiated Test****ERP/EIRP**

| LTE Band 2 / 1.4MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |   |             |               |           |         |
|--------------------------------------------------|-----------|------|--------|-------|---|---|-------------|---------------|-----------|---------|
| Channel                                          | Mode      | RB   |        | Index |   |   | Conducted   |               | EIRP      |         |
|                                                  |           | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                           | QPSK      | 6    | 0      | 0     | 0 | 0 | 22.98       | 0.1986        | 25.48     | 0.3532  |
| Middle                                           |           | 6    | 0      | 0     | 0 | 0 | 23.09       | 0.2037        | 25.59     | 0.3622  |
| Highest                                          |           | 6    | 0      | 0     | 0 | 0 | 23.45       | 0.2213        | 25.95     | 0.3936  |
| Lowest                                           | 16QAM     | 6    | 0      | 0     | 0 | 0 | 22.92       | 0.1959        | 25.42     | 0.3483  |
| Middle                                           |           | 6    | 0      | 0     | 0 | 0 | 23.16       | 0.2070        | 25.66     | 0.3681  |
| Highest                                          |           | 6    | 0      | 0     | 0 | 0 | 23.39       | 0.2183        | 25.89     | 0.3882  |
| Limit                                            | EIRP < 2W |      |        |       |   |   | Result      |               | PASS      |         |

| LTE Band 2 / 3MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |   |             |               |           |         |
|------------------------------------------------|-----------|------|--------|-------|---|---|-------------|---------------|-----------|---------|
| Channel                                        | Mode      | RB   |        | Index |   |   | Conducted   |               | EIRP      |         |
|                                                |           | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                         | QPSK      | 6    | 0      | 0     | 0 | 1 | 22.97       | 0.1982        | 25.47     | 0.3524  |
| Middle                                         |           | 6    | 0      | 0     | 0 | 1 | 23.08       | 0.2032        | 25.58     | 0.3614  |
| Highest                                        |           | 6    | 0      | 0     | 0 | 1 | 23.44       | 0.2208        | 25.94     | 0.3926  |
| Lowest                                         | 16QAM     | 6    | 0      | 0     | 0 | 1 | 22.89       | 0.1945        | 25.39     | 0.3459  |
| Middle                                         |           | 6    | 0      | 0     | 0 | 1 | 23.17       | 0.2075        | 25.67     | 0.3690  |
| Highest                                        |           | 6    | 0      | 0     | 0 | 1 | 23.37       | 0.2173        | 25.87     | 0.3864  |
| Limit                                          | EIRP < 2W |      |        |       |   |   | Result      |               | PASS      |         |

| LTE Band 2 / 5MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |   |             |               |           |         |
|------------------------------------------------|-----------|------|--------|-------|---|---|-------------|---------------|-----------|---------|
| Channel                                        | Mode      | RB   |        | Index |   |   | Conducted   |               | EIRP      |         |
|                                                |           | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                         | QPSK      | 6    | 0      | 0     | 0 | 3 | 22.90       | 0.1950        | 25.40     | 0.3467  |
| Middle                                         |           | 6    | 0      | 0     | 0 | 3 | 23.07       | 0.2028        | 25.57     | 0.3606  |
| Highest                                        |           | 6    | 0      | 0     | 0 | 3 | 23.45       | 0.2213        | 25.95     | 0.3936  |
| Lowest                                         | 16QAM     | 1    | 5      | 0     | 0 | 3 | 22.74       | 0.1879        | 25.24     | 0.3342  |
| Middle                                         |           | 1    | 5      | 0     | 0 | 3 | 22.89       | 0.1945        | 25.39     | 0.3459  |
| Highest                                        |           | 1    | 5      | 0     | 0 | 3 | 23.21       | 0.2094        | 25.71     | 0.3724  |
| Limit                                          | EIRP < 2W |      |        |       |   |   | Result      |               | PASS      |         |



| LTE Band 2 / 10MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |   |             |               |           |         |
|-------------------------------------------------|-----------|------|--------|-------|---|---|-------------|---------------|-----------|---------|
| Channel                                         | Mode      | RB   |        | Index |   |   | Conducted   |               | EIRP      |         |
|                                                 |           | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                          | QPSK      | 6    | 0      | 0     | 0 | 7 | 22.97       | 0.1982        | 25.47     | 0.3524  |
| Middle                                          |           | 6    | 0      | 0     | 0 | 7 | 23.10       | 0.2042        | 25.60     | 0.3631  |
| Highest                                         |           | 6    | 0      | 0     | 0 | 7 | 23.44       | 0.2208        | 25.94     | 0.3926  |
| Lowest                                          | 16QAM     | 6    | 0      | 0     | 0 | 7 | 22.96       | 0.1977        | 25.46     | 0.3516  |
| Middle                                          |           | 6    | 0      | 0     | 0 | 7 | 23.17       | 0.2075        | 25.67     | 0.3690  |
| Highest                                         |           | 6    | 0      | 0     | 0 | 7 | 23.37       | 0.2173        | 25.87     | 0.3864  |
| Limit                                           | EIRP < 2W |      |        |       |   |   | Result      |               | PASS      |         |

| LTE Band 2 / 15MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |    |             |               |           |         |
|-------------------------------------------------|-----------|------|--------|-------|---|----|-------------|---------------|-----------|---------|
| Channel                                         | Mode      | RB   |        | Index |   |    | Conducted   |               | EIRP      |         |
|                                                 |           | Size | Offset | L     | M | H  | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                          | QPSK      | 6    | 0      | 0     | 0 | 11 | 23.02       | 0.2004        | 25.52     | 0.3565  |
| Middle                                          |           | 6    | 0      | 0     | 0 | 11 | 23.16       | 0.2070        | 25.66     | 0.3681  |
| Highest                                         |           | 6    | 0      | 0     | 0 | 11 | 23.37       | 0.2173        | 25.87     | 0.3864  |
| Lowest                                          | 16QAM     | 6    | 0      | 0     | 0 | 11 | 23.02       | 0.2004        | 25.52     | 0.3565  |
| Middle                                          |           | 6    | 0      | 0     | 0 | 11 | 23.22       | 0.2099        | 25.72     | 0.3733  |
| Highest                                         |           | 6    | 0      | 0     | 0 | 11 | 23.37       | 0.2173        | 25.87     | 0.3864  |
| Limit                                           | EIRP < 2W |      |        |       |   |    | Result      |               | PASS      |         |

| LTE Band 2 / 20MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |    |             |               |           |         |
|-------------------------------------------------|-----------|------|--------|-------|---|----|-------------|---------------|-----------|---------|
| Channel                                         | Mode      | RB   |        | Index |   |    | Conducted   |               | EIRP      |         |
|                                                 |           | Size | Offset | L     | M | H  | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                          | QPSK      | 6    | 0      | 0     | 0 | 15 | 23.00       | 0.1995        | 25.50     | 0.3548  |
| Middle                                          |           | 6    | 0      | 0     | 0 | 15 | 23.15       | 0.2065        | 25.65     | 0.3673  |
| Highest                                         |           | 6    | 0      | 0     | 0 | 15 | 23.46       | 0.2218        | 25.96     | 0.3945  |
| Lowest                                          | 16QAM     | 6    | 0      | 0     | 0 | 15 | 22.97       | 0.1982        | 25.47     | 0.3524  |
| Middle                                          |           | 6    | 0      | 0     | 0 | 15 | 23.25       | 0.2113        | 25.75     | 0.3758  |
| Highest                                         |           | 6    | 0      | 0     | 0 | 15 | 23.41       | 0.2193        | 25.91     | 0.3899  |
| Limit                                           | EIRP < 2W |      |        |       |   |    | Result      |               | PASS      |         |



| LTE Band 4 / 1.4MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |   |             |               |           |         |
|--------------------------------------------------|-----------|------|--------|-------|---|---|-------------|---------------|-----------|---------|
| Channel                                          | Mode      | RB   |        | Index |   |   | Conducted   |               | EIRP      |         |
|                                                  |           | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                           | QPSK      | 1    | 0      | 0     | 0 | 0 | 23.06       | 0.2023        | 25.56     | 0.3597  |
| Middle                                           |           | 1    | 0      | 0     | 0 | 0 | 23.02       | 0.2004        | 25.52     | 0.3565  |
| Highest                                          |           | 1    | 0      | 0     | 0 | 0 | 23.29       | 0.2133        | 25.79     | 0.3793  |
| Lowest                                           | 16QAM     | 6    | 0      | 0     | 0 | 0 | 23.07       | 0.2028        | 25.57     | 0.3606  |
| Middle                                           |           | 6    | 0      | 0     | 0 | 0 | 23.14       | 0.2061        | 25.64     | 0.3664  |
| Highest                                          |           | 6    | 0      | 0     | 0 | 0 | 22.96       | 0.1977        | 25.46     | 0.3516  |
| Limit                                            | EIRP < 1W |      |        |       |   |   | Result      |               | PASS      |         |

| LTE Band 4 / 3MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |   |             |               |           |         |
|------------------------------------------------|-----------|------|--------|-------|---|---|-------------|---------------|-----------|---------|
| Channel                                        | Mode      | RB   |        | Index |   |   | Conducted   |               | EIRP      |         |
|                                                |           | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                         | QPSK      | 1    | 0      | 0     | 0 | 1 | 23.03       | 0.2009        | 25.53     | 0.3573  |
| Middle                                         |           | 1    | 0      | 0     | 0 | 1 | 23.01       | 0.2000        | 25.51     | 0.3556  |
| Highest                                        |           | 1    | 0      | 0     | 0 | 1 | 23.28       | 0.2128        | 25.78     | 0.3784  |
| Lowest                                         | 16QAM     | 6    | 0      | 0     | 0 | 1 | 23.40       | 0.2188        | 25.90     | 0.3890  |
| Middle                                         |           | 6    | 0      | 0     | 0 | 1 | 23.32       | 0.2148        | 25.82     | 0.3819  |
| Highest                                        |           | 6    | 0      | 0     | 0 | 1 | 23.10       | 0.2042        | 25.60     | 0.3631  |
| Limit                                          | EIRP < 1W |      |        |       |   |   | Result      |               | PASS      |         |

| LTE Band 4 / 5MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |   |             |               |           |         |
|------------------------------------------------|-----------|------|--------|-------|---|---|-------------|---------------|-----------|---------|
| Channel                                        | Mode      | RB   |        | Index |   |   | Conducted   |               | EIRP      |         |
|                                                |           | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                         | QPSK      | 1    | 5      | 0     | 0 | 3 | 22.96       | 0.1977        | 25.46     | 0.3516  |
| Middle                                         |           | 1    | 5      | 0     | 0 | 3 | 23.04       | 0.2014        | 25.54     | 0.3581  |
| Highest                                        |           | 1    | 5      | 0     | 0 | 3 | 23.28       | 0.2128        | 25.78     | 0.3784  |
| Lowest                                         | 16QAM     | 6    | 0      | 0     | 0 | 3 | 23.32       | 0.2148        | 25.82     | 0.3819  |
| Middle                                         |           | 6    | 0      | 0     | 0 | 3 | 23.29       | 0.2133        | 25.79     | 0.3793  |
| Highest                                        |           | 6    | 0      | 0     | 0 | 3 | 23.09       | 0.2037        | 25.59     | 0.3622  |
| Limit                                          | EIRP < 1W |      |        |       |   |   | Result      |               | PASS      |         |



| LTE Band 4 / 10MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |   |             |               |           |         |
|-------------------------------------------------|-----------|------|--------|-------|---|---|-------------|---------------|-----------|---------|
| Channel                                         | Mode      | RB   |        | Index |   |   | Conducted   |               | EIRP      |         |
|                                                 |           | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                          | QPSK      | 1    | 5      | 0     | 0 | 7 | 22.99       | 0.1991        | 25.49     | 0.3540  |
| Middle                                          |           | 1    | 5      | 0     | 0 | 7 | 22.99       | 0.1991        | 25.49     | 0.3540  |
| Highest                                         |           | 1    | 5      | 0     | 0 | 7 | 23.29       | 0.2133        | 25.79     | 0.3793  |
| Lowest                                          | 16QAM     | 6    | 0      | 0     | 0 | 7 | 23.39       | 0.2183        | 25.89     | 0.3882  |
| Middle                                          |           | 6    | 0      | 0     | 0 | 7 | 23.29       | 0.2133        | 25.79     | 0.3793  |
| Highest                                         |           | 6    | 0      | 0     | 0 | 7 | 23.12       | 0.2051        | 25.62     | 0.3648  |
| Limit                                           | EIRP < 1W |      |        |       |   |   | Result      |               | PASS      |         |

| LTE Band 4 / 15MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |    |             |               |           |         |
|-------------------------------------------------|-----------|------|--------|-------|---|----|-------------|---------------|-----------|---------|
| Channel                                         | Mode      | RB   |        | Index |   |    | Conducted   |               | EIRP      |         |
|                                                 |           | Size | Offset | L     | M | H  | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                          | QPSK      | 1    | 5      | 0     | 0 | 11 | 23.06       | 0.2023        | 25.56     | 0.3597  |
| Middle                                          |           | 1    | 5      | 0     | 0 | 11 | 23.04       | 0.2014        | 25.54     | 0.3581  |
| Highest                                         |           | 1    | 5      | 0     | 0 | 11 | 23.32       | 0.2148        | 25.82     | 0.3819  |
| Lowest                                          | 16QAM     | 6    | 0      | 0     | 0 | 11 | 23.41       | 0.2193        | 25.91     | 0.3899  |
| Middle                                          |           | 6    | 0      | 0     | 0 | 11 | 23.33       | 0.2153        | 25.83     | 0.3828  |
| Highest                                         |           | 6    | 0      | 0     | 0 | 11 | 23.17       | 0.2075        | 25.67     | 0.3690  |
| Limit                                           | EIRP < 1W |      |        |       |   |    | Result      |               | PASS      |         |

| LTE Band 4 / 20MHz (Average) (GT - LC = 2.5 dB) |           |      |        |       |   |    |             |               |           |         |
|-------------------------------------------------|-----------|------|--------|-------|---|----|-------------|---------------|-----------|---------|
| Channel                                         | Mode      | RB   |        | Index |   |    | Conducted   |               | EIRP      |         |
|                                                 |           | Size | Offset | L     | M | H  | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest                                          | QPSK      | 1    | 0      | 0     | 0 | 15 | 23.49       | 0.2234        | 25.99     | 0.3972  |
| Middle                                          |           | 1    | 0      | 0     | 0 | 15 | 23.31       | 0.2143        | 25.81     | 0.3811  |
| Highest                                         |           | 1    | 0      | 0     | 0 | 15 | 23.19       | 0.2084        | 25.69     | 0.3707  |
| Lowest                                          | 16QAM     | 6    | 0      | 0     | 0 | 15 | 23.28       | 0.2128        | 25.78     | 0.3784  |
| Middle                                          |           | 6    | 0      | 0     | 0 | 15 | 23.58       | 0.2280        | 26.08     | 0.4055  |
| Highest                                         |           | 6    | 0      | 0     | 0 | 15 | 23.12       | 0.2051        | 25.62     | 0.3648  |
| Limit                                           | EIRP < 1W |      |        |       |   |    | Result      |               | PASS      |         |



| LTE Band 12 / 1.4MHz (Average) (GT - LC = 2.5 dB) |          |      |        |       |   |   |             |               |          |        |
|---------------------------------------------------|----------|------|--------|-------|---|---|-------------|---------------|----------|--------|
| Channel                                           | Mode     | RB   |        | Index |   |   | Conducted   |               | ERP      |        |
|                                                   |          | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | ERP(dBm) | ERP(W) |
| Lowest                                            | QPSK     | 1    | 5      | 0     | 0 | 0 | 22.88       | 0.1941        | 23.23    | 0.2104 |
| Middle                                            |          | 1    | 5      | 0     | 0 | 0 | 23.00       | 0.1995        | 23.35    | 0.2163 |
| Highest                                           |          | 1    | 5      | 0     | 0 | 0 | 22.85       | 0.1928        | 23.20    | 0.2089 |
| Lowest                                            | 16QAM    | 1    | 0      | 0     | 0 | 0 | 22.88       | 0.1941        | 23.23    | 0.2104 |
| Middle                                            |          | 1    | 0      | 0     | 0 | 0 | 22.97       | 0.1982        | 23.32    | 0.2148 |
| Highest                                           |          | 1    | 0      | 0     | 0 | 0 | 22.89       | 0.1945        | 23.24    | 0.2109 |
| Limit                                             | ERP < 3W |      |        |       |   |   | Result      |               | PASS     |        |

| LTE Band 12 / 3MHz (Average) (GT - LC = 2.5 dB) |          |      |        |       |   |   |             |               |          |        |
|-------------------------------------------------|----------|------|--------|-------|---|---|-------------|---------------|----------|--------|
| Channel                                         | Mode     | RB   |        | Index |   |   | Conducted   |               | ERP      |        |
|                                                 |          | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | ERP(dBm) | ERP(W) |
| Lowest                                          | QPSK     | 1    | 5      | 0     | 0 | 1 | 22.83       | 0.1919        | 23.18    | 0.2080 |
| Middle                                          |          | 1    | 5      | 0     | 0 | 1 | 23.06       | 0.2023        | 23.41    | 0.2193 |
| Highest                                         |          | 1    | 5      | 0     | 0 | 1 | 22.80       | 0.1905        | 23.15    | 0.2065 |
| Lowest                                          | 16QAM    | 1    | 5      | 0     | 0 | 1 | 22.87       | 0.1936        | 23.22    | 0.2099 |
| Middle                                          |          | 1    | 5      | 0     | 0 | 1 | 23.00       | 0.1995        | 23.35    | 0.2163 |
| Highest                                         |          | 1    | 5      | 0     | 0 | 1 | 22.67       | 0.1849        | 23.02    | 0.2004 |
| Limit                                           | ERP < 3W |      |        |       |   |   | Result      |               | PASS     |        |

| LTE Band 12 / 5MHz (Average) (GT - LC = 2.5 dB) |          |      |        |       |   |   |             |               |          |        |
|-------------------------------------------------|----------|------|--------|-------|---|---|-------------|---------------|----------|--------|
| Channel                                         | Mode     | RB   |        | Index |   |   | Conducted   |               | ERP      |        |
|                                                 |          | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | ERP(dBm) | ERP(W) |
| Lowest                                          | QPSK     | 1    | 5      | 0     | 0 | 3 | 22.93       | 0.1963        | 23.28    | 0.2128 |
| Middle                                          |          | 1    | 5      | 0     | 0 | 3 | 23.06       | 0.2023        | 23.41    | 0.2193 |
| Highest                                         |          | 1    | 5      | 0     | 0 | 3 | 22.86       | 0.1932        | 23.21    | 0.2094 |
| Lowest                                          | 16QAM    | 1    | 5      | 0     | 0 | 3 | 22.89       | 0.1945        | 23.24    | 0.2109 |
| Middle                                          |          | 1    | 5      | 0     | 0 | 3 | 23.01       | 0.2000        | 23.36    | 0.2168 |
| Highest                                         |          | 1    | 5      | 0     | 0 | 3 | 22.77       | 0.1892        | 23.12    | 0.2051 |
| Limit                                           | ERP < 3W |      |        |       |   |   | Result      |               | PASS     |        |



# FCC RADIO TEST REPORT

Report No. : FG870921

| LTE Band 12 / 10MHz (Average) (GT - LC = 2.5 dB) |          |      |        |       |   |   |             |               |          |        |
|--------------------------------------------------|----------|------|--------|-------|---|---|-------------|---------------|----------|--------|
| Channel                                          | Mode     | RB   |        | Index |   |   | Conducted   |               | ERP      |        |
|                                                  |          | Size | Offset | L     | M | H | Power (dBm) | Power (Watts) | ERP(dBm) | ERP(W) |
| Lowest                                           | QPSK     | 1    | 5      | 0     | 0 | 7 | 23.12       | 0.2051        | 23.47    | 0.2223 |
| Middle                                           |          | 1    | 5      | 0     | 0 | 7 | 23.13       | 0.2056        | 23.48    | 0.2228 |
| Highest                                          |          | 1    | 5      | 0     | 0 | 7 | 23.22       | 0.2099        | 23.57    | 0.2275 |
| Lowest                                           | 16QAM    | 1    | 0      | 0     | 0 | 7 | 23.18       | 0.2080        | 23.53    | 0.2254 |
| Middle                                           |          | 1    | 0      | 0     | 0 | 7 | 23.16       | 0.2070        | 23.51    | 0.2244 |
| Highest                                          |          | 1    | 0      | 0     | 0 | 7 | 23.09       | 0.2037        | 23.44    | 0.2208 |
| Limit                                            | ERP < 3W |      |        |       |   |   | Result      |               | PASS     |        |

**Radiated Spurious Emission****Part 24E LTE Band 2**

| LTE Band 2/ 20MHz / QPSK |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|--------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                  | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                   | 3707                 | -50.25          | -13              | -37.25                  | -68.05                  | -60.55                   | 1.98                       | 12.28                       | H                     |
|                          | 5560                 | -56.30          | -13              | -43.30                  | -77.54                  | -66.44                   | 2.14                       | 12.28                       | H                     |
|                          | 7414                 | -51.73          | -13              | -38.73                  | -76.62                  | -59.72                   | 2.17                       | 10.15                       | H                     |
|                          |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                          | 3707                 | -55.35          | -13              | -42.35                  | -72.58                  | -65.65                   | 1.98                       | 12.28                       | V                     |
|                          | 5560                 | -55.96          | -13              | -42.96                  | -77.43                  | -66.10                   | 2.14                       | 12.28                       | V                     |
|                          | 7414                 | -51.66          | -13              | -38.66                  | -76.63                  | -59.65                   | 2.17                       | 10.15                       | V                     |
|                          |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                   | 3742                 | -49.25          | -13              | -36.25                  | -66.96                  | -59.51                   | 2.00                       | 12.25                       | H                     |
|                          | 5615                 | -56.22          | -13              | -43.22                  | -77.39                  | -66.45                   | 2.13                       | 12.36                       | H                     |
|                          | 7486                 | -51.69          | -13              | -38.69                  | -77.11                  | -59.59                   | 2.12                       | 10.03                       | H                     |
|                          |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                          | 3742                 | -53.00          | -13              | -40.00                  | -70.19                  | -63.26                   | 2.00                       | 12.25                       | V                     |
|                          | 5615                 | -56.45          | -13              | -43.45                  | -77.81                  | -66.68                   | 2.13                       | 12.36                       | V                     |
|                          | 7486                 | -52.47          | -13              | -39.47                  | -77.03                  | -60.37                   | 2.12                       | 10.03                       | V                     |
|                          |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Highest                  | 3784                 | -52.89          | -13              | -39.89                  | -70.49                  | -63.10                   | 2.02                       | 12.23                       | H                     |
|                          | 5676                 | -55.28          | -13              | -42.28                  | -76.48                  | -65.61                   | 2.11                       | 12.45                       | H                     |
|                          | 7368                 | -51.89          | -13              | -38.89                  | -76.67                  | -59.93                   | 2.20                       | 10.24                       | H                     |
|                          |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                          | 3784                 | -55.47          | -13              | -42.47                  | -72.61                  | -65.68                   | 2.02                       | 12.23                       | V                     |
|                          | 5676                 | -56.21          | -13              | -43.21                  | -77.57                  | -66.54                   | 2.11                       | 12.45                       | V                     |
|                          | 7368                 | -53.02          | -13              | -40.02                  | -76.77                  | -61.06                   | 2.20                       | 10.24                       | V                     |
|                          |                      |                 |                  |                         |                         |                          |                            |                             | V                     |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**Part 27L LTE Band 4**

| LTE Band 4 / 20MHz / 16QAM |                      |                 |                  |                         |                         |                          |                            |                             |                       |
|----------------------------|----------------------|-----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                    | Frequency<br>( MHz ) | EIRP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                     | 3427                 | -46.49          | -13              | -33.49                  | -63.33                  | -56.86                   | 1.81                       | 12.18                       | H                     |
|                            | 5135                 | -54.24          | -13              | -41.24                  | -74.86                  | -64.06                   | 2.30                       | 12.13                       | H                     |
|                            | 8558                 | -45.54          | -13              | -32.54                  | -73.95                  | -55.95                   | 2.16                       | 12.58                       | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            | 3427                 | -48.78          | -13              | -35.78                  | -65.15                  | -59.15                   | 1.81                       | 12.18                       | V                     |
|                            | 5135                 | -55.67          | -13              | -42.67                  | -76.23                  | -65.49                   | 2.30                       | 12.13                       | V                     |
|                            | 8558                 | -45.86          | -13              | -32.86                  | -73.65                  | -56.27                   | 2.16                       | 12.58                       | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Middle                     | 3448                 | -44.47          | -13              | -31.47                  | -61.48                  | -54.89                   | 1.83                       | 12.24                       | H                     |
|                            | 5170                 | -52.90          | -13              | -39.90                  | -73.54                  | -62.74                   | 2.29                       | 12.13                       | H                     |
|                            | 8621                 | -46.76          | -13              | -33.76                  | -75.59                  | -57.13                   | 2.18                       | 12.55                       | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            | 3448                 | -49.71          | -13              | -36.71                  | -66.25                  | -60.13                   | 1.83                       | 12.24                       | V                     |
|                            | 5170                 | -56.49          | -13              | -43.49                  | -77.05                  | -66.33                   | 2.29                       | 12.13                       | V                     |
|                            | 8621                 | -47.02          | -13              | -34.02                  | -75.1                   | -57.39                   | 2.18                       | 12.55                       | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |
| Highest                    | 3476                 | -47.57          | -13              | -34.57                  | -64.93                  | -58.05                   | 1.85                       | 12.33                       | H                     |
|                            | 5212                 | -56.27          | -13              | -43.27                  | -76.93                  | -66.14                   | 2.27                       | 12.14                       | H                     |
|                            | 8683                 | -47.65          | -13              | -34.65                  | -76.78                  | -57.97                   | 2.21                       | 12.53                       | H                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | H                     |
|                            | 3476                 | -50.35          | -13              | -37.35                  | -67.25                  | -60.83                   | 1.85                       | 12.33                       | V                     |
|                            | 5212                 | -57.30          | -13              | -44.30                  | -77.85                  | -67.17                   | 2.27                       | 12.14                       | V                     |
|                            | 8683                 | -47.95          | -13              | -34.95                  | -76.17                  | -58.27                   | 2.21                       | 12.53                       | V                     |
|                            |                      |                 |                  |                         |                         |                          |                            |                             | V                     |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

**Part 27H LTE Band 12**

| LTE Band 12 / 10MHz / QPSK |                      |                |                  |                         |                         |                          |                            |                             |                       |
|----------------------------|----------------------|----------------|------------------|-------------------------|-------------------------|--------------------------|----------------------------|-----------------------------|-----------------------|
| Channel                    | Frequency<br>( MHz ) | ERP<br>( dBm ) | Limit<br>( dBm ) | Over<br>Limit<br>( dB ) | SPA<br>Reading<br>(dBm) | S.G.<br>Power<br>( dBm ) | TX Cable<br>loss<br>( dB ) | TX Antenna<br>Gain<br>(dBi) | Polarization<br>(H/V) |
| Lowest                     | 1400                 | -46.61         | -13.00           | -33.61                  | -57.83                  | -51.05                   | 1.15                       | 7.74                        | H                     |
|                            | 2100                 | -61.14         | -13.00           | -48.14                  | -76.18                  | -67.79                   | 1.38                       | 10.18                       | H                     |
|                            | 2800                 | -59.91         | -13.00           | -46.91                  | -75.84                  | -67.05                   | 1.45                       | 10.74                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1400                 | -46.32         | -13.00           | -33.32                  | -56.76                  | -50.76                   | 1.15                       | 7.74                        | V                     |
|                            | 2100                 | -61.57         | -13.00           | -48.57                  | -75.87                  | -68.22                   | 1.38                       | 10.18                       | V                     |
|                            | 2800                 | -60.48         | -13.00           | -47.48                  | -76.04                  | -67.62                   | 1.45                       | 10.74                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
| Middle                     | 1408                 | -49.75         | -13.00           | -36.75                  | -60.98                  | -54.23                   | 1.15                       | 7.78                        | H                     |
|                            | 2112                 | -60.66         | -13.00           | -47.66                  | -76.01                  | -67.32                   | 1.38                       | 10.19                       | H                     |
|                            | 2816                 | -60.02         | -13.00           | -47.02                  | -76.03                  | -67.17                   | 1.45                       | 10.75                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1408                 | -48.17         | -13.00           | -35.17                  | -58.61                  | -52.65                   | 1.15                       | 7.78                        | V                     |
|                            | 2112                 | -61.47         | -13.00           | -48.47                  | -76.09                  | -68.13                   | 1.38                       | 10.19                       | V                     |
|                            | 2816                 | -59.90         | -13.00           | -46.90                  | -75.47                  | -67.05                   | 1.45                       | 10.75                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |
| Highest                    | 1416                 | -47.58         | -13.00           | -34.58                  | -58.81                  | -52.09                   | 1.15                       | 7.81                        | H                     |
|                            | 2124                 | -60.26         | -13.00           | -47.26                  | -75.92                  | -66.93                   | 1.38                       | 10.20                       | H                     |
|                            | 2832                 | -60.41         | -13.00           | -47.41                  | -76.50                  | -67.57                   | 1.45                       | 10.77                       | H                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | H                     |
|                            | 1416                 | -47.06         | -13.00           | -34.06                  | -57.50                  | -51.57                   | 1.15                       | 7.81                        | V                     |
|                            | 2124                 | -60.76         | -13.00           | -47.76                  | -75.70                  | -67.43                   | 1.38                       | 10.20                       | V                     |
|                            | 2832                 | -60.83         | -13.00           | -47.83                  | -76.41                  | -67.99                   | 1.45                       | 10.77                       | V                     |
|                            |                      |                |                  |                         |                         |                          |                            |                             | V                     |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.