



REPORT No.: SZ16050107W12

LTE Band 5 1.4MHz BW Low Channel

QPSK



16QAM

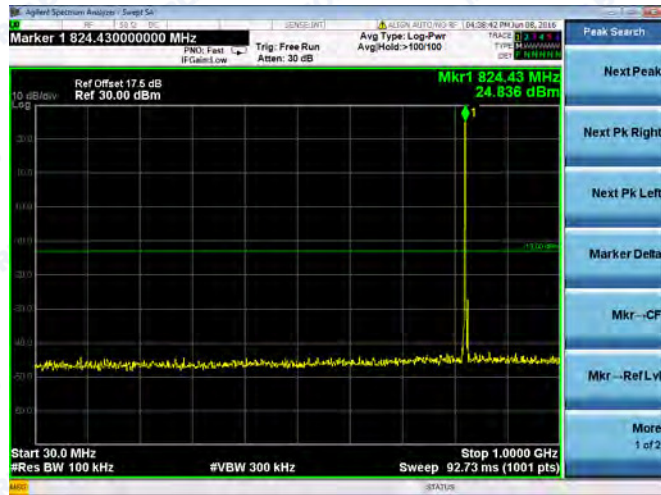




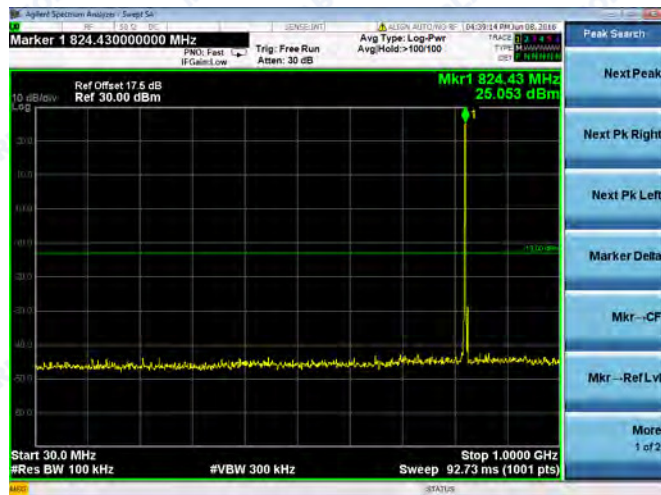
REPORT No.: SZ16050107W12

LTE Band 5 3MHz BW Low Channel

QPSK



16QAM





REPORT No.: SZ16050107W12

LTE Band 5 5MHz BW Low Channel

QPSK



16QAM

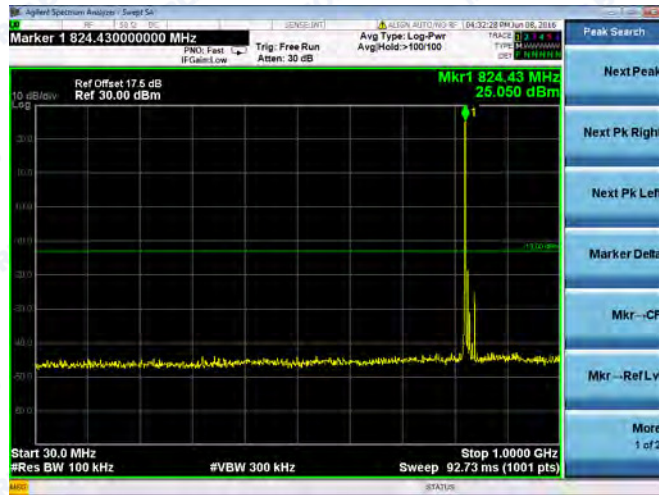




REPORT No.: SZ16050107W12

LTE Band 5 10MHz BW Low Channel

QPSK



16QAM



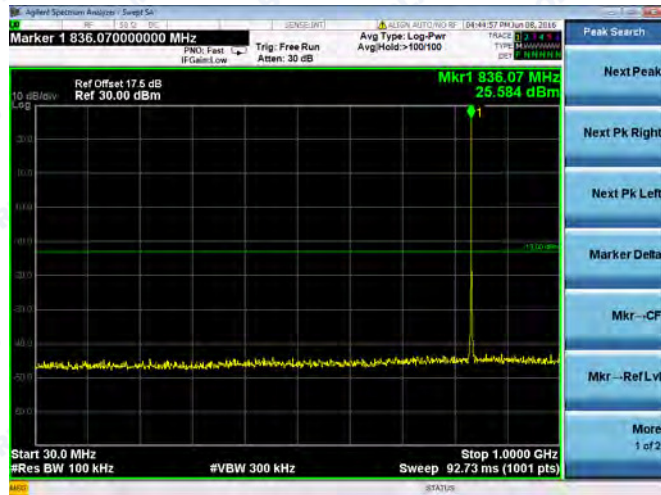


REPORT No.: SZ16050107W12

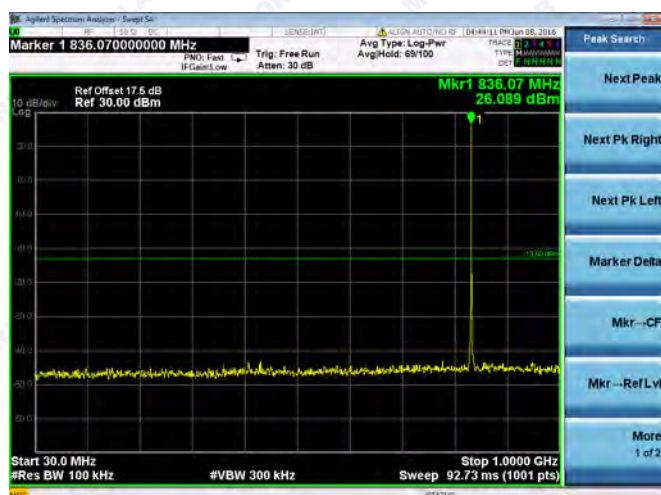
Middle channel:

LTE Band 5 1.4MHz BW Mid Channel

QPSK



16QAM

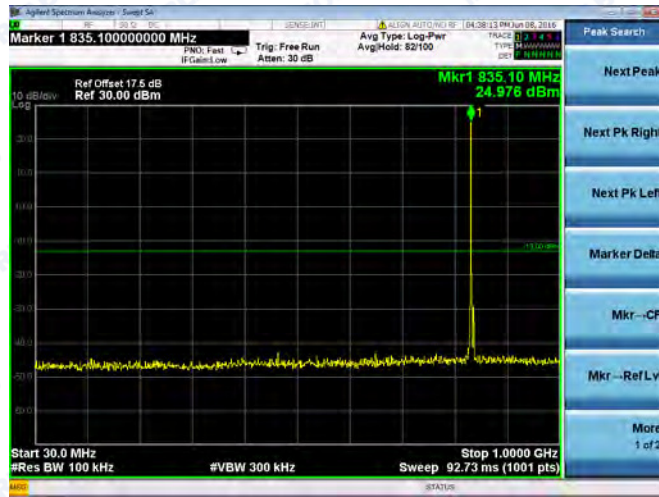




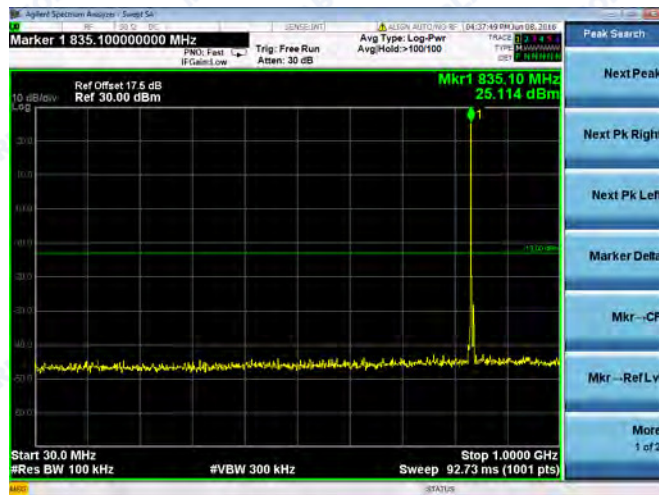
REPORT No.: SZ16050107W12

LTE Band 5 3MHz BW Mid Channel

QPSK



16QAM





REPORT No.: SZ16050107W12

LTE Band 5 5MHz BW Mid Channel

QPSK



16QAM

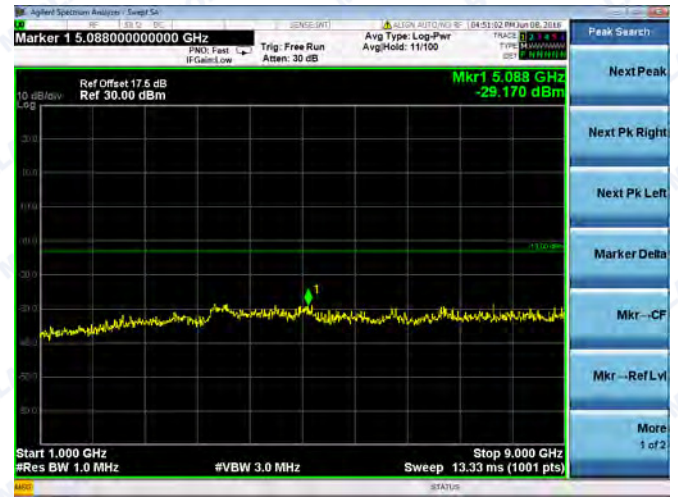
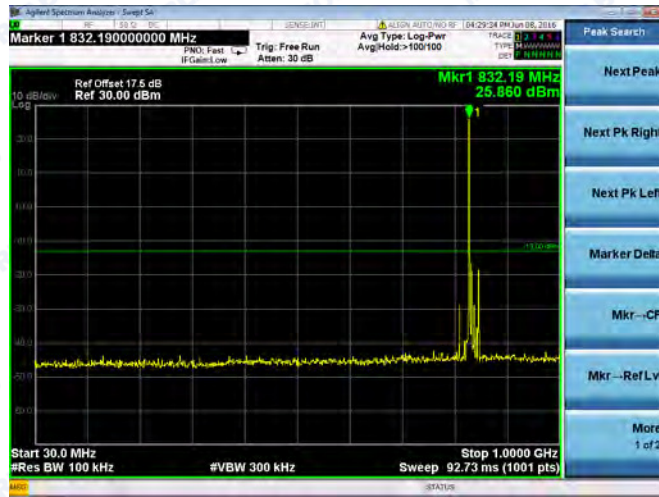




REPORT No.: SZ16050107W12

LTE Band 5 10MHz BW Mid Channel

QPSK



16QAM

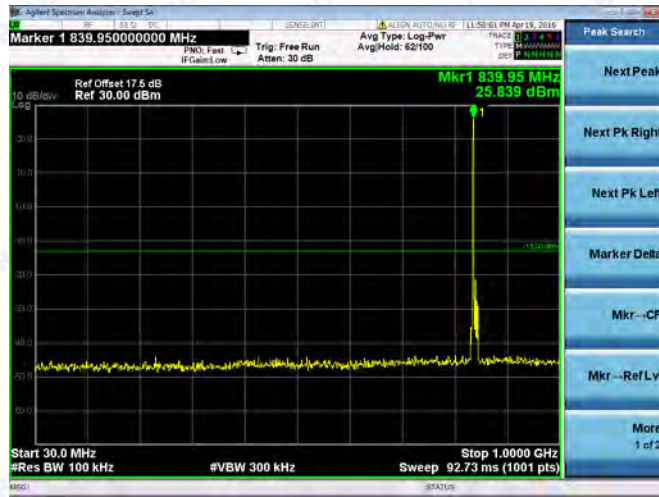




REPORT No.: SZ16050107W12

LTE Band 5 1.4MHz BW High Channel

QPSK



16QAM

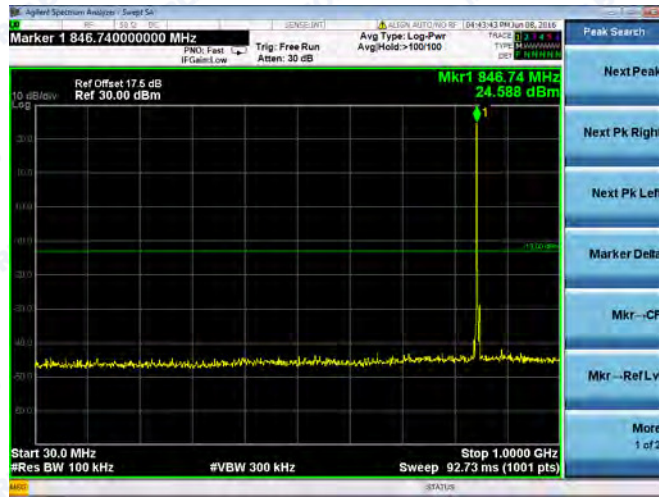




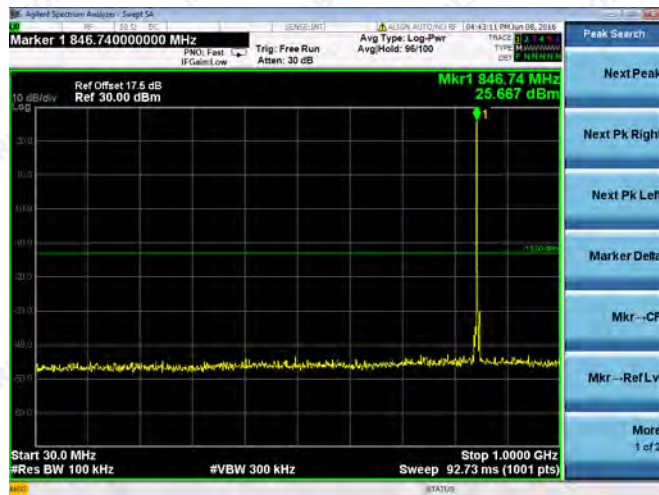
REPORT No.: SZ16050107W12

LTE Band 5 3MHz BW High Channel

QPSK



16QAM

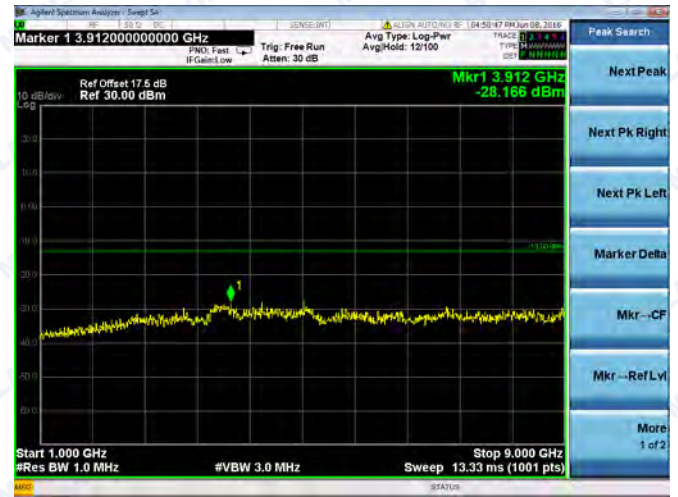
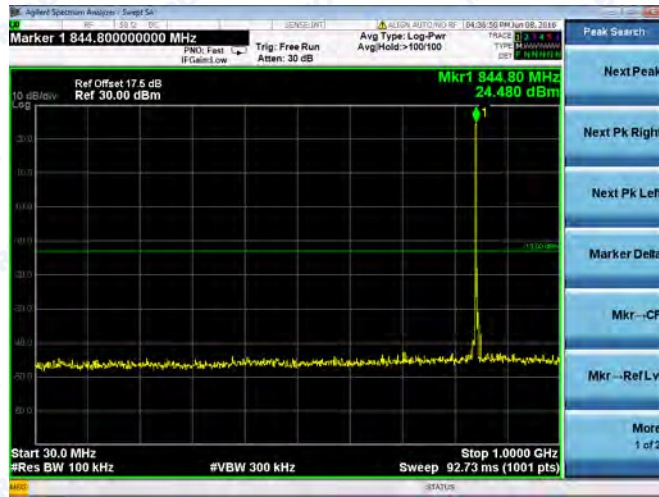




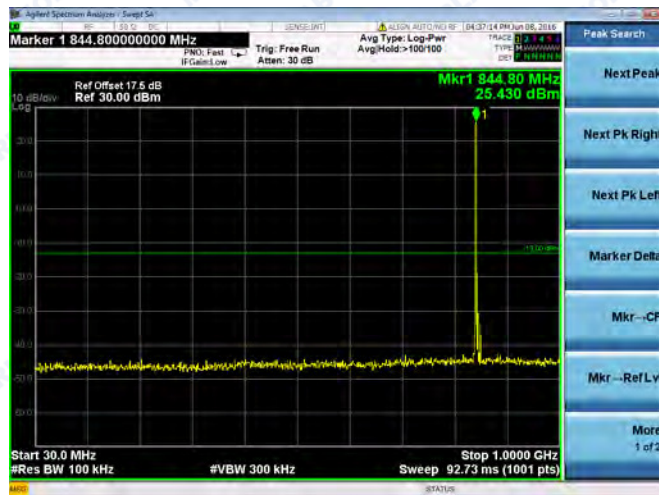
REPORT No.: SZ16050107W12

LTE Band 5 5MHz BW High Channel

QPSK



16QAM

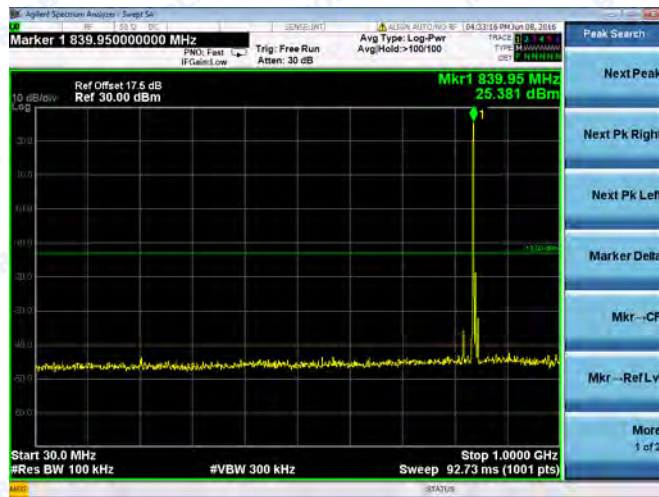




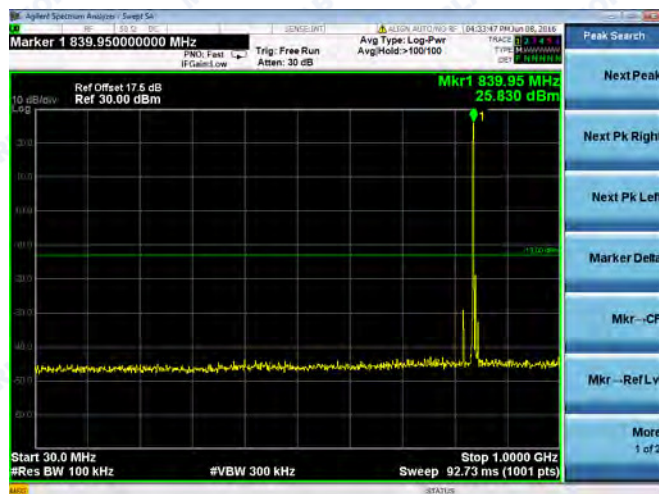
REPORT No.: SZ16050107W12

LTE Band 5 10MHz BW High Channel

QPSK



16QAM

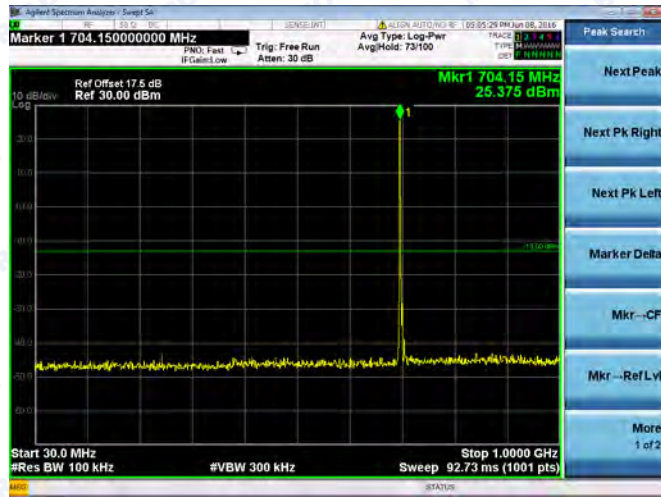




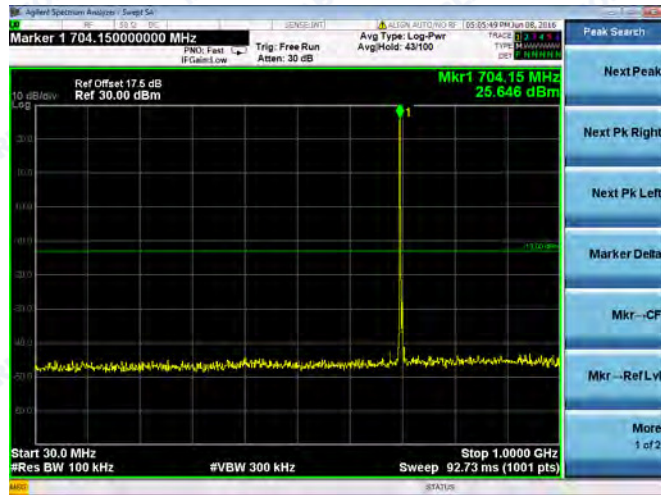
REPORT No.: SZ16050107W12

LTE Band 17 5MHz BW Low Channel

QPSK



16QAM

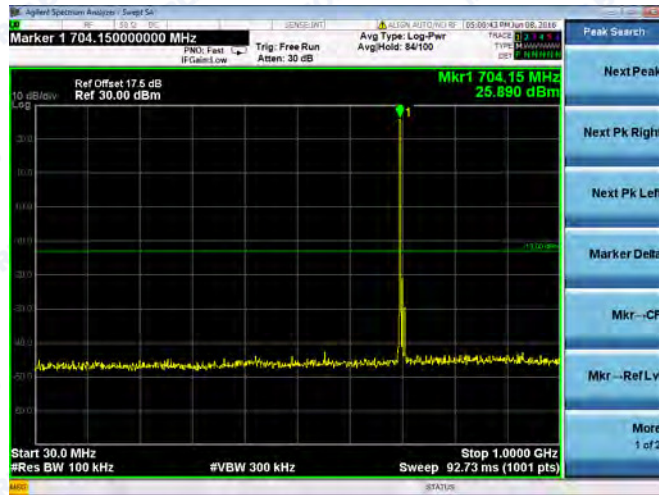




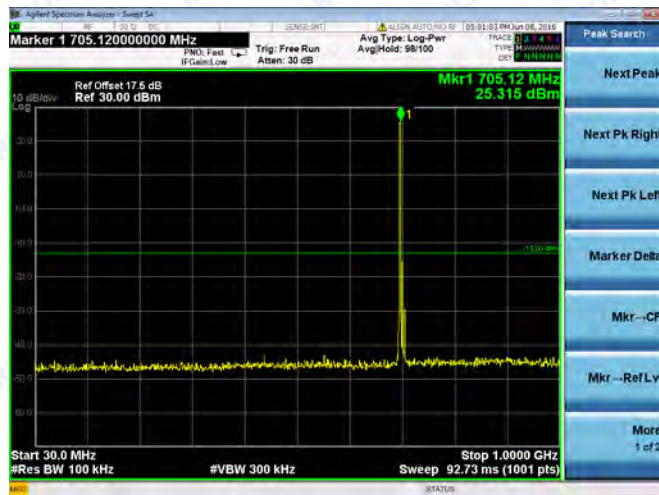
REPORT No.: SZ16050107W12

LTE Band 17 10MHz BW Low Channel

QPSK



16QAM

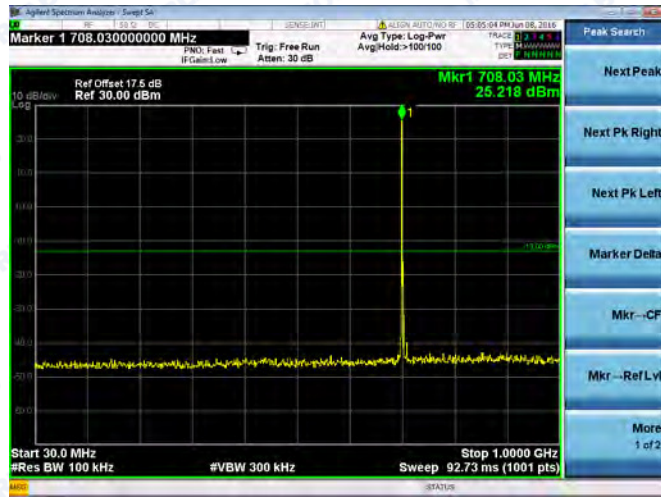




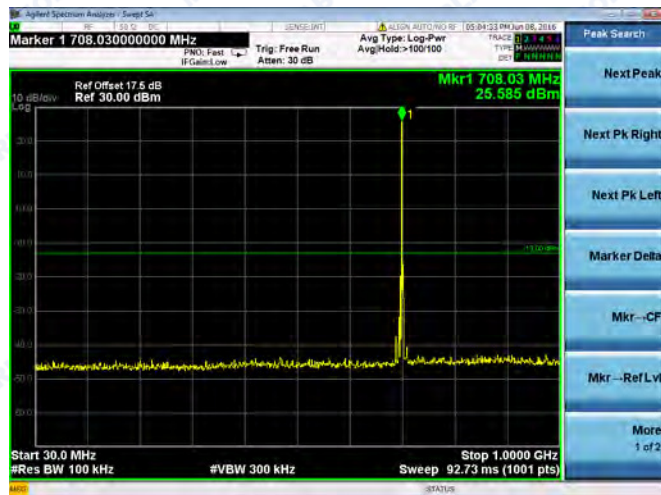
REPORT No.: SZ16050107W12

LTE Band 17 5MHz BW Mid Channel

QPSK



16QAM

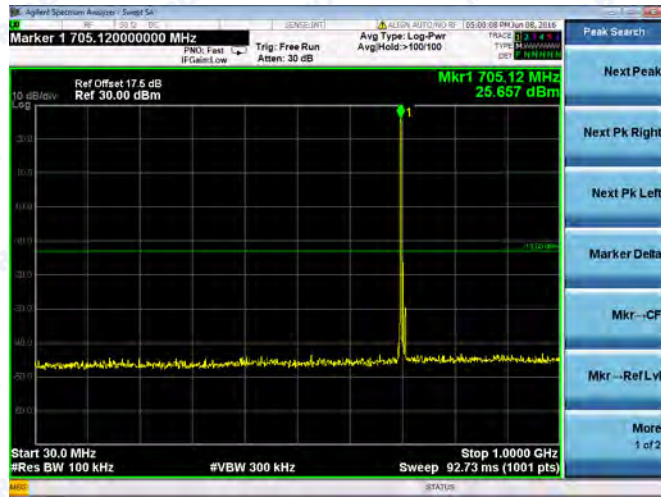




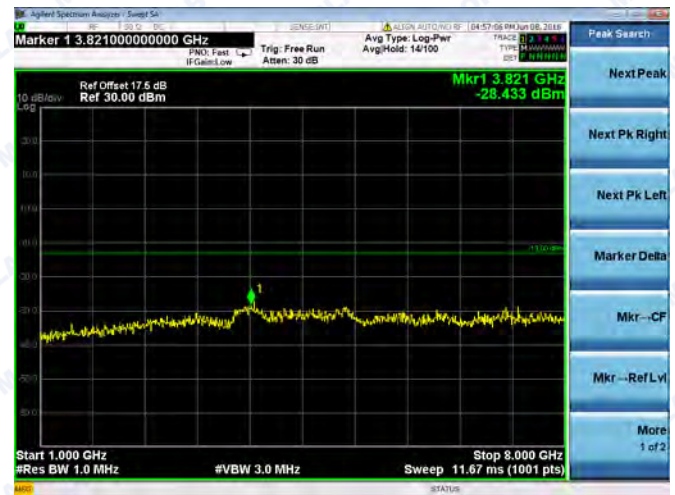
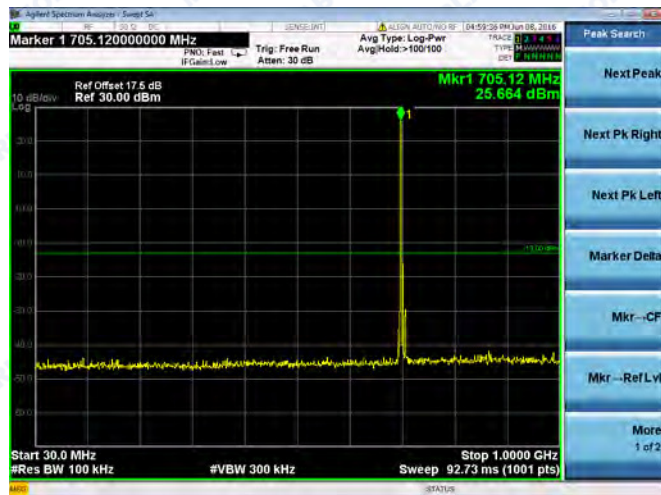
REPORT No.: SZ16050107W12

LTE Band 17 10MHz BW Mid Channel

QPSK



16QAM





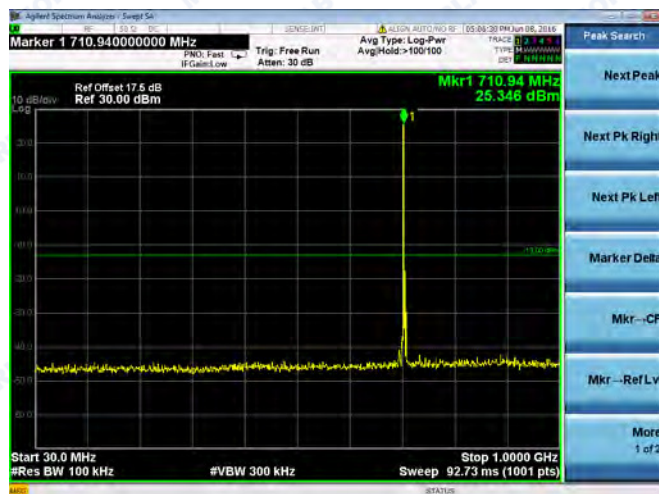
REPORT No.: SZ16050107W12

LTE Band 17 5MHz BW High Channel

QPSK



16QAM

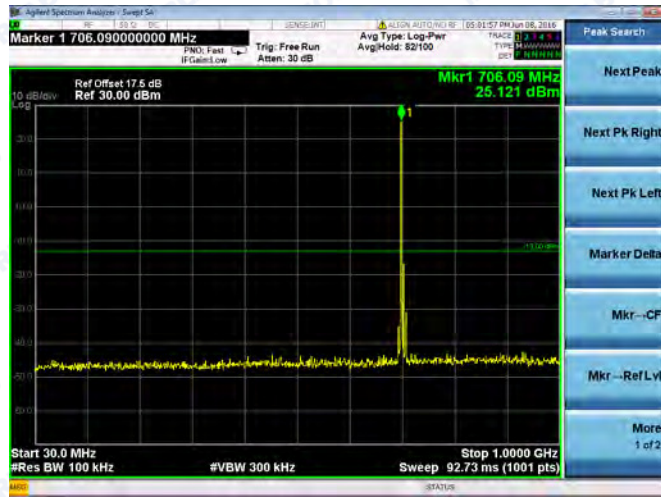




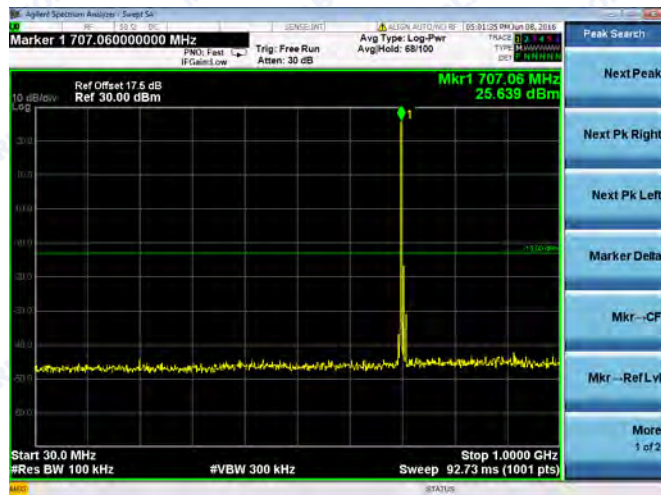
REPORT No.: SZ16050107W12

LTE Band 17 10MHz BW High Channel

QPSK



16QAM





## 2.6 Band Edge

### 2.6.1 Requirement

According to FCC section 27.53(g) (h), (g) For operations in the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least  $43 + 10 \log (P)$  dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

(h) For operations in the 1710–1755 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least  $43 + 10 \log_{10}(P)$  dB.

According to FCC section 27.53(m) (4), (m) (4) For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log (P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log (P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than  $43 + 10 \log (P)$  dB on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log (P)$  dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees

### 2.6.2 Test Description

See section 2.1.2 of this report.

### 2.6.3 Test Result

The center frequency of spectrum is the band edge frequency and span is 2MHz, Record the max trace into the test report.

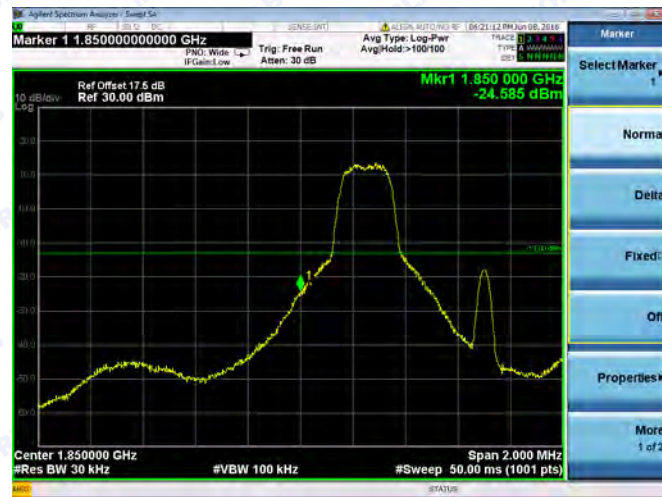
PASS. See the attached plots.



## LTE Band 2

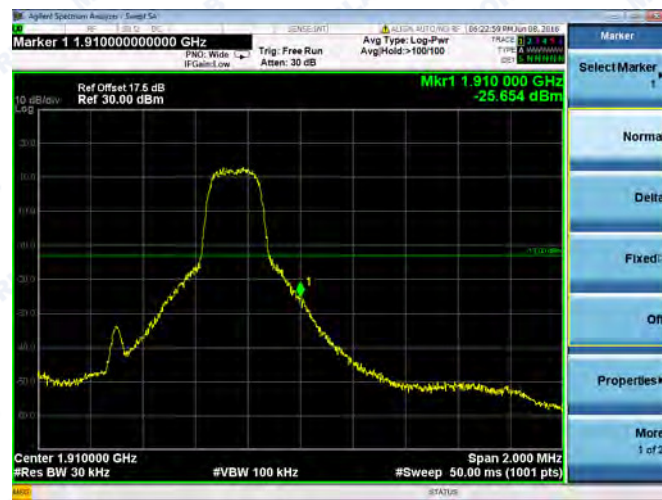
Channel Bandwidth: 1.4MHz

| Channel | 18607 | RB Size 1 | RB Offset 0 | Channel | 18607 | RB Size 6 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|-----------|-------------|
|---------|-------|-----------|-------------|---------|-------|-----------|-------------|



Channel Bandwidth: 1.4MHz

| Channel | 19192 | RB Size 1 | RB Offset 5 | Channel | 19192 | RB Size 6 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|-----------|-------------|
|---------|-------|-----------|-------------|---------|-------|-----------|-------------|

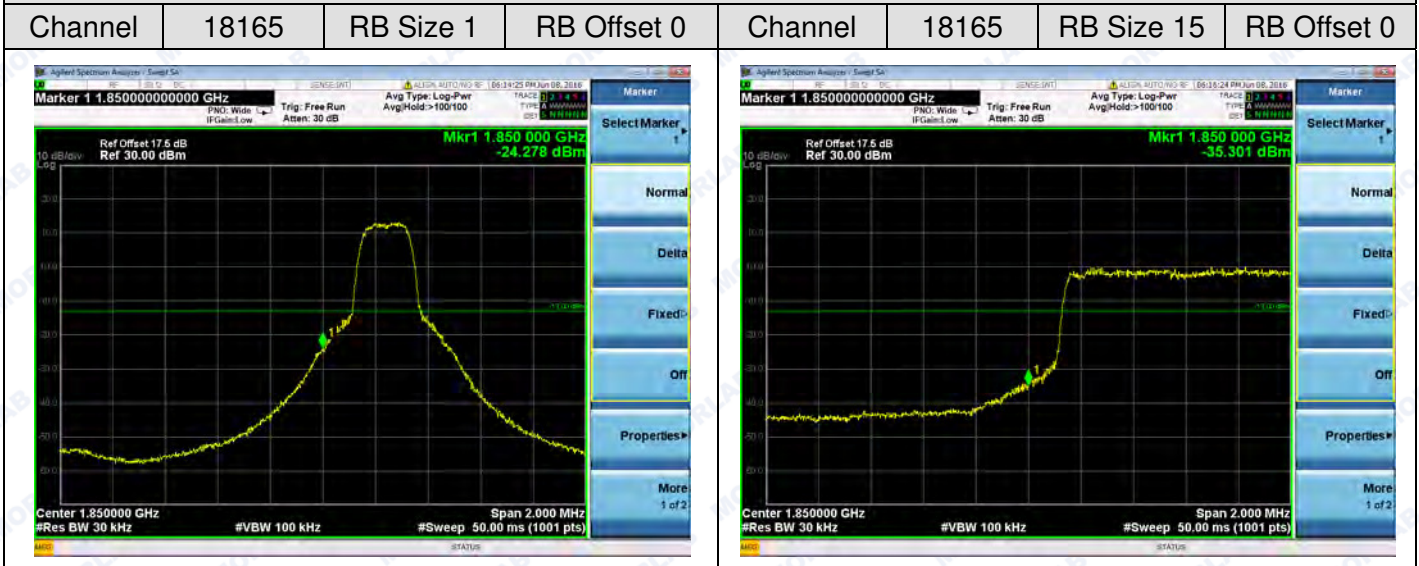




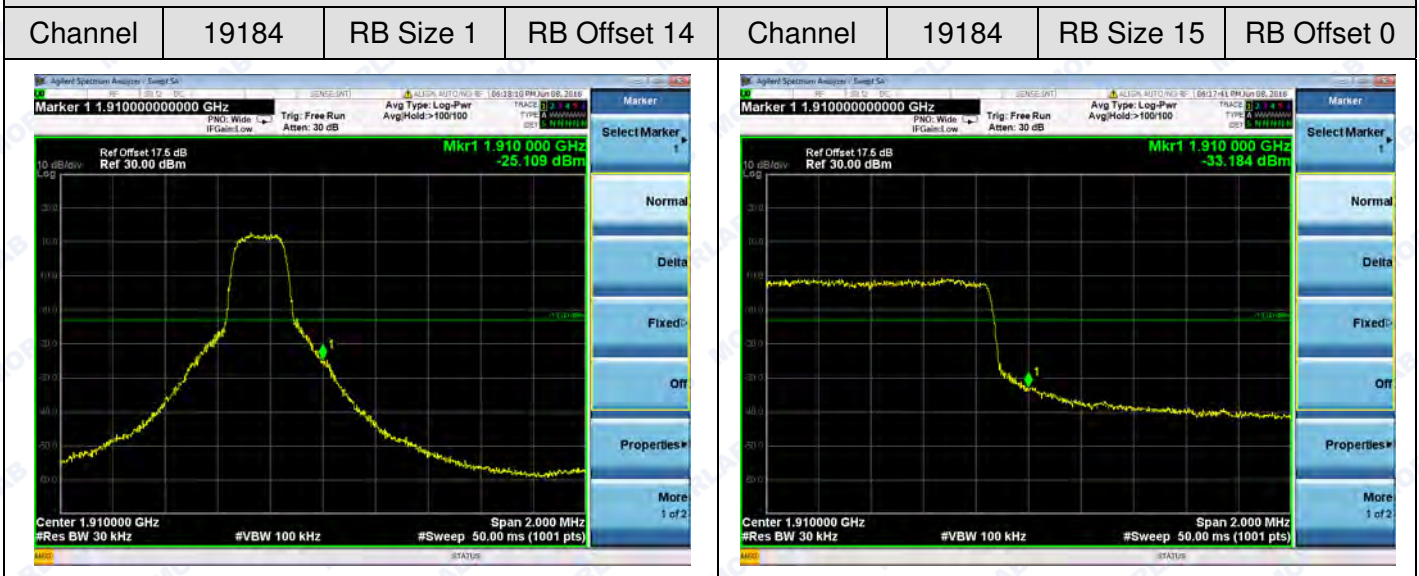
REPORT No.: SZ16050107W12

## LTE Band 2

Channel Bandwidth: 3MHz



Channel Bandwidth: 3MHz

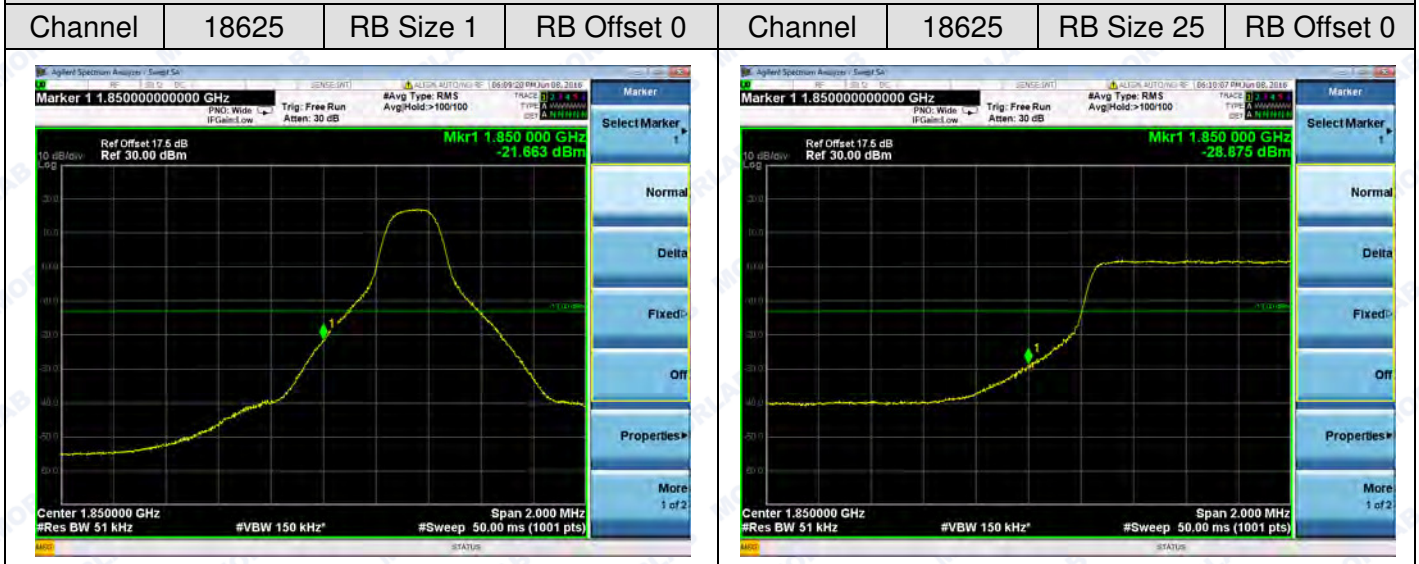




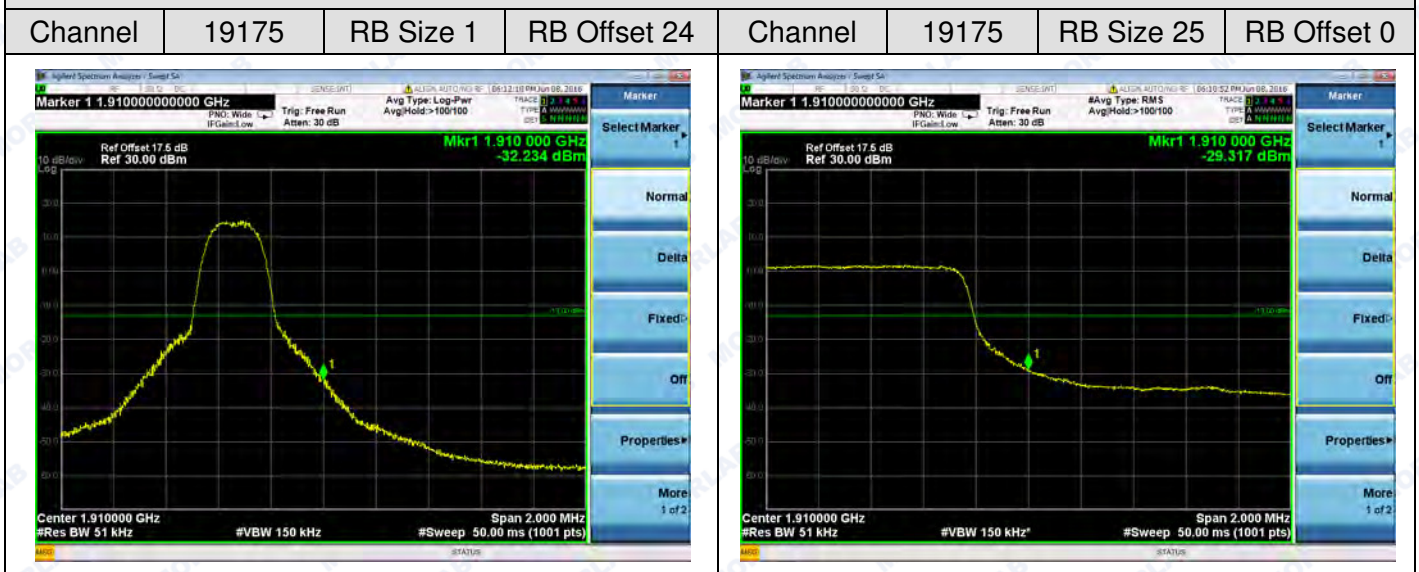
REPORT No.: SZ16050107W12

## LTE Band 2

Channel Bandwidth: 5MHz



Channel Bandwidth: 5MHz





## LTE Band 2

Channel Bandwidth: 10MHz

| Channel | 18650 | RB Size 1 | RB Offset 0 | Channel | 18650 | RB Size 50 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|------------|-------------|
|---------|-------|-----------|-------------|---------|-------|------------|-------------|



Channel Bandwidth: 10MHz

| Channel | 19150 | RB Size 1 | RB Offset 49 | Channel | 19150 | RB Size 50 | RB Offset 0 |
|---------|-------|-----------|--------------|---------|-------|------------|-------------|
|---------|-------|-----------|--------------|---------|-------|------------|-------------|





REPORT No.: SZ16050107W12

## LTE Band 2

Channel Bandwidth: 15MHz

| Channel | 18675 | RB Size 1 | RB Offset 0 | Channel | 18675 | RB Size 75 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|------------|-------------|
|---------|-------|-----------|-------------|---------|-------|------------|-------------|



Channel Bandwidth: 15MHz

| Channel | 19125 | RB Size 1 | RB Offset 74 | Channel | 19125 | RB Size 75 | RB Offset 0 |
|---------|-------|-----------|--------------|---------|-------|------------|-------------|
|---------|-------|-----------|--------------|---------|-------|------------|-------------|



MORLAB GROUP

FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,  
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

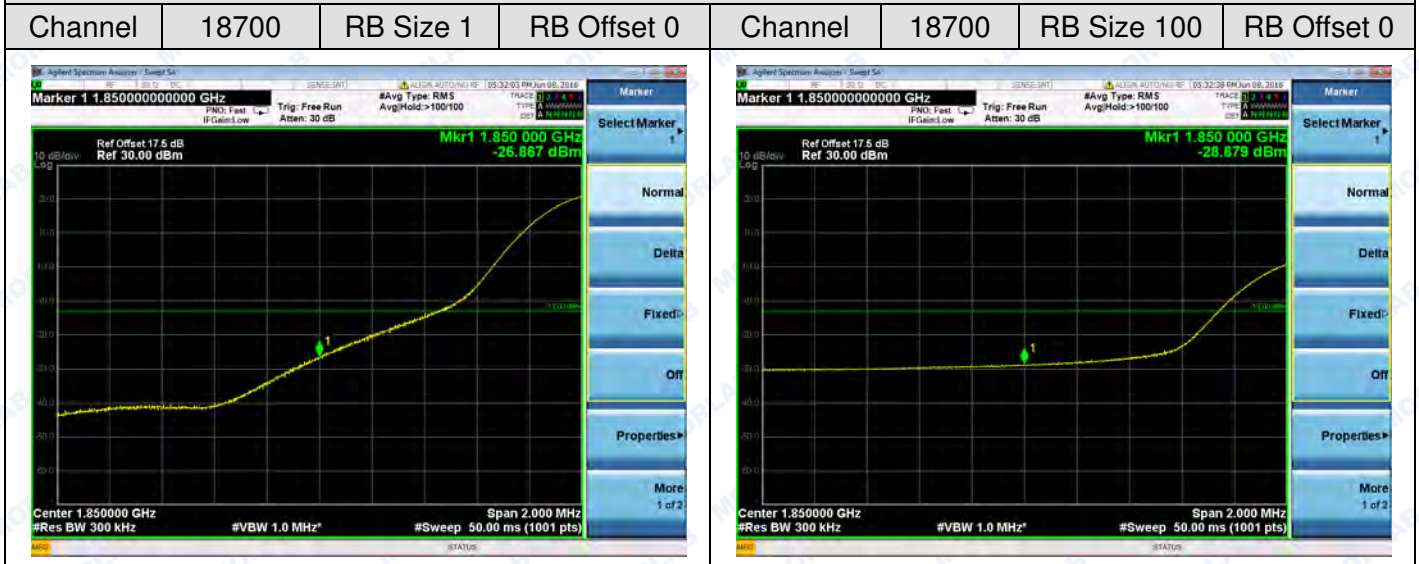
Tel: 86-755-36698555  
Http://www.morlab.com

Fax: 86-755-36698525  
E-mail: service@morlab.cn

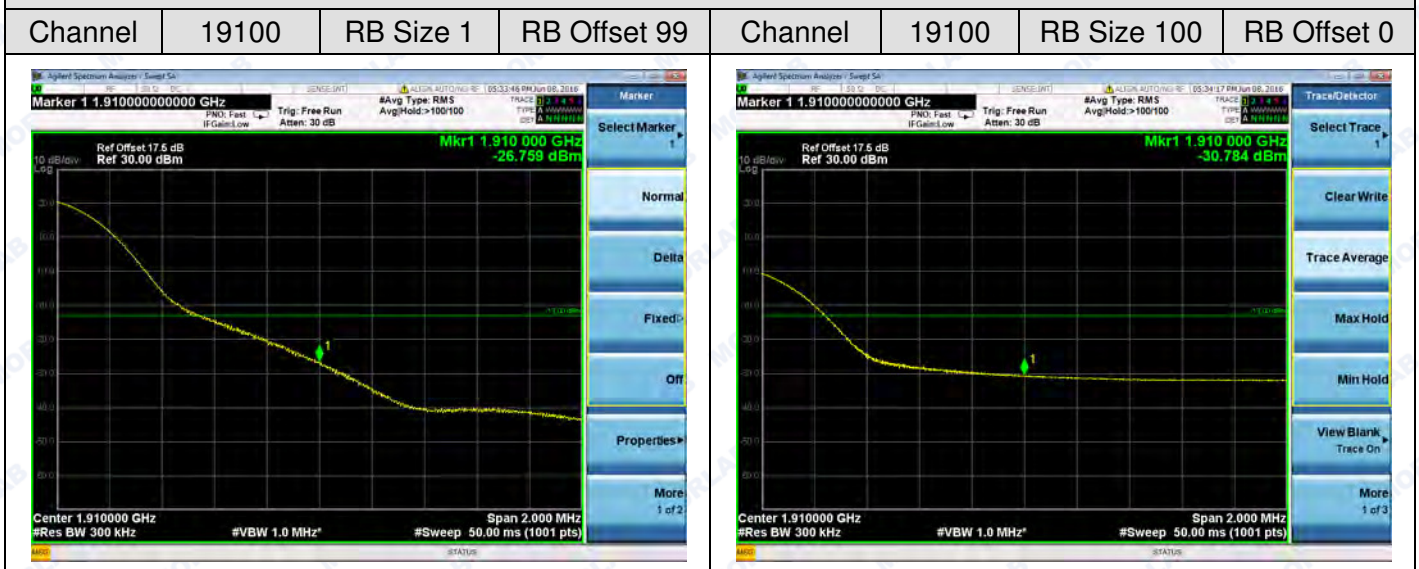


## LTE Band 2

Channel Bandwidth: 20MHz



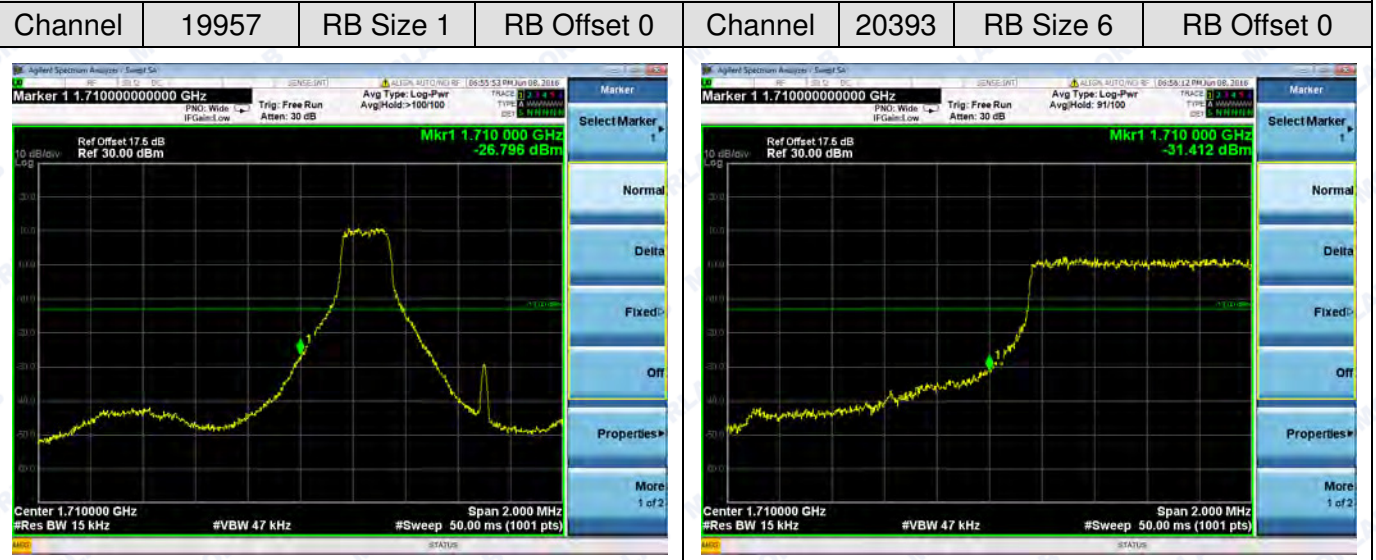
Channel Bandwidth: 20MHz





## LTE Band 4

Channel Bandwidth: 1.4MHz



Channel Bandwidth: 1.4MHz

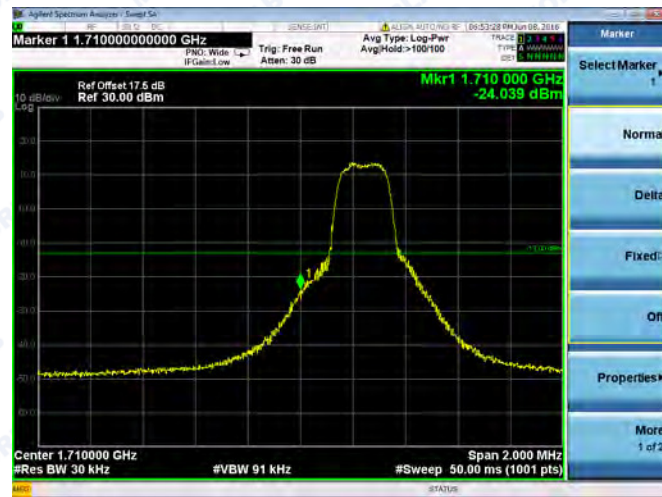




## LTE Band 4

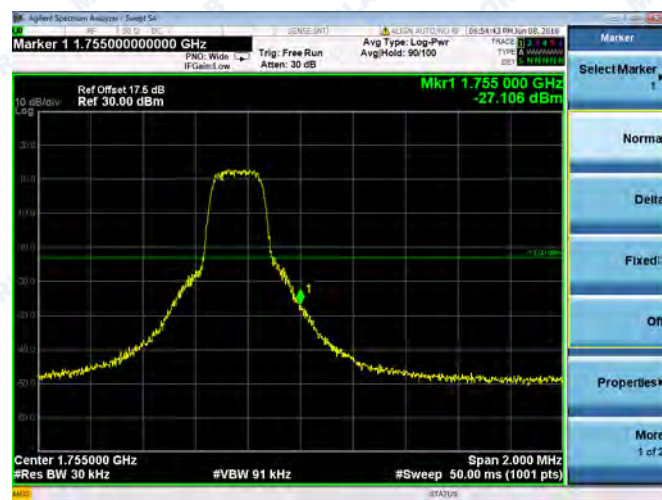
Channel Bandwidth: 3MHz

| Channel | 19965 | RB Size 1 | RB Offset 0 | Channel | 20385 | RB Size 15 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|------------|-------------|
|---------|-------|-----------|-------------|---------|-------|------------|-------------|



Channel Bandwidth: 3MHz

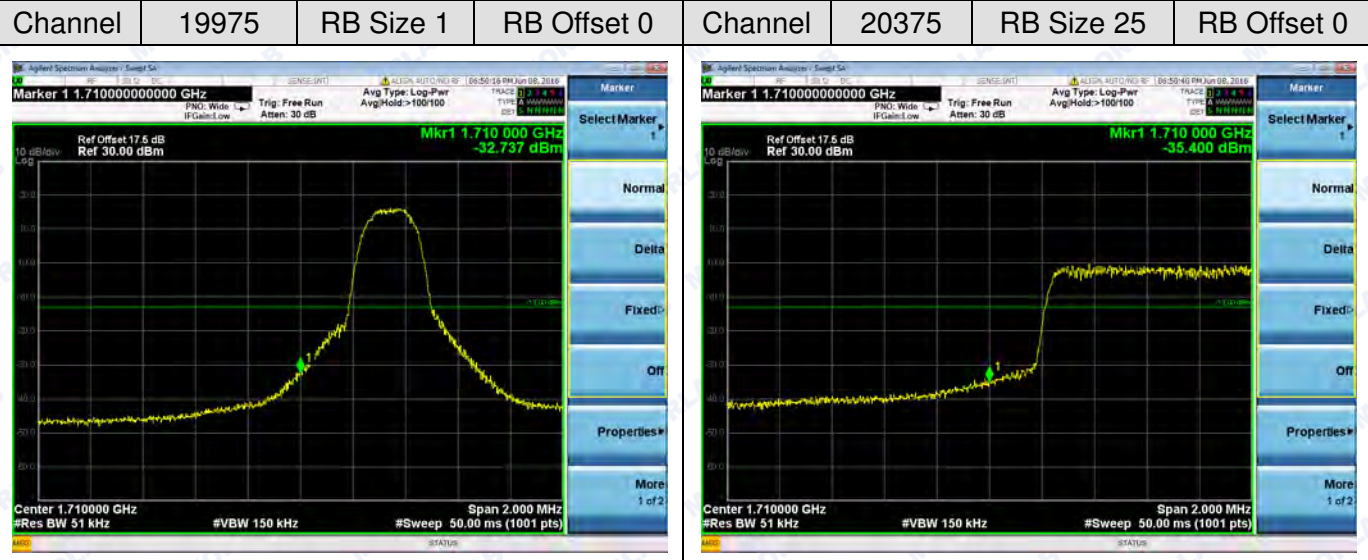
| Channel | 19965 | RB Size 1 | RB Offset 14 | Channel | 20385 | RB Size 15 | RB Offset 0 |
|---------|-------|-----------|--------------|---------|-------|------------|-------------|
|---------|-------|-----------|--------------|---------|-------|------------|-------------|



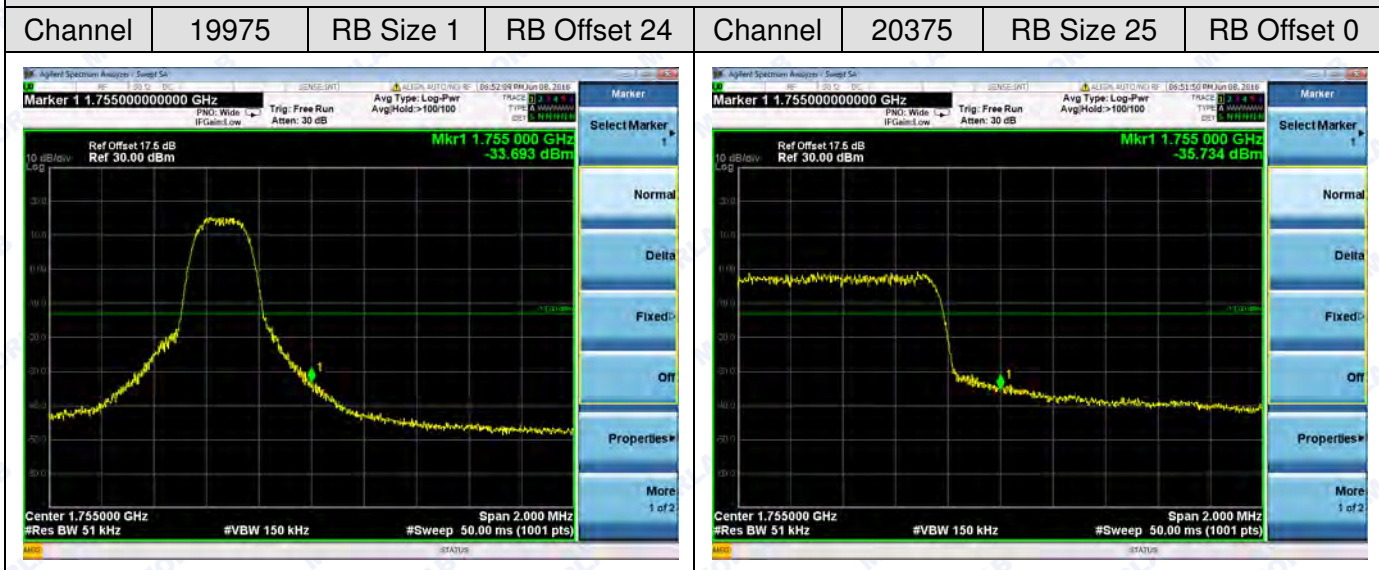


## LTE Band 4

Channel Bandwidth: 5MHz



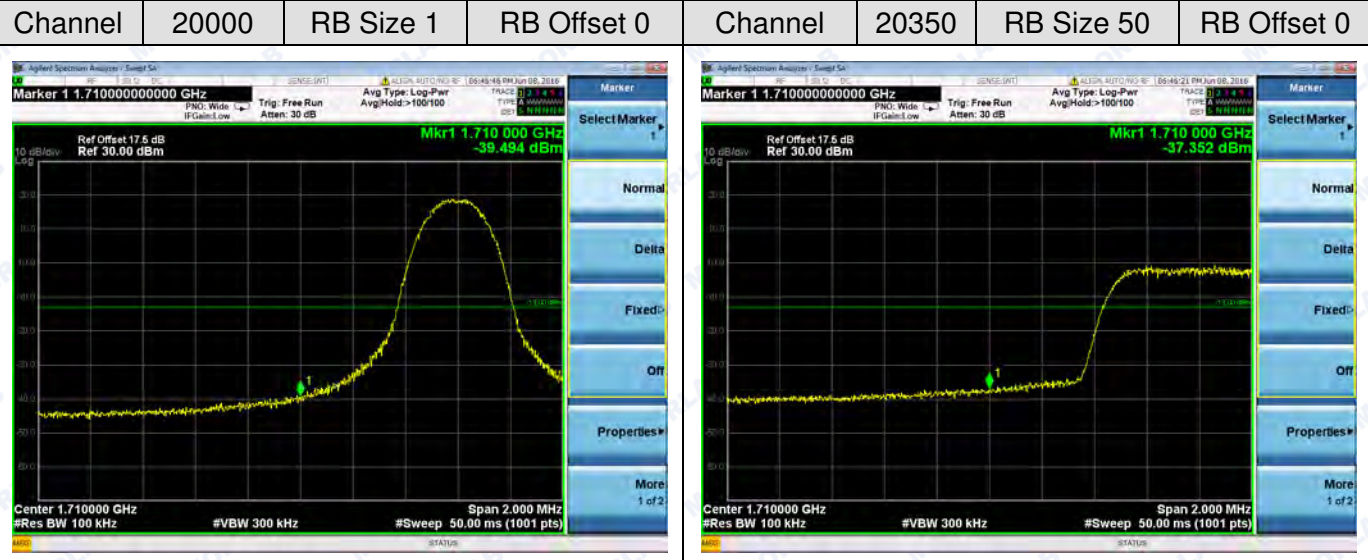
Channel Bandwidth: 5MHz



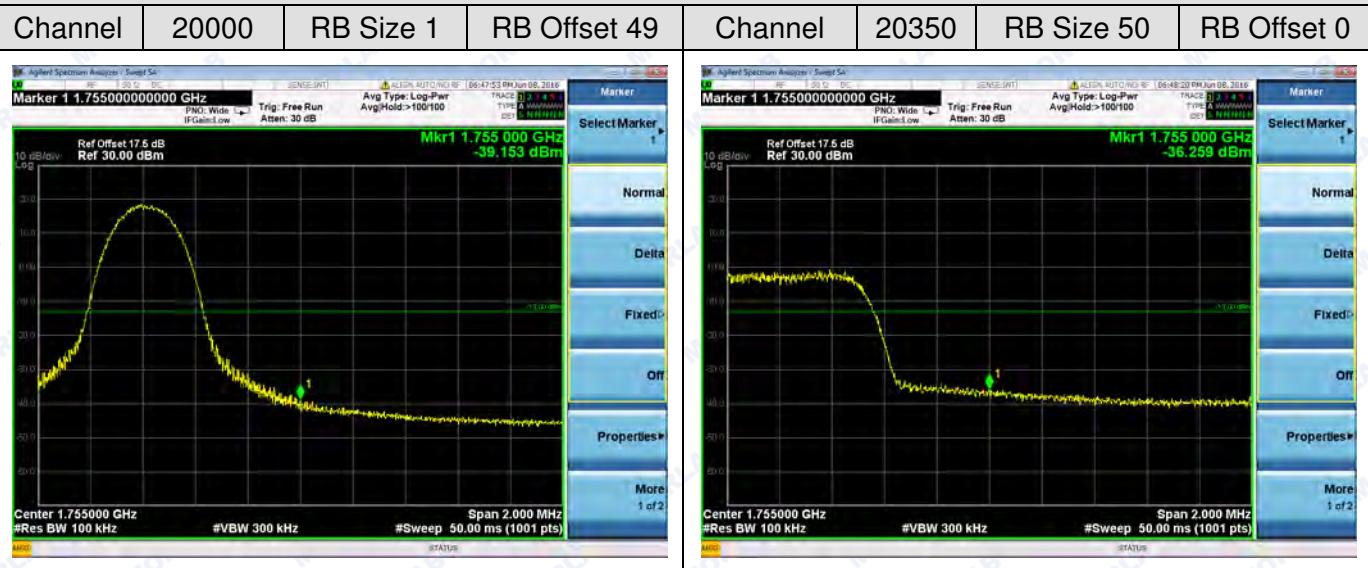


## LTE Band 4

Channel Bandwidth: 10MHz



Channel Bandwidth: 10MHz

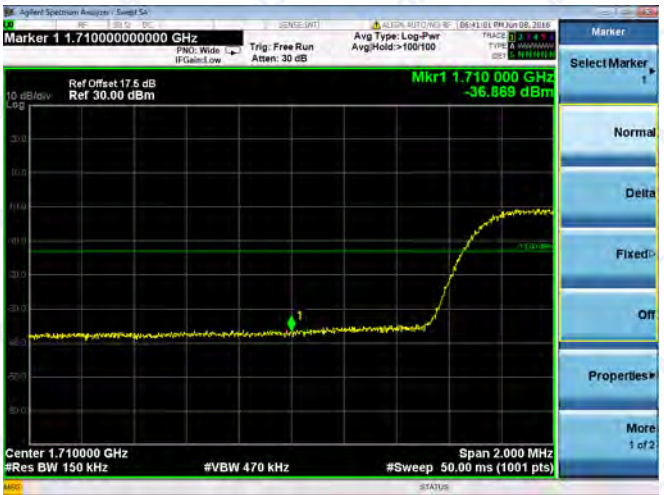
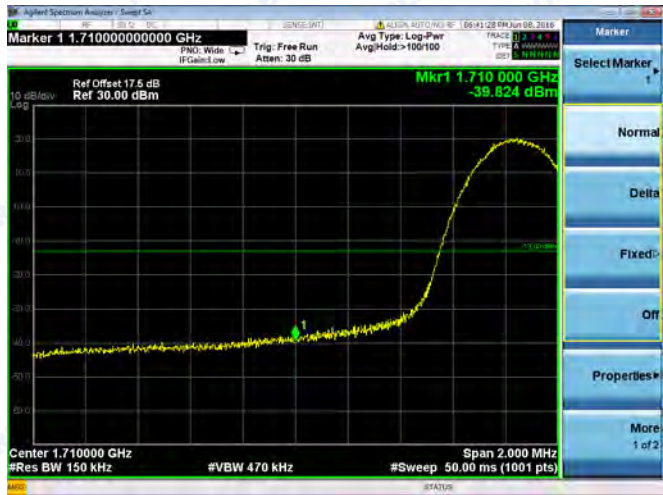




LTE Band 4

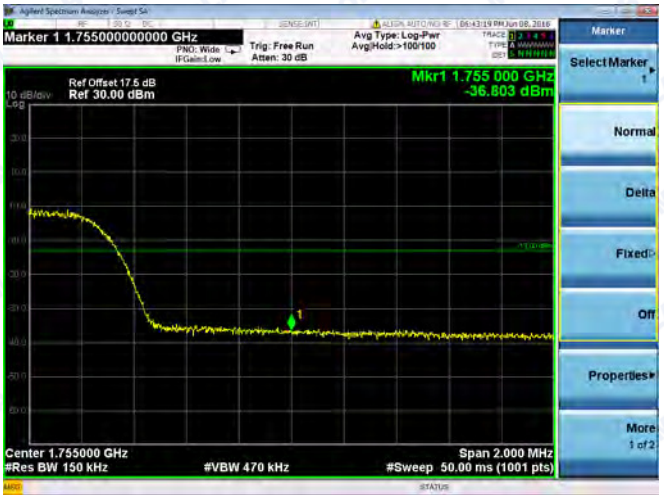
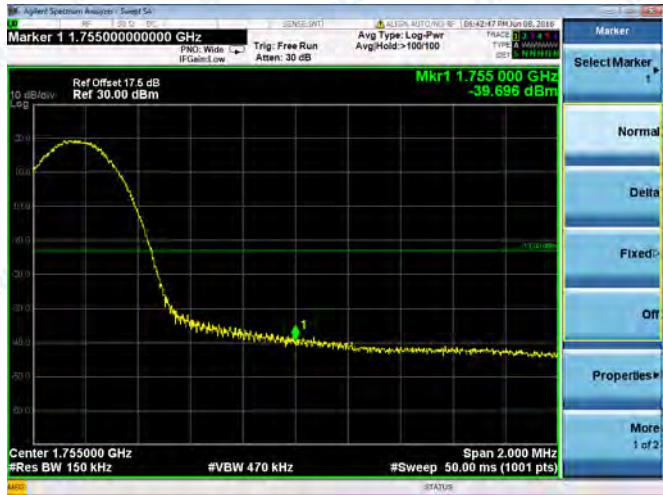
Channel Bandwidth: 15MHz

| Channel | 20025 | RB Size 1 | RB Offset 0 | Channel | 20325 | RB Size 75 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|------------|-------------|
|---------|-------|-----------|-------------|---------|-------|------------|-------------|



Channel Bandwidth: 15MHz

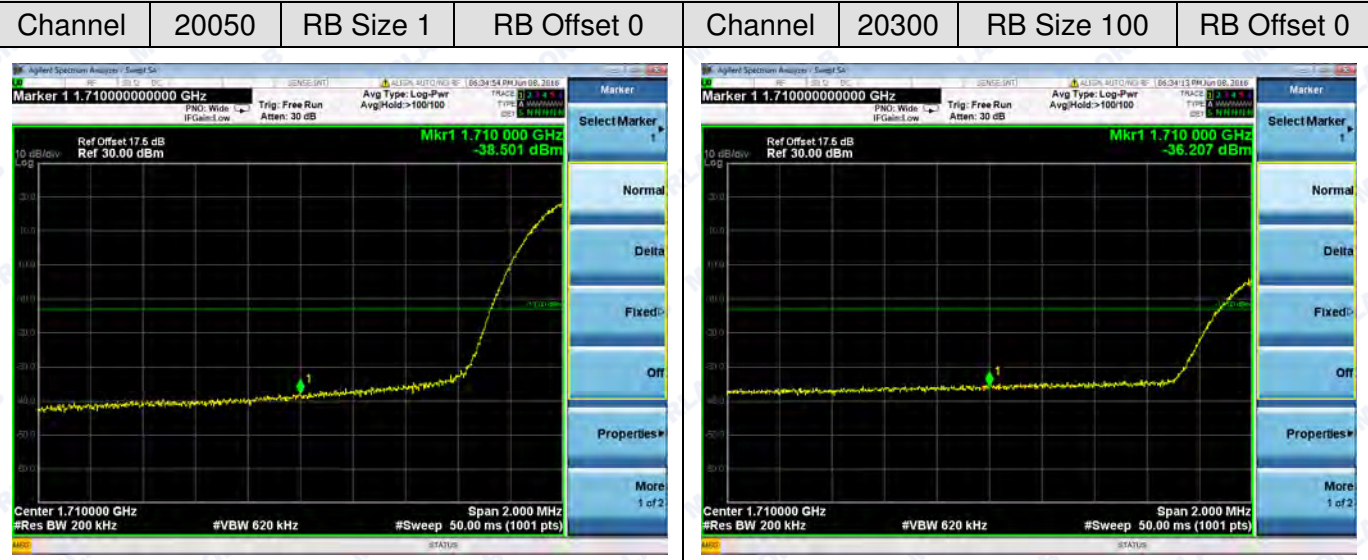
| Channel | 20025 | RB Size 1 | RB Offset 74 | Channel | 20325 | RB Size 75 | RB Offset 0 |
|---------|-------|-----------|--------------|---------|-------|------------|-------------|
|---------|-------|-----------|--------------|---------|-------|------------|-------------|



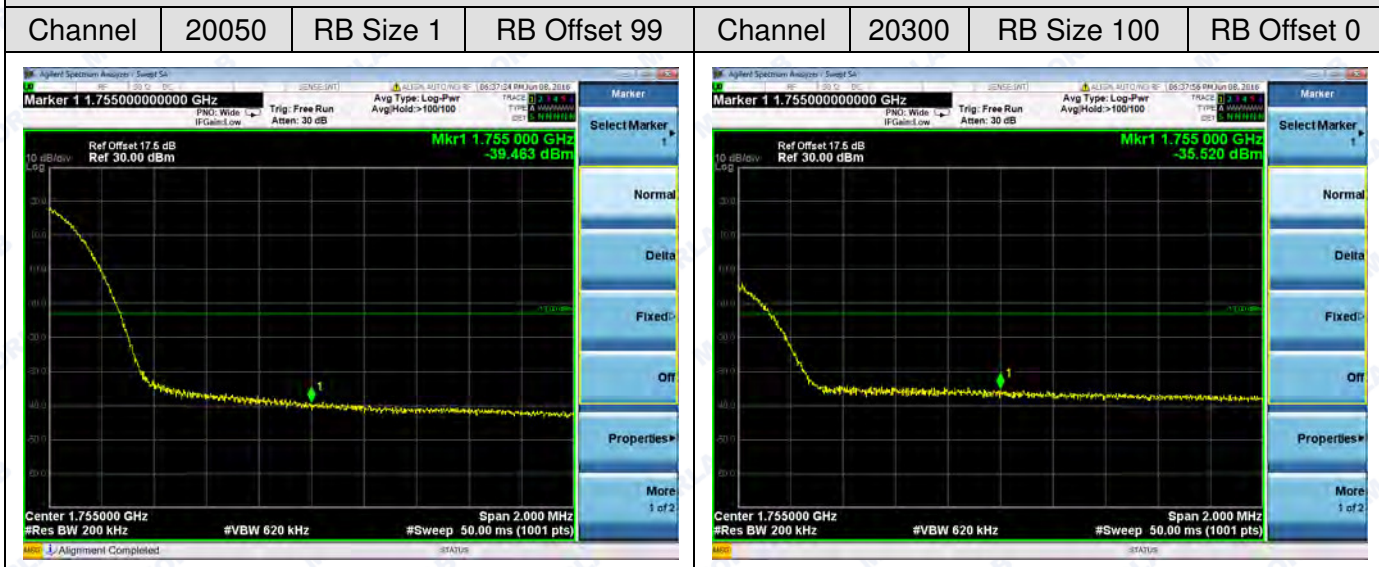


## LTE Band 4

Channel Bandwidth: 20MHz



Channel Bandwidth: 20MHz

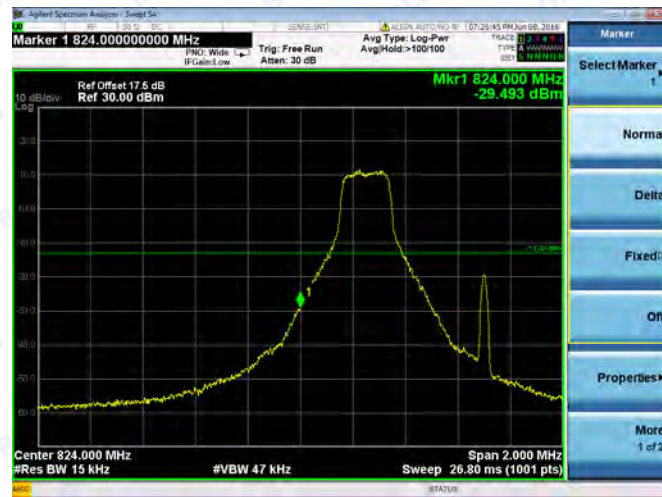




## LTE Band 5

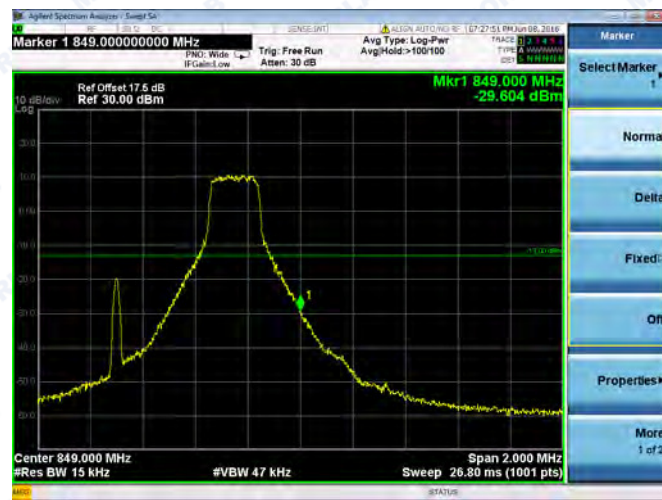
Channel Bandwidth: 1.4MHz

| Channel | 20407 | RB Size 1 | RB Offset 0 | Channel | 20407 | RB Size 6 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|-----------|-------------|
|---------|-------|-----------|-------------|---------|-------|-----------|-------------|



Channel Bandwidth: 1.4MHz

| Channel | 20642 | RB Size 1 | RB Offset 5 | Channel | 20642 | RB Size 6 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|-----------|-------------|
|---------|-------|-----------|-------------|---------|-------|-----------|-------------|

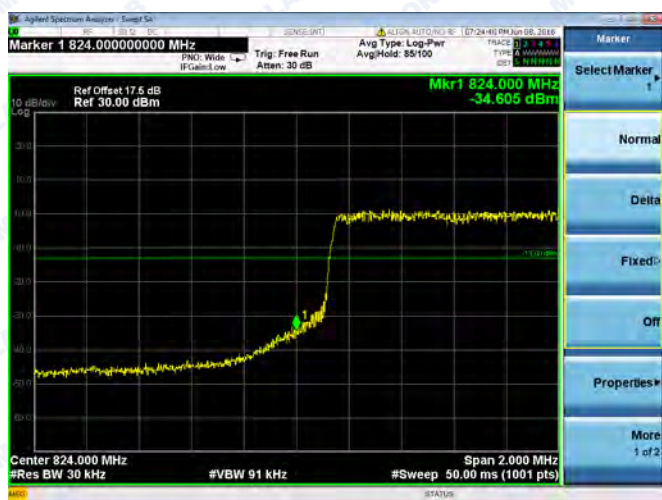
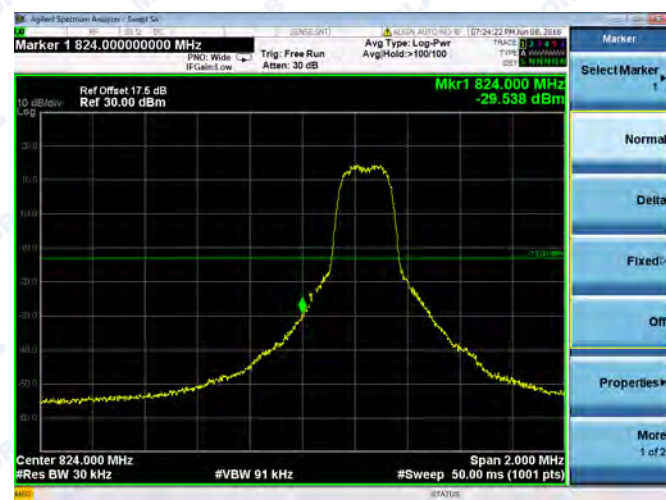




## LTE Band 5

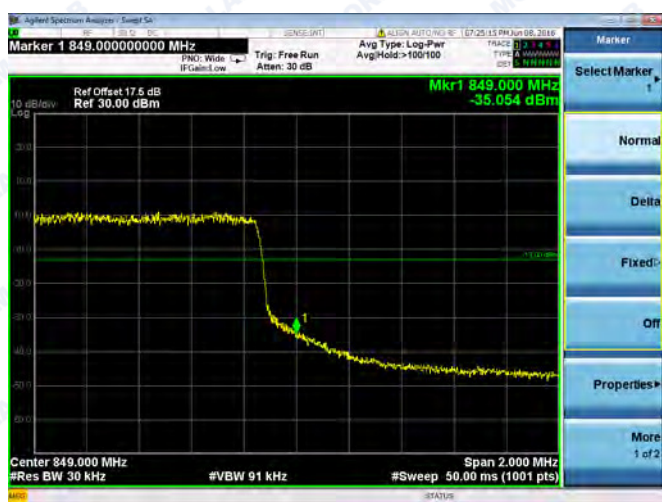
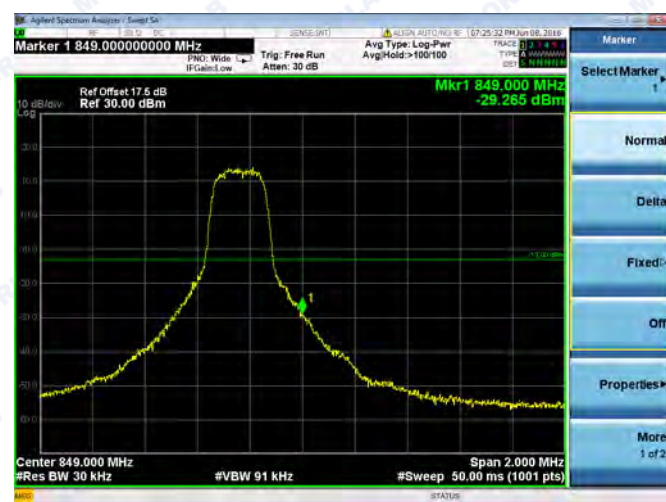
Channel Bandwidth: 3MHz

| Channel | 20415 | RB Size 1 | RB Offset 0 | Channel | 20415 | RB Size 15 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|------------|-------------|
|---------|-------|-----------|-------------|---------|-------|------------|-------------|



Channel Bandwidth: 3MHz

| Channel | 20634 | RB Size 1 | RB Offset 14 | Channel | 20634 | RB Size 15 | RB Offset 0 |
|---------|-------|-----------|--------------|---------|-------|------------|-------------|
|---------|-------|-----------|--------------|---------|-------|------------|-------------|

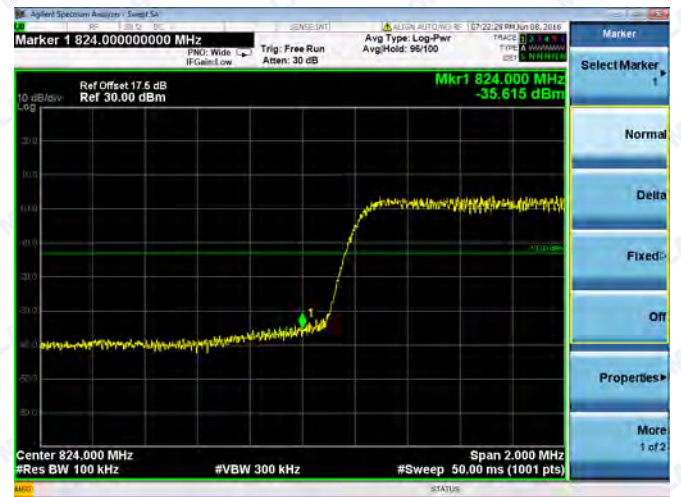
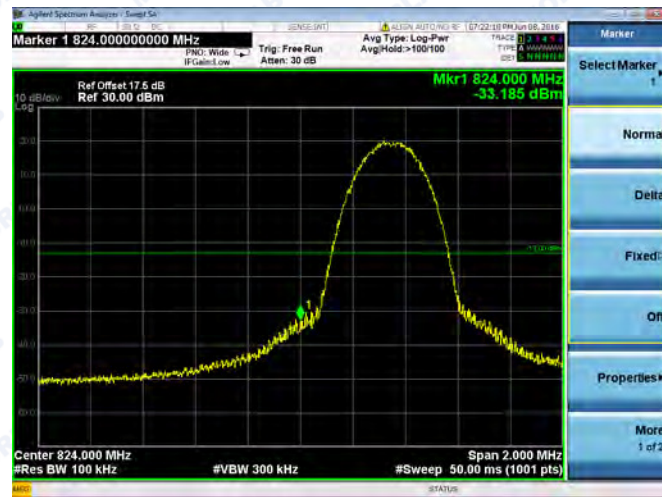




## LTE Band 5

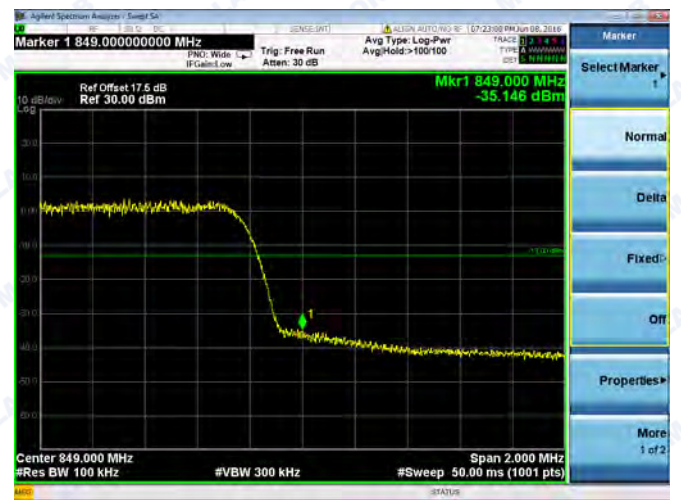
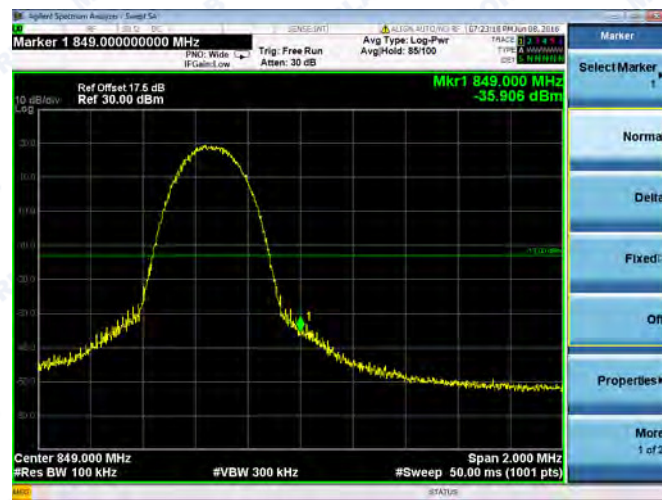
Channel Bandwidth: 5MHz

| Channel | 20425 | RB Size 1 | RB Offset 0 | Channel | 20425 | RB Size 25 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|------------|-------------|
|---------|-------|-----------|-------------|---------|-------|------------|-------------|



Channel Bandwidth: 5MHz

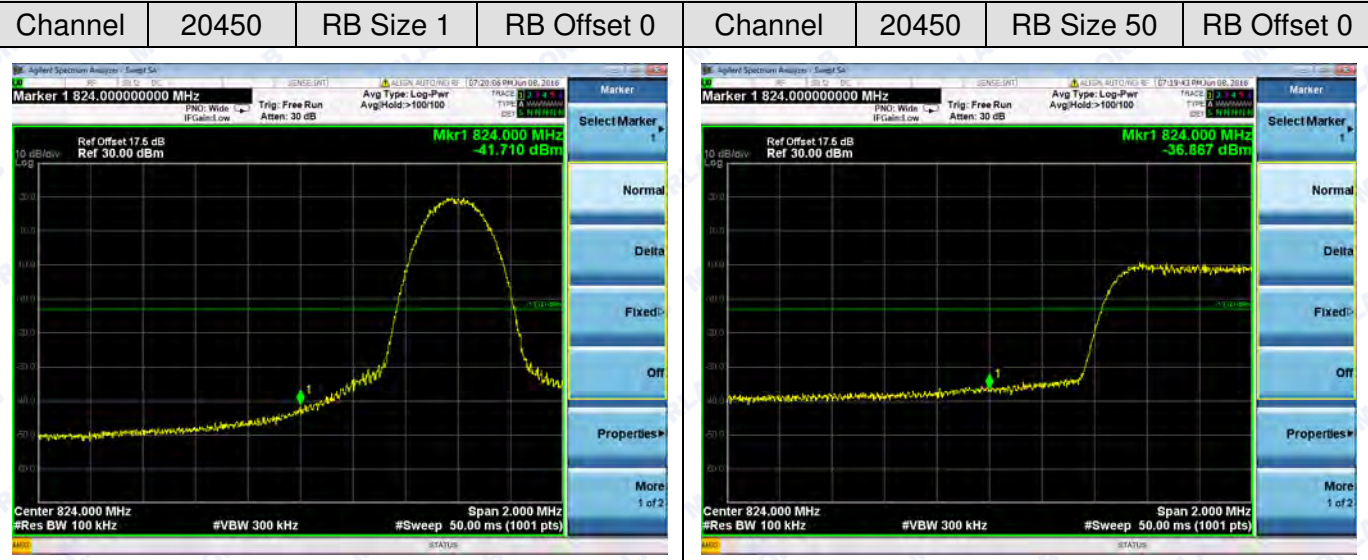
| Channel | 20625 | RB Size 1 | RB Offset 24 | Channel | 20625 | RB Size 25 | RB Offset 0 |
|---------|-------|-----------|--------------|---------|-------|------------|-------------|
|---------|-------|-----------|--------------|---------|-------|------------|-------------|



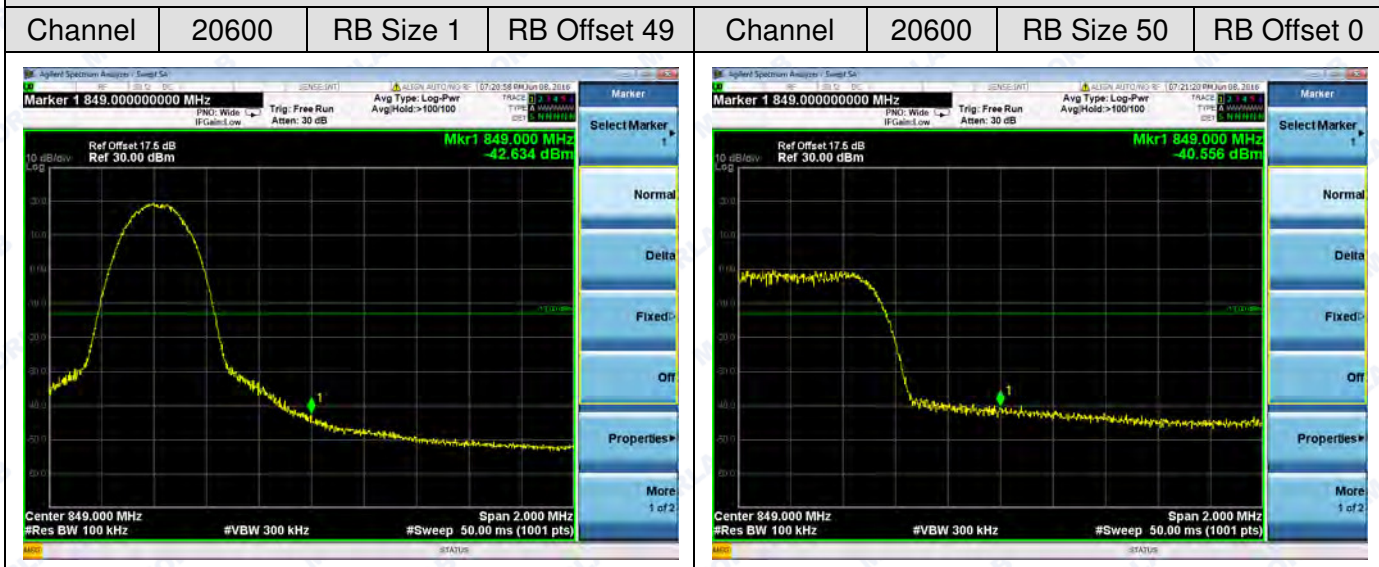


## LTE Band 5

Channel Bandwidth: 10MHz



Channel Bandwidth: 10MHz

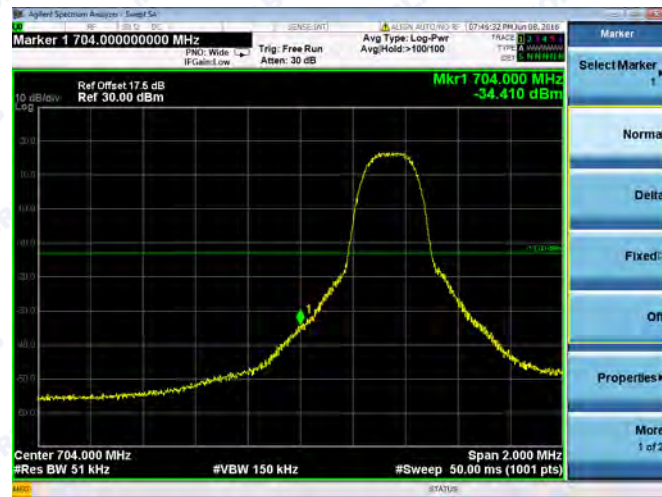




## LTE Band 17

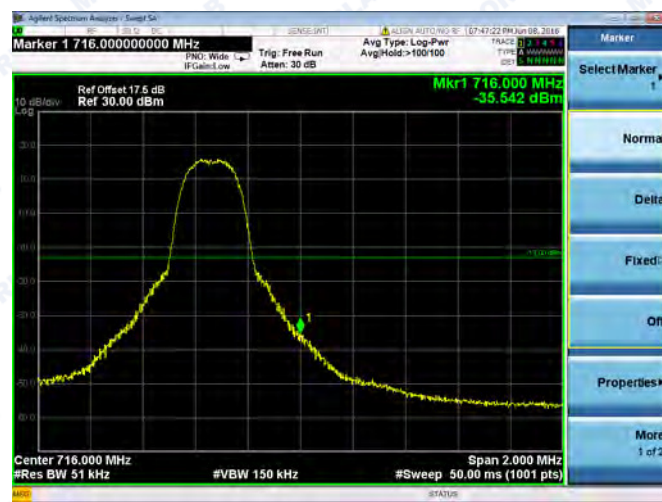
Channel Bandwidth: 5MHz

| Channel | 23755 | RB Size 1 | RB Offset 0 | Channel | 23755 | RB Size 25 | RB Offset 0 |
|---------|-------|-----------|-------------|---------|-------|------------|-------------|
|---------|-------|-----------|-------------|---------|-------|------------|-------------|



Channel Bandwidth: 5MHz

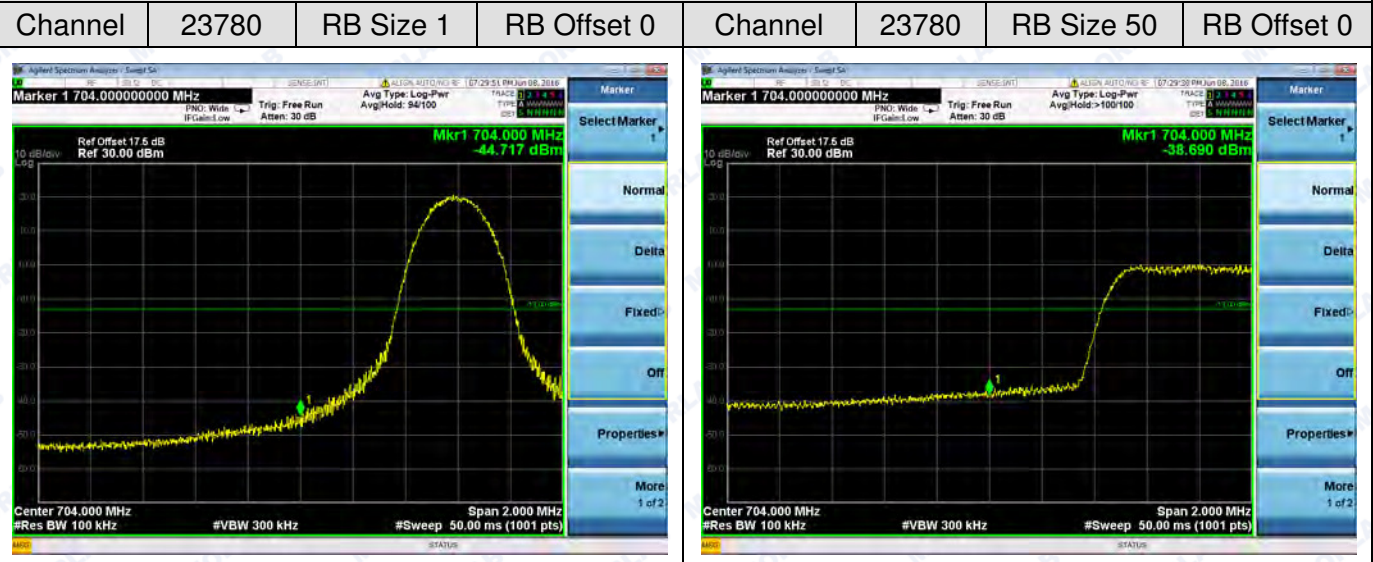
| Channel | 23825 | RB Size 1 | RB Offset 24 | Channel | 23825 | RB Size 25 | RB Offset 0 |
|---------|-------|-----------|--------------|---------|-------|------------|-------------|
|---------|-------|-----------|--------------|---------|-------|------------|-------------|



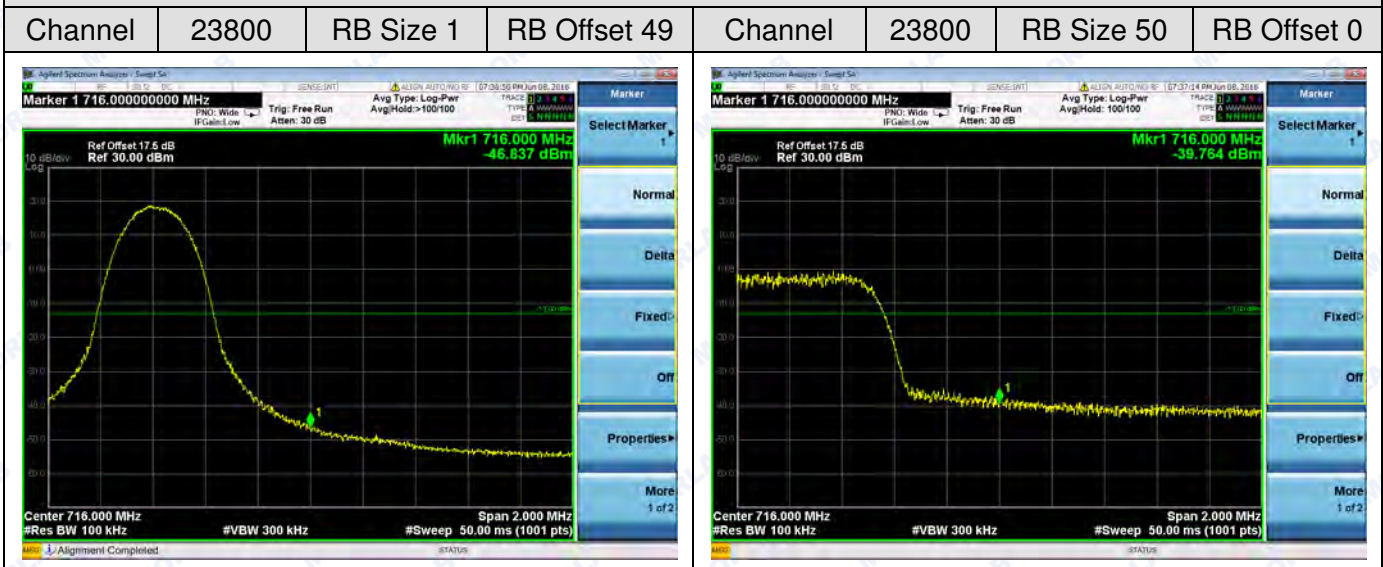


## LTE Band 17

Channel Bandwidth: 10MHz



Channel Bandwidth: 10MHz



## 2.7 Transmitter Radiated Power (EIRP/ERP)

### 2.7.1 Requirement

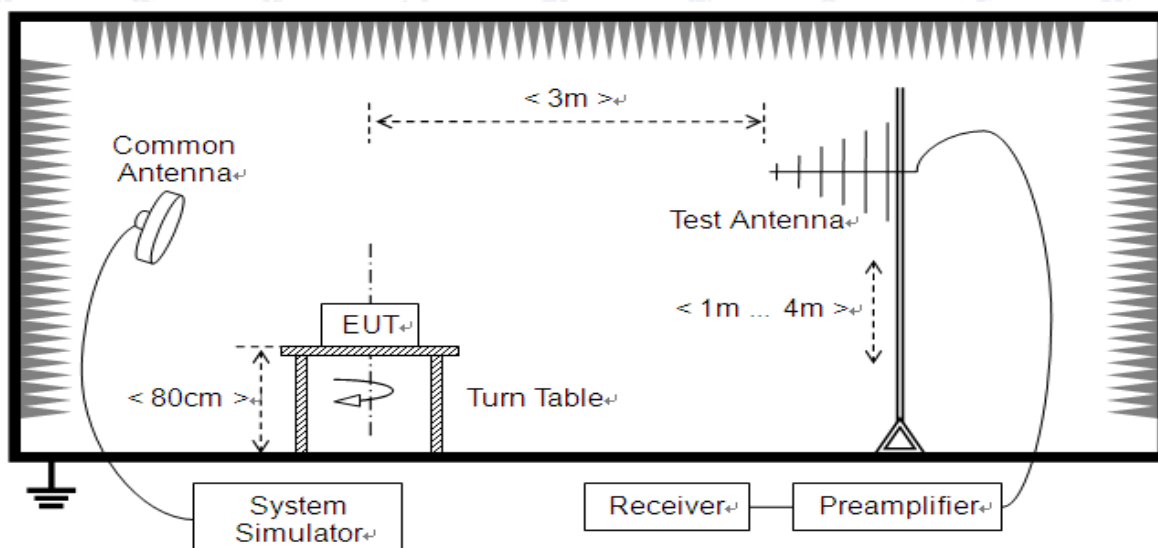
According to FCC section 27.50 (d), fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat EIRP.

According to FCC section 22.913, in 824-849MHz band must not exceed 7Watts, and FCC section 24.232, in1850-1910MHz band are limited to 2 Watts e.i.r.p. peak power.

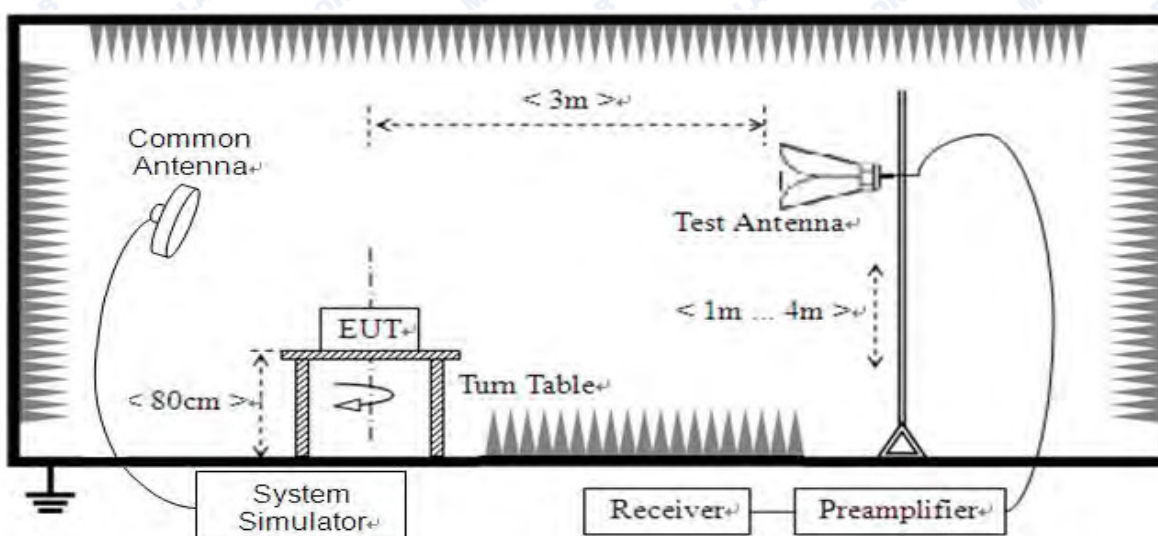
Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts ERP.

### 2.7.2 Test Description

Test Setup:



(For the test frequency from 30MHz to1GHz)



(For the test frequency above 1GHz)



The EUT, which is powered by the PC, is located in a 3m Full-Anechoic Chamber; the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power, and only the test result of the maximum output power was recorded.

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground and the Turn Table is actuated to turn from 0° to 360° to determine the maximum value of the radiated power. The emission levels at both horizontal and vertical polarizations should be tested. The Filters consists of Notch Filters and High Pass Filter.

#### Equipments List:

| Description           | Manufacturer   | Model      | Serial No.                 | Cal. Date  | Cal. Due   |
|-----------------------|----------------|------------|----------------------------|------------|------------|
| System Simulator      | Rohde& Schwarz | CMW500     | 1201.0002k50/<br>124534/wk | 2016.03.02 | 2017.03.01 |
| Spectrum Analyzer     | Rohde& Schwarz | FSL        | 10246                      | 2016.03.02 | 2017.03.01 |
| Spectrum Analyzer     | Agilent        | E4445A     | MY44200685                 | 2016.03.02 | 2017.03.01 |
| Full-Anechoic Chamber | Albatross      | 9m*6m*6m   | (n.a.)                     | 2016.03.02 | 2017.03.01 |
| Test Antenna - Bi-Log | Schwarzbeck    | VULB 9163  | 9163-274                   | 2016.03.02 | 2017.03.01 |
| Test Antenna - Horn   | Schwarzbeck    | BBHA 9120C | 9120C-384                  | 2016.03.02 | 2017.03.01 |

### 2.7.3 Test Result

The EUT was verified under all configurations (RB size and offset) and the worst case radiated power reported for each modulation/channel bandwidth.

The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested.

The substitution corrections are obtained as described below:

$$A_{\text{SUBST}} = P_{\text{SUBST\_TX}} - P_{\text{SUBST\_RX}} - L_{\text{SUBST\_CABLES}} + G_{\text{SUBST\_TX\_ANT}}$$

$$A_{\text{TOT}} = L_{\text{CABLES}} + A_{\text{SUBST}}$$



Where  $A_{\text{SUBST}}$  is the final substitution correction including receive antenna gain.

$P_{\text{SUBST\_TX}}$  is signal generator level,

$P_{\text{SUBST\_RX}}$  is receiver level,

$L_{\text{SUBST\_CABLES}}$  is cable losses including TX cable,

$G_{\text{SUBST\_TX\_ANT}}$  is substitution antenna gain.

$A_{\text{TOT}}$  is total correction factor including cable loss and substitution correction

During the test, the data of  $A_{\text{TOT}}$  was added in the Test Spectrum Analyze, so Spectrum Analyze reading is the final values which contain the data of  $A_{\text{TOT}}$ .

| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|---------------|
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 2 | 20MHz      | L<br>18700 | 1860       | QPSK       | 1                | 0         | 23.48         |
|               |            |            |            |            | 100              | 0         | 22.36         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.85         |
|               |            |            |            |            | 100              | 0         | 21.22         |
|               |            | M<br>18900 | 1880       | QPSK       | 1                | 0         | 22.89         |
|               |            |            |            |            | 100              | 0         | 22.41         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.35         |
|               |            |            |            |            | 100              | 0         | 21.88         |
|               |            | H<br>19100 | 1900       | QPSK       | 1                | 0         | 23.14         |
|               |            |            |            |            | 100              | 0         | 22.54         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.14         |
|               |            |            |            |            | 100              | 0         | 21.58         |
| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 2 | 15MHz      | L<br>18675 | 1857.5     | QPSK       | 1                | 0         | 23.21         |
|               |            |            |            |            | 75               | 0         | 22.89         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.68         |
|               |            |            |            |            | 75               | 0         | 22.47         |
|               |            | M<br>18900 | 1880       | QPSK       | 1                | 0         | 23.56         |
|               |            |            |            |            | 75               | 0         | 22.57         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.94         |
|               |            |            |            |            | 75               | 0         | 22.14         |
|               |            | H<br>19125 | 1902.5     | QPSK       | 1                | 0         | 22.96         |
|               |            |            |            |            | 75               | 0         | 22.21         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.09         |
|               |            |            |            |            | 75               | 0         | 22.15         |



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| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|---------------|
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 2 | 10MHz      | L<br>18650 | 1855       | QPSK       | 1                | 0         | 22.58         |
|               |            |            |            |            | 50               | 0         | 22.57         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.47         |
|               |            |            |            |            | 50               | 0         | 22.19         |
|               |            | M<br>18900 | 1880       | QPSK       | 1                | 0         | 22.87         |
|               |            |            |            |            | 50               | 0         | 22.68         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.58         |
|               |            |            |            |            | 50               | 0         | 22.69         |
|               |            | H<br>19150 | 1905       | QPSK       | 1                | 0         | 22.96         |
|               |            |            |            |            | 50               | 0         | 22.58         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.69         |
|               |            |            |            |            | 50               | 0         | 22.28         |

| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|---------------|
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 2 | 5MHz       | L<br>18625 | 1852.5     | QPSK       | 1                | 0         | 23.44         |
|               |            |            |            |            | 25               | 0         | 22.54         |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.31         |
|               |            |            |            |            | 25               | 0         | 22.36         |
|               |            | M<br>18900 | 1880       | QPSK       | 1                | 0         | 23.14         |
|               |            |            |            |            | 25               | 0         | 22.58         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.47         |
|               |            |            |            |            | 25               | 0         | 22.36         |
|               |            | H<br>19175 | 1907.5     | QPSK       | 1                | 0         | 23.69         |
|               |            |            |            |            | 25               | 0         | 22.57         |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.14         |
|               |            |            |            |            | 25               | 0         | 22.48         |
| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 2 | 3MHz       | L<br>18615 | 1851.5     | QPSK       | 1                | 0         | 22.58         |
|               |            |            |            |            | 15               | 0         | 22.36         |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.14         |
|               |            |            |            |            | 15               | 0         | 22.48         |
|               |            | M<br>18900 | 1880       | QPSK       | 1                | 0         | 23.51         |
|               |            |            |            |            | 15               | 0         | 22.58         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.69         |
|               |            |            |            |            | 15               | 0         | 21.96         |
|               |            | H<br>19185 | 1908.5     | QPSK       | 1                | 0         | 22.88         |
|               |            |            |            |            | 15               | 0         | 22.15         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.19         |
|               |            |            |            |            | 15               | 0         | 20.33         |



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| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|---------------|
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 2 | 1.4MHz     | L<br>18607 | 1850.7     | QPSK       | 1                | 0         | 22.39         |
|               |            |            |            |            | 6                | 0         | 22.48         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.36         |
|               |            |            |            |            | 6                | 0         | 22.45         |
|               |            | 18900      | 1880       | QPSK       | 1                | 0         | 23.55         |
|               |            |            |            |            | 6                | 0         | 31.69         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.18         |
|               |            |            |            |            | 6                | 0         | 21.33         |
|               |            | H<br>19193 | 1909.3     | QPSK       | 1                | 0         | 22.18         |
|               |            |            |            |            | 6                | 0         | 21.99         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.36         |
|               |            |            |            |            | 6                | 0         | 21.66         |

| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|---------------|
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 4 | 20MHz      | L<br>20050 | 1720.0     | QPSK       | 1                | 0         | 23.99         |
|               |            |            |            |            | 100              | 0         | 22.58         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.96         |
|               |            |            |            |            | 100              | 0         | 21.69         |
|               |            | M<br>20175 | 1732.5     | QPSK       | 1                | 0         | 23.66         |
|               |            |            |            |            | 100              | 0         | 22.69         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.85         |
|               |            |            |            |            | 100              | 0         | 21.92         |
|               |            | H<br>20300 | 1745.0     | QPSK       | 1                | 0         | 22.68         |
|               |            |            |            |            | 100              | 0         | 22.66         |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.09         |
|               |            |            |            |            | 100              | 0         | 21.53         |
| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 4 | 15MHz      | L<br>20025 | 1717.5     | QPSK       | 1                | 0         | 23.88         |
|               |            |            |            |            | 75               | 0         | 23.04         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.96         |
|               |            |            |            |            | 75               | 0         | 22.53         |
|               |            | M<br>20175 | 1732.5     | QPSK       | 1                | 0         | 23.68         |
|               |            |            |            |            | 75               | 0         | 22.66         |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.74         |
|               |            |            |            |            | 75               | 0         | 21.99         |
|               |            | H<br>20325 | 1747.5     | QPSK       | 1                | 0         | 22.79         |
|               |            |            |            |            | 75               | 0         | 23.34         |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.38         |
|               |            |            |            |            | 75               | 0         | 22.63         |



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| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|---------------|
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 4 | 10MHz      | L<br>20000 | 1715.0     | QPSK       | 1                | 0         | 23.89         |
|               |            |            |            |            | 50               | 0         | 23.52         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.77         |
|               |            |            |            |            | 50               | 0         | 22.17         |
|               |            | M<br>20175 | 1732.5     | QPSK       | 1                | 0         | 22.68         |
|               |            |            |            |            | 50               | 0         | 22.69         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.98         |
|               |            |            |            |            | 50               | 0         | 22.09         |
|               |            | H<br>20350 | 1750.0     | QPSK       | 1                | 0         | 23.54         |
|               |            |            |            |            | 50               | 0         | 23.55         |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.24         |
|               |            |            |            |            | 50               | 0         | 22.69         |

| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|---------------|
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 4 | 5MHz       | L<br>19975 | 1712.5     | QPSK       | 1                | 0         | 23.66         |
|               |            |            |            |            | 25               | 0         | 23.51         |
|               |            |            |            | 16-QAM     | 1                | 0         | 24.01         |
|               |            |            |            |            | 25               | 0         | 22.54         |
|               |            | M<br>20175 | 1732.5     | QPSK       | 1                | 0         | 23.63         |
|               |            |            |            |            | 25               | 0         | 22.35         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.58         |
|               |            |            |            |            | 25               | 0         | 21.66         |
|               |            | H<br>20375 | 1752.5     | QPSK       | 1                | 0         | 23.67         |
|               |            |            |            |            | 25               | 0         | 23.24         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.99         |
|               |            |            |            |            | 25               | 0         | 22.31         |
| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 4 | 3MHz       | L<br>19965 | 1711.5     | QPSK       | 1                | 0         | 23.75         |
|               |            |            |            |            | 15               | 0         | 23.66         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.85         |
|               |            |            |            |            | 15               | 0         | 22.63         |
|               |            | M<br>20175 | 1732.5     | QPSK       | 1                | 0         | 24.08         |
|               |            |            |            |            | 15               | 0         | 23.17         |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.24         |
|               |            |            |            |            | 15               | 0         | 22.59         |
|               |            | H<br>20385 | 1753.5     | QPSK       | 1                | 0         | 24.38         |
|               |            |            |            |            | 15               | 0         | 23.07         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.58         |
|               |            |            |            |            | 15               | 0         | 23.07         |



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| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | EIRP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|---------------|
|               |            |            |            |            | RB Size          | RB Offset |               |
| LTE<br>Band 4 | 1.4MHz     | L<br>19957 | 1710.7     | QPSK       | 1                | 0         | 24.09         |
|               |            |            |            |            | 6                | 0         | 23.08         |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.09         |
|               |            |            |            |            | 6                | 0         | 22.59         |
|               |            | M<br>20175 | 1732.5     | QPSK       | 1                | 0         | 23.34         |
|               |            |            |            |            | 6                | 0         | 22.86         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.93         |
|               |            |            |            |            | 6                | 0         | 21.99         |
|               |            | H<br>20393 | 1754.3     | QPSK       | 1                | 0         | 22.38         |
|               |            |            |            |            | 6                | 0         | 22.09         |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.39         |
|               |            |            |            |            | 6                | 0         | 22.87         |

| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | ERP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|--------------|
|               |            |            |            |            | RB Size          | RB Offset |              |
| LTE<br>Band 5 | 10MHz      | L<br>20450 | 829        | QPSK       | 1                | 0         | 22.53        |
|               |            |            |            |            | 50               | 0         | 22.69        |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.69        |
|               |            |            |            |            | 50               | 0         | 22.58        |
|               |            | M<br>20525 | 836.5      | QPSK       | 1                | 0         | 23.69        |
|               |            |            |            |            | 50               | 0         | 22.99        |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.35        |
|               |            |            |            |            | 50               | 0         | 22.36        |
|               |            | H<br>20600 | 844        | QPSK       | 1                | 0         | 23.69        |
|               |            |            |            |            | 50               | 0         | 23.66        |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.58        |
|               |            |            |            |            | 50               | 0         | 22.58        |
| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | ERP<br>(dBm) |
|               |            |            |            |            | RB Size          | RB Offset |              |
| LTE<br>Band 5 | 5MHz       | L<br>20425 | 826.5      | QPSK       | 1                | 0         | 22.58        |
|               |            |            |            |            | 25               | 0         | 22.38        |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.68        |
|               |            |            |            |            | 25               | 0         | 22.58        |
|               |            | M<br>20525 | 836.5      | QPSK       | 1                | 0         | 23.54        |
|               |            |            |            |            | 25               | 0         | 22.58        |
|               |            |            |            | 16-QAM     | 1                | 0         | 23.14        |
|               |            |            |            |            | 25               | 0         | 22.58        |
|               |            | H<br>20625 | 846.5      | QPSK       | 1                | 0         | 23.69        |
|               |            |            |            |            | 25               | 0         | 23.58        |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.58        |
|               |            |            |            |            | 25               | 0         | 23.58        |



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| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | ERP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|--------------|
|               |            |            |            |            | RB Size          | RB Offset |              |
| LTE<br>Band 5 | 3MHz       | L<br>20415 | 825.5      | QPSK       | 1                | 0         | 23.66        |
|               |            |            |            |            | 15               | 0         | 22.58        |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.87        |
|               |            |            |            |            | 15               | 0         | 22.89        |
|               |            | M<br>20525 | 836.5      | QPSK       | 1                | 0         | 22.68        |
|               |            |            |            |            | 15               | 0         | 22.85        |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.64        |
|               |            |            |            |            | 15               | 0         | 22.47        |
|               |            | H<br>20635 | 847.5      | QPSK       | 1                | 0         | 23.57        |
|               |            |            |            |            | 15               | 0         | 22.54        |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.89        |
|               |            |            |            |            | 15               | 0         | 22.74        |

| Band          | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | ERP<br>(dBm) |
|---------------|------------|------------|------------|------------|------------------|-----------|--------------|
|               |            |            |            |            | RB Size          | RB Offset |              |
| LTE<br>Band 5 | 1.4MHz     | L<br>20407 | 824.7      | QPSK       | 1                | 0         | 23.66        |
|               |            |            |            |            | 6                | 0         | 22.54        |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.67        |
|               |            |            |            |            | 6                | 0         | 22.85        |
|               |            | M<br>20525 | 836.5      | QPSK       | 1                | 0         | 23.65        |
|               |            |            |            |            | 6                | 0         | 22.58        |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.39        |
|               |            |            |            |            | 6                | 0         | 22.38        |
|               |            | H<br>20643 | 848.3      | QPSK       | 1                | 0         | 22.38        |
|               |            |            |            |            | 6                | 0         | 22.37        |
|               |            |            |            | 16-QAM     | 1                | 0         | 22.58        |
|               |            |            |            |            | 6                | 0         | 22.37        |



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| Band           | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | ERP<br>(dBm) |
|----------------|------------|------------|------------|------------|------------------|-----------|--------------|
|                |            |            |            |            | RB Size          | RB Offset |              |
| LTE<br>Band 17 | 10MHz      | L<br>23780 | 709        | QPSK       | 1                | 0         | 24.88        |
|                |            |            |            |            | 50               | 0         | 23.68        |
|                |            | M<br>23790 | 710        | 16-QAM     | 1                | 0         | 24.12        |
|                |            |            |            |            | 50               | 0         | 23.22        |
|                |            |            |            | QPSK       | 1                | 0         | 23.88        |
|                |            |            |            |            | 50               | 0         | 23.22        |
|                |            | H<br>23800 | 711        | 16-QAM     | 1                | 0         | 23.11        |
|                |            |            |            |            | 50               | 0         | 22.58        |
|                |            |            |            | QPSK       | 1                | 0         | 23.63        |
|                |            |            |            |            | 50               | 0         | 23.66        |
|                |            |            |            | 16-QAM     | 1                | 0         | 23.62        |
|                |            |            |            |            | 50               | 0         | 23.96        |
| Band           | Band Width | Channel    | Freq.(MHz) | Modulation | RB Configuration |           | ERP<br>(dBm) |
|                |            |            |            |            | RB Size          | RB Offset |              |
| LTE<br>Band 17 | 5MHz       | L<br>23755 | 706.5      | QPSK       | 1                | 0         | 24.88        |
|                |            |            |            |            | 25               | 0         | 23.66        |
|                |            |            |            | 16-QAM     | 1                | 0         | 23.55        |
|                |            |            |            |            | 25               | 0         | 22.99        |
|                |            | M<br>23790 | 710        | QPSK       | 1                | 0         | 23.66        |
|                |            |            |            |            | 25               | 0         | 23.85        |
|                |            |            |            | 16-QAM     | 1                | 0         | 22.85        |
|                |            |            |            |            | 25               | 0         | 22.85        |
|                |            | H<br>23825 | 713.5      | QPSK       | 1                | 0         | 23.65        |
|                |            |            |            |            | 25               | 0         | 22.68        |
|                |            |            |            | 16-QAM     | 1                | 0         | 23.62        |
|                |            |            |            |            | 25               | 0         | 23.65        |



## **2.8 Radiated Spurious Emissions**

### **2.8.1 Requirement**

According to FCC section 2.1053 and section 27.53(g), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43+10*\log(P)$ dB. This calculated to be -13dBm.

### **2.8.2 Test Description**

See section 2.7.2 of this report.

Note: when doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

### **2.8.3 Test Result**

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. Test Antenna height is varied from 1m to 4m above the ground, and the Turn Table is actuated to turn from 0° to 360°, both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

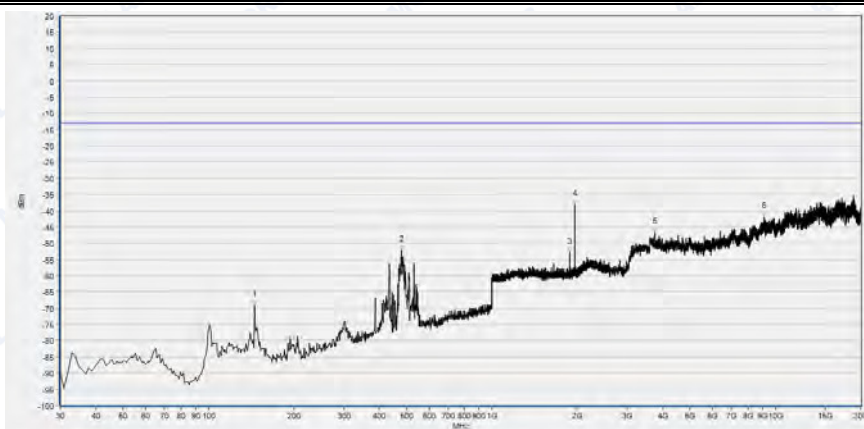
Test Plots for the Whole Measurement Frequency Range:

Note1: the power of the EUT transmitting frequency should be ignored.

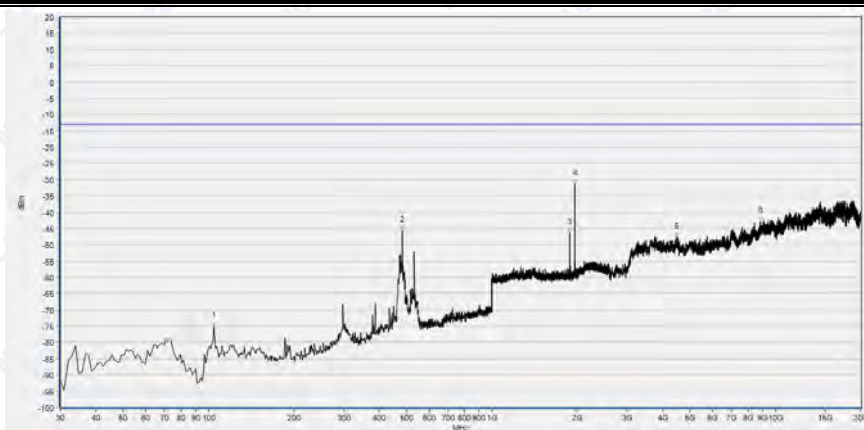
Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.



## LTE Band 2 1.4MHz BW, Mid Channel, QPSK



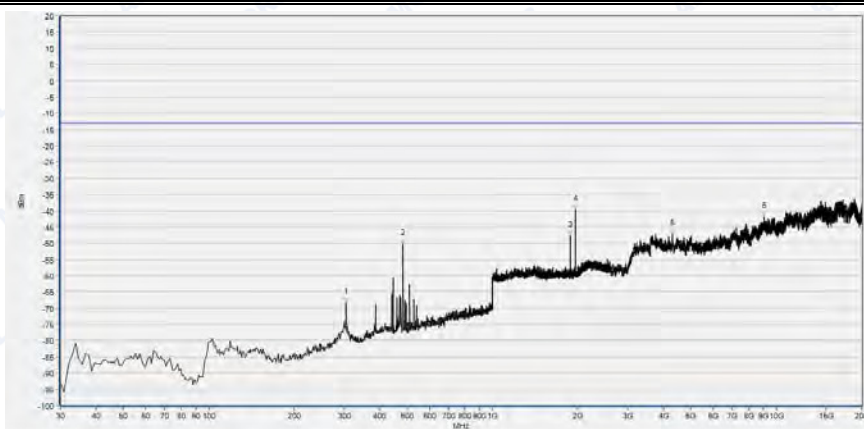
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 145.430    | -69.06 | -13.00    | Horizontal | PASS    |
| 2    | 480.080    | -52.16 | -13.00    | Horizontal | PASS    |
| 3    | 1880.352   | -52.80 | -13.00    | Horizontal | PASS    |
| 4    | 1959.744   | -38.08 | -13.00    | Horizontal | PASS    |
| 5    | 3761.266   | -46.58 | -13.00    | Horizontal | PASS    |
| 6    | 9092.962   | -41.97 | -13.00    | Horizontal | PASS    |



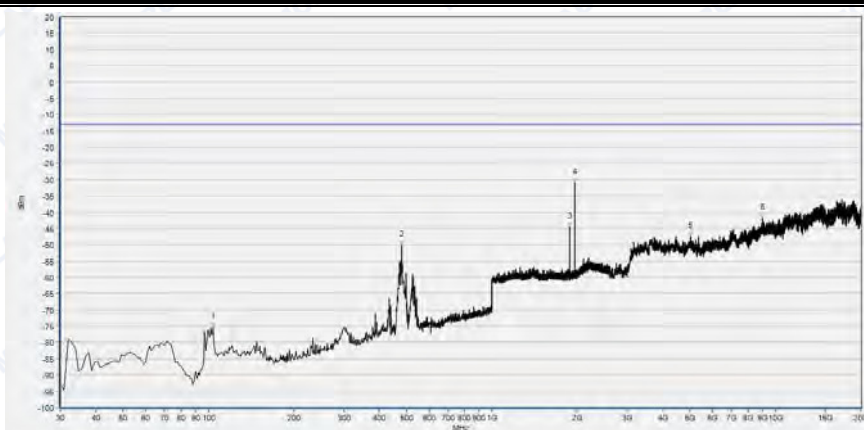
| Num. | Freq(MHz) | Peak   | limit PK | Antenna  | Verdict |
|------|-----------|--------|----------|----------|---------|
| 1    | 104.690   | -74.94 | -13.00   | Vertical | PASS    |
| 2    | 482.990   | -45.71 | -13.00   | Vertical | PASS    |
| 3    | 1879.712  | -46.30 | -13.00   | Vertical | PASS    |
| 4    | 1960.384  | -31.48 | -13.00   | Vertical | PASS    |
| 5    | 4479.542  | -47.81 | -13.00   | Vertical | PASS    |
| 6    | 8846.154  | -42.70 | -13.00   | Vertical | PASS    |



## LTE Band 2 1.4MHz BW, Mid Channel, 16QAM



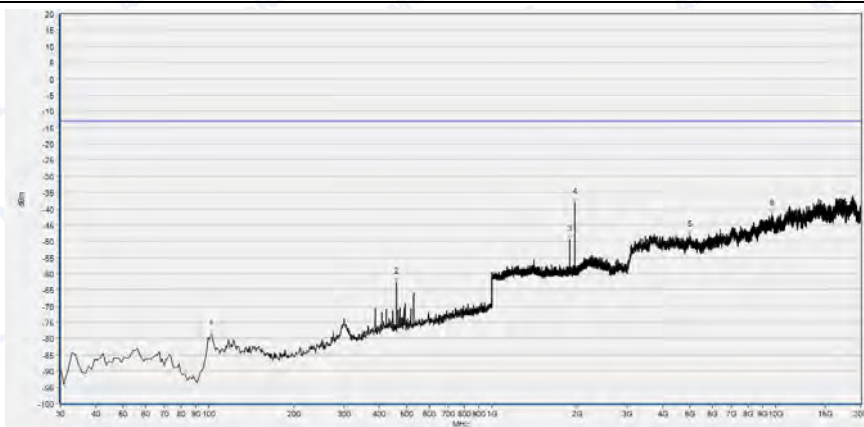
| Num | Freq(MHz) | Peak   | limit PK | Antenna    | Verdict |
|-----|-----------|--------|----------|------------|---------|
| 1   | 304.510   | -68.16 | -13.00   | Horizontal | PASS    |
| 2   | 482.990   | -50.15 | -13.00   | Horizontal | PASS    |
| 3   | 1879.712  | -47.74 | -13.00   | Horizontal | PASS    |
| 4   | 1959.744  | -39.69 | -13.00   | Horizontal | PASS    |
| 5   | 4311.839  | -47.33 | -13.00   | Horizontal | PASS    |
| 6   | 9032.842  | -42.01 | -13.00   | Horizontal | PASS    |



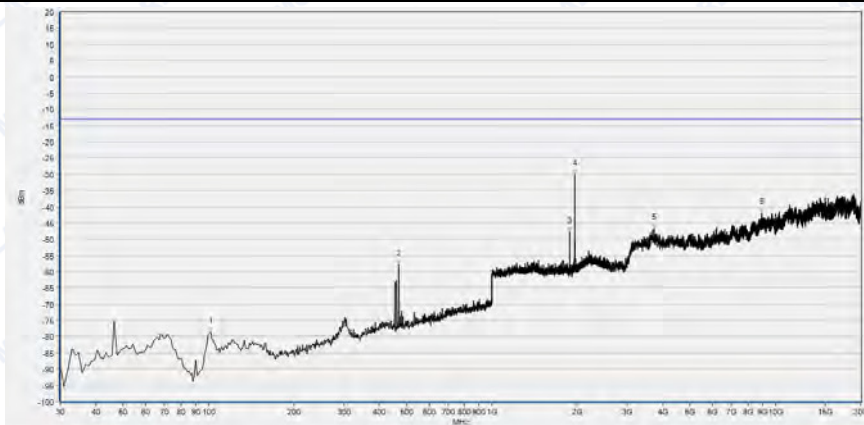
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 103.720    | -75.38 | -13.00    | Vertical | PASS    |
| 2    | 481.050    | -50.12 | -13.00    | Vertical | PASS    |
| 3    | 1879.712   | -44.65 | -13.00    | Vertical | PASS    |
| 4    | 1959.744   | -30.91 | -13.00    | Vertical | PASS    |
| 5    | 5017.458   | -47.51 | -13.00    | Vertical | PASS    |
| 6    | 9023.350   | -41.97 | -13.00    | Vertical | PASS    |



## LTE Band 2 3MHz BW, Mid Channel, QPSK



| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 102.750    | -78.86 | -13.00    | Horizontal | PASS    |
| 2    | 460.680    | -62.78 | -13.00    | Horizontal | PASS    |
| 3    | 1878.431   | -49.48 | -13.00    | Horizontal | PASS    |
| 4    | 1960.384   | -38.21 | -13.00    | Horizontal | PASS    |
| 5    | 4995.308   | -48.21 | -13.00    | Horizontal | PASS    |
| 6    | 9722.640   | -41.58 | -13.00    | Horizontal | PASS    |



| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 101.780    | -78.50 | -13.00    | Vertical | PASS    |
| 2    | 468.440    | -57.76 | -13.00    | Vertical | PASS    |
| 3    | 1879.072   | -47.67 | -13.00    | Vertical | PASS    |
| 4    | 1960.384   | -30.14 | -13.00    | Vertical | PASS    |
| 5    | 3735.952   | -46.69 | -13.00    | Vertical | PASS    |
| 6    | 8969.558   | -41.97 | -13.00    | Vertical | PASS    |

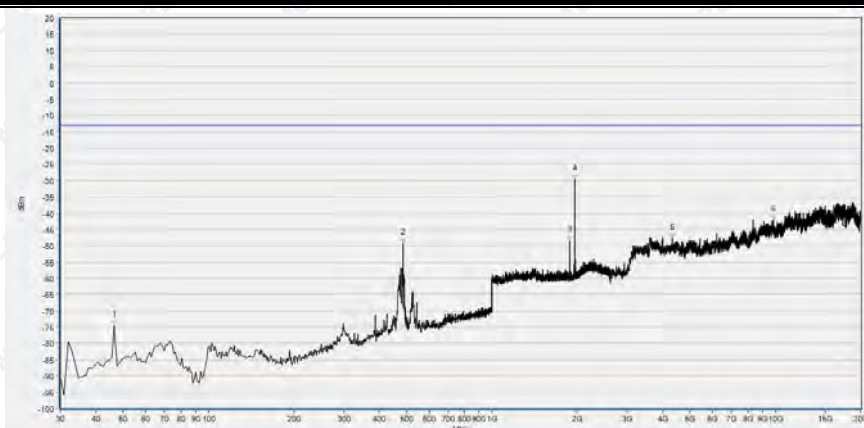


REPORT No.: SZ16050107W12

## LTE Band 2 3MHz BW, Mid Channel, 16QAM



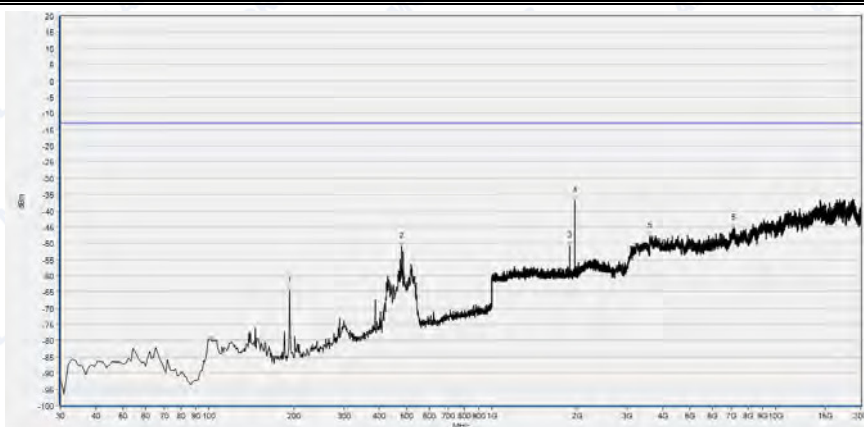
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 101.780    | -78.76 | -13.00    | Horizontal | PASS    |
| 2    | 453.890    | -58.19 | -13.00    | Horizontal | PASS    |
| 3    | 1880.352   | -51.01 | -13.00    | Horizontal | PASS    |
| 4    | 1959.104   | -38.13 | -13.00    | Horizontal | PASS    |
| 5    | 4558.647   | -47.78 | -13.00    | Horizontal | PASS    |
| 6    | 9418.876   | -41.82 | -13.00    | Horizontal | PASS    |



| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 46.490     | -74.47 | -13.00    | Vertical | PASS    |
| 2    | 485.900    | -49.33 | -13.00    | Vertical | PASS    |
| 3    | 1879.072   | -48.47 | -13.00    | Vertical | PASS    |
| 4    | 1959.104   | -29.55 | -13.00    | Vertical | PASS    |
| 5    | 4315.003   | -47.66 | -13.00    | Vertical | PASS    |
| 6    | 9849.209   | -42.10 | -13.00    | Vertical | PASS    |



## LTE Band 2 5MHz BW, Mid Channel, QPSK



| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 192.960    | -64.67 | -13.00    | Horizontal | PASS    |
| 2    | 480.080    | -51.03 | -13.00    | Horizontal | PASS    |
| 3    | 1878.431   | -50.84 | -13.00    | Horizontal | PASS    |
| 4    | 1959.744   | -37.09 | -13.00    | Horizontal | PASS    |
| 5    | 3599.891   | -47.89 | -13.00    | Horizontal | PASS    |
| 6    | 7115.330   | -45.44 | -13.00    | Horizontal | PASS    |



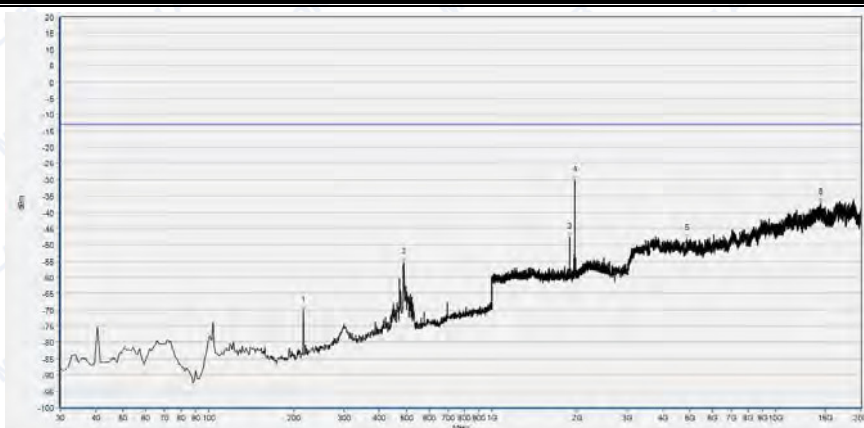
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 100.810    | -80.64 | -13.00    | Vertical | PASS    |
| 2    | 469.410    | -61.18 | -13.00    | Vertical | PASS    |
| 3    | 1878.431   | -48.87 | -13.00    | Vertical | PASS    |
| 4    | 1957.823   | -29.40 | -13.00    | Vertical | PASS    |
| 5    | 4988.980   | -47.57 | -13.00    | Vertical | PASS    |
| 6    | 13560.829  | -38.46 | -13.00    | Vertical | PASS    |



## LTE Band 2 5MHz BW, Mid Channel, 16QAM



| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 102.750    | -79.08 | -13.00    | Horizontal | PASS    |
| 2    | 484.930    | -56.70 | -13.00    | Horizontal | PASS    |
| 3    | 1878.431   | -50.60 | -13.00    | Horizontal | PASS    |
| 4    | 1961.665   | -38.04 | -13.00    | Horizontal | PASS    |
| 5    | 3739.116   | -46.77 | -13.00    | Horizontal | PASS    |
| 6    | 7026.732   | -45.68 | -13.00    | Horizontal | PASS    |



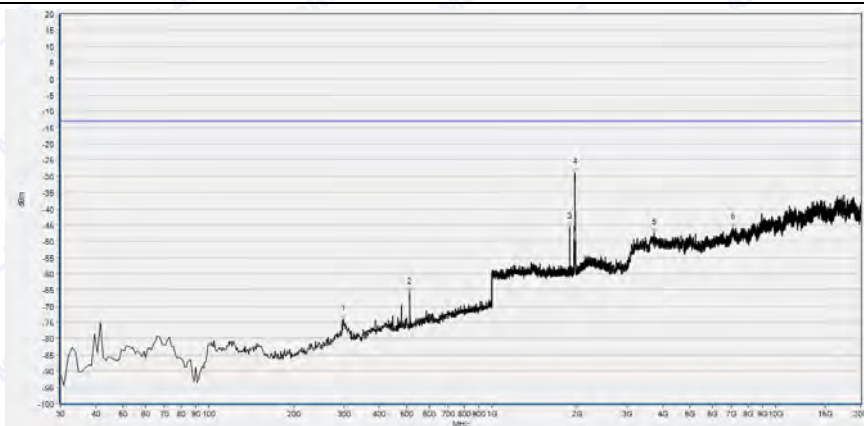
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 216.240    | -70.26 | -13.00    | Vertical | PASS    |
| 2    | 489.780    | -55.62 | -13.00    | Vertical | PASS    |
| 3    | 1879.712   | -47.64 | -13.00    | Vertical | PASS    |
| 4    | 1960.384   | -30.21 | -13.00    | Vertical | PASS    |
| 5    | 4875.068   | -48.19 | -13.00    | Vertical | PASS    |
| 6    | 14468.958  | -37.24 | -13.00    | Vertical | PASS    |



## LTE Band 2 10MHz BW, Mid Channel, QPSK



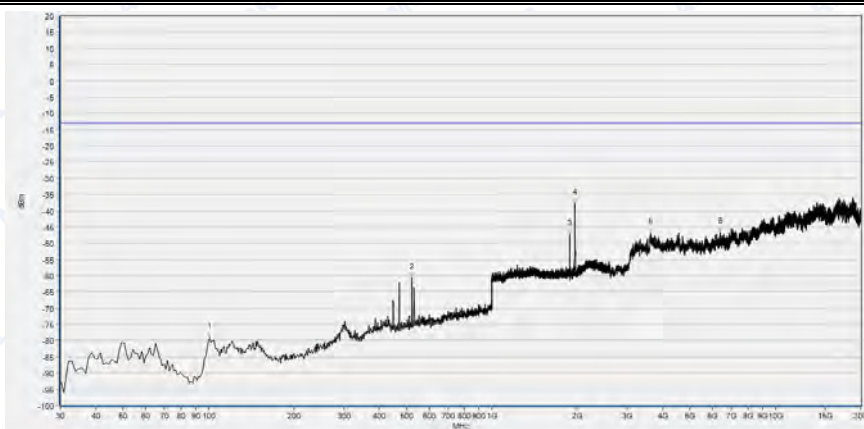
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 104.690    | -72.28 | -13.00    | Horizontal | PASS    |
| 2    | 476.200    | -44.57 | -13.00    | Horizontal | PASS    |
| 3    | 1875.230   | -49.71 | -13.00    | Horizontal | PASS    |
| 4    | 1962.305   | -39.02 | -13.00    | Horizontal | PASS    |
| 5    | 4324.495   | -47.02 | -13.00    | Horizontal | PASS    |
| 6    | 7020.404   | -44.19 | -13.00    | Horizontal | PASS    |



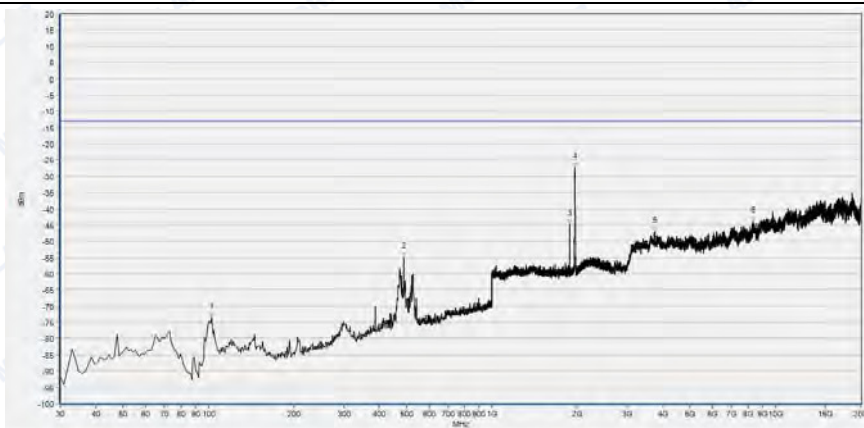
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 299.660    | -74.16 | -13.00    | Vertical | PASS    |
| 2    | 513.060    | -65.87 | -13.00    | Vertical | PASS    |
| 3    | 1875.230   | -45.66 | -13.00    | Vertical | PASS    |
| 4    | 1962.945   | -28.86 | -13.00    | Vertical | PASS    |
| 5    | 3735.952   | -47.43 | -13.00    | Vertical | PASS    |
| 6    | 7058.374   | -45.91 | -13.00    | Vertical | PASS    |



## LTE Band 2 10MHz BW, Mid Channel, 16QAM



| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 100.810    | -78.95 | -13.00    | Horizontal | PASS    |
| 2    | 520.820    | -60.66 | -13.00    | Horizontal | PASS    |
| 3    | 1875.870   | -47.35 | -13.00    | Horizontal | PASS    |
| 4    | 1959.104   | -37.59 | -13.00    | Horizontal | PASS    |
| 5    | 3631.533   | -46.75 | -13.00    | Horizontal | PASS    |
| 6    | 6378.069   | -46.54 | -13.00    | Horizontal | PASS    |

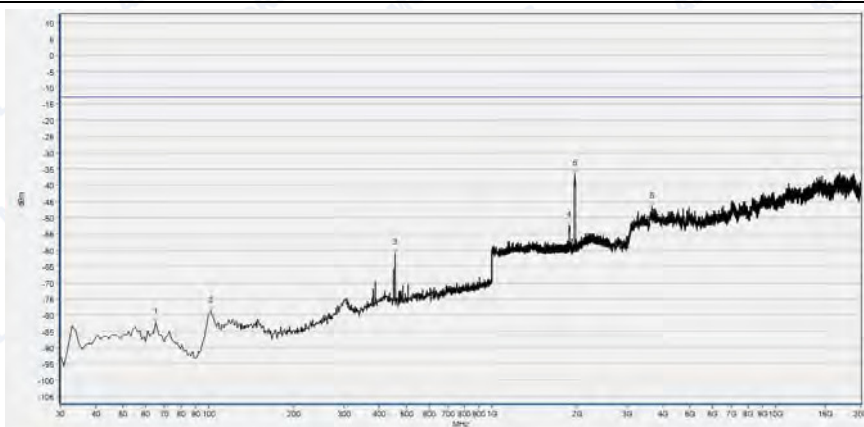


| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 102.750    | -73.52 | -13.00    | Vertical | PASS    |
| 2    | 488.810    | -54.83 | -13.00    | Vertical | PASS    |
| 3    | 1875.870   | -44.85 | -13.00    | Vertical | PASS    |
| 4    | 1962.945   | -27.28 | -13.00    | Vertical | PASS    |
| 5    | 3751.773   | -47.09 | -13.00    | Vertical | PASS    |
| 6    | 8339.880   | -44.02 | -13.00    | Vertical | PASS    |

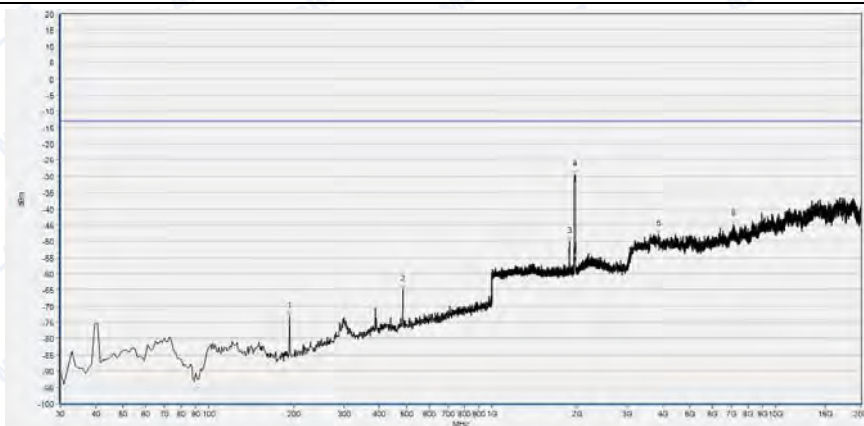


REPORT No.: SZ16050107W12

## LTE Band 2 15MHz BW, Mid Channel, QPSK



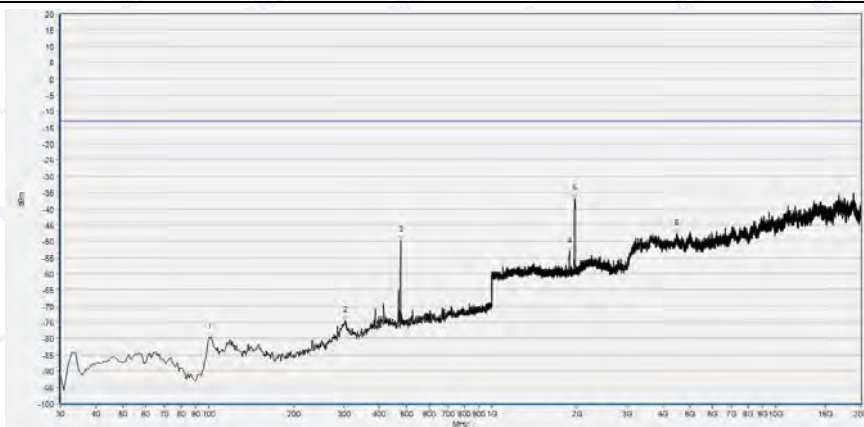
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 64.920     | -82.25 | -13.00    | Horizontal | PASS    |
| 2    | 101.780    | -78.81 | -13.00    | Horizontal | PASS    |
| 3    | 455.830    | -60.89 | -13.00    | Horizontal | PASS    |
| 4    | 1873.309   | -52.41 | -13.00    | Horizontal | PASS    |
| 5    | 1958.463   | -36.62 | -13.00    | Horizontal | PASS    |
| 6    | 3672.668   | -46.57 | -13.00    | Horizontal | PASS    |



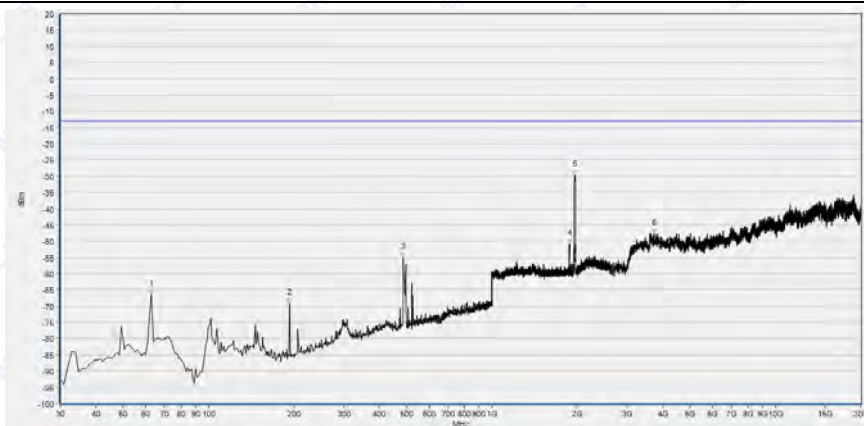
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 192.960    | -73.25 | -13.00    | Vertical | PASS    |
| 2    | 484.930    | -64.96 | -13.00    | Vertical | PASS    |
| 3    | 1875.870   | -50.27 | -13.00    | Vertical | PASS    |
| 4    | 1954.622   | -29.53 | -13.00    | Vertical | PASS    |
| 5    | 3872.013   | -47.94 | -13.00    | Vertical | PASS    |
| 6    | 7090.016   | -44.70 | -13.00    | Vertical | PASS    |



## LTE Band 2 15MHz BW, Mid Channel, 16QAM



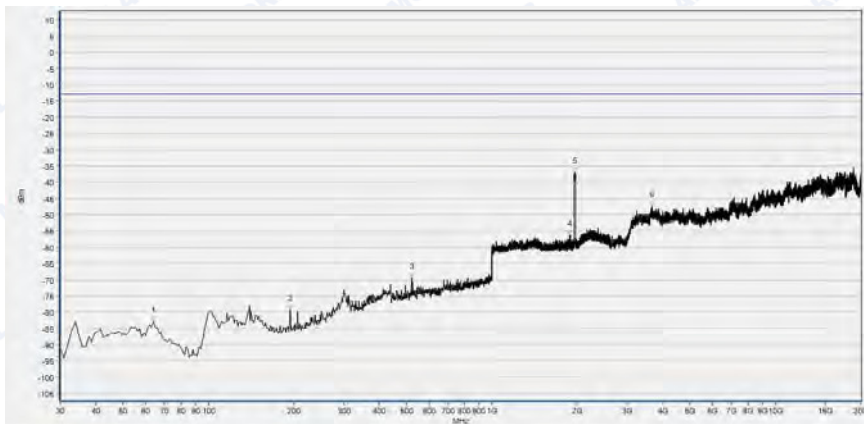
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 100.810    | -79.64 | -13.00    | Horizontal | PASS    |
| 2    | 304.510    | -74.62 | -13.00    | Horizontal | PASS    |
| 3    | 476.200    | -49.74 | -13.00    | Horizontal | PASS    |
| 4    | 1875.230   | -53.28 | -13.00    | Horizontal | PASS    |
| 5    | 1962.305   | -37.02 | -13.00    | Horizontal | PASS    |
| 6    | 4473.213   | -47.81 | -13.00    | Horizontal | PASS    |



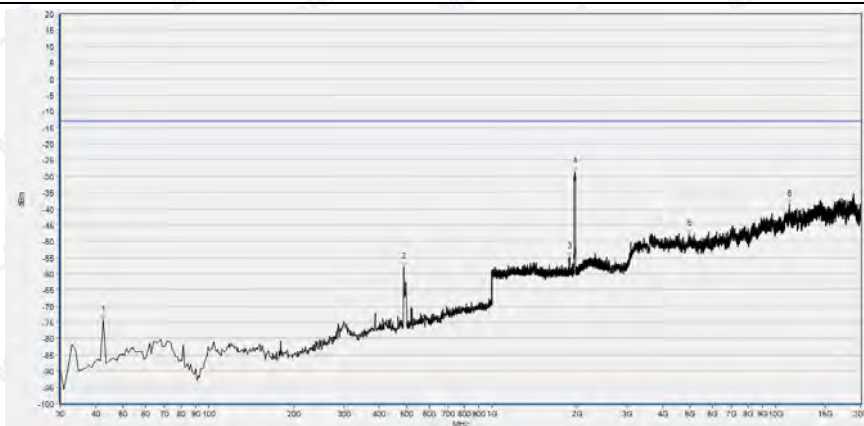
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 62.980     | -66.50 | -13.00    | Vertical | PASS    |
| 2    | 192.960    | -69.18 | -13.00    | Vertical | PASS    |
| 3    | 486.870    | -55.12 | -13.00    | Vertical | PASS    |
| 4    | 1874.590   | -50.92 | -13.00    | Vertical | PASS    |
| 5    | 1959.744   | -29.68 | -13.00    | Vertical | PASS    |
| 6    | 3723.295   | -47.75 | -13.00    | Vertical | PASS    |



## LTE Band 2 20MHz BW, Mid Channel, QPSK



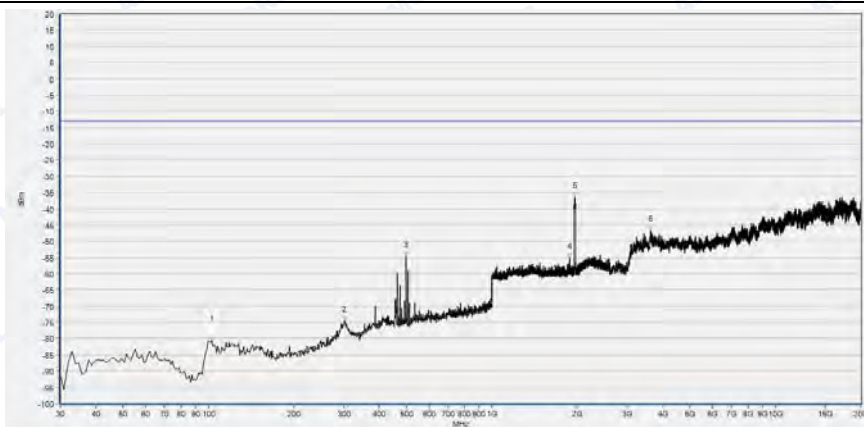
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 63.950     | -82.79 | -13.00    | Horizontal | PASS    |
| 2    | 193.930    | -79.36 | -13.00    | Horizontal | PASS    |
| 3    | 519.850    | -69.47 | -13.00    | Horizontal | PASS    |
| 4    | 1875.230   | -56.25 | -13.00    | Horizontal | PASS    |
| 5    | 1959.744   | -36.89 | -13.00    | Horizontal | PASS    |
| 6    | 3675.832   | -47.38 | -13.00    | Horizontal | PASS    |



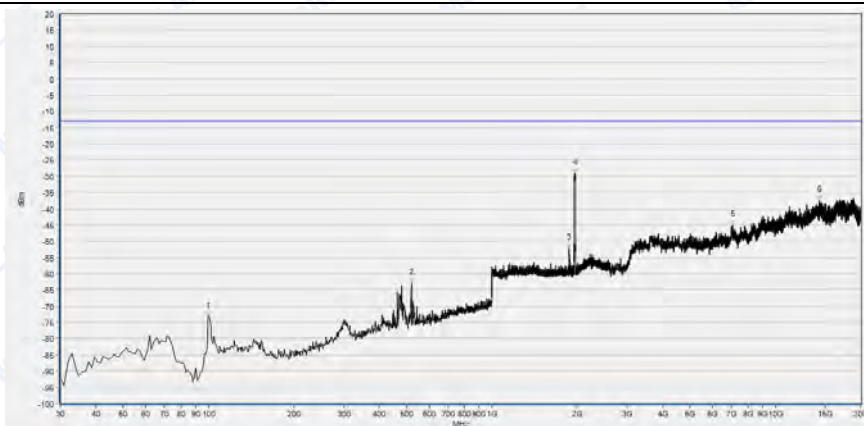
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 42.610     | -74.41 | -13.00    | Vertical | PASS    |
| 2    | 487.840    | -58.02 | -13.00    | Vertical | PASS    |
| 3    | 1875.870   | -54.97 | -13.00    | Vertical | PASS    |
| 4    | 1961.024   | -28.79 | -13.00    | Vertical | PASS    |
| 5    | 4944.681   | -47.82 | -13.00    | Vertical | PASS    |
| 6    | 11193.999  | -38.70 | -13.00    | Vertical | PASS    |



## LTE Band 2 20MHz BW, Mid Channel, 16QAM



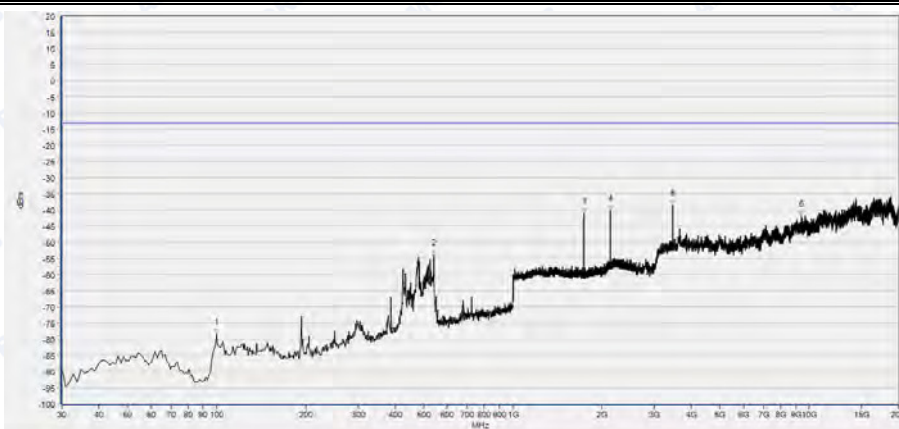
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 102.750    | -80.54 | -13.00    | Horizontal | PASS    |
| 2    | 301.600    | -74.47 | -13.00    | Horizontal | PASS    |
| 3    | 498.510    | -54.66 | -13.00    | Horizontal | PASS    |
| 4    | 1876.511   | -55.00 | -13.00    | Horizontal | PASS    |
| 5    | 1959.744   | -36.21 | -13.00    | Horizontal | PASS    |
| 6    | 3628.369   | -46.48 | -13.00    | Horizontal | PASS    |



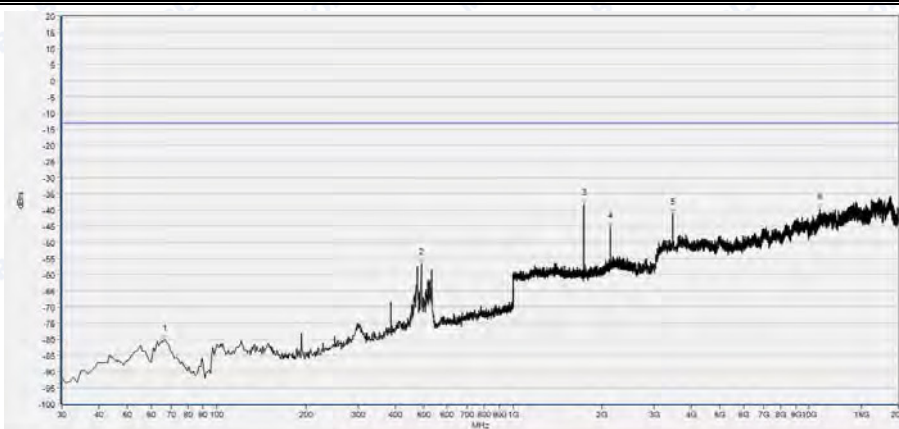
| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 99.840     | -73.11 | -13.00    | Vertical | PASS    |
| 2    | 519.850    | -62.83 | -13.00    | Vertical | PASS    |
| 3    | 1873.309   | -52.25 | -13.00    | Vertical | PASS    |
| 4    | 1962.945   | -29.19 | -13.00    | Vertical | PASS    |
| 5    | 7058.374   | -45.00 | -13.00    | Vertical | PASS    |
| 6    | 14307.583  | -37.46 | -13.00    | Vertical | PASS    |



## LTE Band 4 1.4MHz BW, Mid Channel, QPSK



| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna    | Verdict |
|------|------------|--------|-----------|------------|---------|
| 1    | 99.840     | -78.25 | -13.00    | Horizontal | PASS    |
| 2    | 539.250    | -53.84 | -13.00    | Horizontal | PASS    |
| 3    | 1733.093   | -41.03 | -13.00    | Horizontal | PASS    |
| 4    | 2133.253   | -40.31 | -13.00    | Horizontal | PASS    |
| 5    | 3466.994   | -38.61 | -13.00    | Horizontal | PASS    |
| 6    | 9387.234   | -41.99 | -13.00    | Horizontal | PASS    |



| Num. | Fre. (MHz) | Peak   | Limit(PK) | Antenna  | Verdict |
|------|------------|--------|-----------|----------|---------|
| 1    | 66.860     | -80.22 | -13.00    | Vertical | PASS    |
| 2    | 490.750    | -56.72 | -13.00    | Vertical | PASS    |
| 3    | 1733.093   | -38.44 | -13.00    | Vertical | PASS    |
| 4    | 2132.613   | -45.55 | -13.00    | Vertical | PASS    |
| 5    | 3466.994   | -41.08 | -13.00    | Vertical | PASS    |
| 6    | 10830.115  | -39.71 | -13.00    | Vertical | PASS    |