Test Lab
Cert 2951.01

# RF EXPOSURE REPORT

| | |
|---|---|
| **Product:** | LTE Module |
| **Model Name:** | ME3630-U1C |
| **FCC ID:** | SRQ-ME3630 |
| **Applicant:** | ZTE Corporation |
| **Address:** | ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China |
| **Manufacturer:** | ZTE Corporation |
| **Address:** | ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China |
| **Prepared by:** | Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch |
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| **Report No.:** | SA170803W002 |
| **Received Date:** | Jul. 15, 2016 |
| **Test Date:** | Jul. 15, 2016 ~ Jul. 26, 2016 |
| **Issued Date:** | Jul. 09, 2017 |

This report should not be used by the client to claim product certification, approval, or endorsement by A2LA or any government agencies.

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# RELEASE CONTROL RECORD

| ISSUE NO. | REASON FOR CHANGE | DATE ISSUED |
|---|---|---|
| SA160714W002 | Original release | Jul. 27, 2016 |
| SA170803W002 | Based on the original report SA160714W002 upgrading LTE category level from four to one by software and changing Flash & model name. | Jul. 09, 2017 |

# 1 CERTIFICATION

| | |
|---|---|
| **PRODUCT:** | LTE Module |
| **BRAND NAME:** | ZTE |
| **MODEL NAME:** | ME3630-U1C |
| **APPLICANT:** | ZTE Corporation |
| **TESTED:** | Jul. 15, 2016 ~ Jul. 26, 2016 |
| **TEST SAMPLE:** | Identical Prototype |
| **STANDARDS:** | **FCC Part 2 (Section 2.1091)**<br>**FCC OET Bulletin 65, Supplement C (01-01)**<br>IEEE C95.1 |

The above equipment has been tested by **Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

**PREPARED BY :**  , **DATE:** Jul. 09, 2017

(Harry Li/ Engineer)

**APPROVED BY :**  , **DATE:** Jul. 09, 2017

( Sam Tung / Manager)

# 2 GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF EUT

| | | |
|---|---|---|
| **PRODUCT** | LTE Module | |
| **MODEL NAME** | ME3630-U1C | |
| **NOMINAL VOLTAGE** | 3.8Vdc | |
| **OPERATING TEMPERATURE RANGE** | -30 ~ 75℃ | |
| **MODULATION TYPE** | **WCDMA** | BPSK/QPSK |
| | **LTE** | QPSK, 16QAM |
| **OPERATING FREQUENCY** | **WCDMA** | 1852.4MHz ~ 1907.6MHz (FOR WCDMA 1900)<br>826.4MHz ~ 846.6MHz (FOR WCDMA 850) |
| | **LTE** | 1850MHz ~ 1910MHz (FOR LTE Band2)<br>1710MHz ~ 1755MHz (FOR LTE Band4)<br>824MHZ ~ 849MHZ (FOR LTE Band5)<br>699MHz ~ 716MHz (FOR LTE Band12)<br>704MHz ~ 716MHz (FOR LTE Band17) |
| **ANTENNA TYPE** | Other antenna | |
| **ANTENNA GAIN** | 3.5dBi gain for WCDMA 850/ LTE Band 5/ LTE Band12/ LTE Band 17<br>4.8dBi gain for WCDMA 1900/ LTE Band 2/ LTE Band 4 | |
| **HW Version** | ME3630-MB_A | |
| **SW Version** | ME3630U1CV1.0B01 | |
| **I/O PORTS** | Refer to user's manual | |
| **DATA CABLE** | N/A | |

**NOTE**:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

# 3 RF EXPOSURE

## 3.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| FREQUENCY RANGE (MHz) | ELECTRIC FIELD STRENGTH (V/m) | MAGNETIC FIELD STRENGTH (A/m) | POWER DENSITY ($mW/cm^2$) | AVERAGE TIME (minutes) |
|---|---|---|---|---|
| **LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE** | | | | |
| 300-1500 | … | … | F/1500 | 30 |
| 1500-100,000 | … | … | 1.0 | 30 |

F = Frequency in MHz

## 3.2 MPE CALCULATION FORMULA

Pd = (Pout*G) / (4*pi*r2)

where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

## 3.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Module Approval**.

## 3.4 CONDUCTED POWER

| Band | WCDMA II | | |
|---|---|---|---|
| **Channel** | **9262** | **9400** | **9538** |
| **Frequency (MHz)** | **1852.4** | **1880.0** | **1907.6** |
| **RMC 12.2K** | **22.85** | 22.67 | 22.63 |
| **HSPA** | | | |
| **HSDPA Subtest-1** | 21.55 | 21.33 | 21.33 |
| **HSDPA Subtest-2** | 21.50 | 21.31 | 21.28 |
| **HSDPA Subtest-3** | 21.02 | 20.85 | 20.80 |
| **HSDPA Subtest-4** | 20.99 | 20.81 | 20.77 |
| **HSUPA Subtest-1** | 21.66 | 21.69 | 21.71 |
| **HSUPA Subtest-2** | 19.85 | 19.88 | 19.84 |
| **HSUPA Subtest-3** | 20.84 | 20.85 | 20.83 |
| **HSUPA Subtest-4** | 19.72 | 19.75 | 19.66 |
| **HSUPA Subtest-5** | 21.79 | 21.75 | 21.78 |

| Band | WCDMA V | | |
|---|---|---|---|
| **Channel** | **4132** | **4182** | **4233** |
| **Frequency (MHz)** | **826.4** | **836.4** | **846.6** |
| **RMC 12.2K** | 22.90 | **23.05** | 23.00 |
| **HSPA** | | | |
| **HSDPA Subtest-1** | 21.60 | 21.77 | 21.70 |
| **HSDPA Subtest-2** | 21.55 | 21.75 | 21.65 |
| **HSDPA Subtest-3** | 21.07 | 21.28 | 21.17 |
| **HSDPA Subtest-4** | 21.04 | 21.27 | 21.14 |
| **HSUPA Subtest-1** | 21.91 | 22.05 | 22.00 |
| **HSUPA Subtest-2** | 20.04 | 20.12 | 20.13 |
| **HSUPA Subtest-3** | 21.03 | 21.11 | 21.12 |
| **HSUPA Subtest-4** | 19.91 | 19.99 | 19.95 |
| **HSUPA Subtest-5** | 22.06 | 22.20 | 22.15 |

## LTE BAND 2

| LTE Band 2 | | | | | | | |
|---|---|---|---|---|---|---|---|
| BW | Modulation | RB Size | RB Offset | Low CH 18607 | Mid CH 18900 | High CH 19193 | 3GPP MPR (dB) |
| | | | | Frequency 1850.7 MHz | Frequency 1880 MHz | Frequency 1909.3 MHz | |
| 1.4MHz | QPSK | 1 | 0 | 21.69 | 21.92 | 21.82 | 0 |
| | | 1 | 2 | 21.61 | 21.76 | 21.69 | 0 |
| | | 1 | 5 | 21.51 | 21.72 | 21.52 | 0 |
| | | 3 | 0 | 21.68 | 21.91 | 21.81 | 0 |
| | | 3 | 1 | 21.60 | 21.75 | 21.68 | 0 |
| | | 3 | 3 | 21.50 | 21.71 | 21.51 | 0 |
| | | 6 | 0 | 20.51 | 20.74 | 20.64 | 1 |
| | 16QAM | 1 | 0 | 20.61 | 20.76 | 20.69 | 1 |
| | | 1 | 2 | 20.54 | 20.75 | 20.55 | 1 |
| | | 1 | 5 | 20.43 | 20.66 | 20.56 | 1 |
| | | 3 | 0 | 20.59 | 20.74 | 20.67 | 1 |
| | | 3 | 1 | 20.52 | 20.73 | 20.53 | 1 |
| | | 3 | 3 | 20.41 | 20.64 | 20.54 | 1 |
| | | 6 | 0 | 19.54 | 19.69 | 19.62 | 2 |
| BW | Modulation | RB Size | RB Offset | Low CH 18615 | Mid CH 18900 | High CH 19185 | 3GPP MPR (dB) |
| | | | | Frequency 1851.5 MHz | Frequency 1880 MHz | Frequency 1908.5 MHz | |
| 3 MHz | QPSK | 1 | 0 | 21.72 | 21.95 | 21.85 | 0 |
| | | 1 | 7 | 21.64 | 21.79 | 21.72 | 0 |
| | | 1 | 14 | 21.54 | 21.75 | 21.55 | 0 |
| | | 8 | 0 | 20.58 | 20.81 | 20.71 | 1 |
| | | 8 | 3 | 20.62 | 20.77 | 20.70 | 1 |
| | | 8 | 7 | 20.51 | 20.72 | 20.52 | 1 |
| | | 15 | 0 | 20.54 | 20.77 | 20.67 | 1 |
| | 16QAM | 1 | 0 | 20.64 | 20.79 | 20.72 | 1 |
| | | 1 | 7 | 20.57 | 20.78 | 20.58 | 1 |
| | | 1 | 14 | 20.46 | 20.69 | 20.59 | 1 |
| | | 8 | 0 | 19.65 | 19.80 | 19.73 | 2 |
| | | 8 | 3 | 19.49 | 19.70 | 19.50 | 2 |
| | | 8 | 7 | 19.51 | 19.74 | 19.64 | 2 |
| | | 15 | 0 | 19.57 | 19.72 | 19.65 | 2 |

| LTE Band 2 | | | | | | | |
|---|---|---|---|---|---|---|---|
| BW | Modulation | RB Size | RB Offset | Low CH 18625 | Mid CH 18900 | High CH 19175 | 3GPP MPR (dB) |
| | | | | Frequency 1852.5 MHz | Frequency 1880 MHz | Frequency 1907.5 MHz | |
| 5 MHz | QPSK | 1 | 0 | 21.75 | 21.98 | 21.88 | 0 |
| | | 1 | 12 | 21.67 | 21.82 | 21.75 | 0 |
| | | 1 | 24 | 21.57 | 21.78 | 21.58 | 0 |
| | | 12 | 0 | 20.61 | 20.84 | 20.74 | 1 |
| | | 12 | 6 | 20.65 | 20.80 | 20.73 | 1 |
| | | 12 | 13 | 20.54 | 20.75 | 20.55 | 1 |
| | | 25 | 0 | 20.57 | 20.80 | 20.70 | 1 |
| | 16QAM | 1 | 0 | 20.67 | 20.82 | 20.75 | 1 |
| | | 1 | 12 | 20.60 | 20.81 | 20.61 | 1 |
| | | 1 | 24 | 20.49 | 20.72 | 20.62 | 1 |
| | | 12 | 0 | 19.68 | 19.83 | 19.76 | 2 |
| | | 12 | 6 | 19.52 | 19.73 | 19.53 | 2 |
| | | 12 | 13 | 19.54 | 19.77 | 19.67 | 2 |
| | | 25 | 0 | 19.60 | 19.75 | 19.68 | 2 |
| BW | Modulation | RB Size | RB Offset | Low CH 18650 | Mid CH 18900 | High CH 19150 | 3GPP MPR (dB) |
| | | | | Frequency 1855 MHz | Frequency 1880 MHz | Frequency 1905 MHz | |
| 10 MHz | QPSK | 1 | 0 | 21.77 | 22.00 | 21.90 | 0 |
| | | 1 | 24 | 21.69 | 21.84 | 21.77 | 0 |
| | | 1 | 49 | 21.59 | 21.80 | 21.60 | 0 |
| | | 25 | 0 | 20.63 | 20.86 | 20.76 | 1 |
| | | 25 | 12 | 20.67 | 20.82 | 20.75 | 1 |
| | | 25 | 25 | 20.56 | 20.77 | 20.57 | 1 |
| | | 50 | 0 | 20.59 | 20.82 | 20.72 | 1 |
| | 16QAM | 1 | 0 | 20.69 | 20.84 | 20.77 | 1 |
| | | 1 | 24 | 20.62 | 20.83 | 20.63 | 1 |
| | | 1 | 49 | 20.51 | 20.74 | 20.64 | 1 |
| | | 25 | 0 | 19.70 | 19.85 | 19.78 | 2 |
| | | 25 | 12 | 19.54 | 19.75 | 19.55 | 2 |
| | | 25 | 25 | 19.56 | 19.79 | 19.69 | 2 |
| | | 50 | 0 | 19.62 | 19.77 | 19.70 | 2 |

| LTE Band 2 | | | | | | | |
|---|---|---|---|---|---|---|---|
| BW | Modulation | RB Size | RB Offset | Low CH 18675<br>Frequency 1857.5 MHz | Mid CH 18900<br>Frequency 1880 MHz | High CH 19125<br>Frequency 1902.5 MHz | 3GPP MPR (dB) |
| 15 MHz | QPSK | 1 | 0 | 21.80 | 22.03 | 21.93 | 0 |
| | | 1 | 37 | 21.72 | 21.87 | 21.80 | 0 |
| | | 1 | 74 | 21.62 | 21.83 | 21.63 | 0 |
| | | 36 | 0 | 20.66 | 20.89 | 20.79 | 1 |
| | | 36 | 19 | 20.70 | 20.85 | 20.78 | 1 |
| | | 36 | 39 | 20.59 | 20.80 | 20.60 | 1 |
| | | 75 | 0 | 20.62 | 20.85 | 20.75 | 1 |
| | 16QAM | 1 | 0 | 20.72 | 20.87 | 20.80 | 1 |
| | | 1 | 37 | 20.65 | 20.86 | 20.66 | 1 |
| | | 1 | 74 | 20.54 | 20.77 | 20.67 | 1 |
| | | 36 | 0 | 19.73 | 19.88 | 19.81 | 2 |
| | | 36 | 19 | 19.57 | 19.78 | 19.58 | 2 |
| | | 36 | 39 | 19.59 | 19.82 | 19.72 | 2 |
| | | 75 | 0 | 19.65 | 19.80 | 19.73 | 2 |
| BW | Modulation | RB Size | RB Offset | Low CH 18700<br>Frequency 1860 MHz | Mid CH 18900<br>Frequency 1880 MHz | High CH 19100<br>Frequency 1900 MHz | 3GPP MPR (dB) |
| 20MHz | QPSK | 1 | 0 | 21.85 | **22.08** | 21.98 | 0 |
| | | 1 | 50 | 21.77 | 21.92 | 21.85 | 0 |
| | | 1 | 99 | 21.67 | 21.88 | 21.68 | 0 |
| | | 50 | 0 | 20.71 | 20.94 | 20.84 | 1 |
| | | 50 | 25 | 20.75 | 20.90 | 20.83 | 1 |
| | | 50 | 50 | 20.64 | 20.85 | 20.65 | 1 |
| | | 100 | 0 | 20.67 | 20.90 | 20.80 | 1 |
| | 16QAM | 1 | 0 | 20.77 | 20.92 | 20.85 | 1 |
| | | 1 | 50 | 20.70 | 20.91 | 20.71 | 1 |
| | | 1 | 99 | 20.59 | 20.82 | 20.72 | 1 |
| | | 50 | 0 | 19.78 | 19.93 | 19.86 | 2 |
| | | 50 | 25 | 19.62 | 19.83 | 19.63 | 2 |
| | | 50 | 50 | 19.64 | 19.87 | 19.77 | 2 |
| | | 100 | 0 | 19.70 | 19.85 | 19.78 | 2 |

## LTE BAND 4

| LTE Band 4 | | | | | | | |
|---|---|---|---|---|---|---|---|
| BW | Modulation | RB Size | RB Offset | Low CH 19957 | Mid CH 20175 | High CH 20393 | MPR |
| | | | | Frequency 1710.7 MHz | Frequency 1732.5 MHz | Frequency 1754.3 MHz | |
| 1.4MHz | QPSK | 1 | 0 | 21.44 | 21.65 | 21.73 | 0 |
| | | 1 | 2 | 21.33 | 21.54 | 21.62 | 0 |
| | | 1 | 5 | 21.32 | 21.53 | 21.61 | 0 |
| | | 3 | 0 | 21.42 | 21.63 | 21.71 | 0 |
| | | 3 | 1 | 21.31 | 21.52 | 21.60 | 0 |
| | | 3 | 3 | 21.30 | 21.51 | 21.59 | 0 |
| | | 6 | 0 | 20.41 | 20.62 | 20.70 | 1 |
| | 16QAM | 1 | 0 | 20.39 | 20.60 | 20.68 | 1 |
| | | 1 | 2 | 20.28 | 20.49 | 20.57 | 1 |
| | | 1 | 5 | 20.27 | 20.48 | 20.56 | 1 |
| | | 3 | 0 | 20.38 | 20.59 | 20.67 | 1 |
| | | 3 | 1 | 20.27 | 20.48 | 20.56 | 1 |
| | | 3 | 3 | 20.26 | 20.47 | 20.55 | 1 |
| | | 6 | 0 | 19.36 | 19.57 | 19.65 | 2 |
| BW | Modulation | RB Size | RB Offset | Low CH 19965 | Mid CH 20175 | High CH 20385 | MPR |
| | | | | Frequency 1711.5 MHz | Frequency 1732.5 MHz | Frequency 1753.5 MHz | |
| 3 MHz | QPSK | 1 | 0 | 21.45 | 21.66 | 21.74 | 0 |
| | | 1 | 7 | 21.34 | 21.55 | 21.63 | 0 |
| | | 1 | 14 | 21.33 | 21.54 | 21.62 | 0 |
| | | 8 | 0 | 20.41 | 20.62 | 20.70 | 1 |
| | | 8 | 3 | 20.32 | 20.53 | 20.61 | 1 |
| | | 8 | 7 | 20.35 | 20.56 | 20.64 | 1 |
| | | 15 | 0 | 20.42 | 20.63 | 20.71 | 1 |
| | 16QAM | 1 | 0 | 20.40 | 20.61 | 20.69 | 1 |
| | | 1 | 7 | 20.29 | 20.50 | 20.58 | 1 |
| | | 1 | 14 | 20.28 | 20.49 | 20.57 | 1 |
| | | 8 | 0 | 19.36 | 19.57 | 19.65 | 2 |
| | | 8 | 3 | 19.27 | 19.48 | 19.56 | 2 |
| | | 8 | 7 | 19.30 | 19.51 | 19.59 | 2 |
| | | 15 | 0 | 19.37 | 19.58 | 19.66 | 2 |

| LTE Band 4 | | | | | | | |
|---|---|---|---|---|---|---|---|
| BW | Modulation | RB Size | RB Offset | Low CH 19975 | Mid CH 20175 | High CH 20375 | MPR |
| | | | | Frequency 1712.5 MHz | Frequency 1732.5 MHz | Frequency 1752.5 MHz | |
| 5 MHz | QPSK | 1 | 0 | 21.48 | 21.69 | 21.77 | 0 |
| | | 1 | 12 | 21.37 | 21.58 | 21.66 | 0 |
| | | 1 | 24 | 21.36 | 21.57 | 21.65 | 0 |
| | | 12 | 0 | 20.44 | 20.65 | 20.73 | 1 |
| | | 12 | 6 | 20.35 | 20.56 | 20.64 | 1 |
| | | 12 | 13 | 20.38 | 20.59 | 20.67 | 1 |
| | | 25 | 0 | 20.45 | 20.66 | 20.74 | 1 |
| | 16QAM | 1 | 0 | 20.43 | 20.64 | 20.72 | 1 |
| | | 1 | 12 | 20.32 | 20.53 | 20.61 | 1 |
| | | 1 | 24 | 20.31 | 20.52 | 20.60 | 1 |
| | | 12 | 0 | 19.39 | 19.60 | 19.68 | 2 |
| | | 12 | 6 | 19.30 | 19.51 | 19.59 | 2 |
| | | 12 | 13 | 19.33 | 19.54 | 19.62 | 2 |
| | | 25 | 0 | 19.40 | 19.61 | 19.69 | 2 |
| BW | Modulation | RB Size | RB Offset | Low CH 20000 | Mid CH 20175 | High CH 20350 | MPR |
| | | | | Frequency 1715 MHz | Frequency 1732.5 MHz | Frequency 1750 MHz | |
| 10 MHz | QPSK | 1 | 0 | 21.52 | 21.73 | 21.81 | 0 |
| | | 1 | 24 | 21.41 | 21.62 | 21.70 | 0 |
| | | 1 | 49 | 21.40 | 21.61 | 21.69 | 0 |
| | | 25 | 0 | 20.48 | 20.69 | 20.77 | 1 |
| | | 25 | 12 | 20.39 | 20.60 | 20.68 | 1 |
| | | 25 | 25 | 20.42 | 20.63 | 20.71 | 1 |
| | | 50 | 0 | 20.49 | 20.70 | 20.78 | 1 |
| | 16QAM | 1 | 0 | 20.47 | 20.68 | 20.76 | 1 |
| | | 1 | 24 | 20.36 | 20.57 | 20.65 | 1 |
| | | 1 | 49 | 20.35 | 20.56 | 20.64 | 1 |
| | | 25 | 0 | 19.43 | 19.64 | 19.72 | 2 |
| | | 25 | 12 | 19.34 | 19.55 | 19.63 | 2 |
| | | 25 | 25 | 19.37 | 19.58 | 19.66 | 2 |
| | | 50 | 0 | 19.44 | 19.65 | 19.73 | 2 |

| LTE Band 4 | | | | | | | |
|---|---|---|---|---|---|---|---|
| BW | Modulation | RB Size | RB Offset | Low CH 20025 | Mid CH 20175 | High CH 20325 | MPR |
| | | | | Frequency 1717.5 MHz | Frequency 1732.5 MHz | Frequency 1747.5 MHz | |
| 15 MHz | QPSK | 1 | 0 | 21.58 | 21.79 | 21.87 | 0 |
| | | 1 | 37 | 21.47 | 21.68 | 21.76 | 0 |
| | | 1 | 74 | 21.46 | 21.67 | 21.75 | 0 |
| | | 36 | 0 | 20.54 | 20.75 | 20.83 | 1 |
| | | 36 | 19 | 20.45 | 20.66 | 20.74 | 1 |
| | | 36 | 39 | 20.48 | 20.69 | 20.77 | 1 |
| | | 75 | 0 | 20.55 | 20.76 | 20.84 | 1 |
| | 16QAM | 1 | 0 | 20.53 | 20.74 | 20.82 | 1 |
| | | 1 | 37 | 20.42 | 20.63 | 20.71 | 1 |
| | | 1 | 74 | 20.41 | 20.62 | 20.70 | 1 |
| | | 36 | 0 | 19.49 | 19.70 | 19.78 | 2 |
| | | 36 | 19 | 19.40 | 19.61 | 19.69 | 2 |
| | | 36 | 39 | 19.43 | 19.64 | 19.72 | 2 |
| | | 75 | 0 | 19.50 | 19.71 | 19.79 | 2 |
| BW | Modulation | RB Size | RB Offset | Low CH 20050 | Mid CH 20175 | High CH 20300 | MPR |
| | | | | Frequency 1720 MHz | Frequency 1732.5 MHz | Frequency 1745 MHz | |
| 20MHz | QPSK | 1 | 0 | 21.61 | 21.82 | **21.90** | 0 |
| | | 1 | 50 | 21.50 | 21.71 | 21.79 | 0 |
| | | 1 | 99 | 21.49 | 21.70 | 21.78 | 0 |
| | | 50 | 0 | 20.57 | 20.78 | 20.86 | 1 |
| | | 50 | 25 | 20.48 | 20.69 | 20.77 | 1 |
| | | 50 | 50 | 20.51 | 20.72 | 20.80 | 1 |
| | | 100 | 0 | 20.58 | 20.79 | 20.87 | 1 |
| | 16QAM | 1 | 0 | 20.56 | 20.77 | 20.85 | 1 |
| | | 1 | 50 | 20.45 | 20.66 | 20.74 | 1 |
| | | 1 | 99 | 20.44 | 20.65 | 20.73 | 1 |
| | | 50 | 0 | 19.52 | 19.73 | 19.81 | 2 |
| | | 50 | 25 | 19.43 | 19.64 | 19.72 | 2 |
| | | 50 | 50 | 19.46 | 19.67 | 19.75 | 2 |
| | | 100 | 0 | 19.53 | 19.74 | 19.82 | 2 |

## LTE BAND 5

| Band/BW | Modulation | RB Size | RB Offset | Low CH 20407 Frequency 824.7 MHz | Mid CH 20525 Frequency 836.5 MHz | High CH 20643 Frequency 848.3 MHz | 3GPP MPR (dB) |
|---|---|---|---|---|---|---|---|
| 5/1.4 | QPSK | 1 | 0 | 23.05 | 22.87 | 22.99 | 0 |
| | | 1 | 2 | 23.00 | 22.82 | 22.78 | 0 |
| | | 1 | 5 | 22.83 | 22.73 | 22.69 | 0 |
| | | 3 | 0 | 23.03 | 22.85 | 22.97 | 0 |
| | | 3 | 1 | 22.98 | 22.80 | 22.76 | 0 |
| | | 3 | 3 | 22.81 | 22.71 | 22.67 | 0 |
| | | 6 | 0 | 22.13 | 21.95 | 22.07 | 1 |
| | 16QAM | 1 | 0 | 22.16 | 21.98 | 21.94 | 1 |
| | | 1 | 2 | 22.05 | 21.95 | 21.91 | 1 |
| | | 1 | 5 | 22.04 | 21.86 | 21.98 | 1 |
| | | 3 | 0 | 22.15 | 21.97 | 21.93 | 1 |
| | | 3 | 1 | 22.04 | 21.94 | 21.90 | 1 |
| | | 3 | 3 | 22.03 | 21.85 | 21.97 | 1 |
| | | 6 | 0 | 21.11 | 20.93 | 20.89 | 2 |

| Band/BW | Modulation | RB Size | RB Offset | Low CH 20415 Frequency 825.5 MHz | Mid CH 20525 Frequency 836.5 MHz | High CH 20635 Frequency 847.5 MHz | 3GPP MPR (dB) |
|---|---|---|---|---|---|---|---|
| 5/3 | QPSK | 1 | 0 | 23.09 | 22.91 | 23.03 | 0 |
| | | 1 | 7 | 23.04 | 22.86 | 22.82 | 0 |
| | | 1 | 14 | 22.87 | 22.77 | 22.73 | 0 |
| | | 8 | 0 | 22.13 | 21.95 | 22.07 | 1 |
| | | 8 | 3 | 22.12 | 21.94 | 21.90 | 1 |
| | | 8 | 7 | 22.02 | 21.92 | 21.88 | 1 |
| | | 15 | 0 | 22.17 | 21.99 | 22.11 | 1 |
| | 16QAM | 1 | 0 | 22.20 | 22.02 | 21.98 | 1 |
| | | 1 | 7 | 22.09 | 21.99 | 21.95 | 1 |
| | | 1 | 14 | 22.08 | 21.90 | 22.02 | 1 |
| | | 8 | 0 | 21.19 | 21.01 | 20.97 | 2 |
| | | 8 | 3 | 21.19 | 21.09 | 21.05 | 2 |
| | | 8 | 7 | 21.11 | 20.93 | 21.05 | 2 |
| | | 15 | 0 | 21.15 | 20.97 | 20.93 | 2 |

| Band/BW | Modulation | RB Size | RB Offset | Low CH 20425 | Mid CH 20525 | High CH 20625 | 3GPP MPR (dB) |
|---|---|---|---|---|---|---|---|
| | | | | Frequency 826.5 MHz | Frequency 836.5 MHz | Frequency 846.5 MHz | |
| 5/5 | QPSK | 1 | 0 | 23.15 | 22.97 | 23.09 | 0 |
| | | 1 | 12 | 23.10 | 22.92 | 22.88 | 0 |
| | | 1 | 24 | 22.93 | 22.83 | 22.79 | 0 |
| | | 12 | 0 | 22.19 | 22.01 | 22.13 | 1 |
| | | 12 | 6 | 22.18 | 22.00 | 21.96 | 1 |
| | | 12 | 13 | 22.08 | 21.98 | 21.94 | 1 |
| | | 25 | 0 | 22.23 | 22.05 | 22.17 | 1 |
| | 16QAM | 1 | 0 | 22.26 | 22.08 | 22.04 | 1 |
| | | 1 | 12 | 22.15 | 22.05 | 22.01 | 1 |
| | | 1 | 24 | 22.14 | 21.96 | 22.08 | 1 |
| | | 12 | 0 | 21.25 | 21.07 | 21.03 | 2 |
| | | 12 | 6 | 21.25 | 21.15 | 21.11 | 2 |
| | | 12 | 13 | 21.17 | 20.99 | 21.11 | 2 |
| | | 25 | 0 | 21.21 | 21.03 | 20.99 | 2 |
| Band/BW | Modulation | RB Size | RB Offset | Low CH 20450 | Mid CH 20525 | High CH 20600 | 3GPP MPR (dB) |
| | | | | Frequency 829 MHz | Frequency 836.5 MHz | Frequency 844 MHz | |
| 5/10 | QPSK | 1 | 0 | 23.18 | 23.00 | 23.12 | 0 |
| | | 1 | 24 | 23.13 | 22.95 | 22.91 | 0 |
| | | 1 | 49 | 22.96 | 22.86 | 22.82 | 0 |
| | | 25 | 0 | 22.22 | 22.04 | 22.16 | 1 |
| | | 25 | 12 | 22.21 | 22.03 | 21.99 | 1 |
| | | 25 | 25 | 22.11 | 22.01 | 21.97 | 1 |
| | | 50 | 0 | 22.26 | 22.08 | 22.20 | 1 |
| | 16QAM | 1 | 0 | 22.29 | 22.11 | 22.07 | 1 |
| | | 1 | 24 | 22.18 | 22.08 | 22.04 | 1 |
| | | 1 | 49 | 22.17 | 21.99 | 22.11 | 1 |
| | | 25 | 0 | 21.28 | 21.10 | 21.06 | 2 |
| | | 25 | 12 | 21.28 | 21.18 | 21.14 | 2 |
| | | 25 | 25 | 21.20 | 21.02 | 21.14 | 2 |
| | | 50 | 0 | 21.24 | 21.06 | 21.02 | 2 |

## LTE BAND 12

| LTE Band 12 | | | | | | | |
|---|---|---|---|---|---|---|---|
| BW | Modulation | RB Size | RB Offset | Low CH 23017 Frequency 699.7 MHz | Mid CH 23095 Frequency 707.5 MHz | High CH 23173 Frequency 715.3 MHz | MPR |
| 1.4 MHz | QPSK | 1 | 0 | 22.81 | 22.87 | 22.82 | 0 |
| | | 1 | 2 | 22.79 | 22.81 | 22.77 | 0 |
| | | 1 | 5 | 22.69 | 22.72 | 22.61 | 0 |
| | | 3 | 0 | 22.79 | 22.85 | 22.80 | 0 |
| | | 3 | 1 | 22.77 | 22.79 | 22.75 | 0 |
| | | 3 | 3 | 22.67 | 22.70 | 22.59 | 0 |
| | | 6 | 0 | 21.78 | 21.84 | 21.79 | 1 |
| | 16QAM | 1 | 0 | 21.62 | 21.65 | 21.61 | 1 |
| | | 1 | 2 | 21.59 | 21.62 | 21.51 | 1 |
| | | 1 | 5 | 21.54 | 21.60 | 21.55 | 1 |
| | | 3 | 0 | 21.61 | 21.64 | 21.60 | 1 |
| | | 3 | 1 | 21.58 | 21.61 | 21.50 | 1 |
| | | 3 | 3 | 21.53 | 21.59 | 21.54 | 1 |
| | | 6 | 0 | 20.87 | 20.90 | 20.86 | 2 |
| BW | Modulation | RB Size | RB Offset | Low CH 23025 Frequency 700.5 MHz | Mid CH 23095 Frequency 707.5 MHz | High CH 23165 Frequency 714.5 MHz | MPR |
| 3 MHz | QPSK | 1 | 0 | 22.85 | 22.91 | 22.86 | 0 |
| | | 1 | 7 | 22.83 | 22.85 | 22.81 | 0 |
| | | 1 | 14 | 22.73 | 22.76 | 22.65 | 0 |
| | | 8 | 0 | 21.97 | 22.03 | 21.98 | 1 |
| | | 8 | 3 | 21.96 | 21.99 | 21.95 | 1 |
| | | 8 | 7 | 21.95 | 21.98 | 21.87 | 1 |
| | | 15 | 0 | 21.82 | 21.88 | 21.83 | 1 |
| | 16QAM | 1 | 0 | 21.66 | 21.69 | 21.65 | 1 |
| | | 1 | 7 | 21.63 | 21.66 | 21.55 | 1 |
| | | 1 | 14 | 21.58 | 21.64 | 21.59 | 1 |
| | | 8 | 0 | 20.81 | 20.84 | 20.80 | 2 |
| | | 8 | 3 | 20.96 | 20.99 | 20.88 | 2 |
| | | 8 | 7 | 20.95 | 21.01 | 20.96 | 2 |
| | | 15 | 0 | 20.91 | 20.94 | 20.90 | 2 |

| LTE Band 12 | | | | | | | |
|---|---|---|---|---|---|---|---|
| BW | Modulation | RB Size | RB Offset | Low CH 23035 Frequency 701.5 MHz | Mid CH 23095 Frequency 707.5 MHz | High CH 23155 Frequency 713.5 MHz | MPR |
| 5 MHz | QPSK | 1 | 0 | 22.91 | 22.97 | 22.92 | 0 |
| | | 1 | 12 | 22.89 | 22.91 | 22.87 | 0 |
| | | 1 | 24 | 22.79 | 22.82 | 22.71 | 0 |
| | | 12 | 0 | 22.03 | 22.09 | 22.04 | 1 |
| | | 12 | 6 | 22.02 | 22.05 | 22.01 | 1 |
| | | 12 | 13 | 22.01 | 22.04 | 21.93 | 1 |
| | | 25 | 0 | 21.88 | 21.94 | 21.89 | 1 |
| | 16QAM | 1 | 0 | 21.72 | 21.75 | 21.71 | 1 |
| | | 1 | 12 | 21.69 | 21.72 | 21.61 | 1 |
| | | 1 | 24 | 21.64 | 21.70 | 21.65 | 1 |
| | | 12 | 0 | 20.87 | 20.90 | 20.86 | 2 |
| | | 12 | 6 | 21.02 | 21.05 | 20.94 | 2 |
| | | 12 | 13 | 21.01 | 21.07 | 21.02 | 2 |
| | | 25 | 0 | 20.97 | 21.00 | 20.96 | 2 |
| BW | Modulation | RB Size | RB Offset | Low CH 23060 Frequency 704 MHz | Mid CH 23095 Frequency 707.5 MHz | High CH 23130 Frequency 711 MHz | MPR |
| 10 MHz | QPSK | 1 | 0 | 22.94 | **23.00** | 22.95 | 0 |
| | | 1 | 24 | 22.92 | 22.94 | 22.90 | 0 |
| | | 1 | 49 | 22.82 | 22.85 | 22.74 | 0 |
| | | 25 | 0 | 22.06 | 22.12 | 22.07 | 1 |
| | | 25 | 12 | 22.05 | 22.08 | 22.04 | 1 |
| | | 25 | 25 | 22.04 | 22.07 | 21.96 | 1 |
| | | 50 | 0 | 21.91 | 21.97 | 21.92 | 1 |
| | 16QAM | 1 | 0 | 21.75 | 21.78 | 21.74 | 1 |
| | | 1 | 24 | 21.72 | 21.75 | 21.64 | 1 |
| | | 1 | 49 | 21.67 | 21.73 | 21.68 | 1 |
| | | 25 | 0 | 20.90 | 20.93 | 20.89 | 2 |
| | | 25 | 12 | 21.05 | 21.08 | 20.97 | 2 |
| | | 25 | 25 | 21.04 | 21.10 | 21.05 | 2 |
| | | 50 | 0 | 21.00 | 21.03 | 20.99 | 2 |

## LTE BAND 17

| LTE Band 17 | | | | | | | |
|---|---|---|---|---|---|---|---|
| BW | Modulation | RB Size | RB Offset | Low CH 23755 Frequency 706.5 MHz | Mid CH 23790 Frequency 710 MHz | High CH 23825 Frequency 713.5 MHz | MPR |
| 5 MHz | QPSK | 1 | 0 | 22.42 | 22.46 | 22.37 | 0 |
| | | 1 | 12 | 22.37 | 22.23 | 22.21 | 0 |
| | | 1 | 24 | 22.33 | 22.14 | 22.12 | 0 |
| | | 12 | 0 | 21.37 | 21.41 | 21.34 | 1 |
| | | 12 | 6 | 21.35 | 21.40 | 21.32 | 1 |
| | | 12 | 13 | 21.34 | 21.30 | 21.27 | 1 |
| | | 25 | 0 | 21.30 | 21.33 | 21.25 | 1 |
| | 16QAM | 1 | 0 | 21.23 | 21.25 | 21.22 | 1 |
| | | 1 | 12 | 21.18 | 21.20 | 21.17 | 1 |
| | | 1 | 24 | 20.96 | 21.18 | 21.14 | 1 |
| | | 12 | 0 | 20.22 | 20.26 | 20.20 | 2 |
| | | 12 | 6 | 20.64 | 20.66 | 20.60 | 2 |
| | | 12 | 13 | 20.30 | 20.34 | 20.31 | 2 |
| | | 25 | 0 | 20.33 | 20.35 | 20.31 | 2 |
| BW | Modulation | RB Size | RB Offset | Low CH 23780 Frequency 709 MHz | Mid CH 23790 Frequency 710 MHz | High CH 23800 Frequency 711 MHz | MPR |
| 10 MHz | QPSK | 1 | 0 | 22.46 | **22.50** | 22.41 | 0 |
| | | 1 | 24 | 22.41 | 22.27 | 22.25 | 0 |
| | | 1 | 49 | 22.37 | 22.18 | 22.16 | 0 |
| | | 25 | 0 | 21.41 | 21.45 | 21.38 | 1 |
| | | 25 | 12 | 21.39 | 21.44 | 21.36 | 1 |
| | | 25 | 25 | 21.38 | 21.34 | 21.31 | 1 |
| | | 50 | 0 | 21.34 | 21.37 | 21.29 | 1 |
| | 16QAM | 1 | 0 | 21.27 | 21.29 | 21.26 | 1 |
| | | 1 | 24 | 21.22 | 21.24 | 21.21 | 1 |
| | | 1 | 49 | 21.00 | 21.22 | 21.18 | 1 |
| | | 25 | 0 | 20.26 | 20.30 | 20.24 | 2 |
| | | 25 | 12 | 20.68 | 20.70 | 20.64 | 2 |
| | | 25 | 25 | 20.34 | 20.38 | 20.35 | 2 |
| | | 50 | 0 | 20.37 | 20.39 | 20.35 | 2 |

## 3.5 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

### WCDMA

| Band | Frequency (MHz) | Operating Mode | Antenna Gain (dBi) | Conducted Average Power (dBm) | E.I.R.P Power (mW) | Power Density (mW/cm^2) | limit (mW/cm^2) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| **WCDMA V** | 836.4 | RMC12.2K | 3.5 | 23.05 | 451.856 | 0.090 | 0.56 | PASS |
| **WCDMA II** | 1852.4 | RMC12.2K | 4.8 | 22.85 | 582.103 | 0.116 | 1.00 | PASS |

### LTE

| Band | Frequency (MHz) | Operating Mode | Antenna Gain (dBi) | Conducted Average Power (dBm) | E.I.R.P Power (mW) | Power Density (mW/cm^2) | limit (mW/cm^2) | PASS / FAIL |
|---|---|---|---|---|---|---|---|---|
| **Band2** | 1880.0 | QPSK | 4.8 | 22.08 | 487.528 | 0.097 | 1.00 | PASS |
| **Band4** | 1745.0 | QPSK | 4.8 | 21.90 | 467.735 | 0.093 | 1.00 | PASS |
| **Band5** | 829.0 | QPSK | 3.5 | 23.18 | 465.586 | 0.093 | 0.55 | PASS |
| **Band12** | 707.5 | QPSK | 3.5 | 23.00 | 446.684 | 0.089 | 0.47 | PASS |
| **Band17** | 710.0 | QPSK | 3.5 | 22.50 | 398.107 | 0.079 | 0.47 | PASS |